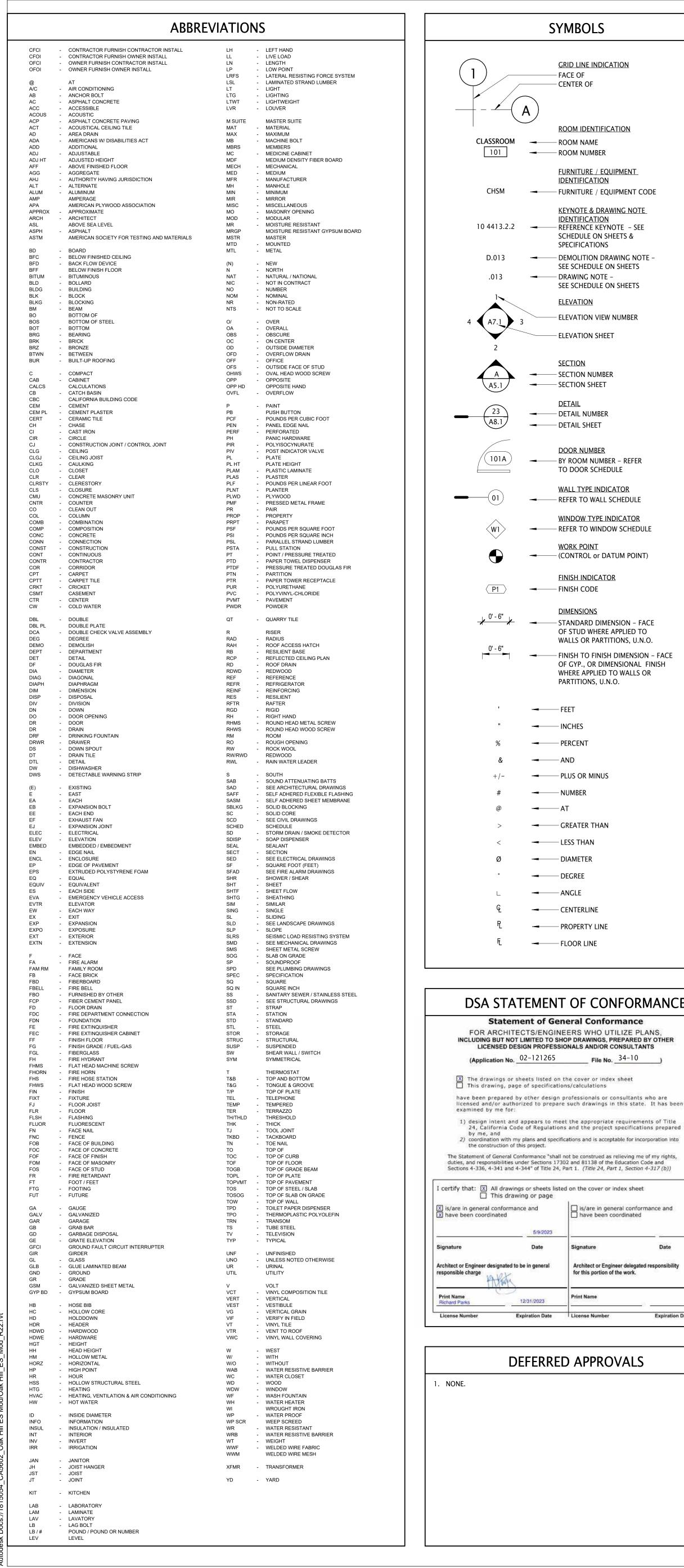


CENTER JOINT UNIFIED SCHOOL DISTRICT OAK HILL ELEMENTARY SCHOOL MODERNIZATION 3909 NORTH LOOP BLVD, ANTELOPE, CA 95843 DSA 02-121265 / FILE 34-10 / PTN 73973-55

**IDENTIFICATION S** APP: 02-121265 IN **REVIEWED FOR** SS 🔲 🛛 FLS 🗹 ACMARTIN C 3009 DOUGLAS BLVD SUITE 290 ROSEVILLE CA 95661 T 916 772 1800 project number project directo project designer project architect evisions project status DSA BACKCHECK - V2 4-25-2023 client / project OAK HILL ES HARDSHIP MODERNIZATION CJUSD 3909 NORTH LOOP BLVD ANTELOPE, CA 95843 sheet name **COVER SHEET** sheet number **G0.0** plot date 5/15/2023 4:54:07 PM



- FINISH TO FINISH DIMENSION - FACE OF GYP., OR DIMENSIONAL FINISH WHERE APPLIED TO WALLS OR

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Architect or Engineer delegated responsibilit

Expiration Date

# CENTER JOINT UNIFIED SCHOOL DISTRICT OAK HILL ELEMENTARY SCHOOL MODERNIZATION 3909 NORTH LOOP BLVD, ANTELOPE, CA 95843 DSA 02–121265 / FILE 34–10 / PTN 73973–55

# DISTRICT GENERAL NOTES

STANDARD RENOVATION COVER SHEET NOTES PROVIDED BY CENTER JOINT UNIFIED SCHOOL DISTRICT

- This project site is an occupied school campus. The educational program takes precedence over construction activities. All construction activities shall be contained within fenced or barricaded areas in accordance with project specification and schedule requirements. Certain construction activities that generate disruptive noise, odors, dust and debris must be scheduled when the campus is not occupied.
- 2. This is an existing facility renovation project. All work shown, noted or detailed is new, except where indicated as existing or as existing to remain.
- . Photos if shown in this set of drawings do not preclude the pre-bid site visit requirements of the bidder. The Contractor shall be responsible for appropriate site visits to confirm existing field conditions prior to bidding.
- 4. Contractor shall field verify all dimensions and existing conditions at the site and shall report any discrepancies in writing to the Construction Manager by the means of a Request for Information (RFI) or as part of the applicable shop drawings or submittals.
- . Specific items noted to be verified or field verified are required to be verified prior to ordering materials or proceeding with the work. 6. Contractor is responsible for all incidental work necessary to complete the installation of new work. This includes, but is not limited to, the removal and/or reinstallation of all existing items, of portions
- of the existing construction whether shown or not. . The existing facility has asbestos containing material in various locations. Any part of the work requiring removal of asbestos containing material shall be performed in accordance with the Asbestos
- Abatement Specifications Exhibit 'C' of the Project Manual. 8. The existing facility has lead containing material in various locations. Any part of the work requiring removal of lead containing material shall be performed in accordance with the Lead Abatement Specifications Exhibit 'D' of the Project Manual.
- The existing facility has PCB Ballast and Fluorescent Tube Materials in various locations. Any part of the work requiring removal of PCB Ballast and Fluorescent Tube Materials shall be performed in accordance with the PCB Ballast and Fluorescent Tube Materials Abatement Specifications Exhibit 'E' of the Project Manual.
- 10. Contractor is responsible for protection, modification and re-installation of all existing rooftop piping, conduit, wire and equipment during the roof removal/replacement operations. This includes, but is not limited to, extensions of existing conduit and piping penetrations to accommodate new roofing requirements, replacement or modification of existing sleepers, blocking and supports. Provide new conduit, conductors, unistrut, etc. as necessary to accommodate new roofing requirements.
- 1. Prior to starting work on each phase, the Contractor shall request the Construction Manager to schedule a team meeting with all subcontractors, the Project Inspector, and the designated District representatives to survey existing equipment operations. The objective is to determine the operability of all existing mechanical equipment, fire alarm system, telephone system, intrusion alarm system, intercom system and any other devices and equipment that are to remain after phase completion. The Construction Manager shall prepare a written report documenting team field investigation and noting any existing items that are damaged or non - functional. Prior to occupancy another survey will be conducted with same team to determine if any item has been damaged or made inoperable. In the event that something has been damaged the General Contractor will be required to correct problem with an approved, qualified, technician.
- 12. Prior to the start of each phase the Construction Manager shall schedule the District to identify and tag all exposed wiring. District personnel shall remove any wiring identified as abandoned. Any wiring identified "to remain" shall be protected against damage during construction and inspected for damage at phase completion.
- 13. Prior to site mobilization, the General Contractor, the Construction Manager and Project Inspector are to meet on site and photo document the existing conditions of the Contractor's staging area and landscaped areas where trenching will be occurring or where vehicle traffic is anticipated. Also test irrigation system for proper operation. At project completion all areas must be restored to original condition including but not limited to installing sod at damaged turf areas, replacing damaged plantings, repairing damaged underground utilities, patching damaged asphalt paving, re-striping paving and replacement of damaged concrete. The General Contractor, the Construction Manager and Project Inspector shall meet on site at project completion and review all site conditions and operation of irrigation system.
- 14. The General Contractor is responsible to have emergency shut-off procedures in place prior to start of construction. The General Contractor and all Subcontractors shall familiarize themselves with all shut-off valve locations on site and have proper tools readily available to operate valves.

# PROJECT NOTES

CALIFORNIA CODE OF REGULATIONS (CCR), TITLE 24, PART 1 ADMINISTRATIVE CODE REQUIREMENTS, CHAPTER 4 (PARTIAL LISTING ONLY)

- A COPY OF CALIFORNIA CODE OF REGULATIONS, TITLE 24, PARTS 1 THROUGH 5, SHALL BE KEPT ON THE JOB SITE AT ALL TIMES.
- ALL CONSTRUCTION CHANGE DOCUMENTS AND ADDENDA TO BE SIGNED BY THE ARCHITECT, STRUCTURAL ENGINEER (WHEN APPLICABLE), DELEGATED PROFESSIONAL ENGINEER, AND OWNER AND APPROVED BY DSA BEFORE PROCEEDING WITH THE WORK. CCR, TITLE 24, PART 1, SECTION 4-338 AND DSA IR A-6.
- . ALL TESTS TO CONFORM TO THE REQUIREMENTS OF CCR, TITLE 24, PART 1, SECTION 4–335 AND APPROVED T & I SHEET.
- . TESTS OF MATERIALS AND TESTING LABORATORY SHALL BE IN ACCORDANCE WITH CCR. TITLE 24. PART 1, SECTION 4-335 AND THE DISTRICT SHALL EMPLOY AND PAY THE LABORATORY. COSTS OF RE-TEST MAY BE BACK CHARGED TO THE CONTRACTOR, SEE SPECIFICATIONS.
- 5. DSA SHALL BE NOTIFIED AT THE START OF CONSTRUCTION AND PRIOR TO THE PLACEMENT OF CONCRETE PER CCR, TITLE 24, PART 1, SECTION 4-331.
- INSPECTOR SHALL BE APPROVED BY DSA AND EMPLOYED BY THE OWNER. INSPECTION SHALL BE IN ACCORDANCE WITH CCR, TITLE 24, PART 1, SECTIONS 4-333(b) AND 4-342. SUPERVISION OF CONSTRUCTION BY DSA SHALL BE IN ACCORDANCE WITH CCR. TITLE 24.
- PART 1, SECTION 4-334. 8. CONTRACTOR, INSPECTOR, ARCHITECT, AND ENGINEERS SHALL SUBMIT VERIFIED REPORTS IN ACCORDANCE WITH CCR, TITLE 24, PART 1, SECTIONS 4-336 AND 4-343.
- 9. THE ARCHITECT AND THE STRUCTURAL ENGINEER SHALL PERFORM THEIR DUTIES IN ACCORDANCE WITH CCR, TITLE 24, PART 1, SECTIONS 4-333(a) AND 4-341. 0. THE CONTRACTOR SHALL PERFORM HIS DUTIES IN ACCORDANCE WITH CCR, TITLE 24,
- PART 1, SECTION 4-343. 1. THE INTENT OF THE DRAWINGS AND SPECIFICATIONS, AS DESCRIBED IN THE SUMMARY OF WORK, IS TO BE IN ACCORDANCE WITH CCR, TITLE 24, CALIFORNIA CODE OF REGULATIONS. SHOULD ANY CONDITIONS DEVELOP NOT COVERED BY THE CONTRACT DOCUMENTS WHEREIN FINISHED WORK WILL NOT COMPLY WITH CCR, TITLE 24, A CONSTRUCTION CHANGE DOCUMENT DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT BEFORE PROCEEDING WITH THE WORK.
- 12. COMPLIANCE WITH CFC CH 33 FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION, AND CBC CH 33 SAFEGUARDS DURING CONSTRUCTION WILL BE ENFORCED. SEE ALSO SPECIFICATON DIVISION 01.
- 13. SUBSTITUTIONS AFFECTING DSA REGULATED ITEMS SHALL BE SUBMITTED AS A CONSTRUCTION CHANGE DOCUMENT OR ADDENDA, AND SHALL BE APPROVED BY DSA PRIOR TO FABRICATION AND INSTALLATION.
- 14. MATERIALS AND THEIR INSTALLATION SHALL COMPLY WITH APPLICABLE CODES, STANDARDS, AND MANUFACTURER RECOMMENDATIONS.
- 5. PER CBC 11B-104.1 "ALL DIMENSIONS ARE SUBJECT TO CONVENTIONAL INDUSTRY TOLERANCES EXCEPT WHERE THE REQUIREMENT IS STATED AS A RANGE WITH SPECIFIC MINIMUM AND MAXIMUM END POINTS.

**BUILDING CODES AND STANDARDS** 2022 CALIFORNIA ADMINISTRATIVE CODE (CALIFORN (BASED ON 2021 INTERNATIONAL BUILDING CODE ) 2022 CALIFORNIA ELECTRICAL CODE (CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 3) (BASED ON 2020 NATIONAL ELECTRICAL CODE) 2022 CALIFORNIA MECHANICAL CODE (CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 4) (BASED ON 2021 IAPMO UNIFORM MECHANICAL CODE)

2022 CALIFORNIA PLUMBING CODE (CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 5) (BASED ON 2021 IAPMO UNIFORM PLUMBING CODE) 2022 CALIFORNIA ENERGY CODE (CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 6) 2022 CALIFORNIA FIRE CODE (CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 9) (BASED ON 2021 INTERNATIONAL FIRE CODE)

2022 CALIFORNIA REFERENCE STANDARDS CODE (CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 12) TITLE 19, CCR, PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS 2022 CALIFORNIA GREEN BUILDING STANDARDS CODE (CALGreen) (CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 11)

# NATIONAL REFERENCE STANDARDS

AISC 341–10 MANUAL OF STEEL CONSTRUCTION

AF&PA NDS-2022 NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION ACI-318-14 BUILDING CODE REOUIREMENTS FOR STRUCTURAL CONCRETE NFPA 10, 2022 EDITION, STANDARD FOR PORTABLE FIRE EXTINGUISHERS NFPA 13, 2022 EDITION, INSTALLATION OF AUTOMATIC SPRINKLER SYSTEMS (W/ AMMENDMENTS PER CBC CH 35)

NFPA 14, 2022 EDITION, INSTALLATION OF STANDPIPE, PRIVATE HYDRANT AND HOSE SYSTEMS (W/ AMMENDMENTS PER CBC CH 35)

NFPA 17, 2021 EDITION, DRY CHEMICAL EXTINGUISHING SYSTEMS NFPA 17-A, 2021 EDITION, WET CHEMICAL EXTINGUISHING SYSTEMS

(W/ AMMENDMENTS PER CBC CH 35) NFPA 72, 2022 EDITION, NATIONAL FIRE ALARM CODE

(W/ AMMENDMENTS PER CBC CH 35)

ADA (AMERICANS WITH DISABILITIES ACT, 1990) 2022 EDITION

ASCE 7 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES

EXISTING ELEMENTARY SCHOOL MODERNIZATION: FIRE ALARM REPLACEMENT / UPGRADES SECURITY SYSTEM REPLACEMENT / UPGRADES DIGITAL INTERCOM/CLOCK/BELL REPLACEMENT ASSISTED LISTENING SYSTEM EXTERIOR DOOR HARDWARE UPGRADES **RESTROOMS UPGRADED TO PROVIDE ACCESS** COMPLIANCE

CLASSROOM SINKS UPGRADED TO PROVIDE ACCESS COMPLIANCE

DRINKING FOUNTAINS UPGRADED TO PROVIDE ACCESS COMPLIANCE REPLACEMENT OF BUILT-UP ROOFS & METAL ROOF AT

RESTROOM PORTABLE BUILDING **REPLACE FASCIA, GUTTERS & DOWNSPOUTS AT** PORTABLE BUILDINGS

GAS & WATER VALVE REPLACEMENT AS INDICATED ON DRAWINGS SITE IMPROVEMENTS:

SEAL & STRIPE THE HARDCOURT / PLAYGROUND TRAFFIC CIRCULATION AT THE BUS LOOP & PARKING LOT, SEAL AND STRIPE FENCING AT UTILITY YARD & NEW CMU TRASH ENCLOSURE PATH OF TRAVEL IMPROVEMENTS TO PROVIDE ACCESS COMPLIANCE

SIGHT SIGNAGE UPGRADED TO PROVIDE ACCESS COMPLIANCE RESEED PART OF PLAYFIELDS

OWNER CENTER JOINT USD SCOTT LOEHR, SUPERINTENDENT 8408 WATT AVENUE ANTELOPE, CA 95843 PHONE: (916)338-6409 EMAIL: superintendent@centerusd.org

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EMAIL: richard.parks@acmartin.com **CIVIL ENGINEER** WARREN CONSULTING ENGINEERS

ANTHONY J. TASSANO SETH NISBET 1117 WIDFIELD WAY, SUITE 110 EL DORADO HILLS, CA 95762 PHONE: 916.985.1870 EMAIL: seth@wceinc.com

LANDSCAPE ARCHITECT

MTW LANDSCAPING BRYAN HOLLIS WALKER PETER LARIMER 10411 OLD PLACERVILLE RD. SUITE 205 SACRAMENTO, CA 95827 PHONE: 916.369.3990 EMAIL: peter@mtwgroup.com

# APPLICABLE CODES

IA CODE OF REGULATIONS, TITLE 24, PART 1)	

- 2022 CALIFORNIA BUILDING CODE, VOLUMES 1 & 2 (CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 2)
- NFPA 24, 2022 EDITION, INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES
- ADA STANDARDS FOR ACCESSIBLE DESIGN (APPENDIX A OF 28 CFR PART 36)

# PROJECT SUMMARY

	<ul> <li>ALTERNATES:</li> <li>ADD ALTERNATE #1:</li> <li>1. REMOVE EXISTING CARPET, VINYL TILE AND RUBBER BASE IN CLASSROOMS.</li> <li>2. PROVIDE NEW CARPET AND RUBBER BASE IN CLASSROOMS, AND WALK- OFF CARPET TILE AT ENTRY DOORS AND WET AREAS IN CLASSROOMS.</li> <li>3. DEEP CLEAN CERAMIC TILE MOSAIC FLOORS IN THE RESTROOMS.</li> <li>ADD ALTERNATE #2: PAINT INTERIOR WALLS, HARD LID CEILINGS, INTERIOR AND EXTERIOR DOORS AND FRAMES IN EACH CLASSROOM.</li> <li>ADD ALTERNATE #3: PROVIDE A 30 YEAR WARRANTY ON SBS MODIFIED BITUMINOUS MEMBRANE ROOFING.</li> </ul>
ε	

# PROJECT TEAM

-	
	MECHANICAL ENGINEER PLUMBING ENGINEER ELECTRICAL ENGINEER FIRE SPRINKLER CONSULTANT ENERGY CONSULTANT
	LP CONSULTING ENGINEERS RAMI S. ZEIDAN – E RYAN ENNIS – MP 1209 PLEASANT GROVE BLVD. ROSEVILLE, CA 95678 PHONE: 916.771.0778 EXT 2904 EMAIL: spourvakil@lpengineers.com
	COST ESTIMATING O'CONNOR CONSTRUCTION MANAGEMENT ROB MUIR 1300 CLAY STREET, SUITE 900 OAKLAND, CA 94612 PHONE: 925.426.1578 EMAIL: rmuir@ocmi.com
	CONSTRUCTION MANAGER <u>CAPITAL PROGRAM MANAGEMENT</u> SHARON THOMAS 1851 HERITAGE LANE, SUITE 210 SACRAMENTO, CA 95815 PHONE: (916)553-4400 EMAIL: sharont@capitalpm.com

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# TECHNOLOGY

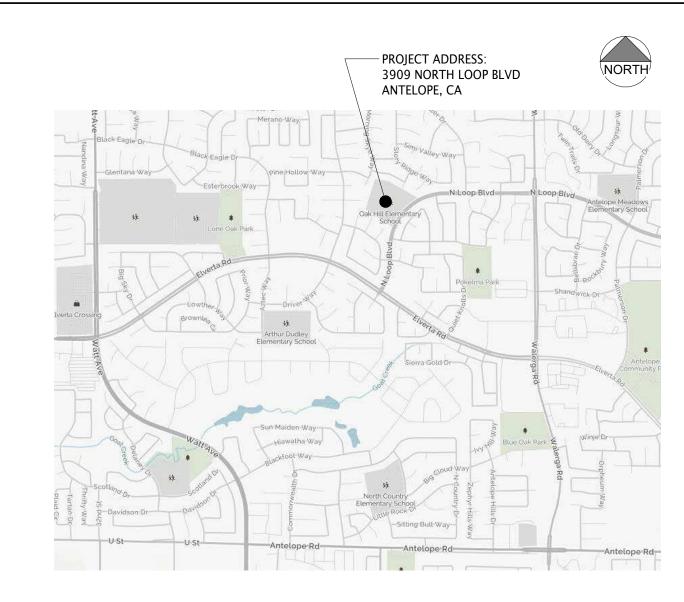
- T0.1 TECHNOLOGY ABBREVIATIONS, NOTES AND SHEET INDEX T0.2 TECHNOLOGY SYMBOL LEGEND
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- PORTABLES T3.1 TECHNOLOGY DIAGRAMS
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# FIRE ALARM

Grand total: 81

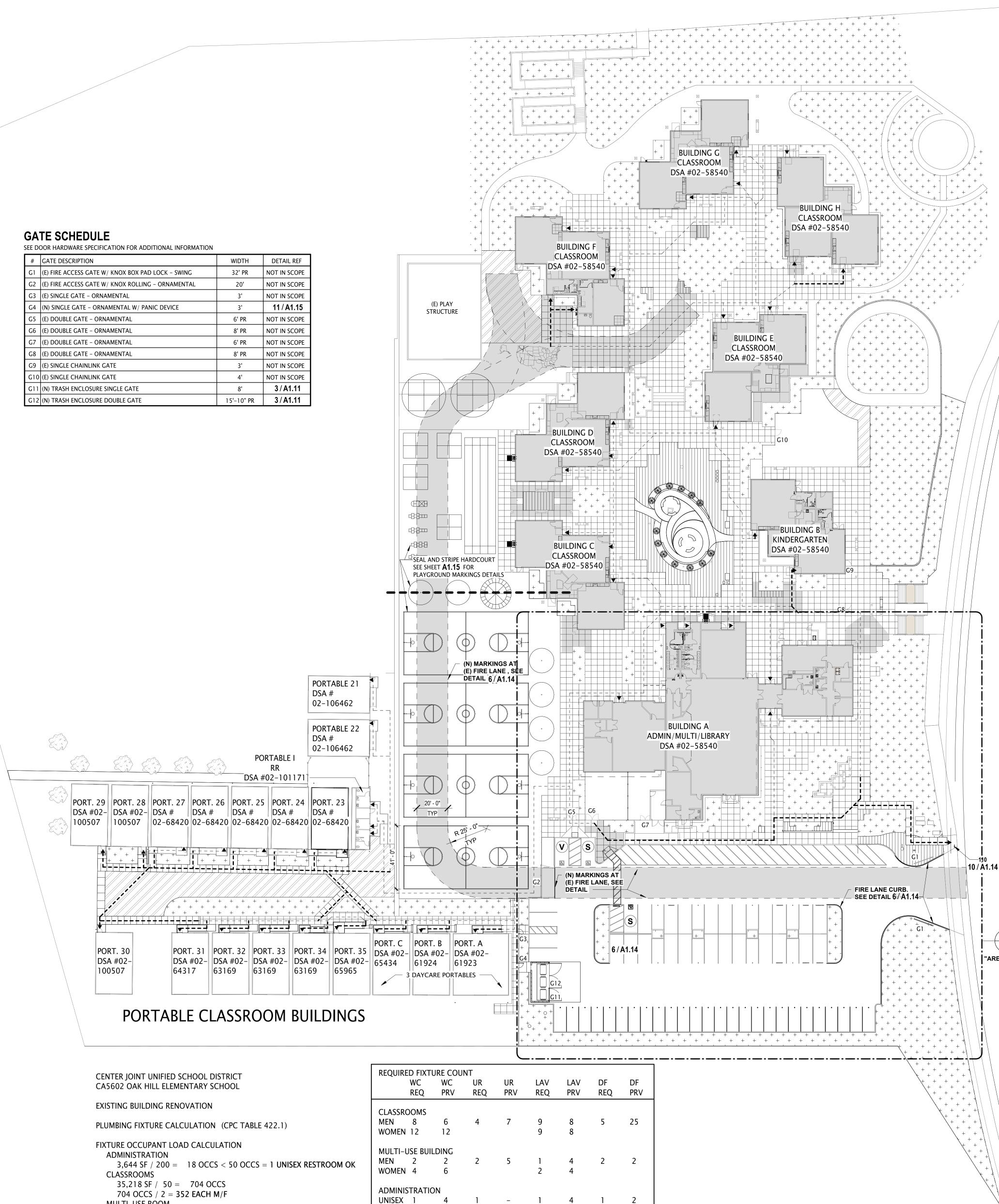
- FA0.1 FIRE ALARM NOTES, LEGENDS, & SPECIFICATIONS FA1.1 OVERALL SITE PLAN
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VICINITY MAP



ACMARTIN 3009 DOUGLAS BLVD SUITE 290 ROSEVILLE CA 95661 T 9167721 stamp UCLUS CA 95667 C-28637 C	800
Exp: Dec 31,2023	
project number CA5602 project director project designer	
project architect evisions no. date revision	
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OAK HILL ES	
HARDSHIP MODERNIZAT	-10
CJUSD 3909 NORTH LOOP BL ANTELOPE, CA 95843	.VE
sheet name	
TITLE SHEET	

#	GATE DESCRIPTION	WIDTH	DETAIL REF		
G1	(E) FIRE ACCESS GATE W/ KNOX BOX PAD LOCK - SWING	32' PR	NOT IN SCOPE		
G2	(E) FIRE ACCESS GATE W/ KNOX ROLLING - ORNAMENTAL	20'	NOT IN SCOPE		
G3	(E) SINGLE GATE – ORNAMENTAL	3'	NOT IN SCOPE		
G4	(N) SINGLE GATE – ORNAMENTAL W/ PANIC DEVICE	3'	11 / A1.15		
G5	(E) DOUBLE GATE – ORNAMENTAL	6' PR	NOT IN SCOPE		
G6	(E) DOUBLE GATE – ORNAMENTAL	8' PR	NOT IN SCOPE		
G7	(E) DOUBLE GATE – ORNAMENTAL	6' PR	NOT IN SCOPE		
G8	(E) DOUBLE GATE – ORNAMENTAL	8' PR	NOT IN SCOPE		
G9	(E) SINGLE CHAINLINK GATE	3'	NOT IN SCOPE		
G10	(E) SINGLE CHAINLINK GATE	4'	NOT IN SCOPE		
G11	(N) TRASH ENCLOSURE SINGLE GATE	8'	3 / A1.11		
G12	(N) TRASH ENCLOSURE DOUBLE GATE	15'-10" PR	3 / A1.11		

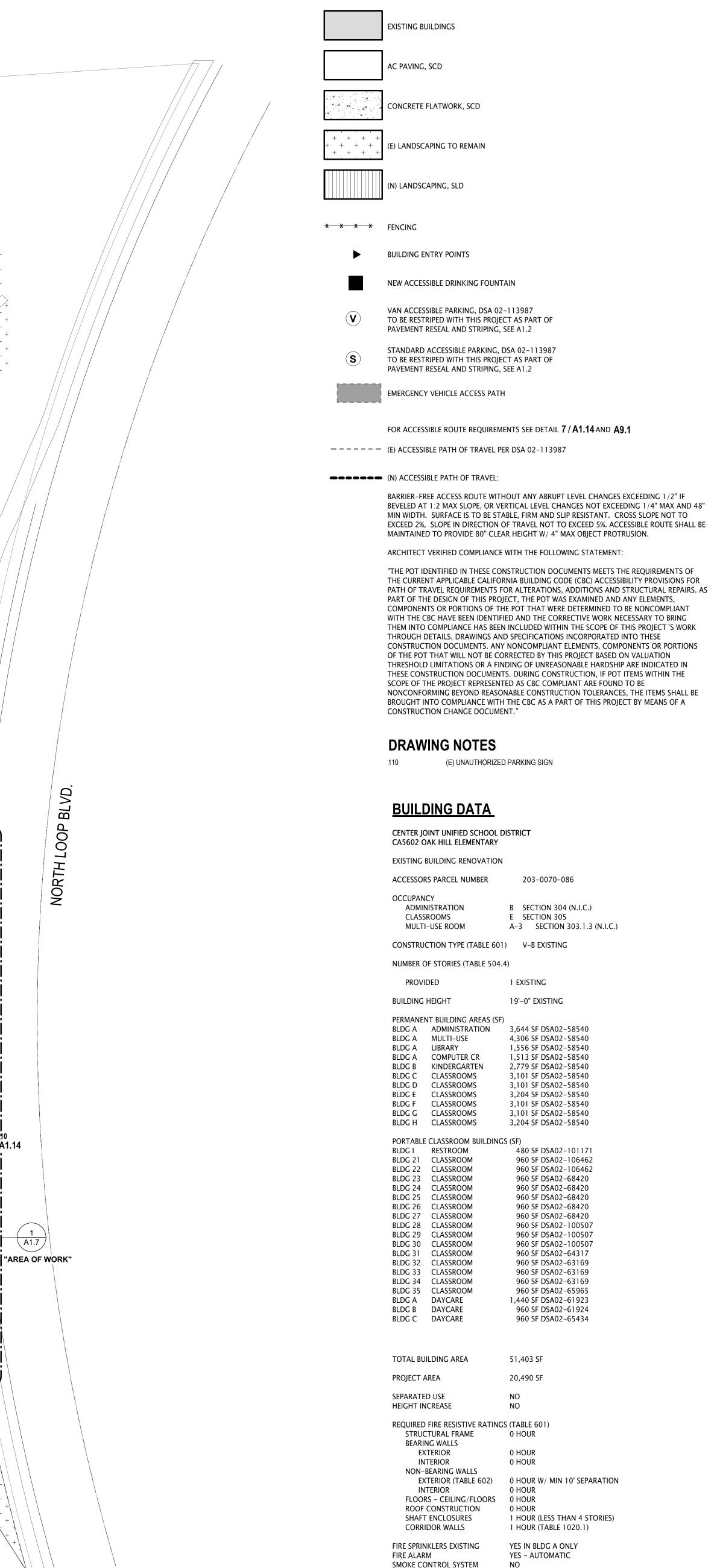


MULTI-USE ROOM 4,306 SF / 15 = 287 OCCS 287 OCCS / 2 = 144 EACH M/F

SITE PLAN

1" = 30'-0"

# SITE EGRESS LEGEND





HIGH FIRE HAZARD SEVERITY ZONE: NO

B OCC 3,644 SF @ 100 SF/OCC = 36

E OCC 35,218 SF @ 20 SF/OCC = 1,761 A-3 OCC 4,306 @ 15 SF/OCC = 287

OCCUPANT LOAD CALCULATION

YES, BUILDINGS A, E, H

SEISMIC JOINT

A1.7

dsa IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 02-121265 INC: REVIEWED FOR SS 🔲 FLS 🗹 ACS 🗹 DATE: 05/24/2023 architect ACMARTIN 3009 DOUGLAS BLVD SUITE 290 ROSEVILLE CA 95661 T 9167721800 consultant project number CA5602 project director project designer project architect revisions no. date \_\_\_\_\_ project status **DSA BACKCHECK - V2** 4-25-2023 client / project OAK HILL ES HARDSHIP MODERNIZATIONN CJUSD 3909 NORTH LOOP BLVD ANTELOPE, CA 95843 sheet name SITE CODE ANALYSIS & EGRESS PLAN sheet number **G1.1** plot date 5/24/2023 9:42:09 AM

DSA PROJECT SUBMITTAL GUIDELINE-4 CALGREEN CODE

#### Field verification of on-site product containers.

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

- Carpet and Rug Institute's Green Label Plus Program; Compliant with the VOC-emission limits and testing requirements specified in the California Department of Public Health Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers, Version1.1, February 2010 (also known as CDPH Standard Method V1.1 or Specification 01350);
- 3. NSF/ANSI 140 at the Gold level or higher;
- 4. Scientific Certifications Systems Sustainable Choice; or
- Compliant with the Collaborative for High Performance Schools California (CA-CHPS) Criteria 2014 and listed in the CHPS High Performance Product Database.
- 5.504.4.4.1 Carpet cushion. All carpet cushion installed in the building interior shall meet the requirements of the Carpet and Rug Institute's Green Label program.

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

5.504.4.1. 5.504.4.5 Composite wood products. Hardwood plywood, particleboard, and medium density fiberboard composite wood products used on the interior or exterior of the building shall meet the

requirements for formaldehyde as specified in ARB's Air Toxics Control Measure (ATCM) for Composite Wood (17 CCR 93120 et seq.). Those materials not exempted by the ATCM must meet the specified emission limits as shown in Table 5.504.4.5.

#### TABLE 5.504.4.5 - FORMALDEHYDE LIMITS (See CALGreen for TABLE)

5.504.4.6 Resilient flooring systems. For 80 percent of floor area receiving resilient flooring.

- installed resilient flooring shall meet at least one of the following: 1. Certified under the Resilient Floor Covering Institute (RFCI) FloorScore program;
- Compliant with the VOC-emission limits and testing requirements specified in the California Department of Public Health's 2010 Standard Method for the Testing and Evaluation
- Chambers, Version 1.1, February 2010; Compliant with the Collaborative for High Performance Schools California (CA-CHPS)
- Criteria 2014 and listed in the CHPS High Performance Product Database; or 4. Products certified under the UL GREENGUARD Gold (formerly the Greenguard Children &
- Schools program). 5.504.5.3 Filters. In mechanically ventilated buildings, provide regularly occupied areas of the

building with air filtration media for outside and return air prior to occupancy that provides at least a Minimum Efficiency Reporting Value (MERV) of 13. MERV 13 filters shall be installed prior to occupancy and recommendations for maintenance with filters of the same value shall be included in the operation and maintenance manual.

#### Exception: Existing mechanical equipment.

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

GL-4 (Revised 01/28/20) Page 10 of 12 DIVISION OF THE STATE ARCHITECT DEPARTMENT OF GENERAL SERVICES STATE OF CALIFORNIA

#### DSA PROJECT SUBMITTAL GUIDELINE-4 CALGREEN CODE

#### SECTION 5.505 - INDOOR MOISTURE CONTROL

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

SECTION 5.506 - INDOOR AIR QUALITY

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

#### SECTION 5.507 - ENVIRONMENTAL COMFORT

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

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

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

5.507.4.1 Exteriors noise transmission, prescriptive method. Wall and roof-ceiling assemblies exposed to the noise source making up the building or addition envelope or altered envelope shall meet a composite STC rating of at least 50 or a composite OITC rating of no less than 40, with exterior windows of a minimum STC of 40 or OITC of 30 in the following locations: Within the 65 CNEL noise contour of an airport.

#### Exceptions:

- 1. Lanor CNEL for military airports shall be determined by the facility Air Installation Compatible Land Use Zone (AICUZ) plan.
- L<sub>dn</sub> or CNEL for other airports and heliports for which a land use plan has not been developed shall be determined by the local general plan noise element.
- Within the 65 CNEL or L<sub>dn</sub> noise contour of a freeway or expressway, railroad, industrial source or fixed-guideway source as determined by the Noise Element of the General Plan.

