CAUTION: IF THIS SHEET IS NOT 30"x42" IT IS A REDUCED PRINT

FIRE AUTHORITY NOTES

FINAL INSPECTION BY FIRE DEPARTMENT IS REQUIRED - SCHEDULE 72 HOURS IN ADVANCE.

THE PROJECT ADDRESS SHALL BE PROVIDED FOR ALL NEW AND EXISTING BUILDINGS IN A POSITION AS TO BE PLAINLY VISIBLE AND LEGIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY PER LOCAL FIRE DEPARTMENT STANDARDS.

AN UNOBSTRUCTED ALL-WEATHER FIRE APPARATUS ACCESS ROAD SHALL BE IN PLACE

. FIRE PREVENTION WATER SERVICE SHALL BE IN SERVICE PRIOR TO DELIVERY OF

. ACCESS GATES SHALL BE APPROVED PRIOR TO INSTALLATION AND SHALL BE IN COMPLIANCE

3. FIRE SPRINKLER SYSTEM(S) SHALL MEET STATE & LOCAL FIRE CODES AND BE PROVIDED TO

PROTECT ENTIRE BUILDING INCLUDING PROJECTIONS OVER 4'-0".

8. ALL VALVES CONTROLLING THE WATER SUPPLY FOR AUTOMATIC SPRINKLER SYSTEMS AND WATER-FLOW SWITCHES ON ALL SPRINKLER SYSTEMS SHALL BE ELECTRICALLY MONITORED

. ELECTRICAL SUBCONTRACTORS TO INSTALL WIRING FOR FIRE SPRINKLER, ALARM BELL AND TELEPHONE WARNING AS REQUIRED BY FIRE DEPARTMENT.

10. INSTALLATION OF FIRE ALARM SYSTEMS SHALL BE IN ACCORDANCE WITH STATE & LOCAL

1. COMPLETE PLANS AND SPECIFICATIONS FOR ALL FIXED FIRE PROTECTION EQUIPMENT INCLUDING AUTOMATIC SPRINKLERS AND OTHER FIRE-PROTECTION SYSTEMS, SHALL BE SUBMITTED BY INSTALLING CONTRACTOR. SUCH PLANS SHALL BE APPROVED BY LOCAL FIRE

2. LOCATIONS AND CLASSIFICATIONS OF FIRE EXTINGUISHERS SHALL BE IN ACCORDANCE WITH STATE & LOCAL FIRE CODES AND PLACEMENT IS SUBJECT TO THE APPROVAL OF THE FIRE INSPECTOR. VERIFY QUANTITY & EXACT LOCATION FROM FIRE DEPARTMENT PRIOR TO

13. AT OFFICE AREAS PROVIDE MULTIPURPOSE DRY CHEMICAL PORTABLE FIRE EXTINGUISHERS RATED 4-A:80-B:C AT THE RATE OF ONE EXTINGUISHER PER 11,250 SF MAXIMUM AS INDICATED ON PLANS, SUBJECT TO FIRE DEPARTMENT INSPECTION AND FINAL APPROVAL. TRAVEL DISTANCE FROM REMOTE LOCATIONS TO THE NEAREST EXTINGUISHER SHALL BE 75' MAXIMUM. EACH EXTINGUISHER SHALL BE SIZED AS REQUIRED TO PROTECT MAXIMUM FLOOR AREAS LISTED IN NFPA 10, TABLE E.3.5. LIGHT HAZARD OCCUPANCY ASSUMED. FINAL DETERMINATION OF LIGHT, ORDINARY AND EXTRA HAZARD CLASSIFICATION REQUIRES FIRE DEPARTMENT REVIEW AND APPROVAL.

14. STORAGE, DISPENSING OR USE OF ANY FLAMMABLE AND COMBUSTIBLE LIQUIDS, FLAMMABLE AND COMPRESSED GASES, AND OTHER HAZARDOUS MATERIALS SHALL COMPLY WITH STATE & LOCAL FIRE CODES. THE STORAGE AND USE OF HAZARDOUS MATERIALS SHALL BE APPROVED BY THE FIRE AUTHORITY PRIOR TO ANY MATERIALS BEING STORED OR USED ON SITE. A SEPARATE PLAN SUBMITTAL IS REQUIRED PRIOR TO THE STORAGE AND USE OF

5. BUILDING(S) NOT APPROVED FOR HIGH-PILED STOCK (MATERIALS IN CLOSELY PACKED PILES OR ON PALLETS, OR IN RACKS WHERE THE TOP OF STORAGE EXCEEDS 12'-0" IN HEIGHT, AND 6'-0" FOR GROUP "A" PLASTICS AND CERTAIN OTHER HIGH-HAZARD COMMODITIES). HIGH-PILED STOCK SHALL BE APPROVED BY THE FIRE AUTHORITY PRIOR TO MATERIALS BEING STORED ON SITE. A SEPARATE PLAN SUBMITTAL IS REQUIRED FOR HIGH-PILED STORAGE IN ACCORDANCE WITH STATE & LOCAL FIRE CODES.

16. A LETTER OF INTENDED USE MAY BE REQUIRED BY THE FIRE INSPECTOR.

18. EXIT SIGNS AND ILLUMINATION SHALL CONFORM TO ALL APPLICABLE BUILDING AND FIRE

19. EXIT DOORS SHALL BE OPERABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR ANY

20. PROVIDE OR MODIFY AS NEEDED SPRINKLER ALARM AND SMOKE DETECTION SYSTEM PER

APPLICABLE CODES INCLUDING IF NECESSARY FOR HORNS, STROBE LIGHTS, CONTROL PANEL CONNECTIONS, SMOKE DETECTORS, AUDIO VISUAL ALARMS. SUBMIT SHOP DRAWINGS TO THE FIRE MARSHAL FOR APPROVAL.

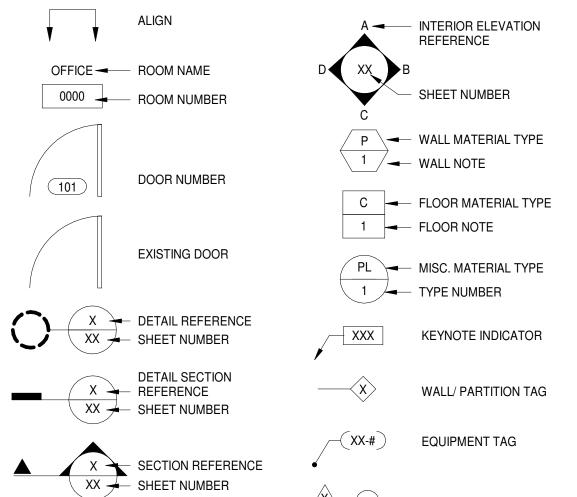
## SPECIAL INSPECTION

IN ADDITION TO THE SPECIAL INSPECTION REQUIREMENTS NOTED ON THE STRUCTURAL DRAWINGS IN THESE DOCUMENTS, PERIODIC SPECIAL INSPECTION IS REQUIRED PER IBC 1707 FOR THE FOLLOWING BUILDING COMPONENTS: • IN SEISMIC DESIGN CATEGORIES C, D, E, AND F: ANCHORAGE OF ELECTRICAL EQUIPMENT

IN SEISMIC DESIGN CATEGORIES D, E, AND F: SUSPENDED CEILING SYSTEMS AND THEIR

IN SEISMIC DESIGN CATEGORIES E, AND F: ALL ELECTRICAL EQUIPMENT. SEE STRUCTURAL DRAWINGS FOR DESIGNATION OF SEISMIC DESIGN CATEGORY

# SYMBOLS

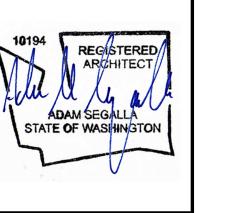


🗸 🔾 EXT. ELEVATION REFERENCE

SHEET NUMBER

REVISION CLOUD & DELTA NUMBER

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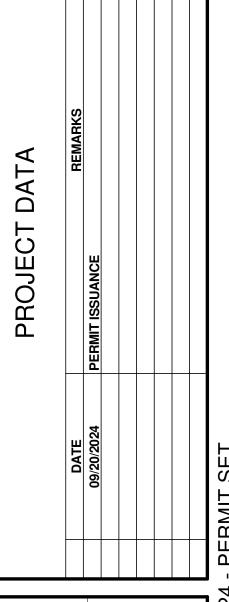












L. LUCERO DRAWN BY.: A. M. **JOB NO.:** SEA24-0053-00 SHEET

9. CONDUIT ABOVE CEILING MUST BE A MINIMUM OF 12" ABOVE THE CEILING GRID.

FLEX, ALUMINUM CONDUIT AND POT METAL CONNECTORS.

EXCEPTION).

ADJACENT CEILING.

10. NO COMBUSTIBLE MATERIALS SHALL BE USED IN THE PLENUM SPACE, INCLUDING ALUMINUM

1. ALL JUNCTION BOXES AND MECHANICAL EQUIPMENT REQUIRING ACCESS FOR SERVICE

INSTALLED IN GYPSUM BOARD CEILINGS WITHOUT PRIOR APPROVAL BY ARCHITECT. (NO

SHALL BE LOCATED OVER ACOUSTICAL CEILINGS. NO ACCESS HATCHES SHALL BE

ARCHITECTURAL PATTERN, G.C TO PROVIDE A SUBMITTAL WITH SPRINKLER HEAD

13. ALL SPRINKLER HEADS PLACED IN WHITE CEILING TILE OR WHITE GYPSUM BOARD TO BE

14. LOCATE RECESSED DOWN LIGHTS, WALL WASHERS, SMOKE DETECTORS, EXIT SIGNS,

WHITE. ALL SPRINKLER HEADS IN COLORED CEILINGS ARE TO BE CUSTOM COLOR TO MATCH

SPEAKERS, FIRE SPRINKLERS, ETC. IN CENTER OF 24"x24" CEILING TILES OR IN CENTER OF

PROVIDE SWITCHES AND LIGHT SENSORS FOR OPEN AREAS AND PRIVATE OFFICES. ACTUAL

PENETRATING FIRE RATED ASSEMBLIES, ENCLOSURES, PARTITIONS, FLOORS OR SURFACES,

16. PROVIDE FIRE DAMPERS AT ALL SUPPLY AND RETURN AIR OUTLETS, INLETS OR DUCTS

AS REQUIRED BY LOCAL CODES AND FIRE DEPARTMENT. REFER TO MECHANICAL

CONTRACTOR SHALL PROVIDE EMERGENCY LIGHTING, STROBE LIGHTS, AUDIO-VISUAL

18. CONTRACTOR SHALL PROVIDE LAMPS WITH TYPE IC RATED HOUSING WHERE FIXTURES

20. EXIT SIGNS SHALL BE INTERNALLY OR EXTERNALLY ILLUMINATED AT ALL TIMES AND SHALL

ON-SITE GENERATOR) THAT WILL AUTOMATICALLY ILLUMINATE THE EXIT SIGNS FOR A

BE CONNECTED TO AN EMERGENCY POWER SYSTEM (BATTERIES, UNIT EQUIPMENT OR AN

2. ALL SPRINKLER HEADS AT HARD-LID CEILINGS ARE TO BE FULLY RECESSED AND

CONCEALED. HEADS ARE TO BE CENTERED BETWEEN LIGHTS IN A UNIFORM

LOCATIONS FOR ARCHITECT'S APPROVAL PRIOR TO INSTALLATION.

24"x24" PORTION OF 24"x48" CEILING TILES. UNLESS OTHERWISE NOTED.

ALARMS AND OCCUPANCY SENSORS TO MEET ALL APPLICABLE CODES.

19. ALL EXIT SIGN LOCATIONS SHALL BE COORDINATED WITH THE ARCHITECT.

LOCATION OF ALL SWITCHES TO BE DETERMINED BY ARCHITECT.

ENGINEERING DOCUMENTS FOR SPECIFIC REQUIREMENTS.

COME IN DIRECT CONTACT WITH INSULATION.

DURATION OF NOT LESS THAN 90 MINUTES.

- STRUCTURAL ELEMENTS WITHIN THE SPACES INDICATED UNLESS NOTED OTHERWISE. FIELD VERIFICATION OF EXISTING CONDITIONS AND SPECIFIC QUANTITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
- 5. REMOVAL AND DISPOSAL OF DEMOLITION DEBRIS IS THE RESPONSIBILITY OF THE CONTRACTOR. VERIFY THE HAULING ROUTE THROUGH THE BUILDING, THE DEMOLITION STAGING AREA, AND THE LOCATION OF THE DUMPSTERS WITH THE OWNER PRIOR TO THE START OF DEMOLITION. DISPOSAL OF RUBBISH SHALL BE DONE IN A LEGAL MANNER.
- 6. THE OWNER RESERVES THE RIGHT TO SALVAGE ANY DEMOLISHED ITEM. CONTRACTOR TO VERIFY ITEMS TO BE SALVAGED FOR THE OWNER'S PURPOSE WITH THE OWNER PRIOR TO THE START OF DEMOLITION. REMOVE, PROTECT, CLEAN, AND REPAIR SALVAGED ITEMS AS REQUIRED FOR REUSE AND TURN OVER SUCH ITEMS AS DIRECTED BY THE OWNER.
- INSTALLATION OF NEW WORK INCLUDING. BUT NOT LIMITED TO MECHANICAL. PLUMBING OR ELECTRICAL, MAY REQUIRE THE CONTRACTOR AND HIS SUBCONTRACTORS TO REMOVE AND REPLACE OR RE-FINISH EXISTING WALLS. FLOORS, OR CEILING TO MATCH EXISTING IN THE AREAS OF THE BUILDING NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL INCLUDE ALL RELATED COSTS IN HIS BASE BID. WHETHER OR NOT THIS WORK IS SHOWN ON THESE PLANS.
- 8. AT ADJACENT SPACES NOT SCHEDULED FOR DEMOLITION, PATCH AND REPAIR DAMAGED FINISHES AND ITEMS AND FIXTURES TO REMAIN AND/OR REPLACE IN KIND TO MATCH EXISTING FROM DAMAGE DURING THE PROGRESS OF THE WORK.
- PROVIDE TEMPORARY SAFETY BARRIERS REQUIRED BY CODE AND AS INDICATED TO INSURE PUBLIC SAFETY AND TO ALLOW EXISTING BUILDING OCCUPANCY. CONTRACTOR TO SUBMIT FOR OWNER APPROVAL, BARRIER LOCATIONS AND METHOD OF CONSTRUCTION PRIOR TO INSTALLATION. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY REQUIRED BUILDING DEPARTMENT APPROVAL.
- 10. PROVIDE AND INSTALL DUST BARRIERS AT ALL OPENINGS FROM ADJACENT INTERIO SPACES TO THE CONSTRUCTION AREA. PROVIDE ALL MEANS NECESSARY TO INHIBIT DUST FROM ENTERING OTHER PORTIONS OF THE FACILITY. SUBMIT PROPOSED BARRIER LOCATIONS TO THE OWNER AND THE ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO THE START OF DEMOLITION AND CONSTRUCTION.
- 11. PROVIDE ADEQUATE SHORING, BRACING, BARRICADES AND PROTECTIVE MEASURES AS REQUIRED TO SAFELY EXECUTE THE WORK IN THE CONSTRUCTION AREA AND THE AREAS ADJACENT TO THE CONSTRUCTION AREA. CEASE OPERATIONS AND NOTIFY THE ARCHITECT IMMEDIATELY IF THE STRUCTURE APPEARS TO BE ENDANGERED. DO NOT RESUME OPERATIONS UNTIL CORRECTIVE MEASURES HAVE BEEN TAKEN.
- 12. PROVIDE TEMPORARY NON-COMBUSTIBLE CONSTRUCTION BARRIERS WHERE REQUIRED BY CODE AND THE GOVERNING FIRE AUTHORITY. AT A MINIMUM THE
- A. BE FULL HEIGHT PARTITION FROM FLOOR TO CEILING. INCLUDE NON-COMBUSTIBLE ACCESS DOOR WITH (3) HINGES AND SPRING
- 13. CUT RIGID MATERIALS USING MASONRY SAW OR CORE DRILL. PNEUMATIC TOOLS

ARE NOT ALLOWED WITHOUT PRIOR APPROVAL OF THE OWNER.

SHOULD THOSE SERVICES BE REQUIRED ON THE PROJECT.

- 14. CONTRACTOR IS RESPONSIBLE FOR BUILDING SECURITY DURING DEMOLITION PHASE. PROTECT ALL OPENINGS FROM WEATHER CONDITIONS AND SECURE THEM TO
- PREVENT VANDALISM. 15. DO NOT PERFORM ANY WORK THAT COULD VOID WARRANTIES OF EXISTING WEATHER EXPOSED OR MOISTURE RESISTANT ELEMENTS WITHOUT PRIOR
- 16. THE ARCHITECT ASSUMES NO RESPONSIBILITY RELATING TO ANY TOXIC MATERIALS, INCLUDING ASBESTOS. AND ASSUMES NO RESPONSIBILITY TO ITS EXISTENCE OR REMOVAL. THE OWNER IS SOLELY RESPONSIBLE FOR CONTRACTING WITH A CONSULTANT OR SPECIALIST, LICENSED BY THE STATE, FOR SUCH SERVICES
- 17. IF THE EXISTING BUILDING CONSTRUCTION IS CLASSIFIED SUCH THAT FIREPROOFING INSULATION IS PRESENT. THEN THE CONTRACTOR. PRIOR TO STARTING ANY WORK. SHALL VERIFY THE CURRENT FIRE-RESISTANCE RATING(S) OF THE EXISTING BUILDING ELEMENT(S). IF THE EXISTING FIREPROOFING INSULATION IS DAMAGED/AFFECTED DURING THE COURSE OF THE WORK, AS DEFINED BY THIS PROJECT SCOPE, THEN THE CONTRACTOR SHALL PATCH/REPAIR THE FIREPROOFING INSULATION TO A CONDITION THAT SHALL MATCH OR EXCEED THE ORIGINAL FIRE-RESISTANCE RATING(S) OF THE EXISTING BUILDING ELEMENT(S).
- 18. EXISTING DOORS TO REMAIN, U.O.N.

APPROVAL FROM THE OWNER.

19. STRUCTURAL ENGINEER TO REVIEW AND APPROVE THE LOCATION AND SIZE OF CORED AND CUT OPENINGS IN ELEVATED DECKS AS WELL AS THE MAXIMUM PENETRATION DEPTH OF DRILLED OR SHOT-ON ANCHORS AND OTHER FASTENERS.

- B. ONE (1) 24" X 24" MOCK-UP WITH SAMPLE SEAM (CENTERED) OF ALL WALL
- COVERING FINISHES AND COLOR. 7. THREE (3) 12" X 12" SAMPLES OF ALL FLOOR COVERING.
- D. SUBMIT ACTUAL CUTTINGS OF EACH PRODUCT FOR COLOR/QUALITY CONTROL. WHERE MATERIALS ARE NOT RETURNABLE, SUBMIT SAMPLES TO ARCHITECT AND SECURE APPROVAL BEFORE PLACING FULL ORDERS.
- SUBMIT SEAMING PLAN FOR CARPET TO ARCHITECT FOR APPROVAL PRIOR TO CARPET
- NOTIFY ARCHITECT IMMEDIATELY OF ITEMS WITH LONG LEAD TIMES.
- 10. ALL PAINT FINISH OF METAL PARTS OF DOORS, HANDRAILS, PERIMETER ENCLOSURES, ETC., SHALL BE SEMI-GLOSS, UNLESS NOTED OTHERWISE.
- WHERE PAINT COLORS CHANGE, CORNERS ARE TO BE CUT-IN FREE OF OVERLAPPING. 12. PRIOR TO THE INSTALLATION OF WALL COVERINGS, SURFACES SHALL BE PROPERLY

PREPARED WITH SEALER PER MANUFACTURER'S RECOMMENDATIONS.

- 13. CONTRACTOR TO VERIFY CONDITION AND LEVEL OF FLOOR SO AS TO RECEIVE NEW FINISHES WITHOUT BOWING AT FLOOR OR WALL BASE. CONTRACTOR IS RESPONSIBLE
- FOR ALL FLOOR PREPARATION. 14. ALL CARPETING SHALL BE INSTALLED WITH GLUE DOWN METHOD, UNLESS NOTED
- 15. ALL RESILIENT FLOORING TO BE INSTALLED WITH FULL TILE FROM THRESHOLD STRIP AND
- FULL TILE FROM PARTITION ADJACENT TO DOOR SWING, U.N.O.
- 16. PROVIDE AND INSTALL SPECIFIED BASE FOR ALL AREAS TO RECEIVE FLOORING. 17. CONTRACTOR SHALL PROVIDE PRE-FORMED RUBBER BASE CORNERS. DO NOT CUT OR BEND STRAIGHT BASE TO MAKE CORNERS.
- 18. MILLWORK LOWER CABINETS ARE NOT TO RECEIVE WALL BASE UNLESS INDICATED ON MILLWORK DETAILS.
- 19. FLOOR FINISHES TO CONTINUE UNDERNEATH "OPEN FLOOR" AREAS OF MILLWORK, INCLUDING SINK AREA AND AT ALL UNDER-COUNTER EQUIPMENT AREAS WHICH ARE
- 20. FLOORS SHALL BE SLOPED TO FLOOR DRAINS. COORDINATE WITH PLUMBING AND STRUCTURAL DRAWINGS. IN RATED FLOOR CONDITIONS, CONFIRM REMAINING FLOOR THICKNESS STILL CONFORMS TO MINIMUM RATING REQUIREMENT.
- 21. CONTRACTOR TO RUN CALCIUM CHLORIDE TEST ON ALL EXISTING OR NEW CONCRETE SLABS PRIOR TO INSTALLING ANY FLOORING AND COMPARE RESULTS WITH FLOORING MANUFACTURE'S RECOMMENDED MAXIMUM CONTENT FOR WARRANTIES AND ADHESIVE
- 22. PRIOR TO NEW FLOORING INSTALLATION REMOVE EXISTING FLOOR FINISHES, PATCH AND REPAIR SUB-FLOOR AS REQUIRED. PREPARE FLOORS AND TRANSITIONS AS REQUIRED FOR SMOOTH AND LEVEL FINISH PER APPLICABLE BUILDING CODES.
- 23. ALL FLOORING TRANSITIONS AMONG DIFFERING FLOORING MATERIAL ARE TO BE A FLUSH TRANSITION, U.O.N.
- 24. FEATHER SUB-FLOOR UP FOR TILE FLOORING TO CARPET CONDITIONS AND RESILIENT FLOORING TO CARPET CONDITIONS FOR FLUSH INSTALLATION.
- INSTALL METAL TRANSITION STRIPS WHERE TILE MEETS ALL OTHER FLOORING TYPES. PROVIDE LOW PROFILE TRANSITION STRIP WHERE ALL OTHER DIFFERENT FLOOR TYPES MEET, VERIFY COLOR WITH ARCHITECT, U.O.N.
- 26. FLOOR COVERING INSTALLER TO FOLLOW MANUFACTURER'S SPECIFIED CARPET INSTALLATION INSTRUCTIONS. USING ADHESIVES AND INSTALLATION METHOD TO MAINTAIN PRODUCT'S WARRANTY. CONTACT CARPET SALES REPRESENTATIVE WITH QUESTIONS PRIOR TO PROCEEDING.
- 27. FLOOR COVERING INSTALLER TO FOLLOW MANUFACTURER'S SPECIFIED CONTOURED RUBBER BASE INSTALLATION INSTRUCTIONS USING ADHESIVES AND INSTALLATION METHODS REQUIRED TO MAINTAIN PRODUCT'S WARRANTY.
- 28. FLOOR COVERING INSTALLER REQUIRED TO PROVIDE MINIMAL SEAMS/JOINTS AT ALL LOCATIONS FOR FLOOR AND WALL BASE MATERIAL INSTALLATION. PROVIDE LOW VOC, BUT HEAVY DUTY ADHESIVES TO ENDURE HEAVY FOOT TRAFFIC, CARTS AND TO MAINTAIN PRODUCT'S WARRANTY.
- 29. PRIOR TO PAINTING. PARTITIONS MUST BE PATCHED AND REPAIRED. CLEAN AND DRY AS TO LEAVE NO EVIDENCE OF PATCHING OR REPAIRS. ALL SCREW AND NAIL HEADS MUST BE SET AND SPACKLED. ALL JOINTS MUST BE TAPED AND COVERED WITH JOINT COMPOUND. JOINTS THAT ARE FILLED TO BE SANDED SMOOTH AND DUST REMOVED PRIOR TO RECEIVING NEW PAINT FINISH APPLICATION.
- 30. PRIOR TO PAINTING OVER WALL COVERING, SECURELY GLUE DOWN ANY LIFTING OR BUCKLING AND HIDE ALL SEAMING OR BUMPS.
- 31. PARTITIONS TO HAVE AT LEAST ONE COAT OF COLORED PRIMER AND TWO COATS OF SPECIFIED PAINT FINISH TYPE. PAINT TO BE A LOW VOC UNLESS U.O.N. HIGH TRAFFIC/WEAR ABILITY WITH GOOD SCRUB AND CLEANING ABILITY. VERIFY ALL WITH TENANT OR OWNER PRIOR TO PURCHASING PAINT.
- 32. PAINT ANY UNFINISHED SPEAKER COVERS AND HVAC GRILLS IN GYPSUM BOARD PARTITIONS AND CEILINGS TO MATCH ADJACENT PAINT COLOR AS SPECIFIED.
- 33. ALL EXPOSED MECHANICAL, ELECTRICAL, PLUMBING AND FIRE PROTECTION DUCTWORK AND PIPING IS TO BE PAINTED TO MATCH THE CEILING.
- 34. ALL NEWLY INSTALLED, PATCHED WORK AND ALL AFFECTED AREAS SHALL BE PAINTED. ALL PAINTING WORK SHALL BE PERFORMED TO COVER THE ENTIRE HORIZONTAL OR VERTICAL SURFACE TO THE CLOSEST CORNER IN ALL FOUR DIRECTIONS.
- 35. PRIOR TO INSTALLING WALL TILES AND WALL BASE TILE, PARTITIONS MUST BE PATCHED AND REPAIRED, CLEAN AND DRY AND BE PROPERLY MEMBERED AND ALIGNED, SO, AS TO LEAVE NO EVIDENCE OF PATCHING OR REPAIRS. ALL SCREW AND NAIL HEADS MUST BE SET AND SPACKLED. ALL JOINTS MUST BE TAPED AND COVERED WITH JOINT COMPOUND. JOINTS THAT ARE FILLED ARE TO BE SANDED SMOOTH AND BUMP FREE WITH DUST REMOVED PRIOR TO RECEIVING MORTAR BED/BOND COAT AND WALL TILES.
- 36. ALL WALL TILES ARE TO HAVE A MORTAR BED/BOND COAT THICKNESS TO ACCOMMODATE THE VARYING THICKNESSES OF ALL MATERIAL TYPES OF TILE SPECIFIED FOR PARTITION INSTALLATION WITH A FLUSH FRONT FACE.
- 37. ALL TRANSLUCENT GLASS TILE SPECIFIED ARE TO RECEIVE UNIFORM COVERAGE BY BACK BUTTERING TILES AND TROWEL RIDGES FLATTENED PRIOR TO SETTING.
- 38. FLOORS OF TOILETS. BATHING AND SHOWER ROOMS SHALL HAVE A SMOOTH. HARD. NONABSORBENT SURFACE. THE INTERSECTION OF SUCH FLOORS WITH PARTITIONS SHALL HAVE A SMOOTH, HARD, NONABSORBENT VERTICAL BASE AS SPECIFIED IN FINISH PLANS OR RESTROOM ELEVATIONS. BASE SHALL EXTEND UPWARD ONTO THE PARTITIONS NOT LESS THAN 4 INCHES.
- WALLS AND PARTITIONS WITHIN 2 FEET OF DRINKING FOUNTAINS, SERVICE SINKS, URINALS AND WATER CLOSETS SHALL HAVE A SMOOTH, HARD, NONABSORBENT SURFACE

TO A HEIGHT OF NOT LESS THAN 4 FEET ABOVE THE FLOOR.

- THE PROJECT'S DESIGN TEAM. IN CASE OF CONFLICTS OR OMISSIONS. THE AFFECTED CONTRACTOR IS REQUIRED TO EITHER OBTAIN DIRECTION FROM AN APPROPRIATE REPRESENTATIVE OF THE OWNER, OR OTHERWISE TO APPLY THE MORE STRINGENT OR COSTLY STANDARD.
- IN INTERPRETING THESE PLANS, THE FOLLOWING GENERAL RULES APPLY
- A. WRITTEN DIMENSIONS SHALL GOVERN. DO NOT SCALE THE DRAWINGS. LARGE SCALE DRAWINGS AND DETAILS TAKE PRECEDENCE OVER SMALLER SCALE DRAWINGS
- B. SPECIFIC NOTES AND DETAILS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS : WHERE CONSTRUCTION DETAILS ARE NOT SHOWN OR NOTED FOR ANY PART OF THE
- WORK, THE DETAILS SHALL BE THE SAME AS FOR OTHER SIMILAR WORK IN THE SAME BUILDING D. WORK SHOWN AS "NIC" IS FOR REFERENCE ONLY AND THE RESPONSIBILITY OF THE CONTRACTOR ONLY TO THE EXTENT THAT THIS WORK MAY REQUIRE SOME REASONABLE PROTECTION OR COORDINATION EFFORTS.
- THESE PLANS AND SPECIFICATIONS ARE INTENDED TO REPRESENT ONLY THE FINISHED CONSTRUCTION. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL CONSTRUCTION AND DEMOLITION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES INCLUDING ANY AND ALL SAFETY PRECAUTIONS AND PROGRAMS, AND SHALL INDEMNIFY TO THE FULLEST EXTENT ALLOWED BY LAW THE OWNER AND THE PROJECT DESIGN TEAM FROM AND AGAINST ANY AND ALL RELATED CLAIMS AND LIABILITY.
- THESE PLANS AND SPECIFICATIONS ARE INTENDED TO SET FORTH THE REQUIREMENTS FOR CONSTRUCTION IN ONLY AN INDUSTRY-STANDARD LEVEL OF QUALITY AND DETAIL, AND THEY ARE INTENDED TO BE SUPPLEMENTED BY APPROPRIATE REQUESTS FOR INFORMATION (RFIs). ERRORS AND OMISSIONS ARE TO BE EXPECTED AND ANTICIPATED, AND ALL CONTRACTORS ARE REQUIRED TO CAREFULLY REVIEW THESE PLANS FOR ERRORS AND OMISSIONS AND TO BRING THESE ERRORS AND OMISSIONS TO THE ATTENTION OF AN APPROPRIATE OWNER REPRESENTATIVE IN A TIMELY MANNER; AND ANY CONTRACTOR WHO FAILS TO DO SO
- BEFORE BIDDING OR OTHERWISE PROCEEDING ASSUMES THE RISK OF ANY CONSEQUENCES. DIMENSIONS SCALED FROM DRAWINGS SHALL BE CONSIDERED APPROXIMATE CONTRACTORS THAT FAIL TO FIELD MEASURE AND VERIFY DISTANCES, CLEARANCE AND FIT ARE PROCEEDING AT THEIR OWN RISK
- EXCEPT WHERE DIMENSIONED. PLANS ARE TO BE CONSIDERED DIAGRAMMATIC IN NATURE AND INTENDED ONLY TO DEMONSTRATE THE RELATIONSHIP AMONG COMPONENT PARTS, AND NOT TO DEPICT SPECIFIC LOCATIONS.
- DESIGN/BUILD CONTRACTOR SUBMITTALS WILL BE REVIEWED BY THE PROJECT DESIGN TEAM. IF AT ALL, ONLY FOR CONFORMANCE WITH THE AESTHETIC ASPECTS AND MAJOR SPACE LIMITATIONS OF THE PROJECT: AND EACH DESIGN/BUILD CONTRACTOR IS RESPONSIBLE FOR THE FOLLOWING:
- A. PREPARING ALL THE ENGINEERING AND OTHER DRAWINGS AND SPECIFICATIONS FOR THE COMPONENTS OF ITS DESIGN/BUILD UNDERTAKING. B. COMPLYING WITH THE PROJECT'S REQUIREMENTS AND SPACE LIMITATIONS.
- COORDINATION AND INTERFACING WITH OTHER TRADES AND CONSULTANTS. D. OBTAINING ANY REQUIRED OR APPROPRIATE APPROVALS FROM AUTHORITIES HAVING
- JURISDICTION OVER THE PROJECT. E. HAVING THEIR DESIGN CONSULTANTS SERVE AS THE PROFESSIONAL OF RECORD FOR THE PORTIONS OF WORK WHICH THEY DESIGN.
- AS MAY BE REQUIRED BY THE AUTHORITIES HAVING JURISDICTION, AT THE CONCLUSION OF CONSTRUCTION EACH PRIME CONTRACTOR SHALL PROVIDE WRITTEN CERTIFICATION THAT THEIR PORTION OF THE WORK HAS BEEN PERFORMED IN COMPLIANCE WITH THE BUILDING PERMIT APPROVED PLANS AND SPECIFICATIONS.
- 10. VERSIONS OF THESE PLANS PROVIDED IN ANY ELECTRONIC FORM ARE SUBJECT TO THE SAME PROVISION AS THE OTHER INSTRUMENTS OF SERVICE PREPARED BY OR ON BEHALF OF THE PROJECT DESIGN TEAM, INCLUDING WITHOUT LIMITATION THEIR COMMON LAW, STATUTORY OR OTHER RESERVED RIGHTS. INCLUDING COPYRIGHTS. A RECIPIENT IS GRANTED AT MOST A TRANSFERABLE NONEXCLUSIVE LICENSE TO REUSE THE PLANS SOLELY FOR PROJECT PURPOSES: AND NO RECIPIENT IS AUTHORIZED TO USE OR TO ALLOW THE USE OF ALL OR ANY PORTION OF THESE PLANS FOR ANY OTHER PURPOSE, AND ANY OTHER USE FOR ANY OTHER PURPOSE COULD CONSTITUTE ACTIONABLE PLAGIARISM. ANY ELECTRONIC DOCUMENTS WILL BE PROVIDED IN THE RESPONSIBLE DESIGN PROFESSIONAL'S STANDARD FORMATS AND CONVENTIONS AND WITH NO GUARANTEE OF THE ABSENCE OF VIRUSES OR OTHER HARMFUL MATERIAL, OR OF COMPATIBILITY WITH ANY RECIPIENT'S SOFTWARE OR HARDWARE SO THAT ANY USE WITH OR CONVERSION TO THE OTHER FORMS OR CONVENTIONS, OR THE USE WITH ANY PARTICULAR SOFTWARE OR HARDWARE, IS AT THE RECIPIENT'S SOLE RISK.

