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ACCESSIBILITY COMPLIANCE CHECKLIST:

THE FOLLOWING ITEMS COMPLY WITH THE 2022 CALIFORNIA BUILDING CODE:

COMPLIES		ITEM
☑	G1.1	ACCESSIBLE PARKING AND SIGNAGE
☐	G1.1	PRIMARY PATH OF TRAVEL FROM THE PUBLIC WAY
☑	G1.1	ACCESSIBLE BUILDING ENTRANCE
☑	G0.0	ACCESSIBLE PATH OF TRAVEL FROM BUILDING ENTRANCE TO PROJECT AREA
☐	G4.1	ACCESSIBLE ENTRANCE TO THE AREA OF WORK
☐	N/A	ACCESSIBLE ELEVATOR
☐	G2.1	ACCESSIBLE SINGLE USER RESTROOM SERVING THE PROJECT AREA
☐	G2.1	ACCESSIBLE HIGH-LOW PUBLIC DRINKING FOUNTAIN
☐	N/A	THERE ARE NO PUBLIC TELEPHONES IN THE BUILDING
☐	N/A	ACCESSIBLE STAIRS, RAMPS, AND HANDRAILS

NOTE: ALL OTHER EXISTING INSTALLATIONS ARE UNDER COMPLIANCE OF CHAPTER 11B, DIVISION 2, OF THE 2022 CALIFORNIA BUILDING CODE U.O.N.

STANFORD UNIVERSITY

MAGNETIC RESONANCE SYSTEMS RESEARCH LAB RENOVATION

BUILDING: 02-565
427 SANTA TERESA STREET, STANFORD, CA 94305

PRELIMINARY REVIEW COMMENTS
JUNE 5, 2025

PROJECT STATEMENT

- PROJECT INCLUDES MODIFICATION AND RENOVATION OF THE EXISTING BUILDING TO ACCOMODATE THE REPLACEMENT OF EXISTING MAGNET WITH A NEW GE MAGNET. THIS ENTAILS MODIFICATIONS TO EXISTING WALL LAYOUT, POWER , LIGHTING, AND MECHANICAL. NEW EQUIPMENT ASSOCIATED WITH MAGNET WILL BE INSTALLED ALONG WITH NEW CASEWORK. A NEW CONCRETE PAD WILL BE ADDED TO A SECTION OF THE BUILDING TO MATCH THE HEIGHT OF THE ADJACENT PAD. A PORTION OF THE ROOF WILL BE RAISED TO ACCOMODATE NEW MAGNET EQUIPMENT. MODIFICATIONS ARE ALSO PROPOSED FOR THE EXISTING BATHROOM TO ACHIEVE COMPLIANCE.

HAZMAT STATEMENT

- THERE WILL BE NO NEW HAZARDOUS MATERIALS INTRODUCED TO THE PROJECT AREA AS PART OF THIS PROJECT. THE TOTAL EXISTING HAZMAT WITHIN THE CONTROL ZONE ARE BELOW THE ALLOWABLE LIMITS PER 2022 CBC TABLES 307.1(1) AND 307.1(2).

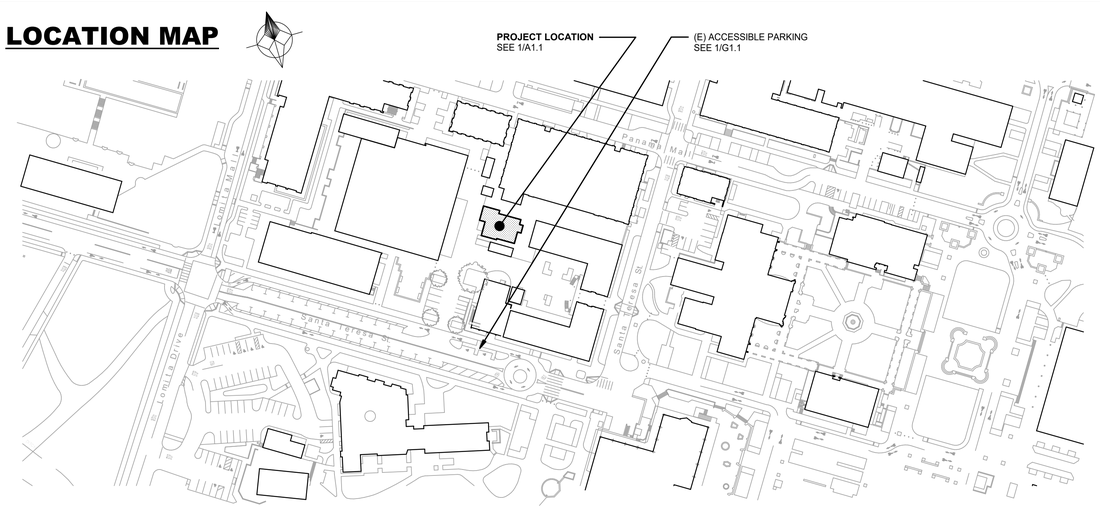
DEFERRED SUBMITTALS

- FIRE SPRINKLER DESIGN PER FDG SECTION 21 13 00
- FIRE ALARM SYSTEM DESIGN PER FDG SECTION 28 31 00.
- ACCESS CONTROL
- GENERAL CONTRACTOR TO PROVIDE WRITTEN DOCUMENTATION TO SUFMO (STANFORD FIRE MARSHAL) DEMONSTRATING HOW PROVISIONS CONTAINED IN CFC CHAPTER 33 (FIRE SAFETY DURING CONSTRUCTION) AND 35 (HOT WORK) WILL BE IMPLEMENTED. INCLUDE DETAILED DESCRIPTION OF THE PROCEDURES FOR SUB-CONTRACTORS TO FOLLOW WHEN USING WELDING, CUTTING, GRINDING AND THE USE OF OPEN FLAME.
- CONTRACTOR AND OWNER TO PROVIDE A WRITTEN PREPLANNED IMPAIRMENT PROGRAM TO SUFMO (STANFORD FIRE MARSHAL) FOR APPROVAL PRIOR TO ANY MODIFICATIONS TO THE FIRE PROTECTION SYSTEM PER 2019 CFC 901.7.4

SPECIAL INSPECTION

- EXPANSION ANCHORS
- EPOXY DOWELS

LOCATION MAP


PROJECT LOCATION
SEE 1/A1.1
(E) ACCESSIBLE PARKING
SEE 1/G1.1
Santa Teresa St
Mayfield Ave
Serra St
Campus Drive West
El Camino Real
Panama St
Galvez St
Lomita Dr
Escondido Rd
Pampas Rd
Museum Way
Lasuen St
Bowdoin St
Santa Teresa St
Governor's Ln
Jane Stanford Way
Oval
Quad
Memorial Church
Hoover Tower
Main Quad
Cemetery
Stanford Stadium
Maples Pavilion
Arrillaga Family Sports Center
Avery Aquatic Center
Roble Field
Roble Gym
Wilbur Field
Golf Course
Stanford Golf Course
Stanford Shopping Center
Stanford Barn
Stanford Dish
Stanford Linear Accelerator Center
Stanford Research Park
Stanford Hospital
Stanford Medical Center
Stanford Children's Health
Lucile Packard Children's Hospital
Stanford Health Care
Stanford Medicine
Stanford Medicine Outpatient Center
Stanford Medicine Research Center
Stanford Medicine Research Institute
Stanford Medicine Research Building
Stanford Medicine Research Laboratory
Stanford Medicine Research Facility

Blueprint for a Clean Bay

Best Management Practices for the Construction Industry

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

Preventing Pollution: It's Up to Us

In the Santa Clara Valley, storm drains transport water directly to local creeks and San Francisco Bay without treatment. Stormwater pollution is a serious problem for wildlife dependent on our creeks and bays and for the people who live near polluted streams or baylands. Common sources of this pollution include spilled oil, fuel, and fluids from vehicles and heavy equipment; construction debris; sediment created by erosion; 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.

Santa Clara Valley *Urban Runoff* Pollution Prevention Program

Thirteen valley municipalities have joined together with Santa Clara County and the Santa Clara Valley Water District to educate local residents and businesses and fight stormwater pollution. This "blueprint" summarizes "Best Management Practices (BMPs) for stormwater pollution prevention.

Spill Response Agencies:

State Office of Emergency Service Warning Center (24 hours) 1-800-852-7550

Santa Clara County Environmental Health Sevices . . . . . (408) 299-6930

Small Business Hazardous Waste Disposal Program

Santa Clara County businesses that generate less than 27 gallons or 220 pounds of hazardous waste per month are eligible to use Santa Clara County's Small Business Hazardous Waste Disposal Program. Call (408) 299-7300 for a quote, more information or guidance on disposal.

Local Pollution Control Agencies:

County of Santa Clara Pollution Prevention Program . . . . . (408) 441-1195

County of Santa Clara Integrated Waste Management Program . . . . . (408) 441-1198

Santa Clara County Hazardous Waste Program . . . . . (408) 299-7300
For information on the disposal of hazardous waste

County of Santa Clara District Attorney Environmental Crimes Hotline . . . . . (408) 299-TIPS

Santa Clara Valley Water District . . . . . (408) 265-2600

Santa Clara Valley Water District Pollution Hotline 1-888-510-5151

Santa Clara County Recycling Hotline 1-800-533-8414

Regional Water Quality Control Board . . . . . (510) 622-2300
Serving San Francisco Bay Region

General Construction and Site Supervision



Who should use this information?

- General Contractors
- Site Supervisors
- Inspectors
- Home Builders
- Developers
- Homeowners

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, or site supervisor, owner or operator of a site, you may be responsible for any environmental damage caused by your subcontractors or employees.

Doing the Job Right
General Principles

- ❑ Keep an orderly site and ensure good housekeeping practices are used.
- ❑ Maintain equipment properly.
- ❑ Cover materials when they are not in use.
- ❑ Keep materials away from streets, storm drains and drainage channels.
- ❑ Ensure dust control water doesn't leave site or discharge to storm drains.

Advance Planning To Prevent Pollution

- ❑ Schedule excavation and grading activities for dry weather periods. To reduce soil erosion, plant temporary vegetation or place other erosion controls before rain begins. Use the *Erosion and Sediment Control Field Manual*, available form the Regional Water Quality Control Board San Francisco Bay Region, as a reference.
- ❑ Control the amount of runoff crossing your site (especially during excavation!) by using berms or temporary or permanent drainage ditches to divert water flow around the site. Reduce stormwater runoff velocities by constructing temporary check dams or berms where appropriate.
- ❑ Train your employees and subcontractors. Make sure everyone who works at the construction site is familiar with this information. Inform subcontractors about the storm-water requirements and their own responsibilities. Use BAASMA, *Blueprint for a Clean Bay*, a construction best management practices guide available from the Santa Clara Valley Urban Runoff Pollution Prevention Program, and California Storm Water Quality Association Stormwater Best Management Practice Handbook: Construction; (Jan 2003) as references.

Good Housekeeping Practices

- ❑ 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, 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 or 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 out a dumpster by hosing it down on the construction site.
- ❑ Place portable toilets away from storm drains. Make sure portable toilets are in good working order. Check frequently for leaks.

Materials/Waste Handling

- ❑ Practice Source Reduction -- minimize waste when you order materials. Order only the amount you need to finish the job.
- ❑ Use recyclable materials whenever possible. Arrange for pick-up of recyclable materials such as concrete, asphalt, scrap metal, solvents, degreasers, cleared vegetation, paper, rock, and vehicle maintenance materials such as used oil, antifreeze, batteries, and tires.
- ❑ Dispose of all wastes properly. Many construction materials and wastes, including solvents, water-based paints, vehicle fluids, broken asphalt and concrete, wood, and cleared vegetation can be recycled. (See Sunnyvale Recycling Program information listed above.) Materials that cannot be recycled must be taken to an appropriate landfill or disposed of as hazardous waste. Never bury waste materials or leave them in the street or near a creek or stream bed.

Permits

- ❑ In addition to local grading and building permits, you will need to obtain coverage under the State's General Construction Activity Stormwater Permit if your construction site's disturbed area totals 1 acre or more. Information on the General Permit can be obtained from the Regional Water Quality Control Board.

Painting and Application of Solvents and Adhesives



Who should use this information?

- Painters
- Paperhangers
- Plasterers
- Graphic Artists
- Dry Wall Crews
- Floor Covering Installers
- General Contractors
- Home Builders
- Developers
- Homeowners

Storm Drain Pollution from Paints, Solvents, and Adhesives

All paints, solvents, and adhesives contain chemicals that are harmful to wildlife in local creeks, San Francisco Bay, and the Pacific Ocean. Toxic chemicals may come from liquid or solid products or from cleaning residues or rags. Paint material and wastes, adhesives and cleaning fluids should be recycled when possible, or disposed of properly to prevent these materials from flowing into storm drains and watercourses.

Doing the Job Right
Handling Paint Products

- ❑ 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 and must be disposed of as hazardous. Contact the Santa Clara County Hazardous Waste Program at (408) 299-7300.
- ❑ Wash water from painted buildings constructed before 1978 can contain high amounts of lead, even if paint chips are not present. Before you begin stripping paint or cleaning pre-1978 building exteriors with water under high pressure, test paint for lead by taking paint scrapings to a local laboratory. See Yellow Pages for a state-certified laboratory.
- ❑ If there is loose paint on the building, or if the paint tests positive for lead, block storm drains. Check with the wastewater treatment plant to determine whether you may discharge water to the sanitary sewer, or if you must send it offsite for disposal as hazardous waste.

Paint Removal

- ❑ Buildings constructed before 1978 may have lead paint in them. Test paint for lead by taking samples to a local environmental testing laboratory to determine if removed paint must be disposed of as hazardous waste.
- ❑ Paint chips and dust from non-hazardous dry stripping and sand blasting may be swept up or collected in plastic drop cloths and disposed of as trash.
- ❑ Chemical paint stripping residue and chips and dust from marine paints or paints containing lead, mercury or tributyl tin must be disposed of as hazardous wastes. Lead based paint removal requires a state-certified contractor.
- ❑ When stripping or cleaning building exteriors with high-pressure water, block storm drains. Direct wash water onto a dirt area, or check Sunnyvale Water Pollution Control Plant (408) 730-7270 to find out if you can collect (mop or vacuum) building cleaning water and dispose to the sanitary sewer. Sampling of the water may be required to assist the wastewater treatment authority in making its decision.

Painting Cleanup

- ❑ Never clean brushes or rinse paint containers into a street, gutter, storm drain, French drain, or stream.
- ❑ For water-based paints, paint out brushes to the extent possible, and rinse into a drain that goes to the sanitary sewer. Never pour paint down a storm drain. Dispose of excess liquids and residue as hazardous waste.
- ❑ For oil-based paints, paint out brushes to the extent possible and clean with thinner or solvent in a proper container. Filter and reuse thinners and solvents. Dispose of excess liquids and residue as hazardous waste.
- ❑ When thoroughly dry, empty paint cans, used brushes, rags, and drop cloths may be disposed of as garbage in a sanitary landfill. Leave lids off paint cans so the refuse collector can see that they are empty. Empty, dry paint cans also may be recycled as metal.
- ❑ Dispose of empty aerosol paint cans as hazardous waste or at household hazardous waste collection events.

Recycle/Reuse Leftover Paints Whenever Possible

- ❑ Donate excess water-based (latex) paint for reuse. Call the Santa Clara County Hazardous Waste Program at (408) 299-7300 for details.
- ❑ Reuse leftover oil-based paint. Dispose of non-recyclable thinners, sludge and unwanted paint, as hazardous waste.
- ❑ Unopened cans of paint may be able to be returned to the paint vendor. Check with the vendor regarding its "buy-back" policy.

Landscaping,Gardening, And Pool Maintenance



Who should use this information?

- Landscapers
- Gardeners
- Swimming Pool/Spa Service and Repair Workers
- General Contractors
- Home Builders
- Developers
- Homeowners

Storm Drain Pollution from Landscaping and Swimming Pool Maintenance

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

Doing the Job Right
General Business Practices

- ❑ Protect stockpiles (e.g. asphalt, sand, or soil) 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 during dry weather.
- ❑ Use temporary check dams or ditches to divert runoff away from storm drains.
- ❑ Protect storm drains with sandbags or other sediment controls.
- ❑ Revegetation is an excellent form of erosion control for any site. Replant as soon as possible with temporary vegetation such as grass seed.

Landscaping/Garden Maintenance

- ❑ Consider using Integrated Pest Management Techniques. Use pesticides sparingly, according to instructions on the label. Rinse empty containers, and use rinsewater as product. Dispose of rinsed, empty containers in the trash.
- ❑ Dispose of unused pesticides as hazardous waste.
- ❑ Curbside pickup of yard waste is provided for Sunnyvale residences. Place yard waste in approved containers at curbside for pickup on waste collection days. Commercial entities may take yard waste to the Sunnyvale SMaRT station for recycling. Contact the Sunnyvale Recycling Program (408) 730-7262 for further information.
- ❑ Collect lawn and garden clippings, pruning waste, and tree trimmings. Chip if necessary, and compost if possible.
- ❑ Do not blow or rake leaves, etc. into the street, or place yard waste in gutters or on dirt shoulders. Sweep up any leaves, litter or residue in gutters or on street.

Pool/Fountain/Spa Maintenance
Draining pools or spas

When it's time to drain a pool, spa, or fountain, please be sure to call the Sunnyvale Water Pollution Control Plant (408) 730-7270 before you start for further guidance on flow rate restrictions, backflow prevention, and handling special cleaning waste (such as acid wash). Discharge flows should be kept to the low levels typically possible through a garden hose. Higher flow rates may be prohibited by local ordinance.

- ❑ Never discharge pool or spa water to a street or storm drain; discharge to a sanitary sewer cleanout.
- ❑ If possible, 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. OR
- ❑ Contact the Sunnyvale Water Pollution Control Plant (408) 730-7270. You may be able to discharge to the sanitary sewer by running the hose to a utility sink or sewer pipe clean-out.
- ❑ Do not use copper-based algaecides. Control algae with chlorine or other alternatives, such as sodium bromide.

Filter Cleaning

- ❑ Never clean a filter in the street or near a storm drain. Rinse cartridge and diatomaceous earth filters onto a dirt area, and spade filter residue into soil. Dispose of spent diatomaceous earth in the garbage.
- ❑ If there is no suitable dirt area, call the Sunnyvale Water Pollution Control Plant (408) 730-7270 for instructions on discharging filter backwash or rinsewater to the sanitary sewer.

Earth-Moving and Dewatering Activities

Who should use this information?



- Bulldozer, Back Hoe, and Grading Machine Operators
- Dump Truck Drivers
- Site Supervisors
- General Contractors
- Home Builders
- Developers

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 when handled improperly. Sediments in runoff can clog storm drains, smother aquatic life, and destroy habitats in creeks and the Bay. Effective erosion control practices reduce the amount of runoff crossing a site and slow the flow with check dams or roughened ground surfaces.

Contaminated groundwater is a common problem in the Santa Clara Valley. Depending on soil types and site history, groundwater pumped from construction sites may be contaminated with toxics (such as oil or solvents) or laden with sediments. Any of these pollutants can harm wildlife in creeks or the Bay, or interfere with wastewater treatment plant operation. Discharging sediment-laden water from a dewatering site into any water of the state without treatment is prohibited.

Doing the Job Right
General Business Practices

- ❑ Schedule excavation and grading work during 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 parts, or clean equipment.

Practices During Construction

- ❑ Remove existing vegetation only when absolutely necessary. Plant *temporary* vegetation for erosion control on slopes or where construction is not immediately planned.
- ❑ Protect downslope drainage courses, streams, and storm drains with wattles, or temporary drainage swales. Use check dams or ditches to divert runoff around excavations. Refer to the Regional Water Quality Control Board's *Erosion and Sediment Control Field Manual* for proper erosion and sediment control measures, and California Stormwater Quality Association Stormwater Best Management Practice Handbook (construction, 2003)
- ❑ Cover stockpiles and excavated soil with secured tarps or plastic sheeting.

Dewatering Operations
Check for Toxic Pollutants

- ❑ Check for odors, discoloration, or an oily sheen on groundwater.
- ❑ Call your local wastewater treatment agency and ask whether the groundwater must be tested.
- ❑ If contamination is suspected, have the water tested by a certified laboratory.
- ❑ Depending on the test results, you may be allowed to discharge pumped groundwater to the storm drain (if no sediments present) or sanitary sewer. OR, you may be required to collect and haul pumped groundwater offsite for treatment and disposal at an appropriate treatment facility.

Check for Sediment Levels

- ❑ If the water is clear, the pumping time is less than 24 hours, and the flow rate is less than 20 gallons per minute, you may pump water to the street or storm drain.
- ❑ If the pumping time is more than 24 hours and the flow rate greater than 20 gpm, call your local wastewater treatment plant for guidance.
- ❑ If the water is not clear, solids must be filtered or settled out by pumping to a settling tank prior to discharge. Options for filtering include:
  - Pumping through a perforate pipe sunk part way into a small pit filled with gravel;
  - Pumping from a bucket placed below water level using a submersible pump;
  - Pumping through a filtering device such as a swimming pool filter or filter fabric wrapped around end of suction pipe.
- ❑ When discharging to a storm drain, protect the inlet using a barrier of burlap bags filled with drain rock, or cover inlet with filter fabric anchored under the grate. OR pump water through a grassy swale prior to discharge.

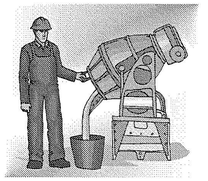
Detecting Contaminated Soil or Groundwater

Contaminated groundwater is a common problem in the Santa Clara Valley. It is essential that all contractors and subcontractors involved know what to look for in detecting contaminated soil or groundwater, and testing ponded groundwater before pumping. Watch for any of these conditions:

1. Unusual soil conditions, discoloration or odor.
2. Abandoned under-ground tanks.
3. Abandoned wells.
4. Buried barrels, debris or trash.

If any of these are found follow the procedures below.

Fresh Concrete and Mortar Application



Who should use this information?

- Masons and Bricklayers
- Sidewalk Construction Crews
- Patio Construction Workers
- Construction Inspectors
- General Contractors
- Home Builders
- Developers
- Concrete Delivery/Pumping Workers

Storm Drain Pollution from Fresh Concrete And Mortar Applications

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 can block storm drains, causes serious problems, and is prohibited by law.

Doing the Job Right
General Business Practices

- ❑ Wash out concrete mixers only in designated wash-out areas in your yard, away from storm drains and waterways, where the water will flow into a temporary waste pit in a dirt area. Let water percolate through soil and dispose of settled, hardened concrete as garbage. Whenever possible, recycle washout by pumping back into mixers for reuse.
- ❑ Wash out chutes onto dirt areas at site that do not flow to streets or drains.
- ❑ Always store both dry and wet materials under cover, protected from rainfall and runoff and away from storm drains or waterways. Protect dry materials from wind.
- ❑ Secure bags of cement after they are open. Be sure to keep wind-blown cement powder away from streets, gutters, storm drains, rainfall, and runoff.
- ❑ Do not use diesel fuel as a lubricant on concrete forms, tools, or trailers.

During Construction

- ❑ Don't mix up more fresh concrete or cement than you will use in a two-hour period.
- ❑ Set up and operate small mixers on tarps or heavy plastic drop cloths.
- ❑ When cleaning up after driveway or sidewalk construction, wash fines onto dirt areas, not down the driveway or into the street or storm drain.
- ❑ Protect applications of fresh concrete and mortar from rainfall and runoff until the material has dried.
- ❑ Wash down exposed aggregate concrete only when the wash water can (1) flow onto a dirt area; (2) drain onto a bermed surface from which it can be pumped and disposed of properly; or (3) be vacuumed from a catchment created by blocking a storm drain inlet. If necessary, divert runoff with temporary berms. Make sure runoff does not reach gutters or storm drains.
- ❑ When breaking up pavement, be sure to pick up all the pieces and dispose of properly. Recycle large chunks of broken concrete at a local recycling facility. Call the Sunnyvale Recycling Program at (408) 730-7262 for information.
- ❑ Never bury waste material. Dispose of small amounts of excess dry concrete, grout, and mortar in the trash.
- ❑ Never dispose of washout into the street, storm drains, drainage ditches, or streams.

Roadwork and Paving

Who should use this information?



- 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
- Home Builders

Storm Drain Pollution from Roadwork

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

Doing the Job Right
General Business Practices

- ❑ Develop and implement erosion/sediment control plans for roadway embankments.
- ❑ Schedule excavation and grading work during dry weather.
- ❑ Check for and repair leaking equipment.
- ❑ Perform major equipment repairs at designated areas in your maintenance yard, where cleanup is easier. Avoid performing equipment repairs at construction sites.
- ❑ When refueling or when vehicle/equipment maintenance must be done on site, designate a location away from storm drains and creeks.
- ❑ Do not use diesel oil to lubricate equipment parts or clean equipment.
- ❑ Recycle used oil, concrete, broken asphalt, etc. whenever possible, or dispose of properly.
- ❑ Take broken up concrete to a local recycling facility. Call the Sunnyvale Recycling Program at (408) 730-7262 for information.

During Construction

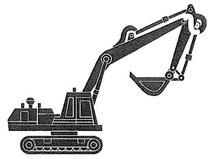
- ❑ Avoid paving and seal coating in wet weather, or when rain is forecast, to prevent fresh materials from contacting stormwater runoff.
- ❑ Cover and seal catch basins and manholes when applying seal coat, slurry seal, fog seal, or similar materials.
- ❑ Protect drainage ways by using earth dikes, sand bags, or other controls to divert or trap and filter runoff.
- ❑ Never wash excess material from exposed aggregate concrete or similar treatments into a street or storm drain. Collect and recycle, or dispose to dirt area.
- ❑ Cover stockpiles (asphalt, sand, etc.) and other construction materials with plastic tarps. Protect from rainfall and prevent runoff with temporary roofs or plastic sheets and berms.
- ❑ Park paving machines over drip pans or absorbent material (cloth, rags, etc.) to catch drips when not in use.
- ❑ Clean up all spills and leaks using "dry" methods (with absorbent materials and/or rags) Dig up, remove, and properly dispose of contaminated soil.
- ❑ Collect and recycle or appropriately dispose of excess abrasive gravel or sand.
- ❑ Avoid over-application by water trucks for dust control.

Asphalt/Concrete Removal

- ❑ Avoid creating excess dust when breaking asphalt or concrete.
- ❑ After breaking up old pavement, be sure to remove all chunks and pieces. Make sure broken pavement does not come in contact with rainfall or runoff.
- ❑ When making saw cuts, use as little water as possible. Shovel or vacuum saw-cut slurry and remove from the site. Cover or protect storm drain inlets during saw-cutting. Sweep up, and properly dispose of, all residues.
- ❑ Sweep, never hose down streets to clean up tracked dirt. Use a street sweeper or vacuum truck. Do not dump vacuumed liquor in storm drains.

Heavy Equipment Operation

Who should use this information?



- Vehicle and Equipment Operators
- Site Supervisors
- General Contractors
- Home Builders
- Developers

Stormwater Pollution from Heavy Equipment on Construction Sites

Poorly maintained vehicles and heavy equipment that leak fuel, oil, antifreeze or other fluids on the construction site are common sources of storm drain 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.

Doing the Job Right
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. Contain the area with berms, sand bags, or other barriers.
- ❑ Maintain all vehicles and heavy equipment. Inspect frequently for and repair leaks.
- ❑ Perform major maintenance, repair jobs, and vehicle and equipment washing off site where cleanup is easier.
- ❑ If you must drain and replace motor oil, radiator coolant, or other fluids on site, use drip pans or drop cloths to catch drips and spills. Collect all spent fluids, store in separate containers. Recycle them wherever possible, otherwise, dispose of them as hazardous wastes.
- ❑ Do not use diesel oil to lubricate equipment parts, or clean equipment. Use only water for any onsite cleaning.
- ❑ Cover exposed fifth wheel hitches and other oily or greasy equipment during rain events.
- ❑ Use as little water as possible for dust control. Ensure water used doesn't leave silt or discharge to storm drains.

Spill Cleanup

- ❑ Clean up spills immediately when they happen.
- ❑ Never hose down "dirty" pavement or impermeable surfaces where fluids have spilled. Use dry cleanup methods (absorbent materials, cat litter, and/ or rags) whenever possible and properly dispose of absorbent materials.
- ❑ Sweep up spilled dry materials immediately. Never attempt to "wash them away" with water, or bury them.
- ❑ Clean up spills on dirt areas by digging up and properly disposing of contaminated soil.
- ❑ Report significant spills to the appropriate local spill response agencies immediately. In Sunnyvale, dial 9-1-1 if hazardous materials might enter the storm drain.
- ❑ If the spill poses a significant hazard to human health and safety, property or the environment, you must also report it to the State Office of Emergency Services 1-800-852-7500.

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BUILDING ADDRESS:	**427 SANTA TERESA STREET, STANFORD, CA 94305**
STANFORD PROJECT NUMBER:	
PROJECT MANAGER:	BRIAN CARILLI

BAY AREA BUILDERS INCORPORATED

3360 De La Cruz Boulevard
Santa Clara, CA 95054
www.ba-builders.com

main office: (408) 648-4500
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Stanford University

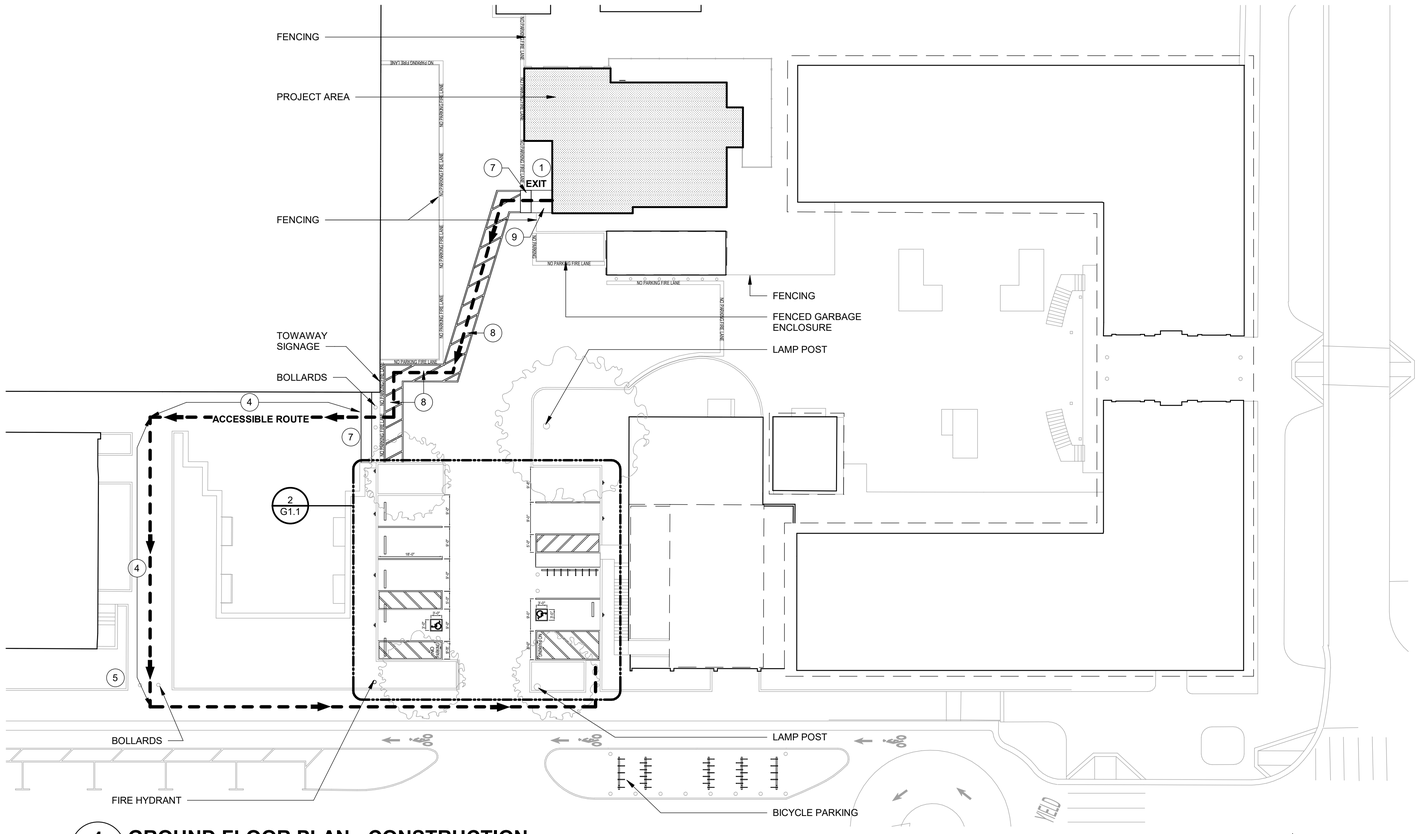
LELAND STANFORD JUNIOR UNIVERSITY 1891

MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATION
BLUEPRINT FOR A CLEAN BAY

DRAWING NO. **G0.1**

BUILDING NUMBER: 02-565 | SCALE: AS NOTED | BAB PROJECT #: 24118 / 6417 | REV 0

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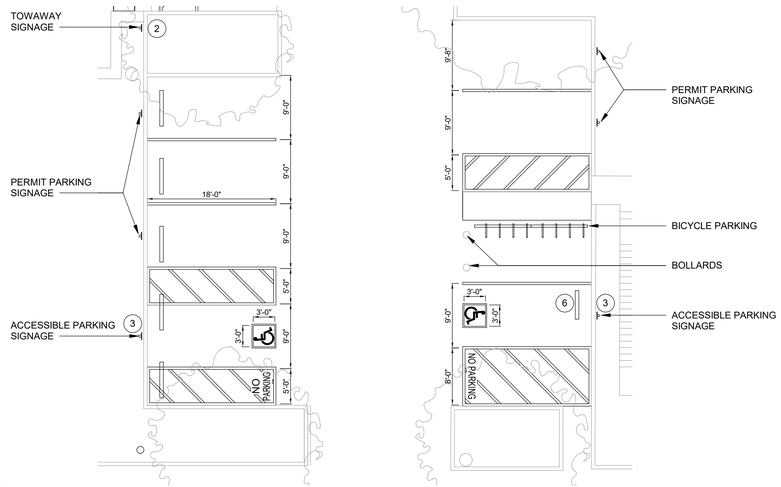


1 G1.1 GROUND FLOOR PLAN - CONSTRUCTION

1" = 20'-0"

GRAPHIC SCALE: 1" = 20'-0"

20' 0' 20' 40' 60' 80'



2 G1.1 ACCESSIBLE PARKING

1" = 10'-0"

GENERAL NOTES:

A. REFER TO SHEET G0.0 FOR INDEX OF DRAWINGS & GENERAL NOTES.

B. ALL WORK TO BE PERFORMED PER THE CONTRACT DOCUMENTS & MANUFACTURER'S INSTRUCTIONS UNLESS OTHERWISE NOTED.

C. THE EXISTING CONDITIONS OF THE PUBLIC WAY, PATH OF TRAVEL, ENTRANCE AND PARKING SERVING THE PROJECT AREA ARE SHOWN FOR REFERENCE ONLY AS THEY RELATE TO COMPLIANCE WITH THE CURRENT CA TITLE 24/ADA STANDARDS. REFER TO SHEET G1.2 FOR GENERIC COMPLIANCE DETAILS.

D. THE EXIT DISCHARGE SHALL HAVE A DIRECT AND UNOBSTRUCTED ACCESS TO THE PUBLIC WAY (SECTION 1028.5). ILLUMINATION (1-FOOTCANDLE AT THE WALKING SURFACE) SHALL BE PROVIDED ALONG THE PATH OF TRAVEL FOR THE EXIT DISCHARGE FROM EACH EXIT TO THE PUBLIC WAY (SECTION 1008.2.3) OR TO A SAFE DISPERSAL AREA MEETING THE FOLLOWING REQUIREMENTS:
- ACCOMMODATE 5 S.F. PER PERSON
- LOCATED ON THE SAME LOT NOT < 50 FEET AWAY FROM THE ASSOCIATED BUILDING
- AREA PERMANENTLY MAINTAINED AND IDENTIFIED AS A SAFE DISPERSAL AREA
- AREA SHALL BE HAVE SAFE/UNOBSTRUCTED PATH OF TRAVEL FROM THE BUILDING
- ONLY THE EXIT DISCHARGE(S) ASSOCIATED WITH THE PROJECT AREA SHALL BE UPGRADED IF DEFICIENT, NOT THE ENTIRE BUILDING.

E. ACCESSIBLE PATH COMPLIES WITH THE FOLLOWING REQUIREMENTS:
- ROUTE IS CONTINUOUSLY ACCESSIBLE
- MAXIMUM 1/4" VERTICAL CHANGES IN GRADE LEVEL
- MAXIMUM 1/2" CHANGE IN ELEVATION IF BEVELED (CBC SECTION 11B-303.3)
- MINIMUM 48" IN CLEAR WIDTH
- FIRM, STABLE AND SLIP-RESISTANT SURFACE
- LONGITUDINAL SLOPE IS 1:20 (5%) MAXIMUM OR A RAMP WITH 1:12 (8.33%) MAXIMUM SLOPE COMPLYING WITH CBC SECTION 11B-405
- CROSS SLOPE IS 1:48 (2.0833%) MAXIMUM
- CURB RAMPS COMPLY WITH CBC SECTION 11B-406

SHEET NOTES:

1. PROVIDE & INSTALL (N) ISA SIGNAGE AT ENTRANCES NOTED. REFER TO G4.1 EGRESS PLAN FOR FURTHER DETAILS AND DETAIL 2/G1.2.
2. DENOTES (E) TOWAWAY SIGN TO REMAIN. FILL IN WHERE INFORMATION WHERE VEHICLES CAN BE RECLAIMED AT AND THE PHONE NUMBER TO CALL. SIGNAGE COMPLIES WITH DETAIL 5/G1.2.
3. DENOTES (E) ACCESSIBLE PARKING SIGNAGE AT LOCATION SHOWN TO REMAIN COMPLYING WITH DETAIL 4/G1.2.
4. FILL IN CONCRETE JOINTS IN PATH OF TRAVEL THAT EXCEED 1/2" IN WIDTH.
5. PROVIDE & INSTALL (N) DIRECTIONAL SIGN IN LOCATION SHOWN. DIRECTIONAL ARROW SHALL POINT TOWARDS THE NOTED PATH OF TRAVEL TO THE ACCESSIBLE ENTRANCE. REFER TO DETAIL 3/G1.2.
6. PROVIDE & INSTALL CURB BUMPER AT LOCATIONS SHOWN ON PLAN. BUMPER SHALL COMPLY WITH DETAIL 1/G1.2 AND PAINTED BLUE.
7. PROVIDE & INSTALL (N) DETECTABLE WARNINGS IN LOCATION SHOWN. REFER TO DETAIL 6/G1.2.
8. STRIPE (N) ACCESSIBLE AISLE AT LOCATION SHOWN. REFER TO DETAIL 1/G1.2.
9. DEMOLISH (E) RAMP AND PROVIDE & INSTALL (N) RAMP IN LOCATION SHOWN. SLOPE TO NOT EXCEED 8.33%. REFER TO DETAIL 1/G1.2.

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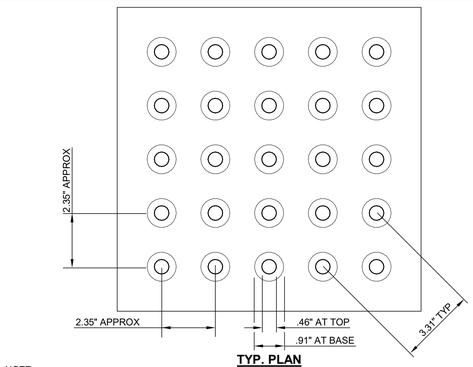
Stanford University

MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATION
SITE PLAN

DRAWING NO. G1.1

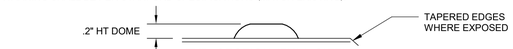
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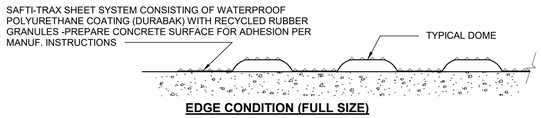


TYP. PLAN

NOTE:
RAISED TRUNCATED DOMES DETECTABLE WARNING TO EXTEND FULL WIDTH OF WALK SURFACE BY 36" MIN DEPTH, DOME SHALL HAVE A NOMINAL 0.9"∅ MINIMUM AND 0.92"∅ MAXIMUM AT THE BASE TAPERING TO 0.45"∅ MINIMUM AND 0.47"∅ MAXIMUM AT THE TOP; AN EXACT HEIGHT OF 0.20"; A CENTER-TO-CENTER SPACING OF 2.3" MINIMUM AND 2.4" MAXIMUM; AND A CENTER-TO-CENTER DIAGONAL SPACING OF 3.25" MINIMUM AND 3.40" MAXIMUM. DETECTABLE WARNING SHALL BE PER STANFORD SPECIFICATIONS (MATCH EXISTING).

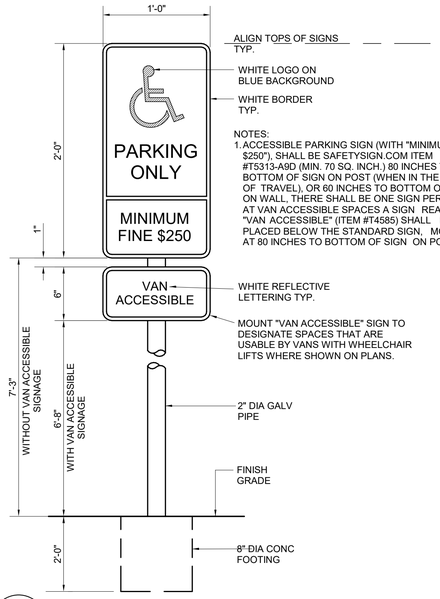


TYP. SECTION (FULL SIZE)



EDGE CONDITION (FULL SIZE)

6 G1.2 DETECTABLE WARNING DETAIL
6" = 1'-0"

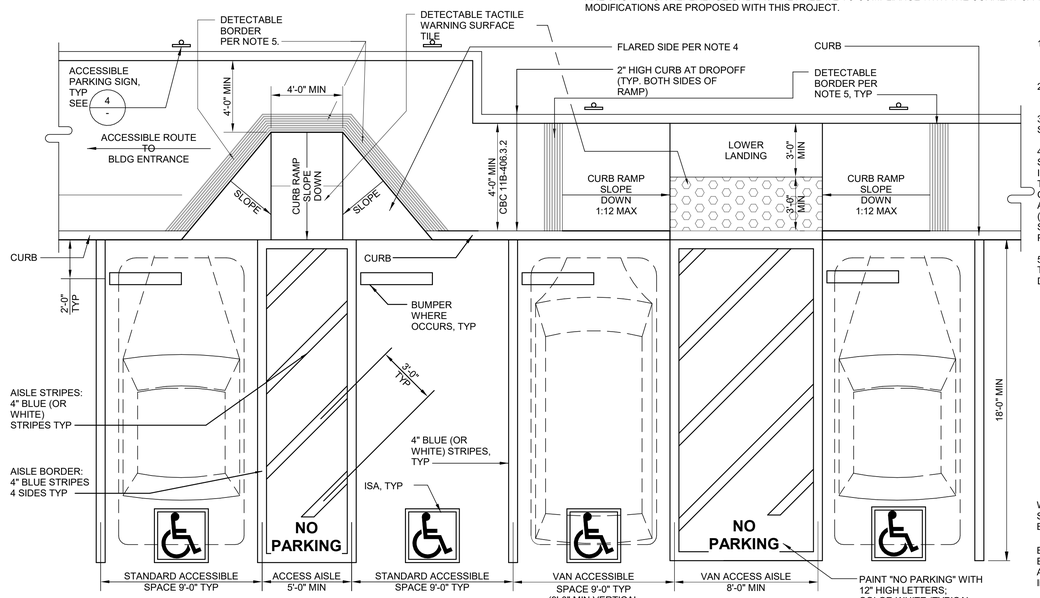


NOTES:
1. ACCESSIBLE PARKING SIGN (WITH "MINIMUM FINE $250"), SHALL BE SAFETYSIGN.COM ITEM #T5313-A9D (MIN. 70 SQ. INCH.) 80 INCHES TO BOTTOM OF SIGN ON POST (WHEN IN THE PATH OF TRAVEL), OR 60 INCHES TO BOTTOM OF SIGN IF ON WALL. THERE SHALL BE ONE SIGN PER SPACE. AT VAN ACCESSIBLE SPACES A SIGN READING "VAN ACCESSIBLE" (ITEM #T4585) SHALL BE PLACED BELOW THE STANDARD SIGN, MOUNTED AT 80 INCHES TO BOTTOM OF SIGN ON POST.

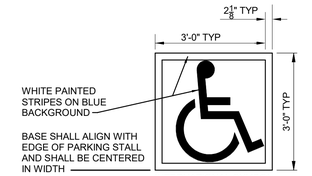
4 G1.2 ACCESSIBLE PARKING SIGN
NTS

FOR REFERENCE ONLY

CURB RAMP NOTES:
1. CURB RAMP REQUIRED WHERE ACCESS AISLES CROSS CURB.
2. MAXIMUM SLOPE 1:12 MAXIMUM RISE OF 6".
3. 4'-0" MINIMUM WIDTH OF RAMP. 4'-0" LONG LANDING AT TOP AND BOTTOM.
4. FLARED SIDE REQUIRED WHERE WALK CROSSES RAMP. 1:10 MAX SLOPE.
5. RAMPS SHALL HAVE A 12" WIDE BORDER WITH 1/4" GROOVES AT 3/4" O.C. (OPTIONAL)
6. RAMP MAY NOT PROTRUDE INTO ACCESS AISLE.

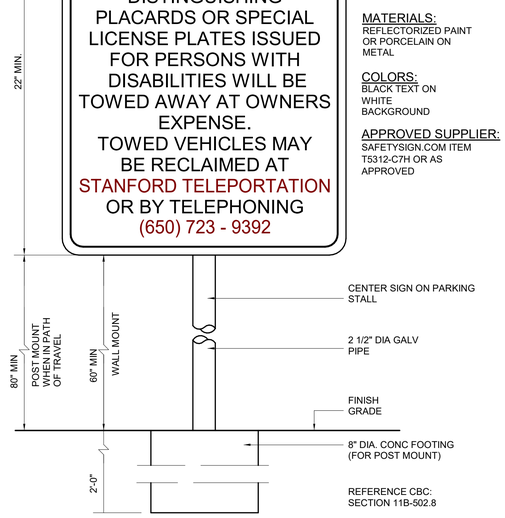


PARKING NOTES:
1. BUMPER OR BARRIER IS REQUIRED TO PREVENT ENCROACHMENT OF CARS OVER WALKWAYS. ENCROACHMENT OF CARS OVER WALKWAYS.
2. WHEEL CHAIR USERS MUST NOT BE REQUIRED TO GO BEHIND PARKED CARS OTHER THAN THEIR OWN.
3. SLOPES OF THE PARKING AND ACCESS AISLE SURFACE SHALL NOT EXCEED 1:50 OR 2% IN ANY DIRECTION.
4. ACCESSIBLE PARKING SIGN (WITH "MINIMUM FINE $250"), SHALL BE SAFETYSIGN.COM ITEM #T5313-A9D (MIN. 70 SQ. INCH.) 80 INCHES TO BOTTOM OF SIGN ON POST (WHEN IN THE PATH OF TRAVEL), OR 60 INCHES TO BOTTOM OF SIGN IF ON WALL. THERE SHALL BE ONE SIGN PER SPACE. AT VAN ACCESSIBLE SPACES A SIGN READING "VAN ACCESSIBLE" (ITEM #T4585) SHALL BE PLACED BELOW THE STANDARD SIGN, MOUNTED AT 80 INCHES TO BOTTOM OF SIGN ON POST.
5. SLOPES FOR THE PATH OF TRAVEL FROM PUBLIC ACCESS TO THE BUILDING ENTRANCE SHALL NOT EXCEED 5% IN THE DIRECTION OF TRAVEL AND 2% CROSS SLOPE.



REFERENCE CBC:
FIGURE 11B-502.3.3
SECTION 11B-502

1 G1.2 ACCESSIBLE PARKING REQUIREMENTS
1/4" = 1'-0"



NOTES:
SIGN SHALL BE 0.050 INCH THICK REFLECTIVE ALUMINUM

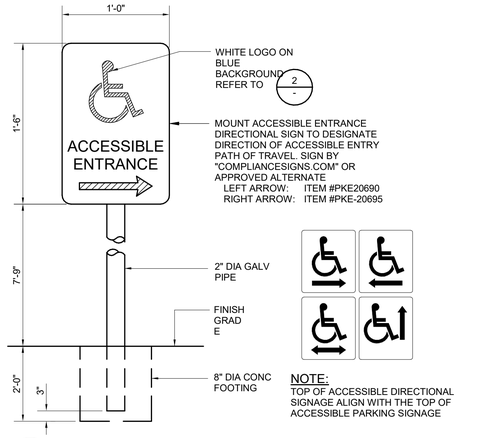
MATERIALS:
REFLECTORIZED PAINT OR PORCELAIN ON METAL

COLORS:
BLACK TEXT ON WHITE BACKGROUND

APPROVED SUPPLIER:
SAFETYSIGN.COM ITEM T5312-C7H OR AS APPROVED

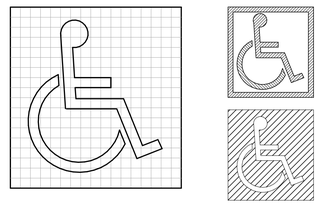
5 G1.2 SITE PARKING SIGN-STANFORD
1/4" = 1'-0"

FOR REFERENCE ONLY



NOTE:
TOP OF ACCESSIBLE DIRECTIONAL SIGNAGE ALIGN WITH THE TOP OF ACCESSIBLE PARKING SIGNAGE

3 G1.2 ACCESSIBLE DIRECTIONAL SIGNAGE
NTS



PROPORTIONS

DISPLAY CONDITIONS

COLOR OF SYMBOL:	THE SYMBOL SPECIFIED ABOVE SHALL CONSISTS OF A WHITE FIGURE ON A BLUE BACKGROUND. THE BLUE SHALL BE EQUAL TO COLOR NO. 15090 IN FEDERAL STANDARD 595a.
CONTRAST OF SYMBOL:	CHARACTERS AND SYMBOLS SHALL CONTRAST THEIR BACKGROUND, EITHER LIGHT CHARACTERS ON DARK BACKGROUND OR DARK CHARACTERS ON LIGHT BACKGROUND.
MOUNTING HEIGHT & LOCATION:	SIGNS SHALL BE INSTALLED ON WALL ADJACENT TO THE LATCH SIDE OF THE DOOR. MOUNTING HEIGHT SHALL BE 60" ABOVE THE FINISH FLOOR TO THE CENTERLINE OF SIGN.

2 G1.2 INTERNATIONAL SYMBOL OF ACCESSIBILIY
1/4" = 1'-0"

GENERAL NOTES

A. REFER TO SHEET G0.0 FOR INDEX OF DRAWINGS & GENERAL NOTES.

B. ACCESSIBLE PARKING & RELATED DETAILS ARE SHOWN TO VALIDATE COMPLIANCE, OR LACK THEREOF, WITH CURRENT CA TITLE 24/ADA STANDARDS AS REFLECTED IN DETAILS 1-6 ON THIS SHEET AND ARE SHOWN FOR REFERENCE ONLY.

C. THE EXISTING CONDITIONS OF THE PUBLIC WAY, PATH OF TRAVEL, ENTRANCE AND PARKING SERVING THE PROJECT AREA ARE SHOWN FOR REFERENCE ONLY AS THEY RELATE TO COMPLIANCE WITH THE CURRENT CA TITLE 24/ADA STANDARDS. NO MODIFICATIONS ARE PROPOSED WITH THIS PROJECT.

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MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATION
PARKING COMPLIANCE

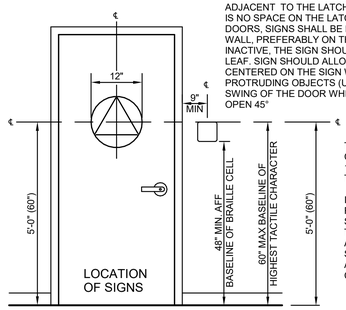
DRAWING NO. **G1.2**

BUILDING NUMBER: 02-565	SCALE: AS NOTED	BAB PROJECT #: 24118 / 6417	REV 0

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OTHER NOTES:
DISPLAY THE SIGNS IN A MINIMUM OF TWO LOCATION, ON THE DOORWAY AND ON THE WALL. THE CIRCLE AND TRIANGLE SYMBOLS ON THE DOOR SHOULD BE 1/4" THICK AND THE EDGES SHOULD BE ROUNDED, CHAMFERED OR EASED AND ANY CORNER SHOULD HAVE A MINIM RADIUS OF 1/8".
CIRCLE SYMBOL: SHOULD BE 12" IN DIAMETER AND OF A COLOR THAT CONTRASTS WITH THAT OF THE DOOR.
DOOR TRIANGLE: SHOULD BE AN EQUILATERAL TRIANGLE SUPERIMPOSED ON THE CIRCLE AND OF A COLOR THAT CONTRASTS WITH THAT OF THE CIRCLE.
SIDE DOOR SIGN: SHOULD BE 1/4" THICK AND OF A COLOR THAT CONTRASTS WITH THAT OF THE WALL.
TEXT ON SIDE SIGN: TEXT CHARACTERS MUST HAVE A NON-GLARE FINISH AND CONTRAST WITH THE COLOR OF THE SIGN. TEXT MUST SAY "ALL-GENDER RESTROOM" OR "ALL-GENDER SHOWER" OR "ALL-GENDER CHANGING ROOM" AS APPLIES. THIS TEXT BE ACCOMPANIED BY ROOM NUMBER AND THE CORRESPONDING GRADE II BRAILLE 9 (DOTS CAN BE ROUNDED OR DOMED) FOR ALL PERMANENT INFORMATION OF THE SIGN.
PICTOGRAMS, OTHER THAN THE INTERNATIONAL SYMBOL OF ACCESSIBILITY WHERE RELEVANT, ARE NOT APPROVED. MALE AND FEMALE (PERSON) PICTOGRAMS ARE NOT APPROVED FOR ALL-GENDER RESTROOMS. THE PICTOGRAMS SHOULD BE LOCATED ONLY ON THE DOOR SIGN WHERE A FACILITY IS NOT ACCESSIBLE, SIGNAGE SHOULD INDICATE THE NEAREST ACCESSIBLE FACILITY, AS DETERMINED BY UA/CPD. THE COLOR AND MATERIAL OF THE SIGNS SHOULD MATCH THE ADJACENT ROOM SIGNAGE, BUT MUST ALSO HAVE ENOUGH CONTRAST AND HAVE NON-GLARE SURFACES. FOR ANY FACILITY ON THE MAIN QUAD, PLEASE REFER TO THE MAIN QUAD ALL-GENDER RESTROOM STANDARD. SEE DRAWING FOR FURTHER DETAILS.

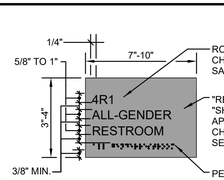
ANY DEVIATIONS MUST BE BROUGHT TO THE ATTENTION OF THE UNIVERSITY ARCHITECT/CAMPUS AND CAMPUS PLANNING FOR REVIEW PRIOR TO INCORPORATION INTO THE PROJECT. ARCHITECTS, DESIGN CONSULTANTS AND CONSTRUCTION MANAGERS ENGAGED BY STANFORD UNIVERSITY ARE FULLY RESPONSIBLE AND LIABLE FOR THEIR DESIGNS AND CONSTRUCTION, AND SHOULD FOLLOW ALL APPROPRIATE CODES AND REGULATIONS REGARDLESS OF ANY APPROVALS OR ACCEPTANCE OF DESIGN OR CONSTRUCTION DOCUMENTS BY STANFORD UNIVERSITY OR ITS PERSONNEL.



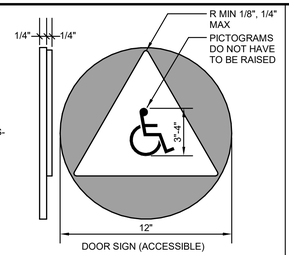
WALL MOUNTED SIGNAGE SHOULD BE LOCATED ON THE WALL ADJACENT TO THE LATCH SIDE OF THE DOOR. WHERE THERE IS NO SPACE ON THE LATCH SIDE, INCLUDING AT DOUBLE LEAF DOORS, SIGNS SHALL BE PLACED ON THE NEAREST ADJACENT WALL, PREFERABLY ON THE RIGHT. WHERE ONE LEAF IS INACTIVE, THE SIGN SHOULD BE PLACE ON THE INACTIVE LEAF. SIGN SHOULD ALLOW A CLEAR SPACE OF 18" BY 18" CENTERED ON THE SIGN WITHOUT ENCOUNTERING PROTRUDING OBJECTS (UP TO 80") AND OUTSIDE OF THE SWING OF THE DOOR WHEN OPEN 45°

THE SPACING BETWEEN CHARACTERS SHOULD BE AT LEAST 1/8" AND NO MORE THAN FOUR TIMES THE CHARACTER STROKE WIDTH.

IF THE CHARACTERS HAVE NON-RECTANGULAR SECTIONS, THE SPACING APPLIES TO THE TOP OF THE CROSS SECTION, THE SPACING AT THE BASE OF THE CROSS SECTION MUST BE AT LEAST 1/16" AND NO MORE THAN 4 TIMES THE CHARACTER STROKE WIDTH.

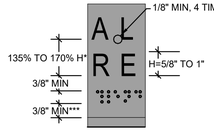


SIDE DOOR DESIGN

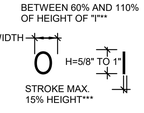


DOOR SIGN (ACCESSIBLE)

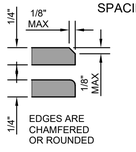
* LINE SPACING SHOULD BE BETWEEN 135% TO 170% OF THE HEIGHT OF RAISED CHARACTERS
** WIDTH OF THE UPPERCASE "O" SHOULD BE BETWEEN 60% AND 110% OF THE HEIGHT OF UPPERCASE "I"
*** WHERE PROVIDED, RAISED BORDER OR DECORATIVE ELEMENTS MUST BE SEPARATED AT LEAST 3/8" FROM THE TEXT OR BRAILLE, AND BRAILLE MUST BE SEPARATED BY AT LEAST 3/8" FROM RAISED CHARACTERS

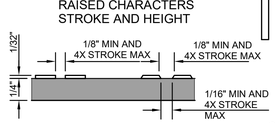


SPACING

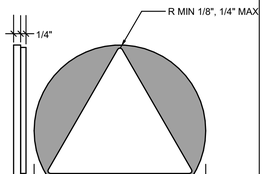


RAISED CHARACTERS STROKE AND HEIGHT





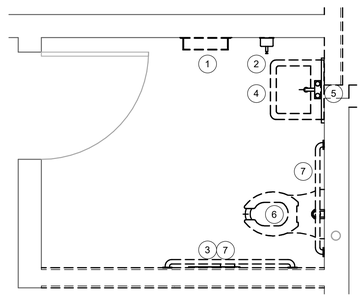
RAISED CHARACTERS SECTIONS



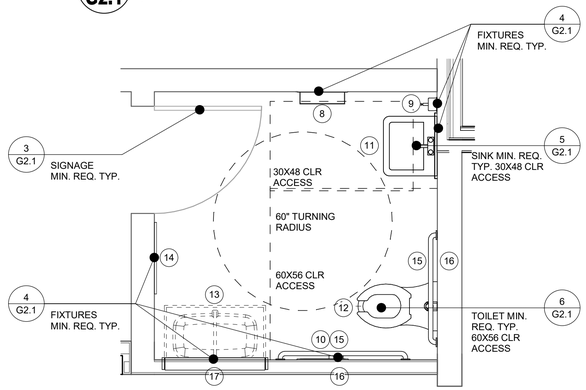
DOOR SIGN (INACCESSIBLE)

THIS INTERNATIONAL SYMBOL OF ACCESSIBILITY IS RECOMMENDED, ANY DEVIATION SHOULD BE APPROVED BY THE DIVERSITY AND ACCESS OFFICE. A SYMBOL OF A WHEELCHAIR IN MOTION IS NOT ALLOWED.

3 G2.1 ALL GENDER RESTROOM
NTS



1 G2.1 ALL GENDER RESTROOM - DEMOLITION
1/2" = 1'-0"



2 G2.1 ALL GENDER RESTROOM - CONSTRUCTION
1/2" = 1'-0"

GENERAL NOTES:

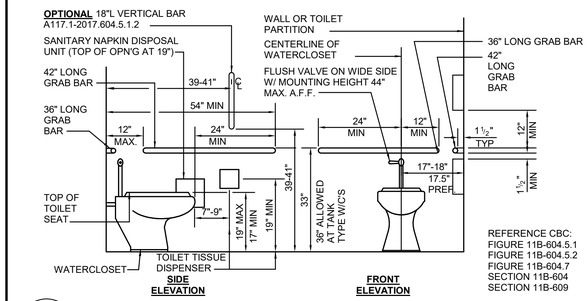
A. REFER TO SHEET G0.0 FOR INDEX OF DRAWINGS & GENERAL NOTES.

B. ACCESSIBLE RESTROOMS & RELATED DETAILS ARE SHOWN TO VALIDATE COMPLIANCE, OR LACK THEREOF, WITH CURRENT CA TITLE 24/ADA STANDARDS AS REFLECTED IN DETAILS A, B, 1-7 ON THIS SHEET AND ARE SHOWN FOR REFERENCE ONLY.

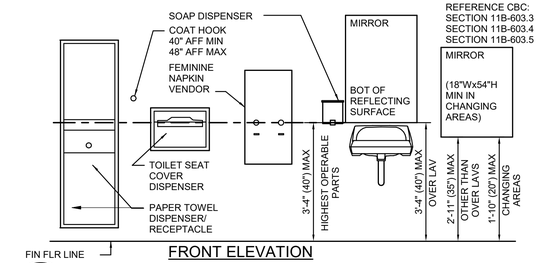
C. THE EXISTING CONDITIONS OF THE RESTROOMS IN THE BUILDING SERVING THE PROJECT AREA ARE SHOWN FOR REFERENCE ONLY AS THEY RELATE TO COMPLIANCE WITH THE CURRENT CA TITLE 24/ADA STANDARDS.

SHEET NOTES:

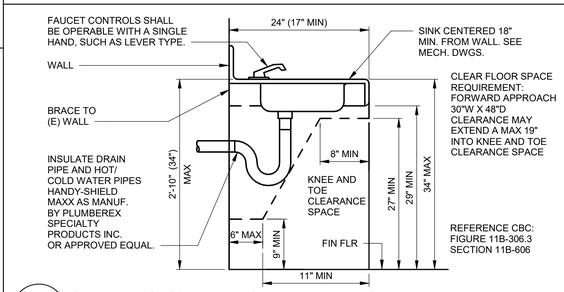
1. REMOVE & DISPOSE OF (E) PAPER TOWEL DISPENSER. PREP WALL AS REQUIRED FOR NEW DISPENSER.
2. REMOVE & DISPOSE OF (E) SOAP DISPENSER AT LOCATION SHOWN. PATCH WALL TO MATCH EXISTING ADJACENT LIKE SURFACES.
3. REMOVE & DISPOSE OF (E) TOILET SEAT COVER & TOILET PAPER DISPENSER AT LOCATION SHOWN.
4. REMOVE & DISPOSE OF (E) SINK AT LOCATION SHOWN. PREP WALL AS REQUIRED FOR NEW FIXTURE.
5. REMOVE (E) MIRROR AND SAVE FOR LATER USE. REFER TO 2/G2.1 FOR NEW LOCATION.
6. REMOVE & DISPOSE OF (E) WATER CLOSET AT LOCATION SHOWN. PATCH WALL TO MATCH EXISTING ADJACENT LIKE SURFACES.
7. REMOVE & DISPOSE OF (E) GRAB BARS AT LOCATIONS SHOWN. PATCH WALL TO MATCH EXISTING ADJACENT LIKE SURFACES AS REQUIRED.
8. PROVIDE & INSTALL (N) PAPER TOWEL DISPENSER/DISPOSAL AT LOCATION SHOWN. REFER TO DETAIL 4/G2.1 FOR MOUNTING HEIGHTS.
9. PROVIDE & INSTALL (N) SOAP DISPENSER AT LOCATION SHOWN. REFER TO DETAIL 4/G2.1 FOR MOUNTING HEIGHTS.
10. PROVIDE & INSTALL (N) BOBRICK RECESSED TOILET PAPER/ SEAT COVER DISPENSER/ WASTE DISPOSAL FIXTURE AT LOCATION SHOWN. REFER TO DETAIL 4/G2.1 FOR MOUNTING HEIGHTS.
11. PROVIDE & INSTALL (N) SINK AT LOCATION SHOWN. PROVIDE & INSTALL NEW PIPING TO CONNECT TO EXISTING WASTE AND SUPPLY LINES THROUGH WALL ABOVE SLAB. REFER TO DETAIL 5/G2.1.
12. PROVIDE & INSTALL (N) WALL-MOUNTED WATER CLOSET AT LOCATION SHOWN. REFER TO DETAIL 6/G2.1.
13. PROVIDE & INSTALL (N) FOUNDATIONS PREMEIR STAINLESS HORIZONTAL CHANGING STATION AT LOCATION SHOWN. REFER TO DETAIL 4/G2.1 FPR MOUNTING HEIGHTS.
14. PROVIDE & INSTALL (N) 4'10" X 5'6" MIRROR AT LOCATION SHOWN. REFER TO DETAIL 4/G2.1.
15. PROVIDE & INSTALL (N) STAINLESS STEEL GRAB BARS AT LOCATIONS SHOWN. REFER TO DETAIL 6/G2.1.
16. PROVIDE & INSTALL (N) WALL BACKING PER DETAIL 8/A8.1 FOR NEW GRAB BAR. PATCH WALL TO MATCH (E) ADJACENT LIKE SURFACES. TEXTURE AND FINISH TO MATCH.
17. PROVIDE & INSTALL (N) WALL BACKING PER DETAIL 8/A8.1 FOR NEW CHANGING STATION. PATCH WALL TO MATCH (E) ADJACENT LIKE SURFACES. TEXTURE AND FINISH TO MATCH.



6 G2.1 GENERIC TOILET REQUIREMENTS
NTS



4 G2.1 GENERIC MOUNTING HEIGHTS
NTS



5 G2.1 GENERIC SINK REQUIREMENTS
NTS

REV	DATE	REVISION
0	03/10/25	ISSUE FOR PERMIT

STAMP

LICENSED ARCHITECT
EXP. AUG. 31, 2025
MICHAEL P. HARRIS
C32799
STATE OF CALIFORNIA

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BUILDING ADDRESS:	**427 SANTA TERESA STREET, STANFORD, CA 94305**
STANFORD PROJECT NUMBER:	
PROJECT MANAGER:	BRIAN CARILLI

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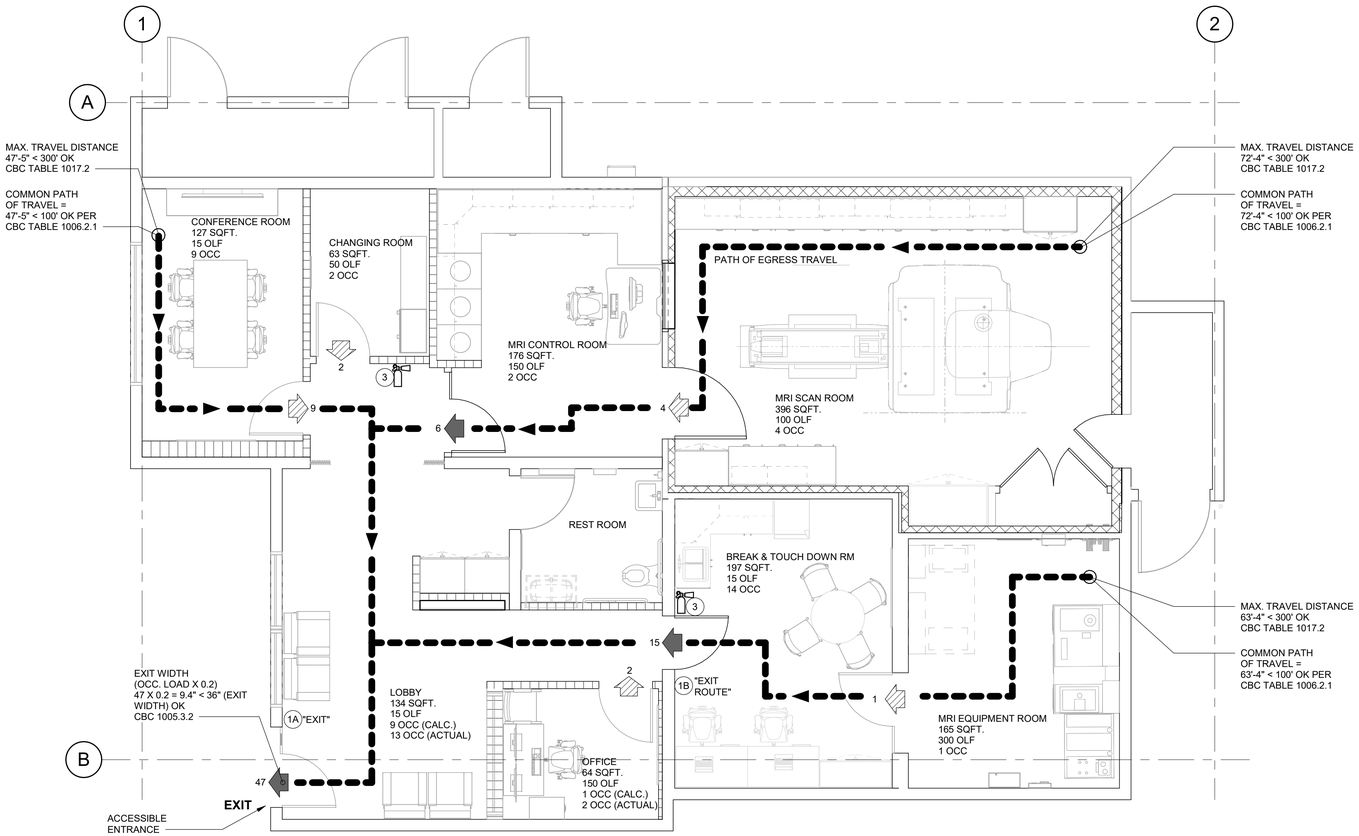
Stanford University

MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATION
RESTROOM COMPLIANCE

DRAWING NO. **G2.1**

BUILDING NUMBER: 02-565 | SCALE: AS NOTED | BAB PROJECT #: 24118 / 6417 | REV 0

3/13/2025 10:40:24 AM



1 / G4.1 EGRESS PLAN - GROUND LEVEL
1/4" = 1'-0"

GRAPHIC SCALE: 1/4" = 1'-0"
4' 0' 4' 8' 12' 16'

GENERAL NOTES (CONT.):

F. TRAVEL DISTANCE:
SECTION 1017.3: TRAVEL DISTANCE IS MEASURED TO THE NEAREST EXIT FROM THE MOST REMOTE PORTION OF EACH ROOM, AREA, SPACE AND/OR PROJECT AREA ALONG THE NATURAL AND UNOBSTRUCTED PATH OF HORIZONTAL AND VERTICAL EGRESS TRAVEL TO THE ENTRNACE TO AN EXIT. OTHER EXITS MAY EXCEED THIS DISTANCE PER THE 2018 IBC CODE AND COMMENTARY MANUAL.

B-OCCUPANCY
BASIC ALLOWABLE - 200' TRAVEL DISTANCE (TABLE 1017.2)
ALLOWABLE INCREASE (SPRINKLERED BLDG) - 300' (TABLE 1017.2)

A, E, F-1, I-1, M, R, S-1 OCCUPANCIES
BASIC ALLOWABLE - 200' TRAVEL DISTANCE (TABLE 1017.2)
ALLOWABLE INCREASE (SPRINKLERED BLDG) - 250' (TABLE 1017.2)

F-2, S-2, U OCCUPANCIES
BASIC ALLOWABLE - 300' TRAVEL DISTANCE (TABLE 1017.2)
ALLOWABLE INCREASE (SPRINKLERED BLDG) - 400' (TABLE 1017.2)

G. TRAVEL THROUGH ADJOINING ROOMS:
NOT ALLOWED EXCEPT WHERE SUCH ADJOINING SPACES ARE ACCESSORY TO THE AREA SERVED, ARE NOT A HIGH-HAZARD OCCUPANCY AND PROVIDE A DISCERNIBLE PATH OF EGRESS TRAVEL TO EXIT; AND IN H, S OR F OCCUPANCIES WITH ADJOINING SPACES ARE THE SAME OR LESSER HAZARD OCCUPANCY GROUP. (SECTION 1016.2).

H. PATH OF TRAVEL:
THERE SHALL BE A NATURAL AND UNOBSTRUCTED CONTINUOUS PATH OF TRAVEL FOR EGRESS. MAINTAIN A MINIMUM OF 44" CLEAR THROUGH THE ENTIRE PATH OF EGRESS TRAVEL (TABLE 1020.2).

CORRIDORS ARE NOT REQUIRED TO BE RATED IN SPRINKLERED BUILDINGS FOR GROUP A, B, E, F, M, S, U OCCUPANCIES (TABLE 1020.1). IN NON-SPRINKLERED BUILDINGS, CORRIDOR RATING SHALL BE 1-HR WHEN THE SERVING OCCUPANT LOAD EXCEEDS 30.

FOR GROUP A OCCUPANCIES WITH AN OCCUPANT LOAD OF 100 TO 300, NOT LESS THAN ONE OF THE REQUIRED MEANS OF EGRESS SHALL EXIT:
(1) DIRECTLY TO AN EXIT,
(2) THROUGH A LOBBY THAT IS NOT USED TO ACCESS THE OTHER REQUIRED EXIT,
(3) THROUGH A ONE-HOUR RATED CORRIDOR TO AN EXIT, OR
(4) CONTINUOUS THROUGH A ONE-HOUR RATED LOBBY TO AN EXIT.
THE OTHER EXIT MAY DISCHARGE THROUGH A NON-RATED CORRIDOR OR SPACE WITH A SAME OR LESSER DEGREE OF HAZARD.

I. COMMON PATH OF TRAVEL:
B, F, S OCCUPANCIES - 75' MAXIMUM (TABLE 1006.2.1)
ALLOWABLE INCREASE (SPRINKLERED BLDG) - 100' MAXIMUM (TABLE 1006.2.1)

A, E, M, U OCCUPANCIES - 75' MAXIMUM (TABLE 1006.2.1), NO ALLOWABLE INCREASE

PER THE 2018 IBC CODE AND COMMENTARY MANUAL, THE COMMON PATH OF TRAVEL STOPS WHEN THERE IS A CHOICE OF AT LEAST TWO EXITS AND TRAVEL DISTANCE STOPS WHEN THE OCCUPANT GETS TO THE CLOSEST EXIT (PRIMARY PATH OF TRAVEL). ALTERNATE PATHS OF TRAVEL MAY EXCEED THE MAXIMUM TRAVEL DISTANCE REQUIREMENT.

J. MINIMUM CEILING HEIGHT FOR MEANS OF EGRESS 7'-6" OK (1003.2).

K. ACCESSIBLE MEANS OF EGRESS:
ACCESSIBLE MEANS OF EGRESS IS REQUIRED FOR ALL PATHS OF TRAVEL EXCEPT THAT ACCESSIBLE MEANS OF EGRESS IS NOT REQUIRED IN ALTERATIONS OF EXISTING BUILDINGS. (SECTION 11B-207.1 EXCEPTION 3), HOWEVER AN ACCESSIBLE PATH OF TRAVEL TO THE PROJECT AREA FROM THE PUBLIC ACCESS IS REQUIRED (SECTION 11B-206.2 CONFORMING TO SECTION 11B-402).

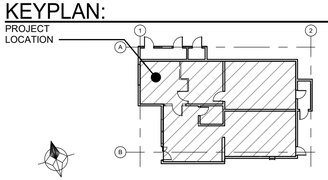
EGRESS LEGEND:

- # — ROOM / AREA OCCUPANT LOAD — OCCUPANT LOAD OF ROOM / AREA
- # — CUMULATIVE OCCUPANT LOAD — CUMULATIVE OCCUPANT LOAD OF ROOMS / AREAS BEING SERVED
- EXTERIOR ACCESSIBLE PATH OF TRAVEL FROM PROJECT AREA
- O.L. — OCCUPANT LOAD
- O.L.F. — OCCUPANT LOAD FACTOR
- PR — PANIC BAR REQUIRED
- FIRE EXTINGUISHER
- AED — AUTOMATED EXTERNAL DEFIBULATOR
- FIRST AID KIT — FIRST AID KIT
- # — ACCESSORY/AUXILIARY ROOMS NOT CONTRIBUTING TO CUMULATIVE OCCUPANT LOAD
- EXIT ILLUMINATION LIGHT
- EXIT ILLUMINATION LIGHT WITH DIRECTIONAL ARROW
- EXIT ILLUMINATION LIGHT WITH DIRECTIONAL ARROW
- FS — FIRE STROBE - CEILING - MOUNTED
- FS — FIRE STROBE - WALL - MOUNTED
- PS — PULL STATION
- CIRCULATION - NON FIRE-RATED

SHEET NOTES:

1. PROVIDE & INSTALL (N) TACTILE SIGNAGE PER DETAIL 3/A8.1 IN LOCATION SHOWN.
   A. "EXIT"
   B. "EXIT ROUTE"
2. DENOTES EXISTING TACTILE SIGNAGE TO REMAIN.
   A. "EXIT"
   B. "EXIT ROUTE"
   C. "EXIT STAIR DOWN"
3. DENOTES FIRE EXTINGUISHERS AS SHOWN (AREAS WITHIN 75' OF TRAVEL) ALONG WITH APPROPRIATE SIGNAGE. FIRE EXTINGUISHERS HAVE MINIMUM 2A:10-B:C RATING. REFER TO SHEET A1.1 FOR (N) FIRE EXTINGUISHERS.
4. PROVIDE & INSTALL (N) ISA SIGNAGE ON ENTRANCE DOOR AT 60" A.F.F. TO THE TOP OF THE SIGN. REFER TO DETAIL 2/G1.2 FOR COMPLIANCE.
5. PROVIDE & INSTALL (N) "NO SMOKING" SIGN AT LOBBY DOOR. REFER TO DETAIL 6/A8.1.
6. DENOTES EXISTING POWER ASSIST DEVICE AT LOBBY ENTRANCE DOORS COMPLYING WITH 2022 CBC SECTION 11B-404.2.9 (EXTERIOR) TO REMAIN.

KEYPLAN:



GENERAL NOTES:

A. REFER TO SHEET G0.0 FOR INDEX OF DRAWINGS & GENERAL NOTES.

B. THE TOTAL OCCUPANT LOAD AND OCCUPANCY FOR THE BUILDING AND PROJECT AREA HAS NOT CHANGED WITH THIS PROJECT. REFER TO THE FOLLOWING DATA:

OCCUPANCY: B
MINOR ACCESSORY USE: A-3

FIRE SPRINKLERS: YES, ORDINARY HAZARD
GROUP A-3 & B OCCUPANCY SEPARATION REQUIRED (TABLE 508.4) - 1-HR
PROJECT AREA OCCUPANT LOAD: 47

TOTAL OCCUPANT LOAD OF FLOOR: 47

C. MULTIPLE FUNCTION OCCUPANT LOAD (SECTION 1004.3): FOR AN AREA THAT CONTAINS MULTIPLE FUNCTIONS HAVING DIFFERENT OCCUPANT LOAD FACTORS, THE DESIGN OCCUPANT LOAD FOR SUCH AREA SHALL BE BASED ON THE FLOOR AREA OF EACH FUNCTION CALCULATED INDEPENDENTLY OR THE ACTUAL OCCUPANT LOAD WHICHEVER IS HIGHER.

D. SINCE THE TOTAL OCCUPANT LOAD HAS NOT CHANGED, THERE IS NO IMPACT TO THE EXISTING REQUIRED PLUMBING FIXTURE COUNTS.
<CHOOSE ONE>
SINCE THE TOTAL OCCUPANT LOAD HAS CHANGED, REFER TO PLUMBING FIXTURE CALCULATIONS ON SHEET G4.X.

E. GENERAL EXIT REQUIREMENTS
MINIMUM EXITS REQUIRED PER FLOOR (TABLE 1006.3.2): 2
MINIMUM EXITS REQUIRED IN PROJECT AREA: 1

EXIT WIDTH (SECTION 1005.3)
<CHOOSE ONE>
NON-SPRINKLERED BUILDINGS:
STAIRWAYS (1005.3.1) = OCCUPANT LOAD x 0.30
OTHER EGRESS COMPONENTS (1005.3.2) = OCCUPANT LOAD x 0.20
DOOR: 35 x 0.20 = 7.0" < 36" OK (PROJECT AREA)
<CHOOSE ONE>
SPRINKLERED BUILDINGS
(NON-GROUP H OCCUPANCIES, NO EMERGENCY VOICE/ALARM COMMUNICATION SYSTEM):
STAIRWAYS (1005.3.1) = OCCUPANT LOAD x 0.30
OTHER EGRESS COMPONENTS (1005.3.2) = OCCUPANT LOAD x 0.20
DOOR: 35 x 0.20 = 7.0" < 36" OK (PROJECT AREA)
<CHOOSE ONE>
SPRINKLERED BUILDINGS
(NON-GROUP H OCCUPANCIES WITH EMERGENCY VOICE/ALARM COMMUICATION SYSTEM):
STAIRWAYS (1005.3.1, EXCEPTION 1) = OCCUPANT LOAD x 0.20
OTHER EGRESS COMPONENTS (1005.3.2, EXCEPTION 1) = OCCUPANT LOAD x 0.15
DOOR: 126 x 0.15 = 18.9" < 252" OK (TOTAL FLOOR)
<CHOOSE ONE>
SPRINKLERED BUILDINGS (GROUP H-1, H-2, H-3 & H-4 OCCUPANCIES):
STAIRWAYS (1005.3.1, EXCEPTION 4) = OCCUPANT LOAD x 0.70
OTHER EGRESS COMPONENTS (1005.3.2, EXCEPTION 4) = OCCUPANT LOAD x 0.40
DOOR: 126 x 0.15 = 18.9" < 252" OK (TOTAL FLOOR)

EXIT ARRANGEMENT:
NON-SPRINKLERED BUILDINGS: MINIMUM OF ONE-HALF OF LONGEST BUILDING DIAGONAL BETWEEN MINIMAL OF 2 EXITS (SECTION 1007.1.1)
SPRINKLERED BUILDINGS: MINIMUM OF ONE-THIRD OF LONGEST BUILDING DIAGONAL BETWEEN MINIMAL OF 2 EXITS (SECTION 1007.1.1 EXCEPTION 2)

EXIT ACCESS REQUIREMENT, TWO EXIT/EXIT ACCESS REQUIRED WHEN OCCUPANT LOAD EXCEEDS THE FOLLOWING (TABLE 1006.2.1):

OFFICES	49
CONFERENCE/BREAK ROOMS	49
LABS, MANUFACTURING	49
EQUIPMENT ROOMS/DATA CENTERS	49
STORAGE/WAREHOUSES	29
SHIPPING/RECEIVING	29

THE EXIT DISCHARGE SHALL HAVE A DIRECT AND UNOBSTRUCTED ACCESS TO THE PUBLIC WAY (SECTION 1028.5). ILLUMINATION (1-FOOTCANDLE AT THE WALKING SURFACE) SHALL BE PROVIDED ALONG THE PATH OF TRAVEL FOR THE EXIT DISCHARGE FROM EACH EXIT TO THE PUBLIC WAY (SECTION 1008.2.3) OR TO A SAFE DISPERSAL AREA MEETING THE FOLLOWING:
- ACCOMMODATE 5 S.F. PER PERSON
- LOCATED ON THE SAME LOT NOT < 50 FEET AWAY FROM THE ASSOCIATED BUILDING
- AREA PERMANENTLY MAINTAINED AND IDENTIFIED AS A SAFE DISPERSAL AREA
- AREA SHALL BE HAVE SAFE/UNOBSTRUCTED PATH OF TRAVEL FROM THE BUILDING

CUMULATIVE OCCUPANT LOAD:
THE CUMULATIVE OCCUPANT LOAD FROM ADJACENT ROOMS, AREAS OR SPACES SHALL BE INCLUDED IN DETERMINING THE REQUIRED EXIT PATH/DOOR WIDTHS AND NUMBER OF EXITS. HOWEVER, THE NUMBER OF EXITS FROM FOYERS, LOBBIES, VESTIBULES OR SIMILAR SPACES NEED NOT BE BASED ON CUMULATIVE OCCUPANT LOADS FOR AREAS DISCHARGING THROUGH SUCH SPACES, BUT THE CAPCAITY OF THE EXITS FROM SUCH SPACES SHALL BE BASED ON APPLICABLE CUMULATIVE OCCUPANT LOADS (SECTION 1006.2.1 ITEM 1).

REV	DATE	REVISION
0	03/10/25	ISSUE FOR PERMIT

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LICENSED ARCHITECT
EXP. AUG. 31, 2025
MICHAEL P. HARRIS
C32799
STATE OF CALIFORNIA

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STANFORD PROJECT NUMBER:	
PROJECT MANAGER:	BRIAN CARILLI

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Stanford University

MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATION
EGRESS PLAN

DRAWING NO. G4.1

BUILDING NUMBER: 02-565 | SCALE: AS NOTED | BAB PROJECT #: 24118 / 6417 | REV 0

3/3/2025 10:41:43 AM

COUNTY OF SANTA CLARA
2022 CALGREEN NON-RESIDENTIAL CHECKLIST

The provisions of individual sections of Chapter 5 apply to newly constructed buildings, building additions of 1,000 square feet or greater, and/or building alterations with a permit valuation of $200,000 or above per CALGreen 301.3.

