

Professional Certification
I certify that these documents
were prepared or approved by
me, and that I am a duly
licensed engineer under the
laws of the State of Maryland
License Number: **14401**
Expiration Date: **4/21/2021**

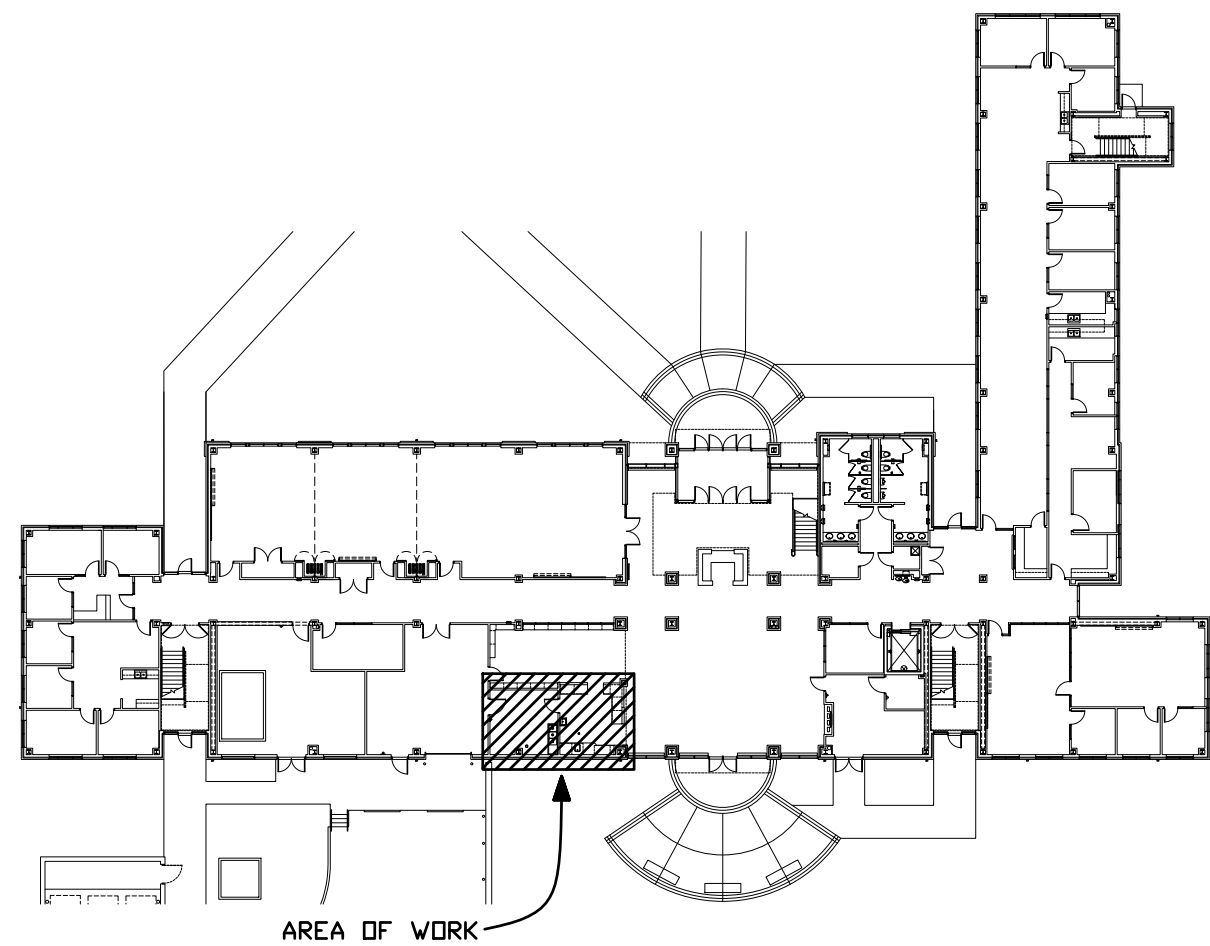
LESLIE SCOTT GRIM, P.E.
CO. PROF. ENG. NO. PE0050461
DC PROF. ENG. NO. PE901201
DE PROF. ENG. NO. 19513
CA PROF. ENG. NO. PE032582
HI PROF. ENG. NO. PE15943
MD PROF. ENG. NO. 14401
NC PROF. ENG. NO. 033364
NJ PROF. ENG. NO. 39497
NY PROF. ENG. NO. 075414
PA PROF. ENG. NO. PE033636E
VA PROF. ENG. NO. 023240
WV PROF. ENG. NO. 10764

REV.	DATE	COMMENT
1	2/26/21	85% OWNER REVIEW SET
2	4/23/21	BID SET
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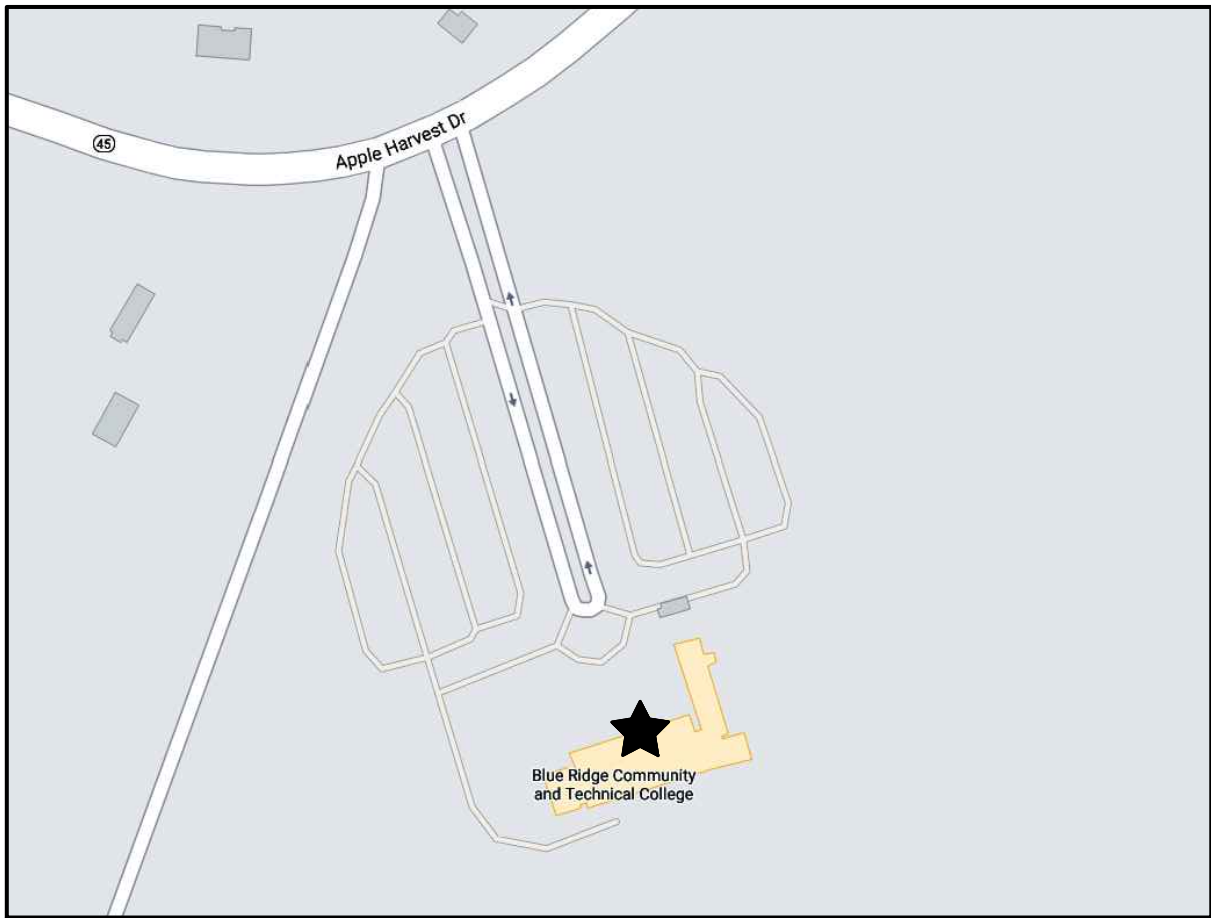
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C-0.0
OF 17 SHEETS
DATE: APRIL 23, 2021

BLUE RIDGE COMMUNITY AND TECHNICAL COLLEGE SERVERY ROOM 1142 RENOVATIONS



KEY PLAN
NOT TO SCALE



VICINITY MAP
NOT TO SCALE

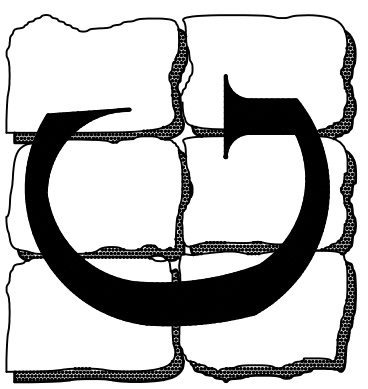
PROJECT DESCRIPTION AND SCOPE OF WORK (SOW) SUMMARY

THE FOLLOWING IS A SUMMARY OF THE NATURE AND INTENT OF THE WORK, IT INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING:

- 1) DEMOLITION OF A PORTION OF THE SERVERY TO ALLOW FOR INSTALLATION OF A NEW COOKING HOOD.
- 2) MODIFICATIONS TO THE EXISTING SRVERY (GENERAL CONSTRUCTION) TO ALLOW FOR INSTALLATION OF NEW COOKING HOOD.
- 3) INSTALLATION OF NEW COOKING HOOD INCLUDING DUCTWORK, FANS AND ACCESSORIES.
- 4) MODIFICATIONS TO EXISTING SPRINKLER AND FIRE ALARM SYSTEMS TO ALLOW FOR INSTALLATION OF NEW COOKING HOOD.
- 5) ELECTRICAL MODIFICATIONS TO ACCOMMODATE NEW HOOD INSTALLATION.

DRAWING LIST

- C-0.0 PROJECT COVER SHEET
- G-1.0 GENERAL ARRANGEMENT - DEMOLITION PLAN
- G-2.0 GENERAL ARRANGEMENT - NEW WORK PLAN
- M-0.0 MECHANICAL COVER SHEET
- P-0.0 PLUMBING COVER SHEET
- MP-1.0 MECHANICAL AND PLUMBING - NEW WORK PLAN
- MP-2.0 COOKING HOOD DATA
- E-0.0 ELECTRICAL COVER SHEET
- E-0.1 ELECTRICAL STANDARDS AND DETAILS
- E-1.0 ELECTRICAL NEW WORK PLAN

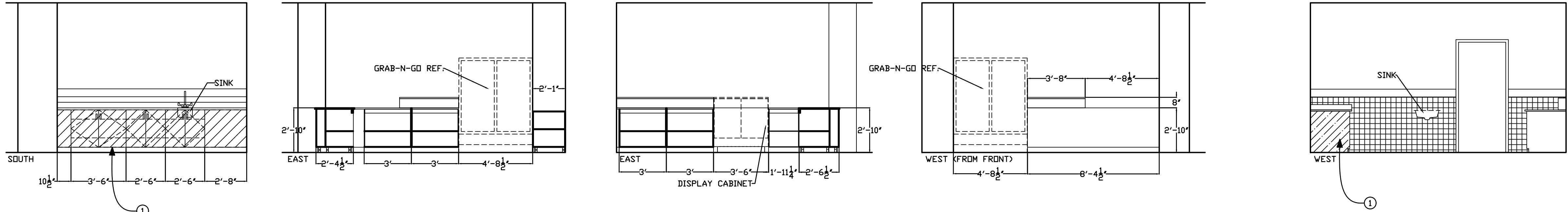


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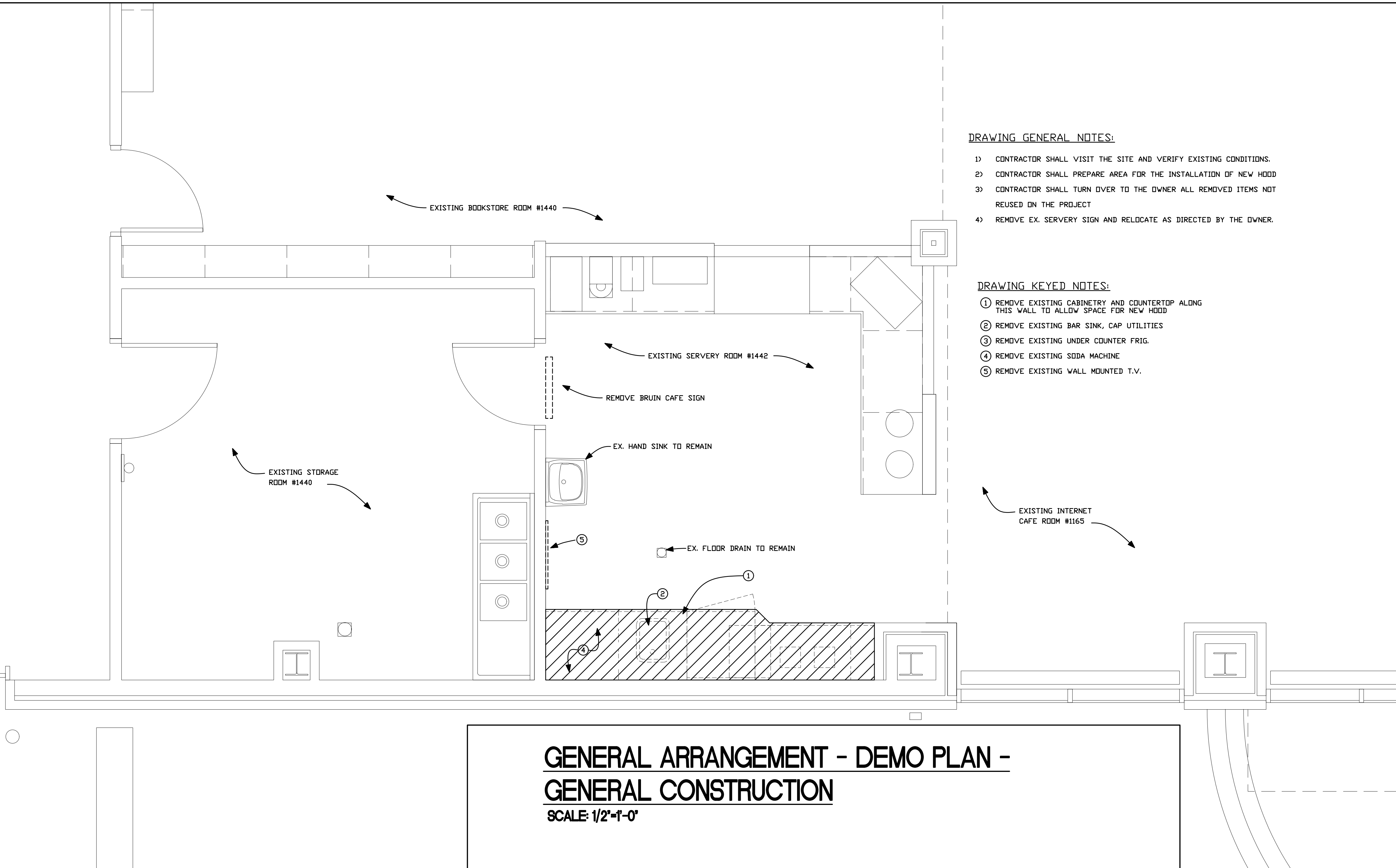
EXISTING INTERIOR ELEVATIONS - SERVERY 1142
SCALE: 1/4"=1'-0"

DRAWING GENERAL NOTES:

