

Quyana Clubhouse

Southcentral
Foundation



10% Concept Design Package
October 21, 2024

sparkdesign
architecture • interior design

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EXECUTIVE SUMMARY.

Southcentral Foundation is seeking to build a new Quyana Clubhouse facility to meet the growing needs of the community and the program. The new 2-story, 44,178-square-foot facility will be adjacent to the existing single-story Quyana Clubhouse building at the intersection of Eagle Street and East Third Avenue.

This conceptual design package is a planning tool used to define the scope of work and establish a rough-order-of-magnitude cost estimate for the project. Enclosed you will find design and technical narratives, conceptual drawings, and conceptual exterior renderings.

Below is a summary of the building's gross square footage (BGSF) per floor.

Level 1	22,089	GSF
Level 2	22,089	GSF
Total BGSF	44,178	GSF

SITE ACCESS & AMENITIES NARRATIVE. The site for the new building is located at 225 Eagle Street, in Anchorage, Alaska. The building's proposed location is anticipated to be in the southern portion of the existing site. This arrangement will allow the existing building to remain in use during construction of the new building. The existing building will be demolished after the completion of the new facility. Access to the site is proposed at the existing curb cut off of Eagle Street as well as via a shared vehicular access point off of East Third Avenue. Ample parking will be maintained in the north and northeast part of the site for staff and customer-owners, however the selected GC will need to determine appropriate staging area with Southcentral Foundation.

The entrance to the new building is located at approximately the mid-point of the north elevation. This location allows the building program to be strategically located on both sides of the entry and lobby area, balancing walking distances between both halves of the program area. A second staff entrance has been incorporated toward the northeast corner of the building, allowing convenient and direct access for staff entering the rear staff corridor to the locker and break room. An entry canopy and the large overhang of level 2 at the north side create a protected pedestrian walkway and a sheltered area for customer-owners to sit at benches and picnic tables outside the building. There are two delivery locations on the site; a support and staging area on the northeast corner of the building allows deliveries to be sorted and distributed from the support spaces to the rest of the building via a direct corridor to the elevator. A second loading zone has been incorporated

into the site to accommodate a 40' trailer at the northwest corner of the building, adjacent to the kitchen area.

A backup generator for the building has been incorporated into the design and will reside in a self-contained unit on-site, near the electrical room.

BUILDING PROGRAM SUMMARY. The organizational concept for the building utilizes the entry/lobby program area to bisect the building, making all program areas easily accessible from this central space.

Upon entering the building, the first floor features a large and welcoming lobby space for customer-owners to wait and gather in a variety of ways. An open stair is directly visible and encourages healthy choices for movement. An elevator is also provided near the entry for accessibility. The lobby provides clear visual access to the main circulation pathways and allows visual observation of customer-owner activities in the larger program spaces such as the cafeteria, multi-purpose and computer room. Directly adjacent to the entry vestibule is a small waiting area with gas fireplace for quieter moments. Also adjacent to the entry and reception area are the spaces that meet the customer-owner first needs when they enter the building; lockers for jackets and backpacks, a shower/toilet room, a laundry room, a bed bug oven and a clothing pantry that will be accessed with staff.

On the west of the lobby area at level 1 are the cafeteria, training kitchen, commercial kitchen and support spaces. An operable glass partition wall in the cafeteria can be opened up to the lobby area for even larger gatherings.

On the east side of the lobby are the customer-owner talking rooms. Access beyond the talking room corridor is restricted to staff access of the break room, locker room and support spaces.

At the top of the open stair, level 2 circulation area looks down onto the first floor gathering space. On the west side of the lobby area, interior glazing allows visual access to the fitness room and multi-purpose rooms. The two multi-purpose rooms can be opened up to each other with an operable partition to provide flexibility for a variety of activities. Additional customer-owner spaces such as toilet/shower rooms, a locker room, a talking room and a lactation room are also located on the west side.

On the east side of the level 2 lobby, the customer-owner primary care area is accessed near the elevator. A glazed interior wall allows visual access from the circulation area into this program space. Beyond the primary care area is a restricted door, that secures the

staff office and support spaces. The staff program areas are located at the perimeter of the building to allow natural light into the workspaces. This configuration allows staff circulation around the primary care area and also to level one staff area via the enclosed stairwell.

CIVIL NARRATIVE.

DESIGN CONSIDERATIONS.

SITE LOCATION.

- Address: 225 Eagle Street
- Legal Description: East Addition Block 36 Lot 1
- Lot Size: 219,170 Square Feet
- Zoning: PLI

ADJACENT STREET INFRASTRUCTURE.

East Third Avenue (South of project) – Right-of-Way owned/operated by Municipality of Anchorage

- ROW Width: 60 feet
- Surface: Asphalt Pavement
- PCC curb and Gutter convey street drainage to catch basin located at NW corner of intersection.
- Sidewalk: PCC sidewalk
- Streetlights: Yes
- Water Mains: no
- Sewer: no
- Storm Sewer: catch basins at the intersection of 3rd and Eagle but none extending further east.
- Electrical: unknown
- Gas: unknown
- Communications: unknown

Eagle Street (west of project) – Right-of-Way owned and operated by Municipality of Anchorage

- ROW Width: 60 feet
- Surface: Asphalt Pavement
- PCC curb and Gutter does not exist on Eagle.
- Sidewalk: None on Eagle

- Utilities: Unknown
- Streetlights: Yes
- Water: Water main crosses Eagle diagonally
- Sewer: unknown – Unidentified manhole located near SW corner of site may be for sanitary sewer main. Field verification required.
- Storm Sewer: Unidentified manhole (possibly storm sewer)
- Electrical: Overhead power pole 10' south of SW corner of project. Power runs along west property lines in alley
- Gas: unknown
- Communications: unknown

CIVIL DESIGN CONSIDERATIONS.

Earthwork & Demolition

Clearing and Grubbing.

- Assume removal all organic material under the proposed building foundations, pavements and utility trenches.

Removal of Pavement.

- Existing pavement within site will need to be removed under the new building footprint. See concept site plan for areas affected.
- Sidewalks around the existing structures will be removed and replaced by new parking areas.

Removal of Structures.

- Existing structures will be demolished once the new structure is complete and will be replaced with site parking and landscaping.
- Several utilities that serve the existing building and associated easements will also need to be removed from the site to accommodate the new site parking and circulation plan.

PORTLAND CEMENT SITE CONCRETE.

Curb and Gutter.

- New concrete curbs and sidewalks are planned around the new building and parking area. See conceptual site plan provided for approximate quantities and locations.

Concrete Sidewalks.

- Sidewalks near the front entry of the new structure will be heated Portland Cement Concrete with 2" rigid insulation directly under the concrete. A tapered insulation

transition will be required between areas where heated pavement is directly adjacent to unheated pavement (asphalt or concrete). The transition will consist of 12' of rigid board insulation with the first 8' being 4" thick and the remaining 4' only 2" thick.

- A new pedestrian sidewalk connection is shown from the SE corner of the building to East Third Avenue

ASPHALT SURFACING.

Asphalt Concrete Site Pavement.

- Asphalt pavement at driveways parking area. A recommendation from a geotechnical engineer will be used to determine the proposed asphalt pavement section in the parking areas on-site. Typical pavement sections consist 24" – 36" structural sections depending on the existing soil types and frost susceptibility.

SANITARY SEWERS.

Sanitary Sewer Service Pipe Connects and Extensions

- Existing sanitary sewer mains in the vicinity of the property are available. In order to construct the new building while keeping the existing building in service, a new 6 in PVC sewer service connection is planned for the new building. After the existing building is removed its sewer service will need to be abandoned.

Storm Drain Systems.

Existing storm drainage utilities are available on-site but may not be in good condition. The project will require a storm drain management plan which meets the requirements of the Anchorage Stormwater Manual including requirements for treating the first 0.52 inches of rainfall on-site using green infrastructure. This can be accomplished in many ways and will be determined further in the design process once the plan is further developed.

Water Systems.

Water Service Pipe Connects and Extensions

- Building is expected to require a minimum of 6" water service for fire suppression system
- A new private fire hydrant near the entry is shown to ensure the building meets fire safety requirements.
- Water service connections to existing buildings on-site will have to be disconnected at the main per AWWU requirements once the structures are demolished.

ADDITIVE ALTERNATE – Water main removal/relocation

- An existing AWWU water main runs diagonally through the parcel limiting the options for building siting and future development.
- Removing or relocating this easement and water main would likely require a private development mainline extension agreement with the Anchorage Water and Wastewater Utility
- According to AWWU records, two parcels located west of the site currently have water services connected to the existing main.
- The extent of any new water main improvements is unknown and will have to be coordinated with the AWWU Planning Department if removing or relocating the existing main is desired.

LANDSCAPE NARRATIVE.

SITE OVERVIEW & LAYOUT.

The 10% design evaluates the site around a new upgraded facility that will better serve the current behavioral health and primary care services program operations. The proposed building will be located at an angle at the southern half of the site. New parking for the building will span the majority of the northern portion of the site. The site will continue to be fenced and gated to best serve the facility programming. The main entry for the building will be on the northwest corner of the building. That area will also contain refuse, a loading bay, and ADA parking.

LANDSCAPING.

The site landscaping will be designed to provide an aesthetically pleasing, yet functional design. The design will incorporate the use of native plants to create a calming and inviting palette that is intended to support facility services.

The parcel recently underwent a rezone for the southern portion of the lot from PLI to B-2C. All required landscaping for the site follows Landscape Specifications for the Downtown Districts according to Title 21 Section 21.11.070. Sheet L1.0 provides a table with anticipated required landscaping based on these Title 21 requirements. This includes parking lot perimeter landscaping and parking lot interior landscaping.

The design for the main entry will include an entry plaza space. This will include elements like a hardscaped plaza, seating, planting beds with native plants, pedestrian scale site lighting and bike racks. This space will be designed to provide an inviting space to welcome

guests and employees to the building and will be designed in a way that blends with the aesthetic of the building.

The southwest corner of the building will host several outbuildings, including a smoke shack, storage shed and a small greenhouse. This area will also include a garden area, which will use a mix of raised planters as well as inground beds that will host vegetables as well as native berry shrubs that will be used as part of the facility programming. The garden area would extend to the southern side of the building as well.

The southern side of the building will have a circular firepit that will sit in a small plaza. This plaza space will be located at the southern exit of the lobby. Along with a firepit, this area will include hardscape, seating, and pedestrian lighting. Planting beds or planters with native plants would frame the plaza space to provide softness to the plaza space. This space would serve as an additional gathering space or a space for individuals to sit and enjoy the outdoors.

The southeast portion of the site is designed as a large open lawn. This will double as a space for recreation as well as a large space for snow storage in the winter. The site design includes a sidewalk that would service the north and east sides of the building. A walking path will join off the entry plaza space and carry people through the spaces that aren't accessible by sidewalk. This would also create a small walking loop that people can enjoy.

Other considerations for the site include irrigation for all planted areas as well as water availability around the garden areas and greenhouse. Site lighting and pedestrian scale lighting will be important to include for safety and the overall design. Currently there is a large swath of native vegetation boarding the site to the east and some to the southeast. It is desirable that some of that can be saved to create a visual buffer in and out of the site. However, where it is not possible to save vegetation, the design would accommodate adding street style landscape along the borders of the property to provide a sense of privacy and soften views into and out of the site.

ARCHITECTURAL NARRATIVE.

The Quyana Clubhouse serves as a day treatment program that provides primary care and behavioral health services for adults with severe and persistent mental illness.

PRELIMINARY CODE SUMMARY.

Applicable codes adopted by the Municipality of Anchorage under AMC Title 23:

- 2018 Anchorage Administrative Code
- 2018 International Building Code
 - 2009 ICC A117.1 - Accessible and Useable Buildings and Facilities
- 2018 International Fire Code
 - 2019 NFPA 13 - Standard for Installation of Sprinkler Systems
 - 2019 NFPA 72 - National Fire alarm and Signaling Code.
- The building will be designed and constructed to comply with the 2018 International Energy Conservation Code.

The objective is to design and construct the proposed facility in accordance with the codes adopted/amended under AMC Title 23.

Proposed use:

- Primary Care and Behavioral Health Services.
- The level of care is limited to *custodial care* as defined by the IBC, Section 202:
 - *CUSTODIAL CARE*. Assistance with day-to-day living tasks; such as assistance with cooking, taking medication, bathing, using toilet facilities and other tasks of daily living. Custodial care includes persons receiving care who have the ability to respond to emergency situations and evacuate at a slower rate and/or who have mental and psychiatric complications.
- The facility is not an *Ambulatory Care Facility* because persons are not rendered incapable of self-preservation.

Occupancy Classifications:

- **303.3 Assembly Group A-2.** Group A-2 occupancy includes assembly uses intended for food and/or drink consumption including, but not limited to: cafeterias and similar dining facilities (including associated commercial kitchens).
- **303.4 Assembly Group A-3.** Group A-3 occupancy includes assembly uses intended for worship, recreation or amusement and other assembly uses not classified elsewhere in Group A including, but not limited to...community halls.

- **304.1 Business Group B.** Business Group B occupancy includes the use of a building or structure for office, professional or service-type transactions. Business occupancies shall include...clinic, outpatient, professional services.

Building Construction Type/Fire Sprinkler Protection:

- Type V-B combustible, non-fire-resistance rated construction will be protected throughout by an automatic fire sprinkler system in accordance with section 903.

The building will be classified as a mixed-occupancy, multi-story building. No separations are required between non-separated occupancies; no required fire resistance rated walls or horizontal assemblies required. The level 1 lobby and main circulation spaces will be classified as group A-3, the cafeteria and kitchen as A-2, and the customer-owner support spaces and talking rooms as group B. Level 2 primary care and staff integrative care team areas will be classified as group B. Level 2 multi-purpose rooms and fitness areas will be classified as A-3. Incidental use spaces such as the boiler room and laundry room will be sprinkled and therefore do not require separations with the exception of construction resisting the passage of smoke.

Due to the occupancy classifications, construction type and fire separation distance, fire-rated exterior walls are not required. Structural elements, exterior walls and interior walls are of any materials permitted by this code in type V construction. Shaft enclosures are not required.

An automatic fire sprinkler system will be provided in accordance with sections 901 and 903. The system will provide coverage throughout the building. Commercial cooking systems will be protected by an automatic fire-extinguishing system in accordance with section 904.

A fire alarm system that activates the occupant notification system will be installed throughout the building.

The building will include a single elevator, and will support all accessibility needs in the design.

MATERIALS. Below are the basis-of-design criteria. This information should be used in conjunction with the building floor plans, exterior elevations, and exterior renderings.

Slab-on-Grade Considerations. The foundation system for the building is expected to be either driven pilings or a raft foundation as determined by the pending geotechnical report and seismic analysis. The level 1 slab will include in-floor radiant heat, and therefore R-10

rigid insulation shall be provided below the slab in all those locations. A 10-mil vapor barrier shall be provided under all slab-on-grade locations. Pre-finished, 22-gauge metal foundation flashing will be provided around the entire perimeter of the building.

Level 2 floor will also include a concrete topping with radiant heat.

Exterior Walls. Two assembly options are being considered for the metal exterior walls:

Option 1 Exterior Wall Assembly:

- Concealed Fastener Metal Panel: BOD: AEP Span Flex Series or equal. Standoff clip system attachment. 4 profiles used in repeat, 20 ga
- Water resistive barrier with integrated tape. BOD: Vaproshield Wrapshield IT with Wrapflashing SA and Vaproliqui-Flash.
- 4" Fiberglas girts with mineral wool insulation. BOD: Strongirt with thermafiber rainbarrier 45 mineral wool insulation.
- Self-adhered air / vapor barrier, BOD: Henry Blueskin SA with Fortiflash Butyl
- Sheathing per Structural
- Metal Stud Framing
- 5/8" type 'X' GWB

Option 2 Exterior Wall Assembly: Alternate Metal Panel

- Insulated Metal Panel: BOD: Kingspan Quadcore Optimo, 4" thick
- Metal Stud Framing
- 5/8" type 'X' GWB

All trim on the profiled metal panels to be 20 ga prefinished metal. All trim on the insulated metal panels shall be extruded aluminum with factory-folded exterior corners.

Stone Panel Exterior Walls:

- Stone Panel: BOD Neolith 3/4" and 3/8" thickness per elevations
- Horizontal Aluminum Extrusions: BOD Neolith Strongfix Adhesive System
- 1" min. depth (heavy gauge) vertical hat channel, painted black
- Horizontal Kingspan Karrier Panel rail, 2" face
- Kingspan Karrier Panel: 4" thick
- Metal Stud Framing
- 5/8" type 'X' GWB

Wood Clad Exterior Walls:

- Alaska yellow cedar siding, stained
- Horizontal Aluminum Extrusions
- 1” min. depth (heavy gauge) vertical hat channel, painted black
- Horizontal Kingspan Karrier Panel rail, 2” face
- Kingspan Karrier Panel: 4” thick
- Metal Stud Framing
- 5/8” type ‘X’ GWB

Refer to the exterior elevations for material locations.

Soffits and Canopies. The soffit of the level 2 overhang, roof soffits and entry canopy will be clad with Alaskan Yellow Cedar planks, stained.

Roof Assembly. The roof assembly shall consist of a single-ply fully adhered 60 mil EPDM roof membrane, ½” dens deck cover board, R-38 rigid insulation, 5/8” dens deck prime roof board and vapor retarder. At canopy locations the insulation can be limited to tapered insulation as required to achieve minimum slope requirements. Pre-finished 22-gauge metal flashing shall be provided at all parapets.

Exterior Doors. Exterior doors and frames not located in storefront or curtain wall locations shall be insulated hollow metal. Relites in the doors shall be provided at all locations.

Curtain Wall & Storefront. The exterior curtainwall system shall be based on the Kawner 1600 series and all storefront systems shall be based on the Kawneer 451T series in a dark bronze finish. The storefront doors shall coordinate with this system. The interior vestibule shall also utilize the Kawneer system. Glazing shall be insulated, have a low-e coating, and be argon-filled. All openings shall be flashed with prefinished, 22-gauge metal flashing. All windows shall receive manual roller shades, BOD mechoshade. Provide automatic window shades on the large curtain wall windows on the north and south elevations of the entry/lobby.

