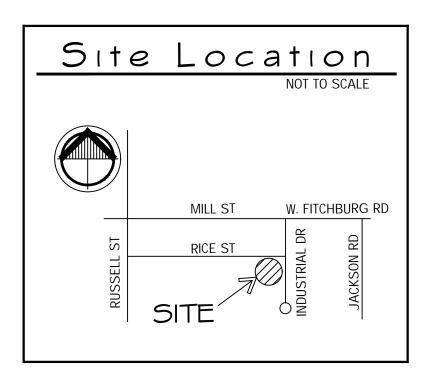
#### General Notes THESE DRAWINGS HAVE BEEN PREPARED TO MEET GENERALLY ACCEPTED PROFESSIONAL STANDARDS OF REASONABLE CARE REPRESENT MINIMUM CODE COMPLIANCE, AND NEITHER IMPLY GUARANTEE NOR WARRANTY OF SERVICES. CONTRACTORS SHALL REVIEW ALL DRAWINGS AND SPECIFICATIONS, IF INCLUDED, AND THEY SHALL NOTIFY THE ARCHITECT OF ANY INCONSISTENCIES, ERRORS, OR CONFLICTS FOR CLARIFICATION. SHOULD THERE BE ANY ERRORS, INCONSISTENCIES, OR CONFLICTS WHICH HAVE NOT BEEN RESOLVED BY SUPPLEMENTAL INSTRUCTIONS PRIOR TO THE BID DUE DATE, THEN THE MORE STRINGENT REQUIREMENTS SHALL BE UTILIZED BY THE CONTRACTOR AS PART OF THE BASE BID AND SHALL NOT BECOME A BASIS OF CHANGE ORDERS OR CLAIMS FOR ADDITIONAL COMPENSATION. ANY MATERIAL OR LABOR THAT IS NEITHER SHOWN NOR SPECIFIED BUT WHICH IS INHERENTLY NECESSARY TO COMPLET THE WORK OR TO COMPLY WITH CODE SHALL BE PERFORMED WITHOUT ADDITIONAL COST TO THE ARCHITECT OR OWNER. THE CONTRACTOR SHALL NOT PROCEED WITH WORK THAT IS INCONSISTENT WITH OR CONFLICTS WITH THE CONSTRUCTION DOCUMENTS AND SHALL NOTIFY THE ARCHITECT FOR CLARIFICATION. SOME UNKNOWN WORK AREA CONDITIONS MAY EXIST. THE CONTRACTOR SHALL VISIT THE SITE TO BECOME FAMILIAR WITH THE WORK EXTENTS AND VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS. CONTRACTORS ARE RESPONSIBLE FOR COMPLETION OF WORK IN ACCORDANCE WITH APPLICABLE ORDINANCES, LAWS, CODES AND RULES OR REGULATIONS BEARING ON THE WORK AND SHALL EXECUTE THE WORK IN COMPLIANCE WITH LOCAL AUTHORITIES HAVING JURISDICTION AS PART OF THE BASE CONTRACT WITHOUT INCREASE IN COST TO ARCHITECT OR OWNER. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS, PAYMENT OF ALL FEES, LABOR, EQUIPMENT, ETC AS MAY BE REQUIRED TO COMPLETE THEIR RESPECTIVE WORK. CONTRACTORS SHALL FORWARD TO THE ARCHITECT A COPY OF ALL APPROVED PERMITS AND COMMENTS OF PLAN EXAMINERS WITHIN 48 HOURS OF RECEIPT WITHOUT COST TO THE ARCHITEC ALL CONTRACTORS SHALL OBTAIN 'ALL RISK' INSURANCE, ALL CUSTOMARY STATUTORY INSURANCE, COMPREHENSIVE LIABILIT ETC. WITH THE ARCHITECT AND OWNER NAMED AS INSURED PARTIES TO THE 'ALL RISK' INSURANCE POLICY. O. WHERE APPLICABLE TO THEIR WORK, CONTRACTORS SHALL FIELD VERIFY ALL VERTICAL DIMENSIONS AND FLOOR LEVEL IN ORDER TO ASSURE ALIGNMENT AND CLEARANCES WITH EXISTING. NOTIFY ARCHITECT OF DISCREPANCIES. MECHANICAL, PLUMBING, & ELECTRICAL CONTRACTORS SHALL COORDINATE THEIR WORK WITH OTHER TRADES AS NECESSARY TO ASSURE MINIMUM REQUIREMENTS FOR THEIR SCOPE OF WORK, INCLUDING BUT NOT LIMITED TO THE FOLLOWING: A. STRUCTURAL LOADING B. POWER REQUIREMENTS C. CLEARANCE PER CODE & MAINTENANCE WHERE THERE IS POTENTIAL OF CONFLICT DUE TO SPACE LIMITATIONS, THE CONTRACTOR SHALL THEN CONVENE COORDINATION MEETINGS WITH THE SUBCONTRACTORS AND HAVE SCALED COORDINATION DRAWINGS PREPARED AS NECESSARY AT NO ADDITIONAL COST TO ARCHITECT OR OWNER. MECHANICAL, PLUMBING, & ELECTRICAL CONTRACTORS ARE FULLY RESPONSIBLE FOR THEIR OWN WORK IN TERMS OF, BUT NOT LIMITED TO THE FOLLOWING: ALL CODES, DIMENSIONS, COORDINATION WITH OTHER TRADES AND ALL APPLICABLE MUNICIPAL AND OTHER INSPECTIONS AND APPROVALS BY AUTHORITIES HAVING JURISDICTION. . THE CONTRACTOR SHALL KEEP AN 'AS-BUILT' RECORD DRAWING AND SPECIFICATION SET MAINTAINED ON SITE AND MARK ALL DEVIATIONS CLEARLY IN RED PENCIL. RETURN TO THE ARCHITECT UPON PROJECT CLOSEOUT. ALL CONTRACTORS SHALL BE RESPONSIBLE FOR IMPLEMENTING NECESSARY MEASURES TO PROTECT THE PUBLIC FROM INJURY AND ADJACENT PROPERTY FROM DAMAGE DURING CONSTRUCTION. 5. ALL CONTRACTORS SHALL BE RESPONSIBLE FOR PROJECT SECURITY FROM THE COMMENCEMENT OF WORK THROUGH OWNER ACCEPTANCE OF COMPLETION. 6. NO SUBSTITUTION OF MATERIALS OR EQUIPMENT WILL BE ACCEPTED UNLESS WRITTEN REQUEST FOR APPROVAL HAS BEEN SUBMITTED TO THE ARCHITECT FOR REVIEW WITH DETAILED DOCUMENTATION WHY THE SPECIFIED MATERIAL OR EQUIPMENT CANNOT BE PROVIDED, AND THE CONTRACTOR HAS RECEIVED WRITTEN APPROVAL FROM THE ARCHITECT. SUB-CONTRACTOR COMMUNICATION TO THE ARCHITECT SHALL BE THROUGH THE GENERAL CONTRACTOR. ALL COMMUNICATION OUTSIDE OF THIS WILL BE RETURNED WITHOUT REVIEW OR DISCARDED AT THE ARCHITECT'S DISCRETION AND THE GENERAL CONTRACTOR NOTIFIED. 9. SUBMITTALS TO THE ARCHITECT NOT REQUIRED BY THE CONTRACT DOCUMENTS TO COMPLY WITH CODE OR TO FACILITATE COMPLETION WITH DOCUMENT INTENTIONS MAY NOT BE REVIEWED AND MAY BE DISCARDED. O. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR 'END-OF-DAY' MATERIAL SECUREMENT, CLEAN UP AND WASTE DISPOSAL OF THEIR WORK ACTIVITIES AT NO ADDITIONAL COST TO THE GENERAL CONTRACTOR, ARCHITECT OR OWNER. 1. ALL SUBCONTRACTORS SHALL BE COMPLIANT AND CURRENT ON ALL OSHA REQUIREMENTS, TRAINING, AND DOCUMENTATION. VISIT WWW.OSHA.GOV FOR ADDITIONAL INFORMATION.

# Drawing Notes

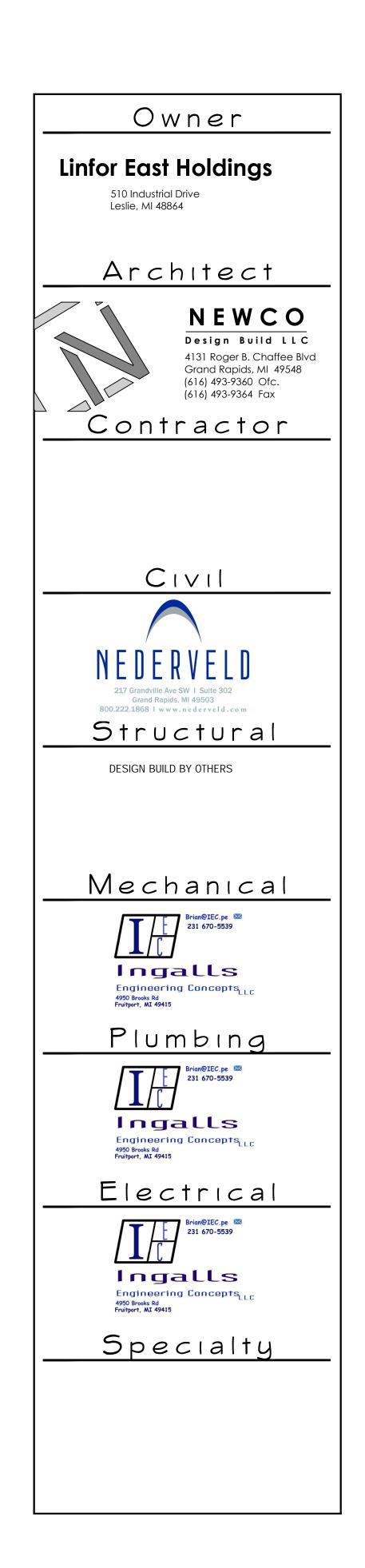
- ALL CONSTRUCTION INDICATED SHALL BE NEW UNLESS NOTED OTHERWISE.
- 2. DO NOT SCALE DRAWINGS. DIMENSIONS GOVERN OVER SCALE.
- DIMENSIONS ARE TO FACE OF ROUGH FRAMING, CONCRETE OR TO NOMINAL MASONRY FACES UNLESS NOTED OTHERWISE.
- 4. ALL ANGLES ARE MEASURED IN INCREMENTS OF 45 DEGREES, UNLESS NOTED OTHERWISE. 5. MAIN FLOOR ELEVATION IS NOTED AS 100'-0" AND USED
- AS THE BASIS FOR ELEVATIONS, PLANS, AND SECTIONS. COORDINATE TO CIVIL ENGINEER'S U.S.G.S.
- 6. WHERE SPECIFICATIONS ARE INCLUDED, THEY ARE TO BE READ AS COMPLEMENTARY TO THE DRAWINGS.

MARK	DESCRIPTION	MARK	DESCRIPTION	MARK	DESCRIPTION
COVER	DRAWING INDEX, SITE MAP, BLDG. SUMMARY, GENERAL NOTES	P1	DOMESTIC AND SANITARY PLANS		
CODE	GENERAL SPECIFICATIONS, BARRIER FREE DTLS.	P2	FERT PLUMBING PLANS		
C-201	EXISTING CONDITIONS AND DEMOLITION PLAN	M1	HVAC PLANS		
C-205	SITE PLAN	MP1	HVAC AND PLUMBING SPECS		
C-300	UTILITY, GRADING & S.E.S.C. PLAN	E1.00	ELECTRICAL LEGEND		
D-1.1	DEMOLITION PLAN AND NOTES	E4.01	ELECTRICAL ONE LINE		
A-1.1	MAIN FLOOR PLAN AND NOTES	E5.01	ELECTRICAL PLANS		
A-2.1	BUILDING ELEVATIONS, NOTES, AND DETAILS	E6.01	POWER PLAN		
A-3.1	DOOR SCHEDULE AND MISCELLANEOUS DETAILS	E7.01	ARC FLASH ONE-LINE		
A-4.1	INTERIOR ELEVATIONS, NOTES, AND DETAILS	E8.01	LOAD FLOW FLASH ANALYSIS ONE-LINE AND LOAD SCHEDULE		
A-5.1	BUILDING SECTIONS				
A-6.1	WALL SECTIONS AND DETAILS				
A-7.1	REFLECTED CEILING PLAN, NOTES, AND DETAILS				
FM-1.1	FINISH PLAN, NOTES, AND DETAILS				

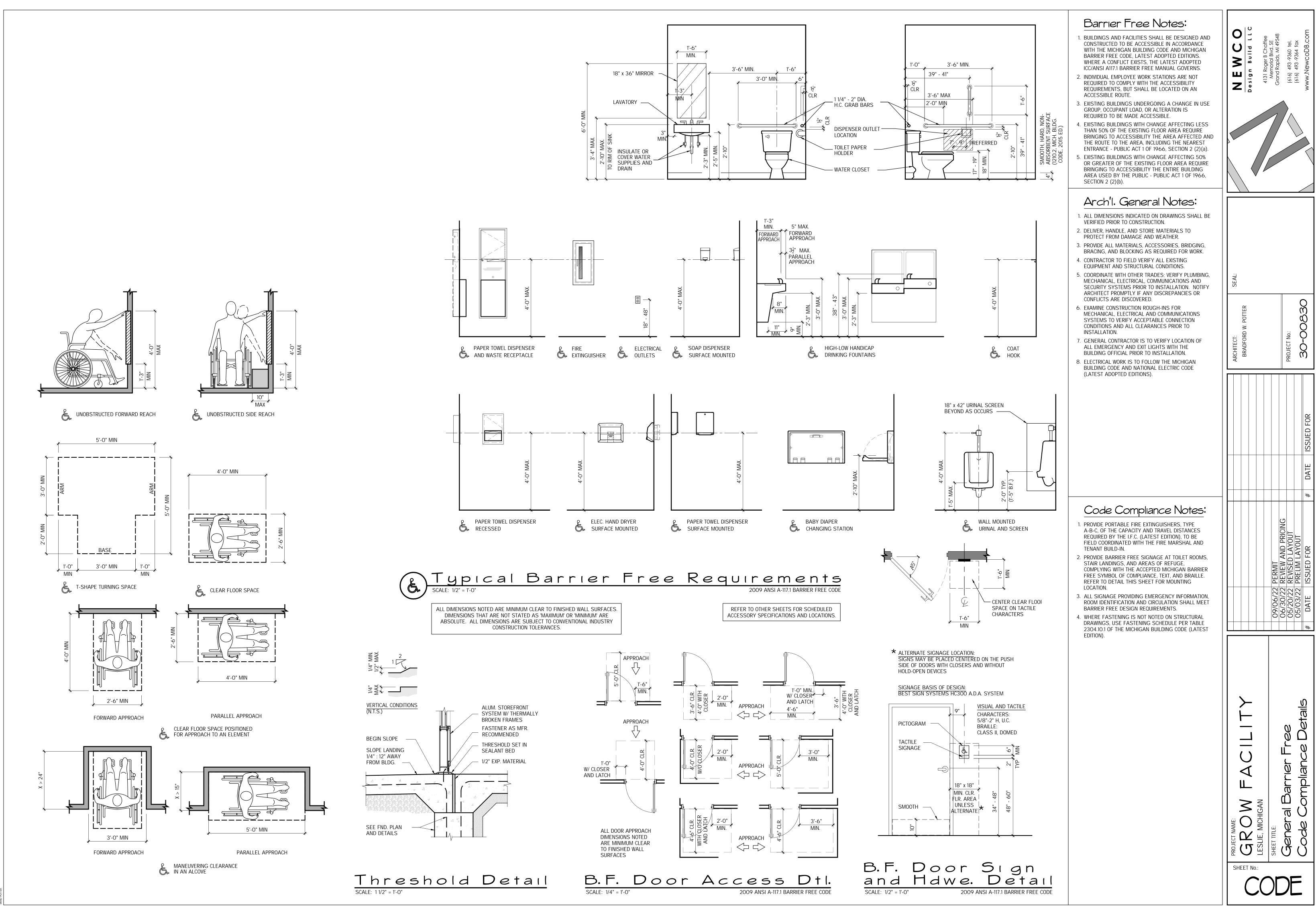
# CULTIO LLC GROW FACILITY Leslie, Michigan







NEVCO Design Build LLC	4131 Roger B Chaiffee	Memorial Blvd. SE Grand Rapids, MI 49548		(616) 493-9360 tel.	(616) 493-9364 fax	www.NewcoDB.com
		1				
SEAL:	ARC	DFO DTTE HITE No. 0495	СТ		2 * * * * *	
ARCHITECT: BRADFORD W. POTTER				PROJECT No.:		20-0030
						DATE ISSUED FOR
		09/06/22 PERMIT	06/30/22 REVIEW AND PRICING	05/20/22 REVISED LAYOUT	05/03/22 PRELIM LAYOUT	DATE ISSUED FOR #
						#
GROW FACILITY	LESLIE, MICHIGAN	SHEET TITLE:				
SHEET NO			/[		F	2

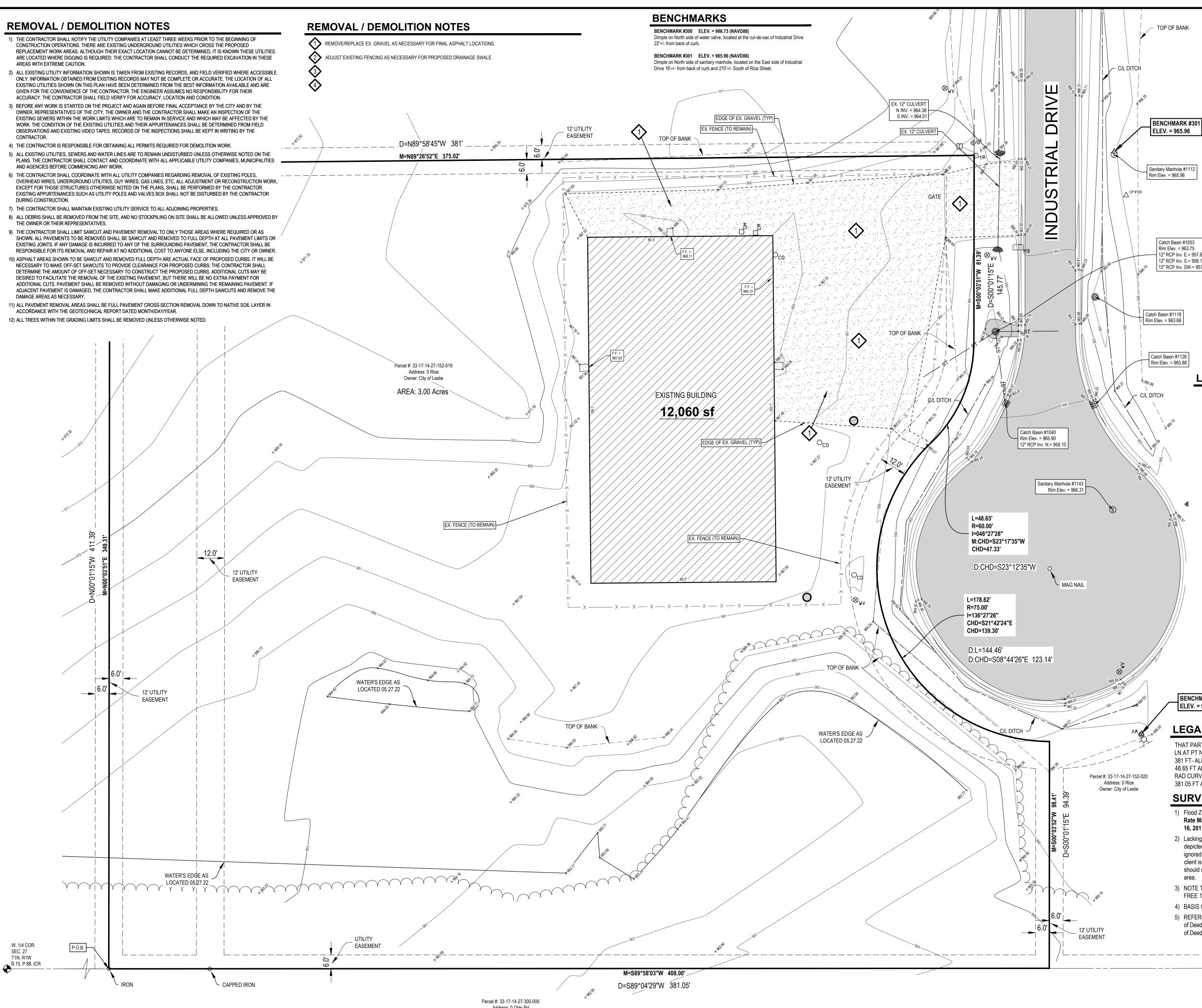


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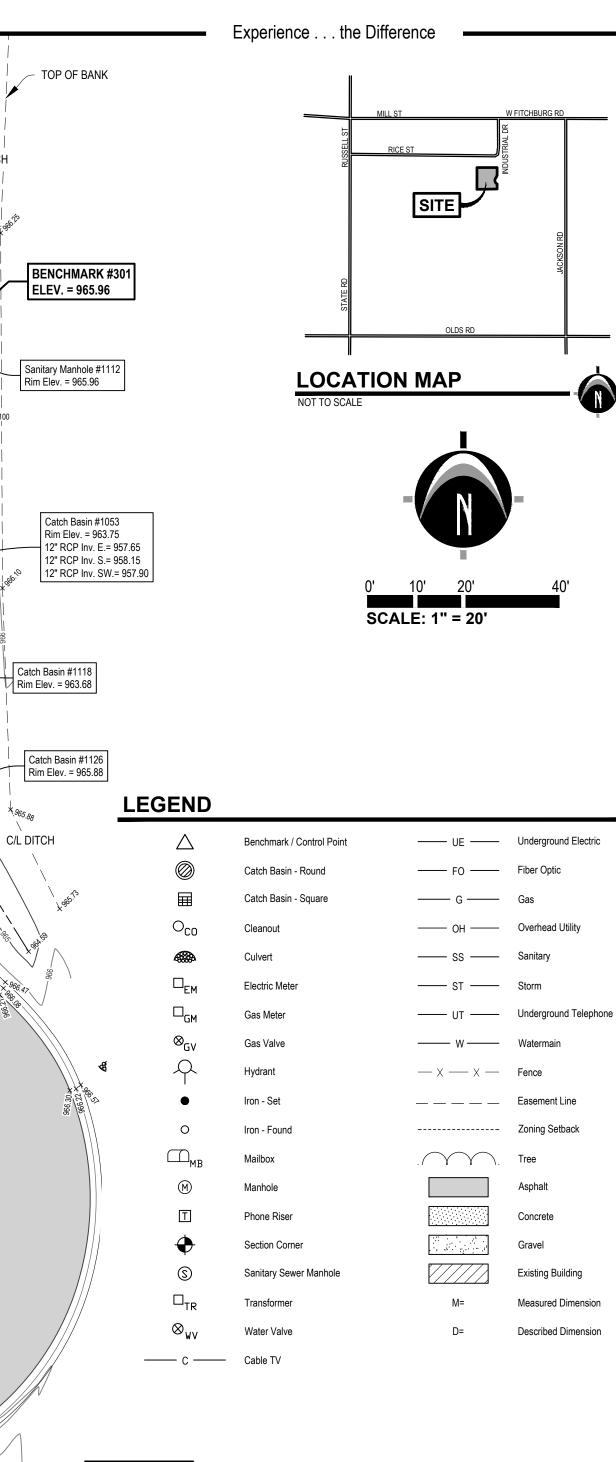


- CONSTRUCTION OPERATIONS THERE ARE EXISTING UNDERGROUND UTILITIES WHICH CROSS THE PROPOSED REPLACEMENT WORK AREAS. ALTHOUGH THEIR EXACT LOCATION CANNOT BE DETERMINED, IT IS KNOWN THESE UTILITIES ARE LOCATED WHERE DIGGING IS REQUIRED. THE CONTRACTOR SHALL CONDUCT THE REQUIRED EXCAVATION IN THESE AREAS WITH EXTREME CAUTION.
- 2) ALL EXISTING UTILITY INFORMATION SHOWN IS TAKEN FROM EXISTING RECORDS, AND FIELD VERIFIED WHERE ACCESSIBLE ONLY. INFORMATION OBTAINED FROM EXISTING RECORDS MAY NOT BE COMPLETE OR ACCURATE. THE LOCATION OF ALL EXISTING UTILITIES SHOWN ON THIS PLAN HAVE BEEN DETERMINED FROM THE BEST INFORMATION AVAILABLE AND ARE GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THEIR
- 3) BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE CITY AND BY THE OWNER, REPRESENTATIVES OF THE CITY, THE OWNER AND THE CONTRACTOR SHALL MAKE AN INSPECTION OF THE EXISTING SEWERS WITHIN THE WORK LIMITS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING UTILITIES AND THEIR APPURTENANCES SHALL BE DETERMINED FROM FIELD OBSERVATIONS AND EXISTING VIDEO TAPES. RECORDS OF THE INSPECTIONS SHALL BE KEPT IN WRITING BY THE CONTRACTOR.
- 5) ALL EXISTING UTILITIES, SEWERS AND WATER LINES ARE TO REMAIN UNDISTURBED UNLESS OTHERWISE NOTED ON THE PLANS. THE CONTRACTOR SHALL CONTACT AND COORDINATE WITH ALL APPLICABLE UTILITY COMPANIES, MUNICIPALITIES
- 6) THE CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES REGARDING REMOVAL OF EXISTING POLES, OVERHEAD WIRES, UNDERGROUND UTILITIES, GUY WIRES, GAS LINES, ETC. ALL ADJUSTMENT OR RECONSTRUCTION WORK, EXCEPT FOR THOSE STRUCTURES OTHERWISE NOTED ON THE PLANS, SHALL BE PERFORMED BY THE CONTRACTOR. EXISTING APPURTENANCES SUCH AS UTILITY POLES AND VALVES BOX SHALL NOT BE DISTURBED BY THE CONTRACTOR DURING CONSTRUCTION.
- 7) THE CONTRACTOR SHALL MAINTAIN EXISTING UTILITY SERVICE TO ALL ADJOINING PROPERTIES.
- THE OWNER OR THEIR REPRESENTATIVES.
- SHOWN. ALL PAVEMENTS TO BE REMOVED SHALL BE SAWCUT AND REMOVED TO FULL DEPTH AT ALL PAVEMENT LIMITS OR EXISTING JOINTS. IF ANY DAMAGE IS INCURRED TO ANY OF THE SURROUNDING PAVEMENT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS REMOVAL AND REPAIR AT NO ADDITIONAL COST TO ANYONE ELSE. INCLUDING THE CITY OR OWNER.
- 10) ASPHALT AREAS SHOWN TO BE SAWCUT AND REMOVED FULL DEPTH ARE ACTUAL FACE OF PROPOSED CURBS. IT WILL BE NECESSARY TO MAKE OFF-SET SAWCUTS TO PROVIDE CLEARANCE FOR PROPOSED CURBS: THE CONTRACTOR SHALL DETERMINE THE AMOUNT OF OFF-SET NECESSARY TO CONSTRUCT THE PROPOSED CURBS. ADDITIONAL CUTS MAY BE DESIRED TO FACILITATE THE REMOVAL OF THE EXISTING PAVEMENT, BUT THERE WILL BE NO EXTRA PAYMENT FOR ADDITIONAL CUTS. PAVEMENT SHALL BE REMOVED WITHOUT DAMAGING OR UNDERMINING THE REMAINING PAVEMENT. IF ADJACENT PAVEMENT IS DAMAGED, THE CONTRACTOR SHALL MAKE ADDITIONAL FULL DEPTH SAWCUTS AND REMOVE THE DAMAGE AREAS AS NECESSARY.
- 11) ALL PAVEMENT REMOVAL AREAS SHALL BE FULL PAVEMENT CROSS-SECTION REMOVAL DOWN TO NATIVE SOIL LAYER IN ACCORDANCE WITH THE GEOTECHNICAL REPORT DATED MONTH/DAY/YEAR.