New Buildings < 25,000 SF (MAND), ≥ 25,000 SF (MAND + TIER 1) (See County Green Building Standards Code A5.601.1) County Amendments in *Italics*. County Ordinance Code NS-1100.136

- Designer to cross out items that are not applicable to the project.
- Items applicable to newly constructed buildings are designated with (N) and items applicable to additons and/or alterations are designated with (A). When the item applies to both, no banner will be used.
- Incorporate this form onto the plans and complete the Plan Check Review Data found in the table.
- Installer or designer shall verify all applicable requirements have been satisfied and sign and date each row. County Inspectors will verify completion signatures and supporting documentation **DURING CONSTRUCTION.**

Project Data:	Flammable Storage Structure & Kiln
Address:	447 Santa Teresa St. | Stanford, CA 94305
APN:	142-05-071
Owner:	Leland J. Stanford University
Date:	1/14/2025

ITEM #	CALGreen CODE SECTION	REQUIREMENT	APPLICANT TO COMPLETE Plan Check Review Data: REFERENCE SHEET (or n/a)	Note or Detail #	INSTALLER OR DESIGNER Verification: Date	Signature
		PLANNING AND DESIGN: MANDATORY REQUIREMENTS				
1	5.105.1	Deconstruction and reuse of existing structures (if alteration project is less than 100,000 sqft, then n/a)	n/a	n/a		
2	5.105.2	Reuse of existing structure. Maintain a minimum of 45% of primary structural elements and building enclosure.	n/a	n/a		
3	5.106.1	Storm water pollution prevention plan (disturbs < 1 acre land)	G0.1	G0.1		
4	5.106.2	Storm water pollution prevention plan (disturbs > 1 acre land)	n/a	n/a		
5	5.106.4.1	Bicycle Parking	Campus Credit	Existing to remain	n/a	n/a
6	5.106.4.1.1	Short-term bicycle parking	Campus Credit	Existing to remain	n/a	n/a
7	5.106.4.1.2	Long-term bicycle parking	Campus Credit	Existing to remain	n/a	n/a
8	5.106.5.3	*(N) Electrical Vehicle (EV) charging. New Construction to comply with 5.106.5.3.1 Office Buildings or 5.106.5.3.2 Non-residential non-office buildings.*	n/a	n/a		
9	5.106.5.3.1	*(N) Office buildings where 10 or more parking spaces are constructed, 20% of available parking spaces to be equipped with Level 2 EVCS. Additional 30% to be EV capable.*	n/a	n/a		
10	5.106.5.3.2	*(N) Non-residential non-office buildings where 10 or more parking spaces are constructed, 10% of available parking spaces to be equipped with Level 2 EVCS.*	n/a	n/a		
11	5.106.5.4	*Electric Vehicle (EV) charging: Compliance with Tables 5.105.5.3.1 or 5.106.5.3.6 for total parking spaces being added/altered when increase in electrical service size or adding new PV over covred parking areas.*	n/a	n/a		
12	5.106.5.5	*(N) Electrical Vehicle (EV) charging: medium-duty and heavy-duty*	n/a	n/a		
13	5.106.8	*(N) Light pollution reduction*	n/a	n/a		
14	5.106.10	*Grading and Paving*	n/a	n/a		
		PLANNING AND DESIGN: TIER 1 REQUIREMENTS				
15	A5.106.5.1	Designated parking for clean air vehicles (35% total spaces), parking stall marking, vehicle designations	n/a	n/a		
16	A5.106.11.2	Cool Roofs	n/a	n/a		
17	A5.601.2.4 (1c)	Select one elective measure from Division A5.1 and add the requirement to the table.	n/a	n/a		

ITEM #	CALGreen CODE SECTION	REQUIREMENT	APPLICANT TO COMPLETE Plan Check Review Data: REFERENCE SHEET (or n/a)	Note or Detail #	INSTALLER OR DESIGNER Verification: Date	Signature
		ENERGY EFFICIENCY: MANDATORY REQUIREMENTS				
18	5.201.1	Building meets or exceeds the requirements of the California Energy Efficiency Standards	E0.1	Title 24 Documents		
		WATER EFFICIENCY & CONSERVATION: MANDATORY REQUIREMENTS				
19	5.303.1.1	Separate submeter for new buildings or additions in excess of 50,000 square feet/submeter	n/a	n/a		
20	5.303.1.2	Separate submeter for tenants with excess consumption (more than 1,000 gallons/day)	n/a	n/a		
21	5.303.3	Water Conserving plumbing fixtures and fittings	G2.1	G2.1		
22	5.303.3.1	Water Closets	G2.1	G2.1		
23	5.303.3.2	Urinals	n/a	n/a		
24	5.303.3.3	Single & Multiple Showerheads	n/a	n/a		
25	5.303.3.4	Faucets and Fountains	A3.1	A3.1		
26	*5.303.3.5*	*Commercial Laundry Systems - use recirculating water system*	n/a	n/a		
27	*5.303.3.6*	*Commercial Conveyor Car Wash - use recirculating water system*	n/a	n/a		
28	5.303.4	Commercial Kitchen Equipment: Food waste disposers	n/a	n/a		
29	5.303.4	New Fixtures in areas of additions or alteration	A3.1	A3.1		
30	5.303.6	Standards for plumbing fixtures and fittings	G2.1	G2.1		
31	5.304.1	Scope of Outdoor Water Use (MWELO)	n/a	n/a		
		WATER EFFICIENCY & CONSERVATION: TIER 1 REQUIREMENTS				
32	A5.303.2.3.1	12% Savings (Plumbing Fixtures)	G2.1	G2.1		
33	A5.601.2.4 (2b)	Select one elective measure selected from Division A5.3 and add the requirement to the table	n/a	n/a		

ITEM #	CALGreen CODE SECTION	REQUIREMENT	APPLICANT TO COMPLETE Plan Check Review Data: REFERENCE SHEET (or n/a)	Note or Detail #	INSTALLER OR DESIGNER Verification: Date	Signature
		MATERIAL CONSERVATION & RESOURCE EFFICIENCY: MANDATORY REQUIREMENTS				
34	5.407.1	Weather protection	n/a	n/a		
35	5.407.2.1	Moisture Control: Sprinklers	n/a	n/a		
36	5.407.2.2	Moisture Control: Entries and openings	A7.1	A7.1		
37	5.408.1	Construction Waste management	Campus Credit - MR Credit 2	Reference local ordinance.		
38	5.408.1.1	Construction Waste management plan	Campus Credit- MR Credit 2	Reference local ordinance.		
39	5.408.1.2	Waste management company	Campus Credit- MR Credit 2	Reference local ordinance.		
40	5.408.1.3	Waste stream reduction alternative	Campus Credit- MR Credit 2	Reference local ordinance.		
41	5.408.1.4	Documentation of the waste management plan	Campus Credit- MR Credit 2	Reference local ordinance.		
42	5.408.2	(A) Universal Waste	n/a	n/a		
43	5.408.3	Excavated soil and land clearing debris	n/a	n/a		
44	5.409.2	Whole building life cycle assessment (WBLCA)	n/a	n/a		
45	5.409.3	Prescriptive product GWP	n/a	n/a		
46	5.410.1	Recycling by Occupants	Campus Credit	Existing to Remain	n/a	n/a
47	5.410.1.1	(A) Additions shall provide recycling areas on site	n/a	n/a		
48	5.410.1.2	Recycling Space Allocation	n/a	n/a		
49	5.410.2	(N) Commissioning for buildings 10,000 sq.ft. and over	n/a	n/a		
50	5.410.2.1	(N) Owner's Project Requirements	n/a	n/a		
51	5.410.2.2	(N) Basis of Design	n/a	n/a		
52	5.410.2.3	(N) Commissioning Plan	n/a	n/a		
53	5.410.2.4	(N) Functional Performance Testing	n/a	n/a		
54	5.410.2.5.1	(N) Documentation and training: Systems manual	n/a	n/a		
55	5.410.2.5.2	(N) Documentation and training: Systems operations training	n/a	n/a		
56	5.410.2.6	(N) Commissioning report	n/a	n/a		
57	5.410.4	Testing and adjusting for buildings less than 10,000 sq.ft.	n/a	n/a		
58	5.410.4.2	Systems	n/a	n/a		
59	5.410.4.3	Procedures	n/a	n/a		
60	5.410.4.3.1	HVAC balancing	n/a	n/a		
61	5.410.4.4	Reporting	n/a	n/a		
62	5.410.4.5	Operations and maintenance manual	n/a	n/a		
63	5.410.4.5.1	Inspections and reports	n/a	n/a		
		MATERIAL CONSERVATION & RESOURCE EFFICIENCY: TIER 1 REQUIREMENTS				
64	A5.405.4	Recycled Content - Tier 1 - Comply with recycled content of 10 percent of materials based on estimated total cost, or use two products from Table A5.405.4 for at least 75 percent by cost in Section A5.405.4	n/a	n/a		
65	A5.408.3.1	Construction and Demolition waste reduction - 65%	n/a	n/a		
66	A5.601.2.4 (3c)	Select one elective measure from Division A5.4 and add the requirement to the table	n/a	n/a		

ITEM #	CALGreen CODE SECTION	REQUIREMENT	APPLICANT TO COMPLETE Plan Check Review Data: REFERENCE SHEET (or n/a)	Note or Detail #	INSTALLER OR DESIGNER Verification: Date	Signature
		ENVIRONMENTAL QUALITY: MANDATORY REQUIREMENTS				
67	5.503.1	Fireplace	n/a	n/a		
68	5.503.1.1	Woodstoves (as applicable)	n/a	n/a		
69	5.504.1.3	Temporary Ventilation	M0	See M0		
70	5.504.3	Covering of duct openings and protection of mechanical equipment during construction	M0	See M0		
71	5.504.4.1	Finish Material pollutant control: Adhesives, sealants, caulks	G5.1	VOC Limits		
72	5.504.4.3	Finish Material pollutant control: Paints and Coatings	G5.1/A1.1	VOC Limits		
73	5.504.4.3.1	Finish Material pollutant control: Aerosol paints and coatings	n/a	n/a		
74	5.504.4.3.2	Finish Material pollutant control: Verification	n/a	n/a		
75	5.504.4.4	Carpet systems	n/a	n/a		
76	5.504.4.4.1	Carpet Cushion	n/a	n/a		
77	5.504.4.4.2	Carpet adhesive	n/a	n/a		
78	5.504.4.5	Composite Wood Products	n/a	n/a		
79	5.504.4.5.3	Documentation	n/a	n/a		
80	5.504.4.6	Resilient flooring systems	G5.1/A1.1	VOC Limits		
81	5.504.4.7	Thermal Insulation	G5.1/A1.1	VOC Limits		
82	5.504.4.8	Acoustical Ceilings and Wall panels	G5.1/A1.1	VOC Limits		
83	5.504.5.3	Filters	n/a	n/a		
84	5.504.7	Environmental tobacco smoke (ETS) control	University Policy	Existing Policy to Remain	n/a	n/a
85	5.505.1	Indoor moisture control	Existing to Remain	Existing to Remain		
86	5.506.1	Outside air delivery	Existing to Remain	Existing to Remain		
87	5.506.2	Carbon dioxide monitoring	n/a	n/a		
88	5.507.4	Acoustical Control	n/a	n/a		
89	5.507.4.1	Exterior Noise Transmission Prescriptive Method	n/a	n/a		
90	5.507.4.1.1	Noise Exposure where noise contours are not readily available	n/a	n/a		
91	5.507.4.2	Performance Method	n/a	n/a		
92	5.507.4.2.1 & 5.507.4.2.2	Site features and Documentation	n/a	n/a		
93	5.507.4.3	Interior Sound Transmission	n/a	n/a		
94	5.508.1	Ozone depletion and global warming reductions	n/a	n/a		
95	5.508.2	Supermarket refrigerant leak reduction	n/a	n/a		
		ENVIRONMENTAL QUALITY: TIER 1 REQUIREMENTS				
96	A5.504.4.7	Resilient floor systems	n/a	n/a		
97	A5.504.4.8	Thermal Insulation	n/a	n/a		
98	A5.601.2.4 (4c)	Select one elective measure selected from division A5.5	n/a	n/a		
99	A5.601.2.4 (5)	Select one additional elective measure from any division	n/a	n/a		

GENERAL NOTES:

A. REFER TO SHEET G0.0 FOR INDEX OF DRAWINGS & GENERAL NOTES.

B. THE PROVISIONS OF THE 2022 CALGREEN BUILDING CODE APPLY TO NEWLY CONSTRUCTED BUILDINGS OR STRUCTURES, ADDITIONS AND ALTERATIONS (SECTION 101.3 OR AS MODIFIED BY LOCAL ORDINANCE). HOWEVER, ONLY CODE MEASURES RELEVANT TO BUILDING COMPONENTS/SYSTEMS FOR NEW CONSTRUCTION APPLY IF PROJECT MEET CONDITIONS OF SECTION 301.3 (SEE CHECKLIST). ALL ITEMS NOT ASSOCIATED WITH THE PROJECT ARE NOTED N/A ON THIS SHEET. U.O.N. VOLUNTARY MEASURES ARE EXEMPT FROM THIS PROJECT.

C. FOR ITEMS MARKED "YES" UNDER COMPLIANCE WITH 2022 CALGREEN CODE SHALL APPLY TO THIS PROJECT.

TESTING AND ADJUSTING NOTES:

NOTES ONLY APPLY IF 5.410.4 IS CHECKED "YES" IN CHECKLIST

1. SYSTEMS: CONTRACTOR TO DEVELOP A WRITTEN PLAN OF PROCEDURES FOR TESTING AND ADJUSTING SYSTEMS. SYSTEMS LISTED IN CHECKLIST ON THIS SHEET.
2. PROCEDURES: CONTRACTOR TO PERFORM TESTING AND ADJUSTING PROCEDURES IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS AND APPLICABLE STANDARDS ON EACH SYSTEM.
3. HVAC BALANCING: BEFORE A NEW SPACE-CONDITIONING SYSTEM SERVING A BUILDING OR SPACE IS OPERATED FOR NORMAL USE, CONTRACTOR SHALL BALANCE THE SYSTEM.
4. REPORTING: UPON COMPLETION OF TESTING, ADJUSTING AND BALANCING, CONTRACTOR TO PROVIDE A FINAL REPORT OF TESTING SIGNED BY THE INDIVIDUAL RESPONSIBLE FOR PERFORMING THESE SERVICES.
5. OPERATION AND MAINTENANCE MANUAL: CONTRACTOR TO PROVIDE THE BUILDING OWNER OR REPRESENTATIVE WITH DETAILED OPERATING AND MAINTENANCE INSTRUCTIONS AND COPIES OF GUARANTIES/WARRANTIES FOR EACH SYSTEM. O&M INSTRUCTION SHALL BE CONSISTENT WITH OSHA REQUIREMENTS.
6. INSPECTIONS AND REPORTS: CONTRACTOR TO INCLUDE A COPY OF ALL INSPECTION VERIFICATIONS AND REPORTS REQUIRED BY THE CITY IN THE O&M MANUAL.

VOC LIMITS

SEALANTS & ADHESIVES - SCAQMD RULE 1168

ARCHITECTURAL APPLICATIONS	VOC LIMIT (GM. LESS WATER)	SPECIALTY APPLICATIONS	VOC LIMIT (GM. LESS WATER)
INDOOR CARPET ADHESIVES	50	PVC WELDING	510
CARPET PAD ADHESIVES	50	CPVC WELDING	490
OUTDOOR CARPET ADHESIVES	150	ABS WELDING	325
WOOD FLOORING ADHESIVES	100	PLASTIC CEMENT WELDING	250
RUBBER FLOOR ADHESIVES	60	ADHESIVE PRIMER FOR PLASTIC	550
SUBFLOOR ADHESIVES	50	CONTACT ADHESIVE	80
CERAMIC TILE ADHESIVES	65	SPECIAL PURPOSE CONTACT ADHESIVE	250
VCT AND ASPHALT ADHESIVES	50	TIRE RETREAD	100
DRYWALL AND PANEL ADHESIVES	50	ADHESIVE PRIMER FOR TRAFFIC MARKING TAPE	150
COVE BASE ADHESIVES	50	STRUCTURAL WOOD MEMBER ADHESIVE	140
MULTIPURPOSE CONSTRUCTION ADHESIVES	70	SHEET APPLIED RUBBER LINING OPERATIONS	850
STRUCTURAL GLAZING ADHESIVES	100	TOP AND TRIM ADHESIVE	250
SINGLE PLY ROOF MEMBRANE ADHESIVES	250		
SUBSTRATE SPECIFIC APPLICATIONS	**VOC LIMIT (GM. LESS WATER)**	**SEALANTS**	**VOC LIMIT (GM. LESS WATER)**
METAL TO METAL	30	ARCHITECTURAL	250
PLASTIC FOAMS	50	MARINE DECK	760
POROUS MATERIAL (EXCEPT WOOD)	50	NONMEMBRANE ROOF	300
WOOD	30	ROADWAY	250
FIBER GLASS	80	SINGLE-PLY ROOF MEMBRANE	450
		OTHER	420
SEALANT PRIMERS	**VOC LIMIT (GM. LESS WATER)**	**AEROSOL ADHESIVES**	**VOC LIMIT (GM. LESS WATER)**
ARCHITECTURAL, NONPOROUS	250	GENERAL PURPOSE MIST SPRAY	65% BY WT.
ARCHITECTURAL, POROUS	775	GENERAL PURPOSE WEB SPRAY	55% BY WT.
MODIFIED BITUMINOUS	500	SPECIAL PURPOSE CONTACT ADHESIVE	70% BY WT.
MARINE DECK	760		
OTHER	750		
BOND BREAKERS	350	NONFLAT HIGH GLOSS	50
CLEAR WOOD FINISHES - GENERAL	275	PIGMENTED LACQUER	275
CLEAR WOOD FINISHES - VARNISH	275	PRETREATMENT WASH PRIMERS	420
CLEAR WOOD FINISHES - SANDING	275	PRIMERS, SEALERS, UNDERCOATERS	100
SEALERS - LACQUER	275	QUICK-DRY ENAMELS	50
CLEAR BRUSHING LACQUER	275	QUICK-DRY PRIMERS, SEALERS, UNDERCOATERS	100
CONCRETE-CURING COMPOUNDS	100	REACTIVE PENETRATING SEALERS	350
CONCRETE-CURING COMPOUNDS - ROADWAYS	350	RECYCLED COATINGS	250
CONCRETE SURFACE RETARDER	50	ROOF COATINGS	50
DRIVEWAY SEALER	50	ALUMINUM ROOF COATINGS	100
DRY-FOG COATINGS	50	ROOF PRIMERS, BITUMINOUS	350
FAUX FINISHING COATINGS - CLEAR TOPCOAT	100	RUST- PREVENTIVE COATINGS	100
FAUX FINISHING COATINGS - DECORATIVE	350	SHELLAC - CLEAR	730
FAUX FINISHING COATINGS - GLAZES	350	SHELLAC - PIGMENTED	550
FAUX FINISHING COATINGS - JAPAN	350	SPECIALTY PRIMERS	100
FAUX FINISHING COATINGS - TROWEL APPLIED	50	STAINS - GENERAL	100
FIRE-PROOFING EXTERIOR COATINGS	150	STAINS - INTERIOR	250
FIRE-RETARDANT COATINGS - CLEAR	150	STONE CONSOLIDANT	450
FIRE-RETARDANT COATINGS - PIGMENTED	150	SWIMMING POOL COATINGS - REPAIR	340
FLATS	50	SWIMMING POOL COATINGS - OTHER	340
FLOOR COATINGS	50	TRAFFIC COATINGS	100
FORM RELEASE COMPOUND	100	WATERPROOFING SEALERS	100
GRAPHIC ARTS (SIGN) COATINGS	150	WATERPROOFING CONCRETE, CMU SEALERS	100
INDUSTRIAL MAINTENANCE (IM) COATINGS	100	WOOD PRESERVATIVES - BELOW GROUND	350
HIGH TEMERPATURE (IM) COATINGS	420	OTHER	350
NON-SACRIFICIAL ANTI-GRAFFITI COATINGS	100	LOW-SOLIDS COATING	120
SACRIFICIAL ANTI-GRAFFITI COATINGS	50	ARCHITECTURAL COLORANT EXCL. IM COATINGS	50
ZINC-RICH (IM) PRIMERS	100	SOLVENT-BASED IM COLORANT	600
MAGNESITE CEMENT COATINGS	450	WATERBORNE IM COLORANT	50
MASTIC COATINGS	100	ANTI-CORROSIVE PAINTS - GLOSS	250
METALLIC PIGMENTED COATINGS	150	ANTI-CORROSIVE PAINTS - SEMI-GLOSS	250
MULTICOLOR COATINGS	250	ANTI-CORROSIVE PAINTS - FLAT	250
NONFLAT COATINGS	50		

FORMALDEHYDE LIMITS

MAXIMUM FORMALDEHYDE EMISSIONS IN PARTS PER MILLION

PRODUCT	CURRENT LIMIT
HARDWOOD PLYWOOD VENEER CORE	0.05
HARDWOOD PLYWOOD COMPOSITE CORE	0.05
PARTICLE BOARD	0.09
MEDIUM DENSITY FIBERBOARD	0.11
THIN MEDIUM DENSITY FIBERBOARD	0.13

REV	DATE	REVISION
0	03/10/25	ISSUE FOR PERMIT

STAMP

LICENSED ARCHITECT — EXP. AUG. 31, 2025 — MICHAEL P. HARRIS — C32799 — STATE OF CALIFORNIA

CONDITIONS AND RESTRICTIONS:
THESE DRAWINGS AND ALL RELATED SPECIFICATIONS ARE INSTRUMENTS OF SERVICE AND SHALL REMAIN PROPERTY OF THE DESIGNER. NO REVISIONS, REPRODUCTIONS, OR USE OF THESE DOCUMENTS SHALL BE MADE WITHOUT THE CONSENT OF THE DESIGNER. ALL EXISTING CONDITIONS REPRESENTED IN THESE PLANS ARE TO BE FIELD VERIFIED AND ALL DISCREPANCIES ARE TO BE REPORTED TO THE DESIGNER. DO NOT SCALE FROM THESE PLANS, FOLLOW DIMENSIONS INDICATED OR CONSULT THE DESIGNER.

BUILDING ADDRESS: 427 SANTA TERESA STREET, STANFORD, CA 94305

STANFORD PROJECT NUMBER:

PROJECT MANAGER: BRIAN CARILLI

BAY AREA BUILDERS INCORPORATED
3360 De La Cruz Boulevard
Santa Clara, CA 95054
www.ba-builders.com
main office: (408) 648-4500
fax: (408) 588-0095
CA license: B-443949

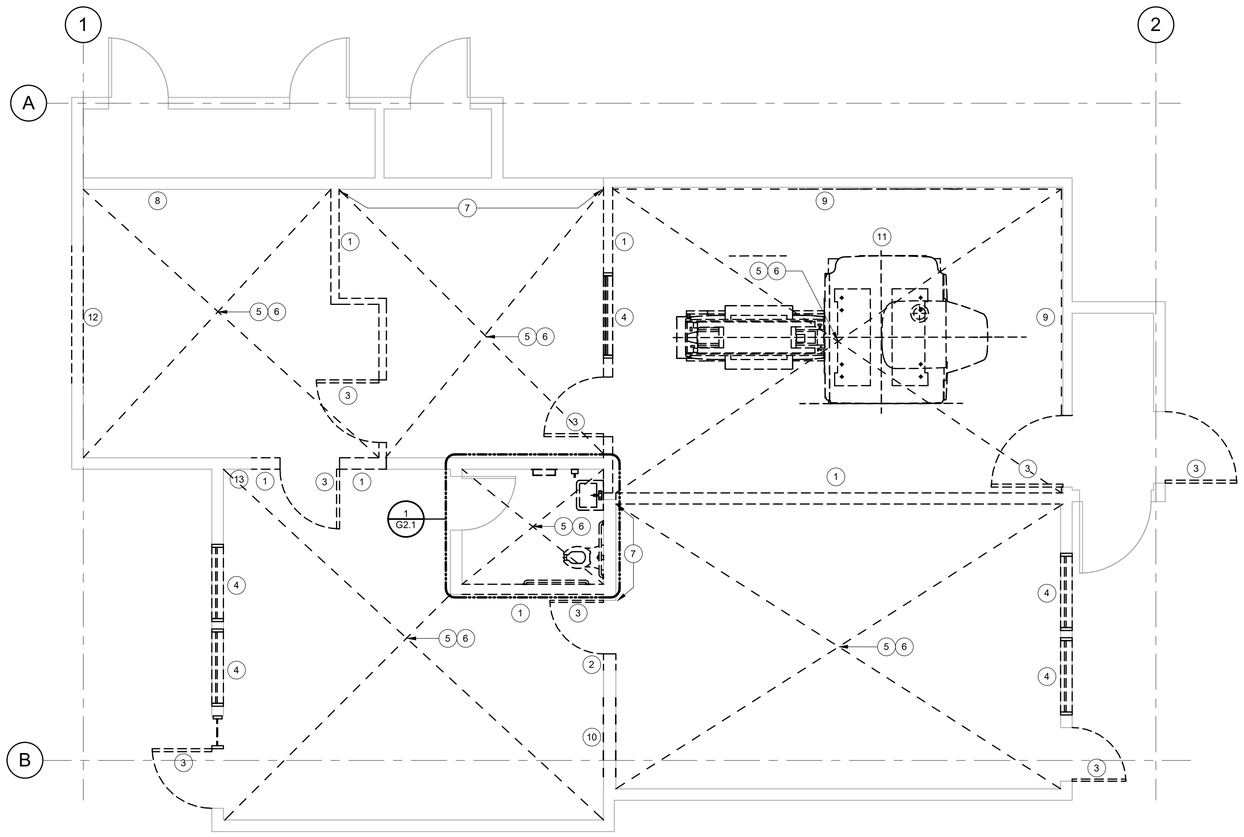
Stanford University

MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATION
CAL GREEN MANDATORY MEASURES

DRAWING NO. **G5.1**

BUILDING NUMBER: 02-565 | SCALE: AS NOTED | NONE | BAB | PROJECT #: 24118 / 6417 | REV 0

3/13/2025 10:43:34 AM



1 FLOOR PLAN - DEMOLITION
AD1.1 1/4" = 1'-0"

GRAPHIC SCALE: 1/4" = 1'-0"

4' 0' 4' 8' 12' 16'

HAZARDOUS MATERIAL WARNING:

A. CONTRACTOR SHALL BE AWARE THAT THE EXISTING ELEMENTS IN THE BUILDING, ROOF AND/OR EQUIPMENT YARDS MAY CONTAIN ASBESTOS OR LEAD-BASED PAINT. CONTRACTOR IS RESPONSIBLE FOR PROVIDING AREA CONTAINMENT, ABATEMENT, PLACEMENT INTO APPROVED CONTAINERS, AND AREA CLEAN UP AS REQUIRED BY OWNERS STANDARDS, AND LOCAL, STATE AND FEDERAL REQUIREMENTS. OWNER WILL BE RESPONSIBLE FOR TRANSPORTATION AND FINAL DISPOSAL OF HAZARDOUS MATERIALS.

B. CONTRACTOR SHALL REVIEW AND ACKNOWLEDGE EXISTING MATERIALS IN PROJECT AREA ARE ASSUMED TO CONTAIN HAZARDOUS MATERIALS PRIOR TO PROCEEDING WITH ANY DEMOLITION ON PROJECT.

C. IF ADDITIONAL MATERIALS ARE ENCOUNTERED DURING DEMOLITION WHICH HAVE NOT BEEN LISTED AS SUSPECT, AND ARE SUSPECTED TO BE HAZARDOUS MATERIALS, THEY SHALL EITHER BE PROPERLY REMOVED AS HAZARDOUS MATERIAL(S), OR SHALL BE TESTED BY CONTRACTOR'S PROVIDED TESTING LAB FOR FINAL DETERMINATION PRIOR TO REMOVAL. OWNER HAS NOT PROVIDED A TESTING REPORT FOR THE PROJECT AREAS, AS SUCH, CONTRACTOR SHALL ASSUME ALL MATERIALS ARE HAZARDOUS, AND SHALL BE REMOVED AND DISPOSED OF AS LISTED ABOVE.

D. GENERAL CONTRACTOR SHALL COORDINATE EXTENT OF REMOVAL TO CONFIRM INTEGRATION WITH PROPOSED CONSTRUCTION OF AREA. EXAMPLES:
1. EXTENT OF DRYWALL OVER CUT TO ALLOW FRAMING OF HEAD & KING STUDS FOR NEW DOOR
2. EXTENT OF DRYWALL REMOVAL TO ALLOW NEW ELECTRICAL/COMMUNICATION RECEPTACLES AND CONDUIT INSTALLATION.
3. STRUCTURAL ANCHORING, WELDING, PIPE/CONDUIT PENETRATIONS, AND DUCT PENETRATIONS.

F. THE FOLLOWING ITEMS ARE SUSPECT IN THE PROJECT AREA, AND SHALL BE REMOVED/TREATED AS HAZARDOUS MATERIAL, REFERENCE SAMPLING REPORT:
1. FLOOR TILES AND MASTIC
2. ACCESS FLOORING MASTIC
3. BASE AND WAINSCOT MASTIC
4. GYPSUM WALL BOARD AND TAPING COMPOUND
5. WALL INSULATION
6. INSULATING WRAP ON PIPES AND DUCTS
7. LEAD PRIMER AND PAINT ON METAL, CONCRETE OR WOOD SURFACES
8. FIRE RATED AND INSULATED DOORS
9. POURED GYPSUM DECK
10. ASPHALT SATURATED ROOFING FELT, BITUMINOUS ADHESIVES & MASTICS

G. GENERAL CONTRACTOR SHALL COORDINATE TESTING WITH OWNER FOR PRESENCE OF PCB'S (POLYCHLORINATED BIPHENYL) IN BUILDING MATERIALS PRIOR TO START OF DEMOLITION. THESE INCLUDE BULK PRODUCT WASTE FOR CONTAMINATED CAULKING OR PAINT AND REMEDIATION WASTE FOR CONTAMINATED MASONRY OR CONCRETE. IF TESTING RESULTS DETERMINE PRESENCE OF PCB'S, WASTE SHALL BE HANDLED PER HAZMAT REMEDIATION REQUIREMENTS. REFER TO U.S. EPA'S PUBLISHED DOCUMENT "CONTRACTORS HANDLING PCB'S IN CAULK DURING RENOVATION". PRIMARY CONCERNS ARE FOR THE FOLLOWING MATERIALS:
1. CAULKING ASSOCIATED WITH CONCRETE AND MASONRY BUILDING MATERIALS
2. CONCRETE
3. MASONRY

GENERAL NOTES:

A. REFER TO SHEET G0.0 FOR INDEX OF DRAWINGS & GENERAL NOTES.

B. THE CONTRACTOR SHALL BE COGNIZANT THAT THIS IS A REMODELING PROJECT AND EXISTING ITEMS AND CONDITIONS CANNOT BE FULLY EXPLAINED WITHOUT FIELD OBSERVATION. IF UNEXPECTED CONDITIONS ARE UNCOVERED, THE CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT AND OWNER FOR DIRECTION PRIOR TO PROCEEDING.

C. REPAIR ALL DAMAGED MATERIALS IMPACTED BY DEMOLITION AND/OR NEW CONSTRUCTION. ALIGN AND FINISH TO MATCH EXISTING ADJACENT SURFACE.

D. ALL DEMOLISHED MATERIALS SHALL BE REMOVED AND DISPOSED OF FROM THE BUILDING ON A DAILY BASIS.

E. ALL DIMENSIONS ARE TO FACE OF FINISH TO FACE OF FINISH UNLESS OTHERWISE NOTED. WRITTEN DIMENSIONS HAVE PRECEDENCE OVER SCALED DRAWINGS. VERIFY ALL MEASUREMENTS PRIOR TO MANUFACTURING AND INSTALLATION.

F. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR RELATED SCOPE.

G. PROVIDE & INSTALL TEMPORARY BARRICADE FOR CONSTRUCTION AND/OR DUST CONTROL BARRIER AROUND PROJECT AREA WHERE REQUIRED AT OPENINGS TO PROTECT ADJACENT OCCUPANTS AND EQUIPMENT/FURNITURE. PROVIDE SIGNAGE TO ROUTE OCCUPANTS SAFELY AROUND CONSTRUCTION ZONE. COORDINATE WITH OWNER FOR LOCATIONS. TEMPORARY FIRE RETARDANT BARRIER SHALL CONSIST OF 2 LAYERS OF 4-MIL POLY SHEETING ON TEMPORARY BARRIER WALL PER DETAIL 15/A8.2 WHERE PROVIDED/REQUIRED. CONTRACTOR MUST HAVE EVIDENCE OF BARRIER INSTALLED ALONG WITH FLAME SPREAD AND SMOKE DENSITY TEST REPORTS (I.E. FLAME SPREAD = 10; SMOKE DENSITY INDEX = 70) ON SITE FOR THE INSPECTOR. IN ADDITION, THE CONTRACTOR SHALL PROVIDE A SUBMITTAL TO THE ARCHITECT FOR APPROVAL. REMOVE UPON COMPLETION OF PROJECT, PATCH, REPAIR AND CLEAN AREA.

H. CONTRACTOR SHALL BE AWARE THAT THE EXISTING ELEMENTS IN THE BUILDING MAY CONTAIN ASBESTOS OR LEAD-BASED PAINT. OWNER IS RESPONSIBLE FOR PROVIDING AREA TESTING, CONTAINMENT, ABATEMENT, PLACEMENT INTO APPROVED CONTAINERS, TRANSPORTATION, AREA CLEAN UP AND FINAL DISPOSAL OF HAZARDOUS MATERIALS AS REQUIRED BY LOCAL, STATE AND FEDERAL REQUIREMENTS. IF ANY MATERIALS ARE ENCOUNTERED DURING DEMOLITION WHICH ARE SUSPECTED TO BE HAZARDOUS, OWNER SHALL HAVE MATERIALS TESTED FOR FINAL DETERMINATION PRIOR TO PROCEEDING WITH DEMOLITION.

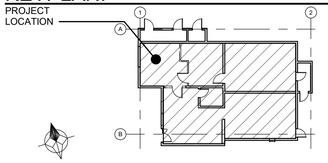
SHEET NOTES:

1. REMOVE & DISPOSE WALLS IN LOCATIONS SHOWN.
2. REMOVE & DISPOSE PORTION OF (E) WALL AS REQUIRED FOR (N) DOOR ASSEMBLY.
3. REMOVE & DISPOSE (E) DOOR ASSEMBLY IN LOCATIONS SHOWN.
4. REMOVE & DISPOSE OF (E) WINDOW ASSEMBLY IN LOCATIONS SHOWN.
5. REMOVE (E) INTERNAL EQUIPMENT, CABINETS, PARTITIONS, ACCESSORIES AND FURNITURE IN LOCATION SHOWN. OWNER TO SPECIFY RELOCATION OF MATERIALS THAT WILL BE SAVED FOR LATER USE.
6. REMOVE (E) FLOORING IN AREA INDICATED FOR (N) LVT FLOORING. PREPARE FLOOR AS REQUIRED.
7. REMOVE PORTION OF (E) GYPBD AS REQUIRED TO INSTALL NEW CASEWORK. REFER TO DETAIL 7/A8.1 FOR BACKING. PATCH WALL UPON COMPLETION TO MATCH (E).
8. REMOVE PORTION OF (E) GYPBD AS REQUIRED TO INSTALL NEW BACKING FOR WHITE-BOARDS, DISPLAY SCREENS AND OTHER WALL-MOUNTED ACCESSORIES AS COORDINATED WITH OWNER. REFER TO DETAIL 7/A8.1 FOR BACKING. PATH WALL UPON COMPLETION TO MATCH (E).
9. REMOVE & DISPOSE OF (E) GYPBD FROM EXISTING WALL FOR NEW FURRED WALL ASSEMBLY.
10. REMOVE PORTION OF (E) WALL AS REQUIRED FOR NEW FAN COIL UNIT AT LOCATION SHOWN. REFER TO MECH DWGS.
11. REMOVE (E) MAGNET & ASSOCIATED EQUIPMENT, CRANE PICK THROUGH (E) REMOVABLE SKYLIGHT AT LOCATION SHOWN.
12. REMOVE WALL ASSEMBLY AS REQUIRED FOR NEW WINDOW ASSEMBLY.
13. REMOVE PORTION OF (E) WALL ASSEMBLY AS REQUIRED FOR HVAC FRESH AIR INTAKE, REFER TO MECH DWGS.

LEGEND:

- (E) WALL - NON FIRE-RATED
- (D) WALL - NON FIRE-RATED
- (E) WALL - 1 HR FIRE-RATED
- (D) OR UPGRADED WALL - 1 HR FIRE-RATED
- FIRE EXTINGUISHER

KEYPLAN:



REV	DATE	REVISION
0	03/10/25	ISSUE FOR PERMIT

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LICENSED ARCHITECT
EXP
AUG. 31, 2025
MICHAEL P. HARRIS
C32799
STATE OF CALIFORNIA

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BUILDING ADDRESS:	**427 SANTA TERESA STREET, STANFORD, CA 94305**
STANFORD PROJECT NUMBER:	
PROJECT MANAGER:	BRIAN CARILLI

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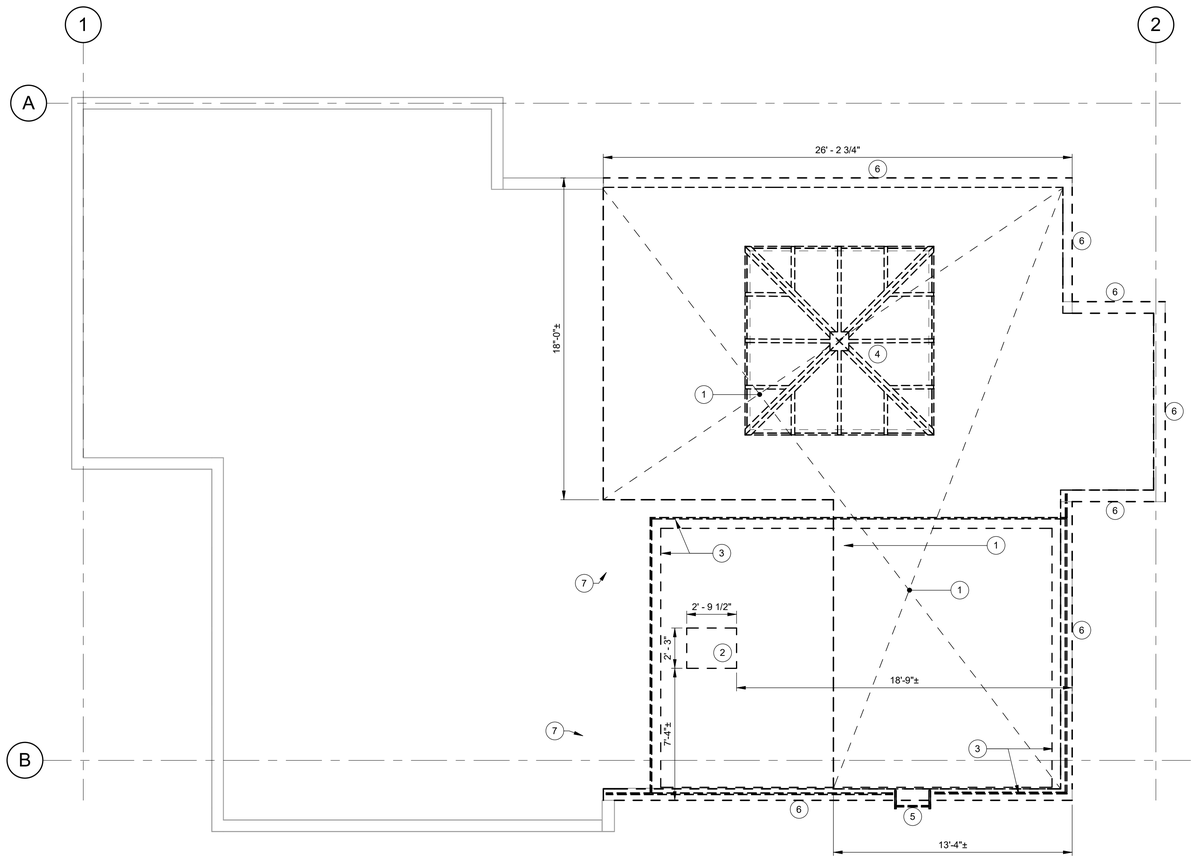
Stanford University

MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATION
FLOOR PLAN - DEMOLITION

DRAWING NO. **AD1.1**

BUILDING NUMBER: 02-565	SCALE: AS NOTED	BAB PROJECT #: 24118 / 6417	REV 0

3/13/2025 10:44:30 AM



1 ROOF PLAN - DEMOLITION
AD1.2 1/4" = 1'-0"

GRAPHIC SCALE: 1/4" = 1'-0"

4' 0' 4' 8' 12' 16'

GENERAL NOTES:

A. REFER TO SHEET G0.0 FOR INDEX OF DRAWINGS & GENERAL NOTES.

B. THE CONTRACTOR SHALL BE COGNIZANT THAT THIS IS A REMODELING PROJECT AND EXISTING ITEMS AND CONDITIONS CANNOT BE FULLY EXPLAINED WITHOUT FIELD OBSERVATION. IF UNEXPECTED CONDITIONS ARE UNCOVERED, THE CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT AND OWNER FOR DIRECTION PRIOR TO PROCEEDING.

C. REPAIR ALL DAMAGED MATERIALS IMPACTED BY DEMOLITION AND/OR NEW CONSTRUCTION. ALIGN AND FINISH TO MATCH EXISTING ADJACENT SURFACE.

D. ALL DEMOLISHED MATERIALS SHALL BE REMOVED AND DISPOSED OF FROM THE BUILDING ON A DAILY BASIS.

E. ALL DIMENSIONS ARE TO FACE OF FINISH TO FACE OF FINISH UNLESS OTHERWISE NOTED. WRITTEN DIMENSIONS HAVE PRECEDENCE OVER SCALED DRAWINGS. VERIFY ALL MEASUREMENTS PRIOR TO MANUFACTURING AND INSTALLATION.

F. FALL PROTECTION SHALL BE PROVIDED WHEN THE ESTABLISHED MAINTENANCE PATH OF TRAVEL FOR (N) EQUIPMENT IS WITHIN 10' OF A ROOF PARAPET THAT IS LOWER THAN 42" ABOVE THE ADJACENT ROOF LINE. ALL CONSTRUCTION WORK WITHIN 6' OF A ROOF PARAPET SHALL HAVE TEMPORARY FALL PROTECTION IN PLACE AS COORDINATED WITH ESH.

G. EXPANSION JOINT CONDITIONS SHALL BE MAINTAINED AND MATCHED WHERE OCCURS. EXISTING LOCATIONS ARE NOTED ON THE PLAN FOR REFERENCE ONLY.

H. THE FOLLOWING APPLIES TO ALL NEW ROOFING AND ROOFING RELATED WORK:

THE EXISTING ROOF SYSTEM IS A 3-PLY ASPHALTIC MEMBRANE BUILT-UP ROOF ASSEMBLY OVER 1/2" PLYWOOD SHEATHING OVER SHAPED WOOD JOISTS. ROOF SLOPE IS 1/4" PER FOOT AND CRICKETS SHALL BE MAINTAINED AND ACCESS TO SCUPPERS SHALL BE CLEAR. ALL ROOF PATCHING AN/OR THRU PENETRATIONS SHALL BE PERFORMED IN SUCH A MANNER TO MAINTAIN AND STAY IN COMPLIANCE WITH THE CURRENT MANUFACTURER'S

I. ALL PENETRATIONS THROUGH ROOF SHALL BE WEATHER SEALED AND FLASHED. STRICTLY COORDINATE WITH OWNER FOR ANY ROOF OPENING AND PROTECTION TO MITIGATE AND LEAKS DURING CONSTRUCTION.

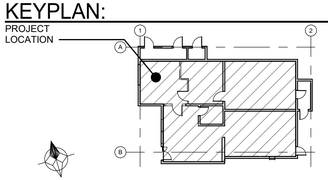
J. REFER TO STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR RELATED SCOPE.

SHEET NOTES:

1. REMOVE & DISPOSE OF PORTION OF (E) ROOF & FRAMING ASSEMBLY AS REQUIRED FOR (N) ROOF ASSEMBLY.
2. REMOVE & DISPOSE OF PORTION OF (E) ROOF & FRAMING ASSEMBLY FOR (N) SKYLIGHT
3. REMOVE & DISPOSE OF (E) DECK GUARD RAIL ASSEMBLY.
4. REMOVE & DISPOSE OF (E) SKYLIGHT.
5. REMOVE (E) LADDER ASSEMBLY AND SALVAGE FOR REINSTALLAION.
6. REMOVE & DISPOSE OF (E) PARAPET CAP AND CLADDING AS REQUIRED.
7. REMOVE & DISOSE OF (E) VENT THROUGH ROOF, REFER TO MECHANICAL DRAWINGS.

KEYPLAN:

PROJECT LOCATION



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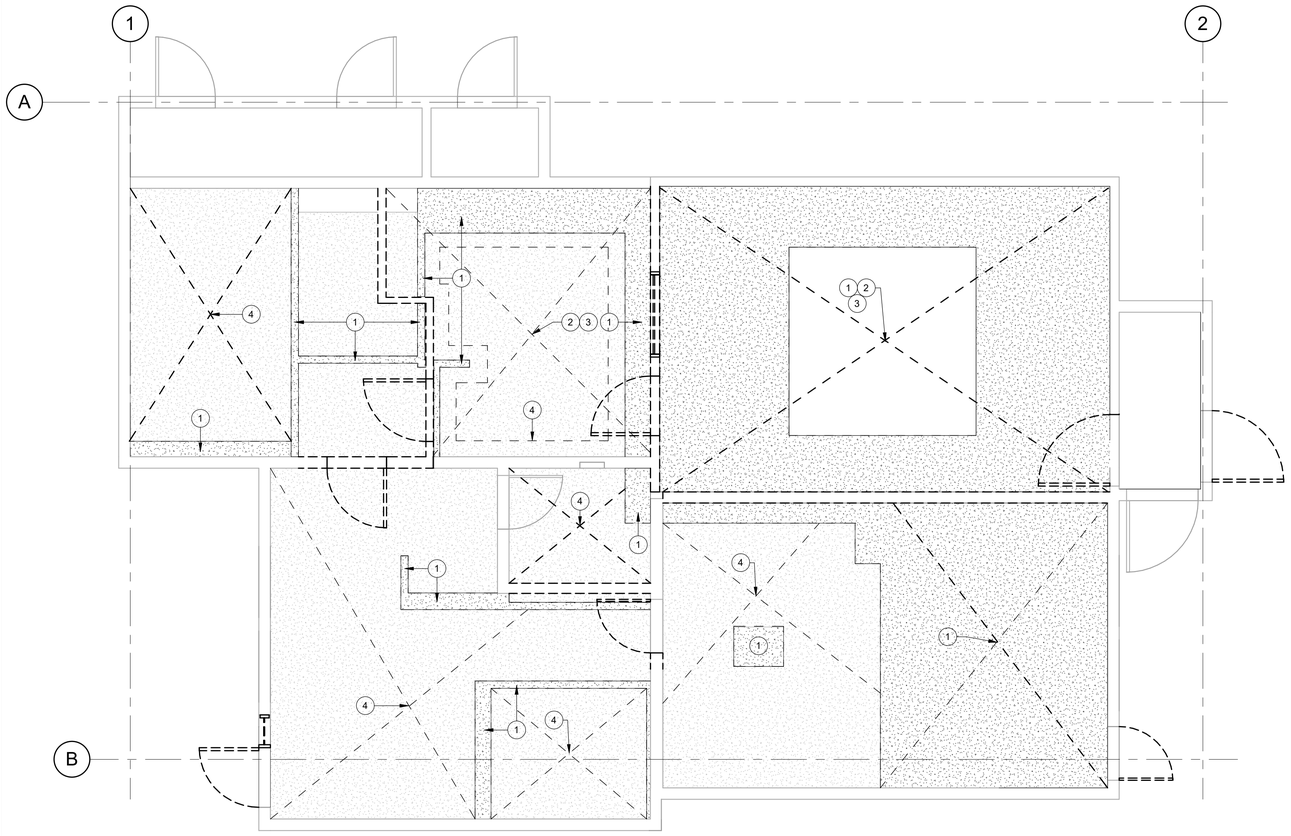
Stanford University

MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATION
ROOF PLAN - DEMOLITION

DRAWING NO. **AD1.2**

BUILDING NUMBER: 02-565 | SCALE: AS NOTED | BAB PROJECT #: 24118 / 6417 | REV 0

3/13/2025 10:45:58 AM



1 CEILING PLAN - DEMOLITION
AD2.1 1/4" = 1'-0"

GRAPHIC SCALE: 1/4" = 1'-0"

4' 0' 4' 8' 12' 16'

SHEET NOTES:

1. REMOVE AND DISPOSE OF (E) GYPBOARD AT THE ROOF DECK AT LOCATIONS SHOWN.
2. REMOVE AND DISPOSE OF ALL (E) MISCELLANEOUS CEILING MOUNTED ITEMS NO LONGER IN USE, INCLUDING BUT NOT LIMITED TO LIGHTING AND MECHANICAL GRILLES. REFERENCE MECHANICAL AND ELECTRICAL DRAWINGS FOR EXTENT OF WORK.
3. (E) FIRE SPRINKLERS SHALL BE PROTECTED IN-PLACE DURING CEILING DEMOLITION AND WILL BE MODIFIED TO ACCOMMODATE THE REVISED LAYOUT. REFERENCE CONSTRUCTION PLAN, SHEET A2.0, FOR EXTENT OF (N) LAYOUT MODIFICATIONS. FIRE SPRINKLER WORK SHALL BE PERFORMED AS A DEFERRED SUBMITTAL.
4. (E) CEILING TO REMAIN.

GENERAL NOTES:

A. REFER TO SHEET G0.0 FOR INDEX OF DRAWINGS & GENERAL NOTES.

B. THE CONTRACTOR SHALL BE COGNIZANT THAT THIS IS A REMODELING PROJECT AND EXISTING ITEMS AND CONDITIONS CANNOT BE FULLY EXPLAINED WITHOUT FIELD OBSERVATION. IF UNEXPECTED CONDITIONS ARE UNCOVERED, THE CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT AND OWNER FOR DIRECTION PRIOR TO PROCEEDING.

C. REPAIR ALL DAMAGED MATERIALS IMPACTED BY DEMOLITION AND/OR NEW CONSTRUCTION. ALIGN AND FINISH TO MATCH EXISTING ADJACENT SURFACE.

D. ALL DEMOLISHED MATERIALS SHALL BE REMOVED AND DISPOSED OF FROM THE BUILDING ON A DAILY BASIS.

E. ALL DIMENSIONS ARE TO FACE OF FINISH TO FACE OF FINISH UNLESS OTHERWISE NOTED. WRITTEN DIMENSIONS HAVE PRECEDENCE OVER SCALED DRAWINGS. VERIFY ALL MEASUREMENTS PRIOR TO MANUFACTURING AND INSTALLATION.

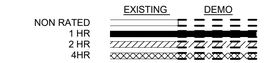
F. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR RELATED SCOPE.

G. PROVIDE & INSTALL TEMPORARY BARRICADE FOR CONSTRUCTION AND/OR DUST CONTROL BARRIER AROUND PROJECT AREA WHERE REQUIRED AT OPENINGS TO PROTECT ADJACENT OCCUPANTS AND EQUIPMENT/FURNITURE. PROVIDE SIGNAGE TO ROUTE OCCUPANTS SAFELY AROUND CONSTRUCTION ZONE. COORDINATE WITH OWNER FOR LOCATIONS. TEMPORARY FIRE RETARDANT BARRIER SHALL CONSIST OF 2 LAYERS OF 4-MIL POLY SHEETING ON TEMPORARY BARRIER WALL PER DETAIL 15/A8.2 WHERE PROVIDED/REQUIRED. CONTRACTOR MUST HAVE EVIDENCE OF BARRIER INSTALLED ALONG WITH FLAME SPREAD AND SMOKE DENSITY TEST REPORTS (I.E. FLAME SPREAD = 10; SMOKE DENSITY INDEX = 70) ON SITE FOR THE INSPECTOR. IN ADDITION, THE CONTRACTOR SHALL PROVIDE A SUBMITTAL TO THE ARCHITECT FOR APPROVAL. REMOVE UPON COMPLETION OF PROJECT, PATCH, REPAIR AND CLEAN AREA.

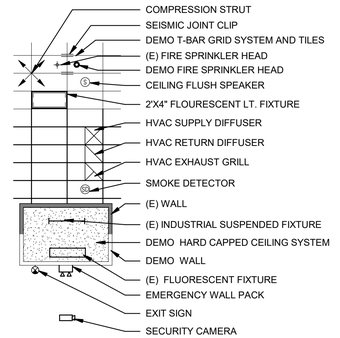
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LEGEND:

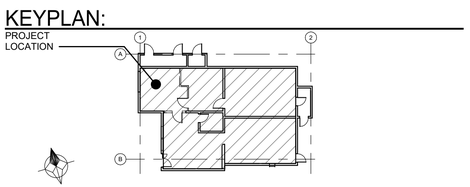
LINE TYPES:



GRAPHICS:



KEYPLAN:



REV	DATE	REVISION
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EXP. AUG. 31, 2025
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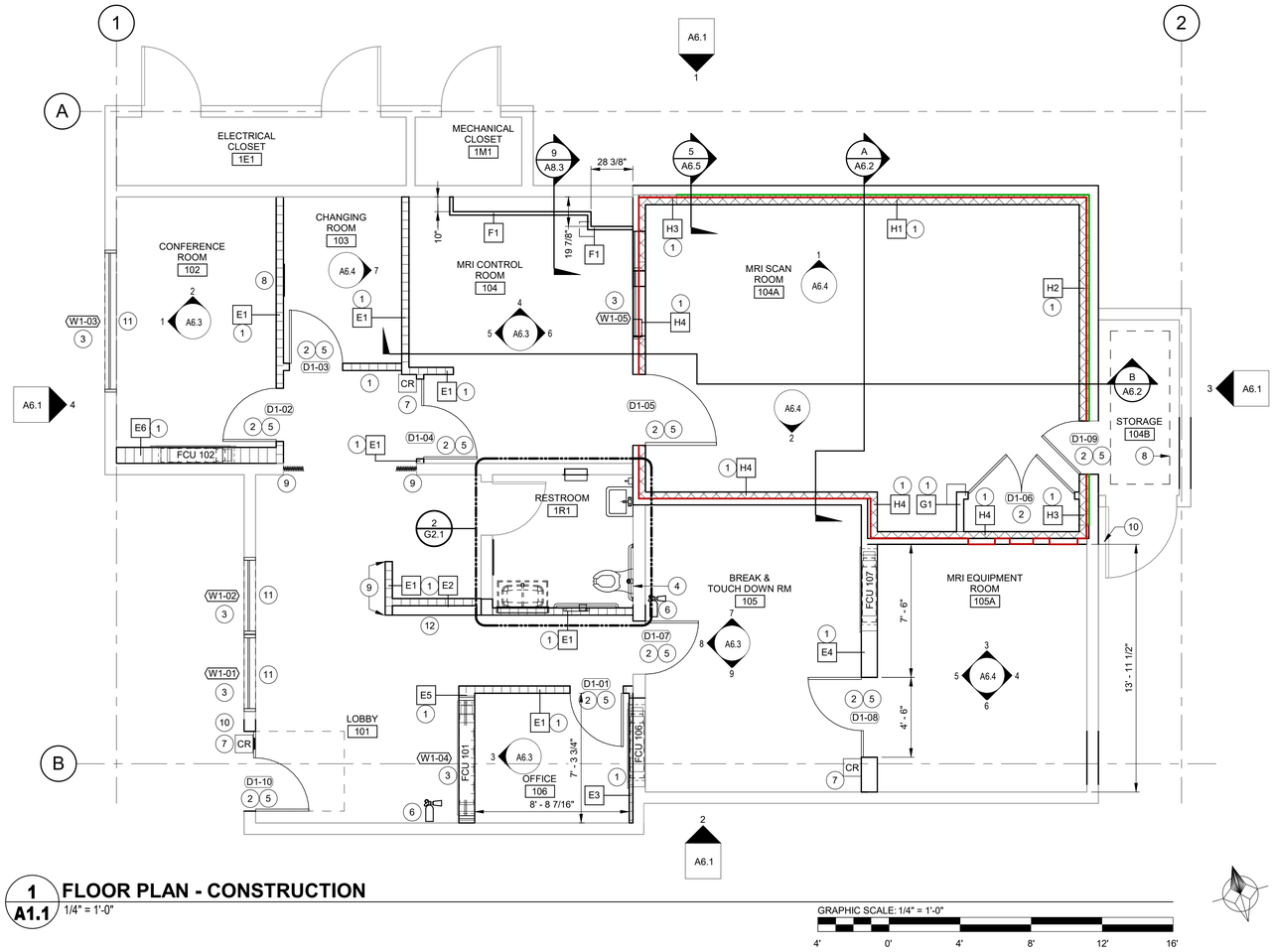
Stanford University

MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATION
CEILING PLAN - DEMOLITION

DRAWING NO. **AD2.1**

BUILDING NUMBER: 02-565	SCALE: AS NOTED	BAB PROJECT #: 24118 / 6417	REV 0

3/13/2025 10:45:28 AM



1 A1.1 FLOOR PLAN - CONSTRUCTION

1/4" = 1'-0"

WALL NAME	WALL TYPE	RATING			SFD REQ'D
		WALL	DOOR	WINDOW	
RATED CORRIDORS CBC 1020.1	FIRE PARTITION	1 HR	20 MIN	45 MIN	YES**
CONTROL AREA CBC 414.2.4	FIRE BARRIER	1 HR	45 MIN	60* MIN	NO
OCCUPANCY SEPERATION CBC 508.4.4.1	FIRE BARRIER	1 HR	45 MIN	60* MIN	NO
SHAFT WALLS CBC 713.4	FIRE BARRIER	1 HR 2 HR	60 MIN 90 MIN	60* MIN NP	NO YES
FIRE WALLS CBC 706.4	FIRE WALL	3 HR	3 HR	3* HR	YES
EXIT PASSAGEWAYS CBC 1024	FIRE BARRIER	1 HR	60 MIN	60* MIN	NO

2022 CBC REFERENCES:

FIRE PARTITION	CBC 708
FIRE BARRIER	CBC 707
SHAFT WALLS	CBC 707.3.1
FIRE WALLS	CBC 706
SFD AT FB'S	CBC 717.5.2 EXCEPTION 3
CONTROL AREA	CBC 414 TABLE 414.2.2
FIRE DOORS	CBC TABLE 716.1(2)
FIRE GLAZING	CBC TABLE 716.1(3)
FIRE GLAZING LABEL	CBC TABLE 716.1(1)

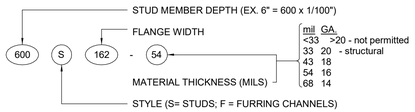
* GLAZING IN A FIRE BARRIER & FIRE WALL MUST BE TESTED AS A WALL ASSEMBLY (ASTM E119), OTHERWISE GLAZING IS NOT PERMITTED PER 716.3.4

CBC 717.5.2 EXCEPT'N 3 REQUIREMENTS:
1. NOT AN A,H,& L OCC
2. RATING ≤ 1 HOUR
3. BLDG IS SPRINKLERED
4. DUCT IS 26 GA MIN.
5. BLDG HVAC ONLY

** CBC 717.5.4 EXCEPT'N 1 REQ'TS:
1. NOT AN A,H,& L OCC
2. RATING ≤ 1 HOUR
3. BLDG IS SPRINKLERED
4. PENETRATION LISTED

LEGEND (CONT):

STUD IDENTIFICATION



NOTE: (www.ssma.com)
REFERENCE STEEL STUD MANUFACTURERS ASSOCIATION (SSMA)
PRODUCT TECHNICAL MANUAL (ICC ER-3064P)

400CH-34 = 4" X 20 GA. CH STUDS

REFER TO DETAIL 1/A8.1 FOR LATERAL BRACING WHEN GYPSUM BOARD IS NOT INSTALLED ON BOTH SIDES OF WALL

WALL SCHEDULE:

E1 — FULL-HEIGHT WALL (NON FIRE-RATED)
362S162-33 MTL STUDS @ 16" O.C. WITH R-19 BATT INSULATION AND 5/8" TYPE 'X' GYPSUM BOARD EXPOSED SIDES UP TO STRUCTURE ABOVE (+8'-0"±). REFER TO DETAIL 1/A8.2.
NON-COMPOSITE STUD CONFIGURATION/CRITERIA Fy=33ksi Δ=L/240 MIN. Uniform Load=5psf Limiting Height: 26'-0"

E2 — FULL-HEIGHT STUD WALL (NON FIRE-RATED)
DOUBLE 362S162-33 MTL STUDS @ 16" O.C. WITH R-19 BATT INSULATION AND 5/8" TYPE 'X' GYPSUM BOARD EXPOSED SIDES UP TO STRUCTURE ABOVE (+8'-0"±). REFER TO DETAIL 6/A8.2.
NON-COMPOSITE STUD CONFIGURATION/CRITERIA Fy=33ksi Δ=L/240 MIN. Uniform Load=5psf Limiting Height: 26'-0"

E3 — FULL-HEIGHT STUD WALL (NON FIRE-RATED)
250S162-33 MTL STUDS AT 16" O.C. TO UNDERSIDE OF (E) ROOF AND 5/8" TYPE 'X' GYPSUM BOARD EXPOSED SIDES UP TO STRUCTURE ABOVE (+8'-0"±). REFER TO DETAIL 4/A8.2.
NON-COMPOSITE STUD CONFIGURATION/CRITERIA Fy=33ksi Δ=L/240 MIN. Uniform Load=5psf Limiting Height: 26'-0"

E4 — FULL-HEIGHT STUD WALL (NON FIRE-RATED)
362S162-43 MTL STUDS @ 16" O.C. WITH R-19 BATT INSULATION TO TOP OF PARAPET AND 362S162-33 MTL STUDS @ 16" O.C. WITH R-19 BATT INSULATION TO UNDERSIDE OF (N) ROOF 5/8" TYPE 'X' GYPSUM BOARD EXPOSED SIDES UP TO STRUCTURE ABOVE (+8'-0"±). REFER TO DETAIL 6/A8.2.
NON-COMPOSITE STUD CONFIGURATION/CRITERIA Fy=33ksi Δ=L/240 MIN. Uniform Load=5psf Limiting Height: 26'-0"

E5 — FULL-HEIGHT STUD WALL (NON FIRE-RATED)
DOUBLE 362S162-33 MTL STUDS @ 16" O.C. WITH R-19 BATT INSULATION AND 5/8" TYPE 'X' GYPSUM BOARD EXPOSED SIDES UP TO STRUCTURE ABOVE (+8'-0"±). REFER TO DETAIL 6/A8.2.
NON-COMPOSITE STUD CONFIGURATION/CRITERIA Fy=33ksi Δ=L/240 MIN. Uniform Load=5psf Limiting Height: 26'-0"

E6 — FULL-HEIGHT STUD WALL (NON FIRE-RATED)
DOUBLE 362S162-33 MTL STUDS @ 16" O.C. WITH R-19 BATT INSULATION AND 5/8" TYPE 'X' GYPSUM BOARD EXPOSED ONLY UP TO STRUCTURE ABOVE OVER (E) 2"x6" WOOD STUD EXTERIOR WALL ASSEMBLY (+8'-0"±). REFER TO DETAIL 5/A8.2.
NON-COMPOSITE STUD CONFIGURATION/CRITERIA Fy=33ksi Δ=L/240 MIN. Uniform Load=5psf Limiting Height: 26'-0"

F1 — PARTIAL-HIGH WALL (NON FIRE-RATED)
162S162-33 MTL STUDS @ 16" O.C. WITH R-8 BATT INSULATION AND 5/8" TYPE 'X' QUIET ROCK EZ-SNAP ON EXPOSED SIDE (+2'-4 1/2"±). REFER TO DETAIL 9/A8.3.
NON-COMPOSITE STUD CONFIGURATION/CRITERIA Fy=33ksi Δ=L/240 MIN. Uniform Load=5psf Limiting Height: 17'-7"

G1 — CEILING-HIGH WALL (NON FIRE-RATED)
362S162-33 MTL STUDS @ 16" O.C. WITH R-13 BATT INSULATION AND 5/8" TYPE 'X' GYPSUM BOARD EXPOSED SIDES UP TO CEILING ABOVE (+X'-X"±). REFER TO DETAIL 2/A8.2.
NON-COMPOSITE STUD CONFIGURATION/CRITERIA Fy=33ksi Δ=L/240 MIN. Uniform Load=5psf Limiting Height: 17'-7"

H1 — FURRED EXTERIOR WALL WITH SHIELDING (NON FIRE-RATED)
5/8" GYPSUM BOARD TO UNDERSIDE OF CEILING OVER 250S162-43 MTL STUDS AT 16" O.C. TO UNDERSIDE OF (N) ROOF OVER 5/8" AIR GAP OVER 3 OZ. COPPER RF SHIELDING OVER 1/2" PLYWOOD OVER 2X4 HORIZONTAL FURRING STRIPS @ 24" O.C. VERTICALLY 1/8" M36 SILICON STEEL USING #10 X 1 1/2" SCREWS 3/4" PLYWOOD OVER (E) 2"x6" WOOD STUD EXTERIOR WALL ASSEMBLY (+X'-X"±). REFER TO DETAIL 4/A6.5.
NON-COMPOSITE STUD CONFIGURATION/CRITERIA Fy=33ksi Δ=L/240 MIN. Uniform Load=5psf Limiting Height: 17'-7"

H2 — FURRED EXTERIOR WALL WITH SHIELDING (NON FIRE-RATED)
5/8" GYPSUM BOARD TO UNDERSIDE OF CEILING OVER 250S162-43 MTL STUDS AT 16" O.C. TO UNDERSIDE OF (N) ROOF OVER 5/8" AIR GAP OVER 3 OZ. COPPER RF SHIELDING OVER 1/2" PLYWOOD OVER 2X4 HORIZONTAL FURRING STRIPS @ 24" O.C. VERTICALLY 1/4" M36 SILICON STEEL USING #10 X 1 1/2" SCREWS 3/4" PLYWOOD OVER (E) 2"x6" WOOD STUD EXTERIOR WALL ASSEMBLY (+X'-X"±). REFER TO DETAIL 3/A6.5.
NON-COMPOSITE STUD CONFIGURATION/CRITERIA Fy=33ksi Δ=L/240 MIN. Uniform Load=5psf Limiting Height: 17'-7"

H3 — FURRED WALL WITH SHIELDING (NON FIRE-RATED)
5/8" GYPSUM BOARD TO UNDERSIDE OF CEILINGOVER 250S162-43 MTL STUDS AT 16" O.C. TO UNDERSIDE OF (N) ROOF OVER 5/8" AIR GAP OVER 3 OZ. COPPER RF SHIELDING OVER 1/2" PLYWOOD OVER 2X4 HORIZONTAL FURRING STRIPS @ 24" O.C. VERTICALLY 1/8" MASONITE OVER 3/4" PLYWOOD OVER (E) 2"x6" WOOD STUD EXTERIOR WALL ASSEMBLY (+X'-X"±). REFER TO DETAIL 5/A6.5.
NON-COMPOSITE STUD CONFIGURATION/CRITERIA Fy=33ksi Δ=L/240 MIN. Uniform Load=5psf Limiting Height: 17'-7"

WALL SCHEDULE: (CONT):

H4 — FURRED WALL WITH SHIELDING (NON FIRE-RATED)
5/8" GYPSUM BOARD TO UNDERSIDE OF CEILING OVER 250S162-43 MTL STUDS AT 16" O.C. TO UNDERSIDE OF (N) ROOF OVER 5/8" AIR GAP OVER 3 OZ. COPPER RF SHIELDING OVER 362S162-33 MTL STUDS AT 16" O.C. WITH R-19 BATT INSULATION TO 11'-7 1/2" OVER 5/8" GYPSUM BOARD (+11'-7"±). REFER TO DETAIL 1/A6.6.
NON-COMPOSITE STUD CONFIGURATION/CRITERIA Fy=33ksi Δ=L/240 MIN. Uniform Load=5psf Limiting Height: 17'-7"

GENERAL NOTES:

A. REFER TO SHEET G0.0 FOR INDEX OF DRAWINGS & GENERAL NOTES.

B. REPAIR ALL DAMAGED MATERIALS IMPACTED BY DEMOLITION AND/OR NEW CONSTRUCTION. ALIGN AND FINISH TO MATCH EXISTING ADJACENT SURFACE.

C. ALL DIMENSIONS ARE TO FACE OF FINISH TO FACE OF FINISH UNLESS OTHERWISE NOTED. WRITTEN DIMENSIONS HAVE PRECEDENCE OVER SCALED DRAWINGS. VERIFY ALL MEASUREMENTS PRIOR TO MANUFACTURING AND INSTALLATION.

D. ALL PENETRATIONS THRU EXTERIOR WALLS SHALL BE WEATHER SEALED. ALL PENETRATIONS THRU RATED WALLS SHALL BE SEALED WITH AN INTUMESCENT FIRE SEALANT SUCH AS CP-25WB AS MANUF. BY ELECTRO-PRODUCTS 3M AND PER UL LISTED SYSTEM. UL LISTINGS: CONDUITS, PIPING: WL 1001.PENETRATION PERFORMANCE REQUIREMENTS: F RATING: 1 OR 2 HR. (MATCH EXISTING WALL-RATING) T RATING: NA. REFER TO 4/A8.1.

E. REFER TO STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR RELATED SCOPE.

F. ALL FURNITURE IS BY OWNER AND IS SHOWN FOR REFERENCE ONLY.

SHEET NOTES:

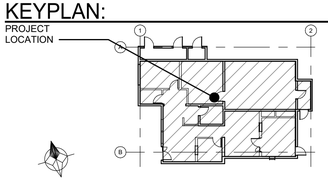
1. PROVIDE & INSTALL (N) WALL ASSEMBLY IN LOCATION SHOWN. REFER TO WALL TYPE DESCRIPTION THIS SHEET.
2. PROVIDE & INSTALL (N) DOOR ASSEMBLY IN LOCATION SHOWN.
3. PROVIDE & INSTALL (N) WINDOW ASSEMBLY IN LOCATION SHOWN.
4. PATCH WALL IN LOCATION INDICATED. LEVEL AND FINISH SHALL MATCH LIKE ADJACENT SURFACE.
5. PROVIDE & INSTALL (N) ROOM IDENTIFICATION SIGNAGE AT LOCATION SHOWN. ALL ROOM IDENTIFICATION AND NUMBER SIGNAGE SHALL HAVE TYPE 2 BRAILLE AND SIGN SHALL BE MOUNTED AT 60" HIGH MEASURED TO THE TOP OF THE SIGN. REFER TO 4/A8.1 FOR SIGN AND 1/A8.1 FOR BRAILLE REQUIREMENTS. REFER TO STANFORD FACILITIES DESIGN GUIDELINES, SECTION 2 ROOM NUMBER DESIGN GUIDELINES.
6. PROVIDE & INSTALL (N) FIRE EXTINGUISHER. ALL FIRE EXTINGUISHERS SHALL BE WITHIN 75'-0" OF TRAVEL. FIRE EXTINGUISHERS SHALL HAVE A MINIMUM RATING OF 2A:10-BC IN A FULLY RECESSED CABINET WITH THE CENTER OF HANDLE AT +40" A.F.F. OWNER/TENANT RESPONSIBLE TO MAINTAIN FIRE EXTINGUISHER; IF EXPIRED, FIRE EXTINGUISHER SHALL BE REPLACED. REFER TO DETAIL 11/A8.2 FOR FIRE EXTINGUISHER MOUNTING AND CABINET REQUIREMENTS. CONTRACTOR TO PROVIDE & INSTALL (N) FIRE EXTINGUISHER SIGNAGE PER DETAIL 12/A8.2.
7. PROVIDE & INSTALL (N) CARD READER ACCESS AT LOCATIONS SHOWN.
8. PROVIDE & INSTALL (N) CLARIDGE PROFILE WHITE BOARD AND STADIUM CADDY AT LOCATION SHOWN. REFER TO DETAIL 3/A8.3.
9. PROVIDE & INSTALL (N) STAINLESS STEEL CORNER GUARDS AT LOCATIONS SHOWN.
10. PRIVDE & INSTALL (N) MAGNETIC FIELD WARNING SIGNAGE AT LOCATIONS SHOWN.
11. PROVIDE & INSTALL (N) MECHO SHADE AT LOCATIONS SHOWN. REFER TO DETAIL 2/A8.3.
12. PROVIDE & INSTALL (N) RECESSED FRAMING FOR DISPLAY AT LOCATION SHOWN.

LEGEND:

- A1 — WALL TYPE DESIGNATION / SEE WALL TYPE SCHEDULE THIS SHEET
- D1-XX — DOOR MARK - REFER TO DOOR SCHEDULE ON A7.1 / DOOR NUMBER DESIGNATION / FLOOR NUMBER DESIGNATION
- W1-XX — WINDOW MARK - REFER TO DOOR SCHEDULE ON A7.1 / WINDOW NUMBER DESIGNATION / FLOOR NUMBER REFERENCE
- CR — CARD READER - SECURE SIDE (OTHER SIDE FREE)
- (E) WALL - NON FIRE-RATED
- (N) WALL - NON FIRE-RATED
- (E) WALL - 1 HR FIRE-RATED
- (N) OR UPGRADED WALL - 1 HR FIRE-RATED
- FIRE EXTINGUISHER
- MAGNETIC BARRIER
- MAGNETIC SHIELDING
- RF SHIELDING

KEYPLAN:

PROJECT LOCATION



REV	DATE	REVISION
0	03/10/25	ISSUE FOR PERMIT

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LICENSED ARCHITECT — EXP AUG. 31, 2025 — MICHAEL P. HARRIS — C32799 — STATE OF CALIFORNIA

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BUILDING ADDRESS:	427 SANTA TERESA STREET, STANFORD, CA 94305
STANFORD PROJECT NUMBER:	
PROJECT MANAGER:	BRIAN CARILLI

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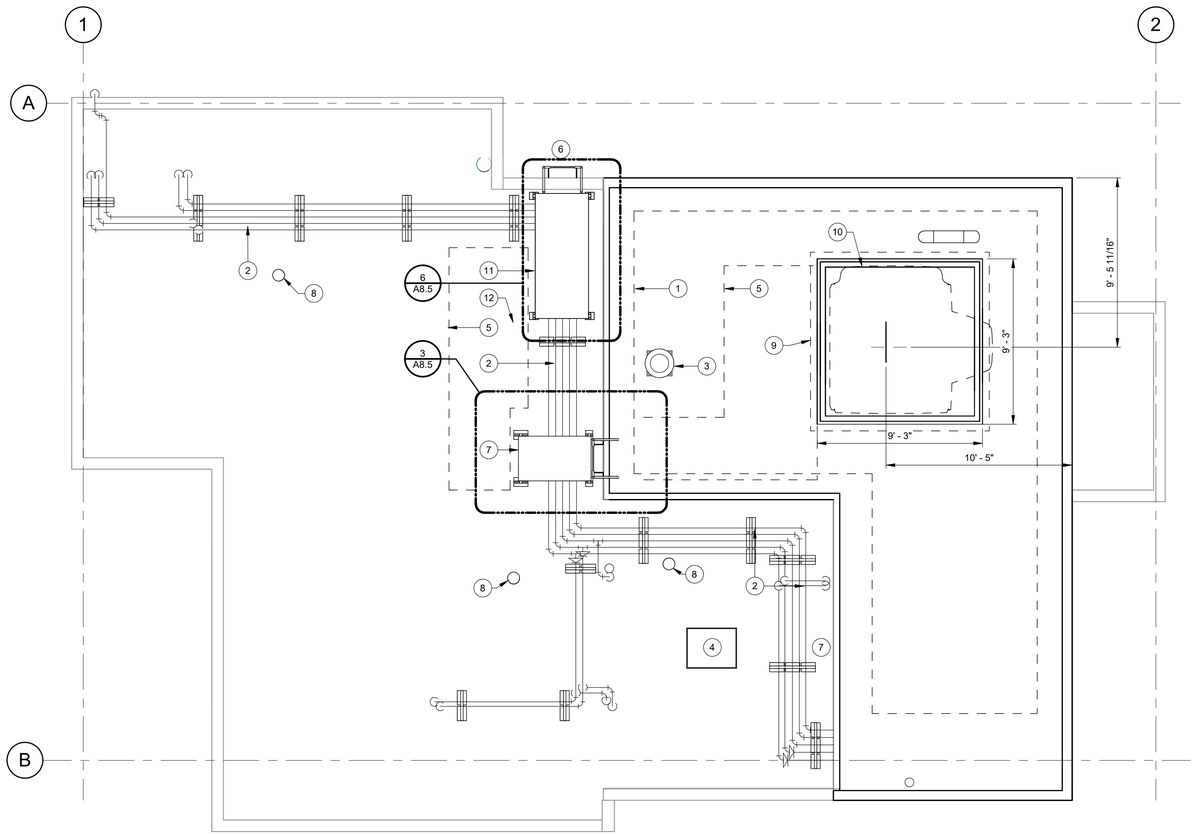
Stanford University

MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATION
FLOOR PLAN - CONSTRUCTION

DRAWING NO. A1.1

BUILDING NUMBER: 02-565 | SCALE: AS NOTED | BAB PROJECT #: 24118 / 6417 | REV 0

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1 A1.2 ROOF PLAN - CONSTRUCTION

1/4" = 1'-0"

GRAPHIC SCALE: 1/4" = 1'-0"

4' 0' 4' 8' 12' 16'

SHEET NOTES (CONT.):

(12) PROVIDE & INSTALL (N) ROOF ANCHOR TIE-OFF AT LOCATION SHOWN.

GENERAL NOTES:

A. REFER TO SHEET G0.0 FOR INDEX OF DRAWINGS & GENERAL NOTES.

B. THE CONTRACTOR SHALL BE COGNIZANT THAT THIS IS A REMODELING PROJECT AND EXISTING ITEMS AND CONDITIONS CANNOT BE FULLY EXPLAINED WITHOUT FIELD OBSERVATION. IF UNEXPECTED CONDITIONS ARE UNCOVERED, THE CONTRACTOR SHALL COORDINATE WITH THE ARCHITECT AND OWNER FOR DIRECTION PRIOR TO PROCEEDING.

C. REPAIR ALL DAMAGED MATERIALS IMPACTED BY DEMOLITION AND/OR NEW CONSTRUCTION. ALIGN AND FINISH TO MATCH EXISTING ADJACENT SURFACE.

D. ALL DEMOLISHED MATERIALS SHALL BE REMOVED AND DISPOSED OF FROM THE BUILDING ON A DAILY BASIS.

E. ALL DIMENSIONS ARE TO FACE OF FINISH TO FACE OF FINISH UNLESS OTHERWISE NOTED. WRITTEN DIMENSIONS HAVE PRECEDENCE OVER SCALED DRAWINGS. VERIFY ALL MEASUREMENTS PRIOR TO MANUFACTURING AND INSTALLATION.

F. FALL PROTECTION SHALL BE PROVIDED WHEN THE ESTABLISHED MAINTENANCE PATH OF TRAVEL FOR (N) EQUIPMENT IS WITHIN 10' OF A ROOF PARAPET THAT IS LOWER THAN 42" ABOVE THE ADJACENT ROOF LINE. ALL CONSTRUCTION WORK WITHIN 6' OF A ROOF PARAPET SHALL HAVE TEMPORARY FALL PROTECTION IN PLACE AS COORDINATED WITH ESH.

G. EXPANSION JOINT CONDITIONS SHALL BE MAINTAINED AND MATCHED WHERE OCCURS. EXISTING LOCATIONS ARE NOTED ON THE PLAN FOR REFERENCE ONLY.

H. THE FOLLOWING APPLIES TO ALL NEW ROOFING AND ROOFING RELATED WORK:

THE EXISTING ROOF SYSTEM IS A 3-PLY ASPHALTIC MEMBRANE BUILT-UP ROOF ASSEMBLY OVER 1/2" PLYWOOD SHEATHING OVER SHAPED WOOD JOISTS. ROOF SLOPE IS 1/4" PER FOOT AND CRICKETS SHALL BE MAINTAINED AND ACCESS TO SCUPPERS SHALL BE CLEAR. ALL ROOF PATCHING AN/OR THRU PENETRATIONS SHALL BE PERFORMED IN SUCH A MANNER TO MAINTAIN AND STAY IN COMPLIANCE WITH THE CURRENT MANUFACTURER'S

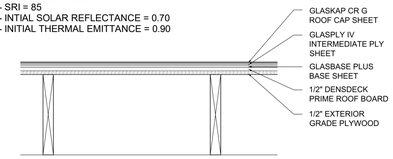
I. ALL PENETRATIONS THROUGH ROOF SHALL BE WEATHER SEALED AND FLASHED. STRICTLY COORDINATE WITH OWNER FOR ANY ROOF OPENING AND PROTECTION TO MITIGATE AND LEAKS DURING CONSTRUCTION.

J. REFER TO STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR RELATED SCOPE.

SHEET NOTES:

(1) PROVIDE & INSTALL NEW 3-PLY ASPHAULTIC MEMBRANE BUILT-UP JOHNS MANVILLE ROOFING ASSSEMBLY AT ELEVATED ROOF PORTION OF THE BUILDING. ROOFING SHALL MATCH THE EXISTING 3-PLY BUILT-UP ROOFING ASSEMBLY. INSTALL PER MANUFACTURER INSTRUCTIONS AND DETAILS TO MAINTAIN WARRANTY. SLOPE SHALL BE AT LEAST 1/4" PER FOOT AND SLOPED TOWARD DRAINAGE. REFER TO ROOFING DETAILS ON A8.6 AND FLASHING DETAILS ON A8.5. REFER TO DETAILS 7 AND 8 ON SHEET A8.2 FOR NEW PARAPET ASSEMBLY. NEW ROOFING ASSEMBLY IS AS FOLLOWS:

- 1/2" DENSDECK PRIME ROOF BOARD MECHANICALLY FASTENED TO ROOF SHEATHING
- GLASBASE PLUS BASE SHEET SELF-ADHERED TO FIBER BOARD (DENSDECK)
- GLASPLY IV INTERMEDIATE PLY SHEET
- GLASKAP CR G ROOF CAP SHEET WITH REFLECTIVE ROOFING GRANULES
- CRRC 0662-0042C
- SRI = 85
- INTIAL SOLAR REFLECTANCE = 0.70
- INITIAL THERMAL EMITTANCE = 0.90



(2) DENOTES NEW PIPING PER MECH DRAWINGS. REFER TO DETAIL 6,7, AND 9 ON SHEET A8.4 FOR PIPING SUPPORT. FLASH PER DETAIL 8/A8.5. PROVIDE & INSTALL PIPING SUPPORTS PER DETAILS ON A8.4.

(3) DENOTES NEW EXHAUST FAN PER MECH DWGS. (TOTAL OF 2). FLASH (N) CURB PER DETAIL 5/A8.5. REFER TO MECHANICAL SHEETS.

(4) PROVIDE & INSTALL NEW VELUX ROOF MONITOR AT LOCATION SHOWN.

(5) PROVIDE & INSTALL NEW WALKING PADS AT LOCATIONS SHOWN.

(6) RELOCATE EXISTING LADDER TO NEW LOCATION SHOWN. LADDER TO COMPLY WITH DETAIL 9/A8.5.

(7) PROVIDE & INSTALL (N) LADDER WITH ALUMINUM HANDRAILS TO PLATFORM FOR NEW ELEVATED ROOF. REFER TO DETAILS 3 AND 4 ON SHEET A8.5 .

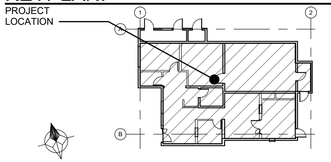
(8) DENOTES NEW EXHAUST VENT PER MECH DRAWINGS (TOTAL OF 4). REFER TO MECHANICAL SHEETS.

(9) DENOTES NEW 10'-0" X 10'-0" ROOF HATCH ASSEMBLY PART NO. BRHEA120X120D2T FROM BABCOCKDAVIS, SEE DETAIL 1/A8.5

(10) PROVIDE & INSTALL NEW CEILING PLUG AT LOCATION SHOWN AFTER MAGNET IS PLACED. REFER TO DETAILS 1 AND 2 ON SHEET A8.5.

(11) PROVIDE & INSTALL (N) STEEL GRATE PLATFORM AT LOCATION SHOWN. REFER TO DETAIL 6/A8.5.