Exterior Signage. Specialty exterior building signage at the entry is noted on the exterior elevations. Assume a large etched logo in the neolith panel and a surface mounted sign in these locations. Additionally, assume 2 exterior building signs at the top parapet area. These shall be channel-lit letters with a die-cut client logo, backlit.

Elevator. One passenger elevator is planned for the building. The basis of design for the passenger elevator shall be the Otis Gen3 Edge Passenger Elevator 3,500lbs capacity with a front opening single-center slide door.

General Interior Materials. Material selections have not yet been made. For the ROM pricing effort, the following assumptions can be made:

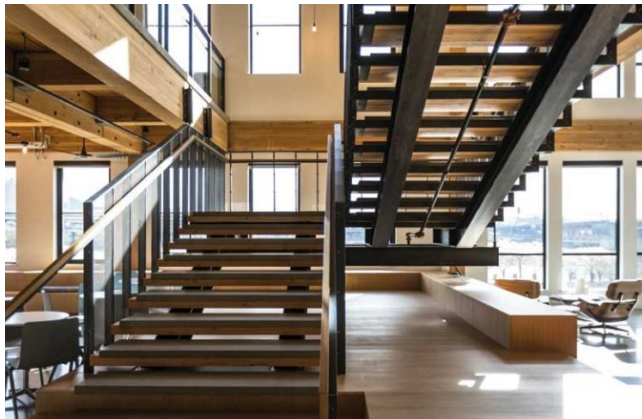
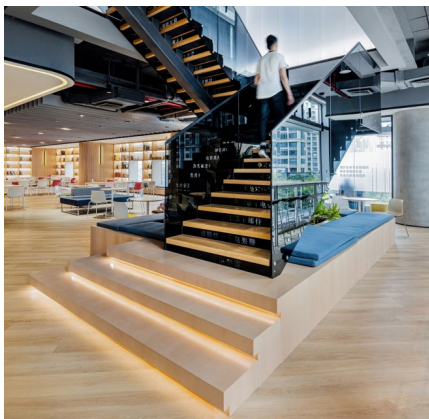
LEVEL 1:

- Entry Vestibule and Waiting Area extending to the front of elevator: walk off mat
- Lobby and Cafeteria: polished concrete
- Kitchen and Training Kitchen: non-slip resilient flooring BOD: Forbo Eternal Step
- Multi-purpose, Computer, Clothing Pantry patient area: Linear Vinyl Plank
- Toilet/Shower Rooms: Tile floor and tile walls to 72”, full height wall tile in shower rooms
- Talking Rooms and talking room corridor: Carpet
- Break Room, Lockers and corridor: Linear Vinyl Plank
- Mechanical, Receiving, support spaces: sealed concrete

LEVEL 2:

- Corridors: Carpet
- Multi-purpose and Fitness/Locker Areas: Linear Vinyl Plank
- Toilet/Shower Rooms: Tile floor and tile walls to 72”, full height wall tile in shower rooms
- Exam Rooms: Sheet vinyl
- Staff Work Area: Carpet

Open Stair. An open stair is identified in the lobby between Levels 1 & 2. The finishes on these stairs will be a mixture of exposed wood, steel and glass. The stair will be a custom configuration that will include an integrated seating area at the bottom.



Egress Stairs. 2 egress stairs will be provided. BOD: American stair, prefabricated steel stair. Steel plate stringers, endura treads and vertical picket railings.

Retractable Walls. Level 1 cafeteria and level 2 multi-purpose rooms will incorporate retractable glazed panel walls. BOD: Modernfold Acousticlear operable walls.

Interior Glazing. As identified on the floor plans.

Equipment. A layout for the kitchens have not yet been completed. A commercial kitchen designer will determine the equipment needed in the commercial kitchen and training kitchen. The shared staff breakroom on Level 1 will include (2) 48” subzero refrigerators, (1) 30” subzero freezer, (2) microwaves, and (2) dishwashers.

Acoustics. In general, a large quantity acoustic treatment will be required. A description of conceptual acoustic treatments will follow this report.

STRUCTURAL NARRATIVE.

DESIGN SUMMARY.

Quyana House will be a 2-story mass timber building. The building is separated into two halves by a central 2-story tall atrium. The total building size is roughly 42,000 square feet.

Primary construction materials are Cross-Laminated Timber (CLT) floor deck with concrete topping, and a CLT roof deck. The panels will include gaps in the CLT to accommodate mechanical and electrical routing. These gaps will be spanned by plywood and overlain with concrete to provide a uniform floor level. Beams are primarily Glued-Laminated Beams (GLB) supported by Glued-Laminated Columns. The columns are located on a consistent 20' x 20' grid.

The ground floor is a concrete slab on grade with a perimeter stem wall foundation founded 42” below finished floor. The interior columns and walls are founded on spread footings cast integrally with the slab on grade. The elevator pit is 48-inches below finished floor. The ongoing geotechnical investigation may recommend an alternative foundation system to the conventional approach presented above. These alternatives may range from driven steel pilings to a concrete raft foundation.

The lateral system to resist earthquake and wind loads will consist of 8” reinforced concrete shear walls strategically placed throughout the building, particularly around the stairs, elevator, and other key areas.

Alternatively, the building lateral system can be designed as a special steel moment frame system, which would utilize 14” steel wide flange columns and 24” deep steel wide flange

beams. This alternative would involve 8-12 moment frames in each principal direction of the building.

While the shear wall system offers a more economical solution, the steel moment frame system provides greater flexibility in the building's interior layout. Both systems would be designed to adequately meet the seismic and wind load requirements.

CODES & REFERENCES.

- 2024 International Building Code as amended and adopted by the Municipality of Anchorage
- Note that the 2018 IBC is currently adopted, but it is likely that the adoption of the 2024 IBC will occur before the design of the Quyana House is 50% complete.
- ACI 318-19 Building Code Requirements for Structural Concrete
- CRSI Handbook
- AISC Manual of Steel Construction, 2022 Edition
- AISI Cold-Formed Steel Design Manual, 2020 Edition
- AWC National Design Specification for Wood Construction, 2024/2021 Edition
- ASCE 7-22 Minimum Design Loads for Buildings and Other Structures

COMPUTER PROGRAMS.

- ETABS
- SAP2000
- Enercalc

MATERIAL PROPERTIES.

Concrete

Type	Normal Weight
Foundations, SOG, Topping Slab	$f'_c = 4000$ psi

Reinforcing Steel.

Typical	ASTM A615, Grade 60
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Structural Steel.

Wide Flange Beams & Cols	ASTM A992, Grade 50
Tubes	ASTM A500, Grade B, $f_y = 46$ ksi
Angles and Channels	ASTM A36
Plates	ASTM A36
Anchor Rods in Concrete or Masonry	ASTM F1554, Grade 36
Welding Electrodes	E70xx

Cold-formed Steel.

Gage 25-17	ASTM A653, Type SS Grade 33, $f_y = 33$ ksi
Gage 16-12	ASTM A653, Type SS Grade 50 Class 1, $f_y = 50$ ksi

Wood.

Solid Sawn Columns	DF No.2 L2 $F_c = 1900$ psi
Glu-lam Beams, Simple Span	DF/DF 24F-V4, $F_b = 2400$ psi
Glu-lam Beams, Cantilever	DF/DF 24F-V8, $F_b = 2400$ psi
Glu-lam Columns	DF/DF F_c Parallel = 2300 psi
Cross-Laminated Timber (CLT)	DF/L No.2 V1M3, $F_b = 900$ psi

- All exposed Glue-lam elements to be Architectural Appearance or Premium Appearance Grade dependent on location
- CLT is planned to be installed in 'planks' with gaps between the planks to allow for utility routing.
- Gaps will be infilled with 1-1/8" plywood that is laid over the top of the CLT gap.
- The CLT floor panels will be overlaid with 3" of concrete to both create room for the in-floor radiant heat tubes and to create a diaphragm.
- A building envelope consultant will be retained to develop a moisture management plan to ensure the quality of the finished wood surface.
- CLT Panels will be delivered with factory applied coatings.
and protective membranes.
- The contractor will be tasked with executing the moisture management plan as outlined in the project specifications.

Foundations & Soils.

The Geotechnical site investigation in process. The project site is in Zone 4 of the MOA Ground Failure Susceptibility map. The geotechnical engineer will provide foundation recommendations that will consider the higher ground stability safety factors required in Zone 4 to comply with the 2018 IBC local amendment 23.15.1803.5.12.

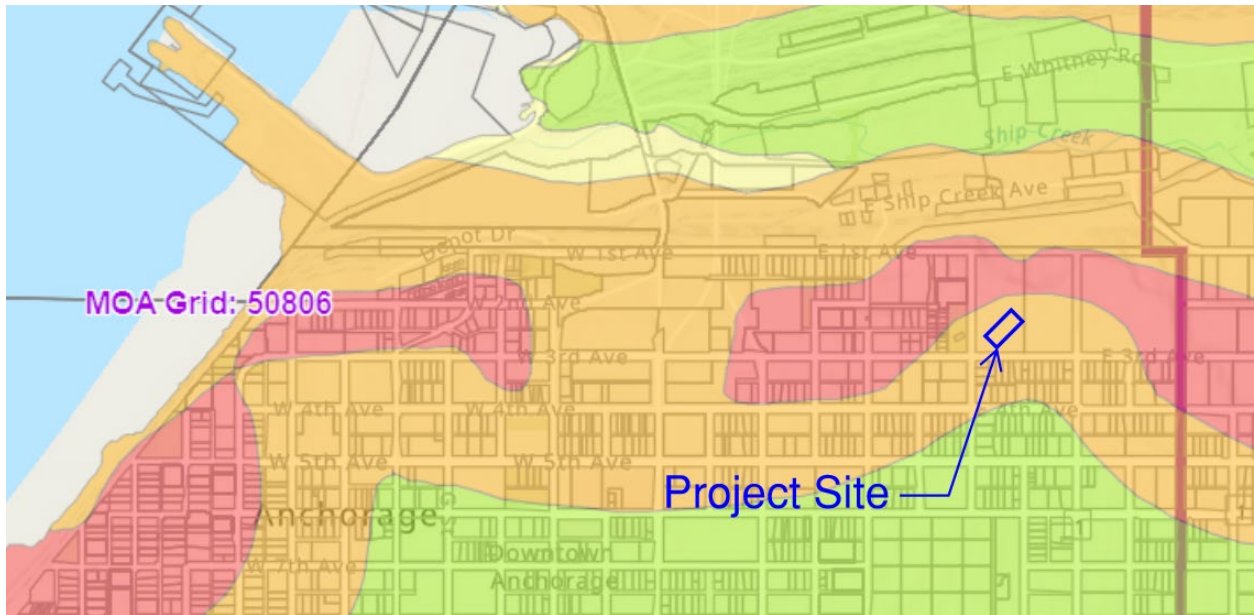
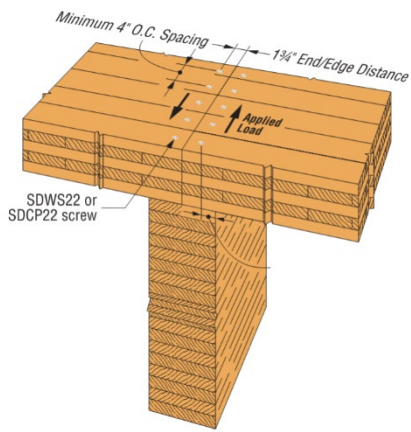


Figure 1: MOA Ground Failure Susceptibility Map; Zone 4 is orange and Zone 5 is Red

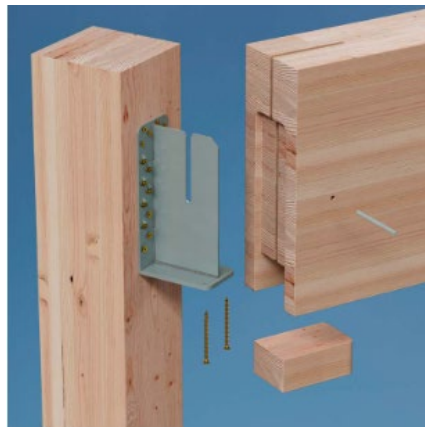
GLB to GLB connections:



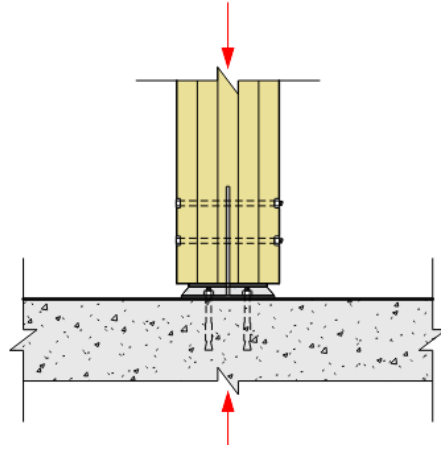
CLT to GLB connections:



GL Column to GLB connections:



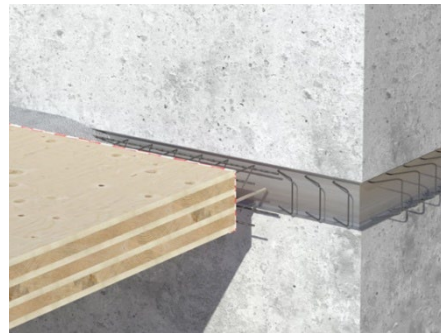
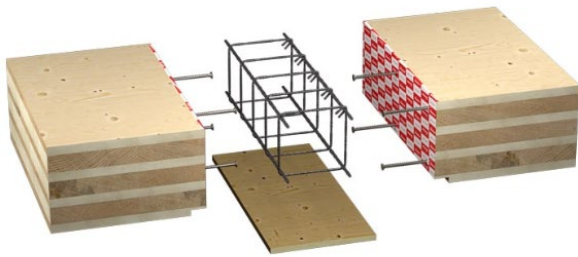
GL Column to Foundation connections:



GLB to Concrete wall:



CLT Floor to Concrete:



DEFLECTION AND CAMBER.

Beam Deflection Criteria:

Live Load	L/360
Superimposed Dead Load + Live Load	L/240
Elevator Loads	L/1666

RISK CATEGORY.

Risk Category III:

- Primary occupancy = Assembly
- Occupant Load > 300 people

LIVE LOADS.

Roof Live / Snow Loads:

Snow Load 40 psf plus drifting snow load

Floor Live Loads.

Office	50 psf (reducible) + 20 psf partition
Exit Corridors, Stairways	100 psf (reducible)
Assembly Areas	100 psf (non-reducible)
Light Storage	125 psf (non-reducible)
Mechanical	150 psf or weight of equip. & pads + 50 psf

Wind Loads.

Basic Wind Speed	135 mph
Exposure Category	B

Seismic Loads.

Lateral Force Resisting System	Special Concrete Shear walls
Lateral Force Resisting System Factor	R = 5
Deflection Amplification Factor	Cd = 5
Overstrength Factor	Omega = 2.5
Importance Factor	I = 1.25
Soil Profile Type	E

MECHANICAL NARRATIVE.

DESIGN SUMMARY.

Mechanical system requirements and design features are described in the individual system narratives below. Special considerations for select areas may also be found within the system narratives. The facility will be primarily mass timber construction. In areas subject to high-quality finishes and appearance (e.g. entry lobby, conference rooms, etc.), mechanical systems will be concealed or carefully coordinated and detailed on the design drawings to provide a uniform and aesthetically pleasing installation. Once the new facility has been constructed, the existing facility will be demolished.

CODES AND STANDARDS.

Codes:

Applicable Codes include, but are not limited to, the following:

- 2018 International Building Code (IBC)
- 2018 International Mechanical Code (IMC)
- 2018 International Fire Code (IFC)
- 2018 International Fuel Gas Code (IFGC)
- 2018 Uniform Plumbing Code (UPC)
- 2020 National Electric Code (NEC)

Standards:

Applicable Standards include, but are not limited to, the following:

- Facility Guidelines Institute (FGI) - Guidelines for Outpatient Facilities
- American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE)
- National Electrical Manufacturers' Association (NEMA)
- National Fire Protection Association (NFPA)

Seismic:

Anchorage, Alaska is a seismically active location. Building non-structural components, including mechanical, plumbing, and fire protection equipment and distribution systems will require seismic restraint in accordance with IBC and ASCE Standard 7-16. Seismic restraint of mechanical equipment will be by performance specification. The mechanical equipment importance factor is assumed to be 1.0 for this non-essential facility.

BASIC MATERIALS AND METHODS.

Materials of Construction:

Standard materials to be used in the mechanical systems

- a) Fire protection piping: Schedule 40 steel pipe with threaded or Victaulic grooved fittings.
- b) Domestic water piping: Copper pipe with soldered or mechanical press fittings. Soldered pipe fittings to use lead-free solder.
- c) Plumbing waste and vent piping: Hubless cast iron pipe and fittings with no-hub couplings.
- d) Rain leader piping: Hubless cast iron pipe and fittings with no-hub couplings.
- e) Natural gas piping: Schedule 40 black steel pipe with welded or threaded black malleable iron fittings.
- f) Hydronic heating piping: Copper pipe with soldered or mechanical press fit fittings. Soldered pipe fittings to use lead-free solder.
- g) Supply, exhaust, and return ducting: G90 zinc coated steel with low-loss fittings and junctions.

Engineering Design Parameters:

Outside Ambient Design Temperature

- Winter: -17 degrees F (2021 ASHRAE 5-year extreme minimum)
- Summer: 74 deg F DB / 59.8 deg F MCWB (2021 ASHRAE 0.4% annual cooling dry bulb (DB) and mean coincident wet bulb (MCWB))

Inside Design Temperature and Relative Humidity (RH)

- Winter (occupied): 70-72 deg F +/- 2 deg F, and 20% RH
- Winter (unoccupied): 65-67 deg F +/- 1 deg F, and 20% RH
- Summer (occupied): 70-72 deg F +/- 2 deg F, and 55-60% RH
- Summer (unoccupied): 80-82 deg F +/- 1 deg F, and 55-60% RH

Plumbing Pipe Sizing

- Domestic cold water: Maximum velocity of 7 feet per second (FPS). Note that UPC maximum velocity for copper systems is 8 FPS. Minimum branch pipe size of ¾”.
- Domestic hot water: Maximum velocity of 4 FPS. Note that UPC maximum velocity for copper systems is 5 FPS. Minimum branch pipe size of ¾”.