- 5. THE CONTRACTOR SHALL PROVIDE PEDESTRIAN PROTECTION, WHERE REQUIRED PER STATE AND LOCAL CODES.
- 6. IF TRENCHES OR EXCAVATIONS 5'-0" OR MORE IN DEPTH ARE REQUIRED, OBTAIN ISSUANCE OF
- 7. NO HAZARDOUS MATERIALS SHALL BE USED OR STORED WITHIN THE BUILDING WHICH DOES

## DRAWING INTERPRETATION – GENERAL RULES

- 1. UNLESS OTHERWISE NOTED OR INDICATED, ALL DIMENSIONS ON THESE DOCUMENTS SHALL BE TO FACE OF CURB, FACE OF CONCRETE OR MASONRY, FACE OF FINISH OR CENTERLINE OF
- ALL VERTICAL DIMENSIONS SHOWN ARE FROM FLOOR SLAB, U.O.N.
- 3. THE TERM "ALIGN", AS USED IN THESE DOCUMENTS, SHALL MEAN TO ACCURATELY LOCATE FINISHES IN THE SAME PLANE.
- "TYPICAL" AS USED IN THESE DOCUMENTS SHALL MEAN THAT THE CONDITION IS THE SAME OR
- 5. DETAILS ARE USUALLY KEYED AND NOTED "TYPICAL" ONLY ONCE, WHEN THEY FIRST OCCUR

## INTERIOR/EXTERIOR NOTES

- WHERE ELECTRICAL. MECHANICAL AND/OR PLUMBING ITEMS, SUCH AS LIGHTS, DUCTS, PIPING. DOWNSPOUTS, ETC. ARE TO PENETRATE ANY BUILDING FOOTINGS, SLABS, FLOORS, STRUCTURAL FRAMING. PARTITIONS, CEILINGS, ETC., IT IS REQUIRED THAT AN APPROPRIATELY SIZED OPENING OR CLEARANCE BE FURNISHED. CONTRACTOR SHALL COORDINATE THE INSTALLATION OF ALL ITEMS WITH THE CONSTRUCTION DOCUMENTS PRIOR TO THE INSTALLATION OF STRUCTURAL, MECHANICAL, PLUMBING AND ELECTRICAL WORK, ANY CONFLICT OR DISCREPANCY WITHIN CONSTRUCTION DOCUMENTS SHALL BE BROUGHT TO THE
- 4. THE CONTRACTOR SHALL PATCH AND REPAIR ALL DAMAGE TO EXISTING CONSTRUCTION DUE TO WORK PERFORMED. THE CONTRACTOR SHALL FURNISH AND INSTALL NEW MATERIALS AT NO ADDITIONAL COST TO THE OWNER TO REPAIR SUCH DAMAGE.
- INTERIOR PARTITIONS AND CEILINGS SHALL BE INSTALLED IN ACCORDANCE WITH STATE & LOCAL CODES, INCLUDING REQUIREMENTS FOR FLAME SPREAD AND SMOKE DENSITY RATINGS

## FLOOR PLAN NOTES

- 1. CONTRACTOR AND ARCHITECT TO REVIEW & APPROVE CHALK LINES OF PARTITION LAYOUT PRIOR TO COMMENCEMENT OF PARTITION CONSTRUCTION.
- CONTRACTOR TO VERIFY DIMENSIONS FOR ALL PLUMBING PARTITIONS.
- 3. EXTEND ALL STUDS AND PARTITION MATERIALS TO CONSTRUCTION ABOVE, U.O.N.
- 4. ALL CONDUIT PIPING TO BE CONCEALED WITHIN THE PARTITION CONSTRUCTION. 5. DOOR OPENINGS IN PARTITIONS NOT DIMENSIONED ARE TO BE LOCATED WITHIN 4" OF
- ADJACENT PERPENDICULAR PARTITION. 6. CONTRACTOR SHALL USE 6" METAL STUDS MINIMUM AT ALL PLUMBING PARTITIONS.
- WHERE TILE IS USED.
- 9. ALL HOT WATER LINES SHALL BE PROPERLY INSULATED. SEE PLUMBING DRAWINGS. 10. ALL PLUMBING CLEAN-OUTS SHALL BE INSTALLED WHERE READILY ACCESSIBLE.
- 11. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR ARCHITECT AND TENANT APPROVAL PRIOR TO MANUFACTURE OF ANY CABINET WORK, MILLWORK AND ANY OTHER SPECIAL
- BACK-UP PLATES AND/ OR SUPPORTING BRACKETS AS REQUIRED FOR THE INSTALLATION OF WALL-MOUNTED OR SUSPENDED EQUIPMENT OR BUILT-IN ITEMS. VERIFY REQUIREMENTS WITH MANUFACTURERS PRIOR TO INSTALLATION. SUPPLY CATALOG CUT SHEETS FOR ARCHITECT'S APPROVAL.
- 13. PROVIDE AND INSTALL ALL NECESSARY ELECTRICAL CONNECTIONS AND PLUMBING SUPPLY, FITTINGS & CONNECTORS TO COMPLETE INSTALLATION OF APPLIANCES & EQUIPMENT INDICATED ON PLAN. VERIFY REQUIREMENTS WITH MANUFACTURERS PRIOR TO INSTALLATION. SUPPLY CATALOG CUT SHEETS FOR ARCHITECT'S APPROVAL

15. UNLESS OTHERWISE NOTED, ALL GYPSUM BOARD SURFACES, PARTITIONS, AND

- 14. EXACT LOCATION OF FIRE EXTINGUISHER CABINETS TO BE CONFIRMED WITH ARCHITECT BEFORE INSTALLATION. PROVIDE ADDITIONAL FIRE EXTINGUISHERS & CABINETS AS REQUIRED BY THE FIRE DEPARTMENT FIELD INSPECTORS.
- PAINT OR WALL COVERING MATERIAL. PROVIDE SOUND INSULATION AT PERIMETER PARTITIONS OF RESTROOMS, LOBBY. STAIRS, AND ACROSS CEILING OF RESTROOMS TO CREATE AN ACOUSTIC ENVELOPE,

CEILINGS SHALL BE TAPED, SANDED SMOOTH TO A "LEVEL 4" FINISH, SO AS TO RECEIVE

- 17. PATCH AND FILL OPENINGS AT EXISTING GYPSUM BOARD PARTITIONS AND SOFFITS FOLLOWING REMOVAL OR INSTALLATION OF ANY SURFACE MOUNTED OR RECESSED FURNISHINGS, RECEPTACLES, UTILITY PIPING, SHELF STANDARDS & ALL OTHER SIMILAR ELEMENTS INDICATED TO BE REMOVED DURING THE DEMOLITION PHASE OR INSTALLED DURING THE CONSTRUCTION PHASE: TAPE AND SEAL ALL SEAMS WITH JOINT COMPOUND: APPLY NEW FINISH TO MATCH EXISTING FINISH AT ADJACENT GYPSUM BOARD SURFACES AND FEATHER NEW FINISH WITH EXISTING FINISH TO PROVIDE CONSISTENT & CONTINUOUS FINISH.
- 18 THE MAXIMUM CONTROL JOINT SPACING FOR PARTITIONS AND CEILINGS WITHOUT PERIMETER RELIEF IS TO BE 30 LINEAR FEET OR 900 SQUARE FEET OF SURFACE AREA, WITH PERIMETER RELIEF IS TO BE 50 LINEAR FEET OR 2.500 SQUARE FEET OF SURFACE AREA. EXTERIOR JOINT SPACING IS TO BE 30 LINEAR FEET OR 900 SQUARE FEET OF SURFACE AREA.
- 19. CONSTRUCTION SEALANT JOINTS ARE REQUIRED AT CONTINUOUS GYPSUM BOARD SURFACES WITH DISSIMILAR PARTITION STRUCTURE.
- 20. PROVIDE DOUBLE STUDS AT BOTH JAMBS OF DOOR FRAMES AND HEADER.
- 22. DO NOT MECHANICALLY SECURE NEW STUD FRAMING TO EXISTING WINDOW FRAMES.

- NOT COMPLY WITH THE LOCAL FIRE AUTHORITY AND STATE & COUNTY REQUIREMENTS.
- THE OCCUPANTS AND WORKERS AT ALL TIMES.
- AND SITE WHILE JOB IS IN PROGRESS AND UNTIL THE JOB IS COMPLETED.

- REPRESENTATIVE FOR ALL SIMILAR CONDITIONS THROUGHOUT, U.O.N.
- AND ARE REPRESENTATIVE OF ALL SIMILAR CONDITIONS THROUGHOUT, U.O.N.

- CONTRACTORSHALL PROVIDE AND LOCATE ACCESS DOORS/PANELS IN PARTITION & CEILING CONSTRUCTION AS REQUIRED TO PROVIDE ACCESS TO MECHANICAL, FIRE SPRINKLER,
- 3. ALL PENETRATIONS AT RATED CONSTRUCTION SHALL BE PROTECTED TO MAINTAIN RATING.

- CONTRACTOR TO VERIFY ACTUAL DEPTH REQUIRED, ANY DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT.
- 7. USE WATER RESISTANT GYPSUM BOARD AT ALL AREAS SUBJECT TO MOISTURE OR
- 8. ALL PLUMBING WORK SHALL BE IN ACCORDANCE WITH LOCAL AND NATIONAL CODES.
- CONTRACTOR SHALL COORDINATE ALL CLEAN-OUT LOCATIONS WITH EQUIPMENT, AND CABINETS. SUBMIT A PLAN OF ALL PROPOSED LOCATIONS TO ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION.
- ITEMS REQUIRING CUSTOM SHOP PREFABRICATION WORK. 12. PROVIDE AND INSTALL ALL NECESSARY PARTITION BACKING, STIFFENERS, BRACING,

- 21. PARTITIONS SHALL NOT BE FASTENED NOR BRACED TO DUCTWORK, CONDUIT OR

AN "AS NEW" CONDITION PER ARCHITECT'S REVIEW AND APPROVAL.

- A BUILDING OR GRADING PERMIT
- CONTRACTOR SHALL BE RESPONSIBLE FOR BLOCKING OFF SUPPLY AND RETURN AIR GRILLES. DIFFUSERS & DUCTS TO KEEP DUST FROM ENTERING INTO BUILDING AIR DISTRIBUTION
- 9. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO ENSURE THE SAFETY OF
- 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COMPLETE SECURITY OF THE BUILDING

- 6. COLUMN CENTERLINES (GRID LINES) ARE SHOWN FOR DIMENSIONING PURPOSES.

- ARCHITECT'S ATTENTION FOR CLARIFICATION.
- PLUMBING & ELECTRICAL WORK. CONTRACTOR SHALL SUBMIT A PLAN OF ALL PROPOSED ACCESS PANEL LOCATIONS TO ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION.
- WHEN USED. ALL NOISE BARRIER BATTS (SOUND INSULATION) AND INSULATION BATTS SHALL BE NON-COMBUSTIBLE AND SHALL NOT CONTAIN OR UTILIZE OZONE DEPLETING COMPOUNDS.

# **DOOR NOTES**

CONTRACTOR SHALL SUBMIT A COMPLETE HARDWARE SCHEDULE WITH HARDWARE CUT SHEETS PREPARED BY A QUALIFIED HARDWARE CONSULTANT FOR ARCHITECT'S REVIEW

GENERAL CONTRACTOR TO PRODUCE AND COORDINATE USE OF A MASTER KEYING

SYSTEM DEVELOPED WITH AND APPROVED BY THE BUILDING OWNER AND TENANT. CONTRACTOR TO VERIFY THAT ALL NEW AND EXISTING TO REMAIN DOORS AND DOOR HARDWARE COMPLY WITH REQUIREMENTS OF GOVERNING CODES & STANDARDS. NOTIFY THE ARCHITECT IMMEDIATELY OF ANY NON-COMPLIANCE.

COMPLIANCE WITH ACCESSIBILITY CODE REQUIREMENTS.

FOR EACH DOOR FRAME PRIOR TO FABRICATION.

FRAMES AND HARDWARE.

- THE CONTRACTOR SHALL REPORT TO THE ARCHITECT AND OWNER FOR REVIEW AND RESOLUTION ANY DISCREPANCIES OR CONFLICTS FOUND BETWEEN THE CONSTRUCTION DOCUMENTS AND BUILDING STANDARDS FOR DOORS, SIDELITES, DOOR AND SIDELITE
- S. FIELD MEASURE ALL DOORS AND/OR DOOR OPENINGS AS REQUIRED PRIOR TO FABRICATION.

CONTRACTOR IS RESPONSIBLE TO COORDINATE & VERIFY THE REQUIRED THROAT DEPTH

. MATCH BUILDING STANDARD DOORS AND HARDWARE WHERE APPLICABLE AND IN

- 8. HOLLOW METAL FRAMES TO BE WELDED TYPE UNLESS AND WHERE SPECIFIED OR APPROVED BY THE ARCHITECT IN ADVANCE.
- 10. FIRE RATED AND SMOKE AND DRAFT CONTROL DOORS AND FRAMES SHALL SHALL BEAR A LABEL FROM A RECOGNIZED AGENCY SHOWING THE SPECIFIC RATINGS IN COMPLIANCE

WITH REQUIREMENTS OF GOVERNING CODES & STANDARDS.

11. ALL FIRE RATED DOORS TO HAVE A LATCH AND SELF CLOSER.

9. DOORS AND DOOR FRAMES TO BE FACTORY FINISHED, U.O.N.

- 12. ALL SWINGING DOOR HANDLES TO BE LEVER-TYPE IN COMPLIANCE WITH GOVERNING CODES & ACCESSIBILITY STANDARDS.
- 4. ALL EXIT DOORS SHALL BE OPERABLE FROM THE INSIDE WITHOUT A KEY OR ANY SPECIAL KNOWLEDGE OR FEFORT EXCEPT AT A MAIN ENTRANCE WHERE A SIGN WITH

CONTRASTING LETTERS 1 INCH OR MORE HIGH IS PROVIDED STATING "THIS DOOR TO

3. DOOR HANDLES OR PULLS AND ALL OTHER OPERABLE PARTS OF DOOR HARDWARE (SUCH

AS DEADBOLTS, KEYHOLES... ETC.) ARE TO BE CENTERED BETWEEN 34" AND 44" ABOVE

- REMAIN UNLOCKED WHEN BUILDING IS OCCUPIED." 15. ALL EXTERIOR DOORS TO HAVE LOCKSETS WITH KEYS FOR ENABLING FIRE DEPARTMENT ACCESS.STORED IN A KNOXBOX AT A LOCATION APPROVED BY THE FIRE DEPARTMENT.
- 16. SPECIAL LOCKING DEVICES SHALL BE OF A TYPE APPROVED BY THE AUTHORITY HAVING JURISDICTION. 17. ALL DOORS WITH ELECTRONIC SECURITY LOCKS MUST BE OPERABLE FOR EXITING
- PURPOSES UNDER ALL CONDITIONS. INCLUDING A POWER OUTAGE. 18. PROVIDE WEATHER SEALS ON ALL EXTERIOR DOORS PER ANSI STANDARDS.

19. PROVIDE 6"x16 GA MIN FLAT METAL OR 2x6 BACKING (FRT AS REQUIRED) BEHIND ALL WALL

MOUNTED DOOR STOPS. 20. MAXIMUM UNDERCUT OF ALL NON-FIRE RATED DOORS SHALL NOT EXCEED 1/2" ABOVE FINISH FLOOR SURFACE.

21. CONTRACTOR SHALL REPLACE ANY BLEMISHED DOOR THAT CAN NOT BE REFINISHED TO

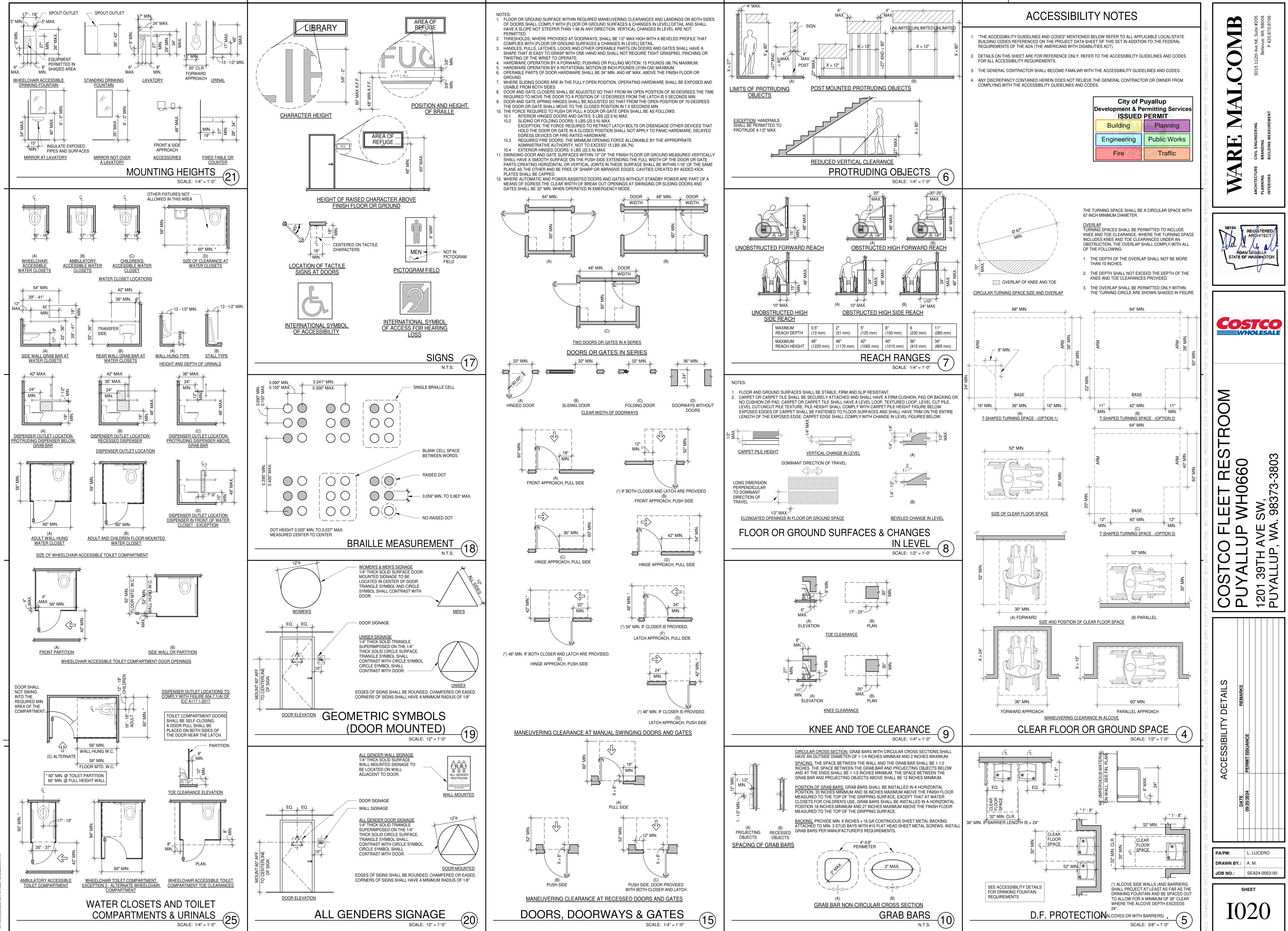
REGISTERED ARCHITECT STATE OF WASHINGTON



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L. LUCERO DRAWN BY.: A. M. JOB NO.: SEA24-0053-00



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KEYNOTES: =

001 AREA OF WORK.

LEGEND

ACCESSIBLE PATH OF TRAVEL. 1:20 MAX. SLOPE, 2% MAX. CROSS SLOPE.

SEE SHEETS G010 - 1010 FOR GENERAL NOTES

003 EXISTING PARKING TO REMAIN.

009 EXISTING ELECTRICAL EQUIPMENT.

**City of Puyallup Development & Permitting Services ISSUED PERMIT** 

Public Works

Building

Engineering

DRAWN BY.: A. M. **JOB NO.:** SEA24-0053-00

SITE PLAN (FOR REFERENCE ONLY)

0 25' 50' 100'

> UNLESS OTHERWISE DEVELOPED AND DETAILED SEPARATELY BY A REGISTERED ENGINEER, LANDSCAPE DESIGNER OR OTHER RECOGNIZED SITE DEVELOPMENT PROFESSIONAL, THE ARCHITECT MAKES NO GUARANTEES AS TO THE ACCURACY OF (A) ANY SITE IMPROVEMENTS SHOWN ON ANY ARCHITECTURAL DRAWINGS INCLUDED HERE OR, (B) THE EXISTING SITE CONDITIONS IN THE IMPROVEMENT AREA.

CONTRACTOR AND THE BUILDING LANDLORD AND/OR AFFECTED TENANT.

ANY SITE IMPROVEMENT CONSTRUCTION SHOWN ON THE ARCHITECTURAL DRAWINGS IS INTENDED AS INFORMATION TO BE ADDRESSED AND CLARIFIED BETWEEN THE GENERAL

City of Puyallup Development & Permitting Service ISSUED PERMIT				
Building	Planning			
Engineering	Public Works			
Fire OF W	SHITraffic			

# **GENERAL NOTES**

SEE SHEETS **G010 - I010** FOR GENERAL NOTES

SEE SHEET 1620 FOR FINISH, PLUMBING FIXTURES, RESTROOM ACCESSORIES, LIGHT FIXTURE, AND DOOR SCHEDULES

> THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS AND NOTIFY THE ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES OR CONFLICTS THAT

- . CONTRACTOR SHALL NOTIFY ARCHITECT TO PERFORM AN ON-SITE REVIEW ONCE ALL PARTITIONS HAVE BEEN LAID OUT, PRIOR TO ERECTING THE PARTITIONS, AND ADDRESS ANY DISCREPANCIES WITH DIMENSIONS SHOWN ON THE CONTRACT DOCUMENTS. ALL PARTITION METAL STUDS TO BE 3-5/8" DEPTH - GAUGE AND SPACING PER L/240 SPAN
- TABLE, ON THE FRAMING DETAILS SHEET, U.O.N. B. ALL RESTROOM PARTITION METAL STUDS AT SINGLE-STUD RESTROOM TO BE MINIMUM 6" DEEP, AND FULLY INSULATED WITH R-13 UNFACED FIBERGLASS INSULATION (OR
- EQUIVALENT), U.O.N. 4. USE MOISTURE RESISTANT BOARD AT ALL RESTROOM PARTITIONS AND WHERE FRP IS
- 5. ALL NEW INTERIOR PARTITIONS TO BE FULLY INSULATED WITH A MINIMUM OF R-11 UNFACED FIBERGLASS INSULATION (OR EQUIVALENT), U.O.N. 6. DRYWALL GYPSUM BOARD SHALL BE FINISHED AS FOLLOWS, U.O.N. REFER TO GYPSUM ASSOCIATION PUBLICATION, GA-214 (https://www.certainteed.com/drywall/what-are-
- recommended-levels-finish/): a. FOR PLENUM AND NÓN-VISIBLE AREAS – LEVEL-1. AREAS WITH OPEN-CEILINGS OR CLOUDS TO BE FINISHED AS FOR VISIBLE PARTITIONS.
- b. ALL VISIBLE PARTITION SURFACES LEVEL 4, UNLESS NOTED AS LEVEL-5 BY OTHER NOTES OR KEYED NOTE. PROVIDE DRYWALL EXPANSION & CONTROL JOINTS PER "WALL AND CEILING BUREAU"
- (WCB) STANDARDS. PROVIDE SHOP DRAWINGS FOR REVIEW PRIOR TO INSTALLATION. 8. ALL DRYWALL CORNERS AND COLUMN EDGES TO BE FINISHED WITH CORNER "L" BEAD. 9. DIMENSIONS OF COLUMN FURRING IN A COMMON AREA ARE TO BE EQUAL &
- CONSISTENT. 10. PATCH AND REPAIR ANY DAMAGE TO EXISTING WINDOW SILLS CAUSED BY DEMOLITION: MATCH EXISTING SILL CONDITION. FINISH TO MATCH EXISTING WINDOW FRAMES. 11. ACCESS PANELS IN PARTITIONS/CEILINGS FOR PLUMBING, MECHANICAL, AND
- ELECTRICAL ACCESS SHALL BE FLUSH FRAMELESS GYPSUM BOARD PANELS. 12. ALL BLOCKING IN PARTITION TO BE FIRE RETARDANT TREATED SOLID WOOD BLOCKING, OR CONTINUOUS METAL STRAPPING. COORDINATE EXACT LOCATIONS AND EXTENT IN FIELD. GC TO PROVIDE BLOCKING FOR ALL OWNER SUPPLIED MILLWORK, IN ADDITION TO MILLWORK SUPPLIED BY THE GC, AND WALL-HUNG EQUIPMENT.

- NOTIFY ARCHITECT OF ANY DISCREPANCIES BETWEEN ARCHITECTURAL, ELECTRICAL, AND MECHANICAL DRAWINGS BEFORE PROCEEDING WITH INSTALLING THE WORK. 2. SEE FIXTURE SCHEDULE FOR FIXTURE TYPE DESIGNATIONS, AND TYPICAL MOUNTING
- 3. ALL MATERIALS USED WITHIN CEILING PLENUM SHALL BE NON-COMBUSTIBLE. IN GYPSUM BOARD CEILINGS THE LIGHTS, HVAC ELEMENTS, FIRE DEVICES, ETC. ARE
- TO ALIGN IN A NEAT AND REGULAR PATTERN. REVIEW LAYOUT WITH ARCHITECT PRIOR 5. GENERAL CONTRACTOR TO IDENTIFY QUANTITY AND LOCATIONS OF ALL ACCESS PANELS TO CEILING PLENUM SPACES IN GYPSUM BOARD CEILINGS: ACCESS PANELS
- LOCATION WITH ARCHITECT. CEILING ACCESS PANELS TO BE FLUSH FRAMELESS GYPSUM-BOARD INFILL PANELS. 6. SEE KEYNOTE INFORMATION FOR ANY REQUIRED CEILING INSULATION. 7. GANG MULTIPLE ADJACENT OUTLETS AND SWITCHES TOGETHER WITH MULTI-OUTLET

TO BE AVOIDED WHERE POSSIBLE. IF AN ACCESS PANEL IS REQUIRED, COORDINATE

COVER PLATE, U.O.N. B. ALL SWITCHES/MOTION SENSORS SHALL NOT BE PLACED BEHIND DOORS WHEN IN OPEN POSITION.

- 1. CONTRACTOR TO INCLUDE ALL FLOOR PREPARATIONS IN BASE BID. 2. SEE ENLARGED PLANS, ELEVATIONS AND DETAILS FOR ADDITIONAL FINISH INFORMATION.
- 3. ALL FINISHES TO BE INSTALLED PER THE MANUFACTURER'S INSTRUCTIONS. 4. ALL FINISH TRANSITIONS AT DOORS TO BE LOCATED CENTERED UNDER THE DOOR,
- 5. PROVIDE FLOORING TRANSITIONS AS FOLLOWS, U.O.N.: a. STAINLESS STEEL TRIM BY SCHLUTER OR EQUAL, AT ALL TRANSITIONS BETWEEN TILE/STONE AND OTHER FINISHES.

## **RESTROOM NOTES**

- . PROVIDE DRAIN WITH TRAP PRIMER FOR EACH RESTROOM IF THERE ARE TWO OF MORE FIXTURES. SLOPE FLOOR TO DRAIN A MIN. 1/8" PER FOOT.

- OPERABLE PARTS OF ALL ACCESSORIES SHALL COMPLY WITH ALL APPLICABLE ACCESSIBILITY CODES AND STANDARDS.

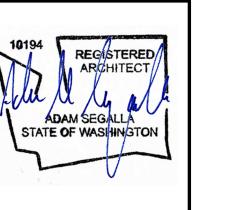
INDICATES AREA NOT IN SCOPE

## KEYNOTES: □

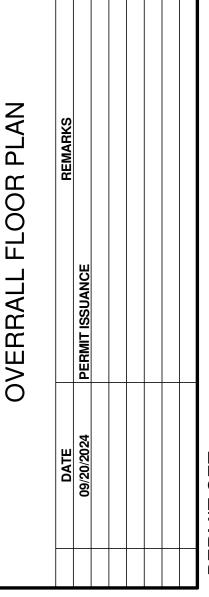
## SEE SHEETS G010 - 1010 FOR GENERAL NOTES

011 EXISTING CHAINLINK FENCE TO REMAIN. 014 EXISTING CHAINLINK FENCE TO REMOVE.

# LEGENDS

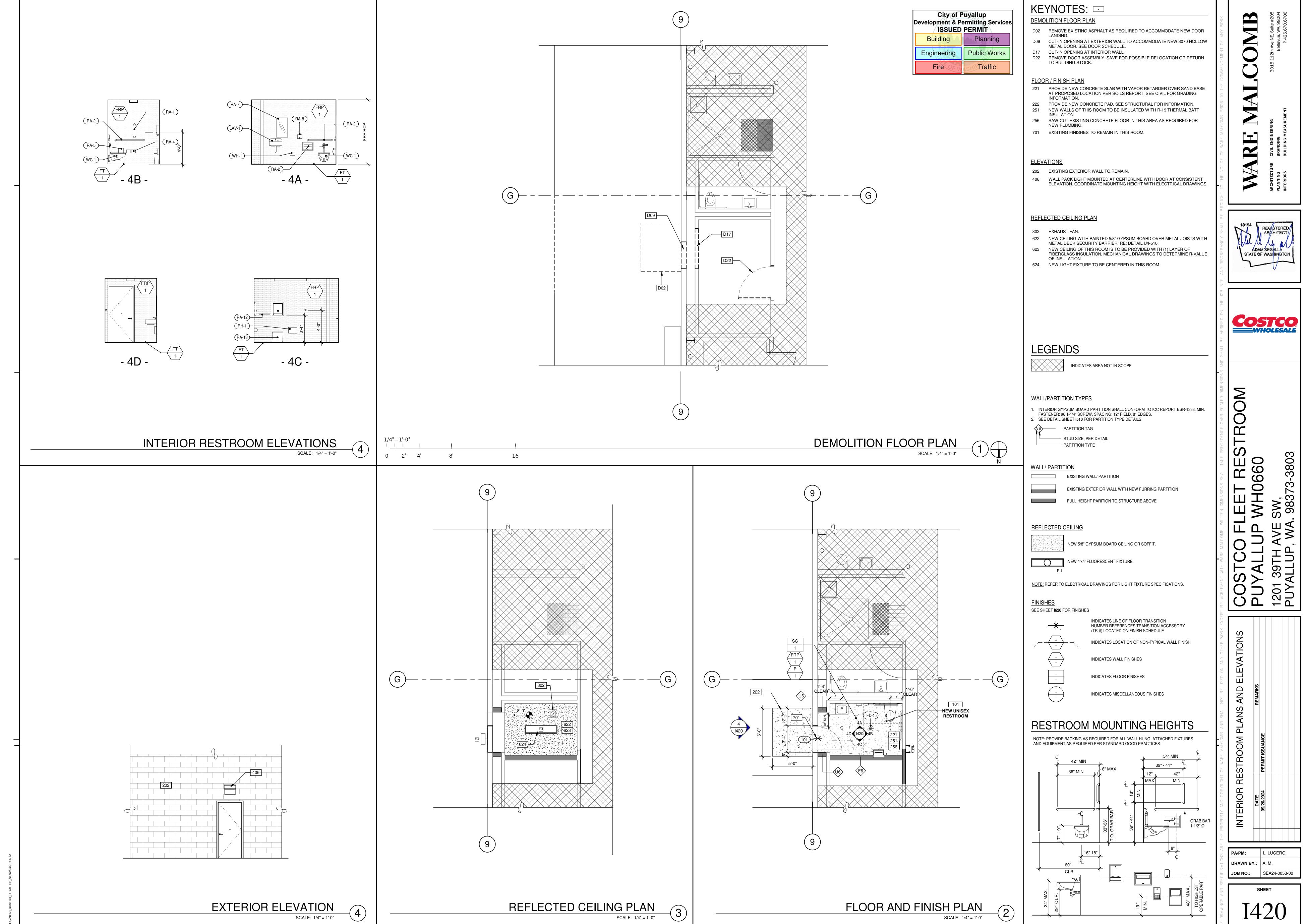




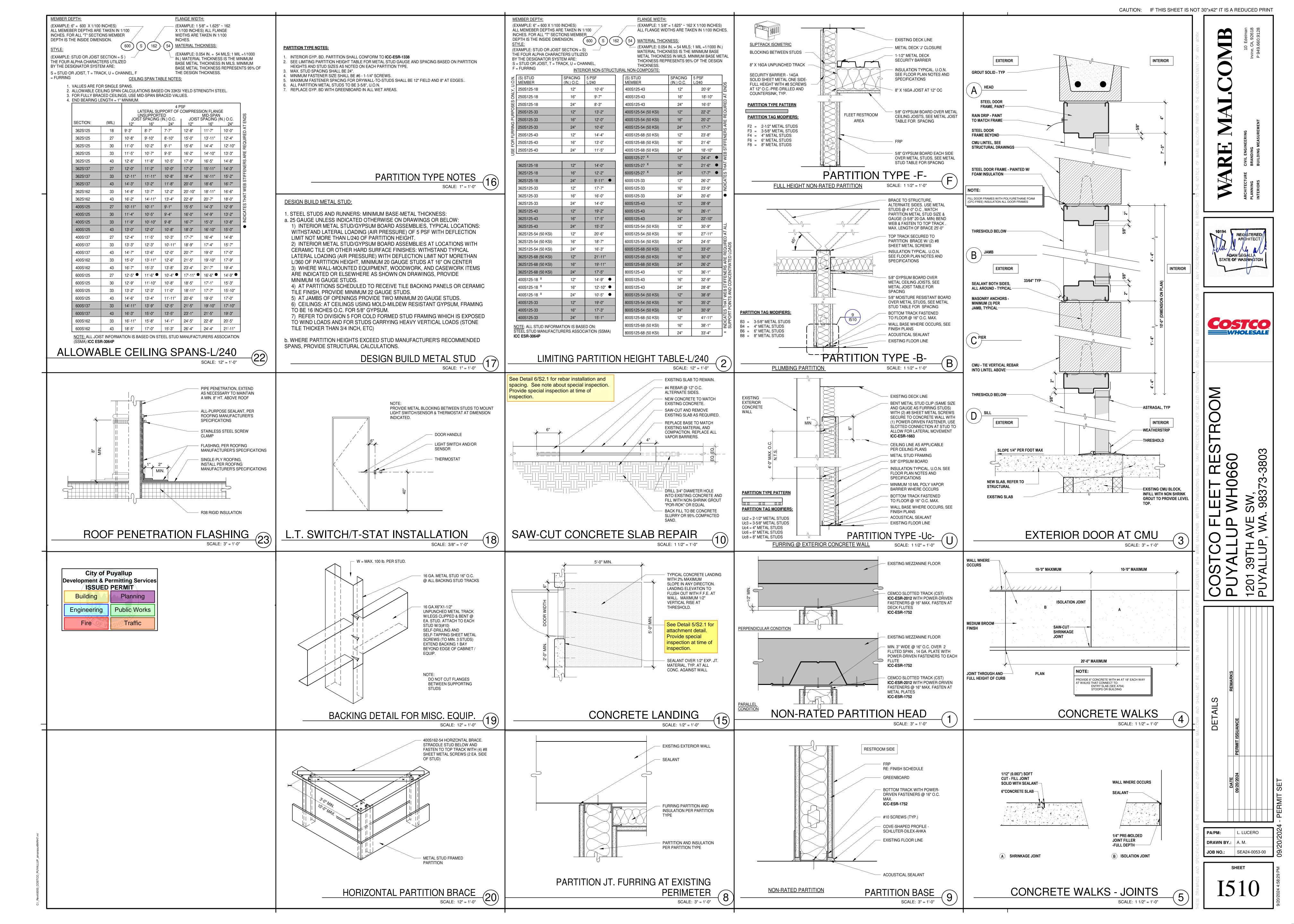


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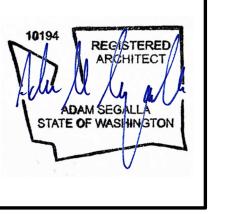
1"=20' SITE PLAN 0 10' 20'