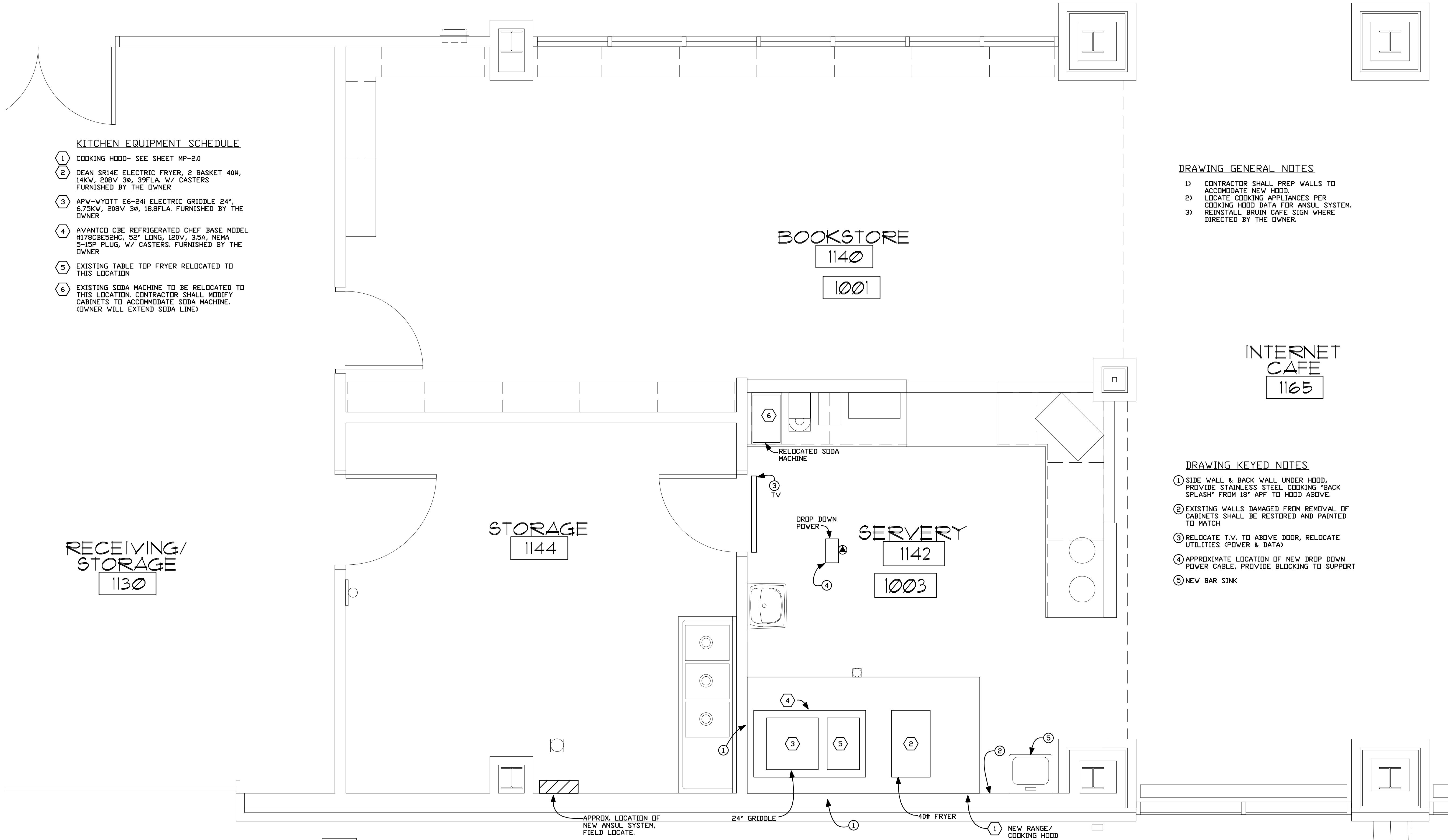
- 1) CONTRACTOR SHALL VISIT THE SITE AND VERIFY EXISTING CONDITIONS.
- 2) CONTRACTOR SHALL PREPARE AREA FOR THE INSTALLATION OF NEW HOOD
- 3) CONTRACTOR SHALL TURN OVER TO THE OWNER ALL REMOVED ITEMS NOT REUSED ON THE PROJECT
- 4) REMOVE EX. SERVERY SIGN AND RELOCATE AS DIRECTED BY THE OWNER.

DRAWING KEYED NOTES:

- 1) REMOVE EXISTING CABINETRY AND COUNTERTOP ALONG THIS WALL TO ALLOW SPACE FOR NEW HOOD
- 2) REMOVE EXISTING BAR SINK, CAP UTILITIES
- 3) REMOVE EXISTING UNDER COUNTER FRIG.
- 4) REMOVE EXISTING SODA MACHINE
- 5) REMOVE EXISTING WALL MOUNTED T.V.



GENERAL ARRANGEMENT - DEMO PLAN -
GENERAL CONSTRUCTION
SCALE: 1/2"=1'-0"



KITCHEN EQUIPMENT SCHEDULE

- 1 COOKING HOOD- SEE SHEET MP-2.0
- 2 DEAN SR14E ELECTRIC FRYER, 2 BASKET 40#, 14KW, 208V 3#, 39FLA, W/ CASTERS FURNISHED BY THE OWNER
- 3 APW-WYOTT E6-24I ELECTRIC GRIDDLE 24', 5.75KW, 208V 3#, 18.8FLA. FURNISHED BY THE OWNER
- 4 AVANTCO CBE REFRIGERATED CHEF BASE MODEL #170CBES2HC, 52" LONG, 120V, 3.5A, NEMA 5-15P PLUG, W/ CASTERS. FURNISHED BY THE OWNER
- 5 EXISTING TABLE TOP FRYER RELOCATED TO THIS LOCATION
- 6 EXISTING SODA MACHINE TO BE RELOCATED TO THIS LOCATION. CONTRACTOR SHALL MODIFY CABINETS TO ACCOMMODATE SODA MACHINE. (OWNER WILL EXTEND SODA LINE)

DRAWING GENERAL NOTES

- 1) CONTRACTOR SHALL PREP WALLS TO ACCOMMODATE NEW HOOD.
- 2) LOCATE COOKING APPLIANCES PER COOKING HOOD DATA FOR ANSUL SYSTEM.
- 3) REINSTALL BRUIN CAFE SIGN WHERE DIRECTED BY THE OWNER.

DRAWING KEYED NOTES

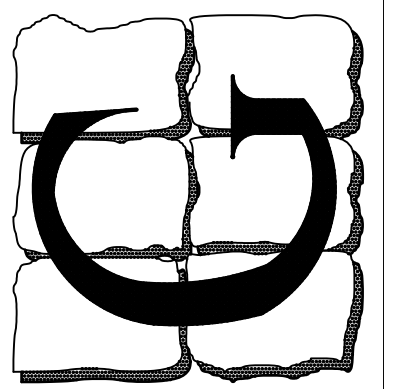
- 1) SIDE WALL & BACK WALL UNDER HOOD, PROVIDE STAINLESS STEEL COOKING 'BACK SPLASH' FROM 18" AFF TO HOOD ABOVE.
- 2) EXISTING WALLS DAMAGED FROM REMOVAL OF CABINETS SHALL BE RESTORED AND PAINTED TO MATCH
- 3) RELOCATE T.V. TO ABOVE DOOR, RELOCATE UTILITIES (POWER & DATA)
- 4) APPROXIMATE LOCATION OF NEW DROP DOWN POWER CABLE, PROVIDE BLOCKING TO SUPPORT
- 5) NEW BAR SINK

GENERAL ARRANGEMENT - NEW WORK
PLAN - GENERAL CONSTRUCTION

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

20-069

L.S. GRIM, INC.
Consulting Engineers



BLUE RIDGE COLLEGE AND
TECHNICAL COLLEGE
18650 APPLE HARVEST DRIVE
MARTINSBURG, WV 25403
GENERAL ARRANGEMENT - NEW WORK

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MECHANICAL NOTES AND REQUIREMENTS

- FOR RENOVATION WORK THE MECHANICAL CONTRACTOR SHALL INSPECT ANY EXISTING MECHANICAL ITEMS TO BE REUSED FOR DEFECTS AND REPORT TO THE ARCHITECT/ENGINEER AND THE OWNER ANY DEFICIENCIES PRIOR TO PERFORMING ANY WORK.
2. CONTRACTOR SHALL BALANCE THE AIR DISTRIBUTION SYSTEM TO AIR QUANTITIES INDICATED ON THE DRAWINGS AND SUBMIT (3) COPIES OF THE BALANCE REPORT TO THE ENGINEER FOR APPROVAL.
3. CONTRACTOR SHALL SPRAY PAINT INSIDE OF DUCT BLACK, BEHIND ALL GRILLES AND REGISTERS.
4. ALL DUCTWORK SHALL BE GALVANIZED SHEET METAL, FABRICATED AND INSTALLED IN ACCORDANCE WITH ASHRAE STANDARDS AND SMACNA 'HVAC DUCT CONSTRUCTION STANDARDS' EXCEPT THAT DUCTWORK SHALL BE A MINIMUM THICKNESS OF 24 GAUGE, TRUNK DUCTS OVER 18" SHALL BE "DUCTMATE" OR EQUIVALENT GASKETED JOINTS.
5. FLEXIBLE DUCTWORK SHALL BE RATED CLASS I, WHEN TESTED UNDER THE REQUIREMENTS OF UL 181. FLEXIBLE DUCT SHALL NOT EXCEED (6) FEET IN LENGTH. FLEX DUCT SHALL BE EQUAL TO CERTAINTED 'CERTAFLEX' G25 FLEXIBLE HOSE PREINSULATED WITH 1-1/2" THICK FIBERGLASS INSULATION WITH POLYETHYLENE JACKET. HOSE SHALL BE POLYESTER WITH EMBEDDED HELIX STEEL WIRE.
6. HVAC UNIT FLEXIBLE DUCT CONNECTIONS SHALL BE A MINIMUM OF 6 FEET LONG. PLACE WITHIN 6" OF THE DUCT. DUCT SHALL BE SECURELY ATTACHED TO PREVENT ANY LEAKAGE AT THE CONNECTION POINTS. FLEXIBLE CONNECTIONS SHALL BE FABRICATED FROM APPROVED FLAME PROOF FABRIC CONFORMING TO NFPA 90A.
7. ALL PIPING SHALL BE INSTALLED AS INDICATED ON THE DRAWINGS IN A NEAT WORKMANSHIP-LIKE MANNER AND IN ACCORDANCE WITH CODES. PIPING SHALL BE SET UP AND DOWN AND OFFSET AS REQUIRED TO SUIT FIELD CONDITIONS. DIELECTRIC COUPLINGS SHALL BE USED WHERE DISSIMILAR METALS ARE JOINED.
8. PIPING HANGERS SHALL BE SPACED SO AS TO PREVENT SAG AND PERMIT PROPER DRAINAGE AND SHALL NOT BE SPACED MORE THAN EIGHT FEET APART UNLESS A GREATER SPACE IS INDICATED ON THE DRAWINGS. A HANGER SHALL BE PLACED WITHIN (2) FEET OF EACH HORIZONTAL ELBOW.
9. ISOLATE AND DRAIN EXISTING PIPING SYSTEM AS REQUIRED TO ACCOMMODATE INSTALLATION OF THE NEW WORK.
10. HOT WATER AND CHILLED WATER SUPPLY AND RETURN PIPING SHALL BE BLACK STEEL PIPE, SCHEDULE 40 FOR 2-1/2" INCH AND LARGER, SEAMLESS COPPER TYPE "L" FOR 2" INCH AND BELOW.
11. REFRIGERANT PIPING OTHER THAN PRECHARGED TUBING SETS FURNISHED BY AIR CONDITIONING MANUFACTURER SHALL BE TYPE "ACR" HARD DRAWN COPPER TUBING WITH WROUGHT COPPER FITTINGS. PIPING SHALL BE INSTALLED IN ACCORDANCE WITH ARI STANDARDS. USE EASY-LOK SILVER BRAZING ALLOY TO MAKE TIGHT JOINTS. RUN ALL HORIZONTAL LINES DEAD LEVEL TO ENSURE PROPER GAS RETURN TO COMPRESSOR.
12. CONDENSATE DRAIN PIPING AND FITTINGS SHALL BE SCHEDULE 40 PVC OR TYPE M COPPER, COPPER SHALL BE USED IN PLENUM CEILINGS.
13. THE TOP OF ALL DUCTWORK EXPOSED TO WEATHER SHALL BE PITCHED TO PREVENT PONDING OF WATER ON DUCTWORK.
14. THE INSTALLATION OF ALL INSULATION SHALL BE PERFORMED BY AN EXPERIENCED CRAFTSMAN IN A NEAT WORKMANSHIP-LIKE MANNER AND SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN PUBLISHED RECOMMENDATIONS FOR SERVICE INTENDED.
15. ALL MATERIALS OF INSULATION SHALL BE OF THE TYPE AND QUALITY AS MANUFACTURED BY ARMSTRONG, CERTAINTED, OWENS-CORNING OR EQUITABLE. ALL MATERIAL AND EQUIPMENT SPECIFIED TO BE INSULATED SHALL BE THOROUGHLY TESTED AND APPROVED PRIOR TO APPLYING THE INSULATION.
16. ACUALLY LINED DUCTWORK DIMENSIONS SHOWN ON DRAWINGS ARE INSIDE CLEAR DIMENSIONS. SHEET METAL DIMENSIONS SHALL BE INCREASED TO ACCOMMODATE LINING THICKNESS.
17. REFRIGERATION SUCTION AND HOT GAS BY-PASS SHALL BE INSULATED WITH 1 INCH THICK ARMSTRONG 'ARMAFLEX' OR EQUAL. EXTERIOR INSULATION SHALL BE COATED WITH ULTRAVIOLET RESISTANT MATERIAL IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, OR USE UL RATED PRODUCT. DO NOT INSULATE THE LIQUID LINE.
18. ALL EXTERIOR EXPOSED WATER PIPING SHALL BE INSULATED WITH 2 INCH PREFORMED FIBERGLASS INSULATION WITH VAPOR JACKET AND SELFSEALING TAPE EQUAL TO OWENS-CORNING AS/J-SSL-II. COVER INSULATION WITH .016 INCH THICK ALUMINUM JACKET.
19. MECHANICAL CONTRACTOR SHALL FURNISH A COMBINATION STARTER SIZED IN ACCORDANCE WITH THE MOTOR RATING OF THE MECHANICAL EQUIPMENT. STARTER SHALL BE SUPPLIED WITH FUSES OR CIRCUIT BREAKERS, CIRCUIT TRANSFORMER, OVERLOADS, ONE N.O. AND ONE N.C. AUXILIARY CONTACT AND H.O.A. SWITCH MOUNTED IN THE COVER. STARTER ENCLOSURE SHALL BE NEMA RATED FOR ITS LOCATION. STARTER SHALL BE INSTALLED AND WIRED BY THE ELECTRICAL CONTRACTOR.
20. CONTRACTOR SHALL PROVIDE ALL AIR TEMPERATURE CONTROLS INCLUDING VAVES AND THERMOSTATS (WITH LOCKING COVERS) AND ALL MISCELLANEOUS APPURTENANCES TO MEET THE INTENT OF THESE DOCUMENTS.
21. EQUIPMENT AND MAINS - SHUT OFF VALVES SHALL BE EQUAL TO NIBCO MODEL S-113 LF SOLDERED JOINT, MODEL T-113 LF THREADED JOINT, BRONZE GATE VALVE NONRISING STEM, 300 PSI W.O.G., 125 PSI S.W.P. CONTRACTOR MAY SWAP AN EQUIVALENT BALL VALVE FOR THE GATE VALVE.
22. BALL VALVES SHALL BE EQUAL TO NIBCO, S-585-66-LF, BRONZE, RATED FOR 600 W.O.G.
23. VIBRATION ISOLATORS FOR HANGING EQUIPMENT SHALL BE EQUAL TO MASON INDUSTRIES MODEL 30N, COMBINATION SPRING AND DOUBLE DEFLECTION NEOPRENE HANGER, OR DEFLECTION AS RECOMMENDED BY MANUFACTURER.
24. VIBRATION ISOLATORS FOR BASE MOUNTED EQUIPMENT SHALL BE EQUAL TO MASON INDUSTRIES MODEL SLF, DEFLECTION AS RECOMMENDED BY MANUFACTURER.
25. KITCHEN RANGE HOOD EXHAUST DUCTS SHALL BE CONSTRUCTED WITH 14 GAUGE STEEL UP TO 155 SQUARE INCHES, 14 GAUGE UP TO 225 SQUARE INCHES AND 10 GAUGE FOR GREATER CROSS SECTION DUCT AREA, AND SHALL BE PROVIDED WITH WELDED SEAMS AND JOINTS. PROVIDE CLEANOUTS AT ALL CHANGES IN DIRECTION AND CLEANOUT DOORS EVERY 20 LINEAR FEET OF RUN OR AS PER CODE REQUIREMENTS, WHICHEVER IS THE MOST STRINGENT. HORIZONTAL DUCT SHALL BE GRADED BACK TO HOOD FOR DRAINAGE. PROVIDE RESIDUE TRAP AND CLEANOUT AT BASE OF ALL VERTICAL RISERS. PROVIDE FIRE WRAP INSULATION AS REQUIRED.
26. DUCTWORK EXPOSED TO WEATHER SHALL BE WEATHERPROOFED AS FOLLOWS: RUBBER ROOFING OR EQUIVALENT OVERDUCT INSULATION
27. ALL EQUIPMENT AND MATERIAL FURNISHED SHALL BE FREE FROM DEFECTS IN WORKMANSHIP AND MATERIAL. ALL EQUIPMENT AND MATERIALS SHALL MEET THE REQUIREMENTS OF ALL CODES AND STANDARDS OF LOCAL AND STATE AGENCIES HAVING JURISDICTION.
28. WHERE A SUBCONTRACTOR PROPOSES TO USE AN ITEM OR EQUIPMENT OTHER THAN THE SPECIFIED OR DETAILED ITEM ON THE DRAWINGS THAT IS APPROVED BY THE ENGINEER AND THAT REQUIRES REDESIGN OF THE STRUCTURE PARTITIONS, FOUNDATIONS, PIPING, WIRING OR ANY OTHER PART OF THE MECHANICAL, ELECTRICAL, OR ARCHITECTURAL LAYOUT, THEN SUCH REDESIGN, NEW DRAWINGS, AND DETAILING REQUIRED FOR IT SHALL BE PREPARED BY THE SUBCONTRACTOR WITHOUT EXTRA COMPENSATION.
29. THE SUBMITTAL WHICH HAS BEEN REVIEWED BY THE ENGINEER, WITH OR WITHOUT COMMENTS, DOES NOT RELIEVE THE CONTRACTOR FROM THE REQUIREMENTS OF COMPLYING WITH THE CONTRACT DOCUMENTS. ONLY SUBMITTALS WHICH EXPLICITLY REQUEST THE ENGINEER TO REVIEW DEVIATIONS WITH THE CONTRACT DOCUMENTS RELIEVE THE CONTRACTOR FROM THE SPECIFIC ITEM OF COMPLIANCE.
30. THE LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE, AND ARE TO SERVE AS GUIDE FOR THE INSTALLATION. THE SHIFTING OF LOCATIONS TO MEET CONDITIONS (BEFORE INSTALLATION) WILL BE EXPECTED, AND THIS SHALL BE DONE AT NO INCREASED COST.
31. FOR PURPOSES OF CLARITY AND LEGIBILITY, MECHANICAL DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC AND INDICATE ONLY SIZES, CONNECTION POINTS, AND ROUTES. IT IS NOT INTENDED OR IMPLIED THAT ALL OFFSETS, RISES, AND DROPS ARE AS SHOWN.
32. PROVIDE HOLLOW-FORMED CURVED METAL TURNING VANES IN ALL RECTANGULAR ELBOWS.
33. THE CONTRACTOR SHALL BALANCE THE SYSTEM IN ACCORDANCE WITH THE AIR VOLUMES AS SHOWN ON THE DRAWINGS AND MAKE OTHER MINOR ADJUSTMENTS AS DIRECTED.
34. CONTRACTOR SHALL PROVIDE SMOKE DETECTOR WITH RESET AND ONE SET OF DRY CONTACTS FOR ALL HVAC OVER 2000 CFM EACH OR SERVING A COMMON PLENUM EXCEEDING 2000 CFM IN PLENUM. PROVIDE DETECTOR ON RETURN AND SUPPLY OF EACH UNIT (2 PER UNIT)
35. CONTRACTOR SHALL SUBMIT A MINIMUM OF TWO AIR BALANCING CONTRACTORS. THE ENGINEER WILL MAKE THE FINAL SELECTION OF THE AIR BALANCING CONTRACTOR TO BE USED. REFER TO SPECIFICATIONS,

