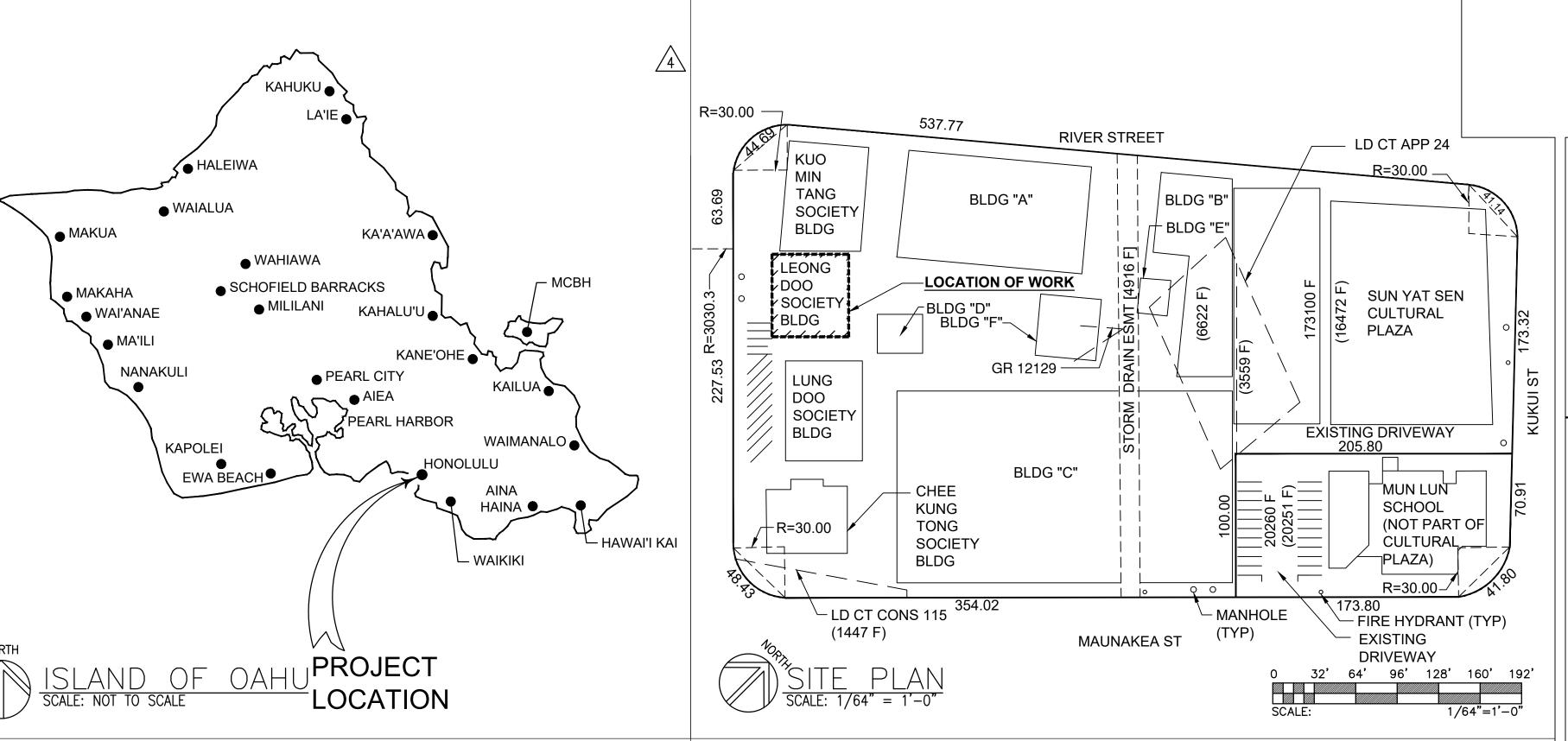
CHINATOWN CULTURAL PLAZA LEONG DOO SOCIETY BUILDING DRY STANDPIPE REPLACEMENT PROJECT

100 N BERETANIA ST HONOLULU, HAWAII, 96817 TMK: 17005019:0000

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VICINITY MAP



CONSULTANT

FIRE PROTECTION MECHANICAL ENGINEERS OF HAWAII CORPORATION

HONOLULU, HI 96813

50 S. BERETANIA STREET. SUITE C-208A

PHONE: (808) 521-8981 FAX: (808) 536-5457

WWW.MEHCORPORATION.COM

BUILDING DESCRIPTION

SITE PLAN

- FIRE ZONE 1
- 2. BUSINESS ZONE B-4
- 3. OCCUPANCY: A-2, B
- 4. CONSTRUCTION TYPE: TYPE 2
- 5. LOT AREA: 5,739 SF
- 6. AREA OF BLDG: 19,480 SF
- 7. NO. OF FLOORS: 4-STORIES

PROJECT SCOPE

THE SCOPE OF WORK FOR THIS PROJECT INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING:

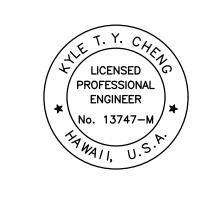
- 1. INTENT: REPLACE EXISTING UNDERGROUND DRY STANDPIPE SERVING LEONG DOO SOCIETY BUILDING.
- 2. DEMOLITION: CAP EXISTING UNDERGROUND DRY STANDPIPE MAIN ABOVE GRADE AT FDC AND AT THE BASE OF (1) EXISTING DRY STANDPIPE RISER. ABANDON EXISTING UNDERGROUND PIPING, DRAIN PIT, AND ISOLATION VALVES IN PLACE. DEMOLISH EXISTING FDC.
- 3. RENOVATION: INSTALL NEW STANDPIPE MAIN ROUTED ABOVE GRADE FROM ORIGINAL FDC LOCATION AND RECONNECT TO (1) EXISTING RISER AT BASE OF EACH RISER. NEW FDC, CHECK VALVE, DRAIN VALVES, AND ISOLATION VALVES ARE PROVIDED.
- 4. THIS PROJECT IS IN COMPLIANCE WITH 2012-IBC REPAIR/MAINTENANCE OF THE EXISTING BUILDING, SEC. 3404.4.1 & 3405.1.