- Domestic hot water recirculation: Maximum of 4 FPS velocity. Minimum pipe size of $\frac{3}{4}$ ".
- Sanitary waste and vent: Per UPC based on drainage fixture units and 2% slope.
- Rain leader: Per UPC based on 60-minute duration, 100-year return of 0.6 inches per hour and 1% slope.
- Natural gas: Per UPC and Basis of Design equipment input BTUH and with all equipment/appliances at full fire.

Hydronic Heating Pipe Sizing

- Distribution piping sized based on maximum pressure loss of 3.5 feet/100 feet with all terminal units downstream of the branch pipe fitting at 100% capacity.

Ductwork Sizing

- Medium velocity ductwork (supply upstream of air terminal units): Maximum velocity of 2,500 FPS or maximum pressure loss of 0.2 in WC/100 feet.
- Low velocity ductwork (supply downstream of air terminal units, exhaust, and return): Maximum velocity of 750 FPS or maximum pressure loss of 0.085 in WC/100 feet.

SITE MECHANICAL.

Incoming Services:

The building will be served by city water, sanitary waste, storm drainage, and natural gas services.

- Sanitary waste main: 4-inch (Based on the concept floor plan plumbing fixture count).
- Water service entry: 6-inch (Based on the concept floor plan plumbing fixture count and wet type fire sprinkler system requirements).
- Storm drain: 6-inch (Based on roof area and minimum UPC requirements).
- Natural gas: To be determined.

Snowmelt:

A snowmelt system will be provided for the public entry sidewalks. For Concept Design, a snowmelt area of 5,660 square feet is estimated; exact size of the snowmelt boundary will be determined in subsequent design phases. It is anticipated snowmelt manifolds can be located within the building footprint and manifold vaults and arctic piping will not be

necessary (see “Heating & Cooling Systems” section for more information about snowmelt system).

Irrigation:

A permanently installed site irrigation system is not anticipated. Exterior hose bibbs will be provided around the perimeter of the building to allow for manually watering the landscape.

FIRE PROTECTION.

General:

A wet pipe sprinkler system will be performance specified to be installed per NFPA 13. Areas subject to freezing (vestibules, receiving areas, grounds equipment storage, etc.) will be provided with dry sprinkler heads. Sprinkler heads will be specified to be quick-response type with flexible braided stainless steel hose connectors. The fire protection entry and risers are anticipated to be located in the level 1 mechanical room. The type 1 kitchen hood will be provided with an integral clean agent suppression system. No additional clean agent systems are anticipated for the facility. No standpipes, dry pipe, or pre-action systems are anticipated.

PLUMBING.

Domestic Hot and Cold Water:

Concept level service water calculations indicate a 3-inch cold water service will be required to serve the facility. The 3-inch water service entry will include a strainer, utility provided water meter, and reduced pressure principle backflow preventer (RPBP). The existing facility water service entry does not have a pressure reducing valve, so it is assumed water pressure at the building will not exceed code limitations and a pressure reducing valve will not be necessary.

Domestic hot water will be provided by two high-efficiency, gas-fired, storage type water heaters. Water will be stored at 140 degrees F to kill legionella bacteria. Downstream of the water heaters, a central tempering valve will reduce hot water to 120 degrees F distribution temperature. It is assumed the kitchen dishwasher will either utilize chemicals or have an electric booster heater to provide sanitation and water greater than 120 degrees F will not be required.

Basis of Design: AO Smith, Cyclone Series.

A domestic hot water circulation system will limit uncirculated hot water branch lines to a maximum of 25 feet per FGI requirements. Individual hot water circulation branch piping will be provided with manual balance valves. The hot water circulation pump will be enabled/disabled by the BAS based on return water temperature set point.

Basis of Design: Taco, 00 Series.

Sanitary Waste and Vent:

Sanitary waste piping will be no-hub, cast iron piping throughout the facility. In future design phases, plastic piping (ABS, PVC, etc.) may be provided as a first cost reduction option. Cast iron piping is recommended due to flow noise considerations above ground, and its durability below grade. Acid-resistant or other specialized waste piping materials are not anticipated.

Sanitary vent piping will be increased one pipe size above the minimum UPC size requirement throughout the facility to eliminate distance limitations and allow for future renovation flexibility. Vents through the roof (VTR) will be increased an additional pipe size to prevent frost closure. VTRs will be placed at several locations to minimize vent pipe sizes and help free up above ceiling space to route other utilities.

The kitchen's 3-compartment sink will require a grease interceptor. Additional fixtures requiring discharge through the grease interceptor will be determined during subsequent design phases.

Basis of Design: Big Dipper hydromechanical grease interceptor with 20 GPM rated flow capacity.

An elevator sump pump will be located in the elevator pit. It is anticipated that the elevator will be non-hydraulic, and the sump pump/discharge piping system will not require oil sensing or oil/water separation.

Basis of Design: Stancor, SV series.

Storm Drainage:

Primary and overflow roof drain sets with deck plates will be provided to accommodate storm drainage. The deck plate will secure to a roof curb for ease of installation. Overflow rain leader piping will combine into the primary rain leader piping approximately 3'-0" downstream of the roof drains as allowed by the Municipality of Anchorage (MOA) code amendments. A 6-inch overflow downspout will be provided at the building exit to signal a blockage in the storm sewer.

The roof drain bowls, and overflow downspout will receive electric heat trace to prevent freezing. The heat trace will be provided with enable/disable control contactors from the BAS. The heat trace system will be provided by the electrical contractor. See the electrical concept narrative for additional information.

Plumbing Fixtures:

Water closets will be vitreous China, floor mounted, floor outlet models to eliminate the need for plumbing chases. Water closets will receive manual flush valves with 1.28 GPF siphon jet capacity.

Lavatories and sinks will be either vitreous China, stainless steel, or Corian integral to the countertop and provided with manually operated faucets with laminar flow outlets.

Showers will include thermostatic mixing valves and hand-held spray heads with metal flexible hose.

Combination drinking fountains and bottle fill stations will be located in the main public area and the Fitness Center.

The commercial style kitchen will receive stainless steel floor sinks to prevent enamel cracking and rusting.

Each restroom will receive a floor drain to mitigate water damage from overflowing fixtures due to drainage system blockages. Floor drains throughout the facility will be provided with either electronic or pressure variance activated trap primers.

HEATING AND COOLING SYSTEMS.

Central Heating System:

Three (3), natural gas-fired, 1,000 MBH (input), condensing boilers, each sized for 40% of the total building design day heating load, will provide central heat for the facility. This arrangement allows the building to remain in full operation with one boiler out of service for regular maintenance or repair. It also provides a 20% safety factor to allow for future building programming changes.

Basis of Design: Aerco, Benchmark Series.

The central heating system will be arranged in a primary/secondary loop configuration. Each boiler will be provided with a dedicated constant speed circulator pump for

boiler/primary loop circulation. The secondary loop will be provided with variable speed primary/standby circulator pumps and air elimination/system pressure control. The secondary building loop will distribute heating water to the terminal heating devices and secondary glycol loop heat exchangers.

Basis of Design equipment:

- Circulation pumps – Taco.
- Hydraulic air/dirt separator – Spirotherm.
- Expansion tank – Amtrol.

A secondary glycol loop is provided to serve rooftop air handling unit heating coils subject to freezing. A brazed plate heat exchanger separates the building heating loop from the secondary glycol loop. The secondary glycol loop will be provided with variable speed primary/standby circulator pumps, air elimination/system pressure control and an automatic glycol makeup tank system.

Each rooftop unit hydronic heating coil will be provided with a circulation pump to provide even coil heat distribution.

Basis of Design equipment:

- Heat Exchanger – Taco
- Glycol Make-up Tank – Axiom
- Expansion Tank – Amtrol
- Air Separator – Spirotherm
- Pumps – Taco

Radiant Floor Heating:

A radiant floor heating system will provide baseline heat and comfort for the facility's perimeter zones. The lower temperature radiant floor heating loop (110 degrees F) will be taken from the main hydronic heating system return line. A 3-way control valve will modulate to maintain the radiant floor supply water temperature. The radiant floor circulation system will be provided with primary/standby pumps with variable speed drives (VSD) to match the system demand.

Radiant floor heating zones will be provided around the facility perimeter (approximately 10'-0" in from the exterior wall) on both levels of the facility (approximately 7,500 square feet with 15 separate control zones). Each zone will receive a dedicated cartridge circulation pump with 3-way mixing valve to provide a uniform floor temperature. The radiant floor zones will be open loop controlled to maintain a 60-75 degree F slab temperature (as a function of outside air temperature) to provide baseline "night setback"

temperature heating. The forced air ventilation system zone air terminal units will provide the additional “trim heat” necessary to reach occupied mode zone temperature setpoints.

A separate radiant floor zone will be provided beneath the walk-in refrigerator and freezer and controlled to maintain a constant 40 degrees F slab temperature to prevent frost heaving of the building slab below.

Basis of design for the radiant floor heating system products: Uponor.

Basis of design for central circulator pumps: Taco.

Basis of design for zone circulator pumps: Taco, 00 Series.

Snowmelt:

A hydronic snowmelt system will serve approximately 5,660 SF of exterior sidewalk area. The sidewalks will be sloped to promote drainage. Trench drains will be designed into the sidewalks to prevent ice forming around heated sidewalk boundaries.

Seven (7) separate snowmelt manifold cabinets will distribute heated 50% propylene glycol through multiple PEX tubing loops (5/8” diameter PEX tubing spaced on 6 inch centers) embedded within the concrete sidewalk.

A dedicated snowmelt heating system will include a water-to-glycol brazed plate heat exchanger, primary/standby circulator pumps, expansion tank, coalescing air separator and packaged glycol make-up system.

Packaged snow-melt controls enable circulator pumps based on sidewalk temperature as sensed by an embedded combination temperature/moisture sensor. Control valves modulate to maintain a glycol supply temperature setpoint based on the slab temperature.

Basis of Design equipment is as follows:

- Heat Exchanger – Taco
- Glycol Make-up Tank – Axiom
- Expansion Tank – Amtrol
- Air Separator – Spirotherm
- Pumps – Taco
- Snowmelt Equipment – Uponor

Terminal Heating Units:

Entry vestibules, receiving/staging, mechanical room and grounds equipment storage rooms with potentially high pickup heating loads will include hydronic cabinet unit heaters or unit heaters.

Basis of Design: Modine.

General Building Cooling:

The facility will be cooled using forced air through the central forced air HVAC system consisting of multiple roof top air handling units (RTUs). The RTUs will be equipped with both mechanical DX cooling and 100% economizer cooling during the shoulder seasons.

Telecom & Electrical Rooms:

Telecom rooms (four total) will be provided with dedicated 1.5-ton split-system air-conditioning units. Evaporator sections will be walled mounted within each telecom room. Split condensing units will be remotely located either on roof curbs or within utility spaces which can take advantage of waste heat during the winter months.

Electrical rooms will be cooled by the central ventilation systems.

VENTILATION.

Roof-Top Units & Ducting:

Three (3) roof-top air handling units (RTUs) will be provided to serve the heating, cooling, and indoor air quality needs for the facility. Each RTU will include a mixing box, return air fan array (direct drive VSD controlled), air filtration (MERV-8 prefilter, MERV-14 final filter), DX cooling coil, hydronic heating coil, supply air fan array (direct drive VSD controlled) and discharge plenum. Integrated condensing units provide mechanical cooling to the DX cooling coils. Supply and return fans will be internally spring isolated.

Basis of Design: Aaon.

- RTU-1: Level 1 kitchen, kitchen support, and cafeteria, and Level 2 fitness and multi-purpose rooms – 17,000 CFM
- RTU-2: Level 1 & 2 patient care areas, and Level 2 office and administration areas – 22,000 CFM
- RTU-3: Lobby – 9,000 CFM

Alternate Plan for Roof-Top Units & Ducting

This alternate provides better zone control, but increases first cost. Five (5) roof-top air handling units (RTUs) will be provided to serve the heating, cooling, and indoor air quality

needs for the facility. Each RTU will include a mixing box, return air fan array (direct drive VSD controlled), air filtration (MERV-8 prefilter, MERV-14 final filter), DX cooling coil, hydronic heating coil, supply air fan array (direct drive VSD controlled) and discharge plenum.

Integrated condensing units provide mechanical cooling to the DX cooling coils. Supply and return fans will be internally spring isolated.

Basis of Design: Aaon.

- RTU-1: Level 2 fitness and multi-purpose rooms – 8,000 CFM
- RTU-2: Level 1 kitchen, kitchen support, and cafeteria – 9,000 CFM
- RTU-3: Lobby – 9,000 CFM
- RTU-4: Level 2 office and administration areas – 10,000 CFM
- RTU-5: Level 1 & 2 patient care areas – 12,000 CFM

Medium pressure galvanized steel ductwork will distribute ventilation system supply air to single duct zone variable volume air terminal units with hydronic reheat coils. Supply ductwork will be fully insulated. Low pressure supply ducting downstream of air terminal units will be uninsulated. Return duct systems will be fully ducted, manually balanced, low pressure and uninsulated.

RTU Operation:

The RTUs will provide 55 Deg F (adjustable) supply air to each zone variable air volume (VAV) terminal unit. For zones requiring reheat, VAV terminal units will be equipped with hydronic reheat coils. Reheat coil heating output will modulate VAV discharge air temperature between 55 and 92 Deg F to maintain zone thermostat setpoint temperature. A 55 Deg F supply air temperature allows each zone to operate independently in either heat or cooling mode.

Fan Control:

As the average zone demand for cooling decreases, the VAV terminal unit control dampers will modulate more toward the closed position and the supply duct static pressure will increase above duct static pressure setpoint, assuming supply fan speed remains constant. The supply fan VSD controllers will sense the rise in duct static pressure and reduce supply fan speed to reestablish duct static setpoint pressure, matching ventilation system demand.

Conversely, as cooling demand increases, VAV control dampers open, duct static pressure drops, and fan speed is automatically increased to reestablish duct static setpoint. During

periods of reduced heating and cooling demand, a reduction in fan speed reduces horsepower requirements, conserving energy.

Return Air:

Return air will transfer back to the RTUs through the return air ductwork located above the ceilings and a vertical shaft connecting the plenums between floors. Return air will reenter each RTU above the second-floor ceiling and either be mixed with fresh outside air and recirculated back to the building or be relieved from the building through the RTU dual return/relief fans. Return/relief fan speed is modulated to maintain a constant return/relief damper backpressure (+0.25 in WC setpoint). RTU outside intake and return air dampers are electronically linked and operate to control the outside air intake rate for both indoor air quality and economizer cooling. The building relief air dampers modulate to maintain a slightly positive 0.05 in WC building internal static pressure (adjustable).

Due to the sound sensitive nature of the spaces in this facility, duct mounted supply and return silencers will be provided to limit ventilation system background noise. As the design progresses, silencers will be selected to meet or exceed room NC ratings.

Wind direction varies throughout the year but is predominantly from the northeast to the southwest. Exhaust fan discharge, plumbing VTRs will be strategically located to the west of ventilation system intakes to prevent wind-driven contaminant sources from entering the ventilation system intakes.

General Exhaust Fans & Ducting:

Roof mounted, upblast exhaust fans will be provided for general building exhaust for the facilities toilet rooms, housekeeping rooms, kitchen, locker rooms, laundry room, POC Lab, and PCC Soiled Holding areas. Exhaust systems will be manually balanced, fully ducted, and constant volume. Exhaust ducting will be low velocity and uninsulated. Each exhaust fan will include a motor operated backdraft damper.

Basis of Design: Greenheck CUE.

Commercial Kitchen Type 1 Grease Hood Exhaust Fan and Make-up Air Unit:

The kitchen's Type 1 grease hood will be provided with a dedicated, roof mounted, packaged exhaust fan and gas fired make-up air unit. The kitchen hood will be provided with a manual switch, monitored by the building automation system (see "Building Automation System" section below), which will enable and disable the makeup air unit and exhaust fan. A heat detector, hard-wired to the exhaust fan/make-up air unit, will enable

the equipment upon detection of heat in the event the Users do not enable the equipment via the manual switch.

Basis of Design: Greenheck IGX make-up air unit and CUE exhaust fan.

Supply and exhaust ducting for the kitchen hood will be routed through a rated shaft directly to the roof. It is anticipated the shaft will be directly above the kitchen hood so the exhaust duct will have no offsets or horizontal sections. Supply ducting will be standard G90 zinc coated steel; exhaust ducting will be constructed per IMC for grease duct systems.

Mechanical and Utility Room Ventilation:

The back-of-house utility spaces including mechanical room, receiving/staging, environmental services workroom, and main electrical room will be provided with a dedicated 2,000 CFM ventilation unit with mixing box, MERV-8 filter, hydronic heating coil, and supply fan with electronically commutated (EC) motor. The unit will provide baseline heating and minimum outside air ventilation for the spaces during the winter months and economizer cooling during the warmer months.

Zone Level Ventilation and Temperature Control:

Individual zones will be provided with a dedicated air terminal unit with hydronic reheat coil to maintain space temperature as measured by a zone temperature sensor and sound lined discharge plenum to reduce fan noise transmission into the spaces. Every large room will have individual room zone control. Up to three smaller rooms with similar heating/cooling requirements may be grouped together as a single zone where individual control would be impractical or unnecessary. Concept level estimate is fifty individual temperature control zones.

Basis of Design for the air terminal units is Titus DESV.

As a zone temperature rises above setpoint, its zone VAV terminal unit control damper will modulate open to increase cooling airflow to reestablish setpoint temperature. As zone temperature decreases below setpoint, the VAV control damper modulates closed to its minimum airflow CFM. The minimum airflow for a terminal unit is established based on indoor air quality requirements for the zone. As zone temperature decreases further, the zone VAV reheat coil will raise supply air temperature to heat the zone to achieve setpoint temperature.

Return air from the space will be transferred to the roof-top unit through fully ducted return. Many of the spaces throughout the facility will be “sound sensitive” and will need to be carefully coordinated to limit sound transmission to/from adjacent areas. Return ducting will be laid out to incorporate multiple duct offsets between rooms to avoid direct sound transmission.

BUILDING AUTOMATION SYSTEM (BAS).

