LAKESHORE CONSTRUCTION GROUP, LLC

CHARTER HEADEND YUCCA VALLEY

6720 LA CONTENTA RD
YUCCA VALLEY, CA 92284

SITE PLAN - FOR REFERENCE ONLY
NOT TO SCALE

DRAWING INDEX

DEFERRED SUBMITTALS

REVIEWER NOTE:
THE FOLLOWING DISCIPLINES ARE CONTRACTED INDIVIDUALLY AND SHALL BE SUBMITTING DOCUMENTATION FOR REVIEW UNDER SEPARATE COVER:
- **CIVIL ENGINEERING**
- **FIRE PROTECTION**

PROJECT NARRATIVE

THIS ONE-STORY NEW BUILDING IS LOCATED ADJACENT TO AN EXISTING TELECOMMUNICATIONS FACILITY;

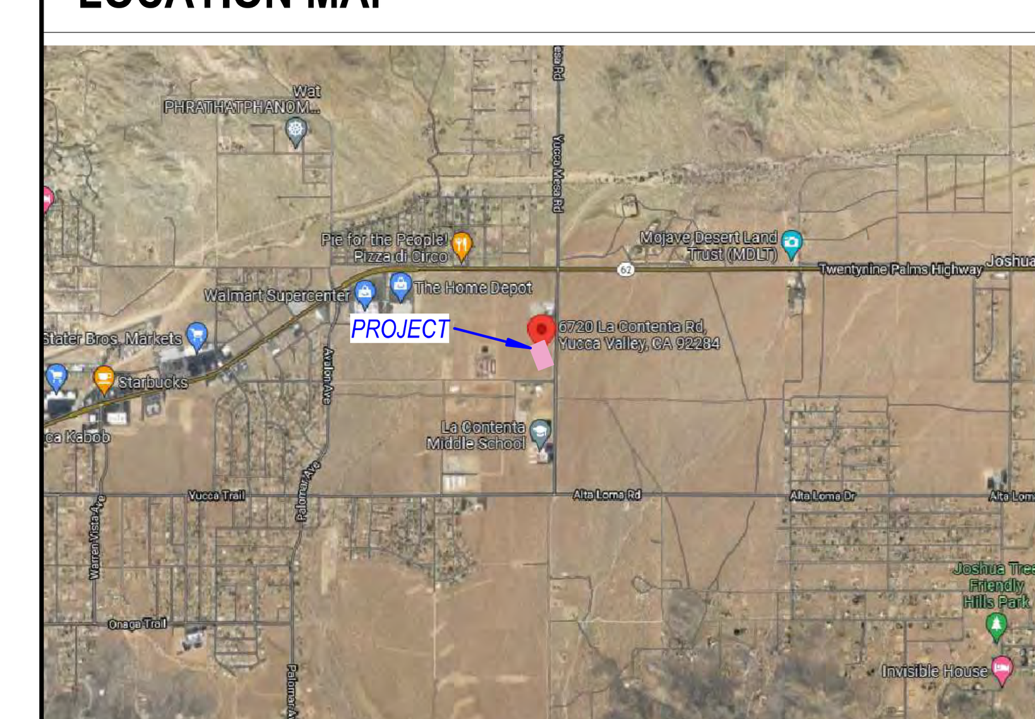
REVIEWER NOTE: THIS BUILDING IS CONSIDERED AN UNMANNED SERVICE BUILDING AND NEVER OPEN TO THE PUBLIC. THIS FACILITY IS ONLY STAFFED PERIODICALLY FOR MAINTENANCE AND REPAIRS. THE LISTED OCCUPANT LOAD OF 9 IS THE HIGHEST CONCEIVABLE NUMBER OF EMPLOYEES WHICH WOULD BE ON SITE AT ANY ONE TIME.

PROJECT STATISTICS

PROJECT ADDRESS:	6720 LA CONTENTA RD. YUCCA VALLEY, CA 92284
JURISDICTION:	TOWN OF YUCCA VALLEY
CURRENT ZONING:	I - INDUSTRIAL
TYPE OF CONSTRUCTION:	III-B
OCCUPANCY:	B (TELECOMMUNICATIONS)
GROSS SITE AREA:	8.03 ACRES (APPROX. 349,787 SF)
PROPOSED BUILDING AREA:	1632 SF
TOTAL BUILDING AREA:	**1632 SF**

ONE -STORY, 14'-10" HIGH

LOCATION MAP



progressive | ae
PROGRESSIVE ARCHITECTURE ENGINEERING I, INC
1811 4 Mile Rd NE Grand Rapids, MI 49525 616.361.2664 www.progressiveae.com

LAKESHORE CONSTRUCTION GROUP, LLC
CHARTER HEADEND
YUCCA VALLEY
6720 LA CONTENTA RD
YUCCA VALLEY, CA 92284

LICENSED ARCHITECT
Aug 23, 2022
SCOTT DOUGLAS WURL
C-31290
04-30-23
RENEWAL DATE
STATE OF CALIFORNIA

ISSUANCE
BIDS AND PERMITS
08/22/2022

REVISIONS
NO. DATE DESCRIPTION

FILE NUMBER	92260017
PROJECT MANAGER	JD
PROFESSIONAL	SDW
DRAWN BY	AG
CHECKED BY	JD

TITLE DRAWING
TD001

CODE SUMMARY

A. APPLICABLE CODES:
   1. CALIFORNIA BUILDING CODE 2019 (VOLUME 1 & 2) (IBC 2018)
   2. CALIFORNIA CODE OF REGULATIONS 2019 - TITLE 19, TITLE 24
   3. CALIFORNIA ENERGY CODE 2019
   4. ACCESSIBILITY CODE: CALIFORNIA BUILDING CODE CHAPTER 11 (2010 ADA STANDARDS)
   5. CALIFORNIA MECHANICAL CODE 2019
   6. CALIFORNIA PLUMBING CODE 2019
   7. CALIFORNIA ELECTRICAL CODE 2019 (NFPA 72, 2016)

B. PROPOSED BUILDING DATA:
   1. USE: OFFICE BUILDING, USE GROUP U (IBC 312.1)
   2. CONSTRUCTION: TYPE III-B (IBC 602.3)
   3. AUTOMATIC FIRE SUPPRESSION:
      A. DRY CHEMICAL SYSTEM (IBC 904.6)
      B. FIRE EXTINGUISHERS: REQUIRED (IBC 906.1, NFPA 10)
   4. BUILDING HEIGHT:
      A. ALLOWABLE HEIGHT: 75 FEET (IBC 504.3, T-504.3)
      B. ALLOWABLE STORIES: 3 (IBC 504.4, T-504.4)
      C. PROPOSED: 1 STORY
      D. BUILDING AREA
         a. ALLOWABLE: 34,000 SF (IBC 506.2)
         b. PROPOSED (FOOTPRINT): 1632 SQ.FT

C. MIN TYPE III-B CONSTRUCTION REQUIREMENTS (IBC T-601; UNO):
   1. PRIMARY STRUCTURAL FRAME: 0-HR.
   2. EXTERIOR BEARING WALLS: 2-HR.
   3. INTERIOR NON-BEARING WALLS: 0-HR.
   4. ROOF CONSTRUCTION: 0-HR.

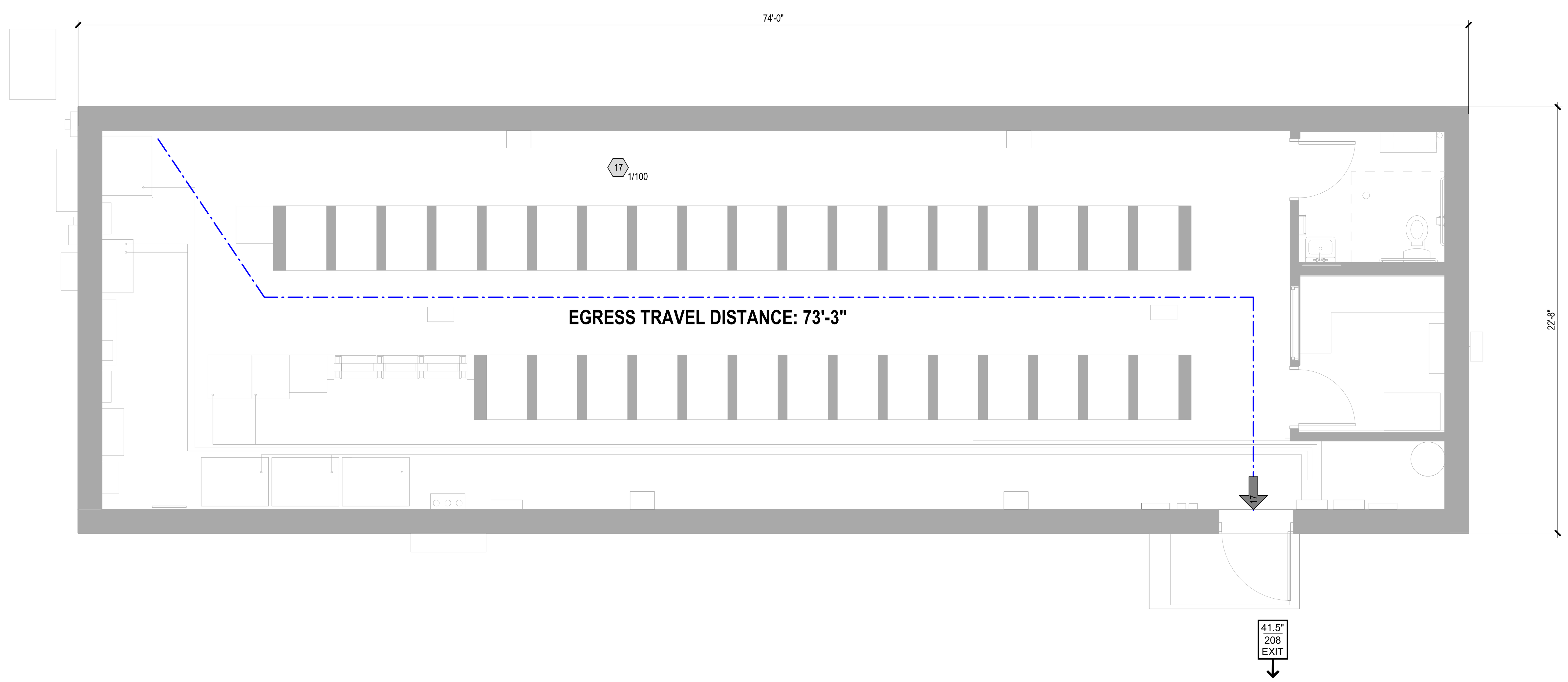
D. OCCUPANT LOAD FOR EGRESS PURPOSES (IBC T-1004.1.2):
   1. UTILITY: 300 GSF/OCC.

E. MEANS OF EGRESS REQUIREMENTS:
   1. BUILDING WITH ONE EXIT (T1006.2.1)
   2. ALLOWABLE MAX TRAVEL DISTANCE: 100 FT. (T-1006.2.1)
   3. EGRESS WIDTH (PER OCCUPANT): DOORS & OTHER COMPONENTS = 0.15" (IBC 1005.3.2 - EXCEPTION 1)
   4. MIN CORRIDOR WIDTHS: 36" (MIN. CORRIDOR WIDTH IS 36 INCHES IF OCCUPANT LOAD IS LESS THAN 50, IBC 2015 TABLE 1020.2)

F. PLUMBING FIXTURE REQUIREMENTS (IPC T-403.1.1):
   1. PLUMBING FIXTURES:
      A. WC: 1/25 FOR FIRST 50, REMAINDER 1/50
      B. L: 1/40 FOR FIRST 80, REMAINDER 1/80
      C. EWC: 1/100
      D. SERVICE SINK: 1

G. INTERIOR FINISHES: CLASS C OR BETTER

H. ENERGY COMPLIANCE (ZONE 3A):
   1. ROOF: R-25 CI
   2. WALL: R-7.6 CI
   3. BELOW GRADE: NR
   4. SLAB: NR
   5. DOORS: R-4.75



FIRST FLOOR LIFE SAFETY PLAN
1/4" = 1'-0"

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NO.	DATE	DESCRIPTION

FILE NUMBER	92260017
PROJECT MANAGER	JD
PROFESSIONAL	SDW
DRAWN BY	AG
CHECKED BY	JD

LIFE SAFETY
G101

AIA California

2019 CALIFORNIA GREEN BUILDING STANDARDS CODE

NONRESIDENTIAL MANDATORY MEASURES, SHEET 1 (January 2020, Includes August 2019 Supplement)

Y = YES
N/A = NOT APPLICABLE
RESPON. PARTY = RESPONSIBLE PARTY (ie: ARCHITECT, ENGINEER, OWNER, CONTRACTOR, INSPECTOR ETC.)

Y | N/A | RESPON. PARTY

CHAPTER 3
GREEN BUILDING
SECTION 301 GENERAL

301.1 SCOPE. Buildings shall be designed to include the green building measures specified as mandatory in the application checklists contained in this code. Voluntary green building measures are also included in the application checklists and may be included in the design and construction of structures covered by this code, but are not required unless adopted by a city, county, or city and county as specified in Section 101.7.

301.3 NONRESIDENTIAL ADDITIONS AND ALTERATIONS. [BSC-CG] 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 (for occupancies within the authority of California Building Standards Commission). Code sections relevant to additions and alterations shall only apply to the portions of the building being added or altered within the scope of the permitted work.

A code section will be designated by a banner to indicate where the code section only applies to newly constructed buildings [N] or to additions and/or alterations [A]. When the code section applies to both, no banner will be used.

301.3.1 Nonresidential additions and alterations that cause updates to plumbing fixtures only:

Note: On and after January 1, 2014, certain commercial real property, as defined in Civil Code Section 1101.3, shall have its noncompliant plumbing fixtures replaced with appropriate water-conserving plumbing fixtures under specific circumstances. See Civil Code Section 1101.1 *et seq.* for definitions, types of commercial real property affected, effective dates, circumstances necessitating replacement of noncompliant plumbing fixtures, and duties and responsibilities for ensuring compliance.

301.3.2 Waste Diversion. The requirements of Section 5.408 shall be required for additions and alterations whenever a permit is required for work.

301.4 PUBLIC SCHOOLS AND COMMUNITY COLLEGES. (see GBSC)
301.5 HEALTH FACILITIES. (see GBSC)

SECTION 302 MIXED OCCUPANCY BUILDINGS

302.1 MIXED OCCUPANCY BUILDINGS. In mixed occupancy buildings, each portion of a building shall comply with the specific green building measures applicable to each specific occupancy.

SECTION 303 PHASED PROJECTS

303.1 PHASED PROJECTS. For shell buildings and others constructed for future tenant improvements, only those code measures relevant to the building components and systems considered to be new construction (or newly constructed) shall apply.

303.1.1 Initial Tenant Improvements. The provisions of this code shall apply only to the initial tenant improvements to a project. Subsequent tenant improvements shall comply with the scoping provisions in Section 301.3 non-residential additions and alterations.

ABBREVIATION DEFINITIONS:

HCD	Department of Housing and Community Development
BSC	California Building Standards Commission
DSA-SS	Division of the State Architect, Structural Safety
OSHPD	Office of Statewide Health Planning and Development
LR	Low Rise
HR	High Rise
AA	Additions and Alterations
N	New

CHAPTER 5
NONRESIDENTIAL MANDATORY MEASURES

DIVISION 5.1 PLANNING AND DESIGN

SECTION 5.101 GENERAL
5.101.1 SCOPE
The provisions of this chapter outline planning, design and development methods that include environmentally responsible site selection, building design, building siting and development to protect, restore and enhance the environmental quality of the site and respect the integrity of adjacent properties.

SECTION 5.102 DEFINITIONS
5.102.1 DEFINITIONS
The following terms are defined in Chapter 2 *(and are included here for reference)*

CUTOFF LUMINAIRES. Luminaires whose light distribution is such that the candela per 1000 lamp lumens does not numerically exceed 25 (2.5 percent) at an angle of 90 degrees above nadir, and 100 (10 percent) at a vertical angle of 80 degrees above nadir. This applies to all lateral angles around the luminaire.

LOW-EMITTING AND FUEL EFFICIENT VEHICLES.
Eligible vehicles are limited to the following:

1. Zero emission vehicle (ZEV), including neighborhood electric vehicles (NEV), partial zero emission vehicle (PZEV), advanced technology PZEV (AT ZEV) or CNG fueled (original equipment manufacturer only) regulated under Health and Safety Code section 43800 and CCR, Title 13, Sections 1961 and 1962.
2. High-efficiency vehicles, regulated by U.S. EPA, bearing High-Occupancy Vehicle (HOV) car pool lane stickers issued by the Department of Motor Vehicles.

NEIGHBORHOOD ELECTRIC VEHICLE (NEV). A motor vehicle that meets the definition of "low-speed vehicle" either in Section 385.5 of the Vehicle Code or in 49CFR571.500 (as it existed on July 1, 2000), and is certified to zero-emission vehicle standards.

TENANT-OCCUPANTS. Building occupants who inhabit a building during its normal hours of operation as permanent occupants, such as employees, as distinguished from customers and other transient visitors.

VANPOOL VEHICLE. Eligible vehicles are limited to any motor vehicle, other than a motortruck or truck tractor, designed for carrying more than 10 but not more than 15 persons including the driver, which is maintained and used primarily for the nonprofit work-related transportation of adults for the purpose of ridesharing.

Note: Source: Vehicle Code, Division 1, Section 668

ZEV. Any vehicle certified to zero-emission standards.

SECTION 5.106 SITE DEVELOPMENT

5.106.1 STORM WATER POLLUTION PREVENTION FOR PROJECTS THAT DISTURB LESS THAN ONE ACRE OF LAND. Newly constructed projects and additions which disturb less than one acre of land, and are not part of a larger common plan of development or sale, shall prevent the pollution of storm water runoff from the construction activities through one or more of the following measures:

5.106.1.1 Local ordinance. Comply with a lawfully enacted storm water management and/or erosion control ordinance.

5.106.1.2 Best Management Practices (BMPs). Prevent the loss of soil through wind or water erosion by implementing an effective combination of erosion and sediment control and good housekeeping BMPs.

1. Soil loss BMPs that should be considered for implementation as appropriate for each project include, but are not limited to, the following:
   a. Scheduling construction activity during dry weather, when possible.
   b. Preservation of natural features, vegetation, soil, and buffers around surface waters.
   c. Drainage swales or lined ditches to control stormwater flow.
   d. Mulching or hydroseeding to stabilize disturbed soils.
   e. Erosion control to protect slopes.
   f. Protection of storm drain inlets (gravel bags or catch basin inserts).
   g. Perimeter sediment control (perimeter silt fence, fiber rolls).
   h. Sediment trap or sediment basin to retain sediment on site.
   i. Stabilized construction exits.
   j. Wind erosion control.
   k. Other soil loss BMPs acceptable to the enforcing agency.
2. Good housekeeping BMPs to manage construction equipment, materials, non-stormwater discharges and wastes that should be considered for implementation as appropriate for each project include, but are not limited to, the following:
   a. Dewatering activities.
   b. Material handling and waste management.
   c. Building materials stockpile management.
   d. Management of washout areas (concrete, paints, stucco, etc.).
   e. Control of vehicle/equipment fueling to contractor's staging area.
   f. Vehicle and equipment cleaning performed off site.
   g. Spill prevention and control.
   h. Other housekeeping BMPs acceptable to the enforcing agency.

5.106.2 STORMWATER POLLUTION PREVENTION FOR PROJECTS THAT DISTURB ONE OR MORE ACRES OF LAND. Comply with all lawfully enacted stormwater discharge regulations for projects that (1) disturb one acre or more of land, or (2) disturb less than one acre of land but are part of a larger common plan of development sale.

Note: Projects that (1) disturb one acre or more of land, or (2) disturb less than one acre of land but are part of the larger common plan of development or sale must comply with the post-construction requirements detailed in the applicable National Pollutant Discharge Elimination System (NPDES) General permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities issued by the State Water Resources Control Board or the Lahontan Regional Water Quality Control Board (for projects in the Lake Tahoe Hydrologic Unit).

The NPDES permits require postconstruction runoff (post-project hydrology) to match the preconstruction runoff (pre-project hydrology) with the installation of postconstruction stormwater management measures. The NPDES permits emphasize runoff reduction through on-site stormwater use, interception, evapotranspiration, and infiltration through nonstructural controls, such as Low Impact Development (LID) practices, and conversation design measures. Stormwater volume that cannot be addressed using nonstructural practices is required to be captured in structural practices and be approved by the enforcing agency.

Refer to the current applicable permits on the State Water Resources Control Board website at: www.waterboards.ca.gov/constructionstormwater. Consideration to the stormwater runoff management measures should be given during the initial design process for appropriate integration into site development.

5.106.4 BICYCLE PARKING. For buildings within the authority of California Building Standards Commission as specified in Section 103, comply with Section 5.106.4.1. For buildings within the authority of the Division of the State Architect pursuant to Section 105, comply with Section 5.106.4.2

5.106.4.1 Bicycle parking. [BSC-CG] Comply with Sections 5.106.4.1.1 and 5.106.4.1.2; or meet the applicable local ordinance, whichever is stricter.

5.106.4.1.1 Short-term bicycle parking. If the new project or an addition or alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack.
Exception: Additions or alterations which add nine or less visitor vehicular parking spaces.

5.106.4.1.2 Long-term bicycle parking. For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5 percent of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility.

5.106.4.1.3 For additions or alterations that add 10 or more tenant-occupant vehicular parking spaces, provide secure bicycle parking for 5 percent of the tenant vehicular parking spaces being added, with a minimum of one bicycle parking facility.

5.106.4.1.4 For new shell buildings in phased projects provide secure bicycle parking for 5 percent of the anticipated tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility.

5.106.4.1.5 Acceptable bicycle parking facility for Sections 5.106.4.1.2, 5.106.4.1.3, and 5.106.4.1.4 shall be convenient from the street and shall meet one of the following:

1. Covered, lockable enclosures with permanently anchored racks for bicycles;
2. Lockable bicycle rooms with permanently anchored racks; or
3. Lockable, permanently anchored bicycle lockers.

Note: Additional information on recommended bicycle accommodations may be obtained from Sacramento Area Bicycle Advocates.

5.106.4.2 Bicycle parking. [DSA-SS] For public schools and community colleges, comply with Sections 5.106.4.2.1 and 5.106.4.2.2

5.106.4.2.1 Student bicycle parking. Provide permanently anchored bicycle racks conveniently accessed with a minimum of four two-bike capacity racks per new building.
5.106.4.2.2 Staff bicycle parking. Provide permanent, secure bicycle parking conveniently accessed with a minimum of two staff bicycle parking spaces per new building. Acceptable bicycle parking facilities shall be convenient from the street or staff parking area and shall meet one of the following:

1. Covered, lockable enclosures with permanently anchored racks for bicycles;
2. Lockable bicycle rooms with permanently anchored racks; or
3. Lockable, permanently anchored bicycle lockers.