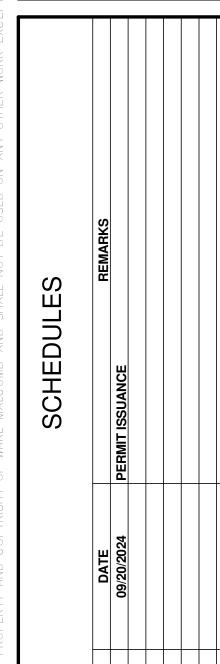
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CAUTION: IF THIS SHEET IS NOT 30"x42" IT IS A REDUCED PRINT City of Puyallup FINISH SCHEDULE Development & Permitting Services **ISSUED PERMIT** FLOORING FINISHES Building Planning SEALED CONCRETE Engineering Public Works MARK PRODUCT TYPE MARK GENERAL LOCATION, U.O.N. MANUFACTURER COLLECTION/ STYLE/# COLOR/ COLOR # SIZE INSTALLATION LAYOUT BACKING/ FINISHING <u>ADHESIVE</u> <u>NOTES</u> RESTROOM FLEET FLOOR N/A N/A FLAT N/A SEALED SC-1 Traffic SC-1 SEALED CONCRETE NATURAL SEALED Fire **FLOOR TRANSITION** COLOR/ COLOR # PROFILE/ TEXTURE <u>COLOR</u> SIZE <u>NOTES</u> MARK PRODUCT TYPE GENERAL LOCATION, U.O.N. MANUFACTURER COLLECTION/ STYLE/# INSTALLATION LAYOUT INSTALLATION METHOD <u>SEAMING</u> MARK TBD TBD TR-1 TR-1 SHLUTER RESTROOM THERESHOLD TBD TBD TBD AT RESTROOM DOOR TBD TBD WALL FINISHES **PAINT** MARK PRODUCT TYPE GENERAL LOCATION, U.O.N. **MANUFACTURER** <u>SERIES</u> COLOR/ COLOR # <u>SHEEN</u> **NOTES MARK** P-1 CEILING PAINT SW 7003 "TOQUE WHITE" EGG-SHELL RESTROOM CEILING SHERWIN-WILLIAMS PROMAR 200 B20-2600 **WALL APPLICATION** MARK PRODUCT TYPE GENERAL LOCATION, U.O.N. **MANUFACTURER** COLOR/ COLOR # <u>SIZE</u> <u>GROUT</u> COLLECTION/ STYLE/# **INSTALLATION LAYOUT THICKNESS** <u>NOTES</u> **MARK** FRP-1 FIRE RETARDANT PLYWOOD FULL HEIGHT FRP-1 RESTROOM WALLS COVERING | TBD TBD FULL HEIGHT **WALL BASE** MARK PRODUCT TYPE <u>GROUT</u> GENERAL LOCATION, U.O.N. COLOR/ COLOR # SIZE INSTALLATION LAYOUT **THICKNESS** <u>NOTES</u> **MANUFACTURER** COLLECTION/ STYLE/# <u>MARK</u> FT-1 FT-1 SCHLUTER - DILEX - AHKA RESTROOM WALLS SCHLUTER COVE-SHAPED PROFILE LEET RESTWH0660 LIGHT FIXTURE SCHEDULE DOOR SCHEDULE NAME MANUFACTURER HOUSING/FINISHES/LENS DESCRIPTION COLOR TEMP CRI MLFP14G420WCS 1'x4' FLUORESCENT MAXLITE 20W, WITH OCCUPANCY SENSOR 1'x4' FLUORESCENT FIXTURE. SURFACE MOUNTED <u>ROOM</u> <u>DOOR</u> PER PER ELECTRI CAL WALL PACK FIXTURE SURFACE MOUNTED WALL PACK PER ELECTRICAL PER ELECTRICAL PER ELECTRICAL NAME. <u>NO.</u> COMMENTS NEW UNISEX RESTROOM F1 3'-0" RESTROOM ACCESSORIES DESCRIPTION / NOTES RA-# MANUFACTURER MODEL NUMBER BOBRICK GRAB BAR 18" X 1-1/2' B-6806x18 (OR EQUAL) SATIN-FINISH STAINLESS STEEL W/ B-2583 CONCEALED ANCHOR PLATES GRAB BAR 36" X 1-1/2" BOBRICK B-6806x36 (OR EQUAL) SATIN-FINISH STAINLESS STEEL W/ B-2583 CONCEALED ANCHOR PLATES GRAB BAR 42" X 1-1/2" BOBRICK SATIN-FINISH STAINLESS STEEL W/ B-2583 CONCEALED ANCHOR PLATES B-6806x48 (OR EQUAL) DOUBLE-ROLL TOILET TISSUE DISPENSER BOBRICK B-2740 (OR EQUAL) SATIN-FINISH STAINLESS STEEL SURFACE MOUNTED NAPKIN/TAMPON DISPOSAL B-270 (OR EQUAL) SATIN-FINISH STAINLESS STEEL SURFACE MOUNTED, OWNER/TENANT TO APPROVE COIN CHARGE. BOBRICK SEAT COVER DISPENSER B-221 (OR EQUAL) SATIN-FINISH STAINLESS STEEL WALL MOUNTED BOBRICK MIRROR 1'-6" X 2'-6" B-1651 1824 (OR EQUAL) BEVELED EDGES WALL MOUNTED SOAP DISPENSER BOBRICK B-4112 (OR EQUAL) SATIN-FINISH STAINLESS STEEL WALL-MOUNTED PAPER TOWEL DISPENSER BOBRICK SATIN-FINISH STAINLESS STEEL RECESSED SATIN-FINISH STAINLESS STEEL WALL MOUNTED DOUBLE COAT HOOK BOBRICK SATIN-FINISH STAINLESS STEEL WALL MOUNTED SOLID FLUSH HARDWARE DOOR AND FRAME SCHEDULES DOOR KEYNOTES GENERAL NOTES **SPECIFICATIONS** SPECIFICATIONS PREPARE DOOR TO RECEIVE KEYPAD. SEE SHEET **1010** FOR GENERAL DOOR NOTES. D1 DOOR: STEEL DOOR DOOR CLOSER PER DOOR MANUFACTURER. ALL HARDWARE SHALL MEET ALL APPLICABLE FEDERAL, SINGLE; INTERIOR AND EXTERIOR FLEET RESTROOM MANUFACTURER: T.B.D. . WIDE ANGLE PEEPHOLE TO BE MOUNTED CENTERED ON THE STATE AND LOCAL BUILDING CODES. STYLE/SERIES: T.B.D. DOOR AT 43" HEIGHT. ALL DOOR FRAMES TO BE FACTORY FINISHED, U.O.N. CONSTRUCTION: STEEL 4. KICKPLATE TO BE INSTALLED ON PUSH SIDE OF DOOR. FINISH: PAINT T.B.D. 2 HINGES...... ....IVES 5BB1 652 PLUMBING FIXTURES THICKNESS: 1 3/4" 1 MECHANICAL PUSHBOTTOM ..KABA SIMPLEX 5000 SATIN CHROME FINISH 1 SURFACE CLOSER.... ...LCN 4040XP SCUSH AL TBWMS 689 DESCRIPTION / NOTES MANUFACTURER MODEL NUMBER TIMELY MANUFACTURER: 1 WEATHERSTRIP SET... . PEMKO 290APK AL MATERIAL: 1 KICKPLATE.... ..ROCKWOOD K1050 10" x 2" LTDW 630 TYPE N STRAINER, ADJUSTABLE STRAINER HEAR FLOOR DRAIN WITH DUCO-COATED CAST IRON BODY, FLASHING FLOOR DRAIN 1 DOOR SWEEP... ALUMITONE # SC108 ..PEMKO 315CN AL COLLAR, NICKEL BRONZE ADJ. HEAD. WASTE 2", VENT. 2" 1 RAIN DRIP CAP... ...PEMKO 346C AL LAVATORY WITH BACK 21 1/4" LENGHT, 18 1/8" WIDTH. WALL MOUNTED WITH HANGERS. DRILLED FOR CONCEALED LAVATORY - WALL HUNG WHITE VITREOUS CHINA 1 THRESHOLD.... ...PEMKO 171A x FHSL25 AL ARM CARRIER. OPTIONAL SOAP DISPENSER HOLE ON LEFT OR RIGHT. PROVIDE CHICAGO #802A MODEL FOR ...PEEKO HOME PROTECTOR 595 x 626 1 DOOR VIEWER... FAUCET EQUIPMENT. ROOM HEATER REFER TO MECHANICAL DRAWINGS WHITE VITREOUS CHINA WALL MOUNTED TOILET WITH FLUSH VALVE AT OPEN SIDE ACCESSIBLE WATER CLOSET- WALL Z5615.258.00.00.00 MOUNTED W/ FLUSH VALVE Z6000AV-HET Z5955SS-EL 2.5 GALLON ELECTRIC WATER HEATER, 1.2KW, 120V, 10 AMP, 6.0 GPH, 100 DEGREES RISE. WATER HEATER - INSTA-HOT WATER PROOF L. LUCERO DRAWN BY.: A. M. **JOB NO.:** SEA24-0053-00







 DESCRIPTION Building Name & Site Location - Costco Wholesale - Puyallup, WA

2. DESIGN CODE AND STANDARDS Applicable Code (Edition/Name) - 2021 International Building Code (IBC) Other documents referenced by these notes shall be the specific edition referenced by the building code specified above, or if not specified, shall be the latest edition. Code supplement & Date - ASCE 7-16

3. DESIGN LOADS a. Ceiling Live Load

b. Seismic Risk Category II  $S_S = 1.268$ ,  $S_1 = 0.438$ , le = 1.0, Site Class "D" and  $S_{DS} = 0.845, S_{D1} = 0.544.$ 

Seismic Design Category = "D"

Risk Category II c. Wind Load Basic wind speed (3 sec. gust) V<sub>UI T</sub>= 110 mph, V<sub>ASD</sub>= 85 mph Exposure C Kzt=1.0

> Ke=1.0 IBC Load Cases per sec. 1605.2.1 or 1605.3.1 only  $K_d = 0.85$ Importance factor 1.0.

d. Load Combinations All Code required load combinations are to be used in the building design. **OSHA STANDARDS** 

THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PROVISIONS OF THE CURRENT OSHA STANDARDS. THE GENERAL CONTRACTOR SHALL REVIEW THESE STRUCTURAL DRAWINGS FOR ANY NONCOMPLIANCE WITH OSHA STANDARDS, TAKING INTO ACCOUNT THE GENERAL CONTRACTOR'S MEANS AND METHODS. THE GENERAL CONTRACTOR SHALL INFORM ENW OF ANY NONCOMPLIANCE SO THE DRAWINGS MAY BE MODIFIED FOR COMPLIANCE PRIOR TO CONSTRUCTION. THE GENERAL CONTRACTOR IS TOTALLY RESPONSIBLE FOR MEANS AND METHODS AS WELL AS JOBSITE SAFETY ON THIS PROJECT.

F'c=4000 PSI. @ 28 DAYS 5-1/2 SACKS MINIMUM CEMENT PER CUBIC YARD FOR ALL CONCRETE SLABS. F'c=3000 PSI. @ 28 DAYS 5-1/2 SACKS MINIMUM CEMENT PER CUBIC YARD FOR ALL OTHER. USE TYPE I/IL/II CEMENT. USE TYPE III (HIGH EARLY STRENGTH) CEMENT IS ACCEPTABLE FOR SCHEDULE. FOR SPECIAL CONDITIONS ANOTHER TYPE CEMENT MAY BE REQUIRED. SUBMIT FOR APPROVAL. ULTIMATE STRENGTH DESIGN METHOD USED. MIXING AND PLACING OF ALL CONCRETE AND SELECTION OF MATERIALS SHALL BE IN ACCORDANCE WITH THE ACI CODE 318. PROPORTIONING OF AGGREGATE TO CEMENT SHALL BE SUCH AS TO PRODUCE A DENSE WORKABLE MIX WITH 4" MAXIMUM SLUMP (UNLESS SUPERPLASTICIZERS ARE USED) WHICH CAN BE PLACED WITHOUT SEGREGATION OR EXCESS FREE SURFACE WATER. FOR ADMIXTURES, SEE SPECIFICATIONS. MAXIMUM WATER/CEMENT RATIO = 0.49. 3/4" CHAMFER ALL EXPOSED EDGES, UNLESS INDICATED OTHERWISE ON ARCHITECTURAL DRAWINGS. WATER CURING SHALL BE USED. AIR ENTRAIN ALL HORIZONTAL CONCRETE EXPOSED TO WEATHER WITH 3% TO 6% AIR BY VOLUME. DO NOT USE AIR ENTRAINMENT FOR INTERIOR SLABS ON GRADE. LIMIT WATER CEMENT RATIO TO 0.45 AND USE TYPE V CEMENT WHERE SOILS "WATER SOLUBLE SULFATE EXCEEDS 0.20 PERCENT BY WT. ADD NO WATER TO CONCRETE AT SITE. IF INCREASED WORKABILITY IS REQUIRED, CONTRACTOR IS TO SUBMIT A MIX DESIGN THAT WILL ALLOW THE ADDITION OF A FIXED AMOUNT WATER REDUCING AGENT OR A FIXED AMOUNT OF SUPER-PLASTICIZER AT THE CONCRETE PLANT.

- A.DO NOT USE FLY ASH, SLAG OR OTHER SUPPLEMENTARY CEMENTITIOUS MATERIALS IN CONCRETE EXPOSED TO VIEW INCLUDING, BUT NOT LIMITED TO, INTERIOR FLOOR SLABS, ENTRY CANOPY SLABS, LOADING DOCK SLABS AND STAIRS, STEM WALLS, LOADING DOCK WALLS, COLUMNS OR PILASTERS, AND EXTERIOR WALKS /PADS.
- 1. FLY ASH, SLAG AND OTHER SUPPLEMENTARY CEMENTITIOUS MATERIALS MAY BE USED ONLY IN BELOW GRADE CONCRETE SUCH AS FOOTINGS, FOUNDATION WALLS, GRADE BEAMS, AND SIMILAR CONCEALED LOCATIONS.
- 2. FLY ASH, SLAG AND OTHER SUPPLEMENTARY CEMENTITIOUS MATERIALS MAY BE USED IF DETERMINED THAT THE USE OF SUPPLEMENTARY CEMENTITIOUS MATERIALS WOULD IMPROVE RESISTANCE TO ALKALI-AGGREGATE REACTIVITY IN CONCRETE. OBTAIN WRITTEN APPROVAL FROM OWNER PRIOR TO USE.

ACI 306R IS TO BE FOLLOWED FOR COLD WEATHER CONCRETING. ACI 305R IS TO BE FOLLOWED FOR HOT WEATHER CONCRETING. THE TESTING LAB MUST APPROVE THE CONTRACTORS METHOD OF COMPLIANCE AND CERTIFY THEIR APPROVAL WITH EACH CONCRETE TEST CYLINDER THEY CAST. TESTING LAB TO NOTIFY THE ARCHITECT IMMEDIATELY BY FAX AND PHONE OF ANY NONCOMPLIANCE.

REINFORCING STEEL ALL CONCRETE REINFORCING STEEL SHALL BE DEFORMED PER ASTM A615, GRADE 60 (fy=60,000 psi)

LAP CONTINUOUS REINFORCING BARS 44 BAR DIAMETERS, 1'-10" MINIMUM UNLESS NOTED OTHERWISE. CORNER BARS (1'-10" BEND) TO BE PROVIDED FOR ALL HORIZONTAL REINFORCEMENT. DETAIL STEEL IN ACCORDANCE WITH "ACI MANUAL OF STANDARD PRACTICE OF DETAILING REINFORCED CONCRETE STRUCTURES". WELDED WIRE FABRIC (WWF) TO CONFORM WITH ASTM A185. REINFORCING HOOKS TO COMPLY WITH STANDARD ACI HOOKS. COVER TO MAIN REINFORCEMENT TO BE:

**BOTTOM OF FOOTINGS** FORMED SURFACES

WEATHER & EARTH FACE 1-1/2 INCHES FORMED SURFACES INTERIOR FACE 3/4 INCHES

SHOULD THE REINFORCING SUPPLIER AND/OR DETAILER CHOOSE TO USE SOFT METRIC, EACH AND EVERY REBAR CALLOUT MUST BE INDICATED WITH BOTH SIZES WITH THE IMPERIAL SIZE FIRST THUS: "#4/#13" NO EXCEPTIONS. A CONVERSION TABLE ALONE IS UNACCEPTABLE. WE WILL CHECK THE SHOP DRAWINGS TO THE IMPERIAL SIZES ONLY. IT WILL BE THE RESPONSIBILITY OF THE REINFORCING SUPPLIER AND THE GENERAL CONTRACTOR TO VERIFY THAT ALL CONVERSIONS TO METRIC SUPPLY AT LEAST THE SAME AREA OF STEEL AS THE IMPERIAL.

## LIGHT GAGE STEEL FRAMING AND DECKING (SEE DRAWINGS)

SPECIAL INSPECTIONS

INSPECTIONS ARE TO BE PER THE CODE INDICATED ABOVE AND ARE TO BE BY AN INDEPENDENT TESTING LAB APPROVED PRIOR TO STARTING CONSTRUCTION BY THE BUILDING DEPT. AND THE ARCHITECT. INSPECT ALL SHOP WELDING UNLESS THE SHOP IS CERTIFIED BY THE LOCAL BUILDING DEPARTMENT. TAKE CONCRETE CYLINDERS AS REQUIRED, VERIFY SLUMP AND STRENGTH. SPECIAL INSPECTION IS REQUIRED DURING THE TAKING OF TEST SPECIMENS AND PLACING OF ALL REINFORCED CONCRETE. REINFORCING: VERIFY ALL REINFORCING IS PLACED IN ACCORDANCE WITH THESE DRAWINGS.

CHECK FOR REQUIRED COVER, SIZE, SPACING, LAP AND GRADE. SPECIAL INSPECTION IS REQUIRED DURING THE PLACING OF REINFORCING STEEL. LIGHT GAGE STEEL FRAMING: VERIFY SIZE, GAGE AND SPACING. INSPECT WELDING. VERIFY CERTIFICATION OF

**SPECIAL CONDITIONS** 

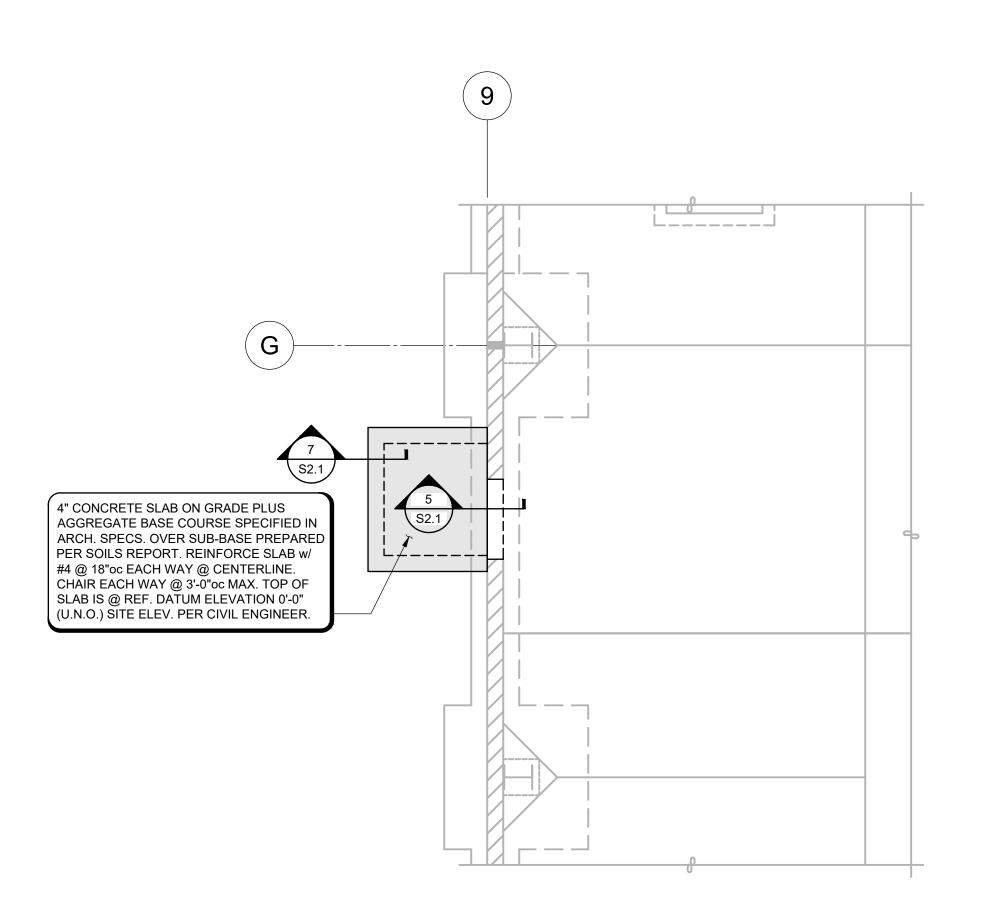
WELDERS.

CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD AND SHALL PROVIDE ADEQUATE SHORING AND BRACING OF ALL STRUCTURAL MEMBERS DURING CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER OF ALL FIELD CHANGES PRIOR TO INSTALLATION.

NOTE TO MECHANICAL AND ELECTRICAL TRADES

CONTRACTOR SHALL SUBMIT PLANS SHOWING LOCATION, LOAD AND ANCHORAGE OF ALL HANGERS SUPPORTING ANY MECHANICAL, ELECTRICAL, PLUMBING OR SPRINKLER LOADS IN EXCESS OF 50 POUNDS. ANY ROOF MOUNTED EQUIPMENT SHALL BE INCLUDED IN THESE PLANS AND SHALL SHOW LOADS AND LOCATIONS. THESE SHALL BE SUBMITTED TO ENGINEERS NORTHWEST FOR REVIEW PRIOR TO INSTALLATION OF ANY OF THIS EQUIPMENT. SEE DETAILS ON DRAWING S5.1 FOR SUPPORTING LOADS FROM ROOF JOISTS. ALL DETAILS OF CONNECTIONS TO THE STRUCTURE FOR EQUIPMENT SHALL BE BY THE SUPPLIER OF THAT EQUIPMENT. THE BUILDING DEPARTMENT REQUIRES A SUBMITTAL FOR PLAN CHECK REGARDING THE DESIGN OF THESE DETAILS, IT IS THE RESPONSIBILITY OF THE EQUIPMENT SUPPLIER TO PROVIDE THIS SUBMITTAL.

ABBREVIAT	TONS	M.B.S.	METAL BLDG SUPPLIER
ARCH.	ARCHITECT	N.F.	NEAR FACE
BAL.		N.T.S.	NOT TO SCALE
	BALANCE BOTTOM	OC .	ON CENTER
B. BTWN.	OR BOT. BOTTOM	O.F.	OUTSIDE FACE
BLDG.	BETWEEN	O.S.	OUTSIDE
	BUILDING	O.T.O.	OUT TO OUT
BRG. C.I.P.	BEARING CAST IN DIACE	PL	PLATE
C.I.P. C.J.	CAST IN PLACE	REINF.	REINFORCING
	CONSTRUCTION JOINT	REM.	REMAINDER
CL	CENTERLINE	R.O.	ROUGH OPENING
CLR.	CLEAR	SECT.	SECTIONS
CMU	CONCRETE MASONRY UNIT	SIM.	SIMILAR
COL.	COLUMN	S.J	SHRINKAGE JOINT
CONC.	CONCRETE	S.O.G.	SLAB ON GRADE
C.S.J.	CLOSURE STRIP JOINT	STL.	STEEL
EA.	EACH	SW	SHEARWALL
E.E.	EACH END	SYMM.	SYMMETRICAL
E.F.	EACH FACE	T.	TOP
E.J.	EXPANSION JOINT	T.O.B.	TOP OF BEAM
EL.	OR ELEV. ELEVATION	T.O.F.	TOP OF FOOTING
E.N.W.	OR ENW ENGINEERS NORTHWEST	T.O.S.	TOP OF STEEL
EQ.	EQUAL	T.O.S.	TOP OF SLAB
E.S.	EACH SIDE	T.O.W.	TOP OF WALL
E.W.	EACH WAY	TYP.	TYPICAL AT ALL SIMILAR PLACES
F.O.C.	FACE OF CONCRETE	U.N.G.	UNLESS NOTED OTHERWISE
F.O.S.	FACE OF STUD	V.E.F.	VERTICAL EACH FACE
F.O.W.	FACE OF WALL	V.E.I . VERT.	VERTICAL LACITY ACL
FTG.	FOOTING	V.F.F.	VERTICAL FAR FACE
GA.	GAGE	VFY	VERIFY
GALV.	HOT DIP GALVANIZED	V.I.F.	VERTICAL INSIDE FACE
G.W.B.	GYPSUM WALL BOARD	V.N.F.	VERTICAL NEAR FACE
H.	OR HORIZ. HORIZONTAL	V.N.F.	VERTICAL OUTSIDE FACE
I.B.A.	INTERNATIONAL BUILDING CODE	w/	WITH
I.C.C.	INTERNATIONAL CODE COUNCIL	w/o	WITH OUT
I.F	INSIDE FACE	W.H.S.	WELD HEAD STUD
INC.	INCLUDING	@ @	AT
K	KIP (1000 POUNDS)	w	/ \
L.W.	LONG WAY		

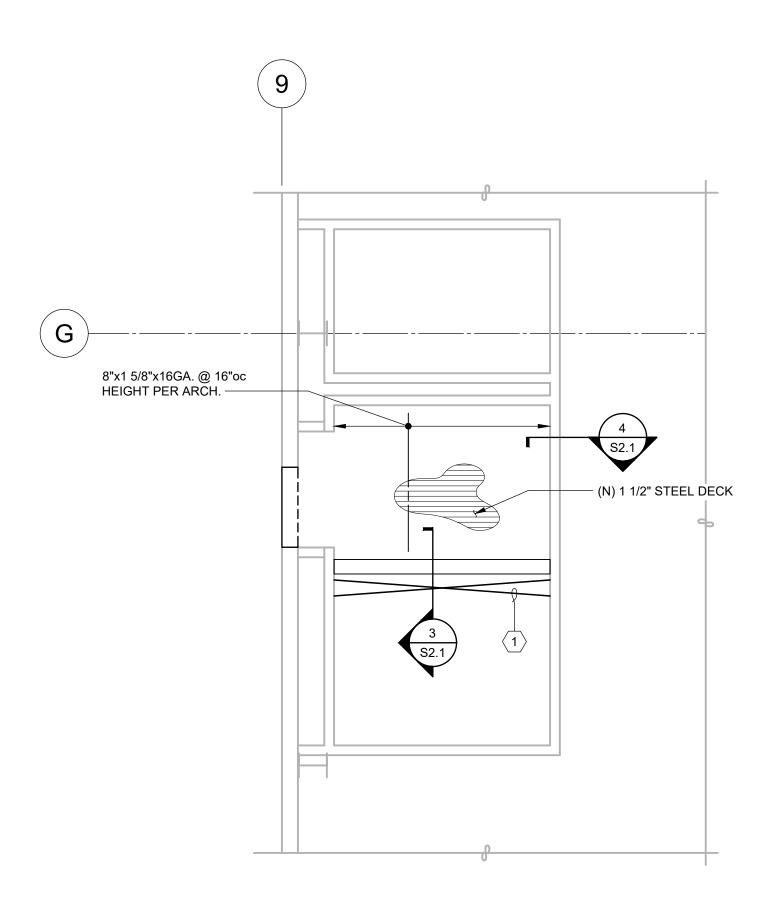


# FLEET RESTROOM SITE PLAN

- 1. ALL ITEMS ARE EXISTING (E) UNLESS NOTED AS NEW (N).
- 2. FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS PRIOR TO CONSTRUCTION. NOTIFY ENW IF EXISTING DIMENSIONS AND EXISTING CONDITIONS ARE NOT AS SHOWN ON PLANS AND SECTIONS.

1/4" = 1'-0"

3. VERIFY ALL DIMENSIONS w/ ARCH.



# FLEET RESTROOM FRAMING PLAN

ALL ITEMS ARE EXISTING (E) UNLESS NOTED AS NEW (N).

- 2. FIELD VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS PRIOR TO CONSTRUCTION. NOTIFY ENW IF EXISTING DIMENSIONS AND EXISTING CONDITIONS ARE NOT AS SHOWN ON PLANS AND SECTIONS.
- 3. VERIFY ALL DIMENSIONS w/ ARCH.

ITEM	CALLOUT		MINIMU	M PROPE	RTIES			JPPLIERS & THEIR R THESE ITEMS
11 = 101	UNLLUG!	Fy (K.S.i.)	I(in. <sup>4</sup> )	S(in. <sup>3</sup> )	A(in. <sup>2</sup> )	ry	SSMA I.C.0	C. ESR-3064P
C12 HEADERS ** (2) 12" x 2" x 16GA.		50	32.67	4.14	0.78	1.74	(2)1200S20	00 - 54 (50ksi)
C8 HEADERS ** (TYP. U.N.O.) (12'-0" MAX. SPAN)	(2) 8" x 1 5/8" x 16GA.	50	11.20	2.46	1.34	1.39	(2)800\$16	2 - 54 (50ksi)
RIM JOISTS & BLKG. **	8" x 1 1/4" x 16GA.	50	4.75	1.16	0.59	0.31	800T125	- 54 (50ksi)
C12 (SPCL.) HEADER CAPS T.& B.	4" x 1 1/4" x 16GA.	50	0.90	0.43	0.37	0.37	400T128	5 54 (50ksi)
CEILING JOIST**	8" x 1 5/8" x 16GA.	50	5.74	1.43	0.67	0.54	800\$162	- 54 (50ksi)
CEILING TRACK**	8" x 1 1/4" x 16GA.	50	4.75	1.16	0.59	0.31	800T125	- 54 (50ksi)
WALL TOP TRACK ** (U.N.O.)	3 5/8" x 1 1/4" x 16GA.	50	0.72	0.38	0.35	0.37	362T125	- 54 (50ksi)
WALL TOP TRACK ** (SPCL.)	3 5/8" x 1 1/4" x 12GA.	50	1.34	0.67	0.62	0.36	362T125	- 97 (50ksi)
WALL BOT. TRACK ** (U.N.O.)	3 5/8"x 1 1/4" x 16GA.	50	0.72	0.38	0.35	0.37	362T125	- 54 (50ksi)
WALL STUDS TYP. (U.N.O.)	3 5/8" x 1 5/8" x 20GA.	33	0.55	0.30	0.26	0.61	362S	162 - 33
WALL TOP TRACK **	6" x 1 1/4" x 16GA.	50	2.34	0.76	0.48	0.34	600T125	- 54 (50ksi)
WALL BOT. TRACK **	6" x 1 1/4" x 16GA.	50	2.34	0.76	0.48	0.34	600T125	- 54 (50ksi)
WALL STUDS	6" x 1 5/8" x 20GA.	33	1.79	0.60	0.34	0.58	600S	162 - 33
WALL STUDS (SECT. 1/S2.2)	6" x 1 5/8" x 18GA.	33	2.32	0.77	0.45	0.58	600S	162 - 43
WALL STUDS	8" x 1 5/8" x18GA.	33	4.63	1.16	0.54	0.55	800S162	- 43 (33 ksi)
WALL TRACKS	8" x 1 1/4" x 16GA.	50	4.75	1.16	0.59	0.31	800T125	- 54 (50 ksi)
16GA STRAPS (IN CEILING)	WIDE x 16GA. FLAT STRAP ALT. 1 1/2" x 16GA. C.R.C.	50					SEE CEILING BR	ACING SCHEDULE
1 1/2" x 20GA. BRACING STRAPS (HORIZ. IN WALLS)	1 1/2" WIDE x 20GA. FLAT STRAP ALT. 1 1/2" x 16GA. C.R.C.	33						
16GA STRAPS (DIAGONAL IN WALLS)	WIDE x 16GA. FLAT STRAP	50					SEE WALL BRA	CING SCHEDULE
2" x 2" ANGLE	GAGE TO MATCH SUPPORTED MEMBER	33						
ROOF DECK	1 1/2" DEEP x 22GA. TYPE "B"	50	0.175	0.184			VERCO TYPE HSB-SS	
SCREWS (MTL. TO MTL.)	#10-16 x 1" HWH #3 OR PPH #3						HILTI	
SCREWS (G.W.B. TO MTL.)	#10-24 x 1 1/2" PWH #3						HILTI	
SCREWS (PLYWOOD TO MTL.)	#10-18 x 1 1/2" PWH #3					HILTI	6"oc EDGES & 12"oc FIELD	
WALL & BOTTOM TRACK ANCHORS	#DS37P10 (0.177"Ø X 1 1/2" LOW VELOCITY DRIVE PINS					HILTI	I.C.C. ESR-1663	
UNISTRUT	P1000 OR P1001 (PER PLAN)							

110120.
1.) * SUBSTITUTION OF OTHER SUPPLIERS FOR THESE ITEMS NOT ALLOWED.
** THESE JOIST & TRACK MEMBERS TO BE [INPUNCHED.
2.) SINGLE FRAMING MEMBER SHOWN THUS:
3.) DOUBLE FRAMING MEMBER SHOWN THUS: (U.N.O.)

Т	THICKNESS OF STEEL COMPONENTS 1				
GAGE	E DESIGN THICKNESS MINIMUM THICKNES				
22	.0283	.0269			
20	.0346	.0329			
18	.0451	.0428			
16	.0566	.0538			
14	.0713	.0677			
12	.1017	.0966			
10	.1240	.1265			

1.) UNCOATED STEEL THICKNESS. THICKNESS IS FOR CARBON

SHEET STEEL. 2.) MINIMUM THICKNESS REPRESENTS 95% OF DESIGN THICKNESS AND IS THE MINIMUM ACCEPTABLE THICKNESS DELIVERED TO THE JOB SITE BASED ON SECTION A2.4 OF THE 2007 A.I.S.I. CODE.

LIGHT GAGE BEAM	
SCHEDULE	

MARK	BUILT UP BEAM	TRACKS & SCREWS
B1	(2) C12 x 2 x 14GA. HEADER	6" x 1 1/4" x 16GA. TRACK T. & B. w. SCREWS @ 16"oc T. & B.
B2	(2) C8 x 2 x 16GA. HEADER	00112110 (6) 10 00 11 0 2.
В3	(2) C12 x 2 x 12GA. HEADER	6" x 1 1/4 x 12GA TRACK T. & B. w/ SCREWS @ 4"oc T. & B.
B4	(2) C12 x 2 x 12GA. HEADER	8" x 1 1/4 x 12GA TRACK T. & B. w/ SCREWS @ 4"oc T. & B.

1.) WHERE BEAM IS USED IN WALL BOTTOM TRACK MAY TURNED FLANGE DOWN FOR WALL STUDS. 2.) SEE LIGHT GAGE PARTS SCHEDULE FOR MINIMUM PROPERTIES AND REMAINDER OF DETAILS.

3.) SEE APPLICABLE SECTIONS FOR CONNECTIONS EA. END.