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

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

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

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#### DSA PROJECT SUBMITTAL GUIDELINE-4 CALGREEN CODE

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

5.507.4.3 Interior sound transmission. Wall and floor-ceiling assemblies separating tenant spaces and tenant spaces and public places shall have an STC of at least 40. Note: Examples of assemblies and their various STC rating may be found at the California Office of Noise Control: www. https://www.tsib.org/files/STC\_IIC\_Ratings.pdf

SECTION 5.508 - OUTDOOR AIR QUALITY

5.508.1 Ozone depletion and greenhouse gas reductions. Installations of HVAC, refrigeration and fire suppression equipment shall comply with Sections 5.508.1.1 and 5.508.1.2. 5.508.1.1 Chlorofluorocarbons (CFCs). Install HVAC, refrigeration and fire suppression equipment that do not contain CFCs.



A DSA Project Submittal Guideline is a compilation of recommendations based on code, referenced standards, DSA bulletin/policy/procedure/interpretation documents, and DSA practices. These guidelines are intended to give the design profession helpful information and insight into DSA's project application, submittal, and review processes. Guidelines are provided by DSA in support of DSA's goals of providing stakeholders information they need to facilitate working smoothly with DSA, and to help standardize practices among the four DSA Regional Offices. Compliance with a Guideline does not assure that a project is complete or that it adheres to the requirements of the California. Building Standards Code (Title 24 of the California Code of Regulations) or all DSA requirements. Additional information may be required, depending on project complexity or site conditions. For complete submittal requirements see forms DSA 1: Application for Approval of Plans and Specifications and DSA 3: Project Submittal Checklist.

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SA PROJECT SUBMITTAL GUIDELINE-4 ALGREEN CODE	DSA PROJECT SUBMITTAL GUIDELINE-4
ECTION 5.304 - OUTDOOR WATER USE	TABLE 5.106.5.3.3
.304.6 Outdoor potable water use in landscape areas. For public schools and community colleges, indscape projects as described in Sections 5.304.6.1 and 5.304.6.2 shall comply with the California epartment of Water Resources Model Water Efficient Landscape Ordinance (MWELO) commencing ith Section 490 of Chapter 2.7, Division 2, Title 23, California Code of Regulations, except that the	TOTAL NUMBER OF ACTUAL PARKING SPACES     NUMBER OF REQUIRED EV CHARGING SPACES       0 - 9     0
vapotranspiration Adjustment Factor (ETAF) shall be 0.65 with an additional water allowance for becial landscape areas (SLA) of 0.35.	10 – 25 1
Exception: Any project with an aggregate landscape area of 2,500 square feet or less may comply with the prescriptive measures contained in Appendix D of the MWELO.	26 - 50 2 51 - 75 4
I 5.304.6.1 Newly constructed landscapes. New construction projects with an aggregate ndscape area equal to or greater than 500 square feet.	76 - 100 5
.304.6.2 Rehabilitated landscapes. Rehabilitated landscape projects with an aggregate Iscape area equal to or greater than 1,200 square feet.	101 – 150 7 151 – 200 10
DIVISION 5.4 – MATERIAL CONSERVATION AND RESOURCE EFFICIENCY	201 and over 6 percent of total 1 1. Calculation for spaces shall be rounded up to the nearest whole number.
I 5.407 – WATER RESISTANCE AND MOISTURE MANAGEMENT 07.1 Weather protection. Provide a weather-resistant exterior wall and foundation envelope	5.106.5.3.4 [N] Identification. The service panel or subpanel(s) circuit directory shall iden
quired by California Building Code, Section 1402.2 (Weather Protection), manufacturer's lation instructions, or local ordinance, whichever is more stringent.	the reserved overcurrent protective device space(s) for future EV charging as "EV CAPABLE The raceway termination location shall be permanently and visibly marked as "EV CAPABLE
loisture control. Employ moisture control measures by the following methods:	5.106.5.3.5 [N] Future charging spaces. Future charging spaces qualify as designated parking as described in Section 5.106.5.2 Designated parking for clean air vehicles.
107.2.1 Sprinklers. Design and maintain landscape irrigation systems to prevent spray on ures.	5.106.8 Light pollution reduction. [N] Outdoor lighting systems shall be designed and installed
7.2.2 Entries and openings. Design exterior entries and/or openings subject to foot traffic or -driven rain to prevent water intrusion into buildings as follows:	comply with the following: 1. The minimum requirements in the California Energy Code for Lighting Zones 0 to 4 as defined and the second
07.2.2.1 Exterior door protection. Primary exterior entries shall be covered to prevent intrusion by using nonabsorbent floor and wall finishes within at least 2 feet around and	<ol> <li>Chapter 10, Section 10-114 of the California Administrative Code, and</li> <li>Backlight, (B) ratings as defined in Illuminating Engineering Society of North America (IESN)</li> </ol>
1. An installed awning at least 4 feet in depth.	TM-15-11(shown in TABLE A-1 in Chapter 8), and 3. Uplight and Glare ratings as defined in California Energy Code (shown in TABLES 130.2
<ol><li>The door is protected by a roof overhang at least 4 feet in depth.</li></ol>	and 130.2-B in Chapter 8) and
<ol> <li>The door is recessed at least 4 feet.</li> <li>Other methods which provide equivalent protection.</li> </ol>	<ol> <li>Allowable Backlight, Uplight, and Glare (BUG) ratings not exceeding those shown in Table 5.106.8 [N], or Comply with a local ordinance lawfully enacted pursuant to Section 101.7, whichever is more stringent.</li> </ol>
407.2.2.2 Flashing. Installed flashings integrated with a drainage plane.	whichever is more stringent. Exceptions: [N]
DN 5.408 - CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING	<ol> <li>Luminaires that qualify as exceptions in Section 140.7 of the California Energy Code</li> <li>Energy Code</li> </ol>
Construction waste management. Recycle and/or salvage for reuse a minimum of 65 of the nonhazardous construction and demolition waste in accordance with Section 5.408.1.1,	<ol> <li>Emergency lighting.</li> <li>Building facade meeting the requirements in Table 140.7-B of the California Energy</li> </ol>
or 5.408.1.3; or meet a local construction and demolition waste management ordinance, r is more stringent.	Code, Part 6. 4. Custom lighting features as allowed by the local enforcing agency, as permitted by
8.1.1 Construction waste management plan. Where a local jurisdiction does not have a local and demolition waste management ordinance that is more stringent, submit a	Section 101.8 Alternate materials, designs and methods of construction.
ction waste management plan that: Identifies the construction and demolition waste materials to be diverted from disposal by	
efficient usage, recycling, reuse on the project or salvage for future use or sale.	
vised 01/28/20) Page 7 of 12 OF THE STATE ARCHITECT DEPARTMENT OF GENERAL SERVICES STATE OF CALIFORNIA	GL-4 (Revised 01/28/20) Page 4
OJECT SUBMITTAL GUIDELINE-4	DIVISION OF THE STATE ARCHITECT DEPARTMENT OF GENERAL SERVICES STATE OF CALIFO
EEN CODE	DSA PROJECT SUBMITTAL GUIDELINE-4
Determines if construction and demolition waste materials will be sorted on-site (source- separated) or bulk mixed (single stream).	CALGREEN CODE
Identifies diversion facilities where construction and demolition waste material collected will be taken.	<ol> <li>Notes:</li> <li>[N] See also California Building Code, Chapter 12, Section 1205.7 for college campus</li> </ol>
Specifies that the amount of construction and demolition waste materials diverted shall be calculated by weight or volume, but not by both.	lighting requirements for parking facilities and walkways. 2. Refer to Chapter 8 (Compliance Forms, Worksheets and Reference Material) for
08.1.2 Waste management company. Utilize a waste management company that can	Illuminating Engineering Society Technical Memorandum TM-15-11 Table A-1, Californi. Energy Code Tables 130.2-A and 130.2-B.
e verifiable documentation that the percentage of construction and demolition waste material ed from the landfill complies with this section.	<ol> <li>Refer to the California Energy Code for requirements for additions and alterations.</li> </ol>
te: The owner or contractor shall make the determination if the construction and demolition ste material will be diverted by a waste management company.	TABLE 5.106.8 [N] MAXIMUM ALLOWABLE BACKLIGHT, UPLIGHT, AND GLARE (BUG) RATINGS
Exceptions to Sections 5.408.1.1 and 5.408.1.2:	(See CALGreen for TABLE)
<ol><li>Alternate waste reduction methods developed by working with local agencies if</li></ol>	5.106.10 Grading and paving. Construction plans shall indicate how site grading or a drainage system will manage all surface water flows to keep water from entering buildings. Examples of system will manage all surface water flows to keep water from entering buildings.
diversion or recycle facilities capable of compliance with this item do not exist. Demolition waste meeting local ordinance or calculated in consideration of local	<ul> <li>methods to manage surface water include, but are not limited to, the following:</li> <li>1. Swales.</li> </ul>
recycling facilities and markets. .1.3 Waste stream reduction alternative. The combined weight of new construction	2. Water collection and disposal systems.
al that does not exceed two pounds per square foot of building area may be deemed to the 65 percent minimum requirement as approved by the enforcing agency.	<ol> <li>French drains.</li> <li>Water retention gardens.</li> </ol>
8.1.4 Documentation. Documentation shall be provided to the enforcing agency which strates compliance with Section 5.408.1.1 through 5.408.1.3. The waste management plan	5. Other water measures which keep surface water away from buildings and aid in groundwate
e updated as necessary and shall be accessible during construction for examination by the ing agency.	recharge. Exception: Additions and alterations not altering the drainage path.
tes: Sample forms found in "A Guide to the California Green Building Standards Code	5.106.12 Shade trees. [DSA-SS] Shade trees shall be planted to comply with Sections 5.106.12 5.106.12.2, and 5.106.12.3. Percentages shown shall be measured at noon on the summer solstice
(Nonresidential) <sup>*</sup> located at <u>www.bsc.ca.gov/Home/CALGreen.aspx</u> may be used to assist in documenting compliance with the waste management plan.	Landscape irrigation necessary to establish and maintain tree health shall comply with Section 5.304.6.
<ol> <li>Mixed construction and demolition debris (C&amp;D) processors can be located at the California Department of Resources Recycling and Recovery (CalRecycle).</li> </ol>	5.106.12.1 Surface parking areas. Shade tree plantings, minimum #10 container size or equal, shall be installed to provide shade over 50% of the parking area within 15 years.
N 5.410 - BUILDING MAINTENANCE AND OPERATION	Exception: The surface parking area covered by solar photovoltaic shade structures, or sha
.410.1 Recycling by occupants. Provide readily accessible areas that serve the entire ding and are identified for the depositing, storage and collection of non-hazardous materials for	structures with roofing materials that comply with Table A5.106.11.2.2 in Appendix A5, are n included in the total area calculation.
cling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, metals or meet a lawfully enacted local recycling ordinance, if more restrictive.	5.106.12.2 Landscape areas. Shade trees plantings, minimum #10 container size or equal, shall be installed to provide shade over 20% of the landscape area within 15 years
eption: Rural jurisdictions that meet and apply for the exemption of Public Resources Code 49.82 (a)(2)(A) et seq. will also be exempt from the organics waste portion of this section.	Exception: Playfields for organized sport activity are not included in the total area calculation
410.1.2 Sample ordinance. Space allocation for recycling areas shall comply with Chapter Part 3, Division 30 of the Public Resources Code. Chapter 18 is known as the California Solid	5.106.12.3 Hardscape areas. Shade trees plantings, minimum #10 container size or equal, shall be installed to provide shade over 20% of the hardscape area within 15 years.
te Reuse and Recycling Access Act of 1991 (Act).	Exception: Walks, hardscape areas covered by solar photovoltaic shade structures, and hardscape areas covered by shade structures with roofing materials that comply with Table
ote: A sample ordinance for use by local agencies may be found in Appendix A of the ocument at the CalRecycle's website.	A5.106.11.2.2 in Appendix A5, are not included in the total area calculation.
DIVISION 5.5 ENVIRONMENTAL QUALITY sed 01/28/20) Page 8 of 12	DIVISION 5.2 – ENERGY EFFICIENCY SECTION 5.201 – GENERAL
F THE STATE ARCHITECT DEPARTMENT OF GENERAL SERVICES STATE OF CALIFORNIA	5.201.1 California Energy Code. For the purposes of mandatory energy efficiency standards in this code, the California Energy Commission will continue to adopt mandatory standards.
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ECT SUBMITTAL GUIDELINE-4	DIVISION OF THE STATE ARCHITECT DEPARTMENT OF GENERAL SERVICES STATE OF CALIFOR DSA PROJECT SUBMITTAL GUIDELINE-4
.504.1 - POLLUTANT CONTROL	CALGREEN CODE
4.3 Covering of duct openings and protection of mechanical equipment during uction. At the time of rough installation and during storage on the construction site until	DIVISION 5.3 – WATER EFFICIENCY AND CONSERVATION
intup of the heating, cooling and ventilating equipment, all duct and other related air tion component openings shall be covered with tape, plastic, sheet metal or other methods	SECTION 5.303 – INDOOR WATER USE 5.303.3 Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and
ble to the enforcing agency to reduce the amount of dust, water and debris which may a system.	urinals) and fittings (faucets and showerheads) shall comply with the following: 5.303.3.1 Water closets. The effective flush volume of all water closets shall not exceed 1.28
ish material pollutant control. Finish materials shall comply with Sections 5.504.4.1 04.4.6.	gallons per flush. Tank-type water closets shall be certified to the performance criteria of the U.S. EPA WaterSense Specifications for Tank-Type Toilets.
4.4.1 Adhesives, sealants, and caulks. Adhesives, sealants, and caulks used on the shall meet the requirements of the following standards:	Note: The effective flush volume of dual flush toilets is defined as the composite, average flush volume of two reduced flushes and one full flush.
Adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers, and	5.303.3.2 Urinals
caulks shall comply with local or regional air pollution control or air quality management district rules where applicable, or SCAQMD Rule 1168 VOC limits, as shown in Tables 5 504.4.1 and 5 504.4.2. Such products also shall comply with the Rule 1168 probibilion on	5.303.3.2.1 Wall mounted urinals. The effective flush volume of wall mounted urinals shall not exceed 0.125 gallons per flush.
5.504.4.1 and 5.504.4.2. Such products also shall comply with the Rule 1168 prohibition on the use of certain toxic compounds (chloroform, ethylene dichloride, methylene chloride, perchloroethylene, and trichloroethylene), except for aerosol products as specified in	5.303.3.2.2 Floor mounted urinals. The effective flush volume of floor mounted or other urinals shall not exceed 0.5 gallons per flush.
subsection 2, below.	5.303.3.3 Showerheads
Aerosol adhesives, and smaller unit sizes of adhesives, and sealant or caulking compounds in units of product, less packaging, which do not weigh more than one pound and do not consist of more than 16 fluid ounces) shall comply with statewide VOC standards and other.	5.303.3.3.1 Single showerhead. Showerheads shall have a maximum flow rate of not more than 1.8 gallons per minute at 80 psi. Showerheads shall be certified to the performance criteria of the U.S. EPA WaterSense Specifications for showerheads.
consist of more than 16 fluid ounces) shall comply with statewide VOC standards and other requirements, including prohibitions on use of certain toxic compounds, of California Code of Regulations, Title 17, commencing with Section 94507.	5.303.3.3.2 Multiple showerheads serving one shower. When a shower is served by more
TABLE 5.504.4.1 - ADHESIVE VOC LIMIT	than one showerhead, the combined flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi, or the showerhead shall be designed to allow only one shower outlet to be in operation at one time.
(See CALGreen for TABLE) TABLE 5.504.4.2 – SEALANT VOC LIMIT	shall be designed to allow only one shower outlet to be in operation at one time. Note: A hand-held shower shall be considered a showerhead.
(See CALGreen for TABLE) 4.4.3 Paints and coatings. Architectural paints and coatings shall comply with VOC limits	5.303.3.4 Faucets and fountains. 5.303.3.4.1 Non-residential lavatory faucets. Non-residential lavatory faucets shall have a
1.4.3 Paints and coatings. Architectural paints and coatings shall comply with VOC limits 1 of the ARB Architectural Coatings Suggested Control Measure, as shown in Table .3, unless more stringent local limits apply. The VOC content limit for coatings that do not	5.303.3.4.1 Non-residential lavatory faucets. Non-residential lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi.
e definitions for the specialty coatings categories listed in Table 5.504.4.3, shall be need by classifying the coating as a Flat, Nonflat, or Nonflat-High Gloss coating, based on	5.303.3.4.2 Kitchen faucets. Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute at 60 psi. Kitchen faucets may temporarily increase the flow above the maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum.
as defined in Subsections 4.21, 4.36 and 4.37 of the 2007 California Air Resources ggested Control Measure, and the corresponding Flat, Nonflat or Nonflat-High Gloss	maximum rate, but not to exceed 2.2 gallons per minute at 60 psi, and must default to a maximum flow rate of 1.8 gallons per minute at 60 psi.
in Table 5.504.4.3 shall apply.	5.303.3.4.3 Wash fountains. Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute/20 [rim space (inches) at 60 psi].
LE 5.504.4.3 – VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS (See CALGreen for TABLE)	5.303.3.4.4 Metering faucets. Metering faucets shall not deliver more than 0.20 gallons per cycle.
4.3.1 Aerosol paints and coatings. Aerosol paints and coatings shall meet the PWMIR ROC in Section 94522(a)(3) and other requirements, including prohibitions on use of	5.303.3.4.5 Metering faucets for wash fountains. Metering faucets for wash fountains shall

5.504.4.3.1 Aerosol paints and coatings. Aerosol paints and coatings shall meet the PWMIR Limits for ROC in Section 94522(a)(3) and other requirements, including prohibitions on use of certain toxic compounds and ozone depleting substances, in Sections 94522(c)(2) and (d)(2) of California Code of Regulations, Title 17, commencing with Section 94520; and in areas under the jurisdiction of the Bay Area Air Quality Management District additionally comply with the percent VOC by weight of product limits of Regulation 8 Rule 49. 5.504.4.3.2 Verification. Verification of compliance with this section shall be provided at the

request of the enforcing agency. Documentation may include, but is not limited to, the following:

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1. Manufacturer's product specification.

achieve reduction. 5.303.6 Standards for plumbing fixtures and fittings. Plumbing fixtures and fittings shall be installed in accordance with the California Plumbing Code, and shall meet the applicable standards referenced in Table 1701.1 of the California Plumbing Code and in Chapter 6 of this code.

psi].

have a maximum flow rate of not more than 0.20 gallons per cycle/20 [rim space (inches) at 60 Note: Where complying faucets are unavailable, aerators or other means may be used to PROJECT SUBMITTAL GUIDELINE: CALGREEN CODE Division of the State Architect (DSA) documents referenced within this publication are available on the

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DSA Forms or Publications webpages. Projects submitted to DSA for review, as a single project or as increments, must comply with the Title

24, Part 11, California Green Building Standards Code (CALGreen).

DSA-SS CALGreen regulatory requirements consists of compliance with the scoping regulrements in CALGreen Chapter 3, Section 301.4 and the Nonresidential Mandatory Measures adopted by DSA-SS in Chapter 5. Please refer to the Chapter 5 Matrix Adoption Tables for each Division for the specific Mandatory Measures adopted by DSA-SS.

The measures outlined in CALGreen Chapter 5, Section 5.410.2 for building and site Commissioning and Section 5.410.4 for building and site Testing and Adjusting are not mandatory requirements for schools and community colleges; however, portions of these regulations are required by the California Energy Code with which all facilities must comply. For mandatory Commissioning requirements under the California Energy Code, including installation and acceptance testing requirements, refer to Energy Code Section 120.8. Although not adopted by DSA-SS, the additional design measures for Commissioning in CALGreen Section 5.410.2 and the verification measures for Testing and Adjusting under CALGreen Section 5.410.4 are encouraged and recommended.

CALGreen Section 306 Voluntary Measures encourages building practices that improve public health, safety and general welfare by promoting the use of building concepts which minimize the building's impact on the environment, and promote a more sustainable design. Chapter 5 Nonresidential Mandatory Measures that are not adopted as mandatory measures by DSA-SS are voluntary measures recommended and encouraged for the design, construction, verification, and maintenance of non-energy systems. Appendix A5, Divisions A5.1 through A5.5 outline means of achieving enhanced sustainable design and construction by incorporating voluntary measures that exceed the mandatory measures.

Attachment 1 lists the CALGreen Nonresidential Mandatory Measures adopted by DSA-SS. For the complete text, consult the 2019 Title 24, Part 11, California Green Building Standards Code. For Project Submission, check the CALGreen Mandatory Measures that are applicable to and have been incorporated into the Project and submit this Guideline (checklist) with the application.

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DSA PROJECT SUBMITTAL GUIDELINE-4 CALGREEN CODE

#### Attachment 1

2019 CALIFORNIA GREEN BUILDING STANDARDS CODE Division of the State Architect – Structural Safety (DSA-SS) (CCR, Title 24, Part 11)

#### CHAPTER 3 - GREEN BUILDING

SECTION 301 - GENERAL

301.4 Mandatory measures for public schools and community colleges. [DSA-SS] New building construction and site work on a new or existing site shall comply with Section 301.4. 301.4.1 Building and site construction on a new site shall comply with Chapter 5 as adopted by DSA-SS

301.4.2 Work on an existing site shall comply with Section 301.4.2.

301.4.2.1 Newly constructed site work shall comply with Chapter 5 as adopted by DSA-SS. 301.4.2.2 Newly constructed buildings shall comply with Chapter 5 as adopted by DSA-SS and Section 301.4.3. 301.4.2.3 Additions to existing buildings shall comply with Section 301.4.3.

301.4.2.4 Rehabilitated landscape areas shall comply with Sections 5.304.6 and 5.106.12. 301.4.3 Minimum rehabilitated landscape area requirement. A minimum rehabilitated

landscape area equal to 75 percent of the footprint area of the building shall comply with Section 5.304.6 and Section 106.12. New buildings or additions to existing buildings less than 1,600 square feet shall not be required to comply with Section 301.4.3.

CHAPTER 5 - NONRESIDENTIAL MANDATORY MEASURES

DIVISION 5.1 – PLANNING AND DESIGN

#### SECTION 5.106 - SITE DEVELOPMENT

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

Sections 5.106.4.2.1 and 5.106.4.2.2. 5.106.4.2.1 Student bicycle parking. Provide permanently anchored bicycle racks conveniently accessed with a minimum of four two-bike capacity racks per new building.

5.106.4.2.2 Staff bicycle parking. Provide permanent secure bicycle parking conveniently accessed with a minimum of two staff bicycle parking spaces per new building. Acceptable parking facilities shall be convenient from the street or staff parking area and shall meet one of the following:

5.106.5.3,1 or Section 5.106.5.3.2 to facilitate future installation of electric vehicle supply equipment (EVSE). When EVSE(s) is/are installed, it shall be in accordance with the California Building Code, the California Electrical Code and as follows:

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

- A listed raceway capable of accommodating a 208/240-volt dedicated branch circuit.
- The raceway shall originate at a service panel or a subpanel serving the area, and shall terminate in close proximity to the proposed location of the charging equipment and into
- a listed suitable cabinet, box, enclosure or equivalent. 5. The service panel or subpanel shall have sufficient capacity to accommodate a

minimum 40-amprere dedicated branch circuit for the future installation of the EVSE. 5.106.5.3.2 Multiple charging space requirements. [N] When multiple charging spaces are

construction and shall be installed in accordance with the California Electrical Code. Construction plans and specifications shall include, but are not limited to, the following: The type and location of the EVSE.

- The raceway(s) shall originate at a service panel or a subpanel(s) serving the area, and shall terminate in close proximity to the proposed location of the charging equipment and into listed suitable cabinet(s), box(es), enclosure(s) or equivalent.
- Plan design shall be based upon 40-amprere minimum branch circuits.
- 4. Electrical calculations shall substantiate the design of the electrical system, to include the rating of equipment and any on-site distribution transformers and have sufficient capacity to simultaneously charge all required EVs at its full rated amperage.
- 5. The service panel or subpanel(s) shall have sufficient capacity to accommodate the required number of dedicated branch circuit(s) for the future installation of the EVSE. EV charging space calculation. [N] Table 5.106.5.3.3 shall be used to determine if single

or multiple charging space requirements apply for the future installation of EVSE. Exceptions: On a case-by-case basis where the local enforcing agency has

determined EV charging and infrastructure is not feasible based upon one or more of the following conditions: 1. Where there is insufficient electrical supply.

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

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Covered, lockable enclosures with permanently anchored racks for bicycles;

#### Lockable bicycle rooms with permanently anchored racks; or 3. Lockable, permanently anchored bicycle lockers.

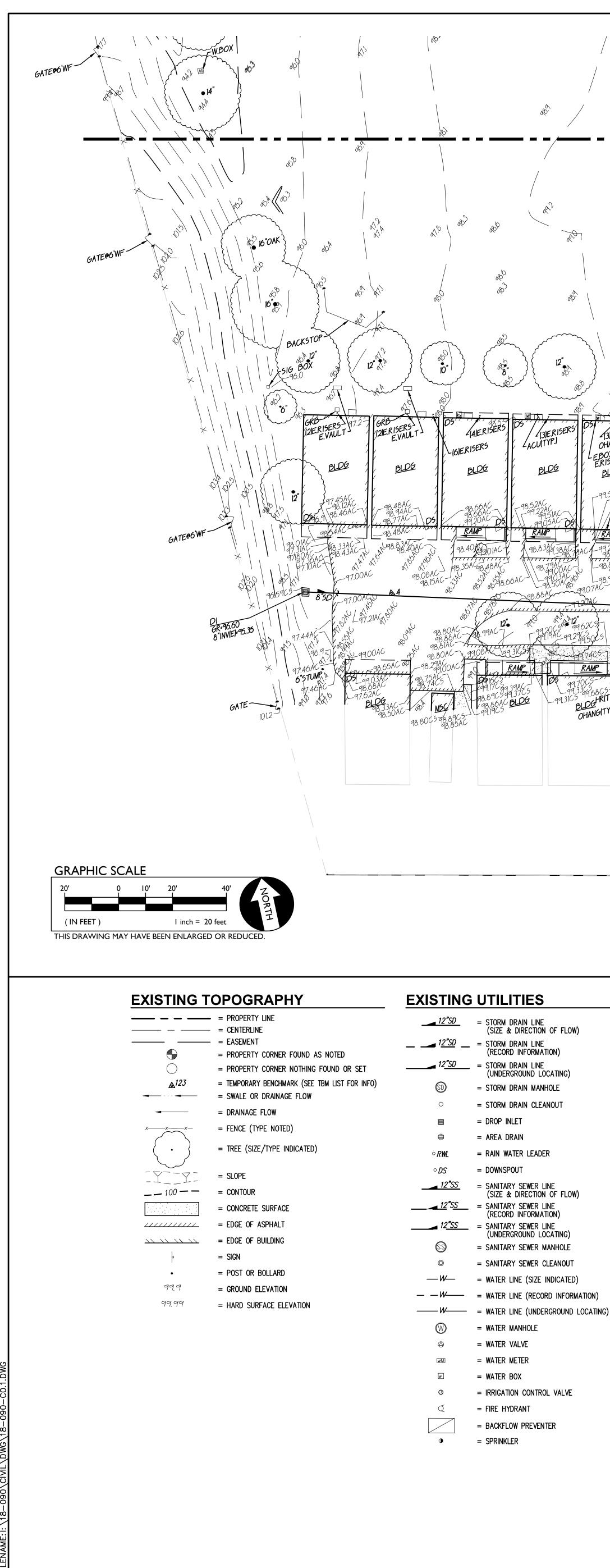
5.106.5.3 Electric vehicle (EV) charging. [N] Construction shall comply with Section

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 The type and location of the EVSE. The raceway shall not be less than trade size 1 inch. required per Table 5.106.5.3.3 raceway(s) is/are required to be installed at the time of



plot date



&? / &?	100.33LIP 100.23FL 100.31LIP			102.58C.5 102.53C.5 102.57C.5 102.57C.5 102.57C.5 102.57C.5 102.57C.5 102.50C.5 102.58C.5 102.58C.5 102.58C.5 102.58C.5 102.58C.5 102.58C.5
« <sup>i</sup> ,	$30.3 - 0^{3} - 00.55AC$	0.48L IP 00.39FL 00.31FL 00.41L IP 0.48L IP 0.45L IP 0.53AC	102.426	RWL 0 102.61C5 102.58C5 102.58C5 102.58C5 102.48C5 102.48C5 102.60C5 102.60C5 102.58C 102.58
R. 99.5	121E.RISERS ACU <u>BLDG</u> 100.76AC GRB 101.09AC 101.09AC 101.01AC 101.0AC 101.0AC WD.WALL 100.90AC WD.WALL 100.90AC 100.90AC 101.0AC 100.71AC 101.0AC 100.81AC 100.71AC 100.71AC 100.71AC 100.71AC 100.71AC 100.71AC 100.71AC 100.71AC 100.71AC 100.71AC 100.71AC 100.71AC 100.71AC 100.71AC 100.71AC	100.5765 BBALLITYP 100.5165 100.42FL 00.51LIP 100.44LIP 100.37FL 100.46LIP		
AND	E.RISERS [2]E.RISERS [2]E.RISERS [2]E.RISERS [2]E.RISERS [2]E.RISERS [2]E.RISERS [2]E.RISERS [2]E.RISERS [2]E.PANEL	D0.36L IP 00.30FL <b>55C0</b> <b>RIM+100.16</b> <b>RIM+100.16</b> 100.37C5 100.33C5 100.26FL 00.36C5 00.26C5 00.26C5		PIV WF ERISER PIV WF ERISER 10223AC 10233AC 10333AC
-99.53AC 98.99AC 98.99AC 99.73AC 99.52AC 99.52AC 99.52AC 99.73AC 99.52AC 99.73AC 99.73AC 99.52AC 99.73AC 99.74C	99.75AC 99.75AC 99.75AC 99.92AC 90.15AC 90.15AC 90.15AC 90.15AC 100.11AC 100.11AC 100.11AC 100.11AC 100.11AC 100.11AC	00.29C5 0.36AC 0.05AC 100.14C5 0.07FL 0.17C5 0.17C5 0.100.12C5 100.12C5 100.12C5 100.04FL 100.04FL 100.11L II	3'CLF BUNPERITYPI PRICE	8"INVISW 148C3 101-58G5 5IGN 101:05AC 100:05AC 1
C 99,19AC 99,45AC 99,5 99,66CS 8, 12" , 19600C 99,66CS 8, 12" , 19800C 99,66CS 9, 12" , 19800C 99,64AC 90,64AC 90,64C 90	55AC 49.990AC 99.9963AC 99.9963AC 99.9963AC 99.9963AC 99.9963AC 99.9963AC 99.9963AC 99.997A4*50 19.86C5 99.900C5 99.900C5 19.900 19.86C5 99.900C5 19.900 19.86C5 100.00C5 19.980 19.980 19.980 19.980 19.996 1		ROLLING PH	DOI
VG(TYP.) DELDE BLDE	[3]E.RISEN-		BOLLARDITY	2 - CV 3
				•14 •14 •14 •14 •14 •14 •14 •14

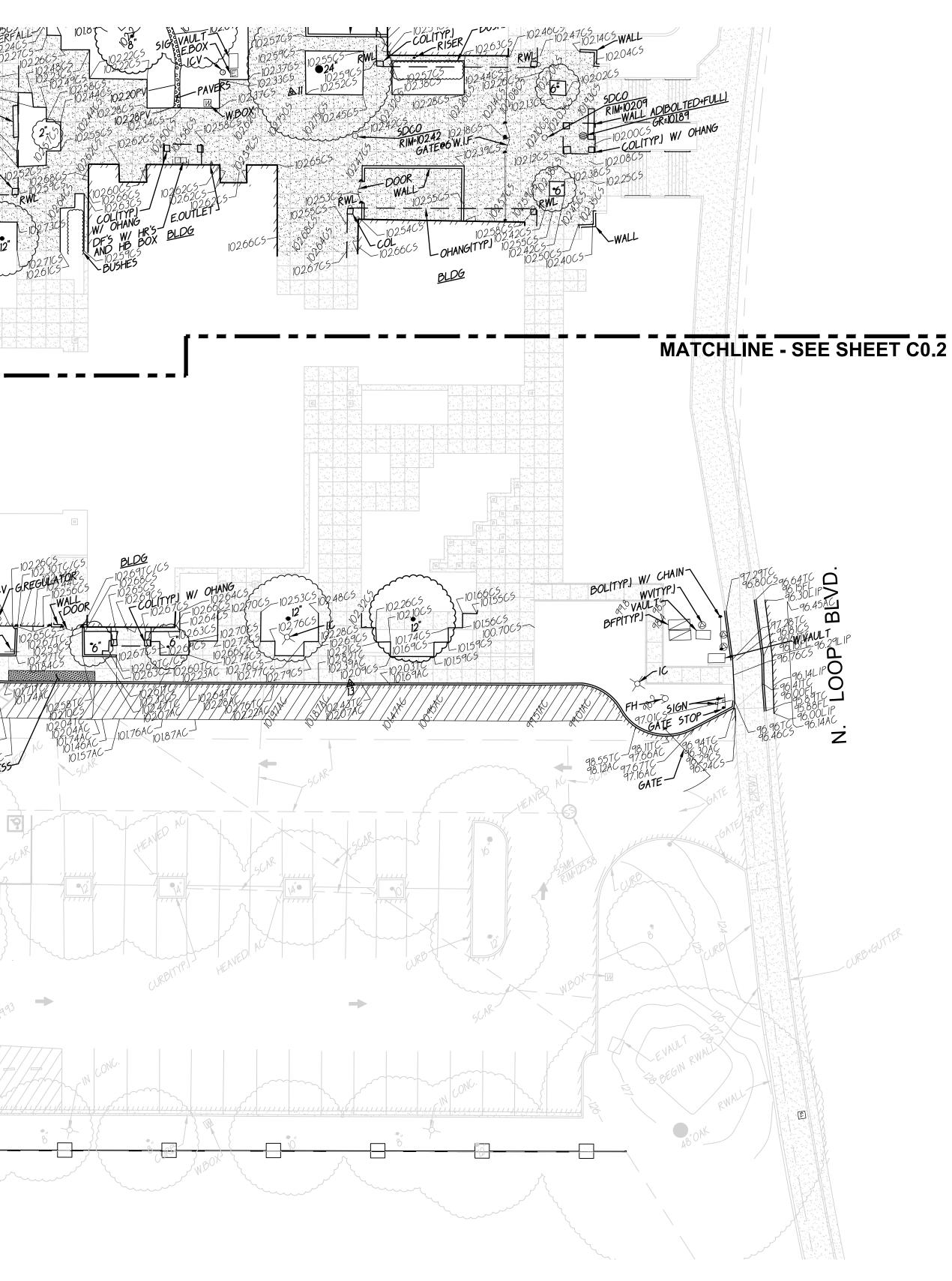
		NOTE:	NOT ALL ABBREVIATIONS MAY BE USED	ON THESE PLANS.	
φ	= HOSE BIBB	AC	ASPHALTIC CONCRETE	ICV	IRRIGATION CONTROL VALVE
— ОН-Е—	= OVERHEAD ELECTRIC LINE	AC	ACCESSIBLE	INV	PIPE INVERT ELEVATION
— OH-E—	= OVERHEAD ELECTRIC LINE	ACU	AIR CONDITIONING UNIT	IRR	IRRIGATION
— <i>Е</i> —	= UNDERGROUND ELECTRIC LINE	AD	AREA DRAIN	JP	JOINT UTILITY POLE JOINT TRENCH
_		APN	ASSESSOR'S PARCEL NUMBER	JT	JOINT TRENCH
— —E— —	= UNDERGROUND ELECTRIC LINE	ARV	AIR RELEASE VALVE	LNDG LVE	LANDING LOW VOLTAGE ELECTRIC
	(RECORD INFORMATION)	BBALL BCM	BASKETBALL POLE BRASS CAP MONUMENT	LVE M.	METAL
F	= UNDERGROUND ELECTRIC LINE	BFP	BACK FLOW PREVENTER	MH	MANHOLE
L	(UNDERGROUND LOCATING)	BL.	BLOCK	MS	MOW STRIP
		BLDG	BUILDING	MSC	METAL STORAGE CONTAINER
Ē	= ELECTRIC MANHOLE	BOL	BOLLARD	NTS	NOT TO SCALE
0		BOV	BLOW-OFF VALVE	OH	OVERHEAD
-0-	= UTILITY POLE (WITH GUY WIRE)	BR.	BRICK	OHANG	OVERHANG
	· · · ·	<i>B.W.F.</i>	BARBED WRE FENCE	OIP OSPH	OPEN IRON PIPE OLD STEEL POST HOLE
EM	= ELECTRIC METER	C/L	COMMUNICA TION CENTERLINE		PROPERTY LINE
_		CATV	CABLE TELEVISION	P/L PA	PLANTER AREA
E	= ELECTRIC BOX	CIP	CAPPED IRON PIPE	PB	PARKING BUMPER
20	CTREET LIGHTING DOV	<i>C.L.F.</i>	CHAIN LINK FENCE	PH	POSTHOLE
SLB	= STREET LIGHTING BOX	CMP	CORRUGATED METAL PIPE	PIV	POST INDICATOR VALVE
¤ OR 💢	= LIGHT STANDARD	CO	CLEANOUT	PP	POWER POLE
		COL	COLUMN	PRKG	PARKING
aaa	= SIGNAL LIGHT	CONC.	CONCRETE	PUE PV	PUBLIC UTILITY EASEMENT PAVERS
		COND. CPF	CONDENSATE CONTROL POINT FOUND	PVC	PAVERS POLYVINYL CHLORIDE
Œ	= FLOOD LIGHT	CPS	CONTROL POINT SET	R	RUBBER
		ĊŚ	CONCRETE SURFACE	RIM	MANHOLE RIM ELEVATION
$\Rightarrow$	= ELECTRICAL OUTLET	D	DEPTH	ROW	RIGHT OF WAY
G		DDC	DOUBLE DETECTOR CHECK VALVE	RP	REDUCED PRESSURE BACKFLOW
— 0—	= GAS LINE (SIZE INDICATED)	DF	DRINKING FOUNTAIN	RWALL	RETAINING WALL
— — <u>G</u> — —	= GAS LINE (RECORD INFORMATION)	DG	DECOMPOSED GRANITE	RWL	RAIN WATER LEADER
Ŭ	- GAS LINE (RECORD IN ORMATION)	DI DIA	DROP INLET DIAMETER	SD	STORM DRAIN
—— G ——	= GAS LINE (UNDERGROUND LOCATING)	DRWY	DRIVEWAY	SDMH	STORM DRAIN MANHOLE
-		DS	DOWNSPOUT	SIG SL	SIGNAL STREET LIGHT
G	= GAS MANHOLE	DWG	DRAWING	SLB	STREET LIGHT BOX
•		Ε	ELECTRIC	SLB SS	SANITARY SEWER
G	= GAS VALVE	EP	EDGE OF PAVEMENT	SSCO SSMH	SANITARY SEWER CLEANOUT SANITARY SEWER MANHOLE
		ESMT	EASEMENT	SSMH	SANIJARY SEWER MANHULE
GM	= GAS METER	EX	EXISTING EIRE ALARM	STL. T	STEEL TELEPHONE
τ	= TELEPHONE LINE	FA FDC	FIRE ALARM FIRE DEPARTMENT CONNECTION	' TBALL	TETHER BALL POLE
1		FFE	FINISHED FLOOR ELEVATION	TBM	TEMPORARY BENCHMARK
$ \tau$	= TELEPHONE LINE (RECORD INFORMATION)	FH	FIRE HYDRANT	TC	TOP OF CURB
·		FL	FLOWLINE	TOW	TOP OF WALL
—— <i>T</i> ——	= TELEPHONE LINE (UNDERGROUND LOCATING)	FO	FIBER OPTIC	<u>TP</u>	TELEPHONE POLE
_	· · · ·	FS G	FIRE SERVICE	TRW	TOP OF RETAINING WALL
SD	= STORM DRAIN BOX	G CP	GAS GRADE BREAK	UG	UNDERGROUND
_		GB GR	GRADE DREAK GRATE	UNK VBALL	UNKNOWN VOLLEYBALL
TS	= TRAFFIC SIGNAL BOX	GRB	GROUND ROD BOX	W WALL	WATER
		GROD	GROUND ROD	W/	WITH
		GV	GAS VALVE	W/0	WITHOUT
		HB	HOSE BIBB	ŴD.	WOOD
		HBD	HEADER BOARD	WF	WOOD FENCE
		HP	HIGH PRESSURE	W.I.F.	WROUGHT IRON FENCE
		HR HVE	HANDRAIL HIGH <u>VOLTAGE EL</u> ECTRIC	W.R.F. XFRMR	WOOD RAIL FENCE TRANSFORMER
		HWF	HOG WIRE FENCE	XWALK	CROSSWALK
		ĨĈ	IN CONCRETE		

ABBREVIATIONS

NOTE: NOT ALL ABBREVIATIONS MAY BE USED ON THESE PLANS.