5.106.5.2 DESIGNATED PARKING FOR CLEAN AIR VEHICLES. In new projects or additions or alterations that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as follows:

TABLE 5.106.5.2 - PARKING

TOTAL NUMBER OF PARKING SPACES	NUMBER OF REQUIRED SPACES
0-9	0
10-25	1
25-50	3
51-75	6
76-100	8
101-150	11
151-200	16
201 AND OVER	AT LEAST 8% OF TOTAL

5.106.5.2.1 - Parking stall marking. Paint, in the paint used for stall striping, the following characters such that the lower edge of the last word aligns with the end of the stall striping and is visible beneath a parked vehicle: CLEAN AIR / VAN POOL / EV

Note: Vehicles bearing Clean Air Vehicle stickers from expired HOV lane programs may be considered eligible for designated parking spaces.

5.106.5.3 Electric vehicle (EV) charging. [N] Construction shall comply with Section 5.106.5.3.1 or Section 5.106.5.3.2 to facilitate future installation of electric vehicle supply equipment (EVSE). When EVSE(s) is/are installed, it shall be in accordance with the *California Building Code,* the *California Electrical Code* and as follows:

5.106.5.3.1 Single charging space requirements. [N] When only a single charging space is required per Table 5.106.5.3.3, a raceway is required to be installed at the time of construction and shall be installed in accordance with the *California Electrical Code.* Construction plans and specifications shall include, but are not limited to, the following:

1. The type and location of the EVSE.
2. A listed raceway capable of accommodating a 208/240 -volt dedicated branch circuit.
3. The raceway shall not be less than trade size 1".
4. The raceway shall originate at a service panel or a subpanel serving the area, and shall terminate in close proximity to the proposed location of the charging equipment and listed suitable cabinet, box, enclosure or equivalent.
5. The service panel or subpanel shall have sufficient capacity to accommodate a minimum 40-ampere dedicated branch circuit for the future installation of the EVSE.

5.106.5.3.2 Multiple charging space requirements. [N] When multiple charging spaces are required per Table 5.106.5.3.3 raceway(s) is/are required to be installed at the time of construction and shall be installed in accordance with the *California Electrical Code.* Construction plans and specifications shall include, but are not limited to, the following:

1. The type and location of the EVSE.
2. The raceway(s) shall originate at a service panel or a subpanel(s) serving the area, and shall terminate in close proximity to the proposed location of the charging equipment and into listed suitable cabinet(s), box(es), enclosure(s) or equivalent.
3. Plan design shall be based upon 40-ampere minimum branch circuits.
4. Electrical calculations shall substantiate the design of the electrical system, to include the rating of equipment and any on-site distribution transformers and have sufficient capacity to simultaneously charge all required EVs at its full rated amperage.
5. The service panel or subpanel(s) shall have sufficient capacity to accommodate the required number of dedicated branch circuit(s) for the future installation of the EVSE.

5.106.5.3.3 EV charging space calculations. [N] Table 5.106.5.3.3 shall be used to determine if single or multiple charging space requirements apply for the future installation of EVSE.

Exceptions: On a case-by-case basis where the local enforcing agency has determined EV charging and infrastructure is not feasible based upon one or more of the following conditions:

1. Where there is insufficient electrical supply.
2. Where there is evidence suitable to the local enforcing agency substantiating that additional local utility infrastructure design requirements, directly related to the implementation of Section 5.106.5.3, may adversely impact the construction cost of the project.

TABLE 5.106.5.3.3

TOTAL NUMBER OF PARKING SPACES	NUMBER OF REQUIRED SPACES
0-9	0
10-25	1
26-50	2
51-75	4
76-100	5
101-150	7
151-200	10
201 AND OVER	6% of total[1]

1. Calculation for spaces shall be rounded up to the nearest whole number.

5.106.5.3.4 [N] Identification. The service panel or subpanel(s) circuit directory shall identify the reserved overcurrent protective device space(s) for future EV charging as "EV CAPABLE". The raceway termination location shall be permanently and visibly marked as "EV CAPABLE".

5.106.5.3.5 [N] Future charging spaces qualify as designated parking as described in Section 5.106.5.2 Designated parking for clean air vehicles.

5.106.8 LIGHT POLLUTION REDUCTION. [N].l Outdoor lighting systems shall be designed and installed to comply with the following:

1. The minimum requirements in the California Energy Code for Lighting Zones 0-4 as defined in Chapter 10, Section 10-114 of the California Administrative Code; and
2. Backlight (B) ratings as defined in IES TM-15-11 (shown in Table A-1 in Chapter 8);
3. Uplight and Glare ratings as defined in California Energy Code (shown in Tables 130.2-A and 130.2-B in Chapter 8) and
4. Allowable BUG ratings not exceeding those shown in Table 5.106.8, [N] or Comply with a local ordinance lawfully enacted pursuant to Section 101.7, whichever is more stringent.

Exceptions: [N]

1. Luminaires that qualify as exceptions in Section 140.7 of the California Energy Code.
2. Emergency lighting.
3. Building facade meeting the requirements in Table 140.7-B of the California Energy Code, Part 6.
4. Custom lighting features as allowed by the local enforcing agency, as permitted by Section 101.8 Alternate materials, designs and methods of construction.

Note: [N]
1. See also California Building Code, Chapter 12, Section 1205.6 for college campus lighting requirements for parking facilities and walkways.
2. Refer to Chapter 8 (Compliance Forms, Worksheets and Reference Material) for IES TM-15-11 Table A-1, California Energy Code Tables 130.2-A and 130.2-B.
3. Refer to the California Building Code for requirements for additions and alterations.

TABLE 5.106.8 [N] MAXIMUM ALLOWABLE BACKLIGHT, UPLIGHT AND GLARE (BUG) RATINGS [1,2]

ALLOWABLE RATING	LIGHTING ZONE LZ0	LIGHTING ZONE LZ1	LIGHTING ZONE LZ2	LIGHTING ZONE LZ3	LIGHTING ZONE LZ4
MAXIMUM ALLOWABLE BACKLIGHT RATING [3]					
Luminaire greater than 2 mounting heights (MH) from property line	N/A	No Limit	No Limit	No Limit	No Limit
Luminaire back hemisphere is 1-2 MH from property line	N/A	B2	B3	B4	B4
Luminaire back hemisphere is 0.5-1 MH from property line	N/A	B1	B2	B3	B3
Luminaire back hemisphere is less than 0.5 MH from property line	N/A	B0	B0	B1	B2
MAXIMUM ALLOWABLE UPLIGHT RATING (U)					
For area lighting [4]	N/A	U0	U0	U0	U0
For all other outdoor lighting, including decorative luminaires	N/A	U1	U2	U3	UR
MAXIMUM ALLOWABLE GLARE RATING [5] **(G)**					
Luminaire greater than 2 MH from property line	N/A	G1	G2	G3	G4
Luminaire front hemisphere is 1-2 MH from property line	N/A	G0	G1	G1	G2
Luminaire front hemisphere is 0.5-1 MH from property line	N/A	G0	G0	G1	G1
Luminaire back hemisphere is less than 0.5 MH from property line	N/A	G0	G0	G0	G1

1. IESNA Lighting Zones 0 and 5 are not applicable; refer to Lighting Zones as defined in the *California Energy Code* and Chapter 10 of the *California Administrative Code.*

2. For property lines that abut public walkways, bikeways, plazas and parking lots, the property line may be considered to be 5 feet beyond the actual property line for purpose of determining compliance with this section. For property lines that abut public roadways and public transit corridors, the property line may be considered to be the centerline of the public roadway or public transit corridor for the purpose of determining compliance with this section.

3. If the nearest property line is less than or equal to two mounting heights from the back hemisphere of the luminaire distribution, the applicable reduced Backlight rating shall be met.

4. General lighting luminaires in areas such as outdoor parking, sales or storage lots shall meet these reduced ratings. Decorative luminaires located in these areas shall meet *U*-value limits for "all other outdoor lighting".

5. If the nearest property line is less than or equal to two mounting heights from the front hemisphere of the luminaire distribution, the applicable reduced Glare rating shall be met.

5.106.10 GRADING AND PAVING. Construction plans shall indicate how site grading or a drainage system will manage all surface water flows to keep water from entering buildings. Examples of methods to manage surface water include, but are not limited to, the following:

1. Swales.
2. Water collection and disposal systems.
3. French drains.
4. Water retention gardens.
5. Other water measures which keep surface water away from buildings and aid in groundwater recharge.

Exception: Additions and alterations not altering the drainage path.

5.106.12 SHADE TREES [DSA-SS]. Shade Trees shall be planted to comply with Sections 5.106.12.1, 5.106.12.2, and 5.106.12.3. Percentages shown shall be measured at noon on the summer solstice. Landscape irrigation necessary to establish and maintain tree health shall comply with Section 5.304.6.

5.106.12.1 Surface parking areas. Shade tree plantings, minimum #10 container size or equal, shall be installed to provide shade over 50 percent of the parking area within 15 years.

Exceptions: The surface parking area covered by solar photovoltaic shade structures, or shade structures, with roofing materials that comply with Table A5.106.11.2.2 in Appendix A5, are not included in the total area calculations.

5.106.12.2 Landscape areas. Shade tress plantings, minimum #10 container size or equal shall be installed to provide shade of 20% of the landscape area within 15 years.

Exceptions: Playfields for organized sport activity are not included in the total area calculation.

5.106.12.3. Hardscape areas. Shade tree plantings, minimum #10 container size or equal shall be installed to provide shade over 20 percent of the hardscape area within 15 years.

Exceptions: Walks, hardscape areas covered by solar photovoltaic shade structures, and hardscape areas covered by shade structures with roofing materials that comply with Table A5.106.11.2.2 in Appendix A5, are not included in the total area calculation.

DIVISION 5.2 ENERGY EFFICIENCY

SECTION 5.201 GENERAL
5.201.1 Scope [BSC-CG]. ***California Energy Code [DSA-SS].*** For the purposes of mandatory energy efficiency standards in this code, the California Energy Commission will continue to adopt mandatory building standards.

DIVISION 5.3 WATER EFFICIENCY AND CONSERVATION

SECTION 5.301 GENERAL
5.301.1 Scope. The provisions of this chapter shall establish the means of conserving water use indoors, outdoors and in wastewater conveyance.

SECTION 5.302 DEFINITIONS
5.302.1 Definitions. The following terms are defined in Chapter 2 *(and are included here for reference)*

EVAPOTRANSPIRATION ADJUSTMENT FACTOR (ETAF) [DSA-SS]. An adjustment factor when applied to reference evapotranspiration that adjusts for plant factors and irrigation efficiency, which ae two major influences on the amount of water that needs to be applied to the landscape.

FOOTPRINT AREA [DSA-SS]. The total area of the furthest exterior wall of the structure projected to natural grade, not including exterior areas such as stairs, covered walkways, patios and decks.

METERING FAUCET. A self-closing faucet that dispenses a specific volume of water for each actuation cycle. The volume or cycle duration can be fixed or adjustable.

GRAYWATER. Pursuant to Health and Safety Code Section 17922.12, "graywater" means untreated wastewater that has not been contaminated by any toilet discharge, has not been affected by infectious, contaminated, or unhealthy bodily wastes, and does not present a threat from contamination by unhealthful processing, manufacturing, or operating wastes. "Graywater" includes, but is not limited to wastewater from bathtubs, showers, bathroom washbasins, clothes washing machines and laundry tubs, but does not include waste water from kitchen sinks or dishwashers.

MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO). The California ordinance regulating landscape design, installation and maintenance practices that will ensure commercial, multifamily and other developer installed landscapes greater than 2500 square feet meet an irrigation water budget developed based on landscaped area and climatological parameters.

MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO). [HCD] The California model ordinance (California Code of Regulations, Title 23, Division 2, Chapter 2.7), regulating landscape design, installation and maintenance practices. Local agencies are required to adopt the updated MWELO, or adopt a local ordinance at least as effective as the MWELO.

POTABLE WATER. Water that is drinkable and meets the U.S. Environmental Protection Agency (EPA) Drinking Water Standards. See definition in the California Plumbing Code, Part 5.

POTABLE WATER. [HCD] Water that is satisfactory for drinking, culinary, and domestic puroses, and meets the U.S. Environmental Protection Agency (EPA) Drinking Water Standards and the requirements of the Health Authority Having Jurisdiction.

RECYCLED WATER. Water which, as a result of treatment of waste, is suitable for a direct beneficial use or a controlled use that would not otherwise occur [Water Code Section 13050 (n)]. Simply put, recycled water is water treated to remove waste matter attaining a quality that is suitable to use the water again.

SUBMETER. A meter installed subordinate to a site meter. Usually used to measure water intended for one purpose, such as landscape irrigation. For the purposes of CALGreen, a dedicated meter may be considered a submeter.

WATER BUDGET. Is the estimated total landscape irrigation water use which shall not exceed the maximum applied water allowance calculated in accordance with the Department of Water Resources Model Efficient Landscape Ordinance (MWELO).

SECTION 5.303 INDOOR WATER USE
5.303.1 METERS. Separate submeters or metering devices shall be installed for the uses described in Sections 503.1.1 and 503.1.2.

5.303.1.1 Buildings in excess of 50,000 square feet. Separate submeters shall be installed as follows:

1. For each individual leased, rented or other tenant space within the building projected to consume more than 100 gal/day (380 L/day), including, but not limited to, spaces used for laundry or cleaners, restaurant or food service, medical or dental office, laboratory, or beauty salon or barber shop.
2. Where separate submeters for individual building tenants are unfeasible, for water supplied to the following subsystems:
   a. Makeup water for cooling towers where flow through is greater than 500 gpm (30 L/s).
   b. Makeup water for evaporative coolers greater than 6 gpm (0.04 L/s).
   c. Steam and hot water boilers with energy input more than 500,000 Btu/h (147 kW).

5.303.1.2 Excess consumption. A separate submeter or metering device shall be provided for any tenant within a new building or within an addition that is projected to consume more than 1,000 gal/day.

5.303.3 WATER CONSERVING PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:

5.303.3.1 Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush. Tank-type water closets shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Tank-Type toilets.

Note: The effective flush volume of dual flush toilets is defined as the composite, average flush volume of two reduced flushes and one full flush.

5.303.3.2 Urinals.
5.303.3.2.1 Wall-mounted Urinals. The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush.

5.303.3.2.2 Floor-mounted Urinals. The effective flush volume of floor-mounted or other urinals shall not exceed 0.5 gallons per flush.

5.303.3.3 Showerheads. [BSC-CG]
5.303.3.3.1 Single showerhead. Showerheads shall have a maximum flow rate of not more than 1.8 gallons per minute at 80 psi. Showerheads shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Showerheads.

5.303.3.3.2 Multiple showerheads serving one shower. When a shower is served by more than one showerhead, the combined flow rate of all the showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi, or the shower shall be designed to allow only one shower outlet to be in operation at a time.
Note: A hand-held shower shall be considered a showerhead.

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LICENSED ARCHITECT
Aug 23, 2022
SCOTT DOUGLAS WURL
C-31290
06.30.23
RENEWAL DATE
STATE OF CALIFORNIA

ISSUANCE
BIDS AND PERMITS
08/22/2022

REVISIONS
NO. DATE DESCRIPTION

FILE NUMBER	92260017
PROJECT MANAGER	JD
PROFESSIONAL	
DRAWN BY	
CHECKED BY	

CALGREEN CHECKLIST SHEET 1
G110

AIA California

2019 CALIFORNIA GREEN BUILDING STANDARDS CODE

NONRESIDENTIAL MANDATORY MEASURES, SHEET 1 (January 2020, Includes August 2019 Supplement)

Y = YES
N/A = NOT APPLICABLE
RESPON. PARTY = RESPONSIBLE PARTY (ie: ARCHITECT, ENGINEER, OWNER, CONTRACTOR, INSPECTOR ETC.)

Y | N/A | RESPON. PARTY

5.303.3.4 Faucets and fountains.

5.303.3.4.1 Nonresidential Lavatory faucets. Lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi.

5.303.3.4.2 Kitchen faucets. Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.8 gallons per minute at 60 psi.

5.303.3.4.3 Wash fountains. Wash fountains shall have a maximum flow rate of not more than1.8 gallons per minute/20 [rim space (inches) at 60 psi].

5.303.3.4.4 Metering faucets. Metering faucets shall not deliver more than 0.20 gallons per cycle.

5.303.3.4.5 Metering faucets for wash fountains. Metering faucets for wash fountains shall have a maximum flow rate of not more than 0.20 gallons per minute/20 [rim space (inches) at 60 psi].

Note: Where complying faucets are unavailable, aerators or other means may be used to achieve reduction.

☐ ☐ **5.303.4 COMMERCIAL KITCHEN EQUIPMENT.**

5.303.4.1 Food Waste Disposers. Disposers shall either modulate the use of water to no more than 1 gpm when the disposer is not in use (not actively grinding food waste/no-load) or shall automatically shut off after no more than 10 minutes of inactivity. Disposers shall use no more than 8 gpm of water.
Note: This code section does not affect local jurisdiction authority to prohibit or require disposer installation.

☐ ☐ **5.303.5 AREAS OF ADDITION OR ALTERATION.** For those occupancies within the authority of the California Building Standards Commission as specified in Section 103, the provisions of Section 5.303.3 and 5.303.4 shall apply to new fixtures in additions or areas of alteration to the building.

☐ ☐ **5.303.6 STANDARDS FOR PLUMBING FIXTURES AND FITTINGS.** Plumbing fixtures and fittings shall be installed in accordance with the *California Plumbing Code*, and shall meet the applicable standards referenced in Table 1701.1 of the *California Plumbing Code* and in Chapter 6 of this code.

SECTION 5.304 OUTDOOR WATER USE

☐ ☐ **5.304.1 OUTDOOR POTABLE WATER USE IN LANDSCAPE AREAS.** Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent.

Notes:
1. The Model Water Efficient Landscape Ordinance (MWELO) is located in the California Code of Regulations, Title 23, Chapter 2.7, Division 2.
2. MWELO and supporting documents, including a water budget calculator, are available at: https://www.water.ca.gov/.

☐ ☐ **5.304.6 OUTDOOR POTABLE WATER USE IN LANDSCAPE AREAS.** For public schools and community colleges, landscape projects as described in Sections 5.304.6.1 and 5.304.6.2 shall comply with the California Department of Water Resources Model Water Efficient Landscape Ordinance (MWELO) commencing with Section 490 of Chapter 2.7, Division 2, Title 23, California Code of Regulations, except that the evapotranspiration adjustment factor (ETAF) shall be 0.65 with an additional water allowance for special landscape areas (SLA) of 0.35.

Exception: Any project with an aggregate landscape area of 2,500 square feet or less may comply with the prescriptive measures contained in Appendix D of the MWELO.

5.304.6.1 Newly constructed landscapes. New construction projects with an aggregate landscape area equal to or greater than 500 square feet.

5.304.6.2 Rehabilitated landscapes. Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 1,200 square feet.

DIVISION 5.4 MATERIAL CONSERVATION AND RESOURCE EFFICIENCY

SECTION 5.401 GENERAL

5.401.1 SCOPE. The provisions of this chapter shall outline means of achieving material conservation and resource efficiency through protection of buildings from exterior moisture, construction waste diversion, employment of techniques to reduce pollution through recycling of materials, and building commissioning or testing and adjusting.

SECTION 5.402 DEFINITIONS

5.402.1 DEFINITIONS. The following terms are defined in Chapter 2 *(and are included here for reference)*

ADJUST. To regulate fluid flow rate and air patterns at the terminal equipment, such as to reduce fan speed or adjust a damper.

BALANCE. To proportion flows within the distribution system, including sub-mains, branches and terminals, according to design quantities.

BUILDING COMMISSIONING. A systematic quality assurance process that spans the entire design and construction process, including verifying and documenting that building systems and components are planned, designed, installed, tested, operated and maintained to meet the owner's project requirements.

ORGANIC WASTE. Food waste, green waste, landscape and pruning wste, nonhazardous wood waste, and food soiled paper waste that is mixed in with food waste.

TEST. A procedure to determine quantitative performance of a system or equipment

SECTION 5.407 WATER RESISTANCE AND MOISTURE MANAGEMENT

☐ ☐ **5.407.1 WEATHER PROTECTION.** Provide a weather-resistant exterior wall and foundation envelope as required by California Building Code Section 1402.2 (Weather Protection), manufacturer's installation instructions or local ordinance, whichever is more stringent.

☐ ☐ **5.407.2 MOISTURE CONTROL.** Employ moisture control measures by the following methods.

5.407.2.1 Sprinklers. Design and maintain landscape irrigation systems to prevent spray on structures.

5.407.2.2 Entries and openings. Design exterior entries and/or openings subject to foot traffic or wind-driven rain to prevent water intrusion into buildings as follows:

5.407.2.2.1 Exterior door protection. Primary exterior entries shall be covered to prevent water intrusion by using nonabsorbent floor and wall finishes within at least 2 feet around and perpendicular to such openings plus at least one of the following:

1. An installed awning at least 4 feet in depth.
2. The door is protected by a roof overhang at least 4 feet in depth.
3. The door is recessed at least 4 feet.
4. Other methods which provide equivalent protection.

5.407.2.2.2 Flashing. Install flashings integrated with a drainage plane.

SECTION 5.408 CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING

☐ ☐ **5.408.1 CONSTRUCTION WASTE MANAGEMENT.** Recycle and/or salvage for reuse a minimum of 65% of the non-hazardous construction and demolition waste in accordance with Section 5.408.1.1, 5.408.1.2 or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent.

5.408.1.1 Construction waste management plan. Where a local jurisdiction does not have a construction and demolition waste management ordinance, submit a construction waste management plan that:

1. Identifies the construction and demolition waste materials to be diverted from disposal by efficient usage, recycling, reuse on the project or salvage for future use or sale.
2. Determines if construction and demolition waste materials will be sorted on-site (source-separated) or bulk mixed (single stream).
3. Identifies diversion facilities where construction and demolition waste material collected will be taken.
4. Specifies that the amount of construction and demolition waste materials diverted shall be calculated by weight or volume, but not by both.

5.408.1.2 Waste Management Company. Utilize a waste management company that can provide verifiable documentation that the percentage of construction and demolition waste material diverted from the landfill complies with this section.

Note: The owner or contractor shall make the determination if the construction and demolition waste material will be diverted by a waste management company.

Exceptions to Sections 5.408.1.1 and 5.408.1.2:

1. Excavated soil and land-clearing debris.
2. Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist.
3. Demolition waste meeting local ordinance or calculated in consideration of local recycling facilities and markets.

5.408.1.3 Waste stream reduction alternative. The combined weight of new construction disposal that does not exceed two pounds per square foot of building area may be deemed to meet the 65% minimum requirement as approved by the enforcing agency.

5.408.1.4 Documentation. Documentation shall be provided to the enforcing agency which demonstrates compliance with Sections 5.408.1.1, through 5.408.1.3. The waste management plan shall be updated as necessary and shall be accessible during construction for examination by the enforcing agency.