JOIST BRACING					
SCHEDULE					
JOIST SPAN	TOP AND BOTTOM FLANGE BRACING				
UP TO AND INCLUDING 10'	NONE				
10' UP TO AND INCLUDING 14'	ONE ROW AT MID-SPAN				
14' UP TO AND INCLUDING 18'	TWO ROWS AT THIRD SPANS				
18' UP TO AND INCLUDING 21'	THREE ROWS AT QUARTERS SPANS				

- TOP STRAP IF DECK OCCURS. OR 1 1/2" CRC ON TOP OF JOIST. FASTEN TO EA. JOIST w/2 SCREWS. 2.) SPACE BRACING AS NOTED ABOVE EXCEPT WHEN NOTED OTHERWISE ON PLANS. 3.) SEE SECT. 1/S2.2 FOR DETAILS AND EXCEPTIONS.
- 1.) USE 1 1/2" x 16GA. FLAT STRAP ON TOP & BOT. OF JOIST. OMIT

# CEILING BRACING SCHEDULE NI IMBED OF SCDEWS

	STRAP/CRC	NUMBER OF		
ARK	(50 k.s.i.)	GUSSET TO TRACK	GUSSET TO STRAP	STRAP SPLICE
A	1 1/2" x 16GA.	2	2	2
В	2" x 16GA.	3	3	3
c〉	3" x 16GA.	4	4	4
		· ·	·	

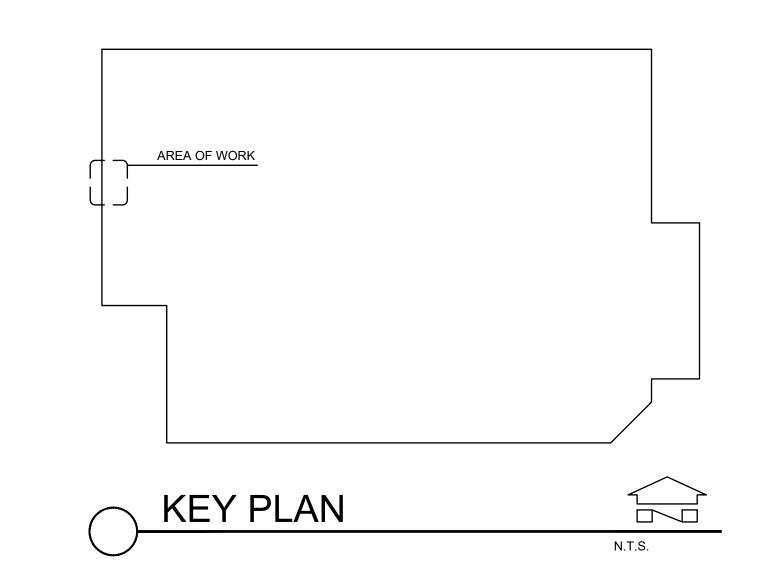
1.) SCREWS MUST BE PLACED AT LEAST 3/4" APART AND MUST BE 3/4" FROM EDGE OR END OF ALL METAL PIECES. 2.) SEE SECTION 1/S2.2 FOR BALANCE OF INFO.

# WALL STUD WIDTH SCHEDULE MARK STUD WIDTH

(8)	8"
NOTES:	
1.) ALL WALLS ARE 3 5/8	8" UNLESS NOTED THUS: $igcup$
2.) SEE LIGHT GAGE PA	RTS SCHEDULE FOR GAGE
AND MINIMUM PROP	ERTIES.

WALL BRACING SCHEDULE						
	STRAP	NUMBER OF SCREWS				
MARK	(50 k.s.i.)	HOLDOWN GUSSET TO T. & B. GU		GUSSET TO DBL. STUDS	GUSSET TO STRAP	
<u>(1)</u>	1/2" G.W.B. (NO STRAP REQUIRED)	S/LTT20	UNBLOCKED SCREW @ 7"oc EDGES & 7"oc FIELD			
2	2" x 16GA.		8	18	10	
3	3" x 16GA.	S/LTT20	12	25	15	

1.) SCREWS MUST BE PLACED AT LEAST 3/4" APART AND MUST BE 3/4" FROM EDGE OR END OF ALL METAL



HOLDOWN SCHEDULE

**ANCHORS** 

1/2"Ø SIMPSON TITEN HD (EMBED 3 1/4")

INSPECTED INSTALLATION I.C.C. ESR 2713

5/8"Ø SIMPSON TITEN HD (EMBED 3 1/4")

INSPECTED INSTALLATION I.C.C. ESR 2713

SCREWS

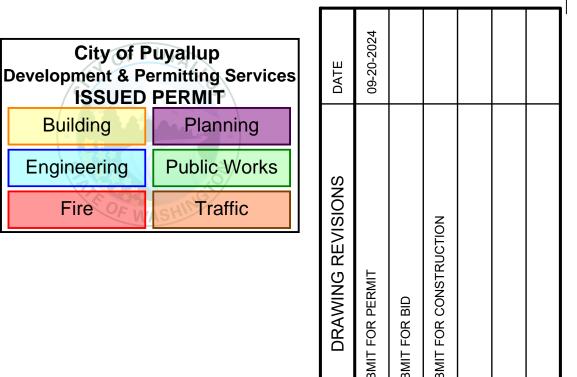
8 #10

18 #10

HOLDOWN

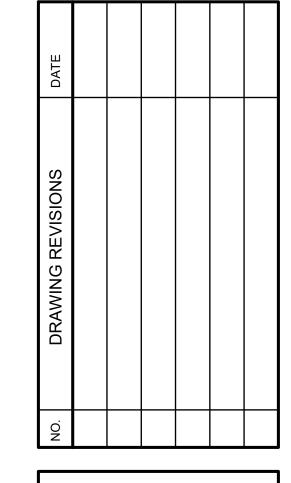
SIMPSON S/LTT20

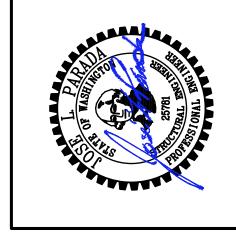
SIMPSON S/HTT4

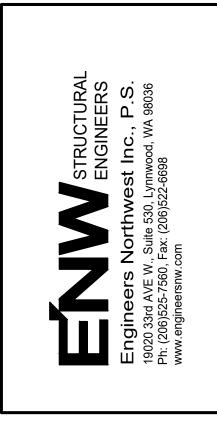


Engineering

Fire





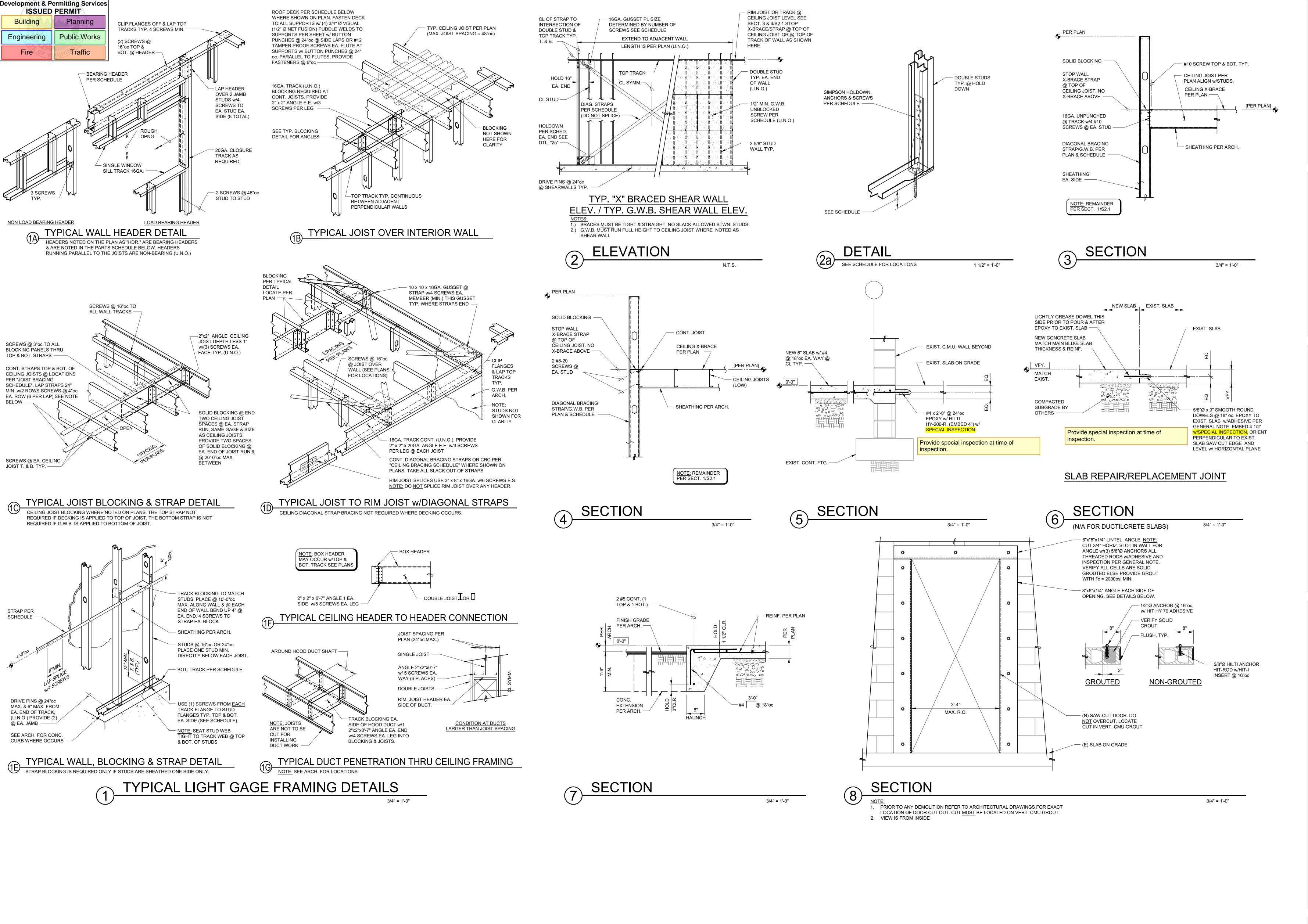




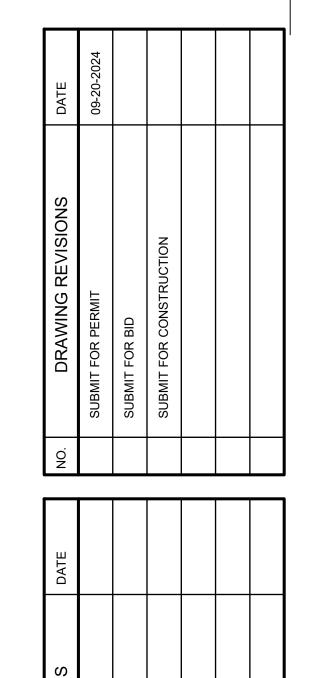
DRAWN: P. PATEL DATE: 09-18-2024 SHEET NO:

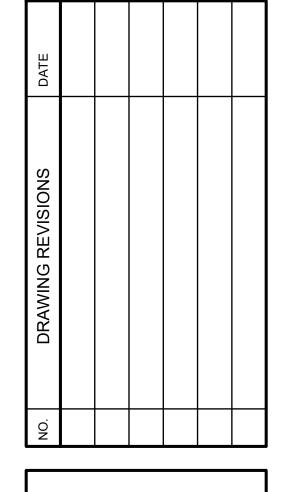
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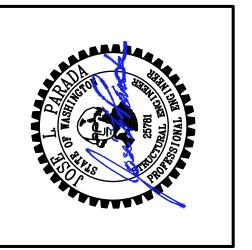
ENGINEER: J. SAGDAHL



City of Puyallup







Engineers Northwest Inc., P.S. 19020 33rd AVE W., Suite 530, Lynnwood, WA 98036 Ph: (206)525-7560, Fax: (206)522-6698 www.engineersnw.com



S2.1							
SHEET NO:							
DATE:	09-18-2024						
DRAWN:	P. PATEL						
ENGINEER:	J. SAGDAHL						
JOB NO:	99090017						

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**-** #

→ EQUIPMENT NUMBER 50 CFM <del>→</del> CFM

MECHANICAL SHEET LIST

SYMBOLS & LEGENDS

2021 WASHINGTON STATE ENERGY CODE 2021 WASHINGTON STATE PLUMBING CODE

SEISMIC DESIGN CATEGORY D CONTRACTOR TO VERIFY FINAL TYPE, MODEL, AND QUANTITY

5. ALL DUCT SIZES INDICATED ON PLANS AND RISERS ARE CLEAR INSIDE DIMENSIONS. DUCT SIZES NOT SHOWN SHALL BE SIZED TO VELOCITIES NO GREATER THAN UPSTREAM SECTION USING SIMILAR ASPECT RATIOS.

6. ALL SUPPLY AIR TAKE-OFFS FROM MAIN TRUNK DUCTS ARE TO BE INSTALLED WITH BELL MOUTH FITTINGS OR 45 DEGREE ENTRY TO PROVIDE THE SMOOTHEST AIR FLOW POSSIBLE.

9. ALL DUCTS LOCATED ABOVE INACCESSIBLE CEILINGS ARE TO BE BALANCED PRIOR TO CEILING INSTALLATIONS.

MAINTENANCE OF ALL EQUIPMENT LOCATED ABOVE INACCESSIBLE CEILINGS.

. PROVIDE GUIDES, HANGERS, EXPANSION LOOPS, AND

PUYALLUP, WA

99.6% HEATING: 19.5°F DB

**GENERAL NOTES** MECHANICAL SYMBOLS

\_\_\_\_H DUCT

ALL WORK PERFORMED SHALL CONFORM TO TO ALL APPLICABLE

STATE AND LOCAL CODES. ALL DUCTWORK SHALL BE PRIME GRADE GALVANIZED SHEET METAL PER SMACNA STANDARDS.

ALL EQUIPMENT SHALL BE U.L., ETL, AND/OR AGA LABELED AS

DUCTWORK SHALL BE SUPPORTED WITH APPROVED HANGERS AT INTERVALS NOT EXCEEDING TEN (10) FEET OR BY OTHER APPROVED DUCT SUPPORT SYSTEMS DESIGNED IN ACCORDANCE WITH THE BUILDING CODE. FLEXIBLE AND OTHER FACTORY-MADE DUCTS SHALL BE SUPPORTED IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.

MECHANICAL CONTRACTOR SHALL PROVIDE SPIN-IN COLLARS WITH DAMPERS AT ALL ROUND BRANCH TAKEOFFS TO DIFFUSERS.

DUCTWORK CONSTRUCTION MATERIALS, INCLUDING COVERINGS, LININGS, AND ADHESIVES, EXPOSED WITHIN PLENUMS SHALL BE NONCOMBUSTIBLE OR SHALL HAVE A FLAME SPREAD RATING OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED RATING OF NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E-84.

PROVIDE FIRE DAMPERS BY "NAILOR" OR APPROVED EQUAL AT ALL

PENETRATIONS THRU RATED ASSEMBLIES. REFER TO ARCHITECTURAL PLANS FOR ALL LOCATIONS AND RATINGS. ALL FIRE DAMPERS MAY NOT BE SHOWN ON THE PLANS. THIS CONTRACTOR SHALL VERIFY EXACT LOCATIONS AND QUANTITIES. MECHANICAL CONTRACTOR SHALL PROVIDE FLEXIBLE CANVAS

MECHANICAL CONTRACTOR SHALL PROVIDE FLEXIBLE AIR CONNECTORS FOR ALL DIFFUSERS. FLEXIBLE CONNECTORS SHALL NOT EXCEED FIVE (5) FEET.

0. FLEXIBLE AIR DUCTS AND FLEXIBLE AIR CONNECTORS, BOTH

CONNECTIONS AT ALL EQUIPMENT.

METALLIC AND NONMETALLIC, SHALL BE TESTED IN ACCORDANCE WITH UL 181. SUCH DUCTS SHALL BE LISTED AND LABELED AS CLASS 0 OR CLASS 1. OUTSIDE AIR INTAKES SHALL BE A MINIMUM OF TEN (10) FEET FROM ANY EXHAUST VENT, FLUE VENT OR ANY OTHER MECHANICAL

SOURCE OF CONTAMINATION AND TWELVE (12) FEET FROM ANY

PLUMBING VENT. MECHANICAL CONTRACTOR SHALL PROVIDE BALANCING REPORTS BY A CERTIFIED BALANCER UPON COMPLETION OF PROJECT. PROVIDE INSPECTOR REPORTS PRIOR TO FINAL INSPECTION.

. ALL THERMOSTATS SHALL BE MOUNTED IN ACCORDANCE WITH ACCESSIBLE REQUIREMENTS. WHERE THE THERMOSTAT IS ACCESSIBLE BY FRONTAL APPROACH ONLY, THEN THE MOUNTING HEIGHT OF THE THERMOSTAT SHALL BE 4'-0" A.F.F. WHERE THE THERMOSTAT IS ACCESSIBLE FROM A SIDE APPROACH, THEN THE MOUNTING HEIGHT OF THE THERMOSTAT SHALL BE 4'-6" A.F.F.

. ELECTRICAL CONTRACTOR SHALL WIRE ALL EQUIPMENT AND SHALL PROVIDE DISCONNECT SWITCHES. STARTERS AND/OR RELAYS AS REQUIRED.

. ELECTRICAL CONTRACTOR SHALL PROVIDE CONDUIT, UTILITY BOXES, AND WIRING FOR ALL THERMOSTATS. MECHANICAL CONTRACTOR SHALL FURNISH, MOUNT, AND TERMINATE THERMOSTATS ONLY.

. ELECTRICAL CONTRACTOR SHALL PROVIDE RETURN SMOKE DETECTORS IN SYSTEMS WITH A DESIGN CAPACITY OF GREATER THAN 2,000 CFM AND SUPPLY SMOKE DETECTORS IN SYSTEMS GREATER THAN 15,000 CFM. WIRE PER LOCAL CODE.

FLECTRICAL CONTRACTOR SHALL PROVIDE A 120 VOLT. 15 OR 20 AMP GFCI CONVENIENCE OUTLET FOR ALL ROOFTOP, ATTIC SPACE, OR CRAWL SPACE HVAC EQUIPMENT. CONVENIENCE OUTLET SHALL BE ON THE SAME LEVEL AND WITHIN 25'-0" OF HVAC EQUIPMENT.

8. EQUIPMENT AND APPLIANCES SHALL BE INSTALLED AS REQUIRED BY THE TERMS OF THEIR APPROVAL, IN ACCORDANCE WITH THE CONDITIONS OF THE LISTING. THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND THIS CODE. MANUFACTURER'S INSTALLATION INSTRUCTIONS SHALL BE AVAILABLE ON THE JOB SITE AT TIME OF

INSPECTION, INCLUDING LISTING FOR OUTSIDE INSTALLATION WHEN APPLICABLE.

. SUBMIT UL LISTED FIRE STOPPING MATERIALS AND SYSTEMS WHERE FIRE RATED ASSEMBLIES ARE BREACHED.

. ALL MECHANICAL EQUIPMENT AND APPLIANCES SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION

INSTRUCTIONS. I. A COPY OF MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR

ALL MECHANICAL EQUIPMENT AND APPLIANCES SHALL BE PROVIDED ON SITE. 2. CERTIFIED TEST AND BALANCE CONTRACTOR TO PERFORM TEST

AND BALANCE OF ALL COMMON AREAS. COPY OF TEST AND BALANCE REPORT SHALL SUBMITTED TO THE AUTHORITY HAVING JURISDICTION PRIOR TO FINAL INSPECTION.

3. CONTRACTOR SHALL PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR AS REQUIRED TO INSTALL A COMPLETE AND OPERABLE HVAC SYSTEM PER THE NEW ARCHITECTURAL

LAYOUT AND AS TO COMPLY WITH THE SPECIFICATIONS, DETAILS, THIS SCOPE OF WORK AND ALL APPLICABLE CODES. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY ALL EXISTING CONDITIONS AND COORDINATE ALL NEW WORK WITH

ALL TRADES PRIOR TO ANY WORK BEING DONE TO INSURE CONFLICTS DO NOT OCCUR.

28. ALL THERMOSTAT LOCATIONS SHALL BE APPROVED BY THE

0. CONTRACTOR SHALL PROVIDE ACCESS DOORS FOR SERVICE AND

SUPPLEMENTARY STEEL SUPPORT WHERE REQUIRED FOR ALL

BASED ON ASHRAE HANDBOOK - 2021 FUNDAMENTALS OUTDOOR DESIGN CONDITION

EMS SENSOR HUMIDISTAT STATIC PRESSURE SENSOR SMOKE DETECTOR 45° PRESSURE TAP WITH VOLUME DAMPER CONICAL TAP WITH VOLUME DAMPER CONICAL TAP WITHOUT VOLUME DAMPER MANUAL VOLUME DAMPER M 24∨ MOTORIZED DAMPER BAROMETRIC DAMPER

ALL SYMBOLS SHOWN MAY NOT APPEAR IN ALL DRAWINGS.

RETURN OR EXHAUST GRILLE

OCCUPANCY SENSOR SWITCH

THERMOSTAT W/ LOCKING COVER

SUPPLY DIFFUSER

CO2 SENSOR

FS | FIRE/SMOKE DAMPER

FD | FIRE DAMPER

CFPB

VAV

15 MIN. TIMER SWITCH

SYMBOLS ARE SHOWN SCHEMATIC AND MAY NOT BE TO SCALE

■—— S SMOKE DAMPER · — | CONDENSATE DRAIN

MECHANICAL ABBREVIATIONS ABOVE CEILING ABOVE FINISHED FLOOR ANALOG INPUT ANALOG OUTPUT BELOW FLOOR BELOW FINISHED CEILING **BELOW GRADE** CONSTANT VOLUME FAN POWERED BOX DRY BULB DIGITAL INPUT DIGITAL OUTPUT DISCONNECT SWITCH

ENTERING AIR TEMPERATURE ELECTRIC DUCT HEATER EXHAUST FAN ENERGY MANAGEMENT SYSTEM ELECTRIC UNIT HEATER FAN POWERED BOX GENERAL CONTRACTOR GAS UNIT HEATER LEAVING AIR TEMPERATURE

MECHANICAL LEGEND

WATER HEATER

NEW

NOT TO SCALE

RETURN AIR

SUPPLY AIR

MANUAL VOLUME DAMPER

OPPOSED BLADE DAMPER

UNLESS NOTED OTHERWISE

VARIABLE AIR VOLUME

**EQUIPMENT** AIR DEVICE

MECHANICAL SPECIFICATIONS, GENERAL NOTES,

MECHANICAL PLANS, SCHEDULES, & DETAILS

APPLICABLE CODES

2021 WASHINGTON STATE MECHANICAL CODE

OF ALL MECHANICAL EQUIPMENT PRIOR TO BID

MOTORIZED DAMPERS SHALL BE INSTALLED ON ALL

INTAKES AND EXHAUST OPENINGS UNLESS NOTED

ALL PROGRAMMABLE THERMOSTATS SHALL HAVE 5

DEGREE DEADBAND AND SHALL HAVE 7-DAY CLOCK,

2-HOUR MANUAL OVERRIDE, 10 HOUR BACKUP AND

SETBACK CAPABLE OF 55 DEGREES HEATING AND 85

DEGREES COOLING. (EXCEPT CONTINUOUS OPERATING

DUCT INSULATION AS SPECIFIED WITH MINIMUM VALUES

2021 WASHINGTON STATE BUILDING CODE

. PROVIDE TURNING VANES IN ALL LOW-PRESSURE 90-DEGREE DUCT

1% COOLING: 88.4°/66.8°F DB/WB

R-6 SUPPLY AND RETURN DUCT INSULATION IN UNCONDITIONED SPACES. R-8 SUPPLY AND RETURN DUCT INSULATION FOR EXTERIOR DUCTS.

R-3 SUPPLY AND RETURN DUCT INSULATION UNDERGROUND.

ALL DUCTWORK SHALL BE SEALED PRESSURE SENSITIV TAPE IS NOT USED AS THE PRIMARY SEALANT. LONGITUDINAL AND TRANSVERSE SEAMS FOR DUCTS IN UNCONDITIONED SPACES AND WALL PENETRATIONS. TRANSVERSE SEAMS ON BURIED DUCTS.

EXHAUST SYSTEM(S)THAT ARE CONTROLLED BY OCCUPANCY SENSOR CONTROL SHALL BE CONFIGURED WITH AUTOMATIC ON AND AUTOMATIC SHUTOFF WITHIN 15 MINUTES OF OCCUPANTS HAVING LEFT THE SPACE. (C403.4..2.4)

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DRAWN BY.: JOB NO.: SHEET

S NW, BD, JC SEA24-0053-00

1.0 GENERAL REQUIREMENTS

1.01 SCOPE OF WORK

SPECIFICATIONS. WHERE AN INCONSISTENCY EXISTS BETWEEN THE WORDING OR INTENT, THIS DIVISION SHALL TAKE

DIMENSIONS. NO ALLOWANCES WILL BE MADE AFTER ACCEPTANCE OF BIDS FOR FAILURE TO COMPLY.

A. THE GENERAL REQUIREMENTS OF THE ARCHITECTURAL SPECIFICATIONS ARE PART OF THESE

B. THE STANDARD FORM OF GENERAL CONDITIONS ISSUED BY THE AMERICAN INSTITUTE OF

ARCHITECTS DOCUMENT A201, LATEST EDITION, SHALL FORM A PART OF THIS CONTRACT. C.ALL CONTRACTORS FOR THIS WORK SHALL VERIFY EQUIPMENT LOCATIONS, WEIGHTS. AND CLEARANCES IN THE FIELD, PRIOR TO SUBMITTING BIDS, TO VERIFY CONDITIONS, INTERFERENCES WITH OTHER TRADES, AND

D.PROVIDE ALL LABOR AND MATERIALS, EQUIPMENT, FACILITIES, TRANSPORTATION, AND SERVICES NECESSARY TO FURNISH, INSTALL, AND COMPLETE THE HEATING, VENTILATING, AND AIR CONDITIONING WORK AS INDICATED ON THE DRAWINGS AND SPECIFIED HEREIN. THE WORKMANSHIP SHALL BE COMPLETE IN EVERY RESPECT, BE TESTED AND APPROVED, AND BE SATISFACTORY TO THE ARCHITECT/ENGINEER AND IN ACCORDANCE WITH THE LOCAL, COUNTY, AND STATE LAWS GOVERNING

THIS INSTALLATION, INCLUDING THE FIRE MARSHAL. E. THE DRAWINGS INDICATE DIAGRAMMATICALLY THE EXTENT AND LOCATION OF THE WORK INCLUDED. WORK INDICATED, BUT

HAVING MINOR DETAILS OBVIOUSLY OMITTED, SHALL BE PROVIDED, INCLUDING THESE DETAILS, WITHOUT EXTRA COST. F. IT IS THE DECLARED AND ACKNOWLEDGED INTENT OF THESE SPECIFICATIONS TO PROVIDE THE HEATING, VENTILATING, AND AIR CONDITIONING SYSTEMS, INCLUSIVE OF ALL REQUIRED PARTS, ACCESSORIES, AND CONTROLS COMPLETE AND READY FOR USE AS INDICATED ON THE ACCOMPANYING DRAWINGS. WORK INDICATED ON THE DRAWINGS, BUT NOT NECESSARILY INDICATED IN

THESE SPECIFICATIONS, SHALL BE PROVIDED AS REQUIRED.

1.02 RELATED WORK POWER WIRING (IE FEEDERS) TO MOTORS, INCLUDING FINAL CONNECTIONS TO EQUIPMENT, SHALL BE PROVIDED BY THE DIVISION

1.03 VISITING THE SITE

THE CONTRACTOR SHALL, PRIOR TO SUBMITTING HIS BID FOR DOING WORK AS DESCRIBED IN THIS SPECIFICATION AND ON THE ACCOMPANYING DRAWINGS, VISIT THE SITE AND COMPLETELY FAMILIARIZE HIMSELF WITH THE DIFFICULTIES AND FACILITIES THAT WILL BE INVOLVED FOR THE PROPER EXECUTION OF THE CONTRACT. NO EXTRA COMPENSATION SHALL BE ALLOWED FOR THE CONTRACTOR FAILING TO DO SO OR NOT FULLY APPRECIATING THE DIFFICULTIES AT HAND.

1.04 FEES AND INSPECTIONS ALL OF THE CONTRACTORS SHALL APPLY, PROCURE, AND PAY FEES FOR ALL PERMITS AND INSPECTIONS OR OTHER OBLIGATIONS THAT THE CITY, COUNTY, STATE, OR UTILITIES MAY REQUIRE IN ORDER FOR HIM TO DO HIS WORK ACCORDING TO THE PLANS AND

SPECIFICATIONS, UNLESS OTHERWISE NOTED.

1.05 LAWS AND ORDINANCES THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, AND REGULATIONS BEARING ON THE CONDUCT OF WORK AS DRAWN AND SPECIFIED. IF THE CONTRACTOR OBSERVES THAT THE DRAWINGS AND SPECIFICATIONS ARE AT VARIANCE THEREWITH, HE SHALL PROMPTLY NOTIFY THE ENGINEER IN WRITING WHEN SUBMITTING HIS BID AND ANY NECESSARY CHANGES SHALL BE ADJUSTED AS PROVIDED IN THE CONTRACT FOR SUCH CHANGES IN WORK. IF THE CONTRACTOR

PERFORMS ANY WORK CONTRARY TO SUCH LAWS, ORDINANCES, RULES, AND REGULATIONS, HE SHALL BEAR ALL COSTS FOR CORRECTING THE WORK.

1.06 TRADE JURISDICTION WHEN IT BECOMES NECESSARY FOR THE COMPLETE FULFILLMENT OF THIS WORK FOR THE CONTRACTOR TO FURNISH LABOR OR MATERIALS OTHER THAN WHICH IS GENERALLY ACCEPTED BY HIS TRADE OR BRANCH OF WORK, THE CONTRACTOR SHALL SUBLET SAME TO A CONTRACTOR NORMALLY ENGAGED IN THE TRADE OR BRANCH OF WORK, INVOLVED TO THE END, SO THAT THERE IS

NO DELAY TO OR STOPPAGE OF WORK DUE TO THE INFRINGEMENT OR ALLEGED INFRINGEMENT TO TRADE AGREEMENTS AS TO

THE JURISDICTION.

1.07 SUBMITTALS THIS CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL, COMPLETE LISTS INCLUDING CATALOG CUTS, ETC., AND WHERE APPLICABLE DIMENSIONED SHOP DRAWINGS OF ALL MATERIALS, FIXTURES, AND EQUIPMENT TO BE FURNISHED AND INSTALLED UNDER THIS CONTRACT. INCLUDE SHEETMETAL DUCT LAYOUTS AND PIPING PLAN LAYOUTS. REFER TO THE ARCHITECT'S GENERAL CONDITIONS FOR NUMBER OF COPIES TO BE SUBMITTED. DO NOT ORDER EQUIPMENT, FABRICATE DUCTWORK, OR INSTALL EQUIPMENT, DUCTWORK, OR PIPING BEFORE RECEIVING SHOP DRAWINGS WHICH HAVE BEEN REVIEWED

AND APPROVED BY THE ENGINEER.

COVERED TO REDUCE THE CLEANING EFFORT ONCE THE SYSTEM IS PUT INTO OPERATION.

REQUIRED ITEMS TO BE SUBMITTED SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING: DIFFUSERS, GRILLES, AND REGISTERS

ACCESS PANELS LOUVERS MOTORIZED DAMPERS FIRE DAMPERS

SPECIALTIES

**EQUIPMENT ROOF CURBS** INSULATION CONTROLS

PIPING AND VALVE MATERIALS INSTALLATION SECTIONS

1.08 RECORD DRAWING SUBMITTAL

AT PROJECT CLOSEOUT, THE CONTRACTOR SHALL SUBMIT RECORD "AS-BUILT" DRAWINGS OF INSTALLED DUCTWORK, PIPING, AND EQUIPMENT AS IT WAS ACTUALLY INSTALLED SO AS TO MAKE A PERMANENT RECORD. REFER TO THE ARCHITECT'S GENERAL CONDITIONS FOR NUMBER OF COPIES TO BE SUBMITTED.

1.09 WORKMANSHIP AND MATERIALS

ALL MATERIALS SHALL BE NEW AND OF FIRST QUALITY. ALL LABOR SHALL BE EXECUTED IN A NEAT WORKMANLIKE MANNER AND SHALL BE PERFORMED BY MECHANICS SKILLED IN THEIR RESPECTIVE TRADES. THE ENGINEER SHALL DECIDE ALL MATTERS PERTAINING TO THE QUALITY OF WORKMANSHIP AND MATERIALS.

ALL DUCTWORK BEING STORED ON SITE AWAITING INSTALLATION AND ALL INSTALLED DUCTWORK WITH OPEN ENDS SHALL BE

1.10 SPECIFICATIONS AND DRAWINGS

EQUIPMENT MANUFACTURERS SHALL BE INCLUDED.

COST TO THE OWNER, UPON HIS OR HER REQUEST

AND CONFER WITH OTHER TRADES SHALL BE MADE BY HIM AT HIS OWN EXPENSE.

IF CALLED FOR BY BOTH. ANY WORK OR MATERIALS NOT SPECIFICALLY MENTIONED, THOUGH REQUIRED TO MAKE THE JOB COMPLETE, SHALL BE FURNISHED BY THE CONTRACTOR AT HIS EXPENSE 1.11 OPERATING INSTRUCTIONS

THIS CONTRACTOR SHALL PREPARE A TYPEWRITTEN LIST OF OPERATING INSTRUCTIONS FOR ALL THE EQUIPMENT INSTALLED

UNDER THIS CONTRACT, AND SHALL INSTRUCT THE OWNER IN ITS OPERATION. INDIVIDUAL MANUALS PROVIDED BY THE

SPECIFICATIONS AND DRAWINGS ARE INTENDED TO BE COOPERATIVE. WHAT IS CALLED FOR BY EITHER SHALL BE AS BINDING AS

1.12 EQUIPMENT SCHEDULE THIS CONTRACTOR SHALL PREPARE AND FURNISH TO THE OWNER TWO (2) BOUND BOOKLETS, EACH CONTAINING A COMPLETE

1.13 GUARANTEE THIS CONTRACTOR SHALL GUARANTEE HIS WORK TO BE FREE FROM DEFECTIVE WORKMANSHIP AND MATERIALS FOR A PERIOD OF

ONE (1) YEAR FROM DATE OF FINAL CERTIFICATE. ANY REPAIRS OR REPLACEMENT DURING THE PERIOD SHALL BE MADE WITHOUT

LIST OF ALL EQUIPMENT AND VALVES INSTALLED UNDER THIS CONTRACT. EACH PIECE OF EQUIPMENT AND VALVE LISTED SHALL

INCLUDE ITS TAG NUMBER, MANUFACTURER'S MODEL NUMBER, AND COMPONENTS THEREIN WHICH MAKE UP THE SPARE PARTS

1.14 COORDINATION OF WORK THE CONTRACTOR SHALL CONFER WITH OTHER TRADES WHOSE WORK MAY AFFECT HIS INSTALLATION TO AVOID INTERFERENCE

ARCHITECT/ENGINEER.

