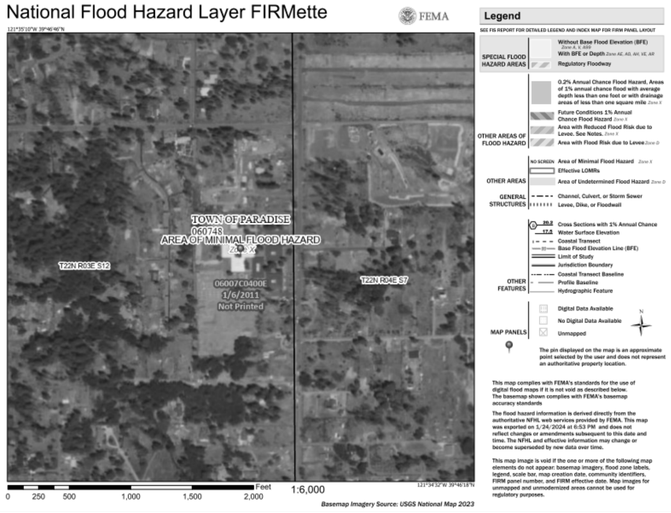
PARADISE RIDGE ELEMENTARY SCHOOL

PORTABLES
6593 PENTZ ROAD
PARADISE, CA 95969
PARADISE UNIFIED SCHOOL DISTRICT

DSA File No. 4-48
App. No. 02-122123
PTN. 61531-83



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R1	COVER SHEET
R2	TYPICAL PLAN DETAILS & SPECIFICATIONS
R3	OPTIONAL RAMP AND LANDING PLANS
R4	COVER SHEET
TOTAL SHEET COUNT: 49	

PROJECT DIRECTORY

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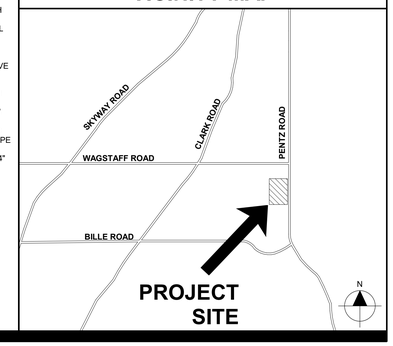
VICINITY MAP



DSA REQUIREMENTS

1. ALL WORK SHALL CONFORM TO THE 2022 EDITION OF THE TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR).
2. AS A FACILITY WHICH COMES UNDER THE APPROVAL AND AUTHORITY OF THE DIVISION OF THE STATE ARCHITECT (DSA), THIS PROJECT IS SUBJECT TO DRAWING AND JOB SITE REVIEW BY A REPRESENTATIVE OF DSA.
3. CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS AFFECTING FLS, SSS, AND/OR ACS SHALL BE MADE BY ADDENDA OR A CHANGE ORDER APPROVED BY THE DIVISION OF THE STATE ARCHITECT, AS REQUIRED BY SECTION 4-338, PART 1, TITLE 24, CCR AND DSA IR A-6.
4. A DSA CERTIFIED PROJECT INSPECTOR EMPLOYED BY THE DISTRICT (OWNER) AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT SHALL PROVIDE CONTINUOUS INSPECTION OF THE WORK. THE DUTIES OF THE INSPECTOR ARE DEFINED IN SECTION 4-342, PART 1, TITLE 24, CCR.
5. GRADING PLANS, DRAINAGE IMPROVEMENTS, ROAD AND ACCESS REQUIREMENTS AND ENVIRONMENTAL HEALTH CONSIDERATIONS SHALL COMPLY WITH ALL LOCAL ORDINANCES.
6. A COPY OF PART 1 TO PART 5 & 9 OF TITLE 24 SHALL BE KEPT AND BE AVAILABLE IN THE FIELD DURING CONSTRUCTION.
7. DSA SHALL BE NOTIFIED OF THE START OF CONSTRUCTION AND PRIOR TO THE PLACEMENT OF CONCRETE PER SECTION 4-331, PART 1, TITLE 24, CCR.
8. THE DIVISION OF THE STATE ARCHITECT IS EXEMPT FROM ARBITRATION OR MEDIATION PROCEDURES.
9. SUPERVISION BY THE DIVISION OF THE STATE ARCHITECT IS PER SECTION 4-334, PART 1, TITLE 24, CCR
10. ADMINISTRATION OF CONSTRUCTION PER PART 1, TITLE 24, CCR:
    - VERIFIED REPORTS PER SECT 4-336; PART 1, TITLE 24 CCR
    - DUTIES OF ARCHITECT PER SECT 4-331, 4-341; PART 1, TITLE 24 CCR
    - DUTIES OF CONTRACTOR PER SECT. 4-343; PART 1, TITLE 24
11. TESTING AND INSPECTION:
    - INSPECTOR APPROVED BY DSA AS PER SECT. 4-333(D); PART 1, TITLE 24, CCR
    - TESTS AND TESTING LABORATORIES PER SECT 4-335
    - SPECIAL INSPECTION PER SECT. 4-333(C)
12. CHANGES IN LEVEL FOR FLOOR FINISHES SHALL CONFORM WITH CBC SECTION 1124B.2 AND 1124B.3.
13. ALL TESTS TO CONFORM TO REQUIREMENTS OF SECTION 4-335; PART 1, TITLE 24, CCR
14. TESTS OF MATERIALS AND TESTING LABORATORY SHALL BE IN ACCORDANCE WITH SECTION 4-335; PART 1, TITLE 24, CCR AND THE DISTRICT SHALL EMPLOY AND PAY THE DSA ACCEPTED LABORATORY. COSTS OF RE-TEST MAY BE BACK CHARGED TO THE CONTRACTOR.
15. INSPECTOR SHALL BE APPROVED BY DSA. INSPECTION SHALL BE IN ACCORDANCE WITH SECTION 4-333(B).
16. THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS THAT THE WORK OF THE ALTERATION, REHABILITATION OR RECONSTRUCTION IS TO BE IN ACCORDANCE WITH TITLE 24, CCR. SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NON-COMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24, CCR, A CONSTRUCTION CHANGE DOCUMENT (CCD), OR A SEPARATE SET OF PLANS AND SPECIFICATIONS, DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE WORK. (SECTION 4-317(C), PART 1, TITLE 24, CCR)
17. INSPECTOR OF RECORD REQUIREMENTS:
    A. ONE OR MORE INSPECTORS EMPLOYED BY THE OWNER IN ACCORDANCE WITH THE REQUIREMENTS OF TITLE 24 OF THE CALIFORNIA CODE OF REGULATIONS WILL BE ASSIGNED TO THE WORK. THE INSPECTOR'S DUTIES ARE SPECIFICALLY DEFINED IN SECTION 4-342 OF SAID TITLE 24; PART 1 AND IN ADDITION, SHALL BE STIPULATED IN INTERPRETATION OF REGULATION DOCUMENT IR A-8.
    B. INSPECTOR SHALL BE CERTIFIED AS A CLASS 3 INSPECTOR THROUGH THE DIVISION OF THE STATE ARCHITECT INSPECTOR EXAMINATION PROGRAM. INSPECTOR SHALL ALSO BE SPECIFICALLY APPROVED BY THE DIVISION OF THE STATE ARCHITECT FOR THIS PROJECT AT LEAST 10 DAYS PRIOR TO THE START OF ANY WORK FOR THIS PROJECT.
18. SUBSTITIONS AFFECTING DSA REGULATED ITEMS SHALL BE CONSIDERED AS A CONSTRUCTION CHANGE DOCUMENT OR ADDENDUM, AND SHALL BE APPROVED BY DSA PRIOR TO FABRICATION AND INSTALLATION PER DSA IR A-6 AND SECTION 338(C) PART 1, TITLE 24 CCR.

DEFERRED APPROVALS

1. NONE

ADD ALTERNATES

1. NONE

CODES AND REGULATIONS

APPLICABLE STATE CODES AND REGULATIONS WITH LATEST AMENDMENTS AND SUPPLEMENTS:

1. 2022 BUILDING STANDARDS ADMINISTRATIVE CODE, PART 1, TITLE 24 CCR
2. 2022 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 CCR (2021 IBC & CALIFORNIA AMENDMENTS)
3. 2022 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 CCR (2020 NATIONAL ELECTRICAL CODE & CALIFORNIA AMENDMENTS)
4. 2022 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24 CCR (2021 UNIFORM MECHANICAL CODE & CALIFORNIA AMENDMENTS)
5. 2022 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 CCR (2021 UNIFORM PLUMBING CODE & CALIFORNIA AMENDMENTS)
6. 2022 CALIFORNIA ENERGY CODE, PART 6, TITLE 24 CBSC
7. 2022 CALIFORNIA HISTORICAL BUILDING CODE, PART 8, TITLE 24 CCR
8. 2022 CALIFORNIA FIRE CODE, PART 9, TITLE 24 CCR (2021 INTERNATIONAL FIRE CODE & CALIFORNIA AMENDMENTS)
9. 2022 CALIFORNIA EXISTING BUILDING CODE (CEBC), PART 10, TITLE 24 CCR (2021 INTERNATIONAL EXISTING BUILDING CODE & CALIFORNIA AMENDMENTS)
10. 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE PART 11, TITLE 24
11. 2022 CALIFORNIA REFERENCED STANDARDS, PART 12, TITLE 24 CCR
12. TITLE 8 CCR, CH. 4, SUB-CH. 6 - ELEVATOR SAFETY ORDERS
13. TITLE 19 CCR, PUBLIC SAFETY, SFM REGULATIONS

APPLICABLE FEDERAL CODES AND STANDARDS:

14. AMERICANS WITH DISABILITIES ACT (ADA), TITLE 11
15. UNIFORM FEDERAL ACCESSIBILITY STANDARDS (UFAS) or ADA STANDARDS FOR ACCESSIBLE DESIGN (APPENDIX A OF 28 CFR PART 36)

APPLICABLE REFERENCED STANDARDS:

16. NFPA 13, STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS (CA AMENDED), 2022 EDITION
17. NFPA 24, PRIVATE FIRE MAINS (CA AMENDED), 2019 EDITION
18. NFPA 72, NATIONAL FIRE ALARM CODE (CA AMENDED), 2022 EDITION
19. NFPA 80, FIRE DOOR AND OTHER OPENING PROTECTIVES, 2019 EDITION
20. NFPA 2001, CLEAN AGENT FIRE EXTINGUISHING SYSTEMS, 2018 EDITION

REFERENCE CODE SECTION FOR NFPA STANDARDS - 2022 CBC CHAPTER 35 AND CFC CHAPTER 80. SEE CHAPTER 80 FOR STATE OF CALIFORNIA AMENDMENTS TO NFPA STANDARDS.

PROJECT DESCRIPTION

THE PROJECT SCOPE HAS BEEN IDENTIFIED TO INCLUDE THE FOLLOWING:

THE RELOCATION OF THREE (3) STOCKPILE PC 24'X40' CLASSROOM BUILDINGS, ASSOCAITED UTLITIES AND SITEWORK AS INDICATED TO MEET CURRENT CODE. PROPOSED PORTABLES TO BE USED ON A PERMANENT BASIS.

PORTABLE 1:
APP #64560 - PC 147 (SERIAL NUMBER: 3599-1)
APP #02-121161

PORTABLE 2:
APP #64560 - PC 147 (SERIAL NUMBER: 3595-2)
APP #02-121161

PORTABLE 3:
APP #64560 - PC 147 (SERIAL NUMBER: 3598-2)

DETERIORATION OF EXISTING NON-COMPLIANT CONSTRUCTION:
IF ANY CONDITION IS DISCOVERED WHICH, IF LEFT UNCORRECTED, WOULD MAKE THE BUILDING NON-COMPLIANT WITH THE REQUIREMENTS OF THE EDITION OF CBC IN FORCE AT THE TIME OF ORIGINAL CONSTRUCTION, THE CONDITION MUST BE CORRECTED IN ACCORDANCE WITH CURRENT CODE REQUIREMENTS. A CONSTRUCTION CHANGE DOCUMENT (CCD-TYPE A), OR A SEPARATE SET OF PLANS AND SPECIFICATIONS DETAILIND AND SPECIFYING THE REQUIRED REPAIR WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE REPAIR WORK.

DESIGN PARAMETERS

WIND SPEED	94 MPH, EXPOSURE C, RISK CATEGORY II
SOILS CLASS	D - DEFAULT
SEISMIC DESIGN CATAGORY	D, RISK CATEGORY II
MAPPED SPECIAL RESPONSE ACCELERATIONS:	
SHORT PERIOD, Ss	0.698
1-SECOND PERIOD, S1	0.287
DESIGN SPECTRAL RESPONSE ACCERATION:	
SORT PERIOD, Sds	0.574

STATEMENT OF GENERAL CONFORMANCE

FOR ARCHITECTS/ENGINEERS WHO UTILIZE PLANS, INCLUDING BUT NOT LIMITED TO SHOP DRAWINGS, PREPARED BY OTHER LICENSED DESIGN PROFESSIONALS AND/OR CONSULTANTS

Application No. 02-122123

File No. 4-48

[X] The drawings or sheets listed on the cover or index sheet (all C, M, and E drawings)
[ ] This drawing, page of specifications/calculations

have been prepared by other design professionals or consultants who are licensed and/or authorized to prepare such drawings in this state. It has been examined by me for:

1. design intent and appears to meet the appropriate requirements of Title 24, California Code of Regulations and the project specifications prepared by me, and
2. coordination with my plans and specifications and is acceptable for incorporation into the construction of this project.

The Statement of General Conformance "shall not be construed as relieving me of my rights, duties, and responsibilities under Sections 17302 and 81138 of the Education Code and Sections 4-336, 4-341 and 4-344" of Title 24, Part 1. (Title 24, Part 1, Section 4-317 [b])

I find that:
[X] All drawings or sheets listed on the cover or index sheet
[ ] This drawing or page

[X] is/are in general conformance with the project design and
[X] has/have been coordinated with the project plans and specifications

Signature — 01.31.2024 Date

Architect or Engineer designated to be in general responsible charge.

Brian P. Whitmore
Print Name

C 30345 — **License Number**
09-30-2025 — **Expiration Date**

STATEMENT OF GENERAL CONFORMANCE AND SIGNATURE BLOCK PER IR A-18

CBC CHAPTER 7A COMPLIANCE

CBC SECTION 705A -ROOFING
- ROOFS SHALL COMPLY WITH THE REQUIREMENTS OF CHAPTER 7A AND CHAPTER 15. ROOFS SHALL HAVE A ROOFING ASSEMBLY INSTALLED IN ACCORDANCE WITH ITS LISTING AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. ROOF ASSEMBLIES IN THE FIRE HAZARD SEVERITY ZONES SHALL BE CLASS A RATING WHEN TESTED IN ACCORDANCE WITH ASTM E108 OR UL790.
- REFER TO RELOCATABLE SHEET 8 - MATERIAL SPECIFICATIONS: ROOFING .01.

CBC SECTION 706A -VENTS
- VENTILATION OPENINGS SHALL BE FULLY COVERED WITH WILDFIRE FLAME AND EMBER RESISTANT VENTS APPROVED AND LISTED BY THE CALIFORNIA STATE FIRE MARSHAL, OR WUI VENTS TESTED TO ASTM E2886 AND LISTED, BY COMPLYING WITH ALL OF THE FOLLOWING REQUIREMENTS:
  1. THERE SHALL BE NO FLAMING IGNITION OF THE COTTON MATERIAL DURING THE EMBER INTRUSION TEST.
  2. THERE SHALL BE NO FLAMING IGNITION DURING THE INTEGRITY TEST PORTION OF THE FLAME INTRUSION TEST.
  3. THE MAXIMUM TEMPERATURE OF THE UNEXPOSED SIDE OF THE VENT SHALL NOT EXCEED 662°F (350°C).
- REFER TO 10/A10.2.1.

CBC SECTION 707A -EXTERIOR COVERING
- RELOCATABLE SHEET 8 - MATERIAL SPECIFICATIONS: .08 EXTERIOR SHEATHING
- A11.1 081000 ROUGH CARPENTRY SECTION 2.1.8 & 9.
- REFER TO RELOCATABLE SHEET 11 DETAILS 5 & 6.

CBC SECTION 708A -EXTERIOR WINDOWS, SKYLIGHTS AND DOORS
- EXTERIOR DOORS: METAL DOORS -3'-0" X 7'-0" HOLLOW METAL DOOR CONSTRUCTION OF 1 SHEET OF 18 GA. GRADE II STEEL ASSEMBLED PER CS242 MINIMUM, AND REINFORCED WITH 20 GA. MINIMUM. FILL DOOR SPACES WITH MINERAL WOOL OR OTHER INSULATION. (REINFORCE BOTH FACES FOR CLOSURE.) PROVIDE FLUSH TOP ON DOORS. HARDWARE REINFORCEMENT SHALL BE 10 GA. MIN. FOR HINGES, DOOR FRAME SHALL BE 16 GA. PRESSED STEEL FRAME ASTM A366 AND CS242. HARDWARE REINFORCEMENT SHALL BE 10 GA. PLATE. FRAMES SHALL BE DESIGNED WITH INTEGRAL STOP AND TRIM. PROVIDE (3) ANCHORS PER JAMB PLUS ADJUSTABLE FLOOR ANCHOR. ROOMS WITH AN OCCUPANCT LOAD OF FIVE OR MORE SHALL HAVE DOOR HARDWARE CAPABLE OF BEING LOCKED FROM TEH INSIDE (PER CBC 1010.2.8.2).
- EXTERIOR WINDOW: PROVIDE ANODIZED ALUMINUM FRAME 5/8" MINIMUM DUAL PANE WINDOW UNITS, AS SHOWN ON FLOOR PLANS. THE 5/8" DIMENSION IS THE MINIMUM THICKNESS FOR THE DUAL GLAZED WINDOW PANEL CONSISTING OF TWO LITES OF GLASS AND THE AIR SPACE.
- GLAZING MATERIAL SHALL BE: EXTERIOR LITE - 3/16" MINIMUM TEMPERED GLASS OR LAMINATED AS 1 GLASS OF SOLAR GRAY GLARE REDUCING TYPE WITH A LIGHT TRANSMISSION FACTOR OF 45% MAXIMUM. INTERIOR LITE -1/8" MINIMUM CLEAR TEMPERRED. MINIMUM AIR SPACE SHALL BE 1/4" SPACE - BENT OR SEALED CORNER ALUMINUM WITH DESICCANT FILL SEALER -BUTYL PRIMARY SEAL AND POLYSULFIDE OR SILICONE SECONDARY SEAL. CERTIFICATION - ALL GLAZING TO BE CERTIFIED IN ACCORDANCE WITH ASTM E-773 AND E-774.

DSA STAMP

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-122123 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 3/21/2024

STUDIO W ARCHITECTS

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ARCHITECT	ENGINEER
LICENSED ARCHITECT BRIAN P WHITMORE No. C 30345 Ren. 9/30/25 STATE OF CALIFORNIA — DATE SIGNED: 01/31/2024	

GENERAL NOTES
1. This sheet is part of a set and is not to be used alone.
2. This sheet is not to be used for construction unless the architect's stamp and signature appear on the drawings and the status box indicated drawings have been released for construction.
3. These plans and prints thereof, as instruments of service, are owned by the architect and are for use on this project only. Reproduction and/or distribution without the prior written consent of the architect is forbidden.
4. Copyright Studio W Associates, Inc. 2022.

REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS — DATE
- ● DSA PLAN CHECK
- ● DSA BACK CHECK
- ○ BIDDING
- ○ CONSTRUCTION

KEY PLAN

PARADISE UNIFIED SCHOOL DISTRICT
6696 CLARK ROAD
PARADISE, CA 95969

CONSTRUCTION DOCUMENTS

PARADISE RIDGE ELEMENTARY SCHOOL
PORTABLES
6593 PENTZ ROAD
PARADISE, CA 95969

COVER SHEET

Date 01/31/2024	Project Number 23067
Application Number 02-122123	Drawing Number A0.1
Drawn / Checked	
Author / Checker	

PRINT DATE: 3/20/2024 4:00:40 PM
FILE PATH: BIM 360://PUSD Paradise Ridge Elementary (Portolenas Elementary)/23067-PUSD Paradise Ridge ES-Portls-A21 (1).rvt

DRAWING DISCIPLINE PREFIX

A. ARCHITECTURAL
C. CIVIL
D. INTERIOR DESIGN / FURNITURE
E. ELECTRICAL
FA. FIRE ALARM
FP. FIRE PROTECTION / SPRINKLER SYSTEM
FS. FOOD SERVICE
L. LANDSCAPING
M. MECHANICAL
P. PLUMBING
S. STRUCTURAL
T. TECHNOLOGY

DRAWING INDEX CODE

A0. GENERAL INFORMATION
A1. SITE PLANS
A2. FLOOR PLANS
A3. REFLECTED CEILING PLANS
A4. ROOF PLANS
A5. EXTERIOR ELEVATIONS
A6. BUILDING SECTIONS
A7. ENLARGED PLANS
A8. INTERIOR ELEVATIONS
A9. SCHEDULES
A10. CONSTRUCTION DETAILS

DETAIL DRAWING CODE

A10.8.4

- DRAWING NUMBER
- DIVISION NUMBER PREFIX
- DRAWING INDEX NUMBER

THE DIVISION PREFIX NUMBERS ARE THOSE IDENTIFIED BY THE 48 DIVISION GROUPING SYSTEM OF MASTERFORMAT AS PUBLISHED BY THE CONSTRUCTION SPECIFICATIONS INSTITUTE (CSI) AND SHALL NOT BE SOLELY REPRESENTATIVE OF REQUIREMENTS FOR ANY ONE DIVISION. THOSE DIVISIONS NOTED AS BEING OMITTED ARE NOT APPLICABLE OR ARE INCLUDED UNDER DISCIPLINE DRAWINGS.

IN CASE OF DISCREPANCY BETWEEN THE INDEX AND THE DRAWINGS, THE DRAWINGS SHALL GOVERN.

DIVISION NUMBER CODE

MASTERFORMAT NUMBERS AND TITLES AS PUBLISHED BY THE CONSTRUCTION SPECIFICATIONS INSTITUTE (CSI).

DIVISION 00 PROCUREMENT AND CONTRACTING REQUIREMENTS
DIVISION 01 GENERAL REQUIREMENTS
DIVISION 02 EXISTING CONDITIONS
DIVISION 03 CONCRETE
DIVISION 04 MASONRY
DIVISION 05 METALS
DIVISION 06 WOODS, PLASTICS, AND COMPOSITES
DIVISION 07 THERMAL AND MOISTURE PROTECTION
DIVISION 08 OPENINGS
DIVISION 09 FINISHES
DIVISION 10 SPECIALTIES
DIVISION 11 EQUIPMENT
DIVISION 12 FURNISHINGS
DIVISION 13 SPECIAL CONSTRUCTION
DIVISION 14 CONVEYING EQUIPMENT
DIVISION 21 FIRE SUPPRESSION
DIVISION 22 PLUMBING
DIVISION 23 HEATING, VENTILATING, AND AIR CONDITIONING (HVAC)
DIVISION 25 INTEGRATED AUTOMATION
DIVISION 26 ELECTRICAL
DIVISION 27 COMMUNICATIONS
DIVISION 28 ELECTRONIC SAFETY AND SECURITY
DIVISION 31 EARTHWORK
DIVISION 32 EXTERIOR IMPROVEMENTS
DIVISION 33 UTILITIES
DIVISION 34 TRANSPORTATION
DIVISION 35 WATERWAY AND MARINE CONSTRUCTION
DIVISION 40 PROCESS INTERCONNECTIONS
DIVISION 41 MATERIAL PROCESSING AND HANDLING EQUIPMENT
DIVISION 42 PROCESS HEATING, COOLING, AND DRYING EQUIPMENT
DIVISION 43 PROCESS GAS AND LIQUID HANDLING, PURIFICATION, AND STORAGE EQUIPMENT
DIVISION 44 POLLUTION AND WASTE CONTROL EQUIPMENT
DIVISION 45 INDUSTRY-SPECIFIC MANUFACTURING EQUIPMENT
DIVISION 46 WATER AND WASTEWATER EQUIPMENT
DIVISION 48 ELECTRICAL POWER GENERATION

GENERAL NOTES

1. PRIOR TO SUBMITTING PROPOSAL, BIDDER SHALL EXAMINE CONSTRUCTION DRAWINGS AND SPECIFICATIONS AND SHALL HAVE VISITED THE CONSTRUCTION SITE. HE SHALL BE FAMILIAR WITH THE CONDITIONS UNDER WHICH HE WILL HAVE TO OPERATE AND WHICH WILL IN ANY WAY AFFECT THE WORK UNDER THIS CONTRACT. THE GENERAL CONTRACTOR SHALL NOT DISPUTE, COMPLAIN OR ASSERT THAT THERE IS ANY MISUNDERSTANDING IN REGARDS TO LOCATION, EXTENT, NATURE OR AMOUNT OF WORK TO BE PERFORMED UNDER THIS CONTRACT DUE TO THE CONTRACTOR'S FAILURE TO INSPECT THE SITE. BIDDERS SHALL NOTIFY THE ARCHITECT OF ANY CONDITIONS, REQUIRING WORK, WHICH ARE NOT COVERED IN THE CONTRACT DOCUMENTS.
2. THERE WILL BE NO SUBSTITUTION FOR SPECIFIED ITEMS WITHOUT PRIOR APPROVAL UNLESS OTHERWISE NOTED. REQUESTS FOR SUBSTITUTIONS SHALL BE MADE IN ACCORDANCE WITH GENERAL CONDITIONS & DIVISION 1
3. THE GENERAL BUILDING CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL PERMITS REQUIRED BY GOVERNING AGENCIES IN ORDER TO PERFORM THE WORK.
4. THE FINAL LOCATION OF ALL ELECTRICAL AND SIGNAL EQUIPMENT, PANEL BOARDS, FIXTURES, ETC., SHALL BE APPROVED BY OWNER PRIOR TO INSTALLATION.
5. DEFINITIONS
   A. "TYPICAL" MEANS IDENTICAL FOR ALL CONDITIONS, UNLESS OTHERWISE NOTED.
   B. "SIMILAR" MEANS COMPARABLE CHARACTERISTICS FOR THE CONDITION NOTED. VERIFY DIMENSIONS AND ORIENTATIONS.
   C. "PROVIDE" MEANS TO FURNISH AND INSTALL.
   D. "FURNISH" MEANS TO FURNISH AND OTHERS WILL INSTALL.
6. DIMENSIONING RULES:
   A. ALL HORIZONTAL DIMENSIONS SHALL BE TO FACE OF STUD OR TO CENTERLINE OF COLUMN GRID LINE, U.O.N
   B. DIMENSIONS NOTED "CLEAR", "CLR", OR "MINIMUM" MUST BE PRECISELY MAINTAINED.
   C. DIMENSIONS CAN NOT BE MODIFIED WITHOUT APPROVAL OF THE ARCHITECT UNLESS OTHERWISE NOTED.
   D. VERTICAL DIMENSIONS ARE FROM TOP OF FLOOR SLAB UNLESS OTHERWISE NOTED.
   E. DO NOT SCALE DRAWINGS. IF ANY ITEM OF WORK CANNOT BE LOCATED, DO NOT PROCEED WITH THE WORK WITHOUT THE ARCHITECT'S APPROVAL.
   F. DIMENSIONS MARKED "V.I.F." OR "VERIFY" SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.
   G. VERIFY ALL ROUGH OPENING DIMENSIONS FOR FABRICATED ITEMS WITH THE MANUFACTURER PRIOR TO PROCEEDING WITH CONSTRUCTION.
7. PROVIDE REQUIRED BACKING, BLOCKING, AND BRACING FOR ALL WALL - MOUNTED FIXTURES, ACCESSORIES AND EQUIPMENT.
8. VERIFY AND COORDINATE WALLS THAT MAY REQUIRE NON-TYPICAL THICKNESS OR FRAMING DUE TO ELECTRICAL, MECHANICAL, PLUMBING, STRUCTURAL AND/OR EQUIPMENT REQUIREMENTS.
9. ALL GLAZING SHALL CONFORM TO FEDERAL GLAZING REGULATIONS AND CHAPTER 24, CBC.
10. ALL CONTRACTORS SHALL REMOVE TRASH AND DEBRIS STEMMING FROM THEIR WORK ON A DAILY BASIS. PROJECT SITE SHALL BE MAINTAINED IN A CLEAN AND ORDERLY CONDITION.
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ALL LEFT-OVER MATERIALS, DEBRIS, TOOLS AND EQUIPMENT INVOLVED IN HIS OPERATIONS AT THE CONCLUSION OF THE INSTALLATION. HE SHALL LEAVE ALL AREAS CLEAN AND FREE FROM DUST.
12. HAZARDOUS MATERIALS: THE ARCHITECT AND THE ARCHITECT'S CONSULTANTS SHALL HAVE NO RESPONSIBILITY FOR THE DISCOVERY, PRESENCE, HANDLING, REMOVAL, DISPOSAL OR EXPOSURE OF PERSONS TO ASBESTOS OR HAZARDOUS OR TOXIC SUBSTANCES IN ANY FORM AT THE PROJECT SITE. PROFESSIONAL SERVICES RELATED OR IN ANY WAY CONNECTED WITH THE INVESTIGATION, DETECTION, ABATEMENT, REPLACEMENT, USE, SPECIFICATION, OR REMOVAL OF PRODUCTS, MATERIALS, OR PROCESSES CONTAINING ASBESTOS OR HAZARDOUS OR TOXIC MATERIALS ARE BEYOND THE SCOPE OF THIS AGREEMENT.
13. THE GENERAL CONTRACTOR & SUBCONTRACTORS ARE RESPONSIBLE FOR LOCATING & VERIFYING ALL EXISTING UNDERGROUND UTILITIES IN ALL AREAS OF NEW WORK PRIOR TO COMMENCEMENT OF EXCAVATION. EXISTING UTILITIES SHOWN ON THE DRAWING ARE APPROXIMATE ROUTING LOCATION AS BEST DETERMINED FROM EXISTING DRAWINGS AND THE SCHOOL DISTRICT, BUT SHOULD NOT BE CONSTRUED TO REPRESENT ALL THE EXISTING UNDERGROUND UTILITIES.
14. ALL TEMPORARY WORK SHALL BE CONSIDERED A PART OF THIS CONTRACT AND NO EXTRA CHARGES WILL BE ALLOWED. THIS SHALL INCLUDE MINOR ITEMS OF MATERIAL OR EQUIPMENT NECESSARY TO MEET THE REQUIREMENTS AND INTENT OF THE PROJECT
15. ALL WALL PENETRATIONS TO EXTERIOR WALLS SHALL BE SEALED AIR/WATER TIGHT. ALL INTERIOR PENETRATIONS SHALL BE SEALED TO PROVIDE A PROFESSIONAL AND FINISHED APPEARANCE.
16. THE DRAWINGS AND SPECIFICATIONS ARE NOT UNDERTAKE TO SHOW OR LIST EVERY ITEM TO BE PROVIDED, BUT RATHER TO DEFINE THE REQUIREMENTS FOR A FULL AND WORKING SYSTEM FROM THE STANDPOINT OF THE END USER. FOR THIS REASON, WHEN AN ITEM NOT SHOWN OR LISTED IS CLEARLY NECESSARY FOR PROPER USE CONTROL/ OPERATION OF EQUIPMENT WHICH IS SHOWN OR LISTED, PROVIDE ALL ITEMS WHICH WILL ALLOW THE SYSTEM TO FUNCTION PROPERLY AT NO INCREASE IN CONTRACT PRICE OR TIME. THE DETAILS REFLECT THE DESIGN INTENT FOR TYPICAL CONDITIONS. THE CONTRACTOR SHALL VERIFY ALL FIELD CONDITIONS AND SHALL INCLUDE, IN HIS SCOPE. THE COST FOR COMPLETE FINISHED INSTALLATIONS, INCLUDING ANOMALIES, OF ALL TRADES.
17. THE DETAILS REFLECT THE DESIGN INTENT FOR TYPICAL CONDITIONS. THE CONTRACTOR SHALL VERIFY ALL FIELD CONDITIONS AND SHALL INCLUDE, IN HIS SCOPE. THE COST FOR COMPLETE FINISHED INSTALLATIONS, INCLUDING ANOMALIES, OF ALL TRADES.
18. ALL WORK SHALL CONFORM TO CALIFORNIA CODES, TRADE STANDARDS WHICH GOVERN EACH PHASE OF THE PROJECT, AND ALL APPLICABLE LOCAL CODES AND AUTHORITIES HAVING JURISDICTION.
19. THIS DRAWING SET SHALL BE USED IN CONJUNCTION WITH THE CSI FORMAT PROJECT MANUAL PUBLISHED IN BOOK FORM, COMBINED, THEY ARE THE "CONTRACT DOCUMENTS"
20. NO WORK SHALL COMMENCE WITH UNAPPROVED MATERIALS. ANY WORK DONE WITH UNAPPROVED MATERIALS AND EQUIPMENT IS AT THE CONTRACTOR'S RISK. SEE SPECIFICATIONS FOR SUBMITTAL AND SUBSTITUTION REQUIREMENTS.
21. CONSTRUCTION MATERIAL STORED ON THE SITE SHALL BE PROPERLY STACKED AND PROTECTED TO PREVENT DAMAGE OR DETERIORATION. FAILURE IN THIS REGARD MAY BE CAUSE FOR REJECTION OF MATERIAL AND/OR WORK. SECURITY OF MATERIALS ARE THE SOLE RESPONSIBILITY OF CONTRACTOR.
22. ALL EQUIPMENT/CABINETS SHALL BE FABRICATED FROM FIELD VERIFIED DIMENSIONS AND APPROVED SHOP DRAWINGS. COORDINATE MECHANICAL, PLUMBING AND ELECTRICAL EQUIPMENT WITH THIS WORK.
23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DAMAGE AND COSTS ATTRIBUTED TO RAIN WATER DAMAGE DURING THE DURATION OF THIS PROJECT.
24. PROTECT AREAS FROM DAMAGE WHICH MAY OCCUR DUE TO TEMPERATURES, WIND, DUST, WATER, ETC. PROVIDE AND MAINTAIN TEMPORARY BARRICADES, CLOSURE WALLS, ETC., AS REQUIRED DURING CONSTRUCTION.
25. MAINTAIN EXISTING PEDESTRIAN ACCESS ALONG EXISTING ADJACENT STREETS.
26. ALL PUBLIC IMPROVEMENTS SHALL BE MADE IN ACCORDANCE WITH THE LATEST ADOPTED CITY/COUNTY STANDARDS.
27. ALL TYPICAL DETAILS SHALL APPLY UNLESS NOTED OTHERWISE.
28. NOTIFY THE ARCHITECT IN WRITING AND SEEK CLARIFICATION IF ANY DISCREPANCIES OR OMISSIONS ARE FOUND. CONTRACTOR SHALL BE RESPONSIBLE FOR REMEDIAL WORK IF RELATED WORK IS CONTINUED AFTER A DISCREPANCY IS IDENTIFIED.
29. NEW FINISHES AND CONSTRUCTION SHALL BE PROTECTED BY THE CONTRACTOR FROM POTENTIAL DAMAGE CAUSED BY CONSTRUCTION ACTIVITY. DAMAGE TO FINISHES OR CONSTRUCTION SHALL BE REPAIRED OR REPLACED (OWNER'S DECISION) BY THE CONTRACTOR WITH IDENTICAL MATERIAL AND/OR FINISHES. CONTRACTOR SHALL MAKE AND MAINTAIN A PHOTOGRAPHIC RECORD NOTEBOOK WITH DATED/INDEXED PHOTOGRAPHS.
30. SEE ELECTRICAL DRAWINGS FOR INFORMATION RELATED TO TELECOMMUNICATION EQUIPMENT, POWER, AND LIGHTING FIXTURES AND EQUIPMENT. SEE ARCHITECTURAL PLANS, REFLECTED CEILING PLAN AND INTERIOR ELEVATIONS FOR COORDINATED EQUIPMENT LOCATIONS. IF NOT SHOWN, CONTACT ARCHITECT FOR REVIEW AND DECISION.
31. PROVIDE ACCESS DOORS REQUIRED FOR ACCESS TO CONCEALED MECHANICAL, PLUMBING, AND ELECTRICAL EQUIPMENT.
32. ALL NOTED WORK IS UNDERSTOOD TO BE NEW, UNLESS LABELED AS "(E)" OR "EXISTING".

SUPPLEMENTAL GENERAL NOTES

1. THESE DRAWINGS DO NOT CONTAIN THE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY.
2. LOCATIONS OF ALL UTILITIES SHOWN ARE APPROXIMATE AND CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN EXCAVATING AND TRENCHING ON THIS SITE TO AVOID INTERCEPTING EXISTING PIPING OR CONDUITS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ALL EXISTING UTILITIES WHETHER SHOWN HEREIN OR NOT AND TO PROTECT THEM FROM DAMAGE. THE ARCHITECT IS NOT RESPONSIBLE FOR THE LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES WHETHER OR NOT SHOWN OR DETAILED AND INSTALLED BY ANY OTHER CONTRACT. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT SHOULD ANY UNIDENTIFIED CONDITIONS BE DISCOVERED. THE CONTRACTOR SHALL BEAR ALL EXPENSE OF REPAIR OR REPLACEMENT OF UTILITIES OR OTHER PROPERTY DAMAGED BY OPERATIONS IN CONJUNCTION WITH THE EXECUTION OF THIS WORK.
3. THESE DOCUMENTS AND THE IDEAS AND DESIGNS INCORPORATED HEREIN, AS AN INSTRUMENT OF PROFESSIONAL SERVICE, ARE THE PROPERTY OF STUDIO W ARCHITECTS, AND ARE NOT TO BE USED, IN WHOLE OR IN PART, FOR ANY OTHER PROJECT WITHOUT THE WRITTEN AUTHORIZATION OF STUDIO W ARCHITECTS.
4. EACH BIDDER SHALL POSSESS AT THE TIME OF BID, A CLASS B OR THE APPROPRIATE CLASS C CONTRACTOR'S LICENSE PURSUANT TO PUBLIC CONTRACT CODE SECTION 3300 AND BUSINESS AND PROFESSIONS CODE SECTION 7028.15. THE SUCCESSFUL BIDDER MUST MAINTAIN THE LICENSE THROUGHOUT THE DURATION OF THIS CONTRACT.
5. FIRE SAFETY DURING CONSTRUCTION & DEMOLITION:
   A. GENERAL: FIRE SAFETY DURING CONSTRUCTION & DEMOLITION SHALL COMPLY WITH 2022 CALIFORNIA FIRE CODE (CFC) CH. 33 (PART 9, TITLE 24 CCR)
   B. CONSTRUCTION SAFEGUARDS: SHALL COMPLY WITH APPLICABLE PROVISIONS OF CBC 3302.
   C. DEMOLITION: SHALL COMPLY WITH APPLICABLE PROVISIONS OF CBC 3303.
   D. BUILDING ACCESS: ACCESS TO BUILDINGS FOR THE PURPOSE OF FIREFIGHTING SHALL BE PROVIDED. CONSTRUCTION MATERIAL SHALL NOT BLOCK ACCESS TO BUILDINGS, HYDRANTS OR FIRE APPLIANCES PER CBC 3308.1.
   E. MEANS OF EGRESS: SHALL COMPLY WITH APPLICABLE PROVISIONS OF CBC 3310.
   F. WATER SUPPLY: APPROVED WATER SUPPLY SHALL BE MADE AVAILABLE IN ACCORDANCE WITH CBC 3313.
   G. FIRE WATCH: MAINTAIN FIRE WATCH WHEN REQUIRED BY THE BUILDING OFFICIAL AND WHEN EXISTING FIRE PROTECTION SYSTEMS ARE SHUT DOWN FOR ALTERATIONS. FIRE WATCH SHALL REMAIN IN EFFECT UNTIL EXISTING FIRE PROTECTION SYSTEMS ARE RETURNED TO SERVICE OR AS ALLOWED BY THE BUILDING OFFICIAL PER CBC 3314.
6. PENETRATIONS IN FIRE RATED MATERIALS OR ASSEMBLIES SHALL BE RESTORED TO EQUAL RATING. FIRE STOP SYSTEMS AS LISTED BY UNDERWRITERS LABORATORIES SHALL BE INSTALLED PER FIRE RESISTANCE DIRECTORY. FIRE STOP SYSTEMS SHALL BE AS SPECIFIED.
7. NONRESIDENTIAL ENERGY STANDARDS COMPLIANCE STATEMENT (TITLE 24, PART 6):
   A. THE DESIGN INDICATED HEREIN COMPLIES WITH THE REQUIREMENTS OF THE ENERGY CONSERVATION STANDARDS OF TITLE 24, PART 6, CALIFORNIA CODE OF REGULATIONS. THE PROPOSED BUILDINGS WILL BE IN COMPLIANCE WITH THE ENERGY CONSERVATION STANDARDS PROVIDED THEY ARE BUILT ACCORDING TO THESE DRAWINGS AND SPECIFICATIONS AND PROVIDED ANY FUTURE IMPROVEMENTS ARE COMPLETED ACCORDING TO THE REQUIREMENTS OF TITLE 24, PART 6, CALIFORNIA CODE OF REGULATIONS. THESE DRAWINGS AND SPECIFICATIONS HAVE BEEN PREPARED TO INCLUDE ALL SIGNIFICANT ENERGY CONSERVATION FEATURES REQUIRED FOR COMPLIANCE WITH THE STANDARDS. BUILDING AREAS THAT ARE UNCONDITIONED AND/OR NOT SUBJECT TO THE STANDARDS ARE INDICATED ON THE DRAWINGS.
   B. ENVELOPE MANDATORY MEASURES:
      A. INSTALLED INSULATING MATERIALS SHALL HAVE BEEN CERTIFIED BY THE MANUFACTURER TO COMPLY WITH THE CALIFORNIA QUALITY STANDARDS FOR INSULATING MATERIAL.
      B. ALL INSULATING MATERIALS SHALL BE INSTALLED IN COMPLIANCE WITH THE FLAME SPREAD RATING AND SMOKE DENSITY REQUIREMENTS OF TITLE 24, PART 2, CALIFORNIA CODE OF REGULATIONS, SECTIONS 719
      C. ALL EXTERIOR JOINTS AND OPENINGS IN THE BUILDING ENVELOPE THAT ARE POTENTIAL AND OBSERVABLE SOURCES OF AIR LEAKAGE SHALL BE CAULKED, GASKETED, WEATHERSTRIPPED OR OTHERWISE SEALED.
      D. SITE CONSTRUCTED DOORS, WINDOWS, AND SKYLIGHTS SHALL BE CAULKED BETWEEN THE UNIT AND THE BUILDING, AND SHALL BE WEATHERSTRIPPED (EXCEPT FOR UNFRAMED GLASS DOORS AND FIRE DOORS).
      E. MANUFACTURED DOORS AND WINDOWS INSTALLED SHALL HAVE AIR INFILTRATION RATES CERTIFIED BY THE MANUFACTURER IN ACCORDANCE WITH TITLE 24, PART 6, CALIFORNIA CODE OF REGULATIONS, SECTION 116(a)1.
      F. MANUFACTURED FENESTRATION PRODUCTS IN THE ENVELOPE OF THE BUILDING, INCLUDING, BUT NOT LIMITED TO, WINDOWS, SLIDING GLASS DOORS, FRENCH DOORS, SKYLIGHTS, CURTAIN WALLS, AND GARDEN WINDOWS MUST BE LABELED FOR U-VALUE IN ACCORDANCE WITH THE (NFRC) NATIONAL FENESTRATION RATING COUNCIL'S INTERIM U-VALUE RATING PROCEDURE.
      G. DEMISING WALL INSULATION SHALL BE INSTALLED IN ALL OPAQUE PORTIONS OF FRAMED WALLS (EXCEPT DOORS).
8. PROOF LOAD TESTS FOR EXPANSION TYPE ANCHOR BOLTS:
   A. ANCHOR DIAMETER REFERS TO THE THREAD SIZE FOR THE WEDGE CATEGORY AND TO THE ANCHOR OUTSIDE DIAMETER FOR THE SLEEVE CATEGORY.
   B. APPLY PROOF TEST LOADS TO WEDGE & SLEEVE ANCHORS WITHOUT REMOVING THE NUT IF POSSIBLE. IF NOT, REMOVE NUT AND INSTALL A THREADED COUPLER TO THE SAME TIGHTNESS OF THE ORIGINAL NUT USING A TORQUE WRENCH AND APPLY LOAD.
   C. FOR SLEEVE INTERNALLY THREADED CATEGORIES, VERIFY THAT THE ANCHOR IS NOT PREVENTED FROM WITHDRAWING BY A BASEPLATE OR OTHER FIXTURES. IF RESTRAINT IS FOUND, LOOSEN AND SHIM OR REMOVE FIXTURE(S) PRIOR TO TESTING.
   D. REACTION LOADS FROM TEST FIXTURES MAY BE APPLIED CLOSE TO THE ANCHOR BEING TESTED, PROVIDED THE ANCHOR IS NOT RESTRAINED FROM WITHDRAWING BY THE FIXTURE(S).
   E. TEST EQUIPMENT IS TO BE CALIBRATED BY AN APPROVED TESTING LABORATORY IN ACCORDANCE WITH STANDARD RECOGNIZED PROCEDURES.
   F. THE FOLLOWING CRITERIA APPLY FOR THE ACCEPTANCE OF INSTALLED ANCHORS:
      1. HYDRAULIC RAM METHOD: THE ANCHOR SHOULD HAVE NO OBSERVABLE MOVEMENT AT THE APPLICABLE TEST LOAD. FOR WEDGE AND SLEEVE TYPE ANCHORS, A PRACTICAL WAY TO DETERMINE OBSERVABLE MOVEMENT IS THAT THE WASHER UNDER THE NUT BECOMES LOOSE. DROP-IN ANCHORS ARE ONLY TO BE TESTED WITH THIS METHOD.
      2. TORQUE WRENCH METHOD: THE APPLICABLE TEST TORQUE MUST BE REACHED WITHIN THE FOLLOWING LIMITS: WEDGE OR SLEEVE TYPE: ONE-HALF (1/2) TURN OF THE NUT. ONE-QUARTER (1/4) TURN OF THE NUT FOR THE 3/8 IN. SLEEVE ANCHOR ONLY.
   G. TESTING SHOULD OCCUR 24 HOURS MINIMUM AFTER INSTALLATION OF THE SUBJECT ANCHORS.
   H. ALL ANCHOR BOLTS OF THE EXPANSION TYPE (LOADED IN EITHER PULLOUT OR SHEAR) SHALL HAVE 50 PERCENT OF THE BOLTS (ALTERNATE BOLTS IN ANY GROUP ARRANGEMENT ALLOWED BY THE TYPE OF SUBSTRATE AND DIAMETER OF BOLT LISTED BELOW UNDER TEST VALUES TABLE) PROOF TESTED IN TENSION TO TWICE THE ALLOWABLE TENSION LOAD. IF THERE ARE ANY FAILURES, THE IMMEDIATELY ADJACENT BOLTS MUST THEN ALSO BE TESTED. TESTING SHALL BE PERFORMED IN ACCORDANCE WITH TITLE 24, PART 2, SECTION 1910A.5, "TESTS FOR POST-INSTALLED ANCHORS IN CONCRETE."
   I. ALL BOLTS TO HAVE ICC APPROVAL.
   J. ALL ANCHOR BOLTS OF THE EXPANSION TYPE SHALL BE ONE OF THE FOLLOWING:
      1. HILTI KB-TZ2 ANCHOR ICC NO. ESR 4266

MINIMUM TEST VALUES
NORMAL WEIGHT OR LIGHTWEIGHT CONCRETE

ANCHOR	WEDGE		
DIA. (IN)	TENSION LOAD (LBS)	TORQUE (FT-LBS)	EFFECTIVE MIN. EMBEDMENT
3/8	6,490	30	1 1/2" - 2 1/2"
1/2	11,240	50	1 1/2" - 3 1/4"
5/8	17,535	40	2 3/4" - 4"
3/4	25,335	110	3 1/4" - 4 3/4"

9. POWDER-DRIVEN CONCRETE FASTENERS:
   A. GENERAL: USE OF POWDER DRIVEN CONCRETE FASTENERS FOR TENSION LOADS IS LIMITED TO SUPPORT OF MINOR LOADS LIKE ACOUSTICAL CEILINGS, DUCT WORK, CONDUIT.
   B. ALLOWABLE LOADS: IN GENERAL, LOADS SHOULD BE LIMITED TO LESS THAN 100 POUNDS. HOWEVER GREATER LOADS MAY BE PERMITTED FOR SPECIAL CASES WHEN APPROVED BY THE CHECKING SUPERVISOR OR FIELD ENGINEER.
   C. TESTING: THE OPERATOR, TOOL, AND FASTENER SHALL BE PREQUALIFIED BY THE PROJECT INSPECTOR. HE SHALL OBSERVE THE TESTING OF THE FIRST 10 FASTENER INSTALLATIONS. A TEST "PULL-OUT" LOAD OF NOT LESS THAN TWICE THE DESIGN LOAD, OR 200 POUNDS, WHICHEVER IS GREATER, SHALL BE APPLIED TO THE PIN IN SUCH A MANNER AS NOT TO RESIST THE SPALLING TENDENCY OF THE CONCRETE SURROUNDING THE PIN. THEREAFTER, RANDOM TESTS UNDER THE PROJECT INSPECTOR'S SUPERVISION SHALL BE MADE OF APPROXIMATELY 1 IN 10 PINS, EXCEPT THAT WHEN THE DESIGN LOAD EXCEEDS 100 POUNDS, ONE HALF OF THE PINS SHALL BE TESTED. SHOULD FAILURE OCCUR ON ANY PIN TESTED, ALL INSTALLATIONS MUST BE TESTED AND UNFAIR PINS REPLACED.
   D. ALL POWDER DRIVEN CONCRETE FASTENERS SHALL BE ONE OF THE FOLLOWING: HILTI, INC.
      1. 0.145 DIA. PAF X-CR INTO STEEL BASE MATERIAL - ICC NO. ESR 1663
      2. 0.138 DIA. PAF X-CR INTO CONCRETE BASE MATERIAL - ICC NO. ESR 1663
10. SPECIFICATIONS FOR AUTOMATIC END WELDED STUDS
    A. MATERIAL: AUTOMATIC END WELDED STUDS SHALL BE NELSON GRANULAR FLUX-FILLED SHEAR CONNECTOR OR ANCHOR STUDS (OR APPROVED EQUAL). STUDS SHALL BE MANUFACTURED OF G-1015 COLD ROLLED STEEL WHICH CONFORMS TO ASTM A108.
    B. INSTALLATION: THE STUDS SHALL BE AUTOMATICALLY END WELDED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS IN SUCH A MANNER AS TO PROVIDE COMPLETE FUSION BETWEEN THE END OF THE STUD AND THE PLATE. THERE SHOULD BE NO POROSITY OR EVIDENCE OF LACK OF FUSION BETWEEN THE WELDED END OF THE STUD AND THE PLATE. THE STUD SHALL DECREASE IN LENGTH DURING WELDING APPROXIMATELY 1/8" FOR 5/8" AND UNDER, AND 3/16" FOR OVER 5/8" DIAMETER. WELDING SHALL BE DONE ONLY BY QUALIFIED WELDERS APPROVED BY THE WELDING INSPECTOR.
    C. INSPECTION AND TESTS: INSPECTION, IN ACCORDANCE WITH TITLE 24, PART 2, SECTION 2213A.3 AND 1704A.3.1 OF ALL THE SHOP AND FIELD WELDING OPERATIONS FOR THE AUTOMATIC END WELDED STUDS SHALL BE MADE BY A QUALIFIED WELDING INSPECTOR (APPROVED BY THE DIVISION OF THE STATE ARCHITECT). THE TYPE AND CAPACITY OF THE WELDING EQUIPMENT SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND SHALL BE CHECKED AND APPROVED BY A WELDING INSPECTOR.
    D. AT THE BEGINNING OF EACH DAY'S WORK, A MINIMUM OF TWO TEST STUD WELDS SHALL BE MADE WITH THE EQUIPMENT TO BE USED TO METAL WHICH IS THE SAME AS THE ACTUAL WORK PIECE. THE TEST STUDS SHALL BE SUBJECTED TO A BEND TEST BY STRIKING THEM WITH A 900 HEAVY HAMMER. AFTER THE ABOVE TEST, THE WELD SECTION SHALL NOT EXHIBIT ANY TEARING OUT OR CRACKING.

Remove section #10 if not applicable to this project.

ACCEPTANCE TESTING

THE CALIFORNIA ENERGY CODE SECTION 10-103 REQUIRES ACCEPTANCE TESTING ON ALL NEWLY INSTALLED LIGHTING CONTROLS, MECHANICAL SYSTEMS, ENVELOPES, AND PROCESS EQUIPMENT AFTER INSTALLATION AND BEFORE PROJECT COMPLETION. AN ACCEPTANCE TEST IS A FUNCTIONAL PERFORMANCE TEST TO HELP ENSURE THAT NEWLY INSTALLED EQUIPMENT IS OPERATING AND IN COMPLIANCE WITH THE ENERGY CODE.

LIGHTING CONTROLS ACCEPTANCE TESTS MUST BE PERFORMED BY A CERTIFIED LIGHTING CONTROLS ACCEPTANCE TEST TECHNICIAN (ATT).

MECHANICAL SYSTEM ACCEPTANCE TESTS MUST BE PERFORMED BY A CERTIFIED MECHANICAL ATT FOR PROJECTS SUBMITTED ON OR AFTER OCTOBER 1, 2021.

ENVELOPE AND PROCESS EQUIPMENT ACCEPTANCE TESTS SHALL BE PERFORMED BY THE INSTALLING CONTRACTOR, ENGINEER/ARCHITECT OF RECORD OR THE OWNER'S AGENT.

A LISTING OF CERTIFIED ATT CAN BE FOUND AT: HTTPS://WWW.ENERGY.CA.GOV/PROGRAMS-AND-TOPICS/PROGRAMS/ACCEPTANCE-TEST-TECHNICIAN-CERTIFICATION-PROVIDER-PROGRAM/ACCEPTANCE.

THE ACCEPTANCE TESTING PROCEDURES MUST BE REPEATED, AND DEFICIENCIES MUST BE CORRECTED BY THE BUILDER OR INSTALLING CONTRACTOR UNTIL THE CONSTRUCTION/INSTALLATION OF THE SPECIFIED SYSTEMS CONFORM AND PASS THE REQUIRED ACCEPTANCE CRITERIA.

PROJECT INSPECTORS WILL COLLECT THE FORMS TO CONFIRM THAT THE REQUIRED ACCEPTANCE TESTS HAVE BEEN COMPLETED.

EMERGENCY RESPONDER RADIO COVERAGE

ARCHITECT OF RECORD (AOR) SHALL CONTACT THE LOCAL FIRE DEPARTMENT AND/OR EMERGENCY COMMUNICATIONS AUTHORITY TO OBTAIN DESIGN AND EQUIPMENT SPECIFICATIONS, AND TESTING AND ACCEPTANCE CRITERIA. IT IS THE RESPONSIBILITY OF THE DESIGN PROFESSIONAL / AOR TO SUBMIT PLANS AND REQUESTED DOCUMENTATION, AND APPLICABLE FEES, TO THE LOCAL AUTHORITY HAVING JURISDICTION FOR REVIEW AND APPROVAL. UPON COMPLETION, COPIES OF THE APPROVED PLANS, EQUIPMENT DATA SHEETS, AND PROOF OF TESTING AND ACCEPTANCE DOCUMENTATION SHALL BE PROVIDED TO THE SCHOOL DISTRICT. THE PROJECT INSPECTORS SHALL VERIFY THAT DOCUMENTATION IS PROVIDED TO THE SCHOOL DISTRICTS.

OWNER FURNISHED ITEMS

ITEMS LISTED BELOW ARE OWNER FURNISHED, **CONTRACTOR** INSTALLED.

TOILET ACCESSORIES
- TOILET PAPER DISPENSERS
- TOILET SEAT COVER DISPENSERS
- SANITARY NAPKIN DISPENSERS
- HAND SOAP DISPENSERS
- PAPER TOWEL DISPENSERS (MANUAL ONLY - ELECTRIC PAPER TOWEL DISPENSERS AND ELECTRIC PAPER TOWEL/TRASH RECEPTACLE COMBO UNITS TO BE CFCI)

EQUIPMENT
- FULL SIZE REFRIGERATORS
- MICROWAVE

TECHNOLOGY
- TVS AND TV BRACKETS
- SHORT THROW PROJECTORS
- AV CONTROLLERSWAPS
- SPEAKERS
- CLOCKS

ITEMS LISTED BELOW ARE OWNER FURNISHED, **OWNER** INSTALLED AND MAY OR MAY NOT BE SHOWN IN THESE DOCUMENTS AND ARE LISTED HERE FOR REFERENCE ONLY.

- FURNITURE
- RECYCLING BINS
- PRINTERS

Revise per project requirements.

DSA STAMP

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-122123 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 3/21/2024

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ARCHITECT | ENGINEER

LICENSED ARCHITECT BRYAN P WHITMORE No. C 30345 Ren. 9/30/25 STATE OF CALIFORNIA

DATE SIGN

ARCHITECTURAL DRAWING ABBREVIATIONS

#	POUND OR NUMBER
&	AND
*	ITEMS IDENTIFIED AS "NIC" ARE NOT PART OF THIS DSA APPROVAL
2X	NOMINAL LUMBER SIZE (4X, 6X, 8X, ETC.)
@	AT
⊥	PERPENDICULAR
A	
A/C	AIR CONDITIONING
A/E	ARCHITECT/ENGINEER
AB	ANCHOR BOLT
ABAN	ABANDON
ABC	AGGREGATE BASE COURSE
ABV	ABOVE
AC	ASPHALTIC CONCRETE
ACC	ACCESS(IBLE)
ACP	ALUMINUM COMPOSITE PANEL
ACST	ACOUSTICAL
ACT	ACOUSTICAL CEILING TILE
AD	AREA DRAIN
ADDM	ADDENDUM
ADH	ADHESIVE
ADJ	ADJUSTABLE
ADJC	ADJACENT
AFF	ABOVE FINISH FLOOR
AFG	ABOVE FINISHED GRADE
AGGR	AGGREGATE
AHU	AIR HANDLING UNIT
ALS	ASSISTED LISTENING SYSTEM
ALT	ALTERNATE
ALUM./AL.	ALUMINUM
ANC	ANCHOR, ANCHORAGE
APLD	APPLIED
APPRX	APPROXIMATELY
ARCH	ARCHITECT(URAL)
ASC	ABOVE SUSPENDED CEILING
ASF	ABOVE STAGE FINISH
ASPH	ASPHALT
ASSY	ASSEMBLY
ASYM	ASYMMETRICAL
AUTO	AUTOMATIC
AV	AUDIO VISUAL
AWG	AMERICAN WIRE GAUGE
B	
B	BOLT
BC	BACK OF CURB
BD	BOARD
BITUM	BITUMINOUS
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BLW	BELOW
BLW CLG	BELOW CEILING
BLW FFLR	BELOW FINISH FLOOR
BM	BENCH MARK
BN	BOUNDARY NAILING
BO	BOTTOM OF
BOT	BOTTOM
BRCG	BRACING
BRDG	BRIDGING
BRG	BEARING
BRK	BRICK
BRKT	BRACKET
BRS	BRASS
BRZ	BRONZE
BS	BOTH SIDES
BSMT	BASEMENT
BTWN	BETWEEN
BUR	BUILT UP ROOFING
BW	BOTH WAYS
C	
C&G	CURB AND GUTTER
CAB	CABINET
CAD	CADMIUM
CB	CATCH BASIN
CBB	CEMENTITIOUS BACKER BOARD
CBC	CALIFORNIA BUILDING CODE
CEM	CEMENT
CER	CERAMIC
CFCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED
CFLG	COUNTERFLASHING
CFOI	CONTRACTOR FURNISHED OWNER INSTALLED
CG	CORNER GUARD
CHBD	CHALKBOARD
CHFR	CHAMFER
CI	CAST IRON
CIP	CAST IN PLACE
CIR	CIRCLE
CIRC	CIRCULAR, CIRCUMFERENCE
CJ	CONSTRUCTION JOINT
CL	CHAIN LINK OR CENTER LINE
CLG	CEILING
CLJ	CONTROL JOINT
CLKG	CAULKING
CLL	CONTRACT LIMIT LINE
CLOS	CLOSURE
CLR	CLEAR(ANCE)
CLRM	CLASSROOM
CMP	CORRUGATED METAL PANEL
CMPST	COMPOSITION
CMU	CONCRETE MASONARY UNIT
CNCL	CONCEALED
CNR	CORNER
CNTR	COUNTER
COL	COLUMN
COM	COMMON
COMB	COMBINATION
COMP	COMPOSITE
COMPT	COMPARTMENT
CONC	CONCRETE
CONF	CONFERENCE
CONN	CONNECTION
CONSTR	CONSTRUCTION
CONT	CONTINUOUS, CONTINUATION
CONTR	CONTRACT(OR)
COORD	COORDINATE
CORR	CORRIDOR
CPR	COPPER
CPRS	COMPRESS(ED), (ION), (IBLE)
CPT	CARPET
CRS	COLD ROLLED STEEL
CS	CAST STONE
CSG	CASING
CSK	COUNTERSUNK
CSMT	CASEMENT
CSWK	CASEWORK
CT	CERAMIC TILE
CTB	CERAMIC TILE BASE
CTF	CERAMIC TILE FLOOR
CTG	COATING
CTR	CENTER
CUFT	CUBIC FOOT
CUIN	CUBIC INCH
CUST	CUSTODIAN
CUYD	CUBIC YARD
CW	CURTAIN WALL
D	
D	DRAIN
d.	PENNYWEIGHT (NAILS)
DA	DOUBLE ACTING
DBL	DOUBLE
DEG	DEGREES
DEMO	DEMOLISH, DEMOLITION
DEP	DEPRESSED
DEPT	DEPARTMENT
DET	DETAIL
DF	DRINKING FOUNTAIN
DG	DECOMPOSED GRANITE
DH	DOUBLE HUNG
DIA	DIAMETER
DIAG	DIAGONAL
DIFF	DIFFUSER
DIM	DIMENSION
DISP	DISPENSER
DIV	DIVISION
DMPF	DAMPPROOFING
DMT	DEMOUNTABLE
DN	DOWN
DR	DOOR
DRB	DRAINBOARD
DRLV	DOOR LOUVER
DS	DOWNSPOUT
DSP	DRY STANDPIPE
DT	DRAIN TILE
DVTL	DOVETAIL
DW	DISHWASHER
DWG	DRAWING
DWL	DOWEL
DWR	DRAWER
E	
(E)	EXISTING
E	EAST
EA	EACH
EAR	EXHAUST AIR REGISTER
EB	EXPANSION BOLT
EE	EACH END
EF	EACH FACE
EFS	EXTERIOR FINISH SYSTEM
EHD	ELECTRIC HAND DRYER
EIFS	EXTERIOR INSULATION AND FINISH SYSTEM
EJ	EXPANSION JOINT
EL	ELEVATION
ELAST	ELASTOMERIC
ELEC	ELECTRIC(AL)
ELEV	ELEVATOR
EM	EXPANDED METAL
EMER	EMERGENCY
EN	EDGE NAILING
ENCL	ENCLOSE(URE)
ENGR	ENGINEER
ENTR	ENTRANCE
EP	ELECTRICAL PANELBOARD
EQ	EQUAL
EQUIP	EQUIPMENT
ESC	ESCUTCHEON
ESCL	ESCALATOR
ESMT	EASEMENT
EW	EACH WAY
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EWS	EYE WASH STATION
EXC	EXCAVATE
EXH	EXHAUST
EXP	EXPOSED
EXPN	EXPANSION
EXS	EXTRA STRONG
EXT	EXTERIOR
F	
(F)	FUTURE
F/F	FACE TO FACE
FA	FIRE ALARM
FAB	FABRIC
FBD	FIBERBOARD
FBRK	FIRE BRICK
FCBRK	FACE BRICK
FD	FLOOR DRAIN
FDTN	FOUNDATION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF	FINISH FLOOR
FFA	FROM FLOOR ABOVE
FFB	FROM FLOOR BELOW
FFEL	FINISHED FLOOR ELEVATION
FFL	FINISHED FLOOR LINE
FGL	FIBERGLASS
FHC	FIRE HOUSE CABINET
FHMB	FLAT HEAD MACHINE BOLT
FHMS	FLAT HEAD MACHINE SCREW
FHWS	FLATHEAD WOOD SCREW
FIN	FINISH(ED)
FJT	FLUSH JOINT
FLASH	FLASHING
FLDG	FOLDING
FLG	FLOORING
FLR	FLOOR
FLUOR	FLUORESCENT
FN	FIELD NAILING
FOB	FACE OF BLOCK
FOC	FACE OF CONCRETE/CURB
FOF	FACE OF FINISH
FOG	FACE OF GRID
FOM	FACE OF MASONRY
FOS	FACE OF STUD
FPL	FIREPLACE
FPRF	FIREPROOF(ING)
FR	FRAME(D), (ING)
FRG	FIBERGLASS REINFORCED GYPSUM
FRP	FIBERGLASS REINFORCED PLASTIC
FRTW	FIRE RETARDANT TREATED WOOD
FRZ	FREEZER
FS	FIRE SPRINKLER
FS	FAR SIDE
FSTN	FASTEN, FASTENER
FT	FOOT/FEET
FTG	FOOTING
FURG	FURRED, (ING)
FWC	FABRIC WALL COVERING
G	
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GB	GRAB BAR
GFRC	GLASS FIBER REINFORCED CONCRETE
GI	GALVANIZED IRON
GL	GLASS
GLULAM	GLUE LAMINATED
GLZ	GLAZING
GLZCMU	GLAZED CONRETE MASONRY UNIT
GND	GROUND
GPC	GYPSUM PLASTER CEILING
GR	GRADE
GRBM	GRADE BEAM
GRLN	GRADE LINE
GSB	GYPSUM SHEATHING BOARD
GSM	GALVANIZED SHEET METAL
GSS	GALVANIZED STEEL SHEET
GST	GLAZED STRUCTURAL TILE
GT	GROUT
GVL	GRAVEL
GYP	GYPSUM
GYP BD	GYPSUM BOARD
H	
HB	HOSE BIB
HC	HOLLOW CORE
HD	HEAVY DUTY
HDAS	HEADED ANCHOR STUD
HDJT	HEAD JOINT
HDR	HEADER
HDW	HARDWARE
HDWD	HARDWOOD
HEX	HEXAGONAL
HGR	HANGER
HLDN	HOLD DOWN
HM	HOLLOW METAL
HMD	HOLOW METAL DOOR
HMDF	HOLLOW METAL DOOR AND FRAME
HMF	HOLLOW METAL FRAME
HNDRL	HANDRAIL
HORIZ	HORIZONTAL
HPT	HIGH POINT
HR	HOUR
HT	HEIGHT
HTG	HEATING
HVAC	HEATING, VENTILATING, AIR CONDITIONING
HWH	HOT WATER HEATER
I	
ID	INSIDE DIAMETER
IN	INCH
INCL	INCLUDE(D), (ING)
INFO	INFORMATION
INSTL	INSTALL
INSUL	INSULATE(D), (ION)
INT	INTERIOR
INV	INVERT
IPS	IRON PIPE SIZE
ISA	INTERNATIONAL SYMBOL OF ACCESSIBILITY
J	
JAN	JANITOR
JST	JOIST
JT	JOINT
K	
KIT	KITCHEN
KO	KNOCKOUT
KPL	KICKPLATE
L	
LAB	LABORATORY
LAD	LADDER
LAM	LAMINATE
LAV	LAVATORY
LB(S)	POUND(S)
LBL	LABEL
LBR	LUMBER
LDR	LEADER
LF	LINEAL FOOT
LG	LENGTH, LONG
LH	LEFT HAND
LHR	LEFT HAND REVERSE
LKNT	LOCKNUT
LKR	LOCKER
LKWASH	LOCKWASHER
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LMST	LIMSTONE
LNSCP	LANDSCAPE(D)
LNTL	LINTEL
LP	LIGHTPROOF
LPT	LOW POINT
LT	LIGHT
LTWT	LIGHTWEIGHT
LV	LOUVER VENT
LVL	LEVEL(ER)
LWC	LIGHTWEIGHT CONCRETE
LWIC	LIGHTWEIGHT INSULATING CONCRETE
M	
MAINT	MAINTAIN(ANCE)
MAS	MASONRY
MATL	MATERIAL
MAX	MAXIMUM
MB	MACHINE BOLT
MBR	MEMBER
MC	MEDICINE CABINET
MCB	METAL CORNER BEAD
MDO	MEDIUM DENSITY OVERLAID
MECH	MECHANICAL
MED	MEDIUM
MEMB	MEMBRANE
MEZZ	MEZZANINE
MFD	METAL FLOOR DECKING
MFR	MANUFACTUR(ER)
MH	MANHOLE
MIN	MINIMUM
MIRR	MIRROR
MISC	MISCELLANEOUS
ML	METAL LATH
MLDG	MOLDING
MLWK	MILLWORK
MO	MASONRY OPENING
MOD	MODULE(AR)
MR	MOISTURE RESISTANT
MRB	MARBLE
MRD	METAL ROOF DECKING
MS	MACHINE SCREW
MTD	MOUNTED
MTL	METAL
MTR	MORTAR
MULL	MULLION
N	
(N)	NEW
N	NORTH
NAT	NATURAL
NCOMBL	NONCOMBUSTIBLE
NE	NOT EXCEEDING
NF	NEAR FACE
NIC	NOT IN CONTRACT
NLB	NON-LOAD BEARING
NM	NONMETALLIC
NO	NUMBER
NOM	NOMINAL
NR	NOISE REDUCTION
NRC	NOISE REDUCTION COEFFICIENT
NRCA	NATIONAL ROOFING CONTRACTOR'S ASSOCIATION
NS	NEAR SIDE
NTS	NOT TO SCALE
O	
O/	OVER
O/O	OUT TO OUT
OA	OVERALL
OBS	OBSCURE
OC	ON CENTER
OCC	OCCUPANTS OR OCCUPANCY
OD	OUTSIDE DIAMETER
OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
OFF	OFFICE
OFOI	OWNER FURNISHED OWNER INSTALLED
OFS	OUTSIDE FACE OF STUD
OHMS	OVALHEAD MACHINE SCREW
OHWS	OVALHEAD WOOD SCREW
OI	OWNER INSTALLED
OPH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE
OPQ	OPAQUE
OPR	OPERABLE
ORD	OVERFLOW ROOF DRAIN
OSB	ORIENTED STRAND BOARD
OVFL	OVERFLOW
OVHD	OVERHEAD
P	
P	PAINT
PA	PUBLIC ADDRESS
PAR	PARALLEL
PAT	PATTERN
PB	PANIC BAR
PBD	PARTICLE BOARD
PC	PORTLAND CEMENT
PCC	PRECAST CONCRETE
PCP	PORTLAND CEMENT PLASTER
PED	PEDESTAL
PERF	PERFORATED
PERIM	PERIMETER
PERP	PERPENDICULAR
PGBD	PEGBOARD
PH	PHASE
PHS	PHILLIPS HEAD SCREW
PI	POINT OF INTERSECTION
PIV	POST INDICATOR VALVE
PL	PLATE, PROPERTY LINE
PLAM	PLASTIC LAMINATE
PLAS	PLASTER
PLYWD	PLYWOOD
PM	PRESSED METAL
PMF	PRESSED METAL FRAME
PNEU	PNEUMATIC
PNL	PANEL
PNT	PAINT(ED)
POL	POLISHED
POLY	POLYETHYLENE
PORC	PORCELAIN
PORT	PORTABLE
PR	PAIR
PRCST	PRECAST
PREFAB	PREFABRICATED
PREFIN	PREFINISHED
PREFMD	PREFORMED
PRKG	PARKING
PRML	PREMOLDED
PROJ	PROJECT
PROP	PROPERTY
PSCONC	PRESTRESSED CONCRETE
PT	POINT
PTD	PAPER TOWEL DISPENSER
PTDF	PRESSURE TREATED DOUGLAS FIR
PTN	PARTITION
PTR	PAPER TOWEL RECEPTACLE
PVC	POLYVINYL CHLORIDE
PVG	PAVE(D), (ING)
PVMT	PAVEMENT
Q	
QT	QUARRY TILE
QTB	QUARRY TILE BASE
QTF	QUARRY TILE FLOOR
QTR	QUARTER
QTY	QUANTITY
R	
R	RISER
RA	RETURN AIR
RAB	RABBET
RAD	RADIUS
RB	RESILIENT BASE
RBR	RUBBER
RCP	REINFORCED CONCRETE PIPE
RCVR	RECEIVER
RD	ROOF DRAIN
RDWY	ROADWAY
REBAR	REINFORCING STEEL BARS
REC	RECESSED
RECT	RECTANGULAR
RECYL	RECYCLING
REF	REFERENCE
REFL	REFLECT(ED), (IVE), (OR)
REFR	REFRIGERATOR
REG	REGISTER
REINF	REINFORCED
REM	REMOVE(ABLE)
REP	REPAIR
REPL	REPLACE
REQD	REQUIRED
RESIL	RESILIENT
RET	RETURN
REV	REVISION(S), REVISED
RF	RESILIENT FLOORING
RFG	ROOFING
RFH	ROOF HATCH
RGDINS	RIGID INSULATION
RH	RIGHT HAND
RHMS	ROUND HEAD MACHINE SCREW
RHR	RIGHT HAND REVERSE
RHWS	ROUND HEAD WOOD SCREW
RL	ROOF LEADER
RLG	RAILING
RM	ROOM
RND	ROUND
RO	ROUGH OPENING
ROW	RIGHT OF WAY
RR	RESTROOM
RS	ROUGH SAWN
RTF	RUBBER TILE FLOORING
RTU	ROOF TOP UNIT
RV	ROOF VENT
RVL	REVEAL
RVS	REVERSE (SIDE)
RVT	RIVET(ED)
RWD	REDWOOD
RWL	RAIN WATER LEADER
S	
S	SOUTH
S2S	SURFACED TWO SIDES
S4S	SURFACED FOUR SIDES
SA	SUPPLY AIR
SALV	SALVAGE
SAM	SELF-ADHERED MEMBRANE
SAT	SUSPENDED ACOUSTICAL TILE
SB	SPLASH BLOCK
SBSTR	SUBSTRATE
SC	SOLID CORE
SCD	SEAT COVER DISPENSER
SCHED	SCHEDULE
SCP	SCUPPER
SCRN	SCREEN
SD	STORM DRAIN
SDBL	SANDBLAST
SEC	SECONDS
SECT	SECTION
SEP	SEPERATE OR SEPERATION
SF	SQUARE FEET, STOREFRONT
SGL	SINGLE
SHR	SHOWER
SHT	SHEET(ING)
SHTG	SHEATHING
SHV	SHELVES(ING)
SIM	SIMILAR
SK	SINK
SKLT	SKYLIGHT
SLD	SEALED
SLDG	SLIDE(ING)
SLDR	SOLDER
SLNT	SEALANT
SLV	SLEEVE
SM	SHEET METAL
SMACNA	SHEET METAL AND AIR CONDITIONING CONTRACTOR'S NATIONAL ASSOCIATION
SMLS	SEAMLESS
SMS	SHEET METAL SCREW
SND	SANITARY NAPKIN DISPENSER
SNDINS	SOUND INSULATION
SNDU	SANITARY NAPKIN DISPOSAL UNIT
SNT	SEALANT
SP	SPACES
SPC	SUSPENDED PLASTER CEILING
SPD	SOAP DISPENSER
SPEC	SPECIFICATION(S)
SPRT	SUPPORT
SQ	SQUARE
SS	STAINLESS STEEL
SSK	SERVICE SINK
ST	STREET
STA	STATION
STAG	STAGGERED
STC	SOUND TRANSMISSION CLASS
STD	STANDARD
STG	SEATING
STIF	STIFFENER
STIR	STIRRUP
STL	STEEL
STOR	STORAGE
STR	STRAIGHT
STRUC	STRUCTURAL
STU	STRUCT
SUSP	SUSPENDED
SV	SHEET VINYL
SYMM	SYMMETRICAL
SYNTH	SYNTHETIC
SYS	SYSTEM
T	
T	TEMPERED, TOILET, TREAD
T24	TITLE 24
T&B	TOP AND BOTTOM
T&G	TONGUE & GROOVE
TB	THRU BOLT
TBE	THREADED BOTH ENDS
TD	TOWEL DISPENSER
TDR	TOWEL DISPENSER/RECEPTACLE
TEL	TELEPHONE
TEMP	TEMPORARY
TER	TERRAZZO
TFA	TO FLOOR ABOVE
TFB	TO FLOOR BELOW
THD	THREADED(ED)
THERM	THERMAL
THK	THICK
THRES	THRESHOLD
THRU	THROUGH
TKBD	TACKBOARD
TMPD	TEMPERED
TO	TOP OF
TOB	TOP OF BEAM
TOC	TOP OF CURB OR TOP OF CONCRETE
TOF	TOP OF FOOTING
TOFF	TOP OF FINISH FLOOR
TOJ	TOP OF JOIST
TOL	TOLERANCE
TOM	TOP OF MASONRY
TOP	TOP OF PARAPET
TOPV	TOP OF PAVEMENT
TOS	TOP OF SHEATHING
TOSL	TOP OF SLAB
TOST	TOP OF STEEL
TOW	TOP OF WALL OR TOP OF WALK
TPD	TOILET PAPER DISPENSER
TPTN	TOILET PARTITION
TRANS	TRANSITION
TS	TUBE STEEL
TV	TELEVISION
TWLB	TOWEL BAR
TYP	TYPICAL
U	
UC	UNDERCUT
UGND	UNDERGROUND
UL	UNDERWRITER'S LABORATORY
UNFIN	UNFINISHED
UON	UNLESS OTHERWISE NOTED
UR	URINAL
URM	UNREINFORCED MASONRY
UTIL	UTILITY
V	
VAR	VARIES
VB	VINYL BASE
VCT	VINYL COMPOSITION TITLE
VER	VERIFY
VERT	VERTICAL
VEST	VESTIBULE
VF	VINYL FABRIC
VFAT	VINYL FACED ACOUSTIC TILE
VIF	VERIFY IN FIELD
VJ	V-JOINT(ED)
VNR	VENEER
VR	VAPOR RETARDER
VTR	VENT THROUGH ROOF
VWC	VINYL WALL COVERING
W	
W	WEST
W.O.	WHERE OCCURS
W/	WITH
W/O	WITHOUT
W/W	WALL TO WALL
WBL	WOOD BLOCKING
WC	WATER CLOSET
WD	WOOD
WDP	WOOD PANELING
WDW	WINDOW
WF	WIDE FLANGE
WFS	WOOD FURRING STRIP
WGL	WIRED GLASS
WH	WATER HEATER
WH	WALL HUNG
WI	WROUGHT IRON
WID	WIDTH, WIDE
WLD	WELD(ED)
WM	WIRE MESH
WP	WATERPROOF(ING)
WPT	WORKING POINT
WR	WIRE ROPE
WS	WOOD SCREW
WSCT	WAINSCOT
WT	WEIGHT
WWF	WELDED WIRE FABRIC
X	
XBRACE	CROSS BRACE
XFMR	TRANSFORMER
XSECT	CROSS SECTION
Y	
YCO	YARD CLEANOUT
YD	YARD

SYMBOLS LEGEND

N = PLAN NORTH ARROW
ADDITIONAL ARROW INDICATES TRUE NORTH

X = BUILDING SECTION NUMBER
AX.X = SHEET NUMBER

X = WALL SECTION NUMBER
AX.X = SHEET NUMBER

X = EXTERIOR ELEVATION NUMBER
AX.X = SHEET NUMBER

X = INTERIOR ELEVATION NUMBER
AX.X = SHEET NUMBER
N,S,E,W = INDICATES CARDINAL DIRECTION

GRID LINE, FACE OF STRUCTURE

GRID LINE, CENTER OF STRUCTURE

ELEVATION OR DATUM POINT

WORK POINT

REFERENCE DETAIL
X = DETAIL DRAWING NUMBER
AX.X = SHEET NUMBER

20 / AX.X — MATCH LINE AND AREA DESIGNATOR
SHADED PORTION IS THE SIDE CONSIDERED

ROOM NAME
A119 — ROOM NAME
AREA IDENTIFICATION:
A = BUILDING OR AREA DESIGNATION
1 = FLOOR NUMBER
19 = ROOM NUMBER

A — WINDOW, STOREFRONT, OR CURTAINWALL
SEE WINDOW SCHEDULE

A101A — DOOR NUMBER, SEE DOOR SCHEDULE

08 211 — KEYNOTE
08 = SPECIFICATION DIVISIONAL PREFIX
2 = SPECIFICATION SUBSECTION PREFIX
11 = NOTE NUMBER

1 — REVISION

102 (30" x 24" x 24" LOCKABLE) — CASEWORK TAG
102 = ARCHITECTURAL WOODWORK STANDARD (AWS) NUMBER
36" x 24" x 24" = WIDTH x HEIGHT x DEPTH
LOCKABLE = MODIFYING NOTE

NOTE: FOR BASE CABINETS, HEIGHT DOES NOT INCLUDE COUNTERTOP THICKNESS - REFER TO PLANS FOR COUNTERTOP TYPE

41 — PATH OF EGRESS
41 = OCCUPANT LOAD
STARTING POINT OF PATH OF TRAVEL TO EXIT
MARKED BY DOT AT THE BEGINNING OF EGRESS LINE

P — PANIC HARDWARE DEVICE - REFERENCE DOOR SCHEDULE AND HARDWARE GROUP

S1 — SIGNAGE TAG

MATERIALS LEGEND

- EARTH
- POROUS FILL (STONE, GRAVEL, ETC.)
- CONCRETE
- GROUT
- STEEL
- FINISHED WOOD
- TERRAZZO
- WOOD BLOCKING
- WOOD FRAMING
- BATT INSULATION
- RIGID INSULATION
- GYPSUM BOARD
- PLYWOOD
- METAL LATH AND PLASTER

DSA STAMP

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-122123 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 3/21/2024

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ARCHITECT	ENGINEER

LICENSED ARCHITECT — BRYAN P WHITMORE — No. C 30345 — Ren. 9/30/25 — STATE OF CALIFORNIA
DATE SIGNED: 01/31/2024

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REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

DATE	
●	DSA PLAN CHECK
●	DSA BACK CHECK
○	BIDDING
○	CONSTRUCTION

KEY PLAN

PARADISE UNIFIED SCHOOL DISTRICT
6696 CLARK ROAD
PARADISE, CA 95969

CONSTRUCTION DOCUMENTS

PARADISE RIDGE ELEMENTARY SCHOOL
PORTABLES
6593 PENTZ ROAD
PARADISE, CA 95969

ARCHITECTURAL SYMBOLS AND ABBREVIATIONS

Date	Project Number
01/31/2024	23067
Application Number	Drawing Number
02-122123	A0.3
Drawn / Checked	
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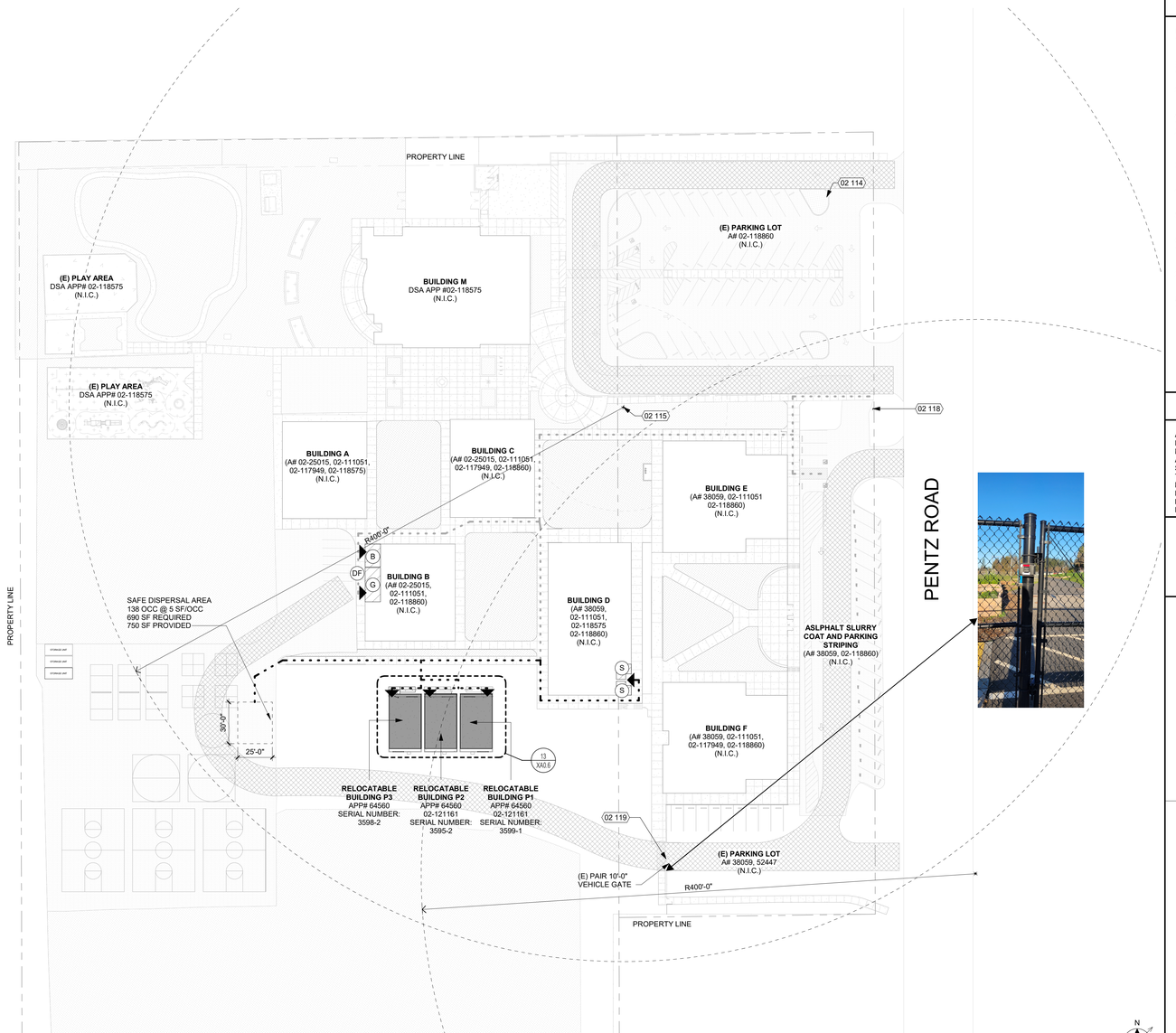
LOCAL FIRE AUTHORITY REVIEW



CODE ANALYSIS SITE PLAN 1" = 40'-0" 15

GENERAL NOTES

EXISTING CONDITIONS
1. ALL (E) STRUCTURES AND ITEMS ON SITE ARE APPROXIMATE BASED ON DRAWINGS FROM OWNER.

BUILDING
1. ALL EXTERIOR OUTWARD SWINGING DOORS TO HAVE A MINIMUM 5'-0" LEVEL LANDING.
2. ALL BUILDING ENTRANCES AND EXTERIOR GROUND LEVEL EXITS SHALL BE ACCESSIBLE.

ACCESSIBLE PATH OF TRAVEL
1. SEE ACCESSIBLE PATH OF TRAVEL DEFINITION, THIS SHEET.
2. ALL SIDEWALKS ALONG THE ACCESSIBLE ROUTE TO BE A MINIMUM OF 4'-0" WIDE, AND THERE SHALL BE NO DROP-OFFS OVER 4" AT EDGE OF WALK OR LANDING. WHERE A 4" DROP-OFF DOES OCCUR, PROVIDING A 6" HIGH WARNING CURB OR GUARD OR HANDRAIL. (SEE CBC SECTION 11B-303.5)
3. FOR GRATINGS LOCATED IN THE SURFACE OF ANY PEDESTRIAN WALKWAY IN THE PATH OF TRAVEL, GRID/OPENINGS IN GRATINGS SHALL BE LIMITED TO 1/2" MAXIMUM IN THE DIRECTION OF TRAFFIC FLOW.
4. 36" WIDE CONTINUOUS DETECTABLE WARNING SHALL BE USED WHERE THE PEDESTRIAN PATH CROSSES OR ADJOINS A VEHICULAR WAY (SUCH AS A DRIVEWAY) TO WARN OF POTENTIAL HAZARDS AS PER CBC 11B-705.
5. SEE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE STATEMENT ON THIS SHEET FOR PATH OF TRAVEL REQUIREMENTS.

GATES
1. GATES ALONG ACCESSIBLE ROUTE SHALL MEET DOOR REQUIREMENTS PER CBC SECTION 11B-404 INCLUDING PANIC HARDWARE AND 10" MIN. SMOOTH BOTTOM OR KICK PLATE.
2. GATES IN PATH OF TRAVEL SHALL COMPLY WITH EXIT DOOR REQUIREMENTS WITH PROPER ACCESSIBLE LEVER HARDWARE AND KICK PLATES.

UPON COMPLETION
1. UPON COMPLETION OF CONSTRUCTION, THE LOCAL FIRE DEPARTMENT AND/OR EMERGENCY COMMUNICATIONS AUTHORITY WILL BE CONTACTED TO OBTAIN DESIGN AND EQUIPMENT SPECIFICATIONS, AND TESTING, AND ACCEPTANCE CRITERIA FOR EMERGENCY RESPONDER RADIO COVERAGE (ERRC) PER CFC 510. UPON COMPLETION, COPIES OF THE APPROVED PLANS, EQUIPMENT DATA SHEETS, AND PROOF OF TESTING AND ACCEPTANCE DOCUMENTATION SHALL BE PROVIDED TO THE SCHOOL DISTRICT.

ACC. PATH OF TRAVEL

ACCESSIBLE PATH OF TRAVEL AS INDICATED ON PLANS IS A BARRIER FREE ACCESS ROUTE WITHOUT ANY ABRUPT LEVEL CHANGES EXCEEDING 1/2" IF BEVELED AT 1:2 MAXIMUM SLOPE OR VERTICAL LEVEL CHANGES NOT EXCEEDING 1/4" MAXIMUM AND AT LEAST 48" IN WIDTH. SURFACE IS STABLE, FIRM AND SLIP RESISTANT. CROSS SLOPE DOES NOT EXCEED 2% AND SLOPE IN THE DIRECTION OF TRAVEL IS LESS THAN 5% UNLESS OTHERWISE INDICATED. ACCESSIBLE PATH OF TRAVEL SHALL BE MAINTAINED FREE OF OVERHANGING OBSTRUCTIONS TO 80" MINIMUM AND PROTRUDING OBJECTS GREATER THAN 4" PROJECTION FROM WALL ABOVE 27" AND LESS THAN 80". ARCHITECT SHALL VERIFY THAT THERE ARE NO BARRIERS IN THE PATH OF TRAVEL.

DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE STATEMENT

(BASED ON DSA PROCEDURE PR 15-01)

THE P.O.T. IDENTIFIED IN THESE CONSTRUCTION DOCUMENTS MEETS THE REQUIREMENTS OF THE CURRENT APPLICABLE CALIFORNIA BUILDING CODE (CBC) ACCESSIBILITY PROVISIONS FOR PATH OF TRAVEL REQUIREMENTS FOR ALTERATIONS, ADDITIONS AND STRUCTURAL REPAIRS, AS PART OF THE DESIGN OF THIS PROJECT, THE P.O.T. WAS EXAMINED AND ANY ELEMENTS, COMPONENTS OR PORTIONS OF THE P.O.T. THAT WERE DETERMINED TO BE NONCOMPLIANT WITH THE CBC HAVE BEEN IDENTIFIED AND THE CORRECTIVE WORK NECESSARY TO BRING THEM INTO COMPLIANCE HAS BEEN INCLUDED WITHIN THE SCOPE OF THIS PROJECT'S WORK THROUGH DETAILS, DRAWINGS AND SPECIFICATIONS INCORPORATED INTO THESE CONSTRUCTION DOCUMENTS. ANY NONCOMPLIANT ELEMENTS, COMPONENTS OR PORTIONS OF THE P.O.T. THAT WILL NOT BE CORRECTED BY THIS PROJECT BASED ON VALUATION THRESHOLD LIMITATIONS OR A FINDING OF UNREASONABLE HARDSHIP ARE INDICATED IN THESE CONSTRUCTION DOCUMENTS.