Notes:

1. Sample forms found in "A Guide to the California Green Building Standards Code (Nonresidential)" located at www.bsc.ca.gov/Home/CALGreen.aspx may be used to assist in documenting compliance with the waste management plan.
2. Mixed construction and demolition debris processors can be located at the California Department of Resources Recycling and Recovery (CalRecycle).

☐ ☐ **5.408.2 UNIVERSAL WASTE. [A]** Additions and alterations to a building or tenant space that meet the scoping provisions in Section 301.3 for nonresidential additions and alterations, shall require verification that Universal Waste items such as fluorescent lamps and ballast and mercury containing thermostats as well as other California prohibited Universal Waste materials are disposed of properly and are diverted from landfills. A list of prohibited Universal Waste materials shall be included in the construction documents.

Note: Refer to the Universal Waste Rule link at:
http://www.dtsc.ca.gov/LawsRegsPolicies/Regs/upload/OEAR-A_REGS_UWR_FinalText.pdf

☐ ☐ **5.408.3 EXCAVATED SOIL AND LAND CLEARING DEBRIS.** 100 percent of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed.

Exception: Reuse, either on or off-site, of vegetation or soil contaminated by disease or pest infestation.

Notes:

1. If contamination by disease or pest infestation is suspected, contact the County Agricultural Commissioner and follow its direction for recycling or disposal of the material.
2. For a map of know pest and/or disease quarantine zones, consult with the California Department of Food and Agriculture. (www.cdfa.ca.gov)

SECTION 5.410 BUILDING MAINTENANCE AND OPERATIONS

☐ ☐ **5.410.1 RECYCLING BY OCCUPANTS.** Provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive.

Exception: Rural jurisdictions that meet and apply for the exemption in Public Resources Code 42649.82 (a)(2)(A) et seq. shall also be exempt from the organic waste portion of this section.

5.410.1.1 Additions. All additions conducted within a 12-month period under single or multiple permits, resulting in an increase of 30% or more in floor area, shall provide recycling areas on site.

Exception: Additions within a tenant space resulting in less than a 30% increase in the tenant space floor area.

5.410.1.2 Sample ordinance. Space allocation for recycling areas shall comply with Chapter 18, Part 3, Division 30 of the *Public Resources Code*. Chapter 18 is known as the California Solid Waste Reuse and Recycling Access Act of 1991 (Act).

Note: A sample ordinance for use by local agencies may be found in Appendix A of the document at the CalRecycle's web site.

☐ ☐ **5.410.2 COMMISSIONING. [N] New buildings 10,000 square feet and over.** For new buildings 10,000 square feet and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements. Commissioning shall be performed in accordance with this section by trained personnel with experience on projects of comparable size and complexity. For I-occupancies that are not regulated by OSHPD or for I-occupancies and L-occupancies that are not regulated y the California Energy Code Section 100.0 Scope, all requirements in Sections 5.410.2 through 5.410.2.6 shall apply.

Note: For energy-related systems under the scope (Section 100) of the California Energy Code, including heating, ventilation, air conditioning (HVAC) systems and controls, indoor lighting systems and controls, as well as water heating systems and controls, refer to California Energy Code Section 120.8 for commissioning requirements

Commissioning requirements shall include:

1. Owner's or Owner representative's project requirements.
2. Basis of design.
3. Commissioning measures shown in the construction documents.
4. Commissioning plan.
5. Functional performance testing.
6. Documentation and training.
7. Commissioning report.

Exceptions:

1. Unconditioned warehouses of any size.
2. Areas less than 10,000 square feet used for offices or other conditioned accessory spaces within unconditioned warehouses.
3. Tenant improvements less than 10,000 square feet as described in Section 303.1.1.
4. Open parking garages of any size, or open parking garage areas, of any size, within a structure.

Note: For the purposes of this section, unconditioned shall mean a building, area, or room which does not provide heating and or air conditioning.

Informational Notes:

1. IAS AC 476 is an accreditation criteria for organizations providing training and/or certification of commissioning personnel. AC 476 is available to the Authority Having Jurisdiction as a reference for qualifications of commissioning personnel. AC 476 des not certify individuals to conduct functional performance tests or to adjust and balance systems.
2. Functional performance testing for heating, ventilation, air conditioning systems and lighting controls must be performed in compliance with the *California Energy Code*.

5.410.2.1 Owner's or Owner Representative's Project Requirements (OPR). [N] The expectations and requirements of the building appropriate to its phase shall be documented before the design phase of the project begins. This documentation shall include the following:
1. Environmental and sustainability goals.
2. Building sustainable goals.
3. Indoor environmental quality requirements.
4. Project program, including facility functions and hours of operation, and need for after hours operation.
5. Equipment and systems expectations.
6. Building occupant and operation and maintenance (O&M) personnel expectations.

5.410.2.2 Basis of Design (BOD). [N] A written explanation of how the design of the building systems meets the OPR shall be completed at the design phase of the building project. The Basis of Design document shall cover the following systems:

1. Renewable energy systems.
2. Landscape irrigation systems.
3. Water reuse system.

5.410.2.3 Commissioning plan. [N] Prior to permit issuance a commissioning plan shall be completed to document how the project will be commissioned. The commissioning plan shall include the following:
1. General project information.
2. Commissioning goals.
3. Systems to be commissioned. Plans to test systems and components shall include:
   a. An explanation of the original design intent.
   b. Equipment and systems to be tested, including the extent of tests.
   c. Functions to be tested.
   d. Conditions under which the test shall be performed.
   e. Measurable criteria for acceptable performance.
4. Commissioning team information.
5. Commissioning process activities, schedules and responsibilities. Plans for the completion of commissioning shall be included.

5.410.2.4 Functional performance testing. [N] Functional performance tests shall demonstrate the correct installation and operation of each component, system and system-to-system interface in accordance with the approved plans and specifications. Functional performance testing reports shall contain information addressing each of the building components tested, the testing methods utilized, and include any readings and adjustments made.

5.410.2.5 Documentation and training. [N] A Systems Manual and Systems Operations Training are required, including Occupational Safety and Health Act (OSHA) requirements in *California Code of Regulations* (CCR), Title 8, Section 5142, and other related regulations.

5.410.2.5.1 Systems manual. [N] Documentation of the operational aspects of the building shall be completed within the systems manual and delivered to the building owner or representative. The systems manual shall include the following:
1. Site information, including facility description, history and current requirements.
2. Site contact information.
3. Basic operations and maintenance, including general site operating procedures, basic troubleshooting, recommended maintenance requirements, site events log.
4. Major systems.
5. Site equipment inventory and maintenance notes.
6. A copy of verifications required by the enforcing agency or this code.
7. Other resources and documentation, if applicable.

5.410.2.5.2 Systems operations training. [N] A program for training of the appropriate maintenance staff for each equipment type and/or system shall be developed and documented in the commissioning report and shall include the following:
1. System/equipment overview (what it is, what it does and with what other systems and/or equipment it interfaces).
2. Review and demonstration of servicing/preventive maintenance.
3. Review of the information in the Systems Manual.
4. Review of the record drawings on the system/equipment.

5.410.2.6 Commissioning report. [N] A report of commissioning process activities undertaken through the design and construction phases of the building project shall be completed and provided to the owner or representative.

☐ ☐ **5.410.4 TESTING AND ADJUSTING. New buildings less than 10,000 square feet.** Testing and adjusting of systems shall be required for new buildings less than 10,000 square feet or new systems to serve an addition or alteration subject to Section 303.1.

5.410.4.2 (Reserved)

Note: For energy-related systems under the scope (Section 100) of the California Energy Code, including heating, ventilation, air conditioning (HVAC) systems and controls, indoor lighting system and controls, as well as water heating systems and controls, refer to California Energy Code Section 120.8 for commissioning requirements and Sections 120.5, 120.6, 130.4, and 140.9(b)3 for additional testing requirements of specific systems.

5.410.4.2 Systems. Develop a written plan of procedures for testing and adjusting systems. Systems to be included for testing and adjusting shall include at a minimum, as applicable to the project:

1. Renewable energy systems.
2. Landscape irrigation systems.
3. Water reuse systems.

5.410.4.3 Procedures. Perform testing and adjusting procedures in accordance with manufacturer's specifications and applicable standards on each system.

5.410.4.3.1 HVAC balancing. In addition to testing and adjusting, before a new space-conditioning system serving a building or space is operated for normal use, the system shall be balanced in accordance with the procedures defined by the Testing Adjusting and Balancing Bureau National Standards; the National Environmental Balancing Bureau Procedural Standards; Associated Air Balance Council National Standards or as approved by the enforcing agency.

5.410.4.4 Reporting. After completion of testing, adjusting and balancing, provide a final report of testing signed by the individual responsible for performing these services.

5.410.4.5 Operation and maintenance (O & M) manual. Provide the building owner or representative with detailed operating and maintenance instructions and copies of guaranties/warranties for each system. O & M instructions shall be consistent with OSHA requirements in CCR, Title 8, Section 5142, and other related regulations.

5.410.4.5.1 Inspections and reports. Include a copy of all inspection verifications and reports required by the enforcing agency.

DIVISION 5.5 ENVIRONMENTAL QUALITY

SECTION 5.501 GENERAL

5.501.1 SCOPE. The provisions of this chapter shall outline means of reducing the quantity of air contaminants that are odorous, irritating, and/or harmful to the comfort and well-being of a building's installers, occupants and neighbors.

SECTION 5.502 DEFINITIONS

5.502.1 DEFINITIONS. The following terms are defined in Chapter 2 *(and are included here for reference)*

ARTERIAL HIGHWAY. A general term denoting a highway primarily for through traffic usually on a continuous route.

A-WEIGHTED SOUND LEVEL (dBA). The sound pressure level in decibels as measured on a sound level meter using the internationally standardized A-weighting filter or as computed from sound spectral data to which A-weighting adjustments have been made.

1 BTU/HOUR. British thermal units per hour, also referred to as Btu. The amount of heat required to raise one pound of water one degree Fahrenheit per hour, a common measure of heat transfer rate. A ton of refrigeration is 12,000 Btu, the amount of heat required to melt a ton (2,000 pounds) of ice at 32^{0} Fahrenheit.

COMMUNITY NOISE EQUIVALENT LEVEL (CNEL). A metric similar to the day-night average sound level (Ldn), except that a 5 decibel adjustment is added to the equivalent continuous sound exposure level for evening hours (7pm to 10pm) in addition to the 10 dB nighttime adjustment used in the Ldn.

COMPOSITE WOOD PRODUCTS. Composite wood products include hardwood plywood, particleboard and medium density fiberboard. "Composite wood products" does not include hardboard, structural plywood, structural panels, structural composite lumber, oriented strand board, glued laminated timber, timber, prefabricated wood I-joists or finger-jointed lumber, all as specified in California Code of Regulations (CCR), Title 17, Section 93120.1(a).

Note: See CCR, Title 17, Section 93120.1.

DAY-NIGHT AVERAGE SOUND LEVEL (Ldn). The A-weighted equivalent continuous sound exposure level for a 24-hour period with a 10 dB adjustment added to sound levels occurring during nighttime hours (10p.m. to 7 a.m.).

DECIBEL (db). A measure on a logarithmic scale of the magnitude of a particular quantity (such as sound pressure, sound power, sound intensity) with respect to a reference quantity.

ELECTRIC VEHICLE (EV). An automotive-type vehicle for on-road use, such as passenger automobiles, buses, trucks, vans, neighborhood electric vehicles, electric motorcycles, and the like, primarily powered by an electric motor that draws current from a rechargeable storage battery, fuel cell, photovoltaic array, or other source of electric current. Plug-in hybrid electric vehicles (PHEV) are considered electric vehicles. For purposes of the *California Electrical Code*, off-road, self-propoelled electric vehicles, such as industrial trucks, hoists, lifts, transports, golf carts, airline ground support equipment, tractors, boats, and the like, are not included.

ELECTRIC VEHICLE CHARGING STATION(S) (EVCSj). One or more spaces intended for charging electric vehicles.

ELECTRIC VEHICLE SUPPLY EQUIPMENT (EVSE). The conductors, including the ungrounded, grounded, and equipment grounding conductors and the electric vehicle connectors, attachment plugs, and all other fittings, devices, power outlets, or apparatus installed specifically for the purpose of transferring energy between the premises wiring and the electric vehicle.

ENERGY EQUIVALENT (NOISE) LEVEL (Leq). The level of a steady noise which would have the same energy as the fluctuating noise level integrated over the time of period of interest.

EXPRESSWAY. An arterial highway for through traffic which may have partial control of access, but which may or may not be divided or have grade separations at intersections.

FREEWAY. A divided arterial highway with full control of access and with grade separations at intersections.

GLOBAL WARMING POTENTIAL (GWP). The radiative forcing impact of one mass-based unit of a given greenhouse gas relative to an equivalent unit of carbon dioxide over a given period of time. Carbon dioxide is the reference compound with a GWP of one.

GLOBAL WARMING POTENTIAL VALUE (GWP VALUE). A 100-year GWP value published by the Intergovernmental Panel on Climate Change (IPCC) in either its Second Assessment Report (SAR) (IPCC, 1995); or its Fourth Assessment A-3 Report (AR4) (IPCC, 2007). The SAR GWP values are found in column "SAR (100-yr)" of Table 2.14.; the AR4 GWP values are found in column "100 yr" of Table 2.14.

HIGH-GWP REFRIGERANT. A compound used as a heat transfer fluid or gas that is: (a) a chlorofluorocarbon, a hdrochlorofluorocarbon, a hydrofluorocarbon, a perfluorocarbon, or any compound or blend of compounds, with a GWP value equal to or greater than 150, or (B) any ozone depleting substance as defined in Title 40 of the Code of Federal Regulations, Part 82, sec.82.3 (as amended March 10, 2009).

LONG RADIUS ELBOW. Pipe fitting installed between two lengths of pipe or tubing to allow a change of direction, with a radius 1.5 times the pipe diameter.

LOW-GWP REFRIGERANT. A compound used as a heat transfer fluid or gas that: (A) has a GWP value less than 150, and (B) is not an ozone depleting substance as defined in Title 40 of the Code of Federal Regulations, Part 82, sec.82.3 (as amended March 10, 2009).

MERV. Filter minimum efficiency reporting value, based on ASHRAE 52.2–1999.

MAXIMUM INCREMENTAL REACTIVITY (MIR). The maximum change in weight of ozone formed by adding a compound to the "Base REactive Organic Gas (ROG) Mixture" per weight of compound added, expressed to hundreths of a gram (g O^3/g ROC).

PRODUCT-WEIGHTED MIR (PWMIR). The sum of all weighted-MIR for all ingredients in a product subject to this article. The PWMIR is the total product reactivity expressed to hundredths of a gram of ozone formed per gram of product (excluding container and packaging).

PSIG. Pounds per square inch, guage.

REACTIVE ORGANIC COMPOUND (ROC). Any compound that has the potential, once emitted, to contribute to ozone formation in the troposphere.

SCHRADER ACCESS VALVES. Access fittings with a valve core installed.

SHORT RADIUS ELBOW. Pipe fitting installed between two lengths of pipe or tubing to allow a change of direction, with a radius 1.0 times the pipe diameter.

SUPERMARKET. For the purposes of Section 5.508.2, a supermarket is any retail food facility with 8,000 square feet or more conditioned area, and that utilizes either refrigerated display cases, or walk-in coolers or freezers connected to remote compressor units or condensing units.

VOC. A volatile organic compound broadly defined as a chemical compound based on carbon chains or rings with vapor pressures greater than 0.1 millimeters of mercury at room temperature. These compounds typically contain hydrogen and may contain oxygen, nitrogen and other elements. See CCR Title 17, Section 94508(a)

Note: Where specific regulations are cited from different agencies such as SCAQMD, ARB, etc., the VOC definition included in that specific regulation is the one that prevails for the specific measure in question.

SECTION 5.503 FIREPLACES

☐ ☐ **5.503.1 FIREPLACES.** Install only a direct-vent sealed-combustion gas or sealed wood-burning fireplace, or a sealed woodstove or pellet stove, and refer to residential requirements in the California Energy Code, Title 24, Part 6, Subchapter 7, Section 150. Woodstoves, pellet stoves and fireplaces shall comply with applicable local ordinances.

5.503.1.1 Woodstoves. Woodstoves and pellet stoves shall comply with U.S. EPA New Source Performance Standards (NSPS) emission limits as applicable, and shall have a permanent label indicating they are certified to meet the emission limits.

SECTION 5.504 POLLUTANT CONTROL

☐ ☐ **5.504.1 TEMPORARY VENTILATION.** The permanent HVAC system shall only be used during construction if necessary to condition the building or areas of addition or alteration within the required temperature range for material and equipment installation. If the HVAC system is used during construction, use return air filters with a Minimum Efficiency Reporting Value (MERV) of 8, based on ASHRAE 52.2-1999, or an average efficiency of 30% based on ASHRAE 52.1-1992. Replace all filters immediately prior to occupancy, or, if the building is occupied during alteration, at the conclusion of construction.

☐ ☐ **5.504.3 Covering of duct openings and protection of mechanical equipment during construction.** At the time of rough installation and during storage on the construction site until final startup of the heating, cooling and ventilation equipment, all duct and other related air distribution component openings shall be covered with tape, plastic, sheetmetal or other methods acceptable to the enforcing agency to reduce the amount of dust, water and debris which may enter the system.

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LICENSED ARCHITECT
Aug 23, 2022
SCOTT DOUGLAS WURL
C-31290
06.30.23
RENEWAL DATE
STATE OF CALIFORNIA

ISSUANCE
BIDS AND PERMITS
08/22/2022

REVISIONS
NO. DATE DESCRIPTION

FILE NUMBER	92260017
PROJECT MANAGER	JD
PROFESSIONAL	Designer
DRAWN BY	
CHECKED BY	

CALGREEN CHECKLIST SHEET 2

G111

2019 CALIFORNIA GREEN BUILDING STANDARDS CODE

NONRESIDENTIAL MANDATORY MEASURES, SHEET 1 (January 2020, Includes August 2019 Supplement)

Y = YES
N/A = NOT APPLICABLE
RESPON. PARTY = RESPONSIBLE PARTY (ie: ARCHITECT, ENGINEER, OWNER, CONTRACTOR, INSPECTOR ETC.)

Y | N/A | RESPON. PARTY

☐ ☐ **5.504.4 FINISH MATERIAL POLLUTANT CONTROL.** Finish materials shall comply with Sections 5.504.4.1 through 5.504.4.6.

5.504.4.1 Adhesives, sealants and caulks. Adhesives, sealants, and caulks used on the project shall meet the requirements of the following standards:

1. Adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers and caulks shall comply with local or regional air pollution control or air quality management district rules where applicable, or SCAQMD Rule 1168 VOC limits, as shown in Tables 5.504.4.1 and 5.504.4.2. Such products also shall comply with the Rule 1168 prohibition on the use of certain toxic compounds (chloroform, ethylene dichloride, methylene chloride, perchloroethylene and trichloroethylene), except for aerosol products as specified in subsection 2, below.

2. Aerosol adhesives, and smaller unit sizes of adhesives, and sealant or caulking compounds (in units of product, less packaging, which do not weigh more than one pound and do not consist of more than 16 fluid ounces) shall comply with statewide VOC standards and other requirements, including prohibitions on use of certain toxic compounds, of *California Code of Regulations*, Title 17, commencing with Section 94507.

TABLE 5.504.4.1 - ADHESIVE VOC LIMIT[1,2]

Less Water and Less Exempt Compounds in Grams per Liter

ARCHITECTURAL APPLICATIONS	CURRENT VOC LIMIT
INDOOR CARPET ADHESIVES	50
CARPET PAD ADHESIVES	50
OUTDOOR CARPET ADHESIVES	150
WOOD FLOORING ADHESIVES	100
RUBBER FLOOR ADHESIVES	60
SUBFLOOR ADHESIVES	50
CERAMIC TILE ADHESIVES	65
VCT & ASPHALT TILE ADHESIVES	50
DRYWALL & PANEL ADHESIVES	50
COVE BASE ADHESIVES	50
MULTIPURPOSE CONSTRUCTION ADHESIVES	70
STRUCTURAL GLAZING ADHESIVES	100
SINGLE-PLY ROOF MEMBRANE ADHESIVES	250
OTHER ADHESIVES NOT SPECIFICALLY LISTED	50
SPECIALTY APPLICATIONS	
PVC WELDING	510
CPVC WELDING	490
ABS WELDING	325
PLASTIC CEMENT WELDING	250
ADHESIVE PRIMER FOR PLASTIC	550
CONTACT ADHESIVE	80
SPECIAL PURPOSE CONTACT ADHESIVE	250
STRUCTURAL WOOD MEMBER ADHESIVE	140
TOP & TRIM ADHESIVE	250
SUBSTRATE SPECIFIC APPLICATIONS	
METAL TO METAL	30
PLASTIC FOAMS	50
POROUS MATERIAL (EXCEPT WOOD)	50
WOOD	30
FIBERGLASS	80

1. IF AN ADHESIVE IS USED TO BOND DISSIMILAR SUBSTRATES TOGETHER, THE ADHESIVE WITH THE HIGHEST VOC CONTENT SHALL BE ALLOWED.

2. FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THIS TABLE, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168. www.arb.ca.gov/DRDB/SC/CURHTML/R1168.PDF

TABLE 5.504.4.2 - SEALANT VOC LIMIT

Less Water and Less Exempt Compounds in Grams per Liter

SEALANTS	CURRENT VOC LIMIT
ARCHITECTURAL	250
MARINE DECK	760
NONMEMBRANE ROOF	300
ROADWAY	250
SINGLE-PLY ROOF MEMBRANE	450
OTHER	420
SEALANT PRIMERS	
ARCHITECTURAL	
NONPOROUS	250
POROUS	775
MODIFIED BITUMINOUS	500
MARINE DECK	760
OTHER	750

NOTE: FOR ADDITIONAL INFORMATION REGARDING METHODS TO MEASURE THE VOC CONTENT SPECIFIED IN THESE TABLES, SEE SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1168.

5.504.4.3 Paints and coatings. Architectural paints and coatings shall comply with VOC limits in Table 1 of the ARB Architectural Coatings Suggested Control Measure, as shown in Table 5.504.4.3, unless more stringent local limits apply. The VOC content limit for coatings that do not meet the definitions for the specialty coatings categories listed in Table 5.504.4.3 shall be determined by classifying the coating as a Flat, Nonflat or Nonflat-High Gloss coating, based on its gloss, as defined in Subsections 4.21, 4.36 and 4.37 of the 2007 California Air Resources Board Suggested Control Measure, and the corresponding Flat, Nonflat or Nonflat-High Gloss VOC limit in Table 5.504.4.3 shall apply.

5.504.4.3.1 Aerosol Paints and coatings. Aerosol paints and coatings shall meet the PWMIR Limits for ROC in Section 94522(a)(3) and other requirements, including prohibitions on use of certain toxic compounds and ozone depleting substances, in Sections 94522(c)(2) and (d)(2) of *California Code of Regulations*, Title 17, commencing with Section 94520; and in areas under the jurisdiction of the Bay Area Air Quality Management District additionally comply with the percent VOC by weight of product limits of Regulation 8 Rule 49.