General:

The building HVAC and plumbing systems will be controlled using a Direct Digital Control (DDC) BAS using BACNet internet protocol (IP). The BAS will be used for control and monitoring of the following equipment, as a minimum:

- Domestic Hot Water Heaters and Circulation Pump
- Elevator Sump Pump
- Roof Drain, Overflow Roof Drain, and Overflow Downspout Electric Heat Trace
- Boilers (monitor only)
- Hydronic Heating Distribution Pumps
- Radiant Floor Circulation Pumps and Control Valves
- Snowmelt System (monitor only)
- Terminal Heating Equipment
- Split-System Air-Conditioning Units (monitor only)
- Roof-top Units
- General Exhaust Fans
- Kitchen Type 1 Hood Packaged Exhaust Fan and Make-up Air Unit
- Mechanical Room Cooling Fan
- Zone Temperature Monitoring and Control (including air terminal units)
- Standby Generator and Mechanical Load Shedding

The central heating system and roof-top units will be controlled by standard packaged controls provided by those manufacturers. The snowmelt system will be controlled by a Tekmar controller. The controllers will be enabled/disabled, monitored, and setpoints adjusted by the BAS system.

ELECTRICAL NARRATIVE.

Electrical system requirements and design features are described in the individual system narratives below. Special considerations for select areas may also be found within the system narratives. The facility will utilize mass timber construction. In areas subject to high-quality finishes and appearance (e.g. entry lobby, conference rooms, etc.), electrical systems will be carefully designed and coordinated to provide a concealed and aesthetically pleasing installation. Once the new facility has been constructed, the existing facility will be demolished.

CODES AND STANDARDS.

Codes:

Applicable Codes include, but are not limited to, the following:

- 2018 International Building Code (IBC)
- 2018 International Mechanical Code (IMC)
- 2018 International Fire Code (IFC)
- 2020 National Electric Code (NEC)

Standards:

Applicable Standards include, but are not limited to, the following:

- Illuminating Engineering Society of North America, IESNA
- National Electrical Contractors Association - NECA
- National Electrical Manufacturers' Association - NEMA
- National Fire Protection Association - NFPA
- TIA Telecommunications Standards

BASIC MATERIALS AND METHODS.

The following types of conduits will be used on this project:

- a) Galvanized rigid steel conduit - GRC
- b) Intermediate metal conduit - IMC
- c) Rigid copper-free aluminum conduit
- d) Electrical metallic tubing - EMT
- e) Schedule 40, polyvinyl chloride conduit - PVC (underslab and corrosive areas only)
- f) Flexible metallic conduit
- g) Liquid-tight flexible metallic conduit - LT

h) Special types as appropriate

Feeder conductors will be copper, branch circuit conductors will be copper. Indoor conductors will have Type THHN/THWN insulation. Outdoor conductors will have Type XHHW or XHHW-2 insulation. Conduit will be used for wiring to branch circuit devices and fixtures, and home runs.

Panelboard assemblies will be enclosed in steel cabinets. The panelboard interior assembly will be dead front with panelboard front removed. Panelboard "door-in-door" construction will be specified. Spare conduits will be stubbed into accessible ceiling space from all flush mounted panels. Molded case circuit breakers will be suitable for individual as well as panelboard mounting. Bolt-in type only. No breakers designated "plug-on" type will be specified.

All motors will conform to the governing NEMA Standards and ASA Form C-50 for rotating machinery. High efficiency electric motors will be used for energy conservation. Solid state or variable-speed motor starters will be examined during the design and included where they are appropriate.

H.O.A. switches and pilot lights will be provided for all starters to allow interface to the building automation system, if required.

Service, feeder, and branch circuit conductors throughout the secondary electrical system will be color coded per (National Electrical Code) NEC requirements. Equipment identification will be provided based on industry standards and adjusted to Owner preferences as coordinated during the design process.

SITE ELECTRICAL.

Incoming Service:

The building will be served at 480Y/277 volts, 3 phase, 4 wires by Chugach Electrical Association (CEA). The incoming service will be fed below grade to a service transformer located to the southeast of the building. From the transformer, the service lateral conductors will run below grade to an exterior pad mounted Current Transformer (CT) and main disconnect enclosure located on the south exterior of the building. The utility meter will be located in the CT enclosure. The main disconnect will be service rated and comply with NEC Article 230 and CEA requirements.

Site Lighting:

Site lighting will be furnished in accordance with the Illuminating Engineering Society of North America (IESNA) Lighting Library. The exterior lighting will be comprised of 30 foot poles with single or double light fixture configurations for parking, vehicle traffic areas, pedestrian walkways and pedestrian area lighting. Pole heights and configurations will be selected to accommodate the site configuration. Exterior fixture supports and pole assemblies will be capable of withstanding 100 mph winds with 130 mph gusts with no damage. Exterior building mounted fixtures will be used to supplement site lighting as required. All exterior fixtures will use LED lamps for increased efficiency, minimal maintenance, and superior light distribution.

ELECTRICAL SERVICE AND DISTRIBUTION.

Main Distribution:

Preliminary load calculations estimate the size of the Main Distribution Switchboard at 1,000 Amps, 480Y/277 Volts. The switchboard will be located in a dedicated main electrical room located on the first level. The main switchboard will distribute power to satellite electrical rooms located on each level.

The building will be served at 480Y/277 volts, 3 phase, 4 wires. Dedicated dry type step down transformers will be provided in each electrical room to derive 208Y/120V power for required loads.

Two levels of surge protective devices (SPD) will be implemented to help protect the facility from utility grid surges and from internally generated voltage transients. SPDs will be provided in the MDP and branch circuit panelboards.

480Y/277V power will typically be utilized for:

- 3 phase motors/compressors
- Equipment requiring 480V or 277V power
- Elevators
- Lighting (277V)

208Y/120V power will typically be utilized for:

- Receptacles
- Equipment requiring 208V or 120V power
- Utilization equipment

Head bolt heater receptacles are not required, but several head bolt “like” receptacles will be provided for bed bug heaters. Approximately four (4) dedicated exterior receptacles will be required for this purpose.

Heat trace, heat trace connections, control contactor(s), and ground fault equipment protection circuit breakers to be provide for approximately sixteen (16) roof drain locations. Approximately five (5) feet of heat trace required at each location.

On-site Renewable Energy:

A possible Photovoltaic (PV) array will be provided on the roof of the building to produce on-site renewable energy. Additionally a series of PV panels will be considered on the south elevation of the building. The PV array will be sized at a minimum of 20 kW and be connected to the utility’s grid in accordance with CEA’s design standards, no battery storage will be provided.

On-site Generation System: Option #1

A level 2, type 10, class 36 onsite diesel-powered generation system will be provided. The generator will provide power to the entire building via an optional standby automatic transfer switch (NEC Article 702).

The generator is preliminarily sized at 250 kW with 3 phase, 4 wire output at 480Y/277 volts. There is approximately 25 percent spare capacity for additional loads on the generator if required in the future.

The generator will be located on the south side of the building in a weatherproof “skin-tight” enclosure and fueled by an integral tank capable of powering the entire building for a minimum of 36 hrs. The enclosure will provide sound attenuation suitable for the area in which it is installed.

On-site Generation System: Option #2

The existing 80kW 208Y/120V generator will be relocated and reused to provide optional stand-by power to select plug loads in the new facility. A separate stand-by branch consisting of a 400A automatic transfer switch (ATS-S), 400A distribution panel, and four (4) 100A branch circuit panels distributed to the electrical rooms will be provided.

Grounding:

An equipotential plane for the grounding system at the service entrance equipment will be provided in accordance with NEC Article 250. The raceway system will be bonded in conformity with NEC requirements to provide a continuous ground path. A grounding conductor will be provided in each power wiring raceway in conformity with Table 250.122 of NEC.

LIGHTING SYSTEMS.

General:

Interior lighting will be furnished in accordance with the latest edition of the Illuminating Engineering Society of North America (IESNA) Lighting Library.

LED fixtures with 0-10V dimming capability will be employed in interior spaces. Grid mounted LED fixtures will be used to provide general illumination in patient and staff areas. A variety of LED fixtures will be used to distribute light in a controlled way that will complement the architecture in spaces with specific lighting requirements.

LED fixtures will be provided with a color temperature of 3500K and a high color rendering index.

Lighting by Area:

The following are general lighting concepts for each area of the building.

Corridors: Suspended and ceiling mounted LED fixtures will be used to illuminate corridors. Lighting will be controlled on and off via a time clock with override switches located in the reception area.

Lobby and Waiting Room: LED downlights will be used for general illumination. Specialty LED fixtures and accent light fixtures will be considered for illumination of architectural features and artwork. Similar to corridors, lighting will be controlled on and off via a time clock with override switches located in the reception area.

Counseling and Therapy Rooms: Where extra consideration for a person's emotional state and/or subjectivity to sensory input is warranted, tunable white LED lighting fixtures will be provided. The Correlated Color Temperature (CCT) range shall span from 2700K to 4000K minimum. A single gang switch that incorporates both dimming and color tuning functionality shall be provided in each space.

Selected fixtures in the corridors will be "nightlights" and will be non-switched to meet emergency egress lighting requirements. Other emergency fixtures will be located in egress pathways, bathrooms, assembly areas, mechanical rooms, electrical rooms, and select other areas as determined during design. Exit signs will also be unswitched and be provided as required by Code. Emergency lighting fixtures will be provided with integral emergency battery packs to provide Code required egress lighting. For switched emergency lighting, under normal circumstances, the fixtures will be switched along with the other room fixtures, but during a power failure the emergency fixtures will fail "ON".

SPECIAL SYSTEMS.

Fire Alarm System:

An electrically operated, electrically supervised analog addressable fire alarm system, designed around an Edwards System Technology (EST4) system, will be provided. The system will comply with the applicable provisions of the current NFPA Standard 72 National Fire Alarm Code, local building codes, and meet requirements by Underwriters Laboratories Inc. and/or the Factory Mutual System.

Fire Alarm System wiring will be in accordance with Article 760 of the NEC and local electrical codes. Wiring for the Fire Alarm System will be in raceways.

The system will operate as a low voltage, non-coded general evacuation fire alarm system. Initiating circuits will be wired as two-wire, Class B.

Alarms will be annunciated at the fire alarm annunciator panel located in the main entry. A complete building floor plan showing alarm zones oriented to the physical location of the panel including "You Are Here" notation will be provided at the annunciator location.

Manual pull stations will be provided at every exit from every level and additional pull stations will be provided as required to ensure the travel distance to the nearest pull station does not exceed 200 feet per the International Fire Code (IFC).

Both audible and visual alarms will be provided throughout the facility to meet the requirements of the International Fire Code. Audio-visual units with combination horn and flashing alarm strobe will be used to annunciate alarms.

Smoke and heat detection will not be provided except as noted below:

- a) Smoke detectors will be installed in mechanical supply and return air ducts in accordance with International Mechanical Code (IMC) requirements.
- b) Area and spot smoke detectors to control combination Fire Smoke Dampers (if required) will be installed per the International Building Code (IBC) and IFC requirements.

Sprinkler flow and tamper switches will be monitored to indicate flow in any part of the system or a partial or complete shutdown of the system at the gate valves.

Air handling units will be shut down and smoke/fire dampers will close upon alarm.

Access Control System:

An access control system, designed around Lenel, will be provided to monitor controlled areas and exterior entrances to the facility and to allow for limited access to certain areas of the building. Door contacts will be provided on exterior doors to monitor access outside of business hours. Multi-technology proximity card readers will be installed at exterior doors and select interior doors to limit access to spaces as required. A timeclock will also be used to allow select doors to be unlocked during business hours.

Exact locations will be coordinated during the design process. The system is anticipated to be comprised of approximately five (5) exterior perimeter doors and eight (8) access-controlled doors per floor for a total of twenty-one (21) doors.

Intrusion Detection System:

An intrusion detection system will be provided, designed around Bosch. The system will be limited to door contacts, keypads at maintenance entrances, and motion detectors for coverage of hallways, lobbies and waiting areas. The intrusion detection system shall integrate with the Lenel access control system.

Video Surveillance System (VSS):

Multi-megapixel cameras, design around the Avigilon H6 series system, will be provided in sufficient quantities and resolutions to provide full coverage of the parking areas and select common area interior spaces. Exterior cameras will also be provided on the building to monitor building entrances and exits. Exact camera locations and areas covered will be coordinated during subsequent design phases. The system is anticipated to be comprised of approximately eight (8), 5-megapixel, exterior, weatherproof and heated, cameras with a

combination of pole and building mounted cameras, and ten (10) interior 3-megapixel cameras mounted to the ceiling. A complete system with video management software, workstations, and 30-day storage will be provided.

Telephone/Data Service Entrance:

A pathway only system will be provided for copper and fiber service entrance cabling, routed below grade from the serving utility pedestal to the Main Telecommunications Room (MTR) room located on level 1.

Fiber optic and copper cabling, provided by the serving utility(s), will be routed to the MTR via two 4-inch conduits. The copper cabling will terminate on wall mounted protector blocks and fiber optic cabling will terminate on fiber optic patch panels located in the telecom racks. The serving utility will be determined by the owner and coordinated during the next design phase.

Standards:

The building will be designed to ANSI-TIA Category 6A network performance using unshielded twisted pair products. The system will be provided in accordance with the latest TIA standards for telecommunication. The facility will be wired with a uniform cabling plan. All telecommunication wiring shall be the same to provide flexibility.

Overview:

The system will include outlets, conduit, cable trays, cables, terminations, specifying test documentation and other "passive" components. A partial system description includes:

- a) Telecommunication outlets throughout the building for connection to phones and computers.
- b) Horizontal cabling from the outlets to the modular patch panels in the Main Telecom Room (MTR) and satellite Telecom Rooms (TRs).
- c) Patch panels mounted in telecom racks in the MTR and TRs.

Telecommunication cabling homeruns will be run in wire mesh cable tray. Cabling to outlets will be in conduit and stubbed to nearest cable tray.

A minimum of 6 strands of multimode and 6 strands of single mode optical fiber cabling will be routed between each TR and MTR.

Main Telecommunications Room (MTR):

The MTR will be located on level 1 and serve as the main hub for the telecommunications systems for the facility. The MTR will contain the following:

- a) Data and voice modular patch panels
- b) Fiber optic modular patch panels
- c) Voice riser terminations
- d) Data Network switches (Owner provided)
- e) Data Network active equipment (Owner provided)
- f) Network Patch Cords

The MTR will be the homerun location for telecommunication cabling originating on the level 1.

Telecommunications Rooms:

Telecommunications rooms (TR) will be located on each level of the building. The TRs will serve as secondary hubs for the telecommunication systems and will contain the following:

- a) Data and voice modular patch panels
- b) Fiber optic modular patch panels
- c) Voice riser terminations
- d) Data network switches (Owner provided)
- e) Data network active equipment (Owner provided)
- f) Network patch cords

The TRs will be the homerun location for telecommunication cabling originating on their respective level.

PA/Sound Systems:

A full coverage PA system will be provided throughout the building. The system will be integrated with owner's provided phone system. Currently the system is intended to be specified and designed around Biamp.

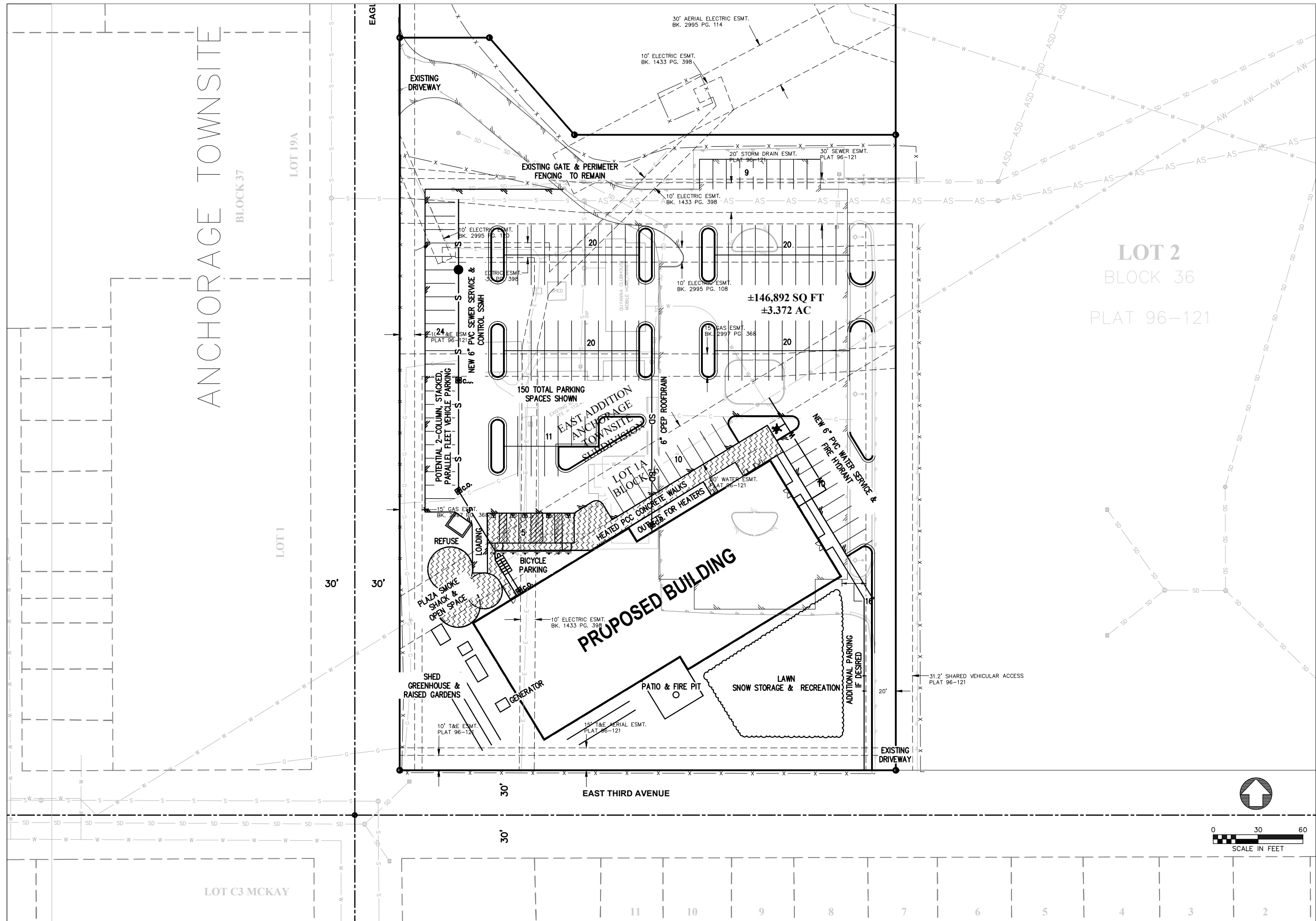
Audio/Video Systems (A/V):

Equipment and wiring for A/V Systems will be owner provided as part of the furniture, fixtures, and equipment (FF&E) budget. Empty conduit pathway, junction boxes, and related power and telecommunications infrastructure will be provided for Audio/Video Systems in Conference rooms and other like spaces.