LITY POLE ENCH AGE ELECTRIC , TORAGE CONTAINER SCALE N PIPE L POST HOLE Y LINE AREA BUMPER . ICATOR VALVE OFF TILITY EASEMENT CHLORIDE RIM ELEVATION WAY PRESSURE BACKFLOW PREVENTER G WALL TER LEADER RAIN PAIN MANHOLE GHT IGHT IGHT BOX ' SEWER ' SEWER CLEANOUT ' SEWER MANHOLE VE BALL POLE RY BENCHMARK CURB VALL IE POLE RETAINING WALL VUND

CRUSSWALK



## **TBM LIST**

• •				
<u>No.</u>	DESCRIPTION	Northing	Easting	<u>Elevation</u>
1	CPS CHISELED "+	" 5000.00 <sup>°</sup>	5000.00	100.00
2	CPS CHISELED "+	" 5098.81	5021.13	100.45
3	CPS CHISELED "+	" 5236.75	5051.04	100.10
4	CPS MAG NAIL	5035.35	4827.05	97.82
5	CPS CHISELED "+	<b>"</b> 4983.72	5132.34	101.04
6	CPS CHISELED "+	" 5115.14	5161.53	102.42
7	CPS CHISELED "+	" 5215.06	5163.18	102.45
8	CPS MAG NAIL	5432.19	5171.45	99.34
9	CPS PICKER	5446.86	4977.07	94.69
10	CPS CHISELED "+	" 5260.38	5241.84	102.78
11	CPS CHISELED "+	" 5135.15	5265.18	102.52
12	CPS CHISELED "+	" 5334.15	5288.05	99.91
13	CPS CHISELED "+	" 4971.12	5246.98	102.53
BASIS OF BEARINGS:				

# \*\*ASSUMED\*\*

F.E.M.A. INFORMATION:

THE SUBJECT PROPERTY IS LOCATED IN "ZONE X--AREA OF MINIMAL FLOOD HAZARD" PER FLOOD INSURANCE RATE MAP 06067C0076H (PANEL NOT PRINTED) DATED AUGUST 16, 2012.

#### NOTE:

EXISTING UTILITIES BASED ON VISIBLE SURFACE STRUCTURES ONLY.

plot date

5/15/2023 9:56 AM

sheet number

sheet name



SURVEY

TOPOGRAPHIC

3909 NORTH LOOP ANTELOPE, CA 95843

# OAK HILL ES HARDSHIP MODERNIZATION

client / project

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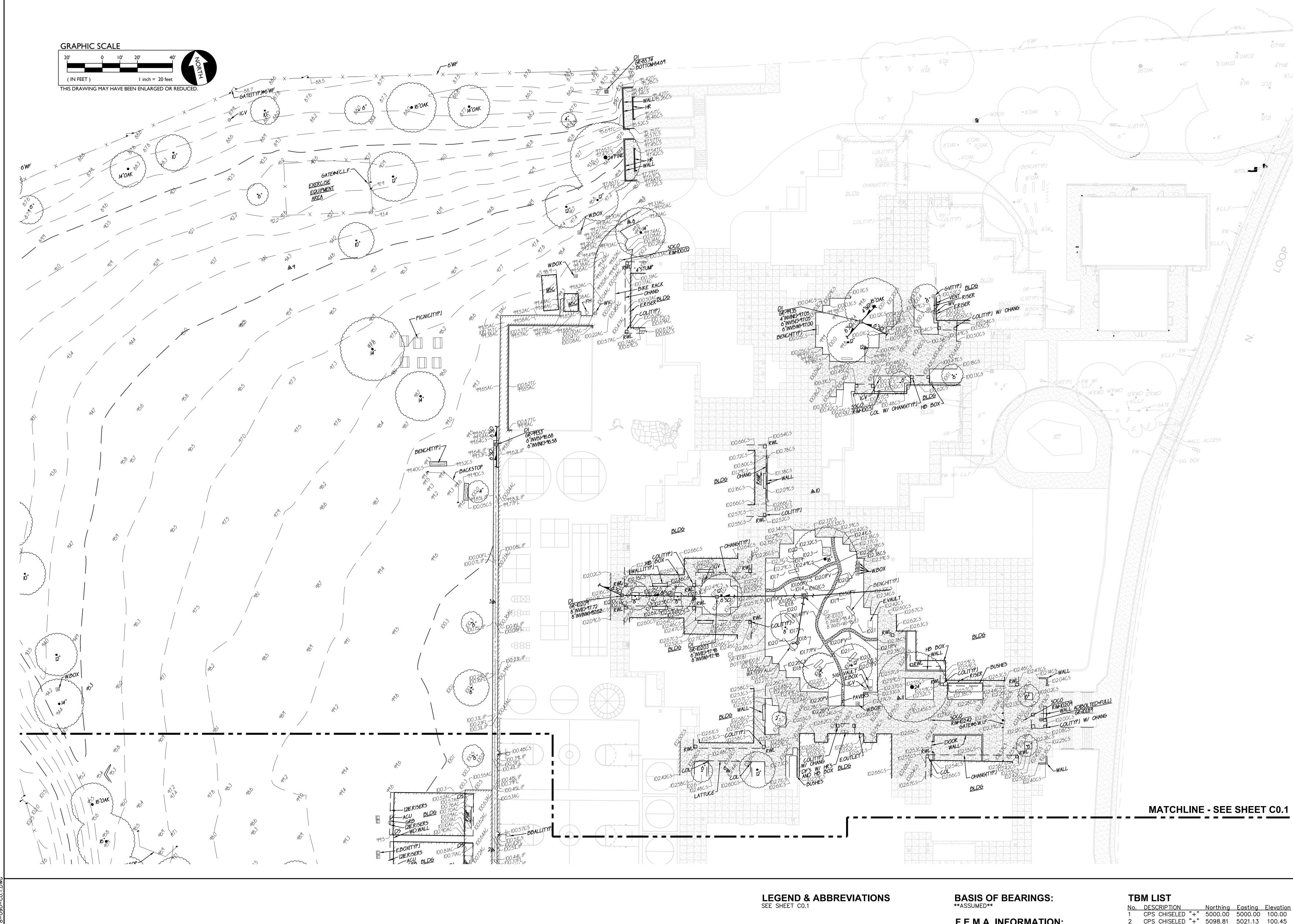
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**DSA BACKCHECK** 

project number project director project designer project architect revisions no. date revision



IDENTIFICATION STAMF DIV. OF THE STATE ARCHITEC APP: 02-121265 INC: **REVIEWED FOR** SS 🔲 FLS 🗹 ACS 🗹 DATE: 05/24/2023 architect



**F.E.M.A. INFORMATION:** THE SUBJECT PROPERTY IS LOCATED IN "ZONE X——AREA OF MINIMAL FLOOD HAZARD" PER FLOOD INSURANCE RATE MAP 06067C0076H (PANEL NOT PRINTED) DATED AUGUST 16, 2012.

<u>No.</u>	DESCRIPTION	Northing	Easting	EI
1	CPS CHISELED "+"	5000.00	5000.00	1
2	CPS CHISELED "+"	5098.81	5021.13	1
3	CPS CHISELED "+"	5236.75	5051.04	1
4	CPS MAG NAIL	5035.35	4827.05	g
5	CPS CHISELED "+"	4983.72	5132.34	1
6	CPS CHISELED "+"	5115.14	5161.53	1
7	CPS CHISELED "+"	5215.06	5163.18	1
8	CPS MAG NAIL	5432.19	5171.45	ŝ
9	CPS PICKER	5446.86	4977.07	g
10	CPS CHISELED "+"	5260.38	5241.84	1
11	CPS CHISELED "+"	5135.15	5265.18	1
12	CPS CHISELED "+"	5334.15	5288.05	g
13	CPS CHISELED "+"	4971.12	5246.98	1

**NOTE:** EXISTING UTILITIES BASED ON VISIBLE SURFACE STRUCTURES ONLY.

<u>Elevation</u> 100.00 100.45 100.45 100.10 97.82 101.04 102.42 102.45 99.34 94.69 102.78 102.52 99.91 102.53

**C0.2** 

plot date

sheet number

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sheet name TOPOGRAPHIC SURVEY

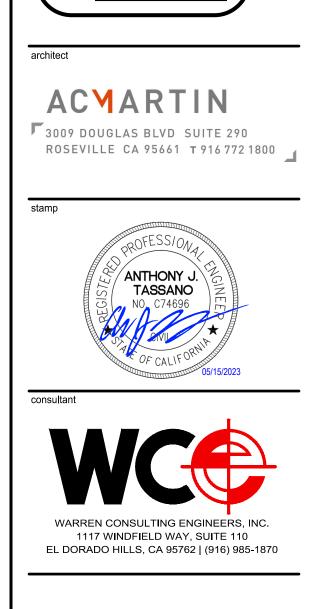
3909 NORTH LOOP ANTELOPE, CA 95843

# OAK HILL ES HARDSHIP MODERNIZATION

client / projec

# project status DSA BACKCHECK

project number	CA5602
project director	-
project designer	-
project architect	
revisions	
no. date	revision
proiect status	



IO"PINE

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 02-121265 INC: **REVIEWED FOR** SS 🗖 FLS 🗹 ACS 🗹 DATE: 05/24/2023

- IN THE EVENT THAT ANY UNUSUAL CONDITIONS NOT COVERED BY THE GEOTECHNICAL INVESTIGATION REPORT OR ARE ENCOUNTERED DURING SHALL BE IMMEDIATELY NOTIFIED FOR DIRECTIONS.
- NO BURNING OR BLASTING SHALL BE PERMITTED.
- DRAINAGE, AND UTILITY PLANS, AND THOSE PLANS PREPARED BY OTHER DISCIPLINES FOR THIS PROJECT.

- UTILITIES AS SHOWN IN THESE PLANS WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. THE CONTRACTOR IS CAUTIONED THAT ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, EXTENT, SIZES, LOCATIONS, AND DEPTHS OF SUCH UNDERGROUND UTILITIES. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE ALL KNOWN UNDERGROUND UTILITIES. HOWEVER, WARREN CONSULTING ENGINEERS CAN ASSUME NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF ITS DELINEATION OF SUCH UNDERGROUND UTILITIES, NOR FOR THE EXISTENCE OF OTHER BURIED OBJECTS OR UTILITIES WHICH MAY BE ENCOUNTERED BUT WHICH ARE NOT SHOWN ON THESE DRAWINGS. THE CONTRACTOR OR ANY SUBCONTRACTOR FOR THIS CONTRACT SHALL NOTIFY THE DISTRICT TWO (2) WORKING DAYS IN ADVANCE OF PERFORMING ANY EXCAVATION WORK IN ORDER TO VERIFY TO THE GREATEST EXTENT POSSIBLE THE EXISTING UTILITY LINES, CONFLICTS AND PROPOSED
- ITEMS SHOWN HEREON. THE CONTRACTOR SHALL GIVE THE DISTRICT NOTICE 7 DAYS PRIOR TO THE START OF DEMOLITION. THE DISTRICT SHALL MOVE ANY RETAINED ITEMS OUT OF THE CONTRACTORS WORK AREA, UNLESS ANOTHER ARRANGEMENT IS MADE WITH THE CONTRACTOR. ANY REMAINING ITEMS BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE SITE. ANY ITEMS NOT SHOWN FOR REMOVAL SHALL REMAIN AND SHALL BE PROTECTED FROM DAMAGE DURING CONSTRUCTION TO A REASONABLE EXTENT.

- DURING CONSTRUCTION AND DEMOLITION" AT ALL TIMES DURING
- BE MARKED AND PROTECTED DURING THE LIMING OPERATIONS AS WELL AS ANY EXCAVATING TASKS. ANY LOCATED UTILITY DAMAGED WITHIN THE LIMITS OF WORK WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REPAIR.
- DURING REMOVAL TO PREVENT INJURY FROM FALLING, PROJECTILE, OR OTHERWISE MOVING DEBRIS OR OTHER DELETERIOUS MATERIAL. ONSITE SAFETY WITHIN THE LIMITS OF WORK IS THE CONTRACTORS SOLE

of the nonhazardous construction and demolition waste in accordance with Section 5.408.1.1, 5.408.1.2 or 5.408.1.3; or meet a local construction and demolition waste

#### 5.408.1.1 Construction waste management plan. Where a local jurisdiction does not have a

- project or salvage for future use or sale.
- contractor.
- collected will be taken. Transport to such facilities is contractors responsibility.

Contractor shall make the determination if the construction and demolition waste material

- recycle facilities capable of compliance with this item do not exist.
- facilities and markets.

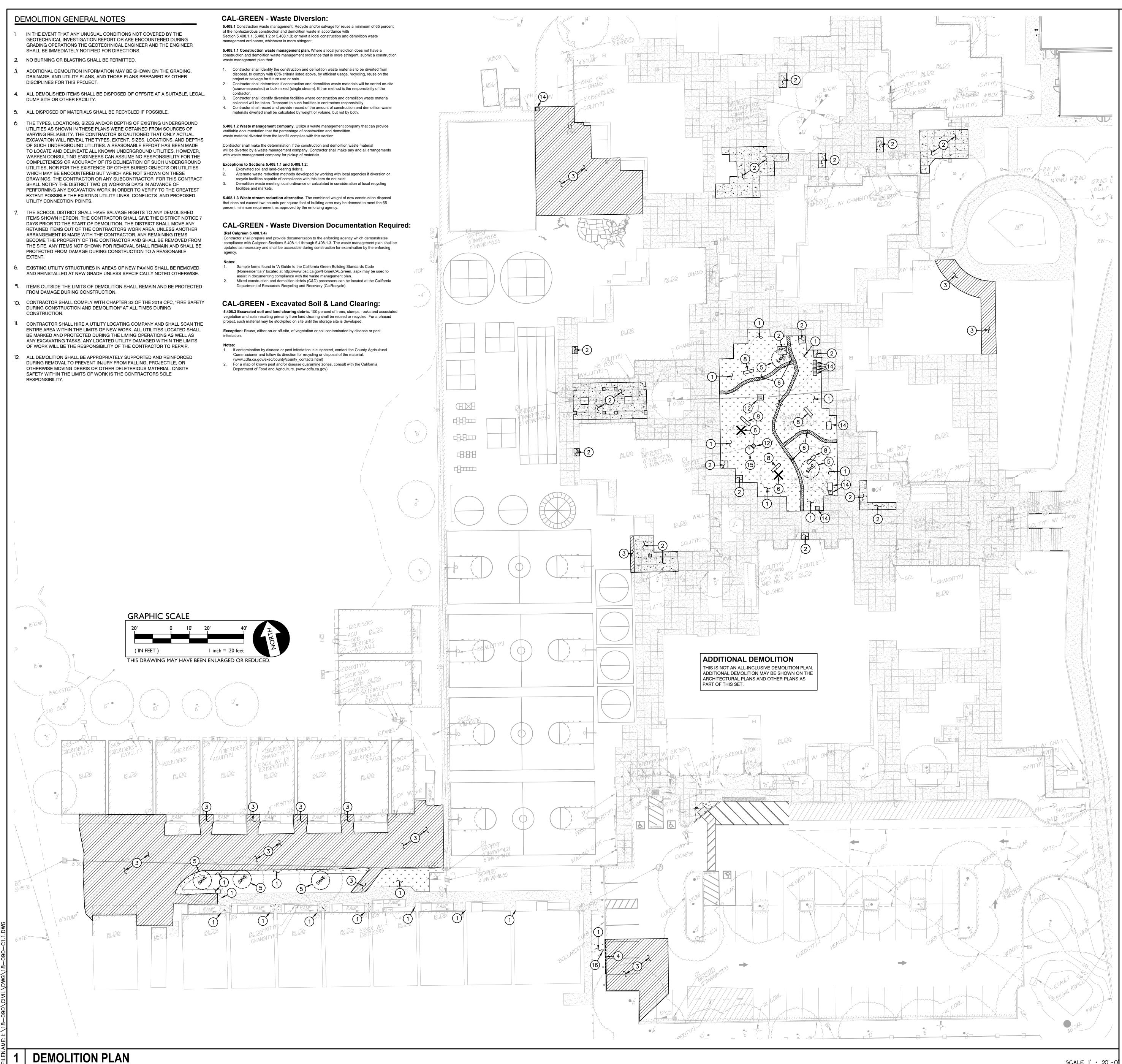
percent minimum requirement as approved by the enforcing agency.

Contractor shall prepare and provide documentation to the enforcing agency which demonstrates updated as necessary and shall be accessible during construction for examination by the enforcing

- 1. Sample forms found in "A Guide to the California Green Building Standards Code assist in documenting compliance with the waste management plan.
- Department of Resources Recycling and Recovery (CalRecycle).

project, such material may be stockpiled on site until the storage site is developed.

- (www.cdfa.ca.gov/exec/county/county\_contacts.html)



# **DEMOLITION NOTES**

 $\forall \quad \forall$ 

 $\checkmark$ 

AND/OR LEGEND (#) DEMOLITION NOTES

- REMOVE ALL PLANTS, SHRUBS, EXISTING VEGETATION. REFER TO EARTHWORK SPECIFICATIONS FOR ADDITIONAL SITE CLEARING REQUIREMENTS. SEE LANDSCAPE PLANS FOR IRRIGATION DEMOLITION AND INSTALLATION. SEE GENERAL IRRIGATION NOTE, THIS SHEET.
- REMOVE EXISTING CONCRETE PAVING AND BASE AGGREGATES (IF EXIST). WHERE SAWCUTS ARE NECESSARY, THEY SHALL BE A NEAT STRAIGHT LINE. CUT SHALL BE MADE AT NEAREST EXISTING JOINT TO LOCATION SHOWN.
- SAWCUT AND REMOVE EXISTING ASPHALT PAVING AND BASE AGGREGATE TO PROVIDE FOR NEW CONSTRUCTION. SAWCUTS SHALL BE NEAT AND STRAIGHT. MAINTAIN CLEAN STRAIGHT CUT EDGE UNTIL NEW PAVING PLACED, OR NEW CUTS WILL BE REQUIRED.
- 4. REMOVE EXISTING CONCRETE CURB/CURB GUTTER.
  - EXISTING TREE TO REMAIN AND BE PROTECTED FROM DAMAGE. PROVIDE PROTECTIVE FENCING IF NEEDED. WHEN IMMEDIATELY ADJACENT TO EQUIPMENT TRAFFIC, STRAP 2x4'S VERTICALLY AT 8" O.C. AROUND TRUNK, FROM 12" ABOVE GRADE TO 6' FEET ABOVE GRADE TO PROTECT TREE BARK FROM EQUIPMENT DAMAGE.
  - X REMOVE EXISTING TREE AND ROOTS. IF SMALL ROOTS OR ROOT FRAGMENTS REMAIN (>1/2" IN DIA.), CONTRACTOR TO REMOVE BY HAND IF NECESSARY. BACKFILL VOID PER GRADING SPECIFICATIONS. IT IS HIGHLY RECOMMENDED WET AND DRY UTILITIES BE READY TO SHUTOFF SHOULD A ROOT DAMAGE A LINE DURING TREE REMOVAL.
- -\* \* \* \* 7. REMOVE EXISTING FENCING AND OR GATES AS SHOWN. REMOVAL TO INCLUDE ALL POSTS AND CONCRETE BASES. BACKFILL WITH CLASS II AB IN 6" LIFTS, EACH COMPACTED TO 95%. FENCE TYPES MAY VARY.
  - 8. REMOVE AND SALVAGE EXISTING BENCHES. PLACE AT NEW LOCATION ONSITE PER ARCH. PLANS.
  - REMOVE EXISTING COBBLE/PAVER SURFACING AND BASE MATERIAL.
  - 10. EXISTING IRRIGATION VALVE TO REMAIN. REMOVE EXISTING BOX AND REPLACE WITH TRAFFIC RATED VALVE BOX WITH STEEL LID, OLD CASTLE B1017 OR APPROVED EQUAL. VALVES, LINES WIRES, ETC. TO REMAIN. REFER TO LANDSCAPE AND IRRIGATION PLANS FOR ADDITIONAL INFO.
  - 11. REMOVE EXISTING UTILITY VAULT/BOX. PROTECT UTILITIES FROM DAMAGE. PROVIDE NEW TRAFFIC RATED BOX WITH STEEL LID. SIZE AS NEEDED FOR UTILITY, OLD CASTLE B1017. B1324. OR B1730 OR APPROVED EQUAL. SET NEW BOX FLUSH WITH FINISHE GRADE. SEE GRADING PLAN AND UTILITY PLANS FOR ADDITIONAL INFO.
  - 12. REMOVE EXISTING DRAIN INLET. SEE DRAINAGE PLAN FOR NEW SYSTEMS.
  - 13. ADJUST EXISTING MANHOLE OR DRAIN STRUCTURE TO PROPOSED FINISHED GRADE. SEE GRADING PLAN.
  - 14. EXISTING UTILITY VAULT/BOX TO REMAIN. ADJUST TO FINISHED GRADE AS NEÉDED.
  - 15. REMOVE EXISTING WATER FOUNTAIN.
  - 16. REMOVE EXISTING PIPE BOLLARD AND FOOTING.

# **DUST CONTROL**

CONTRACTOR SHALL PROVIDE DUST CONTROL MEASURES AT ALL TIMES WHEN A SITE CONSTRUCTION ACTIVITY MAY GENERATE AIRBORNE DUST, INCLUDING BUT NOT LIMITED TO, APPLICATION OF WATER, HAUL TRUCK COVERS, STOCKPILE COVERS, STRAW/MULCH, APPROVED SOIL STABILIZATION CHEMICALS/TACKIFIERS. RETAINED VEGITATION, HYDROSEED, ETC. REFER TO CONTRACTORS SWPPP. PROJECT SPECIFICATION SECTION 31 10 00, 1.06.

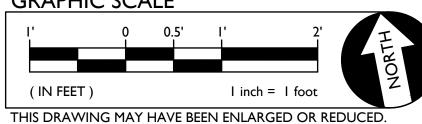
# UTILITY VERIFICATION NOTE

PRIOR TO THE START OF CONSTRUCTION, VERIFY AND POTHOLE ALL UTILITY POINTS OF CONNECTION FOR LOCATION, DEPTH, AND SIZE. IF CONFLICT IS FOUND, CONTACT THE ENGINEER IMMEDIATELY FOR DIRECTION.

# CONCRETE SAWCUT NOTE

SAWCUTS AND SUBSEQUENT PATCH BACK OF CONCRETE WALKS, SHALL BE TO THE EXISTING CONCRETE JOINT BEYOND NEAREST THE LOCATION OF DEMOLITION AS SHOWN. A REASONABLE EFFORT HAS BEEN MADE TO LOCATE, SHOW AND COORDINATE WITH EXISTING JOINTS, HOWEVER IF FIELD CONDITIONS ARE OTHERWISE, IT IS UNDERSTOOD TO REMOVE AND PATCH BACK TO THE NEAREST JOINTS BEYOND DEMOLITION.

# **GRAPHIC SCALE**







IDENTIFICATION STAMP

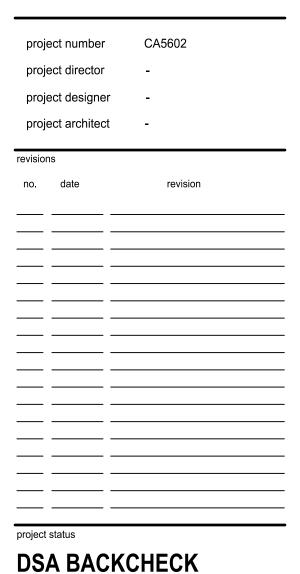
**DIV. OF THE STATE ARCHITEC** 

**REVIEWED FOR** 

SS 🔲 FLS 🗹 ACS 🗹

APP: 02-121265 INC:

DATE: 05/24/2023





OAK HILL ES HARDSHIP MODERNIZATION

3909 NORTH LOOP ANTELOPE, CA 95843

sheet name

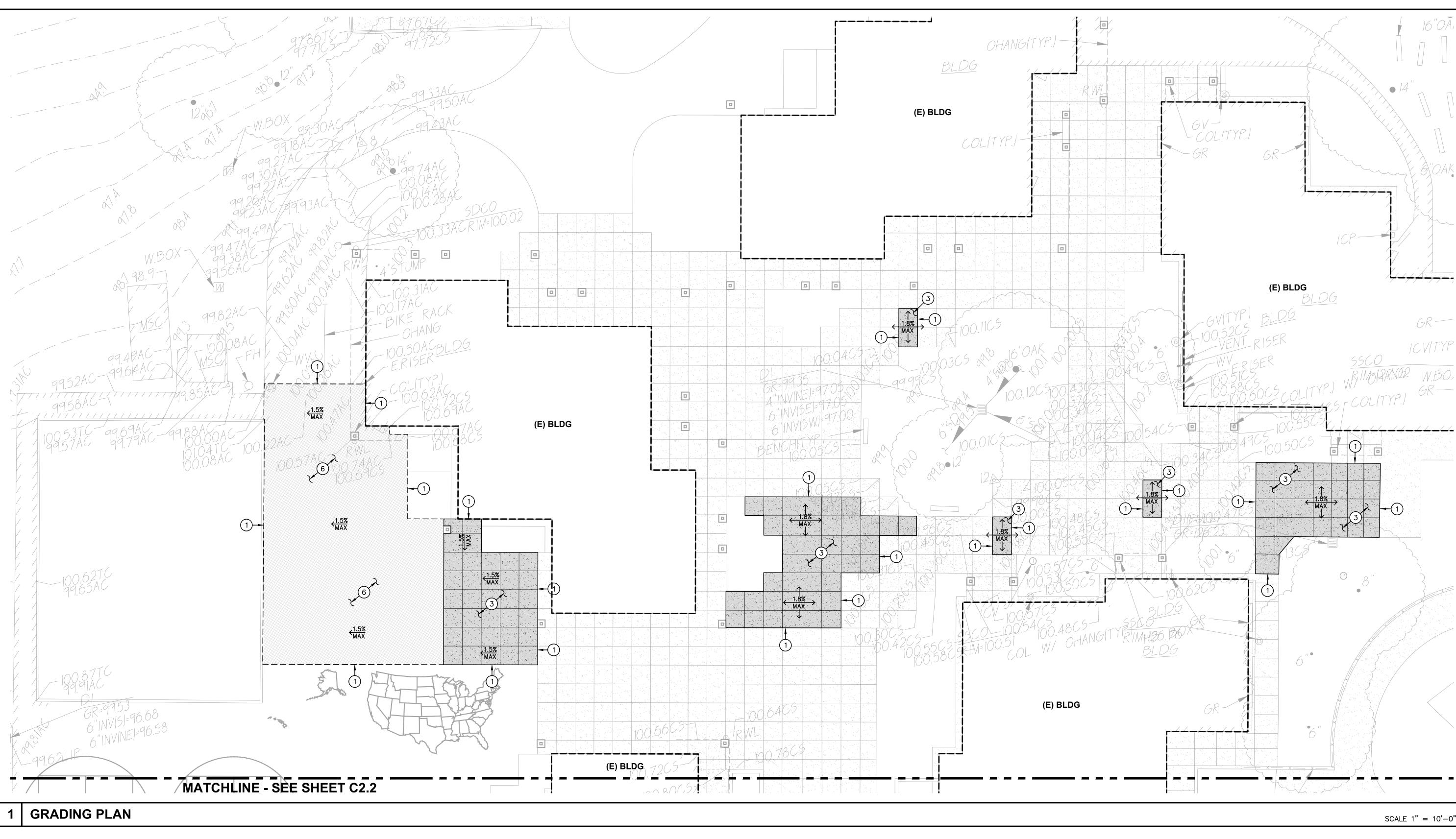
DEMOLITION PLAN

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#### LEGEND (#) CONSTRUCTION NOTES NOT ALL NOTES MAY BE USED ON THIS SHEET

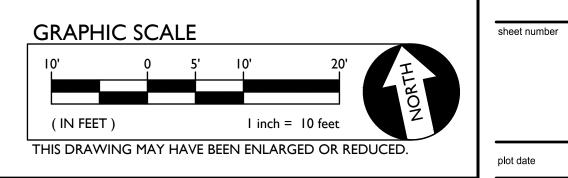
- 1. MATCH EXISTING GRADE/ELEVATION. WHEN MATCHING NEW SLABS 3TO EXISTING, DOWEL SLABS PER THE DETAIL PROVIDED AT 24" (4.1)0.C.
- 2. MATCH NEW CONCRETE FLATWORK ELEVATION TO DOORWAY THRESHOLD PER THE ARCHITECTURAL THRESHOLD DETAILS. TRANSITION SHALL NOT EXCEED 1/4", OR 1/2" WITH APPROPRIATE TAPER.
- PLACE CONCRETE PAVING PER THE TYPICAL DETAILS PROVIDED. REFER TO PAVING PLAN FOR SECTIONS. REFER TO SPECIFICATIONS SECTION 31 00 00 FOR SUBGRADE PREPARATION, SECTION 32 16 00 FOR CONCRETE PAVING.
- 4. CONSTRUCT CONCRETE CURB PER THE DETAIL PROVIDED (13) C4.1
- - ASPHALT PAVING. REFER TO PAVING PLAN FOR SECTIONS. REFER TO SPECIFICATIONS SECTION 32 12 00 FOR MATERIALS AND CONSTRUCTION. REFER TO SECTION 31 00 00 FOR SUBGRADE PREPARATION.
  - 7. REMOVE EXISTING UTILITY BOX AND INSTALL NEW TRAFFIC RATED UTILITY BOX OF SAME SIZE AND APPROPRIATE FOR UTILITY. SET NEW BOX FLUSH WITH PROPOSED FINISHED GRADE. WHEN IN NEW CONCRETE AREAS, ALIGN WITH NEW JOINT PATTERNS WHEN POSSIBLE. ACCEPTABLE BOXES: OLD CASTLE OLD CASTLE B1017, B1324, OR B1730 OR APPROVED EQUAL. MARK FOR UTILITY.
- 8. SEE ARCH. PLANS FOR NEW FENCING.
- NEW LANDSCAPING AREA. PREPARE SUBGRADE, PLACE TOPSOIL WITH AMENDMENTS (AS REQUIRED) AND PROVIDE NEW PLANTING AND IRRIGATION AS SHOWN ON LANDSCAPE DRAWINGS. SEE LANDSCAPE DRAWINGS FOR ADDITIONAL INFORMATION.
- 10. PATCH BACK EXISTING LANDSCAPING AND IRRIGATION ALONG EDGES OF WORK TO MATCH EXISTING CONDITIONS. REPAIR ALL LATERALS AND REPLACE OR RELOCATE HEADS AS NEEDED FOR COVERAGE. PROVIDE NEW SOD IN LAWN AREAS OVER AMENDED AND PREPARED SOIL. SEE LANDSCAPE PLANS FOR ADDITIONAL INFO. IF NO LANDSCAPING EXISTING OR PROPOSED, PROVIDED EROSION HYDROSEED AT MINIMUM.