TABLE 5.504.4.3 - VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS[2,3]

GRAMS OF VOC PER LITER OF COATING, LESS WATER & LESS EXEMPT COMPOUNDS

COATING CATEGORY	CURRENT VOC LIMIT
FLAT COATINGS	50
NONFLAT COATINGS	100
NONFLAT HIGH GLOSS COATINGS	150
SPECIALTY COATINGS	
ALUMINUM ROOF COATINGS	400
BASEMENT SPECIALTY COATINGS	400
BITUMINOUS ROOF COATINGS	50
BITUMINOUS ROOF PRIMERS	350
BOND BREAKERS	350
CONCRETE CURING COMPOUNDS	350
CONCRETE/MASONRY SEALERS	100
DRIVEWAY SEALERS	50
DRY FOG COATINGS	150
FAUX FINISHING COATINGS	350
FIRE RESISTIVE COATINGS	350
FLOOR COATINGS	100
FORM-RELEASE COMPOUNDS	250
GRAPHIC ARTS COATINGS (SIGN PAINTS)	500
HIGH-TEMPERATURE COATINGS	420
INDUSTRIAL MAINTENANCE COATINGS	250
LOW SOLIDS COATINGS[1]	120
MAGNESITE CEMENT COATINGS	450
MASTIC TEXTURE COATINGS	100
METALLIC PIGMENTED COATINGS	500
MULTICOLOR COATINGS	250
PRETREATMENT WASH PRIMERS	420
PRIMERS, SEALERS, & UNDERCOATERS	100
REACTIVE PENETRATING SEALERS	350
RECYCLED COATINGS	250
ROOF COATINGS	50
RUST PREVENTATIVE COATINGS	250
SHELLACS:	
CLEAR	730
OPAQUE	550
SPECIALTY PRIMERS, SEALERS & UNDERCOATERS	100
STAINS	250
STONE CONSOLIDANTS	450
SWIMMING POOL COATINGS	340
TRAFFIC MARKING COATINGS	100
TUB & TILE REFINISH COATINGS	420
WATERPROOFING MEMBRANES	250
WOOD COATINGS	275
WOOD PRESERVATIVES	350
ZINC-RICH PRIMERS	340

1. GRAMS OF VOC PER LITER OF COATING, INCLUDING WATER & EXEMPT COMPOUNDS

2. THE SPECIFIED LIMITS REMAIN IN EFFECT UNLESS REVISED LIMITS ARE LISTED IN SUBSEQUENT COLUMNS IN THE TABLE.

3. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, ARCHITECTURAL COATINGS SUGGESTED CONTROL MEASURE, FEB. 1, 2008. MORE INFORMATION IS AVAILABLE FROM THE AIR RESOURCES BOARD.

5.504.4.3.2 Verification. Verification of compliance with this section shall be provided at the request of the enforcing agency. Documentation may include, but is not limited to, the following:

1. Manufacturer's product specification
2. Field verification of on-site product containers

5.504.4.4 Carpet Systems. All carpet installed in the building interior shall meet at least one of the testing and product requirements:

1. Carpet and Rug Institute's Green Label Plus Program.
2. Compliant with the VOC-emission limits and testing requirements specified in the California Department of Public Health Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers, Version 1.1, February 2010 (also known as CDPH Standard Method V1.1 or Specification 01350).
3. NSF/ANSI 140 at the Gold level or higher;
4. Scientific Certifications Systems Sustainable Choice; or
5. Compliant with the Collaborative for High Performance Schools California (2014 CA-CHPS) Criteria listed in the CHPS High Performance Product Database.

5.504.4.4.1 Carpet cushion. All carpet cushion installed in the building interior shall meet the requirements of the Carpet and Rug Institute Green Label program.

5.504.4.4.2 Carpet adhesive. All carpet adhesive shall meet the requirements of Table 5.504.4.1.

5.504.4.5 Composite wood products. Hardwood plywood, particleboard and medium density fiberboard composite wood products used on the interior or exterior of the buildings shall meet the requirements for formaldehyde as specified in ARB's Air Toxics Control Measure (ATCM) for Composite Wood (17 CCR 93120 et seq.). Those materials not exempted under the ATCM must meet the specified emission limits, as shown in Table 5.504.4.5.

5.504.4.5.3 Documentation. Verification of compliance with this section shall be provided as requested by the enforcing agency. Documentation shall include at least one of the following:

1. Product certifications and specifications.
2. Chain of custody certifications.
3. Product labeled and invoiced as meeting the Composite Wood Products regulation (see CCR, Title 17, Section 93120, et seq.).
4. Exterior grade products marked as meeting the PS-1 or PS-2 standards of the Engineered Wood Association, the Australian AS/NZS 2269 or European 636 3S standards.
5. Other methods acceptable to the enforcing agency.

TABLE 5.504.4.5 - FORMALDEHYDE LIMITS[1]

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[2]	0.13

1. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, AIR TOXICS CONTROL MEASURE FOR COMPOSITE WOOD AS TESTED IN ACCORDANCE WITH ASTM E 1333. FOR ADDITIONAL INFORMATION, SEE CALIFORNIA CODE OF REGULATIONS, TITLE 17, SECTIONS 93120 THROUGH 93120.12.

2. THIN MEDIUM DENSITY FIBERBOARD HAS A MAXIMUM THICKNESS OF 5/16 INCHES (8 MM).

5.504.4.6 Resilient flooring systems. For 80 percent of floor area receiving resilient flooring, installed resilient flooring shall meet at least one of the following:

1. Certified under the Resilient Floor Covering Institute (RFCI) FloorScore program;
2. Compliant with the VOC-emission limits and testing requirements specified in the California Department of Public Health's 2010 Standard Method for the Testing and Evaluation Chambers, Version 1.1, February 2010;
3. Compliant with the Collaborative for High Performance Schools California (2014 CA-CHPS) Criteria and listed in the CHPS High Performance Product Database; or
4. Products certified under UL GREENGUARD Gold (formerly the Greenguard Children's & Schools Program).

5.504.4.6.1 Verification of compliance. Documentation shall be provided verifying that resilient flooring materials meet the pollutant emission limits.

5.504.5.3 Filters. In mechanically ventilated buildings, provide regularly occupied areas of the building with air filtration media for outside and return air that provides at least a Minimum Efficiency Reporting Value (MERV) of 13. MERV 13 filters shall be installed prior to occupancy, and recommendations for maintenance with filters of the same value shall be included in the operation and maintenance manual.

Exceptions: Existing mechanical equipment.

5.504.5.3.1 Labeling. Installed filters shall be clearly labeled by the manufacturer indicating the MERV rating.

☐ ☐ **5.504.7 ENVIRONMENTAL TOBACCO SMOKE (ETS) CONTROL.** Where outdoor areas are provided for smoking, prohibit smoking within 25 feet of building entries, outdoor air intakes and operable windows and within the building as already prohibited by other laws or regulations; or as enforced by ordinances, regulations or policies of any city, county, city and county, California Community College, campus of the California State University, or campus of the University of California, whichever are more stringent. When ordinances, regulations or policies are not in place, post signage to inform building occupants of the prohibitions.

SECTION 5.505 INDOOR MOISTURE CONTROL

☐ ☐ **5.505.1 INDOOR MOISTURE CONTROL.** Buildings shall meet or exceed the provisions of California Building Code, CCR, Title 24, Part 2, Sections 1202 (Ventilation) and Chapter 14 (Exterior Walls). For additional measures, see Section 5.407.2 of this code.

SECTION 5.506 INDOOR AIR QUALITY

☐ ☐ **5.506.1 OUTSIDE AIR DELIVERY.** For mechanically or naturally ventilated spaces in buildings, meet the minimum requirements of Section 120.1 (Requirements For Ventilation) of the *California Energy Code*, or the applicable local code, whichever is more stringent, and Division 1, Chapter 4 of CCR, Title 8.

☐ ☐ **5.506.2 CARBON DIOXIDE (CO_2) MONITORING.** For buildings or additions equipped with demand control ventilation, CO_2 sensors and ventilation controls shall be specified and installed in accordance with the requirements of the California Energy Code, Section 120(c)(4).

SECTION 5.507 ENVIRONMENTAL COMFORT

☐ ☐ **5.507.4 ACOUSTICAL CONTROL.** Employ building assemblies and components with Sound Transmission Class (STC) values determined in accordance with ASTM E 90 and ASTM E 413, or Outdoor-Indoor Sound Transmission Class (OITC) determined in accordance with ASTM E 1332, using either the prescriptive or performance method in Section 5.507.4.1 or 5.507.4.2.

Exception: Buildings with few or no occupants or where occupants are not likely to be affected by exterior noise, as determined by the enforcement authority, such as factories, stadiums, storage, enclosed parking structures and utility buildings.

Exception: [DSA-SS] For public schools and community colleges, the requirements of this section and all subsections apply only to new construction.

5.507.4.1 Exterior noise transmission, prescriptive method. Wall and roof-ceiling assemblies exposed to the noise source making up the building or addition envelope or altered envelope shall meet a composite STC rating of at least 50 or a composite OITC rating of no less than 40, with exterior windows of a minimum STC of 40 or OITC of 30 in the following locations:

1. Within the 65 CNEL noise contour of an airport.

Exceptions:

1. L_{dn} or CNEL for military airports shall be determined by the facility Air Installation Compatible Land Use Zone (AICUZ) plan.
2. L_{dn} or CNEL for other airports and heliports for which a land use plan has not been developed shall be determined by the local general plan noise element.

2. Within the 65 CNEL or L_{dn} noise contour of a freeway or expressway, railroad, industrial source or fixed-guideway source as determined by the Noise Element of the General Plan.

5.507.4.1.1. Noise exposure where noise contours are not readily available. Buildings exposed to a noise level of 65 dB L_{eq} - 1-hr during any hour of operation shall have building, addition or alteration exterior wall and roof-ceiling assemblies exposed to the noise source meeting a composite STC rating of at least 45 (or OITC 35), with exterior windows of a minimum STC of 40 (or OITC 30).

5.507.4.2 Performance Method. For buildings located as defined in Section 5.507.4.1 or 5.507.4.1.1, wall and roof-ceiling assemblies exposed to the noise source making up the building or addition envelope or altered envelope shall be constructed to provide an interior noise environment attributable to exterior sources that does not exceed an hourly equivalent noise level (Leq-1Hr) of 50 dBA in occupied areas during any hour of operation.

5.507.4.2.1 Site Features. Exterior features such as sound walls or earth berms may be utilized as appropriate to the building, addition or alteration project to mitigate sound migration to the interior.

5.507.4.2.2 Documentation of Compliance. An acoustical analysis documenting complying interior soundlevels shall be prepared by personnel approved by the architect or engineer of record.

5.507.4.3 Interior sound transmission. Wall and floor-ceiling assemblies separating tenant spaces and tenant spaces and public places shall have an STC of at least 40.

Note: Examples of assemblies and their various STC ratings may be found at the California Office of Noise Control: www.toolbase.org/PDF/CaseStudies/stc_icc_ratings.pdf.

SECTION 5.508 OUTDOOR AIR QUALITY

☐ ☐ **5.508.1 Ozone depletion and greenhouse gas reductions.** Installations of HVAC, refrigeration and fire suppression equipment shall comply with Sections 5.508.1.1 and 5.508.1.2.

5.508.1.1 Chlorofluorocarbons (CFCs). Install HVAC, refrigeration and fire suppression equipment that do not contain CFCs.

5.508.1.2 Halons. Install HVAC, refrigeration and fire suppression equipment that do not contain Halons.

☐ ☐ **5.508.2 Supermarket refrigerant leak reduction.** New commercial refrigeration systems shall comply with the provisions of this section when installed in retail food stores 8,000 square feet or more conditioned area, and that utilize either refrigerated display cases, or walk-in coolers or freezers connected to remote compressor units or condensing units. The leak reduction measures apply to refrigeration systems containing high-global-warming potential (high-GWP) refrigerants with a GWP of 150 or greater. New refrigeration systems include both new facilities and the replacement of existing refrigeration systems in existing facilities.

Exception: Refrigeration systems containing low-global warming potential (low-GWP) refrigerant with a GWP value less than 150 are not subject to this section. Low-GWP refrigerants are nonozone-depleting refrigerants that include ammonia, carbon dioxide (CO_2), and potentially other refrigerants.

5.508.2.1 Refrigerant piping. Piping compliant with the California Mechanical Code shall be installed to be accessible for leak protection and repairs. Piping runs using threaded pipe, copper tubing with an outside diameter (OD) less than 1/4 inch, flared tubing connections and short radius elbows shall not be used in refrigerant systems except as noted below.

5.508.2.1.1 Threaded pipe. Threaded connections are permitted at the compressor rack.

5.508.2.1.2 Copper pipe. Copper tubing with an OD less than 1/4 inch may be used in systems with a refrigerant charge of 5 pounds or less.

5.508.2.1.2.1 Anchorage. One-fouth-inch OD tubing shall be securely clamped to a rigid base to keep vibration levels below 8 mils.

5.508.2.1.3 Flared tubing connections. Double-flared tubing connections may be used for pressure controls, valve pilot lines and oil.

Exception: Single-flared tubing connections may be used with a multiring seal coated with industrial sealant suitable for use with refrigerants and tightened in accordance with manufacturer's recommendations.

5.508.2.1.4 Elbows. Short radius elbows are only permitted where space limitations prohibit use of long radius elbows.

5.508.2.2 Valves. Valves Valves and fittings shall comply with the *California Mechanical Code* and as follows.

5.508.2.2.1 Pressure relief valves. For vessels containing high-GWP refrigerant, a rupture disc shall be installed between the outlet of the vessel and the inlet of the pressure relief valve.

5.508.2.2.1.1 Pressure detection. A pressure gauge, pressure transducer or other device shall be installed in the space between the rupture disc and the relief valve inlet to indicate a disc rupture or discharge of the relief valve.

5.508.2.2.2 Access valves. Only Schrader access valves with a brass or steel body are permitted for use.

5.508.2.2.2.1 Valve caps. For systems with a refrigerant charge of 5 pounds or more, valve caps shall be brass or steel and not plastic.

5.508.2.2.2.2 Seal caps. If designed for it, the cap shall have a neoprene O-ring in place.

5.508.2.2.2.2.1 Chain tethers. Chain tethers to fit ovr the stem are required for valves designed to have seal caps.

Exception: Valves with seal caps that are not removed from the valve during stem operation.

5.508.2.3 Refrigerated service cases. Refrigerated service cases holding food products containing vinegar and salt shall have evaporator coils of corrosion-resistant material, such as stainless steel; or be coated to prevent corrosion from these substances.

5.508.2.3.1 Coil coating. Consideration shall be given to the heat transfer efficiency of coil coating to maximize energy efficiency.

5.508.2.4 Refrigerant receivers. Refrigerant receivers with capacities greater than 200 pounds shall be fitted with a device tha indicates the level of refrigerant in the receiver.

5.508.2.5 Pressure testing. The system shall be pressure tested during installation prior to evacuation and charging.

5.508.2.5.1 Minimum pressure. The system shall be charged with regulated dry nitrogen and appropriate tracer gas to bring system pressure up to 300 psig minimum.

5.508.2.5.2 Leaks. Check the system for leaks, repair any leaks, and retest for pressure using the same gauge.

5.508.2.5.3 Allowable pressure change. The system shall stand, unaltered, for 24 hours with no more than a +/- one pound pressure change from 300 psig, measured with the same gauge.

5.508.2.6 Evacuation. The system shall be evacuated after pressure testing and prior to charging.

5.508.2.6.1 First vacuum. Pull a system vacuum down to at least 1000 microns (+/- 50 microns), and hold for 30 minutes.

5.508.2.6.2 Second vacuum. Pull a second system vacuum to a minimum of 500 microns and hold for 30 minutes.

5.508.2.6.3 Third vacuum. Pull a third vacuum down to a minimum of 300 microns, and hold for 24 hours with a maximum drift of 100 microns over a 24-hour period.

CHAPTER 7
INSTALLER & SPECIAL INSPECTOR QUALIFICATIONS

702 QUALIFICATIONS

702.1 INSTALLER TRAINING. HVAC system installers shall be trained and certified in the proper installation of HVAC systems including ducts and equipment by a nationally or regionally recognized training or certification program. Uncertified persons may perform HVAC installations when under the direct supervision and responsibility of a person trained and certified to install HVAC systems or contractor licensed to install HVAC systems. Examples of acceptable HVAC training and certification programs include but are not limited to the following:

1. State certified apprenticeship programs.
2. Public utility training programs.
3. Training programs sponsored by trade, labor or statewide energy consulting or verification organizations.
4. Programs sponsored by manufacturing organizations.
5. Other programs acceptable to the enforcing agency.

702.2 SPECIAL INSPECTION [HCD]. When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition to other certifications or qualifications acceptable to the enforcing agency, the following certifications or education may be considered by the enforcing agency when evaluating the qualifications of a special inspector:

1. Certification by a national or regional green building program or standard publisher.
2. Certification by a statewide energy consulting or verification organization, such as HERS raters, building performance contractors, and home energy auditors.
3. Successful completion of a third party apprentice training program in the appropriate trade.
4. Other programs acceptable to the enforcing agency.

Notes:

1. Special inspectors shall be independent entities with no financial interest in the materials or the project they are inspecting for compliance with this code.
2. HERS raters are special inspectors certified by the California Energy Commission (CEC) to rate homes in California according to the Home Energy Rating System (HERS).

[BSC-CG] When required by the enforcing agency, the owner or the responsible entity acting as the owner's agent shall employ one or more special inspectors to provide inspection or other duties necessary to substantiate compliance with this code. Special inspectors shall demonstrate competence to the satisfaction of the enforcing agency for the particular type of inspection or task to be performed. In addition, the special inspector shall have a certification from a recognized state, national or international association, as determined by the local agency. The area of certification shall be closely related to the primary job function, as determined by the local agency.

Note: Special inspectors shall be independent entities with no financial interest in the materials or the project they are inspecting for compliance with this code.

703 VERIFICATIONS

703.1 DOCUMENTATION. Documentation used to show compliance with this code shall include but is not limited to, construction documents, plans, specifications, builder or installer certification, inspection reports, or other methods acceptable to the enforcing agency which demonstrate substantial conformance. When specific documentation or special inspection is necessary to verify compliance, that method of compliance will be specified in the appropriate section or identified applicable checklist.

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LICENSED ARCHITECT — SCOTT DOUGLAS WURL — C-31290 — RENEWAL DATE 06-30-23 — STATE OF CALIFORNIA — Aug 23, 2022

ISSUANCE
BIDS AND PERMITS
08/22/2022

REVISIONS
NO. DATE DESCRIPTION

FILE NUMBER	92260017
PROJECT MANAGER	JD
PROFESSIONAL	Designer
DRAWN BY	
CHECKED BY	

CALGREEN CHECKLIST SHEET 3

STATE OF CALIFORNIA

Envelope Component Approach

NRCC-ENV-E

CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE			NRCC-ENV-E
This document is used to demonstrate compliance with mandatory requirements in §110.8(g) and §120.7(b) for newly constructed buildings, and §141.0(b)1 for alterations, related to roof, wall and floor assemblies. It is also used to demonstrate compliance with prescriptive requirements in §140.3 for newly constructed buildings, and §141.0 for additions and alterations, related to roof, wall, floor, door, fenestration and daylighting requirements.			
Project Name:	Charter Headend - Yucca Valley	**Report Page:**	(Page 1 of 7)
Project Address:	6720 La Contenta Road	**Date Prepared:**	6/30/2022

A. GENERAL INFORMATION

01	Project Location (city)	Yucca Valley	05	# of Stories (Habitable Above Grade)	1
02	Zipcode	92284	06	Total Conditioned Floor Area (ft²)	1634
03	Climate Zone	14	07	Total Unconditioned Floor Area (ft²)	0
04	Occupancy Types Within Project: (select all that apply): If one occupancy constitutes >= 80% of the conditioned floor area, the entire building envelope may be designed to comply with the provisions of that occupancy per §100.0(f).		08	☐	Project includes unconditioned enclosed space(s) > 5,000 ft² under a roof with a ceiling height of at least 15 ft.[1]
☒	All Nonresidential, including Relocatable Public School Building certified for use in one climate zone Occupancy: A / B / E / F / H / M / S / U	☐ Relocatable Public School Building for use in all climate zones Occupancy: E	☐ High-Rise Residential Occupancy: R-2 / R-3	☐ Hotel/Motel Guest Rooms Occupancy: R-1	

[1] FOOTNOTE: Enclosed spaces > 5,000 ft² directly under roof with ceiling height > 15 ft in climate zones 2 through 15 are required to meet the minimum daylighting requirements defined in §140.3(c). Compliance with §140.3(c) is documented in Table L. This is the only prescriptive requirement which applies to unconditioned spaces.

B. PROJECT SCOPE

This table specifies project envelope components within the permit application demonstrating compliance using the prescriptive paths outlined in §140.3, and §141.0(b)1 and §141.0(b)1 and 2 for additions and alterations.

My project consists of (check all that apply) 01	Component Types 02		
☒ New Construction or Newly Conditioned Space	☒ Roof	☒ Walls	☒ Exterior Doors
☐ One or more enclosed spaces > 5,000 ft² directly under roof with ceiling height > 15ft		☐ Floors	☐ Fenestration/ Glazed Doors[1]
☐ Addition of conditioned space	☐ Roof	☐ Walls	☐ Exterior Doors
☐ One or more enclosed spaces > 5,000 ft² directly under roof with ceiling height > 15ft		☐ Floors	☐ Fenestration/ Glazed Doors[1]
☐ Alteration of conditioned space	☐ Roof Assembly	☐ Walls	Exterior Doors NA. for Alts.
☐ One or more enclosed spaces > 5,000 ft² directly under roof with ceiling height > 15ft and lighting system installed for the first time	☐ Rooling Material	☐ Floors	☐ Fenestration/ Glazed Doors

[1] FOOTNOTE: Doors that are more than 25% glass in area are considered Glazed Doors and should be documented on table K with fenestration.

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Envelope Component Approach

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CALIFORNIA ENERGY COMMISSION

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C. COMPLIANCE RESULTS

Results in this table are automatically calculated from data input and calculations in Tables F through L. Note: If any cell on this table says "COMPLIES with Exceptional Conditions" refer to Table D. Exceptional Conditions for guidance or see the applicable table referenced below.

Opaque Envelope Components					Fenestration	Daylighting Spaces > 5,000ft²	Compliance Results
Roof Assembly	Roofing Materials	Walls	Floors	Doors			
01	02	03	04	05	06	07	08
(See Table F)	(See Table G)	(See Table H)	(See Table I)	(See Table J)	(See Table K)	(See Table L)	COMPLIES
Yes	Yes	Yes		Yes			

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.

