



CITY OF CAMPBELL
Community Development Department

March 26, 2021

NOTICE OF ADMINISTRATIVE PLANNED DEVELOPMENT PERMIT

Notice is hereby given that the Planning Division of the Community Development Department of the City of Campbell has received an application for an Administrative Planned Development Permit for the following project proposal:

Project Address: 484 W. Hamilton Avenue, Suite B

Neighborhood Association(s): Campbell Community Center Group

File No.: PLN-2021-13

APN: 305-18-059

Zoning District: P-D (Planned Development)

General Plan: General Commercial

Applicant: Sherman Lee

Property Owner: Michael Giluso

Application Type: Administrative Planned Development Permit

Project Description: To allow a personal service use (hair salon) and associated site improvements

This project will be decided by the Community Development Director and you have the opportunity to provide comment prior to the Director's decision. The ten-day comment period for this application begins on March 29, 2021 and ends on April 7, 2021. Any comments regarding this application must be submitted in writing (including email) to the Planning Division before 5:00 p.m. on **April 7, 2021**. The Director will then consider all comments submitted within this time period prior to a decision. No additional notice will be provided. Please contact the project planner in a timely manner to determine what decision was reached.

Decisions by the Community Development Director are final in 10 calendar days following the date of approval, unless an appeal is received in writing at the City of Campbell Community Development Department, 70 N. First Street, Campbell, prior to the end of the appeal period. A written appeal must be accompanied with the required \$200 appeal filing fee. City Hall is currently closed to the public however plans and drawings may be viewed on the City's 'Public Notices' web page (<http://www.cityofcampbell.com/501/Public-Notices>) under 'Administrative Decisions' or by contacting the project planner. Questions or comments regarding this application may be addressed to Stephen Rose, Senior Planner, in the Community Development Department, at (408) 866-2142 or by email stephenr@campbellca.gov.



Location Map - 484 W Hamilton Ave, Ste. B



This map is based on GIS Information and reflects the most current information at the time of this printing. The map is intended for reference purposes only and the City and its staff is not responsible for errors.

FRESH CONCRETE AND MORTAR APPLICATION

BEST MANAGEMENT PRACTICES FOR

- Masons and bricklayers
- Sidewalk construction crews
- Patio construction workers
- Construction inspectors
- General contractors
- Home builders
- Developers

- When cleaning up after driveway or sidewalk construction, wash fines onto dirt areas, not down the driveway or into the street or storm drain.
- Place hay bales or other erosion controls down-slope to capture runoff carrying mortar or cement before it reaches the storm drain.

GENERAL BUSINESS PRACTICES

- Both at your yard and the construction site, always store both dry and wet materials under cover, protected from rainfall and runoff. Protect dry materials from wind.
- Secure bags of cement after they are open. Be sure to keep wind-blown cement powder away from gutters, storm drains, rainfall, and runoff.
- Wash out concrete mixers only in designated wash-out areas in your yard, where the water will flow into containment ponds or onto dirt. Whenever possible, recycle washout by pumping back into mixers for reuse. Never dispose of washout into the street, storm drains, drainage ditches, or streams.

- When breaking up paving, be sure to pick up all the pieces and dispose properly.
- Recycle large chunks of broken concrete at a landfill.
- Dispose of small amounts of excess dry concrete, grout, and mortar in the trash.
- Never bury waste material.

STORM DRAIN POLLUTION FROM MASONRY AND PAVING

Fresh concrete and cement-related mortars that wash into lakes, streams, or estuaries are toxic to fish and the aquatic environment. Disposing of these materials to the storm drains or creeks causes serious problems and is prohibited by law.

DURING CONSTRUCTION

- Don't mix up more fresh concrete or cement than you will use in a day.
- Set up and operate small mixers on tarps or heavy plastic drop cloths.

LANDSCAPING, GARDENING, AND POOL MAINTENANCE

BEST MANAGEMENT PRACTICES FOR THE:

- Landscapers
- Gardeners
- Swimming pool/spa service and repair workers
- General contractors
- Home builders
- Developers

GENERAL BUSINESS PRACTICES

- Protect stockpiles and landscaping materials from wind and rain by storing them under tarps or secured plastic sheeting.
- Store pesticides, fertilizers, and other chemicals indoors or in a shed or storage cabinet.
- Schedule grading and excavation projects for dry weather.
- Use temporary check dams or ditches to divert runoff away from storm drains.
- Protect storm drains with hay bales or other erosion controls.
- Revegetation is an excellent form of erosion control for any site.

POOL/FOUNTAIN/SPA MAINTENANCE

- Never discharge pool or spa water to a street or storm drain.
- OR
- When emptying a pool or spa, let chlorine dissipate for a few days, and then recycle/reuse water by draining it gradually onto a landscaped area.

- Contact the local sewage treatment authority. You may be able to discharge to the sanitary sewer by running a hose to a utility sink or sewer pipe cleanout junction.
- Do not use copper-based algicides unless absolutely necessary. Control algae with chlorine or other alternatives to copper-based pool chemicals. Copper is a powerful herbicide. Sewage treatment technology cannot remove all of the metals that enter a treatment plant.

LANDSCAPING/GARDEN MAINTENANCE

- Use up pesticides. Rinse containers, and use rinse water as product. Dispose of rinsed containers in the trash.
- Dispose of unused pesticide as hazardous waste.
- Collect lawn and garden clippings, pruning waste, and tree trimmings. Chip if necessary, and compost.
- In communities with curbside yard waste recycling, leave clippings and pruning waste for pickup in approved bags or containers. Or, take to a landfill that composts yard waste.
- Do not place yard waste in gutters.
- Do not blow or rake leaves, etc. into the street.

STORM DRAIN POLLUTION FROM LANDSCAPING AND SWIMMING POOL MAINTENANCE

Many landscaping activities decompose soils and increase the likelihood that earth and garden chemicals will runoff into the storm drains during irrigation or when it rains. Swimming pool water containing chlorine and copper-based algicides should never be discharged to storm drains. These chemicals are toxic to aquatic life.

HEAVY EQUIPMENT OPERATION

BEST MANAGEMENT PRACTICES FOR THE:

- Vehicle and equipment operators
- Site supervisors
- General contractors
- Home builders
- Developers

SITE PLANNING AND PREVENTIVE VEHICLE MAINTENANCE

- Designate one area of the construction site, well away from streams or storm drain inlets, for auto and equipment parking, refueling, and routine vehicle and equipment maintenance.
- Maintain all vehicles and heavy equipment. Inspect frequently for leaks.
- Perform major maintenance, repair jobs, vehicle and equipment washing off site.

- Never hose down dirty pavement or impermeable surfaces where fluids have spilled. Use dry cleanup method (absorbent materials, cat litter, and/or rags) whenever possible. If you must use water, use just enough to keep the dust down.

- Sweep up spilled dry materials immediately. Never attempt to wash them away with water or bury them. Use as little water as possible for dust control.
- Clean up spills on dirt areas by digging up and properly disposing of contaminated soil.
- Report significant spills to the appropriate spill response agencies immediately.

STORM DRAIN POLLUTION FROM HEAVY EQUIPMENT ON THE CONSTRUCTION SITE

Poorly maintained vehicles and heavy equipment leaking fuel, oil, antifreeze or other fluids on the construction site are common sources of storm water pollution. Prevent spills and leaks by isolating equipment from runoff channels, and by watching for leaks and other maintenance problems. Remove construction equipment from the site as soon as possible.

PAINTING AND APPLICATION OF SOLVENTS AND ADHESIVES

BEST MANAGEMENT PRACTICES FOR THE: PAINTING CLEANUP

- Painters
- Paperhangers
- Plasterers
- Graphic artists
- Dry wall crews
- Floor covering installers
- General contractors
- Home builders
- Developers

Keep all liquid paint products and wastes away from the gutter, street, and storm drains. Liquid residues from paints, thinners, solvents, glues and cleaning fluids are hazardous wastes. When they are thoroughly dry, empty paint cans, spent brushes, rags, and drop cloths may be disposed of as trash.

- Never clean brushes or rinse paint containers into a street, gutter, storm drain, or stream.
- For oil based paints, paint out brushes to the extent possible, and rinse to the sanitary sewer.

WHAT CAN YOU DO?

- Recycle/reuse leftover paints whenever possible.
- Recycle excess water-based paint, or use up. Dispose of excess liquid, including sludges, as hazardous waste.
- Reuse leftover oil-based paint. Dispose of excess liquid, including sludges, as hazardous waste.

PAINT REMOVAL

- Chemical paint stripping residue is a hazardous waste.

- Chips and dust from marine paints or paints containing lead or tributyl tin are hazardous wastes. Dry sweep and dispose of appropriately.

- Paint chips and dust from non-hazardous dry stripping and sand blasting may be swept up and disposed as trash.

- When stripping or cleaning building exteriors with high-pressure water, block storm drains. Wash water onto a dirt area and spade into soil. Or, check with the local wastewater treatment authority to find out if you can collect (mop or vacuum) building cleaning water and dispose to the sanitary sewer.

STORM DRAIN POLLUTION FROM PAINTS, SOLVENTS, AND ADHESIVES

All paints, solvents, and adhesives contain chemicals that are harmful to the wildlife in our creeks and Bay. Toxic chemicals may come from liquid or solid products or from cleaning residues or rags. It is especially important not to clean brushes in an area where paint residue can flow to a gutter, street, or storm drain.

Blueprint for a Clean Bay

BEST MANAGEMENT PRACTICES FOR THE CONSTRUCTION INDUSTRY.

SANTA CLARA VALLEY NONPOINT SOURCE POLLUTION CONTROL PROGRAM

EARTH MOVING ACTIVITIES

BEST MANAGEMENT PRACTICES FOR THE:

- Bulldozers, backhoe, and grading machine operators
- Dump truck drivers
- Site supervisors
- General contractors
- Home builders
- Developers

DURING CONSTRUCTION

- Remove existing vegetation only when absolutely necessary.
- Consider planting temporary vegetation for erosion control on slopes or where construction is not immediately planned.
- Protect downslope drainage courses, streams, and storm drains with hay bales or temporary drainage swales.
- Use check dams or ditches to divert runoff around excavations.
- Cover stockpiles and excavated soil with secured tarps or plastic sheeting.

GENERAL BUSINESS PRACTICES

- Schedule excavation and grading work for dry weather.
- Perform major equipment repairs away from the job site.
- When refueling or vehicle/equipment maintenance must be done on site, designate a location away from storm drains.
- Do not use diesel oil to lubricate equipment or parts.

DETECTING CONTAMINATED SOIL OR GROUNDWATER

As you know, contaminated groundwater is a common problem in the Santa Clara Valley. It is essential that all contractors and subcontractors involved in excavation and grading know what to look for in detecting contaminated soil or groundwater, and test ponded groundwater before pumping. See Blueprint for a Clean Bay, a construction best management practices guide available from the Santa Clara Valley Nonpoint Source Pollution Control Program, for details.

WATCH FOR ANY OF THESE CONDITIONS:

- Unusual soil conditions, discoloration, or odor
- Abandoned underground tanks
- Abandoned wells
- Buried barrels, debris, or trash

STORM DRAIN POLLUTION FROM EARTH-MOVING ACTIVITIES

Soil excavation and grading operations loosen large amounts of soil that can flow or blow into storm drains if handled improperly. Soil erodes due to a combination of decreased soil stability, increased runoff, and increased flow velocity. Some of the most effective erosion control practices reduce the amount of runoff crossing a site and slow the flow with check dams or roughened ground surfaces.

ROADWORK AND PAVING

BEST MANAGEMENT PRACTICES FOR THE:

- Road Crews
- Driveway/sidewalk/parking lot construction crews
- Seal coat contractors
- Operators of: grading equipment paving machines dump trucks concrete mixers
- Construction inspectors
- General contractors
- Developers

WHAT CAN YOU DO?

GENERAL BUSINESS PRACTICES

- Develop and implement erosion/sediment control plans for embankments.
- Schedule excavation and grading work for dry weather.
- Check for and repair leaking equipment.
- Perform major equipment repairs in designated areas at your yard, away from the construction site.

ASPHALT/CONCRETE REMOVAL

- Avoid creating excess dust when breaking asphalt or concrete.
- After breaking old pavement, be sure to remove all chunks and pieces.
- Make sure broken pavement does not come in contact with rainfall or runoff.
- Shovel or vacuum saw-cut slurry and remove from the site. Cover or barricade storm drain during saw-cutting if necessary.
- Never hose down streets to clean up tracked dirt.

DURING CONSTRUCTION

- Avoid paving and seal coating in wet weather, or when rain is forecast before fresh pavement will have time to cure.
- Cover and seal catch basins and manholes when applying seal coat, slurry seal, fog seal, etc.
- Use check dams, ditches, or berms to divert runoff around excavations.

STORM DRAIN POLLUTION FROM ROADWORK

- Avoid creating excess dust when breaking asphalt or concrete.
- After breaking old pavement, be sure to remove all chunks and pieces.
- Make sure broken pavement does not come in contact with rainfall or runoff.
- Shovel or vacuum saw-cut slurry and remove from the site. Cover or barricade storm drain during saw-cutting if necessary.
- Never hose down streets to clean up tracked dirt.

STORM DRAIN POLLUTION FROM ROADWORK

Road paving, surfacing, and pavement removal happen right in the street, where there are numerous opportunities for storm drain contamination by asphalt, saw-cut slurry, or excavated material. Extra planning is required to store and dispose of materials properly and guard against pollution of storm drains and creeks.

GENERAL CONSTRUCTION AND SITE SUPERVISION

BEST MANAGEMENT PRACTICES FOR THE: MATERIALS/WASTE/HANDLING

- Construction industry

WHAT CAN YOU DO?

- Designate one area of the site for auto parking, vehicle refueling, and routine equipment maintenance. The designated area should be well away from streams or storm drain inlets, and bermed if necessary. Make major repairs off site.
- Keep materials out of the rain-prevent runoff contamination at the source. Cover exposed piles of soil of construction materials with plastic sheeting or temporary roofs. Before it rains, sweep and remove materials from surfaces that drain to storm drains, creeks, or channels.
- Keep pollutants off exposed surfaces. Place trash cans and recycling receptacles around the site to minimize litter.
- Clean up leaks, drips, and other spills immediately so they do not contaminate soil or groundwater or leave residue on paved surfaces.
- Never hose down "dirty" pavement or surfaces where materials have spilled. Use dry cleanup methods whenever possible. If you must use water, use just enough to keep the dust down.
- Cover and maintain dumpsters. Check frequently for leaks. Place dumpsters under roofs or cover with tarps or plastic sheeting secured around the outside of the dumpster. Never clean a dumpster by hosing it down on the construction site.
- Make sure portable toilets are in good working order. Check frequently for leaks.

BEST MANAGEMENT PRACTICES FOR STORM WATER POLLUTION PREVENTION

In the Santa Clara Valley, storm drains flow directly to local creeks and San Francisco Bay, with no treatment. Storm water pollution is a serious problem for wildlife dependent on our waterways and for the people who live near polluted streams or baylands. Some common sources of this pollution include spilled oil, fuel, and fluids from vehicles and heavy equipment; construction debris; landscaping runoff containing pesticides or weed killers; and materials such as used motor oil, antifreeze, and paint products that people pour or spill into a street or storm drain.

Thirteen valley cities have joined together with Santa Clara County and the Santa Clara Valley Water District to educate local residents and businesses and fight storm drain pollution.

Note: The property owner and the contractor share ultimate responsibility for the activities that occur on a construction site. Owner and contractor may be held responsible for any environmental damage caused by the subcontractors or employees.

STORM DRAIN POLLUTION FROM CONSTRUCTION ACTIVITIES

Construction sites are common sources of storm water pollution. Materials and wastes that blow or wash into a storm drain, gutter or street have a direct impact on local creeks and the Bay. As a contractor, site supervisor, owner or operator of a site, you may be responsible for any environmental damage caused by your subcontractors or employees.

Spill Response Agencies

- Dial 911
- Santa Clara Valley Water District Environmental Compliance Division (408) 927-0710.
- Governor's Office of Emergency Services Warning Center (800) 852-7550 (24 hours).

Local Pollution Control Agencies

Santa Clara County Office of Toxics and Solid Waste Management (408) 441-1195

Santa Clara Valley Water District (408) 927-0710

San Jose/Santa Clara Water Pollution Control Plant (408) 945-5300
Serving Campbell, Cupertino, Los Gatos, Milpitas, Monte Sereno, San Jose, Santa Clara and Saratoga

Sunnyvale Water Pollution Control Plant (408) 730-7270

Palo Alto Regional Water Quality Control Plant (415) 329-2598
Serving East Palo Alto, Los Altos, Los Altos Hills, Mountain View, Palo Alto, and Stanford

ORDINANCE OF THE CITY OF CAMPBELL ESTABLISHING REQUIREMENTS FOR STORM WATER POLLUTION CONTROL

- A. Criminal Penalties.** Any person who violates any provision of this article shall be guilty of a misdemeanor and upon conviction thereof shall be punishable by imprisonment for a term not to exceed six (6) months or by a fine not to exceed \$1000 or by both. Each and every violation of this chapter shall constitute a separate offense. Every day each such violation continues shall be an additional offense.
- B. Civil Penalties.** Any person who violates any provision of this chapter shall be civilly liable to the City of Campbell in a sum not to exceed \$1000 per day for each day in which the violation occurs. Each and every violation of this chapter shall constitute a separate offense. Every day each such violation continues shall be an additional offense.
- C. Civil Liability.** Any person who violates any provision of this chapter shall be civilly liable to the City of Campbell for all costs, including attorneys fees, associated with the investigation and remediation of environmental conditions caused by the discharge of pollutants into the Municipal Storm Drain System or a Watercourse in violation of this chapter.
- D. Remedies Cumulative.** The remedies provided for in this chapter are cumulative and not exclusive and shall be in addition to any and all other remedies available to the City of Campbell under State and Federal Law.



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CLIENT:

KENGO TAMURA
484 W HAMILTON AVE, #B,
CAMPBELL, CA 95008

TEL: (650) 218-5914

PROJECT:

K's Hair Salon T.I. TENANT IMPROVEMENT
484 W. HAMILTON AVE, SUITE #B
CAMPBELL, CA 95008

REVISION		
#	DATE	DESCRIPTION
0	03/16/21	1st PLANNING COMMENTS
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DATE: 04/30/2020
DRAWN: QL/SL
PROJECT NO.: J20-C004

SHEET TITLE:

CLEAN BAY BLUEPRINT

SHEET OF:

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CLIENT:

KENGO TAMURA
484 W HAMILTON AVE, #B,
CAMPBELL, CA 95008

TEL: (650) 218-5914

PROJECT:

K's Hair Salon T.I.
TENANT IMPROVEMENT
484 W. HAMILTON AVE, SUITE #B
CAMPBELL, CA 95508

REVISION

#	DATE	DESCRIPTION
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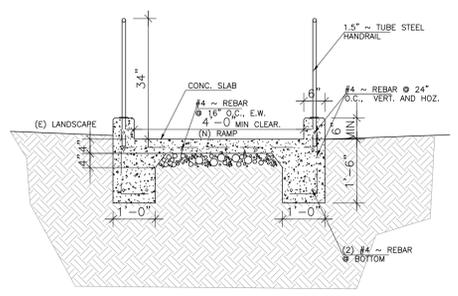
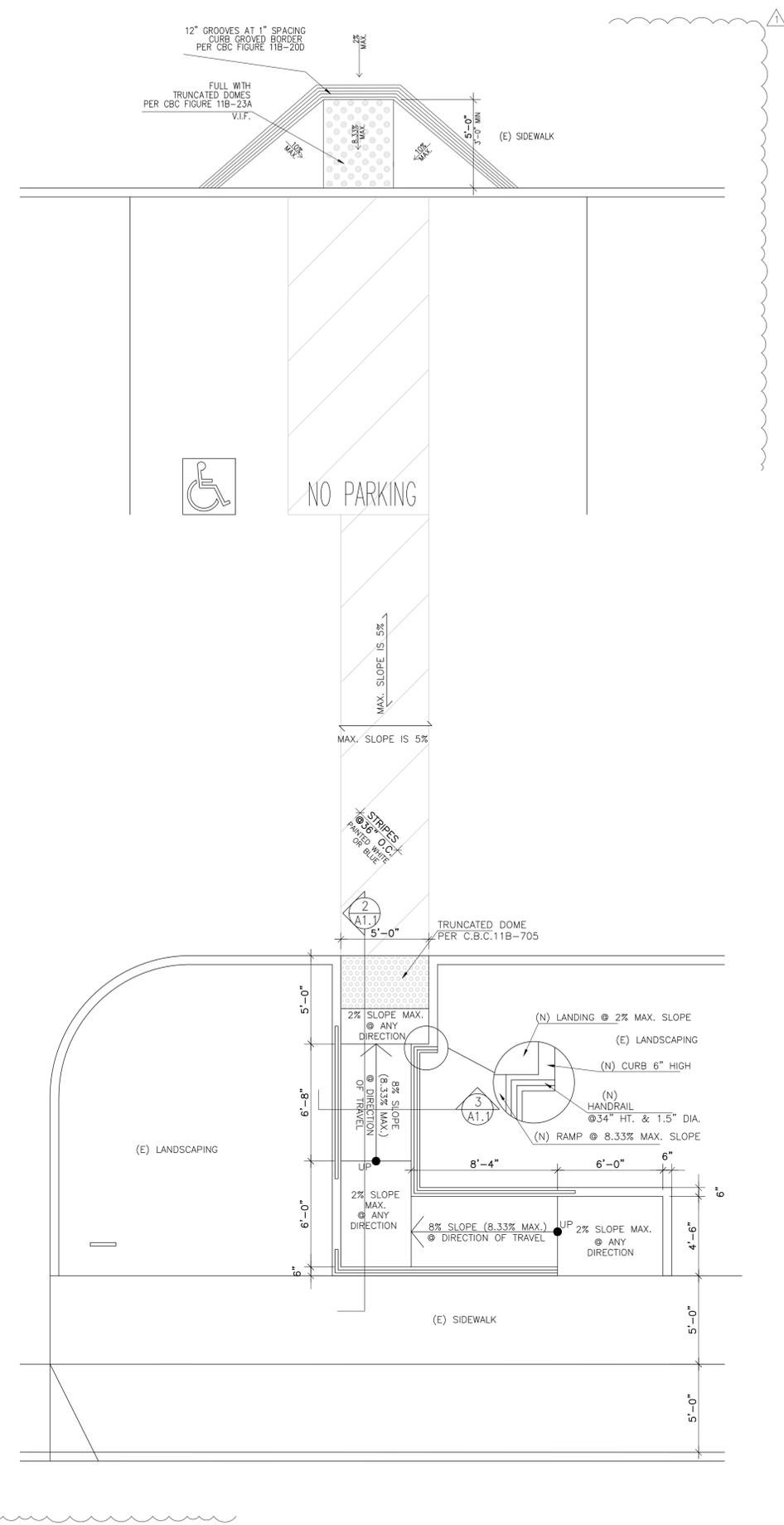
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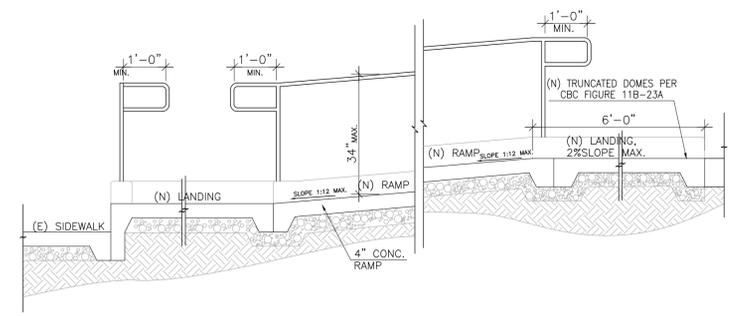
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GENERAL NOTES

- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH NATIONAL, STATE AND LOCAL REGULATIONS. SECURE REQUIRED PERMITS. ARRANGE WITH OWNER AND/OR APPROPRIATE PERSONS FOR SERVICE SHUTOFFS BEFORE BEGINNING WORK. IDENTIFY AND COORDINATE ALL EXISTING HARDWARE AND DEVICES SCHEDULED TO REMAIN OR TO BE SALVAGED FOR REUSE, VERIFY WITH OWNER.
- ALL BIDDERS SUBMITTING PROPOSALS FOR THIS WORK SHALL FIRST EXAMINE THE SITE (PREMISES) AND ALL SUCH CONDITIONS AS MAY AFFECT THE WORK UNDER THIS CONTRACT. FAILURE TO EXAMINE SITE WILL NOT RELIEVE THE SUCCESSFUL BIDDER FROM NECESSITY TO PROVIDE WORK THAT MAY BE REQUIRED TO COMPLETE THE WORK WITHOUT ADDITIONAL COST TO THE OWNER.
- WORK TO BE PERFORMED UNDER THIS CONTRACT SHALL INCLUDE ALL DEMOLITION, SITE WORK, BUILDING CONSTRUCTION, AND IMPROVEMENTS TO THE PROPERTY DESIGNATED IN THE CONSTRUCTION DOCUMENTS. THE INTENT OF THE CONSTRUCTION CONTRACT IS TO PROVIDE A NEW RESTAURANT COMPLETELY IN ALL RESPECT WITH ALL WORK PERFORMED IN A QUALITY AND WORKMANLIKE MANNER WITH THE BUILDING READY FOR OCCUPANCY WHEN CONSTRUCTION IS COMPLETE.
- SURVEY EXISTING SITE AND BUILDING CONDITIONS WITH COMPLIANCE OF ADA REGULATIONS AND UPGRADE AS REQUIRED PER CODES. THE CONTRACTOR SHALL BRING TO THE ATTENTION OF THE OWNER ANY CONFLICTS, OMISSIONS, DELETIONS, OR ERRORS IN THE DRAWINGS AND/OR SPECIFICATIONS, WHICH DO NOT CONFORM TO THE APPLICABLE ZONING, CODE AND OTHER USE REGULATIONS AND/OR TO THE AMERICANS WITH DISABILITIES ACT AND REGULATIONS PROMULGATED THEREUNDER. THE CONTRACTOR SHALL NOT BE LIABLE TO THE OWNER OR THE ARCHITECT FOR ANY DAMAGES RESULTING FROM ANY SUCH ERRORS EXCEPT THAT CONTRACT SHALL BE FULLY AND EXCLUSIVELY LIABLE UPON FAILURE TO PUT ARCHITECT ON NOTICE OF SAID CONFLICTS, OMISSIONS, DELETIONS OR ERRORS.
- CONTRACTOR SHALL REMOVE FROM THE JOB SITE ALL CRATES, PACKING, DEBRIS, ETC. FROM KITCHEN EQUIPMENT. HE SHALL BROOM CLEAN THE BUILDING INTERIOR DAILY. AT THE COMPLETION OF THE PROJECT, THE CONTRACTOR SHALL LEAVE THE BUILDING CLEANED DUST FREE, CLEAN ALL GLASS, REPLACE ANY BROKEN GLASS, REMOVE STAINS, SPOTS, MARKS AND DIRT FROM DECORATED WORK, CLEAN HARDWARE, REMOVE PAINT SPOTS FROM ALL SURFACES, CLEAN FIXTURES, AND WASH ALL TILE FLOORS.
- IF THERE IS A CONFLICT AND/OR ERRORS BETWEEN THE PLANS AND SPECIFICATIONS, THE SPECIFICATIONS SHALL TAKE PRECEDENCE UNLESS SPECIFICALLY INDICATED OTHERWISE BY THE OWNER OR OWNER'S REPRESENTATIVE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE OWNER OF THE OWNER'S AGENT OF ANY CONFLICTS, OMISSIONS DELETIONS OR ERRORS IN THE PLANS OR SPECIFICATIONS ENCOUNTERED DURING THE BIDDING PERIOD AND THE COURSE OF THE CONSTRUCTION BEFORE CONTINUING THE WORK AFFECTED.
- COORDINATE ALL DEMOLITION OPERATIONS WITH OWNER FOR SHUTDOWN PERIODS AND SEQUENCE OF WORK. PROTECT EXISTING HARDWARE AND DEVICES TO REMAIN AND ASSURE CONTINUING FACILITY OPERATIONS IN GENERAL.
- REMOVE ALL DEMOLISHED MATERIALS NOT SCHEDULED FOR SALVAGE AND REUSE, OR THOSE TO BECOME PROPERTY OF THE OWNER, LOCAL AUTHORITIES, OR UTILITY COMPANY, FROM THE SITE AND DISPOSE OF IN ACCORDANCE WITH LOCAL REGULATIONS. CONFIRM WITH THE OWNER, PROPER AUTHORITIES OR UTILITY COMPANY ALL ITEMS TO BE SALVAGED AND RETURNED TO THE APPROPRIATE PARTY. ALL ITEMS TO BE TURNED OVER TO THE OWNER, LOCAL AUTHORITIES OR UTILITY COMPANY, SHALL BE PROTECTED DURING DEMOLITION AND REMOVAL AND SHALL BE DELIVERED TO THE APPROPRIATE PARTY IN AN UNDAMAGED CONDITION.
- ALL ITEMS SCHEDULED TO BE SALVAGED FOR REUSE, SHALL BE REMOVED WITH CARE, STORED AND PROTECTED FROM DAMAGE UNTIL SALVAGED ITEMS ARE INCORPORATED IN THE NEW WORK. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPLACE AN/OR RESTORE ANY ITEMS SCHEDULED FOR SALVAGE AND REUSE THAT ARE DAMAGED DURING THE COURSE OF CONTRACT OPERATIONS THE OWNER SHALL DETERMINE THE SUITABILITY OF THESE SALVAGED ITEMS FOR REUSE IN THE WORK.
- PATCH/REPAIR/REFINISH ALL SURFACES EXPOSED BY DEMOLITION WORK TO MATCH AND ALIGN WITH EXISTING ADJACENT SURFACES SCHEDULED TO REMAIN AND PREPARE TO RECEIVE NEW FINISHED AS SPECIFIED. WORK SHALL INCLUDE ALL LABOR AND MATERIALS REQUIRED RENDERING SUBSTRATES ACCEPTABLE AND RECEIVING NEW FINISHES AS SPECIFIED IN ACCORDANCE WITH MANUFACTURERS WRITTEN RECOMMENDATIONS.
- WHEN WALLS, COLUMNS OR OTHER SUPPORTING AND/OR BRACING ELEMENTS ARE SCHEDULED FOR DEMOLITION, TEMPORARY STRUCTURAL SUPPORTS AND BRACING FOR THE ADJACENT CONSTRUCTION SHALL BE PROVIDED AND MAINTAINED UNTIL THE PERMANENT SUPPORTING STRUCTURES ARE IN PLACE AND ABLE TO SUPPORT IMPOSED LOADS.
- TERMINATE, CAP AND REMOVE ALL ABANDONED ELECTRICAL CONDUIT, WIRING BOXES, SWITCHES, ETC. PLUMBING, AND PIPING, FIXTURES, ETC. HVAC, DUCTWORK, CONTROLS, PIPING, ETC. AS REQUIRED AND PER CODE.
- IT IS THE RESPONSIBILITY OF THE G.C. TO COORDINATE DELIVERY, UNCRATING, POSITIONING, FINAL HOOK-UP AND REMOVAL OF TRASH OF ALL OWNERS SUPPLIED KITCHEN EQUIPMENT.
- ALL KITCHEN EQUIPMENT TO BE INSTALLED AS PER MANUFACTURERS SPECIFICATIONS. REFER TO EQUIPMENT PLAN FOR LOCATION AND SCHEDULE.
- VERIFY ELECTRICAL, GAS, AND WATER CAPACITY FOR NEW EQUIPMENT REQUIREMENTS.
- EXISTING CONSTRUCTION AND FINISHES TO BE PROTECTED FROM DAMAGE. RESPONSIBLE PARTY TO MATCH SURROUNDING SURFACES SHALL REPAIR ALL MATERIALS DAMAGED.
- G.C. TO PREPARE ALL SURFACES TO RECEIVE NEW FINISHES PER MANUFACTURER SPECIFICATIONS. REFER TO EXTERIOR AND INTERIOR FINISH SCHEDULES FOR MATERIAL AND COLOR SELECTIONS.
- THE CONTRACT DOCUMENTS CALL FOR CERTAIN ITEMS TO BE SUPPLIED BY THE OWNER OR OTHERS AND INSTALLED BY THE GENERAL CONTRACTOR. OTHER ITEMS ARE TO BE FURNISHED AND INSTALLED BY THE OWNER OR OTHERS, THE GENERAL CONTRACTOR SHALL COORDINATE THE WORK OF ALL TRADES AND COOPERATE IN THE PREPARATIONS OF SURFACES, DIMENSIONS AND UTILITIES FOR WORK TO BE PERFORMED BY THE OWNER OF OTHERS. SUBCONTRACTORS INSTALLING MECHANICAL, ELECTRICAL AND PLUMBING SERVICES FOR FOOD SERVICE EQUIPMENT TO BE INSTALLED BY THE OWNER OR BY OTHERS ARE CAUTIONED THAT THE ROUGH-IN DIMENSIONS SHOWN ON THE PLANS ARE EXTREMELY CRITICAL. ERROR IN LOCATING SERVICES SHALL BE CORRECTED BY THE CONTRACTOR PERFORMING THE ROUGH-IN WORK AT NO ADDITIONAL COST TO THE OWNER.