KEYPLAN:



REV	DATE	REVISION
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EXP AUG. 31, 2025
MICHAEL P. HARRIS
C32799
STATE OF CALIFORNIA

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STANFORD PROJECT NUMBER:	
PROJECT MANAGER:	BRIAN CARILLI

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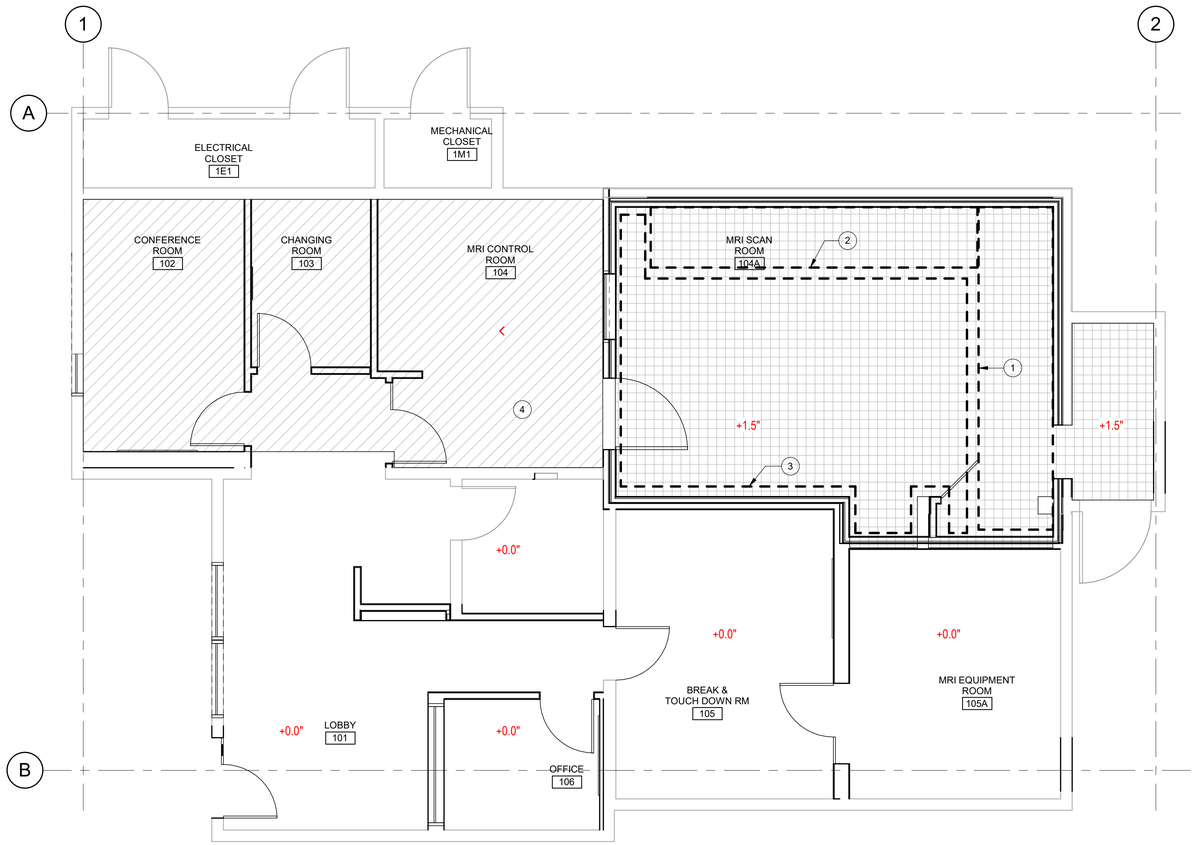
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MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATION
ROOF PLAN - CONSTRUCTION

DRAWING NO. A1.2

BUILDING NUMBER: 02-565	SCALE: AS NOTED	BAB PROJECT #: 24118 / 6417	REV 0

3/13/2025 10:46:37 AM



1 A1.3 FLOOR PLAN - FLOOR SLOPES

1/4" = 1'-0"

GRAPHIC SCALE: 1/4" = 1'-0"

4' 0' 4' 8' 12' 16'

GENERAL NOTES:

A. REFER TO SHEET G0.0 FOR INDEX OF DRAWINGS & GENERAL NOTES.

B. REPAIR ALL DAMAGED MATERIALS IMPACTED BY DEMOLITION AND/OR NEW CONSTRUCTION. ALIGN AND FINISH TO MATCH EXISTING ADJACENT SURFACE.

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D. ALL PENETRATIONS THRU EXTERIOR WALLS SHALL BE WEATHER SEALED. ALL PENETRATIONS THRU RATED WALLS SHALL BE SEALED WITH AN INTUMESCENT FIRE SEALANT SUCH AS CP-25WB AS MANUF. BY ELECTRO-PRODUCTS 3M AND PER UL LISTED SYSTEM. UL LISTINGS: CONDUITS, PIPING: WL 1001.PENETRATION PERFORMANCE REQUIREMENTS: F RATING: 1 OR 2 HR. (MATCH EXISTING WALL-RATING) T RATING: NA. REFER TO 4/A8.1.

E. REFER TO STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR RELATED SCOPE.

F. ALL FURNITURE IS BY OWNER AND IS SHOWN FOR REFERENCE ONLY.

SHEET NOTES:

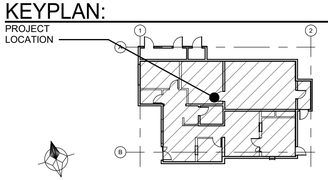
1. PROVIDE & INSTALL (N) 1/2" PLYWOOD SUBFLOOR ASSEMBLY WITH 1/4" M36 SILICON STEEL PLATE IN LOCATIONS SHOWN. REFER TO DETAIL 1/A6.5.
2. PROVIDE & INSTALL (N) 5/8" PLWOOD SUBFLOOR ASSEMBLY WITH 1/8" M36 SILICON STEEL PLATE IN LOCATIONS SHOWN. REFER TO DETAIL 2/A6.5.
3. PROVIDE & INSTALL (N) 3/4" PLYWOOD FLOORING ASSEMBLY IN LOCATIONS SHOWN. REFER TO DETAIL 5/A6.5.
4. PROVIDE & INSTALL (N) CONCRETE PAD IN LOCATION SHOWN. FLOOR TO SLOPE DOWN STARTING FROM THE MRI SCAN ROOM AT 1.5" TO GROUND LEVEL. SLOPE SHALL NOT EXCEED 2%.

LEGEND:

- (E) WALL - NON FIRE-RATED
- (N) WALL - NON FIRE-RATED
- (E) WALL - 1 HR FIRE-RATED
- (N) OR UPGRADED WALL - 1 HR FIRE-RATED
- FIRE EXTINGUISHER

KEYPLAN:

PROJECT LOCATION



REV	DATE	REVISION
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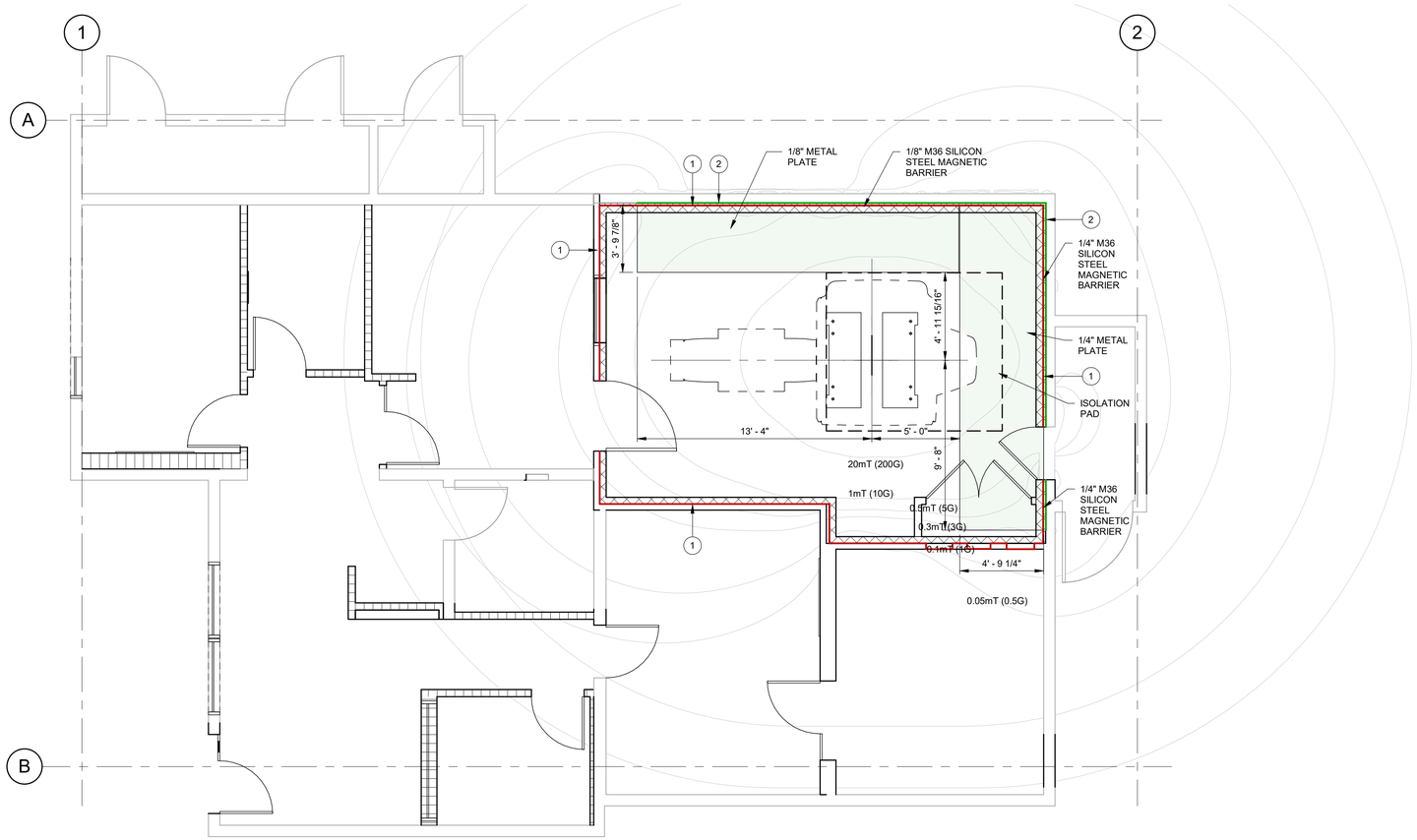
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MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATION
FLOOR PLAN - FLOOR SLOPES

DRAWING NO. **A1.3**

BUILDING NUMBER: 02-565	SCALE: AS NOTED	BAB PROJECT #: 24118 / 6417	REV 0

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1 A1.4 GROUND FLOOR PLAN - SHIELDING LOCATIONS

1/4" = 1'-0"

GRAPHIC SCALE: 1/4" = 1'-0"

4' 0' 4' 8' 12' 16'

GENERAL NOTES:

A. REFER TO SHEET G0.0 FOR INDEX OF DRAWINGS & GENERAL NOTES.

B. REPAIR ALL DAMAGED MATERIALS IMPACTED BY DEMOLITION AND/OR NEW CONSTRUCTION. ALIGN AND FINISH TO MATCH EXISTING ADJACENT SURFACE.

C. ALL DIMENSIONS ARE TO FACE OF FINISH TO FACE OF FINISH UNLESS OTHERWISE NOTED. WRITTEN DIMENSIONS HAVE PRECEDENCE OVER SCALED DRAWINGS. VERIFY ALL MEASUREMENTS PRIOR TO MANUFACTURING AND INSTALLATION.

D. ALL PENETRATIONS THRU EXTERIOR WALLS SHALL BE WEATHER SEALED. ALL PENETRATIONS THRU RATED WALLS SHALL BE SEALED WITH AN INTUMESCENT FIRE SEALANT SUCH AS CP-25WB AS MANUF. BY ELECTRO-PRODUCTS 3M AND PER UL LISTED SYSTEM. UL LISTINGS: CONDUITS, PIPING: WL 1001.PENETRATION PERFORMANCE REQUIREMENTS: F RATING: 1 OR 2 HR. (MATCH EXISTING WALL-RATING) T RATING: NA. REFER TO 4/A8.1.

E. REFER TO STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR RELATED SCOPE.

F. ALL FURNITURE IS BY OWNER AND IS SHOWN FOR REFERENCE ONLY.

SHEET NOTES:

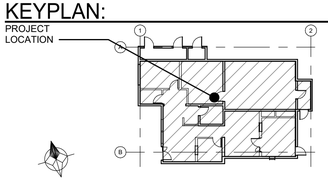
1. PROVIDE LABOR & MATERIAL TO ASSIST MRI CORPORATION WITH INSTALLATION OF (N) RF SHIELDING AT LOCATION AT LOCATION SHOWN.
2. PROVIDE LABOR & MATERIAL TO ASSIST MRI CORPORATION WITH INSTALLATION OF (N) MAGNETIC SHIELDING AT LOCATION AT LOCATION SHOWN.

LEGEND:

- MAGNETIC BARRIER
- MAGNETIC SHIELDING
- RF SHIELDING

KEYPLAN:

PROJECT LOCATION



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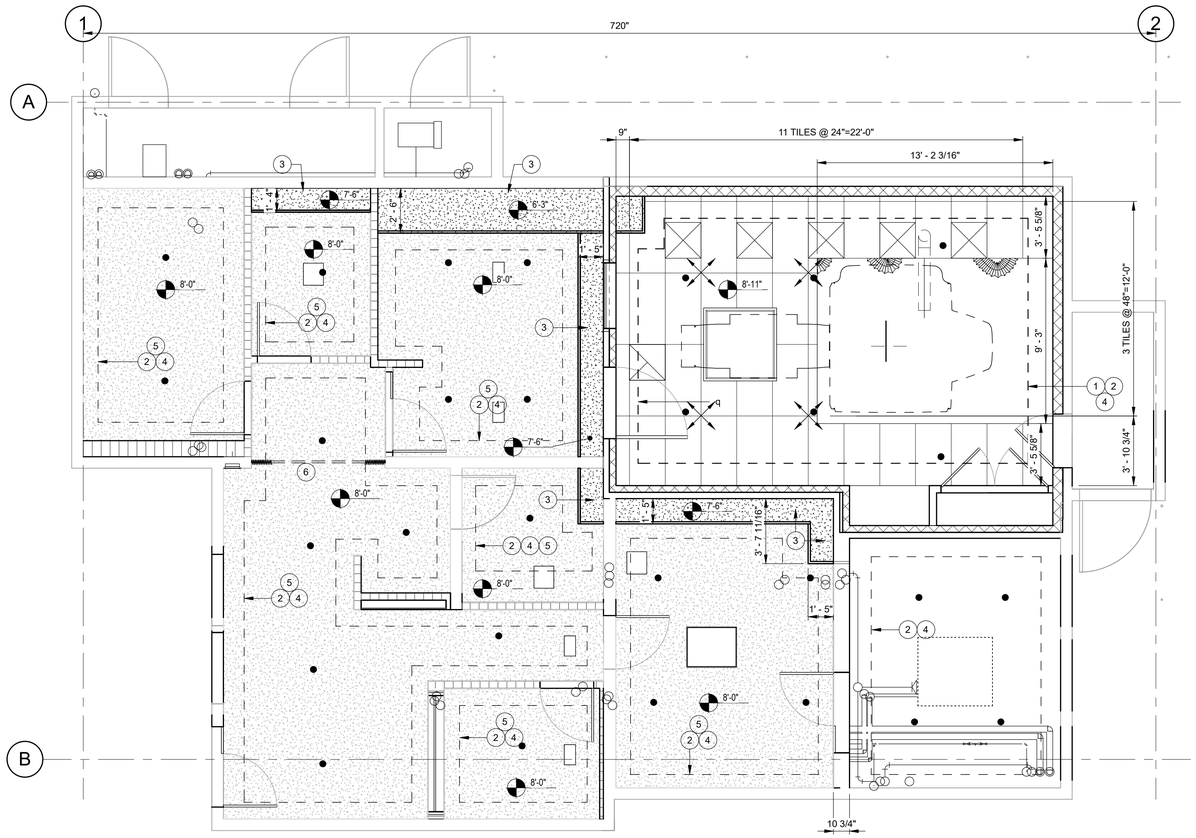
Stanford University

MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATION
GROUND FLOOR PLAN - SHIELDING LOCATIONS

DRAWING NO. **A1.4**

BUILDING NUMBER: 02-565	SCALE: AS NOTED	BAB PROJECT #: 24118 / 6417	REV 0

3/13/2025 10:47:33 AM



1 A2.1 FLOOR CEILING PLAN - CONSTRUCTION

1/4" = 1'-0"

GRAPHIC SCALE: 1/4" = 1'-0"

4' 0' 4' 8' 12' 16'

FIRE PROTECTION NOTES:

A. ALL FIRE SPRINKLER WORK INCLUDING SEISMIC BRACING AND ANCHORING, SHALL COMPLY WITH NFPA #13, LATEST EDITION. ALL SPRINKLERS INSTALLED IN A SUSPENDED CEILING SYSTEM SHALL COMPLY WITH ASCE 7-16 13.5.6.2.2 BY PROVIDING A LISTED FLEXIBLE HEAD SPRINKLER DROP TO ALLOW 1" MOVEMENT OR SWING JOINTS IN THE SPRINKLER HEAD TO ALLOW 1" MOVEMENT.

B. A LICENSED FIRE PROTECTION CONTRACTOR SHALL PERFORM ALL DESIGN, PROVIDE ALL MATERIALS AND LABOR TO MODIFY EXISTING AND/OR ADD NEW SPRINKLER SYSTEM TO ACCOMMODATE THE NEW AREA MODIFICATIONS AND SUBMIT 3 SETS TO THE CITY AND INSURANCE CARRIER.

C. THE QUANTITIES, LOCATIONS AND SIZES OF THE PROPOSED NEW AND RELOCATED HEADS, PIPING AND FIRE HOSE CABINETS (IF SHOWN) ARE FOR REFERENCE ONLY. THE LICENSED FIRE PROTECTION CONTRACTOR IS RESPONSIBLE TO FIELD MEASURE THE EXISTING SYSTEM AND DETERMINE THE EXACT QUANTITIES, LOCATIONS AND SIZES OF THE COMPLETE NEW AND MODIFIED SPRINKLER SYSTEM OVER THE AFFECTED AREA, I.E. HEADS, PIPING, FIRE HOSE CABINET, ETC.

D. PLENUM SPACES ABOVE CEILING SHALL BE PROVIDED WITH AUTOMATIC SPRINKLERS. THESE ADDITIONAL UPRIGHT HEADS ARE CONSIDERED TO OPERATE IN A SEPARATE DEMAND AREA FROM THE SPRINKLERS BELOW THE CEILING.

E. CONTRACT SHALL HAVE WORKMAN'S COMPENSATION INSURANCE CERTIFICATE ON FILE WITH THE BUILDING DEPARTMENT PRIOR TO THE ISSUANCE OF ANY PERMIT.

F. FIRE SPRINKLER CONTRACTOR TO PROVIDE AT LEAST THREE COPIES OF SHOP QUALITY DRAWINGS, HYDRAULIC CALCULATIONS (IF OF HYDRAULIC DESIGN), PERMIT APPLICATION AND FEES TO THE CITY BUILDING DEPARTMENT.

G. ALL PLANS, SPECIFICATIONS AND CALCULATIONS FOR FIRE PROTECTION/ALARM SYSTEMS SHALL BE SUBMITTED AT THE SAME TIME FOR REVIEW, COMMENTS AND APPROVAL FROM AUTHORITIES HAVING JURISDICTION.

H. A SYSTEM TEST ON NEW OR MODIFIED FIRE SPRINKLERS SHALL BE WITNESSED BY THE CITY FIRE PREVENTION BUREAU PRIOR TO ANY PORTION BEING CONCEALED. GIVE AT LEAST 48 HOURS NOTICE FOR INSPECTION.

I. PER NFPA REQUIREMENTS, THE SPRINKLER CONTRACTOR MUST PROVIDE SPRINKLER IDENTIFICATION NUMBERS (SIN) FOR ALL SPRINKLERS. THE SIN MUST CONTAIN 1-2 CHARACTER MANUFACTURER SYMBOL ACCOMPANIED WITH UP TO 4 NUMBERS TO IDENTIFY THE MODEL OF THE SPRINKLER FOR EVERY CHANGE IN ORIFICE SIZE OR SHAPE, DEFLECTOR CHARACTERISTIC, AND THERMAL SENSITIVITY.

J. A LICENSED FIRE ALARM CONTRACTOR SHALL SUBMIT 3 SETS OF DRAWINGS, BATTERY CALCS, ETC. TO THE CITY BUILDING DEPARTMENT FOR REVIEW AND PERMIT.

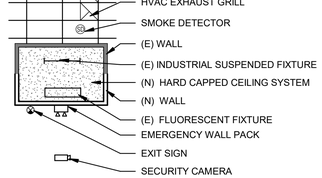
K. ALL FIRE SPRINKLERS SHALL BE DESIGNED FOR WET PIPE ORDINARY HAZARD (175°F TEMP RATING, 150°F AMBIENT MIN.) U.O.N.

L. VISIBLE ALARM NOTIFICATION APPLIANCES (FIRE STROBES) SHALL BE PROVIDED IN PUBLIC USE AND COMMON USE AREAS INCLUDING BUT NOT LIMITED TO CORRIDORS, LOBBIES, CONFERENCE ROOMS, LABS, OPEN OFFICES AND SANITARY FACILITIES (CFC 907.5.2.3.1).

M. INSTALL SPRINKLER WAVEGUIDE PER DETAIL 2/A8.4.

LEGEND:

CEILING ELEMENTS



MATERIAL SELECTION:

SUSPENDED CEILING SYSTEM:

(A) MANUFACTURER: TBD
TYPE: TBD
SIZE: TBD
COLOR: WHITE

GENERAL NOTES:

A. REFER TO SHEET G0.0 FOR INDEX OF DRAWINGS & GENERAL NOTES.

B. REPAIR ALL DAMAGED MATERIALS IMPACTED BY DEMOLITION AND/OR NEW CONSTRUCTION. ALIGN AND FINISH TO MATCH EXISTING ADJACENT SURFACE.

C. ALL DIMENSIONS ARE TO FACE OF FINISH TO FACE OF FINISH UNLESS OTHERWISE NOTED. WRITTEN DIMENSIONS HAVE PRECEDENCE OVER SCALED DRAWINGS. VERIFY ALL MEASUREMENTS PRIOR TO MANUFACTURING AND INSTALLATION.

D. ALL PENETRATIONS THRU EXTERIOR WALLS SHALL BE WEATHER SEALED. ALL PENETRATIONS THRU RATED WALLS SHALL BE SEALED WITH AN INTUMESCENT FIRE SEALANT SUCH AS CP-25WB AS MANUF. BY ELECTRO-PRODUCTS 3M AND PER UL LISTED SYSTEM. UL LISTINGS: CONDUITS, PIPING: WL 1001. PENETRATION PERFORMANCE REQUIREMENTS: F RATING: 1 OR 2 HR. (MATCH EXISTING WALL-RATING) T RATING: NA. REFER TO 5/A8.1.

E. REFER TO STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR RELATED SCOPE.

F. ALL CEILING OPENINGS, PENETRATIONS SHALL BE FRAMED ON ALL SIDES WITH T-BARS TO MATCH. NO EXPOSED EDGES OF CEILING TILES SHALL BE VISIBLE.

G. COMPRESSION POSTS AND FIRE SPRINKLER HEADS ARE SHOWN FOR REFERENCE ONLY. ACTUAL QUANTITY AND LOCATIONS ARE TO BE DETERMINED BY THE INSTALLER AS REQUIRED BY CODE AND SPECIFICATIONS.

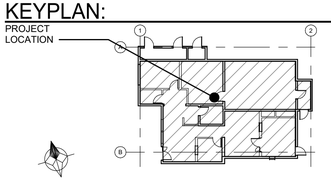
H. REFER TO PROJECT FINISHES ON SHEET A5.1 FOR CEILING MATERIALS.

SHEET NOTES:

1. PROVIDE & INSTALL NEW 2'X4' SUSPENDED CEILING SYSTEM AS INDICATED ON THE DRAWINGS. REFER TO DETAILS ON DWG A8.3 FOR SUPPORT REQUIREMENTS. GRID SHALL BE A NEW HEAVY DUTY EXPOSED ACOUSTICAL SUSPENSION SYSTEM T-BAR GRID (ESR-1308). REFER TO FINISH PLAN FOR ACOUSTICAL TILE MATERIAL AND TYPE. PROVIDE & INSTALL NEW COMPRESSION POSTS IN PROJECT AREA REF DETAILS 4 & 5/A8.3, AND SEISMIC TRIM CONNECTIONS PER DETAILS 6/A8.3. INSTALL SEISMIC JOINT AT EVERY 2500 SF PER DETAIL 7/A8.3 AND WHERE CALLED OUT ON PLAN. REFER TO 8/A8.3 FOR LIGHT FIXTURE SUPPORT.
2. FIRE SPRINKLER SYSTEM CONTRACTOR TO MODIFY (E) WET PIPE ORDINARY HAZARD (175°F TEMP RATING, 150°F AMBIENT MIN.) SPRINKLER SYSTEM AND MODIFY FIRE ALARM AND SMOKE DETECTION SYSTEM WITHIN PROJECT AREA AS REQUIRED. FOR BELOW CEILING, USE EITHER EXPOSED, FULLY- OR SEMI-RECESSED HEADS WITH WHITE ESCUTCHEON TO MATCH (E). FOR ABOVE CEILING AND EXPOSED CONSTRUCTION, USE UP-RIGHT HEADS. ALL FIRE PROTECTION DEVICES SHALL BE UL AND FM LISTED. REFER TO FIRE PROTECTION NOTES ON THIS SHEET. SPRINKLERS NOT TO BE PROVIDED IN SPACE ABOVE SUSPENDED CEILING IN MAGNET ROOM. PROVIDE DI-ELECTRIC SEPARATION BETWEEN ALL SPRINKLER PIPE BELOW COPPER SHIELDING AND PIPING OIUTSIDE OF SHIELD.
3. PROVIDE & INSTALL (N) GYPSUM BOARD HARDCAPPED CEILING SOFFIT IN AREA INDICATED AND PER SECTION NOTED ON DRAWING.
4. DENOTES AREA WHERE EXISTING LIGHT FIXTURES, SWITCHING, EXIT ILLUMINATION SIGNS, MOTION DETECTORS AND/OR MECHANICAL GRILLES ARE MODIFIED, RELOCATED AND/OR REPLACED AS INDICATED ON ELECTRICAL AND MECHANICAL PLANS.
5. DENOTES EXISTING HARD-CAPPED CEILING TO REMAIN. PROTECT TO PREVENT DAMAGE DURING CONSTRUCTION OF NEW WALLS.
6. PROVIDE & INSTALL (N) 8'-0" HIGH DIVIDER CURTAIN BY MODOMED WITH SPLIT AT CENTER, CURTAIN MATERIAL SHALL BE ANTIMICROBIAL AND HAVE HAVE MATCHING CURTAIN RETENTION SNAP ON BOTH SIDES.

KEYPLAN:

PROJECT LOCATION



REV	DATE	REVISION
0	03/10/25	ISSUE FOR PERMIT

STAMP

LICENSED ARCHITECT
EXP. AUG. 31, 2025
MICHAEL P. HARRIS
C32799
STATE OF CALIFORNIA

CONDITIONS AND RESTRICTIONS:
THESE DRAWINGS AND ALL RELATED SPECIFICATIONS ARE INSTRUMENTS OF SERVICE AND SHALL REMAIN PROPERTY OF THE DESIGNER. NO REVISIONS, REPRODUCTIONS, OR USE OF THESE DOCUMENTS SHALL BE MADE WITHOUT THE CONSENT OF THE DESIGNER. ALL EXISTING CONDITIONS REPRESENTED IN THESE PLANS ARE TO BE FIELD VERIFIED AND ALL DISCREPANCIES ARE TO BE REPORTED TO THE DESIGNER. DO NOT SCALE FROM THESE PLANS, FOLLOW DIMENSIONS INDICATED OR CONSULT THE DESIGNER.

BUILDING ADDRESS:	**427 SANTA TERESA STREET, STANFORD, CA 94305**
STANFORD PROJECT NUMBER:	
PROJECT MANAGER:	BRIAN CARILLI

BAY AREA BUILDERS INCORPORATED

3360 De La Cruz Boulevard
Santa Clara, CA 95054
www.ba-builders.com

main office: (408) 648-4500
fax: (408) 588-0095
CA license: B-443949

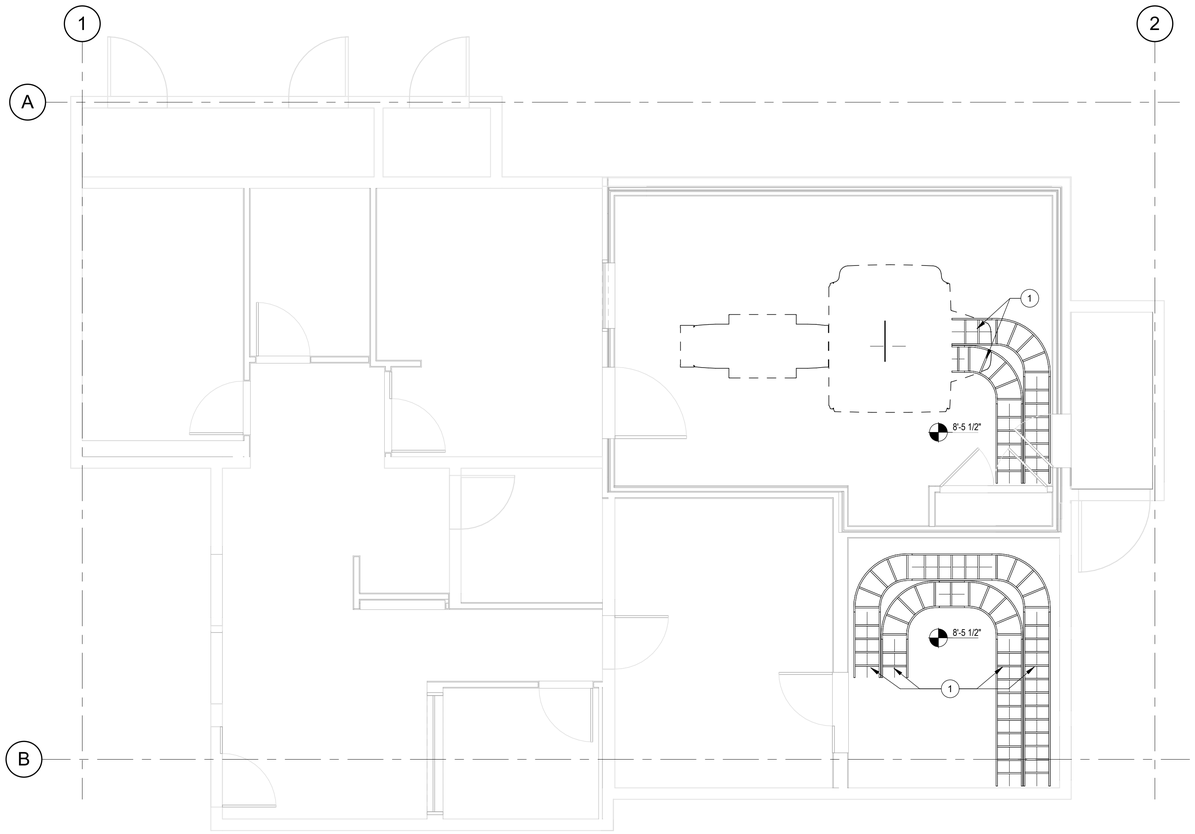
Stanford University

MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATION
FLOOR CEILING PLAN - CONSTRUCTION

DRAWING NO. **A2.1**

BUILDING NUMBER: 02-565	SCALE: AS NOTED	BAB PROJECT #: 24118 / 6417	REV 0

3/13/2025 10:48:16 AM



1 A2.2 GROUND FLOOR CEILING PLAN - CABLE TRAY LAYOUT

1/4" = 1'-0"

GRAPHIC SCALE: 1/4" = 1'-0"

4' 0' 4' 8' 12' 16'

GENERAL NOTES:

A. REFER TO SHEET G0.0 FOR INDEX OF DRAWINGS & GENERAL NOTES.

B. REPAIR ALL DAMAGED MATERIALS IMPACTED BY DEMOLITION AND/OR NEW CONSTRUCTION. ALIGN AND FINISH TO MATCH EXISTING ADJACENT SURFACE.

C. ALL DIMENSIONS ARE TO FACE OF FINISH TO FACE OF FINISH UNLESS OTHERWISE NOTED. WRITTEN DIMENSIONS HAVE PRECEDENCE OVER SCALED DRAWINGS. VERIFY ALL MEASUREMENTS PRIOR TO MANUFACTURING AND INSTALLATION.

D. ALL PENETRATIONS THRU EXTERIOR WALLS SHALL BE WEATHER SEALED. ALL PENETRATIONS THRU RATED WALLS SHALL BE SEALED WITH AN INTUMESCENT FIRE SEALANT SUCH AS CP-25WB AS MANUF. BY ELECTRO-PRODUCTS 3M AND PER UL LISTED SYSTEM. UL LISTINGS: CONDUITS, PIPING: WL 1001. PENETRATION PERFORMANCE REQUIREMENTS: F RATING: 1 OR 2 HR. (MATCH EXISTING WALL-RATING) T RATING: NA. REFER TO 5/A8.1.

E. REFER TO STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR RELATED SCOPE.

F. ALL CEILING OPENINGS, PENETRATIONS SHALL BE FRAMED ON ALL SIDES WITH T-BARS TO MATCH. NO EXPOSED EDGES OF CEILING TILES SHALL BE VISIBLE.

G. COMPRESSION POSTS AND FIRE SPRINKLER HEADS ARE SHOWN FOR REFERENCE ONLY. ACTUAL QUANTITY AND LOCATIONS ARE TO BE DETERMINED BY THE INSTALLER AS REQUIRED BY CODE AND SPECIFICATIONS.

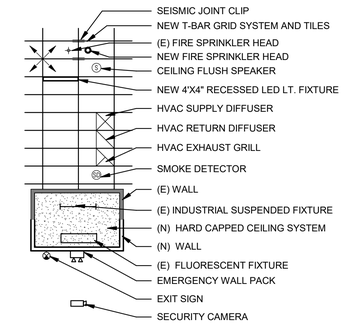
H. REFER TO PROJECT FINISHES ON SHEET A5.1 FOR CEILING MATERIALS.

SHEET NOTES:

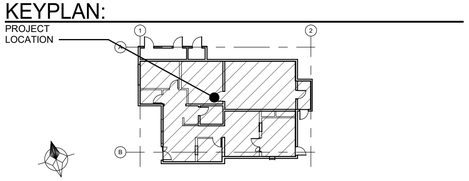
(1) PROVIDE & INSTALL (N) CABLE TRAY AT LOCATIONS SHOWN. TRAY TO BE MOUNTED 8' 5 1/2" A.F.F.

LEGEND:

CEILING ELEMENTS



KEYPLAN:



REV	DATE	REVISION
0	03/10/25	ISSUE FOR PERMIT

STAMP

LICENSED ARCHITECT
EXP. AUG. 31, 2025
MICHAEL P. HARRIS
C32798
STATE OF CALIFORNIA

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BUILDING ADDRESS:	**427 SANTA TERESA STREET, STANFORD, CA 94305**
STANFORD PROJECT NUMBER:	
PROJECT MANAGER:	BRIAN CARILLI

BAY AREA BUILDERS INCORPORATED
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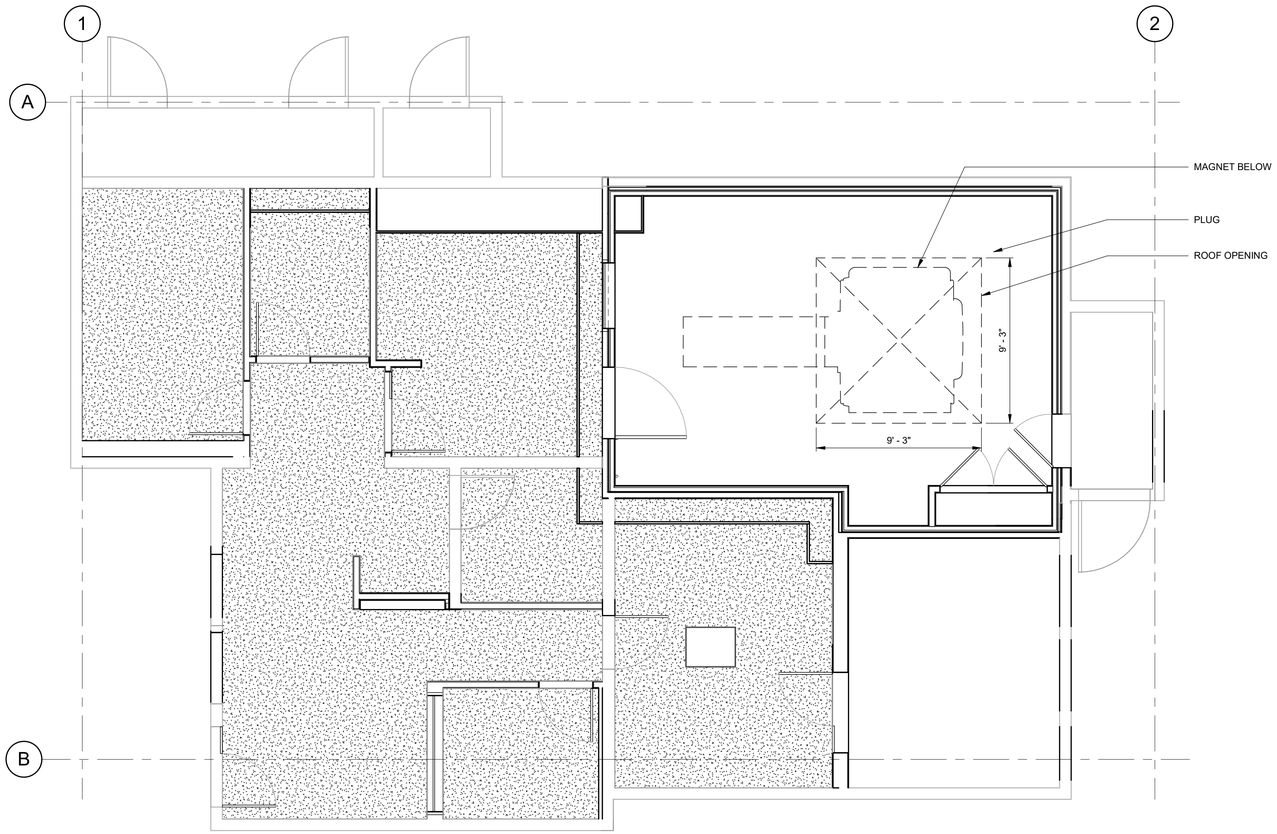
Stanford University

MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATION
GROUND FLOOR CEILING PLAN - CABLE TRAY

DRAWING NO. **A2.2**

BUILDING NUMBER: 02-565	SCALE: AS NOTED	BAB PROJECT #: 24118 / 6417	REV 0

3/13/2025 10:48:54 AM



1 A2.3 GROUND FLOOR CEILING PLAN -CEILING PLUG

1/4" = 1'-0"

GRAPHIC SCALE: 1/4" = 1'-0"

4' 0' 4' 8' 12' 16'

GENERAL NOTES:

A. REFER TO SHEET G0.0 FOR INDEX OF DRAWINGS & GENERAL NOTES.

B. REPAIR ALL DAMAGED MATERIALS IMPACTED BY DEMOLITION AND/OR NEW CONSTRUCTION. ALIGN AND FINISH TO MATCH EXISTING ADJACENT SURFACE.

C. ALL DIMENSIONS ARE TO FACE OF FINISH TO FACE OF FINISH UNLESS OTHERWISE NOTED. WRITTEN DIMENSIONS HAVE PRECEDENCE OVER SCALED DRAWINGS. VERIFY ALL MEASUREMENTS PRIOR TO MANUFACTURING AND INSTALLATION.

D. ALL PENETRATIONS THRU EXTERIOR WALLS SHALL BE WEATHER SEALED. ALL PENETRATIONS THRU RATED WALLS SHALL BE SEALED WITH AN INTUMESCENT FIRE SEALANT SUCH AS CP-25WB AS MANUF. BY ELECTRO-PRODUCTS 3M AND PER UL LISTED SYSTEM. UL LISTINGS: CONDUITS, PIPING: WL 1001. PENETRATION PERFORMANCE REQUIREMENTS: F RATING: 1 OR 2 HR. (MATCH EXISTING WALL-RATING) T RATING: NA. REFER TO 5/A8.1.

E. REFER TO STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR RELATED SCOPE.

F. ALL CEILING OPENINGS, PENETRATIONS SHALL BE FRAMED ON ALL SIDES WITH T-BARS TO MATCH. NO EXPOSED EDGES OF CEILING TILES SHALL BE VISIBLE.

G. COMPRESSION POSTS AND FIRE SPRINKLER HEADS ARE SHOWN FOR REFERENCE ONLY. ACTUAL QUANTITY AND LOCATIONS ARE TO BE DETERMINED BY THE INSTALLER AS REQUIRED BY CODE AND SPECIFICATIONS.

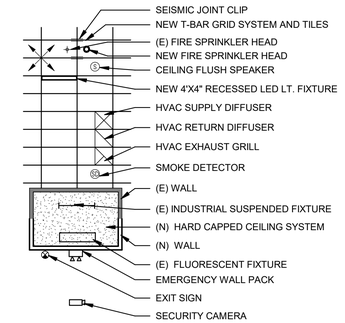
H. REFER TO PROJECT FINISHES ON SHEET A5.1 FOR CEILING MATERIALS.

SHEET NOTES:

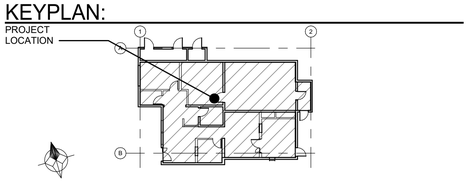
(1) PROVIDE & INSTALL NEW CEILING PLUG AT LOCATION SHOWN AFTER MAGNET IS PLACED. REFER TO DETAILS 1 AND 2 ON SHEET A8.5.

LEGEND:

CEILING ELEMENTS



KEYPLAN:



REV	DATE	REVISION
0	03/10/25	ISSUE FOR PERMIT

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LICENSED ARCHITECT
EXP. AUG. 31, 2025
MICHAEL P. HARRIS
C32799
STATE OF CALIFORNIA

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BUILDING ADDRESS: 427 SANTA TERESA STREET, STANFORD, CA 94305

STANFORD PROJECT NUMBER:

PROJECT MANAGER: BRIAN CARILLI

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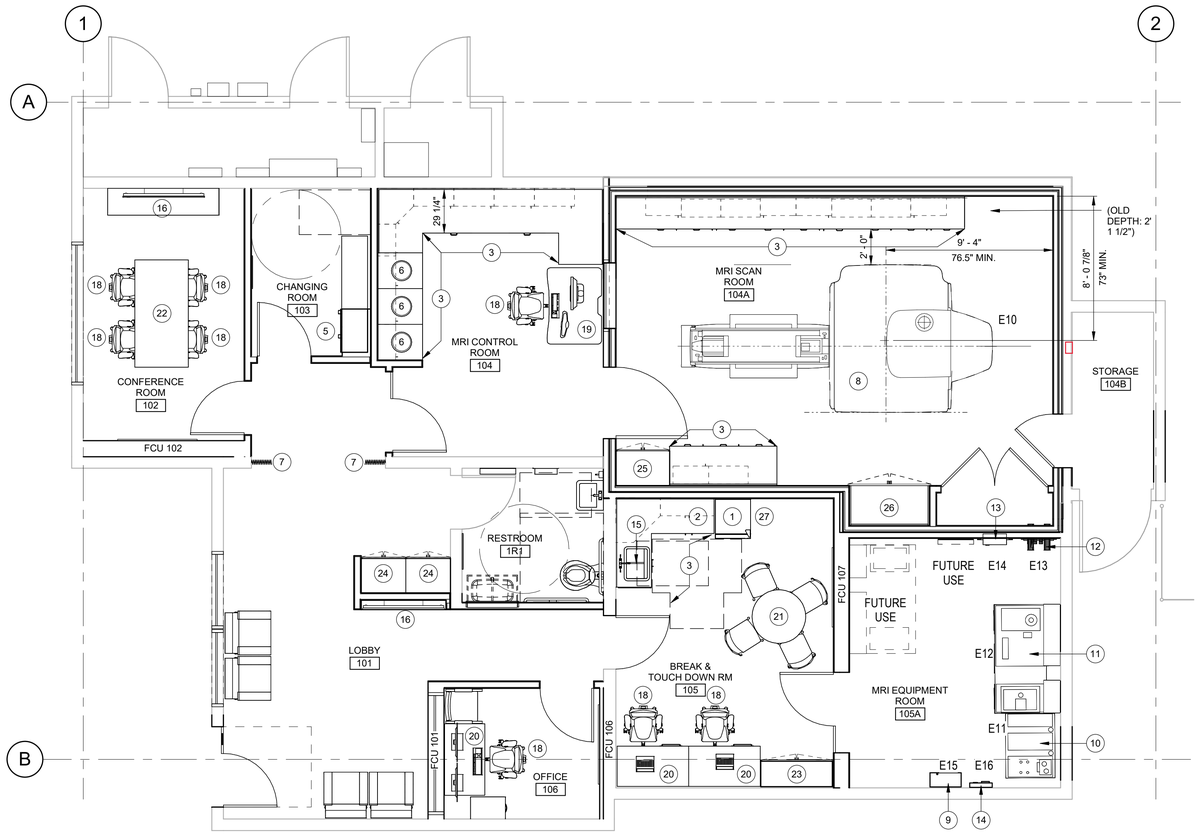
Stanford University

MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATION
GROUND FLOOR CEILING PLAN - CEILING PLUG

DRAWING NO. A2.3

BUILDING NUMBER: 02-565 | SCALE: AS NOTED | BAB PROJECT #: 24118 / 6417 | REV 0

3/13/2025 10:48:36 AM



1 EQUIPMENT PLAN - CONSTRUCTION

A3.1 1/4" = 1'-0"

GRAPHIC SCALE: 1/4" = 1'-0"

4' 0' 4' 8' 12' 16'

SHEET NOTES:

1. PROVIDE & INSTALL (N) 24" STAINLESS STEEL GE REFRIGERATOR/FREEZER (MODEL NO. GLE12HSPSS) AT LOCATION SHOWN.
2. PROVIDE & INSTALL (N) 1.1 CUBIC FOOT STAINLESS STEEL GE MICROWAVE (MODEL NO. PEM31SFSS) AT LOCATION SHOWN.
3. PROVIDE & INSTALL (N) CASEWORK AT LOCATION SHOWN. ALL CASEWORK TO BE MRI COMPLIANT FROM FUTRUS OR APPROVED EQUILVALENT. HARDWARE TO BE NON-MAGNETIC 316 STAINLESS WITH ALUMINUM HANDLES. REFER TO DETAIL 2/8.6.
4. PROVIDE & INSTALL UNIVERSAL SEISMIC ATTACHMENT TO CASEWORK AT LOCATIONS SHOWN. REFER TO DETAIL 9/A8.6.
5. PROVIDE & INSTALL (N) GOWNING ROOM LOCKERS WITH INTEGRATED BENCH AND LINEN DISPOSAL CABINET. MATERIAL TO MATCH MRI APPROVED CASAEWORK. HARDWARE TO BE 304 STAINLESS.
6. PROVIDE & INSTALL (N) WHITE GRAINGER LAUNDRY HAMPER (MODEL NO. G00-WWX-HBN) OR APPROVED EQUIVALENT AT LOCATION SHOWN.
7. PROVIDE & INSTALL (N) ANTIMICROBIAL CUBICAL MODOMED CURTAIN OR APPROVED EQUIVALENT AT LOCATION SHOWN.
8. PROVIDE LABOR & MATERIAL TO ASSIST GE WITH INSTALLATION OF (N) MAGNET AND ASSOCIATED EQUIPMENT AT LOCATION SHOWN. ANCHOR PER DETAILS ON A8.4.
9. PROVIDE LABOR & MATERIAL TO ASSIST GE WITH INSTALLATION OF (N) MAIN DISCONNECT PANEL AT LOCATION SHOWN.
10. PROVIDE LABOR & MATERIAL TO ASSIST GE WITH INSTALLATION OF (N) ICC COOLING CABINET AT LOCATION SHOWN.
11. PROVIDE LABOR & MATERIAL TO ASSIST GE WITH INSTALLATION OF (N) INTEGRATED SYSTEM CABINET AT LOCATION SHOWN.
12. PROVIDE LABOR & MATERIAL TO ASSIST GE WITH INSTALLATION OF (N) ICC COOLING CABINET SECONDARY PENETRATION WALL AT LOCATION SHOWN.
13. PROVIDE LABOR & MATERIAL TO ASSIST GE WITH INSTALLATION OF (N) INTEGRATED SYSTEM CABINET PENETRATION PANEL AT LOCATION SHOWN.
14. PROVIDE LABOR & MATERIAL TO ASSIST GE WITH INSTALLATION OF (N) MAGNET MONITOR AT LOCATION SHOWN.
15. PROVIDE & INSTALL (N) 304 STAINLESS STEEL ADA SINK AND FAUCET AT LOCATION SHOWN. REFER TO DETAIL 1/A8.6.
16. PROVIDE & INSTALL (N) TELEVISION AND WALL MOUNT AT LOCATION SHOWN. MAKE AND MODEL TO BE DETERMINED BY OWNER.
17. PROVIDE & INSTALL (N) RECESSED AV BOX AT LOCATION SHOWN.
18. PROVIDE & INSTALL (N) EDEN OFFICE CLOUD MEETING CHAIR AT LOCATIONS SHOWN.
19. PROVIDE & INSTALL (N) WORKSTATION TABLE AT LOCATION SHOWN.
20. PROVIDE & INSTALL (N) STANDING DESK AT LOCATION SHOWN.
21. PROVIDE & INSTALL (N) CIRCULAR BREAKROOM TABLE AND CHAIRS AT LOCATION SHOWN.
22. PROVIDE & INSTALL (N) 36" X 72" CONFERENCE TABLE AT LOCATION SHOWN.
23. PROVIDE & INSTALL (N) 48" X 18" X 72" WHITE STORAGE CABINET WITH GLASS DOORS AT LOCATION SHOWN.
24. PROVIDE & INSTALL (N) 30" X 24" X 84" WHITE STORAGE CABINET WITH GLASS DOORS AT LOCATIONS SHOWN.
25. PROVIDE & INSTALL (N) 36" X 24" X 72" WHITE STORAGE CABINET AT LOCATION SHOWN.
26. PROVIDE & INSTALL (N) RECESSED 53" X 26" X 72" STORAGE CABINET WITH GLASS DOORS AT LOCATION SHOWN. DOORS TO BE FLUSHED WITH RECESSED FRAMING.
27. PROVIDE & INSTALL (N) WASTE RECEPTACLES AT LOCATION SHOWN.

EQUIPMENT LIST:

UNLESS OTHERWISE NOTED, EQUIPMENT LIST IS PROVIDED FOR INFORMATION ONLY. REFERENCE SHEET NOTES FOR CONTRACTOR PROVIDED EQUIPMENT. ALL OTHER EQUIPMENT IS OWNER PROVIDED, OWNER INSTALLED.

MRI EQUIPMENT
REFERENCE AV DRAWINGS FOR EXTENT OF WORK
E10 MAGNET AND MAGNET ENCLOSURE, VIBROACOUSTIC DAMPING KIT, AND PATIENT TABLE
E11 INTEGRATED COOLING CABINET
E12 INTEGRATED SYSTEM CABINET
E13 INTEGRATED COOLING CABINET SECONDARY PENETRATION WALL
E14 INTEGRATED SYSTEM CABINET PENETRATION PANEL
E15 MAIN DISCONNECT PANEL
E16 MAGNET MONITOR

GENERAL NOTES:

A. REFER TO SHEET G0.0 FOR INDEX OF DRAWINGS & GENERAL NOTES.

B. REPAIR ALL DAMAGED MATERIALS IMPACTED BY DEMOLITION AND/OR NEW CONSTRUCTION. ALIGN AND FINISH TO MATCH EXISTING ADJACENT SURFACE.

C. ALL DIMENSIONS ARE TO FACE OF FINISH TO FACE OF FINISH UNLESS OTHERWISE NOTED. WRITTEN DIMENSIONS HAVE PRECEDENCE OVER SCALED DRAWINGS. VERIFY ALL MEASUREMENTS PRIOR TO MANUFACTURING AND INSTALLATION.

D. ALL PENETRATIONS THRU EXTERIOR WALLS SHALL BE WEATHER SEALED. ALL PENETRATIONS THRU RATED WALLS SHALL BE SEALED WITH AN INTUMESCENT FIRE SEALANT SUCH AS CP-25WB AS MANUF. BY ELECTRO-PRODUCTS 3M AND PER UL LISTED SYSTEM. UL LISTINGS: CONDUITS, PIPING: WL 1001. PENETRATION PERFORMANCE REQUIREMENTS: F RATING: 1 OR 2 HR. (MATCH EXISTING WALL-RATING) T RATING: NA.

E. REFER TO STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR RELATED SCOPE.

F. ALL FURNITURE AND EQUIPMENT IS BY OWNER AND IS SHOWN FOR REFERENCE ONLY, U.O.N.

G. REFER TO STRUCTURAL DWGS FOR ANCHORAGE OF ALL EQUIPMENT WEIGHING MORE THAN 400 LBS. AND/OR WITH A CENTER OF GRAVITY EXCEEDING 4'-0" A.F.F. OR 20 LBS. WHEN HANGING FROM THE FLOOR/ROOF DECK. [ASCE 7-16 SEC. 13.1.4]. FOR EQUIPMENT WEIGHING LESS THAN 400 LBS. AND LESS THAN 4'-0" CENTER OF GRAVITY A.F.F. (AND LESS THAN 20 LBS. WHEN HANGING FROM THE FLOOR/ROOF DECK), ANCHOR PER MANUFACTURER'S RECOMMENDATIONS OR U.O.N.

H. ANCHORAGE EQUIPMENT/FURNITURE WEIGHING LESS THAN 400 LBS.

1. INSTALL (4) 1/2" (3.25" EMBED) HILTI QWIK BOLT TZ AT EACH CORNER. REUSE (E) BRACKETS IF POSSIBLE OTHERWISE PROVIDE & INSTALL (N) BRACKETS.
2. FOR METAL SHELVES/CABINETS, REF DETAILS 1, 2, 3, 4, 5, 6 & 7/A8.1. INSTALL 3/8" (1.5" EMBED) HILTI QWIK BOLT TZ AT EACH CORNER. REUSE (E) BRACKETS IF POSSIBLE OTHERWISE PROVIDE & INSTALL (N) BRACKETS.
3. FOR EQUIPMENT WITH LEVELING FEET, PROVIDE & INSTALL Z-CLIP ANCHORAGE PER DETAILS 8/A8.6.
4. FOR TABLE-TOP EQUIPMENT, USE UNIVERSAL RESTRAINT STRAP ASSEMBLY OR SEISMIC STRAP TO WALL PER DETAIL 9/A8.6.
5. FOR MOBILE/PORTABLE EQUIPMENT, PROVIDE & INSTALL TEMPORARY RESTRAINT ANCHORAGE PER DETAIL 9/A8.6.
6. SPECIAL INSPECTION REQUIRED FOR HILTI KWIK BOLT TZ ANCHORS (ICC ESR-1917).

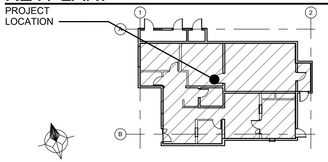
I. PROVIDE & INSTALL WALL BACKING AT EQUIPMENT, FURNITURE, PANELS, WHITE BOARDS AND OTHER ITEMS WHERE THEY ARE ANCHORED TO WALL. REFER TO DETAIL 7/A8.1.

J. ALL MECHANICAL AND ELECTRICAL EQUIPMENT SHALL HAVE A DESIGN LISTING/NUMBER. ANY EQUIPMENT NOT LISTED WILL BE REQUIRED TO BE FIELD TESTED AND CERTIFIED BY AN APPROVED TESTING AGENCY. IT IS THE RESPONSIBILITY OF THE OWNER AND THE DESIGN/CONSTRUCTION TEAM TO NOTIFY THE BUILDING DEPARTMENT IF FIELD-TESTING IS REQUIRED FOR ANY EQUIPMENT WITHOUT AN EQUIVALENT LISTED LABEL APPROVED BY THE CITY BUILDING DEPARTMENT. PROOF OF EQUIPMENT CERTIFICATION WILL NEED TO BE SUBMITTED AND APPROVED BEFORE A CERTIFICATE OF OCCUPANCY CAN BE ISSUED OR BUILDING PERMIT SIGNED OFF.

K. EQUIPMENT INSTALLATION MAY REQUIRE SEPARATE PERMITS. PROVIDE CALCULATIONS AND ANCHORAGE DETAILS FOR ALL EQUIPMENT WEIGHING 400 LBS. OR MORE. NOTE THAT EQUIPMENT AT ANY WEIGHT WITH A CENTER OF GRAVITY MOUNTED AT MORE THAN 4 FEET AB OVE FLOOR HEIGHT SHALL BE PROVIDED WITH ANCHORAGE. [ASCE 7-16 SEC. 13.1.4]

KEYPLAN:

PROJECT LOCATION



REV	DATE	REVISION
0	03/10/25	ISSUE FOR PERMIT

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LICENSED ARCHITECT
EXP. AUG. 31, 2025
MICHAEL P. HARRIS
C32799
STATE OF CALIFORNIA

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BUILDING ADDRESS: 427 SANTA TERESA STREET, STANFORD, CA 94305

STANFORD PROJECT NUMBER:

PROJECT MANAGER: BRIAN CARILLI

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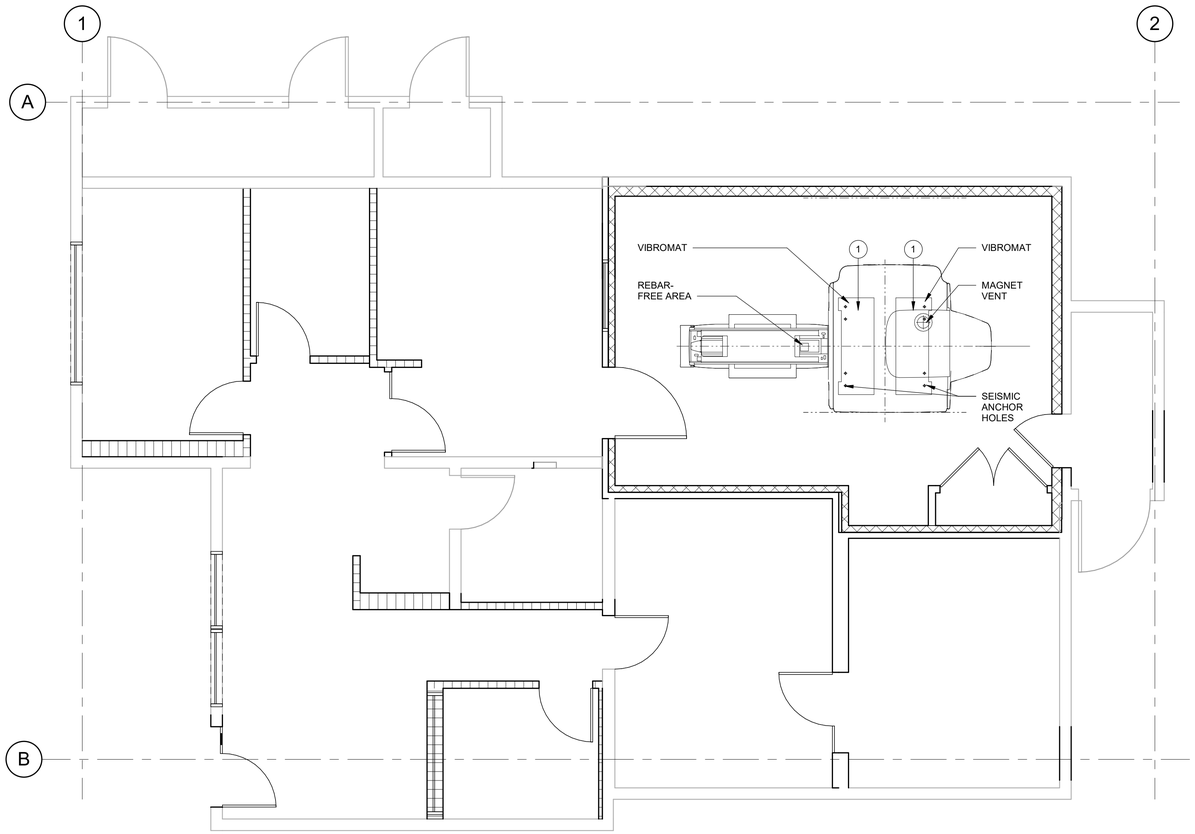
Stanford University

MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATION
EQUIPMENT PLAN - CONSTRUCTION

DRAWING NO. A3.1

BUILDING NUMBER: 02-565 | SCALE: AS NOTED | BAB PROJECT #: 24118 / 6417 | REV 0

3/13/2025 10:50:16 AM



1 / A3.2 VIBROMAT LOCATIONS

1/4" = 1'-0"

GRAPHIC SCALE: 1/4" = 1'-0"

4' 0' 4' 8' 12' 16'

SHEET NOTES:

(1) PROVIDE LABOR & MATERIAL TO ASSIST GE WITH INSTALLATION OF (N) VIBROACOUSTIC PADS AT LOCATION SHOWN.

GENERAL NOTES:

A. REFER TO SHEET G0.0 FOR INDEX OF DRAWINGS & GENERAL NOTES.

B. REPAIR ALL DAMAGED MATERIALS IMPACTED BY DEMOLITION AND/OR NEW CONSTRUCTION. ALIGN AND FINISH TO MATCH EXISTING ADJACENT SURFACE.

C. ALL DIMENSIONS ARE TO FACE OF FINISH TO FACE OF FINISH UNLESS OTHERWISE NOTED. WRITTEN DIMENSIONS HAVE PRECEDENCE OVER SCALED DRAWINGS. VERIFY ALL MEASUREMENTS PRIOR TO MANUFACTURING AND INSTALLATION.

D. ALL PENETRATIONS THRU EXTERIOR WALLS SHALL BE WEATHER SEALED. ALL PENETRATIONS THRU RATED WALLS SHALL BE SEALED WITH AN INTUMESCENT FIRE SEALANT SUCH AS CP-25WB AS MANUF. BY ELECTRO-PRODUCTS 3M AND PER UL LISTED SYSTEM. UL LISTINGS: CONDUITS, PIPING: WL 1001. PENETRATION PERFORMANCE REQUIREMENTS: F RATING: 1 OR 2 HR. (MATCH EXISTING WALL-RATING) T RATING: NA.

E. REFER TO STRUCTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR RELATED SCOPE.

F. ALL FURNITURE AND EQUIPMENT IS BY OWNER AND IS SHOWN FOR REFERENCE ONLY, U.O.N.

G. REFER TO STRUCTURAL DWGS FOR ANCHORAGE OF ALL EQUIPMENT WEIGHING MORE THAN 400 LBS. AND/OR WITH A CENTER OF GRAVITY EXCEEDING 4'-0" A.F.F. OR 20 LBS. WHEN HANGING FROM THE FLOOR/ROOF DECK. [ASCE 7-16 SEC. 13.1.4]. FOR EQUIPMENT WEIGHING LESS THAN 400 LBS. AND LESS THAN 4'-0" CENTER OF GRAVITY A.F.F. (AND LESS THAN 20 LBS. WHEN HANGING FROM THE FLOOR/ROOF DECK), ANCHOR PER MANUFACTURER'S RECOMMENDATIONS OR U.O.N.

H. ANCHORAGE EQUIPMENT/FURNITURE WEIGHING LESS THAN 400 LBS.

1. INSTALL (4) 1/2" (3.25" EMBED) HILTI QWIK BOLT TZ AT EACH CORNER. REUSE (E) BRACKETS IF POSSIBLE OTHERWISE PROVIDE & INSTALL (N) BRACKETS.

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4. FOR TABLE-TOP EQUIPMENT, USE UNIVERSAL RESTRAINT STRAP ASSEMBLY OR SEISMIC STRAP TO WALL PER DETAIL 9/A8.6.

5. FOR MOBILE/PORTABLE EQUIPMENT, PROVIDE & INSTALL TEMPORARY RESTRAINT ANCHORAGE PER DETAIL 9/A8.6.

6. SPECIAL INSPECTION REQUIRED FOR HILTI KWIK BOLT TZ ANCHORS (ICC ESR-1917).

I. PROVIDE & INSTALL WALL BACKING AT EQUIPMENT, FURNITURE, PANELS, WHITE BOARDS AND OTHER ITEMS WHERE THEY ARE ANCHORED TO WALL. REFER TO DETAIL 7/A8.1.

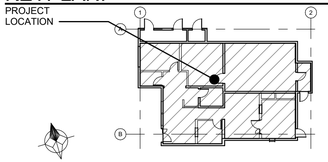
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LEGEND:

- (E) WALL - NON FIRE-RATED
- (N) WALL - NON FIRE-RATED
- (E) WALL - 1 HR FIRE-RATED
- (N) OR UPGRADED WALL - 1 HR FIRE-RATED
- FIRE EXTINGUISHER

KEYPLAN:



REV	DATE	REVISION
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LICENSED ARCHITECT
EXP. AUG. 31, 2025
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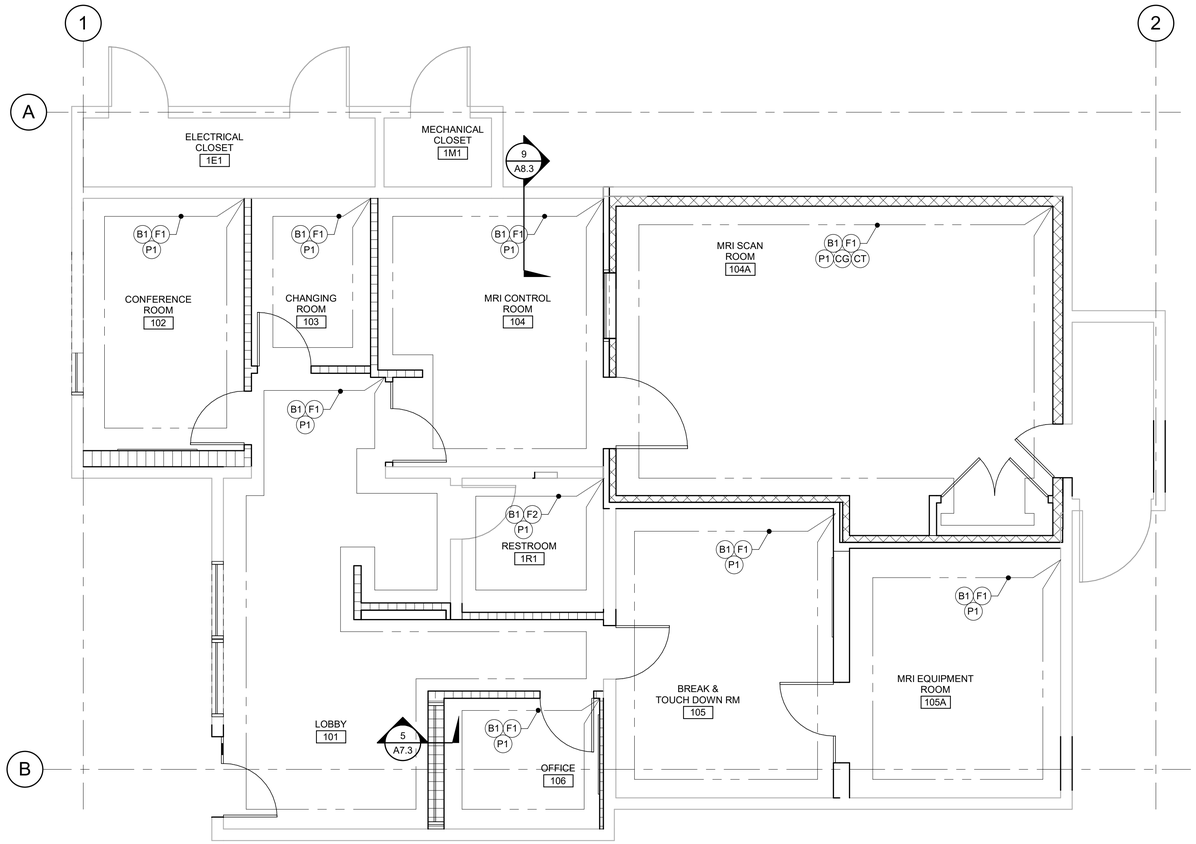
Stanford University

MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATION
VIBROMAT LOCATIONS

DRAWING NO. A3.2

BUILDING NUMBER: 02-565 | SCALE: AS NOTED | BAB PROJECT #: 24118 / 6417 | REV 0

3/13/2025 10:50:57 AM



1 A5.1 FLOOR PLAN - CONSTRUCTION

1/4" = 1'-0"

GRAPHIC SCALE: 1/4" = 1'-0"

4' 0' 4' 8' 12' 16'

MAX. FLAME SPREAD CLASSIFICATION	SPRINKLERED BUILDINGS											
	A3 ASSEMBLY CONF ROOM AREA > 750 SF			B OCCUPANCY OFFICE			F OCCUPANCY MANUFACTUR'G			H OCCUPANCY HAZ MAT 2 STORY MAX		
ITEM	CLASS A	CLASS B	CLASS C	CLASS A	CLASS B	CLASS C	CLASS A	CLASS B	CLASS C	CLASS A	CLASS B	CLASS C
EXIT ENCLOSURES AND EXIT PASSAGEWAYS FOR BLDG < 3 STORIES			✓			✓			✓			✓
OTHER EXITWAYS ELEVATOR LOBBY CORRIDORS REFUGE AREAS LOBBY		✓				✓			✓		✓	
ROOMS OR AREAS ALL OTHER AREAS			✓			✓			✓			✓

CLASS	FLAME SPREAD	SMOKE DEV.
A	0-25	0-450
B	26-75	0-450
C	76-200	0-450

REF:
CBC TABLE 803.13
APPLICATION:
INTERIOR WALLS AND CEILINGS

NOTE: PRIOR TO INSTALLATION, THE CONTRACTOR SHALL PROVIDE THE CITY FIRE DEPARTMENT WITH TEST REPORTS FOR ALL MATERIALS SPECIFICALLY REQUESTED & PROVIDE ONE COPY TO THE ARCHITECT.
(OR)
NOTE: PRIOR TO INSTALLATION, THE CONTRACTOR SHALL PROVIDE THE COUNTY FIRE DEPARTMENT WITH TEST REPORTS FOR ALL MATERIALS SPECIFICALLY REQUESTED & PROVIDE ONE COPY TO THE ARCHITECT.

FINISH NOTES (CONT.):

9. ALL PAINT PRIMER FOR GYPBD WALLS SHALL NOT EXCEED VOC 0F 100 G/L. ALL PAINT COATINGS (FINAL COAT) FOR GYPBD WALLS SHALL NOT EXCEED VOC OF 50 G/L FOR FLAT AND NONFLAT. ALL PAINT COATINGS FOR METALS SHALL NOT EXCEED VOC OF 100 G/L (NONFLAT HIGH GLOSS). REF. SHEET G5.1 FOR OTHER VOC LIMITS.

FINISHES

(F1) **FLOORING:**
LVT
MANUFACTURER- ARMSTRONG WORLD INDUSTRIES
COLLECTION- NATURAL CREATIONS MYSTIX
SHAPE-PLANK
SIZE- 6"x36"
INSTALLATION- LINEAR 1/3 STAGGERED OFFSET
COLOR- SIDELINE GREY BEIGE TP779

(F2) CERAMIC TILE
MANUFACTURER- TBD
COLLECTION- TBD
SHAPE-TBD
SIZE- TBD
INSTALLATION- TBD
COLOR- TBD

(B1) **BASE:**
TOP SET BASE
MANUFACTURER- ROPPE
STYLE- PINNACLE
HEIGHT- 4" COVED
COLOR- 123 CHARCOAL

(P1) **PAINTED SURFACES:**
FIELD
MANUFACTURER- BENJAMIN-MOORE
PRODUCT- N374 ECO SPEC ZERO VOC (2 COATS)
PRIMER- N372 ECO SPEC ZERO VOC (1 COAT)
FINISH- EGGSHELL
COLOR- X

(P2) CEILING
MANUFACTURER- BENJAMIN-MOORE
PRODUCT- 374 ECO SPEC ZERO VOC (2 COATS)
PRIMER- 372 ECO SPEC ZERO VOC (1 COAT)
FINISH- EGGSHELL
COLOR- X

NOTE - SUBSTITUTE BENJAMIN-MOORE SEMI-GLOSS 793 ADVANCE WATERBORNE INTERIOR ALKYD (2 COATS) AND HP04 ULTRA SPEC HP ACRYLIC METAL PRIMER (1 COAT) FOR PAINTED METALLIC SURFACES SUCH AS METAL DOORS AND FRAMES WHERE APPLICABLE

NOTE - SUBSTITUTE DUNN-EDWARDS SEMI-GLOSS LATEX ENAMEL - MILDEW INHIBITIVE (2 COATS) AND PRIMER (1 COAT) FOR PAINTED METALLIC SURFACES SUCH AS METAL DOORS AND FRAMES WHERE APPLICABLE

NOTE - SUBSTITUTE SHERWIN-WILLIAMS HIGH-GLOSS LATEX ENAMEL - A41 SERIES (2 COATS) AND PRIMER (1 COAT) FOR PAINTED METALLIC SURFACES SUCH AS METAL DOORS AND FRAMES WHERE APPLICABLE

NOTE - SUBSTITUTE BEHR SEMI-GLOSS UREHANE ALKYD ENAMAL (2 COATS) AND PREMIUM PLUS NO. 75 STAIN-BLOCKING PRIMER (1 COAT) FOR PAINTED METALLIC SURFACES SUCH AS METAL DOORS AND FRAMES WHERE APPLICABLE

(PL) **CASEWORK:**
PLASTIC LAMINATE
MANUFACTURER- FUTRUS
STYLE- X
COLOR- TBD
FINISH- X

(SS) SOLID SURFACE COUNTERTOP
MANUFACTURER- CORIAN
COLOR- LAVA ROCK

(CG) **CEILING:**
CEILING GRID
MANUFACTURER- TBD
STYLE- TBD
COLOR- WHITE
SIZE- 15/16"

(CT) CEILING TILES
LOCATION- X
MANUFACTURER- ARMSTRONG
TYPE- ULTIMA HEALTH ZONE SQUARE LAY-IN, NON-GASKETED
SIZE- 24" X 24" X 15/16"
COLOR- WHITE

GENERAL NOTES:

A. REFER TO SHEET G0.0 FOR INDEX OF DRAWINGS & GENERAL NOTES. REFER TO THIS SHEET FOR MAXIMUM FLAME SPREAD CLASSIFICATIONS.

B. REPAIR ALL DAMAGED MATERIALS IMPACTED BY DEMOLITION AND/OR NEW CONSTRUCTION. ALIGN AND FINISH TO MATCH EXISTING ADJACENT SURFACE.

C. ALL DIMENSIONS ARE TO FACE OF FINISH TO FACE OF FINISH UNLESS OTHERWISE NOTED. WRITTEN DIMENSIONS HAVE PRECEDENCE OVER SCALED DRAWINGS. VERIFY ALL MEASUREMENTS PRIOR TO MANUFACTURING AND INSTALLATION.

D. ALL PENETRATIONS THRU EXTERIOR WALLS SHALL BE WEATHER SEALED. ALL PENETRATIONS THRU RATED WALLS SHALL BE SEALED WITH AN INTUMESCENT FIRE SEALANT SUCH AS CP-25WB AS MANUF. BY ELECTRO-PRODUCTS 3M AND PER UL LISTED SYSTEM. UL LISTINGS: CONDUITS, PIPING: WL 1001. PENETRATION PERFORMANCE REQUIREMENTS: F RATING: 1 OR 2 HR. (MATCH EXISTING WALL-RATING) T RATING: NA. REFER TO 5/A8.1.

E. DO NOT PAINT ITEMS NOT INTENDED TO RECEIVE PAINT SUCH AS NAMEPLATES, TAGS, PROPERTY NUMBERS, FIRE LABELS, DIELECTRIC UNIONS, GROUND PLATES, EXPOSED GROUND WIRES, EXPANSION JOINT ETC. MASK ALL RETURN AIR REGISTERS TO PREVENT CONTAMINATION OF FILTERS, DUCTS, ETC.

F. ALL FURNITURE IS BY OWNER AND IS SHOWN FOR REFERENCE ONLY.

G. REFER TO SHEET A7.2 FOR SELECTED FINISHES. IF NOT NOTED, MATCH (E).

H. STUCCO AND ALL OTHER FINISHES TO BE APPROVED BY UACPD PRIOR TO CONSTRUCTION.

FINISH NOTES:

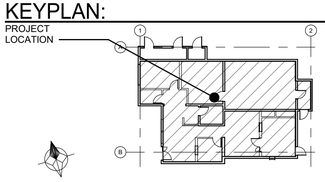
FLOORING:
1. EXISTING CARPET TO REMAIN. PROTECT TO PREVENT DAMAGE DURING CONSTRUCTION. VACUUM CLEAN UP AS PART OF PROJECT COMPLETION.
2. PREPARE FLOOR IN PROJECT AREA FOR (N) CARPET TILE PATCHING. PROTECT (E) CARPET TO REMAIN. REFER TO DEMOLITION PLANS FOR LOCATIONS FOR CARPET TILE PATCHING.
3. PREPARE FLOOR IN PROJECT AREA FOR (N) CARPET TILE. PATTERN ACCENTS NOTED ON PLAN, IF ANY. INSTALLATION OF CARPET TILE SHALL BE QUARTER TURN. USE STARTING POINT ON PLANS, IF NOTED OTHERWISE PER MANUF. RECOMMENDATIONS.
4. CLEAN AND WAX (E) VCT FLOORS IN PROJECT AREA.
5. PREPARE FLOOR AS REQUIRED IN AREAS NOTED FOR VCT. CLEAN AND WAX FLOOR UPON COMPLETION OF CONSTRUCTION.
6. ADHESIVE FOR CARPET TILES AND VCT SHALL NOT EXCEED VOC OF 50 G/L.
7. PROVIDE TRANSITION STRIPS FOR DISSIMILAR FLOORING.
8. CONDUCT MOISTURE TESTING UNDER FLOOR IN PROJECT AREA. PROVIDE ADD-ALTERNATE FOR MOISTURE BARRIER IF READINGS TURN OUT HIGHER THAN MANUFACTURER RECOMMENDATIONS FOR EACH FLOORING TYPE.

BASE:
1. PROVIDE & INSTALL NEW 4" TOP SET BASE ON NEW WALLS ONLY. PATCH BASE ON (E) WALLS TO MATCH EXISTING.
2. COVE BASE ADHESIVE SHALL NOT EXCEED VOC OF 50 G/L.

WALL/CEILING COVERINGS:
1. PROTECT AND COVER ALL FLOORING, PARTITION, FURNITURE, AND EQUIPMENT. IMMEDIATELY CLEAN ANY SPILLS AND EXCESS PAINT.
2. INSTALL TEMPORARY "WET PAINT" SIGNS ON ALL AREAS DURING WORK.
3. PAINT ALL NEW GYPSUM BOARD WALLS (BOTH SIDES). PREPARE WALLS FOR LEVEL 3 SKIP TROWEL FINISH IN PROJECT AREA. PAINT SHALL BE ACRYLIC EGGSHELL ENAMEL, COLOR TO MATCH (E) WALLS OR APPROVED EQUIVALENT
4. PATCH AND PAINT EXISTING GYPSUM BOARD WALLS DIRECTLY IMPACTED BY CONSTRUCTION, KEYED ON FINISH PLAN OR AS NOTED ON PLAN TO MATCH EXISTING COLOR AND TEXTURE. REFER TO DEMOLITION AND CONSTRUCTION FLOOR PLANS FOR EXPECTED FOR CALLED OUT LOCATIONS.
5. PAINT DESIGNATED METAL DOORS IN PROJECT AREA, IF ANY, BOTH SIDES, UNLESS OTHERWISE NOTED. ALL WOOD DOORS IN PROJECT AREA SHALL REMAIN WITH NATURAL FINISH TO MATCH EXISTING.
6. PAINT ALL HOLLOW METAL DOOR FRAMES IN PROJECT AREA. PAINT SHALL BE HIGH GLOSS ALKYD ENAMEL, COLOR TO MATCH (E) FRAMES. DO NOT PAINT OVER DOOR AND FRAME LABELS.
7. SURFACE PREP OF WALLS / HARDCAPPED CEILINGS, PRIMER, AND NUMBER OF COATS OF PAINT SHALL BE PER MANUF. RECOMMENDATIONS.
8. ALL GYPBD PREPARATION MATERIALS SHALL NOT EXCEED VOC OF 50 G/L.