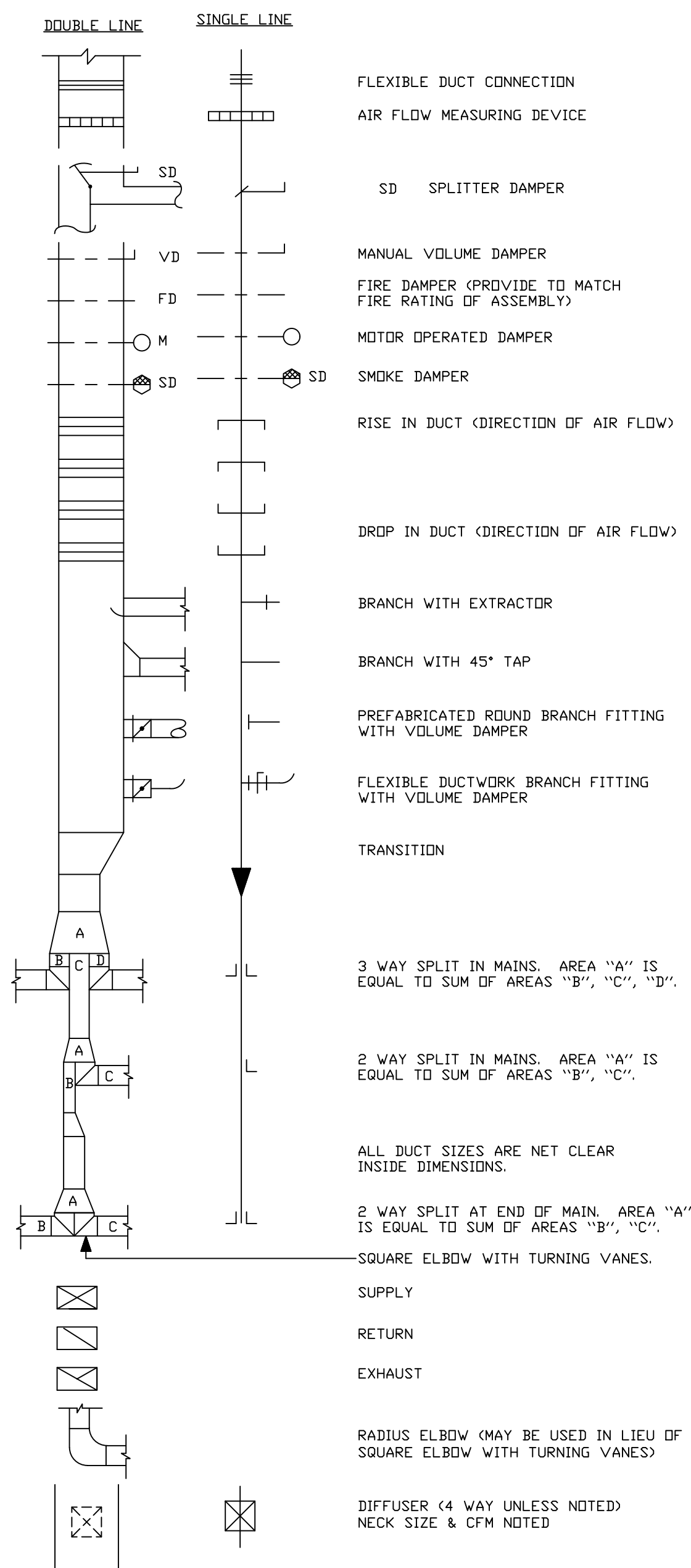
FIRE STOPPING NOTES

ALL PIPES, DUCTS, CONDUITS AND CABLES PASSING THROUGH RATED FLOORS/WALLS/CEILINGS SHALL BE FIRE STOPPED WITH 3M FIRE BARRIER CAULK CP 25 OR EQUAL. INSTALL PER MANUFACTURE'S INSTRUCTIONS AND TO SATISFY THE FIRE RATING REQUIREMENTS OF THE ASSEMBLY:

- | | |
|---------------------------|---|
| 1) ELEVATOR MACHINE ROOM | - 2 HOUR FIRE RATING FOR WALLS AND CEILING - UNLESS NOTED OTHERWISE ON THE PLANS |
| 2) MECHANICAL ROOM | - 1 HOUR FIRE RATING FOR WALLS AND CEILING - UNLESS NOTED OTHERWISE ON THE PLANS |
| 3) STAIR TOWER | - 2 HOUR FIRE RATING - UNLESS NOTED OTHERWISE ON THE PLANS |
| 4) OTHER FIRE SEPARATIONS | - PROVIDE TO MATCH ASSEMBLY RATING INDICATED ON THE PLANS AND REQUIRED BY INC. CODE |

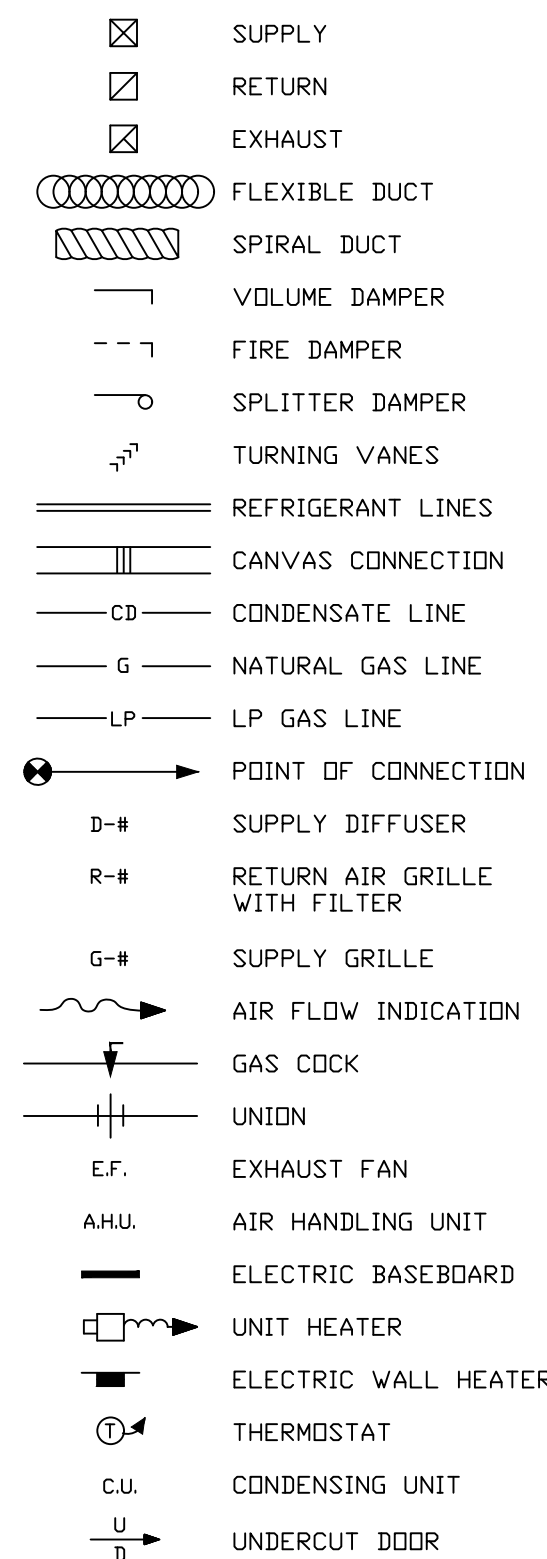
GENERAL NOTES - MECHANICAL - WORKMANSHIP / COORDINATION

- GN-1. ALL WORK SHALL BE PERFORMED IN A CLEAN AND WORKMANLIKE MANNER. CARE SHALL BE EXERCISED TO MINIMIZE ANY INCONVENIENCE OR DISTURBANCE TO OTHER AREAS OF THE BUILDING WHICH ARE TO REMAIN IN OPERATION. ISOLATE WORK AREAS BY MEANS OF TEMPORARY PARTITIONS AND/OR TARPS TO DEEP DUST AND DIRT WITHIN THE CONSTRUCTION AREA.
- GN-2. NO PIPING, EQUIPMENT, ETC. SHALL BE REMOVED, DISCONNECTED OR SHUT DOWN WITHOUT PRIOR REVIEW WITH THE OWNER AND/OR ENGINEER TO CONFIRM THAT AREAS TO REMAIN IN OPERATION WILL NOT BE AFFECTED. IF ANY AREAS NOT WITHIN THE SCOPE OF WORK ARE AFFECTED BY ANY SHUTDOWN, REMOVAL OR DISCONNECTION, SUFFICIENT ADVANCE NOTICE MUST BE GIVEN TO THE OWNER INDICATING WHICH AREAS WILL BE AFFECTED, WHEN THE PROPOSED SHUTDOWN WILL OCCUR, AND FOR HOW LONG A PERIOD OF TIME.
- GN-3. ALL ITEMS REMOVED SHALL BECOME PROPERTY OF THE OWNER AND SHALL BE DISPOSED OF AS PER THE OWNER'S INSTRUCTIONS, UNLESS INDICATED OTHERWISE. ALL ITEMS WHICH ARE NOT TO BE STORED ON SITE BY OWNERS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR.
- GN-4. THIS CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS PRIOR TO PROCEEDING WITH ANY WORK. WHEN DISCREPANCIES OCCUR BETWEEN THESE DOCUMENTS AND EXISTING CONDITIONS, THE DISCREPANCY SHALL BE REPORTED TO THE OWNER AND/OR ENGINEER FOR EXPEDITING AND RESOLVE.
- GN-5. ALL SHUT DOWNS OF EXISTING SYSTEMS SHALL BE SCHEDULED AND APPROVED BY THE OWNER PRIOR TO COMMENCING WITH WORK.
- GN-6. CLEAN THE JOB SITE DAILY AND REMOVE FROM THE PREMISES ANY DIRT AND DEBRIS CAUSED BY THE PERFORMANCE OF THE WORK INCLUDED IN THIS CONTRACT.
- GN-7. USE OF THE OWNER'S ELEVATORS AND BUILDING CORRIDORS FOR HANDLING OF THE OWNER AND REMOVED EQUIPMENT AND MATERIALS SHALL BE AT THE DIRECTION OF THE OWNER AND SHALL BE COORDINATED WITH HIS OPERATIONS.
- GN-8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFEKEEPING OF HIS OWN PROPERTY ON THE JOB SITE. OWNER ASSUMES NO RESPONSIBILITY FOR PROTECTION OF PROPERTIES AGAINST FIRE, THEFT AND ENVIRONMENTAL CONDITIONS.
- GN-9. SUCCESSFULLY PRESSURE TEST ALL PIPING SYSTEMS. TEST SHALL BE PERFORMED AT NORMAL SYSTEM OPERATING PRESSURES. REPAIR AND RETEST AS REQUIRED UNTIL SYSTEMS PROVE TIGHT.
- GN-10. EXISTING MATERIALS THAT ARE REMOVED SHALL NOT BE REUSED IN NEW SYSTEMS, EXCEPT WHERE INDICATED AS BEING RELOCATED.
- GN-11. PROVIDE ALL NECESSARY TEMPORARY OR PERMANENT CAPS OR PLUGS FOR PIPING. DO NOT LEAVE PIPING OPEN ENDED.
- GN-12. WHERE USED, THE TERM "PROVIDE" SHALL MEAN "FURNISH AND INSTALL".
- GN-13. THIS CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL OTHER TRADES PRIOR TO FABRICATION, PURCHASE AND/OR INSTALLATION OF ALL WORK.
- GN-14. MECHANICAL CONTRACTOR SHALL COORDINATE ELECTRICAL REQUIREMENT OF ANY EQUIPMENT WITH G.C. AND ELECTRICAL CONTRACTOR PRIOR TO ROUGH-IN.
- GN-15. THE CONTRACTOR SHALL REFER TO PROJECT SPECIFICATIONS FOR ANY ADDITIONAL PROJECT REQUIREMENTS