1.15 CUTTING AND PATCHING EACH CONTRACTOR SHALL DO HIS OWN CUTTING AND PATCHING. IF STRUCTURALLY REQUIRED, HE SHALL PROVIDE AND INSTALL THE NECESSARY STEEL WHEN GOING THROUGH A LOAD BEARING WALL. THIS CONTRACTOR SHALL NOT ENDANGER ANY WORK BY CUTTING, DIGGING, OR OTHERWISE AND SHALL NOT CUT OR ALTER THE WORK OF OTHER TRADES WITHOUT CONSENT OF THE

BEFORE STARTING THE INSTALLATION. ALL CHANGES IN THE WORK OF THIS CONTRACTOR CAUSED BY HIS NEGLECT TO COMPARE

1.16 DEMOLITION

A.PIPING. VALVES. DUCTWORK. EQUIPMENT. ETC., WHICH IS REQUIRED TO BE REMOVED TO PERFORM WORK UNDER THIS SPECIFICATION WILL BE PERFORMED BY THIS CONTRACTOR AND TURNED OVER AND DELIVERED TO THE BUILDING MAINTENANCE DEPARTMENT OR DISPOSED OF AS DIRECTED.

MECHANICAL SPECIFICATIONS

B. ANY HOLES OR OPENINGS LEFT IN WALLS, ROOFS, FLOORS, CEILINGS, ETC., AFTER REQUIRED DEMOLITION WORK, SHALL BE FILLED IN AND PATCHED BY THIS CONTRACTOR IN A MANNER APPROVED BY THE ARCHITECT AND ENGINEER. FAILURE ON THIS

CONTRACTOR'S PART TO COMPLY WITH ABOVE SHALL MAKE HIM RESPONSIBLE FOR ANY EXTRA EXPENSE INVOLVED. C.ANY EQUIPMENT OR ARCHITECTURAL ELEMENTS DAMAGED OR DESTROYED IN THE DEMOLITION WORK SHALL BE REPAIRED. REPLACED, AND/OR BROUGHT BACK TO GOOD WORKING ORDER TO THE SATISFACTION OF THE ARCHITECT AND ENGINEER.

1.17 MECHANICAL IDENTIFICATION

A. GENERAL: PROVIDE MECHANICAL IDENTIFICATION FOR ALL MECHANICAL EQUIPMENT, PIPING, AND DUCT SYSTEMS. COMPLY WITH ANSI A13.1 FOR LETTERING SIZE, LENGTH OF COLOR FIELD, COLORS, AND VIEWING ANGLES OF IDENTIFICATION DEVICES. B. EQUIPMENT: PROVIDE EQUIPMENT SYSTEM NUMBER, CAPACITY, FLOW RATE, STATIC PRESSURE, PUMP HEAD, HORSEPOWER, AND

VOLTAGE. PROVIDE SETON MODEL "VENTMARK" MARKERS.

C.PIPING: PROVIDE SYSTEM DESIGNATION NAME AND DIRECTION OF FLOW. PROVIDE SETON MODEL "SETMARK" PIPE MARKERS. D.DUCTS: PROVIDE SYSTEM DESIGNATION NAME AND DIRECTION OF FLOW. PROVIDE SETON MODEL "VENTMARK" MARKERS.

E. VALVES: PROVIDE BRASS VALVE TAGS AND BRASS "S" HOOK FASTENERS WITH VALVE NUMBER AND TYPE OF SERVICE NOTED ON

THE TAG. PROVIDE DUPLICATE VALVE CHARTS. THE CHART SHALL BE FOR ALL VALVES AND SHALL INDICATE VALVE

IDENTIFICATION NUMBER, LOCATION, AND PURPOSE. PROVIDE SETON BRASS VALVE TAGS AND VALVE CHARTS.

1.18 NOISE AND VIBRATION CONTROL THIS CONTRACTOR SHALL PROVIDE ACOUSTICAL AND VIBRATION TREATMENT FOR ALL EQUIPMENT WITH MOVING PARTS TO MEET CODE AND MAINTAIN THE FOLLOWING NOISE CRITERIA:

LOBBIES, TOILETS, AND CORRIDORS NC 40 SPACE ADJACENT TO FAN ROOMS NC 45 OFFICES, CONFERENCE ROOM, ETC. NC 35

VIBRATION ISOLATORS AND FLEXIBLE CONNECTIONS SHALL BE USED AT EACH PIECE OF EQUIPMENT WITH MOVING PARTS.

1.19 BUILDING STANDARDS IF BUILDING HAS STANDARDS FOR PIPING, DUCTWORK, DIFFUSERS, GRILLES, REGISTERS, TEMPERATURE CONTROLS, OTHER EQUIPMENT, ETC., PROVIDE SAME UNLESS OTHERWISE NOTED.

2.0PRODUCTS, MATERIALS, AND CONTROLS

DOORS SHALL BE APPROVED BY THE ARCHITECT.

2.04 DUCTWORK AND ACCESSORIES

EACH FIRE DAMPER.

2.01 HANGERS AND SUPPORTS

REQUIREMENTS.

A.PIPING HANGERS AND SUPPORTS SHALL COMPLY WITH MSS SP-58. PROVIDE ONLY ONE TYPE OF HANGER/SUPPORT, BY ONE MANUFACTURER, FOR EACH PIPING SERVICE.

B. DUCT HANGERS AND SUPPORTS SHALL BE IN ACCORDANCE WITH SMACNA DUCT CONSTRUCTION STANDARDS. C.EQUIPMENT HANGERS AND SUPPORTS SHALL BE PROVIDED AND INSTALLED PER THE EQUIPMENT MANUFACTURER'S

2.02 ACCESS DOORS ACCESS DOORS SHALL BE INSTALLED FOR ALL NON-ACCESSIBLE EQUIPMENT, VALVES, OPERATIONS, CONTROLS, OR OTHER WORKING PARTS REQUIRING MAINTENANCE OR ADJUSTMENT. THIS CONTRACTOR SHALL FURNISH ALL SUCH ACCESS DOORS AND ADVISE GENERAL CONTRACTOR OF THE LOCATION OF ALL ACCESS DOORS REQUIRED THROUGHOUT THE PROJECT. ACCESS DOOR MANUFACTURER'S DATA SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BY THE ARCHITECT AND ENGINEER. COLOR OF ACCESS

2.03 EQUIPMENT A.PROVIDE AND INSTALL ALL EQUIPMENT AS SHOWN IN THE EQUIPMENT SCHEDULES

B. ALL EQUIPMENT DATA SHALL BE SUBMITTED FOR REVIEW AND APPROVAL BY THE ARCHITECT AND ENGINEER.

INSTALLED AND SUSPENDED AS PER MANUFACTURER'S RECOMMENDATIONS.

C.COLOR OF ALL DIFFUSERS, GRILLES, AND REGISTERS SHALL BE APPROVED BY THE ARCHITECT D. COORDINATE FINAL LOCATION OF ALL THERMOSTATS, DIFFUSERS, GRILLES, AND REGISTERS WITH THE ARCHITECT'S REFLECTED

A. ALL DUCTWORK SHALL BE PRIME GALVANIZED SHEET STEEL, LOCK FORMING, FIRST QUALITY, FABRICATED IN ACCORDANCE WITH THE LATEST EDITION OF THE ASHRAE GUIDE, EXCEPT AS NOTED OTHERWISE. B. ROUND SPIRAL DUCTWORK SHALL BE LINDAB GASKETED SPIRAL DUCTWORK TYPE DUCT FITTINGS, OR APPROVED EQUAL.

C.ALL DUCTS ARE TO HAVE GALVANIZED STIFFENERS IN THE FORM OF SEAMS INVOLVING AT LEAST THREE FOLDS OF SHEET METAL

E. DUCT DIMENSIONS SHOWN ON THE DRAWINGS INDICATE INSIDE DIMENSIONS. INCREASE DUCT SIZE WHEN LINING IS UTILIZED.

G.MEDIUM PRESSURE DUCTWORK SHALL BE CONSIDERED AS ALL DUCTWORK UPSTREAM OF VAV BOXES AND FAN-POWERED BOXES.

I. ALL DUCT SYSTEMS ARE TO BE TESTED FOR LEAKAGE. MAXIMUM ALLOWABLE LEAKAGE FOR ANY SYSTEM WILL BE 5% OF TOTAL

(POCKET LOCKS, STANDING SEAMS, STANDING S-SLIPS, ETC.). D. VENTILATION CONSTRUCTION NOT COVERED BY THE ASHRAE GUIDE AND/OR GOVERNING AUTHORITIES SHALL BE IN ACCORDANCE WITH THE MAXIMUM STANDARDS AND TRADE PRACTICES AS SET FORTH BY THE SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION (SMACNA) INCLUDING THEIR MOST CURRENT DUCT MANUAL.

F. LOW PRESSURE DUCTWORK SHALL BE CONSIDERED AS ALL DUCTWORK NOT DEFINED AS MEDIUM PRESSURE DUCTWORK, UNLESS NOTED OTHERWISE. PROVIDE 2" SP DUCT CONSTRUCTION FOR SUPPLY AIR DUCTS AND 1" SP CONSTRUCTION FOR RETURN AND EXHAUST AIR DUCTS, UNLESS OTHERWISE NOTED. A.INSPECT THE MOTOR CONTROL CENTERS, DISCONNECT SWITCHES, OVERLOAD PROTECTION, AND WIRING FOR

PROVIDE 3" SP DUCT CONSTRUCTION UNLESS NOTED OTHERWISE. ROUND SINGLE WALL MEDIUM PRESSURE DUCTWORK IN SOUND-LINED SYSTEMS WILL NOT BE PERMITTED IN LENGTHS GREATER THAN FIVE FEET.

H. ALL LOW AND MEDIUM PRESSURE DUCTWORK SHALL BE SEALED WITH AN APPROVED MASTIC.

RADIUS LESS THAN 1.5 TIMES THE DUCT WIDTH SHALL HAVE TURNING VANES.

AIR QUANTITY. SUBMIT TEST DATA SHEET(S) TO ARCHITECT/ENGINEER FOR APPROVAL. J. A 5'-0" MAXIMUM LENGTH OF INSULATED FLEXIBLE DUCT WILL BE PROVIDED TO EACH SUPPLY OUTLET AND RETURN INLET AS K. DIFFUSER TAKE-OFF WHERE DIFFUSER IS LOCATED BELOW THE MAIN TRUNK, AND WHERE INDICATED. DEVICE SHALL BE

COMPLETE WITH WORM GEAR MECHANISM FOR OPERATION OR ADJUSTMENTS THRU THE FACE OF THE DIFFUSER. IF TURNING DEVICE IS LOCATED REMOTELY FROM GRILLE, REGISTER, OR DIFFUSER, PROVIDE EXTENSION ROD ON ADJUSTING DEVICE. TITTLE AND BAILEY, "VENTROL NLC" OR APPROVED EQUAL. L. PROVIDE FACTORY-FABRICATED TURNING VANES IN ALL SQUARE ELBOWS. VANES SHALL BE BARBER-COLEMAN "AIRTURNS" OR

DIFFUSERS FOR LOW PRESSURE DUCTWORK. N. ALL BRANCH DUCT TAKE-OFFS SHALL BE EQUIPPED WITH TAPERED FITTINGS. O.ALL FULL RADIUS ELBOWS SHALL HAVE A CENTERLINE RADIUS OF 1.5 TIMES THE DUCT WIDTH. ELBOWS WITH A CENTERLINE

M.TAPERED SPIN-IN FITTING, WITH LOCK-IN QUADRANT AND VOLUME DAMPER, SHALL BE PROVIDED FROM BRANCHES TO

OR VENTLOCK SERIES 677 AND/OR PROVIDE ACCESS PANEL, SIZED AS REQUIRED (12" X 12" MINIMUM).

P. VOLUME DAMPERS SHALL BE PROVIDED FOR AIR BALANCE PURPOSES. PROVIDE MANUAL VOLUME DAMPERS ON ALL LOW PRESSURE SUPPLY, RETURN, AND EXHAUST DUCT BRANCHES AND TO AIR DIFFUSERS, REGISTERS, AND GRILLES, UNLESS NOTED OTHERWISE. DAMPERS SHALL BE OPPOSED BLADE TYPE UNLESS NOTED OTHERWISE.

Q.FOR VOLUME DAMPERS ABOVE DRYWALL CEILINGS AND OTHER INACCESSIBLE LOCATIONS, PROVIDE LEVER, POSITION INDICATOR,

AND LOCK NUT, ENCLOSED IN A DEEP DIE-CAST BOX WITH ADJUSTABLE 2-5/8" DIAMETER COVER. YOUNG REGULATOR SERIES 315

S.DYNAMIC RATED FIRE DAMPERS SHALL BE PROVIDED PER CODE REQUIREMENTS. PROVIDE TYPE "B" FIRE DAMPERS FOR LOW

PRESSURE DUCTWORK AND TYPE "C" FIRE DAMPERS FOR MEDIUM PRESSURE DUCTWORK. PROVIDE A DUCT ACCESS DOOR FOR

R.FOR VOLUME DAMPERS ABOVE ACCESSIBLE CEILINGS, PROVIDE LOCKING TYPE WITH LEVER HANDLE, POSITION INDICATOR AND LOCK NUT. YOUNG REGULATOR SERIES 400 OR VENTLOCK SERIES 600.

2.06 INSULATION

A.FURNISH AND INSTALL INSULATION AS SPECIFIED.

B. DUCT INSULATION

1. ALL SUPPLY, RETURN, AND EXHAUST AIR DUCTWORK IN UNCONDITIONED SPACES: 2" FLEXIBLE GLASS FIBER WITH FACTORY APPLIED ALUMINUM FOIL VAPOR BARRIER. 3/4 LBS. PER CUBIC FOOT DENSITY. FLAME SPREAD RATING OF NOT GREATER THAN 25 AND A SMOKE DEVELOPED RATING OF NOT GREATER THAN 50

C.INSULATED FLEXIBLE DUCT ALL SUPPLY AND RETURN/EXHAUST AIR CONNECTIONS TO EACH DIFFUSER: POLYETHYLENE CORE LAMINATED TO A GALVANIZED STEEL WIRE HELIX; 1" THICK, 1 LB. PER CUBIC FOOT DENSITY GLASS FIBER INSULATION;

FIBERGLASS REINFORCED, METALIZED, VAPOR BARRIER. 2.07 CONTROLS

A.THE NEW TEMPERATURE CONTROL SYSTEM SHALL BE INSTALLED AND CONTROLLED AS NOTED ON THE EQUIPMENT SCHEDULE.

B. TYPICAL EXHAUST FAN CONTROL: THE FANS SHALL BE CONTROLLED AS NOTED ON THE EQUIPMENT SCHEDULE.

3.0 EXECUTION

3.01 INSPECTION PRIOR TO BEGINNING ANY WORK. CAREFULLY COORDINATE WITH THE WORK OF OTHER TRADES AND AT TIMES CONFIRM THAT THE WORK OF OTHERS IS COMPLETE TO THE POINT WHERE THIS INSTALLATION CAN PROPERLY

3.02 GENERAL INSTALLATION REQUIREMENTS

VERIFY QUANTITIES, CAPACITIES, PERFORMANCE CHARACTERISTICS, OPERATING REQUIREMENTS, AND CURRENT CHARACTERISTICS OF ALL EQUIPMENT PRIOR TO ITS INSTALLATION. VERIFY THAT SPACE ALLOTTED FOR EQUIPMENT IS SUFFICIENT FOR ENTRANCE AND INSTALLATION, MAINTENANCE AND SERVICE, AND REMOVAL AND

3.03 COORDINATION OF INSTALLATION

3.04 IDENTIFICATION OF EQUIPMENT

C.INSTALL WORK IN SUCH A MANNER THAT IT WILL CONFORM TO THE STRUCTURE, AVOID OBSTRUCTIONS, MAINTAIN HEADROOM, AND KEEP OPENINGS AND PASSAGEWAYS CLEAR. GENERALLY, KEEP HORIZONTAL LINES AS HIGH AS POSSIBLE. MAKE LOCAL PROVISIONS FOR THE SERVICING AND REMOVAL OF

D. ANY INTERFERENCE WITH WORK OF OTHER TRADES ARISING FROM FAILURE TO COORDINATE THE WORK AND LACK OF COOPERATION HEREUNDER, SHALL REQUIRE THE REMOVAL AND REINSTALLATION OF ALL INTERFERING WORK WITHOUT ADDITIONAL COST TO THE OWNER.

LOCATED SO AS TO BE FULLY VISIBLE AFTER THE EQUIPMENT HAS BEEN INSTALLED. THE NAMEPLATE SHALL SHOW THE EQUIPMENT NUMBER AND OTHER PERTINENT INFORMATION. 3.05 CLEAN UP

EACH PIECE OF EQUIPMENT SHALL DISPLAY A PERMANENT METAL OR PLASTIC NAMEPLATE WHICH SHALL BE

A.UPON COMPLETION OF THE INSTALLATION OF DUCTWORK, CLEAN THE ENTIRE SYSTEM OF RUBBISH, PLASTER,

DIRT, ETC., BEFORE INSTALLING THE DIFFUSERS, REGISTERS, AND GRILLES. B. REMOVE TEMPORARY FILTERS FROM RETURN INLETS. C.OPERATE AND MAKE ANY REQUIRED ADJUSTMENT TO EQUIPMENT, DUCTWORK, PIPING, ETC., AS MAY BE

D.REMOVE ALL LABELS, TAGS, ETC., FROM ANY SPECIALTIES, EQUIPMENT, ETC., AND REMOVE ALL GREASE OR OTHER PROTECTIVE COATING FROM ALL EQUIPMENT, PIPING, ETC., AND LEAVE WORK IN A MANNER THAT IS ACCEPTABLE TO THE ARCHITECT/ENGINEER.

3.06 OPERATING AND MAINTENANCE INSTRUCTIONS AFTER HAVING COMPLETELY INSTALLED ALL SYSTEMS AND ALL NECESSARY TESTS ARE COMPLETED, THIS CONTRACTOR SHALL MAKE ARRANGEMENTS TO OPERATE ALL THE SYSTEMS FOR A PERIOD OF NOT LESS THAN FIVE (5) DAYS AT NO EXPENSE TO THE OWNER. A WRITTEN NOTIFICATION OF THIS TRIAL OPERATING PERIOD SHALL BE PRESENTED TO THE ARCHITECT/ENGINEER, TEN (10) DAYS IN ADVANCE, FOR APPROVAL. DURING THIS TRIAL OPERATING PERIOD, THE CONTRACTOR MAY MAKE NECESSARY MINOR, BUT NON-INTERUPTIVE ADJUSTMENTS, AND ALSO SHALL GIVE INSTRUCTIONS TO THE OWNER'S OPERATING PERSONNEL OR

3.07 INSPECTION

THE HVAC EQUIPMENT PRIOR TO STARTUP OF THE EQUIPMENT.

ENGINEER FOR APPROVAL BEFORE FINAL ACCEPTANCE.

REMEDY THE DEFICIENCIES AT NO ADDITIONAL COST TO THE OWNER.

B. COORDINATE THE STARTUP OF EQUIPMENT WITH THE ELECTRICAL CONTRACTOR.

A. VISUALLY INSPECT ALL EQUIPMENT FOR COMPLETENESS AND FUNCTIONAL READINESS.

NECESSARY TO PUT THE SYSTEMS IN PROPER OPERATING CONDITION.

C.CHECK ALL FANS FOR ALIGNMENT AND CLEARANCE. D.INSPECT ALL DAMPERS FOR PROPER LINKAGE AND SETTING FOR OPERATION.

REPRESENTATIVES, ON THE OPERATION AND MAINTENANCE OF THE VARIOUS ITEMS OF EQUIPMENT AND

E. CONFIRM THAT THE CONTROL SYSTEM HAS BEEN COMPLETED, CALIBRATED, AND IS IN OPERATION. 3.08 ELECTRICAL

3.09 CLOSING IN WORK

B. LUBRICATE ALL FAN AND MOTOR BEARINGS.

JURISDICTION. ANY WORK COVERED PRIOR TO SUCH INSPECTION, TEST, AND APPROVAL SHALL BE UNCOVERED, IF SO REQUESTED, AND AFTER APPROVAL, COVERED AGAIN WITHOUT COST TO THE OWNER. 3.10 TESTING, ADJUSTING, AND BALANCING A.THE HVAC CONTRACTOR SHALL HIRE AN INDEPENDENT, QUALIFIED, AND CERTIFIED MEMBER OF NEBB OR AABC

CONTRACTOR SHALL SUBMIT A PROJECT CERTIFICATION GUARANTEE AND CERTIFIED BALANCE REPORT TO THE

WORK SHALL BE INSPECTED AND THEN APPROVED BY THE ARCHITECT/ENGINEER AND/OR AUTHORITIES HAVING

B. ADJUST ALL SUPPLY, RETURN, AND EXHAUST DEVICES TO PLUS OR MINUS 10 PERCENT OF THE DESIGN AIRFLOW C. ADJUST HYDRONIC FLOW QUANTITIES TO PLUS OR MINUS 10 PERCENT OF INDICATED DESIGN FLOWS.

D. THE BALANCING CONTRACTOR SHALL REPORT ANY DEFICIENCIES TO THE ENGINEER AND MECHANICAL

CONTRACTOR. THE BALANCING CONTRACTOR SHALL ALSO RECOMMEND POSSIBLE ACTIONS TO REMEDY THE

E. IN GENERAL, THE MECHANICAL CONTRACTOR SHALL CHANGE FAN SHEAVES, PUMP IMPELLERS, DRIVES, ETC., TO

TO COMPLETELY BALANCE THE AIR AND HYDRONIC SYSTEMS. AS REQUIRED. THE TEST AND BALANCE

**ENERGY NOTES** 

OTHERWISE.

AS FOLLOWS

MAXIMUM FAN NAMEPLATE HORSEPOWER SHALL NOT EXCEED 1.1 HP/1000CFM. LOAD CALCULATIONS WERE BASED ON ASHRAE 2021 FUNDAMENTALS

**DESIGN CRITERIA** 

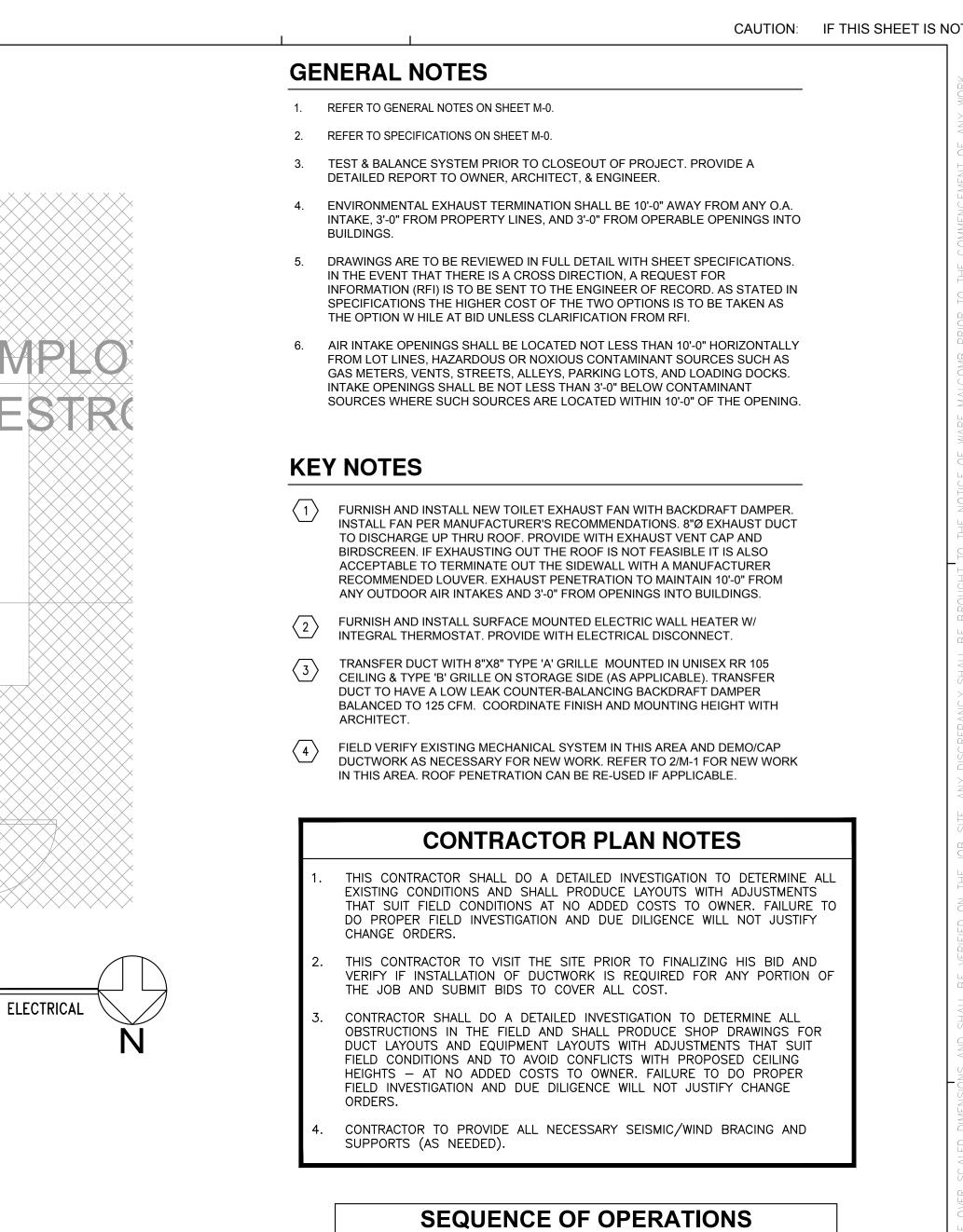
City of Puyallup Development & Permitting **ISSUED PERMIT** 

> Building Planning Public Works Engineering

DRAWN BY.: JOB NO.: SEA24-0053-00

SHEET

engineering consultants 2800 156th Ave Southeast, Suite 115 Bellevue, WA 98007 MECHANICAL rtmassociates.com | 847.756.4180



NO MOTION DETECTIONS

MOTION DETECTION BELOW 40F

MOTION DETECTION ABOVE 40F

EXHAUST: OFF

EXHAUST: OFF

EXHAUST: ON (100%)

WEIGHT

(LBS)

EXHAUST AIR

temperature in room is below 40F, exhaust fan to turn off. Whenever the fan runs, the transfer

backdraft damper shall open. Whenever the fan

grilles associated counter balancing gravity

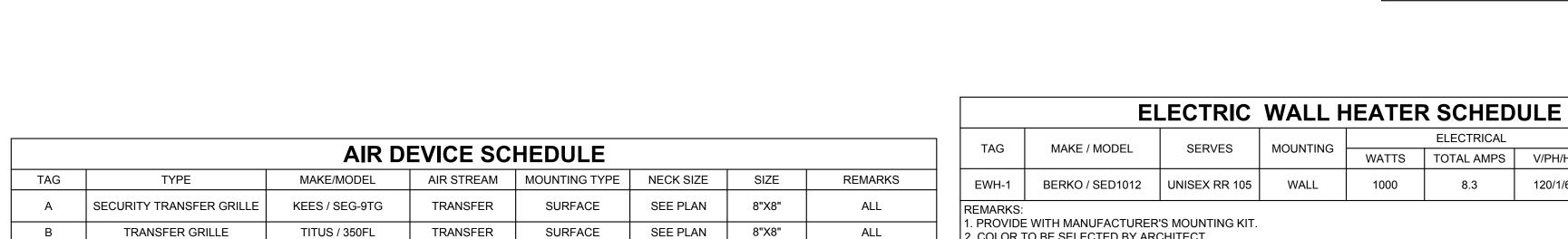
stops, the damper shall close.

**Exhaust Fans Sequence of Operations** 

120/1/60

REMARKS

ALL



MECHANICAL DEMOLITION PLAN

**VENTILATION SCHEDULE** 2021 WASHINGTON STATE MECHANICAL CODE ACTUAL **EQUIPMENT** OCCUPANCY FLOOR ROOM NAME EXHAUST **EXHAUST** POPULATION OUTDOOR OUTDOOR NUMBER CLASSIFICATION OUTDOOR E.A. CFM CFM AIRFLOW AIR RATE | AIR RATE CEF-1 UNISEX RR BATHROOMS/TOILETS 60.0 0.0 100 105 0.00 0.0 TOTAL 1.0 0.0 70.0 0.0 0.0

4. MECHANICAL CONTRACTOR TO PROVIDE LOCKABLE DISCONNECT SWITCH & ELECTRICAL CONTRACTOR TO WIRE.

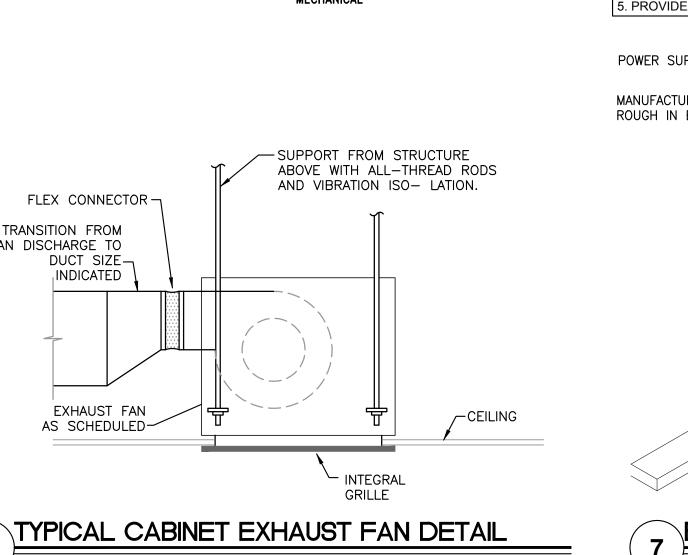
5. ELECTRIC HEAT ALLOWED PER WSEC C403.1.4 EXCEPTION 15. HEATING DESIGNED FOR FREEZE PROTECTION.

2. COLOR TO BE SELECTED BY ARCHITECT. B. PROVIDE WITH INTEGRAL THERMOSTAT.

				CEI	LING	LANA	JOIF	AIN OC	HEDUL	<b>- - -</b>				
QUIPMENT	NT AREA SERVED MANUFACTURER/MODEL TYPE DRIVE C		S.P.		CFM S.P.				MOTOR			WEIGHT (LB)	CONTROL	REMARKS
TAG	AREA SERVED	MANUFACTURER/MODEL	ITPE	DKIVE	CFM	(INWC)	RPM	HP	WATTS	PHASE	VOLT		CONTROL	KEWAKKS
CEF-1	UNISEX RR 105	LOREN COOK / GC-166	CEILING	DIRECT	100	0.25	1100	-	36.8	1	115	15	CONTROLLED BY MOTION SENSOR AND T-STAT, T-STAT TO DISABLE FAN BELOW 40F.	ALL

2. EXHAUST TERMINATION SHALL BE 10'-0" AWAY FROM ANY O.A. INTAKE. 3. TERMINATE VENT ON ROOF A MINIMUM OF 12" ABOVE ANTICIPATED SNOW LOAD WITH 8" EXHAUST VENT CAP. 4. ALL SWITCHES AND T-STATS MOUNTED AT 42" AFF UNLESS NOTED OTHERWISE. 5. PROVIDE FAN SPEED CONTROLLER MOUNTED IN ACCESSIBLE LOCATION. DO NOT ADJUST SPEED CONTROLLER SLOWER THAN 60% OF FAN MOTOR SPEED.

\_\_\_\_\_



MECHANICAL

EXHAUST FAN BELOW 40F

MECHANICAL

1. PROVIDE WITH SURFACE MOUNTING FRAME WHERE APPLICABLE.

2. COORDINATE FINISH AND MOUNTING LOCATION WITH ARCHITECT.

SYMBOL SHOWN

MECHANICAL ENLARGED PLAN

8"X8" TITUS 350FL — SIDEWALL GRILLE

(IF APPLICABLE)

- ALL WEATHER VENT

STORM COLLAR

SOLDER ALL ROUND-

ROOF INSULATION ---

ROOF STRUCTURE ---

TALL CONE FLASHING

APPLY SEALANT—

DUCT THRU ROOF DETAIL

/ 18" MINUMUM OR

MECHANICAL

12" ABOVE HIGHEST

ANTICIPATED SNOW LEVEL

TRANSFER DUCT DETAIL

FLEX CONNECTOR -

DUCT SIZE-

INDICATED

EXHAUST FAN

AS SCHEDULED-

TRANSITION FROM

FAN DISCHARGE TO

1/4" = 1'-0"

POWER SUPPLY CABLE ←NAIL OR SCREW (2 EACH SIDE) MANUFACTURERS -ROUGH IN BOX

LINE VOLTAGE OCCUPANCY SENSOR. SEE PLANS FOR LOCATION. LOW VOLTAGE TO CONNECT THERMOSTAT IN ROOM TO EXHAUST FAN. WHEN THERMOSTAT REACHES 40F FAN TO TURN OFF. SEE PLANS FOR LOCATION.

Occupancy Sensor and Thermostat Controlled Exhaust Fan

\* CEF-1

*ELECTRIC WALL HEATER DETAIL* 

MECHANICAL

EXHAUST FAN CONTROL DIAGRAM SCALE: NTS

MECHANICAL OVERALL PLAN

City of Puyallup

**Development & Permitting Services** 

Planning

**Public Works** 

Traffic

. . . .

**ISSUED PERMIT** 

Building

Engineering

Fire

A. Occupancy controlled Exhaust fan shall be controlled by room occupancy sensor. When motion is detected A.A. T-Stat in room shall override Exhaust fan when

#

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> ШΘ ᇤ쁴 NW, BD, JC SEA24-0053-00

SHEET

JOB NO.:

**ELECTRICAL SPECIFICATIONS** 

A. **GENERAL REQUIREMENTS** 

1. SCOPE OF WORK FURNISH AND INSTALL A COMPLETE ELECTRICAL SYSTEM AS SHOWN ON THE CONTRACT DRAWINGS. THE INSTALLATION SHALL BE COMPLETE IN EVERY DETAIL ESSENTIAL TO PROPER AND SATISFACTORY OPERATION, READY FOR USE AND IN CONDITION FOR SERVICE WHEN DELIVERED TO THE OWNER. ALL MANUFACTURED ITEMS SHALL BE FRECTED AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS AND RECOMMENDATIONS EXCEPT AS OTHERWISE

2. APPROVALS

SPECIFIED HEREIN.

OBTAIN APPROVALS FROM INSPECTION AUTHORITIES FOR ELECTRICAL INSTALLATIONS REQUIRING SPECIFIC APPROVAL. PRINTS OF THE ELECTRICAL DRAWINGS, FOR THIS PURPOSE, WILL BE FURNISHED UPON REQUEST. REQUIRED WIRING DIAGRAMS SHALL BE PROVIDED AND SUBMITTED FOR APPROVAL BY THE CONTRACTOR. COPIES OF THE FINAL APPROVALS SHALL BE OBTAINED BEFORE COMMENCEMENT OF RELATED WORK.

3. CODES AND STANDARDS

a. THE WORK SHALL COMPLY WITH ALL APPLICABLE LOCAL, MUNICIPAL, AND NATIONAL CODES. WHERE THE CONSTRUCTION DOCUMENTS INDICATE MORE RESTRICTIVE REQUIREMENTS, THE CONSTRUCTION DOCUMENTS SHALL GOVERN HOWEVER, THE CONSTRUCTION DOCUMENTS SHALL NOT BE INTERPRETED AS AUTHORITY TO VIOLATE ANY CODE OR REGULATION.

b. MATERIALS, EQUIPMENT AND INSTALLATION SHALL CONFORM TO LOCAL CODE AND STANDARDS, THE NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA), UNDERWRITER'S LABORATORIES (UL), NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) AND ALL LAWS AND ORDINANCES OF LOCAL, STATE AND FEDERAL GOVERNING AGENCIES.