Duress System:

A duress system will be provided at selected areas as determined by the owner; ten (10) locations are assumed to be required. The system will integrate discretely located, wireless, duress buttons into the ACS and video surveillance systems to provide notification to security personnel during a duress situation.

APPENDIX A: DRAWINGS



ANCHORAGE TOWNSITE

BLOCK 37

LOT 19A

LOT 1

LOT C3 MCKAY

LOT 2
BLOCK 36
PLAT 96-121

PROPOSED BUILDING

±146,892 SQ FT
±3.372 AC

150 TOTAL PARKING SPACES SHOWN

EAST ADDITION ANCHORAGE TOWNSITE SUBDIVISION

SHED GREENHOUSE & RAISED GARDENS

GENERATOR

PATIO & FIRE PIT

LAWN SNOW STORAGE & RECREATION

ADDITIONAL PARKING IF DESIRED

PLAZA SMOKE SHACK & OPEN SPACE

BICYCLE PARKING

HEATED PCC CONCRETE WALKS

OUTLETS FOR HEATERS

EXISTING DRIVEWAY

EXISTING GATE & PERIMETER FENCING TO REMAIN

EXISTING DRIVEWAY

EAST THIRD AVENUE



CONCEPT DESIGN
NOT FOR
CONSTRUCTION

CERTIFICATE OF AUTHORIZATION NO:
EBSC ENGINEERING, LLC #AECL1635

sparkdesign, llc
11301 OLIVE LN. ANCHORAGE AK 99515
Phone: 222-085 Fax: 222-5210
www.ebscengineering.com

QUYANA CLUBHOUSE
ANCHORAGE, ALASKA

No.	Revision	Date

JOB NO. 10.24.2024
DATE LDM
DRAWN LDM
REVIEWED LDM

SHEET NAME
10% CONCEPT
CIVIL SITE PLAN

SHEET NO.
C1.0

LANDSCAPE CODE NOTES

ZONING/ USE: B-2C / CENTRAL BUSINESS DISTRICT, PERIPHERY

NORTH BOUNDARY: PLI

EAST BOUNDARY: B-2C

SOUTH BOUNDARY: E 3RD AVE

WEST BOUNDARY: EAGLE ST

PARKING LOT PERIMETER LANDSCAPING

VISUAL ENHANCEMENT LANDSCAPING SHALL BE PLANTED ON THE PERIMETER OF THE PARKING AREA ABUTTING A LOT LINE, OR A SCREEN FENCING SHALL BE PLACED ON THE PERIMETER OF THE PARKING AREA ABUTTING A LOT LINE AND AN AREA EQUAL TO AT LEAST FIVE PERCENT OF THE PAVED SURFACE OF THE PARKING AREA, INCLUDING PARKING CIRCULATION AISLES AND APPURTENANT DRIVEWAYS, SHALL BE DEVOTED TO PARKING LOT INTERIOR LANDSCAPING. EXCEPTIONS ARE:

- i. AT APPROVED POINTS OF PEDESTRIAN AND VEHICLE ACCESS
- ii. ADJACENT TO LOTS BEING DEVELOPED UNDER A COMMON DEVELOPMENT PLAN, WHERE THE DIRECTOR WAIVES THE REQUIREMENT.

A FOUNDATION PLANTING BED OR WALKWAY, OR BOTH, AT LEAST FOUR FEET WIDE SHALL SEPARATE THE PARKING AREA, INCLUDING CIRCULATION AISLES AND APPURTENANT DRIVEWAYS, FROM ANY BUILDING ON THE SAME LOT.

PARKING LOT INTERIOR LANDSCAPING

PARKING LOT INTERIOR LANDSCAPING SHALL BE PLANTED WITHIN THE INTERIOR OF A PARKING LOT CONTAINING MORE THAN 60 SPACES. THE AREA DEVOTED TO PARKING LOT INTERIOR LANDSCAPING SHALL EQUAL AT LEAST FIVE PERCENT OF THE PAVED SURFACE OF THE PARKING AREA INCLUDING PARKING CIRCULATION AISLES AND APPURTENANT DRIVEWAYS.

1 TREE AND 6 SHRUBS PER 150 SQUARE FEET REQUIRED
5147 SF OF PARKING LOT INTERIOR LANDSCAPING PROVIDED
34 TREES & 206 SHRUBS REQUIRED

VISUAL ENHANCEMENT LANDSCAPING (L1)

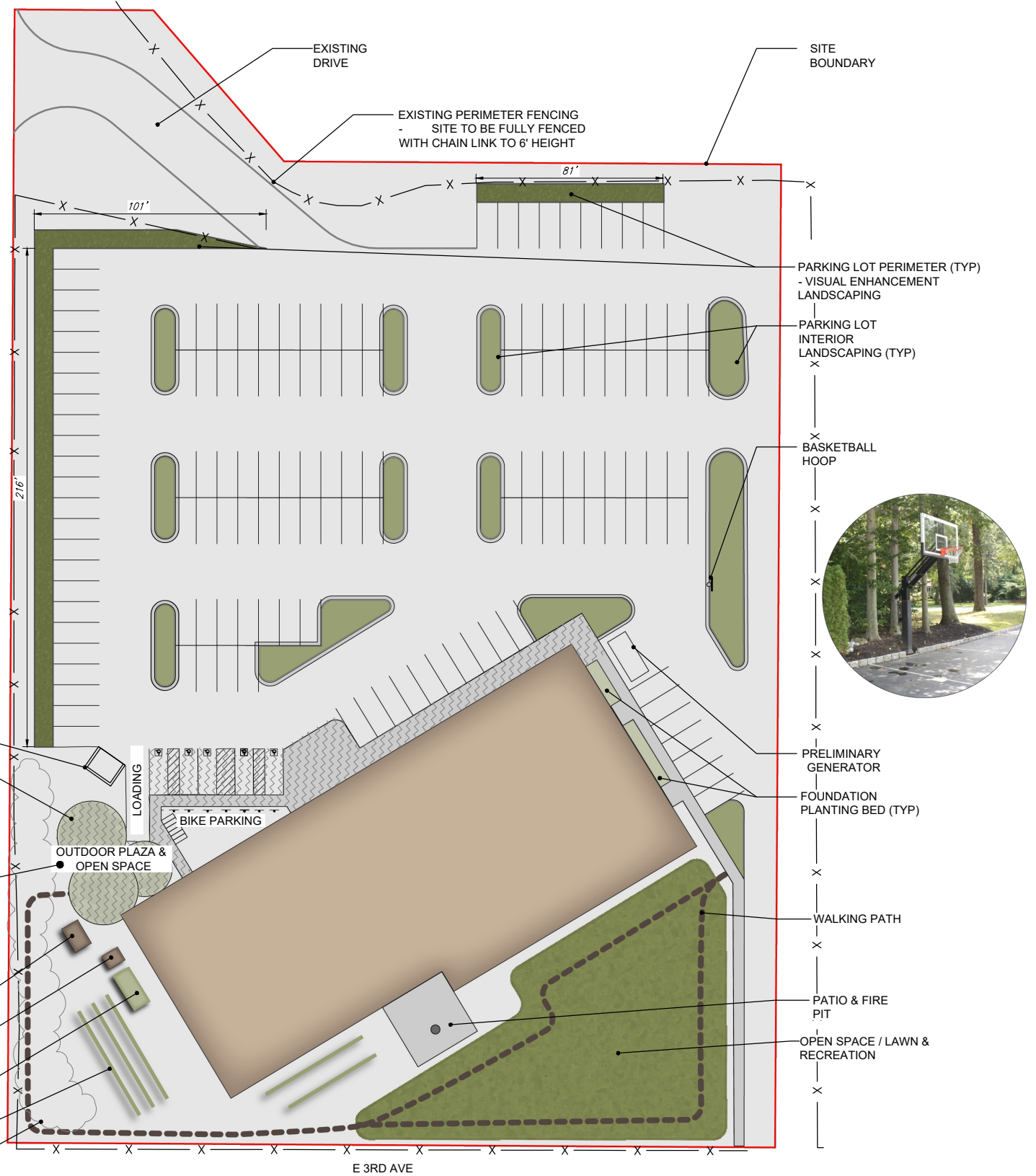
MINIMUM AVERAGE PLANTING BED WIDTH: 8 FT AS MEASURED FOR EACH LEG OF THE PERIMETER. MINIMUM PLANTING BED WIDTH: 5 FT. NO MORE THAN ONE-HALF THE PROPERTY LINE LENGTH OR 50 FT, WHICHEVER IS LESS, MAY HAVE A PLANTING BED WIDTH LESS THAN 8 FT IN WIDTH. THE MAXIMUM BED WIDTH USED FOR THE CALCULATION OF AVERAGE BED WIDTH MAY NOT BE GREATER THAN 12 FT.

1 TREE AND 6 SHRUBS EVERY 20 LINEAR FEET
398 LF OF PARKING LOT PERIMETER LANDSCAPING PROVIDED
20 TREES & 119 SHRUBS REQUIRED

SITE PERIMETER AND PARKING LOT PERIMETER LANDSCAPING				
	NORTH	EAST	SOUTH	WEST
ONSITE ZONING	B-2C	B-2C	B-2C	B-2C
NEIGHBORING PROP.	PLI	B-2C	E 3RD AVE (MINOR ARTERIAL)	EAGLE ST (LOCAL)
APPLICABLE LANDSCAPE REQUIREMENT	PARKING LOT PERIMETER & INTERIOR	PARKING LOT INTERIOR	NONE	PARKING LOT PERIMETER & INTERIOR
TYPE OF LANDSCAPE (REQUIRED)	L1	L1	NONE	L1
TYPE OF LANDSCAPE (PROPOSED)	L1	L1	OPEN SPACE	L1
EXISTING VEGETATION				WOODLAND
LINEAR FEET	182	NONE	NONE	216
REQ'D TREES/SHRUBS	9 TREES 54 SHRUBS	NONE	NONE	11 TREES 65 SHRUBS



PLAZA ELEMENTS:
SEATING
HARDSCAPE PLAZA
NATIVE PLANTINGS
LIGHTING



CERTIFICATE OF AUTHORIZATION NO:
HUDDLE AK, LLC #AECL 1611

spark design, llc
HUDDLE
605 W 2nd Avenue, ANCHORAGE, AK 99501
907-223-0136 www.HUDDLEAK.com
AECL1611

QUYANA CLUBHOUSE
ANCHORAGE, ALASKA

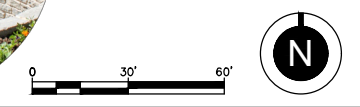
JOB NO. 10.24.2024
DATE
DRAWN PAG
REVIEWED LKB