DUCTWORK SYMBOLS

MECHANICAL SYMBOLS



MECHANICAL DRAWING SHEET

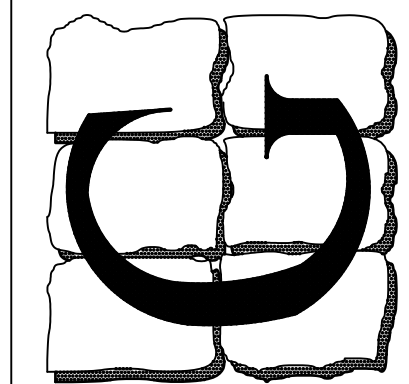
M-0.0	MECHANICAL COVER SHEET
MP-1.0	MECHANICAL/ PLUMBING NEW WORK PLAN
MP-2.0	MECHANICAL/ PLUMBING - HOOD DATA

20-069

L.S. GRIM, INC.
Consulting Engineers

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GENERAL PLUMBING NOTES

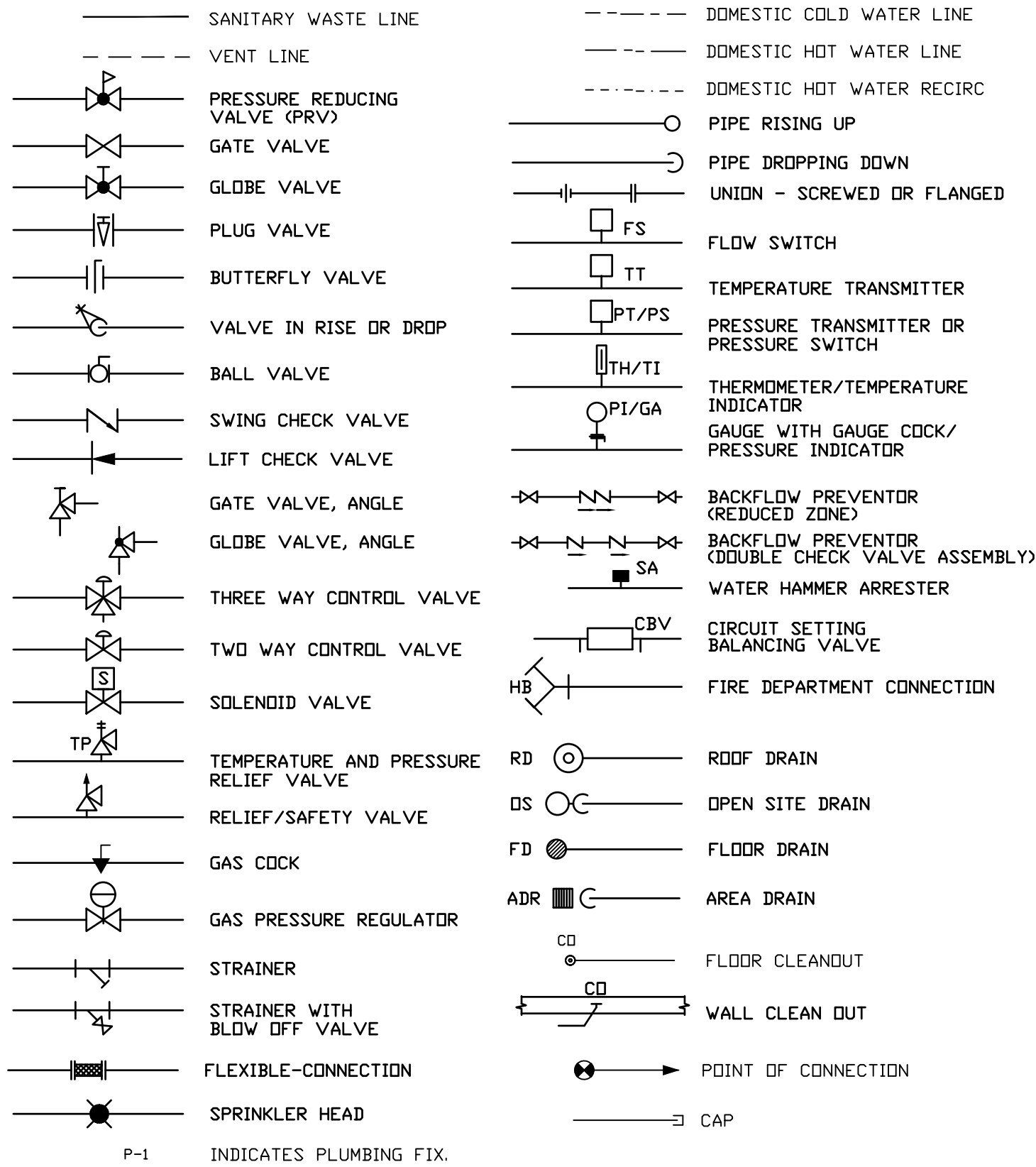
- FURNISH ALL LABOR, MATERIALS, TOOLS, EQUIPMENT AND SERVICE NECESSARY AND INCIDENTAL TO INSTALL ALL PLUMBING WORK AND RELATED SYSTEMS AS SHOWN ON DRAWINGS AND INDICATED IN THE SPECIFICATIONS AS NECESSARY TO PROVIDE A FINISHED INSTALLATION. THE FINISHED INSTALLATION SHALL BE IN PERFECT WORKING CONDITION AND READY FOR CONTINUOUS AND SATISFACTORY OPERATION.
- ALL EQUIPMENT AND MATERIAL FURNISHED SHALL BE FREE FROM DEFECTS IN WORKMANSHIP AND MATERIAL. ALL EQUIPMENT AND MATERIALS SHALL MEET THE REQUIREMENTS OF ALL CODES AND STANDARDS OF LOCAL AND STATE AGENCIES HAVING JURISDICTION.
- WHERE A SUBCONTRACTOR PROPOSES TO USE AN ITEM OF EQUIPMENT OTHER THAN THE SPECIFIED OR DETAILED ITEM ON THE DRAWINGS THAT IS APPROVED BY THE ENGINEER AND THAT REQUIRES REDESIGN OF THE STRUCTURE, PARTITIONS, FOUNDATIONS, PIPING, WIRING, OR ANY OTHER PART OF THE MECHANICAL, ELECTRICAL, OR ARCHITECTURAL LAYOUT, THEN SUCH REDESIGN, NEW DRAWINGS, AND DETAILING REQUIRED FOR IT SHALL BE PREPARED BY THE SUBCONTRACTOR WITHOUT EXTRA COMPENSATION.
- THE CONTRACTOR'S SUBMITTAL INDICATES HIS/HER UNDERSTANDING AND APPROVAL OF THE SUBMITTED ITEM FOR ITS INTENDED USE. THE CONTRACTOR'S SUBMITTAL INDICATES THAT HE/SHE IS COMPLYING WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL NOTE ON THE SUBMITTAL AND DEVIATIONS WITH THE CONTRACT DOCUMENTS.
- THE SUBMITTAL WHICH HAS BEEN REVIEWED BY THE ENGINEER, WITH OR WITHOUT COMMENTS, DOES NOT RELIEVE THE CONTRACTOR FROM THE REQUIREMENTS OF COMPLYING WITH THE CONTRACT DOCUMENTS. ONLY SUBMITTALS WHICH EXPLICITLY REQUEST THE ENGINEER TO REVIEW DEVIATIONS WITH THE CONTRACT DOCUMENTS RELIEVE THE CONTRACTOR FROM THE SPECIFIC ITEM OF COMPLIANCE.
- THE LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE, AND ARE TO SERVE AS A GUIDE FOR THE INSTALLATION. THE SHIFTING OF LOCATIONS TO MEET CONDITIONS (BEFORE INSTALLATION) WILL BE EXPECTED, AND THIS SHALL BE DONE AT NO INCREASED COST.
- THE CONTRACTOR SHALL COORDINATE THE PLUMBING WORK AND EQUIPMENT WITH THE WORK TO BE PERFORMED AND THE EQUIPMENT TO BE PROVIDED UNDER OTHER DIVISIONS OF THE PROJECT.
- IT SHALL BE THE RESPONSIBILITY OF THE PLUMBING CONTRACTOR TO INFORM THE ELECTRICAL CONTRACTOR AS REGARDS TO THE EXACT SERVICE REQUIREMENTS OF EACH PIECE OF PLUMBING EQUIPMENT.
- RENOVATION WORK: FOR RENOVATION WORK THE CONTRACTOR SHALL VISIT THE EXISTING FACILITY AND NOTE THE EXISTING CONDITIONS AND JOB SITE LIMITATIONS, PRIOR TO BIDDING.
- FOR PURPOSES OF CLEARNESS AND LEGIBILITY, PIPING DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC AND INDICATE ONLY SIZES, CONNECTION POINTS, AND ROUTES. IT IS NOT INTENDED OR IMPLIED THAT ALL OFFSETS, RISES, AND DROPS ARE AS SHOWN.
- PROVIDE AND INSTALL ALL CUTTING, PATCHING, FIREPROOFING, AND FIRE STOPPING REQUIRED FOR THE COMPLETE INSTALLATION OF YOUR DISCIPLINE.
- ALL DOMESTIC WATER PIPING, HOT, COLD, AND HOT WATER RE-CIRCULATION PIPING SHALL BE INSULATED. SEE SPECIFICATIONS FOR SIZE AND TYPE.
- PROVIDE A HOT AND COLD WATER DISTRIBUTION SYSTEM BEGINNING AT THE POINT OF CONNECTION WITH CONNECTIONS TO EACH PLUMBING FIXTURE. PROVIDE A COMPLETE SYSTEM OF SANITARY PIPING BEGINNING AT POINT OF CONNECTION AND CONTINUING TO ALL PLUMBING FIXTURES.
- ALL FIXTURES SHALL BE FURNISHED, SET, AND PROPERLY CONNECTED. ALL PROPER PROTECTIVE PAPER, LABELS, ETC., SHALL BE REMOVED AND FIXTURES AND FITTINGS SHALL BE THOROUGHLY CLEANED AFTER ALL TRADES HAVE COMPLETED THEIR WORK. THEY SHALL BE LEFT IN CONDITION ACCEPTABLE TO THE OWNER.
- COMPLETELY DISINFECT THE PIPING AND SYSTEM COMPONENTS WITH A SOLUTION OF SODIUM HYPO CHLORITE AS DIRECTED BY LOCAL HEALTH DEPARTMENT.
- ALL APPLICABLE CODES, LAWS AND REGULATIONS GOVERNING OR RELATING TO ANY PORTION OF THIS WORK ARE HEREBY INCORPORATED INTO AND MADE PART OF THESE SPECIFICATIONS, AND THEIR PROVISIONS SHALL BE CARRIED OUT BY THE CONTRACTOR WHO SHALL INFORM THE OWNER, PRIOR TO SUBMITTING A PROPOSAL, OF ANY WORK OR MATERIALS WHICH VIOLATE ANY OF THE ABOVE LAWS AND REGULATIONS. ANY WORK DONE BY THE CONTRACTOR CAUSING SUCH VIOLATIONS SHALL BE CORRECTED BY THE CONTRACTOR.
- SUPPORT NEW PIPING FROM BUILDING STRUCTURE AND OR FRAMING IN AN APPROVED MANNER. WHERE OVERHEAD CONSTRUCTION DOES NOT PERMIT FASTENING OF SUPPORTS FOR EQUIPMENT, FURNISH ADDITIONAL FRAMING.
- INSTALL WORK SO AS TO BE READILY ACCESSIBLE FOR OPERATION, MAINTENANCE AND REPAIR. MINOR DEVIATIONS FROM DRAWINGS MAY BE MADE TO ACCOMPLISH THIS, BUT CHANGES WHICH INVOLVE EXTRA COST SHALL NOT BE MADE WITHOUT APPROVAL.
- REMOVAL AND RELOCATION OF CERTAIN EXISTING WORK WILL BE NECESSARY FOR THE PERFORMANCE OF THE GENERAL WORK. ALL EXISTING CONDITIONS CANNOT BE COMPLETELY DETAILED ON THE DRAWINGS. THE CONTRACTOR SHALL SURVEY THE SITE AND INCLUDE ALL CHANGES IN MAKING UP THE WORK PROPOSAL.
- SEAL ALL OPENINGS AROUND PIPES THROUGH PARTITIONS AND WALLS WITH APPROVED FIRE-STOPPING MATERIAL MEETING ASTM E814 AND NFPA-101.
- PROVIDE ALL NECESSARY FLASHING AND COUNTER-FLASHING TO MAINTAIN THE WATERPROOFING INTEGRITY OF THIS BUILDING AS REQUIRED BY THE INSTALLATION OR REMOVAL OF PIPES, DUCTS, CONDUIT AND EQUIPMENT.
- ALL EXISTING MATERIAL AND EQUIPMENT REMOVED UNDER THIS CONTRACT SHALL BE REMOVED FROM THE SITE OR RETURNED TO THE BUILDING OWNER AT THE OWNER'S DISCRETION.
- ACCESS TILE IDENTIFICATION PROVIDE BUTTONS, TABS AND MARKERS TO IDENTIFY LOCATION OF CONCEALED VALVES AND EQUIPMENT. ALL MATERIAL AND EQUIPMENT TO BE NEW UNLESS OTHERWISE NOTED.
- SUBMISSION OF A PROPOSAL SHALL BE CONSTRUED AS EVIDENCE THAT A CAREFUL EXAMINATION OF THE PORTIONS OF THE EXISTING BUILDING, EQUIPMENT, ETC., WHICH AFFECT THIS WORK, AND THE ACCESS TO SUCH SPACES, HAS BEEN MADE AND THAT THE CONTRACTOR IS FAMILIAR WITH THE EXISTING CONDITIONS AND DIFFICULTIES THAT WILL AFFECT THE EXECUTION OF THE WORK. LATER CLAIMS SHALL NOT BE MADE FOR LABOR, EQUIPMENT, OR MATERIALS REQUIRED BECAUSE OF DIFFICULTIES ENCOUNTERED, WHICH COULD HAVE BEEN FORESEEN DURING SUCH AN EXAMINATION.
- PLUG OR CAP ALL PIPING. DO NOT LEAVE PIPING OPEN ENDED.
- THE CONTRACTOR SHALL OBTAIN AND PAY ALL FEES RELATED TO PERMITTING, INSPECTIONS, ETC.
- CONTRACTOR SHALL COORDINATE AND PLUMBING OR PIPING SYSTEM SHUTDOWN WITH THE OWNER 48 HOURS IN ADVANCE.
- THE BACKFLOW PREVENTION DEVICE SHALL BE INSTALLED PER LOCAL CODE AND PER AUTHORITY HAVING JURISDICTION REQUIREMENTS.
- ALL (VTR'S) VENT THRU ROOF PENETRATIONS INDICATED ON PLANS ARE PRELIMINARY, FINAL LOCATIONS SHALL BE COORDINATED WITH ALL TRADES. ALL VTR'S SHALL BE A MINIMUM OF 10'-0" FROM ALL FRESH AIR INTAKE OPENINGS.
- THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS PRIOR TO PROCEEDING WITH ANY WORK. WHERE DISCREPANCIES OCCUR BETWEEN THESE DOCUMENTS AND EXISTING CONDITIONS, THE DISCREPANCY SHALL BE REPORTED TO THE OWNER AND/OR ENGINEER FOR EXPEDITING AND RESOLVE.
- CLEAN THE JOB SITE DAILY AND REMOVE FROM THE PREMISES ANY DIRT AND DEBRIS CAUSED BY THE PERFORMANCE OF THE WORK INCLUDED IN THIS CONTRACT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFEKEEPING OF HIS OWN PROPERTY ON THE JOB SITE. OWNER ASSUMES NO RESPONSIBILITY FOR PROTECTION OF PROPERTIES AGAINST FIRE, THEFT AND ENVIRONMENTAL CONDITIONS.
- PRIOR TO STARTING CONSTRUCTION, DETERMINE EXACT INVERT ELEVATION, SIZE, DEPTH AND LOCATION OF EXISTING UTILITIES WHERE CONNECTIONS ARE TO BE MADE OR INTERSECTIONS OCCUR. NOTIFY ARCHITECT OR ENGINEER OF ANY DISCREPANCY BETWEEN DRAWINGS AND ACTUAL FIELD CONDITIONS. WORK BACK TOWARD BUILDING FROM UTILITY CONNECTION FOR ALL PIPING SYSTEMS.
- INSTALL ALL FROST PROOF HYDRANTS 30 INCHES ABOVE FINISHED GRADE.
- INSTALL ALL SHOCK ABSORBERS IN ACCORDANCE WITH THE LATEST "PLUMBING AND DRAINAGE INSTITUTE STANDARDS" FOR WATER HAMMER ARRESTORS.
- LOCATE ACCESS PANELS IN NON-ACCESSIBLE CEILINGS AND WALLS FOR ALL VALVES, SHOCK ABSORBERS, CLEANOUTS AND ALL OTHER ITEMS THAT REQUIRE ACCESS TO PROPERLY MAINTAIN OR SERVICE THE BUILDING. REFER TO SPECIFICATIONS.
- PROVIDE CLEANOUTS AT THE BASE OF ALL SANITARY DRAINAGE, PROCESS WASTE, AND RAIN WATER CONDUCTORS.