GENERAL NOTES

- ALL CONSTRUCTION SHALL CONFORM TO THE 2006 INTERNATIONAL BUILDING CODE (2006 IBC), THE LATEST REVISED ORDINANCES OF THE CITY AND COUNTY OF HONOLULU (THE ROH).
- 2. STRUCTURES UNDERGOING CONSTRUCTION, ALTERATION, OR DEMOLITION OPERATIONS, INCLUDING THOSE IN UNDERGROUND LOCATIONS, SHALL COMPLY WITH NFPA 241, STANDARD FOR SAFEGUARDING CONSTRUCTION, ALTERATION, AND DEMOLITION OPERATIONS, AND THIS CHAPTER. (2018 NFPA 1)/6
- 3. ALL PENETRATIONS SHALL BE FIRE-STOPPED AND OPENINGS SHALL BE PROTECTED THROUGH FIRE-RATED WALLS, FLOOR, ROOF AND CEILING ASSEMBLIES AS REQUIRED BY THE 2006 IBC CHAPTER 7.
- 4. WHEN IT IS NECESSARY TO SHUT DOWN THE EXISTING STANDPIPE SYSTEM, THE AHJ SHALL HAVE THE AUTHORITY TO REQUIRE ALTERNATE MEASURES OF PROTECTION UNTIL THE SYSTEM IS RETURNED TO SERVICE.
- 5. THE FIRE DEPARTMENT SHALL BE NOTIFIED WHEN THE SYSTEM IS SHUT DOWN AND WHEN THE SYSTEM IS RETURNED TO SERVICE.
- 6. SEC. 18-5.2 RETENTION OF PLANS: ONE SET OF APPROVED PLANS, SPECIFICATIONS, AND COMPUTATIONS SHALL BE RETAINED BY THE BUILDING OFFICIAL FOR A PERIOD OF NOT LESS THAN 90 DAYS FROM DATE OF COMPLETION OF THE WORK COVERED THEREIN, AND ONE SET OF APPROVED PLANS SHALL BE RETURNED TO THE APPLICANT. AND SAID SET SHALL BE KEPT ON SITE OF THE BUILDING OR WORK AT ALL TIMES DURING WHICH THE WORK AUTHORIZED THEREBY IS IN PROGRESS. (SEC. 18-5.2 R.O. 1978 (1983 ED.); AM. ORD. 93-59.

CORP

50 SOUTH BERETANIA STREET, SUITE C208-A HONOLULU. HAWAII 96813



EXPIRATION DATE OF LICENSE

MECHANICAL ENGINEERS OF HAWAII

| | 6 | 01/25/24 | DPP REVISION |
|--|----------|----------|--------------|
| | <u>\</u> | 11/06/23 | DPP REVISION |
| | 4 | 02/23/23 | DPP REVISION |
| | 3 | 11/30/22 | DPP REVISION |
| | SYM | DATE | DESCRIPTION |

REVISIONS:

PROJECT TITLE:

CHINATOWN CULTURAL PLAZA LEONG DOO SOCIETY BUILDING DRY STANDPIPE REPLACEMENT PROJECT

100 N BERETANIA ST, HONOLULU, HAWAII,

TMK: 17005019:0000

FILE NAME:

DRAWING TITLE: TITLE SHEET

SCALE: NOT TO SCALE

DRAWN BY: CHECKED BY: MC

PROJECT NO.: 2201

DATE:

12/20/24

SHEET 1 OF 5

DRAWING NO.:

GENERAL NOTES:

- 1. CONSTRUCTION DOCUMENTS CONSIST OF DESIGN DRAWINGS (DWG) AND WRITTEN SPECIFICATIONS (SPEC). WHEREVER DISCREPANCIES OR CONFLICTS ARE FOUND BETWEEN DWG AND SPEC, THE MORE STRINGENT REQUIREMENTS/CRITERIA SHALL GOVERN.
- 2. ALL WORK SHOWN ON THESE DRAWINGS ARE NEW UNLESS OTHERWISE NOTED.
- 3. EXISTING CONDITIONS AND DIMENSIONS SHOWN ON THESE DRAWINGS ARE APPROXIMATE, BIDDERS SHALL VISIT THE PREMISES AND THOROUGHLY FAMILIARIZE THEMSELVES WITH ALL DETAILS OF WORK AND WORKING CONDITIONS BEFORE SUBMITTING THEIR BID. REASONABLE MODIFICATIONS IN LOCATION AND ARRANGEMENTS TO SUIT JOB CONDITIONS SHALL NOT CONSTITUTE BASIS FOR REQUESTING OF ADDITIONAL FUNDS FROM THE OWNER.
- 4. PRIOR TO ORDERING MATERIALS AND PROCURING EQUIPMENT, SUCCESSFUL BIDDER (CONTRACTOR) SHALL BE REQUIRED TO VERIFY ALL EXISTING CONDITIONS, INCLUDING BUT NOT LIMITED TO EQUIPMENT, MATERIALS, SIZES, DIMENSIONS, INVERTS, AND VOLTAGES THAT AFFECT HIS WORK. SUBMIT A LETTER TO THE ENGINEER CONFIRMING THAT THIS WAS DONE. IF WRITTEN CONFIRMATION IS NOT RECEIVED BY THE ENGINEER, SHOP DRAWINGS AND OTHER SUBMITTALS WILL BE RETURNED WITHOUT REVIEW. SHOW ALL DISCREPANCIES ON SHOP DRAWINGS AND NOTIFY THE ENGINEER IN WRITING OF SUCH DISCREPANCIES PRIOR TO PROCUREMENT.
- 5. EXISTING UTILITY LATERAL LOCATIONS ARE CRITICAL WHERE BUILDING UTILITIES CONNECT TO EXISTING, CONTRACTOR SHALL VERIFY THE EXACT LOCATION (BY TONING) AND INVERTS (BY EXCAVATION), BEFORE ORDERING MATERIALS.
- 6. ALL UTILITIES AND APPURTENANCES SHALL BE PROTECTED AT ALL TIMES DURING CONSTRUCTION, AND IF DAMAGED, SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE OWNER.
- 7. REMOVE ALL UNUSED PIPING UNLESS SPECIFICALLY INDICATED AS "ABANDON IN PLACE". ALL ABANDONED PIPES SHALL BE CAPPED AT BOTH ENDS.
- 8. CONTRACTOR SHALL PROVIDE DIELECTRIC UNIONS AT CONNECTION POINTS FOR PIPING OF DISSIMILAR METALS.
- 9. FOR ALL FLOOR, WALL PARTITION, CEILINGS AND ROOF PENETRATIONS, SEE MECHANICAL DRAWINGS FOR DETAILS.
- 10. ALL PENETRATIONS OF REQUIRED FIRE RATED WALLS, PARTITIONS AND FLOORS SHALL BE PROVIDED WITH FIRE STOPPING MATERIAL PER IBC.
- 11. ALL PIPING IN EQUIPMENT ROOMS THAT ARE CONNECTED TO EQUIPMENT ON VIBRATION ISOLATOR SHALL BE SUPPORTED WITH SPRING HANGERS.
- 12. NO CUTTING OR DRILLING OF ANY STRUCTURAL MEMBERS WILL BE PERMITTED WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER. REFER TO STRUCTURAL DRAWINGS DETAILS FOR ALL MECHANICAL EQUIPMENT AND PIPING ATTACHMENTS TO STRUCTURAL MEMBERS.
- 13. ALL FASTENERS, SUPPORTS, PIPE HANGERS, SPRING ISOLATORS, AND MISCELLANEOUS STEEL ITEMS INCLUDING BUT NOT LIMITED TO BOLTS, NUTS, SCREWS, RODS, PLATES, AND ANGLES, ETC. SHALL BE GALVANIZED UNLESS OTHERWISE NOTED OR SPECIFIED.
- 14. PAINT ALL EXPOSED PIPING TO MATCH SURROUNDING COLOR. PROVIDE ESCUTCHEONS WHERE ALL EXPOSED PIPING PENETRATES FINISHED WALLS. COORDINATE WITH OWNER AND SUBMIT ALL PAINT COLORS TO ENGINEER FOR REVIEW & APPROVAL PRIOR TO ORDERING MATERIALS.
- 15. PAINT NEW OPENING TO MATCH EXISTING.
- 16. CONTRACTOR TO XRAY/TONE FOR REBARS IN WALL BEFORE CORING THROUGH.