NOTES:

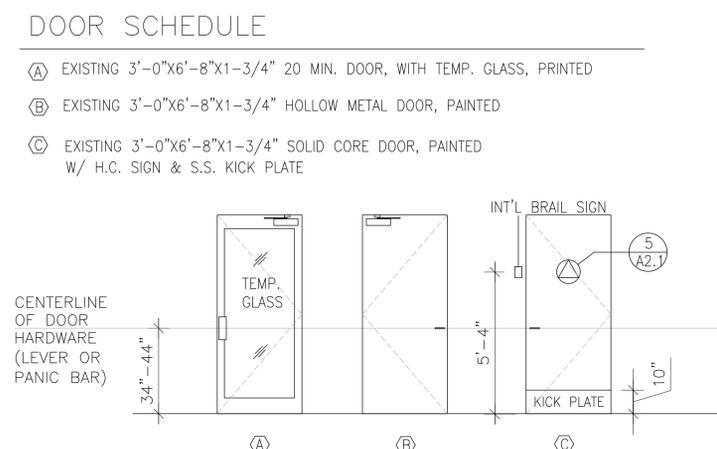
- ALL DOORS SHALL NOT REQUIRE TIGHT RASPING, TIGHT PINCHING OR TWISTING OF THE WRIST TO OPERATE. LOCKS AND LATCHES SHALL BE PERMITTED TO PREVENT OPERATION OF DOORS WHERE ANY OF THE FOLLOWING EXISTS:
 - THE LOCKING DEVICE IS READILY DISTINGUISHABLE AS LOCKED.
 - A READILY VISIBLE DURABLE SIGN IS POSTED ON THE EGRESS SIDE ON OR ADJACENT TO THE DOOR STATING "THIS DOOR TO REMAIN UNLOCKED WHEN THIS SPACE IS OCCUPIED".
 CFC SEC. 1010.1.9.1 AND 1010.1.9.3.
- EMERGENCY LIGHTING "SHALL NOT BE CONTROLLED BY "OCCUPANCY SENSORS" AND/OR "ENERGY LIGHT SAVING CONTROLLING MEASURES" CFC SEC. 100B.
- TACTILE EXIT SIGNS SHALL BE PROVIDED AS REQUIRED TO COMPLY WITH CBC SEC. 1013.4.
- ALL PORTIONS OF THE BUILDINGS SHALL BE WITHIN 75 FEET OF A FIRE EXTINGUISHER, THE MINIMUM SIZE OF THE EXTINGUISHER SHALL BE 2-A-10-BC. CFC SEC. 906.
- APPROVED NUMBERS OR ADDRESSES SHALL BE PLACED ON ALL NEW AND EXISTING BUILDINGS IN SUCH AS POSITION AS TO BE PLAINLY VISIBLE AND LEGIBLE FROM THE STREET OR ROAD FRONTING THE PROPERTY. THE NUMBERS SHALL CONTRAST WITH THEIR BACKGROUND.

WASTE MANAGEMENT PLAN:
 CONSTRUCTION WASH-OUT WATER FROM CONCRETE, MORTAR, TILE, TAPING, AND PAINTING SHALL BE DONE IN A PORTABLE CONTAINMENT POOL OR IN A LINED EVAPORATIVE PIT. WASH-OUT SHALL NOT ENTER THE STORM WATER SYSTEM.
 TRASH PILES SHALL NOT BE LOCATED IN THE FRONT YARD OR VISIBLE FROM THE STREET. TRASH PILES SHALL NOT CONTAIN: PAINTS, SOLVENTS, GLUES, TAPING COMPOUND, FOOD PRODUCTS, OR EASILY RECYCLE-ABLE DISCARDS SUCH AS BOTTLES, CANS, PLASTICS, OR PAPER. REMAINING TRASH SHALL BE LIMITED TO CONCRETE, WOOD, DRYWALL, ROOFING, AND ASSORTED METALS AND SHALL BE COVERED WITH A WATERPROOF TARP. TRASH SHALL BE SEPARATED AT AN APPROVED BAY AREA DISPOSAL SITE SUCH AS GUADELOUPE RECYCLING. ALL TRASH IS TO BE QUICKLY HAULED OFF SITE. RETAIN THE RECEIPT AND KEEP WITH THE PERMIT DOCUMENTS. PROOF OF RECYCLE AND DISPOSAL OF THE JOB SITE TRASH WILL BE CHECKED PERIODICALLY AND PRIOR TO FINAL INSPECTION.

LEGEND:

- (E) WALL TO REMAIN. REPAIR AND REPAIR AS REQUIRED.
- DEMOLISHED WALL
- (N) 2x4 WOOD STUDS @ 16" O.C W/ 5/8" TYPE "X" GYP. BD. BOTH SIDES (U.O.N) OR SEE FINISH SCHEDULE FOR MORE DETAIL
- (E) WINDOW
- (FE) FIRE EXTINGUISHER (BY CONTRACTOR) ALL PORTIONS OF THE BUILDING SHALL BE WITHIN 75 FEET OF A FIRE EXTINGUISHER. THE MINIMUM SIZE OF THE FIRE EXTINGUISHER SHALL BE 2-A-10-BC. AND TYPE "K" FOR COOKING AREA

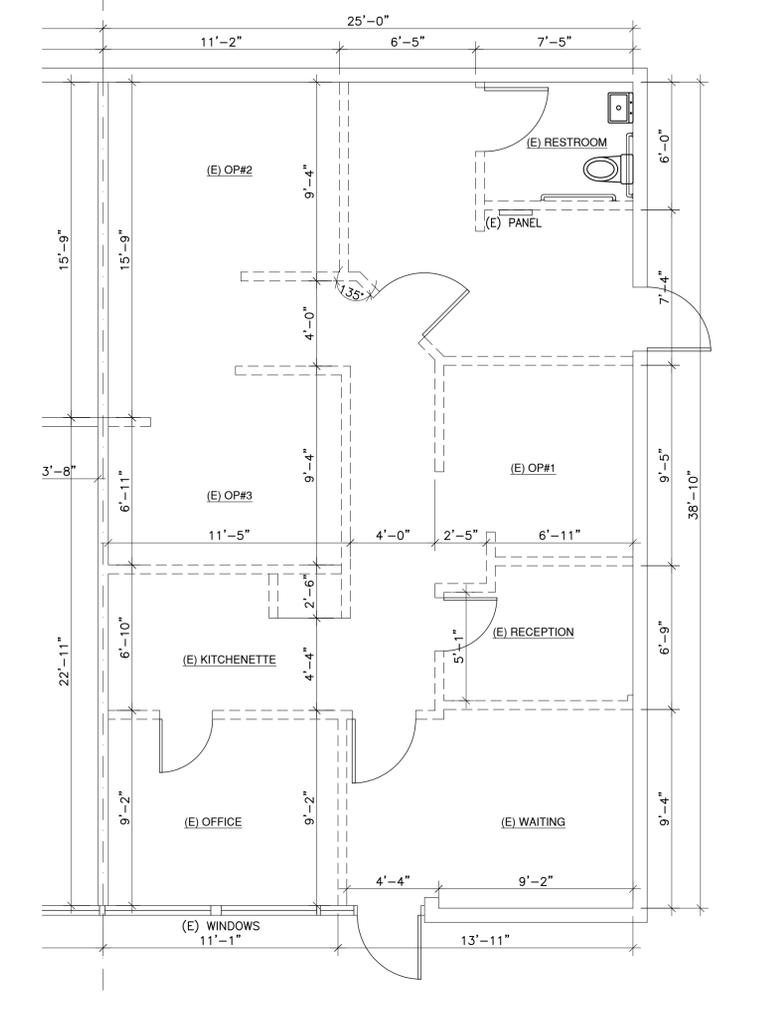
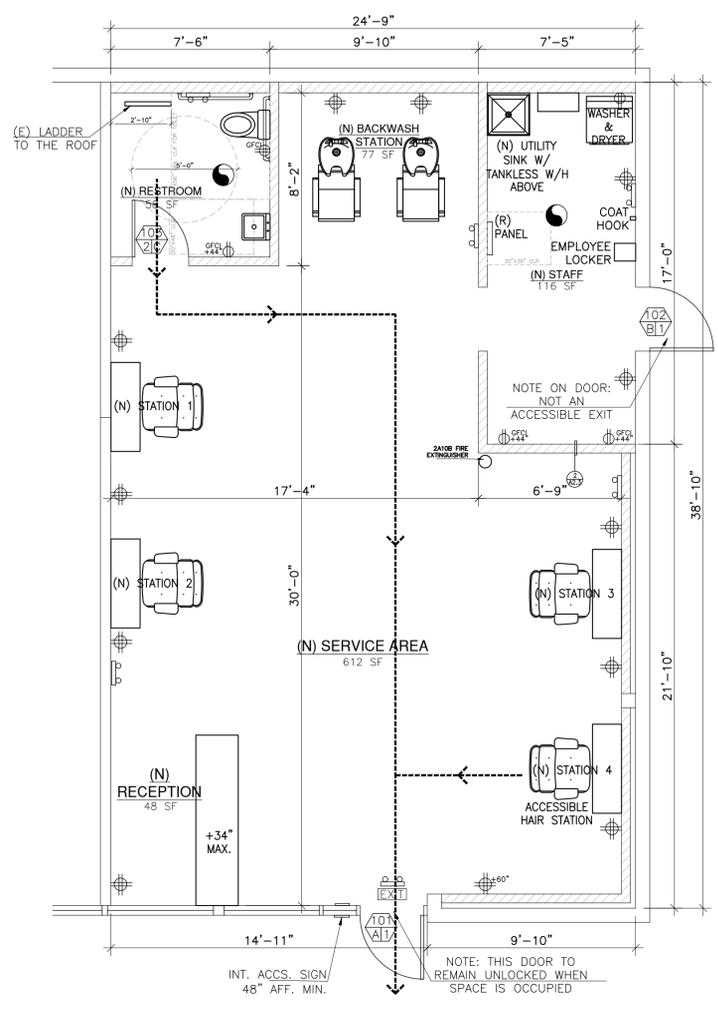
PROPOSED FLOOR PLAN



FINISH SCHEDULE

TYPE	RECEPTION	SERVICE	BACKWASH	RESTROOM	STAFF	
CEILING	2'x4' T-BAR CEILING					
WALL	DRY WALL W/HIGH GLOSS ENAMEL PAINT	○	○	○	○	SMOOTH FINISHED W/ NO TEXTURE
	DRY WALL W/HIGH GLOSS ENAMEL PAINT	○	○	○	○	LIGHT COLOR W/ LIGHT REFLECTANCE
	CERAMIC TILE, 48" HIGH OR UP TO CEILING					VALUE OF 70% OR GREATER
FLOOR	SEMI GLOSS ENAMEL W/ SMOOTH FINISH	○	○	○	○	
	CERAMIC TILE OR EQUAL	○	○	○	○	
BASE	CERAMIC TILE, 4" HIGH W/ 3/8" RAD	○	○	○	○	
	COVED RUBBER BASE, 4" HIGH	○	○	○	○	

NOTE: CONTRACTOR VERIFY FINISHES W/ OWNER.



(E) FLOOR PLAN & DEMO PLAN

HARDWARE SCHEDULE

- GROUP 1 (PER DOOR)**
- 1 PAIR BUTTS
 - 1 LOCKSET
 - 1 CLOSER
- GROUP 2 (PER DOOR)**
- 1 PAIR BUTTS
 - 1 PRIVACY (LEVER TYPE) A40S
 - 1 CLOSER
 - J-MOLD @CARPET @DOOR SILL
- STA SCH LCN

- DOOR HARDWARE NOTES:**
- THE FORCE FOR PUSHING OR PULLING OPEN A DOOR OR GATE SHALL BE AS FOLLOWS:
 - INTERIOR HINGED DOORS AND GATES: 5 lbs. MAX.
 - SLIDING OR FOLDING DOORS: 5 lbs. MAX.
 - REQUIRED FIRE DOORS: 15 lbs. MAX.
 - EXTERIOR HINGED DOORS: 5 lbs. MAX.
 - DOOR CLOSERS AND GATE CLOSERS SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90°, THE TIME REQUIRED TO MOVE THE DOOR TO A POSITION OF 12" FROM THE LATCH IS 5 SECONDS MIN.
 - EGRESS DOORS SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR EFFORT. CBC 2019 1010.1.9. MANUALLY OPERATED FLUSH BOLTS OR SURFACE BOLTS ARE NOT PERMITTED, UNLESS ANY OF THE EXCEPTIONS TO THE SECTION 1010.1.9.4 ARE MET.
 - ALL DOORS ARE EQUIPPED WITH SINGLE-EFFORT, NON-GRASP HARDWARE CENTERED BETWEEN 30"-44" ABOVE FLOOR. CBC 2019 1126A.6
 - DOOR HANDLES, PULLS, LATCHES, LOCKS AND OTHER OPERATING DEVICES SHALL BE INSTALLED 34" MIN. AND 48" MAX. ABOVE THE FINISHED FLOOR. LOCKS USED ONLY FOR SECURITY PURPOSES AND NOT USED FOR NORMAL OPERATION ARE PERMITTED AT ANY HEIGHT. CBC 1010.1.9.2
 - PROVIDE WEATHER STRIPPING FOR ALL EXTERIOR DOORS.
 - ALL DOORS LEADING TO THE 1-HOUR FIRE RATED CORRIDOR MUST BE EQUIPPED WITH FIRE RATED HARDWARE.
 - NO PROJECTIONS ARE PERMITTED INTO THE REQUIRED CLEAR DOOR OPENING WIDTH LOWER THAN 34-INCH A.F.F. ALL DOORS ARE MINIMUM 36" WIDE TO PROVIDE REQUIRED 32" CLEAR WIDTH WHEN OPEN CBC 2019 11B-404.2.3
 - SWINGING DOOR AND GATE SURFACE WITHIN 10 INCHES OF THE FINISH FLOOR OR GROUND MEASURED VERTICALLY SHALL HAVE A SMOOTH SURFACE ON THE PUSH SIDE EXTENDING THE FULL WIDTH OF THE DOOR OR GATE. PARTS CREATING HORIZONTAL OR VERTICAL JOINTS IN THESE SURFACES SHALL BE WITHIN 1/16 INCH OF THE SAME PLANE AS THE OTHER AND BE FREE OF SHARP OR ABRASIVE EDGES. CAVITIES CREATED BY ADDED KICK PLATES SHALL BE CAPPED. CBC 2019 11B-404.2.10

MINIMUM PLUMBING FACILITIES CALCULATION:

CPC 2019 TABLE A
 OCCUPANCY GROUP: B
SERVICE AREA/OFFICE/EMPLOYEE AREA: 867 SF
 OCCUPANT LOAD FACTOR: 1 PERSON PER 200 SF
 AREA OCCUPANT LOAD: 867/200=4.3
 TOTAL OCCUPANT LOAD: 4.3 (MALE: 2.5, FEMALE: 2.5)

CPC 2016 TABLE 422.1
 TYPE OF OCCUPANCY B

REQUIRED	WATER CLOSETS		LAVATORIES	
	MALE	FEMALE	MALE	FEMALE
1	1-50	1-15	1-75	1-50
PROVIDE	1	1	1	1

- NOTES:**
- ALL ENAMEL PAINTED DRY WALL MUST BE SMOOTH FINISH. COLOR AND FINISHED TO BE DETERMINED BY OWNER. CONTRACTOR TO VERIFY WITH OWNER FOR SPECIFICATIONS PRIOR TO FRIGING AND CONSTRUCTION.
 - ALL FLOOR DRAIN SHALL BE EQUIPPED WITH P-TRAP AND SHALL BE SLOPED 1/4"=1'-0" FROM WALL TO DRAIN. AND ARCHITECT FOR REVIEW PRIOR TO INSTALLATION.
 - ALL WORK TABLE AND CUSTOM SHELVING IS TO BE CABINET QUALITY CONSTRUCTION WITH ALL SURFACES SMOOTH AND ALL CRACKS AND CREVICES SEALED WITH A CAULKING-TYPE SEALANT.
 - CONTRACTOR TO SUBMIT ALL FINISH MATERIAL FOR OWNER AND ARCHITECT FOR REVIEW PRIOR TO INSTALLATION.
 - ALL FLOOR SINKS SHALL FLOWER W/ FINISHED FLOOR.
 - INSTALL SINGLE USE SOAP, PAPER TOWER DISPENSERS AND WRIST HANDLE FAUCETS AT ALL HAND SINKS.
 - THE WALLS IN UTENSIL WASHING, JANITORIAL AREA, FOOD PREPARATION, FOOD SERVICE, REST ROOMS ETC. MUST BE LIGHT IN COLOR AND OF MIN. 70% LIGHT REFLECTANCE VALUE

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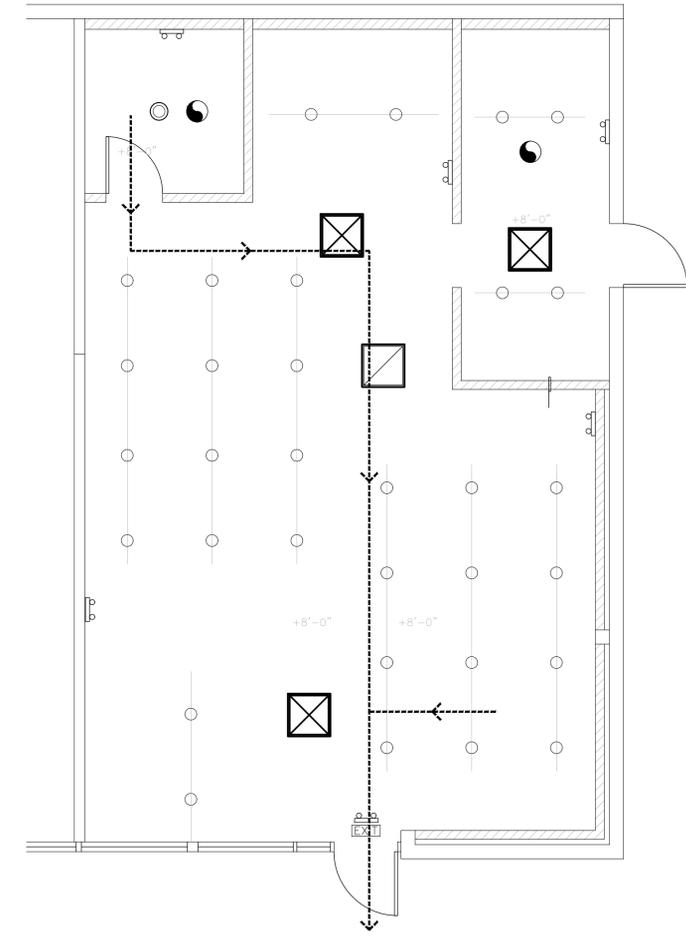
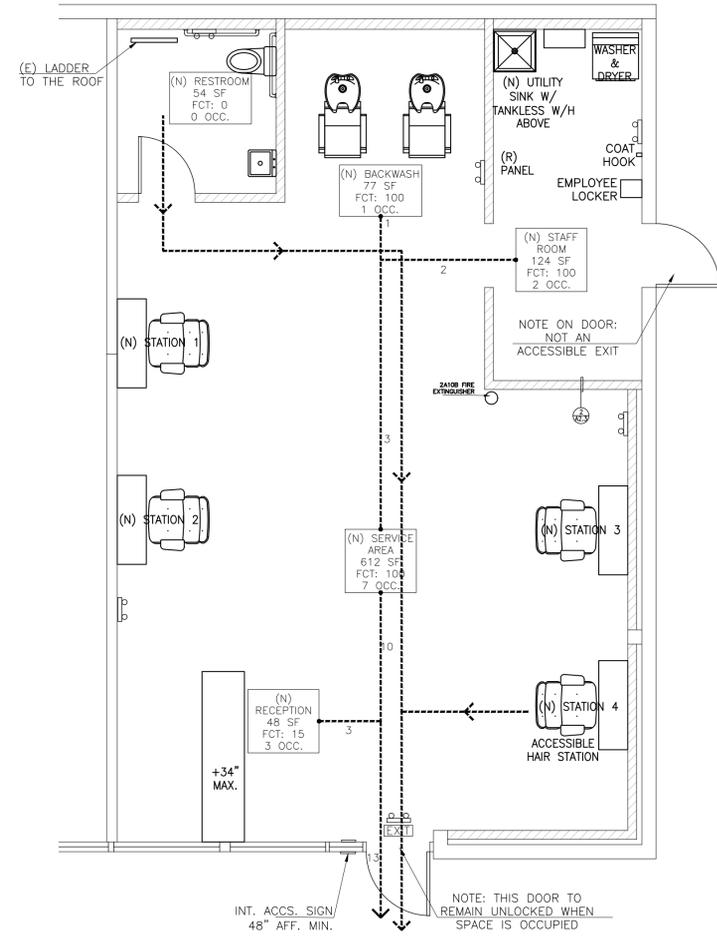
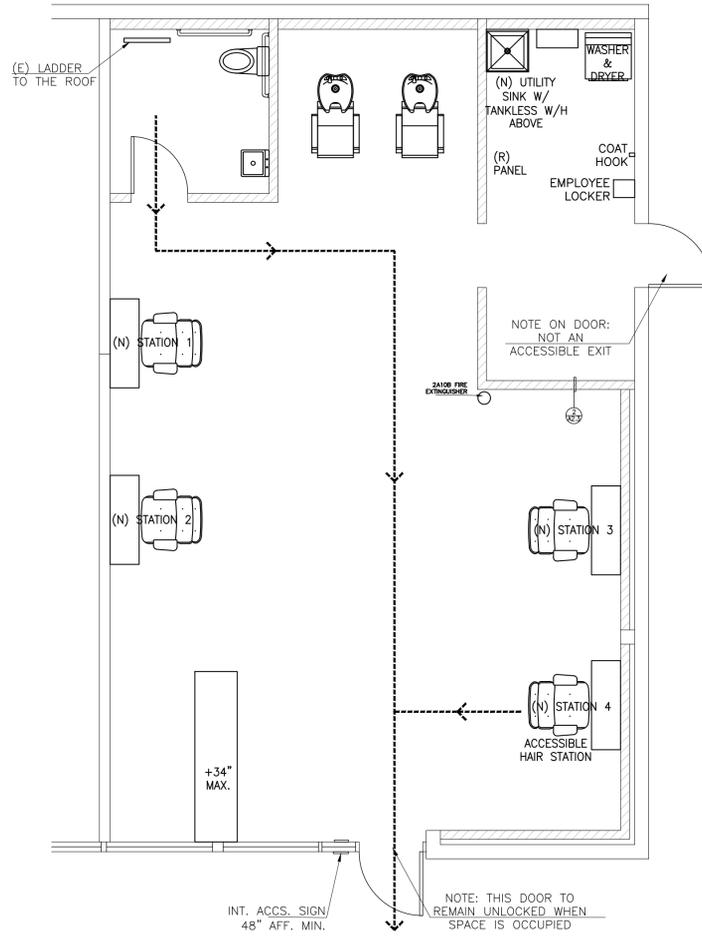
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DATE: 04/30/2020
 DRAWN: QL/SL
 PROJECT NO.: J20-C004

SHEET TITLE:
(E) FLOOR PLAN & PROPOSED FLOOR PLAN & SCHEDULES

SHEET OF:
A-2.0

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OCCUPANCY CALCULATION

ITEM	AREA DESCRIPTION	AREA	OCCUPANT
1	RECEPTION - 1/15 SF	48	3
2	SERVICE AREA - 1/100 SF	612	7
3	BACKWASH STATION - 1/100 SF	77	1
4	STAFF ROOM - 1/100 SF	124	2
5	RESTROOM - 0	54	0
TOTAL		915	13

CEILING LEGEND

- GYPBOARD CEILING
- SUPPLY AIR REGISTER
- RETURN AIR REGISTER
- EMERGENCY LIGHT
- EXIT LIGHT
- EXHAUST FAN
- LED RECESSED. SEE FOR LIGHTING SCHEDULE.
- LED SPOTLIGHT. SEE FOR LIGHTING SCHEDULE.
- LED HANGING. SEE FOR LIGHTING SCHEDULE.

NOTES:

1. LIGHT FIXTURES LOCATED OVER UNCOVERED FOOD OR UTENSILS WILL BE SHATTERPROOF AND CLEANABLE.
2. SUFFICIENT NATURAL OR ARTIFICIAL LIGHTING (MINIMUM 20 FOOT-CANDLES MEASURED 30 INCHES ABOVE THE FLOOR WILL BE PROVIDED FOR GENERAL CLEAN-UP PURPOSES AND 50 FOOT CANDLES AT SURFACES WHERE FOOD EMPLOYEES WILL WORK WITH FOOD OR WITH UTENSILS OR EQUIPMENT USED FOR CUTTING OR GRINDING.
3. THE RESTROOM EXHAUST FAN WILL BE LIGHT-SWITCH ACTIVATED.

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**PROPOSED
 CEILING PLAN
 &
 EXIT PLAN**

SHEET OF:
A-2.1

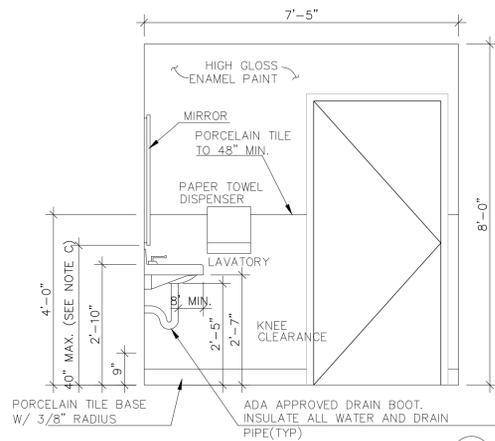
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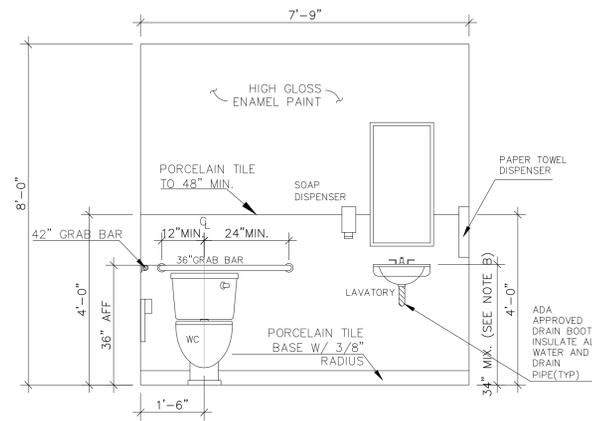
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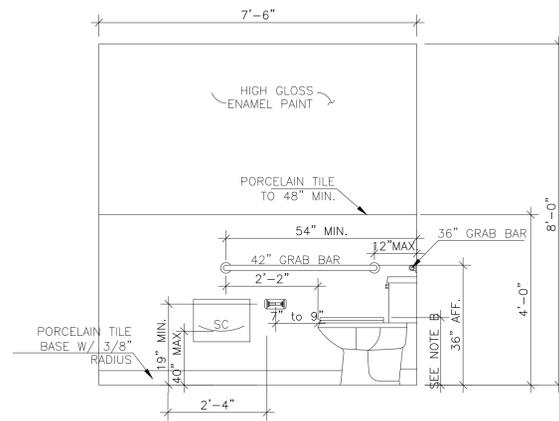
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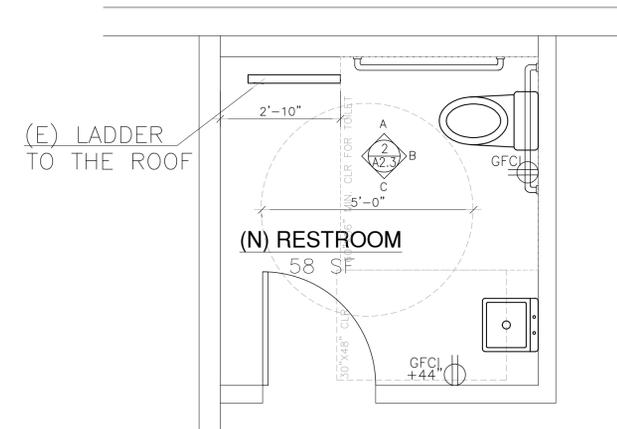
NOTE C: MIRRORS LOCATED ABOVE LAVATORIES OR COUNTERTOPS SHALL BE INSTALLED WITH THE BOTTOM EDGE OF THE REFLECTING SURFACE 40 INCHES (1016 MM) MAXIMUM ABOVE THE FINISH FLOOR OR GROUND. CBC 11B-603.3



NOTE B: LAVATORIES AND SINKS SHALL BE INSTALLED WITH THE FRONT OF THE HIGHER OF THE RIM OR COUNTER SURFACE 34 INCHES (864 MM) MAXIMUM ABOVE THE FINISH FLOOR OR GROUND.

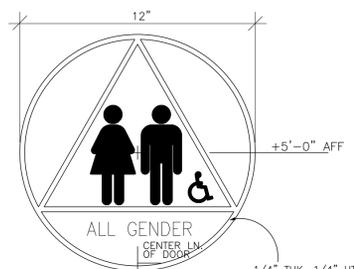


NOTE A: THE SEAT HEIGHT OF A WATER CLOSET ABOVE THE FINISH FLOOR SHALL BE 17 INCHES (432 MM) MINIMUM AND 19 INCHES (483 MM) MAXIMUM MEASURED TO THE TOP OF THE SEAT. SEATS SHALL NOT BE SPRUNG TO RETURN TO A LIFTED POSITION. SEATS SHALL BE 2 INCHES (51 MM) HIGH MAXIMUM. CBC 11B-604.4



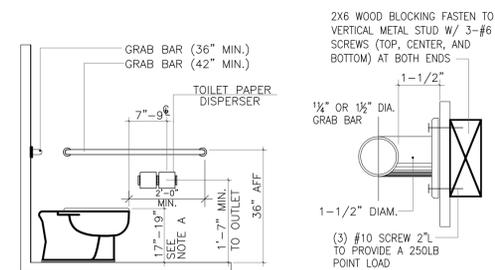
ACCESSIBLE RESTROOM FLOOR PLAN AND ELEVATIONS

1/2" 1

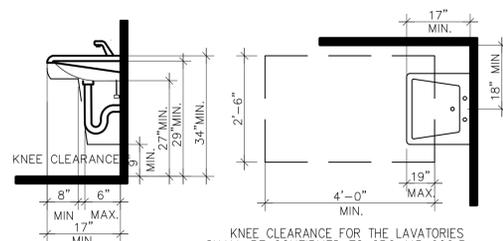
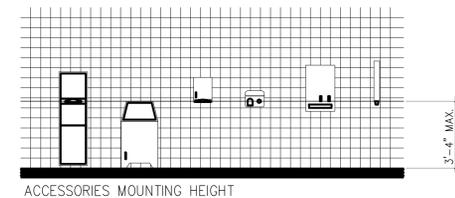


RESTROOM SIGNAGE
COLOR OF THESE GEOMETRIC SYMBOLS AND LETTERS SHALL CONTRAST DISTINCTLY FROM THE PLAQUE. THE PLAQUE SHALL ALSO CONTRAST DISTINCTLY FROM THE DOOR

NOTE:
UNISEX SANITARY FACILITIES SHALL BE IDENTIFIED BY A CIRCLE, 1/4 INCH (6.4 MM) THICK AND 12 INCHES (305 MM) IN DIAMETER WITH A 1/4 INCH (6.4 MM) THICK TRIANGLE SUPERIMPOSED ON THE CIRCLE AND WITHIN THE 12-INCH (305 MM) DIAMETER. THE TRIANGLE SYMBOL SHALL CONTRAST WITH THE CIRCLE SYMBOL, EITHER LIGHT ON A DARK BACKGROUND OR DARK ON A LIGHT BACKGROUND. THE CIRCLE SYMBOL SHALL CONTRAST WITH THE DOOR, EITHER LIGHT ON A DARK BACKGROUND OR DARK ON A LIGHT BACKGROUND. CBC 2016 11B-703.7.2.6.3

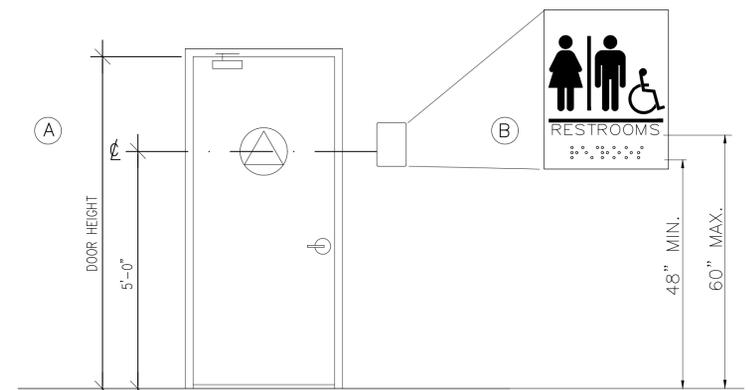


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KNEE CLEARANCE FOR THE LAVATORIES SHALL BE CONFIRMED TO CBC 11B 606.3

- NOTE:
1. THE MAXIMUM CLOSURE FORCE : 5 POUNDS MAX FOR EXTERIOR DOORS 5 POUNDS FOR INTERIOR DOOR, AND 15 POUNDS FOR FIRE DOORS.
 2. THE MAXIMUM PILE HEIGHT OF THE CARPET SHALL NOT EXCEED 1/2 INCH. SECTION 11B-302.2.
 3. ELECTRICAL SWITCHES AND THERMOSTATS (MEASURED TO TOP OF OUTLET BOX) IN ACCESSIBLE AREAS SHALL BE INSTALLED BETWEEN 3 AND 4 FEET ABOVE THE FLOOR PER SECTION 11B-308.1.1.
 4. RECEPTACLE OUTLETS (MEASURED TO BOTTOM OF OUTLET BOX) IN ACCESSIBLE SHALL BE INSTALLED AT LEAST 15 INCHES ABOVE FLOOR PER SECTION 11B-308.1.2.
 5. COMPLY 100% WITH TITLE 24 HANDICAP STANDARD.
 6. ALL COUNTERS MUST BE +34" HT. MAX. INCLUDING FRONT COUNTER..
 7. FAUCET CONTROLS TO BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, TWISTING OF WRIST, OR TWISTING OF THE HAND. CBC 11B-309.4.



SIGN TO BE A MIN. OF 6" X 6" LETTERS TO BE RAISED 1/32" WITH CHARACTERS OF AT LEAST 5/8" BUT LESS THAN 2". LETTERS SHALL BE ACCOMPANIED WITH GRADE 2 BRAILLE. SIGN TO HAVE MALE (♂ MEN'S ROOM) AND FEMALE (♀ WOMEN'S ROOM). WHEELCHAIR ACCESS PICTOGRAMS WITH VERBAL DESCRIPTION BELOW. SIGN SHALL BE NON-GLARE FINISH. CHARACTERS AND SYMBOLS SHALL CONTRAST WITH THEIR BACKGROUND.