SHEET NAME
CODE NOTES & SITE PLAN

SHEET NO.
L1.0

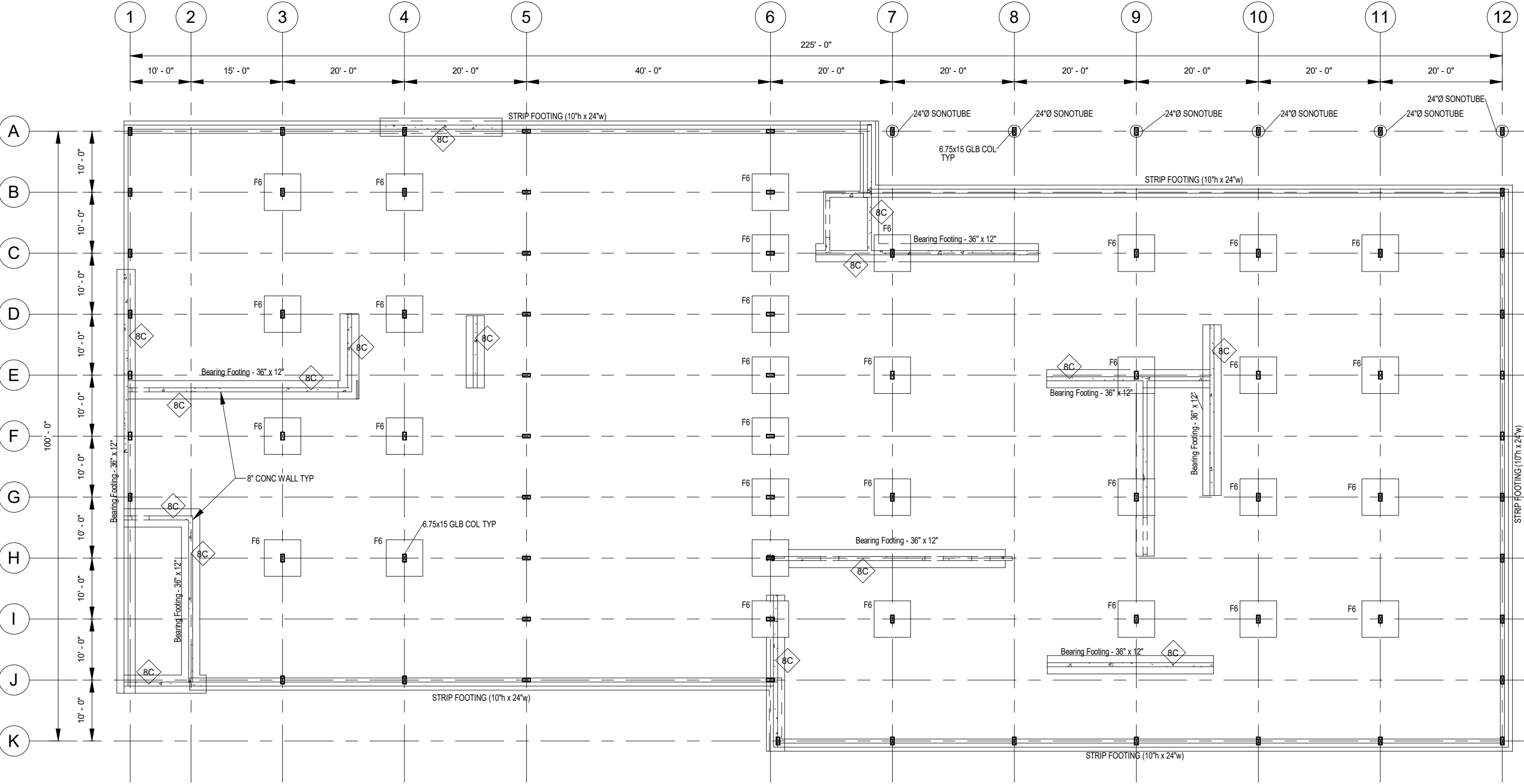
HALF SCALE WHEN PRINTED AT 11x17

10% DESIGN



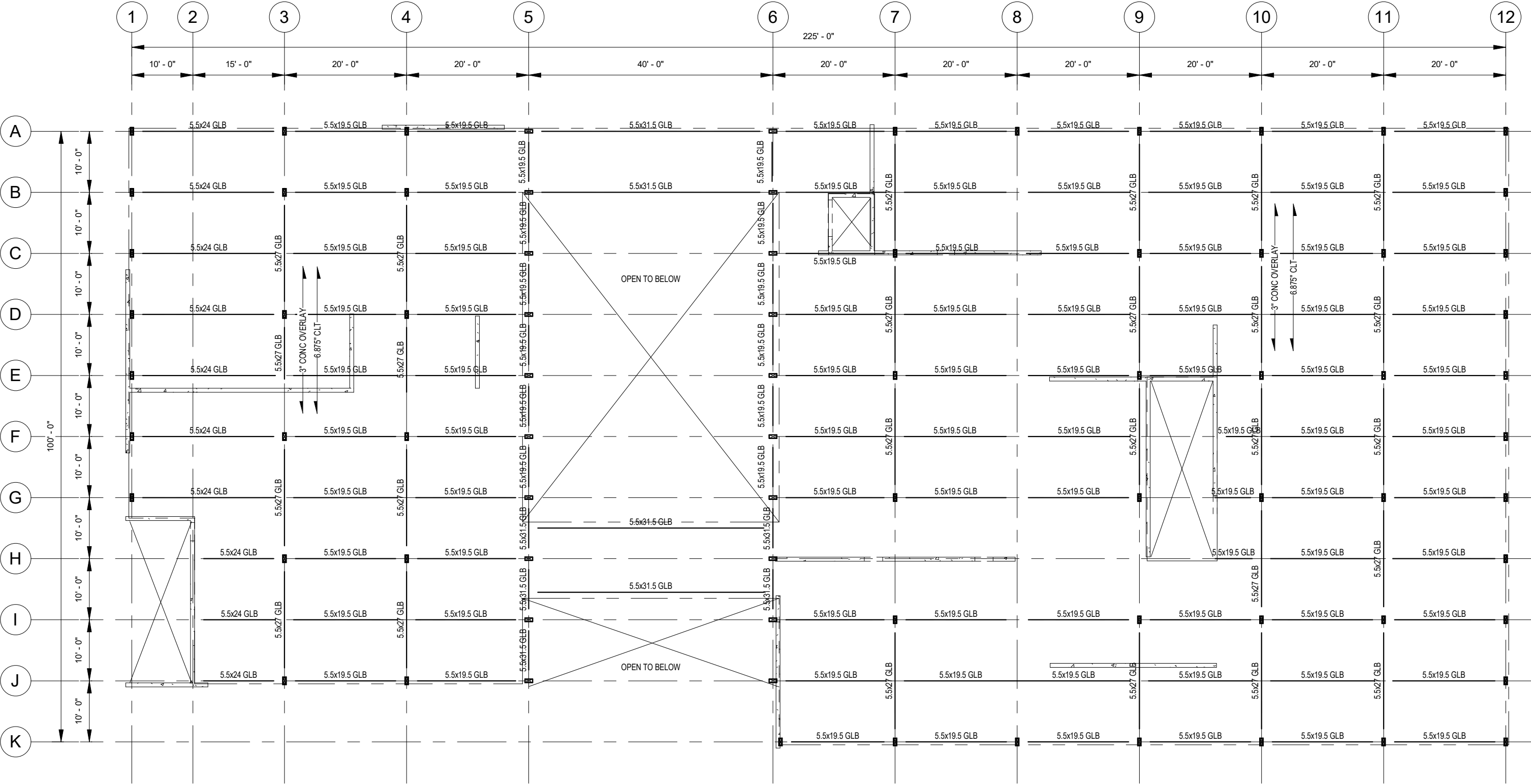
SCF Quayana Clubhouse

CONCEPT FOUNDATION PLAN



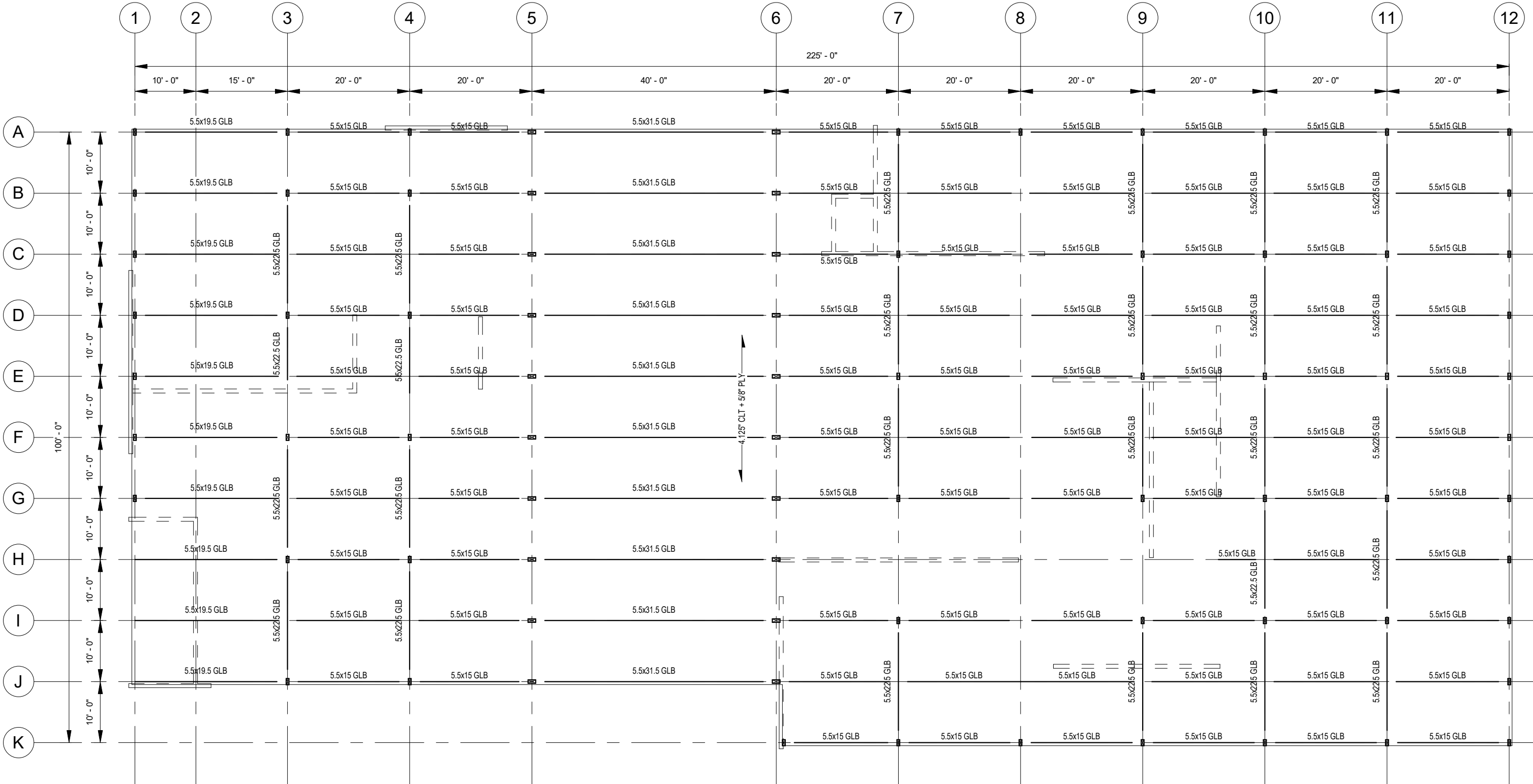
SCF Quyuana Clubhouse

CONCEPT FRAMING PLAN LEVEL 1



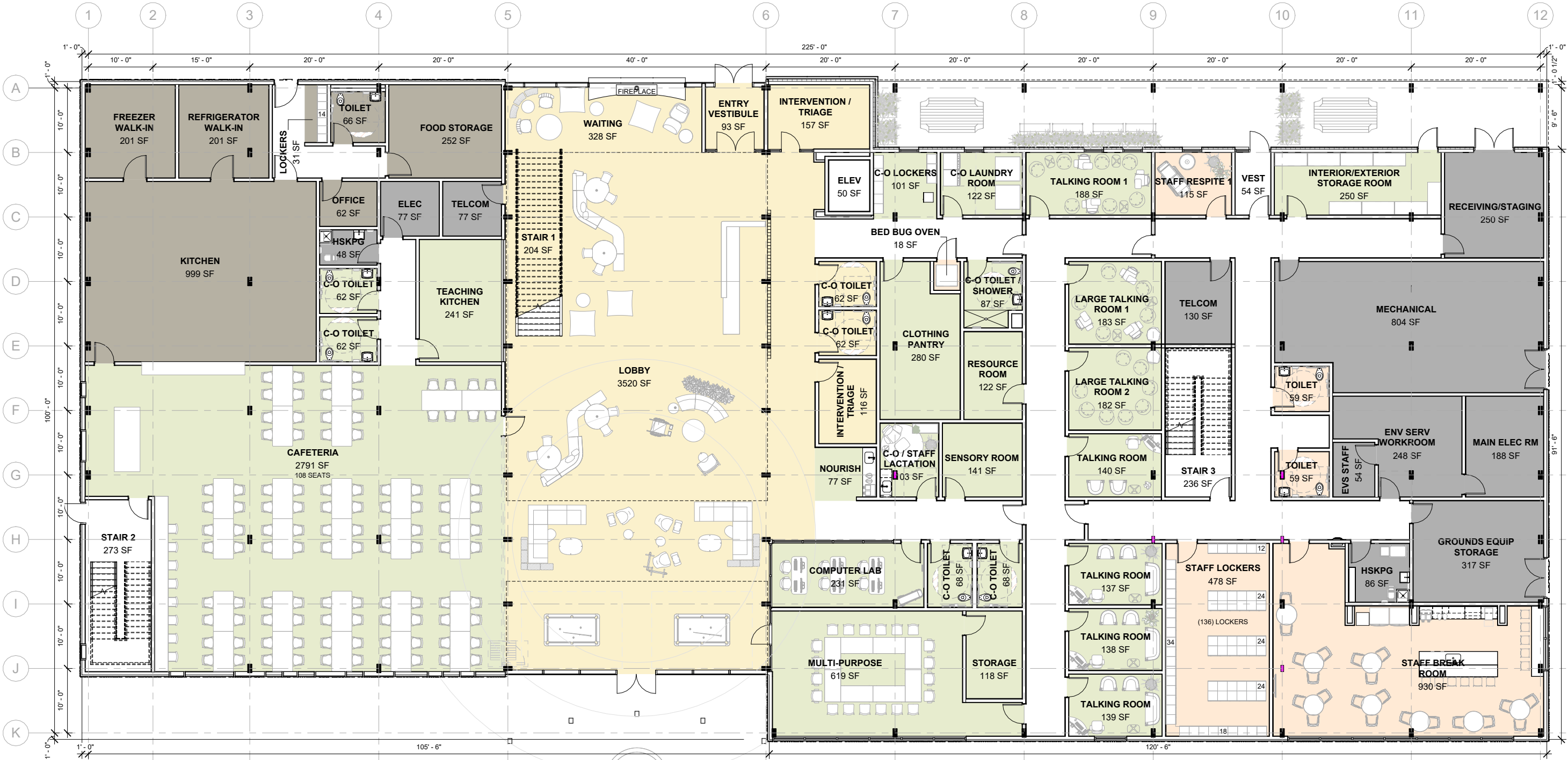
SCF Quayana Clubhouse

CONCEPT ROOF FRAMING PLAN



SCF Quayana Clubhouse

CONCEPT FLOOR PLAN LEVEL 1



GROSS SQUARE FOOTAGE:
 LEVEL 1: 22,089 GSF
 LEVEL 2: 22,089 GSF
 TOTAL: 44,178 GSF

NET SQUARE FOOTAGE:
 LEVEL 1: 20,658 NSF
 LEVEL 2: 21,116 NSF
 TOTAL: 41,774 NSF

SCALE: 1/8" = 1'-0"
 Date 10.21.2024
 HALF-SCALE WHEN PRINTED AT 11x17

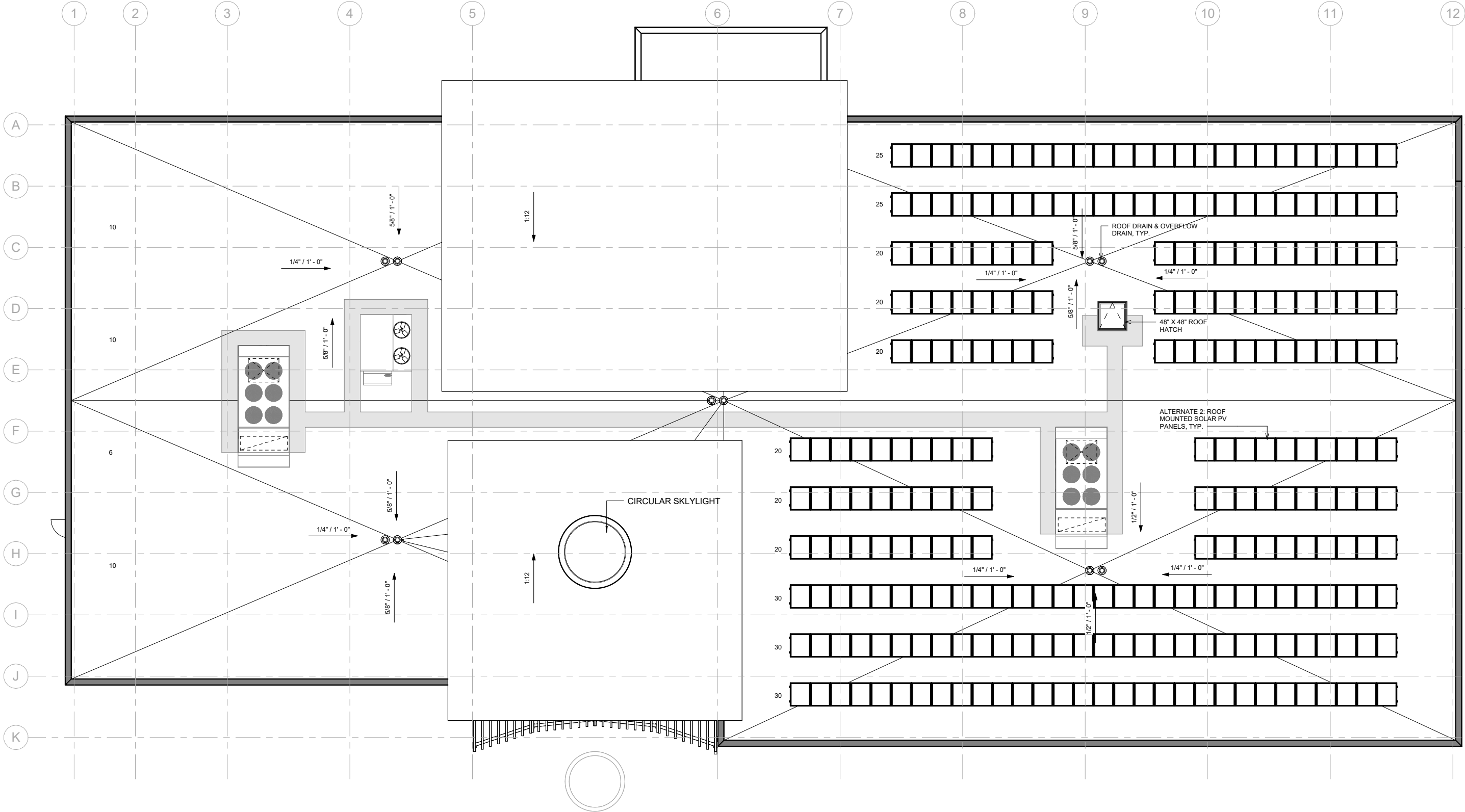
SCF Quayana Clubhouse

CONCEPT FLOOR PLAN LEVEL 2



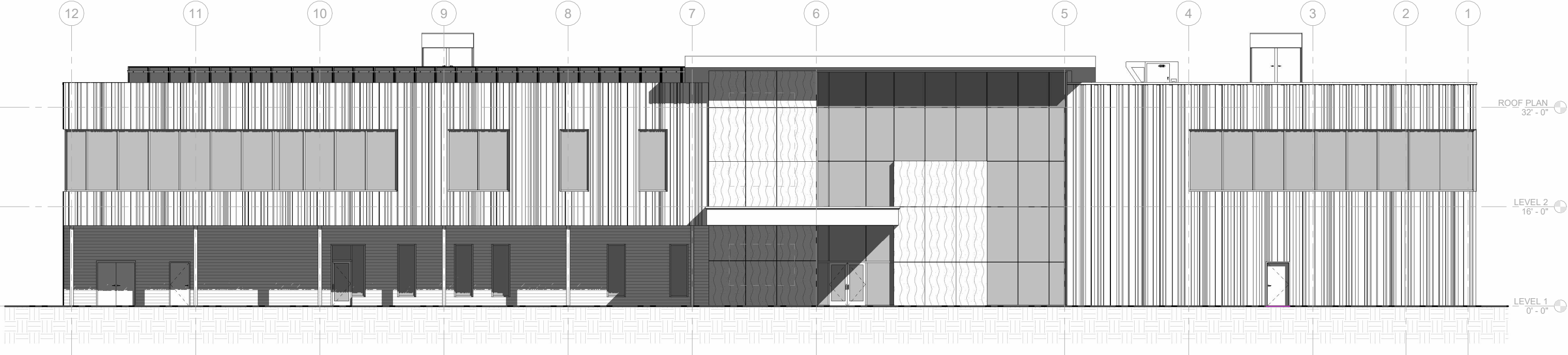
SCF Quayana Clubhouse

ROOF PLAN

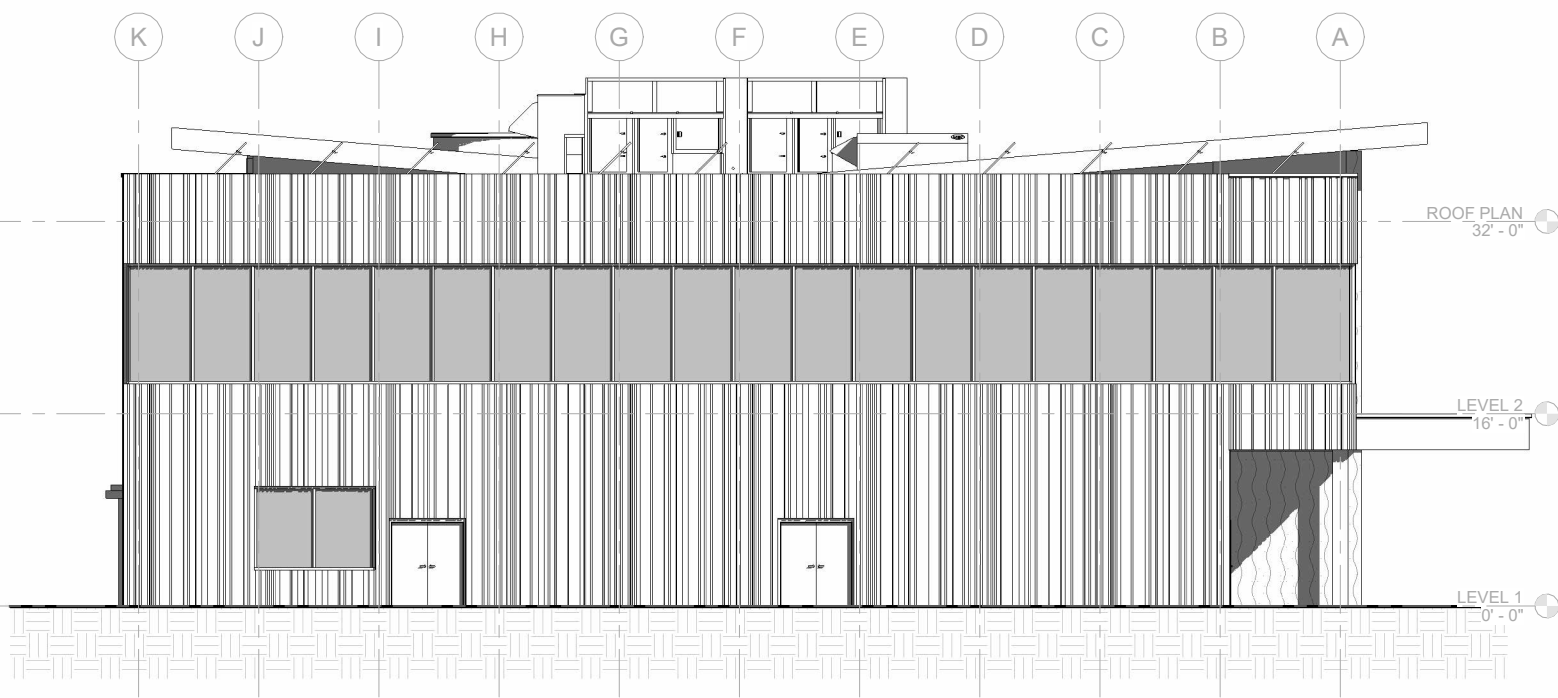


SCF Quayana Clubhouse

CONCEPT - EXTERIOR ELEVATIONS








1 NORTH ELEVATION
1/8" = 1'-0"



2 EAST ELEVATION
1/8" = 1'-0"

EXTERIOR ELEVATION LEGEND

-  **HORIZONTAL WOOD SIDING**
WD1: MFG: CUSTOM ALASKAN YELLOW CEDAR
STYLE: STAINED
COLOR: TBD
BOARD WIDTH: 6"
LENGTH: AS SHOWN ON ELEVATIONS
-  **METAL PANEL**
MP1: MFG: AEP SPAN OR EQUAL, CLIP SYSTEM
STYLE: FLEX SERIES WITH STANDOFF CLIP
COLOR: REGAL WHITE
PANEL WIDTH: 12"
LENGTH: AS SHOWN ON ELEVATIONS
THICKNESS: 18 GA
PROFILE: RECTANGULAR PROFILE LAYOUT CONSISTING OF 4 DIFFERENT PROFILES, NO BEVELS ETC.
-  **STONE PANEL**
SP1: MFG: NEOLITH STONE PANEL
STYLE: SINTERED STONE PANEL
COLOR: TBD
PANEL WIDTH: CUSTOM
LENGTH: CUSTOM
THICKNESS: 3/4" AT NORTH ELEVATION
THICKNESS: 3/8" AT EAST & WEST ELEVATIONS
REVEAL: AS SHOWN ON ELEVATIONS
ETCHED GRAPHICS: AS INDICATED ON NORTH ELEVATION BY DASHED LINES
-  **ENTRY CANOPY & ROOF SOFFIT WOOD CLADDING**
WD2: MFG: CUSTOM ALASKAN YELLOW CEDAR
STYLE: STAINED
COLOR: TBD
BOARD WIDTH: 6"
LENGTH: AS SHOWN ON ELEVATIONS
-  **ENTRY CANOPY & ROOF FASCIA PANELS**
PLP1: MFG: TO BE DETERMINED, FIBER RESIN, PARKLEX OR EQUAL
STYLE: PHENOLIC RESIN PANEL
COLOR:
PANEL WIDTH: CUSTOM
LENGTH: CUSTOM
THICKNESS: 3/8"
REVEAL: AS SHOWN ON ELEVATIONS