- **V** 4 C4.1 C4.1
- 5. CONSTRUCT FLUSH CONCRETE CURB PER THE DETAIL PROVIDED. 5

- (#) DRAINAGE NOTES
- NOT ALL NOTES MAY BE USED ON THIS SHEET 30. CONSTRUCT DRAIN INLET PER THE DETAIL PROVIDED  $\left(\begin{array}{c} 9 \\ C \end{array}\right)$
- 31. CONSTRUCT AREA DRAIN PER THE DETAIL PROVIDED.  $\left(\begin{array}{c} 10 \\ C4.1 \end{array}\right)$
- 32. PROVIDE AND INSTALL 4" STORM DRAIN, PVC, SDR-35, OR APPROVED EQUAL. SLOPE SHALL BE 0.015 MIN. (1.5%) UNLESS SPECIFICALLY NOTED OTHERWISE.
- 33. PROVIDE AND INSTALL 6" STORM DRAIN, PVC, SDR-35, OR APPROVED EQUAL. SLOPE SHALL BE 0.010 MIN. (1.0%) UNLESS SPECIFICALLY NOTED OTHERWISE.
- 34. CONSTRUCT PLANTER DRAIN PER THE DETAIL PROVIDED.  $\binom{12}{C4.1}$
- 35. CONSTRUCT 24" MANHOLE PER THE DETAIL PROVIDED.  $\begin{pmatrix} 14 \\ C4.1 \end{pmatrix}$ 36. CONNECT TO EXISTING STORM DRAIN. PROVIDE ALL PIPE, FITTINGS, COUPLERS AND ADAPTORS NEEDED TO MAKE CONNECTION. POTHOLE TO VERIFY EXISTING LINE LOCATION, DEPTH AND CONDITION PRIOR TO TRENCHING.

PAVEMENT SLOPE AT BUILDINGS

IN ADDITION TO THE MAXIMUM SLOPES SHOWN, PAVING WITHIN 5 FEET OF BUILDING SHALL SLOPE AT LEAST 1% AWAY FROM BUILDING. GRADES HAVE BEEN DESIGNED TO PROVIDE AT LEAST THIS MINIMUM SLOPE, HOWEVER, CONTRACTOR SHALL VERIFY IN FIELD PRIOR TO POURING.





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sheet name

3909 NORTH LOOP ANTELOPE, CA 95843

# OAK HILL ES HARDSHIP MODERNIZATION

client / project

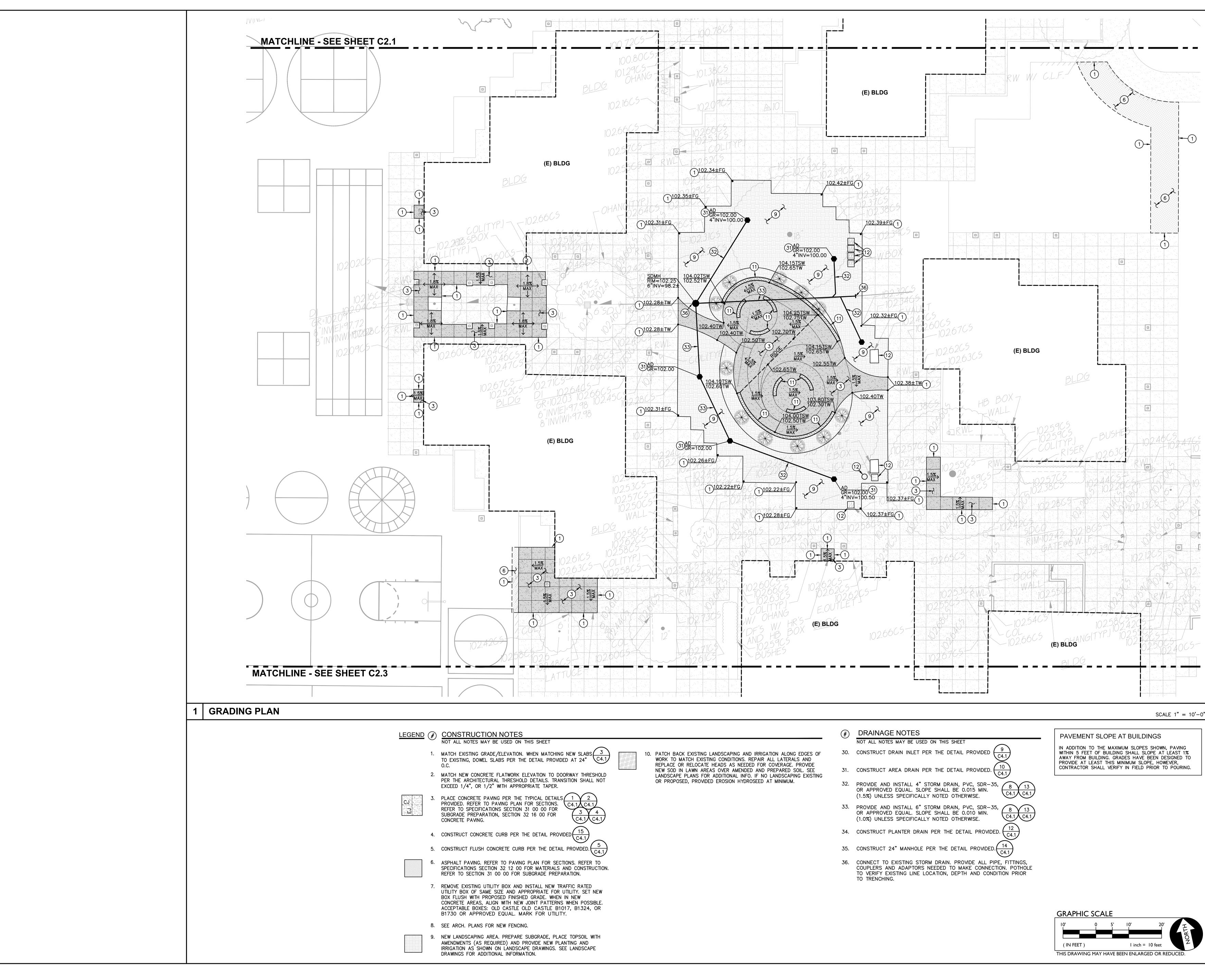
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project director







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# GRADING PLAN

3909 NORTH LOOP ANTELOPE, CA 95843

# OAK HILL ES HARDSHIP MODERNIZATION

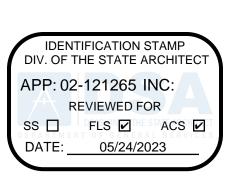
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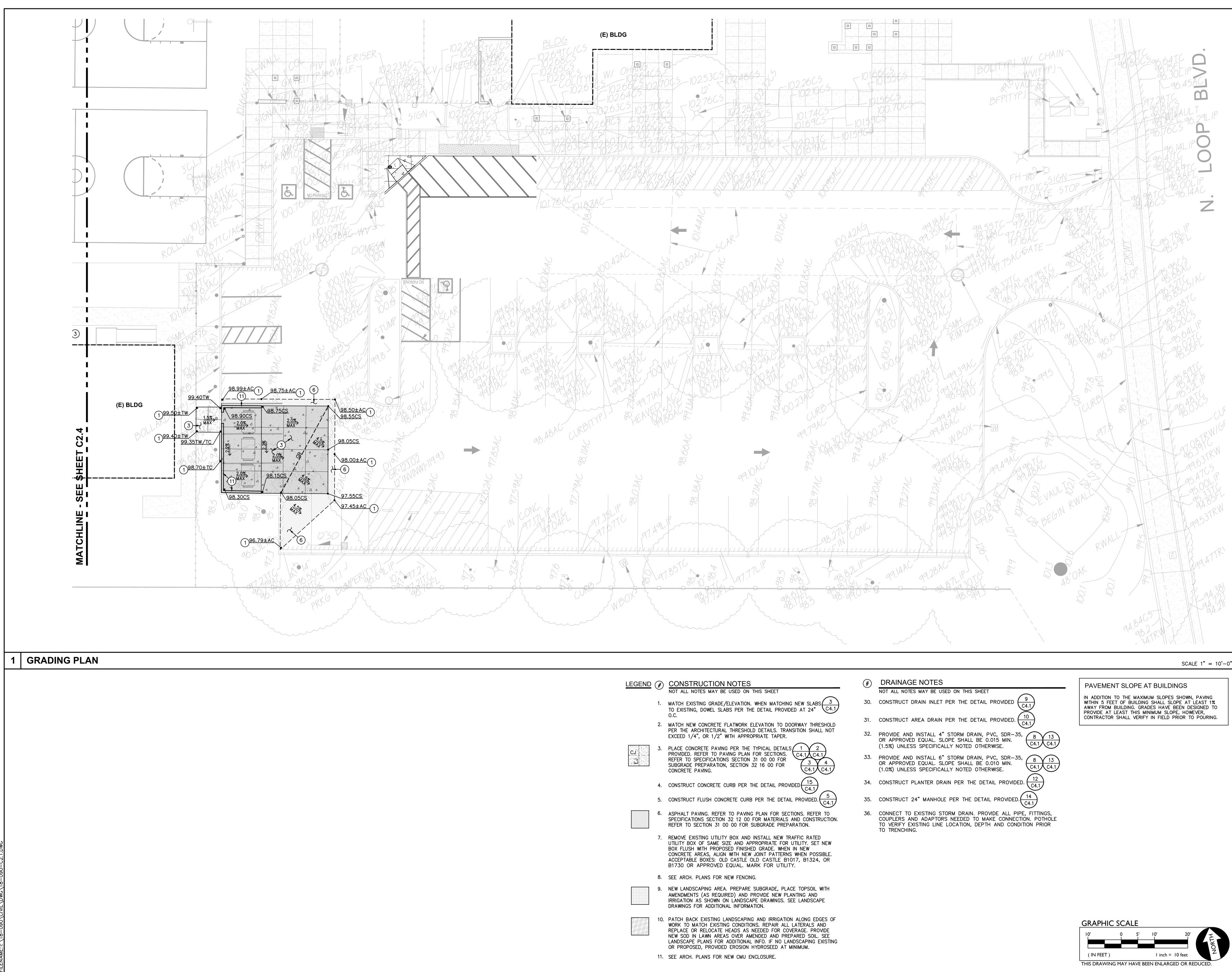
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3909 NORTH LOOP ANTELOPE, CA 95843

# OAK HILL ES HARDSHIP MODERNIZATION

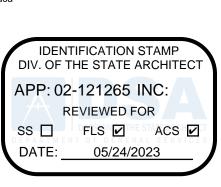
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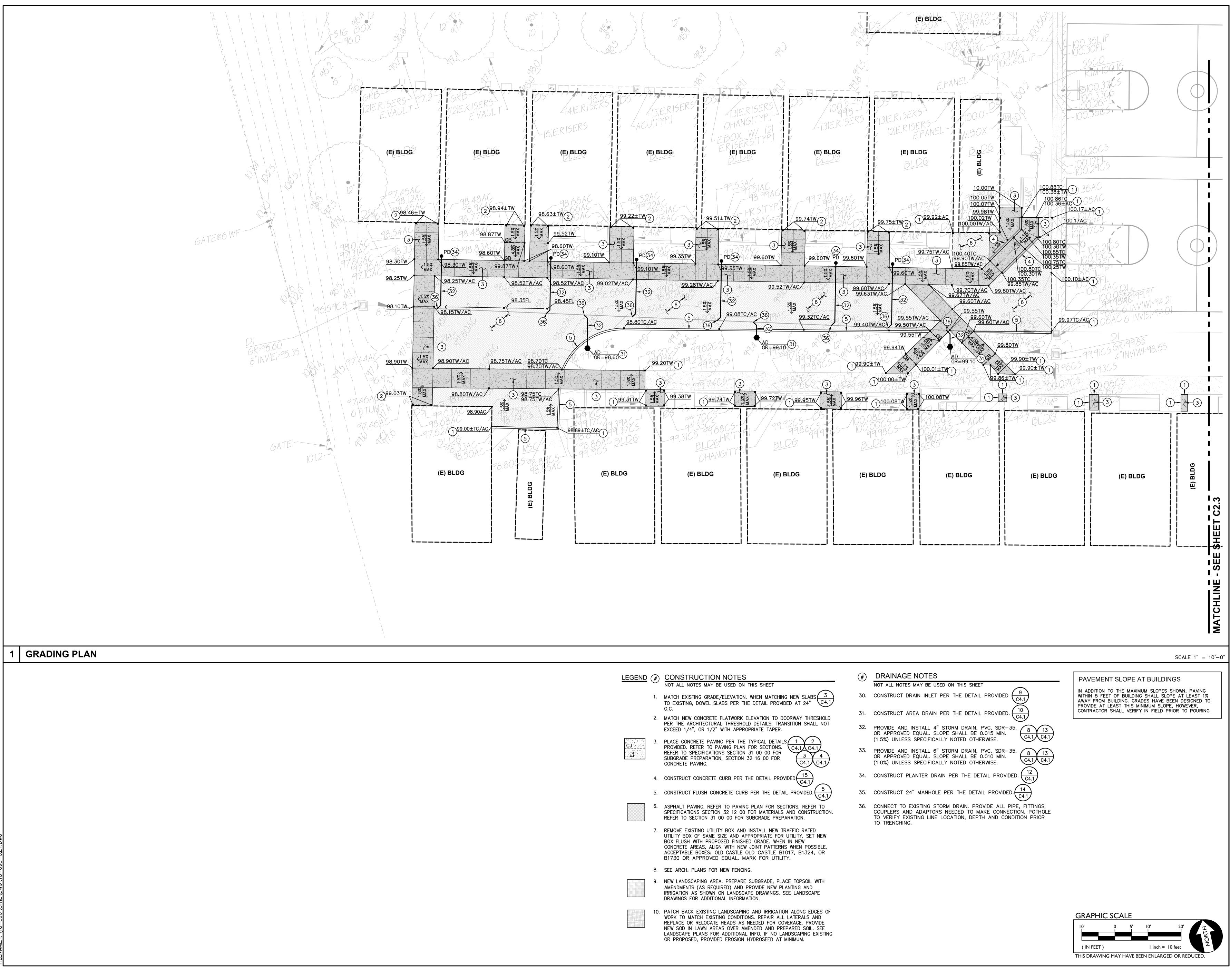
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	(#)	
	$\bigcirc$	NOT ALL NOTES MAY BE USED ON THIS SHEE
	1.	MATCH EXISTING GRADE/ELEVATION. WHEN MA TO EXISTING, DOWEL SLABS PER THE DETAIL F O.C.
	2.	MATCH NEW CONCRETE FLATWORK ELEVATION PER THE ARCHITECTURAL THRESHOLD DETAILS EXCEED 1/4", OR 1/2" WITH APPROPRIATE TA
CJ	3.	PLACE CONCRETE PAVING PER THE TYPICAL D PROVIDED. REFER TO PAVING PLAN FOR SECTI REFER TO SPECIFICATIONS SECTION 31 00 00 SUBGRADE PREPARATION, SECTION 32 16 00 CONCRETE PAVING.
	4.	CONSTRUCT CONCRETE CURB PER THE DETAIL
	5.	CONSTRUCT FLUSH CONCRETE CURB PER THE



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3909 NORTH LOOP ANTELOPE, CA 95843

# OAK HILL ES HARDSHIP MODERNIZATION

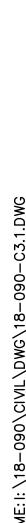
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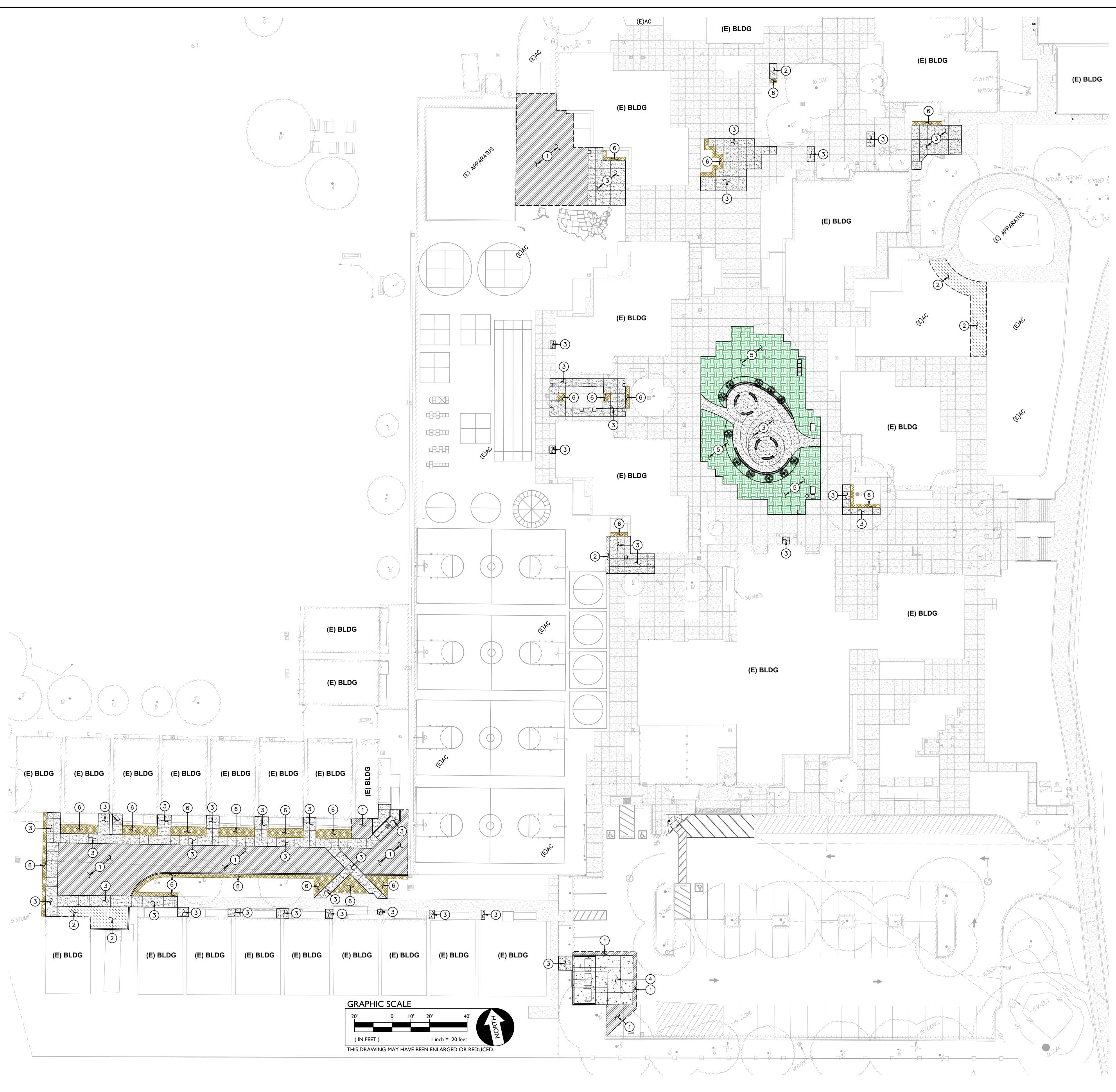
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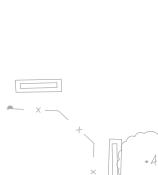


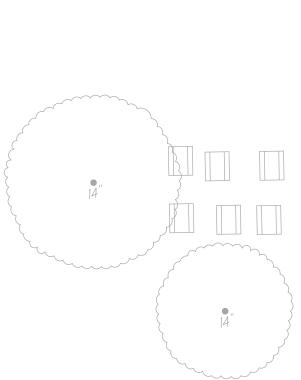












PAVING GENERAL NOTES:

- ASPHALT MIX SHALL MEET CALTRANS SPECIFICATIONS FOR TYPE B ASPHALTIC CONCRETE. REFERENCE CALTRANS SPECIFICATION SECTION 39, AND PROJECT SPECIFICATIONS
- AGGREGATE BASE SHALL MEET CALTRANS SPECIFICATIONS FOR CLASS II AGGREGATE BASE. REFERENCE CALTRANS SPECIFICATION SECTION 26. AND PROJECT SPECIFICATIONS
- . ALL AGGREGATE BASE SHALL BE MOISTURE CONDITIONED TO, OR SLIGHTLY ABOVE, OPTIMUM MOISURE CONTENT AND COMPACTED TO 95% RELATIVE COMPACTION.
- RECYCLED ASPHALT MAY BE USED AS CONCRETE AND ASPHALT BASE MATERIAL PROVIDED IT MEETS CALTRANS SPECIFICATIONS FOR CLASS II AB, REFERENCE CALTRANS SPECIFICATION SECTION 26-1.02A.
- PAVEMENT SUBGRADE PREPARATION, I.E. SCARIFICATION, MOISTURE CONDITIONING, LIME TREATMENT (IF USED), AND COMPACTION SHALL BE PERFORMED AFTER THE INSTALLATION OF UNDERGROUND UTILITIES AND TRENCHES BACKFILLED IN ACCORDANCE WITH THESE PLANS.
- ALL AREAS DISTURBED BY GRADING, DEMOLITION, OR CONSTRUCTION ACCESS, WHICH ARE NOT SURFACED BY THIS SET OF PLANS, OR LANDSCAPE PLANS, SHALL BE SEEDED WITH EROSION CONTROL TYPE NON-WATERED SEED MIX. REFER TO EROSION CONTROL SPECIFICATIONS FOR ACCEPTABLE SEED MIXES.
- ALL NEW ASPHALT PAVING SHALL RECIEVE SEALCOAT, 2 COATS. MIN. REFER TO PROJECT SPECIFICATIONS. CONTRACTOR SHALL ALLOW FOR 30 DAYS MIN. OF ASPHALT PAVEMENT CURING PRIOR TO SEALCOAT PLACEMENT. IF CONTRACTORS SCHEDULE DOES NOT PERMIT CURING, CONTRACTOR WILL PROVIDE, AT HIS COST, TEMPORARY STRIPING. TEMPORARY STRIPING SHALL BE REMOVED AFTER CURING PERIOD AND SEALCOAT APPLIED WITH NEW REPLACEMENT STRIPING. CONTRACTOR SHALL COORDINATE THIS WORK WITH THE OWNER/DISTRICT.
- REFER TO GRADING PLANS FOR CURBS, CURB GUTTERS, VALLEY GUTTERS, AND OTHER CONCRETE STRUCTURES AND PAVING FEATURES NOT SPECIFICALLY NOTED ON THIS PLAN.

# **CONCRETE FINISH GENERAL NOTES**

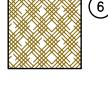
- REFER TO ARCHITECTURAL PLANS FOR ANY SPECIAL CONCRETE FINISHES SPECIFIED WHICH SHALL OVERRIDE THOSE SPECIFIED BELOW.
- PROVIDE EQUIVALENT OF MEDIUM BROOM FINISH AT SLOPES UP TO 5.99%, TYPICAL. 3. PROVIDE EQUIVALENT OF HEAVY BROOM FINISH AT SLOPES 6% AND GREATER.

# CONTRACTORS OPTION

AT CONTRACTORS OPTION: 1. #4 REBAR AT 24" O.C.E.W. = #3 BARS AT 18" O.C.E.W. 2. #4 REBAR AT 18" O.C.E.W. = #3 BARS AT 12" O.C.E.W.

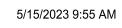
# PAVING LEGEND

	) <u>TYPE 1 PAVING – GENERAL TRAFFIC &amp; FIRE LANES</u> PLACE <u>3"</u> AC OVER <u>12"</u> CLASS II AB OVER SUBGRADE PREPARED IN ACCORDANCE WITH SPECIFICATION SECTION 31 00 00, ASPHALT PER SPECIFICATION SECTION 32 12 00. PROVIDE SEALCOAT PER SPECIFICATIONS, 2 COATS.
2	) <u>TYPE 2 PAVING – LIGHT TRAFFIC &amp; HARDCOURTS</u> PLACE <b>2.5</b> " AC OVER <u>6</u> " CLASS II AB OVER SUBGRADE PREPARED IN ACCORDANCE WITH SPECIFICATION SECTION 31 00 00, ASPHALT PER SPECIFICATION SECTION 32 12 00. PROVIDE SEALCOAT PER SPECIFICATIONS, 2 COATS.
CJ GJ	TYPE 3 PAVING         PLACE 5" PCC OVER 4" CLASS II AB OVER         SUBGRADE PREPARED IN ACCORDANCE WITH SPECIFICATION         SECTION 31 00 00. CONCRETE PER SECTION 32 16 00 AND         REINFORCED WITH #4 REBAR AT 18" O.C.E.W. REFER ALSO         TO DETAILS PROVIDED.
	TYPE 4 PAVING PLACE <u>6</u> " PCC OVER <u>6</u> " CLASS II AB OVER SUBGRADE PREPARED IN ACCORDANCE WITH SPECIFICATION SECTION 31 00 00. CONCRETE PER SECTION 32 16 00 AND REINFORCED WITH #4 REBAR AT 12" O.C.E.W. REFER ALSO TO DETAILS PROVIDED.
5	) TYPE 5 SURFACING PLACE 12" LAYER AMENDED NATIVE OR AMENDED IMPORTED TOPSOIL FOR NEW LANDSCAPING. TOPSOIL SHALL BE IN ACCORDANCE WITH THE LANDSCAPE SPECIFICATIONS. PLACE IN LIFTS NOT EXCEEDING 12" IN UNCOMPACTED THICKNESS AND COMPACT TO 85% RELATIVE COMPACTION UNTIL TOPSOIL SUBGRADE IS ACHIEVED. SUBGRADE SHALL BE PLACED AND COMPACTED PER SPECIFICATION SECTION <u>31 00 00</u> . REFER TO LANDSCAPE PLANS FOR IRRIGATION AND PLANTING. ANY ENCROACHING LIME TREATMENT NEEDS TO BE EXCAVATED TO AT LEAST 12" DOWN FROM FG AND BACKFILLED WITH COMPACTED NATIVE TOPSOIL MATERIAL.



6 <u>TYPE 6 SURFACING</u>

PATCH BACK EXISTING LANDSCAPING AND IRRIGATION. REPLACE AND/OR RELOCATE HEADS AS NEEDED TO PROVIDE PROPER COVERAGE. NO IRRIGATION REQUIRED IF NONE EXISTING. PROVIDE EROSION CONTROL HYDROSEED IF NO EXISTING LANDSCAPING/PLANTING.



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ANTELOPE, CA 95843

3909 NORTH LOOP

HARDSHIP MODERNIZATION

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ANTHONY J. TASSANO consultan WARREN CONSULTING ENGINEERS, INC. 1117 WINDFIELD WAY, SUITE 110 EL DORADO HILLS, CA 95762 | (916) 985-1870

architect ACMARTIN 3009 DOUGLAS BLVD SUITE 290 ROSEVILLE CA 95661 T 916 772 1800

IDENTIFICATION STAMP

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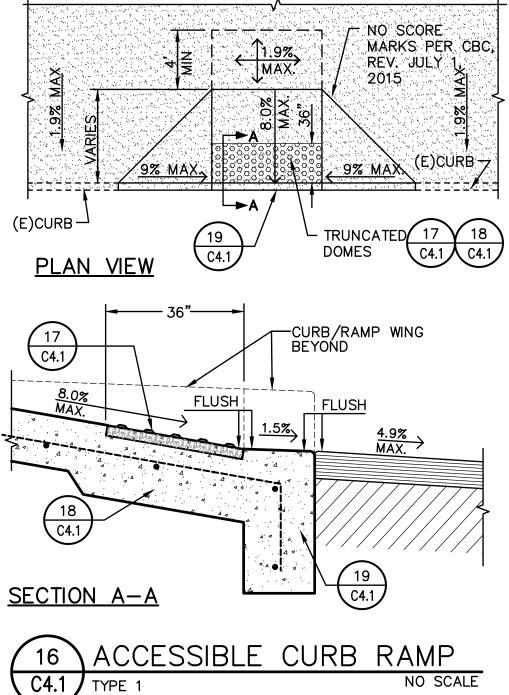
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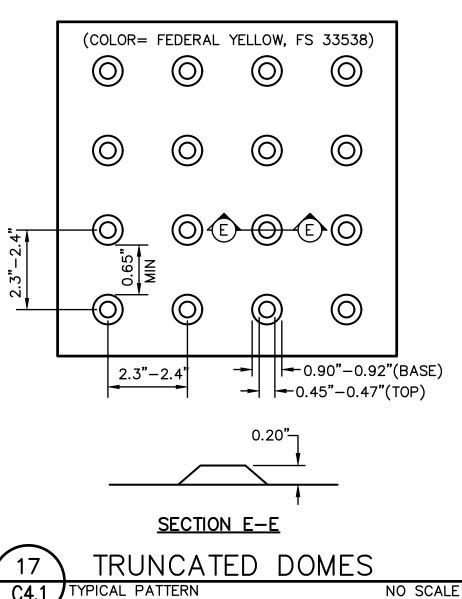
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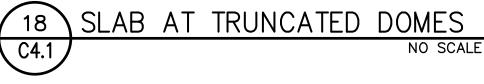
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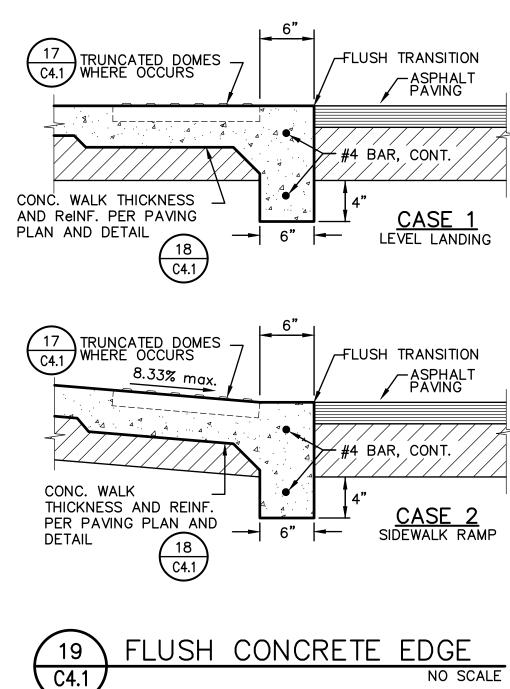




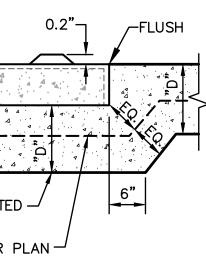
C4.1 / TYPICAL PATTERN

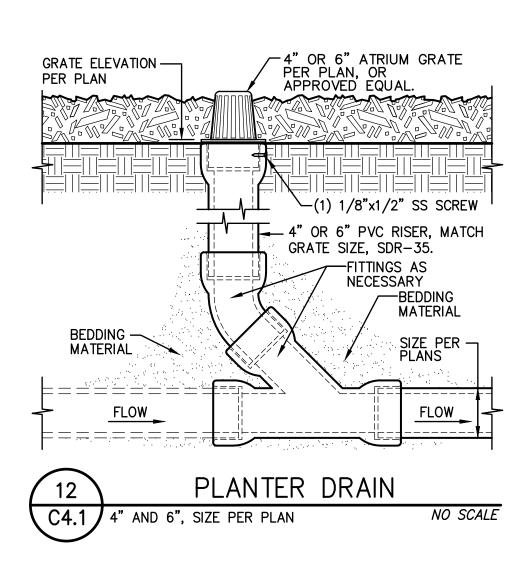
	CAST-IN-PLACE	
<		
	THICKEN PAVING UN DOMES TO MATCH SECTION.	
	$\frown$	

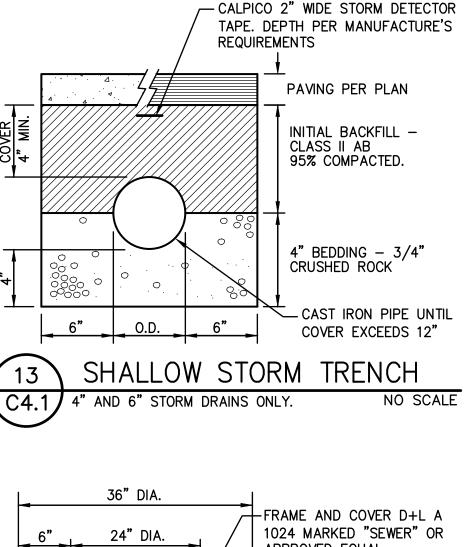


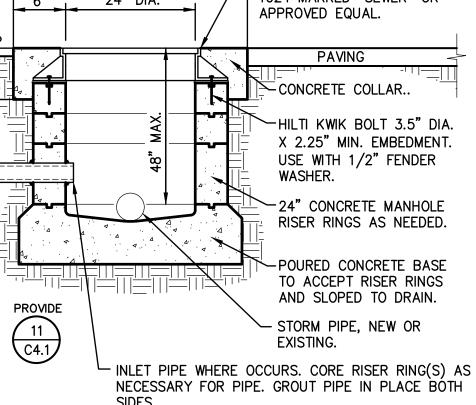


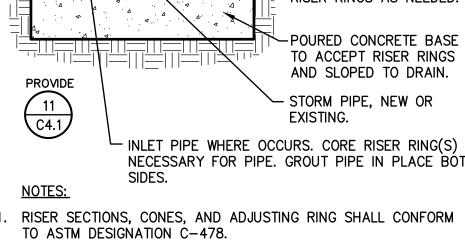












2. FRAME SHALL BE SECURED TO RISER OR FLAT SLAB TOP WITH

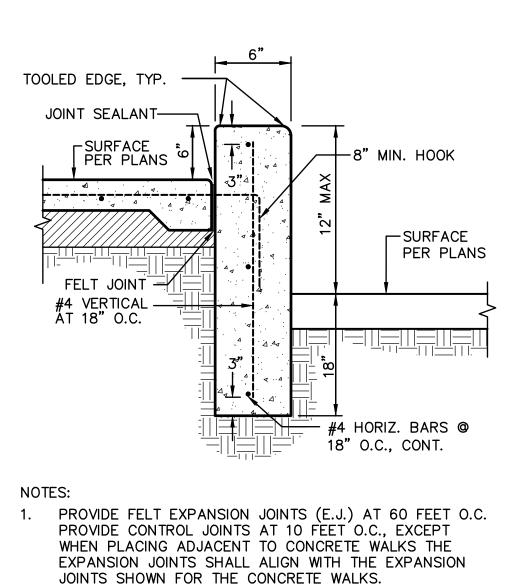
CEMENT MORTAR.