Address: 0 Olds Rd Owner: James N & Virginia Sineman Trust



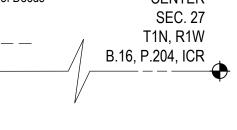
<b>BENCHMARK #300</b>
ELEV. = 966.73

#### LEGAL DESCRIPTION

THAT PART OF SW <sup>1</sup>/<sub>4</sub> OF THE NW 1/4 OF SEC 27, T1N R1W, CITY OF LESLIE DESC AS: BEG ON EW 1/4 LN AT PT N89\* 04'29" E 977.86 FT FROM W 1/4 COR OF SEC 27- N00\* 01'15" W 411.39 FT- N89\* 58'45" E 381 FT- ALNG W LN OF INDUSTRAIL PARK DR FOLLOWING 4 COURSES; S 00\* 01'15" E 145.77 FT SW'LY 48.65 FT ALNG 60 FT RAD CURVE TO RT, CHD BRG S 23\* 12'35" W 47.33 FT, SE'LY 144.46 FT ALNG 75 FT RAD CURVE TO LEFT , CHD BRG S 08\* 44'26" E 123.14 FT & S 00\* 01'15" E 94.39 FT- S 89\* 04' 29" W 381.05 FT ALNG EW 1/4 LN TO POB 3.48 AC +/- SPLIT ON 01/31/2006 FROM 33-17-14-27-152-017

#### **SURVEYOR'S NOTES**

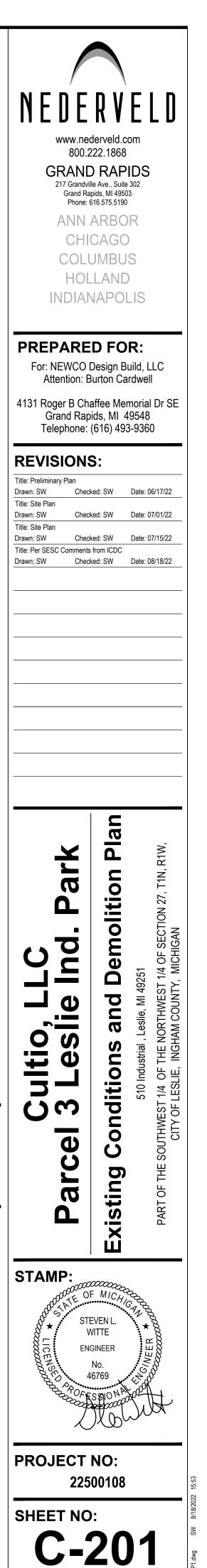
- 1) Flood Zone Classification: An examination of the National Flood Insurance Program's Flood Insurance Rate Map for Community Number 260091, Map Number 26065C0375D, with an Effective Date of August 16, 2011, shows this parcel to be located in Zone X (subject to map scale uncertainty).
- 2) Lacking excavation, the exact location of underground features cannot be accurately, completely, and reliably depicted. In addition, in some jurisdictions, 811 or other similar utility locate requests from surveyors may be ignored or result in an incomplete response. Where additional or more detailed information is required, the client is advised that excavation and/or a private utility locate request may be necessary. These locations should not be interpreted to be exact locations nor should it be assumed that they are the only utilities in this area
- 3) NOTE TO CONTRACTORS: 3 (THREE) WORKING DAYS BEFORE YOU DIG, CALL MISS DIG AT TOLL FREE 1-800-482-7171 FOR UTILITY LOCATIONS ON THE GROUND.
- 4) BASIS OF BEARING: NAD83 Michigan State Planes, South Zone, International Foot
- 5) REFERENCE: Survey as recorded in Book 9, Page 1085, Instrument #2021-033945, Ingham County Register of Deeds and Survey as recorded in Book 9, Page 1083, Instrument #2021-033943, Ingham County Register CENTER of Deeds





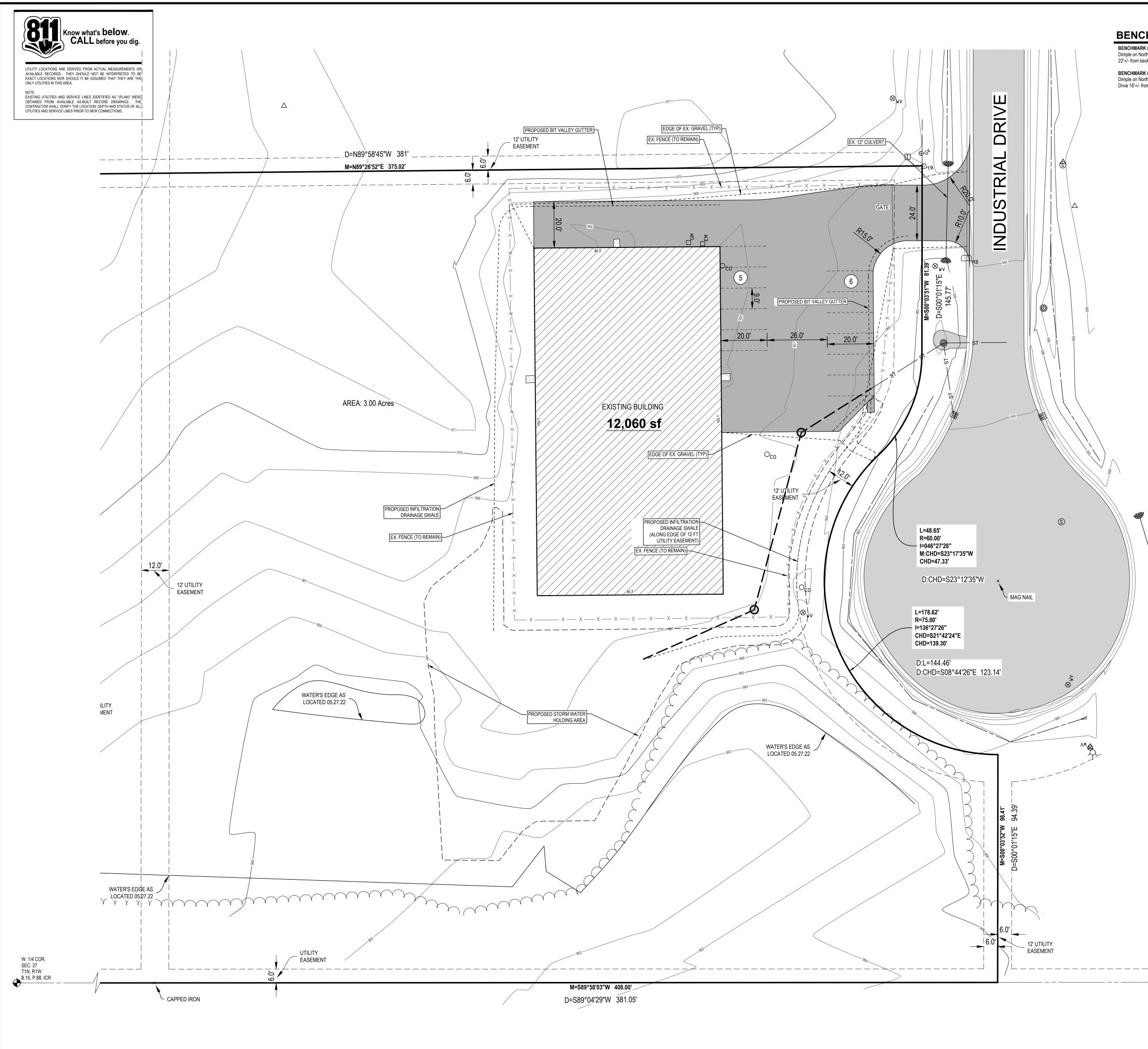
EXACT LOCATIONS NOR SHOULD IT BE ASSUMED THAT THEY ARE THE ONLY UTILITIES IN THIS AREA.

EXISTING UTILITIES AND SERVICE LINES IDENTIFIED AS "(PLAN)" WERE OBTAINED FROM AVAILABLE AS-BUILT RECORD DRAWINGS. THE CONTRACTOR SHALL VERIFY THE LOCATION, DEPTH AND STATUS OF ALL UTILITIES AND SERVICE LINES PRIOR TO NEW CONNECTIONS.



SHEET: 1 OF 3

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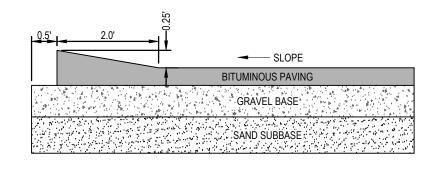


#### BENCHMARKS

BENCHMARK #300 ELEV. = 966.73 (NAVD88) Dimple on North side of water valve, located at the cul-de-sac of Industrial Drive 22'+/- from back of curb.

**BENCHMARK #301** ELEV. = 965.96 (NAVD88) Dimple on North side of sanitary manhole, located on the East side of Industrial Drive 16'+/- from back of curb and 270'+/- South of Rice Street.

SITE LOCATION MAP NOT TO SCALE 10' 20' 40 SCALE: 1" = 20' **PROPERTY OWNER:** LINFOR EAST HOLDINGS 510 INDUSTRIAL DRIVE LESLIE, MICHIGAN 48864

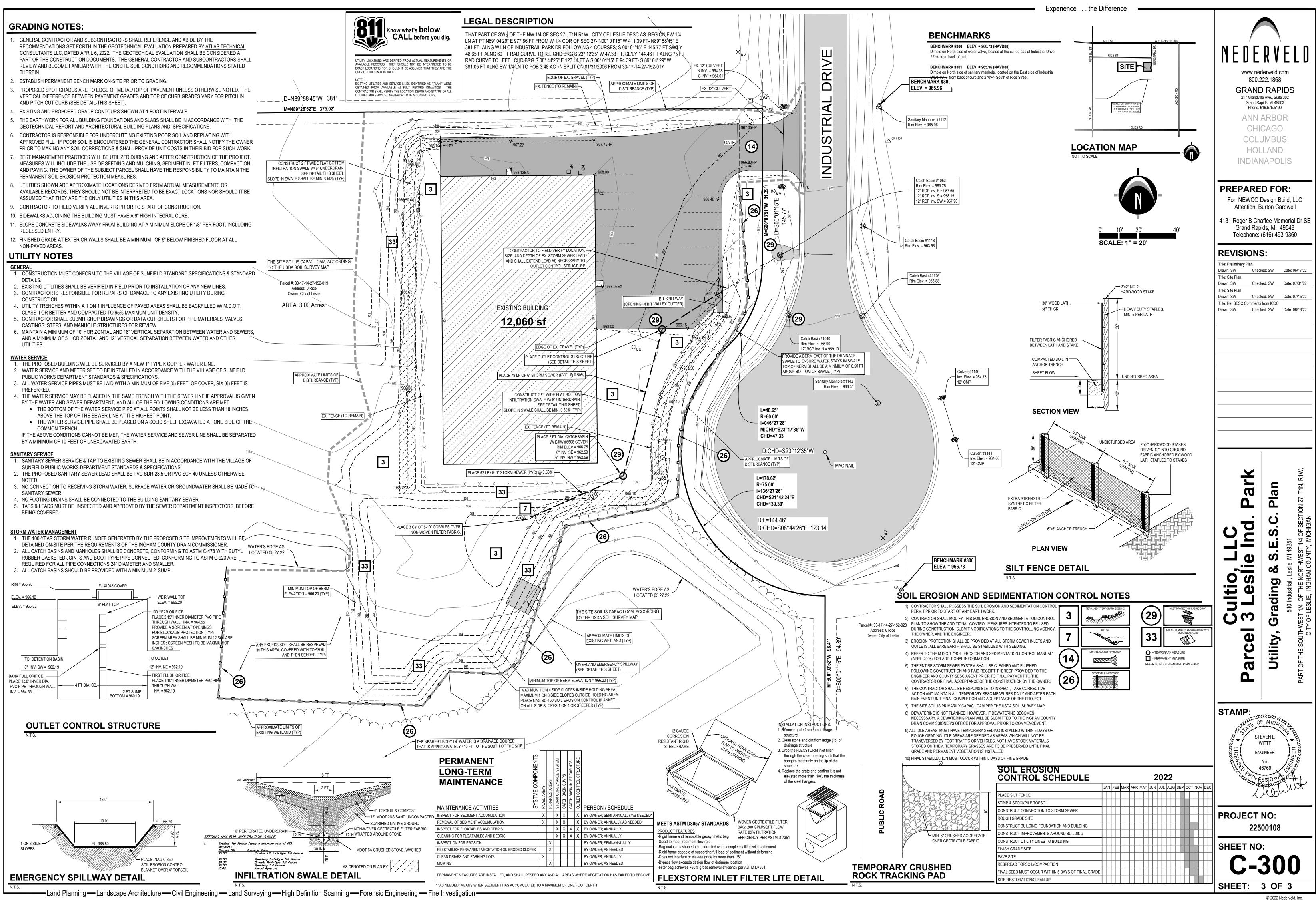


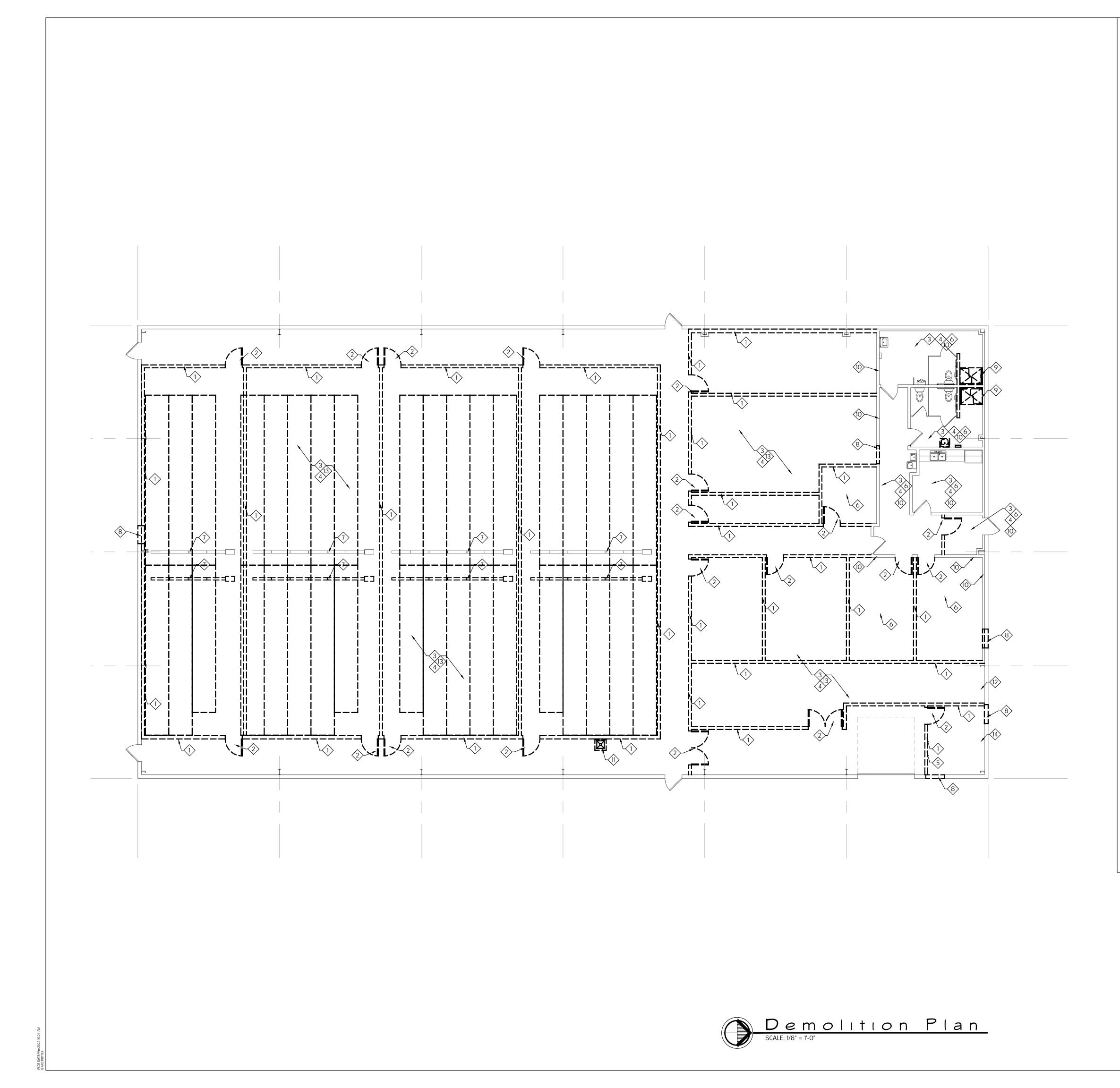
## PRIVATE ROAD & SITE BITUMINOUS VALLEY GUTTER DETAIL N.T.S.

CENTER SEC. 27 T1N, R1W B.16, P.204, ICR \_\_\_\_

800.2 GRANE 217 Grandvil Grand Ra Phone: 0 ANN CHI COLU	derveld.c 222.1868 D RAP le Ave., Suite pids, MI 4950 516.575.5190 ARBO CAGC JMBU LANC	om IDS <sup>302</sup> R S					
Title: Site Plan         Drawn: SW       Check         Title: Site Plan         Drawn: SW       Check         Title: Plan         Drawn: SW       Check         Title: Per SESC Comments	Design B Burton Ca affee Men ids, MI 4 (616) 493 <b>S:</b> ked: SW ked: SW	uild, L rdwel 19548 3-936 Date: 0 Date: 0	l I Dr SE				
Cultio, LLC Parcel 3 Leslie Ind. Park	Site Plan	510 Industrial , Leslie, MI 49251	PART OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 27, T1N, R1W, CITY OF LESLIE, INGHAM COUNTY, MICHIGAN				
LICENSCO OF	EVEN L. VITTE GINEER No. 6769 S SIIO NA S SIIO NA		Manager H				
225	PROJECT NO: 22500108 SHEET NO: <b>C-205</b>						

SHEET: 2 OF 3 © 2022 Nederveld, Inc.



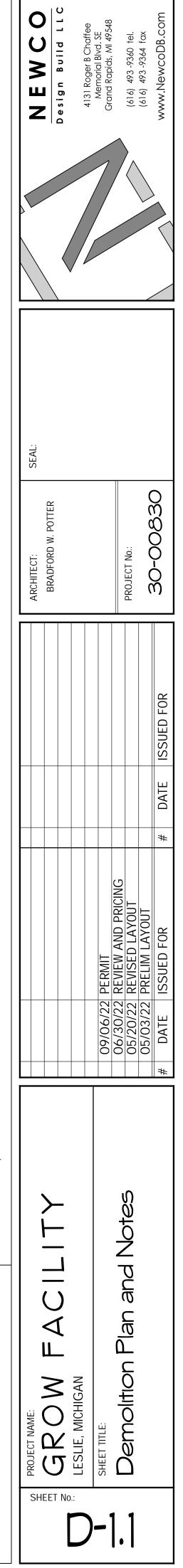


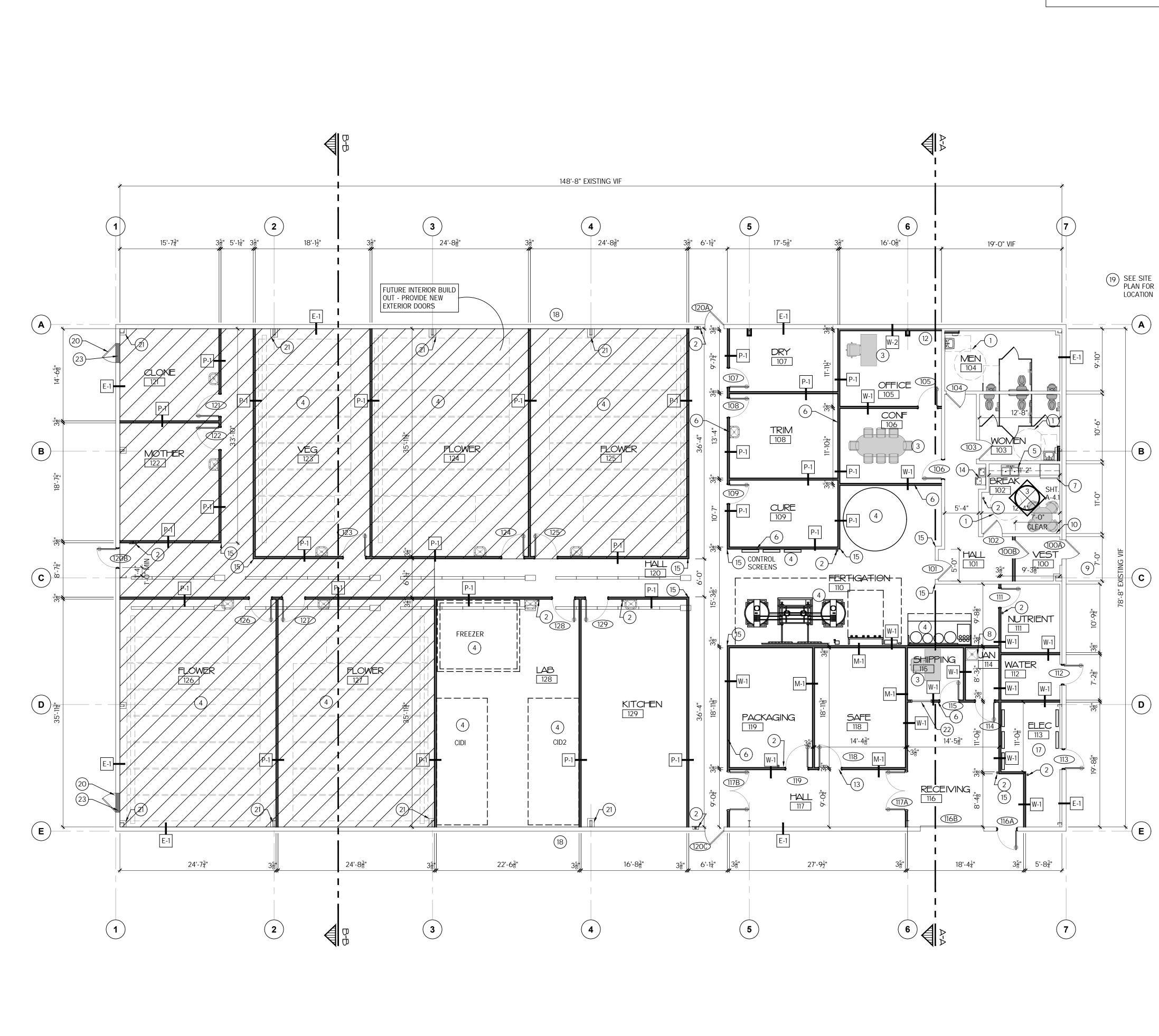
#### Plan Keyed Notes:

- REMOVE INTERIOR STUD WALL AND IMP WALL CONSTRUCTION FROM FLOOR TO ROOF DECK - REMOVE LOW CEILING IN GROW SPACES- ENSURE FASTENERS IN SLAB ARE LEVEL WITH THE SLAB - TYPICAL. FIELD VERIFY LOCATIONS OF EXISTING UTILITIES, WATER SUPPLIES AND DRAINS THAT MAY NOT BE INDICATED ON DRAWINGS AND ARE TO BE REMOVED AND CAPPED.
   REMOVE EXISTING DOORS, FRAMES, AND
- HARDWARE-TYP.
- REMOVE EXISTING FLOOR FINISHES INCLUDING MECHANICALLY REMOVING ADHESIVES AND MORTAR RESIDUES, VERIFY CONDITION OF SLAB - CONTACT ARCHITECT IF AREA OF CONCERN IS LOCATED - OTHERWISE PROVIDE FLOOR LEVELING COMPOUND AS NEEDED
- A REMOVE LIGHT FIXTURES AND WIRING BACK TO PANEL AND ANY OTHER SYSTEMS NOT REUSED IN OWNER PLAN. RETURN ITEMS TO OWNER OR DISPOSE OF AS DIRECTED BY OWNER. NOTE: ALL CAPPING TO BE BELOW SLAB OR TIGHT TO DECK
- S RELOCATE AND REUSE EXISTING ELECTRICAL PANELS, TRANSFORMER, AND PHONE BOARD AS POSSIBLE
- REMOVE EXISTING SUSPENDED CEILING PANELS, GRID
   SYSTEM, HVAC DUCTWORK, GRILLES AND LIGHTING
   FYISTING TRENCLI PRAINS TO REMAIN EXTEND NEW
- EXISTING TRENCH DRAINS TO REMAIN, EXTEND NEW ROOM DRAINS TO CENTRAL TRENCH DRAIN - CUT SLAB - PREP TRENCH DRAIN FOR NEW CONNECTIONS
- NEW OPENING IN EXISTING WALL HEIGHT AS NOTED IN ARCHITECTURAL DRAWING - ENSURE FASTENERS IN SLAB ARE LEVEL WITH THE SLAB - TYPICAL. FIELD VERIFY LOCATIONS OF EXISTING UTILITIES, WATER SUPPLIES AND DRAINS THAT MAY NOT BE INDICATED ON DRAWINGS AND ARE TO BE REMOVED AND CAPPED. PROVIDE FOR LINTELS AS NEEDED
- (9) REMOVE SHOWER PREP FOR NEW FIXTURE
- REMOVE EXISTING WALL FINISHES WALLS SCHEDULED TO REMAIN SHALL BE PATCHED AND REPAIRED AS REQUIRED TO RESTORE TO LIKE NEW CONSTRUCTION AND READY TO RECEIVE OWNER FINISHES
- TREMOVE WALL SINK CUT AND CAP ALL SUPPLY AND WASTE LINES NOT BEING REUSED BELOW FLOOR SLAB OR TIGHT TO DECK - EXTEND TO NEW SINK LOCATIONS AS POSSIBLE
- 12 EXAMINE EXISTING WATER HEATER REMOVE AS DIRECTED - CUT AND CAP ALL SUPPLY AND WASTE LINES NOT BEING REUSED BELOW FLOOR SLAB OR TIGHT TO DECK
- (13) REMOVE EXISTING GROW EQUIPMENT AS OCCURS -RETURN TO OWNER - REUSE AS DIRECTED
- (14) EXAMINE EXISTING FURNACE REMOVE AS DIRECTED -
- REMOVE ALL DUCT WORK NOT BEING REUSED

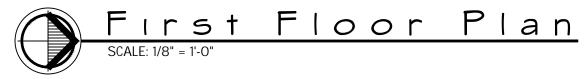
## Demolition Plan Notes:

- 1. THE INFORMATION SHOWN IS BASED ON EXISTING INFORMATION PROVIDED TO NEWCO DESIGN-BUILD AND SITE OBSERVATIONS. THE GENERAL CONTRACTOR SHALL NOTIFY ARCHITECT OF ANY DISCREPANCIES.
- 2. COORDINATE CONSTRUCTION ACTIVITIES WITH OWNER TO MINIMIZE DISRUPTIONS. NOTIFY THE OWNER IN ADVANCE TO COORDINATE TEMPORARY UTILITY SHUT-OFFS.
- 3. CONTRACTOR TO FIELD VERIFY ALL EX'G. EQUIPMENT AND STRUCTURAL CONDITIONS. VERIFY ALL WALLS THAT ARE SCHEDULED TO BE DEMOLISHED ARE NOT LOAD BEARING.
- 4. PROVIDE SHORING OF EXISTING STRUCTURE AS REQ'D. CEASE WORK AND NOTIFY ARCHITECT IMMEDIATELY IF CONTRACTOR ENCOUNTERS UNEXPECTED CONDITIONS OR STRUCTURES BEGIN TO FAIL.
- 5. IT IS UNKNOWN WHETHER HAZARDOUS MATERIALS WILL BE ENCOUNTERED IN THE WORK. IF MATERIALS SUSPECTED OF CONTAINING HAZARDOUS MATERIALS ARE ENCOUNTERED, DO NOT DISTURB; IMMEDIATELY NOTIFY THE ARCHITECT.
- 6. VERIFY LOCATIONS OF ANY FIRE RATED CONSTRUCTION AND PENETRATION PROTECTION METHODS AS MAY OCCUR AND MAINTAIN INTEGRITY OF ASSEMBLIES AND REQUIRED ACCESS DURING OPERATIONS.
- 7. PROVIDE AND MAINTAIN PORTABLE U.L. RATED FIRE EXTINGUISHERS AS MAY BE REQUIRED BY AUTHORITIES HAVING JURISDICTION.
- 8. Maintain safe exiting from the ex'g building during demolition, including accessible temporary egress - comply with icc/ansi a117.1 and the michigan barrier free code.
- 9. CONDUCT SELECTIVE DEMOLITION, STAGING, AND REMOVAL OPERATIONS TO ENSURE MINIMUM INTERFERENCE WITH EXTERIOR ROADS, WALKS, AND ADJACENT BUILDINGS AND WITH INTERIOR OCCUPIED AREAS.
- 10. PROVIDE PROTECTION FROM ADVERSE WEATHER CONDITIONS FOR PORTIONS THAT MIGHT BE EXPOSED TO THE OUTSIDE DURING CUTTING, DEMOLITION AND PATCHING WORK. INSULATE ENCLOSURE DURING COLD WEATHER SEASON FOR OCCUPIED BUILDINGS.
- 11. AVOID TRAPPING WATER IN WORK. DOCUMENT VISIBLE SIGNS OF MOLD OR WATER DAMAGE AND NOTIFY ARCHITECT.
- 12. PROVIDE STURDY, LOCKABLE ENTRANCES AT TEMPORARY ENCLOSURES AND LOCK AT END OF EACH WORK DAY.
- 13. PROVIDE AND MAINTAIN FLOOR TO CEILING TEMPORARY BARRIERS TO PREVENT DUST, FUMES AND ODORS FROM LEAVING AREAS OF DEMOLITION. ISOLATE H.V.A.C. DUCTS IN AREA OF WORK. AT A MINIMUM, UTILIZE MATERIALS WHERE APPROPRIATE OF THE FOLLOWING: REINFORCED 10 MIL POLY-ETHYLENE SHEETING WITH A MAXIMUM FLAME SPREAD OF 15 PER ASTM E 84, G.P.D.W. WITH JOINTS TAPED AT OWNER OCCUPIED SIDE, FIRE RETARDANT PLYWD., GASKETING, AND WALK-OFF MATS.
- 14. PROTECT AREAS AND SURFACES THAT ARE NOT INDICATED TO BE DEMOLISHED.
- 15. SHUT-OFF UTILITIES PRIOR TO WORK ON SELECTED UTILITY AREAS. CAP EXISTING PLUMBING TO BE ABANDONED.
- 16. PROVIDE ACCESS FOR PLUMBING WHERE NECESSARY. COORDINATE WITH PLUMBING CONTRACTOR PRIOR TO COMPLETION OF DEMOLITION WORK.
- 17. Remove Floor, Wall and Ceiling in Areas of Demolition as required to carry out work in Remainder of drawings - Not all conditions Are noted.
- 18. PERFORM DEMOLITION IN AN ORDERLY AND WORKMANLIKE MANNER. WORK FROM HIGH TO LOW AREAS. PROVIDE WASTE COLLECTION CONTAINERS IN SIZES ADEQUATE TO HANDLE OPERATIONS. PERFORM DAILY CONSTRUCTION CLEANUP.
- 19. CLEAN AREAS AND SPACES WHERE CUTTING, DEMOLITION, AND PATCHING ARE PERFORMED. COMPLETELY REMOVE PAINT, MORTAR, OILS, PUTTY AND SIMILAR MATERIALS.
- 20. COMPLETELY DISPOSE OF DUST, DIRT, AND DEBRIS CAUSED BY SELECTIVE DEMOLITION.
   21. CONTRACTOR CHARLERE DECRONICIPLE FOR DEMOLY
- 21. CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL REFUSE OFF SITE UNLESS NOTED OTHERWISE. DO NOT ALLOW THE DEMOLISHED MATERIALS TO ACCUMULATE ON SITE. LEGALLY DISPOSE OF OFF SITE. DO NOT BURN DEMOLISHED MATERIALS.
- 22. COMPLY WITH ALL GOVERNING E.P.A. NOTIFICATION REGULATIONS. COMPLY WITH HAULING AND DISPOSAL REGULATIONS OF AUTHORITIES HAVING JURISDICTION.
- 23. PATCH SELECTIVE DEMOLITION TO FINISH FLUSH WITH AND MATCH THE ADJACENT SURFACES BY MATERIAL AND TEXTURE, SUCH THAT THERE IS NO VISIBLE EVIDENCE OF CORRECTIVE WORK.
- 24. RETURN ADJACENT AREAS TO CONDITION EXISTING BEFORE SELECTIVE DEMOLITION WORK BEGAN.
- 25. REFER TO SHEET WITH FINISHES INFORMATION FOR ADDITIONAL REQUIREMENTS ON SURFACE PREPARATION.
   26. CONSTRUCTION SITE SAFETY IS TO BE MAINTAINED
- AT ALL TIMES. ALL SUBCONTRACTORS SHALL REVIEW AND FOLLOW ALL OSHA REGULATIONS. ITEMS OF PARTICULAR CONCERN INCLUDE, BUT ARE NOT LIMITED TO; FALL PREVENTION, LADDER SAFETY, SCAFFOLDING, ELECTRICAL HAZARDS, TRENCHING AND EXCAVATION, AND TRIP HAZARDS. ALL JOBSITES WILL REQUIRE COMPLIANCE WITH THE SILICA STANDARD, OSHA 29 CFR 1926.1153.