F. ROOF ASSEMBLY SCHEDULE

This table demonstrates compliance for prescriptive roof assembly requirements in §140.3(a)1B for new construction or additions, or §141.0(b)2Bii for alterations,

01	Indicate roof types included in the project:	☐ Framed	☐ SIPS	☒ Span Deck & Concrete	☐ Metal Panels	☐ Metal Building

Framed Roof Assemblies

Structural Insulated Panels (SIPS) Roof/Ceiling Assemblies

Span Deck And Concrete Roof Assemblies

01	☒	Include Span Deck and Concrete Roof Assemblies in Area-Weighted Average U-factor Calculation[1]		
02	03	04	05	06
Tag/Plan Detail ID	Name/Description	Status	Exception to Roof Insulation Requirements in §141.0(b)2Bii (Alts. Only)	Occupancy Type
Roof	R-30 Metal Deck Roof	New		Nonresidential/ Relocatable 1 CZ

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F. ROOF ASSEMBLY SCHEDULE

07	08	09	10	11	12	13	14		15
Tag/Plan Detail ID	How Design U-factor was determined	Fireproofing	Concrete Topping Thickness (in.)	Continuous Insulation per Design	Thermal Performance Unit	Required Thermal Performance	U-factor per Design		Net Area[3] ft²
Roof	JA4 Tables			30	U-factor	0.034	per JA4		1634.4
							per Software/ Other	0.031	

[1] FOOTNOTES: If any individual assembly is non-compliant, assemblies may show compliance using an area-weighted calculation. Metal building roofs may not be combined with other roof types. The area-weighted compliance option is not available for alterations demonstrating compliance with R-values in Table 141.0-C.

[2] If "R-value" is shown in cell 13 as the Thermal Performance Unit, the R-value shown here is for continuous insulation per Table 141.0-C.

[3] Roof area minus any fenestration/ skylight area

Metal Panel Assemblies

Metal Building Roof Assemblies

Area-Weighted Average U-factor Compliance Calculation for Framed/ SIPs/ Span Deck & Concrete/ Metal Panel Roofs

01	02	03	04	05
Roof Type	Total Area of Roof Type (ft²)	Area-weighted U-factor for Roof Type: Required	Designed	Compliance Results Using Area-Weighted Calculation Option
Span Deck & Concrete	1634.4	0.034	0.031	
Total for all Roof Types:	**1634.4**	**0.034**	**0.031**	**COMPLIES**

Area-Weighted Average U-factor Compliance Calculation for Metal Building Roof

G. RATED ROOFING MATERIAL (COOL ROOF)

This table demonstrates compliance with prescriptive roof material requirements in §140.3(a)1A for new construction or additions, or §141.0(b)2B for alterations.

01	02	03	04	05	06	07	08	09	10
Tag/Plan Detail ID	Name/Description	Status	Occupancy Type	Roof Slope	Roof Material	Compliance Method	Required Minimum Material Performance	Designed Material Performance	U-factor of Assembly

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G. RATED ROOFING MATERIAL (COOL ROOF)

R-30 Metal Deck Roof	Roof	New	Nonresidential/ Relocatable 1 CZ	<2:12 (Low)	To Be Determined	Solar Reflectance (Aged)/ Emittance	Reflectance	0.63	Reflectance	0.63
							Emittance	0.75	Emittance	0.85
							SRI		SRI	

H. WALL ASSEMBLY SCHEDULE

This table demonstrates compliance with prescriptive wall assembly requirements in §140.3(a)2 and §140.3(a)3 for new constructions or additions, or mandatory wall assembly requirements in §141.0(b)1B for alterations.

01	Indicate wall types included in the project:[1]	☐ Framed	☒ Mass (new only)	☐ Concrete Sandwich Panel (new only)	☐ SIPS	☐ ICF (new only)
		☐ Metal Panels	☐ Metal Building	☐ Spandrel/ Curtain Wall	☐ Straw Bale	☐ Log Home (new only)

[1] FOOTNOTES: Wall types indicated above as "(new only)" do not have Title 24, Part 6 requirements for alterations. New construction and additions do have requirements and should be clicked above and compliance demonstrated within this table.

Mass Walls (new walls only)

01	☒	Calculate Area-Weighted Average U-factor for Mass Walls[3]

02	03	04	05	06	07	08	09	10	11		12
Tag/Plan Detail ID	Occupancy Type	How Design U-factor was determined	Mass Information: Mass Material	Fill Options	Thickness (in)	Additional Insulation Information: Frame Material & Thickness	Cavity Insulation per Design	Maximum U-factor Allowed[2]	U-factor per Design		Net Area[3] ft²
Front Wall	Nonresidential/ Relocatable 1 CZ	JA4 Tables	CMU normal weight	Solid Grout	8 in	No frame type-any Thick 0.50 in	17.5	0.184	per JA4		942
									per Software/ Other	0.053	
Left Wall	Nonresidential/ Relocatable 1 CZ	JA4 Tables	CMU normal weight	Solid Grout	8 in	No frame type-any Thick 0.50 in	17.5	0.184	per JA4		306.4
									per Software/ Other	0.053	

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H. WALL ASSEMBLY SCHEDULE

02	03	04	05	06	07	08	09	10	11		12
Tag/Plan Detail ID	Occupancy Type	How Design U-factor was determined	Mass Information: Mass Material	Fill Options	Thickness (in)	Additional Insulation Information: Frame Material & Thickness	Cavity Insulation per Design	Maximum U-factor Allowed[2]	U-factor per Design		Net Area[3] ft²
Rear Wall	Nonresidential/ Relocatable 1 CZ	JA4 Tables	CMU normal weight	Solid Grout	8 in	No frame type-any Thick 0.50 in	17.5	0.184	per JA4		972
									per Software/ Other	0.053	
Right Wall	Nonresidential/ Relocatable 1 CZ	JA4 Tables	CMU normal weight	Solid Grout	8 in	No frame type-any Thick 0.50 in	17.5	0.184	per JA4		306.4
									per Software/ Other	0.053	

[1] FOOTNOTES: If any individual assembly is non-compliant, assemblies may show compliance using an area-weighted calculation. Mass walls are combined with concrete sandwich panel, log and ICF wall types. Mass walls must meet mandatory requirements in §120.7(b), but may area-weight to comply with prescriptive requirements in Table 140.3 for new construction.

[2] Mass walls are defined as "light" or "heavy" depending on their Heat Capacity. Heat Capacity is determined in Tables 4.3.5 and 4.3.6 in Joint Appendix 4. Walls with Heat Capacity of 15 or greater are "heavy" while walls with Heat Capacity from 7 to less than 15 are "light". Walls with heat capacity less than 7 would be categorized as "Wood framed and Other" for compliance purposes.

[3] Wall area minus any fenestration area

Area-Weighted Average U-factor Compliance Calculation for Mass/ Concrete Sandwich Panel/ Log/ ICF Walls

01	02	03	04	05	06
Wall Type	Total Area of Wall Type (ft²)	Mandatory U-factor Required	Area-weighted U-factor for Wall TypeArea-weighted U-factor for Wall Type: Required	Designed	Compliance Results Using Area-Weighted Calculation Option
Light Mass	0	0.44	0	0	COMPLIES
Heavy Mass	2526.9	0.69	0.184	0.053	COMPLIES

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I. FLOOR ASSEMBLY SCHEDULE

This section does not apply to this project.

J. EXTERIOR DOOR SCHEDULE

This table demonstrates compliance with prescriptive exterior door requirements in §140.3(a)7 for new construction or additions. Doors which are being replaced (alterations) do not need to be documented in this table because there are no Title 24, Part 6 requirements that apply. Exterior doors separate conditioned space from unconditioned space or from ambient air. Doors that are more than 25% glass in area are considered Glazed Doors and should be documented on Table K with fenestration per Table B.

01	02	03	04	05	06	07	
Tag/Plan Detail ID	Name/Description	Occupancy Type	Door Type	Door Insulation	Maximum Allowed U-factor	U-factor per Design	
	Insulated Door	Nonresidential/ Relocatable 1 CZ	Swinging	Any other wood door	0.7	per JA4	0.2

K. FENESTRATION AND GLAZED DOOR SCHEDULE

This section does not apply to this project.

L. DAYLIGHT IN LARGE ENCLOSED SPACES

This section does not apply to this project.

M. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections have been made based on information provided in this document. If any selection 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 can be found online at https://www.energy.ca.gov/title24/2019standards/2019_compliance_documents/Nonresidential_Documents/NRCI/

Form/Title	Field Inspector: Pass	Fail
NRCI-ENV-01-E - Must be submitted for all buildings	☐	☐

N. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

There are no NRCA forms required for this project.

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DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name: Juergen Dietrichson	Documentation Author Signature:
Company: Progressive AE	Signature Date: 2022-06-30
Address: 1811 4 Mile Raod NE	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: Grand Rapids MI 49525	Phone: 616-361-2664

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: Scott Douglass Wurl	Responsible Designer Signature: [signature]
Company: Progressive Architecture engineerin I	Date Signed: 2022-06-30
Address: 1811 4 Mile Road	License: C-31290
City/State/Zip: Grand Rapids MI 49525	Phone: 616-361-2664

progressive | ae
PROGRESSIVE ARCHITECTURE ENGINEERING I, INC
1811 4 Mile Rd NE | Grand Rapids, MI 49525 | 616.361.2664 | www.progressiveae.com

LAKESHORE CONSTRUCTION GROUP, LLC

CHARTER HEADEND YUCCA VALLEY

6720 LA CONTENTA RD
YUCCA VALLEY, CA 92284

LICENSED ARCHITECT
Aug 23, 2022
SCOTT DOUGLAS WURL
C-31290
06.30.23
RENEWAL DATE
STATE OF CALIFORNIA

ISSUANCE
BIDS AND PERMITS
08/22/2022

REVISIONS
NO. DATE DESCRIPTION

FILE NUMBER	92260017
PROJECT MANAGER	JD
PROFESSIONAL	SDW
DRAWN BY	AG
CHECKED BY	JD

TITLE 24 DOCUMENTATION

G113

GENERAL NOTES

GN.1 THIS PROJECT HAS BEEN DESIGNED FOR THE WEIGHTS AND MATERIALS INDICATED ON THE DRAWINGS AND FOR THE LIVE LOADS INDICATED IN THE DESIGN CRITERIA. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ALLOWABLE CONSTRUCTION LOADS AND TO PROVIDE PROPER DESIGN AND CONSTRUCTION OF FALSEWORK, FORMWORK, STAGING, BRACING, SHEETING AND SHORING, ETC.

GN.2 COORDINATE THESE DRAWINGS WITH THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, AND CIVIL DRAWINGS.

GN.3 VERIFY AND COORDINATE PRIOR TO FABRICATION ALL EQUIPMENT PAD SIZES AND LOCATIONS, ANCHOR BOLT LAYOUTS, ETC WITH EQUIPMENT SELECTED.

GN.4 REFER TO THE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR SLEEVES, CURBS, INSERTS OR OPENINGS, ETC. NOT HEREIN INDICATED.

GN.5 FOR SECTIONS AND DETAILS NOT EXPLICITLY INDICATED ON THE DRAWINGS, USE TYPICAL DETAILS PROVIDED FOR CONDITIONS THAT ARE SIMILAR, OTHERWISE BRING TO THE ATTENTION OF THE STRUCTURAL ENGINEER-OF-RECORD FOR CLARIFICATION.

GN.6 ANY ALTERATION TO A STRUCTURAL ITEM OR MEMBER SHALL BE APPROVED BY THE STRUCTURAL ENGINEER-OF-RECORD.

GN.7 SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF MASONRY WALLS, MASONRY OPENINGS AND DRYWALL NON-LOAD BEARING PARTITIONS.

GN.8 BEAM OR JOIST SPACING IS EQUAL BETWEEN GRID LINES UNLESS DIMENSIONED OTHERWISE.

GN.9 TYPICAL DETAILS ARE NOTED AS SUCH AND SHALL APPLY AT ALL RELATED CONDITIONS, UNLESS NOTED OTHERWISE.

SPECIAL INSPECTION REQUIREMENTS

SP.1 SPECIAL INSPECTIONS AND STRUCTURAL TESTING ARE REQUIRED AND SHALL BE IN ACCORDANCE WITH CHAPTER 17 OF THE INTERNATIONAL BUILDING CODE, LATEST EDITION, AND THE CASE NATIONAL PRACTICE GUIDELINE FOR SPECIAL INSPECTIONS.

SP.2 THE PROGRAM OF SPECIAL INSPECTIONS AND TESTING IS A QUALITY ASSURANCE PROGRAM INTENDED TO ENSURE THAT THE WORK IS PERFORMED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, TO INFORM THE CONTRACTOR OF THE OWNER'S QUALITY ASSURANCE PROGRAM AND THE EXTENT OF THE CONTRACTOR'S RESPONSIBILITIES.

SP.3 THE OWNER SHALL ENGAGE AND PAY FOR THE SERVICES OF THE SPECIAL INSPECTOR, AGENT OF THE SPECIAL INSPECTOR, AND TESTING LABORATORY.

SP.4 THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COST OF ANY RETESTING OR REINSPECTION OF WORK WHICH FAILS TO COMPLY WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

SP.5 THE CONTRACTOR SHALL COOPERATE WITH THE SPECIAL INSPECTOR AND HIS AGENTS SO THAT THE SPECIAL INSPECTIONS AND TESTING MAY BE PERFORMED WITHOUT HINDRANCE.

SP.6 THE CONTRACTOR SHALL REVIEW THE STATEMENT OF SPECIAL INSPECTIONS AND BE RESPONSIBLE FOR COORDINATING AND SCHEDULING INSPECTIONS AND TESTS. THE CONTRACTOR SHALL NOTIFY THE SPECIAL INSPECTOR OR TESTING LABORATORY AT LEAST 24 HOURS IN ADVANCE OF A REQUIRED INSPECTION OR TEST. UNINSPECTED WORK THAT REQUIRED INSPECTION MAY BE REJECTED SOLELY ON THAT BASIS.

SP.7 THE CONTRACTOR SHALL PROVIDE INCIDENTAL LABOR AND FACILITIES TO PROVIDE ACCESS TO THE WORK TO BE INSPECTED OR TESTED, TO OBTAIN AND HANDLE SAMPLES AT THE SITE OR AT SOURCE OF PRODUCTS TO BE TESTED, TO FACILITATE TESTS AND INSPECTIONS, STORAGE AND CURING OF TEST SAMPLES.

SP.8 THE CONTRACTOR SHALL KEEP AT THE PROJECT SITE THE LATEST SET OF CONSTRUCTION DRAWINGS, FIELD SKETCHES, APPROVED SHOP DRAWINGS, AND SPECIFICATIONS FOR USE BY THE INSPECTORS AND TESTING TECHNICIANS.

SP.9 THE SPECIAL INSPECTION PROGRAM SHALL IN NO WAY RELIEVE THE CONTRACTOR OF HIS OBLIGATION TO PERFORM WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS OR FROM IMPLEMENTING AN EFFECTIVE QUALITY CONTROL PROGRAM. ALL WORK THAT IS TO BE SUBJECTED TO SPECIAL INSPECTIONS SHALL FIRST BE REVIEWED BY THE CONTRACTOR'S QUALITY CONTROL PERSONNEL.

SP.10 THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION SITE SAFETY.

FOUNDATION NOTES

FN.1 SEE THE DESIGN CRITERIA SHEET FOR GEOTECHNICAL INFORMATION FOR THIS PROJECT.

FN.2 PRIOR TO THE PLACEMENT OF CONCRETE FOR THE BUILDING FOUNDATIONS, THE CONTRACTOR SHALL EMPLOY THE SERVICES OF A CERTIFIED TESTING AGENCY TO VERIFY THE SOIL REQUIREMENTS OUTLINED IN THE DOCUMENTS, AND GEOTECHNICAL REPORT. VALUES THAT DO NOT MEET OR EXCEED THOSE INDICATED SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD FOR RESOLUTION.

FN.3 EXCAVATIONS FOR FOUNDATIONS SHALL HAVE THE SIDES AND BOTTOMS TEMPORARILY LINED WITH 6 MIL POLYETHYLENE IF PLACEMENT OF CONCRETE DOES NOT OCCUR WITHIN 24 HRS OF THE EXCAVATION OF THE FOOTING.

FN.4 FOUNDATION CONDITIONS NOTED DURING CONSTRUCTION WHICH DIFFER FROM THOSE DESCRIBED IN THE GEOTECHNICAL REPORT SHALL BE REPORTED TO THE GENERAL CONTRACTOR BEFORE FURTHER CONSTRUCTION IS ATTEMPTED.

FN.5 NO FOUNDATIONS OR SLABS SHALL BE POURED INTO OR AGAINST SUBGRADE CONTAINING FREE WATER, FROST, ICE, OR LOOSE MATERIAL.

FN.6 INTERIOR SLAB-ON-GRADE, TRENCH BOTTOMS AND OTHER SOIL SUPPORTED HORIZONTAL SURFACES SHALL BE PLACED OVER A GRANULAR SUBBASE; MINIMUM THICKNESS OF 6" OR AS OUTLINED IN THE GEOTECHNICAL REPORT. AGGREGATE SUBBASE SHALL BE SMOOTH AND LEVEL, TO WITHIN 1/4" BELOW DESIGN ELEVATION JUST PRIOR TO CONCRETE PLACEMENT, AND COMPACTED PER THE GEOTECHNICAL REPORT OR A MIN OF 95% OF THE MAX DRY DENSITY AS DETERMINED BY THE MODIFIED PROCTOR TEST (ASTM D-1557), WHICHEVER IS STRICTER.

FN.7 SEE PLUMBING, ELECTRICAL, AND CIVIL DOCUMENTS FOR REQUIRED UNDERSLAB UTILITIES.

FN.8 SEE ARCHITECTURAL DOCUMENTS FOR ALL WATERPROOFING DETAILS AND MATERIALS AS REQUIRED.

FN.9 IF UNDERMINING OF FOOTINGS OCCURS, FILL VOIDS WITH 2500 PSI CONCRETE. DO NOT ATTEMPT TO REPLACE AND RECOMPACT SOIL.

REINFORCED CONCRETE

RC.1 CONCRETE SHALL HAVE THE UNIT WEIGHT AND THE MINIMUM COMPRESSIVE STRENGTHS (f'_c) AT 28 DAYS AS SHOWN ON THE CONCRETE MATERIALS SCHEDULE. THE CONTRACTOR SHALL SUBMIT MIX DESIGNS WITH SUBSTANTIATING STRENGTH TEST DATA FOR REVIEW FOR EACH MIX DESIGN USED PER SPECIFICATION REQUIREMENTS PRIOR TO CONCRETE PLACEMENT.

RC.2 MIX DESIGNS ARE THE RESPONSIBILITY OF THE CONCRETE CONTRACTOR/SUPPLIER FOLLOWING THE REQUIREMENTS OUTLINED IN THIS SPECIFICATION AND FOR THE LOCATION IN WHICH THE CONCRETE IS BEING DEPOSITED. MAXIMUM AGGREGATE SIZE SHALL BE SELECTED TO FALL WITHIN THE RANGE SPECIFIED FOR THE REQUIRED STRENGTH INDICATED AS WELL AS TO FACILITATE PLACEMENT CONSIDERING REBAR SPACING AND CONFINEMENT, PLACEMENT AND CONSOLIDATION METHOD, AND CONSTRUCTION SEQUENCING. SLUMPS INDICATED ARE RECOMMENDATIONS FOR TYPICAL CONDITIONS ENCOUNTERED AND SHALL BE VERIFIED AND MODIFIED WITH APPROVAL FOR ACTUAL FIELD CONDITIONS.

RC.3 ENTRAIN AIR FOR CONCRETE EXPOSED TO FREEZING TEMPERATURES (EXTERIOR FOUNDATIONS, SLAB TURNDOWNS, EXTERIOR SLABS AND SLABS-ON-GRADE, AND EXTERIOR RETAINING WALLS.)

RC.4 NO CALCIUM CHLORIDE SHALL BE USED IN ANY CONCRETE.

RC.5 ALL CONCRETE WORK SHALL CONFORM TO THE REQUIREMENTS OF ACI-318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", AND CONTRACT SPECIFICATIONS. WHEN THERE IS A CONFLICT BETWEEN ACI AND SPECIFICATIONS, THE MORE STRINGENT SHALL GOVERN.

RC.6 CHAMFER ALL EXPOSED EXTERNAL CORNERS OF CONCRETE WITH 3/4" x 45 DEGREE CHAMFER, UNLESS NOTED OTHERWISE.

RC.7 CONCRETE REINFORCEMENT BARS SHALL BE DEFORMED AND CONFORM TO ASTM A615, GRADE 60. REINFORCING BARS SHALL NOT BE TACK WELDED, WELDED, HEATED OR CUT, UNLESS INDICATED ON THE DOCUMENTS. ALL LAPS SHALL BE TENSION SPLICES UNLESS NOTED OTHERWISE.

RC.8 SLABS-ON-GRADE SHALL HAVE CONSTRUCTION JOINTS OR CRACK CONTROL JOINTS AS SHOWN ON THE DRAWINGS. CONSTRUCTION JOINTS CAN BE USED AT CONTROL JOINT LOCATIONS AT CONTRACTORS OPTION. SEE PLANS AND JOINT DETAILS FOR ADDITIONAL REQUIREMENTS.

RC.9 SLABS-ON-GRADE SHALL MEET THE FLOOR FLATNESS & LEVELNESS CRITERIA OUTLINED IN THE DOCUMENTS. VALUES SHALL BE VERIFIED BY A CERTIFIED TESTING AGENCY PER ASTM E1155 AFTER WORK IS COMPLETE. ELEVATED STRUCTURAL SLABS TO MEET THE FLOOR FLATNESS CRITERIA ONLY.

RC.10 ALL CONCRETE REINFORCEMENT SHALL BE DETAILED, FABRICATED, LABELED, SUPPORTED, AND SPACED IN FORMS AND SECURED IN PLACE IN ACCORDANCE WITH THE PROCEDURES AND REQUIREMENTS OUTLINED IN THE LATEST EDITION OF THE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE", ACI 318, AND THE "MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES", ACI 315, LATEST EDITION.

RC.11 SHOP DRAWINGS SHOWING REINFORCING DETAILS, INCLUDING STEEL SIZES, SPACING AND PLACEMENT, SHALL BE SUBMITTED FOR REVIEW PRIOR TO FABRICATION.

RC.12 ADDITIONAL BARS SHALL BE PROVIDED AROUND ALL FLOOR AND WALL OPENINGS PER TYPICAL DETAILS.

RC.13 SEE ARCHITECTURAL DRAWINGS FOR TYPE AND LOCATION OF ALL FLOOR FINISHES.

RC.14 THE CONTRACTOR SHALL COORDINATE ADDITIONAL WALL AND SLAB OPENINGS NOT SHOWN ON STRUCTURAL DRAWINGS. SEE MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS.

RC.15 THE CONTRACTOR SHALL VERIFY ALL EQUIPMENT PAD SIZES AND ANCHOR BOLTS WITH EQUIPMENT SELECTED.