ACCESSIBLE RESTROOM DETAILS

NTS 3

ACCESSIBLE DOOR SIGN

NTS 2

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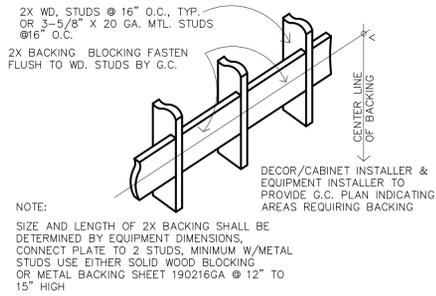
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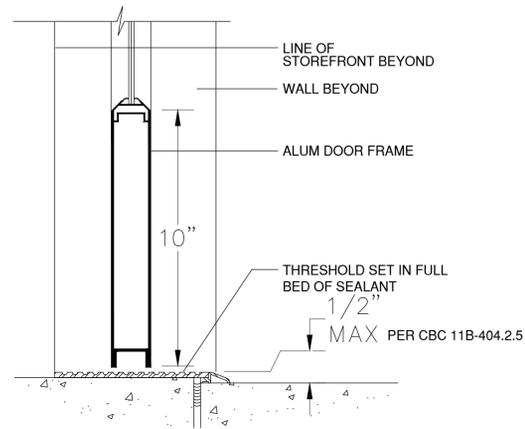
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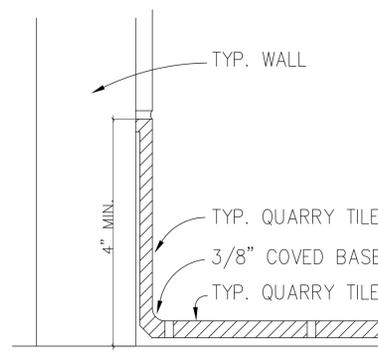
WALL BLOCKING DETAIL

NTS 11



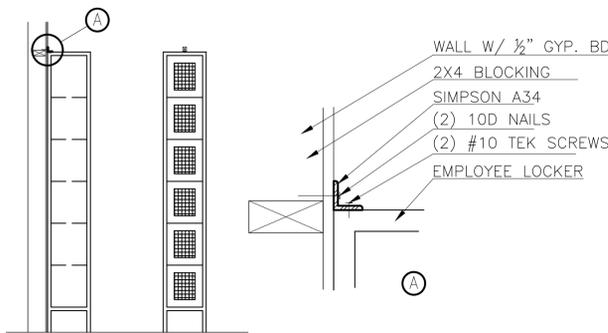
THRESHOLD DETAIL

NTS 7



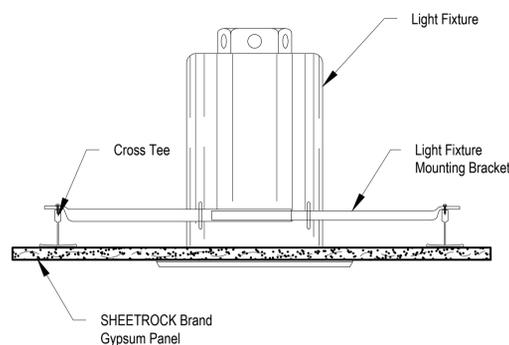
TILE CURVED BASE DETAIL

NTS 8



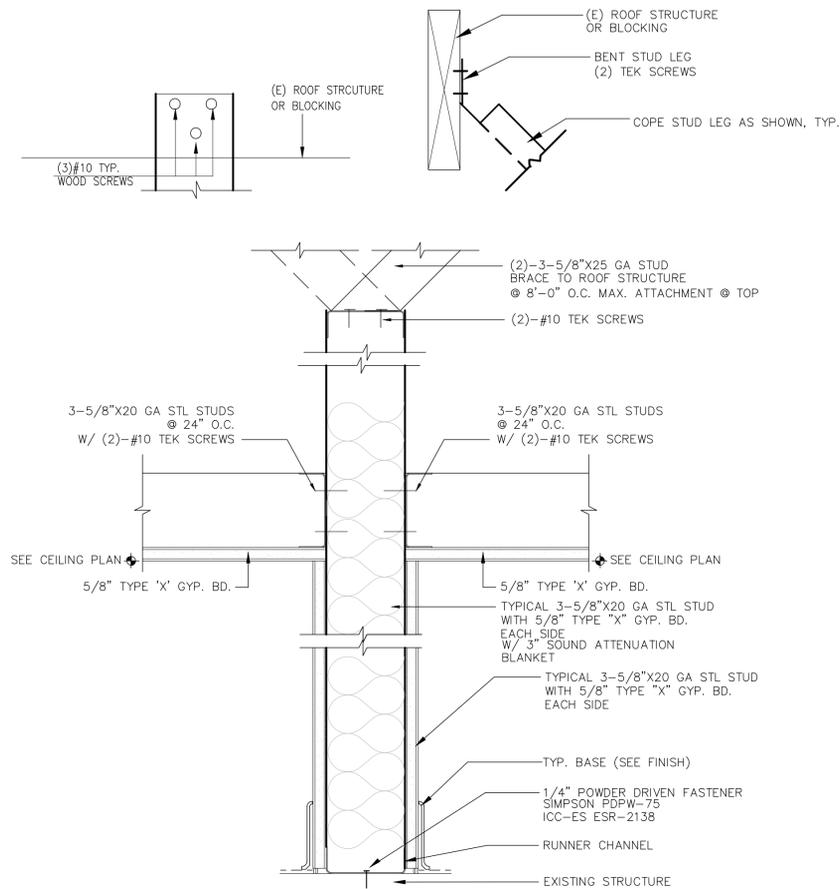
LOCKER ANCHOR DETAIL

NTS 9



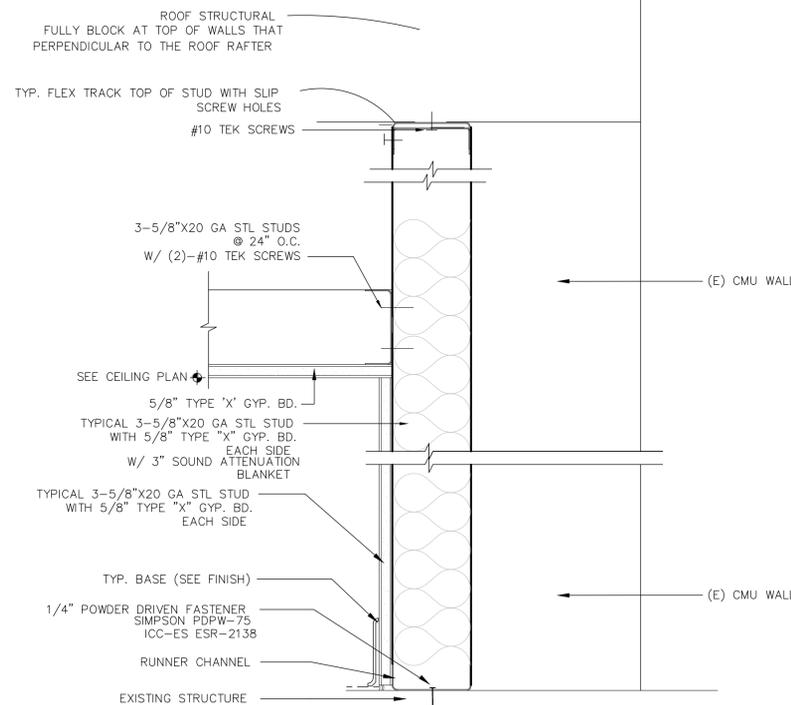
INCANDESCENT FIXTURE (TYP.)

NTS 10



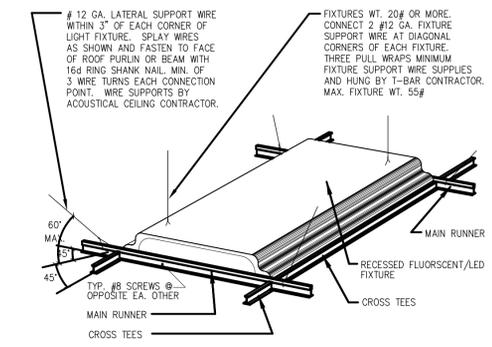
INTERIOR WALL (TYP.)

NTS 5



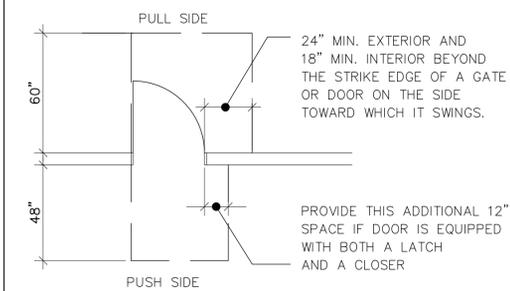
FURRING WALL (TYP.)

NTS 6



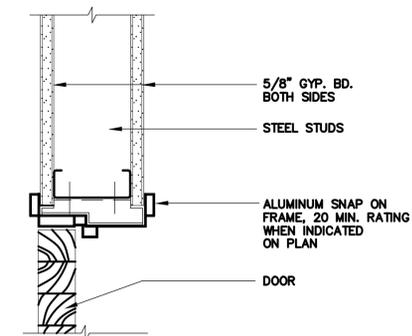
(E) T8 LIGHT FIXTURES

NTS 1



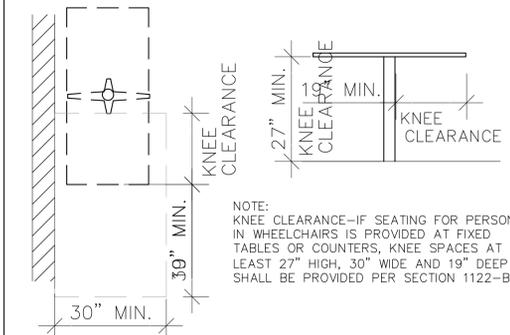
HC DOOR CLEARANCE

NTS 2



DOOR HEAD AND JAMB (SIM.)

NTS 3



KNEE CLEARANCE

NTS 4

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**ARCHITECTURAL
DETAILS**

SHEET OF:

A-4.0

ELECTRICAL GENERAL NOTES

- ALL WIRES SHALL BE COPPER. SOLID OR STRANDED FOR #10 AND #12. STRANDED FOR #8 OR LARGER.
- ALL DEVICES AND EQUIPMENT INSTALLED OUTDOORS OR EXPOSED TO THE WEATHER SHALL BE OF WEATHERPROOF CONSTRUCTION.
- ALL DEVICES SHALL BE SPECIFICATION GRADE IN COMMON AREAS. ALL SINGLE AND GANGED PLATES SHALL BE THERMOPLASTIC AND SHALL MATCH THE DEVICE IN COLOR. COORDINATE DEVICE COLOR WITH THE ARCHITECT PRIOR TO INSTALLATION. GANG DEVICES AT GROUP LOCATIONS UNDER A SINGLE COVER PLATE.
- THE ELECTRICAL PLANS ARE SCHEMATIC IN NATURE AND ARE NOT INTENDED TO SHOW ALL OF THE ARCHITECTURAL DETAIL OR SPECIFICS OF ELECTRICAL CONSTRUCTION. TAKE ALL DIMENSIONS FROM THE ARCHITECTURAL DRAWINGS.
- REFER TO THE LATEST EDITIONS OF THE CEC, TITLE 24, CBC AND LOCAL ORDINANCES IN EFFECT AT THE TIME OF CONSTRUCTION AS THE CONTROLLING DOCUMENTS.
- ALL CONNECTIONS TO MECHANICAL EQUIPMENT SHALL BE MADE WITH A MINIMUM OF 24" OF WEATHERPROOF FLEXIBLE CONDUIT TO PREVENT SOUND AND VIBRATION TRANSMISSION TO THE STRUCTURE.
- COORDINATE ALL MOTOR OVERLOADS AND/OR FUSES FURNISHED BY THIS CONTRACT WITH THE ACTUAL EQUIPMENT INSTALLED. SIZE OVERLOADS BASED ON MOTOR NAMEPLATE FULL LOAD CURRENT AND SERVICE FACTOR. FUSES FOR MOTOR AND TRANSFORMER CIRCUITS SHALL BE DUAL ELEMENT. FUSES FOR OTHER "NON-INRUSH" LOADS SHALL BE FAST ACTING. ALL FUSES SHALL BE CURRENT LIMITING CLASS RK5 OR CLASS L UNLESS OTHERWISE NOTED.
- GROUNDING CONDUCTORS ARE GENERALLY NOT SHOWN. GROUND AND BOND ALL EQUIPMENT, RACEWAYS, MOTORS, PANELBOARDS AND SWITCHBOARDS, ETC. IN ACCORDANCE WITH CEC ARTICLE 250.
- BONDING OF ALL INTERIOR METAL PIPING SHALL BE IN ACCORDANCE WITH ARTICLE 250.144 AS FOLLOWS:
 - ALL INTERIOR METAL WATER PIPING SHALL BE BONDED TO ONE OR MORE GROUNDING ELECTRODES USED. THE BONDING JUMPER SHALL BE SIZED IN ACCORDANCE WITH TABLE 250.66.
 - INTERIOR METAL PIPING THAT MAY BECOME ENERGIZED (i.e. GAS PIPING, ETC.), SHALL BE BONDED IN ACCORDANCE WITH PG&E REQUIREMENTS. THE BONDING JUMPER SHALL BE SIZED IN ACCORDANCE WITH TABLE 250.66, USING THE RATING OF THE CIRCUIT THAT MAY ENERGIZE THE PIPING.
- THE PHASE COLOR CODING OF THE INSULATION OF THE CONDUCTORS SHALL BE:

NOMINAL VOLTAGE	A	B	C	NEUTRAL	GROUND
120/208V	BLACK	RED	BLUE	WHITE	GREEN
- ALL ELECTRICAL WORK SHALL COMPLY WITH THE LATEST EDITION OF CALIFORNIA ELECTRICAL CODE.
- EACH MULTIWIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH A MEANS THAT WILL SIMULTANEOUSLY DISCONNECT ALL UNGROUNDED CONDUCTORS AT THE POINT WHERE THE BRANCH CIRCUIT ORIGINATES. CEC 210.4(B)
- ALL UNGROUNDED AND GROUNDED CONDUCTORS OF EACH MULTIWIRE BRANCH CIRCUIT SHALL BE GROUPED BY WIRE TIES OR SIMILAR MEANS IN AT LEAST ONE LOCATION WITHIN THE PANELBOARD OR OTHER POINT OF ORIGINATION CEC 210.4(D)
- FOR EXISTING CONDITIONS / ELECTRICAL EQUIPMENTS:
 - ELECTRICAL CONTRACTOR SHALL FIELD VERIFY THE SIZE/RATING OF ALL ELECTRICAL EQUIPMENTS AND COMPARE WITH THE DRAWINGS. ANY DISCREPANCY FOUND BETWEEN THE DRAWINGS AND ACTUAL INSTALLATION SHOULD BE IMMEDIATELY REPORTED TO THE ENGINEER UNDERSIGNED BEFORE TURNING ON THE SERVICE.
 - ELECTRICAL CONTRACTOR SHALL FIELD VERIFY EXISTING FEEDER CONDUCTORS' SIZE AND INSULATION RESISTANCE. REPLACE IF THE INSULATION RESISTANCE IS LESS THAN 1 MEGAOHM AT 1000Vdc. NEW CONDUCTORS SHALL BE OF THE EQUIVALENT TYPE AND SIZE AS THE EXISTING FEEDER.
 - TEST ALL EXISTING CIRCUIT BREAKERS TO BE REUSED. EC TO MAKE SURE ALL EQUIPMENTS TO BE REUSED ARE OPERATIONAL.
 - ELECTRICAL CONTRACTOR SHALL VERIFY PANELBOARD ACTUAL RATING AND LOADING SHOWN. REVISE AS REQUIRED AND SUBMIT TO THE ENGINEER BEFORE RE-ENERGIZATION.
 - ELECTRICAL CONTRACTOR SHALL VERIFY (E) FIELD CONDITIONS PRIOR TO BID. ANY DISCREPANCIES BETWEEN DRAWINGS FOUND DURING INSTALLATION SHALL BE BROUGHT TO THE ENGINEER'S ATTENTION & SHOULD BE RESOLVED AT NO ADDITIONAL COST TO THE OWNER.
- ALL ELECTRICAL WORK SHALL COMPLY WITH THE LATEST EDITION OF CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARDS.

ELECTRICAL LEGEND
(ALL SYMBOLS MAY OR MAY NOT BE USED)

LIGHTING FIXTURES/CONTROL SWITCHES	POWER/DATA	CONDUIT	SINGLE LINE
CEILING OR WALL MOUNTED EXIT SIGN. INDICATES INTEGRAL EMERGENCY HEAD CEILING OR WALL MOUNTED EXIT SIGN. ARROWS INDICATE PATH OF EGRESS NEW EMERGENCY LIGHTING WITH BATTERY BACK-UP. 90 MIN BATTERY (E) = EXISTING SPST TOGGLE SWITCH - 20A, 120/277V, "o" INDICATES CONTROL. 3-WAY TOGGLE SWITCH - 20A, 120/277V "o" INDICATES CONTROL. SPST KEYED SWITCH - 20A, 120/277V, "o" INDICATES CONTROL. MOMENTARY CONTACT SWITCH, SINGLE POLE, DOUBLE THROW U.O.N. LOW VOLTAGE OVERRIDE SWITCH "R1" - RELAY CONTROLLED. MANUAL MOTOR STARTER SWITCH WITH INTEGRAL OVERLOAD HEATERS. WALL SWITCH WITH INTEGRAL NEON PILOT LIGHT. (2) SINGLE POLE SWITCHES INCANDESCENT DIMMER SWITCH. ALSO USED A FLUORESCENT DIMMER "F"; AND AS A LOW VOLTAGE DIMMER "L" (0-10V) WALL MOUNTED MOTION SENSOR PASSIVE INFRARED TYPE <p>"1" - SINGLE LEVEL LIGHTING WATTSTOPPER MDL. NO. PW-100 120V 800W OR EQUAL "2" - DUAL LEVEL LIGHTING OR TWO LOADS WATTSTOPPER MDL. NO. PW-200 120V 800W OR EQUAL</p> WALL MOUNTED MOTION SENSOR ULTRASONIC TYPE <p>"1" - SINGLE LEVEL LIGHTING WATTSTOPPER MDL. NO. UW-100 120V 800W OR EQUAL "2" - DUAL LEVEL LIGHTING OR TWO LOADS WATTSTOPPER MDL. NO. UW-200 120V 800W OR EQUAL</p> WALL MOUNTED MOTION SENSOR/DIMMER COMBINATION <p>"1" - SINGLE LEVEL LIGHTING "2" - DUAL LEVEL LIGHTING OR TWO LOADS INCANDESCENT DIMMER SWITCH "D"; FLUORESCENT DIMMER "F"; AND AS A LOW VOLTAGE DIMMER (0-10V) "L". WALL MOUNTED MOMENTARY CONTACT LOW VOLTAGE OVERRIDE SWITCH "1" - CONTROLS RELAY #1</p> CEILING MOUNTED MOTION SENSOR CEILING MOUNTED DAYLIGHT SENSOR CEILING MOUNTED SMOKE DETECTOR THERMOSTAT CEILING MOUNTED CARBON MONOXIDE DETECTOR CEILING MOUNTED HEAT DETECTOR TIME CLOCK NURSE CALL DEVICE DIMMING RELAY POWER PACK (0-10V DIMMING) LUTRON, FLIGHT/ACUITY, LEVITON, WATTSTOPPER POWER PACK, OR EQUIVALENT RELAY POWER PACK FOR PLUG LOADS LUTRON, FLIGHT/ACUITY, LEVITON, WATTSTOPPER OR EQUIVALENT	FLUSH MOUNTED BRANCH CIRCUIT PANEL SURFACE MOUNTED BRANCH CIRCUIT PANEL SWITCHBOARD OR DISTRIBUTION BOARD COMBINATION STARTER DISCONNECT SWITCH DISCONNECT SWITCH DISCONNECT SWITCH, MOTOR RATED, "F" INDICATES SWITCH TO BE FURNISHED WITH FUSES MAGNETIC MOTOR STARTER WITH CPT, HOA AND 3 OL'S. "2" INDICATES NEMA SIZE. EMERGENCY POWER OFF (PANIC BUTTON) AND MOTOR, FURNISHED AND INSTALLED BY OTHERS. "M" DENOTES HORSEPOWER WHEN KNOWN. ABOVE CEILING OR CEILING MOUNTED JUNCTION BOX WIREMOLD G-4000 DIVIDED. VERIFY MOUNTING HEIGHT AND BRANCH CIRCUIT CONDUIT ROUTING. DUPLEX RECEPTACLE MOUNTED ON CEILING DUPLEX RECEPTACLE MOUNTED ON WALL QUADRUPLX RECEPTACLE MOUNTED ON WALL DUPLEX RECEPTACLE ON A DEDICATED CIRCUIT QUADRUPLX RECEPTACLE ON A DEDICATED CIRCUIT HALF SWITCHED DUPLEX RECEPTACLE QUADRUPLX CONTROLLED/UNCONTROLLED RECEPTACLE CONTROLLED DUPLEX RECEPTACLE 208V, 60A RECEPTACLE, NEMA CONFIGURATION TO BE VERIFIED WITH OWNER, U.O.N. 208V, DEDICATED RECEPTACLE TO BE VERIFIED WITH OWNER, U.O.N. 120V, 20A RECEPTACLE, NEMA 6-20R TO BE VERIFIED WITH OWNER, U.O.N. 120V, 15A RECEPTACLE, NEMA 5-15R TO BE VERIFIED WITH OWNER, U.O.N. 120V, 15A RECEPTACLE, NEMA 5-20R TO BE VERIFIED WITH OWNER, U.O.N. POWER POLES CORD DROP RECEPTACLE CATV OUTLET HOME NETWORK OUTLET FOR TV, PHONE, DATA ISOLATED GROUND DUPLEX RECEPTACLE ISOLATED GROUND QUADRUPLX RECEPTACLE DOOR BELL ELEVATOR PIT DUPLEX RECEPTACLE, LIGHT AND SWITCH FLUSH FLOOR DUPLEX RECEPTACLE FLUSH FLOOR QUADRUPLX RECEPTACLE FLUSH FLOOR TELEPHONE OUTLET FLUSH FLOOR COMBINATION TELEPHONE/DATA OUTLET FLUSH FLOOR RECEPTACLE AND TELEPHONE BOX DATA OUTLET TELEPHONE OUTLET +18" AFF UON COMBINATION TELEPHONE & DATA OUTLET INTERCOM OUTLET +18" AFF UON	CONDUIT TURNING UP CONDUIT TURNING DOWN CONDUIT RUNNING UP & DOWN LOW VOLTAGE MULTI-CONDUCTOR CABLE - PLENUM RATED WHERE REQUIRED, NOT INSTALLED IN CONDUIT. CONDUIT - CONCEALED IN WALLS OR CEILING IF POSSIBLE, 1/2" WITH (2) #12 THHN/THWN Cu & (1) #12 THHN/THWN Cu GROUND U.O.N. CONDUIT - IN OR BELOW FLOOR, 3/4" WITH (2) #12 THHN/THWN Cu & (1) #12 THHN/THWN Cu GROUND U.O.N. CONDUIT - EXPOSED, 1/2" WITH (2) #12 THHN/THWN Cu & (1) #12 THHN/THWN Cu GROUND U.O.N. TYPE MC CABLE 3/C #12 WITH GND (MINIMUM NUMBER OF CONDUCTOR AND WIRE SIZE) CONDUIT INSTALLED UNDERGROUND HASH MARK IDENTIFICATION EQUIPMENT GROUND CONDUCTOR ISOLATED GROUND CONDUCTOR (WHERE USED) NEUTRAL CONDUCTOR CONDUIT - HOME RUN TO PANEL, TERMINAL CABINET, ETC., HASH MARKS INDICATE NUMBER OF WIRES. #10 INDICATES WIRE SIZE. SIZE CONDUIT PER CODE U.O.N. FLEX CONDUIT WITH CONNECTION. <p>NOTE: PROVIDE DEDICATED NEUTRAL TO EACH BRANCH CIRCUIT WIRING.</p> <p>MISC.</p> (AC-1) EQUIPMENT TAG (1) SHEET NOTE SYMBOL (1) GENERAL NOTE SYMBOL (A) 2 FIXTURE TAG, NUMBER INDICATED QUANTITY OF FIXTURES (1) REVISION REFERENCE SYMBOL - SEE ASSOCIATED REVISION NOTE. (F1) FEEDER DESIGNATION	MOLDED CASE CIRCUIT BREAKER, "100" EQUALS TRIP RATING, "3" INDICATES NUMBER OF POLES, "150" EQUALS FRAME SIZE. ENCLOSED MOLDED CASE CIRCUIT BREAKER, "100" EQUALS TRIP RATING <p>"3P" INDICATES NUMBER OF POLES.</p> DRAWOUT INSULATED CASE OR AIR CIRCUIT BREAKER WITH INDICATIONS ABOVE. EQUIPMENT GROUND FAULT DETECTION WITH TEST/MONITOR PANEL. FUSED SWITCH, CLASS L OR R FUSES AS NOTED. "100" INDICATES SWITCH SIZE, "70" INDICATES FUSE SIZE, "3" INDICATES POLES. TRANSFORMER, 2 WINDING Δ - DELTA Y - WYE Y - WYE GROUNDED NEUTRAL PANELBOARD, SIZE AS NOTED, MAIN LUGS ONLY UNLESS MAIN BREAKER SHOWN, "100/3" INDICATES MAIN BREAKER SIZE. COMBINATION STARTER, "2" INDICATES STANDARD NEMA SIZE WITH CPT, HOA AND 3 OVERLOADS U.O.N. KW-HR METER

ABBREVIATIONS

AFF ABOVE FINISHED FLOOR	EC ELECTRICAL CONTRACTOR	LT LIGHT	R REMOVE OR RELOCATE	V VOLT
AL ALUMINUM CONDUCTOR OR BUS	EM EMERGENCY	LTG LIGHTING	REC RECEPTACLE	
AM AMMETER	EQ EQUAL		RECEPT RECEPTACLE	W WALL MOUNTED; WATT
ANN ANNUNCIATING	EQUIP EQUIPMENT	MAX MAXIMUM	REF REFRIGERATOR; REFERENCE	W/ WITH
ART ARTICLE	EX EXPLOSION PROOF	MCB MAIN CIRCUIT BREAKER	REQ'D REQUIRED	W/O WITH OUT
AUTO AUTOMATIC	EXH EXHAUST	MCC MOTOR CONTROL CENTER	RL RELOCATED	WP WEATHER PROOF
AUX AUXILIARY	FA FIRE ALARM	MCM MILLI CIRCULAR MILS		
AWG AMERICAN WIRE GAUGE	FAFP FIRE ALARM ANNUNCIATING PANEL	MIN MINIMUM	SCHED SCHEDULE	XFMR TRANSFORMER
	FACP FIRE ALARM CONTROL PANEL	MISC MISCELLANEOUS	SECT SECTION	
	FBO FURNISHED BY OTHERS	MLO MAIN LUG ONLY	SIM SIMILAR	
BD BOARD	FIN FINISH	MTD MOUNTED	SO SQUARE	
BKBD BACK BOARD	FLA FULL LOAD AMPS	MTG MOUNTING	SW SWITCH	
BKR BREAKER	FSD FIRE SMOKE DAMPER	MTR MOTOR	SWBD SWITCHBOARD	
BTM BOTTOM	FUT FUTURE		SWGR SWITCHGEAR	
	GEN GENERATOR	N NORTH	SYS SYSTEM	
CAB CABINET	GFCI GROUND FAULT CIRCUIT INTERRUPTER	NC NORMALLY CLOSED		
CB CIRCUIT BREAKER	GND GROUND	NEC NATIONAL ELECTRIC CODE	TBD TO BE DETERMINED	
CCTV CLOSED CIRCUIT TELEVISION		NEUT NEUTRAL	TC TIME CLOCK	
CKT CIRCUIT		NIC NOT IN CONTRACT	TEL TELEPHONE	
CO CONDUIT ONLY	HGT HEIGHT	NO NORMALLY OPEN	TEMP TEMPORARY; TEMPERATURE	
CU COPPER CONDUCTOR OR BUS	HP HORSE POWER	NTS NOT TO SCALE	TI TENANT IMPROVEMENT	
	HPS HIGH PRESSURE SODIUM		TRANS TRANSFORMER	
DD DUCT DETECTOR	HTR HEATER		TIB TELEPHONE TERMINAL BACKBOARD	
DIA DIAMETER	HW HOT WATER	OS OCCUPANCY SENSOR	TV TELEVISION	
DIM DIMENSION			TYP TYPICAL	
DISC DISCONNECT	IG ISOLATED GROUND	PB PULL BOX		
DN DOWN	INCAND INCANDESCENT	PE PHOTO ELECTRIC CELL	UC UNDER CABINET	
DS DISCONNECT SWITCH		PNL PANEL	UG UNDERGROUND	
	JB JUNCTION BOX	PR PAIR	UL UNDERWRITERS LABORATORY	
(E) EXISTING	KV KILOVOLT	QTY QUANTITY	UON UNLESS OTHERWISE NOTED	
(ER) EXISTING TO REMAIN	KVA KILOVOLT AMPERE			
EA EACH	KW KILOWATT			

SCOPE OF WORK

- PROVIDE TITLE 24 FOR INTERIOR LIGHTING AND POWER DISTRIBUTION SYSTEM
- PROVIDE LIGHTING AND CONTROL SWITCHES SYSTEM
- PROVIDE POWER FOR NEW EQUIPMENT AND DATA. SEE E3.0 FOR MORE INFORMATION
- PROVIDE POWER SUPPLY FOR MECHANICAL AND PLUMBING EQUIPMENT
- PROVIDE ONE-LINE DIAGRAM AND PANEL SCHEDULE

DRAWING INDEX

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E2.0	SINGLE LINE DIAGRAM AND PANEL SCHEDULES
E3.0	POWER AND SIGNAL PLAN
E4.0	LIGHTING PLAN
E5.0	TITLE 24 INTERIOR
E5.1	TITLE 24 POWER DISTRIBUTION

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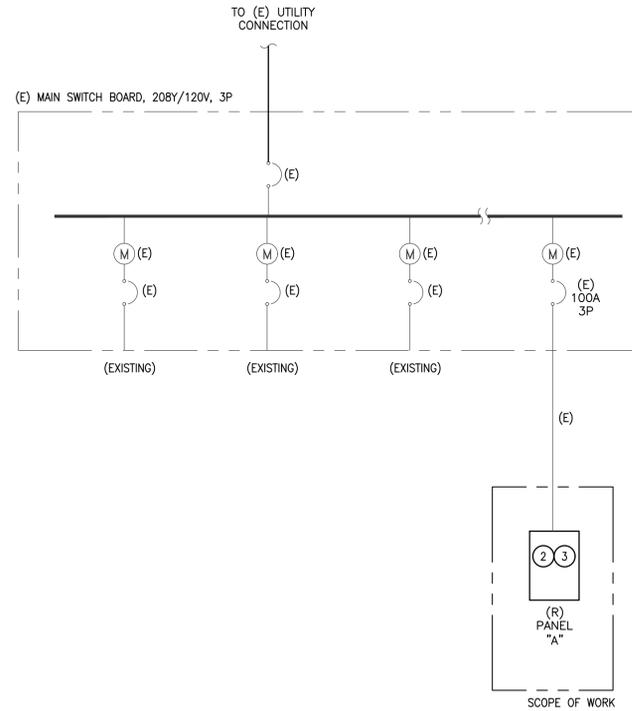
DATE: 11/23/2020
 DRAWN: JC
 PROJECT NO.:

SHEET TITLE:
**GENERAL NOTES,
 SYMBOL AND
 ABBREVIATIONS**

SHEET OF:
E1.0

CITY PLANNER STAMP:

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1 SINGLE LINE DIAGRAM 1 4
E2.0 NOT TO SCALE

VOLTS:		120/208V		MAIN: MLO						
PHASE:		3		BUSSING: 100A						
WIRE:		4		LOCATION: TYPE: PLUG-IN						
AIC:		10		ISOLATED GROUND BUS: N/A MOUNTING: FLUSH						
(R) PANEL "A"										
CKT	BKR	LOAD DESCRIPTION	LOAD (VA)	WATTS			LOAD (VA)	LOAD DESCRIPTION	BKR	CKT
1	20A-1P	LIGHTING	341	2754.7			2413.7			2
3	20A-1P	LIGHTING	191.8		2605.5		2413.7	(E) AC-1	30A-3P	4
5	20A-1P	REC (BACKWASH STATION)	720.0			3133.7	2413.7			6
7	20A-1P	REC (STN 3 AND 4)	720.0	1440.0			720.0	REC (STN 1 AND 2)	20A-1P	8
9	20A-1P	RECEPTACLE	1440.0		2520.0		1080.0	RECEPTACLE	20A-1P	10
11	20A-1P	WH PILOT LIGHT	360.0			860.0	500.0	CP-1	20A-1P	12
13	20A-1P	SPACE		500.0			500.0	POS	20A-1P	14
15	20A-1P	RECEPTACLE	360.0		360.0			SPARE	20A-1P	16
17	20A-1P	SPACE				1500.0	1500.0	WASHER	20A-1P	18
19	20A-1P	SPACE		0.0				SPACE	20A-1P	20
CONNECTED kVA PER PHASE			4.69	5.49	5.49					
DEMAND FACTOR APPLICATIONS			conn. load (kVA)	demand factor (%)	demand load (kVA)					
RECEPTACLE (FIRST 10kVA)			5.0	100%	5.0					
RECEPTACLE (OVER 10kVA)			0.0	50%	0.0					
CONTINUOUS LOADS			0.5	125%	0.7					
NON-CONTINUOUS LOADS			10.1	100%	10.1					
TOTAL CONNECTED LOAD:						15.7 kVA				
TOTAL DEMAND LOAD:						15.8 kVA				
TOTAL SERVICE:						43.9 Amps				

3 PANEL SCHEDULES
E2.0 NOT TO SCALE

GENERAL NOTES:

- CONTRACTOR TO VERIFY EXISTING GROUNDING SYSTEM. GROUND RESISTANCE SHALL BE 25 OHMS OR LESS MEASURED BY THREE-POINT METHOD.
- ELECTRICAL CONTRACTOR SHALL FIELD VERIFY THE SIZE/RATING OF ALL ELECTRICAL EQUIPMENT AND COMPARE WITH THE DRAWINGS. ANY DISCREPANCY FOUND BETWEEN THE DRAWINGS AND ACTUAL INSTALLATION SHOULD BE IMMEDIATELY REPORTED TO THE ENGINEER UNDERSIGNED BEFORE TURNING ON THE SERVICE.
- TEST ALL EXISTING CIRCUIT BREAKERS TO BE REUSED. CONTRACTOR TO MAKE SURE ALL EQUIPMENT TO BE REUSED ARE OPERATIONAL.
- EXISTING SINGLE LINE IS FOR REFERENCE PURPOSES ONLY. CONTRACTOR SHALL VERIFY CONDITION OF THE EXISTING SWITCHBOARD PRIOR TO WORK ON THE GEAR.
- PROPERLY PHASE COLOR ALL FEEDER AND BRANCH CIRCUIT CONDUCTORS.