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## Plan Keyed Notes:

- 1) Barrier Free 5'-0" dia. Min. or other clear Floor Area as denoted, typ. Where indicated.
- 2 CLASS 2-A FIRE EXTINGUISHER PLACE IN SEMI-RECESSED CABINET IN PUBLIC SPACES - COORDINATE WITH AHJ
   3 FURNISHINGS BY OWNER - SHOWN FOR REFERENCE
- ONLY TYPICAL.
- 4 EQUIPMENT BY OWNER, SHOWN FOR REFERENCE ONLY.
- COORDINATE W/ PHONE-DATA-POWER.
- TO MILLWORK DETAILS AND INTERIOR ELEVATIONS.
- (6) PROVIDE TYPICAL GYP. BD. CONTROL JOINT DETAIL AS RECOMMENDED BY GYP. BD. MANUFACTURER.
- 7 FULL SIZE REFRIGERATOR BY OWNER. PLUMBER TO INSTALL WATER LINE

8 NEW MOP SINK BASIN WITH F.R.P. 48" HIGH

- 9 BARRIER FREE DOOR ACTIVATOR POST MOUNTED -PROVIDE POWER - SEE ELECTRICAL
- (10) PROVIDE SHELF AND ROD

(11) PLASTIC LAMINATE SILL AT WINDOWS

#### (12) COORDINATE POWER AND DATA FOR SECURITY EQUIPMENT - MULTIPLE MOUNTING HEIGHTS POSSIBLE

- (13) SAFE DOOR AS SELECTED BY OWNER VERFIY
- (14) EXISTING HI-LO EWC VERIFY WATER LINE, POWER,
- AND SANITARY (15) STAINLESS STEEL CORNER GUARD AT EXTERIOR
- CORNERS IN WORK AREAS
- (16) ALIGN NEW WALL FINISH WITH EXISTING
- (17) ELECTRICAL SERVICE EXACT LOCATION TO BE
- DETERMINED SEE ELECTRICAL ENGINEERING DRAWINGS (18) GROUND MOUNTED CONDENSING UNITS - SEE MECHANICAL
- (19) PROVIDE SCREENED DUMPSTER ENCLOSURE SEE DETAILS
- (20) EXISTING DOOR CLOSE AND LOCK REMOVE

EXTERIOR HARDWARE (21) WRAP COLUMNS WHERE INDICATED

- (22) METAL FRAMED WINDOW 1/4" TEMPERED GLASS
- (23) INFILL EXISTING WALL TO MATCH ADJACENT

#### GENERAL UTILITIES NOTES:

DATA, ELECTRICAL, H.V.A.C. & PHONE TO BE ENGINEERED BY OTHERS. FIELD VERIFY WORK EXTENTS AND COORD. LOCATION OF SWITCHES, DIFFUSERS, LIGHTS, DATA, PHONE AND POWER AS REQ'D. FOR WORK.

#### FLOOR REPAIR NOTE:

INFILL FLOOR AT AREAS OF WALL DEMOLITION WITH 'FLOORSTONE' TO BRING FLUSH TO EX'G. FINISHES TO REMAIN

#### PAINT SCOPE NOTE:

ALL DOOR AND WALL PRIME, PAINT, AND STAIN WORK TO BE BY CONTRACTOR

## SECURITY NOTE:

COORDINATE MOUNTING, UTILITY AND WIRING REQUIREMENTS WITH OWNER'S SECURITY CONTRACTOR

#### LIGHTING NOTES:

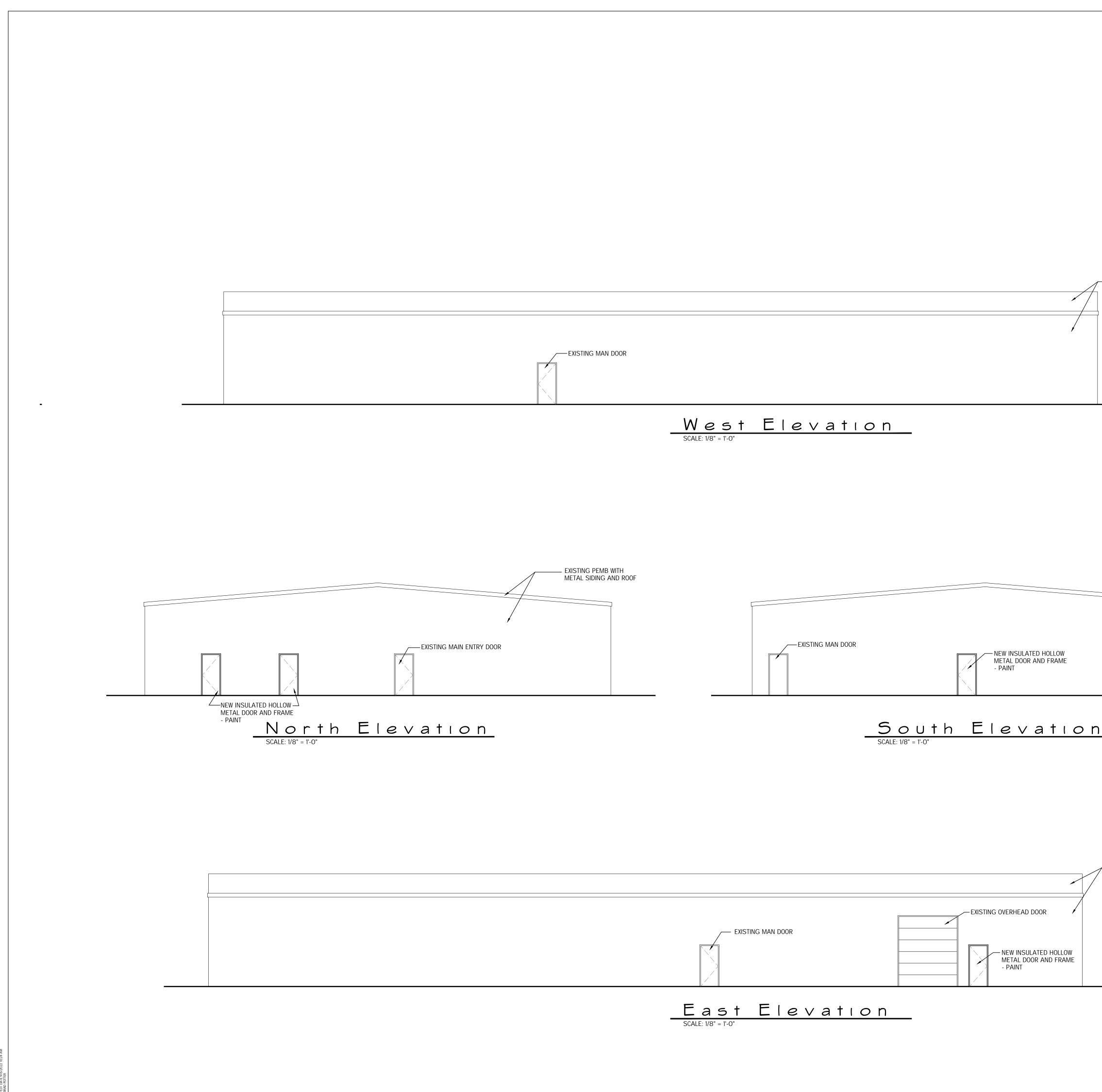
- 1. GENERAL CONTRACTOR IS TO VERIFY LOCATION OF ALL EMERGENCY AND EXIT LIGHTS WITH THE BUILDING OFFICIAL PRIOR TO INSTALLATION.
- 2. ELECTRICAL WORK IS TO FOLLOW THE MICHIGAN BUILDING CODE AND NATIONAL ELECTRIC CODE (LATEST EDITIONS).

## Wall Legend:

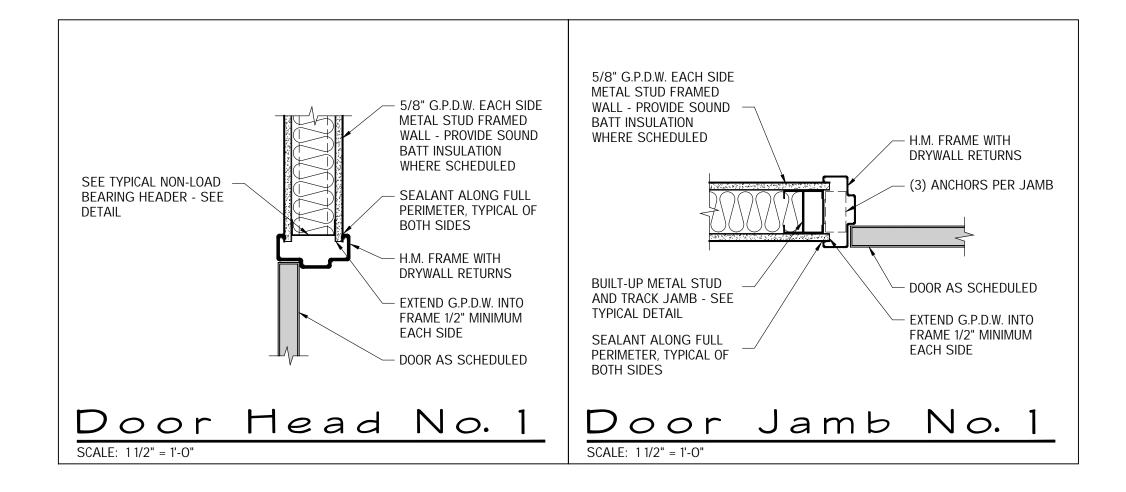
Mark:	Description:	Fire:
E-1	Existing metal building Wall - Field Verify Condition and Repair as Needed - Verify Insulation	NONE
P-1	3 5/8" LOAD BEARING METAL STUDS @ 16" O.C. FILL WITH ROCKWOOL INSULATION - PROVIDE METAL LINER PANEL EACH SIDE OF STUD - AT OFFICES PROVIDE GYP BOARD ON OFFICE SIDE - ANCHOR AND ATTACH AS DIRECTED BY APPROVED SHOP DRAWINGS - EXTEND HALLWAY OR END WALLS TO ROOF LINER PANELS - TOP OF WALL VARIES	NONE
W-1	5/8" GYP. BD. EACH SIDE 3 5/8" METAL STUDS @ 16" O.C. RUN STUDS AND GYP. BD. TIGHT TO UNDERSIDE OF ROOF LINER - UNLESS NOTED OTHERWISE. INSTALL SOUND BATT INSULATION IN STUD CAVITIES. PROVIDE SOUND SEALANT AT STUD TO PERIM. SEE FINISH SCHEDULE	NONE
W-2	5/8" GYP. BD. OVER 3 5/8" METAL FURRING. RUN FURRING AND GYP. BD. TO FIRST GIRT ABOVE CEILING. INSTALL SOUND BATT INSULATION IN CAVITIES. PROVIDE SOUND SEALANT AT PERIM. SEE FINISH SCHEDULE - LINER PANEL ABOVE - SEAL AND CAULK	NONE
W-3	5/8" GYP. BD. OVER 3 5/8" METAL STUDS @ 16" O.C PROVIDE CHICKEN WIRE AND 5/8" PLYWOOD TO SAFE SIDE OF STUDS - ANCHOR TO ROOF STRUCTURE - PAINT	NONE

# Arch'l. Plan Notes:

- 1. FIELD MEASURE AND VERIFY OR REVISE DIMENSIONAL INFORMATION TO THE EXTENT REQUIRED TO EXECUTE WORK REQUIRED ON THE CONTRACT DOCUMENTS.
- COORDINATE TOLERANCES OF FRAMING AND SUBSTRATES TO FINISH MATERIAL REQUIREMENTS.
   MAIN ELOOD ELEVATIONE 1001 OF CEE CIVIL REQUIREMENTS.
- 3. MAIN FLOOR ELEVATIONS 100'-0". SEE CIVIL DRAWINGS FOR ACTUAL ELEVATIONS.
- 4. ALL DIMENSIONS INDICATED ON DRAWINGS SHALL BE VERIFIED PRIOR TO CONSTRUCTION.
- ACQUIRE AND MAINTAIN, ON SITE, MATERIAL MANUFACTURERS' WRITTEN RECOMMENDATIONS AND INSTRUCTIONS FOR INSTALLATION REQUIREMENTS.
   COMPLY WITH MANUE ACTURED CLUBERCE WRITTEN.
- 6. COMPLY WITH MANUFACTURERS' WRITTEN INSTRUCTIONS FOR TEMPERATURE AND RELATIVE HUMIDITY FOR PROPER INSTALLATION.
- 7. EXTEND JAMB STUD FRAMING EACH SIDE OF DOOR OPENING AND ATTACH SECURELY TO STRUCTURE ABOVE.
- 8. UNLESS INDICATED OTHERWISE, INTERIOR WALLS SHALL EXTEND TO AND FASTEN TO BOTTOM OF STRUCTURE.
- BRACE ALL STUD WALLS THAT DO NOT GO TO STRUCTURE ABOVE WITH MIN. 4" NOMINAL STUDS AT 45 DEG. DIAGONAL AND SECURED TO STRUCTURE ABOVE AT 48" O.C. MAXIMUM. COORDINATE WITH MECHANICAL AND ELECTRICAL EQUIPMENT REQUIREMENTS BEFORE INSTALLATION.
- 10. Where Finished Walls do not continue full Height, extend studs as req'd. To secure to Structure. Terminate G.P.D.W. Boards at 4" Min. Past Lay-in acoustical panel ceilings.
- 11. DO NOT BRIDGE BUILDING EXPANSION AND CONTROL JOINTS. INDEPENDENTLY FRAME BOTH SIDES OF JOINTS AND CLOSE AS DETAILED OR BY THE MFR'S. RECOMMENDATIONS WHEN NOT INDICATED.
- 12. WOOD BLOCKING AND NAILERS THAT COME INTO CONTACT WITH CONCRETE OR MASONRY ARE TO BE TREATED WOOD OR PROVIDE MATERIAL BARRIER.
- 13. PROVIDE ISOLATION STRIP FOR METAL STUD FRAMING AT EXTERIOR WALLS, MASONRY, AND DISSIMILAR METALS. USE MINIMUM 15# ASPHALT FELT OR ADHESIVE BACKED CLOSED CELL FOAM IN WIDTHS TO SUIT STUD SIZES.
- 14. MAKE JOINTS UNIFORM IN WIDTH. WHERE JOINTS IN EXPOSED WORK ARE NOT INDICATED, ARRANGE FOR THE BEST VISUAL EFFECT. FIT EXPOSED CONNECTIONS TOGETHER TO FORM HAIRLINE JOINTS.
- 15. WHERE SOUND ATTENUATION BATT INSULATION IS SCHEDULED, INSTALL 3 1/2" BATT IN CAVITIES TO MINIMUM 3" ABOVE CEILING AND ADDITIONAL 48" ONTO CEILING EACH SIDE. SEAL ALL APPURTENANCE OPENINGS IN WALL AND OFFSET ONES INSTALLED BACK TO BACK BY ONE STUD CAVITY. APPLY SEALANT BEAD AT SILL PLATE OF WALLS AND AT TOP PLATES OF CEILINGS.
- 16. REMOVE DEBRIS FROM CONCEALED SPACES BEFORE ENCLOSING.
- 17. REPAIR OR REMOVE AND REPLACE DEFECTIVE CONSTRUCTION. REMOVE AND REPLACE DAMAGED SURFACES THAT ARE EXPOSED TO VIEW WHEN SURFACES CANNOT BE CORRECTED WITHOUT VISIBLE EVIDENCE OF REPAIR.
- REFER TO FINISHES SHEET NOTES FOR ADDITIONAL REQUIREMENTS.
   COOPDINATE LOCATIONS OF RELOW SLAP LITUITIES.
- 19. COORDINATE LOCATIONS OF BELOW SLAB UTILITIES AND SLAB REINFORCING PRIOR TO CONCRETE POUR.
- 20. INFORMATION SHOWN IS BASED ON EXISTING REFERENCE RESOURCES PROVIDED TO NEWCO AND FROM SITE OBSERVATIONS. SOME CONDITIONS WHICH MAY AFFECT THE PLANS MAY BE UNKNOWN WITHOUT DESTRUCTIVE OR INVESTIGATIVE METHODS. GENERAL CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT OF ANY DISCREPANCIES.
- 21. CONSTRUCTION SITE SAFETY IS TO BE MAINTAINED AT ALL TIMES. ALL SUBCONTRACTORS SHALL REVIEW AND FOLLOW ALL OSHA REGULATIONS. ITEMS OF PARTICULAR CONCERN INCLUDE, BUT ARE NOT LIMITED TO; FALL PREVENTION, LADDER SAFETY, SCAFFOLDING, ELECTRICAL HAZARDS, TRENCHING AND EXCAVATION, AND TRIP HAZARDS. ALL JOBSITES WILL REQUIRE COMPLIANCE WITH THE SILICA STANDARD, OSHA 29 CFR 1926.1153.
- 3 D e s i ň Ο ÒM V AND PRICING ED LAYOUT A LAYOUT PERMIT REVIEW / REVISEC PRELIM 22 22 + Ž \_\_\_\_ σ — 4 **X** O $\mathcal{U}$ SHEET No .: A-1.



	<ul> <li>Exterior Elevation Notes:</li> <li>MAIN FLOOR ELEVATIONS ARE 100'-0". REFER TO CIVIL DRAWINGS FOR CORRESPONDING ACTUAL ELEVATIONS.</li> <li>REFER TO SHEET SERIES A-1 AND A-3 FOR DOOR AND WINDOW INFORMATION.</li> <li>REFER TO ROOF PLAN AND BUILDING SECTIONS FOR EAVE DETAILS.</li> <li>REFER TO PLUMBING, MECHANICAL AND ELECTRICAL SHEETS FOR EXTERIOR ITEMS.</li> <li>CONSTRUCTION SITE SAFETY IS TO BE MAINTAINED AT ALL TIMES. ALL SUBCONTRACTORS SHALL REVIEW AND FOLLOW ALL OSHA REGULATIONS. ITEMS OF PARTICULAR CONCERN INCLUDE, BUT ARE NOT LIMITED TO; FALL PREVENTION, LADDER SAFETY, SCAFFOLDING, ELECTRICAL HAZARDS, TRENCHING AND EXCAVATION, AND TRIP HAZARDS. ALL JOBSITES WILL REQUIRE COMPLIANCE WITH THE SILICA STANDARD, OSHA 29 CFR 1926.1153.</li> </ul>	NEVCO Design Build LLC Amontal Blvd.SE	(616) 493 -9360 tel. (616) 493 -9364 fax www.NewcoDB.com
EXISTING PEMB WITH METAL SIDING AND ROOF		ARCHITECT: SEAL: BRADFORD W. POTTER	PROJECT No.: 30-00330
EXISTING PEMB WITH         METAL SIDING AND ROOF         EXISTING MAN DOOR         Image: Note that the second		09/06/22 PERMIT	06/30/22       REVIEW AND PRICING       D5/20/22         05/20/22       REVISED LAYOUT       D5/03/22         #       DATE       ISSUED FOR
EXISTING PEMB WITH METAL SIDING AND ROOF		SHEET No.:	Building Elevations, Notes, and Details



Door Schedule															
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NO.	LOCATION	SIZE		DOOR					LBL	GLAZING		ETAIL	-	HDWE	REMARKS
			MAT.			MAT.	TYPE	FIN.	(MIN)		HEAD	JAMB	SILL		EXISTING DOOR - VERIFY
100A	VESTIBULE CARD READER		EX	EX	EX	EX	EX	EX		EX			1		CONDITION - REPLACE CORE
100B	VESTIBULE	3'-0" x 7'-0" x 1 3/4"	HM	A	PNT	HM	а	PNT						5	
101	HALL	3'-0" x 7'-0" x 1 3/4"	HM	A	PNT	HM	а	PNT						3	CARD READER
102	BREAK	3'-0" x 7'-0" x 1 3/4"	HM	A	PNT	HM	а	PNT						5	
103	WOMEN'S RESTROOM	3'-0" x 7'-0" x 1 3/4"	HM	A	PNT	HM	а	PNT						5	
104	MEN'S RESTROOM	3'-0" x 7'-0" x 1 3/4"	HM	Α	PNT	HM	а	PNT						5	
105	OFFICE	3'-0" x 7'-0" x 1 3/4"	WD	А	PNT	HM	а	PNT						1	CARD READER
106	CONFERENCE	3'-0" x 7'-0" x 1 3/4"	WD	Α	PNT	HM	а	PNT						1	CARD READER
107	DRY	3'-0" x 7'-0" x 1 3/4"	HM	Α	PNT	HM	а	PNT						2	CARD READER
108	TRIM	3'-0" x 7'-0" x 1 3/4"	HM	А	PNT	HM	а	PNT						2	CARD READER
109	CURE	3'-0" x 7'-0" x 1 3/4"	HM	Α	PNT	HM	а	PNT						2	CARD READER
111	NUTRIENT	3'-0" x 7'-0" x 1 3/4"	HM	Α	PNT	HM	а	PNT						2	CARD READER
112	WATER	3'-0" x 7'-0" x 1 3/4"	HM	Α	PNT	HM	а	PNT						2	INSULATED CARD READER
113	ELECTRICAL	3'-0" x 7'-0" x 1 3/4"	HM	Α	PNT	HM	а	PNT						2	INSULATED CARD READER
114	JANITOR	3'-0" x 7'-0" x 1 3/4"	HM	Α	PNT	HM	а	PNT						3	
115	SHIPPING	3'-0" x 7'-0" x 1 3/4"	HM	Α	PNT	HM	а	PNT						1	CARD READER
116A	RECEIVING	3'-0" x 7'-0" x 1 3/4"	HM	Α	PNT	HM	а	PNT					1	4	INSULATED CARD READER
116B	RECEIVING	10'-0" x 12'-0" x 1 3/4"	EX	G-1	EX	EX	EX	EX							EXISTING DOOR - VERIFY CONDITION INSULATED - REPLACE CORE
117A	HALL	PR 3'-0" x 7'-0" x 1 3/4"	HM	Α	PNT	HM	а	PNT						6	CARD READER
117B	HALL	PR 3'-0" x 7'-0" x 1 3/4"	HM	A	PNT	HM	а	PNT						6	CARD READER
118	SAFE	3'-6" x 7'-0" x 1 3/4"	HM	A	PNT	HM	а	PNT							VERIFY HARDWARE W/ OWNER CARD READER
119	PACKAGING	3'-6" x 7'-0" x 1 3/4"	HM	A	PNT	HM	а	PNT						3	CARD READER
120A	HALL	3'-0" x 7'-0" x 1 3/4"	EX	EX	EX	EX	EX	EX		EX					EXISTING DOOR - VERIFY CONDITION
120B	HALL	3'-0" x 7'-0" x 1 3/4"	HM	A	PNT	HM	a	PNT						2	INSULATED - REPLACE CORE INSULATED
1200	HALL	3'-0" x 7'-0" x 1 3/4"	EX	EX	EX	EX	EX	EX		EX					EXISTING DOOR - VERIFY CONDITION
121	CLONE	3'-6" x 7'-0" x 1 3/4"	HM	A	PNT	HM	a	PNT						2	INSULATED - REPLACE CORE CARD READER
122	MOTHER	3'-6" x 7'-0" x 1 3/4"	HM	A	PNT	HM	a	PNT						2	CARD READER
123	VEG	3'-6" x 7'-0" x 1 3/4"	HM	A	PNT	HM	a	PNT						2	CARD READER
124	VEG	3'-6" x 7'-0" x 1 3/4"	HM	A	PNT	HM	a	PNT						2	CARD READER
124	FLOWER	3'-6" x 7'-0" x 1 3/4"	HM	A	PNT	HM	a	PNT						2	CARD READER
125	FLOWER	3'-6" x 7'-0" x 1 3/4"	HM	A	PNT	HM	a	PNT						2	CARD READER
	FLOWER						-								
127		3'-6" x 7'-0" x 1 3/4"	HM	A	PNT	HM	a	PNT						2	CARD READER
128	LAB	3'-6" x 7'-0" x 1 3/4"	HM	A	PNT	HM	а	PNT						2	CARD READER
129	KITCHEN	3'-6" x 7'-0" x 1 3/4"	HM	A	PNT	HM	а	PNT						2	CARD READER

## Hardware Sets:

• SET NO. 1 (1) OFFICE SET (3) HINGES (1) CLOSER (1) WALL STOP SILENCERS

 SET NO. 2 (1) STOREROOM SET (3) HINGES N.R.P. (1) CLOSER (1) WALL STOP (2) KICK PLATE (1) BOTTOM SWEEP WEATHERSTRIPPING

SILENCERS

#### VERIFY FINAL HARDWARE FINISH SELECTIONS WITH ARCHITECT

SET NO. 3

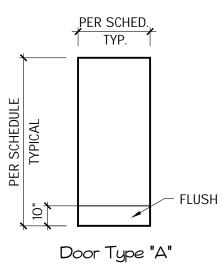
(1) CLOSER

SILENCERS

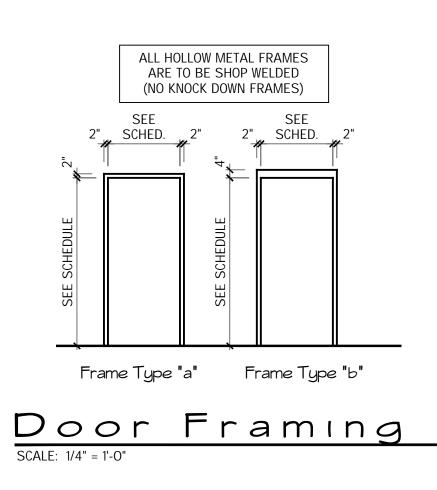
(1) WALL STOP

 SET NO. 4 (1) STOREROOM SET (1) STOREROOM SET (3) HINGES N.R.P. (3) HINGES N.R.P. (1) CLOSER (1) OVERHEAD STOP (2) KICK PLATES SILENCERS

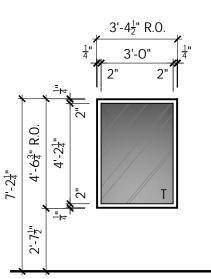
 SET NO. 5 (1) PASSAGE SET (3) HINGES (1) CLOSER (1) WALL STOP SILENCERS



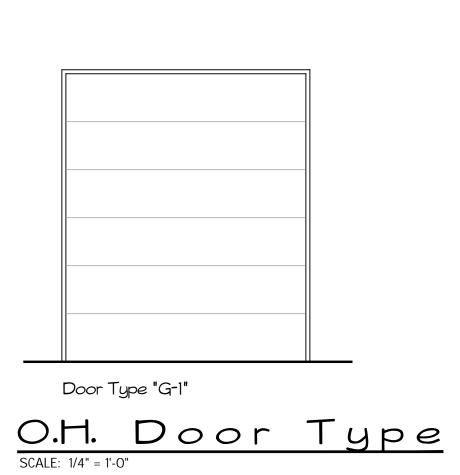
# Door Types SCALE: 1/4" = 1'-0"