DURING CONSTRUCTION, IF P.O.T. ITEMS WITHIN THE SCOPE OF THE PROJECT REPRESENTED AS CBC COMPLIANT ARE FOUND TO BE NONCONFORMING BEYOND REASONABLE CONSTRUCTION TOLERANCES, THE ITEMS SHALL BE BROUGHT INTO COMPLIANCE WITH THE CBC AS A PART OF THIS PROJECT BY MEANS OF A CONSTRUCTION CHANGE DOCUMENT.

CODE ANALYSIS

BUILDING NAME	BUILDING P1-P3
BUILDING CONDITION	EXSITING
OCCUPANCY (CBC SECTION 302)	E
BUILDING HEIGHT	12'-0"
NUMBER OF STORIES	1
TYPE OF CONSTRUCTION	V-B
SPRINKLERS	NO
ALTERNATIVE PROTECTION (CBC 903.1.1)	NOT USED
SEPARATED? (CBC TABLE 508.4)	NO
ALLOWABLE AREA DETERMINATION (CBC 506.2, BASED ON THE MOST RESTRICTIVE OCCUPANCY).	$A_a = A_t + (NS \times I_f)$ A_a = X,XXX + (X,XXX x .XX) **A_a = 9,500 SF**
A_t = TABULAR ALLOWABLE AREA (CBC TABLE 506.2)	9,500 SF
NS = TABULAR ALLOWABLE AREA FACTOR	N/A
I_f = FRONTAGE INCREASE (CBC 506.3)	NOT USED
ALLOWABLE BUILDING HEIGHT (CBC TABLE 504.3)	40'
ALLOWABLE NUMBER OF STORIES (CBC TABLE 504.4)	1
ACTUAL AREA / ALLOWABLE AREA	2,715 SF / 9,500 SF = .30 < 1 = OK

GROSS BUILDING AREA

NAME	TOTAL AREA (S.F.)
BUILDING P1	905 SF
BUILDING P2	905 SF
BUILDING P3	905 SF
P1, P2 & P3	880 SF
ROOF - P1	233 SF
ROOF - P2	233 SF
ROOF - P3	233 SF
TOTAL AREA	4,293 SF

KEYNOTES

NUMBER	NOTE
02 114	(E) TOW AWAWY SIGN
02 115	(E) FIRE HYDRANT
02 118	(E) PARKING ENTRANCE TOW AWAY SIGN, DSA APP #02-118860.
02 119	(E) KNOX ePADLOCK FIELD VERIFY

ACCESSIBLE PARKING

BASED ON CBC TABLE 11B-208.2 "PARKING SPACES"

(E) NORTH PARKING LOT: STANDARD STALLS PROVIDED 42 STALLS
ACCESSIBLE STALLS PROVIDED* 1 STALL + 1 VAN STALL
TOTAL PARKING PROVIDED 44 STALLS

(E) EAST PARKING LOT: STANDARD STALLS PROVIDED 19 STALLS
ACCESSIBLE STALLS PROVIDED* 1 STALL + 1 VAN STALL
TOTAL PARKING PROVIDED 21 STALLS

*FOR (26-50) TOTAL NUMBER OF PARKING SPACES PROVIDED, 2 ACCESSIBLE PARKING SPACES REQUIRED.

LEGEND

- (E) BUILDING, NOT UNDER SCOPE OF WORK
- BUILDING UNDER SCOPE OF WORK
- 20'-0" WIDE MINIMUM CLEAR FIRE ACCESS LANE. DSA APP# 02-118860
- (E) ACCESSIBLE PATH OF TRAVEL, PER DSA #02-118860
- ACCESSIBLE PATH OF TRAVEL, SEE DEFINITION ON THIS SHEET
- PROPERTY LINE
- (E) FIRE HYDRANT TO REMAIN, NIC
- LOCATION OF ACCESSIBLE EXTERIOR EXIT DOORS, ENTRANCES, AND EGRESS
- GX — GATE TAG - SEE GATE SCHEDULE ON SHEET A9.1
- X — (E) ACCESSIBLE BATHROOM FACILITIES, PER DSA #02-118860
- G GIRLS, B BOYS
- S ALL GENDER STAFF (SINGLE OCCUPANCY)
- DF DRINKING FOUNTAIN

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NO.	REMARKS	DATE

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○ CONSTRUCTION	

KEY PLAN

PARADISE UNIFIED SCHOOL DISTRICT
6696 CLARK ROAD
PARADISE, CA 95969

CONSTRUCTION DOCUMENTS

PARADISE RIDGE ELEMENTARY SCHOOL
PORTABLES
6593 PENTZ ROAD
PARADISE, CA 95969

CODE ANALYSIS SITE PLAN

Date 01/31/2024	Project Number 23067
Application Number 02-122123	Drawing Number A0.5
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Author / Checker	

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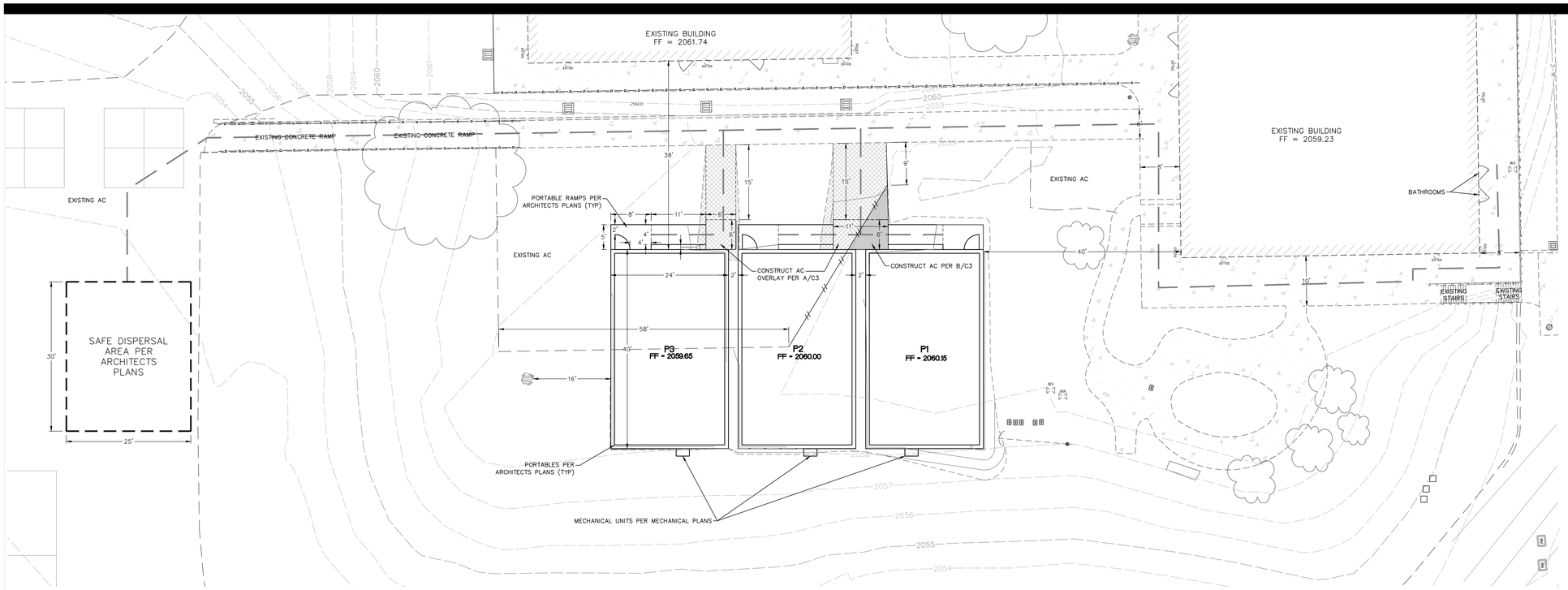

SHEET INDEX

C1 CIVIL SITE LAYOUT
C2 CIVIL SITE DEMOLITION
C3 CIVIL SITE GRADING AND DETAILS

PATH OF TRAVEL DEFINITION:

PATH OF TRAVEL (P.O.T.) AS INDICATED IS A BARRIER FREE ACCESS WITHOUT ANY ADBRUPT VERTICAL CHANGES EXCEEDING ¼" AT 1:2 MAXIMUM SLOPE, EXCEPT THAT LEVEL CHANGES DO NOT EXCEED ½" VERTICAL. P.O.T. IS A MINIMUM OF 48" WIDE SLIP RESISTANT SURFACE WITH 5% MAX. SLOPE AND 2% MAX CROSS SLOPE, TYP. THERE IS NO DROP-OFF OVER 4" AT THE EDGE OF WALK OR LANDING. ARCHITECT AND CONTRACTOR SHALL VERIFY THAT ALL BARRIERS ON THE INDICATED PATH OF TRAVEL HAVE BEEN REMOVED.

——— ——— PATH OF TRAVEL AS SHOWN ON PLANS

LEGEND

- X EXISTING FENCE
- EXISTING EDGE OF PAVEMENT
- 2505 EXISTING 5' MAJOR CONTOUR
- 2506 EXISTING 1' MINOR CONTOUR
- EXISTING CONCRETE
- EXISTING BUILDING
- EXISTING HANDRAIL
- OR EXISTING STORM DRAIN INLET
- EXISTING TREE TO REMAIN
- PROPOSED GRADE BREAK
- PROPOSED CATCH BACK TO EXISTING GROUND
- PROPOSED SAWCUT
- (P) E.C. E PROPOSED ELECTRICAL LINES PER ELECTRICAL PLAN
- PROPOSED ASPHALT OVERLAY (A/C3)
- PROPOSED ASPHALT CONCRETE (B/C3)
- 2505 PROPOSED 5' MAJOR CONTOUR
- 2506 PROPOSED 1' MINOR CONTOUR
- PROPOSED PORTABLES PER ARCHITECTS PLANS
- LIMITS OF WORK

ABBREVIATIONS

AGGREGATE BASE	AB	MAXIMUM	MAX
ASPHALT CONCRETE	AC	MINIMUM	MIN
BACK OF WALK	BOW	NOT TO SCALE	NTS
BASE FLOOD ELEVATION	BFE	ORIGINAL GROUND	OG
CENTERLINE	CL	PROPERTY LINE	PL
CLEAN OUT	CO	POWER POLE	PP
CONCRETE	CC	RADIUS	R
DRAIN INLET	DI	PRE MANUFACTURED PORTABLE RAMP	RP
ELECTRIC	E	RIGHT-OF-WAY	ROW
ELEVATION	ELEV	STORM DRAIN	SD
EDGE OF PAVEMENT	EP	STORM DRAIN DROP INLET	SDDI
EXISTING	EX	STORM DRAIN MAINTENANCE HOLE	SDMH
FINISH FLOOR	FF	SANITARY SEWER	SS
FINISH GRADE	FG	SANITARY SEWER MAINTENANCE HOLE	SSMH
FIRE ALARM	FA	STANDARD	STD
FLOWLINE	FL	SIDEWALK	SW
FEET	FT	TOP BACK OF CURB	TBC
GAS	G	TOE OF SLOPE	TOE
GRADE BREAK	GB	TOP OF SLOPE	TOP
GAS METER	GM	TOP OF WALL	TW
JOINT TRENCH	JT	TYPICAL	TYP
LINEAR FEET	LF	WATER	W
LIP OF GUTTER	LIP	WATER METER	WM

EROSION AND SEDIMENT CONTROL

1. THE PROJECT SOIL DISTURBANCE IS LESS THAN 1 ACRE AND WILL NOT REQUIRE A FORMAL PERMIT FROM THE STATE.
2. INSTALL BMP'S AS REQUIRED THROUGHOUT CONSTRUCTION TO ENSURE NO SITE DISCHARGES OCCUR. MONITOR, MAINTAIN, REPAIR, CLEAN, OR REPLACE BMP'S AS NEEDED THROUGHOUT PROJECT TO ENSURE NO SITE DISCHARGES OCCUR.

CONSTRUCTION LAYOUT

1. THE ELECTRONIC AUTO CAD FILE SHOWING LAYOUT, GRADES, & SURVEY CONTROL POINTS WILL BE MADE AVAILABLE TO THE WINNING BIDDER TO AID IN CONSTRUCTION LAYOUT.
2. CONTRACTOR TO PROVIDE EXPANSION AND CONTROL JOINT LAYOUT TO THE SCHOOL AND ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION. EXPANSION AND CONTROL JOINTS SHALL MATCH THE EXISTING EXPANSION AND CONTROL JOINT SCHEME. THE CONTRACTOR IS RESPONSIBLE FOR LAYING OUT & CONSTRUCTING ANY ADDITIONAL EXPANSION AND CONTROL JOINTS AS NEEDED TO ENSURE CRACKING OF CONCRETE IS CONTROLLED.

GENERAL NOTES

1. PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES AND/OR UTILITY DISTRICTS AS TO THE LOCATION OF ALL UNDERGROUND FACILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION OF ALL UNDERGROUND FACILITIES OR OTHER BURIED OBJECTS WHICH MAY BE ENCOUNTERED BUT WHICH ARE NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL CALL UNDERGROUND SERVICE ALERT (USA) AT 811 AT LEAST 3 DAYS PRIOR TO CONSTRUCTION.
2. LOCATIONS AND DEPTHS OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL VERIFY THE EXISTENCE, LOCATION AND DEPTH OF ALL UTILITIES PRIOR TO ORDERING MATERIALS OR BEGINNING SITE CONSTRUCTION.
3. ALL PERMITS NECESSARY FOR THIS JOB ARE TO BE ACQUIRED BY THE CONTRACTOR, EXCEPT THOSE REQUIRED BY DSA.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL ESTIMATES AND QUANTITIES.
5. SHOULD CONSTRUCTION ACTIVITIES EXPOSE BURIED ARTIFACTS OR OTHER EVIDENCE OF EARLY HISTORIC OCCUPATION. A QUALIFIED ARCHEOLOGIST SHALL BE CONTACTED IMMEDIATELY. ALL CONSTRUCTION ACTIVITIES SHALL BE HALTED UNTIL THEIR RECOMMENDATIONS ARE IMPLEMENTED.

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KEY PLAN

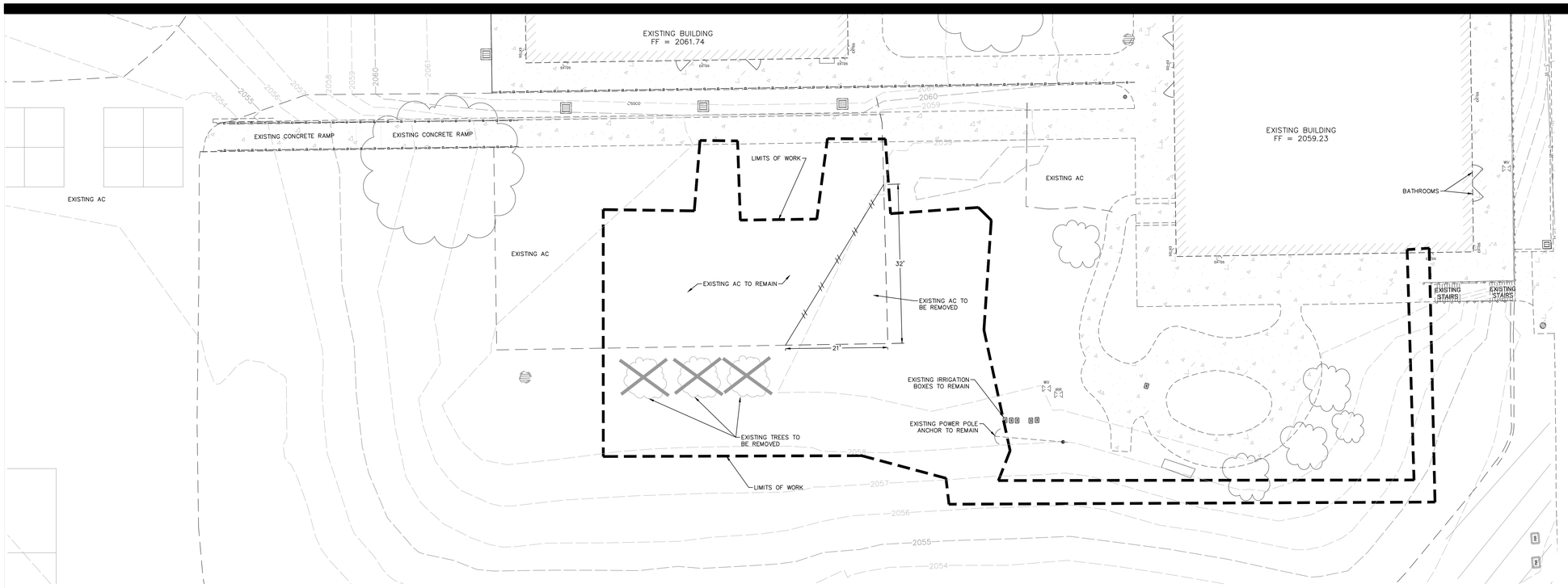
PARADISE UNIFIED SCHOOL DISTRICT
6696 CLARK ROAD
PARADISE, CA 95969

100% CONSTRUCTION DOCUMENTS

PARADISE RIDGE ELEMENTARY SCHOOL
PORTABLES
6593 PENTZ ROAD
PARADISE, CA 95969

CIVIL SITE LAYOUT

Date	Project Number
01/04/2024	23067
Application Number	Drawing Number
XX-XXXXXX	C1
Drawn JMZ	Checked CNS



DEMOLITION NOTES

1. CALL USA PRIOR TO THE START OF ANY CONSTRUCTION OR DEMOLITION. COORDINATE MARKING OF SCHOOL OWNED UTILITIES WITH FACILITIES STAFF.
2. CONTRACTOR IS TO COORDINATE WITH LOCAL UTILITY COMPANIES AND CAMPUS AS NEEDED FOR SERVICE SHUTOFFS / DISCONNECTS AND ANY SPECIAL DEMOLITION PROCEDURES.
3. REMOVED AGGREGATE BASE & SAND MAY BE REUSED FOR SITE FILL UNDER PROPOSED HARDSCAPE IMPROVEMENTS ONLY (AS LONG AS IT COMPLIES WITH FILL REQUIREMENTS IN SOILS REPORT) AND NOT PLACED IN LANDSCAPE AREAS.
4. ALL DELETERIOUS DEBRIS SHALL BE COMPLETELY REMOVED FROM THE SITE.
5. SITE SURVEY AND COMPILATION OF EXISTING AS-BUILTS IS NOT SUFFICIENT TO LOCATE EXISTING UNDERGROUND UTILITY LINES WITH ANY CONFIDENCE. CONTRACTOR TO BE AWARE THAT UNDERGROUND LINES MAY EXIST ANYWHERE ON THE SITE AND SHALL USE EXTREME CAUTION DURING ALL EXCAVATION AND EARTHWORK.
6. DEMOLITION CONTRACTOR TO REVIEW CONSTRUCTION DRAWINGS AND SAVE ANY FACILITIES SHOWN AS REMAINING. COORDINATE THE EXACT LIMITS OF REMOVAL WITH BUILDING CONTRACTOR TO ENSURE GOOD CONTINUATION OF FACILITIES TO BE MATCHED.
7. CONCRETE SIDEWALK SHOWN TO BE REMOVED SHALL BE REMOVED AT THE NEAREST JOINT OR IF NO JOINT IS PRESENT SHALL BE SAW CUT AND CONCRETE EDGE SHALL BE BEVEL GROUND TO 1" RADIUS.
8. PROVIDE EROSION-CONTROL MEASURES TO PREVENT SOIL EROSION AND DISCHARGE OF SOIL-BEARING WATER RUNOFF TO ADJACENT PROPERTIES AND STORM DRAIN FACILITIES.

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KEY PLAN

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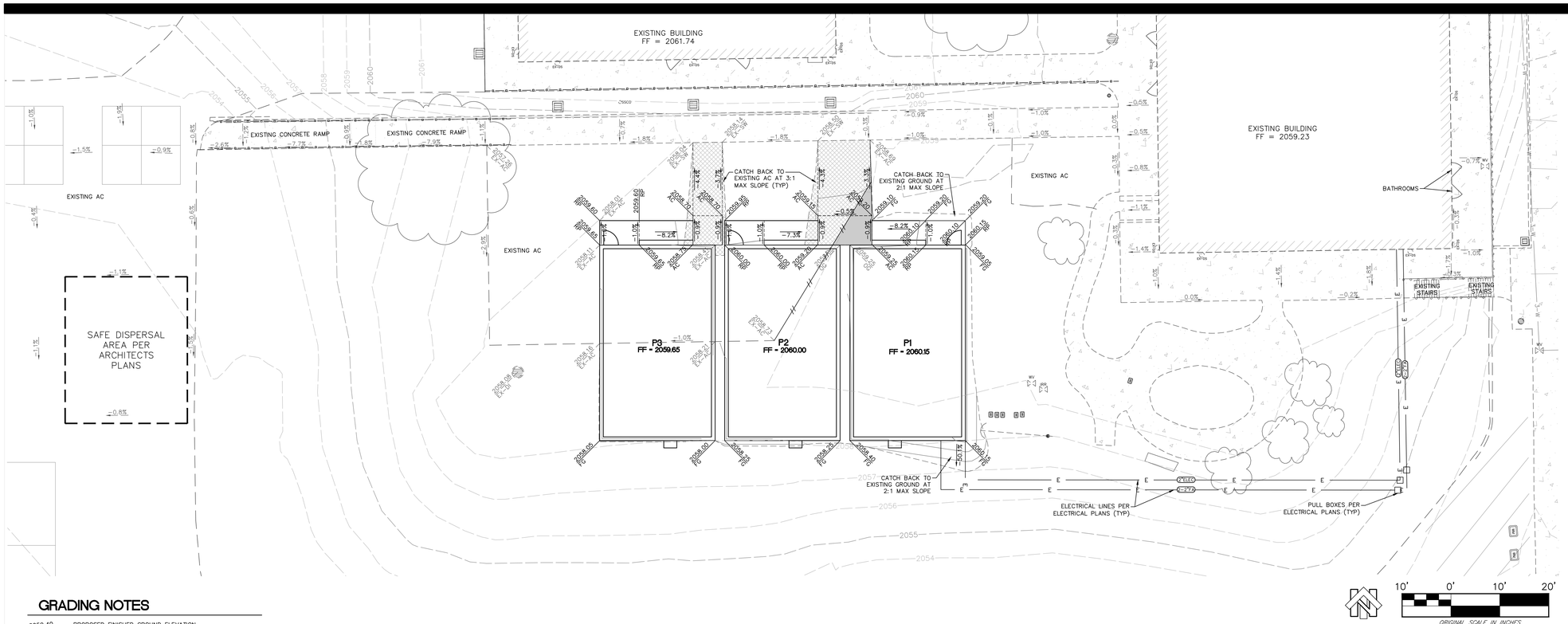
6696 CLARK ROAD
PARADISE, CA 95969

100% CONSTRUCTION DOCUMENTS

PARADISE RIDGE
ELEMENTARY SCHOOL
PORTABLES
6593 PENTZ ROAD
PARADISE, CA 95969

CIVIL SITE DEMOLITION

Date	Project Number
01/04/2024	23067
Application Number	Drawing Number
XX-XXXXXX	C2
Drawn JMZ	Checked CNS



GRADING NOTES

2059.40 FG — PROPOSED FINISHED GROUND ELEVATION

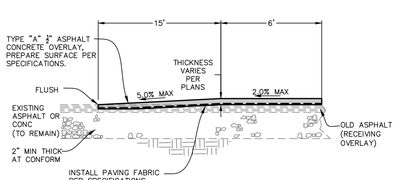
2058.62 OC — MATCH EXISTING GROUND ELEVATION, VERIFY PRIOR TO CONSTRUCTION, REPORT DIFFERENCES TO ENGINEER.

GRADE LABEL ELEVATION CALLOUTS KEY
- AC = TOP OF ASPHALT CONCRETE
- BOW = BACK OF SIDEWALK (PUBLIC)
- CONC = TOP CONCRETE DRIVE
- EP = EDGE OF PAVEMENT
- EX = EXISTING
- DI = FLOW LINE @ INLET
- FC = BOTTOM FACE OF CURB
- FF = FINISHED FLOOR
- FG = FINISH GROUND
- FL = FLOW LINE
- FNC = FENCE
- GB = GRADE BREAK
- INV = INVERT PIPE
- RIM = TOP MANHOLE LID
- RP = PRE MANUFACTURED RAMP PER OTHERS
- SW = SIDEWALK
- TBC = TOP BACK OF CURB
- TW = TOP OF WALL
- YD = YARD DRAIN (APPROXIMATE TOP OF GRATE)

1. CONCRETE CONTRACTOR SHALL CHECK ALL FORM BOARD OR STRING LINES PRIOR TO PLACING CONCRETE ALONG ALL RAMPS, PARKING, AND SIDEWALKS. GENERALLY REVIEW TO CONFIRM SLOPES ARE IN CONFORMANCE WITH PLANS, THAT NO APPARENT LOW SPOTS OR PUDDLES ARE BEING CREATED, AND THAT ACCESSIBLE SLOPE REQUIREMENTS ARE BEING MET. REPORT ANY DISCREPANCIES TO ENGINEER PRIOR TO PLACING CONCRETE.

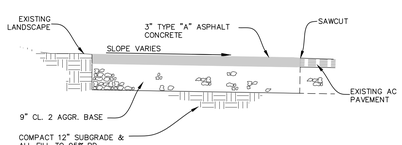
A TYPICAL ASPHALT CONFORM

NOT TO SCALE



B TYPICAL AC SECTION

NOT TO SCALE



NOTES:
1. EXISTING AC SECTION THICKNESS IS UNKNOWN. CONTRACTOR TO MATCH EXISTING SECTION IE IT IS THICKER THAN SHOW IN THIS DETAIL.

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KEY PLAN

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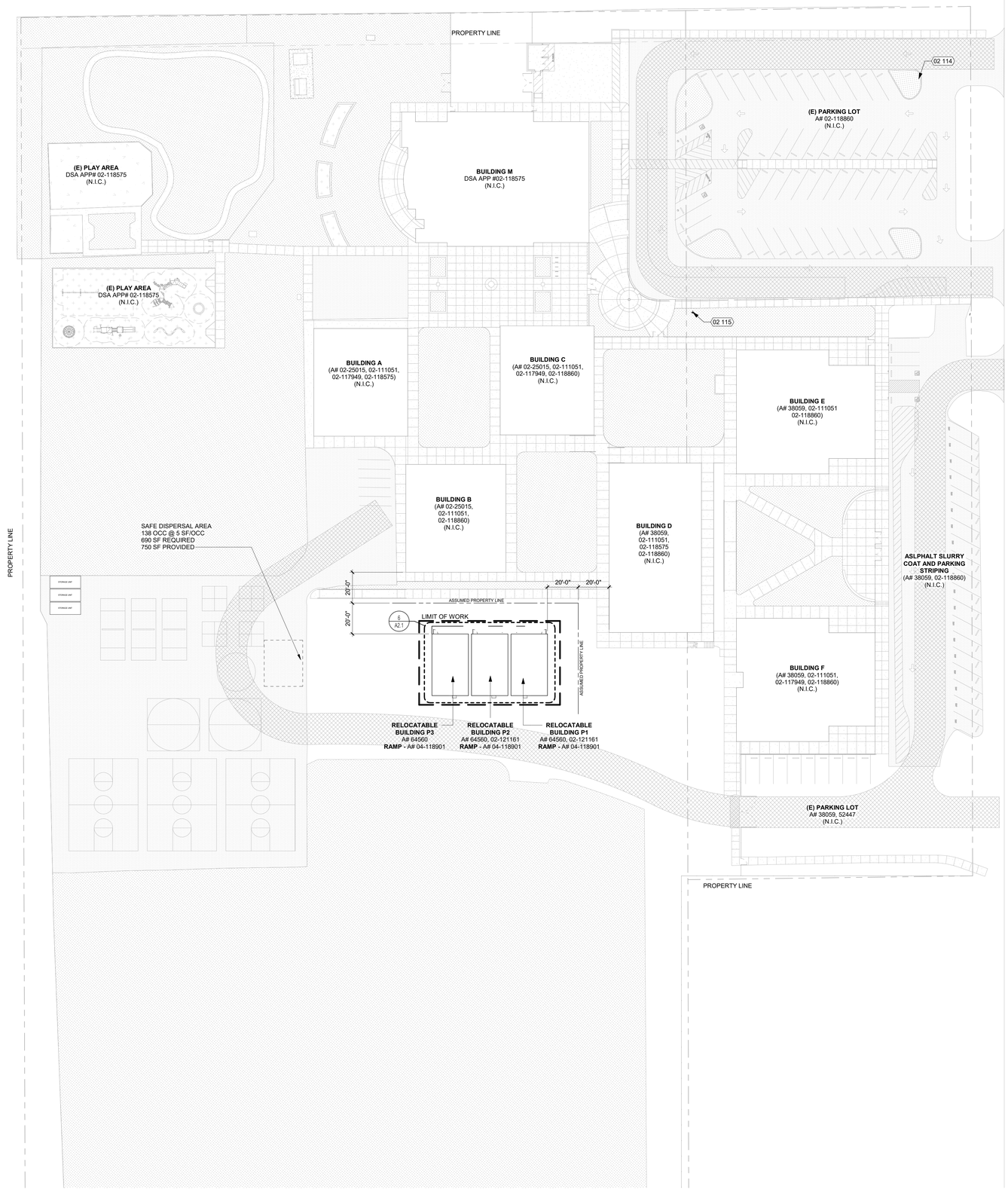
6696 CLARK ROAD
PARADISE, CA 95969

100% CONSTRUCTION DOCUMENTS

PARADISE RIDGE ELEMENTARY SCHOOL
PORTABLES
6593 PENTZ ROAD
PARADISE, CA 95969

CIVIL SITE GRADING AND DETAILS

Date	Project Number
01/04/2024	23067
Application Number	Drawing Number
XX-XXXXXX	C3
Drawn JMZ	Checked CNS



N

SITE PLAN 1" = 30'-0" 6

KEYNOTES

NUMBER	NOTE
02 114	(E) TOW AWAWY SIGN
02 115	(E) FIRE HYDRANT
33 101	FIRE HYDRANT (SEE CIVIL DWGS.)

GENERAL NOTES

1. CONTRACTOR IS RESPONSIBLE FOR 6'-0" HIGH TEMPORARY CONSTRUCTION BARRIER WITH VISION SCREEN AT STAGING, STORAGE AND CONSTRUCTION AREA WITH SIGNAGE EVERY 20'-0" TO WARN STUDENTS OF CONSTRUCTION AREA.
2. CONTRACTOR TO BRING IN OFFICE TRAILER TO CONSTRUCTION AREA.
3. CONTRACTOR SHALL ACCESS THE SITE FROM PENTZ ROAD. ANY DAMAGE TO FIRE LANE WILL BE AT THE CONTRACTOR'S EXPENSE.
4. CONTRACTOR TO REPAIR BACK TO EXISTING CONDITIONS ALL LAYDOWN AREAS AT THE END OF CONSTRUCTION. THIS INCLUDES LANDSCAPE AREAS AND ANY BROKEN SPRINKLERS, VALVE BOXES, CONCRETE, ASPHALT, ETC.
5. CONTRACTOR SHALL REPLACE, RECONSTRUCT AND REPAIR ALL EXISTING WORK THAT IS IMPACTED, DAMAGED, OR DESTROYED AS A RESULT OF ANY CONTRACTOR WORK INCLUDING, BUT NOT LIMITED TO, HARDSCAPING, SIDEWALKS, IRRIGATION SYSTEMS, LANDSCAPING, LAWNS, STRUCTURES AND UTILITIES - ALL TO THE SATISFACTION OF THE DISTRICT.
6. WHERE ASPHALT OR CONCRETE IS BEING REPATCHED, CONTRACTOR SHALL PROVIDE EVEN AND STRAIGHT LINE CUTS WITH 2-FOOT STRAIGHT SLURRY SEAL SURFACE PATCH ON BOTH SIDES OF CUT.
7. CONTRACTOR SHALL EXERCISE EXTREME CAUTION IN EXCAVATING AND TRENCHING ON SITE TO AVOID EXISTING DUCTS, PIPING OR CONDUITS, ETC., AND TO PREVENT HAZARDS TO PERSONNEL AND/OR DAMAGE TO EXISTING UNDERGROUND UTILITIES OR STRUCTURES WHETHER OR NOT SHOWN AND INSTALLED BY ANY OTHER CONTRACTS. THE ARCHITECT IS NOT RESPONSIBLE FOR THE LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES WHETHER OR NOT SHOWN OR DETAILED AND INSTALLED BY ANY OTHER CONTRACTS. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT SHOULD SUCH UNIDENTIFIED CONDITIONS BE DISCOVERED. THESE DRAWINGS AND SPECIFICATIONS DO NOT INCLUDE THE NECESSARY ELEMENTS FOR CONSTRUCTION SAFETY.
8. GATES IN PATH OF TRAVEL SHALL COMPLY WITH EXIT DOOR REQUIREMENTS WITH PROPER LEVER HARDWARE AND KICK PLATES.

LEGEND

- 8" CONCRETE OVER 6" CLASS II AGGREGATE BASE
- 4" CONCRETE OVER 6" CLASS II AGGREGATE BASE
- 4" COLORED CONCRETE PAVING OVER 6" CLASS II AGGREGATE BASE
- ASPHALT PAVING
- LANDSCAPING, SEE LANDSCAPE DRAWINGS
- PROPERTY LINE
- LIMIT OF WORK
- LINE OF ROOF, SKYLIGHT, OR SOFFIT OVERHEAD - SHOWN DASHED
- FIRE HYDRANT

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LICENSED ARCHITECT BRYAN P WHITMORE No. C 30345 Ren. 9/30/25 STATE OF CALIFORNIA DATE SIGNED: 01/31/2024	

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SITE PLAN OVERALL

Date 01/31/2024	Project Number 23067
Application Number 02-122123	Drawing Number A1.1
Drawn Author	Checked Checker

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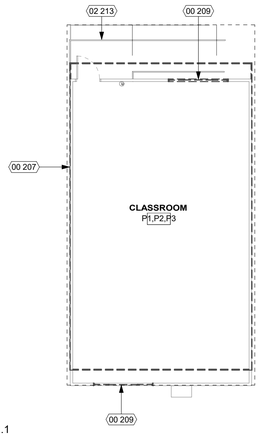
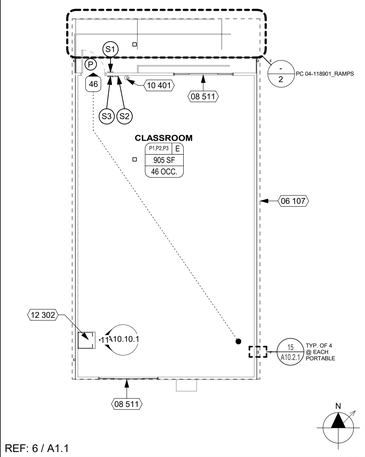


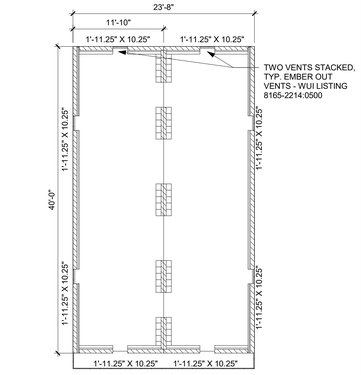
REF: 6 / A1.1

DEMO FLOOR PLAN 1/8" = 1'-0" 12

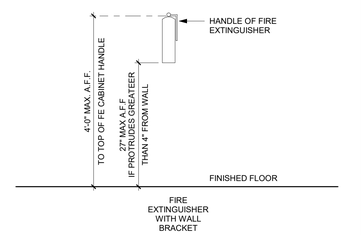


REF: 6 / A1.1

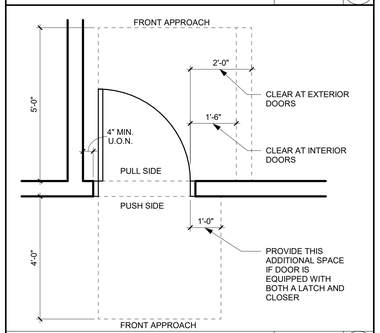
FLOOR PLAN - P1, P2, P3 1/8" = 1'-0" 6



VENTING PLAN - P1, P2, P3 1/8" = 1'-0" 8



FIRE EXTINGUISHER 1/2" = 1'-0" 9



TYPICAL DOOR CLEARANCES 1/2" = 1'-0" 10

GENERAL NOTES

GENERAL

1. FOR ALL REQUIRED SIGNAGE INCLUDING ROOM NAME AND NUMBER THROUGHOUT - REFER TO RELOCATABLE SHEET 1 DETAIL 1.
2. ALL WALLS SHALL HAVE R-19 BATT INSULATION, FULL HEIGHT AND SOUND INSULATION TO BE INSTALLED AT INTERIOR WALLS.
3. PAINT ALL INTERIOR WALLS. REFER TO ROOM FINISH SCHEDULE FOR INTERIOR WALL FINISHES.
4. DOORS SHALL BE INSTALLED 4" FROM JAMB UNLESS OTHERWISE NOTED.
5. WHERE OCCUPANT LOAD SIGN IS REQUIRED, THE SIGN SHALL BE POSTED NEAR THE MAIN EXIT FROM THE ROOM.
6. AREAS HAVING FIXED SEATING AND AISLES SHALL BE DETERMINED BY THE NUMBER OF FIXED SEATS INSTALLED THEREIN, CBC SECTION 1004.6.
7. REQUIRED MEANS OF EGRESS SHALL BE MAINTAINED DURING CONSTRUCTION AND DEMOLITION PER CFC 3312.2.
8. MEANS OF EGRESS ILLUMINATION SHALL BE PROVIDED PER CFC 1008.1.
9. NUMBER OF EXITS SHOWN COMPLY WITH THE MINIMUM REQUIREMENTS SET FORTH IN CBC SECTION 1006.2. WHEN THERE ARE MORE THAN ONE REQUIRED EXIT, THE EXITS SHALL BE LOCATED PER SECTION 1007.1.1.
10. NO EXIT DOOR SHALL BE LESS THAN 32" CLEAR WIDTH.
11. ALL DOORS TO ROOM OR SPACES THAT HAVE AN OCCUPANT LOAD OF 5 OR MORE SHALL BE EQUIPPED WITH HARDWARE THAT IS LOCKABLE FROM THE INSIDE PER CBC 1010.2.8.2

STRUCTURE

1. DIMENSIONS OF WALLS ARE FROM FACE OF STUD UNLESS OTHERWISE NOTED.
2. REFER TO 02-64560 FILE 4-48 INC. 3 - 24X40 PORTABLES - RELOCATABLE SHEETS FOR ADDITIONAL STRUCTURAL, ELECTRICAL AND MECHANICAL INFORMATION.

KEYNOTES

NUMBER	NOTE
00 207	REMOVE (E) SIDING AND PREP FOR NEW SIDING INSTALLATION. SHEAR WALL SHEATHING TO REMAIN.
00 209	REMOVE (E) WINDOWS AND GLAZING
02 213	(E) ACCESSIBLE RAMP AND HANDRAILS
06 107	ROSEBURG DURATEMP SIDING GROOVED. WUI LISTING - 8140-2031:0004 (SEE DETAIL 11/A10.2.1)
08 511	HORIZONTAL SLIDING (SEE 6/A10.2.1)
10 401	FIRE EXTINGUISHER (2A-10B:C) ON WALL BRACKET MOUNT (SEE DETAIL 9/A2.1)
12 302	COUNTER, BASE CABINETS BELOW CENTER ON (E) IDF CABINET.

FLOOR PLAN LEGEND

LINE OF ROOF, SKYLIGHT, OR SOFFIT OVERHEAD - SHOWN DASHED

EXTERIOR 6" STUD WALL
VERTICAL SIDING: WUI LISTING - 8140-2031:0004

CODE ANALYSIS LEGEND

WORKROOM
A101 | B
1,500 SF
10 OCC.
{15}

AREA IDENTITY/ CODE ANALYSIS
WORKROOM = ROOM NAME
A101 = ROOM NUMBER
B = OCCUPANCY CLASS (CBC 302)
1,500 SF = FLOOR AREA
10 = OCCUPANT LOAD
{15} = OCCUPANT LOAD PLUS ANCILLARY SPACE WHERE OCCURS

41

PATH OF EGRESS
41 = OCCUPANT LOAD
STARTING POINT OF PATH OF TRAVEL TO EXIT MARKED BY DOT AT THE BEGINNING OF EGRESS LINE

P — PANIC HARDWARE DEVICE - REFERENCE DOOR SCHEDULE AND HARDWARE GROUP

ACCESSIBLE DOOR CLEARANCE, REFER TO 10 / A2.1

ILLUMINATED EXIT SIGN, SEE ELECTRICAL DRAWINGS. EXIT SIGNAGE TO ACCOMPANY ALL ILLUMINATED EXIT SIGNS. L = LOW LEVEL ILLUMINATED EXIT SIGN (WHERE OCCURS)

SIGNAGE LEGEND

S1 ROOM IDENTIFICATION SIGN, SEE DETAIL 9 / A10.10.1

S2 ASSISTIVE LISTENING AVAILABLE SIGN, SEE DETAIL 5 / A10.10.1

S3 ASSISTIVE LISTENING AVAILABLE SIGN, SEE DETAIL 10 / A10.10.1

DSA STAMP

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-122123 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 3/21/2024

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ARCHITECT	ENGINEER

LICENSED ARCHITECT BRYAN P WHITMORE No. C 30345 Ren. 9/30/25 STATE OF CALIFORNIA

DATE SIGNED: 01/31/2024

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REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

DATE

- ● DSA PLAN CHECK
- ● DSA BACK CHECK
- ○ BIDDING
- ○ CONSTRUCTION

KEY PLAN

PARADISE UNIFIED SCHOOL DISTRICT
6696 CLARK ROAD
PARADISE, CA 95969

CONSTRUCTION DOCUMENTS

PARADISE RIDGE ELEMENTARY SCHOOL
PORTABLES
6593 PENTZ ROAD
PARADISE, CA 95969

FLOOR PLAN AND VENTING PLAN

Date	Project Number
01/31/2024	23067
Application Number	Drawing Number
02-122123	A2.1
Drawn / Checked	
Author / Checker	

PRINT DATE: 3/19/2024 8:27:05 AM
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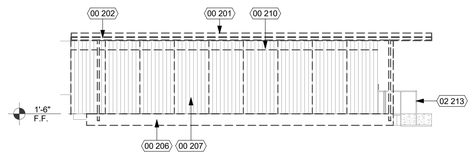
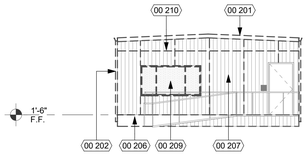
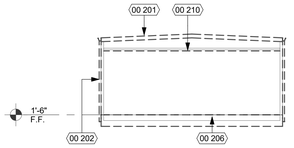
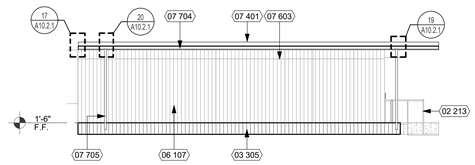


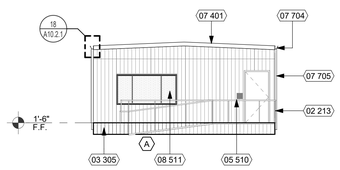


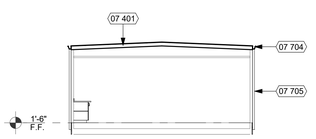


REF: 10 / XA2.2

DEMO EXTERIOR ELEVATIONS 1/8" = 1'-0" 6







REF: 10 / XA2.2

EXTERIOR ELEVATIONS 1/8" = 1'-0" 7

KEYNOTES

NUMBER	NOTE
00 201	REMOVE (E) ROOFING AND INSULATION, TYP.
00 202	REMOVE AND REPLACE (E) STEEL GUTTERS & DOWNSPOUTS, TYP.
00 206	REMOVE (E) EXTERIOR 5/8" PLYWOOD SKIRTING
00 207	REMOVE (E) SIDING AND PREP FOR NEW SIDING INSTALLATION. SHEAR WALL SHEATHING TO REMAIN.
00 209	REMOVE (E) WINDOWS AND GLAZING
00 210	REMOVE (E) Z-FLASHING STRIP
02 213	(E) ACCESSIBLE RAMP AND HANDRAILS
03 305	CONCRETE FOOTING (SEE STRUCTURAL DWGS.)
05 510	METAL HANDRAIL (SEE DETAIL 5/2, PC 04-118901)
06 107	ROSEBURG DURATEMP SIDING GROOVED. WUI LISTING - 8140-2031:0004 (SEE DETAIL 11/A10.2.1)
07 401	CLASS 'A' MEMBRANE ROOFING (TPA) FULLY ADHERED
07 603	Z-FLASHING AT EXTERIOR SIDING (SEE DETAIL 12/A10.2.1)
07 704	(E) STEEL GUTTER TO HAVE SCREENS INSTALLED TO PREVENT ACCUMULATION OF LEAVES AND DEBRIS
07 705	(E) DOWNSPOUT, PAINT TO MATCH COLOR(S) OF WALL BEHIND
08 511	HORIZONTAL SLIDING (SEE 6/A10.2.1)

LEGEND

(E) TO BE DEMOLISHED, REMOVED, AND/OR RELOCATED

(E) TO REMAIN

VERITCAL WOOD SIDING:
19/32" X 4" X 9' ROSENBURG DURATEMP SIDING GROOVED @ 8" O.C.
WUI LISTING - 8140-2031:0004

FOR TYPICAL DETAILS SEE:
CONTROL JOINT DETAIL: 12 / A10.2.1
OUTSIDE CORNER: 13 / A10.2.1

EXTERIOR PLYWOOD SKIRTING 10 / A10.2.1

HORIZONTAL JOINTS, SEE DETAIL 12 / A10.2.1

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ARCHITECT	ENGINEER

LICENSED ARCHITECT BRYAN P WHITMORE No. C 30345 Ren. 9/30/25 STATE OF CALIFORNIA

DATE SIGNED: 01/31/2024

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KEY PLAN

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PORTABLES
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PARADISE, CA 95969

DEMO AND NEW EXTERIOR ELEVATIONS

Date	Project Number
01/31/2024	23067
Application Number	Drawing Number
02-122123	A5.1
Drawn / Author	Checked / Checker

PRINT DATE: 3/19/2024 8:27:08 AM
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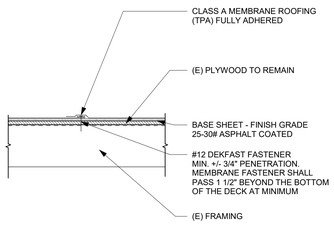
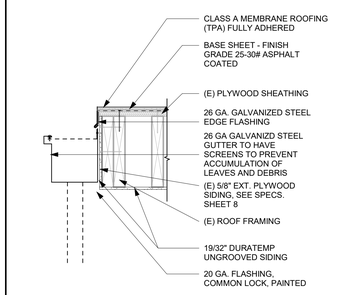
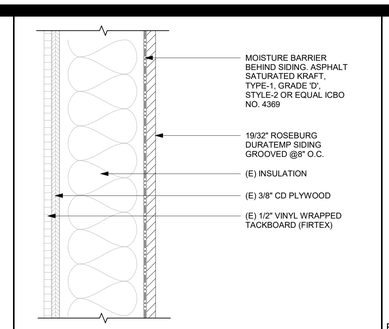


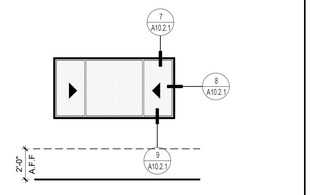
TYPICAL SINGLE PLY ROOFING ASSEMBLY 1 1/2" = 1'-0" 21



FASICA AT SIDE OF OVERHANG SINGLE PLY ROOFING 1 1/2" = 1'-0" 16

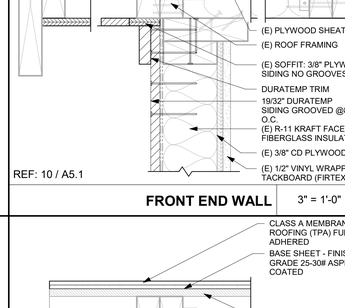


VERTICAL SIDING WALL ASSEMBLY 3" = 1'-0" 11



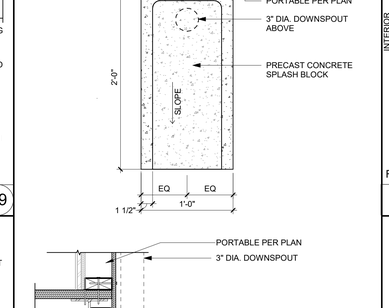
REF: 10 / XA2.2

WINDOW TYPE 1/4" = 1'-0" 6

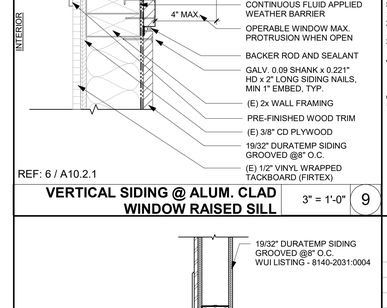


REF: 10 / A5.1

FASCIA AT SINGLE PLY ROOF 3" = 1'-0" 17

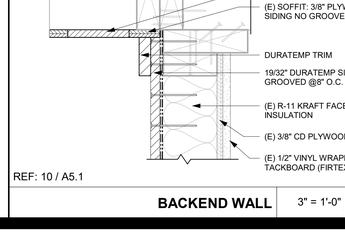


VERTICAL SIDING AT HORIZONTAL JOINTS 3" = 1'-0" 12



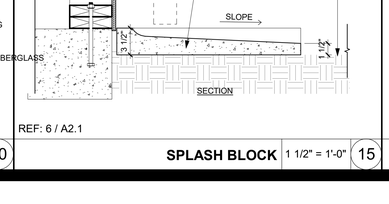
REF: 6 / A10.2.1

VERTICAL SIDING @ ALUM. CLAD WINDOW HEAD 3" = 1'-0" 7

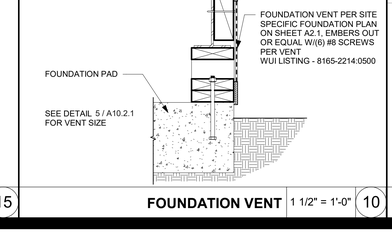


REF: 4 / A5.1

(E) SIDEWALL 3" = 1'-0" 18



VERTICAL SIDING AT OUTSIDE CORNER 3" = 1'-0" 13



REF: 6 / A10.2.1

VERTICAL SIDING @ ALUM. CLAD WINDOW JAMB 3" = 1'-0" 8

REF: 10 / A5.1

FRONT END WALL 3" = 1'-0" 19

SPLASH BLOCK 1 1/2" = 1'-0" 15

REF: 6 / A10.2.1

VERTICAL SIDING @ ALUM. CLAD WINDOW RAISED SILL 3" = 1'-0" 9

REF: 10 / A5.1

BACKEND WALL 3" = 1'-0" 20

REF: 6 / A2.1

SPLASH BLOCK 1 1/2" = 1'-0" 15

FOUNDATION VENT 1 1/2" = 1'-0" 10

GENERAL NOTES

MATERIALS AND FINISHES
1. MATERIALS, FINISHES AND INSTALLATION OF PRODUCTS REFERENCED IN THE DOOR SCHEDULE SHALL BE IN ACCORDANCE WITH REQUIREMENTS SPECIFIED IN THE RESPECTIVE PRODUCT SECTIONS IN THE PROJECT MANUAL.
2. REFER TO WALL PARTITION TYPES AS INDICATED ON DRAWINGS TO DETERMINE FRAME DEPTH.
3. VERIFY ALL MASONRY OR STUD OPENINGS PRIOR TO FABRICATION OF FRAME, EXACT SIZES AND CONFIGURATIONS OF ALL DOOR AND WINDOW SECTIONS SHALL BE VERIFIED ON THE SITE PRIOR TO FABRICATION.
4. TYPICAL DOOR BEVEL TO BE 1/8" IN 2" U.O.N. BY HARDWARE TEMPLATE REQUIREMENTS.
5. THE BOTTOM 10" OF ALL DOORS, EXCEPT AUTOMATIC AND SLIDING SHALL HAVE SMOOTH UNINTERRUPTED SURFACE TO ALLOW THE DOOR TO BE OPENED BY A WHEELCHAIR FOOTREST.
6. ADJUST DOOR FRAME OPENING SIZES AS NECESSARY TO REFLECT VARIATIONS IN THE STRUCTURAL SLAB AND VARYING THICKNESS OF THE FLOOR FINISHES.
7. ALL ALUMINUM FRAMES, ALUMINUM STOREFRONT, ALUMINUM DOORS TO BE PAINTED WITH FLUOROPOLYMER PAINT FINISH, COLOR AS SCHEDULED.
8. WEATHERSTRIP ALL EXTERIOR DOORS.
9. FRAMES FOR EXTERIOR DOORS AND WINDOWS SHALL BE SET IN SEALANT.

GLAZING
1. GLASS TYPES REFERENCED IN DOOR SCHEDULE ARE SPECIFIED IN SECTION 'GLAZING'. ALL GLAZING TO BE TEMPERED. SAFETY GLAZING TO COMPLY WITH CBC SECTION 2406.

FIRE RATED DOORS
1. AT RATED DOORS, PROVIDE ASSEMBLY PER CBC 716.5 WITH GLAZING PER 2019 CBC 716.5.8 COMPLYING WITH NFPA 80 AND WITH MAX. TESTING SIZE PER NFPA 252.
2. ALL FIRE DOORS SHALL HAVE SMOKE AND DRAFT CONTROL PER 2019 CBC 716.5.3.1.
3. ALL FIRE DOORS SHALL BE EQUIPPED WITH AUTOMATIC LATCHES.
4. ALL FIRE DOORS SHALL BE EQUIPPED WITH AUTOMATIC OR SELF CLOSING FIRE ASSEMBLIES PER 2019 CBC 716.5.9.
5. IF THE OPENING CONTAINS A DOOR AND NO SIDELIGHT, THE RATING OF THE FRAME SHALL MATCH THE RATING OF THE DOOR. IF THE OPENING CONTAINS A DOOR AND A SIDELIGHT, OR IF THE OPENING CONTAINS A WINDOW, THE RATING OF THE FRAME SHALL MATCH THE RATING OF THE GLAZING.
6. FIRE-RATED DOOR FRAMES SHALL BE INSTALLED STRICTLY IN ACCORDANCE WITH MANUFACTURER'S PRINTED INSTRUCTIONS. MANUFACTURER'S PRINTED INSTRUCTIONS SHALL BE MADE AVAILABLE TO THE INSPECTION AUTHORITY. 2019 CBC 716.5.7 AND 716.5.7.1
7. WHERE RATED OPENINGS OCCUR, PROVIDE ASSEMBLIES THAT HAVE BEEN TESTED BY A NATIONALLY RECOGNIZED TESTING AGENCY. INCLUDES ASSEMBLY COMPONENTS SUCH AS GLAZING, DOORS AND HARDWARE.
8. IDENTIFICATION OF FIRE DOORS, FIRE WINDOWS AND FIRE DAMPERS SHALL HAVE AN APPROVAL LABEL OR LISTING MARK INDICATING THE FIRE-PROTECTION RATING, WHICH IS PERMANENTLY AFFIXED AT THE FACTORY WHERE FABRICATION AND ASSEMBLY ARE DONE.
9. PROVIDE MARKINGS AT ALL RATED GLAZING AND FRAMES PER 2019 CBC 716.3
10. RATED DOORS SHALL HAVE AN UNDERCUT NOT EXCEEDING MAX. ALLOWABLE PER NFPA 80, SECTION 4.8.4.1 (3/4" MAX.)

EXITING AND PATH OF TRAVEL
1. EXIT DOORS SHALL BE OPERABLE FROM THE INSIDE WITHOUT USE OF A KEY OR ANY SPECIAL KNOWLEDGE OR EFFORT.
2. MAXIMUM FORCE TO PUSH OR PULL OPEN A DOOR (11B-404.2.9) SHALL NOT EXCEED 5 LBS FOR BOTH INTERIOR AND EXTERIOR DOORS. REQUIRED FIRE DOORS: THE MINIMUM OPENING FORCE ALLOWABLE BY THE APPROPRIATE ADMINISTRATIVE AUTHORITY, NOT TO EXCEED 15 POUNDS (66.7 N).
3. ALL REQUIRED EXIT DOORS SHALL BE SIZED NOT LESS THAN 3'-0" WIDE AND 6'-8" HIGH AND BE CAPABLE OF OPENING 90 DEG. AND MOUNTED SO THAT THE CLEAR WIDTH OF THE EXIT WAY IS 32" MIN., U.O.N.
4. ALL REQUIRED EXIT DOORS SHALL SWING IN THE DIRECTION OF TRAVEL.
5. THE FLOOR OR LANDING LENGTH ON EACH SIDE OF AN EXIT DOOR SHALL BE LEVEL (<2% MAX. SLOPE) AND CLEAR AT LEAST 60 INCHES IN THE DIRECTION OF THE DOOR SWING (PULL SIDE) AND 48 INCHES ON THE PUSH SIDE, WHEN MEASURED AT RIGHT ANGLES FROM DOOR IN CLOSED POSITION. THE CLEAR WIDTH SHALL EXTEND 24 INCHES BEYOND THE STRIKE ON THE PULL SIDE OF ALL EXTERIOR EXIT DOORS AND 18 INCHES FOR INTERIOR EXIT DOORS. THE CLEAR WIDTH SHALL EXTEND 12 INCHES BEYOND THE STRIKE EDGE OF THE PUSH SIDE OF ALL EXIT DOORS. DOORS SHALL BE EQUIPPED WITH BOTH A LATCH AND CLOSER.
6. LATCHING AND LOCKING DOORS THAT ARE HAND-ACTIVATED AND WHICH ARE IN THE PATH OF TRAVEL SHALL BE OPERABLE WITH A SINGLE EFFORT BY LEVEL-TYPE HARDWARE. PANIC BARS, PUSH-PULL ACTIVATED BARS OR OTHER HARDWARE DESIGNED TO PROVIDE PASSAGE WITHOUT REQUIRING THE ABILITY TO GRASP THE OPENING HARDWARE.

HARDWARE
1. HAND ACTIVATED HARDWARE SHALL BE BETWEEN 34" AND 44" A.F.F. COORDINATE MOUNTING HEIGHT. DO NOT TO OBSTRUCT DOOR VISION LIGHT WHERE OCCURS.
2. PANIC HARDWARE SHALL BE PROVIDED ON EXIT DOORS SERVING AN OCCUPANT LOAD OF 50 OR MORE. PROVIDE WALL OR FLOOR MOUNTED DOOR STOPS FOR ALL DOORS. LOCATE FLOOR MOUNTED DOOR STOP WITHIN 4" MAX. OF WALL. PROVIDE BACKING AT ALL WALL MOUNTED DOOR STOPS.
3. PROVIDE NON-REMOVABLE PINS ON ALL HINGES ACCESSIBLE FROM THE EXTERIOR.
4. PROVIDE CYLINDER GUARDS ON ALL MORTISED OR RIM TYPE CYLINDER LOCKS WHICH PROJECT BEYOND THE FACE OF THE DOOR.
5. DOOR CLOSERS SHALL CONFORM WITH 2019 CBC 11B-404.2.8.1
6. DOORS TO INCLUDE FACTORY INSTALLED MAGNETIC CONTACTS, 3/8" RECESSED PRESS FIT, COLOR TO MATCH WINDOW FRAME, AT ALL CLASSROOM DOORS, SEE MECHANICAL
7. ELECTRIFIED HARDWARE: COORDINATE ALL ELECTRICAL REQUIREMENTS WITH DIVISIONS 26 AND 27
8. NEW BUILDINGS SERVING K-12, CONSTRUCTED WITH STATE FUNDS, ON NEW OR EXISTING CAMPUSES WITH INDIVIDUAL ROOMS WITH AN OCCUPANT LOAD OF 5 OR MORE AND BUILDING ENTRANCES SHALL BE EQUIPPED WITH INTERIOR LOCKING DOOR HARDWARE PER AB-211 (EXCEPT PUPIL RESTROOMS). THIS REQUIREMENT APPLIES REGARDLESS OF OCCUPANCY CLASSIFICATION (ADMIN., PRESS BOXES, ETC.), AND IS APPLICABLE TO "LEASE-BACK" PROJECTS. PROVIDE A COPY OF THE MANUFACTURER'S CUT SHEETS AND HARDWARE LISTING FOR REVIEW. (REF: 17075.50 (a) (b), CAL. ED. CODE).

WINDOW GENERAL NOTES

GENERAL
1. REFERENCE OF WINDOWS ARE MADE ON THE FLOOR PLANS, TYP.
2. ALL WINDOWS SHALL BE RATED STC 35 MINIMUM.
3. SAFETY GLAZING SHALL COMPLY WITH CBC SECTION 2406.
4. AT OPERABLE WINDOWS, PROVIDE LIMITER DEVICE TO STOP WINDOW FROM PROTRUDING MORE THAN 4" INTO SPACE BELOW 80 INCHES A.F.F. WHEN OPENED.
5. ALL WINDOWS SHALL COMPLY WITH CALIFORNIA ENERGY CODE SECTION 110.6 - MANDATORY REQUIREMENTS FOR FENESTRATION PRODUCTS AND EXTERIOR DOORS.

SIZING
1. ALL WINDOWS ARE BASED ON NOMINAL 2" WINDOW PROFILE.
2. ALL OVERALL DIMENSIONS CORRESPOND TO WINDOW ROUGH OPENINGS UNLESS OTHERWISE NOTED.
3. CONTRACTOR SHALL BE SOLELY RESPONSIBLE TO COORDINATE ROUGH OPENING SIZE WITH REQUIRED SHIM SPACERS AND FINISH FRAME DIMENSION.
4. ALL ROUGH OPENING DIMENSIONS SHALL BE FIELD VERIFIED PRIOR TO WINDOW FABRICATION.

GLAZING
1. ALL GLAZING TO BE TEMPERED UNLESS OTHERWISE NOTED.
   A. ANY WINDOW SECTION WHOSE NEAREST VERTICAL EDGE IS WITHIN 24" FROM A DOOR IN CLOSED POSITION AND WHOSE BOTTOM EDGE IS LESS THAN 60" ABOVE THE WALKING SURFACE SHALL BE TEMPERED.
   B. ANY WINDOW SECTION WHERE THE LOWEST EDGE OF THE GLAZING MATERIAL IS LESS THAN 18" ABOVE THE FLOOR AND WHOSE TOP EDGE IS GREATER THAN 36" ABOVE THE FLOOR AND WHERE THE SECTION IS GREATER THAN 9 SF AND IS WITHIN 36" HORIZONTALLY OF A WALKING SURFACE SHALL BE TEMPERED.
   C. DUAL PANE GLAZING WITH A MINIMUM OF ONE TEMPERED PANE MEETING THE REQUIREMENTS OF SECTION 2406 SAFETY GLAZING

PER CBC SECTION 1203.1:
"NET AREA OF VENTILATION OPENINGS SHALL NOT BE LESS THAN 1 SQ. FT. FOR EACH 150 SQ. FT. OF CRAWL SPACE AREA."

PORTABLES: 40' X 24' = 960 FT.^{2} TOTAL AREA
960 FT.^{2}/150 = 6.4 FT.^{2} TOTAL REQUIRED VENTILATION AREA PER PORTABLE
VENTS: *
10.25" X 1'-11.25" E.A. VENT = .72 SF FT. NET FREE VENTILATION AREA PER VENT
10 VENTS. EA. PER PORTABLE X .72 SF FT. = 7.2 SF FT. NET VENT AREA PER PORTABLE

NET FREE VENT. CALCS. 12" = 1'-0" 5

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DATE SIGNED: 01/31/2024

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	DATE
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○ CONSTRUCTION	

KEY PLAN

PARADISE UNIFIED SCHOOL DISTRICT
6696 CLARK ROAD
PARADISE, CA 95969

CONSTRUCTION DOCUMENTS

PARADISE RIDGE ELEMENTARY SCHOOL
PORTABLES
6593 PENTZ ROAD
PARADISE, CA 95969

EXTERIOR DETAILS

Date	Project Number
01/31/2024	23067
Application Number	Drawing Number
02-122123	A10.2.1
Drawn / Author	Checked / Checker

PRINT DATE: 3/19/2024 8:27:11 AM
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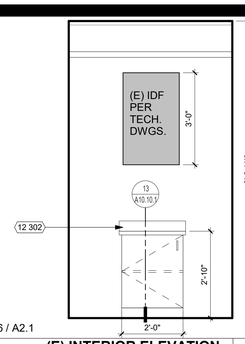
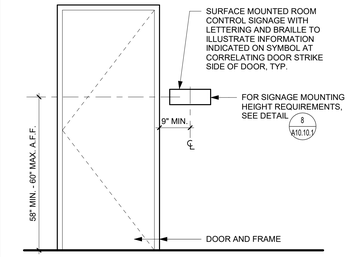
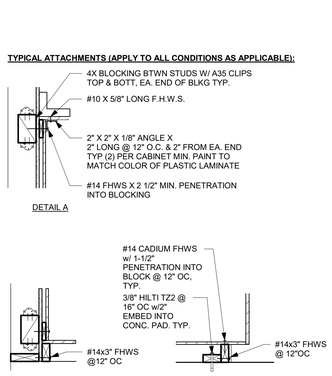


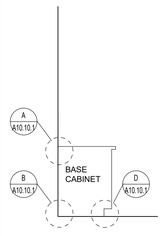
REF: 6 / A2.1

(E) INTERIOR ELEVATION - CLASSROOM P2 1/2" = 1'-0" 11



ROOM CONTROL SIGNAGE 1/2" = 1'-0" 6



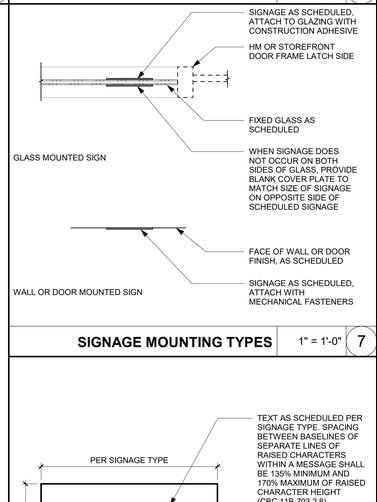


CABINET NOTES:

1. VERIFY ALL DIMENSIONS
2. ALL CABINETS SECURELY ATTACHED TO STRUCTURE
3. ALL EXPOSED BACKS FINISHED
4. ANY FASTENERS INSTALLED IN PRESERVATIVE-TREATED WOOD MUST BE OF HOT-DIPPED ZINC-COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE, OR COPPER PER CBC 2304.10.6.1
5. BACKS TO BE 1/2" THICK
6. SEE DETAIL A FOR BLOCKING AND NAILING

REF: 11 / A10.10.1

CASEWORK ANCHORAGE 1/2" = 1'-0" 13



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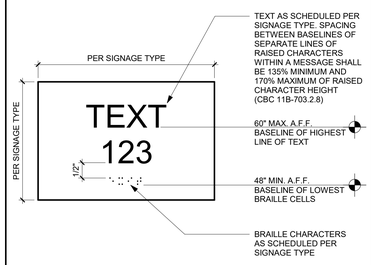
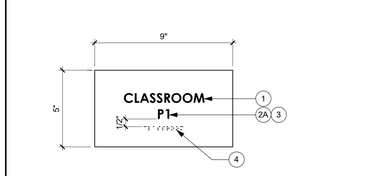
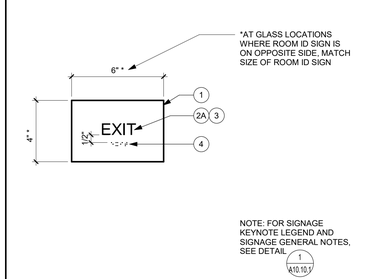


SIGNAGE MOUNTING HEIGHTS 6" = 1'-0" 8



ROOM ID SIGNAGE 3" = 1'-0" 9



EXIT SIGNAGE 3" = 1'-0" 10

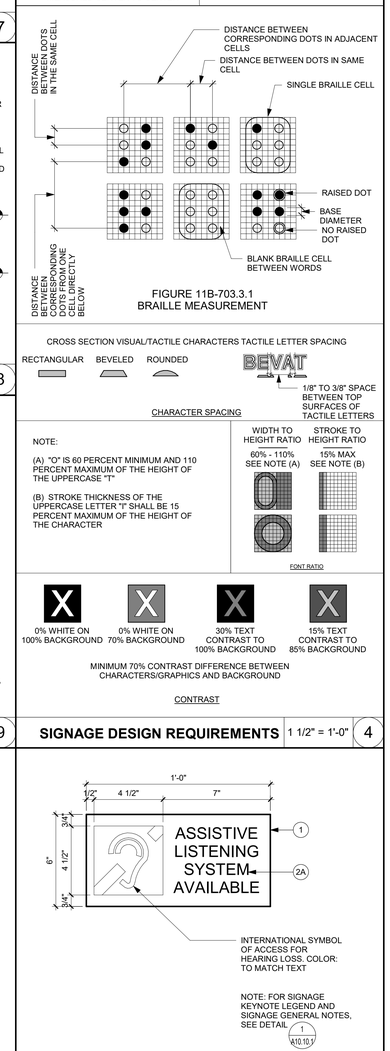


FIGURE 11B-703.3.1
BRAILLE MEASUREMENT

NOTE:

(A) "O" IS 60 PERCENT MINIMUM AND 110 PERCENT MAXIMUM OF THE HEIGHT OF THE UPPERCASE "I"

(B) STROKE THICKNESS OF THE UPPERCASE LETTER "I" SHALL BE 15 PERCENT MAXIMUM OF THE HEIGHT OF THE CHARACTER

MINIMUM 70% CONTRAST DIFFERENCE BETWEEN CHARACTERS/GRAPHICS AND BACKGROUND

CONTRAST

SIGNAGE DESIGN REQUIREMENTS 1 1/2" = 1'-0" 4

ASSISTIVE LISTENING SYSTEM AVAILABLE SIGN 3" = 1'-0" 5

KEYNOTES

NUMBER	NOTE
12 302	COUNTER, BASE CABINETS BELOW CENTER ON (E) IDF CABINET.

TYP. SIGNAGE NOTES

SIGNAGE GENERAL NOTES

1. FOR TYPICAL MOUNTING DISTANCE FROM DOOR FRAME, SEE DETAIL 6 / A10.10.1
2. FOR MOUNTING ATTACHMENTS, SEE DETAIL 7 / A10.10.1
3. FOR SIGNAGE MOUNTING HEIGHT REQUIREMENTS, SEE DETAIL 8 / A10.10.1

SIGNAGE KEYNOTES

1. EXTRUDED CLEAR ACRYLIC SIGN WITH A NON GLARE BACKGROUND OF 70% CONTRASTING COLOR TO TEXT AND ONE PIECE CONSTRUCTION PER SPECIFICATIONS
   BACKGROUND COLOR: MP12257 CABOT TRAIL
   THICKNESS: 1/4" TYP. U.O.N.
2A. 1/32" RAISED TEXT, CENTER JUSTIFIED BETWEEN IMAGE AND EDGE OF PLAQUE
   TEXT STYLE: HELVETICA, ALL CAPS
   TEXT HEIGHT: 3/4" U.O.N.
   TEXT COLOR: WHITE
3. VERIFY ROOM NAMES AND NUMBERS PRIOR TO FABRICATION
   10 LETTERS PER LINE, MAXIMUM
4. CALIFORNIA ROUNDED TOP CONTRACTED GRADE 2 BRAILLE BELOW RAISED TEXT (11B-703.3.2). DISTANCE FROM BOTTOM OF RAISED LETTERS TO TOP OF BRAILLE CHARACTERS SHALL BE 3/8" MINIMUM AND 1/2" MAXIMUM. BRAILLE TO BE CENTER JUSTIFIED OR LEFT JUSTIFIED TO MATCH RAISED TEXT. FOR MORE INFORMATION ON BRAILLE REQUIREMENTS, SEE DETAIL

TABLE 11B-703.3.1
BRAILLE DIMENSIONS

MEASUREMENT RANGE	MINIMUM IN INCHES MAXIMUM IN INCHES
DOT BASE DIAMETER	0.059" (1.5MM) TO 0.063" (1.6MM)
DISTANCE BETWEEN TWO DOTS IN THE SAME CELL *	0.100" (2.5MM)
DISTANCE BETWEEN CORRESPONDING DOTS IN ADJACENT CELLS *	0.300" (7.6MM)
DOT HEIGHT RANGE	0.025" (0.6MM) TO 0.037 (0.9MM)
DISTANCE BETWEEN CORRESPONDING DOTS FROM ONE CELL DIRECTLY BELOW *	0.395" (10MM) TO 0.400" (10.2MM)
* MEASURED CENTER TO CENTER	

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SPECIALTIES

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ROUGH CARPENTRY 061000-1

SECTION 061000 - ROUGH CARPENTRY

PART 1 - GENERAL

1.1 DESCRIPTION

A. WORK INCLUDED

1. ALL JOISTS, PURLINS, LEDGERS AND BEAMS AND ALL ROUGH SHEATHING EXCEPT AS SPECIFICALLY EXCLUDED BELOW.

2. ROOF LEDGERS.

3. STUDS, SILLS, PLATES, HEADERS, BLOCKING AND WOOD OR PLYWOOD SHEATHING AT ALL STUD WALLS AND PARTITIONS.

4. FURRING FOR FINISHED SURFACES, INCLUDING CEILING FRAMING AND WALL FURRING WHERE SHOWN ON THE DRAWINGS, EXCEPT AS EXCLUDED BELOW.

5. ALL ROUGH HARDWARE EXCEPT THAT FABRICATED STEEL CONNECTIONS, WITH BOLTS, SHALL BE FURNISHED UNDER ANOTHER SECTION AND INSTALLED UNDER THIS SECTION AND EXCEPT AS EXCLUDED BELOW.

6. ROUGH HARDWARE EXCEPT AS EXCLUDED BELOW.

7. INSTALLATION, ONLY, OF FABRICATED STEEL CONNECTIONS WITH BOLTS.

8. PLYWOOD FLOOR SHEATHING.

9. FLOOR JOISTS, LEDGERS, AND BLOCKING.

10. ROOF SHEATHING.

11. ERECTION OF TRUSS JOISTS.

12. ALL REQUIRED ROUGH FRAMING AT FLOOR OPENINGS.

13. ALL REQUIRED ROUGH FRAMING AT ROOF OPENINGS.

14. SLEEPERS FOR ROOF-MOUNTED MECHANICAL EQUIPMENT.

15. FRAMING FOR ROOF SCREENS

16. WOOD FENCE FRAMING AND SHEATHING.

17. SOFFIT FRAMING AND SHEATHING AT ENTRANCES.

18. SOFFIT FRAMING AT ENTRANCES.

19. WOOD SIDING, WITH FURRING AND TRIM.

20. EXTERIOR GYPSUM BOARD SOFFIT SHEATHING.

21. SIDING AT ROOF SCREENS.

22. EXTERIOR WOOD TRIM.

23. SHEATHING PAPER AT EXTERIOR SIDING.

24. WOOD DOORS, FRAMES, CASINGS AND TRIM.

25. CANT STRIPS AT ROOFING.

26. FIRE RETARDANT TREATMENT WHERE CALLED FOR ON DRAWINGS.

27. INSTALLATION ONLY OF FINISH HARDWARE.

28. MANSARD FRAMING.

B. RELATED WORK SPECIFIED ELSEWHERE

1. MILLWORK AND FINISH CARPENTRY.

2. EXTERIOR SIDING AND TRIM.

3. WOOD SIDING AND TRIM AT ENTRY SOFFITS.

4. SOFFIT SHEATHING AT ENTRANCES.

5. GLULAM BEAMS.

6. PANELIZED ROOF SYSTEM.

7. GYPSUM BOARD.

8. WOOD TRUSSES

9. CONCRETE FORMWORK.

10. FURNISHING ONLY OF:

A. FABRICATED STEEL CONNECTIONS, WITH BOLTS.

B. FINISH HARDWARE.

11. STRIPPING FOR ACOUSTICAL TILE.

12. PAVING AND LANDSCAPING HEADER BOARDS.

13. GLULAM COLUMNS.

1.2 REFERENCES, CODES AND STANDARDS

A. THE FOLLOWING REFERENCES, CODES AND STANDARDS ARE HEREBY MADE A PART OF THIS SECTION AND CARPENTRY WORK SHALL CONFORM TO THE APPLICABLE REQUIREMENTS THEREIN EXCEPT AS OTHERWISE SPECIFIED HEREIN OR SHOWN ON THE DRAWINGS. NOTHING CONTAINED IN THE DRAWINGS OR THESE SPECIFICATIONS SHALL BE CONSTRUED AS PERMITTING WORK THAT IS CONTRARY TO CODE REQUIREMENTS.

1. "PRODUCT GUIDE TO GRADES AND SPECIFICATIONS", AMERICAN PLYWOOD ASSOCIATION (APA).

2. "STANDARD SPECIFICATIONS", AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM).

3. "CALIFORNIA BUILDING CODE", (CBC), LATEST EDITION.

4. "STANDARD SPECIFICATIONS FOR GRADES OF CALIFORNIA LUMBER", REDWOOD INSPECTION SERVICE (RIS).

5. "STANDARD GRADING AND DRESSING RULE # 16, OF THE WEST COAST LUMBER INSPECTION BUREAU", (WCLIB) LATEST EDITION.

1.3 QUALITY ASSURANCE

A. PLYWOOD SHEATHING SHALL BE IN GOOD CONDITION WHEN INSTALLED, FREE OF DELAMINATIONS, SPLITTING OR EXCESSIVE WARPING. IT SHALL BE THIS CONTRACTOR'S RESPONSIBILITY TO PROTECT THE DECK FROM WEATHER UNTIL THE ROOFING CONTRACTOR BEGINS WORK. DEFECTIVE PLYWOOD SHEETS AND SHEETS DAMAGED BY WEATHER WITHIN THIS PERIOD, SHALL BE REPLACED UPON NOTIFICATION FROM THE ENGINEER.

1.4 PRODUCT STORAGE

A. STORAGE OF MATERIALS: LUMBER SHALL BE PILED OFF THE GROUND IN A MANNER WHICH ALLOWS VENTILATION AND DRAINAGE AND PREVENTS TWISTING, AND AFFORDS PROTECTION FROM TERMITES AND DECAY, AND SHALL BE ADEQUATELY PROTECTED FROM THE WEATHER.

PART 2 - PRODUCTS

2.1 MATERIALS

A. ALL LUMBER SHALL BE NEW, UNIFORMLY SIZED AND SAW UNLESS OTHERWISE NOTED. LUMBER SHALL BE OF A MOISTURE CONTENT LOW ENOUGH TO PRECLUDE EXCESSIVE SHRINKAGE AFTER INSTALLATION. ALL LUMBER SHALL BE GRADED IN ACCORDANCE WITH THE NATIONAL DESIGN SPECIFICATION FOR STRESS GRADE LUMBER AND ITS FASTENINGS, LATEST EDITION, BY THE NATIONAL FOREST PRODUCTS ASSOCIATION, EXCEPT THAT PLYWOOD SHALL BE GRADED IN ACCORDANCE WITH THE RULES OF THE AMERICAN PLYWOOD ASSOCIATION.

ALL LUMBER SHALL MEET OR EXCEED THE FOLLOWING MINIMUM GRADES, UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWINGS.

3. SILLS AND MEMBERS CONTACTING CONCRETE ON GRADE: DOUGLAS FIR-LARCH, NO. 2, PRESSURE TREATED WITH AN APPROVED PRESERVATIVE.

4. SLEEPERS FOR ROOF MOUNTED EQUIPMENT OR STRUCTURES: DOUGLAS FIR-LARCH, NO. 1, PRESSURE TREATED WITH AN APPROVED PRESERVATIVE.

5. BEAMS, JOISTS, POSTS, LEDGERS, NAILERS: DOUGLAS FIR-LARCH, NO. 1.

6. STUDS, BLOCKING, PLATES: DOUGLAS FIR-LARCH, NO. 1.

7. ROOF SHEATHING SHALL BE PLYWOOD PANELS PER U.S. PRODUCT STANDARD PS-1, LATEST EDITION, AND SHALL MEET THE REQUIREMENTS FOR APA RATED SHEATHING, EXPOSURE 1 OR EXTERIOR. MINIMUM APA SPAN RATING 32/16. MINIMUM OF 5 PLIES, REGARDLESS OF THICKNESS. NO GROUP 5 SPECIES. NO COMPOSITE PANELS. THICKNESS AS SHOWN ON THE DRAWINGS EXCEPT THAT 15/32 INCH, 19/32 INCH AND 23/32 INCH MAY BE USED WHERE 1/2 INCH, 5/8 INCH AND 3/4 INCH, RESPECTIVELY, ARE SHOWN ON DRAWINGS. WHERE SO INDICATED ON DRAWINGS, PANELS SHALL, IN ADDITION TO THE ABOVE, BE APA RATED SHEATHING, EXPOSURE 1 OR EXTERIOR, WITH SPAN RATING, PANEL GRADE, SPAN RATING, THICKNESS, EXPOSURE, AND MILL NUMBER. WHERE PANELS MUST BE CUT AT WALLS AND OPENINGS, MINIMUM DIMENSION OF ANY SHEET SHALL BE 2 FEET - 0 INCHES.

8. PLYWOOD WALL SHEATHING: FIRE RETARDANT TREATED - CLASS A - APA 303, DFPA STANDARD SHEATHING, CDX WHERE EXPOSED. DURATEMP OR EQUAL.

9. ORIENTED STRAND BOARD SHEATHING MAY BE USED IN LIEU OF PLYWOOD SHEATHING AT WALLS AND ROOFS INSTALLED UNDER THIS SECTION, AT THE CONTRACTOR'S OPTION. ORIENTED STRAND BOARD SHEATHING SHALL BE APA RATED SHEATHING. OSB PANELS SHALL BE MANUFACTURED TO MEET OR EXCEED THE PERFORMANCE STANDARD FOR COMMERCE VOLUNTARY PERFORMANCE STANDARD PS-2,92 "PERFORMANCE STANDARD FOR WOOD BASED STRUCTURAL PANELS". MATERIAL SHALL BE SUCH THAT VERTICAL LOAD CAPACITY, SPAN RATING, AND ALLOWABLE UNIFORM AND CONCENTRATED LOAD VALUES, ARE ALL EQUAL TO OR HIGHER THAN THOSE OF THE PLYWOOD SHEATHING SHOWN ON THE DRAWINGS.

10. SOFFIT SHEATHING AT ENTRANCES: 5/8 INCH DURAPLY, AS MANUFACTURED BY U.S. PLYWOOD, OR EQUAL.

11. SOFFIT SHEATHING: 1/2 INCH ROUGH SAWN DURAPLY, DOUGLAS FIR-LARCH PLYWOOD, EXT. (APA).

12. SOFFIT SHEATHING: 1/2 INCH RESAWN DURAPLY, DOUGLAS FIR-LARCH PLYWOOD, EXT (APA).

13. EXTERIOR GYPSUM BOARD SHEATHING - USG EXTERIOR GYPSUM SHEATHING, OR EQUAL.

14. NAILS: ALL NAILS AT FRAMING CONNECTIONS SHALL BE COMMON WIRE NAILS, EXCEPT THAT PLYWOOD ROOF AND WALL SHEATHING, IF INCLUDED IN THIS SECTION, SHALL BE NAILED WITH REDUCED LENGTH APPROVED PLYWOOD NAILS.

15. BOLTS, NUTS, WASHERS - ASTM A307. PROVIDE MALLEABLE IRON OR STEEL PLATE WASHERS AT ALL NUTS AND HEADS BEARING ON WOOD.

16. JOIST HANGERS SHALL BE SIMPSON STRONGTIE OR EQUAL UNLESS OTHERWISE NOTED ON THE DRAWINGS. FRAMING ANCHORS SHALL BE SIMPSON STRONGTIE, ASAN AT 2X4 FRAMING AND A35N AT ALL OTHER FRAMING. METAL STRAPS SHALL BE GALVANIZED STEEL.

17. FIRE BLOCKING: CONFORM TO CALIFORNIA BUILDING CODE, LATEST EDITION.

2.2 MOISTURE CONTENT

A. 15% MAXIMUM FOR 2X THICKNESS AND LESS; 19% MAXIMUM FOR THICKNESS GREATER THAN 2X AND LESS THAN 4X; AND 22% MAXIMUM FOR THICKNESS GREATER THAN 4X. STRUCTURAL LUMBER GREATER THAN 2X AND LESS THAN 4X SHALL NOT EXCEED 19% AT THE TIME OF FABRICATION OR CONSTRUCTION.

2.3 SIZES

A. SURFACED TO "DRY" SIZES. SIZES NOTED ARE NOMINAL UNLESS SHOWN AS NET.

2.4 SURFACING

A. S4S UNLESS NOTED OR SPECIFIED OTHERWISE.

PART 3 - EXECUTION

3.1 ERECTION AND INSTALLATION

A. CODE REFERENCES REFER TO CALIFORNIA BUILDING CODE.

1. ROUGH FRAMING SHALL BE PROPERLY LAID OUT, CLOSELY FITTED, ACCURATELY PLUMBED, LEVELED AND ALIGNED AND RIGIDLY SECURED IN PLACE. SET JOISTS WITH CROWN UP AND BOTTOM EDGES FREE FROM PRONOUNCED DEFECTS. STUDS AND JOISTS SHALL BE SIZED TO GIVE TRUE FINISHED SURFACES. SILL PLATES SHALL BE 2 INCH MINIMUM THICKNESS.

2. GENERAL: INSTALL ALL WOOD FRAMING MAKING PROPER PROVISIONS FOR WORK OF OTHER TRADES. DO ALL CUTTING OF WOOD REQUIRED TO ACCOMMODATE PLUMBING, HEATING AND VENTILATING, ELECTRICAL AND OTHER TRADES. FIT NEATLY AROUND ALL EXPOSED ITEMS, SUCH AS OUTLET BOXES, CONDUIT, PIPES AND DUCTS.

3. EXTERIOR BASE PLATES OR SILLS RESTING ON CONCRETE: BED IN CEMENT MORTAR TO OBTAIN A CONTINUOUS BEARING. MORTAR SHALL CONSIST OF ONE PART CEMENT TO THREE PARTS SAND. MIX MORTAR IN SMALL QUANTITIES SO THAT IT CAN BE USED PROMPTLY. SIZE ALL PLATES OR SILLS AND SET LEVEL AND TRUE. TO LINE, BOLT DOWN WITH BOLTS OF SIZE, LENGTH AND SPACING INDICATED WITH A BOLT NOT MORE THAN 9 INCHES FROM THE END OF ANY PLATE.

4. PLYWOOD SHEATHING: INSTALL PLYWOOD ROOF SHEATHING AND SUBFLOORING WITH LONG DIMENSION PERPENDICULAR TO JOISTS. INSTALL WALL SHEATHING WITH LONG DIMENSION VERTICAL. ALL PLYWOOD SHEATHING AND SUBFLOORING SHALL HAVE ALL EDGES BLOCKED AND NAILED FOR DIAPHRAGM OR SHEAR WALL STRESSES AS SHOWN ON THE STRUCTURAL DRAWINGS. ALL PLYWOOD SHALL BE LAID WITH THE "C" OR BEST FACE ON EXPOSED SIDE. SHEETS SHALL BE LAID UP WITH TIGHT JOINTS.

5. INSTALL PLYWOOD SOFFIT SHEATHING WITH LONG DIMENSION PERPENDICULAR TO JOISTS. LAY PLYWOOD WITH BEST FACE ON EXPOSED SIDE AND WITH TIGHT JOINTS. HAVE EDGES BLOCKED AND NAILED AS SHOWN ON THE DRAWINGS.

6. INSTALL PLYWOOD FLOOR SHEATHING WITH LONG DIMENSION PERPENDICULAR TO JOISTS.

7. ROUGH FRAMING: FIT CLOSELY, SET ACCURATELY TO REQUIRED LINES AND LEVELS, AND SECURE RIGIDLY IN PLACE. SET HORIZONTAL AND INCLINED MEMBERS WITH CROWN EDGE UP. DO NOT CUT, NOTCH OR BORE STRUCTURAL MEMBERS WITHOUT SPECIFIC APPROVAL. BOLT, NAIL AND SPIKE IN A THOROUGH MANNER WITH NOT LESS THAN THE SIZES AND QUANTITIES INDICATED OR SPECIFIED. STRUCTURAL MEMBERS SHALL PROVIDE FULL CONTACT AT ALL BEARING SURFACES.

8. STUDS: WALL AND PARTITIONS SHALL BE NOMINAL 2 X 4 AND 2 X 6 STUDS 16 INCHES ON CENTER UNLESS OTHERWISE NOTED OR UNLESS THEY ARE REQUIRED TO BE LARGER TO ACCOMMODATE MECHANICAL OR ELECTRICAL EQUIPMENT, PIPING AND FIXTURES, OR THE FIXTURES OR EQUIPMENT OF ANY OTHER TRADE, UNLESS OTHERWISE DETAILED, ALL PANELS, VALVE COVERS, CLEANOUTS, DEVICES, ACCESS DOORS, RECESSED CABINET BOXES, ETC., SHALL BE MOUNTED FLUSH WITH THE ADJACENT WALL SURFACE. WHEN ANY SUCH ITEM IS OF A DEPTH WHERE IT IS NOT PRACTICAL TO USE SOLID STUDDING TO THE FULL THICKNESS OF THE WALL, THEN THE WALL SHALL BE FURRED. WHEN FURRING IS REQUIRED, IT SHALL EXTEND THE FULL WIDTH OF THE ROOM ON THE WALL IN WHICH IT OCCURS AND FROM FLOOR TO ROOF OR CEILING JOISTS. THE STUDS COMPRISING ALL INTERIOR PARTITIONS AND THE WALL MATERIAL AFFIXED THERETO SHALL EXTEND FROM FLOOR TO ROOF OR CEILING JOIST FRAMING EXCEPT AS SHOWN. STAGGERED STUD WALLS SHALL BE CONSTRUCTED WHERE SHOWN ON THE PLANS AND AS DETAILED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO MEET THESE REQUIREMENTS AT NO ADDITIONAL COST TO THE OWNER.

9. TOP PLATES IN BEARING PARTITIONS SHALL BE DOUBLED AND LAPPED AT EACH INTERSECTION WITH WALLS OR PARTITIONS. STAGGER JOINTS IN UPPER AND LOWER MEMBERS OF TOP PLATE NOT LESS THAN FOUR FEET.

10. BRIDGING AND BLOCKING: CUT BRIDGING AND BLOCKING NEATLY, FIT TIGHTLY AND NAIL SECURELY. INSTALL BLOCKING AT INTERSECTIONS OF FINISHED SURFACES TO PROVIDE ADEQUATE BEARING FOR MATERIALS. PROVIDE BLOCKING AS INDICATED AND AS REQUIRED TO SUPPORT LADDERS, FIXTURES, HARDWARE, AND OTHER SUSPENDED OR WALL MOUNTED FIXTURES. CONFORM TO CBC REQUIREMENTS FOR FIRE BLOCKING.

11. PROVIDE BLOCKING NOT LESS THAN 2 INCHES IN THICKNESS BY SAME WIDTH AS STUD AS FOLLOWS: STUD PARTITIONS OF WALLS HIGHER THAN 10 FEET, BLOCK OUT AT MID-HEIGHT. WALLS 14 FEET OR HIGHER, BLOCKING FITTED SNUGLY AND NAILED INTO MID-HEIGHT OF STUD. WALLS OR PARTITIONS OVER 14 FEET IN HEIGHT - 3 OR MORE ROWS OF BLOCKING. LOCATE ROWS OF BLOCKING SO THAT NO CASE WILL THE DISTANCE BETWEEN SOLE OR TOP PLATES AND BLOCKING OR BETWEEN ROWS OF BLOCKING EXCEED 8 FEET. PROVIDE BLOCKING BEHIND JOINTS OF GYPSUM BOARD AND JOINTS OF PLYWOOD AND IN ALL OTHER LOCATIONS AFFORDING A PASSAGE FOR FLAMES.

12. FRAME CORNERS SOLID WHERE STUD WALLS OR PARTITIONS MEET OR AS SHOWN ON THE STRUCTURAL DRAWINGS.

13. PROVIDE FRAMING FOR PIPES IN STUD PARTITIONS TO GIVE PROPER CLEARANCE TO PIPING. PLACE PIPES IN CENTER OF PLATES, USING A NEAT HOLE. DO NOT NOTCH STRUCTURAL STUDS OR PLATES UNLESS DETAILED ON STRUCTURAL DRAWINGS. DO NOT CUT PLATE MORE THAN EXCEEDING 1/3 OF PLATE WIDTH IN PARTITIONS USED AS BRACING. WHERE STUD WALLS ARE BORED OR NOTCHED EXCEEDING 1/3 THE SILL WIDTH, PROVIDE EXTRA BOLTS AS REQUIRED FOR STRENGTH. DO NOT CUT SILL PIECES. REFER TO STRUCTURAL DRAWINGS, OR ELSEWHERE AS INDICATED TO RECEIVE PIPES.