FIRE PROTECTION NOTES:

- 1. CONTRACTOR SHALL PERFORM THE FOLLOWING BEFORE INSTALLATION. NO INSTALLATION SHALL BEGIN UNLESS THE SHOP DRAWINGS HAVE BEEN APPROVED.
- A. SUBMIT TWO (2) SETS OF COMPLETE WORKING DRAWINGS INCLUDING HYDRAULIC CALCULATIONS TO THE ENGINEER FOR REVIEW AND APPROVAL.
 - i. HYDRAULIC CALCULATION SHALL ADD 10% SAFETY FACTOR TO TOTAL REQUIRED WATER PRESSURE AT REQUIRED FLOW.
 - ii. OBTAIN FIRE AND BUILDING DEPARTMENT PERMITS
- B. ALL DRAWINGS AND CALCULATIONS SHALL BE STAMPED BY DIRECT BUSINESS CONNECTION, INC. AND FIRE SPRINKLER CONTRACTOR'S LICENSED ENGINEER.
- 2. PROVIDE COMPLETE REPLACEMENT OF MANUAL DRY STANDPIPE WHERE DESIGNATED ON THE PLANS IN ACCORDANCE WITH REQUIREMENTS OF NFPA 14 2010 AND IBC 2006.
- 3. TWO (2) SETS OF COMPLETE WORKING PLANS STAMPED AND SIGNED BY A HAWAII LICENSED MECHANICAL ENGINEER SHALL BE SUBMITTED TO THE FIRE PROTECTION SPECIAL INSPECTOR (FPSI) FOR CODE COMPLIANCE REVIEW. ONE (1) SET WITH THE FPSI APPROVAL STAMP SHALL BE SUBMITTED TO THE DPP BUILDING DIVISION ALONG WITH THE FPSI FINAL REPORT/LETTER PRIOR TO CLOSING OF THE BUILDING PERMIT.
- 4. PENETRATIONS OF REQUIRED FIRE RATED WALLS, PARTITIONS AND FLOORS SHALL BE PROVIDED WITH FIRE STOPPING MATERIAL PER 2006 IBC.
- 5. WHEN VALVES ARE INSTALLED IN A HORIZONTAL POSITION, VALVE STEM SHALL BE INSTALLED IN AN UPRIGHT POSITION. IF THIS IS NOT POSSIBLE BECAUSE OF SPACE AND HEADROOM CONSTRAINTS, VALVE STEM SHALL BE INSTALLED IN AN INCLINED POSITION ABOVE THE HORIZONTAL CENTERLINE OF THE PIPE.
- 6. BUTTERFLY VALVES MAY BE USED INSTEAD OF OUTSIDE SCREW AND YOKE GATE VALVES WHERE PERMITTED BY NFPA.
- 7. PROVIDE SEISMIC PROTECTION FOR PIPING TO PREVENT DAMAGE FROM EARTHQUAKES PER BUILDING CODE.
- 8. STANDPIPE HOSE END GATE VALVE OUTLETS SHALL BE INSTALLED AT 3'-6" FROM FINISHED FLOOR TO CENTERLINE OF THE OUTLETS.