SHEET NOTES:

- ELECTRICAL CONTRACTOR SHALL FIELD VERIFY THE SIZE/RATING OF ALL ELECTRICAL EQUIPMENT AND COMPARE WITH THE DRAWINGS. ANY DISCREPANCY FOUND BETWEEN THE DRAWINGS AND ACTUAL INSTALLATION SHOULD BE IMMEDIATELY REPORTED TO THE ARCHITECT BEFORE TURNING ON THE SERVICE.
- PROVIDE UPDATED TYPE WRITTEN PANEL CIRCUIT DIRECTORY AT COMPLETION OF PROJECT.
- PROVIDE LAMINATED PANELBOARD'S NAMEPLATE. SIZE AND COLOR TO MATCH (E)
- TEST ALL EXISTING CIRCUIT BREAKERS TO BE REUSED. CONTRACTOR TO MAKE SURE ALL EQUIPMENT TO BE REUSED ARE OPERATIONAL.

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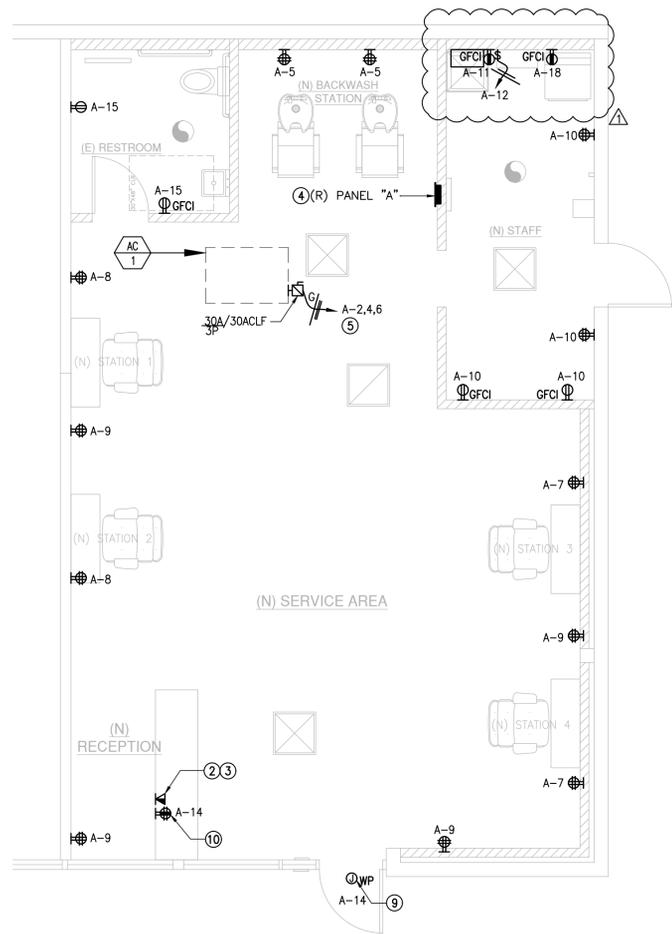
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SHEET TITLE:

SINGLE LINE
DIAGRAM AND
PANEL SCHEDULE

SHEET OF:

E2.0



1 POWER & SIGNAL PLAN ①②③④⑤⑥⑦⑧⑨⑩
 E3.0 SCALE: 1/4"=1'-0"

GENERAL NOTES:

- REFER TO ARCHITECTURAL DRAWINGS FOR FULL SCOPE OF WORK. FIELD VERIFY SCOPE IN PRE-BID JOB-WALK.
- CONTRACTOR TO FIELD VERIFY ACTUAL DEMOLITION WORK AND COORDINATE WITH BUILDING ENGINEER / CLIENT'S SITE REPRESENTATIVE PRIOR TO ANY WORK.
- ALL WORK SHALL COMPLY WITH THE LATEST EDITION OF NATIONAL ELECTRICAL CODE AS AMENDED BY THE LATEST EDITION OF CALIFORNIA ELECTRICAL CODE.
- COORDINATE WITH EQUIPMENT SUPPLIER & INSTALLER FOR FULL ELECTRICAL REQUIREMENTS.
- ALL ELECTRICAL & RELATED NEW WORK MUST BE DONE ON DE-ENERGISED SYSTEMS IN AN INTRINSICALLY SAFE & SECURE MANNER. CONTRACTOR TO DO THE DEMOLITION WORK & IT'S ASSOCIATED WORK PER CURRENT STATE, NATIONAL CODES/ORDINANCES.
- CONTRACTOR IS RESPONSIBLE TO ENSURE EXISTING SYSTEMS OUTSIDE THE PRESENT SCOPE OF WORK TO BE IN GOOD WORKING CONDITION. ANY INTERRUPTIONS, DAMAGE TO EXISTING BUILDING AND IT'S SYSTEMS SHALL BE MADE REPAIRED TO IT'S FULL WORKING CONDITION AT NO EXTRA COST TO CLIENT/OWNER AND THEIR REPRESENTATIVES.
- COORDINATE WITH OTHER TRADES. SCHEDULE SHUT-DOWNS WITH BUILDING OWNER/ RESIDENT ENGINEER TO MINIMIZE ANY DISRUPTIONS TO NORMAL WORKING CONDITIONS OF THE EXISTING BUILDING AND IT'S OCCUPANTS. FIELD VERIFY.
- CONTRACTOR TO COORDINATE AND OBTAIN APPROVAL OF BUILDING OWNER AND CLIENT'S STRUCTURAL ENGINEER FOR SAW-CUTTING OF CONCRETE SLAB.
- PROVIDE MANUFACTURER RECOMMENDED OVER-CURRENT PROTECTION, DISCONNECTING MEANS, FEEDERS & TERMINATIONS. COORDINATE WITH EQUIPMENT SUPPLIER & INSTALLER. FIELD VERIFY.
- ALL WIRING TO BE COPPER "THWN," UNLESS OTHERWISE NOTED.
- ELECTRICAL CONTRACTOR TO SUPPLY OWNER WITH DRAWINGS OF THE AS-BUILT CONDITION OF THE WIRING SYSTEM UPON COMPLETION.
- ALL RECEPTACLE OUTLETS ON BRANCH CIRCUITS OF 30-AMPERES OR LESS AND COMMUNICATION SYSTEM RECEPTACLE SHALL BE LOCATED NO MORE THAN 48 INCHES MEASURED FROM THE TOP OF THE RECEPTACLE OUTLET BOX OR RECEPTACLE HOUSING NO LESS 15 INCHES MEASURED TO THE BOTTOM OF THE RECEPTACLE OUTLET BOX OR RECEPTACLE HOUSING ABOVE FINISHED FLOOR.
- ALL CONTROLS AND SWITCHES INTENDED TO BE USED BY THE OCCUPANT OF THE ROOM OR AREA TO CONTROL LIGHTING AND RECEPTACLE OUTLETS, APPLIANCES OR COOLING, HEATING AND VENTILATING EQUIPMENT, SHALL BE LOCATED NO MORE THAN 48 INCHES MEASURED FROM THE TOP OF THE JUNCTION OR DEVICE BOX NOR LESS THAN 15 INCHES MEASURED TO THE BOTTOM OF THE JUNCTION OR DEVICE BOX ABOVE THE FINISHED FLOOR.
- FOR ELECTRICAL PENETRATIONS OF FIRE-RATED WALLS, PROVIDE PROTECTION PER LATEST EDITION OF CBC CHAPTER 7.
- PER LATEST EDITION OF CEC ARTICLE 518.4, THE FIXED WIRING METHODS SHALL BE METAL RACEWAYS, FLEXIBLE METAL RACEWAYS, NONMETALLIC RACEWAYS ENGAGED IN NOT LESS THAN 50 MILLIMETER (2 IN.) OF CONCRETE, TYPE MI, MC, OR AC CABLE. THE WIRING METHOD SHALL ITSELF QUALIFY AS AN EQUIPMENT GROUNDING CONDUCTOR ACCORDING TO 250.118 OR SHALL CONTAIN AN INSULATED EQUIPMENT GROUNDING CONDUCTOR SIZE IN ACCORDANCE WITH TABLE 250.122.
- EACH MULTI-WIRE BRANCH CIRCUIT SHALL BE PROVIDED WITH A MEANS THAT WILL SIMULTANEOUSLY DISCONNECT ALL GROUNDED CONDUCTORS AT THE POINT WHERE THE BRANCH CIRCUIT ORIGINATES.
- ALL ELECTRICAL ROUGH-INS SHOWN ON THIS PLAN PERTAINS ONLY TO THE EQUIPMENT BEING FURNISHED BY VENDOR. ANY ADDITIONAL REQUIREMENTS SHALL BE SPECIFIED BY THE OWNER AND/OR THE GENERAL CONTRACTOR.
- PROVIDE A SEPARATE NEUTRAL CONDUCTOR FOR EACH AND EVERY PHASE (LINE) CONDUCTOR; TO COMPLY WITH CEC ARTICLE 210.4 FOR MULTI-WIRE CIRCUITS AND TO PERMIT INDIVIDUAL OPERATION/CONTROL OF EACH BRANCH CIRCUIT OR PROVIDE TIE HANDLE ON BREAKERS TO SUIT SINGLE NEUTRAL ON MULTI-CIRCUITS HOMERUNS- NEUTRAL MUST BE MINIMUM #10 ON MULTI CIRCUITS.

SHEET NOTES:

- RECEPTACLE MOUNTING HEIGHT AND EXACT LOCATION SHALL BE VERIFIED WITH THE ARCHITECT OR CLIENT.
- PROVIDE 3/4" CONDUIT FROM SIGNAL DEVICE BACKBOX STUB UP ABOVE CEILING WITH BUSHING. TERMINATE CONDUIT WITHIN 1 FT OF SIGNAL CABLE J-HOOKS ABOVE CEILING.
- PROVIDE SIGNAL CABLE J-HOOKS AT MAXIMUM SPACING OF 5'-0" ON CENTER FOR TEL/DATA CABLING OR PROVIDE SIGNAL RACEWAY ALL THE WAY THRU TEL/DATA TERMINAL BACKBOARD.
- ELECTRICAL CONTRACTOR TO VERIFY AND COORDINATE WITH ARCHITECT OR OWNER THE EXACT MOUNTING HEIGHT AND LOCATION OF PANEL BOARDS.
- REFER TO COPPER CONDUCTOR MAX. DISTANCES TABLE ON SHEET E5.2 FOR FEEDER SIZES.
- ELECTRICAL CONTRACTOR TO COORDINATE WITH ARCHITECT THE ACTUAL LOCATION/MOUNTING HEIGHT OF ALL RECEPTACLES UPON INSTALLATION.
- ELECTRICAL CONTRACTOR TO VERIFY AND COORDINATE WITH ARCHITECT OR OWNER THE REQUIRED TYPE OF CONNECTION FOR THE EQUIPMENT.
- ELECTRICAL CONTRACTOR TO VERIFY AND COORDINATE WITH ARCHITECT OR OWNER THE LOCATION OF THE EQUIPMENT.
- PROVIDE WEATHERPROOF J-BOX FOR SIGNAGE POWER REQUIREMENT. FIELD COORDINATE EXACT LOCATION OF SIGN. PROVIDE DISCONNECTING MEANS PER CEC ARTICLE 600.6.
- PROVIDE QUADRUPLX DEDICATED RECEPTACLE FOR POS POWER REQUIREMENTS. CONTRACTOR TO VERIFY EXACT LOCATION OF THE POS EQUIPMENT.

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1	03/16/2021	PC COMMENTS

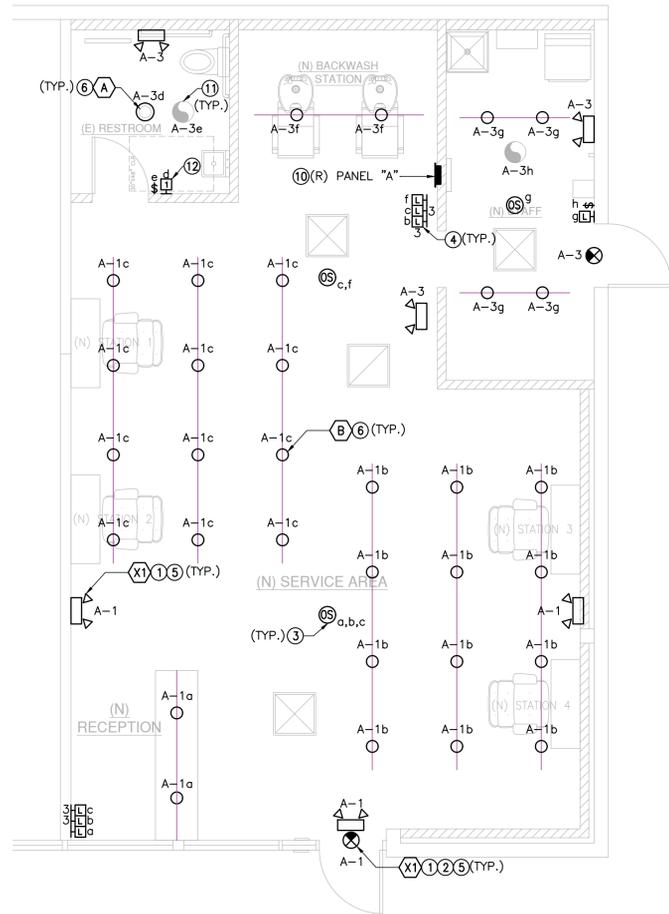
DATE: 11/23/2020
 DRAWN: JC
 PROJECT NO.:

SHEET TITLE:

POWER AND
 SIGNAL PLAN

SHEET OF:

E3.0



1 LIGHTING PLAN 79
E4.0 SCALE: 1/4"=1'-0"

GENERAL NOTES:

- ALL LIGHTING WORK SHALL BE PER LATEST EDITION OF CALIFORNIA ENERGY CODE TITLE 24. PROVIDE, INSTALL & CONNECT POWER-PACKS, SWITCHING POWER MODULE & ACCESSORIES WITH REQUIRED J-BOXES, WIRES & RACEWAYS AS REQUIRED FOR A COMPLETE LIGHTING SYSTEM.
- ALL WORK SHALL COMPLY WITH THE LATEST EDITION OF NATIONAL ELECTRICAL CODE AS AMENDED BY THE LATEST EDITION OF CALIFORNIA ELECTRICAL CODE.
- REFER TO ARCHITECTURAL DRAWINGS FOR RCP PLANS AND FINAL LOCATION & MOUNTING HEIGHTS OF LIGHTING FIXTURES, SWITCHES, OUTLETS.
- CONTRACTOR IS RESPONSIBLE TO ENSURE EXISTING SYSTEMS OUTSIDE THE PRESENT SCOPE OF WORK TO BE IN GOOD WORKING CONDITION. ANY INTERRUPTIONS, DAMAGE TO EXISTING BUILDING AND IT'S SYSTEMS SHALL BE MADE REPAIRED TO IT'S FULL WORKING CONDITION AT NO EXTRA COST TO CLIENT/OWNER AND THEIR REPRESENTATIVES.
- COORDINATE WITH OTHER TRADES. SCHEDULE SHUT-DOWNS WITH BUILDING OWNER/ RESIDENT ENGINEER TO MINIMIZE ANY DISRUPTIONS TO NORMAL WORKING CONDITIONS OF THE EXISTING BUILDING AND IT'S OCCUPANTS. FIELD VERIFY.
- ALL WIRING TO BE COPPER "THWN," UNLESS OTHERWISE NOTED.
- ELECTRICAL CONTRACTOR TO SUPPLY OWNER WITH DRAWINGS OF THE AS-BUILT CONDITION OF THE WIRING SYSTEM UPON COMPLETION.
- VERIFY THE TYPE OF CEILING SYSTEM WITH GENERAL CONTRACTOR OR CEILING CONTRACTOR. PROVIDE FIXTURES WHICH ARE COMPATIBLE WITH THE CEILING SYSTEM AND INCLUDE ALL REQUIRED MOUNTING ACCESSORIES AND HARDWARE.
- SUPPORT CEILING MOUNTED LIGHTING FIXTURES DIRECTLY FROM THE BUILDING STRUCTURE. DO NOT SUPPORT FIXTURES FROM PIPING, DUCTWORK OR ANY OTHER EQUIPMENT, OR SOLELY FROM THE SUSPENDED CEILING.
- ALL LIGHTING FIXTURES SHALL BE NRTL LISTED.
- CONTRACTOR SHALL PROVIDE ADDITIONAL EXIT SIGN(S) IF REQUIRED BY THE CITY FIRE MARSHALL INSPECTOR AT NO ADDITIONAL COST TO THE OWNER.
- ALL EXIT SIGNS SHALL BE READILY VISIBLE FROM ANY DIRECTION OF EGRESS TRAVEL.
- FOR ELECTRICAL PENETRATIONS OF FIRE-RATED FLOOR/CEILING, PROVIDE PROTECTION PER LATEST EDITION OF CBC CHAPTER 7.
- INSTALL GROUNDED (NEUTRAL) CONDUCTORS OR PROVIDE RACEWAY TO ALL SWITCH LOCATIONS AS PER LATEST EDITION OF C.E.C. ART. 404.2.
- ALL CONTROLS AND SWITCHES INTENDED TO BE USED BY OCCUPANT OF THE ROOM OR AREA TO CONTROL LIGHTING AND RECEPTACLE OUTLETS, APPLIANCES OR COOLING, HEATING AND VENTILATING EQUIPMENT, SHALL LOCATED NO MORE THAN 48 INCHES MEASURED FROM THE TOP OF THE JUNCTION OR DEVICE BOX NOR LESS THAN 15 INCHES MEASURED TO THE BOTTOM OF THE JUNCTION OR DEVICE BOX ABOVE THE FINISHED FLOOR.

SHEET NOTES:

- PROVIDE HOT UNSWITCHED FOR EMERGENCY/EXIT LIGHT. PROVIDE WITH 90 MINUTE EMERGENCY BATTERY PACK. VERIFY EXACT LOCATION WITH ARCHITECT/OWNER.
- VERIFY WITH OWNER EXACT LOCATION AND MOUNTING HEIGHT OF EMERGENCY EGRESS LIGHTING ABOVE DOOR AND PLATE GLASS.
- PROVIDE CEILING MOUNTED OCCUPANCY SENSOR. LOCATE CEILING MOUNTED TO SUIT BEST COVERAGE PER MANUFACTURER RECOMMENDATION.
- PROVIDE WALL MOUNTED DIMMER SWITCH. ELECTRICAL CONTRACTOR SHALL COORDINATE LOCATION WITH OWNER PRIOR TO ROUGH-IN.
- THE BRANCH CIRCUIT FEEDING THE UNIT EMERGENCY LIGHTING FIXTURES (TYPE X & X1) SHALL BE THE SAME BRANCH CIRCUIT AS THAT SERVING THE NORMAL LIGHTING IN THE AREA AND CONNECTED AHEAD OF ANY LOCAL SWITCHES PER CEC 2016 ART. 700.12(F)(2)(3).
- ALL LED DRIVER & DIMMING BALLAST SHALL COMPLY WITH T24 MINIMUM REQUIRED CONTROL STEPS AND UNIFORM ILLUMINANCE LEVEL.
- LED DRIVER(S) & DIMMING BALLAST(S) TO MATCH OPERATION OF DIMMING CONTROL SWITCH FOR PROPER LIGHTING CONTROLS.
- LIGHT FIXTURE TO BE APPROVED BY THE OWNER OR ARCHITECT.
- LIGHTING SWITCH LOCATION TO BE VERIFIED AND COORDINATED WITH ARCHITECT OR OWNER.
- ELECTRICAL CONTRACTOR TO VERIFY AND COORDINATE WITH ARCHITECT OR OWNER THE EXACT MOUNTING HEIGHT AND LOCATION OF THE PANELBOARDS.
- CONNECT EXHAUST FAN TO ROOM LIGHTING CIRCUIT. EXHAUST FAN SHALL BE SEPARATELY SWITCHED FROM LIGHTS AT REST ROOM/TOILETS IN COMPLIANCE WITH T24 SWITCHING REQUIREMENTS. COORDINATE WORK AND LOCATION WITH MECHANICAL VENDOR. SEE MECHANICAL DRAWINGS FOR REFERENCE.
- PROVIDE WALL MOUNTED MOTION SENSOR. CONNECT TO AREA LIGHTING.
- ELECTRICAL CONTRACTOR TO SUBMIT LUMINAIRE SPECIFICATIONS/PRODUCT DATA TO ARCHITECT/OWNER FOR REVIEW AND APPROVAL.

INTERIOR LIGHTING FIXTURE SCHEDULE 6813						
FIXTURE TYPE	DESCRIPTION	MANUFACTURER'S CATALOG NO.	LAMPS	VOLT	WATTS	MOUNTING
⊙	A 6" Ø LED RECESSED LIGHT FIXTURE WITH LED DRIVER (0-10V DIMMING)	LITHONIA LIGHTING LDN6 40/10 LW6AR LD OR APPROVED EQUAL	LED	120	12.8	RECESSED MOUNTED
○	B LED CEILING SPOT LIGHT DIMMABLE	AISILAN LIGHTING MSD52B9W3K OR APPROVED EQUAL	LED	120	9.0	CEILING MOUNTED
⌵	X EMERGENCY LIGHT WITH 90 MIN BATTERY PACK	EATON-SURELITES SEL25R10SD OR APPROVED EQUAL	LED	120	2.0	CEILING/WALL MOUNTED
⊗	X1 EXIT LIGHT WITH 90 MIN BATTERY BACKUP	EATON-SURELITES CX7 OR APPROVED EQUAL	LED	120	1.0	CEILING/WALL MOUNTED

CITY PLANNER STAMP:



CLIENT:

HANHAO GONG
34755 ARDENWOOD BLVD.,
FREMONT, CA 94555

(530) 400-9356

PROJECT:

SALON
TENANT IMPROVEMENT
484 W HAMILTON AVE.
CAMPBELL, CA 95008

REVISION

#	DATE	DESCRIPTION
1	03/16/2021	PC COMMENTS

DATE: 11/23/2020
DRAWN: JC
PROJECT NO.:

SHEET TITLE:

LIGHTING PLAN

SHEET OF:

E4.0



CLIENT:

HANHAO GONG
34755 ARDENWOOD BLVD.,
FREMONT, CA 94555

(530) 400-9356

PROJECT:

SALON
TENANT IMPROVEMENT
 484 W HAMILTON AVE.
 CAMPBELL, CA 95008

REVISION

#	DATE	DESCRIPTION
1	03/16/2021	PC COMMENTS

DATE: 11/23/2020
DRAWN: JC
PROJECT NO.:

SHEET TITLE:

**TITLE 24
POWER
DISTRIBUTION**

SHEET OF:

E5.1

CITY PLANNER STAMP:

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STATE OF CALIFORNIA
Electrical Power Distribution
NRCC-ELC-E (Created 01/20) CALIFORNIA ENERGY COMMISSION NRCC-ELC-E

CERTIFICATE OF COMPLIANCE
This document is used to demonstrate compliance with mandatory requirements in §130.5 for electrical systems in newly constructed nonresidential, high-rise residential and hotel/motel occupancies. Additions and alterations to electrical service systems in these occupancies will also use this document to demonstrate compliance per §141.0(a) or §141.0(b)(2) for alterations.

Project Name: Salon Tenant Improvement Report Page: Page 1 of 4
Project Address: 484 W. Hamilton Ave., Campbell, CA 95008 Date Prepared: 2020-11-30

A. GENERAL INFORMATION

01 Project Location (city) Sunnyvale 02 Occupancy Types Within Project:
 Office Retail Warehouse Hotel/ Motel School Support Areas
 Parking Garage High-Rise Residential Relocatable Healthcare Facilities Other (Write In):

B. PROJECT SCOPE
Table Instructions: Include any electrical service systems that are within the scope of the permit application.

01	02	03	04	05	06
Electrical Service Designation/ Description	Scope of Work ¹	Rating (kVA)	Utility Provided Metering System Exception to §130.5(a) ²	System subject to CA Elec Code Article 517 Exception to §130.5(a)&(b)	Demand Response Controls Where required, demand response controls must be specified which are capable of receiving and automatically responding to at least one standards based messaging protocol which enables demand response after receiving a demand response signal. Sections §120.2, §130.1 and §130.3, and compliance documents NRCC-NCH, NRCC-LTI and NRCC-LTS will indicate when demand response controls are required.
(R) PANEL "A"	Add/Alt to feeders and branch circuits only		<input checked="" type="checkbox"/>	<input type="checkbox"/>	

¹ FOOTNOTES: Adding only new feeders and branch circuits triggers Voltage Drop §130.5(c), no other requirements from 130.5 are required.
² Applicable if the utility company is providing a metering system that indicates instantaneous kW demand and kWh for a utility-defined period.

C. COMPLIANCE RESULTS
Table Instructions: If this table says "DOES NOT COMPLY" refer to Table D. for guidance and review the Table that indicates "No".

01	02	03	04	05
Service Electrical Metering §130.5(a)	AND	Separation for Monitoring §130.5(b)	AND	Voltage Drop §130.5(c)
(See Table F)		(See Table G)		(See Table H)
	AND		AND	No
				DOES NOT COMPLY

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards> January 2020

STATE OF CALIFORNIA
Electrical Power Distribution
NRCC-ELC-E (Created 01/20) CALIFORNIA ENERGY COMMISSION NRCC-ELC-E

CERTIFICATE OF COMPLIANCE
Project Name: Salon Tenant Improvement Report Page: Page 2 of 4
Project Address: 484 W. Hamilton Ave., Campbell, CA 95008 Date Prepared: 2020-11-30

D. EXCEPTIONAL CONDITIONS
This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

Table B indicates the project is exempt from §130.5(a) Service Electrical Metering requirements because the utility company has provided the project a metering system that indicates instantaneous kW demand and kWh for a utility-defined period.

E. ADDITIONAL REMARKS
This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

F. SERVICE ELECTRICAL METERING
This Section Does Not Apply

G. SEPARATION OF ELECTRICAL CIRCUITS FOR ENERGY MONITORING
This Section Does Not Apply

H. VOLTAGE DROP
Table Instructions: Please complete this table for entirely new or complete replacement electrical power distribution systems, or alterations that add, modify or replace both feeders and branch circuits to demonstrate compliance with §130.5(c). For alterations, only the altered circuits must demonstrate compliance per §141.0(b)(2)(B).

01	02	03	04	05
Electrical Service Designation/ Description	Combined Voltage Drop on Installed Feeder/Branch Circuit Conductors Compliance Method	Location of Voltage Drop Calculations ¹	Sheet Number for Voltage Drop Calculations in Construction Documents	Field Inspector Pass Fail
(N) PANEL "2B"	<input checked="" type="checkbox"/> Voltage drop < 5% <input type="checkbox"/> Permitted by CA Elec Code (Exception to §130.5(c))* <input type="checkbox"/> Permitted by CA Elec Code (Exception to §130.5(c))*			<input type="checkbox"/> <input type="checkbox"/>
	<input checked="" type="checkbox"/> Voltage drop < 5% <input type="checkbox"/> Permitted by CA Elec Code (Exception to §130.5(c))*			<input type="checkbox"/> <input type="checkbox"/>

Table Continued

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards> January 2020

STATE OF CALIFORNIA
Electrical Power Distribution
NRCC-ELC-E (Created 01/20) CALIFORNIA ENERGY COMMISSION NRCC-ELC-E

CERTIFICATE OF COMPLIANCE
Project Name: Salon Tenant Improvement Report Page: Page 3 of 4
Project Address: 484 W. Hamilton Ave., Campbell, CA 95008 Date Prepared: 2020-11-30

01	02	03	04	05
Electrical Service Designation/ Description	Combined Voltage Drop on Installed Feeder/Branch Circuit Conductors Compliance Method	Location of Voltage Drop Calculations ¹	Sheet Number for Voltage Drop Calculations in Construction Documents	Field Inspector Pass Fail
(R) PANEL "A"	<input checked="" type="checkbox"/> Voltage drop < 5% <input type="checkbox"/> Permitted by CA Elec Code (Exception to §130.5(c))*	In construction documents	E5.1	<input type="checkbox"/> <input type="checkbox"/>

¹ NOTES: If "Permitted by CA Elec Code" is selected under Compliance Method above, please indicate where the exception applies in the space provided below.
² FOOTNOTES: Voltage drop calculations may be attached to the permit application outside the construction documents if allowed by the Authority Having Jurisdiction. Select "attached" if applicable. If calculations will be the responsibility of the installing contractor, select "Contractor Responsible".

I. CIRCUIT CONTROLS FOR 120-VOLT RECEPTACLES AND CONTROLLED RECEPTACLES
This Section Does Not Apply

J. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION
Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www2.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCL/

YES	NO	Form/Title	Field Inspector Pass Fail
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCI-ELC-01-E - Must be submitted for all buildings.	<input type="checkbox"/> <input type="checkbox"/>

K. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE
There are no Certificates of Acceptance applicable to electrical power distribution requirements.