 SET NO. 6 (2) STOREROOM SET (2) SETS OF 3 HINGES N.R.P. (2) CLOSER (1 EA) WALL STOP / OVERHEAD STOP (2) BOTTOM SWEEP (2) KICK PLATES EACH WEATHERSTRIPPING SILENCERS



Window Type  $\langle 1 \rangle$ 



Window Framing Types SCALE: 1/4" = 1'-0"

#### Door and Hardware Notes:

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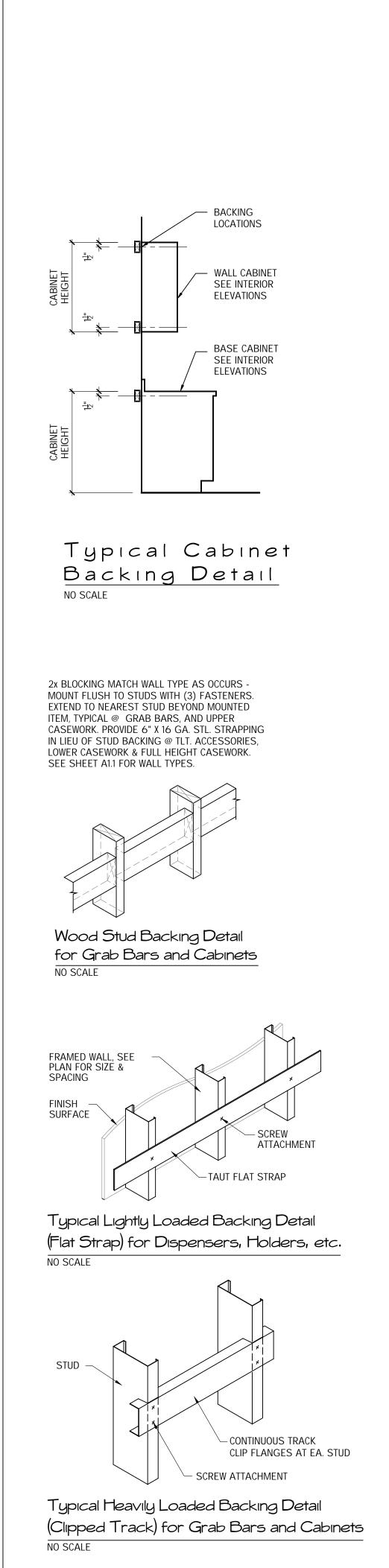
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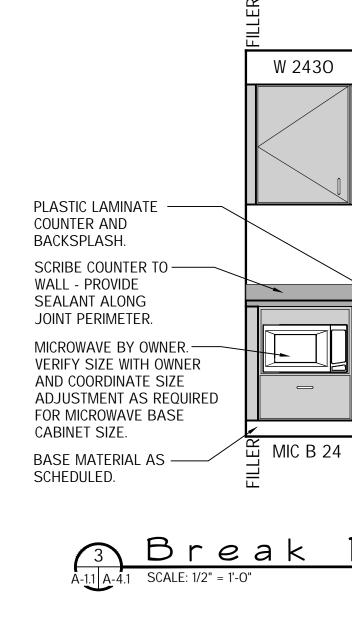
- 1. EGRESS DOOR HARDWARE SHALL BE READILY OPENABLE FROM THE SIDE FROM WHICH EGRESS IS TO BE MADE WITHOUT THE USE OF A KEY, SPECIAL KNOWLEDGE OR EFFORT.
- 2. ALL DOORS SHALL HAVE HANDLES, PULLS, LATCHES, AND OTHER OPERATING DEVICES WHICH do not require thumbturns, tight grasping, TIGHT PINCHING, OR TWISTING OF THE WRIST TO OPERATE. ALL DOOR HARDWARE SHALL BE NO HIGHER THAN 48" A.F.F.
- 3. ALL DOOR HARDWARE MUST COMPLY WITH STATE AND LOCAL CODE REQUIREMENTS. 4. UNLESS NOTED OTHERWISE, ALL DOORS TO HAVE
- LEVER TYPE OPERATOR. 5. CLOSER HARDWARE SHALL MEET ADA
- REQUIREMENTS, SECTIONS 404.2.7 FOR A DOOR CLOSING SPEED OF 5 SECONDS MINIMUM FROM 90 DEG. TO 12 DEG.
- 6. DOOR OPENING FORCE FOR NON-FIRE DOORS SHALL MEET ADA REQUIREMENTS, SECTION 404.2.8, FOR AN OPERATING FORCE OF 5 LBS. MAX. AT INTERIOR HINGED DOORS. FIRE DOORS SHALL MEET THE MINIMUM FORCE PER THE LOCAL AUTHORITY HAVING JURISDICTION.
- 7. DOOR OPENING FORCE FOR DOORS SHALL MEET 2015 MICHIGAN CODE REQUIREMENTS, SECTION 1008.1.3, FOR AN OPERATING FORCE OF 5 LBS. MAX. AT INTERIOR HINGED DOORS. OTHER SIDE-HINGED SWINGING, SLIDING, AND FOLDING DOORS MUST RELEASE THE LATCH WITH A 15 LB. FORCE, BE SET IN MOTION WITH A 30 LB. FORCE, AND SWING TO THE FULL OPEN POSITION WITH A 15 LB. FORCE FROM THE LATCH SIDE OF THE DOOR.
- 8. ALL LOCKSETS TO BE KEYED SEPARATELY.
- 9. THE UNLATCHING OF ANY DOOR OR LEAF SHALL NOT REQUIRE MORE THAN ONE OPERATION.
- 10. ALL HARDWARE TO BE US26D, SATIN CHROMIUM FINISH, U.N.O.
- 11. PROVIDE SOLID WOOD BLOCKING DOOR REINFORCING AS REQUIRED FOR HARDWARE COMPONENTS. COORDINATE MOUNTING TEMPLATES WITH DOOR MANUFACTURER.
- 12. PROVIDE FLOOR ANCHORS AT ALL HOLLOW METAL FRAMES.
- 13. ALL FRAMES SHALL HAVE 3 ANCHORS PER JAMB. 14. FIELD VERIFY ACTUAL DIMENSIONS OF OPENINGS IN EXISTING CONSTRUCTION PRIOR TO FABRICATION OF WINDOW AND DOOR UNITS AND FRAMES. VERIFY THE REQUIRED ROUGH OPENING DIMENSIONS FOR WINDOW AND DOOR UNITS IN NEW CONSTRUCTION.
- 15. PROVIDE ADEQUATE BARRIER AGAINST THE ELECTROLYTIC ACTION BETWEEN DISSIMILAR TYPES OF METALS THAT MAY COME INTO CONTACT with each other.
- 16. PROVIDE ASPHALTIC COATING TO INTERIOR OF HOLLOW METAL FRAMES WHERE NOTED TO BE GROUTED SOLID.
- 17. CAULK PERIMETERS OF ALL DOOR FRAMES, BOTH SIDES.
- 18. DOORS SHALL HAVE HINGES AS FOLLOWS: • UNDER 96"H = 3 HINGES PER LEAF • 96"H DOOR = 4 HINGES PER LEAF
- 19. ALIGN CENTERS OF DOORS IN SERIES UNLESS NOTED OTHERWISE.
- 20. WOOD DOORS TO BE TYPE L2, 5 PLY SOLID CORE, WITH GRADE 'A' PLAIN SLICED WHITE MAPLE VENEER BOOK MATCHED FACE, RUNNING MATCH. 21. WOOD VENEER DOORS TO HAVE PAIR MATCH
- VENEERS FOR PAIRED DOORS AND SET MATCH VENEERS FOR PAIRED DOORS IN ADJACENT SETS.
- 22. ALL B.F. DOORS TO BE INDICATED WITH THE BARRIER FREE SYMBOL OF COMPLIANCE - SEE DETAIL ON CODE SUMMARY AND GENERAL NOTES SHEET FOR MOUNTING LOCATION.
- 23. REFER TO MECHANICAL DRAWINGS FOR UNDERCUT DOORS AS REQUIRED.
- 24. CONSTRUCTION SITE SAFETY IS TO BE MAINTAINED AT ALL TIMES. ALL SUBCONTRACTORS SHALL REVIEW AND FOLLOW ALL OSHA REGULATIONS. ITEMS OF PARTICULAR CONCERN INCLUDE, BUT ARE NOT LIMITED TO; FALL PREVENTION, LADDER SAFETY, SCAFFOLDING, ELECTRICAL HAZARDS, TRENCHING AND EXCAVATION, AND TRIP HAZARDS. ALL JOBSITES WILL REQUIRE COMPLIANCE WITH THE SILICA STANDARD, OSHA 29 CFR 1926.1153.

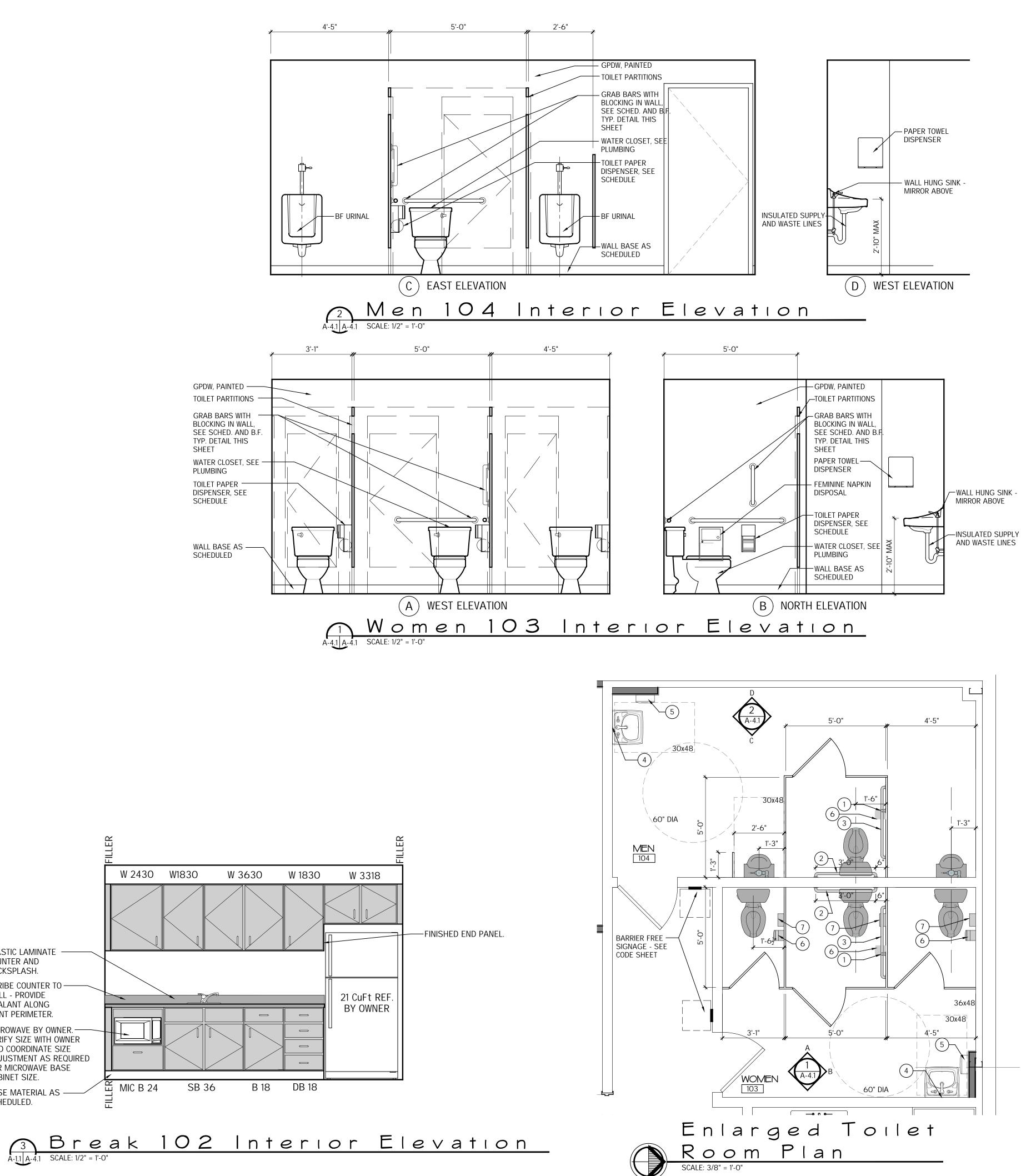
06/22 PERMIT 0/22 REVIEW AND PRICING 0/22 REVISED LAYOUT 3/22 PRELIM LAYOUT TE ISSUED FOR and Ietails — —  $\triangleleft$ 

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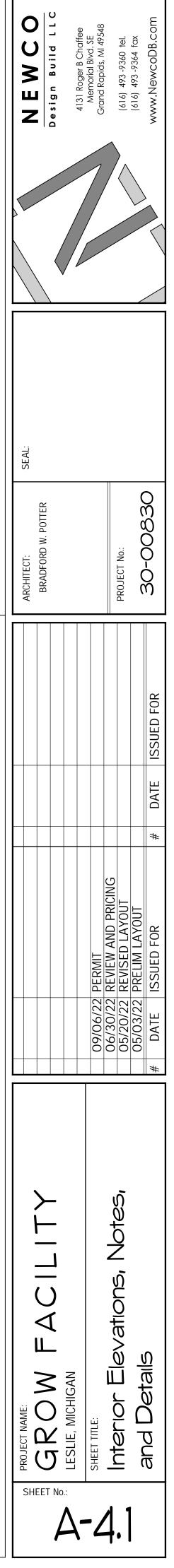


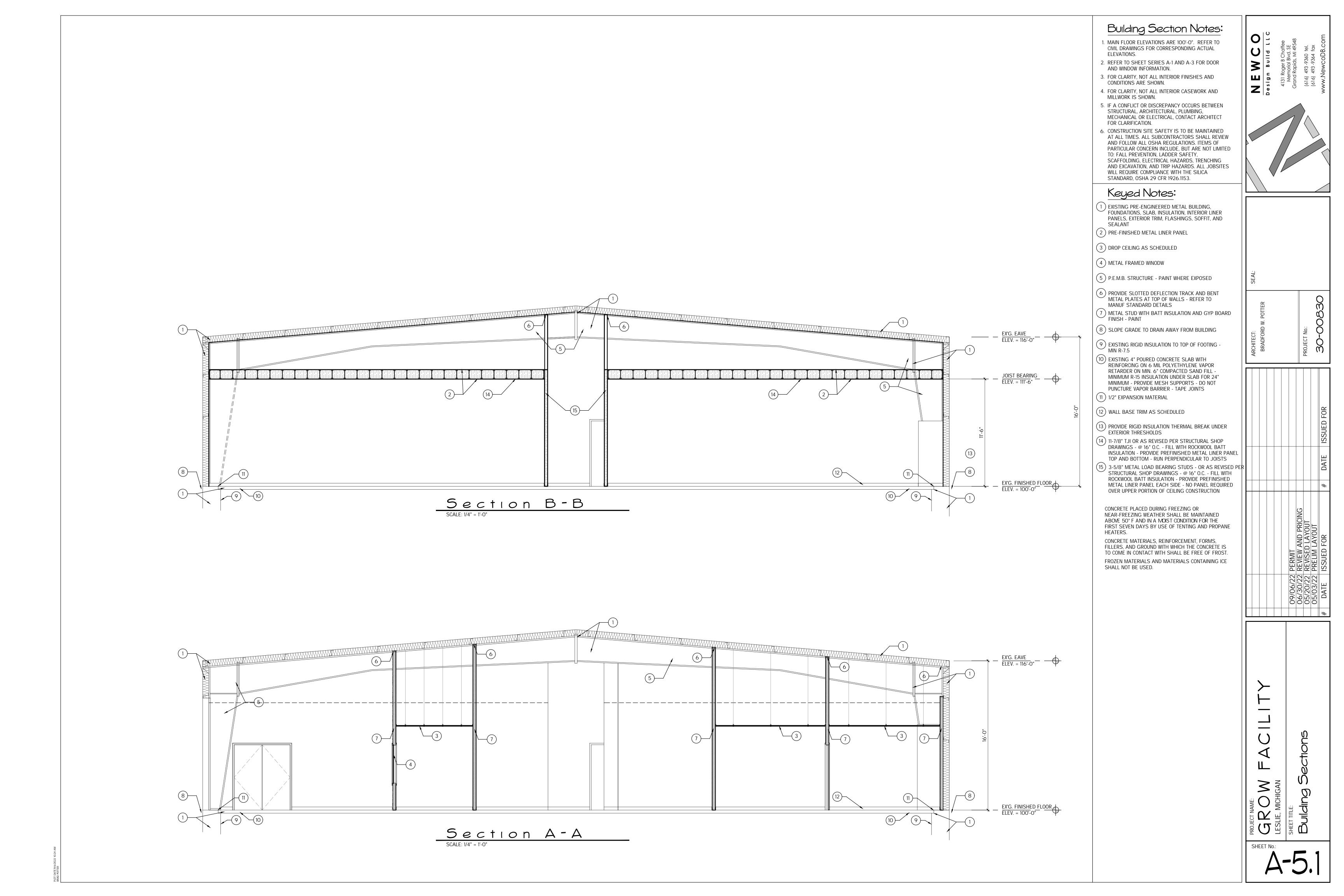


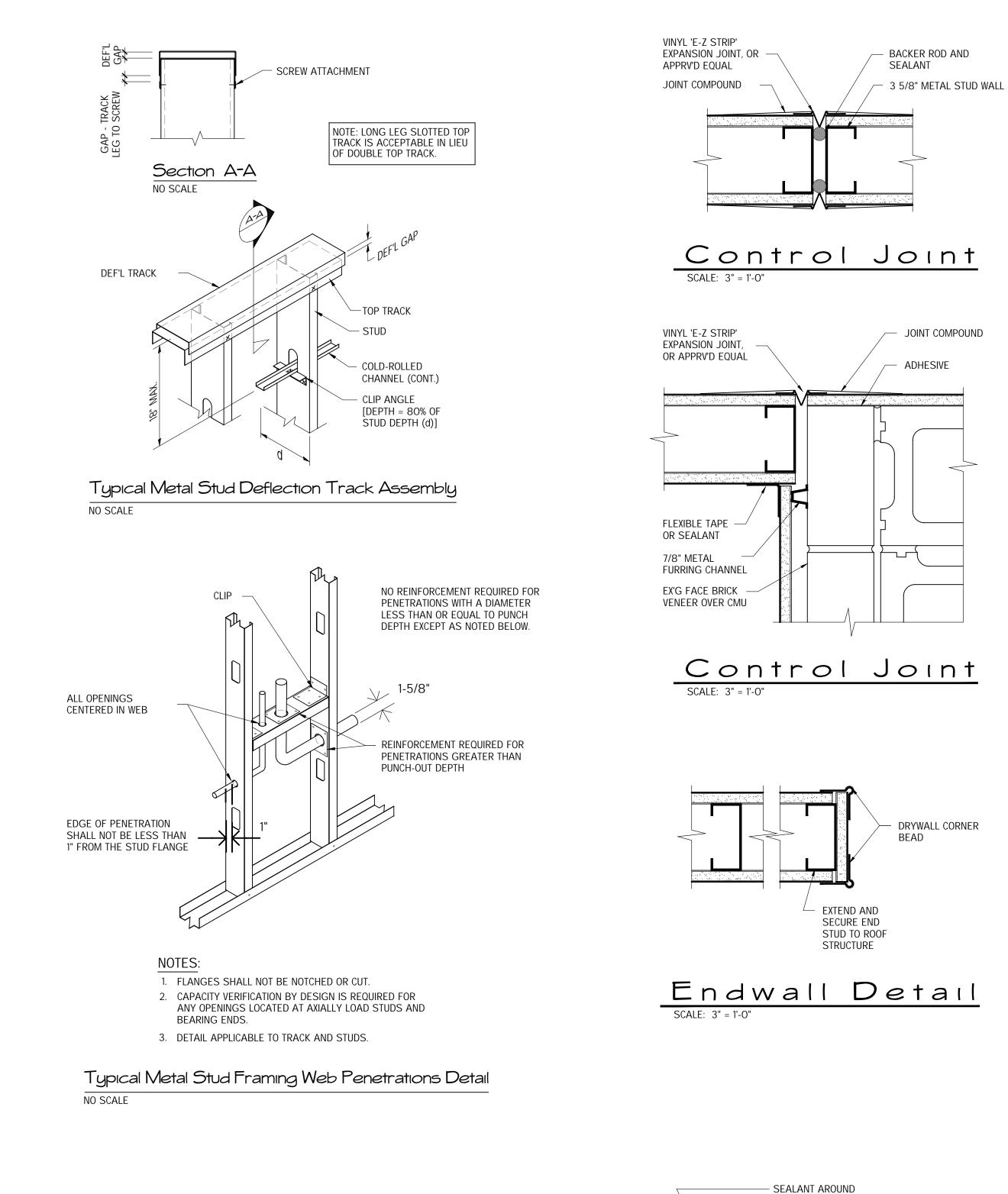


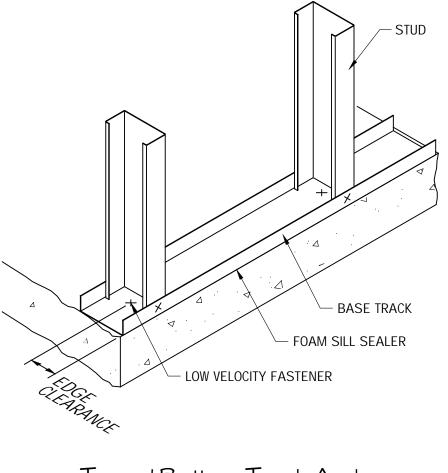
- 1. DIMENSIONS ARE TO INTERIOR FACE OF G.P.D.W. AND TOP OF FINISH FLOOR.
- 2. PROVIDE BLOCKING IN WALL AS REQ'D FOR MILL-WORK AND WALL MOUNTED ACCESSORIES.
- 3. PLUMBING ACCESSORIES SUCH AS GRAB BARS SHALL BE INSTALLED AND SEALED TO PROTECT
- WALL FROM MOISTURE. 4. FIELD VERIFY ALL ROOM CLEAR FINISH DIMENSIONS PRIOR TO FABRICATION OF MILL-WORK.
- 5. MAINTAIN MINIMUM CLEARANCES FROM TOP OF WALL CABINETS AND OPEN SHELVING TO THE UNDERSIDE OF THE FINISH CEILING AT 24" IN NON-SPRINKLERED BUILDINGS AND OF 18" TO BOTTOM OF SPRINKLER HEADS IN SPRINKLERED BUILDINGS.
- 6. PROVIDE SCHEDULED ROOM FLOOR BASE AROUND BOTTOM OF CABINETS UNLESS NOTED OTHERWISE. 7. PROVIDE CASEWORK FILLER PANELS AT ALL
- LOCATIONS OF CASEWORK HAVING DOORS THAT ARE ADJACENT TO WALLS. ALL CASEWORK FILLER PANELS TO MATCH ADJACENT CABINETS. 8. PROVIDE FINISHED END PANELS MATCHING
- ADJACENT CABINETS WHERE CASEWORK ENDS ARE EXPOSED TO VIEW.
- 9. PROVIDE ACCESS FOR PLUMBING IN BASE CABINETS WHERE NECESSARY. COORDINATE WITH PLUMBING REQUIREMENTS.
- 10. BASIS OF DESIGN FOR CASEWORK; MANUFACTURER: MERILLAT DESIGN SERIES: CLASSIC WOOD SPECIES: MAPLE DOOR STYLE: FUSION
- 11. PROVIDE SEALANT AT ALL INTERSECTIONS OF
- MILL-WORK AND COUNTERTOPS TO ADJACENT WALLS. 12. ALL BACKSPLASH AT COUNTERTOPS TO BE 4" HIGH
- U.N.O. AND PROVIDE END RETURNS WHERE COUNTER IS AGAINST AN END WALL. 13. COUNTERTOPS WITHOUT BACKSPLASH TO BE SCRIBED
- TO THE WALL AS REQUIRED FOR TIGHT FIT. 14. REFER TO FINISHES SHEET NOTES FOR ADDITIONAL
- REQUIREMENTS.
- 15. CONSTRUCTION SITE SAFETY IS TO BE MAINTAINED AT ALL TIMES. ALL SUBCONTRACTORS SHALL REVIEW AND FOLLOW ALL OSHA REGULATIONS. ITEMS OF PARTICULAR CONCERN INCLUDE, BUT ARE NOT LIMITED TO; FALL PREVENTION, LADDER SAFETY, SCAFFOLDING, ELECTRICAL HAZARDS, TRENCHING AND EXCAVATION, AND TRIP HAZARDS. ALL JOBSITES WILL REQUIRE COMPLIANCE WITH THE SILICA STANDARD, OSHA 29 CFR 1926.1153.

B. [	Accessories	
SHALL BRADLI	Room accessories where applicable Be Manufactured by ASI, Bobrick, or Ey AS Follows: IMBERS SHOWN - ROVAL SUITE)	
	GRAB BARS 3801x18 (VERTICAL)	
2	3801x36 (HORIZONTAL)	l
3	3801x42 (HORIZONTAL)	l
4	MIRRORS 8287 SERIES W/ BEVELED EDGE	
(5)	TOWEL DISPENSER/DISPOSAL (SURFACE - DISPENSER ONLY) 20210	
6	TOILET PAPER DISPENSER 20030 (DOUBLE)	
	FEMININE NAPKIN DISPOSAL 20852	
	MOP RACK 1308x33 - 3 MOP HOOKS	