FIRE PROTECTION LEGEND:

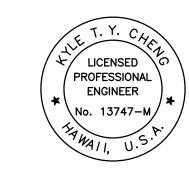
| | AFF | ABOVE FINISHED FLOOR |
|---|-------|----------------------------|
| | AFG | ABOVE FINISHED GRADE |
| | CONN | CONNECT OR CONNECTION |
| | CONT | CONTINUATION |
| $-\!$ | CV | CHECK VALVE |
| | DCV | DOUBLE CHECK VALVE |
| | DN | DOWN |
| ——— DSP ——— | DSP | DRY STANDPIPE |
| | (E) | EXISTING |
| | FDC | FIRE DEPARTMENT CONNECTION |
| | FL SW | FLOW SWITCH |
| | FLXC | FLEXIBLE CONNECTOR |
| | GC | GENERAL CONTRACTOR |
| | HEGV | HOSE END GATE VALVE |
| | POC | POINT OF CONNECTION |
| | s/s | STAINLESS STEEL |

TYP

TYPICAL



MECHANICAL ENGINEERS OF HAWAII CORPORATION 50 SOUTH BERETANIA STREET, SUITE C208-A HONOLULU, HAWAII 96813



04/30/26
EXPIRATION DATE OF LICENSE

MECHANICAL ENGINEERS OF HAWAII

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY SUPERVISION

| CVM | DATE | DESCRIPTION |
|-----|------|-------------|

REVISIONS:

PROJECT TITLE:

CHINATOWN CULTURAL
PLAZA LEONG DOO
SOCIETY BUILDING
DRY STANDPIPE
REPLACEMENT PROJECT

100 N BERETANIA ST, HONOLULU, HAWAII, 96817

FILE NAME:

TMK: 17005019:0000

DRAWING TITLE:
FIRE PROTECTION NOTES AND LEGEND

SCALE: NO SCALE

DRAWN BY: CHECKED BY: KC

PROJECT NO.: 2201

MO0

DATE: 12/20/24 SHEET 2 OF 5

SPECIFICATIONS:

PART 1 – GENERAL

- 1.01 SUBMITTALS: SUBMITTALS SHALL CONFORM TO THE FOLLOWING REQUIREMENTS. SUBMITTALS SHALL INCLUDE THE MANUFACTURER'S NAME, TRADE NAME, PLACE OF MANUFACTURE, CATALOG MODEL OR NUMBER, NAMEPLATE DATA, SIZE, LAYOUT DIMENSION, CAPACITY, PROJECT SPECIFICATION AND PARAGRAPH REFERENCE. APPLICABLE INDUSTRY, AND TECHNICAL SOCIETY REFERENCE STANDARDS YEARS OF SATISFACTORY SERVICE, AND OTHER INFORMATION NECESSARY TO ESTABLISH CONTRACT COMPLIANCE OF EACH ITEM THE CONTRACTOR PROPOSES TO PROVIDE. PHOTOGRAPHS OF EXISTING INSTALLATIONS ARE UNACCEPTABLE AND WILL BE RETURNED WITHOUT APPROVAL. SUBMITTALS SHALL BE COMPLETE IN ORDER TO DEMONSTRATE THAT EQUIPMENT AND MATERIALS HAVE BEEN PROPERLY COORDINATED AND WILL FUNCTION PROPERLY WITH EACH OTHER. INCOMPLETE OR PIECE-MEAL SUBMITTALS WILL BE RETURNED WITHOUT REVIEW.
- A. <u>MANUFACTURER'S CATALOG DATA</u>: SUBMITTALS FOR EACH MANUFACTURED ITEM SHALL BE CURRENT MANUFACTURER'S DESCRIPTIVE LITERATURE OF CATALOGED PRODUCTS, EQUIPMENT DRAWINGS, DIAGRAMS, PERFORMANCE AND CHARACTERISTIC CURVES, AND CATALOG CUTS. EACH SUBMITTAL SHALL CLEARLY IDENTIFY EQUIPMENT TO BE PROVIDED. INFORMATION NOT PERTAINING TO EQUIPMENT SHALL BE DELETED OR CROSSED OUT.
- B. SHOP DRAWINGS: PROVIDE AT LEAST 2 SETS OF SHOP DRAWINGS, USING A MINIMUM SCALE OF 1/4 INCH PER FOOT ON DRAWING SHEETS THE SAME SIZE AS CONTRACT DRAWINGS. SHOP DRAWINGS SHALL INCLUDE, BUT NOT LIMITED TO: FLOOR PLANS, ISOMETRIC PIPING DIAGRAMS, SECTIONAL VIEWS, AND OTHER ITEMS THAT MUST BE SHOWN TO ENSURE A COORDINATED INSTALLATION.
 - 1. AT LEAST ONE SET OF SHOP DRAWINGS SHALL BE PRODUCED ON BOND THE SAME SIZE AS CONTRACT DRAWINGS. THESE DRAWINGS SHALL INCLUDE ALL REVISIONS TO THE SHOP DRAWINGS. THE CONTRACTOR SHALL SUBMIT THE ORIGINAL BOND SHOP DRAWINGS WHEN SUBMITTING "AS-BUILT DRAWINGS".
 - 2. WHEN SHOP DRAWINGS HAVE SUBSTANTIAL CHANGES FROM THE DESIGN TO THE POINT THAT COMPLIANCE WITH "AS-BUILT DRAWINGS" OF THIS SECTION BECOMES IMPRACTICAL. THE APPROVED SHOP DRAWINGS SHALL BE SUBSTITUTED FOR THE CONTRACT DRAWINGS AND THE "AS-BUILT DRAWINGS" PARAGRAPH SHALL BE IMPLEMENTED USING THE APPROVED SHOP DRAWINGS.
- C. <u>CERTIFICATES OF COMPLIANCE</u>: SUBMIT A CERTIFICATE OF COMPLIANCE FROM THE MANUFACTURER FOR APPROVAL OF PRODUCTS, FINISHES, AND EQUIPMENT, AS SPECIFIED IN THE TECHNICAL SECTIONS, WHOSE COMPLIANCE WITH ORGANIZATIONAL STANDARDS OR SPECIFICATIONS IS NOT REGULATED BY AN ORGANIZATION USING ITS OWN LISTING OR LABEL AS PROOF OF COMPLIANCE. THE CERTIFICATES SHALL IDENTIFY THE MANUFACTURER, PRODUCTS, EQUIPMENT, OR MATERIALS, AND THE REFERENCED STANDARD AND SHALL SIMPLY STATE THAT THE MANUFACTURER CERTIFIES THAT THE PRODUCT CONFORMS TO THE REQUIREMENTS SPECIFIED.
- D. REFERENCE STANDARDS COMPLIANCE: WHERE EQUIPMENT OR MATERIALS ARE SPECIFIED TO CONFORM TO INDUSTRY AND TECHNICAL SOCIETY REFERENCE STANDARDS OF ORGANIZATIONS SUCH AS THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI), AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM), AND UNDERWRITERS LABORATORIES (UL), SUBMIT PROOF OF SUCH CONFORMANCE. IF AN ORGANIZATION USES A LABEL OR LISTING TO INDICATE COMPLIANCE WITH A PARTICULAR REFERENCE STANDARD, THE LABEL OR LISTING WILL BE ACCEPTABLE EVIDENCE.
- INDEPENDENT TESTING ORGANIZATION CERTIFICATE: IN LIEU OF THE LABEL OR LISTING, SUBMIT A CERTIFICATE FROM AN INDEPENDENT TESTING ORGANIZATION. COMPETENT TO PERFORM TESTING AND APPROVED BY THE ENGINEER.
- F. SEISMIC RESTRAINT CALCULATIONS: SUBMIT CALCULATIONS SHOWING COMPLIANCE WITH SEISMIC PROTECTION REQUIREMENTS PER NFPA 13 AND IBC 2006. SECTION 1613.
- G. AS-BUILT DRAWINGS: THE CONTRACTOR SHALL MAINTAIN AT THE JOB SITE ONE SET OF FULL SIZE CONTRACT DRAWINGS. MARKING THEM IN RED TO SHOW ALL VARIATIONS BETWEEN THE CONSTRUCTION ACTUALLY PROVIDED AND THAT INDICATED OR SPECIFIED IN THE CONTRACT DOCUMENTS. INCLUDING BURIED OR CONCEALED CONSTRUCTION.
- 1. WHERE A CHOICE OF MATERIAL OR METHOD IS PERMITTED HEREIN OR WHERE VARIATIONS IN SCOPE OR CHARACTER OF WORK FORM THAT OF THE ORIGINAL CONTRACT IS AUTHORIZED, THE DRAWINGS SHALL BE MARKED TO DEFINE THE CONSTRUCTION ACTUALLY PROVIDED.
- 2. THE DRAWINGS SHALL BE MAINTAINED AND UPDATED ON A DAILY BASIS. THE CONTRACTOR SHALL SIGN AND DATE EACH SHEET TO CERTIFY THAT THE DIMENSIONS AND DETAILS SHOWN ON THE DRAWINGS REFLECT THE DIMENSIONS, DETAILS, AND SPECIFICATIONS AS CONSTRUCTED IN THE FIELD.
- 3. THE DRAWINGS SHALL SHOW EXISTING CONDITIONS AND NEW WORK SHOWN ON THE DESIGN DRAWINGS. EXCEPT THAT THE NEW WORK SHOWN SHALL BE THE AS-BUILT CONDITION.
- 4. SUBMIT THE FOLLOWING TO THE ENGINEER FOR REVIEW AND APPROVAL: (1) JOB SITE MARKED UP DRAWINGS. (2) INCORPORATE INTO ELECTRONIC DRAWING FILES ALL CONSTRUCTION VARIATIONS AND SUBMIT FINAL AS-BUILT DRAWINGS PLOTTED WITH INK ON 16-POUND VELLUM. (3) ELECTRONIC FILES OF AS-BUILT DRAWINGS IN AUTOCAD 2000 OR LATER DWG FORMAT ON COMPACT DISC. ELECTRONIC FILES SHALL BE VECTOR GRAPHICS. SCANNED RASTER IMAGES ARE NOT ACCEPTABLE.
- 1.02 VERIFICATION OF DIMENSIONS: THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION AND PROPER RELATION OF HIS WORK TO THE BUILDING STRUCTURE AND TO WORK OF ALL TRADES. THE CONTRACTOR SHALL VISIT THE PREMISES AND THOROUGHLY FAMILIARIZE HIMSELF WITH ALL DETAILS OF THE WORK AND WORKING CONDITIONS, TO VERIFY ALL DIMENSIONS IN THE FIELD, AND TO ADVISE THE ENGINEER OF ANY DISCREPANCIES BEFORE PERFORMING ANY WORK.
- 1.03 DELIVERY, STORAGE, AND HANDLING: HANDLE, STORE, AND PROTECT EQUIPMENT AND MATERIALS TO PREVENT DAMAGE BEFORE AND DURING INSTALLATION IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS, AND AS APPROVED BY THE ENGINEER. REPLACE DAMAGED OR DEFECTIVE ITEMS. RUSTED PIPE, FITTINGS, AND ACCESSORIES DELIVERED OR INSTALLED AT THE JOB SITE WILL BE REJECTED. MATERIALS AND EQUIPMENT SHALL BE STORED IN WEATHER PROTECTED LOCATIONS AND COVERED TO PREVENT DUST OR MOISTURE DAMAGE. DAMAGE TO MATERIALS OR EQUIPMENT DUE TO CONTRACTOR'S NEGLECT SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ENGINEER. BY AND AT THE EXPENSE OF THE CONTRACTOR.
- 1.04 PERMITS, LICENSES, AND INSPECTIONS: THE CONTRACTOR SHALL OBTAIN ALL PERMITS AND LICENSES REQUIRED TO PERFORM THE WORK. AND PAY ALL THE FEES THEREFORE. AND SHALL COOPERATE WITH ALL INSPECTION REQUIRED BY AUTHORITIES HAVING JURISDICTION. INSPECTION