3. CONCRETE BASE MAY BE CAST-IN-PLACE AND POURED AGAINST UNDISTURBED MATERIAL, 3000. PSI MIN.

4. CONCRETE BASE MAY BE PRE-CAST CONCRETE SET ON 4" MIN. 3/4" CRUSHED ROCK PLACED ON COMPACTED SUBGRADE.

5. ALL JOINTS SHALL BE SEALED WITH GROUT.





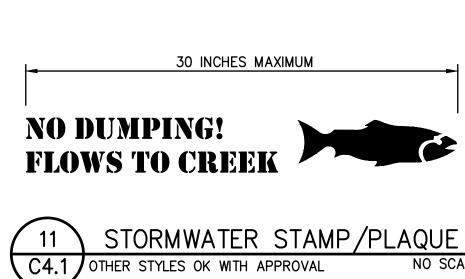
2. AT E.J. USE 1/2"X24" SMOOTH DOWELS, ALIGN WITH

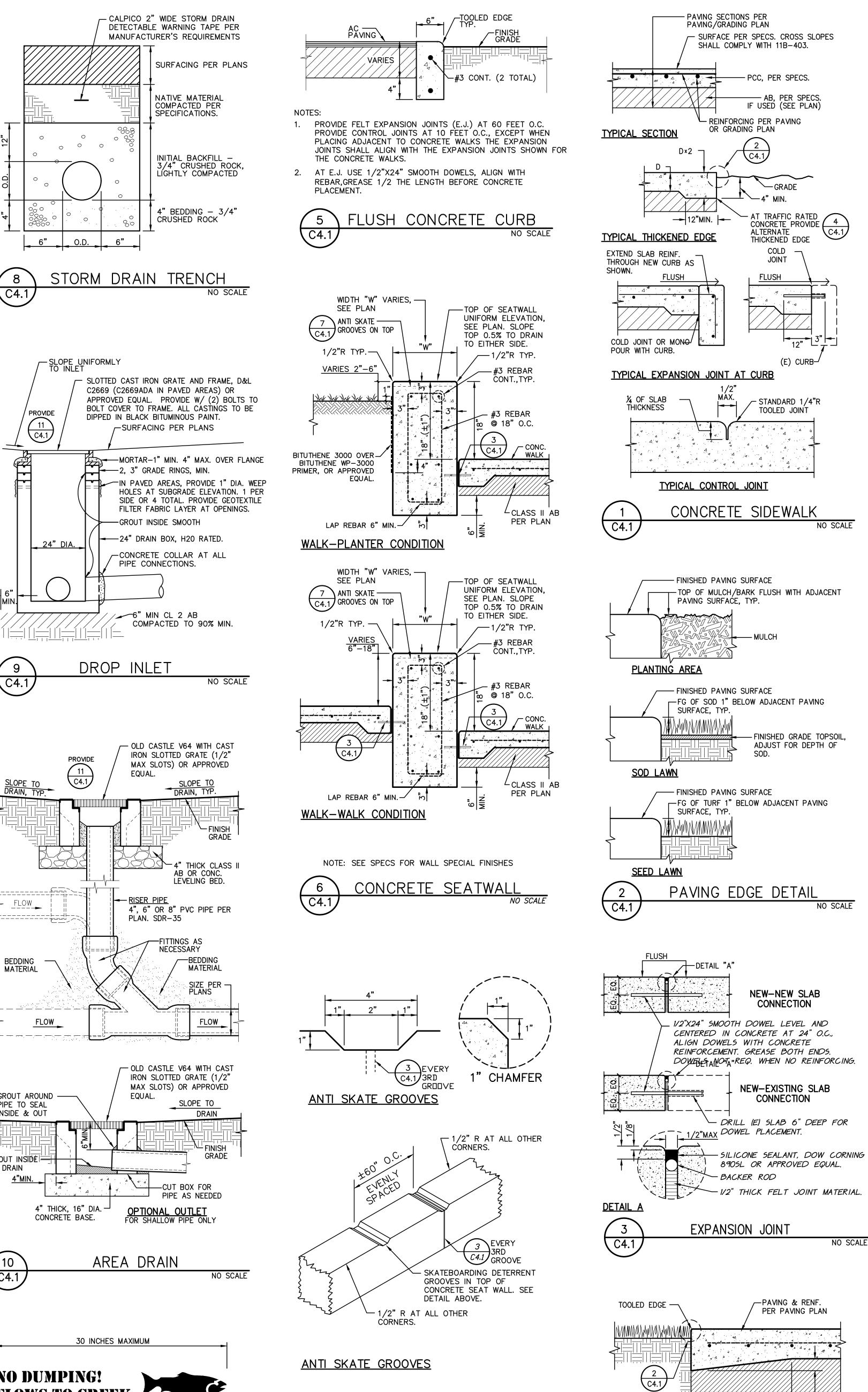
PLACEMENT.

REBAR, GREASE 1/2 THE LENGTH BEFORE CONCRETE

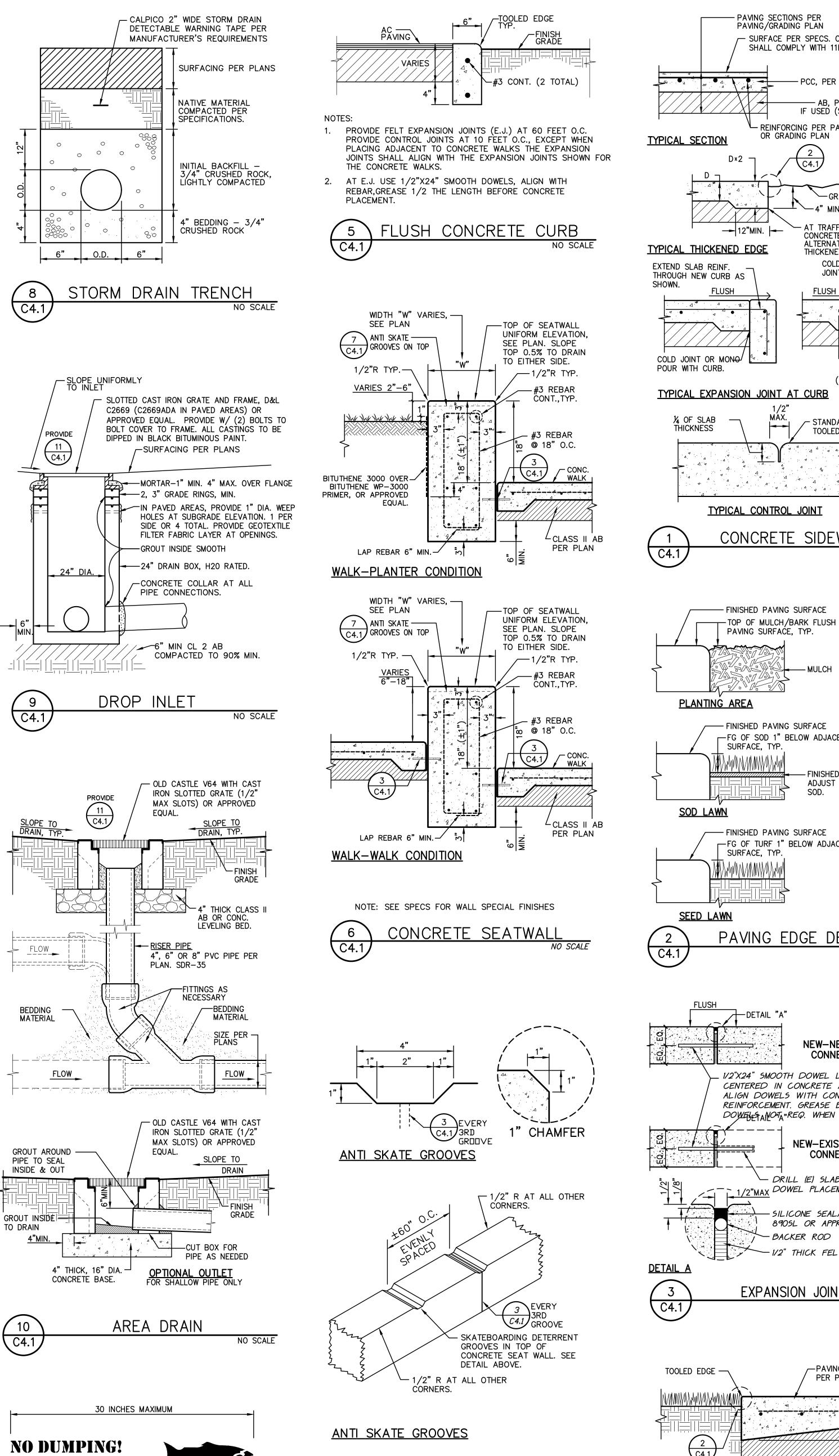
RETAINING CURB

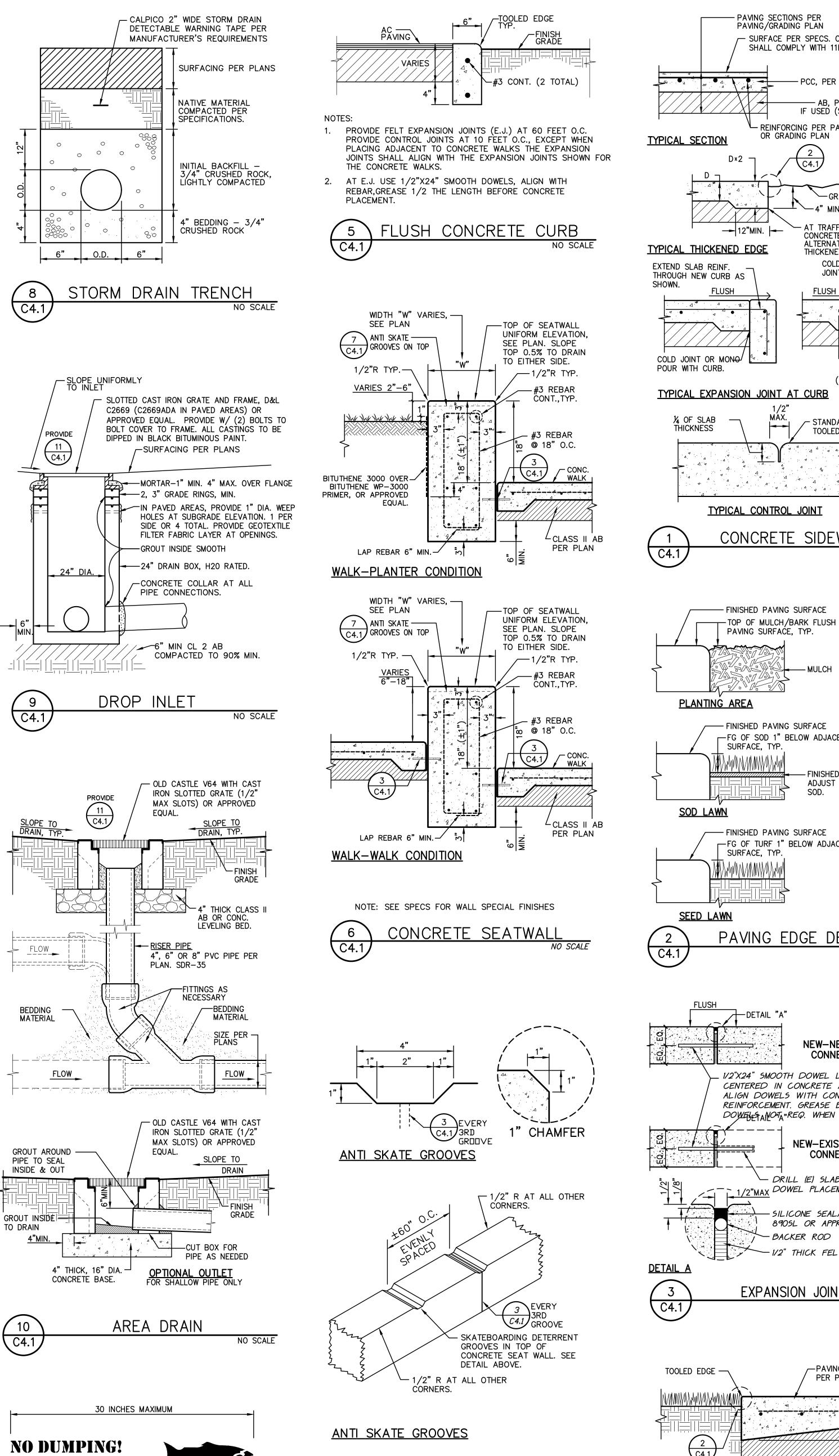
NO SCALE

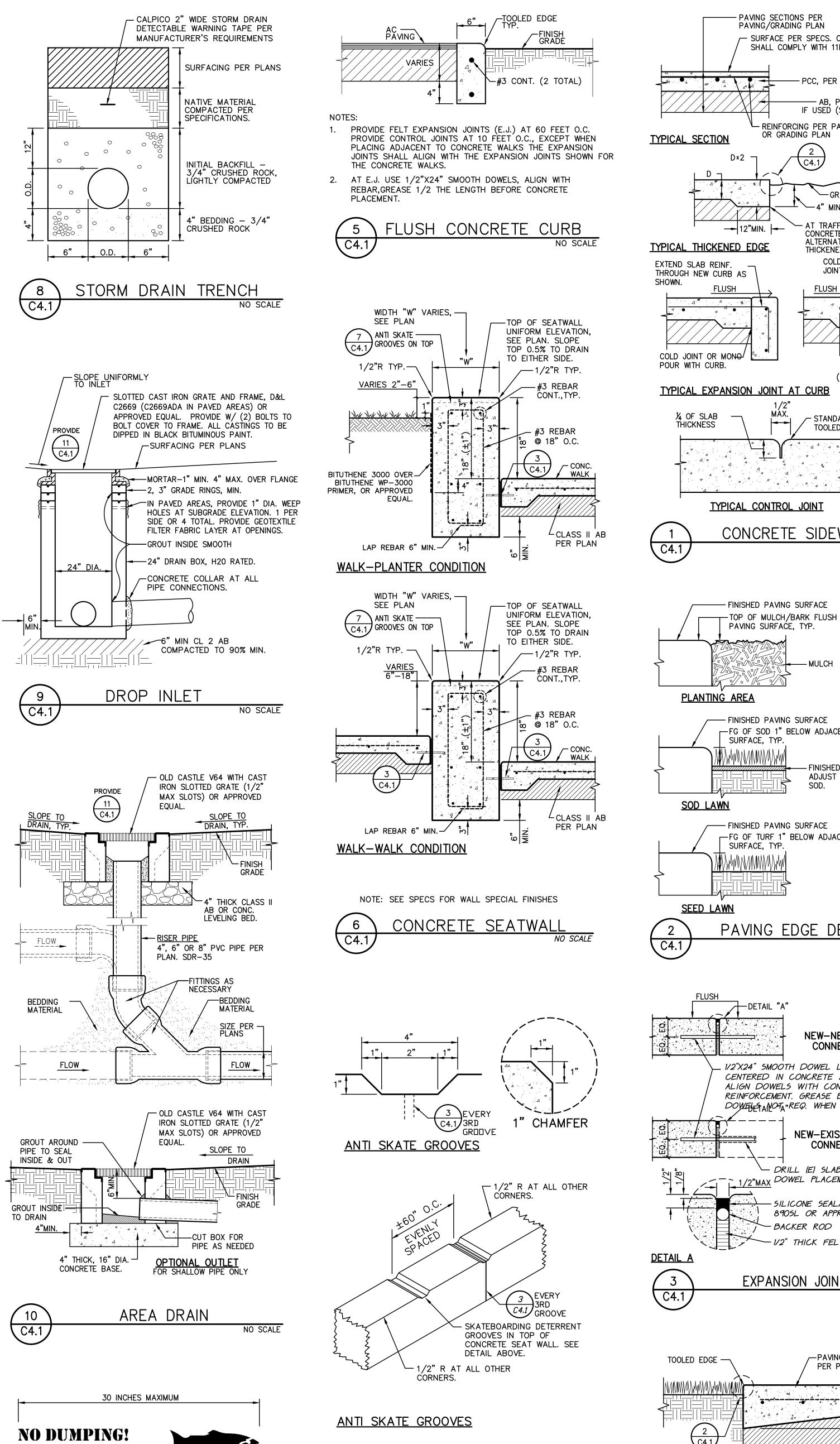


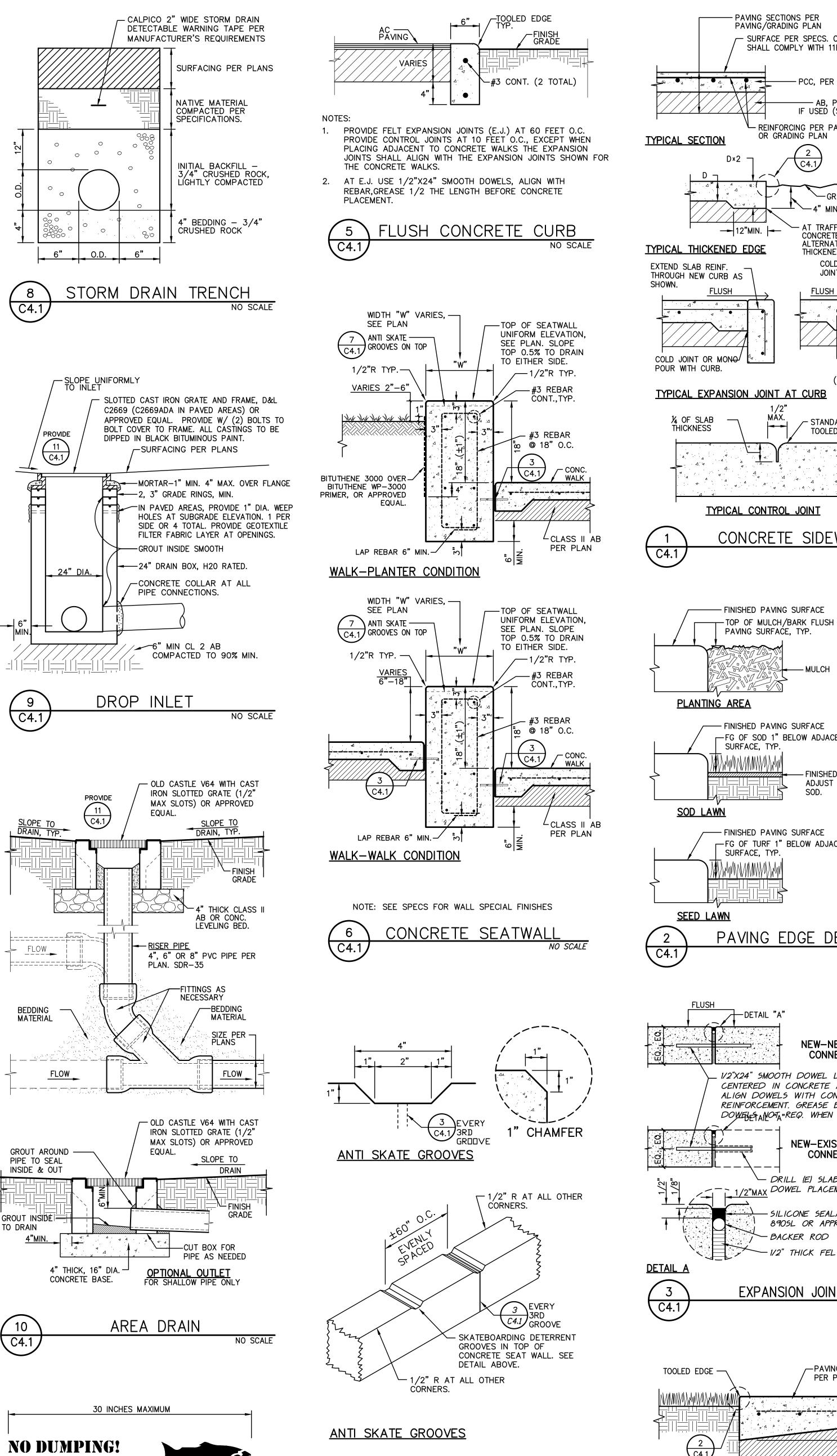


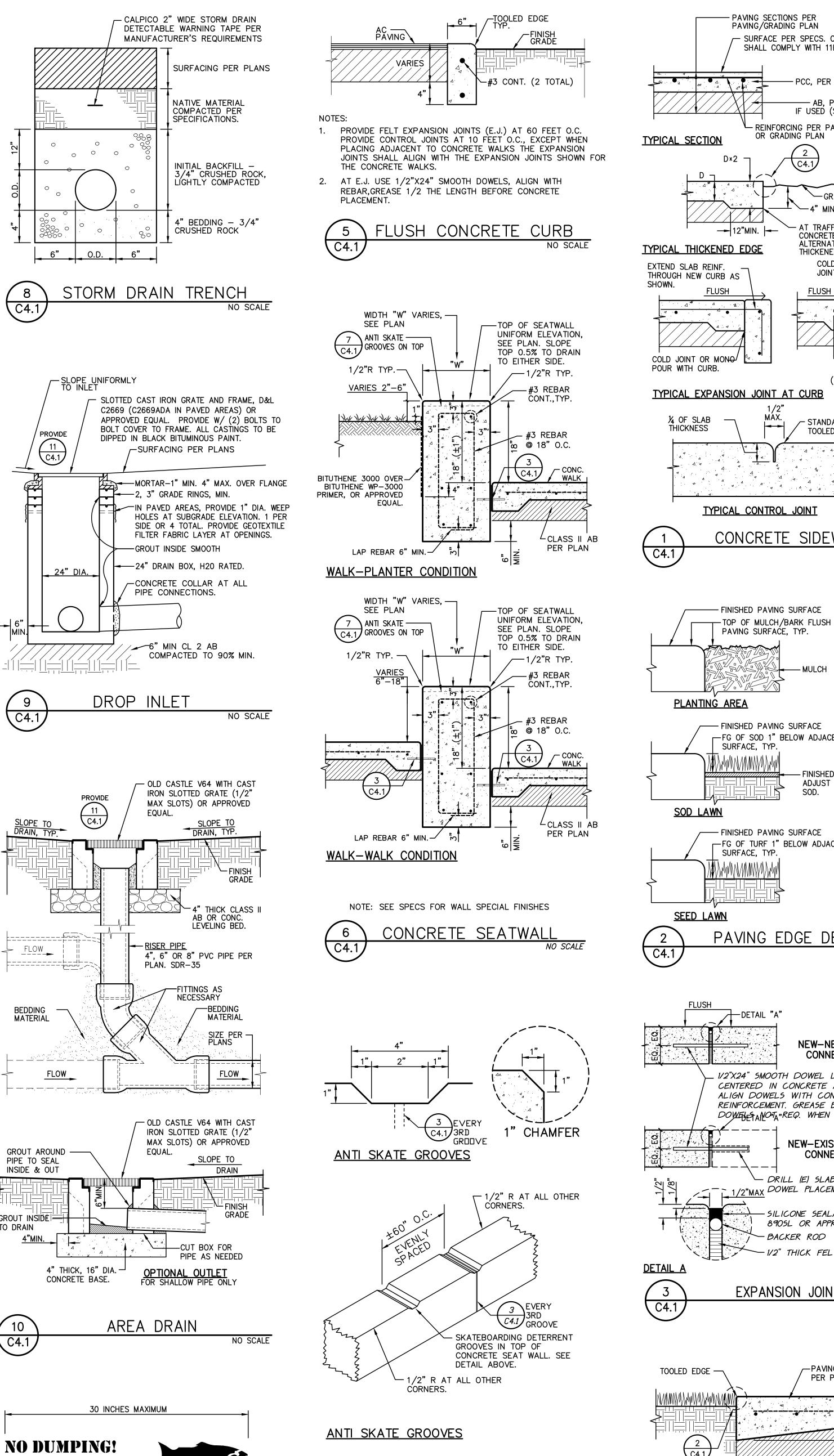
ANTI SKATE GROOVES











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THICK CONC. EDGE C4.1 TRAFFIC RATED CONCRETE PAVING

4

36" MIN.

NO SCALE

NO SCALE





3909 NORTH LOOP ANTELOPE, CA 95843

sheet name

OAK HILL ES HARDSHIP MODERNIZATION

client / project

# project status **DSA BACKCHECK**

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NO SCALE

consultant

APP: 02-121265 INC: **REVIEWED FOR** SS 🔲 FLS 🗹 ACS 🗹 DATE: 05/24/2023 architect

ACMARTIN

3009 DOUGLAS BLVD SUITE 290

ROSEVILLE CA 95661 T 916 772 1800 👔

ANTHONY J

WARREN CONSULTING ENGINEERS, INC

1117 WINDFIELD WAY, SUITE 110

EL DORADO HILLS, CA 95762 | (916) 985-1870

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**DETAILS AND** SECTIONS

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#### GENERAL LANDSCAPE REQUIREMENTS/NOTES

- 1. NO PLANTING SHALL BE STARTED UNTIL SPRINKLER IRRIGATION SYSTEM HAS BEEN TESTED BY CONTRACTOR IN PRESENCE OF OWNER'S REPRESENTATIVE AND NOTED DEFICIENCIES CORRECTED.
- 2. NO PLANTING SHALL BE STARTED UNTIL SOIL PREPARATION AND FINISH GRADING OPERATIONS HAVE BEEN
- COMPLETED AND APPROVED BY THE OWNER'S REPRESENTATIVE. 3. QUANTITIES SHOWN ON PLANT MATERIAL LIST ARE APPROXIMATE. PROVIDE QUANTITIES INDICATED ON
- LANDSCAPE PLAN.
- 4. PLANT MATERIAL IS SUBJECT TO APPROVAL OF OWNER'S REPRESENTATIVE 5. SEE SHEET L4.1 FOR PLANTING INSTALLATION DETAILS.

#### ENVIRONMENTAL REQUIREMENTS:

GENERAL: PROCEED WITH WORK IN ORDERLY AND TIMELY MANNER TO COMPLETE INSTALLATION OF LANDSCAPING WITHIN CONTRACT LIMITS.

#### PROTECTION:

EXISTING CONSTRUCTION: EXECUTE WORK IN AN ORDERLY AND CAREFUL MANNER TO PROTECT NEW CONCRETE WALKS, WORK OF OTHER TRADES, AND OTHER IMPROVEMENTS. EXISTING UTILITIES: DETERMINE LOCATION OF UNDERGROUND UTILITIES AND PERFORM WORK IN A MANNER WHICH WILL AVOID POSSIBLE DAMAGE. HAND EXCAVATE, AS REQUIRED, TO MINIMIZE POSSIBILITY OF DAMAGE TO

UNDERGROUND UTILITIES. MAINTAIN GRADE STAKES SET BY OTHERS UNTIL REMOVAL IS MUTUALLY AGREED UPON BY ALL PARTIES CONCERNED. BE RESPONSIBLE FOR PROTECTION OF EXISTING UTILITIES WITHIN CONSTRUCTION AREA; REPAIR DAMAGE TO UTILITIES THAT OCCUR AS A RESULT OF OPERATIONS OF THIS WORK. LANDSCAPING: PROTECT LANDSCAPE WORK AND MATERIALS FROM DAMAGE DUE TO LANDSCAPE OPERATIONS,

OPERATIONS BY OTHER CONTRACTORS AND TRADES AND TRESPASSERS. MAINTAIN PROTECTION DURING INSTALLATION AND MAINTENANCE PERIODS. TREAT, REPAIR OR REPLACE DAMAGED LANDSCAPE WORK AS DIRECTED AT NO ADDITIONAL COST TO CONTRACT.

ADVERSE CONDITIONS: WHEN CONDITIONS DETRIMENTAL TO SOD OR PLANT GROWTH ARE ENCOUNTERED, SUCH AS RUBBLE FILL, ADVERSE DRAINAGE CONDITIONS, OR OBSTRUCTIONS, NOTIFY OWNER'S REPRESENTATIVE BEFORE STARTING WORK.

#### PLANTING AND TURF INSTALLATION SEASONS AND CONDITIONS

NO WORK SHALL BE DONE WHEN GROUND IS FROZEN, SNOW COVERED, TOO WET OR IN AN OTHERWISE UNSUITABLE CONDITION FOR AMENDING SOIL, FINISH GRADING OR PLANTING.

#### SOIL TESTING/SOIL IMPROVEMENT:

SEE SPECIFICATIONS 32 90 00, SECTION 3.02 SOIL TESTING AND SECTION 3.03 PREPARATION.

SOIL PERCOLATION

#### EXCAVATE TREE PLANTING PITS AND FILL EXCAVATED PLANTING PITS WITH WATER TO 1/2 DEPTH OF PIT. PITS SHOULD DRAIN WITHIN 4 HOURS. IF PLANTING PITS DO NOT DRAIN, NOTIFY

INSPECTOR IMMEDIATELY. PLANTING SHALL NOT BE STARTED UNTIL OWNER'S REPRESENTATIVE HAS RESOLVED A METHOD TO REMEDY DRAINAGE ISSUE.

#### PLANT MATERIAL STANDARDS

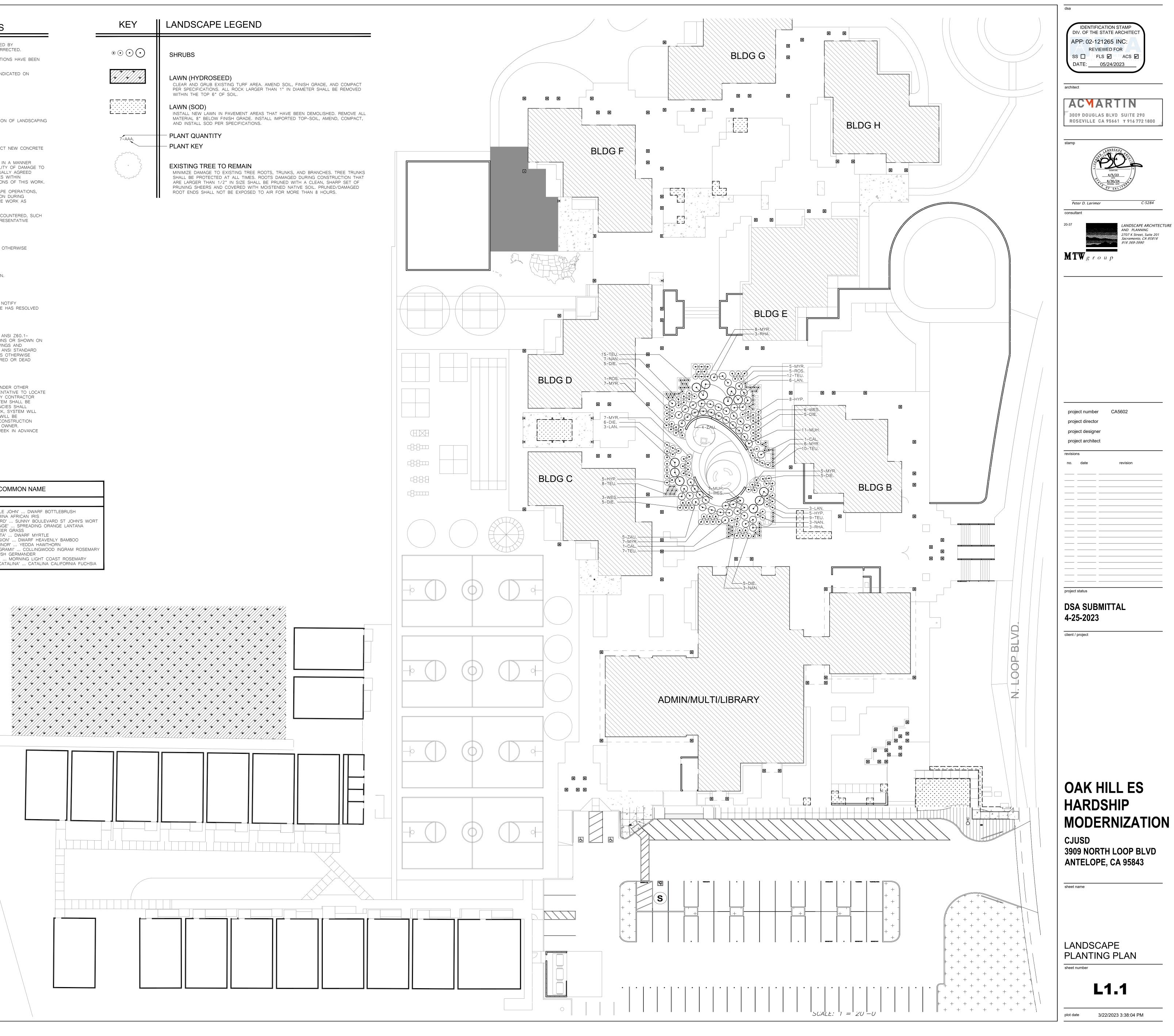
PLANTS SHALL BE IN ACCORDANCE WITH AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) ANSI Z60.1-AMERICAN STANDARD FOR NURSERY STOCK, EXCEPT AS OTHERWISE STATED IN SPECIFICATIONS OR SHOWN ON DRAWINGS. WHERE DRAWINGS OR SPECIFICATIONS ARE IN CONFLICT WITH ANSI Z60.1, DRAWINGS AND SPECIFICATIONS SHALL PREVAIL. PRUNE, THIN OUT AND SHAPE TREES IN ACCORDANCE WITH ANSI STANDARD HORTICULTURAL PRACTICE. PRUNE TREES TO RETAIN REQUIRED HEIGHT AND SPREAD. UNLESS OTHERWISE DIRECTED BY LANDSCAPE ARCHITECT, DO NOT CUT TREE LEADERS, AND REMOVE ONLY INJURED OR DEAD BRANCHES FROM FLOWERING TREES.

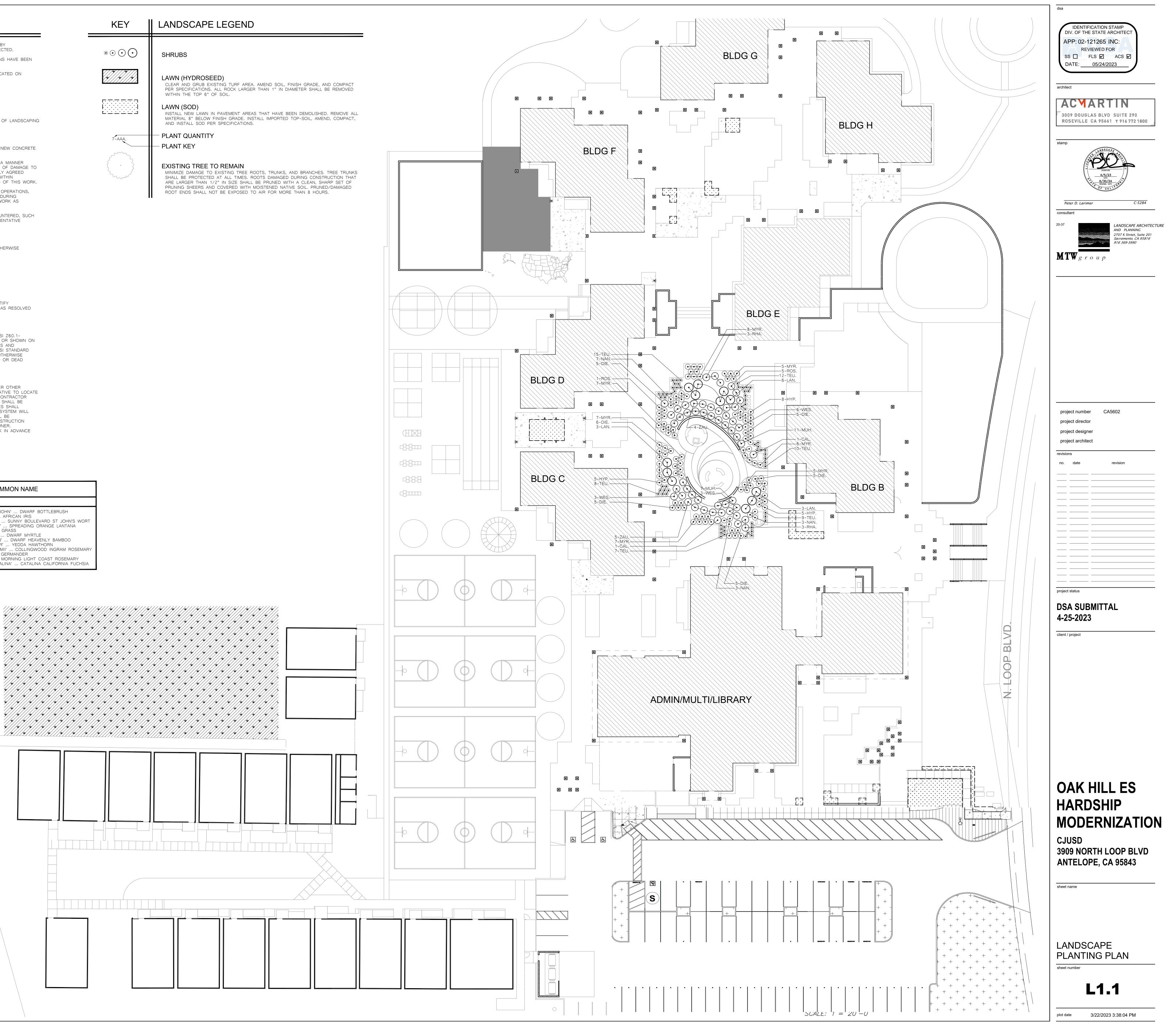
#### EXISTING LANDSCAPE AND SPRINKLER IRRIGATION SYSTEM

WORK LIMITS OF THIS PROJECT EXTEND INTO AREAS THAT WERE PREVIOUSLY DEVELOPED UNDER OTHER CONTRACTS. PRIOR TO START OF WORK, CONTRACTOR SHALL MEET WITH OWNER'S REPRESENTATIVE TO LOCATE ALL CONNECTIONS CALLED FOR ON DRAWINGS. WORK LIMITS/FENCING SHALL BE LAID OUT BY CONTRACTOR AND VERIFIED BY OWNER'S REPRESENTATIVE. FENCE TO BE INSTALLED AND IRRIGATION SYSTEM SHALL BE TESTED WITH CONTRACTOR, INSPECTOR, AND OWNER'S REPRESENTATIVE PRESENT. DEFICIENCIES SHALL BE NOTED AT THIS TIME AND ARE THE RESPONSIBILITY OF OWNER. AT COMPLETION OF WORK, SYSTEM WILL AGAIN BE TESTED, DEFICIENCIES NOTED AT THIS TIME THAT WERE NOT NOTED PREVIOUSLY WILL BE RESPONSIBILITY OF CONTRACTOR. EXISTING LANDSCAPE THAT HAS BEEN DAMAGED DUE TO CONSTRUCTION SHALL BE RESTORED TO ORIGINAL CONDITION BY CONTRACTOR AT NO ADDITIONAL COST TO OWNER PRIOR TO MAKING ANY CONNECTION TO MAIN LINE, CONTRACTOR SHALL NOTIFY OWNER 1 WEEK IN ADVANCE SO ADJUSTMENTS TO EXISTING WATERING PROGRAMS CAN BE MADE.