PLUMBING FIXTURE SCHEDULE (SEE NOTE #1 BELOW)

MARK	DESCRIPTION	C.W.	H.W.	VENT	WASTE	MANUFACTURER	REMARKS
P-1	PRESSURE ASSISTED TANK TYPE WATER CLOSET	1/2"	-	2"	4"	AMERICAN STANDARD ELONGATED CADET 16 GAL PRESSURE ASSISTED #2292100 W/OPEN SEAT, SUPPLY & STOPS	
P-1A	PRESSURE ASSISTED TANK TYPE WATER CLOSET	1/2"	-	2"	4"	AMERICAN STANDARD ELONGATED CADET 16 GAL PRESSURE ASSISTED #2168100 W/OPEN SEAT, SUPPLY & STOPS	
P-2	STANDARD WALL HUNG LAVATORY	1/2"	1/2"	1-1/2"	1-1/2"	AMER. STD. ROXALYN 0195.073 CONCEALED ARM CARRIER, W/CHICAGO 559-2350 MTRING FAUCET W/GRID DRAIN, SUPPLIES AND STOP	
P-2A	HANDICAPPED WALL HUNG LAVATORY	1/2"	1/2"	1-1/2"	1-1/2"	SAME AS P-2 EXCEPT MOUNT TO HANDICAPPED STANDARDS. PROVIDE SUPPLY & TRAP INSULATORS, TRUE BRO DR EQUAL.	
P-3	STANDARD WALL HUNG URINAL	3/4"	-	1-1/2"	2"	AMERICAN STANDARD WASHBROOK #6501.010 W/SLOAN ROYAL #186-1 FLUSHVALVE	
P-3A	HANDICAPPED WALL HUNG URINAL	3/4"	-	1-1/2"	2"	SAME AS P-3 EXCEPT MOUNT TO HANDICAPPED STANDARDS	
P-4	STANDARD VANITY LAVATORY	1/2"	1/2"	1-1/2"	1-1/2"	AMERICAN STANDARD RONDALYN #0491.019 W/CHICAGO #559-2350 METERING FAUCET W/ GRID DRAIN, SUPPLIES & STOPS	
P-4A	HANDICAPPED VANITY LAVATORY	1/2"	1/2"	1-1/2"	1-1/2"	SAME AS P-4 EXCEPT MOUNT TO HANDICAPPED STANDARDS. PROVIDE SUPPLY & TRAP INSULATORS, TRUE BRO DR EQUAL.	
P-5	STANDARD FLUSH VALVE WATER CLOSET	1"	-	2"	4"	AMERICAN STANDARD MADERA EL 1.6 GAL #2234.015 W/OPEN SEAT, ROYAL SLOAN #111 FLUSHVALVE	
P-5A	HANDICAPPED FLUSH VALVE WATER CLOSET	1"	-	2"	4"	AMERICAN STANDARD CADET 17"H EL 1.6 GAL #3043.102 W/OPEN SEAT, ROYAL SLOAN #111 FLUSHVALVE	
P-6	HANDICAPPED WATER COOLER HIGH/LOW	1/2"	-	1-1/2"	1-1/2"	ELKAY HIGH/LOW SEMI RECESSED MODEL ERHP2-8 HANDICAP/STANDARD UNIT	
P-7	DOUBLE BOWL KITCHEN SINK	1/2"	1/2"	1-1/2"	2"	ELKAY/DAYTON ELITE MODEL #DSE-23322 W/MOEN MODEL #7841-B FAUCET W/SPRAY & STRAINERS W/BASKETS	
P-8	STAINLESS STEEL SINGLE BOWL SINK	1/2"	1/2"	1-1/2"	2"	ELKAY/DAYTON MODEL #DSE-12522 W/MOEN MODEL #87415 FAUCET & SPRAY W/STRAINER, SUPPLIES & STOPS	
P-9	BAR SINK	1/2"	1/2"	1-1/2"	1-1/2"	KROWNE METAL - STAINLESS STEEL HS-9L-12W W/ GOOSE NECK FAUCET DR EQUAL	
P-10	LAUNDRY TUB	1/2"	1/2"	1-1/2"	2"	FIAT MODEL #FL-1 W/#A-1 BRASS FAUCET W/STOPPER, SUPPLIES & STOPS	
P-11	MOP SINK	1/2"	1/2"	1-1/2"	1-1/2"	FIAT MODEL #MSB-2424 W/#830AA FAUCET W/VACUUM BREAKER #832AA HOSE & HOSE BRACKET, #889CC MOP HANGER & STRAINER	
P-12	FLOOR SINK	-	-	1-1/2"	3"	ZURN #Z-1900 LESS GRATE W/6" DEEP SEAL TRAP W/TRAP PRIMER CONNECTION	
P-13	FLOOR DRAIN	-	-	1-1/2"	3"	ZURN #Z-415 W/'B' STRAINER & 6" DEEP SEAL TRAP	
P-14	TRAP PRIMER DEVICE	1/2"	-	-	-	PRIME TRAP PRIMER VALVE MODEL #PR-500 W/SS-8 & DU-2	
P-15	FROSTPROOF WALL HYDRANT	3/4"	-	-	-	ZURN Z1350 W/ BACKFLOW PREVENTOR	
P-16	SERVICE FAUCET	3/4"	3/4"	-	-		
P-17	WATER HEATER	3/4"	3/4"	-	3/4"		
P-18	WATER HEATER	1"	1"	-	1"		
P-19	SHOWER	1/2"	1/2"	1-1/2"	2"	MOEN #8375 PRESSURE BALANCING VALVE/SHOWER W/GRID DRAIN	
P-19A	H.C. SHOWER	1/2"	1/2"	1-1/2"	2"	MOEN #8345 PRESSURE BALANCING VALVE W/GRID DRAIN	
P-20	TUB/SHOWER	1/2"	1/2"	1-1/2"	2"		
P-21	RESIDENTIAL DISHWASHER	1/2"	1/2"	1-1/2"	2"	PROVIDED BY OTHERS AND CONNECTED BY PLUMBING CONTRACTOR	
P-22	RESIDENTIAL CLOTHES WASHER	1/2"	1/2"	1-1/2"	2"	PROVIDED BY OTHERS AND CONNECTED BY PLUMBING CONTRACTOR	
P-23	HANDICAP DRINKING FOUNTAIN	1/2"	-	1-1/2"	1-1/2"	SEMI RECESSED ELKAY #EDFP-19-C	
P-24	RECESSED YARD HYDRANT	1/2"	-	N/A	N/A	ZURN Z1360 W/ BACKFLOW PREVENTOR	
P-25	SUMP PUMP	-	-	1-1/2"	2"	MYERS #525 W/SUMP & FLOOD 1/4 HP 120V, 106PM @ 20 FEET	
P-26	SEWAGE GRINDER PUMP	-	-	1-1/2"	2"	MYERS SIMPLEX PACKAGE 30X36 W/BASIN, CONTROLS/ALARM. 1-1/2 HP 30GPM @30 FT	
P-27	COMPACT ELECTRIC WATER HEATER	1/2"	1/2"	-	-	RUUD EGLS 30S, 3KW	

- THIS IS A STD. PLUMBING FIXTURE SCHEDULE. PLUMBING FIXTURE DESIGNATIONS MAY APPEAR ON SCHEDULE BUT MAY NOT BE UTILIZED ON THE PLAN. REFER TO PLANS FOR ACTUAL PLUMBING FIXTURES USED ON THE PROJECT.

PLUMBING/PIPING SYMBOLS



PLUMBING DRAWING LIST

P-0.0

MP-1.0

MP-2.0

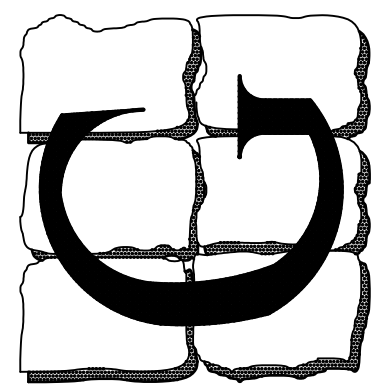
PLUMBING COVER SHEET

MECHANICAL/PLUMBING NEW WORK PLAN

MECHANICAL/PLUMBING - HOOD DATA

20-069

L.S. GRIM, INC.
Consulting Engineers



BLUE RIDGE COLLEGE AND
TECHNICAL COLLEGE
18650 APPLE HARVEST DRIVE
MARTINSBURG, WV 25403

PLUMBING COVER SHEET

Professional Certification
I certify that these documents were prepared or approved by me, and that I am a duly licensed engineer under the laws of the State of Maryland.
License Number: 14401
Expiration Date: 4/21/2021

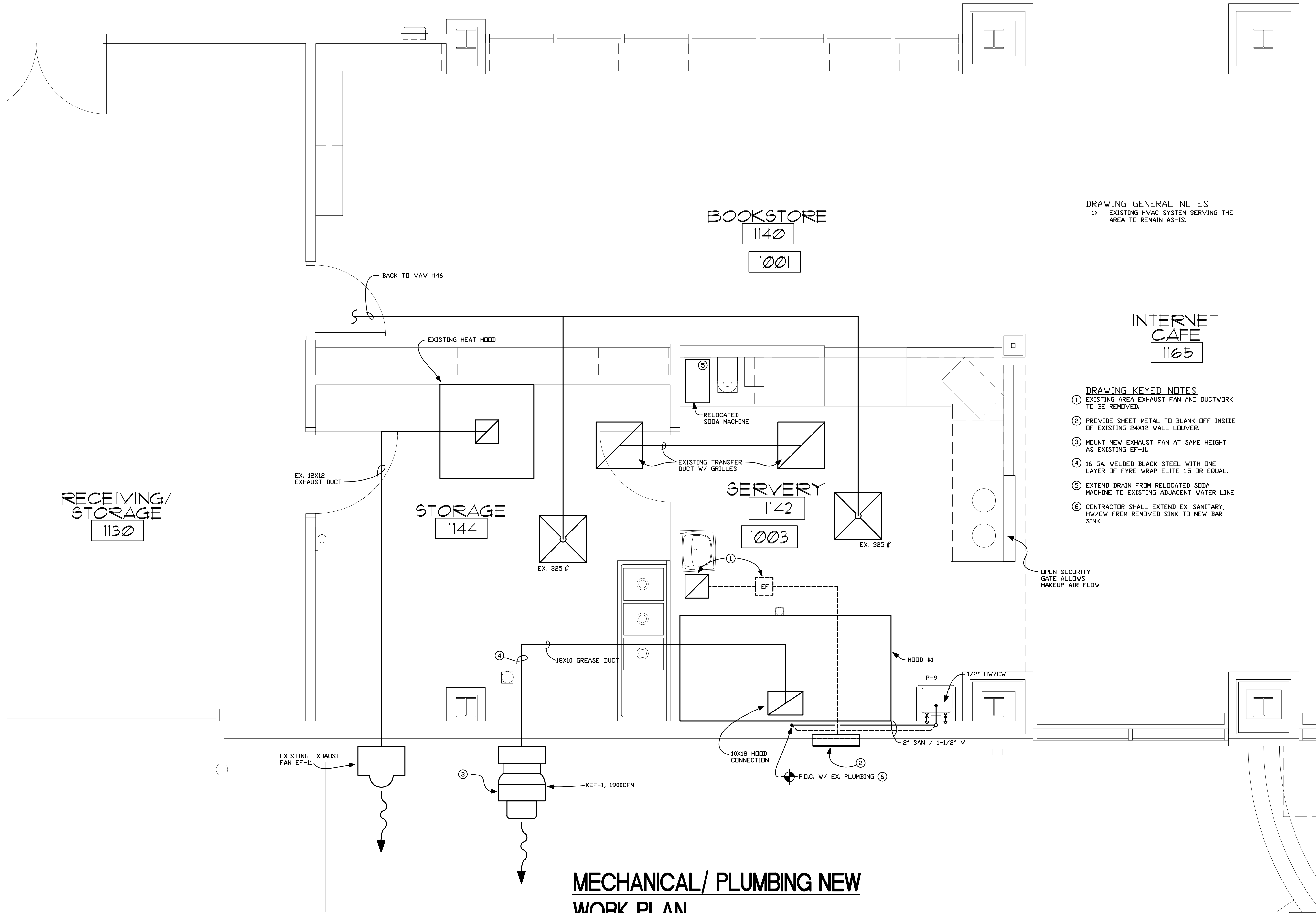
LESLIE SCOTT GRIM, P.E.

CO. PROF. ENG. NO. PE0050461
DC. PROF. ENG. NO. PE001201
PR. PROF. ENG. NO. 19513
CA. PROF. ENG. NO. PE032582
HI. PROF. ENG. NO. PE15943
MD. PROF. ENG. NO. 14401
NC. PROF. ENG. NO. 033364
NJ. PROF. ENG. NO. 34497
NY. PROF. ENG. NO. 075414
PA. PROF. ENG. NO. PE033363E
VA. PROF. ENG. NO. 023240
WV. PROF. ENG. NO. 10764

REV.	DATE	COMMENT
1	2/26/21	85% OWNER REVIEW SET
2	4/23/21	BID SET
3		
4		
5		
6		
7		
8		
9		
10		

DRAWN BY: LBG

P-0.0
OF 3 SHEETS
DATE: APRIL 23, 2021



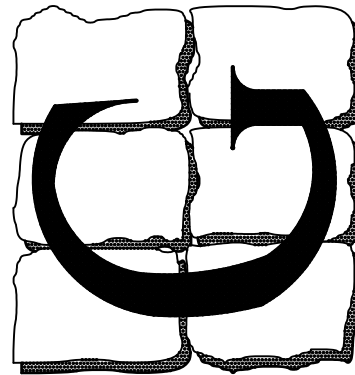
DRAWING GENERAL NOTES
1) EXISTING HVAC SYSTEM SERVING THE AREA TO REMAIN AS-IS.