- SHALL BE PERMITTED WITHOUT INTERFERENCE. CORRECTIONS TO WORK AS A RESULT OF INSPECTIONS SHALL BE MADE PROPERLY.
- 1.Q5 <u>INSPECTION AND TESTS</u>: THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEST OF THE INSTALLED 2\ WORK AND SHALL PROVIDE ALL LABOR, EQUIPMENT, AND INSTRUMENTS, AND SHALL CONDUCT FLUSHING, PRESSURE AND FLOW TESTS ON THE PIPING SYSTEMS PER NEPA 14. THE CONTRACTOR SHALL GIVE THE ENGINEER NOTICE ONE WEEK IN ADVANCE WHEN THE WORK IS READY FOR INSPECTION AND TEST. DURING PRESSURE TESTS PER NFPA 14, ALL ITEMS IN PIPING SYSTEMS NOT DESIGNED FOR TEST PRESSURES SHALL BE REMOVED FROM OR ISOLATED FROM THE SYSTEM. AND SHALL BE RECONNECTED OR UNBLOCKED AFTER TESTS ARE COMPLETED. ALL WORK REJECTED BY THE ENGINEER SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETING THE
- CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR ABOVEGROUND PIPING FORM PER NFPA 14. 1.06 <u>CODES AND STANDARDS</u>: THE ENTIRE INSTALLATION SHALL COMPLY WITH THE APPLICABLE
- REQUIREMENTS OF THE BUILDING CODE AND PLUMBING CODE OF THE CITY AND COUNTY OF HONOLULU. AND HEALTH DEPARTMENT REGULATIONS.
- 1.07 <u>CONTRACT DRAWINGS</u>: CONTRACT DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC, INDICATING GENERAL LAYOUT AND APPROXIMATE LOCATIONS TOWARDS ESTABLISHING THE SCOPE FOR UNIFORM ESTIMATING BASIS FOR ALL BIDDERS; THEY ARE NOT INTENDED TO BE DETAILED CONSTRUCTION WORKING DRAWINGS. REASONABLE MODIFICATIONS TO INDICATED LOCATIONS AND ARRANGEMENT TO SUIT JOB SITE CONDITIONS SHALL NOT BE CONSTRUED AS BASIS FOR REQUESTING OF ADDITIONAL FUNDS FROM THE OWNER.
- 1.08 <u>CLEANING EQUIPMENT AND PREMISES</u>: DURING THE PROCESS OF WORK, THE PREMISES SHALL BE KEPT REASONABLY FREE OF ALL DEBRIS AND WASTE MATERIALS RESULTING FORM THE WORK PERFORMED. UPON COMPLETION AND BEFORE FINAL ACCEPTANCE OF THE WORK, ALL DEBRIS RUBBISH, LEFT OVER MATERIALS, TOOLS AND EQUIPMENT SHALL BE REMOVED FROM THE SITE.
- 1.09 WARRANTY: PROVIDE A TWO YEAR GUARANTEE THAT THE PAINTING WORK CONFORMS TO THE CONTRACT REQUIREMENTS AND IS FREE OF ANY DEFECT OF MATERIAL OR WORKMANSHIP.

PART 2 – PRODUCTS

- 2.01 MANUAL CLASS 1 DRY STANDPIPE AND FITTINGS:
- A. ABOVEGROUND PIPING SHALL BE GALVANIZED SCHEDULE 40 STEEL PIPE, ASTM A135. FITTINGS SHALL BE THREADED, GALVANIZED, CAST IRON, OR MALLEABLE IRON FITTINGS. WHEN SPACE AVAILABLE PERMITS, RUBBER GASKETED GROOVED END PIPE AND FITTINGS WITH GALVANIZED MECHANICAL COUPLINGS SHALL BE PERMITTED IN PIPE SIZES 1-1/2 INCHES AND LARGER. COUPLINGS SHALL BE VICTAULIC FIRELOCK 009N, DUCTILE IRON HOUSING, HOT DIPPED GALVANIZED AND UL LISTED/FM APPROVED.
- B. <u>FIRE DEPARTMENT CONNECTION</u>: POTTER ROEMER CO., CAST BRONZE BODY, UNDERWRITERS LABORATORIES LABELED CONNECTIONS WITH 4 INCHES OUTLET BY 2, 2-1/2 INCH INLETS WITH SATIN CHROME FINISH. NATIONAL STANDARD HOSE THREAD, CLAPPER TYPE INDEPENDENT CHECK VALVES WITH GROUND SEATS, SATIN CHROME FINISH BRONZE SNOOTS PLUGS WITH CHAIN, AND WITH SATIN CHROME FINISH COAT BRONZE NAMEPLATE LETTERED "DRY STANDPIPE FIRE DEPARTMENT CONNECTION".
- DRAIN VALVES: FULL PORT BALL VALVE TYPE. AT A MINIMUM PROVIDE 2" MAIN DRAIN NEAR FDC, AT THE BASE OF FDC, EACH RISER, AND AS REQUIRED PER NFPA 14 AND UL LISTED/FM APPROVED.
- D. PIPE EXPANSION JOINT: METRAFLEX FIRELOOP STAINLESS STEEL HOSE AND BRAID, SCHEDULE 40 CARBON STEEL GROOVED END FITTINGS. AIR RELEASE OR DRAIN PLUG. UL LISTED/FM APPROVED.
- 2.02 ISOLATION VALVES: FLANGED OR GROOVED GATE VALVES SHALL BE 0.S.&Y. TYPE. IRON BODY. BRASS TRIM, 175 POUNDS WORKING PRESSURE. FLANGED OR GROOVED CHECK VALVES SHALL BE IRON BODY. BRASS SEAT AND DISCS, CLEARWAY SWINGING TYPE WITH DROP CONNECTIONS, 175 POUNDS WORKING PRESSURE. VALVES SHALL BE EPOXY COATED OR OUTDOOR RATED AND UL LISTED/FM APPROVED.