KEYPLAN:

PROJECT LOCATION



REV	DATE	REVISION
0	03/10/25	ISSUE FOR PERMIT

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LICENSED ARCHITECT
EXP. AUG. 31, 2025
MICHAEL P. HARRIS
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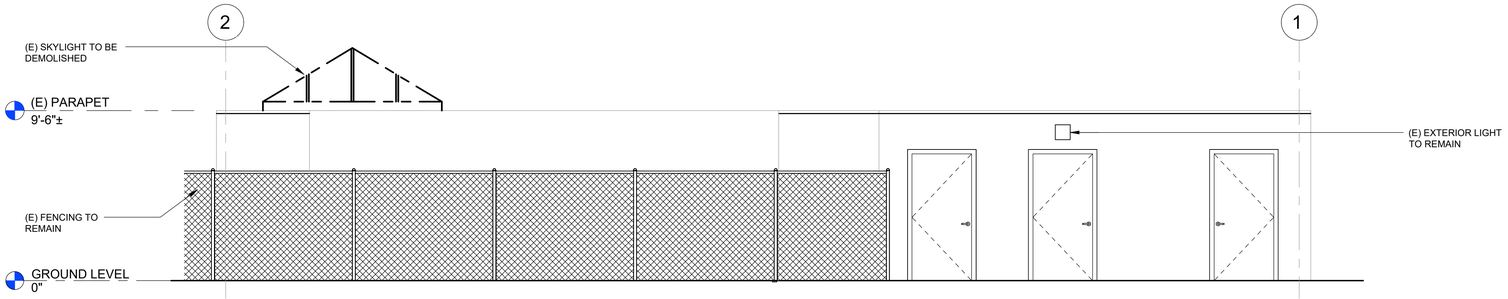
Stanford University

MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATION
GROUND FLOOR FINISH PLAN - CONSTRUCTION

DRAWING NO. **A5.1**

BUILDING NUMBER: 02-565 | SCALE: AS NOTED | BAB PROJECT #: 24118 / 6417 | REV 0

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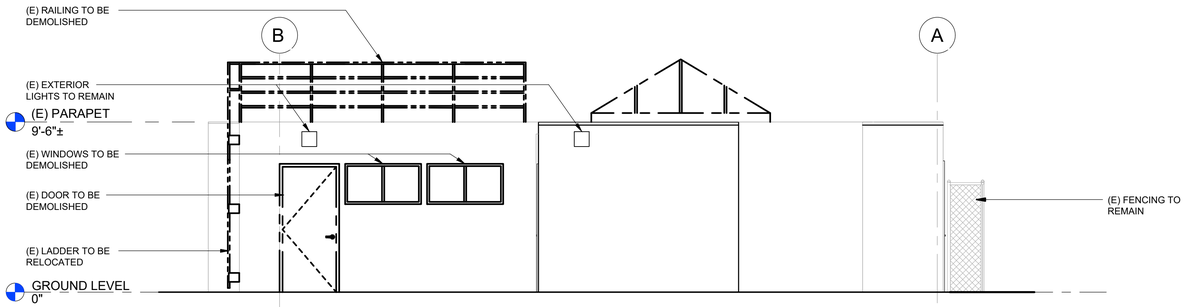
1 A6.1 NORTH ELEVATION - DEMOLITION

1/4" = 1'-0"



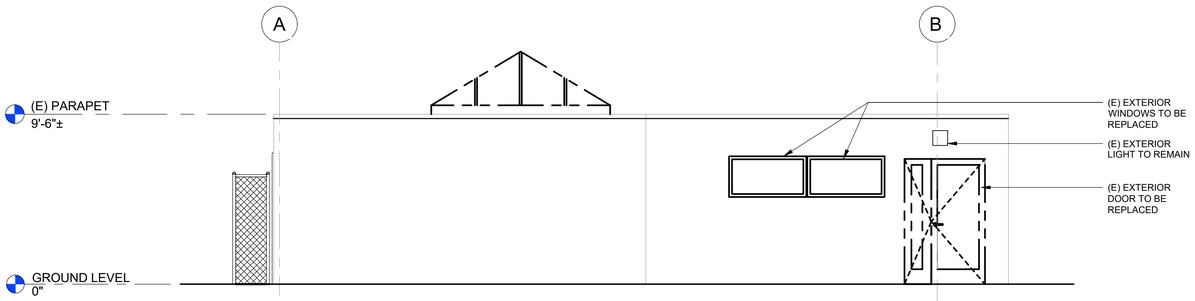
2 A6.1 SOUTH ELEVATION - DEMOLITION

1/4" = 1'-0"



3 A6.1 EAST ELEVATION - DEMOLITION

1/4" = 1'-0"



4 A6.1 WEST ELEVATION - DEMOLITION

1/4" = 1'-0"

REV.	DATE	REVISION
0	03/10/25	ISSUE FOR PERMIT
1	05/08/25	PRELIMINARY REVIEW COMMENTS

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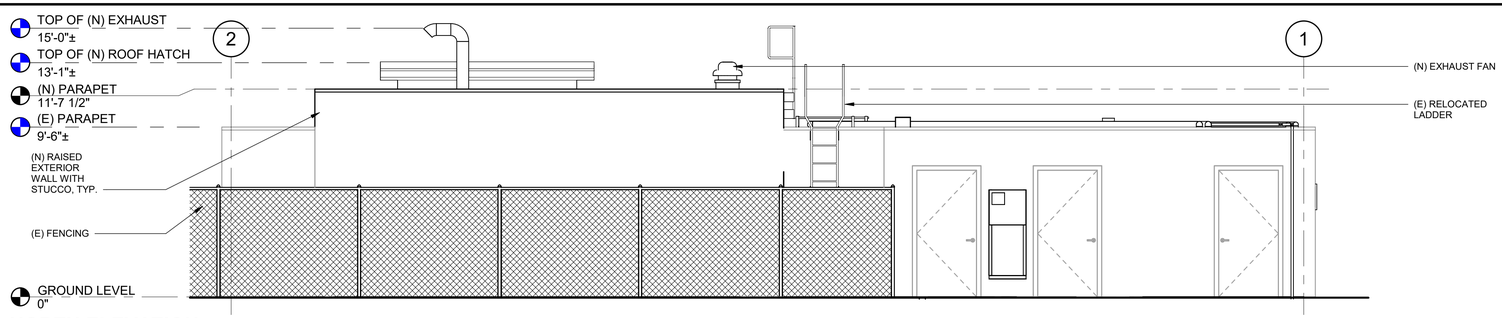
Stanford University

MAGNETIC RESONANCE SYSTEMS RESEARCH LAB RENOVATION
EXTERIOR ELEVATIONS - DEMOLITION

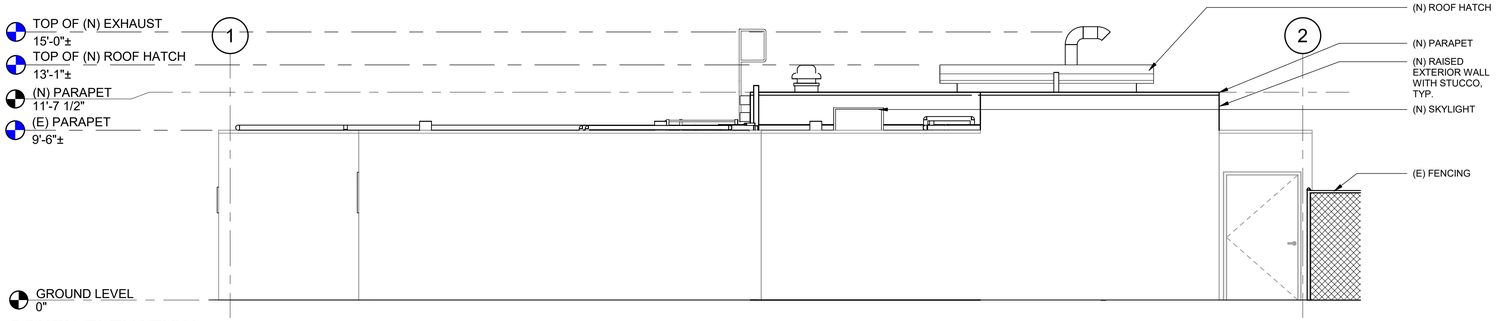
DRAWING NO. **A6.1**

BUILDING NUMBER: **02-565** | SCALE: AS NOTED | BAB PROJECT # 24118 / 6417 | REV **1**

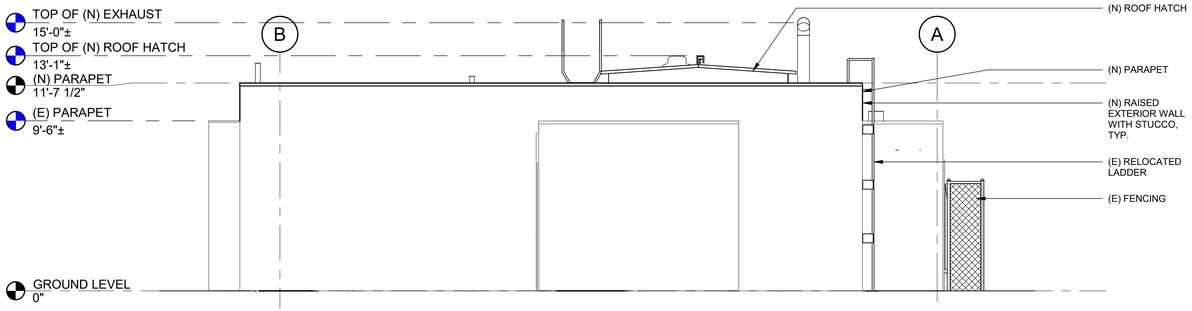
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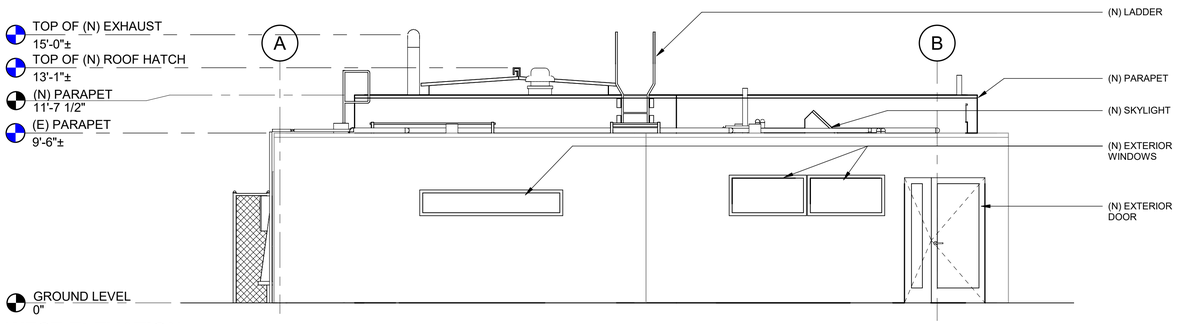
1 A6.2 NORTH ELEVATION
1/4" = 1'-0"



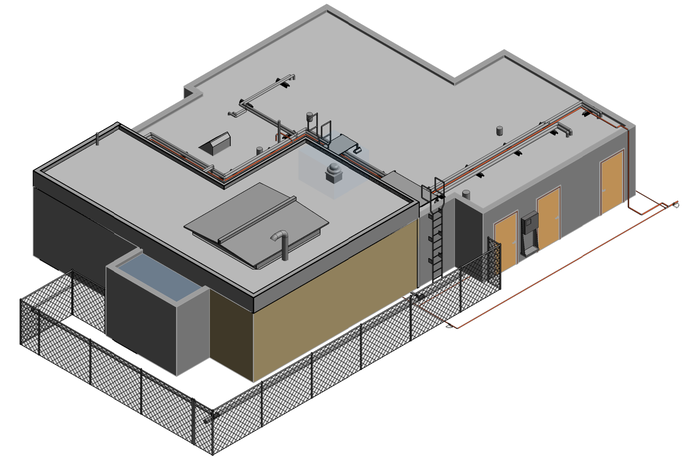
2 A6.2 SOUTH ELEVATION
1/4" = 1'-0"



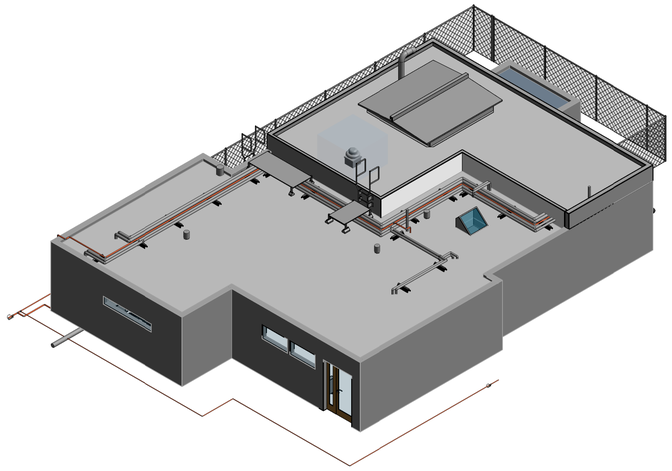
3 A6.2 EAST ELEVATION
1/4" = 1'-0"



4 A6.2 WEST ELEVATION
1/4" = 1'-0"



5 A6.2 SOUTH-EAST ISOMETRIC VIEW



6 A6.2 NORTH WEST ISOMETRIC VIEW

EXTERIOR COLOR SCHEME:

STUCCO:	TAN/EARTH COLOR TO MATCH EXISTING; TEXTURE TO MATCH EXISTING
ROOFING:	WHITE FIBER GLASS COOL ROOF CAP TO MATCH EXISTING
TRIM:	TAN-EARTH COLOR TO MATCH EXISTING



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STANFORD PROJECT NUMBER:	
PROJECT MANAGER:	BRIAN CARILLI

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main office: (408) 648-4500
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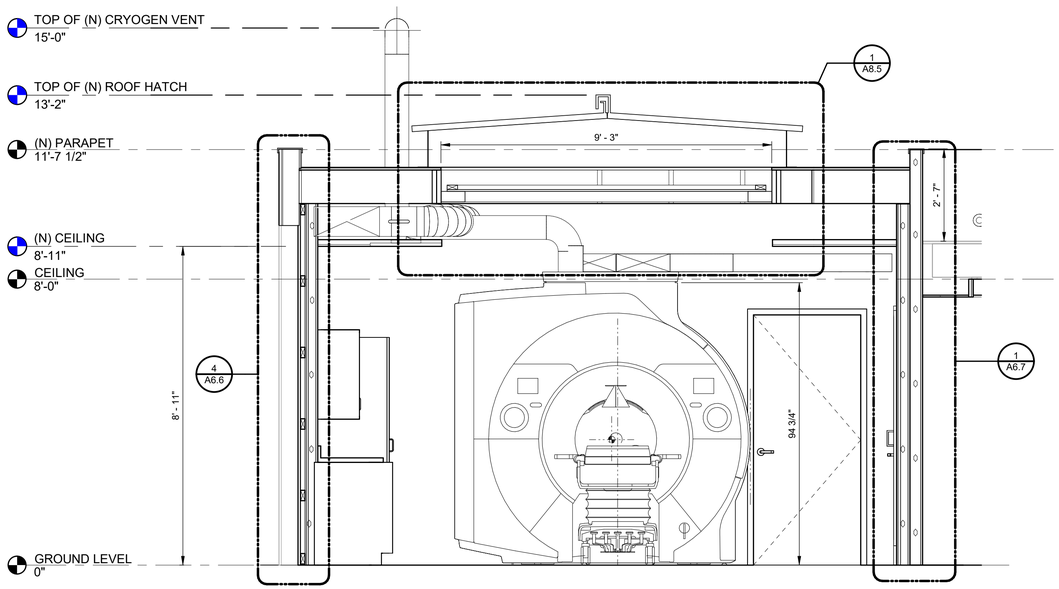
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MAGNETIC RESONANCE SYSTEMS RESEARCH LAB RENOVATION
EXTERIOR ELEVATIONS - CONSTRUCTION

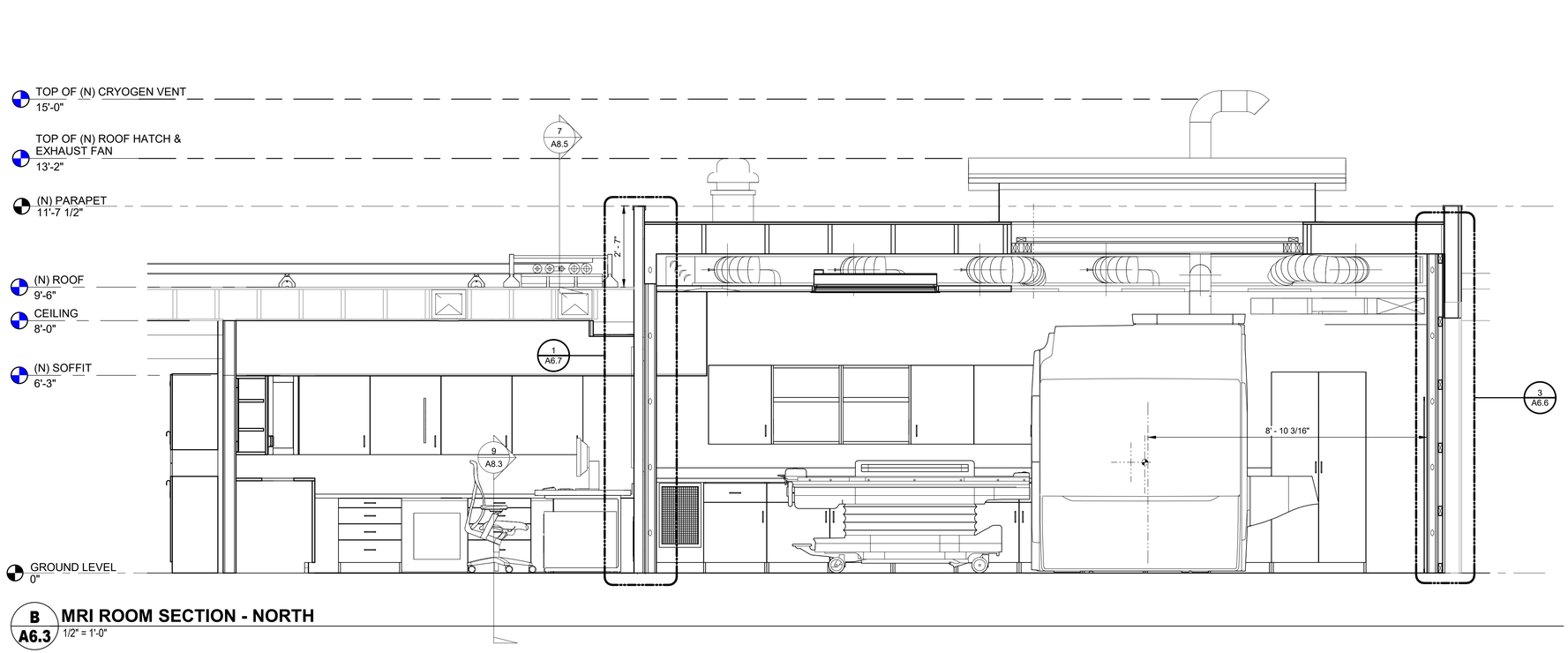
DRAWING NO. **A6.2**

BUILDING NUMBER: 02-565	SCALE: AS NOTED	BAB PROJECT #: 24118 / 6417	REV 1

05/20/25 6:33:27 PM

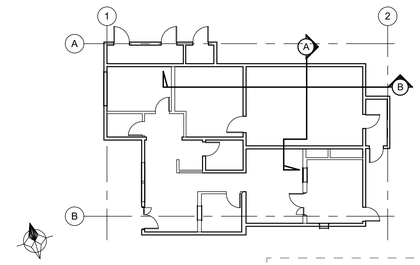


A / A6.3 **MRI ROOM SECTION - EAST**
1/2" = 1'-0"



B / A6.3 **MRI ROOM SECTION - NORTH**
1/2" = 1'-0"

SECTION KEY:



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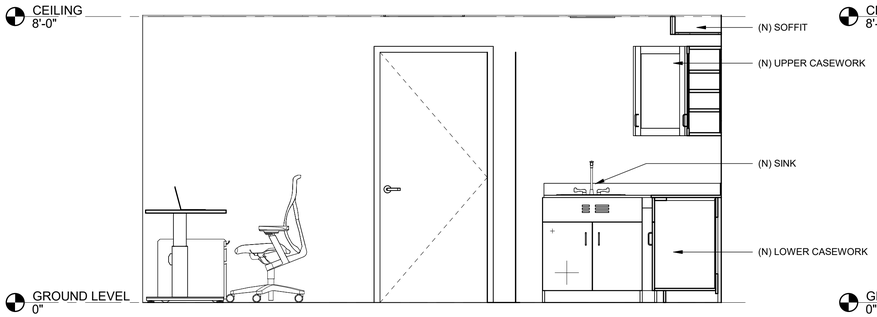
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MAGNETIC RESONANCE SYSTEMS RESEARCH LAB RENOVATION
BUILDING SECTIONS

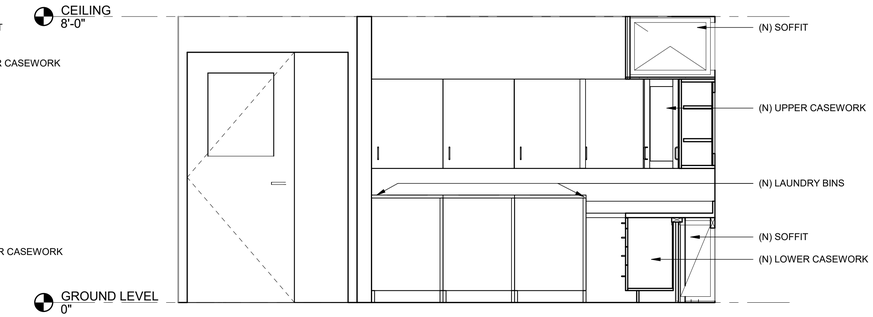
DRAWING NO. **A6.3**

BUILDING NUMBER: 02-565	SCALE: AS NOTED	BAB PROJECT #: 24118 / 6417	REV 1

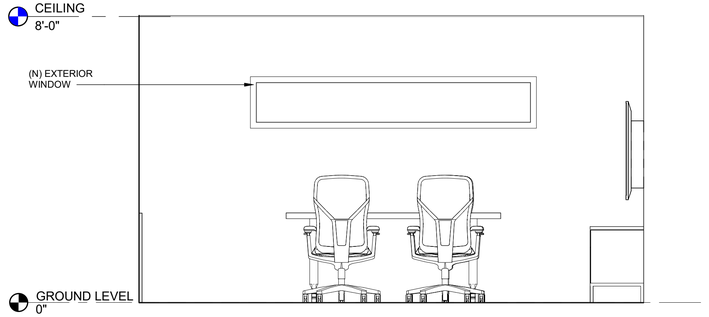
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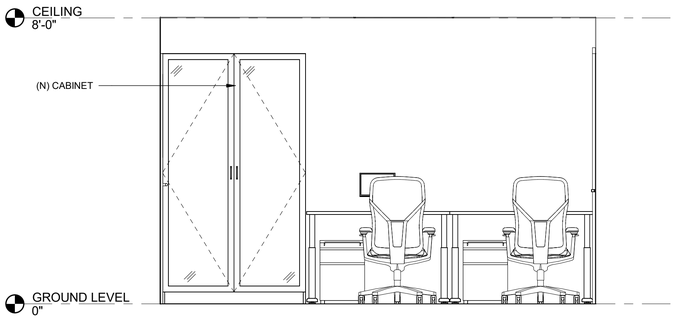
8 A6.4 BREAK RM 107 WEST
1/2" = 1'-0"



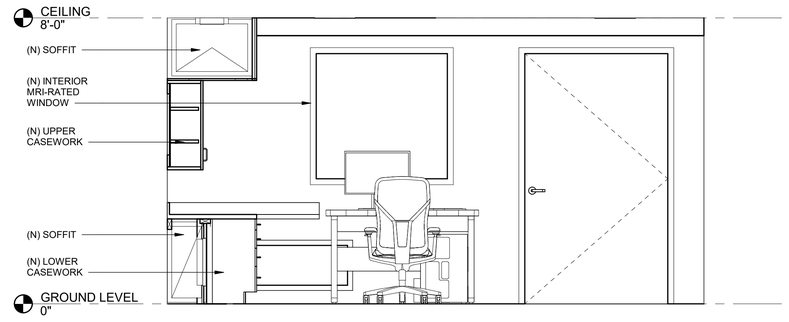
5 A6.4 CONTROL RM 104 WEST
1/2" = 1'-0"



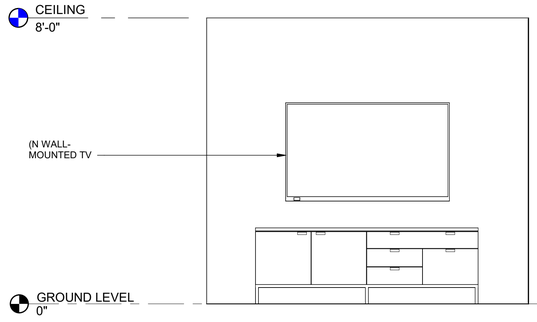
1 A6.4 CONF 102 WEST
1/2" = 1'-0"



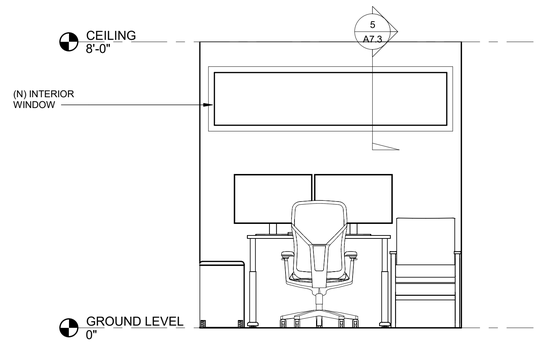
9 A6.4 BREAK RM 107 SOUTH
1/2" = 1'-0"



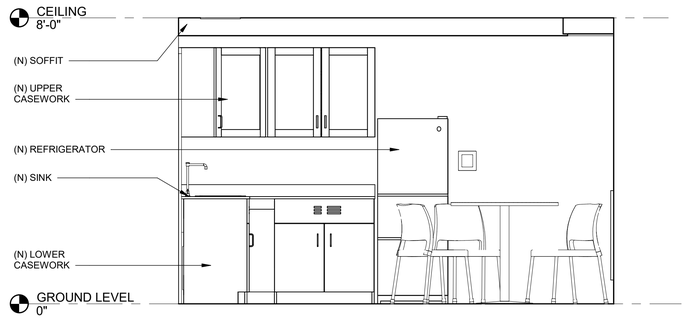
6 A6.4 CONTROL RM 104 EAST
1/2" = 1'-0"



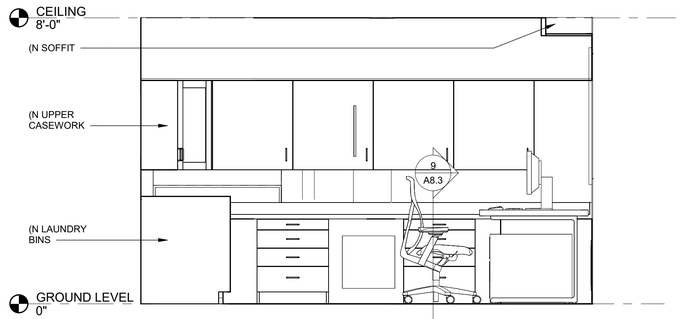
2 A6.4 CONF 102 NORTH
1/2" = 1'-0"



3 A6.4 OFFICE 106 WEST
1/2" = 1'-0"



7 A6.4 BREAK RM 107 NORTH
1/2" = 1'-0"



4 A6.4 CONTROL RM 104 NORTH
1/2" = 1'-0"

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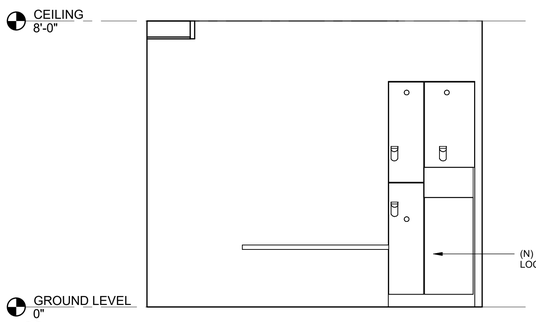
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MAGNETIC RESONANCE SYSTEMS RESEARCH LAB RENOVATION
INTERIOR ELEVATIONS

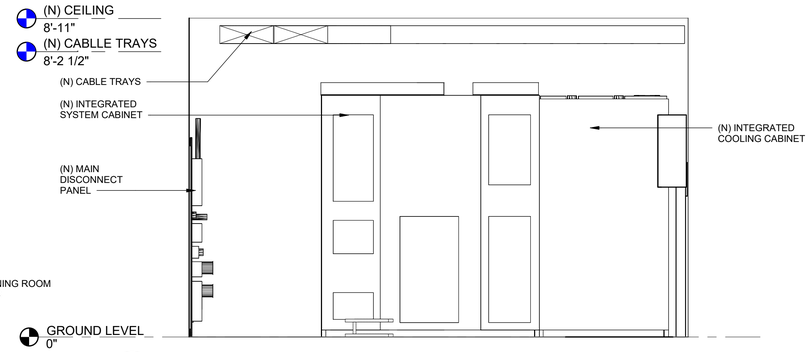
DRAWING NO. **A6.4**

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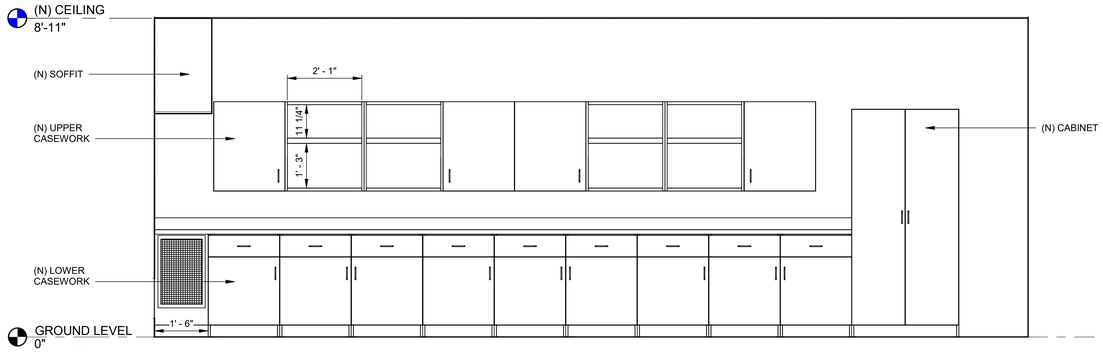
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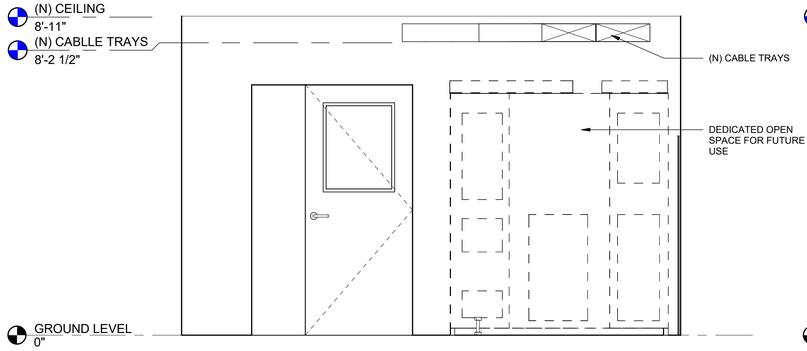
7 A6.5 CHANGING RM 103 EAST
1/2" = 1'-0"



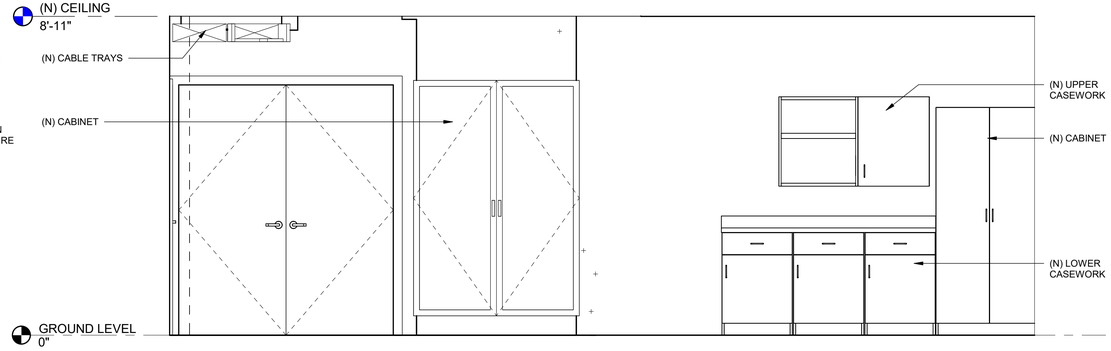
4 A6.5 MRI EQUIPMENT RM 104A EAST
1/2" = 1'-0"



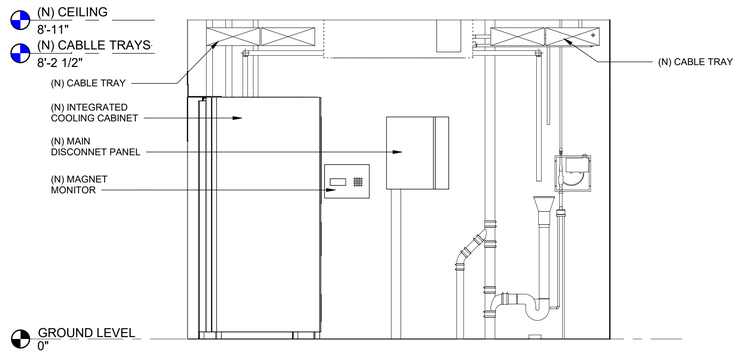
1 A6.5 MAGNET RM 104A NORTH
1/2" = 1'-0"



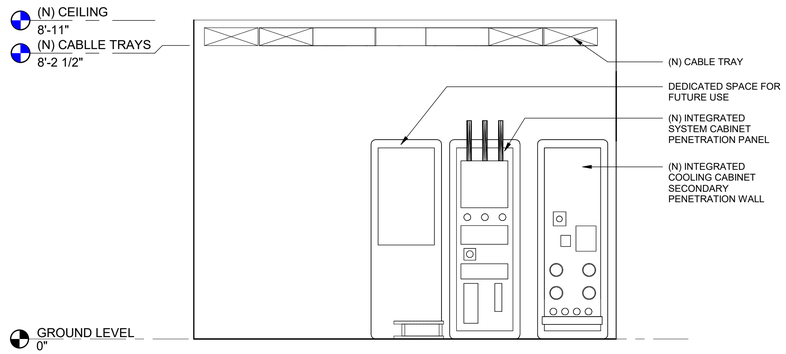
5 A6.5 MRI EQUIPMENT RM 104A WEST
1/2" = 1'-0"



2 A6.5 MAGNET RM 104A SOUTH
1/2" = 1'-0"



6 A6.5 MRI EQUIPMENT RM 104A SOUTH
1/2" = 1'-0"



3 A6.5 MRI EQUIPMENT RM 104A NORTH
1/2" = 1'-0"

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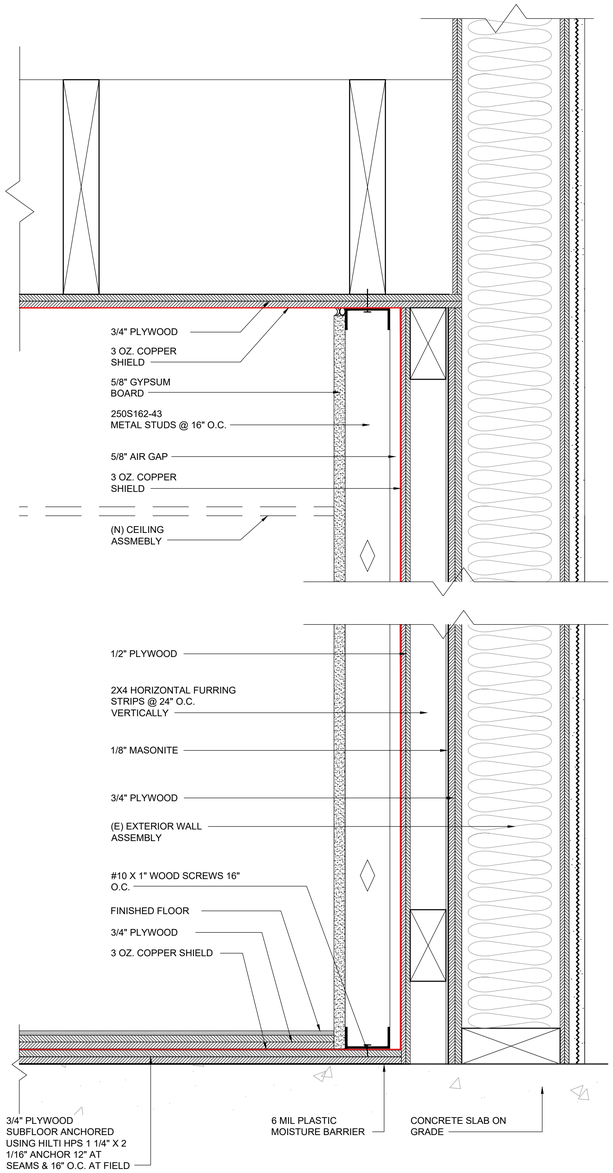
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MAGNETIC RESONANCE SYSTEMS RESEARCH LAB RENOVATION
INTERIOR ELEVATIONS

DRAWING NO. **A6.5**

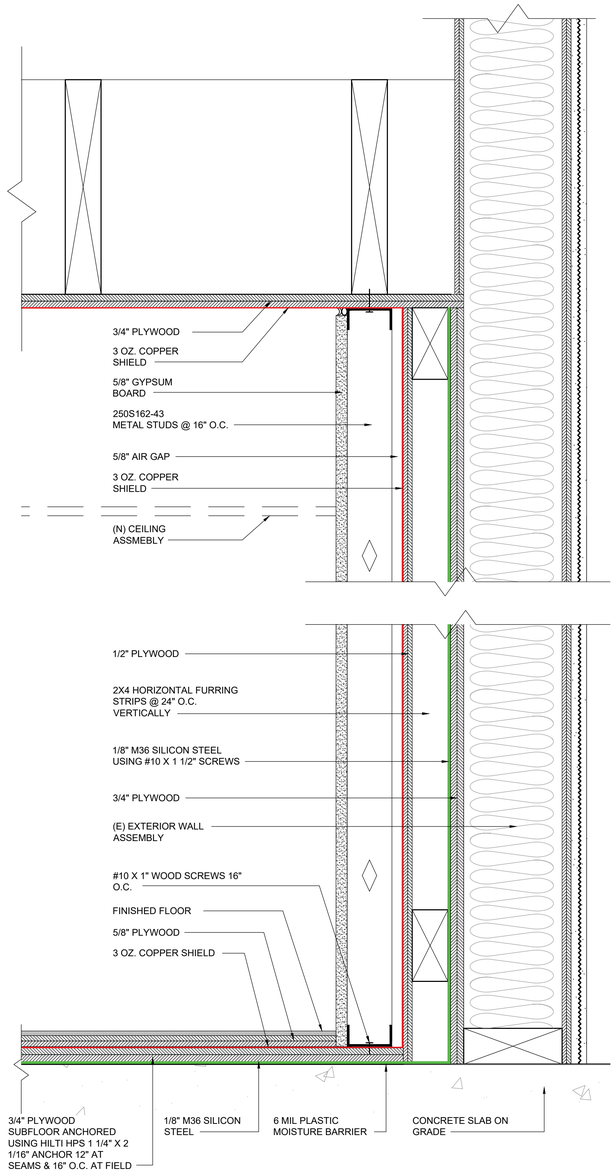
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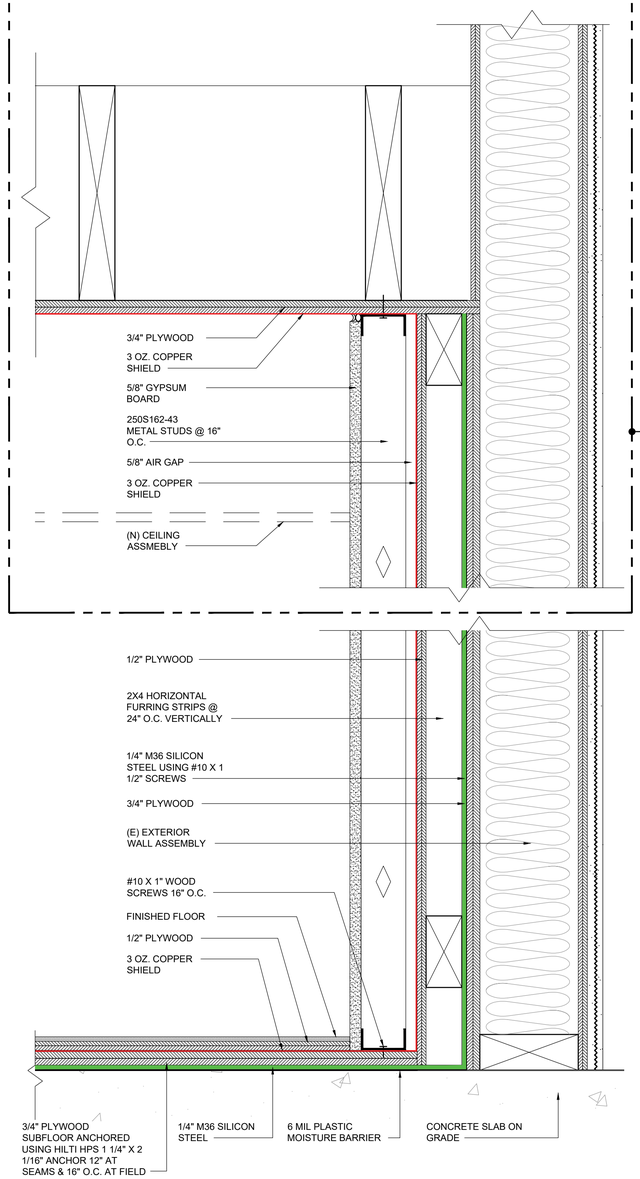
5 A6.6 FURRED EXTERIOR WALL WITH SHIELDING - TYPE H3

SCALE: 3" = 1'-0"



4 A6.6 FURRED EXTERIOR WALL WITH SHIELDING - TYPE H1

SCALE: 3" = 1'-0"



3 A6.6 FURRED EXTERIOR WALL WITH SHIELDING - TYPE H2

SCALE: 3" = 1'-0"

GENERAL NOTES

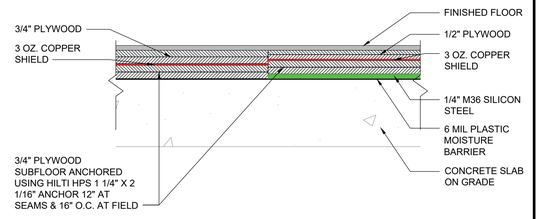
FLOORING
LAYERS:
1. FINISHED FLOOR
2. 3 OZ. COPPER RF SHIELDING
3. 3/4" PLYWOOD
4. M36 SILICON STEEL (1/4") - SOME LOCATIONS - REFER TO SHEET A1.4
5. 6-MIL PLASTIC MOISTURE BARRIER
6. CONCRETE SLAB ON GRADE

WALLS
LAYERS FOR RF SHIELDED WALL WITH MAGNETIC STEEL ISOLATION:
1. 5/8" GYPSUM BOARD
2. 250S162-43 METAL STUDS AT 16" O.C.
3. 5/8" AIR GAP
4. 3 OZ. COPPER RF SHIELDING
5. 1/2" PLYWOOD
6. 2X4 HORIZONTAL FURRING STRIPS AT 24" O.C. VERTICALLY
7. M36 SILICON STEEL (1/4" ON EAST WALL; 1/8" ON NORTH WALL)
8. 3/4" PLYWOOD
9. EXTERIOR WALL ASSEMBLY WITH SHEETROCK REMOVED OR NEW INTERIOR WALL ASSEMBLY WITH NO SHEETROCK ON MAGNETIC ROOM SIDE

LAYERS FOR TYPICAL R.F. SHIELD WALL:
1. 5/8" GYPSUM BOARD
2. 250S162-43 METAL STUDS AT 16" O.C.
3. 5/8" AIR GAP
4. 3 OZ. COPPER R.F. SHIELDING
5. 1/2" PLYWOOD
6. 362S162-33 METAL STUDS AT 16" O.C.
7. 5/8" GYPSUM BOARD'

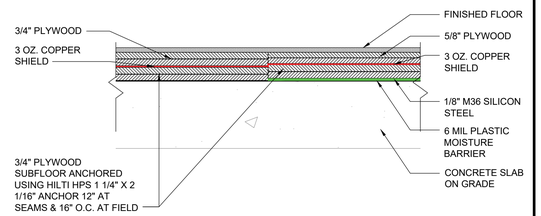
ROOF
LAYERS:
1. 3 OZ. COPPER R.F. SHIELDING
2. 3/4" PLYWOOD
3. ROOF FRAMING ASSEMBLY

2 A6.7



1 A6.6 FLOORING TRANSITION - 1/2" PLYWOOD

SCALE: 3" = 1'-0"



2 A6.6 FLOORING TRANSITION - 5/8" PLYWOOD

SCALE: 3" = 1'-0"

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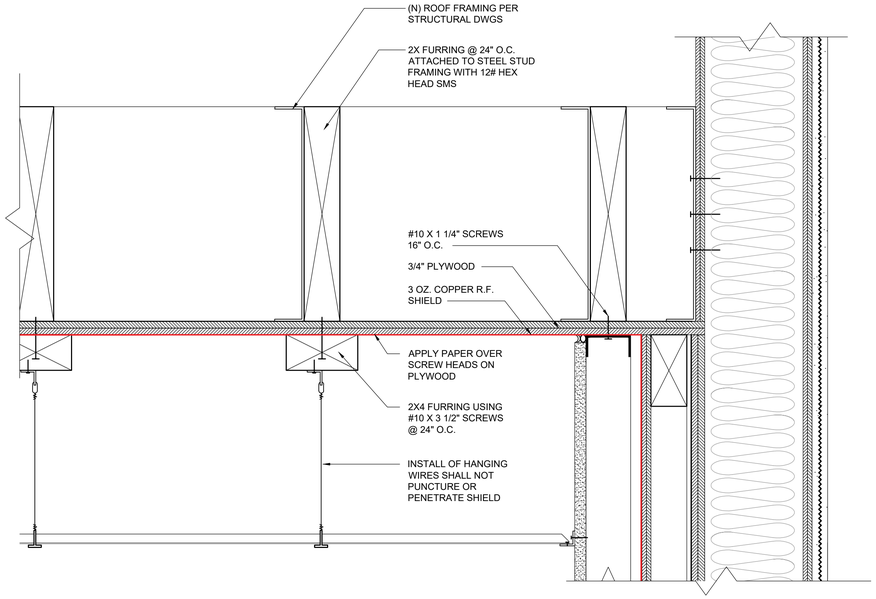
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MAGNETIC RESONANCE SYSTEMS RESEARCH LAB RENOVATION ENLARGED SECTIONS

DRAWING NO. A6.6

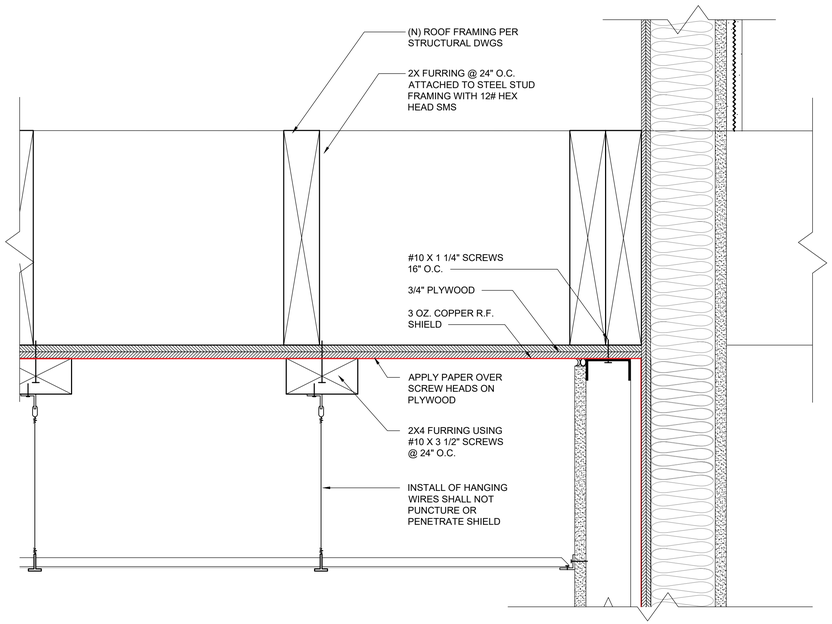
BUILDING NUMBER: 02-565 | SCALE: AS NOTED | BAB PROJECT # 24118 / 6417 | REV 1

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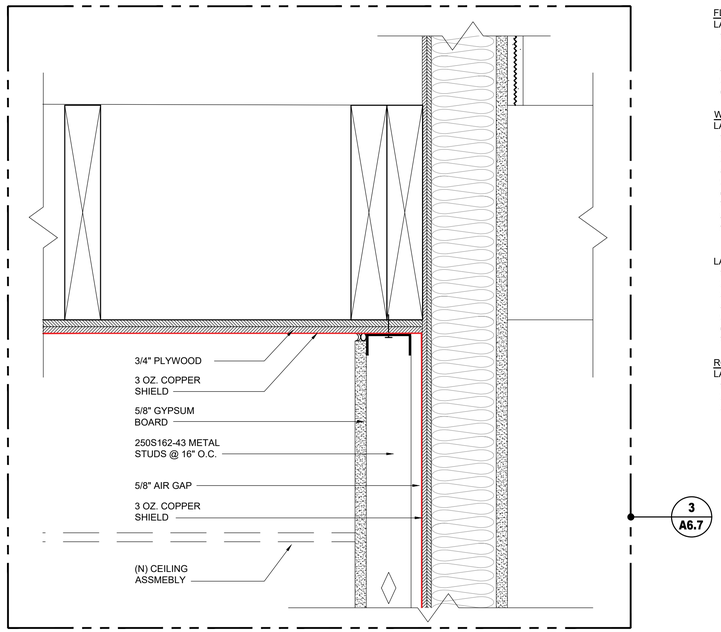
2 A6.7 SUSPENDED CEILING AT FURRED EXTERIOR WALL

SCALE: 3" = 1'-0"



3 A6.7 SUSPENDED CEILING AT FURRED WALL

SCALE: 3" = 1'-0"



1 A6.7 FURRED WALL WITH SHIELDING - TYPE H4

SCALE: 3" = 1'-0"

GENERAL NOTES

FLOORING
LAYERS:
1. FINISHED FLOOR
2. 3 OZ. COPPER RF SHIELDING
3. 3/4" PLYWOOD
4. M36 SILICON STEEL (1/4") - SOME LOCATIONS - REFER TO SHEET A1.4
5. 6-MIL PLASTIC MOISTURE BARRIER
6. CONCRETE SLAB ON GRADE

WALLS
LAYERS FOR RF SHIELDED WALL WITH MAGNETIC STEEL ISOLATION:
1. 5/8" GYPSUM BOARD
2. 250S162-43 METAL STUDS AT 16" O.C.
3. 5/8" AIR GAP
4. 3 OZ. COPPER RF SHIELDING
5. 1/2" PLYWOOD
6. 2X4 HORIZONTAL FURRING STRIPS AT 24" O.C. VERTICALLY
7. M36 SILICON STEEL (1/4" ON EAST WALL; 1/8" ON NORTH WALL)
8. 3/4" PLYWOOD
9. EXTERIOR WALL ASSEMBLY WITH SHEETROCK REMOVED OR NEW INTERIOR WALL ASSEMBLY WITH NO SHEETROCK ON MAGNETIC ROOM SIDE

LAYERS FOR TYPICAL R.F. SHIELD WALL:
1. 5/8" GYPSUM BOARD
2. 250S162-43 METAL STUDS AT 16" O.C.
3. 5/8" AIR GAP
4. 3 OZ. COPPER R.F. SHIELDING
5. 1/2" PLYWOOD
6. 362S162-33 METAL STUDS AT 16" O.C.
7. 5/8" GYPSUM BOARD'

ROOF
LAYERS:
1. 3 OZ. COPPER R.F. SHIELDING
2. 3/4" PLYWOOD
3. ROOF FRAMING ASSEMBLY

REV.	DATE	REVISION
0	03/10/25	ISSUE FOR PERMIT
1	05/08/25	PRELIMINARY REVIEW COMMENTS

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LICENSED ARCHITECT — EXP. AUG. 31, 2025 — MICHAEL P. HARRIS — C32799 — STATE OF CALIFORNIA

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STANFORD PROJECT NUMBER:

PROJECT MANAGER: BRIAN CARILLI

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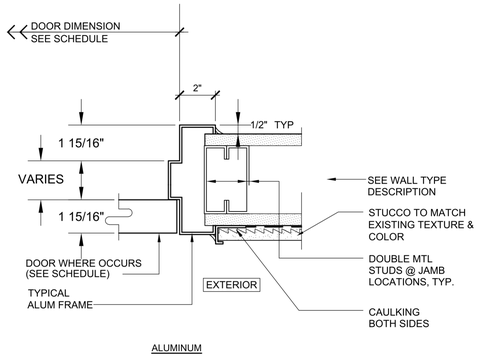
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MAGNETIC RESONANCE SYSTEMS RESEARCH LAB RENOVATION
ENLARGED SECTIONS

DRAWING NO. **A6.7**

BUILDING NUMBER: **02-565** | SCALE: AS NOTED | BAB PROJECT # 24118 / 6417 | REV **1**

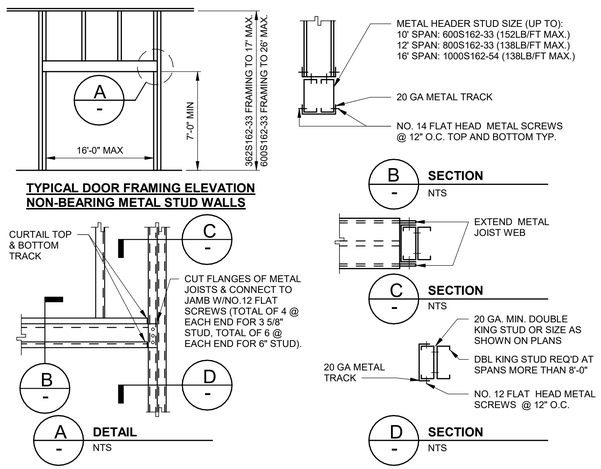
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ALUMINUM

2 / A7.1 DOOR JAMB DETAIL (ALUMINUM)

3" = 1'-0"



3 / A7.1 OPENING FRAMING DETAILS

NTS

DOOR NOTES:

1. PAINT ALL HM DOORS AND FRAMES. DO NOT PAINT OVER DOOR AND FRAME LABELS.
2. ALL DOORS SHALL BE SOLID CORE UNLESS OTHERWISE SPECIFIED.
3. ALL DOORS SHALL BE 1 3/4" THICK U.O.N.
4. PROVIDE JAMB & HEAD CLEARANCE OF 1/8" MAX. BOTTOM CLEARANCE SHALL NOT EXCEED 3/8" FOR SINGLE DOORS, AND 1/4" FOR PAIRS OF DOORS.
5. ALL FIRE-RATED DOORS SHALL BE SELF-CLOSING AND PROVIDED WITH SMOKE SEALS. IN ADDITION, BOTH THE DOOR AND FRAME SHALL BEAR AN "S" LABEL INDICATING RATING, TEST METHOD, AND SMOKE RESISTANCE.
6. ALL LATCHING HARDWARE SHALL BE OPENABLE WITH A SINGLE EFFORT WITHOUT REQUIRING SPECIAL KNOWLEDGE OR ABILITY TO GRASP THE HARDWARE.
7. ALL GLAZING IN DOORS SHALL BE OF TEMPERED GLASS, EXCEPT FOR FIRE-RATED DOORS SHALL BE OF MINIMUM UL-LISTED D-H-T OR OH FIRE-RESISTIVE GLASS U.O.N. AND MINIMUM UL-LISTED D FIRE-RESISTIVE RATING FOR A 20-MINUTE RATED DOOR ASSEMBLY.
8. MINIMUM 3'-0" WIDTH, 6'-8" IN HEIGHT.
9. OPENS A MINIMUM OF 90 DEGREES.
10. CLEAR WIDTH OF DOORWAY IS 32" MINIMUM.
11. DOUBLE DOORS/AUTOMATIC DOORS-AT LEAST ONE DOOR MUST COMPLY WITH NOTES A, B AND C (DOOR HARDWARE).
12. BOTTOM 10" OF DOOR HAS A SMOOTH, UNINTERRUPTED SURFACE (KICK PLATE).
13. EFFORT TO OPERATE DOORS IS WITHIN PRESSURE ALLOWED:
    INTERIOR DOORS - 5 POUNDS MAX PRESSURE TO OPERATE.
    EXTERIOR DOORS - 5 POUNDS MAX PRESSURE TO OPERATE.
    FIRE DOORS - 15 POUNDS MAX PRESSURE TO OPERATE.
14. AUTOMATIC DOORS MUST PROVIDE A MINIMUM 32" CLEARANCE WHEN FULLY OPEN.
15. REVOLVING DOORS SHALL NOT BE USED AS A REQUIRED ENTRANCE FOR PEOPLE WITH DISABILITIES.
16. IF TURNSTILES ARE USED FOR NORMAL ACCESS, AN ACCESSIBLE DOOR OR GATE IS PROVIDED ADJACENT TO THE TURNSTILE W/IN 30'
17. FOR ALL INTERIOR ELECTRIFIED DOORS, CONTRACTOR MUST PREPARE DOORS AND FRAMES FOR SPECIFIED HARDWARE. THIS INCLUDES, BUT NOT LIMITED TO BORING THROUGH DOOR FOR ELECTRICAL FROM HINGE TO LOCKSET.
18. THE ELECTRIC CARD KEY ACCESS SHALL BE USED ONLY FOR ACCESSING INTO SPACES AND NEVER FOR EXITING THE AREA OR OUT OF THE BUILDING.
19. ALL DOORS INTO A ONE-HOUR FIRE RATED CORRIDOR SHALL BE 20-MINUTE RATED ASSEMBLIES MINIMUM WITH GASKETS FOR SMOKE AND DRAFT CONTROL.
20. REFER TO DETAIL 3 THIS SHEET FOR HEADER AND JAMB FRAMING.

CLEAR SPACE AT DOORS:
GENERAL - REGARDLESS OF THE OCCUPANT LOAD, THERE SHALL BE A FLOOR OR LANDING ON EACH SIDE OF A DOOR.

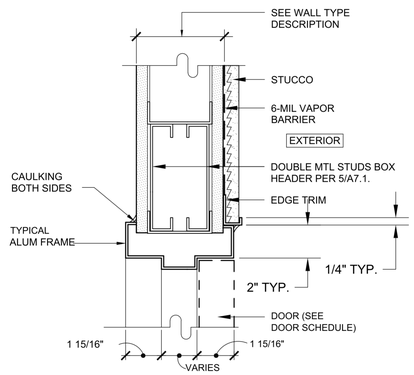
1. FLOOR OR LANDING ON EACH SIDE OF THE DOOR IS LEVEL & CLR.
2. LEVEL AREA IN THE DIRECTION OF THE DOOR SWING IS A MINIMUM OF 60" IN LENGTH.
3. LEVEL AREA OPPOSITE THE DIRECTION OF THE DOOR SWING IS A MINIMUM OF 44"-48" IN LENGTH, DEPENDANT UPON DIRECTION OF APPROACH AND EXISTENCE OF LATCH AND CLOSER.
4. SURFACE SLOPE OF THE LEVEL AREA DOES NOT EXCEED 1:50 GRADIENT (2%).
5. FOR INTERIOR DOORS, PROVIDE MINIMUM 18" ON STRIKE SIDE CLEARANCE ON PULL SIDE OF DOOR.
6. FOR EXTERIOR DOORS, PROVIDE MINIMUM 24" ON STRIKE SIDE CLEARANCE ON PULL SIDE OF DOOR.
7. PROVIDE MINIMUM 12" ON LATCH SIDE CLEARANCE ON PULL SIDE OF DOOR IF DOOR IS EQUIPPED WITH BOTH A LATCH & CLOSER.

THRESHOLDS:
A. FLOOR(S) OR LANDING(S) ARE NOT MORE THAN 1/2" LOWER THAN THE TOP OF THE THRESHOLD AT DOORWAY.

B. CHANGE IN LEVEL BETWEEN 1/4" AND 1/2" IS BEVELED AT A GRADIENT OF 1:2. NOTE: A 1/4" MAX VERTICAL EDGE IS ALLOWABLE AT THRESHOLD.

C. DOORMATS ARE SECURELY ATTACHED (ANCHORED OR RECESSED)

D. MAXIMUM HEIGHT OF DOORMATS IS 1/2".



ALUMINUM

1 / A7.1 DOOR HEAD DETAIL (ALUMINUM)

3" = 1'-0"

DOOR SCHEDULE

DOOR NO.	SIZE WIDTH	SIZE HEIGHT	TYPE DR	TYPE FR	MATERIAL DR	MATERIAL FR	DETAILS HEAD	DETAILS JAMB	DETAILS SILL	HDWR GROUP	FIRE RATING	VISION PNL LABEL	GLAZING LABEL	SOUND RATING	REMARKS
D1-01	3' - 0"	7' - 0"	AA	1	WD	AL	10/A7.1	8/A7.1	-		-			-	
D1-02	3' - 0"	7' - 0"	AA	1	WD	AL	10/A7.1	8/A7.1			-			-	
D1-03	3' - 0"	7' - 0"	AA	1	WD	AL	10/A7.1	8/A7.1			-			-	
D1-04	4' - 6"	7' - 0"	FF	4	WD	AL	10/A7.1	8/A7.1			-			-	
D1-05	4' - 0"	7' - 0"	BB	2	WD	AL	11/A7.2	11/A7.2			-			-	
D1-06	6' - 0"	7' - 0"	CC	3	WD	AL	10/A7.1	8/A7.1			-			-	
D1-08	4' - 6"	7' - 0"	DD	4	WD	AL	10/A7.1	8/A7.1			-			-	
D1-09	3' - 0"	7' - 0"	AA	1	WD	AL	10/A7.1	8/A7.1							
D1-10	4' - 6"	7' - 0"	EE	5	WD	AL	10/A7.1	8/A7.1			-			-	

HARDWARE GROUPS

GROUP TYPE 0
(FOR SINGLE DOOR NON-RATED)
1 1/2 PAIR - BUTTS
1 - LEVER
1 - DOOR STOP

GROUP TYPE 1
(FOR SINGLE DOOR NON-RATED)
1 1/2 PAIR - BUTTS
1 - LEVER
1 - NEOPRENE GASKET (CONT.)
1 - DOOR STOP

GROUP TYPE 2
(FOR SINGLE DOOR NON-RATED)
1 1/2 PAIR - BUTTS
1 - LEVER
1 - CLOSER
1 - NEOPRENE GASKET (CONT.)
1 - DOOR STOP

GROUP TYPE 3
(FOR SINGLE DOOR NON-RATED)
1 1/2 PAIR - BUTTS
1 - LEVER
1 - CLOSER
1 - DOOR STOP

GROUP TYPE 4
(FOR SINGLE DOOR RATED)
1 1/2 PAIR - BUTTS
1 - LEVER
1 - CLOSER
1 - SMOKE SEAL
1 - DOOR STOP

GROUP TYPE 5
(FOR DOUBLE DOORS NON-RATED)
3 PAIR - BUTTS
1 - LEVER (ACTIVE LEAF)
1 - COORDINATOR
1 - AUTOMATIC FLUSH BOLTS
2 - STOPS

GROUP TYPE 6
(FOR DOUBLE DOORS NON-RATED)
3 PAIR - BUTTS
1 - LEVER (ACTIVE LEAF)
2 - CLOSERS
1 - COORDINATOR
1 - AUTOMATIC FLUSH BOLTS
2 - STOPS

GROUP TYPE 7
(FOR DOUBLE DOORS NON-RATED)
3 PAIR - BUTTS
1 - LEVER (ACTIVE LEAF)
2 - CLOSERS
1 - COORDINATOR
1 - AUTOMATIC FLUSH BOLTS
1 - NEOPRENE GASKET (CONT.)
2 - STOPS

GROUP TYPE 8
(FOR DOUBLE DOORS RATED)
3 PAIR - BUTTS
1 - LEVER (ACTIVE LEAF)
2 - CLOSERS
1 - COORDINATOR
1 - AUTOMATIC FLUSH BOLTS
1 - SMOKE SEAL
2 - STOPS

GROUP TYPE 9
(FOR DOUBLE DOORS RATED)
3 PAIR - BUTTS
1 - LEVER (ACTIVE LEAF)
1 - PANIC HARDWARE
2 - CLOSERS
1 - COORDINATOR
1 - AUTOMATIC FLUSH BOLTS
1 - SMOKE SEAL
2 - STOPS

GROUP CATEGORIES
1 - LATCHSETS
2 - OFFICE LOCKS
3 - CLASSROOM LOCKS
4 - JANITOR LOCKS
5 - CARD READERS

GROUP MODIFIERS
x - SUBSTITUTE
    2 PAIR - BUTTS FOR SINGLE DOORS
    4 PAIR - BUTTS FOR DOUBLE DOORS

a - ADD AUTOMATIC DOOR OPENER ON HARDWARE GROUP

b - ADD DOOR BOTTOM

e - EXIT ONLY PROVISIONS ON HARDWARE GROUP

h - ADD HOLD OPENS TO HARDWARE GROUP

m - USE MANUAL FLUSH BOLT INSTEAD OF AUTOMATIC FLUSH BOLT

p - ADD PANIC HARDWARE TO HARDWARE GROUP

k - ADD 30" x 30" BRUSHED CHROME ARMOR PLATES EA. SIDE

s - ADD SMOKE SEALS

t - ADD THRESHOLD

HARDWARE GROUP LEGEND:
FIRST NUMBER IN SEQUENCE = GROUP CATEGORY

SECOND NUMBER IN SEQUENCE = GROUP TYPE

THIRD NUMBER IN SEQUENCE
(LOWER CASE) IF USED = GROUP MODIFIER

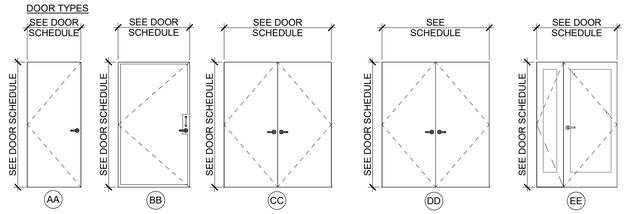
DOOR HARDWARE:
A. EXIT DOORS ARE OPERABLE FROM THE INSIDE WITHOUT THE USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT. NOTE: MANUALLY OPERATED EDGE OR SURFACE-MOUNTED FLUSH BOLTS AND SURFACE BOLTS ARE PROHIBITED.

B. OPERABLE WITH A SINGLE EFFORT (EX. LEVER TYPE. PANIC BAR OR PUSH-PULL TYPE).

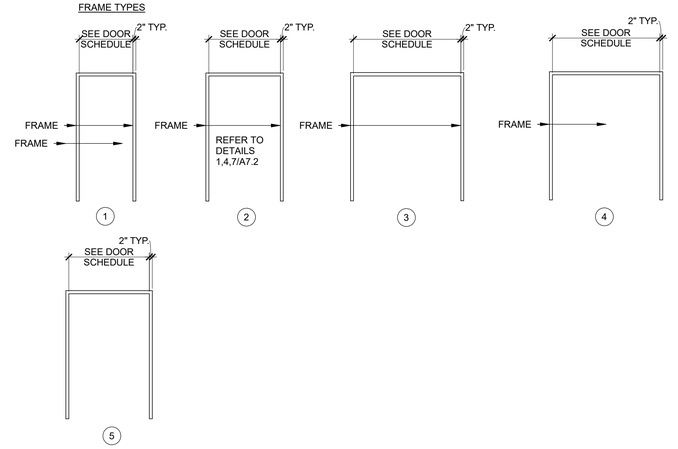
C. OPENING HARDWARE IS CENTERED BETWEEN 34" & 44" A.F.F.

D. DOOR CLOSERS, IF PRESENT, MUST BE SET SO THAT IT TAKES AT LEAST 5 SECONDS TO CLOSE FROM AN OPEN POSITION OF 90 DEGREES TO WITHIN 12 DEGREES OF THE LATCH.

DOOR TYPES



FRAME TYPES



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0	03/10/25	ISSUE FOR PERMIT

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MICHAEL P. HARRIS
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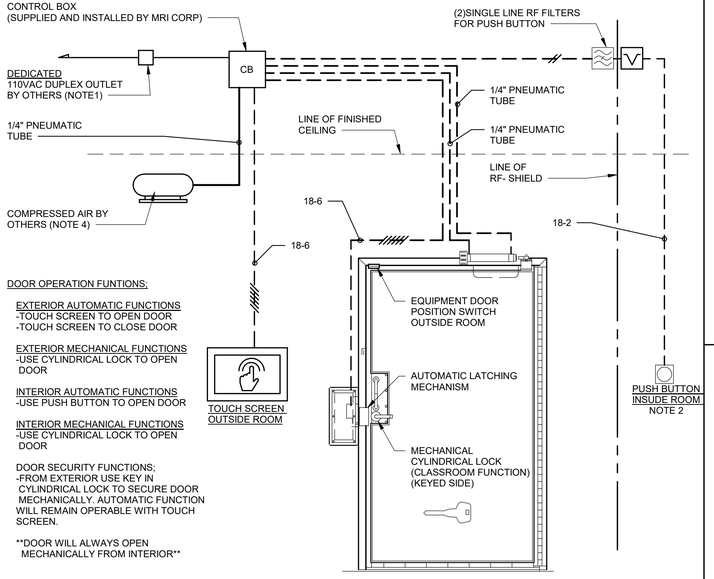
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MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATION
DOOR SCHEDULE

DRAWING NO. A7.1

BUILDING NUMBER: 02-565	SCALE: AS NOTED	BAB PROJECT #: 24118 / 6417	REV 0

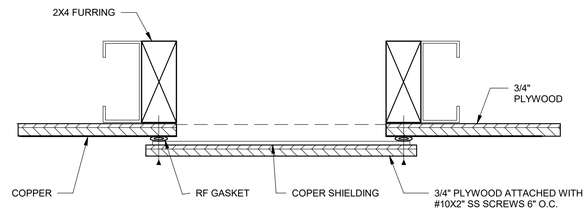
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7 / A7.2 DOOR DETAILS - SCHEMATIC
NTS

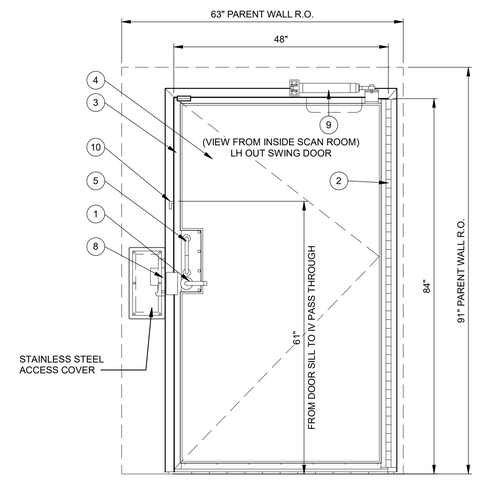
ITEM	QTY	DESCRIPTION
1	1	SARGENT CLASSROM LOCK (A.D.A.) TYP 11G37
2	1	CONTINUOUS HINGE, FULL #081390
3	1	GPS RF DOOR ASSEMBLY
4	1	VENEER - WILSONART LANDMARK 7981K FINE VELVET 38
5	1	'D' PULL BATTALION, #5U628
6	1	GASKET, SG375500-48
7	1	DOOR POSITION SWITCH
8	1	AUTO LATCH MECHANISM
9	1	PNEUMATIC DOOR OPERATOR
10	1	IV PASS THROUGH

5 / A7.2 DOOR DETAILS - NOTES
3/4" = 1'-0"

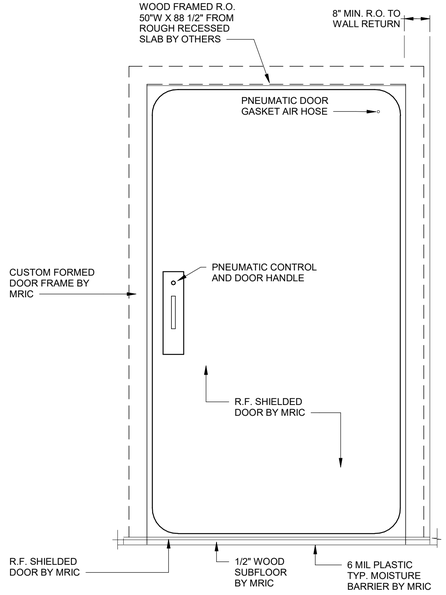


SCAN ROOM SIDE

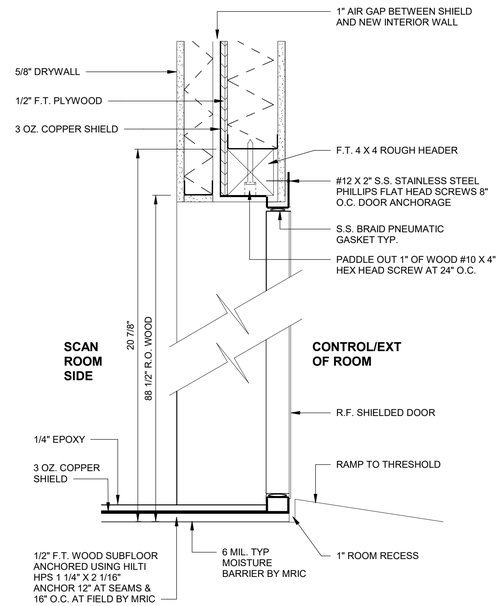
6 / A7.2 DOOR DETAILS - ACCESS HATCH
12" = 1'-0"



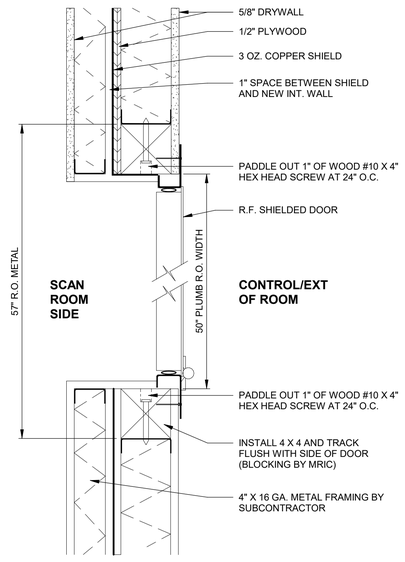
1 / A7.2 DOOR DETAILS - FULL SIZE
3/4" = 1'-0"



R.F. SHIELDED DOOR SCAN ROOM VIEW

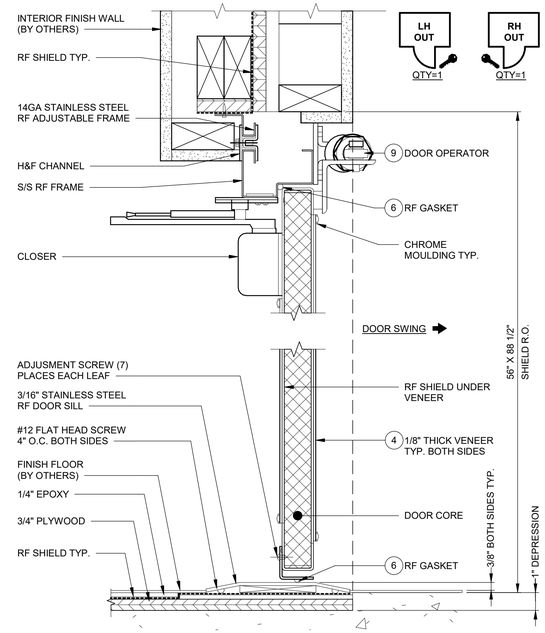


TYPICAL HEADER & THRESHOLD



R.F. DOOR TOP SECTION VIEW

11 / A7.2 R.F. DOOR DETAILS
3" = 1'-0"



2 / A7.2 DETAIL DOORS - DOOR SECTION A DETAIL
3" = 1'-0"

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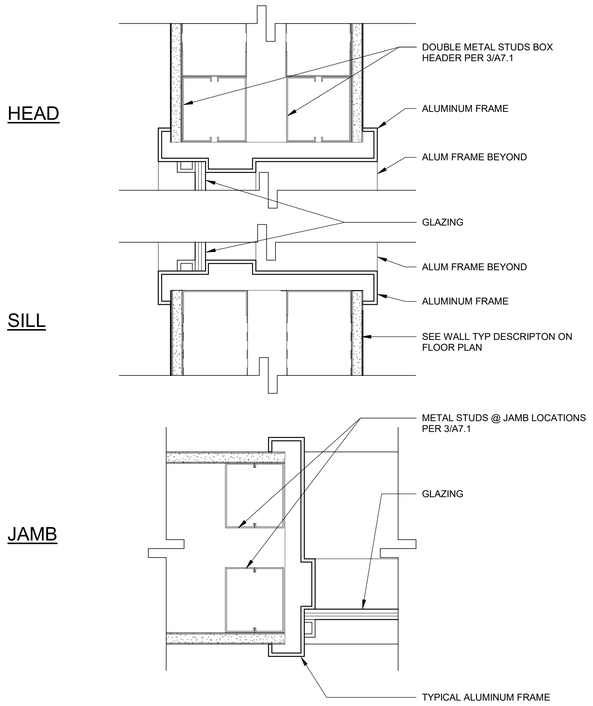
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MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATION
DOOR DETAILS

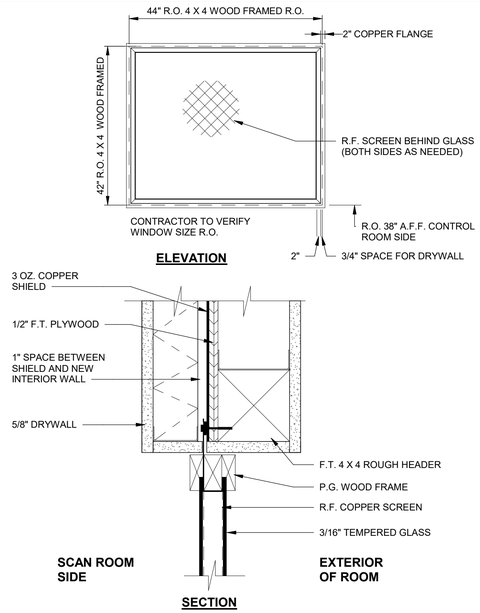
DRAWING NO. A7.2

BUILDING NUMBER: 02-565 | **SCALE:** AS NOTED | **BAB PROJECT #:** 24118 / 6417 | **REV** 0

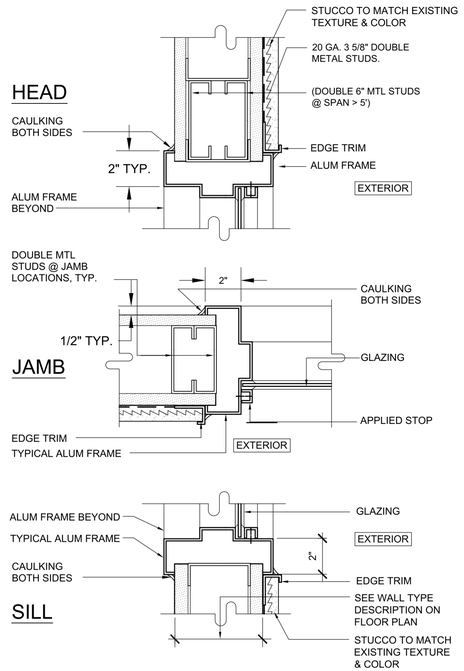
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5 / A7.3 **WINDOW SECTION AT OFFICE 106**
3" = 1'-0"



2 / A7.3 **R.F. INTERIOR SHIELDED WINDOW**
3" = 1'-0"

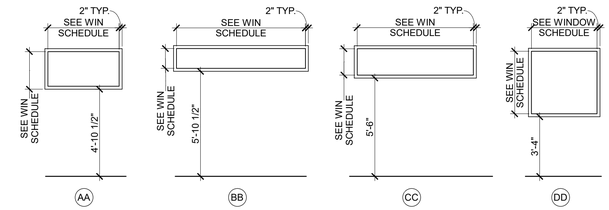


3 / A7.3 **EXTERIOR WINDOW FRAME DETAILS (AL)**
3" = 1'-0"

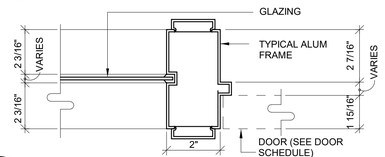
WINDOW SCHEDULE

MARK	SIZE		TYPE		DETAILS			GLAZING				FIRE RTG	LABEL TYPE	ACOUSTIC RATING	REMARKS
	Width	Hght	FR	MAT	HD	JB	SL	TEMPERED	U FACTOR	SHGC	VT				
W1-01	3'-11 7/8"	1'-11 1/4"	AA	AL	9/A7.1	9/A7.1	9/A7.1	-	-	-	-	-	-	-	
W1-02	3'-11 7/8"	1'-11 1/4"	AA	AL	9/A7.1	9/A7.1	9/A7.1				-	-	-	-	
W1-03	7'-8"	1'-1 5/16"	BB	AL	9/A7.1	9/A7.1	9/A7.1				-	-	-	-	
W1-04	6'-6"	1'-5 11/16"	CC	AL	9/A7.1	9/A7.1	9/A7.1				-	-	-	-	
W1-05	3'-8"	3'-6"	DD	AL	2/A7.3	9/A7.1	9/A7.1				-	-	-	-	

WINDOW TYPES



WINDOW NOTES:
1. ALL ALUMINUM WINDOW FRAMES SHALL BE NATURALLY ANODIZED (CLEAR).
2. ALL HOLLOW METAL WINDOW FRAMES SHALL BE PAINTED AS SPECIFIED ON FINISH PLAN.
3. ALL GLAZING SHALL BE TEMPERED OR RATED WHERE NOTED.
4. REFER TO DETAIL 3 THIS SHEET FOR HEADER FRAMING.
5. GLAZING PROPERTIES REPRESENT THE MINIMUM PERFORMANCE REQUIREMENTS. CONTRACTOR TO PROVIDE NFRC LABEL OR NFRC CERTIFIED PRODUCT DIRECTORY NUMBER FOR INSPECTION.



1 / A7.3 **DOOR/WINDOW JAMB DETAIL (AL)**
6" = 1'-0"

REV	DATE	REVISION
0	03/10/25	ISSUE FOR PERMIT

STAMP

LICENSED ARCHITECT
EXP. AUG. 31, 2025
MICHAEL P. HARRIS
C32799
STATE OF CALIFORNIA

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STANFORD PROJECT NUMBER:	
PROJECT MANAGER:	BRIAN CARILLI

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fax: (408) 588-0095
CA license: B-443949

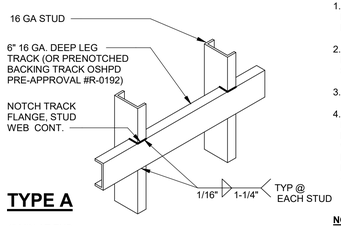
Stanford University

MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATION
WINDOW SCHEDULE

DRAWING NO. **A7.3**

BUILDING NUMBER: 02-565	SCALE: AS NOTED	BAB PROJECT #: 24118 / 6417	REV 0

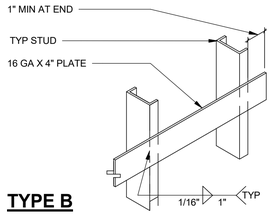
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TYPE A

NOTES:

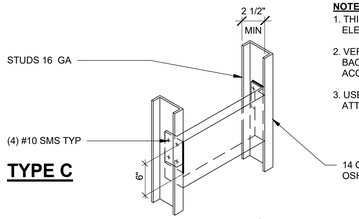
1. USE FOR UPPER WALL HUNG CABINETS, FULL HEIGHT CABINETS, HAND- RAILS, WALL HUNG EQUIP., ETC. MAX WT.-200 LBS./ LIN. FT.
2. LENGTH, HEIGHT AND LOCATION TO SUIT ITEMS BEING FASTENED. SEE ANCHORAGE DETAIL FOR SPECIFIC ITEMS FOR ADDITIONAL INFORMATION.
3. ATTACH TO THREE STUDS MIN.
4. ALTHOUGH NOT RECOMMENDED (SEE REASONING IN TYPE B NOTES), IN LIEU OF WELDING USE OF MIN. (4) #12 TEKS SCREWS AT EACH STUD ALONG WITH TOTAL (4) 2"x2"x16 GA. CLIP ANGLE (TOP AND BOTTOM TO EACH SIDE OF STUD) 1/4" LESS THAN FLANGE WIDTH ADHERED TO EACH STUD WITH MIN. 4 #12 TEKS STAGGERED IS ACCEPTABLE



TYPE B

NOTES:

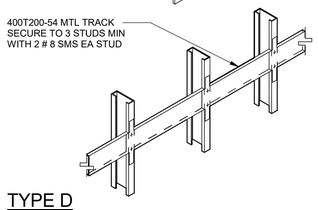
1. USE FOR MISC. ITEMS (E.G. SURFACE MOUNTED MIRROR, WASTE RECEPTACLES, TOWEL DISPENSERS, WALL MOUNTED DOOR STOP, PARTITIONS). MAX. WT. 50 LB. POINT LOAD.
2. VERIFY LENGTH, HEIGHT, LOCATION OF BACKING PLATE & NUMBER REQUIRED W/ ACCESSORY MANUFACTURERS.
3. USE #12 SELF TAPPING SCREWS WHEN ATTACHING ITEMS TO BACKING.
4. USE OF MIN. (3) #12 TEKS SCREWS AT EACH STUD IN LIEU OF WELDING IS ACCEPTABLE, HOWEVER NOT RECOMMENDED (DUE TO IT BEING A POSSIBLE OBSTRUCTION WHEN ATTACHING ITEMS TO BACKING AND THE REQUIREMENT OF CAREFUL PLANNING TO MISS SCREWS).



TYPE C

NOTES:

1. THIS IS BACKING FOR GRAB BARS AND ELECTRICAL CABINETS ETC, SHOWN ON DWG.
2. VERIFY LENGTH HEIGHT, LOCATION OF BACKING PLATE & NUMBER REQUIRED W/ ACCESSORY MANUFACTURERS.
3. USE #12 SELF TAPPING SCREWS WHEN ATTACHING ITEMS TO BACKING.



TYPE D

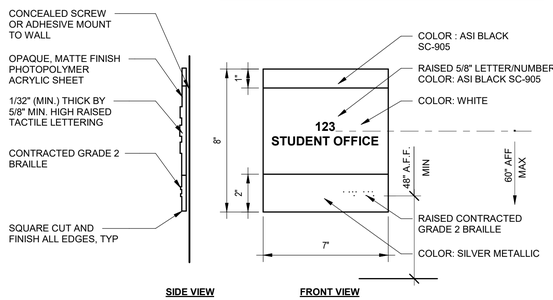
NOTES:

1. THIS IS BACKING FOR GRAB BARS AND ELECTRICAL CABINETS ETC, SHOWN ON DWG.
2. VERIFY LENGTH HEIGHT, LOCATION OF BACKING PLATE & NUMBER REQUIRED W/ ACCESSORY MANUFACTURERS.
3. USE #8 SELF TAPPING SCREWS WHEN ATTACHING ITEMS TO BACKING.

7 A8.1 BACKING DETAILS

NTS

NOTE: DETAIL SHOWN FOR GENERAL INFORMATION. COORDINATE WITH BUILDING STANDARDS TO VERIFY SIGN TYPE, SIZE AND COLOR. REFERENCE DETAIL 2 / A8.1 FOR MOUNTING HEIGHT.



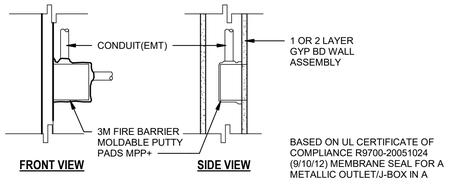
NOTE:
1. +48" MIN TO THE BASELINE OF THE LOWEST TACTILE CHARACTER (I.E. THE BRAILLE DOTS).
2. +60" MAX TO THE BASELINE OF THE HIGHEST TACTILE CHARACTER.

4 A8.1 ROOM IDENTIFICATION SIGNAGE

3" = 1'-0"



ISOMETRIC VIEW



FRONT VIEW **SIDE VIEW**

BASED ON UL CERTIFICATE OF COMPLIANCE R9700-20051024 (9/10/12) MEMBRANE SEAL FOR A METALLIC OUTLET/J-BOX IN A GYPSUM BOARD ASSEMBLY.

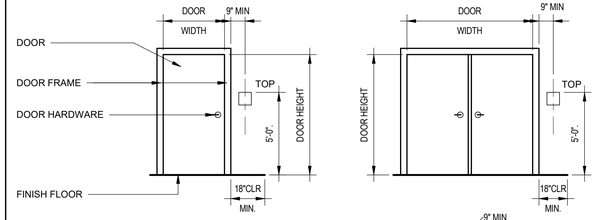
5 A8.1 ELECTRICAL OUTLET/J-BOX

1 1/2" = 1'-0"

WWW.SAFETYSIGN.COM
ITEM # J2592-B2L
7"x5"x3.5 MIL PEEL AND STICK VINYL LABEL
(OR APPROVED ALTERNATE)
MOUNT AT 60" A.F.F. TO TOP OF SIGN

6 A8.1 NO SMOKING SIGN AT ENTRANCES

NTS



NOTES:
REFER TO DETAIL 3 / A8.1 FOR ADDITIONAL INFORMATION

2 A8.1 TACTILE SIGNAGE LOCATION

NTS

NOTES:
1. LOCATE SIGN ON THE WALL ADJACENT TO THE LATCH SIDE OF THE DOOR. MAINTAIN 18"x18" CLR AT SIGN.
2. SIGN TO BE INSTALLED W/DBL BACK TAPE.

*WHERE THERE IS NO WALL SPACE TO THE LATCH SIDE OF THE DOOR, PLACE SIGN ON NEAREST ADJACENT WALL. REFER TO 6/A8.1 FOR LOCATION CONDITIONS

** FONT PROPORTIONS. CHARACTERS ON SIGNS SHALL BE SELECTED FROM FONTS THAT HAVE A WIDTH-TO-HEIGHT RATIO OF BETWEEN 3:5 (60 PERCENT) AND 1:1.1 (110 PERCENT) MEASURED BY THE WIDTH OF THE UPPERCASE LETTER "O" AND HEIGHT OF THE UPPERCASE LETTER "I", AND A STROKE WIDTH-TO-HEIGHT RATIO OF BETWEEN 1:5 (20 PERCENT) AND 1:10 (10 PERCENT) MEASURED BY THE WIDTH AND HEIGHT OF THE UPPERCASE LETTER "I".

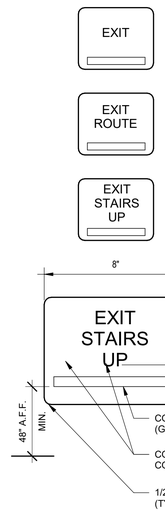
FOR SIGN SHAPE, COLORS AND SIZE, MATCH EXISTING BUILDING STANDARD.