ALTERNATE 1 MP1

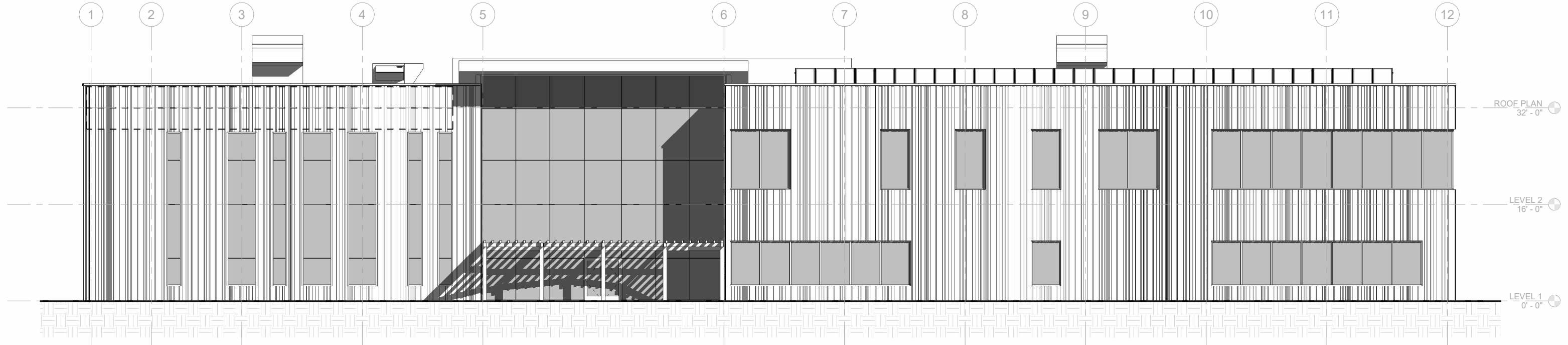
-  **METAL PANEL**
MP1: MFG: KINGPAN
STYLE: QUADCORE OPTIMO
COLOR: CHAMPAGNE BRONZE
PANEL WIDTH: VARIES PER LOCATION
LENGTH: AS SHOWN ON ELEVATIONS
THICKNESS: 4"

ALTERNATE 2 SOLAR PV PANELS

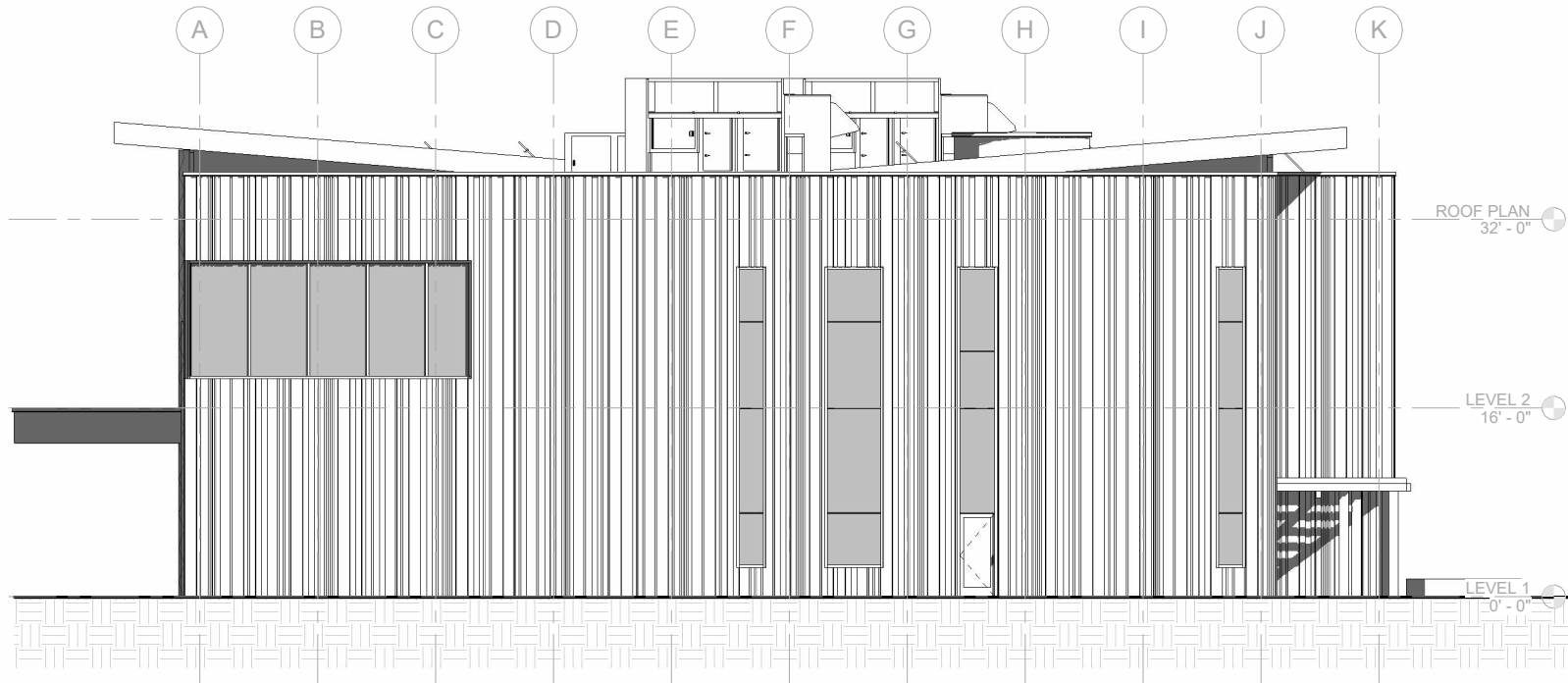
-  **WALL MOUNTED PV SOLAR PANEL**
REFER TO ROOF PLAN FOR ROOF MOUNTED PANELS
MFG: TO BE DETERMINED

SCF Quayana Clubhouse

CONCEPT - EXTERIOR ELEVATIONS








1 SOUTH ELEVATION
1/8" = 1'-0"



2 WEST ELEVATION
1/8" = 1'-0"

EXTERIOR ELEVATION LEGEND

-  HORIZONTAL WOOD SIDING
WD1: MFG: CUSTOM ALASKAN YELLOW CEDAR
STYLE: STAINED
COLOR: TBD
BOARD WIDTH: 6"
LENGTH: AS SHOWN ON ELEVATIONS
-  METAL PANEL
MP1: MFG: AEP SPAN OR EQUAL, CLIP SYSTEM
STYLE: FLEX SERIES WITH STANDOFF CLIP
COLOR: REGAL WHITE
PANEL WIDTH: 12"
LENGTH: AS SHOWN ON ELEVATIONS
THICKNESS: 18 GA
PROFILE: RECTANGULAR PROFILE LAYOUT CONSISTING OF 4 DIFFERENT PROFILES, NO BEVELS ETC.
-  STONE PANEL
SP1: MFG: NEOLITH STONE PANEL
STYLE: SINTERED STONE PANEL
COLOR: TBD
PANEL WIDTH: CUSTOM
LENGTH: CUSTOM
THICKNESS: 3/4" AT NORTH ELEVATION
THICKNESS: 3/8" AT EAST & WEST ELEVATIONS
REVEAL: AS SHOWN ON ELEVATIONS
ETCHED GRAPHICS: AS INDICATED ON NORTH ELEVATION BY DASHED LINES
-  ENTRY CANOPY & ROOF SOFFIT WOOD CLADDING
WD2: MFG: CUSTOM ALASKAN YELLOW CEDAR
STYLE: STAINED
COLOR: TBD
BOARD WIDTH: 6"
LENGTH: AS SHOWN ON ELEVATIONS
-  ENTRY CANOPY & ROOF FASCIA PANELS
PLP1: MFG: TO BE DETERMINED, FIBER RESIN, PARKLEX OR EQUAL
STYLE: PHENOLIC RESIN PANEL
COLOR: TBD
PANEL WIDTH: CUSTOM
LENGTH: CUSTOM
THICKNESS: 3/8"
REVEAL: AS SHOWN ON ELEVATIONS

ALTERNATE 1 MP1

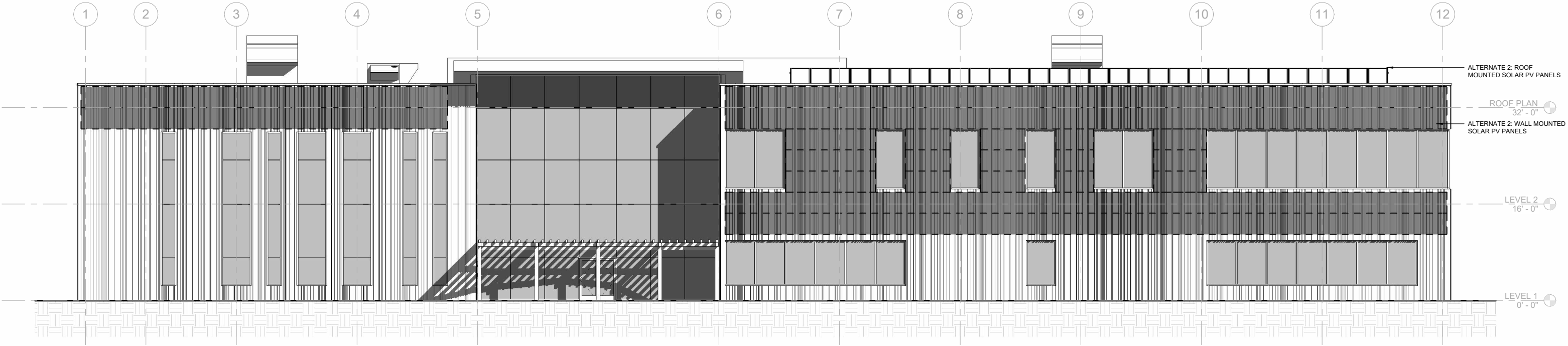
-  METAL PANEL
MP1: MFG: KINGPAN
STYLE: QUADCORE OPTIMO
COLOR: CHAMPAGNE BRONZE
PANEL WIDTH: VARIES PER LOCATION
LENGTH: AS SHOWN ON ELEVATIONS
THICKNESS: 4"

ALTERNATE 2 SOLAR PV PANELS

-  WALL MOUNTED PV SOLAR PANEL
REFER TO ROOF PLAN FOR ROOF MOUNTED PANELS
MFG: TO BE DETERMINED






SCF Quayana Clubhouse


CONCEPT - SOLAR PV




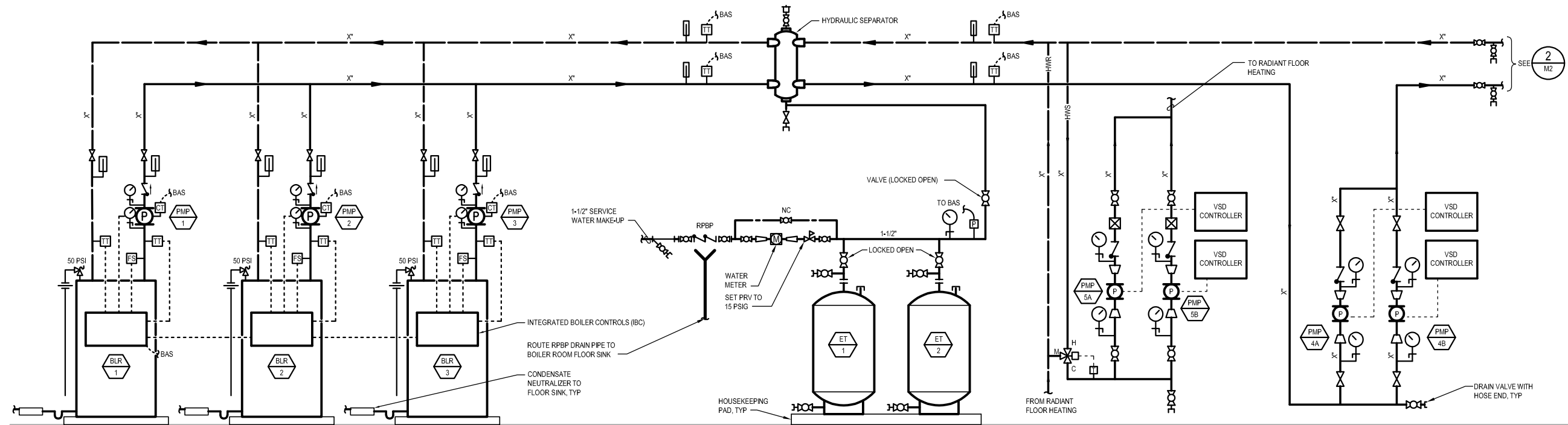
1 SOUTH ELEVATION W/ SOLAR PV
1/8" = 1'-0"

EXTERIOR ELEVATION LEGEND

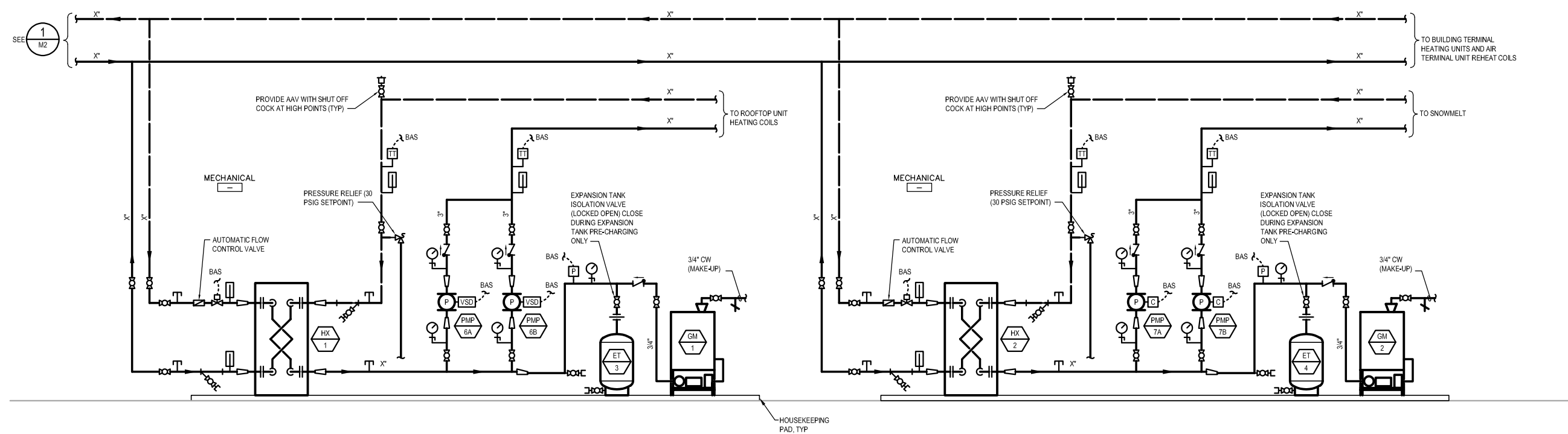
- 
HORIZONTAL WOOD SIDING
 WD1: MFG: CUSTOM ALASKAN YELLOW CEDAR
 STYLE: STAINED
 COLOR: TBD
 BOARD WIDTH: 6"
 LENGTH: AS SHOWN ON ELEVATIONS
- 
METAL PANEL
 MP1: MFG: AEP SPAN OR EQUAL, CLIP SYSTEM
 STYLE: FLEX SERIES WITH STANDOFF CLIP
 COLOR: REGAL WHITE
 PANEL WIDTH: 12"
 LENGTH: AS SHOWN ON ELEVATIONS
 THICKNESS: 18 GA
 PROFILE: RECTANGULAR PROFILE LAYOUT CONSISTING OF 4 DIFFERENT PROFILES, NO BEVELS ETC.
- 
STONE PANEL
 SP1: MFG: NEOLITH STONE PANEL
 STYLE: SINTERED STONE PANEL
 COLOR: TBD
 PANEL WIDTH: CUSTOM
 LENGTH: CUSTOM
 THICKNESS: 3/4" AT NORTH ELEVATION
 THICKNESS: 3/8" AT EAST & WEST ELEVATIONS
 REVEAL: AS SHOWN ON ELEVATIONS
 ETCHED GRAPHICS: AS INDICATED ON NORTH ELEVATION BY DASHED LINES
- 
ENTRY CANOPY & ROOF SOFFIT WOOD CLADDING
 WD2: MFG: CUSTOM ALASKAN YELLOW CEDAR
 STYLE: STAINED
 COLOR: TBD
 BOARD WIDTH: 6"
 LENGTH: AS SHOWN ON ELEVATIONS
- 
ENTRY CANOPY & ROOF FASCIA PANELS
 PLP1: MFG: TO BE DETERMINED, FIBER RESIN, PARKLEX OR EQUAL
 STYLE: PHENOLIC RESIN PANEL
 COLOR:
 PANEL WIDTH: CUSTOM
 LENGTH: CUSTOM
 THICKNESS: 3/8"
 REVEAL: AS SHOWN ON ELEVATIONS
- ALTERNATE 1 MP1**