2.03 SUPPORT

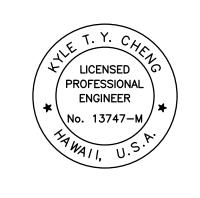
- A. SUPPORT SPRINKLER SYSTEM PIPING FROM BUILDING STRUCTURE BY MEANS OF HANGERS, INSERTS. AND OTHER SUPPORTS, AS PER REQUIREMENTS IN THE BUILDING AND FIRE CODES OF THE CITY AND COUNTY OF HONOLULU AND AS INDICATED ON DRAWINGS.
- B. PROVIDE ALL NECESSARY SUPPLEMENTAL STRUCTURAL STEEL FOR PROPER SUPPORT OR ATTACHMENT OF HANGERS. STEEL SHALL BE HOT DIPPED GALVANIZED.
- C. ALL FERROUS ITEMS INCLUDING BUT NOT LIMITED TO HANGERS, FASTENER RODS, AND ACCESSORIES SHALL BE GALVANIZED.
- 2.04 PIPE SLEEVES, ESCUTCHEONS: FURNISH AND SET SCHEDULE 40 STEEL PIPE SLEEVES TO ACCOMMODATE PIPES PASSING THROUGH PARTITIONS AND WALLS; PROVIDE ESCUTCHEONS AT EXPOSED FINISHED SURFACES PIERCED BY PIPES. PACK SPACE BETWEEN PIPE AND SLEEVE AS RECOMMENDED BY THE BUILDING AND FIRE CODES OF THE CITY AND COUNTY OF HONOLULU.
- 2.05 PAINT MATERIALS, GENERAL
- A. MATERIAL COMPATIBILITY: PROVIDE BLOCK FILLERS, PRIMERS, AND FINISH-COAT MATERIALS THAT ARE COMPATIBLE WITH ONE ANOTHER AND WITH THE SUBSTRATES INDICATED UNDER CONDITIONS OF SERVICE AND APPLICATION, AS DEMONSTRATED BY MANUFACTURER BASED ON TESTING AND FIELD EXPERIENCE.
- MILDEWCIDE: EXCEPT FOR METAL PRIMERS, PROVIDE PRIMER AND FINISH COATS WITH SUITABLE CHEMICAL MILDEWCIDE TO THE MAXIMUM AMOUNT OF MILDEWCIDE PER GALLON OF PAINT PERMITTED BY THE MILDEWCIDE MANUFACTURER WITHOUT ADVERSELY AFFECTING THE QUALITY OF THE PAINT, BUT NOT LESS THAN ONE OUNCE PER GALLON.
- C. MATERIAL QUALITY: PROVIDE MANUFACTURER'S BEST-QUALITY PAINT MATERIAL OF THE VARIOUS COATING TYPES SPECIFIED THAT ARE FACTORY FORMULATED AND RECOMMENDED BY MANUFACTURER FOR APPLICATION INDICATED. PAINT-MATERIAL CONTAINERS NOT DISPLAYING MANUFACTURER'S PRODUCT IDENTIFICATION WILL NOT BE ACCEPTABLE.
 - 1. EQUIVALENCY: EQUIVALENT PRODUCTS TO THE SPECIFIED PRODUCTS ARE LISTED IN THE MASTER PAINTER'S INSTITUTE'S "ARCHITECTURAL PAINTING SPECIFICATION MANUAL".

- 2. SUBSTITUTION: REQUESTS FOR SUBSTITUTION OF A PRODUCT, OR PRODUCT IF A MANUFACTURER IS NOT ON THE "APPROVED PRODUCT LIST", WILL BE EVALUATED FOR EQUIVALENCY BASED ON PRODUCT TEST RESULTS PER THE TEST CRITERIA OF THE MASTER PAINTER'S INSTITUTE.
- D. COLORS: TO MATCH EXISTING SURROUNDING COLOR UNLESS OTHERWISE NOTED.
- HAZARD MATERIALS: DO NOT USE PAINT OR PAINT PRODUCTS CONTAINING ASBESTOS, LEAD, MERCURY AND MERCURY COMPOUNDS, ZINC CHROMATES, STRONTIUM-CHROMATE, AND CADMIUM. DO NOT USE ABRASIVE BLAST MEDIA THAT CONTAIN CRYSTALLINE SILICA.
- 2.06 PAINT MATERIALS, MISCELLANEOUS: PROVIDE PATCHING AND REPAIR MATERIALS. COMPATIBLE WITH PAINT FINISHES AND SUBSTRATES. USE WEATHER RESISTANT MATERIALS FOR EXTERIOR SURFACES AND SURFACES EXPOSED TO MOISTURE.
- A. ACCESSORIES: PROVIDE OTHER MATERIALS NOT SPECIFICALLY INDICATED BUT REQUIRED TO ACHIEVE THE FINISHES SPECIFIED, OF COMMERCIAL QUALITY.
- THINNERS: THINNING OF PAINT SHALL BE DONE USING MATERIAL RECOMMENDED BY THE MANUFACTURER. MIX PROPRIETARY PRODUCTS ACCORDING TO MANUFACTURER'S REQUIREMENTS. DO NOT USE COMPOUND THINNER, MINERAL OIL, KEROSENE, REFINED LINSEED OIL, OR GASOLINE FOR THINNING.