- DRAWING KEYED NOTES
- EXISTING AREA EXHAUST FAN AND DUCTWORK TO BE REMOVED.
 - PROVIDE SHEET METAL TO BLANK OFF INSIDE OF EXISTING 24X12 WALL LOUVER.
 - MOUNT NEW EXHAUST FAN AT SAME HEIGHT AS EXISTING EF-11.
 - 16 GA. WELDED BLACK STEEL WITH ONE LAYER OF FLYRE WRAP ELITE 15 OR EQUAL.
 - EXTEND DRAIN FROM RELOCATED SODA MACHINE TO EXISTING ADJACENT WATER LINE
 - CONTRACTOR SHALL EXTEND EX. SANITARY, HW/CW FROM REMOVED SINK TO NEW BAR SINK

MECHANICAL/ PLUMBING NEW
WORK PLAN
SCALE: 1/2"=1'-0"

20-069

L.S. GRIM, INC.
Consulting Engineers



BLUE RIDGE COLLEGE AND
TECHNICAL COLLEGE
18650 APPLE HARVEST DRIVE
MARTINSBURG, WV 25403
MECHANICAL/PLUMBING NEW WORK PLAN

Professional Certification
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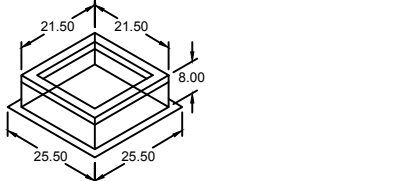
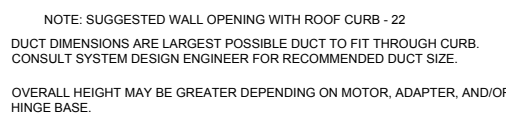
LESLIE SCOTT GRIM, P.E.
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NJ. PROF. ENG. NO. 39497
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REV.	DATE	COMMENT
1	2/26/21	85% OWNER REVIEW SET
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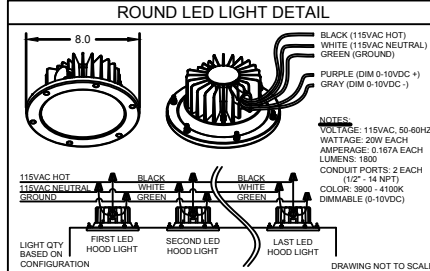
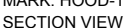
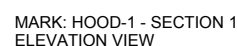
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MP-1.0
OF 3 SHEETS
DATE: APRIL 23, 2021


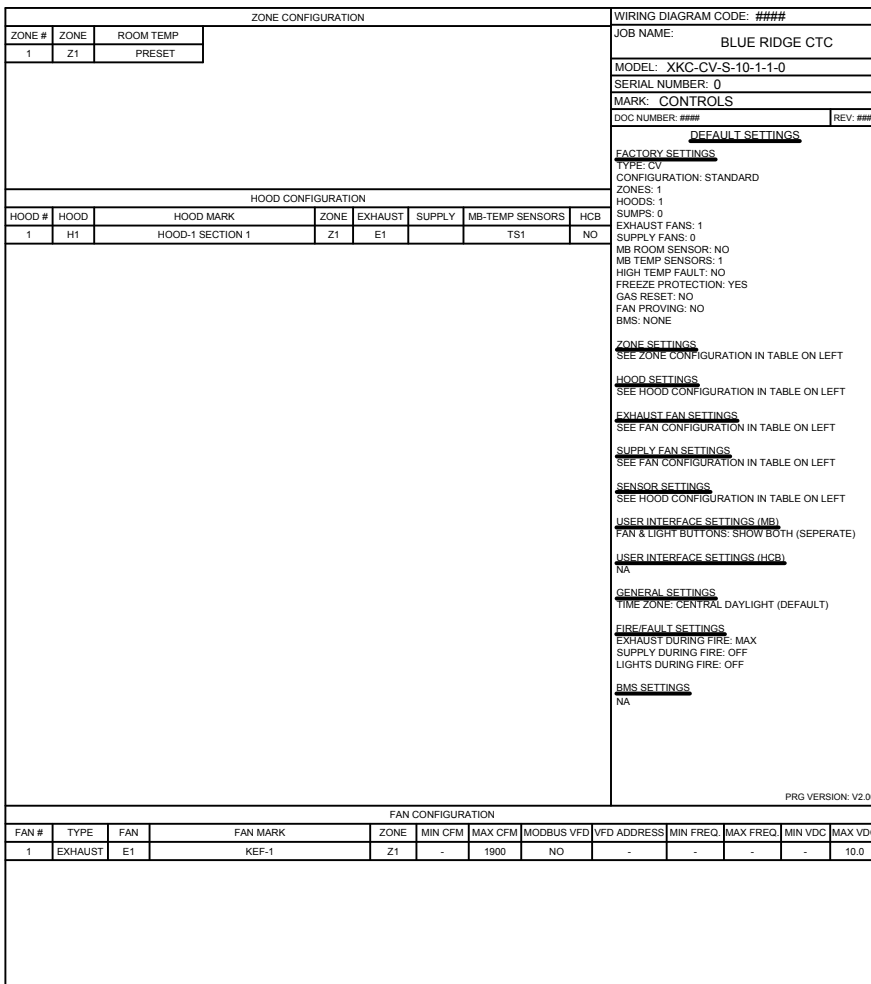
*NEC FLA - Based on table 430.250 or 430.248 of National Electrical Code 2017. Actual motor FLA may vary for sizing thermal overload, consult factory



HOOD OPTIONS	
UL 710 LISTED W/ OUT EXHAUST FIRE DAMPER - UL #R25625	
BACK INTEGRAL AIR SPACE - 3 IN WIDE	
RIGHT NON-INTEGRAL AIR SPACE - 1 IN THICK - ZERO CLEARANCE	
18 IN HIGH CEILING ENCLOSURES - FRONT LEFT RIGHT - FIELD INSTALLED	
FACTORY MOUNTED EXHAUST COLLAR(S)	
BACKSPLASH 80.00 IN HIGH 109.00 IN LONG	
RIGHT SIDESPLASH 80.00 IN HIGH 54.00 IN LONG	
PERFORMANCE ENHANCING LIP (PEL) TECHNOLOGY	
STANDING SEAM CONSTRUCTION FOR SUPERIOR STRENGTH	



CONTROL FEATURES	
HOOD LIGHT CONTROL	
TEMP SENSORS (FACTORY PROVIDED) - QTY. 1	
DRY FIRE CONTACTS - QTY. 1	
LIGHTS OFF DURING FIRE	
EXHAUST MAX DURING FIRE	
SUPPLY OFF DURING FIRE	



ACCUREX

ACCUREX

COOKING HOOD DATA

LESLIE SCOTT GRIM, P.E.

CO PROF. ENG. NO. PE0050461
DC PROF. ENG. NO. PE901201
DE PROF. ENG. NO. 19513
GA PROF. ENG. NO. PE032582
HI PROF. ENG. NO. PE13943
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NJ PROF. ENG. NO. 39497
NY PROF. ENG. NO. 075414
PA PROF. ENG. NO. PE032636E
VA PROF. ENG. NO. 023240
WY PROF. ENG. NO. 10764

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MP-2.0
OF 3 SHEETS
DATE: APRIL 23, 2021

GENERAL ELECTRICAL NOTES

- MATERIALS, EQUIPMENT, AND SYSTEMS SHALL MEET ALL PERTINENT REQUIREMENTS OF THE AMERICAN SOCIETY FOR TESTING MATERIALS (ASTM), 2015 NATIONAL ELECTRIC CODE (NEC), THE UNDERWRITERS' LABORATORY (UL), THE NATIONAL ELECTRIC MANUFACTURER'S ASSOCIATION (NEMA), NATIONAL FIRE PROTECTION ASSOCIATION (NFPA), AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI), AND OTHER NATIONALLY RECOGNIZED AGENCIES AS WELL AS APPLICABLE LOCAL CODES.
- ANYTHING DRAWN OR SPECIFIED SHALL NOT BE CONSTRUED TO CONFLICT WITH ANY LOCAL, MUNICIPAL OR STATE LAW, REGULATION OR ORDINANCE WHICH GOVERNS THE INSTALLATION OF ANY ELECTRICAL OR RELATED WORK. ITEMS SHALL NOT BE INSTALLED IN CONFLICT WITH THE N.E.C. RESOLVE ANY AND ALL CONFLICTS BEFORE INSTALLATION AT NO ADDITIONAL EXPENSE TO THE OWNER.
- ALL ELECTRICAL EQUIPMENT SHALL BE LISTED AND LABELED FOR THE QUALIFIED USE. VERIFY CIRCUIT BREAKER INTERRUPT CAPACITY NEEDED FOR EACH PANEL WITH LOCAL UTILITY. FOR BID PURPOSES, ASSUME 65,000 AIC FOR SERVICE ENTRANCE EQUIPMENT, AND 25,000 AIC ELSEWHERE. BALANCE THE POWER EQUALLY (+/- 10%) ON ALL PHASES.
- THE SYSTEMS SHOWN ON DRAWINGS SHALL BE PROVIDED TO SERVE ALL FIXTURES, EQUIPMENT, AND AREAS WITHIN THE CONTRACT LIMIT LINES AS SET FORTH BY THE ARCHITECTURAL SOLUTION FOR THE PROJECT. THE BIDDING AND CONTRACT REQUIREMENTS, GENERAL REQUIREMENTS, AND GENERAL PROVISIONS SHALL APPLY TO THIS SECTION. SYSTEMS SHALL INCLUDE ALL EQUIPMENT, APPURTENANCES, SAFETY DEVICES, AND CONTROLS NECESSARY FOR THE INTENDED SERVICE.
- ALL PERMITS AND FEES REQUIRED FOR THE WORK SHALL BE SECURED AND PAID FOR BY THE ELECTRICAL CONTRACTOR AND INCLUDED IN BID PRICE.
- WHERE JOB CONDITIONS REQUIRE CHANGES FROM THE CONTRACT DOCUMENTS THAT DO NOT CHANGE THE SCOPE OF INSTALLATION OR NATURE OF WORK REQUIRED, THE CONTRACTOR SHALL MAKE SUCH CHANGES WITHOUT ADDITIONAL COST TO THE OWNER. NO OTHER CHANGES MAY BE MADE WITHOUT WRITTEN PERMISSION OF THE OWNER.
- BIDDERS SHALL BE LICENSED CONTRACTORS IN ACCORDANCE WITH LOCAL AND STATE LAWS.
- ALL EQUIPMENT SHALL BE NEW AND UNUSED. ALL EQUIPMENT SHALL BE INSTALLED IN STRICT CONFORMANCE TO MANUFACTURER'S RECOMMENDATIONS, EXCEPT WHERE THESE SPECIFICATIONS REQUIRE A HIGHER QUALITY INSTALLATION THAN RECOMMENDED BY THE MANUFACTURER.
- ALL INSTALLED SYSTEMS, DEVICES AND RELATED ITEMS SHALL BE TESTED IN PLACE ON SITE. REPLACE ANY AND ALL CONTRACTOR-SUPPLIED DEFECTIVE DEVICES, ITEMS OR SYSTEMS AT CONTRACTOR'S OWN EXPENSE BEFORE COMPLETION OF THE PROJECT.
- CONTRACTOR SHALL GUARANTEE ALL WORK FOR WHICH MATERIALS ARE FURNISHED, FABRICATED OR FIELD ERECTED, ALL FACTORY ASSEMBLED EQUIPMENT FOR WHICH NO SPECIFIC MANUFACTURER'S GUARANTEE IS FURNISHED, AND ALL WORK IN CONNECTION WITH INSTALLING MANUFACTURER'S GUARANTEED EQUIPMENT. THIS CONTRACTOR'S GUARANTEE SHALL EXIST FOR A PERIOD OF TWO (2) YEAR FROM THE DATE OF FINAL OWNER ACCEPTANCE OF THE WORK AND SHALL APPLY TO DEFECTS IN MATERIAL AND TO DEFECTIVE WORKMANSHIP OF ANY KIND.
- VERIFY FINAL LOCATIONS FOR ROUGH-INS WITH FIELD MEASUREMENTS AND WITH THE REQUIREMENTS OF THE ACTUAL EQUIPMENT TO BE CONNECTED. VERIFY ALL DIMENSIONS BY FIELD MEASUREMENTS.
- SEQUENCE, COORDINATE, AND INTEGRATE INSTALLATIONS OF ELECTRICAL MATERIALS AND EQUIPMENT FOR EFFICIENT FLOW OF THE WORK. GIVE PARTICULAR ATTENTION TO LARGE EQUIPMENT REQUIRING POSITIONING PRIOR TO CLOSING-IN THE BUILDING. COORDINATE THE CUTTING AND PATCHING OF BUILDING COMPONENTS TO ACCOMMODATE INSTALLATION OF ELECTRICAL EQUIPMENT AND MATERIALS.
- COORDINATE THE INSTALLATION OF ELECTRICAL MATERIALS AND EQUIPMENT ABOVE CEILINGS WITH SUSPENSION SYSTEM, MECHANICAL EQUIPMENT AND SYSTEMS, AND STRUCTURAL COMPONENTS. COORDINATE ELECTRICAL EQUIPMENT AND MATERIALS INSTALLATION WITH OTHER BUILDING COMPONENTS.
- WHERE MOUNTING HEIGHTS ARE NOT DETAILED OR DIMENSIONED, INSTALL ELECTRICAL SERVICES AND OVERHEAD EQUIPMENT TO PROVIDE THE MAXIMUM HEADROOM POSSIBLE. INSTALL ELECTRICAL 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 CONNECTION OF ELECTRICAL SYSTEMS WITH EXTERIOR UNDERGROUND AND OVERHEAD UTILITIES AND SERVICES. COMPLY WITH REQUIREMENTS OF GOVERNING REGULATIONS, FRANCHISED SERVICE COMPANIES, AND CONTROLLING AGENCIES. PROVIDE REQUIRED CONNECTION FOR EACH SERVICE.
- DO NOT ENDANGER OR DAMAGE INSTALLED WORK THROUGH PROCEDURES AND PROCESSES OF CUTTING AND PATCHING. ARRANGE FOR REPAIRS REQUIRED TO RESTORE OTHER WORK, BECAUSE OF DAMAGE CAUSED AS A RESULT OF ELECTRICAL INSTALLATIONS.
- BIDDERS SHALL THOROUGHLY ACQUAINT THEMSELVES WITH THE CONDITIONS UNDER WHICH THE WORK IS TO BE PERFORMED. THEY SHALL EXAMINE ALL SERVICES, EQUIPMENT, SURFACES, ETC., WHICH THIS WORK IS IN ANY WAY DEPENDENT UPON, AND BRING ANY DISCREPANCIES DETERMINED OR OMISSIONS FOUND IN THE DRAWINGS TO THE OWNER'S ATTENTION BEFORE SUBMITTING BID.
- VERIFY MECHANICAL EQUIPMENT SWITCH AND CONNECTION REQUIREMENTS, ITEM BY ITEM, WITH THE MECHANICAL CONTRACTOR, BEFORE WIRING EQUIPMENT. RESOLVE ALL DISCREPANCIES WITHOUT FURTHER COST TO OWNER.
- ALL WIRING SHALL BE IN CONDUIT, 3/4" EMT MINIMUM WITH SET SCREW FITTINGS SUPPORTED AT 10'-0" INTERVALS.
- ALL WIRING SHALL BE THHN/THWN COPPER (NO. 12 AWG MINIMUM) UNLESS OTHERWISE NOTED. WIRE AND CONDUIT SIZES ARE SHOWN ON THE PANEL SCHEDULE.
- ALL LIGHTS SHALL BE SUPPORTED AND SECURED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. THE SUPPORT SHALL BE FROM A BUILDING SUPPORT MEMBER AND NOT THE FIRE PROTECTION SYSTEM OR OTHER PIPES.
- ALL PANELS, CONTROL DEVICES AND MISCELLANEOUS ELECTRICAL APPARATUS SHALL BE CLEARLY MARKED FOR EASY IDENTIFICATION AND SAFETY. USE BLACK PLASTIC OR BAKELITE NAME PLATE ENGRAVED WITH WHITE LETTERS 1/4" HIGH. PUNCHED TAPE IS NOT ACCEPTABLE.
- PANELS SHALL BE PROVIDED WITH A TYPEWRITTEN DIRECTORY AFFIXED TO INSIDE OF PANEL DOOR WITH A CLEAR PLASTIC SLEEVE.
- THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC AND ARE FOR CIRCUIT ALLOCATION ONLY. DO NOT SCALE DRAWINGS.
- THE ELECTRICAL CONTRACTOR SHALL FURNISH RECORD SET OF DRAWINGS WITH ANY DEVIATIONS MARKED IN RED INK.