#### PLANT MATERIAL LIST

WATER USE	SIZE	QUANTITY	KEY	BOTANICAL NAME COMMON NAME
				SHRUBS:
LOW LOW LOW LOW LOW LOW LOW LOW LOW LOW	5 G.C. 5 G.C. 5 G.C. 5 G.C. 5 G.C. 5 G.C. 5 G.C. 5 G.C. 1 G.C. 1 G.C. 5 G.C.	2 31 18 12 18 45 13 6 6 61 12 9	CAL. DIE. HYP. LAN. MUH. MYR. NAN. RHA. ROS. TEU. WES. ZAU.	CALLISTEMON VIMINALIS 'LITTLE JOHN' DWARF BOTTLEBRUSH DIETES X 'NOA ALBA' KATRINA AFRICAN IRIS HYPERICUM 'SUNNY BOULEVARD' SUNNY BOULEVARD ST JOHN'S WORT LANTANA X 'SPREADING ORANGE' SPREADING ORANGE LANTANA MUHLENBERGIA RIGENS DEER GRASS MYRTUS COMMUNIS 'COMPACTA' DWARF MYRTLE NANDINA DOMESTICA 'OBSESSION' DWARF HEAVENLY BAMBOO RHAPHIOLEPIS UMBELLATA 'MINOR' YEDDA HAWTHORN ROSMARINUS OFFICINALIS 'INGRAMII' COLLINGWOOD INGRAM ROSEMARY TEUCRIUM CHAMEDRYS BUSH GERMANDER WESTRINGIA 'MORNING LIGHT' MORNING LIGHT COAST ROSEMARY ZAUSCHNERIA CALIFORNICA 'CATALINA' CATALINA CALIFORNIA FUCHSIA

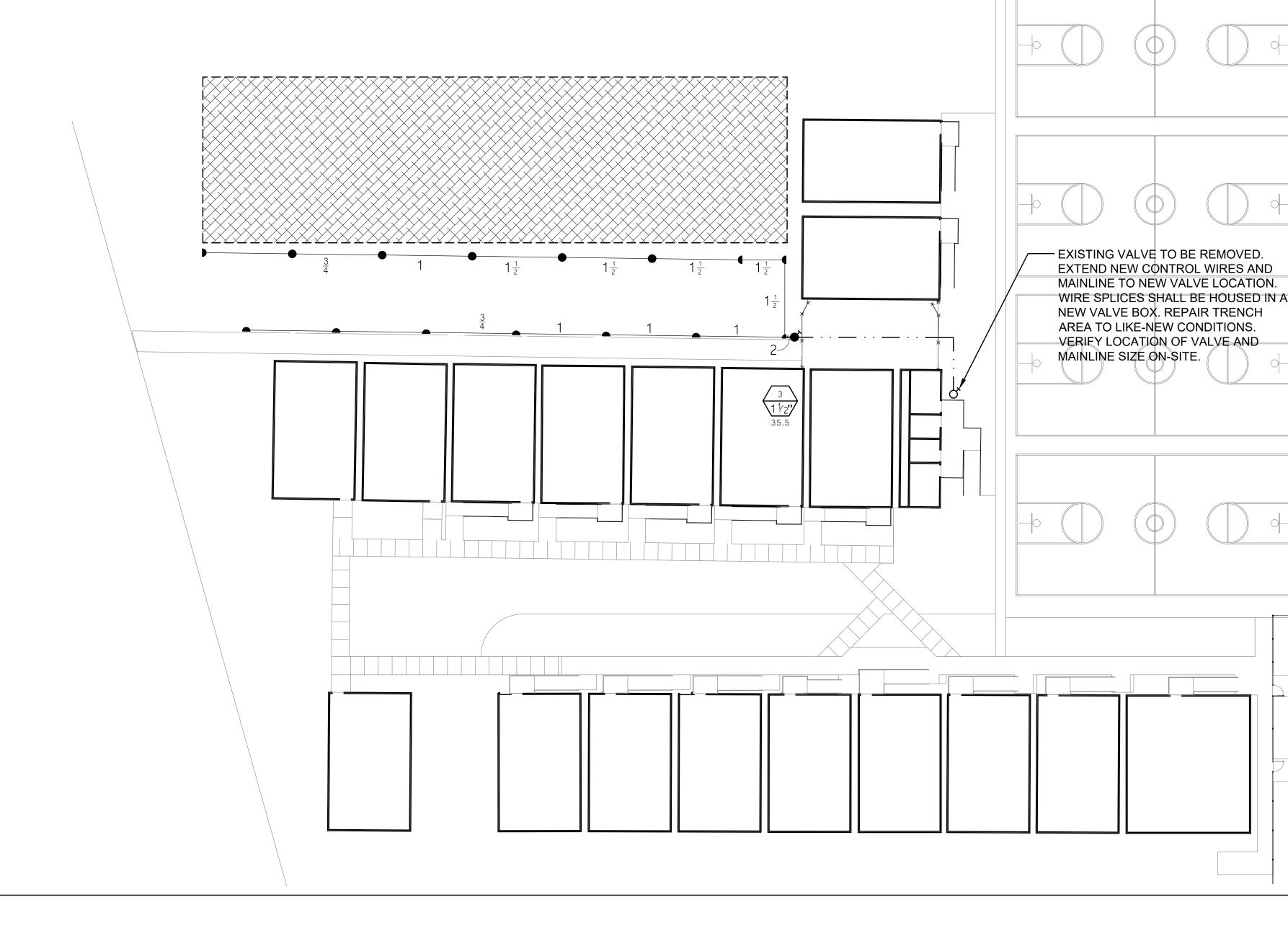






SF	PRINKLER IRRIGATION NOTES	KEY
1.	COMPOSITE BASE SHEET: PROPOSED IMPROVEMENTS SHOWN ON DRAWINGS ARE SUPERIMPOSED ON A COMPOSITE BASE SHEET. THE COMPOSITE BASE SHEET IS A COMPILATION OF ARCHITECTURAL, ENGINEERING, AND OTHER DATA THAT IS PROVIDED. THE LANDSCAPE ARCHITECT SHALL NOT BE HELD LIABLE FOR CHANGES, INACCURACIES, OMISSIONS, OR ERRORS PERTAINING TO THE COMPOSITE BASE SHEET. CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING THESE DOCUMENTS. ANY DISCREPANCIES NEED TO BE BROUGHT TO THE ATTENTION OF THE DESIGN TEAM AND RESOLVED PRIOR TO CONTINUATION OF WORK.	[2]
2.	DESIGN PRESSURE SHOWN ON PLANS HAS BEEN FURNISHED BY WATER COMPANY OR WATER DISTRICT SERVING SITE. VERIFY PRESSURE ON-SITE PRIOR TO THE INSTALLATION OF ANY SPRINKLER IRRIGATION EQUIPMENT. IF THERE IS A DISCREPANCY, NOTIFY OWNER'S REPRESENTATIVE IMMEDIATELY IN WRITING SO ADJUSTMENTS CAN BE MADE BY LANDSCAPE ARCHITECT. FAILURE TO REPORT DISCREPANCIES AND CONTINUANCE OF WORK WILL RESULT IN ALL RE-DESIGN COSTS BEING CHARGED TO CONTRACTOR.	
3.	DETERMINE LOCATION OF UNDERGROUND UTILITIES. DAMAGE CAUSED BY INSTALLATION OF THIS WORK SHALL BE REPAIRED TO SATISFACTION OF GOVERNING AGENCY OR OWNER AT NO ADDITIONAL COST TO THE CONTRACT.	
4.	SPRINKLER OVER SPRAY SHALL NOT BE ALLOWED ON PUBLIC SIDEWALKS, BUILDING WALLS OR FENCES. MINIMUM OVERSPRAY MAY OCCUR IN PARKING AREAS. USE ADJUSTABLE NOZZLES WHENEVER POSSIBLE TO CONTROL SPRINKLER OVERSPRAY.	
5.	ALL LOCAL CODES AND ORDINANCES SHALL BE COMPLIED WITH. IF THERE IS A CONFLICT, NOTIFY OWNER'S REPRESENTATIVE IMMEDIATELY.	
6.	TESTING: A. PRESSURE TEST ALL UNDERGROUND PIPING AS FOLLOWS: LATERAL LINES - AT STATIC PSI FOR 2 HOURS.	● <sup>×</sup>
	B. COVERAGE TEST: NOTE: PRIOR TO REQUESTING COVERAGE TEST, INSURE ALL HEADS ARE SET PLUMB, NOZZLES ARE ADJUSTED PROPERLY AND SYSTEM HAS BEEN CHECKED FOR AUTOMATION. REQUEST OWNER'S REPRESENTATIVES PRESENCE ON-SITE WHEN SPRINKLER SYSTEM IS COMPLETELY INSTALLED AND FULLY AUTOMATIC. PROVIDE ADEQUATE PERSONNEL AT THIS MEETING TO ADJUST AND FINE TUNE SYSTEM TO SATISFACTION OF OWNER'S REPRESENTATIVE.	с П
7.	LAYOUT ALL WORK PRIOR TO TRENCHING OPERATIONS TO DETERMINE IF MINOR MODIFICATIONS OR ADJUSTMENTS WILL BE REQUIRED.	
8.	INSTALL ALL SPRINKLER HEADS PERPENDICULAR TO SLOPES OR GRADE.	• • •
9.	COORDINATE ALL WORK WITH OTHER TRADES SO PROGRESS OF WORK IS NOT INTERRUPTED AND CAN BE COMPLETED IN A TIMELY MANNER.	
10.	NO PLANTING SHALL BE STARTED UNTIL ALL SPRINKLER WORK HAS BEEN TESTED AND APPROVED IN PRESENCE OF OWNER'S REPRESENTATIVE.	
11.	FOR LANDCSAPE IRRIGATION INSTALLATION DETAILS, SEE SHEET NO. L4.1.	
PF	RE-CONSTRUCTION SPRINKLER IRRIGATION NOTES	F
1. 2.	PRIOR TO START OF CONSTRUCTION CONTRACTOR REQUIRED TO CONTACT IVAN CALHOUN WITH CENTER UNIFIED SCHOOL DISTRICT TO SET UP A MEETING ON SITE TO OPERATE THE EXISTING SPRINKLER IRRIGATION SYSTEM AND DISCUSS THE MODIFICATIONS THAT ARE TO BE MADE TO THE EXISTING SYSTEM TO ACCOMMODATE FOR THE NEW CONSTRUCTION. CONTRACTOR TO OPERATE AND PROGRAM EXISTING SPRINKLER IRRIGATION SYSTEM THAT IS TO REMAIN IN ORDER TO PROVIDE WATER TO THE EXISTING LANDSCAPE TO REMAIN.	$ \begin{array}{c} 1\\ 1^{"}\\ 5.74 \end{array} $
3.	CONTRACTOR TO REMOVE ALL EXISTING PIPE AND SPRINKLER HEADS WHEN THEY ARE IN NEW PLANTING AREAS. CONTRACTOR TO RESTORE AND REPAIR ANY EXISTING SPRINKLER IRRIGATION	

- CONTRACTOR TO RESTORE AND REPAIR ANY EXISTING SPRINKLER IRRIGATION
- SYSTEM OR EXISTING LANDSCAPE WHICH IS IN AREAS TO REMAIN THAT IS DAMAGED BY NEW WORK.
- 5. ALL WORK TO EXISTING SPRINKLER IRRIGATION SYSTEM TO BE COMPLETED PRIOR TO SITE DEMOLITION.



# SPRINKLER IRRIGATION LEGEND

#### EXISTING AUTOMATIC CONTROLLER TO REMAIN:

#### PRESSURE MAIN LINE:

3" SIZE AND SMALLER: ASTM D1785, PVC SCH 40. 4" SIZE AND LARGER: ASTM D2241 SDR 21, 200 PSI, RUBBER GASKETED.

#### TRENCH DEPTH: IN PLANTED AREAS: 24" MINIMUM COVER. UNDER PAVED AREAS: 24" MINIMUM COVER.

PVC SCHEDULE 40 SLEEVES ARE REQUIRED FOR ALL PIPING UNDER PAVEMENT. LATERAL LINE:

#### TYPE:

PVC SCHEDULE 40, SOLVENT WELD ALL UNSIZED PIPE SHALL BE 3/4" SIZE. TRENCH DEPTH: IN PLANTED AREAS:

#### POP-UP SPRAY HEADS - 12" MINIMUM COVER. UNDER PAVED AREAS: 24" MINIMUM COVER. PVC SCHEDULE 40 SLEEVES ARE REQUIRED FOR ALL PIPING UNDER PAVEMENT.

AUTOMATIC CONTROL VALVE:

RAINBIRD PEB-PRS-D SERIES VALVE SHALL HAVE PRESSURE REGULATION OPTION.

EXISTING AUTOMATIC CONTROL VALVE TO BE REPLACED

AUTOMATIC DRIP IRRIGATION VALVE/FILTER/PRESSURE REGULATOR: RAINBIRD CONTROL ZONE KIT MODEL XCZ-100-PRB-COM.

#### LAWN POP-UP SPRAY HEADS:

RAINBIRD: 1804-SAM BODY WITH HUNTER MP3000 SERIES NOZZLES. FULL, HALF, AND QUARTER SPRAY PATTERNS.

NOTE: ADJUST LAYOUT AS NEEDED TO ENSURE HEAD-TO-HEAD COVERAGE WITH THE EXISTING ROTOR HEADS TO THE NORTH. ALL NEW HEADS SHALL BE TRIANGULATED AND EVENLY SPACED TO PROVIDE HEAD-TO-HEAD COVERAGE.

#### INLINE DRIP SYSTEM:

NETAFIM TUBING TO BE TECHLINE CV AND IS TO BE INSTALLED IN THE DIRECTION OF THE ARROW AS SHOWN ON PLAN. TECHLINE TO BE INSTALLED ON GRADE IN SHRUB BEDS. MANUAL LINE FLUSHING VALVE TO BE INSTALL ON THE PVC PIPE IN AN EMITTER BOX BELOW GRADE. PVC SCHEDULE 40 LATERAL LINES SHOWN ON THE PLAN, NETAFIM TECHLINE CV NOT SHOWN. NETAFIM DRIP TUBING SPACING: SHRUB/GROUNDCOVER PLANTER AREAS: 18" ROW SPACING (0.4 GPH @ 18" SPACING) TECHLINE CV TUBING NOT TO EXCEED 400' IN A SINGLE RUN.

MANUAL LINE FLUSHING VALVE IN BOX:

#### INDICATES CONTROL VALVE AND STATION NUMBER

INDICATES CONTROL VALVE SIZE

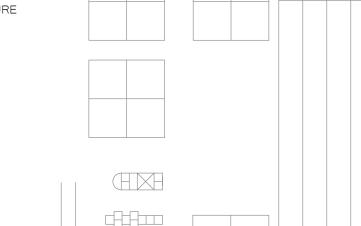
#### INDICATES GALLONS PER MINUTE

**IRRIGATION ADJUSTMENT AREA:** 

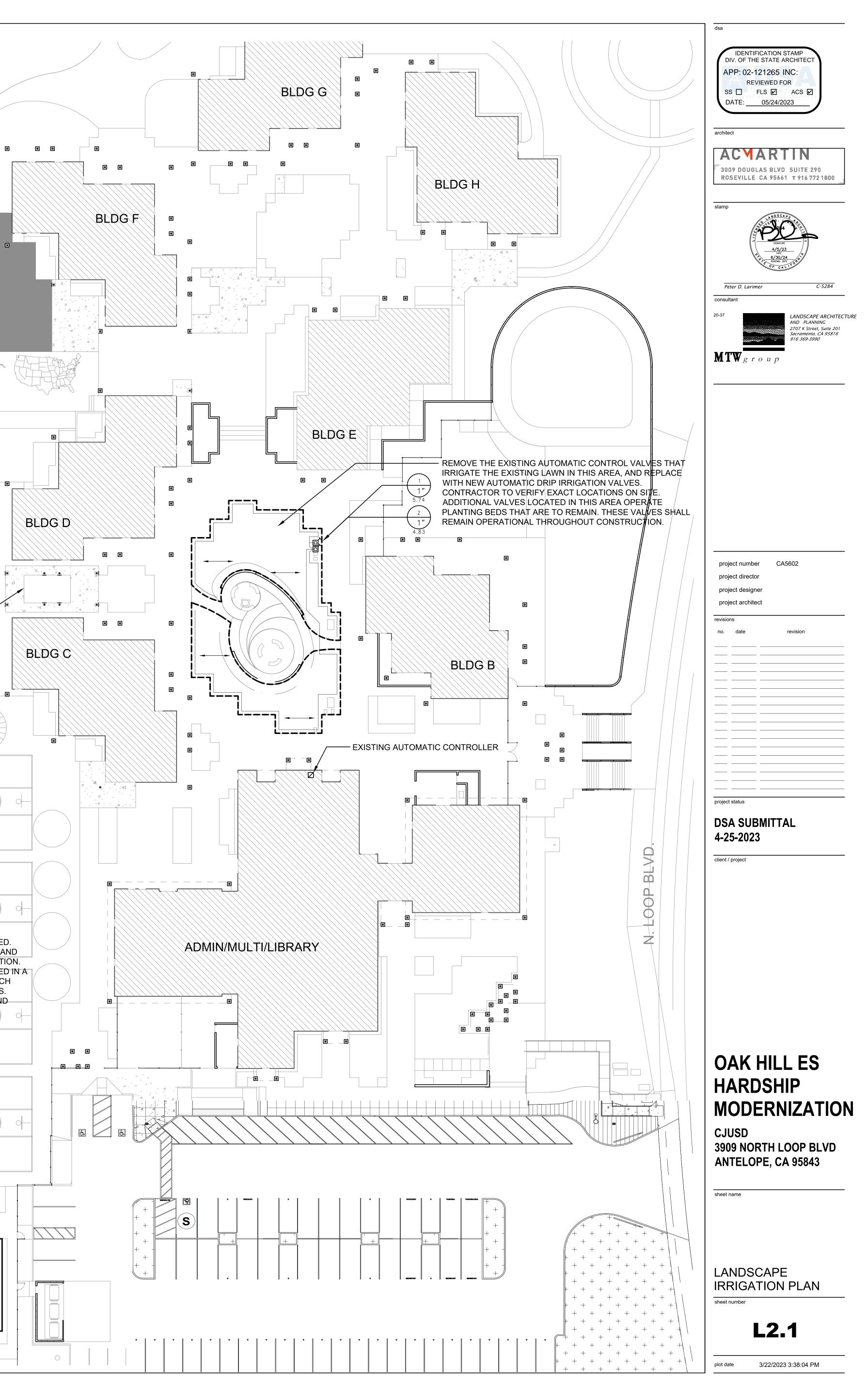
THIS AREA CONTAINS EXISTING LAWN ROTORS. PLUMB AND LEVEL ALL EXISTING HEADS AND ENSURE HEAD-TO-HEAD COVERAGE WITH THE NEW HUNTER MP3000 POP-UP SPRAY HEADS PRIOR TO INSTALLING SOD.

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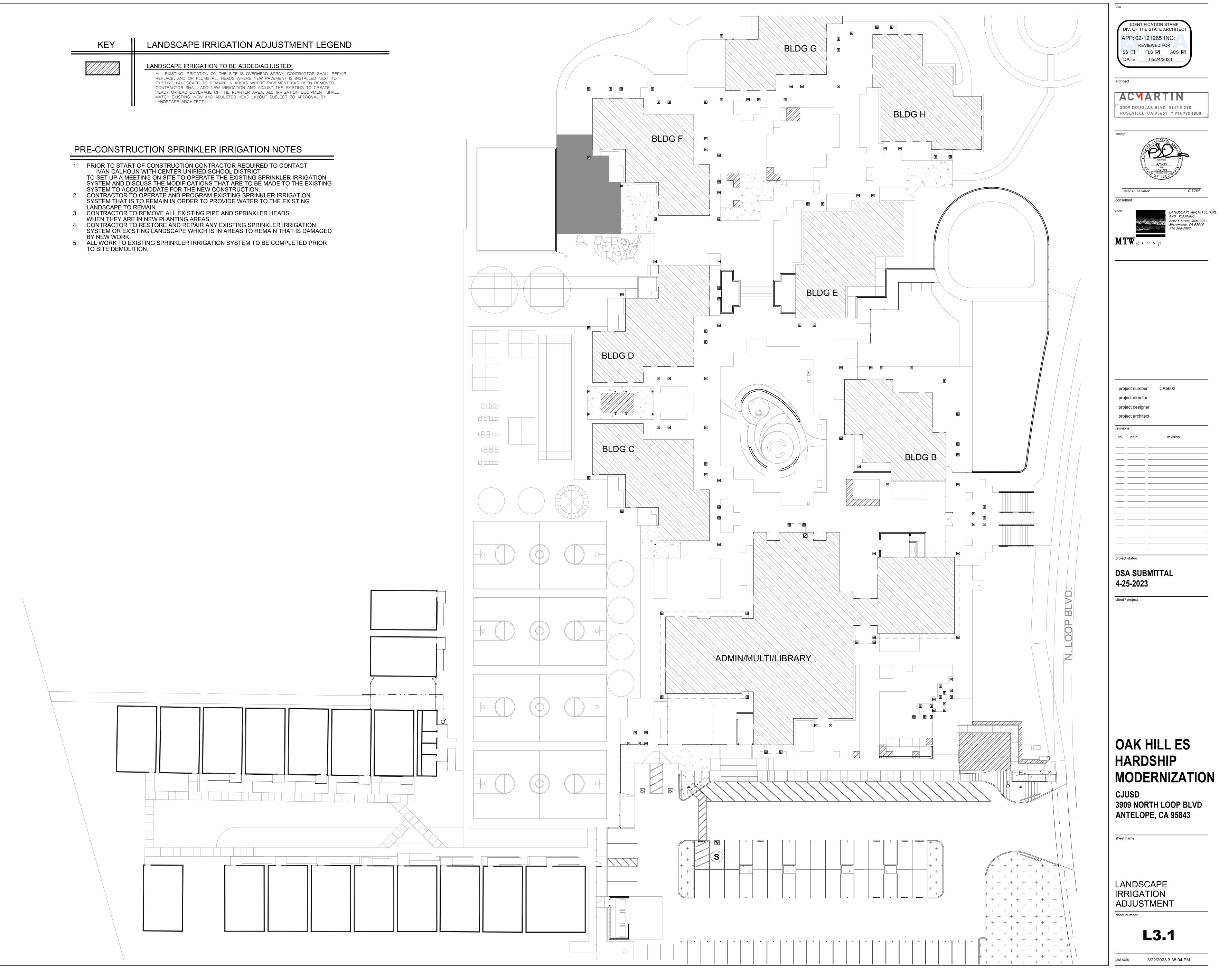


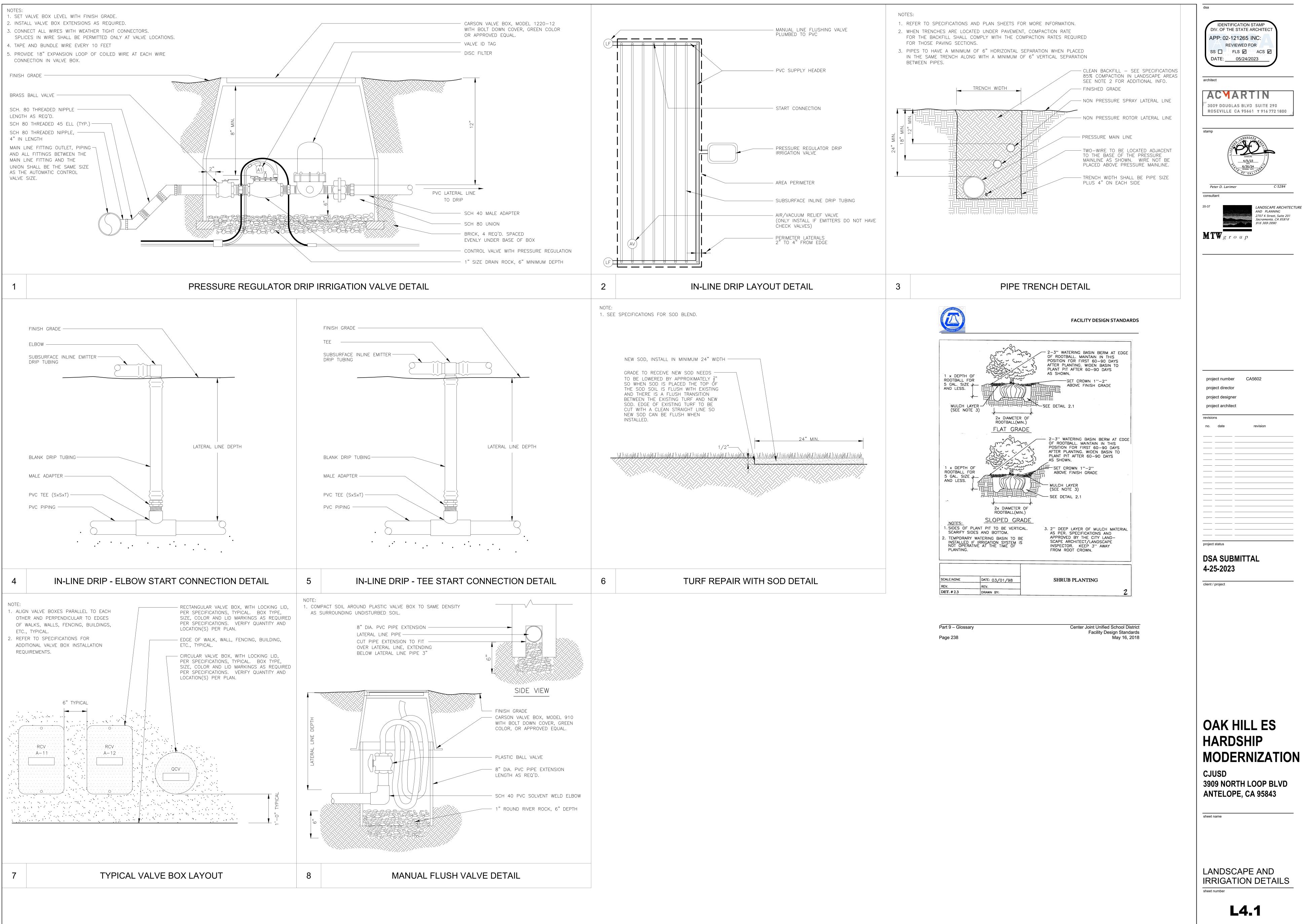
UTILIZE EXISTING VALVE FOR PLANTERS THAT WERE -REMOVED IN THIS AREA, OR EXTEND LATERAL LINE FROM EXISTING PLANTER TO THE EAST. INSTALL ALL NEW HEADS, LATERALS, AND VALVE (IF REQUIRED), ALL NEW EQUIPMENT TO MATCH EXISTING LAWN POP-UP SPRAY BODIES, NOZZLES, VALVE, ETC... 



KEY	LANDSCAPE
	LANDSCAPE IRRI ALL EXISTING IRRIG REPLACE, AND OR EXISTING LANDSCAP CONTRACTOR SHALL HEAD-TO-HEAD COV MATCH EXISTING. N LANDSCAPE ARCHIT

- LANDSCAPE TO REMAIN.
- TO SITE DEMOLITION.





Part 9 – Glossary	Center Joint Unified School Distric
	Facility Design Standards
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STATION #/HYDROZONE	PLANT WATER USE TYPE	PLANT FACTOR (PF)	IRRIGATION TYPE		PRECIP. RATE	<b>//</b>		ROOT DEPTH	SLOPE I	EXPOSURE											MAIN	TENANCE	PERIOD (X/Y Z GAL	)								
											JA	NUARY	FE	BUARY	MAR	СН	AP	RIL		MAY	JU	JNE	JULY	AUGUST	T SE	<b>EPTEME</b>	BER	ОСТ	OBER	NOVEM	EBER	DECEMBER
1	SHRUB - LOW	0.3	SUBSURFACE DRIP	0.0	0.50	0.81	SANDY LOAM	12-24"	0-5%	FULL SUN	0 /1	0 GAL	0 /1	0 GAL	5 /1	0 GAL	20 /2	0 GAL	21	/3 0 GAL	17 /5	0 GAL	19 /5 0 GAL	16 /5 0	0 GAL 19	/3	0 GAL	31 /1	0 GAL	0 /1	0 GAL	0 /1 0 GA
2	SHRUB - LOW	0.3	SUBSURFACE DRIP	0.0	0.50	0.81	SAND	12-24"	0-5%	FULL SUN	0 /1	0 GAL	0 /1	0 GAL	5 /1	0 GAL	20 /2	0 GAL	21	/3 0 GAL	17 /5	0 GAL	19 /5 0 GAL	16 /5 0	0 GAL 19	/3	0 GAL	31 /1	0 GAL	0 /1	0 GAL	0 /1 0 GA
3	LAWN - HIGH	0.8	POP-UP SPRAY	5.0	0.45	0.75	SANDY LOAM	6"	0-5%	FULL SUN	0 /1	0 GAL	0 /1	0 GAL	16 /1 3	346 GAL	63 /2	2,797 GAL	68	/3 4,503 GAL	53 /5	5,893 GAL	59 /5 6,569 GAL	51 /5 5,62	626 GAL 61	/3 4,	023 GAL	98 /1	2,169 GAL	0 /1	0 GAL	0 /1 0 GA
								MON	ITHLY RAINFAL	LL (CITY)	3.6	6	3.5		2.8		1.1			0.67	0.2		0.04	0.04		0.28		0.94	.	2.09		3.27
								Ν	MONTHLY ET (C	CITY)	1.0	0 JAN	1.8	FEB	3.2	MAR	4.7	APR		6.4 MAY	7.7	JUN	8.4 JUL	7.2	AUG	5.4	SEP	3.7	ОСТ	1.7	NOV	0.9 DEC
								МО	NTHLY TOTALS	.S (GAL)		0 GAL		0 GAL	3	346 GAL		2,797 GAL		4,503 GAL		5,893 GAL	6,569 GAL	5,62	526 GAL	4,	023 GAL		2,169 GAL		0 GAL	0 GA

# IRRIGATION HYDROZONE INFORMATION TABLE

STATION #/HYDROZONE	PLANT WATER USE TYPE	PLANT FACTOR (PF)	HYDROZONE AREA (HA) (SQ.FT.)	PF x HA (SQ.FT.)
1	SHRUB - LOW	0.2	1,939	388
2	SHRUB - LOW	0.3	1,630	489
3	LAWN - HIGH	0.8	7,781	6,225
		TOTAL AREA	11,350	
		TOTAL AREA (SLA)	7,781	
Eto (Sacramento)	51.9			
STIMATED TOTAL WATE	R USAGE (ETWU) = (ETo)(0.62)(PF)(H	IA)/IE = GAL/YEAR	1	
MAXIMUM APPLIED WATE	ER ALLOWANCE (MAWA) = (ETo)(0.62	)[(0.45 x LA)+(0.55 x SLA)] = GAL/YEAR		

# IRRIGATION SCHEDULE TABLE

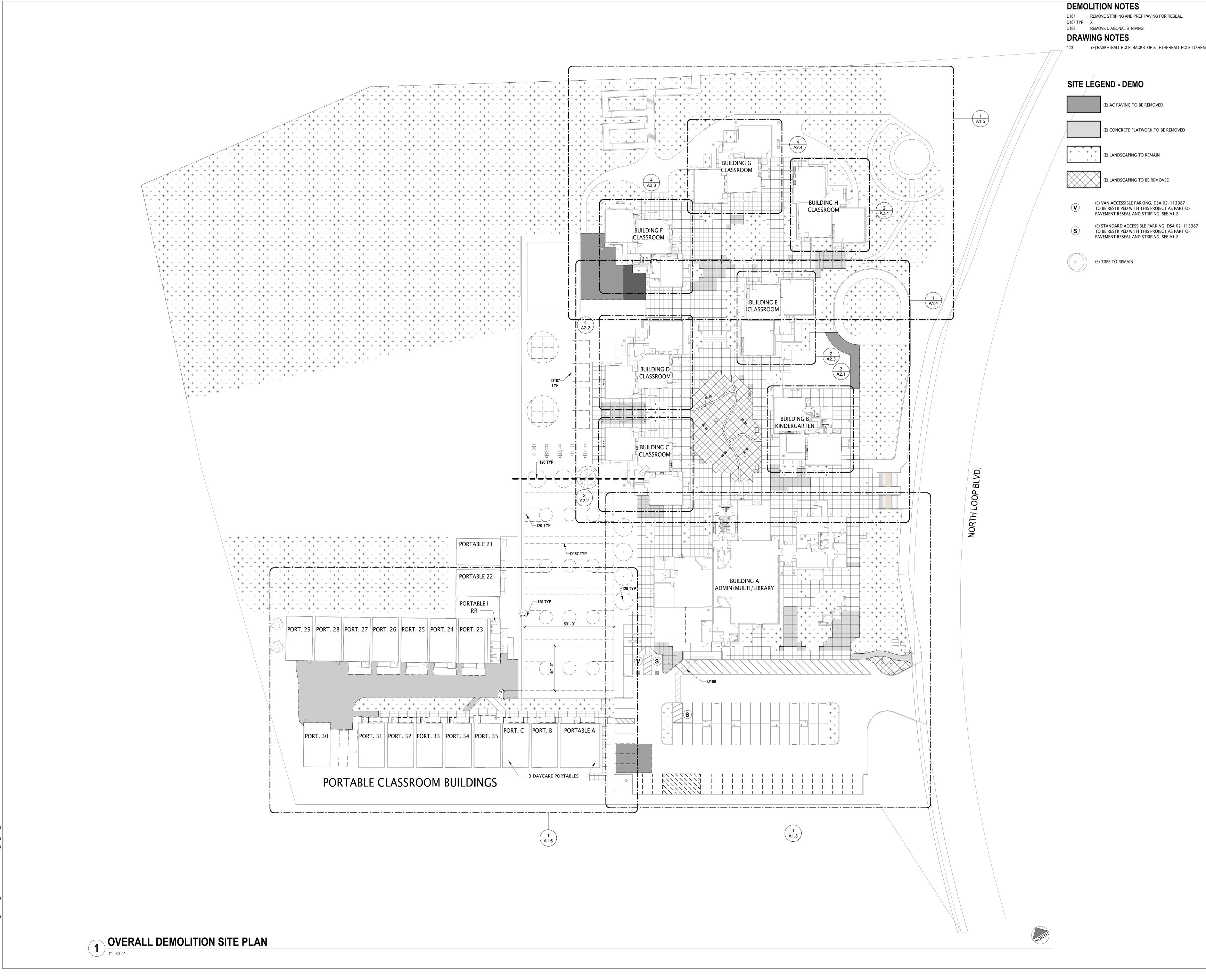
# E

# IRRIGATION ETWU (GALLONS) 0.81 15,406 0.81 19,426 0.75 267,069 ETWU TOTAL 301,901

# LANDSCAPE HYDROZONE INFORMATION TABLE

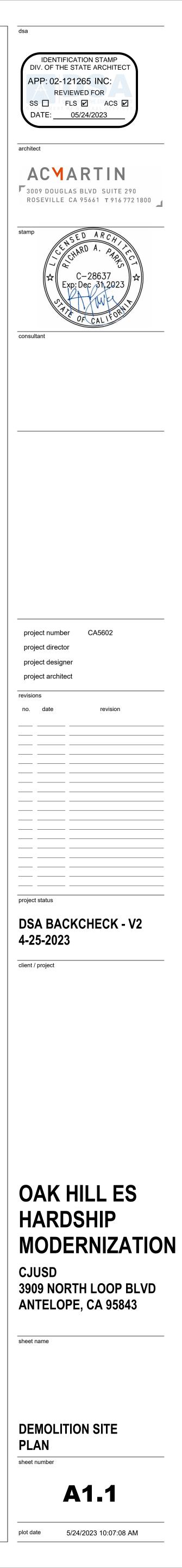
STATION #/HYDROZONE	PLANT WATER USE TYPE	IRRIGATION TYPE	HYDROZONE AREA (HA) (SQ.FT.)	% OF TOTAL LANDSCAPE AREA
1	SHRUB - LOW	SUBSURFACE DRIP	1,939	17.1%
2	SHRUB - LOW	SUBSURFACE DRIP	1,630	14.4%
3	LAWN - HIGH	POP-UP SPRAY	7,781	68.6%
		TOTAL AREA	11,350	100.0%