PART 3 — EXECUTION

- 3.01 GENERAL REQUIREMENTS: WORK SHALL NOT PROCEED BEFORE OBTAINING A BUILDING PERMIT COPY DELIVERED TO OWNER, APPROVED SHOP DRAWINGS, AND APPROVED EQUIPMENT SUBMITTALS. WHEN WORK IS NOT IN PROGRESS, OPEN ENDS OF PIPE AND FITTINGS SHALL BE SECURELY CLOSED SO THAT NO TRENCH WATER, EARTH, OR OTHER SUBSTANCES CAN ENTER THE PIPE OR FITTINGS. THE RESPONSIBILITY FOR THE CARE AND PROTECTION OF THE EQUIPMENT AND WORK RESTS WITH THE CONTRACTOR UNTIL IT HAS BEEN TESTED AND ACCEPTED.
- 3.02 <u>REDUCERS</u>: REDUCTIONS IN PIPE SIZES SHALL BE MADE WITH ONE-PIECE REDUCING FITTINGS. BUSHINGS WILL NOT BE ACCEPTABLE, EXCEPT WHEN STANDARD FITTINGS OF THE PROPER SIZE ARE NOT AVAILABLE. WHERE USED, FACE BUSHINGS SHALL BE INSTALLED WITH THE OUTER FACE FLUSH WITH THE FACE OF THE FITTING OPENING BEING REDUCED. BUSHINGS SHALL NOT BE USED IN ELBOW FITTINGS IN MORE THAN ONE OUTLET OF A TEE, IN MORE THAN 2 OUTLETS OF A CROSS, OR WHERE REDUCTION IN SIZE IS LESS THAN 1/2 INCH.
- 3.03 PIPE SUPPORTS AND HANGERS: THE RECOMMENDED METHODS AND REQUIREMENTS FOR SUPPORTING OR HANGING PIPE AS SET FORTH IN THE BUILDING AND FIRE CODES OF THE CITY AND COUNTY OF HONOLULU SHALL BE MANDATORY
- A. INSTALL HANGERS AND SUPPORTS FOR ALL PIPE WORK TO PROVIDE FOR EXPANSION AND CONTRACTION. PREVENT VIBRATION AND MAINTAIN REQUIRED GRADING BY PROPER ADJUSTMENT.
- <u>DRILLED-IN THREADED INSERTS:</u> WHERE SUPPORTS IN BEAMS AND JOISTS ARE REQUIRED AFTER CONCRETE HAS BEEN POURED, PHILLIPS "REDHEAD" DRILLED-IN THREADED INSERTS SHALL BE PROVIDED. INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. AND UL LISTED FOR SEISMIC APPLICATIONS.
- 3.04 EARTHQUAKE (SEISMIC) PROTECTION: INSTALL SYSTEMS WITH SEISMIC PROTECTION TO PREVENT PIPE BREAKAGE DURING AN EARTHQUAKE. PROVIDE FLEXIBLE COUPLINGS, SWING JOINTS, SWAY BRACINGS AND ADEQUATE CLEARANCES IN ACCORDANCE WITH NFPA 13. PROVIDE SEISMIC PROTECTION IN ACCORDANCE WITH IBC 2006, SECTION 1613.
- 3.05 BRACING AND CLAMPING: BENDS, PLUGS, AND TEES SHALL BE BRACED OR CLAMPED IN ACCORDANCE WITH THE REQUIREMENTS OF NFPA 24.
- 3.06 <u>DRAIN AND TEST CONNECTIONS</u>: INSTALL HORIZONTAL PIPING GRADED TO LOW POINTS AND IN MANNER TO MAKE IT POSSIBLE TO TEST AND EMPTY ENTIRE SYSTEM: PROVIDE VALVES AND PIPING OF SIZES AND IN LOCATIONS IN ACCORDANCE WITH THE REQUIREMENTS OF THE BUILDING AND FIRE CODES OF THE CITY AND COUNTY OF HONOLULU. DRAIN VALVE AND DISCHARGE FITTINGS SHALL BE VISIBLE; USE SIGHT-DRAIN FITTINGS IF NECESSARY. PROVIDE FLUSHING CONNECTIONS AT END OF CROSS MAINS, CONSISTING OF CAPPED NIPPLE SAME DIAMETER AS PIPE BUT NOT LARGER THAN 2 INCHES.
- 3.07 VALVE SEALS, TAGS, CHARTS:
- A. SEALS: PROVIDE APPROVED SEAL FOR EACH MANUALLY OPERATED SHUT-OFF VALVE REQUIRED TO BE SEALED IN OPEN POSITION.
- B. <u>SIGNS</u>: PROVIDE IDENTIFICATION SIGNS OF STANDARD DESIGN, FASTEN SECURELY AT DESIGNATED LOCATIONS AS PER THE BUILDING AND FIRE CODES OF THE CITY AND COUNTY OF HONOLULU.
- C. TAGS: PROVIDE BRASS TAGS 1-1/2 INCHES DIAMETER; STAMP WITH DESIGNATOR NUMBERS, SECURE WITH 12-GAUGE COPPER WIRE TO SPINDLE OF ALL CONTROL VALVES.
- 3.08 DISINFECTION: DISINFECT THE NEW WATER PIPING AND EXISTING WATER PIPING AFFECTED BY CONTRACTOR'S OPERATIONS IN ACCORDANCE WITH AWWA C601. FILL PIPING SYSTEMS WITH SOLUTION CONTAINING MINIMUM OF 50 PARTS PER MILLION OF AVAILABLE CHLORINE AND ALLOW SOLUTION TO STAND FOR MINIMUM OF 24 HOURS. FLUSH SOLUTION FROM THE SYSTEMS WITH CLEAN WATER UNTIL MAXIMUM RESIDUAL CHLORINE CONTENT IS NOT GREATER THAN 0.5 PARTS PER MILLION. EXERCISE CAUTION WHEN MIXING CHLORINE DISINFECTION SOLUTIONS. FLUSHING OF CHLORINATED WATER SHALL BE DONE IN ACCORDANCE WITH NFPA 25 - INSPECTION, TESTING AND MAINTENANCE OF SPRINKLER SYSTEMS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER DISPOSAL OF CHLORINATED WATER TO SAFEGUARD PUBLIC HEALTH AND ENVIRONMENT IN ACCORDANCE WITH THE APPLICABLE DEPARTMENT OF HEALTH REQUIREMENTS.
- 3.09 FIELD PAINTING: CLEAN, PRE-TREAT, PRIME, AND PAINT ALL NEW FIRE SPRINKLER SYSTEMS INCLUDING VALVES, PIPING, HANGERS, SUPPORTS, MISCELLANEOUS METALWORK, AND ACCESSORIES. APPLY COATINGS TO CLEAN, DRY SURFACES, USING CLEAN BRUSHES. CLEAN THE SURFACES TO REMOVE DUST, DIRT, RUST, AND LOOSE MILL SCALE. IMMEDIATELY AFTER CLEANING, PROVIDE THE METAL SURFACES WITH ONE COAT OF OIL BASE PRIMER APPLIED TO A MINIMUM DRY FILM THICKNESS OF 1.0 MIL.

MECHANICAL ENGINEERS OF HAWAII CORPORATION 50 SOUTH BERETANIA STREET, SUITE C208-A HONOLULU, HAWAII 96813



04/30/26 **EXPIRATION DATE OF LICENSE**

MECHANICAL ENGINEERS OF HAWAII

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY SUPERVISION

| 2 | 6/14/22 | SPEC REVISION |
|--------|---------|---------------|
| SYM | DATE | DESCRIPTION |
| REVISI | ONS: | |

PROJECT TITLE:

CHINATOWN CULTURAL PLAZA LEONG DOO SOCIETY BUILDING DRY STANDPIPE REPLACEMENT PROJECT

| 100 N BERETANIA ST, HONOLULU, HAW |
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| 96817 |
| TMK: 17005019:0000 |

FILE NAME:

DRAWING TITLE: SPECIFICATIONS

SCALE: NO SCALE

DRAWN BY: CHECKED BY: MC KC

PROJECT NO.: 2201

DRAWING NO.:

DATE: 12/20/24 SHEET 3 OF 5