LOCATE TOP OF SIGN AT 60" A.F.F., TYPICAL SO THAT ALL TACTILE EGRESS AND ROOM IDENTIFICATION SIGNS ARE UNIFORM IN MOUNTING HEIGHT.

SUBSTITUTE "RAMP" FOR "STAIR" NOTATION AT RAMPS, TYP

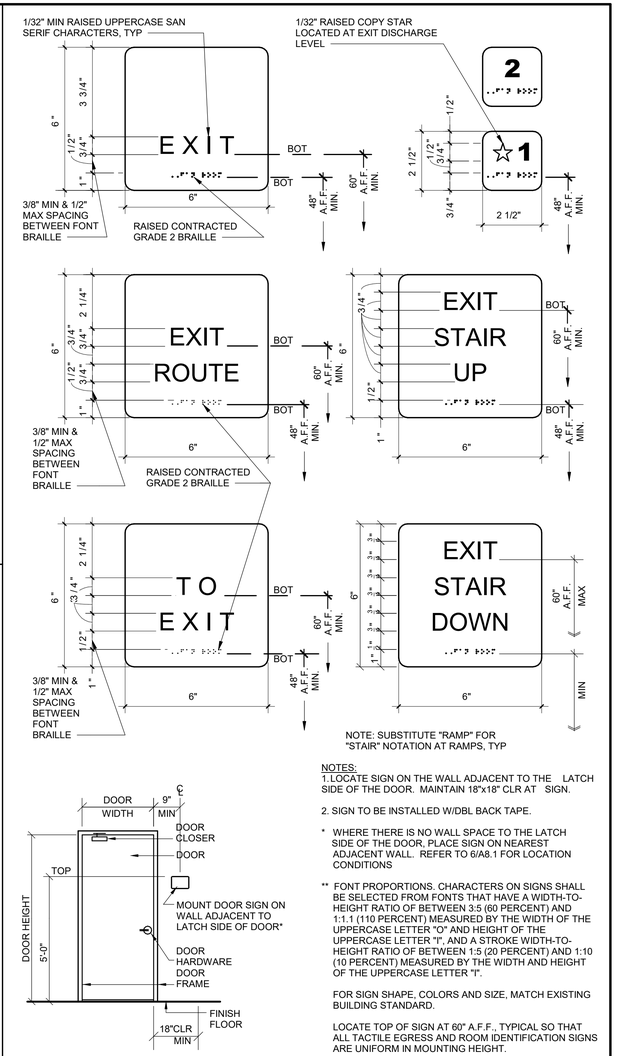
PLAQUE SPECIFICATIONS:
SIZE: 6" X 8" (6"x6" IF APPROVED)
LETTERING 3/4"
MATERIAL: PER STANFORD BUILDING STANDARD.
SUBSTRATE SHEET: 1/16" THICK,
BACKGROUND COLOR: PER STANFORD BUILDING STANDARD
SYMBOLS & LETTERING COLOR: PER STANFORD BUILDING STANDARD
APPLIQUÉ SHEET: 1/32" THICK

BRAILLE: 1/16" (0.0625) RAISED IVORY LETTERS W/GRADE 2 BRAILLE. COLOR FORMAT:
BACKGROUND: BLUE
COPY: IVORY DOTS: 1/10 (0.1) INCH ON CENTER IN EACH CELL WITH 3/10 (0.3)INCH SPACE BETWEEN CELLS. MEASURED FROM THE SECOND COLUMN OF DOTS IN THE FIRST CELL TO THE FIRST COLUMN OF DOTS IN THE SECOND CELL.



3 A8.1 TACTILE EXIT SIGNAGE

NTS



1 A8.1 TACTILE SIGNAGE

12" = 1'-0"

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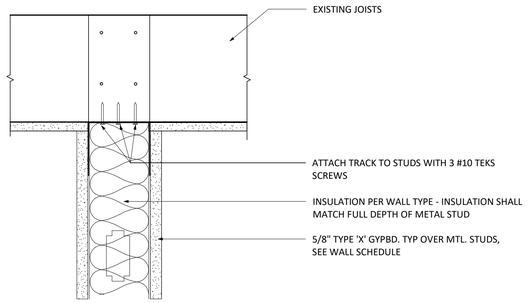
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MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATION
ARCHITECTURAL DETAILS

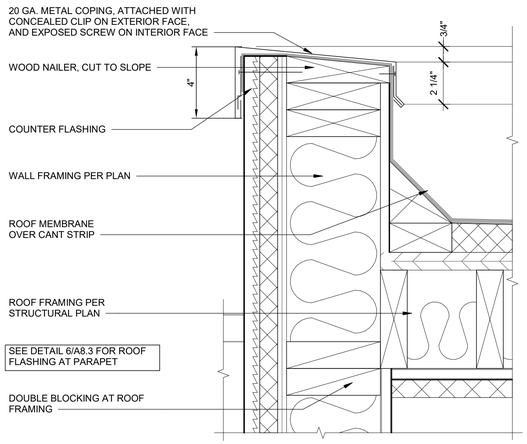
DRAWING NO. **A8.1**

BUILDING NUMBER: 02-565 | SCALE: AS NOTED | BAB PROJECT #: 24118 / 6417 | REV 0

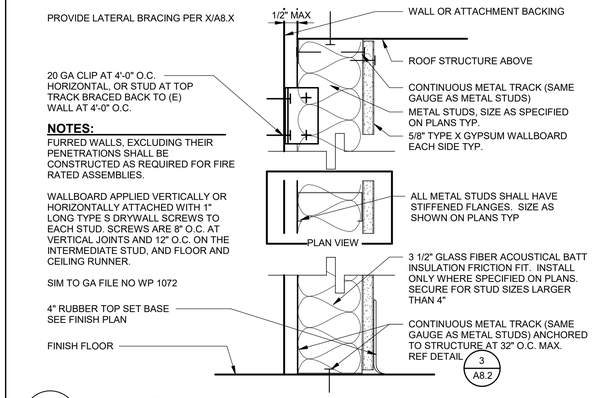
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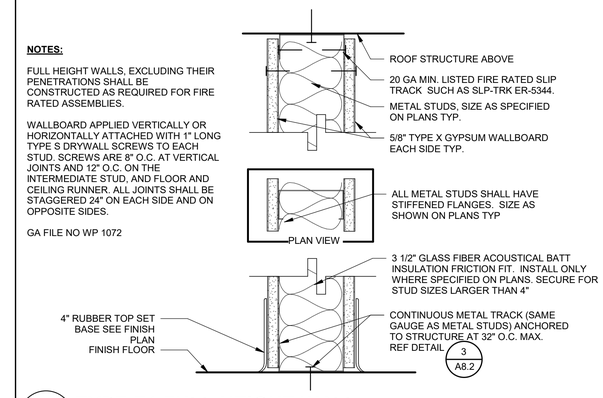
10 A8.2 WALL HEAD DETAIL
3" = 1'-0"



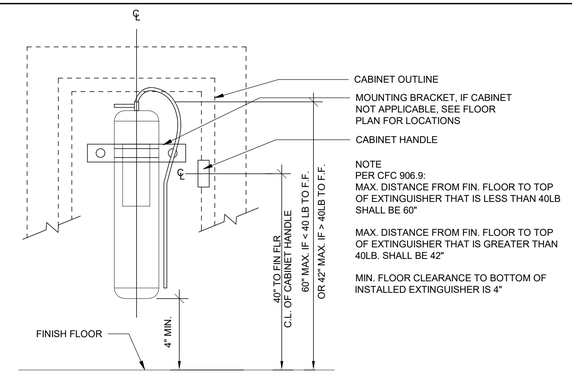
7 A8.2 PARAPET FLASHING DETAIL
3" = 1'-0"



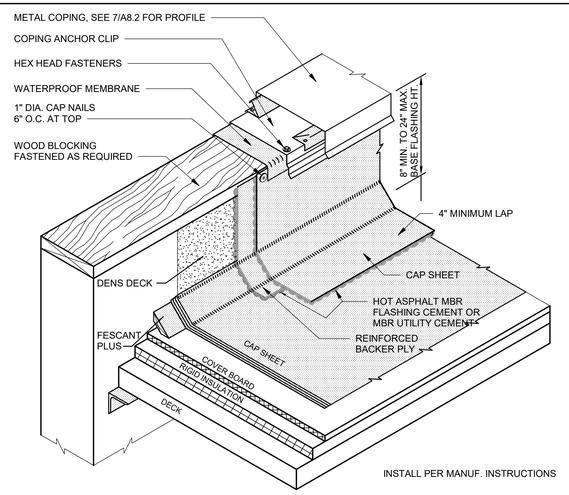
4 A8.2 TYPE E3 FURRED WALL
3" = 1'-0"



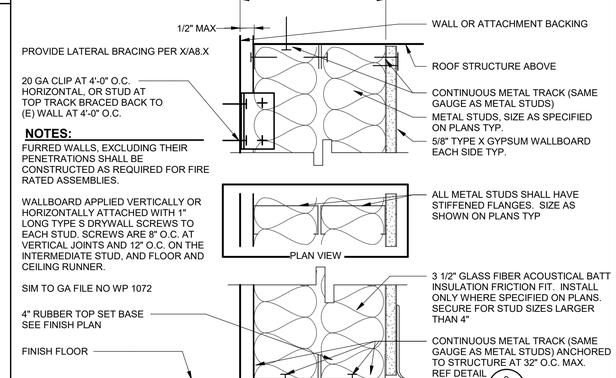
1 A8.2 TYPE E1 FULL HEIGHT WALL
3" = 1'-0"



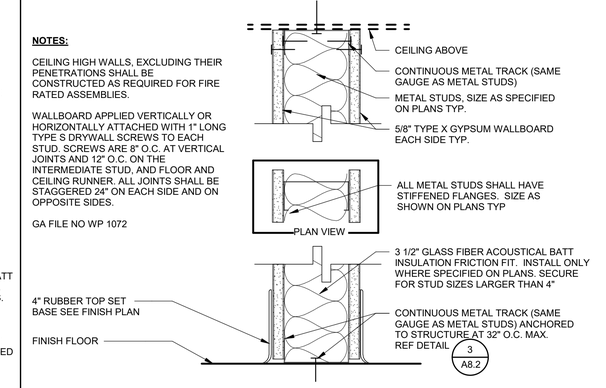
11 A8.2 FIRE EXTINGUISHER ELEVATION
3" = 1'-0"



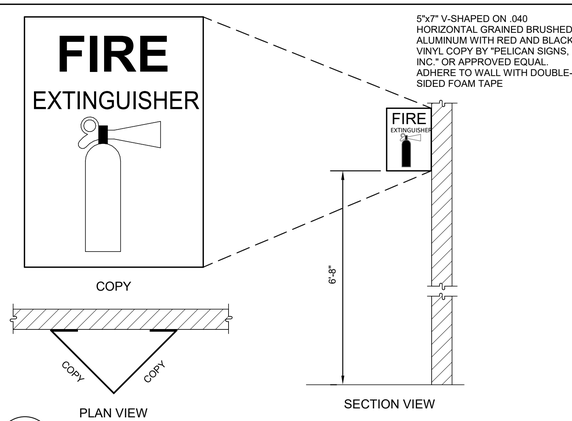
8 A8.2 PARAPET FLASHING DETAIL - ISO
12" = 1'-0"



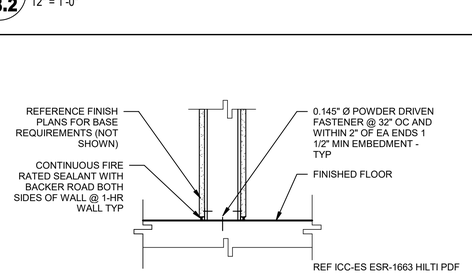
5 A8.2 TYPE E6 DOUBLE STUD FURRED WALL
3" = 1'-0"



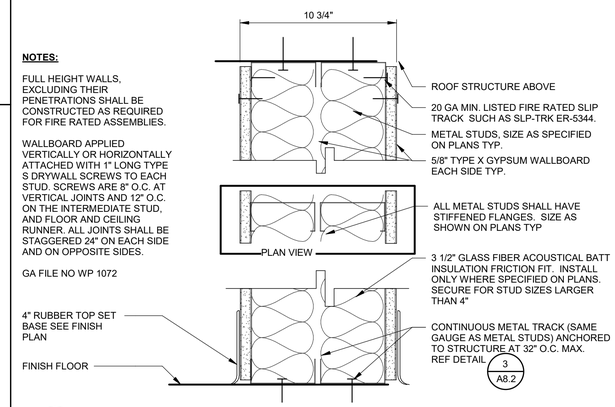
2 A8.2 TYPE G1 CEILING HIGH WALL
3" = 1'-0"



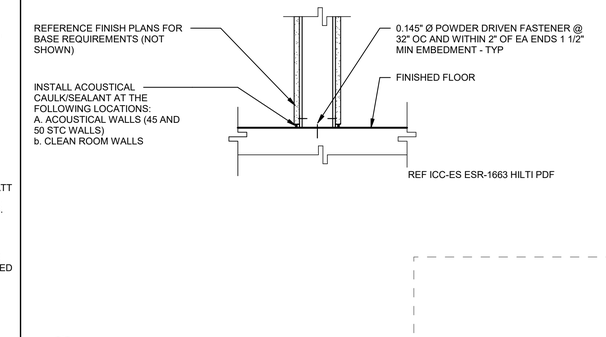
12 A8.2 FIRE EXTINGUISHER SIGN
1 1/2" = 1'-0"



9 A8.2 WALL BASE DETAIL
1 1/2" = 1'-0"



6 A8.2 TYPE E2 FULL HEIGHT DOUBLE STUD WALL
3" = 1'-0"



3 A8.2 NON RATED WALL - BASE
1 1/2" = 1'-0"

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EXP. AUG. 31, 2025
MICHAEL P. HARRIS
C32799
REGISTERED
STATE OF CALIFORNIA

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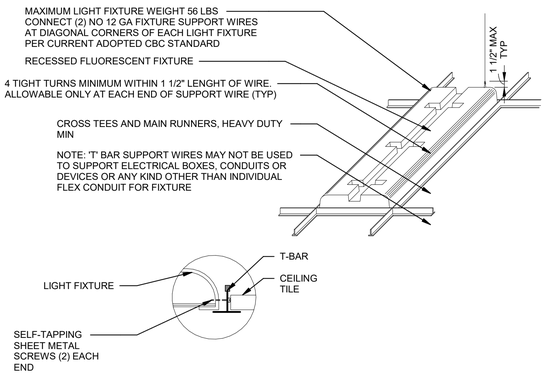
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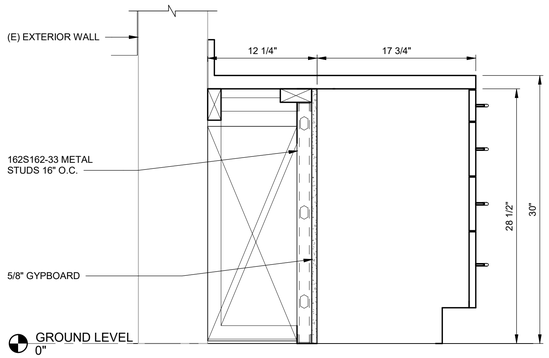
DRAWING NO. **A8.2**

BUILDING NUMBER: 02-565 | SCALE: AS NOTED | BAB PROJECT #: 24118 / 6417 | REV 0

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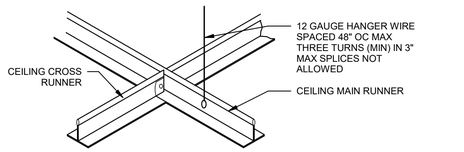


8 A8.3 LIGHT FIXTURE SUPPORT
3" = 1'-0"

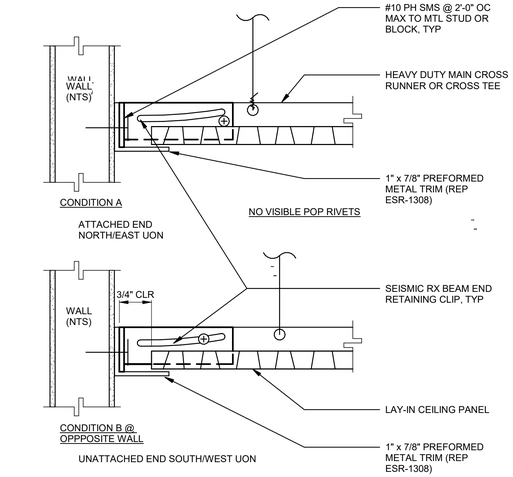


9 A8.3 TYPE F1 - PARTIAL HEIGHT WALL
1 1/2" = 1'-0"

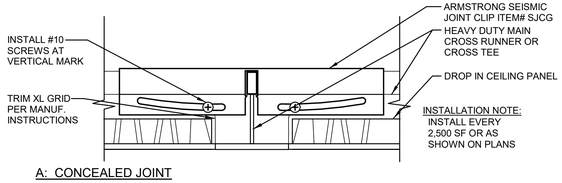
SPLICES AND INTERSECTIONS OF RUNNERS SHALL BE ATTACHED WITH MECHANICAL INTERLOCKING CONNECTORS SUCH AS POP RIVETS, SCREW PINS, PLATES WITH BENT TABS OR OTHER APPROVED CONNECTORS. DESIGN CONNECTORS FOR 2x DESIGN LOAD OR ULTIMATE AXIAL TENSION OR COMPRESSION (MIN. 60 POUNDS).



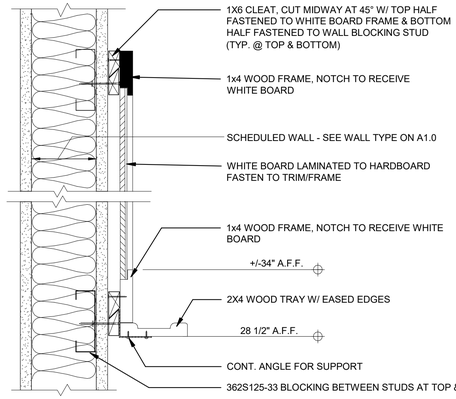
5 A8.3 HANGER WIRE
1 1/2" = 1'-0"



6 A8.3 END CONDITIONS T-BAR
1 1/2" = 1'-0"



7 A8.3 SEISMIC JOINTS
NTS



3 A8.3 SECTION OF WHITEBOARD AND CHAIR RAIL (REMOVABLE)
3" = 1'-0"

APPROVED CONDUIT SIZES

EMT CONDUIT SIZE	CEILING TO STRUCTURE ABOVE VERT DIMENSION
1/2", 0.706" OD	UP TO 71", 5'-11"
3/4", 0.922" OD	UP TO 93", 7'-9"
1", 1.163" OD	UP TO 117", 9'-9"
1 1/4", 1.510" OD	UP TO 153", 12'-9"

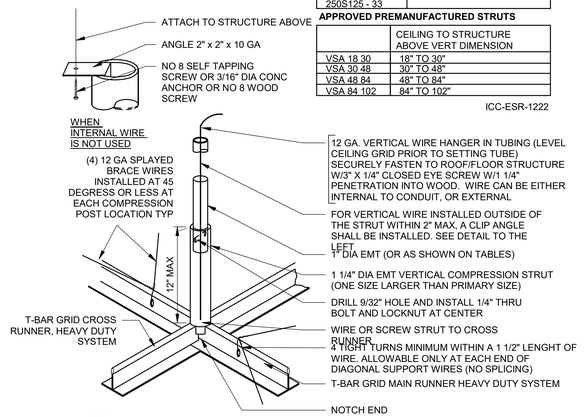
APPROVED STUD SIZES

METAL STUD SIZE	CEILING TO STRUCTURE ABOVE VERT DIMENSION
162S125 - 33	12'-0" MAX
BACK TO BACK 162S125 - 33	15'-0" MAX
250S125 - 33	13'-6" MAX
BACK TO BACK 250S125 - 33	16'-0" MAX

APPROVED PREMANUFACTURED STRUTS

	CEILING TO STRUCTURE ABOVE VERT DIMENSION
VSA 18 30	18" TO 30"
VSA 30 48	30" TO 48"
VSA 48 84	48" TO 84"
VSA 84 102	84" TO 102"

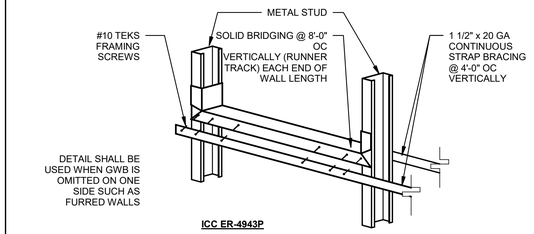
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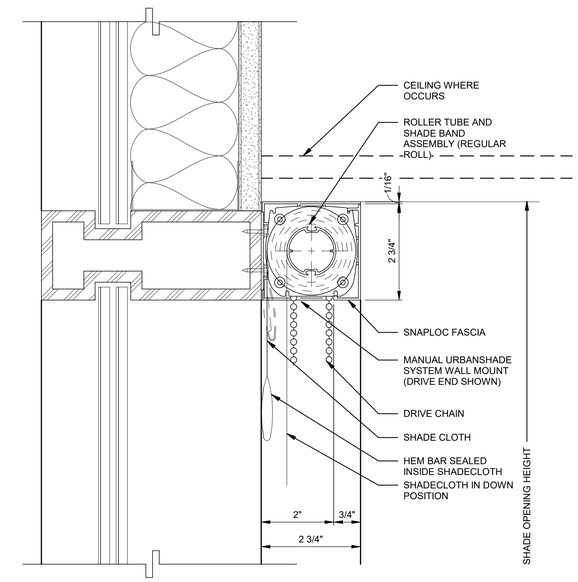
NOTE:

TUBE SHALL BE TIGHT TO CEILING GRID AND STRUCTURE ABOVE. AFTER TENSIONING, INSTALL BOLT TO SECURE ONE TUBE TO THE OTHER. TUBES SHALL LAP EACH OTHER AT LEAST 4" IN FULLY EXTENDED POSITION. THESE SUSPENDED CEILING LATERAL SUPPORTS SHALL BE PLACED 12' O.C. IN BOTH DIRECTIONS AND 6' MAX. FROM WALLS. VERTICAL WIRE HANGERS SHALL BE 12 GA. AND 4' O.C. IN EACH DIRECTION AND 8" MAX. FROM WALLS.

4 A8.3 SUSPENDED CEILING BRACING
1 1/2" = 1'-0"



1 A8.3 LATERAL WALL BRACING
1 1/2" = 1'-0"



2 A8.3 MECHOSHADE SECTION
6" = 1'-0"

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STANFORD PROJECT NUMBER:	
PROJECT MANAGER:	BRIAN CARILLI

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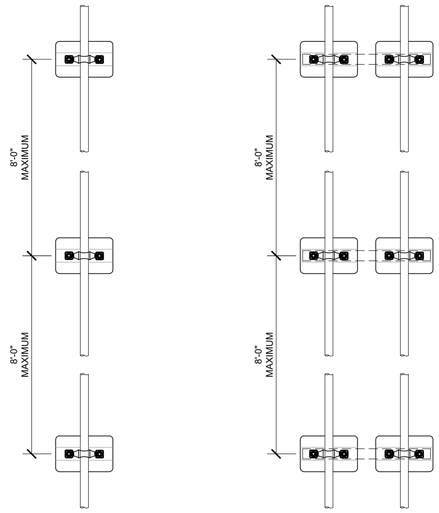
MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATION
ARCHITECTURAL DETAILS

DRAWING NO. A8.3

BUILDING NUMBER: 02-565 | SCALE: AS NOTED | BAB PROJECT #: 24118 / 6417 | REV 0

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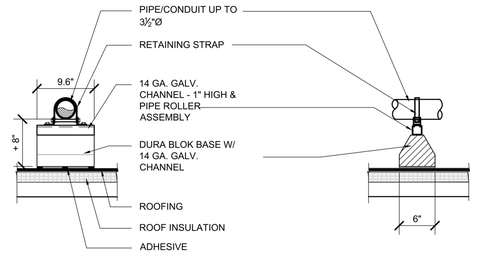
NOTES:
1. FIXED SLEEPER SUPPORTS ARE REQUIRED FOR THE FOLLOWING CONDITIONS. REFER TO 11 & 12/A8.X FOR FIXED SLEEPER SUPPORT AND FLASHING CONDITIONS.
   A. WITHIN 5' OF EVERY BEND OF CONDUIT/PIPING.
   B. WITHIN 3' OF EVERY ROOF PENETRATION TO HORIZONTAL RUN.
   C. MAXIMUM SPACING FOR STRAIGHT RUNS BASED UPON SIZE OF CONDUIT/PIPING AS FOLLOWS:
      - 24'-0" O.C. FOR 2½"Ø CONDUIT
      - 16'-0" O.C. FOR 3"Ø CONDUIT
      - 32'-0" O.C. FOR 4"Ø CONDUIT
      - 40'-0" O.C. FOR 5"Ø CONDUIT
      - 50'-0" O.C. FOR 6"Ø OR LARGER CONDUIT
      - 30'-0" O.C. FOR PROCESS PIPING 2"Ø OR LESS
      - 8'-0" O.C. FOR PROCESS PIPING > 2"Ø
2. FLOATING SLEEPER APPLICATIONS (DURA BLOK) SHALL APPLY FOR REMAINDER OF CONDITIONS OUTSIDE OF CRITERIA ABOVE. SEE SPACING AND DETAIL REFERENCES BELOW.
3. REFER TO DETAIL 1 THIS SHEET FOR CONDUIT/PIPE PENETRATIONS THROUGH ROOF WHERE/IF OCCURS
4. SEAL ALL PENETRATIONS THROUGH PENTHOUSE WALLS.



PLAN VIEW (SINGLE PIPE) -SEE 6&7/A8.X

PLAN VIEW (MULTIPLE PIPES) -SEE 8/A8.X

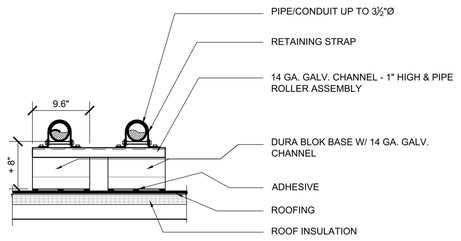
9 A8.4 PLAN VIEW CONDUIT/PIPE SUPPORTS
NTS



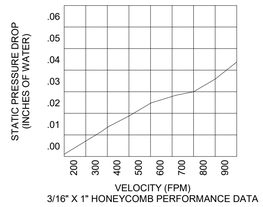
SECTION THROUGH PIPE

SECTION THROUGH SUPPORT

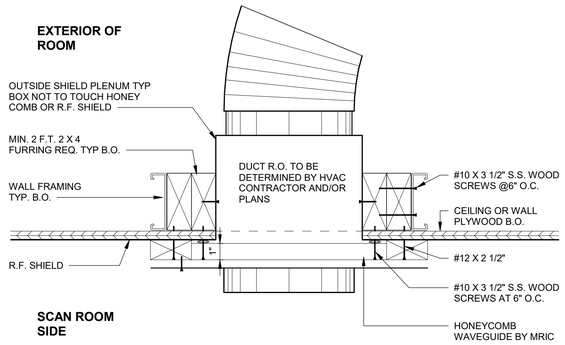
6 A8.4 LINE/CONDUIT ROOF SUPPORT
NTS



7 A8.4 PIPE/CONDUIT DURA BLOK SUPPORT
1 1/2" = 1'-0"

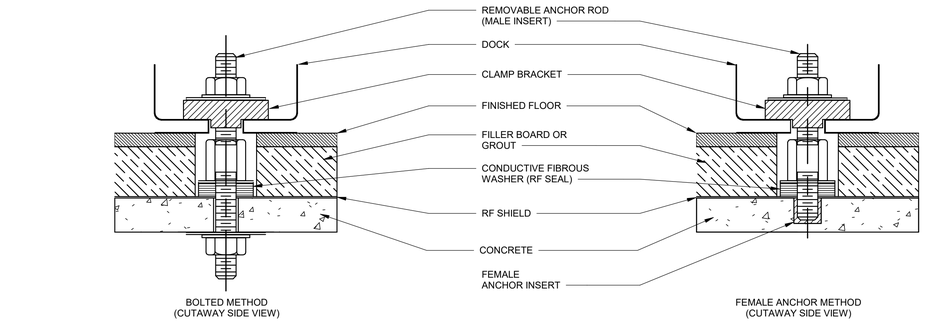


VELOCITY (FPM)
3/16" X 1" HONEYCOMB PERFORMANCE DATA



8 A8.4 HVAC PENETRATION-SLEEVED FLANGE
NTS

10 A8.4 CEILING CRYOGEN PIPE WAVEGUIDE
NTS

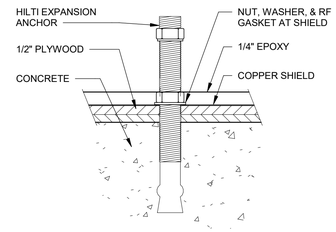


BOLTED METHOD (CUTAWAY SIDE VIEW)

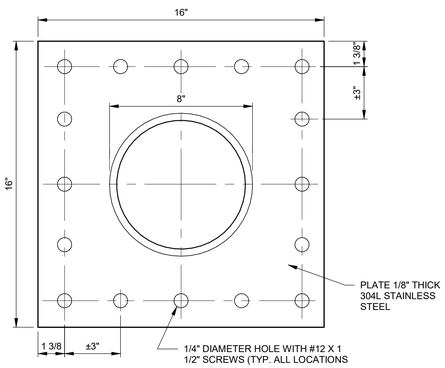
FEMALE ANCHOR METHOD (CUTAWAY SIDE VIEW)

NOTES:
1. THE RF SHIELD VENDOR MUST DESIGN AND INSTALL THE TABLE FRAME ANCHOR BOLT
2. THE TABLE FRAME ANCHOR HOLE MUST BE DRILLED AFTER THE MAGNET IS DELIVERED
3. THE TABLE FRAME ANCHOR MUST NOT CONTACT FLOOR REBAR OR OTHER STRUCTURAL STEEL
4. THE TABLE FRAME ANCHOR MUST ELECTRICALLY CONTACT THE RF SHIELD AT POINT OF ENTRY
5. THE TABLE FRAME ANCHORS MUST HAVE THE FOLLOWING PROPERTIES:
   a. ANCHORS MUST BE TWO-PART ASSEMBLY (MALE/FEMALE)
   b. FEMALE SIDE MUST BE EXPANSION- OR EPOXY-TYPE
   c. MALE SIDE MUST BE A BOLT OR THREADED ROD WITH APPROPRIATE-SIZED NUT (BOLT OR ROD MUST BE REMOVABLE - NOT EPOXIED OR CEMENTED IN PLACE)
   d. ANCHORS MUST BE ELECTRICALLY CONDUCTIVE
   e. ANCHORS MUST BE NON-MAGNETIC
   f. ANCHORS MUST NOT INDUCE GALVANIC CORROSION WITH THE RF SHIELD
   g. ANCHORS MUST BE COMMERCIALLY PROCURED
   h. THE ANCHOR ROD HOLE CLEARANCE IN THE TABLE ANCHOR BASE IS 11 MM (0.43 IN). THE ANCHOR ROD DIAMETER MUST BE SIZED APPROPRIATELY
   i. ANCHORS MUST MEET THE FOLLOWING CLAMPING FORCE: 2669 N (600 LBS)
   j. THE ANCHOR ROD MUST EXTEND 40 MM ± 13 MM (1.57 IN ±0.5 IN) ABOVE THE FINISHED FLOOR
   k. THE ANCHOR ROD MUST BE LESS THAN 152 MM (6 IN) IN TOTAL LENGTH (LENGTH ABOVE THE FLOOR PLUS EMBEDDED LENGTH)
6. THE RF SHIELD VENDOR MUST PERFORM A PULL TEST ON THE ANCHOR (EQUAL TO THE CLAMPING FORCE). RESULTS MUST BE PROVIDED TO THE GE HEALTHCARE PROJECT MANAGER OF INSTALLATION (PMI).

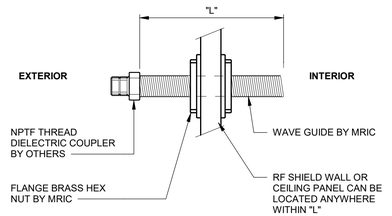
1 A8.4 MRI ANCHOR MOUNTING REQUIREMENTS
NTS



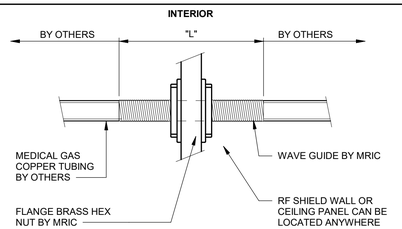
4 A8.4 TYPICAL ANCHOR BOLT PENETRATION
NTS



5 A8.4 QUENCH TUBE FLANGE
NTS



2 A8.4 SPRINKLER WAVEGUIDE ASSEMBLY
NTS



3 A8.4 MEDICAL GAS WAVEGUIDE
NTS

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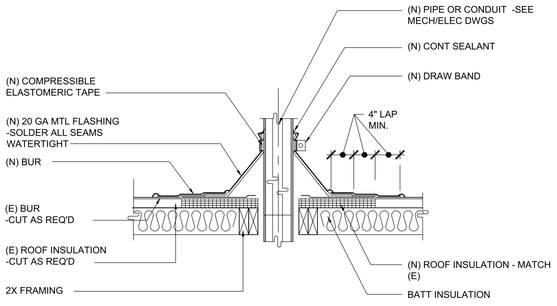
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MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATION
ARCHITECTURAL DETAILS

DRAWING NO. A8.4

BUILDING NUMBER: 02-565 | SCALE: AS NOTED | BAB PROJECT #: 24118 / 6417 | REV 0

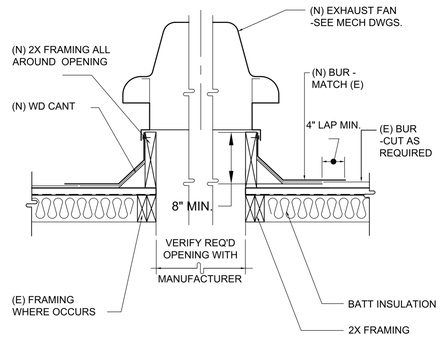
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NOTE:
MATCH (E) ROOFING TO CONTINUE ORIGINAL ROOFING WARRANTY

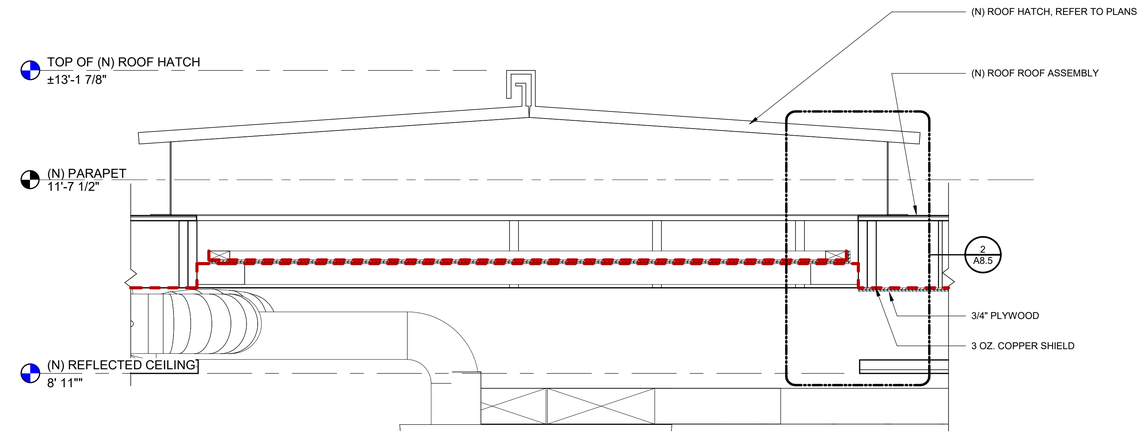
NEW PENETRATION @ EXISTING WOOD DECK

8 A8.5 FLASHING AT PIPE PENETRATION
1" = 1'-0"

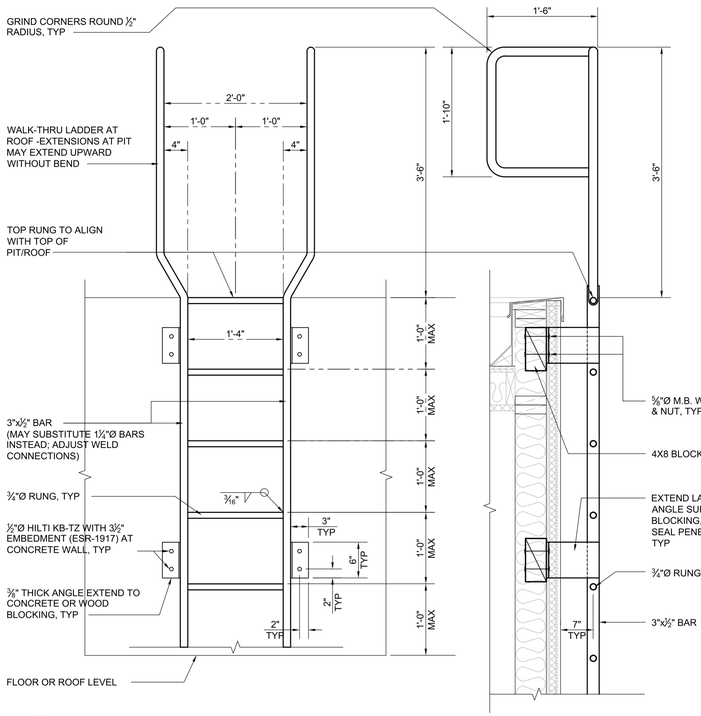


NOTE:
MATCH (E) ROOFING TO CONTINUE ORIGINAL ROOFING WARRANTY

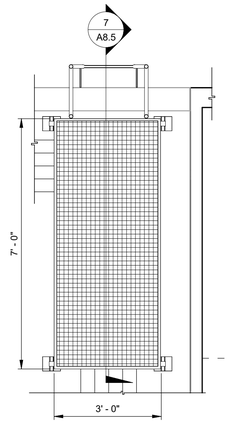
5 A8.5 EXHAUST FAN ROOF FLASHING DETAIL
1" = 1'-0"



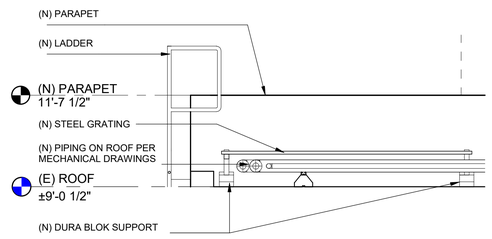
1 A8.5 ROOF OPENING PLUG SECTION
1" = 1'-0"



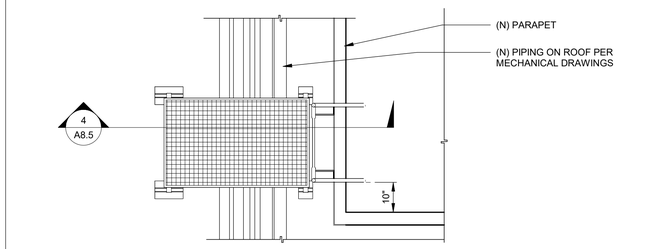
9 A8.5 LADDER DETAILS
1" = 1'-0"



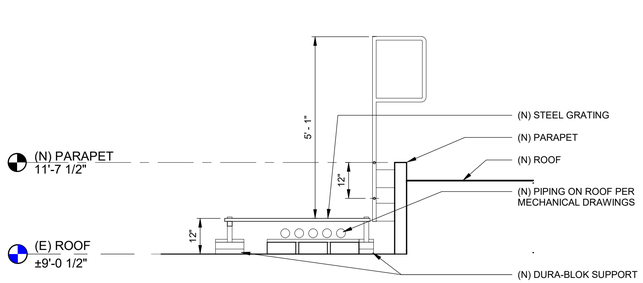
6 A8.5 GRATE PLATFORM
1/2" = 1'-0"



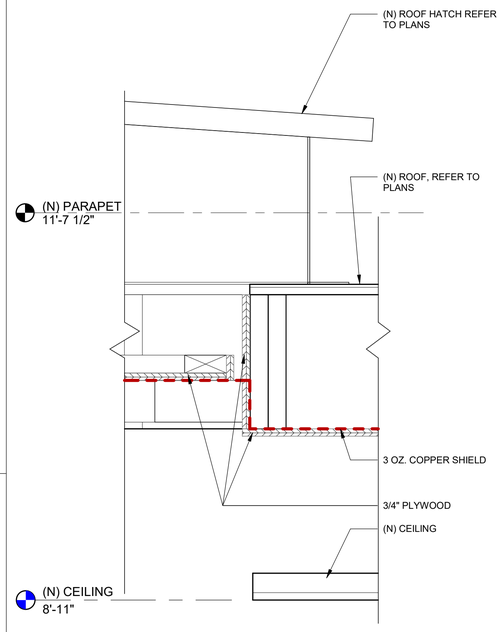
7 A8.5 GRATE PLATFORM SECTION
1/2" = 1'-0"



3 A8.5 CROSS-OVER LADDER
1/2" = 1'-0"



4 A8.5 CROSS-OVER LADDER SECTION
1/2" = 1'-0"



2 A8.5 ROOF PLUG ENLARGED SECTION
1 : 6

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C32799
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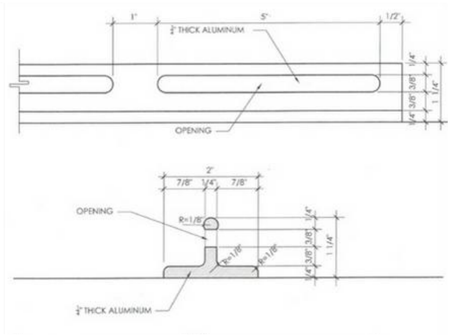
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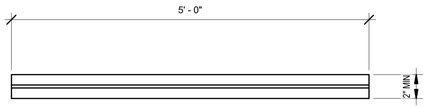
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ARCHITECTURAL DETAILS

DRAWING NO. A8.5

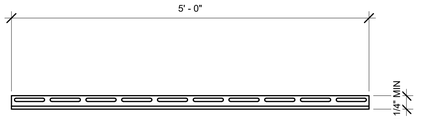
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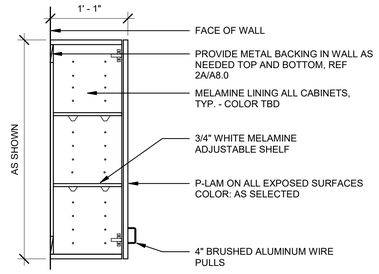


PLAN

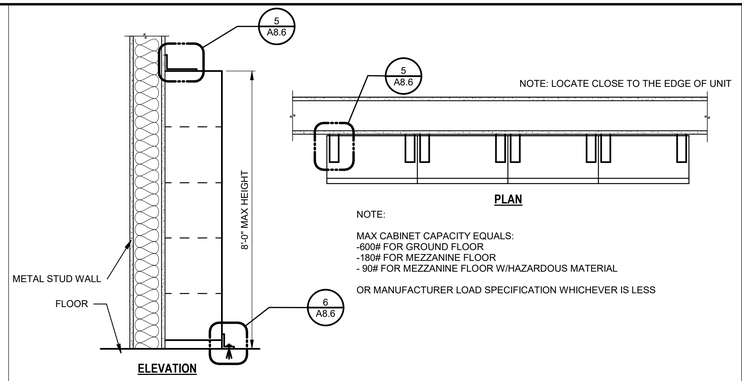


ELEVATION

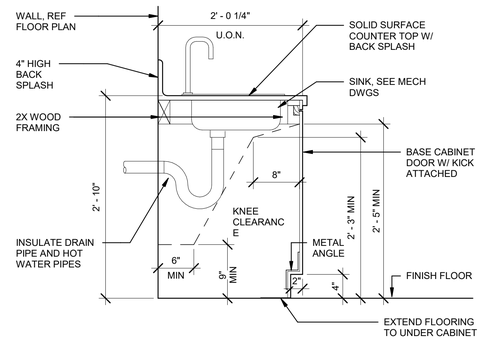
9 / A8.6 UNIVERSAL RESTRAINT BAR DETAIL1
1" = 1'-0"



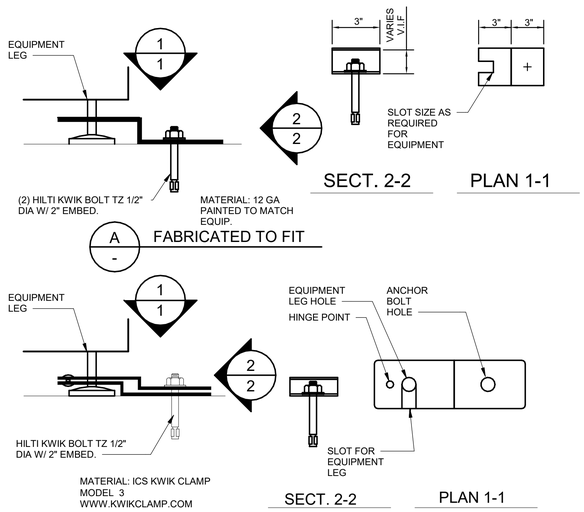
7 / A8.6 UPPER CABINET W/ ADJ. SHELVING
1" = 1'-0"



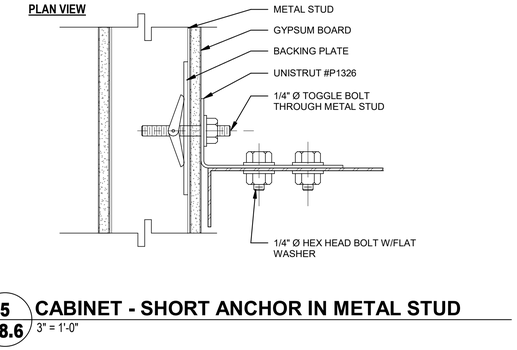
4 / A8.6 CABINET - ATTACHED TO METAL STUD WALL
1" = 1'-0"



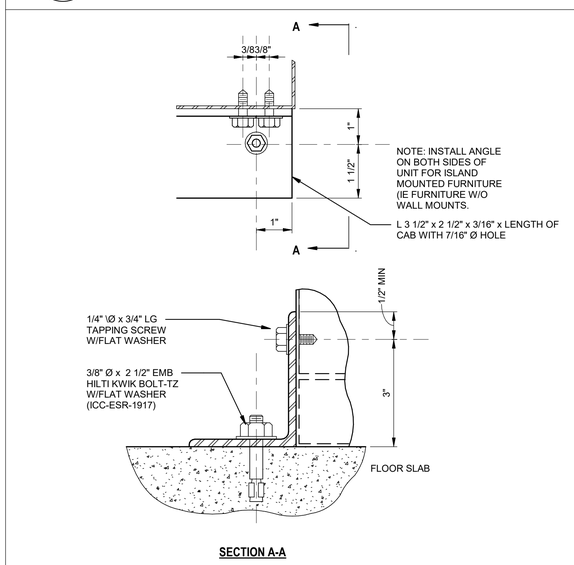
1 / A8.6 BASE CABINET @ SINK
1" = 1'-0"



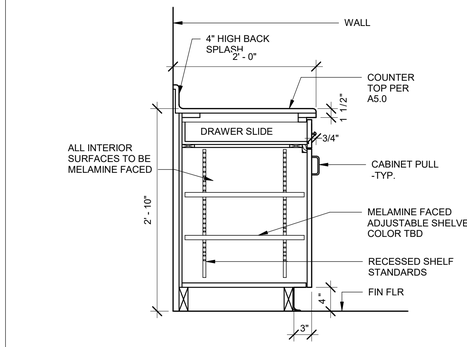
8 / A8.6 TYPICAL Z-CLIP
3" = 1'-0"



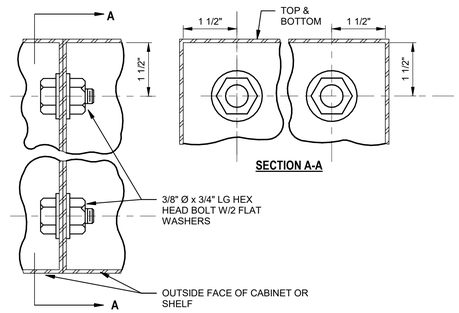
5 / A8.6 CABINET - SHORT ANCHOR IN METAL STUD
3" = 1'-0"



6 / A8.6 CABINET BASE DETAIL @ CONCRETE SLAB
6" = 1'-0"



2 / A8.6 BASE CABINET WITH DRAWER
1" = 1'-0"



3 / A8.6 CABINET - JOINT W/BOLTS TOP AND BOTTOM
6" = 1'-0"

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Stanford University

MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATION
ARCHITECTURAL DETAILS

DRAWING NO. **A8.6**

BUILDING NUMBER: 02-565 | SCALE: AS NOTED | BAB PROJECT #: 24118 / 6417 | REV 0

3/13/2025 11:16:22 AM

GENERAL STRUCTURAL NOTES – 24-10-177

1. GENERAL REQUIREMENTS
   1. STRUCTURAL NARRATIVE
      A. THE STANFORD UNIVERSITY MAGNETIC RESONANCE RESEARCH SYSTEMS LAB IS A WOOD-FRAMED BUILDING SUPPORTED ON A CONCRETE SLAB ON GRADE WITH THICKENED SLAB FOUNDATIONS. THE SCOPE OF THIS DOCUMENT IS TO PROVIDE A REMODEL DESIGN FOR THE STRUCTURE, INCLUDING THE REDESIGN OF A PORTION OF THE ROOF FRAMING. MODIFICATIONS TO THE BUILDING CONSTITUTE A LEVEL 3 ALTERATION AS DEFINED BY THE 2021 INTERNATIONAL EXISTING BUILDING CODE (IEBC). AS SUCH, ALL NEW STUCTURAL ELEMENTS ARE DESIGNED TO RESIST THE REQUIREMENTS OF THE 2022 CALIFORNIA BUILDING CODE (CBC), CHAPTER 16. ALL EXISTING ELEMENTS OF THE MAIN LATERAL FORCE-RESISTING SYTEM HAVE BEEN REEVALUATED TO RESIST THE REQUIREMENTS OF THE CBC WITH THE DESIGN SEISMIC DEMANDS REDUCED BY 25% AS PERMITTED BY THE IEBC, SECTION 906.2.
   2. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND JOB SITE CONDITIONS BEFORE COMMENCING WORK AND SHALL REPORT ANY DISCREPANCIES TO ECLIPSE ENGINEERING, HENCEFORTH REFERRED TO AS THE ENGINEER
   3. USE WRITTEN DIMENSIONS. DO NOT USE SCALED DIMENSIONS. WHERE NO DIMENSION IS PROVIDED, CONSULT THE ARCHITECT OR ENGINEER FOR CLARIFICATION BEFORE PROCEEDING WITH THE WORK.
   4. THE CONTRACTOR SHALL FIELD VERIFY THE DIMENSIONS AND LAYOUT OF THE EXISTING CONSTRUCTION AS REQUIRED TO COORDINATE THE ERECTION OF THE WORK SPECIFIED IN THESE DRAWINGS. EXISTING BUILDING ELEMENTS ARE IDENTIFIED FOR REFERENCE WITH THE PREFIX (E).
   5. DETAILS IN THE DRAWINGS PREFACED WITH THE TITLE 'TYPICAL' MAY NOT NECESSARILY BE REFERENCED ON THE PLANS, BUT SHALL STILL APPLY AS SHOWN OR DESCRIBED IN THE DETAILS. WHERE NO DETAIL IS REFERENCED, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CHOOSE THE RELEVANT TYPICAL DETAIL FROM THOSE PROVIDED.
   6. THE DESIGN, ADEQUACY AND SAFETY OF ERECTION BRACING, SHORING, TEMPORARY SUPPORTS, SHORING OF EXISTING BUILDING ELEMENTS, ETC. IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR THE STABILITY OF THE STRUCTURE PRIOR TO THE ERECTION OF THE FRAMING AND OF THE LATERAL-LOAD-RESISTING SYSTEM IS COMPLETE.
   7. THE ENGINEER HOLDS NO LIABILITY FOR UNAUTHORIZED CHANGES TO THE CONSTRUCTION DOCUMENTS MADE BY THE OWNER, CONTRACTOR, BUILDING OFFICIAL, OR OTHER INVOLVED PARTY.
   8. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR PROVIDING A SAFE PLACE TO WORK AND FOR MEETING THE REQUIREMENTS OF ALL APPLICABLE JURISDICTIONS, INCLUDING OSHA. THE CONTRACTOR SHALL EXECUTE THEIR WORK TO ENSURE THE SAFETY OF PERSONS AND ADJACENT PROPERTY AGAINST DAMAGE BY FALLING DEBRIS AND OTHER HAZARDS ASSOCIATED WITH THE WORK.
   9. THE LATERAL FORCE RESISTANCE AND STABILITY OF THE BUILDING IN THE COMPLETED STRUCTURE IS PROVIDED BY PLYWOOD-SHEATHED SHEAR WALLS IN EACH ORTHOGONAL DIRECTION. THE PLYWOOD ROOF SHEATHING FUNCTIONS AS A HORIZONTAL DIAPHRAGM, DISTRIBUTING WIND AND SEISMIC LOADS TO THE VERTICAL MEMBERS OF THE BUILDINGS LATERAL FORCE RESISTING SYSTEM.
   10. UNLESS NOTED OTHERWISE IN THE PROJECT SPECIFICATIONS, SHOP DRAWINGS AND/OR SUBMITTALS SHALL BE SUBMITTED TO THE ARCHITECT FOR REVIEW PRIOR TO FABRICATION OR CONSTRUCTION RELATED TO THE FOLLOWING STRUCTURAL ITEMS:
      A. CONCRETE MIX DESIGN
      B. CONCRETE AND REINFORCEMENT PLACING DRAWINGS
      C. CONCRETE SLAB ON GRADE CONTROL JOINT PLANS
      D. MECHANICAL HATCH SHOP DRAWINGS
      E. MRI SHOP DRAWINGS
      F. POST-INSTALLED ANCHOR ICC-ES OR IAPMO ES EVALUATION REPORTS
      G. CFS SHOP DRAWINGS
   11. DESIGN CRITERIA
      A. BUILDING CODE:
         1. 2022 California Building Code (CBC)
         2. 2021 International Existing Building Code (IEBC) as amended by the State of California
      B. GEOTECHNICAL AND GRAVITY DESIGN DATA
         1. ALLOWABLE SOIL BEARING CAPACITY: 1500 PSF FOR GRAVITY LOADS, 2000 PSF FOR WIND AND SEISMIC LOADS
         2. FLOOR LIVE LOAD: 40 PSF
         3. ROOF LIVE LOAD: 20 PSF
         4. GROUND SNOW LOAD, Pg: 0 PSF
         5. FLAT-ROOF SNOW LOAD, Pf: 20 PSF (minimum)
         6. SNOW EXPOSURE FACTOR, Ce: 1.0
         7. SNOW LOAD IMPORTANCE FACTOR, I: 1.0
         8. THERMAL FACTOR, Ct: 0.85
      C. WIND DESIGN DATA
         1. BASIC WIND SPEED: Vult = 92 MPH, Vasd = 71 MPH
         2. RISK CATEGORY: II
         3. WIND EXPOSURE CATEGORY: C
         4. INTERNAL PRESSURE COEFFICIENT, Gcpi: +/- 0.18
      D. SEISMIC DESIGN DATA
         1. RISK CATEGORY: II
         2. SEISMIC IMPORTANCE FACTOR, Ie: 1.0
         3. MAPPED SPECTRAL ACCELERATION, Ss: 1.784g
         4. MAPPED SPECTRAL ACCELERATION, S1: 0.656g
         5. SITE CLASS: D (Default)
         6. DESIGN SPECTRAL ACCELERATION, Sds: 1.427g
         7. DESIGN SPECTRAL ACCELERATION, Sd1: 0.743g
         8. SEISMIC DESIGN CATEGORY: E
         9. BASIC SEISMIC FORCE RESISTING SYSTEM: PLYWOOD-SHEATHED SHEAR WALLS
         10. DESIGN BASE SHEAR: 13.8 KIPS, EACH ORTHOGONAL DIRECTION (75%V = 10.4K)
         11. SEISMIC RESPONSE COEFFICIENT, Cs: 0.22, EACH ORTHOGONAL DIRECTION
         12. RESPONSE MODIFICATION FACTOR, R: 6.5, EACH ORTHOGONAL DIRECTION
         13. ANALYSIS PROCEDURE USED: EQUIVALENT LATERAL FORCE PROCEDURE

II. SHALLOW FOUNDATIONS
   1. IF ANY OF THE FOLLOWING CONDITIONS ARE DISCOVERED DURING CONSTRUCTION AT THE BUILDING SITE, A GEOTECHNICAL INVESTIGATION SHALL BE COMMISSIONED IN ACCORDANCE WITH CHAPTER 18 OF THE CBC:
      A. QUESTIONABLE SOIL
      B. EXPANSIVE SOIL
      C. GROUND-WATER TABLE IS ABOVE OR WITHIN 5 FEET BELOW THE ELEVATION OF THE LOWEST FLOOR LEVEL WHERE SUCH FLOOR IS LOCATED BELOW THE FINISHED GROUND LEVEL ADJACENT TO THE FOUNDATION.
      D. DEEP FOUNDATIONS
      E. ROCK STRATA OF VARIABLE OR DOUBTFUL CHARACTERISTICS
      F. EXCAVATIONS THAT WILL REMOVE THE LATERAL SUPPORT OF AN ADJACENT, EXISTING FOUNDATION
      G. USE OF COMPACTED FILL MATERIAL BELOW SHALLOW FOUNDATIONS IN EXCESS OF 12 INCHES IN DEPTH
      H. USE OF CONTROLLED LOW-STRENGTH MATERIAL (CLSM)
      I. ALTERNATE SETBACK AND CLEARANCE
      J. SEISMIC DESIGN CATEGORIES C THROUGH F
   2. EXCAVATION FOR ANY PURPOSE SHALL NOT REMOVE LATERAL SUPPORT FROM ANY FOUNDATION WITHOUT FIRST UNDERPINNING OR PROTECTING THE FOUNDATION AGAINST SETTLEMENT OR LATERAL TRANSLATION.
   3. FOUNDATIONS SHALL BE BUILT ON UNDISTURBED SOIL OR COMPACTED FILL MATERIAL 12 INCHES OR LESS IN DEPTH. IF PROVIDED, COMPACTED FILL MATERIAL SHALL HAVE AN IN-PLACE DRY DENSITY NOT LESS THAN 90 PERCENT OF THE MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT DETERMINED IN ACCORDANCE WITH ASTM D1557. IF THE COMPACTED FILL MATERIAL EXCEEDS 12 INCHES IN DEPTH OR CLSM IS USED, PLACEMENT SHALL COMPLY WITH THE PROVISIONS OF AN APPROVED GEOTECHNICAL INVESTIGATION AND REPORT.
   4. THE BOTTOM OF ALL EXTERIOR FOOTINGS AND FOOTINGS SUSCEPTIBLE TO FROST HEAVE SHALL EXTEND A MINIMUM DEPTH BELOW LOWEST ADJACENT FINISHED GRADE OF 1'-0".
   5. THE SUBGRADES OF SLABS ON GRADE SHALL BE STRIPPED, TILLED, AND RE-COMPACTED TO PRODUCE A UNIFORM SURFACE. THE SUBGRADE SHALL BE OVERLAIN WITH 6 INCHES, MINIMUM, OF CLEAN, DENSELY-GRADED, CRUSHER-RUN BASE MATERIAL WITH A BALANCED FINE CONTENT THAT SATISFIES THE REQUIREMENTS OF ASTM D1241, TYPE 1 MIXTURE, GRADATION C. THE BASE MATERIAL SHALL BE COMPACTED TO A DRY DENSITY NOT LESS THAN 90 PERCENT OF THE MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT DETERMINED IN ACCORDANCE WITH ASTM D1557. THE SURFACE OF THE BASE MATERIAL SHALL BE CHOKED OFF WITH SAND OR FINE GRAVEL AND COMPACTED TO PROVIDE A SMOOTH, PLANAR SURFACE FOR THE CONCRETE SLAB ON GRADE.
   6. PROVIDE A VAPOR RETARDER DIRECTLY BELOW THE SLAB AND ABOVE THE GRANULAR BASE MATERIAL, UNLESS NOTED OTHERWISE. THE VAPOR RETARDER SHALL COMPLY WITH ASTM E1745 AND SHALL BE 10 MILS THICK, MINIMUM.
   7. THE EXCAVATION OUTSIDE THE FOUNDATION SHALL BE BACKFILLED WITH SOIL THAT IS FREE OF ORGANIC MATERIAL, CONSTRUCTION DEBRIS, COBBLES AND BOULDERS, OR WITH CLSM. THE BACKFILL SHALL BE PLACED IN LIFTS AND COMPACTED IN A MANNER THAT DOES NOT DAMAGE THE FOUNDATION OR THE WATERPROOFING OR DAMPPROOFING MATERIAL, IF PRESENT. CLSM NEED NOT BE COMPACTED.

III. CAST-IN-PLACE CONCRETE
   1. CONCRETE:
      A. CONSTRUCTION SHALL BE IN ACCORDANCE WITH ACI 301, UNLESS OTHERWISE NOTED.
      B. REQUIRED COMPRESSIVE STRENGTH, f'c:
         1. CONCRETE ELEMENTS EXPOSED TO THE EXTERIOR GROUND AND WEATHER OR UNCONDITIONED SPACE OF THE BUILDING: 3000 PSI AT 28 DAYS, NORMAL WEIGHT. MAXIMUM WATER TO CEMENT RATIO = 0.45.
         2. CONCRETE ELEMENTS WITHIN THE CONDITIONED SPACE OF THE BUILDING: 3000 PSI AT 28 DAYS, NORMAL WEIGHT.
         3. IF THE CONTRACTOR ELECTS TO REPLACE THE CEMENT IN THE CONCRETE MIX WITH HIGH-VOLUME FLY ASH, IT IS PERMISSIBLE TO ESTABLISH f'c AT 56 DAYS. THE CONTRACTOR SHALL COORDINATE CURE DURATION OF SHORING AND TEMPORARY BRACING ACCORDINGLY.
      C. DURABILITY REQUIREMENTS:
         1. ALL OTHER CONCRETE: NO REQUIREMENTS.
      D. THE CONTRACTOR SHALL SUBMIT PROPOSED LOCATIONS OF CONSTRUCTION OR POUR JOINTS TO THE ARCHITECT AND ENGINEER FOR REVIEW
      E. ROUGHEN CONCRETE SURFACES OF CONSTRUCTION JOINTS AND AT LOCATIONS WHERE CONCRETE IS CAST AGAINST EXISTING CONCRETE TO 1/4" AMPLITUDE AND CLEAN OF LAITANCE, FOREIGN MATTER, AND LOOSE PARTICLES.
   2. REINFORCING STEEL:
      A. TYPICAL REINFORCING: ASTM A615 GRADE 40 FOR #3 BARS, ASTM A615 GRADE 60 FOR #4 BARS TO #7 BARS, AND ASTM A706 GRADE 60 FOR #8 BARS AND LARGER
      B. REINFORCING TO BE WELDED: ASTM A706 GRADE 60
      C. DEFORMED BAR ANCHORS: ASTM A1064, Fy = 70 KSI.
      D. PROVIDE CLEARANCE AND COVER OF REBAR AS FOLLOWS, UNLESS OTHERWISE NOTED:
         1. CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3 INCHES
         2. FORMED SURFACES EXPOSED TO EARTH OR WEATHER, # 5 BARS AND SMALLER: 1 1/2 INCHES
         3. FORMED SURFACES EXPOSED TO EARTH OR WEATHER, #6 BARS AND LARGER: 2 INCHES
         4. INTERIOR SLABS, WALLS, AND JOISTS: 3/4 INCHES
         5. BEAMS AND COLUMNS: 1 1/2 INCHES TO TRANSVERSE REINFORCING
      E. UNLESS OTHERWISE NOTED, REINFORCING BARS SHALL BE SPLICED WITH 50-BAR-DIAMETER LAPS, MINIMUM.
      F. REINFORCING SHALL BE SUPPORTED PRIOR TO CONCRETING IN ACCORDANCE WITH THE CRSI MANUAL OF STANDARD PRACTICE, MSP-1
      G. REINFORCING SHALL BE DETAILED IN ACCORDANCE WITH ACI 315.
      H. WELDING OF REINFORCING IS PERMITTED ONLY WHERE SHOWN IN THE DRAWINGS. WELDING SHALL CONFORM TO AWS D1.4, STRUCTURAL WELDING CODE – STEEL.
   3. SLAB ON GRADE CONTROL JOINTS:
      A. THE CONTRACTOR SHALL INSTALL TOOLED OR SAWCUT CONTROL JOINTS IN THE CONCRETE SLABS ON GRADE. THE JOINTS SHALL BE 1/8" WIDE AND t/4 DEEP, WHERE t EQUALS THE SLAB THICKNESS.
      B. THE JOINTS SHALL SUB-DIVIDE THE SLAB INTO PANELS WITH THE LONGER SIDE NO GREATER THAN 1.5 TIMES THE LENGTH OF THE SHORTER SIDE.
      C. JOINTS IN INTERIOR SLABS SHALL BE SPACED AT NO FURTHER THAN 12'-0" APART AND JOINTS IN EXTERIOR SLABS SHALL BE SPACED AT NO FURTHER THAN 6'-0".
      D. THE CONTRACTOR SHALL SUBMIT THEIR CONTROL JOINT PLAN TO THE ARCHITECT AND ENGINEER FOR REVIEW PRIOR TO THE FIRST SLAB ON GRADE CONCRETE POUR.
   4. WELDED WIRE REINFORCEMENT: ASTM A1064, SHEETS ONLY
   5. FIBER-REINFORCED CONCRETE: ASTM C1116 TYPE III 4.1.3, 100% HOMOPOLYMER POLYPROPYLENE MD FIBRILLATED FIBERS, 1.5 POUND PER CUBIC YARD, MINIMUM APPLICATION RATE

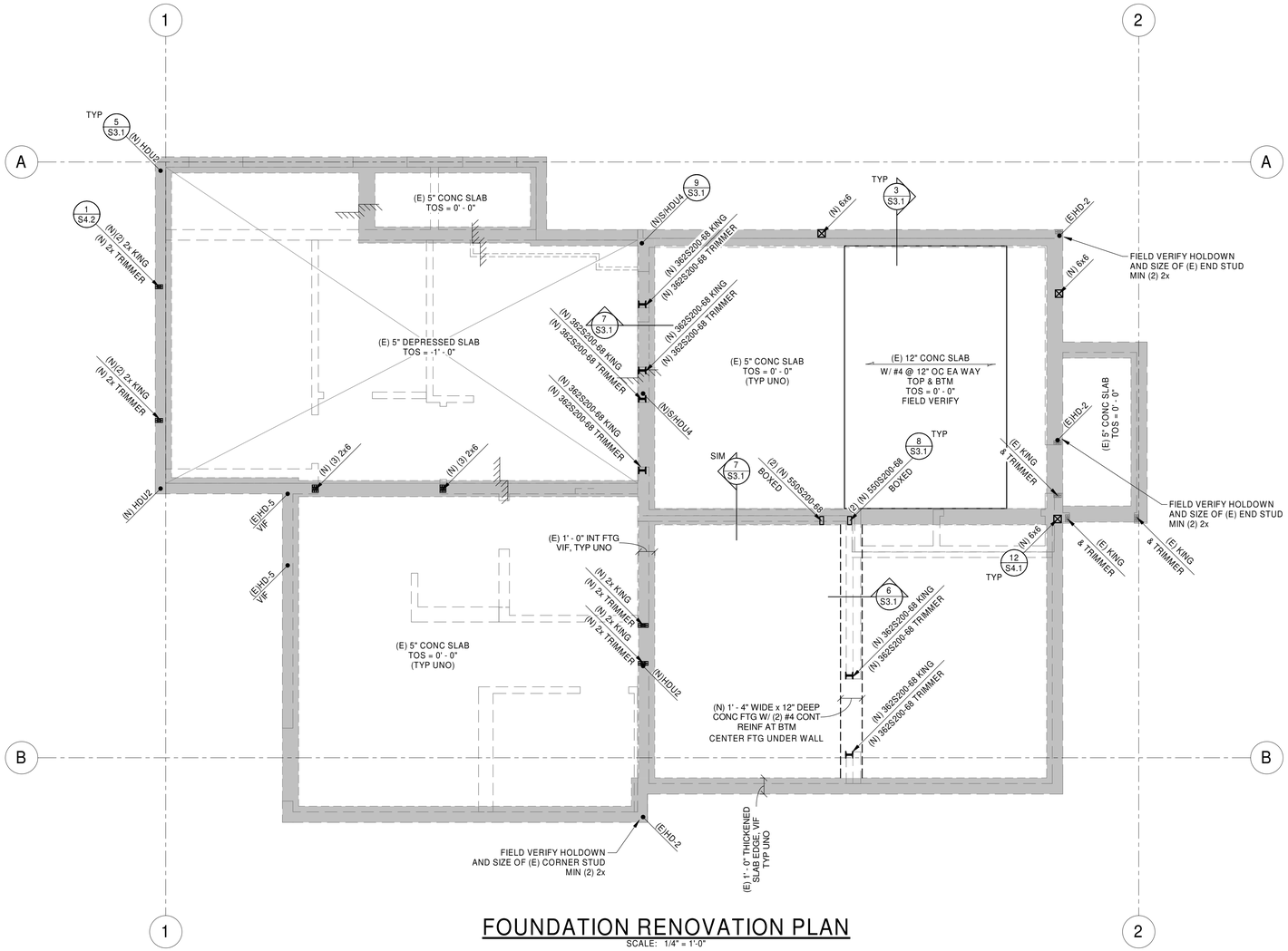
IV. POST-INSTALLED ANCHORS
   1. ADHESIVE ANCHORS AND DOWELS IN CONCRETE: SET-3G (ICC-ES ESR-4057) OR AT-3G (IAPMO UES ER-5026) BY SIMPSON STRONG-TIE OR HIT-VE 500RE (ICC-ES ESR-3814) BY HILTI.
   2. SCREW ANCHORS IN CONCRETE: TITEN HD (ICC-ES ESR-2713) BY SIMPSON STRONG-TIE OR KWIK HUS-EZ (ICC-ES ESR-3027) BY HILTI.
   3. FOLLOW MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR ALL POST-INSTALLED ANCHORS, INCLUDING REQUIREMENTS FOR INSTALLING ANCHORS NEAR HEAD OR BED JOINTS IN MASONRY WALLS.
   4. PROVIDE STAINLESS STEEL FASTENERS FOR EXTERIOR USE OR WHEN EXPOSED TO WEATHER. PROVIDE ELECTRO-PLATED CARBON STEEL ANCHORS AT OTHER LOCATIONS, UNLESS NOTED OTHERWISE.
   5. IF REINFORCEMENT IS ENCOUNTERED DURING DRILLING, ABANDON AND SHIFT THE HOLE LOCATION TO AVOID THE REINFORCEMENT. PROVIDE A MINIMUM OF (2) ANCHOR DIAMETERS OR 1 INCH, WHICHEVER IS LARGER, OF SOUND CONCRETE OR MASONRY BETWEEN THE ANCHOR AND THE ABANDONED HOLE. FILL THE ABANDONED HOLE WITH NON-SHRINK GROUT. IF THE ANCHOR OR DOWEL MAY NOT BE SHIFTED AS NOTED ABOVE, SEEK GUIDANCE FROM THE ENGINEER.
   6. LOCATE REINFORCEMENT AND CONFIRM FINAL ANCHOR LOCATIONS PRIOR TO FABRICATING PLATES, MEMBERS, OR OTHER STEEL ASSEMBLIES ATTACHED WITH POST-INSTALLED ANCHORS.
   7. SUBSTITUTIONS: SUBSTITUTE PRODUCTS SHALL HAVE AN ASSOCIATED ICC-ES OR IAPMO EVALUATION REPORT AND THE CONTRACTOR MUST DEMONSTRATE PERFORMANCE IS EQUIVALENT TO THE SPECIFIED PRODUCTS. SUBSTITUTIONS WILL NOT BE CONSIDERED UNLESS THIS INFORMATION IS SUBMITTED.

V. COLD-FORMED STEEL FRAMING
   1. COLD-FORMED STEEL FRAMING MEMBERS SHALL BE AS SPECIFIED IN THE STEEL STUD MANUFACTURER'S ASSOCIATION ICC ES ESR-3064P AND OF THE SIZE AND PROFILE AS SHOWN ON THE DRAWINGS. ALTERNATE MEMBERS EQUIVALENT IN SHAPE, SIZE, AND STRENGTH BY MANUFACTURERS NOT MEMBERS OF THE STEEL STUD MANUFACTURER'S ASSOCIATION SHALL BE SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND ENGINEER.
   2. FIELD CUTS AND NOTCHES OF ANY KIND ARE NOT ALLOWED IN ANY STRUCTURAL COLD-FORMED STEEL MEMBER WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
   3. UNLESS NOTED OTHERWISE ON THESE DRAWINGS, STUD WALL TRACK TO BE OF THE SAME MATERIAL AND GAGE AS STUDS.
   4. MATERIALS:
      A. BRIDGING, ACCESSORIES AND 18 & 20 GAGE STUDS & TRACK: Fy = 33 KSI.
      B. STRAP BRACING AND 16 GAGE AND HEAVIER STUDS & TRACK: Fy = 50 KSI.
   5. FASTENERS:
      A. SHEET METAL SCREWS: SELF-TAPPING SCREWS COMPLYING WITH ASTM C1513.
         i. #8 = 0.164" DIA., 5/16" HEAD
         ii. #10 = 0.190" DIA., 0.340" HEAD
         iii. #12 = 0.216" DIA., 0.340" HEAD
      B. POWER-DRIVEN FASTENERS: HILTI X-U FOR CONCRETE AND X-U 15 FOR STEEL SUBSTRATES, ICC-ES ESR-2269.
   6. ERECTION
      A. PROVIDE HORIZONTAL BRIDGING AT 6'-0" O.C. MAXIMUM AT NON-BEARING WALLS AND 4'-0" O.C. MAXIMUM AT BEARING WALLS.
      B. BEARING WALLS TO BE ERECTED WITH STUD ENDS SEATED AGAINST TRACK WEB TOP AND BOTTOM. ATTACH EACH STUD FLANGE TO EACH TRACK LEG WITH (1) #8 SHEET METAL SCREW, UNLESS NOTED OTHERWISE.
      C. WHERE NON-BEARING WALLS ATTACH TO THE UNDERSIDE OF THE FLOOR OR ROOF FRAMING, PROVIDE SLOTTED TOP TRACK CAPABLE OF ACCOMMODATING 1" DEFLECTION OF THE FRAMING.
      D. WELDING SHALL CONFORM TO AWS D1.3, STRUCTURAL WELDING CODE - SHEET STEEL.
      E. ALL WELDING SHALL BE PERFORMED BY A WELDER CERTIFIED BY AWS AND THE GOVERNING JURISDICTION.

VI. WOOD FRAMING
   1. MEMBERS
      A. SAWN LUMBER: NO. 2 DOUGLAS FIR/LARCH, WWPA GRADING RULES
         1. ALL LUMBER SHALL BE KILN DRIED WITH A MOISTURE CONTENT LESS THAN 19%.
         2. SILLS AND PLATES IN CONTACT WITH MASONRY OR CONCRETE, AND WITHIN 6" OF GRADE, SHALL BE PRESSURE-TREATED DOUGLAS FIR-LARCH. MUD SILL SHALL BE 2x MINIMUM THICKNESS OF THE SAME OR GREATER WIDTH AS THE STUDS ABOVE.
         3. WALL FRAMING SHALL BE 2x6 STUDS @ 16" O.C. UNLESS OTHERWISE NOTED. PROVIDE DOUBLE 2x6 TOP PLATE WITH MINIMUM 48" LAP SPLICE WITH (8) 16d COMMON NAILS MINIMUM, STAGGERED, UNLESS OTHERWISE NOTED.
         4. PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL PARTITION WALLS, UNLESS OTHERWISE NOTED.
         5. JOISTS AND RAFTERS SHALL HAVE A 1 1/2" MINIMUM BEARING OR SHALL BE SEATED IN METAL HANGERS.
         6. BLOCKING SHALL BE SOLID 2x MATERIAL WITH THE SAME DEPTH AS THE JOIST OR RAFTER AND SHALL BE TIGHTLY FITTED BETWEEN JOISTS OR RAFTERS.
         7. FASTEN BEAMS, COLUMNS, TRIMMER STUDS, AND KING STUDS COMPOSED OF MULTIPLE 2x MEMBERS WITH TWO ROWS OF 10d NAILS @ 12" ON CENTER THROUGH LENGTH OR HEIGHT, STAGGERED TO PREVENT SPLITTING, BETWEEN EACH PLY.
         8. BUILT-UP 2x LUMBER BEAMS SHALL NOT BE SUBSTITUTED FOR SOLID TIMBER BEAMS.
      B. GLUED LAMINATED TIMBER:
         1. GLUED LAMINATED TIMBER SHALL BE MANUFACTURED IN ACCORDANCE WITH AMERICAN INSTITUTE OF TIMBER CONSTRUCTION AITC A190.1 and ASTM D3737.
         2. GLUED LAMINATED TIMBER SHALL BE OF THE FOLLOWING GRADES, UNLESS NOTED OTHERWISE:
            a. SINGLE SPAN MEMBERS: COMBINATION 24F-V4
            b. MULTI-SPAN & CANTILEVERED MEMBERS: COMBINATION 24F-V8
         3. ALL LAMINATED MEMBERS SHALL BE INDUSTRIAL APPEARANCE GRADE, UNLESS NOTED OTHERWISE.
      C. ENGINEERED LUMBER:
         1. LAMINATED VENEER LUMBER (LVL):
            a. MINIMUM DESIGN PROPERTIES FOR 1 3/4"-WIDE MEMBERS: Fb = 2,800 PSI, E = 2,000,000 PSI, Fv = 285 PSI
            b. MINIMUM DESIGN PROPERTIES FOR 3 1/2" AND WIDER MEMBERS: Fb = 3100 PSI, E = 2,000,000 PSI, Fv = 310 PSI
            c. LVL MEMBERS SHALL NOT BE USED IN EXTERIOR APPLICATIONS OR AGAINST CONCRETE.
            d. FASTEN MULTI-PLY LVL BEAMS OR JOISTS TOGETHER WITH TWO ROWS OF 10d NAILS @ 12" ON CENTER THROUGH LENGTH, STAGGERED TO PREVENT SPLITTING, BETWEEN EACH PLY. PROVIDE (8) ADDITIONAL 10d NAILS BETWEEN EACH PLY DISTRIBUTED CLOSELY TO THE VICINITY OF CONCENTRATED LOADS ON MEMBERS FROM FLUSH-SUPPORTED BEAMS OR JOISTS.
         2. PARALLEL STRAND LUMBER (PSL):
            a. MINIMUM DESIGN PROPERTIES: Fb = 2900 PSI, E = 2,000,000 PSI, Fv = 290 PSI
            b. PSL MEMBERS USED IN EXTERIOR APPLICATIONS, OR AGAINST CONCRETE, SHALL BE APPROVED BY THE MANUFACTURER FOR USE IN THE EXPOSURE CONDITION TO WHICH THEY ARE SUBJECT.
         3. LAMINATED STRAND LUMBER (LSL):
            a. MINIMUM DESIGN PROPERTIES: Fb = 2325 PSI, E = 1,550,000 PSI, Fv = 310 PSI
   2. WOOD STRUCTURAL PANELS
      A. ROOF: 19/32" THICK, MINIMUM, 40/20 SPAN RATING; PANEL GRADE: APA RATED SHEATHING. NAILING, UNLESS NOTED OTHERWISE:
         1. 8d @ 6" O.C. AT PANEL EDGES.
         2. 8d @ 12" O.C. AT INTERMEDIATE RAFTERS.
      B. WALLS: 7/16" THICK, 24/0 SPAN RATING; PANEL GRADE: APA RATED SHEATHING. NAILING, UNLESS NOTED OTHERWISE:
         1. 8d @ 6" O.C. AT PANEL EDGES.
         2. 8d @ 12 " O.C. AT INTERMEDIATE STUDS.
      C. WOOD STRUCTURAL PANELS SHALL CONFORM TO VOLUNTARY PRODUCT STANDARDS PS 1 AND PS 2 AND APA PRP-108 PERFORMANCE STANDARDS.
      D. ALL SHEATHING SHALL BEAR THE APA TRADEMARK AND GRADE STAMP
      E. ALL END JOINTS SHALL BE STAGGERED AND SHALL BUTT ALONG THE CENTER LINES OF FRAMING MEMBERS.
      F. THE LONG DIMENSION OF PANELS SHALL BE INSTALLED PERPENDICULAR TO SUPPORTS WITH PANEL CONTINUOUS OVER TWO OR MORE SPANS.
      G. PANELS SHALL NOT BE LESS THAN 4' x 8', EXCEPT AT BOUNDARIES AND CHANGES IN FRAMING. THE MINIMUM PANEL DIMENSION FOR FLOOR SHEATHING AT BOUNDARIES SHALL BE 24" UNLESS ALL EDGES OF THE UNDERSIZED PANELS ARE SUPPORTED BY AND FASTENED TO FRAMING MEMBERS OR BLOCKING.
      H. NAILS SHALL BE COMMON WIRE NAILS (NOT BOX OR SINKER NAILS) AND BE PLACED 3/8" MINIMUM FROM THE EDGE OF THE PANELS. THE MINIMUM NAIL PENETRATION INTO FRAMING MEMBERS SHALL BE 1 1/2" FOR 8d NAILS AND 1 5/8" FOR 10d NAILS.
      I. WHERE SPECIAL INSPECTIONS ARE REQUIRED, PANEL NAILING SHALL BE INSPECTED PRIOR TO COVERING.
   3. FASTENERS AND FRAMING ANCHORS AND CONNECTORS:
      A. NAILS: COMMON WIRE NAILS
         1. 8d = 0.131" DIA. x 2 1/2" LONG
         2. 10d = 0.148" DIA. x 3" LONG
         3. 16d = 0.162" DIA. x 3 1/2" LONG.
      B. LAG BOLTS AND THRU-BOLTS: ASTM A307
         1. THRU-BOLT HOLES SHALL BE 1/16" LARGER THAN BOLT DIAMETER. PROVIDE STANDARD CUT WASHER UNDER ALL HEAD AND NUTS FOR BOLTS BEARING ON WOOD.
         2. INSTALL LAG BOLTS IN DRILLED PILOT HOLES EQUAL TO 3/4 TIMES THE BOLT SHANK DIAMETER. DO NOT HAMMER OR OVER-DRIVE BOLTS. PROVIDE STANDARD CUT WASHER UNDER ALL LAG BOLT HEADS BEARING ON WOOD.
      C. WOOD SCREWS: AS SPECIFIED ON PLANS
      D. FRAMING ANCHORS AND CONNECTORS: SIMPSON STRONG-TIE, ICC-ES ESR 2523, OR APPROVED EQUAL
      E. METAL CONNECTORS AND TREATED LUMBER:
         1. ALL METAL CONNECTORS IN CONTACT WITH TREATED LUMBER SHALL BE STAINLESS STEEL, BATCH/POST HOT-DIP GALVANIZED PER ASTM A123 OR A153, OR PROPRIETARY EQUIVALENT.
         2. FASTENERS ARE TO MATCH THE FINISH AND MATERIAL OF THE CONNECTORS.
   4. CUTTING, BORING, AND NOTCHING OF WOOD MEMBERS:
      A. STUDS:
         1. IN EXTERIOR WALLS AND BEARING PARTITIONS, ANY WOOD STUD MAY BE CUT OR NOTCHED TO A DEPTH NOT EXCEEDING 25 PERCENT OF ITS WIDTH. CUTTING OR NOTCHING OF STUDS TO A DEPTH NOT GREATER THAN 40 PERCENT OF THE WIDTH OF THE STUD IS PERMITTED IN NONBEARING PARTITIONS SUPPORTING NO LOADS OTHER THAN THE WEIGHT OF THE PARTITION.
         2. A HOLE NOT GREATER IN DIAMETER THAN 40 PERCENT OF THE STUD WIDTH MAY BE BORED IN ANY WOOD STUD. BORED HOLES NOT GREATER THAN 60 PERCENT OF THE WIDTH OF THE STUD ARE PERMITTED IN NONBEARING PARTITIONS OR IN ANY WALL WHERE EACH BORED STUD IS DOUBLED, PROVIDED NOT MORE THAN TWO SUCH SUCCESSIVE DOUBLED STUDS ARE SO BORED. IN NO CASE SHALL THE EDGE OF THE BORED HOLE BE NEARER THAN 5/8 INCH TO THE EDGE OF THE STUD. BORED HOLES SHALL NOT BE LOCATED AT THE SAME SECTION OF STUD AS A CUT OR NOTCH.
      B. JOISTS AND RAFTERS:
         1. NOTCHES AT THE ENDS OF JOISTS AND RAFTERS SHALL NOT EXCEED ONE FOURTH THE DEPTH. NOTCHES IN THE TOP OR BOTTOM OF JOISTS OR RAFTERS SHALL NOT EXCEED ONE SIXTH THE DEPTH AND SHALL NOT BE LOCATED IN THE MIDDLE ONE THIRD OF THE SPAN, EXCEPT THAT A NOTCH NOT EXCEEDING ONE THIRD OF THE DEPTH IS PERMITTED IN THE TOP OF A RAFTER OR CEILING JOIST NOT FURTHER FROM THE FACE OF THE SUPPORT THAN THE DEPTH OF THE MEMBER.
         2. HOLES BORED IN JOISTS OR RAFTERS SHALL NOT BE WITHIN 2 INCHES OF THE TOP AND BOTTOM AND THEIR DIAMETER SHALL NOT EXCEED ONE THIRD THE DEPTH OF THE MEMBER.
      C. BEAMS:
         1. NOTCHES ARE NOT PERMITTED UNLESS APPROVED OR DETAILED BY THE ENGINEER, SUBJECT TO THE FOLLOWING LIMITATIONS. NOTCHES IN SAWN LUMBER BENDING MEMBERS SHALL NOT EXCEED ONE SIXTH THE DEPTH OF THE MEMBER AND SHALL NOT BE LOCATED IN THE MIDDLE THIRD OF THE SPAN. WHERE MEMBERS ARE NOTCHED AT THE ENDS, THE NOTCH DEPTH SHALL NOT EXCEED ONE FOURTH THE BEAM DEPTH. THE TENSION SIDE OF SAWN LUMBER BENDING MEMBERS OF 4 INCHES IN NOMINAL THICKNESS SHALL NOT BE NOTCHED UNLESS SPECIFICALLY APPROVED BY THE ENGINEER.
         2. HOLES FOR PIPES, ETC. SHALL NOT BE BORED IN SAWN LUMBER BENDING MEMBERS OF 4 INCHES OR GREATER WITHOUT SPECIFIC DETAILS FROM THE ENGINEER.
      D. ENGINEERED LUMBER AND PREFABRICATED WOOD I-JOISTS: CONFORM TO MANUFACTURER'S RESTRICTIONS FOR CUTTING, BORING, AND NOTCHING.
   5. GENERAL:
      A. FOR CONNECTIONS FOR WOOD MEMBERS NOT SHOWN ON THESE DRAWINGS OR IN THESE NOTES, USE THE CBC FASTENING SCHEDULE, TABLE 2304.10.1.
      B. ALL EXTERIOR WOOD SHALL BE PRESSURE TREATED, PAINTED OR STAINED. MAINTENANCE SHALL BE THE RESPONSIBILITY OF THE OWNER. FOLLOW THE MANUFACTURERS RECOMMENDATIONS FOR EXTERIOR APPLICATIONS.
      C. ALL NON-BEARING WALLS BELOW FLOOR FRAMING AND PREFABRICATED TRUSSES SHALL BE SLIP CONNECTED TO ALLOW FOR POTENTIAL FRAMING DEFLECTION.