RC.16 FOR ALL WALLS AND PIERS, PROVIDE DOWELS INTO FOOTING AT EACH VERTICAL REINFORCEMENT BAR. UNLESS NOTED OTHERWISE, DOWEL SIZE SHALL BE SAME AS VERTICAL REINFORCEMENT.

RC.17 ALL REINFORCING INDICATED TO BE WELDED SHALL BE IN ACCORDANCE WITH ASTM A706. "LOW ALLOY STEEL DEFORMED BARS FOR CONCRETE REINFORCEMENT".

RC.18 PROVIDE CONCRETE POUR STOPS OR FORM EDGES AS REQUIRED FOR INSTALLATION OF ALL CONCRETE WORK.

RC.19 PROVIDE ADDITIONAL (2) #4 x 3'-0" REINFORCING BARS IN SLAB-ON-GRADE AT ALL RE-ENTRANT CORNERS. PLACE BARS AT MID-DEPTH OF SLAB WITH A CLEARANCE OF 2" FROM CORNER UNLESS NOTED OTHERWISE.

RC.20 PROVIDE SMOOTH DOWELS BETWEEN NEW AND EXISTING CONCRETE FLOOR SLABS UNLESS NOTED OTHERWISE.

RC.21 HORIZONTAL WALL REINFORCEMENT SHALL BE CONTINUOUS AND SHALL HAVE 90 DEGREE BENDS AND EXTENSIONS, OR CORNER BARS OF EQUIVALENT SIZE LAPPED WITH A TENSON SPLICE AT CORNERS AND INTERSECTIONS, UNLESS NOTED OTHERWISE.

RC.22 ALL WELDED WIRE FABRIC SHALL BE LAPPED TWO (2) FULL MESH PANELS AND TIED SECURELY.

CONCRETE MASONRY

CM.1 MASONRY CONSTRUCTION AND MATERIALS SHALL CONFORM TO ALL REQUIREMENTS OF THESE CONTRACT DOCUMENTS AND THE PROJECT SPECIFICATIONS.

CM.2 GROUT FOR MASONRY SHALL BE NORMAL WEIGHT AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 2000 PSI AT 28 DAYS. GROUT SHALL CONFORM TO ASTM C476. GROUT LIFTS SHALL NOT EXCEED LIMITS SET FORTH BY ACI 530, LATEST EDITION. CONSOLIDATE GROUT POURS EXCEEDING 12" IN HEIGHT BY MECHANICAL VIBRATION AND RECONSOLIDATE BY MECHANICAL VIBRATION AFTER INITIAL WATER LOSS AND SETTLEMENT HAS OCCURRED.

CM.3 THE SPECIFIED COMPRESSIVE STRENGTH OF CONCRETE MASONRY (f'_m) ON THE NET AREA SHALL BE A MINIMUM OF 2000 PSI UNLESS NOTED OTHERWISE.

CM.4 PROVIDE (2) #5 BARS CONTINUOUS IN ALL BOND BEAMS, UNLESS OTHERWISE INDICATED IN THE DRAWINGS. SEE TYPICAL MASONRY WALL ELEVATION DETAIL FOR BOND BEAM REINFORCEMENT DETAILS AT CONTROL JOINTS. SPLICE BARS AS SPECIFIED IN THE MASONRY LAP SPLICE SCHEDULE.

CM.5 PROVIDE VERTICAL REINFORCEMENT IN ALL WALLS AT SPACING INDICATED. SEE PLAN FOR WALL TYPES AND MASONRY WALL REINFORCING SCHEDULE FOR MINIMUM REINFORCING REQUIREMENTS. ALL VERTICAL REINFORCEMENT EXTENDS FULL HEIGHT OF WALL. SPLICE BARS AS SPECIFIED IN THE MASONRY LAP SPLICE SCHEDULE.

CM.6 MASONRY CELLS THAT REQUIRE VERTICAL REINFORCING BARS AS INDICATED ON THE CONTRACT DRAWINGS SHALL BE PLACED IN CENTERS OF BLOCK CELLS UNLESS NOTED OTHERWISE.

CM.7 PROVIDE LADDER TYPE HORIZONTAL JOINT REINFORCEMENT AT 16" OC MAX OR AS INDICATED ON THE ARCHITECTURAL DRAWINGS.

CM.8 PROVIDE CONTROL JOINTS AT MAJOR CHANGES IN WALL HEIGHT, CHANGES IN WALL THICKNESS, AT FLOOR CONTROL JOINTS, AT WALL OPENINGS, AND NEAR RETURN ANGLES OF L, T, AND U-SHAPED STRUCTURES. CONTROL JOINT SPACING SHALL NOT EXCEED 25'-0" OR THE DISTANCES INDICATED ON THE ARCHITECTURAL DRAWINGS.

CM.9 FILL ALL BOND BEAMS AND FIRST COURSES ABOVE LINTELS WITH GROUT. FILL ALL CELLS CONTAINING VERTICAL REINFORCEMENT WITH GROUT AND ALL OTHER CELLS NOTED ON THE CONTRACT DOCUMENTS.

CM.10 USE MORTAR TYPE AS INDICATED IN SPECIFICATIONS.

CM.11 STRUCTURAL CONCRETE MASONRY UNITS SHALL BE 2-CORE OR AS INDICATED ON THE ARCHITECTURAL DRAWINGS.

CM.12 ALL CELLS, OPEN CAVITIES, AND AIR SPACES BELOW GRADE OR FINISHED SLAB-ON-GRADE SHALL BE GROUTED.

CM.13 CONTRACTOR SHALL COORDINATE LOCATION OF ALL OPENINGS. SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR SIZE AND LOCATION OF OPENINGS. SEE TYPICAL MASONRY WALL ELEVATION DETAIL FOR OPENING REINFORCEMENT.

CM.14 MASONRY FOUNDATION AND RETAINING WALLS SHALL NOT BE BACK FILLED WITH SOIL PRIOR TO THE MORTAR AND GROUT ATTAINING THEIR RESPECTIVE MAXIMUM DESIGN STRENGTHS PER SPECIFICATIONS.

CM.15 ALL CMU WALLS SHALL BE LATERALLY SUPPORTED AT TOP OR AT INTERFACE WITH STRUCTURAL MEMBERS UNLESS NOTED OTHERWISE.

CM.16 LINTELS AND WALL OPENINGS REQUIRED BUT NOT DETAILED ON THE DRAWINGS SHALL BE CONSTRUCTED FOLLOWING THE TYPICAL LINTEL SCHEDULE.

CM.17 VERTICAL REINFORCING SHALL BE CONTINUOUS THROUGH BOND BEAMS.

CM.18 PROVIDE ADDITIONAL REINFORCING AT WALL OPENINGS, INTERSECTIONS, CORNERS AND ENDS PER TYPICAL DETAILS.

CM.19 ALL STEEL LINTELS AND STEEL MEMBERS IN EXTERIOR CMU WALLS OR EXPOSED TO WEATHER SHALL BE HOT-DIP GALVANIZED UNLESS NOTED OTHERWISE.

CM.20 PROVIDE CMU BOND BEAMS W/ 2-#5 CONTINUOUS BARS AT FLOOR AND ROOF DIAPHRAGMS FOR ATTACHMENT UNLESS NOTED OTHERWISE. STEP BOND BEAMS AS REQUIRED AT SLOPING ROOF DIAPHRAGM LOCATIONS PER TYPICAL DETAILS.

CM.21 PROVIDE CMU BOND BEAMS W/ 2-#5 CONTINUOUS BELOW ALL WALL OPENINGS GREATER THAN 2'-0" IN WIDTH. EXTEND BOND BEAM MINIMUM 2'-0" BEYOND EDGE OF OPENING, UNLESS NOTED OTHERWISE. SEE TYPICAL WALL ELEVATION FOR ADDITIONAL REQUIREMENTS.

CM.22 CMU WALL DESIGN HAS BEEN PERFORMED ASSUMING ROOF/FLOOR DIAPHRAGMS PROVIDE CONTINUOUS LATERAL SUPPORT. CONTRACTOR SHALL PROVIDE AND MAINTAIN WALL SUPPORT DURING CONSTRUCTION TO MAINTAIN STRUCTURAL INTEGRITY UNTIL CONSTRUCTION IS COMPLETE.

CM.23 ALL STEEL LINTELS, STEEL MEMBERS AND JOINT REINFORCMENT IN EXTERIOR CMU WALLS OR EXPOSED TO WEATHER SHALL BE HOT-DIP GALVANIZED UNLESS NOTED OTHERWISE.

CM.24 REINFORCEMENT SHALL BE SUPPORTED TO PREVENT DISPLACEMENTS BEYOND THE TOLERANCES PRIOR TO GROUTING.

CM.25 CLEANOUTS SHALL BE PROVIDED FOR ALL GROUT POURS OVER 5'-4"

CM.26 GROUT LIFT HEIGHT SHALL NOT EXCEED 12'-8" WHEN THE MASONRY HAS CURED FOR 4-HRS., THE GROUT SLUMP IS MAINTAINED BETWEEN 10 AND 11 I,N., AND NO INTERMEDIATE REINFORCED BOND BEAMS ARE PLACED BETWEEN THE TOP AND BOTTOM OF THE POUR HEIGHT. OTHERWISE, GROUT LIFT HEIGHT SHALL NOT EXCEED 5'-4".

CM.27 ALL CELLS AND SPACES CONTAINING REINFORCEMENT SHALL BE FILLED WITH GROUT.

STRUCTURAL STEEL

SS.1 STRUCTURAL STEEL ROLLED SHAPES AND PLATES SHALL CONFORM TO THE MATERIALS SCHEDULE. DIMENSIONS AND PROPERTIES SHALL BE IN ACCORDANCE TO ASTM A6.

SS.2 CONNECTION BOLTS FOR STRUCTURAL STEEL MEMBERS SHALL BE 3/4"Ø A325-N, UNLESS NOTED OTHERWISE, AND SHALL CONFORM TO ASTM A325; NUTS SHALL CONFORM TO ASTM A563; WASHERS SHALL CONFORM TO ASTM F436. CONNECTION BOLTS SHALL HAVE A HARDENED WASHER PLACED UNDER THE ELEMENT TO BE TIGHTENED.

SS.3 DETAILING OF STRUCTURAL STEEL CONNECTIONS MUST BE CONSISTENT WITH THE AISC MANUAL OF STEEL CONSTRUCTION, OR THE AISC DETAILING FOR STEEL CONSTRUCTION MANUAL.

SS.4 THE CODE OF STANDARD PRACTICE OF AISC 14TH EDITION ASD IS AMENDED SUCH THAT THE FABRICATOR/DETAILER IS RESPONSIBLE FOR THE DESIGN AND DETAILING OF ALL CONNECTIONS.

SS.5 ALL MEMBERS AND CONNECTIONS ON THE CONTRACT DRAWINGS AND CONNECTIONS FOR ANY PORTION OF THE STRUCTURE NOT SHOWN SHALL BE DESIGNED AND SEALED BY A PROFESSIONAL ENGINEER, LICENSED IN THE PROJECT STATE AND SUBMITTED FOR REVIEW AND SHOWN ON THE SHOP DRAWINGS.

SS.6 CONNECTIONS SHALL BE DESIGNED AND DETAILED FOR THE END REACTIONS SHOWN ON PLAN THUS [#k] (UNFACTORED). WHERE NO REACTION IS SHOWN, CONNECTION TO BE DESIGNED FOR A MINIMUM 12 KIPS. SEE TYPICAL CONNECTION DETAIL FOR ADDITIONAL INFORMATION.

SS.7 CALCULATIONS FOR DETAILS MUST SHOW A RATIONAL ANALYSIS OF A COMPLETE LOAD PATH, INCLUDING LOCAL EFFECTS ON WEBS, FLANGES, ETC. OF THE CONNECTED MEMBERS AND THE DEVICES (PLATES, SEATS, BRACKETS, BOLTS, WEBS, ETC) AFFECTING ALL CONNECTIONS. FAILURE TO SUBMIT SUCH CALCULATIONS FOR REVIEW CONCURRENT WITH SHOP DRAWING ERECTION PLANS AND DETAILS WILL BE CAUSE FOR IMMEDIATE REJECTION OF THAT SUBMITTAL.

SS.8 ALTERNATIVE CONNECTION DETAILS MAY BE SUBMITTED ON SHOP DRAWINGS BY THE CONTRACTOR ONLY IF ACCOMPANIED BY COMPLETE STRUCTURAL CALCULATIONS PREPARED AND SEALED BY A PROFESSIONAL ENGINEER AND SUBMITTED FOR REVIEW.

SS.9 BEAM AND GIRDER CONNECTIONS SHALL BE DESIGNED SUCH THAT ALL ADDITIONAL STRESSES DUE TO CONNECTION ECCENTRICITY SHALL BE DEVELOPED BY THE CONNECTION AND NOT INDUCE ANY ADDITIONAL STRESSES INTO SUPPORTING MEMBERS.

SS.10 WELDING SHALL CONFORM TO THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE AWS D1.1. ELECTRODES FOR SHOP AND FIELD WELDS SHALL BE CLASS E70XX. ALL WELDING SHALL BE DONE BY QUALIFIED, CERTIFIED WELDERS PER THE ABOVE STANDARD AND REQUIREMENTS OUTLINED IN THE PROJECT SPECIFICATIONS.

SS.11 PREHEATING OF BASE MATERIAL SHALL BE PERFORMED WHEN REQUIRED BY AWS D1.1. PREHEAT TEMPERATURE TO BE A MINIMUM OF AWS D1.1 REQUIREMENTS AND SHALL BE ADEQUATE TO PROHIBIT CRACKING. PREHEAT SHALL BE APPLIED UNIFORMLY TO THE JOINT. WHEN SELECTING METHOD OF APPLYING PREHEAT THICKNESS OF MATERIAL, SIZE OF WELD AND HEATING EQUIPMENT TO BE USED SHALL BE CONSIDERED.

SS.12 SHOP AND FIELD TESTING OF WELDS AND BOLTS SHALL BE AS OUTLINED PER THE PROJECT SPECIFICATIONS.

SS.13 ALL WELDS NOT INDICATED SHALL BE THE MINIMUM SIZE FILLET WELD PER AISC GUIDELINES.

SS.14 THERE SHALL BE NO FIELD CUTTING OF STRUCTURAL STEEL MEMBERS FOR THE WORK OF OTHER TRADES WITHOUT PRIOR APPROVAL OF THE STRUCTURAL ENGINEER.

SS.15 SEE MECHANICAL, ELECTRICAL & PLUMBING DRAWINGS FOR ADDITIONAL OPENINGS NOT INDICATED. PROVIDE SUPPLEMENTAL FRAMING FOR OPENINGS NOT SHOWN PER TYPICAL DETAILS. THE FABRICATOR SHALL VERIFY OPENING LOCATIONS WITH EQUIPMENT SELECTED AND MAKE ANY NECESSARY MODIFICATIONS AT NO ADDITIONAL COST. THE CONTRACTOR SHALL COORDINATE MECHANICAL UNITS AND OPENINGS & ARCHITECTURAL ITEMS REQUIRED FOR COMPLETE INSTALLATION OF WORK. IT IS THE RESPONSIBILITY OF FABRICATOR TO RECEIVE ALL NECESSARY INFORMATION PRIOR TO FABRICATION OF THE STEEL.

SS.16 ALL STRUCTURAL STEEL SHALL RECEIVE A SHOP PRIME FINISH PER THE PROJECT SPECIFICATIONS, EXCEPT THE FOLLOWING:
- SURFACES EMBEDDED IN CONCRETE OR MORTAR. EXTEND PRIMING OF PARTIALLY EMBEDDED MEMBERS TO A DEPTH OF 2 INCHES.
- SURFACES TO BE FIELD WELDED.
- GALVANIZED SURFACES.
- MEMBERS TO RECEIVE SPRAY-APPLIED FIREPROOFING.

ALL EXTERIOR EXPOSED STEEL AND STEEL EXPOSED TO WEATHER SHALL BE HOT-DIP GALVANIZED.

SS.17 ALL PLATES NOT INDICATED SHALL BE 5/16" MINIMUM THICKNESS. ALL ANGLES NOT INDICATED SHALL BE L3x3x5/16" MINIMUM.

SS.18 ALL MEMBERS NOTED AS CONTINUOUS SHALL BE EITHER PROVIDED AS A SINGLE PIECE CONTINUOUS FOR THE EXTENT OF ITS LENGTH OR PROVIDED IN SEGMENTS AND RE-ATTACHED WITH ADJACENT PIECES VIA FULL PENETRATION WELDS SUCH THAT THE MEMBER FUNCTIONS AS CONTINUOUS IN ITS FINAL POSITION.

STEEL ROOF DECK

RD.1 ROOF DECK SHALL HAVE THE MINIMUM DESIGN PROPERTIES AND ATTACHMENTS AS SHOWN IN THE ROOF DECK SCHEDULE ON THE DESIGN CRITERIA SHEET.

RD.2 STEEL ROOF DECK SHALL BE ASTM A1008/A NON-GALVANIZED UNLESS NOTED OTHERWISE. FOR EXTERIOR APPLICATIONS WHERE THE DECK IS EXPOSED TO WEATHER, OR WHERE DECK IS TO RECEIVE SPRAY FIRE PROOFING. PROVIDE GALVANIZED ROOF DECK CONFORMING TO ASTM A653/A. PROVIDE MINIMUM YIELD STRENGTHS AS SPECIFIED IN THE ROOF DECK SCHEDULE AND IN COMPLIANCE WITH THE STEEL DECK INSTITUTE DESIGN MANUAL.

RD.3 STEEL ROOF DECK SHALL BE ERECTED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND ERECTION LAYOUTS AND CONNECTED TO SUPPORTING MEMBERS AS INDICATED IN THE ROOF DECK SCHEDULE.

RD.4 IN ADDITION TO MEETING THE MINIMUM REQUIREMENTS INDICATED IN THE ROOF DECK SCHEDULE, THE DECK MANUFACTURER SHALL DESIGN THE ROOF DECK AND ATTACHMENTS TO STEEL FOR THE NET WIND UPLIFT.

RD.5 ALL ROOF DECK SHALL HAVE A MINIMUM SPAN CONDITION AS INDICATED IN THE ROOF DECK SCHEDULE UNLESS NOTED OTHERWISE ON THE DRAWINGS.

RD.6 ALL ENDLAPS SHALL BE A MINIMUM OF 2" AND SHALL OCCUR OVER SUPPORTS.

RD.7 DO NOT SUSPEND PIPES, DUCTS, OR CEILING FROM ROOF DECK.

POST INSTALLED ANCHORS

PA.1 POST INSTALLED ANCHORS SHALL BE MANUFACTURED BY HILTI, INC. INTERNATIONAL CODE COUNCIL (ICC) APPROVED SUBSTITUTIONS (ALTERNATES) ARE ALLOWED AND MAY BE SUBMITTED FOR REVIEW AND APPROVAL, BUT PROPER DOCUMENTATION MUST BE PROVIDED WHICH CLEARLY INDICATES EQUIVALENCY BETWEEN MANUFACTURERS, INCLUDING ANY ICC APPROVAL DOCUMENTATION, NECESSARY REDUCTIONS FOR SPACING, EDGE DISTANCES, ETC. THE ENGINEER OF RECORD IS NOT RESPONSIBLE FOR COORDINATING AND VERIFYING EQUIVALENCE FOR SUBSTITUTIONS. PROPER DOCUMENTATION MUST INCLUDE LOCATIONS, DETAIL REFERENCES, AND SPECIFIED BOLT VERSUS REQUESTED BOLT CAPACITIES. SUBMITTAL OF THE ALTERNATE MANUFACTURER'S STANDARD LOAD TABLES ALONE IS NOT ACCEPTABLE AND WILL BE REJECTED UNTIL PROPER DOCUMENTATION HAS BEEN PROVIDED.

PA.2 THE FOLLOWING ANCHORS SHALL BE USED FOR THE VARIOUS APPLICATIONS LISTED UNLESS NOTED OTHERWISE. SEE THE DRAWINGS FOR SIZE, SPACING AND REQUIRED EMBEDMENT. PROVIDE MINIMUM 3/4" DIAMETER ANCHORS AT LOCATIONS NOT INDICATED. PROVIDE STANDARD EMBEDMENT AT LOCATIONS NOT INDICATED.

ATTACHMENT TO CONCRETE:
-EXPANSION ANCHORS: HILTI KWIK BOLT TZ.
-ADHESIVE ANCHORS: HILTI HAS RODS WITH HIT-HY 200 INJECTION ADHESIVE.
-SCREW ANCHORS: HILTI KWIK HUS-EZ

ATTACHMENT TO GROUT-FILLED (SOLID) MASONRY (APPLIES TO ALL STRUCTURAL ATTACHMENTS):
-EXPANSION ANCHORS: HILTI KWIK BOLT TZ.
-ADHESIVE ANCHORS: HILTI HAS RODS WITH HIT-HY 270 INJECTION ADHESIVE.

ATTACHMENT TO HOLLOW MASONRY AND BRICK (NON-STRUCTURAL APPLICATIONS ONLY, UNO):
-EXPANSION ANCHORS: HILTI HLC SLEEVE ANCHORS.
-ADHESIVE ANCHORS: HILTI HAS RODS WITH HIT-HY 270 INJECTION ADHESIVE.

PA.3 THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND FOLLOWING THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AS WELL AS ANY NECESSARY INSTALLATION TOOLS REQUIRED FOR PLACEMENT OF ANCHORS. HOLE INSTALLATION CONDITIONS SHALL BE HAMMER DRILL DRY.

PA.4 POST INSTALLED ANCHORS (EXPANSION AND ADHESIVE TYPES) USED IN SLIP (MOVEMENT) CONNECTIONS SHALL BE STUD TYPE UNLESS NOTED OTHERWISE. ANCHORS SHALL BE INSTALLED PER THE MANUFACTURER'S TORQUE REQUIREMENTS TO ALLOW PROPER SEATING OF THE ANCHOR PRIOR TO BACKING OFF THE NUT TO FINGER-TIGHT.

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This item has been electronically signed and sealed by Jason Kuhnle using a Digital Signature and date. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

8/23/2022

ISSUANCE
BIDS AND PERMITS
08/22/2022

REVISIONS
NO. DATE DESCRIPTION

FILE NUMBER	92260017
PROJECT MANAGER	JD
PROFESSIONAL	BAA
DRAWN BY	ASP
CHECKED BY	JDK

GENERAL NOTES

S001

CONCRETE MATERIALS AND MIX DESIGN SCHEDULE

STRUCTURAL ELEMENT	ACI EXPOSURE CLASS	MAX W/C RATIO	f'_c (PSI)	AIR-ENTRAINMENT REQUIRED [SEE NOTE 3]	REMARKS
INTERIOR SLAB ON GRADE	F0	0.5	4000	NO	-
EXTERIOR FOOTINGS, FOUNDATION WALLS, PIERS	F1	0.5	4000	YES	-

NOTES:
1. FINAL MIX DESIGN TO BE BY THE CONCRETE SUPPLIER FOLLOWING THIS TABLE AS A MINIMUM.
2. SEE REINFORCED CONCRETE GENERAL NOTES AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
3. SEE ACI 318 FOR AIR ENTRAINMENT RECOMMENDATIONS BASED ON EXPOSURE TYPE AND MAXIMUM AGGREGATE SIZE.