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards> January 2020

STATE OF CALIFORNIA
Electrical Power Distribution
NRCC-ELC-E (Created 01/20) CALIFORNIA ENERGY COMMISSION NRCC-ELC-E

CERTIFICATE OF COMPLIANCE
Project Name: Salon Tenant Improvement Report Page: Page 4 of 4
Project Address: 484 W. Hamilton Ave., Campbell, CA 95008 Date Prepared: 2020-11-30

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT
I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: HUA-CHING LAO Documentation Author Signature:
Company: LADC Signature Date:
Address: 1590 OAKLAND RD., STE B212 CEA/ HERS Certification Identification (if applicable):
City/State/Zip: SAN JOSE, CA 95131 Phone: (408) 642-1628

RESPONSIBLE PERSON'S DECLARATION STATEMENT
I certify the following under penalty of perjury, under the laws of the State of California:
1. The information provided on this Certificate of Compliance is true and correct.
2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: HUA-CHING LAO Responsible Designer Signature:
Company: LADC Date Signed:
Address: 1590 OAKLAND RD., STE B212 License:
City/State/Zip: SAN JOSE, CA 95131 Phone: (408) 642-1628

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards> January 2020

HVAC GENERAL NOTES

- CONTRACTOR SHALL CAREFULLY REVIEW THESE PLANS AND SPECIFICATIONS PRIOR TO BID. CONTRACTOR SHALL ALSO REVIEW PLANS AND SPECIFICATIONS OF OTHER RELATED TRADES (INCLUDING ARCHITECTURAL, CIVIL, STRUCTURAL AND ELECTRICAL) PRIOR TO BID TO ENSURE AN ACCURATE UNDERSTANDING OF EXACT SCOPE OF WORK. ANY ITEMS REQUIRING CLARIFICATION SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IN SUFFICIENT TIME TO BE INCORPORATED INTO THE BID.
- CONTRACTOR SHALL VERIFY ALL EQUIPMENT MODEL NUMBERS, CAPACITIES, SIZES, VOLTAGES, AND ALL OTHER SCHEDULED INFORMATION WITH ALL OTHER APPLICABLE TRADES AND WITH THE MANUFACTURER PRIOR TO INSTALLATION.
- CONTRACTOR SHALL VERIFY ALL LOCATIONS, SIZES, POC'S, AND AVAILABILITY OF ALL EXISTING ITEMS (I.E.: OUTSIDE AIR, EXHAUST ETC.) PRIOR TO INSTALLATION OF ANY MATERIAL OR EQUIPMENT.
- THESE DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC AND ARE NOT INTENDED TO INDICATE ALL NECESSARY OFFSETS OF DUCTWORK AND PIPING. THE CONTRACTOR SHALL INSTALL MATERIAL AND EQUIPMENT IN A MANNER AS TO CONFORM TO STRUCTURE, AVOID OBSTRUCTIONS, PRESERVE HEADROOM, AND KEEP OPENINGS AND PASSAGEWAYS CLEAR. ALL INSTALLATIONS SHALL BE CONSISTENT WITH NORMALLY ACCEPTABLE INDUSTRY STANDARDS. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IN WRITING OF ANY DISCREPANCIES OR CONFLICTS THAT WOULD AFFECT THE SYSTEM PERFORMANCE OR WHICH WOULD INCUR ADDITIONAL COSTS. THIS NOTIFICATION SHALL BE MADE PRIOR TO THE INSTALLATION OF THE ITEMS CONCERNED.
- NEW AND/OR EXISTING EQUIPMENT INDICATED ON THIS DRAWING IS SHOWN IN APPROXIMATE POSITION(S). CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS INCLUDING EQUIPMENT LOCATIONS, POC'S AND STRUCTURAL MEMBERS PRIOR TO INSTALLATION. IN ALL CASES, ADEQUATE ACCESS PER MANUFACTURER'S RECOMMENDATIONS AND CODE COMPLIANCE) FOR MAINTENANCE AND REPLACEMENT OF EQUIPMENT SHALL BE PROVIDED.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE CODES. NOTHING SHOWN IN THE PLANS OR STATED IN THE SPECIFICATIONS IS INTENDED TO INDICATE THAT THE INSTALLATION OF CONNECTIONS OF ANY ITEM OR DEVICE SHOULD BE DONE CONTRARY TO THE MANUFACTURER'S INSTRUCTIONS AND ALL APPLICABLE CODES AND REGULATIONS. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT THE INSTALLATION AND CONNECTIONS OF ALL ITEMS AND DEVICES CONFORM TO MANUFACTURER'S INSTRUCTIONS AND TO ALL APPLICABLE CODES AND REGULATIONS.
- ALL HVAC EQUIPMENT, MATERIAL, AND ALL CONNECTION THERETO SHALL BE INSTALLED COMPLETE PER MANUFACTURER'S INSTRUCTIONS TO PROVIDE A COMPLETE AND FULLY OPERATIONAL SYSTEM.
- DUCT SIZES INDICATED ON DRAWINGS ARE INSIDE NET CLEARANCE DIMENSIONS.
- CONTRACTOR MAY, AT HIS OPTION, WITH PRIOR APPROVAL FROM ENGINEER REVISE DUCTWORK SIZING AND ROUTING TO ALLOW FOR INSTALLATION IN THE AVAILABLE SPACE. DUCTWORK THAT IS RESIZED MUST MAINTAIN THE SAME CROSS-SECTIONAL AREA.
- ALL NEW SUPPLY, RETURN, AND EXHAUST (AIR DISTRIBUTION) GRILLES, REGISTERS, AND DIFFUSERS SHALL MATCH (IF APPLICABLE) EXISTING, AND BE APPROVED BY ARCHITECT. THE MAXIMUM NOISE NC LEVEL SHALL BE 25.
- ALL SUPPLY, RETURN, AND EXHAUST REGISTER CONNECTIONS TO DUCTWORK SHALL BE PROVIDED WITH ACCESSIBLE MANUAL VOLUME DAMPERS. ALTERNATIVELY, ACCESSIBLE MANUAL VOLUME DAMPERS MAY BE PROVIDED IN DUCT WORK FEEDER LINES SERVING INDIVIDUAL REGISTERS. PROVIDE ACCESS DOOR AND PANEL AS REQUIRED.
- SUBSTITUTION OF HVAC EQUIPMENT WITH EFFICIENCIES LOWER THAN THOSE INDICATED ON THE PLANS IS NOT PERMITTED.
- IF THE CONTRACTOR'S USE OF SUBSTITUTE MATERIALS, EQUIPMENT, OR METHODS OF INSTALLATION REQUIRES ANY CHANGES IN OTHER TRADES' WORK FROM THAT SHOWN ON THE DRAWINGS, THE EXTRA COST OF THE OTHER TRADES WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR INITIATING THE SUBSTITUTION.
- SUBMITTALS: APPROVAL OF SUBMITTALS DOES NOT RELEASE THE CONTRACTOR FROM OBLIGATIONS TO COMPLY WITH ALL REQUIREMENTS OF THE CONSTRUCTION DOCUMENTS OR APPLICABLE CODE REGULATIONS.
- WHERE NONMETALLIC PIPING PENETRATES AREA SEPARATION WALLS, THE PIPE SECTION PASSING THROUGH THE WALLS AND THE FIXTURE CONNECTIONS THERETO SHALL BE OF METAL ONLY.
- NO RANGE HOODS, DRYER VENTS, COMBUSTION VENTS, OR HEATING DUCTS ARE PERMITTED IN AREA SEPARATION WALLS.
 - CONTRACTOR TO VERIFY LOCATION OF FIRE AND FIRE/SMOKE BARRIER WALLS WITH ARCHITECT PRIOR TO FIRE AND/OR SMOKE DAMPER, DETECTOR AND ACTUATOR INSTALLATION.
 - ALL CEILING FIRE DAMPERS TO BE ONE (1) HOUR U.L. AND C.S.F.M. APPROVED.
 - ALL ONE HOUR WALL SHALL BE APPROVED WITH ONE HOUR FIRE DAMPERS BOTH U.L. AND C.S.F.M. APPROVED.
 - ALL TWO HOUR WALLS SHALL BE APPROVED WITH TWO HOUR FIRE DAMPERS BOTH U.L. AND C.S.F.M. APPROVED.
 - ALL SMOKE BARRIER WALLS SHALL BE PROVIDED WITH U.L. AND C.S.F.M. APPROVED SMOKE/FIRE DAMPERS (EQUAL TO WALL RATING), MOTOR, ACTUATOR, AND SMOKE DETECTOR.
 - ALL PENETRATIONS OF ONE (1) HOUR CORRIDOR WALLS AND CEILINGS THAT WOULD REQUIRE THE INSTALLATION OF A FIRE DAMPER SHALL BE APPROVED WITH A U.L. AND C.S.F.M. APPROVED COMBINATION SMOKE/FIRE DAMPER, (EQUAL TO WALL RATING), MOTOR, ACTUATOR, AND SMOKE DETECTOR.
 - PROVIDE ALL FIRE & SMOKE DAMPERS WITH ACCESS DOORS AS NECESSARY.
- PROVIDE BALANCING DAMPERS ON ALL OUTSIDE AIR, EXHAUST AIR, SUPPLY AIR AND RETURN AIR SYSTEMS THROUGH OUT. DAMPERS ARE NOT INDICATED ON PLANS BUT ARE REQUIRED AT ALL BRANCH TAKE-OFFS.
- PROVIDE TURNING VANES ON ALL 90 DEGREE SQUARE ELBOWS.
- PROVIDE FLEXIBLE DUCT CONNECTIONS WITH MINIMUM 1" GAP ON THE SUPPLY AND RETURN DUCT CONNECTIONS ON ALL FANS.
- ALL SUPPLY AND RETURN DUCTWORK FROM AC UNITS SHALL BE LINED WITH 1" ACOUSTIC INSTALLATION TO MINIMUM 15 FEET FROM THE FAN UNLESS NOTED TO BE LONGER. PROVIDE PERFORATED LINING. DUCT SIZE SHALL BE INCREASED TO PROVIDE THE CLEAR INSIDE DIMENSIONS AS NOTED ON PLANS.
- KITCHEN EXHAUST DUCTS SHALL BE INSULATED WITH 2 HOUR RATED FIRE WRAP OR EQUIVALENT.
- VERIFY MECHANICAL EQUIPMENT LOCATION & DUCT ROUTING WITH ENGINEERING PRIOR TO CONSTRUCTION.

LIST OF GOVERNING CODES:

- 2019 CALIFORNIA BUILDING CODE (CBC)
- 2019 CALIFORNIA ELECTRICAL CODE (CEC)
- 2019 CALIFORNIA MECHANICAL CODE (CMC)
- 2019 CALIFORNIA PLUMBING CODE (CPC)
- 2019 CALIFORNIA FIRE CODE (CFC)
- 2019 CALIFORNIA ENERGY CODE
- 2019 SMACNA HVAC DUCT CONSTRUCTION STANDARDS – METAL AND FLEXIBLE (SMACNA)

CALIFORNIA GREEN BUILDING STANDARDS CODE 2020

- ALL HVAC DUCTS ARE REQUIRED TO BE SEALED WITH MASTIC AND SHALL BE TESTED. CONCEALED DUCT SHALL BE INSULATED WITH MIN R-8 DUCT INSULATION.
- AT THE TIME OF ROUGH INSTALLATION OR DURING STORAGE ON THE CONSTRUCTION SITE AND UNTIL START-UP PF THE HEATING AND COOLING EQUIPMENT, ALL DUCTS AND OTHER RELATED AIR DISTRIBUTION COMPONENT EQUIPMENT SHALL BE COVERED WITH TAPE, PLASTIC, SHEETMETAL OR OTHER METHODS ACCEPTABLE TO THE ENFORCING AGENCY TO REDUCE THE AMOUNT OF DUST OR DEBRIS WHICH MAY COLLECT IN THE SYSTEM. CGBC 5.504.3
- BASED ON THESE PLANS, THE MECHANICAL/BALANCING CONTRACTOR SHALL PROVIDE A TESTING AND ADJUSTING PLAN AND SHALL FOLLOW IT AS PER CALIFORNIA GREEN BUILDING STANDARDS CODE. SECTION 5.410.4.
- IN MECHANICAL VENTILATED BUILDINGS, PROVIDE REGULARLY OCCUPIED AREAS OF THE BUILDING WITH AIR FILTRATION MEDIA FOR OUTSIDE AND RETURN AIR PRIOR OCCUPANCY THAT PROVIDES AT LEAST A MERV 13. CGBC 5.504.5.3
- BUILDINGS SHALL MEET OR EXCEED THE PROVISIONS OF CALIFORNIA BUILDING CODE, CCR, TITLE 24, PART 2, SECTIONS 1203 (VENTILATION) AND CHAPTER 14 (EXTERIOR WALLS) FOR ADDITIONAL MEASURES NOT APPLICABLE TO LOW-RISE RESIDENTIAL OCCUPANCIES, SEE SECTION 5.407.2 OF THIS CODE. CGBC 5.505.1
- FOR MECHANICALLY OR NATURALLY VENTILATED SPACES IN BUILDINGS, MEET THE MINIMUM REQUIREMENTS OF SECTION 120.1 (REQUIREMENTS FOR VENTILATION) OF THE 2019 CALIFORNIA ENERGY CODE, OR THE APPLICABLE LOCAL CODE, WHICHEVER IS MORE STRINGENT, AND DIVISION 1, CHAPTER 4 OF CCR, TITLE 8. CGBC 5.506.1
- FOR BUILDINGS OR ADDITIONS EQUIPPED WITH DEMAND CONTROL VENTILATION, CO2 SENSORS AND VENTILATION CONTROLS SHALL BE SPECIFIED AND INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE 2019 CALIFORNIA ENERGY CODE, SECTION 120(C)(4). CGBC 5.506.2
- TESTING AND ADJUSTING SYSTEMS SHALL BE REQUIRED FOR BUILDING LESS THAN 10,000 SQFT. CGBC 5.410.4.
- DEVELOP A WRITTEN PLAN OF PROCEDURES FOR TESTING AND ADJUSTING SYSTEMS. SYSTEMS TO BE INCLUDED FOR TESTING AND ADJUSTING SHALL INCLUDE, AS APPLICABLE TO THE PROJECT, THE SYSTEMS LISTED IN SECTION 5.410.4.2.
- PERFORM TESTING AND ADJUSTING PROCEDURES IN ACCORDANCE WITH APPLICABLE STANDARDS ON EACH SYSTEM AS DETERMINED BY THE ENFORCING AGENCY. 5.410.4.3. BEFORE A NEW SPACE-CONDITIONING SYSTEM SERVING A BUILDING IS OPERATED FOR NORMAL USE, BALANCE IN ACCORDANCE WITH THE PROCEDURES DEFINED BY NATIONAL STANDARDS LISTED IN SECTION 5.410.4.3.1. OR AS APPROVED BY THE ENFORCING AGENCY.
- AFTER COMPLETION OF TESTING, ADJUSTING AND BALANCING, PROVIDE A FINAL REPORT OF TESTING SIGNED BY THE INDIVIDUAL RESPONSIBLE FOR OPERATING THESE SERVICES.
- PROVIDE THE BUILDING OWNER WITH DETAILED OPERATING AND MAINTENANCE INSTRUCTIONS AND COPIES OF WARRANTIES FOR EACH SYSTEM PRIOR TO FINAL INSPECTION. INCLUDE A COPY OF ALL INSPECTION VERIFICATIONS AND REPORTS REQUIRED BY THE ENFORCING AGENCY.
- IF THE HVAC SYSTEM IS USED DURING CONSTRUCTION, USE RETURN AIR FILTERS WITH A MERV OF 8, BASED ON ASHRAE 52.2-1999, OR AN AVERAGE EFFICIENCY OF 30% BASED ON ASHRAE 52.1-1992. REPLACE ALL FILTERS IMMEDIATELY PRIOR TO OCCUPANCY. APPLIES TO ADDITIONS OR ALTERATIONS.
- INSTALL HVAC AND REFRIGERATION EQUIPMENT THAT DOES NOT CONTAIN CFCs. CGBG 5.508.1.1.
- INSTALL FIRE SUPPRESSION EQUIPMENT THAT DOES NOT CONTAIN HALONS. CGBC 5.508.1.2.

SPECIAL HANGING REQUIREMENTS

- FOR ALL ITEMS AND EQUIPMENT BEING SUPPORTED FROM ROOF DECK, SUBMIT COORDINATION DRAWINGS CLEARLY SHOWING DETAILS OF FIELD CONNECTIONS, ANCHORAGE, AND THE RELATIONSHIP TO THE WORK OF OTHERS.
- MECHANICAL CONTRACTOR TO ACQUIRE SPECIAL HANGER SUPPORTS FROM THE CUSTOM ROOF DECK MANUFACTURER. SUBMIT SHOP DRAWING AND HANGER DATA SHEET FOR APPROVAL.

MECHANICAL SPECIFICATIONS

- GENERAL PROVISIONS** – THE GENERAL CONDITIONS, SUPPLEMENTS AND AMENDMENTS SHALL GOVERN THIS DIVISION OF THE SPECIFICATIONS.
- PROJECT REQUIREMENTS** – PROVIDE ALL ITEMS, MATERIALS, EQUIPMENT AND LABOR REQUIRED TO COMPLETE THE WORK OR OPERATIONS MENTIONED HEREIN, OR INDICATED ON THE DRAWINGS AND REASONABLY INFERRED THEREIN, AS REQUIRED TO MAKE A COMPLETE AND WORKING SYSTEM.
- INTENT** – WORK SHALL BE DONE IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS AND THEIR INTENT, COMPLETE WITH ALL NECESSARY COMPONENTS, INCLUDING THOSE NOT NORMALLY SHOWN OR CALLED FOR, AND SHALL BE READY FOR OPERATION BEFORE ACCEPTANCE.

ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE CODES. NOTHING SHOWN IN THE PLANS OR STATED IN THE SPECIFICATIONS IS INTENDED TO INDICATE THAT THE INSTALLATION OR CONNECTIONS OF ANY ITEM OR DEVICE SHOULD BE DONE CONTRARY TO MANUFACTURER'S INSTRUCTIONS AND ALL APPLICABLE CODES AND REGULATIONS. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT THE INSTALLATION AND CONNECTIONS OF ALL ITEMS AND DEVICES CONFORMS TO MANUFACTURER'S INSTRUCTIONS AND TO ALL APPLICABLE CODES AND REGULATIONS.

THE WORK "PROVIDE" SHALL MEAN "SUPPLY AND INSTALL" UNLESS OTHERWISE INDICATED.
- GOVERNING REGULATIONS** – THE WORK UNDER MECHANICAL SCOPE OF WORK, SHALL CONFORM, BUT NOT LIMITED TO THE REQUIREMENTS OF THE FOLLOWING CODES, REGULATIONS AND STANDARDS:
– 2019 EDITIONS OF THE CALIFORNIA BUILDING CODE, INCLUDING BUT NOT LIMITED TO THE MECHANICAL, PLUMBING, FIRE AND ENERGY CODES.
– SMACNA PUBLICATIONS, INCLUDING BUT NOT LIMITED TO, HVAC DUCT CONSTRUCTION STANDARDS AND GUIDELINES FOR SEISMIC RESTRAINT OF MECHANICAL SYSTEMS.
– ABC OR NEBB REGULATIONS GOVERNING TESTING AND BALANCING AND COMMISSIONING OF SYSTEMS.
– OSHA REGULATIONS.
- PERMITS** – OBTAIN ALL REQUIRED PERMITS AND PAY ALL FEES THEREFORE AND COMPLY WITH ALL LOCAL AND STATE REGULATIONS, CODES AND BY-LAWS APPLICABLE TO THE WORK.
- RESPONSIBILITY** – VISIT THE SITE BEFORE SUBMITTING A BID AND EXAMINE ALL LOCAL AND EXISTING CONDITIONS ON WHICH THE WORK IS DEPENDENT.

NO CONSIDERATION WILL BE GRANTED FOR ANY MISUNDERSTANDING OF WORK TO BE DONE RESULTING FROM FAILURE TO VISIT THE SITE.

WHEN THE CONTRACT DOCUMENTS DO NOT CONTAIN SUFFICIENT INFORMATION FOR THE PROPER SELECTION OF EQUIPMENT FOR BIDDING, NOTIFY THE DESIGN AUTHORITY DURING THE BIDDING PERIOD. IF CLARIFICATION CANNOT BE OBTAINED, ALLOW FOR THE MOST EXPENSIVE ARRANGEMENT. FAILURE TO DO THIS SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO SUPPLY THE INTENDED EQUIPMENT AND OR INSTALLATION.

CHECK DRAWINGS OF ALL TRADES AND SITE SURVEY TO VERIFY SPACE AVAILABILITY FOR THE INSTALLATION. COORDINATE WORK WITH ALL TRADES AND MAKE CHANGES TO FACILITATE SATISFACTORY INSTALLATION. MAKE NO DEVIATIONS TO THE DESIGN INTENT INVOLVING EXTRA COST TO THE OWNER WITHOUT DESIGN AUTHORITY WRITTEN APPROVAL.
- WORKMANSHIP** – WORKMANSHIP SHALL BE IN ACCORDANCE WITH WELL ESTABLISHED PRACTICE AND STANDARDS ACCEPTED AND RECOGNIZED BY DESIGN AUTHORITY AND THE TRADE.

EMPLOY ONLY TRADESMEN HOLDING VALID TRADE QUALIFICATION CERTIFICATES. TRADESMEN SHALL PERFORM ONLY WORK THAT THEIR CERTIFICATE PERMITS.
- DRAWING AND MEASUREMENTS** – DRAWINGS ARE GENERALLY DIAGRAMMATIC AND ARE INTENDED TO INDICATE THE SCOPE AND GENERAL ARRANGEMENT OF WORK. DO NOT SCALE DRAWINGS.

TAKE FIELD MEASUREMENTS WHERE EQUIPMENT AND MATERIAL DIMENSIONS ARE DEPENDENT UPON BUILDING DIMENSIONS.
- SUBMITTALS** – SUBMIT THREE SETS OF ALL EQUIPMENT AND RELATED MATERIAL FOR APPROVAL PRIOR TO ORDERING. AFTER 10 DAYS FROM CONTRACT AWARD, SUBMIT DUCT SHOP DRAWINGS TO ARCHITECT FOR ENGINEERS REVIEW.
- RECORD DRAWINGS** – MAINTAIN ONE CONTRACT DRAWING, WHITE PRINT, ON SITE, SOLELY FOR THE PURPOSE OF RECORDING, IN RED, ANY CHANGES AND/OR DEVIATION FROM THE CONTRACT DRAWINGS AS IT OCCURS.

AT THE COMPLETION OF THE PROJECT, CERTIFY THE ABOVE-MENTIONED DRAWINGS AS BEING ACCURATE AND COMPLETE BY LABELLING IN THE LOWER RIGHT HAND CORNER IN LETTERS OF AT LEAST 1/8 INCH HIGH AS FOLLOWS: "AS-BUILT DRAWINGS. DATED ---", DELIVER TO DESIGN AUTHORITY.
- OPERATING AND MAINTENANCE MANUALS** – PREPARE INSTRUCTION MANUALS WHICH INCLUDE EQUIPMENT MANUFACTURER'S OPERATING AND MAINTENANCE BULLETINS, AND A REPORT ON THE TESTING AND BALANCING. SUBMIT THREE (3) COPIES TO DESIGN AUTHORITY.
- SERVICES** – PROTECT ALL SERVICES AND MAKE GOOD ANY DAMAGE CAUSED BY THE WORK IN THIS CONTRACT.

THE PLANS SHOW APPROXIMATE LOCATIONS OF DUCTWORK, PIPING AND EQUIPMENT BASED UPON EXISTING RECORD DRAWINGS. BE PREPARED TO ACCOMMODATE CHANGES IN LOCATION AS MAY BE FOUND ON SITE.
- DUCTWORK CLEANING** – ALL NEW DUCTWORK SHALL BE WIPED CLEAN OF ALL OIL AND OTHER SURFACE FILMS WITH SUITABLE SOLVENT PRIOR TO INSTALLATION.

ALL SUPPLY AND RETURN DUCTWORK SHALL BE THOROUGHLY CLEANED BY A PROFESSIONAL DUCT CLEANING AGENCY PRIOR TO REUSE.
- CLEAN UP** – MAKE GOOD AND CLEAN ALL AREAS DISRUPTED BY THIS WORK.
- BALANCING – AIR SYSTEMS** – BALANCING SHALL BE DONE BY AN AABC OR NEBB CERTIFIED FIRM. ADJUST AIR HANDLING EQUIPMENT AND ASSOCIATED BALANCE DAMPERS ON SUPPLY, RETURN AND EXHAUST SYSTEMS TO WITHIN PLUS OR MINUS 10% OF THE SPECIFIED AIR QUANTITIES. MAINTAIN THE DESIGN PRESSURE RELATIONSHIPS.

ADJUST DIFFUSERS, REGISTERS AND GRILLES TO OBTAIN OPTIMUM AIR DISTRIBUTION PATTERN.

MEASURE OUTSIDE AIR QUANTITIES AND CONFIRM THAT THE SPECIFIED OUTSIDE AIR QUANTITIES PER TITLE-24 CALCULATIONS HAVE BEEN PROVIDED THROUGHOUT.

PERMANENTLY MARK THE FINAL BALANCE POSITION ON ALL BALANCE DAMPERS AND ADJUSTABLE TURNING DEVICES.

SUBMIT A REPORT TO THE DESIGN AUTHORITY INDICATING FINAL AIR QUANTITIES OBTAINED.
- EQUIPMENT START UP AND COMMISSIONING**

CHECK AND ADJUST REFRIGERANT CHARGE AS REQUIRED FOR PROPER OPERATION.

BALANCE AC UNITS TO PROVIDE SPECIFIED AIR FLOWS.

PROVIDE ALL AC UNITS WITH NEW MERV 13 FILTERS.

PROVIDE ALL EXISTING UNITS WITH NEW MERV 8 MINIMUM FILTERS.

TEST ALL EQUIPMENT AND MAKE GOOD.

MECHANICAL LEGEND

SYMBOL	ABBREV	DESCRIPTION	ABBREV	DESCRIPTION
●	POC	POINT OF CONNECTION	EQPT.	EQUIPMENT
○	POD	POINT OF DISCONNECTION	KW	KILOWATT
□		EXISTING EQUIPMENT OR PIPING TO REMAIN	LBS	POUNDS
□		NEW EQUIPMENT OR PIPING	MAX	MAXIMUM
		REMOVE EXISTING EQUIPMENT OR PIPING	MECH	MECHANICAL
	FD	FLEX DUCT	MFR	MANUFACTURER
— —		SIDEWALL REGISTER	MIN	MINIMUM
— —		CEILING REGISTERS/DIFFUSERS	MTD	MOUNTED
— —		DUCT SECTION – POSITIVE PRESSURE	(N)	NEW
— —		DUCT SECTION – NEGATIVE PRESSURE	NOS	NUMBERS
— —		DUCT SECTION – EXHAUST	OBJD	OPPOSED BLADE DAMPER
— —		CARBON DIOXIDE (CO2) SENSOR/DETECTOR	OSA	OUTSIDE AIR
— —		ROOM THERMOSTAT/TEMPERATURE SENSOR	PSI	POUNDS PER SQUARE INCH
— —		DOOR UNDERCUT	PSIG	POUNDS PER SQUARE INCH GAUGE
— —		DUCT SMOKE DETECTOR	QTY	QUANTITY
— —	VD	VOLUME DAMPER	RA	RETURN AIR
— —	CD	CEILING DIFFUSER	RG	RETURN AIR GRILLE
— —	BTU	BRITISH THERMAL UNITS	RAD	RETURN AIR DUCT
— —	BTUH	BRITISH THERMAL UNITS PER HOUR	RR	RETURN AIR REGISTER
— —	CFM	CUBIC FEET PER MINUTE	SA	SUPPLY AIR
— —	DWGS	DRAWINGS	SAD	SUPPLY AIR DUCT
— —	DG	DOOR GRILLE	SR	SUPPLY AIR REGISTER
— —	SFD	COMBINATION SMOKE/FIRE DAMPER	SF	SQUARE FEET
— —	VD	VOLUME DAMPER WITH CONCEALED REGULATOR	FSD	SMOKE/FIRE DAMPER
— —		THERMOSTAT	SS	STAINLESS STEEL
(E)		EXISTING	TEMP	TEMPERATURE
EA		EACH	TYP	TYPICAL
EAD		EXHAUST AIR DUCT	TA	TRANSFER AIR
EAR		EXHAUST AIR REGISTER	T/A	TO ABOVE
EF		EXHAUST FAN	T/B	TO BELOW
HVAC		HEATING VENTILATION & AIR CONDITIONING	TR	TRANSFER REGISTER
-F		DEGREES FAHRENHEIT	V/PH/HERTZ	VOLTS/PHASE/HERTZ
F/A		FROM ABOVE	VCD	VARIABLE VOLUME CONTROL
F/B		FROM BELOW	VOL	VOLUME
FL		FLOOR	VTR	VENT THRU ROOF
FR		FEET OR FOOT	W/	WITH
GALV		GALVANIZED	WC	WATER COLUMN
GPM		GALLONS PER MINUTE	WPD	WATER PRESSURE DROP
HP		HORSEPOWER	WT	WEIGHT
HR		HOUR	MUA	MAKE UP AIR
-R-R-		REFRIGERANT LINE		

EQUIPMENT IDENTIFICATION SYMBOL



SCOPE OF WORK

- PROVIDING NEW SUPPLY AND RETURN DIFFUSERS WITH ASSOCIATED DUCTWORKS CONNECTING TO EXISTING AC UNIT LOCATE AT ROOF DECK.
- PROVIDING NEW EXHAUST FANS FOR VENTILATION PURPOSES.

DRAWING INDEX

MO.1	MECHANICAL SPECIFICATIONS, LEGENDS AND GENERAL NOTES
MO.2	EQUIPMENT SCHEDULE
MO.3	MECHANICAL T24 FORMS
MO.4	MECHANICAL T24 FORMS
M2.1	MECHANICAL FLOOR PLAN AND DETAILS

CITY PLANNER STAMP:



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TENANT OWNER:

PROJECT:

SALON
TENANT IMPROVEMENT
 484 W HAMILTON AVE.
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REVISION

#	DATE	DESCRIPTION
1	03/16/2021	PC COMMENTS

DATE:
DRAWN:
PROJECT NO.: J20-C008

SHEET TITLE:

MECHANICAL SPECIFICATIONS, LEGENDS & GENERAL NOTES

SHEET OF:

M0.1

EXISTING ROOF TOP UNIT SCHEDULE

MARK	MANUF. & MODEL	SERVICE	NOMINAL TONNAGE	CFM	ESP (IN.)	MIN O.A. (CFM)	AC UNIT ELECTRICAL DATA			EER	AFUE	TOTAL COOLING CAPACITY (MBH)	HEATING INPUT (MBH)	HEATING OUTPUT (MBH)	OPER. WT. (LBS.)	REMARKS
							V. / PH. / HZ.	MOCp	MCA							
(E) 	CARRIER 48V1NC3606050--	SALON	3.0	1200	0.5	215	208-230/3/60	30	20.1	11.5	80%	36.0	60.0	48.0	-	①②③

- ① EXISTING AC UNIT TO REMAIN. CONTRACTOR TO FIELD VERIFY EXACT LOCATION.
- ② PROVIDE WITH MERV 13 PLEATED PANEL FILTERS.
- ③ ADJUST OUTSIDE AIR AS INDICATED

EXHAUST FAN SCHEDULE

MARK	MANUF. & MODEL	LOCATION	SERVICE	CFM	ESP (IN.)	SONES	ELECTRICAL		OPER. WT. (LBS.)	REMARKS
							V. / PH. / HZ.	WATTS		
	GREENHECK SP-A90 OR APPROVED EQUAL	CEILING	RESTROOM	80	0.25	0.4	115/1/60	16.9	12.0	①②③④
	GREENHECK SP-A190 OR APPROVED EQUAL	CEILING	STAFF ROOM	135	0.25	2.0	115/1/60	54.2	17	①②③④

- ① INSTALL PER MANUFACTURER'S INSTRUCTIONS.
- ② FAN TO OPERATE CONTINUOUSLY DURING OPERATING HOURS.
- ③ PROVIDE WITH CEILING GRILLE, VIBRATION ISOLATOR, SPEED CONTROLLER AND BACK DRAFT DAMPER.
- ④ PROVIDE INDIVIDUAL WALL SWITCH.

AIR DISTRIBUTION SCHEDULE

MARK	MANUFACTURER & MODEL OR EQUAL	SERVICE	TYPE	FINISH	MODULE SIZE	NECK SIZE	REMARKS
CD-1	TITUS/TMS-AA OR EQUAL	SUPPLY	CEILING	WHITE	24"x24"	AS SHOWN	①②
RG-1	TITUS/350R OR EQUAL	RETURN	CEILING	WHITE	24"x24"	SEE PLAN	①

- ① INSTALL PER MANUFACTURER'S INSTRUCTIONS.
- ② PROVIDE WITH OPPOSED BLADE VOLUME DAMPER.

GALVANIZED SHEET METAL DUCT THICKNESS TABLE

(FOR LOW PRESSURE DUCTWORKS W/S.P. LESS THAN 2" W.G., LESS THAN 2000 FPM)

RECTANGULAR	4"-18"	19"-30"	31"-54"	55"-84"
DIMENSION:	4"-18"	19"-30"	31"-54"	55"-84"
GAUGE:	26 ga.	24 ga.	22 ga.	20 ga.
ROUND	3"-14"	15"-23"	24"-37"	37"-50"
DIMENSION:	3"-14"	15"-23"	24"-37"	37"-50"
GAUGE:	26 ga.	24 ga.	22 ga.	20 ga.

DUCT CONSTRUCTION SHALL COMPLY WITH CMC 2019, SMACNA METAL AND FLEXIBLE DUCT CONSTRUCTION STANDARD, AND UL 181.

DUCT SYSTEMS

HEATING & COOLING QUICK-SIZING TABLE

AIRFLOW CFM	SUPPLY OR RETURN MAIN DUCT SIZE		TABLE A	
	8"	10"		
200	8" RD OR	6" X 8'		
300	9" RD OR	8" X 8'		
400	10" RD OR	10" X 8'		
500	11" RD OR	14" X 8' 10" X 10"		
600	12" RD OR	16" X 8' 12" X 10'		
700	13" RD OR	18" X 8' 14" X 10' 12" X 12"		
800	14" RD OR	22" X 8' 16" X 10' 14" X 12'		
1000	16" RD OR	28" X 8' 20" X 10' 16" X 12'		
1200	17" RD OR	32" X 8' 24" X 10' 20" X 12'		
1400	18" RD OR	28" X 10' 24" X 12'		
1600	20" RD OR	32" X 10' 28" X 12'		
1800	21" RD OR	30" X 12'		
2000	22" RD OR	34" X 12'		
AIRFLOW CFM	SUPPLY BRANCH DUCT SIZE		TABLE B	
	80	5" RD		
	120	6" RD OR 3-1/2" X 10"		
	160	7" RD		



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SHEET TITLE:

EQUIPMENT SCHEDULE

SHEET OF:

M0.2

CITY PLANNER STAMP:



TENANT OWNER:

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T24 FORMS

SHEET OF:

M0.3

CITY PLANNER STAMP:

STATE OF CALIFORNIA
Mechanical Systems
NRCC-MCH-E (Created 11/20) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE NRCC-MCH-E
This document is used to demonstrate compliance for mechanical systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.4, or §141.0(b)2 for alterations.

Project Name: SALON TENANT IMPROVEMENT Report Page: Page 1 of 7
Project Address: 484 W HAMILTON AVE. CAMPBELL, CA 95008 Date Prepared: 2020-11-26

A. GENERAL INFORMATION

01 Project Location (city)	CAMPBELL	04 Total Conditioned Floor Area	944.6
02 Climate Zone	4	05 Total Unconditioned Floor Area	54
03 Occupancy Types Within Project:		06 # of Stories (Habitable Above Grade)	1

Office (B) Retail (M) Non-refrigerated Warehouse (S)
 Hotel/ Motel Guest Rooms (R-1) School (F) Healthcare Facility (H)
 High-Rise Residential (R-2/R-3) Relocatable Class Bldg (E) Other (Write In):

¹ FOOTNOTES: Climate zone can be determined on the California Energy Commission's website at http://www.energy.ca.gov/maps/renewable/building_climate_zones.html

B. PROJECT SCOPE
Table Instructions: Include any mechanical systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.4, or §141.0(b)2 for alterations.

My project consists of (check all that apply)

01	02	03
Air System(s)	Wet System Components	Dry System Components
<input type="checkbox"/> Heating Air System	<input type="checkbox"/> Water Economizer	<input type="checkbox"/> Air Economizer
<input type="checkbox"/> Cooling Air System	<input type="checkbox"/> Pumps	<input type="checkbox"/> Electric Resistance Heat
<input type="checkbox"/> Mechanical Controls	<input type="checkbox"/> Hydronic System Piping	<input type="checkbox"/> Fan Systems
<input type="checkbox"/> Mechanical Controls	<input type="checkbox"/> Cooling Towers	<input checked="" type="checkbox"/> Ductwork
	<input type="checkbox"/> Chillers	<input type="checkbox"/> Ventilation
	<input type="checkbox"/> Boilers	<input type="checkbox"/> Zonal Systems/ Terminal Boxes

C. COMPLIANCE RESULTS
Table Instructions: If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D. for guidance.

D1	D2	D3	D4	D5	D6	D7	D8	D9
System Summary	Pumps	Fans/Economizers	System Controls	Ventilation	Terminal Box Controls	Distribution	Cooling Towers	Compliance Results
§110.1, §110.2, §140.4	§140.4(k)	§140.4(c), §140.4(e)	§110.2, §120.2, §140.4(f)	§120.1	§140.4(d)	§120.3, §140.4(l)	§110.2(e)2	
(See Table F)	(See Table G)	(See Table H)	(See Table I)	(See Table J)	(See Table K)	(See Table L)	(See Table M)	
AND	AND	AND	AND	AND	AND	AND	AND	COMPLIES
Mandatory Measures Compliance (See Table Q for Details)								COMPLIES

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards/> November 2020

STATE OF CALIFORNIA
Mechanical Systems
NRCC-MCH-E (Created 11/20) CALIFORNIA ENERGY COMMISSION

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Project Name: SALON TENANT IMPROVEMENT Report Page: Page 3 of 7
Project Address: 484 W HAMILTON AVE. CAMPBELL, CA 95008 Date Prepared: 2020-11-26

Table Continued

11	No	The scope of the project includes only duct systems serving healthcare facilities.
12	Yes	Duct system provides conditioned air to an occupiable space for a constant volume, single zone, space-conditioning system.
13	Yes	The space conditioning system serves less than 5,000 ft ² of conditioned floor area.
14	No	The combined surface area of the ducts in the following locations is more than 25% of the total surface area of the entire duct system: <input type="checkbox"/> Outdoors <input type="checkbox"/> In a space directly under a roof that has a U-factor greater than the U-factor of the ceiling, or if the roof does not meet the requirements of §140.3(a)18 or if the roof has fixed vents or openings to the outside/unconditioned spaces <input type="checkbox"/> In an unconditioned crawlspace <input type="checkbox"/> In other unconditioned spaces
15	No	The scope of the project includes extending an existing duct system, which is constructed, insulated or sealed with asbestos.
16	No	The scope of the project includes an existing duct system that is documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Reference Nonresidential Appendix NA2.
17		Duct system shall be sealed in accordance with the California Mechanical Code.