14. PROVIDE DOUBLE JOISTS IN FLOOR FRAMING UNDER ALL PARTITIONS PARALLEL TO JOISTS.

15. PROVIDE DOUBLE JOISTS HEADERS AND SIDE MEMBERS AT ALL OPENINGS LARGER THAN 4 FEET IN DIMENSION.

16. ALL JOIST FRAMING INTO HEADERS AND HEADER JOISTS SHALL BE SUPPORTED ON JOIST HANGERS.

17. PROVIDE CANT STRIPS FOR ROOFING AS SHOWN ON THE DRAWINGS.

18. WOOD BACKING AND NAILING STRIPS: PROVIDE ALL WOOD BACKING, FURRING OR BLOCKING INDICATED OR REQUIRED FOR PROPER INSTALLATION AND ATTACHMENT OF WORK OF ALL OTHER TRADES. FORM LUMBER WHICH HAS BEEN CLEANED AND IS IN SOUND CONDITION MAY BE USED, UNLESS OTHER MATERIAL IS INDICATED OR SPECIFIED.

19. PROVIDE WOOD STRIPPING WHERE INDICATED FOR THE ATTACHMENT OF FINISH MATERIALS TO WOOD SURFACES.

20. WOOD PRESERVATIVE TREATMENT: (EXCEPT FOR WOOD TREATED WITH FIRE RETARDANT CHEMICALS.)

A. ALL WOOD SILL PLATES, LEDGERS BOLTED IN DIRECT CONTACT WITH CONCRETE, AND ANY WOOD ELEMENTS IN DIRECT CONTACT WITH CONCRETE SHALL BE PRESSURE TREATED WITH PENTACHLOROPHENOL IN OIL IN ACCORDANCE WITH THE STANDARD OF THE CALIFORNIA BUILDING CODE SEC. 2303.1.8.

21. SHEATHING PAPER: SHALL BE 15 # ASPHALT IMPREGNATED BUILDING PAPER.

22. INSTALL SHEATHING PAPER ON EXTERIOR WALL SHEATHING, UNDER ALL CEMENT PLASTER, LAY HORIZONTALLY STARTING AT BOTTOM, LAP EDGES AND ENDS 6 INCHES AND EXTEND BACK OF WINDOW CASINGS AND OTHER FINISH WORK.

23. INSTALL SHEATHING PAPER OVER SUB FLOORING THROUGHOUT, LAPPING EDGES 6 INCHES AND TURN UP ONE INCH AT WALLS.

B. BUILDING PAPER:

1. FURNISH AND INSTALL 15 POUND ASPHALT-SATURATED RAG FELT PAPER, PERFORATED, BEHIND ALL EXTERIOR FINISH SIDING.

2. LAP FELT PAPER 2 INCHES TO WEATHER AND WITH 4 INCH SIDE LAPS. SECURE WITH GALVANIZED NAILS SUFFICIENTLY TO HOLD IN PLACE WITHOUT SAGGING UNTIL FINISH IS APPLIED.

C. CUTTING, NOTCHING AND BORING:

1. MINOR CUTTING AND BORING OF THE CARPENTRY FOR THE INSTALLATION OF PIPES, CONDUITS AND DUCTS MAY BE DONE BY SUBCONTRACTOR FOR THE APPLICABLE TRADE, BUT ALL MAJOR CUTTING, BORING AND MODIFICATION SHALL BE DONE BY THE CONTRACTOR UNDER THIS SECTION.

2. APPROVAL SHALL BE OBTAINED FROM THE ENGINEER BEFORE CUTTING OR NOTCHING ANY FRAMING MEMBER.

D. AT ROOF AND FLOOR SHEATHING, ALL SHEET EDGES NOT FALLING OVER JOISTS OR OTHER SUPPORTS SHALL BE SOLID BLOCKED WITH 2 X 4 FLAT EDGE BLOCKING. NAILED AS INDICATED ON THE DRAWINGS.

E. METAL CROSS BRIDGING IS UNACCEPTABLE IN LIEU OF SOLID BLOCKING.

F. THE USE OF POWER OPERATED NAILING MACHINES, AIR DRIVEN OR ELECTRIC, IS SUBJECT TO APPROVAL OF THE ENGINEER. ALL SUCH EQUIPMENT SHALL BE IN PERFECT CONDITION AND ADJUSTED SO AS TO RESULT IN NAILS PROPERLY DRIVEN, WITH HEADS FLUSH WITH THE SURFACE OF THE WOOD AND NOT UNDER DRIVEN OR OVERDRIVEN. PERFORM A TEST NAILING ON A SAMPLE PANEL AT THE BEGINNING OF ROOF NAILING SO AS TO PERMIT HIM TO INSPECT THE QUALITY OF THE ROOF NAILING AT THE OUTSET.

G. NO PORTION OF THE ROOF DECK SHALL BE COVERED WITH ROOFING UNTIL INSPECTED BY THE ENGINEER OR HIS REPRESENTATIVE.

H. ALL TRIM AND CASING SHALL BE INSTALLED IN FULL LENGTHS, WITHOUT PIECING EXCEPT WHERE THIS IS IMPRACTICAL, AND THEN SHALL BE JOINTED WITH BEVELED BUTT JOINTS. MITER ALL ANGLES. SET ALL NAILS AND FILL HOLES WITH PUTTY. ALL MEMBERS SCRIBED IN PLACE, PROPERLY INSTALLED, LEVEL, PLUMB AND TRUE.

I. PROPERLY INSTALL ALL FINISH HARDWARE IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AFTER PAINTING IS COMPLETE. CLEAN AND POLISH AND LEAVE IN GOOD WORKING ORDER.

J. DOOR FRAMES AND TRIM SHALL BE PLUMB AND SQUARE WITH ALL JOINTS TIGHTLY AND ACCURATELY FITTED TOGETHER. SET ALL NAILS AND FILL HOLES WITH PUTTY. SAND ALL MEMBERS AND JOINTS SMOOTH.

END OF SECTION 061000

SECTION 075419 - POLYVINYL-CHLORIDE (PVC/TPA) ROOFING
PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION 01 SPECIFICATION SECTIONS, APPLY TO THIS SECTION.

1.2 SUMMARY

A. SECTION INCLUDES:
1. MECHANICALLY-FASTENED THERMOPLASTIC PVC/TPA ROOFING SYSTEM ON WOOD DECK, INCLUDING:
2. ROOF INSULATION COVER BOARD.
3. WALKWAY MATERIAL.

1.3 DEFINITIONS

A. ROOFING TERMINOLOGY: SEE ASTM D 1079 AND GLOSSARY IN NRCA'S "THE NRCA ROOFING AND WATERPROOFING MANUAL" FOR DEFINITION OF TERMS RELATED TO ROOFING WORK IN THIS SECTION.

1.4 ACTION SUBMITTALS

A. PRODUCT DATA: FOR EACH TYPE OF PRODUCT INDICATED.
B. SHOP DRAWINGS: FOR ROOFING SYSTEM. INCLUDE PLANS, ELEVATIONS, SECTIONS, DETAILS, AND ATTACHMENTS TO OTHER WORK.
1. BASE FLASHINGS AND MEMBRANE TERMINATIONS.
A. INDICATE DETAILS MEET REQUIREMENTS OF NRCA AND FMG REQUIRED BY THIS SECTION.
2. TAPERED INSULATION, INCLUDING SLOPES.
3. INSULATION FASTENING PATTERNS FOR CORNER, PERIMETER, AND FIELD-OF-ROOF LOCATIONS.

C. SAMPLES FOR VERIFICATION: FOR THE FOLLOWING PRODUCTS:
1. SHEET ROOFING, OF COLOR SPECIFIED, INCLUDING T-SHAPED SIDE AND END LAP SEAM.
2. ROOF INSULATION.
3. WALKWAY PADS OR ROLLS.
4. METAL TERMINATION BARS.
5. SIX INSULATION FASTENERS OF EACH TYPE, LENGTH, AND FINISH.
6. SIX ROOF COVER FASTENERS OF EACH TYPE, LENGTH, AND FINISH.

1.5 INFORMATIONAL SUBMITTALS

A. CONTRACTOR'S PRODUCT CERTIFICATE: SUBMIT NOTARIZED CERTIFICATE, INDICATING PRODUCTS INTENDED FOR WORK OF THIS SECTION, INCLUDING PRODUCT NAMES AND NUMBERS AND MANUFACTURERS' NAMES, WITH STATEMENT INDICATING THAT PRODUCTS TO BE PROVIDED MEET THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
B. QUALIFICATION DATA: FOR INSTALLER, MANUFACTURER, AND ROOFING INSPECTOR.
1. INCLUDE LETTER FROM MANUFACTURER WRITTEN FOR THIS PROJECT INDICATING APPROVAL OF INSTALLER.
C. MANUFACTURER CERTIFICATES: SIGNED BY ROOFING MANUFACTURER CERTIFYING THAT ROOFING SYSTEM COMPLIES WITH REQUIREMENTS SPECIFIED IN "PERFORMANCE REQUIREMENTS" ARTICLE.
1. SUBMIT EVIDENCE OF COMPLIANCE WITH PERFORMANCE REQUIREMENTS, INCLUDING FM GLOBAL LISTING.
2. PRODUCT COMPATIBILITY: INDICATE MANUFACTURER HAS VERIFIED COMPATIBILITY OF ROOFING SYSTEM COMPONENTS, INCLUDING BUT NOT LIMITED TO: ROOFING MEMBRANE, FLASHING SHEETS, ADHESIVES, AND SEALANTS.
D. WARRANTIES: UNEXECUTED SAMPLE COPIES OF SPECIAL WARRANTIES.

1.6 INFORMATIONAL SUBMITTALS

A. MAINTENANCE DATA: TO INCLUDE IN MAINTENANCE MANUALS.

1.7 QUALITY ASSURANCE

A. INSTALLER QUALIFICATIONS: AN EMPLOYER OF WORKERS TRAINED AND CERTIFIED BY MANUFACTURER, INCLUDING A FULL-TIME ON-SITE SUPERVISOR WITH A MINIMUM OF FIVE YEARS' EXPERIENCE INSTALLING PRODUCTS COMPARABLE TO THOSE SPECIFIED IN THIS SECTION, WHERE PARTS TO COMMUNICATE WITH CONTRACTOR, ARCHITECT, AND EMPLOYEES, AND QUALIFIED BY THE MANUFACTURER TO INSTALL MANUFACTURER'S PRODUCT AND FURNISH WARRANTY OF TYPE SPECIFIED.
B. MANUFACTURER QUALIFICATIONS: APPROVED MANUFACTURER LISTED IN THIS SECTION, UL LISTED FOR ROOFING SYSTEMS IDENTICAL TO THOSE USED FOR THIS PROJECT, AND WITH A MINIMUM OF FIVE YEARS' EXPERIENCE IN MANUFACTURE OF SPECIFIED PRODUCTS IN SUCCESSFUL USE IN SIMILAR APPLICATIONS.
C. ROOFING INSPECTOR QUALIFICATIONS: A TECHNICAL REPRESENTATIVE OF MANUFACTURER NOT ENGAGED IN THE SALE OF PRODUCTS AND EXPERIENCED IN THE INSTALLATION AND MAINTENANCE OF THE SPECIFIED ROOFING SYSTEM, QUALIFIED TO PERFORM ROOFING OBSERVATION AND INSPECTION SPECIFIED IN FIELD QUALITY CONTROL ARTICLE, TO DETERMINE INSTALLER'S COMPLIANCE WITH THE REQUIREMENTS OF THIS PROJECT, AND APPROVED BY THE MANUFACTURER TO ISSUE WARRANTY CERTIFICATES. THE ROOFING INSPECTOR SHALL BE ONE OF THE FOLLOWING:
1. AN AUTHORIZED FULL-TIME TECHNICAL EMPLOYEE OF THE MANUFACTURER.
D. PREINSTALLATION ROOFING CONFERENCE: CONDUCT CONFERENCE AT PROJECT SITE.
1. MEET WITH OWNER, ARCHITECT, ROOFING INSTALLER, ROOFING SYSTEM MANUFACTURER'S REPRESENTATIVE, AND INSTALLERS WHOSE WORK INTERFACES WITH OR AFFECTS ROOFING, INCLUDING INSTALLERS OF ROOF ACCESSORIES AND ROOF-MOUNTED EQUIPMENT.
2. REVIEW METHODS AND PROCEDURES RELATED TO ROOFING INSTALLATION, INCLUDING MANUFACTURER'S WRITTEN INSTRUCTIONS.
3. REVIEW AND FINALIZE CONSTRUCTION SCHEDULE AND VERIFY AVAILABILITY OF MATERIALS, INSTALLER'S PERSONNEL, EQUIPMENT, AND FACILITIES NEEDED TO MAKE PROGRESS AND AVOID DELAYS.
4. EXAMINE SUBSTRATE CONDITIONS AND FINISHES FOR COMPLIANCE WITH REQUIREMENTS, INCLUDING FLATNESS AND FASTENING.
5. REVIEW STRUCTURAL LOADING LIMITATIONS OF ROOF DECK DURING AND AFTER ROOFING.
6. REVIEW BASE FLASHINGS, SPECIAL ROOFING DETAILS, ROOF DRAINAGE, ROOF PENETRATIONS, EQUIPMENT CURBS, AND CONDITION OF OTHER CONSTRUCTION THAT WILL AFFECT ROOFING SYSTEM.
7. REVIEW GOVERNING REGULATIONS AND REQUIREMENTS FOR INSURANCE AND CERTIFICATES IF APPLICABLE.
8. REVIEW TEMPORARY PROTECTION REQUIREMENTS FOR ROOFING SYSTEM DURING AND AFTER INSTALLATION.
9. REVIEW ROOF OBSERVATION AND REPAIR PROCEDURES AFTER ROOFING INSTALLATION.

1.8 DELIVERY, STORAGE, AND HANDLING

A. DELIVER ROOFING MATERIALS TO PROJECT SITE IN ORIGINAL CONTAINERS WITH SEALS UNBROKEN AND LABELED WITH MANUFACTURER'S NAME, PRODUCT BRAND NAME AND TYPE, DATE OF MANUFACTURE, APPROVAL OR LISTING AGENCY MARKINGS, AND DIRECTIONS FOR STORING AND MIXING WITH OTHER COMPONENTS.
B. STORE LIQUID MATERIALS IN THEIR ORIGINAL UNDAMAGED CONTAINERS IN A CLEAN, DRY, PROTECTED LOCATION AND WITHIN THE TEMPERATURE RANGE REQUIRED BY ROOFING SYSTEM MANUFACTURER. PROTECT STORED LIQUID MATERIAL FROM DIRECT SUNLIGHT.
1. DISCARD AND LEGALLY DISPOSE OF LIQUID MATERIAL THAT CANNOT BE APPLIED WITHIN ITS STATED SHELF LIFE.
C. PROTECT ROOF INSULATION MATERIALS FROM PHYSICAL DAMAGE AND FROM DETERIORATION BY SUNLIGHT, MOISTURE, SOILING, AND OTHER SOURCES. STORE IN A DRY LOCATION. COMPLY WITH INSULATION MANUFACTURER'S WRITTEN INSTRUCTIONS FOR HANDLING, STORING, AND PROTECTING DURING INSTALLATION.
D. HANDLE AND STORE ROOFING MATERIALS AND PLACE EQUIPMENT IN A MANNER TO AVOID PERMANENT DEFLECTION OF DECK.

1.9 PROJECT CONDITIONS

A. WEATHER LIMITATIONS: PROCEED WITH INSTALLATION ONLY WHEN EXISTING AND FORECASTED WEATHER CONDITIONS PERMIT ROOFING SYSTEM TO BE INSTALLED ACCORDING TO MANUFACTURER'S WRITTEN INSTRUCTIONS AND WARRANTY REQUIREMENTS.
B. DAILY PROTECTION: COORDINATE INSTALLATION OF ROOFING SO INSULATION AND OTHER COMPONENTS OF ROOFING SYSTEM NOT PERMANENTLY EXPOSED ARE NOT SUBJECTED TO PRECIPITATION OR LEFT UNCOVERED AT THE END OF THE WORKDAY OR WHEN RAIN IS FORECAST.
1. PROVIDE TIE-OFFS AT END OF EACH DAY'S WORK TO COVER EXPOSED ROOFING AND INSULATION WITH A COURSE OF ROOFING SHEET SECURELY IN PLACE WITH JOINTS AND EDGES SEALED.
2. DOGS AT TERMINATIONS AND BASE FLASHINGS AND PROVIDE TEMPORARY SEALS TO PREVENT WATER FROM ENTERING COMPLETED SECTIONS OF ROOFING.
3. REMOVE TEMPORARY PLUGS FROM ROOF DRAINS AT END OF EACH DAY.
4. REMOVE AND DISCARD TEMPORARY SEALS BEFORE BEGINNING WORK ON ADJOINING ROOFING.

1.10 WARRANTY

A. WARRANTY, GENERAL: WARRANTIES SPECIFIED SHALL BE IN ADDITION TO, AND RUN CONCURRENT WITH, OTHER WARRANTIES REQUIRED BY THE CONTRACT DOCUMENTS. MANUFACTURER'S DISCLAIMERS AND LIMITATIONS ON PRODUCT WARRANTIES DO NOT RELIEVE CONTRACTOR OF OBLIGATIONS UNDER REQUIREMENTS OF THE CONTRACT DOCUMENTS.
B. MANUFACTURER'S WARRANTY: SUBMIT, WHEN ACCEPTED BY OWNER, MANUFACTURER AGREES TO REPAIR OR REPLACE COMPONENTS OF ROOFING SYSTEM THAT FAIL IN MATERIALS OR WORKMANSHIP WITHIN SPECIFIED WARRANTY PERIOD. FAILURE INCLUDES ROOF LEAKS.
1. MANUFACTURER'S WARRANTY INCLUDES ROOFING M

ELECTRICAL SYMBOLS LIST

SYMBOL	DESCRIPTION
A-1,3	CONDUIT HOMERUN WITH PANEL DESIGNATION AND CIRCUITS INDICATED.
	CONDUIT/WIRING, INSTALLED IN OR BELOW FLOOR SLAB.
	CONDUIT/WIRING, EXPOSED.
	CONDUIT/WIRING CONCEALED IN WALL OR CEILING SPACE.
	CONDUIT, FLEXIBLE CONNECTION DRY LOCATIONS - FLEXIBLE STEEL CONDUIT WET LOCATIONS - LIQUIDTIGHT FLEXIBLE STEEL CONDUIT
A	LIGHT FIXTURE DESIGNATION
	LED LIGHTING FIXTURE UPPER CASE LETTER(S) = FIXTURE TYPE NUMBER = CIRCUIT NUMBER LOWER CASE LETTER(S) = ROOM SWITCHING CIRCUITS AND NUMBER OF SWITCHES NOTE: THIS LABELING SCHEME IS TYPICAL FOR ALL LIGHT FIXTURES.
	LED, WALL MOUNTED LIGHT FIXTURE.
	LED STRIP OR UNDERCABINET TASK LIGHT
	LED LIGHTING FIXTURE WITH EMERGENCY BATTERY PACK OR CONNECTED TO EMERGENCY POWER SYSTEM.
	POLE MOUNTED LIGHT FIXTURE WITH POLE AND FOUNDATION. NUMBER AND ORIENTATION OF LUMINAIRES AS SHOWN ON DRAWINGS.
	LIGHTING FIXTURE, WALL OR BRACKET MOUNTED.
	LIGHTING FIXTURE, SURFACE OR RECESSED MOUNTED.
	LIGHTING FIXTURE WITH EMERGENCY BATTERY PACK OR CONNECTED TO EMERGENCY POWER SYSTEM.
	TRACK LIGHTING WITH FIXTURES.
MS	MOTION SENSOR, DUAL TECHNOLOGY, CEILING MOUNTED NOT TO BE LOCATED WITHIN 48" OF ANY HVAC DIFFUSER.
	EXIT LIGHT FIXTURE. DARKENED AREA INDICATES FIXTURE FACE. ARROW INDICATES DIRECTION OF FACE ARROW. LL = LOW LEVEL
S^3_{ab}	LIGHT SWITCH, WALL MOUNTED AT +42" AFF, U.O.N. 2 = TWO POLE, 3 = THREE WAY, 4 = FOUR WAY a,b = INDICATES ROOM SWITCHING CIRCUITS AND NUMBER OF SWITCHES D = DIMMER K = KEYED OC = OCCUPANCY SENSOR, DUAL TECHNOLOGY VS = VACANCY SENSOR, MANUAL ON, WHERE REQUIRED BY CODE P = PILOT LIGHT, LIGHTED IN THE OFF POSITION BP = BYPASS TIMER WP = WEATHERPROOF WR = WEATHER RESISTANT F = FAN SWITCH S = SOLATUBE CONTROL T = TIMER SWITCH LV= LOW VOLTAGE
J	JUNCTION BOX, HANDHOLE OR PULLBOX WITH COVER, SIZE PER NEC, ART. 314.28.
	GROUND
	FUSE
M	UTILITY COMPANY APPROVED CT/METER PROVISIONS
	FUSED SWITCH
	CIRCUIT BREAKER
TC	TIME CLOCK
	LIGHTING OR POWER PANEL - FLUSH MOUNT UNLESS INDICATED OTHERWISE
LA	DISTRIBUTION BOARD, LIGHTING OR POWER PANEL DESIGNATION
FC 3	MOTOR OR MECHANICAL EQUIPMENT, WITH FLEXIBLE CONNECTION
30AS 3P F	MECHANICAL EQUIPMENT DESIGNATION DISCONNECT SWITCH (30=AMPS 3=POLES) NEMA 1 INDOORS NEMA 3R IN WET LOCATIONS F = FUSED PROVIDE TIME-DELAY TYPE FUSE(S) SIZED PER EQUIPMENT MANUFACTURERS NAMEPLATE RATING.
S^M	MANUAL MOTOR STARTER SWITCH WITH THERMAL OVERLOAD PROTECTOR
"0"	MAGNETIC MOTOR STARTER WITH THERMAL OVERLOAD PROTECTOR
30AS 3P "0"	COMBINATION MOTOR STARTER WITH FUSED SWITCH, WITH THERMAL OVERLOAD PROTECTOR AND DUAL ELEMENT FUSES. (30=AMPS, 3=POLES 0=STARTER SIZE).
	PUSHBUTTON OR SHUNT TRIP STATION
GFI	DUPLEX RECEPTACLE, +18" AFF, U.O.N.; NEMA 5-20R, U.O.N.; NUMBER INDICATES CIRCUIT NUMBER. GFIF = GROUND FAULT INTERRUPTION, FEED-THRU TYPE WP = WEATHERPROOF WITH A WEATHERPROOF WHILE-IN-USE COVER WR = WEATHER-RESISTANT TYPE RECEPTACLE WITH A WEATHERPROOF WHILE IN-USE COVER GFI= GROUND FAULT INTERRUPTION.
OR	DOUBLE DUPLEX RECEPTACLE, +18" AFF, U.O.N.
	DUPLEX RECEPTACLE ABOVE COUNTERTOP BACKSPLASH, VERIFY REQ'D HEIGHT
J	POWER RECEPTACLE, SEE POWER RECEPTACLE SCHEDULE FOR NEMA CONFIGURATION AND SIZE.
	POWER POLE, WITH NUMBER OF RECEPTACLES INDICATED
	DUPLEX RECEPTACLE, PEDESTAL MOUNTED
	CEILING MOUNTED DUPLEX RECEPTACLE AT T-BAR CEILING NOT TO BE MOUNTED IN CEILING SPACE.
	DUPLEX RECEPTACLE, FLUSH FLOOR MOUNTED, WITH HINGED COVER, U.O.N.
	CORD SUSPENDED CEILING RECEPTACLE, WITH STRAIN RELIEF ASSEMBLY
	SURFACE MOUNTED DUPLEX RECEPTACLE +18" AFF, U.O.N.
	SURFACE MOUNTED DOUBLE DUPLEX RECEPTACLE +18" AFF, U.O.N.
	DOUBLE DUPLEX RECEPTACLE, +18" AFF, U.O.N. 1-CONTROLLED + 1-UNCONTROLLED DUPLEX RECEPTACLE. CONTROLLED RECEPTACLE TO BE GRAY IN COLOR.

SYMBOL	DESCRIPTION
DD	DUCT MOUNTED SMOKE DETECTOR
SS	SOLID STATE, ELECTRONIC, ADJUSTABLE TRIP CIRCUIT BREAKER WITH LSIG.
DS	DAYLIGHT SENSOR
SD	SMOKE DETECTOR

SIGNAL SYSTEMS

	TELEPHONE OR TERMINAL BACKBOARD
	TELEPHONE OR TERMINAL CABINET, WITH PLYWOOD BACKBOARD
S	PAGING SPEAKER, WALL MOUNT
S	PAGING SPEAKER, CEILING MOUNT WITH BACKBOX
I	INTRUSION INFRARED SENSOR.
	TIME-OF-DAY CLOCK OUTLET AND CLOCK, AT +96" AFF, U.O.N.
TV	CABLE TELEVISION OUTLET, AT +18" AFF, U.O.N.
C/S	CLOCK AND SPEAKER COMBINATION
	DATA JUNCTION BOX, AT +18" AFF U.O.N., WITH 1-1/4" CONDUIT ONLY WITH PULLSTRING UP TO NEAREST CABLE TRAY OR ACCESSIBLE TO CEILING SPACE.
	TELEPHONE JUNCTION BOX, AT +18" AFF U.O.N., WITH 1-1/4" CONDUIT ONLY WITH PULLSTRING UP TO NEAREST ACCESSIBLE TO CEILING SPACE.
	TELE/DATA JUNCTION BOX AT +18" AFF, U.O.N., WITH (2)1-1/4" CONDUIT ONLY WITH PULLSTRING UP TO NEAREST CABLE TRAY OR ACCESSIBLE CEILING SPACE. W = WALL MOUNT AT +42" AFF, U.O.N.
	CEILING MOUNTED DATA AT T-BAR CEILING NOT TO BE MOUNTED IN CEILING SPACE, WITH 1" CONDUIT AND (1) CAT 6 CABLE TO INTERMEDIATE DISTRIBUTION FRAME AS INDICATED ON DWGS.
	PROJECTOR SHOWN FOR REFERENCE ONLY
	DATA OUTLET, FLUSH FLOOR MOUNTED, WITH HINGED COVER, U.O.N.

DEMOLITION NOTES

1. THE CONTRACTOR SHALL VISIT THE SITE SPECIFICALLY INCLUDING ALL AREAS INDICATED ON THE DRAWINGS. THE CONTRACTOR SHALL THOROUGHLY FAMILIARIZE THEMSELVES WITH THESE EXISTING CONDITIONS, AND BY SUBMITTING A BID ACCEPTS CONDITIONS UNDER WHICH THEY WILL BE REQUIRED TO PERFORM THEIR WORK.

2. IT SHALL BE THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO DISCONNECT AND REMOVE ALL EXISTING LIGHTING FIXTURES, RECEPTACLES, ELECTRICAL EQUIPMENT, ETC., AFFECTED BY THE REMODELED AREA. THIS WILL INCLUDE REROUTING, OR THE EXTENSION OF, EXISTING CONDUIT AND FEEDERS WHERE NECESSARY TO MAINTAIN THE CONTINUITY OF EXISTING EQUIPMENT REMAINING.

3. ALL CIRCUIT NUMBERS AND EXISTING CONDUIT HOMERUNS SHOWN ON THESE DRAWINGS WERE TAKEN FROM EXISTING RECORD DRAWINGS. IT IS THIS CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATIONS OF HOMERUNS, AND ADJUST CIRCUIT NUMBERS ACCORDING TO EXISTING CONDITIONS IF REQUIRED.

4. WHERE EXISTING WALLS HAVE BEEN REMOVED, AND THERE ARE EXISTING CONDUIT FEEDS WHICH HAVE BEEN CUT-OFF AND CAPPED FLUSH WITH FLOOR, IT IS THE CONTRACTOR'S RESPONSIBILITY TO IDENTIFY AND DIMENSION ALL SUCH CONDUITS ON THE "AS-BUILT" DRAWINGS UNLESS NOTED OTHERWISE.

5. IT SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR TO MAINTAIN CONTINUITY OF ALL ELECTRICAL SYSTEMS, EQUIPMENT, ETC., REMAINING IN OPERATION WHICH ARE BEING FED BY AN ABANDONED OUTLET. MAINTAINING CONTINUITY SHALL CONSIST OF REROUTING CONDUIT, WIRING, ETC., AS REQUIRED.

6. WHERE NEW CIRCUITS ARE SHOWN TO EXISTING PANELS, INSTALL NEW BREAKERS OF SAME TYPE, STYLE AND RATING (MINIMUM 20 AMP, SINGLE POLE) AS CALLED FOR ON DRAWINGS. IDENTIFY EACH NEW CIRCUIT ON PANEL SCHEDULE.

7. EXISTING CONDUIT MAY BE REUSED IF ADEQUATELY SIZED, BUT IN NO CASE SHALL ANY EXISTING CONDUCTORS BE REUSED.

8. ALL ABANDONED OUTLETS INCLUDING LIGHT, RECEPTACLES, TELEPHONE, ETC., SHALL BE COVERED AND PATCHED TO MATCH THE FINISH OF SURROUNDING WALL OR CEILING TO THE SATISFACTION OF THE OWNER.

9. ALL LIGHTING FIXTURES REMOVED TO ACCOMPLISH DEMOLITION WORK SHALL BE REINSTALLED SIMILAR TO NEW WORK

BRANCH CIRCUIT WIRING NOTE:

1. FOR RECEPTACLE CIRCUITS AND 120 VOLT BRANCH CIRCUITS, UNLESS NOTED OTHERWISE, PROVIDE THE FOLLOWING CONDUCTORS: (1) #12 CONDUCTOR FOR EACH PHASE (I.E. CIRCUIT NUMBER) AND (1) SEPARATE DEDICATED #12 NEUTRAL CONDUCTOR FOR EACH SINGLE 120 VOLT CIRCUIT OR FOR 2 TO 3 CIRCUITS PROVIDED THEY ARE OF DIFFERENT PHASES; (1) EQUIPMENT GROUNDING CONDUCTOR, SIZED PER CEC. FOR CIRCUITS TO COMPUTER/DATA EQUIPMENT, PROVIDE DEDICATED NEUTRAL FOR EACH CIRCUIT.

2. FOR LIGHTING BRANCH CIRCUITS, PROVIDE THE FOLLOWING CONDUCTORS: (1) #12 CONDUCTOR FOR EACH PHASE (I.E. CIRCUIT NUMBER); (1) #12 NEUTRAL CONDUCTOR FOR A SINGLE, 120 OR 277 VOLT CIRCUIT, OR (1) #12 NEUTRAL CONDUCTOR FOR 2 TO 3 CIRCUITS WHERE EACH CIRCUIT IS ON A DIFFERENT PHASE; (1) EQUIPMENT GROUNDING CONDUCTOR, SIZED PER CEC ARTICLE 250 (DO NOT USE A COMMON NEUTRAL FOR MULTIPLE CIRCUITS ON SAME PHASE) (1) INTERCONNECTING CONDUCTOR BETWEEN EACH 3-WAY AND/OR 4-WAY SWITCH

APPLICABLE CODES

- 2022 CALIFORNIA ADMINISTRATIVE CODE (CAC), PART 1, TITLE 24 CCR
- 2022 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 CCR
- 2022 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 CCR
- 2022 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24 CCR
- 2022 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 CCR
- 2022 CALIFORNIA ENERGY CODE (CEC), PART 6, TITLE 24 CCR
- 2022 CALIFORNIA FIRE CODE (CFC), PART 9, TITLE 24 CCR (
- 2022 CALIFORNIA EXISTING BUILDING CODE (CEBC), PART 10, TITLE 24 CCR
- 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGreen), PART 11, TITLE 24 CCR
- 2022 CALIFORNIA REFERENCED STANDARDS CODE, PART 12, TITLE 24, CCR
- TITLE 19 CCR, PUBLIC SAFETY, STATE FIRE MARSHALL REGULATIONS

PROJECT NOTES

1. THESE DOCUMENTS MAY NOT BE USED FOR ANY REPRODUCTION, BIDDING, OR CONSTRUCTION UNLESS AUTHORIZED, IN WRITING, BY SALAS O'BRIEN AND THE ENGINEER OF RECORD RESPONSIBLE FOR THEIR PREPARATION.
2. VERIFY EXISTING SITE CONDITIONS, ELECTRICAL SERVICE REQUIREMENTS, DIMENSIONS, ELEVATIONS, POINTS OF CONNECTION AND PROJECT CONSTRUCTION LIMITS BEFORE SUBMITTING BID. SUBMITTAL OF BID INDICATES CONTRACTOR IS COGNIZANT OF ALL JOB SITE CONDITIONS AND WORK TO BE PERFORMED. ANY DISCREPANCIES SHALL BE CALLED TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE.
3. THESE DRAWINGS ARE DIAGRAMMATIC AND ONLY INDICATE THE INTENT OF OUTLETS, DEVICES, ETC., TO BE CONNECTED AND THE CIRCUIT NUMBERS TO WHICH THEY ARE TO BE CONNECTED TO. CONTRACTOR SHALL INSTALL ALL REQUIRED JUNCTION BOXES ETC., AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM WHICH COMPLIES WITH ALL LOCAL AND NATIONAL GOVERNING CODES.
4. ALL EXTERIOR EQUIPMENT SHALL BE WEATHERPROOF.
5. LOCATIONS OF ALL EQUIPMENT SHALL BE VERIFIED PRIOR TO ROUGH-IN.
6. EACH CONDUCTOR OF EVERY SYSTEM SHALL BE PERMANENTLY TAGGED IN COMPLIANCE WITH OSHA.
7. PVC CONDUIT, WITH CODE SIZED GROUND, SHALL BE USED UNDERGROUND ONLY, IF APPROVED BY LOCAL CODE. INSTALL PER LOCAL CODE REQUIREMENTS. CONDUIT RISERS AND STUBS ABOVE GRADE SHALL BE I.M.C. WITH HALF-LAPPED TAPE COVERING OR PVC COATING. CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, INSURANCE, EQUIPMENT, INSTALLATION, CONSTRUCTION TOOLS, TRANSPORTATION, ETC. FOR A COMPLETE AND PROPERLY OPERATING ELECTRICAL SYSTEM.
8. ALL MATERIALS SHALL BE NEW, AND OF THE SAME MANUFACTURER FOR EACH CLASS OR GROUP OF EQUIPMENT. MATERIALS SHALL BE LISTED AND APPROVED BY THE UNDERWRITER'S LABORATORIES, AND SHALL BEAR THE INSPECTION LABEL WHERE SUBJECT TO SUCH APPROVAL. MATERIAL SHALL MEET WITH THE APPROVAL OF THE DIVISION OF INDUSTRIAL SAFETY, AND ALL GOVERNING BODIES HAVING JURISDICTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH APPLICABLE STANDARDS ESTABLISHED BY A.N.S.I., U.L., N.E.M.A. AND N.B.F.U. INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
9. ALL CONDUIT SHALL BE INSTALLED CONCEALED WHERE PHYSICALLY POSSIBLE. ALL EXPOSED CONDUIT SHALL BE INTERMEDIATE METAL CONDUIT AND INSTALLED PARALLEL TO OR AT RIGHT ANGLES WITH THE BUILDING WALLS. IF VIEWED BY THE PUBLIC, PAINT TO MATCH SURFACE TO WHICH IT IS ATTACHED.
10. CONTRACTOR SHALL CARRY OUT HIS WORK IN ACCORDANCE WITH ALL GOVERNING STATE, COUNTY, LOCAL CODES, O.S.H.A. AND THE CURRENTLY ADOPTED NATIONAL ELECTRICAL CODE (N.E.C.).
11. THE COMPLETE ELECTRICAL SYSTEM SHALL BE GROUNDED IN ACCORDANCE WITH THE CURRENTLY ADOPTED EDITION OF THE NEC, ARTICLE 250.
12. ALL ELECTRICAL PENETRATIONS THROUGH FIRE RATED AREA SEPARATION AND CORRIDOR ASSEMBLIES INCLUDING CONDUITS AND PIPING SHALL BE TIGHTLY AND SOLIDLY SEALED WITH FIRESTOPPING WALLBOARD COMPOUND AND SHALL BE AN APPROVED MATERIAL AS REQUIRED BY LOCAL ENFORCING AGENCY.
13. ELECTRICAL CONTRACTOR SHALL SECURE ALL NECESSARY BUILDING PERMITS, UTILITY CHARGES AND PAY FOR SAME. COORDINATE AND PAY FOR ALL ELECTRICAL SERVICE CHARGES WITH THE BUILDING DEPARTMENT, SERVING UTILITY AND OWNER.
14. COMPLETE JOB SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR AFTER AFTER DATE OF ACCEPTANCE BY OWNER. ANY WORK, MATERIAL OR EQUIPMENT FOUND TO BE FAULTY DURING THAT PERIOD SHALL BE CORRECTED AT ONCE, UPON WRITTEN NOTIFICATION, AT THE EXPENSE OF THE ELECTRICAL CONTRACTOR.
15. CONDUCTORS SHALL BE CODE GRADE, 600 VOLT CLASS, COPPER (UNLESS NOTED OTHERWISE) MARKED EVERY 24" ALONG IT'S LENGTH SHOWING MANUFACTURER'S NAME, MAXIMUM ALLOWABLE VOLTAGE AND SIZE. GENERAL PURPOSE WIRING SHALL BE SOLID COPPER CONDUCTORS #10 AND SMALLER, STRANDED COPPER CONDUCTORS FOR #8 AND LARGER, TYPE "THWN(WET) OR "THHN(DRY). FOR SPECIAL PURPOSE WIRE TYPES REFER TO EQUIPMENT MANUFACTURER'S PLANS.
16. ALL CONDUIT ONLY (C.O.) SHALL HAVE A PULL WIRE OR ROPE.
17. USE ONLY COMPETENT AND SKILLED PERSONNEL AND PERFORM ALL WORK, INCLUDING AESTHETIC AS WELL AS ELECTRICAL AND MECHANICAL ASPECTS TO STANDARDS CONSISTENT WITH THE BEST PRACTICES OF THE TRADE.
18. ALL ELECTRICAL SYSTEM CONDUCTORS SHALL BE INSTALLED IN APPROVED RACEWAYS. NON-METALLIC SHEATHED CABLE IS NOT APPROVED.
19. WHERE IT BECOMES NECESSARY TO DRILL INTO OR CUT THROUGH ANY EXISTING SLABS, WALKWAYS OR DRIVES TO PERMIT THE INSTALLATION OF ANY WORK UNDER THIS CONTRACT, OR TO REPAIR ANY DEFECTS THAT MAY APPEAR TO THE EXPIRATION OF THE WARRANTY, SUCH CUTTING AND PATCHING SHALL PERFORMED BY TRADESMAN EXPERIENCED IN THE WORK REQUIRED. CONTRACTOR SHALL PAY FOR ALL COSTS REQUIRED FOR CUTTING OR REPAIRING. ALL FINISHES SHALL MATCH EXISTING OR NEW ADJACENT SURFACES.
20. ALL BROCHURES, OPERATING MANUALS, CATALOGS, ETC. SHALL BE TURNED OVER TO THE OWNER AT JOB COMPLETION.
21. ALL SUBSTITUTIONS SHALL BE SUBMITTED IN WRITING TO THE ARCHITECT TEN (10) DAYS PRIOR TO BID. SUBMITTAL SHALL INCLUDE, BUT NOT BE LIMITED TO, COST SAVINGS, WRITTEN REASON FOR SUBSTITUTION AND A WRITTEN STATEMENT THAT IF THE SUBSTITUTION IS APPROVED, THERE WILL BE NO DELAY IN DELIVERY, CONSTRUCTION TIME OR COST TO OTHER TRADES.
22. PROVIDE ENGRAVED PLASTIC NAMEPLATES FOR ALL MAJOR PIECES OF EQUIPMENT. PLATES SHALL BE 3 PLY, BLACK FACE, WHITE CORE WITH 1/4" HIGH CONDENSED GOTHIC LETTERING. SCREW-ON ATTACHMENT ONLY. NO CEMENT.
23. PROVIDE THE OWNER WITH ONE (1) SET OF COMPLETE ELECTRICAL "AS-BUILTS" AT THE COMPLETION OF THE JOB, SHOWING ACTUAL DEPTHS AND LOCATIONS.
24. WHERE A CONFLICT OCCURS BETWEEN THESE DRAWINGS AND THE SPECIFICATIONS ISSUED AS PART OF THESE DOCUMENTS, THE MORE STRINGENT REQUIREMENTS SHALL PREVAIL.
25. COORDINATE ALL ELECTRICAL WORK WITH OTHER TRADES. THE OWNER WILL MAKE NO SUBSEQUENT ALLOWANCE FOR ELECTRICAL WORK REQUIRED BY OTHER TRADES. OBTAIN ALL OTHER PERTINENT INFORMATION REQUIRED TO MEET ACTUAL BUILDING OR FIELD CONDITIONS.
26. ALL FINAL CONNECTIONS TO OWNER-FURNISHED EQUIPMENT SHALL BE MADE BY THE CONTRACTOR. CONNECTIONS TO ALL EQUIPMENT FURNISHED BY OTHERS SHALL BE COORDINATED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH EQUIPMENT MANUFACTURER PRIOR TO ROUGHING IN ALL CONDUIT TO THIS EQUIPMENT.
27. NOTIFY THE OWNER'S REPRESENTATIVE WHEREVER A DISCREPANCY IN QUANTITY OR SIZE OF CONDUIT, WIRE, EQUIPMENT DEVICES, CIRCUIT BREAKERS, TRANSFORMERS, GROUND FAULT PROTECTION SYSTEMS, ETC. (ALL MATERIALS) THAT ARISE ON THE DRAWINGS AND/OR SPECIFICATIONS. PROVIDE AND INSTALL ALL MATERIAL AND SERVICES REQUIRED BY THE STRICTEST CONDITIONS NOTED ON DRAWINGS AND/OR IN THE SPECIFICATIONS TO INSURE COMPLETE AND OPERABLE SYSTEMS AS REQUIRED BY THE OWNER AND ENGINEER.
28. ALL FEEDER AND BRANCH CIRCUITS SHALL BE PROVIDED WITH AN EQUIPMENT GROUNDING CONDUCTOR SIZED PER NEC, AND RUN IN THE SAME RACEWAY OR CONDUIT SUPPLYING SUCH FEEDER OR BRANCH CIRCUIT.
29. TRENCH AND BACKFILL AS REQUIRED TO PERFORM UNDERGROUND WORK. USE EXTREME CAUTION WHEN TRENCHING SO AS NOT TO INTERFERE WITH EXISTING UNDERGROUND UTILITIES. REPAIR ANY DAMAGE CAUSED BY UNDERGROUND TRENCHING.
30. PATCH AND REPAIR WALLS OR CEILINGS WHICH HAVE BEEN DAMAGED BECAUSE OF ELECTRICAL WORK.
31. CONDUIT SHALL NOT BE RUN THROUGH ANY STRUCTURAL MEMBER OF THE BUILDING, EXCEPT AS SPECIFICALLY DIRECTED BY THE OWNER'S REPRESENTATIVE. UNDER NO CIRCUMSTANCE SHALL CONDUIT RUN THROUGH COLUMNS, FOOTINGS OR GRADE BEAMS.
32. FOR ADDITIONAL ROUGH-IN AND WIRING REQUIREMENTS SEE MANUFACTURER'S INSTALLATION PLANS, WHICH ARE SUPPLEMENTAL TO AND PART OF THE ELECTRICAL WORK.
33. EXACT ROUTING OF ALL FEEDERS, CONDUITS, ETC. SHALL BE FIELD VERIFIED AND APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION. COORDINATE THE INSTALLATION WITH OTHER TRADES.
34. REFER TO ARCHITECTURAL PLANS FOR LOCATIONS OF RECESSED, SURFACE OR PENDANT MOUNTED LIGHT FIXTURES.
35. COLD WATER PIPE GROUNDING BOND SHALL BE LOCATED WITHIN 5' OF BUILDING ENTRANCE.
36. CONTRACTOR SHALL VERIFY EXACT LOADS OF HVAC EQUIP. WITH MECHANICAL ENGINEER AND HVAC UNIT MANUFACTURER PRIOR TO START OF WORK. IN CASE OF ANY DISCREPANCIES OR POTENTIAL CONFLICTS, INFORM ARCHITECT AND ELECTRICAL ENGINEER IN WRITING PRIOR TO PROCEEDING ANY FURTHER.
37. PIPES, DUCTS AND CONDUITS SHALL BE SUPPORTED AND BRACED PER THE S.M.A.C.N.A. "GUIDELINES FOR SEISMIC RESTRAINT OF MECHANICAL SYSTEMS AND PLUMBING AND PIPING SYSTEMS".
38. ALL ELECTRICAL EQUIPMENT SHALL BE BRACED OR ANCHORED TO RESIST A HORIZONTAL FORCE ACTING IN ANY DIRECTION USING THE FOLLOWING CRITERIA:
    A. EQUIPMENT ON GRADE - 20% OF OPERATING WEIGHT
    B. EQUIPMENT ON STRUCTURE - 30% OF OPERATING WEIGHT
    C. FOR FLEXIBLY MOUNTED EQUIPMENT USE FOUR (4) TIMES THE ABOVE VALUES, AND FOR SIMULTANEOUS VERTICAL FORCE USE ONE-THIRD (1/3) TIMES THE HORIZONTAL FORCE.
    D. THE ABOVE VALUES ARE FOR AN IMPORTANCE FACTOR I = 1.0 AND SEISMIC ZONE Z = 0.4
    E. WHERE ANCHORAGE DETAILS ARE NOT SHOWN ON THE DRAWINGS THE FIELD INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER AND THE FIELD INSPECTOR.
40. ALL OUTLET RATINGS SHALL BE 20 AMPS, UNLESS NOTED OTHERWISE.

MEP COMPONENT ANCHORAGE NOTE

ALL MECHANICAL, PLUMBING AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED PRESCRIBED IN THE 2022 CBC, SECTIONS 1617A.1.18 THROUGH 1617A.1.26 AND ASCE 7-16 CHAPTERS 13, 26 AND 30.

1. ALL PERMANENT EQUIPMENT AND COMPONENTS

2. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT THAT IS PERMANENTLY ATTACHED (e.g. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER. "PERMANENTLY ATTACHED" SHALL INCLUDED ALL ELECTRICAL CONNECTIONS EXCEPT PLUGS FOR 110/220 VOLT RECEPTACLES HAVING FLEXIBLE CABLE.

3. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT WHICH IS HEAVIER THAN 400 POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT IS REQUIRED TO BE RESTRAINED IN A MANNER APPROVED BY DSA.

THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE BUT NEED NOT DEMONSTRATE DESIGN COMPLIANCE WITH THE REFERENCES NOTED ABOVE. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT. FLEXIBLE CONNECTIONS MUST ALLOW MOVEMENT IN BOTH TRANSVERSE AND LONGITUDINAL DIRECTIONS.

A. COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAN DIRECTLY SUPPORTS THE COMPONENT.

B. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

THE ANCHORAGE OF ALL MECHANICAL, ELECTRICAL AND PLUMBING COMPONENTS SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND ACCEPTANCE BY DSA. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH THE ABOVE REQUIREMENTS.

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS BRACING NOTE:

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-16 SECTION 13.3 AS DEFINED IN ASCE 7-16 SECTION 13.6.5, 13.6.6, 13.6.7, 13.6.8; AND 2022 CBC, SECTIONS 1617A.1.24, 1617A.1.25, 1617A.1.26.

THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW. WHEN BRACING AND ATTACHMENTS ARE BASED ON A PRE-APPROVED INSTALLATION GUIDE (e.g., OSHPD OPM FOR 2013 CBC OR LATER), COPIES OF THE BRACING SYSTEM INSTALLATION GUIDE OR MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF AND DURING THE HANGING AND BRACING OF THE DISTRIBUTION SYSTEMS. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

MECHANICAL PIPING (MP), MECHANICAL DUCTS (MD), PLUMBING PIPING (PP), ELECTRICAL DISTRIBUTION SYSTEMS (E):

MP ☐ MD ☐ PP ☐ E ☒ OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS.

MP ☐ MD ☐ PP ☐ E ☐ OPTION 2: SHALL COMPLY WITH THE APPLICABLE OSHPD PRE-APPROVAL (OPM #) #_____.

ABBREVIATIONS

A	AMPS
AF	AMP FUSE (SIZE), AMP FRAME (SIZE)
AFCI	ARC FAULT CURRENT INTERRUPT
AFF	ABOVE FINISHFLOOR
AS	AMP SWITCH (SIZE)
BC	BARE COPPER
C	CONDUIT
CB	CIRCUIT BREAKER
CIR	CIRCUIT
CO	CONDUIT ONLY, WITH PULL LINE
CU	COPPER
EDF	ELECTRIC DRINKING FOUNTAIN
EM	EMERGENCY POWER
EMT	ELECTRICAL METALLIC TUBING
EX	EXISTING
EXP	EXPLOSION PROOF
F	FUSE
G	GROUND CONDUCTOR
GFI	GROUND FAULT INTERRUPT PROTECTION
GND	GROUND
I.G.	ISOLATED GROUND
IMC	INTERMEDIATE METALLIC CONDUIT
ISC	INTERRUPTING SHORT CIRCUIT
LCL	LONG CONTINUOUS LOAD
MAX	MAXIMUM
MCB	MAIN CIRCUIT BREAKER
MIN	MINIMUM
MLO	MAIN LUGS ONLY
NA	NON-AUTOMATIC
NEC	NATIONAL ELECTRICAL CODE
NKE	NO KNOWN EQUAL; NO SUBSTITUTES
NOM	NOMINAL
NTS	NOT TO SCALE
P	POLE
PH OR ∅	PHASE
PNL	PANEL
PVC	POLYVINYL CHLORIDE
REQ'D	REQUIRED
RGS	RIGID GALVANIZED STEEL
SFM	STATE FIRE MARSHAL
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
TYP	TYPICAL UNLESS NOTED OTHERWISE, OF MANY
U.O.N.	UNLESS OTHERWISE NOTED OR INDICATED
V	VOLTS
WP	WEATHERPROOF
X	EXISTING TO REMAIN
XL	EXISTING TO BE RELOCATED
XN	NEW LOCATION OF RELOCATED EQUIPMENT
XR	EXISTING TO BE REMOVED
XFMR	TRANSFORMER

DSA STAMP

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-122123 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 3/21/2024

STUDIO W ARCHITECTS

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ARCHITECT | ENGINEER

GENERAL NOTES

1. This sheet is part of a set and is not to be used alone.
2. This sheet is not to be used for construction unless the architect's st

STATE OF CALIFORNIA
Outdoor Lighting CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-E
Project Name: PUSD - Paradise Ridge Elementary School	**Report Page:** (Page 6 of 7)
	Date Prepared: 2/15/2024

M. LIGHTING ALLOWANCE: PER SPECIFIC AREA

This section does not apply to this project.

N. EXISTING CONDITIONS POWER ALLOWANCE (alterations only)

This section does not apply to this project.

O. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION

Selections have been made based on information provided in this document. If any selection has been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and can be found online

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

P. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE

Selections have been made based on information provided in this document. If any selection has been changed by permit applicant, an explanation should be included in Table E. Additional Remarks. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: http://www.energy.ca.gov/title24/attcp/providers.html

Form/Title	Systems/Spaces To Be Field Verified
NRCA-LTO-02-A - Must be submitted for all outdoor lighting controls except for alterations where controls are added to <= 20 luminaires.	EXTERIOR;

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H. OUTDOOR LIGHTING CONTROLS

This table demonstrates compliance with controls requirements for all new or altered luminaires installed as part of the permit application. For alteration projects, luminaires which are existing to remain (ie untouched) and luminaires which are removed and reinstalled (wiring only) do not need to be included in this table even if they are within the spaces covered by the permit application.
Outdoor lighting for nonresidential buildings, parking garages and common service areas in multifamily buildings must be documented separately from outdoor lighting attached to multifamily buildings and controlled from the inside of a dwelling unit

Mandatory Controls for Nonresidential Occupancies, Parking Garages & Common Areas in Multifamily Buildings

01	02	03	04	05	
Area Description	Shut-Off 130.2(c)1 / 160.5(c)	Auto-Schedule 130.2(c)2 / 160.5(c)	Motion Sensor 130.2(c)3 / 160.5(c)	Field Inspector	
				Pass	Fail
EXTERIOR	Astronomical Timer	Provided	FacadeGTE24Ft	☐	☐

[1] *FOOTNOTE: Text has been abbreviated, please refer to Table 160.5-A to confirm compliance with the specific light source technologies listed.*
[2] *Authority having jurisdiction may ask for cutsheets or other documentation to confirm compliance of light source.*
[3] *Recessed luminaires marked for use in fire-rated installations, and recessed luminaires installed in non-insulated ceilings are excepted from ii and iii.*

STATE OF CALIFORNIA
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Project Name: PUSD - Paradise Ridge Elementary School	**Report Page:** (Page 1 of 7)
Project Address: 6593 Pentz Road	**Date Prepared:** 2/15/2024

This document is used to demonstrate compliance with requirements in 110.9, 130.0, 130.2, 140.7, and 141.0(b)2I, for outdoor lighting scopes using the prescriptive path for nonresidential and hotel/motel occupancies. It is also used to document compliance with requirements in 160.5, 170.2(e)6, 180.1(a) and 180.2(b)4Bv for outdoor lighting scopes using the prescriptive path for multifamily and mixed-use occupancies. Multifamily includes dormitory and senior living facilities.

A. GENERAL INFORMATION

01	Project Location (city)	Paradise	04	Total Illuminated Hardscape Area (ft²)	500
02	Climate Zone	11			
03	Outdoor Lighting Zone per Title 24 Part 1	10.114 or as designated by Authority Having Jurisdiction (AHJ):			
☐	LZ-0: Very Low - Undeveloped Parkland	☐ LZ-2: Moderate - Urban Clusters	☐ LZ-4: High - Must be reviewed by CA Energy Commission for Approval		
☐	LZ-1: Low - Rural Areas	☒ LZ-3: Moderately High - Urban Areas			
05	Occupancy Types within Project				
•	All Other Occupancies				

B. PROJECT SCOPE

This table includes outdoor lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in 140.7 / 170.2(e)6 or 141.0(b)2I / 180.2(b)4Bv for alterations.

My Project Consists of:

01	02	
☐ New Lighting System	Must Comply with Allowances from 140.7 / 170.2(e)6	
☒ Altered Lighting System	Is your alteration increasing the connected lighting load (Watts)?	• Yes ○ No

03	04	05
% of Existing Luminaires Being Altered[1]	Sum Total of Luminaires Being Added or Altered	Calculation Method
☐ < 10% ☐ >= 10% and < 50% ☐ >= 50%	0	

Please proceed to Table F. Outdoor Lighting Fixture Schedule to define the project's luminaires.

[1] *FOOTNOTES: % of Existing Luminaires Being Altered = (Sum Total of Luminaires Being Added or Altered / Existing Luminaires within the Scope of the Permit Application) x 100.*

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CERTIFICATE OF COMPLIANCE	NRCC-LTO-E
Project Name: PUSD - Paradise Ridge Elementary School	**Report Page:** (Page 7 of 7)
Project Address: 6593 Pentz Road	**Date Prepared:** 2/15/2024

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT

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

Documentation Author Name: Ed David	Documentation Author Signature: Eduardo G Pena
Company: Salas O'Brien Engineers	Signature Date: 2024-02-15
Address: 3220 Executive Ridge Suite 210	CEA/ HERS Certification Identification (if applicable):
City/State/Zip: Vista CA 92081	Phone: (760)560-0100

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: Ed David	Responsible Designer Signature: Eduardo G Pena
Company: Salas O'Brien	Date Signed: 2024-02-15
Address: 3220 Executive Ridge Suite 210	License: E18809
City/State/Zip: Vista CA 92081	Phone: (760)560-0100

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I. LIGHTING POWER ALLOWANCE (per 140.7 / 170.2(e))

This table includes areas using allowance calculations per 140.7 / 170.2(e). General Hardscape Allowance is per Table 140.7-A/Table 170.2-R while "Use it or lose it" Allowances are per Table 140.7-B /Table 170.2-S. Indicate which allowances are being used to expand sections for user input. Luminaires that qualify for one of the "Use it or lose it" allowances shall not qualify for another "Use it or lose it" allowance. Outdoor lighting attached to multifamily buildings and controlled from the inside of a dwelling unit are included in Table H. and are not included here. All other multifamily outdoor lighting is included here.

	01				
	"Use it or lose it" Allowance (select all that apply) (select all that apply)				
☒ General Hardscape Allowance Table I (below)	☐ Per Application Table J	☐ Sales Frontage Table K	☐ Ornamental Table L	☐ Per Specific Area Table M

Calculated General Hardscape Lighting Power Allowance per Table 140.7-A for Nonresidential & Hotel/Motel

02	03	04	05	06	07	08	09
Area Description	Area Wattage Allowance (AWA)		Linear Wattage Allowance (LWA)				Total General AWA + LWA (Watts)
	Illuminated Area (ft²)	Allowed Density (W/ft²)	Area Allowance (Watts)	Perimeter Length (lf)	Allowed Density (W/lf)	Linear Allowance (Watts)	
Egress	500	0.021	10.5	40	0.2	8	18
					Initial Wattage Allowance for Entire Site (Watts):		250
					Instances of Initial Wattage Allowance (LZ 0 only)[1]:		
					Total General Hardscape Allowance (Watts):		268

J. LIGHTING ALLOWANCE: PER APPLICATION

This section does not apply to this project.

K. LIGHTING ALLOWANCE: SALES FRONTAGE

This section does not apply to this project.

L. LIGHTING ALLOWANCE: ORNAMENTAL

This section does not apply to this project.

STATE OF CALIFORNIA
Outdoor Lighting CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-E
Project Name: PUSD - Paradise Ridge Elementary School	**Report Page:** (Page 2 of 7)
	Date Prepared: 2/15/2024

C. COMPLIANCE RESULTS

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

Calculations of Total Allowed Lighting Power (Watts) 140.7 / 170.2(e)6 or 141.0(b)2L / 180.2(b)4Bv										Compliance Results			
01		02		03		04		05	OR 06	=	07		08	09
General Hardscape Allowance 140.7(d)1 / 170.2(e)6 (See Table I)	+	Per Application 140.7(d)2 / 170.2(e)6 (See Table J)	+	Sales Frontage 140.7(d)2 (See Table K)	+	Ornamental 140.7(d)2 / 170.2(e)6 (See Table L)	+	Per Specific Area 140.7(d)2 / 170.2(e)6 (See Table M)	Existing Power Allowance 141.0(b)2L / 180.2(b)4Bv (See Table N)		**Total Allowed** (Watts)	≥	**Total Actual** (Watts)	**07 must be >= 08**
268	+	---	+	---	+	---	+	---	OR ---	=	268	≥	129	COMPLIES
Shielding Compliance (See Table G for Details)														N/A
Controls Compliance (See Table H for Details)														COMPLIES

D. EXCEPTIONAL CONDITIONS

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

E. ADDITIONAL REMARKS

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

STATE OF CALIFORNIA
Outdoor Lighting CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE	NRCC-LTO-E
Project Name: PUSD - Paradise Ridge Elementary School	**Report Page:** (Page 3 of 7)
	Date Prepared: 2/15/2024

F. OUTDOOR LIGHTING FIXTURE SCHEDULE

For new or altered lighting systems demonstrating compliance with 140.7 / 170.2(e)6 all new luminaires being installed and any existing luminaires remaining or being moved within the spaces covered by the permit application are included in the Table below. For altered lighting systems using the Existing Power method per 141.0(b)2I, only new luminaires being installed and replacement luminaires being installed as part of the project scope are included (ie, existing luminaires remaining or existing luminaires being moved are not included). Outdoor lighting attached to multifamily buildings and controlled from the inside of a dwelling unit are included in Table H. and are not included here. All other multifamily outdoor lighting is included here.

Designed Wattage:

01	02		03	04	05	06	07	08	09	10	
Name or Item Tag	Complete Luminaire Description		Watts per luminaire[1,2]	How is Wattage determined	Total Number Luminaires[3]	Luminaire Status[3]	Excluded per 140.7(a) / 170.2(e)6A	Design Watts	Cutoff Req. > 6,200 initial lumen output 130.2(b) / 160.5(c)1[4]	Field Inspector	
										Pass	Fail
F1	Flood Light	☐ Linear	129	Mfr. Spec	1	New	☐	129	NA: < 6200 lumens	☐	☐
							Total Design Watts:	129			

* NOTES: Selections with a * require a note in the space below explaining how compliance is achieved.
EX: Luminaire is lighting a statue; EXCEPTION 2 to 130.2(b)

[1] *FOOTNOTES: Authority Having Jurisdiction may ask for Luminaire cut sheets to confirm wattage used for compliance per 130.0(c) / 160.5(b)*
[2] *For linear luminaires, wattage should be indicated as W/lf instead of Watts/luminaire. Total linear feet should be indicated in column 05 instead of number of luminaires.*
[3] *Select "New" for new luminaires in a new outdoor lighting project, or for added luminaires in an alteration. Select "Altered" for replacement luminaires in an alteration. Select "Existing to Remain" for existing luminaires within the project scope that are not being altered and are remaining. Select "Existing Reinstalled" for existing luminaires which are being removed and reinstalled as part of the project scope.*
[4] *Compliance with mandatory shielding requirements is required for luminaires with initial lumen output >= 6,200 unless exempted by 130.2(b)/ 160.5(c)*

G. SHIELDING REQUIREMENTS (BUG)

This section does not apply to this project.

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	Eduardo G Pena

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REVISION HISTORY

NO.	REMARKS	DATE

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DATE
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○ BIDDING
○ CONSTRUCTION

KEY PLAN

PARADISE UNIFIED SCHOOL DISTRICT
6696 CLARK ROAD
PARADISE, CA 95969

PROJECT STATUS

PARADISE RIDGE ELEMENTARY SCHOOL
PORTABLES
6593 PENTZ ROAD PARADISE, CA 95969

EXTERIOR TITLE 24

Date	Project Number
MM/DD/YYYY	20016
Application Number	Drawing Number
XX-XXXXXX	E0.02
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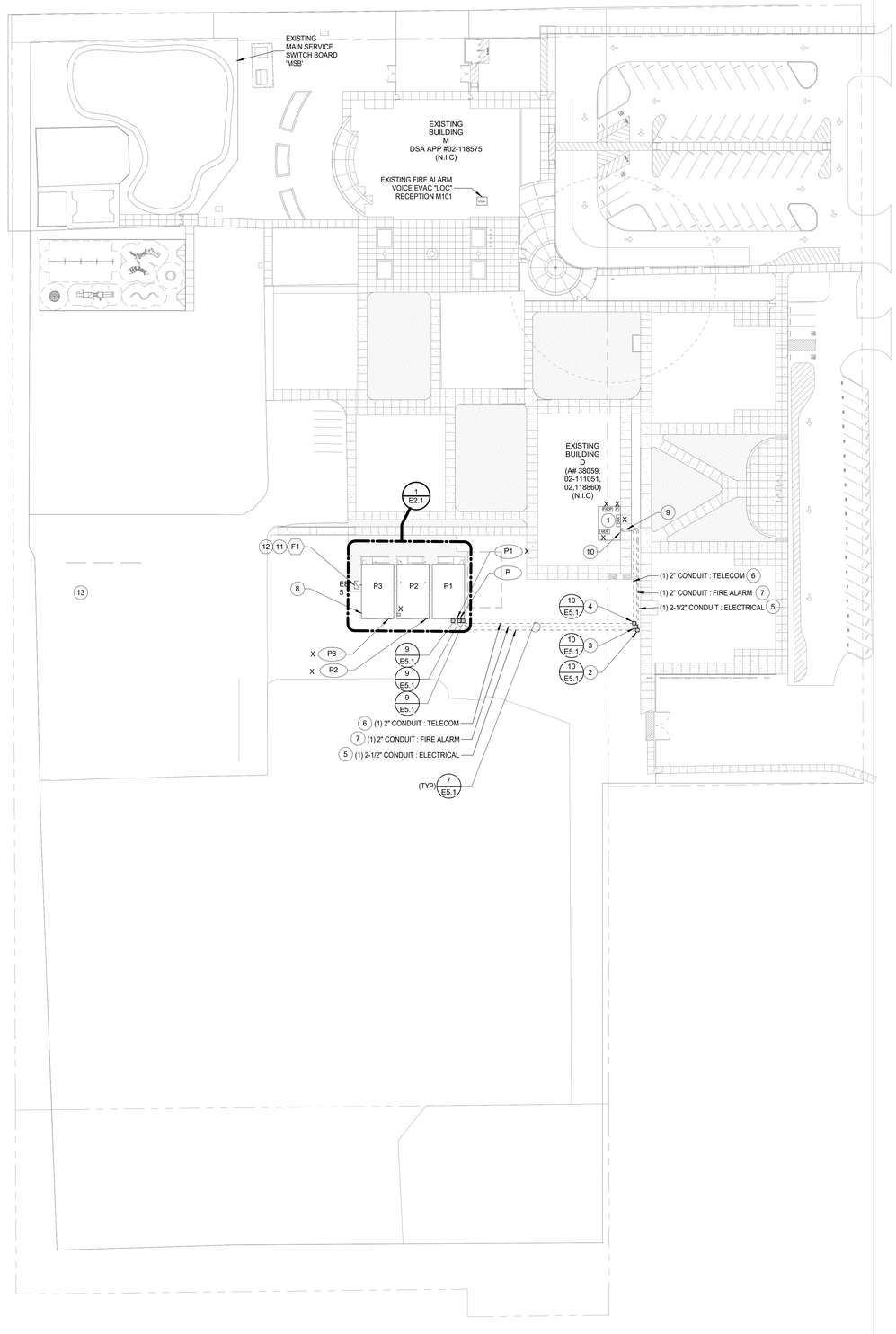
LIGHTING FIXTURE SCHEDULE								
FIXT DES	LAMP TYPE	FIXTURE MOUNTING	LAMP DESC	WATTS	VOLTS	MANUFACTURER	MODEL	DESCRIPTION
F1	LED	SURFACE	LED 4000K	129.00 W	120 V	LITHONIA LIGHTING		LED WALL MOUNTED FLOODLIGHT FIXTURE WITH FLAT LENS, TYPE III DISTRIBUTION, INTEGRAL DRIVER, PHOTOCELL AND LISTED FOR WET LOCATIONS.
F1	LED	SURFACE	LED 4000K	129.00 W	120 V	LITHONIA LIGHTING		LED WALL MOUNTED FLOODLIGHT FIXTURE WITH FLAT LENS, TYPE III DISTRIBUTION, INTEGRAL DRIVER, PHOTOCELL AND LISTED FOR WET LOCATIONS.

LIGHTING FIXTURE NOTES:

1. PROVIDE SPECIFIED LIGHTING MANUFACTURER FOR EACH LIGHT FIXTURE. ANY SUBSTITUTIONS SHALL MEET OR EXCEED THE SPECIFICATIONS OF THE LISTED MANUFACTURERS CATALOG NUMBER. SUBSTITUTIONS MUST BE APPROVED BY ARCHITECT.



1 **ELECTRICAL SITE PLAN**
Scale: 1" = 40'-0"

GENERAL NOTES

A. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND COORDINATE WITH ALL OTHER TRADES. IN CASE OF DISCREPANCIES OR ANY POTENTIAL CONFLICTS, INFORM THE ARCHITECT AND ENGINEER IN WRITING PRIOR TO START OF WORK.

ELECTRICAL KEYED NOTES

1	EXISTING STORAGE ROOM D101. FIELD VERIFY EXACT LOCATION.
2	ELECTRICAL PULLBOX, 24" X 36" LONG X 30" DEEP CONCRETE PULLBOX.
3	FIRE ALARM PULLBOX, 24" X 36" LONG X 30" DEEP CONCRETE PULLBOX.
4	TELECOMM PULLBOX, 24" X 36" LONG X 30" DEEP CONCRETE PULLBOX.
5	SEE SINGLE LINE DIAGRAM SHEET E4.1 FOR ELECTRICAL FEEDERS.
6	PROVIDE SINGLE MODE 6 STRANDS FIBER FROM EXISTING MDF TO EXISTING IDF IN PORTABLE P1. COORDINATE WITH ARCHITECT AND FIELD VERIFY FOR EACH LOCATION PRIOR TO START OF WORK.
7	PROVIDE #14 AWG OUTSIDE RATED FIRE ALARM COMMUNICATION SIGNALING CABLE AND FIBER OPTIOC CABLE FOR VOICE EVAC.
8	EXISTING WALL MOUNTED IDF CLOSET ROUTE ALL DATA CAT6 CABLES TO THIS IDF FOR ALL INTERIM HOUSING NETWORK.
9	SAW CUT EXISTING PAVEMENT FOR REQUIRED TRENCHING.
10	STUB NEW CONDUIT THROUGH EXISTING BUILDING.
11	ROOF MOUNTED FLOODLIGHT FOR SAFE DISPERSAL AREA.
12	ROUTE FIXTURE THROUGH TIMECLOCK AND CONNECT TO PANEL P-3 CIRCUIT 5.
13	SAFE DISPERSAL AREA. REFER TO ARCHITECT DRAWINGS.

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KEY PLAN

PARADISE UNIFIED SCHOOL DISTRICT
6696 CLARK ROAD
PARADISE, CA 95969

PROJECT STATUS

PARADISE RIDGE ELEMENTARY SCHOOL
PORTABLES
6593 PENTZ ROAD PARADISE, CA 95969

ELECTRICAL OVERALL SITE PLAN

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Application Number	Drawing Number
XX-XXXXXX	E1.1
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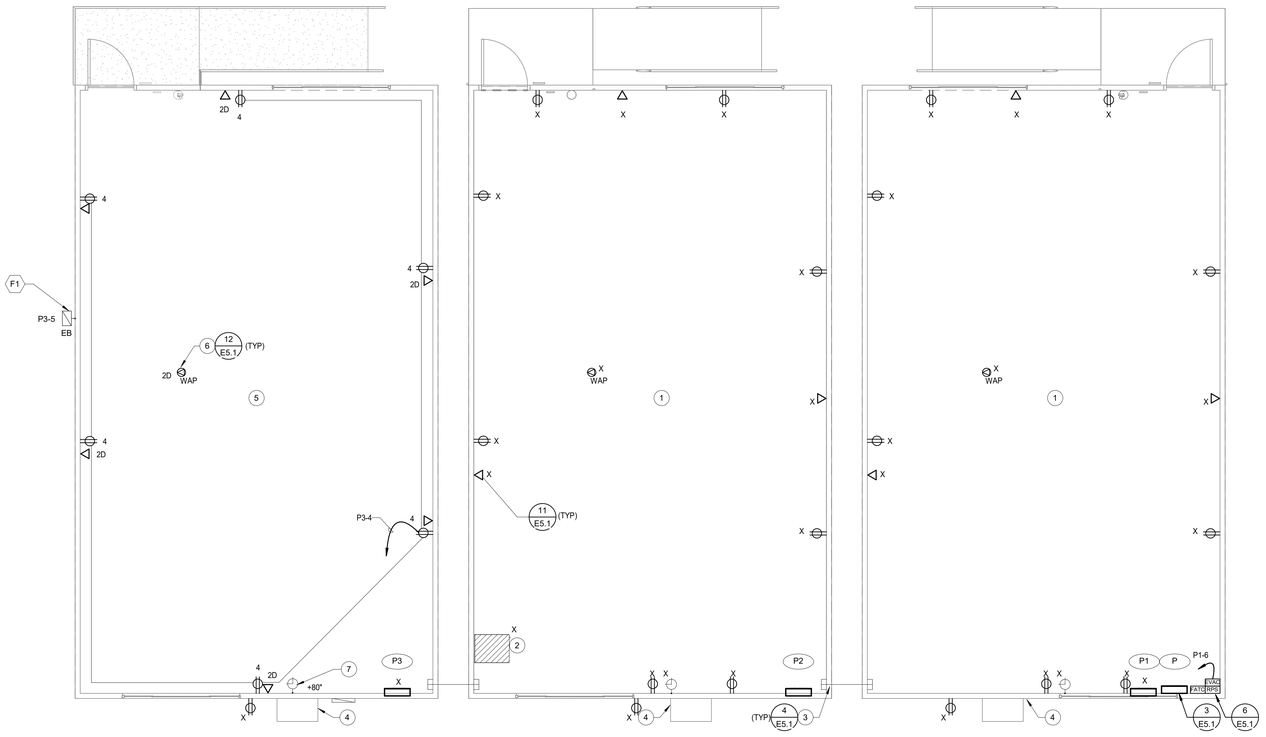

1 **Electrical Enlarged Power Plan**
Scale: 1/4" = 1'-0"

ELECTRICAL KEYED NOTES

1	ALL LIGHTING FIXTURES AND RECEPTACLE ARE EXISTING TO REMAIN.UNLESS OTHERWISE NOTED.
2	EXISTING WALL MOUNTED IDF CLOSET ROUTE ALL DATA CAT6 CABLES TO THIS IDF FOR ALL INTERIM HOUSING NETWORK.
3	PROVIDE (1) 2" CONDUIT FIRE ALARM. (1) 2-1/4" CONDUIT FOR DATA BETWEEN RELOS.
4	ALL EXISTING CONDUIT, WALL MOUNTED BOXES, STROBES, LIGHT ETC TO BE REMOVED AND REINSTALLED AFTER FIRE RESISTANT SIDING HAS BEEN INSTALLED.
5	DISCONNECT AND REMOVE ALL EXISTING WIRING DEVICES AND ASSOCIATED CONDUCTORS AND CONDUITS UP TO THE POINT OF SOURCE.ALL LIGHTING FIXTURES TO REMAIN.
6	CEILING MOUNTED WIRELESS ACCESS POINT. COORDINATE WITH THE DISTRICT IT FOR EXACT LOACTION AND CABLING TYPE.
7	CLOCK/PAGING COMBO PROVIDE 120V AND DATA DROP. MATCH EXISTING.

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KEY PLAN

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6696 CLARK ROAD
PARADISE, CA 95969

PROJECT STATUS

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PORTABLES
6593 PENTZ ROAD PARADISE, CA 95969

ELECTRICAL ENLARGED SITE PLAN

Date	Project Number
MM/DD/YYYY	20016
Application Number	Drawing Number
XX-XXXXXX	E2.1
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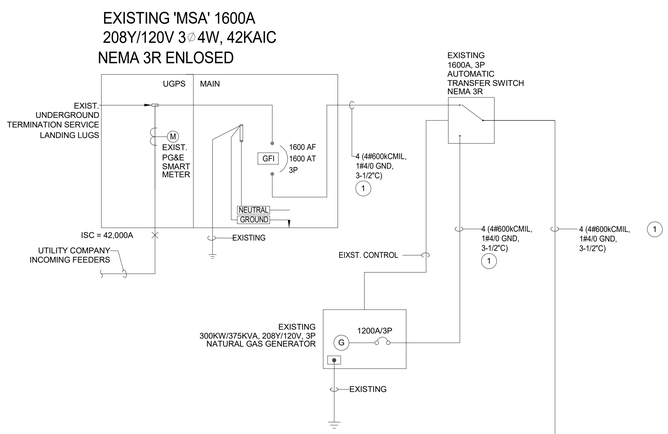

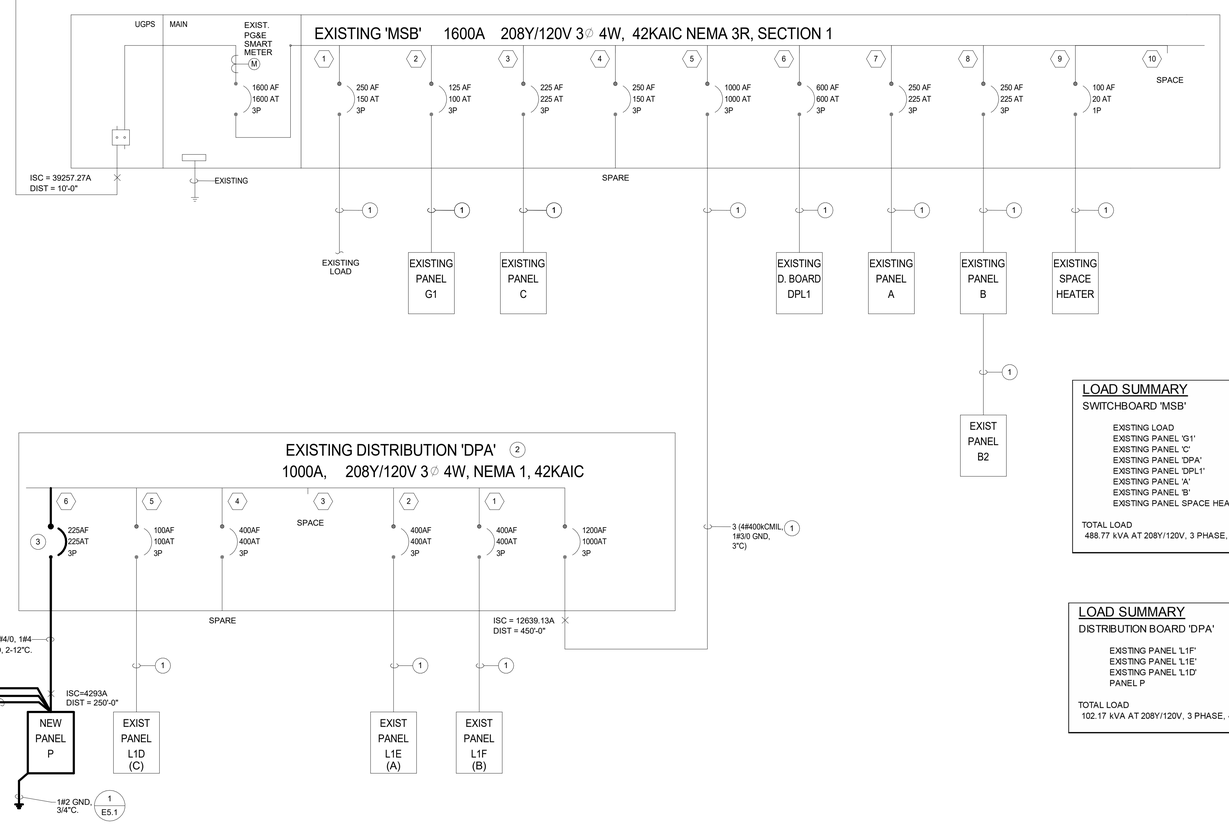

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B. ALL WORK SHOWN LIGHT IS EXISTING AND ALL WORK SHOWN DARK IS NEW UNLESS OTHERWISE NOTED.

C. ALL NEW CONDUCTORS SHALL BE COPPER UNLESS NOTED OTHERWISE.

KEY NOTES

1. EXISTING FEEDERS TO REMAIN.
2. EXISTING DISTRIBUTION BOARD WITH REVISED LOAD.
3. PROVIDE NEW CIRCUIT BREAKER IN EXISTING SPACE OF SAME TYPE, STYLE AND AIC RATING AS THE EXISTING CIRCUIT BREAKERS. PROVIDE MOUNTING HARDWARE AS REQUIRED.

LOAD SUMMARY
SWITCHBOARD 'MSB'

EXISTING LOAD	=	32.00 kVA
EXISTING PANEL 'G1'	=	21.60 kVA
EXISTING PANEL 'C'	=	58.60 kVA
EXISTING PANEL 'DPA'	=	102.17 kVA
EXISTING PANEL 'DPL1'	=	167.00 kVA
EXISTING PANEL 'A'	=	53.40 kVA
EXISTING PANEL 'B'	=	53.00 kVA
EXISTING PANEL SPACE HEATER	=	1.00 kVA
TOTAL LOAD		488.77 kVA
488.77 kVA AT 208Y/120V, 3 PHASE, 4 WIRE		1356.69 AMPS

LOAD SUMMARY
DISTRIBUTION BOARD 'DPA'

EXISTING PANEL 'L1F'	=	25.00 kVA
EXISTING PANEL 'L1E'	=	25.00 kVA
EXISTING PANEL 'L1D'	=	27.00 kVA
PANEL P	=	25.17 kVA
TOTAL LOAD		102.17 kVA
102.17 kVA AT 208Y/120V, 3 PHASE, 4 WIRE		283.59 AMPS

1 SLD E4.1
Scale: NO SCALE

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KEY PLAN

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6696 CLARK ROAD
PARADISE, CA 95969

PROJECT STATUS

PARADISE RIDGE ELEMENTARY SCHOOL
PORTABLES
6593 PENTZ ROAD PARADISE, CA 95969

SINGLE LINE DIAGRAM

Date	Project Number
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PANEL: P (NEW)	LOCATION: SEE PLANS	MAIN: 225A/3P	BUS: 225A NEMA 1
VOLTAGE: 208 / 120	AIC RATING: 10000	FEED: BOTTOM	MTG: SURFACE
PHASE: 3	CIRCUIT CODE:		
WIRE: 4	blank=NON-CONTINUOUS, N=NON-COINCIDENTAL, L=LONG CONTINUOUS, R=RECEPT (NEC ART. 220-44), K=KITCHEN		

NOTE	DESCRIPTION	CODE	BKR	P	#	VA	PHASE	VA	#	P	BKR	CODE	DESCRIPTION	NOTE
	PANEL P1		100	2	1	4420	A		2	2	100		SPARE	
	-				3	4200	B		4				-	
	PANEL P2		100	2	5	3920	C		6	2	100		SPARE	
	-				7	4200	A		8				-	
	PANEL P3		100	2	9	3920	B		10				SPACE	
	-				11	4280	C		12				SPACE	
	SPACE				13		A		14				SPACE	
	SPACE				15		B		16				SPACE	
	SPACE				17		C		18				SPACE	
	SPACE				19		A		20				SPACE	
	SPACE				21		B		22				SPACE	

CONNECTED VA Ø A	8620	CONNECTED VA ( )	24940	PANEL CONN. AMPS WITH LCL	69.23	PANEL DEMAND KVA WITH LCL	24.94
CONNECTED VA Ø B	8120	CONNECTED VA (L)	0	CONNECTED VA WITH LCL (L)	0	PANEL DEMAND AMPS WITH LCL	69.23
CONNECTED VA Ø C	8200	CONNECTED VA (R)	0	DEMAND VA (R)	0	PANEL CONNECTED AMPS	69.23
TOTAL VA	24940	CONNECTED VA (K)	0	DEMAND VA (K)	0	DEMAND HIGH Ø AMPS WITH LCL	71.78

1	6	SPECIAL NOTES:	
2	7		
3	8		
4	9		
5	10		

PANEL: P1 (EXISTING)	LOCATION: SEE PLANS	MAIN: 100A/2P	BUS: 125A NEMA 1
VOLTAGE: 208 / 120	AIC RATING: 10000	FEED: BOTTOM	MTG: RECESSED
PHASE: 1	CIRCUIT CODE:		
WIRE: 3	blank or N=NON-CONTINUOUS, L=LONG CONTINUOUS, R=RECEPT (NEC ART. 220-3), K=KITCHEN		

NOTE	DESCRIPTION	CODE	BKR	P	#	VA	PHASE	VA	#	P	BKR	CODE	DESCRIPTION	NOTE
1	HP		50	2	1	3200	A	720	2	1	20	L	EXIST. LIGHTS	1
	-				3	3200	B	900	4	1	20		EXIST. REC	1
	SPARE		20	1	5		A	500	6	1	20		FACP	2,3,4
1	OUTSIDE LIGHT		20	1	7	100	B		8	1	20		SPACE	
	SPACE				9		A		10				SPACE	
	SPACE				11		B		12				SPACE	

CONNECTED VA Ø A	4420	CONNECTED VA (N)	7900	PANEL CONN. AMPS WITH LCL	42.31	PANEL DEMAND KVA WITH LCL	8.80
CONNECTED VA Ø B	4200	CONNECTED VA (L)	720	CONNECTED VA WITH LCL (L)	900	PANEL DEMAND AMPS WITH LCL	42.31
		CONNECTED VA (R)	0	DEMAND VA (R)	0	PANEL CONNECTED AMPS	41.44
TOTAL VA	8620	CONNECTED VA (K)	0	DEMAND VA (K)	0	HIGH Ø AMPS WITH LCL	36.83

1	EXISTING LOAD TO REMAIN	5	SPECIAL NOTES:
2	PROVIDE NEW CIRCUIT BREAKER IN EXISTING SPACE OF SAME TYPE, STYLE AND AIC RATING AS EXISTING	6	
		7	
3	PROVIDE RED HANDLE CIRCUIT BREAKER FOR F/A	8	
4	PROVIDE CIRCUIT BREAKER LOCK-ON DEVICE	9	

PANEL: P2 (EXISTING)	LOCATION: SEE PLANS	MAIN: 100A/2P	BUS: 125A NEMA 1
VOLTAGE: 208 / 120	AIC RATING: 10000	FEED: BOTTOM	MTG: RECESSED
PHASE: 1	CIRCUIT CODE:		
WIRE: 3	blank or N=NON-CONTINUOUS, L=LONG CONTINUOUS, R=RECEPT (NEC ART. 220-3), K=KITCHEN		

NOTE	DESCRIPTION	CODE	BKR	P	#	VA	PHASE	VA	#	P	BKR	CODE	DESCRIPTION	NOTE
1	HP		50	2	1	3200	A	720	2	1	20	L	EXIST. LIGHTS	1
	-				3	3200	B	900	4	1	20		EXIST. REC	1
	SPARE		20	1	5		A		6		20		SPACE	
1	OUTSIDE LIGHT		20	1	7	100	B		8				SPACE	
	SPACE				9		A		10				SPACE	
	SPACE				11		B		12				SPACE	

CONNECTED VA Ø A	3920	CONNECTED VA (N)	7400	PANEL CONN. AMPS WITH LCL	39.90	PANEL DEMAND KVA WITH LCL	8.30
CONNECTED VA Ø B	4200	CONNECTED VA (L)	720	CONNECTED VA WITH LCL (L)	900	PANEL DEMAND AMPS WITH LCL	39.90
		CONNECTED VA (R)	0	DEMAND VA (R)	0	PANEL CONNECTED AMPS	39.04
TOTAL VA	8120	CONNECTED VA (K)	0	DEMAND VA (K)	0	HIGH Ø AMPS WITH LCL	35.00

1	EXISTING LOAD TO REMAIN	6	SPECIAL NOTES:
2		7	
3		8	
4		9	
5		10	

PANEL: P3 (EXISTING)	LOCATION: SEE PLANS	MAIN: 100A/2P	BUS: 125A NEMA 1
VOLTAGE: 208 / 120	AIC RATING: 10000	FEED: BOTTOM	MTG: RECESSED
PHASE: 1	CIRCUIT CODE:		
WIRE: 3	blank or N=NON-CONTINUOUS, L=LONG CONTINUOUS, R=RECEPT (NEC ART. 220-3), K=KITCHEN		

NOTE	DESCRIPTION	CODE	BKR	P	#	VA	PHASE	VA	#	P	BKR	CODE	DESCRIPTION	NOTE
1	HP		50	2	1	3200	A	720	2	1	20	L	EXIST. LIGHTS	1
	-				3	3200	B	1080	4	1	20	R	RECEPTACLES	2
	EXTERIOR LIGHT	L	20	1	5	129	A		6				SPACE	
1	OUTSIDE LIGHT	L	20	1	7	100	B		8				SPACE	
	SPACE				9		A		10				SPACE	
	SPACE				11		B		12				SPACE	

CONNECTED VA Ø A	4049	CONNECTED VA (N)	6400	PANEL CONN. AMPS WITH LCL	41.66	PANEL DEMAND KVA WITH LCL	8.67
CONNECTED VA Ø B	4380	CONNECTED VA (L)	949	CONNECTED VA WITH LCL (L)	1186	PANEL DEMAND AMPS WITH LCL	41.66
		CONNECTED VA (R)	1080	DEMAND VA (R)	1080	PANEL CONNECTED AMPS	40.52
TOTAL VA	8429	CONNECTED VA (K)	0	DEMAND VA (K)	0	HIGH Ø AMPS WITH LCL	36.71

1	EXISTING LOAD TO REMAIN	6	SPECIAL NOTES:
2	EXISTING CIRCUIT BREAKER WITH REVISED LOAD	7	
3		8	
4		9	
5		10	

–	P	P1
–	–	P2
–	–	P3

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APP: 02-122123 INC:
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SS ☑ FLS ☑ ACS ☑
DATE: 3/21/2024

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Salas O'Brien
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3220 Executive Ridge, Suite 210
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ARCHITECT	ENGINEER
	REGISTERED PROFESSIONAL ENGINEER Eduardo A. Ramos No. 82525 ELECTRICAL STATE OF CALIFORNIA

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REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

DATE
- ○ DSA PLAN CHECK
- ○ DSA BACK CHECK
- ○ BIDDING
- ○ CONSTRUCTION

KEY PLAN

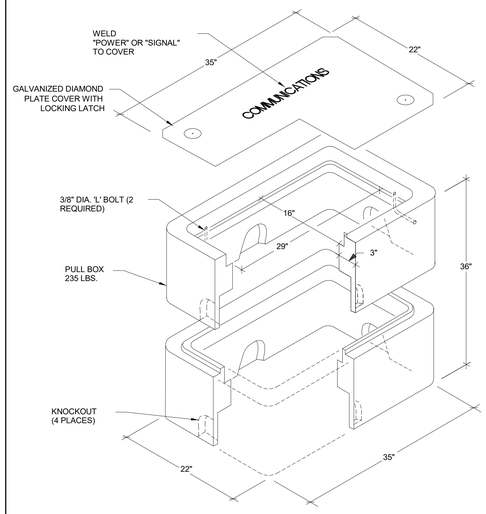
PARADISE UNIFIED SCHOOL DISTRICT
6696 CLARK ROAD
PARADISE, CA 95969

PROJECT STATUS

PARADISE RIDGE ELEMENTARY SCHOOL
PORTABLES
6593 PENTZ ROAD PARADISE, CA 95969

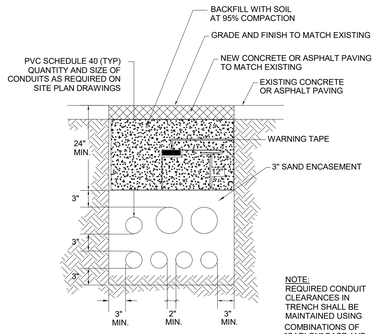
PANEL SCHEDULES

Date	Project Number
MM/DD/YYYY	20016
Application Number	Drawing Number
XX-XXXXXX	E4.2
Drawn / Author	Checked / Checker



UNDERGROUND HANDHOLE

SCALE: NONE | 10

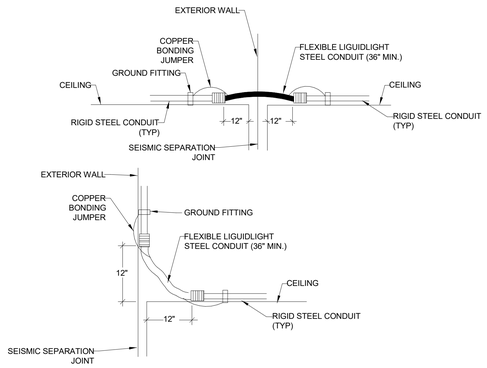


NOTE: 1. CONTRACTOR SHALL MAINTAIN A 12" SEPARATION BETWEEN POWER AND SIGNAL CONDUITS.

NOTE: REQUIRED CONDUIT CLEARANCES IN TRENCH SHALL BE MAINTAINED USING COMBINATIONS OF "CARLON" BASE AND INTERMEDIATE SPACERS OR EQUIVALENT.