REMARKS:
A. CONCRETE TO INCLUDE WATER-PROOFING ADMIXTURE

CONCRETE COVER SCHEDULE

LOCATION		CLEAR COVER
CONCRETE PLACED AGAINST EARTH		3"
CONCRETE PLACED IN FORMS BUT EXPOSED TO WEATHER OR EARTH	#5 BARS AND SMALLER	1 1/2"
	#6 BARS AND LARGER	2"
COLUMNS, PIERS		1 1/2"
SLABS OR WALLS NOT EXPOSED TO WEATHER OR EARTH		3/4"

NOTES:
1. MINIMUM CONCRETE COVER APPLIES TO OUTER-MOST LAYER OF REINFORCING BARS.
2. SPECIFIC DIMENSIONS FOR BAR PLACEMENT SHOWN IN SECTIONS AND DETAILS SHALL SUPERSEDE MINIMUM SCHEDULED REQUIREMENTS.
3. PROVIDE ACCESSORIES AS REQUIRED TO PROPERLY SUPPORT REINFORCING AND WELDED WIRE FABRIC TO MAINTAIN CONCRETE PROTECTION SPECIFIED.

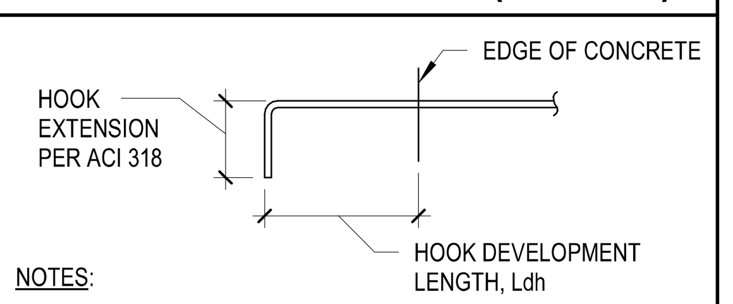
MINIMUM LAP SPLICES SCHEDULE OF REINFORCING BARS IN TENSION (INCHES)

	f'_c = 4000 psi					f'_c = 4500 psi			
BAR SIZE \ CONC CVR	3/4"	1"	1 1/2"	2"	BAR SIZE \ CONC CVR	3/4"	1"	1 1/2"	2"
#3	16	16	16	16	#3	16	16	16	16
#4	19	16	16	16	#4	18	16	16	16
#5	28	22	19	19	#5	26	21	18	18
#6	37	31	22	22	#6	36	29	21	21
#7	60	50	37	33	#7	57	47	35	31
#8	74	62	47	37	#8	70	59	44	35
#9	90	76	57	46	#9	85	71	54	44
#10	108	92	70	57	#10	102	86	66	54
#11	127	108	84	68	#11	120	102	79	65

NOTES:
1. SCHEDULE IS FOR TYPICAL SPLICE LENGTHS FOR VERTICAL OR HORIZONTAL REINFORCEMENT. REINFORCEMENT WHICH IS PLACED ABOVE 12" OR MORE OF FRESH CONCRETE IS CONSIDERED "TOP" BARS AND THE SCHEDULE VALUES ARE MULTIPLIED BY 1.3.
2. ALL SPLICES SHALL BE WIRED IN CONTACT. HORIZONTAL BARS TO BE STACKED VERTICAL UNLESS NOTED OTHERWISE.
3. ALL SPLICES ARE TENSION SPLICES WITH LENGTHS PER SCHEDULE UNLESS NOTED OTHERWISE. LAP LENGTHS SPECIFICALLY DETAILED ON DRAWINGS SHALL GOVERN IN LIEU OF LAP LENGTHS SCHEDULED.
4. SMALLER BAR LAP LENGTH SHALL BE USED WHEN SPLICING DIFFERENT SIZED BARS.
5. CLEAR COVER APPLIES TO BAR BEING LAPPED, NOT NECESSARILY MINIMUM COVER AS SHOWN IN CONCRETE COVER SCHEDULE.
6. STRAIGHT DEVELOPMENT LENGTH OF AN UNLAPPED BAR IS EQUAL TO VALUE FROM SCHEDULE DIVIDED BY 1.3.
7. SCHEDULE ASSUMES CONCRETE IS NORMAL WEIGHT WITH YIELD STRENGTH OF REINFORCEMENT, fy, EQUAL TO 60 KSI. FOR LIGHT WEIGHT CONCRETE, MULTIPLY THE SCHEDULED VALUES BY 1.3.
8. CENTER TO CENTER SPACING OF BARS IS ASSUMED TO BE GREATER THAN TWICE THE CONCRETE COVER PLUS ONE BAR DIAMETER.
9. THE TRANSVERSE REINFORCEMENT INDEX Ktr IS ASSUMED TO BE ZERO.
10. FOR EPOXY-COATED BARS WITH COVER LESS THAN 3x BAR DIAMETER OR CLEAR SPACING LESS THAN 6x BAR DIAMETER MULTIPLY THE SCHEDULED VALUES BY 1.5. FOR ALL OTHER EPOXY-COATED BARS MULTIPLY THE SCHEDULED VALUES BY 1.2.

HOOK DEVELOPMENT LENGTH SCHEDULE (INCHES)

BAR SIZE	f'_c 4000 PSI	f'_c 4500 PSI
#3	6	6
#4	7	6
#5	8	8
#6	10	9
#7	12	11
#8	13	13
#9	15	14
#10	17	16
#11	19	18



NOTES:
1. HOOK DEVELOPMENT LENGTH ALSO APPLIES FOR 180 DEGREE HOOKED BARS.
2. SIDE COVER IS ASSUMED TO BE GREATER THAN 2 1/2". IF THIS CRITERIA IS NOT MET, MULTIPLY SCHEDULED VALUES BY 1.4.
3. COVER BEYOND HOOK IS ASSUMED TO BE GREATER THAN 2".
4. SCHEDULE ASSUMES CONCRETE IS NORMAL WEIGHT WITH YIELD STRENGTH OF REINFORCEMENT, fy EQUAL TO 60 KSI. FOR LIGHT WEIGHT CONCRETE, MULTIPLY THE SCHEDULE VALUES BY 1.3.

STEEL MATERIALS SCHEDULE

STRUCTURAL ELEMENT	MINIMUM YIELD STRENGTH F_y (ksi)	REMARKS
BEAMS, GIRDERS, ALL W-SHAPES	50	ASTM A572 ASTM A992
PLATES, ANGLES, CHANNELS, ALL OTHERS	36	ASTM A36
TYPICAL ANCHOR BOLTS	36	ASTM F1554 GRADE 36
HIGH STRENGTH ANCHOR BOLTS	105	ASTM F1554 GRADE 105
PIPES	35	ASTM A53 GRADE B
HOLLOW STRUCTURAL SECTIONS (HSS) - SQUARE & RECTANGULAR	50	ASTM A500 GRADE C
HOLLOW STRUCTURAL SECTIONS (HSS) - ROUND	46	ASTM A500 GRADE C

SLAB ON GRADE SCHEDULE

TYPE	THICKNESS	REINFORCEMENT	VAPOR BARRIER	FLOOR FLATNESS		REMARKS
				F (F)	F (L)	
SG-1	5"	#3 @ 24" OC EW AND FIBER	YES	35	25	-

NOTES:
1. ALL SLABS TO BE PLACED OVER VAPOR BARRIER (WHERE INDICATED) OVER 6" MINIMUM COMPACTED GRANULAR SUBBASE (UNLESS NOTED OTHERWISE IN GEOTECH REPORT).
2. WHERE WWF OR BARS INDICATED, PLACE 1/2" FROM BOTTOM OF CONTROL JOINT CUT, UNLESS NOTED OTHERWISE.
3. SEE SPECS FOR FIBER TYPE AND DOSAGE.

ROOF DECK SCHEDULE

ROOF DECK DESIGNATION	DECK TYPE	GAGE	MIN YIELD F_y	MINIMUM DECK SECTION PROPERTIES (PER FOOT WIDTH)				DECK FASTENERS		MIN SPAN COND	REMARKS
				I_p (in^4/ft)	S_p (in^3/ft)	I_n (in^4/ft)	S_n (in^3/ft)	WELD PATTERN	# SIDELAP FASTENERS		
RD-1	1.5B	18	33 ksi	0.155	0.186	0.183	0.192	36/4	3 PER SPAN	3-SPAN UNO	-
RD-2	1.5B	18	33 ksi	0.155	0.186	0.183	0.192	36/9	3 PER SPAN	3-SPAN UNO	-

NOTES:
1. ROOF DECK SHALL BE WELDED TO SUPPORTS WITH 5/8" DIAMETER PUDDLE WELDS IN THE BOTTOM OF THE FLUTES USING THE WELD PATTERN INDICATED.
2. ROOF DECK SIDELAPS SHALL BE FASTENED USING #10 TEK SCREWS WITH THE MINIMUM NUMBER OF FASTENERS PER SPAN (BETWEEN SUPPORTS) AS INDICATED.
3. ROOF DECK SHALL BE ATTACHED TO ALL PERIMETER EDGE ANGLES, EAVE STRUTS, OR MEMBERS AROUND OPENINGS AND PENETRATIONS WITH 5/8" DIAMETER PUDDLE WELDS IN THE BOTTOM OF THE FLUTES AT 6" OC UNLESS NOTED OTHERWISE.

STRUCTURAL DESIGN CRITERIA

ALL DESIGNS SHALL CONFORM TO THE PROVISIONS OF THE CALIFORNIA BUILDING CODE 2019 EDITION.

A.1 **DEAD LOADS**

A.1.1 ROOF	MAX GRAVITY LOAD	MAX GRAVITY LOAD FOR UPLIFT
STEEL DECK	3 PSF	2 PSF
ROOFING & INSULATION	5 PSF	3 PSF
MECHANICAL (PIPING, DUCTS, ETC)	2 PSF	1 PSF
ELECTRICAL (LIGHTING, ETC)	2 PSF	1 PSF
FIRE PROTECTION (SPRINKLERS)	2 PSF	0 PSF
MISC.	26 PSF	0 PSF
TOTAL	40 PSF + STEEL SELF WEIGHT	7 PSF

B.1 **LIVE LOADS**

ROOF LIVE LOADS: GREATER OF 20 PSF OR ROOF SNOW LOAD.

C.1 **SNOW LOAD**

GROUND SNOW LOAD, Pg	5 PSF
SNOW LOAD IMPORTANCE FACTOR, Is	1.2
SNOW EXPOSURE FACTOR, Ce	1.0
SNOW THERMAL FACTOR, Ct	1.0
MINIMUM FLAT ROOF SNOW LOADS:	6.0 PSF

C.2 **SNOW DRIFT LOADS**

ROOF MEMBERS HAVE BEEN DESIGNED, WHERE APPLICABLE, FOR SNOW DRIFT LOADING IN THE AREA OF OCCURRENCE. SEE SNOW DRIFT DIAGRAM FOR SNOW DRIFT LOADING CRITERIA.

D.1 **SEISMIC LOAD**

RISK CATEGORY	IV
IMPORTANCE FACTOR, I_e	1.5
MAPPED RESPONSE PARAMETER S_S	2.232
MAPPED RESPONSE PARAMETER S_1	0.797
SITE CLASS	C
DESIGN RESPONSE PARAMETER S_{DS}	1.786
DESIGN RESPONSE PARAMETER S_{D1}	0.744
DESIGN CATEGORY	F
SEISMIC RESISTING SYSTEM	SPECIAL REINFORCED MASONRY SHEAR WALLS
DESIGN BASE SHEAR, V	156.4 K
SEISMIC RESPONSE COEFFICIENT, C_s	0.493
RESPONSE MOD. FACTOR	5.0
ANALYSIS PROCEDURE	EQUIVALENT LATERAL FORCE METHOD

E.1 **WIND LOAD**

ASCE 7-16 (PRESSURES ARE ULTIMATE, FACTOR BY 0.6 FOR ASD)

ULTIMATE DESIGN WIND SPEED, V_{ult}	140 MPH
NOMINAL DESIGN WIND SPEED, $V_{asd} = V_{ult} \sqrt{0.6}$	108.4 MPH
RISK CATEGORY	IV
WIND EXPOSURE CATEGORY	C
INTERNAL PRESSURE COEFFICIENT, GC_{pi}	+/- 0.18

E.2 **DESIGN WIND PRESSURE - MAIN WINDFORCE RESISTING SYSTEM**

MWFRS WIND PRESSURE (PSF)

SURFACE	FIELD	EDGE/CORNER
WINDWARD WALL	18.4	25.5
LEEWARD WALL	-3.5	-8.1
WINDWARD+LEEWARD	22.2	33.5

EDGE/CORNER DIMENSION, 2a = 6.0 FT

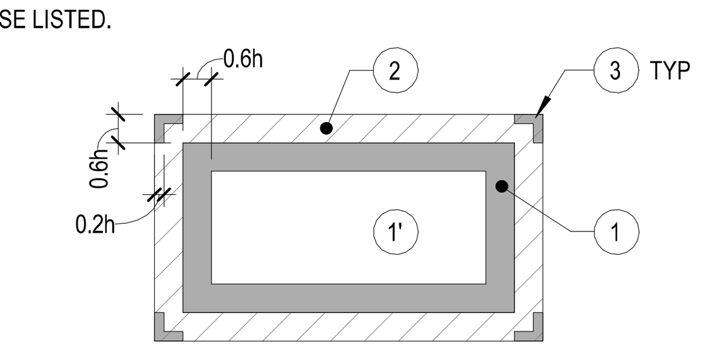
E.3 **DESIGN WIND PRESSURE - ROOF UPLIFT COMPONENTS & CLADDING**

ROOF COMPONENTS & FASTENERS SHALL BE DESIGNED FOR THE WIND PRESSURES SHOWN IN THE TABLE BELOW. VALUES ARE GROSS UPLIFT PRESSURE.

COMPONENTS & CLADDING ROOF PRESSURE (PSF)

EFFECTIVE WIND AREA	ZONE			
	1	1'	2	3
AREA < 10 ft^2	-60.6	-34.8	-80	-109
AREA = 50 ft^2	-51.3	-34.8	-74.8	-98.7
AREA > 100 ft^2	-47.3	-34.8	-62.9	-74.8

MEAN ROOF HEIGHT (h) = 13.7 ft
LINEAR INTERPOLATION IS PERMITTED FOR EFFECTIVE AREAS BETWEEN THOSE LISTED.



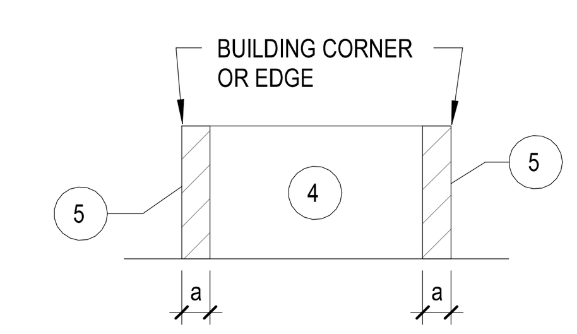
E.4 **DESIGN WIND PRESSURE - WALL COMPONENTS & CLADDING**

EXTERIOR WALL SYSTEMS & THEIR ATTACHMENTS TO THE PRIMARY STRUCTURE SHALL BE DESIGNED FOR THE POSITIVE AND NEGATIVE PRESSURES SHOWN IN THE TABLE BELOW. PLUS AND MINUS SIGNS SIGNIFY PRESSURE ACTING TOWARD AND AWAY FROM SURFACES, RESPECTIVELY.

COMPONENTS & CLADDING WALL PRESSURE (PSF)

EFFECTIVE WIND AREA	ZONE			
	POSITIVE PRESSURE		NEGATIVE PRESSURE	
	4	5	4	5
AREA < 10 ft^2	+34.8	+34.8	-37.7	-46.4
AREA = 50 ft^2	+29.7	+29.7	-32.6	-36.2
AREA > 100 ft^2	+28.2	+28.2	-31.1	-33.1

CORNER DIMENSION , a = 8.2 ft
LINEAR INTERPOLATION IS PERMITTED FOR EFFECTIVE AREAS BETWEEN THOSE LISTED.



SCHEMATIC WALL ELEVATION (ZONES 4 AND 5)

F.1 **FOUNDATION DESIGN CRITERIA**

F.1.1 GEOTECHNICAL INFORMATION FOR THIS PROJECT WAS TAKEN FROM VALUES OBTAINED FROM THE GEOTECHNICAL REPORT PROVIDED BY: SOCAL PROFESSIONAL ENGINEERS, INC. (WORK ORDER NO. 1112201.00).

F.1.2 MINIMUM FROST PROTECTION DEPTH BELOW GRADE IS 18 INCHES. DEPTH TO BE CONFIRMED BY QUALIFIED GEOTECHNICAL ENGINEER.

F.1.3 MINIMUM FACTOR OF SAFETY FOR STABILITY AGAINST SLIDING, OVERTURNING AND UPLIFT IS 1.5

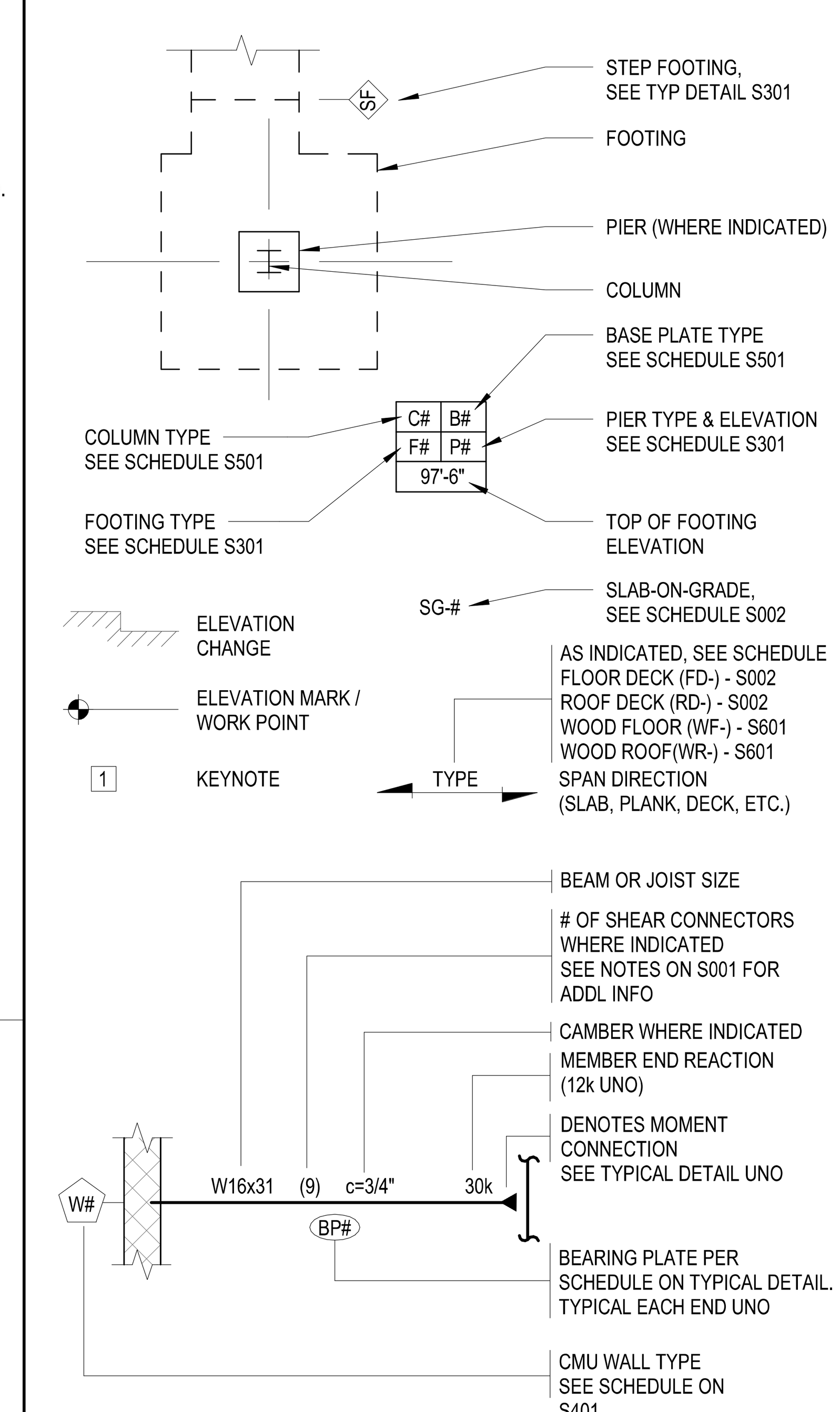
F.1.4 EQUIVALENT FLUID PRESSURE USED FOR RETAINING WALL DESIGN = 40 PCF FOR "ACTIVE" CONDITION AND 55 PCF FOR "AT REST" CONDITION.