M. COOLING TOWERS
This Section Does Not Apply

N. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION
Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCI/

YES	NO	Form/Title	Field Inspector	
			Pass	Fail
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCI-MCH-01-E - Must be submitted for all buildings.	<input type="checkbox"/>	<input type="checkbox"/>

O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE
Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCA/

YES	NO	Form/Title	Field Inspector	
			Pass	Fail
<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards/> November 2020

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Project Name: SALON TENANT IMPROVEMENT Report Page: Page 2 of 7
Project Address: 484 W HAMILTON AVE. CAMPBELL, CA 95008 Date Prepared: 2020-11-26

D. EXCEPTIONAL CONDITIONS
This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.

Selections made in Table O have been changed by the permit applicant. See Table E. Additional Remarks for permit applicant's explanation.

E. ADDITIONAL REMARKS
This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)
This Section Does Not Apply

G. PUMPS
This Section Does Not Apply

H. FAN SYSTEMS & AIR ECONOMIZERS
This Section Does Not Apply

I. SYSTEM CONTROLS
This Section Does Not Apply

J. VENTILATION AND INDOOR AIR QUALITY
This Section Does Not Apply

K. TERMINAL BOX CONTROLS
This Section Does Not Apply

L. DISTRIBUTION (DUCTWORK AND PIPING)
Table Instructions: Complete the following tables to show compliance with mandatory pipe insulation requirements found in §120.3 and prescriptive requirements found in §140.4(l) for duct leakage testing.

Duct Leakage Sealing

The answers to the questions below apply to the following duct system(s):	Duct leakage testing triggered for these systems?	No
---	---	----

Table Continued

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards/> November 2020

STATE OF CALIFORNIA
Mechanical Systems
NRCC-MCH-E (Created 11/20) CALIFORNIA ENERGY COMMISSION

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Project Name: SALON TENANT IMPROVEMENT Report Page: Page 4 of 7
Project Address: 484 W HAMILTON AVE. CAMPBELL, CA 95008 Date Prepared: 2020-11-26

<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-02-A Outdoor Air must be submitted for all newly installed HVAC units. <i>Note: MCH02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap.</i>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-03-A Constant Volume Single Zone HVAC <i>NOTE: This form does not automatically move to "Yes". If Constant Volume Single Zone HVAC Systems are included in the scope, permit applicant should move this form to "Yes".</i>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-04-A Air Distribution Duct Leakage	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-05-A Air Economizer Controls	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-06-A Demand Control Ventilation Systems Acceptance must be submitted for all systems required to employ demand controlled ventilation (refer to §120.1(c)3) can vary outside ventilation flow rates based on maintaining interior carbon dioxide (CO2) concentration setpoints.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-07-A Supply Fan Variable Flow Controls	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-08-A Valve Leakage Test	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-09-A Supply Water Temperature Reset Controls	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-10-A Hydronic System Variable Flow Controls	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-11-A Automatic Demand Shed Controls	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-12-A FDD for Packaged Direct Expansion Units	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-13-A Automatic FDD for Air Handling Units and Zone Terminal Units Acceptance	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-14-A Distributed Energy Storage DX AC Systems Acceptance <i>NOTE: This form does not automatically move to "Yes". If Distributed Energy Storage DX AC Systems are included in the scope, permit applicant should move this form to "Yes".</i>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-15-A Thermal Energy Storage (TES) System Acceptance <i>NOTE: This form does not automatically move to "Yes". If Chilled Water Storage, Ice-on-Coil Internal Melt, Ice-on-Coil External Melt, Ice Harvester, Brine, Ice-Slurry, Eutectic Salt, Clathrate Hydrate Slurry (CHS), Cryogenic or Encapsulated (Ice Ball) Systems are included in the scope, permit applicant should move this form to "Yes".</i>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-16-A Supply Air Temperature Reset Controls	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-17-A Condenser Water Temperature Reset Controls	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-18 Energy Management Control Systems	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	NRCA-MCH-19 Occupancy Sensor Controls	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-20 Multi-Family Ventilation	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCA-MCH-21 Multi-Family Envelope Leakage	<input type="checkbox"/>	<input type="checkbox"/>

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards/> November 2020



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TENANT OWNER:

PROJECT:

SALON
TENANT IMPROVEMENT
484 W HAMILTON AVE.
CAMPBELL, CA 95008

REVISION

#	DATE	DESCRIPTION
1	03/16/2021	PC COMMENTS

DATE:
DRAWN:
PROJECT NO.: J20-C008

SHEET TITLE:

T24 FORMS

SHEET OF:

M0.4

CITY PLANNER STAMP:

STATE OF CALIFORNIA
Mechanical Systems
NRCC-MCH-E (Created 11/20) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE
Project Name: SALON TENANT IMPROVEMENT Report Page: Page 5 of 7
Project Address: 484 W HAMILTON AVE. CAMPBELL, CA 95008 Date Prepared: 2020-11-26

P. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION
Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be completed by a HERS Rater and provided to the building inspector during construction. The final documents must be created by a HERS Providers registry, but drafts can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCV/.

YES	NO	Form/Title	Field Inspector	
			Pass	Fail
<input type="radio"/>	<input checked="" type="radio"/>	NRCV-MCH-04-H Duct Leakage Test NOTE: Must be completed by a HERS Rater	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCV-MCH-24 Enclosure Air Leakage Worksheet NOTE: Must be completed by a HERS Rater	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCV-MCH-27 High-rise Residential NOTE: Must be completed by a HERS Rater	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCV-MCH-32 Local Mechanical Exhaust NOTE: Must be completed by a HERS Rater	<input type="checkbox"/>	<input type="checkbox"/>

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards> November 2020

STATE OF CALIFORNIA
Mechanical Systems
NRCC-MCH-E (Created 11/20) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE
Project Name: SALON TENANT IMPROVEMENT Report Page: Page 6 of 7
Project Address: 484 W HAMILTON AVE. CAMPBELL, CA 95008 Date Prepared: 2020-11-26

Q. MANDATORY MEASURES DOCUMENTATION LOCATION
Table Instructions: Indicate where mandatory measures are documented in the plan set or construction documentation. For any mandatory measures that do not apply, mark the plan sheet or construction document location as "N/A", any active cells that are left blank will result in non-compliance in Table C.

01	02
Compliance with Mandatory Measures documented through MCH Mandatory Measures Note Block:	Plan sheet or construction document location
03	04
Mandatory Measure	Plan sheet or construction document location
Heating Equipment Efficiency per §110.1	M0.2
Cooling Equipment Efficiency per §110.1	M0.2
Furnace Standby Loss Control per §110.2(d)	N/A
Duct Insulation per §120.4	M0.1
Heating Hot Water Equipment Efficiency per §110.1	N/A
Cooling Chilled and Condenser Water Equipment Efficiency per §110.1	N/A
Open and Closed Circuit Cooling Towers conductivity of flow-based controls per §110.2(e)1	N/A
Open and Closed Circuit Cooling Towers Flow Meter with analog output per §110.2(e)3	N/A
Open and Closed Circuit Cooling Towers Overflow Alarm per §110.2(e)4	N/A
Open and Closed Circuit Cooling Towers Efficient Drift Eliminators per §110.2(e)5	N/A
Pipe Insulation per §120.3(b)	N/A
Combustion air shutoff, combustion air fan controls and stack design and controls for boilers per §120.9	N/A
Heat Pump with Supplementary Electric Resistance Heater Controls per §110.2(b)	N/A
The air duct and plenum system is designed per §120.4(a)-(f)	N/A
Kitchen range hoods shall be rated for sound in accordance with Section 7.2 of ASHRAE 62.2	N/A

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Mechanical Systems
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CERTIFICATE OF COMPLIANCE
Project Name: SALON TENANT IMPROVEMENT Report Page: Page 7 of 7
Project Address: 484 W HAMILTON AVE. CAMPBELL, CA 95008 Date Prepared: 2020-11-26

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

1. I certify that this Certificate of Compliance documentation is accurate and complete.

Documentation Author Name: Hau-Ching Liao Documentation Author Signature: *Hau*
Company: LADC Signature Date: 2020-11-26
Address: 1590 Oakland Rd., Ste B212 CEA/HERS Certification Identification (if applicable):
City/State/Zip: San Jose, CA 95131 Phone: (408) 642-1628

RESPONSIBLE PERSON'S DECLARATION STATEMENT

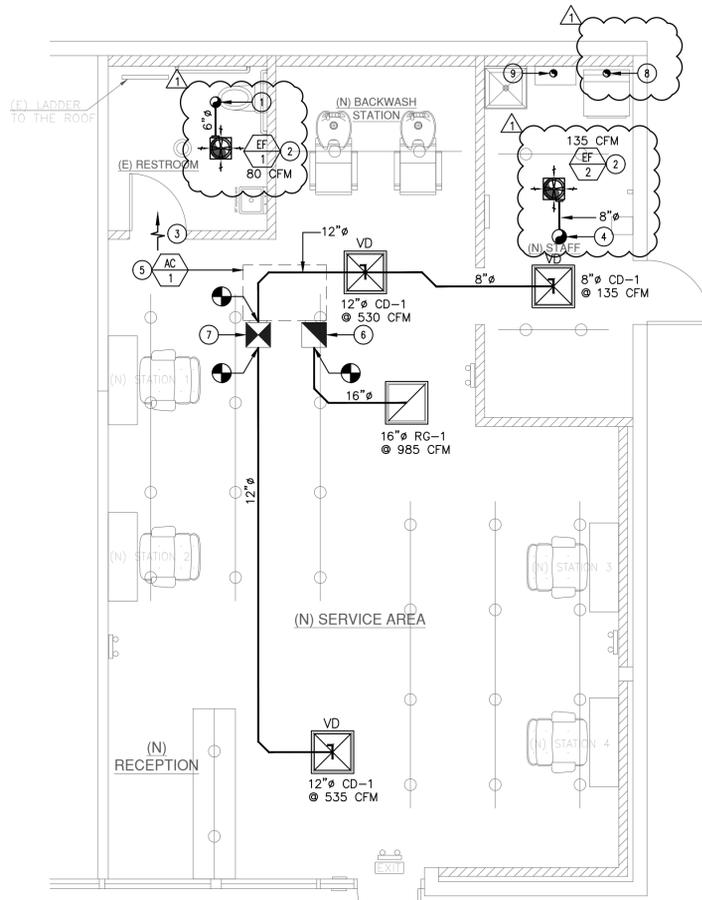
I certify the following under penalty of perjury, under the laws of the State of California:

- The information provided on this Certificate of Compliance is true and correct.
- I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
- The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
- The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
- I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Hau-Ching Liao Responsible Designer Signature: *Hau*
Company: LADC Date Signed: 2020-11-26
Address: 1590 Oakland Rd., Ste B212 License: C-28947
City/State/Zip: San Jose, CA 95131 Phone: (408) 642-1628

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards> November 2020

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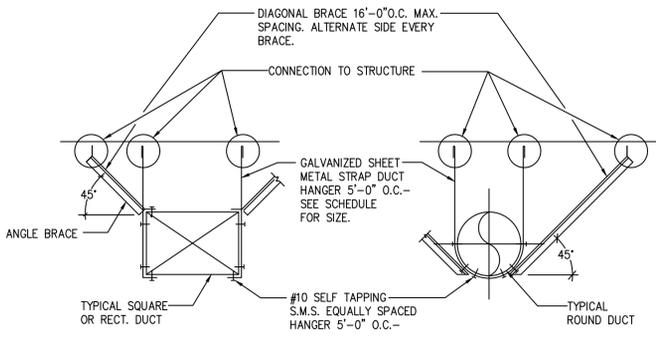
1 MECHANICAL FLOOR PLAN
SCALE: 1/4"=1'-0"

GENERAL NOTES

- A. CONTRACTOR SHALL VERIFY IN THE FIELD FOR EXACT LOCATION OF ALL DUCTING/PIPING AND UTILITIES PRIOR TO START OF WORK. IN THE EVENT OF ANY DISCREPANCIES OR POTENTIAL CONFLICTS, NOTIFY THE ARCHITECT AND ENGINEER IN WRITING PRIOR TO START OF WORK.
- B. ALL DUCTING/PIPING LOCATIONS ARE DIAGRAMMATIC. CONTRACTOR SHALL COORDINATE WITH ALL TRADES AND OWNER'S REPRESENTATIVE AND VERIFY EXACT ROUTING PRIOR TO START OF WORK.

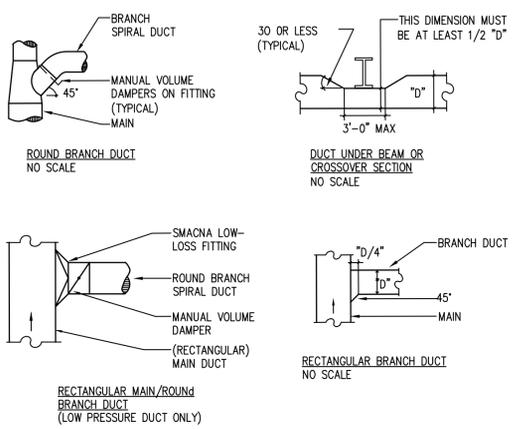
KEY NOTES

- 1. 6" EXHAUST DUCT RISER PENETRATES THRU ROOF. PROVIDE WITH ROOF CAP AND INSECT SCREEN. SHOULD BE AT LEAST TEN (10) FEET AWAY FROM ANY FRESH AIR INTAKE.
- 2. NEW CEILING MOUNTED EXHAUST FAN SEE SHEET NO. M0.2 FOR UNIT SPECIFICATION.
- 3. NEW 1" DOOR UNDERCUT TO REMAIN.
- 4. 8" EXHAUST DUCT RISER PENETRATES THRU ROOF. PROVIDE WITH ROOF CAP AND INSECT SCREEN. SHOULD BE AT LEAST TEN (10) FEET AWAY FROM ANY FRESH AIR INTAKE.
- 5. EXISTING AC UNIT LOCATED AT ROOF DECK. CONTRACTOR TO VERIFY ON FIELD THE EXACT EQUIPMENT LOCATION.
- 6. EXISTING RETURN DUCT RISER CONNECTING FROM EXISTING AC UNIT TO REMAIN. CONTRACTOR TO VERIFY ON FIELD THE DUCT RISER LOCATION.
- 7. EXISTING SUPPLY DUCT RISER CONNECTING FROM EXISTING AC UNIT TO REMAIN. CONTRACTOR TO VERIFY ON FIELD THE DUCT RISER LOCATION.
- 8. 4" DRYER VENT DUCT PENETRATES THRU ROOF. DUCT SHALL NOT EXCEED 14' MIN OF 4" DIA WITH A BACKDRAFT DAMPER, TO BE METAL OR MOISTURE RATED PVC WITH A SMOOTH INTERIOR SURFACE WITHOUT SCREWS. DUCT SHALL TERMINATE AT LEAST 3' FROM OPENINGS INTO THE BUILDING.
- 9. 4" TYPE B DOUBLE WALL WATER HEATER CONCENTRIC VENT PIPE PENETRATES THRU EXTERIOR WALL. PROVIDE WALL CAP.

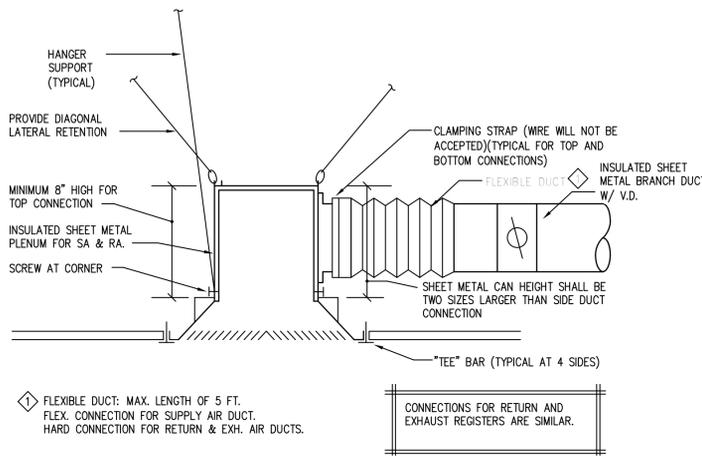


RECTANGULAR DUCT			ROUND DUCT		
MAX. OF DUCT PERIMETER/IN.	STRAP	MAX. LOAD EACH HANGER/LBS.	DIAMETER /INCHES	STRAP	MAX. LOAD EACH HANGER/LBS.
P/2 = 72	1" X 20 GA.	100	UP TO 20"	1" X 20 GA.	100
P/2 = 96	1" X 18 GA.	150	21" TO 36"	1" X 18 GA.	150

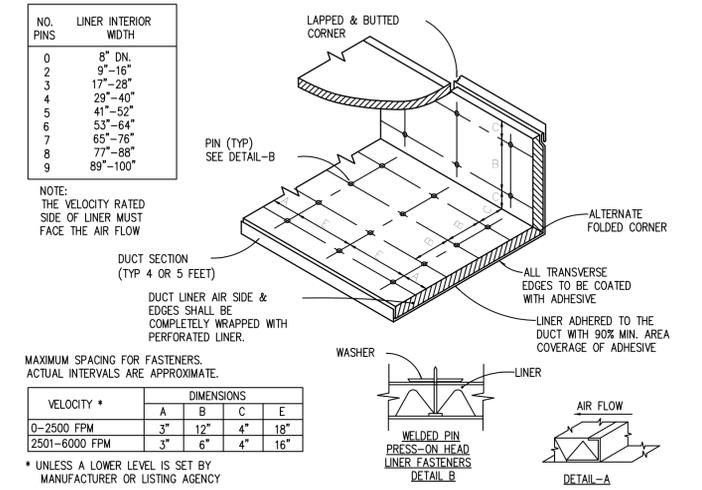
3 DUCT SUPPORT DETAIL
SCALE: 1/4"=1'-0"



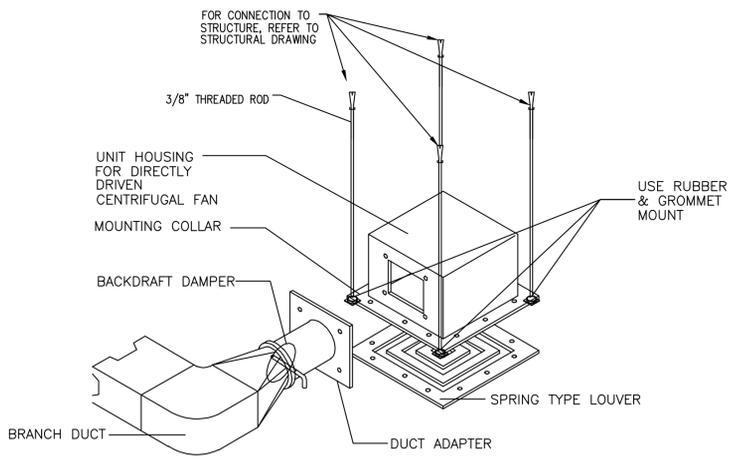
5 DUCT INSTALLATION DETAIL
SCALE: 1/4"=1'-0"



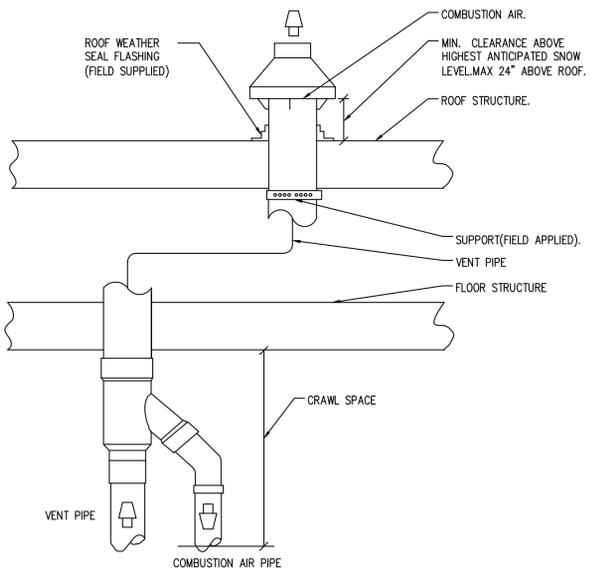
4 CEILING DIFFUSER DETAIL
SCALE: 1/4"=1'-0"



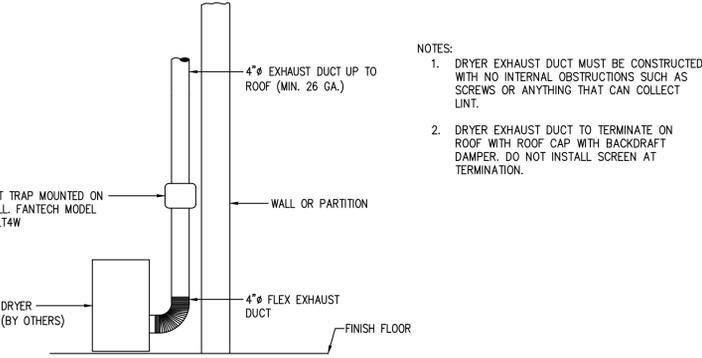
6 DUCT LINING DETAIL
SCALE: 1/4"=1'-0"



2 EXHAUST FAN INSTALLATION DETAIL
SCALE: 1/4"=1'-0"



7 CONCENTRIC VENT TERMINATION DETAIL
SCALE: 1/4"=1'-0"



8 DRYER EXHAUST VENT DETAIL
SCALE: 1/4"=1'-0"

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TENANT OWNER:

PROJECT:
SALON
TENANT IMPROVEMENT
484 W HAMILTON AVE.
CAMPBELL, CA 95008

REVISION

#	DATE	DESCRIPTION
1	03/16/2021	PC COMMENTS

DATE:
DRAWN:
PROJECT NO.: J20-C008

SHEET TITLE:
MECHANICAL FLOOR PLAN AND DETAILS

SHEET OF:
M2.1

PLUMBING GENERAL NOTES

- THE ARCHITECTURAL DESIGN DRAWINGS SHALL INDICATE THE EXACT LOCATIONS AND MOUNTING HEIGHTS OF ALL PLUMBING FIXTURES.
- THE ARCHITECTURAL DESIGN DRAWINGS SHALL INDICATE ALL ACCESSIBLE FIXTURE LOCATIONS AND MOUNTING HEIGHTS.
- HOT WATER SUPPLY AND DRAIN PIPING AT LAVATORIES AND SINKS SHALL BE INSULATED OR OTHERWISE COVERED. ALL WATER CLOSET FLUSHING LEVERS SHALL BE TO THE WIDE SIDE OF THE STALL.
- TRAPS FOR ALL LAVATORIES AND SINKS SHALL TRAP STRAIGHT BACK TO WALL WITH ALL REQUIRED OFFSETS HAPPENING WITHIN THE WALL.
- ALL PLUMBING WORK SHALL BE INSTALLED TO AVOID INTERFERENCE WITH ELECTRICAL AND MECHANICAL EQUIPMENT AND STRUCTURAL FRAMING.
- ALL CLEANOUTS SHALL BE INSTALLED WHERE EASILY ACCESSIBLE. THE CONTRACTOR SHALL COORDINATE ALL CLEANOUT LOCATIONS WITH ALL EQUIPMENT, CABINETS AND OTHER OBSTRUCTION PRIOR TO ANY INSTALLATION. CLEANOUTS MUST BE EXTENDED TO FLUSH WITH FINISHED WALL.
- ALL PLUMBING FIXTURE VENTS SHALL TERMINATE A MINIMUM OF 12 INCHES FROM ANY VERTICAL SURFACE AND 10 FEET FROM ANY OUTSIDE AIR INTAKES.
- ALL VALVES, UNIONS, ETC. TO BE SAME SIZE AS PIPE UNLESS OTHERWISE INDICATED ON PLANS.
- UNIONS SHALL BE PROVIDED AND INSTALLED AFTER EACH VALVE AND PRIOR TO ALL EQUIPMENT CONNECTIONS.
- ALL WORK AND MATERIAL SHALL BE IN COMPLIANCE WITH AND PERFORMED AND INSTALLED IN CONFORMANCE WITH THE FOLLOWING CODES AS ADOPTED AND AMENDED BY THE INSPECTING AUTHORITY. NOTHING IN THESE DRAWINGS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES OR OTHERS APPLICABLE TO THIS PROJECT:
BUILDING STANDARDS ADMINISTRATIVE CODE, PART 1, TITLE 24 C.C.R. 2019 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 C.C.R. 2019 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 C.C.R. 2019 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24 C.C.R. 2019 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 C.C.R. 2019 CALIFORNIA ENERGY CODE, PART 6, TITLE 24 C.C.R. 2019 CALIFORNIA ELEVATOR SAFETY CONSTRUCTION CODE, PART 7, TITLE 24 C.C.R. 2019 CALIFORNIA FIRE CODE (CFC), PART 9, TITLE 24 C.C.R. 2019 CALIFORNIA REFERENCED STANDARDS, PART 12, TITLE 24 C.C.R. 2019 TITLE 19, CCR, PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS 2019 NFPA 13 - AUTOMATIC SPRINKLER SYSTEMS
- BEFORE FABRICATION OR INSTALLATION THE CONTRACTOR SHALL VERIFY EXACT LOCATIONS OF ALL MECHANICAL EQUIPMENT AND EQUIPMENT PROVIDED UNDER OTHER SECTIONS OF SPECIFICATIONS. ROUGH-IN LOCATIONS AND REQUIREMENTS SHALL BE COORDINATED IN THE FIELD.
- ALL SEWER AND VENT PIPING SHALL A MINIMUM 1/4" PER FOOT (2%) SLOPE PER CPC SEC. 708.
- ALL VALVES, TRAP PRIMERS, WATER HAMMER ARRESTERS OR OTHER EQUIPMENT LOCATED IN WALLS OR ABOVE NON-ACCESSIBLE CEILING SHALL BE INSTALLED BEHIND AN ACCESS PANEL. ALL PIPING & DEVICES SHALL BE INSTALLED ABOVE CEILING, WITHIN WALLS, BELOW FLOORS, OR OTHERWISE CONCEALED, EXCEPT PIPING AND DEVICES INSTALLED IN MECHANICAL ROOMS AND OTHER UNFINISHED SPACES.
- ALL PLUMBING FIXTURES AND EQUIPMENT SHALL BE CERTIFIED BY THE CALIFORNIA STATE ENERGY COMMISSION TO COMPLY WITH EFFICIENCY STANDARDS PER SECTION 110 OF THE TITLE-24 REGULATIONS.
- ALL HOT WATER SUPPLY & RETURN PIPING SHALL BE INSULATED. INSULATION SHALL HAVE A FLAME SPREAD OF NOT MORE THAN 25 AND A SMOKE DENSITY NOT EXCEEDING 50 PER CMC SEC. 12.1.2.1.8 SEE SPECIFICATION FOR OTHER REQUIREMENTS.
- PIPING THROUGH FIRE RATED WALLS SHALL BE PROTECTED PER U.L. FIRE RESISTANCE SYSTEM NO. WL1001. THE ARCHITECTURAL DESIGN DRAWINGS SHALL INDICATE ALL RATED WALL LOCATIONS.
- SLEEVES SHALL BE PROVIDED TO PROTECT THROUGH CONCRETE FLOORS.
- SEISMIC BRACING AND ANCHORAGE REQUIREMENTS ARE AS FOLLOWS:
A. THE SEISMIC ANCHORAGE FOR ALL MECHANICAL AND ELECTRICAL EQUIPMENT SHALL BE DESIGNED TO WITHSTAND A LATERAL FORCE:
1. CALCULATED AS SPECIFIED IN SECTION 1632A AND TABLE 16A-0 OF THE VOL. 2, TITLE 24, 2019 CBC.
B. THE ATTACHMENT OF THE FOLLOWING ITEMS SHALL BE DESIGNED TO RESIST THE FORCES PRESCRIBED IN PART 2, TITLE 24, 2019 CBC:
1. EQUIPMENT WEIGHING LESS THAN 400 LBS. SUPPORTED DIRECTLY ON FLOOR OR ROOF.
2. FURNITURE REQUIRED TO BE ATTACHED IN ACCORDANCE WITH PART 2, TITLE 24, C.C.R.
3. TEMPORARY OR MOBILE EQUIPMENT.
4. EQUIPMENT WEIGHING LESS THAN 20 LBS. SUPPORTED BY VIBRATION ISOLATORS.
5. EQUIPMENT WEIGHING LESS THAN 20 LBS. SUSPENDED FROM A ROOF OR HUNG FROM A WALL.
- THE PLUMBING CONTRACTOR SHALL PROVIDE THE WATER & SEWER SYSTEMS TO A POINT OF CONNECTION 5'-0" OUTSIDE OF THE BUILDING. PIPING BEYOND THIS POINT IS SPECIFIED UNDER ANOTHER SECTION OF THE SPECIFICATIONS AND SHALL BE AS SHOWN ON THE CIVIL DRAWINGS. FINAL CONNECTIONS TO SITE PIPING SHALL BE BY THE PLUMBING CONTRACTOR.
- WATER HAMMER ARRESTERS SHALL BE PROVIDED WHERE REQUIRED AND NECESSARY FOR AND TO ALL FIXTURES, EQUIPMENT OR APPLIANCES WITH QUICK CLOSING VALVE AND SHALL BE OF TYPE SPECIFIED.
- ALL PIPE SIZES SHALL BE THE SAME AS THE UPSTREAM PIPE SIZES UNLESS OTHERWISE INDICATED ON PLAN.
- CLEANOUT SHALL BE PROVIDED AS PER CPC SECTION 707.
- NO STRUCTURAL MEMBER SHALL BE CUT, NEITHER DRILLED NOR NOTCHED WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE STRUCTURAL ENGINEER AND THE DIVISION OF THE STATE ARCHITECT.
- THESE DRAWINGS ARE ESSENTIALLY DIAGRAMMATIC AND ARE NOT INTENDED TO INDICATE ALL DETAILS AND NECESSARY OFFSETS OF PIPING. THE CONTRACTOR SHALL INSTALL MATERIAL AND EQUIPMENT IN A MANNER AS TO CONFORM TO STRUCTURE, AVOID OBSTRUCTIONS, PRESERVE HEADROOM, AND KEEP OPENINGS AND PASSAGEWAYS CLEAR. ALL INSTALLATIONS SHALL BE CONSISTENT WITH NORMALLY ACCEPTABLE INDUSTRY STANDARDS. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IN WRITING OF ANY DISCREPANCIES OR CONFLICTS THAT WOULD EFFECT THE SYSTEM PERFORMANCE OR INCUR ADDITIONAL COSTS. THIS NOTIFICATION SHALL BE SUBMITTED PRIOR TO INSTALLATION OF THE ITEMS CONCERNED.
- CONTRACTOR SHALL SIZE ALL SERVICE PIPING AND EQUIPMENT TO ACCOMMODATE FUTURE EXPANSION AS INDICATED ON THE ARCHITECTURAL DRAWINGS.
- PROVIDE COMPLETE CONDENSATE DRAIN PIPING FOR ALL AC UNITS AND DISCHARGE CONDENSATE TO AN APPROVED RECEPTOR.
- ALL LAYOUTS, PIPE SIZES, FIXTURE & EQUIPMENT SELECTIONS SHOWN ON THESE PLANS ARE FOR REFERENCE ONLY. THE CONTRACTOR SHALL PROVIDE A COMPLETE PLUMBING SYSTEM. THE DESIGN, CALCULATIONS, FIXTURE, TRIM, EQUIPMENT AND MATERIALS SELECTIONS & DRAWINGS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL AS SPECIFIED.
- INSULATION THICKNESS AND R-VALUES SHALL EXCEED THE REQUIREMENTS OF TITLE 24 BY AT LEAST 20 PERCENT OR NEXT LARGER STANDARD SIZE, WHICH EVER IS GREATER. PIPE INSULATION SHALL BE NOT LESS THAN 1.0 INCH THICK, NOT INCLUDING THE MOISTURE BARRIER OR EXTERIOR JACKET THICKNESS.
- NO GAS & WATER PIPE SHALL BE INSTALLED UNDER BUILDING SLAB. GAS & WATER PIPES SHALL RISE TIGHT AGAINST EXTERIOR WALL UP TO MIN. 18" AFF AND PENETRATE INTO BUILDING. PROVIDE SHUT-OFF VALVE AND REGULATOR ABOVE GRADE AT INCOMING GAS RISERS.
- UNDERGROUND INSTALLATION OF WATER SHALL BE IN ACCORDANCE WITH CPC 609.2. INSTALLATION OF BUILDING SEWERS SHALL BE IN ACCORDANCE WITH CPC 718.3 & PROVISIONS UNDER CPC 720.1. GAS PIPING INSTALLATION SHALL BE IN ACCORDANCE WITH CPC 1210.
- CONTRACTOR SHALL CAREFULLY REVIEW THESE PLANS AND SPECIFICATIONS PRIOR TO BID. CONTRACTOR SHALL ALSO REVIEW PLANS AND SPECIFICATIONS OF OTHER RELATED TRADES (INCLUDING MECHANICAL, CIVIL, STRUCTURAL, AND ELECTRICAL) PRIOR TO BID TO INSURE AN ACCURATE UNDERSTANDING OF EXACT SCOPE OF WORK. ANY ITEMS REQUIRING DESCRIPTION CLARIFICATION SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT IN SUFFICIENT TIME TO BE INCORPORATED INTO THE BID.
- ALL PLUMBING SYSTEM COMPONENTS SHALL MEET OR EXCEED THE REQUIREMENTS OF C.B.C. (CALIFORNIA EDITION), CMC, CPC, NEC, NFPA, ASTM, ANSI, AND ALL LOCAL AND STATE CODE REQUIREMENTS.
- ALL PLUMBING EQUIPMENT LISTED IN (CCR) SECTION 113 OF THE 2019 CALIFORNIA CODE OF REGULATIONS, TITLE-24, PART 1, ENERGY EFFICIENCY STANDARDS MUST BE CERTIFIED BY THE MANUFACTURER TO MEET OR EXCEED SPECIFICATIONS OR EFFICIENCIES ADOPTED BY THE CEC.
- ALL PIPING EXPOSED TO WEATHER SHALL BE METALLIC.
- ALL FERROUS PIPING EXPOSED TO WEATHER SHALL BE GALVANIZED.
- ALL PIPES, FITTINGS AND FIXTURES USED TO CONVEY POTABLE WATER SHALL BE LEAD FREE IN COMPLIANCE WITH CALIFORNIA AB 1953.
- ALL INSULATING MATERIALS INSTALLED MUST BE CERTIFIED BY CALIFORNIA ENERGY COMMISSION TO MEET C.E.C. ENERGY EFFICIENCY STANDARDS (E.E.S.) SECTION 120.3 AND SECTION 1201.3.2.1.1 OF CMC (CALIFORNIA EDITION).
- ALL INSULATION INSTALLED SHALL MEET THE FLAME SPREAD AND SMOKE DENSITY REQUIREMENTS OF SECTION 719 OF THE 2019 CBC.
- ALL FIXTURES REQUIRED TO BE ACCESSIBLE SHALL BE INSTALLED AS PER THE LATEST REQUIREMENTS OF TITLE 24 AND ADA (AMERICANS WITH DISABILITIES ACT).
- CROSS CONNECTION PROTECTION SHALL BE PROVIDED AT ALL POTABLE WATER SUPPLIED APPLIANCES AND EQUIPMENT (OTHER THAN THOSE LISTED IN INFORMATION BULLETIN 103).
- ALL HEATERS FOR DOMESTIC HOT WATER MUST BE CERTIFIED BY THE MANUFACTURER TO MEET THE SPECIFICATIONS OR EFFICIENCIES AS ADOPTED BY THE CEC. IN ACCORDANCE WITH SECTION 110.1 OF THE CCR AND ENERGY EFFICIENCY STANDARDS RESIDENTIAL NON-RESIDENTIAL.
- TANKLESS WATER HEATERS SHALL BE NATIONALLY LISTED AND BE INSTALLED IN ACCORDANCE WITH THE INSTALLATION INSTRUCTIONS THAT WERE APPROVED AS PART OF THEIR LISTING. THE GAS PIPING SERVING THIS APPLIANCE MUST BE SIZED IN COMPLIANCE WITH THE WATER HEATER'S LISTED INSTALLATION INSTRUCTIONS AND THE 2019 CALIFORNIA PLUMBING CODE.
- A WATER HEATER PRESSURE AND TEMPERATURE RELIEF DRAIN THAT TERMINATES OUTSIDE THE BUILDING SHALL COMPLY WITH SECTION 608.5 OF CPC.
- WATER HEATER SHALL BE ANCHORED OR STRAPPED TO RESIST HORIZONTAL DISPLACEMENT DUE TO EARTHQUAKE MOTION PER SECTION 507.2 OF CPC.
- WATER HEATER SHALL COMPLY WITH SECTION 608.3 OF CPC, FOR THERMAL EXPANSION REQUIREMENTS.
- PER CALIFORNIA CIVIL CODE ARTICLE 1101.4 AND CALGREEN SECTION 301.1, FOR ALL BUILDING ALTERATIONS/IMPROVEMENTS TO A COMMERCIAL PROPERTY, EXISTING PLUMBING FIXTURES IN THE ENTIRE BUILDING OR THE SPECIFIC AREA OF ALTERATION/IMPROVEMENT THAT DO NOT MEET CURRENT FLOW RATES WILL NEED TO BE UPGRADED.