ELEVATOR NOTES

- FURNISH, INSTALL & WIRE BACK TO THE ELEVATOR POWER UNIT, SMOKE DETECTORS, WITH NORMALLY CLOSED (NC), DRY CONTACTS IN LOCATIONS LISTED BELOW:
 - INSIDE MACHINE ROOM
 - OUTSIDE EACH LANDING
 - TOP OF THE SHAFT
- SPRINKLERS ARE TO BE INSTALLED, FURNISH A SHUNT TRIP DEVICE ONTO THE FEEDER CIRCUIT BREAKER FOR THE ELEVATOR. ALSO, FURNISH, INSTALL & WIRE BACK TO THE FEEDER CIRCUIT BREAKER SHUNT TRIP DEVICE TWO (2) HEAT DETECTORS (MACHINE ROOM & TOP OF SHAFT), WITH A TRIP TEMPERATURE 20 DEGREES BELOW THE SPRINKLER HEAD TEMPERATURE PROTECTING THE MACHINE ROOM AND THE TOP OF THE SHAFT.
- FURNISH, INSTALL AND WIRE TO THE ELEVATOR POWER UNIT A DISCONNECT SWITCH (CIRCUIT AS SHOWN ON THE PANEL SCHEDULE), COMPLETE WITH A SET OF FORM 'C' TYPE OF AUXILIARY, DRY, CONTACTS ALSO WIRED TO THE ELEVATOR POWER UNIT.
- FURNISH & INSTALL 120V, 20A CIRCUIT WITH DISCONNECT SWITCH AND WIRE TO THE ELEVATOR CAB LIGHT CIRCUIT (CIRCUIT AS SHOWN ON THE PANEL SCHEDULE).
- FURNISH & INSTALL GFCI, DUPLEX, RECEPTACLE IN ELEVATOR MACHINE ROOM CIRCUIT AS SHOWN ON THE PANEL SCHEDULE.
- FURNISH & INSTALL ELEVATOR PIT LIGHT AND GFCI, DUPLEX, RECEPTACLE IN ELEVATOR PIT CIRCUIT AS SHOWN ON THE PANEL SCHEDULE.
- FURNISH, INSTALL & CONNECT TO POWER UNIT TELEPHONE LINE FOR USE BY THE ELEVATOR EMERGENCY TELEPHONE.

SITE ELECTRICAL NOTES

- ELECTRICAL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ANY OTHER STATE OR LOCAL CODE HAVING JURISDICTION.
- CABLE RUNS ARE DIAGRAMMATICALLY SHOWN ON THE DRAWING. FINAL ROUTING SHALL BE DETERMINED BY THE ELECTRICAL CONTRACTOR AND APPROVED BY THE OWNER.
- ALL LIGHTING POLES, BOLLARDS AND SIGNS SHALL BE GROUNDED AS REQUIRED BY THE NATIONAL ELECTRIC CODE.
- UNDERGROUND CABLE SHALL BE IN SCHEDULE 40 PVC CONDUIT.
- CABLE TRENCH SHALL BE 36" DEEP WITH 4" SAND BEDDING OR EQUAL AND 4" SAND COVER OR EQUAL INSTALLED OVER CABLE BEFORE BACKFILLING. BACK FILL SHALL OF ROCKS/DEBRIS.
- CABLE RUNS SHALL BE MARKED WITH RED PLASTIC MARKING TAPE INSTALLED IN THE TRENCH ONE FOOT BELOW SURFACE.

ELECTRICAL NOTES:

1. SCOPE OF WORK:

- CONTRACTOR SHALL VISIT SITE PRIOR TO BIDDING. BIDS SHALL SERVE AS EVIDENCE OF KNOWLEDGE OF EXISTING CONDITIONS TO THE EXTENT POSSIBLE, CONCEALED CONDITIONS EXCLUDED. FIELD VERIFY ALL ELECTRICAL EQUIPMENT.
- FURNISH ALL LABOR, MATERIALS, EQUIPMENT AND TOOLS TO PERFORM ELECTRICAL WORK SHOWN, NOTED OR SCHEDULED FOR A COMPLETE AND FINISHED INSTALLATION.
- MATERIALS, PRODUCTS AND EQUIPMENT, INCLUDING ALL COMPONENTS THEREOF, SHALL BE NEW AND SUCH AS APPEAR ON THE UNDERWRITERS LABORATORIES LIST OF APPROVED ITEMS AND SHALL BE SIZED IN CONFORMITY WITH REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE AND OTHER APPLICABLE CODES, WHICHEVER ARE MORE STRINGENT.
- ALL WORK TO BE IN ACCORDANCE WITH NATIONAL ELECTRIC CODE (2015).
- ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED IN STRICT COMPLIANCE WITH THE MANUFACTURER'S INSTALLATION PROCEDURES.
- THE ELECTRICAL CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIALS NECESSARY FOR A COMPLETE ELECTRICAL SYSTEM, READY FOR CONTINUOUS USE WHETHER SPECIFIED OR IMPLIED.

2. PERMITS:

- SECURE AND PAY FOR ALL REQUIRED PERMITS AND INSPECTION CERTIFICATES.

3. SHOP DRAWINGS:

- SUBMIT MATERIAL LIST AND SHOP DRAWINGS FOR MAJOR EQUIPMENT TO THE ENGINEER FOR APPROVAL. SUBMITTALS SHALL BE IN ACCORDANCE WITH GENERAL CONDITIONS AND SHALL BEAR STAMP OF THE GENERAL CONTRACTOR SHOWING THAT HE HAS REVIEWED AND APPROVED THEM. LACK OF SUCH CONTRACTOR'S APPROVAL WILL BE CAUSE FOR REJECTION WITHOUT REVIEW BY THE ARCHITECT OR ENGINEER.
- SUBMIT SHOP DRAWINGS/ MATERIAL SUBMITTER IN A PDF FORMAT.

4. CONDUITS:

- THE TYPE OF CONDUIT SHALL BE AS FOLLOWS FOR ALL FEEDERS AND DISTRIBUTION CIRCUITS, UNLESS OTHERWISE SPECIFIED.

APPLICATION	TYPE OF CONDUIT
BURIED IN CONCRETE	PVC - SCHED. 40
IN MASONRY	EMT OR IMC
EXPOSED ABOVE GRADE	RIGID STEEL, SCHED. 40
UNDERGROUND	PVC - SCHED. 40
SUPPLY TO DISTRIBUTION PANELS	EMT
INTERIOR BRANCH CIRCUITS (CONCEALED)	MC
INTERIOR BRANCH CIRCUITS (EXPOSED)	EMT

5. WIRE:

- WIRE SHALL BE SINGLE CONDUCTOR COPPER WITH 600 VOLT INSULATION. #10 AND SMALLER SHALL BE SOLID. #8 AND LARGER SHALL BE STRANDED. MINIMUM WIRE SIZE SHALL BE #12 EXCEPT #14 MAY BE USED FOR CONTROL. ALL WIRE AND CABLE SHALL BE NEW AND SHALL BE BROUGHT TO THE SITE IN UNBROKEN PACKAGES. ALL WIRING OF ANY TYPE SHALL BE IN CONDUIT.
 - GENERAL WIRING SHALL BE THW OR THHN (ALUMINUM CONDUCTORS ARE NOT PERMITTED).
- WIRE CONNECTORS SHALL BE EQUAL BY SCOTCHLOCK FOR #6 AND SMALLER AND T & B "LOCK-LITE" FOR #8 AND LARGER.

6. LIGHTING:

- LIGHTING FIXTURES AND LAMPS (UNLESS NOTED OTHERWISE) SHALL BE FURNISHED BY THE ELECTRICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL INSTALL ALL FIXTURES AND LAMPS.

7. WIRE DEVICES:

- RECEPTACLES SHALL BE 20 AMP, 3-WIRE GROUNDING TYPE EQUAL TO HUBBELL 5362 (MOUNTING @ 18"A.F.F.).
- SWITCHES SHALL BE STANDARD GRADE RATED 20 AMP AT 120 VOLT (MOUNTING @48"A.F.F.).
- SPECIAL DEVICES SHALL BE A SPECIFICATION GRADE.

8. SAFETY SWITCHES:

- PROVIDE SAFETY AND DISCONNECT SWITCHES, FUSED OR NONFUSED, AS CALLED FOR ON DRAWINGS AND AS REQUIRED BY CODE. SWITCHES SHALL BE HEAVY DUTY, LOAD AND HORSEPOWER RATED AS MANUFACTURED BY SQUARE D, GOULD, ITE OR EQUAL.
- MANUAL MOTOR STARTERS WITH OVERLOAD PROTECTION MAY BE USED FOR FRACTIONAL HORSEPOWER MOTORS. SINGLE PHASE STARTERS SHALL BE SQUARE D OR EQUAL. THREE PHASE STARTERS SHALL BE PROVIDED WITH OVERLOAD DEVICES IN EACH PHASE. MAGNETIC MOTOR STARTERS SHALL BE USED FOR INTEGRAL HORSEPOWER MOTORS, COMBINATION STARTERS, WHEN USED, SHALL CONTAIN FUSIBLE SWITCHES.

9. BOXES:

- OUTLET BOXES AND COVERS SHALL BE GALVANIZED, ONE-PIECE PRESSED STEEL KNOCKOUT.
- JUNCTION, PULL BOXES AND COVERS SHALL BE GALVANIZED STEEL, CODE GAUGE SIZE. SERVICES:

10. SERVICES:

- PROVIDE ELECTRICAL SERVICE AS SHOWN ON THE DRAWINGS. ALL WORK NOT SPECIFICALLY NOTED AS BEING BY THE OWNER OR POWER COMPANY SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR. CLOSELY CO-ORDINATE ENTIRE INSTALLATION WITH OWNER AND POWER COMPANY AS REQUIRED.

11. INSTALLATION:

- ALL ELECTRICAL WORK SHALL BE INSTALLED SO AS TO BE READILY ACCESSIBLE FOR OPERATING, SERVICING, MAINTAINING AND REPAIRING. HANGERS SHALL INCLUDE ALL MISCELLANEOUS STEEL SUCH AS CHANNELS, RODS, ETC., NECESSARY FOR THE INSTALLATION OF WORK AND SHALL BE FASTENED TO STEEL, CONCRETE OR WOOD, BUT NOT TO PIPING. ALL CONDUIT SHALL BE CONCEALED WHEREVER POSSIBLE. EXPOSED CONDUIT SHALL BE IN STRAIGHT LINES PARALLEL WITH OR AT RIGHT ANGLES TO COLUMN LINES OR BEAMS AND SEPARATED AT LEAST 3 INCHES FROM WATER LINES WHEREVER THEY RUN ALONG SIDE OR ACROSS SUCH LINES. CONDUCTORS SHALL BE IN CONDUIT, DUCTS OR APPROVED RACEWAYS.
- THE CONTRACTOR SHALL DO ALL CUTTING, CHASING OR CHANNELING AND PATCHING REQUIRED FOR ANY WORK UNDER THIS DIVISION. ANY CUTTING SHALL HAVE PRIOR APPROVAL OF OWNER. SLEEVES SHALL EXTEND AT LEAST TWO (2") INCHES ABOVE FINISHED FLOOR AND ALL SLEEVES, OPENINGS, ETC., THROUGH FIRE RATED WALLS AND FLOORS SHALL BE SEALED AFTER CONDUIT INSTALLATION TO REMAIN THEIR FIRE RATING.
- THE FOLLOWING EQUIPMENT SHALL BE IDENTIFIED WITH ENGRAVED BAKELITE NAMEPLATES AS TO NAME AND/OR FUNCTION: DISTRIBUTION PANEL, LIGHTING PANELS, MOTOR STARTERS, TIME CLOCKS, AND DISCONNECT SWITCHES.
- THE LOCATION OF OUTLETS AND EQUIPMENT SHOWN ON THE DRAWINGS ARE APPROXIMATE AND THE ENGINEER SHALL HAVE THE RIGHT TO RELOCATE ANY OUTLETS OR FIXTURES BEFORE THEY ARE INSTALLED WITHOUT ADDITIONAL COST.
- ELECTRICAL CONTRACTOR SHALL RECORD ALL FIELD CHANGES IN HIS WORK AS THE JOB PROGRESSES. ("RED LINE" AS BUILT PLANS)

12. GUARANTEE:

- MATERIALS, EQUIPMENT AND INSTALLATION SHALL BE GUARANTEED FOR A PERIOD OF TWO (2) YEARS FROM DATE OF ACCEPTANCE. DEFECTS WHICH APPEAR DURING THAT PERIOD SHALL BE CORRECTED AT THIS CONTRACTOR'S EXPENSE.
- FOR THE SAME PERIOD, THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO PREMISES CAUSED BY DEFECTS IN WORKMANSHIP OR IN THE WORK OR EQUIPMENT FURNISHED AND/OR INSTALLED BY HIM.

13. FINALLY:

- IT IS THE INTENT THAT THE FOREGOING WORK SHALL BE COMPLETE IN EVERY RESPECT AND THAT ANY MATERIAL OR WORK NOT SPECIFICALLY MENTIONED OR SHOWN ON THE DRAWINGS, BUT NECESSARY TO FULLY COMPLETE THE WORK SHALL BE FURNISHED.

ELECTRICAL SYSTEM GROUNDING NOTES

ONE OF THE MOST IMPORTANT PARTS IN THE INSTALLATION OF ELECTRICAL SYSTEMS IS GROUNDING. PROPER GROUNDING WILL PROVIDE PROTECTION OF PERSONNEL, EQUIPMENT, AND CIRCUITS BY ELIMINATING THE POSSIBILITY OF DANGEROUS OR EXCESSIVE VOLTAGES.

- GROUNDING SYSTEM MUST BE IN ACCORDANCE WITH APPLICABLE NATIONAL, STATE OR LOCAL ELECTRICAL CODES.
- THE GROUND PATH MUST BE PERMANENT AND CONTINUOUS, AND THE RESISTANCE OF THE GROUND PATHS MUST NOT EXCEED TWO (2S) OHMS.
- ALL GROUNDING ELECTRODES OF DIFFERENT SYSTEMS MUST BE BONDED TOGETHER.
- METALLIC CONDUIT USED TO ENCLOSE A GROUNDING CONDUCTOR MUST BE BONDED TO THE GROUNDING CONDUCTOR AT BOTH ENDS TO REDUCE IMPEDANCE.
- ALL ISOLATED GROUNDING TYPE RECEPTACLES MUST BE INDIVIDUALLY CONNECTED TO GROUND (NOT SERIALLY) TO ASSURE THE CONTINUITY OF THE GROUND PATH.
- RECEPTACLE BOXES MUST BE GROUNDED BY RACEWAY BACK TO THE GROUNDED PANEL.
- IF FLEXIBLE OR PVC CONDUIT IS USED, OR WHERE REQUIRED BY LOCAL CODE, THEN A SEPARATE MECHANICAL GROUND WIRE MUST CONNECT THE OUTLET BOX TO THE PANEL MECHANICAL GROUND BUS.
- ISOLATED GROUNDING SYSTEM FOR THE ISO GRD PANEL MUST BE BONDED TO THE MAIN DISTRIBUTION PANELBOARD GROUNDING SYSTEM AND IN TURN BONDED TO THE SYSTEM'S NEUTRAL.