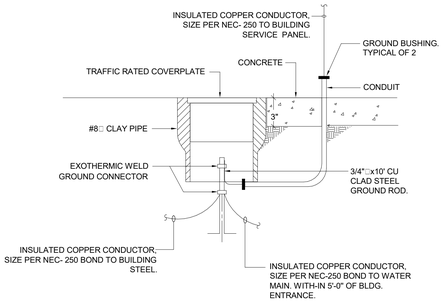
UNDERGROUND TRENCHING DETAIL

SCALE: NONE | 7



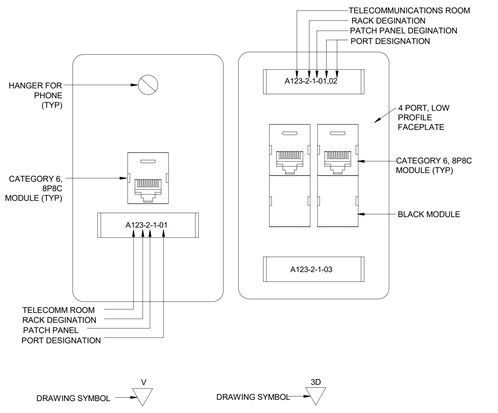
CONDUIT SEISMIC SEPARATION JOINT

SCALE: NONE | 4



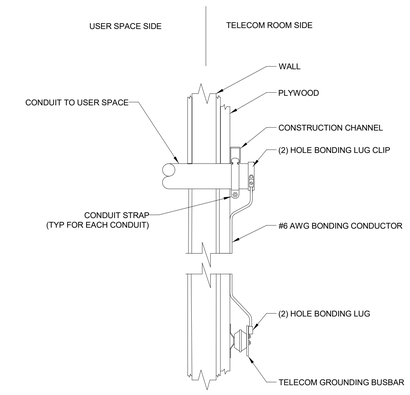
RELO GROUNDING DETAIL

SCALE: NONE | 1



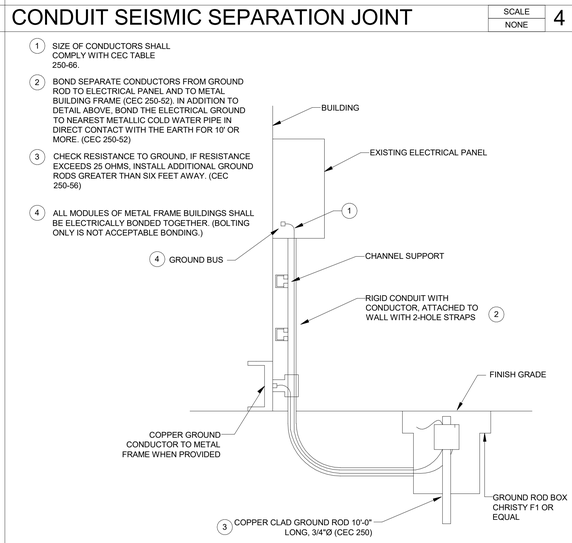
TELECOM FACEPLATES

SCALE: NONE | 11



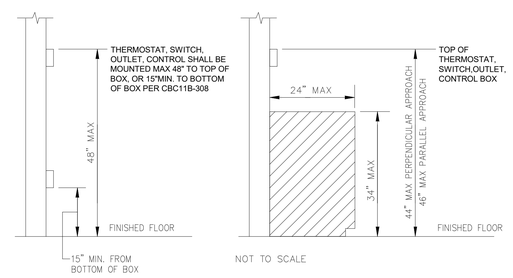
CONDUIT GROUNDING DETAIL

SCALE: NONE | 8



TYPICAL GROUND INSTALLATION

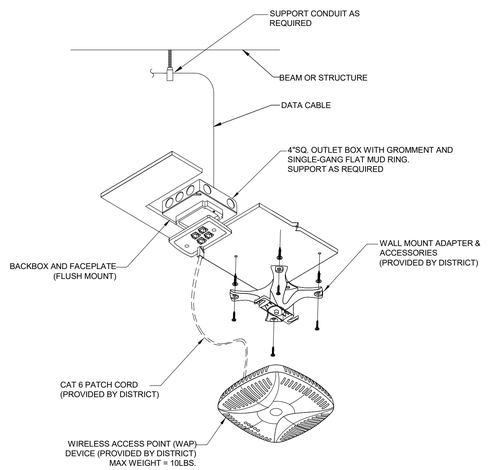
SCALE: NONE | 5



*PROVIDE MINIMUM 30"X48" CLEAR FLOOR SPACE FOR PERPENDICULAR APPROACH AT EACH CONTROL OR DEVICE.

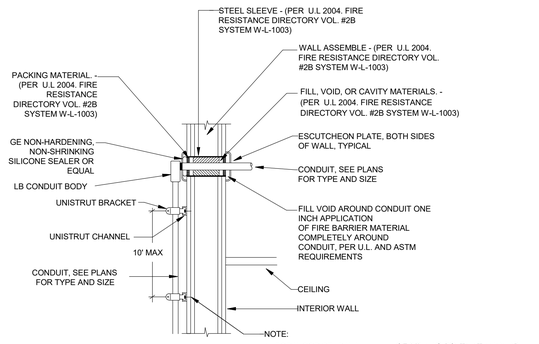
ADA MOUNTING DETAIL

SCALE: NONE | 2



CEILING MOUNT (WAP) DETAIL

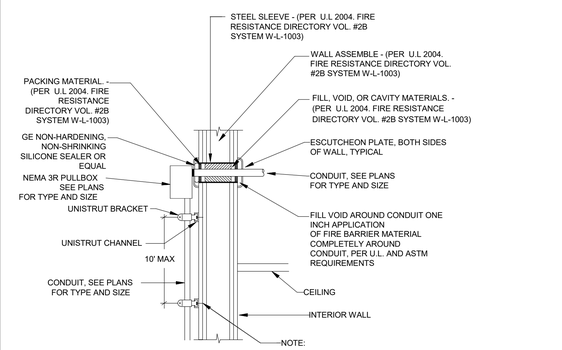
SCALE: NONE | 12



NOTE:
1. FOR WOOD STUD WALL: USE 3/8" LAG BOLT WITH MIN. 4D EMBEDMENT INTO STUDS. (ONE AT EACH END OF UNISTRUT CHANNEL)
2. FOR CONCRETE WALL: USE 3/8" WEDGE ANCHOR WITH MIN. 2 1/2" EMBEDMENT INTO CONCRETE WALL. (ONE AT EACH END OF UNISTRUT CHANNEL).

CONDUIT EXT. WALL PENETRATION

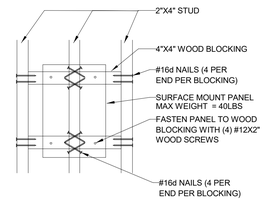
SCALE: NONE | 9



NOTE:
1. FOR WOOD STUD WALL: USE 3/8" LAG BOLT WITH MIN. 4D EMBEDMENT INTO STUDS. (ONE AT EACH END OF UNISTRUT CHANNEL)
2. FOR CONCRETE WALL: USE 3/8" WEDGE ANCHOR WITH MIN. 2 1/2" EMBEDMENT INTO CONCRETE WALL. (ONE AT EACH END OF UNISTRUT CHANNEL).

PULLBOX EXT. WALL PENETRATION

SCALE: NONE | 6



SURFACE MOUNTED PANEL

SCALE: NONE | 3

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ARCHITECT	ENGINEER
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ELEMENTARY SCHOOL
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6593 PENTZ ROAD PARADISE, CA
95969

ELECTRICAL DETAILS

Date	Project Number
MM/DD/YYYY	20016
Application Number	Drawing Number
XX-XXXXXX	E5.1
Drawn / Author	Checked / Checker

PRINT DATE: 2/5/2024 11:38:47 AM
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PART 1 - GENERAL CONDITIONS

1.01 SUMMARY

A. WORK INCLUDED: ALL LABOR, MATERIALS, APPLIANCES, TOOLS, EQUIPMENT, FACILITIES, TRANSPORTATION AND SERVICES NECESSARY FOR AND INCIDENTAL TO PERFORMING ALL OPERATIONS IN CONNECTION WITH FURNISHING, DELIVERY AND INSTALLATION OF THE WORK OF THIS DIVISION, COMPLETE, AS SHOWN ON THE DRAWINGS AND/OR SPECIFIED HEREIN. THE WORK INCLUDES, BUT IS NOT LIMITED TO:

1. EXAMINE ALL DIVISIONS FOR RELATED WORK REQUIRED TO BE INCLUDED AS WORK UNDER THIS DIVISION.

2. GENERAL PROVISIONS AND REQUIREMENTS FOR ELECTRICAL WORK.

1.02 REFERENCES

A. DRAWINGS AND GENERAL PROVISIONS OF THE CONTRACT, INCLUDING GENERAL AND SUPPLEMENTARY CONDITIONS AND DIVISION 01, APPLY TO THESE SPECIFICATIONS.

B. IN ADDITION, THE PRODUCTS COVERED IN THIS SPECIFICATION, EXCEPT AS NOTED, SHALL BE DESIGNED, MANUFACTURED, AND TESTED IN ACCORDANCE WITH THE LATEST REVISIONS OF THE APPLICABLE STANDARDS OF:

1. ANS - AMERICAN NATIONAL STANDARDS INSTITUTE
2. ASTM - AMERICAN SOCIETY FOR TESTING AND MATERIALS
3. IEEE - INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
4. NEC - NATIONAL ELECTRICAL CODE (NFPA 70)
5. NECA - NATIONAL ELECTRICAL CONTRACTORS ASSOCIATION: "STANDARD OF INSTALLATION"
6. NEMA - NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
7. NFPA - NATIONAL FIRE PROTECTION ASSOCIATION
8. UL - UNDERWRITERS LABORATORIES, INC.

1.03 SUBMITTALS (ADDITIONAL REQUIREMENTS)

A. GENERAL: SUBMIT THE FOLLOWING IN ACCORDANCE WITH THE CONDITIONS OF THE CONTRACT AND DIVISION 01 SPECIFICATION SECTIONS, AND THESE SPECIFICATIONS.

B. PRODUCT DATA: SUBMIT PRODUCT DATA FOR EACH TYPE OF PRODUCT SPECIFIED.

C. SHOP DRAWINGS: SUBMIT SHOP DRAWINGS FOR THE FOLLOWING:

1. PANELBOARDS.

1.04 QUALITY ASSURANCE

A. QUALIFICATIONS OF MANUFACTURER: COMPANY SPECIALIZING IN MANUFACTURING PRODUCTS SPECIFIED IN THESE SPECIFICATIONS WITH MINIMUM FIVE YEARS DOCUMENTED EXPEREINCE.

B. ELECTRICAL COMPONENT STANDARD: COMPONENTS AND INSTALLATION SHALL COMPLY WITH NFPA 70, "NATIONAL ELECTRICAL CODE."

C. NEMA AND UL COMPLIANCE: PRODUCTS SHALL COMPLY WITH APPLICABLE REQUIREMENTS OF NEMA AND UL STANDARDS. PROVIDE PRODUCTS AND COMPONENTS LISTED AND LABELED BY UL.

D. NECA INSTALLATION STANDARDS: PERFORM WORK IN ACCORDANCE WITH NECA "STANDARD OF INSTALLATION."

E. SOURCE QUALITY CONTROL: QUALITY CONTROL TESTING SHALL MEET APPLICABLE UNDERWRITERS' LABORATORIES INC. STANDARDS.

F. ELECTRICAL CONTRACTOR SHALL PERFORM ALL WORK IN STRICT ACCORDANCE WITH ALL LOCAL, STATE, AND NATIONAL GOVERNING CODES.

1.05 DELIVERY, STORAGE AND HANDLING

A. GENERAL: DELIVER, STORE, PROTECT, AND HANDLE PRODUCTS TO THE SITE IN ACCORDANCE WITH THE GENERAL AND SUPPLEMENTARY CONDITIONS, DIVISION 01 SPECIFICATION SECTIONS, AND THESE SPECIFICATIONS.

B. STORE AND PROTECT PRODUCT IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS, AND IN A MANNER TO PREVENT DAMAGE FROM THE ELEMENTS, PERSONNEL, EQUIPMENT, AND MOISTURE.

1.06 PROJECT CONDITIONS OR SITE CONDITIONS

A. VERIFY THAT FIELD MEASUREMENTS ARE AS SHOWN PRIOR TO COMMENCING THE WORK.

PART 2 - PRODUCTS

2.01 MATERIALS AND EQUIPMENT

A. MATERIALS, EQUIPMENT, AND DEVICES SHALL, AS A MINIMUM, MEET REQUIREMENTS OF UL, WHERE UL STANDARDS ARE ESTABLISHED FOR THOSE ITEMS, AND REQUIREMENTS OF NFPA 70.

2.02 RACEWAYS

A. METAL CONDUIT AND TUBING:

1. RIGID METAL CONDUIT: STEEL, HOT-DIPPED GALVANIZED INCLUDING THE THREADS, WITH AN OUTER COATING OF ZINC BICHROMATE, COMPLETE WITH ONE COUPLING AND ONE END THREAD PROTECTOR, MANUFACTURED IN ACCORDANCE WITH ANSI C80.1 AND UL 6. FITTINGS: THREADED, HOT-DIPPED GALVANIZED, MANUFACTURED IN ACCORDANCE WITH ANSI C80.4.

a. WHERE INDICATED, PROVIDE GALVANIZED RIGID STEEL CONDUIT AND FITTINGS WITH POLYVINYL CHLORIDE (PVC) COATING OF NOMINAL .020 INCH (20 MIL) THICKNESS CONFORMING TO NEMA RN-1, TYPE A, ROBROY INDUSTRIES, OR EQUAL.

2. INTERMEDIATE METAL CONDUIT: HOT-DIPPED GALVANIZED STEEL INCLUDING THE THREADS, MANUFACTURED IN ACCORDANCE WITH UL 1242.

3. ELECTRICAL METALLIC TUBING: WELDED, ELECTRO-GALVANIZED THIN WALL STEEL TUBING, MANUFACTURED IN ACCORDANCE WITH ANSI C80.3 AND UL 797. MAXIMUM SIZE: 2". FITTINGS: COMPRESSION TYPE (INDENTER OR SETSCREW TYPE NOT ALLOWED); GLAND COMPRESSION TYPE, ZINC PLATED STEEL BODY, CADMIUM PLATED MALLEABLE IRON NUT, O-Z/GEDNEY.

4. FLEXIBLE METAL CONDUIT: HOT-DIPPED GALVANIZED STEEL INTERLOCKING, SINGLE STRIP TYPE MANUFACTURED IN ACCORDANCE WITH UL1, CONNECTORS: SQUEEZE TYPE, MALLEABLE IRON, CADMIUM PLATED, STRAIGHT AND ANGLE CONNECTORS FOR ALL SIZES AND TWIST-IN CONNECTORS FOR 1/2" AND 3/4" FLEXIBLE METAL CONDUIT.

5. LIQUIDTIGHT FLEXIBLE CONDUIT: HOT-DIPPED GALVANIZED STEEL STRIP CORE WITH EXTRUDED LIQUID-TIGHT POLYVINYL JACKET. USE O-Z/GEDNEY TYPE UAG, OR EQUAL. LIQUID-TIGHT FITTINGS. ANSI/NEMA FB 1. CONNECTORS: CADMIUM PLATED MALLEABLE IRON BODY AND NUT, CADMIUM PLATED STEEL FERRULE, INSULATED THROAT, INTEGRAL CAST EXTERNAL GROUND LUG, O-Z/GEDNEY.

B. NONMETALLIC CONDUITS:

1. RIGID NONMETALLIC CONDUIT: NEMA TC 2 AND UL 651, SCHEDULE 40. POLYVINYL CHLORIDE (PVC) HEAVY-WALL CONDUIT, WITH TAPERED SLEEVE COUPLINGS, RATED AND LABELED FOR USE WITH 90°C RATED CONDUCTORS, MANUFACTURED IN ACCORDANCE WITH ANSI C33.91. FITTINGS: NEMA TC-3, CEMENTED TYPE, FROM THE SAME MANUFACTURER AS THE CONDUIT.

2. PVC AND ABS PLASTIC FITTINGS: NEMA TC 9-1. MATCH TO CONDUIT TYPE AND MATERIAL.

3. CONDUIT, TUBING, AND DUCT ACCESSORIES: TYPES, SIZES, AND MATERIALS COMPLYING WITH MANUFACTURER'S PUBLISHED PRODUCT INFORMATION. MATE AND MATCH ACCESSORIES WITH RACEWAY.

C. CONDUIT BODIES: PROVIDE TYPES, SHAPES, AND SIZES AS REQUIRED TO SUIT INDIVIDUAL APPLICATIONS AND NEC REQUIREMENTS. PROVIDE MATCHING GASKETED COVERS SECURED WITH CORROSION RESISTANT SCREWS. FOR METALLIC CONDUIT AND TUBING, USE METALLIC CONDUIT BODIES. USE BODIES WITH THREADED HUBS FOR THREADED RACEWAYS.

D. WIREWAYS AND AUXILIARY GUTTERS: PROVIDED ELECTRICAL WIREWAYS AND GUTTERS SHALL BE OF TYPES, SIZES, AND NUMBER OF CHANNELS AS INDICATED. FITTINGS AND ACCESSORIES INCLUDING BUT NOT LIMITED TO COUPLINGS, OFFSETS, ELBOWS, EXPANSION JOINTS, ADAPTERS, HOLD-DOWN STRAPS, AND END CAPS SHALL MATCH AND MATE WITH WIREWAY OR GUTTER AS REQUIRED FOR COMPLETE SYSTEM. WHERE SPECIFICATIONS ARE NOT INDICATED, SELECT TO FULFILL WIRING REQUIREMENTS COMPLING WITH APPLICABLE PROVISIONS OF NEC. USE SHEET STEEL WIREWAYS WITH SCREW-ON COVERS AND CORROSION RESISTANT HARDWARE. FOR DRY LOCATIONS COAT WITH RUST INHIBITOR AND FINISH WITH GRAY BAKED ENAMEL. FOR WET LOCATIONS USE HOT-DIPPED GALVANIZED MATERIAL FINISHED WITH GRAY BAKED ENAMEL, PROVIDE GASKETS FOR COVERS.

E. SURFACE RACEWAY:

1. PROVIDE SIZES AND CHANNELS AS INDICATED. PROVIDE FITTINGS THAT MATCH AND MATE WITH RACEWAY.

2. SURFACE METAL RACEWAY: CONSTRUCT OF GALVANIZED STEEL WITH SNAP-ON COVERS, WITH 1/8" MOUNTING SCREW KNOCKOUTS IN BASE APPROXIMATELY 8" O.C.. FINISH WITH MANUFACTURER'S STANDARD PRIME COATING SUITABLE FOR PAINTING. PROVIDE RACEWAYS OF TYPES SUITABLE FOR EACH APPLICATION REQUIRED. PROVIDED BY HOFFMAN ENGINEERING CO., THE WIREMOLD CO., OR APPROVED EQUAL.

3. SURFACE NONMETALLIC RACEWAY: TWO-PIECE CONSTRUCTION, MANUFACTURED OF RIGID PVC COMPOUND WITH MATTE TEXTURE AND MANUFACTURER'S STANDARD COLOR. RACEWAY AND SYSTEM COMPONENTS SHALL MEET UL 94 REQUIREMENTS FOR NONFLAMMABLE, SELF-EXTINGUISHING CHARACTERISTICS. PROVIDED BY HUBBELL, INC., PANDUIT CORP., THE WIREMOLD CO., OR APPROVED EQUAL.

F. ACCESSORIES:

1. GENERAL: REDUCERS, BUSHINGS, WASHERS, ETC., SHALL BE CADMIUM PLATED MALLEABLE IRON OF THE SHAPE AND DIMENSION BEST SUITED FOR THE APPLICATION.

2. SEALS FOR WALLS AND FLOOR PENETRATIONS: MALLEABLE IRON BODY, OVERSIZE SLEEVE, SEALING RING, PRESSURE CLAMP AND RINGS AND SEALING GROMMET, HEX HEAD CAP SCREWS, O-Z/GEDNEY TYPE FSK, OR EQUAL.

3. FIRE SEALS: HEAT ACTIVATED INTUMESCENT MATERIAL, ELASTOMERIC SEALING RING, SOCKET HEAD CAP SCREWS, STEEL PRESSURE DISCS AND FLANGE, O-Z/GEDNEY TYPE CFSF, NELSON FLAME SEAL, OR EQUAL.

4. END BELLS: HOT-DIPPED GALVANIZED, THREADED MALLEABLE IRON, O-Z/GEDNEY TYPE THS, OR EQUAL.

5. BUSHINGS 1-1/4" AND SMALLER: HIGH-IMPACT THERMO-SETTING PHENOLIC, 150°C, O-Z/GEDNEY TYPE "A", OR EQUAL. BUSHINGS 1-1/2" AND LARGER: HOT-DIPPED GALVANIZED WITH THERMOSETTING PHENOLIC INSULATION, 150°C, O-Z/GEDNEY TYPE "B", OR EQUAL.

6. LOCKNUTS 1-1/2" AND SMALLER: ZINC PLATED HEAVY STOCK STEEL, O-Z/GEDNEY, OR EQUAL. LOCKNUTS 2" AND LARGER: CADMIUM PLATED MALLEABLE IRON, O-Z/GEDNEY, OR EQUAL.

7. HUBS: CADMIUM PLATED MALLEABLE IRON, TAPERED THREADS, NEOPRENE "O" RING, INSULATED THROAT, O-Z/GEDNEY, OR EQUAL.

8. EXPANSION FITTINGS: HOT-DIPPED GALVANIZED MALLEABLE IRON WITH BONDING JUMPERS. LINEAR: O-Z/GEDNEY TYPE AX AND TX, OR EQUAL. LINEAR, WITH DEFLECTION: O-Z/GEDNEY TYPE AXDX, OR EQUAL.

9. ESCUTCHEONS: CHROME PLATED SECTIONAL FLOOR AND CEILING PLATES, CRANE NO. 10, OR EQUAL.

2.03 WIRE AND CABLE

A. PROVIDE WIRE AND CABLE SUITABLE FOR THE TEMPERATURE, CONDITIONS, AND LOCATION WHERE INSTALLED, EXCEPT AS OTHERWISE INDICATED.

1. CONDUCTOR: COPPER. PROVIDE SOLID CONDUCTOR FOR #10 AWG AND SMALLER. PROVIDE STRANDED CONDUCTORS FOR SIZES #8 AWG AND LARGER.

a. USE STRANDED CONDUCTORS AT MOTORS AND OTHER APPLICATIONS WHERE SUBJECT TO VIBRATION, AND FOR CONTROL CIRCUITS.

2. MINIMUM SIZE CONDUCTOR: #12 AWG, EXCEPT AS OTHERWISE INDICATED.

a. CONTROL CIRCUITS: #14 AWG.

3. INSULATION VOLTAGE RATING: 600 VOLTS.

B. BUILDING WIRE AND CABLE: SINGLE CONDUCTOR INSULATED WIRE. INSULATION: ANSI/NFPA 70, TYPE THHN/THWN, RATED 75°C OR TYPE XHHW, RATED 90°C.

C. CONNECTORS: PROVIDE UL LISTED FACTORY FABRICATED, SOLDERLESS METAL CONNECTORS OF SIZES, AMPACITY RATINGS, MATERIALS, TYPES AND CLASSES FOR APPLICATIONS AND FOR SERVICES INDICATED. USE CONNECTORS WITH TEMPERATURE RATINGS EQUAL TO OR GREATER THAN THOSE OF THE WIRES UPON WHICH USED.

D. PULL CORD: 1/8" POLYPROPYLENE OR NYLON.

2.04 BOXES AND FITTINGS

A. PROVIDE INDICATED TYPES, SIZES, AND NEMA ENCLOSURE CLASSES. WHERE NOT INDICATED, PROVIDE UNITS OF TYPES, SIZES, AND CLASSES APPROPRIATE FOR THE USE AND LOCATION. PROVIDE ALL ITEMS COMPLETE WITH COVERS AND ACCESSORIES REQUIRED FOR THE INTENDED USE. PROVIDE GASKETS FOR UNITS IN DAMP OR WET LOCATIONS.

1. MATERIALS AND FINISHES:

a. SHEET STEEL: FLAT ROLLED, CODE GAUGE, GALVANIZED STEEL.

b. FASTENERS FOR GENERAL USE: CORROSION RESISTANT SCREWS AND HARDWARE, INCLUDING CADMIUM AND ZINC PLATED ITEMS.

c. FASTENERS FOR WET OR DAMP LOCATIONS: STAINLESS STEEL SCREWS AND HARDWARE.

d. CAST METAL FOR BOXES, ENCLOSURES AND COVERS: COPPER-FREE ALUMINUM EXCEPT AS OTHERWISE INDICATED.

e. EXTERIOR FINISH: GRAY-BAKED ENAMEL FOR ITEMS EXPOSED IN FINISHED LOCATIONS EXCEPT AS OTHERWISE INDICATED.

f. PAINTED INTERIOR FINISH: WHERE INDICATED, WHITE BAKED ENAMEL.

g. FITTINGS FOR BOXES, CABINETS, AND ENCLOSURES: CONFORM TO UL 514B. MALLEABLE IRON OR ZINC-PLATED STEEL FOR CONDUIT HUBS, BUSHINGS AND BOX CONNECTORS.

B. METAL OUTLET, DEVICE, AND SMALL WIRING BOXES:

1. GENERAL: CONFORM TO UL 514A AND UL 514B. BOXES SHALL BE OF TYPE, SHAPE, SIZE, AND DEPTH TO SUIT EACH LOCATION AND APPLICATION.

2. STEEL BOXES: NEMA OS 1, BOXES SHALL BE SHEET STEEL WITH STAMPED KNOCKOUTS, THREADED SCREW HOLES AND ACCESSORIES SUITABLE FOR EACH LOCATION INCLUDING MOUNTING BRACKETS AND STRAPS, CABLE CLAMPS, EXTERIOR RINGS AND FIXTURE STUDS.

3. CAST ALUMINUM BOXES: COPPER-FREE ALUMINUM WITH GASKETED COVERS, THREADED RACEWAY ENTRIES, AND FEATURES AND ACCESSORIES SUITABLE FOR EACH LOCATION INCLUDING MOUNTING EARS, THREADED SCREW HOLES FOR DEVICES AND CLOSURE PLUGS.

C. PULL AND JUNCTION BOXES:

1. GENERAL: CONFORM TO UL 50, FOR BOXES OVER 100 CUBIC INCHES IN VOLUME. BOXES SHALL HAVE BOLTED-ON COVERS OF MATERIAL SAME AS BOX, AND SHALL BE OF THE SIZE AND SHAPE TO SUIT THE APPLICATION.

2. STEEL BOXES: SHEET STEEL WITH WELDED SEAMS. WHERE NECESSARY TO PROVIDE A RIGID ASSEMBLY, CONSTRUCT WITH INTERNAL STRUCTURAL STEEL BRACING.

3. HOT-DIP GALVANIZED STEEL BOXES: SHEET STEEL WITH WELDED SEAMS. WHERE NECESSARY TO PROVIDE A RIGID ASSEMBLY, CONSTRUCT WITH INTERNAL STRUCTURAL STEEL BRACING. HOT-DIP GALVANIZE AFTER FABRICATION. COVER SHALL BE GASKETED.

2.05 WIRING DEVICES

A. GENERAL: PROVIDE WIRING DEVICES, IN TYPES, CHARACTERISTICS, GRADES, COLORS, AND ELECTRICAL RATINGS FOR APPLICATIONS INDICATED WHICH ARE UL LISTED AND WHICH COMPLY WITH NEMA WD 1 AND OTHER APPLICABLE UL AND NEMA STANDARDS. COORDINATE COLOR SELECTION, PRIOR TO ORDERING MATERIALS, WITH ARCHITECT/ENGINEER.

B. RECEPTACLES: UL 498 AND NEMA WD 6. STRAIGHT BLADE, TWO-POLE, THREE-WIRE GROUNDING TYPE, AS INDICATED BELOW:

1. DUPLEX: 20AMPS, 125V, NEMA 5-20R, HEAVY DUTY - HUBBELL #5362

2. DUPLEX, GFCI [1]: 20AMPS, 125V, NEMA 5-20R, HEAVY DUTY - HUBBELL #GF5362

3. SIMPLEX: 20AMPS, 125V, NEMA 5-20R, HEAVY DUTY - HUBBELL #5361

4. SIMPLEX: 20AMPS, 250V, NEMA 6-20R, HEAVY DUTY - HUBBELL #5461

5. SIMPLEX, LOCKING [2]: 20AMPS, 125V, NEMA L5-20R, HEAVY DUTY - HUBBELL #2310

NOTES:
1. GFCI RECEPTACLES SHALL PROTECT DOWNSTREAM RECEPTACLES ON SAME CIRCUIT.
2. PROVIDE LOCKING RECEPTACLE WITH BLACK NYLON FACE, EXCEPT AS INDICATED OTHERWISE.

C. SWITCHES: UL20 AND NEMA WD 1. QUIET TOGGLE TYPE AC SWITCH. RATING AND TYPE AS INDICATED BELOW:

1. SINGLE POLE: 20AMPS, 120/277V, HEAVY DUTY - HUBBELL #HBL-1221

2. DOUBLE POLE: 20AMPS, 120/277V, HEAVY DUTY - HUBBELL #HBL-1222

3. THREE WAY: 20AMPS, 120/277V, HEAVY DUTY - HUBBELL #HBL-1223

4. SINGLE POLE W/PILOT LIGHT [1]: 20AMPS, 120/277V, HEAVY DUTY - HUBBELL #HBL-1221-PL7

5. SINGLE POLE W/KEYED SWITCH: 20AMPS, 120/277V, HEAVY DUTY - HUBBELL #HBL-1221-L

6. MOMENTARY CONTACT [2]: 20AMPS, 120/277V, HEAVY DUTY - HUBBELL #HBL-1557

NOTES:
1. FOR SWITCH WITH PILOT LIGHT, THE LIGHT IS "ON" WHEN THE LOAD IS "ON".
2. FOR MOMENTARY CONTACT TYPE SWITCH, OPERATION IS THREE POSITION - TWO CIRCUIT MOMENTARY CONTACT AND CENTER OFF.

D. WALL PLATES: SINGLE AND COMBINATION, OF TYPES, SIZES, AND WITH GANGING AND CUTOUTS AS INDICATED. PROVIDE PLATES WHICH MATE AND MATCH WITH WIRING DEVICES TO WHICH THEY ARE ATTACHED, AND ARE FROM THE SAME MANUFACTURER. PROVIDE METAL SCREWS FOR SECURING PLATES TO DEVICES WITH SCREW HEADS COLORED TO MATCH FINISH OF PLATES. PROVIDE WALL PLATE COLOR TO MATCH WIRING DEVICES EXCEPT AS OTHERWISE INDICATED. PROVIDE WALL PLATES WITH ENGRAVED LEGEND WHERE INDICATED. CONFORM TO REQUIREMENTS FOR ELECTRICAL IDENTIFICATION.

1. INTERIOR AREAS: SMOOTH, HIGH-IMPACT RESISTANT PLASTIC, OF THE SAME MANUFACTURER AS THE DEVICE.

a. VOICE, DATA, OR VIDEO COMMUNICATIONS SYSTEM OUTLETS: SAME AS FOR WIRING DEVICES EXCEPT WITH 3/8" OR 1" RUBBER GROMMETS AS REQUIRED.

b. SURFACE MOUNTED OUTLET BOXES: ZINC COATED SHEET STEEL ROUNDED EDGES, SAME SIZE AS OUTLET BOX.

c. KITCHEN AND FOOD PREPARATION AREAS: POLISHED STAINLESS STEEL TYPE, 0.04 INCHES THICK.

2. EXTERIOR AREAS: WEATHERPROOF, CORROSION-RESISTANT TYPE, DIE CAST ALUMINUM WITH SELF-CLOSING GASKETED COVER. FOR DUPLEX RECEPTACLES, USE HUBBELL 5206-WO OR EQUAL; FOR WALL SWITCHES, USE HUBBELL 7420 OR EQUAL; FOR GFI RECEPTACLES, USE MANUFACTURER'S LISTED PLATE.

2.06 GROUNDING AND BONDING

A. MATERIALS: ALL MATERIALS SHALL BE COPPER. PROVIDE TYPES INDICATED AND SIZES AND RATINGS REQUIRED TO COMPLY WITH NEC. WHERE TYPES, SIZES, RATINGS, AND QUANTITIES INDICATED ARE IN EXCESS OF NEC REQUIREMENTS, THE MORE STRINGENT REQUIREMENTS AND THE GREATER SIZE, RATING, AND QUANTITY INDICATIONS GOVERN.

B. WIRE AND CABLE CONDUCTORS SHALL BE AS FOLLOWS, EXCEPT AS OTHERWISE INDICATED:

1. EQUIPMENT GROUNDING CONDUCTOR: GREEN INSULATED COPPER.

2. GROUNDING ELECTRODE CONDUCTOR: STRANDED COPPER CABLE.

3. BARE COPPER CONDUCTORS: SHALL CONFORM TO THE FOLLOWING:

a. SOLID CONDUCTORS: ASTM B 3.

b. ASSEMBLY OF STRANDED CONDUCTORS: ASTM B 8.

c. TINNED CONDUCTORS: ASTM B 33.

C. CONNECTOR PRODUCTS:

1. GENERAL: LISTED AND LABELED AS GROUNDING CONNECTORS FOR THE MATERIALS USED.

2. PRESSURE CONNECTORS: HIGH-CONDUCTIVITY PLATED UNITS.

3. BOLTED CLAMPS: HEAVY-DUTY UNITS LISTED FOR THE APPLICATION.

4. EXOTHERMIC WELDED CONNECTIONS: PROVIDED IN KIT FORM AND SELECTED FOR THE SPECIFIC TYPES, SIZES, AND COMBINATIONS OF CONDUCTORS AND OTHER ITEMS TO BE CONNECTED.

D. GROUNDING ELECTRODES:

1. GROUND RODS: COPPER-CLAD STEEL WITH HIGH-STRENGTH STEEL CORE AND ELECTROLYTIC-GRADE COPPER OUTER SHEATH, MOLTEN-WELDED TO CORE. SIZE: 3/4" DIAMETER BY 10 FEET LONG.

2. PLATE ELECTRODES: COPPER PLATES, MINIMUM 0.10 INCH THICK, SIZE AS INDICATED.

E. TEST (GROUND) WELLS: PRECAST CONCRETE, 12" ROUND X 18" DEEP OPEN BOTTOM VALVE BOX, WITH CAST IRON GRATE COVER PLATE MARKED "GROUND".

2.07 SUPPORTING DEVICES

A. SUPPORTS: INDIVIDUAL CONDUITS SHALL BE RIGIDLY SUPPORTED AND CLAMPED WITH ONE HOLE MALLEABLE IRON CONDUIT CLAMPS, CONDUIT BEAM CLAMPS, CONDUIT HANGERS, OR WALL BRACKETS, AS NECESSARY FOR THE TYPE OF CONSTRUCTION AND AS INDICATED. THE USE OF PERFORATED FLAT STEEL STRAPS OR WIRE FOR SUPPORTING CONDUITS WILL NOT BE PERMITTED.

B. SUPPORT ATTACHMENTS: KWIK-BOLT, SLEEVE ANCHORS, WEDGE ANCHORS, TOGGLE BOLTS, AND HOLLOW ALL ANCHORS, AS MANUFACTURED BY HILTI OR RED HEAD.

C. LIGHT STEEL FRAMING: LIGHT STEEL FRAMING MEMBERS FOR CONDUIT HANGERS AND OTHER SUPPORTS SHALL BE FORMED FROM 12 GAUGE (MINIMUM) STEEL, UNLESS OTHERWISE INDICATED.

1. FINISH: HOT-DIPPED GALVANIZED STEEL FOR LIGHT STEEL FRAMING MEMBERS AND FITTINGS AND ALL HARDWARE, SUCH AS HANGER RODS, COUPLINGS, BOLTS, NUTS, ETC., SHALL BE ELECTRO-GALVANIZED, UNLESS OTHERWISE INDICATED.

2. ACCEPTABLE MANUFACTURERS: B-LINE, SUPERSTRUT, UNISTRUT, OR EQUAL.

2.08 ELECTRICAL IDENTIFICATION

A. MANUFACTURERS: BRADY, IDEAL INDUSTRIES, MARKAL, PANDUIT, THOMAS & BETTS.

B. ELECTRICAL IDENTIFICATION PRODUCTS:

1. ADHESIVE MARKING LABELS FOR RACEWAY AND METAL-CLAD CABLE: PRE-PRINTED, FLEXIBLE, SELF-ADHESIVE LABELS WITH LEGEND INDICATING VOLTAGE AND SERVICE (EMERGENCY, POWER, LIGHTING, AIR CONDITIONING, VOICE AND DATA COMMUNICATIONS, CONTROL, FIRE ALARM AND DETECTION, PUBLIC ADDRESS (PAGING), ELECTRONIC SECURITY).

2. LABEL SIZE, AS FOLLOWS:

a. RACEWAYS 1" AND SMALLER: 1-1/8" HIGH BY 4" LONG.

b. RACEWAYS LARGER THAN 1": 1-1/8" HIGH BY 8" LONG.

3. COLOR: BLACK LEGEND ON ORANGE BACKGROUND.

4. COLORED ADHESIVE MARKING TAPE FOR RACEWAYS, WIRES, AND CABLES: SELF-ADHESIVE VINYL TAPE NOT LESS THAN 3 MILS THICK BY 1" TO 2" IN WIDTH.

5. PRETENSIONED FLEXIBLE WRAPAROUND COLORED PLASTIC SLEEVES FOR RACEWAY AND CABLE IDENTIFICATION: FLEXIBLE ACRYLIC BANDS SIZED TO SUIT THE RACEWAY DIAMETER AND ARRANGED TO STAY IN PLACE BY PRE- TENSIONED GRIPPING ACTION WHEN COILED AROUND THE RACEWAY OR CABLE.

6. UNDERGROUND LINE MARKING TAPE: PERMANENT, BRIGHT-COLORED, CONTINUOUS PRINTED, PLASTIC TAPE COMPOUNDED FOR DIRECT BURIAL SERVICE NOT LESS THAN 6" WIDE BY 4 MILS THICK. PRINTED LEGEND INDICATIVE OF GENERAL TYPE OF UNDERGROUND LINE BELOW.

7. WIRE/CABLE DESIGNATION TAPE MARKERS: VINYL OR VINYL-CLOTH, SELF-ADHESIVE, WRAPAROUND, CABLE/CONDUCTOR MARKERS WITH PREPRINTED NUMBERS AND LETTERS

8. ALUMINUM, WRAPAROUND, CABLE MARKER BANDS: BANDS CUT FROM 0.014" THICK, ALUMINUM SHEET, FITTED WITH SLOTS OR EARS FOR SECURING PERMANENTLY AROUND WIRE OR CABLE JACKET OR AROUND GROUPS OF CONDUCTORS. PROVIDE FOR LEGEND APPLICATION WITH STAMPED LETTERS OR NUMBERS.

9. PLASTICIZED CARD STOCK TAGS: VINYL CLOTH WITH PREPRINTED AND FIELD PRINTED LEGENDS TO SUIT THE APPLICATION. ORANGE BACKGROUND, EXCEPT AS OTHERWISE INDICATED, WITH EYELET FOR FASTENER.

10. ALUMINUM-FACED CARD STOCK TAGS: WEATHER-RESISTANT, 18-POINT MINIMUM CARD STOCK FACED ON BOTH SIDES WITH EMBOSSABLE ALUMINUM SHEET, 0.002" THICK, AND LAMINATED WITH MOISTURE-RESISTANT ACRYLIC ADHESIVE. PRE-PRINT LEGEND TO SUIT THE APPLICATION, AND PUNCH FOR TIE FASTENER.

11. BRASS OR ALUMINUM TAGS: METAL TAGS WITH TAMPED LEGEND, PUNCHED FOR FASTENER. DIMENSIONS: 2" BY 2" BY 19 GAUGE.

12. ENGRAVED, PLASTIC-LAMINATED LABELS, SIGNS, AND INSTRUCTION PLATES: ENGRAVING STOCK MELAMINE PLASTIC LAMINATE, 1/16" MINIMUM THICK FOR SIGNS UP TO 20 SQUARE INCHES, OR 8" IN LENGTH; 1/8" THICK FOR LARGER SIZES. ENGRAVED LEGEND IN WHITE LETTER ON BLACK FACE AND PUNCHED FOR MECHANICAL FASTENERS.

13. WARNING AND CAUTION SIGNS FOR INDOOR USE: SHALL BE MINIMUM 18 GAUGE STEEL, WHITE PORCELAIN ENAMEL FINISH, WITH RED LETTERING, PUNCHED FOR FASTENERS, WITH COLORS, LEGEND, AND SIZE APPROPRIATE TO THE LOCATION. LETTERING TO READ, "DANGER - HIGH VOLTAGE", UNLESS OTHERWISE INDICATED.

14. EXTERIOR METAL-BACKED BUTYRATE WARNING AND CAUTION SIGNS: WEATHER-RESISTANT, NONFADING, PREPRINTED CELLULOSE ACETATE BUTYRATE SIGNS WITH 20-GAUGE, GALVANIZED STEEL BACKING, WITH COLORS, LEGEND, AND SIZE APPROPRIATE TO THE LOCATION. PROVIDE 1/4" GROMMETS IN CORNERS FOR MOUNTING.

15. FASTENERS FOR PLASTIC-LAMINATED AND METAL SIGNS: SELF-TAPPING STAINLESS STEEL SCREWS OR #10-32 STAINLESS STEEL MACHINE SCREWS WITH NUTS AND FLAT LOCK WASHERS.

16. CABLE TIES: FUNGUS-INERT, SELF-EXTINGUISHING, ONE-PIECE, SELF-LOCKING NYLON CABLE TIES, 0.18" MINIMUM WIDTH, 50 LB MINIMUM TENSILE STRENGTH, AND SUITABLE FOR A TEMPERATURE RANGE FROM MINUS 50°F TO 350°F. PROVIDE TIES IN SPECIFIED COLORS WHEN USED FOR COLOR CODING.

2.09 DISCONNECT (SAFETY) SWITCHES

A. DISCONNECT SWITCHES SHALL BE RATED 600 VOLTS A.C., NEMA TYPE HD HEAVY DUTY, HORSEPOWER-RATED, QUICK-MAKE/QUICK-BREAK, NON-FUSIBLE OR FUSIBLE, CLASS "R", WITH THE NUMBER OF POLES AND AMPERE RATING AS SHOWN. ENCLOSURE SHALL BE NEMA TYPE 1, LOCKABLE. MAXIMUM VOLTAGE, CURRENT AND HORSEPOWER RATING SHALL BE CLEARLY MARKED ON THE SWITCH ENCLOSURE. SWITCHES EQUIPPED WITH DUAL-ELEMENT TIME-DELAY FUSES SHALL BE PERMANENTLY LABELED WITH FUSE TYPE AND RATING.

1. FOR OUTDOOR LOCATIONS, OR SHOWN AS "WP" (WEATHERPROOF), THE ENCLOSURE SHALL BE NEMA TYPE 3R, UNLESS OTHERWISE INDICATED.

2.10 PANELBOARDS

A. MANUFACTURERS: EATON, SIEMENS, GENERAL ELECTRIC, OR SQUARE D.

B. MATERIALS:

1. BRANCH CIRCUIT PANELBOARDS:

a. PROVIDE FACTORY ASSEMBLED, ENCLOSED PANELBOARDS IN DEAD FRONT CABINETS, WITH DOORS, SURFACED MOUNTED OR RECESSED AS INDICATED, NOT LESS THAN 20" WIDE AND 5-3/4" DEEP. HEIGHT WILL DEPEND ON THE NUMBER OF BREAKERS AND SPACES.

b. WHERE A CONTROL COMPARTMENT IS INDICATED, PROVIDE AN INTEGRAL COMPARTMENT WITH A SEPARATE HINGED LOCKABLE DOOR HELD WITH CAPTIVE SCREWS.

c. PROVIDE FEEDER TERMINAL LUGS FOR BOTH MAIN LUGS ONLY AND MAIN BREAKERS RATED FOR USE WITH COPPER OR ALUMINUM CONDUCTORS.

d. PROVIDE THREE PHASE, 4 WIRE, SOLID NEUTRAL DESIGN WITH SEQUENCE BUSSING, FULL CAPACITY NEUTRAL AND FULL LENGTH COPPER BUSSING INCLUDING AREAS INDICATED AS SPACE ONLY. BUSSING SHALL BE BRACED FOR MAXIMUM AVAILABLE FAULT.

e. PROVIDE COPPER NEUTRAL BUS WHERE NEUTRAL BUS IS INDICATED. NEUTRAL BUS SHALL BE SIZED FOR MINIMUM TWICE THE CURRENT CARRYING CAPACITY OF LINE BUS.

f. KEY ALL DOOR LOCKS ALIKE. PROVIDE A TYPE WRITTEN DIRECTORY OF CIRCUIT INDEX CARD HOLDER MOUNTED BEHIND THE DOOR IN FRAMED CARD SLOT WITH PLASTIC SEE THROUGH WINDOW.

g. PROVIDE FULL SIZE COPPER EQUIPMENT GROUND BUS.

h. ALL BREAKERS SHALL BE BOLT-ON TYPE MOLDED CASE. NO TIE HANDLE IS ACCEPTED FOR MULTI-POLE BREAKER.

i. PROVIDE PAD LOCK OFF DEVICES ON ALL BREAKERS SERVING APPLIANCES, MOTOR OPERATED EQUIPMENT, HVAC EQUIPMENT AND OTHER CIRCUIT AS INDICATED ON PANEL SCHEDULES.

j. 120/208V, 3 PHASE, 4 WIRE PANELBOARDS: GENERAL ELECTRIC CO. TYPE NLAB, SQUARE D CO. TYPE NQOB, OR CUTLER-HAMMER TYPE POW-R-LINE1.

k. 277/480V, 3 PHASE, 4 WIRE PANELBOARDS: GEN

PART 3 - EXECUTION

3.01 INSTALLATION

A. GENERAL: THE ELECTRICAL INSTALLATION SHALL CONFORM TO THE REQUIREMENTS OF NFPA 70, "NATIONAL ELECTRICAL CODE," AND TO THE REQUIREMENTS SPECIFIED HEREIN.

B. WIRING METHOD: THE WIRING METHOD SHALL BE AS FOLLOWS, EXCEPT AS OTHERWISE NOTED.

1. EXTERIOR:

a. EXPOSED: RIGID STEEL CONDUIT.

b. CONCEALED: RIGID STEEL CONDUIT.

1) IN OR UNDER SLAB ON GRADE: NONMETALLIC CONDUIT, SCHEDULE 40 PVC. CONDUIT LEAVING THE SLAB (INCLUDING EXPOSED CONDUIT RISER) SHALL BE RIGID STEEL CONDUIT.

2)UNDERGROUND: RIGID NONMETALLIC CONDUIT. USE SCHEDULE 40 PVC. PROVIDE CONCRETE ENCASEMENT AS INDICATED.

c. CONNECTION TO VIBRATING EQUIPMENT, INCLUDING TRANSFORMERS AND HYDRAULIC, PNEUMATIC, OR ELECTRIC SOLENOID OR MOTOR-DRIVEN EQUIPMENT: LIQUIDTIGHT FLEXIBLE METAL CONDUIT, MAXIMUM LENGTH 18".

2. INTERIOR:

a. EXPOSED: ELECTRICAL METALLIC TUBING.

1) AREAS WHERE EXPOSED CONDUIT MAY BE SUBJECT TO PHYSICAL DAMAGE: RIGID METAL CONDUIT.

2)DAMP OR WET LOCATIONS: RIGID METAL CONDUIT.

3)CLASSIFIED LOCATIONS: RIGID METAL CONDUIT.

b. CONCEALED: ELECTRICAL METALLIC TUBING.

1) IN OR UNDER SLAB ON GRADE: NONMETALLIC CONDUIT, SCHEDULE 40 PVC. CONDUIT LEAVING THE SLAB (INCLUDING EXPOSED CONDUIT RISER) SHALL BE RIGID STEEL CONDUIT.

2)IN SLAB, ABOVE GRADE: RIGID NONMETALLIC CONDUIT SCHEDULE 40 PVC. MAXIMUM SIZE CONDUIT IN SLAB: 1".

c. CONNECTION TO VIBRATING EQUIPMENT, INCLUDING TRANSFORMERS AND HYDRAULIC, PNEUMATIC, OR ELECTRIC SOLENOID OR MOTOR-DRIVEN EQUIPMENT: FLEXIBLE METAL CONDUIT, MAXIMUM LENGTH 18".

1) FOR MOIST OR HUMID LOCATIONS OR CORROSIVE ATMOSPHERE, OR WHERE SUBJECT TO WATER SPRAY OR DRIPPING OIL, GREASE, OR WATER: LIQUIDTIGHT FLEXIBLE METAL CONDUIT.

d. CONNECTION TO LIGHTING FIXTURES LOCATED IN SUSPENDED ACOUSTICAL OR METAL CEILINGS: FLEXIBLE METAL CONDUIT, MAXIMUM LENGTH 72".

e. FINAL CONNECTIONS TO LIGHTING FIXTURES WHICH HAVE ISOLATED JUNCTION BOXES: FLEXIBLE METAL CONDUIT.

1) DAMP LOCATIONS: LIQUIDTIGHT FLEXIBLE CONDUIT.

C. GROUNDING AND BONDING:

1. GENERAL: GROUNDING SHALL BE PROVIDED IN ACCORDANCE WITH ALL APPLICABLE CODES AND REGULATIONS AND THE LOCAL AUTHORITIES HAVING JURISDICTION.

2. AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE PROVIDED IN ALL RACEWAY CONTAINING PHASE CONDUCTORS.

3. THE MAXIMUM RESISTANCE TO GROUND SHALL NOT EXCEED 5 OHMS.

D. RACEWAY INSTALLATION:

1. GENERAL REQUIREMENTS: INSTALL ELECTRICAL RACEWAYS IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTALLATION INSTRUCTIONS, APPLICABLE REQUIREMENTS OF NEC, AND AS FOLLOWS.

a. MINIMUM SIZE: 3/4" UNLESS OTHERWISE INDICATED.

b. SIZE CONDUITS AS INDICATED ON THE DRAWINGS AND AS REQUIRED BY THE NEC FOR THE NUMBER AND SIZES OF WIRES TO BE INSTALLED INTO THE CONDUIT.

c. MAKE CONDUIT FIELD CUTS SQUARE WITH SAW AND REAM OUT TO FULL SIZE. SHOULDER CONDUITS IN COUPLINGS. REMOVE BURRS, AND SWAB INSIDE CONDUITS BEFORE CONDUCTORS ARE PULLED IN.

d. MAKE ALL CONDUIT JOINTS MECHANICALLY TIGHT, ELECTRICALLY CONTINUOUS, AND WATERTIGHT. PITCH CONDUITS IN A MANNER TO AVOID CREATING MOISTURE TRAPS.

e. INSTALL MINIMUM 1/8" POLYPROPYLENE PULL CORDS FROM END-TO-END IN ALL EMPTY RACEWAYS, TAGGED WITH THE IDENTIFICATION OF SERVICE INTENDED AND LOCATION OF OPPOSITE END. LEAVE AT LEAST 24" OF PULL CORD AT EACH END.

f. RESTORE WALL, CEILING, AND FLOOR PENETRATIONS TO THE REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.

g. COMMUNICATIONS/SIGNAL SYSTEM RACEWAYS 2" TRADE SIZE AND SMALLER: IN ADDITION TO THE ABOVE REQUIREMENTS, INSTALL RACEWAYS 2" AND SMALLER TRADE SIZE IN MAXIMUM LENGTHS AT 150'-0" AND WITH A MAXIMUM OF TWO, 90° BENDS OR EQUIVALENT. INSTALL PULL OR JUNCTION BOXES WHERE NECESSARY TO COMPLY WITH THESE REQUIREMENTS.

h. PROVIDE CODE SIZED GREEN GROUNDING CONDUCTOR IN ALL CONDUIT.

2. PERFORM EXCAVATING, TRENCHING, BACKFILLING, AND COMPACTING AS SHOWN, AND AS SPECIFIED IN DIVISION 02 WHICH PRESCRIBES EXCAVATION, BACKFILLING AND COMPACTING FOR UTILITIES. MINIMUM COVER FOR RUNS BELOW FINISHED GRADE OUTSIDE BUILDINGS: 24" EXCEPT WHERE NOTED.

3. COMPLETE INSTALLATION OF ELECTRICAL RACEWAYS BEFORE STARTING INSTALLATION OF CONDUCTORS WITHIN RACEWAYS.

a. PROTECT INSIDE OF CONDUIT FROM DIRT AND RUBBISH DURING CONSTRUCTION BY CAPPING ALL OPENINGS WITH PLASTIC CAPS INTENDED FOR THE PURPOSE. CAP OR PLUG CONDUITS WITH STANDARD MANUFACTURED ACCESSORIES AS SOON AS THE CONDUITS HAVE BEEN PERMANENTLY INSTALLED IN PLACE.

4. INSTALL ALL CONDUITS AT ELEVATIONS AND LOCATIONS TO AVOID INTERFERENCE WITH GRADING OR OTHER WORK, THE STRUCTURE, FINISHED CEILINGS, WALLS. AVOID CAUSING CUTTING OF MASONRY STRUCTURAL MEMBERS.

a. DO NOT PLACE CONDUITS IN CLOSE PROXIMITY TO EQUIPMENT, SYSTEMS, AND SERVICE LINES, SUCH AS HOT WATER SUPPLY AND RETURN LINES, WHICH COULD BE DETRIMENTAL TO THE CONDUIT AND ITS CONTENTS. MAINTAIN A MINIMUM 3" SEPARATION, EXCEPT IN CROSSING, WHICH SHALL BE A MINIMUM 1".

1) MINIMUM SEPARATION FROM UNINSULATED HOT WATER PIPES, STEAM PIPES, HEATER FLUES OR VENTS: 6". AVOID RUNNING CONDUIT DIRECTLY UNDER WATER LINES.

2) ELEVATION OF RACEWAY: WHERE POSSIBLE, INSTALL HORIZONTAL RACEWAY RUNS ABOVE WATER AND STEAM PIPING.

5. CONCEAL CONDUIT, UNLESS INDICATED OTHERWISE, WITHIN FINISHED WALLS, CEILINGS, AND FLOORS. KEEP RACEWAYS AT LEAST SIX 6" AWAY FROM PARALLEL RUNS OF FLUES AND STEAM OR HOT WATER PIPES. INSTALL RACEWAY LEVEL AND SQUARE AND AT PROPER EVALUATIONS.

a. TO PREVENT DISPLACEMENT, SECURELY SUPPORT AND HOLD IN PLACE ALL CONDUITS INSTALLED IN ADVANCE OF OTHER WORK AND TO BE CONCEALED IN THE BUILDING STRUCTURE. CAREFULLY LAY OUT CONDUITS RUN WITHIN THE STRUCTURE, SUCH AS FLOORS, BEAMS, WALLS, TO AVOID DENSITIES EXCESSIVE FOR THE CONSTRUCTION. RELOCATE THOSE CONDUITS WHEN EXCESSIVE DENSITIES OCCUR.

b. RUN CONDUITS EMBEDDED IN STRUCTURAL SLABS IN THE MIDDLE OF THE SLAB BELOW THE TOP AND ABOVE THE BOTTOM REINFORCING STEEL, MINIMUM COVER FOR CONDUIT IN CONCRETE FLOORS, WALLS OR ROOF: 1/3 THICKNESS OF SLAB, BUT IN NO CASE LESS THAN 1-1/2" COVER EXCEPT WHERE PENETRATION IS MADE. DO NOT INSTALL CONDUIT LARGER THAN 1" IN SLABS. TIE RACEWAYS TO REINFORCING RODS OR OTHERWISE SECURE THEM TO PREVENT SAGGING OR SHIFTING DURING CONCRETE PLACEMENT. SPACE RACEWAYS LATERALLY TO PREVENT VOIDS IN THE CONCRETE. WHERE NONMETALLIC CONDUIT IS USED, RACEWAYS MUST BE CONVERTED TO SCHEDULE 80 OR RIGID STEEL CONDUIT BEFORE RISING ABOVE THE FLOOR.

c. WHERE CONDUIT INSTALLED IN CONCRETE OR MASONRY EXTENDS ACROSS BUILDING CONSTRUCTION JOINTS, PROVIDE EXPANSION FITTINGS AS MANUFACTURED BY O.Z.; CROUSE-HINDS; APPLETON; OR EQUAL, WITH APPROVED GROUND STRAPS AND CLAMPS. EXPANSION FITTINGS INSTALLED IN CONCRETE SHALL BE WATER TIGHT, CONCRETE TIGHT, DEFLECTION/EXPANSION TYPE.

d. RUN CONCEALED RACEWAYS WITH A MINIMUM OF BENDS IN THE SHORTEST PRACTICAL DISTANCE CONSIDERING THE TYPE OF BUILDING CONSTRUCTION AND OBSTRUCTIONS EXCEPT AS OTHERWISE INDICATED. THIS DOES NOT APPLY TO CONDUITS IN CRAWL SPACES.

6. INSTALL AND NEATLY RACK EXPOSED CONDUITS PARALLEL WITH AND PERPENDICULAR TO BUILDING WALLS. DO NOT INSTALL EXPOSED DIAGONAL CONDUIT RUNS.

a. RUN EXPOSED, PARALLEL, OR BANKED RACEWAYS TOGETHER. MAKE BENDS IN PARALLEL OR BANKED RUNS FROM THE SAME CENTER LINE SO THAT THE BENDS ARE PARALLEL. FACTORY ELBOWS MAY BE USED IN BANKED RUNS ONLY WHERE THEY CAN BE INSTALLED PARALLEL. THIS REQUIRES THAT THERE BE A CHANGE IN THE PLANE OF THE RUN SUCH AS FROM WALL TO CEILING AND THAT THE RACEWAYS BE OF THE SAME SIZE. IN OTHER CASES PROVIDE FIELD BENDS FOR PARALLEL RACEWAYS.

b. USE BLOCKOUTS FOR CONCENTRATIONS OF CONDUITS IN A CONFINED AREA.

c. ROUTE AND SUSPEND CONDUITS CROSSING EXPANSION JOINTS TO PERMIT EXPANSION, CONTRACTION, AND DEFLECTION UTILIZING APPROVED FITTINGS TO PREVENT DAMAGE TO THE BUILDING, CONDUITS, AND SUPPORTING DEVICES.

d. INSTALL EXPOSED RACEWAYS PARALLEL AND PERPENDICULAR TO NEARBY SURFACES OF STRUCTURAL MEMBERS AND FOLLOW THE SURFACE CONTOURS AS MUCH AS PRACTICAL.

e. PROVIDE CONDUIT BODIES FOR EXPOSED CONDUIT RUNS AT JUNCTIONS, BENDS OR OFFSETS WHERE REQUIRED. DO NOT USE ELBOWS OR BENDS AROUND OUTSIDE CORNERS OF BEAMS, WALLS OR EQUIPMENT. MAKE CONDUIT BODY COVERS ACCESSIBLE.

7. CONCRETE WALL OR STAB PENETRATIONS: ALL CORE DRILLING, SLEEVES, BLOCKOUTS OR OTHER PENETRATIONS MUST BE APPROVED BY THE STRUCTURAL ENGINEER PRIOR TO INSTALLATION.

a. SPACE SLEEVES AND CORE DRILLS TO INSURE A MINIMUM DIMENSION OF 3 TIMES THE NOMINAL TRADE DIAMETER OF THE LARGEST ADJACENT CONDUIT BETWEEN SLEEVES OR CORE DRILLS.

b. USE BLOCKOUTS FOR CONCENTRATIONS OF CONDUITS IN A CONFINED AREA.

8. JOIN RACEWAYS WITH FITTINGS DESIGNED AND APPROVED FOR THE PURPOSE AND MAKE JOINTS TIGHT. WHERE JOINTS CANNOT BE MADE TIGHT, USE BONDING JUMPERS TO PROVIDE ELECTRICAL CONTINUITY OF THE RACEWAY SYSTEM. MAKE RACEWAY TERMINATIONS TIGHT. WHERE TERMINATIONS ARE SUBJECT TO VIBRATION, USE BONDING BUSHINGS OR WEDGES TO ASSURE ELECTRICAL CONTINUITY. WHERE SUBJECT TO VIBRATION OR DAMPNESS, USE INSULATING BUSHINGS TO PROTECT CONDUCTORS.

9. MAKE BENDS AND OFFSETS SO THE INSIDE DIAMETER IS NOT EFFECTIVELY REDUCED. UNLESS OTHERWISE INDICATED, KEEP THE LEGS OF A BEND IN THE SAME PLANE AND THE STRAIGHT LEGS OF OFFSETS PARALLEL.

f. MAKE NO BENDS WITH A RADIUS LESS THAN 12 TIMES THE DIAMETER OF THE CABLE IT CONTAINS NOR MORE THAN 90°. MAKE FIELD BENDS WITH TOOLS DESIGNED FOR CONDUIT BENDING. HEATING OF METALLIC CONDUIT TO FACILITATE BENDING IS NOT PERMITTED.

g. BENDS AND OFFSETS IN 1" AND SMALLER CONDUITS MAY BE DONE WITH APPROVED BENDING DEVICES. DO NOT INSTALL CONDUITS WHICH HAVE HAD THEIR WALLS CRUSHED AND DEFORMED AND THEIR SURFACE FINISH DAMAGED DUE TO BENDING.

C RUN CONDUITS PARALLEL TO AND AT RIGHT ANGLES TO BUILDING LINES.

d. WHERE SPACE CONDITIONS PROHIBIT THE USE OF STANDARD ELLS, ELBOWS, AND CONDUITS, USE CAST FERROUS ALLOY FITTINGS OF SUCH FORMS AND DIMENSIONS AS BEST REQUIRED FOR APPLICATION.

10. SURFACE RACEWAY:

a. INSTALL A SEPARATE GREEN GROUND CONDUCTOR IN RACEWAY FROM THE JUNCTION BOX SUPPLYING THE RACEWAY TO RECEPTACLE OF FIXTURE GROUND TERMINALS.

b. SELECT EACH SURFACE RACEWAY OUTLET BOX TO WHICH A LIGHTING FIXTURE IS ATTACHED TO BE OF SUFFICIENT DIAMETER TO PROVIDE A SEAT FOR THE FIXTURE CANOPY.

c. WHERE A SURFACE RACEWAY IS USED TO SUPPLY A LIGHTING FIXTURE HAVING CENTRAL STEM SUSPENSION WITH A BACKPLATE AND A CANOPY, WITH OR WITHOUT EXTENSION RING, THE BACKPLATE AND CANOPY WILL SERVE AS THE OUTLET BOX AND NO SEPARATE OUTLET BOX NEED BE PROVIDED.

d. PROVIDE SURFACE RACEWAY OUTLET BOX, IN ADDITION TO THE BACKPLATE AND CANOPY, AT THE FEED-IN LOCATION OF EACH LIGHTING FIXTURE HAVING END STEM SUSPENSION.

e. WHERE A SURFACE RACEWAY EXTENSION IS MADE FROM AN EXISTING OUTLET BOX ON WHICH A LIGHTING FIXTURE IS INSTALLED, PROVIDE A BACKPLATE SLIGHTLY SMALLER THAN THE FIXTURE CANOPY, AND NO ADDITIONAL SURFACE MOUNTED OUTLET BOX NEED BE INSTALLED.

f. SURFACE RACEWAYS SHALL BE SECURELY FASTENED TO THE MOUNTING SURFACE. USE EXPANSION TYPE ANCHORS IN CONCRETE.

11. DO NOT RUN CONDUITS EXPOSED ON THE ROOF UNLESS APPROVAL IS OBTAINED FROM THE OWNER PRIOR TO INSTALLATION.

12. OTHER REQUIREMENTS:

a. CONNECT MOTORS, EQUIPMENT CONTAINING MOTORS, EQUIPMENT MOUNTED ON AN ISOLATED FOUNDATION, TRANSFORMERS, AND OTHER EQUIPMENT AND DEVICES WHICH ARE SUBJECT TO VIBRATION AND WHICH REQUIRE ADJUSTMENT WITH LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT FROM THE DEVICE TO THE CONDUIT SERVING IT. SIZE THE FLEXIBLE CONDUIT LENGTH MORE THAN 12 DIAMETERS, BUT LESS THAN 18 DIAMETERS. RIGIDLY SUPPORT THE POINTS OF ATTACHMENT ON EACH SIDE OF THE CONNECTION. USE EXTERNAL BONDING JUMPERS ON SIZES 1-1/2" AND ABOVE.

b. INSTALL ESCUTCHEONS ON ALL EXPOSED CONDUITS PASSING THROUGH INTERIOR FLOORS, WALLS, OR CEILINGS. INSTALL FIRE SEALS ON ALL CONDUITS PASSING THROUGH FIRE RATED PARTITIONS. INSTALL WALL AND FLOOR FIRE SEALS ON ALL CONDUITS PASSING THROUGH EXTERIOR WALLS AND FLOORS, OR USE STANDARD GALVANIZED STEEL PIPE SLEEVES; DIAMETERS 12" GREATER THAN THE OUTSIDE DIAMETER OF THE SLEEVED CONDUIT AND FILL THE ANNULAR SPACE WITH MASTIC OR CAULK WITH LEAD.

c. FIRE PUMP ROOM: ALL WIRING SHALL BE INSTALLED IN RIGID METAL, LIQUIDTIGHT FLEXIBLE METAL CONDUIT.

d. RACEWAY FOR PANELBOARDS:

1) ALL HOMERUNS SHOWN SHALL BE RUN TO THE PANEL INDICATED INDEPENDENTLY OF ALL OTHER HOMERUNS. PROVIDE PULL POINTS SO AS NOT TO EXCEED TOTAL BENDS OF 270°.

2) RUN A MINIMUM OF ONE 3/4" EMPTY CONDUIT FOR EVERY THREE SINGLE POLE SPARE CIRCUIT BREAKERS, SPACES OR FRACTION THEREOF AND NOT LESS THAN TWO 3/4" CONDUITS FROM EVERY FLUSH MOUNTED PANEL TO AN ACCESSIBLE SPACE ABOVE THE CEILING AND BELOW THE FLOOR.

e. MAKE CONDUIT PROJECTIONS FROM COVERED AREAS TO AREAS EXPOSED TO THE WEATHER WATERTIGHT BY PROPER FLASHING. EXTEND FLASHING A MINIMUM OF 6" IN ALL DIRECTIONS FROM CONDUIT.

f. CAP CONDUITS INDICATED TO BE STUBBED-OUT UNDERGROUND USING GLUED ON PVC CAPS INTENDED FOR THIS PURPOSE.

g. INSTALL A COUPLING FLUSH WITH THE FLOOR ON ALL CONDUITS STUBBED-UP THROUGH THE FLOOR SLAB.

h. DO NOT PENETRATE WALLS WITH FLEXIBLE CONDUIT WHERE SUBJECT TO PHYSICAL DAMAGE. USE RECESSED BOX WITH EXTENSION RING FOR TRANSITION FROM INTERIOR TO EXTERIOR OF WALL.

i. TERMINATIONS:

1) WHERE RACEWAYS ARE TERMINATED WITH LOCKNUTS AND BUSHINGS, ALIGN THE RACEWAY TO ENTER SQUARELY AND INSTALL THE LOCKNUTS WITH DISHED PART AGAINST THE BOX. WHERE TERMINATIONS CANNOT BE MADE SECURE WITH ONE LOCKNUT, USE TWO LOCKNUTS, ONE INSIDE AND ONE OUTSIDE THE BOX.

2) WHERE TERMINATING IN THREADED HUBS, SCREW THE RACEWAY OR FITTING TIGHT INTO THE HUB SO THE END BEARS AGAINST THE WIRE PROTECTION SHOULDER. WHERE CHASE NIPPLES ARE USED, ALIGN THE RACEWAY SO THE COUPLING IS SQUARE TO THE BOX, AND TIGHTEN THE CHASE NIPPLE SO NO THREADS ARE EXPOSED.

3) AT SWITCHBOARDS, MANHOLES AND FLOOR STANDING DISTRIBUTION PANELBOARDS, PROVIDE INSULATED THROAT BUSHINGS OR BELL ENDS ON ALL NON-METALLIC CONDUIT ENTRIES AND BUSHINGS ON ALL METALLIC CONDUIT ENTRIES.

4) INSTALL INSULATED THROAT THREADED HUBS ON CONDUITS ENTERING ENCLOSURES WITHOUT THREADED HUBS.

5) INSTALL END BELLS ON CONDUITS STUBBED THROUGH SLABS AND FOUNDATIONS INTO ELECTRICAL ENCLOSURES.

j. INSTALL RACEWAY SEALING FITTINGS IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS. LOCATE FITTINGS AT SUITABLE, APPROVED, ACCESSIBLE LOCATIONS AND FILL THEM WITH UL LISTED SEALING COMPOUND. FOR CONCEALED RACEWAYS, INSTALL EACH FITTING IN A FLUSH STEEL BOX WITH A BLANK COVER PLATE HAVING A FINISH SIMILAR TO THAT OF ADJACENT PLATES OR SURFACES. INSTALL RACEWAY SEALING FITTINGS AT THE FOLLOWING POINTS AND ELSEWHERE AS INDICATED:

1) WHERE CONDUITS ENTER OR LEAVE HAZARDOUS LOCATIONS.

2) WHERE CONDUITS PASS FROM WARM LOCATIONS TO COLD LOCATIONS, SUCH AS THE BOUNDARIES OF REFRIGERATED SPACES AND AIR CONDITIONED SPACES.

3) WHERE REQUIRED BY THE NEC.

k. STUB-UP CONNECTIONS: EXTEND CONDUITS THROUGH CONCRETE FLOOR FOR CONNECTION TO FREESTANDING EQUIPMENT WITH AN ADJUSTABLE TOP OR COUPLING THREADED INSIDE FOR PLUGS AND SET FLUSH WITH THE FINISHED FLOOR. EXTEND CONDUCTORS TO EQUIPMENT WITH RIGID STEEL CONDUIT; FLEXIBLE METAL CONDUIT MAY BE USED 6" ABOVE THE FLOOR. WHERE EQUIPMENT CONNECTIONS ARE NOT MADE UNDER THIS CONTRACT, INSTALL SCREWDRIVER OPERATED THREADED FLUSH PLUGS FLUSH WITH FLOOR.

1) PROTECT STUB-UPS FROM DAMAGE WHERE CONDUITS RISE FROM FLOOR SLABS. ARRANGE SO THAT CURVED PORTION OF BENDS IS NOT VISIBLE ABOVE THE FINISHED SLAB.

l. FLEXIBLE CONNECTIONS: USE SHORT LENGTH (MAXIMUM OF 6'-0") OF FLEXIBLE CONDUIT FOR RECESSED AND SEMI-RECESSED LIGHTING FIXTURES, FOR EQUIPMENT SUBJECT TO VIBRATION, NOISE TRANSMISSION, OR MOVEMENT, AND FOR ALL MOTORS. USE LIQUIDTIGHT FLEXIBLE CONDUIT IN WET LOCATIONS. INSTALL SEPARATE GROUND CONDUCTOR ACROSS FLEXIBLE CONNECTIONS.

m.PVC COATED RIGID STEEL CONDUIT:

1) DO NOT STORE CONDUIT IN DIRECT SUNLIGHT.

2) USE PIPE STRAPS, NO PIPE WRENCHES OR CHANNEL WRENCHES, WHEN TIGHTENING CONNECTIONS TO AVOID DAMAGING PVC COATING.

3) PATCH ALL GOUGES OR CUTS IN THE PVC COATING AFTER INSTALLING CONDUIT. USE MANUFACTURER'S RECOMMENDED PATCHING PASTE. BUILD UP AREA TO BE PATCHED TO FULL MIL THICKNESS OF COATING AND FEATHER OUT PASTE ON SIDES OF DAMAGED AREA A MINIMUM OF 1/2" TO PROVIDE A COMPLETELY BONDED SEAL.

4) FIELD BEND CONDUIT WITH SHOES FOR A MECHANICAL BENDER SIZED FOR THE NEXT LARGER SIZE CONDUIT.

5) BENDS USED IN OR BELOW CONCRETE SLABS SHALL BE, RIGID STEEL TYPE ELBOWS, USE FOR ALL STUB-UPS WITH FLUSH FLOOR COUPLING AT TRANSITIONS.

n. USE RACEWAY FITTINGS THAT ARE OF TYPES COMPATIBLE WITH THE ASSOCIATED RACEWAY AND SUITABLE FOR THE USE AND LOCATION. FOR INTERMEDIATE STEEL CONDUIT, USE THREADED RIGID STEEL CONDUIT FITTINGS EXCEPT AS OTHERWISE INDICATED.

E. UNDERGROUND DUCT BANKS:

1. EXERCISE CARE IN EXCAVATING, TRENCHING AND WORKING NEAR EXISTING UTILITIES. TRENCHING AND BACKFILL:

a. CONTRACTOR SHALL TRENCH UNDERGROUND DUCT PATH AND MANHOLE LOCATION WITH UTMOST CARE IN ORDER TO AVOID EXISTING UNDERGROUND FACILITIES. TRENCH SIZE SHALL BE KEPT TO A MINIMUM. NO OVERSIZED TRENCH SHALL BE MADE UNNECESSARILY.

b. ALL TRENCH EXCAVATIONS BY THE CONTRACTOR SHALL BE BACKFILLED BY SAME IN ACCORDANCE WITH THIS SPECIFICATION.

c. ALL MATERIAL EXCAVATED DURING UNDERGROUND ELECTRICAL WORK IS NOT PRE-QUALIFIED FOR BACKFILL.

d. ALL FILL MUST BE PLACED IN LAYERS NOT EXCEEDING 8" IN DEPTH AND HAND TAMPED OR MACHINE COMPACTED TO AT LEAST 95% OF ITS MAXIMUM DRY DENSITY AS COMPUTED BY THE ASTM METHOD OF PERFORMING A COMPACTION TEST (D-1557-70).

e. ALL COMPACTED FILL WILL BE UNDER CONTINUOUS INSPECTION BY THE INSPECTOR. COMPACTION TESTS WILL BE ARRANGED FOR BY THE INSPECTOR IN COOPERATION WITH THE CONTRACTOR.

f. PUDDLING OR WATER-FLOODING FOR SETTLING BACKFILL WILL NOT BE PERMITTED EXCEPT IN LANDSCAPED AREAS. THE ADDITION OF WATER SHALL BE LIMITED TO ACHIEVING OPTIMUM MOISTURE CONTENT FOR TAMP PROCEDURES.

g. WHERE CONTRACTOR TRENCHES CROSSES ANY FINISHED ROAD (PAVED OR GRAVEL), HE SHALL BE RESPONSIBLE FOR RESTORING THE ROAD TO ITS ORIGINAL CONDITION. REPAVING SHALL BE WITH THE SAME SURROUNDING MATERIAL AND TO A QUALITY EQUAL OR EXCEEDING ITS SURROUND.

h. DO NOT BACKFILL FOR A PERIOD OF AT LEAST 24 HOURS AFTER POURING CONCRETE. UPON RECEIPT OF THE INSPECTOR'S APPROVAL PROCEED WITH BACKFILL. BACKFILL WITH 1 SACK SLUMP CONCRETE AND REPAIR OF SURFACE TO BE COMPLETED WITHIN 24 HOURS OF APPROVAL. PROVIDE WET SAND BACKFILL IN LANDSCAPE AREAS.

i. SURVEY SLOPE OF TRENCHES AND DUCTS BETWEEN TERMINATIONS TO PROVIDE DRAINAGE. NO POCKETS SHALL BE PERMITTED.

2. CONNECTIONS TO EXISTING DUCTS: WHERE CONNECTIONS TO EXISTING DUCT LINES ARE INDICATED, EXCAVATE THE LINES TO THE MAXIMUM DEPTH NECESSARY. CUT OFF THE LINES AND REMOVE LOOSE CONCRETE FROM THE CONDUITS BEFORE INSTALLING NEW CONCRETE ENCASED DUCTS. PROVIDE A REINFORCED CONCRETE COLLAR, POURED MONOLITHICALLY WITH THE NEW DUCT LINE, TO TAKE THE SHEAR AT THE JOINT OF THE DUCT LINES. REMOVE EXISTING CABLES WHICH CONSTITUTE INTERFERENCE WITH THE WORK.

3. CONNECTION TO EXISTING HANDHOLES AND MANHOLES: FOR DUCT LINE CONNECTIONS TO EXISTING STRUCTURES, BREAK THE STRUCTURE WALL OUT TO THE DIMENSIONS REQUIRED AND PRESERVE STEEL IN THE STRUCTURE WALL. CUT STEEL AND BAND OUT TO TIE INTO THE REINFORCING OF THE DUCT LINE ENCASEMENT. CHIP OUT THE STRUCTURE WALL TO FORM A KEY FOR THE DUCT LINE ENCASEMENT.

4. CONNECTIONS TO EXISTING CONCRETE PADS: FOR DUCT LINE CONNECTIONS TO CONCRETE PADS BREAK AN OPENING IN THE PAD OUT TO THE DIMENSIONS REQUIRED AND PRESERVE STEEL IN PAD. CUT THE STEEL AND BEND OUT TO TIE INTO THE REINFORCING OF THE DUCT LINE ENCASEMENT. CHIP OUT THE OPENING IN THE PAD TO FORM A KEY FOR THE DUCT LINE ENCASEMENT.

5. REMOVAL OF DUCTS: WHERE DUCT LINES ARE REMOVED FROM EXISTING MANHOLES, CLOSE OPENINGS AND WATERPROOF MANHOLE. CHIP OUT THE WALL OPENING TO PROVIDE A KEY FOR THE NEW SECTION OF WALL.

6. PRECAST PULLBOXES SHALL BE OF SIZES REQUIRED.

F. INSTALLATION OF BOXES AND FITTINGS:

1. OUTLET BOXES AND FITTINGS: INSTALL OUTLET AND DEVICE BOXES AND ASSOCIATED COVERS AND FITTINGS OF MATERIALS AND NEMA TYPES SUITABLE FOR EACH LOCATIONS AND IN CONFORMANCE WITH THE FOLLOWING REQUIREMENTS, EXCEPT AS OTHERWISE INDICATED:

a. INTERIOR DRY LOCATIONS: NEMA TYPE 1, SHEET STEEL.

1) IN DRY WALLS FOR SINGLE AND TWO GANG OUTLETS PROVIDE 4S AND 4D BOXES, FOR 3 OR MORE OUTLETS USE MASONRY BOXES.

2)IN BLOCK AND MASONRY WALLS PROVIDE MASONRY BOXES OF DEPTHS REQUIRED FOR WALL THICKNESS.

3)IN POURED CONCRETE AND PLASTERED WALLS PROVIDE 4S AND 4D BOXES FOR SINGLE GANG OUTLETS AND 2G AND 3G-5075 BOXES FOR MULTIPLE GANGED OUTLETS.

4)IN CONCRETE CEILINGS PROVIDE OCR RINGS. IN OTHER CEILINGS PROVIDE 40 AND 40D BOXES. OMIT COVERS IF STANDARD CANOPY AND DEVICE PLATES ENTIRELY COVER THE CEILING OPENING.

b. LOCATIONS EXPOSED TO WEATHER OR DAMPNESS: CAST METAL, NEMA TYPE 3R.

c. WET LOCATIONS: NEMA TYPE 4 ENCLOSURES.

1) IN EXPOSED WORK, EXTERIOR OF BUILDINGS, IN WET LOCATION, AND FLUSH IN NON-WATERPROOFED WALLS BELOW GRADE PROVIDE FS AND FD BOXES.

d. CORROSIVE LOCATIONS: NEMA TYPE 4X ENCLOSURES.

e. HAZARDOUS (CLASSIFIED) LOCATIONS: CAST METAL, UL 886, NEMA TYPE LISTED AND LABELED FOR THE LOCATION AND CLASS OF HAZARD INDICATED.

2. PULL AND JUNCTION BOXES: INSTALL PULL AND JUNCTION BOXES OF MATERIALS AND NEMA TYPES AS FOLLOWS, EXCEPT AS OTHERWISE INDICATED:

a. INTERIOR DRY LOCATIONS: NEMA TYPE 1, SHEET STEEL.

b. LOCATIONS EXPOSED TO WEATHER OR DAMPNESS: NEMA TYPE 3R, SHEET STEEL.

c. WET LOCATIONS: NEMA TYPE 4 ENCLOSURES.

d. CORROSIVE LOCATIONS: NEMA TYPE 4X ENCLOSURES.

e. HAZARDOUS (CLASSIFIED) LOCATIONS: CAST METAL, UL 886, NEMA TYPE LISTED AND LABELED FOR THE LOCATION AND CLASS OF HAZARD INDICATED.

3. FLOOR BOXES: IN SLABS ON GRADE AND WET LOCATIONS: USE NEMA TYPE 4 BOXES. AT OTHER LOCATIONS IN SLABS, USE CONCRETE-TIGHT NEMA 1 BOXES.

a. PROVIDE FLOOR BOXES WITH QUANTITY OF GANGS AS REQUIRED FOR POWER, COMMUNICATION OR CONTROL AS INDICATED. USE BOXES WITH BARRIERS WHERE REQUIRED. PROVIDE CARPET FLANGES IN CARPETED AREAS.

4. HINGED DOOR ENCLOSURES: NEMA TYPE 12, EXCEPT AS INDICATED.

5. HINGED DOOR ENCLOSURES OUTDOORS: NEMA TYPE 3R, WITH DRIP HOOD, FACTORY TAILORED TO INDIVIDUAL UNITS.

6. HINGED DOOR ENCLOSURES IN CORROSIVE LOCATIONS: NEMA TYPE 4X METAL ENCLOSURE.

7. CABINETS: FLUSH MOUNTED, NEMA TYPE 1, EXCEPT AS OTHERWISE INDICATED.

3.02 FIELD QUALITY CONTROL

G. EXAMINE SURFACES TO WHICH CONDUITS ARE TO BE SECURED FOR:

1. DEFECTS WHICH WILL ADVERSELY AFFECT THE EXECUTION AND QUALITY OF WORK.

2. DEVIATIONS FROM ALLOWABLE TOLERANCES FOR THE BUILDING MATERIAL.

B. DO NOT START WORK UNTIL DEFECTS AND DEVIATIONS ARE CORRECTED.

3.03 CLEANING

A. UPON COMPLETION OF INSTALLATIONS OF RACEWAYS, INSPECT INTERIORS OF RACEWAYS; CLEAR ALL BLOCKAGES AND REMOVE BURRS, DIRT, AND CONSTRUCTION DEBRIS.

3.04 PROTECTION OF FINISHED WORK

A. PROTECT INSIDE OF CONDUIT FROM DIRT AND RUBBISH DURING CONSTRUCTION BY CAPPING ALL OPENINGS WITH PLASTIC CAPS INTENDED FOR THE PURPOSE.

B. PROTECT STUB-UPS FROM DAMAGE WHERE CONDUITS RISE FROM FLOOR SLABS. ARRANGE SO CURVED PORTION OF BENDS IS NOT VISIBLE ABOVE THE FINISHED SLAB.

3.05 GROUNDING

A. ELECTRICALLY GROUND METALLIC CABINETS, BOXES, AND ENCLOSURES. WHERE WIRING TO ITEM INCLUDES A GROUNDING CONDUCTOR, PROVIDE A GROUNDING TERMINAL IN THE INTERIOR OF THE CABINET, BOX, OR ENCLOSURE.

3.06 CLEANING AND FINISH REPAIR

A. UPON COMPLETION OF INSTALLATION, INSPECT COMPONENTS. REMOVE BURRS, DIRT, AND CONSTRUCTION DEBRIS AND REPAIR DAMAGED FINISH INCLUDING CHIPS, SCRATCHES, ABRASIONS AND WELD MARKS. CLEAN SURFACES TO BE PAINTED.

B. GALVANIZED FINISH: REPAIR DAMAGE USING A ZINC-RICH PAINT RECOMMENDED BY THE MANUFACTURER.

C. PAINTED FINISH: REPAIR DAMAGE USING MATC

PARTIAL LIST OF APPLICABLE CODES

- 2022 CALIFORNIA ADMINISTRATIVE CODE (CAC), PART 1, TITLE 24 CCR
- 2022 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 CCR
- 2022 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 CCR
- 2022 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24 CCR
- 2022 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 CCR
- 2022 CALIFORNIA ENERGY CODE (CEC), PART 6, TITLE 24 CCR
- 2022 CALIFORNIA FIRE CODE (CFC), PART 9, TITLE 24 CCR (
- 2022 CALIFORNIA EXISTING BUILDING CODE (CEBC), PART 10, TITLE 24 CCR
- 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGREEN), PART 11, TITLE 24 CCR
- 2022 CALIFORNIA REFERENCED STANDARDS CODE, PART 12, TITLE 24, CCR
- TITLE 19 CCR, PUBLIC SAFETY, STATE FIRE MARSHALL REGULATIONS

PARTIAL LIST OF APPLICABLE STANDARDS

NFPA 13	STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS (CA AMENDED)	2022 EDITION
NFPA 14	STANDARD FOR THE INSTALLATION OF STANDPIPE AND HOSE SYSTEMS	2019 EDITION
NFPA 17	STANDARD FOR DRY CHEMICAL EXTINGUISHING SYSTEMS	2021 EDITION
NFPA 17A	STANDARD FOR WET CHEMICAL EXTINGUISHING SYSTEMS	2021 EDITION
NFPA 20	STANDARD FOR THE INSTALLATION OF STATIONARY PUMPS FOR FIRE PROTECTION	2019 EDITION
NFPA 22	STANDARD FOR WATER TANKS FOR PRIVATE FIRE PROTECTION	2023 EDITION
NFPA 24	STANDARD FOR THE INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES	2019 EDITION
NFPA 72	NATIONAL FIRE ALARM AND SIGNALING CODE (CA AMENDED)	2022 EDITION
NFPA 80	STANDARD FOR FIRE DOORS AND OTHER OPENING PROTECTIVES	2019 EDITION
NFPA 2001	STANDARD ON CLEAN AGENT FIRE EXTINGUISHING SYSTEMS	2018 EDITION
UL 300	STANDARD FOR FIRE TESTING OF FIRE EXTINGUISHING SYSTEMS FOR PROTECTION OF COMMERCIAL COOKING EQUIP.	2005 (R2010)
UL 464	AUDIBLE SIGNALING DEVICES FOR FIRE ALARM AND SIGNALING SYSTEMS, INCLUDING ACCESSORIES	2019 EDITION
UL 521	STANDARD FOR HEAT DETECTORS FOR FIRE PROTECTIVE SIGNALING SYSTEMS	1999 EDITION
UL 1971	STANDARD FOR SIGNALING DEVICES FOR THE HEARING IMPAIRED	2019 EDITION
ICC 300	STANDARD FOR BLEACHERS, FOLDING AND TELESCOPIC SEATING AND GRANDSTANDS	2017 EDITION

FOR A COMPLETE LIST OF APPLICABLE NFPA STANDARDS REFER TO 2022 CBC (SFM) CHAPTER 35 AND CALIFORNIA FIRE CODE CHAPTER 80.

SEE CALIFORNIA BUILDING CODE, CHAPTER 35, FOR STATE OF CALIFORNIA AMENDMENTS TO THE NFPA STANDARDS.

FIRE ALARM SEQUENCE OF OPERATIONS MATRIX

SYSTEM OUTPUTS

	CONTROL UNIT ANNUNCIATION	NOTIFICATION
ACTUATE COMMON ALARM SIGNAL INDICATOR		
ACTUATE AUDIBLE ALARM/SPEAKER SIGNAL		
ACTUATE COMMON SUPERVISORY SIGNAL INDICATOR		
ACTUATE AUDIBLE SUPERVISORY SIGNAL		
ACTUATE COMMON TROUBLE SIGNAL INDICATOR		
ACTUATE AUDIBLE COMMON TROUBLE SIGNAL		
ACTUATE EVACUATION TROUBLE SIGNAL		
DISPLAY CHANGE OF STATUS		
TRANSMIT FIRE ALARM SIGNAL TO SUPERVISING STATION		
TRANSMIT SUPERVISORY SIGNAL TO SUPERVISING STATION		
TRANSMIT TROUBLE SIGNAL TO SUPERVISING STATION		
ACTUATE INTELLIGIBLE MESSAGE		

SYSTEM INPUTS

		A	B	C	D	E	F	G	H	I	J	K	L	
1	SMOKE DETECTORS	●	●					●	●	●			●	1
2	HEAT DETECTORS	●	●					●	●	●			●	2
3	MANUAL PULL STATION	●	●					●	●	●			●	3
4	FIRE ALARM AC POWER FAILURE					●	●					●		4
5	FIRE ALARM SYSTEM LOW BATTERY					●	●					●		5
6	OPEN CIRCUIT					●	●					●		6
7	GROUND CIRCUIT					●	●					●		7
8	NOTIFICATION APPLIANCE CIRCUIT SHORT					●	●					●		8
		A	B	C	D	E	F	G	H	I	J	K	K	

FIRE ALARM GENERAL NOTES

1. THE FIRE ALARM SHALL CONFORM TO ARTICLE 760 OF THE CALIFORNIA ELECTRICAL CODE.
2. UPON COMPLETION OF THE INSTALLATION OF THE FIRE ALARM SYSTEM, A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF THE AUTHORITY HAVING JURISDICTION (FIRE MARSHAL). THE CONTRACTOR SHALL PROVIDE ALL NECESSARY TEST EQUIPMENT (e.g. DIGITAL AMMETER, DECIBEL METER) AND VERIFY THAT THE GROUND FAULT DETECTION FOR THE FIRE ALARM SYSTEM IS OPERATIONAL DURING TESTING AND REMAINS SO ONCE THE SYSTEM IS APPROVED. UPON APPROVAL OF THE FIRE ALARM SYSTEM, THE CONTRACTOR SHALL PROVIDE THE OWNER WITH COMPLETE SET OF OPERATING INSTRUCTIONS FOR THE SYSTEM.
3. A MINIMUM OF 48 HOURS NOTICE SHALL BE REQUIRED PRIOR TO ANY INSPECTION AND/OR TEST.
4. AN APPROVED, STAMPED SET OF THE FIRE ALARM PLANS SHALL BE ON THE JOB SITE AND USED FOR INSTALLATION. ANY DEVIATIONS FROM THE APPROVED PLANS, INCLUDING SUBSTITUTION OF DEVICES, SHALL BE APPROVED BY THE FIRE MARSHAL.
5. ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE CODE OR RECOGNIZED STANDARDS SHALL BE BROUGHT TO THE ATTENTION OF THE INSPECTOR OF RECORD.
6. ALL DEVICES OF THE FIRE ALARM SYSTEM SHALL BE APPROVED AND LISTED BY THE CALIFORNIA STATE FIRE MARSHAL.
7. A "RECORD OF COMPLETION" SHALL BE PREPARED BY THE INSTALLER AND GIVEN TO THE FIRE MARSHAL UPON COMPLETION OF THE INSTALLATION.
8. ALL TERMINAL CABINETS AND JUNCTION BOXES SHALL BE CLEARLY MARKED THAT THE ENCLOSURE IS PART OF THE FIRE ALARM SYSTEM.
9. THE CONTRACTOR SHALL LOCATE ALL SMOKE DETECTION DEVICES A MINIMUM OF 36" FROM ANY MECHANICAL REGISTERS.
10. THESE DRAWINGS ARE DIAGRAMMATIC IN NATURE. WIRE LENGTHS USED TO CALCULATE VOLTAGE DROPS REPRESENT ESTIMATES BASED ON MEASUREMENTS OF SCALED FLOOR PLAN DRAWINGS. CONTRACTOR TO ROUTE CONDUIT AS FIELD CONDITIONS REQUIRE. CONTRACTOR TO INSTALL ALL DEVICES ACCORDING TO MANUFACTURERS INSTRUCTIONS AND IN COMPLIANCE WITH ALL APPLICABLE CODES.
11. CONTRACTOR SHALL VERIFY LOCATION OF POST INDICATOR VALVES (PIV's) AND/OR OUTSIDE STEM & YOKE (OS&Y) VALVES INSTALLED ON FIRE SPRINKLER SERVICE. CONTRACTOR SHALL PROVIDE AND INSTALL TAMPER SWITCH(ES) AT EACH OF THESE VALVES AND INTERCONNECT TAMPER SWITCH(ES) TO THE FIRE ALARM CONTROL PANEL (FACP).