ABBREVIATION LIST

AB	ANCHOR BOLT
ABV	ABOVE
ARCH'L	ARCHITECTURAL
BLW	BELOW
BTWN	BETWEEN
BD	BOARD
BLKG	BLOCKING
BTM	BOTTOM
BN	BOUNDARY NAILING
CANT	CANTILEVER
CMU	CONCRETE MASONRY UNITS
CL	CENTERLINE
COL	COLUMN
CONC	CONCRETE
CP	CONCRETE PIER
CONN	CONNECTION
DJ	DECK JOIST
DP	DEEP
DBL	DOUBLE
EN	EDGE NAILING
EA	EACH
EW	EACH WAY
ELEV	ELEVATION
(E)	EXISTING
FLR	FLOOR
FJ	FLOOR JOIST
FND	FOUNDATION
FTG	FOOTING
FW	FOUNDATION WALL
GC	GENERAL CONTRACTOR
GA	GAUGE
GN	GENERAL NOTES
GT	GIRDER TRUSS
GL	GLU-LAM
GYP	GYPSUM
HAS	HEADED ANCHOR STUD
HAB	HEADED ANCHOR BOLT
HORIZ	HORIZONTAL
KB	KNEE BRACE
MFR	MANUFACTURER
MECH'L	MECHANICAL
NTS	NOT TO SCALE
(N)	NEW
OC	ON CENTER
OSB	ORIENTED STRAND BOARD
OPN'G	OPENING
OPP	OPPOSITE
PLCS	PLACES
PL	PLATE
PLYWD	PLYWOOD
PT	PRESSURE TREATED
RAD	RADIUS
REF	REFERENCE
REQ'D	REQUIRED
RR	ROOF RAFTER
SHTG	SHEATHING
SIM	SIMILAR
STD	STANDARD
STRUCT'L	STRUCTURAL
SUBFLR	SUBFLOOR
SW	SHEARWALL
TBE	TRUSS BEARING ELEVATION
TO	TOP OF
TOB	TOP OF BEAM ELEVATION
TOF	TOP OF FOOTING ELEVATION



FOUNDATION RENOVATION PLAN

SCALE: 1/4" = 1'-0"

PLAN LEGEND:

- DENOTES (N) POST ABOVE.
- DENOTES (E) POST ABOVE.
- DENOTES WALL ABOVE
- DENOTES (N) FOUNDATION
- DENOTES (E) FOUNDATION

FOUNDATION NOTES

REF GENERAL STRUCTURAL NOTES, SHEET S0.1, FOR DESIGN CRITERIA AND ABBREVIATIONS

1. EXISTING CONDITIONS ARE SHOWN WITHOUT GUARANTEE OF ACCURACY. NOTIFY THE EOR IF CONDITIONS DEPICTED IN THE CONTRACT DOCUMENTS DIFFER FROM THOSE DISCOVERED IN THE FIELD.
2. VERIFY ALL DIMENSIONS AND ELEVATIONS WITH THE ARCHITECT. EXISTING DIMENSIONS SHALL BE FIELD VERIFIED PRIOR TO COMMENCING CONSTRUCTION.
3. TOP OF SLAB (TOS) ELEVATION IS BASED ON A 0'-0" DATUM. REFERENCE CIVIL, ARCHITECTURAL, AND EXISTING BUILDING DRAWINGS FOR ACTUALLY ELEVATIONS.
4. REFERENCE ARCHITECTURAL DRAWINGS FOR MOISTURE BARRIER SPECIFICATIONS.
5. ALL FOUNDATION SUBGRADES AND EXCAVATIONS ARE TO VE CONSTRUCTED ON UNDISTURBED NATIVE SOIL OR ENGINEERED FILL. THE BOTTOM OF ALL EXTERIOR FOOTINGS SHALL BE EMBEDDED BELOW FROST DEPTH AS DEFINED IN THE GSN'S. ALL INTERIOR FOOTINGS SHALL BE EMBEDDED A MINIMUM OF 12" BELOW FINISHED FLOOR.
6. ALL WOOD EXPOSED TO CONCRETE, WEATHER, OR WITHIN 8" OF FINISHED GRADE SHALL BE PREASURE TREATED UNLESS NOTED OTHERWISE.
7. REFERENCE THE PLAN AND SHEAR WALL SCHEDULE FOR ANY ALTERATIONS TO THE SILL PLATE ATTACHMENT OF ANY EXISTING STRUCTURAL WALLS. ALL NEW BEARING AND SHEAR WALLS SUPPORTED ON EXISTING FOOTINGS SHALL BE ATTACHED TO CONCRETE WITH 5/8"Ø TITEN HD SCREW ANCHORS (7" MINIMUM EMBEDMENT) SPACED AT 48" OC MAX. UNLESS NOTED OTHERWISE ON PLAN OR IN THE SHEAR WALL SCHEDULE. NEW BEARING WALLS OR SHEAR WALLS SUPPORTED BY NEW FOOTINGS SHALL BE ATTACHED WITH 5/8"Ø CAST-IN OR POST INSTALLED ANCHOR BOLTS (MIN 7" EMBED) SPACED AT 48"OC MAX UNLESS NOTED OTHERWISE ON PLAN OR IN SHEAR WALL SCHEDULE.

HOLDOWN SCHEDULE		
HOLDOWN	MIN STUD	ANCHOR BOLT
HDU2	(2) 2x	5/8"Øx10 1/2" EMBED
S/HDU4	(2)43MIL	5/8"Øx10 1/2" EMBED

NOTE: IF (E) HOLDOWN DOES NOT MATCH MINIMUM INDICATED ON DRAWINGS, REF DETAIL 5 / S3.1 FOR HOLDOWN REPLACEMENT DETAIL.

03/11/2025

REGISTERED PROFESSIONAL ENGINEER
SCOTT RATTERMAN
NO. C87102
CIVIL
STATE OF CALIFORNIA

Expires: 6/30/2025

REV	DATE	REVISION
A	01/13/25	ISSUE FOR 60% REVIEW
B	03/05/25	ISSUE FOR PERMIT

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BUILDING ADDRESS: **427 SANTA TERESA STREET, STANFORD, CA 94305**

STANFORD PROJECT NUMBER:

PROJECT MANAGER: BRIAN CARILLI

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STANFORD UNIVERSITY

MAGNETIC RESONANCE RESEARCH SYSTEMS
LAB RENOVATIONS
FOUNDATION RENOVATION PLAN

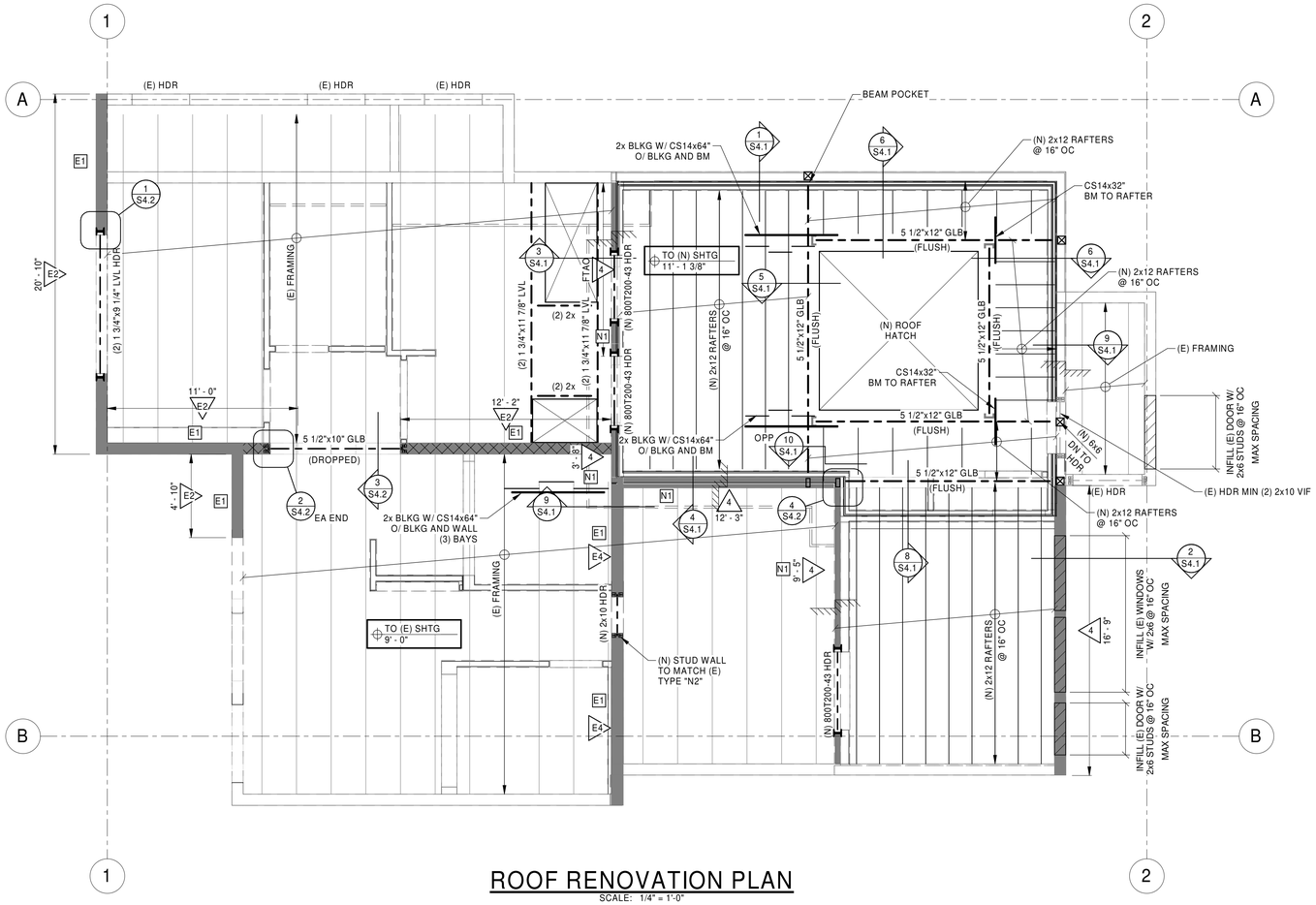
BUILDING NUMBER: **02-565**

SCALE: AS NOTED

DRAWING NO. **S1.0**

REV **B**

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ROOF RENOVATION PLAN

SCALE: 1/4" = 1'-0"

PLAN LEGEND:

- ⊠ · DENOTES (N) POST BELOW.
- ⊠ · DENOTES (E) POST BELOW.
- · DENOTES (N) WALL BELOW
- · DENOTES (E) WALL BELOW
- · DENOTES INTERIOR BRG WALLS
- · DENOTES SHEAR WALL
- · DENOTES (N) INFILL IN (E) OPENING

ROOF FRAMING NOTES
REF GENERAL STRUCTURAL NOTES, SHEET S0.1, FOR DESIGN CRITERIA AND ABBREVIATIONS

1. EXISTING CONDITIONS ARE SHOWN WITHOUT GUARANTEE OF ACCURACY. NOTIFY THE EOR IF CONDITIONS DEPICTED IN THE CONTRACT DOCUMENTS DIFFER FROM THOSE DISCOVERED IN THE FIELD.
2. VERIFY ALL DIMENSIONS AND ELEVATIONS WITH THE ARCHITECT. ALL EXISTING DIMENSIONS SHALL BE VERIFIED PRIOR TO COMMENCING CONSTRUCTION. ELEVATIONS ARE BASED ON A 0'-0" DATUM. REFERENCE CIVIL, ARCHITECTURAL, AND EXISTING BUILDING DRAWINGS FOR ACTUAL ELEVATIONS.
3. ALL EXTERIOR WALLS SHALL BE SHEATHED WITH EXISTING PLYWOOD SHEATHING OR CONSTRUCTED IN ACCORDANCE WITH TYPE 'A' SHEAR WALLS AS DESCRIBED IN THE SHEAR WALL SCHEDULE.
4. PROVIDE SOLID BLOCKING OVER ALL SHEAR/BEARING WALLS. AT SHEAR WALLS PARALLEL TO FRAMING, ALIGN JOISTS/RAFTERS OVER WALLS.
5. REFERENCE THE GENERAL STRUCTURAL NOTES FOR ADDITIONAL INFORMATION WHERE (N) ROOF SHEATHING IS INDICATED ON PLAN OR IN DETAILS.

STRUCT WALL SCHED

MARK	STUDS	TOP PL	SILL
N1 [3]	(N) 362S162-43 @ 16" OC	(N) 362T200-54	(N) 362T200-54
N2	(N) 2x6 STUDS @ 16" OC	(N) (2) 2x6[4]	(N) 2x6
E1	FIELD VERIFY (E) STUDS ASSUME 2x6 @ 16" OC		

NOTES:

1. STRUCTURAL WALLS SHOWN ONLY. REF ARCH'L FOR PARTITION WALLS AND WALL FURRING.
2. REF THE SHEAR WALL SCHEDULE FOR SILL PLATE CONNECTIONS.
3. REF DETAIL 5/S4.2 FOR COLDFORM STEEL STUD WALL CONSTRUCTION
4. WHERE APPLICABLE, SPLICE NEW TOP PLATE TO (E) TOP PLATE WITH ST6225 CENTERED OVER JOINT.

SHEARWALL SCHEDULE

MARK	SHEATHING	WOOD STUDS					EDGE FASTENERS	FIELD FASTENERS	STEEL STUDS		
		EDGE NAILING	FIELD NAILING	SILL ATTACHMENT		RIM ATTACHMENT			BTM TRACK ATTACHMENT		RIM ATTACHMENT
				TO WOOD	TO CONC				TO WOOD	TO CONC	
E6	FIELD VERIFY EXISTING SHTG	8d @ 6" OC VIF	8d @ 12" OC	16d @ 4" OC	1/2"Ø @ 48" OC VIF REF NOTE 5	MIN A35 @ 24" OC	N/A				
E4		PROVIDE ADD'L NAILING (MIN 8d @ 4" OC)		16d @ 4" OC	1/2"Ø @ 32" OC VIF REF NOTE 5	MIN A35 @ 16" OC					
E2		PROVIDE ADD'L NAILING (MIN 8d @ 2" OC) REF NOTE 4		SDS25412 @ 4" OC	1/2"Ø @ 18" OC VIF REF NOTE 5	MIN A35 @ 12" OC					
4	7/16" APA PLYWOOD OR OSB	8d @ 4" OC		16d @ 4" OC	1/2"Øx8" TITEN HD @ 32" OC	MIN A35 @ 16" OC	#8 SMS @ 4" OC	#8 SMS @ 12" OC	N/A	1/2"Øx8" TITEN HD @ 32" OC	SIMPSON FC32-5/97 @ 16" OC W/ (4) #10x1 1/2" TO WOOD
3		8d @ 3" OC REF NOTE 4		SDS25412 @ 4" OC	1/2"Øx8" TITEN HD @ 24" OC	MIN A35 @ 12" OC	N/A				
2		8d @ 2" OC REF NOTE 4		SDS25412 @ 4" OC	1/2"Øx8" TITEN HD @ 18" OC	MIN A35 @ 12" OC	#8 SMS @ 2" OC	#8 SMS @ 12" OC	N/A	1/2"Øx8" TITEN HD @ 18" OC	SIMPSON FC32-5/97 @ 12" OC W/ (4) #10x1 1/2" TO WOOD

SW NOTES:

1. REF STRUCT WALL SCHEDULE FOR STUD SIZE AND SPACING.
2. ALL SHEAR WALLS SHALL BE CONTINUOUSLY SHEATHED FROM FOUNDATION TO ROOF.
3. FIELD VERIFY ALL EXISTING CONDITIONS, WHERE EXISTING ELEMENTS ARE LESS THAN THE MINIMUM REQ'D IN THE SCHEDULE, REPLACE WITH THE APPROPRIATE SIZE AND SPACING OR SUPPLIMENT EXISTING COMPONENTS TO MEET REQUIREMENTS.
4. STUDS AND/OR BLOCKING AT ADJOINING PANEL EDGES SHALL BE (2)2x AND NAILS SHALL BE STAGGERED AT LOCATIONS WHERE EDGE NAILING IS SPACED AT 3" OC OR LESS. AT EXISTING SHEAR WALLS, SISTER 2x TO EXISTING BOUNDARY SUTDS AND FASTEN PER GSNS.
5. WHERE EXISTING ANCHOR SPACING IS LESS THAN NOTED IN THE SHEAR WALL SCHEDULE, SUPPLIMENT THE EXISTING ANCHORS WITH POST-INSTALLED TITEN HD SCREW ANCHORS AS NOTE.
6. PROVIDE PL1/4x3x0'-3" WASHERS FOR ALL WOOD SILL AND STEEL TRACK ANCHORS.

03/11/2025
REGISTERED PROFESSIONAL ENGINEER SCOTT RATTERMAN NO. C87102 CIVIL STATE OF CALIFORNIA
Expires: 6/30/2025

REV	DATE	REVISION
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B	03/05/25	ISSUE FOR PERMIT

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PROJECT MANAGER: BRIAN CARILLI

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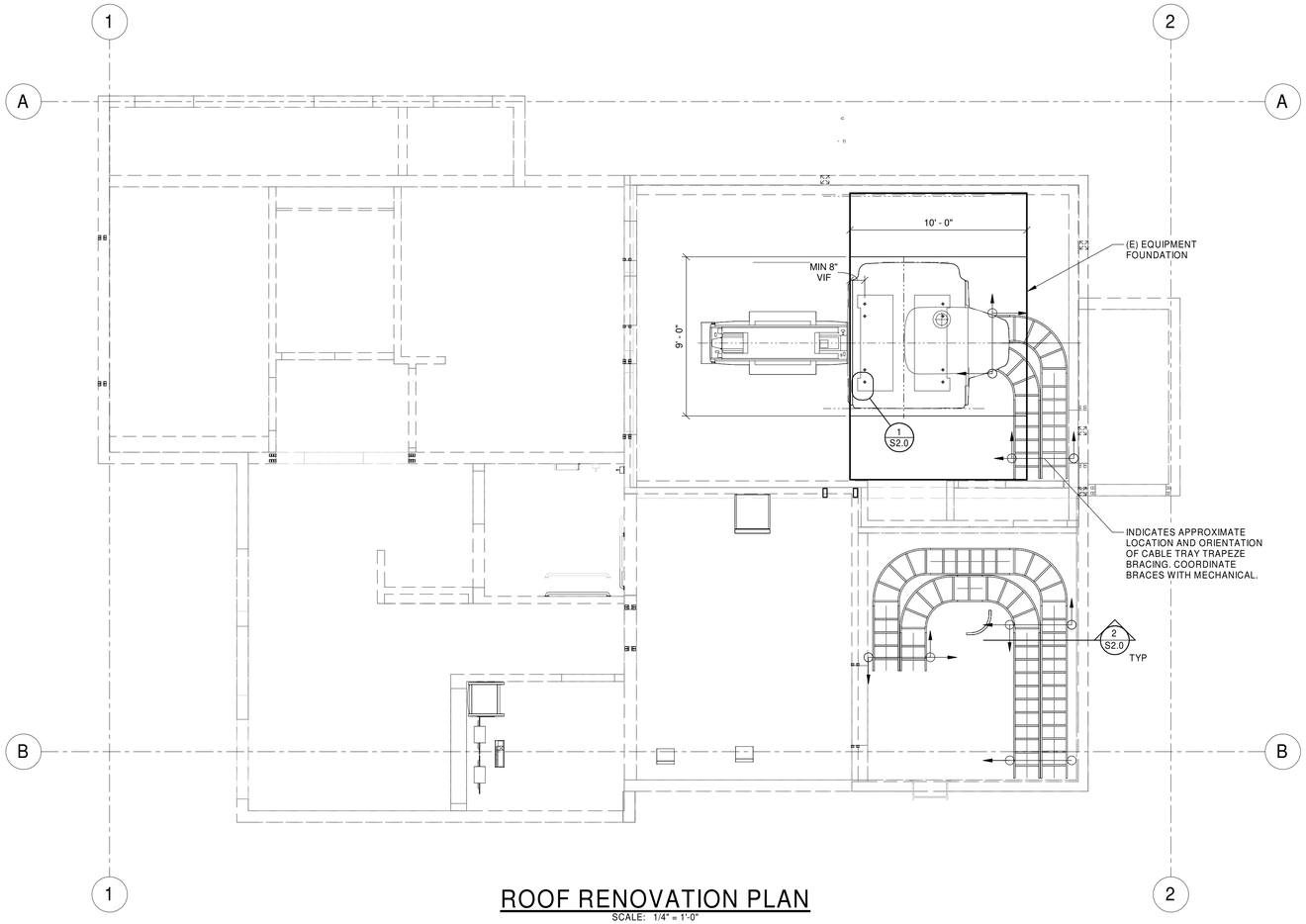
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MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATIONS ROOF RENOVATION PLAN

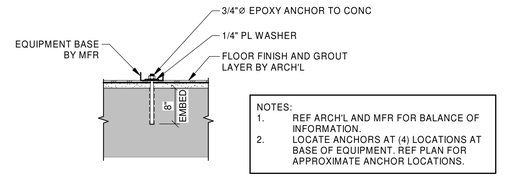
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BUILDING NUMBER: **02-565** | SCALE: AS NOTED | REV **B**

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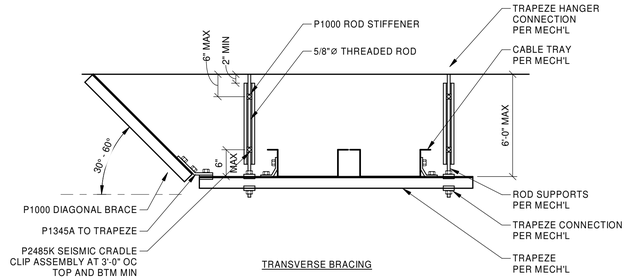


ROOF RENOVATION PLAN
SCALE: 1/4" = 1'-0"

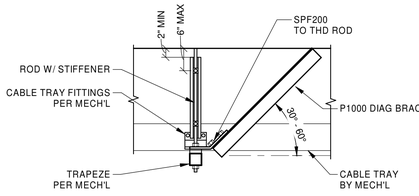


NOTES:
1. REF ARCH'L AND MFR FOR BALANCE OF INFORMATION.
2. LOCATE ANCHORS AT (4) LOCATIONS AT BASE OF EQUIPMENT. REF PLAN FOR APPROXIMATE ANCHOR LOCATIONS.

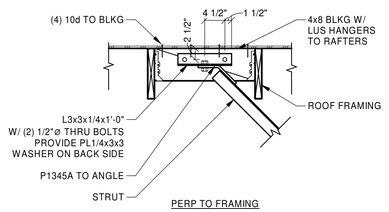
1 MRI ANCHOR TO SLAB
SCALE: 3/4" = 1'-0"



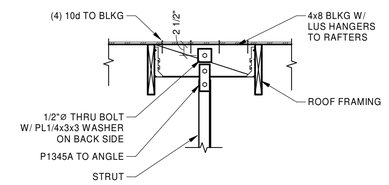
TRANSVERSE BRACING



SECTION A-A



PERP TO FRAMING



PARALLEL TO FRAMING

SECTION B-B

NOTES:
1. ALL MEMBERS AND HARDWARE ARE UNISTRUT OR EQUIVALENT.
2. UNLESS NOTED OTHERWISE, PROVIDE 1/2"ø BOLTED CONNECTIONS BETWEEN MEMBERS AND HARDWARE.

2 CABLE TRAY SEISMIC BRACING
SCALE: 3/4" = 1'-0"

03/11/2025

REGISTERED PROFESSIONAL ENGINEER
SCOTT RATTERMAN
NO. C87102
CIVIL
STATE OF CALIFORNIA

Expires: 6/30/2025

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MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATIONS
CABLE TRAY PLAN

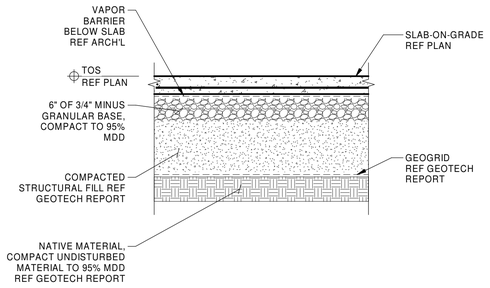
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BUILDING NUMBER: **02-565**

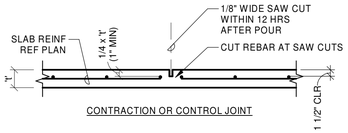
SCALE: AS NOTED

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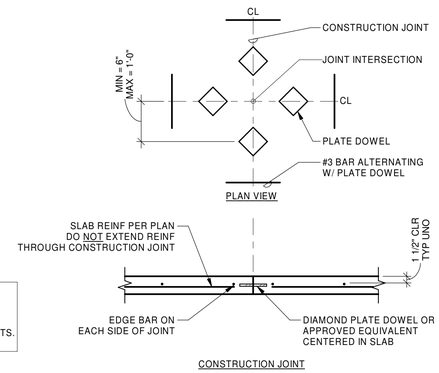
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1 TYPICAL SLAB ON GRADE
SCALE: 3/4" = 1'-0"

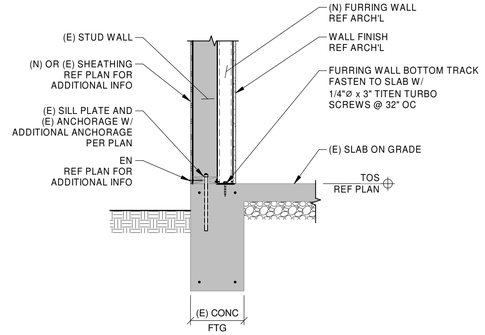


NOTES:
1. CONTRACTOR OPTION, SAW CUT OR POUR STOP.
2. REF ARCH'L FOR BELOW SLAB VAPOR BARRIER.
3. REF 2/S3.1 FOR BELOW SLAB PREPARATION.
4. REF GENERAL NOTES, SHEET S0.1, FOR SPACING REQUIREMENTS.
5. SAW CUT DEPTH TO BE 1/3 x 't' IF SLAB MIX USES FIBERS.

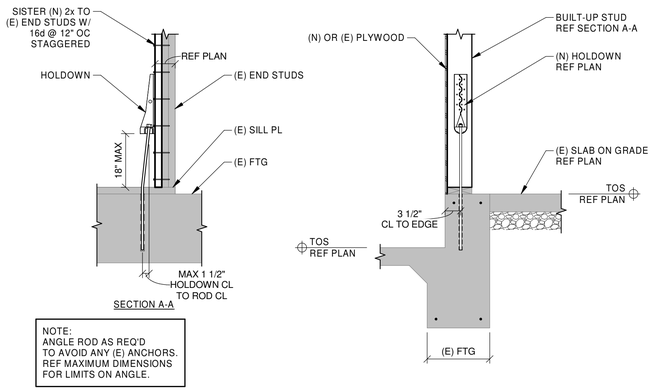


t (in)	DOWEL	MAX SPACING, S (in)
4-6	1/4"x4 1/2" SQ W/ #3 x 24" LONG	24" ALTERNATING 24" ALTERNATING
7-8	3/8"x4 1/2" SQ W/ #3 x 24" LONG	24" ALTERNATING 24" ALTERNATING

2 TYPICAL CONTROL JOINT
SCALE: 3/4" = 1'-0"

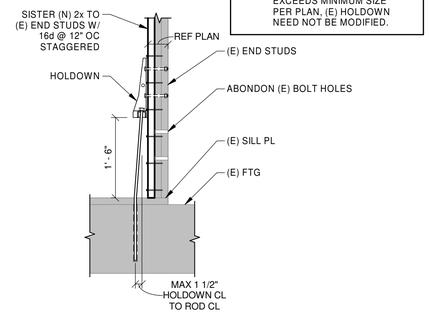


3 TYPICAL EXTERIOR WALL FOOTING
SCALE: 3/4" = 1'-0"



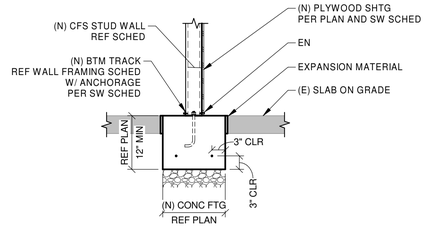
NOTE:
ANGLE ROD AS REQ'D TO AVOID ANY (E) ANCHORS. REF MAXIMUM DIMENSIONS FOR LIMITS ON ANGLE.

4 (N) HOLDOWN AT (E) SHEAR WALL
SCALE: 3/4" = 1'-0"

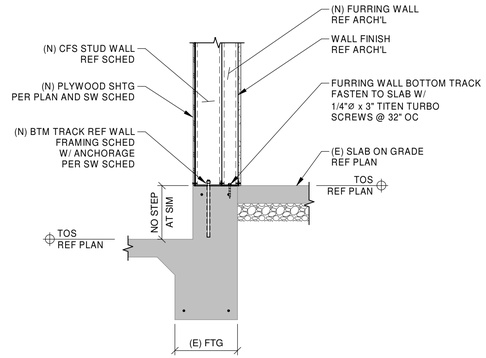


NOTES:
1. ANGLE ROD AS REQ'D TO AVOID ANY (E) ANCHORS. REF MAXIMUM DIMENSIONS FOR LIMITS ON ANGLE.
2. IF STUD SIZE MATCHES OR EXCEEDS MINIMUM SIZE PER PLAN, (E) HOLDOWN NEED NOT BE MODIFIED.

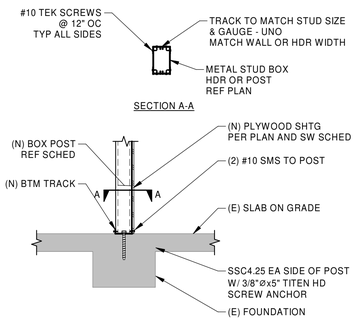
5 (N) HOLDOWN AT (E) SHEAR WALL
SCALE: 3/4" = 1'-0"



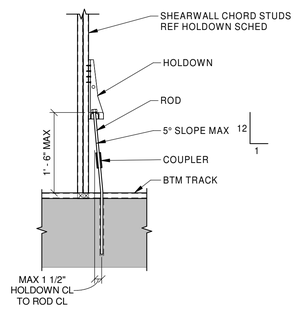
6 (N) INTERIOR FOOTING
SCALE: 3/4" = 1'-0"



7 TYPICAL (E) INTERIOR FOOTING
SCALE: 3/4" = 1'-0"



8 BOX POST TO FOUNDATION
SCALE: 3/4" = 1'-0"



9 HOLDOWN TO STEEL STUD
SCALE: 3/4" = 1'-0"

03/11/2025
REGISTERED PROFESSIONAL ENGINEER
SCOTT RATTERMAN
NO. C87102
CIVIL
STATE OF CALIFORNIA
Expires: 6/30/2025

REV	DATE	REVISION
A	01/13/25	ISSUE FOR 60% REVIEW
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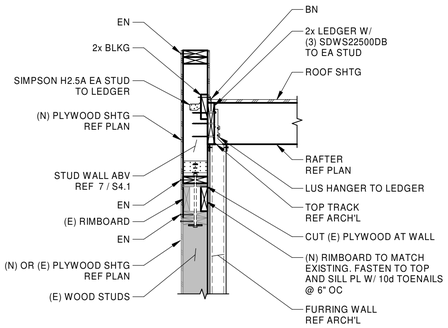
STANFORD UNIVERSITY

MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATIONS
FOUNDATION DETAILS

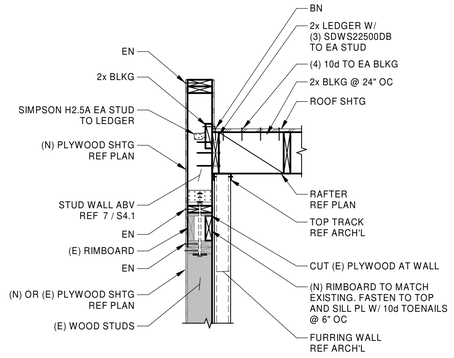
DRAWING NO. **S3.1**

BUILDING NUMBER: **02-565** | SCALE: AS NOTED | REV **B**

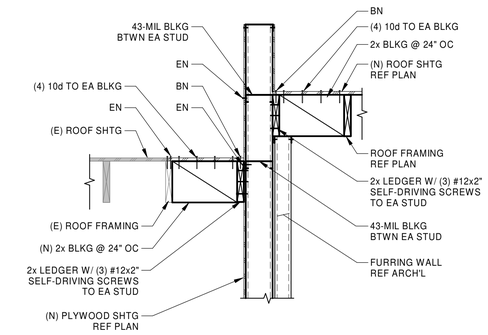
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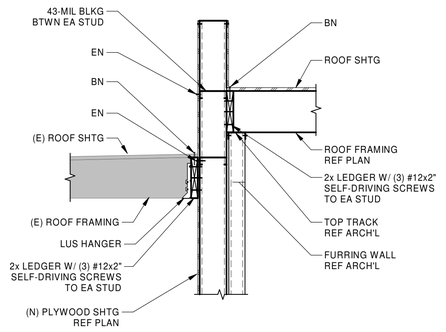
1 ELEVATED ROOF W/ RAFTERS PERP TO WALL
SCALE: 3/4" = 1'-0"



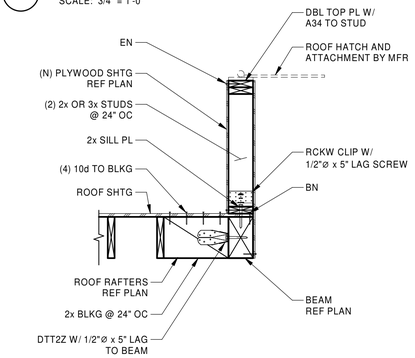
2 ELEVATED ROOF W/ RAFTERS PARALLEL TO WALL
SCALE: 3/4" = 1'-0"



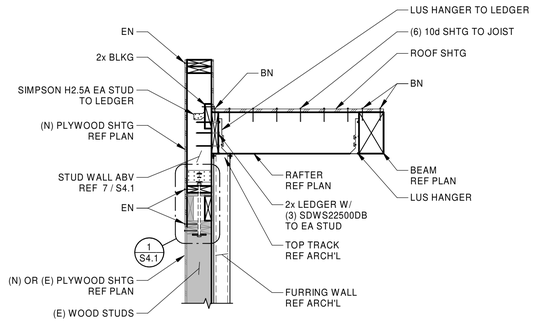
3 INTERIOR ROOF TRANSITION PERP TO FRAMING
SCALE: 3/4" = 1'-0"



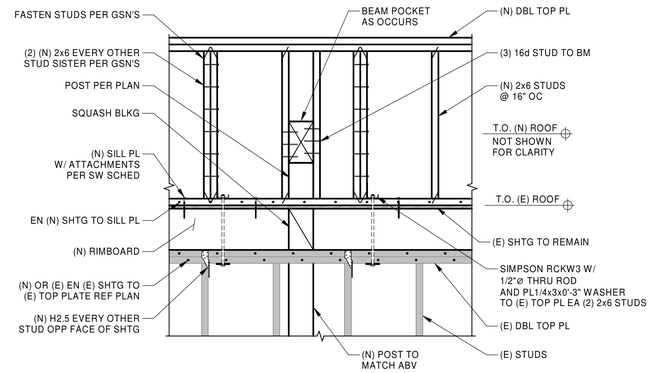
4 INTERIOR ROOF TRANSITION PARALLEL TO FRAMING
SCALE: 3/4" = 1'-0"



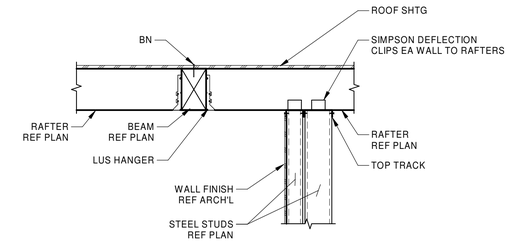
5 HATCH PARAPET DETAIL
SCALE: 3/4" = 1'-0"



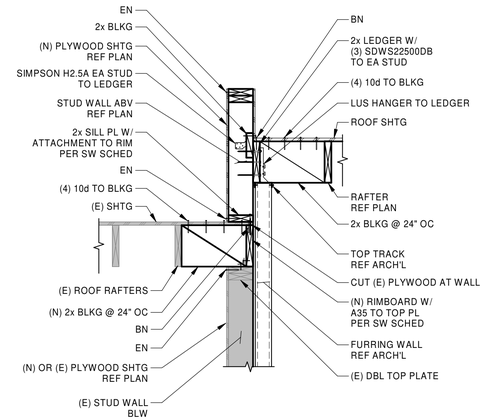
6
SCALE: 3/4" = 1'-0"



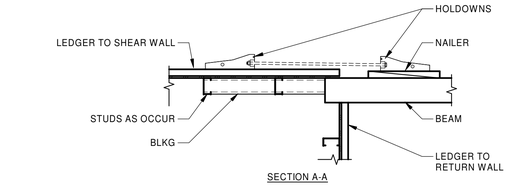
7 ELEVATED EXTERIOR WALL CONSTRUCTION
SCALE: 3/4" = 1'-0"



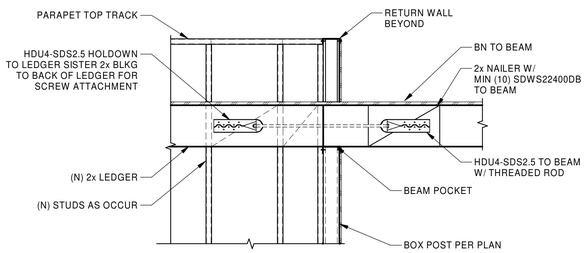
8 (N) FRAMING TO BEAM
SCALE: 3/4" = 1'-0"



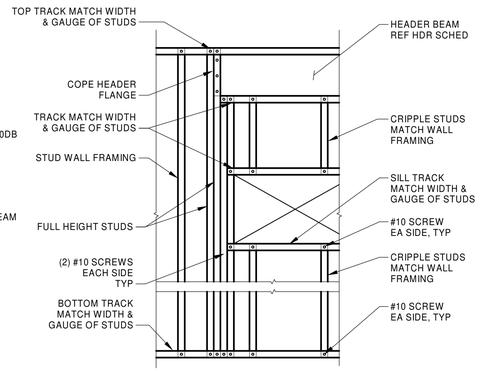
9 ELEVATED ROOF W/ RAFTERS PERP TO WALL
SCALE: 3/4" = 1'-0"



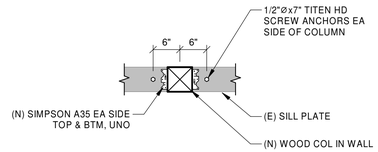
SECTION A-A



10 DRAG CONNECTION DETAIL
SCALE: 3/4" = 1'-0"



11 TYPICAL OPENING IN (N) COLD-FORMED STEEL STUD WALL
SCALE: 3/4" = 1'-0"



12 (N) POST IN (E) FRAMING
SCALE: 3/4" = 1'-0"

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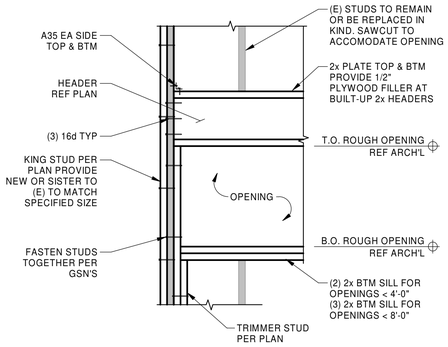
STANFORD UNIVERSITY

MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATIONS
FRAMING DETAILS

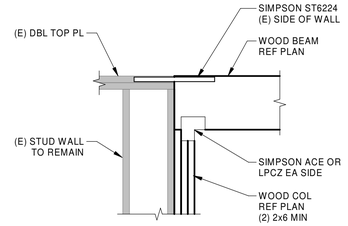
DRAWING NO. **S4.1**

BUILDING NUMBER: **02-565** | SCALE: AS NOTED | REV **B**

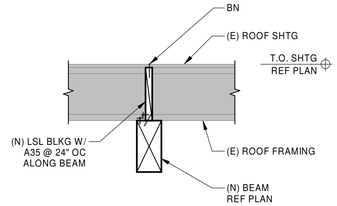
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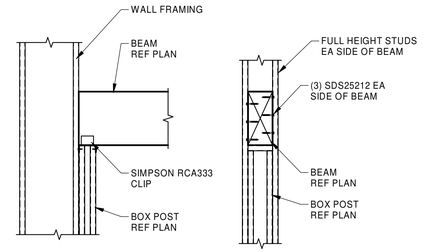
1 (N) WINDOW IN (E) WALL
SCALE: 3/4" = 1'-0"



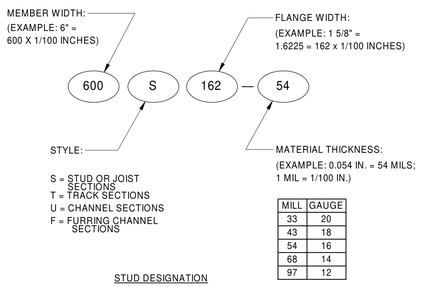
2 (N) BEAM POCKET IN (E) WALL
SCALE: 3/4" = 1'-0"



3 (N) DROPPED BEAM AT (E) FRAMING
SCALE: 3/4" = 1'-0"

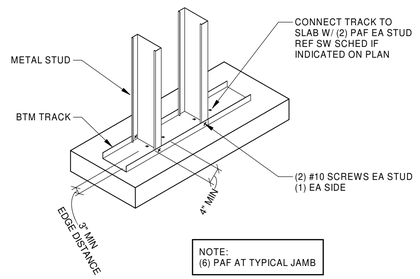


4 BEAM POCKET IN STEEL STUD WALL
SCALE: 3/4" = 1'-0"



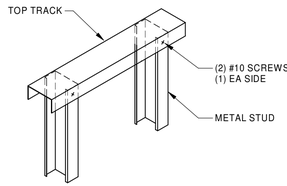
MILL	GAUGE
33	20
43	18
54	16
68	14
97	12

STUD DESIGNATION

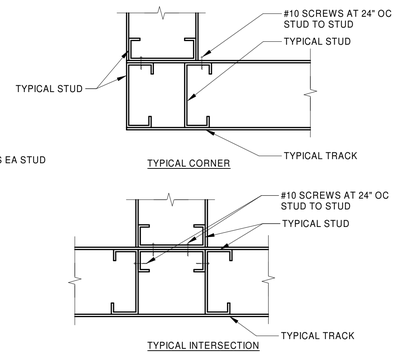


NOTE:
(6) PAF AT TYPICAL JAMB

BTM TRACK



TOP TRACK



TYPICAL CORNER

TYPICAL INTERSECTION

5 TYPICAL STEEL STUD WALL CONSTRUCTION
SCALE: 3/4" = 1'-0"

03/11/2025
REGISTERED PROFESSIONAL ENGINEER
SCOTT RATTERMAN
NO. C87102
CIVIL
STATE OF CALIFORNIA
Expires: 6/30/2025

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STANFORD UNIVERSITY

MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATIONS
FRAMING DETAILS

DRAWING NO. **S4.2**

BUILDING NUMBER: **02-565**

SCALE: AS NOTED

REV **B**

3/11/2025 2:42:19 PM

MECHANICAL LEGEND

- 24x24 — FIRST DIMENSION IS SIDE IN VIEW RECTANGULAR DUCT DIMENSIONS IN INCHES
- 24x24 — INSULATED RECTANGULAR DUCT FIRST DIMENSION IS SIDE IN VIEW DIMENSIONS ARE INSIDE CLEAR
- 24Ø — ROUND DUCT DIMENSIONS IN INCHES
- RECTANGULAR TRANSITION
- RECT-TO-ROUND TRANSITION
- MITER ELBOW WITH TURNING VANES
- RADIUS ELBOW
- RECTANGULAR BOOT TAP
- ROUND SPIN-IN TAP
- FLEXIBLE CONNECTION
- M — MOTORIZED DAMPER
- BALANCE DAMPER
- BDD — BACKDRAFT DAMPER
- FSD — FIRE/SMOKE DAMPER WITH ACCESS DOOR
- SUPPLY DUCT (UP OR DOWN)
- RETURN DUCT (UP OR DOWN)
- EXHAUST DUCT (UP OR DOWN)
- XX SA — SUPPLY DIFFUSER
- XX RA — RETURN GRILLE
- XX EA — EXHAUST GRILLE
- XX SA — WALL REGISTER (SUPPLY SHOWN)
- XX SA — SIDEWALL REGISTER (SUPPLY SHOWN)
- XX HEPA — HEPA FILTER

PIPING LEGEND

- SHUTOFF VALVE
- SHUTOFF VALVE (NORMALLY CLOSED)
- BALL VALVE
- BUTTERFLY VALVE
- SWING CHECK VALVE
- BALANCE VALVE
- REGULATOR VALVE
- 2-WAY CONTROL VALVE
- 3-WAY CONTROL VALVE
- TRIPLE-DUTY VALVE
- DRAIN VALVE
- RELIEF VALVE
- MANUAL AIR VENT
- AUTO AIR VENT
- STRAINER
- STRAINER WITH BLOWDOWN
- FLANGE
- UNION
- REDUCER
- BARBED FITTING
- ELBOW DOWN
- ELBOW UP
- TEE DOWN
- CAP
- PP — PETE'S PLUG
- PRESSURE GAGE
- GAUGE COCK
- TEMPERATURE GAUGE
- THERMOWELL
- FLOW METER
- POINT OF CONNECTION
- BENCH-MOUNTED LAB TURRET (GAS, AIR, AND VAC SHOWN)
- G A V — WALL-MOUNTED LAB TURRET (GAS, AIR, AND VAC SHOWN)
- G A V — WALL-MOUNTED LAB TURRET (DOUBLE-OUTLET)
- G A V — FLOOR DRAIN
- F.D. — FLOOR SINK
- F.S.

CONTROLS LEGEND

- AI — ANALOG INPUT
- AO — ANALOG OUTPUT
- BI — BINARY INPUT
- BO — BINARY OUTPUT
- DPS — DIFFERENTIAL PRESSURE SWITCH
- DPT — DIFFERENTIAL PRESSURE TRANSMITTER
- H — HUMIDITY SENSOR
- M/S — MOTOR STARTER
- PP — PETE'S PLUG
- SD — SMOKE DETECTOR
- T — TEMPERATURE SENSOR
- T/H — TEMPERATURE AND HUMIDITY SENSOR
- VFD — VARIABLE FREQUENCY DRIVE

DRAWING INDEX

MECHANICAL DRAWING INDEX	
SHEET NUMBER	SHEET NAME
M0.0	MECHANICAL TITLE SHEET
M0.2	MECHANICAL TITLE 24 COMPLIANCE
M0.3	MECHANICAL TITLE 24 MANDATORY MEASURES
M1.1	MECHANICAL GROUND FLOOR DEMO PLAN
M2.0	MECHANICAL UNDERGROUND PLAN
M2.1	MECHANICAL GROUND FLOOR NEW PLAN
M2.2	MECHANICAL ROOF NEW PLAN
M2.2A	MECHANICAL GROUND FLOOR CEILING PLAN
M3.0	MECHANICAL SECTIONS
M3.1	MECHANICAL SECTIONS
M5.0	MECHANICAL AIRFLOW AND CONTROLS DIAGRAMS
M5.1	MECHANICAL PCW PIPING AND CONTROLS DIAGRAM
M5.2	MECHANICAL DETAILS
M6.1	MECHANICAL SCHEDULES
M9.1	MECHANICAL ROOF ISOMETRIC

PROJECT DESCRIPTION

SCOPE OF WORK:

1. DEMO FAN COIL UNITS
2. DEMO EXISTING CHILLED AND PROCESS COOLING WATER PIPING
3. DEMO LAVATORY
4. NEW FAN COIL UNITS
5. NEW CHILLED WATER PIPING
6. NEW PROCESS COOLING WATER AND BACKUP WATER PIPING
7. NEW CEILING EXHAUST FANS
8. NEW MRI MAGNET ROOM EXHAUST FAN
9. NEW CRYOGENIC EXHAUST VENT FOR MRI MAGNET
10. NEW LAVATORY AND BREAK ROOM SINK
11. NEW INSTANT HOT WATER HEATERS

PIPE LABELING NOTES

IDENTIFY PIPING WITH PLASTIC PIPE MARKERS ACCORDING TO ANSI/ASME A13.1-2015, SCHEME FOR THE IDENTIFICATION OF PIPING SYSTEMS. THE TABLE BELOW SUMMARIZES THE COLOR SCHEME.

CURRENT 2021 STANDARDS

CLASSIFICATION	COLOR SCHEME
TOXIC AND CORROSIVE FLUIDS	BLACK TEXT ON ORANGE
FLAMMABLE AND OXIDIZING FLUIDS	BLACK TEXT ON YELLOW
COMBUSTIBLE FLUIDS	WHITE TEXT ON BROWN
POTABLE, COOLING, BOILER FEED, AND OTHER WATER	WHITE TEXT ON GREEN
COMPRESSED AIR & NON-HAZARDOUS GASES	WHITE TEXT ON BLUE
RECLAIMED/RECYCLED WATER	BLACK TEXT ON PURPLE

EXISTING SCHEMES FOR IDENTIFICATION CAN BE USED TO MEET THE UPDATED 2015 ASME REQUIREMENTS IF THE SCHEMES ARE DESCRIBED IN WRITING OR EMPLOYEES ARE TRAINED IN THE OPERATION AND HAZARDS OF THE PIPING SYSTEMS. NEW MARKERS NEEDED IN EXISTING FACILITIES SHOULD FOLLOW THE ESTABLISHED SCHEME IN THAT FACILITY.

PIPE MARKERS SHALL BE POSITIONED SO THAT THEY CAN BE EASILY SEEN FROM THE NORMAL ANGLE OF APPROACH. MARKERS ARE REQUIRED AT THE FOLLOWING LOCATIONS:

1. ADJACENT TO ALL VALVES AND FLANGES
2. ADJACENT TO ALL CHANGES OF DIRECTION
3. ON BOTH SIDES OF WALL OR FLOOR PENETRATIONS
4. AT EVERY 25' TO 50' INTERVALS ON STRAIGHT RUNS

PIPE MARKER SIZES SHALL BE BASED ON THE OUTSIDE DIAMETER OF THE PIPE ACCORDING TO THE FOLLOWING TABLE.

PIPE MARKER SIZE

OUTSIDE PIPE DIAMETER W/INSULATION	MINIMUM LENGTH OF MARKER COLOR FIELD	MINIMUM LETTER HEIGHT
3/4" TO 1 1/4"	8"	1/2"
1 1/2" TO 2"	8"	3/4"
2 1/2" TO 6"	12"	1 1/4"
8" TO 10"	24"	2 1/2"
OVER 10"	32"	3 1/2"

AGC, Inc
745-B Camden Ave
Campbell, CA 95008

408.369.6305 main
408.369.0309 fax

Project: 24J019

REV	DATE	REVISION
	03/07/2025	ISSUE FOR PLAN CHECK

STAMP

REGISTERED PROFESSIONAL ENGINEER — ANDY GIANG — M40276 — MECHANICAL — STATE OF CALIFORNIA

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Stanford University

MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATION
MECHANICAL TITLE SHEET

DRAWING NO. **M0.0**

BUILDING NUMBER: 02-565 | SCALE: AS NOTED | BAB PROJECT #: 24J019 6417 | REV

3/7/2025 3:32:50 PM

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: STANFORD UNIVERISTY - MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENNOVATION	**Report Page:** (Page 1 of 10)
Project Address:	**Date Prepared:** 2025-01-14T19:54:53-05:00

A. GENERAL INFORMATION

01	Project Location (city)	STANFORD	04	Total Conditioned Floor Area	1778
02	Climate Zone	4	05	Total Unconditioned Floor Area	235
03	Occupancy Types Within Project:		06	# of Stories (Habitable Above Grade)	1

● Office

B. PROJECT SCOPE

This table Includes mechanical systems or components that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.4, 170.2(b) or 141.0(b)2 and 180.2(b)2 for alterations.

01 Air System(s)	02 Wet System Components	03 Dry System Components
☐ Heating Air System	☐ Water Economizer	☐ Air Economizer
☐ Cooling Air System	☐ Pumps	☒ Electric Resistance Heat
Mechanical Controls	☒ System Piping	☐ Fan Systems
☒ Mechanical Controls (existing to remain, altered or new)	☐ Cooling Towers	☒ Ductwork (existing to remain, altered or new)
	☐ Chillers	☒ Ventilation
	☐ Boilers	☐ Zonal Systems/ Terminal Boxes

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C. COMPLIANCE RESULTS

Table C will indicate if the project data input into the compliance document is compliant with mechanical 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 System Summary 110.1, 110.2, 140.4, 170.2(c)		02 Pumps 140.4(k), 170.2(c)4I		03 Fans/ Economizers 140.4(c), 140.4(e), 170.2(c)		04 System Controls 110.2, 120.2, 140.4(f), 170.2(c)		05 Ventilation 120.1, 160.2		06 Terminal Box Controls 140.4(d), 170.2(c)4B		07 Distribution 120.3, 140.4(l), 160.2, 160.3		08 Cooling Towers 110.2(e)2	09 Compliance Results
(See Table F)		(See Table G)		(See Table H)		(See Table I)		(See Table J)		(See Table K)		(See Table L)		(See Table M)	
Yes	AND		AND		AND	Yes	AND	Yes	AND		AND	Yes	AND		COMPLIES with Exceptional Conditions
Mandatory Measures Compliance (See Table Q for Details)								COMPLIES							

D. EXCEPTIONAL CONDITIONS

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

An exception has been taken to allow electric resistance heating. See Table F. for details.

E. ADDITIONAL REMARKS

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

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F. HVAC SYSTEM SUMMARY (DRY & WET SYSTEMS)

Electric Resistance Heating

01 Name or Item Tag	02 Equipment Description	03 Output Capacity (kW)	04 Applicable Exception to 140.4(g) Allowing Electric Resistance Heating
FCU-101	Other	1.06	Exception5: Serving an entire building that is not hotel/motel and has a conditioned floor area no greater than 5,000 ft^2, no mechanical cooling and is in an area without natural gas access.
FCU-102	Other	1.06	Exception5: Serving an entire building that is not hotel/motel and has a conditioned floor area no greater than 5,000 ft^2, no mechanical cooling and is in an area without natural gas access.
FCU-106	Other	1.06	Exception5: Serving an entire building that is not hotel/motel and has a conditioned floor area no greater than 5,000 ft^2, no mechanical cooling and is in an area without natural gas access.
FCU-107	Other	1.06	Exception5: Serving an entire building that is not hotel/motel and has a conditioned floor area no greater than 5,000 ft^2, no mechanical cooling and is in an area without natural gas access.
EDH-104A	Other	6	Exception5: Serving an entire building that is not hotel/motel and has a conditioned floor area no greater than 5,000 ft^2, no mechanical cooling and is in an area without natural gas access.

G. PUMPS

This section does not apply to this project.

H. FAN SYSTEMS & AIR ECONOMIZERS

This section does not apply to this project.

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I. SYSTEM CONTROLS

This table is used to demonstrate compliance with mandatory controls in 110.2 and 120.2 and prescriptive controls in 140.4(f) and (n), 170.2(c)4D 170.2(c)4L or requirements in 141.0(b)2E 180.2(b)2 for altered space conditioning systems.

01 System Name	02 System Zoning	03 Conditioned Floor Area Being Served (ft^2)	04 Thermostats 110.2(b) & (c)[1], 120.2(a) 160.3(a)2A or 141.0(b)2E & 180.2(b)2	05 Shut-Off Controls 120.2(e) & 160.3(a)2D	06 Isolation Zone Controls 120.2(g) & 160.3(a)2F	07 Demand Response 110.12 120.2(b) & 160.3(a)2B	08 Supply Air Temp. Reset 140.4(f) & 170.2(c)4D	09 Window Interlocks per 140.4(n) & 170.2(c)4D	10 Direct Digital Control (DDC) per 120.2
FCU-104A	Multi-zone	<= 25,000 ft^2	Setback	NA: 7 day per 120.2(e)1	NA: Serves < 25k ft^2	DR Tstat per 110.12	NA: Controls prevent reheat/recool/simultaneous	NA: No operable windows	NA: Alteration in which no DDC is existing

[1]*FOOTNOTES: Gravity gas wall heaters, gravity floor heaters, gravity room heaters, non-central electric heaters, fireplaces or decorative gas appliances, wood stoves are not required to have setback thermostats.*

J. VENTILATION AND INDOOR AIR QUALITY

This table is used to demonstrate compliance with mandatory ventilation requirements in 120.1 120.2(e)3B 140.4(p) and 140.4(q) for all nonresidential and hotel/motel and d:t24ref\nolink/{}160.2, 160.3(a)3D, 170.2(q)4N, 170.2(a)4O for high-rise residential occupancies. For alterations, only ventilation systems being altered within the scope of the permit application need to be documented in this table. In lieu of this table, the required outdoor ventilation rates and airflows may be shown on the plans or the calculations can be presented in a spreadsheet.

01	☐	Check the box if the project is showing ventilation calculations on the plans, or attaching the calculations instead of completing this table.
02	☒	Check this box if the project included Nonresidential, Hotel/Motel Spaces or Multifamily Common Use Spaces
	☐	
03	☐	Check the box if the project is using natural ventilation in any nonresidential or hotel/motel spaces to meet required ventilation rates per 120.1(c)2.

Nonresidential and Hotel/ Motel Multifamily Common Use Ventilation Systems

04	05		06		07
System Name	FCU-104A	System Design OA CFM Airflow[1]	500	System Design Transfer Air CFM	0	Air Filtration per 120.1(c) 141.0(b)2 and 160.2(c)21[2] Provided

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J. VENTILATION AND INDOOR AIR QUALITY

08	09	10	11	12	13	14	15	16	
Space Name or Item Tag	Mechanical Ventilation Required per 120.1(c)3[3] & 160.2(c)3					Exh. Vent per 120.1(c)4 & 160.2(c)4		DCV or Sensor Controls per 120.1(d)3, 120.1(d)5, and 120.1(e)3[6] 160.2(c)5D 160.2(c)5E 160.2(c)5D	
	Occupancy Type[4]	Conditioned Floor Area (ft^2)	# of Shower heads/ toilets	# of people[5]	Required Min OA CFM	Required Min CFM	Provided per Design CFM		
LOBBY 101	Main Entry Lobby	312		4	156			DCV	NA: Not required per §120.1(d)3
								Occ Sensor	NA: Not required space type
CONFERENCE 102	Conference/ meeting	127		4	63.5			DCV	NA: Area < 150ft^2 or design occupancy < 10 people
								Occ Sensor	NA: Not required space type
MRI CONTROL ROOM 104	Office space	172		1	15			DCV	NA: Area < 150ft^2 or design occupancy < 10 people
								Occ Sensor	NA: Not required space type
OFFICE 106	Office space	64		1	15			DCV	NA: Area < 150ft^2 or design occupancy < 10 people
								Occ Sensor	NA: Not required space type
BREAK & TOUCH DOWN 107	Break room	197		6	98.5			DCV	NA: Area < 150ft^2 or design occupancy < 10 people
								Occ Sensor	NA: Not required space type

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J. VENTILATION AND INDOOR AIR QUALITY

MRI SCAN ROOM 104A	No applicable space vent	406		1				DCV	NA: Area < 150ft^2 or design occupancy < 10 people
								Occ Sensor	NA: Not required space type
17	Total System Required Min OA CFM				348	18	Ventilation for this System Complies?		Yes

[1] *FOOTNOTES: System CFM should include both mechanical and natural ventilation for the zone/system*

[2] *Air filtration requirements apply to the following three system types per 120.1(c)1A: space conditioning systems utilizing ducts to supply air to occupiable space; supply-only ventilation systems providing outside air to occupiable space; supply side of balanced ventilation systems including heat recovery and energy recovery ventilation systems providing outside air to occupiable space.*

[3] *Uniform Mechanical Code may have more stringent ventilation requirements; the most stringent code requirement takes precedence.*

[4] *See Standards Tables 120.1-A and 120.1-B.*

[5] *For lecture halls with fixed seating, the expected number of occupants shall be determined in accordance with the California Building Code.*

[6] *120.2(e)3 requires systems serving rooms that are required by 130.1(c) to have lighting occupancy sensing controls to also have occupancy sensing zone controls for ventilation. Examples of spaces which require lighting occupancy sensors include offices 250ft^2 or smaller, multipurpose rooms less than 1,000 ft^2, classrooms, conference rooms, restrooms, aisles and open areas in warehouses, library book stack aisles, corridors, stairwells, parking garages, and loading and unloading zones, unless excepted by 130.1(c).*

K. TERMINAL BOX CONTROLS

This section does not apply to this project.

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Project: 24J019

REV	DATE	REVISION
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STAMP

REGISTERED PROFESSIONAL ENGINEER
ANDY GIANG
M-40276
MECHANICAL
STATE OF CALIFORNIA

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STANFORD PROJECT NUMBER:

PROJECT MANAGER:

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Stanford University

MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATION
MECHANICAL TITLE 24 COMPLIANCE

DRAWING NO.
M0.1

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L. DISTRIBUTION (DUCTWORK and PIPING)

This table is used to show compliance with mandatory pipe insulation requirements found in 120.3 and mandatory requirements found in 120.4(g) for duct sealing.

01	☒	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. Insulation covering chilled water piping and refrigerant suction piping located outside the conditioned space shall have a Class I or Class II vapor retarder. All penetrations and joints of which shall be sealed.

Mandatory Pipe Insulation

02	03	04	05	06	07	08	09	10	10a
System Type	Nominal Pipe Diameter (in)	Fluid Temperature Range (°F)	Conductivity Range (Btu-in per hr per ft^2 per °F)	Insulation Mean Rating Temp. (°F)	Min. Insulation Thickness Required per Table 120.3-A (in)	Min. Insulation Thickness Required per 120.3(c)2 & 160.3(c)1dii (in)	Insulation Thickness per Design (in)	Exception to 120.3 & 160.3(c) (if applicable)	Serving Res or NR Space?
Space cooling	<1	40-60	0.21 - 0.27	75	0.5		1	No exception taken	Nonresidential
Space cooling	1 to <1.5	40-60	0.21 - 0.27	75	0.5		1	No exception taken	Nonresidential
Space cooling	1.5 to <4	40-60	0.21 - 0.27	75	1		1	No exception taken	Nonresidential

Duct Leakage Testing

The answers to the questions below apply to the following duct systems:	M6.1	**NR/ Common Use:** Duct leakage testing shall not exceed 6% per NA7.5.3 required for these systems?	No

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L. DISTRIBUTION (DUCTWORK and PIPING)

		Dwelling Units: Total duct leakage of duct system shall not exceed 12% or duct system to outside shall not exceed 6% per RA3.1.4 required for systems?	---
		Duct leakage testing per CMC Section 603.9.2 required for these systems?	Yes

11	No	The scope of the project includes only duct systems serving healthcare facilities
12	No	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 is more than 25% of the total surface area of the entire duct system:
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	Yes	All Ductwork and plenums with pressure class ratings shall be constructed to Seal Class A
18	No	All ductwork is an extension of an existing duct system
19	No	Ductwork serving individual dwelling unit
20		< 25 ft of new or replacement space conditioning ducts installed
21	R-4.2	Duct Insulation R-value
22	No	Ductwork Existing To Remain
23	No	Duct System Connected To Altered Space Conditioning System

M. COOLING TOWERS

This section does not apply to this project.

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N. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

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/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency-4

Form/Title
NRCI-MCH-01-E - Must be submitted for all buildings

O. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

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/programs-and-topics/programs/building-energy-efficiency-standards/2022-building-energy-efficiency-4

Form/Title	Systems/Spaces To Be Field Verified
NRCA-MCH-02-A - Outdoor Air must be submitted for all newly installed HVAC units. Note: MCH-02-A can be performed in conjunction with MCH-07-A Supply Fan VFD Acceptance (if applicable) since testing activities overlap.	FCU-104A

P. DECLARATION OF REQUIRED CERTIFICATES OF VERIFICATION

There are no NRCV forms required for this project.

Q. MANDATORY MEASURES DOCUMENTATION LOCATION

This table is used to indicate where mandatory measures are documented in the plan set or construction documentation.

01		02
Compliance with Mandatory Measures documented through MCH Mandatory Measures Note Block	Yes	Plan sheet or construction document location: M0.2

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CERTIFICATE OF COMPLIANCE		NRCC-MCH-E
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Project Address:	**Date Prepared:**	2025-01-14T19:54:53-05:00

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name: ANDY GIANG	Documentation Author Signature:
Company: AGC MECHANICAL	Signature Date:
Address:	CEA/ HERS Certification Identification (if applicable):
City/State/Zip:	Phone:

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: ANDY GIANG	Responsible Designer Signature:
Company: AGC MECHANICAL	Date Signed:
Address:	License:
City/State/Zip:	Phone:

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Project: 24J019

REV	DATE	REVISION
	03/07/2025	ISSUE FOR PLAN CHECK

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REGISTERED PROFESSIONAL ENGINEER — ANDY GIANG — M-40276 — MECHANICAL — STATE OF CALIFORNIA

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MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATION
MECHANICAL TITLE 24 COMPLIANCE

DRAWING NO. **M0.2**

BUILDING NUMBER: 02-565 | SCALE: AS NOTED | BAB PROJECT #: 24J019 6417 | REV

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Space Conditioning Mandatory Measures:

110.2 CERTIFICATION BY MANUFACTURERS
ANY SPACE CONDITIONING EQUIPMENT LISTED IN §110.2 SHALL ONLY BE INSTALLED IF CERTIFIED TO THE ENERGY COMMISSION TO MEET ALL APPLICABLE §110.2 REQUIREMENTS.

110.2(a) SPACE CONDITIONING EQUIPMENT EFFICIENCY
EQUIPMENT SHALL MEET APPLICABLE EFFICIENCY REQUIREMENTS IN TABLE 110.2-A THROUGH TABLE 110.2-N.

110.2(c) SETBACK THERMOSTATS
ALL HEATING OR COOLING SYSTEMS NOT CONTROLLED BY A CENTRAL ENERGY MANAGEMENT CONTROL SYSTEM (EMCS) SHALL HAVE A SETBACK THERMOSTAT WITH CLOCK MECHANISM THAT ALLOWS THE BUILDING OCCUPANT TO PROGRAM THE TEMPERATURE SETPOINTS FOR AT LEAST FOUR PERIODS WITHIN 24 HOURS.

110.5 PILOT LIGHTS PROHIBITED FOR NATURAL GAS EQUIPMENT
PILOT LIGHTS ARE PROHIBITED ON NATURAL GAS FAN-TYPE CENTRAL FURNACES, POOL HEATERS, SPA HEATERS, AND FIREPLACES.

110.8(a) INSULATION CERTIFICATION
INSTALLED INSULATION SHALL BE CERTIFIED BY THE DEPARTMENT OF CONSUMER AFFAIRS PER TITLE 24, PART 12, CHAPTERS 12-13, ARTICLE 3 "STANDARDS FOR INSULATING MATERIAL."

110.8(b) UREA FORMALDEHYDE INSULATION
UREA FORMALDEHYDE INSULATION SHALL NOT BE INSTALLED UNLESS IN EXTERIOR SIDE WALLS WITH A FOUR-MIL-THICK PLASTIC POLYETHYLENE VAPOR RETARDER OR EQUIVALENT PLASTIC SHEATHING VAPOR RETARDER INSTALLED BETWEEN THE UREA FORMALDEHYDE FOAM INSULATION AND THE INTERIOR SPACE.

110.8(c) INSULATING MATERIAL
ALL INSULATING MATERIALS SHALL BE INSTALLED IN COMPLIANCE WITH THE FLAME SPREAD RATING AND SMOKE DENSITY REQUIREMENTS OF THE CALIFORNIA BUILDING CODE.

110.8(d) DUCTS
IF INSULATION IS INSTALLED ON AN EXISTING SPACE-CONDITIONING DUCT, IT SHALL COMPLY WITH SECTION 604.0 OF THE CMC.

120.1(a) GENERAL VENTILATION AND INDOOR AIR QUALITY REQUIREMENTS
ALL OCCUPIABLE SPACES IN HOTEL/MOTEL AND NONRESIDENTIAL BUILDINGS OTHER THAN HEALTHCARE SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF §120.1(a) THROUGH (g). THE REQUIRED OUTDOOR AIR VENTILATION RATE AND AIR-DISTRIBUTION SYSTEM DESIGN SHALL BE CLEARLY IDENTIFIED ON THE PLANS.

120.1(c)1 NONRESIDENTIAL AND HOTEL/MOTEL BUILDINGS ALL OCCUPIABLE SPACES SHALL MEET THE FOLLOWING 120.1(c)1 AIR FILTRATION REQUIREMENTS, AND EITHER 120.1(c)2 NATURAL VENTILATION, OR 120.1(c)3 MECHANICAL VENTILATION:
A. THE FOLLOWING SYSTEM TYPES SHALL BE PROVIDED WITH AIR FILTERS TO CLEAN OUTSIDE AND RETURN AIR PRIOR TO INTRODUCTION INTO OCCUPIED SPACES:
i. NEWLY INSTALLED MECHANICAL SPACE CONDITIONING SYSTEMS THAT USE FORCED AIR DUCTS <10 FT LONG TO SUPPLY AIR TO AN OCCUPIABLE SPACE.
ii. MECHANICAL SUPPLY-ONLY VENTILATION SYSTEMS THAT PROVIDE OUTSIDE AIR TO AN OCCUPIABLE SPACE.
iii. THE SUPPLY SIDE OF MECHANICAL BALANCED VENTILATION SYSTEMS, INCLUDING HEAT RECOVERY VENTILATION SYSTEMS AND ENERGY RECOVERY VENTILATION SYSTEMS THAT PROVIDE OUTSIDE AIR TO AN OCCUPIABLE SPACE.
B. AIR FILTERS SHALL HAVE EFFICIENCY >= MERV 13 WHEN TESTED PER ASHRAE STANDARD 52.2 OR A PARTICLE SIZE EFFICIENCY RATING PER 120.1(c)1B.
C. SYSTEM AIR FILTERS SHALL BE EITHER
i. NOMINAL 2 INCH MINIMUM DEPTH, OR
ii NOMINAL 1 INCH MINIMUM DEPTH, IF SIZED PER EQUATION 120.1-A BASED ON A MAXIMUM FACE VELOCITY OF 150 FT/MIN

Space Conditioning Mandatory Measures:

120.1(c)2 NATURAL VENTILATION
NATURALLY VENTILATED SPACES SHALL BE DESIGNED IN ACCORDANCE WITH 120.1(c)2A THROUGH 120.1(c)2C AND INCLUDE A MECHANICAL VENTILATION SYSTEMS DESIGNED IN ACCORDANCE WITH 120.1(c)3.

120.1(c)3 MECHANICAL VENTILATION
OCCUPIABLE SPACES SHALL BE VENTILATED WITH A MECHANICAL VENTILATION SYSTEM CAPABLE OF PROVIDING AN OUTDOOR AIRFLOW RATE (V_{ot}) TO THE ZONE NO LESS THAN EQUATION 120.1-F.

120.1(d) TIMES OF OCCUPANCY
MINIMUM OUTDOOR AIR RATE SHALL BE MET AT TIMES WHEN THE SPACE IS USUALLY OCCUPIED IN ACCORDANCE WITH 120.1(c).

120.1(d)2 PRE-OCCUPANCY
THE LESSER OF THE MINIMUM RATE OF OUTDOOR AIR REQUIRED BY SECTION 120.1(c) OR THREE COMPLETE AIR CHANGES SHALL BE SUPPLIED TO THE ENTIRE BUILDING DURING THE 1-HOUR PERIOD IMMEDIATELY BEFORE THE BUILDING IS NORMALLY OCCUPIED.

120.1(d)3 REQUIRED DEMAND CONTROL VENTILATION
DCV CONTROLS ARE REQUIRED FOR A SPACE WITH A DESIGN OCCUPANCY DENSITY >= 25 PEOPLE/1,000 FT2 IF THE SYSTEM SERVING THE SPACE HAS ONE OR MORE OF THE FOLLOWING
- AN AIR ECONOMIZER
- MODULATING OUTSIDE AIR CONTROL
- DESIGN OUTDOOR AIRFLOW RATE > 3,000 CFM

120.1(f) DESIGN AND CONTROL REQUIREMENTS FOR QUANTITIES OF OUTDOOR AIR

120.1(f)1 ALL MECHANICAL VENTILATION AND SPACE-CONDITIONING SYSTEMS SHALL BE DESIGNED WITH AND HAVE INSTALLED DUCTWORK, DAMPERS, AND CONTROLS TO ALLOW OA RATES TO BE OPERATED AT NO LESS THAN THE LARGER OF: 120.1(c)3 MINIMUMS OR THE RATE REQUIRED FOR MAKE-UP OF EXHAUST SYSTEMS FOR AN EXEMPT OR COVERED PROCESS, CONTROL OF ODORS, OR CONTAMINANT REMOVAL IN A SPACE.

120.1(g) AIR CLASSIFICATION AND RECIRCULATION LIMITATIONS
AIR CLASSIFICATION AND RECIRCULATION LIMITATIONS OF AIR SHALL BE BASED ON TABLE 120.1-A OR TABLE 120.1-C, AND IN ACCORDANCE WITH 120.1(g)1 THROUGH 4.

120.2(a) THERMOSTAT CONTROLS
HEATING AND COOLING SUPPLY TO EACH SPACE-CONDITIONING ZONE OR DWELLING UNIT SHALL BE CONTROLLED BY AN INDIVIDUAL THERMOSTATIC CONTROL THAT RESPONDS TO TEMPERATURE IN THE ZONE AND MEETS 120.2(b) REQUIREMENTS.

120.2(b) ZONAL THERMOSTAT CONTROLS

120.2(b)1 BEING SET TO 55 °F OR LOWER, WHEN CONTROLLING HEATING
120.2(b)2 BEING SET UP TO 85 °F OR HIGHER, WHEN CONTROLLING COOLING
120.2(b)3 PROVIDING A TEMPERATURE RANGE, OR DEAD BAND OF AT LEAST 5 °F WITHIN WHICH HEATING AND COOLING TO THE ZONE IS SHUT OFF OR REDUCED TO A MINIMUM.

Space Conditioning Mandatory Measures:

120.2(e)1 AUTOMATIC SHUT-OFF FOR SPACE-CONDITIONING SYSTEMS
EACH SPACE-CONDITIONING SYSTEM SHALL BE INSTALLED WITH ONE OF THE FOLLOWING CONTROLS CAPABLE OF AUTOMATICALLY SHUTTING OFF THE SYSTEM DURING PERIODS OF NONUSE:
- AUTOMATIC TIME SWITCH CONTROL PER 110.9, WITH ACCESSIBLE MANUAL OVERRIDE ALLOWING SYSTEM OPERATION FOR UP TO 4 HOURS, OR
- AN OCCUPANCY SENSOR, OR
- A 4-HOUR TIMER THAT CAN BE MANUALLY OPERATED.

120.2(f) DAMPERS FOR AIR SUPPLY AND EXHAUST EQUIPMENT
OUTDOOR AIR SUPPLY AND EXHAUST EQUIPMENT SHALL BE INSTALLED WITH DAMPERS THAT AUTOMATICALLY CLOSE UPON FAN SHUTDOWN.

120.2(h) AUTOMATIC DEMAND SHED CONTROLS
SHALL MEET REQUIREMENTS IN 110.12
110.12(a) DEMAND RESPONSIVE (DR) CONTROL REQUIREMENTS:
1. EITHER CERTIFIED OPENADR 2.0a, OPENADR 2.0b VIRTUAL END NODE (VEN); OR CERTIFIED BY THE MANUFACTURER AS BEING CAPABLE OF RESPONDING TO A DR SIGNAL FROM A CERTIFIED OPENADR 2.0b VIRTUAL END NODE BY AUTOMATICALLY IMPLEMENTING THE CONTROL FUNCTIONS REQUESTED BY THE VIRTUAL END NODE FOR THE EQUIPMENT IT CONTROLS.
2. CAPABLE OF COMMUNICATING USING WI-FI, ZIGBEE, BACNET, ETHERNET, AND/OR HARD-WIRING.
3. MAY INCORPORATE AND USE ADDITIONAL PROTOCOLS BEYOND THOSE SPECIFIED IN 110.12(a)1 AND 2.
4. SHALL CONTINUE TO PERFORM ALL OTHER CONTROL FUNCTIONS PROVIDED BY THE CONTROL WHEN COMMUNICATIONS ARE DISABLED.
5. THERMOSTATS SHALL COMPLY WITH REFERENCE JOINT APPENDIX 5 (JA5)

110.12(b) NONRESIDENTIAL HVAC SYSTEMS WITH DDC TO THE ZONE LEVEL SHALL BE PROGRAMMED TO ALLOW CENTRALIZED DEMAND SHED FOR NON-CRITICAL ZONES. CONTROLS SHALL BE CAPABLE OF:
1. REMOTELY INCREASING THE OPERATING COOLING TEMPERATURE SETPOINTS BY 4 DEGREES OR MORE IN ALL NON-CRITICAL ZONES ON SIGNAL FROM A CENTRALIZED CONTACT OR SOFTWARE POINT WITHIN AN EMCS
2. REMOTELY DECREASING THE OPERATING HEATING TEMPERATURE SETPOINTS BY 4 DEGREES OR MORE IN ALL NON-CRITICAL ZONES ON SIGNAL FROM A CENTRALIZED CONTACT OR SOFTWARE POINT WITHIN AN EMCS
3. REMOTELY RESETTING THE TEMPERATURES IN ALL NON-CRITICAL ZONES TO ORIGINAL OPERATING LEVELS ON SIGNAL FROM A CENTRALIZED CONTACT OR SOFTWARE POINT WITHIN AN EMCS
4. PROVIDING AN ADJUSTABLE RATE OF CHANGE FOR THE TEMPERATURE INCREASE, DECREASE, AND RESET
5. THE FOLLOWING FEATURES:
   A. DISABLED BY AUTHORIZED FACILITY OPERATORS
   B. MANUAL CONTROL BY AUTHORIZED FACILITY OPERATORS
   C. UPON RECEIPT OF A DR SIGNAL, SPACE-CONDITIONING SYSTEMS SHALL CONDUCT A CENTRALIZED DEMAND SHED, AS SPECIFIED IN 110.12(b)1 AND 110.12(b)2, FOR NON-CRITICAL ZONES DURING THE DR PERIOD

Space Conditioning Mandatory Measures:

120.2(j) DIRECT DIGITAL CONTROLS (DDC)
DDC TO THE ZONE SHALL BE PROVIDED AS SPECIFIED BY TABLE 120.2-A. THE DDC SYSTEM SHALL MEET CONTROL LOGIC REQUIREMENTS OF 120.1(D), 110.12(a) AND 110.12(b) AND BE CAPABLE OF ALL OF THE FOLLOWING:
1. MONITORING ZONE AND SYSTEM DEMAND FOR FAN PRESSURE, PUMP PRESSURE, HEATING AND COOLING
2. TRANSFERRING ZONE AND SYSTEM DEMAND INFORMATION FROM ZONES TO AIR DISTRIBUTION SYSTEM CONTROLLERS AND FROM AIR DISTRIBUTION SYSTEMS TO HEATING AND COOLING PLANT CONTROLLERS
3. AUTOMATICALLY DETECTING THE ZONES AND SYSTEMS THAT MAY BE EXCESSIVELY DRIVING THE RESET LOGIC AND GENERATE AN ALARM OR OTHER INDICATION TO THE SYSTEM OPERATOR
4. READILY ALLOW OPERATOR REMOVAL OF ZONE(S) FROM THE RESET ALGORITHM
5. FOR NEW BUILDINGS, TRENDING AND GRAPHICALLY DISPLAYING INPUT AND OUTPUT POINTS
6. RESETTING HEATING AND COOLING SETPOINTS IN ALL NON-CRITICAL ZONES UPON RECEIPT OF A SIGNAL FROM A CENTRALIZED CONTACT OR SOFTWARE POINT AS DESCRIBED IN 110.12(b).

120.3 PIPE INSULATION
PIPE INSULATION IS REQUIRED FOR:
- SPACE COOLING SYSTEM: REFRIGERANT SUCTION, CHILLED WATER, AND BRINE FLUID DISTRIBUTION SYSTEMS; AND
- SPACE HEATING SYSTEM: REFRIGERANT, STEAM, STEAM CONDENSATE, AND HOT WATER FLUID DISTRIBUTION SYSTEMS.

THIS PIPE INSULATION MUST SHOW COMPLIANCE WITH EITHER TABLE 120.3-A BASED ON FLUID NORMAL OPERATING TEMPERATURE RANGES AND PIPE DIAMETERS, OR THE INSULATION THICKNESS EQUATION IN 120.3(c).

PIPE INSULATION SHALL BE PROTECTED FROM DAMAGE, INCLUDING THAT DUE TO SUNLIGHT, MOISTURE, EQUIPMENT MAINTENANCE, AND WIND. PROTECTION SHALL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:
- INSULATION EXPOSED TO WEATHER SHALL BE PROTECTED BY A COVER SUITABLE FOR OUTDOOR SERVICE. THE COVER SHALL BE WATER RETARDANT AND PROVIDE SHIELDING FROM SOLAR RADIATION THAT CAN CAUSE DEGRADATION OF THE MATERIAL. ADHESIVE TAPE SHALL NOT BE USED TO PROVIDE THIS PROTECTION.
- INSULATION COVERING CHILLED WATER PIPING AND REFRIGERANT SUCTION PIPING LOCATED OUTSIDE THE CONDITIONED SPACE SHALL INCLUDE, OR BE PROTECTED BY, A CLASS I OR CLASS II VAPOR RETARDER. ALL VAPOR RETARDER PENETRATIONS AND JOINTS SHALL BE SEALED.
- PIPE INSULATION BURIED BELOW GRADE MUST BE INSTALLED IN A WATER PROOF AND NON-CRUSHABLE CASING OR SLEEVE.

120.4 AIR DISTRIBUTION SYSTEM DUCTS AND PLENUMS
PORTIONS OF SUPPLY- AND RETURN-AIR DUCTS CONVEYING HEATED OR COOLED AIR LOCATED IN ONE OR MORE OF THE FOLLOWING SPACES SHALL BE INSULATED TO A MINIMUM INSTALLED LEVEL OF R-8:
- OUTDOORS
- IN A SPACE BETWEEN THE ROOF AND AN INSULATING CEILING
- IN A SPACE DIRECTLY UNDER A ROOF WITH FIXED VENTS OR OPENINGS TO THE OUTSIDE OR UNCONDITIONED SPACES
- UNCONDITIONED SPACES, SUCH AS UNCONDITIONED CRAWLSPACE

PORTIONS OF SUPPLY-AIR DUCTS THAT ARE NOT IN ONE OF THESE SPACES, INCLUDING DUCTS BURIED IN CONCRETE SLAB, SHALL BE INSULATED TO A MINIMUM INSTALLED LEVEL OF R-4.2 (OR ANY HIGHER LEVEL REQUIRED BY CMC 605.0), OR BE ENCLOSED IN DIRECTLY CONDITIONED SPACE.

Space Conditioning Mandatory Measures:

120.4(b) DUCT AND PLENUM MATERIALS
120.4(b) FACTORY-FABRICATED DUCT SYSTEMS MUST:
- COMPLY WITH UL 181 FOR DUCTS AND CLOSURE SYSTEMS AND BE LABELED AS COMPLYING WITH UL 181
- ALL PRESSURE SENSITIVE TAPES, HEAT ACTIVATED TAPES, AND MASTICS USED IN MANUFACTURE OF RIGID FIBERGLASS DUCTS SHALL COMPLY WITH UL 181 AND UL 181A
- ALL PRESSURE SENSITIVE TAPES, AND MASTICS USED IN MANUFACTURE OF FLEXIBLE DUCTS SHALL COMPLY WITH UL 181 AND L 181B
- JOINTS AND SEAMS SHALL NOT BE SEALED WITH CLOTH BACK RUBBER ADHESIVE DUCT TAPES UNLESS COMBINED WITH MASTICS AND DRAWBANDS.