CONTRACTOR SHALL PAY ALL FEES AND OTHER CHARGES INCIDENTAL TO THE ELECTRICAL WORK. IN ADDITION CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING REQUIRED INSURANCE, PERMITS, LICENSES, ETC. RELATING TO THE ELECTRICAL WORK.

a. THE CONTRACTOR SHALL AGREE THAT THE OWNER, THE ARCHITECT AND THE ENGINEER SHALL NOT IN ANY FORM OR MANNER BE ANSWERABLE OR ACCOUNTABLE FOR ANY VIOLATION OF ORDINANCES, CODES OR REGULATIONS OF ANY AUTHORITIES, UTILITIES, INSURANCE COMPANIES AND GOVERNMENT AGENCIES HAVING JURISDICTION, OR FOR ANY ACCIDENTS, INJURY, LOSS OR DAMAGE TO ANY PERSON OR PERSONS AND THEIR PROPERTIES ARISING FROM NEGLIGENCE OR CARELESSNESS ON THE PART OF THE CONTRACTOR (NOR ANYONE IN HIS EMPLOY), ANY OF HIS SUBCONTRACTORS, OR ANY OTHER PARTIES OR AGENTS TO THIS CONTRACT.

b. THE CONTRACTOR SHALL AGREE TO MAKE GOOD TO SAID OWNER, ARCHITECT, AND ENGINEER ANY LOSS, DAMAGE OR EXPENSE SO INCURRED, TOGETHER WITH REASONABLE ATTORNEY'S FEES.

6. EXAMINATION OF DRAWINGS AND SITE

a. THE ELECTRICAL CONTRACTOR SHALL OBTAIN A COMPLETE SET OF ARCHITECTURAL AND ENGINEERING DOCUMENTS AND COORDINATE WITH MECHANICAL, PLUMBING, ARCHITECTURAL, AND OTHER TRADES FOR EXACT DIMENSIONS. CLEARANCES. ROUGH-IN LOCATIONS, AND OTHER ADDITIONAL SCOPES OF WORK THAT MAY NOT BE SHOWN ON THE ELECTRICAL PLANS DAMPERS, LIFTS, AND OTHER SYSTEMS, UNLESS SPECIFICALLY NOTED OTHERWISE ON THE ELECTRICAL PLANS, THE ELECTRICAL CONTRACTOR SHALL FURNISH ALL SAFETY DISCONNECT SWITCHES TO MECHANICAL EQUIPMENT.

b. BY THE ACT OF HAVING SUBMITTED A BID, THE CONTRACTOR SHALL DEEM TO HAVE MADE SUCH AN EXAMINATION AND SHALL HAVE ACCEPTED THE PREVAILING CONDITIONS. NO SUBSEQUENT ALLOWANCE WILL BE MADE 1

THE CONTRACTOR SHALL BE RESPONSIBLE FOR READING AND COMPLYING WITH BOTH THE DRAWINGS AND SPECIFICATIONS. IN THE EVENT OF A CONFLICT OR INCONSISTENCY BETWEEN THE DRAWINGS, NOTES, SPECIFICATIONS, OR CODES, THE REFERENCE WHICH PROVIDES THE MORE COMPLETE OR HIGHER STANDARD

8. INTERPRETATION OF THE DOCUMENTS

CAREFULLY COMPARE THE DRAWINGS AND SPECIFICATIONS, CHECKING MEASUREMENTS AND CONDITIONS UNDER WHICH THIS INSTALLATION IS TO BE MADE. FOR CLARIFICATION BETWEEN VARIOUS DRAWINGS. BETWEEN DRAWINGS OR SPECIFICATION, OR BETWEEN SECTIONS OF THE SPECIFICATION, THE MATTER SHALL BE REFERRED TO THE ENGINEER BEFORE ANY WORK IS EXECUTED. THE CONTRACTOR SHALL STATE IN THEIR PROPOSAL ANY EXCEPTIONS NECESSARY TO MAKE THIS A COMPLETE, READY TO USE INSTALLATION. IF NOT STATED IN THE PROPOSAL, IT WILL NOT BE CONSIDERED EXTRA.

9. ELECTRICAL DRAWINGS

HE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC AND SHALL NOT BE SCALED. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL DOORS, WALLS, FURNITURE, EQUIPMENT, ETC. THE LOCATION OF RACEWAY SYSTEM COMPONENTS IS SCHEMATIC. THE EXACT LOCATION OF RACEWAY SYSTEM COMPONENTS SHALL BE DETERMINED BY THE CONTRACTOR IN THE FIELD.  $^\circ$ CONTRACTOR SHALL CONFIRM THE DIMENSIONS OF THE ACTUAL EQUIPMENT TO BE SUPPLIED FOR THIS PROJECT, AND VERIFY CLEARANCES AND ROUGH-INS PRIOR TO STARTING

10. PERMITS, APPLICATIONS AND RELEASES

THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS INSPECTIONS, APPLICATIONS, RELEASES AND FEES REQUIRED BY LOCAL, STATE AND FEDERAL INSPECTIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. 11. CLOSE OUT DOCUMENTS

THE CONTRACTOR SHALL PROVIDE AS-BUILT DOCUMENTATION UPON COMPLETION OF THE WORK. THE CONTRACTOR SHALL ALSO PROVIDE OWNER TRAINING FOR ALL EQUIPMENT, INCLUDING LIGHTING CONTROLS.

B. <u>INSTALLATION</u>

1. CUTTING AND PATCHING

2. INSTALLATION OF WIRING WIRE SHALL BE INSTALLED CONTINUOUS BETWEEN DEVICES, WITH SPLICES LOCATED ONLY IN JUNCTION BOXES, PULL BOXES, OUTLET BOXES OR IN CABINETS. CONDUCTORS SHALL BE OF SUFFICIENT LENGTH TO REACH THE FARTHEST TERMINAL IN PANELS. A MINIMUM OF 6" LOOPS SHALL REMAIN

CONTRACTOR SHALL INSTALL ENTIRE CONDUIT SYSTEM, INCLUDING BOXES, CABINETS, PANELS, ETC. SO AS TO INSURE PROPER GROUND CONTINUITY

THROUGHOUT THE SYSTEM. 4. INSTALLATION OF WORK

> a. CONTRACTOR SHALL BE RESPONSIBLE FOR EXACT LOCATION OF ALL EQUIPMENT AND IN CASE ANY OUTLETS DO NOT COME IN CORRECT LOCATION. HE SHALL MOVE SAME. DO NECESSARY CUTTING AND PATCHING.

b. OWNER RESERVES THE RIGHT TO CHANGE LOCATION OF OUTLETS WITHIN 10'-0" RADIUS BEFORE WORK IS INSTALLED WITHOUT EXTRA COST. c. CHECK WITH HVAC CONTRACTOR AS TO LOCATION OF UNITS, DUCTS AND

GRILLES AND PLUMBING CONTRACTOR AS TO LOCATION OF PIPING BEFORE INSTALLING THE WORK.

WHERE CABINET WORK OCCURS, AND VERIFY THAT SWITCHES ARE AT THE

f. FAILURE OF THE CONTRACTOR TO COMPLY WITH ALL OF THE ABOVE SHALL

CONFLICT WITH OTHER EQUIPMENT. 5. BALANCING OF LOADS

ALL PENETRATIONS IN WALL, FLOOR OR CEILINGS SHALL BE SUITABLY CLOSED UP AND SEALED WITH AN INTUMESCENT FIRE STOPPING COMPOUND LISTED IN THE MOST RECENT FACTORY MUTUAL RESEARCH CORPORATION (FMRC) APPROVAL GUIDE. FIRE STOPPING PRODUCTS SHALL BE MANUFACTURED BY 3M

EQUIPMENT

ALL MATERIALS AND EQUIPMENT USED IN THIS INSTALLATION SHALL BE NEW, AND HAVE THE APPROPRIATE UL LISTING AND LABEL.

8. MISCELLANEOUS SUPPORTING MEMBERS

THE INSTALLATION OF ANGLES CHANNELS, AND OTHER MISCELLANEOUS STEEL, BOLTS, RODS, ETC. REQUIRED TO SUPPORT LIGHT FIXTURE, CONDUIT, RACEWAY, LADDER TRAY, OR OTHER ELECTRICAL EQUIPMENT OR DEVICES SHALL BE COORDINATED WITH THE G.C.

THE CONTRACTOR SHALL TAKE ALL STEPS NECESSARY TO ENSURE THE SAFETY THE OWNERS EMPLOYEES, BUILDING EMPLOYEES AND GUESTS, AS WELL AS THEIR OWN FORCES. BY ADEQUATELY PROTECTING ANY EXPOSED IN CONDUCTORS, OR DEVICES THROUGHOUT THE COURSE OF THIS WORK.

10. EQUIPMENT CONNECTIONS PROVIDE FINAL CONNECTIONS FOR ALL EQUIPMENT FURNISHED UNDER OTHER DIVISIONS AND FOR ALL OWNER FURNISHED EQUIPMENT. PROVIDE A FLEXIBLE LIQUID TIGHT CONNECTION TO ALL VIBRATION PRODUCING EQUIPMENT. 11. TEMPORARY LIGHTING, POWER, FIRE, AND SAFETY

a. PROVIDE TEMPORARY LIGHTING AND POWER AS REQUIRED IN AREAS UNDERGOING WORK DURING CONSTRUCTION.

ALTERATION OPERATIONS.

BRANCH CIRCUITS TO RECEPTACLES, LIGHTING AND MISC. SMALL LOADS (20 AMP CIRCUITS), UNLESS SPECIFICALLY NOTED OTHERWISE, SHALL BE 2-#12, 1-#12G, 3/4" C.

PROPOSALS SHALL BE BASED UPON THE FURNISHING OF ALL MATERIALS AND EQUIPMENT AS SPECIFIED, WHICH IN EVERY CASE SHALL BE NEW AND OF THE BEST GRADE AND QUALITY AVAILABLE. 2. EQUIPMENT AND MATERIALS SHALL BE WITHOUT BLEMISH OR DEFECT AND SHALL

ALL ITEMS OF EQUIPMENT OF ONE TYPE, EXCEPT CONDUIT, CONDUIT FITTINGS, OUTLET BOXES, WIRE, AND CABLE, SHALL BE THE PRODUCT OF ONE MANUFACTURER THROUGHOUT UNLESS OTHERWISE INDICATED OR ACCEPTED BY

THE ENGINEER. 4. THE USE OF ROMEX, BX, ETC. IS NOT PERMITTED.

CONDUITS INCLUDING BUT NOT LIMITED TO LIGHTING, RECEPTACLES, HEATING, AIR

b. ALL PANEL AND SERVICE FEEDERS SHALL BE IN RIGID GALVANIZED STEEL CONDUIT (RGSC). ALL CONDUIT SHALL BE UL LABELED. EMT SHALL BE ACCEPTABLE FOR BRANCH CIRCUITS RUN ABOVE SUSPENDED CEILINGS OR CONCEALED IN INTERIOR PARTITIONS. EMT CONNECTORS SHALL BI COMPRESSION TYPE. CONDUIT UNDER SLAB ON GRADE SHALL BE GALVANIZED

c. MINIMUM SIZES OF CONDUIT SHALL BE 3/4" FOR INDIVIDUAL LIGHTING FIXTURE CONNECTION OR TO INDIVIDUAL LIGHT SWITCHES AND FOR ALL OTHER LOCATIONS. IF HVAC CONTROL WIRING IS REQUIRED TO BE RUN IN CONDUIT, IT SHALL BE MINIMUM OF 1/2" SIZE, UNLESS NOTED OTHERWISE ON DRAWINGS. ALL IN/UNDER FLOOR SLAB CONDUIT SHALL BE OF MINIMUM 1"C SIZE.

d. SUPPORT ALL CONDUIT. e. GENERALLY, ALL CONDUIT SHALL BE CONCEALED EXCEPT FOR UNFINISHED AREAS, SUCH AS EQUIPMENT ROOMS. EXPOSED CONDUIT SHALL BE ALLOWED ONLY AS NOTED ON PLAN AND AS APPROVED BY THE OWNER'S CONSTRUCTION MANAGER. PAINTING OF CONDUITS WILL BE BY GENERAL

LISTED FOR GROUNDING. A GREEN GROUNDING CONDUCTOR SHALL BE PROVIDED. ALL CONNECTORS ARE TO BE OF A NEMA APPROVED TYPE. f.2. FLEXIBLE CONDUIT SHALL BE ACCEPTABLE FOR THE FOLLOWING APPLICATIONS AND SHALL NOT EXCEED 6 FEET IN LENGTH: f.2.1. FINAL CONNECTIONS TO OUTLETS ON VIBRATING EQUIPMENT.

f.2.2. FINAL INTER-CONNECTIONS BETWEEN LIGHT FIXTURES. f.2.3. FINAL CONNECTIONS WHERE RIGID CONDUIT IS NOT PRACTICAL. g. PROVIDE POLY PULL—STRING IN ALL EMPTY CONDUITS.

CEILING AND OTHER TRADES WORK. i. ALL CONDUITS SHALL BE RUN PARALLEL OR PERPENDICULAR TO COLUMN

j. ALL CONDUITS MUST BE SIZED PER THE CODE.

k. COMPLETE CONDUIT WORK ABOVE SUSPENDED CEILING SHALL BE PLENUM 6. OUTLET BOXES

STEEL, KNOCKOUT TYPE, WITH SUITABLE PLASTER RINGS AND COVERS OR b. UNUSED KNOCKOUT HOLES SHALL REMAIN CLOSED AND THOSE OPENED BY

ERROR SHALL BE CLOSED WITH SNAP-IN BLANKS. c. OUTLET BOXES SHALL NOT BE SMALLER THAN REQUIRED BY CODE FOR THE

PLENUM RATED.

e. OUTLET BOX MANUFACTURERS SHALL BE APPLETON, GARVIN, RACO (HUBBELL) & STEEL CITY. 7. JUNCTION AND PULL BOXES

a. PROVIDE JUNCTION BOXES, PULL BOXES, CABLE SUPPORTS, AND WIREWAYS AS REQUIRED FOR PROPER INSTALLATION OF THE ELECTRICAL WORK, WHETHER OR NOT SPECIFICALLY SHOWN ON THE DRAWINGS. COVERS SHALL BE ACCESSIBLE. SMALL JUNCTION BOXES SHALL BE SIMILAR TO OUTLET

b. PULL BOXES, CABLE SUPPORT BOXES, AND LARGE JUNCTION BOXES FOR INDOOR USE SHALL BE MADE OF CODE GAUGE STEEL. COVERS SHALL BE HELD IN PLACE WITH STAINLESS STEEL SCREWS. PAINT INTERIOR AND EXTERIOR SURFACES WITH RUST-INHIBITIVE PAINT.

BE PLENUM RATED.

THE AWG SIZE AND TYPE AS SHOWN ON DRAWINGS MINIMUM WIRE SIZE SHALL BE #12. THE CONDUCTORS SHALL HAVE 600 VOLT INSULATION, TYPE b. MINIMUM WIRE SIZE - 20 AMP. BRANCH CIRCUIT SHALL BE AWG LISTED SIZE

PER DISTANCE SHOWN BELOW. DISTANCE SHALL BE MEASURED FROM THE PANELBOARD CIRCUIT BREAKER TO THE FURTHEST OUTLET. b.1. #12 LESS THAN 80 FEET. (AT 120V) b.2. #10 OVER 80 FEET. (AT 120V)

c. CONDUCTORS SHALL BE STRANDED FOR SIZES #10AWG AND LARGER. d. ALUMINUM CONDUCTORS ARE NOT PERMITTED.

f. WIRE CONNECTORS SHALL BE EQUAL TO "SCOTCH LOCK" FOR #10 AWG WIRE AND SMALLER AND EQUAL TO T & B "LOCKTIGHT" FOR #6 AWG AND LARGER. EQUALS BY BUCHANAN OR IDEAL ARE ACCEPTABLE. g. ALL WIRING TO BE COLOR-CODED AS FOLLOWS:

120/208 VOLT SYSTEM 277/480 VOLT SYSTEM NEUTRAL - WHITE NEUTRAL - GRAY PHASE A OR L1 - BLACK PHASE A OR L1 - BROWN PHASE B OR L2 - RED PHASE B OR L2 - ORANGE PHASE C OR L3 - BLUE PHASE C OR L3 - YELLOW GROUND — GREEN GROUND — GREEN

GROUNDING

JUMPER BETWEEN THE OUTLET BOX AND THE DEVICE GROUNDING TERMINAL. METAL-TO-METAL CONTACT BETWEEN THE DEVICES YOKE AND THE OUTLET OR FLUSH TYPE BOXES. ALL JUNCTION BOXES, OUTLET BOXES AND PULL BOXES SHALL BE BONDED TO THE CONDUIT SYSTEM ALL CONDUIT INCLUDING FLEXIBLE CONDUIT, SHALL BE GROUNDED WITH GREEN GROUNDING CONDUCTOR.

 ALL ENCLOSURES AND NON-CURRENT CARRYING METAL PARTS ARE TO BE GROUNDED. CONDUIT SYSTEM IS TO BE ELECTRICALLY CONTINUOUS. ALL LOCK NUTS MUST CUT THROUGH ENAMELED OR PAINTED SURFACES ON ENCLOSURES. WHERE ENCLOSURES AND NON-CURRENT CARRYING METAL PARTS ARE ISOLATED FROM THE CONDUIT SYSTEM, USE BONDING JUMPERS WITH APPROVED CLAMPS. ALL GROUND CLAMPS SHALL BE "PENN-UNION" OR EQUAL, SIMILAR TO "GPL" TYPE.

c. NO OTHER CIRCUITS ARE TO BE RUN IN SAME CONDUIT FEEDING ISOLATED GROUND RECEPTACLES.

a. THE CONTRACTOR SHALL PROVIDE SLEEVES TO PROTECT EQUIPMENT OR FACILITIES IN THE INSTALLATION. EACH SLEEVE SHALL EXTEND THROUGH IT'S RESPECTIVE FLOOR, WALL OR PARTITION AND SHALL BE CUT FLUSH WITH EACH SURFACE EXCEPT SLEEVES THAT PENETRATE THE FLOOR, WHICH SHALL EXTEND 2" ABOVE THE FLOOR.

b. UNLESS OTHERWISE NOTED, ALL SLEEVES AND OPENINGS THROUGH FIRE RATED WALLS SHALL BE FIRE SEALED WITH CALCIUM SILICATE, SILICONE "RTV" FOAM, "3M" FIRE RATED SEALANTS OR EQUAL, SO AS TO RETAIN THE FIRE RATING OF THE FLOOR OR WALL. CONFORM TO UL ASSEMBLY RATING OF FLOOR OR WALL.

c. SLEEVES IN BEARING AND MASONRY WALLS, FLOORS AND PARTITIONS SHALL BE STANDARD WEIGHT BLACK STEEL PIPE FINISHED WITH SMOOTH EDGES. FOR OTHER THAN MASONRY PARTITIONS, THROUGH SUSPENDED CEILINGS, OR FOR CONCEALED VERTICAL CONDUIT. SLEEVES SHALL BE NO. 22.

11. TESTING AND INSPECTION

a. THE ELECTRICAL CONTRACTOR SHALL THOROUGHLY TEST THE ENTIRE ELECTRICAL SYSTEM FOR GROUNDS, SHORTS AND PROPER GROUNDING RESISTANCE. A MAXIMUM OF 25 OHMS RESISTANCE FROM NEUTRAL CONDUCTOR AND CONDUIT TO EARTH GROUND SHALL BE PERMITTED. ONLY A GROUND RESISTANCE MEASURING METER OF APPROVED TYPE SHALL BE USED, A COMMON OHM METER IS NOT ACCEPTABLE

b. THE ELECTRICAL CONTRACTOR SHALL SEE THAT LOCAL INSPECTION AUTHORITIES ARE NOTIFIED WHEN INSPECTIONS ARE REQUIRED BY CODE AND SHALL GIVE ALL NECESSARY ASSISTANCE TO THE INSPECTOR WHEN HE IS MAKING AN INSPECTION.

c. THE ELECTRICAL CONTRACTOR WILL SATISFY ALL REGULATIONS HAVING JURISDICTION ON THIS PROJECT. NOT BE USED FOR TEMPORARY POWER PURPOSES, WITHOUT THE ENGINEER'S 12. WIRING DEVICES

a. THIS CONTRACTOR SHALL FURNISH AND INSTALL SWITCHES AND RECEPTACLES AS SHOWN ON THE DRAWINGS AND NECESSARY FOR A COMPLETE INSTALLATION. COLOR OF DEVICES AND PLATES SHALL BE AS DIRECTED BY ARCHITECT. THE DEVICES SHALL BE OF THE TYPES AND RATINGS LISTED, OR EQUALS BY PASS & SEYMOUR, HUBBELL OR LEVITON, WEATHERPROOF GFI RECEPTACLES SHALL BE INSTALLED WHERE SHOWN ON DRAWINGS OR AS REQUIRED BY CODE. a.1. TOGGLE SWITCHES: 20A-120V COMMERCIAL SPECIFICATION GRADE

a.2. DUPLEX RECEPTACLES: 20A-125V COMMERCIAL SPECIFICATION GRADE

a.3. GROUND FAULT CIRCUIT INTERRUPTING RECEPTACLE: 20A-125V, 5MA. COMMERCIAL SPECIFICATION GRADE

a. WALL PLATES SHALL BE AS SPECIFIED BY OWNER. WHERE STANDARD PLATES WILL NOT FIT WALL FINISH, UNPLASTERED BRICK OR SPECIAL FINISH WALLS, USE SPECIAL SIZE PLATES TO SUIT CONDITIONS. ALL WALL PLATES LINE UP AND FLUSH WITH MOUNTING SURFACE AND SECURELY ATTACHED IN PLACE. b. WHERE SWITCHES, RECEPTACLES OR COMBINATIONS THEREOF ARE GROUNDED, USE GANG PLATES AND OUTLET BOXES TO SUIT THE SPECIFIC

ARRANGEMENTS. c. VERIFY MOUNTING HEIGHTS OF WIRING DEVICES WITH ARCHITECT/OWNER: IN GENERAL, RECEPTACLES 15" ABOVE FLOOR OR 4.5" ABOVE COUNTER TOP WHERE COUNTERS OCCUR, AND SWITCHES 4'-0" ABOVE FLOOR, EXCEPT WHERE SPECIFIC HEIGHTS ARE INDICATED. SPECIAL RECEPTACLE LOCATED AS DIRECTED BY ARCHITECT AND ENGINEER.

d. WALL PLATES SHALL BE OF THE SAME MANUFACTURER AS WIRING DEVICE. 14. LIGHTING FIXTURES & LAMPS:

a. THIS CONTRACTOR SHALL FURNISH ADDITIONAL AUXILIARY SUPPORTING STEEL HANGER WIRES ADEQUATELY SIZED TO SUPPORT THE WEIGHT OF THE FIXTURE AND FASTENED TO BUILDING STRUCTURE (MINIMUM TWO PER FIXTURE) FOR FIXTURES NOT MOUNTED ON BUILDING FRAMEWORK. FIXTURES SHALL NOT BE SUPPORTED SOLELY BY THE CEILING STRUCTURE.

b. PROVIDE APPLICABLE FIRE RATED DRYWALL BOXES OVER RECESSED FIXTURES IN FIRE RATED CEILINGS AS REQUIRED BY CODES. FIELD COORDINATE AS REQUIRED TO AVOID CONFLICT.

c. THIS CONTRACTOR SHALL PROVIDE ANY NECESSARY FITTINGS, ACCESSORIES, ETC. AS NECESSARY TO MAKE A COMPLETE INSTALLATION. d. REMOVE ALL DIRT, OIL OR GREASE FROM LIGHT FIXTURES. CLEAN ALL GLASS, LENSES, ETC. AND POLISH FIXTURES AND TRIM.

a. PROVIDE TYPED DIRECTORIES IN PANELBOARDS TO DEPICT ACTUAL EQUIPMENT CONNECTED TO INDIVIDUAL BREAKERS/SWITCHES.

16. SHOP DRAWINGS AND SUBMITTALS: a. SUBMIT COMPLETE SHOP DRAWINGS FOR MANUFACTURED EQUIPMENT CLEARLY MARK SUBMISSIONS FOR LIGHTING FIXTURES WITH THE TYPE LETTER OR LETTERS ASSIGNED TO EACH FIXTURE IN THE FIXTURES SCHEDULE AND INCLUDE A GRAPH SHOWING TYPICAL LIGHT DISTRIBUTION AND A TABLE OF CERTIFIED UTILIZATION FACTORS. ALL FIXTURE SUBMITTALS SHALL BE IN BROCHURE FORM.

b. PROVIDE SUFFICIENT INFORMATION AND DATA REQUIRED FOR THE ARCHITECT TO REASONABLY DETERMINE PROPER COMPLIANCE WITH THE SPECIFICATIONS. c. IN ADDITION, THE CONTRACTOR SHALL SUBMIT A COMPLETE LIST OF MATERIALS PROPOSED, GIVING THE MANUFACTURER'S NAME, CATALOG NUMBER, OR OTHER MEANS OF IDENTIFICATION TO SHOW COMPLIANCE WITH

THESE SPECIFICATIONS. d. REVIEW OF SHOP DRAWINGS IS RENDERED AS A SERVICE ONLY, AND SHALL NOT BE CONSIDERED AS A GUARANTEE OF MEASUREMENTS OR BUILDING CONDITIONS, NOR SHALL IT BE CONSTRUED AS RELIEVING THE CONTRACTOR OF BASIC RESPONSIBILITY UNDER THE CONTRACT. SHOP DRAWINGS SHALL BE SUBMITTED ON, BUT NOT BE LIMITED TO THE FOLLOWING SYSTEMS: LIGHT FIXTURE BALLASTS AND ALL ASSOCIATED LIGHT FIXTURES HARDWARE, WIRING DEVICES, COVER PLATES, PANELS, BEAKERS, DATA/VOICE JACKS, CABLE, FIRE

ALARM DEVICES, ETC. 17. INSTALLATION OF EQUIPMENT FURNISHED BY OTHERS

a. CONTRACTOR SHALL INSTALL ALL EQUIPMENT, WIRE AND CABLE FURNISHED TO HIM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL INSTALLATION DRAWINGS AND WIRING DIAGRAMS FROM THE EQUIPMENT MANUFACTURER. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.

b. CONTRACTOR SHALL MAKE FINAL CONNECTIONS AND TERMINATIONS TO THE OWNER, MECHANICAL, AND PLUMBING CONTRACTOR'S FURNISHED EQUIPMENT. 18. SPECIAL SYSTEMS

ELEPHONE/DATA SYSTEM: ELECTRICAL CONTRACTOR SHALL INSTALL CONDUITS OUTLET BOXES, AND CABLE G.C. IS RESPONSIBLE FOR COORDINATION BETWEEN ALL SUB CONTRACTORS AND IS ULTIMATELY RESPONSIBLE FOR ACCURATELY DICTATING THE SCOPE BETWEEN SUB CONTRACTS.

19. OCCUPANCY SENSORS

a. CONTRACTOR'S WORK TO INCLUDE ALL LABOR, MATERIALS, TOOLS, APPLIANCES. CONTROL HARDWARE. SENSOR. WIRE. JUNCTION BOXES AND EQUIPMENT NECESSARY FOR AND INCIDENTAL TO THE DELIVERY, INSTALLATION AND FURNISHING OF A COMPLETELY OPERATIONAL OCCUPANCY SENSOR

LIGHTING CONTROL SYSTEM. AS DESCRIBED HEREIN. b. WALL SWITCH PRODUCTS MUST BE CAPABLE OF WITHSTANDING THE EFFECTS OF INRUSH CURRENT.

c. WALL SWITCH SENSORS SHALL BE CAPABLE OF DETECTION OF OCCUPANCY AT DESKTOP LEVEL UP TO 300 SQUARE FEET, AND GROSS MOTION UP TO 1000 SQUARE FEET. d. WALL SWITCH SENSORS SHALL ACCOMMODATE LOADS FROM 0 TO 800 WATTS

AT 120 VOLTS; 0 TO 1200 WATTS AT 277 VOLTS. e. ALL SENSORS SHALL BE CAPABLE OF OPERATING NORMALLY WITH ELECTRONIC BALLASTS, PL LAMP SYSTEMS AND RATED MOTOR LOADS. 21. SHORT CIRCUIT RATED PROTECTION

t.OVERCURRENT DEVICES SHALL BE RATED FOR THE FULL PROSPECTIVE SHORT-CIRCUIT CURRENT AT THEIR LINE SIDE TERMINALS THROUGHOUT THE SYSTEM COMPLYING WITH A FULLY RATED AND COORDINATED SYSTEM. u. IF SERIES RATED EQUIPMENT IS USED, CONTRACTOR SHALL PROVIDE BREAKER

CHARTS TO SHOW COMPLIANCE WITH SERIES RATING. 23. ARC FLASH CONTRACTOR SHALL PROVIDE ALL NEW PANELS, SWITCHBOARDS, AND EQUIPMENT WITH ARC FLASH WARNING LABFLS.

w. ARC FLASH LABELS SHALL CONTAIN INFORMATION WITH: AVAILABLE INCIDET ENERGY.

MINIMUM ARC RATING OF CLOTHING, REQUIRED LEVEL OF PPE, HIGHEST HAZARD

CATEGORY FOR THE EQUIPMENT, NOMINAL SYSTEM VOLTAGE, AND ARC FLASH

THIS INSTALLATION SHALL BE IN COMPLIANCE WITH THE ADOPTED NEC AND ALL APPLICABLE LOCAL CODES. BEFORE COMMENCING WORK THE CONTRACTOR SHALL VISIT THE JOB SITE AND FULLY INFORM HIMSELF OF ALL CONDITIONS THAT AFFECT

SUBMIT ANY QUESTIONS IN WRITING TO THE ENGINEER. ALL ELECTRICAL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE PROJECT SPECIFICATIONS AND ALL OTHER DRAWINGS RELATED TO THE PERFORMANCE OF THE WORK.

THE WORK, EXAMINE THE DRAWINGS AND SPECIFICATIONS, AND

**GENERAL NOTES** 

THE CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THIS WORK SHALL BECOME THOROUGHLY FAMILIAR WITH THE PROJECT SPECIFICATIONS BEFORE COMMENCING ANY WORK. THE PROJECT SPECIFICATIONS AND DRAWINGS FORM THE BASIS OF THIS CONTRACT REQUIREMENTS AND INCLUDE THE TYPE AND GRADE OF MATERIALS TO BE INSTALLED, EQUIPMENT TO BE FURNISHED, THE MANNER BY WHICH TO BE INSTALLED AND WHERE TO BE LOCATED. IN THE EVENT OF A CONFLICT BETWEEN THE PROJECT SPECIFICATIONS AND DRAWINGS, SPECIFICATIONS GOVERN UNLESS THE ARCHITECT/ENGINEER DIRECTS OTHERWISE.

THE ELECTRICAL CONTRACTOR SHALL CHECK CAREFULLY ALL CONSTRUCTION DRAWINGS AND SPECIFICATIONS THAT ARE PART OF THIS PROJECT TO ENSURE THAT NO FIXTURE, OUTLET, ALARM STATION OR CONTROL AND POWER WIRING IS OMITTED. HE SHALL CONSULT ALL TRADES FURNISHING EQUIPMENT AND OBTAIN FROM THEM ALL DATA. IN SOME CASES EQUIPMENT, FIXTURES AND DEVICES ARE SHOWN ONLY. ASCERTAIN AND PROVIDE THE WIRING AND CONTROL STATIONS REQUIRED FOR THE PROPER FUNCTION OF BUILDING EQUIPMENT. NO EXTRA CHARGES SHALL BE ACCEPTED BY OWNER AFTER BIDDING FOR SUCH EQUIPMENT AND LABOR.

EQUIPMENT LABELS AND INSTRUCTIONS REGARDING THE APPLICATION AND INSTALLATION OF THE LISTED EQUIPMENT SHALL BE FOLLOWED TO INSURE THAT THE EQUIPMENT IS BEING INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S LISTING INSTRUCTIONS. THE TEMPERATURE RATING OF THE EQUIPMENT TERMINATIONS MUST BE CAREFULLY CORRELATED WITH THE CONDUCTOR AMPACITY TO PREVENT OVERHEATING AND PREMATURE FAILURE.

INSTALL ELECTRICAL DEVICES AS INDICATED IN THIS SET OF DRAWINGS. ADJUST FINAL DEVICE LOCATIONS AS REQUIRED TO ACCOMMODATE WORK. COORDINATE WITH ALL TRADES INVOLVED AND WITH ARCHITECTURAL CASEWORK AND ELEVATIONS DRAWINGS. NOTIFY THE ENGINEER AND/OR THE ARCHITECT IF ANY CONFLICTS ARE FOUND PRIOR TO BIDDING PROJECT. INSTALL CONDUIT AND BOXES TO CLEAR EMBEDDED DUCTS, OPENINGS AND OTHER STRUCTURAL

ALL WORK IS TO BE DONE IN ACCORDANCE WITH THE LATEST REQUIREMENTS OF THE APPLICABLE CODES AND REGULATIONS.

ALL LIGHTING FIXTURES ARE TO BE LOCATED AS REQUIRED ON THE

JOB TO CLEAR DUCTS, PIPING, EQUIPMENT, AND/OR MECHANICAL 10. CONDUIT RUNS SHOWN ON DRAWINGS ARE DIAGRAMMATIC. ALL

 FURNISH AND INSTALL EQUIPMENT DISCONNECT SWITCHES IN STRICT COMPLIANCE WITH CODE REQUIREMENTS.

12. ADJACENT POWER AND DATA/TELE DEVICES SHALL BE SPACED NO

MORE THAN 4" APART. PROVIDE JUNCTION BOX MOUNTING BRACKET

BETWEEN STUDS AS NEEDED. 13. ALL RECEPTACLES, TELEPHONE, AND DATA OUTLETS SHALL BE MOUNTED PER MOUNTING HEIGHT LEGEND OR TO MATCH BUILDING

14. ALL FIRE ALARM NOTIFICATION DEVICES SHALL BE MOUNTED AT 80" AFF IN ACCORDANCE WITH ADA, UNLESS OTHERWISE NOTED.

15. DETERMINE, IN ADVANCE OF PURCHASE, THAT ALL FLECTRICAL MATERIALS AND EQUIPMENT TO BE INSTALLED SHALL FIT INTO THE ROOM OR SPACE ALLOCATED, AS INDICATED ON THE DRAWINGS, ALLOWING SUFFICIENT CLEARANCE FOR THE SAFE SERVICE AND/OR MAINTENANCE OF RELATED EQUIPMENT, INCLUDING THAT OF OTHER

16. ALL CIRCUITS SHALL HAVE AN EQUIPMENT GROUNDING CONDUCTOR INSTALLED. COLOR OF GROUNDING CONDUCTOR SHALL BE GREEN. SIZE OF GROUNDING CONDUCTOR SHALL BE AS REQUIRED PER LOCAL

17. ALL BRANCH CIRCUITS SHALL HAVE A DEDICATED NEUTRAL CONDUCTOR INSTALLED. COLOR OF NEUTRAL CONDUCTOR SHALL BE WHITE FOR 120/208V AND GREY FOR 480/277V CIRCUITS.