F.1.5 ALLOWABLE SOIL BEARING CAPACITY: 2,000 PSF

ABBREVIATIONS

AB	ANCHOR BOLT
AFF	ABOVE FINISHED FLOOR
AL	ALUMINUM
ALT	ALTERNATE
ARCH	ARCHITECT, ARCHITECTURAL
BFE	BOTTOM OF FOOTING ELEVATION
BLDG	BUILDING
BOT	BOTTOM
BSE	BOTTOM OF STEEL ELEVATION
CFMF	COLD FORMED METAL FRAMING
CJ	CONTROL JOINT
CJP	COMPLETE JOINT PENETRATION WELD
CL	CENTERLINE
COL	COLUMN
CONC	CONCRETE
CONST	CONSTRUCTION
CONT	CONTINUOUS, CONTINUATION
COORD	COORDINATE
CTJ	CONSTRUCTION JOINT
CTR	CENTER
DBE	DECK BEARING ELEVATION
DEG	DEGREES
DIA	DIAMETER
DL	DEAD LOAD
DWG	DRAWING
EA	EACH
EF	EACH FACE
EOR	EDGE OF ROOF
EOS	EDGE OF SLAB
EQ	EQUAL
EW	EACH WAY
EX	EXISTING
EXP	EXPANSION
FDN	FOUNDATION
FFE	FINISHED FLOOR ELEVATION
FT	FOOT, FEET
FTG	FOOTING
FV	FIELD VERIFY
GA	GAUGE, GAGE
GALV	GALVANIZED
GT	GIRDER TRUSS
HORIZ	HORIZONTAL
HSS	HOLLOW STEEL SECTION
HT	HEIGHT
KB	KNEE BRACE
LL	LIVE LOAD
LLH	LONG LEG, HORIZONTAL
LLV	LONG LEG, VERTICAL
LVL	LAMINATED VENEER LUMBER
LW	LONG WAY
MIN	MINIMUM
MISC	MISCELLANEOUS
MTD	MOUNTED
NIC	NOT IN CONTRACT
OC	ON CENTER
OPP	OPPOSITE
PJP	PARTIAL JOINT PENETRATION WELD
PL	PLATE
PP	PARTIAL PENETRATION WELD
PSI	POUNDS PER SQUARE INCH
PT	POINT
QTY	QUANTITY
RAD	RADIUS
REQ	REQUIRED, REQUIREMENT
REV	REVISE, REVISION
SIM	SIMILAR
SL	SNOW LOAD
SPEC	SPECIFICATION
SW	SHORT WAY
T&B	TOP AND BOTTOM
TBD	TO BE DETERMINED
TCE	TOP OF CONCRETE ELEVATION
TFE	TOP OF FOOTING ELEVATION
TLE	TOP OF LEDGE ELEVATION
TPE	TOP OF PIER ELEVATION
TSE	TOP OF STEEL ELEVATION
TWE	TOP OF WALL ELEVATION
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VDB	VERTICAL DIAGONAL BRACE
VERT	VERTICAL
VXB	VERTICAL X-BRACE
W/	WITH
WL	WIND LOAD
WP	WORK POINT
WWF	WELDED WIRE FABRIC

STRUCTURAL SYMBOL LEGEND



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LICENSED PROFESSIONAL ENGINEER JASON DOUGLAS KUHNLE C 84526 CIVIL STATE OF CALIFORNIA

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8/23/2022

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ISSUANCE

BIDS AND PERMITS
08/22/2022

REVISIONS

NO. DATE DESCRIPTION

FILE NUMBER	92260017
PROJECT MANAGER	JD
PROFESSIONAL	BAA
DRAWN BY	ASP
CHECKED BY	JDK

DESIGN CRITERIA AND SCHEDULES

S002

SPECIAL INSPECTION TASKS PRIOR TO WELDING

REQUIRED IF CHECKED	INSPECTION TASK	PERFORM TASKS FOR EACH WELDED JOINT OR MEMBER	OBSERVE ITEMS ON RANDOM BASIS, OPERATIONS NEED NOT BE DELAYED PENDING INSPECTIONS	REMARKS
☑	WELDING PROCEDURE SPECIFICATIONS (WPSs) AVAILABLE	☑	☐	
☑	MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE	☑	☐	
☑	MATERIAL IDENTIFICATION (TYPE/GRADE)	☐	☑	
☑	WELDER IDENTIFICATION SYSTEM	☐	☑	
☑	FIT-UP OF GROOVE WELDS (INCLUDING JOINT GEOMETRY) • JOINT PREPARATION • DIMENSIONS (ALIGNMENT, ROOT OPENING, ROOT FACE, BEVEL) • CLEANLINESS (CONDITION OF STEEL SURFACES) • TACKING (TACK WELD QUALITY AND LOCATION) • BACKING TYPE AND FIT (IF APPLICABLE)	☐	☑	
☑	CONFIGURATION AND FINISH OF ACCESS HOLES	☐	☑	
☑	FIT-UP OF FILLET WELDS • DIMENSIONS (ALIGNMENT, GAPS AT ROOT) • CLEANLINESS (CONDITION OF STEEL SURFACES) • TACKING (TACK WELD QUALITY AND LOCATION)	☐	☑	

SPECIAL INSPECTION TASKS DURING WELDING

REQUIRED IF CHECKED	INSPECTION TASK	PERFORM TASKS FOR EACH WELDED JOINT OR MEMBER	OBSERVE ITEMS ON RANDOM BASIS, OPERATIONS NEED NOT BE DELAYED PENDING INSPECTIONS	REMARKS
☑	USE OF QUALIFIED WELDERS	☐	☑	
☑	CONTROL AND HANDLING OF WELDING CONSUMABLES • PACKAGING • EXPOSURE CONTROL	☐	☑	
☑	NO WELDING OVER CRACKED TACK WELDS	☐	☑	
☑	ENVIRONMENTAL CONDITIONS • WIND SPEED WITHIN LIMITS • PRECIPITATION AND TEMPERATURE	☐	☑	
☑	WPS FOLLOWED • SETTINGS ON WELDING EQUIPMENT • TRAVEL SPEED • SELECTED WELDING MATERIALS • SHIELDING GAS TYPE/FLOW RATE • PREHEAT APPLIED • INTERPASS TEMPERATURE MAINTAINED (MIN/MAX) • PROPER POSITION (F, V, H, OH)	☐	☑	
☑	WELDING TECHNIQUES • INTERPASS AND FINAL CLEANING • EACH PASS WITHIN PROFILE LIMITATIONS • EACH PASS MEETS QUALITY REQUIREMENTS	☐	☑	

SPECIAL INSPECTION TASKS AFTER WELDING

REQUIRED IF CHECKED	INSPECTION TASK	PERFORM TASKS FOR EACH WELDED JOINT OR MEMBER	OBSERVE ITEMS ON RANDOM BASIS, OPERATIONS NEED NOT BE DELAYED PENDING INSPECTIONS	REMARKS
☑	WELDS CLEANED	☐	☑	
☑	SIZE, LENGTH AND LOCATION OF WELDS	☑	☐	
☑	WELDS MEET VISUAL ACCEPTANCE CRITERIA • CRACK PROHIBITION • WELD/BASE-METAL FUSION • CRATER CROSS SECTION • WELD PROFILES • WELD SIZE • UNDERCUT • POROSITY	☑	☐	
☑	ARCH STRIKES	☑	☐	
☑	k-AREA	☑	☐	
☑	BACKING REMOVED AND WELD TABS REMOVED (IF REQUIRED)	☑	☐	
☑	REPAIR ACTIVITIES	☑	☐	
☑	DOCUMENT ACCEPTANCE OR REJECTION OF WELDED JOINT OR MEMBER	☑	☐	

REQUIRED SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTRUCTION

REQUIRED IF CHECKED	INSPECTION TASK	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	REMARKS
☑	INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS AND VERIFY PLACEMENT	☐	☑	
☑	REINFORCING BAR WELDING: a. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706;	☐	☑	
	b. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16"; AND	☐	☑	
	c. INSPECT ALL OTHER WELDS	☑	☐	
☑	INSPECT ANCHORS CAST IN CONCRETE	☐	☑	
☑	INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS a. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS	☑	☐	
	b. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN a.	☐	☑	
☑	VERIFY USE OF REQUIRED DESIGN MIX	☐	☑	
☑	PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS AND DETERMINE THE TEMPERATURE OF THE CONCRETE	☑	☐	
☑	INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES	☑	☐	
☑	VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES	☐	☑	
☐	INSPECT PRESTRESSED CONCRETE FOR: a. APPLICATION OF PRESTRESSING FORCES; AND	☑	☐	
	b. GROUTING OF BONDED PRESTRESSING TENDONS	☑	☐	
☐	INSPECT ERECTION OF PRECAST CONCRETE MEMBERS	☐	☑	
☐	VERIFY IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS	☐	☑	
☑	INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED	☐	☑	

REQUIRED SPECIAL INSPECTIONS OF TESTS OF SOILS

REQUIRED IF CHECKED	INSPECTION TASK	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	REMARKS
☑	VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY	☐	☑	
☑	VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL	☐	☑	
☑	PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS	☐	☑	
☑	VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESS DURING PLACEMENT AND COMPACTION OF COMPACTED FILL	☑	☐	
☑	PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY	☐	☑	

SPECIAL INSPECTION FOR MASONRY LEVEL C QUALITY ASSURANCE

REQUIRED IF CHECKED	INSPECTION TASK	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	REMARKS
☑	1. VERIFY COMPLIANCE WITH THE APPROVED SUBMITTALS	☐	☑	
☑	2. VERIFY THAT THE FOLLOWING ARE IN COMPLIANCE:			
☑	a. PROPORTIONS OF SITE-PREPARED MORTAR, GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS	☐	☑	
☑	b. GRADE, TYPE, AND SIZE OF REINFORCEMENT AND ANCHOR BOLTS, AND PR4ESTRESSING TENDONS AND ANCHORAGES	☐	☑	
☑	c. PLACEMENT OF MASONRY UNITS AND CONSTRUCTION OF MORTAR JOINTS	☐	☑	
☑	d. PLACEMENT OF REINFORCEMENT, CONNECTORS, AND PRESTRESSING TENDONS AND ANCHORAGES	☑	☐	
☑	e. GROUT SPACE PRIOR TO GROUTING	☑	☐	
☑	f. PLACEMENT OF GROUT AND PRESTRESSING GROUT FOR BONDED TENDONS	☑	☐	
☑	g. SIZE AND LOCATION OF STRUCTURAL ELEMENTS	☐	☑	
☑	h. TYPE, SIZE, AND LOCATION OF ANCHORS INCLUDING OTHER DETAILS OF ANCHORAGE OF MASONRY TO STRUCTURAL MEMBERS, FRAMES OR OTHER CONSTRUCTION	☑	☐	
☑	i. WELDING OF REINFORCEMENT	☑	☐	
☑	j. PREPARATION, CONSTRUCTION AND PROTECTION OF MASONRY DURING COLD WEATHER(TEMPERATURE BELOW 40°F(4.4°C)) OR HOT WEATHER (TEMPERATURE ABOVE 90°F (32.2°C))	☐	☑	
☐	k. APPLICATION AND MEASUREMENT OF PRESTRESSING FORCE	☑	☐	
☐	l. PLACEMENT OF AAC MASONRY UNITS AND CONSTRUCTION OF THIN-BED MORTAR JOINTS	☑	☐	
☐	m. PROPERTIES OF THIN-BED MORTAR FOR AAC MASONRY	☑	☐	
☑	3. OBSERVE PREPARATION OF GROUT SPECIMENS, MORTAR SPECIMENS, AND/OR PRISMS	☑	☐	

METAL DECK SPECIAL INSPECTION NOTES:
1. "OBSERVE" SHALL MEAN TO INSPECT THESE ON AN INTERMITTENT BASIS. OPERATIONS NEED NOT BE DELAYED PENDING THESE INSPECTIONS.
2. "PERFORM" SHALL MEAN TO PERFORM THESE TASKS PRIOR TO FINAL ACCEPTANCE FOR EACH ITEM OR ELEMENT.
3. REFER TO SDI QA/QC STANDARD FOR MORE INFORMATION.

SPECIAL INSPECTION OF FABRICATED ITEMS

REQUIRED IF CHECKED	INSPECTION TASK	REMARKS
☑	SPECIAL INSPECTIONS OF FABRICATED ITEMS SHALL BE PERFORMED IN ACCORDANCE WITH SECTIONS 1704.2.5 OF IBC. WHERE FABRICATION OF STRUCTURAL, LOAD-BEARING MEMBERS OR ASSEMBLIES IS BEING CONDUCTED ON THE PREMISES OF FABRICATOR'S SHOP, SPECIAL INSPECTION OF THE FABRICATED ITEMS SHALL BE PERFORMED DURING FABRICATION, UNLESS ONE OF THE TWO EXEMPTIONS BELOW APPLY:	
	EXCEPTION 1: SPECIAL INSPECTIONS DURING FABRICATION ARE NOT REQUIRED WHERE THE FABRICATOR MAINTAINS APPROVED DETAIL FABRICATION AND QUALITY CONTROL PROCEDURES THAT PROVIDE A BASIS FOR CONTROL OF THE WORKMANSHIP AND THE FABRICATOR'S ABILITY TO CONFORM TO APPROVED CONSTRUCTION DOCUMENTS AND BUILDING CODES. APPROVAL SHALL BE BASED UPON REVIEW OF FABRICATION AND QUALITY CONTROL PROCEDURES AND PERIODIC INSPECTIONS OF FABRICATION PRACTICES BY THE BUILDING OFFICIAL. APPROVAL BY THE BUILDING OFFICIAL REQUIRED TO USE THIS EXCEPTION.	
	EXCEPTION 2: SPECIAL INSPECTIONS DURING FABRICATION ARE NOT REQUIRED WHERE THE FABRICATOR IS REGISTERED AND APPROVED TO PERFORM SUCH WORK WITHOUT SPECIAL INSPECTION. APPROVAL SHALL BE BASED UPON REVIEW OF THE FABRICATOR'S WRITTEN PROCEDURAL AND QUALITY CONTROL MANUALS AND PERIODIC AUDITING OF FABRICATION PRACTICES BY AN APPROVED AGENCY (AN ESTABLISHED AND RECOGNIZED AGENCY THAT IS REGULARLY ENGAGED IN CONDUCTING TESTS OR FURNISHING INSPECTION SERVICES, WHERE SUCH AGENCY HAS BEEN APPROVED BY THE BUILDING OFFICIAL).	
☑	STRUCTURAL STEEL	
☐	STEEL JOISTS & GIRDERS	
☐	PRE-CAST/PRESTRESSED CONCRETE	
☐	METAL BUILDING SYSTEMS	
☐	WOOD TRUSSES	
☐	WOOD WALL PANELS	
☐	COLD-FORMED STEEL TRUSSES	
☐	COLD-FORMED STEEL FRAMING	

INSPECTION OR EXECUTION TASKS PRIOR TO DECK PLACEMENT

REQUIRED IF CHECKED	INSPECTION TASK	PERFORM	OBSERVE	REMARKS
☑	VERIFY COMPLIANCE OF MATERIALS (DECK AND ALL DECK ACCESSORIES) WITH CONSTRUCTION DOCUMENTS, INCLUDING PROFILES, MATERIAL PROPERTIES, AND BASE METAL THICKNESS	☑	☐	
☑	DOCUMENT ACCEPTANCE OR REJECTION OF DECK AND DECK ACCESSORIES	☑	☐	

INSPECTION OR EXECUTION TASKS AFTER DECK PLACEMENT

REQUIRED IF CHECKED	INSPECTION TASK	PERFORM	OBSERVE	REMARKS
☑	VERIFY COMPLIANCE OF DECK AND ALL DECK ACCESSORIES INSTALLATION WITH CONSTRUCTION DOCUMENTS	☑	☐	
☑	VERIFY DECK MATERIALS ARE REPRESENDED BY THE MILL CERTIFICATIONS THAT COMPLY WITH THE CONSTRUCTION DOCUMENTS	☑	☐	
☑	DOCUMENT ACCEPTANCE OR REJECTION OF INSTALLATION OF DECK AND DECK ACCESSORIES	☑	☐	

INSPECTION OR EXECUTION TASKS PRIOR TO DECK WELDING

REQUIRED IF CHECKED	INSPECTION TASK	PERFORM	OBSERVE	REMARKS
☑	WELDING PROCEDURE SPECIFICATIONS (WPS) AVAILABLE	☐	☑	
☑	MANUFACTURER CERTIFICATIONS FOR WELDING CONSUMABLES AVAILABLE	☐	☑	
☑	MATERIAL IDENTIFICATION (TYPE/GRADE)	☐	☑	
☑	CHECK WELDING EQUIPMENT	☐	☑	

INSPECTION OR EXECUTION TASKS DURING DECK WELDING

REQUIRED IF CHECKED	INSPECTION TASK	PERFORM	OBSERVE	REMARKS
☑	USE OF QUALIFIED WELDERS	☐	☑	
☑	CONTROL AND HANDLING OF WELDING CONSUMABLES	☐	☑	
☑	ENVIRONMENTAL CONDITIONS (WIND SPEED, MOISTURE, TEMPERATURE)	☐	☑	
☑	WPS FOLLOWED	☐	☑	

INSPECTION OR EXECUTION TASKS AFTER DECK WELDING

REQUIRED IF CHECKED	INSPECTION TASK	PERFORM	OBSERVE	REMARKS
☑	VERIFY SIZE AND LOCATION OF WELDS, INCLUDING SUPPORT, SIDELAP, AND PERIMETER WELDS	☑	☐	
☑	WELDS MEET VISUAL ACCEPTANCE CRITERIA	☑	☐	
☑	VERIFY REPAIR ACTIVITIES	☑	☐	
☑	DOCUMENT ACCEPTANCE OR REJECTION OF WELDS	☑	☐	

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LICENSED PROFESSIONAL ENGINEER
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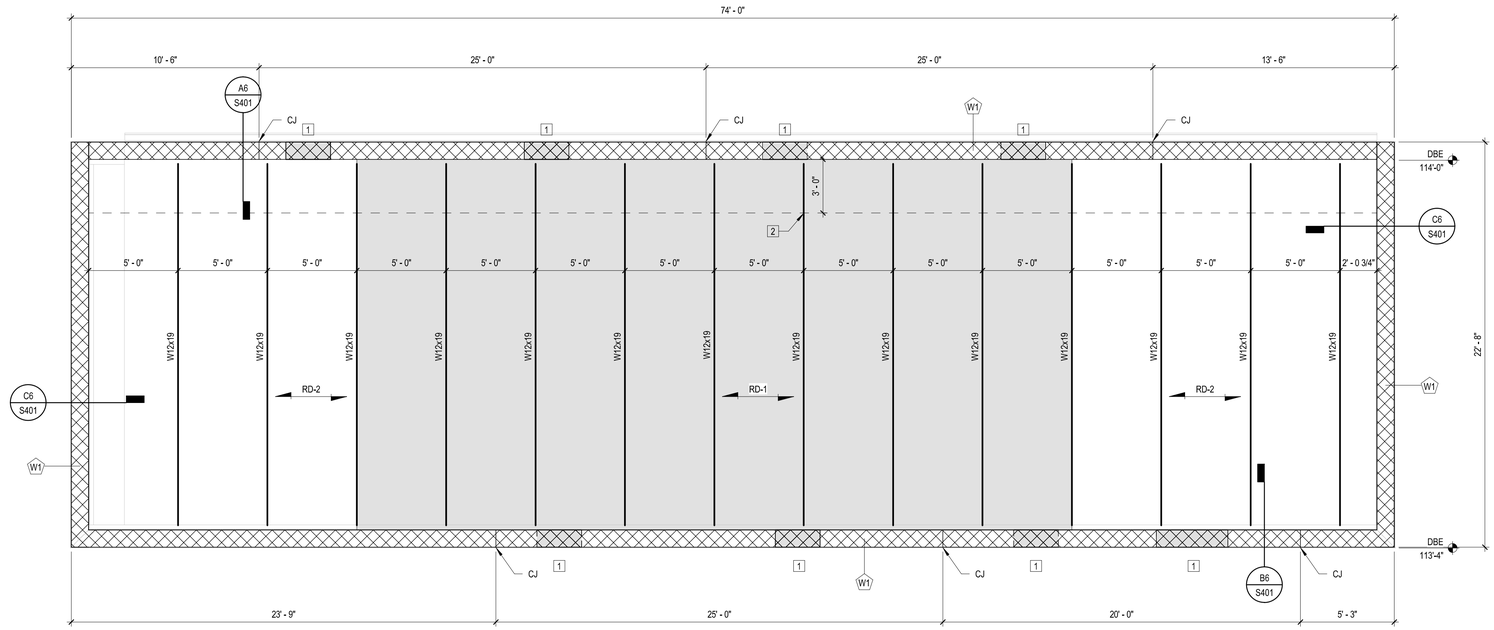
8/23/2022

ISSUANCE
BIDS AND PERMITS
08/22/2022

REVISIONS
NO. DATE DESCRIPTION

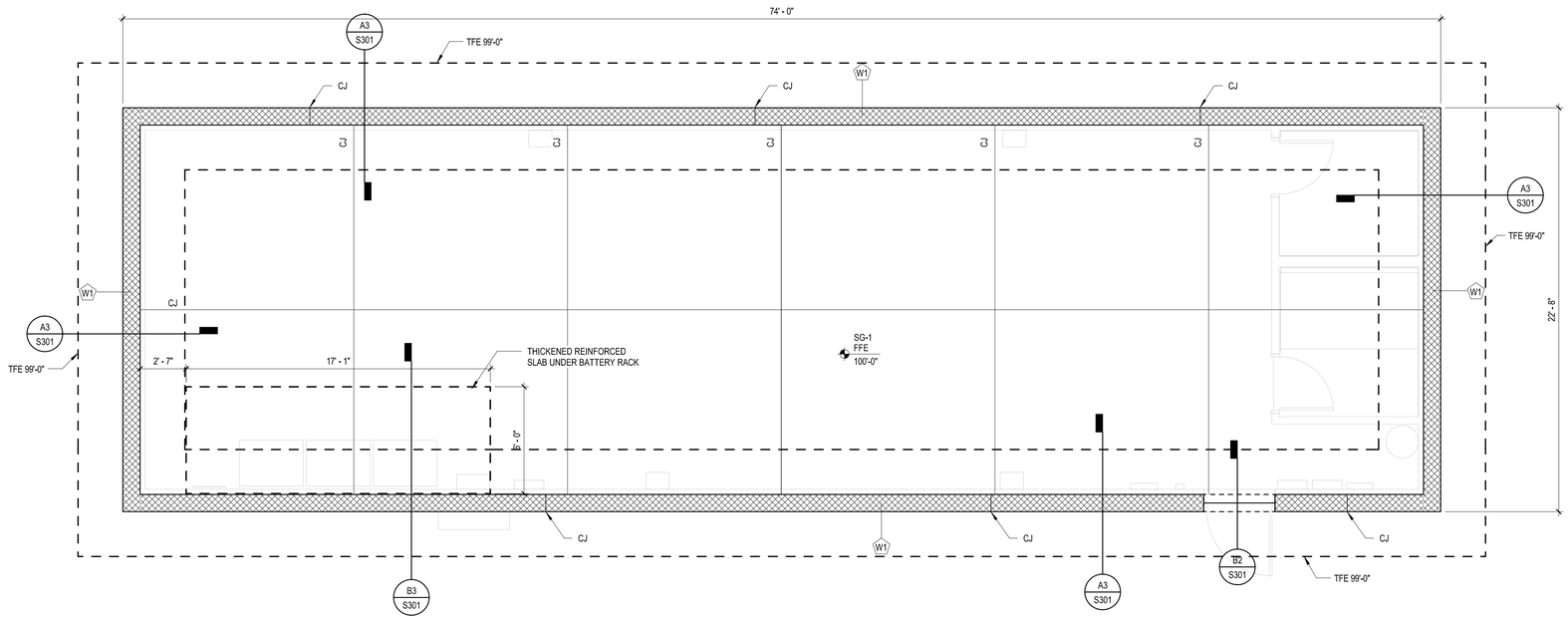
FILE NUMBER	92260017
PROJECT MANAGER	JD
PROFESSIONAL	BAA
DRAWN BY	ASP
CHECKED BY	JDK

SPECIAL INSPECTIONS
S003



ROOF FRAMING PLAN

1/4" = 1'-0"



FOUNDATION PLAN

1/4" = 1'-0"

KEYNOTE LEGEND

#	NOTE
1	MASONRY LINTEL SEE REINFORCED MASONRY LINTEL SCHEDULE ON S401. REFER TO ARCHITECTURAL DRAWINGS FOR OPENING SIZES, LOCATIONS AND QUANTITIES.
2	CENTER OF DC BUS DUCT CABLE TRAY LOADING MAXIMUM OF 600 LBS/FT.

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STRUCTURAL PLANS

S101