FIELD-FABRICATED DUCT SYSTEMS:
- FACTORY-MADE RIGID FIBERGLASS AND FLEXIBLE DUCTS FOR FIELD-FABRICATED DUCT SYSTEMS SHALL COMPLY WITH UL 181. ALL CLOSURE SYSTEMS, INCLUDING PRESSURE SENSITIVE TAPES, MASTICS, AND AEROSOL SEALANTS, SHALL MEET THE APPLICABLE REQUIREMENTS OF UL 181, UL 181A AND UL 181B.
- MASTIC SEALANTS SHALL:
  - COMPLY WITH APPLICABLE REQUIREMENTS OF UL 181, UL 181A, AND UL 181B AND BE NONTOXIC AND WATER RESISTANT.
  - PASS ASTM C731 AND D2202, IF USED IN BUILDING INTERIOR,
  - PASS ASTM C731, C732, AND D2202, IF USED ON EXTERIOR.
  - SEALANTS AND MESHES SHALL BE RATED FOR EXTERIOR USE.
- PRESSURE SENSITIVE TAPES SHALL COMPLY WITH APPLICABLE REQUIREMENTS IN UL 181, UL 181A, AND UL 181B.
- JOINTS AND SEAMS SHALL NOT BE SEALED WITH CLOTH BACK RUBBER ADHESIVE DUCT TAPES UNLESS COMBINED WITH MASTICS AND DRAWBANDS.
- DRAWBANDS USED WITH FLEXIBLE DUCTS SHALL:
  - BE EITHER STAINLESS STEEL WORM-DRIVE HOSE CLAMPS OR UV-RESISTANT NYLON DUCT TIES
  - HAVE A MINIMUM TENSILE STRENGTH RATING OF 150 LBS.
  - BE TIGHTENED AS RECOMMENDED BY THE MANUFACTURER
- AEROSOL SEALANT CLOSURES SHALL:
  - MEET REQUIREMENTS OF UL 723 AND BE APPLIED ACCORDING TO MANUFACTURER SPECIFICATIONS
  - TAPES OR MASTICS USED IN COMBINATION WITH AEROSOL SEALING SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF UL 181, UL 181A, AND UL 181B, ASTM C731, C732 AND D2202.

120.4(c)
ALL DUCT INSULATION PRODUCT R-VALUES SHALL BE BASED ON INSULATION ONLY AND TESTED IN ACCORDANCE WITH ASTM C518 OR ASTM C177 AND CERTIFIED PER §110.8.

120.4(d)
INSTALLED THICKNESS OF DUCT INSULATION USED TO DETERMINE ITS R-VALUE SHALL BE DETERMINED AS FOLLOWS:
- DUCT BOARD, LINER, AND FACTORY-MADE RIGIDS: USE NOMINAL INSULATION THICKNESS
- DUCT WRAP: USE 75% (25% COMPRESSION) OF NOMINAL THICKNESS
- FACTORY-MADE FLEXIBLE AIR DUCTS: DIVIDE THE DIFFERENCE BETWEEN THE ACTUAL OUTSIDE DIAMETER AND NOMINAL INSIDE DIAMETER BY TWO.

120.4(e)
INSULATED FLEXIBLE DUCT PRODUCTS INSTALLED TO MEET THIS REQUIREMENT MUST INCLUDE LABELS (MAX INTERVALS OF 3 FT) SHOWING THERMAL RESISTANCE PERFORMANCE R-VALUE FOR THE DUCT INSULATION ITSELF BASED ON TESTS IN 120.4(c). AND INSTALLED THICKNESS DETERMINED BY 120.4(d)3.

Space Conditioning Mandatory Measures:

120.4(f) PROTECTION OF INSULATION
INSULATION SHALL BE PROTECTED FROM DAMAGE BY SUNLIGHT, MOISTURE, EQUIPMENT MAINTENANCE AND WIND. CELLULAR FOAM INSULATION SHALL BE PROTECTED, OR BE PAINTED WITH A WATER RETARDANT COATING THAT PROVIDES SHIELDING FROM SOLAR RADIATION.

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Project: 24J019

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REGISTERED PROFESSIONAL ENGINEER
ANDY GIANG
M-40276
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STANFORD PROJECT NUMBER:

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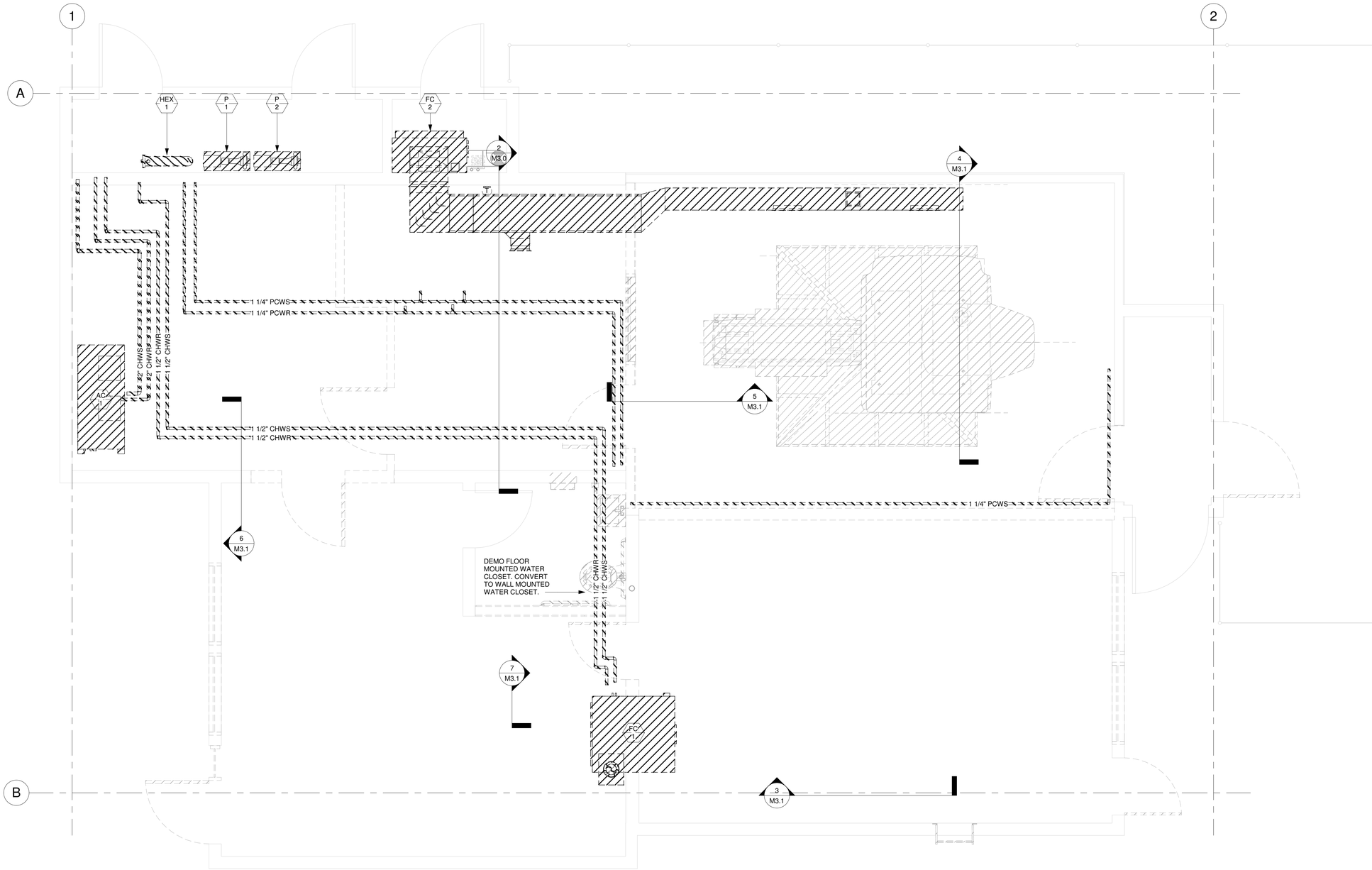
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MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATION
MECHANICAL TITLE 24 MANDATORY MEASURES

DRAWING NO.
M0.3

BUILDING NUMBER: 02-565 | SCALE: AS NOTED | BAB PROJECT #: 24J019 6417 | REV

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1 M1.1 MECHANICAL GROUND FLOOR DEMO PLAN

3/8" = 1'-0"

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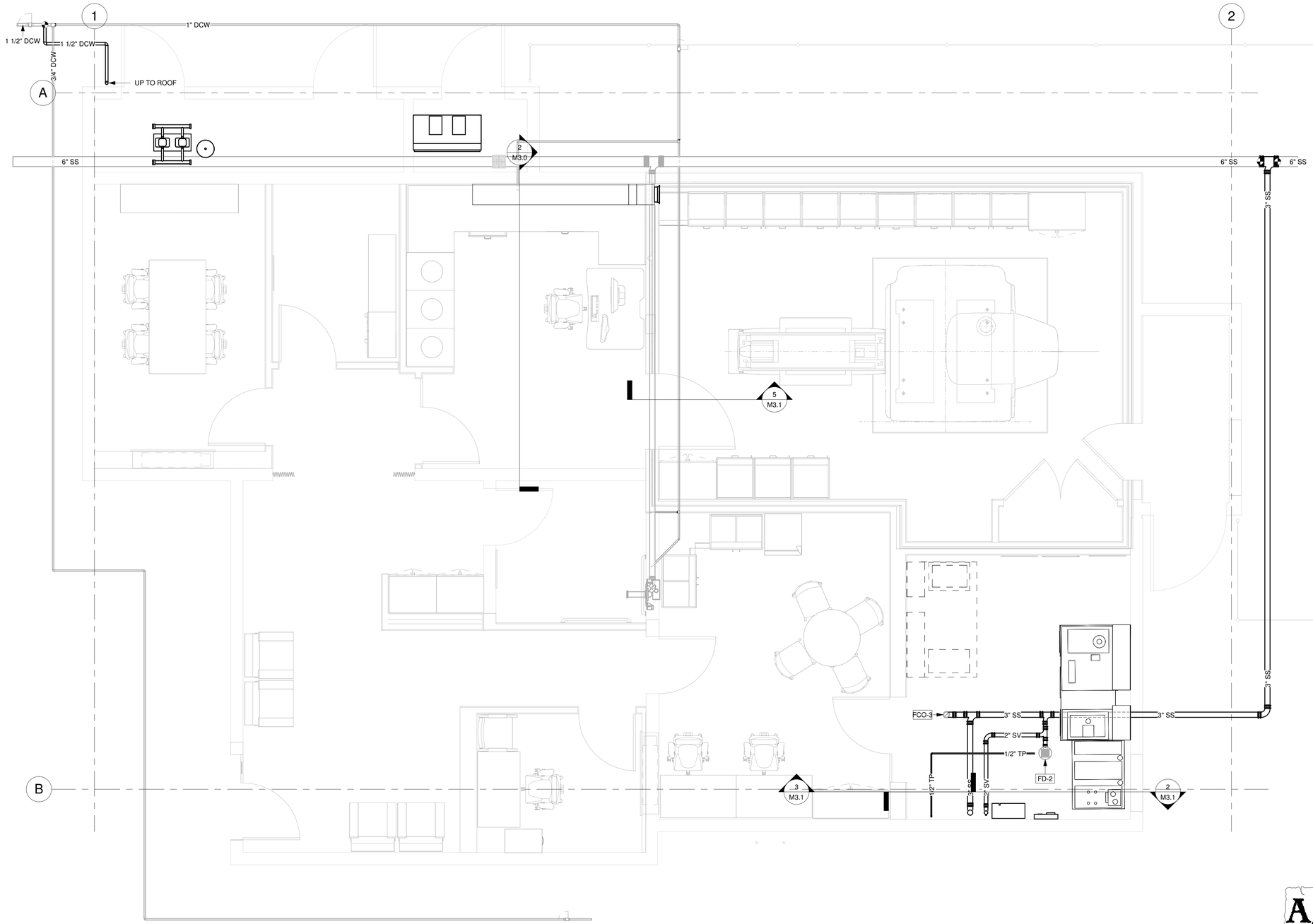
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MECHANCIAL GROUND FLOOR DEMO PLAN

DRAWING NO. M1.1

BUILDING NUMBER: 02-565 | SCALE: AS NOTED | BAB PROJECT #: 24J019 6417 | REV

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1 M2.0 MECHANICAL UNDERGROUND PLAN

3/8" = 1'-0"

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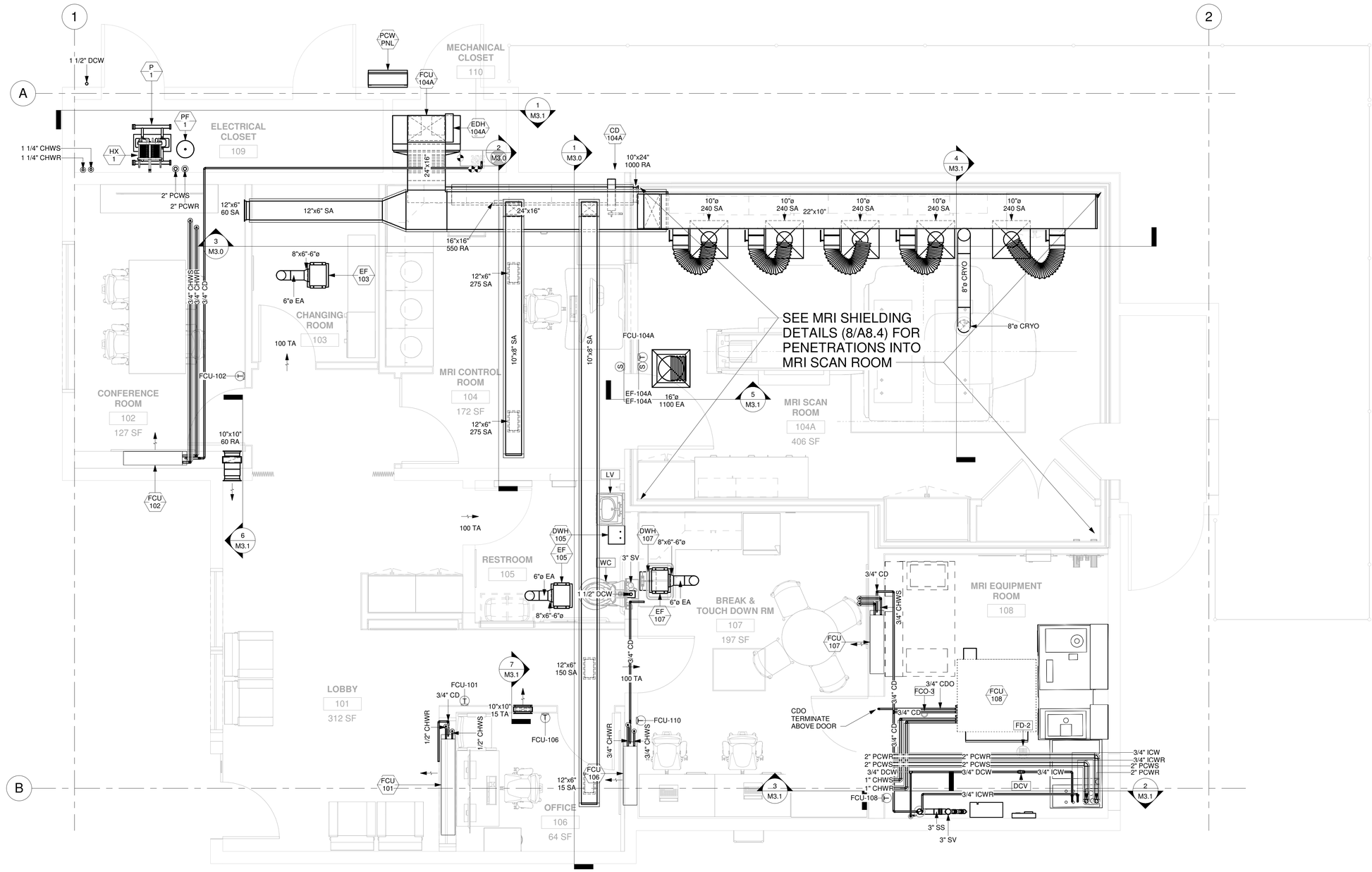
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MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATION
MECHANICAL UNDERGROUND PLAN

DRAWING NO. **M2.0**

BUILDING NUMBER: 02-565	SCALE: AS NOTED	BAB PROJECT #: 24J019 6417	REV

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1 M2.1 MECHANICAL GROUND FLOOR NEW PLAN

3/8" = 1'-0"

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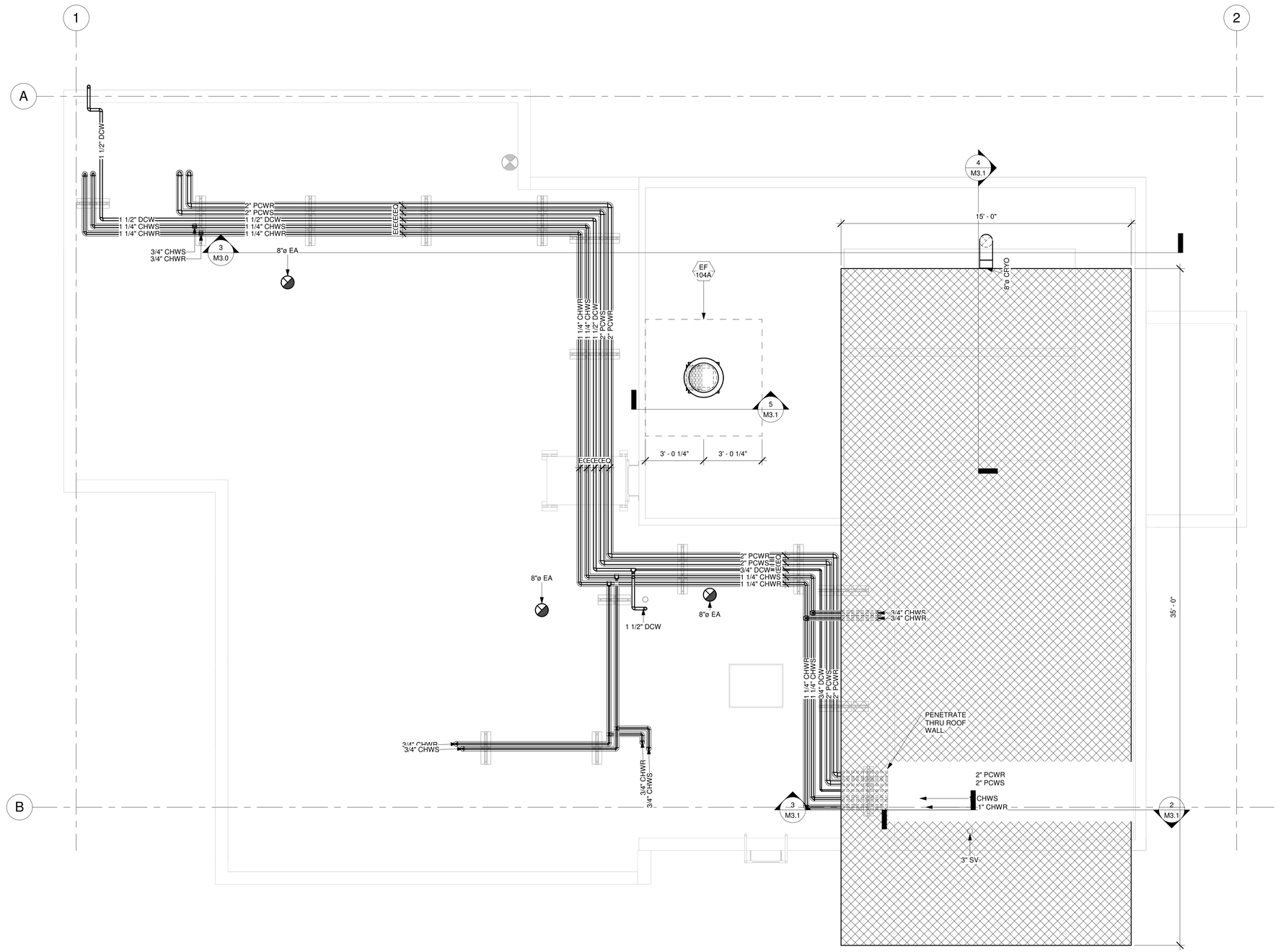
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MECHANICAL GROUND FLOOR NEW PLAN

DRAWING NO. M2.1

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1 M2.2 MECHANICAL ROOF NEW PLAN

3/8" = 1'-0"

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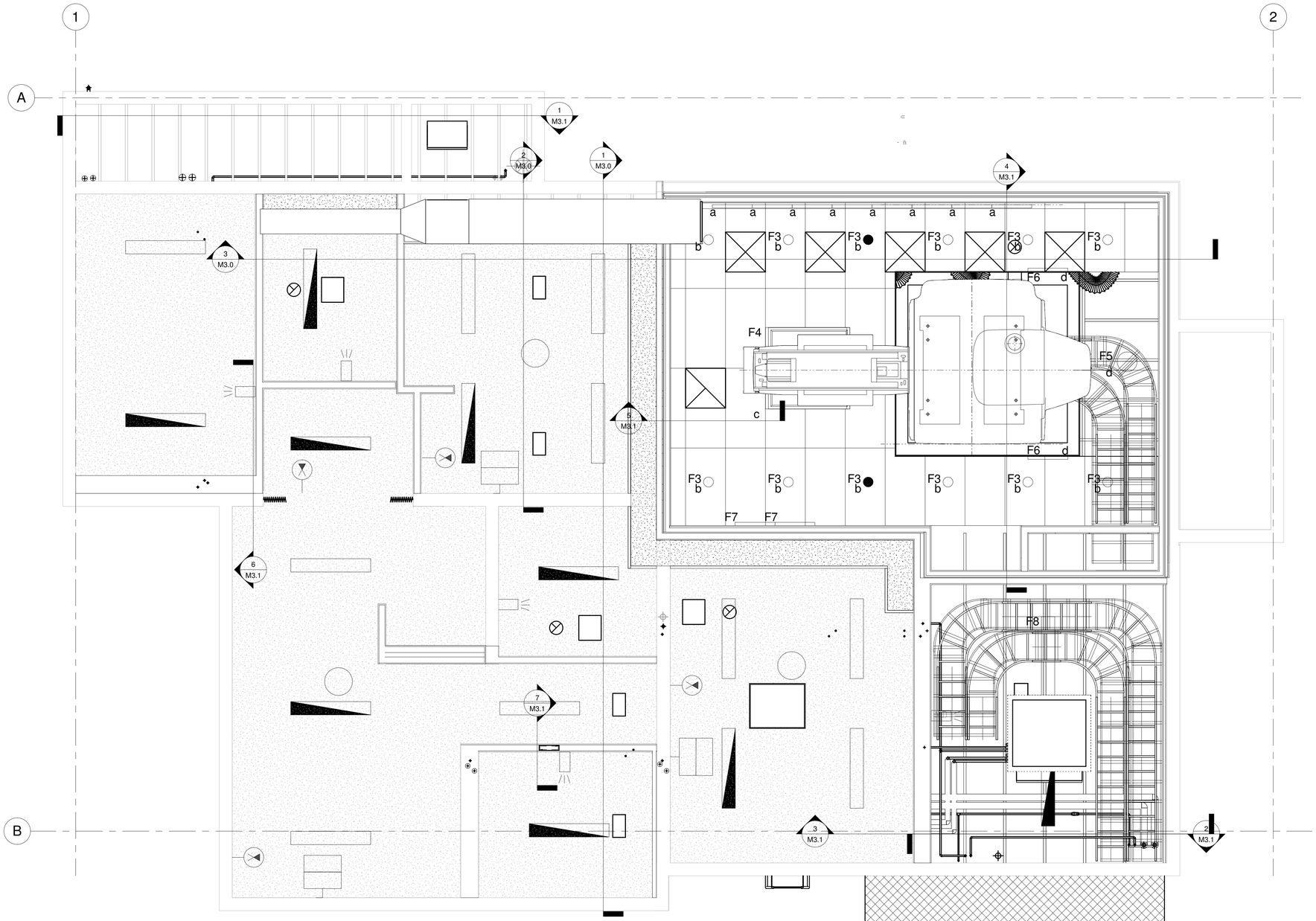
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MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATION
MECHANICAL ROOF NEW PLAN

DRAWING NO. **M2.2**

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1 M2.2A MECHANICAL BASEMENT CEILING PLAN
3/8" = 1'-0"

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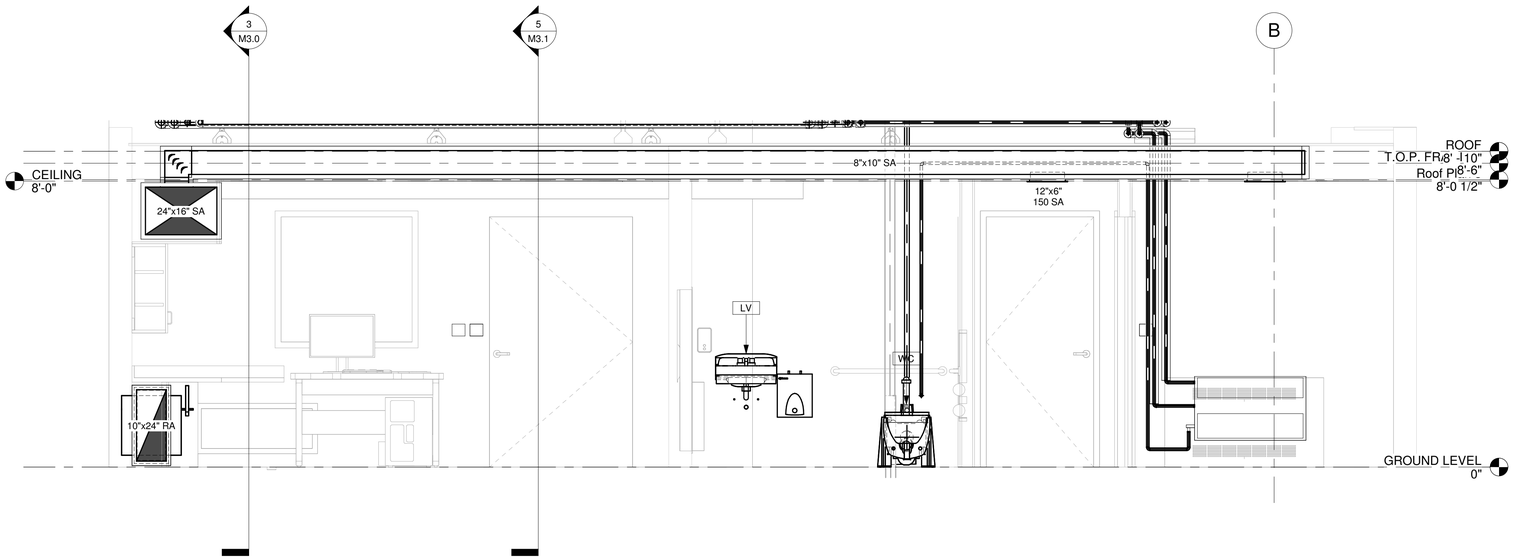
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MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATION
MECHANICAL GROUND FLOOR CEILING PLAN

DRAWING NO. **M2.2A**

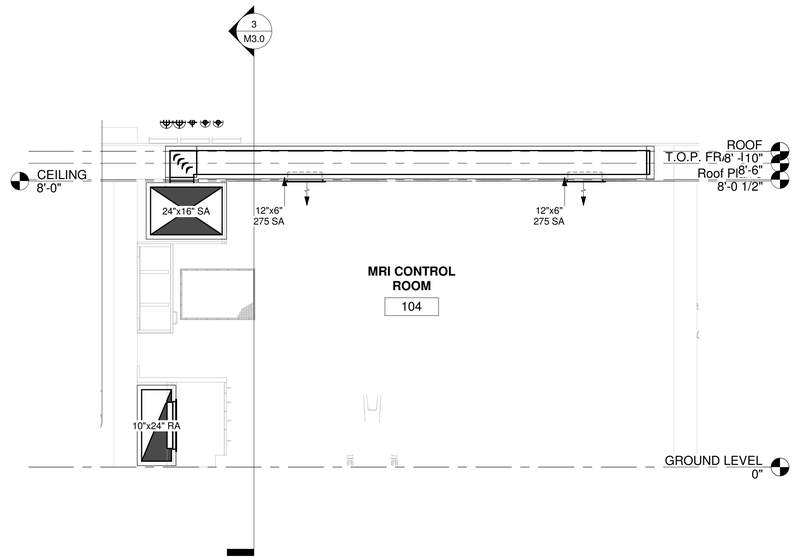
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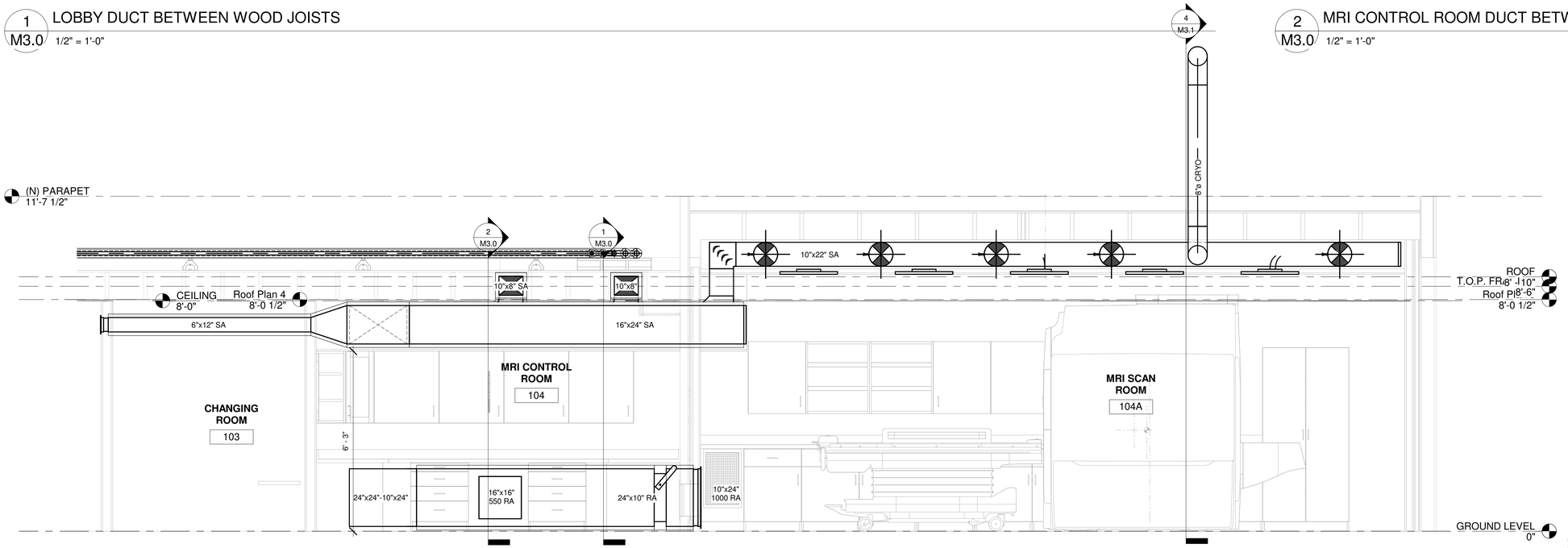
1 M3.0 LOBBY DUCT BETWEEN WOOD JOISTS

1/2" = 1'-0"



2 M3.0 MRI CONTROL ROOM DUCT BETWEEN WOOD JOISTS

1/2" = 1'-0"



3 M3.0 DUCT SOFFIT SECTION

1/2" = 1'-0"

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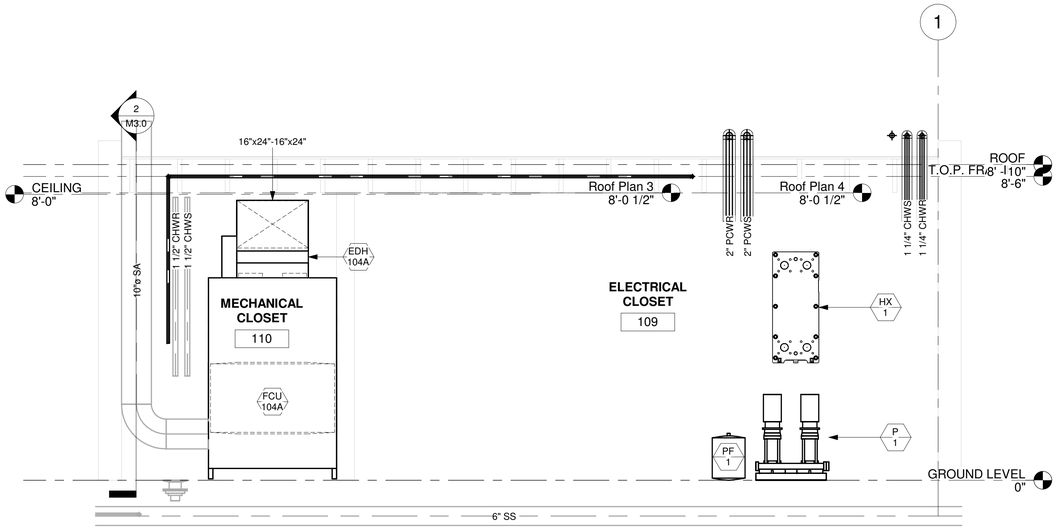
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MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATION
MECHANICAL SECTIONS

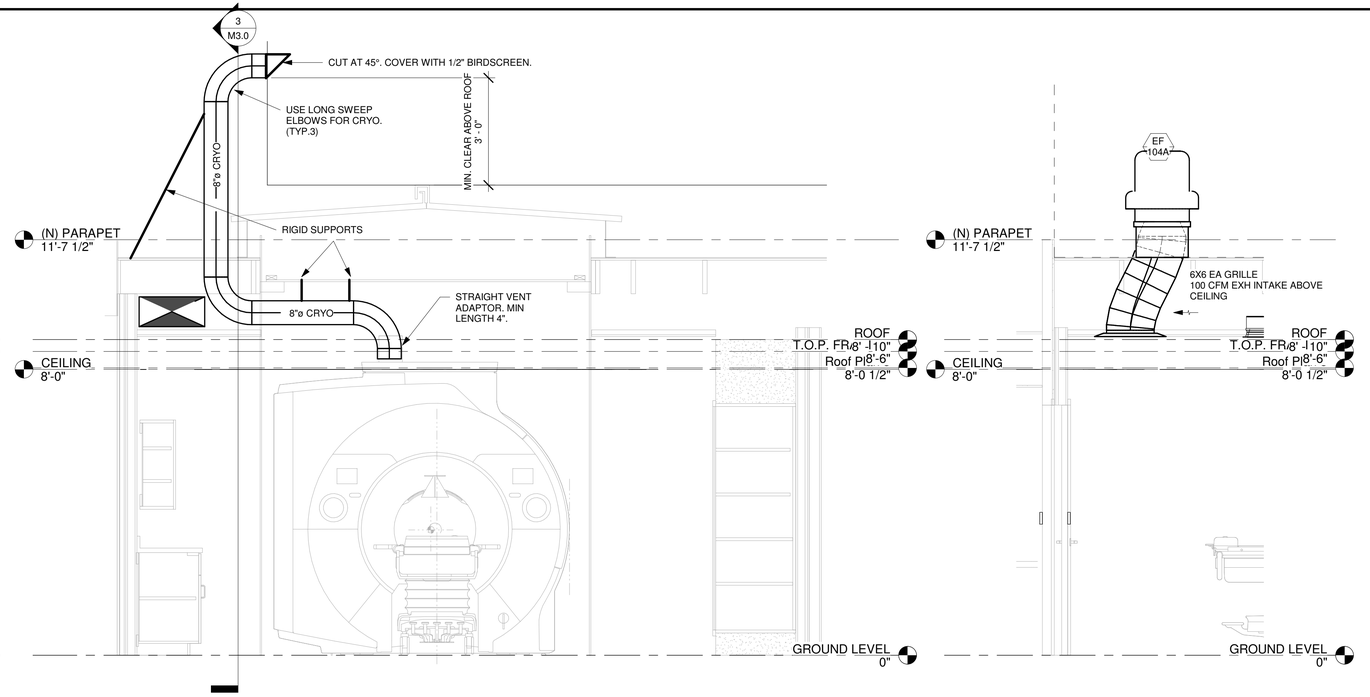
DRAWING NO.
M3.0

BUILDING NUMBER: 02-565 | SCALE: AS NOTED | BAB PROJECT #: 24J019 6417 | REV

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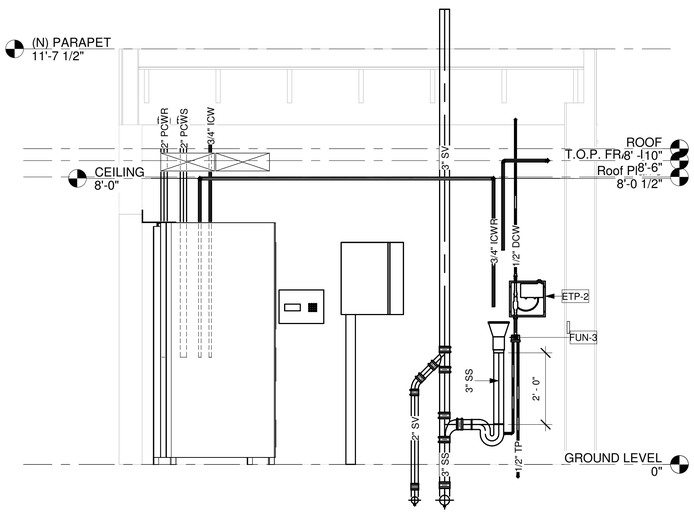


1 MECHANICAL ROOM SECTION
M3.1 1/2" = 1'-0"

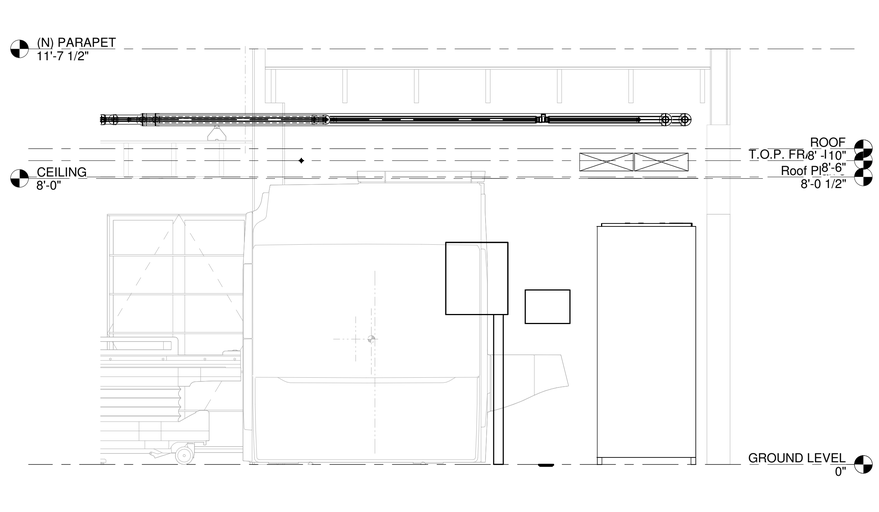


4 CRYOVENT ROUTING AND BRACING
M3.1 1/2" = 1'-0"

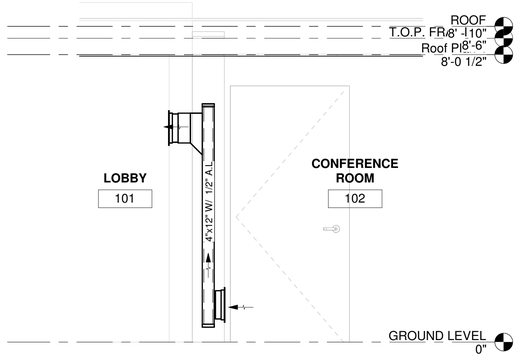
5 MRI EXHAUST FAN MOUNTING
M3.1 1/2" = 1'-0"



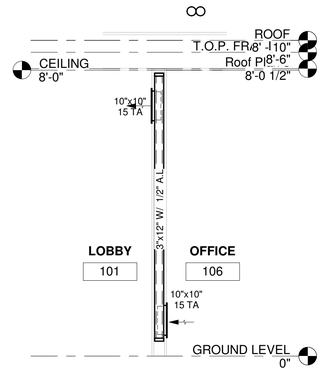
2 MRI EQUIPMENT ROOM SOUTH
M3.1 1/2" = 1'-0"



3 PIPE THRU MRI EQUIPMENT ROOF WALL
M3.1 1/2" = 1'-0"



6 CONFERENCE ROOM TRANSFER
M3.1 1/2" = 1'-0"



7 OFFICE LOW WALL TRANSFER
M3.1 1/2" = 1'-0"

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745-B Camden Ave
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ANDY GIANG
M-10276
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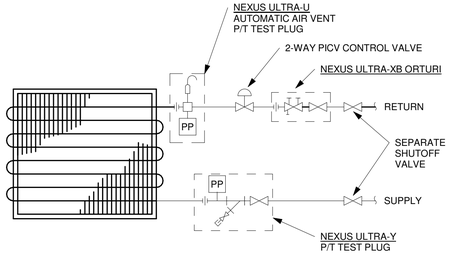
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MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATION
MECHANICAL SECTIONS

DRAWING NO. M3.1

BUILDING NUMBER: 02-565 | SCALE: AS NOTED | BAB PROJECT #: 24J019 6417 | REV

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NOTES:

1. SEE PLANS FOR PIPE SIZES.
2. ORDER WITH ACCESSORIES SHOWN
3. SEE CONTROLS DRAWINGS FOR CONTROL VALVE SELECTION.
4. NEXUS VALVES SHALL HAVE THREADED ENDS.

5 M5.0 FCU-104A,108 COIL NEXUS PIPING 2-WAY

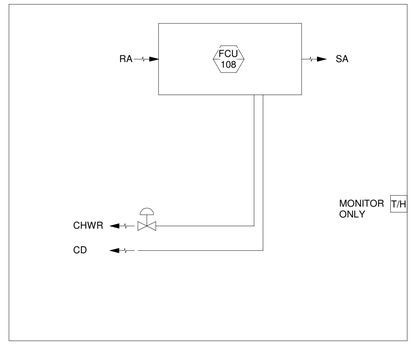
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CONTROLS SCOPE OF WORK:

1. INTEGRATE SYSTEM TO THE DISTECH CONTROLLER
2. PROVIDE DEVICES, WIRING, ALARMS, GRAPHICS AS A COMPLETE PACKAGE

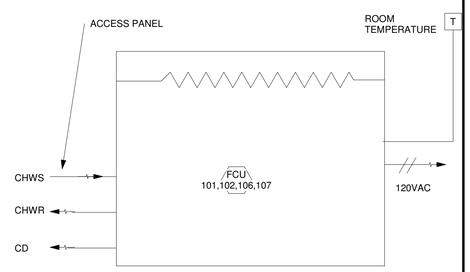
SEQUENCE OF OPERATION:

1. UNIT RUN 24/7
2. CONSTANT VOLUME AIRFLOW
3. CHWR VALVE MODULATE TO MAINTAIN MAGNET ROOM 104A TEMPERATURE SETPOINT OF 72°F (ADJ.)
4. MONITOR TEMPERATURE AND HUMIDITY ON BMS SYSTEM



3 M5.0 FCU-108

NTS



SEQUENCE OF OPERATION:

1. STANDALONE CONTROLS. NO BMS INTEGRATION
2. SINGLE POINT POWER TO UNIT AND ALL COMPONENTS
3. INTEGRAL ELECTRIC HEATER
4. INTEGRAL CHILLED WATER PUMP
5. INTEGRAL ECM FAN
6. INTEGRAL CONDENSATE PUMP
7. INTEGRAL CONDENSATE OVERFLOW SWITCH
8. ROOM TEMPERATURE TO CONTROL UNIT OPERATION

1 M5.0 FCU-101,102,106,107

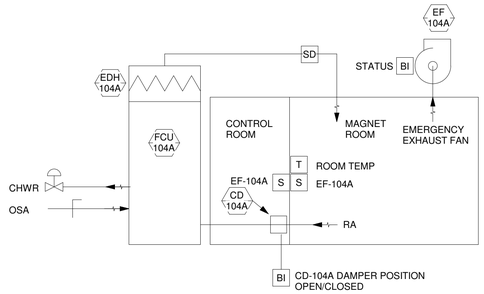
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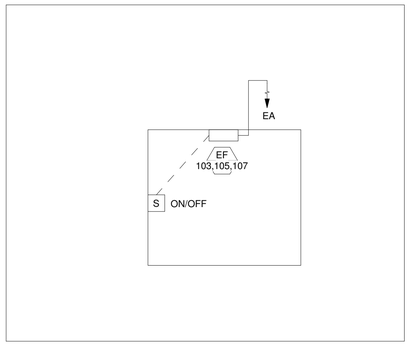
CONTROLS SCOPE OF WORK:

1. INTEGRATE SYSTEM TO DISTECH CONTROLLER
2. PROVIDE DEVICES, WIRING, ALARMS, GRAPHICS AS A COMPLETE PACKAGE

SEQUENCE OF OPERATION:

1. UNIT RUNS 24/7
2. CONSTANT VOLUME AIRFLOW
3. SMOKE DETECTOR TO SHUTOFF FCU-104A UPON SMOKE DETECTION
4. COOLING MODE
   - A. CHWR VALVE MODULATE TO MAINTAIN MAGNET ROOM 104A TEMPERATURE SETPOINT OF 68°F
5. HEATING MODE
   - A. ELECTRIC DUCT HEATER EDH-104A MODULATE ON/OFF TO MAINTAIN TEMPERATURE OF 66°F
   - B. NO SIMULTANEOUS HEATING AND COOLING.
6. HELIUM LEAKAGE MODE
   - A. THIS FAN IS FOR REMOVING HELIUM INSIDE THE ROOM IN EVENT OF A LEAK. EXHAUST FAN EF-104A MANUAL SWITCHES IN MAGNET ROOM AND CONTROL ROOM WIRED IN PARALLEL.
   - B. WHEN EITHER SWITCH IS ACTIVATED, EF-104A SHALL TURN ON AND CD-104A SHALL CLOSE THE DAMPER.
   - C. SEND ALARM TO BMS THAT THERE IS HELIUM LEAK IN THE ROOM





SEQUENCE OF OPERATION:

1. CEILING FAN CONTROLLED BY ON/OFF SWITCH

4 M5.0 FCU-104A AND EF-104A

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2 M5.0 EF-103,105,107

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ANDY GIANG
M40276
MECHANICAL
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MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATION
MECHANICAL AIRFLOW AND CONTROLS DIAGRAMS

DRAWING NO. **M5.0**

BUILDING NUMBER: 02-565 | **SCALE:** AS NOTED | **BAB PROJECT #:** 24J019 6417 | **REV**

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NOTES:

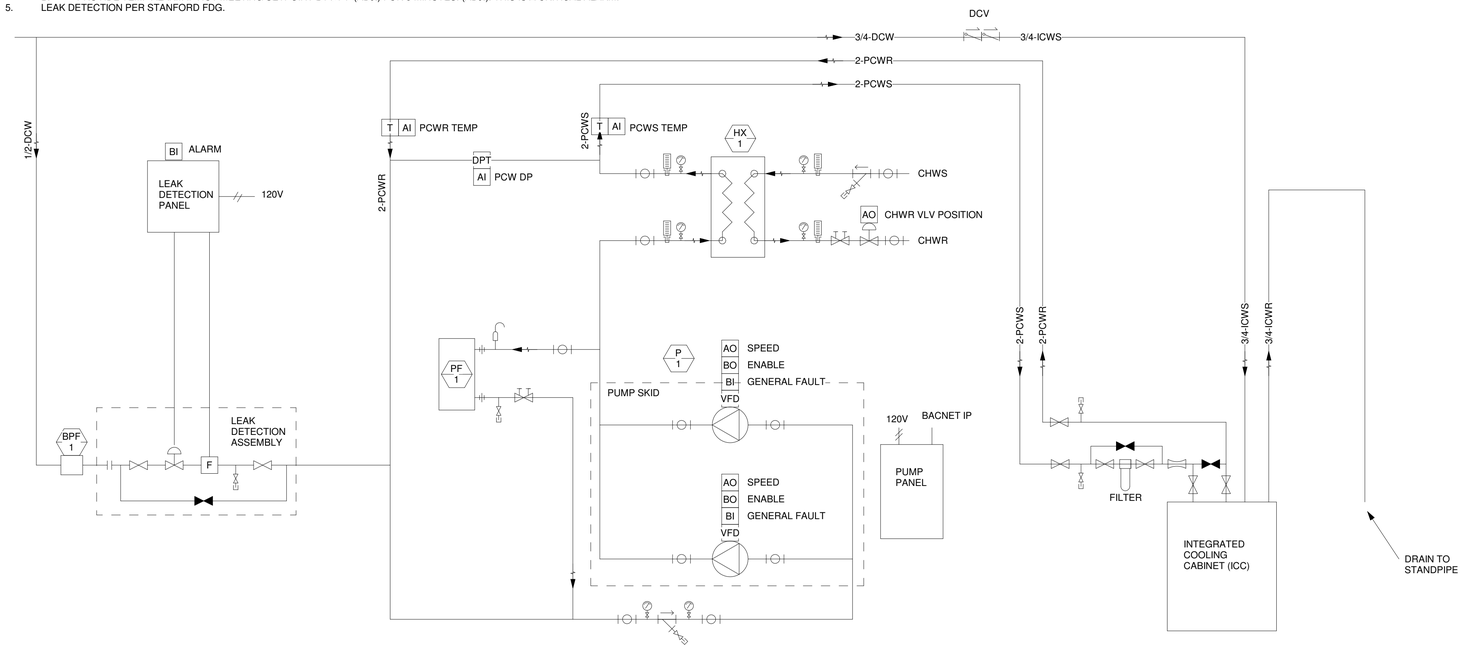
1. LEAK DETECTION PANEL PROVIDED BY STANFORD. POWER AND CONTROL WIRING BY AGC.

SCOPE OF WORK

1. PROVIDE CONTROL PANEL, DISTECH ECY CONTROLLER (TBD), DEVICES, WIRING, GRAPHICS, TRENDS, ALARMS, ETC FOR A COMPLETE PACKAGE.
2. PROVIDE UPS FOR CONTROLS.
3. PROVIDE MEANS FOR 3RD PART ALERTS ON ALARMS SHOWN BELOW. ALERTS SHALL BE PROVIDED AS TEXT MESSAGES.

SEQUENCE OF OPERATION:

1. SYSTEM SCHEDULE
   - A. PCW SYSTEM TO BE ENABLED 24/7
2. TEMPERATURE CONTROL
   - A. MODULATE CHW CONTROL VALVE TO MAINTAIN PCW DISCHARGE TEMPERATURE LEAVING HEAT EXCHANGER
   - B. INITIAL SETPOINT IS 50°F (ADJ.)
3. PUMP CONTROL
   - A. IN NORMAL OPERATION, BOTH PUMPS RUN IN PARALLEL.
   - B. MODULATE PUMP SPEED TO MAINTAIN SYSTEM DP. BOTH PUMPS RECEIVE SAME SPEED SIGNAL.
   - C. INITIAL DP SETPOINT 30 PSI. (ADJ.)
   - D. IF A PUMP FAILS, THE OTHER PUMP WILL RAMP UP TO MEET SYSTEM DP SETPOINT AND SEND ALARM.
4. ALARMS
   - A. PROVIDE GENERAL FAULT FROM EACH VFD
   - B. PROVIDE TEMP ALARM IF NOT MEETING SETPOINT BY >1°F (ADJ.) FOR 5 MINUTES. (ADJ.). THIS IS A CRITICAL ALARM.
5. LEAK DETECTION PER STANFORD FDG.



1 M5.1 PCW HX AND PUMP PIPING DIGRAM

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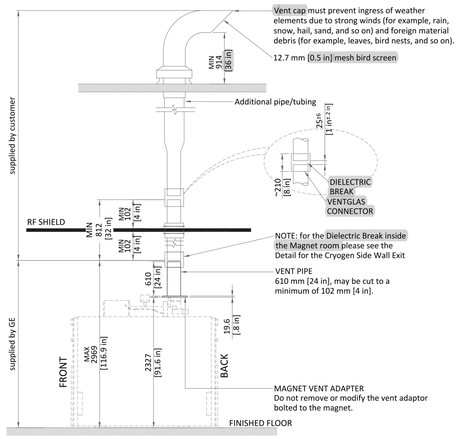
MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATION
MECHANICAL PCW PIPING AND CONTROLS DIAGRAM

DRAWING NO. M5.1

BUILDING NUMBER: 02-565 | SCALE: AS NOTED | BAB PROJECT #: 24J019 6417 | REV

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TYPICAL CRYOGENIC VENT PIPE DETAIL



Waveguide is contractor supplied. Minimum 812 mm [32 in]. Must extend at least 100 mm [4 in] on magnet room side of the wall/ceiling and 25±6 mm [1±0.25 in] from the GE supplied pipe below isolation joint. Magnet room end must not be more than 2969 mm [117 in]above finished floor.

1. The 203 mm [8 in] OD vent material must be one of the following materials with the wall thickness indicated:
   a. SS 304: Minimum 0.89 mm [0.035 in]; Maximum 3.18 mm [0.125 in]
   b. AL 6061-T6: Minimum 2.11 mm [0.083 in]; Maximum 3.18 mm [0.125 in]
   c. CU DWV, M or L: Minimum 2.11 mm [0.083 in]; Maximum 3.56 mm [0.140 in]
2. Either tubes or pipes may be used and must be seamless or have welded seams

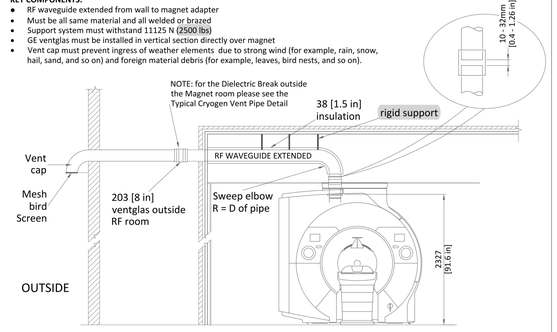
NOTE
All welds on the pipe must be ground down to a smooth 203 mm [8 in] diameter so that it can be clamped to the Ventglas with enough force.

3. Corrugated pipe or spiral duct must not be used
4. If required, bellows pipe less than 300 mm [12 in] in length may be used as a thermal expansion joint
5. The vent pipe must withstand the maximum pressure listed in Magnet Room Venting manual 5850263-1EN.
6. Waveguide vent material must match the outside diameter of the magnet flanged vent adapter

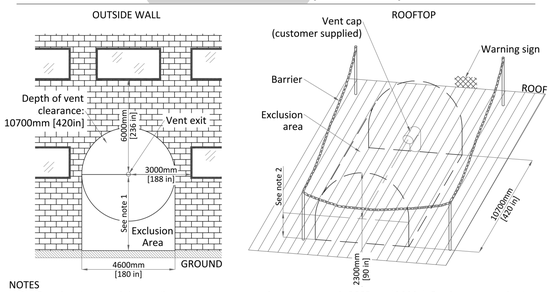
TYPICAL CRYOGEN SIDE WALL EXIT

KEY COMPONENTS:

- RF waveguide extended from wall to magnet adapter
- Must be all same material and all welded or brazed
- Support system must withstand 11125 N (2500 lbs)
- GE ventglas must be installed in vertical section directly over magnet
- Vent cap must prevent ingress of weather elements due to strong wind (for example, rain, snow, hail, sand, and so on) and foreign material debris (for example, leaves, bird nests, and so on).



CRYOGENIC VENTING (EXTERIOR)

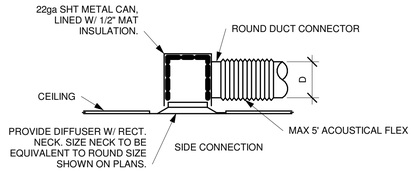


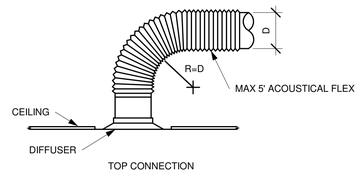
NOTES

(1) Restricted area: minimum distance between vent pipe and ground is 3660mm [144 in]. Barriers are required. Public area: barriers are not required if height is > 5000mm [197 in].

(2) The bottom of the 90° elbow must be at least 914mm [36 in] above the roof deck (or higher if at risk of being blocked by drifting snow, sand, or other potential obstructions.)

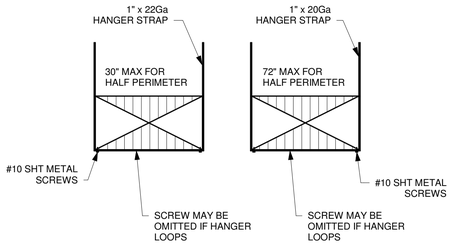
NOT TO SCALE





TOP CONNECTION

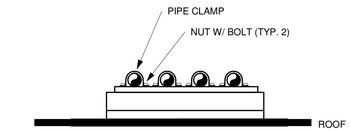
NOTE:
IF THERE IS INSUFFICIENT HEADROOM FOR TOP CONNECTION AS DETAILED, USE SIDE CONNECTION.



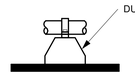
NOTES:
1. UPPER ATTACHMENTS PER SMACNA DUCT CONSTRUCTION STANDARDS, 4TH ED. FIG 5.2, 5.3, AND 5.4
2. MAX HANGER SPACING IS 8'
3. HANGER STRAP AND HANGER ROD SIZES MAY BE REDUCED PER SMACNA TABLE 5

3 M5.2 CEILING DIFFUSER INSTALLATION

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FRONT VIEW

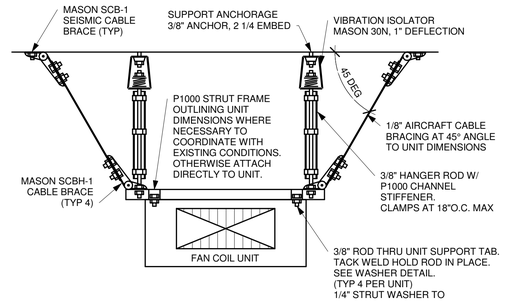


SIDE VIEW

MATERIAL	SIZE	SPACING (ft)
COPPER	1-1/2 AND LESS	6
COPPER	2 AND GREATER	10
STEEL	>1"	12

1 M5.2 RECT DUCT SUPPORT

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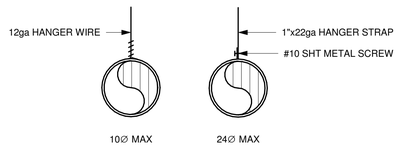
NOTES
1. MAXIMUM SPAN FOR UNISTRUT SUPPORT IS 4 FEET.

4 M5.2 ROOFTOP PIPE SUPPORT DETAIL

NTS

2 M5.2 FAN COIL SUPPORT DETAIL

NTS



NOTES:
1. UPPER ATTACHMENT PER SMACNA DUCT CONSTRUCTION STANDARDS, 4TH ED. FIGURES 5.2, 5.3, AND 5.4
2. MAX SUPPORT SPACING IS 10 FEET.

5 M5.2 ROUND DUCT SUPPORT

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MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATION
MECHANICAL DETAILS

DRAWING NO. **M5.2**

BUILDING NUMBER: 02-565 | SCALE: AS NOTED | BAB PROJECT #: 24J019 6417 | REV

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FAN COIL UNIT SCHEDULE

TAG	MAKE	MODEL	SERVICE	SUPPLY FAN			COOLING COIL										ELECTRICAL			HEIGHT	WEIGHT	COMMENTS
				CFM	OSA	ESP	BTUH TOTAL	BTUH SENSE	EAT DB	EAT WB	LAT	ROW	GPM	EWT	LWT	2/3 WAY	CV	V/PH	MCA	MOCP			
FCU-101	Jaga	BABW0.05515522/FF/20/115	LOBBY 101	1034		0	9483	9483	68	56.7	59.5	2	1.18	44	60	2	0.5	120/1	9.3	15	24.6	97	CONDENSATE OVERFLOW SWITCH, MERV 13 FILTER, GRILLE, ORDER WITH T2/55 ELECTRIC HEATER
FCU-102	Jaga	BABW0.05509522/FF/20/115	CONFERENCE 102	583		0	6768	6768	68	56.7	57.3	2	0.84	44	60	2	0.5	120/1	9.3	15	24.6	60	CONDENSATE OVERFLOW SWITCH, MERV 13 FILTER, GRILLE, ORDER WITH T2/55 ELECTRIC HEATER
FCU-104A	DAIKIN APPLIED	BCAD0201	OUTSIDE AIR	2000	500	0.5	82170	72946	86	66	52.6	6	10.2	44	60.2	2	5	120/1	14.4				SMOKE DETECTOR IN SUPPLY DUCTWORK, INTERLOCK WITH SUPPLY FAN
FCU-106	Jaga	BABW0.05509522/FF/20/115	INTERVIEW 106	583		0	6768	6768	68	56.7	57.3	2	0.84	44	60	2	0.5	120/1	9.3	15	24.6	60	CONDENSATE OVERFLOW SWITCH, MERV 13 FILTER, GRILLE, ORDER WITH T2/55 ELECTRIC HEATER
FCU-107	Jaga	BABW0.05509522/FF/20/115	BREAKROOM 107	583		0	6768	6768	68	56.7	57.3	2	0.84	44	60	2	0.5	120/1	9.3	15	24.6	60	CONDENSATE OVERFLOW SWITCH, MERV 13 FILTER, GRILLE, ORDER WITH T2/55 ELECTRIC HEATER
FCU-108	EnviroTec, Inc.	HDD_16	MECH 108	1600		0.5	42100	36600	75	62	54.2	6	5.2	44	60	2	2.5	120/1	16	25	21	305	SECONDARY DRAIN CONNECTION, CONDENSATE OVERFLOW SWITCH, DISCONNECT SWITCH, BASE RAIL

EXHAUST FAN SCHEDULE

TAG	MAKE	MODEL	SERVICE	CFM	ESP	RPM	ELECTRICAL			HEIGHT	WEIGHT	COMMENTS
							BHP	HP	V/PH			
EF-103	GREENHECK	SP-A110	CHANGING ROOM 103	100	0.2	950	0.01	0.02	120/1	9	17	
EF-104A	GREENHECK	G-120-B	MAGNET ROOM EMERGENCY EXHAUST	1200	0.25	1140	0.14	1/6	120/1	36	70	ROOF CURB
EF-105	GREENHECK	SP-A110	RESTROOM 105	100	0.2	950	0.01	0.02	120/1	9	17	
EF-107	GREENHECK	SP-A110	BREAKROOM 107	100	0.2	950	0.01	0.02	120/1	9	17	

CONTROL DAMPER SCHEDULE

TAG	SERVICE	MAKE	MODEL	SIZE	COMMENTS
CD-104A	FCU-104A RETURN AIR	Ruskin	CD35	10"x24"-10"x24"	2 POSITION, 120V ACTUATOR

DUCT MATERIAL SCHEDULE

MARK	NAME	LOCATION	SIZE	MATERIAL	PRESSURE CLASS	INSULATION
CRYO	CRYOGEN VENT	MRI	ALL	304SS	MIN 0.035" MAX 0.125"	-
EA	EXHAUST AIR	BATHROOM, BREAKROOM	ALL	GALVANIZED	-2" WG	-
EA	EXHAUST AIR	MRI ROOM	ALL	GALVANIZED	-2" WG	-
SA	SUPPLY AIR	ALL	ALL	GALVANIZED	2" WG	R4.2

PIPING MATERIAL SCHEDULE

MARK	NAME	SIZE	MATERIAL	PIPE FITTINGS AND JOINTS	INSULATION
CD	CONDENSATE DRAIN	1" AND SMALLER	COPPER TYPE L	PRESS FIT	
CHW	CHILLED WATER	2" AND SMALLER	COPPER TYPE L	PRESS FIT	1" GLASS FIBER
DCW	DOMESTIC COLD WATER	2" AND SMALLER	COPPER TYPE L	PRESS FIT	
DHW	DOMESTIC HOT WATER	3/4" AND SMALLER	COPPER TYPE L	PRESS FIT	1" GLASS FIBER
ICW	INDUSTRIAL COLD WATER	2" AND SMALLER	COPPER TYPE L	PRESS FIT	
PCW	PROCESS COOLING WATER	ALL	COPPER TYPE L	PRESS FIT	1" GLASS FIBER

ELECTRIC DUCT HEATER

TAG	MAKE	MODEL	SERVICE	SIZE	CFM	EAT	LAT	KW	ELECTRICAL			COMMENTS
									V/PH	MCA	MOCP	
EDH-104A	THERMOLEC	MSC0-10LS-1002-000	FCU-104A	24X16	2000	60	70	6	208/3	16.68	20	C2CACNT0P6B1A1X6ICSC

C2 MAGNETIC CONTACTOR FULL BREAK
CA AUTOMATIC CUT-OUT
CN MANUAL CUT-OUT
T0 TRANSFORMER C/W FUSIBLE LINK
P6 BUILT-IN AIR FLOW SENSOR
B1 SCR BY THERMOLEC
A1 INPUT 0-10V
X6 DOOR INTERLOCK DISCONNECT SWITCH
IC INTERLOCK TERMINAL STRIP
SC SLIP-IN OPEN COIL DUCT HEATER

AIR TERMINAL SCHEDULE

TYPE	SERVICE	MAKE	MODEL	FACE SIZE	NECK SIZE	FINISH	COMMENTS
PERFORATED EXHAUST	MRI EXHAUST	TITUS	PAR-AA	24x24	SEE DWG	WHITE	ALUMINUM
PERFORATED SUPPLY	MRI SUPPLY	TITUS	PSS-AA	24x24	SEE DWG	WHITE	ALUMINUM
SURFACE MOUNT	SUPPLY	TITUS	300FL	NECK + 1.75"	SEE DWG	WHITE	ALUMINUM
SURFACE MOUNT	RETURN/TRANSFER	TITUS	350FL	NECK + 1.75"	SEE DWG	WHITE	ALUMINUM

PLUMBING FIXTURE SCHEDULE

TAG	NAME	MAKE	MODEL	WASTE	HW	CW	COMMENTS
BFP-1	BACKFLOW PREVENTER	ZURN	975XL2			1/2"	ASSE 1013, REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY
DCV	DUAL CHECK VALVE	ZURN	950XL3			3/4"	ASSE 1015
ETP-2	ELECTRONIC TRAP PRIMER	PPP	MPB-500-115V				ORDER WITH DU-4 DISTRIBUTION SYSTEM, 115V
FUN-3	INDIRECT WASTE FUNNEL	ZURN	Z326	3"			NO HUB
LV	LAVATORY	AMERICAN STANDARD	356.028	2"			WALL HUNG
LV	LAVATORY - FAUCET	KOHLER	K-97283-4		1/2"	1/2"	ASSE 1070 TMV
PCW	PCW FILTER	PENTAIR	166219			1"	BIG CLEAR HOUSING. 10" LENGTH. 4.5" DIAMETER CARTRIDGE.
PF-1	POT FEEDER	GRISWOLD	FB-5-SB-CS-Z			3/4"	FLAT BOTTOM, 5 GALLON, CARBON STEEL WELDED CONSTRUCTION
SK	SINK	JUST	SL-ADA-2225-A-GR	2"			SINGLE HOLE
SK	SINK - FAUCET	KOHLER	K-596		1/2"	1/2"	
WC	WATER CLOSET - WALL MOUNTED	TOTO	CT708UVG	4"		1-1/2"	BACK SPUD INLET, SC534 SEAT, TET3UA31#SS 1.0GPF FLUSH VALVE, ADA

HEAT EXCHANGER SCHEDULE

TAG	MAKE	MODEL	SERVICE	MBH	HOT SIDE (PCW)				COLD SIDE (CHW)				WEIGHT	COMMENTS
					GPM	EWT	LWT	WPD (PSIG)	GPM	EWT	LWT	WPD (PSIG)		
HX-1	DANFOSS	A19A-IG150-36-TL	PCW	420	35	74	50	3.15	52.4	44	60	6.05	503	PLATE AND FRAME

PUMP SCHEDULE

TAG	MAKE	MODEL	SERVICE	GPM	TDH (FT)	ELECTRICAL		COMMENTS
						HP	V/PH	
P-1	Grundfos	HYDRO MPC-E2 CRE5-6 UK D-A-A-HVU	PCW	35	92.45	2	460/3	1 ACTIVE + 1 STANDBY

DOMESTIC WATER HEATER SCHEDULE

TAG	MAKE	MODEL	SERVICE	GALLONS	EWT	LWT	GPH	WATTS	V/PH	HEIGHT	WEIGHT	COMMENTS
DWH-105	Eemax Inc.	EMT2.5	RESTROOM 105	2.6	60	120	9.8	1440	120/1	17	18	INCLUDES T&P VALVE
DWH-107	Eemax Inc.	EMT2.5	BREAKROOM 107	2.6	60	120	9.8	1440	120/1	17	18	INCLUDES T&P VALVE

AGC, Inc
745-B Camden Ave
Campbell, CA 95008

408.369.6305 main
408.369.0309 fax

Project: 24J019

REV	DATE	REVISION
	03/07/2025	ISSUE FOR PLAN CHECK

STAMP

REGISTERED PROFESSIONAL ENGINEER
ANDY GIANG
M40276
MECHANICAL
STATE OF CALIFORNIA

CONDITIONS AND RESTRICTIONS:
THESE DRAWINGS AND ALL RELATED SPECIFICATIONS ARE INSTRUMENTS OF SERVICE AND SHALL REMAIN PROPERTY OF THE DESIGNER. NO REVISIONS, REPRODUCTIONS, OR USE OF THESE DOCUMENTS SHALL BE MADE WITHOUT THE CONSENT OF THE DESIGNER. ALL EXISTING CONDITIONS REPRESENTED IN THESE PLANS ARE TO BE FIELD VERIFIED AND ALL DISCREPANCIES ARE TO BE REPORTED TO THE DESIGNER. DO NOT SCALE FROM THESE PLANS, FOLLOW DIMENSIONS INDICATED OR CONSULT THE DESIGNER.

BUILDING ADDRESS: 427 SANTA TERESA STREET, STANFORD, CA 94305

STANFORD PROJECT NUMBER:

PROJECT MANAGER:

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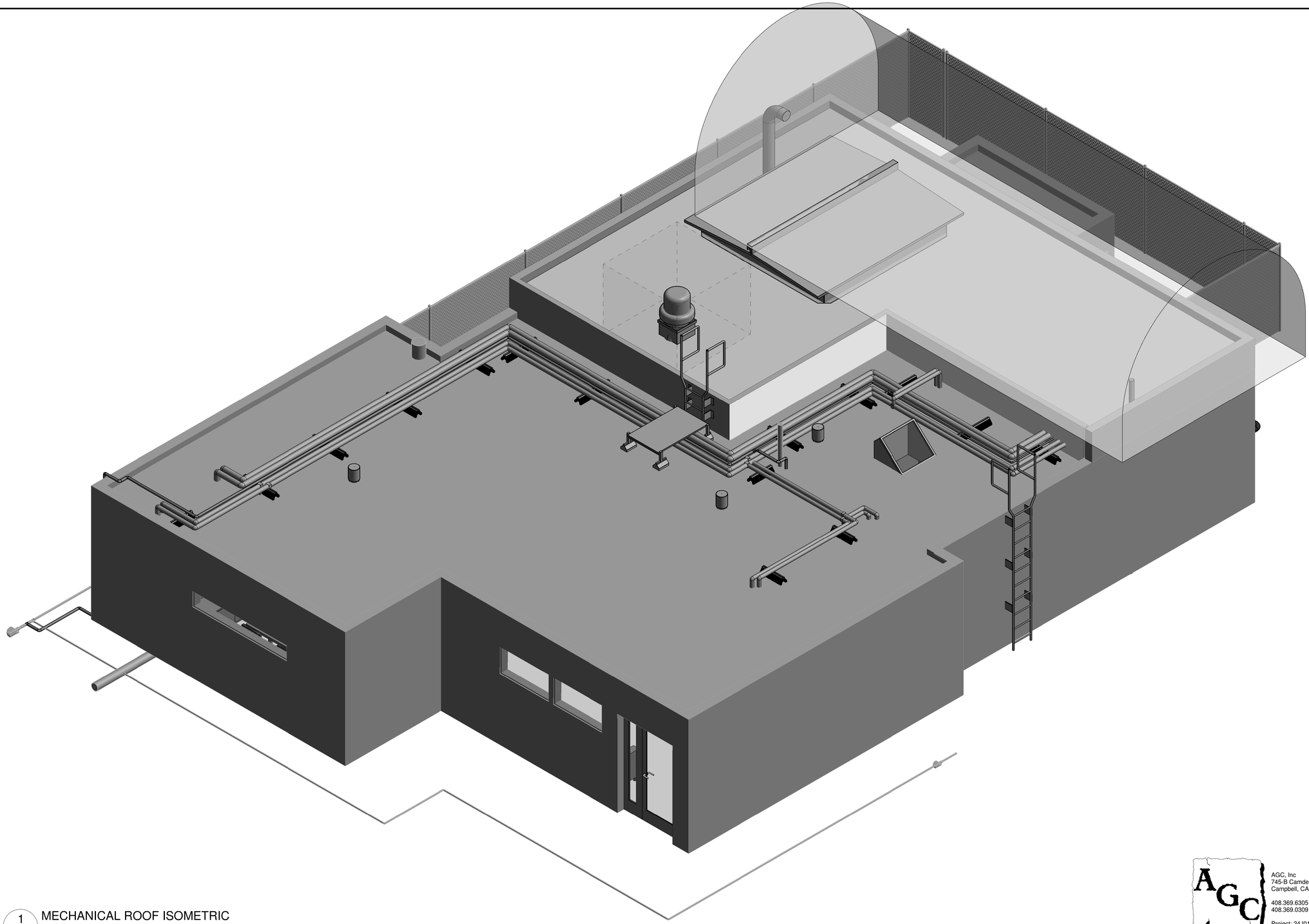
Stanford University

MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATION
MECHANICAL SCHEDULES

DRAWING NO. M6.1

BUILDING NUMBER: 02-565 | SCALE: AS NOTED | BAB PROJECT #: 24J019 6417 | REV

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1
M9.1 MECHANICAL ROOF ISOMETRIC

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REV	DATE	REVISION
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MAGNETIC RESONANCE RESEARCH SYSTEMS LAB RENOVATION
MECHANICAL ROOF ISOMETRIC

DRAWING NO.
M9.1

BUILDING NUMBER: 02-565 | SCALE: AS NOTED | BAB PROJECT #: 24J019 6417 | REV

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ABBREVIATIONS

AFF	ABOVE FINISH FLOOR	JT	JOINT
ACC	ACCESSIBLE	JST	JOIST
AC TILE	ACOUSTICAL TILE	JH	JOIST HANGER
ADJ	ADJACENT	JB	JUNCTION BOX
ALT	ALTERNATE OR ALTERNATIVE	KP	KICK PLATE
AL	ALUMINUM	LAV	LAVATORY
ALUM	ALUMINUM	LH	LEFT HAND
AB	ANCHOR BOLT	LL	LEVER LOCKSET
ANOD	ANODIZED	L	LONG OR LENGTH
ARCH	ARCHITECTURAL	MB	MACHINE BOLT
ASB	ASBESTOS	MS	MACHINE SCREW
ACM	ASBESTOS CONTAINING MATERIAL	MH	MANHOLE
AC	AUTOMATIC CLOSER	MFR	MANUFACTURER
AFS	AUTOMATIC FIRE SPRINKLER	MAT	MATERIAL
AFB	AUTOMATIC FLUSH BOLT	MAX	MAXIMUM
BB	BALL BEARING	MECH	MECHANICAL
BM	BEAM	MTL	METAL
BLK	BLOCK	MEZZ	MEZZANINE
BLKG	BLOCKING	MIN	MINIMUM OR MINUTE
BD	BOARD	MISC	MISCELLANEOUS
BOT	BOTTOM	MULL	MULLION
BOJ	BOTTOM OF JOIST	(N)	NEW
BLDG	BUILDING	N	NORTH
BU	BUILT-UP	N/A	NOT APPLICABLE
BUR	BUILT-UP ROOFING	NIC	NOT IN CONTRACT
CAB	CABINET	NTS	NOT TO SCALE
CLKG	CAULKING	NO.	NUMBER
CLG	CEILING	#	NUMBER
CEM	CEMENT	O.C.	ON CENTER
CTR	CENTER	OPNG	OPENING
℄	CENTERLINE	OPP	OPPOSITE
CT	CERAMIC TILE	OD	OUTSIDE DIAMETER
[	CHANNEL	OFC	OUTSIDE FACE OF CONCRETE
CLR	CLEAR	OFS	OUTSIDE FACE OF STUDS
COL	COLUMN	OH	OVAL HEAD
CONC	CONCRETE	PT	PAINT
CONST	CONSTRUCTION	PR	PAIR
CONT	CONTINUOUS	PNL	PANEL
CONTR	CONTRACTOR	PB	PANIC BAR
CJ	CONTROL JOINT	PAR	PARALLEL
CORR	CORRIDOR	PTN	PARTITION
CSK	COUNTERSUNK	PEN	PENETRATION
CD	CUP DISPENSER	PERP	PERPENDICULAR
(D)	DEMOLITION	PLAS	PLASTER OR PLASTIC
DEMO	DEMOLITION	PL	PLASTIC LAMINATE FINISH
DET	DETAIL	PL	PLATE
DIAG	DIAGONAL	PWD	PLYWOOD
DIA	DIAMETER	POLY	POLYETHYLENE SHEET
DIM	DIMENSION	P/L	PROPERTY LINE
DISP	DISPENSER	PA	PUBLIC ADDRESS
DR	DOOR	RAD	RADIUS
DBS	DOOR BOTTOM SEAL	R	RADIUS
DC	DOOR COORDINATOR	RWL	RAIN WATER LEADER
DF	DOUGLAS FIR	RAF	RAISED ACCESS FLOOR
DN	DOWN	RWD	REDWOOD
DS	DOWNSPOUT	REF	REFERENCE
DWG	DRAWING	REINF	REINFORCED
DF	DRINKING FOUNTAIN	(R)	RELOCATED
EA	EACH	REQ'D	REQUIRED
EW	EACH WAY	RA	RETURN AIR
E	EAST	REV	REVISION
EWC	ELECTRIC WATER COOLER	RH	RIGHT HAND
ELEC	ELECTRICAL	RM	ROOM
EPB	ELECTRICAL PANEL BOARD	RO	ROUGH OPENING
EL	ELEVATION	RD	ROUND
ELEV	ELEVATION	SCHED	SCHEDULE
EMO	EMERGENCY MANUAL OFF	SECT	SECTION
EQ	EQUAL	SHTG	SHEATHING
EQUIP	EQUIPMENT	SHT	SHEET
(E)	EXISTING	SM	SHEET METAL
EXP	EXPANSION	SIM	SIMILAR
EXT	EXTERIOR	SK	SINK
FOC	FACE OF CONCRETE	SS	SMOKE SEAL
FOM	FACE OF MASONRY	SC	SOLID CORE
FOS	FACE OF STUD	STC	SOUND TRANSMISSION GLASS
FT	FEET	S	SOUTH
FIN	FINISH	SPEC	SPECIFICATION
FF	FINISH FLOOR	SQ	SQUARE
FO	FINISHED OPENING	S.F.	SQUARE FEET
FE	FIRE EXTINGUISHER	SS	STAINLESS STEEL
FEC	FIRE EXTINGUISHER CABINET	STD	STANDARD
FHC	FIRE HOSE CABINET	STL	STEEL
FHWS	FLATHEAD WOOD SCREW	STD	STORAGE
FL	FLOOR	STRUCT	STRUCTURAL
FD	FLOOR DRAIN	SYM	SYMMETRICAL
FS	FLOOR SINK	TEL	TELEPHONE
FTG	FOOTING	T	THICK
FDN	FOUNDATION	THK	THICK
FR	FRAME	TP	TOILET PAPER
FURN	FURNITURE	T&G	TONGUE AND GROOVE
(F)	FUTURE	TOC	TOP OF CURB
GALV	GALVANIZE	TOS	TOP OF SLAB
GA	GAUGE	TYP	TYPICAL
GL	GLASS	UL	UNDERWRITERS LABORATORY
GR	GRADE	UBC	UNIFORM BUILDING CODE
GRD	GROUND OR GRADE	UR	URINAL
GYP	GYPSUM	VERT	VERTICAL
GWB	GYPSUM WALL BOARD	WC	WATER CLOSET
HC	HANDICAP	WT	WEIGHT
HTD	HANDICAP TOWEL DISPENSER	W	WEST
HGR	HANGER	W	WIDTH
HDWR	HARDWARE	WIN	WINDOW
HDR	HEADER	W/	WITH
H	HEIGHT	W/O	WITHOUT
HT	HEIGHT	WD	WOOD
HM	HOLLOW METAL	YD	YARD
HOR	HORIZONTAL	YR	YEAR
HR	HOUR	Z	ZONE
ID	INSIDE DIMENSION		
INSUL	INSULATION		
INT	INTERIOR		

DRAWING SYMBOLS

SYMBOL	NAME
	HOME RUN
	CIRCUIT BREAKER
	COMBINATION STARTER
	DISCONNECT SWITCH
	TRANSFORMER
	EMERGENCY PANEL
	LIGHTING PANEL
	POWER PANEL
	MOTOR CONTROL CENTER
	RECEPTACLE PANEL
	SPECIAL VOLTAGE PANEL
	MAGNETIC STARTER
	PUSHBUTTON SWITCH
	15A,125V,1P DUPLEX RECEPTACLE
	20A,125V,1P DUPLEX RECEPTACLE
IG	20A,125V,1P DEDICATED RECEPTACLE
IG	20A,125V,1P ISOLATED GROUND RECEPTACLE
IG	30A,125V,1P ISOLATED GROUND RECEPTACLE
GFI	20A,125V,1P GROUND FAULT RECEPTACLE
	20A,125V,1P FOUR-PLEX RECEPTACLE
	15A,125V,1P SNAP-IN DUPLEX RECEPTACLE
C	15A,125V,1P CLOCK RECEPTACLE
	20A,125V,1P FLOOR SINGLE RECEPTACLE
	20A,125V,1P FLOOR DUPLEX RECEPTACLE
	SPECIAL PURPOSE FLOOR RECEPTACLE
	30A,125V,1P TWISTLOCK RECEPTACLE
	50A,125V,1P TWISTLOCK RECEPTACLE
	20A,125/250V,1P,4W TWISTLOCK RECEPTACLE
	30A,125/250V,1P,4W TWISTLOCK RECEPTACLE
	50A,125/250V,1P,4W TWISTLOCK RECEPTACLE
	30A,120/208V,3P TWISTLOCK RECEPTACLE
	60A,120/208V,3P TWISTLOCK RECEPTACLE
	100A,120/208V,3P TWISTLOCK RECEPTACLE
	20A,277V,1P, TWISTLOCK RECEPTACLE
	30A,480V,3P RECEPTACLE
	60A,277/480V,3P RECEPTACLE PLUS GROUND
	100A,277/480V,3P RECEPTACLE PLUS GROUND
400 HZ	20A,120/208V,3P,400HZ TWISTLOCK RECEPTACLE
400 HZ	30A,120/208V,3P,400HZ TWISTLOCK RECEPTACLE
HP30A	30A,125V,1P HAZARDOUS LOCATION RECEPTACLE
HP30A	30A,208V,1P&3P HAZARDOUS LOCATION RECEPTACLE
HP30A	30A,480V,3P HAZARDOUS LOCATION RECEPTACLE
A	AMMETER
V	VOLTMETER
W	WATTMETER
	JUNCTION BOX UNDER RAISED FLOOR
J	JUNCTION BOX
	ELECTRIC SPACE HEATER
M	AC MOTOR
	AC MOTOR
G	GENERATOR
	MOTOR/GENERATOR SET
	LOW VOLTAGE PUSHBUTTON
	LOW VOLTAGE BUZZER
	LOW VOLTAGE BELL
BT	BELL RINGING TRANSFORMER
PB	PULL BOX
H	HORN, HOWLER, OR SIREN

SYMBOL	NAME
	EMERGENCY POWER OFF BUTTON
	RUNNING OR ELAPSED TIME METER
F	FREQUENCY METER
	GROUND
E	RECIPROCATING ENGINE DRIVE GENERATOR
E	TURBO GENERATOR
	(1) FLOOD LIGHT, EMERGENCY, BATTERY-POWERED
	(2) FLOOD LIGHTS, EMERGENCY, BATTERY-POWERED
IRME	INFRARED MOTION DETECTOR, CEILING MOUNTED
	STANDARD 2'X4' FLUORESCENT LIGHT FIXTURE
	EMERGENCY 2'X4' FLUORESCENT LIGHT FIXTURE
	NIGHT LIGHT 2'X4' FLUORESCENT LIGHT FIXTURE
	INDUSTRIAL FLUORESCENT LIGHT FIXTURE
	INCANDESCENT LIGHT FIXTURE
	HIGH INTENSITY DISCHARGE LIGHT FIXTURE
	ROTARY BEACON, WALL MOUNTED
	LOW LEVEL EXIT LIGHT
	DOUBLE-SIDED EXIT LIGHT, CEILING MOUNTED
	SINGLE-SIDED EXIT LIGHT, CEILING MOUNTED
	DOUBLE-SIDED EXIT LIGHT, WALL MOUNTED
	SINGLE-SIDED EXIT LIGHT, WALL MOUNTED
OS	OCCUPANCY SENSOR, CEILING MOUNTED
$	SINGLE POLE SWITCH
$2	DOUBLE POLE SWITCH
$3	3-WAY SWITCH
$4	4-WAY SWITCH
$D	DOOR SWITCH
$K	KEY-OPERATED SWITCH
$MC	MOMENTARY CONTACT SWITCH
$P	SWITCH AND PILOT LIGHT
$RC	LOW VOLTAGE REMOTE CONTROL SWITCH
$WP	WEATHER-PROOF SWITCH
$WP3	3-WAY WEATHER-PROOF SWITCH
D	DIGITAL WALL SWITCH
LRC	LIGHTING ROOM CONTROLLER
LB	LIGHTING EMERGENCY BYPASS CONTROLLER
$LT	LIGHTED HANDLE TOGGLE SWITCH
P	PAY PHONE
	SECURE PHONE
	SECURE PHONE UNDER RAISED FLOOR
	PHONE
	PHONE UNDER RAISED FLOOR
	WALL PHONE
	SINGLE RJ45
	DOUBLE RJ45
000	TRIPLE RJ45
0000	QUAD RJ45
	DOUBLE RJ45 & SINGLE FIBER OPTIC
TP	TWISTED PAIR
CX	COAXIAL DATA
SYS	COMPUTER SYSTEM AS NOTED
	UNIVERSAL POWER POLE - DATA
	UNIVERSAL POWER POLE - VOICE
	UNIVERSAL POWER POLE - COMBINATION
	ETHERNET CONNECTION
	WIREMOLD
	LADDER TYPE CABLE TRAY
	SOLID BOTTOM CABLE TRAY

SEE STANFORD UNIVERSITY FDG DOCUMENT FOR SPECIFICATION. INFORMATION IS AVAILABLE ONLINE

http://maps.stanford.edu

GENERAL NOTES:

A. THE COMPLETE ELECTRICAL INSTALLATION SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE CALIFORNIA ELECTRICAL CODE, THE LATEST RULES AND REGULATIONS OF THE SAFETY ORDERS ISSUED BY THE DIVISION OF INDUSTRIAL SAFETY, THE NATIONAL BOARD OF FIRE UNDERWRITERS AND ALL APPLICABLE STATE AND LOCAL CODES ISSUED BY THE AUTHORITIES HAVING JURISDICTION.