GENERAL NOTES

1. APPLICABLE STANDARD 2022 NFPA 72
2. INSTALLATION OF THE SYSTEMS SHALL NOT BE STARTED UNTIL DETAILED DESIGN DOCUMENTS AND SPECIFICATION INCLUDING STATE FIRE MARSHAL LISTING NUMBERS FOR EACH COMPONENT OF THE SYSTEM HAS BEEN APPROVED BY DSA.
3. UPON COMPLETION OF THE SYSTEM A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF A DSA PROJECT INSPECTOR.
4. A STAMPED SET OF APPROVED FIRE ALARM DESIGN DOCUMENTS SHALL BE ON THE JOB SITE AND USED FOR INSTALLATION.
5. ANY DISCREPANCIES BETWEEN THE DRAWINGS AND THE CODE OR RECOGNIZED STANDARDS SHALL BE BROUGHT TO THE ATTENTION OF DSA AND THE ARCHITECT/ENGINEER OF THE PROJECT.
6. DSA, ARCHITECT/ENGINEER AND OWNER SHALL BE NOTIFIED A MINIMUM OF 48 HOURS PRIOR TO THE FINAL INSPECTION AND / OR TESTING .
7. ALL PENETRATIONS THROUGH RATED ASSEMBLIES, REQUIRING OPENING PROTECTION SHALL BE PROVIDED WITH A PENETRATION FIRE STOP SYSTEM AS IDENTIFIED IN CBC CHAPTER 7, UL OR OTHER LAB TESTING CRITERIA APPROVED TYPE OF MATERIALS SHALL BE IDENTIFIED WITHIN THE SPECIFICATION WITHIN THE FIRE ALARM SECTION.
8. WALL MOUNTED VISUAL NOTIFICATION DEVICES SHALL HAVE THEIR BOTTOMS MOUNTED AT 80 " MINIMUM AND 100 " MAXIMUM FROM FINISHED FLOOR AND NO CLOSER THAN 6 " TO A HORIZONTAL STRUCTURE.
9. AUDIBLE DEVICES TO BE AT LEAST 15 DBA ABOVE THE AVERAGE AMBIENT SOUND LEVEL BUT NOT LESS THAN 75 DBA AT 10 FEET OR MORE THAN 110 DBA AT THE MINIM HEARING DISTANCE. SOUND LEVEL SHALL BE MAINTAINED FOR DURATION OF AT LEAST 60 SECONDS, 5 DBA MUST BE MAINTAINED.
10. AUDIBLE DEVICES SHALL BE SYNCHRONIZED TEMPORAL CODE 3 PATTERN.
11. THE CONTRACTOR SHALL ADJUST/INSTALL ALL DEVICES TO MAXIMIZE PERFORMANCE AND TO MINIMIZE FALSE ALARMS.
12. VISUAL DEVICES SHOULD NOT EXCEED 2 FLASHES PER SECOND AND NOT BE SLOWER THAN 1 FLASH EVERY SECOND. THE DEVICE SHALL HAVE A PULSING LIGHT SOURCE NOT LESS THAN 15 CANDELA. VISUAL DEVICES WITHIN 55 ' FROM EACH OTHER SHALL BE SYNCHRONIZED.
13. UNDERGROUND AND EXTERIOR CONDUITS TO HAVE WATERTIGHT FITTINGS AND WIRE TO BE APPROVAL FOR WET LOCATIONS.
14. ALL FIRE ALARM WIRING SHALL BE FLP OR FPLP (FIRE POWER LIMITED OR FIRE POSER LIMITED PLENUM) AS REQUIRED FOR APPLICATION. WIRING IN CONDUIT ABOVE GROUND MAY BE THHN OR THWN.
15. PER CEC STANDARDS, ALL WIRING IS TO BE PULLED THROUGH EACH JUNCTION BOX AND CONNECTION DIRECTLY TO EACH FIRE DEVICE. DO NOT SPLICE THE WIRE. THERE MUST BE AT LEAST 6 ' OF LEAD WIRE FROM THE BOX TO THE DEVICE. ALL BOXES TO BE SIZED PER CEC.
16. SMOKE DETECTORS SHALL NOT BE CLOSER THAN 1 ' FROM FIRE SPRINKLERS OR 3 ' FROM ANY SUPPLY DIFFUSER. IN AREA OF CONSTRUCTION OR POSSIBLE DAMAGE/CONTAMINATION ON NEWLY INSTALLED FIRE ALARM DEVICES SHALL BE COVERED UNTIL THAT AREA IS READY TO BE TURNED OVER TO THE OWNER.
17. ALL FIRE ALARM CIRCUITS SHALL BE IN CONDUIT, SURFACE RACEWAY OR OPEN RUN ABOVE CEILINGS, UNDER FLOORS AND IN WALLS IN NEAT AND PROTECTED MANOR AS INDICATED ON DESIGN DOCUMENTS. EXPOSED CIRCUITS ARE ONLY PERMITTED WHEN NOTED AS EXPOSED ON DESIGN DOCUMENTS.
18. FIRE ALARM PANEL, REMOTES, AND COMPONENTS SHALL BE SECURED TO MOUNTING SURFACES PER MANUFACTURERS SPECIFICATIONS. NO SINGLE DEVICES SHALL EXCEED THE WEIGHT OF 20 LBS. WITHOUT SPECIAL MOUNTING DETAILS
19. A DEDICATED BRANCH CIRCUIT SHALL BE PROVIDED FOR FIRE ALARM EQUIPMENT. THIS CIRCUIT SHALL BE ENERGIZED FROM THE COMMON USE AREA PANEL AND SHALL HAVE NO OTHER OUTLETS. THE BREAKER SHALL HAVE A RED LOCKING DEVICE TO BLOCK THE HANDLE IN THE "ON" POSITION. THE CIRCUIT BREAKER SHALL BE LABELED "FIRE ALARM CIRCUIT CONTROL ". CIRCUIT ID TO BE LABELED AT FIRE PANEL/EXTENDERS.
20. THE INSTALLING CONTRACTOR SHALL PROVIDE A RECORD OF COMPLETION PER NFPA 72, FIGURE 10.18.2.1.1.
21. CONTROL PANELS, REMOTE ANNUNCIATORS SHALL BE INSTALLED WITH THEIR BOTTOMS MOUNTED AT 48 "
22. THE INSTALL CONTRACTOR SHALL PROVIDE SYSTEM PROGRAMMING FOR SUPERVISORY MONITORING PER CBC SECTION 901.6.2.
23. SUPERVISORY MONITORING SHALL BE TESTED AND VERIFIED AS SENDING CORRECT SIGNALS IN CONJUNCTION WITH FINAL ACCEPTANCE TEST.
24. OWNER SHALL BE RESPONSIBLE FOR ESTABLISHING A FIRE SYSTEM MONITORING CONTRACT OR PROVISIONS.
25. EVACUATION MICROPHONE ACCESSIBILITY SHALL COMPLY WITH CBC 11B-305 AND 11B-308.
26. AUTOMATIC FIRE ALARM SYSTEMS SHALL BE MONITORED AND SHALL TRANSMIT THE ALARM, SUPERVISOR, AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION IN ACCORDANCE WITH NFPA 72, AS AMENDED BY CFC CHAPTER 80. THE SUPERVISING STATION SHALL BE LISTED AS EITHER UUFX (CENTRAL STATION) OR UUJS (REMOTE & PROPRIETARY) BY UNDERWRITERS LABORATORY INC. (UL) OR OTHER APPROVED LISTING AND TESTING LABORATORY OR SHALL COMPLY WITH THE REQUIREMENTS OF STANDARD, FACTORY MUTUAL (FM) 3011. TERMINATION OF MONITORING SERVICES SHALL BE IN ACCORDANCE WITH CBC/CFC SECTION 907.6.6.2.

FIRE ALARM SYMBOL LIST

SYMBOL	QTY	PART #	DESCRIPTION	CSFM #	
FACP		6820-EVS PS-12180	SILENT KNIGHT FIRE ALARM CONTROL PANEL WITH VOICE POWER SONIC 12VDC 18AH BATTERIES	7165-0559:0500 N/A	(EXISTING)
EVAC		EVS-50W DURA12-BF	SILENT KNIGHT 50 WATT AMPLIFIER DURACELL 12VDC 8AH BATTERIES	7165-0559:0500 N/A	
LOC		EVS-LOC	SILENT KNIGHT LOCAL OPERATING CONSOLE	7165-0559:0500 N/A	(EXISTING)
RPS		5496 DURA12-BF	SILENT KNIGHT INTELLIGENT POWER MODULE DURACELL 12VDC 8AH BATTERIES	7300-0559:0171 N/A	
CSM		MO03-LTE-M-FIRE-AV	M2M UNIVERSAL SOLE/DUAL PATH COMMERCIAL FIRE COMMUNICATOR	7300-2329:0500	(EXISTING)
F		SK-PULL-DA	SILENT KNIGHT DUAL ACTION PULL STATION	7150-0559:0161	
R		SK-RELAY	SILENT KNIGHT ADDRESSABLE RELAY MODULE	7300-0559:0155	
S		SK-MINIMON	SILENT KNIGHT ADDRESSABLE MINI MONITOR MODULE	7300-0559:0155	
		SK-PHOTO	SILENT KNIGHT ADDRESSABLE PHOTOELECTRIC SMOKE DETECTOR WITH 6" DETECTOR BASE	7272-0559:0149	(EXISTING)
AC		SK-HEAT-HT	SILENT KNIGHT ADDRESSABLE 194 HEAT DETECTOR WITH 6" DETECTOR BASE "AC" INDICATES ABOVE CEILING	7270-0559:0147	(EXISTING)
		SPSCRL	SYSTEM SENSOR MULTI-CD LED SPEAKER-STROBE, CEILING MOUNT "XX" INDICATES CANDELA RATING, "XW" INDICATES SPEAKER WATTAGE	7320-1653:0505	(EXISTING)
S WP		ET-1010-R	WHEELOCK WEATHERPROOF VANDAL RESISTANT SPEAKER WITH WEATHERPROOF BACK BOX, "XW" INDICATES SPEAKER WATTAGE	7320-0785:0105	(EXISTING)
			END OF LINE RESISTOR		

NOTE:
NOT ALL COMPONENTS USED FOR THE VOICE EVAC PANEL ARE SHOWN. QUANTITIES FOR BIDDING PURPOSE ONLY.

X	EXISTING DEVICE TO REMAIN
XR	EXISTING DEVICE TO BE REMOVED AND REPLACED
S	15cd - REPRESENTS CANDELA INTENSITY NX - REPRESENTS NAC CIRCUIT NUMBER VX - REPRESENTS SPEAKER CIRCUIT NUMBER
SD	D1 - REPRESENTS SLC NUMBER

DEVICE LEGEND

SYMBOL	DESCRIPTION	MOUNTING
	TERMINAL CABINET WITH PLYWOOD BACKBOARD	12"X12"X4"

CONDUIT LEGEND

———	CONDUIT CONCEALED IN WALL OR CEILING SPACE, UNLESS OTHERWISE NOTED
– – – – –	CONDUIT CONCEALED UNDER FLOOR OF SLAB OR UNDERGROUND, UNLESS OTHERWISE NOTED

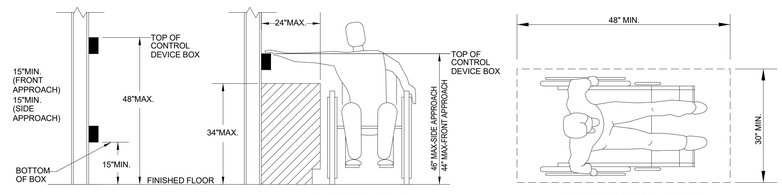
SCOPE OF WORK

PROVIDE FIRE ALARM EXPANSION FOR EXISTING PORTABLES UTILIZED AT NEW LOCATION. THE INTENT OF THIS PROJECT IS TO ADD NEW REMOTE EXPANSION POWER SUPPLY TO THE NEW RELOCATED PORTABLES WITH ALL THE EXISTING LISTED DEVICES. ALL EXISTING ALARM INITIATING DEVICES, SUPERVISORY SIGNAL INITIATING DEVICES AND ANNUNCIATORS ALARM NOTIFICATION APPLIANCES, POWER SUPPLIES AND BATTERIES, LOCAL FIRE ALARM PANELS TO REMAIN IN FULLY OPERATION.

SCOPE OF WORK INCLUDING BUT NOT LIMITED TO:

A. FIRE ALARM SYSTEM IN THE AFFECTED AREAS AND THE INSTALLATION OF A NEW ADDRESSABLE FIRE ALARM SYSTEM IN ITS PLACE AND ADDITIONAL DEVICES FOR COVERAGE TO COMPLY WITH THE LATEST NFPA 72 2022 STANDARD.
B. PROVIDE SHOP DRAWINGS AND DOCUMENTATION FOR REVIEW AND APPROVAL PRIOR TO START OF WORK.
C. EXISTING FIRE ALARM PANEL FACP TO REMAIN. PROVIDE NEW FIRE ALARM DEVICES AND CABLING IN THE AREA OF SCOPE OF WORK ONLY.
D. PROVIDE AND INSTALL NEW FIRE ALARM SYSTEM WITH THE CAPABILITY FOR VOICE EVAC, ADDRESSABLE DEVICES AND CABLING.
E. MODIFY FIRE ALARM MAIN EXISTING SYSTEM TO INCLUDE THE NEW INTERIM HOUSING TO BE PART OF THE CONTRACTOR SCOPE.
G. REPAIR OR PATCH ALL HOLES CREATED BY THE INSTALLATION OF THE NEW SYSTEM OF REMOVAL OF EXISTING EQUIPMENT. PAINT REPAIRS TO MATCH EXISTING CONDITIONS. RESTORE FIRE RESISTIVE RATING WHERE REQUIRED.
H. NEW REMOTE POWER EXPANSION TO CONNECT AND MONITORING ALL CAMPUS EXISTING FIRE ALARM SYSTEM.

ADA MOUNTING HEIGHT REFERENCES



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DATE SIGNED: MM/DD/YYYY	

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KEY PLAN

PARADISE UNIFIED SCHOOL DISTRICT
6696 CLARK ROAD
PARADISE, CA 95969

PROJECT STATUS

PARADISE RIDGE ELEMENTARY SCHOOL
PORTABLES
6593 PENTZ ROAD PARADISE, CA 95969

FIRE ALARM LEGEND AND GENERAL NOTES

Date	Project Number
MM/DD/YYYY	20016
Application Number	Drawing Number
XX-XXXXXX	FA0.1
Drawn / Checked	
Author / Checker	

PRINT DATE: 3/20/2024 2:53:12 PM
FILE PATH: C:\Users\corey.taylor\Documents\2023-105654-00 - Paradise Ridge ES Relos_corey.taylor3F1J.rvt

UL1971 VOLTAGE DROP FORMULA

VD	= VOLTAGE DROP			UL MAX VOLTAGE
L	= ONE WAY LENGTH OF CIRCUIT (IN FEET)	VD =	2 x L x R x I	24VDC - 15% = 20.4
R	= CONDUCTOR RESISTANCE (IN OHMS/FEET)		1000	20.4
I	= LOAD CURRENT (IN AMPS)			Max Starting Volts

FIRE ALARM CIRCUIT VOLTAGE LINE LOSS

F.A. SYSTEM VOLTAGE: 20 VOLTS

	CIRCUIT NUMBER	DEVICE LOAD IN AMPS STROBE 15 CD	DEVICE LOAD IN AMPS SPEAKER STROBE 15CD	DEVICE LOAD IN AMPS STROBE 30 CD	DEVICE LOAD IN AMPS SPEAKER STROBE 30CD	DEVICE LOAD IN AMPS STROBE 75 CD	DEVICE LOAD IN AMPS SPEAKER STROBE 75CD	DEVICE LOAD IN AMPS STROBE 110 CD	DEVICE LOAD IN AMPS SPEAKER STROBE 110CD	DEVICE LOAD IN AMPS SPEAKER	TOTAL DEVICE LOAD IN AMPS	CONDUCTOR CROSS-SECTIONAL AREA IN CIRCULAR MILLS	SEGMENT LENGTH IN FEET	VOLTAGE LOSS IN VOLT	LINE LOSS IN %
		0.063	0.063	0.084	0.084	0.143	0.143	0.178	0.178	0.018					
RPS - NAC1	V1/S1		0			3	0	1	3		1.141	6530	250	1.101	5.397%

Project Name: PUSD Paradise Ridge Jr High School
Installed By:
Designed By: Salas Obrien Engineer
Date: 2/13/2024
Standby Hours: 24
Alarm Mins: 15
Safety Margin: 25%
NAC Source Voltage: 20.4

Battery & Voltage Drop Calculations

Model #: SILENT KNNIGHT 5496
Panel ID: RPS
Location: Portable P1
Max Panel Current (amps): 6

User assumes all responsibility to ensure the quantities and current draw values in this worksheet are accurate prior to submittal.

1	5496 NAC Power Expander		0.040	0.040	0.160	0.160
				Panel Standby:	**Panel Alarm:**	
				0.040	**0.160**	

1	Notification	NAC#1	Class B	0.52800		1.58400
2			Class B	0.00000		0.00000
3			Class B	0.00000		0.00000
4			Class B	0.00000		0.00000
AUX				0.00000		0.00000
				NAC Standby:	**NAC Alarm:**	
				0.52800	**1.58400**	

Panel Current:	0.04000	0.16000
NAC Circuit Current:	0.52800	1.58400
Total Standby:	**0.568000**	**Total Alarm:** **1.74400**
Standby Hours:	24	**Alarm Mins:** 15
AH Required:	**13.64**	**AH Required:** **0.44**
Total Combined Standby & Alarm AmpHours Required:		14.08
Safety Margin:		25%
Required Battery AmpHours:		**16.90**
Battery AmpHours Provided:		**24**

NAC Circuit Configuration & Voltage Drop *PUSD* *2/13/2024*

Class: Class B **Usage:** Notification **Description:** NAC#1

	#14 Solid	3.19	250	1.595	1.584	17.87	16

3	User Defined User Defined User Defined	SPEAKER/STROBE 75CD	0.176000	0.528000	0.528000	1.584000

User can add devices on the fly to these bottom 5 rows (No lookup function)

Total Standby: **0.52800** **Total Alarm:** **1.58400**

Project Name: PUSD Paradise Ridge Jr High School
Installed By:
Designed By: Salas Obrien Engineer
Date: 2/13/2024
Standby Hours: 24
Alarm Mins: 15
Safety Margin: 25%
NAC Source Voltage: 20.4

Battery & Voltage Drop Calculations

Model #: SILENT KNNIGHT EVS--50
Panel ID: EVAC
Location: Portable P1
Max Panel Current (amps): 6

User assumes all responsibility to ensure the quantities and current draw values in this worksheet are accurate prior to submittal.

1	EVS-50W	WVS-50W AUDIO AMPLIFIER	0.085	0.085	0.525	0.525
				Panel Standby:	**Panel Alarm:**	
				0.085	**0.525**	

1	SPEAKER/STROBE	S1	Class B	0.51000		1.21800
2			Class B	0.00000		0.00000
3			Class B	0.00000		0.00000
4			Class B	0.00000		0.00000
AUX				0.00000		0.00000
				NAC Standby:	**NAC Alarm:**	
				0.51000	**1.21800**	

Panel Current:	0.08500	0.52500
NAC Circuit Current:	0.51000	1.21800
Total Standby:	**0.595000**	**Total Alarm:** **1.74300**
Standby Hours:	24	**Alarm Mins:** 15
AH Required:	**14.28**	**AH Required:** **0.44**
Total Combined Standby & Alarm AmpHours Required:		14.72
Safety Margin:		25%
Required Battery AmpHours:		**17.66**
Battery AmpHours Provided:		**18**

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LICENSED ARCHITECT BRYAN P WHITMORE No. C 30345 Ren. 9/30/23 STATE OF CALIFORNIA DATE SIGNED MM/DD/YYYY	REGISTERED PROFESSIONAL ENGINEER Eduardo A. Olmos No. M35125 ELECTRICAL STATE OF CALIFORNIA

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○ BIDDING	
○ CONSTRUCTION	

KEY PLAN

PARADISE UNIFIED SCHOOL DISTRICT
6696 CLARK ROAD
PARADISE, CA 95969

PROJECT STATUS

PARADISE RIDGE ELEMENTARY SCHOOL
PORTABLES
6593 PENTZ ROAD PARADISE, CA 95969

FIRE ALARM CALCULATIONS

Date: MM/DD/YYYY	Project Number: 20016
Application Number: XX-XXXXXX	Drawing Number: FA0.2
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Author / Checker	

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GENERAL NOTES

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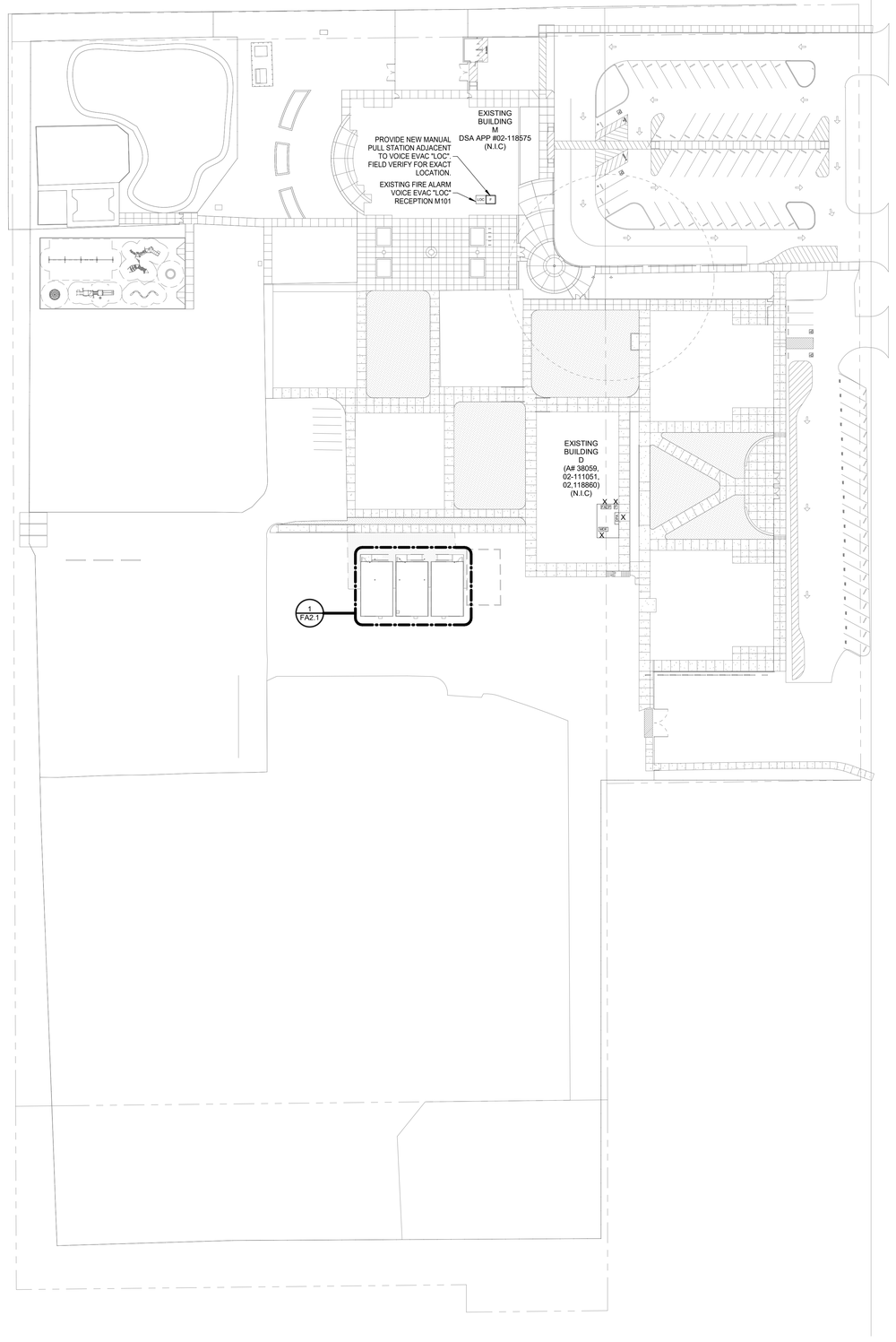

1 **FIRE ALARM OVERALL SITE PLAN**
Scale: 1" = 40'-0"

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PARADISE, CA 95969

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PORTABLES
6593 PENTZ ROAD PARADISE, CA 95969

FIRE ALARM OVERALL SITE PLAN

Date: MM/DD/YYYY	Project Number: 20016
Application Number: XX-XXXXXX	Drawing Number: FA1.1
Drawn: Author	Checked: Checker

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OUTDOOR WIRE LEGEND				
SYMBOL	WIRE SIZE	MANUFACTURER	MODEL NO.	DESCRIPTION
(D)	(4)#16	WEST PENN	AQ 225	OUTDOOR UNDERGROUND RATED CABLE (INITIATION LOOP)
(E)	(2)#12	WEST PENN	-	OUTDOOR BLACK/RED (SPEAKER)

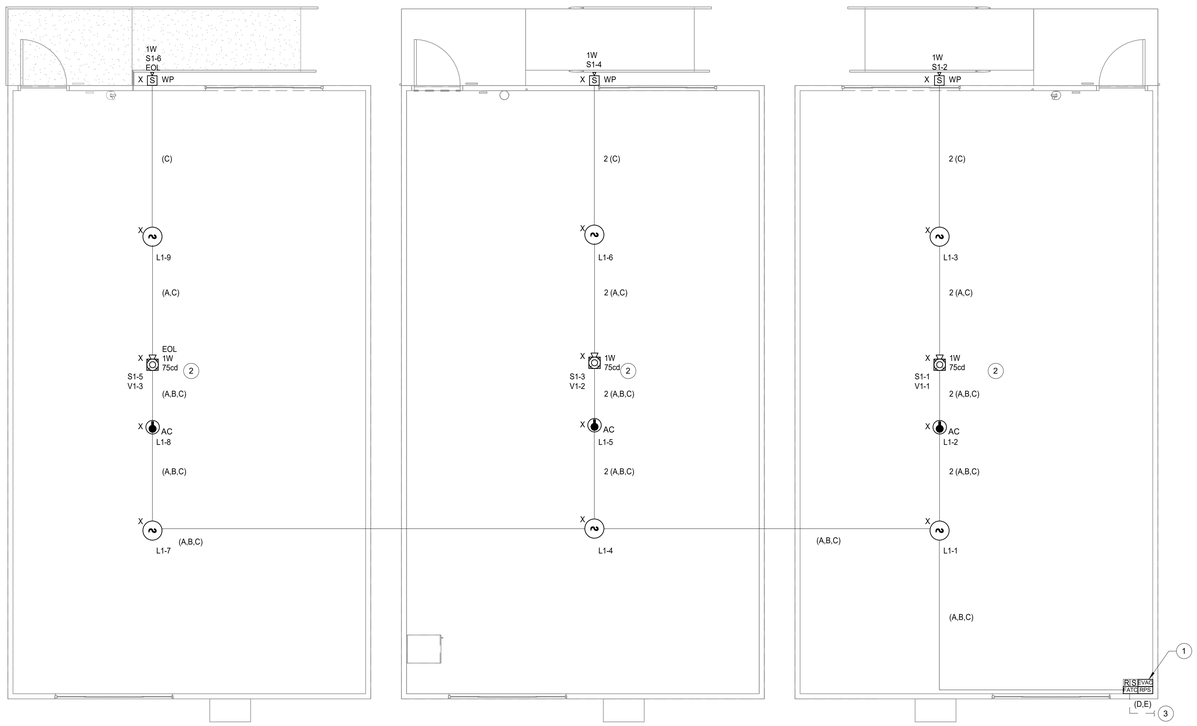
INDOOR WIRE LEGEND				
SYMBOL	WIRE SIZE	MANUFACTURER	MODEL NO.	DESCRIPTION
(A)	(2)#16	WEST PENN	D975	INDOOR SHIELDED TWISTED PAIR (INTIATION CIRCUIT)
(B)	(2)#12	WEST PENN	D999	INDOOR BLACK/RED (SPEAKER/STROBE SIGNAL)
(C)	(2)#16	WEST PENN	D991	INDOOR SHIELDED TWISTED PAIR CABLE (24V POWER)

GENERAL NOTES

A. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND COORDINATE WITH ALL OTHER TRADES. IN CASE OF DISCREPANCIES OR ANY POTENTIAL CONFLICTS, INFORM THE ARCHITECT AND ENGINEER IN WRITING PRIOR TO START OF WORK.

FIRE ALARM KEYED NOTES

1	PROVIDE DEDICATED 120VAC POWER WITH LOCK-ON "RED"HANDLE CIRCUIT BREAKER LABEL FOR "FA". SEE ELECTRICAL DRAWINGS.
2	ALL FIRE ALARM DEVICES (NOTIFICATION, SIGNALING) ARE EXISTING. INTERCEPT AND EXTEND NAC CIRCUIT AND SIGNALING CIRCUITS TO NEW VOICE EVAC REMOTE POWER. PROVIDE CABLING AND WIRING AS REQUIRED PER NFPA 72.
3	ROUTE TO FACP IN STORAGE ROOM BUILDING 3. SEE ELECTRICAL SHEET E1.1 FOR ROUTING.



1 FIRE ALARM ENLARGED PLAN
Scale: 1/4" = 1'-0"

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- ○ CONSTRUCTION

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PARADISE, CA 95969

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PORTABLES
6593 PENTZ ROAD PARADISE, CA 95969

FIRE ALARM ENLARGED PLAN

Date	Project Number
MM/DD/YYYY	20016
Application Number	Drawing Number
XX-XXXXXX	FA2.1
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Author / Checker	

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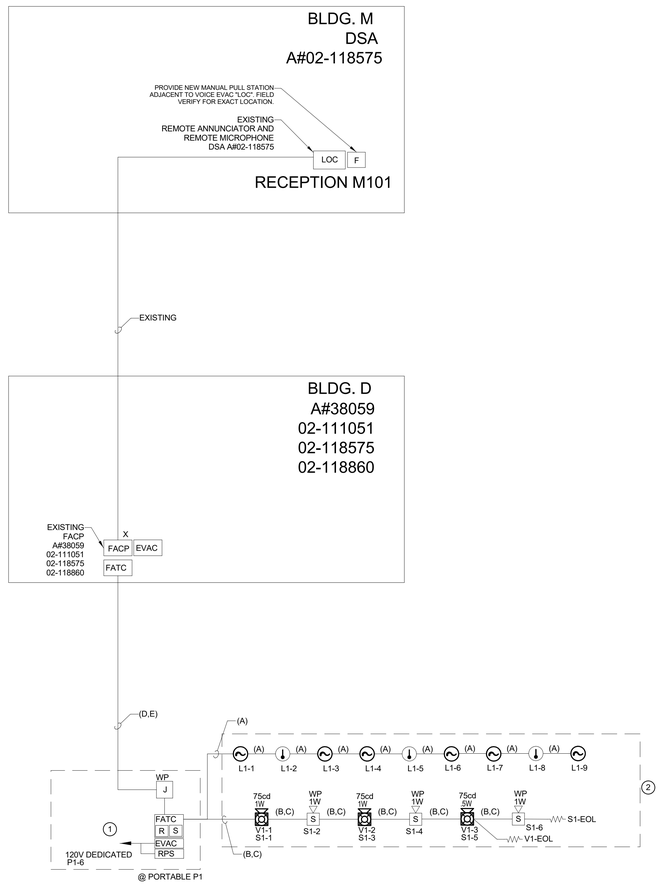
OUTDOOR WIRE LEGEND				
SYMBOL	WIRE SIZE	MANUFACTURER	MODEL NO.	DESCRIPTION
(D)	(4)#16	WEST PENN	AQ 225	OUTDOOR UNDERGROUND RATED CABLE (INITIATION LOOP)
(E)	(2)#12	WEST PENN	-	OUTDOOR BLACK/RED (SPEAKER)

INDOOR WIRE LEGEND				
SYMBOL	WIRE SIZE	MANUFACTURER	MODEL NO.	DESCRIPTION
(A)	(2)#16	WEST PENN	D975	INDOOR SHIELDED TWISTED PAIR (INTIATION CIRCUIT)
(B)	(2)#12	WEST PENN	D999	INDOOR BLACK/RED (SPEAKER/STROBE SIGNAL)
(C)	(2)#16	WEST PENN	D991	INDOOR SHIELDED TWISTED PAIR CABLE (24V POWER)



1 FIRE ALARM RISER DIAGRAM

Scale: NO SCALE

GENERAL NOTES

A. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND COORDINATE WITH ALL TRADES. IN CASE OF DISCREPANCIES OR ANY POTENTIAL CONFLICTS, INFORM THE ARCHITECT AND ENGINEER IN WRITTING PRIOR TO START OF WORK.

B. ALL WORK SHOWN IS EXISTING, UNLESS NOTED OTHERWISE.

C. ALL FIRE ALARM CABLING SHALL BE ROUTED/PROTECTED IN 3/4" MINIMUM CONDUIT.

KEY NOTES

1. PROVIDE DEDICATED CIRCUIT BREAKER WITH LOCK-ON "RED" HANDLE. SEE ELECTRICAL PLANS.

2. ALL NOTIFICATION AND SIGNALING DEVICES ARE EXISTING TO REMAIN. INTERCEPT AND EXTEND CABLING FROM THE REMOTE POWER SUPPLY AND VOICE EVACUATION AMPLIFIER. PROVIDE WIRING CONDUIT AS REQUIRED. CONTRACTOR SHALL COORDINATE WITH DISTRICT IT AND FIRE ALARM MONITORING COMPANY TO REPROGRAM EXISTING MAIN FIRE ALARM CONTROL PANEL TO INCLUDE THE NEW PORTABLES IN OPERATION MATRIX.

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DATE
- ○ DSA PLAN CHECK
- ○ DSA BACK CHECK
- ○ BIDDING
- ○ CONSTRUCTION

KEY PLAN

PARADISE UNIFIED SCHOOL DISTRICT
6696 CLARK ROAD
PARADISE, CA 95969

PROJECT STATUS

PARADISE RIDGE ELEMENTARY SCHOOL
PORTABLES
6593 PENTZ ROAD PARADISE, CA 95969

FIRE ALARM RISER DIAGRAM

Date	Project Number
MM/DD/YYYY	20016
Application Number	Drawing Number
XX-XXXXXX	FA4.1
Drawn / Author	Checked / Checker

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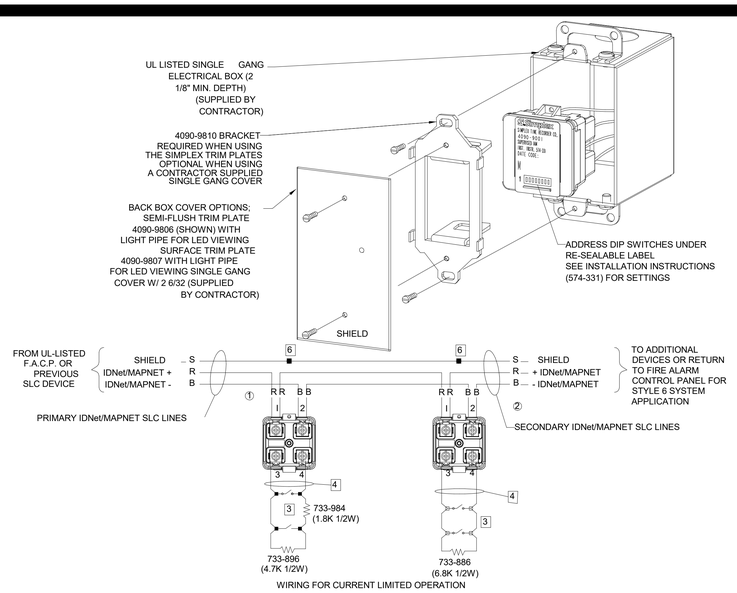


WIRING FOR CURRENT LIMITED OPERATION

DNET SLC, INPUT MODULE (AIM)

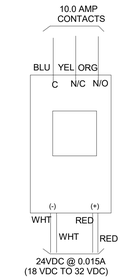
SCALE	5
NONE	

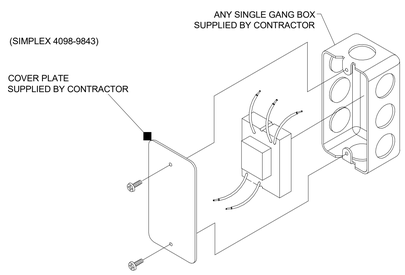
SPECIFICATIONS:

- POWER REQUIREMENTS: 0.015 AMP @ 24VDC (17 VDC TO 32 VDC)
- RELAY: U.L. RECOGNIZED SPDT
- CONTACT RATING: 7 AMPS @ 120VAC & 28 VDC 250 MICRO AMPS @ 5 VDC
- AMBIENT TEMPERATURE: -50° F TO 85 °F (-50°C TO 85°C)
- APPROVALS: UNDERWRITERS LABORATORIES LISTED
- 12" 18 AWG WIRE LEADS
- DIMENSIONS: 1-1/2"H X 1 7/8" W X 13/16" D (38.1mm H X 47.625mm W X 20.638mm D)

FEATURES:

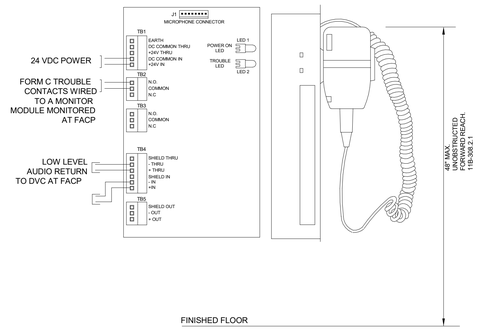
- SINGLE SPDT RELAY
- DOUBLE-SIDED ADHESIVE TAPE
- MOUNTING SCREW
- 5 WIRE NUTS

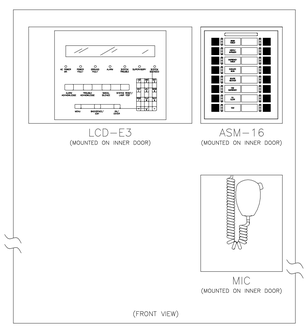




RELAY MODULE

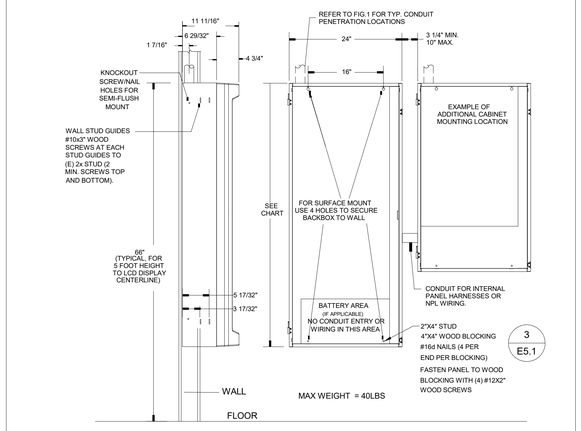
SCALE	1
NONE	





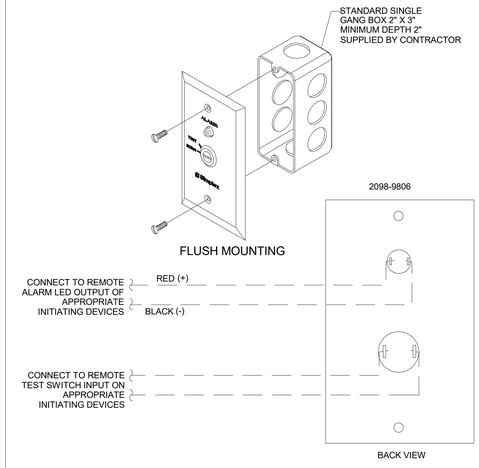
EXISTING REMOTE MICROPHONE

SCALE	6
NONE	



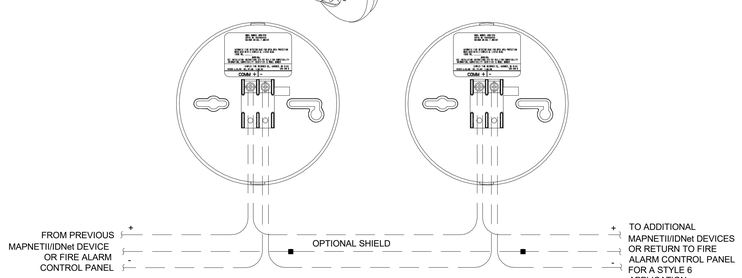
CABINET MOUNTING DETAIL

SCALE	4
NONE	



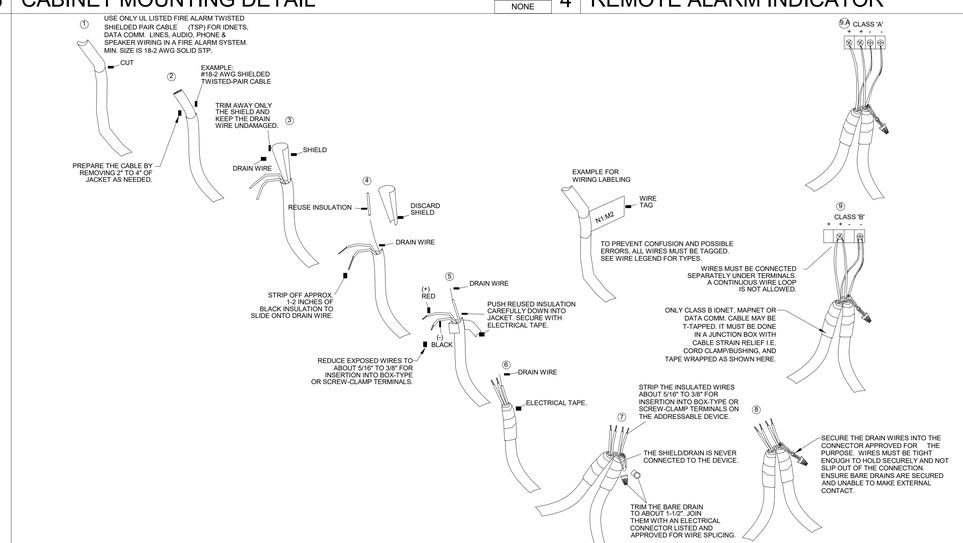
REMOTE ALARM INDICATOR

SCALE	2
NONE	



4098-9792 STANDARD SENSOR BASE

SCALE	7
NONE	



SIGNALING LINE CIRCUITS SHIELDING SAMPLE

SCALE	3
NONE	

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- BIDDING
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KEY PLAN

PARADISE UNIFIED SCHOOL DISTRICT
6696 CLARK ROAD
PARADISE, CA 95969

PROJECT STATUS

PARADISE RIDGE ELEMENTARY SCHOOL
PORTABLES
6593 PENTZ ROAD PARADISE, CA 95969

FIRE ALARM DETAILS

Date	Project Number
MM/DD/YYYY	20016
Application Number	Drawing Number
XX-XXXXXX	FA5.1
Drawn / Checked	
Author / Checker	

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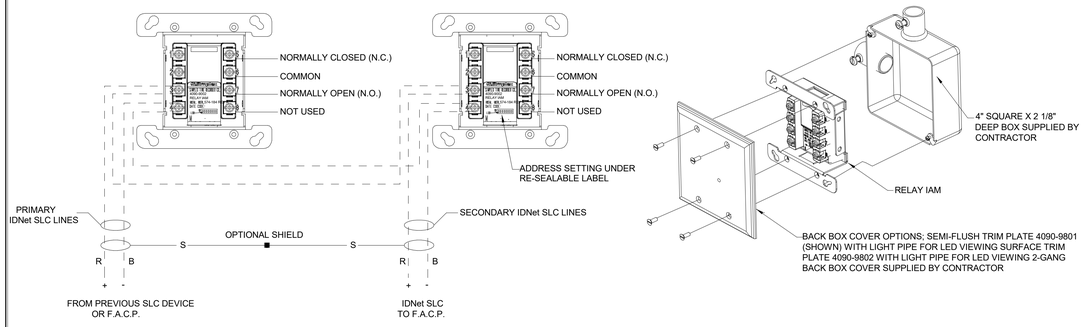
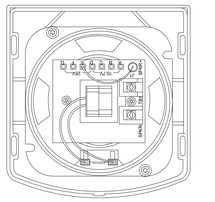
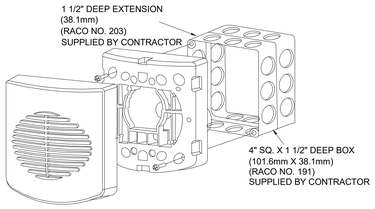


INDIVIDUAL ADDRESSABLE OUTPUT MODULE RELAY (AOM)

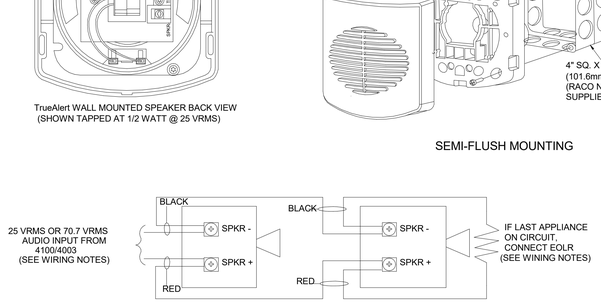
SCALE	
NONE	4



TrueAlert WALL MOUNTED SPEAKER BACK VIEW
(SHOWN TAPPED AT 1/2 WATT @ 25 VRMS)

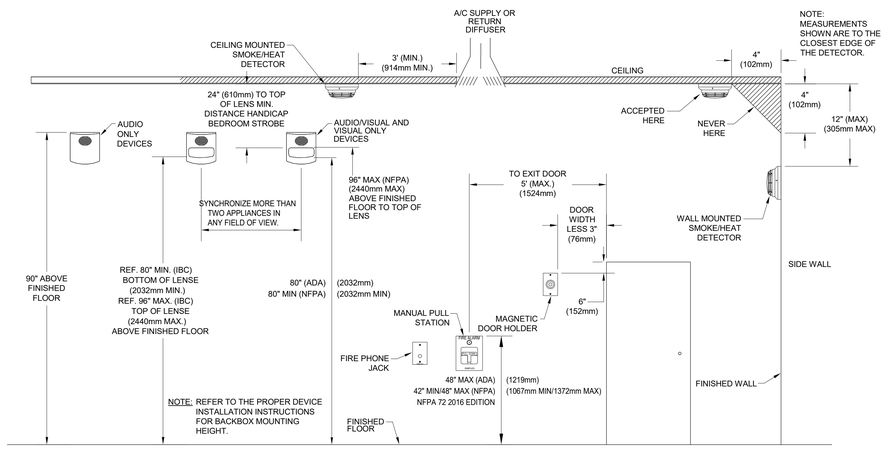


SEMI-FLUSH MOUNTING



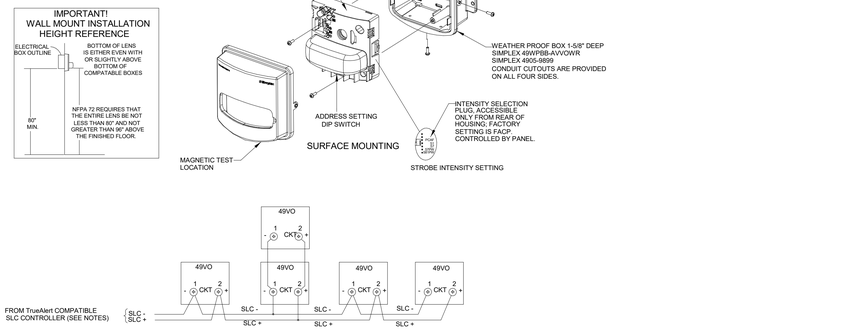
EXISTING SPEAKER ONLY ASSEMBLY

SCALE	
NONE	5



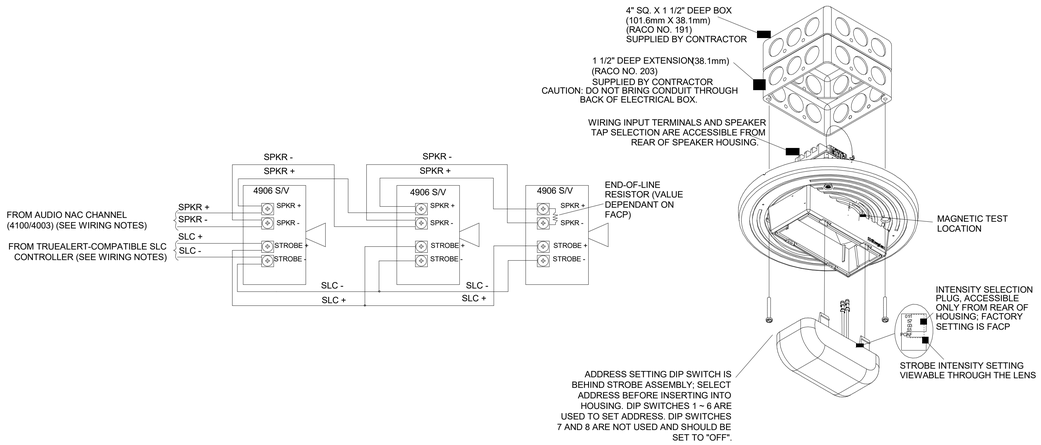
DEVICE MOUNTING HEIGHT REFERENCE (PER NFPA 72)

SCALE	
NONE	6



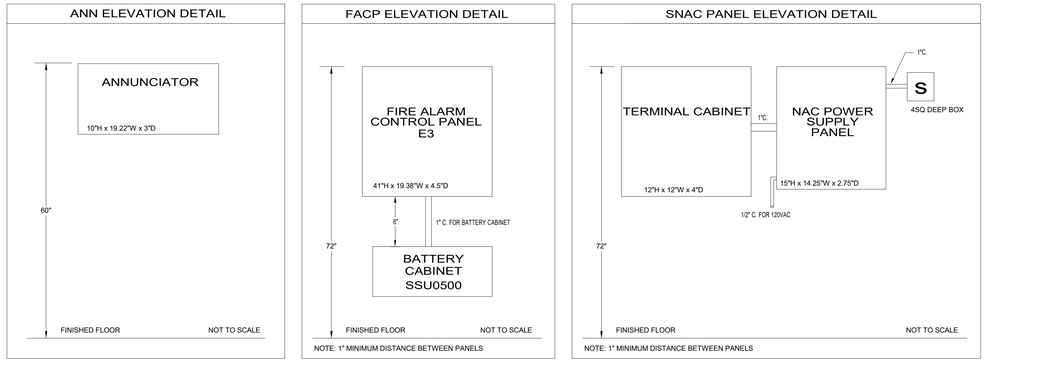
NOTIFICATION APPLIANCE 49VO SERIES

SCALE	
NONE	1



SLC (STYLE 4) SPEAKER/VISIBLE NOTIFICATION APPLIANCES

SCALE	
NONE	2



CABINET MOUNTING DETAIL

SCALE	
NONE	3

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KEY PLAN

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6696 CLARK ROAD
PARADISE, CA 95969

PROJECT STATUS

PARADISE RIDGE ELEMENTARY SCHOOL
PORTABLES
6593 PENTZ ROAD PARADISE, CA 95969

FIRE ALARM DETAILS

Date	Project Number
MM/DD/YYYY	20016
Application Number	Drawing Number
XX-XXXXXX	FA5.2
Drawn / Checked	
Author / Checker	

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SECTION 28 31 00

FIRE ALARM AND DETECTION

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Expandable emergency evacuation fire alarm system.

1.2 RELATED SECTIONS

A. Section (27 15 00) - (Communications Horizontal Cabling).

1.3 REFERENCEs

A. Electrical Industries Association (EIA):
1. RS-232-D - Interface Between Data Terminal Equipment and Data Circuit-Terminating Equipment Employing Serial Binary Data Interchange
2. RS-485 - standard defining the electrical characteristics of drivers and receivers for use in balanced digital multipoint systems

B. National Fire Protection Association (NFPA):
1. NFPA 12 - Standard on Carbon Dioxide Extinguishing Systems.
2. NFPA 13 - Installation of Sprinkler Systems.
3. NFPA 15 - Standard for Water Spray Fixed Systems for Fire Protection.
4. NFPA 16 - Standard for the Installation of Foam-Water Sprinkler and Foam-Water Spray Systems.
5. NFPA 16A - Standard for the Installation of Closed Head Foam-Water Sprinkler Systems.
6. NFPA 17 - Dry Chemical Extinguishing Systems
7. NFPA 17A - Wet Chemical Extinguishing Systems
8. NFPA 70 - National Electrical Code (NEC).
9. NFPA 72 - National Fire Alarm Code.
10. NFPA 2001 - Clean Agent Extinguishing Systems
11. NFPA 90A - Standard for the Installation of Air Conditioning and Ventilating Systems.
12. NFPA 101 - Life Safety Code.
13. NFPA 750 - Standard on Water Mist Fire Protection Systems.
14. NFPA 5000 - Building Construction and Safety Code.

C. Underwriters Laboratories (UL):
1. UL 268 - Standard for Smoke Detectors for Fire Alarm Signaling Systems.
2. UL 864 - Standard for Control Units and Accessories for Fire Alarm Systems.
3. UL 1971 - Standard for Signaling Devices for the Hearing Impaired.
4. UL 2572 - Standard for Control and Communication Units for Mass Notification Systems.

1.4 SYSTEM DESCRIPTION

A. A new intelligent reporting, Style 7 networked, fully peer-to-peer, microprocessor-controlled fire detection and emergency voice alarm communication system shall be installed in accordance with the specifications and as indicated on the Drawings.

B. Each Signaling Line Circuit (SLC) and Notification Appliance Circuit (NAC): Limited to only 80 percent of its total capacity during initial installation.

C. Basic Performance:
1. Network Communications Circuit (NetSOLO) Serving Network Nodes: Wired using single twisted non-shielded 2-conductor cable or connected using approved fiber optic cable between nodes in Class B configuration.
2. Signaling Line Circuits (SLC) Serving Addressable Devices: Wired Class B.
3. Initiation Device Circuits (IDC) Serving Non-addressable Devices Connected to Addressable Monitor Modules: Wired Class B.
4. Notification Appliance Circuits (NAC) Serving Strobes, Horns and Speakers: Wired Class B.
5. On Class B Configurations: Single ground fault or open circuit on Signaling Line Circuit shall not cause system malfunction, loss of operating power, or ability to report an alarm.
6. Alarm Signals Arriving at INCC COMMAND CENTER: Not be lost following primary power failure until alarm signal is processed and recorded.
7. Transponders:
a. Operate in peer-to-peer fashion with other panels and transponders in system.
b. Each transponder shall store copy of audio evacuation messages and tones.
c. Systems that use centralized message storage and control at main fire alarm control panel shall not be acceptable.
8. Network Node Communications, Audio Evacuation Channels and Fire Phone Communications:
a. Communicated between panels and transponders on single twisted pair of copper wires or fiber optic cables.
b. To enhance system survivability, ability to operate on loss of INCC Command Center, short or open of entire riser at INCC Command Center shall be demonstrated at time of system acceptance testing.
c. Systems that are not capable of providing true Class B performance for fire fighter's phone communications shall not be acceptable.
9. Signaling Line Circuits (SLC):
a. Reside in remote transponders with associated audio zones.
b. SLC modules shall operate in peer-to-peer fashion with all other panels and transponders in system.
c. On loss of INCC Command Center, each transponder shall continue to communicate with remainder of system, including all SLC functions and audio messages located in all transponders.
d. Systems that provide a "Degraded" mode of operation upon loss of INCC Command Center or short in riser shall not be acceptable.
10. Audio Amplifiers and Tone-Generating Equipment: Electrically supervised for normal and abnormal conditions.
11. Amplifiers: Located in transponder cabinets serving no more that 3 floors per transponder to enhance system survivability, reduce required riser wiring, simplify installation, and reduce power losses in length of speaker circuits.
12. Speaker NAC Circuits: Arranged such that there is a minimum of 1 speaker circuit per fire alarm zone.
13. Notification Appliance Circuits (NAC), Speaker Circuits, and Control Equipment: Arranged such that loss of any 1 speaker circuit will not cause loss of any other speaker circuit in system.
14. Speaker Circuits:
a. Electrically supervised for open and short circuit conditions.
b. If short circuit exists on speaker circuit, it shall not be possible to activate that circuit.
c. Arranged for 25 or 70 VRMS and shall be power limited in accordance with NEC
d. 20 percent spare capacity for future expansion or increased power output requirements.
15. Speaker Circuits and Control Equipment:
a. Arranged such that loss of any 1 speaker circuit will not cause loss of any other speaker circuit in system.
b. Systems utilizing "bulk" audio configurations shall not be acceptable.

16. 2-Way Telephone Communication Circuits:
a. Shall communicate digitally over the network between transponders.
b. Supervised for open and short circuit conditions.
c. Short circuit condition on 2-way telephone communications circuit shall result in trouble condition and not result in call-in condition.
17. Voice Communication:
a. Connect telephone circuits to speaker circuits to allow voice communication over speaker circuit from telephone handset.
b. Capable of remote phone-to-phone conversations and party-line communications as required.

D. Basic System Functional Operation: When fire alarm condition is detected and reported by 1 of the system alarm initiating devices, the following functions shall immediately occur:
1. System Alarm LEDs: Flash.
2. Local Piezo-Electric Signal in Control Panel: Sound at a pulse rate.
3. 80-Character LCD Display: Indicate all information associated with fire alarm condition, including type of alarm point and its location within protected premises.
4. Historical Log: Record information associated with fire alarm control panel condition, along with time and date of occurrence. History Log shall have capacity for recording up to 4,100 events.
5. System output programs assigned via control-by-event equations to be activated by particular point in alarm shall be executed, and the associated system outputs (alarm notification appliances and/or relays) shall be activated.
a. Close Fire Doors
b. Shut down air handlers as required by code
c. Notify the Central Station or Municipal Tie.
6. Strobes flash synchronized continuously.
7. Audio Portion of System: Sound alert tone followed by pre-recorded message determined by event and this scenario repeating or other message as approved by local authority until system is reset.

E. Fire Alarm System Functionality:
1. Provide complete, electrically supervised distributed, Class B networked analog/addressable fire alarm and control system, with analog initiating devices, integral multiple-channel voice evacuation, and fire fighter's phone system.
2. Fire Alarm System:
a. Consist of multiple-voice channels with no additional hardware required for total of 4 channels.
b. Incorporate multiprocessor-based control panels, including model E3 Series modules includes Intelligent Network INCC Command Center(s) (INCC), Intelligent Loop Interface (ILI-MB-E3 or ILI95-MB-E3), Intelligent Network Transponders (INX), communicating over peer-to-peer token ring network with standard capacity of up to 64 nodes expandable to 122.
3. Each ILI-MB-E3 or ILI95-MB-E3 Node: Incorporate 2 Signaling Line Circuits (SLC), with capacity to support in Velocity ® mode up to 159 analog addressable detectors and 159 addressable modules per ILI-MB-E3 SLC or support in Apollo mode up to 126 detectors and modules per ILI95-MB-E3 SLC.
4. Voice, Data, and Fire Fighter's Phone Riser: Transmit over single pair of wires or fiber optic cable.
5. Each Intelligent Network Transponder: Capable of providing 16 distributed voice messages, fire fighter phones connections, SLC loop for audio control devices, and integral network interface.
6. Each Network Node: Incorporate Boolean control-by-event programming, including as a minimum AND, OR, NOT, and Timer functions.
7. Control Panels: Capability to accept firmware upgrades via connection with laptop computer, without requirement of replacing microchips.
8. Network:
a. Based on peer-to-peer token ring technology operating at 625 K baud, using Class B configuration.
b. Capability of using twisted-pair wiring, pair of fiber optic Multi-mode cable strands up to 200 microns or Single-mode optimized for 9/125 microns, or any combination, to maximize flexibility in system configuration.
9. Each Network Node:
a. Capability of being programmed off-line using Windows-based software supplied by fire alarm system manufacturer. Capability of being downloaded by connecting laptop computer into any other node in system. Systems that require system software to be downloaded to each transponder at each transponder location shall not be acceptable.
b. Capability of being grouped with any number of additional nodes to produce a "Region", allowing that group of nodes to act as 1, while retaining peer-to-peer functionality. Systems utilizing "Master/Slave" configurations shall not be acceptable.
c. Capability of annunciating all events within its "Region" or annunciating all events from entire network, on front panel LCD or touchscreen display without additional equipment.
10. Each SLC Network Node: Capability of having integral DACT (Digital Alarm Communicator Transmitter) that can report events in either its region, or entire network to single central station monitoring account.
11. Each Control Panel: Capability of storing its entire program, and allow installer to activate only devices that are installed during construction, without further downloading of system.
12. Password Protection: Each system shall be provided with 4 levels of password protection with up to 16 passwords.
13. Have the capacity for multiple pre-recorded messages (at least sixteen (16), but more if required by local AHJ) and address a list of subjects,
- Fire evacuation and relocation
- Intruder or hostile person sighted within or around the building grounds
- Directions to occupants to take cover within building
- Emergency weather conditions appropriate for local area
- All Clear

1.5 SUBMITTALS

A. Include sufficient information, clearly presented, to determine compliance with the specifications and the Drawings.

B. Equipment Submittals:
1. Cover Page: Indicate the following:
a. Project name and address.
b. Engineered systems distributor's name and other contact information.
c. Installing contractor's name and other contact information.
d. Date of equipment submittals. Indicate on revised submittals the original submittal date and revised submittal date.
2. Table of Contents: Lists each section of equipment submittal.
3. Scope of Work Narrative: Detail indented scope of work.
4. Sequence of Operations: Use matrix or written text format, detailing activation of each type of device and associated resulting activation of the following:
a. Control panel.
b. Annunciator panels.
c. Notification appliances.
d. Building fire safety functions, including elevator recall, elevator power shutdown, door lock release, door holder release, HVAC unit shutdown, smoke evacuation system activation, and stair pressurization fan activation.
5. Bill of Material: Indicate for each component of system the following:
a. Quantity.
b. Model number.
c. Description.
6. SLC Circuit Schedule: Detail address and associated description of each addressable device. Clearly provide information that indicates number of both active and spare addresses.
7. Battery Calculations: Show load of each of, and total of, components of system along with standby and alarm times that calculations are based on. Show calculated spare capacity and size of intended battery.

C. Shop Drawings:
1. Cover Page: Indicate the following:
a. Project name and address.
b. Engineered systems distributor's name and other contact information.
c. Installing contractor's name and other contact information.
d. Date of equipment submittals. Indicate on revised submittals the original submittal date and revised submittal date.
2. Floor Plans:
a. Provide separate floor plan for each floor.
b. If a floor plan must be split using match lines to fit on the page, provide match lines and match line references that refer to sheet number that shows area on opposite side of match line.
c. Prepare using AutoCAD.
d. Prepare to scale 1/8 inch = 1'-0", unless otherwise required by the Architect or Engineer.
e. Show equipment and device locations.
f. Show wiring information in point-to-point format.
g. Show conduit routing, if required by the AHJ.

3. Title Block: Provide on each sheet and include, at a minimum, the following:
a. Project name.
b. Project address.
c. Sheet name.
d. Sheet number.
e. Scale of drawing.
f. Date of drawing.
g. Revision dates, if applicable.
4. Control Panel: Provide sheet that details exterior and interior views of control panel and clearly shows associated wiring information.
5. Annunciator Panels: Provide sheet that details exterior and interior views of annunciator panels and clearly shows associated wiring information.

D. Certification: Submit with equipment submittals and shop drawings, letter of certification from major equipment manufacturer, indicating proposed engineered system distributor is an authorized representative of major equipment manufacturer.

E. Project Record Drawings:
1. Submit complete project record drawings within 14 calendar days after acceptance test.
2. Project record drawings shall be similar to shop drawings, but revised to reflect changes made during construction.

F. Operation and Maintenance Manuals:
1. Submit complete operation and maintenance manuals within 14 calendar days after acceptance test.
2. Operation and maintenance manuals shall be similar to equipment submittals, but revised to reflect changes made during construction.
3. Include factory's standard installation and operating instructions.

1.6 QUALITY ASSURANCE

A. Codes and Standards:
1. NFPA: System shall comply with the following NFPA codes and standards:
a. NFPA 12.
b. NFPA 13.
c. NFPA 15.
d. NFPA 16.
e. NFPA 16A.
f. NFPA 17
g. NFPA 17A
h. NFPA 70.
i. NFPA 72.
j. NFPA 2001
k. NFPA 90A.
l. NFPA 101.
m. NFPA 750.
n. NFPA 5000.

2. ADA: System shall conform to American with Disabilities Act (ADA).

B. To ensure reliability and complete compatibility, all items of fire alarm system, including control panels, power supplies, initiating devices, and notification appliances, shall be listed by Underwriters Laboratories Inc. (UL) and shall bear "UL" label.

C. Fire Alarm Control Panel Equipment: UL-listed under UL 864 Ninth Edition and UL 2572.

D. Equipment, Programming, and Installation Supervision:
1. Provide services of approved Platinum Level engineered systems distributor of Honeywell | Gamewell-FCI for equipment, programming, and installation supervision.
2. Provide proof of factory training within 14 calendar days of award of the Contract.

E. Software Modifications:
1. Provide services of Honeywell | Gamewell-FCI factory-trained and authorized technician to perform system software modifications, upgrades, or changes.
2. Provide use of all hardware, software, programming tools, and documentation necessary to modify fire alarm system software on-site.
3. Modification includes addition and deletion of devices, circuits, zones, and changes to system operation and custom label changes for devices or zones.
4. System structure and software shall place no limit on type or extent of software modifications on-site.
5. Modification of software shall not require power-down of system or loss of system fire protection while modifications are being made.

1.7 DELIVERY, STORAGE, AND HANDLING

A. Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.

B. Storage: Store materials in clean, dry area indoors in accordance with manufacturer's instructions.

C. Handling: Protect materials from damage during handling and installation.

1.9 WARRANTY

A. Warranty Period for System Equipment: 1 year from date of final acceptance.

PART 2 PRODUCTS

2.1 MANUFACTURER

A. Honeywell | Gamewell-FCI, Honeywell Fire, 12 Clintonville Road, Northford, Connecticut 06472. Phone (203) 484-7161. Fax (203) 484-7118. Website: www.gamewell-fci.com.

B. References to manufacturer's model numbers and other information are intended to establish minimum standards of performance, function, and quality. Equivalent equipment from Gamewell may be substituted for the specified equipment, as long as minimum standards are met. No other manufacturers, other than Gamewell-FCI, FCI, and Gamewell will be considered for use on this project.

C. Substitute equipment proposed as equal to equipment specified shall meet or exceed requirements of this section. For equipment other than Honeywell | Gamewell-FCI E3 Series Expandable Emergency Evacuation Fire Alarm System, provide proof that such substitute equipment equals or exceeds features, functions, performance, and quality of specified equipment. This proof shall be provided by submission of a copy of specification with each copy of the submittals that has had each paragraph marked as either compliant or non-compliant along with a letter from engineering manager or product manager at factory that certifies information presented as either compliant or non-compliant including a detailed explanation of each paragraph identified as non-compliant. In order to ensure that the Owner is provided with a system that incorporates required survivability features, this letter shall also specifically certify that the system is capable of complying with the test requirements of this section.

2.0 DISTRIBUTED NETWORKED FIRE ALARM SYSTEM

A. Distributed Networked Fire Alarm System: Honeywell | Gamewell-FCI E3 Series Expandable Emergency Evacuation Fire Alarm System.

2.1 INTELLIGENT NETWORK INCC COMMAND CENTER HARDWARE

A. Intelligent Network INCC Command Center (INCC): Supply user interface, including LCD or touch-screen 1/4 VGA display Intelligent Loop Interface Modules (ILI-MB-E3/ILI95-MB-E3), manual switching, phone, and microphone inputs to the network. INCC shall consist of the following units and components:
1. System Cabinet (B-, C-, or D-Size Cabinet) with associated inner door.
2. Power Supply Module (PM-9) with batteries.
3. Intelligent Network Interface Voice Gateway (INI-VG).
4. 80-Character LCD Display (LCD-E3).
5. Intelligent Loop Main Board Interface (ILI-MB-E3 or ILI95-MB-E3).
6. Optional Intelligent Loop Supplemental Interface (ILI-S-E3 or ILI95-S-E3).
7. Optional DACT (DACT-E3).
8. Optional ARCNET Repeater (RPT-E3) with fiber-optic modules (FSL-E3 or FML-E3).
9. Optional 1/4 VGA touch-screen display (NGA).
10. Optional Auxiliary Switch Module (ASM-16).
11. Optional LED Driver Module (ANU-48)
12. Optional Microphone Assembly (INCC-MIC).
13. Optional Telephone Assembly (INCC-TEL).
14. Optional AM-50 Series amplifiers (AM-50, AM-50-70).
15. Optional Addressable Node Expander (ANX-SR, ANX-MR-FO, ANX-MR-UTP).
16. Optional 4.3 inch color touch-screen display (LCD-SLP)

B. System Cabinet:
1. Surface or semi-flush mounted with texture finish.
2. Consist of back box, inner door, and door.
3. Available in at least 3 sizes to best fit project configuration.
4. Houses 1 or more PM-9 Power Supply Modules, INI-VG Intelligent Network Interface Voice Gateway, 1 or more ILI-MB-E3/ILI95-MB-E3 assemblies, and other optional modules as specified.
5. Construction: Dead-front steel construction with inner door to conceal internal circuitry and wiring.
6. Wiring Gutter Space: A minimum of 1-inch wiring gutter space behind mounting plate.
7. Wiring: Terminated on removable terminal blocks to allow field servicing of modules without disrupting system wiring.

C. Power Supply Module (PM-9): Use latest technologies to provide system power, incorporates the following features:
1. Power-saving switching technology using no step-down transformers.
2. 9-amp continuous-rated output to supply up to all power necessary under normal and emergency conditions for INCC Command Center Modules.
3. Integral battery charger with capacity to charge up to 55 amp-hour batteries while under full load.

D. Batteries:
1. Sufficient capacity to provide power for entire system upon loss of normal AC power for a period of 24 hours with 15 minutes of alarm signaling at end of this 24-hour period, as required by NFPA 72, Local Systems.
2. Sufficient capacity to provide power for entire system upon loss of normal AC power for a period of 60 hours with 15 minutes of alarm signaling at end of this 60-hour period, as required by NFPA 72, Auxiliary Systems.

E. Intelligent Network Interface Voice Gateway INCC Command Center (INI-VG): INI-VG shall be a multi-function board interchangeable in both INCC and INX. Functions of board shall have the following features as a minimum:
1. Microprocessor shall monitor all system events and perform all system programs, for all control-by-event (CBE) functions. System program shall not be lost upon failure of both primary and secondary power. Programming shall supporting Boolean logic including AND, OR, NOT, TIMING functions for maximum flexibility.
2. Network Interface: Operate at 625 K baud configurable with any combination of wire and/or fiber topologies. Interface shall communicate with up to122 nodes in peer-to-peer fashion.
3. Fire Fighter Phone Riser: INI-VG shall generate local phone riser for use with AOM-TEL phone modules for connection to fire fighter phone stations and/or for connection of local phone when used as INCC Command Center, including phone circuits. INI-VG shall mix its local phone riser to network in true Class B fashion. Systems not capable of true Class B communications for fire fighter's phone risers shall not be acceptable.
4. Advanced Processing: INI-VG shall incorporate latest in digital signaling processing technology with supporting Boolean logic including AND, OR, NOT, TIMING, COUNT, SCHEDULE functions.
5. Microphone Input: On-board and allow for addition of local microphone when used as INCC Command Center, including speaker circuit control.
6. Signal Processing: INCC shall use advanced Digital Signal Processing (DSP) technology to allow maximum flexibility of digital audio and control capabilities and operation. Signals to and from INCC shall be transmitted over single pair of twisted unshielded wire or fiber optic pair.
7. Field Programmable: INCC shall be capable of being fully programmed or modified by Field Configuration Program (FCP), to be downloaded via portable computer from any node in system.
8. Control-by-Event Programming (CBE): INCC shall be capable of programming using Boolean logic including AND, OR, NOT, COUNT, TIMING, and SCHEDULE functions to provide complete programming flexibility.
9. Remote INCC Command Center Options: System shall have capability of adding remote INCC Command Centers or re-locating INCC Command Centers utilizing only single pair of twisted unshielded wire or fiber optic pair for all functions.
10. RS-485 Serial Output: System shall incorporate RS-485 bus via ribbon harness for connection of modules inside same cabinet, and via 4-wire quick connector for connection of modules up to 3,000 feet from cabinet. RS-485 bus shall support up to 16 ASM-16 auxiliary switch modules, main annunciators, and 5 annunciators.
11. Riser Wiring: All data, voice, and fire fighter phone riser shall transmit over single pair of twisted unshielded wire or fiber optic pair for all functions configured in Class B format. Any short or open in data, voice, or phone sections shall not affect transmission over remainder of network.
12. Class B Network: All communication between control panels and transponders shall be through supervised Style 7 token passing network. In event of single short, open, or ground, all system communication shall operate as normal and report fault. This protection shall incorporate all data, voice, and fire fighter phone transmissions. Upon single short, open, or ground of system data, live voice, pre-recorded channels, or phone risers, the function of each of these items shall continue to operate. "Degrade" functionality shall not be acceptable. This shall be demonstrated at system acceptance.

F. LCD Display Module (LCD-E3): Existing

G. Intelligent Loop Interface SIMPLEX: System shall be of multiprocessor design to allow maximum flexibility of capabilities and operation. Intelligent Loop Interface shall be capable of mounting in stand-alone enclosure or integrated with Intelligent Network INCC Command Center (INCC) as specified.
1. Field Programmable: System shall be capable of being programmed by Field Configuration Program (FCP), allowing programming to be downloaded via portable computer from any node on network.
2. RS-232C Serial Output: Supervised RS-232C serial port shall be provided to operate remote printers and/or video terminals, accept downloaded program from portable computer, or provide BiDirectional output of all alarms, troubles, location descriptions, time, and date. Communication shall be standard ASCII code operating from 1,200 to 115,200 baud rate.
3. RS-485 Serial Output: Each ILI-MB-E3/ILI95-MB-E3 shall incorporate RS-485 bus via ribbon harness for connection of modules inside same cabinet, and via 4-wire quick connector for connection of modules up to 3,000 feet from cabinet. RS-485 bus shall support up to 16 ASM-16 auxiliary switch modules, main annunciators, and 5 annunciators.
4. Peer-to-Peer Panel Configuration: All Loop Interface Modules shall incorporate own programming, log functions, Central Processor Unit, and control-by-event (CBE) programming. If any loop becomes disabled, each remaining loop driver shall continue to communicate with remainder of network and maintain normal operation. "Degrade" configurations under these conditions shall not be acceptable.
5. Control-by-Event (CBE) Program: ILI-MB-E3/ILI95-MB-E3 shall be capable of programming using Boolean logic including AND, OR, NOT, TIMING, COUNT, SCHEDULE functions to provide complete programming flexibility.
6. Alarm Verification: Smoke detector alarm verification shall be standard option while allowing other devices such as manual stations and sprinkler flow to create immediate alarm. This feature shall be selectable for smoke sensors that are installed in environments prone to nuisance or unwanted alarms.
7. Alarm Signals: All alarm signals shall be automatically latched or "locked in" at control panel until operated device is returned to normal and control panel is manually reset. When used for sprinkler flow, "SIGNAL SILENCE" switch may be bypassed, if required by AHJ.
8. Electrically Supervised:
a. Each SLC and NAC circuit shall be electrically supervised for opens, shorts, and ground faults. Occurrence of fault shall activate system trouble circuitry, but shall not interfere with proper operation of other circuits.
b. Yellow "SYSTEM TROUBLE" LEDs shall light and system audible sounder shall steadily sound when trouble is detected in system. Failure of power, open or short circuits on SLC or NAC circuits, disarrangement in system wiring, failure of microprocessor or any identification module, or system ground faults shall activate this trouble circuit. Trouble signal shall be acknowledged by operating "TROUBLE ACKNOWLEDGE" switch. This shall silence sounder. If subsequent trouble conditions occur, trouble circuitry shall resound. During alarm, all trouble signals shall be suppressed with exception of lighting yellow "SYSTEM TROUBLE" LEDs.
9. Drift Compensation - Analog Smoke Sensors: System software shall automatically adjust each analog smoke sensor approximately once each week for changes in sensitivity due to effects of component aging or environment, including dust. Each sensor shall maintain its actual sensitivity under adverse conditions while ignoring factors which generally contribute to nuisance alarms. System trouble circuitry shall activate, display "DIRTY DETECTOR" and "VERY DIRTY DETECTOR" indications and identify individual unit that requires maintenance.
10. Analog Smoke Sensor Test: System software shall automatically test each analog smoke sensor a minimum of 3 times daily. Test shall be recognized functional test of each photocell (analog photoelectric sensors) and ionization chamber (analog ionization sensors) as required annually by NFPA 72. Failure of sensor shall activate system trouble circuitry, display "Test Failed" indication, and identify individual device that failed.
11. Off-Premises Connection:.

a. Fire Alarm System: Connect via leased telephone lines to central station or remote station.
b. Fire Alarm System: Connect to local energy city master box.
c. Fire Alarm System: Connect via Digital Alarm Communicator Transmitter (DACT) and telephone lines to central station or remote station. Panel shall contain disconnect switch to allow testing of system without notifying fire department.

12. Remote Station Option: Fire department shall be consulted regarding authorized remote station serving municipality. Fire alarm system shall transmit alarm, supervisory, and trouble signals with alarm having priority over supervisory and trouble signals. Required phone lines shall be provided and installed between incoming telephone service and fire alarm system by Owner's telephone contractor under separate contract. Owner will be responsible for phone company costs.
13. Local Energy City Master Box Option: Fire alarm system shall be connected to local energy city master box. City master box shall be coded and timed in accordance with requirements of fire department. Box shall be surface or flush mounted and located as specified by building engineer and fire department.
14. Central Station Option: Fire alarm control panel shall provide integral Digital Alarm Communicator Transmitter (DACT) for signaling to central station. DACT shall contain "Dialer-Runaway" feature preventing unnecessary transmissions as result of intermittent faults in system and shall be Carrier Access Code (CAC) compliant, accepting up to 20-digit central station telephone numbers. The Fire department shall be consulted as to the authorized central station companies serving the municipality. Fire alarm system shall transmit both alarm and trouble signals, with alarm having priority over trouble signal. Contractor shall be responsible for all installation charges and Owner will be responsible for line lease charges.
15. Network Annunciator Option: Each ILI-MB-E3 or ILI95-MB-E3 and associated display shall provide option of being configured as network annunciator. Options for annunciation shall default as regional annunciator with capability of selecting global annunciation to provide system-wide protection and Acknowledge, Silence, and Reset capabilities.

16. Redundant History Log: Each ILI-MB-E3 or ILI95-MB-E3 shall contain full 4100 event history log supporting local and network functions. If a main processor or network node is lost the entire log shall be accessible at any other Loop Interface board. This shall be demonstrated by removing power from INCC Command Center followed by extraction of history log from any loop driver location, including INCC Command Center or Transponder.
17. LEDs Indicator and Outputs: Each ILI-MB-E3/ILI95-MB-E3 Loop Interface shall incorporate as a minimum the following diagnostic LED indicators:
a. Power: Green.
b. Alarm: Red.
c. Supervisory: Yellow.
d. General Trouble: Yellow.
e. Ground Fault: Yellow.
f. Transmit: Green.
g. Receive: Green.
18. Auxiliary Power Outputs: Each ILI-MB-E3/ILI95-MB-E3 Loop Interface shall provide the following supply outputs:
a. 24 VDC non-resettable, 1 amp. maximum, Class B power-limited.
b. 24 VDC resettable, 1 amp. maximum, Class B power-limited.
19. Microprocessor: Loop interface shall incorporate 32-bit RISC processor. Isolated "watchdog" circuit shall monitor microprocessor and upon failure shall activate system trouble circuits on display. Microprocessor shall access system program for all control-by-event (CBE) functions. System program shall not be lost upon failure of both primary and secondary power. Programming shall support Boolean logic including AND, OR, NOT, TIME DELAY functions for maximum flexibility.
20. Auto Programming: System shall provide for all SLC devices on any SLC loop to be pre-programmed into system. Upon activation of auto programming, only devices that are present shall activate. This allows for system to be commissioned in phases without need of additional downloads.
21. Environmental Drift Compensation: System shall provide for setting Environmental Drift Compensation by device. When detector accumulates dust in chamber and reaches unacceptable level but yet still below allowed limit, control panel shall indicate maintenance alert warning. When detector accumulates dust in chamber above allowed limit, control panel shall indicate maintenance urgent warning.
22. NON-FIRE Alarm Module Reporting: Non-reporting type ID shall be available for use for energy management or other non-fire situations. NON-FIRE point operation shall not affect control panel operation nor shall it display message at panel LDC. Activation of NON-FIRE point shall activate control by event logic, but shall not cause indication on control panel.
23. 1-Man Walk Test:
a. System shall provide both basic and advanced walk test for testing entire fire alarm system. Basic walk test shall allow single operator to run audible tests on panel. All logic equation automation shall be suspended during test and while annunciators can be enabled for test, all shall default to disabled state. During advanced walk test, field-supplied output point programming shall react to input stimuli, such as CBE and logic equations. When points are activated in advanced test mode, each initiating event shall latch input. Advanced test shall be audible and shall be used for pull station verification, magnet activated tests on input devices, input and output device, and wiring operation/verification.
b. Shall Automatically generate professionally formatted NFPA 72, NFPA 10, or Joint Commission Reports such as (GW-eVance Inspection Manager.) A second technician will not be required at the fire panel during testing.
24. Signaling Line Circuits: Each ILI-MB-E3 module shall provide communication with analog/addressable (initiation/control) devices via 2 signaling line circuits. Each signaling line circuit shall be capable of being wired Class B, Style 4 or Class B, Style 6. Circuits shall be capable of operating in NFPA Style 7 configuration when equipped with isolator modules between each module type device and isolator sensor bases. Each circuit shall communicate with a maximum of 159 analog sensors and 159 addressable monitor/control devices. Unique 40-character identifier shall be available for each device. Devices shall be of the Velocity series with capability to poll 10 devices at a time with a maximum polling time of 2 seconds when both SLCs are fully loaded.
25. Notification Appliance Circuits: 2 independent NAC circuits shall be provided on ILI-MB, polarized and rated at 2 amperes DC per circuit, individually over current protected and supervised for opens, grounds, and short circuits. They shall be capable of being wired Class B, Style Y or Class B, Style Z. On-board synchronization of System Sensor, Wheelock and Gentex notification appliances.
26. Alarm Dry Contacts: Provide alarm dry contacts (Form C) rated 2 amps at 30 VDC (resistive) and transfer whenever system alarm occurs.
27. Supervisory Dry Contacts: Provide supervisory dry contacts (Form C) rated 2 amps at 30 VDC (resistive) and transfer whenever system supervisory condition occurs.
28. Trouble Dry Contacts: Provide trouble dry contacts (Form C) rated 2 amps at 30 VDC (resistive) and transfer whenever system trouble occurs.
29. Permitted zone types shall be general zone, releasing zone, and special zone. Each output point (control module, panel circuit module) can support a list of up to eight zones including general zone, logic zone, releasing zone, and trouble zone. It shall be possible for output points to be assigned to list general alarm. Non-Alarm or Supervisory points shall not activate the general alarm zone.
30. Multiple Agent Releasing Zones: The system shall support up to eight releasing zones to protect against eight independent hazards. Releasing zones shall provide up to three cross-zone and four abort options to satisfy any local jurisdiction requirements.

I. Auxiliary Switch Module (ASM-16):
1. Each ASM-16 has 16 programmable push-button switches.
2. Each push-button switch has 3 associated status LEDs (red, yellow, and green), configurable to indicate any combination of functions.
3. Flexible switch configurations to allow flexible set-up of phone, speaker, and auxiliary function circuits.
4. An insertable label to identify function of each switch and LEDs combination.
5. Provide capability to communicate with up to 16 ASM-16 modules locally, up to 3,000 feet from INCC Command Center.
6. Specialty modules that only perform 1 task such as speaker, phone, or auxiliary shall not be acceptable.

J. Telephone Assembly: Include the following items:
1. Mounting cabinet which occupies 2 module locations on inner door of INCC.
2. Standard phone operating on piezo effect with integral 6-foot cord.
3. Interconnect cable for connection of phone to Command Center.

K. Microphone Assembly: Include the following items:
1. Mounting cabinet which occupies 1 module location on inner door of INCC.
2. Interconnect cable for connection of microphone to INI-VG.
3. 1 noise canceling microphone with push-to-talk button.

L. Addressable Node Expander (ANX):
1. Addressable Node Expander shall provide interconnection between the Fire Alarm Control Panel networks.
2. ANX-MR-FO (Addressable Node Expander Multi-Ring with Fiber Optic connectors) and ANX-MR-UTP (Addressable Node Expander Multi-Ring with Fiber Optic and Twisted Pair connectors) shall expand the E3 Series network from 64 nodes to 122 nodes. ANX-SR (Addressable Node Expander Single Ring) will function in single 64 node systems.

M. Network Repeater Module (RPT-E3):
1. Intelligent Network Interface shall provide interconnection and protection of remote INCC Command Centers and Transponders. Repeater shall regenerate and condition token passing, 625 K baud signal between units. Repeater shall be available in wire, or wire/fiber configurations as determined by field conditions.
2. Interface shall have jumper to allow selection of ground detection of wiring when used in wire mode. Interface shall have integral LEDs to display current status of board.
3. Fiber configurations shall use:
a. Multi-Mode ST-type connectors with a maximum attenuation of 8db with 62.5/125 micron cable.
b. Single-Mode LC-style connector with a maximum attenuation of 30db with 9/125 micron cable.

2.2 INTELLIGENT NETWORK TRANSPONDER (INX)

A. System shall be of multiprocessor design to allow maximum flexibility of capabilities and operation. INX shall receive, transmit, and regenerate voice, fire fighter phones, and data over single pair of wire or fiber optic cable.

B. INX shall provide full multi-channel distributed voice messaging, with integrated switching amplification, and SLC and extended phone riser. INX shall communicate with network system in true peer-to-peer fashion operating at 625 K baud over any combination of fiber or wire media. INX shall consist of the following units and components.

C. System Cabinet: System cabinet shall be surface or semi-flush mounted with texture finish and shall consist of 4 parts, back box, back plate, inner door, and outer door. System cabinet houses INI-VG, PM-9 power supply, up to 4 - AM-50, microphone, and related circuitry.

D. Intelligent Network Interface Voice Gateway: Voice Gateway shall be a multi-function board interchangeable in both INCC and INX. Functions of board shall include the following features as a minimum:
1. Network interface operating at 625 K baud configurable with any combination of wire and/or fiber topologies. Interface shall communicate with up to 122 total INCC, INX, and E3 and S3 control panels in peer-to-peer fashion.
2. Fire Fighter Phone Riser: INI-VG shall generate local phone riser for use with AOM-TEL phone modules for connection to fire fighter phone. INI-VG shall mix its local phone riser to network in true Style 7 fashion.
3. Signaling Line Circuit (SLC): INI-VG shall generate local SLC to communicate with and control up to 16 AOM-TELF modules and 32 AOM-2SF circuits for fire phone interfacing and additional split-speaker circuits.
4. RS-485: Provide capability to communicate with up to 16 ASM-16 modules, when used in INX mode up to 3,000 feet.
5. Advanced Processing: INI-VG shall incorporate latest in digital signaling processing technology with supporting Boolean logic including AND, OR, NOT, TIME DELAY functions.
6. Voice Generation: INI-VG shall incorporate all processing to allow for 16 distinct pre-recorded messages used in priority fashion with message 1 as highest priority. Total length for 1 to 16 messages shall be up to 3 minutes.

E. Power Supply Module : power supply shall supply all power necessary under normal and emergency conditions. Power supply shall provide capacity to charge up to 55 amp-hour batteries while under full load. Technology used shall be of power-saving switching configuration, eliminating need of stepping transformer.

F. Audio Amplifier: Include as a minimum, the following features:
1. 50-watt switching audio amplifier:
a. AM-50 amplifier produces 25VRMS at 50 watts digital audio output.
b. AM-50-70 amplifier produces 70VRMS at 50 watts digital audio output.
2. 2 individually addressable speaker circuits, each with capability of handling part or all of 50-watt supplied power.
3. Power shall be 24 VDC supplied via terminal block from local PM-9 power supply.
4. Ability to select from 1 of 16 pre-programmed messages in annunciator, and paging from locally or from INCC Command Center.
5. Back-up amplification configurable so can perform back-up or 3, or perform 1-to-1 back-up if configured to do so in programming.
6. Status LEDs to indicate normal operation and trouble condition.

2.3 SUPPLEMENTAL NOTIFICATION APPLIANCE CIRCUIT

A. Supplemental Notification Appliance Circuit shall be Model offering up to 8.0 amps (6.0 amps continuous) of regulated 24-volt power. HPF24 shall include the following features:
1. Integral Charger: Charge up to 18.0 amp-hour batteries and support 60-hour standby.
2. 2 Input Triggers. Input trigger shall be Notification Appliance Circuit (from fire alarm control panel) or relay.
3. Surface-mount back box.
4. Ability to delay AC fail delay in accordance with applicable NFPA requirements.
5. Power limited circuitry in accordance with applicable UL standards.
6. Operates as sync follower or a sync generator.

B. Supplemental Notification Appliance Circuit shall be Model offering up to 8.0 amps (8.0 amps continuous of regulated 24-volt power. HPFF shall include the following features:
1. Integral Charger: Charge up to 18.0 amp-hour

Y. Conventional Photoelectric Area Smoke Detectors:
1. 24-VDC, 2-wire, ceiling-mounted, light-scattering type using LEDs light source.
2. Each Detector: Remote LEDs output and built-in test switch.
3. Provide on twist-lock base.
4. Perform calibrated sensitivity and performance test on detector without need for generation of smoke. Test method shall test all detector circuits.
5. Visual Indication of Alarm: Provide by dual-latching LEDs on detector, seen from ground level over 360 degrees. LEDs shall flash every 10 seconds, indicating power is applied to detector.
6. Detector shall not go into alarm or trouble when exposed to air velocities of up to 3,000 feet (914.4 m) per minute.
7. Detector Screen and Cover Assembly: Easily removable for field cleaning of detector chamber.
8. Field-Wire Connections: Made to base through use of clamping plate and screw.

8. Field-Wire Connections: Made to base through use of clamping plate and screw.

2.5 SYSTEM PERIPHERALS - Apollo XP95

A. IL95-MB-E3 and IL95-S-E3 Addressable Devices - General:
1. Provide address-setting means using card inserts which are built into the base or module.
2. Use simple to install and maintain binary-type (numbered 1 to 64) address switches by using breaking the tabs to set address.
3. Detectors: Analog and addressable. Connect to fire alarm control panel's Signaling Line Circuits.
4. Addressable Thermal and Smoke Detectors: Provide 1 status LED. The LED shall flash under normal conditions, indicating detector is operational and in regular communication with control panel, and the LED shall be placed into steady illumination by control panel, indicating alarm condition has been detected. If required, flashing mode operation of detector LED can be programmed off via fire control panel program.
5. Fire Alarm Control Panel: Permit detector sensitivity adjustment through field programming of system. Sensitivity can be automatically adjusted by panel on time-of-day basis.
6. Using software, detectors shall automatically compensate for dust accumulation and other slow environmental changes that may affect their performance. Detectors shall be listed by UL as meeting calibrated sensitivity test requirements of NFPA 72, Chapter 7.
7. Detectors shall be ceiling-mounted and shall include separate twist-lock base with tamper-proof feature.

8. Following bases and auxiliary functions shall be available:
a. Standard base with remote LED output.
b. Sounder base rated at 85 dBA minimum.
c. Form-C relay base rated 30 VDC, 2.0 A.
d. Isolator base.
9. Detectors shall provide test means whereby they will simulate alarm condition and report that condition to control panel. Such test shall be initiated at detector itself by canned smoke or initiated remotely on command from control panel.
10. Detectors shall store internal identifying type code that control panel shall use to identify type of device (ION, PHOTO, THERMAL).

2.6 SYSTEM PERIPHERALS - E3 SERIES

A. LCD Display Annunciator: existing

B. NGA Network Graphic Annunciator existing

C. Fixed Emergency Telephone Handsets:

D. Speakers:
1. Operate on 25 VRMS or 70.7 VRMS with field-selectable output taps from 0.5 to 2.0 watts.
2. Speakers in Corridors and Public Spaces: Produce nominal sound output of 84 dBA at 10 feet (3 m).
3. Frequency Response: Minimum of 400 Hz to 4,000 Hz.
4. Back of Each Speaker: Sealed to protect speaker cone from damage and dust.

I Speaker/Strobes:
1. Operate on 25 VRMS or with field-selectable output taps from 0.5 to 2.0 watt
2. Speakers in Corridors and Public Spaces: Produce nominal sound output of 84 dBA at 10 feet (3 m).
3. Frequency Response: Minimum of 400 Hz to 4,000 Hz.
4. Back of Each Speaker: Sealed to protect speaker cone from damage and dust.
5. Audibility: NFPA 72.
6. Maximum Pulse Duration: 0.2 second.
7. Strobe Intensity: UL 1971.
8. Flash Rate: UL 1971.
9. Strobe Candela Rating: Determine by positioning selector switch on back of device.