REQUIRED GROUNDING TESTS

AFTER INSTALLATION OF THE ISO GRD PANEL, TESTS MUST BE PERFORMED TO CHECK THE FOLLOWING:

- EXCESSIVE GROUND POTENTIAL DIFFERENCES BETWEEN DIFFERENT AREAS, DO NOT EXIST.
- GROUNDING SYSTEM INTEGRITY.

TESTS TO BE PERFORMED ARE:

- GROUND LOOP CONTINUITY
- GROUND LOOP RESISTANCE
- GROUND POTENTIAL DIFFERENCE MEASUREMENT

FIRE STOPPING NOTES

ALL PIPES, DUCTS, CONDUITS AND CABLES PASSING THROUGH RATED FLOORS/WALLS/CEILINGS SHALL BE FIRE STOPPED WITH 3M FIRE BARRIER CAULK @ 25 OR EQUAL. INSTALL PER MANUFACTURE'S INSTRUCTIONS AND TO SATISFY THE FIRE RATING REQUIREMENTS OF THE ASSEMBLY:

- | | |
|---------------------------|--|
| 1) ELEVATOR MACHINE ROOM | - 2 HOUR FIRE RATING FOR WALLS AND CEILING - UNLESS NOTED OTHERWISE ON THE PLANS |
| 2) MECHANICAL ROOM | - 1 HOUR FIRE RATING FOR WALLS AND CEILING - UNLESS NOTED OTHERWISE ON THE PLANS |
| 3) STAIR TOWER | - 2 HOUR FIRE RATING - UNLESS NOTED OTHERWISE ON THE PLANS |
| 4) OTHER FIRE SEPARATIONS | - PROVIDE TO MATCH ASSEMBLY RATING INDICATED ON THE PLANS AND REQUIRED BY INC. CODE. |

'EQUIPMENT NO.' ← INSERT ACTUAL EQUIPMENT NO.
'FED FROM' ←
'PANEL NO.' ← INSERT SOURCE PANEL NO.

NAME PLATES

PANEL/GEAR NOTES

- MAIN PANEL/GEAR SHALL BE FACTORY ASSEMBLED, METAL ENCLOSED BRACED FOR THE REQUIRED AVAILABLE FAULT CURRENT, AND WITH ALL EQUIPMENT, BUSSING CONNECTIONS, CURRENT LIMITING FUSES, CIRCUIT BREAKERS, AND ALL SIMILAR COMPONENTS REQUIRED FOR PROPER OPERATION. THE SWITCHBOARD SHALL BE SUITABLE FOR USE AS SERVICE ENTRANCE EQUIPMENT AND SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST NEMA PB-2 AND UL-891 STANDARDS.
- MAIN PROTECTIVE DEVICE SHALL BE EITHER A BOLTED PRESSURE SWITCH WITH CURRENT LIMITING CLASS L FUSES OR AN INSULATED CASE POWER CIRCUIT BREAKER. THE MAIN PROTETIVE DEVICE SHALL INCLUDE INTEGRAL GROUND FAULT PROTECTION IN ACCORDANCE WITH NEC 230-95.
- BRANCH CIRCUIT PROTECTIVE DEVICE SHALL BE MOLDED CASE CIRCUIT BREAKERS (WITH CURRENT LIMITING FUSES, IF REQUIRED).
- FUSES, AS REQUIRED, SHALL BE CURRENT LIMITING AND SHALL BE MANUFACTURED BY BUSSMAN, GOULD-SHAWMUT, OR LITTELFUSE.
- NAMEPLATES: ALL BRANCH CIRCUIT AND MAIN PROTECTIVE DEVICES SHALL HAVE AN ENGRAVED LAMACIOD (BLACK LETTERING ON WHITE BACKGROUND).
- FOR DIMENSIONAL AND WIRING DETAILS OF C.T. COMPARTMENT AND METERING EQUIPMENT AND CONNECTION OF SYSTEM GROUNDING CONDUCTOR SEE POWER COMPANY HAVING JURISDICTION STANDARD DRAWINGS AND SPECIFICATIONS. GROUNDING ELECTRODE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE NATIONAL ELECTRIC CODE. GROUND ROD ELECTRODES SHALL BE 3/4", 10' LONG COPPER WITH STEEL CORE.

ELECTRICAL DRAWING LIST

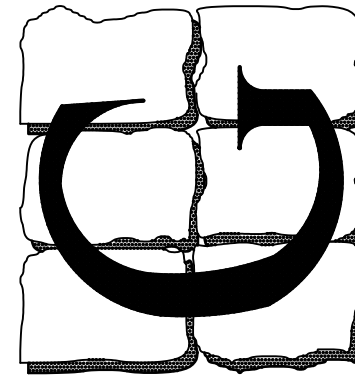
E-0.0 ELECTRICAL COVER SHEET

E-0.1 ELECTRICAL STANDARD DETAIL SHEET

E-1.1 ELECTRICAL NEW WORK PLAN

20-069

L.S. GRIM, INC.
Consulting Engineers



BLUE RIDGE COLLEGE AND
TECHNICAL COLLEGE
18650 APPLE HARVEST DRIVE
MARTINSBURG, WV 25403
ELECTRICAL COVER SHEET - GENERAL NOTES

Professional Certification

I certify that these documents were prepared or approved by me, and that I am a duly licensed engineer under the laws of the State of Maryland. License Number: 14401 Expiration Date: 4/21/2021

LESLIE SCOTT GRIM, P.E.

CO. PROF. ENG. NO. PE0050461
DC. PROF. ENG. NO. PE001201
DE. PROF. ENG. NO. 19513
GA. PROF. ENG. NO. PE032882
HI. PROF. ENG. NO. PE15943
MD. PROF. ENG. NO. 14401
NC. PROF. ENG. NO. 033364
NJ. PROF. ENG. NO. 39497
NY. PROF. ENG. NO. 075414
PA. PROF. ENG. NO. PE033536E
VA. PROF. ENG. NO. 023240
WV. PROF. ENG. NO. 10164

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DRAWN BY: LBG

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OF 3 SHEETS
DATE: APRIL 23, 2021

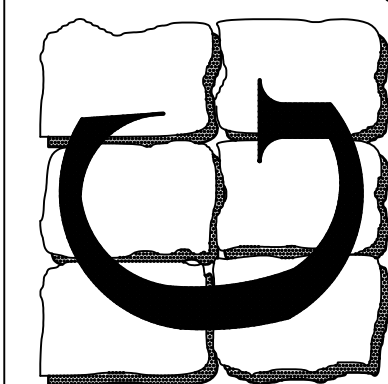


ELECTRICAL ABBREVIATIONS

ELECTRICAL POWER SYMBOLS

20-069

L.S. GRIM, INC.
Consulting Engineers



**BLUE RIDGE COLLEGE AND
TECHNICAL COLLEGE
13650 APPLE HARVEST DRIVE
MARTINSBURG, WV 25403**

ELECTRICAL STANDARD DETAIL SHEET

Professional Certification

I certify that these documents were prepared or approved by me, and that I am a duly licensed engineer under the laws of the State of Maryland
License Number: 14401
Expiration Date: 4/21/2021

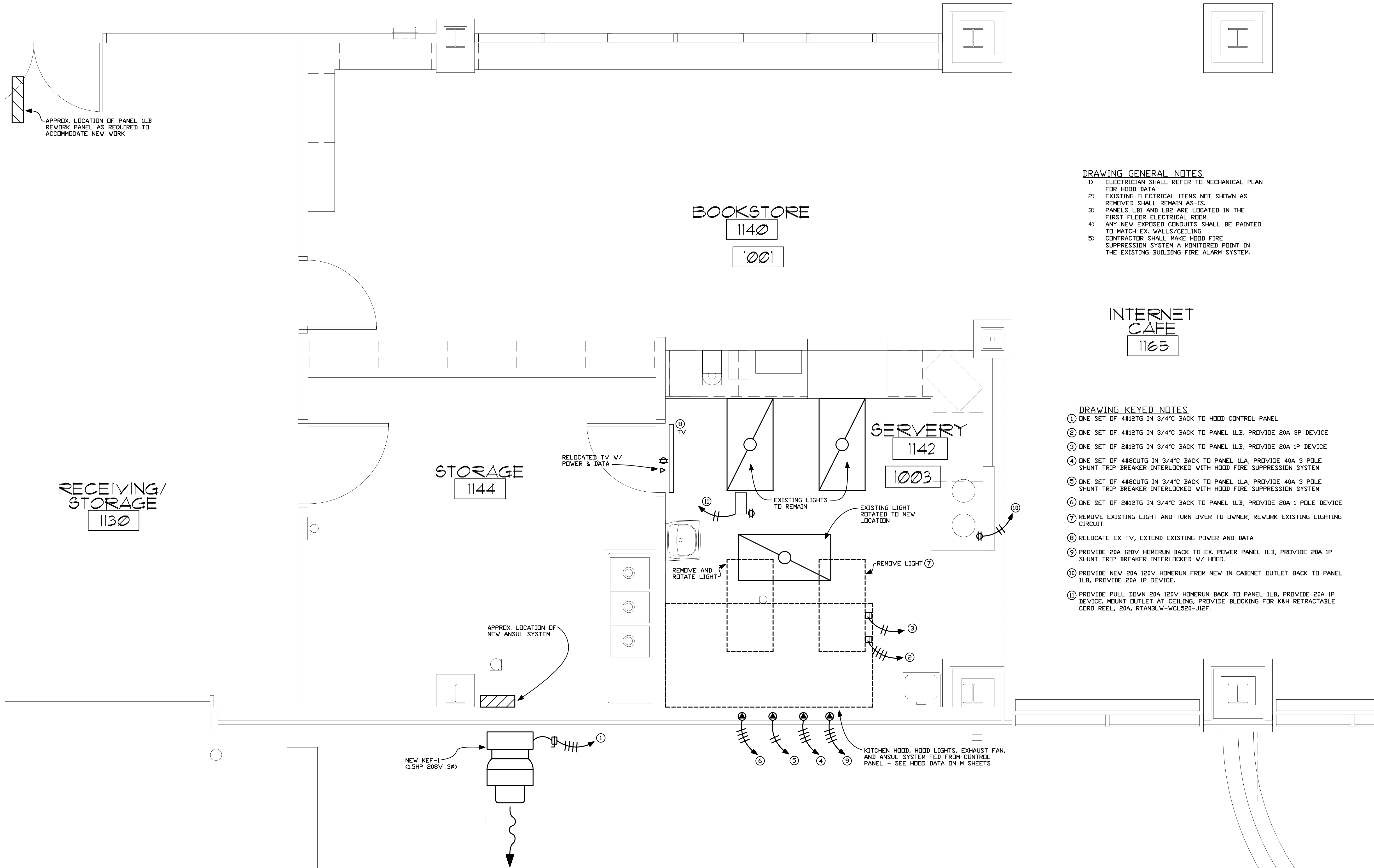
LESLIE SCOTT GRIM, P.E.

CO PROF. ENG. NO. PE0050461
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DE PROF. ENG. NO. 19513
GA PROF. ENG. NO. PE032582
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WV PROF. ENG. NO. 10764

REV.	DATE	COMMENT
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E-0.1
OF 3 SHEETS
DATE: APRIL 23, 2021



DRAWING GENERAL NOTES

- 1) ELECTRICIAN SHALL REFER TO MECHANICAL PLAN FOR HOOD DATA.
- 2) EXISTING ELECTRICAL ITEMS NOT SHOWN AS REMOVED SHALL REMAIN AS-IS.
- 3) PANELS LB1 AND LB2 ARE LOCATED IN THE FIRST FLOOR ELECTRICAL ROOM.
- 4) ANY NEW EXPOSED CONDUITS SHALL BE PAINTED TO MATCH EX. WALLS/CEILING.
- 5) CONTRACTOR SHALL MAKE HOOD FIRE SUPPRESSION SYSTEM A MONITORED POINT IN THE EXISTING BUILDING FIRE ALARM SYSTEM.

INTERNET CAFE
1165

DRAWING KEYED NOTES

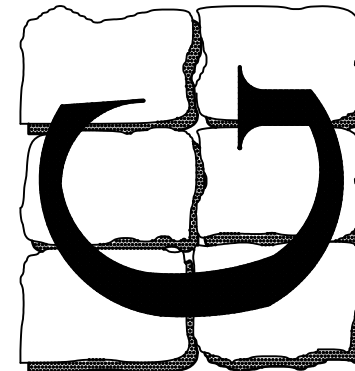
- ① ONE SET OF 4#12TG IN 3/4" BACK TO HOOD CONTROL PANEL
- ② ONE SET OF 4#12TG IN 3/4" BACK TO PANEL 1LB, PROVIDE 20A 3P DEVICE
- ③ ONE SET OF 2#12TG IN 3/4" BACK TO PANEL 1LB, PROVIDE 20A 1P DEVICE
- ④ ONE SET OF 4#8CUTG IN 3/4" BACK TO PANEL 1LA, PROVIDE 40A 3 POLE SHUNT TRIP BREAKER INTERLOCKED WITH HOOD FIRE SUPPRESSION SYSTEM.
- ⑤ ONE SET OF 4#8CUTG IN 3/4" BACK TO PANEL 1LA, PROVIDE 40A 3 POLE SHUNT TRIP BREAKER INTERLOCKED WITH HOOD FIRE SUPPRESSION SYSTEM.
- ⑥ ONE SET OF 2#12TG IN 3/4" BACK TO PANEL 1LB, PROVIDE 20A 1 POLE DEVICE.
- ⑦ REMOVE EXISTING LIGHT AND TURN OVER TO OWNER, REWORK EXISTING LIGHTING CIRCUIT.
- ⑧ RELOCATE EX TV, EXTEND EXISTING POWER AND DATA
- ⑨ PROVIDE 20A 120V HOMERUN BACK TO EX. POWER PANEL 1LB, PROVIDE 20A 1P SHUNT TRIP BREAKER INTERLOCKED W/ HOOD.
- ⑩ PROVIDE NEW 20A 120V HOMERUN FROM NEW IN CABINET OUTLET BACK TO PANEL 1LB, PROVIDE 20A 1P DEVICE.
- ⑪ PROVIDE PULL DOWN 20A 120V HOMERUN BACK TO PANEL 1LB, PROVIDE 20A 1P DEVICE. MOUNT OUTLET AT CEILING, PROVIDE BLOCKING FOR K&H RETRACTABLE CORD REEL, 20A, RTAN3LW-WCL520-J12F.

ELECTRICAL PLAN

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

20-069

L.S. GRIM, INC.
Consulting Engineers



BLUE RIDGE COLLEGE AND
TECHNICAL COLLEGE
18650 APPLE HARVEST DRIVE
MARTINSBURG, WV 25403

ELECTRICAL PLAN

Professional Certification

I certify that these documents were prepared or approved by me, and that I am a duly licensed engineer under the laws of the State of Maryland
License Number: 14401
Expiration Date: 4/21/2021

LESLIE SCOTT GRIM, P.E.

CO PROF. ENG. NO. PED050461
DC PROF. ENG. NO. PE901201
DE PROF. ENG. NO. 19513
GA PROF. ENG. NO. PE032582
HI PROF. ENG. NO. PE15943
MD PROF. ENG. NO. 14401
NC PROF. ENG. NO. 033364
NJ PROF. ENG. NO. 39497
NY PROF. ENG. NO. 075414
PA PROF. ENG. NO. PE033636E
VA PROF. ENG. NO. 023240
WV PROF. ENG. NO. 10764

REV.	DATE	COMMENT
1	2/26/21	85% OWNER REVIEW SET
2	4/23/21	BID SET
3		
4		
5		
6		
7		
8		
9		
10		
11		

DRAWN BY: NAME

E-1.0
OF 3 SHEETS
DATE: APRIL 23, 2021

NOT FOR
CONSTRUCTION
APRIL 23, 2021