B. THE CONTRACTOR, PRIOR TO BIDDING, SHALL VISIT THE JOB SITE TO BECOME ACQUAINTED WITH THE EXISTING INSTALLATION AND SYSTEMS RELATED TO HIS WORK AND SHALL INCLUDE IN THE BID PROPOSAL ALL LABOR AND MATERIALS REQUIRED FOR THE ELECTRICAL INSTALLATION TO BE COMPLETE AND OPERATIVE.

C. THE CONTRACTOR SHALL CONSULT THE ARCHITECTURAL, MECHANICAL, STRUCTURAL AND OTHER DRAWINGS RELATED TO THIS PROJECT FOR ADDITIONAL WORK TO BE PROVIDED.

D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL REQUIRED PERMITS AND INSPECTIONS.

E. ALL PENETRATIONS THRU EXTERIOR WALLS SHALL BE WEATHER SEALED. ALL PENETRATIONS THRU RATED WALLS SHALL BE SEALED WITH AN INTUMESCENT FIRE SEALANT SUCH AS CP-25WB AS MANUF. BY ELECTRO-PRODUCTS 3M AND PER UL LISTED SYSTEM. UL LISTINGS: CONDUITS, PIPING: WL 1001. PENETRATION PERFORMANCE REQUIREMENTS: F RATING: 1 OR 2 HR. (MATCH EXISTING WALL-RATING) T RATING: NA.

F. UNLESS OTHERWISE INDICATED, THE MINIMUM SIZE OF CONDUCTORS SHALL BE #12 AWG THHN COPPER ONLY. ALL CONDUCTORS TO BE RATED 90°C MINIMUM.

G. UNLESS OTHERWISE INDICATED, THE MINIMUM SIZE OF CONDUIT SHALL BE 3/4"ø.

H. GREEN INSULATED GROUND CONDUCTORS SHALL BE INSTALLED IN ALL FEEDER AND BRANCH CIRCUIT CONDUIT.

I. PROVIDE LABELS (LAMINATED THERMAL TRANSFER OR PHENOLIC) ON ALL EQUIPMENT CONNECTIONS AND DEVICES.

J. ELECTRICAL EQUIPMENT AND FEEDERS SHALL BE SUPPORTED AND/OR ANCHORED IN ACCORDANCE WITH LOCAL AND STATE ZONE SEISMIC REQUIREMENTS.

K. THE CONTRACTOR SHALL MAINTAIN AT THE JOB SITE, (2) SETS OF UP TO DATE "AS-BUILT" DRAWING SET. THE "AS-BUILT" DRAWING SETS SHALL REFLECT ALL APPROVED CHANGES TO THE DESIGN DRAWINGS. THE "AS-BUILT" DRAWING SETS SHALL BE KEPT CLEAN AND IN GOOD CONDITION AND SHALL BE TURNED OVER TO THE OWNER AT THE COMPLETION OF THE PROJECT.

L. UPON COMPLETION OF WORK, THE CONTRACTOR SHALL SCHEDULE AND PERFORM A COMPLETE FUNCTIONAL TEST TO DEMONSTRATE TO THE OWNER THAT THE NEW INSTALLATION IS OPERATING AS INTENDED. ANY DEFECTS OR DEFICIENCIES IN THE MATERIALS OR WORK SHALL BE CORRECTED IMMEDIATELY BY THE CONTRACTOR AND AT THE CONTRACTOR'S EXPENSE.

M. ALL WORK TO BE PERFORMED PER STANFORD UNIVERSITY FACILITIES DESIGN & CONSTRUCTION STANDARDS AND MANUFACTURER'S INSTRUCTIONS UNLESS OTHERWISE SPECIFIED.

N. PRIOR TO THE COMPLETION OF WORK CONTRACTOR SHALL REPLACE ALL MODIFIED PANEL SCHEDULES WITH UPDATED TYPE-WRITTEN PANEL DIRECTORIES.

O. ALL SHUTDOWN WORK SHALL BE COORDINATED WITH GENERAL CONTRACTOR AND STANFORD UNIVERSITY.

P. IF EXISTING FIRE PROOFING IS DISTURBED AS PART OF CONTRACTOR'S SCOPE OF WORK, PROVIDE AND INSTALL NEW FIRE PROOFING AS REQUIRED AT EXISTING STEEL BEAMS AND COLUMNS. MATCH EXISTING PRODUCT AND RATING.

Q. MULTIPLE RACEWAY RUNS MAY BE COMBINED PROVIDED THE DERATING REQUIREMENTS OF CEC 310.15(B)(2)(a) AND 376.22(B) (IN ADDITION TO ALL OTHER CODE REQUIREMENTS) ARE MET.

R. THE FIRE ALARM SYSTEM IS TO BE A DESIGN BUILD PROJECT UNDER THE ELECTRICAL CONTRACTOR'S SCOPE OF WORK. A LICENSED FIRE ALARM CONTRACTOR IS TO DESIGN THE SYSTEM BASED ON ALL NATIONAL, STATE, COUNTY, AND CITY CODES AND ORDINANCES FOR THE TYPE OF CONSTRUCTION AND OCCUPANCY OF THE BUILDING. THE FIRE ALARM CONTRACTOR IS TO OBTAIN A CITY PERMIT. EXISTING DEVICES MAY REQUIRE MODIFICATIONS/REMOVAL DUE TO FIRE ALARM CONTRACTOR DESIGN.

DRAWING LIST:

E0.0	ELEC ABBREVIATIONS, SYMBOLS AND GENERAL NOTES
E0.1	CALIFORNIA TITLE 24 DOCUMENTATION (NOT INCLUDED)
ED1.1	POWER PLAN - DEMOLITION
ED2.1	LIGHTING PLAN - DEMOLITION
E1.1	POWER PLAN - CONSTRUCTION
E1.2	MACHANICAL POWER PLAN - CONSTRUCTION
E1.3	SITE POWER PLAN - CONSTRUCTION
E2.1	LIGHTING PLAN - CONSTRUCTION
E5.1	SINGLE LINE DIAGRAM/PANEL SCHEDULES

BUILDING CODES:

- CALIFORNIA BUILDING CODE (CBC) 2022 EDITION
- CALIFORNIA TITLE 24 ACCESSIBILITY STANDARDS 2022 EDITION
- CALIFORNIA TITLE 24 ENERGY EFFICIENCY STANDARDS 2022 EDITION
- CALIFORNIA GREEN BUILDING CODE (CGC) 2022 EDITION
- CALIFORNIA FIRE CODE (CFC) 2022 EDITION
- CALIFORNIA MECHANICAL CODE (CMC) 2022 EDITION
- CALIFORNIA PLUMBING CODE (CPC) 2022 EDITION
- CALIFORNIA ELECTRICAL CODE (CEC) 2022 EDITION

ALONG WITH ANY OTHER APPLICABLE LOCAL AND STATE LAWS AND REGULATIONS.

SCOPE OF WORK:

THIS PROJECT IS TO COMPLETE THE INTERIOR IMPROVEMENT FOR THE INSTALLATION OF AN MRI MACHINE. THE PROJECT WILL INCLUDE NEW POWER AND LIGHTING FOR THE BUILDING. ALL POWER WILL BE DERIVED FROM EXISTING SUBSTATION EXTERIOR TO THE EXISTING ADJACENT BUILDING AND EXISTING PANELBOARDS WITHIN THE EXISTING BUILDING.

REV.	DATE	REVISION
0	03/03/25	ISSUE FOR PERMIT

STAMP

REGISTERED PROFESSIONAL ENGINEER JOSEPH M. FITZPATRICK E015798 Expires 12/31/26 ELECTRICAL

03/03/25

CONDITIONS AND RESTRICTIONS:

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BUILDING ADDRESS: **427 SANTA TERESA STREET | STANFORD, CA 94305**

STANFORD PROJECT NUMBER:

PROJECT MANAGER: BRIAN CARILLI

BAY AREA BUILDERS INCORPORATED

3360 De La Cruz Boulevard
Santa Clara, CA 95054
www.ba-builders.com

main office: (408) 648-4500
fax: (408) 588-0095
CA license: B-443949

Stanford University

MAGNETIC RESONANCE SYSTEMS RESEARCH LAB RENOVATION
ELEC ABBREV, SYMBOLS & GENERAL NOTES

DRAWING NO. **E0.0**

BUILDING NUMBER: **02-565** | SCALE: AS NOTED NTS | BAB PROJECT # 24118 / 6417 | REV **0**

118E00a8.dwg

NRCC-LTI-E

STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTI-E
Project Name: MAGNETIC RESONANCE SYSTEMS RESEARCH LAB RENOVATION	Report Page:	(Page 1 of 8)
Project Address: 427 SANTA TERESA ST., STANFORD, CA 94305	Date Prepared:	2025-03-04T09:45:08-05:00

This document is used to demonstrate compliance with requirements in 110.9, 110.12(c), 130.0, 130.1, 140.6 and 141.0(b)2 for indoor lighting scopes using the prescriptive path for nonresidential and hotel/motel occupancies. It is also used to document compliance with requirements in 160.5, 170.2(e) and 180.2(b)4 for indoor lighting scopes using the prescriptive path for multifamily occupancies. Multifamily includes dormitory and senior living facilities.

A. GENERAL INFORMATION

01	Project Location (city)	STANFORD	04 Total Conditioned Floor Area (ft²)	1,778
02	Climate Zone	4	05 Total Unconditioned Floor Area (ft²)	0
03	Occupancy Types Within Project (select all that apply):		06 # of Stories (Habitable Above Grade)	1

- Medical Clinic

B. PROJECT SCOPE

This table includes any lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.6 / 170.2(e) or 141.0(b)2 / 180.2(b)4 for alterations.

Scope of Work		Conditioned Spaces		Unconditioned Spaces	
01		02	03	04	05
My Project Consists of (check all that apply):		Calculation Method	Area (ft²)	Calculation Method	Area (ft²)
☒	New Lighting System	Area Category Method	1778	N/A	0
☐	New Lighting System - Parking Garage	N/A	0	N/A	0
Total Area of Work (ft²)		1778			

STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTI-E
Project Name: MAGNETIC RESONANCE SYSTEMS RESEARCH LAB RENOVATION	Report Page:	(Page 2 of 8)
427 SANTA TERESA ST., STANFORD, CA 94305	Date Prepared:	2025-03-04T09:45:08-05:00

C. COMPLIANCE RESULTS

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

Lighting in conditioned and unconditioned spaces must not be combined for compliance per 140.6(b)1 / 170.2(e)	Allowed Lighting Power per 140.6(b) / 170.2(e) (Watts)						Adjusted Lighting Power per 140.6(a) / 170.2(e) (Watts)					Compliance Results
	01	02	03	04		05	06	07 Adjustments		08		09
	Complete Building 140.6(c)1	Area Category 140.6(c)2 / 170.2(e)4	Area Category Additional 140.6(c)2G / 170.2(e)4Av (+)	Tailored 140.6(c)3 / 170.2(e)4B (+)	=	**Total Allowed** (Watts)	Total Designed (Watts)	P&F Lighting Control Credits 140.6(a)2 / 170.2(e)1B (-)	=	**Total Adjusted** (Watts) *Includes Adjustments		**05 must be >= 08 140.6 / 170.2(e)**
	(See Table I)	(See Table I)	(See Table J)	(See Table K)			(See Table F)	(See Table P)				
Conditioned		1,397.55			=	1,397.55	1,256		=	1256		COMPLIES
Unconditioned					=				=			
Controls Compliance (See Table H for Details)												COMPLIES
Rated Power Reduction Compliance (See Table Q for Details)												

D. EXCEPTIONAL CONDITIONS

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

E. ADDITIONAL REMARKS

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

STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTI-E
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427 SANTA TERESA ST., STANFORD, CA 94305	Date Prepared:	2025-03-04T09:45:08-05:00

F. INDOOR LIGHTING FIXTURE SCHEDULE

This table includes all planned permanent and portable lighting other than dwelling unit/ hotel/ motel room lighting. Multifamily dwelling unit and hotel/motel room lighting is documented in Table T. If using Table T to document lighting in multifamily common use areas providing shared provisions for living, eating, cooking or sanitation, those luminaires are not included here.

Designed Wattage: Conditioned Spaces

01	02	03	04	05	06	07	08	09	10 Field Inspector	
Name or Item Tag	Complete Luminaire Description	Modular (Track) Fixture	Small Aperture & Color Change[1]	Watts per luminaire[2]	How is Wattage determined	Total Number of Luminaires	Excluded per 140.6(a)1 / 170.2(e)2C	Design Watts	Pass	Fail
F1	4' LINEAR LED DIMMABLE	No	NA	31	Mfr. Spec	6	No	186	☐	☐
F2	4' LINEAR LED DIMMABLE	No	NA	25	Mfr. Spec	12	No	300	☐	☐
F3	4" ROUND LED DOWNLIGHT DIMMABLE	No	NA	35	Mfr. Spec	12	No	420	☐	☐
F4	4'X4' LED SKYLIGHT TROFFER DIMMABLE	No	NA	85	Mfr. Spec	1	No	85	☐	☐
F5	12" LED DOWNLIGHT	No	NA	35	Mfr. Spec	1	No	35	☐	☐
F6	4' RECESSED SLOT	No	NA	31	Mfr. Spec	3	No	93	☐	☐
F7	2' UNDERCABINET LED DIMMABLE	No	NA	7.5	Mfr. Spec	10	No	75	☐	☐
F8	4' LINEAR LED DIMMABLE	No	NA	31	Mfr. Spec	2	No	62	☐	☐
						Total Designed Watts: CONDITIONED SPACES		1,256		

[1]*FOOTNOTE: Design Watts for small aperture and color changing luminaires which qualify per 140.6(a)4B / 170.2(e)2D is adjusted to be 75% /80% of their rated wattage. Table F automatically makes this adjustment, the permit applicant should enter full rated wattage in column 05.*

[2]*Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per 130.0(c) / 160.5(b). Wattage used must be the maximum rated for the luminaire, not the lamp.*

G. MODULAR LIGHTING SYSTEMS

This section does not apply to this project.

STATE OF CALIFORNIA
Indoor Lighting
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CERTIFICATE OF COMPLIANCE		NRCC-LTI-E
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H. INDOOR LIGHTING CONTROLS (Not including PAFs)

This table includes lighting controls for conditioned and unconditioned spaces.

Building Level Controls

01	02	03 Field Inspector	
Mandatory Demand Response 110.12(c)	Shut-off controls 130.1(c) / 160.5(b)4C	Pass	Fail
NA < 4,000W subject to multilevel	See Area/Space Level Controls	☐	☐

Area Level Controls

04	05	06	07	08	09	10	11	12 Field Inspector	
Area Description	Complete Building or Area Category Primary Function Area	Manual Area Controls 130.1(a) / 160.5(b)4A	Multi-Level Controls 130.1(b) / 160.5(b)4B	Shut-Off Controls 130.1(c) // 160.5(b)4C	Primary/Skylit Daylighting 130.1(d) / 160.5(b)4D	Secondary Daylighting 130.1(d) / 160.5(b)4D	Interlocked Systems 140.6(a)1/ 170.2(e)2A	Pass	Fail
LOBBY 101	Main Entry Lobby	Readily Accessible	Dimmer	Occupancy Sensor	NA: Not daylit zone	NA: Not daylit zone	No	☐	☐
CONFERENCE RM 102	Conference, Multipurpose and Meeting Area	Readily Accessible	Dimmer	Occupancy Sensor	NA: Not daylit zone	NA: Not daylit zone	No	☐	☐
CHANGING ROOM 103	Hospital - Patient Rm	Readily Accessible	Dimmer	Occupancy Sensor	NA: Not daylit zone	NA: Not daylit zone	No	☐	☐
CONTROL RM 104	Hospital - Exam/Treatment	Readily Accessible	Dimmer	Occupancy Sensor	NA: Not daylit zone	NA: Not daylit zone	No	☐	☐
MAGNET ROOM 104A	Hospital - Exam/Treatment	Readily Accessible	Dimmer	NA: Licensed Healthcare	NA: Not daylit zone	NA: Not daylit zone	Yes	☐	☐
RESTROOM 105	Restroom	Readily Accessible	Dimmer	Occupancy Sensor	NA: Not daylit zone	NA: Not daylit zone	No	☐	☐
INTERVIEW RM 106	Hospital - Patient Rm	Readily Accessible	Dimmer	Occupancy Sensor	NA: Not daylit zone	NA: Not daylit zone	No	☐	☐
BREAK & TOUCH DOWN RM 107	Kitchen/ Food Preparation	Readily Accessible	Dimmer	Occupancy Sensor	NA: Not daylit zone	NA: Not daylit zone	No	☐	☐

STATE OF CALIFORNIA
Indoor Lighting
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CERTIFICATE OF COMPLIANCE		NRCC-LTI-E
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H. INDOOR LIGHTING CONTROLS (Not including PAFs)

MECHANICAL EQUIPMENT RM 108	General Commercial Industrial Work Area Precision	Readily Accessible	Dimmer	Occupancy Sensor	NA: Not daylit zone	NA: Not daylit zone	No	☐ ☐
					13			
					Plan Sheet Showing Daylit Zones:			

I. LIGHTING POWER ALLOWANCE: COMPLETE BUILDING OR AREA CATEGORY METHODS

Each area complying using the Complete Building or Area Category Methods per 140.6(b) are included in this table. Column 06 indicates if additional lighting power allowances per 140.6(c) or adjustments per 140.6(a) are being used .

Conditioned Spaces

01	02	03	04	05	06 Additional Allowance / Adjustment	
Area Description	Complete Building or Area Category Primary Function Area	Allowed Density (W/ft²)	Area (ft²)	Allowed Wattage (Watts)	Area Category	PAF
LOBBY 101	Main Entry Lobby	0.7	313	219.1	No	No
CONFERENCE RM 102	Conference, Multipurpose and Meeting Area	0.75	127	95.25	No	No
CHANGING ROOM 103	Hospital - Patient Rm	0.7	63	44.1	No	No
CONTROL RM 104	Hospital - Exam/Treatment	1.15	150	172.5	No	No
MAGNET ROOM 104A	Hospital - Exam/Treatment	1.15	396	455.4	No	No
RESTROOM 105	Restroom	0.65	60	39	No	No
INTERVIEW RM 106	Hospital - Patient Rm	0.7	64	44.8	No	No
BREAK & TOUCH DOWN RM 107	Kitchen/ Food Preparation	0.95	197	187.15	No	No
MECHANICAL EQUIPMENT RM 108	General Commercial Industrial Work Area Precision	0.85	165	140.25	No	No
		TOTALS:	1,535	1,397.55	See Tables J, or P for detail	

J. ADDITIONAL ALLOWANCE: AREA CATEGORY METHOD QUALIFYING LIGHTING SYSTEM

This section does not apply to this project.

STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTI-E
Project Name: MAGNETIC RESONANCE SYSTEMS RESEARCH LAB RENOVATION	Report Page:	(Page 6 of 8)
427 SANTA TERESA ST., STANFORD, CA 94305	Date Prepared:	2025-03-04T09:45:08-05:00

K. TAILORED METHOD GENERAL LIGHTING POWER ALLOWANCE

This section does not apply to this project.

L. ADDITIONAL LIGHTING ALLOWANCE: TAILORED WALL DISPLAY

This section does not apply to this project.

M. ADDITIONAL LIGHTING ALLOWANCE: TAILORED FLOOR AND TASK LIGHTING

This section does not apply to this project.

N. ADDITIONAL LIGHTING ALLOWANCE: TAILORED DECORATIVE /SPECIAL EFFECTS

This section does not apply to this project.

O. ADDITIONAL LIGHTING ALLOWANCE: TAILORED VERY VALUABLE MERCHANDISE

This section does not apply to this project.

P. POWER ADJUSTMENT: LIGHTING CONTROL CREDIT (POWER ADJUSTMENT FACTOR (PAF))

This section does not apply to this project.

Q. RATED POWER REDUCTION COMPLIANCE FOR ONE-FOR-ONE ALTERATIONS

This section does not apply to this project.

R. 80% LIGHTING POWER FOR ALL ALTERATIONS - CONTROLS EXCEPTIONS

This section does not apply to this project.

STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTI-E
Project Name: MAGNETIC RESONANCE SYSTEMS RESEARCH LAB RENOVATION	Report Page:	(Page 7 of 8)
427 SANTA TERESA ST., STANFORD, CA 94305	Date Prepared:	2025-03-04T09:45:08-05:00

S. DAYLIGHT DESIGN POWER ADJUSTMENT FACTOR (PAF)

This section does not apply to this project.

T. DWELLING UNIT LIGHTING

This section does not apply to this project.

U. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections have been made based on information provided in this document. If any selections have been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online

Form/Title
NRCI-LTI-E - Must be submitted for all buildings

V. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Selections have been made based on information provided in this document. If any selections have been changed by the permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and any with "-A" in the form name must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: http://www.energy.ca.gov/title24/attcp/providers.html

Form/Title	Systems/Spaces To Be Field Verified
NRCA-LTI-02-A - Must be submitted for occupancy sensors and automatic time switch controls.	LOBBY 101; CONFERENCE RM 102; CHANGING ROOM 103; CONTROL RM 104; RESTROOM 105; INTERVIEW RM 106; BREAK & TOUCH DOWN RM 107; MECHANICAL EQUIPMENT RM 108
NRCA-LTI-04-A - Must be submitted for demand responsive lighting controls.	MAGNET ROOM 104A

STATE OF CALIFORNIA
Indoor Lighting
CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE		NRCC-LTI-E
Project Name: MAGNETIC RESONANCE SYSTEMS RESEARCH LAB RENOVATION	Report Page:	(Page 8 of 8)
Project Address: 427 SANTA TERESA ST., STANFORD, CA 94305	Date Prepared:	2025-03-04T09:45:08-05:00

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name: Joseph Fitch	Documentation Author Signature:
Company: Bay Area Builders	Signature Date: 03/03/2025
Address: 3360 DE LA CRUZ BLVD	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: SANTA CLARA, CA 95054	Phone: 408-648-4500

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: JOSEPH FITCH	Responsible Designer Signature:
Company: BAY AREA BUILDERS	Date Signed: 03/03/2025
Address: 3360 DE LA CRUZ BLVD	License: E15798
City/State/Zip: SANTA CLARA, CA 95054	Phone: 408-648-4500

REV.	DATE	REVISION
0	03/03/25	ISSUE FOR PERMIT

STAMP

REGISTERED PROFESSIONAL ENGINEER JOSEPH M. FITCH E015798 Expires 12/31/26 MECHANICAL ENGINEER
03/03/25

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BUILDING ADDRESS: **427 SANTA TERESA STREET | STANFORD, CA 94305**

STANFORD PROJECT NUMBER:

PROJECT MANAGER: BRIAN CARILLI

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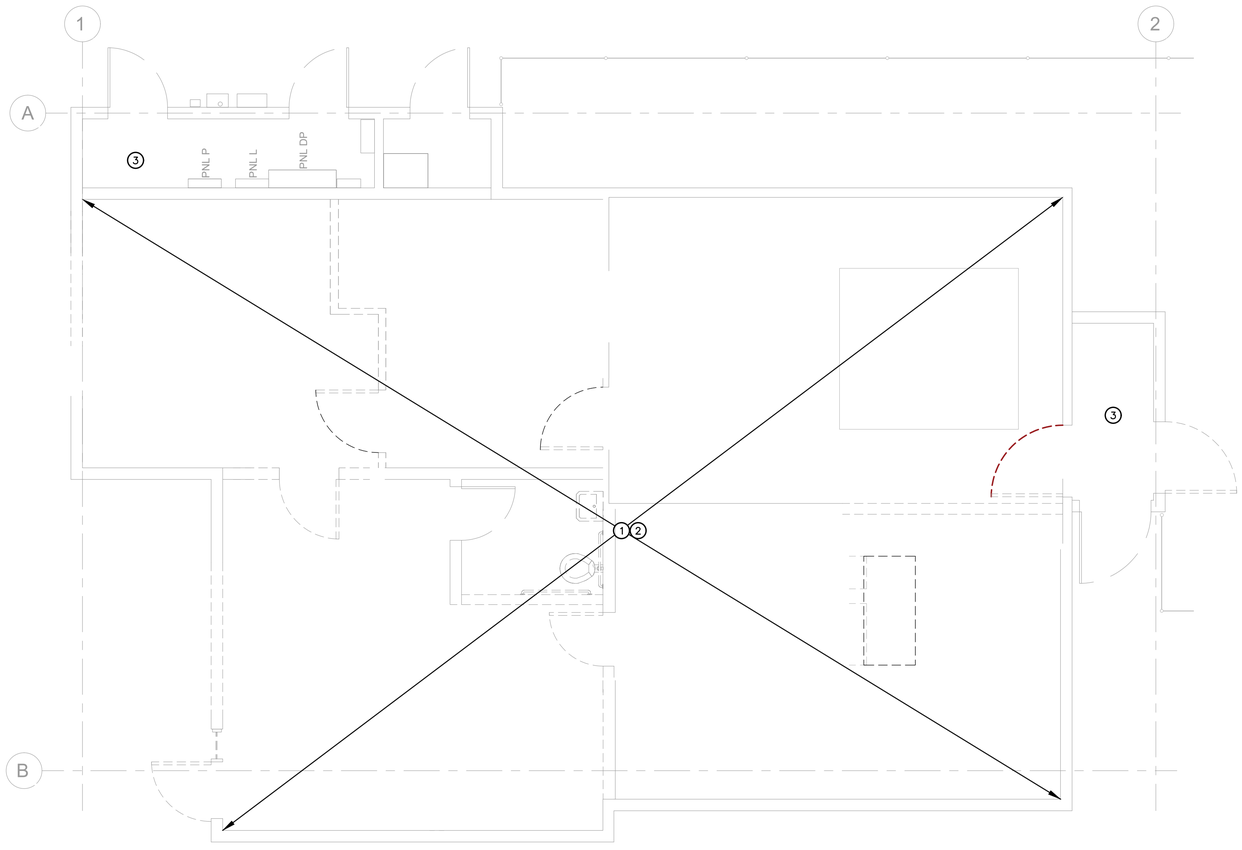
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MAGNETIC RESONANCE SYSTEMS RESEARCH LAB RENOVATION CALIFORNIA TITLE 24 DOCUMENTATION

DRAWING NO. **E0.1**

BUILDING NUMBER: **02-565** | SCALE: AS NOTED | BAB PROJECT # 24118 / 6417 | REV **0**

118E01a8.dwg



1 ED1.1 POWER PLAN - DEMOLITION

SCALE: 1/4" = 1'-0"

4' 2' 0 4' 8'

GENERAL NOTES

A. REFER TO SHEET **E0.0** FOR ELECTRICAL ABBREVIATIONS, SYMBOLS AND GENERAL NOTES AND **G0.0** FOR ADDITIONAL GENERAL NOTES.

B. THE CONTRACTOR SHALL BE COGNIZANT THAT THIS IS A REMODELING PROJECT AND EXISTING ITEMS AND CONDITIONS CANNOT BE FULLY EXPLAINED WITHOUT FIELD OBSERVATION. IF UNEXPECTED CONDITIONS ARE UNCOVERED, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER AND OWNER FOR DIRECTION PRIOR TO PROCEEDING.

C. ALL PENETRATIONS THRU EXTERIOR WALLS SHALL BE WEATHER SEALED. ALL PENETRATIONS THRU RATED WALLS SHALL BE SEALED WITH AN INTUMESCENT FIRE SEALANT SUCH AS CP-25WB AS MANUF. BY ELECTRO-PRODUCTS 3M AND PER UL LISTED SYSTEM. UL LISTINGS: CONDUITS, PIPING: WL 1001. PENETRATION PERFORMANCE REQUIREMENTS: F RATING: 1 OR 2 HR. (MATCH EXISTING WALL-RATING) T RATING: NA.

D. REFER TO ARCHITECTURAL, STRUCTURAL, MECHANICAL AND OTHER DRAWINGS FOR RELATED SCOPE.

SHEET NOTES

1. DISCONNECT AND REMOVE ALL ELECTRICAL RECEPTACLES, DISCONNECTS, CONDUIT, CONDUCTORS AND ALL ASSOCIATED EQUIPMENT WITHIN THE INTERIOR OF THE BUILDING.
2. DISCONNECT AND REMOVE ALL COMMUNICATIONS RECEPTACLES, CONDUIT, RACEWAYS AND CONDUCTORS WITHIN THE INTERIOR OF THE BUILDING. COORDINATE WITH COMMUNICATIONS CONTRACTOR.
3. DISCONNECT AND REMOVE POWER AND CONTROLS ASSOCIATED WITH HEAT EXCHANGER PUMPS WITHIN THIS ROOM. ALL OTHER EQUIPMENT SHALL REMAIN.

REV.	DATE	REVISION
0	03/03/25	ISSUE FOR PERMIT

STAMP

REGISTERED PROFESSIONAL ENGINEER JOSEPH M. FITZPATRICK E015798 Expires 12/31/26 ELECTRICAL STATE OF CALIFORNIA

03/03/25

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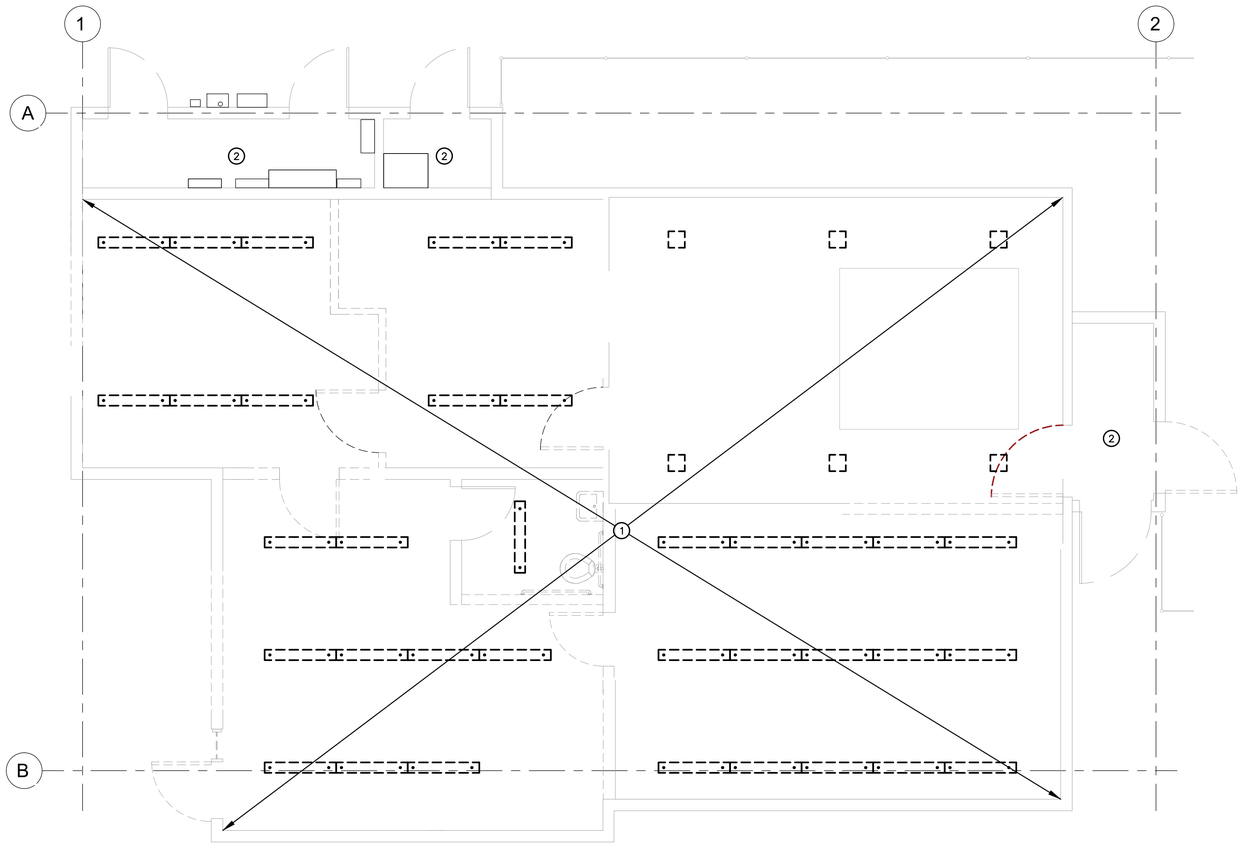
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MAGNETIC RESONANCE SYSTEMS RESEARCH LAB RENOVATION
POWER PLAN - DEMOLITION

DRAWING NO. **ED1.1**

BUILDING NUMBER: **02-565** | SCALE: AS NOTED | BAB PROJECT # 24118 / 6417 | REV **0**

118ED11a8.dwg



1 LIGHTING PLAN - DEMOLITION
ED2.1 SCALE: 1/4" = 1'-0"

4' 2' 0 4' 8'

GENERAL NOTES

A. REFER TO SHEET **E0.0** FOR ELECTRICAL ABBREVIATIONS, SYMBOLS AND GENERAL NOTES AND **G0.0** FOR ADDITIONAL GENERAL NOTES.

B. THE CONTRACTOR SHALL BE COGNIZANT THAT THIS IS A REMODELING PROJECT AND EXISTING ITEMS AND CONDITIONS CANNOT BE FULLY EXPLAINED WITHOUT FIELD OBSERVATION. IF UNEXPECTED CONDITIONS ARE UNCOVERED, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER AND OWNER FOR DIRECTION PRIOR TO PROCEEDING.

C. ALL PENETRATIONS THRU EXTERIOR WALLS SHALL BE WEATHER SEALED. ALL PENETRATIONS THRU RATED WALLS SHALL BE SEALED WITH AN INTUMESCENT FIRE SEALANT SUCH AS CP-25WB AS MANUF. BY ELECTRO-PRODUCTS 3M AND PER UL LISTED SYSTEM. UL LISTINGS: CONDUITS, PIPING: WL 1001. PENETRATION PERFORMANCE REQUIREMENTS: F RATING: 1 OR 2 HR. (MATCH EXISTING WALL-RATING) T RATING: NA.

D. REFER TO ARCHITECTURAL, STRUCTURAL, MECHANICAL AND OTHER DRAWINGS FOR RELATED SCOPE.

SHEET NOTES

(1) DISCONNECT AND REMOVE ALL LIGHT FIXTURES, LIGHTING CONTROLS AND ALL ASSOCIATED CONDUIT AND CONDUCTORS INTERIOR TO THE BUILDING. ALL EXTERIOR LIGHTING AND LIGHTING CONTROLS SHALL REMAIN.

(2) LIGHTING AND LIGHTING CONTROLS WITHIN THIS ROOM SHALL REMAIN.

REV.	DATE	REVISION
0	03/03/25	ISSUE FOR PERMIT

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REGISTERED PROFESSIONAL ENGINEER JOSEPH M. FITZPATRICK E015798 Expires 12/31/26 ELECTRICAL
03/03/25

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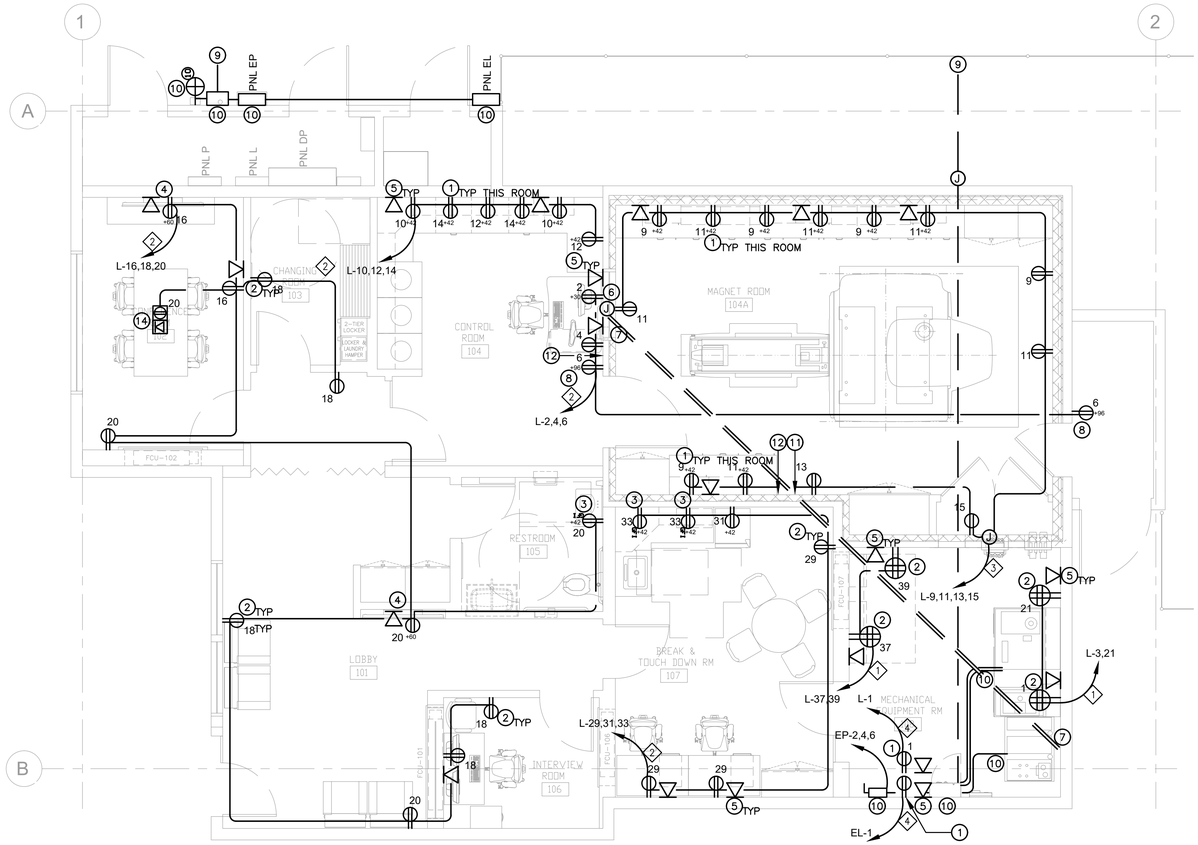
Stanford University

MAGNETIC RESONANCE SYSTEMS RESEARCH LAB RENOVATION
LIGHTING PLAN - DEMOLITION

DRAWING NO. **ED2.1**

BUILDING NUMBER: **02-565** | SCALE: AS NOTED | BAB PROJECT # 24118 / 6417 | REV **0**

118ED21a8.dwg



1 E1.1 POWER PLAN - CONSTRUCTION

SCALE: 1/4" = 1'-0"

4' 2' 0 4' 8'

GENERAL NOTES

A. REFER TO SHEET **E0.0** FOR ELECTRICAL ABBREVIATIONS, SYMBOLS AND GENERAL NOTES AND **G0.0** FOR ADDITIONAL GENERAL NOTES.

B. THE CONTRACTOR SHALL BE COGNIZANT THAT THIS IS A REMODELING PROJECT AND EXISTING ITEMS AND CONDITIONS CANNOT BE FULLY EXPLAINED WITHOUT FIELD OBSERVATION. IF UNEXPECTED CONDITIONS ARE UNCOVERED, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER AND OWNER FOR DIRECTION PRIOR TO PROCEEDING.

C. ALL PENETRATIONS THRU EXTERIOR WALLS SHALL BE WEATHER SEALED. ALL PENETRATIONS THRU RATED WALLS SHALL BE SEALED WITH AN INTUMESCENT FIRE SEALANT SUCH AS CP-25WB AS MANUF. BY ELECTRO-PRODUCTS 3M AND PER UL LISTED SYSTEM. UL LISTINGS: CONDUITS, PIPING: WL 1001. PENETRATION PERFORMANCE REQUIREMENTS: F RATING: 1 OR 2 HR. (MATCH EXISTING WALL-RATING) T RATING: NA.

D. REFER TO ARCHITECTURAL, STRUCTURAL, MECHANICAL AND OTHER DRAWINGS FOR RELATED SCOPE.

SHEET NOTES

1. PROVIDE AND INSTALL A HOSPITAL GRADE NEMA 5-20R RECEPTACLE. MOUNT 18" AFF OR HEIGHT AS SHOWN. CONNECT AS SHOWN IN ROOMS 104, 104A AND 108 UON. EMERGENCY POWER RECEPTACLES SHALL BE RED.
2. PROVIDE AND INSTALL A NEMA 5-20R DUPLEX OR DOUBLE DUPLEX RECEPTACLE. MOUNT 18" AFF OR HEIGHT AS SHOWN. CONNECT AS SHOWN IN REMAINDER OF THE FACILITY.
3. PROVIDE AND INSTALL A NEMA 5-20R GROUND FAULT RECEPTACLE. MOUNT ABOVE NEW COUNTER/SINK. CONNECT AS SHOWN.
4. PROVIDE AND INSTALL A NEMA 5-20R RECEPTACLE AND A 1" EMT CONDUIT WITH PULL STRING FOR COMMUNICATIONS IN A CHIEF 500 TYPE IN WALL TYPE BOX. COMMUNICATIONS CONDUIT SHALL BE ROUTED TO ROOM 109.
5. PROVIDE AND INSTALL A SINGLE GANG JUNCTION BOX AND 1" CONDUIT WITH PULL STRING FOR INSTALLATION OF A COMMUNICATIONS RECEPTACLE. COMMUNICATIONS CONDUIT SHALL BE ROUTED TO ROOM 109.
6. PROVIDE AND INSTALL A 12"X8"X6" IN WALL HINGED COVER JUNCTION BOX. MOUNT APPROXIMATELY 12" AFF.
7. PROVIDE AND INSTALL A 2" AND A 3" EMT ABOVE GRADE, SCH 80 PVC UNDERGROUND CONDUIT WITH PULL STRING FROM IN WALL BOX TO CABLE TRAY IN ROOM 108.
8. PROVIDE AND INSTALL A NEMA 5-20R RECEPTACLE INTERIOR TO A 12"X10"X4" ENCLOSURE. ENCLOSURE MUST BE MOUNTED OUTSIDE OF THE 12" INTERFERENCE ZONE FOR THE DOOR FERRO-ALERT SYSTEM.
9. SEE SHEET E1.3 FOR CONTINUATION.
10. SEE SHEET E5.1 FOR EQUIPMENT SPECIFICATIONS.
11. PROVIDE AND INSTALL A 4"X4"X2" WALL BOX FOR INSTALLATION OF GE EQUIPMENT. COORDINATE WITH GE FOR EXACT INSTALLATION LOCATION.
12. INSTALL GE PROVIDED EMERGENCY SHUT OFF BUTTONS AND GE SUPPLIED INTERCONNECTING CABLING. COORDINATE WITH GE FOR EXACT INSTALLATION LOCATION.
13. INSTALL GE PROVIDED INTERCONNECTING CABLING BETWEEN ISC AND ICC. COORDINATE WITH GE FOR EXACT INSTALLATION LOCATION.
14. PROVIDE AND INSTALL A WATTSTOPPER FS4 IN FLOOR BOX FOR A NEMA 5-20R RECEPTACLE, 4 PORT COMMUNICATIONS CONNECTION AND A HDMI CONNECTION. PROVIDE AND INSTALL A 1" SCH80 PVC/EMT CONDUIT WITH PULL STRING FROM WALL MOUNTED CHIEF BOX TO FLOOR BOX AND 1" SCH80/EMT CONDUIT WITH PULL STRING FROM COMMUNICATIONS BOARD IN ELECTRICAL ROOM TO FLOOR BOX.

RACEWAY SCHEDULE

1. (4)#12AWG, (1)#12AWG GND IN 3/4" EMT
2. (6)#12AWG, (1)#12AWG GND IN 3/4" EMT
3. (8)#10AWG, (1)#10AWG GND IN 3/4" EMT
4. (2)#12AWG, (1)#12AWG GND IN 3/4" EMT

TYPICAL 120V BRANCH CIRCUIT WIRING TABLE @ 16A LOAD

SYMBOL	CONDUIT/WIRE PER CIRCUIT	APPLICABLE FOR DISTANCE	VOLTAGE DROP
0'-55'	3/4"C - 3#12	UP TO 55'	3% MAX.
56'-90'	3/4"C - 3#10	56-90'	3% MAX.
91'-144'	3/4"C - 3#8	91-144'	3% MAX.
145'-229'	1"C - 3#6	145-229'	3% MAX.
230'-365'	1-1/4"C - 3#4	230-365'	3% MAX.

REV.	DATE	REVISION
0	03/03/25	ISSUE FOR PERMIT

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REGISTERED PROFESSIONAL ENGINEER JOSEPH M. FITZPATRICK E015798 Expires 12/31/26 ELECTRICAL
03/03/25

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BUILDING ADDRESS: **427 SANTA TERESA STREET | STANFORD, CA 94305**

STANFORD PROJECT NUMBER:

PROJECT MANAGER: BRIAN CARILLI

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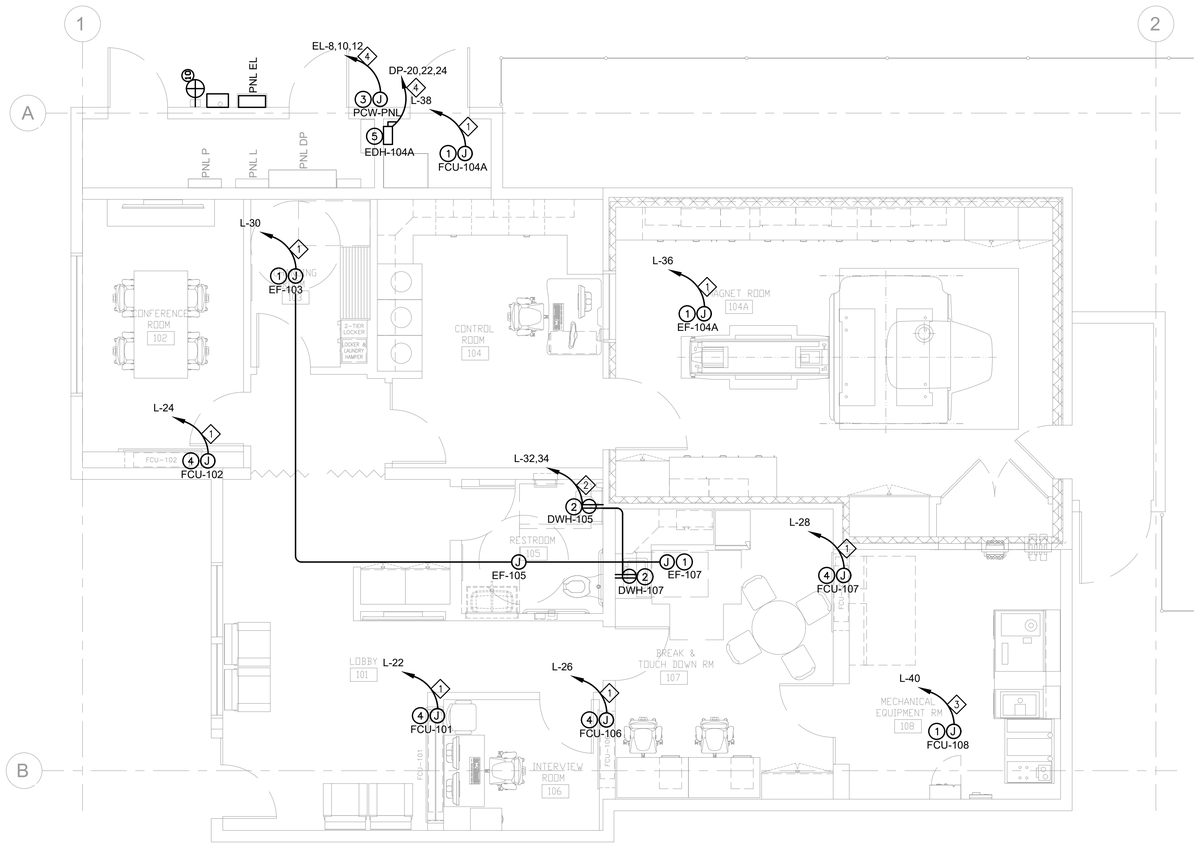
Stanford University

MAGNETIC RESONANCE SYSTEMS RESEARCH LAB RENOVATION
POWER PLAN - CONSTRUCTION

DRAWING NO. **E1.1**

BUILDING NUMBER: **02-565** | SCALE: AS NOTED | BAB PROJECT # 24118 / 6417 | REV **0**

118E11a8.dwg



1 E1.2 MECHANICAL POWER PLAN - CONSTRUCTION

SCALE: 1/4" = 1'-0"

4' 2' 0 4' 8'

TYPICAL 120V BRANCH CIRCUIT WIRING TABLE @ 16A LOAD

SYMBOL	CONDUIT/WIRE PER CIRCUIT	APPLICABLE FOR DISTANCE	VOLTAGE DROP
0'-55'	3/4"C - 3#12	UP TO 55'	3% MAX.
56'-90'	3/4"C - 3#10	56-90'	3% MAX.
91'-144'	3/4"C - 3#8	91-144'	3% MAX.
145'-229'	1"C - 3#6	145-229'	3% MAX.
230'-365'	1-1/4"C - 3#4	230-365'	3% MAX.

GENERAL NOTES

A. REFER TO SHEET **E0.0** FOR ELECTRICAL ABBREVIATIONS, SYMBOLS AND GENERAL NOTES AND **G0.0** FOR ADDITIONAL GENERAL NOTES.

B. THE CONTRACTOR SHALL BE COGNIZANT THAT THIS IS A REMODELING PROJECT AND EXISTING ITEMS AND CONDITIONS CANNOT BE FULLY EXPLAINED WITHOUT FIELD OBSERVATION. IF UNEXPECTED CONDITIONS ARE UNCOVERED, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER AND OWNER FOR DIRECTION PRIOR TO PROCEEDING.

C. ALL PENETRATIONS THRU EXTERIOR WALLS SHALL BE WEATHER SEALED. ALL PENETRATIONS THRU RATED WALLS SHALL BE SEALED WITH AN INTUMESCENT FIRE SEALANT SUCH AS CP-25WB AS MANUF. BY ELECTRO-PRODUCTS 3M AND PER UL LISTED SYSTEM. UL LISTINGS: CONDUITS, PIPING: WL 1001. PENETRATION PERFORMANCE REQUIREMENTS: F RATING: 1 OR 2 HR. (MATCH EXISTING WALL-RATING) T RATING: NA.

D. REFER TO ARCHITECTURAL, STRUCTURAL, MECHANICAL AND OTHER DRAWINGS FOR RELATED SCOPE.

SHEET NOTES

1. PROVIDE AND INSTALL ELECTRICAL CONNECTION TO NEW MECHANICAL EQUIPMENT. COORDINATE WITH MECHANICAL CONTRACTOR FOR EXACT LOCATION AND CONNECTION REQUIREMENTS.
2. PROVIDE AND INSTALL A RECEPTACLE AT 18" AFF FOR CONNECTION OF NEW PLUG IN WATER HEATER. COORDINATE WITH MECHANICAL CONTRACTOR FOR EXACT LOCATION AND CONNECTION REQUIREMENTS.
3. PROVIDE AND INSTALL ELECTRICAL CONNECTION TO NEW PCW PANEL AND FROM PCW PANEL TO NEW PUMPS ADJACENT. COORDINATE WITH MECHANICAL CONTRACTOR FOR EXACT LOCATION AND CONNECTION REQUIREMENTS.
4. PROVIDE AND INSTALL CONNECTION TO IN WALL FAN COIL UNIT. PROVIDE AND INSTALL A 20A, 120V, TOGGLE TYPE LOCKABLE DISCONNECT SWITCH. MOUNT SWITCH ADJACENT TO ELECTRICAL CONNECTION INTERIOR TO WALL.
5. PROVIDE AND INSTALL 30A, 208V, 3 POLE DISCONNECT SWITCH IN A NEMA 3R TYPE ENCLOSURE AND MAKE CONNECTION TO NEW DUCT HEATER. MOUNT SWITCH ADJACENT FCU-104A. MAINTAIN ALL REQUIRED ELECTRICAL CLEARANCES.

RACEWAY SCHEDULE

1. (2)#12AWG, (1)#12AWG GND IN 3/4" EMT
2. (4)#12AWG, (1)#12AWG GND IN 3/4" EMT
3. (2)#10AWG, (1)#10AWG GND IN 3/4" EMT
4. (3)#12AWG, (1)#12AWG GND IN 3/4" EMT

REV.	DATE	REVISION
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REGISTERED PROFESSIONAL ENGINEER JOSEPH M. FITZPATRICK E015798 Expires 12/31/26 ELECTRICAL 03/03/25

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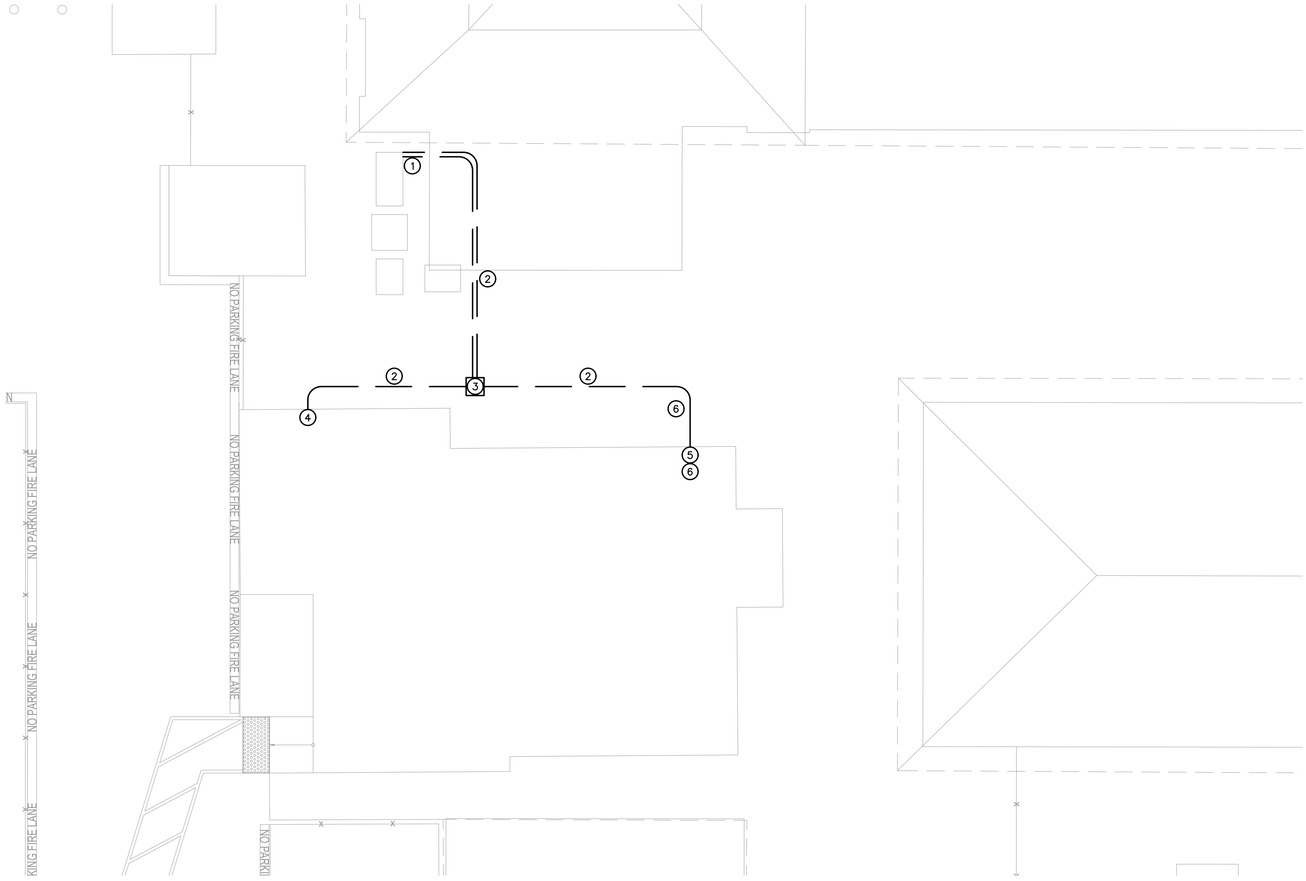
Stanford University

MAGNETIC RESONANCE SYSTEMS RESEARCH LAB RENOVATION
MECHANICAL POWER PLAN - CONSTRUCTION

DRAWING NO. **E1.2**

BUILDING NUMBER: **02-565** | SCALE: AS NOTED | BAB PROJECT # 24118 / 6417 | REV **0**

118E12a8.dwg



1 E1.3 SITE POWER PLAN - CONSTRUCTION

SCALE: 1/4" = 1'-0"

4' 2' 0 4' 8'

GENERAL NOTES

A. REFER TO SHEET **E0.0** FOR ELECTRICAL ABBREVIATIONS, SYMBOLS AND GENERAL NOTES AND **G0.0** FOR ADDITIONAL GENERAL NOTES.

B. THE CONTRACTOR SHALL BE COGNIZANT THAT THIS IS A REMODELING PROJECT AND EXISTING ITEMS AND CONDITIONS CANNOT BE FULLY EXPLAINED WITHOUT FIELD OBSERVATION. IF UNEXPECTED CONDITIONS ARE UNCOVERED, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER AND OWNER FOR DIRECTION PRIOR TO PROCEEDING.

C. ALL PENETRATIONS THRU EXTERIOR WALLS SHALL BE WEATHER SEALED. ALL PENETRATIONS THRU RATED WALLS SHALL BE SEALED WITH AN INTUMESCENT FIRE SEALANT SUCH AS CP-25WB AS MANUF. BY ELECTRO-PRODUCTS 3M AND PER UL LISTED SYSTEM. UL LISTINGS: CONDUITS, PIPING: WL 1001. PENETRATION PERFORMANCE REQUIREMENTS: F RATING: 1 OR 2 HR. (MATCH EXISTING WALL-RATING) T RATING: NA.

D. REFER TO ARCHITECTURAL, STRUCTURAL, MECHANICAL AND OTHER DRAWINGS FOR RELATED SCOPE.

SHEET NOTES

1. PROVIDE AND INSTALL A WEATHERPROOF CONDUIT PENETRATION IN THE EXISTING SUBSTATION ABOVE GROUND. ROUTE CONDUIT TO OUTSIDE OF EXISTING SUBSTATION FOUNDATION AND TRANSITION TO UNDERGROUND.
2. PROVIDE AND INSTALL UNDERGROUND CONDUIT A MINIMUM OF 24" BELOW GRADE. PROVIDE ALL REQUIRED SAW CUTTING, TRENCHING, BACKFILL, COMPACTION AND PATCH BACK TO MATCH EXISTING.
3. PROVIDE AND INSTALL A 24"X36"X14" CONCRETE CHRISTY BOX WITH A TRAFFIC RATED LID. CHRISTY ND40 OR EQUAL.
4. ROUTE CONDUIT UP TO NEW TRANSFER SWITCH. SEE SINGLE LINE DIAGRAM SHEET E5.1.
5. ROUTE CONDUIT UNDERGROUND TO NEW GE PROVIDED MDP INTERIOR TO THE BUILDING IN ROOM 108.
6. PROVIDE AND INSTALL A 1/0 BARE COPPER GROUND CONDUCTOR FROM THE EXISTING BUILDING GROUND LOOP TO THE GROUND CONNECTION ON THE NEW GE PENETRATION PANEL INTERIOR TO THE BUILDING IN ROOM 108. THIS GROUND CONDUCTOR SHALL ALSO BE CONNECTED TO THE MAIN BUILDING GROUND FOR ALL ELECTRICAL BROUGHT INTO THE BUILDING TO MAKE A SINGLE GROUND SYSTEM.

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REGISTERED PROFESSIONAL ENGINEER JOSEPH M. FITZPATRICK E015798 Expires 12/31/26 ELECTRICAL STATE OF CALIFORNIA

03/03/25

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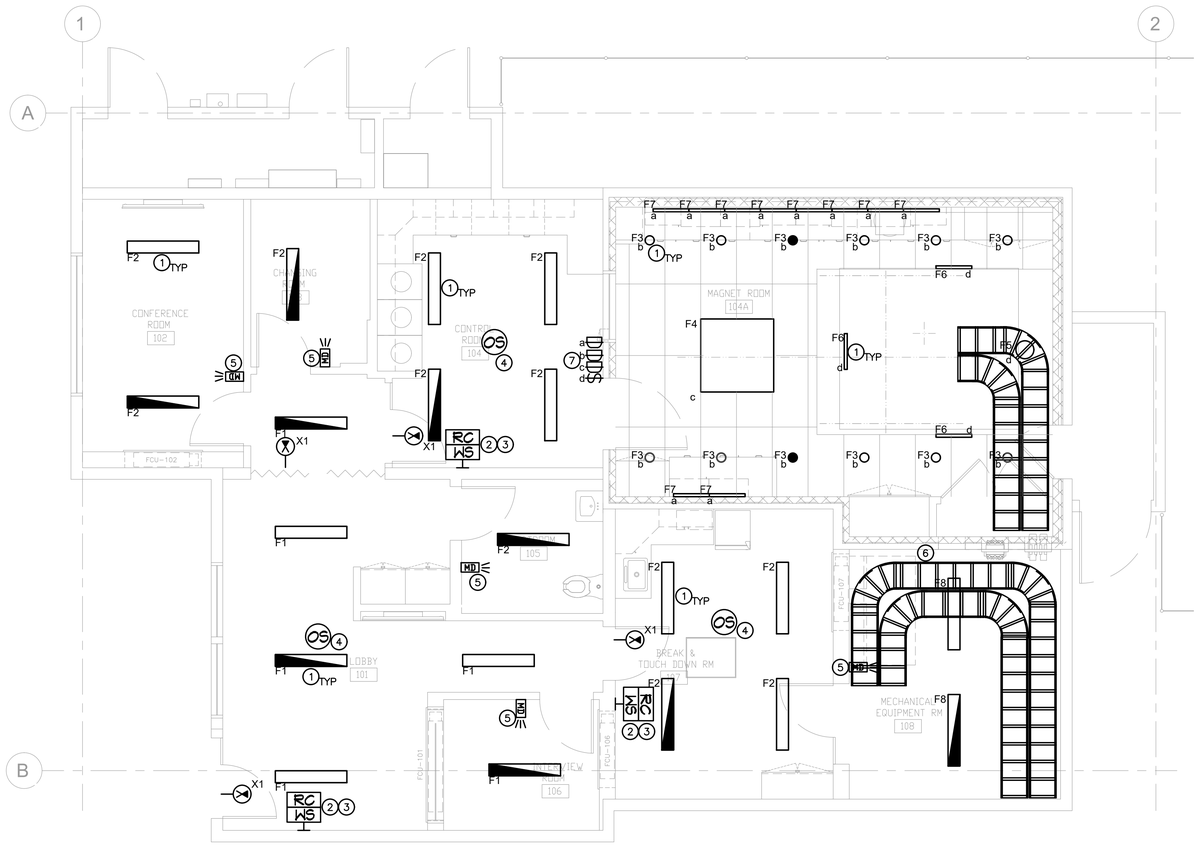
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MAGNETIC RESONANCE SYSTEMS RESEARCH LAB RENOVATION
SITE POWER PLAN - CONSTRUCTION

DRAWING NO. **E1.3**

BUILDING NUMBER: **02-565** | SCALE: AS NOTED | BAB PROJECT # 24118 / 6417 | REV **0**

118E13a8.dwg



1 E2.1 LIGHTING PLAN - CONSTRUCTION

SCALE: 1/4" = 1'-0"

4' 2' 0 4' 8'

GENERAL NOTES

A. REFER TO SHEET **E0.0** FOR ELECTRICAL ABBREVIATIONS, SYMBOLS AND GENERAL NOTES AND **G0.0** FOR ADDITIONAL GENERAL NOTES.

B. THE CONTRACTOR SHALL BE COGNIZANT THAT THIS IS A REMODELING PROJECT AND EXISTING ITEMS AND CONDITIONS CANNOT BE FULLY EXPLAINED WITHOUT FIELD OBSERVATION. IF UNEXPECTED CONDITIONS ARE UNCOVERED, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER AND OWNER FOR DIRECTION PRIOR TO PROCEEDING.

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D. REFER TO ARCHITECTURAL, STRUCTURAL, MECHANICAL AND OTHER DRAWINGS FOR RELATED SCOPE.

SHEET NOTES

1. PROVIDE AND INSTALL NEW LIGHT FIXTURE PER THE LIGHT FIXTURE SCHEDULE. CONNECT TO NEW LIGHTING CIRCUIT FROM PANEL EL VIA NEW LIGHTING CONTROLS.
2. PROVIDE AND INSTALL A WATTSTOPPER LMDM-102 WALL SWITCH. MOUNT 44" AFF. CONNECT PER WATTSTOPPER REQUIREMENTS.
3. PROVIDE AND INSTALL A NEW WATTSTOPPER LM-211 TYPE ROOM CONTROLLER. MOUNT ABOVE CEILING IN AN ACCESSIBLE LOCATION.
4. PROVIDE AND INSTALL NEW WATTSTOPPER LMDC-100 OCCUPANCY SENSOR. MOUNT ON CEILING.
5. PROVIDE AND INSTALL A WALL MOUNTED OCCUPANCY DIMMING TYPE SWITCH. WATTSTOPPER DW-311 OR EQUAL. MOUNT 44" AFF.
6. PROVIDE AND INSTALL A NEW REMOTE MOUNTED DRIVER ENCLOSURE FOR ALL LIGHT FIXTURES INTERIOR TO THE MRI ROOM 104A.
7. SWITCHING TO BE PART OF NEW REMOTE DRIVER ASSEMBLY FROM MANUFACTURE.

LIGHT FIXTURE SCHEDULE

FIXTURE			LAMPS			MOUNTING	REMARKS
FIXT #	DESCRIPTION	MFG NAME & MODEL NO	QTY	TYP	VOLTS		
F1	4' LED LINEAR DIMMABLE (31 WATTS)	METALUX 4WSL-LD2-35-SRS- -UNV-L840-CD-1 OR EQUAL	6	LED CRI 80	277	SURFACE	PROVIDE WITH DIMMING DRIVER COMPATIBLE WITH NEW WATTSTOPPER LIGHTING CONTROLS
F2	4' LED LINEAR DIMMABLE (25 WATTS)	METALUX 4WSL-LD2-30-SRS- -UNV-L840-CD-1 OR EQUAL	12	LED CRI 80	277	SURFACE	PROVIDE WITH DIMMING DRIVER COMPATIBLE WITH NEW WATTSTOPPER LIGHTING CONTROLS
F3	4" ROUND LED DOWNLIGHT DIMMABLE (35 WATTS)	KIRLIN HEALTHCARE LIGHTING MRR-06420-2500L-35K-HC-WFL- -	12	LED CRI 90	277	RECESSED	PROVIDE WITH FACTORY DIMMING REMOTE DRIVER AND FACTORY DIMMING CONTROL SYSTEM VIA SMART LED CABINET.
F4	4' X 4' LED TROFFER SYSTEM DIMMABLE	SKY FACTORY REVELATION ECOPLUS LED SKYCEILING MRI SYSTEM	1	LED	277	RECESSED	PROVIDE WITH FACTORY DIMMING REMOTE DRIVER AND FACTORY DIMMING CONTROL SYSTEM.
F5	12" LED DOWNLIGHT (35W)	KIRLIN HEALTHCARE LIGHTING MSR-12440-2500L-35K-HC- -	1	LED CRI 90	277	SURFACE	PROVIDE WITH FACTORY REMOTE DRIVER CONTROL SYSTEM VIA SMART LED CABINET.
F6	4' LED RECESSED SLOT (31W)	KIRLIN HEALTHCARE LIGHTING MRL-02SWM-4FT-DD-35K- - -	3	LED CRI 80	277	RECESSED	PROVIDE WITH FACTORY REMOTE DRIVER CONTROL SYSTEM VIA SMART LED CABINET.
F7	2' LED UNDER CABINET DIMMABLE (7.5W)	KIRLIN HEALTHCARE LIGHTING MUL-01SWM-2FT-DD-35K	10	LED CRI 80	277	SURFACE	PROVIDE WITH FACTORY DIMMING REMOTE DRIVER AND FACTORY DIMMING CONTROL SYSTEM VIA SMART LED CABINET.
F8	4' LED LINEAR DIMMABLE (31 WATTS)	METALUX 4WSL-LD2-35-SRS- -UNV-L840-CD-1 OR EQUAL	2	LED CRI 80	277	PENDANT	PROVIDE WITH DIMMING DRIVER COMPATIBLE WITH NEW WATTSTOPPER LIGHTING CONTROLS
X1	EXIT LIGHT	DUAL-LITE SEWL-S-G-W-E OR EQUAL PER STANDFORD SPECIFICATIONS			277	WALL	PROVIDE WITH SELF DIAGNOSTICS PER STANFORD SPECIFICATIONS AND 90 MINUTE MINIMUM BATTERY. CONNECT TO UNSWITCHED LIGHTING CKT

REV.	DATE	REVISION
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REGISTERED PROFESSIONAL ENGINEER JOSEPH M. FITZPATRICK E015798 Expires 12/31/26 ELECTRICAL 03/03/25

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STANFORD PROJECT NUMBER:

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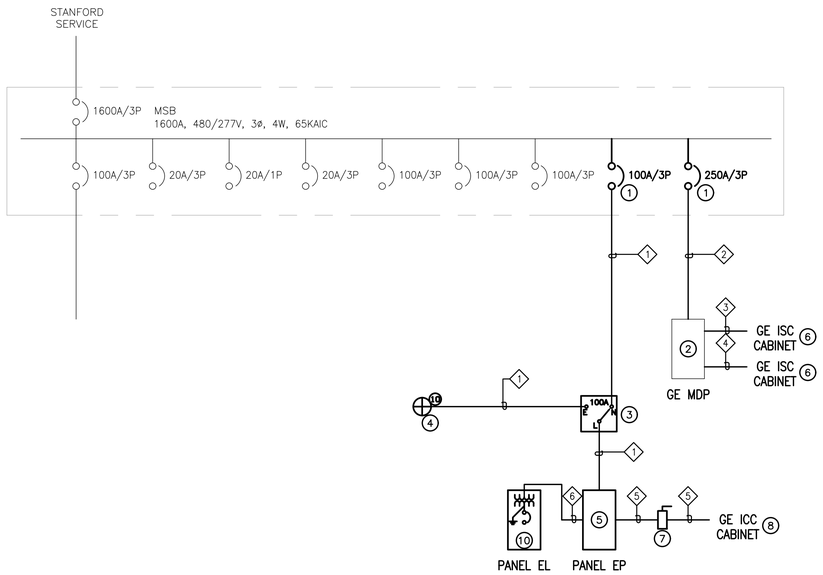
Stanford University

MAGNETIC RESONANCE SYSTEMS RESEARCH LAB RENOVATION
LIGHTING PLAN - CONSTRUCTION

DRAWING NO. **E2.1**

BUILDING NUMBER: **02-565** | SCALE: AS NOTED | BAB PROJECT # 24118 / 6417 | REV **0**

118E21a8.dwg



1 E5.1 SCALE: NTS

SINGLE LINE DAIGRAM - CONSTRUCTION

(5) PANEL EP (N) DIRECTORY

CIRC NO.	TRIP AMPS	NO. POLE	LOAD SERVED	PHASE LOAD VA A	B	C	LOAD SERVED	NO. POLE	TRIP AMPS	CIRC NO.
1	20	1	LIGHTING	800						2
				5000						
3					2500					4
	20	2	PNL EL VIA XFMR		5000		ICC ROOM 108	3	25	
5						2500				6
						5000				
7			SPACE	1700						8
9			SPACE		1700		PCW PNL	3	20	10
11			SPACE			1700				12
13			SPACE				SPACE			14
15			SPACE				SPACE			16
17			SPACE				SPACE			18
			TOTAL	7500	9200	9200		100	% DIVERSITY	

VOLTS 480 /277 V | 3 PH DEMAND POWER 25900 VA 31 A
PHASE 3 | 3 PH CONNECTED LOAD 25900 VA 31 A | MOUNTED SURFACE
WIRE 4 | MAIN BREAKER MLO | LOCATED BLDG EXTERIOR
RATED 100 A | MINIMUM AIC 10,000 A | FED FROM MSB VIA ATS

(10) PANEL PNL EL (N) DIRECTORY

CIRC NO.	TRIP AMPS	NO. POLE	LOAD SERVED	PHASE LOAD VA A	B	LOAD SERVED	NO. POLE	TRIP AMPS	CIRC NO.
1	20	1	RECPT EQ RM 108	1000		SPARE	1	20	2
3	20	1	SPARE			SPARE	1	20	4
5			SPACE			SPACE			6
7			SPACE			SPACE			8
9			SPACE			SPACE			10
			TOTAL	1000	0		100	% DIVERSITY	

VOLTS 240 /120 V | 1 PH DEMAND POWER 1000 VA 4 A
PHASE 1 | 1 PH CONNECTED LOAD 1000 VA 4 A | MOUNTED WALL MOUNT
WIRE 3 | MAIN BREAKER 30A | LOCATED BLDG EXT
RATED 40 A | MINIMUM AIC 10,000 A | FED FROM PNL EP

PANEL L (E) DIRECTORY

CIRC NO.	TRIP AMPS	NO. POLE	LOAD SERVED	PHASE LOAD VA A	B	C	LOAD SERVED	NO. POLE	TRIP AMPS	CIRC NO.	
1	20	1	RECPT ROOM 108	800			RECPT ROOM 107 CONTROL DESK	1	20	2	
				800							
3	20	1	RECPT ROOM 108		800		RECPT ROOM 107 CONTROL DESK	1	20	4	(9)
5	20	1	LTS EXTERIOR			1000	RECPT ROOM 107/STORE DOOR METAL DETECT	1	20	6	(9)
						800					
7	20	1	RECPT EXTERIOR	360			RECPT EXTERIOR	1	20	8	
				360							
9	20	1	RECPT ROOM 104A		800		RECPT ROOM 107 COUNTER	1	20	10	
					800						
11	20	1	RECPT ROOM 104A			800	RECPT ROOM 107 COUNTER	1	20	12	
						800					
13	20	1	RECPT ROOM 104A	800			RECPT ROOM 107	1	20	14	(9)
				800							
15	20	1	RECPT ROOM 104A		800		RECPT ROOM 101/102/103/106	1	20	16	(9)
					800						
17	20	1	FIRE ALARM			800	RECPT ROOM 101/102/103/106	1	20	18	
						500					
19	20	1	EMCS FLOW TRANS	250			RECPT ROOM 101/102/103/106	1	20	20	(9)
				800							
21	20	1	RECPT ROOM 108		800		FCU-101	1	20	22	(9)
					1000						
23	20	1	SPARE			1000	FCU-102	1	20	24	(9)
25	20	1	RECPT ROOF	360			FCU-106	1	20	26	(9)
				1000							
27	20	1	SPARE				FCU-107	1	20	28	(9)
					1000						
(9) 29	20	1	RECPT ROOM 107 COUNTER			1000	EF-103/105/107	1	20	30	(9)
						250					
(9) 31	20	1	RECPT ROOM 107 REFRIG	1000			DWH-105	1	20	32	(9)
				1200							
(9) 33	20	1	RECPT ROOM 107 GFI		1000		DWH-107	1	20	34	(9)
					1200						
35	20	1	SPARE				EF-104A	1	20	36	(9)
						1000					
(9) 37	20	1	RECPT ROOM 108	800			FCU-104A	1	20	38	(9)
				1700							
(9) 39	20	1	RECPT ROOM 108		800		FCU-108	1	20	40	(9)
					1700						
41	20	1	SPARE				SPACE			42	
			TOTAL	11030	11500	7950		100	% DIVERSITY		

VOLTS 208 /120 V | 3 PH DEMAND POWER 30480 VA 85 A
PHASE 3 | 3 PH CONNECTED LOAD 30480 VA 85 A | MOUNTED SURFACE
WIRE 4 | MAIN BREAKER MLO | LOCATED EQUIPMENT RM
RATED 100 A | MINIMUM AIC 10,000 A | FED FROM PNL DP

PANEL P (E) DIRECTORY

CIRC NO.	TRIP AMPS	NO. POLE	LOAD SERVED	PHASE LOAD VA A	B	C	LOAD SERVED	NO. POLE	TRIP AMPS	CIRC NO.	
1	20	1	SPARE							2	
				1500							
3					1500		SHIM POWER	3	30	4	
5	20	2	SPARE			1500				6	
7	20	1	SPARE							8	
				1000							
9					1000		ZEBRA DISC	3	20	10	
11	20	2	SPARE			1000				12	
13	20	1	SPARE							14	
15	20	1	MULT 1 FORMAT CAMERA		500		SPARE	3	50	16	
17	20	1	CAB 1			1000				18	
19	20	1	CAB 2	1000						20	
				2000							
21	20	1	AP		1000		EDH-104A	3	20	22	(9)
					2000						
23	20	1	SPARE			2000				24	
25	20	1	EXT LOAD				SPARE	2	20	26	
27	20	2	SPARE							28	
29							SPARE	2	20	30	
31	20	2	SPARE							32	
33							SPARE	2	20	34	
35	20	2	SPARE							36	
37							SPARE	2	20	38	
39	20	2	SPARE							40	
41							SPACE			42	
			TOTAL	5500	6000	5500		100	% DIVERSITY		

VOLTS 208 /120 V | 3 PH DEMAND POWER 17000 VA 47 A
PHASE 3 | 3 PH CONNECTED LOAD 17000 VA 47 A | MOUNTED SURFACE
WIRE 4 | MAIN BREAKER MLO | LOCATED EQUIPMENT RM
RATED 400 A | MINIMUM AIC 10,000 A | FED FROM PNL DP

2 E5.1 SCALE: NTS

PANEL SCHEDULES

GENERAL NOTES

A. REFER TO SHEET **E0.0** FOR ELECTRICAL ABBREVIATIONS, SYMBOLS AND GENERAL NOTES AND **G0.0** FOR ADDITIONAL GENERAL NOTES.

B. THE CONTRACTOR SHALL BE COGNIZANT THAT THIS IS A REMODELING PROJECT AND EXISTING ITEMS AND CONDITIONS CANNOT BE FULLY EXPLAINED WITHOUT FIELD OBSERVATION. IF UNEXPECTED CONDITIONS ARE UNCOVERED, THE CONTRACTOR SHALL COORDINATE WITH THE ENGINEER AND OWNER FOR DIRECTION PRIOR TO PROCEEDING.

C. ALL PENETRATIONS THRU EXTERIOR WALLS SHALL BE WEATHER SEALED. ALL PENETRATIONS THRU RATED WALLS SHALL BE SEALED WITH AN INTUMESCENT FIRE SEALANT SUCH AS CP-25WB AS MANUF. BY ELECTRO-PRODUCTS 3M AND PER UL LISTED SYSTEM. UL LISTINGS: CONDUITS, PIPING: WL 1001. PENETRATION PERFORMANCE REQUIREMENTS: F RATING: 1 OR 2 HR. (MATCH EXISTING WALL-RATING) T RATING: NA.

D. REFER TO ARCHITECTURAL, STRUCTURAL, MECHANICAL AND OTHER DRAWINGS FOR RELATED SCOPE.

SHEET NOTES

1. PROVIDE AND INSTALL A NEW CIRCUIT BREAKER IN THE EXISTING SWITCHBOARD. CIRCUIT BREAKER IS TO MATCH EXISTING IN THE EXISTING SWITCHBOARD. DISCONNECT AND REMOVE EXISTING DEFECTIVE CIRCUIT BREAKERS FROM SWITCHBOARD TO MAKE SPACE FOR NEW CIRCUIT BREAKERS.
2. PROVIDE AND INSTALL CONNECTION TO NEW GE MDP PANEL INTERIOR TO BUILDING IN ROOM 108. CONNECTIONS TO BE MADE PER THE GE REQUIREMENTS.
3. PROVIDE AND INSTALL A NEW 480/277V, 100A, 3ø, 4 WIRE MANUAL TRANSFER SWITCH IN A HINGED COVER NEMA 3R TYPE ENCLOSURE. SOSOMEC OR APPROVED EQUAL.
4. PROVIDE AND INSTALL A NEW 480/277V, 100A, 3ø, 4 POLE, 5 WIRE PIN AND SLEEVE BRY5100MI7W OR EQUAL.
5. PROVIDE AND INSTALL A NEW 480/277V, 100A, 3ø, 4 WIRE, 50KAIC, 18 CIRCUIT SPACE PANELBOARD IN A NEMA 3R TYPE ENCLOSURE. SQUARE D TYPE NF OR EQUAL.
6. PROVIDE AND INSTALL CONNECTION TO BETWEEN NEW GE MDP PANEL AND NEW GE PROVIDED ISC UNIT INTERIOR TO BUILDING IN ROOM 108. CONNECTIONS TO BE MADE PER THE GE REQUIREMENTS.
7. PROVIDE AND INSTALL A 30A, 480V, 3 POLE DISCONNECT SWITCH IN A NEMA 1 TYPE ENCLOSURE. MOUNT INTERIOR TO ROOM 108 ADJACENT TO NEW GE SUPPLIED ICC CABINET.
8. PROVIDE AND INSTALL CONNECTION TO BETWEEN NEW EL PANEL AND NEW GE PROVIDED ICC UNIT INTERIOR TO BUILDING IN ROOM 108. CONNECTION TO BE MADE PER THE GE REQUIREMENTS.
9. PROVIDE AND INSTALL NEW CIRCUIT BREAKER IN EXISTING PANEL. NEW CIRCUIT BREAKERS ARE TO MATCH EXISTING CIRCUIT BREAKERS IN THE EXISTING PANEL.
10. PROVIDE AND INSTALL A 5KVA, 480-120/240V, 1ø MINI POWER ZONE IN A NEMA 3R ENCLOSURE. PROVIDE WITH SECONDARY MAIN CIRCUIT BREAKER AND BRANCH CIRCUIT BREAKERS AS SHOWN ON THE PANEL SCHEDULE. TRANSFORMER SHALL BE INSTALL AS A SEPARATELY DERIVED SYSTEM PER CEC 250.30.

RACEWAY SCHEDULE

1. (4)#1AWG, (1)#8AWG GND IN 1 1/2" SCH80 PVC UNDERGROUND, RGS EXPOSED EXTERIOR, EMT INTERIOR
2. (3)250KCMIL, (1)#4AWG GND IN 4" SCH80 PVC UNDERGROUND, RGS EXPOSED EXTERIOR, EMT INTERIOR
3. (3)4/0, (1)#4AWG GND IN 2" EMT
4. (3)#6AWG, (1)#10AWG GND IN 1" EMT
5. (3)#10AWG, (1)#10AWG GND IN 3/4" EMT
6. (2)#10AWG, (1)#10AWG GND IN 3/4" EMT

REV.	DATE	REVISION
0	03/03/25	ISSUE FOR PERMIT

STAMP: REGISTERED PROFESSIONAL ENGINEER JOSEPH M. FITCHETT E015798 Expires 12/31/26 ELECTRICAL CALIFORNIA 03/03/25

CONDITIONS AND RESTRICTIONS:
THESE DRAWINGS AND ALL RELATED SPECIFICATIONS ARE INSTRUMENTS OF SERVICE AND SHALL REMAIN PROPERTY OF THE DESIGNER. NO REVISIONS, REPRODUCTIONS, OR USE OF THESE DOCUMENTS SHALL BE MADE WITHOUT THE CONSENT OF THE DESIGNER. ALL EXISTING CONDITIONS REPRESENTED IN THESE PLANS ARE TO BE FIELD VERIFEID AND ALL DISCREPANCIES ARE TO BE REPORTED TO THE DESIGNER. DO NOT SCALE FROM THESE PLANS, FOLLOW DIMENSIONS INDICATED, OR CONSULT THE DESIGNER.

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STANFORD PROJECT NUMBER:

PROJECT MANAGER: BRIAN CARILLI

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Stanford University

MAGNETIC RESONANCE SYSTEMS RESEARCH LAB RENOVATION
SINGLE LINE DIAGRAM/PANEL SCHEDULES

DRAWING NO. **E5.1**

BUILDING NUMBER: **02-565** | SCALE: AS NOTED | BAB PROJECT # 24118 / 6417 | REV **0**

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