PART 3 EXECUTION

3.1 EXAMINATION

A. Examine areas and surfaces to receive fire alarm system.
1. Notify Architect of conditions that would adversely affect installation or subsequent use.
2. Do not begin installation until unacceptable conditions are corrected.

3.2 INSTALLATION

A. Install fire alarm system in accordance with NFPA 72, NFPA 70, state and local codes, manufacturer's instructions, and as indicated on the Drawings.

B. Conceal conduit, junction boxes, and conduit supports and hangers in finished areas. Conceal or expose conduit, junction boxes, and conduit supports and hangers in unfinished areas.

C. Do not install smoke detectors before system programming and test period. If construction is ongoing during this period, take measures to protect smoke detectors from contamination and physical damage.

D. Flush-mount fire detection and alarm system devices, control panels, and remote annunciators in finished areas. Flush-mount or surface-mount fire detection and alarm system devices, control panels, and remote annunciators in unfinished areas.

E. Ensure manual stations are suitable for surface mounting or semi-flush mounting as indicated on the Drawings. Install not less than 42 inches, nor more than 48 inches, above finished floor measured to operating handle.

3.3 FIELD QUALITY CONTROL

A. Manufacturer's Field Services: Provide service of competent, factory-trained technician authorized by manufacturer to technically supervise and participate during pre-testing and acceptance testing of system.

B. Testing:
1. Conduct complete visual inspection of control panel connections and test wiring for short circuits, ground faults, continuity, and insulation before energizing cables and wires.
2. Close each sprinkler system control valve and verify proper supervisory alarm at INCC Command Center.
3. Verify activation of flow switches.
4. Open initiating device circuits and verify that trouble signal actuates.
5. Open signaling line circuits and verify that trouble signal actuates.
6. Open and short notification appliance circuits and verify that trouble signal actuates.
7. Ground initiating device circuits and verify response of trouble signals.
8. Ground signaling line circuits and verify response of trouble signals.
9. Ground notification appliance circuits and verify response of trouble signals.
10. Check alert tone and prerecorded voice message to alarm notification devices.
11. Check installation, supervision, and operation of intelligent smoke detectors.
12. Introduce on system each of the alarm conditions that system is required to detect. Verify proper receipt and proper processing of signal at INCC Command Center and correct activation of control points.
13. Consult manufacturer's manual to determine proper testing procedures when system is equipped with optional features. This is intended to address such items as verifying controls performed by individually addressed or grouped devices, sensitivity monitoring, verification functionality, and similar.

C. Acceptance Testing:
1. Before installation shall be considered completed and acceptable by AHJ, a complete test using as a minimum, the following scenarios shall be performed and witnessed by representative approved by Engineer. Monitoring company and/or fire department shall be notified before final test in accordance with local requirements.
2. Contractor's job foreman, in presence of representative of manufacturer, representative of Owner, and fire department shall operate every installed device to verify proper operation and correct annunciation at control panel.
3. Open signaling line circuits and notification appliance circuits in at least 2 locations to verify presence of supervision.
4. Completely disconnect INCC Command Center from rest of network, including Voice INCC Command Center. Activate initiating device from transponder. All speaker circuits activated from each transponder shall transmit the correct evacuation or alert message. These messages shall be same messages transmitted with INCC Command Center activated. Default tones or messages shall not be acceptable.
5. Completely disconnect INCC Command Center from rest of network. Activate initiating device. All control outputs supported by transponder SLC circuits shall operate under project programming mode. Default or degrade mode programming shall not be acceptable.
6. Fire fighter phone riser shall be directly shorted between INCC Command Center and first transponder, followed by test of fire phones between INCC Command Center and farthest transponder. Phones shall operate in normal fashion.
7. All audio risers shall be directly shorted between INCC Command Center and first audio transponder, followed by activation of alarm initiating device. Correct pre-recorded messages shall transmit from all speakers, including evacuation and alert channels. Default or degrade messages shall not be acceptable.
8. When testing has been completed to satisfaction of both Contractor's job foreman and representatives of manufacturer and Owner, a notarized letter co-signed by each attesting to satisfactory completion of said testing shall be forwarded to Owner and fire department.
9. Leave fire alarm system in proper working order and, without additional expense to Owner, replace defective materials and equipment provided within 1 year (365 days) from date of final acceptance by the owner.

3.4 DEMONSTRATION

A. Provide instruction as required for operating fire alarm system.

B. Provide hands-on demonstrations of operation of fire alarm system components and functions.

END OF SECTION

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DSA STAMP

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-122123 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 3/21/2024

STUDIO W ARCHITECTS

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ARCHITECT	ENGINEER
LICENSED ARCHITECT BRYAN P WHITMORE No. C 30345 Ren. 9/30/23 STATE OF CALIFORNIA	REGISTERED PROFESSIONAL ENGINEER Eduardo A. Cano No. M39125 ELECTRICAL STATE OF CALIFORNIA
DATE SIGNED: MM/DD/YYYY	

GENERAL NOTES
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REVISION HISTORY

NO.	REMARKS	DATE

DRAWING STATUS

DATE
○ DSA PLAN CHECK
○ DSA BACK CHECK
○ BIDDING
○ CONSTRUCTION

KEY PLAN

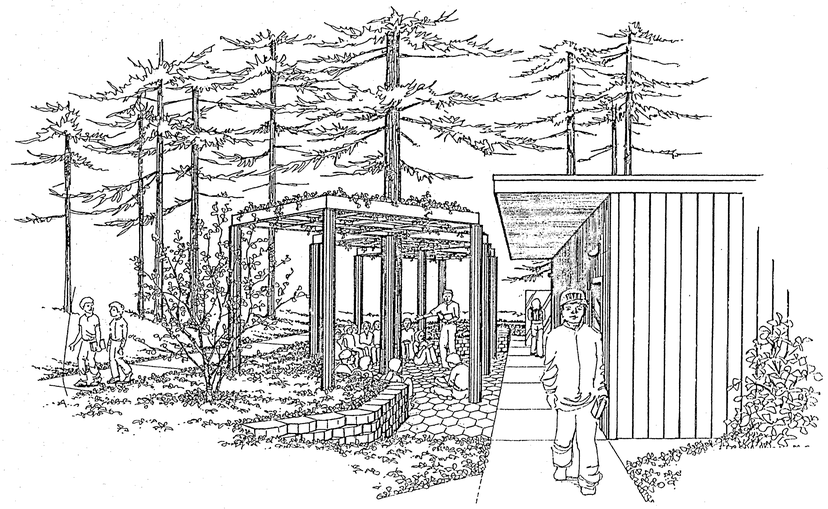
PARADISE UNIFIED SCHOOL DISTRICT
6696 CLARK ROAD
PARADISE, CA 95969

PROJECT STATUS

PARADISE RIDGE ELEMENTARY SCHOOL
PORTABLES
6593 PENTZ ROAD PARADISE, CA 95969

FIRE ALARM SPECIFICATIONS

Date: MM/DD/YYYY	Project Number: 20016
Application Number: XX-XXXXXX	Drawing Number: FA6.2
Drawn / Author	Checked / Checker



Phase 1 - Site Work

STEIFFER ROAD ELEMENTARY SCHOOL

For The

PARADISE UNIFIED SCHOOL DISTRICT

Paradise - Butte County - California

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-122123 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 3/21/2024

STATE OF CALIFORNIA
Department of General Services
JUL 16 1996
Division of the State Architect
Regulation Services Section

GENERAL NOTES

GENERAL NOTES

I. GENERAL PROJECT DESCRIPTION:

A. THE PROPOSED STEIFFER ROAD ELEMENTARY SCHOOL CAMPUS WILL ULTIMATELY CONTAIN THE FOLLOWING FACILITIES:

A. BUILDINGS:

15,360 SQ. FT. = 16 RELOCATABLE CLASSROOMS (1 THRU 5)
2,460 SQ. FT. = 2 RELOCATABLE KINDERGARTEN CLASSROOMS
2,400 SQ. FT. = 1 RELOCATABLE ADMINISTRATION BUILDING
5,977 SQ. FT. = 1 MULTIPURPOSE BUILDING
3,766 SQ. FT. = 1 MEDIA CENTER

B. EXTERIOR SPACES:

- RELATED EXTERIOR PLAY AREAS
- RELATED PARKING AREAS

B. THIS PROJECT INCLUDES:

THIS INITIAL, FUNDED PROJECT IS BROKEN UP INTO THREE PHASES:

DSA APPLICATION NO. 1
1. INCREMENT I, SITE WORK (SCHOOL DISTRICT'S PHASE I)
2. INCREMENT II, 8 NEW RELOCATABLE CLASSROOMS (SCHOOL DISTRICT'S PHASE I)
3. INCREMENT III, 1 NEW RELOCATABLE TOILET BLDG (SCHOOL DIST. PHASE I)
4. INCREMENT IV, RELOCATABLE KINDERGARTEN & ADMIN (SCHOOL DIST. PHASE II)

DSA APPLICATION NO. 2
1. MULTIPURPOSE BUILDING AND MEDIA CENTER (SCHOOL DISTRICT'S PHASE III)

C. EACH INCREMENT WILL INCLUDE, BUT IS NOT LIMITED TO:

1. INCREMENT I, SITE WORK:

a. ALL ROADS FOR THE ULTIMATE CAMPUS.
b. APPROXIMATELY ¾ OF ALL THE PARKING FOR THE ULTIMATE CAMPUS.
c. ALL OF THE ELEMENTARY OUTSIDE PLAY ACTIVITIES FOR THE ULTIMATE CAMPUS.
d. MOST OF THE EXTERIOR KINDERGARTEN PLAY AREA.
e. ALL SITE UTILITIES FOR THIS ULTIMATE CAMPUS.
f. 2/3 OF ALL ULTIMATE WALKS FOR THE ULTIMATE CAMPUS.
g. CONCRETE FOOTINGS AND FOUNDATION SYSTEMS FOR:
   i) 3,840 SQ. FT. = FOUR RELOCATED RELOCATABLE CLASSROOMS.
   ii) 7,680 SQ. FT. = EIGHT NEW RELOCATABLE CLASSROOMS.
   iii) 1,430 SQ. FT. = ONE RELOCATABLE KINDERGARTEN.
   iv) 2,400 SQ. FT. = ONE RELOCATABLE ADMINISTRATION BUILDING.
h. BUILDING PAD ONLY FOR:
   i) MULTIPURPOSE BUILDING.
   ii) MEDIA CENTER.
i. RELOCATION OF FOUR RELOCATABLE CLASSROOMS (N.I.C.)

2. INCREMENT II, RELOCATABLE CLASSROOMS:

a. FABRICATION AND DROP IN PLACE ATTACHMENT OF:
   i) EIGHT NEW RELOCATABLE CLASSROOMS.

3. INCREMENT III - RELOCATABLE TOILET BUILDING

3. INCREMENT IV, RELOCATABLE KINDERGARTEN & ADMIN BUILDINGS:

a. FABRICATION AND DROP IN PLACE ATTACHMENT OF:
   i) ONE KINDERGARTEN CLASSROOM.
   ii) ADMINISTRATION BUILDING.

(NOTE: ALL UTILITY CONNECTIONS TO THESE RELOCATABLE STRUCTURES WILL BE A PART OF THE INCREMENT I, SITE WORK, INCLUDING THE SPRINKLERING OF 4 OF THE 8 CLASSROOMS.)

4. MULTIPURPOSE BUILDING AND MEDIA CENTER (PHASE III):

a. INSTALL FOUNDATIONS AND TOTAL STRUCTURES FOR THE:
   i) 5,977 SQ. FT. = MULTIPURPOSE BUILDING.
   ii) 3,766 SQ. FT. = MEDIA CENTER.

D. LATER PHASES (ADDITIONAL CLASSROOMS AND KINDERGARTEN) WILL OCCUR AS FUTURE FUNDING IS IDENTIFIED.

E. THE CONTRACTOR SHALL BE AWARE THAT OTHER WORK WILL BE OCCURRING ON THIS SITE DURING THE COURSE OF HIS CONTRACT. THE KNOWN WORK TO BE PERFORMED BY OTHERS CURRENTLY INCLUDES:

1. PLACEMENT OF THE FOUR (4) RELOCATABLE CLASSROOMS ONTO FOUNDATIONS (NOTE THAT THE FOUNDATIONS AND THE UTILITY HOOK-UPS ARE A PART OF THE PHASE I CONTRACT).
2. PLACEMENT OF THE ADMINISTRATION AND KINDERGARTEN RELOCATABLE BUILDINGS ONTO FOUNDATIONS (NOTE THAT THE FOUNDATIONS AND THE UTILITY HOOK-UPS ARE A PART OF THE PHASE I CONTRACT).

F. NOTE THAT "TRAIL'S END ROAD" ON THE EAST PROPERTY LINE IS A PRIVATELY OWNED AND MAINTAINED UN-PAVED ROAD. THE CONTRACTOR SHALL NOT ACCESS THE SITE FROM THIS ROAD FOR ANY PURPOSE WITHOUT THE WRITTEN PERMISSION OF THE LEGAL OWNERS.

G. CONSTRUCTION SHALL COMPLY WITH TITLE 24, CALIFORNIA CODE OF REGULATIONS, INCLUDING THE FOLLOWING:

TITLE 24, CCR PART 1 (ADMINISTRATIVE REGULATIONS).
TITLE 24, CCR PART 2, 1995 CBC (1994 UBC WITH CALIFORNIA AMENDMENTS).
TITLE 24, CCR PART 3, 1995 CEC (1993 NEC WITH CALIFORNIA AMENDMENTS).
TITLE 24, CCR PART 4, 1992 CMC (1991 UMC WITH CALIFORNIA AMENDMENTS).
TITLE 24, CCR PART 5, 1995 CPC (1994 UPC WITH CALIFORNIA AMENDMENTS).
TITLE 24, CCR PART 9, 1995 CFC (1994 UFC WITH CALIFORNIA AMENDMENTS).

H. AS PROVIDED IN "TITLE 24, PART 1", NO MODIFICATION OR DEVIATION FROM THE APPROVED DOCUMENTS WILL BE PERMITTED, EXCEPT BY CHANGE ORDERS APPROVED BY THE DSA.

I. THE OWNER WILL EMPLOY AN INSPECTOR, APPROVED BY THE DSA AND THE ARCHITECT TO OBSERVE THE PROGRESS OF THE WORK. HIS DUTIES WILL INCLUDE ALL ITEMS OF TITLE 24, PART 1 AND THE FOLLOWING:

1. REJECTION OF ANY MATERIAL NOT CONFORMING TO REQUIREMENTS OF CONTRACT DOCUMENTS AND TITLE 24.
2. PREPARATION OF COMPLETE AND DETAILS PUNCH LIST PRIOR TO ARCHITECT'S FINAL OBSERVATION.
3. COMPILATION AND MAINTENANCE OF "AS-BUILT" DRAWINGS OF FINAL LOCATIONS OF CONCEALED AND BELOW GRADE MECHANICAL AND ELECTRICAL LINES.

J. DEFERRED APPROVAL ITEMS: **NONE; COMPLETE** FIRE ALARM AND FIRE SPRINKLER SYSTEM SUBMITTAL.

CODE ANALYSIS

A. CODES USED: THE FIRST THREE PHASES UNDER THIS PROJECT WILL BE DESIGNED USING THE FOLLOWING CODES AS MINIMUM STANDARDS:

TITLE 24, CCR PART 1 (ADMINISTRATIVE REGULATIONS).
TITLE 24, CCR PART 2, 1995 CBC (1994 UBC WITH CALIFORNIA AMENDMENTS).
TITLE 24, CCR PART 3, 1995 CEC (1993 NEC WITH CALIFORNIA AMENDMENTS).
TITLE 24, CCR PART 4, 1992 CMC (1991 UMC WITH CALIFORNIA AMENDMENTS).
TITLE 24, CCR PART 5, 1995 CPC (1994 UPC WITH CALIFORNIA AMENDMENTS).
TITLE 24, CCR PART 9, 1995 CFC (1994 UFC WITH CALIFORNIA AMENDMENTS).

B. OCCUPANCY GROUPS AND CONSTRUCTION TYPES:

1. ELEMENTARY CLASSROOMS: E+1; V-N
2. KINDERGARTEN CLASSROOMS: E+1; V-N
3. ADMINISTRATION (SEE 503.3, EXCEPTION 2): E+1; V-N
4. MULTIPURPOSE BUILDING: A-2+1; V-1 HR.
5. MEDIA CENTER: E+1; V-N

C. ALLOWABLE AREAS:

OCCUPANCY GROUP (TABLE 5A)	BASIC AREA ALLOWED (TABLE 5B)	INCREASE FOR SIDE YARDS (SECTION 505.1-3)	INCREASE FOR SPRINKLERS (SECTION 505.3)	INCREASE FOR TRAVEL DIST. (SECTION 505.2.1)	TOTAL ALLOWABLE AREA	TOTAL ACTUAL AREA
E-1;V-N	9,100 SQ. FT. EA. BUILDING	0 (NOT USED)	0*	4,550 SQ. FT. EA. BUILDING	13,560 SQ. FT. EA. BUILDING	3,766 SQ. FT. ‡ EA. BUILDING
A-2.1;V-1 HR.	10,500 SQ. FT.	0 (NOT USED)	0	NA	10,500 SQ. FT.	5,977 SQ. FT.

* WHILE SOME OF THE CLASSROOMS HAVE A SPRINKLER SYSTEM AS REQUIRED BY THE LOCAL FIRE MARSHAL, THIS SYSTEM IS NOT USED TO INCREASE THE ALLOWABLE SIZE OF THE BUILDINGS.

‡ 3,766 SQUARE FEET REPRESENTS THE ACTUAL SIZE OF THE LARGEST, SEPARATE BUILDING ON THIS SITE CLASSIFIED AS E+1 (MEDIA CENTER BUILDING). NOTE THAT ALL BUILDINGS ARE SEPARATED FAR ENOUGH AWAY FROM EACH OTHER TO BE DEEMED AN INDIVIDUAL E+1 STRUCTURE (SEE SHEET A1.1 FOR SITE PLAN PROPERTY LINE SEPARATIONS).

SHEET INDEX

SHEET INDEX

T-1 COVER SHEET

CIVIL SHEETS

C-1 EXISTING SITE PLAN
C-2 GRADING PLAN
C-3 STORM DRAINAGE PLAN
C-4 WATER SUPPLY
C-5 SANITARY SEWER
C-6 STRIPING AND SIGNAGE
C-7 DIMENSIONS AND CONTROL
C-8 DETAILS, WATER SUPPLY
C-9 DETAILS, SANITARY SEWER
C-10 DETAILS, SITE
C-11 DETAILS, SITE
C-12 SITE SECTIONS

ARCHITECTURAL SHEETS

A1.1 SITE PLAN
A1.2 PARTIAL SITE PLAN AND GAZEBO DETAILS
A1.3 COMMON AREA PLANS AND DETAILS
A1.4 KINDERGARTEN PLAY AREA, ELEMENTARY PLAY & APPARATUS AREAS
A2.0 TYPICAL STRUCTURAL DETAILS AND GENERAL NOTES
A2.1 FOUNDATION PLANS AND DETAILS
A2.2 EXTERIOR ELEVATIONS (E) RELOCATABLES AND DETAILS

MECHANICAL SHEETS

P1-0 LEGEND AND DETAILS
P1-1 LPG GAS SITE PLAN
P2-1 FIRE SPRINKLER PLANS

INCREMENT No. 3 - TOILET BLDG. - MANUFACTURERS' DRAWINGS

C - COVER SHEET
MAI - FLOR PLAN & ELEVATIONS
MA3 - SPECIFICATION
ME1 - ELECTRICAL & REFLECTED CEILING PLANS
SW1 - STRUCT. FR. ELEV. & NOTES
SW2 - FLOOR FRAMING PLAN & DETAILS
SW3 - WALL FRAMING & DETAILS
SW4 - ROOF FRAMING PLAN & DETAILS
SP - WINDOW & DOOR PLAN & DETAILS
12 RAMP DETAILS

ELECTRICAL SHEETS

E0.1 STANDARD ELECTRICAL SYMBOLS, NOTES AND DETAILS
E1.1 SITE PLAN - LIGHTING
E1.2 SITE PLAN - POWER & UTILITIES
E1.3 SITE PLAN - FIRE ALARM AND SIGNAL
E1.4 SITE PLAN - DATA
E2.0 ONE LINE DIAGRAM
E2.1 ELEVATIONS AND LIGHTING WIRING DIAGRAM
E3.0 SIGNAL WIRING DIAGRAM
E4.0 FIRE ALARM RISER DIAGRAM
E5.0 ENLARGED RELOCATABLE CLASSROOM DRAWINGS
E6.0 DETAILS

MANUFACTURERS' DRAWINGS

BUILDINGS 1-4 (AMERICAN MODULAR) RELOCATIONS

1 FLOOR PLAN AND NOTES
3 CEILING GRID, DETAILS AND NOTES
S1 NOTES
S2 FLOOR FRAMING PLAN AND BUILDING SECTIONS
S3 ROOF FRAMING PLAN AND DETAILS

LANDSCAPING SHEETS

L-1 SPRINKLER & CONTROL WIRE STRIPING PLAN - LEGEND
L-2 SPRINKLER DETAILS
L-3 SPRINKLER LEGEND & PLANTING PLAN & NOTES

INCREMENT No. 2 - MANUFACTURERS' DRAWINGS (CMU)

C - COVER SHEET
1 - FLOOR PLAN & ELEVATIONS
1A - ALTERNATE FLOOR PLAN
2 - BUILDING SECTIONS & DETAILS
4 - ENDWALL FRAMING & DETAILS
5 - ROOF & WALL FRAMING & DETAILS
6 - TRUSS ELEV. & DETAILS
7 - FLOOR FRAMING PLAN, ELEV. & DETAILS
8 - FOUNDATION PLAN & NOTES
9 - FOUNDATION SECTIONS & DETAILS
11 - FOOTING SCHEDULE & DETAILS
12 - SHEAR WALL FRAMING PLAN

ABBREVIATIONS

&	AND	E.P.S.	EXTERIOR FINISH SYSTEM	KIT.	KITCHEN	S.C.D.	SEAT COVER DISPENSER
@	AT	E.I.F.S.	EXTERIOR INSULATION FINISH SYSTEM	K.S.	KNEE SPACE	S.D.	STORM DRAIN/ SOAP DISPENSER
∠	ANGLE	E.J.	EXPANSION JOINT	L.F.	LINEAR FEET	S.M.	SHEET METAL
℄	CENTERLINE	E.L.	ELECTRICAL	LAB.	LABORATORY	S.M.S.	SHEET METAL SCREW
#	NUMBER OR POUND	E.P.	ELECTRICAL PANEL	LAM.	LAMINATE	S.N.D.	SANITARY NAPKIN DISPENSER
∆	DELTA	E.S.	EDGE STRIP	LAV.	LAVATORY	S.N. DISP.	SANITARY NAPKIN DISPENSER
Ø	DIAMETER	E.W.C.	ELECTRIC WATER COOLER	LKR.	LOCKER	S.O.V.	SHUT-OFF VALVE
@	AT	ELEC.	ELECTRICAL	LT.	LIGHT	S.P.D.	SOAP DISPENSER
℄	PROPERTY LINE or PLATE	ELEV.	ELEVATION	M.B.	MACHINE BOLT	S.S.	STAINLESS STEEL
℄	CENTERLINE	ELEC.	ELECTRICAL	M.O.	MASONRY OPENING	S.T.C.	SOUND TRANSMISSION CONTROL
		EMER.	EMERGENCY	M.S.	MACHINE SCREW		
A.B.	ANCHOR BOLT	ENCL.	ENCLOSURE	MT.	MAT	S.T.S.	SELF-TAPPING SCREW
A.C.	ASPHALTIC CONCRETE	EQ.	EQUAL	MAINT.	MAINTENANCE	SCHED.	SCHEDULE
A.D.	AREA DRAIN	EQUIP.	EQUIPMENT	MAX.	MAXIMUM	SECT.	SECTION
A.F.F.	ABOVE FINISH FLOOR	EXIST. (E)	EXISTING	MECH.	MECHANICAL	SHTHG.	SHEATHING
		EXPO.	EXPOSED	MED.	MEDIUM	SHT.	SHEET
A/C	AIR CONDITIONING	EXT.	EXTERIOR	MEMB.	MEMBRANE	SHWR.	SHOWER
ACCES.	ACCESSORIES	F.A.	FIRE ALARM	M.E.S.	MATCH EXISTING STYLE	SIM.	SIMILAR
ACOUS.	ACOUSTICAL	F.A.C.P.	FIRE ALARM CONTROL PANEL	MFR.	MANUFACTURER	SPEC.	SPECIFICATION
ADD'L	ADDITIONAL	F.B.	FLAT BAR	MH.	MANHOLE	SPC.	SPACE
ADJ.ST.	ADJUSTABLE	F.C.P.	FRAMING CLIP	MIN.	MINIMUM	SPEC.	SPECIFICATION
ADJ.	ADJACENT	F.D.	FLOOR DRAIN	MISC.	MISCELLANEOUS	SPKLR.	SPRINKLER
ALT.	ALTERNATE	F.E.	FIRE EXTINGUISHER	MOD.	MODIFICATION, MODULAR	SQ.	SQUARE
ANOD.	ANODIZED	F.E.C.	FIRE EXTINGUISHER CABINET	MTD.	MOUNTED	S.S.D.	SEE STRUCTURAL DRAWINGS
APP.	APPROXIMATE			MTL.	MATERIAL		
APPL.	APPLICATION	F.H.	FIRE HYDRANT	MUL.	MULLION	STA.	STATION
APPROX.	APPROXIMATE	F.H.C.	FIRE HOSE CABINET			STAG.	STAGGERED
ARCH.	ARCHITECTURAL	FH	FLAT HEAD			STD.	STANDARD
ASPH.	ASPHALT	F.H.C.	FIRE HOSE CABINET	NOM.	NORTH	STL.	STEEL
		FLG.	FLANGE	N.I.C.	NOT IN CONTRACT	STOR.	STORAGE
B.B.	BULLETIN BOARD	FL.	FLOW LINE	N.T.S.	NOT TO SCALE	STRL.	STRUCTURAL
B.M.	BENCH MARK	F.O.B.	FACE OF BLOCK	NECES.	NECESSARY	SUSP.	SUSPENDED
BF	BY OWNER	F.O.C.	FACE OF CONCRETE	NO. OR #	NUMBER	SYM.	SYMMETRICAL
B.O.W.	BOTTOM OF WALL	F.O.F.	FACE OF FINISH	NOM.	NOMINAL		
B.U.	BUILT UP	F.O.S.	FACE OF STUDS	O.C.	ON CENTER	T&B	TOP AND BOTTOM
BD.	BOARD	FOUND.	FOUNDATION	O.D.	OUTSIDE DIAMETER (DIM.)	TBD	TO BE DETERMINED
BITUM.	BITUMINOUS	F.R.P.	FIBERGLASS REINFORCED PLASTIC	O.F.	OVER FLOW	T.B.	TOWEL BAR
BLDG.	BUILDING			OPG.	OPENING	T.C.	TOP OF CONCRETE
BLK.	BLOCK	F.S.	FULL SIZE	OPH.	OVER HEAD	T.C.C.	TOP OF CURB
BLKG.	BLOCKING	F.V.	FIELD VERIFY	OPP.	OPPOSITE	T.C.P.	TOP OF CONCRETE PAVEMENT
BM.	BEAM	FXTR.	FIXTURE	OPNG.	OPENING	T.O.C.	TOP OF CURB
BOT.	BOTTOM	FDN.	FOUNDATION	OPP.	OPPOSITE	T.O.P.	TOP OF PAVEMENT
BRGS.	BRACING	FIN.	FINISH			T.O.S.	TOP OF STEEL
	COMPACT	FLR.	FLOOR	P.B.F.	PONDER DRIVEN FASTENER	T.O.W.	TOP OF WALL
C.B.	CATCH BASIN	FLASH.	FLASHING	PNG.	PAINTING	T.P.D.	TOILET PAPER DISPENSER
C.B.E.	CHAIN BOARD EDGE	FLUOR.	FLUORESCENT	PNL.	PANEL		
C.E.S.	CHAIN EDGE STRIP	FRMG.	FRAMING	P.P.P.	PLASTIC FINISH PLYWOOD	T.S.	TUBE STEEL
C.I.	CAST IRON	FS.	FAR SIDE FEET	PLAM.	PLASTIC LAMINATE	TEL.	TELEPHONE
C.J.	CONSTRUCTION JOINT	FT.	FURR	TEMP.	TEMPERED	TELEV.	TELEVISION
CL.	CLEAR	FUR.	FURRING	P.M.	PRESSED METAL	TER.	TERRAZZO
C.M.U.	CONCRETE MASONRY UNIT	FUT.	FUTURE	P.O.C.	POINT OF CONNECTION	TRANS.	TRANSFORMER
C.O.	CLEAN OUT	FZR.	FREEZER	PREFAB.	PREFABRICATED	TRD.	TREAD
C.W.	COLD WATER	G.B.	GRAB BAR	P.S.I.	POUNDS PER SQUARE INCH	TS	TUBE STEEL
CAB.	CABINET	GI.	GALVANIZED IRON	P.T.D.	PAPER TOWEL DISPENSER	TV	TELEVISION
CAD.	CADMIUM	GA.	GAUGE	P.T.D.F.	PRESSURE TREATED DOUGLAS FIR	TYP.	TYPICAL
CC.	COMPACT CAR	GALV.	GALVANIZED			U.O.N.	UNLESS OTHERWISE NOTED
CEM.	CEMENT	GB.	GRAB BAR	PERF.	PERFORATED	UNF.	UNFINISH
CIR.	CIRCLE	GND.	GROUND	PERP.	PERPENDICULAR	URET.	URETHANE
CLG.	CEILING	GR.	GRADE	PL.	PLATE	U.V.	ULTRA VIOLET
CLR.	CLEAR	GSM.	GALVANIZED SHEET METAL	PLAS.	PLASTER	U.V.T.	UNDERLAVEMENT
CLKG.	CAULKING			PNL.	PANEL	UR.	URINAL
CMT.	CEMENT	GYP.	GYPSUM	PR.	PAIR		
C.O.	CLEAN OUT			PROJ.	PROJECT	V.A.T.	VINYL ASBESTOS TILE
COL.	COLUMN	H.B.	HOSE BIBB	PROJ. BOX	PARKING PROJECTION BOX	V.C.T.	VINYL COMP. TILE
COMP.	COMPOSITION	H.C.	HOLLOW CORE			V.C.TB.	VINYL COVERED TACKBOARD
CONC.	CONCRETE	H.D.	HOT DIPPED	PT.	POINT	VERT.	VERTICAL
CONN.	CONNECTION	HDR.	HOT HEAD	PTN.	PARTITION	VEST.	VESTIBULE
CONSTR.	CONSTRUCTION	H.M.	HOLLOW METAL	PWD.	PLYWOOD		
CONT.	CONTINUOUS	HOR.	HORIZONTAL			W.C.	WATER CLOSET
CONTR.	CONTRACTOR	HDCP.	HANDICAP	Q.T.	QUARRY TILE	W.H.	WATER HEATER
CORR.	CORRUGATED	HDWD.	HARDWOOD	QTY.	QUANTITY	W.O.	WHERE OCCURS
CPT.	CARPET	HDWE.	HARDWARE			W.R.	WATER RESISTANT
CSMT.	CASEMENT	HGT.	HEIGHT	R.	RISER	WSCT.	WAINSCOT
CT.	COUNTERTOP	HORIZ.	HORIZONTAL	R.C.P.	REINF. CONC. PIPE	W.S.	WOOD SCREW
CTR.	CENTER	HR.	HOUR			W.W.F.	WELDED WIRE FABRIC
CTSK.	COUNTERSINK	HTR.	HEATER	R.D.	FLOW DRAIN		
		HVAC	HEATING VENTILATING AIR CONDITIONING	R.D.	ROUND HEAD	W.	WITH
D.F.	DRINKING FOUNTAIN			R.W.L.	RAIN WATER LEADER	WO	WITHOUT
D.H.	DOUBLE HUNG			RAD.	RADIUS	WD.	WOOD
DIA.	DIAMETER	I.C.B.	INSULATED CONCRETE BLOCK	REL.	RELOCATED	WDW.	WINDOW
DIM.	DIMENSION			REF.	REFERENCE	WH. MD.	WHITE BOARD
D.W.	DISHWASHER			REFR.	REFRIGERATOR	WP.	WATERPROOF
DN.	DOWN	I.D.	INSIDE DIAMETER	REINF.	REINFORCED	WSCT.	WAINSCOT
DR.	DOUBLE DOOR			REQ'D.	REQUIRED	WTHR.	WEATHER STRIPPING
DEMO.	DEMOLITION	IE.	ELEVATION	RES.	RESILIENT	WTR.	WATER
DET.	DETAIL			RESIL.	RESILIENT		
DIA.	DIAMETER	INSUL.	INSULATION	RM.	ROOM	YD.	YARD
DIM.	DIMENSION	INT.	INTERIOR	RUB.	RUBBER		
DISP.	DISPENSER	INV.	INVERT	RWD.	REDWOOD		
DN.	DOWN	JH.	JOIST HANGER	SAN.	SANITARY		
DT.	DOOR	JST.	JOIST	SC.	SCALE		
DWG.	DRAWING	JT.	JOINT	S.	SOUTH		
DWR.	DRAWER			SCHED.	SCHEDULE		
				SCR.	SOLID CORE		
E.F.	EXHAUST FAN	K.D.	KNOCK DOWN				

SYMBOLS

Paint Symbol: See Specifications

Door Symbol: Top = Door No., Bottom = Hardware Group

Window Symbol: See Schedule

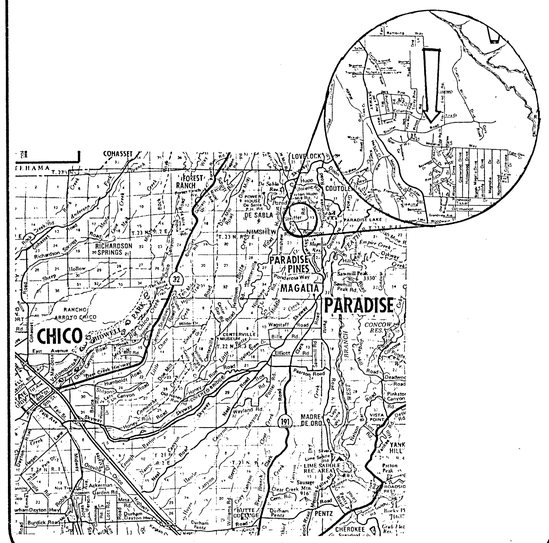
Glazing Symbol: See Schedule

Metal Frame Symbol: See Schedule

Datum Point, Work Point, Control Point, Benchmark or Point of Connection

Wall Type: See Schedule

VICINITY MAP



CONSULTANTS

OWNER
Paradise Unified School District
5665 Recreation Drive
Paradise, CA 95969
PH#: (916) 872-6495
FAX: (916) 872-2697

STRUCTURAL ENGINEER
J. Albert Paquette and Associates
450 Mission Street, Room 200
San Francisco, CA 94105
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FAX: (916) 342-7582

MECHANICAL ENGINEER
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Sacramento, CA 95826
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LANDSCAPE ARCHITECT
Carl Rottschalk
2700 The Esplanade or P.O. Box 1940
Chico, CA 95926/27
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FAX: (916) 895-3601

ELECTRICAL ENGINEER
Koch, Chun, Knobloch and Associates
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FAX: (916) 386-0895

CIVIL ENGINEER
NorthStar Engineering
20 Declaration Drive
Chico, CA 95973
PH#: (916) 893-1600
FAX: (916) 873-2113

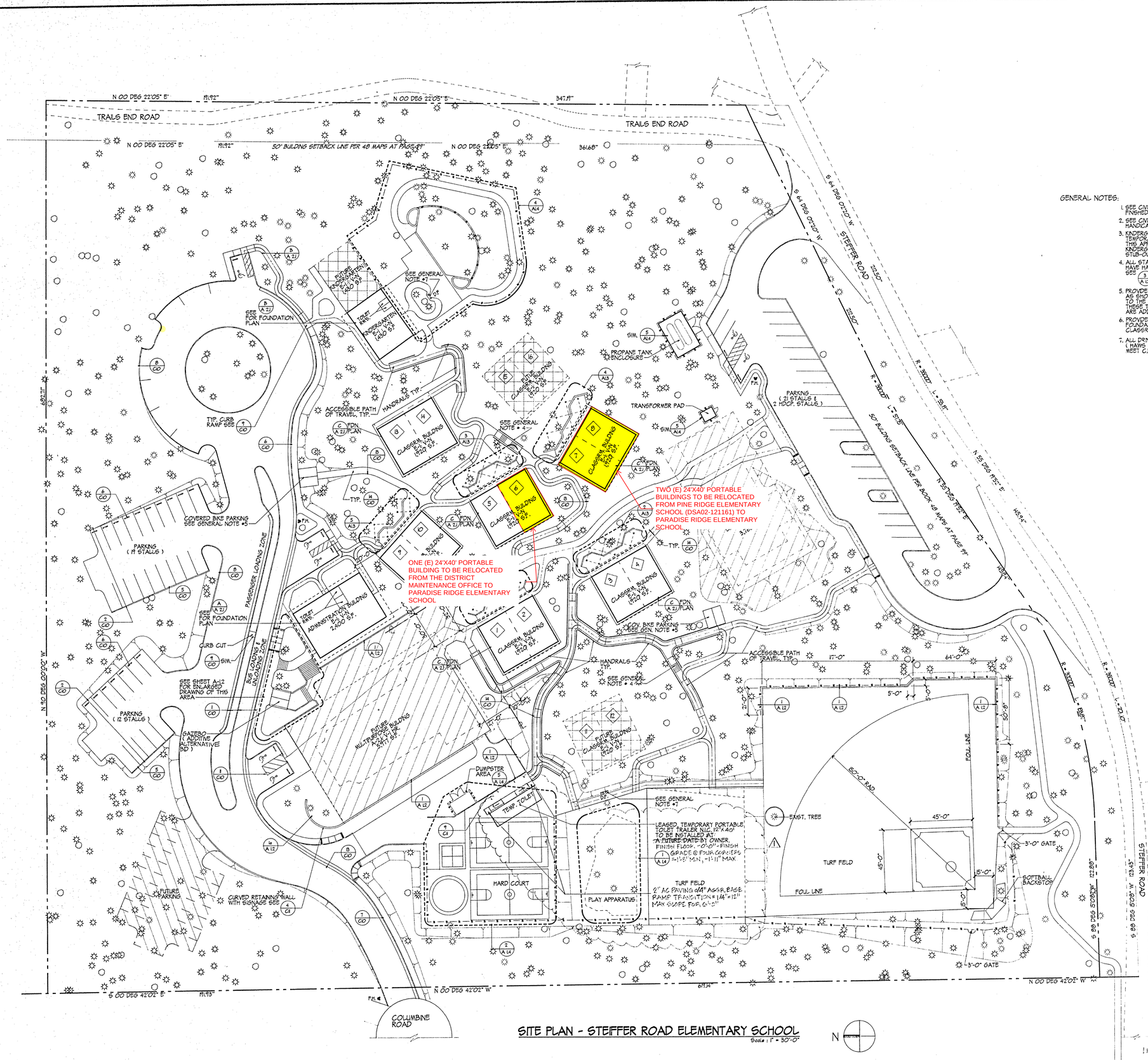
DSA File # 22/61531-00-07
PHASE 1 - SITE WORK
STEIFFER ROAD ELEMENTARY SCHOOL
FOR THE
PARADISE UNIFIED SCHOOL DISTRICT
PARADISE - BUTTE COUNTY - CALIFORNIA

THOMSON & HENDRICKS INC.
ARCHITECTS AND PLANNERS
Paul Hendricks, A.I.A.
Chico, California 95926 • (916) 342-5669

DRAWN BY: PL | CHECKED BY: NA,PH
DATE: 3-21-24
DRAWING NO. T-1 OF
JOB NO. 9542.3

/architects/Sheets/9542 Plotted: 09-E-95

DRAWINGS AND SPECIFICATIONS AS INSTRUMENTS OF SERVICES ARE THE PROPERTY OF THE ARCHITECT. THE CONTRACTOR SHALL CHECK ALL DIMENSIONS AT THE JOB AND SHALL BE RESPONSIBLE FOR ALL DISCREPANCIES BETWEEN DIMENSIONS OF THE ACTUAL WORK AND THOSE SHOWN IN THE DOCUMENTS OR ARCHITECT'S APPROVED SHOP DRAWINGS. THE CONTRACTOR SHALL ALSO BE SOLELY RESPONSIBLE FOR ALL QUANTITIES OF MATERIAL OR EQUIPMENT FURNISHED FOR PROPER, AND COMPLETE WORK.



SITE PLAN - STEFFER ROAD ELEMENTARY SCHOOL

Scale : 1" = 30'-0"

GENERAL NOTES:

1. SEE CIVIL DRAWINGS FOR GRADES OF FINISHED SIDEWALKS, STREETS, PARKING.
2. SEE CIVIL DRAWINGS FOR HANDICAP SIGNAGE.
3. KINDERGARTEN BLDG., ADMINISTRATION BLDG. & TEMPORARY TOILET BLDG. ARE NOT INCLUDED IN THIS APPROVAL (ONLY FOUNDATIONS FOR KINDERGARTEN & ADMINISTRATION BLDG'S.) & STUB-OUT UTILITIES FOR ALL (3)
4. ALL STAIRS ON THIS PLAN SHALL HAVE HANDRAILS BOTH SIDES SEE (3 / A 12)
5. PROVIDE TWO COVERED BIKE PARKING GAZEBOS AS SHOWN ON THIS SITE PLAN (IDENTICAL IN DETAIL TO THE MAIN ENTRY GAZEBO SHOWN ON (1 / A 12) & (2 / A 12)). THESE TWO BICYCLE PARKING GAZEBOS ARE ADDITIVE ALTERNATE BIDS (ADD'L BIKE PARK. AREA TO BE BID)
6. PROVIDE STEPPED CONCRETE FOOTINGS & WOOD FOUNDATION WALLS (FOR RELOCATABLE CLASSROOMS BY OTHERS) AS DETAILED ON (C / A 2.1)
7. ALL DRINKING FOUNTAINS ON P-AN SHALL BE (HAWS MODEL # 3348CFR) OR EQUAL AND SHALL MEET C.B.C. '95, SECTION 1115.1, FIGURE 11B.

GENERAL NOTES
TOILET BLDG. INCREMENT #3

1. FOR ELECTRICAL & FIRE ALARM SITE CONTINUATION SEE SHTS. E1.2, E1.3 & E6.0
2. FOR WATER & SANITARY SEWER & TS CONTINUATION SEE SHTS. C-1 & C-3.

GENERAL LEGEND:

- FUTURE CLASSROOMS NOT INCLUDED IN THIS CONTRACT
- AREAS TO RECEIVE ENGINEERED FILL (UNDER THIS CONTRACT)
- CONCRETE CURB WITH FENCE
- ACCESSIBLE PATH OF TRAVEL

INCREMENT #4 KINDERGARTEL & ADMINISTRATION BUILDING
INCREMENT # 3 TOILET BUILDING
INCREMENT #2 CLASSROOMS 5, 6, 7, 8, 9, 10, 13, 14;
INCREMENT #1 FOUNDATIONS FOR CLASSROOMS 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 13, 14, ADMIN. & KINDER BLDGS., & 4 PERMANENT BUILDINGS

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-122123 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 3/21/2024

DIV. OF THE STATE ARCHITECT OFFICE OF PROJECT SERVICES
AC FLS
DATE FILE NO. 4-48

6/24/96 INCR. #3

STATE OF CALIFORNIA
Department of General Services
JUL 16 1996
Division of the State Architect
Regulation Services Sacto

DSA SA # 22/61531-00-07

PHASE I - SITE WORK
STEIFFER ROAD ELEMENTARY SCHOOL

FOR THE

PARADISE UNIFIED SCHOOL DISTRICT

PARADISE - BUTTE COUNTY - CALIFORNIA

THOMSON & HENDRICKS INC.
ARCHITECTS AND PLANNERS
Paul Hendricks, A.I.A.
Chico, California 95926 • (916) 342-5669

DRAWN BY	CHECKED BY
TS	PH

DATE 3-21-96

DRAWING NO. TA 1.1 OF

JOB NO. 9542.3

DRAWINGS AND SPECIFICATIONS, AS INSTRUMENTS OF SERVICES, ARE THE PROPERTY OF THE ARCHITECT. THE CONTRACTOR SHALL CHECK ALL DIMENSIONS AT THE JOB AND SHALL BE RESPONSIBLE FOR ALL DISCREPANCIES BETWEEN DIMENSIONS OF THE ACTUAL WORK AND THOSE SHOWN IN THE DOCUMENTS OR ARCHITECT'S APPROVED SHOP DRAWINGS. THE CONTRACTOR SHALL ALSO BE SOLELY RESPONSIBLE FOR ALL QUANTITIES OF MATERIAL OR EQUIPMENT CALLED FOR TO PROPERLY COMPLETE THE WORK.

24x40
RELOCATABLE
CLASSROOM

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-122123 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 3/21/2024

des
systems inc., inc.
P.O. Box 367
Patterson, California
95363
(209) 892-6293

Approval: Structural Engineer

REGISTERED PROFESSIONAL ENGINEER
EDWARD LINDSEY
No. 17[illegible]
STATE OF CALIFORNIA
AUG 2[illegible]

LICENSE EXPIRES 12-31-97

Approval: Structural Safety

IDENTIFICATION STAMP
Department of General Services
Office of the State Architect
OCT 1 1990
Structural Safety Section
App. # PC147
Checked By [illegible]

Approval: Fire Marshal

CALIFORNIA STATE FIRE MARSHAL
APPROVED
APPROVAL OF THIS PLAN DOES NOT AUTHORIZE OR APPROVE ANY OMISSION OR DEVIATION FROM APPLICABLE REGULATIONS. FINAL APPROVAL IS SUBJECT TO SUCH CORRECTIONS AS MAY BE REQUIRED BY THE FIELD REPRESENTATIVE OF THE STATE FIRE MARSHAL. PLANS SHALL BE AVAILABLE ON THE PROJECT SITE FOR REVIEW.
REVIEWED BY [illegible]

Approval: [illegible]

OFFICE OF THE STATE ARCHITECT
ACCESS COMPLIANCE
PC147 OCT 17 '90
APPLICATION FOR [illegible]
APPROVED

STATE OF CALIFORNIA
Department of General Services
MAY 17 1996
Division of the State Architect
Regulation Services-Sacto

[illegible]
[illegible] YES
[illegible] 60

STATE OF CALIFORNIA
DEPT. GENERAL SERVICES
OFFICE OF THE
STATE ARCHITECT

STRUCTURAL
TESTS
AND
INSPECTIONS

DATE: _____
PROJECT: _____
APPLICATION NO. _____
STRUCTURAL ENGINEER: _____

The following tests and inspections as checked will be required as detailed in applicable specifications.

	CONCRETE	GUNITE	GRAVEL	MORTAR	
Design mix					Certificates of compliance for mix design only
Slump tests					Suitability tests of aggregates for mix designs (METHOD A)
Strength tests of test cylinders					Continuous batch plant inspection
Inspection of reinforcing steel					Inspect placing
Inspection of prestressing steel					Sample
Inspection of welding					Compression tests
Inspection of high-strength bolting					Pick up samples at job
Inspection of masonry units					Samples delivered to laboratory
Inspection of prestressing steel for bonding					Other sample forms to obtain
Shotcrete application					Sample and test cement

SUITABILITY TESTS	CONCRETE MATERIALS	SAND	MORTAR	GROUT
Sodium sulphate				
Structural strength				
Los Angeles rattler	As Required By Lab			
Clay (Hydrometer method)				
Reactivity tests				
Volume change				

MIX DESIGNS: CONCRETE, GROUT, MORTAR OR GUNITE			COMPRESSIVE STRENGTH, PSI, MINIMUM
MATERIAL	MAXIMUM SIZE		
Cont. Exp.	3/4" - 1"	@ 28 DAYS	3000

Inspection of welding	
Fabrication procedure	
Sample and test steel accessories	
Inspect fabrication of steel accessories	

GLUED LAMINATED STRUCTURAL LUMBER

List of structural steel members to be tested: Mill Certificate & Test Report Acceptable in Lieu of Testing Per Section 2727 (a) of TR4

4"x4"x3/8" ANGLE
3"x3"x1/4" ANGLE
2"x2"x1/4" ANGLE
3"x3"x3/16" ANGLE
3"x3"x3/16" TS COLUMN A500GRB
M 8"x5.5# I-BEAM
C 6"x3"x12.9# ASTM A570 GR. 33
C 6"x3"x14.6# ASTM A570 GR. 33

TRUSS MEMBERS A36

1/4" FLAT STEEL
M12x11.8 I-BEAM

(Is the list continued on reverse: Yes No)

Other tests and inspections together with special instructions:

DRIVE PINS
END-WELDED STUDS (WIDE FLANGE BEAMS)
ELECTRICAL GROUNDING

Copies of Reports to:

OWNER
DSA
ARCHITECT
CONTRACTOR

(Are there continuation sheets: Yes No)

Authorized Representative

Form 4-11-11

ACCESS COMPLIANCE NOTES RE: SITE CONDITIONS

1. MAX. BUILDING HEIGHT 28' FROM GRADE TO FINISH FLOOR (REFER SHEET 11).
2. IF STANDARD RAMP IS USED MAX. HEIGHT IS 14" ABOVE GRADE. SITE MUST BE GRADED TO ACCOMMODATE THIS CONDITION. (REFER SHT. 12 FOR RAMP).
3. BOTTOM LANDING OF RAMP MUST BE LEVEL AND 6'-0" IN LENGTH IN DIRECTION OF RAMP AND MUST BE CLEAR AND UNOBSTRUCTED. SPACING OF UNITS DEPENDS ON LENGTH OF RAMP AND LANDING.

FIRE MARSHAL NOTATION:

1. APPROVAL OF THIS APPLICATION DOES NOT CONSTITUTE APPROVAL OF THE FIRE ALARM SYSTEM.
2. FIRE ALARM SYSTEM IS A DEFERRED APPROVAL ITEM.
3. THIS INFORMATION IS TO BE PROVIDED TO THE F.M. WHEN SITE IS DETERMINED

ACCESS ROADS & GATE ENTRANCES

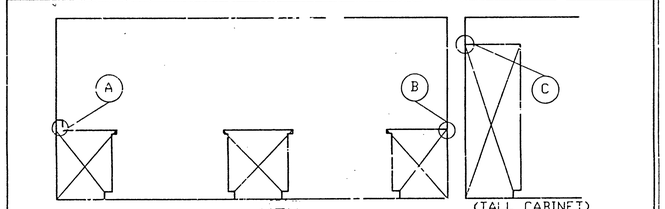
Pursuant to: Title, 19, CCR, Subchapter 1, Article 3.05 Access Roads and Gate Entrances to Point Grande. It is necessary to provide the State Fire Marshal (OSA) with written verification from the fire authority that the above conditions have been met to their satisfaction. It is necessary to provide this information prior to receiving approval by the State Fire Marshal. (If further information is desired, please contact the SFM, in OSA.)

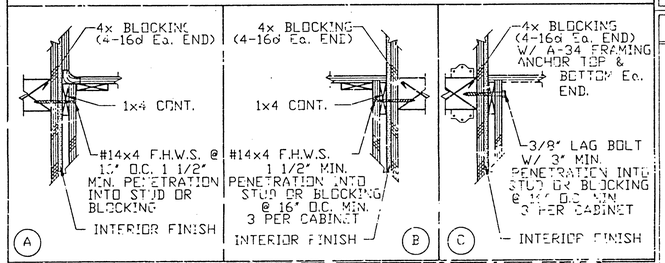
GENERAL NOTES

1. LOADS:
   WIND: 75 MPH EXPOSURE 'C'
   ROOF: 60 PSF SNOW (No Allowance For Drift)
   FLOOR: 50 PSF (ALTERNATE 70 PSF)
   SEISMIC LOAD: I=1, Z=0.4, C=2.75, Rw=8, V=0.138W
2. NO PARTITIONS IN CONTRACT
3. SEE DETAIL 1/C FOR CABINET BLOCKING DETAILS
4. THIS APPROVAL IS FOR PREFABRICATION AT THE MANUFACTURING SITE ONLY. A SEPARATE APPLICATION WILL BE SUBMITTED TO DSA FOR MOVING TO LOCATION ON A SPECIFIC SCHOOL SITE. BUILDINGS ARE NOT TO BE USED FOR SCHOOL PURPOSES UNTIL MOVED TO A SCHOOL SITE APPROVED BY DSA. A 'T & I' LIST IS REQUIRED FOR EACH APPLICATION.
5. SITE INSTALLATION INCLUDES:
   FOUNDATIONS, RAMP SET-UP, BOLTING OF MODS, EXT. AND INTERIOR CLOSE-UP AT MOD LINE, CARPET, SHEET METAL ROOF CLOSURE, AND BONDING OF METAL BUILDING COMPONENTS AND RAMP TO ELECTRICAL PANEL AS INDICATED ON PLANS
6. SITE WORK NOT INCLUDED IN CONTRACT:
   SITE GRADING, GROUNDING OF BUILDING, ELECTRICAL HOOK UP, AND TRANSITION OF RAMP END TO GRADE
7. MINIMUM SEPARATION BETWEEN BUILDINGS: 2'-0"
8. CONDUIT AND JUNCTION BOXES ONLY PROVIDED FOR FIRE ALARM SYSTEM
9. SITE TO BE WITHIN 6" OF LEVEL
10. CONSTRUCTION: TYPE V-N
11. OCCUPANCY: E2
12. AREA: 960 SQ.FT.

ABBREVIATIONS

A.F.F.	ABOVE FINISHED FLOOR
℄	CENTER LINE
EOT	EDGE OF TRUSS
FOF	EDGE OF FLANGE
FOS	FACE OF STUD
FOC	FACE OF COLUMN
FOF	FACE OF FINISH
FFL	FINISH FLOOR
TYP.	TYPICAL





CABINET ANCHORAGE DETAILS SCALE: 1 1/2"=1'-0"

SCHEDULE OF DRAWINGS

C COVER SHEET
1 FLOOR PLAN & ELEVATIONS
1A ALTERNATE FLOOR PLAN
2 BUILDING SECTIONS & DETAILS
~~3 FLOOR FRAMING PLAN & DETAILS~~
~~3A ALTERNATE FLOOR FRAMING PLAN~~
4 END WALL FRAMING ELEV. & DETAILS
5 SIDE WALL FRAMING ELEV. & DETAILS
6 TRUSS ELEVATION & DETAILS
7 ROOF FRAMING PLAN & DETAILS
8 SPECIFICATIONS/STRUCTURAL NOTES
9 MECHANICAL/ELECTRICAL PLAN
10 ~~FOUNDATION PLAN~~
11 FOUNDATION DETAILS
~~12 RAMP PLAN & DETAILS~~ OMIT SHEET
13 ALTERNATE FLOOR FRAMING PLAN
~~14 ALTERNATE FOUNDATION PLAN~~
~~15 DETAILS FOR ALTERNATE CONCRETE FOUNDATION~~

REGISTERED ARCHITECT
EDWARD LINDSEY
No. 17[illegible]
STATE OF CALIFORNIA

75 MPH EXP. 'C'
24x40 CLASSROOM
60 PSF SNOW LOAD

COVER SHEET

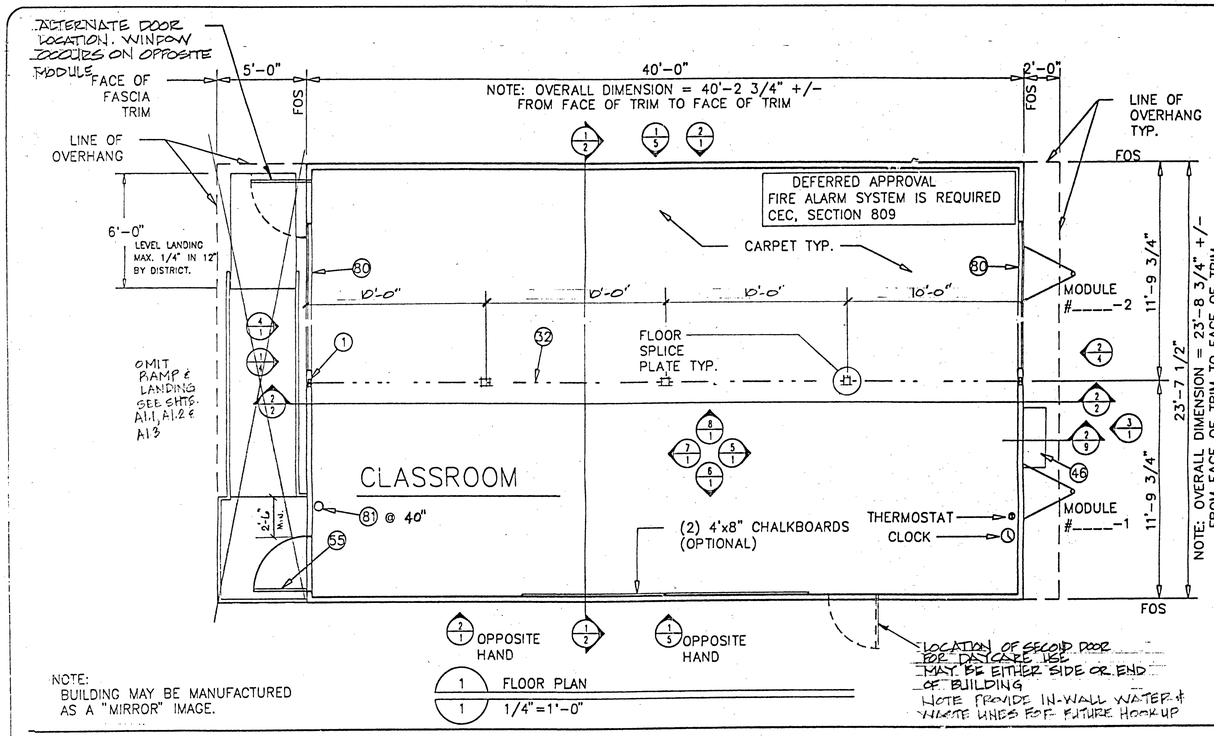
Architect:

Paradise USD | DATE: 3/21/96 | JOB: 3594

Drawn: V.S.
Scale:
Date: 6-28-93
Sheet: C of 15

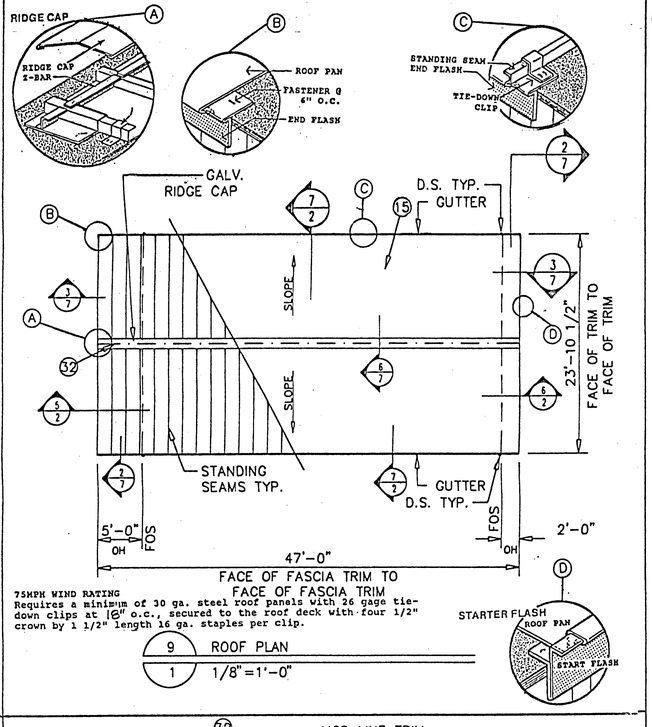
Tenant Space/4
INCREMENT NO.2

ALTERNATE DOOR LOCATION. WINDOW OCCURS ON OPPOSITE MODULE



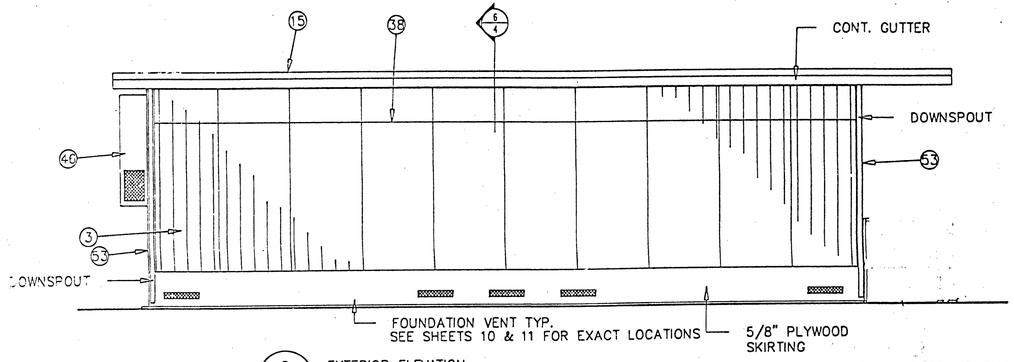
1 FLOOR PLAN
1 1/4"=1'-0"

NOTE:
BUILDING MAY BE MANUFACTURED AS A "MIRROR" IMAGE.

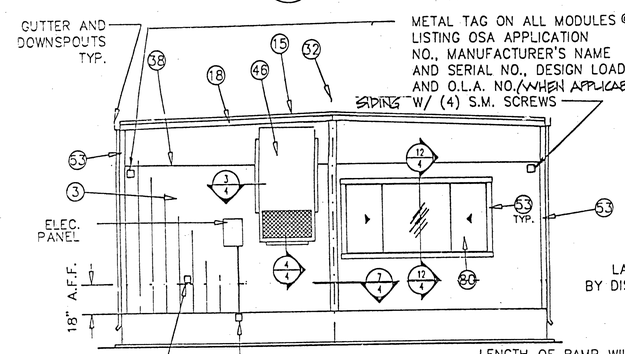


75MPH WIND RATING
Requires a minimum of 30 ga. steel roof panels with 26 gage tie-down clips at 16" o.c., secured to the roof deck with four 1/2" crown by 1 1/2" length 16 ga. staples per clip.

9 ROOF PLAN
1 1/8"=1'-0"

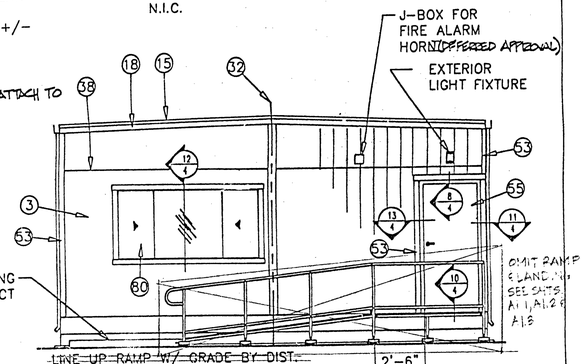


2 EXTERIOR ELEVATION
1 1/4"=1'-0" OPPOSITE HAND SIMILAR



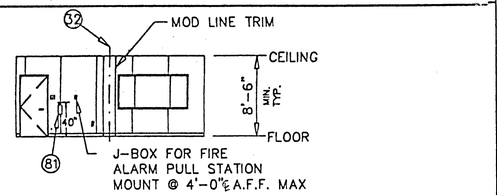
3 EXTERIOR ELEVATION
1 1/4"=1'-0"

SPLASH BLOCK RECOMMENDED @ EA. DOWNSPOUT LOCATION N.I.C.

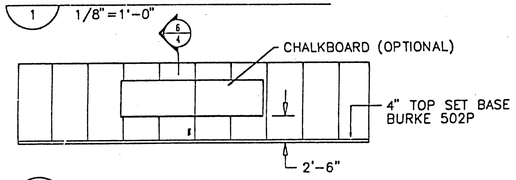


4 EXTERIOR ELEVATION
1 1/4"=1'-0"

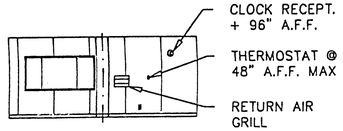
NOTE: MIN. 2'--0" SEPARATION BETWEEN BUILDINGS



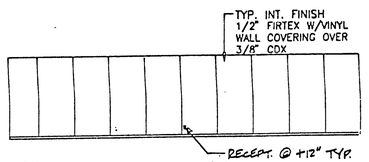
7 INTERIOR ELEVATION
1 1/8"=1'-0"



6 INTERIOR ELEVATION
1 1/8"=1'-0"



5 INTERIOR ELEVATION
1 1/8"=1'-0"



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

NOTES *

1. COLUMN: 3"x3"x3/16" SQ. TUBE
2. STUD: 2x4 16" O.C. @ SIDEWALLS; 12" O.C. @ ENDWALLS
3. 5/8" EXT. PLYWOOD SIDING, SEE SPECS. SHEET 8
4. PNEUTEK PINS @ 6"o.c. AT EDGES 6" O.C. IN FIELD @ 12" O.C. IN FIELD & 24" o.c. JOINT
5. BOUNDARY NAILING: SEE NAILING SCHEDULE SHEET 2
6. FLOOR PERIMETER FRAME: M 12" X 11.8# I BEAM ALTERNATE: FLOOR FRAME PLAN ON CONCRETE SEE SHEET 13;14;15
7. PNEUTEK 34325L @ 12" o.c. @ SIDEWALLS & 8" O.C. @ ENDWALLS & 6" MAX. FROM END OF ANY PIECE TYP. @ ALL SILL PLATE CONNECTIONS U.N.O. SEE NOTE #5
8. PNEUTEK 34250L @ 12" o.c.
9. PREFORMED METAL ROOF EDGE
10. 8d BOX @ 12" O.C. (GALV. WHERE EXPOSED TO WEATHER)
11. TRIM: 1X2
12. NAILS: 8D @ 6" o.c.
13. RAFTER 2x10 @ 24" O.C.
14. PLYWOOD ROOF SHEATHING
15. ROOFING: 30 Ga. GALV. STANDING RIB MIN.
16. NAILS: 2-16D PER RAFTER
17. (1) 2x4 & (1) 2x6 DF TOP PLATES - NO SPLICE @ END WALLS.
18. TRIM: 2X10
19. NAILS: 16D @ 12" o.c.
20. NAILS:16D @ 8" O.C
21. HEADER: 4X12 D.F.#2
22. 3/8 CD PLYWOOD
23. SUSPENDED CEILING
24.
25. PLYWOOD FILLER
26. RIM RAFTER: 2x10
27.
28. 2X4 NAILER
29. BOLTS: 5/8" DIA. M.B. SEE ROOF FRAMING PLAN FOR LOCATION
30. TRUSS @ RIDGE SEE SHEET 6
31. HANGER: SIMPSON LB210
32. MODULE LINE
33. DOUBLE 2x10 RAFTER
34. MOD TIE STRAP- 2 1/2"x 1/8" STRAP W/(12) 16d BOX
35.
36. PLYWOOD FLOOR SHEATHING: 1 1/8" T&G STURDIFLOOR APA PS1-83 EXP. 1 ALL PLIES TO BE WOOD
37. SILL PLATE: 2X4 CONT.
38. Z-METAL STRIP:3/4 x 26 Ga. X 5/8 X 3/4 x 26 Ga.
39. C 6"x3"x12ga
40. SIMPSON U210 JOIST HANGER
41. NAIL: 8D @ 12" o.c.
42. 2x10 BLOCKING
43. STEEL STRAP:2 1/2" X 1/8" W/(2) 5/8" BOLTS
44. BOUNDARY NAILING
45. STUDS: (3) 2x4 DF MIN.
46. H.V.A.C. UNIT: WEIGHT 475# TYP.
47. DOUBLE 2X4 W/16D BOX NAILS 8' O.C.
48. HOLD-DOWN W/ (2) 5/8" BOLTS
49. L 1 1/2 X 1 1/2 X 1/8" X 18" LONG ATTACH TO A.C. W/4-#10 SELF-TAPPING GALV. S.M.S. & TO 2X4 FLAT W/(4) 5/16" X 2 1/2" LAG SCREWS.
50. STEEL PLATE: 2"x2"x1/4" WELD @ TOP FLANGES OF W8x6.5 BEAM
51.
52. HEADER: 4x8 DF #2
53. TRIM: 1X4
54. HOLLOW METAL FRAME: 16ga W/LOCK-IN ANCHORS, 8d BOX TO STUDS
55. DOOR.
56. KING STUDS: 2-2x4 FULL HEIGHT (4) @ WINDOWS;(3) @ MOD LINE;(2) @ DOORS
57. TRIMMER: 1- 2X4
58. DOOR BOTTOM.
59. ALUMINUM THRESHOLD W/(3)3/16"x1 3/8" F.H.M.S.
60. ~~RAMP; SEE SHEET 12~~
61. G.I. FLASHING.
62. LAG SCREWS:(6) 3/8" X 2"
63. 2X6 BLOCK
64. STEEL SUPPORT BRACKET SUPPLIED BY H.V.A.C. UNIT MANUFACTURER (11ga x 24")
65. PREFINISHED WOOD TRIM
66. DOUBLE 2X4 SILL
67. INSULATION: R-11 KRAFT FACED OVER NYLON MESH
68.
69.
70. TOENAIL: 16d @ 12" O.C.
71. SOFFIT: 3/8" PLYWOOD SIDING NO GROOVES
72. PRE-FINISHED PANELING
73. R-11 KRAFT FACED INSULATION
74. 4" ROUND VENT
75. SEALANT
76. 3"x3"x1/4" ANGLE
77. C 6"x2 1/2"x14ga
78. 2"x2"x3/16" ANGLE BRACE FROM SIDE BEAM TO END BEAM @ HOLD DOWN LOCATIONS
79. 2x6 DF NAILER CONT. @ PERIMETER
80. WINDOW: 8'-0"x4'-0" XOX SEE SPECS, SHEET 8
81. FIRE EXTINGUISHER-MOUNT ON WALL BRACKET @ 45" A.F.F. MAX
82. NOT USED
83. 20 Ga.x3/4"x16" LONG STRAP w/ (4) 10d BOX Ea. END (2x10 BLOCK TO 2x4 STUD)
84. 20 Ga.x3/4"x12" LONG STRAP w/ (4) 10d BOX Ea. END (4x HEADER TO 2x4 STUD)
85. SILL CONNECTION @ END WALL SHEAR PANELS ONLY: PNEUTEK 34325L @ 6" O.C. & 6" MAX. FROM END OF ANY PIECE.
86.
87. 2" ROUND VENT
88. (2) 2x4 TRIMMER @ 8' OPENING
89. W8x6.5
90. (2) 2x4 D.F. NAILER CONT. @ PERIMETER.

* SOME ITEMS SHOWN ABOVE MAY NOT BE SHOWN ON THIS SHEET

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-122123 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 3/21/2024

designed systems ind., inc.
P.O. Box 367
Patterson, California
95363
(209) 892-6298

Approval: Structural Engineer

REGISTERED PROFESSIONAL ENGINEER EDWARD LINDSEY No. 76 STRUCTURAL STATE OF CALIFORNIA
LICENSE EXPIRES 12-31-92

Approval: Structural Safety

IDENTIFICATION STAMP
Department of General Services
Office of the State Architect
OCT 1 1990
Structural Safety Section
Appl. # 12 147
Backchecked By

Approval: Fire Marshal

CALIFORNIA STATE FIRE MARSHAL
APPROVED
APPROVAL OF THIS PLAN DOES NOT AUTHORIZE ANY OMISSION OR DEVIATION FROM APPLICABLE REQUIREMENTS. APPROVAL IS SUBJECT TO FIELD INSPECTION. ONE SET OF APPROVED PLANS SHALL BE AVAILABLE ON THE PROJECT SITE AT THE TIME OF INSPECTION.
REVIEWED BY: 2 Sep to 12 29

Approval: Access Compliance

OFFICE OF THE STATE ARCHITECT ACCESS COMPLIANCE SECTION
12147 OCT 17 '90
APPLICATION PER #: Jud Reiss
BY:

75 MPH EXP. 'C'
24 x 40 CLASSROOM
60 PSF SNOW LOAD

FLOOR PLAN & ELEVATIONS

Architect:

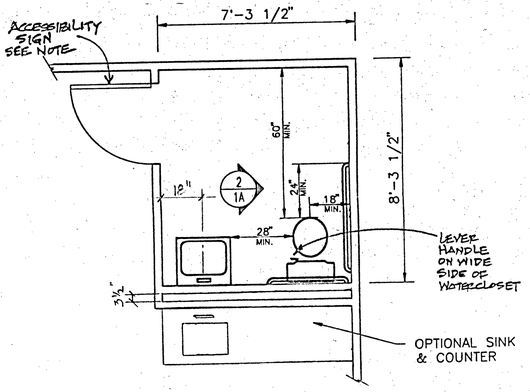
Paradise USD | DATE: 3/21/96 | JOB: 3594

Drawn: BP
Scale: NOTED
Date: 6-28-90
Job: 60SL
Sheet: 1 Of Sheets

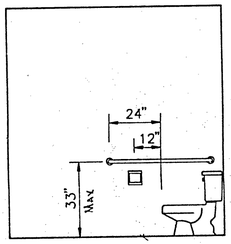
STATE OF CALIFORNIA Department of General Services
MAY 17 1996
Division of the State Architect Regulation Services-Sacto.

T&H #36424
INCREMENT No. 2

FILE NAME: 60SL1

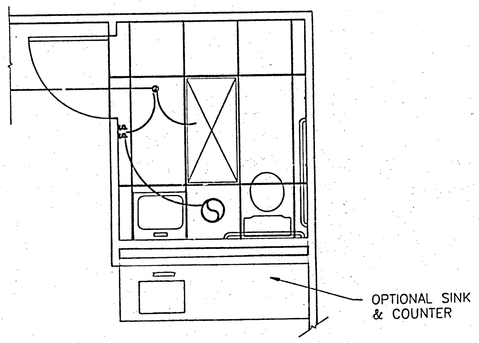


1 / 1A ALTERNATE CORNER RESTROOM
3/8"=1'-0"

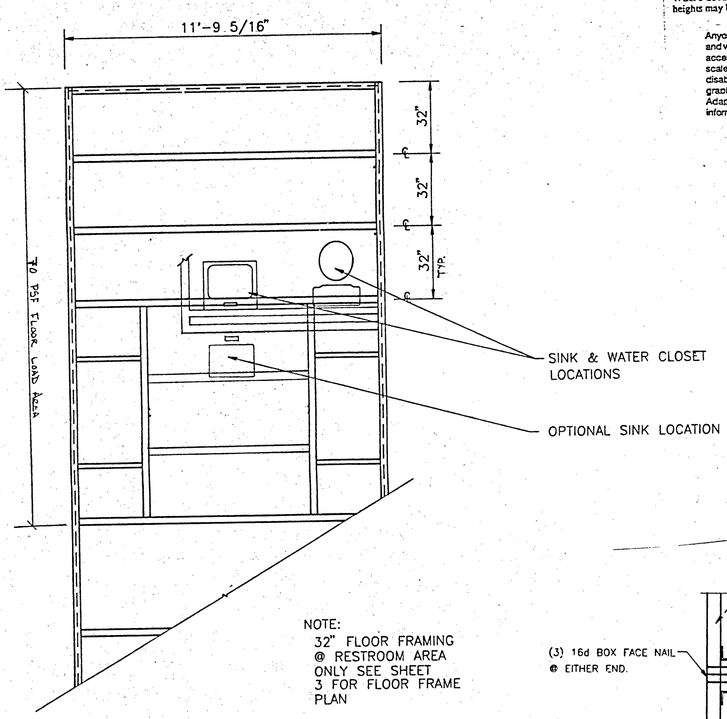


Note: See Detail 7/1A For Restroom Accessory Blocking.

2 / 1A INTERIOR RESTROOM ELEVATION
3/8"=1'-0"

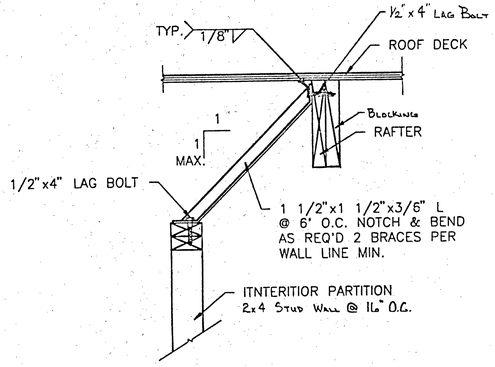


3 / 1A ALTERNATE MECHANICAL PLAN
3/8"=1'-0"

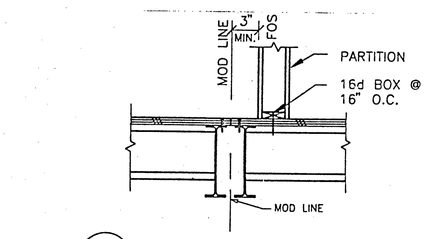


NOTE:
32" FLOOR FRAMING @ RESTROOM AREA ONLY SEE SHEET 3 FOR FLOOR FRAME PLAN

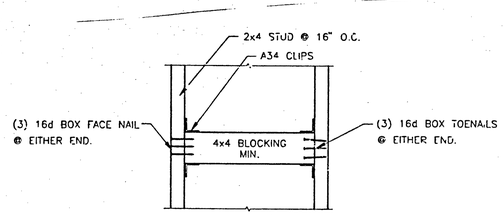
4 / 1A ALTERNATE FLOOR FRAMING PLAN
3/8"=1'-0"



5 / 1A PARTITION SUPPORT
1-1/2"=1'-0"



6 / 1A WALL SET BACK AT MOD LINE
1 1/2"=1'-0"



7 / 1A TOILET ACCESSORY BLOCKING
1-1/2"=1'-0"

Where Used By Children. Where facilities are to be used solely by small children, the specific heights may be adjusted to meet their accessibility needs.

Anyone who has visited a kindergarten classroom knows why this subsection was included, and why strict adherence to the standards of this code could create more inaccessibility than accessibility. It is important to recognize that all children are disabled by an environment scaled without consideration being given to their size and space needs. However, the non-disabled child can adapt more readily than a child with a physical disability. The following graph and sketch have been taken from an access information bulletin prepared by the Adaptive Environment Center for the National Center for a Barrier Free Environment. This information can and should be used in creating a barrier free environment for all children.

If facilities are intended for use specifically for students which may include disabled users under 12 years of age, the following criteria may be used:

a.	Toilet grab bar size	1 1/4" with 1 1/2" space between grab bar and wall
b.	Toilet grab bar height	Mounted 10" above the seat
c.	Toilet grab bar length alongside	3'0" with 1'6" length extending beyond the the water closet front edge of the water closet
d.	Grab bar must be capable of supporting a 150 lb. load applied anywhere along the length. Connections must also be capable of supporting a 150 lb. load.	
e.	Toilet height	1'3" to top of seat from floor surface
f.	Lavatory height	2'6" below apron to floor surface
g.	Maximum height of controls receptacles and dispensers	3'4" from center of operable part to the floor
h.	Height of handrails	2'0" to the center of the bar from the floor surface
i.	Height of water fountain spigot	2'6" from the floor surface
j.	Height of telephone to highest operable mechanism	3'8" from the floor surface

CHAPTER 15

PLUMBING REQUIREMENTS FOR ACCOMMODATION OF PHYSICALLY HANDICAPPED PERSONS

NOTE: This is a new chapter which has no corresponding chapter in the U.R.C.
Adopt entire Chapter 15: [BSC, OSA/AC]
Adopt Chapter 15 as indicated in Matrix Adoption Appendix: [HCD/1, HCD/2]

Section 1501—General

This chapter contains building standards of the state architect and the Department of Housing and Community Development applicable to all buildings and facilities required to be accessible to and usable by physically handicapped persons.

Exceptions: 1. In existing buildings, when the enforcing agency determines that compliance with any regulation under this chapter would create an unreasonable hardship, an exception shall be granted when equivalent facilitation is provided.

2. In existing buildings, where the enforcing agency determines because of physical constraints compliance with this chapter or equivalent facilitation would create an unreasonable hardship, these regulations shall not apply.

Section 1502—Water Closets

The height of accessible water closets shall be a minimum of 17 inches and a maximum of 19 inches measured to the top of the toilet seat. Controls shall be operable with one hand, and shall not require tight grasping, pinching or twisting of the wrist. Controls for the flush valves shall be mounted on the wide side of toilet areas, no more than 44 inches above the floor. The force required to activate controls shall be no greater than 5 lbf.

***NOTE:** See Section 1213 (d) 5, Exception 4, State Building Code, for water closets in living accommodations.*

Section 1503—Urinals

(a) Where urinals are provided at least one with a rim projecting a minimum of 14 inches from the wall and at a maximum of 17 inches above the floor shall be provided.

(b) Flush controls shall be operable with one hand and shall not require tight grasping, pinching or twisting of the wrist and shall be mounted no more than 44 inches above the floor. The force required to activate controls shall be no greater than 5 lbf.

Section 1504—Lavatories

(a) Lavatories adjacent to a wall shall be mounted with a minimum distance of 18 inches to the center line of the fixture. All accessible lavatories shall be mounted with the rim or counter surface no higher than 34 inches above the finished floor and with a clearance of at least 29 inches from the floor to the bottom of the apron with knee clearance under the front lip extending a minimum of 30 inches in width with 8 inches minimum depth at the top. Toe clearance shall be the same width and shall be a minimum of 9 inches high from the floor and a minimum of 17 inches deep from the front of the lavatory.

Exception: In privately funded apartment houses the space under the lavatory may be omitted provided the door swing does not encroach on clear spaces in front of the lavatory, watercloset and bathtub-shower in the accessible bathroom.

(b) Hot water and drain pipes accessible under lavatories shall be insulated or otherwise covered. There shall be no sharp or abrasive surfaces under lavatories.

(c) Faucet controls and operating mechanisms shall be operable with one hand and shall not require tight grasping, pinching or twisting of the wrist.

The force required to activate controls shall be no greater than 5 lbf. Lever-operated, push-type and electronically controlled mechanisms are examples of acceptable designs. Self-closing valves are allowed if the faucet remains open for at least 10 seconds.

Section 1505—Showers

(a) Water controls of a single-lever design shall be located on the side wall opposite the seat and operable with a maximum force of 5 lbf. The controls shall be located 40 inches above the shower floor.

(b) A flexible hand-held shower unit with a hose at least 60 inches long shall be provided with head mounting height of 48 inches maximum above the shower floor.

(c) Where handicapped shower facilities are provided in areas subject to excessive vandalism, in lieu of providing the fixed flexible hose and handheld shower head required above, two wall-mounted shower heads shall be installed. Each shower head shall be controlled so that it can be operated independently of the other and shall have swivel angle adjustments, both vertically and horizontally. One shower head shall be located at a height of 40 inches above the floor.

(d) Where, within the same functional area, two or more showers are provided for the physically handicapped, there shall be at least one shower constructed opposite hand from the other or others (i.e., one left-hand controls versus right-hand controls).

***NOTE:** See Section 1213 (d) 5, Exceptions 2 and 3, and Section 511 (a) 9A and B, 11, 12, 13 and 14, State Building Code, for showers in living accommodations.*

Section 1506—Bathtubs

Bathtubs shall be provided with a shower spray unit having a hose at least 60 inches long that can be used as a shower. Bathtub enclosures, if provided, shall not obstruct controls or transfer from wheelchair onto bathtub seats or into tubs. Enclosures on bathtubs shall not have tracks mounted on their rims.

***NOTE:** See Section 1213 (d) 5, Exception 3, State Building Code, for bathtubs in living accommodations.*

Section 1507—Drinking Fountains

(a) The drinking fountain shall be a minimum of 18 inches in depth and there shall be clear and unobstructed knee space under the drinking fountain not less than 27 inches in height and 8 inches in depth, the depth measurements being taken from the front edge of the fountain. Additionally, there shall be toe clearance of 9 inches in height above the floor and 17 inches in depth from the front edge of the fountain. A side approach drinking fountain is not acceptable.

(b) The bubble shall be activated by a control which is easily operated by a handicapped person such as a hand-operated lever-type control located within 6 inches of the front of the fountain, a push bar control along the front of the drinking fountain, etc. The bubbler outlet orifice shall be located within 6 inches of the front of the drinking fountain and shall be within 36 inches of the floor. The water stream from the bubbler shall be substantially parallel to the front edge of the drinking fountain.

Section 1508—Kitchen Sinks

Faucet controls and operating mechanisms shall be operable with one hand and shall not require tight grasping, pinching or twisting of the wrist. The force required to activate controls shall be no greater than 5 lbf. Lever-operated, push-type and electronically controlled mechanisms are examples of acceptable designs. Self-closing valves are allowed if the faucet remains open for at least 10 seconds.

ACCESSIBILITY SIGN NOTE:

Identification Symbols. Doorways leading to men's sanitary facilities, shall be identified by an equilateral triangle 1/4 inch thick with edges 12 inches long and a vertex pointing upward. Women's sanitary facilities shall be identified by a circle, 1/4 inch thick and 12 inches in diameter. Unisex sanitary facilities shall be identified by a circle 1/4 inch thick, 12 inches in diameter with a 1/4" thick triangle superimposed on the circle and within the 12 inch diameter. These geometric symbols shall be centered on the door at a height of 60 inches and their color and contrast shall be distinctly different from the color and contrast of the door.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-122123 INC: 1
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 3/21/2024

P.O. Box 367
Patterson, California
95363
(209) 892-6298

Approval: Structural Engineer

REGISTERED PROFESSIONAL ENGINEER — LEONARD LINDSAY — No. 776 — STRUCTURAL — STATE OF CALIFORNIA

LICENSE EXPIRES 12-31-92

Approval: Structural Safety

IDENTIFICATION STAMP
Department of General Services
Office of the State Architect
OCT 1 1990
Structural Safety Section
Appl. # PC147
Backchecked By EXCEPT

Approval: Fire Marshal

CALIFORNIA STATE FIRE MARSHAL — APPROVED — APPROVAL OF THIS PLAN DOES NOT AUTHORIZE OR APPROVE ANY OMISSION OR DEVIATION FROM APPLICABLE REGULATIONS. FINAL APPROVAL IS SUBJECT TO FIELD INSPECTION. ONE SET OF APPROVED PLANS SHALL BE AVAILABLE ON THE PROJECT SITE AT THE TIME. — REVIEWED BY: — 10/6/92

Approval: Access Compliance

OFFICE OF THE STATE ARCHITECT
ACCESS COMPLIANCE SECTION
PC147 OCT 17 '90
APPLICATION PER W. Jud Bolen
BY

LICENSED ARCHITECT — PAUL M. REYNOLDS — No. C-8969 — REN. 11-30-96 — STATE OF CALIFORNIA

STATE OF CALIFORNIA
Department of General Services
MAY 17 1996
Division of the State Architect
Regulation Services-Sacto.