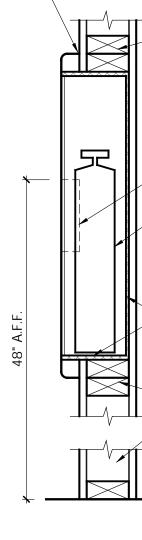




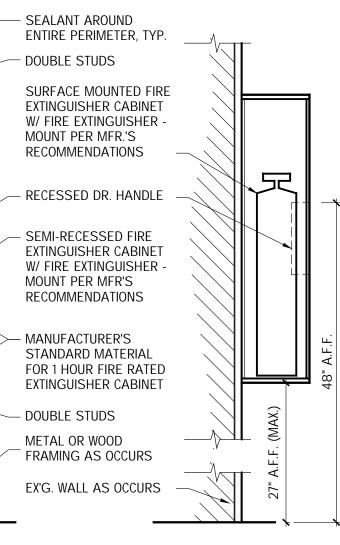




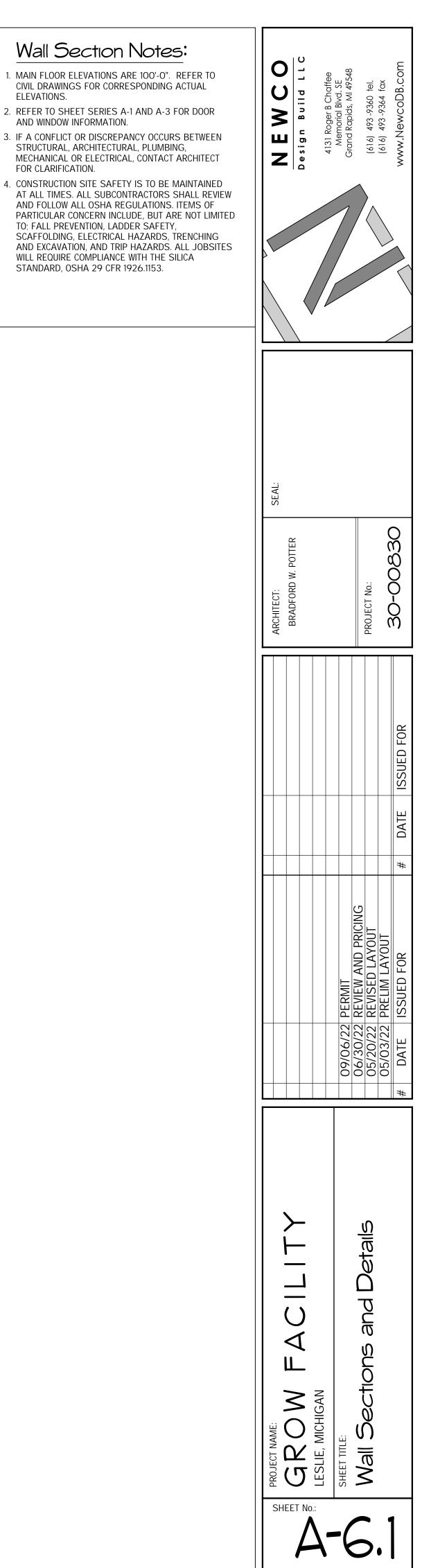




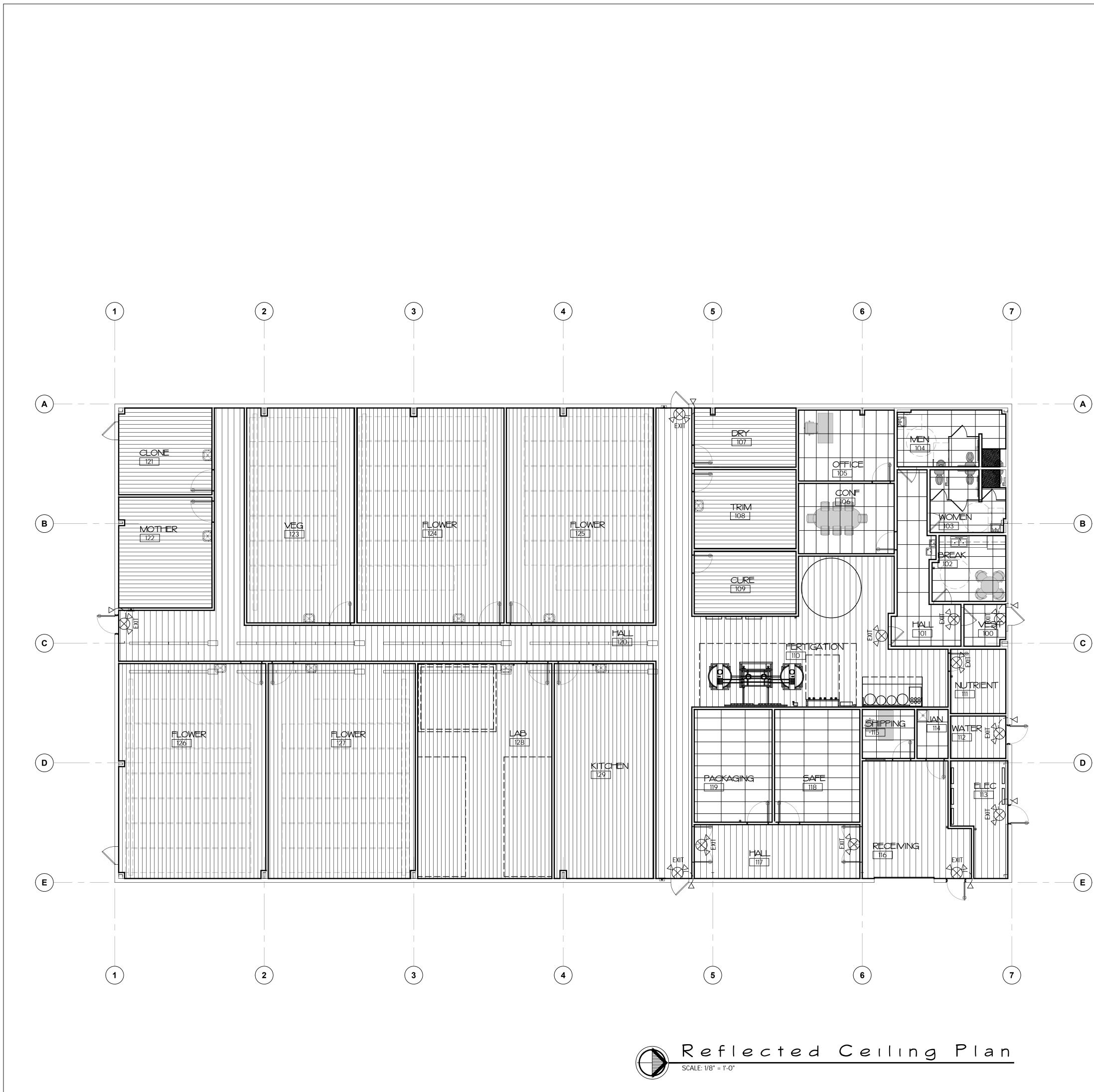
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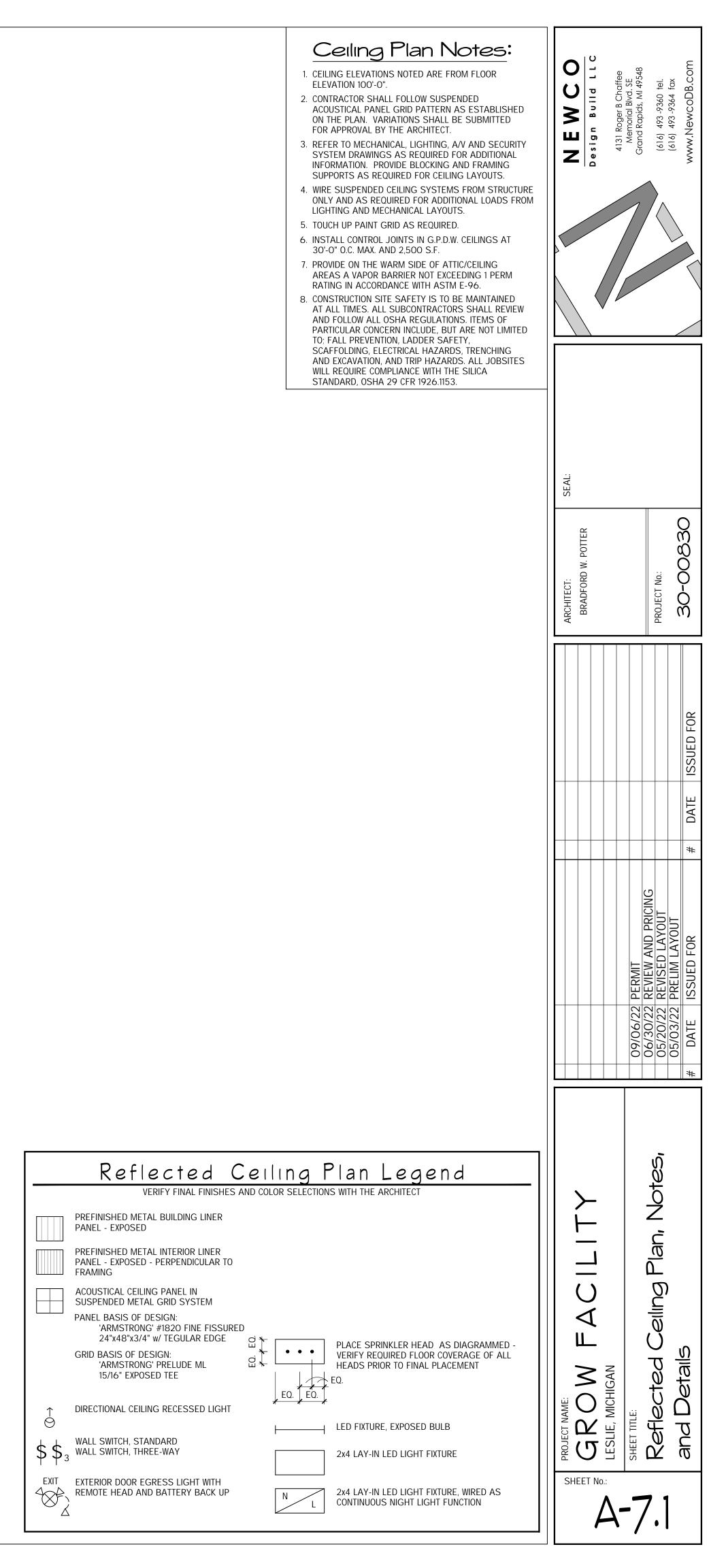






ELEVATIONS.





	F	Roc	n m	Finis	sh.	Sche	e d u	le	EE ALSO REFLECTED CEILING PLAN AND FINISHES SHEET FOR INFORMATION		eviations	INTERIOR WALL AND CEILING FINISHES FO SPRINKLERED, SHALL BE CLASS 'B' FOR ENCLOSURES, 'C' FOR CORRIDORS, AND C
		FLOOR		WALL	5	С	EILINGS		REMARKS	– APG	= ACOUSTICAL PANEL GRID - 2'x4'	FOR ROOMS AND ENCLOSED SPACES. IN WALL AND CEILING FINISHES FOR 'F' USE
	SUBSTRATE		BASE	MATERIAL	FINISH		FINISH	HEIGHT		CPT E, EX, EXG	= CARPET = EXISTING	SPRINKLERED, SHALL BE CLASS 'C' FOR ENCLOSURES, 'C' FOR CORRIDORS, AND C
) VESTIBULE	CONCRETE	LVT	VINYL	G.P.D.W.	PAINT	APG		10'-0"		E, EX, EXG	= EXPOSED	FOR ROOMS AND ENCLOSED SPACES.FLA
HALL	CONCRETE	LVT	VINYL	G.P.D.W.	PAINT	APG		10'-0"	PROVIDE STAINLESS STEEL CLOSET ROD AND WHITE MELAMINE	FRP	<ul><li>FIBER REINF PLASTIC</li><li>GYPSUM DRYWALL</li></ul>	SPREAD INDEX FOR CLASS 'A' IS 0-25, FO 'B' IS 26-75 AND FOR CLASS 'C' IS 76-20
2 BREAK 3 WOMEN'S TOILET	CONCRETE CONCRETE	LVT LVT	VINYL	G.P.D.W. G.P.D.W.	PAINT PAINT	APG APG		9'-0" 9'-0"	M.D.O. SHELF ON CLEATS	GPDW MTL	= GYPSUM DRYWALL = METAL	DEVELOPED INDEX TO MEET O-450. MAT COMPLY WITH ASTM E-84.
3 WOMEN'S TOILET 4 MEN'S TOILET	CONCRETE	LVT	VINYL	G.P.D.W. G.P.D.W.	PAINT	APG		9-0 9'-0"		- PLYWD	= PLYWOOD	
5 OFFICE	CONCRETE	CPT TILE	VINYL	G.P.D.W.	PAINT	APG		9'-0"		PT, PNT V, VYN	= PAINT = VINYL	Floor Finishes Lege
5 CONFERENCE ROOM	CONCRETE	CPT TILE	VINYL	G.P.D.W.	PAINT	APG		9'-0"		LVT	= LUXURY VINYL TILE	REFER TO ADD'L. FINISH NOTES THIS SHEET AND
/ DRY	CONCRETE	SEALER	VINYL	MTL PNL		MTL PNL	PAINT	11'-6"		_ WD	= WOOD	SCHEDULED INFORMATION
TRIM	CONCRETE	SEALER	VINYL	MTL PNL		MTL PNL	PAINT	11'-6"		-		VERIFY FINAL FINISHES COLOR SELECTIONS WITH THE ARCHITECT
CURE	CONCRETE	SEALER	VINYL	MTL PNL		MTL PNL	PAINT	11'-6"		1		
FERTIGATION	CONCRETE	SEALER	VINYL	MTL PNL G.P.D.W.	PAINT	EXP. DECK	PAINT	VARIES				
NUTRIENT	CONCRETE	SEALER	VINYL	G.P.D.W.	PAINT	EXP. DECK	PAINT	VARIES				BASIS OF DESIGN: AS SELECTED BY OWNER
WATER	CONCRETE	SEALER	VINYL	G.P.D.W.	PAINT	EXP. DECK	PAINT	VARIES		1		VINYL WALL BASE - ROPPE OR JOHNSONITE
ELECTRICAL	CONCRETE	SEALER	VINYL	G.P.D.W.	PAINT	EXP. DECK	PAINT	VARIES	*PROVIDE F.R. PLYWD PHONE BACKER			CARPET TILE:
JANITOR	CONCRETE	SEALER	VINYL	G.P.D.W.	PAINT	APG		9'-0"	*PROVIDE F.R.P. AT MOP SINK			ADHESIVE BACKED INSTALLATION
SHIPPING	CONCRETE	SEALER	VINYL	G.P.D.W.	PAINT	APG		9'-0"		1		BASIS OF DESIGN: AS SELECTED BY OWNER
RECEIVING	CONCRETE	SEALER	VINYL	G.P.D.W.	PAINT	EXP. DECK	PAINT	VARIES		4		
HALL	CONCRETE	SEALER	VINYL	G.P.D.W.	PAINT	EXP. DECK	PAINT	VARIES		4		VINYL WALL BASE: ROPPE OR JOHNSONITE
SAFE	CONCRETE	SEALER	VINYL	PLY WOOD	PAINT	APG		12'-0"		4		CONCRETE WITH HARDENER AND SEALER
PACKAGING	CONCRETE	SEALER	VINYL	G.P.D.W.	PAINT	APG		12'-0"				VINYL WALL BASE: ROPPE OR JOHNSONITE
HALL	CONCRETE	SEALER	VINYL	MTL PNL G.P.D.W.	PAINT	EXP. DECK	PAINT	VARIES		4		
CLONE	CONCRETE	SEALER	VINYL	MTL PNL		MTL PNL		11'-6"		_		
MOTHER	CONCRETE	SEALER	VINYL	MTL PNL		MTL PNL		11'-6"		_		
VEG	CONCRETE	SEALER	VINYL	MTL PNL		MTL PNL		11'-6"		4		
FLOWER	CONCRETE	SEALER	VINYL	MTL PNL		MTL PNL		11'-6"		-		
FLOWER	CONCRETE	SEALER	VINYL	MTL PNL		MTL PNL		11'-6"		_		
FLOWER FLOWER	CONCRETE	SEALER	VINYL	MTL PNL		MTL PNL		11'-6" 11'-6"		-		
LAB	CONCRETE CONCRETE	SEALER SEALER	VINYL	MTL PNL MTL PNL		MTL PNL MTL PNL		11-6"		-		
KITCHEN	CONCRETE	SEALER	VINTL	MTL PNL		MTL PNL		11'-6"		-		
	CONCRETE	JLALLIN						11-0		-		
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#### Floor Finishes Notes:

- REFER TO STRUCTURAL DRAWINGS FOR LOCATION OF CONTROL JOINTS IN CONCRETE SLAB. LOCATE THE CONTROL JOINTS OF FINISH MATERIALS OVER SLAB CONTROL JOINTS.
   REMOVE COATINGS AND DEBRIS THAT ARE
- INCOMPATIBLE WITH CARPET ADHESIVES, USING MECH'L. METHODS RECOMMENDED BY CARPET MANUFACTURER. BROOM AND VACUUM CLEAN SUBSTRATES TO BE COVERED IMMEDIATELY BEFORE INSTALLATION OF CARPETING.
- 3. PROVIDE FLOORING MATERIAL CHANGES AND REQ'D. TRANSITION STRIPS BENEATH THE CENTERLINE OF DOOR IN CLOSED POSITION UNLESS DEPICTED OTHERWISE IN PLAN.
- 4. CUT AND FIT CARPET TO BUTT TIGHTLY TO VERTICAL SURFACES, PERMANENT FIXTURES AND BUILT-INS. BIND OR SEAL CUT EDGES AS RECOMMENDED BY MANUFACTURER. DO NOT BRIDGE BUILDING EXPANSION JOINTS WITH CARPET.
- 5. INSTALL METAL EDGE STRIPS WHERE EXPOSED EDGE OF TILE MEETS CARPETING OR OTHER FLOORING THAT FINISHES FLUSH WITH OR BELOW THE TOP OF TILE AND NO THRESHOLD IS INDICATED.
- 6. FOR TILE INSTALLED ON WALK SURFACES, COMPLY WITH 0.60 MIN. STATIC COEFFICIENT OF FRICTION PER ASTM C 1028.
- 7. PROVIDE TILE UNITS COMPLYING WITH ANSI STANDARDS REFERENCED BY THE LATEST T.C.N.A. (TILE COUNCIL OF NORTH AMERICA) INSTALLATION METHODS. TILE SHALL BE CLASS IV PER ASTM C-1027 AND BE FACTORY BLENDED SO TILE UNITS TAKEN FROM ONE PACKAGE SHOW THE SAME RANGE IN COLORS AS THOSE TAKEN FROM OTHER PACKAGES TO MATCH APPROVED SAMPLES. MULTIPLE COLORS AND PATTERNS MAY BE SELECTED.
- 8. PROVIDE TILE TRIM UNITS AS REQUIRED, COORDINATED WITH SIZES AND COURSES OF ADJOINING FLAT TILE. SHAPES MAY INCLUDE BASE (COVED), WAINSCOT CAP (BULLNOSE), EXTERNAL AND INTERNAL CORNERS.
- 9. CENTER TILE PATTERN LAYOUT WITHIN ROOMS FOR BEST APPEARANCE WHEN NOT INDICATED ON PLANS. LAY OUT TILE WORK TO MINIMIZE USE OF PIECES LESS THAN HALF A TILE.
- 10. PROVIDE UNIFORM JOINT WIDTHS UNLESS OTHERWISE INDICATED. USE GROUT WIDTHS AS RECOMMENDED BY THE TILE MANUF. FOR TILE SIZE. COORDINATE GROUT JOINT WIDTHS WITH TILE WHEN DIFFERENT SIZES, COLORS, OR MANUFACTURERS ARE USED. ALIGN JOINTS OF ADJOINING FLOOR AND WALL SURFACES WHERE POSSIBLE.
- 11. TERMINATE TILE WORK NEATLY AT ALL OBSTRUCTIONS, EDGES, AND CORNERS WITHOUT DISRUPTING PATTERN OR JOINT ALIGNMENTS.
- 12. USE GROUT AND TILE CLEANERS AND SEALERS THAT WILL NOT HARM, CHANGE COLOR OF, OR APPEARANCE OF SURFACES.
- 13. PROVIDE EXPANSION JOINTS AND OTHER SEALANT FILLED JOINTS IN TILE WORK INCLUDING CONTROL, CONTRACTION, ISOLATION AND PERIMETER JOINTS. FORM JOINTS DURING INSTALLATION INSTEAD OF SAW-CUTTING AFTER SETTING TILE. SPACE MOVEMENT JOINTS AT 24' MAX. O.C. EACH DIRECTION AT INTERIOR.
- 14. PROVIDE CRACK ISOLATION MEMBRANE COMPLYING WITH ANSI A118.12 FOR STANDARD PERFORMANCE AND IS ALSO RECOMMENDED BY THE MANUFACTURER FOR THE APPLICATION INDICATED. INCLUDE REINFORCEMENT AND ACCESSORIES AS RECOMMENDED.
- 15. PROVIDE WATERPROOF MEMBRANE AT TOILET, SHOWER AND JANITOR ROOMS COMPLYING WITH ANSI A118.10 FOR BOTH STANDARD PERFORMANCE AND IS RECOMMENDED BY THE MANUFACTURER FOR THE APPLICATION INDICATED. INCLUDE REINF. AND ACCESSORIES AS RECOMMENDED.
- 16. DO NOT USE WOOD-BASED PANELS SUCH AS PARTICLE BOARD, COMPOSITE PANELS, OSB, WAFER BOARD, SOFTWOOD PLYWOOD OR SIMILAR PANELS AS BACKING MATERIALS FOR DIRECT BONDING OF CERAMIC FLOOR TILES. PLYWOOD WITH EXPOSURE 1 RATING, CEMENT BOARD, OR COATED GLASS MAT WATER-RESISTANT GYPSUM BOARD IS ACCEPTABLE.
- 17. CARPET INSTALLATION TO BE DIRECT GLUE DOWN METHOD. USE TROWELABLE LEVELING AND PATCHING COMPOUNDS, WATER AND MILDEW RESISTANT NON-STAINING ADHESIVES, AND HOT-MELT SEAM TAPE AS RECOMMENDED BY CARPET MANUFACTURER. MULTIPLE COLORS AND PATTERNS MAY BE SELECTED.
- 18. RESILIENT WALL BASE AND ACCESSORIES TO BE GROUP I: SOLID, HOMOGENEOUS.

-(D)

—(E)

19. JOB FORM RESILIENT WALL BASE CORNERS WITHOUT PRODUCING DISCOLORED BENDS.

 CONTRACTOR TO FIELD VERIFY ALL EXISTING SUBSTRATE CONDITIONS ARE SUITABLE PER EACH FINISH MATERIAL MANUFACTURER'S RECOMMENDATIONS. PROCEED TO CLEAN, LEVEL OR ROUGHEN SUBSTRATES AS REQUIRED.
 USE WATER RESISTANT GPDW IN AREAS EXPOSED TO

General Finishes Notes:

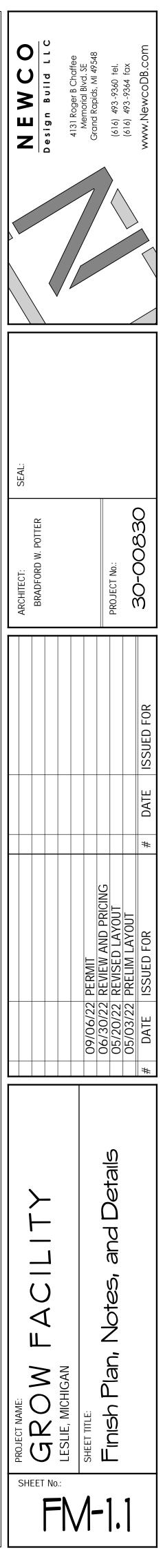
- MOISTURE: SERVICE SINK AREAS, DRINKING FOUNTAINS, WALL MOUNTED LAVATORIES, WATER CLOSET WALLS, AND COUNTER MOUNTED SINKS. INSTALL 4 FEET HIGH AND TO WITHIN 2 FEET OF FIXTURES.
- 3. FOR TILE BACKER, USE CEMENT, FIBER CEMENT, OR GLASS MATT GYPSUM IN TUB AND SHOWER AREAS AND CEILING PANELS OVER SHOWERS. USE A MINIMUM OF WATER RESISTANT GPDW FOR WATER CLOSET WALLS. REGULAR GPDW IS PERMITTED AS A TILE BACKER IN OTHER AREAS WHEN INSTALLED PER GA-216 OR ASTM C 840.
- 4. WHERE GPDW ABUTS DISSIMILAR MATERIAL, PROVIDE CASING BEAD AND CAULK.
- 5. INSTALL CONTROL JOINTS IN GPDW AT 30'-0" MAX. O.C. AND 2,500 S.F. IN CEILINGS.
- GYPSUM BOARD FINISHING: LEVEL 1: CEILING PLENUM AREAS,
- CONCEALED AREAS
- Level 2: Tile Substrate Level 4: Typical for Painted Surfaces
- EXPOSED TO VIEW LEVEL 5: WHERE NOTED ON PLANS FOR

AREAS OF EXPOSURE TO HARSH AND/ OR GRAZED LIGHTING CONDITIONS

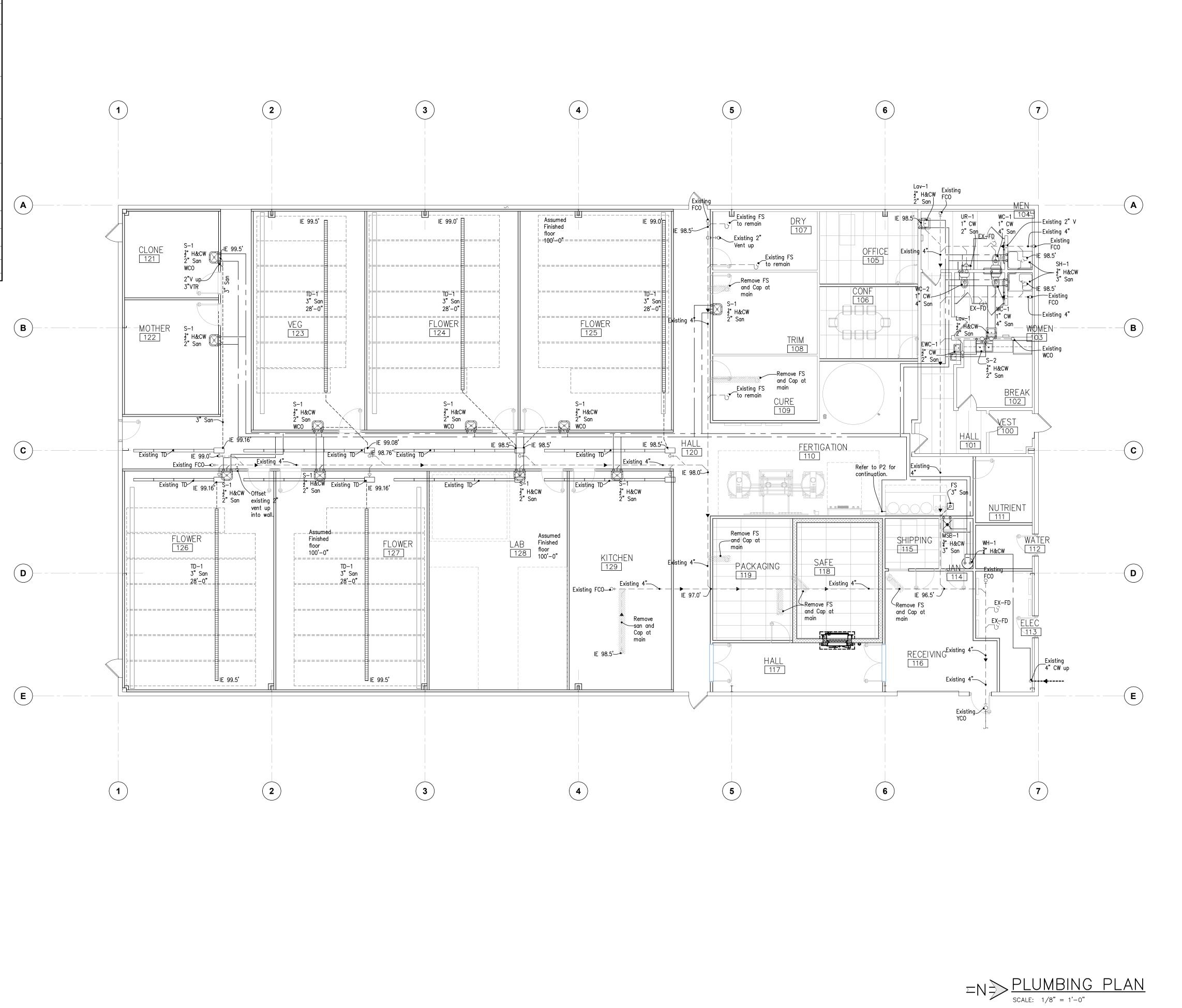
- 7. MASK OFF ADJACENT AREAS AS REQUIRED TO PREVENT CONTACT OF PRIMERS, GLUES OR SEALANTS WITH ADJACENT SURFACES THAT CAN BE DAMAGED OR STAINED BY SUCH CONTACT OR CLEAN-UP WORK.
- 8. CLEAN OUT JOINTS IMMEDIATELY BEFORE INSTALLING JOINT SEALANTS, REMOVING FOREIGN MATERIAL, CONTAMINANTS AND FINISHES THAT COULD AFFECT JOINT SEALANT PERFORMANCE.
- PRIME JOINT SUBSTRATES WHERE RECOMMENDED BY JOINT SEALANT MANUFACTURER, AND APPLY SEALANT BACKINGS AND SEALANT PER THE MANUFACTURER'S RECOMMENDATIONS.
- O. INSTALL SEALANTS TO FULLY WET SURFACES, PRODUCE UNIFORM SHAPES AND DEPTHS, AND TOOL TO FORM A SMOOTH, UNIFORM FINISH. USE TOOLING AGENTS APPROVED BY THE SEALANT MANUFACTURER THAT DO NOT DISCOLOR SEALANTS.
- 11. PROVIDE MEASURES TO ADEQUATELY PROTECT FINISHED SURFACES.
- 12. COORDINATE ALL TRADE WORK TO MINIMIZE INTERFERENCE AND POSSIBILITY FOR DAMAGE. PROTECT AREAS AND FINISH SURFACES OF OTHER TRADES. TOUCH UP, REPAIR OR REPLACE DAMAGED WORK SUCH THAT THERE IS NO VISIBLE EVIDENCE OF CORRECTIVE WORK.
- 13. AT END OF EACH WORKDAY, REMOVE RUBBISH, EMPTY CANS, RAGS, AND OTHER DISCARDED MATERIALS.
- 14. CLEAN AREAS AND SPACES WHERE FINISH WORK IS PERFORMED. COMPLETELY REMOVE PAINT, MORTAR, OILS, PUTTY, SEALANTS AND SIMILAR MATERIALS FROM COMPLETED WORK AND ADJ. SURFACES.
- 5. PROVIDE EXTRA MATERIALS TO OWNER FOR REPAIRS AND MAINTENANCE, IN THE AMOUNT OF 5% FOR EACH MATERIAL'S FINISH AREA. PROVIDE THE ARCHITECT WITH DOCUMENTATION OF OWNER'S RECEIPT.
- 6. CONSTRUCTION SITE SAFETY IS TO BE MAINTAINED AT ALL TIMES. ALL SUBCONTRACTORS SHALL REVIEW AND FOLLOW ALL OSHA REGULATIONS. ITEMS OF PARTICULAR CONCERN INCLUDE, BUT ARE NOT LIMITED TO; FALL PREVENTION, LADDER SAFETY, SCAFFOLDING, ELECTRICAL HAZARDS, TRENCHING AND EXCAVATION, AND TRIP HAZARDS. ALL JOBSITES WILL REQUIRE COMPLIANCE WITH THE SILICA STANDARD, OSHA 29 CFR 1926.1153.