METAL PANEL
 MP1: MFG: KINGPAN
 STYLE: QUADCORE OPTIMO
 COLOR: CHAMPAGNE BRONZE
 PANEL WIDTH: VARIES PER LOCATION
 LENGTH: AS SHOWN ON ELEVATIONS
 THICKNESS: 4"
- ALTERNATE 2 SOLAR PV PANELS**

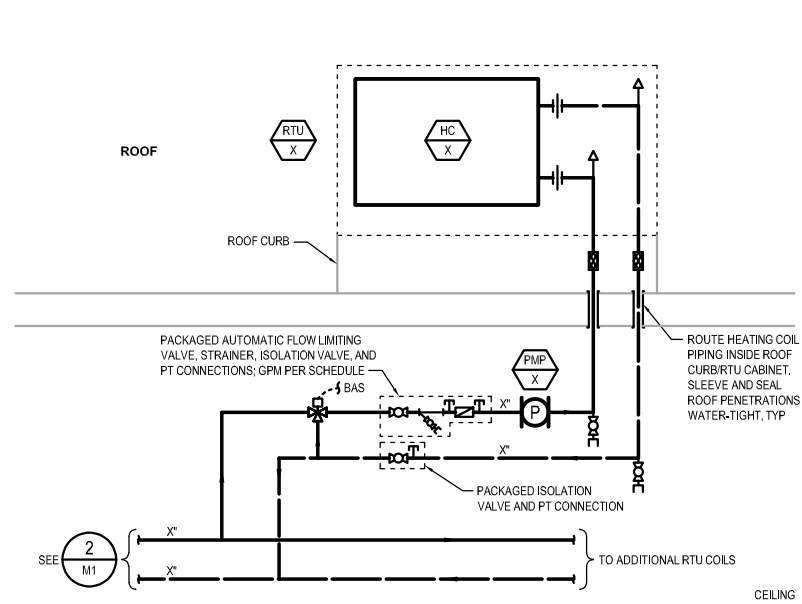

WALL MOUNTED PV SOLAR PANEL
 REFER TO ROOF PLAN FOR ROOF MOUNTED PANELS
 MFG: TO BE DETERMINED



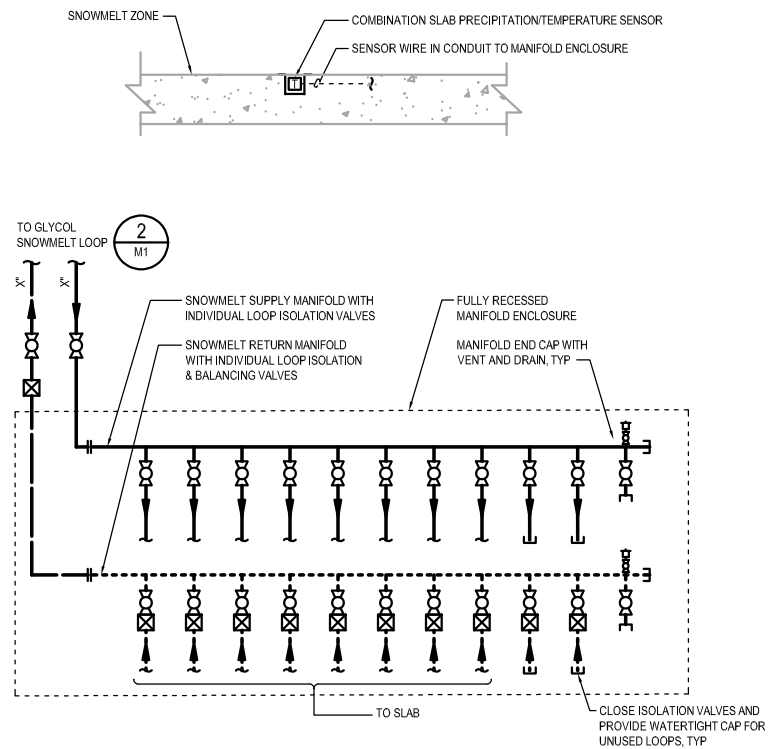
1 **DIAGRAM - CENTRAL HYDRONIC HEATING SYSTEM**
 M1 SCALE: NONE



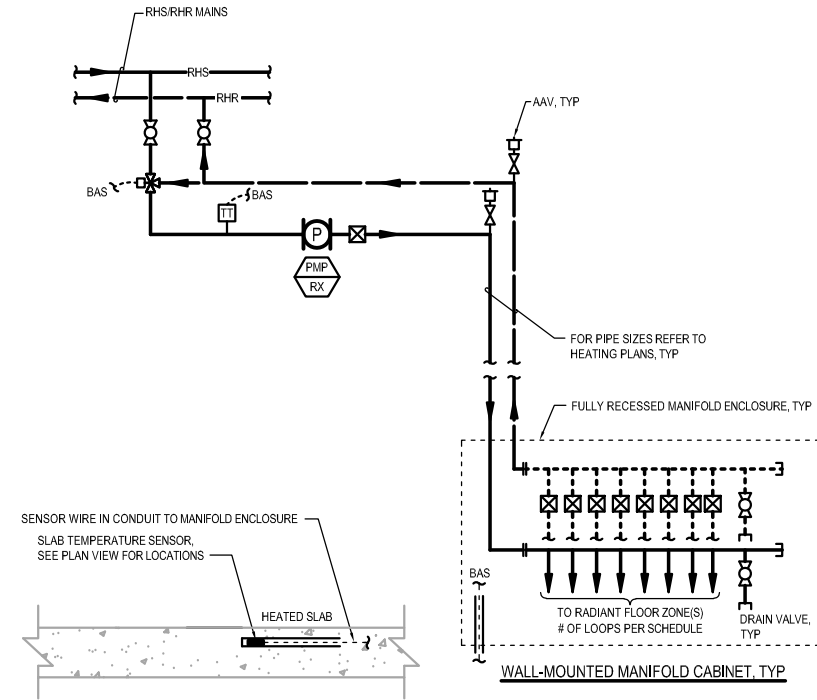
2 **DIAGRAM - SECONDARY GLYCOL HEATING LOOP**
 M1 SCALE: NONE



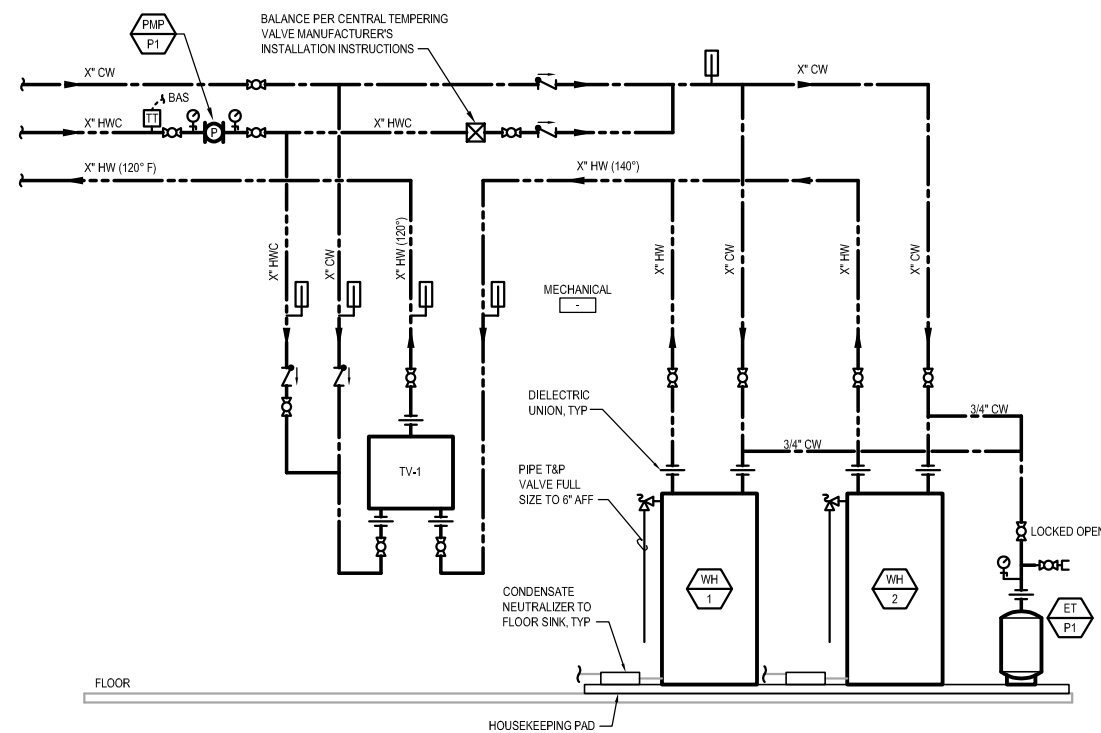
1 **DIAGRAM - RTU HEATING COIL PIPING**
M2 SCALE: NONE



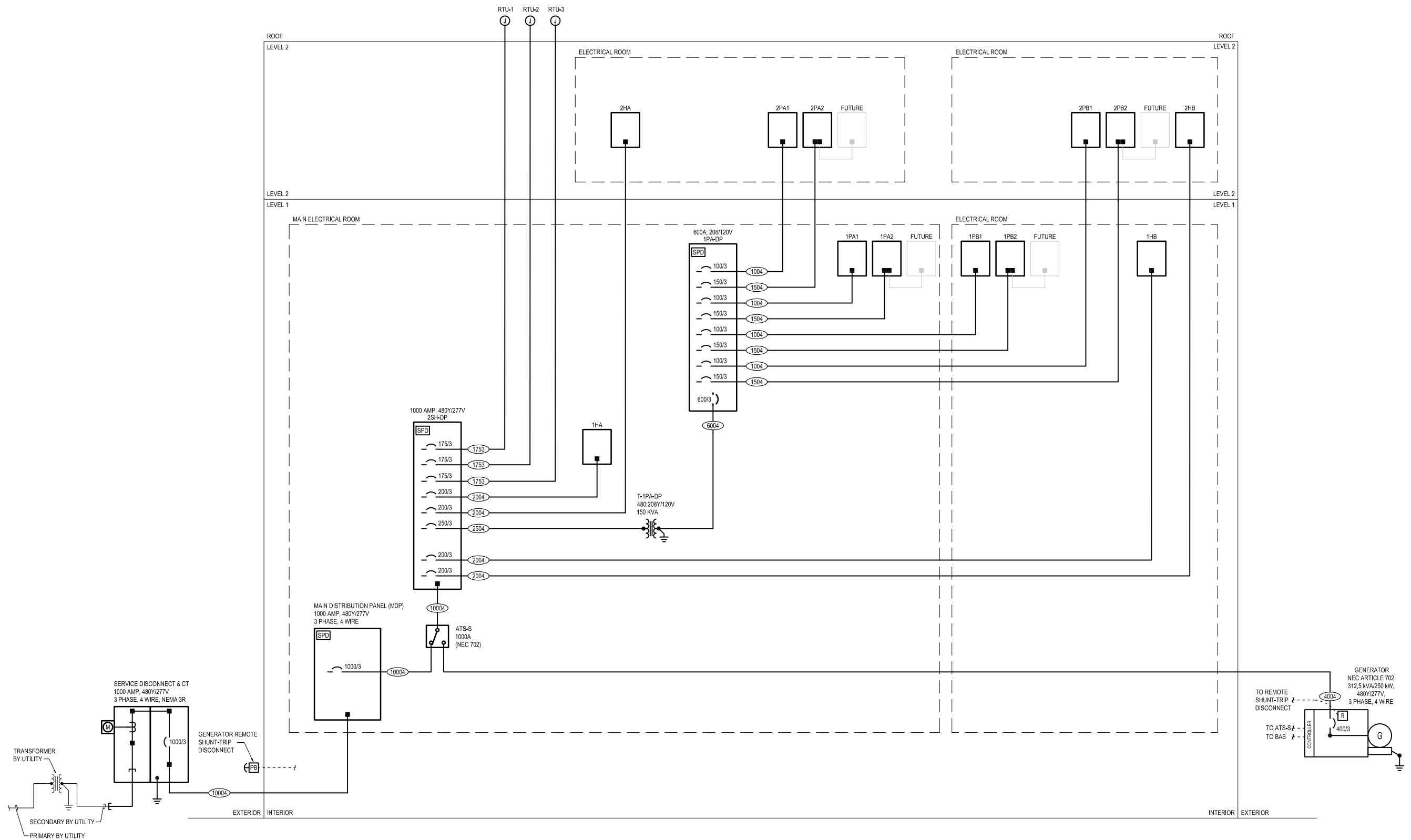
2 **DIAGRAM - SNOWMELT MANIFOLD**
M2 SCALE: NONE



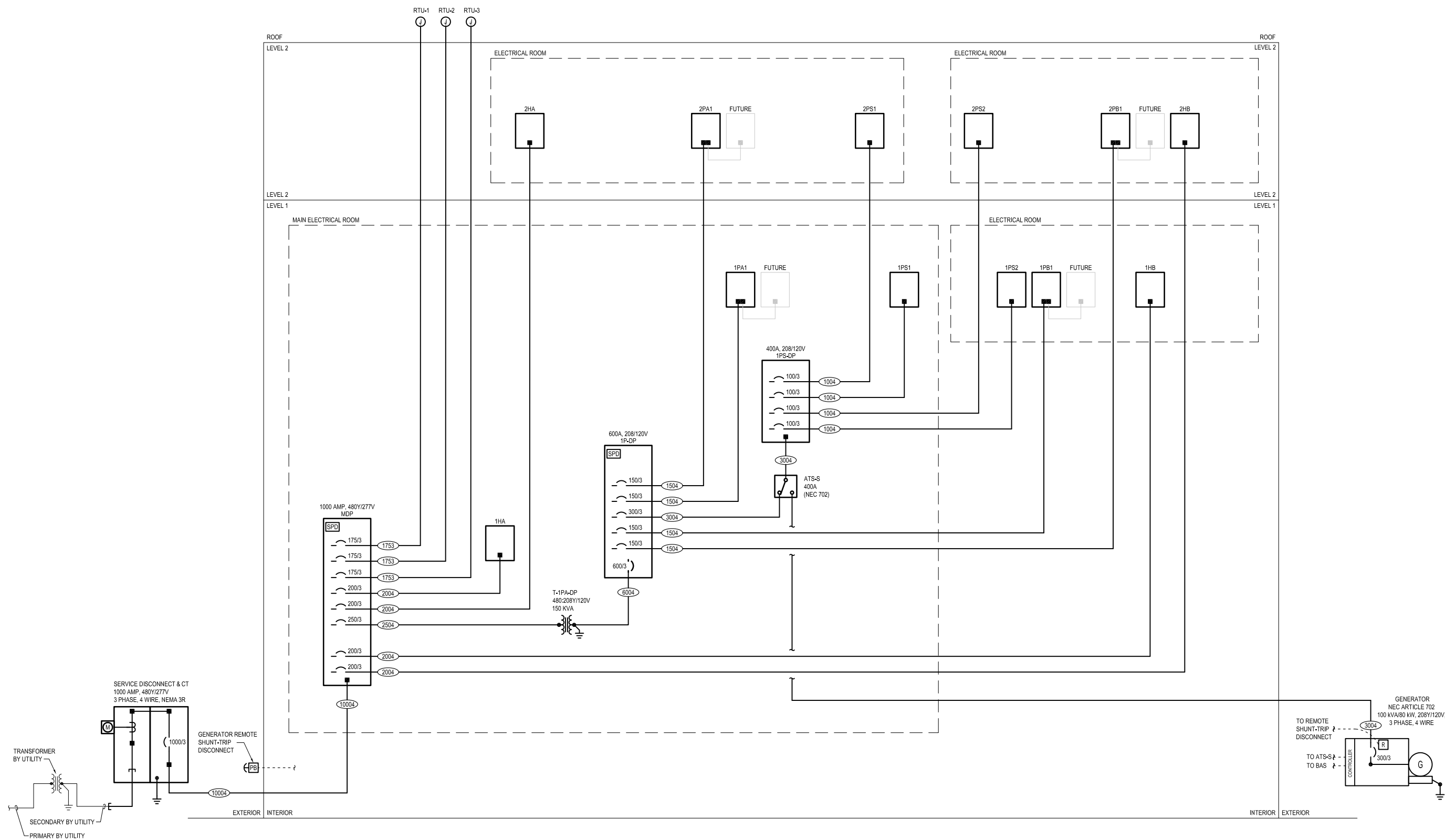
3 **DIAGRAM - RADIANT FLOOR MAINFOLD**
M2 SCALE: NONE



4 **DIAGRAM - DOMESTIC WATER HEATER**
M2 SCALE: NONE



1 **DIAGRAM - POWER ONE-LINE - OPTION 1**
 E1 SCALE: NONE



1 DIAGRAM - POWER ONE-LINE - OPTION 2
 E2 SCALE: NONE

APPENDIX B: EXTERIOR RENDERINGS

SCF Quayana Clubhouse

RENDERINGS - SITE



SCF Quayana Clubhouse

RENDERINGS



SCALE:
Date 10.21.2024
HALF-SCALE WHEN PRINTED AT 11x17

SCF Quayana Clubhouse
RENDERING - NORTH ELEVATION



SCALE:
Date 10.21.2024
HALF-SCALE WHEN PRINTED AT 11x17

SCF Quayana Clubhouse

RENDERINGS



SCALE:
Date 10.21.2024
HALF-SCALE WHEN PRINTED AT 11x17

SCF Quayana Clubhouse
RENDERING - SOUTH ELEVATION



SCALE:
Date 10.21.2024
HALF-SCALE WHEN PRINTED AT 11x17