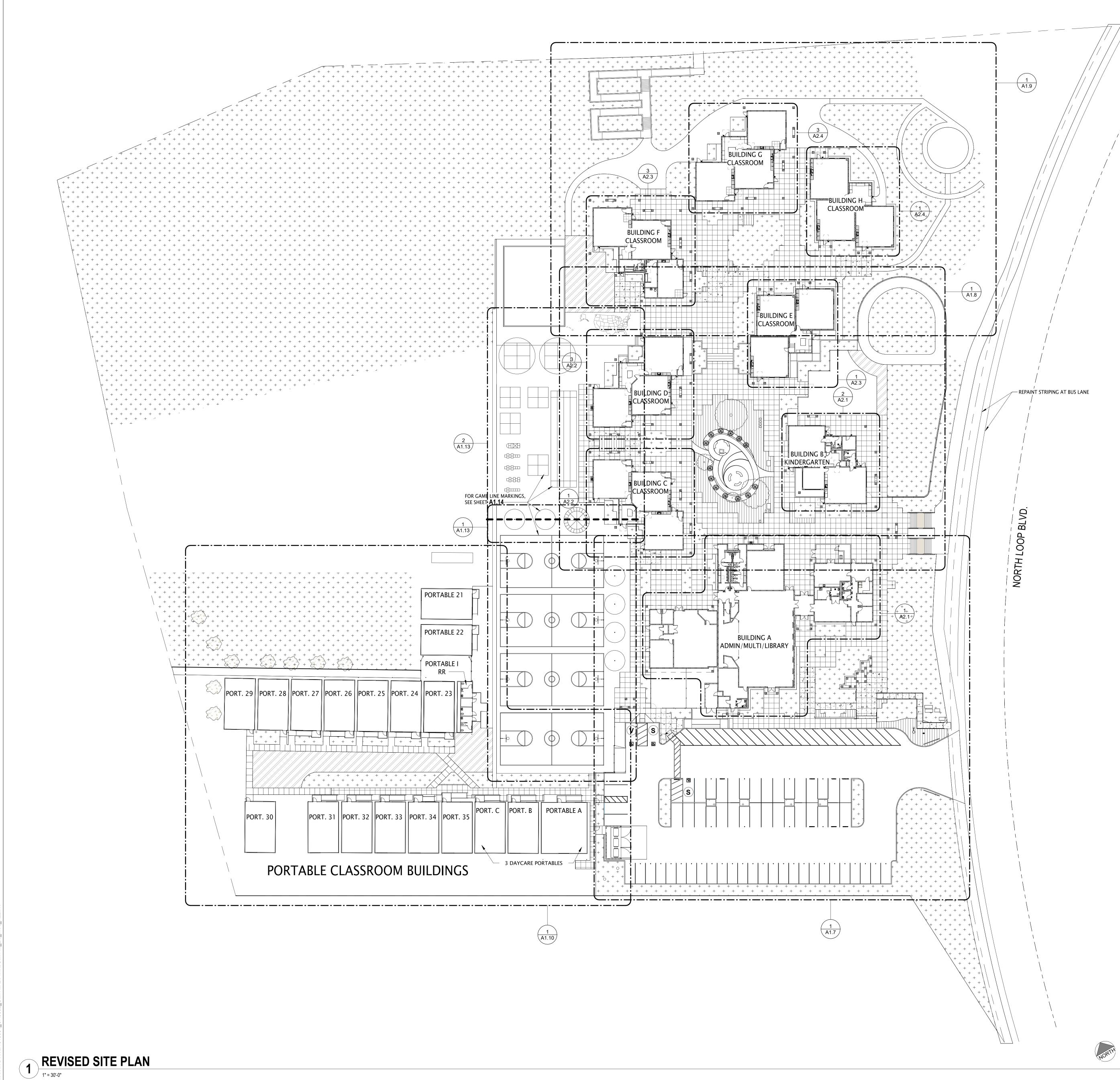
dsa IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APP: 02-121265 INC: REVIEWED FOR SS 🔲 FLS 🗹 ACS 🗹 DATE: 05/24/2023 architect ACMARTIN 3009 DOUGLAS BLVD SUITE 290 ROSEVILLE CA 95661 T 916 772 1800 stamp C-5284 Peter D. Larimer consultant LANDSCAPE ARCHITECTURE AND PLANNING 2707 K Street, Suite 201 Sacramento, CA 95816 916 369-3990 20-37 ..... MTW group project number CA5602 project director project designer project architect revisions no. date revision \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_ \_\_\_\_ \_\_\_\_ \_\_\_\_\_ \_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_ \_\_\_ \_\_\_\_\_ \_\_\_\_\_ project status DSA SUBMITTAL 4-25-2023 client / project OAK HILL ES HARDSHIP MODERNIZATION CJUSD 3909 NORTH LOOP BLVD ANTELOPE, CA 95843 sheet name LANDSCAPE IRRIGATION CHARTS L5.1 \_\_\_\_\_ plot date 3/22/2023 3:38:04 PM



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# **GENERAL NOTES**

A. FOR ADDITIONAL INFORMATION SEE CIVIL, LANDSCAPE, MECHANICAL, PLUMBING, ELECTRICAL AND FIRE ALARM DRAWINGS.

- B. ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AS NOTED ON THE TITLE SHEET AND IN SPECIFICATIONS.
- C. CONTRACTOR SHALL PRESERVE AND PROTECT ALL EXISTING CONDITIONS THAT ARE TO REMAIN, AND TO SECURE THE PROPERTY DURING CONSTRUCTION.
- D. IN AREAS OF WORK, CONTRACTOR SHALL VERIFY AND LOCATE ALL EXISTING UNDERGROUND UTILITIES AND AVOID DAMAGE TO THE SAME.
- E. ANY CONDITIONS OBSERVED ON SITE WHICH SHALL AFFECT THE DEMOLITION NOT OTHERWISE NOTED IN THESE DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.
- / F. ALL ITEMS NOTED TO BE REMOVED AND NOT RELOCATED ARE TO BE REMOVED FROM THE SITE AND DISPOSED OF IN THE PROPER MANNER.
- G. IN AREAS WHERE LANDSCAPING IS TO BE DEMOLISHED, DEMOLITION IS TO INCLUDE IRRIGATION SYSTEM. H. FOR SITE ACCESS AND CODE COMPLIANCE SEE SHEETS G1.1

# SITE LEGEND

NEW CONCRETE FLATWORK



NEW ASPHALTIC PAVING

XISTING LANDSCAPIN



NEW LANDSCAPING, S.L.D.

dsa IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 02-121265 INC: **REVIEWED FOR** SS 🔲 FLS 🗹 ACS 🗹 DATE: 05/24/2023 architect ACMARTIN ▼3009 DOUGLAS BLVD SUITE 290 ROSEVILLE CA 95661 T 916 772 1800 stamp consultant project number CA5602 project director project designer project architect revisions project status DSA BACKCHECK - V2 4-25-2023 client / project OAK HILL ES HARDSHIP MODERNIZATION CJUSD 3909 NORTH LOOP BLVD ANTELOPE, CA 95843 sheet name **REVISED SITE PLAN** sheet number A1.2 5/24/2023 9:42:47 AM plot date



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# **GENERAL NOTES**

- A. FOR ADDITIONAL INFORMATION SEE CIVIL, LANDSCAPE, MECHANICAL, PLUMBING, ELECTRICAL AND FIRE ALARM DRAWINGS.
- B. WORK SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AS NOTED ON THE TITLE SHEET AND IN SPECIFICATIONS.
- C. SEE SHEET G0.1, PROJECT NOTE 12 REGARDING FIRE SAFETY DURING DEMOLITION AND CONSTRUCTION.
- D. CONTRACTOR SHALL PRESERVE AND PROTECT EXISTING CONDITIONS THAT ARE TO REMAIN, AND TO SECURE THE PROPERTY DURING CONSTRUCTION.
- E. IN AREAS OF WORK, VERIFY AND LOCATE EXISTING UNDERGROUND UTILITIES AND AVOID DAMAGE TO THE SAME.
- F. CONDITIONS OBSERVED ON SITE WHICH SHALL AFFECT THE DEMOLITION NOT OTHERWISE NOTED IN THESE DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.
- G. ITEMS NOTED TO BE REMOVED AND NOT RELOCATED ARE TO BE REMOVED FROM THE SITE AND DISPOSED OF IN THE PROPER MANNER.
- H. IN AREAS WHERE LANDSCAPING IS TO BE DEMOLISHED, DEM1//G1.1 IS TO INCLUDE IRRIGATION SYSTEM.
- I. FOR SITE ACCESS AND SITE CODE COMPLIANCE SEE SHEET G1.1

# **DEMOLITION NOTES**

- D101 SAWCUT & REMOVE (E) AC PAVING, SCD. SAWCUT & REMOVE (E) CONCRETE FLATWORK, SCD. CUT CONCRETE ON (E) SCORE LINES. D102
- DO NOT DAMAGE CONCRETE EDGE TO REMAIN. D106 REMOVE (E) CHAIN LINK FENCE.
- D107 REMOVE (E) ORNAMENTAL METAL FENCE FOR NEW GATE OPENING.
- D115 REMOVE (E) CONCRETE BUMPER CURBS. D187 REMOVE STRIPING AND PREP PAVING FOR RESEAL.
- D189 REMOVE DIAGONAL STRIPING

#### **DRAWING NOTES**

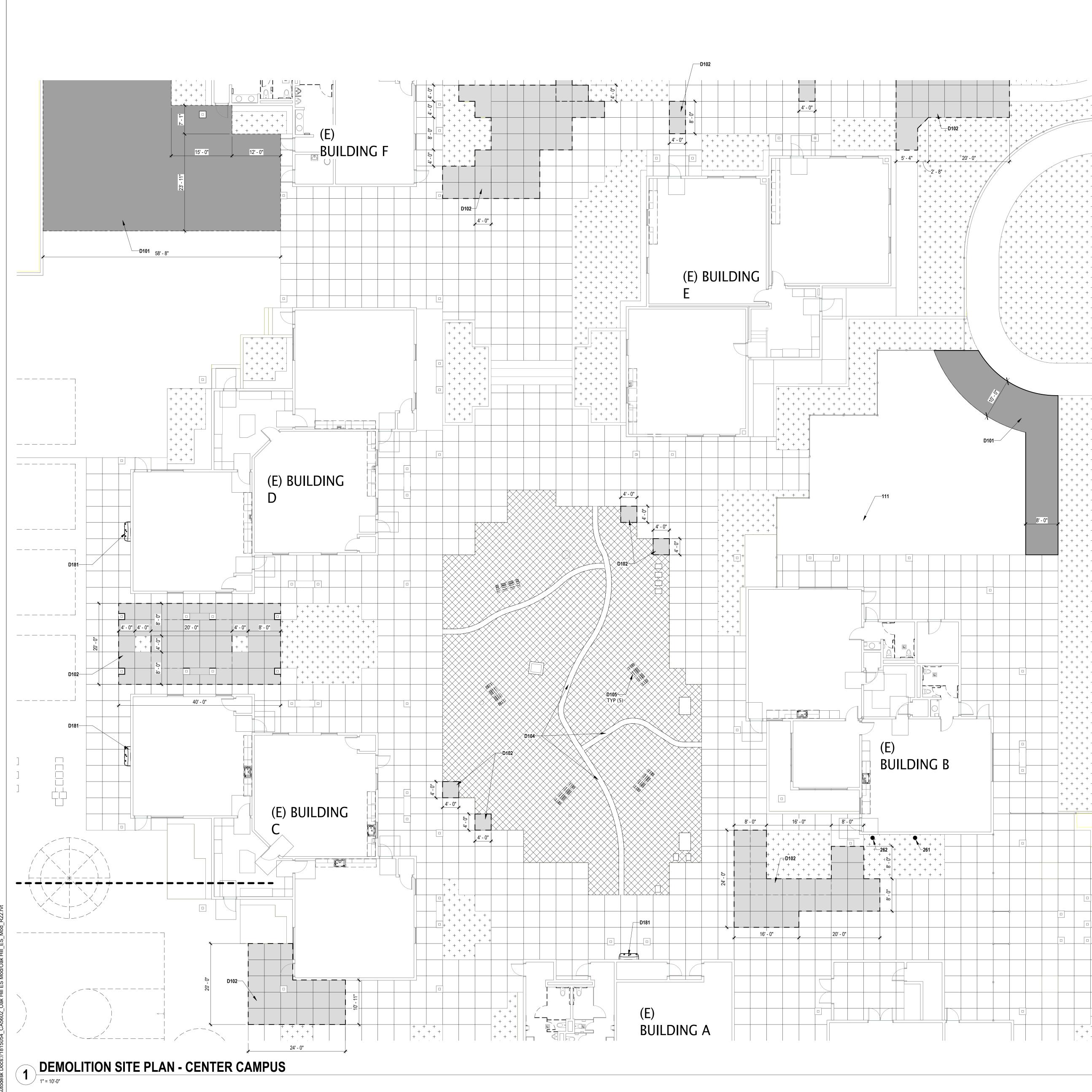
- 111 (E) ASPHALTIC CONCRETE PAVING TO REMAIN. 112 (E) CONCRETE FLATWORK TO REMAIN.
- (E) LANDSCAPING TO REMAIN. 113
- (E) FIRE HYDRANT. 115 (E) SIGN BOARD TO REMAIN.
- REPLACE (E) WATER VALVE. SEE PLUMBING DRAWINGS.
- 263 REPLACE (E) ISOLATION VALVE. SEE PLUMBING DRAWINGS. 313 (E) LIGHT POLE TO REMAIN.

# (E) ELECTRONTIC MESSAGE BOARD SIGN TO REMAIN.

SITE LEGEND - DEMO									
	(E) AC PAVING TO BE REMOVED								
	(E) CONCRETE FLATWORK TO BE REMOVED								
+ + + + + + + + + + + + + + + + + + +	(E) LANDSCAPING TO REMAIN								
	(E) LANDSCAPING TO BE REMOVED								
V	(E) VAN ACCESSIBLE PARKING, DSA 02–113987 TO BE RESTRIPED WITH THIS PROJECT AS PART OF PAVEMENT RESEAL AND STRIPING, SEE A1.2								
S	(E) STANDARD ACCESSIBLE PARKING, DSA 02–113987 TO BE RESTRIPED WITH THIS PROJECT AS PART OF PAVEMENT RESEAL AND STRIPING, SEE A1.2								

( ) (E) TREE TO REMAIN

dsa IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 02-121265 INC: **REVIEWED FOR** SS 🔲 FLS 🗹 ACS 🗹 DATE: 05/24/2023 architect ACMARTIN 3009 DOUGLAS BLVD SUITE 290 ROSEVILLE CA 95661 T 9167721800 stamp consultant project number CA5602 project director project designer project architect revisions \_\_\_\_ project status DSA BACKCHECK - V2 4-25-2023 client / project OAK HILL ES HARDSHIP MODERNIZATION CJUSD 3909 NORTH LOOP BLVD ANTELOPE, CA 95843 sheet name **DEMOLITION SITE** PLAN - SOUTH CAMPUS sheet number A1.3 5/24/2023 10:07:52 AM plot date



## **GENERAL NOTES**

- A. FOR ADDITIONAL INFORMATION SEE CIVIL, LANDSCAPE, MECHANICAL, PLUMBING, ELECTRICAL AND FIRE ALARM DRAWINGS.
- B. WORK SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AS NOTED ON THE TITLE SHEET AND IN SPECIFICATIONS.
- C. SEE SHEET G0.1, PROJECT NOTE 12 REGARDING FIRE SAFETY DURING DEMOLITION AND CONSTRUCTION.
- D. CONTRACTOR SHALL PRESERVE AND PROTECT EXISTING CONDITIONS THAT ARE TO REMAIN, AND TO
- SECURE THE PROPERTY DURING CONSTRUCTION.
- E. IN AREAS OF WORK, VERIFY AND LOCATE EXISTING UNDERGROUND UTILITIES AND AVOID DAMAGE TO THE SAME.
- F. CONDITIONS OBSERVED ON SITE WHICH SHALL AFFECT THE DEMOLITION NOT OTHERWISE NOTED IN THESE DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.
- G. ITEMS NOTED TO BE REMOVED AND NOT RELOCATED ARE TO BE REMOVED FROM THE SITE AND DISPOSED
- OF IN THE PROPER MANNER.
- + + + + + + + + + + + + + I. FOR SITE ACCESS AND SITE CODE COMPLIANCE SEE SHEET G1.1
  - <sup>+</sup>DEMOLITION NOTES
  - et + + + + + + + + + D101 SAWCUT & REMOVE (E) AC PAVING, SCD.

D102

D104

D105

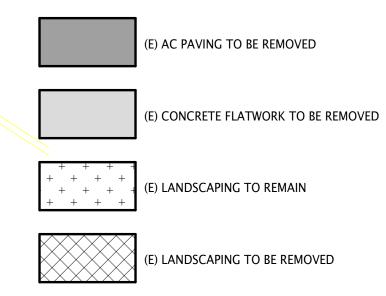
D181

- SAWCUT & REMOVE (E) CONCRETE FLATWORK, SCD. CUT CONCRETE ON (E) SCORE LINES. DO NOT DAMAGE CONCRETE EDGE TO REMAIN. REMOVE (E) STONE PATH, TYP.
- REMOVE (E) EXTERIOR BENCH AND RETURN TO OWNER FOR STORAGE.
- REMOVE (E) DRINKING FOUNTAIN, SPD. REWORK (E) PIPING FOR (N) HI-LOW DRINKING FOUNTAIN.

#### **DRAWING NOTES**

(E) ASPHALTIC CONCRETE PAVING TO REMAIN. REPLACE (E) WATER VALVE. SEE PLUMBING DRAWINGS. 262 REPLACE (E) GAS VALVE. SEE PLUMBING DRAWINGS.

#### SITE LEGEND - DEMO



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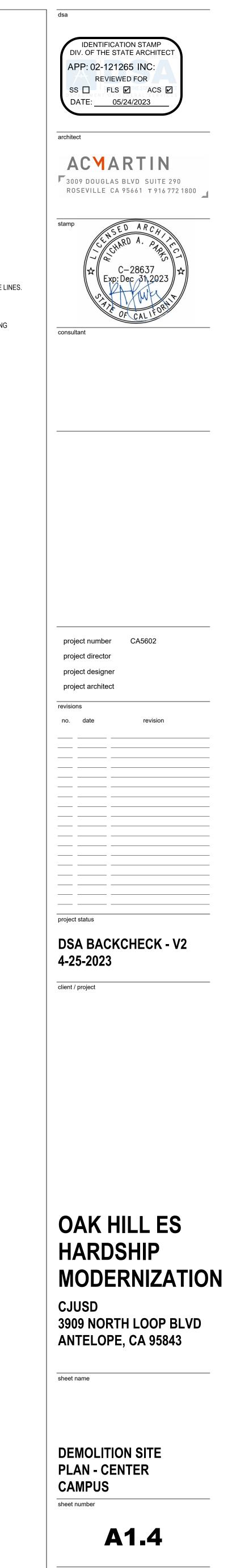
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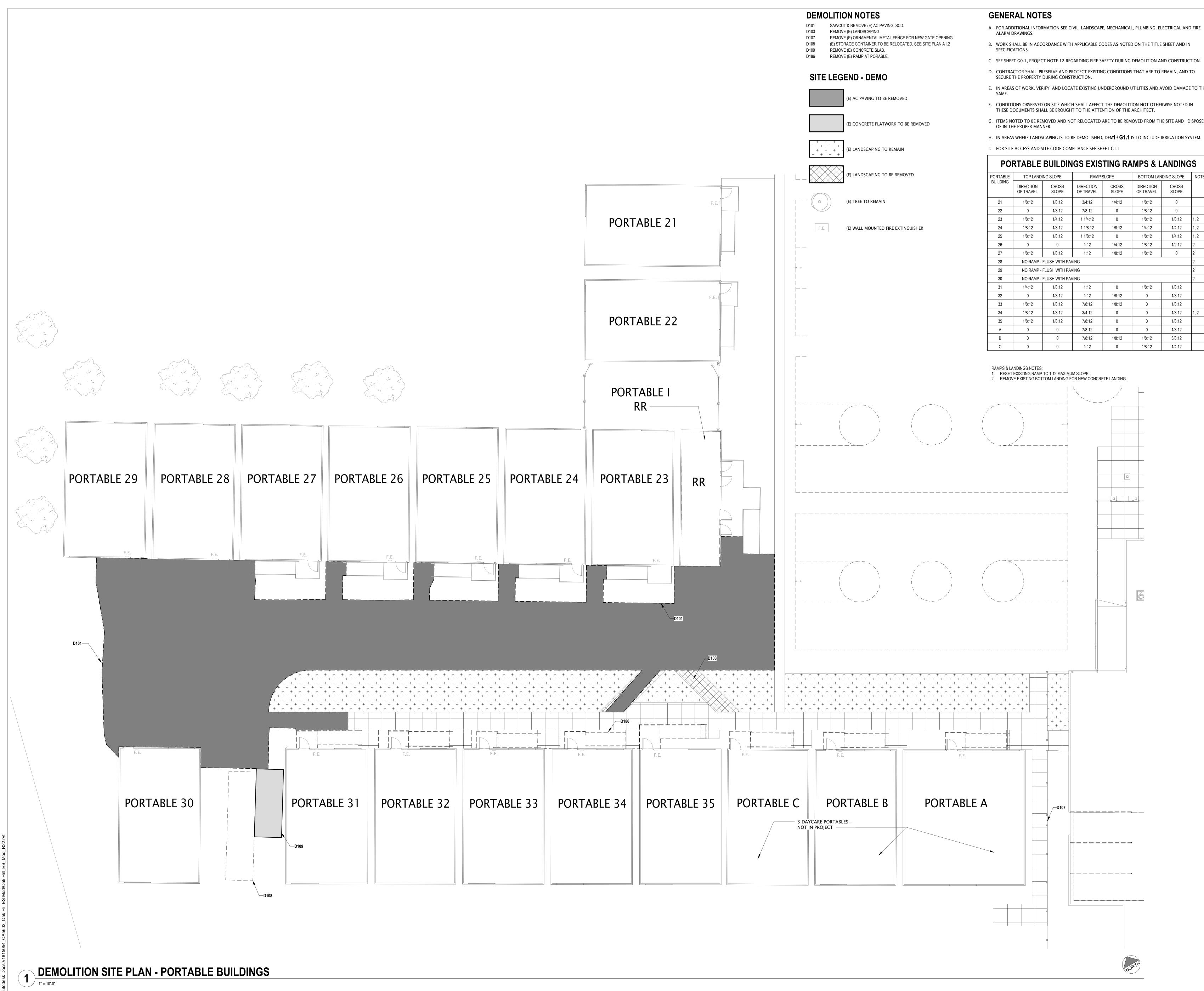
# DEMOLITION SITE PLAN - NORTH CAMPUS 1" = 10'-0"

#### SPECIFICATIONS. C. SEE SHEET G0.1, PROJECT NOTE 12 REGARDING FIRE SAFETY DURING DEMOLITION AND CONSTRUCTION. D. CONTRACTOR SHALL PRESERVE AND PROTECT EXISTING CONDITIONS THAT ARE TO REMAIN, AND TO SECURE THE PROPERTY DURING CONSTRUCTION. E. IN AREAS OF WORK, VERIFY AND LOCATE EXISTING UNDERGROUND UTILITIES AND AVOID DAMAGE TO THE F. CONDITIONS OBSERVED ON SITE WHICH SHALL AFFECT THE DEMOLITION NOT OTHERWISE NOTED IN THESE DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT. G. ITEMS NOTED TO BE REMOVED AND NOT RELOCATED ARE TO BE REMOVED FROM THE SITE AND DISPOSED OF IN THE PROPER MANNER. H. IN AREAS WHERE LANDSCAPING IS TO BE DEMOLISHED, DEM1//IG1.1 IS TO INCLUDE IRRIGATION SYSTEM. I. FOR SITE ACCESS AND SITE CODE COMPLIANCE SEE SHEET G1.1 DEMOLITION NOTES D101 SAWCUT & REMOVE (E) AC PAVING, SCD. SAWCUT & REMOVE (E) CONCRETE FLATWORK, SCD. CUT CONCRETE ON (E) SCORE LINE D102 DO NOT DAMAGE CONCRETE EDGE TO REMAIN. DRAWING NOTES REPLACE (E) WATER VALVE. SEE PLUMBING DRAWINGS. 261 REPLACE (E) GAS VALVE. SEE PLUMBING DRAWINGS. 262 SITE LEGEND - DEMO E) AC PAVING TO BE REMOVED E) CONCRETE FLATWORK TO BE REMOVED E) LANDSCAPING TO REMAIN E) LANDSCAPING TO BE REMOVED +</t /+ + + \ /+ + + + /+ + + + + /+ / /+++++++ + + + + + + + + + + + + + + + + + \_ + THIS AREA N.I.C. < + + + + + + + +</pre> 1 + + + + + + + + + + + 4 + + + + + + + + | + + + + + +/ + + + + + + + + + +/+ + + \+ + + + + + + \ + + + + \+ + + + + + + \ \ + + + + + + + / + + / + + + + + + + + + + +| |+ + + + ` + + + + + + ' /+ + + + + + + + ` \+ + + + + + + + + + + + + +/+ + + + $|+ + + + + + \rangle$ \+ + + + + + + \ /+ + + + + + + + + + +4 + + + + + + + + + + + + + ++ + + + + + ++ + + + + + + +£ + + + + £ + + + + + + + + + ++ + + + + + + \ + + + + + + ++ + + + + ++ + + + + + + $^{\setminus}$ 4 + + + + + + + + + + + + + + + + + + +\+ ++ + + + + +\+ + + + + + + \ + + + + + + + + + + + + + + + ++ + + + + + ++ + + + + + + + + + + + + + + +\+ + + + + + + + + + + + + + $+ + + + + + + + \setminus$ +\+ + + + + + + + + + + + + + + + + + + A + + | + + | /+ + + + + + / + + + + - + + + + + + + + + + + + + + + + + / /+ + + + + + + + + + | + + + + + + + + + + + + + + + +/ / + + + + + + + + + + + / + / ++ + + + + + + + + + + / + + + + + + + + / + 5 + + + + + -+ + + + + + + + + + + + + <u>>++++++++</u> . + + + + + + + < + + + + + + + + +<u>5' - 4"</u> <u>2' - 8</u>"+ + + + + <u>+</u> <u>20' - 0"</u> + + + + + + + + / + + + + + + + + + + + + + + +/+ /

# GENERAL NOTES

- A. FOR ADDITIONAL INFORMATION SEE CIVIL, LANDSCAPE, MECHANICAL, PLUMBING, ELECTRICAL AND FIRE ALARM DRAWINGS.
- B. WORK SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AS NOTED ON THE TITLE SHEET AND IN

|      | dsa  |
|------|--|
|      | IDENTIFICATION STAMP<br>DIV. OF THE STATE ARCHITECT<br>APP: 02-121265 INC:<br>REVIEWED FOR<br>SS I FLS ACS I<br>DATE: 05/24/2023   |
|      | architect  |
|      | 3009 DOUGLAS BLVD SUITE 290<br>ROSEVILLE CA 95661 T 916 772 1800   |
| NES. | stamp<br>$rac{1}{2}$ stamp<br>$rac{$ |
|      | CONSULTANT OF CALIFORNIA   |
|      | Consultant   |
|      |  |
|      |  |
|      |  |
|      |  |
|      |  |
|      | project number CA5602  |
|      | project director<br>project designer<br>project architect  |
|      | revisions no. date revision  |
|      |  |
|      |  |
|      |  |
|      |  |
|      | DSA BACKCHECK - V2<br>4-25-2023  |
|      | client / project   |
|      |  |
|      |  |
|      |  |
|      |  |
|      | OAK HILL ES  |
|      | HARDSHIP<br>MODERNIZATION  |
|      | CJUSD<br>3909 NORTH LOOP BLVD  |
|      | ANTELOPE, CA 95843   |
|      |  |
|      | DEMOLITION SITE<br>PLAN - NORTH  |
|      | CAMPUS<br>sheet number   |
|      | A1.5   |
|      | plot date 5/15/2023 4:53:10 PM   |

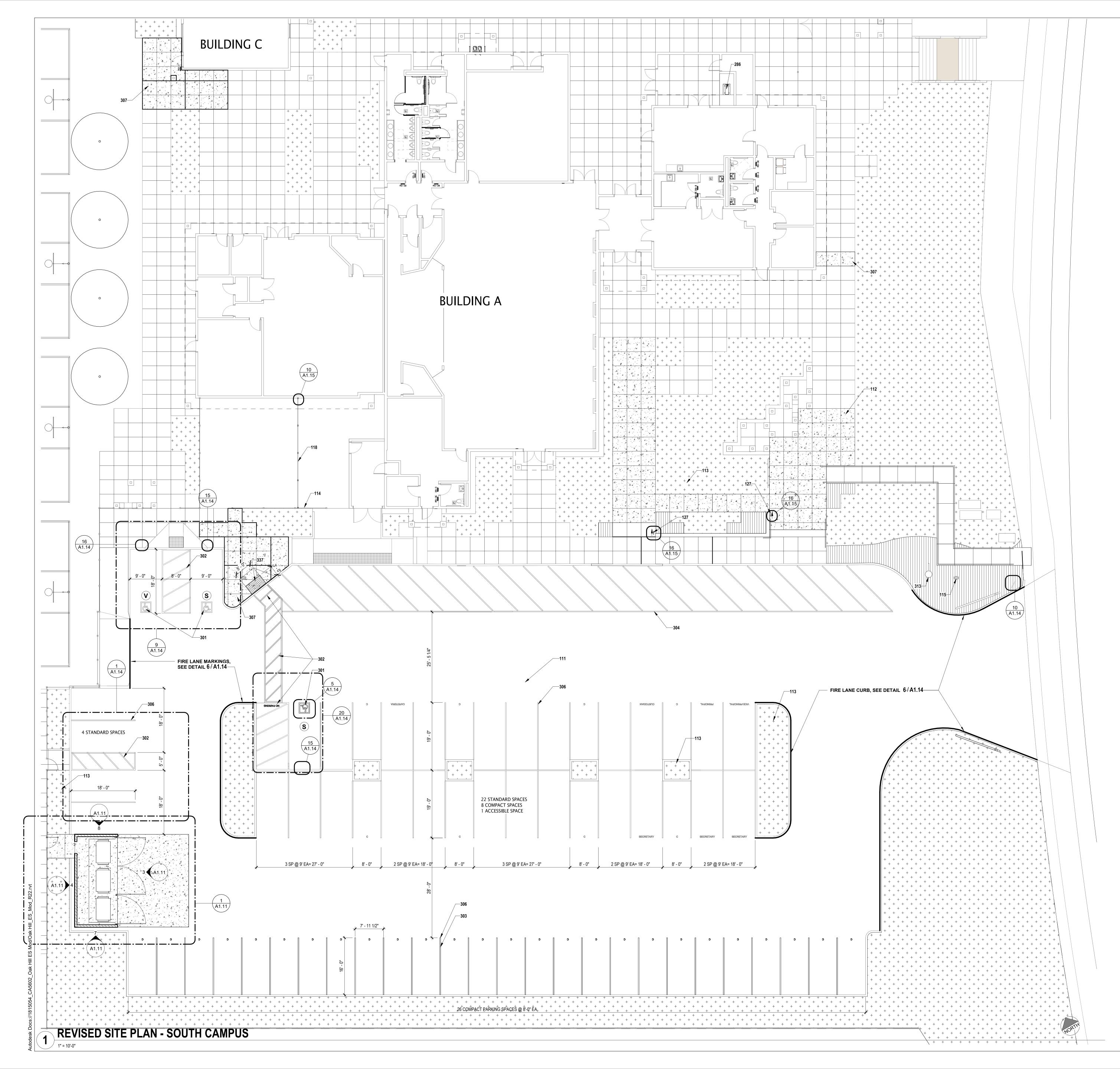


A. FOR ADDITIONAL INFORMATION SEE CIVIL, LANDSCAPE, MECHANICAL, PLUMBING, ELECTRICAL AND FIRE

- B. WORK SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AS NOTED ON THE TITLE SHEET AND IN
- C. SEE SHEET G0.1, PROJECT NOTE 12 REGARDING FIRE SAFETY DURING DEMOLITION AND CONSTRUCTION.
- D. CONTRACTOR SHALL PRESERVE AND PROTECT EXISTING CONDITIONS THAT ARE TO REMAIN, AND TO
- E. IN AREAS OF WORK, VERIFY AND LOCATE EXISTING UNDERGROUND UTILITIES AND AVOID DAMAGE TO THE
- F. CONDITIONS OBSERVED ON SITE WHICH SHALL AFFECT THE DEMOLITION NOT OTHERWISE NOTED IN
- G. ITEMS NOTED TO BE REMOVED AND NOT RELOCATED ARE TO BE REMOVED FROM THE SITE AND DISPOSED

| PO       | RTABLE                      | BUILDIN        | IGS EXIS               | TING RA        | MPS & L                | ANDING         | GS   |  |  |
|----------|-----------------------------|----------------|------------------------|----------------|------------------------|----------------|------|--|--|
| PORTABLE | TOP LAND                    | ING SLOPE      | RAMP                   | SLOPE          | BOTTOM LAN             | IDING SLOPE    | NOTE |  |  |
| BUILDING | DIRECTION<br>OF TRAVEL      | CROSS<br>SLOPE | DIRECTION<br>OF TRAVEL | CROSS<br>SLOPE | DIRECTION<br>OF TRAVEL | CROSS<br>SLOPE |      |  |  |
| 21       | 1/8:12                      | 1/8:12         | 3/4:12                 | 1/4:12         | 1/8:12                 | 0              |      |  |  |
| 22       | 0                           | 1/8:12         | 7/8:12                 | 0              | 1/8:12                 | 0              |      |  |  |
| 23       | 1/8:12                      | 1/4:12         | 1 1/4:12               | 0              | 1/8:12                 | 1/8:12         | 1, 2 |  |  |
| 24       | 1/8:12                      | 1/8:12         | 1 1/8:12               | 1/8:12         | 1/4:12                 | 1/4:12         | 1, 2 |  |  |
| 25       | 1/8:12                      | 1/8:12         | 1 1/8:12               | 0              | 1/8:12                 | 1/4:12         | 1, 2 |  |  |
| 26       | 0                           | 0              | 1:12                   | 1/4:12         | 1/8:12                 | 1/2:12         | 2    |  |  |
| 27       | 1/8:12                      | 1/8:12         | 1:12                   | 1/8:12         | 1/8:12                 | 0              | 2    |  |  |
| 28       | NO RAMP - FLUSH WITH PAVING |                |                        |                |                        |                |      |  |  |
| 29       | NO RAMP -                   | FLUSH WITH PA  | /ING                   |                |                        |                | 2    |  |  |
| 30       | NO RAMP -                   | FLUSH WITH PA  | /ING                   |                |                        | _              | 2    |  |  |
| 31       | 1/4:12                      | 1/8:12         | 1:12                   | 0              | 1/8:12                 | 1/8:12         |      |  |  |
| 32       | 0                           | 1/8:12         | 1:12                   | 1/8:12         | 0                      | 1/8:12         |      |  |  |
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| А        | 0                           | 0              | 7/8:12                 | 0              | 0                      | 1/8:12         |      |  |  |
| В        | 0                           | 0              | 7/8:12                 | 1/8:12         | 1/8:12                 | 3/8:12         |      |  |  |
| С        | 0                           | 0              | 1:12                   | 0              | 1/8:12                 | 1/4:12         |      |  |  |

dsa IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 02-121265 INC: REVIEWED FOR SS 🗖 FLS 🗹 ACS 🗹 DATE: 05/24/2023 architect ACMARTIN 3009 DOUGLAS BLVD SUITE 290 ROSEVILLE CA 95661 T 916 772 1800 stamp consultant project number CA5602 project director project designer project architect revisions project status DSA BACKCHECK - V2 4-25-2023 client / project OAK HILL ES HARDSHIP MODERNIZATION CJUSD 3909 NORTH LOOP BLVD ANTELOPE, CA 95843 sheet name **DEMOLITION SITE** PLAN - PORTABLE BUILDINGS sheet number **A1.6** 5/15/2023 4:53:13 PM plot date



# DRAWING NOTES

114

115

118

127

286

301

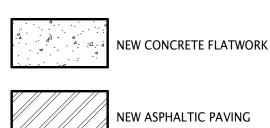
302

(E) ASPHALTIC CONCRETE PAVING TO REMAIN. 111

- (E) CONCRETE FLATWORK TO REMAIN. 112 (E) LANDSCAPING TO REMAIN. 113
  - (E) FENCE TO REMAIN.
  - (E) FIRE HYDRANT.
  - (N) ORNAMENTAL METAL FENCING TO MATCH (E). (N) ACCESSIBLE PATH DIRECTIONAL SIGN.
- (N) AIR CONDITIONING SPLIT SYSTEM COMPRESSOR ON CONCRETE PAD. SEE MECHAN DRAWINGS.
- I.S.A. RE-PAINTED ON ASPHALTIC CONCRETE PAVING, SEE REFERENCED DETAIL. ACCESS AISLE RE-PAINTED AND NEW STRIPING ADDED UP TO CURB RAMP AREA ON ASPHALTIC CONCRETE PAVING, SEE REFERENCED DETAIL.
- RESTRIPE PARKING AT THIS AREA FOR COMPACT PARKING SPACES. 303
- 4" WIDE YELLOW STRIPING AT BUS LOADING ZONE, TYP. 304 4" WIDE WHITE PAINT STRIPING AT PARKING SPACES, TYP. 306
- (N) CONCRETE FLATWORK. PROVIDE SCORE LINES AT 48" O.C. TO MATCH AND ALIGN WITH (E). 307
- COORDINATE WITH CIVIL DRAWINGS. 313 (E) LIGHT POLE TO REMAIN.