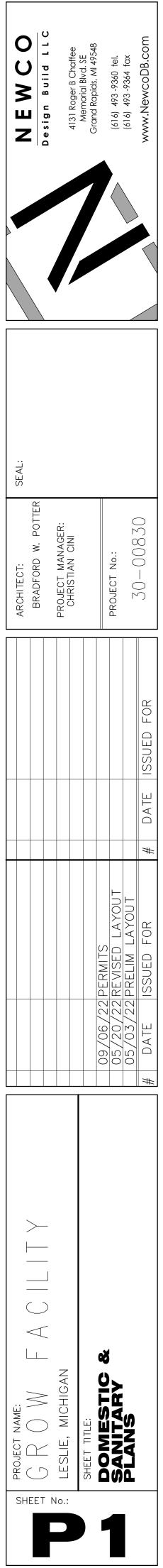
#### Paints and Stains Notes:

- 1. PAINT PREPARATION AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH REQUIREMENTS IN THE LATEST EDITION OF THE 'M.P.I. ARCHITECTURAL AND PAINTING SPECIFICATION MANUAL.'
- PRIME ALL SURFACES SCHEDULED TO RECEIVE PAINT FINISH. USE COLOR-TINT PRIMER WHERE APPROPRIATE
   APPLY BLOCK FILLER AND SEALING PRIMER AT ALL
- CONCRETE MASONRY WALLS SCHEDULED TO RECEIVE PAINT FINISH.
- USE ENAMEL PAINT (OR APPROVED LATEX OF EQUIV. DURABILITY) IN TOILET ROOM AND UTILITY AREAS.
- 5. VERIFY COLOR SELECTIONS AND GLOSS FINISH LEVELS OF PAINT WITH ARCHITECT. MULTIPLE COLORS MAY BE SELECTED.
- 6. USE WOOD FILLER PASTE AS REQUIRED AT WOOD SCHEDULED TO RECEIVE STAIN.
- 7. USE INTERIOR SEMI-TRANSPARENT STAINS ON WOOD SCHEDULED TO RECEIVE STAIN. VERIFY COLOR AND GLOSS FINISH LEVELS OF STAINS AND VARNISHES WITH ARCHITECT. MULTIPLE COLORS MAY BE SELECTED.
- 8. APPLY MINIMUM TWO FINISH COATS OF PAINT. APPLY TO PRODUCE SURFACE FILMS WITHOUT CLOUDINESS, SPOTTING, LAPS, BRUSH MARKS, ROLLER TRACKING, RUNS, SAGS, ROPINESS, OR OTHER SURFACE IMPERFECTIONS. CUT IN SHARP LINES AND COLOR BREAKS.
- 9. IF UNDERCOATS OR OTHER CONDITIONS SHOW THROUGH TOPCOAT, APPLY ADDITIONAL COATS UNTIL CURED FILM HAS A UNIFORM FINISH, COLOR AND APPEARANCE.
- O. MISC. M/P/E ITEMS SUCH AS ELECTRICAL CABINETS AND PANELS, FIRE EXTINGUISHER CABINETS, GRILLES, ETC. TO BE PAINTED TO MATCH AREA INCLUDED WITHIN. IF IN QUESTION, VERIFY WITH ARCHITECT.
- DO NOT REMOVE, DAMAGE, OR PAINT OVER AFFIXED U.L. LABELS ON FIRE RATED ASSEMBLIES.
   AT COMPLETION OF CONSTRUCTION ACTIVITIES,
- TOUCH UP AND RESTORE DAMAGED OR DEFACED FINISHED PAINTED SURFACES.

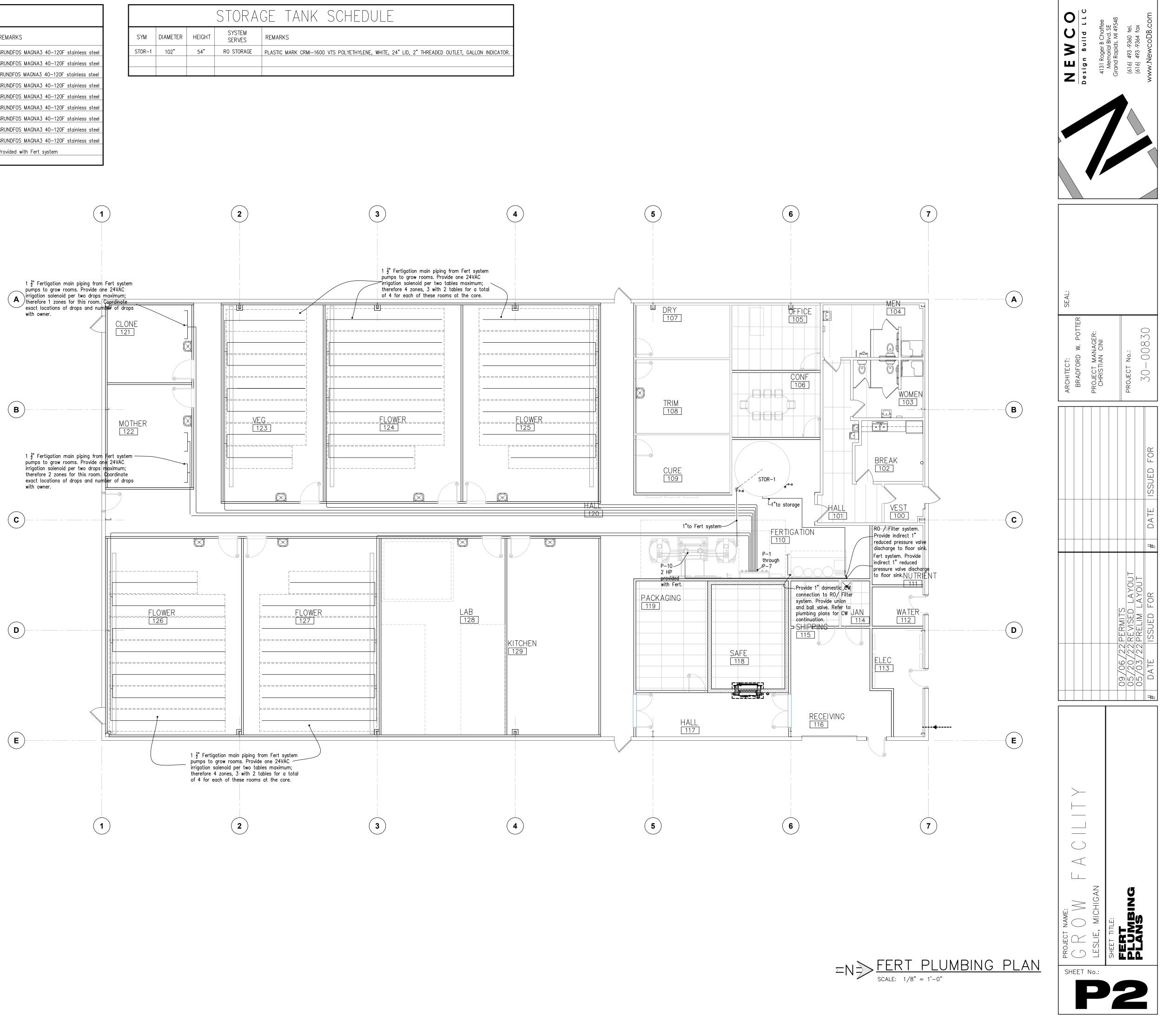


		PLUMBING FIXTURE SCHEDULE
<u> </u>		
Symbol	Model	Notes
WC-1	2257101	American Standard Afwall 1.6 GPF Wall—Mounted top spud Flush Valve type Vitreous China Fixture (ADA) ;Elongated, standard white, elongated toilet seat with stainless steel check hinge; Brass Closet Bolt/Wax Ring Kit, Sloan Regal XL 111—1.6 (1.6 GPF) Flushometer.
WC-2	2257101	American Standard Afwall 1.6 GPF Wall—Mounted top spud Flush Valve type Vitreous China Fixture (ADA) ;Elongated, standard white, elongated toilet seat with stainless steel check hinge; Brass Closet Bolt/Wax Ring Kit, Sloan Regal XL 111—1.6 (1.6 GPF) Sensor Flushometer.
UR-1	6590001	American Standard Washbrook 1.0 GPF Wall—Mounted top spud Flush Valve type Vitreous China Fixture, standard white, Sloan Regal XL 186—0.5 (0.5 GPF) Sensor Flushometer.
LAV-1	0476.028	American Standard white drop in lavatory, 4" centers, grid drain, $1-1/4$ " cast p-trap; wheel handle stop and lavatory supply kit
	7755115	American Standard Polished Chrome 4" centers, sensor 1.5 GPM faucet.
	USG-B-M2	Watts Thermostatic Mixing Valve, Compression, ASSE1070, 4 Port
	102EZ	Truebro white protector kit, p-trap, 2 angle stop supplies, ADA approved.
S–1	CHSB1716C	Elkay stain finish 20GA Stainless Steel 16 $\frac{3}{4}$ " x15 $\frac{1}{2}$ " wall hung sink, grid drain, 1–1/4" cast p-trap; wheel handle stop and lavatory supply kit
	1903-D737-RCF	Chicago faucet, two lever 1.5 GPM faucet with hose connection.
	USG-B	Watts undersink Thermostatic Mixing Valve, Compression, ASSE1070
S-2	DSEJ23322	Elkay 33x22x8 20 gauge Stainless Steel sink, top mount, grid drain, 1—1/4" cast p—trap; wheel handle stop and lavatory supply kit
	400-DST	DELTA Chrome single handle with spray 1.5 GPM faucet.
	USG-B-M2	Watts Thermostatic Mixing Valve, Compression, ASSE1070, 4 Port
SH-1	SH-6036	Oasis Barrier Free white shower
	T13420	DELTA Chrome single handle Tub and shower trim, with slidebar and personal sprayer
	R10000-UN	DELTA universal valve rough body
	D50-134	Square top shower drain
TD-1	ES-WD	Watts 6" wide heavy duty trench drain with Class C grates. Length varies for Flower &Veg
EWC-1	LZSTTL8WSLK	Elkay bi-level pushbar activated water cooler.
HB-1	B67	Woodford wall mounted freezeless covered hydrant.
WH-1	D-100S-199-3N	Bradford White 100 gallon, 199,000 btu/hr gas water heater.





			PU	MP SCHI	EDL	ILE		
SYM	GPM	HEAD	SYSTEM SERVES	EQUIPEMENT SERVED	WATT	V	ø	REMARKS
P-1	30	35'	Fert to Grow	control valves at grow	440	240	1	GRUNDFOS MAGNA3 40–120F stainless steel
P-2	30	35'	Fert to Grow	control valves at grow	440	240	1	GRUNDFOS MAGNA3 40—120F stainless steel
P-3	30	35'	Fert to Grow	control valves at grow	440	240	1	GRUNDFOS MAGNA3 40-120F stainless steel
P-4	30	35'	Fert to Grow	control valves at grow	440	240	1	GRUNDFOS MAGNA3 40-120F stainless steel
P-5	30	35'	Fert to Grow	control valves at grow	440	240	1	GRUNDFOS MAGNA3 40—120F stainless steel
P-6	30	35'	Fert to Grow	control valves at grow	440	240	1	GRUNDFOS MAGNA3 40—120F stainless steel
P-7	30	35'	Fert to Grow	control valves at grow	440	240	1	GRUNDFOS MAGNA3 40—120F stainless steel
P-8	25	35'	Tank base to Fert	Storage tank	440	240	1	GRUNDFOS MAGNA3 40-120F stainless steel
P-9	20	25'	Turnover of storage	Storage tank	180	240	1	GRUNDFOS MAGNA3 40—120F stainless steel
P-10	x	x	Base of Fert	Fert	2 HP	240	1	Provided with Fert system



			STORA	GE TANK SCHEDULE
YM	DIAMETER	HEIGHT	SYSTEM SERVES	REMARKS
OR-1	102"	54"	RO STORAGE	PLASTIC MARK CRMI-1600 VTS POLYETHYLENE, WHITE, 24" LID, 2" THREADED OUTLET, GALLON INDICATOR.

		ESP	С	OOLIN	3	HEATING		
Symbol	CFM	(in)	MBH	LDB	LWB	INPUT(MBH)	Voltage/ phase	Model/ Remarks
FCU-1A	1600	0.7	47	55	54	45	120/single	Fujitsu model FH4821TTS
FCU-1B	1600	0.7	47	55	54	45	120/single	Fujitsu model FH4821TTS
FCU-1C	1600	0.7	47	55	54	45	120/single	Fujitsu model FH4821TTS
FCU-2A	1600	0.7	47	55	54	45	120/single	Fujitsu model FH4821TTS
FCU-2B	1600	0.7	47	55	54	45	120/single	Fujitsu model FH4821TTS
FCU-2C	1600	0.7	47	55	54	45	120/single	Fujitsu model FH4821TTS
FCU-3A	1600	0.7	47	55	54	45	120/single	Fujitsu model FH4821TTS
FCU-3B	1600	0.7	47	55	54	45	120/single	Fujitsu model FH4821TTS
FCU-3C	1600	0.7	47	55	54	45	120/single	Fujitsu model FH4821TTS
FCU-4A	1600	0.7	47	55	54	45	120/single	Fujitsu model FH4821TTS
FCU-4B	1600	0.7	47	55	54	45	120/single	Fujitsu model FH4821TTS
FCU-4C	1600	0.7	47	55	54	45	120/single	Fujitsu model FH4821TTS
FCU-5A	1600	0.7	47	55	54	45	120/single	Fujitsu model FH4821TTS
FCU-5B	1600	0.7	47	55	54	45	120/single	Fujitsu model FH4821TTS
FCU-5C	1600	0.7	47	55	54	45	120/single	Fujitsu model FH4821TTS
FCU-6	659	0.2	22	55	54	25.2	240/ single	Fujitsu model ASU24RLXFWH
FCU-7A	659	0.2	22	55	54	25.2	240/ single	Fujitsu model ASU24RLXFWH
FCU-7B	659	0.2	22	55	54	25.2	240/ single	Fujitsu model ASU24RLXFWH
FCU-8A	1900	0.7	50	55	54	50	120/single	Fujitsu model FH6024TTS
FCU-8B	1900	0.7	50	55	54	50	120/single	Fujitsu model FH6024TTS
FCU-9	542	0.2	18	55	54	21.6	240/ single	Fujitsu model ASU18RLF
FCU-10	659	0.2	22	55	54	25.2	240/ single	Fujitsu model ASU24RLXFWH
FCU-11	542	0.2	18	55	54	21.6	240/ single	Fujitsu model ASU18RLF
FCU-12	542	0.2	18	55	54	21.6	240/ single	Fujitsu model ASU18RLF

1. ACCU-1A, B, C each equal to FO4815RSC, 230V, 3ø,30MOP, 21 MCA. 2. ACCU-2A, B, C each equal to FO4815RSC, 230V, 3ø,30MOP, 21 MCA. 3. ACCU-3A, B, C each equal to F04815RSC, 230V, 3Ø,30MOP, 21 MCA. 4. ACCU-4A, B, C each equal to F04815RSC, 230V, 30,30MOP, 21 MCA. 5. ACCU-5A, B, C each equal to FO4815RSC, 230V, 30,30MOP, 21 MCA. 6. ACCU-6 is equal to AOU24RLXFWH, 240V, 10, 18MCA, 20 amp circuit breaker. 7. ACCU-7A and 7B each equal to AOU24RLXFWH, 240V, 10, 18MCA, 20 amp circuit breaker.

8. ACCU-8A & 8B each equal to FO6015RSC, 230V, 30,35MOP, 21 MCA. 9. ACCU-9 equal to AOU18RLXFW1, 240V, 17MCA, 20 amp circuit breaker. 10. ACCU-10 equal to AOU24RLXFWH, 240V, 1ø, 18MCA, 20 amp circuit breaker. 11. ACCU-11 equal to AOU18RLXFW1, 240V, 17MCA, 20 amp circuit breaker. 12. ACCU-12 equal to AOU18RLXFW1, 240V, 17MCA, 20 amp circuit breaker.

13. Field verify location of wired control panel. 14. Field verify exact conditions for proper service clearance.

15. MC to provide disconnects for FCUs and ACCUs. Typical all units.

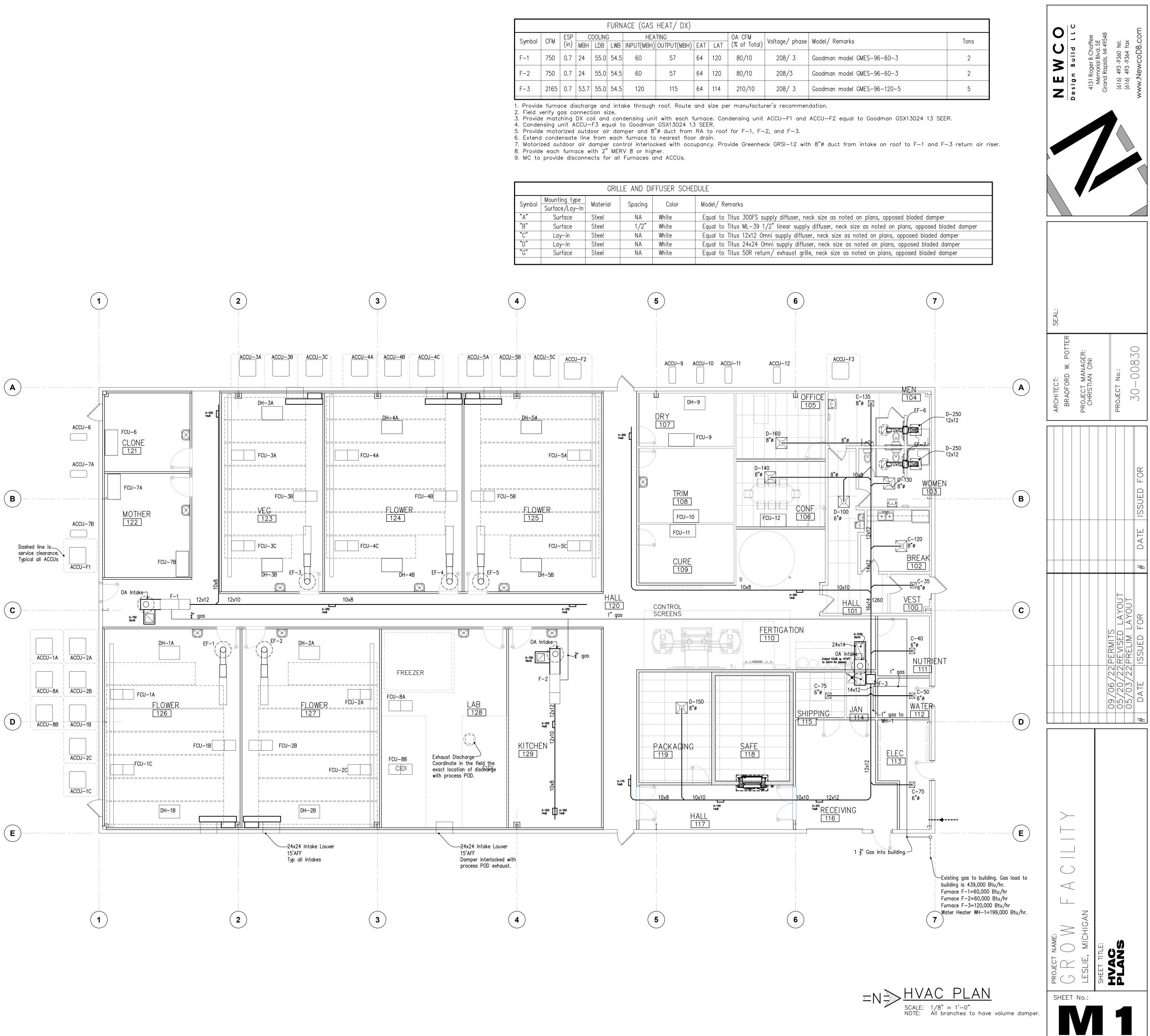
		D	EHUMIDIF	IERS	
Symbol	CFM	PINT (Day)	Amp draw	Voltage/ phase	Model/ Remarks
DH-1A	1480	506	10.2	240/1	Quest model 506
DH-1B	1480	506	10.2	240/1	Quest model 506
DH-2A	1480	506	10.2	240/1	Quest model 506
DH-2B	1480	506	10.2	240/1	Quest model 506
DH-3A	526	225	6.9	240/ 1	Quest model 225
DH-3B	526	225	6.9	240/1	Quest model 225
DH-4A	1480	506	10.2	240/1	Quest model 506
DH-4B	1480	506	10.2	240/1	Quest model 506
DH-5A	1480	506	10.2	240/1	Quest model 506
DH-5B	1480	506	10.2	240/1	Quest model 506
DH-9	526	225	6.9	240/1	Quest model 225

1. MC to provide disconnects for all Dehumidifiers.

	EXHAUST FAN SCHEDULE									
Symbol	CFM	ESP (in)	RPM	Voltage/ phase	Watt	Model/ Remarks				
EF-1	1010	0.5	2990	120/ single	228	Equal to Can-Fan Max 10"				
EF-2	1010	0.5	2990	120/ single	228	Equal to Can-Fan Max 10"				
EF-3	660	0.5	3250	120/ single	179	Equal to Can-Fan Max 8"				
EF-4	1010	0.5	2990	120/ single	228	Equal to Can-Fan Max 10"				
EF-5	1010	0.5	2990	120/ single	228	Equal to Can-Fan Max 10"				
EF-6	250	0.2	900	120/ single	83	Equal to Greenheck CSP-A250				
EF-7	250	0.2	900	120/ single	83	Equal to Greenheck CSP-A250				
1. EFs to	be pro	ovided	with ro	oof discharge eq	ual to G	reenheck GRSR-16				

2. EFs to be provided with carbon filter equal to Can-filter 125 on intake. 3. EFs to be interlocked with intake louver.

4. EF-6 and EF-7 each to be interlocked with wall mounted occupancy switch.
5. MC to provide disconnect switches for all units.



					FURN	ACE (GAS	HEAT/ DX)						
Symbol	CFM	ESP (in)	C MBH	oolin( LDB			TING OUTPUT(MBH)	FΔT	ΙΔΤ	OA CFM (% of Total)	Voltage/ phase	Model/ Remarks	Tons
	75.0					,				, ,			
F-1	750	0.7	24	55.0	54.5	60	57	64	120	80/10	208/ 3	Goodman model GMES-96-60-3	2
F-2	750	0.7	24	55.0	54.5	60	57	64	120	80/10	208/3	Goodman model GMES-96-60-3	2
F-3	2165	0.7	53.7	55.0	54.5	120	115	64	114	210/10	208/ 3	Goodman model GMES-96-120-5	5

		GRIL	le and di	FFUSER SCHE	DULE
Symbol	Mounting type Surface/Lay-In	Material	Spacing	Color	Model/ Remarks
"A"	Surface	Steel	NA	White	Equal to Titus 300FS supply diffuser, neck size as noted on plans, opposed bladed damper
"B"	Surface	Steel	1/2"	White	Equal to Titus ML-39 1/2" linear supply diffuser, neck size as noted on plans, opposed bladed damper
"C"	Lay—in	Steel	NA	White	Equal to Titus 12x12 Omni supply diffuser, neck size as noted on plans, opposed bladed damper
"D"	Lay—in	Steel	NA	White	Equal to Titus 24x24 Omni supply diffuser, neck size as noted on plans, opposed bladed damper
"G"	Surface	Steel	NA	White	Equal to Titus 50R return/ exhaust grille, neck size as noted on plans, opposed bladed damper

- 1. ALL MATERIALS AND WORKMANSHIP SHALL COMPLY WITH ALL APPLICABLE CODES, SPECIFICATIONS, LOCAL ORDINANCES, INDUSTRY STANDARDS AND UTILITY COMPANY REGULATIONS.
- 2. IN CASE OF DIFFERENCE BETWEEN BUILDING CODES, SPECIFICATIONS, STATE LAWS, LOCAL ORDINANCES, INDUSTRY STANDARDS, UTILITY COMPANY REGULATIONS AND CONTRACT DOCUMENTS, THE MOST STRINGENT SHALL GOVERN. CONTRACTOR SHALL PROMPTLY NOTIFY OWNER IN WRITING OF ANY SUCH DIFFERENCE.
- 3. NON-COMPLIANCE: SHOULD CONTRACTOR PERFORM ANY WORK THAT DOES NOT COMPLY WITH REQUIREMENTS OF APPLICABLE BUILDING CODES, STATE LAWS, LOCAL ORDINANCES, INDUSTRY STANDARDS AND UTILITY COMPANY REGULATIONS, HE SHALL BEAR ALL COSTS ARISING IN CORRECTING THE DEFICIENCIES.
- 4. APPLICABLE CODES AND STANDARDS SHALL INCLUDE ALL STATE LAWS, LOCAL ORDINANCES, UTILITY COMPANY REGULATIONS AND APPLICABLE REQUIREMENTS OF MICHIGAN BUILDING CODE, MICHIGAN PLUMBING CODE, MICHIGAN DEPARTMENT OF FIRE AND BUILDING SERVICES.
- 5. EXCEPT AS OTHERWISE SPECIFIED HEREIN, ALL PIPING WORK AND MATERIAL ARE TO CONFORM TO THE AMERICAN STANDARDS ASSOCIATION CODE FOR PRESSURE PIPING.
- 6. ALL UNFIRED PRESSURE VESSELS FURNISHED AND INSTALLED UNDER THIS CONTRACT ARE TO CONFORM TO ALL REQUIREMENTS OF CURRENT EDITION OF STATE OF MICHIGAN RULES AND REGULATIONS FOR BOILERS AND UNFIRED PRESSURE VESSELS. COPIES OF ALL CERTIFICATES OF TESTS AND CONSTRUCTION AS REQUIRED BY THIS CODE TO BE TURNED OVER TO OWNER.
- 7. PERMITS: CONTRACTOR SHALL PAY FOR ALL BUILDING PERMITS REQUIRED BY WORK AND PERMITS FOR OPENING STREETS AND FOR CONNECTION TO VARIOUS UTILITIES, INCLUDING FEES FOR WATER METER INSTALLATION AND ANY OTHER REQUIREMENTS NECESSARY TO CARRY OUT HIS WORK. WHERE STREETS OR SIDEWALKS ARE CUT, SAME MUST BE REPAIRED TO AT LEAST AS GOOD A CONDITION AS THEY WERE BEFORE, ALL AT EXPENSE OF THIS CONTRACTOR. PERMITS SHALL BE POSTED IN PROMINENT PLACE AT BUILDING SITE PROPERLY PROTECTED FROM WEATHER AND PHYSICAL DAMAGE.