10-96

75 MPH EXP 'C'
24x40 CLASSROOM
60 PSF SNOW LOAD

ALTERNATE FLOOR PLAN & DETAILS

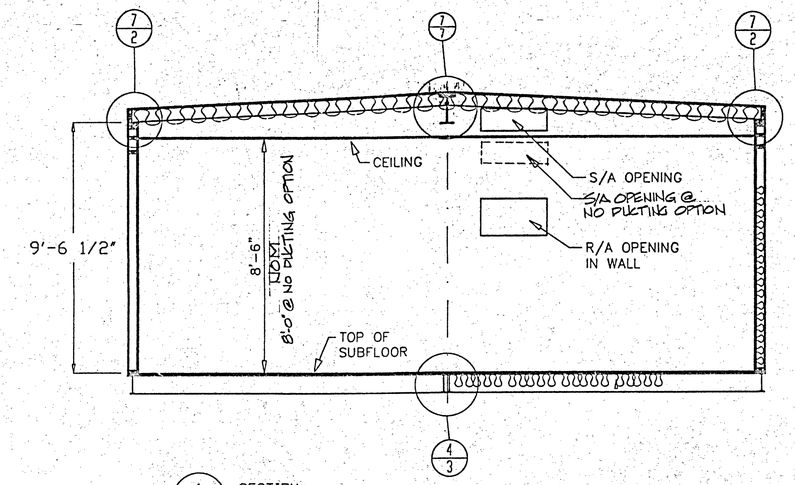
Architect:

Paradise USD | DATE: 3/21/96 | JOB: 3594

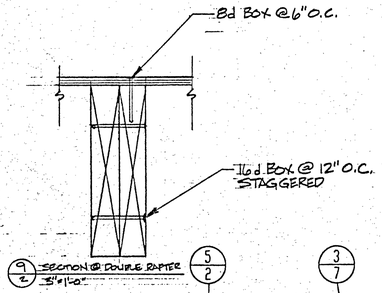
Drawn J.F.	Sheet 1A
Scale NOTED	
Date 8-1-90	Of Sheets
Job 605L	

T.E.H. #9540.4
INCREMENT No. 2

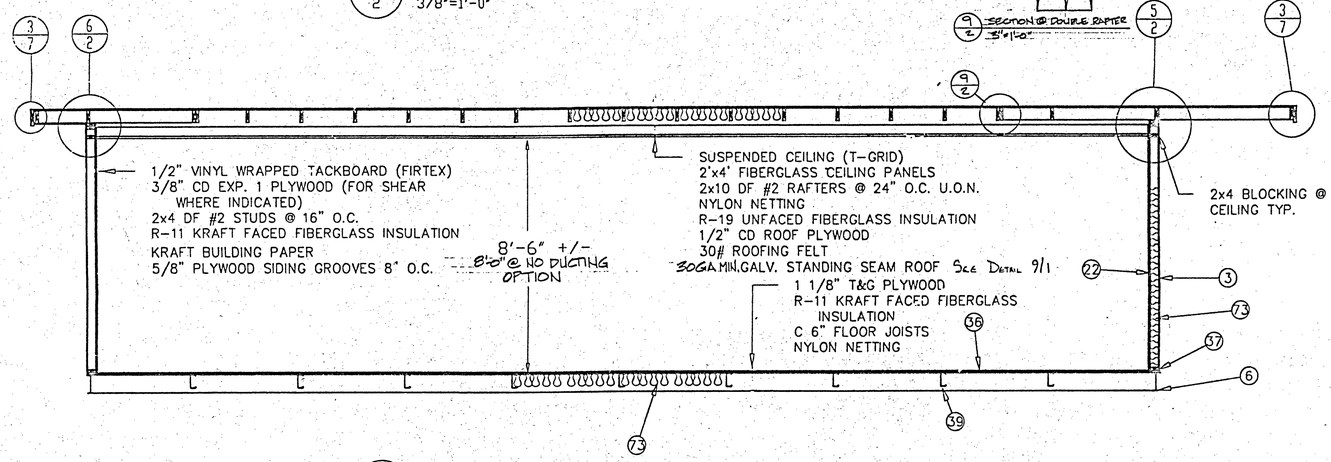
FILE NAME: PC605L1A



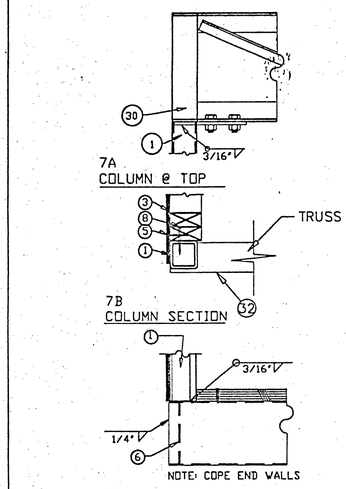
1 SECTION
2 3/8"=1'-0"



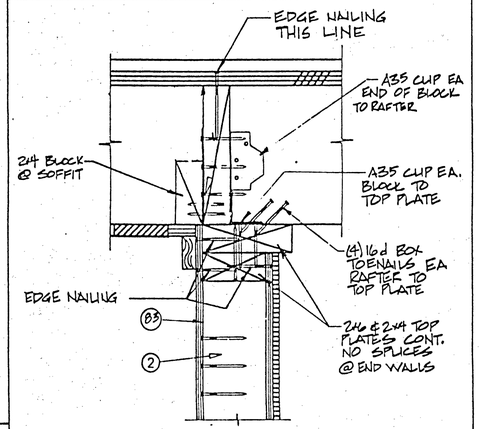
9 SECTION @ DOUBLE RAFTER
2 3"=1'-0"



2 SECTION
2 3/8"=1'-0"



3 COLUMN
2 1-1/2"=1'-0"

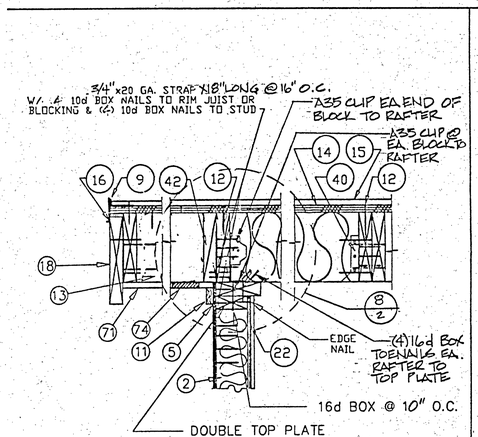


8 FRONT END WALL DETAIL
2 3"=1'-0"

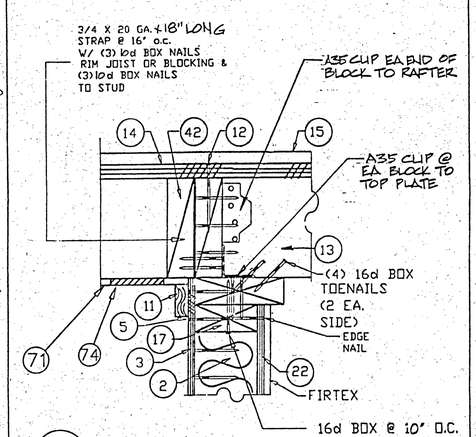
NOTES

1. COLUMN: 3"x3"x3/16" SQ. TUBE
2. STUD: 2x4 16" O.C. @ SIDEWALLS; 12" O.C. @ ENDWALLS
3. 5/8" EXT. PLYWOOD SIDING, SEE SPECS. SHEET 8
4. PNEUTEK PINS @ 6"o.c. AT EDGES (6"O.C. IN FIELD @ 4' Joist 10" o.c. IN FIELD @ 32" o.c. Joist)
5. BOUNDARY NAILING: SEE NAILING SCHEDULE SHEET 2
6. FLOOR PERIMETER FRAME: M 12" X 11.8# I BEAM ALTERNATE: Floor Frame Plan on Concrete SEE SHEET 13,14,15
7. PNEUTEK 34325L @ 12" o.c. @ SIDEWALLS & 8" O.C. @ ENDWALLS & 6" MAX. FROM END OF ANY PIECE TYP. @ ALL SILL PLATE CONNECTIONS U.N.O. SEE NOTE 85
8. PNEUTEK 34250L @ 12" o.c.
9. PREFORMED METAL ROOF EDGE
10. 8d BOX @ 12" O.C. (GALV. WHERE EXPOSED TO WEATHER)
11. TRIM 1X2
12. NAILS: 8D @ 6" o.c.
13. RAFTER 2x10 @ 24" O.C.
14. PLYWOOD ROOF SHEATHING
15. ROOFING: 30 Ga. GALV. STANDING RIB MIN.
16. NAILS: 2-16D PER RAFTER
17. (1) 2x4 & (1) 2x6 DF TOP PLATES - NO SPLICE @ END WALLS.
18. TRIM: 2X10
19. NAIL: 16D @ 12" o.c.
20. NAIL: 16D @ 8" O.C
21. HEADER: 4X12 D.F.#2
22. 3/8 CD PLYWOOD
23. SUSPENDED CEILING
24.
25. PLYWOOD FILLER
26. RIM RAFTER: 2x10
27.
28. 2X4 NAILER
29. BOLTS: 5/8" DIA. M.B. SEE ROOF FRAMING PLAN FOR LOCATION
30. TRUSS @ RIDGE SEE SHEET 6
31. HANGER: SIMPSON LB210
32. MODULE LINE
33. DOUBLE 2x10 RAFTER
34. MOD TIE STRAP- 2 1/2"x 1/8" STRAP W/(12) 16d BOX
35.
36. PLYWOOD FLOOR SHEATHING: 1 1/8" T&G STURDIFLOOR APA PS1-83 EXP. 1 ALL PLIES TO BE WOOD
37. SILL PLATE: 2X4 CONT.
38. Z-METAL STRIP 3/4 x 26 Ga. X 5/8 X 3/4 x 26 Ga.
39. C 6"x3"x12ga
40. SIMPSON U210 JOIST HANGER
41. NAIL: 8D @ 12" o.c.
42. 2x10 BLOCKING
43. STEEL STRAP: 2 1/2" X 1/8" W/(2) 5/8" BOLTS
44. BOUNDARY NAILING
45. STUDS: (2) 2x4 DF MIN.
46. H.V.A.C. UNIT: WEIGHT 475# TYP.
47. DOUBLE 2X4 W/16D BOX NAILS 8" O.C.
48. HOLD-DOWN W/ (2) 5/8" BOLTS
49. L 1 1/2" X 1 1/2" X 1/8" X 18" LONG ATTACH TO A.C. W/4-#10 SELF-TAPPING GALV. S.M.S. & TO 2X4 FLAT W/(4) 5/16" X 2 1/2" LAG SCREWS.
50. STEEL PLATE: 2"x2"x1/4" WELD @ TOP FLANGES OF M8x6.5 BEAM
51.
52. HEADER: 4x8 DF #2
53. TRIM: 1X4
54. HOLLOW METAL FRAME: 16ga W/LOCK-IN ANCHORS, 8d BOX TO STUDS
55. DOOR.
56. KING STUDS: 2-2x4 FULL HEIGHT (4) @ WINDOWS (3) @ MOD LINE (2) @ DOORS
57. TRIMMER: 1- 2X4
58. DOOR BOTTOM.
59. ALUMINUM THRESHOLD W/(3)3/16"x1 3/8" F.H.W.S.
60. RAMP, SEE SHEET 12
61. G.I. FLASHING.
62. LAG SCREWS(6) 3/8" X 2"
63. 2X6 BLOCK
64. STEEL SUPPORT BRACKET SUPPLIED BY H.V.A.C. UNIT MANUFACTURER (11ga x 24")
65. PREFINISHED WOOD TRIM
66. DOUBLE 2X4 SILL
67. INSULATION: R-11 KRAFT FACED OVER NYLON MESH
68.
69.
70. TOENAIL: 16d @ 12" O.C.
71. SOFFIT: 3/8" PLYWOOD SIDING NO GROOVES
72. PRE-FINISHED PANELING
73. R-11 KRAFT FACED INSULATION
74. 4" ROUND VENT
75. SEALANT
76. 3"x3"x1/4" ANGLE
77. C 6"x2 1/2"x14ga
78. 2"x2"x3/16" ANGLE BRACE FROM SIDE BEAM TO END BEAM @ HOLD DOWN LOCATIONS
79. 2x6 DF NAILER CONT. @ PERIMETER
80. WINDOW: 8'-0"x4'-0" XOX SEE SPECS, SHEET 8
81. FIRE EXTINGUISHER-MOUNT ON WALL BRACKET @ 48" A.F.F. MAX
82. NOT USED
83. 20 Ga.x3/4"x16" LONG STRAP w/ (4) 10d BOX Ea. END (2x10 BLOCK TO 2x4 STUD)
84. 20 Ga.x3/4"x12" LONG STRAP w/ (4) 10d BOX Ea. END (4x HEADER TO 2x4 STUD)
85. SILL CONNECTION @ END WALL SHEAR PANELS ONLY: PNEUTEK 34325L @ 6" O.C. & 6" MAX. FROM END OF ANY PIECE.
86.
87. 2" ROUND VENT
88. (2) 2x4 TRIMMER @ 8' OPENING
89. M8x6.5
90. (2) 2x4 D.F. Header Cont. @ Perimeter.

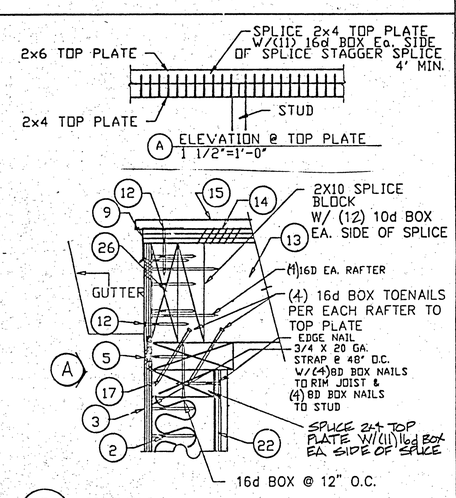
* SOME ITEMS SHOWN ABOVE MAY NOT BE SHOWN ON THIS SHEET



5 FRONT END WALL
2 1-1/2"=1'-0"



6 BACK END WALL
2 3"=1'-0"



7 SIDEWALL
2 3"=1'-0"

PLYWOOD NAILING SCHEDULE

ITEM	FASTENER	SPACING
1-1/8" SUBFLOOR		
TO M8x6.5	SDL45175 .187 DIA.	EDGES: 6" O.C. @ 48" O.C. FIELD: 6" O.C. @ 48" O.C. JOIST SPACING, 10" O.C. @ 32" O.C. JOIST SPACING
TO C 6"x12ga	H34162 .170 DIA.	
1/2" CD ROOF PLY	8d BOX	6" O.C. EDGES 12" O.C. FIELD
3/8" INTERIOR CD END WALLS		
SHEAR	8d BOX GALV. BOX @ EXT.	4" O.C. EDGES 12" O.C. FIELD
NON-SHEAR	8d BOX	6" O.C. EDGES 12" O.C. FIELD
SIDE WALLS		
SHEAR	8d BOX GALV. BOX @ EXT.	6" O.C. EDGES 12" O.C. FIELD
NON-SHEAR	8d BOX	6" O.C. EDGES 12" O.C. FIELD
5/8" EXT. SIDING NON-SHEAR	8d GALV BOX	6" O.C. EDGES 12" O.C. FIELD

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-122123 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 3/21/2024

de systems inc., inc.
P.O. Box 367
Patterson, California
95363
(209) 892-6298

Approval: Structural Engineer

REGISTERED PROFESSIONAL ENGINEER EDWARD LINDSEY No. 7776 STRUCTURAL STATE OF CALIFORNIA
LICENSE EXPIRES 12-31-92

Approval: Structural Safety

IDENTIFICATION STAMP
Department of General Services
Office of the State Architect
OCT 1990
Structural Safety Section
File # 1PC147
Checked By

Approval: Fire Marshal

CALIFORNIA STATE FIRE MARSHAL
APPROVED
APPROVAL OF THIS PLAN DOES NOT AUTHORIZE OR APPROVE ANY OMISSION OR DEVIATION FROM APPLICABLE REGULATIONS. FINAL APPROVAL IS SUBJECT TO FIELD INSPECTION. ONE SET OF APPROVED PLANS SHALL BE AVAILABLE ON THE PROJECT SITE AT THE TIME
REVIEWED BY

Approval: Access Compliance

OFFICE OF THE STATE ARCHITECT
ACCESS COMPLIANCE SECTION
R147 OCT 17 '90
APPLICATION FOR R. Mod Below
NO.

75 MPH EXP. 'C'
24x40 CLASSROOM
60 PSF SNOW LOAD

BUILDING SECTION & DETAILS

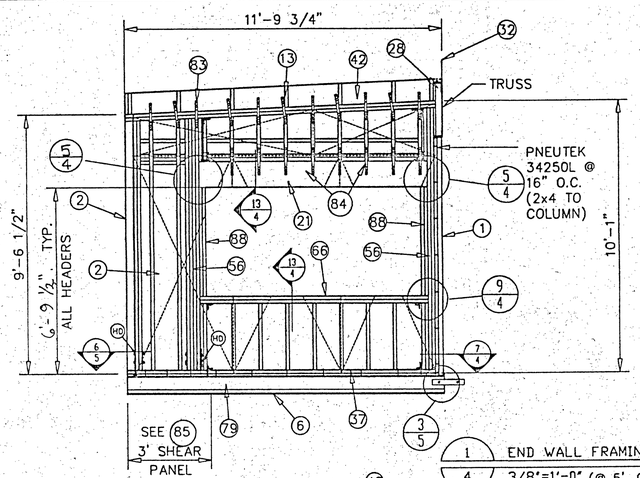
Architect:

Paradise USD
DATE: 3/21/96 JOB: 3594

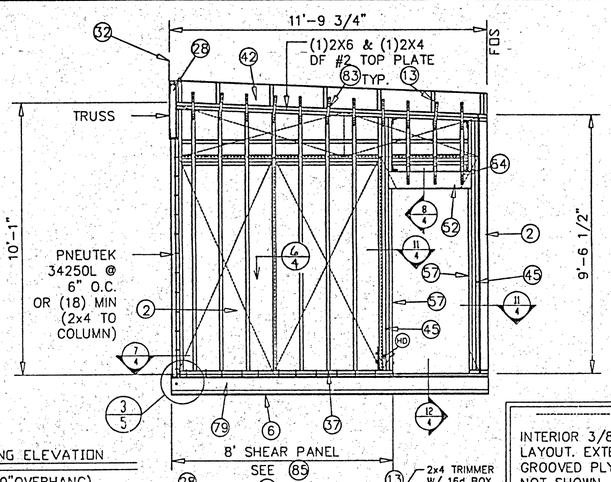
Drawn	Sheet
WS	2
Scale: NOTED	Of Sheets
Date: 6-22-90	
Job: 60SL	

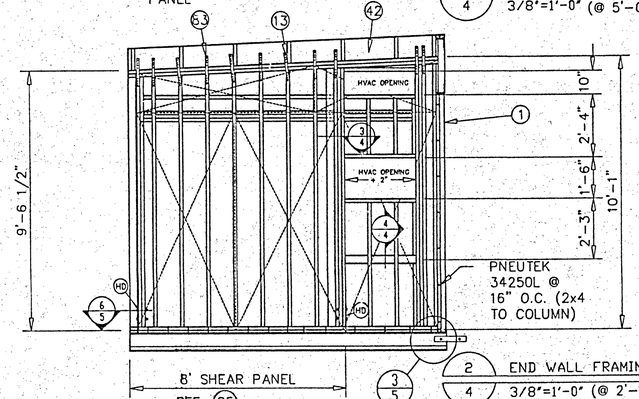
T-1-H #95424
INCREMENT No. 2

FILE NAME: 60SL2

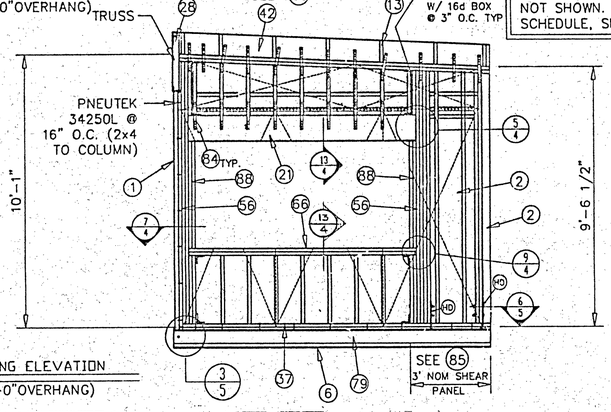


1 / 4 END WALL FRAMING ELEVATION
3/8"=1'-0" (@ 5'-0"OVERHANG)

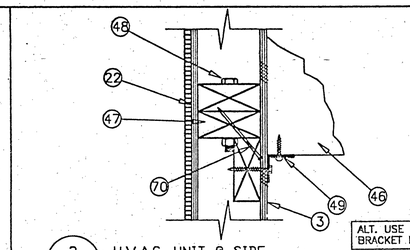




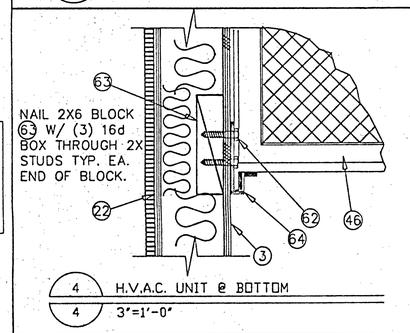
2 / 4 END WALL FRAMING ELEVATION
3/8"=1'-0" (@ 2'-0"OVERHANG)



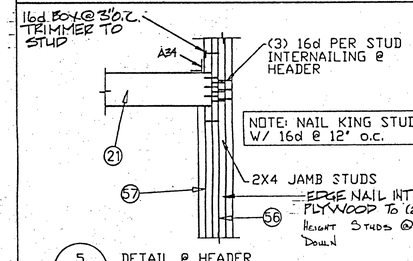
INDICATES INTERIOR 3/8" CD PLYWOOD LAYOUT. EXTERIOR 5/8" GROOVED PLY. SIDING NOT SHOWN. SEE NAILING SCHEDULE, SHEET 2.



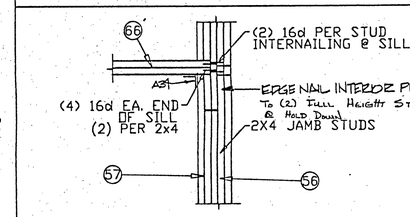
3 / 4 H.V.A.C. UNIT @ SIDE
3"=1'-0"



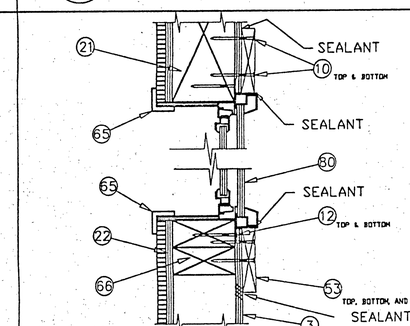
4 / 4 H.V.A.C. UNIT @ BOTTOM
3"=1'-0"



5 / 4 DETAIL @ HEADER
1-1/2"=1'-0"



9 / 4 DETAIL @ SILL
1-1/2"=1'-0"



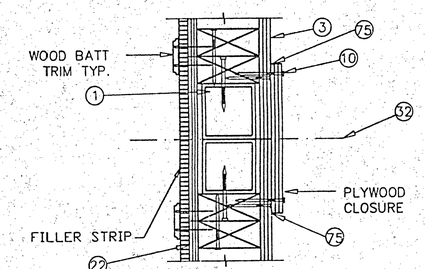
13 / 4 TYPICAL WINDOW SECTIONS
3"=1'-0"

NOTES

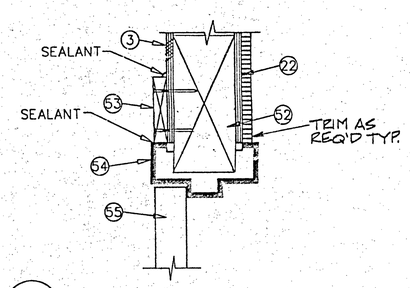
1. COLUMN: 3"x3"x3/16" SQ. TUBE
2. STUD: 2x4 16" O.C. @ SIDEWALLS; 12" O.C. @ ENDWALLS
3. 5/8" EXT. PLYWOOD SIDING, SEE SPECS. SHEET 8
4. PNEUTEK PINS @ 6"o.c. AT EDGES 6"O.C. IN FIELD @ 4' Joist 10" O.C. IN FIELD @ 32" O.C. Joist
5. BOUNDARY NAILING: SEE NAILING SCHEDULE SHEET 2
6. FLOOR PERIMETER FRAME: M 12" X 11.8# I BEAM ALTERNATE: Floor Frame Plan on Concrete SEE SHEET 13,14,15
7. PNEUTEK 34325L @ 12" o.c. @ SIDEWALLS & 8" O.C. @ ENDWALLS & 6" MAX. FROM END OF ANY PIECE TYP. @ ALL SILL PLATE CONNECTIONS U.N.O. SEE NOTE 85
8. PNEUTEK 34250L @ 12" o.c.
9. PREFORMED METAL ROOF EDGE
10. 8d BOX @ 12" O.C. (GALV. WHERE EXPOSED TO WEATHER)
11. TRIM: 1X2
12. NAILS: 8D @ 6" o.c.
13. RAFTER 2x10 @ 24" O.C.
14. PLYWOOD ROOF SHEATHING
15. ROOFING: 30 Ga. GALV. STANDING RIB MIN.
16. NAILS: 2-16D PER RAFTER
17. (1) 2x4 & (1) 2x6 DF TOP PLATES - NO SPLICE @ END WALLS.
18. TRIM: 2X10
19. NAIL: 16D @ 12" o.c.
20. NAIL:16D @ 8" O.C.
21. HEADER: 4X12 D.F.#2
22. 3/8 CD PLYWOOD
23. SUSPENDED CEILING
24.
25. PLYWOOD FILLER
26. RIM RAFTER: 2x10
27.
28. 2X4 NAILER
29. BOLTS: 5/8" DIA. M.B. SEE ROOF FRAMING PLAN FOR LOCATION
30. TRUSS @ RIDGE SEE SHEET 6
31. HANGER: SIMPSON LB210
32. MODULE LINE
33. DOUBLE 2x10 RAFTER
34. MOD TIE STRAP- 2 1/2"x 1/8" STRAP W/(12) 16d BOX
35.
36. PLYWOOD FLOOR SHEATHING: 1 1/8" T&G STURDIFLOOR APA PS1-83 EXP. 1 ALL PLIES TO BE WOOD
37. SILL PLATE: 2X4 CONT.
38. Z-METAL STRIP3/4 x 26 Ga. X 5/8 X 3/4 x 26 Ga.
39. C 6"x3"x12ga
40. SIMPSON U210 JOIST HANGER
41. NAIL: 8D @ 12" o.c.
42. 2x10 BLOCKING
43. STEEL STRAP:2 1/2" X 1/8" W/(2) 5/8" BOLTS
44. BOUNDARY NAILING
45. STUDS: (3) 2x4 DF MIN.
46. H.V.A.C. UNIT: WEIGHT 475# TYP.
47. DOUBLE 2X4 W/16D BOX NAILS 8" O.C.
48. HOLD-DOWN W/ (2) 5/8" BOLTS
49. L 1 1/2 X 1 1/2 X 1/8" X 18" LONG ATTACH TO A.C. W/4-#10 SELF-TAPPING GALV. S.M.S. & TO 2X4 FLAT W/(4) 5/16" X 2 1/2" LAG SCREWS.
50. STEEL PLATE: 2"x2"x1/4" WELD @ TOP FLANGES OF M8x6.5 BEAM
51.
52. HEADER: 4x8 DF #2
53. TRIM: 1X4
54. HOLLOW METAL FRAME: 16ga W/LOCK-IN ANCHORS, 8d BOX TO STUDS
55. DOOR.
56. KING STUDS: 2-2x4 FULL HEIGHT (4) @ WINDOWS;(3) @ MOD LINE;(2) @ DOORS
57. TRIMMER 1- 2X4
58. DOOR BOTTOM.
59. ALUMINUM THRESHOLD W/(3)3/16"x1 3/8" F.H.W.S.
60. RAMP, SEE SHEET 12
61. G.I. FLASHING.
62. LAG SCREWS(6) 3/8" X 2"
63. 2X6 BLOCK
64. STEEL SUPPORT BRACKET SUPPLIED BY H.V.A.C. UNIT MANUFACTURER (1lga x 24")
65. PREFINISHED WOOD TRIM
66. DOUBLE 2X4 SILL
67. INSULATION: R-11 KRAFT FACED OVER NYLON MESH
68.
69.
70. TOENAIL: 16d @ 12" O.C.
71. SOFFIT: 3/8" PLYWOOD SIDING NO GROOVES
72. PRE-FINISHED PANELING
73. R-11 KRAFT FACED INSULATION
74. 4" ROUND VENT
75. SEALANT
76. 3"x3"x1/4" ANGLE
77. C 6"x2 1/2"x14ga
78. 2"x2"x3/16" ANGLE BRACE FROM SIDE BEAM TO END BEAM @ HOLD DOWN LOCATIONS
79. 2x6 DF NAILER CONT. @ PERIMETER
80. WINDOW: 8'-0"x4'-0" XOX SEE SPECS. SHEET 8
81. FIRE EXTINGUISHER-MOUNT ON WALL BRACKET @ 48" A.F.F. MAX
82. NOT USED
83. 20 Ga.x3/4"x16" LONG STRAP w/ (4) 10d BOX Ea. END (2x10 BLOCK TO 2x4 STUD)
84. 20 Ga.x3/4"x12" LONG STRAP w/ (4) 10d BOX Ea. END (4x HEADER TO 2x4 STUD)
85. SILL CONNECTION @ END WALL SHEAR PANELS ONLY: PNEUTEK 34325L @ 6" O.C. & 6" MAX. FROM END OF ANY PIECE.
86.
87. 2" ROUND VENT
88. (2) 2x4 TRIMMER @ 8' OPENING
89. M8x6.5
90. (2) 2x4 D.F. Nailer Cont. @ Perimeter.

* SOME ITEMS SHOWN ABOVE MAY NOT BE SHOWN ON THIS SHEET

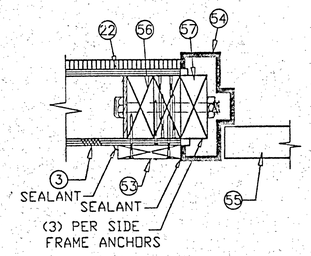
6 / 4 PANEL JOINT
3"=1'-0"



7 / 4 CLOSURE @ MODLINE
3"=1'-0"

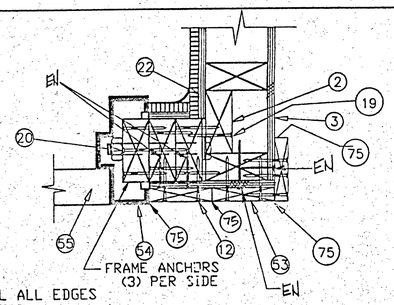


8 / 4 HEAD
3"=1'-0"

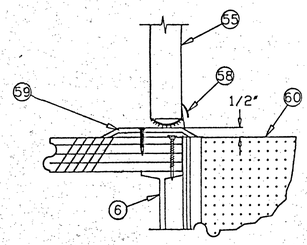


NOTE: (2)FULL HT. 2X4 STUDS AT DOOR OPENING

10 / 4 DOOR JAMB DETAIL W/Hold Down
3"=1'-0"



11 / 4 DOOR JAMB WITH HOLD DOWN @ CORNER
3"=1'-0"



12 / 4 THRESHOLD
3"=1'-0"

P.O. Box 367
Patterson, California
95363
(209) 892-6298

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-122123 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 3/21/2024

Approval: Structural Engineer

REGISTERED PROFESSIONAL ENGINEER EDWARD LINDSEY No. 776 STRUCTURAL STATE OF CALIFORNIA
LICENSE EXPIRES 12-31-92

Approval: Structural Safety

IDENTIFICATION STAMP
Department of General Services
Office of the State Architect
OCT 1990
Structural Safety Section
Appl. # PC 147
Rechecked By

STATE OF CALIFORNIA Department of General Services
MAY 17 1996
Division of the State Architect Regulation Services-Sacto.

Approval: Fire Marshal

CALIFORNIA STATE FIRE MARSHAL
APPROVED
APPROVAL OF THIS PLAN DOES NOT AUTHORIZE OR APPROVE ANY OMISSION OR DEVIATION FROM APPLICABLE REGULATIONS. FINAL APPROVAL IS SUBJECT TO FIELD INSPECTION. ONE SET OF APPROVED PLANS SHALL BE AVAILABLE ON THE PROJECT SITE AT THE TIME
REVIEWED BY

Approval: Access Compliance

OFFICE OF THE STATE ARCHITECT ACCESS COMPLIANCE SECTION
PC 147 OCT 17 '90
APPLICATION FILED W/ Inst Notes
BY:

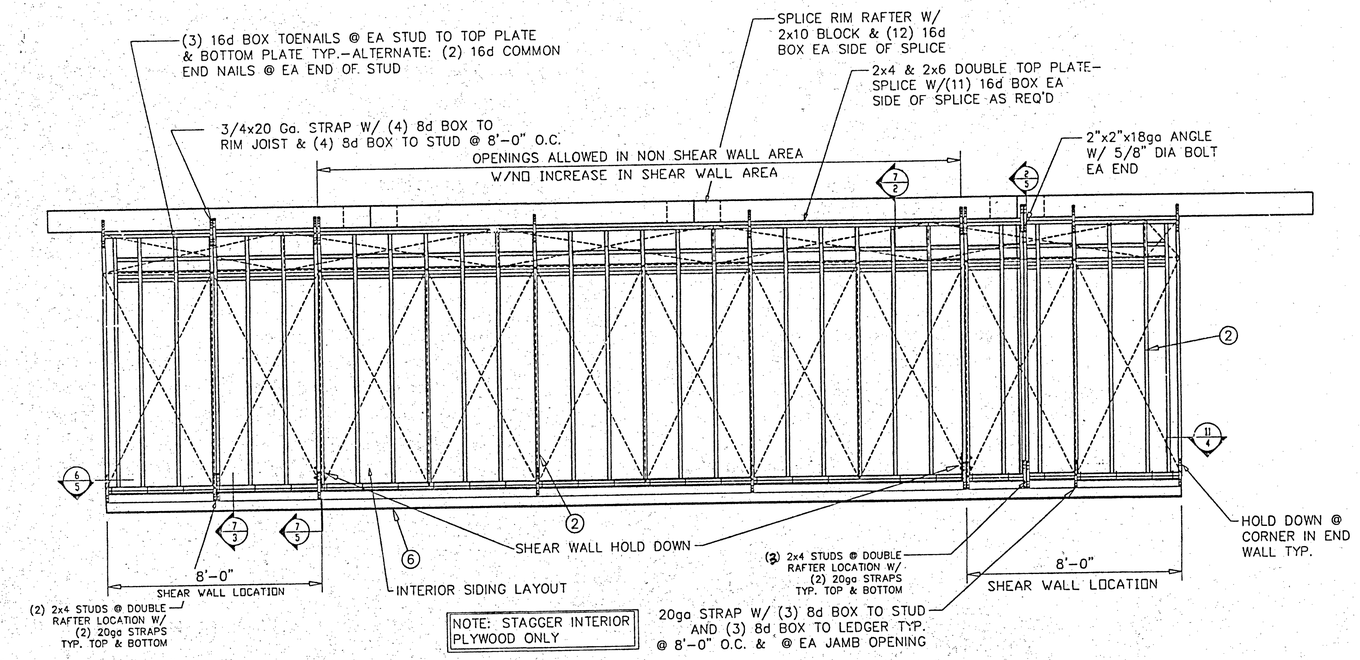
REGISTERED ARCHITECT PAUL M. HENDRICKS No. C 5093 EXP. 10-31-96 STATE OF CALIFORNIA

Inst. 5-1-90 FLS 5-1-90

75 MPH EXP. 'C' 24x40 CLASSROOM 60 PSF SNOW LOAD	
END WALL FRAMING ELEV. & DETAILS	
Architect:	Paradise USD
	DATE: 3/21/96
	JOB: 3594
Drawn: WS	Sheet: 4
Scale: NOTED	Of Sheets
Date: 6-22-90	
Job: 60SL	

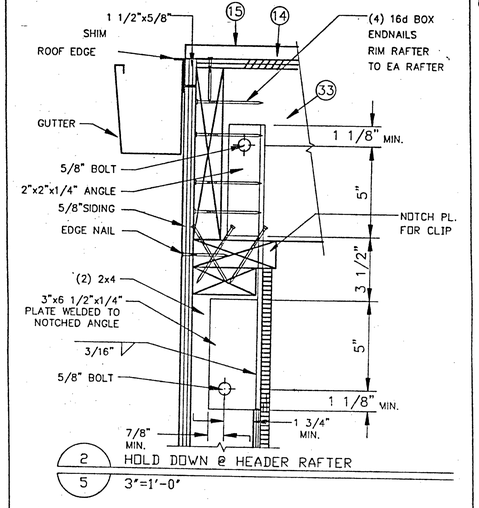
T-24 # 1564.4
INCREMENT No.:

FILE NAME: 60SL4

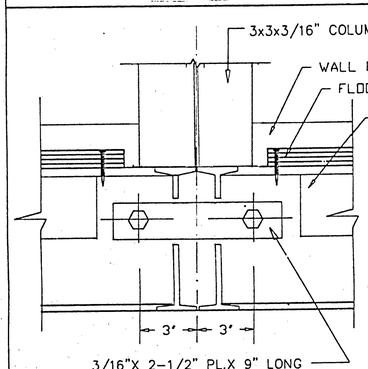


NOTE: STAGGER INTERIOR PLYWOOD ONLY

1 SIDEWALL FRAMING ELEVATION
5 3/8"=1'-0"



2 HOLD DOWN @ HEADER RAFTER
5 3"=1'-0"



3 MOD LINE CONNECTION
5 3"=1'-0"

NOTES

1. COLUMN: 3"x3"x3/16" SQ. TUBE
2. STUD: 2x4 16" O.C. @ SIDEWALLS; 12" O.C. @ ENDWALLS
3. 5/8" EXT. PLYWOOD SIDING, SEE SPECS. SHEET 8
4. PNEUTEK PINS @ 6"o.c. AT EDGES 6" O.C. IN FIELD @ 4' Joist 10" o.c. IN FIELD @ 32" o.c. Joist
5. BOUNDARY NAILING: SEE NAILING SCHEDULE SHEET 2
6. FLOOR PERIMETER FRAME: M 12" X 11.8# I BEAM ALTERNATE: Floor Frame Plan on Concrete SEE SHEET 13,14,15
7. PNEUTEK 34325L @ 12" o.c. @ SIDEWALLS & 8" O.C. @ ENDWALLS & 6" MAX. FROM END OF ANY PIECE TYP. @ ALL SILL PLATE CONNECTIONS U.N.O. SEE NOTE 85
8. PNEUTEK 34250L @ 12" o.c.
9. PREFORMED METAL ROOF EDGE
10. 8d BOX @ 12" O.C. (GALV. WHERE EXPOSED TO WEATHER)
11. TRIM 1X2
12. NAILS: 8D @ 6" o.c.
13. RAFTER 2x10 @ 24" O.C.
14. PLYWOOD ROOF SHEATHING
15. ROOFING: 30 Ga. GALV. STANDING RIB MIN.
16. NAILS: 2-16D PER RAFTER
17. (1) 2x4 & (1) 2x6 DF TOP PLATES – NO SPLICE @ END WALLS.
18. TRIM: 2X10
19. NAIL: 16D @ 12" o.c.
20. NAIL16D @ 8" O.C
21. HEADER: 4X12 D.F.#2
22. 3/8 CD PLYWOOD
23. SUSPENDED CEILING
24.
25. PLYWOOD FILLER
26. RIM RAFTER: 2x10
27.
28. 2X4 NAILER
29. BOLTS: 5/8" DIA. M.B. SEE ROOF FRAMING PLAN FOR LOCATION
30. TRUSS @ RIDGE SEE SHEET 6
31. HANGER: SIMPSON LB210
32. MODULE LINE
33. DOUBLE 2x10 RAFTER
34. MOD TIE STRAP– 2 1/2"x 1/8" STRAP W/(12) 16d BOX
35.
36. PLYWOOD FLOOR SHEATHING: 1 1/8" T&G STURDIFLOOR : APA PS1-83 EXP. 1 ALL PLIES TO BE WOOD
37. SILL PLATE: 2X4 CONT.
38. Z-METAL STRIP:3/4 x 26 Ga. X 5/8 X 3/4 x 26 Ga.
39. C 6"x3"x12ga
40. SIMPSON U210 JOIST HANGER
41. NAIL: 8D @ 12" o.c.
42. 2x10 BLOCKING
43. STEEL STRAP:2 1/2" X 1/8" W/(2) 5/8" BOLTS
44. BOUNDARY NAILING
45. STUDS: (3) 2x4 DF MIN.
46. H.V.A.C. UNIT: WEIGHT 475# TYP.
47. DOUBLE 2X4 W/16D BOX NAILS 8" O.C.
48. HOLD-DOWN W/ (2) 5/8" BOLTS
49. L 1 1/2 X 1 1/2 X 1/8" X 18" LONG ATTACH TO A.C. W/4-#10 SELF-TAPPING GALV. S.M.S. & TO 2X4 FLAT W/(4) 5/16" X 2 1/2" LAG SCREWS.
50. STEEL PLATE: 2"x2"x1/4" WELD @ TOP FLANGES OF M8x6.5 BEAM
51.
52. HEADER: 4x8 DF #2
53. TRIM: 1X4
54. HOLLOW METAL FRAME: 16ga W/LOCK-IN ANCHORS, 8d BOX TO STUDS
55. DOOR.
56. KING STUDS: 2-2x4 FULL HEIGHT (4) @ WINDOWS(3) @ MOD LINE(2) @ DOORS
57. TRIMMER: 1- 2X4
58. DOOR BOTTOM.
59. ALUMINUM THRESHOLD W/(3)3/16"x1 3/8" F.H.W.S.
60. RAMP, SEE SHEET 12
61. GI. FLASHING.
62. LAG SCREWS(6) 3/8" X 2"
63. 2X6 BLOCK
64. STEEL SUPPORT BRACKET SUPPLIED BY H.V.A.C. UNIT MANUFACTURER (11ga x 24")
65. PREFINISHED WOOD TRIM
66. DOUBLE 2X4 SILL
67. INSULATION: R-11 KRAFT FACED OVER NYLON MESH
68.
69.
70. TOENAIL: 16d @ 12" O.C.
71. SOFFIT: 3/8" PLYWOOD SIDING NO GROOVES
72. PRE-FINISHED PANELING
73. R-11 KRAFT FACED INSULATION
74. 4" ROUND VENT
75. SEALANT
76. 3"x3"x1/4" ANGLE
77. C 6"x2 1/2"x14ga
76. 2"x2"x3/16" ANGLE BRACE FROM SIDE BEAM TO END BEAM @ HOLD DOWN LOCATIONS
79. 2x6 DF NAILER CONT. @ PERIMETER
80. WINDOW: 8'-0"x4'-0" XOX SEE SPECS, SHEET 8
81. FIRE EXTINGUISHER–MOUNT ON WALL BRACKET @ 48" A.F.F. MAX
82. NOT USED
83. 20 Ga.x3/4"x12" LONG STRAP w/ (4) 10d BOX Ea. END (2x10 BLOCK TO 2x4 STUD)
84. 20 Ga.x3/4"x12" LONG STRAP w/ (4) 10d BOX Ea. END (4x HEADER TO 2x4 STUD)
85. SILL CONNECTION @ END WALL SHEAR PANELS ONLY: PNEUTEK 34325L @ 6" O.C. & 6" MAX. FROM END OF ANY PIECE.
86.
87. 2" ROUND VENT
88. (2) 2x4 TRIMMER @ 8' OPENING
89. M8x6.5
90. (2) 2x4 D.F. Nailer Cont. @ Perimeter.

* SOME ITEMS SHOWN ABOVE MAY NOT BE SHOWN ON THIS SHEET

STATE OF CALIFORNIA
Department of General Services
MAY 17 1996
Division of the State Architect
Regulation Services-Sacto

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-122123 INC: 1
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 3/21/2024

P.O. Box 367
Patterson, California
95363
(209) 892–6298

Approval: Structural Engineer

REGISTERED PROFESSIONAL ENGINEER EDWARD LINDROS No. 776 STRUCTURAL STATE OF CALIFORNIA
LICENSE EXPIRES 12-31-92

Approval: Structural Safety

IDENTIFICATION STAMP
Department of General Services
Office of the State Architect
OCT 1 1990
Structural Safety Section
Appl. # PC 147
Backchecked By

Approval: Fire Marshal

CALIFORNIA STATE FIRE MARSHAL APPROVED
APPROVAL OF THIS PLAN DOES NOT AUTHORIZE OR APPROVE ANY APPROVAL OR BUILDING SHALL BE SUBJECT TO FIELD INSPECTION. ONE SET OF APPROVED PLANS SHALL BE AVAILABLE ON THE PROJECT SITE AT THE TIME.
REVIEWED BY

Approval: Access Compliance

OFFICE OF THE STATE ARCHITECT ACCESS COMPLIANCE
PC 147 OCT 17 '90
APPLICATION PER W. 2nd Below

75 MPH EXP. 'C'
24 X 40 CLASSROOM
60 PSF SNOW LOAD
1

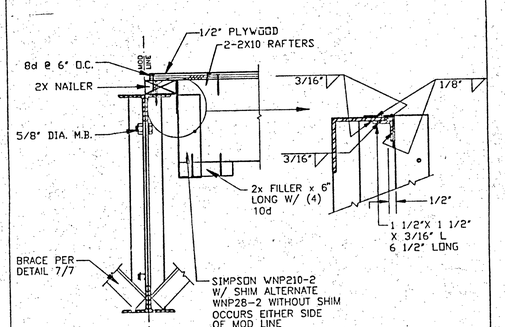
SIDE WALL FRAMING ELEV./DETAILS

Architect:

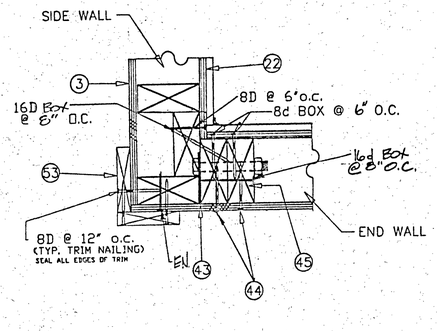
Paradise USD DATE: 3/21/96 JOB: 3594

Drawn BP
Scale NOTED
Date 6-28-90
Job 60SL
Sheet 5 Of Sheets

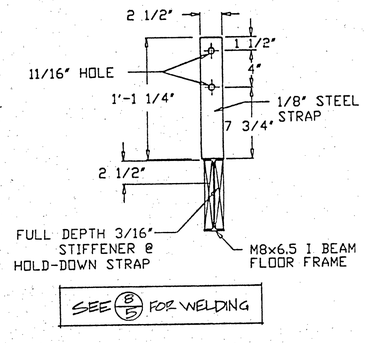
T-H # 9542.4
INCREMENT No. 2



5 HEADER RAFTER CONNECTION
5 1-1/2"=1'-0"

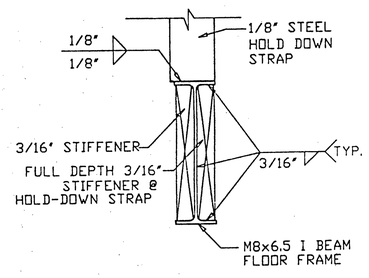


6 WALL CORNER WITH HOLD DOWN
5 3"=1'-0"



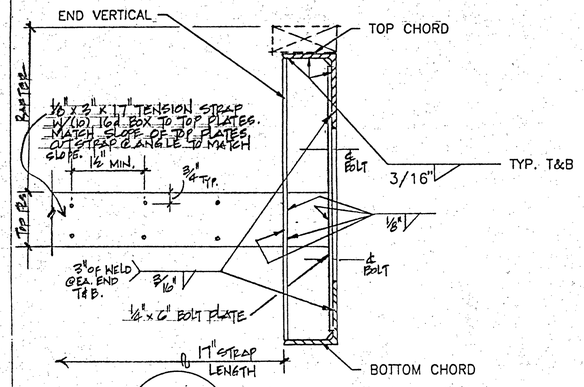
SEE 8/5 FOR WELDING

7 HOLD DOWN
5 1-1/2"=1'-0"

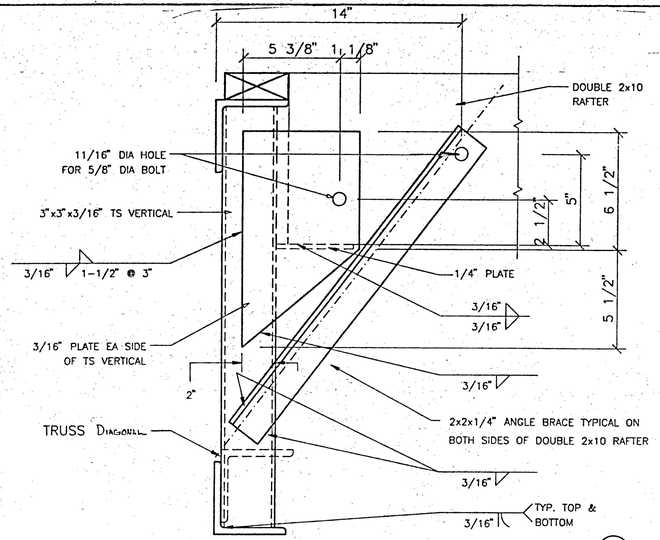


8 WELDS @ HOLD DOWN
5 3"=1'-0"

FILE NAME: 60SL5

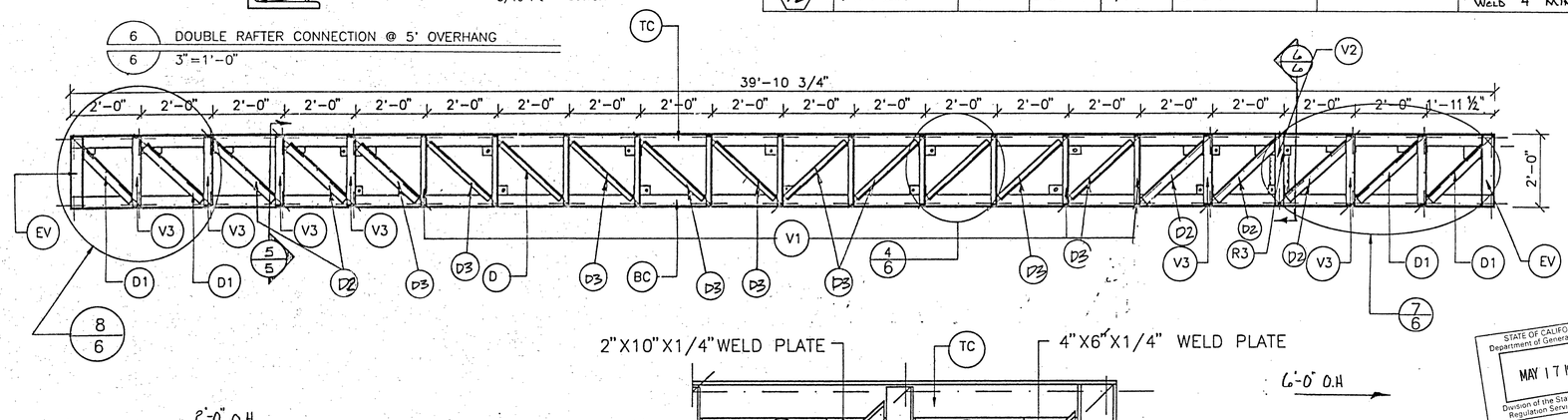


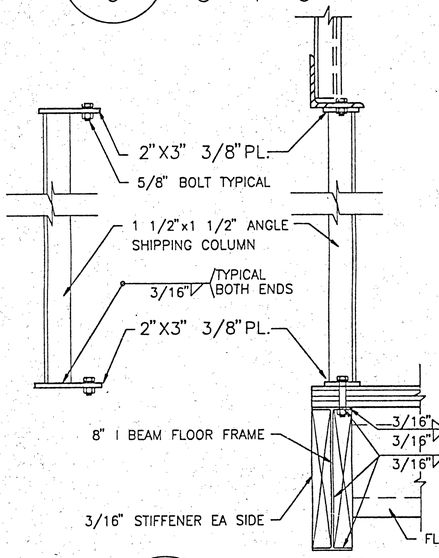
1 SEC. @ END OF TRUSS
6 3" = 1'-0"



PART NO.	DESCRIPTION	MAT'L. TO BE TESTED	YIELD POINT	MAT'L GAGE	SECTION	LENGTH	REMARKS
TC	TOP CHORD	YES	36KSI	3/8"	L 4" X 4"		
BC	BOT. CHORD	YES	36KSI	3/8"	L 4" X 4"		
V1	VERTICAL	YES	36KSI	1/4"	L 2" X 2"		WELD 3" MIN.
V2	VERTICAL	YES	36KSI	3/16"	3"X 3"SQ. TUBE		
D1	DIAG.	YES	36KSI	3/8"	L 3" X 3"		WELD 6" MIN.
D3	DIAG.	YES	36KSI	1/4"	L 2"x2"		WELD 3" MIN.
V3	VERTICAL	YES	36KSI	1/4"	L 3"x3"		WELD 4" MIN.
R1							
EV	END VER.	YES	36KSI	3/8"	L 4" X 4"		
R3	BOLT PLATE	YES	36KSI	1/4"	FLAT X 2"		
R4							
D2	DIAGONAL	YES	36KSI	1/4"	L 3"x3"		WELD 4" MIN.

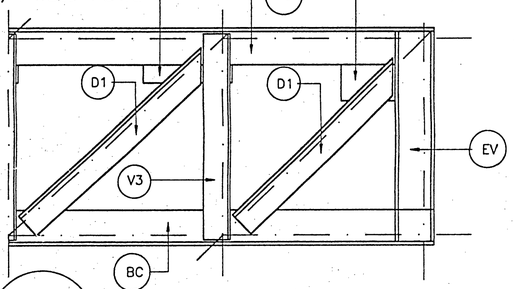
6 DOUBLE RAFTER CONNECTION @ 5' OVERHANG
6 3" = 1'-0"





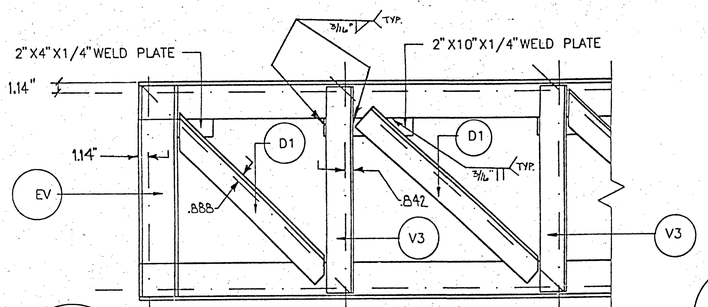
2 SHIPPING COLUMN
6 3" = 1'-0"

2'-0" O.H.

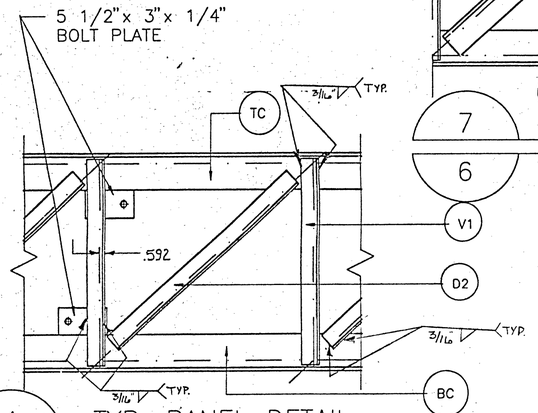


6'-0" O.H.

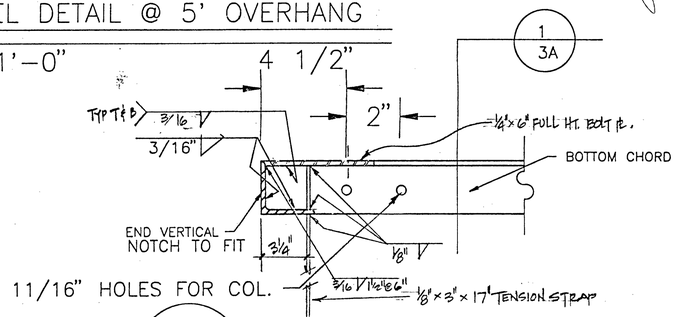
7 END PANEL DETAIL @ 5' OVERHANG
6 1-1/2" = 1'-0"



8 END PANEL DETAIL @ 2' OVERHANG
6 1-1/2" = 1'-0"



4 TYP. PANEL DETAIL
6 1-1/2" = 1'-0"



5 SEC. OF END VERTICAL
6 3" = 1'-0"

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-122123 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 3/21/2024

desig
syste
P.O
Patterson, California
95363
(209) 892-6298

Approval: Structural Engineer

REGISTERED PROFESSIONAL ENGINEER
EDWARD LINDSEY
No. 776
STRUCTURAL
STATE OF CALIFORNIA
LICENSE EXPIRES 12-31-92

Approval: Structural Safety

IDENTIFICATION STAMP
Department of General Services
Office of the State Architect
OCT 1 1990
Structural Safety Section
Appl. # PC147
Backchecked By CKC 1 SF

Approval: Fire Marshal

CALIFORNIA STATE FIRE MARSHAL
APPROVED
APPROVAL OF THIS PLAN DOES NOT AUTHORIZE OR APPROVE ANY OMISSION OR DEVIATION FROM APPLICABLE REGULATIONS. FINAL APPROVAL IS SUBJECT TO FIELD INSPECTION. APPROVED PLANS SHALL BE AVAILABLE ON THE PROJECT SITE AT THE TIME
REVIEWED BY:
10-10-90

Approval: Access Compliance

NOTICE OF THIS STATE OF ACCESS COMPLIANCE
PC147 OCT 17 '90
APPLICATION FEE W. Jud Hoke Co.

STATE OF CALIFORNIA
Department of General Services
MAY 17 1996
Division of the State Architect
Regulation Services-Sacto.

Item 2
APPROVED
MAY 20 1996
5-17-96

LICENSED ARCHITECT
EDWARD LINDSEY
No. 776
STATE OF CALIFORNIA

75 MPH EXP. 'C'
24 x 40 CLASSROOM
60 PSF SNOW LOAD

TRUSS PLAN

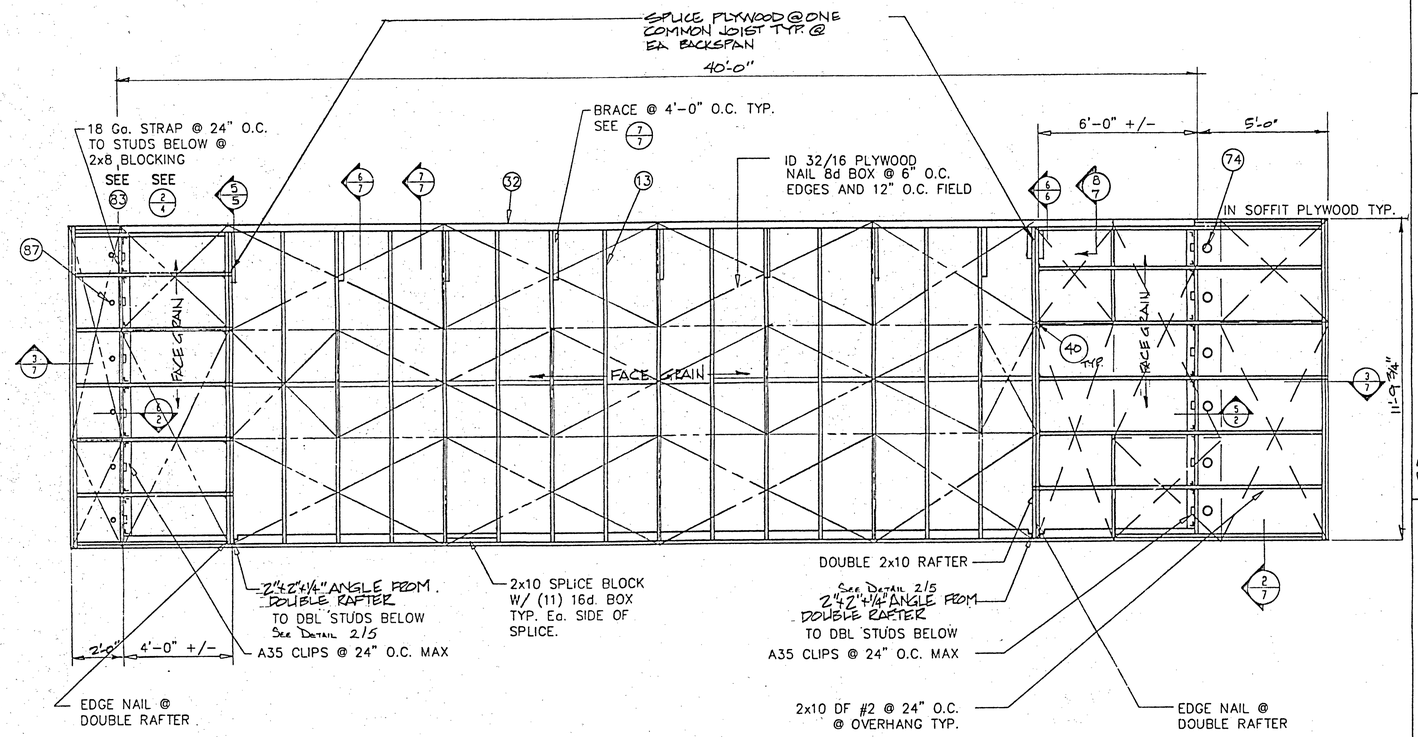
Architect:

Paradise USD
DATE: 3/27/96
JOB: 3594

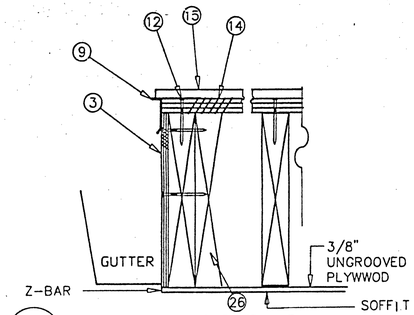
Drawn BP	Sheet 6
Scale NOTED	
Date 6-29-90	
Job 60SL	Of Sheets

T & M #95482.4
INCREMENT No. 2

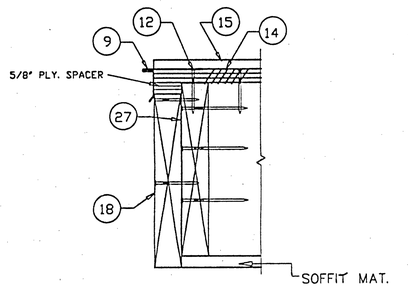
FILE NAME: 60SL6



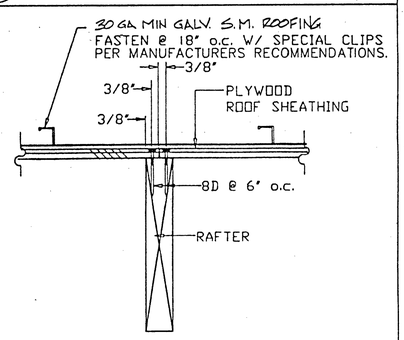
1 / 7 ROOF FRAMING PLAN (ONE MODULE)
3/8"=1'-0" 60 PSF SNOW LIVE LOAD



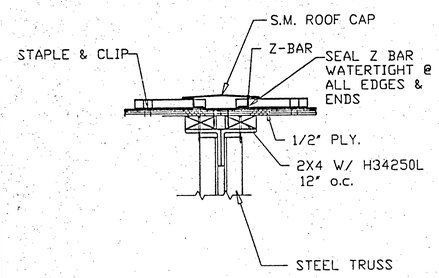
2 / 7 FASCIA @ SIDE OF OVERHANG
3"=1'-0"



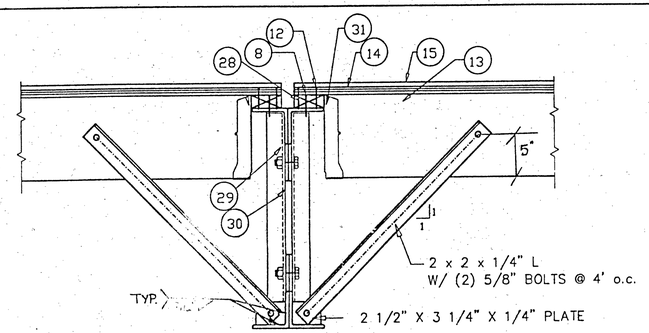
3 / 7 FASCIA
3"=1'-0"



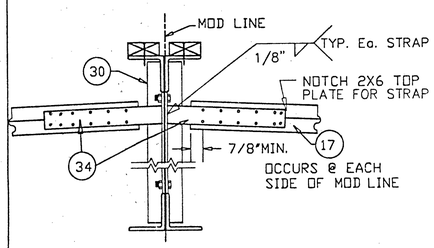
4 / 7 ROOF PLYWOOD PANEL JOINT
3"=1'-0"



6 / 7 ROOFING @ MODULE LINE
1-1/2"=1'-0"



7 / 7 TRUSS @ MOD LINE
1-1/2"=1'-0"



8 / 7 MODLINE TIE STRAP
1-1/2"=1'-0"

NOTES

1. COLUMN: 3"x3"x3/16" SQ. TUBE
2. STUD: 2x4 16" O.C. @ SIDEWALLS; 12" O.C. @ ENDWALLS
3. 5/8" EXT. PLYWOOD SIDING, SEE SPECS. SHEET 8
4. PNEUTEK PINS @ 6"o.c. AT EDGES (4" O.C. IN FIELD @ 4' Joist 10" o.c. IN FIELD @ 32" o.c. Joist
5. BOUNDARY NAILING: SEE NAILING SCHEDULE SHEET 2
6. FLOOR PERIMETER FRAME: M 12" X 11.8# I BEAM ALTERNATE: Floor Frame Plan on Concrete SEE SHEET 13,14,15
7. PNEUTEK 34325L @ 12" o.c. @ SIDEWALLS & 8" O.C. @ ENDWALLS & 6" MAX. FROM END OF ANY PIECE TYP. @ ALL SILL PLATE CONNECTIONS U.N.O. SEE NOTE 85
8. PNEUTEK 34250L @ 12" o.c.
9. PREFORMED METAL ROOF EDGE
10. 8d BOX @ 12" O.C. (GALV. WHERE EXPOSED TO WEATHER)
11. TRIM: 1X2
12. NAILS: 8D @ 6" o.c.
13. RAFTER 2x10 @ 24" O.C.
14. PLYWOOD ROOF SHEATHING
15. ROOFING: 30 Ga. GALV. STANDING RIB MIN.
16. NAILS: 2-16D PER RAFTER
17. (1) 2x4 & (1) 2x6 DF TOP PLATES - NO SPLICE @ END WALLS.
18. TRIM: 2X10
19. NAILS: 16D @ 12" o.c.
20. NAIL 16D @ 8" O.C.
21. HEADER: 4X12 D.F.#2
22. 3/8 CD PLYWOOD
23. SUSPENDED CEILING
24.
25. PLYWOOD FILLER
26. RIM RAFTER: 2x10
27.
28. 2X4 NAILER
29. BOLTS: 5/8" DIA. M.B. SEE ROOF FRAMING PLAN FOR LOCATION
30. TRUSS @ RIDGE SEE SHEET 6
31. HANGER: SIMPSON LB210
32. MODULE LINE
33. DOUBLE 2x10 RAFTER
34. MOD TIE STRAP- 2 1/2"x 1/8" STRAP W/(12) 16d BOX
35.
36. PLYWOOD FLOOR SHEATHING: 1 1/8" T&G STURDIFLOOR APA PS1-83 EXP. 1 ALL PLIES TO BE WOOD
37. SILL PLATE: 2X4 CONT.
38. Z-METAL STRIP: 3/4 x 26 Ga. X 5/8 X 3/4 x 26 Ga.
39. C 6"x3"x12ga
40. SIMPSON U210 JOIST HANGER
41. NAIL: 8D @ 12" o.c.
42. 2x10 BLOCKING
43. STEEL STRAP: 2 1/2" X 1/8" W/(2) 5/8" BOLTS
44. BOUNDARY NAILING
45. STUDS: (3) 2x4 DF MIN.
46. H.V.A.C. UNIT: WEIGHT 475# TYP.
47. DOUBLE 2X4 W/16D BOX NAILS 8' O.C.
48. HOLD-DOWN W/ (2) 5/8" BOLTS
49. L 1 1/2 X 1 1/2 X 1/8" X 18" LONG ATTACH TO A.C. W/4-#10 SELF-TAPPING GALV. S.M.S. & TO 2X4 FLAT W/(4) 5/16" X 2 1/2" LAG SCREWS.
50. STEEL PLATE: 2"x2"x1/4" WELD @ TOP FLANGES OF M8x6.5 BEAM
51.
52. HEADER: 4x8 DF #2
53. TRIM: 1X4
54. HOLLOW METAL FRAME: 16ga W/LOCK-IN ANCHORS, 8d BOX TO STUDS
55. DOOR.
56. KING STUDS: 2-2x4 FULL HEIGHT (4) @ WINDOWS(3) @ MOD LINE(2) @ DOORS
57. TRIMMER: 1- 2X4
58. DOOR BOTTOM.
59. ALUMINUM THRESHOLD W/(3)3/16"x1 3/8" F.H.W.S.
60. RAMP, SEE SHEET 12
61. G.I. FLASHING.
62. LAG SCREWS(6) 3/8" X 2"
63. 2X6 BLOCK
64. STEEL SUPPORT BRACKET SUPPLIED BY H.V.A.C. UNIT MANUFACTURER (11ga x 24")
65. PREFINISHED WOOD TRIM
66. DOUBLE 2X4 SILL
67. INSULATION: R-11 KRAFT FACED OVER NYLON MESH
68.
69.
70. TOENAIL: 16d @ 12" O.C.
71. SOFFIT: 3/8" PLYWOOD SIDING NO GROOVES
72. PRE-FINISHED PANELING
73. R-11 KRAFT FACED INSULATION
74. 4" ROUND VENT
75. SEALANT
76. 3"x3"x1/4" ANGLE
77. C 6"x2 1/2"x14ga
78. 2"x2"x3/16" ANGLE BRACE FROM SIDE BEAM TO END BEAM @ HOLD DOWN LOCATIONS
79. 2x6 DF NAILER CONT. @ PERIMETER
80. WINDOW: 6'-0"x4'-0" XOX SEE SPECS, SHEET 8
81. FIRE EXTINGUISHER-MOUNT ON WALL BRACKET @ 48" A.F.F. MAX
82. NOT USED
83. 20 Ga.x3/4"x18" LONG STRAP w/ (4) 10d BOX Ea. END (2x10 BLOCK TO 2x4 STUD)
84. 20 Ga.x3/4"x12" LONG STRAP w/ (4) 10d BOX Ea. END (4x HEADER TO 2x4 STUD)
85. SILL CONNECTION @ END WALL SHEAR PANELS ONLY: PNEUTEK 34325L @ 6" O.C. & 6" MAX. FROM END OF ANY PIECE.
86.
87. 2" ROUND VENT
88. (2) 2x4 TRIMMER @ 8' OPENING
89. M8x6.5
90. (2) 2x4 D.F. Nailer Cont. @ Perimeter.

* SOME ITEMS SHOWN ABOVE MAY NOT BE SHOWN ON THIS SHEET

STATE OF CALIFORNIA
Department of General Services
MAY 17 1996
Division of the State Architect
Regulation Services-Sacto

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-122123 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 3/21/2024

IDENTIFICATION STAMP
Department of General Services
Office of the State Architect
OCT 17 1990
Structural Safety Section
Appl. # PC147
Checked By

CALIFORNIA STATE FIRE MARSHAL
APPROVED
APPROVAL OF THIS PLAN DOES NOT AUTHORIZE OR APPROVE ANY OMISSION OR DEVIATION FROM APPLICABLE REGULATIONS. FINAL APPROVAL IS SUBJECT TO FIELD INSPECTION. ONE SET OF APPROVED PLANS SHALL BE AVAILABLE ON THE PROJECT SITE AT THE TIME.
REVIEWED BY
10/17/90

APPLICATION NO. PC147 OCT 17 '90
FEE W. Jas Boles

design systems
P.O. Box 367
Patterson, California
95363
(209) 892-6298

Approval: Structural Engineer
REGISTERED PROFESSIONAL ENGINEER HOWARD UNGERER No. 776 STRUCTURAL STATE OF CALIFORNIA
LICENSE EXPIRES 12-31-92

Approval: Structural Safety

Approval: Fire Marshal

Approval: Access Compliance
OFFICE OF THE STATE ARCHITECT ACCESS COMPLIANCE
PC147 OCT 17 '90
APPLICATION NO.

75 MPH EXP. 'C'
24x40 CLASSROOM
60 PSF SNOW LOAD

ROOF FRAMING PLAN & DETAILS

Architect:

Paradise USD
DATE: 3/21/96
JOB: 3594

Drawn	WS
Scale	NOTED
Date	6-22-90
Job	60SL
Sheet	7
Of	Sheets

INCREMENT No. 2

FILE NAME: 60SL7

GENERAL REQUIRMENTS:

The classroom building specified herein shall be a structure with a minimum of 960 feet, nominal, transportable to the site with a maximum of two (2) modules. The modules shall require the use of special trailers. The modules shall not exceed the maximum dimensions for shipment on public roads as prescribed by California State Law.

LIVE LOADS

Floor load* ---------- 50 lbs. per square foot /1000 # concentrated
Roof load ---------- 60 lbs. per square foot SNOW
Wind load ---------- 75 Mph. Exp. 'C'
Seismic ---------- Zone 4 (Seismic factor shall be .13S as per OSA Requirments.)

*OPTIONAL 70PSF W/ PARTITIONS

INSPECTIONS AND CODES:

The classroom shall be designed to meet the applicable requirements of the following codes:

CALIFORNIA CODE OF REGULATION	TITLE 19	(STATE OF CALIFORNIA
CALIFORNIA CODE OF REGULATION	TITLE 21	1989 AMENDMENTS
CALIFORNIA CODE OF REGULATION	TITLE 24	TO 1988 U.B.C.)
California Building Code	(CBC)	
California Mechanical Code	(CMC)	
California Plumbing Code	(CPC)	
California Electrical Code	(CEC)	

The building shall be constructed and installed in strict accordance with the plans and specification as approved by a California Licensed Structural Engineer and/or Architect and Office of State Architect.

In accordance W/ TITLE 24, Third party inspection shall be made on all work performed in the manufacturing plant. The inspection entity shall be approved by the Office of State Architect and employed by the District.

Provisions will be made for entry to classroom for the handicapped in accordance with Title 24, California code Of Regulations and Office of State Architect.

FOUNDATIONS:

Foundations shall be as shown on drawings and/or as required by site conditions. Treated lumber foundations shall be provided.

CEILINGS:

(b). Ceiling Notes. The following notes will be acceptable in plans and specifications for ceiling systems whose total weight including air conditioning grilles and light fixtures does not exceed four (4) psf. Heavier systems and those supporting lateral loac: form partitions will require special design details:

(1) 12 ga. (min.) hanger wires may be used for up to and including 4'0" x 4'0" grid spacing along main runners.

(2) Provide 12 ga. hanger wires at the ends of all main and cross runners within 8" from the support or within 1/4 of the length of the end tee, whichever is least, for the perimeter of the ceiling area. End connections for runners which are designed and detailed to resist the applied horizontal forces may be used in lieu of the 12 ga. hanger wires subject to OSA/SSS or OSHPD review and approval.

(3) Provide trapeze or other supplementary support members at obstructions to main hanger spacing. Provide additional hangers, struts or braces as required at all ceiling breaks, soffits or discontinuous areas. Hanger wires that are more than 1 in 6 out of plumb are to have counter-sloping wires.

(4) Ceiling grid members may be attached to not more than 2 adjacent walls. Ceiling grid members should be at least 1/2 inch free of other walls. If walls run diagonally to ceiling grid system runners, one end of main and cross runners should be free and a minimum of 1/2 inch clear of wall.

(5) At the perimetar of the ceiling area where main or cross runners are not connected to the adjacent wall, provide interconnection between the runners at the free end to prevent lateral spreading. A metal strut or a 14 ga. wire with a positive mechanical connection to the runner may be used. Where the perpendicular distance from the wall to the first parallel runner is 12" or less, this interlock is not required.

(6) Provide sets of four 12 ga. splayed bracing wires oriented 90 degrees from each other at the following spacing:

(A) For school buildings, place sets of bracing wires at a spacing not more than 12 feet by 12 feet on center.

(C) Provide bracing wires at locations not more than 1/3 the spacings given in (A) and (B) above from each perimetar wall and at the edge of vertical ceiling offsets for both school and hospital buildings.

The slope of these wires should not exceed 45 degrees from the plane of the ceiling and should be taut without causing the ceiling to lift. Splices in bracing wires are not to be permitted without special OSA/SSS or OSHPD approval.

(7) Fasten hanger wires with not less than 3 tight turns. Fasten bracing wires with 4 tight turns. Make all tight turns within a distance of 1-1/2 inches. Hanger or bracing wire anchors to the structure should be installed in such a manner that the direction of the wire aligns as closely as possible with the direction of the forces acting on the wire. MotorWire turns made by machine where both strands have been deformed or bent in wrapping can give the lit requirement, but the number of turns should be maintained, and be as tight as possible.

(8) Separate all ceiling hanging and bracing wires at least 6 inches from all unbraced ducts, pipes, conduit, etc. It is acceptable to attach lightweight items, such as single electrical conduit not exceeding 3/4" nominal diameter, to hanger wires using connectors acceptable to OSA/SSS or OSHPD.

(9) When drilled-in concrete anchors or shot-in anchors are used in reinforced concrete for hanger wires, 1 out of 10 must be field tested for 200 pounds of tension. When drilled-in concrete anchors are used for bracing wires, 1 out of 2 must be field tested for 440 pounds in tension. Shot-in anchors in concrete are not permitted for bracing wires. If any shot-in or drilled-in anchor fails, see Section 2424(d) Title 24. NOTE: Drilled-in or shot-in anchors require special OSA/SSS or OSHPD approval when used in prestressed concrete.

(10) Attach all light fixtures to the ceiling grid runners to resist a horizontal force equal to the weight of the fixtures.

(11) Flush or recessed light fixtures and air terminals or services weighing less than 56 pounds may be supported directly on the runners of a heavy duty grid system but, in addition, they must have a minimum of two 12ga. slack safety wires attached to the fixture at diagonal corners and anchored to the structure above. All 4 ft. x 4 ft. light fixtures must have slack safety wires at each corner.

All flush or recessed light fixtures and air terminals or services weighing 56 pounds or more must be independently supported by not less than 4 taut 12 ga. wires each attached to the fixture and to the structure above regardless of the type of ceiling grid system used.

The 4 taut 12 ga. wires including their attachment to the structure above must be capable of supporting 4 times the weight of the unit.

(12) All fixtures and air terminals or services supported on intermediate duty grid systems must be independently supported by not less than 4 taut 12 ga. wires each attached to the fixture or terminal and to the structure above.

(13) Support surface mounted light fixtures by at least two positive devices which surround the ceiling runner and which are each supported from the structure above by a 12 ga. wire. Spring clips or clasps that connect only to the runner are not acceptable.

Provide additional supports when light fixtures are 8 feet or longer.

(14) Support pendant mounted light fixtures directly from the structure above with hanger wires or cables passing through each pendant hanger and capable of supporting 4 times the weight of the fixture. (See also Note 10, paragraph (b)). Special details are necessary for this condition at the ceiling grid.

MATERIAL SPECIFICATIONS:

The following material specifications are to insure a minimum acceptable quality level of materials used in the construction of the classroom. The term "Approved Equal" shall apply to brand names used and the burden of equality shall be borne by the contractor and approved by the Agency Architect, OLA., & Procurement.

WOOD FOUNDATION:

NOTE: ONLY THOSE WOOD FOUNDATION MEMBERS IN CONTACT WITH GRADE SHALL BE PRESSURE TREATED, UNLESS OTHERWISE NOTED IN THE BID SPECIFICATIONS. * BALL BEAR THE AWPB STAMP.

.01 Foundation Sills: Foundation grade redwood or pressure treated Douglas Fir # 2 or better,as required on drawing.Each piece of pressure treated wood shall bear the A.W.P.B. stamp.

.02 Stringers or Blocking: Douglas fir,Hem fir as indicated on drawings.

.05 Welding: As per American Welding Society Requirements for sheilded electric-arc process. Welding to be performed by operators qualified by tests acceptable to Office of State Architect.

.06 Shop Point: All steel to be coated with a minimum of one shop coat of red oxide primer.

CARPENTRY:

.01 Lumber: Materials to be stamped by an approved grading agency in accordance with West Coast Lumber Inspection Bureau Rule # 16.

.02 Plywood: To be marked by approved inspection agency in accordance with Product Standard P.S. 1-83 for softwood plywood.

.03 Studs: Doug Fir # 2 better grade, kiln dried. or Machine Rated 1650f-1.5E

.04 Plates: Doug Fir # 2 or DF Machine Rated 1650f-1.5E

.05 Headers: Doug Fir # 2 or better. or Machine Rated 1650f-1.5E DF

.06 Roof Decking: 1/2" CD plywood, group 1 or 2, 5 ply, Exposure 1.

.07 Floor Decking: 1 1/8" underlayment grade plywood, group 1 or 2 Sturdi Floor. Alls plys to be wood.

.08 Exterior Sheathing: 5/8" Type 303 Plywood Siding.

.09 Trim: Windows, Doors, Corners 1 x 4 roughsawn D.F. , H.F. or spruce.

.10 Building Paper: Kraft, under siding.

.11 Soffit 3/8" Min. Plywood siding, textured, no grooves.

EXTERIOR FINISH:

.01 Primer: Wood Back primed, Kelly Moore #250 Arcylic Sealer Primer.

.02 Exterior Wood: Acrylic latex, Flat.

.03 Exterior Metal: Acrylic latex. Flat.

.04 Doors & Frome: Factory Pre-Finished.

INTERIOR FINISH:

.01 Interior Wall Finish: Vinyl wrapped Fir-Tex tackboard Class 'C', installed with glue and color head fasteners as required. Class III flame spread. Max. smoke density: 450

.02 Interior Wall Backing: 3/8" CD plywood.

.03 Floor Finish: Direct glue down carpet. or 3/32" to 1/8" VC tile.

.04 Ceiling Grid: Minimum Heavy Duty classification per ASTM C635.

.05 Ceiling Tile: 2' x 4' lay in tile, fissured pattern 5/8" thick, class A, flame spread 0-25. Max. smoke Density 450

.06 Finish Ceiling Height: 8'-6" from sub floor

INSULATION:

NOTE: All insulation shall conform to section 1713(c), California building code.

.01 Wall: R-11 3 1/2" Fiberglass,Kraft faced vapor barrier.

.02 Roof: R-19 Fiberglass,unfaced.

.03 Floors: R-11 3 1/2" Kraft faced vapor barrier.

ROOFING:

.01 Roofing: 30gm Mtal galvanized standing seam over base sheet of 30# roofing felt. ROOFING SHALL CONFORM TO CBC. SEC. 3208 AS CLASS "B" (MINIMUM)

SHEET METAL:

.01 Sheet Metal: 26 gauge galvanized,unless otherwise noted on drawings.

HOLLOW METAL DOORS AND FRAMES:

.01 Doors: 3'-0" x 6'-8" type L full Flush, 18 gauge, 1 3/4" thick. ALTERNATE: 3'-0"x7'-0"x1 3/4"

.02 Frames: 16 gauge, cold rolled, 2" faces knock down type.

FINISH HARDWARE AS PER BID:

.01 Butts: 1 1/2 pair-Hagar 4 1/2 x 4 1/2 NRP.

.02 Lockset: 1 Schlage olympiad D70 pd x 626 "E" Keyway. or PDO SX series 148 function (lever handle, classroom function)

.03 Closer: Norton 8501BF 8.5 LBS EXT. MAX. LCN 4040 ANTERIOR

.04 Threshold: Pemko 272, ½" MAX HEIGHT INCLUDING ¼" VECT. HEIGHT MAX

.05 Door Bottom: 1 Pemko 216AV

.06 Weatherstrip: Pemko 299A or Integral weatherstripping.

"LEVER HANDLE ON ALL APPLICATIONS

WINDOWS & GLAZING:

.01 Window: Aluminum slider 8'-0" x 4'-0" xox anodized finish.

.02 Glazing: Tinted glass.

MECHANICAL:

.01 Air Conditioner: 3 1/2 ton wall mounted heat pump.
1. Intertherm pwy-042 KAVX08 ALT: BARD WH24040A54
2. BARD 45 WHI-A08CD004 GAS/ ELECTRIC.
3. MARVAIR AVP 42 HPA-085
4. SUN MANUFACTURING HVA 42-1-08

.02 Distribution System: Flexible Ducting. ~~Runs shall not exceed 7'-0" in length.~~

OPTIONAL SUPPLY REGISTERS AND DUCTED SUPPLY AIR.

Factory-made Air ducts. Factory-made air ducts shall be approved for the use intended or shall conform to the requirements of C.M.C. Standard No. 10-1. Each portion of a factory-made air duct system shall be indentified by the manufacturer with a label or other suitable identification indicating compliance with C.M.C. Standard No. 10-1 and its class designation. These ducts shall be listed and shall be installed in accordance with the terms of their listing.

Material exposed within ducts or planums shall have a flame-spread rating of not more than 25 and a smoke-developed rating of not more than 50.

Insulation applied to the exterior surface of the ducts located in buildings shall have a flame spread of not more than 25 and a smoke density of not more than 50 when tested as a composite installation including insulation, facing materials, tapes and adhesives as normally applied.

Supply Air Registers: Shoemaker 104 T-bar or equal.

.04 Return Air Registers: Shoemake 104 T-Bar w/ Optional parallel blade damper.
Alternative mahufacturers:
1. Air-mate
2. Krueger

.05 Thermostat: White Rodgers 1F92 Electronic Programmable thermostat.

ELECTRICAL:

.01 Code: Work to comply with California Electrical Code, 1978 Edition.

.02 Wire: All work to be Type NM-b cable (Romex) except fire alarm system see specialties below. Conduit is optional.

.03 Conductors: Copper for sizes #12 to #6. Type THHN

.04 Receptacles: Leviton specification grade or equal.

.05 Clock Receptacles: Leviton 688-1 15 amp specification grade.

.06 Switches: Leviton Specifaction grade or equal.

.07 Lighting Fixtures:
A Interior: recessed light with 4 cool white bulbs, energy savings ballast.
ALT ELECTRONIC BALLASTS 4 T8 LAMPS

.B Exterior: Failsafe IEO-IBP

.08 Distribution Panel: Wall mounted with hinged lockable doors and index card. NEMA 3R

.09 Lighting and Switching: Will comply with Energy Commission requirements for new non-residential buildings.

SPECIALTIES:

.01 Fire Alarm Systems: Shall meet the requirements and appoval of the State Fire Marshal.

.02 Pull Station: J-Box and Conduit ONLY provided.

.03 Alarm Horn: J-Box and Conduit ONLY provided.

.04 Fire Extinguisher: 2A10BC U.L Rated.

.05 Overhangs: 5 foot at front 2 foot at rear of classroom.

.06 Chalkboards: * 4' x 16' (2 - 4' x 8' Joined) with chalk tray & map rail.
Acceptable Manufacturers:
1. Tri Best (as submitted)
2. Chatfield-Clarke Co.
3. Nelson Adams Co.

* NOTE: CHALKBOARD IS AN OPTIONAL ITEM.

.07 TOILET ROOM: PROVIDE J-BOX AND CONDUIT ONLY FOR STROBE LIGHT (TOILET ROOM IS AN OPTIONAL FEATURE)

PLYWOOD SHEAR WALL & DIAPHRAGM MACHINE NAILING NOTES

1) Nails shall be full headed, uncoated type, common wire or box nails as specified with spacing as shown on the structural drawings.
2) Minimum edge distance of nail from edge of plywood and framing shall be 3/8" for 2x framing. For 3x and thicker framing edge distance for framing shall be a minimum of 3/4" . Edge distances shall be measured at the surface between the plywood and backing. The plywood joint shall be centered over a single member.
3) Where slant nailing is used, slope of nails shall be no greater than 1 in 6 with respect to a line at right angles to the plywood.
4) Overdriving of nails so that the heads cut the outer veneer is not allowed.
5) Underdriving of nails shall be corrected by hand nailing .
6) Nails driven so as to miss the bearing ('shiners') shall be removed and correctly driven substitute nails provided.
7) If any framing members, blocking or joists, receiving the points of the nails are damaged (split, nail holes too close, etc.) they shall be removed and replaced.
8) Only 3/8", or greater, thickness of plywood may be machine nailed.
9) Machine nailing may only be used where the back side can be inspected for 'shiners'.
10) All corrective nailing shall be done by hand nailing.
11) "(c) Plywood Diaphragms. Table No. 2-25-H,25-R-I used for the design of horizontal and vertical plywood diaphragms except that unblocked plywood diaphragms shall not be used for vertical diaphragms. Plywood shall be applied directly to wood members. Use of machine nailing is subject to a satisfactory jobsite demonstration for each project and the approval by the project Architect or Structural Engineer and the Office of the State Architect.The approval is subject to continued satisfactory performance. Machine nailing will not be accepted in 5/16" plywood. If nailheads penetrate the outer ply more than would be normal for a hand hammer or if minimum allowable edge distances are not maintained the performance will deemed unsatisfactory".
[from Title 24, sect. 2513 (c)]

NOTE:

The fire alarm system shall conform to California Electrical Code Article 760, California Building code, section 809.

Installation of the fire alarm system shall not be started until detailed plans and specifications,including State Fire Marshall listing numbers for each component of the system have been approved by The State Fire Marshal, OSA.

Upon completion of the installation of the fire alarm system a satisfactory test of the entire system shall be made in the presence of the enforcing agency.

Fire Blocksshall be provided in accordance with California Building, Code, 2516(f).

SPECIFICATIONS:
1. PLUMBING: ALT. ABS
2. ELECTRICAL: ALT. MC CABLE

STRUCTURAL NOTES

I. STEEL

A. FABRICATION AND WORKMANSHIP shall conform to the AISC Specification for the design, fabrication, & erection of Structural Steel for Buildings" 1978 edition.and Title 24 C.B.C.
B. STRUCTURAL STEEL shall conform to ASTM A-36. Steel tubing ASTM A 500 Grade B.
C. LT. GA. STEEL shall conform to ASTM A-570 Gr. 33 (see drawings). Elements shall not deviate more than 5% from normal U.S. Gage. (Fy= 33 Ksi min.) 10Ga.-0.1345" 12Ga.- 0.105" 14Ga.- 0.074"
D. MATERIAL TESTS shall be tested in accordcord with Title 24, State of California Administrative code section 2727(c)2 & 1988 edition UBC. Mill certificate or testing required on lt. ga. joist ,truss angles, I beams. See testing and inspection, sht. C

II. WELDING: Structural welding shall be by the "Electric Arc Process" per AWS Code, and shall be performed by "Certified Welders with E70XX welding inspection comply with Title 24 section 2727(e) and welds shall tion comply with Title 24 section 2714.

III. BOLTS: Common bolts shall conform to ASTM A 307.

IV. LUMBER:

A. FRAMING: All framing shall be grade marked by an approved grading agency. West Coast Lumber inspection Bureau (WCLIB) Rule 16 and Western Wood Product Assoc. (WWPA)Framing lumber shall be marked S-DRY or MC-15 SEE SPECIFICATIONS, "CARPENTRY"

BLOCKING: Doug. fir. #3 & Better.
RAFTERS: Doug. fir #2

B. PLYWOOD: All panels shall be grade marked and shall bear "APA treadmark" legibly applied. All plywood shall be grade marked in accord with PS 1-83. All structural plywood shall have exterior glueAll plies shall be wood.
FLOOR PLYWOOD: 1 1/8" T&G, 2-4-1, APA PS 1-83, EXP. 1.
ROOF PLYWOOD: 1/2" CDX, APA PS 1-83, EXP. 1.
WALL PLYWOOD (INTERIOR): 3/8" CD, APA PS 1-83.
SIDING PLYWOOD: 5/8" (NOM. 19/32") EXT. SIDING (MDO)

V. NAILING SCHEDULE

A. FRAMING: All nails to be machine applied box nails unless otherwise specified.Joist hanger nails for clips & hangers. Per Manufacturer
NOTE: Use of machine nailing is subject to a satisfaction jobsite demonstration for each project, and the aproval by the Project Architect or Structural Engineer and the Office of the State Architect.
1. Top & bottom plate to stud (3) 16d Box (Common or (2) 16d COMMON END NAILS
2. Doubled studs, face nail 16d @ 12" o.c.
Built-up studs, face nail 16d @ 12" o.c.
3. Doubled top plates, face nail 16d @ 12" o.c.
4. Top plates, laps & intersection, face nail (6) 16d per side.
5. Continuous header, two plates along ea. edge 16d @ 16" o.c.
6. Blocking nailing: (2) 16d Box toenail Ea. end min.

B. PLYWOOD: SEE SHT. 2 FOR SPECIAL NAILING.
1. Nails spaced @ 6" o.c. @ edges, 12" o.c. @ intermediate supports. For nailing of plywood diaphrams and shear walls refer to section 2513. TITLE 24
1/2" and less 8D
5/8" 6D
2. Use 8d box nails @ non-structural plywood and siding. USE GALV. NAILS WHERE EXPOSED TO WEATHER

VI. LAG BOLT INSTALLATION
A. The lead hole for the shank shall have the same diameter and depth as the unthreaded shank.
B. The lead hole for the threaded portion shall have a diameter equal to 60% of shank and a length at least equal to the threaded portion.
C. The bolt shall be inserted by turning with a wrench, not by driving with a hammer. Soap or other lubricant shall be used.

VII. POWER DRIVEN FASTENERS
A. Pneutek pins as called out on plans same shear value as 10d nail.

PNEUTEK PIN CHART

PNEUTEK FASTENER IDENTIFICATION

EXAMPLE- H 3 2 0 5 0 L
- STRIP TYPE: L-LINEAR T-TAG(BREAK AWAY)
- SHANK LENGTH: 0.50"-1/2"(13mm)
- NOMINAL SHANK DIA.: 1- .130"(3.3mm) 2- .150"(3.8mm) 3- .160"(4.1mm) 4- .170"(4.3mm) 5- .190"(4.8mm) 6- .215"(5.5mm) 7- .225"(5.7mm)
- HEAD DIA.: 3- 5/16"(8mm) 4- 3/8"(10mm)
- STYLES: H- HELICAL SHANK SD- STEPPED DOWN SHANK

HELICAL SHANK FOR 16-10 Ga STEEL

FASTENER	SHANK DIA.	SHANK LENGTH	FASTENER	SHANK DIA.	SHANK LENGTH
H34075	.170"	3/4"	H34225	.170"	2 1/4"
H34100	.170"	1"	H34250	.170"	2 1/2"
H34138	.170"	1 3/8"	H34275	.170"	2 3/4"
H34162	.170"	1 5/8"	H34300	.170"	3"

STEPPED DOWN SHANK FOR VERY HARD AND PRESTRESSED CONCRETE AND STRUCTURAL STEEL

FASTENER	SHANK DIA.	SHANK LENGTH	FASTENER	SHANK DIA.	SHANK LENGTH
SD32062	.150"	5/8"	SD34225	.170"	2 1/4"
SD32075	.150"	3/4"	SD33250	.160"	2 1/2"
SD32100	.150"	1"	SD34250	.170"	2 1/2"
SD33100	.160"	1"	SD33275	.160"	2 3/4"
SD32125	.150"	1 1/4"	SD34275	.170"	2 3/4"
SD33125	.160"	1 1/4"	SD33300	.160"	3"
SD34125	.170"	1 1/4"	SD34300	.170"	3"
SD33150	.160"	1 1/2"	SD34325	.170"	3 1/4"
FASTENER	SHANK DIA.	SHANK LENGTH	FASTENER	SHANK DIA.	SHANK LENGTH
SD42062	.150"	5/8"	SD44150	.170"	1 1/2"
SD42075	.150"	3/4"	SD44175	.170"	1 3/4"
SD42100	.150"	1"	SD44200	.170"	2"
SD43125	.160"	1 1/4"	SD44225	.170"	2 1/4"
SD43150	.160"	1 1/2"	SD44250	.170"	2 1/2"

1. ALL ADDENDA AND CHANGE ORDERS SHALL BE SUBMITTED TO THE ARCHITECT FOR APPROVAL. OAS MUST APPROVE ALL PLANS, SPECIFICATIONS, CHANGE ORDERS AND ADDENDUMS ALL OF THE ABOVE SHALL BE SIGNED BY THE ARCHITECT, OWENER, MANUFACTURER AND APPROVED BY OSA.
2. ALL WORK MUST COMPLY WITH TITLE 24 AND THE CBC & TITLE 21
3. UNDER FLOOR VENTILATION TO COMPLY WITH TITLE 24 SEC. 2516(c)6
4. FIRE EXTINGUISHER IS A 2A-10BC UL MIN.
5. NO WORK SHALL BEGIN UNTIL OSA APPROVAL IS OBTAINED.
6. BUILDING SHALL BE GROUNDED AT THE SITE PER TITLE 24 & 19
7. MATERIAL TESTING MUST BE DONE BY AN INDEPENDENT TESTING SERVICE EMPLOYED BY THE OWNER AND APPROVED BY THE ARCHITECT.
8. ARCHITECT, INSPECTOR, AND CONTRACTOR MUST FILL OUT VERIFIED REPORT PER TITLE 21.
9. A COPY OF TITLE 21 & 24 SHALL BE KEPT ON JOOSITE AT ALL TIMES. AND COPY OF APPROVED PLANS.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-122123 INC: A
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 3/21/2024

P.O. Box 367
Patterson, California
95363
(209) 892-6298

Approval: Structural Engineer

REGISTERED PROFESSIONAL ENGINEER HOWARD LINDSAY No. 776 STRUCTURAL STATE OF CALIFORNIA

LICENSE EXPIRES 12-31-92

Approval: Structural Safety

IDENTIFICATION STAMP
Department of General Services
Office of the State Architect
OCT 1 1990
Structural Safety Section
Appl. # PC 4757
Rackechecked By

Approval: Fire Marshal

CALIFORNIA STATE FIRE MARSHAL APPROVED
APPROVAL OF THIS PLAN DOES NOT AUTHORIZE OR APPROVE ANY OMISSION OR DEVIATION FROM APPLICABLE REGULATIONS. A COPY OF THESE APPROVED PLANS SHALL BE AVAILABLE ON THE PROJECT SITE AT ALL TIMES
REVIEWED BY:

Approval: Access Compliance

OFFICE OF THE STATE ARCHITECT ACCESS COMPLIANCE
PC 147 OCT 17 '90
APPLICATION REVIEWED BY

STATE OF CALIFORNIA Department of General Services
MAY 17 1996
Division of the State Architect Regulation Services-Sacto

75 MPH EXP. 'C'
24x40 CLASSROOM
60 PSF SNOW LOAD

SPECIFICATIONS

Architect:

Paradise USD | DATE: 3/21/96 | JOB: 3534

Drawn	WS
Scale	NOTED
Date	7-5-90
Job	60SL

Sheet 8 of Sheets

Tel # 95242-4
INDEX SHEET NO. 2

FILE NAME: 60SL8

LENDENSOTE

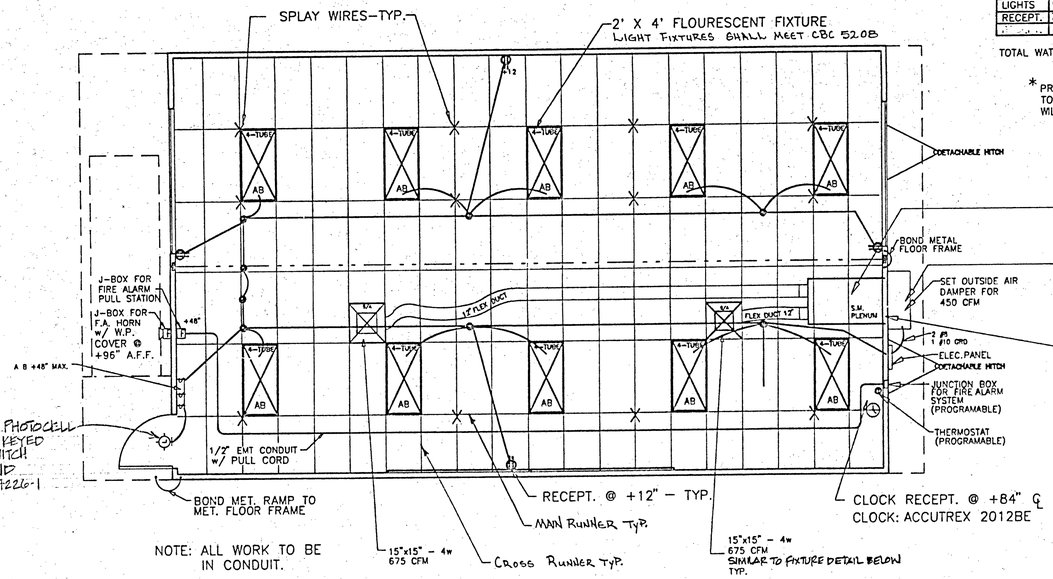
LOAD CENTER SCHEDULE

120/240V, Ø — 100A MAIN / 125 FRAME

LOAD	WATTS	BKR.	CT#	CT#	BKR.	WATTS	LOAD
LIGHTS	900	1P-20A	1	2	2P-60A	4600	HVAC *
LIGHTS	900		3	4		4600	HVAC
RECEPT.	720	1P-20A	5	6			
			7	8			

TOTAL WATTS: 11,720 — 11,720 WATTS ÷ 240V = 48.8 AMPS

* PROVIDE "LOCK OUT" DEVICE FOR 60A BREAKER THIS BREAKER TO BE "HACR" TYPE SUPPLEMENTAL HEATER ON HEAT PUMP WILL NOT BE ON WHEN COMPRESSOR IS RUNNING.