CONDUCTOR FOR GAUGES #10AWG AND LARGER. 19. SPECIAL RECEPTACLES PLUG CONFIGURATION REQUIREMENTS SHALL BE COORDINATED WITH EQUIPMENT PLUG REQUIREMENTS PRIOR TO

INSTALLATION. 20. ALL FEEDER AND BRANCH CIRCUIT WIRING INSTALLED INDOORS SHALL USE THHN INSULATION. ALL WIRING INSTALLED OUTDOORS SHALL USE THWN INSULATION. REFER TO SPECIFICATION DOCUMENTS FOR COLOR

21. ALL POWER WIRING SHALL BE INSTALLED IN A DEDICATED RACEWAY SYSTEM. MINIMUM RACEWAY SIZE SHALL BE 3/4"C UNLESS OTHERWISE INDICATED. CONTRACTOR SHALL SIZE ALL CONDUITS SO AS TO NOT EXCEED 40% OF CONDUIT FILLING CAPACITY PER LOCAL

22. ALL PULL BOXES AND JUNCTION BOXES SHALL BE SIZED PER NEC. BASED ON THE AMOUNT OF CABLE AND CONDUITS ENTERING/LEAVING

24. SERVICE EQUIPMENT AND BRANCH CIRCUIT PANELBOARDS SHALL HAVE AN UPDATED PANEL DIRECTORY INSTALLED UPON PROJECT COMPLETION. UTILIZE TYPE WRITER AS A MINIMUM FOR COMPLIANCE. HAND WRITTEN CARD DIRECTORIES ARE NOT ACCEPTABLE.

SHALL BE DONE WITH LIQUID TIGHT FLEXIBLE METAL CONDUIT. INSTALL GREEN GROUNDING CONDUCTOR. 19. CONTRACTOR IS TO PERFORM DEMOLITION WORK IN A CONNECTION TO MECHANICAL UNIT PRIOR TO ROUGH-IN. E.C. SHALL

> ALSO VERIFY EXACT BREAKER SIZE AND WIRING WITH APPROVED MECHANICAL UNITS SHOP DRAWINGS PRIOR TO INSTALLATION. 27. SERVICE EQUIPMENT, BRANCH CIRCUIT PANELBOARDS, METER SOCKETS SHALL HAVE AN "ARC-FLASH HAZARD WARNING" LABEL INSTALLED.

READILY VISIBLE LABEL PER NFPA STANDARD FOR SAFETY IN THE WORKPLACE, LABEL SHALL READ "CAUTION ARC FLASH HAZARD". SIZE AND COLOR OF TEXT SHALL BE PER STANDARD.

30. INSTALL CONDUIT FROM THE TOP OF THE BAR JOIST 31. LABEL ALL J-BOX COVER PLATES AND RECEPTACLE COVER PLATES WITH CIRCUIT INFORMATION. PROVIDE A TYPED LABEL, MARKER IS NOT

29. ALL EQUIPMENT INSTALLED OUTSIDE SHALL BE WEATHER PROOF

RATED. REFER TO DRAWINGS FOR ADDITIONAL INFORMATION.

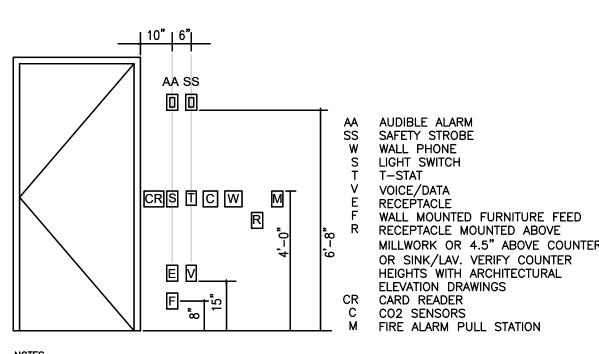
MECHANICAL THERMOSTAT. COORDINATE FINAL LOCATION WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.

33. ALL NEW ELECTRICAL PANELS SHALL BE BOLT-ON TYPE CIRCUIT

BREAKERS.

34. ALL CABLE LOCATED WITHIN CEILING SPACE USED FOR PLENUM AIR RETURN SHALL BE PLENUM RATED OR RUN IN CONDUIT. 35. LOW VOLTAGE WIRING (PHONE/DATA, LIGHTING CONTROLS, SECURITY, THERMOSTATS, ETC.) LOCATED IN NON-ACCESSIBLE WALLS, CEILING

SPACES, AND IN OPEN CEILING AREAS PRONE TO DAMAGE SHALL BE



MOUNTING HEIGHTS

INDICATED). COORDINATE WITH ARCHITECTURAL DRAWINGS. WHERE DIFFERENCES EXIST, USE ARCHITECTURAL MOUNTING HEIGHTS.

ALL HEIGHTS FOR OUTLETS ARE TO TOP OR BOTTOM OF DEVICE (UNLESS OTHERWISE

## **ABBREVIATIONS**

WALL MOUNTED DEVICE ABOVE THE COUNTER

WEATHER PROOF

EXISTING TO REMAIN CEILING MOUNTED DEVICE

NIGHT LIGHT

NEW

TANK GAS WATER HEATER INSTANTANEOUS ELECTRIC WATER HEATER ELECTRICAL WATER COOLER

ELECTRIC HAND DRYER

ABOVE FINISH FLOOR

LEGEND

XO --- EXISTING TO BE REMOVED XRL --- EXISTING TO BE RELOCATED XRC — EXISTING TO BE RE-CIRCUITED XRP --- EXISTING TO BE REPLACED WITH NEW XRPC - - EXISTING TO BE REPLACED WITH NEW & RE-CIRCUITED XRLC - - EXISTING TO BE RELOCATED & RE-CIRCUITED

X — EXISTING FIXTURE TO REMAIN

N — NEW FIXTURE XNL —— EXISTING FIXTURE IN NEW LOCATION XNC — EXISTING FIXTURE ON NEW CIRCUIT

—— EXISTING LOCATION WITH NEW FIXTURE XNFC — EXISTING LOCATION WITH NEW FIXTURE & CIRCUIT XNLC \_\_\_\_\_ EXISTING FIXTURE IN NEW LOCATION & ON NEW CIRCUIT

# ELECTRICAL SYMBOL LIST

DUPLEX RECEPTACLE, # INDICATES CIRCUIT DUPLEX RECEPTACLE

GROUND FAULT CIRCUIT INTERRUPTER DUPLEX RECEPTACLE igoplus WP - GROUND FAULT CIRCUIT INTERRUPTER, WEATHERPROOF IN USE COVER ABOVE COUNTER DUPLEX RECEPTACLE, MOUNT AT +42"AFF UNLESS

NOTED OTHERWISE HEAVY DUTY DISCONNECT SWITCH

JUNCTION BOX

CARD READER DUAL TECH WALL MOUNTED OCCUPANCY SENSOR WITH AUTO-ON/AUTO-OFF FUNCTION

 $\bigcirc$ 

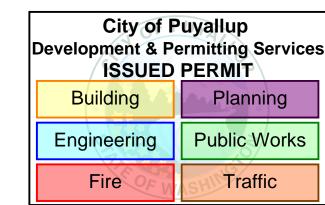
CEILING MOUNTED OCCUPANCY SENSOR (15 MINUTE SETTING)

CONDUIT CONCEALED IN WALL/ABOVE THE CEILING UNIVERSAL MOUNTED (CEILING/WALL) EXIT SIGN WITH CHEVRONS SECURITY DOOR CONTACT (PREPARE DOOR, ROUGH-IN ONLY UP TO ABOVE ACCESSIBLE CEILING)

SINGLE POLE DISCONNECT SWITCH TOGGLE STYLE

## **ELECTRICAL DRAWING LIST**

E-O ELECTRICAL GENERAL NOTES, SYMBOLS, LEGENDS, AND SPECIFICATIONS E-1 ELECTRICAL PLANS AND SCHEDULES





PA/PM: DRAWN BY.:

5. CONTRACTOR'S LIABILITY

THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE POWER TO OTHER TRADES EQUIPMENT AND HARDWARE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, CONTROLS, FIRE AND SECURITY SYSTEMS, MOTORIZED DOORS,

CONTRACTOR BECAUSE OF HIS NEGLECT IN COMPLYING WITH THE FOREGOING. 7. DRAWINGS AND SPECIFICATIONS

AGENCIES FOR THE EXECUTION OF THIS WORK. SCHEDULING OF ALL REQUIRED

a. ALL CUTTING, DRILLING, PATCHING, ETC. NECESSARY FOR INSTALLATION OF EQUIPMENT UNDER THIS CONTRACT SHALL BE DONE BY THIS CONTRACTOR. b. ALL DISTURBED CONSTRUCTION AND FINISHED SHALL BE RETURNED TO ITS ORIGINAL STATE. HOLES IN CONCRETE WALLS AND FLOORS SHALL BE CORE DRILLED AND SLEEVED. NO CUTTING OF STRUCTURAL MEMBERS WILL BE

WHERE CONNECTIONS OR TAPS ARE TO BE MADE IN BRANCH CIRCUIT WIRING.

d. CONTRACTOR SHALL CONSULT WITH THE ARCHITECT AND REVIEW THE PLANS TO VERIFY THE EXACT LOCATIONS OF ALL OUTLETS ARE ABOVE COUNTERS

e. THE CONTRACTOR SHALL CONSULT WITH THE EQUIPMENT SUPPLIERS FOR THE CORRECT SIZES OF ALL OUTLETS IN SUFFICIENT TIME BEFORE WALL MAKE HIM RESPONSIBLE FOR ANY RELOCATIONS AT HIS EXPENSE DUE TO

UPON CONNECTING ALL CIRCUITS TO PANELS, THE CONTRACTOR SHALL BALANCE THE LOAD IN AMPERES TO +/- 5% BETWEEN PHASES FOR EACH PANEL OR PER OWNERS SATISFACTION. 6. FIRE STOPPING

b. COMPLY WITH NFPA 241 FOR SAFEGUARDING DURING CONSTRUCTION AND

12. BRANCH CIRCUITS

MATERIAL AND EQUIPMENT

PRIOR WRITTEN AUTHORIZATION.

a. THE CONTRACTOR SHALL PROVIDE ALL CONDUITS SERVING ALL EQUIPMENT, CONDITIONS, PLUMBING EQUIPMENT, TELEPHONE AND ELECTRICAL EQUIPMENT. 13. WALL PLATES

f. FLEXIBLE METAL CONDUIT f.1. FLEXIBLE METAL CONDUIT AND THEIR ASSOCIATED FITTINGS ARE TO BE

h. HOME RUNS AND MAIN CONDUIT RUNS ARE TO BE HELD TIGHT TO STRUCTURE ABOVE OR AS REQUIRED TO ALLOW PROPER CLEARANCE OF

a. UNLESS OTHERWISE NOTED, OUTLET BOXES SHALL BE GALVANIZED PRESSED

NUMBER AND SIZE OF WIRES TO BE INSTALLED. d. OUTLET BOX AND COVE LOCATED ABOVE SUSPENDED CEILING SHALL BE

c. JUNCTION BOX AND PULL BOX LOCATED ABOVE SUSPENDED CEILING SHALL a. CONDUCTORS FOR FEEDERS AND BRANCH CIRCUITS SHALL BE COPPER AND

e. ALL WIRING SHALL BE IN CONDUIT

PROVIDE COMPLETE WIRE GROUNDING CONDUCTOR SYSTEM, #12 AWG MINIMUM, SIZED AND INSTALLED IN ACCORDANCE WITH THE LATEST ADOPTED EDITION OF a. ALL DEVICES SHALL BE BONDED TO THE CONDUIT SYSTEM. USE A BONDING BOX IS NOT ACCEPTABLE AS A BOND FOR EITHER SURFACE MOUNTED BOXES EACH CONTRACTOR SHALL REVIEW THE EXISTING SYSTEMS IN THE FIELD ALONG WITH BID DOCUMENTS AND DETERMINE SELECTIVE DEMO AND ADDITION OF TEMPORARY SYSTEMS (IF REQUIRED) TO MAKE PHASED DEMO AND PROPOSED REMODELING. IT SHALL ASSURE UNINTERRUPTED SAFE OPERATION OF AREAS THAT ARE AFFECTED BY DEMO AND ADDITION OF PROPOSED SYSTEMS AT ALL TIMES. INCLUDE THE NECESSARY WORK TO ACCOMPLISH THIS AND COORDINATE PHASING ACCORDINGLY.

GENERAL DEMOLITION NOTES

CONFIRM WITH THE MANUFACTURERS OF EXISTING EQUIPMENT THAT IS TO BE REUSED OR EXTENDED. WHERE EXISTING ELECTRICAL WORK PREVENTS PROPER CONSTRUCTION OF NEW WORK AS INDICATED, REMOVE,

REROUTE, RELOCATE, OR IN OTHER WAYS ALTER

EXISTING WORK IN ORDER TO ACCOMMODATE.

WHERE EXISTING CONDUIT, WIRE, SUPPORTS, HANGERS AND OTHER ELECTRICAL WORK MUST BE REMOVED AS A RESULT OF THE ALTERATIONS, THEY SHALL BE COMPLETELY REMOVED. BACK TO THE FIRST OUTLET WHICH IS LEFT UNAFFECTED BY THE DEMOLITION. CONDUIT WHICH IS BURIED IN CONCRETE OR OTHERWISE INACCESSIBLY POSITIONED MAY BE ABANDONED. IN SUCH CASES, WIRE SHALL BE PULLED OUT AND THE CONDUIT SHALL BE PLUGGED AT EACH

EXISTING ELECTRICAL MATERIALS AND EQUIPMENT, INCLUDING LIGHTING FIXTURES, SWITCHES, RECEPTACLES, SIGNAL LIGHTS, SPEAKERS, INTERCOM EQUIPMENT, CONTROLS, CONDUIT OUTLETS, FITTINGS, AND OTHER DEVICES REMOVED AS A RESULT OF THE ALTERATIONS SHALL REMAIN THE PROPERTY OF THE OWNER (UNLESS OTHERWISE INDICATED) AND SHALL BE REUSED WHERE INDICATED.

EXAMINE THE CONDITION OF ANY SUCH MATERIALS AND

FINDINGS TO THE ENGINEER WHO WILL IN TURN MAKE

THE FINAL DECISION REGARDING REUSABILITY. ALL

EQUIPMENT TO MAKE A PRIOR DETERMINATION OF

WHETHER IT IS SUITABLE FOR REUSE. PRESENT

WIRE AND CABLE FOR REUSED AND RELOCATED EQUIPMENT SHALL BE NEW. IN ORDER TO COORDINATE THE WORK OF THE MECHANICAL AND ELECTRICAL TRADES, REMOVE EXISTING ELECTRICAL WORK IN AND ABOVE CEILING OF THESE AREAS (AS REQUIRED), AFTER WHICH INSTALL NEW WORK AND REINSTALL EXISTING WORK TO REMAIN, AS SHOWN ON THE DRAWINGS, EXISTING MATERIALS AND EQUIPMENT SHALL BE REUSED ONLY WHERE

SOME EXCEPTIONS MAY ARISE WHEREIN EQUIPMENT, EITHER IN ALTERED AREAS OR OTHER AREAS, MUST BE KEPT IN SERVICE, REQUIRING THAT FEEDERS, SIGNAL CONDUCTORS, CONDUITS, BOXES, ETC. SERVING SAME ALSO BE KEPT IN SERVICE. IN SUCH CASES, THOSE ELECTRICAL FEEDERS, SIGNAL CONDUCTORS, CONDUITS ETC. SHALL BE REROUTED AND RECONNECTED BEFORE PRESENT WORK IS REMOVED. IF THIS IS NOT POSSIBLE, TEMPORARY WIRING SHALL BE PROVIDED, AFTER WHICH NEW WORK SHALL BE INSTALLED AND

TEMPORARY WIRING REMOVED.

CIRCUITS AS REQUIRED.

SUPPORTED.

DEMOLITION.

IN ACCORDANCE WITH THE CONSTRUCTION PLAN AND LOCAL AUTHORITIES. 10. THIS DRAWING INDICATES AREAS THAT ARE BEING AFFECTED BY THE DEMOLITION. DASHED LINES SHOW EXISTING MATERIALS AND EQUIPMENT TO BE REMOVED. SOLID LINES SHOW EXISTING MATERIALS AND EQUIPMENT TO REMAIN. ELECTRICAL CONTRACTOR SHALL REMOVE ALL ELECTRICAL EQUIPMENT AFFECTED BY THE DEMOLITION AND WILL KEEP REMAINING EQUIPMENT CONNECTED, POWERED TO THE EXISTING

ANY ELECTRICAL EQUIPMENT THAT IS TAGGED TO BE

DISPOSED OF SHALL BE DONE PER APPROVED METHOD

DEMOLITION WORK THAT IS TO TAKE PLACE. NOTE THAT NOT EVERY DEVICE, LIGHTING FIXTURE, CONDUIT ETC. REQUIRED TO BE DEMOLISHED IS NECESSARILY INDICATED ON THIS PLAN. THE CONTRACTOR SHALL VISIT THE JOB SITE TO FAMILIARIZE HIMSELF WITH THE EXTENT OF EXISTING WORK TO BE DEMOLISHED.

THOROUGHLY COORDINATED WITH ALL OTHER TRADES.

11. THIS DRAWING SHOWS A REPRESENTATIVE SAMPLE OF

MAINTAIN AND RESTORE, IF INTERRUPTED, ALL CONDUITS, FEEDERS AND BRANCH CIRCUITS PASSING THROUGH RENOVATED AREA AND SERVING UNDISTURBED 14. ANY PORTION OF THE EXISTING CONDUIT SYSTEM THAT

IS TO BE REUSED FOR THE NEW INSTALLATION SHALL

DAMAGE, FREE OF CORROSION, AND ADEQUATELY

BE CHECKED TO ENSURE THAT IT IS CLEAN, FREE OF

12. ALL PROPOSED DEMOLITION WORK SHALL BE

DISCONNECT AND REMOVE ALL ELECTRICAL EQUIPMENT, DEVICES AND CONDUITS IN WALLS, FLOORS AND CEILING SCHEDULED FOR DEMOLITION. 16. EXISTING ELECTRICAL SYSTEM IS DESCRIBED BASED ON SURVEYS OF EXISTING CONDITIONS THAT ARE VISIBLE DURING THE DESIGN PHASE. CONTRACTOR SHALL

CONFIRM ALL SERVICES PRIOR TO PROCEEDING WITH

DISCONNECTED AND REMOVED FROM EXISTING PANEL

BOARDS, CONTRACTOR SHALL MARK THE AFFECTED

INSTALL NEW KNOCK-OUT BLANK INSERT IN PANEL

NEAT. SKILLFUL. AND CAREFUL MANNER SO AS NOT

BREAKERS IN THOSE PANEL BOARDS AS "SPARE

17. PATCH ALL HOLES IN SLABS, WALLS AND CEILING WHERE ELECTRICAL DEVICES AND/OR CONDUIT ARE REMOVED. IF THE REMOVAL OF CONDUIT, BOXES, EQUIPMENT. ETC. COMPROMISES THE FIRE RATING OF THESE ITEMS, THE CONTRACTOR SHALL SEAL OPENINGS WITH CODE APPROVED FIRE STOPPING MATERIAL. 18. WHERE FEEDERS OR BRANCH CIRCUITS ARE

TO DAMAGE OR DEFACE EXISTING CONSTRUCTION THAT IS TO REMAIN. 20. VERIFY THAT REMOVAL OF DEVICES IN RENOVATED AREA DOES NOT AFFECT DEVICES IN OTHER AREAS THAT MAY BE FED FROM THE CIRCUIT BEING DISCONNECTED.

FEATURES.

CONDUITS SHALL RUN CONCEALED, EXCEPT IN EQUIPMENT ROOMS AND WHERE APPROVED BY ARCHITECT OR AS INDICATED ON

STANDARD (WHEN APPLICABLE), UNLESS OTHERWISE NOTED. ALL DEVICES SHALL BE NEW UNLESS OTHERWISE NOTED.

18. ALL CONDUCTORS SHALL BE MADE OF COPPER. MINIMUM WIRE SIZE SHALL BE #12AWG UNLESS OTHERWISE INDICATED. UTILIZE SOLID CONDUCTORS FOR WIRE GAUGES UP TO #12AWG AND STRANDED

CODED REQUIREMENTS.

23. ALL BREAKERS SERVING FIRE ALARM AND EXIT SIGNS EQUIPMENT SHALL BE KEY-LOCK STYLE.

25. ALL FINAL CONNECTIONS TO MOTORS AND VIBRATING EQUIPMENT 26. E.C. SHALL COORDINATE WITH HVAC CONTRACTOR EXACT POINT OF

LABEL SHALL BE CLEARLY VISIBLE TO PERSONNEL. 28. SERVICE EQUIPMENT AND PANELBOARDS SHALL BE LABELLED WITH A

32. E.C. SHALL FURNISH AND INSTALL J-BOX AND 1/2"C FOR

36. PROVIDE CLOSEOUT DOCUMENTATION REQUIRED BY WASHINGTON STATE ENERGY CODE, C103.6.3.

**GENERAL NOTES** 1. SEE SHEET E-0 FOR DEMOLITION & GENERAL NOTES. 2. ELECTRICAL DEVICES ARE NEW, UNLESS NOTED OTHERWISE. 3. LIGHTING FIXTURES ARE NEW, UNLESS NOTED OTHERWISE. 4. FOR ALL ROOMS WITH OCCUPANCY SENSORS, CONTRACTOR SHALL

5. EMERGENCY BATTERY PACKS SHALL BE CIRCUITED TO LOCAL CIRCUIT AHEAD OF SWITCHING AND CONTROLS. 6. REFER TO FIRE ALARM AND FIRE PROTECTION DESIGN SPECIFICATIONS FOR ALL REQUIRED ROUGH-INS, CONDUIT, AND REQUIRED POWER (IF APPLICABLE). FIELD-COORDINATE FIRE ALARM AND FIRE PROTECTION

DEVICES AND REQUIREMENTS WITH GENERAL CONTRACTOR.

- ADDITIONAL INFORMATION.
- 4 ALL ELECTRICAL DEVICES, LIGHTING FIXTURES, AND EQUIPMENT LOCATED ON WALLS OR CEILINGS WHICH ARE TO BE REMOVED SHALL BE REMOVED UNLESS NOTED OTHERWISE. RECONNECT EXISTING CIRCUITS AND WIRING AS NECESSARY SO THAT FIXTURES AND DEVICES

# **KEY NOTES**

- 1) EXHAUST FAN TO BE CONTROLLED WITH LIGHTING VIA OCCUPANCY SENSOR.
- PROVIDE 1/2" CONDUIT AND PULL STRING ALONG WITH BACKBOX FOR MECHANICAL CONTROLS. REFER TO MECHANICAL DRAWINGS FOR

PROVIDE ALL REQUIRED SENSORS, POWERPACKS, RELAYS, OVERRIDE

SWITCHES, ETC. TO PROVIDE A COMPLETE AND OPERATIONAL SYSTEM.

- 3 PROVIDE GFCI DUPLEX RECEPTACLE UNDER SINK AT +22"AFF FOR PLUG-IN CORD PROVIDED WITH IWH-1 AND FOR POWERED FAUCET. E.C. SHALL INSTALL AND MAKE ALL FINAL CONNECTIONS FOR POWERED FAUCET VALVE, INCLUDING LOW VOLTAGE WIRING.
- OUTSIDE OF THE SCOPE OF WORK REMAIN OPERATIONAL.

# MECHANICAL EQUIPMENT CONNECTION SCHEDULE

TAG (1)	DESCRIPTION 2	LOAD 3	WIRE/CONDUIT (4)	STARTER/DISCONNECT/OCD (5)	VOLTAGE 6	FEED 7	LOCAL DISCONNECT 8	REMARKS 9
CEF 1	EXHAUST FAN	45.7 W	2#12 AWG 1#12G AWG EQ. GND 3/4"C.	INTEGRAL TO EQUIPMENT	120V 1ø	REFER TO CIRCUIT LISTING SCHEDULE	☐ FUSED A FUSE ☑ NON-FUSED A SWITCH ☐ THERMAL SWITCH, 120V,1ø,1P	DISCONNECT PROVIDED WITH EXHAUST FAN
EWH 1	ELECTRIC WALL HEATER	1000 W	2#12 AWG 1#12G AWG EQ. GND 3/4"C.	☐ INTEGRAL TO EQUIPMENT☐ IN MCC NEMA SIZE☐ TYPE	120V 1ø	SCHEDULE	☐ FUSED A FUSE ☐ NON-FUSED A SWITCH ☐ THERMAL SWITCH, 120V,1ø,1P	DISCONNECT PROVIDED BY MC, INSTALLED BY EC. DISCONNECT TO BE LOCKABLE TYPE.
(IWH)	INSTANTANEOUS WATER HEATER	1400 W	2#12 AWG 1#12G AWG EQ. GND 3/4"C.	☐ INTEGRAL TO EQUIPMENT☐ IN MCC NEMA SIZE☐ TYPE	1201/ 14	REFER TO CIRCUIT LISTING	☐ NON-ELISED A SMITCH	IWH IS PROVIDED WITH PLUG-IN POWER CORD.

## **EQUIPMENT CONNECTION SCHEDULE GENERAL NOTES:**

- PROVIDE POWER CONNECTIONS TO ALL ARCHITECTURAL, MECHANICAL, PLUMBING, FIRE PROTECTION, AND OWNER FURNISHED EQUIPMENT. REFER TO ARCHITECTURAL,
- OVER CURRENT PROTECTION SIZES LISTED ARE FROM MANUFACTURER'S AND STANDARD MOTOR DATA, FURNISH FUSES BASED ON FUSE MANUFACTURER'S STANDARDS, ACTUAL FIELD MEASURED FULL LOAD CURRENT, AND EQUIPMENT MANUFACTURER'S REQUIREMENTS.
- FLEXIBLE CONNECTIONS TO MOTORS SHALL BE IN FLEXIBLE CONDUIT. PROVIDE COPPER EQUIPMENT GROUND FROM DISCONNECT TO MOTOR CONNECTION.

## **EQUIPMENT CONNECTION SCHEDULE KEY NOTES:**

1 VERIFY FINAL LOCATION OF ALL EQUIPMENT WITH EQUIPMENT INSTALLER BEFORE

- ② SEE ARCHITECTURAL, MECHANICAL, PLUMBING AND FIRE PROTECTION DRAWINGS FOR MORE INFORMATION.
- (3) SIZE STARTER/FEEDER DISCONNECT PER FINAL EQUIPMENT REQUIREMENTS.
- (4) PROVIDE FEEDER AS INDICATED, VERIFY WITH EQUIPMENT REQUIREMENTS.
- (5) PROVIDE OVERLOAD PROTECTION (FUSES OR MOTOR CIRCUIT PROTECTOR) PER SPECIFICATIONS, ACTUAL FIELD MEASURED FULL LOAD CURRENT, AND EQUIPMENT MANUFACTURER'S REQUIREMENTS.
- 6 VERIFY FINAL VOLTAGE AND PHASE REQUIREMENTS OF ALL EQUIPMENT WITH INSTALLER BEFORE INSTALLING FEEDERS. (7) COORDINATE SHORT CIRCUIT OCD RATING WITH FINAL EQUIPMENT REQUIREMENTS.
- 8 EC TO PROVIDE LOCAL DISCONNECT WITHIN 5'-0" OF EQUIPMENT.
- 9 NON-STANDARD ITEMS, TIMERS, METERS, INTERLOCKS, ETC.

	LIGHTING FIXTURE SCHEDULE													
				LAMPS		MOUNT	ING							
TYPE SYMBO		FIXTURE	VOLTS	TYPE	WATT	MOUNTING LOCATION	MOUNTING HEIGHT	MANUFACTURER & CATALOG # OR APPROVED EQUAL	DESCRIPTION					
F1E		LED	120/ 277V	32.4W LED	32.4W	RECESSED IN CEILING	SEE ARCH RCP	<u>LITHONIA LIGHTING</u> LBL4 4000LM 80CRI 40K MIN1 ZT MVOLT E10WLCP	CEILING-MOUNTED STRIP LIGHTING WITH INTEGRAL 90-MINUTE BATTERY BACK-UP. SET COLOR TEMPERATURE 40K AND WATTAGE TO 32W.					
F2E		LED	120/ 277V	25W LED	25W	SURFACE	SEE ARCH RCP	LITHONIA LIGHTING WST LED P2 40K VW MVOLT PIR1FC3V E20WC DDBXD	EXTERIOR WALL PACK WITH 90-MINUTE BATTERY BACK-UP AND INTEGRAL PHOTOCELL & OCCUPANCY SENSOR.					

## LIGHTING FIXTURE SCHEDULE NOTES

- INSTALLATION OF LIGHTING FIXTURES SHALL BE ACCORDING TO MANUFACTURER'S RECOMMENDATIONS AND APPLICABLE CODE REQUIREMENTS.
- 2. ALL LIGHT FIXTURES SHALL BE FURNISHED AND INSTALLED BY THE ELECTRICAL CONTRACTOR UNLESS NOTED OTHERWISE.
- 3. COORDINATE ALL MOUNTING HEIGHTS WITH ARCHITECT.

## 120/208V DANEL BOARD SCHEDLILE CIRCUIT LISTING

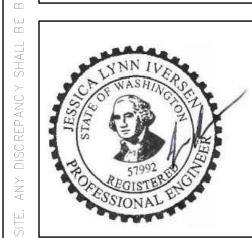
NUMBER*	OCP SIZE	<u>POLES</u>	<u>VOLTAGE</u>	<u>WATTAGE</u>	
P:1	20A	1P	120V	271W	RECEPTACLES, LIGHTING, EF-1 IWH-1, AUTO-FAUCET EWH-1
P:2	20A	1P	120V	1400W	
P:3	20A	1P	120V	1000W	

<sup>#</sup> E.C. SHALL VERIFY EXACT CIRCUIT NUMBERS. THESE CIRCUIT NUMBERS ARE PROVIDED FOR REFERENCE ONLY. VERIFY SPARE CIRCUITS/EMPTY CIRCUIT IN FIELD. BALANCE LOAD BETWEEN PHASES SO AS NOT TO EXCEED +/-5%. VERIFY THAT PANEL IS NEVER LOADED OVER 80%.



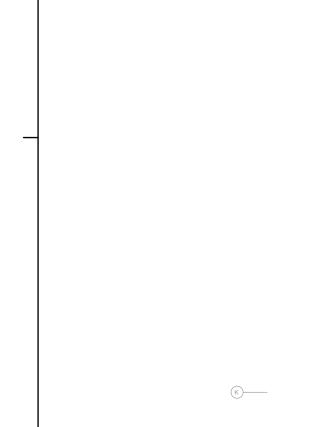
DRAWN BY.: JOB NO.:

SHEET





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City of Puyallup

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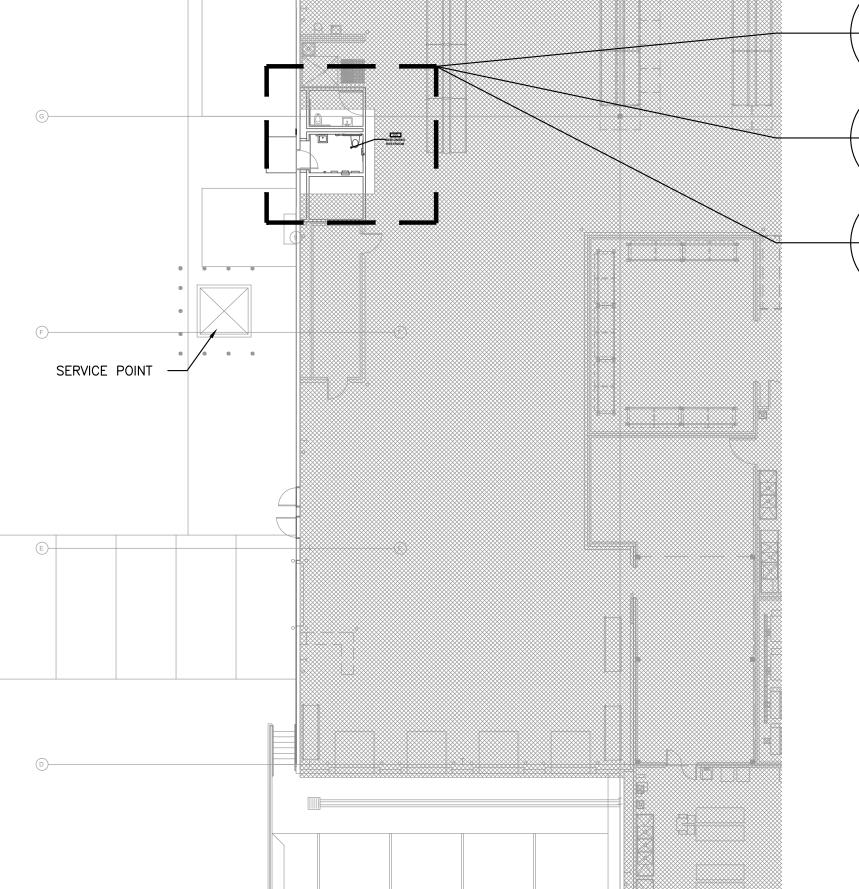
Engineering

Fire

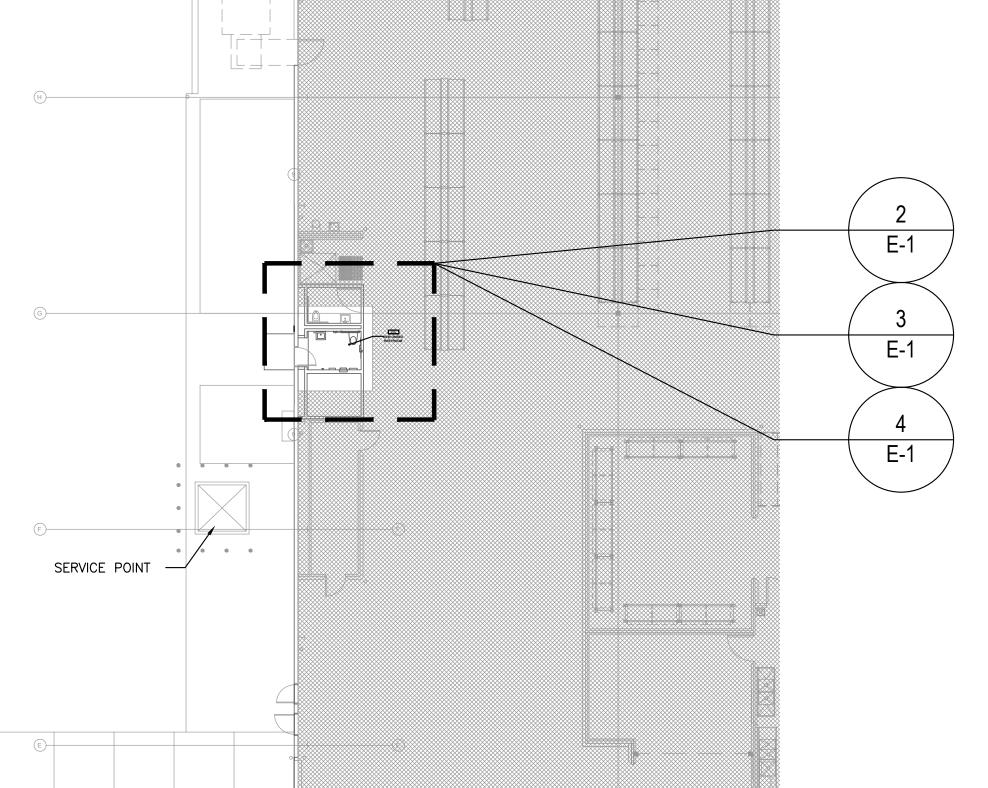
Planning

**Public Works** 

Traffic



1 ELECTRICAL OVERALL PLAN





3 ELECTRICAL ENLARGED - LIGHTING PLAN ELECTRICAL

ELECTRICAL ENLARGED - POWER AND DATA PLAN

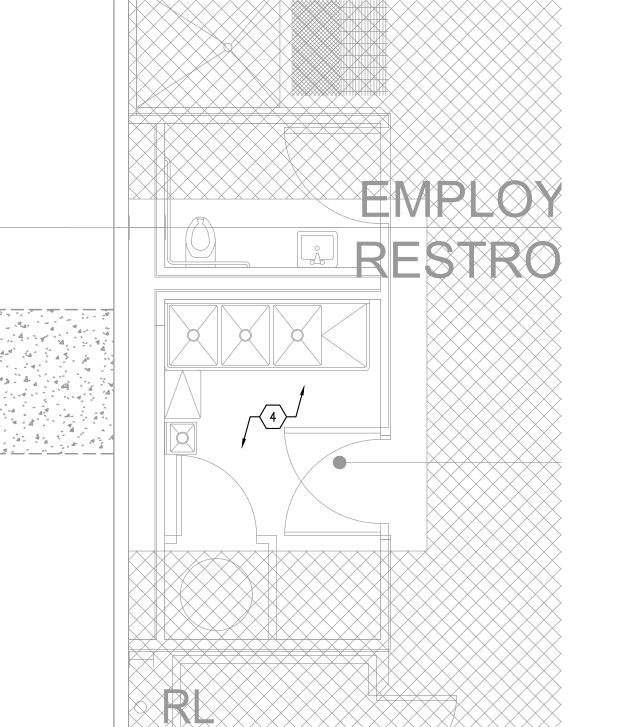
NEW FLEET RR

101

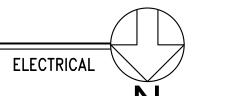
1/4" = 1'-0"

**NEW FLEET RR** 

101



ELECTRICAL ENLARGED - DEMOLITION PLAN



MAINTAIN A COMPLETE AND ACCURATE RECORD OF

CONTRACTOR'S FIELD OFFICE. SUCH RECORD COPY

CONSTRUCTED AND BE AVAILABLE FOR ARCHITECT

AND OWNER REVIEW. REPRODUCIBLE DRAWING

CONTRACTOR BY THE ARCHITECT. TURN OVER

C. OPERATION AND MAINTENANCE MANUALS: SUBMIT FOR

OF DATA COVERING MODEL, RATINGS AND CAPACITIES

LANGUAGE OR INTENT OF ANY ACCEPTANCE DOCUMENT

FOR EACH ITEM OF EQUIPMENT OR DEVICE. IF THE

VOIDS. THE WARRANTY PERIOD OR TERMS OF THE

BENEFICIAL OCCUPANCY SHALL BE GIVEN TO THE

HYDROSTATICALLY TESTED IN THE PRESENT OF THE

ARCHITECT AND OWNER. FURNISH ALL PUMPS, GAGES,

ARCHITECT'S AND OWNER'S REPRESENTATIVES AND

OTHER AUTHORITIES OF JURISDICTION. FIVE DAYS

INSTRUMENTS, TEST EQUIPMENT AND PERSONNEL

PROVISIONS FOR REMOVAL OF TEST EQUIPMENT.