<u>GUARANTEE</u>

- 1. CONTRACTOR SHALL, BY ACCEPTING THESE DRAWINGS AND SPECIFICATIONS, GUARANTEE THE FOLLOWING:
- 2. HE WILL FURNISH ALL MATERIAL AND EQUIPMENT AS SPECIFIED EXCEPT WHERE SPECIFIC APPROVAL IS GIVEN BY ENGINEER FOR SUBSTITUTION.
- 3. ALL MATERIAL AND EQUIPMENT WILL BE INSTALLED SUBSTANTIALLY AS SHOWN ON DRAWINGS AND AS REQUIRED WITHIN INTENT OF THESE SPECIFICATIONS.
- 4. ALL EQUIPMENT, PIPING, ETC., WILL BE DRIPTIGHT, AIRTIGHT, FREE OF VIBRATION, POUNDING AND OTHER OBJECTIONABLE NOISES.
- 5. ALL EQUIPMENT, ACCESSORIES AND MATERIAL FURNISHED BY HIM, INCLUDING INSTALLATION, PIPE JOINTS, ETC., FURNISHED AND/OR DONE BY HIM FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE AGAINST ALL DEFECTS IN MATERIAL AND WORKMANSHIP
- 6. IF ANY EQUIPMENT, MATERIAL AND/OR PIPE JOINTS, CONNECTIONS, ETC., FAILS OR DOES NOT OPERATE SATISFACTORILY OR SHOWS UNDUE WEAR, HE WILL, UPON BEING NOTIFIED, IMMEDIATELY REMEDY DEFECT AT HIS OWN EXPENSE. WORK AND WORKMANSHIP
- 1. PROVIDE ALL REQUIRED LABOR, MATERIALS, EQUIPMENT AND CONTRACTOR'S SERVICES NECESSARY FOR COMPLETE INSTALLATION OF SYSTEMS REQUIRED IN FULL CONFORMITY WITH REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION, ALL AS INDICATED ON DRAWINGS AND HEREIN SPECIFIED.
- 2. FINISHED JOB SHALL BE FUNCTIONAL AND COMPLETE IN EVERY DETAIL, INCLUDING ANY AND ALL SUCH ITEMS REQUIRED FOR A COMPLETE SYSTEM WHETHER OR NOT THESE ITEMS BE SPECIFIED OR SHOWN ON DRAWINGS.
- 3. SPECIAL ATTENTION SHALL BE GIVEN TO ACCESSIBILITY OF WORKING PARTS AND CONTROLLING PARTS. ADJUSTABLE PARTS SHALL BE WITHIN EASY REACH. REMOVABLE PARTS SHALL HAVE SPACE FOR REMOVAL.
- 4. EACH CONTRACTOR SHALL ACQUAINT HIMSELF WITH DETAILS OF ALL WORK TO BE PERFORMED BY OTHER TRADES AND TAKE NECESSARY STEPS TO INTEGRATE AND COORDINATE HIS WORK WITH OTHER TRADES.
- 5. IIT IS ASSUMED THE CONTRACTOR IS FAMILAR WITH STANDARD 1ST CLASS INSTALLATION PROCEDURES. THEREFORE, THESE SPECIFICATIONS DO NOT ATTEMPT TO INCLUDE EVERY DETAIL OR OPERATION NECESSARY FOR THE COMPLETE INSTALLATION.
- 6. IIT SHOULD BE PARTICULARLY NOTED THAT THE TERMS "FURNISH" AND "PROVIDE" ARE INTERCHANGEABLE AND THAT EACH OF THESE MEANS TO PROVIDE, INSTALL AND CONNECT, UNLESS OTHERWISE STATED.
- 7. WHENEVER TABLES OR SCHEDULES SHOW QUANTITY OF MATERIALS, THEY SHALL NOT BE USED AS A GUIDE TO CONTRACTOR. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR FURNISHING ALL MATERIALS NOTED ON DRAWINGS AS SPECIFIED.
- 8. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION, SAFE-KEEPING AND CLEANLINESS OF ALL EXISTING EQUIPMENT, MATERIAL, ETC., LOCATED IN SPACES TO BE REMODELED IN WHICH HE IS WORKING. AS PART OF HIS RESPONSIBILITY, HE SHALL PROVIDE NECESSARY COVERS. STRUCTURES, ETC., AS REQUIRED TO KEEP ALL DIRT. WATER. MOISTURE AND DUST FROM EQUIPMENT. METHOD THE CONTRACTOR PROPOSES TO USE IN PROTECTING EQUIPMENT SHALL BE COORDINATED WITH ENGINEER AND OWNER'S REPRESENTATIVE FOR APPROVAL BEFORE ANY WORK IS STARTED. ANY DAMAGE SUSTAINED DURING CONSTRUCTION SHALL BE CORRECTED OR REPLACED BY CONTRACTOR.
- 9. MECHANICAL INSTALLATIONS: COORDINATE MECHANICAL EQUIPMENT AND MATERIALS INSTALLATION WITH OTHER BUILDING COMPONENTS. VERIFY ALL DIMENSIONS BY FIELD MEASUREMENTS. WHERE MOUNTING HEIGHTS ARE NOT DETAILED OR DIMENSIONED, INSTALL MECHANICAL SERVICES AND OVERHEAD EQUIPMENT TO PROVIDE THE MAXIMUM HEADROOM POSSIBLE. INSTALL MECHANICAL EQUIPMENT TO FACILITATE MAINTENANCE AND REPAIR OR REPLACEMENT OF EQUIPMENT COMPONENTS. AS MUCH AS PRACTICAL, CONNECT EQUIPMENT FOR EASE OF DISCONNECTING, WITH MINIMUM OF INTERFERENCE WITH OTHER INSTALLATIONS, COORDINATE THE INSTALLATION OF MECHANICAL MATERIALS AND EQUIPMENT ABOVE CEILINGS WITH SUSPENSION SYSTEM, LIGHT FIXTURES, AND OTHER INSTALLATIONS. INSTALL EQUIPMENT IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS.
- 10.0PERATION AND MAINTENANCE DATA: MANUFACTURER'S PRINTED OPERATION PROCEDURES TO INCLUDE START-UP, BREAK-IN, ROUTINE, NORMAL, SUMMER AND WINTER OPERATION INSTRUCTIONS; REGULATION, CONTROL, STOPPING, SHUT-DOWN, AND EMERGENCY INSTRUCTIONS. PROCEDURES FOR ROUTINE PREVENTATIVE MAINTENANCE AND TROUBLESHOOTING; DISASSEMBLY, REPAIR, AND REASSEMBLY; ALIGNING AND ADJUSTING INSTRUCTIONS; TRAIN OWNER'S PERSONNEL ON PROCEDURES FOR STARTING, STOPPING, TROUBLESHOOTING, SERVICING, AND MAINTAINING EQUIPMENT. TURN OVER TO THE OWNER.
- 11.RECORD DRAWINGS: THE CONTRACTOR SHALL KEEP A RUNNING RECORD OF EACH CHANGE AND DEVIATION FROM THE DRAWINGS. UPON THE COMPLETION OF THE PROJECT. THE CONTRACTOR SHALL SUBMIT ONE COMPLETE SET OF CLEAN DRAWINGS. NEATLY SHOWING DEVIATIONS FROM THE CONTRACT DOCUMENTS WITH DIMENSIONS SHOWING THE EXACT LOCATION OF CONCEALED OR INACCESSIBLE PIPING, DUCTS, ETC. ASSIGNMENT OF MISCELLANEOUS WORK
- 1. LINTELS REQUIRED BY MECHANICAL CONTRACTOR SHALL BE FURNISHED BY MECHANICAL CONTRACTOR. CONTRACTOR SHALL NOTIFY GENERAL CONTRACTOR OF CORRECT SIZE AND LOCATIONS FOR ALL LINTELS PRIOR TO WALL CONSTRUCTION.
- 2. PAINTING: MECHANICAL CONTRACTOR WILL PROVIDE PRIME PAINTING ON ALL FERROUS METALS SUCH AS SUPPORT STEEL OR HANGERS FOR MECHANICAL PIPING AND EQUIPMENT. PIPING IS NOT TO BE PRIMED. ANY FINISH PAINTING REQUIRED, INCLUDING PAINTING OF PIPING AND STEEL EXPOSED TO OUTSIDE ENVIRONMENT WILL BE PAINTED BY MECHANICAL CONTRACTOR.
- 3. PLATFORMS AND SUPPORTING STANDS: FOR MECHANICAL EQUIPMENT SHALL BE FURNISHED BY MECHANICAL CONTRACTOR UNLESS NOTED OTHERWISE.
- 4. HOLES THRU STRUCTURAL: HOLES REQUIRED FOR PIPING OR DUCTWORK OF SIZE 5" OR SMALLER SHALL BE CUT IN FIELD AT EXPENSE OF MECHANICAL CONTRACTOR. OWNER SHALL BE GIVEN APPROVAL PRIOR TO ANY CUTTING. ALL LARGER HOLES SHALL BE PROVIDED BY OTHERS, WITH LOCATION APPROVAL FROM STRUCTURAL FNGINFFR

- 5. CUTTING AND PATCHING: MECHANICAL CONTRACTOR SHALL CUT AND PATCH FINISHED AREAS AS REQUIRED BY MECHANICAL CONTRACTOR. CUT STRUCTURAL MATERIALS WHERE REQUIRED AFTER APPROVAL FROM ARCHITECT AND STRUCTURAL ENGINEER. MECHANICAL CONTRACTOR SHALL CUT AND PATCH FINISHED AREAS AND BACKCHARGE CONTRACTOR REQUIRING THE WORK. IN ABSENCE OF GENERAL CONTRACTOR, EACH CONTRACTOR SHALL DO HIS OWN CUTTING AND PATCHING.
- 6. EXISTING EQUIPMENT WHICH IS TO BE REMOVED, SHALL REMAIN PROPERTY OF OWNER AND BE STORED BY CONTRACTOR AS DIRECTED BY OWNER. 7. DUST PROTECTION: TEMPORARY PARTITIONS OR BARRIERS REQUIRED TO PROTECT
- EXISTING BUILDING OR FACILITIES SHALL BE PROVIDED BY MECHANICAL CONTRACTOR. MECHANICAL CONTRACTOR SHALL COORDINATE NECESSITY AND LOCATION OF SUCH PROTECTION WITH OWNER.
- 8. ROOF OPENINGS AND FLASHING REQUIRED BY MECHANICAL CONTRACTOR SHALL BE BY MECHANICAL CONTRACTOR. MECHANICAL CONTRACTOR IS RESPONSIBLE FOR CORRECT SIZE AND LOCATION OF SAME. COUNTERFLASHING BY MECHANICAL CONTRACTOR. 10. SANITARY VENT PANS AND FLASHING BY PLUMBING CONTRACTOR.
- 11. ROOF CURBS AND BASES FOR VENTILATORS, ROOF INTAKES AND RELIEF AND FANS SHALL BE FURNISHED BY MECHANICAL CONTRACTOR. SHOP DRAWING
- 1. COMPLETE SCHEDULE OF EQUIPMENT, ETC., PROPOSED FOR INSTALLATION SHALL BE SUBMITTED FOR APPROVAL BEFORE ORDERS ARE PLACED.
- 2. SIX COPIES OF SHOP DRAWINGS SHALL BE REQUIRED WITHIN 30 DAYS OF AWARD ON CONTRACT AND SHALL INCLUDE CATALOG NUMBERS AND OTHER PERTINENT INFORMATION. DRAWINGS
- 1. MECHANICAL DRAWINGS SHOW <u>GENERAL</u> ARRANGEMENT OF ALL PIPING EQUIPMENT AND APPURTENANCES. THEY SHALL BE FOLLOWED AS CLOSELY AS ACTUAL BUILDING CONSTRUCTION AND WORK OF OTHER TRADES WILL PERMIT.
- 2. MECHANICAL WORK SHALL CONFORM TO REQUIREMENTS SHOWN ON ALL DRAWINGS. GENERAL AND STRUCTURAL DRAWINGS SHALL TAKE PRECEDENCE OVER MECHANICAL DRAWINGS.
- 3. BECAUSE OF SMALL SCALE OF MECHANICAL DRAWINGS IT IS NOT POSSIBLE TO INDICATE ALL OFFSETS, FITTINGS AND ACCESSORIES WHICH MAY BE REQUIRED. CONTRACTOR SHALL INVESTIGATE STRUCTURAL AND FINISH CONDITIONS AFFECTING WORK AND SHALL ARRANGE HIS WORK ACCORDINGLY, PROVIDING SUCH FITTINGS, VALVES AND ACCESSORIES AS MAY BE REQUIRED TO MEET SUCH CONDITIONS. COORDINATION BETWEEN CONTRACTORS
- 1. EACH CONTRACTOR AND SUBCONTRACTOR SHALL STUDY ALL DRAWINGS APPLICABLE TO THIS WORK SO COMPLETE COORDINATION BETWEEN TRADES WILL BE EFFECTED. SPECIAL ATTENTION SHALL BE GIVEN TO POINTS WHERE DUCTS CROSS OTHER DUCTS OR PIPING, WHERE LIGHTS FIT INTO CEILINGS AND WHERE PIPE, DUCTS AND CONDUIT PASS THRU WALLS AND COLUMNS.
- 2. IT IS RESPONSIBILITY OF EACH CONTRACTOR AND SUBCONTRACTOR TO LEAVE NECESSARY ROOM FOR OTHER TRADES. NO EXTRA COMPENSATION WILL BE ALLOWED TO COVER COST OF REMOVING PIPING, CONDUIT, DUCTS OR EQUIPMENT FOUND ENCROACHING ON SPACE REQUIRED BY OTHERS. MINOR DEVIATIONS
- 1. FOR PURPOSE OF CLARITY AND LEGIBILITY, DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC ALTHOUGH SIZE AND LOCATION OF EQUIPMENT AND PIPING ARE DRAWN TO SCALE WHEREVER POSSIBLE. VERIFY CONTRACT DOCUMENT INFORMATION AT SITE.
- 2. DRAWINGS INDICATE REQUIRED SIZES AND POINTS OF TERMINATION OF PIPES AND DUCTS AND SUGGESTED ROUTES. IT IS NOT INTENTION OF DRAWINGS TO INDICATE ALL NECESSARY OFFSETS. INSTALL WORK IN MANNER TO CONFORM TO STRUCTURE AVOID OBSTRUCTIONS, PRESERVE HEADROOM AND KEEP OPENINGS AND PASSAGEWAYS
- ATTACHING TO BUILDING CONSTRUCTION

CLEAR. DO NOT SCALE FROM DRAWINGS.

- 1. EQUIPMENT AND PIPING SUPPORTS SHALL BE ATTACHED TO STRUCTURAL MEMBERS (BEAMS, JOISTS, ETC.) RATHER THAN TO FLOOR OR ROOF SLABS. 2. WHERE PIPING IS SUSPENDED FROM NEW CONCRETE CONSTRUCTION, FURNISH, LOCATE
- AND INSTALL BLACK STEEL CHANNEL TYPE CONCRETE INSERTS WELDED TO COVER-PLATE. INSERTS SHALL PROVIDE FOR HORIZONTAL AND VERTICAL ADJUSTMENTS.
- 3. WHERE PIPING IS SUSPENDED FROM EXISTING CONCRETE OR MASONRY CONSTRUCTION, USE EXPANSION SHIELDS TO ATTACH PIPE SUPPORTS TO CONSTRUCTION. EXPANSION SHIELD BOLT DIAMETER SHALL BE SAME SIZE AS SUPPORT ROD DIAMETER HEREINAFTER SPECIFIED. EXPANSION SHIELDS SHALL BE STAR DOUBLE, STAR GLOXIN, STAR LOXIN OR APPROVED EQUAL.
- 4. ERECTION OF METAL SUPPORTS & ANCHORAGES: CUT, FIT, AND PLACE MISCELLANEOUS METAL SUPPORTS ACCURATELY IN LOCATION, ALIGNMENT, AND ELEVATION TO SUPPORT AND ANCHOR MECHANICAL MATERIALS AND EQUIPMENT. IDENTIFICATION NAMEPLATES AND LABELING
- 1. EQUIPMENTNAMEPLATES: PROVIDE A METAL NAMEPLATE IN AN ACCESSIBLE AND VISIBLE LOCATION. THE NAMEPLATE SHALL BE STAMPED OR ENGRAVED WITH MANUFACTURER DATA AND BE PERMENATELY FASTENED TO THE EQUIPMENT. THE MANFACTURER DATA SHALL INCLUDE MANUFACTURER, PRODUCT NAME, MODEL NUMBER, SERIAL NUMBER, CAPACITY, OPERATING AND POWER CHARACTERISTICS, LABELS OF TESTED COMPLIANCES, AND SIMILAR ESSENTIAL DATA.
- 2. PIPING & DUCTWORK LABELS: PROVIDE PLASTIC STICK ON LABELS. THE LABELS NOMENCLATURE SHALL INDICATE SERVICE AND DIRECTION OF FLOW. TESTING & BALANCING
- 1. IDEALLY TESTING, ADJUSTING AND BALANCING (TAB) SHALL BE PROVIDED BY AN INDEPENDENT TESTING & BALANCING AGENT. IDEALLY THE TAB SHALL BE CONTRACTED DIRECTLY TO THE GENERAL CONTRACTOR.
- 2. THE TAB AGENT SHALL BALANCE AND ADJUST AIR MOVING EQUIPMENT AND AIR DISTRIBUTION AND EXHAUST SYSTEMS.
- 3. INSTRUMENTATION USED BY THE TAB AGENT SHALL BE FACTORY CALIBRATED BASED ON THEIR CALIBRATION RECOMMENDATIONS AND MAINTAINED IN GOOD WORKING ORDER.
- 4. BALANCE AND ADJUST THE AIR SYSTEMS IN ACCORDANCE WITH THE RECOMMENDATIONS CONTAINED IN THE STANDARDS FOR FIELD MEASUREMENTS AND INSTRUMENTATIONS, TOTAL SYSTEM BALANCE" OF THE ASSOCIATED AIR BALANCING COUNCIL (AABC) OR THE NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB) MANUALS.
- 5. IF A PIECE OF EQUIPMENT IS NOT OPERATING IN SATISFACTORY MANNER, COORDINATE WITH MANUFACTURER TO REPAIR OR ADJUST.
- 6. SUBMIT REPORT TO ENGINEER IF SYSTEM OR PIECE OF EQUIPMENT CANNOT BE ADJUSTED TO OPERATE SATISFACTORILY.
- 7. UPON COMPLETION OF THE SYSTEM BALANCING, THE TAB AGENT SHALL SUBMIT TO THE ARCHITECT/ENGINEER THREE (2) TYPEWRITTEN AIR BALANCING REPORT WITH ALL PERTINENT DATA, INCLUDING ACTUAL OPERATING CONDITIONS REPORT. UTILIZE STANDARD AABC OR NEBB REPORT FORMS OR EQUAL FORMS.

<u>pipe hangers</u>

1. ADJUSTABLE STEEL CLEVIS HANGERS, NON-METALLIC COATING FOR ELECTROLYTIC PROTECTION WHERE ATTACHMENTS ARE IN DIRECT WITH COPPER. COPPER U-STRAP HANGERS FOR UN-INSULATED PIPE. COMPLY WITH MSS STANDARD PRACTICE SP-69. <u>INSULATION</u>

2. CLEANING AND TESTING

- 2.1. SERVICE: AIR CONDITIONING AND HEATING SUPPLY INSULATE ENTIRELY.
- MATERIAL: 1-1/2" THK FIBERGLASS BLANKET W/ FSK JACKET. 2.2. OUTSIDE AIR: MIN. 2" THK FIBERGLASS BLANKET W/ FSK JACKET OR BOARD INSULATION.
- 2.3. ALL INSULATION: RATING NOT TO EXCEED 25 FLAME, 50 SMOKE, RATED FOR USE IN RETURN AIR PLENUM.

"LOW PRESSURE" DUCTWORK AND ACCESSORIES

- 1. DUCTWORK: GALVANIZED SHEET STEEL CONSTRUCTED TO SMACNA STANDARDS, LOCK-FORMING QUALITY, ASTM A653, G90 COATING. 1.1 FABRICATE ELBOWS WITH INSIDE RADIUS EQUAL TO ONE AND ONE-HALF TIMES
- THE DUCT WIDTH OR SQUARE WITH TURNING VANES. 1.2 FABRICATE DIVIDED FLOW FITTINGS WITH A 45-DEGREE TAPERED ENTRY TO
- BRANCH DUCTS. 1.3 CONSTRUCT SUPPLY AIR DUCTS FOR 3" WG, 2" NEGATIVE PRESSURE FOR RETURN & EXHAUST AIR.
- 2. FLEXIBLE DUCTS: FACTORY FABRICATED ROUND DUCT WITH A POLYETHYLENE OUTER JACKED ENCLOSING A 1-1/2 INCH THICK GLASS-FIBER INSULATION AROUND A STEEL-WIRE HELIX ENCAPSULATED IN A POLYETHYLENE FILM INNER LINER AND RATED FOR 6-INCH WG POSITIVE PRESSURE. PROVIDE 3 FEET OF FLEX DUCT AT APPROPRIATE SUPPLY DIFFUSERS FOR SOUND ATTENUATION.
- 3. MANUAL VOLUME DAMPERS: CONSTRUCT TO SMACNA STANDARDS. PROVIDE DAMPERS AT ALL BRANCH TAPS TO EACH DIFFUSER OR GRILLE OR ON REGISTERS WHERE SCHEDULED. USE EXTENDED SHAFT DAMPERS FOR INSULATED DUCTS.
- 4. FIRE DAMPERS: UL 555, 1-1/2 HOUR OR AS INDICATED. TYPE B WITH BLADES OUT OF AIRSTREAM. PROVIDE SLÉEVES AND ANGLE IRON MOUNTING IN COMPLIANCE WITH DAMPER LOCATION

<u>PIPING</u>

- 1. FURNISH AND INSTALL SUPPORTS, GUIDES AND ANCHORS REQUIRED FOR PROPER SUPPORT OF PIPES.
- 2. LAY UNDERGROUND PIPING ONLY ON SOLID UNDISTURBED GROUND. TAMP BOTTOM OF TRENCH. GRADE FOR REQUIRED SLOPE. COVER PIPE WITH SAND.
- 3. SUPPORT VERTICAL RUNS WITH HANGER ADJACENT TO ELBOW.
- 4. SUPPORT HORIZONTAL PIPE WITH HOT ROLLED STEEL RODS (ASTM A107). SPACING: 1/2" - 2" PIPE, 8'-0" ON CENTERS WITH 3/8" DIA. ROD, 2 1/2" - 3" PIPE, 12'-0" ON CENTERS WITH 1/2" DIA. ROD.

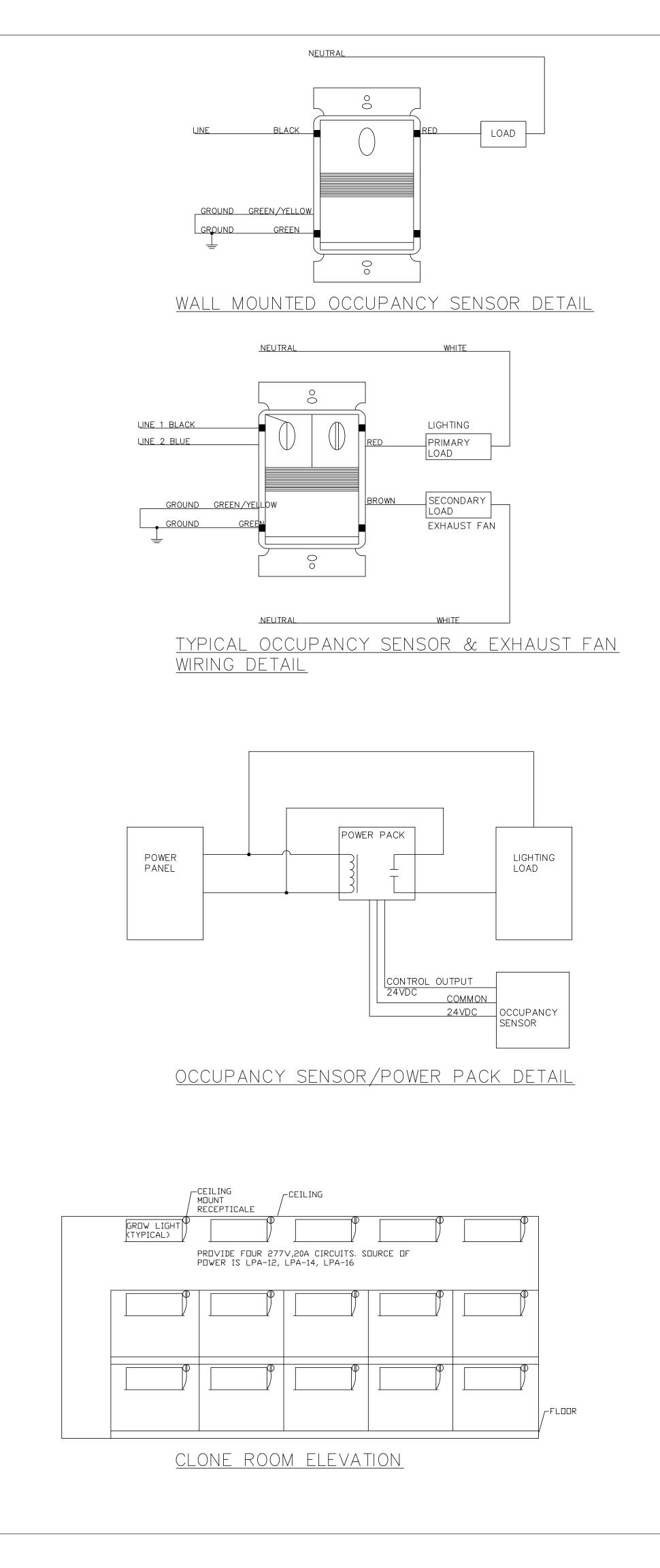
5. GAS:

- 5.1. PIPING: COMPLY WITH NFPA 70 AND MPC. STEEL PIPE: ASTM A53, TYPE E OR S, GRADE B, SCHEDULE 40, BLACK. MALLEABLE-IRON THREADED FITTINGS: ASME B16.3, CLASS 150, STANDARD PATTERN. UNIONS: ASME B16.39, CLASS 150, MALLEABLE-IRON WITH BRASS TO IRON SEAT, GROUND JOINT, AND THREADED
- 5.2. STOPS: BRONZE BOTH WITH AGA STAMPS. PLUG TYPE WITH BRONZE PLUG AND SQUARE HEAD. 2-PSIG MINIMUM PRESSURE RATING.
- 6. BALL VALVES: TWO PIECE ALLOY, BRONZE BODY WITH FULL PORT, CHROME PLATED BALL, TFE SEATS, 600-PSIG MINIMUM CWP RATING. LEVER HANDLE WITH EXTENDED STEM FOR INSULATION.

7. USE DIELECTRIC COUPLINGS WHEN JOINING DISSIMILAR PIPING MATERIALS.

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ARCHITECT: SEAL: BRADFORD W. POTTER	PROJECT MANAGER: CHRISTIAN CINI		PROJECT No.:	30-00830
				# DATE ISSUED FOR
		09/06/22 PERMITS	05/20/22REVISED LAYOUT	# DATE ISSUED FOR
PROJECT NAME:	, MICHIGAN	HVAC &	PLUMBING SPECS	

MECHANICAL SPECIFICATIONS



#### <u>Power legend</u>

J	JUNCTION BOX - FLUSH WALL MOUNTED.
L	JUNCTION BOX CONCEALED ABOVE ACCESSIBLE CEILING AREA
J	INDICATES CONNECTION TO EQUIPMENT AS REQUIRED.
•	SINGLE CONVENIENCE RECEPTACLE IN FLUSH WALL MOUNTED OUTLET BOX. 18" AFF.
- C	CEILING MOUNT DUPLEX CONVENIENCE RECEPTACLE FOR LIGHT FIXTURE 9' ABOVE FINISH FLOOR. COORDINATE EXACT HEIGHT WITH ARCHITECT
	DUPLEX CONVENIENCE RECEPTACLE IN FLUSH WALL MOUNTED OUTLET BOX. 18" AFF.
	DUPLEX CONVENIENCE RECEPTACLE IN FLUSH WALL MOUNTED OUTLET BOX. SPLIT WIRED. 18" AFF.
	FOUR — PLEX (DOUBLE DUPLEX) CONVENIENCE RECEPTACLE IN ONE FLUSH WALL MOUNTED OUTLET BOX. 18" AFF.
	FOUR — INFLOOR (DOUBLE DUPLEX) CONVENIENCE RECEPTACLE IN ON FLUSH MOUNTED OUTLET BOX.
-	SINGLE 3 PHASE RECEPTACLE. MOUNTED 18" AFF.
GFI	DUPLEX CONVENIENCE RECEPTACLE IN FLUSH WALL MOUNTED OUTLET BOX, WITH INTERNAL GROUND FAULT INTERRUPTOR. 42" AFF.
0	CIRCUIT BREAKER (C.B), FRAME AND TRIP UNIT RATING, AND NO. OF POLES NOTED.
0 30AS 3P 30AF	FUSIBLE DISCONNECT SWITCH. SWITCH AND FUSE RATING, AND NO. OF POLES NOTED.
30A	FUSED SAFETY (DISCONNECT) SWITCH. HORSE POWER RATED.
30A	POWER OR CONTORL FUSE. AMPACITY AS NOTED.
	COMMON POINT OF CONNECTION TO EQUIPMENT.
	PANEL BOARD, ADJACENT LINE INDICATES FRONT OF PANEL.
1/2	MOTOR, SINGLE PHASE, NUMBER INDICATES HP.
5	MOTOR, 3 PHASE, NUMBER INDICATES HP.
	POWER TRANSFORMER AS REQUIRED (REFER TO SPECIFICATIONS). REFER TO DRAWING FOR VOLTAGE, CONFIGERATION, NO. OF PHASES (1 OR 3) AND KVA RATING. WINDING CONFIGERATIONS:

DELTA CONNECTION, UNGROUNDED
 WYE CONNECTION, UNGROUNDED

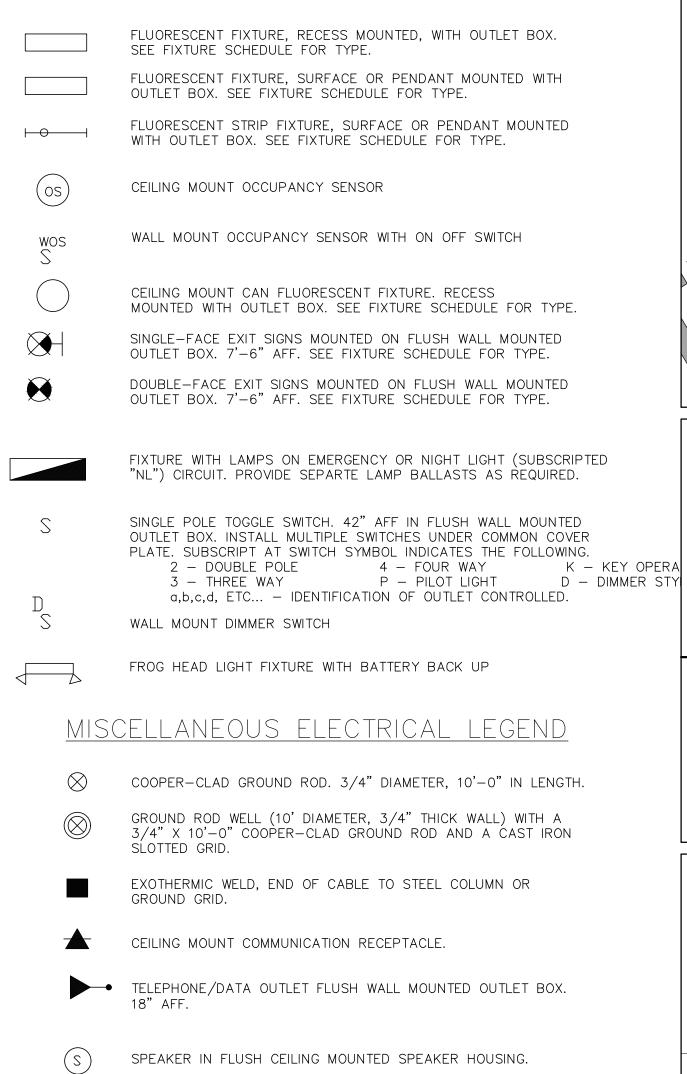
WYE CONNECTION, GROUNDED
 WYE CONNECTION, RESISTANCE GROUNDED



 $\bigtriangleup$ 

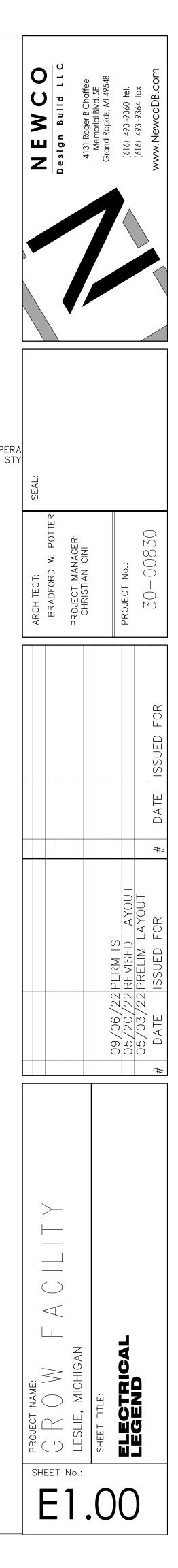
ΈY ΓY

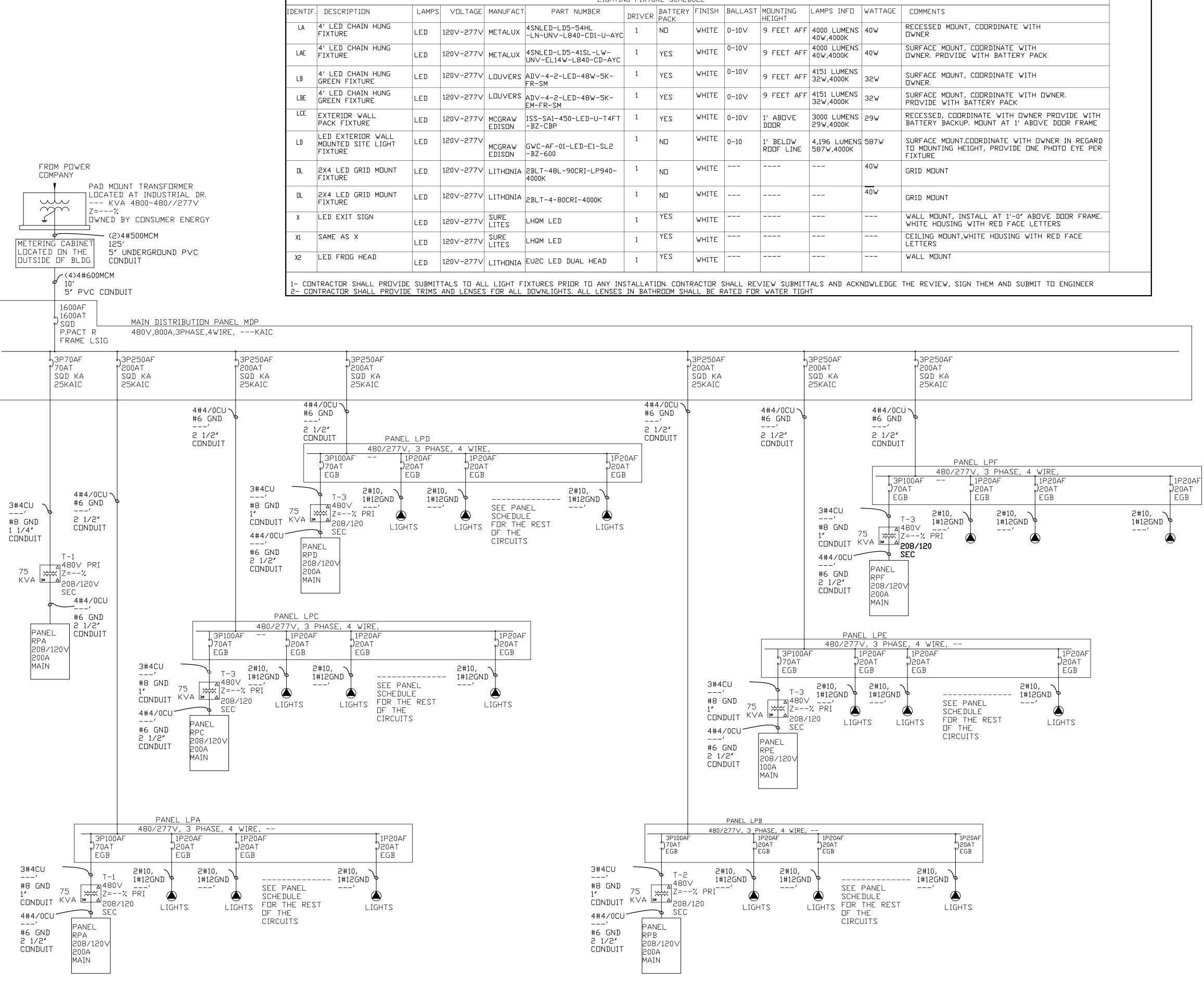
#### LIGHTING LEGEND



ABBREVIATIONS

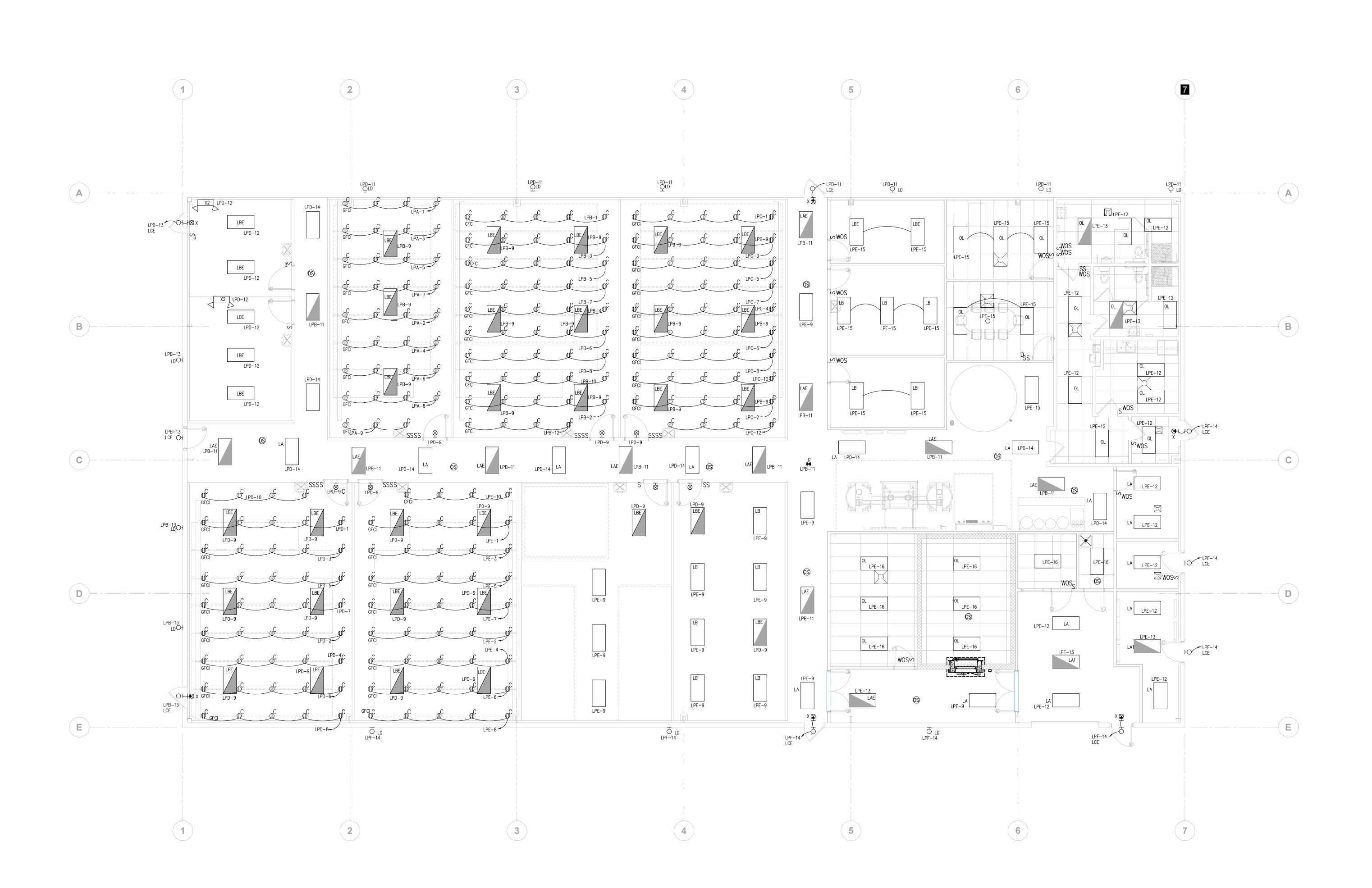
ROVIDE	FURNISH, INSTALL AND CONNECT
0	CONDUIT ONLY
P	WEATHERPROOF
ND	GROUND
P	HORSEPOWER
FI	GROUND FAULT CURRENT INTERRUPTER
	VOLTAGE
, AMP	AMPERE
W	KILOWATT
VA	KILOVOLT AMPERES
, EX	EXISTING EQUIPMENT TO REMAIN
FF	ABOVE FINISHED FLOOR
OAS	30 AMP SWITCH
OAF	20 AMP FUSES
P, 1P	THREE POLE, SINGLE POLE
L, 0/L	OVERLOAD
Т	CURRENT TRANSFORMER
Т	VOLTAGE TRANSFORMER
Н	WATT-HOUR METER
M, AS	AMMETER, AMMETER SWITCH
M, VS	VOLTAGE METER, VOLTMETER SWITCH
СР	MOTOR CIRCUIT PROTECTION
ТМ	ELASPED TIME METER
C/#18	3 CONDUCTOR #18 AWG WIRE
PR18TS	1 PAIR OF #18 TWISTED, SHIELED

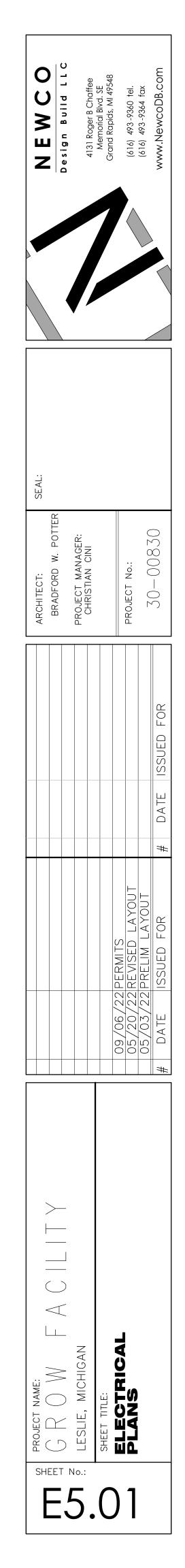


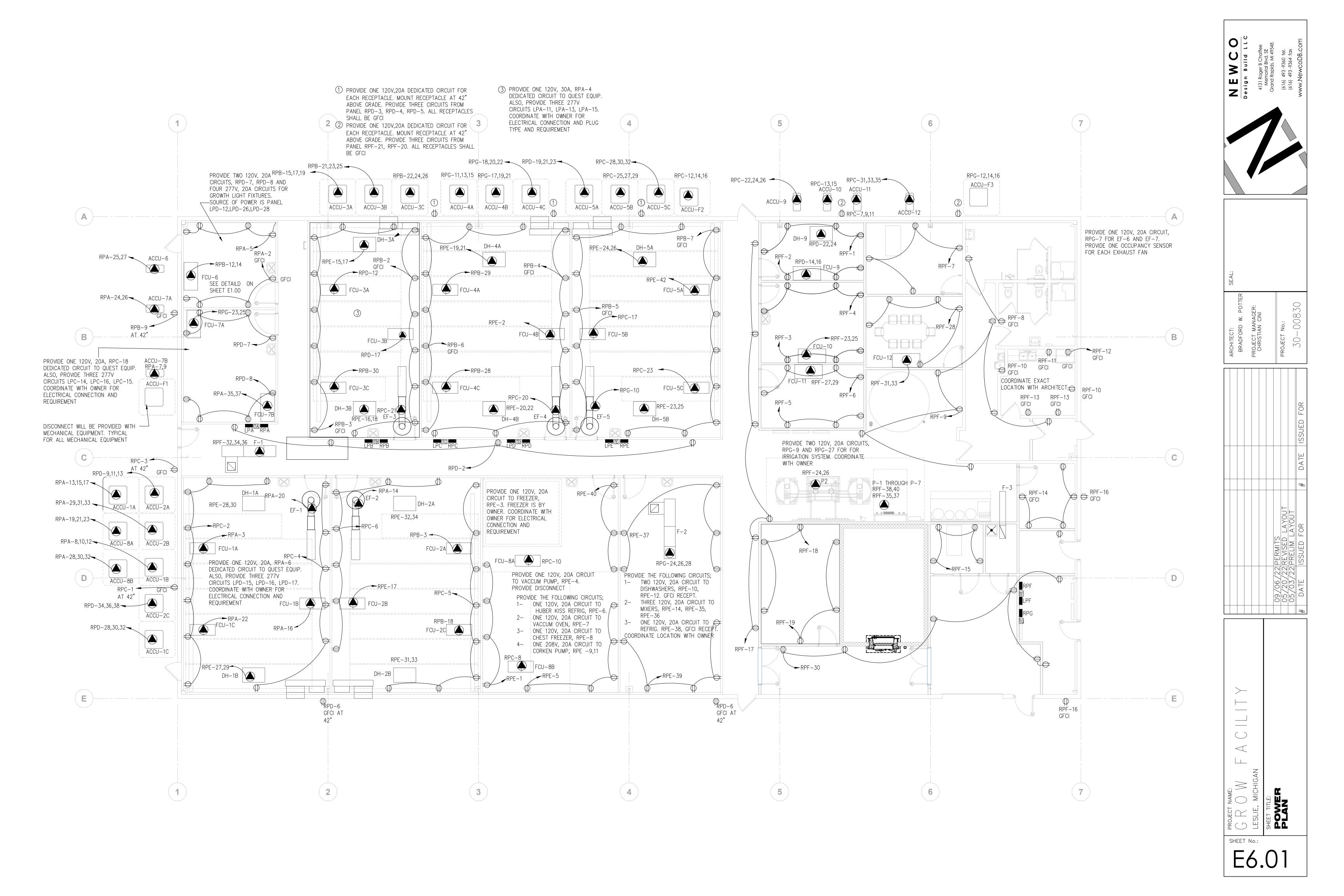


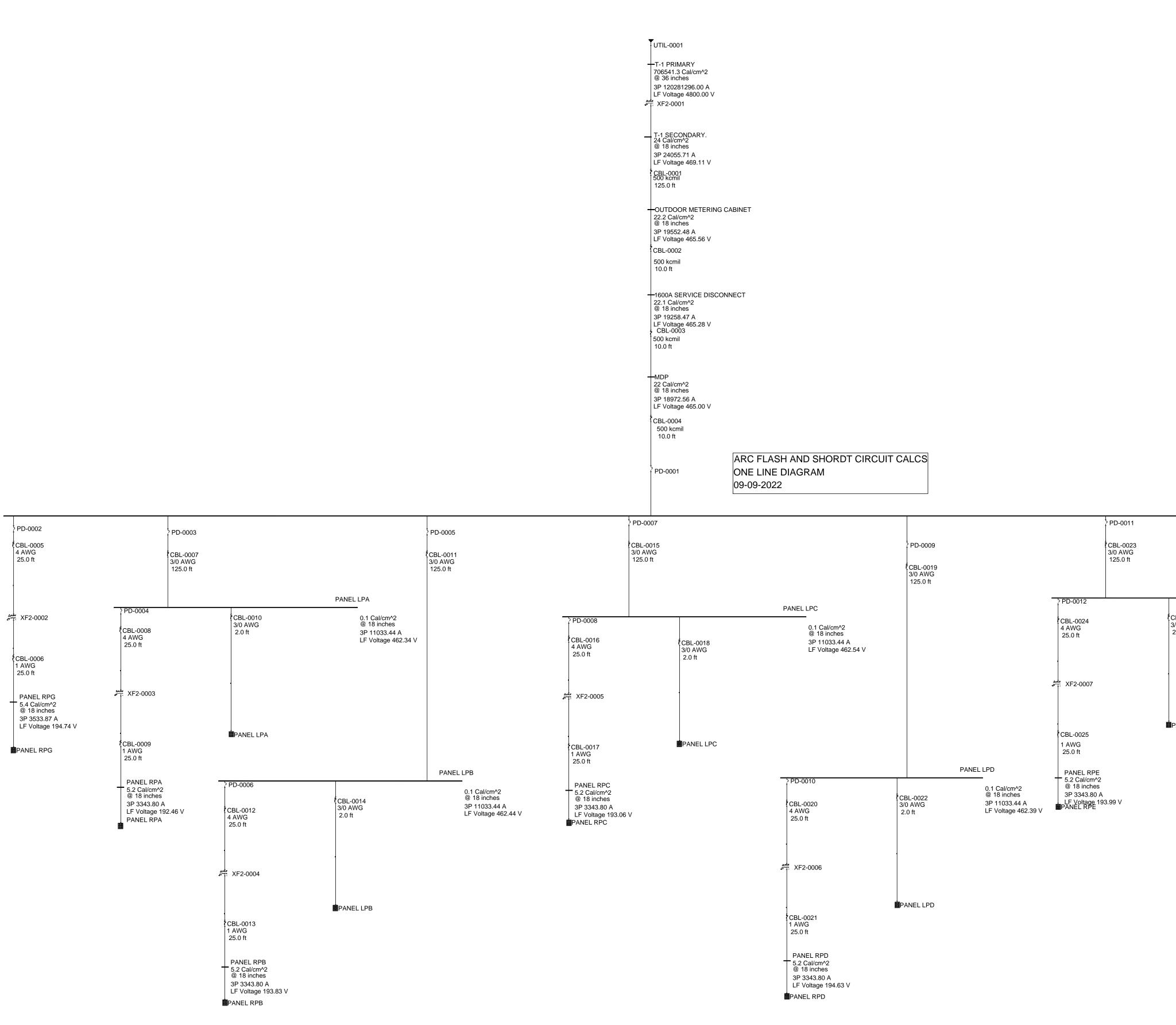
		LIGHTIN	NG FIXTU	RE SCHED	ULE					
VOLTAGE	MANUFACT	PART NUMBER	DRIVER	BATTERY PACK	FINISH		MDUNTING HEIGHT	LAMPS INFO	WATTAGE	COMMENTS
20V-277V	METALUX	4SNLED-LD5-54HL -LN-UN∨-L840-CD1-U-AYC	1	ND	WHITE	0-10∨	9 FEET AFF	4000 LUMENS 40W,4000K	40W	RECESSED MOUNT, COORDINATE WITH OWNER
20V-277V	METALUX	4SNLED-LD5-41SL-LW- UNV-EL14W-L840-CD-AYC	1	YES	WHITE	0-10∨	9 FEET AFF	4000 LUMENS 40W,4000K	40W	SURFACE MOUNT, COORDINATE WITH OWNER. PROVIDE WITH BATTERY PACK
20V-277V	LOUVERS	ADV-4-2-LED-48W-5K- FR-SM	1	YES	WHITE	0−10∨	9 FEET AFF	4151 LUMENS 32W,4000K	32W	SURFACE MOUNT, COORDINATE WITH OWNER.
20V-277V	LOUVERS	ADV-4-2-LED-48W-5K- EM-FR-SM	1	YES	WHITE	0-10∨	9 FEET AFF	4151 LUMENS 32W,4000K	32W	SURFACE M⊡UNT, C⊡⊡RDINATE WITH ⊡WNER. PR⊡∨IDE WITH BATTERY PACK
20V-277V	MCGRAW EDISON	ISS-SA1-450-LED-U-T4FT -BZ-CBP	1	YES	WHITE	0-10∨	1′ ABO∨E DOOR	3000 LUMENS 29W,4000K	29W	RECESSED, COORDINATE WITH OWNER PROVIDE BATTERY BACKUP. MOUNT AT 1' ABOVE DOOR FI
20V-277V	MCGRAW EDISON	GWC-AF-01-LED-E1-SL2 -BZ-600	1	ND	WHITE	0-10	1' BELOW ROOF LINE	4,196 LUMENS 587W,4000K	587W	SURFACE MOUNT.COORDINATE WITH OWNER IN R TO MOUNTING HEIGHT, PROVIDE ONE PHOTO EYN FIXTURE
20V-277V	LITHONIA	2BLT-48L-90CRI-LP940- 4000K	1	ND	WHITE				40W	GRID MOUNT
20V-277V	LITHONIA	2BLT-4-80CRI-4000K	1	ND	WHITE				40W	GRID MOUNT
20V-277V	SURE LITES	LHQM LED	1	YES	WHITE					WALL MOUNT, INSTALL AT 1'-0″ ABO∨E DOOR F WHITE HOUSING WITH RED FACE LETTERS
20V-277V	SURE LITES	LHQM LED	1	YES	WHITE					CEILING MOUNT, WHITE HOUSING WITH RED FACE LETTERS
20V-277V	LITHONIA	EU2C LED DUAL HEAD	1	YES	WHITE					WALL MOUNT
		IXTURES PRIOR TO ANY INS DOWNLIGHTS. ALL LENSES							NDWLEDGE	THE REVIEW, SIGN THEM AND SUBMIT TO ENGIN

4131 Roger B Chaffee Memorial Blvd. SE	(616) 493 -9360 fel. (616) 493 -9364 fax www.NewcoDB.com
STIAN CINI	JECT No.: 30-00830
PROJEC	PROJECT No.: 30-00
	DATE ISSUED FOR
	# DATE
	09/06/22PERMITS05/20/22REVISEDLAYOUT05/03/22PRELIMLAYOUT#DATEISSUEDFOR
C LESLIE, MICHIGAN SHEET TITLE:	ELECTRICAL ONE-LINE
	LESLIE, MICHIGAN ROJECT MANAGER: CHRISTIAN CINI SHEET TITLE:









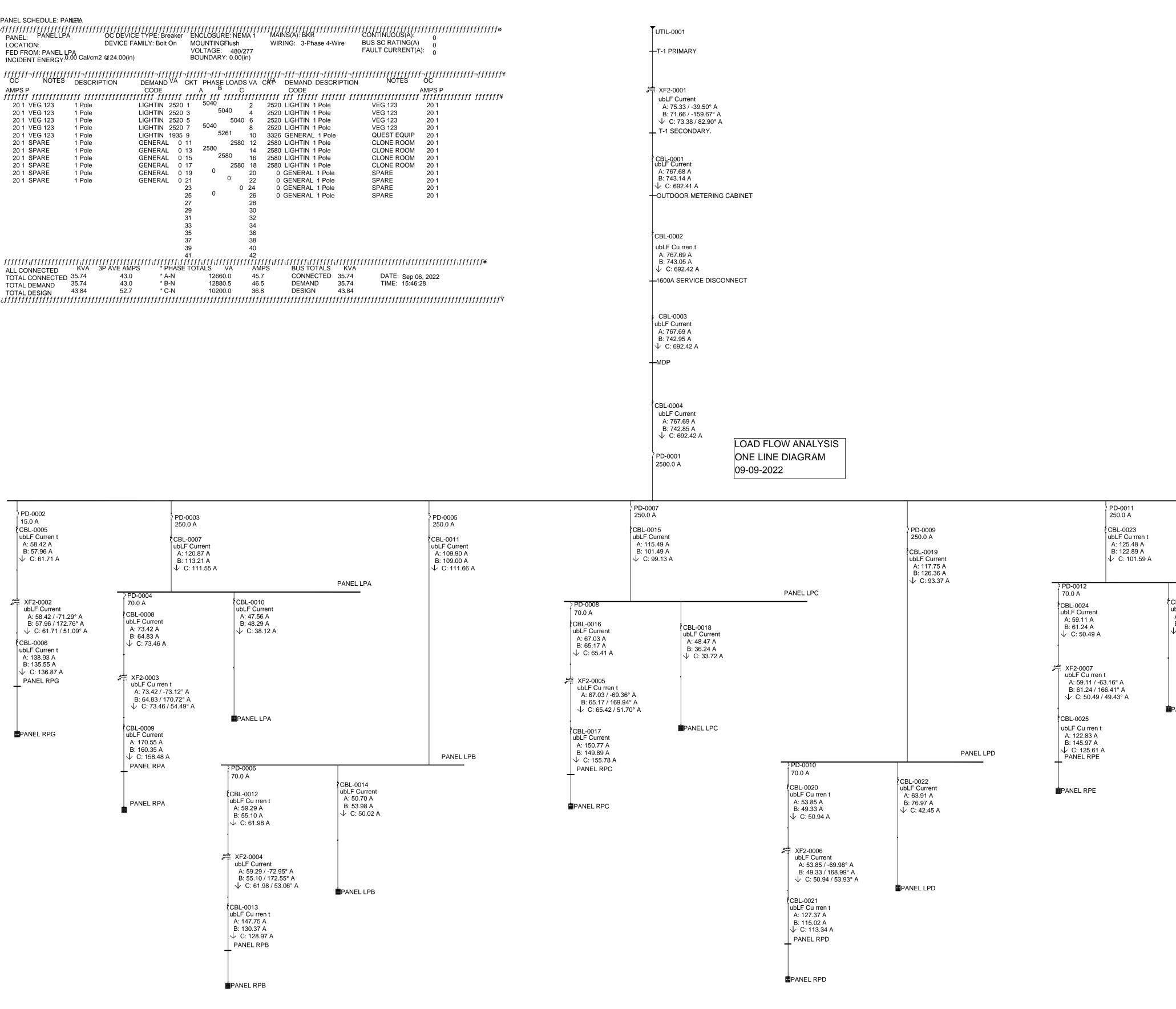
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ARCHITECT:       BRADFORD	PROJE	# DATE ISSUED FOR
		09/06/22 PERMITS 05/20/22 REVISED LAYOUT 05/03/22 PRELIM LAYOUT # DATE ISSUED FOR
PROJECT NAME: GROWFAC	LESLIE, MICHIGAN SHEET TITLE:	ARC FLASH ONE-LINE

				MDP.
				19.3 Cal/cm^2 @ 18 inches 3P 18694.43 A LF Voltage 464.71 V
		 2 PD-0013		
	PANEL LPE	CBL-0027 3/0 AWG		
BL-0026 0 AWG 0 ft	0.1 Cal/cm^2 @ 18 inches 3P 11033.44 A LF Voltage 462.31 V	125.0 ft		
ANEL LPE				
ን PD-0014	Γ		PANEL LPF	
CBL-0028 4 AWG 25.0 ft	CBL-0030 3/0 AWG 2.0 ft		@ 18 3P 1	Cal/cm^2 3 inches 1033.44 A oltage 462.33 V
,	·			
CBL-0029 1 AWG 25.0 ft	PANEL LPF			
PANEL RPF 5.2 Cal/cm^2				

PANEL SCHEDULE: PANER /fffffffffffffffffffff PANEL: PANELLPA LOCATION: FED FROM: PANEL LPA INCIDENT ENERGY.0.00	<i>fffffffffffffffffffffffffffffffffffff</i>	LY: Bolt On MOUNT VOLTAG		ffffffffffffffffffffffffffffffffffffff	GITTINUOUS(A): CONTINUOUS(A): BUS SC RATING(A) FAULT CURRENT(A): 0
OC NOTES D AMPS P <i>fffffff ffffffffffffff</i> 20 1 VEG 123 1 20 1 VEG 123 1	ESCRIPTION D ( f ffffffffffffffffffff Pole LIC Pole LIC	EMAND <sup>VA</sup> CKT PH/ CODE A f <i>ff ffffff ffffff f</i> GHTIN 2520 1 <sup>504</sup> GHTIN 2520 3 GHTIN 2520 5	ASE LOADS VA CR B C Iff ffffffffffffff 0 2 2 5040 4 2 5040 6 2	DEMAND DESCRIPTION CODE	ffffffffffffffffffffffffffffffffffffff
20 1       VEG 123       1         20 1       SPARE       1	PoleLi0PoleGEPoleGEPoleGEPoleGE	GHTIN 2520 7 504 GHTIN 1935 9 ENERAL 0 11 ENERAL 0 13 258 ENERAL 0 15 ENERAL 0 17 ENERAL 0 19 <sup>(</sup>	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	520 LIGHTIN 1 Pole 326 GENERAL 1 Pole 580 LIGHTIN 1 Pole 580 LIGHTIN 1 Pole 580 LIGHTIN 1 Pole 580 LIGHTIN 1 Pole 0 GENERAL 1 Pole	VEG 12320 1QUEST EQUIP20 1CLONE ROOM20 1CLONE ROOM20 1CLONE ROOM20 1SPARE20 1
	Pole GE	25 27 29 31	0 22 0 24 0 26 28 30 32	0 GENERAL 1 Pole 0 GENERAL 1 Pole 0 GENERAL 1 Pole	SPARE20 1SPARE20 1SPARE20 1
		33 35 37 39 41 ffiffffffffffffffffffffffffff * PHASE TOTALS	34 36 38 40 42 ifffffffffffffffffffffffff VA AMPS	i <i>ffiiffiffiffiffiffiffiffiffiffiffiffif</i>	;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;
TOTAL CONNECTED 35 TOTAL DEMAND 35 TOTAL DESIGN 43	.7443.0.7443.0.8452.7	* A-N 12 * B-N 12 * C-N 10	2660.045.72880.546.50200.036.8	CONNECTED         35.74           DEMAND         35.74           DESIGN         43.84	DATE: Sep 06, 2022 TIME: 15:46:28

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		09/06/22 PERMITS 05/20/22 REVISED LAYOUT 05/03/22 PRELIM LAYOUT DATE ISSUED FOR # DATE ISSUED FOR
PROJECT NAME: G R O W F A C   [   T Y	ELESLIE, MICHIGAN	LOAD FLOW FLASH ANALYSIS ONE-LINE & LOAD SCHEDULE

PANEL LPE D026 Current 6.49 A	PD-0013 250.0 A CBL-0027 ubLF Cu rren t A: 120.16 A
1.69 A : 51.12 A	B: 112.30 A ↓ C: 113.64 A
EL LPE	
	PANEL LPF
ubLF Current A: 63	0030 Current 3.08 A 8.64 A 58.49 A
XF2-0008 ubLF Cu rren t A: 57.09 / -69.98° A B: 53.58 / 169.71° A ↓ C: 55.15 / 53.03° A	EL LPF
<ul> <li>CBL-0029</li> <li>ubLF Current</li> <li>A: 130.83 A</li> <li>B: 132.73 A</li> <li></li></ul>	