PLUMBING SPECIFICATIONS

- GENERAL PROVISIONS** - THE GENERAL CONDITIONS, SUPPLEMENTS AND AMENDMENTS SHALL GOVERN THIS DIVISION OF THE SPECIFICATIONS.
- PROJECT REQUIREMENTS** - PROVIDE ALL ITEMS, MATERIALS, EQUIPMENT AND LABOR REQUIRED TO COMPLETE THE WORK OR OPERATIONS MENTIONED HEREIN, OR INDICATED ON THE DRAWINGS AND REASONABLY INFERRED THEREIN, AS REQUIRED TO MAKE A COMPLETE AND WORKING SYSTEM.
- INTENT** - WORK SHALL BE DONE IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS AND THEIR INTENT, COMPLETE WITH ALL NECESSARY COMPONENTS, INCLUDING THOSE NOT NORMALLY SHOWN OR CALLED FOR, AND SHALL BE READY FOR OPERATION BEFORE ACCEPTANCE.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE CODES. NOTHING SHOWN IN THE PLANS OR STATED IN THE SPECIFICATIONS IS INTENDED TO INDICATE THAT THE INSTALLATION OR CONNECTIONS OF ANY ITEM OR DEVICE SHOULD BE DONE CONTRARY TO MANUFACTURER'S INSTRUCTIONS AND ALL APPLICABLE CODES AND REGULATIONS. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT THE INSTALLATION AND CONNECTIONS OF ALL ITEMS AND DEVICES CONFORMS TO MANUFACTURER'S INSTRUCTIONS AND TO ALL APPLICABLE CODES AND REGULATIONS.
- ANY REFERENCE TO THE DESIGN AUTHORITY SHALL MEAN LADC.
- THE WORK "PROVIDE" SHALL MEAN "SUPPLY AND INSTALL" UNLESS OTHERWISE INDICATED.
- GOVERNING REGULATIONS** - THE WORK UNDER PLUMBING SCOPE OF WORK, SHALL CONFORM, BUT NOT LIMITED TO THE REQUIREMENTS OF THE FOLLOWING CODES, REGULATIONS AND STANDARDS:
A. 2019 EDITIONS OF THE CALIFORNIA BUILDING CODE, INCLUDING BUT NOT LIMITED TO THE MECHANICAL, PLUMBING, FIRE AND ENERGY CODES.
B. OSHA REGULATIONS
- PERMITS** - OBTAIN ALL REQUIRED PERMITS AND PAY ALL FEES THEREFORE AND COMPLY WITH ALL LOCAL AND STATE REGULATIONS, CODES AND BY-LAWS APPLICABLE TO THE WORK.
- RESPONSIBILITY** - VISIT THE SITE BEFORE SUBMITTING A BID AND EXAMINE ALL LOCAL AND EXISTING CONDITIONS ON WHICH THE WORK IS DEPENDENT.
- NO CONSIDERATION WILL BE GRANTED FOR ANY MISUNDERSTANDING OF WORK TO BE DONE RESULTING FROM FAILURE TO VISIT THE SITE.
- WHEN THE CONTRACT DOCUMENTS DO NOT CONTAIN SUFFICIENT INFORMATION FOR THE PROPER SELECTION OF EQUIPMENT FOR BIDDING, NOTIFY THE DESIGN AUTHORITY DURING THE BIDDING PERIOD. IF CLARIFICATION CANNOT BE OBTAINED, ALLOW FOR THE MOST EXPENSIVE ARRANGEMENT. FAILURE TO DO THIS SHALL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO SUPPLY THE INTENDED EQUIPMENT AND OR INSTALLATION.
- CHECK DRAWINGS OF ALL TRADES AND SITE SURVEY TO VERIFY SPACE AVAILABILITY FOR THE INSTALLATION. COORDINATE WORK WITH ALL TRADES AND MAKE CHANGES TO FACILITATE SATISFACTORY INSTALLATION. MAKE NO DEVIATIONS TO THE DESIGN INTENT INVOLVING EXTRA COST TO THE OWNER WITHOUT DESIGN AUTHORITY WRITTEN APPROVAL.
- WORKMANSHIP** - WORKMANSHIP SHALL BE IN ACCORDANCE WITH WELL ESTABLISHED PRACTICE AND STANDARDS ACCEPTED AND RECOGNIZED BY DESIGN AUTHORITY AND THE TRADE.
- EMPLOY ONLY TRADESMEN HOLDING VALID TRADE QUALIFICATION CERTIFICATES. TRADESMEN SHALL PERFORM ONLY WORK THAT THEIR CERTIFICATE PERMITS.
- DRAWING AND MEASUREMENTS** - DRAWINGS ARE GENERALLY DIAGRAMMATIC AND ARE INTENDED TO INDICATE THE SCOPE AND GENERAL ARRANGEMENT OF WORK. DO NOT SCALE DRAWINGS.
- TAKE FIELD MEASUREMENTS WHERE EQUIPMENT AND MATERIAL DIMENSIONS ARE DEPENDENT UPON BUILDING DIMENSIONS.
- SUBMITTALS** - SUBMIT THREE SETS OF ALL EQUIPMENT AND RELATED MATERIAL FOR APPROVAL PRIOR TO ORDERING.
- RECORD DRAWINGS** - MAINTAIN ONE CONTRACT DRAWING, WHITE PRINT, ON SITE, SOLELY FOR THE PURPOSE OF RECORDING, IN RED, ANY CHANGES AND/OR DEVIATION FROM THE CONTRACT DRAWINGS AS IT OCCURS.
- AT THE COMPLETION OF THE PROJECT, CERTIFY THE ABOVE-MENTIONED DRAWINGS AS BEING ACCURATE AND COMPLETE BY LABELING IN THE LOWER RIGHT HAND CORNER IN LETTERS OF AT LEAST 1/2 INCH HIGH AS FOLLOWS: "AS-BUILT DRAWINGS, DATED -----", DELIVER TO DESIGN AUTHORITY.
- OPERATING AND MAINTENANCE MANUALS** - PREPARE INSTRUCTION MANUALS WHICH INCLUDE EQUIPMENT MANUFACTURER'S OPERATING AND MAINTENANCE BULLETINS, AND A REPORT ON THE TESTING AND BALANCING. SUBMIT THREE (3) COPIES TO DESIGN AUTHORITY.
- EXISTING SERVICES** - PROTECT ALL EXISTING SERVICES AND MAKE GOOD ANY DAMAGE CAUSED BY THE WORK IN THIS CONTRACT.
- CLEAN UP** - MAKE GOOD AND CLEAN ALL AREAS DISRUPTED BY THIS WORK.
- ARRANGEMENT AND ALIGNMENT OF PIPING:**
A. PIPING SHALL BE GROUPED (WHEREVER PRACTICAL) INSTALLED IN STRAIGHT PARALLEL LINES ALIGNED IN A UNIFORM DIRECT MANNER. CHANGES IN DIRECTION OF PIPING SHALL BE MADE WITH FITTINGS.
B. PIPE LINES SHALL BE GUIDED, SUPPORTED AND ANCHORED IN SUCH MANNER THAT PIPE LINES SHALL NOT SAG OR BUCKLE.
- JOINTS:**
A. PIPING TO EQUIPMENT SHALL BE CONNECTED WITH UNION FOR DISMANTLING AND REMOVAL.
B. PIPING SHALL BE REAMED AFTER CUTTING. JOINTS WHEN COMPLETE SHALL BE THOROUGHLY CLEANED OF ALL EXCESS PIPE JOINT MATERIALS.
C. PROVIDE DIELECTRIC FITTINGS BETWEEN DISSIMILAR PIPING CONNECTIONS.
- HANGERS AND SUPPORTS:**
A. PIPING EQUIPMENT, ETC., SHALL BE PROPERLY SUPPORTED WITH THE USE OF APPROVED TYPE CLEVIS AND/OR TRAPEZE HANGERS SPACED 5'-0" ON CENTERS FOR CAST IRON PIPING AND 8'0" ON CENTERS FOR WATER PIPING.
B. PIPING AND EQUIPMENT SHALL BE SUPPORTED FROM WALLS, JOISTS OR STRUCTURAL STEEL GIRDERS ONLY.
- PLUMBING FIXTURES:**
A. PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL FIXTURES INCLUDED IN THE CONTRACT FROM DAMAGE CAUSED BY ACIDS, BUILDING MATERIALS, TOOLS, EQUIPMENT, ETC. UPON COMPLETION OF THE CONTRACT, OR WHEN DIRECTED, PLUMBING CONTRACTOR SHALL CLEAN ALL FIXTURES TO THE SATISFACTION OF THE DESIGN AUTHORITY.
B. WHERE FIXTURES ARE DAMAGED, SAID FIXTURES SHALL BE REPLACED BY THE PLUMBING CONTRACTOR IMMEDIATELY UPON NOTIFICATION.
C. ALL EQUIPMENT FURNISHED BY OWNERS THAT REQUIRE PLUMBING CONNECTION SHALL BE INSTALLED BY THE PLUMBING CONTRACTOR. PROVIDE SHUT-OFF VALVE ON WATER SUPPLY WERE REQUIRED BY CODE.
D. EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTION.
E. FIXTURES SHALL BE SECURED WITH MOUNTING BOLTS FROM CARRIERS OR HANGERS.
F. FIXTURES SHALL BE INSTALLED LEVEL, PLUMB.
G. FITTINGS SHALL BE NEATLY INSTALLED, MOUNTED TO FIXTURES PRIOR TO INSTALLATION OF FIXTURES. PROVIDE NON-HARDENING PUTTY BETWEEN FITTINGS AND FIXTURE SURFACES.
H. FITTINGS SHALL BE SECURED WITHOUT MARRING OR DAMAGING CHROME PLATING.
- INSULATION:**
A. DOMESTIC HOT WATER PIPING INSULATION SHALL BE COMPLIANCE TO CEC TABLE 120.3-A.
B. INSULATION SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
C. INSTALLATION OF INSULATIONS SHALL BE DONE ONLY AFTER PIPING ARE TESTED AND DETERMINED TO BE FREE FROM LEAKS.

CALIFORNIA GREEN BUILDING STANDARDS CODE 2019

CHAPTER 3 - GREEN BUILDING

SECTION 301 GENERAL

301.1 SCOPE. BUILDINGS SHALL BE DESIGNED TO INCLUDE THE GREEN BUILDING MEASURES SPECIFIED AS MANDATORY IN THE APPLICATION CHECKLISTS CONTAINED IN THIS CODE. VOLUNTARY GREEN BUILDING MEASURES ARE ALSO INCLUDED IN THE APPLICATION CHECKLISTS AND MAY BE INCLUDED IN THE DESIGN AND CONSTRUCTION OF STRUCTURES COVERED BY THIS CODE, BUT ARE NOT REQUIRED UNLESS ADOPTED BY A CITY, COUNTY, OR CITY AND COUNTY AS SPECIFIED IN SECTION 101.7.

SECTION 303 PHASED PROJECTS

303.1 PHASE PROJECTS. FOR SHELL BUILDING AND OTHERS CONSTRUCTED FOR FUTURE TENANT IMPROVEMENTS, ONLY THOSE CODE MEASURES RELEVANT TO THE BUILDING COMPONENTS AND SYSTEMS CONSIDERED TO BE NEW CONSTRUCTION (OR NEWLY CONSTRUCTED) SHALL APPLY.

303.1.1 TENANT IMPROVEMENTS. THE PROVISIONS OF THIS CODE SHALL APPLY ONLY TO THE INITIAL TENANT OR OCCUPANT IMPROVEMENTS TO A PROJECT.

SECTION 306 VOLUNTARY MEASURES

306.1 PURPOSE. FOR PUBLIC SCHOOLS AND COMMUNITY COLLEGES, APPENDIX AS, NON RESIDENTIAL VOLUNTARY MEASURES, IS PROVIDED AS A GUIDELINE TO FURTHER ENCOURAGE BUILDING PRACTICES THAT IMPROVE PUBLIC HEALTH, SAFETY AND GENERAL WELFARE BY PROMOTING THE USE OF BUILDING CONCEPTS WHICH IS MINIMIZE THE BUILDING'S IMPACT ON THE ENVIRONMENT, PROMOTE A MORE SUSTAINABLE DESIGN AND HIGH-PERFORMANCE EDUCATIONAL FACILITIES.

CHAPTER 5 - NONRESIDENTIAL MANDATORY MEASURES

DIVISION 5.1 - PLANNING AND DESIGN

SECTION 5.101 GENERAL

5.01 PURPOSE. THE PROVISIONS OF THIS CHAPTER OUTLINE PLANNING, DESIGN AND DEVELOPMENT METHODS THAT INCLUDE ENVIRONMENTALLY RESPONSIBLE SITE SELECTION, BUILDING DESIGN, BUILDING SITING AND DEVELOPMENT TO PROTECT, RESTORE AND ENHANCE THE ENVIRONMENTAL QUALITY OF THE SITE AND RESPECT THE INTEGRITY OF ADJACENT PROPERTIES.

DIVISION 5.2 - ENERGY EFFICIENCY

SECTION 5.201 GENERAL

5.201.1 SCOPE [BSC-CG] CALIFORNIA CODE [DSA-SS]. FOR THE PURPOSES OF MANDATORY ENERGY EFFICIENCY STANDARDS IN THIS CODE, THE CALIFORNIA ENERGY COMMISSION WILL CONTINUE TO ADOPT MANDATORY BUILDING STANDARDS.

DIVISION 5.3 - WATER EFFICIENCY AND CONSERVATION

SECTION 5.301 GENERAL

5.301.1 SCOPE. THE PROVISIONS OF THIS CHAPTER SHALL ESTABLISH THE MEANS OF CONSERVING WATER USED INDOORS, OUTDOORS AND IN WASTEWATER CONVEYANCE.

5.303.2 RESERVED.

5.303.3 WATER CONSERVING PLUMBING FIXTURES AND FITTINGS.

PLUMBING FIXTURES (WATER CLOSETS AND URINALS) AND FITTINGS (FAUCET AND SHOWERHEADS) SHALL COMPLY WITH THE FOLLOWING:

5.303.3.1 WATER CLOSET.

THE EFFECTIVE FLUSH VOLUME OF ALL WATER CLOSET SHALL NOT EXCEED 1.28 GALLONS PER FLUSH. TANK-TYPE WATER CLOSET SHALL BE CERTIFIED TO THE PERFORMANCE CRITERIA OF THE U.S. EPA WATER SENSE SPECIFICATION FOR TANK-TYPE TOILETS.

NOTE: THE EFFECTIVE FLUSH VOLUME OF DUAL FLUSH TOILETS IS DEFINED AS THE COMPOSE, AVERAGE FLUSH VOLUME OF TWO REDUCED FLUSHES AND ONE FULL FLUSH.

5.303.3.2 URINALS.

5.303.3.2.1 WALL-MOUNTED URINALS.

THE EFFECTIVE FLUSH VOLUME OF WALL-MOUNTED URINALS SHALL NOT EXCEED 0.125 GALLONS PER FLUSH.

5.303.3.2.2 FLOOR-MOUNTED URINALS.

THE EFFECTIVE FLUSH VOLUME OF FLOOR-MOUNTED OR OTHER URINALS SHALL NOT EXCEED 0.5 GALLONS PER FLUSH.

5.303.3.3 SHOWERHEADS.

5.303.3.3.1 SINGLE SHOWERHEAD

SHOWERHEADS SHALL HAVE A MAXIMUM FLOW RATE OF NOT MORE THAN 1.8 GALLONS PER MINUTES AT 80 PSI. SHOWERHEADS SHALL BE CERTIFIED TO THE PERFORMANCE CRITERIA OF THE US EPA WATER SENSE SPECIFICATIONS FOR SHOWERHEADS.

5.303.3.3.2 MULTIPLE SHOWERHEADS SERVING ONE SHOWER.

WHERE A SHOWER IS SERVED BY MORE THAN ONE SHOWERHEAD, THE COMBINED FLOW RATE OF ALL SHOWERHEADS AND/OR OTHER SHOWER OUTLETS CONTROLLED BY SINGLE VALVE SHALL NOT EXCEED 1.8 GALLONS PER MINUTE AT 80 PSI, OR THE SHOWER SHALL BE DESIGNED TO ALLOW ONLY ONE SHOWER OUTLET TO BE IN OPERATION AT A TIME.

5.303.3.4 FAUCETS AND FOUNTAINS.

LAVATORY FAUCETS SHALL HAVE A MAXIMUM FLOW RATE OF NOT MORE THAN 0.5 GALLONS PER MINUTES AT 60 PSI.

5.303.4.2 KITCHEN FAUCETS

KITCHEN FAUCETS SHALL HAVE A MAXIMUM FLOW RATE OF NOT MORE THAN 1.8 GALLONS PER MINUTES AT 60 PSI. KITCHEN FAUCETS MAY TEMPORARILY INCREASE THE FLOW ABOVE THE MAXIMUM RATE, BUT NOT TO EXCEED 2.2 GALLONS PER MINUTES AT 60 PSI, AND MUST DEFAULT TO A MAXIMUM FLOW RATE OF 1.8 GALLONS PER MINUTES AT 60 PSI.

5.303.4.3 WASH FOUNTAINS.

WASH FOUNTAIN SHALL HAVE A MAXIMUM FLOW RATE OF NOT MORE THAN 1.8 GALLONS PER MINUTES/20[RIM SPACE (INCHES) AT 60 PSI].

5.303.4.4 METERING FAUCETS.

METERING FAUCETS SHALL NOT DELIVER MORE THAN 0.20 GALLONS PER CYCLE.

5.303.4.5 METERING FAUCETS FOR WASH FOUNTAINS.

METERING FAUCETS FOR WASH FOUNTAINS SHALL HAVE A MAXIMUM FLOW RATE OF NOT MORE THAN 0.20 GALLONS PER CYCLE/20 [RIM SPACE (INCHES) AT 60 PSI].

NOTE: WHERE COMPLYING FAUCETS ARE UNAVAILABLE, AERATORS OR OTHER MEANS MAY BE USED TO ACHIEVE REDUCTION.

5.303.6 STANDARD FOR PLUMBING FIXTURES AND FITTINGS.

PLUMBING FIXTURES AND FITTINGS SHALL BE INSTALLED IN ACCORDANCE WITH THE CALIFORNIA PLUMBING CODE, AND SHALL MEET THE APPLIANCE STANDARD REFERENCED IN TABLE 1701.1 OF THE CALIFORNIA PLUMBING CODE IN CHAPTER 6 OF THIS CODE.

PLUMBING LEGEND

SYMBOL	ABBREVIATION	DESCRIPTION
	POC/POD	POINT OF CONNECTION / POINT OF DISCONNECTION
	S	SANITARY OR WASTE PIPING-ABOVE GROUND
	V	SANITARY VENT PIPING
	D	INDIRECT WASTE PIPING
	CD	CONDENSATE DRAIN PIPING
	CW	DOMESTIC COLD WATER PIPING-ABOVE GROUND
	HW	DOMESTIC HOT WATER SUPPLY-ABOVE GROUND
	TP	TRAP PRIMER PIPING
	G	NATURAL GAS PIPING
		PIPE DOWN
		PIPE UP
		PIPE BRANCH - TOP CONNECTION
		PIPE BRANCH - BOTTOM CONNECTION
		PIPE BRANCH - SIDE CONNECTION
		PIPE CAP
		PIPE SLEEVE
		DIRECTION OF FLOW
		PIPE SLOPE & DIRECTION OF FALL
		PIPE BREAK
	WCO	WALL CLEANOUT
		PIPE CONTINUATION
		FLOOR CLEANOUT OR CLEANOUT TO GRADE
	FCO/COTG SOV (I.V.)	SHUT OFF VALVE (ISOLATION VALVE), PLAN / RISER
	PRV	PRESSURE REDUCING VALVE
	SGV	GAS VALVE / PLUG COCK
	SV	SEISMIC GAS SHUT-OFF VALVE
	BV	BALL VALVE
	BFP	BACKFLOW PREVENTER
	CV	CHECK VALVE
	PG	PRESSURE GAUGE
		PIPE UNION
		COLD/HOT FAUCET
		HOSE END GATE VALVE WITH HOSE CAP
	AFF	ABOVE FINISHED FLOOR
	AFG	ABOVE FINISHED GRADE
	ARCH	ARCHITECT OR ARCHITECTURAL
	B/G	BELOW GRADE
	B/S	BELOW SLAB
	C.I.	CAST IRON
	CO	CLEAN OUT
	DWG/DWGS	DRAWING/DRAWINGS
	DN	DOWN
	F/A - F/B	FROM ABOVE - FROM BELOW
	FT	FEET
	GPM	GALLONS PER MINUTE
	H/L - L/L	HIGH LEVEL - LOW LEVEL
	IPS	IRON PIPE SIZE
	I.E.	INVERT ELEVATION
	MAX	MAXIMUM
	MECH	MECHANICAL
	MIN	MINIMUM
	NTS	NOT TO SCALE
	PD	PRESSURE DROP
	PSI	POUNDS PER SQUARE INCH
	P&TRV	PRESSURE AND TEMPERATURE RELIEF VALVE
	QTY	QUANTITY
	SOV	SHUT OFF VALVE
	TMV	THERMOSTATIC MIXING VALVE
	T/A - T/B	TO ABOVE / TO BELOW
	TYP	TYPICAL
	U/C	UNDER COUNTER
	VTR	VENT THRU ROOF

EQUIPMENT IDENTIFICATION SYMBOL



SCOPE OF WORK

- LAYOUT SEWER, VENT AND DOMESTIC WATER PIPING FOR NEW PLUMBING FIXTURES.
- LAYOUT WATER AND GAS CONNECTIONS FOR NEW WATER HEATER.
- LAYOUT NEW LINE OR PROPOSED UPGRADE IN PORTIONS OR IN WHOLE OF EXISTING SERVICE LINE.
- CHECK CODE COMPLIANCE OF SPACE IMPROVEMENTS AND MODIFICATIONS.

DRAWING INDEX

- P0.1 PLUMBING NOTES, 2019 CALGREEN, LEGEND & SYMBOLS
- P0.2 PLUMBING SCHEDULES
- P0.3 PLUMBING T-24 FORMS (PAGE 1-4)
- P0.4 PLUMBING T-24 FORMS (PAGE 5) AND DETAILS
- P2.1 PLUMBING LAYOUT AND RISER DIAGRAM



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WATER AND WASTE FIXTURE LOAD SUMMARY								
TAG	DESCRIPTION	QTY	WATER SUPPLY				DRAINAGE	
			COLD WATER		HOT WATER		DFU	TOTAL
			WSFU	TOTAL	WSFU	TOTAL		
WC	WATER CLOSET	1	2.5	2.5	-	-	4.0	4.0
LV	LAVATORY	1	1.0	1.0	0.75	0.75	1.0	1.0
WS	HAIR WASH STATION	2	2.0	4.0	1.500	3.000	2.0	4.0
WD	CLOTHES WASHER	1	4.0	4.0	3.00	3.00	3.0	3.0
MS	MOP SINK	1	3.0	3.0	2.250	2.250	3.0	3.0
FD	FLOOR DRAIN	1	-	-	-	-	2.0	2.0
TOTAL FIXTURE UNIT:			14.5		9.00		17.0	
ESTIMATED GPM:			11.0		7.0		-	

NOTES:
1. WATER SUPPLY FIXTURE UNITS BASED UPON APPENDIX A, TABLE A103.1, 2019 CALIFORNIA PLUMBING CODE.
2. DRAINAGE FIXTURE UNITS BASED UPON CHAPTER 7, TABLE 702.1, 2019 CALIFORNIA PLUMBING CODE.

HYDRAULIC CALCULATION			
DESCRIPTION	UNITS	REMARKS	
(A). PRESSURE AT STUB-OUT (psi) :	30.0	CONTRACTOR TO VERIFY ACTUAL PRESSURE AT SITE.	
(B). LOSS ACROSS METER (psi) :	0.0	N/A	
(C). PRESSURE AFTER PRV (psi) :	0.0	N/A	
(D). LOSS ACROSS BACK FLOW PREVENTER (psi) :	0.0	N/A	
(E). ELEVATION LOSS (psi):	STATIC HEIGHT (ft): 10	4.3	STATIC HEIGHT(ft) x 0.433(PSI/FT)
(F). RESIDUAL PRESSURE REQUIRED (psi) :	0.0	N/A	
(G). DEVELOPED LENGTH OF BUILDING PIPING (ft):	PIPE LENGTH (ft): 33	50	PIPE LENGTH (ft) x 1.5(FITTINGS LOSSES)
(H). PRESSURE AVAILABLE FOR FRICTION LOSSES IN BUILDING PIPING (psi) :	25.7	A - (B+D+E+F)	
(I). ALLOWABLE LOSSES PER 100FT OF BUILDING PIPING (psi) :	51.9	(H/G)x100, USE: = 8 PSI	

WATER PIPE SIZE TABLE					
PIPE SIZE	COLD WATER (VELOCITY =< 8FT/S)			HOT WATER (VELOCITY =< 5FT/S)	
	GPM	FLUSH TANK FIXTURE UNIT	FLUSH VALVE FIXTURE UNIT	GPM	FLUSH TANK FIXTURE UNIT
1/2"	5.82	7	-	3.64	4
3/4"	12.07	16	-	7.54	9
1"	20.58	31	-	12.86	18
1-1/4"	31.34	57	14	19.59	29
1-1/2"	44.36	104	36	27.72	48
2"	77.17	260	137	48.23	120
2-1/2"	119.00	474	358	74.37	247
3"	169.85	747	699	106.16	412

DESIGN PRESSURE PER 100FT OF PIPE = 8 PSI

GAS LOAD SUMMARY				
TAG	QTY	DESCRIPTION	GAS REQUIREMENT (CFH)	
			PER UNIT	TOTAL
WH-1	1	WATER HEATER	200.0	200.0
WD	1	CLOTHES DRYER	35.0	35.0
AC-1	1	(E) AC UNIT	60.0	60.0
TOTAL GAS DEMAND (CFH) :			295.0	
PIPE LENGTH TO MOST REMOTE OUTLET (FT) :			315.0	
FITTINGS FACTOR :			1.5	
TOTAL DEVELOPED LENGTH (FT) :			473	
EQUIVALENT LENGTH (FT) :			500	
INLET PRESSURE (in. W.C) :			7.0	

GAS PIPE SIZES	
PIPE SIZE	CFH
1/2"	21
3/4"	43
1"	82
1-1/4"	168
1-1/2"	251
2"	484
2-1/2"	771
3"	1360

SIZING BASED ON 2019 CPC TABLE 1215.2(1)

TANKLESS WATER HEATER CALCULATION				
TAG	DESCRIPTION	QTY	UNIT DEMAND (GPM)	TOTAL DEMAND (GPM)
LV	LAVATORY	1	0.5	0.5
WS	HAIR WASH STATION	2	0.5	1.0
WD	CLOTHES WASHER	1	2.0	2.0
MS	MOP SINK	1	2.0	2.0
TOTAL DEMAND (GPM) :			5.5	

PLUMBING FIXTURE AND EQUIPMENT SCHEDULE								
TAG	DESCRIPTION	MFR	MODEL	ROUGH-IN				REMARKS
				WASTE	VENT	CW	HW	
WC	WATER CLOSET	AMERICAN STANDARD	2886204	4"	2"	3/4"	-	H2OPTION, COMBINATION BOWL AND TANK, DUAL FLUSH, VITREOUS CHINA, ELONGATED TOILET BOWL, ULTRA HIGH EFFICIENCY 1.28 GPF (FULL FLUSH), 0.92GPF (PARTIAL FLUSH), ADA COMPLIANT. TOILET SEAT "AMERICAN STANDARD" MODEL:5901.100, ELONGATED HEAVY DUTY BOWL OPEN-FRONT SEAT.
LV	LAVATORY	AMERICAN STANDARD	355.012	2"	1-1/2"	1/2"	1/2"	LUCERNE, D-SHAPE BOWL, WALL HUNG BATH ROOM SINK, WITH OVERFLOW, 4" CENTER HOLES, VITREOUS CHINA. ADA COMPLIANT FAUCET - "AMERICAN STANDARD" MODEL:7385.058, RELIANT 3, SINGLE CONTROL LAVATORY FAUCET, 0.5 GPM PRESSURE COMPENSATING VANDAL RESISTANT SPRAY. PROVIDE THERMOSTATIC MIXING VALVE "WATTS" MODEL : LFMV-UT-M1 (OR APPROVED EQUAL). ASSE 1070 COMPLIANT.
WS	HAIR WASH STATION	-	-	2"	1-1/2"	1/2"	1/2"	TO BE SELECTED BY THE OWNER. HAIR TRAP TO BE INSTALLED IN PLACE OF P-TRAP FAUCET - SHALL NOT EXCEED 1.2GPM FLOW RATE @ 60PSI.
WD	CLOTHES WASHER	-	-	2"	1-1/2"	1/2"	1/2"	SEE ARCHITECTURAL/OWNER SPECIFICATIONS. CLOTHES WASHER BOX OUTLET: "LSP" KAHUNA OUTLET BOX WITH HAMMER ARRESTERS AND COPPER SWEAT VALVES.
MS	MOP SINK	-	-	2"	1-1/2"	1/2"	1/2"	SEE ARCHITECTURAL/OWNER SPECIFICATIONS. FAUCET - "REGENCY" MODEL: 600FMS86 OR APPROVED EQUAL, WALL MOUNTED MOP SINK FAUCET WITH INTEGRAL ASSE 1001 COMPLIANT VACUUM BREAKER.
WH-1	DOMESTIC WATER HEATER	RINNAI	RL94i	3/4"	-	1"	1"	INDOOR NON-CONDENSING TANKLESS WATER HEATER, 0.26 - 9.8GPM FLOW RATE, 10,300 BTU/H MINIMUM GAS INPUT, 199,000 BTU/H MAXIMUM GAS INPUT.
FD	FLOOR DRAIN	ZURN	2415B	2"	-	2"	-	NO-HUB, DURA-COATED CAST IRON BODY, NICKEL BRONZE TOP TYPE "B" STRAINER WITH TRAP PRIMER CONNECTION.
TP	TRAP PRIMER	SIoux CHIEF	695	-	-	1/2"	-	PRIME PERFECT, ASSE 1018 COMPLIANT. PRESSURE DROP ACTIVATED, BRASS CONSTRUCTION. PROVIDE WITH MULTIPLE DISTRIBUTION UNIT (IF APPLICABLE), PROVIDE WITH APPROVED ACCESS PANEL.