B. VENT ALL AIR FROM THE SYSTEM FOR HYDROSTATIC

IN THE CASE OF THE HYDROSTATIC TEST WITH WATER,

X MAXIMUM WORKING PRESSURE. WHICHEVER IS THE

GREATER. TEST PRESSURE SHALL BE HELD WITH NO

NOTICEABLE LOSS IN PRESSURE WHICH ALL JOINTS

TEMPERATURE SHALL NOT EXCEED 100 DEGREE F.

ARE VISUALLY INSPECTED FOR LEAKS. WATER

THE TEST PRESSURE SHALL BE 100 PSIG OR 1-1/2"

NOTICE OF THE TEST SHALL BE GIVEN TO THE

REQUIRED FOR THESE TESTS AND MAKE ALL

OWNER'S REPRESENTATIVE AT SUCH ACCEPTANCE

BEEN COMPLETED, THE WORK SHALL BE

FINAL ACCEPTANCE AS STIPULATED IN THE CONTRACT

DOCUMENTS, OPERATION AND MAINTENANCE MANUALS

FOR THE PIPING BEING ACCEPTED FOR PURPOSES OF

BACKGROUND SHALL BE FURNISHED TO THE

MANAGEMENT/BUILDING ENGINEER UPON

AS-BUILT DRAWING TO BUILDING

COMPLETION OF PROJECT.

ALL CHANGES OR DEVIATIONS TO THE CONTRACT

DOCUMENTS AND SHOP DRAWINGS IN THE

SHALL INDICATE THE WORK AS ACTUALLY

1. PROVIDE NIPPLES AND VALVES AS REQUIRED TO INTRODUCE DISINFECTANT AND WATER.

2. FILL THE SYSTEM UNIFORMLY WITH A DISINFECTION SOLUTION OF 100-PPM AVAILABLE CHLORINE. THE DISINFECTANT SHALL BE RETAINED ON LESS THAN 24 HOURS, AS AN ALTERNATE, A SOLUTION OF 300 PPM HELD FOR 3 HOURS IS ALSO ACCEPTABLE. AFTER THE HOLDING PERIOD, A TEST FOR RESIDUAL CHLORINE SHALL BE MADE. IF NONE IS FOUND, THE SYSTEM SHALL BE DRAINED AND THE DISINFECTION PROCEDURE REPEATED.

WHEN A POSITIVE RESIDUAL CHLORINE TEST IS

ACCOMPLISHED, THE SYSTEM SHALL BE FLUSHED

WITH POTABLE WATER AND PUT INTO OPERATION.

## OWNER DOCUMENTATION. FURNISH (3) BOUND COPIES TESTING - SOIL, WASTE & VENT:

A. GENERAL: AFTER PORTIONS OF DRAINAGE, WASTE AND VENT SYSTEMS ARE COMPLETED. BUT BEFORE FIXTURES ARE SET, TEST THE WORK WITH WATER OR AIR IN THE PRESENCE OF ARCHITECT'S AND OWNER'S REPRESENTATIVES AND OTHER AUTHORITIES OF JURISDICTION. GIVE ARCHITECT AND OWNER FIVE DAYS ADVANCE NOTICE OF TESTS. FURNISH PUMPS, COMPRESSOR, GAUGES, INSTRUMENTS, TEST EQUIPMENT AND PERSONNEL REQUIRED FOR TESTS, AND MAKE PROVISIONS FOR REMOVAL OF TEST EQUIPMENT.

A. AFTER PORTIONS OF THE POTABLE WATER SYSTEM HAS WATER TEST: APPLY WATER TEST TO PIPING IN ITS ENTIRETY OR IN SECTIONS. IF APPLIED TO ENTIRE SYSTEM, TIGHTLY CLOSE OPENINGS IN PIPING, EXCEPT THE HIGHEST OPENINGS, AND FILL THE SYSTEM WITH WATER TO THE PINT OF OVERFLOW. IF THE SYSTEM IS TESTED IN SECTIONS, EACH OPENING SHALL BE TIGHTLY PLUGGED, EXCEPT THE HIGHEST OPENING OF THE SECTION UNDER TEST, AND EACH SECTION SHALL BE FILLED WITH WATER, BUT NO SECTION SHALL BE TESTED WITH LESS THAN A 10' HEAD OF WATER. IN TESTING SUCCESSIVE SECTIONS, AT LEAST THE UPPER 10' OF THE NEXT PROCEEDING SECTION SHALL BE TESTED, SO THAT NO JOINT OR PIPE IN THE BUILDING (EXCEPT THE UPPERMOST 10' OF THE SYSTEM) SHALL HAVE BEEN SUBMITTED TO A TEST OF LESS THAN 10 HEAD OF WATER. THE WATER SHALL BE KEPT IN THE PING OR IN THE PORTION UNDER TEST, FOR AT LEAST 15 MINUTES BEFORE INSPECTION STARTS; THE JOINT SHALL THEN BE TIGHT AT ALL POINTS.

## <u>PLUMBING FIXTURES:</u>

1. FURNISH AND INSTALL PLUMBING FIXTURES INDICATED, FIXTURES TO BE FIRST QUALITY CONNECTED, CLEANED AND READY FOR USE.

2. STOPS TO BE FURNISHED AND INSTALLED ON ALL

HOT AND COLD WATER LINES AT FIXTURES.

3. PROVIDE TRAPS AND SUPPLIES WITH STOPS. MAKE ALL FINAL CONNECTIONS TO EACH FIXTURE, FAUCET, TAILPIECE, SINK FRAMES, ETC., FOR ALL FIXTURES.

4. FOR ALL PLUMBING FIXTURES REFER TO THE PLUMBING FIXTURE SCHEDULE ON THE DRAWING.

THIS IS A MASTER LEGEND AND NOT ALL SYMBOLS, ABBREVIATIONS, ETC. ARE PLUMBING SYMBOLS NECESSARILY USED ON THE DRAWINGS. ANNOTATION EXISTING TO REMAIN DOMESTIC COLD WATER (CW) CONNECTION POINT OF NEW WORK TO EXISTING DETAIL REFERENCE UPPER NUMBER INDICATES DETAIL NEW DOMESTIC COLD WATER (CW) NUMBER LOWER NUMBER INDICATES SHEET NUMBER EXISTING TO REMAIN HOT WATER (HW) --×--×--×--×- EXISTING TO BE DEMO HOT WATER (HW) STANDARD MOUNTING HEIGHTS ——— — NEW HOT WATER ——— — — NEW HOT WATER RETURN (AFF, AFG, UNLESS NOTED OTHERWISE) REFER/COORDINATE WITH THE ARCHITECTURAL DRAWINGS FOR PLUMBING FIXTURE MOUNTING — — — NEW SANITARY (SAN) HEIGHTS. UNO, INSTALL PLUMBING FIXTURES WITH THE MOUNTING HEIGHTS AS LISTED BELOW ---- Existing to remain vent (v) WITH FINAL APPROVAL BY THE ARCHITECT.  $- \times - \times - \times - \times - \times - \times - = EXISTING TO BE DEMO VENT (V)$ ---- NEW VENT (V) 34" FLOOR TO RIM ADA ACCESSIBLE LAVATORIES SQUARE FLOOR DRAIN (FS), SIZE & TYPE 17" TO 19" FLOOR TO ADA ACCESSIBLE WATER CLOSET ROUND FLOOR DRAIN (FD), SIZE & TYPE TOP OF SEAT 34" FLOOR TO RIM LAVATORY OR SINK ──────────── CONTROL VALVE 15" FLOOR TO RIM WATER CLOSET ——— GATE VALVE CHECK VALVE BALANCING VALVE WITH PRESSURE PORTS ABBREVIATIONS WATER METER AFF ABOVE FINISHED FLOOR MIN MINIMUM STRAINER AFG ABOVE FINISHED GRADE PVC POLYVINYL CHLORIDE AHU AIR HANDLING UNIT PRV PRESSURE REDUCING VALVE STRAINER WITH BLOWOFF BFF BELOW FINISHED FLOOR RTU ROOFTOP UNIT PRESSURE REDUCING VALVE BFG BELOW FINISHED GRADE SF SQUARE FEET, SUPPLY FAN GAS PRESSURE REGULATOR BFP BACK FLOW PREVENTOR SP SUMP PUMP BOP BOTTOM OF PIPE SS STAINLESS STEEL, SANITARY ───────── THERMOSTATIC MIXING VALVE BOS BOTTOM OF STRUCTURE SEWER, SOIL STACK BACKFLOW PREVENTER TYP TYPICAL BTU BRITISH THERMAL UNIT PRESSURE GAUGE UL UNDERWRITERS LABORATORIES, BV BALL VALVE \_\_\_\_\_ THERMOMETER CPVC CHLORINATED POLYVINYL ──────────────────── UNION UNO UNLESS NOTED OTHERWISE CHLORIDE FLANGE CONNECTION CK CHECK VALVE V VOLT(S) CO CLEAN OUT VB VACUUM BREAKER — — — CLEANOUT DN DOWN VS VENT STACK <del>\_\_\_\_ \_\_\_ \_\_\_</del> DFU DRAINAGE FIXTURE UNIT VTR VENT THROUGH ROOF WALL CLEANOUT (WCO) — — → 1 ETR EXISTING TO REMAIN W/ WITH FLOOR CLEANOUT (FCO) FCO FLOOR CLEAN OUT W/O WITHOUT EXTERIOR CLEANOUT (ECO) FD FLOOR DRAIN WC WATER COLUMN FFA FROM FLOOR ABOVE ELBOW UP ——ю WCO WALL CLEANOUT FFB FROM FLOOR BELOW ELBOW DOWN WS WASTE STACK FF FINISHED FLOOR WSFU WATER SUPPLY FIXTURE UNIT FLR FLOOR — TEE DOWN GPM GALLONS PER MINUTE ELBOW UP WITH SHUT-OFF VALVE (SOV) HD HEAD, HUB DRAIN ELBOW DOWN WITH SHUT-OFF VALVE (SOV) JUNCTION BOX J-BOX JUNCTION BOX ─────────────── TEE UP WITH SHUT-OFF VALVE (SOV) kW KILOWATT TEE DOWN WITH SHUT-OFF VALVE (SOV) MAX MAXIMUM WATER HAMMER ARRESTER (WHA) MBH 1000 BTU PER HOUR WITH PDI SIZES, (A, B, C, D, & E) RECIRCULATION PUMP **—** —∞ P-TRAP

———— TRAP PRIMER

──────────────────────── TRAP PRIMER WITH DISTRIBUTION UNIT

PLUMBING PLANS

PLUMBING SHEET LIST

PLUMBING GENERAL NOTES, SYMBOLS, AND LEGENDS

City of Puyallup Development & Permitting Services

**ISSUED PERMIT** 

Planning

Public Works

Traffic

Building

Engineering

Fire

PLUMBING SPECIFICATIONS PLUMBING GENERAL NOTES: DRAWINGS ARE DIAGRAMMATIC ONLY AND REPRESENT THE GENERAL SCOPE OF STANDARDS AND CODES: THE WORK. REVIEW THE GENERAL NOTES, SPECIFICATIONS AND PLANS FOR ADDITIONAL REQUIREMENTS THAT MAY NOT BE SPECIFICALLY CALLED OUT IN THIS PORTION OF THE CONSTRUCTION DOCUMENTS. NOTIFY THE ARCHITECT OF ANY CONFLICTS OR DISCREPANCIES PRIOR TO SUBMISSION OF BID.

2. FURNISH A CONSTRUCTION RECORD SET OF "AS-BUILT" DOCUMENTS TO THE OWNER REFLECTING ANY VARIANCES OF INSTALLED PIPING LOCATIONS OR EQUIPMENT CONTRARY TO THE CONSTRUCTION DOCUMENTS PREPARED BY THE ENGINEER-OF-RECORD AFTER FINAL INSPECTION OF INSTALLED PLUMBING SYSTEMS. 3. FURNISH TO THE OWNER A COPY OF INSPECTION REPORTS AND APPROVAL CERTIFICATES FROM LOCAL AND STATE INSPECTIONS. 4. PLANS AND SPECIFICATIONS GOVERN WHERE THEY EXCEED CODE REQUIREMENTS.

5. REFER TO ARCHITECTURAL PLANS FOR EXACT LOCATION AND MOUNTING HEIGHTS OF PLUMBING FIXTURES. C. STANDARDS: THE WORK SHALL COMPLY WITH THE 6. DO NOT SCALE FLOOR PLANS FOR EXACT HORIZONTAL LOCATION OF PIPE

7. VALVES SHALL BE LINE SIZE UNLESS OTHERWISE NOTED.

8. PIPING IN FINISHED AREAS SHALL BE ROUTED CONCEALED; EXPOSED PIPING, WHERE NECESSARY, SHALL BE ROUTED AS HIGH AS POSSIBLE AND TIGHT TO

9. COORDINATE ALL WORK WITH OTHER TRADES AND CONTRACTORS. 10. COORDINATE PIPING INSTALLATION WITH STRUCTURAL GRADE BEAMS, FOOTINGS, COLUMN PIERS, ETC. SLEEVE PIPING THROUGH GRADE BEAMS, FOOTING, ETC. WHERE REQUIRED AND AS NOTED ON PLANS COORDINATE SLEEVE INSTALLATIONS WITH THE ARCHITECT, STRUCTURAL ENGINEER, STRUCTURAL CONTRACTOR AND GENERAL CONTRACTOR BEFORE CONCRETE IS INSTALLED.

11. CLEAN FAUCET AERATORS AND PIPE STRAINERS PRIOR TO TURNING BUILDING OVER TO THE OWNER. 12. PROVIDE TRAP PRIMERS WHERE REQUIRED BY LOCAL AUTHORITIES.

13. COORDINATE PIPE ROUTING AWAY FROM ELECTRICAL PANELS. DO NOT ROUTE PIPING OVER ELECTRICAL PANELS. 14. PAINT ALL EXPOSED GAS PIPING USING RUST INHIBITOR PAINT. PAINT AND COLOR SHALL BE COORDINATED WITH THE ARCHITECT AND / OR OWNER.

15. COORDINATE ALL ROOF PENETRATIONS WITH OTHER TRADES. MAINTAIN 10' MINIMUM CLEARANCE FROM ALL AIR INTAKES. MAINTAIN 2' CLEARANCE FROM ALL BALL VALVES: OTHER EQUIPMENT.

16. INSULATE PIPING ROUTED IN EXTERIOR BUILDING WALLS WITH MINIMUM 2" BATT INSULATION TO PREVENT FREEZING. ALL COLD WATER LINES SHALL BE INSULATED WITH MINIMUM OF 3/4" FIBERGLASS INSULATION WITH VAPOR BARRIER. ALL HOT WATER AND HOT WATER RECIRCULATING LINES SHALL BE INSULATED WITH MINIMUM OF 1" INSULATION HAVING A CONDUCTIVITY NOT EXCEEDING 0.27 BTU PER

17. PROVIDE SHIELDED ADAPTER COUPLINGS FOR CONNECTION OF PVC DWV TO CAST IRON AT SLAB ON GRADE. SEE DIVISION 15 SPECIFICATION SECTION "DRAINAGE AND VENT SYSTEMS" FOR MORE INFORMATION. **SUBMITTALS:** 

18. WATER HAMMER ARRESTORS SHALL BE SIZE "A" UNLESS NOTED OTHERWISE 19. PROVIDE CHECK VALVES IN HOT AND COLD WATER SUPPLIES FOR MOP SINK FAUCETS DOWNSTREAM OF SHUTOFF VALVES. 20. PROVIDE ACCESS PANEL FOR VALVES IN INACCESSIBLE CEILINGS. COORDINATE EXACT LOCATION OF ACCESS PANELS WITH ARCHITECT.

21. EXPOSED HOT WATER PIPES AND DRAINPIPES UNDER HANDICAPPED ACCESSIBLE LAVATORIES SHALL BE CONFIGURED OR INSULATED TO PROTECT AGAINST CONTACT. 22. RPZ SHALL BE INSTALLED IN THE POTABLE WATER SUPPLY TO EACH LOCATION WHERE SANITIZING CHEMICALS OR DETERGENTS WILL BE ASPIRATED OR PUSHED BY

23. DRAINAGE AND VENT SYSTEM SHALL BE PRESSURE TESTED WITH WATER OR

24. ALL RPZ ASSEMBLIES SHALL BE TESTED AND APPROVED BY A CROSS CONNECTION CONTROL DEVICE INSPECTOR BEFORE INITIAL OPERATION. RECORDS TO B. RECORD DOCUMENTS: SUBMIT THE FOLLOWING FOR VERIFY THIS TESTING SHALL BE AVAILABLE ON SITE.

25. ALL PENETRATIONS OF FLOOR/CEILING ASSEMBLIES SHALL BE FIRE STOPPED IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE. 26. ALL DRY VENTS SHALL RISE VERTICALLY TO A MINIMUM OF 6 INCHES ABOVE THE FLOOD LEVEL RIM OF THE HIGHEST TRAP OR TRAPPED FIXTURE BEING

**BASIS OF DESIGN** 

PLUMBING SYSTEM WAS DESIGNED BASED ON THE BEST AVAILABLE

NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO STARTING ANY

AND VENT LINES INTO EXISTING SANITARY AND COLD WATER

COORDINATE THE NEAREST LOCATION TO CONNECT NEW SANITARY

INFORMATION AT THE TIME OF DRAWING PREPARATION. PLUMBING

CONTRACTOR TO VERIFY THE BELOW ITEMS IN THE FIELD AND

PRIOR TO START OF WORK PLUMBING CONTRACTOR TO

PROVIDE NECESSARY COMMISSIONING OF THE PLUMBING SYSTEM

WORK AND SHALL SUBMIT ALL NECESSARY DOCUMENTATION

REQUIRED BY THE LOCAL AHJ.

AND WATER HEATING SYSTEMS PER 2018 WSEC. CONTRACTOR SHALL HAVE A CERTIFIED COMMISSIONING PROFESSIONAL COMPLETE THIS

OF MAJOR STRUCTURAL ELEMENTS. ENGINEER'S INFORMATION. FURNISHED DRAWINGS TEST AND INSPECTION REPORTS WITNESSED BY THE OWNER'S REPRESENTATIVE AND OTHER AUTHORITY OF JURISDICTION, AND RECORD DRAWINGS INDICATING THE

A. GENERAL: THE WORK SHALL COMPLY WITH OR EXCEED

WHICH CAN NOT MEET THE REFERENCED STANDARD

AND CODES SHALL BE BROUGHT TO THE ATTENTION

2. LOCAL GOVERNING BODIES HAVING JURISDICTION.

4. AWWA AMERICAN WATER WORKS ASSOCIATION

AMERICAN NATIONAL STANDARDS

AMERICAN SOCIETY OF SANITARY

CAST IRON SOIL PIPE INSTITUTE

UNDERWRITER LABORATORIES

NATIONAL FIRE PROTECTION

COMMERCIAL STANDARDS

PROVIDE SWEAT-TO-SCREW INSULATING ADAPTERS AT

JUNCTURE OF COPPER TO STEEL PIPE AND INSULATING

BUSHINGS FOR FLANGED CONNECTIONS TO STEEL OR

A. SIZE, 2-1/2" AND SMALLER: 400LB. WOG, TWO-PIECE

CAST BRONZE BODY, SCREWED OR SOLDERED ENDS,

FLANGE SEALS, ROD SILICON BRASS STEM, TEFLON

CARBON STEEL HANDLE WITH VINYL GRIP AND BRASS

AND VICTON "O" RING STEM SEALS, ZINC PLATED

A. SHOP DRAWINGS: SUBMIT FOR ENGINEER'S REVIEW,

MINIMUM SCALE OF 1/8" = 1'-0" WITH

MINIMUM SCALE OF  $\frac{1}{4}$ " = 1'-0".

ONE SEPIA AND TWO PRINTS OF ALL PIPING LAYOUTS

12. PIPING (FLOOR) LAYOUTS IN PLAN DRAWN TO A

EQUIPMENT ROOM ARRANGEMENTS AND SITE

REINFORCED CONCRETE STRUCTURES DRAWN TO A

AND DETAILS. DRAWINGS SHALL CONSIST OF THE

CHROME PLATED BRAS BALL, TEFLON BALL AND

NATIONAL SANITATION FOUNDATION

AMERICAN SOCIETY OF MECHANICAL

NATIONAL ELECTRICAL MANUFACTURES

AMERICAN SOCIETY OF TESTING AND

OF THE ENGINEER FOR HIS WRITTEN APPROVAL

BEFORE PROCEEDING WITH THE WORK.

1. 2018 WASHINGTON PLUMBING CODE.

FOLLOWING CODES:

FOLLOWING STANDARDS:

INSTITUTE

ENGINEERS

MATERIALS

ENGINEERS

ASSOCIATION

ASSOCIATION

CAST IRON VALVES AND FITTINGS.

APOLLO, STOCKHAM OR NIBCO

1. ANSI

ASSE

ASTM

5. CISPI

NSF

8. ASME

9. NFPA

10. NEMA

**INSULATING ADAPTERS:** 

HANDLE NUT

FOLLOWING:

11. CS

7. UL

B. CODES: THE WORK SHALL COMPLY WITH THE

THE REFERENCED STANDARDS AND CODES. ANY WORK

RECORD DRAWINGS:

<u>TESTING – POTABLE WATER:</u>

A. BUILDING DOMESTIC COLD WATER AND HOT WATER PIPING SHALL BE CLEANED AND FLUSHED SO AS TO BE FREE OF ALL THREAD CUTTING OIL. THREAD CHIPS, SOLDER RESIDUE, SHAVINGS AND OTHER FOREIGN MATTER. AFTER CLEANING AND FLUSHING, THE PIPING SYSTEM SHALL BE DISINFECTED.

1. REMOVE SCREENS FROM ALL IN-LINE STRAINERS EXCEPT THOSE AT PUMP STATION.

2. OPEN ALL CONTROL VALVES TO FULLY OPEN

POSITION. 3. FLUSH TO OBTAIN FLOW OF CLEAN WATER.

13. SLEEVE PLACEMENT LOCATION. MINIMUM SCALE OF 1/8" = 1'-0" IN PLAN AND ELEVATION DIMENSION FROM CENTERLINE OF BUILDING COLUMN OR FACE <u>DISINFECTION:</u>

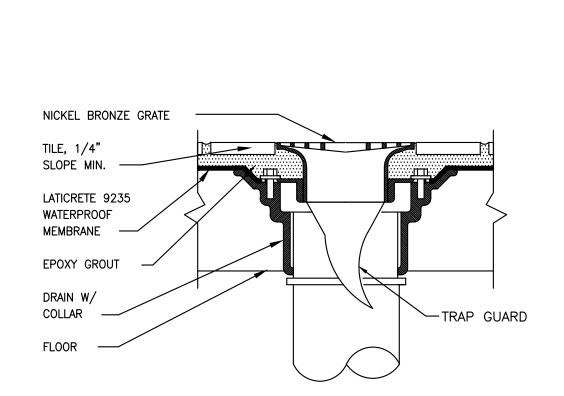
A. DISINFECT THE DOMESTIC WATER SYSTEM TO THE OWNER'S SATISFACTION, WITH BLEACH OR CHLORINE GAS. AFTER DISINFECTING. FLUSH THE SYSTEM AS HEREIN BEFORE DESCRIBED UNDER FLUSHING.

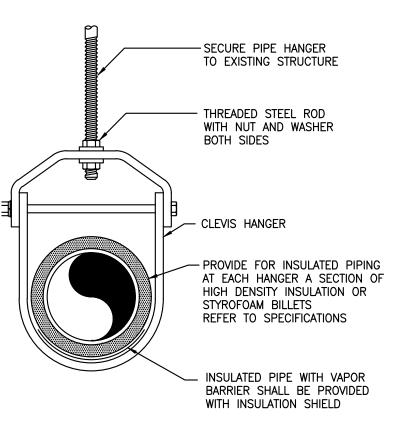
WORK AS ACTUALLY CONSTRUCTED. PIPE MATERIAL SCHEDULE APPLICATION SIZE | MATERIAL JOINING METHOD LOCATION ALL | SCHEDULE 40 ABS SOLVENT BELOW GRADE SANITARY WASTE/ VENT SOLVENT ALL CAST IRON HUBLESS PLENUM RETURN T&P RELIEF ALL | COPPER (TYPE M) 95/5 SOLDER ALL COPPER (TYPE K) W/CORROSION-RESISTANT TAPE BELOW GRADE LEAD FREE BRAZED DOMESTIC WATER IN OR WITHIN 5' OF BUILDING ALL | COPPER (TYPE L OR K) ABOVE GRADE 95/5 SOLDER ALL | COPPER (TYPE M) PLENUM RETURN 95/5 SOLDER CONDENSATE DUCTED RETURN ALL | SCHEDULE 40 ABS SOLVENT

> ALL PIPING MATERIAL AND JOINING METHODS CONTINGENT ON AUTHORITY HAVIN JURISDICTION APPROVAL ALL ABS AND PVC PIPING EXPOSED TO SUNLIGHT SHALL BE PROTECTED BY WATER-BASED LATEX PAINT

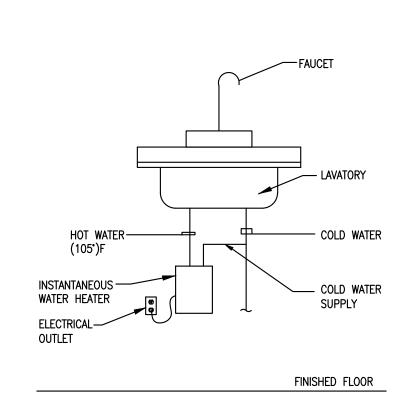
ALL BLACK STEEL PIPING EXPOSED TO MOISTURE SHALL BE PROTECTED BY RUST-PREVENTATIVE PAINT

PIPE INSULATION SCHEDULE									
TYPE	SIZE	FLUID TEMP RANGE (F)	INSULATION CONDUCTIVITY	INSULATION THICKNESS					
DOMESTIC COLD WATER	ALL	35-60	0.22-0.28	1"					
DOMESTIC HOT WATER	≤1"	105-140	0.22-0.28	1"					
DOMESTIC HOT WATER	1-1/4", 1-1/2"	105-140	0.22-0.28	1-1/2"					
DOMESTIC HOT WATER	≥2"	105-140	0.22-0.28	2"					

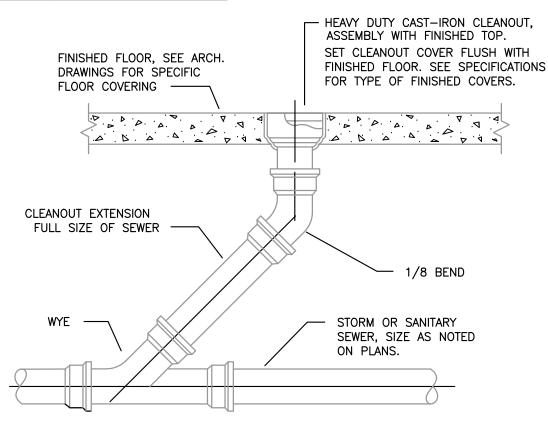




3 PIPE HANGER DETAIL SCALE: NTS



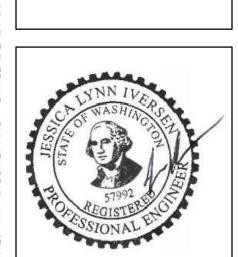
LAVATORY WITH IWH-



FLOOR CLEANOUT -

engineering consultants 2800 156th Ave Southeast, Suite 11 Bellevue, WA 98007

rtmassociates.com | 847.756.4180





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Ś YMBOL

DRAWN BY.: JOB NO.: SEA24-0053-00

SHEET

City of Puyallup
Development & Permitting Services
ISSUED PERMIT
Building Planning
Engineering Public Works
Fire Traffic

**KEY NOTES** 

**GENERAL NOTES** 

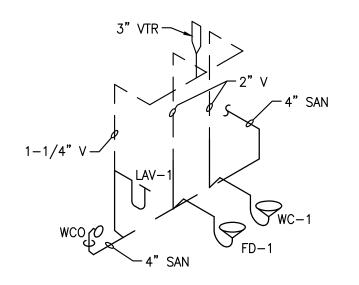
1 EXTEND NEW 4" SAN TO NEAREST EXISTING 4" SAN LINE OR LARGER LOCATED INSIDE EXISTING BUILDING. CONTRACTOR TO FIELD VERIFY EXACT LOCATION OF CONNECTION POINT.

1. REFER TO GENERAL NOTES AND SPECIFICATIONS ON SHEET P-0.

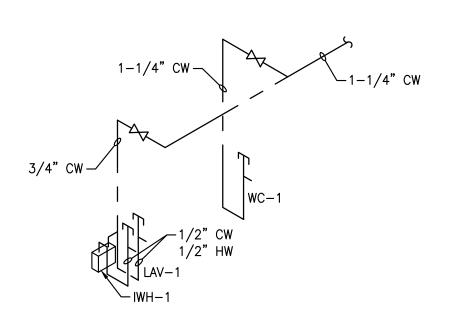
- 2 2" VENT TO 3" VTR. VTR TO MAINTAIN 10'-0" CLEARANCE FROM ANY MECHANICAL FRESH AIR INTAKE.
- EXTEND NEW 1-1/4" CW FROM NEAREST EXISTING 1-1/4" CW LINE OR LARGER LOCATED INSIDE EXISTING BUILDING. CONTRACTOR TO FIELD VERIFY EXACT LOCATION OF CONNECTION POINT.
- 4 IWH-1 TO BE INSTALLED ON WALL BELOW LAV-1. COORDINATE EXACT LOCATION WITH ARCHITECT.

	ELECTRICAL WATER HEATER SCHEDULE										
TAG	TAG DESCRIPTION		TEMP RISE F		EL	ECTRIC			WEIGHT	MANUFACTURER	MODEL NO.
TAG DESCRIPTION		(GAL)	TEIVIP RISE F	AMPS	KW	V	PH	HZ	(lbs)		
IWH-1	ELECTRIC WATER HEATER	2.5	50	10	1.4	120	1	60.0	17.6	EEMAX	EMT2.5
1. PROVII	REMARKS:  1. PROVIDED WITH POWER CORD.  2. SET TEMPERATURE TO 105 DEG F.										

	PLUMBING FIXTURES SCHEDULE													
TAG	PLUMBING FIXTURE	MANUFACTURER	MODEL	WASTE	VENT	CW	HW	REMARKS						
WC-1	WATER CLOSET	ZURN	Z5615	4"	2"	1-1/4"	-	ECOVANTAGE MANUAL FLUSH VALVE TOILET SYSTEM. WALL HUNG SIPHON JET, ELONGATED BOWL, WHITE VITREOUS CHINA. PROVIDE WITH Z6000AV-HET MANUAL FLUSH VALVE, 1.28 GPF. PROVIDE WITH Z5955SS-EL, WHITE, ELONGATED, OPEN FRONT SEAT LESS COVER WITH STAINLESS STEEL CHECK HINGE. PROVIDE ZURN ZN1201-N CARRIER.						
LAV-1	LAVATORY	KOHLER	K-2005-0	1-1/2"	1-1/4"	1/2"	1/2"	WALL MOUNTED LAVATORY WITH HANGERS. DRILLED FOR CONCEALED ARM CARRIER, WITH 4" CENTERS. PROVIDE WITH SLOAN ETF-600 OPTIMA SENSOR FAUCET. PLUG ADAPTER, BELOW DECK THERMOSTATIC MIXING VALVE, POLISHED CHROME, 0.5 GPM, MULTI-LAMINAR						
FD-1	FLOOR DRAIN	ZURN	ZN-415	2"	2"	-	-	TYPE N STRAINER, ADJUSTABLE FLOOR DRAIN WITH DUCO-COATED CAST IRON BODY, FLASHING COLLAR, NICKEL BRONZE FINISH.						







<b>_</b>	PLUMBING - DOMESTIC	WATER RISER DIAGRAM
<u> </u>	N.T.S	PLUMBING



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COSTCO FLEET R.R.
PUYALLUP WH# 660
1201 39TH AVE SW
PUYALLUP, WA 98373-3803

DATE

DATE

09.20.2024

EOR PLAN CHECK SUBMITTAL

ISSUE FOR PLAN CHECK SUBMITTAL

PA/PM: JLI
DRAWN BY.: NW, BD, JC

JOB NO.: SEA24-0053-00
SHEET

P-1