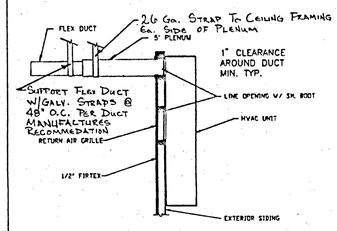


NOTE: ALL WORK TO BE IN CONDUIT.

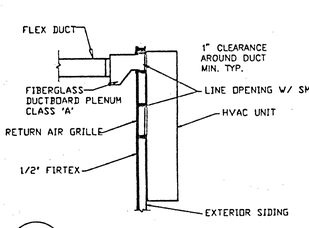
1 / 9 ELECTRICAL/MECHANICAL PLAN — 1/4" = 1'-0"

Notes:

1. HVAC UNIT SIZE & TYPE (HEAT PUMP OR AIR CONDITIONER) MAY VARY. UNIT LISTED IN LOAD CENTER SCHEDULE IS 3½ TON HEAT PUMP
2. RECEPT LOCATION MAY VARY.



2 / 9 SECTION @ H.V.A.C. (OPTIONAL) — 1-1/2" = 1'-0" — See 6/9 FOR ALTERNATE DETAIL



6 / 9 SEC. @ HVAC — 1-1/2" = 1'-0"

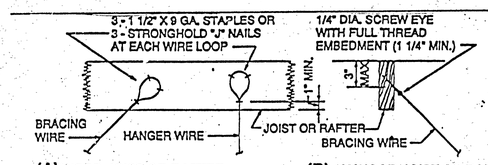
ELECTRICAL SYMBOLS

SOME SYMBOLS MAY NOT BE USED

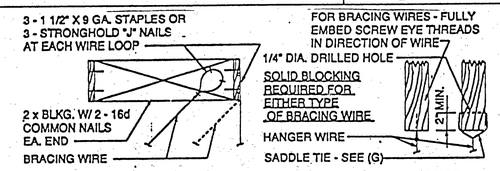
- 120V DUPLEX RECEPTACLE +15" MIN.
- 120V SINGLE RECEPTACLE +15" MIN.
- 220V RECEPTACLE
- 120V DUPLEX WEATHERPROOF RECEPTACLE +15" MIN.
- QUAD. RECEPTACLE +15" MIN.
- FLOOR RECEPTACLE
- TELEPHONE JACK +15" MIN.
- FLOOR TELEPHONE JACK
- SINGLE POLE SWITCH +48" MIN.
- THREE WAY SWITCH +48" MIN.
- FOUR WAY SWITCH +48" MIN.
- DIMMER SWITCH +48" MIN.
- TIMER SWITCH +48" MIN.
- WEATHER PROOF SWITCH +48" MIN.
- JUNCTION BOX +48" MIN.(NON-SEALED)
- THERMOSTAT +60" MIN.(SEALED)
- EXTERIOR LIGHT FIXTURE
- ELEC. PANEL
- TV OUTLET LOCATION +12" MIN.
- COMMUNICATIONS OUTLET LOCATION

MECHANICAL NOTES

1. SEE ARCHITECTURAL DRAWINGS TO COORDINATE THE EXACT LOCATION OF THE AIR CONDITIONING EQUIPMENT & AIR OUTLETS.
2. DUCT SIZES ARE CLEAR INSIDE DIMENSION, ALLOW FOR SOUND LINING THICKNESS.
3. INSULATED FLEXIBLE DUCTS SHALL BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS AND WITHOUT SHARP BENDS.
4. ALL NEW H.V.A.C. EQUIP. & COMPONENTS SHALL MEET ALL REQUIREMENTS OF THE CURRENT BUILDING ENERGY STANDARDS FOR THE STATE OF CALIFORNIA.

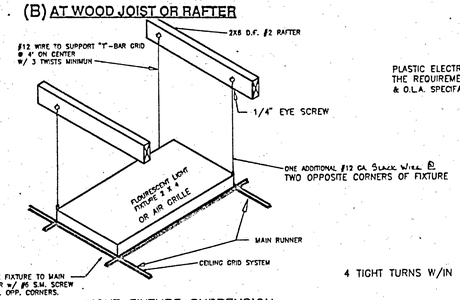


(A) WOOD JOIST OR RAFTER



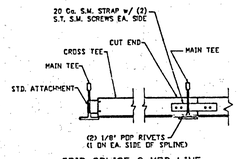
(C) AT WOOD JOIST OR BLOCK — (D) TO BOTTOM OF JOIST

(B) AT WOOD JOIST OR RAFTER



LIGHT FIXTURE SUSPENSION

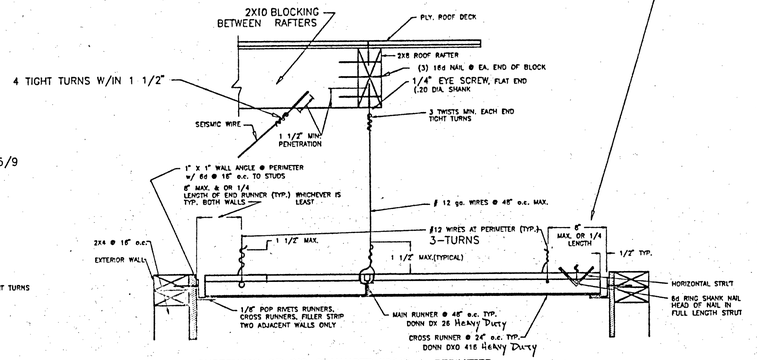
NOTE: LIGHT FIXTURE WEIGHT SHALL NOT EXCEED 56 POUNDS



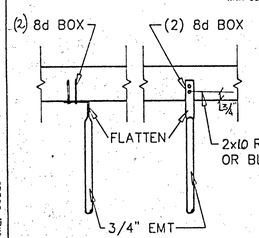
GRID SPLICE @ MOD LINE

PLASTIC ELECTRIC DIFFUSERS MUST MEET THE REQUIREMENTS OF SEC. 5209 , UBC , (1988) & O.L.A. SPECIFACTIONS

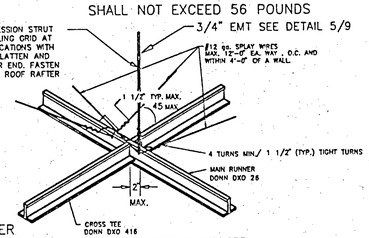
NOTCHING OF HORIZONTAL STRUTS IS PERMITTED ONLY AT INTERSECTIONS WITH RUNNERS OR CROSS "T". NAIL AT ENDS OF HORIZ. STRUTS SHALL BE PLACED WITH HEAD TOWARD C.L. OF SPAN OF STRUT



SUSPENDED CEILING @ HANGER WIRES & PERIMETER



COMPRESSION STRUT @ RAFTER



SEISMIC BRACING & CEILING SUPPORT

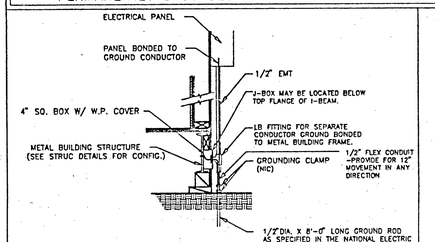
3 / 9 CEILING DETAILS See Sheet 8 For Ceiling Notes — N.T.S.

ALTERNATE CEILING SYSTEM:
CHICAGO METALLIC
MAIN TEE: #200 HEAVY DUTY
CROSS TEE: #1210

SHEET NOTES

1. GROUNDING ROD, GROUNDING CLAMPS, AND GROUNDING ROD INSTALLATION ARE NOT PROVIDED BY DESIGNED MOBILE SYSTEMS, IND. INC.
2. ALL RECEPTACLES INSTALLED @ +15" A.F.F. TO CENTER OF BOX U.N.O.
3. ALL WORK TO BE IN CONDUIT, 1/2" TRADE SIZE MIN.
4. ALL POWER CIRCUITS SHALL BE GROUNDED PER C.E.C.
5. FIRE ALARM SYSTEM IS CONDUIT ONLY W/ PULL CORD.
6. ALL ELECTRICAL INSTALLATION FOR THE BUILDING AND THE SITE ELECTRICAL SERVICE SHALL BE IN ACCORDANCE WITH THE CEC TITLE 8, TITLE 24 AND 19, CODE OF REGULATIONS, AND LOCAL UTILITY REQUIREMENTS.
7. THE COMPLETE ELCTRICAL INSTALLATION INCLUDING RACEWAYS, FIXTURES, OUTLETS MOTORS, EQUIPMENT ENCLOSURES, AND METAL BUILDINGS SHALL BE EFFECTIVELY AND PERMANENTLY GROUNDED IN ACCORDANCE WITH THE CEC AND CCR, TITLES.
8. ELECTRIC PANEL SUPPLIED IS RATED AT 10,000 AIC. THE ELECTICAL SERVICE SUPPLIED TO THIS PANEL SHALL NOT EXCEED THE PANELBOARD RATING.
9. DESIGNED MOBILE SYSTEMS HAS NO CONTROL OVER SITE ELECTICAL CONDITIONS AND IT IS THE RESPONSIBILITY OF THE SITE ELECTRICAL CONTRACTOR AND/OR SCHOOL DISTRICT TO CONFORM TO ANY REQUIREMENTS LISTED ABOVE NOT IN DESIGNED MOBILE SYSTEM'S SCOPE OF WORK.

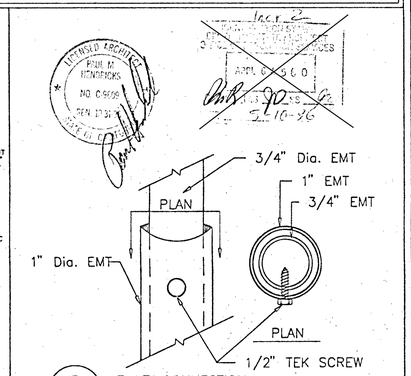
THE H.V.A.C. UNIT FEEDER CIRCUIT BREAKER, FEEDER- PANEL CIRCUIT BREAKER, FEEDER WIRE, UNIT DISCONNECT AND FUSES (WHERE USED)- IS TO BE COORDINATED WITH THE UNIT NAME PLATE DATA AT THE TIME OF MANUFACTURE. H.V.A.C. UNITS HAVING KVA RATING LARGER THEN THAT INDICATED ON THIS PANEL SCHEDULE WILL NOT BE ALLOWED TO BE INSTALLED ON THIS BUILDING. IF 60 DEGREES C. WIRE IS TO BE USED IN THIS INSTALLATION, CALCULATIONS DEMONSTRATING AMPACITY DERATING FOR MAXIMUM ALLOWABLE AMBIENT TEMPERATURE MUST BE PROVIDED ON THE DRAWING.



NOTES:

1. SIZE OF CONDUCTORS SHALL COMPLY WITH C.E.C. TABLE 250-95. & 250-94
2. BOND SEPARATE CONDUCTORS FROM GROUND ROD TO ELECTRICAL PANEL AND TO METAL BUILDING FRAME (NEC 250-81) IN ADDITION TO THE DETAIL SHOWN ABOVE, BOND THE ELECTRICAL GROUND TO METAL WATER PIPE EMBEDDED AT LEAST 10 ft. INTO SOIL IF AVAILABLE (NEC 250-81 & 250-83).
3. ALL MODULES OF METAL FRAME BUILDINGS SHALL BE ELECTRICALLY BONDED TOGETHER (BOLTING ONLY IS NOT ACCEPTABLE BONDING.)
4. CHECK RESISTANCE TO GROUND. IF RESISTANCE EXCEEDS 25 OHMS, INSTALL ADDITIONAL GROUND RODS WITH CONDUCTORS AS SHOWN, SEPARATED AT LEAST 6'-0" UNTIL RESISTANCE IS REDUCED TO 25 OHMS OR LESS. (NEC 250-84) TESTING AND ADDITIONAL GROUND RODS N.I.C. TESTING SHALL BE WITNESSED BY THE TESTING FIELD INSPECTOR

4 / 9 SUGGESTED GROUNDING DETAIL — N.T.S. — GROUND ROD TO BE INSTALLED BY DISTRICT



5 / 9 E.M.T. CONNECTION — FULL

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APP: 02-122123 INC: A REVIEWED FOR SS ☑ FLS ☑ ACS ☑ DATE: 3/21/2024

desig
syste

P.O. Box 367
Patterson, California
95363
(209) 892-6296

Approval: Structural Engineer

REGISTERED PROFESSIONAL ENGINEER EDWARD D. LINDSAY No. 776 STRUCTURAL STATE OF CALIFORNIA

LICENSE EXPIRES 12-31-92

Approval: Structural Safety

IDENTIFICATION STAMP Department of General Services Office of the State Architect OCT 1990 Structural Safety Section Appl. # PC 147 Checked By

Approval: Fire Marshal

CALIFORNIA STATE FIRE MARSHAL APPROVED REVIEWED BY: DATE: 10-17-90 APPROVAL OF THIS PLAN DOES NOT AUTHORIZE OR APPROVE ANY VIOLATION OF ANY LAW, ORDINANCE OR REGULATION. APPROVAL IS SUBJECT TO FIELD INSPECTION. ONE SET OF APPROVED PLANS SHALL BE AVAILABLE ON THE PROJECT SITE AT THE TIME OF INSPECTION.

Approval: Access Compliance

OFFICE OF THE STATE ACCESS CONSULTANT PC 147 OCT 17 '90 APPLICATION FEE W. Jud Boles EX: 187

STATE OF CALIFORNIA Department of General Services MAY 17 1996 Division of the State Architect Regulation Services-Sacto

75 MPH EXP. 'C'
24x40 CLASSROOM
60 PSF SNOW LOAD

ELECTRICAL/MECHANICAL PLAN

Architect:

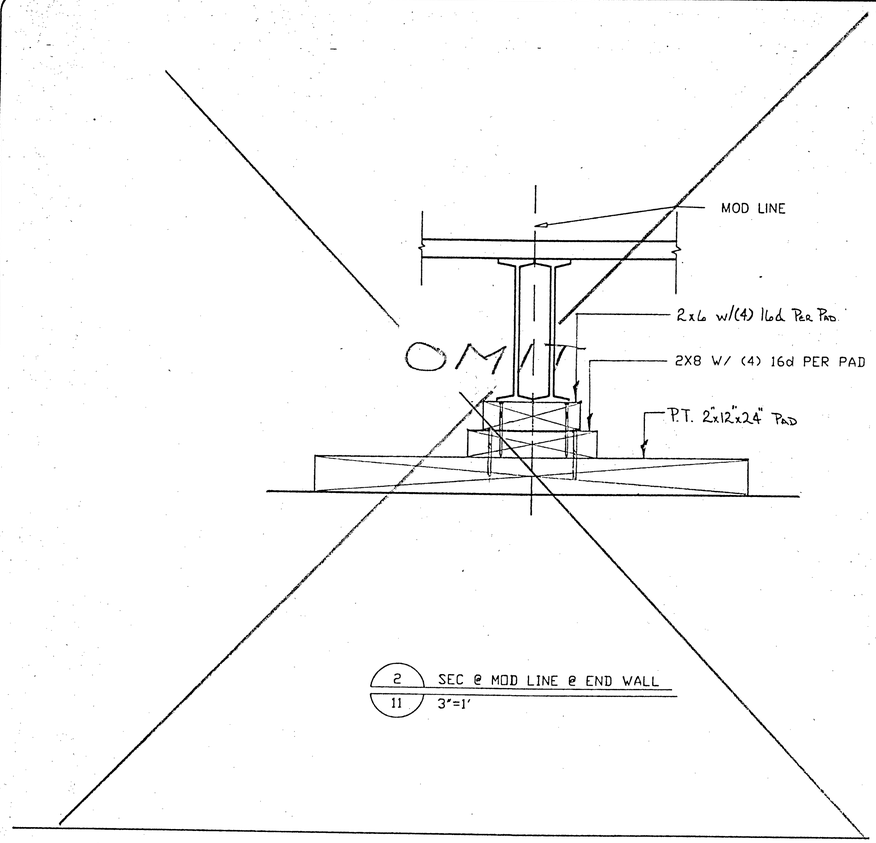
Paradise USD — DATE: 3/21/96 — JOB: 3594

Drawn	WS
Scale	NOTED
Date	6-22-90
Job	60SL

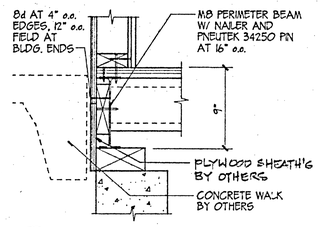
Sheet 9 Of Sheets

T & H 93-2-5 INCREMENT NO. 2

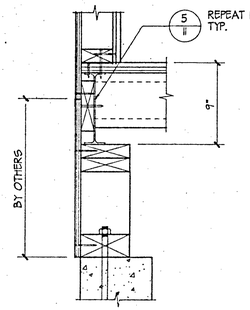
FILE NAME: 60SL9



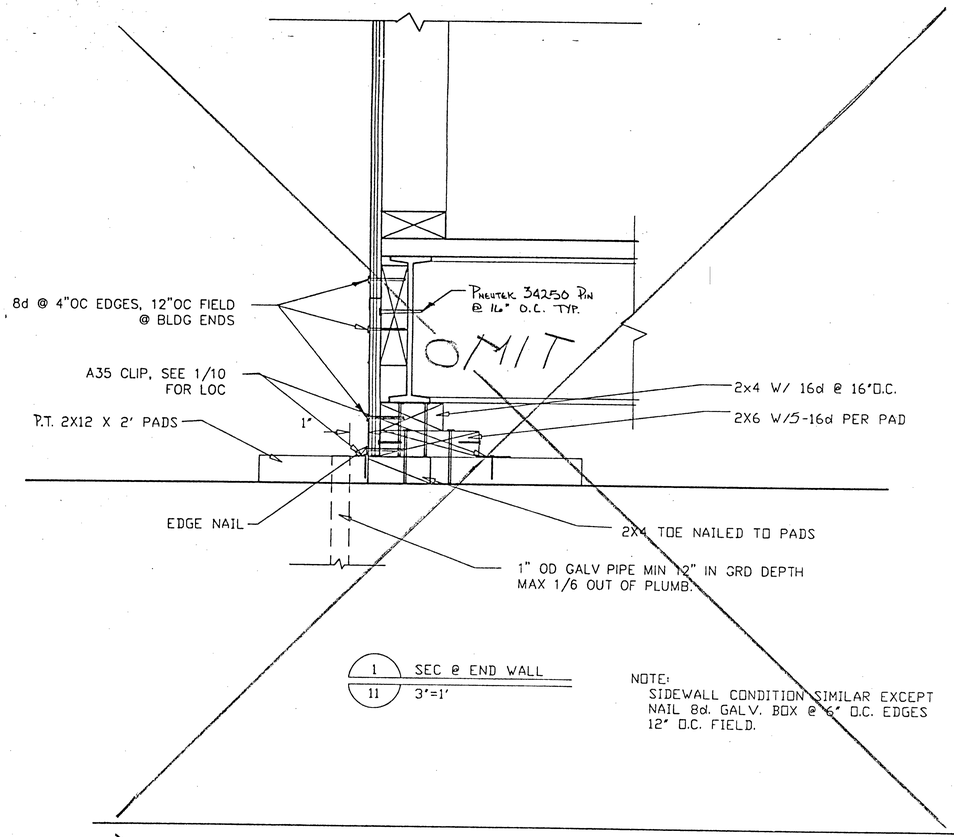
2 / 11 SEC @ MOD LINE @ END WALL
3"=1'



5 / II SECTION AT CONC. WALK
1 1/2" = 1'-0"

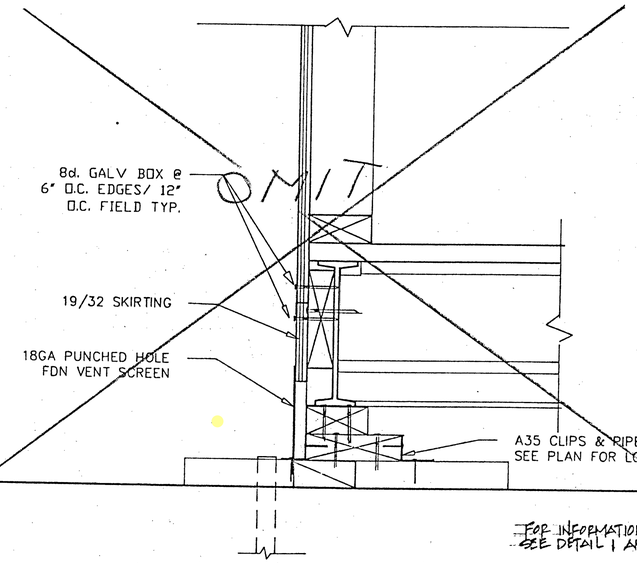


6 / II SECTION @ EXPOSED SIDE & REAR WALLS
1 1/2" = 1'-0"

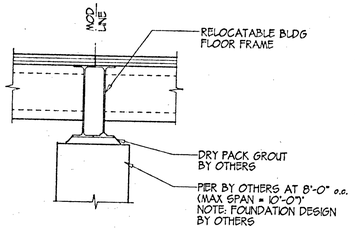


1 / 11 SEC @ END WALL
3"=1'

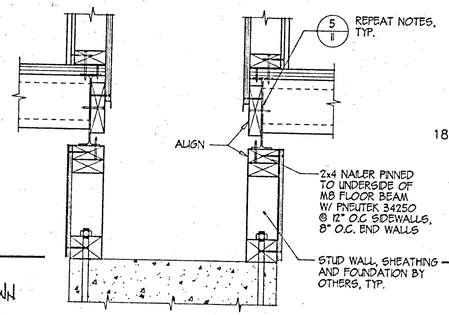
NOTE:
SIDEWALL CONDITION SIMILAR EXCEPT NAIL 8d. GALV. BOX @ 6" O.C. EDGES 12" O.C. FIELD.



3 / 11 SEC @ VENT
3"=1'

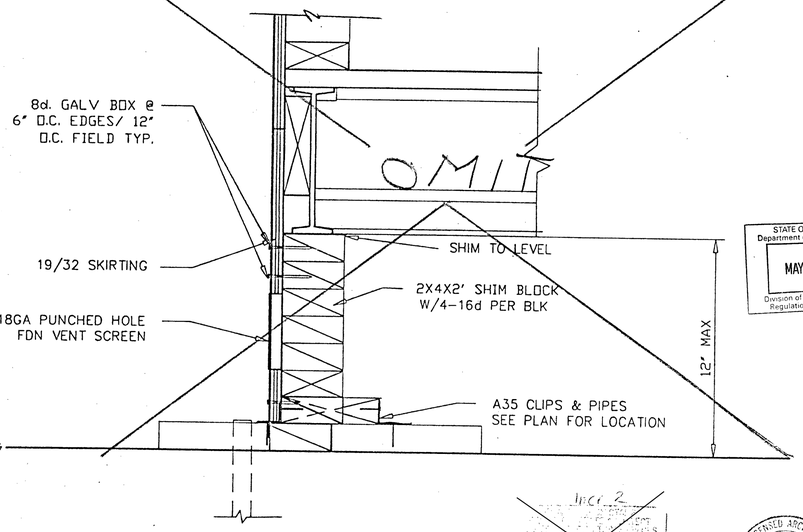


7 / II SECTION @ MOD LINE
1 1/2" = 1'-0"



FOR INFORMATION NOT SHOWN SEE DETAIL 1 ABOVE.

8 / II SECTION @ ADJACENT BUILDINGS
1 1/2" = 1'-0"



4 / 11 SHIMMED SEC @ VENT
3"=1'

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-122123 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 3/21/2024

P.O. Box 367
Patterson, California
95363
(209) 892-6298

Approval: Structural Engineer

REGISTERED PROFESSIONAL ENGINEER
CIVIL STRUCTURAL
No. 776
STATE OF CALIFORNIA

LICENSE EXPIRES 12-31-92

Approval: Structural Safety

IDENTIFICATION STAMP
Department of General Services
Office of the State Architect
OCT 1 1990
Structural Safety Section
Appl. #
Plancheckes By

Approval: Fire Marshal

CALIFORNIA STATE FIRE MARSHAL
APPROVED
APPROVAL OF THIS PLAN DOES NOT AUTHORIZE OR APPROVE ANY OMISSION OR DEVIATION FROM APPLICABLE REGULATIONS. FINAL APPROVAL IS SUBJECT TO FIELD INSPECTION. ONE SET OF APPROVED PLANS SHALL BE AVAILABLE ON THE PROJECT SITE AT ALL TIMES
REVIEWED BY

Approval: Access Compliance

OFFICE OF THE STATE ARCHITECT
ACCESS COMPLIANCE SECTION
PC 147 OCT 17 '90
APPLICATION NO.

STATE OF CALIFORNIA
Department of General Services
MAY 17 1996
Division of the State Architect
Regulation Services-Sacto

75 MPH EXP. 'C'
24 x 40 CLASSROOM
60 PSF SNOW LOAD

FOUNDATION DETAILS

Architect:

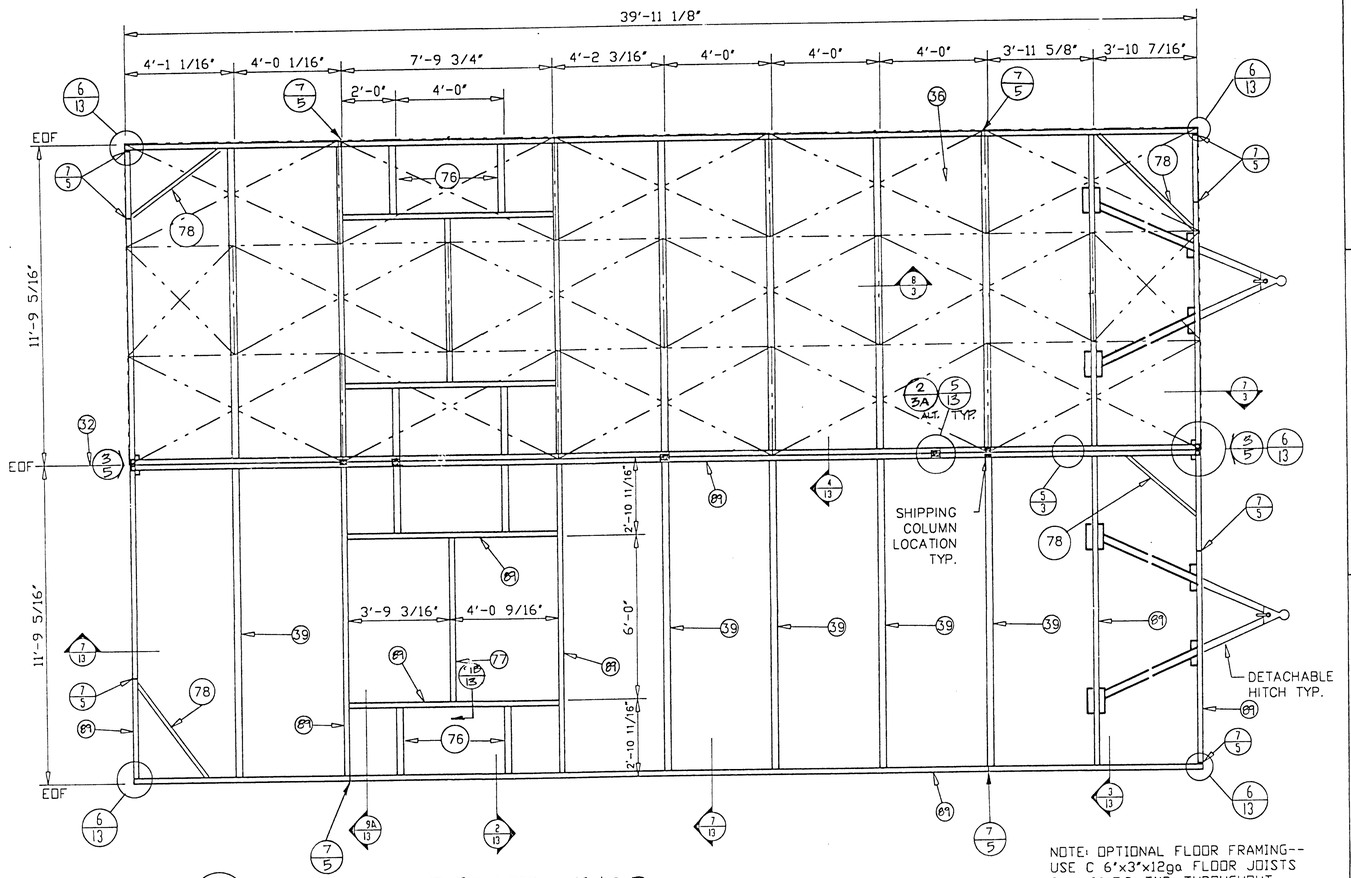
Paradise USD
DATE: 3/21/96 JOB: 3594

Drawn BP
Scale NOTED
Date 6-29-90
Job 60SL

Sheet 11 Of Sheets

T-111 #96-12-A
INCREMENT No. 2

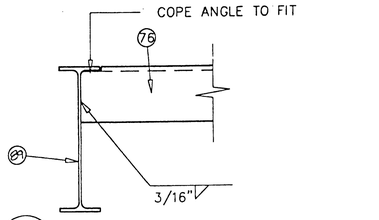
FILE NAME: 60SL11



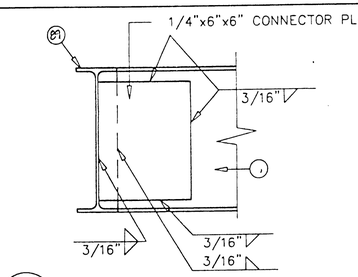
1 FLOOR FRAMING PLAN 50 PSF FLOOR LIVE LOAD
13 3/8"=1'-0"

NOTE: 1. ALL DIMENSIONS TO EDGE OF FLANGE U.N.O.
2. FOR CONCRETE FOUNDATION ONLY SEE SHT 14

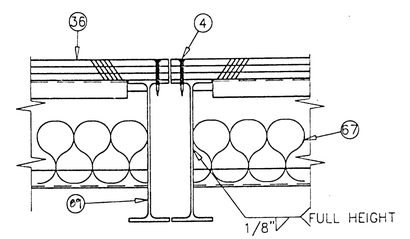
NOTE: OPTIONAL FLOOR FRAMING--
USE C 6"x3"x12ga FLOOR JOISTS
@ 4'-0" O.C. TYP. THROUGHOUT
WITH NO PROVISION FOR AXLES OR
HITCH. FLOOR PERIMETER FRAME
TO REMAIN M 8x6.5 BEAM



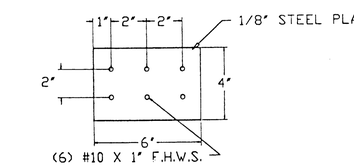
2 FLOOR FRAME TO ANGLE WELD
13 3"=1'-0"



3 FLOOR FRAME TO JOIST WELD
13 3"=1'-0"

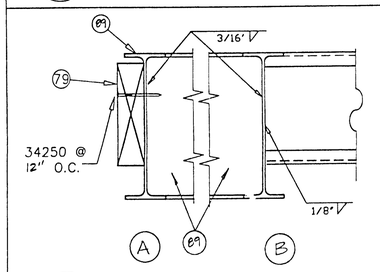


4 FLOOR FRAME @ MOD LINE
13 3"=1'-0"

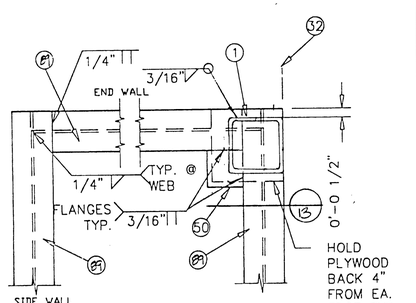


NOTE: 6 PER BUILDING
SEE FLOOR PLAN FOR LOCATION
ROUT FLOOR PLYWD. 1/8" FOR PLATE

5 FLOOR SPLICE PLATE
13 3"=1'-0"

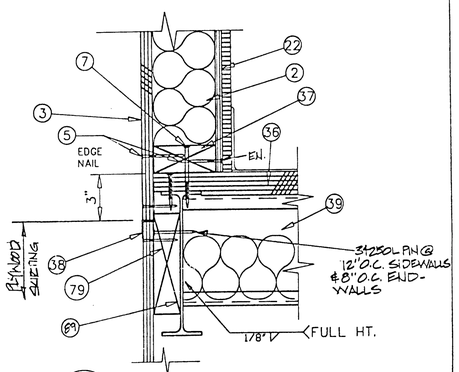


9 AXLE/FRAME SECTION
13 3"=1'-0"

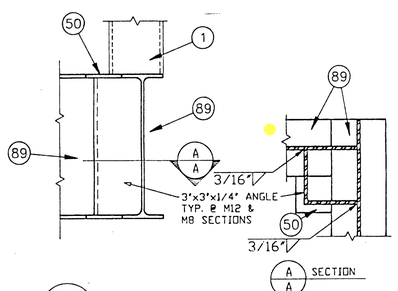


NOTE: COPE ALL END WALLS

6 FLOOR FRAME @ MOD LINE (TYP)
13 3"=1'-0"



7 FLOOR FRAME @ WALL
13 3"=1'-0"



6A DETAIL @ COLUMN
13 3"=1'-0"

NOTES

1 COLUMN: 3"x3"x3/16" SQ. TUBE
2 STUD: 2x4 16" O.C. @ SIDEWALLS; 12" O.C. @ ENDWALLS
3 5/8" EXT. PLYWOOD SIDING, SEE SPECS. SHEET 8
4 PNEUTEK PINS @ 6"o.c. AT EDGES 6"O.C. IN FIELD @ 4' Joist 10" O.C. IN FIELD @ 32" O.C. Joist
5 BOUNDARY NAILING: SEE NAILING SCHEDULE SHEET 2
6 FLOOR PERIMETER FRAME: M 12" X 11.8# I BEAM
ALTERNATE: Floor Frame Plan on Concrete SEE SHEET 13,14,15
7 PNEUTEK 34325L @ 12" o.c. @ SIDEWALLS & 8" O.C. @ ENDWALLS & 6" MAX. FROM END OF ANY PIECE TYP. @ ALL SILL PLATE CONNECTIONS U.N.O. SEE NOTE 85
8 PNEUTEK 34250L @ 12" o.c.
9 PREFORMED METAL ROOF EDGE
10 8d BOX @ 12" O.C. (GALV. WHERE EXPOSED TO WEATHER)
11 TRIM 1X2
12 NAILS: 8D @ 6" o.c.
13 RAFTER 2x10 @ 24" O.C.
14 PLYWOOD ROOF SHEATHING
15 ROOFING: 30 Ga. GALV. STANDING RIB MIN.
16 NAILS: 2-16D PER RAFTER
17 (1) 2x4 & (1) 2x6 DF TOP PLATES - NO SPLICE @ END WALLS.
18 TRIM: 2X10
19 NAIL: 16D @ 12" o.c.
20 NAIL16D @ 8" O.C
21 HEADER: 4X12 D.F.#2
22 3/8 CD PLYWOOD
23 SUSPENDED CEILING
24
25 PLYWOOD FILLER
26 RIM RAFTER: 2x10
27
28 2X4 NAILER
29 BOLTS: 5/8" DIA. M.B. SEE ROOF FRAMING PLAN FOR LOCATION
30 TRUSS @ RIDGE SEE SHEET 6
31 HANGER: SIMPSON LB210
32 MODULE LINE
33 DOUBLE 2x10 RAFTER
34 MOD TIE STRAP- 2 1/2"x 1/8" STRAP W/(12) 16d BOX
35
36 PLYWOOD FLOOR SHEATHING: 1 1/8" T&G STURDIFLOOR APA PS1-83 EXP. 1 ALL PLIES TO BE WOOD
37 SILL PLATE: 2X4 CONT.
38 Z-METAL STRIP: 3/4 x 26 Ga. X 5/8 X 3/4 x 26 Ga.
39 C 6"x3"x12ga
40 SIMPSON U210 JOIST HANGER
41 NAIL: 8D @ 12" o.c.
42 2x10 BLOCKING
43 STEEL STRAP: 2 1/2" X 1/8" W/(2) 5/8" BOLTS
44 BOUNDARY NAILING
45 STUDS: (3) 2x4 DF MIN.
46 H.V.A.C. UNIT: WEIGHT 475# TYP.
47 DOUBLE 2X4 W/16D BOX NAILS @" O.C.
48 HOLD-DOWN W/ (2) 5/8" BOLTS
49 L 1 1/2 X 1 1/2 X 1/8" X 18" LONG ATTACH TO A.C. W/4-#10 SELF-TAPPING GALV. S.M.S. & TO 2X4 FLAT W/(4) 5/16" X 2 1/2" LAG SCREWS.
50 STEEL PLATE: 2"x2"x1/4" WELD @ TOP FLANGES OF M8x6.5 BEAM
51
52 HEADER: 4x8 DF #2
53 TRIM: 1X4
54 HOLLOW METAL FRAME: 16ga W/LOCK-IN ANCHORS, 8d BOX TO STUDS
55 DOOR.
56 KING STUDS: 2-2x4 FULL HEIGHT (4) @ WINDOWS(3) @ MOD LINE,(2) @ DOORS
57 TRIMMER: 1- 2X4
58 DOOR BOTTOM.
59 ALUMINUM THRESHOLD W/(3)3/16"x1 3/8" F.H.W.S.
60 RAMP, SEE SHEET 12
61 G.I. FLASHING.
62 LAG SCREWS:(6) 3/8" X 2"
63 2X6 BLOCK
64 STEEL SUPPORT BRACKET SUPPLIED BY H.V.A.C. UNIT MANUFACTURER (11ga x 24")
65 PREFINISHED WOOD TRIM
66 DOUBLE 2X4 SILL
67 INSULATION: R-11 KRAFT FACED OVER NYLON MESH
68
69
70 TOENAIL: 16d @ 12" O.C.
71 SOFFIT: 3/8" PLYWOOD SIDING NO GROOVES
72 PRE-FINISHED PANELING
73 R-11 KRAFT FACED INSULATION
74 4" ROUND VENT
75 SEALANT
76 3"x3"x1/4" ANGLE
77 C 6"x2 1/2"x14ga
78 2"x2"x3/16" ANGLE BRACE FROM SIDE BEAM TO END BEAM @ HOLD DOWN LOCATIONS
79 2x6 DF NAILER CONT. @ PERIMETER
80 WINDOW: 8'-0"x4'-0" KDX SEE SPECS, SHEET 8
81 FIRE EXTINGUISHER-MOUNT ON WALL BRACKET @ 45" A.F.F. MAX
82 NOT USED
83 20 Ga.x3/4"x12" LONG STRAP w/ (4) 10d BOX Eq. END (2x10 BLOCK TO 2x4 STUD)
84 20 Ga.x3/4"x12" LONG STRAP w/ (4) 10d BOX Eq. END (4x HEADER TO 2x4 STUD)
85 SILL CONNECTION @ END WALL SHEAR PANELS ONLY: PNEUTEK 34325L @ 6" O.C. & 6" MAX. FROM END OF ANY PIECE.
86
87 2" ROUND VENT
88 (2) 2x4 TRIMMER @ 8' OPENING
89 M8x6.5
90 (2) 2x4 D.F. Nailer Cont. @ Perimeter.

* SOME ITEMS SHOWN ABOVE MAY NOT BE SHOWN ON THIS SHEET

design systems
P.O. Box 367
Patterson, California
95363
(209) 892-6298

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-122123 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 3/21/2024

Approval: Structural Engineer

REGISTERED PROFESSIONAL ENGINEER EDWARD LINDBERG No. 76 STRUCTURAL STATE OF CALIFORNIA

LICENSE EXPIRES 12-31-92

Approval: Structural Safety

IDENTIFICATION STAMP
Department of General Services
Office of the State Architect
OCT 1 1990
Structural Safety Section
Appl # PC 1947.1
Rukchecked By CWC YSF

Approval: Fire Marshal

CALIFORNIA STATE FIRE MARSHAL
APPROVED
APPROVAL OF THIS PLAN DOES NOT AUTHORIZE OR APPROVE ANY OMISSION OR DEVIATION FROM APPLICABLE REGULATIONS. FINAL APPROVAL IS SUBJECT TO FIELD INSPECTION. ONE SET OF APPROVED PLANS SHALL BE AVAILABLE ON THE PROJECT SITE AT THE TIME.
REVIEWED BY
10/17/90

Approval: Access Compliance

OFFICE OF THE STATE ACCESS COMPLIANCE
PC 147 OCT 17 '90
APPLICATION PER M. Jul Rules ETC.

75 MPH EXP. 'C'
24 x 40 CLASSROOM
60 PSF SNOW LOAD

ALTERNATE FLOOR FRAMING PLAN FOR CONCRETE FOUNDATION ONLY

Architect:

Paradise USD | DATE: 3/21/96 | JOB: 3594

STATE OF CALIFORNIA
Department of General Services
MAY 17 1996
Division of the State Architect
Regulation Services-Sacto

Drawn	BP
Scale	NOTED
Date	6-29-90
Job	60SL
Sheet	13 Of Sheets

FILE NAME: 60SL3

INSPECTOR'S No. 2

MOBILE MODULAR MANAGEMENT
11450 MISSION BLVD.
MIRA LOMA, CA 91752
(800) 944-3442 FAX (951) 360-6620

PC 04-118901

ALTERATIONS TO EXISTING STOCKPILES FOR ACCESSIBLE RAMPS - HANDRAIL AND UPRIGHT EXTENSION

STATE OF CALIFORNIA-2018 IBC/2019 CBC

APPROVED STOCKPILE A NUMBERS APPLICABLE TO THIS PC PLAN

Manufacturer	A No.	Manufacturer	A No.	Manufacturer	A No.	Manufacturer	A No.
AM	A01101536	AM	A58704	EN	A02108288	MT	A04102029
AM	A01101842	AM	A59780	EN	A02110147	MT	A04102365
AM	A02100277	AM	A61254	EN	A02110148	MT	A04102339
AM	A02100586	AM	A62111	EN	A02110149	MT	A04102365
AM	A02100727	AM	A62118	EN	A02110281	MT	A04103001
AM	A02100728	AM	A64301	EN	A02110718	MT	A04103044
AM	A02100992	AM	A65821	EN	A57820	MT	A04103186
AM	A02101029	AM	A69217	EN	A59785	MT	A04103205
AM	A02101106	AM	A69866	EN	A63749	MT	A04103310
AM	A02101284	AMSI	A68218	EN	A65586	MT	A04103621
AM	A02101285	AU	A03107543	MB	A04101905	MT	A04104812
AM	A02101583	AU	A04101310	MB	A04102291	MT	A04105219
AM	A02102021	AU	A04101502	MB	A04103266	MT	A04105399
AM	A02102043	AU	A04105339	MB	A04103407	MT	A04105400
AM	A02102798	AU	A04105437	MB	A04103554	MT	A04105434
AM	A02103575	AU	A04105454	MB	A04103659	MT	A04105483
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AM	A02103809	AU	A04106096	MB	A04104492	MT	A04106777
AM	A02103810	AU	A04106097	MB	A04104623	MT	A04107313
AM	A02104419	AU	A04106617	MB	A04104624	MT	A101343
AM	A02104420	AU	A100408	MB	A04105527	MT	A54130
AM	A02104635	AU	A55943	MB	A04105913	MT	A54198
AM	A02104636	AU	A56725	MB	A04106102	MT	A60811
AM	A02105185	AU	A58433	MB	A04106168	MT	A61172
AM	A02105634	AU	A58551	MB	A04106292	MT	A61516
AM	A02105665	AU	A58653	MB	A04106466	MT	A64873
AM	A02105807	AU	A61228	MB	A04106467	MT	A65920
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AM	A02106048	AU	A62105	MB	A04107100	MT	A67332
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AM	A02106184	AU	A63817	MB	A04107207	MT	A67650
AM	A02106185	AU	A64839	MB	A04107230	MT	A67816
AM	A02106214	AU	A65301	MB	A04107251	MT	A67817
AM	A02106215	AU	A65601	MB	A04109450	MT	A68292
AM	A02106239	AU	A67425	MB	A101926	MT	A69746
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AM	A02107390	EN	A02105136	MT	A01100908	SI	A04109641
AM	A02108178	EN	A02105898	MT	A01100910	SI	A04109688
AM	A02108179	EN	A02105944	MT	A02105794	SI	A04109752
AM	A02109934	EN	A02105945	MT	A04100727	SI	A04109754
AM	A02110035	EN	A02106008	MT	A04100729	SI	A04110055
AM	A54164	EN	A02106895	MT	A04100730	SI	A04110142
AM	A54592	EN	A02107272	MT	A04100811	SI	A04110549
AM	A55949	EN	A02107401	MT	A04101194	SI	A04110811
AM	A55969	EN	A02107484	MT	A04101767	SI	A04111152
AM	A58499	EN	A02108109	MT	A04101891	WS	A04107179
		EN	A02108132	MT	A04101348		

AM = American Modular Systems AU = Aurora Modular MB = Modular Structures Int'l SI = Silver Creek
AMSI = American Modular Structures EN = Enviroplex MT = Modtech WS = Walden Structures

TITLE 24 CODES:

2019 California Administrative Code (CAC)..... (Part 1, Title 24, CCR)

2019 California Building Code (CBC), Volumes 1 and 2 ..... (Part 2, Title 24, CCR)

(2018 International Building Code with 2019 California amendments)

2019 California Electrical Code ..... (Part 3, Title 24, CCR)

(2017 National Electrical Code with 2019 California amendments)

2019 California Mechanical Code (CMC)..... (Part 4, Title 24, CCR)

(2018 Uniform Mechanical Code with 2019 California amendments)

2019 California Plumbing Code (CPC) ..... (Part 5, Title 24, CCR)

(2018 Uniform Plumbing Code with 2019 California amendments)

2019 California Energy Code ..... (Part 6, Title 24, CCR)

2019 California Fire Code (CFC) ..... (Part 9, Title 24, CCR)

(2018 International Fire Code with 2019 California Amendments)

2019 California Green Building Standards Code.....(Part 11, Title 24, CCR)

2019 California Referenced Standards Code.....(Part 12, Title 24, CCR)

REFERENCE CODE SECTIONS FOR APPLICABLE STANDARDS:

2019 CBC, Chapter 35

2019 CFC, Chapter 80

NOTES TO SITE ADAPT ARCHITECT

1. SITE APPLICATION ARCHITECT TO SUBMIT EXISTING DSA APPROVED RAMP FOUNDATION PLAN FOR REINSTALLATION.
2. SITE APPLICATION ARCHITECT TO PROVIDE DSA APPLICATION NUMBER(S) OF THE EXISTING BUILDINGS TO SHOW THAT THE EXISTING RAMPS WERE CONSTRUCTED PER AN APPROVED PC AND TO VERIFY THAT THE ORIGINAL RAMP & LANDING CONSTRUCTION IS CERTIFIED.
3. THIS PC IS ONLY APPLICABLE TO EXISTING RAMP & LANDINGS THAT HAVE CLOSED WITH CERTIFICATION BY DSA.
4. THIS PC MODIFIES EXISTING RAMP & LANDINGS TO ADD A 12" HANDRAIL EXTENSION AT THE RAMP TO LANDING TRANSITION AND TO CORRECT 34" MIN. HANDRAIL HEIGHT.
5. DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE SHALL VERIFY BY APPROPRIATE MEANS, SUBJECT TO DSA APPROVAL, AND SUBMIT A STAMPED AND SIGNED LETTER CERTIFYING THAT THE BUILDING CONFORMS TO THE ORIGINALLY APPROVED PLANS AND SPECIFICATIONS AND HAS NOT SUFFERED STRUCTURAL DETERIORATION, INCLUDING BUT NOT LIMITED TO RUST, DRY ROT, TERMITE DAMAGE, ETC. OR HAS BEEN STRUCTURALLY ALTERED.
6. NOTE TO SITE ADAPT ARCHITECT FOR PARTICULAR PROJECT SITE APPLICATION USE OF THESE DRAWINGS.
   a. VERIFY ADDITIONAL STOCKPILE DRAWINGS ARE PROVIDED FOR THE RELOCATED RAMP AND HANDRAIL.
   b. VERIFY THAT THE SPECIFIED A# FOR THE STOCKPILE DRAWING(S) ACCOMPANYING THIS ALTERATION TO STOCKPILE SET OF DRAWINGS FOR THE PARTICULAR PROJECT SITE APPLICATION HAVE BEEN CERTIFIED.
   c. VERIFY THAT RAMP VERTICAL POST MATERIAL DETAILS SHOWN IN ACCOMPANYING A# STOCKPILE DRAWING(S) MEET OR EXCEED THOSE SHOWN IN THIS ALTERATION TO STOCKPILE SET OF DRAWINGS.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP. 04-122551 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/13/2023

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-122123 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 3/21/2024

PRE-CHECK (PC) DOCUMENT
CODE: 2019 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED

MOBILE MODULAR MANAGEMENT
11450 MISSION BLVD.
MIRA LOMA, CA 91752

HANDRAIL EXTENSION OPTION
2019 CALIFORNIA BUILDING CODE
RAMP/LANDING MODIFICATIONS FOR EXISTING RAMP AND LANDINGS

COVER SHEET

SITE SPECIFIC APPROVAL	DSA PC STAMP	APPROVAL - PC ENGINEER OF RECORD
	PRE-CHECK (PC) DOCUMENT CODE: 2019 CBC A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED	REGISTERED PROFESSIONAL ENGINEER JAMES T. SIMPSON No.3602 STRUCTURAL STATE OF CALIFORNIA Date Signed: February 11, 2020

STRUCTURAL ENGINEERS, INC.
4091 RIVERSIDE DRIVE, SUITE 114
CHINO, CALIFORNIA 91710
MEMBER
STRUCTURAL ENGINEERS ASSOCIATION OF CALIFORNIA
AMERICAN CONCRETE INSTITUTE
(909) 613-0234
Fax(909) 613-0238

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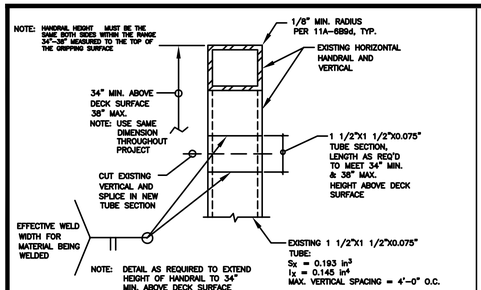
TABLE OF CONTENTS

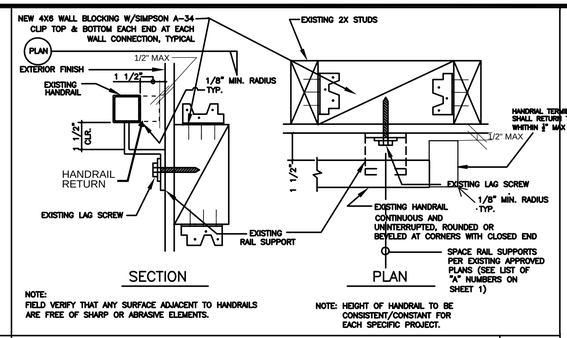
Sheet No	Description	Dated	Revised
1	COVER SHEET	01 FEB 2020	
2	TYPICAL PLAN, DETAILS & SPECIFICATIONS	01 FEB 2020	
3	OPTIONAL RAMP & LANDINGS PLANS	01 FEB 2020	
4	DSA 103: LISTING OF STRUCTURAL TEST & SPECIAL INSPECTIONS	01 FEB 2020	

DRAWN
CHECKED
DATE 01 FEB 2020
SCALE
JOB NO.

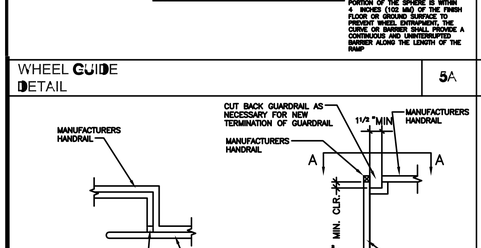
1 OF 3 SHEETS



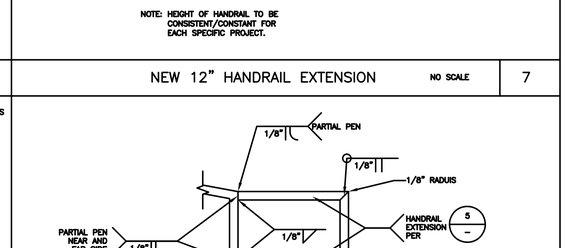
NEW EXTENSION OF EXISTING VERTICALS SCALE: 1 1/2"=1'-0" | 2



NEW HANDRAIL CONNECTION AT WOOD BLOCKING AS REQUIRED – FIELD VERIFY IF NEEDED SCALE: 3"=1'-0" | 1



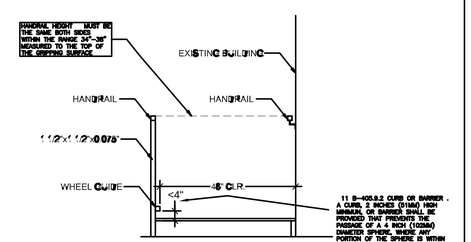
HANDRAIL CLEARANCE DETAIL | 4



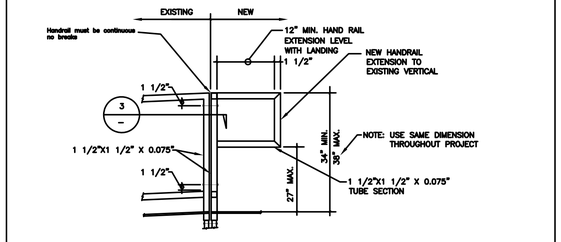
NEW CONNECTION TUBE TO TUBE | 3

TYPICAL EXISTING WALL MOUNTED HANDRAIL | 6

EXISTING HANDRAIL EXTENSION NO SCALE | 5



WHEEL GUIDE DETAIL | 5A



NEW 12" HANDRAIL EXTENSION NO SCALE | 7

GUARDRAIL MODIFICATION NO SCALE | 9

12" HANDRAIL EXTENSION NO SCALE | 8

RAMP/LANDING PLAN – SEE SHEET 1
FOR LIST OF DSA APPLICATION/PC NUMBERS THIS PLAN APPLIES

SCALE: 1/2"=1'=0"

NOTES:

CODES:
2018 INTERNATIONAL BUILDING CODE (IBC)/2019 CALIFORNIA BUILDING CODE (CBC)

DESIGN LOADS:
RAMP LIVE LOAD: 100 PSF
WIND LOAD: 110 MPH EXPOSURE "C", K_{ZT} = 1.0
WIND PER ASCE 7-10 CHAPTER 29, (RISK) CATEGORY II

SEISMIC:
Ss= 2.85 Fa= 1.0
S1= 1.24 Fv= 1.5
SITE CLASS = D SEISMIC DESIGN CATEGORY = E
Sds= 1.90 I = 1.0
Sd1 = 1.24 R = 3.5

NO SNOW LOADING

NO FLOOD LOADING

HANDRAIL & GUARD RAIL LOADS:
50#/FT
200# POINT LOAD

ALLOWABLE SOIL BEARING = 1000 PSF
MATERIAL SPECIFICATIONS:
STEEL: TYPICAL TUBE STEEL ASTM A500 GRADE A (Fy = 39KSI FOR SHAPED TUBING & Fy = 33 KSI FOR ROUND TUBING)
TUBE STEEL FOR HANDRAIL POSTS SHALL CONFORM TO ASTM A500 GRADE A
ALL STEEL TO BE COATED WITH A RUST INHIBITIVE COATING
STEEL PLATE ASTM A36

BOLTS: ASTM A307 (GALVANIZED)

WELDS: ALL WELDING SHALL CONFORM TO "AMERICAN WELDING SOCIETY D-1.3-08 FOR SHEET STEEL"
ELECTRODES SHALL BE E70XX.

GENERAL NOTES:
1) RAMPS HAVING SLOPES STEEPER THAN 1 VERTICAL TO 20 HORIZONTAL SHALL HAVE LANDINGS AT TOP AND BOTTOM AND AT LEAST ONE INTERMEDIATE LANDING SHALL BE PROVIDED FOR EACH 30" OF RISE, PER CBC 11B-405.7.

2) LOCATION OF LANDINGS.
LANDINGS SHALL BE PROVIDED AT TOP AND BOTTOM OF EACH RAMP.
INTERMEDIATE LANDINGS SHALL BE PROVIDED AT INTERVALS NOT EXCEEDING 30 INCHES OF VERTICAL RISE AND AT EACH CHANGE OF DIRECTION . LANDINGS ARE NOT CONSIDERED IN DETERMINING THE MAXIMUM HORIZONTAL DISTANCE OF EACH RAMP.

NOTE: EXAMPLES OF RAMP DIMENSIONS ARE:

SLOPE	MAX. RISE (INCHES)	MAX. HORIZONTAL PROJECTION
1:12	30	30'-0"
1:16	30	40'-0"
1:20	30	50'-0"
1:15	30	37'-6"

2. SIZE OF TOP LANDINGS. TOP LANDINGS SHALL NOT BE LESS THAN 60 INCHES WIDE AND SHALL HAVE A LENGTH OF NOT LESS THAN 60 INCHES IN THE DIRECTION OF RAMP RUN, PER CBC 11B-405.7.2 AND .3.

3) DOORS IN ANY POSITION SHALL NOT REDUCE THE MINIMUM DIMENSION OF THE LANDING TO LESS THAN 42" AND SHALL NOT REDUCE THE REQUIRED WIDTH BY MORE THAN 3" WHEN FULLY OPENED, CBC 11B-405.7.5.

4) THE SURFACE OF RAMPS SHALL BE ROUGHED OR SHALL BE OF SLIP-RESISTANT MATERIAL, TYP. FOR LANDINGS & STAIRS.

5) RAMPS REQUIREMENTS SHALL BE PER CBC 11B-405.

6) RAMPS AND STAIRWAYS USED AS EXIT SHALL CONFORM TO CBC SEC. 1009 SEC. 1010, CHAPTER 11B AND 11B-405.5.

7) HANDRAILS AND GUARDRAILS SHALL CONFORM TO CBC 11B-405.8 (RAMP), 11B-504 (STAIRS).

8) LANDING WIDTH. AT BOTTOM AND INTERMEDIATE LANDINGS, THE WIDTH SHALL BE AT LEAST THE SAME AS REQUIRED FOR RAMPS, CBC 11B-405.7.

9) THE CLEAR WIDTH OF A RAMP RUN SHALL BE 48" MIN.

10) SLOPE RAMPS AND LANDINGS AS REQUIRED TO PREVENT ACCUMULATION OF WATER ON WALKING SURFACES.

11) ALL WORK SHALL CONFORM TO TITLE 24 CALIFORNIA CODE OF REGULATIONS (CCR).

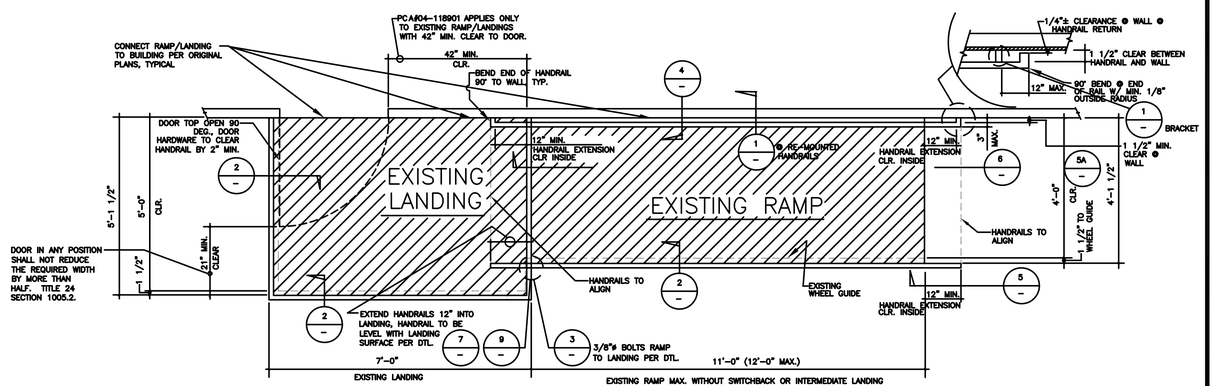
12) CHANGES TO APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY AN ADDENDUM OR CONSTRUCTION CHANGES APPROVED BY THE DIVISION OF THE STATE ARCHITECT AS REQUIRED BY SECTION 4-338, PART 1 TITLE 24, CCR.

13) A PROJECT INSPECTOR EMPLOYED BY THE DISTRICT (OWNER) AND APPROVED BY THE DIVISION OF STATE ARCHITECT SHALL PROVIDE CONTINUOUS INSPECTION OF THE WORK. THE DUTIES OF THE INSPECTOR ARE DEFINED IN SECTION 4.342 PART 1 TITLE 24 CCR.

IN PLANT: SHOP WELDING INSPECTION AND MATERIAL VERIFICATION
SITE CONSTRUCTION: CLASS 4

DSA NOTES:
1. ALL WORK SHALL CONFORM TO THE 2019 EDITION OF TITLE 24 CALIFORNIA CODE OF REGULATIONS (CCR) COMPLIANCE WITH TITLE 24 FOR PARTS 1-6 & 9
2. TITLE 24 PARTS 1-5 MUST BE KEPT ON SITE DURING CONSTRUCTION.
3. CHANGE TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY ADDENDA OR CONSTRUCTION CHANGE DOCUMENT (CCD) APPROVED BY DSA, AS REQUIRED BY SECTION 4-338, PART 1, TITLE 24, CCR.
4. SUBSTITUTIONS AFFECTING ACS, FLS AND SS SHALL BE CONSIDERED AS A CONSTRUCTION CHANGE, AND SHALL BE APPROVED BY DSA PRIOR TO FABRICATION AND INSTALLATION.
   - SUBSTITUTIONS SHALL BE FOR ANY MATERIAL, SYSTEM OR PRODUCT THAT WOULD OTHERWISE BE REVIEWABLE DURING ROUTINE PLAN CHECK BY DSA – SSS, FLS, ACS OR ENERGY.
5. CONSTRUCTION CHANGES CCD'S MUST BE SIGNED BY ALL THE FOLLOWING:
   - A/E OF RECORD
   - OWNER (CONSTRUCTION CHANGES)
   - STRUCTURAL ENGINEER (WHEN APPLICABLE)
   - DELEGATED PROFESSIONAL ENGINEER (WHEN APPLICABLE)
   - DSA
6. A 'DSA CERTIFIED' PROJECT INSPECTOR EMPLOYED BY THE DISTRICT (OWNER) AND APPROVED BY DSA SHALL PROVIDE CONTINUOUS INSPECTION OF HT EWORK. THE DUTIES OF THE INSPECTOR ARE DEFINED IN SECTION 4-342, PART 1, TITLE 24, CCR.
   - A DSA ACCEPTED TESTING LABORATORY DIRECTLY EMPLOYED BY THE DISTRICT (OWNER) SHALL CONDUCT ALL THE REQUIRED TEST AND INSPECTIONS FOR THE PROJECT.
7. SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NON-COMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE DSA APPROVED DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24, CALIFORNIA CODE OF REGULATIONS, A CONSTRUCTION CHANGE DOCUMENT, OR A SEPARATE SET OF PLANS AND SPECIFICATIONS, DETAILING AND SPECIFYING THE REQUIRED REPAIR WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE REPAIR WORK.

Note: Verify the exit width & the number of required exits.



SITE SPECIFIC APPROVAL	DSA PC STAMP	APPROVAL – PC ENGINEER OF RECORD
	PRE-CHECK (PC) DOCUMENT CODE: 2019 CBC A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.	REGISTERED PROFESSIONAL ENGINEER JAMES T. SIMPSON No.3602 STRUCTURAL STATE OF CALIFORNIA Date Signed: February 11, 2020

STRUCTURAL ENGINEERS, INC.
4091 RIVERSIDE DRIVE, SUITE 114
CHINO, CALIFORNIA 91710

MEMBER
STRUCTURAL ENGINEERS ASSOCIATION OF CALIFORNIA
AMERICAN CONCRETE INSTITUTE
(909) 613-0234
Fax(909) 613-0238

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IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP. 04-122551 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/13/2023

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-122123 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 3/21/2024

PRE-CHECK (PC) DOCUMENT
CODE: 2019 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED

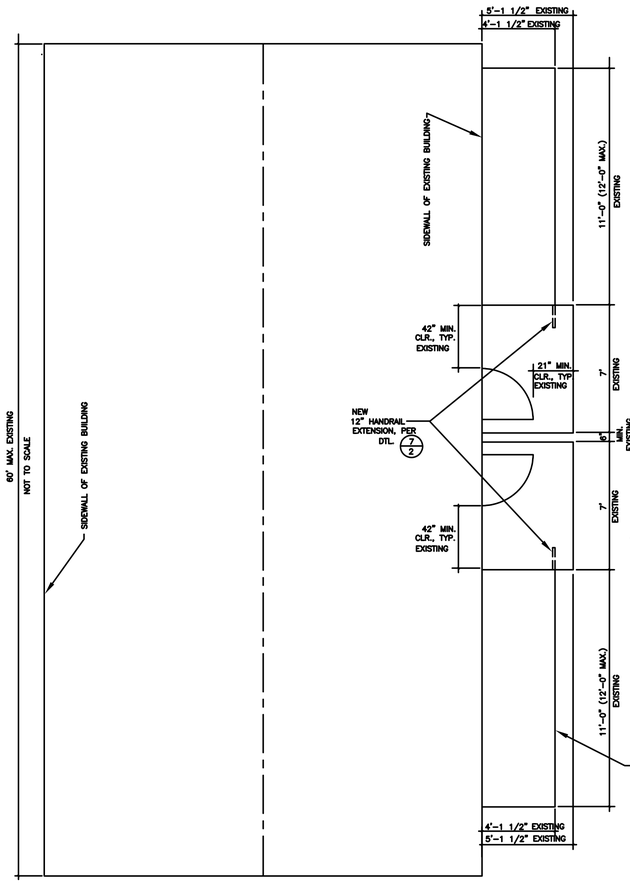
MOBILE MODULAR MANAGEMENT
11450 MISSION BLVD.
MIRA LOMA, CA 91752

HANDRAIL EXTENSION OPTION
2019 CALIFORNIA BUILDING CODE
RAMP/LANDING MODIFICATIONS FOR EXISTING RAMP AND LANDINGS

TYPICAL PLAN, DETAILS & SPECIFICATIONS

DRAWN
CHECKED
DATE 01 FEB 2020
SCALE
JOB NO.

2
OF 3 SHEETS



RAMP/LANDING PLAN

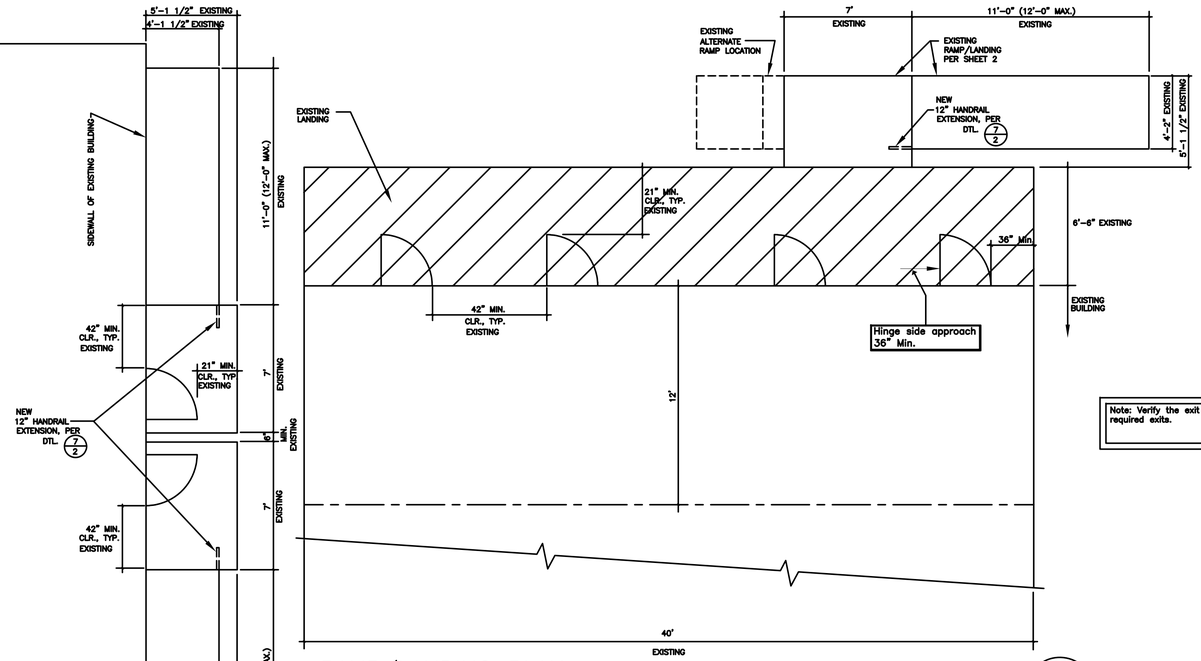
SCALE: 1/4"=1'-0"

NOTE: RAMP/LANDING CAN OCCUR AT ANY LOCATION ALONG LENGTH OF 6'-6" WIDE LANDING.

Note: Verify the exit width & the number of required exits.

NOTES: 1) RAMP/LANDING CAN OCCUR AT ANY LOCATION ALONG SIDEWALL OF BUILDING.
2) CAN PLACE ONE, TWO, OR MORE RAMP/LANDINGS ALONG SIDEWALL/ENDWALLS

4



RAMP/LANDING PLAN

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

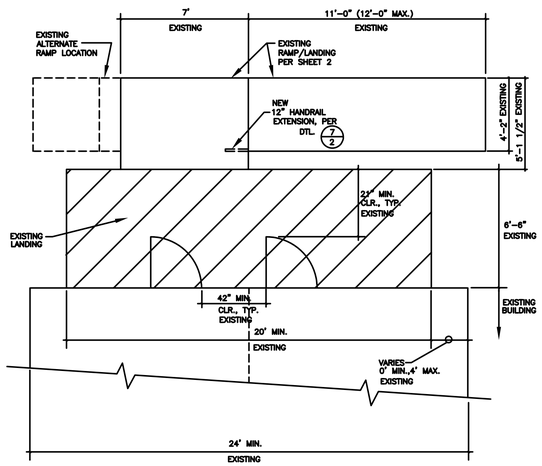
NOTE: RAMP/LANDING CAN OCCURE AT ANY LOCATION ALONG LENGTH OF 6'-6" WIDE LANDING.

NOTES: 1) RAMP/LANDING CAN OCCUR AT ANY LOCATION ALONG SIDEWALL OF BUILDING.
2) CAN PLACE ONE, TWO, OR MORE RAMP/LANDINGS ALONG SIDEWALL/ENDWALLS

Note: Verify the exit width & the number of required exits.

3

Note: Verify the exit width & the number of required exits.



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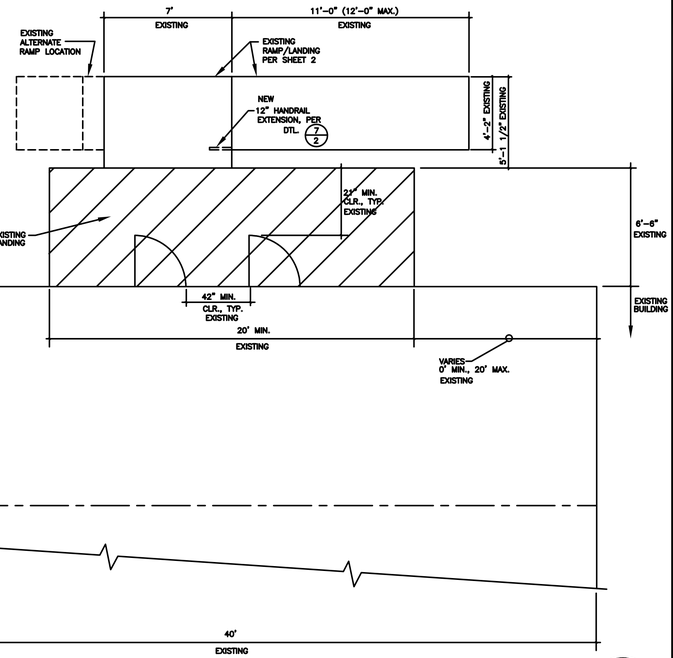

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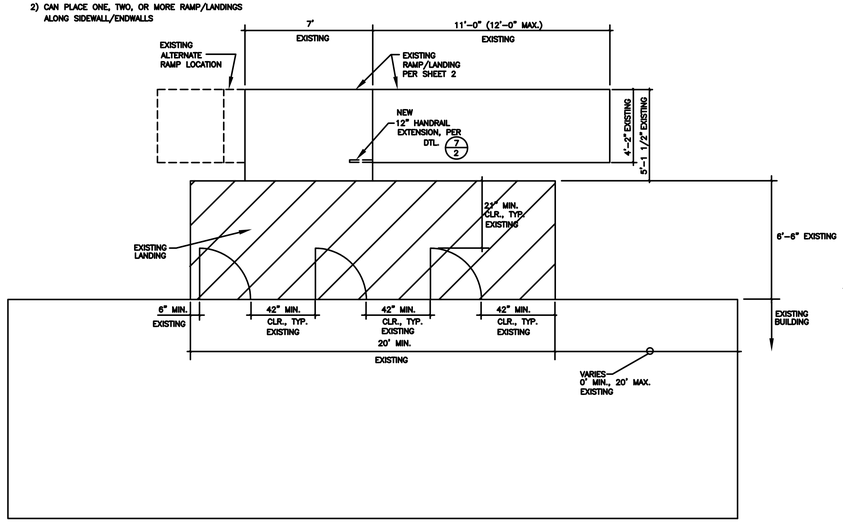
2



RAMP/LANDING PLAN

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

NOTE: RAMP/LANDING CAN OCCUR AT ANY LOCATION ALONG LENGTH OF 6'-6" WIDE LANDING.

Note: Verify the exit width & the number of required exits.

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5

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP. 04-122551 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 07/13/2023

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
APP: 02-122123 INC:
REVIEWED FOR
SS ☑ FLS ☑ ACS ☑
DATE: 3/21/2024

PRE-CHECK (PC) DOCUMENT
CODE: 2019 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED

MOBILE MODULAR MANAGEMENT
11450 MISSION BLVD.
MIRA LOMA, CA 91752

HANDRAIL EXTENSION OPTION
2019 CALIFORNIA BUILDING CODE
RAMP/LANDING MODIFICATIONS FOR EXISTING RAMP AND LANDINGS

OPTIONAL RAMP & LANDING PLANS

SITE SPECIFIC APPROVAL	DSA PC STAMP	APPROVAL – PC ENGINEER OF RECORD
	PRE-CHECK (PC) DOCUMENT CODE: 2019 CBC A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED.	REGISTERED PROFESSIONAL ENGINEER JAMES T. SIMPSON No.3602 STRUCTURAL STATE OF CALIFORNIA Date Signed: February 11, 2020

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DATE	01 FEB 2020
SCALE	
JOB NO.	

3

OF 3 SHEETS

DSA 103: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (Steel and Aluminum)

1705A.2.1, Table 1705A.2.1; AISC 303-16, AISC 341-16, AISC 358-16, AISC 360-16; AISI S100-16

Application Number: 04-118901 **School Name:** STATE WIDE PC **School District:** STATE WIDE PC

DSA File Number: **Increment Number:** **Date Submitted:** 2/10/2020

	17. STRUCTURAL STEEL, COLD-FORMED STEEL AND ALUMINUM USED FOR STRUCTURAL PURPOSES			
Material Verification and Testing:				
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☑	**a.** Verify identification of all materials and: • Mill certificates indicate material properties that comply with requirements. • Material sizes, types and grades comply with requirements.	**Periodic**	*	**Table 1705A.2.1 Item 3a–3c.** 2202A.1; AISI S100-16 Section A3.1 & A3.2, AISI S240-15 Section A3 & A5, AISI S220-15 Sections A4 & A6. * By special inspector or qualified technician when performed off-site.
☑	**b.** Test unidentified materials	**Test**	**LOR**	**2202A.1.**
☐	**c.** Examine seam welds of HSS shapes	**Periodic**	**SI**	DSA IR 17-3.
Inspection:				
☑	**d.** Verify and document steel fabrication per DSA-approved construction documents.	**Periodic**	**SI**	Not applicable to cold-formed steel light-frame construction, except for trusses (**1705A.2.4**).

	18. HIGH-STRENGTH BOLTS: RCSC 2014			
Material Verification and Testing of High-Strength Bolts, Nuts and Washers:				
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☐	**a.** Verify identification markings and manufacturer's certificates of compliance conform to ASTM standards specified in the DSA-approved documents.	**Periodic**	**SI**	**Table 1705A.2.1 Items 1a & 1b, 2202A.1;** AISC 360-16 Section A3.3, J3.1, and N3.2; RCSC 2014 Section 1.5 & 2.1; DSA IR 17-8 & DSA IR 17-9.
☐	**b.** Test high-strength bolts, nuts and washers.	**Test**	**LOR**	**Table 1705A.2.1 Item 1c, 2213A.1**; RCSC 2014 Section 7.2; DSA IR 17-8.
Inspection of High-Strength Bolt Installation:				
☐	**c.** Bearing-type ("snug tight") connections.	**Periodic**	**SI**	**Table 1705A.2.1 Item 2a, 1705A.2.6, 2204A.2**; AISC 360-16 J3.1, J3.2, M2.5 & N5.6; RCSC 2014 Section 9.1; DSA IR 17-9.

DSA 103: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (Steel and Aluminum)

1705A.2.1, Table 1705A.2.1; AISC 303-16, AISC 341-16, AISC 358-16, AISC 360-16; AISI S100-16

Application Number: 04-118901 **School Name:** STATE WIDE PC **School District:** STATE WIDE PC

DSA File Number: **Increment Number:** **Date Submitted:** 2/10/2020

☐	**d.** Pretensioned and slip-critical connections.	*	**SI**	**Table 1705A.2.1 Items 2b & 2c, 1705A.2.6, 2204A.2;** AISC 360-16 J3.1, J3.2, M2.5 & N5.6; RCSC 2014 Sections 9.2 & 9.3; DSA IR 17-9. * "Continuous" or "Periodic" depends on the tightening method used.

	19. WELDING:			**1705A.2.5, Table 1705A.2.1 Items 4 & 5;** AWS D1.1 and AWS D1.8 for structural steel; AWS D1.2 for Aluminum; AWS D1.3 for cold-formed steel; AWS D1.4 for reinforcing steel; DSA IR 17-3 (See Appendix for exemptions.)
Verification of Materials, Equipment, Welders, etc.:				
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☑	**a.** Verify weld filler material identification markings per AWS designation listed on the DSA-approved documents and the WPS.	**Periodic**	**SI**	DSA IR 17-3.
☑	**b.** Verify weld filler material manufacturer's certificate of compliance.	**Periodic**	**SI**	DSA IR 17-3.
☑	**c.** Verify WPS, welder qualifications and equipment.	**Periodic**	**SI**	DSA IR 17-3.
	19.1 SHOP WELDING:			
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☐	**a.** Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds.	**Continuous**	**SI**	**Table 1705A.2.1 Items 5a.1–4;** AISC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3.
☐	**b.** Inspect single-pass fillet welds ≤ 5/16", floor and roof deck welds.	**Periodic**	**SI**	**1705.A.2.2, Table 1705A.2.1 Items 5a.5 & 5a.6;** AISC 360-16 (and AISC 341-16 as applicable); DSA IR 17-3.
☐	**c.** Inspect welding of stairs and railing systems.	**Periodic**	**SI**	**1705A.2.1**; AISC 360-16 (and AISC 341-16 as applicable); AWS D1.1 & D1.3; DSA IR 17-3.
☐	**d.** Verification of reinforcing steel weldability other than ASTM A706.	**Periodic**	**SI**	**1705A.3.1**; AWS D1.4; DSA IR 17-3. Verify carbon equivalent reported on mill certificates.
☐	**e.** Inspect welding of reinforcing steel.	**Continuous**	**SI**	**Table 1705A.2.1 Item 5b, 1705A.3.1, Table 1705A.3 Item 2, 1903A.8;** AWS D1.4; DSA IR 17-3.

DSA 103: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (Steel and Aluminum)

1705A.2.1, Table 1705A.2.1; AISC 303-16, AISC 341-16, AISC 358-16, AISC 360-16; AISI S100-16

Application Number: 04-118901 **School Name:** STATE WIDE PC **School District:** STATE WIDE PC

DSA File Number: **Increment Number:** **Date Submitted:** 2/10/2020

	19.2 FIELD WELDING:			
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☐	**a.** Inspect groove welds, multi-pass fillet welds, single pass fillet welds > 5/16", plug and slot welds.	**Continuous**	**SI**	**Table 1705A.2.1 Items 5a.1–4;** AISC 360-16 (AISC 341-16 as applicable); DSA IR 17-3.
☑	**b.** Inspect single-pass fillet welds ≤ 5/16".	**Periodic**	**SI**	**Table 1705A.2.1 Item 5a.5;** AISC 360-16 (AISC 341-16 as applicable); DSA IR 17-3.
☐	**c.** Inspect end-welded studs (ASTM A-108) installation (including bend test).	**Periodic**	**SI**	**2213A.2**; AISC 360-16 (AISC 341-16 as applicable); AWS D1.1; DSA IR 17-3.
☐	**d.** Inspect floor and roof deck welds.	**Periodic**	**SI**	**1705A.2.2, Table 1705A.2.1 Item 5a.6;** AISC 360-16 (AISC 341-16 as applicable); AWS D1.3; DSA IR 17-3.
☐	**e.** Inspect welding of structural cold-formed steel.	**Periodic**	**SI***	**1705A.2.5; AWS D1.3; DSA IR 17-3.** The quality control provisions of AISI S240-15 Chapter D shall also apply. * May be performed by the project inspector when specifically approved by DSA.
☐	**f.** Inspect welding of stairs and railing systems.	**Periodic**	**SI***	**1705A.2.1;** AISC 360-16 (AISC 341-16 as applicable); AWS D1.1 & D1.3; DSA IR 17-3. * May be performed by the project inspector when specifically approved by DSA.
☐	**g.** Verification of reinforcing steel weldability.	**Periodic**	**SI**	**1705A.3.1**; AWS D1.4; DSA IR 17-3. Verify carbon equivalent reported on mill certificates.
☐	**h.** Inspect welding of reinforcing steel.	**Continuous**	**SI**	**Table 1705A.2.1 Item 5b, 1705A.3.1, Table 1705A.3 Item 2, 1903A.8;** AWS D1.4; DSA IR 17-3.

	20. NONDESTRUCTIVE TESTING: **1705A.2.1, Table 1705A.2.1; AISC 303-16, AISC 341-16, AISC 358-16, AISC 360-16; AISI S100-16**			
	Test or Special Inspection	**Type**	**Performed By**	**Code References and Notes**
☐	**a.** Ultrasonic	**Test**	**LOR**	**1705.A.2.1, 1705A.2.5;** AISC 341-16 J6.2, AISC 360-16 N5.5; ANSI/ASNT CP-189, SNT-TC-1A; AWS D1.1, AWS D1.8; DSA IR 17-2.

DSA 103: LISTING OF STRUCTURAL TESTS & SPECIAL INSPECTIONS (KEY TO COLUMN)

Application Number: 04-118901 **School Name:** STATE WIDE PC **School District:** STATE WIDE PC

DSA File Number: **Increment Number:** **Date Submitted:** 2/10/2020

KEY TO COLUMNS

1. TYPE	2. PERFORMED BY
Continuous – Indicates that a continuous special inspection is required	**GE –** Indicates that the special inspection shall be performed by a registered geotechnical engineer or his or her authorized representative.
Periodic – Indicates that a periodic special inspection is required	**LOR –** Indicates that the test or special inspection shall be performed by a testing laboratory accepted in the DSA Laboratory Evaluation and Acceptance (LEA) Program. See CAC Section 4-335.
Test – Indicates that a test is required	**PI –** Indicates that the special inspection may be performed by a project inspector when specifically approved by DSA.
	SI – Indicates that the special inspection shall be performed by an appropriately qualified/approved special inspector.

Name of Architect or Engineer in general responsible charge:
Name of Structural Engineer (When structural design has been delegated):
Signature of Architect or Structural Engineer: Date:

Appendix: Work Exempt from DSA Requirements for Structural Tests / Special Inspections

Application Number: 04-118901 **School Name:** STATE WIDE PC **School District:** STATE WIDE PC

DSA File Number: **Increment Number:** **Date Submitted:** 2/10/2020

	Welding:
☐	1. Solid-clad and open-mesh gates with maximum leaf span or rolling section for rolling gates of 10' and apex height less than 8'-0" above lowest adjacent grade. When located above circulation or occupied space below, these gates are not located within 1.5x gate/fence height (max 8'-0") to the edge of floor or roof.
☑	2. Handrails, guardrails and modular or relocatable ramps associated with walking surfaces less than 30" above adjacent grade (excluding post base connections per the 'Exception' language in Section 1705A.2.1); fillet welds shall not be ground flush.
☐	3. Non-structural interior cold-formed steel framing spanning less than 15'-0", such as in interior partitions, interior soffits, etc. supporting only self weight and light-weight finishes or adhered tile, masonry, stone, or terra cotta veneer no more than 5/8" thickness and apex less than 20'-0" in height and not over an exit way. Maximum tributary load to a member shall not exceed the equivalent of that occurring from a 10'x10' opening in a 15' tall wall for a header or king stud.
☐	4. Manufactured support frames and curbs using hot rolled or cold-formed steel (i.e., light gauge) for mechanical, electrical, or plumbing equipment weighing less than 2000# (equipment only) (connections of such frames to superstructure elements using welding will require special inspection as noted in selected item(s) for Sections 19, 19.1 and/or 19.2 of listing above).
☑	5. Manufactured components (e.g., Tolco, B-Line, Afcon, etc.) for mechanical, electrical, or plumbing hanger support and bracing (connections of such components to superstructure elements using welding will require special inspection as noted in selected item(s) for Sections 19, 19.1 and/or 19.2 of listing above).
☐	6. TV Brackets, projector mounts with a valid listing (see DSA IR A-5) and recreational equipment (e.g., playground structures, basketball backstops, etc.) (connections of such elements to superstructure elements using welding will require special inspection as noted in selected item(s) for section 19, 19.1 and/or 19.2 located in the Steel/Aluminum category).
☐	7. Any support for exempt non-structural components given in CBC Section 1617A.1.18 (which replaces ASCE 7-16, Section 13.1.4) meeting the following: A) when supported on a floor/roof, <400# and resulting composite center of mass (including component's center of mass) ≤4' above supporting floor/roof, B) when hung from a wall or roof/floor, <20# for discrete units or <5 plf for distributed systems.

DSA 103: LIST OF REQUIRED VERIFIED REPORTS

Application Number: 04-118901 **School Name:** STATE WIDE PC **School District:** STATE WIDE PC

DSA File Number: **Increment Number:** **Date Submitted:** 2/10/2020

1. Structural Testing and Inspection: Laboratory Verified Report Form DSA 291
2. Shop Welding Inspection: Laboratory Verified Report Form DSA 291, or, for independently contracting SI, Special Inspection Verified Report Form DSA 292
3. Field Welding Inspection: Laboratory Verified Report Form DSA 291, or, for independently contracting SI, Special Inspection Verified Report Form DSA 292

"ALTERATION TO" EXAMPLE DSA 103 FORM
(DSA 103 FORM NOT REQUIRED FOR RELOCATION OF CERTIFIED RAMP & LANDING)

THE EXAMPLE FORM DSA-103 SHOWN ON THIS SHEET IS FOR ILLUSTRATION PURPOSES ONLY TO ASSIST IN THE COMPLETION OF FUTURE PROJECT-SPECIFIC FORM DSA-103'S. A FORM DSA-103 IS TO BE COMPLETED FOR EACH APPLICATION THAT THIS PC IS BEING INCORPORATED INTO AND THE EXAMPLE FORM DSA-103 IS TO BE CROSSED OUT ON THIS DRAWING.

SITE SPECIFIC APPROVAL	DSA PC STAMP	APPROVAL – PC ENGINEER OF RECORD
	PRE-CHECK (PC) DOCUMENT CODE: 2019 CBC A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED	REGISTERED PROFESSIONAL ENGINEER JAMES T. SIMPSON No.3602 STRUCTURAL STATE OF CALIFORNIA Date Signed: February 11, 2020

STRUCTURAL ENGINEERS, INC.
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4	DSA 103: LISTING OF STRUCTURAL TEST & SPECIAL INSPECTIONS	01 FEB 2020	

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RAMP/LANDING MODIFICATIONS FOR EXISTING RAMP AND LANDINGS

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OF 4 SHEETS