NOTES:
1. CONTRACTOR MAY SUBSTITUTE APPROVED EQUIVALENTS FOR SPECIFIED FIXTURES WITH OWNER'S AND ENGINEER'S APPROVAL. PROVIDED ALL THE REQUIREMENTS OF THE APPLICABLE CODE ARE MET.
2. CONTRACTOR TO SUBMIT CUT-SHEETS OF ALL FIXTURES FOR OWNER'S REVIEW AND APPROVAL PRIOR TO INSTALLATION.

TABLE 120.3-A PIPE INSULATION THICKNESS									
FLUID TEMPERATURE RANGE (°F)	INSULATION CONDUCTIVITY			NOMINAL PIPE DIAMETER (in inches)					
	CONDUCTIVITY RANGE (in Btu-inch per hour per square foot per °F)	CONDUCTIVITY RANGE (in Btu-inch per hour per square foot per °F)	MEAN RATING TEMPERATURE (°F)	< 1	1 to <1.5	1.5 to < 4	4 to < 8	8 and larger	
SPACE HEATING, HOT WATER SYSTEMS (STEAM, STEAM CONDENSATE AND HOT WATER) AND SERVICE WATER HEATING SYSTEMS (RECIRCULATING SECTIONS, ALL PIPING IN ELECTRIC TRACE TAPE SYSTEMS, AND THE FIRST 8 FEET OF PIPING FROM THE STORAGE TANK FOR NONRECIRCULATING SYSTEMS)	MINIMUM PIPE INSULATION THICKNESS REQUIRED (Thickness in inches or R-value)								
Above 350	0.32-0.34	250	Inches	4.5	5.0	5.0	5.0	5.0	
			R-value	R 37	R 41	R 37	R 27	R 23	
251-350	0.29-0.31	200	Inches	3.0	4.0	4.5	4.5	4.5	
			R-value	R 24	R 34	R 35	R 26	R 22	
201-250	0.27-0.30	150	Inches	2.5	2.5	2.5	3.0	3.0	
			R-value	R 21	R 20	R 17.5	R 17	R 14.5	
141-200	0.25-0.29	125	Inches	1.5	1.5	2.0	2.0	2.0	
			R-value	R 11.5	R 11	R 14	R 11	R 10	
105-140	0.22-0.28	100	Inches	1.0	1.5	1.5	1.5	1.5	
			R-value	R 7.7	R 12.5	R 11	R 9	R 8	

FOOTNOTE TO TABLE 120.3-A:
1. THESE THICKNESS ARE BASED ON ENERGY EFFICIENCY CONSIDERATIONS ONLY. ISSUES SUCH AS WATER VAPOR PERMEABILITY OR SURFACE CONDENSATION SOMETIMES REQUIRE VAPOR RETARDERS OR ADDITIONAL INSULATION.
EXCEPTION 1 TO SECTION 120.3: FACTORY-INSTALLED PIPING WITHIN SPACE-CONDITIONING EQUIPMENT CERTIFIED UNDER SECTION 110.1 OR 110.2.
EXCEPTION 2 TO SECTION 120.3: PIPING THAT CONVEYS FLUIDS WITH A DESIGN OPERATING TEMPERATURE RANGE BETWEEN 60°F AND 105°F.
EXCEPTION 3 TO SECTION 120.3: WHERE THE HEAT GAIN OR HEAT LOSS TO OR FROM PIPING WITHOUT INSULATION WILL NOT INCREASE BUILDING SOURCE ENERGY USE.
EXCEPTION 4 TO SECTION 120.3: PIPING THAT PENETRATES FRAMING MEMBERS SHALL NOT BE REQUIRED TO HAVE PIPE INSULATION FOR THE DISTANCE OF THE FRAMING PENETRATION. METAL PIPING THAT PENETRATES METAL FRAMING SHALL USE GROMMETS, PLUGS, WRAPPING OR OTHER INSULATING MATERIAL TO ASSURE THAT NO CONTACT IS MADE WITH THE METAL FRAMING.
NOTE: AUTHORITY: SECTIONS 25213, 25218, 25218.5, 25402 AND 25402.1, PUBLIC RESOURCES CODE. REFERENCE: SECTIONS 25007, 25008, 25218.5, 25310, 25402, 25402.1, 25402.4, 25402.5, 25402.8, AND 25943, PUBLIC RESOURCES CODE

BUILDING PIPE MATERIAL SCHEDULE													
SERVICE	LOCATION	PVC SCHEDULE 40	CPVC	NO-HUB CAST IRON	DWV COPPER	ABS	PEX PIPE	TYPE L COPPER	TYPE K COPPER	TYPE M COPPER	BLACK STEEL SCHEDULE 40	SLOPE	REMARKS
WATER	ABOVE GRADE											1/32" PER 1'	ASTM B88 WITH WROUGHT COPPER FITTINGS.
	BELOW GRADE											1/32" PER 1'	ASTM B88, FACTORY INSULATED, WITH WROUGHT COPPER BRAZED JOINT FITTINGS.
SEWER AND VENT	ABOVE GRADE											1/4" PER 1'	ASTM A888, ALL FITTINGS SHALL BE AS PER CPC.
	BELOW GRADE											1/4" PER 1'	CONFORM TO ASTM D 2321-2000, ALL FITTINGS SHALL BE AS PER CPC.
NATURAL GAS	INSIDE											1/4" PER 15'	
	OUTSIDE											1/4" PER 15'	
CONDENSATE	BELOW GRADE											1/4" PER 15'	WITH FACTORY INSTALLED COATING LISTED FOR DIRECT BURIAL.
	ABOVE GRADE											1/8" PER 1'	WROUGHT COPPER FITTINGS.

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CAMPBELL, CA. 95008

REVISION		
#	DATE	DESCRIPTION
1	03/16/2021	PC COMMENTS

DATE: 11/26/2020
DRAWN: MP
PROJECT NO.: -

SHEET TITLE:

PLUMBING SCHEDULE

SHEET OF:

P0.2

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TENANT OWNER:

PROJECT:

SALON
TENANT IMPROVEMENT
484 W. HAMILTON AVENUE
CAMPBELL, CA. 95008

REVISION

#	DATE	DESCRIPTION
1	03/16/2021	PC COMMENTS

DATE: 11/26/2020
DRAWN: MP
PROJECT NO.: -

SHEET TITLE:

PLUMBING
T-24 FORMS
(PAGE 1-4)

SHEET OF:

P0.3

STATE OF CALIFORNIA
Domestic Water Heating System
NRCC-PLB-E (Created 11/19) CALIFORNIA ENERGY COMMISSION NRCC-PLB-E

CERTIFICATE OF COMPLIANCE
This document is used to demonstrate compliance for nonresidential occupancies with requirements in §110.1, §110.3, §120.3, and §140.5, and with requirements in §141.0 for additions and alterations, for domestic water heating systems using the prescriptive path. For high-rise residential and hotel/motel occupancies, compliance is demonstrated with requirements in §110.1, §110.3, §120.3, §150.0 and §150.1(c)(8), and with requirements in §150.2 for additions and alterations.

Project Name: SALON TENANT IMPROVEMENT Report Page: Page 1 of 5
Project Address: 484 W. HAMILTON AVE. CAMPBELL, CA 95008 Date Prepared: 2021-03-14

A. GENERAL INFORMATION

01 Project Location (city) CAMPBELL 02 Climate Zone 4
03 Occupancy Types Within Project (select all that apply):
 Nonresidential High-Rise Residential Hotel/ Motel
 State Building Healthcare Facility Other (Write in):

B. PROJECT SCOPE

Table Instructions: Include any domestic water heating systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive paths outlined in §140.5, §150.1(c)(8), and §141.0(a), or §141.0(b)(2) for additions or alterations. Solar water heating systems should be documented on the NRCC-SRA compliance document. Combined hydronic water heating systems should be documented on the NRCC-MCH compliance document.

01 My project consists of (check all that apply): 02 System Type^{1,2} 03 System Components
 New System (DHW system being installed for the first time in newly constructed building) Individual System (serving nonresidential spaces)¹ Equipment Distribution Controls
 System Alteration (equipment, distribution or controls) Equipment Distribution Controls

¹ FOOTNOTE: Point of use water heaters, or other non-central systems used to serve nonresidential spaces, are considered individual systems.
² Dwelling units refers to hotel/motel guest rooms and units in a high-rise residential occupancy.

C. COMPLIANCE RESULTS

Table Instructions: Table C will indicate if the project data input into the compliance document is compliant with water heating requirements. This table is not editable by the user. If this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D, or the table indicated as not compliant for guidance.

01	02	03	04
Domestic Hot Water Equipment	Distribution Systems	Controls	Compliance Results
(See Table F)	(See Table G)	(See Table H)	
Yes	Yes	Yes	COMPLIES

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards> November 2019

STATE OF CALIFORNIA
Domestic Water Heating System
NRCC-PLB-E (Created 11/19) CALIFORNIA ENERGY COMMISSION NRCC-PLB-E

CERTIFICATE OF COMPLIANCE
Project Name: SALON TENANT IMPROVEMENT Report Page: Page 2 of 5
Project Address: 484 W. HAMILTON AVE. CAMPBELL, CA 95008 Date Prepared: 2021-03-14

D. EXCEPTIONAL CONDITIONS

This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.
No exceptional conditions apply to this project.

E. ADDITIONAL REMARKS

This table includes remarks made by the permit applicant to the Authority Having Jurisdiction.

F. DOMESTIC HOT WATER EQUIPMENT

Table Instructions: Complete the following table to demonstrate compliance with mandatory equipment requirements in §110.1 and §110.3. For high-rise residential and hotel/motel occupancies, compliance with prescriptive requirements in §150.1(c)(8) must also be demonstrated and with §150.2 for addition and alteration scopes.

Equipment Schedule: Individual Systems

01	02	03	04	05	06
Name or Item Tag	Equipment Type	Volume (gal)	Max GPM/ First Hour Rating (FHR)	Rated Uniform Energy Factor (UEF)	Minimum Required Uniform Energy Factor (UEF)
WH-1	Gas-Fired Instantaneous (50,000-200,000 BTUH)	≤2	GPM ≥ 4.0	0.81	0.81

¹ FOOTNOTE: Compliant equipment may be found in the Modernized Appliance Efficiency Database System (MAEDBS) on the Energy Commission website: <https://caecertappliances.energy.ca.gov/Pages/Search/AdvancedSearch.aspx>

Water Heating Equipment All Occupancies

Requirement	Yes	No	Not Applicable
Unfired storage tank insulation shall have Internal + External ≥ R-16 OR External ≥ R-12. Label required per §110.3(c)(3)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
New state buildings 60% of energy for service water heating from site solar energy or recovered energy per §110.3(c)(5)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Isolation valves for instantaneous water heater with input rating > 6.8 KBTUH or 2 kW has been specified per §110.3(c)(6)	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

G. DOMESTIC HOT WATER DISTRIBUTION SYSTEM

Table Instructions: Complete the following table to demonstrate compliance for nonresidential occupancies with distribution requirements in §120.3 and §140.5. For high-rise residential and hotel/motel occupancies, compliance is demonstrated with requirements in §110.3(c), §120.3, §150.0, §150.1.

Table Continued

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards> November 2019

STATE OF CALIFORNIA
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NRCC-PLB-E (Created 11/19) CALIFORNIA ENERGY COMMISSION NRCC-PLB-E

CERTIFICATE OF COMPLIANCE
Project Name: SALON TENANT IMPROVEMENT Report Page: Page 3 of 5
Project Address: 484 W. HAMILTON AVE. CAMPBELL, CA 95008 Date Prepared: 2021-03-14

Table Continued

Mandatory Pipe Insulation All Occupancies

12 For systems serving nonresidential spaces, pipe insulation for the following applications is specified to comply with Table 120.3-A (see below) per §120.3:
- Recirculating system piping, including supply and return piping of the water heater
- The first 8 ft of hot and cold outlet piping for a nonrecirculating storage system
- Pipes that are externally heated

13 Insulation shall be protected from damage, including that due to sunlight, moisture, equipment maintenance, and wind. Insulation exposed to weather shall be installed with a cover suitable for outdoor service per §120.3(b) and §150.0(d)(3)

TABLE 120.3-A PIPE INSULATION THICKNESS

Fluid Temperature Range (°F)	Conductivity Range (Btu-in per hour per ft ² per °F)	Insulation Mean Rating Temp (°F)	Nominal Pipe Diameter (in)		
			<1	1 to < 1.5	1.5 to < 4
105-140	0.22-0.28	100	1.0 in or R-7.7	1.5 in or R-12.5	1.5 in or R-11

H. DOMESTIC HOT WATER SYSTEM CONTROLS

Table Instructions: Complete the following table to demonstrate compliance with controls requirements in §110.3 for all occupancies. For high-rise residential and hotel/motel occupancies, compliance is demonstrated with requirements in §150.1(c)(8).

Requirement	Yes	No	Not Applicable
01 Construction documents require manufacturer certification that service water-heating systems are equipped with automatic temperature controls capable of adjusting temperature settings per §110.3(a)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
02 Systems with capacity > 167,000 BTUH equipped with outlet temperature controls per §110.3(c)(1) unless covered by California Plumbing Code Section 613.0.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
03 Controls for circulating pumps or electrical heat trace systems are capable of automatically turning off the system per §110.3(c)(2) unless system serves healthcare facility.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
04 For recirculation systems serving multiple dwelling units, design includes automatic pump controls per §150.1(c)(8)(b), or §150.2 for additions or alterations.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
05 For recirculation systems serving individual dwelling units, design includes manual on/off controls as specified in Reference Appendix RA 4.4.9 per §150.1(c)(8).	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
06 For replacement single heat pump water heaters serving individual dwelling units in climate zones 1-15, design includes communication interface that meets demand responsive control requirements of §110.12(a) per §150.2(b)(1)(iii).	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards> November 2019

STATE OF CALIFORNIA
Domestic Water Heating System
NRCC-PLB-E (Created 11/19) CALIFORNIA ENERGY COMMISSION NRCC-PLB-E

CERTIFICATE OF COMPLIANCE
Project Name: SALON TENANT IMPROVEMENT Report Page: Page 4 of 5
Project Address: 484 W. HAMILTON AVE. CAMPBELL, CA 95008 Date Prepared: 2021-03-14

I. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCV/

YES	NO	Form/Title	Field Inspector	
			Pass	Fail
<input checked="" type="radio"/>	<input type="radio"/>	NRCI-PLB-01-E - Must be submitted for all buildings	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCI-PLB-02-E - Must be submitted for high-rise residential and hotel/motel central hot water distribution systems to be recognized for compliance.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCI-PLB-03-E - Must be submitted for high-rise residential and hotel/motel single dwelling unit hot water distribution systems to be recognized for compliance.	<input type="checkbox"/>	<input type="checkbox"/>

J. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

There are no Certificates of Acceptance applicable to service water heating requirements.

K. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E. Additional Remarks. These documents must be completed by a HERS Rater and provided to the building inspector during construction. The final documents must be created by a HERS Providers registry, but drafts can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCV/

YES	NO	Form/Title	Field Inspector	
			Pass	Fail
<input type="radio"/>	<input checked="" type="radio"/>	NRCV-PLB-21-H High-rise Residential Central Hot Water Distribution HERS Verification	<input type="checkbox"/>	<input type="checkbox"/>
<input type="radio"/>	<input checked="" type="radio"/>	NRCV-PLB-22-H High-rise Residential Individual Dwelling Unit Hot Water Distribution HERS Verification	<input type="checkbox"/>	<input type="checkbox"/>

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2019standards> November 2019

STATE OF CALIFORNIA
Domestic Water Heating System
 NRCC-PLB-E (Created 11/19) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE
 Project Name: SALON TENANT IMPROVEMENT Report Page: Page 5 of 5
 Project Address: 484 W. HAMILTON AVE. CAMPBELL, CA 95008 Date Prepared: 2021-03-14

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT
 I certify that this Certificate of Compliance documentation is accurate and complete

Documentation Author Name: HAU CHING LIAO Documentation Author Signature: *Hau*
 Company: LADC Signature Date: 2021-03-14
 Address: 1590 OAKLAND RD., STE B212 CEA/HERS Certification Identification (if applicable):
 City/State/Zip: SAN JOSE, CA 95131 Phone: 408-642-1628

RESPONSIBLE PERSON'S DECLARATION STATEMENT
 I certify the following under penalty of perjury, under the laws of the State of California:
 1. The information provided on this Certificate of Compliance is true and correct.
 2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer)
 3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
 4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
 5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: HAU CHING LIAO Responsible Designer Signature: *Hau*
 Company: LADC Date Signed: 2021-03-14
 Address: 1590 OAKLAND RD., STE B212 License: C-28947
 City/State/Zip: SAN JOSE, CA 95131 Phone: 408-642-1628

CA Building Energy Efficiency Standards - 2019 Nonresidential Compliance: <https://www.energy.ca.gov/title24/2019standards> November 2019

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PROJECT:

SALON
 TENANT IMPROVEMENT
 484 W. HAMILTON AVENUE
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REVISION

#	DATE	DESCRIPTION
1	03/16/2021	PC COMMENTS

DATE: 11/26/2020

DRAWN: MP

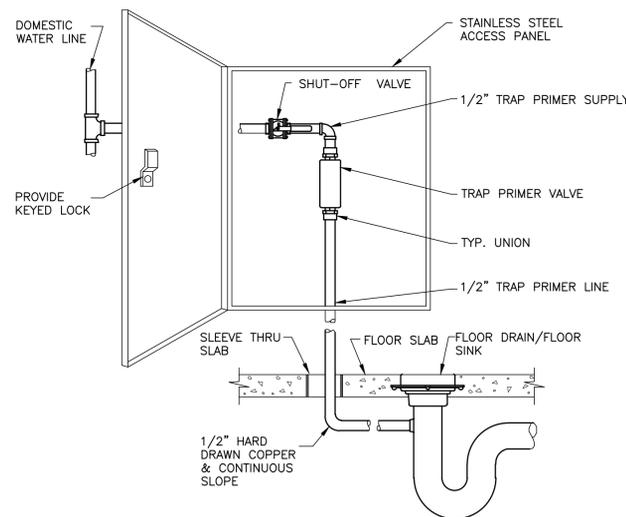
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**PLUMBING
 T-24 FORMS
 (PAGE 5)
 AND DETAILS**

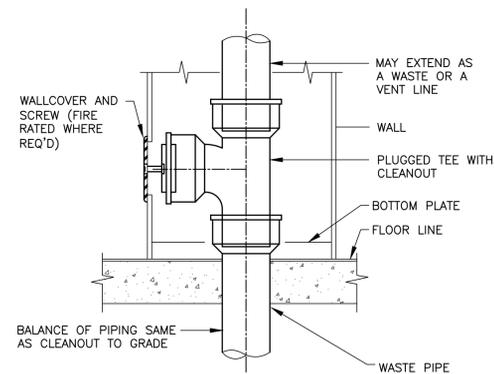
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P0.4



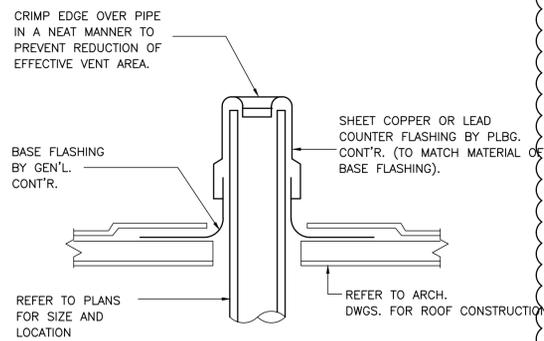
TRAP PRIMER DETAIL

NTS 4



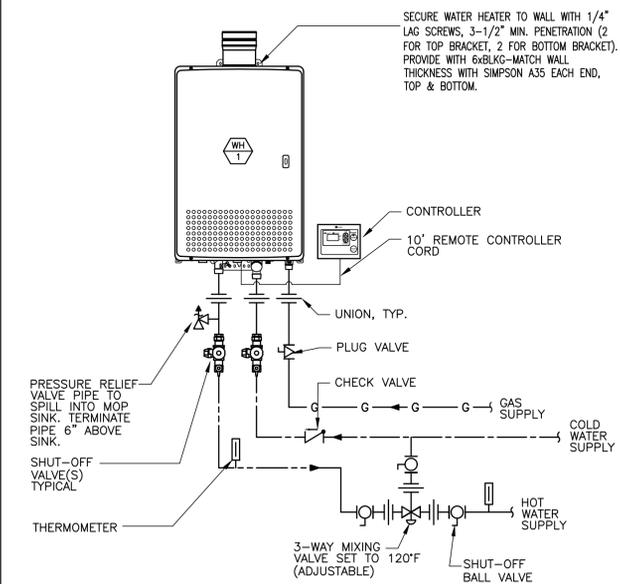
WALL CLEANOUT DETAIL

NTS 3



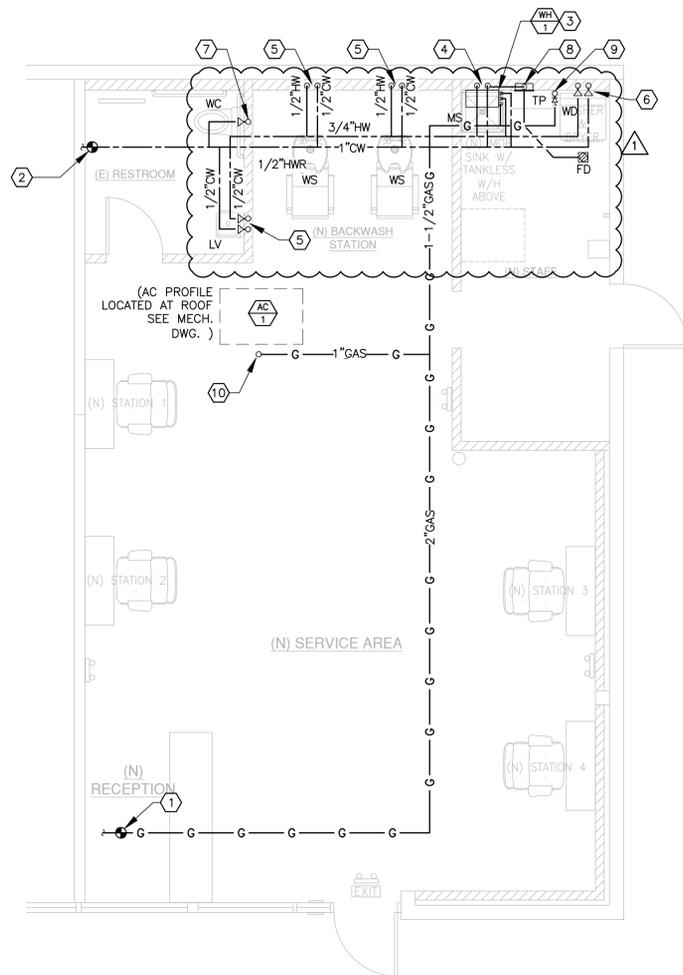
VENT THRU ROOF DETAIL

NTS 2

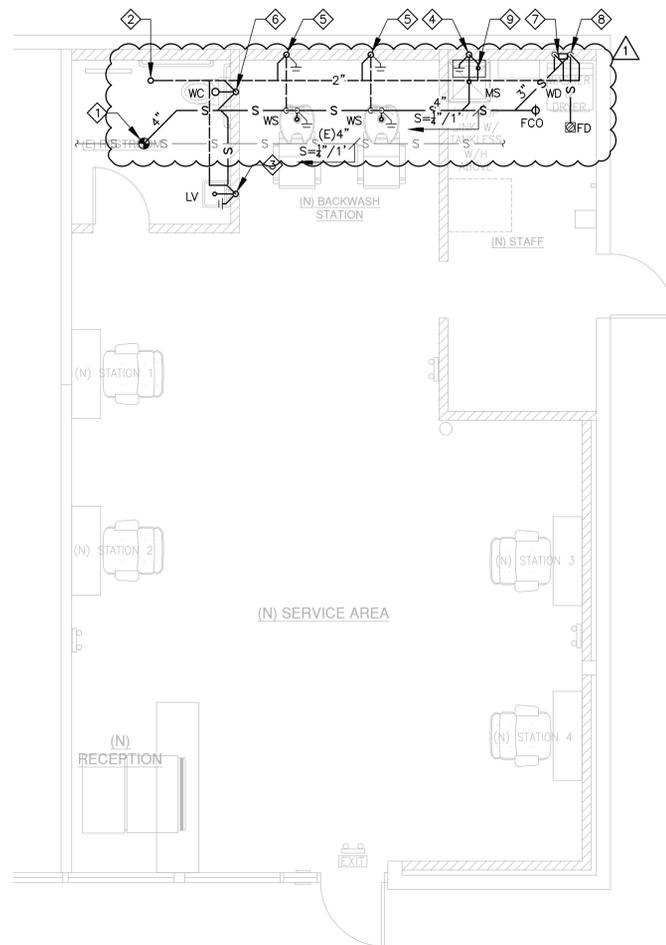


WATER HEATER PIPING DETAIL

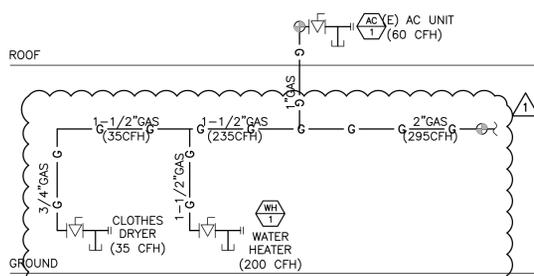
NTS 1



1 WATER & GAS LAYOUT
 P2.1 SCALE: 1/4"=1'-0"

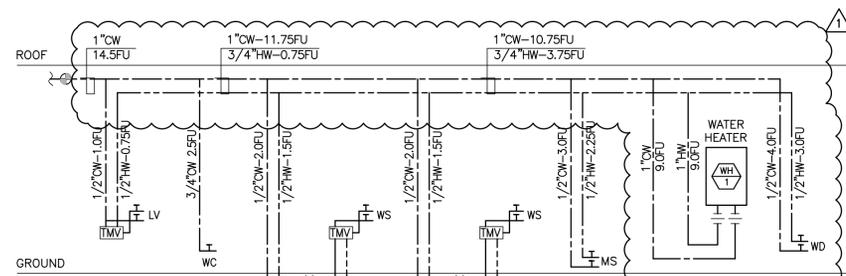


2 SEWER & VENT LAYOUT
 P2.1 SCALE: 1/4"=1'-0"



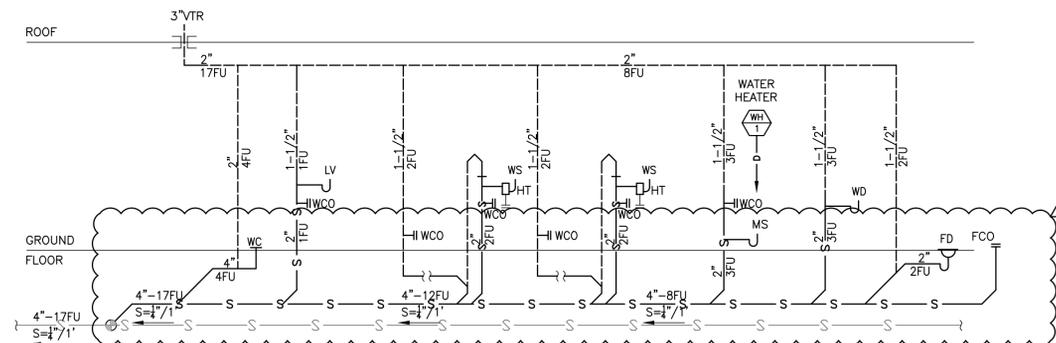
NOTE:
 SEE SHEET P0.2, TABLE FOR GAS LOAD SUMMARY
 AND PIPE SIZING FOR REFERENCE.

3 GAS DIAGRAM
 P2.1 SCALE: NTS



NOTE:
 SEE SHEET P0.2, WATER PIPE SIZE TABLE FOR
 REFERENCE.

4 DOMESTIC WATER RISER DIAGRAM
 P2.1 SCALE: NTS



5 SEWER AND VENT DIAGRAM
 P2.1 SCALE: NTS

GENERAL NOTES

- A. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION OF ALL PIPING AND UTILITIES PRIOR TO START OF WORK. IN THE EVENT OF ANY DISCREPANCIES OR POTENTIAL CONFLICTS, NOTIFY THE ARCHITECT AND ENGINEER IN WRITING PRIOR TO START OF WORK.
- B. ALL PIPING LOCATIONS ARE DIAGRAMMATIC. CONTRACTOR SHALL COORDINATE WITH ALL TRADES AND OWNER'S REPRESENTATIVE AND VERIFY EXACT ROUTING PRIOR TO START OF WORK.
- C. PIPE PENETRATIONS OF FIRE RATED WALL, FLOOR & CEILING SHALL BE PROTECTED AS PER CBC 714.3.
- D. HOT WATER PIPING SHALL BE INSULATED AND IN COMPLIANCE WITH CEC TABLE 120.3-A.

- E. ALL SEWER PIPE SHALL BE SLOPED TO 1/4" PER FOOT. UNLESS OTHERWISE NOTED.
- F. DOMESTIC WATER PIPING SHALL BE AT CEILING SPACE OR HIGH LEVEL. UNLESS OTHERWISE NOTED.
- G. WASTE PIPING BELOW THE FLOOR OR GROUND. UNLESS OTHERWISE NOTED.

WATER & GAS KEYNOTES

- ① UPGRADE EXISTING GAS SUPPLY LINES TO ACCOMMODATE NEW GAS EQUIPMENTS. CONTRACTOR TO VERIFY EXACT POINT OF CONNECTION AND CHECK CAPACITY OF EXISTING GAS METER. UPGRADE IF NECESSARY.
- ② TIE IN NEW 1" COLD WATER PIPELINE TO EXISTING COLD WATER LINE. CONTRACTOR TO VERIFY EXACT POINT OF CONNECTION.
- ③ SUPPLY AND INSTALL TANKLESS GAS WATER HEATER COMPLETE WITH ALL NECESSARY ACCESSORIES, SUPPORT, BRACING, VALVES AND FITTINGS. SEE P0.4 FOR DETAILS.
 PIPE ROUGH-IN SHALL BE:
 • 1" COLD WATER PIPE
 • 1" HOT WATER PIPE
 • 1-1/4" GAS SUPPLY
- ④ 1/2"CW AND 1/2"HW PIPE RUN THROUGH WALL WITH ISOLATION VALVE. INSTALL FAUCET WITH INTEGRAL ASSE 1001 COMPLIANT VACUUM BREAKER.
- ⑤ 1/2"CW AND 1/2"HW PIPE RUN THROUGH WALL WITH ISOLATION VALVE. INSTALL ASSE 1070 COMPLIANT THERMOSTATIC MIXING VALVE.
- ⑥ 3/4"CW AND 3/4"HW PIPE RUN THROUGH WALL TO CLOTHES WASHER UTILITY BOX.
- ⑦ 3/4"CW PIPE RUN THROUGH WALL TO WATER CLOSET.
- ⑧ TRAP PRIMER PROTECTION FOR FLOOR DRAIN. SUPPLY PIPE SHALL BE HARD DRAWN CONTINUOUS SLOPE. PROVIDE WITH APPROVED ACCESS PANEL.
- ⑨ 3/4"GAS PIPE RUN ON WALL WITH ISOLATION VALVE AND DRIP LEG FOR DRYER.
- ⑩ 1"GAS PIPE RUN AT HIGH LEVEL TO TIE IN TO EXISTING AC UNIT GAS SUPPLY LINE.

SEWER & VENT KEYNOTES

- ① TIE IN NEW SEWER PIPE TO EXISTING SEWER LINE. CONTRACTOR TO VERIFY EXACT POINT OF CONNECTION.
- ② 3" VENT THRU ROOF. PROVIDE ROOF CAP AND INSECT SCREEN.
- ③ 2" VERTICAL SEWER PIPE RUN THROUGH WALL WITH 1-1/2" VENT PIPE TO CONNECT TO HORIZONTAL VENT PIPE AT HIGH LEVEL. PROVIDE WALL CLEAN-OUT.
- ④ 3" SEWER PIPE RUN BELOW GRADE WITH 1-1/2" VENT PIPE RUN THROUGH WALL AND CONNECT TO HORIZONTAL VENT PIPE AT HIGH LEVEL. PROVIDE WALL CLEAN-OUT.
- ⑤ ISLAND SEWER AND VENT CONFIGURATION. 2"SEWER PIPE WITH 1-1/2"VENT PIPE RUN BELOW GROUND. PROVIDE WALL CLEAN OUT AT THE VERTICAL PORTION OF THE FOOT VENT. INSTALL HAIR TRAP IN PLACE OF P-TRAP.
- ⑥ 4" SEWER BELOW FLOOR/GROUND, 2" VENT IN WALL.
- ⑦ 2"SEWER PIPE RUN IN WALL FOR CLOTHES WASHER BOX WITH 1-1/2"VENT PIPE. CLOTHES WASHER TO INDIRECTLY DRAIN TO THIS BOX.
- ⑧ 2" SEWER PIPE RUN BELOW GROUND WITH 1-1/2" VENT PIPE RUN THROUGH WALL TO CONNECT TO HORIZONTAL VENT LINE AT HIGH LEVEL.
- ⑨ WATER HEATER TO INDIRECTLY DISCHARGE TO MOP SINK VIA APPROVED AIR GAP.



TENANT OWNER:

PROJECT:

SALON
TENANT IMPROVEMENT
 484 W. HAMILTON AVENUE
 CAMPBELL, CA. 95008

REVISION

#	DATE	DESCRIPTION
①	03/16/2021	PC COMMENTS

DATE: 11/26/2020
 DRAWN: MP
 PROJECT NO.: -

SHEET TITLE:

**PLUMBING
 LAYOUT AND
 RISER DIAGRAM**

SHEET OF:

P2.1