#### 337 (N) ACC CURB RAMP. SEE DETAIL 16/C4.1

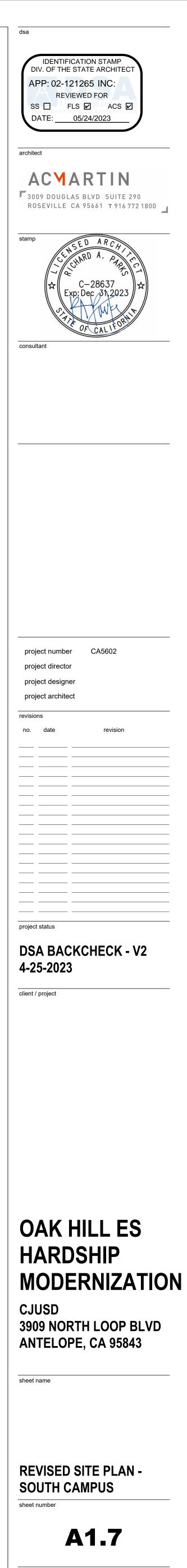
#### SITE LEGEND



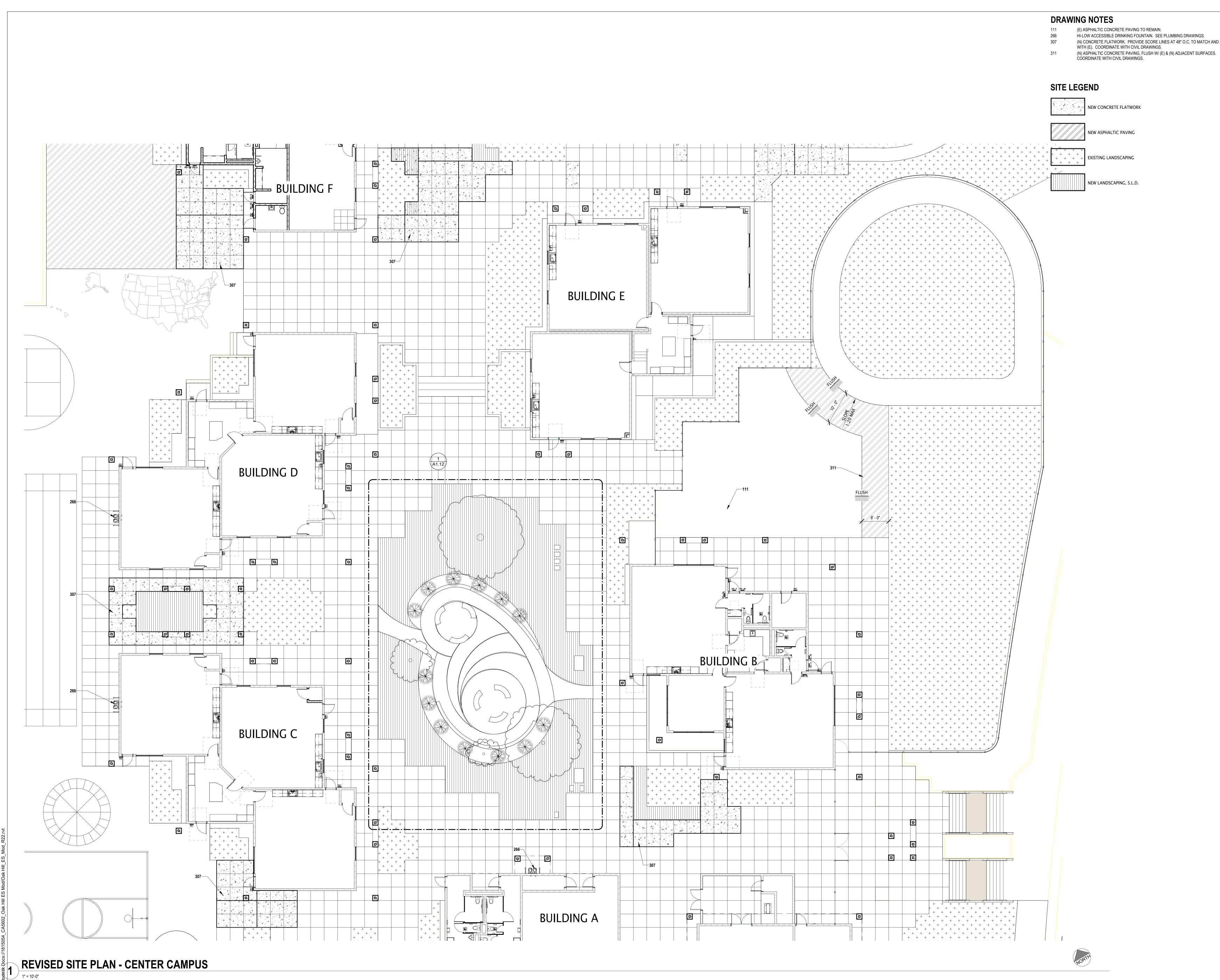
XISTING LANDSCAPING



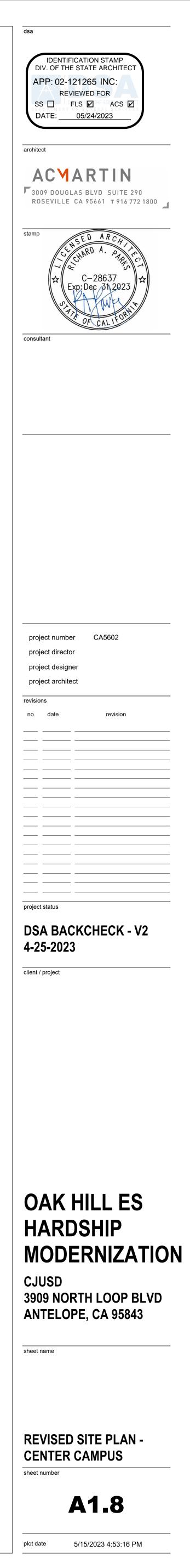
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#### **DRAWING NOTES**

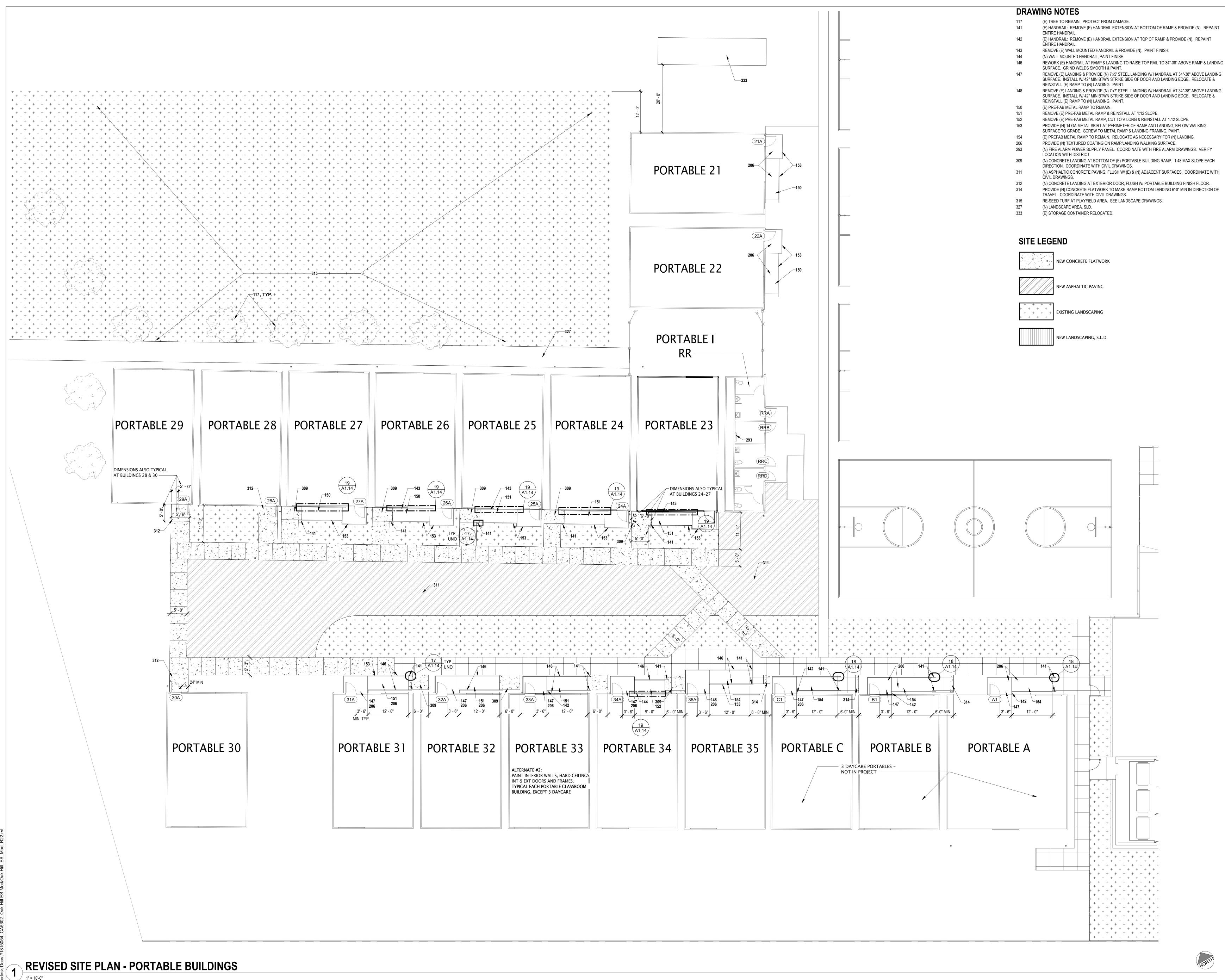
327

307

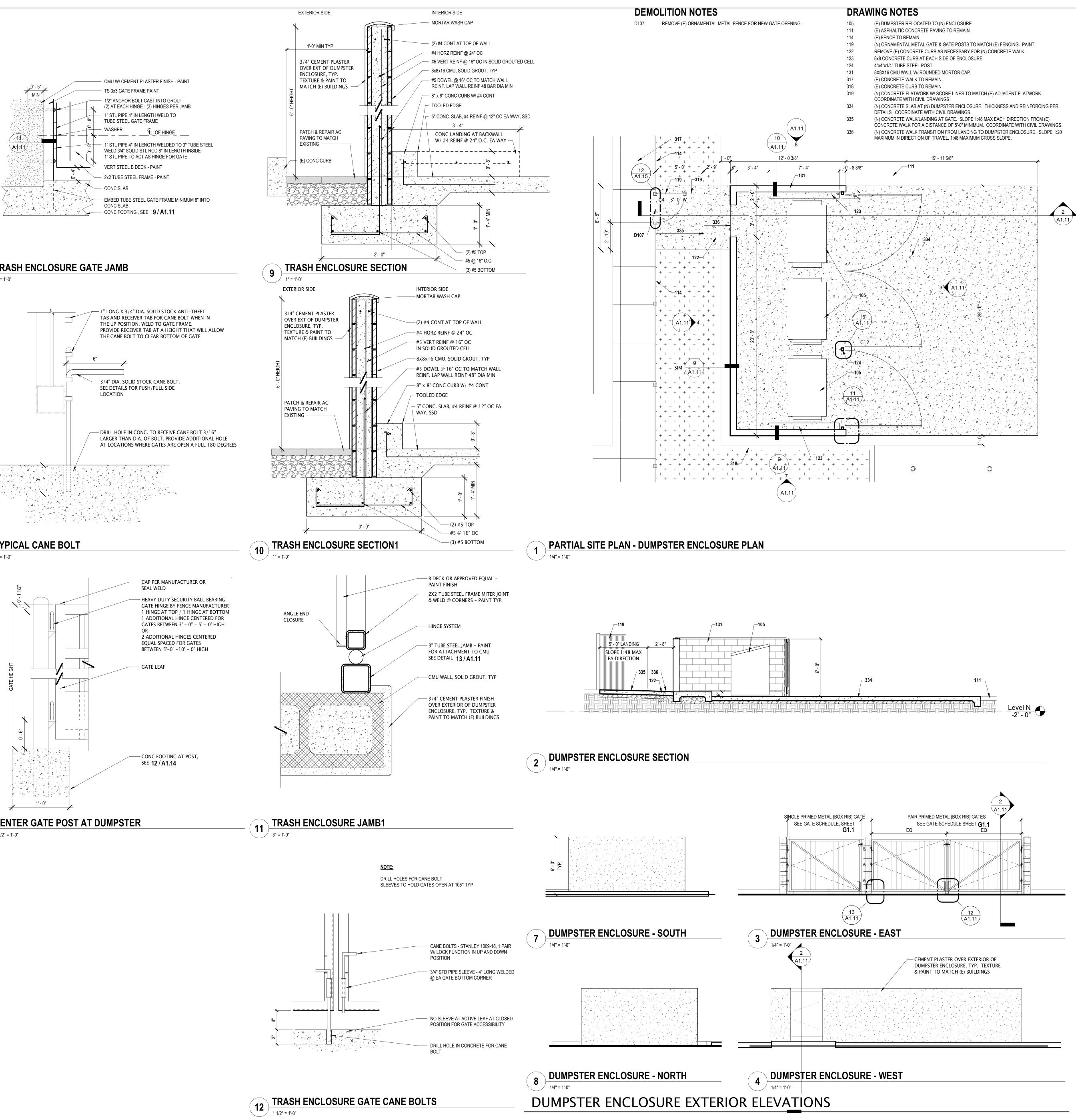
(N) CONCRETE FLATWORK. PROVIDE SCORE LINES AT 48" O.C. TO MATCH AND ALIGN WITH (E). COORDINATE WITH CIVIL DRAWINGS. (N) ASPHALTIC CONCRETE PAVING, FLUSH W/ (E) & (N) ADJACENT SURFACES. COORDINATE WITH CIVIL DRAWINGS. (N) LANDSCAPE AREA, SLD.

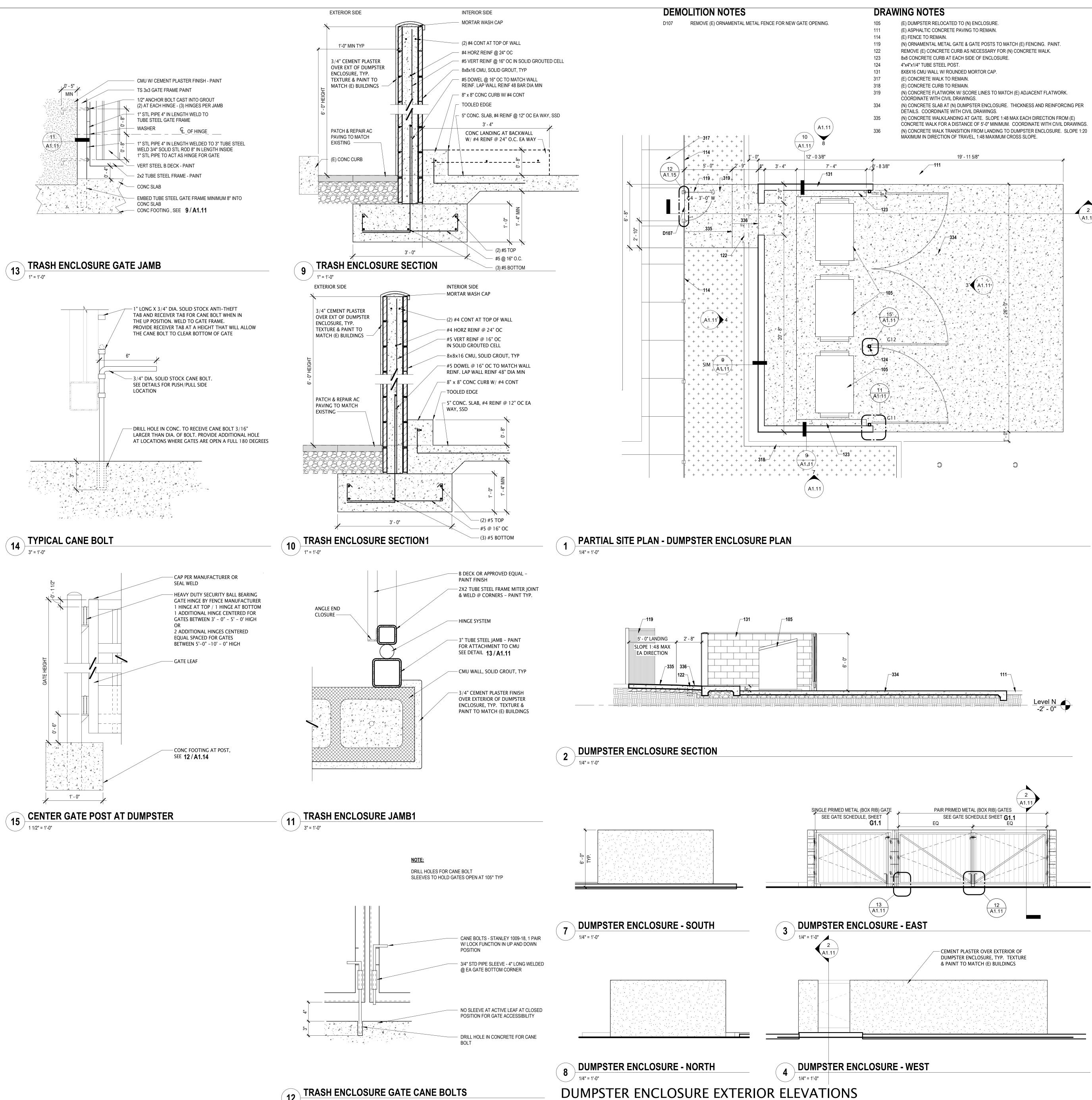
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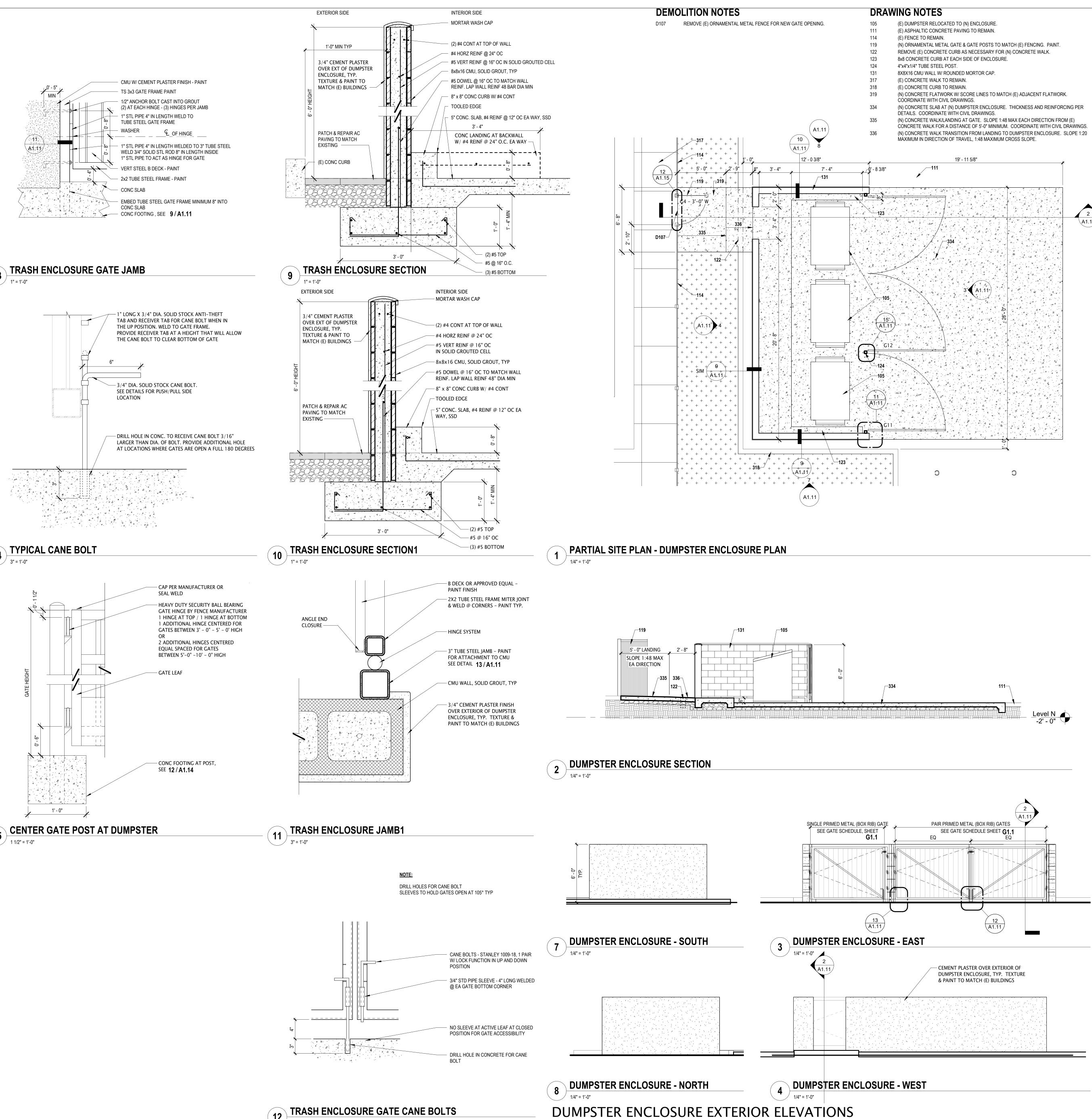
dsa IDENTIFICATION STAMP **DIV. OF THE STATE ARCHITEC** APP: 02-121265 INC: **REVIEWED FOR** SS 🔲 FLS 🗹 ACS 🗹 05/24/2023 DATE: architect ACMARTIN 3009 DOUGLAS BLVD SUITE 290 ROSEVILLE CA 95661 T 916 772 1800 consultant project number CA5602 project director project designe project architect revisions project status DSA BACKCHECK - V2 4-25-2023 client / project OAK HILL ES HARDSHIP MODERNIZATION CJUSD 3909 NORTH LOOP BLVD ANTELOPE, CA 95843 sheet name **REVISED SITE PLAN -**NORTH CAMPUS sheet number A1.9 5/15/2023 4:53:18 PM plot date

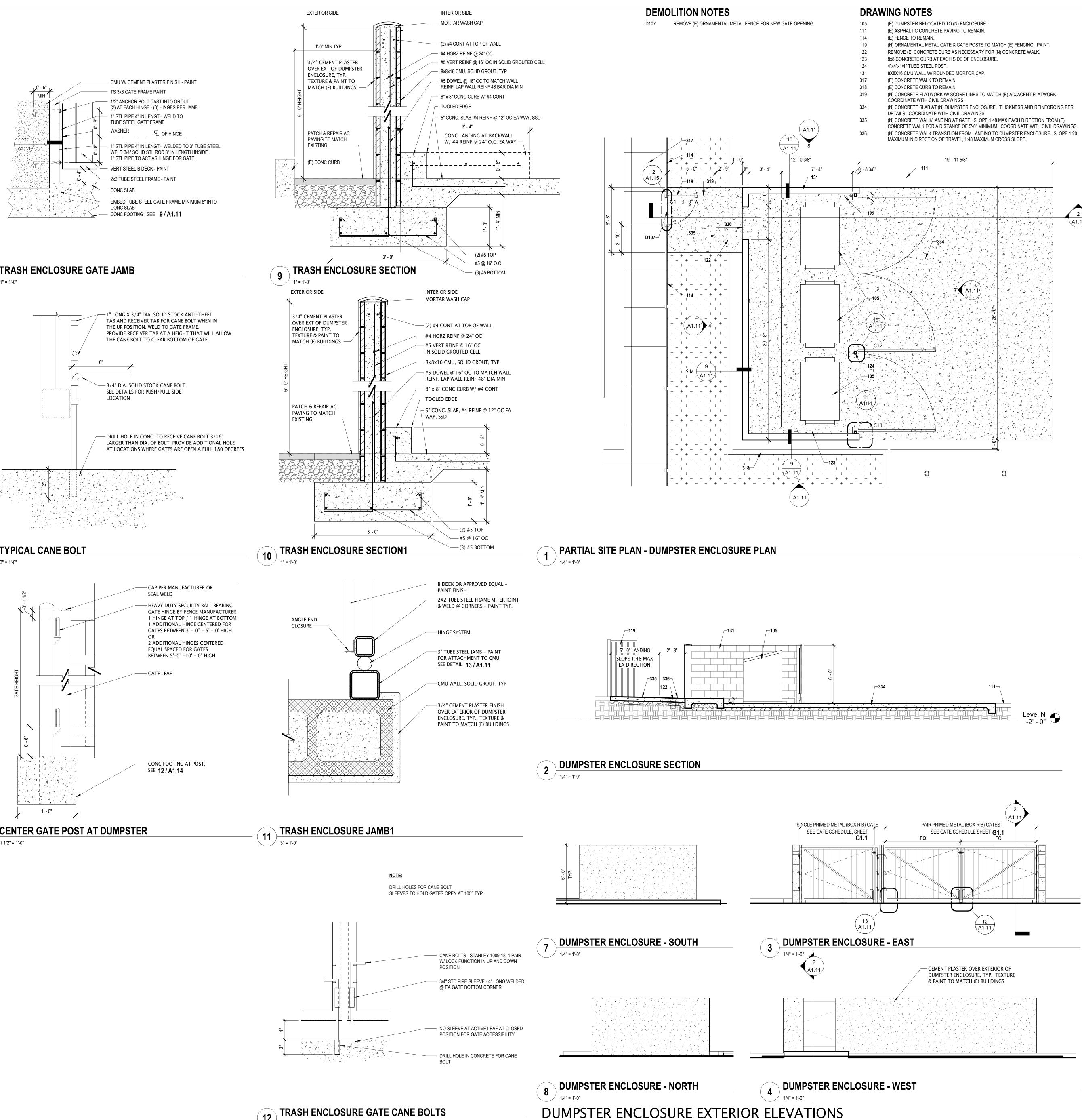


dsa IDENTIFICATION STAMP **DIV. OF THE STATE ARCHITEC** APP: 02-121265 INC: **REVIEWED FOR** SS 🔲 FLS 🗹 ACS 🗹 05/24/2023 DATE: architect ACMARTIN 3009 DOUGLAS BLVD SUITE 290 ROSEVILLE CA 95661 T 916 772 1800 👔 consultant project number CA560 project director project designe project architect project status DSA BACKCHECK - V2 4-25-2023 client / project OAK HILL ES HARDSHIP MODERNIZATION CJUSD 3909 NORTH LOOP BLVD ANTELOPE, CA 95843 sheet name **REVISED SITE PLAN -**PORTABLE BUILDINGS sheet number A1.10 plot date 5/15/2023 4:53:22 PM



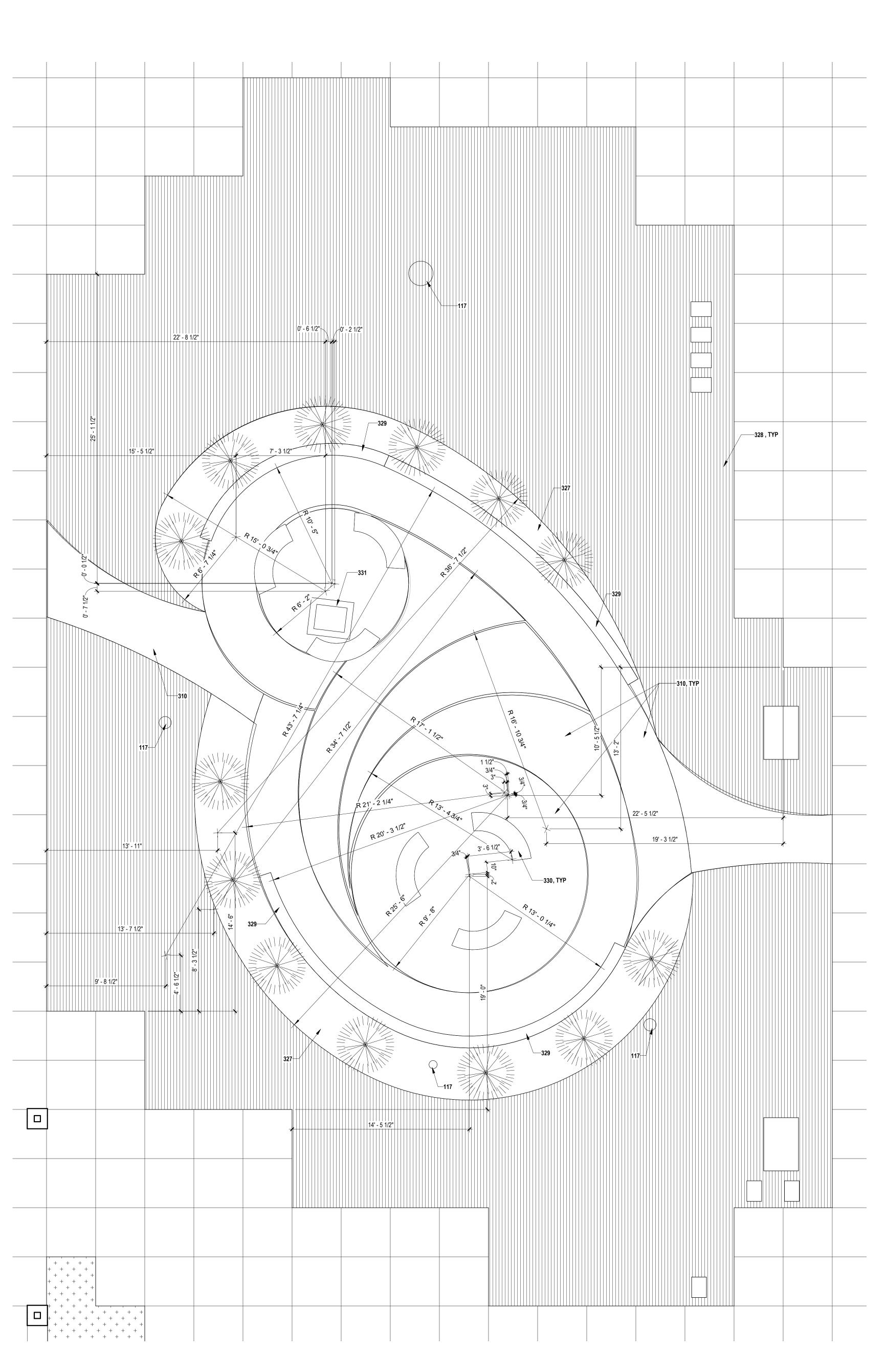






|   | IDENTIFICATION STAMP<br>DIV. OF THE STATE ARCHITECT<br>APP: 02-121265 INC:      |
|---|---|
|   | REVIEWED FOR<br>SS FLS ACS DATE: 05/24/2023                                     |
| a | ACMARTIN  |
| ŗ | 3009 DOUGLAS BLVD SUITE 290<br>ROSEVILLE CA 95661 T 916 772 1800                |
| s | tamp  |
|   | ★ C-28637     ★     Exp: Dec 31,2023  |
| c | onsultant   |
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|   | project number CA5602<br>project director<br>project designer                   |
| r | project architect<br>evisions<br>no. date revision                              |
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|   | OAK HILL ES<br>HARDSHIP   |
|   | HARDSHIP<br>MODERNIZATIO  |
|   | HARDSHIP  |
|   | HARDSHIP<br>MODERNIZATIO<br>CJUSD<br>3909 NORTH LOOP BLVD                       |
|   | HARDSHIP<br>MODERNIZATIO<br>CJUSD<br>3909 NORTH LOOP BLVD<br>ANTELOPE, CA 95843 |
|   | HARDSHIP<br>MODERNIZATIO<br>CJUSD<br>3909 NORTH LOOP BLVD<br>ANTELOPE, CA 95843 |
|   | HARDSHIP<br>MODERNIZATIO<br>CJUSD<br>3909 NORTH LOOP BLVD<br>ANTELOPE, CA 95843 |

ssk Docs://1815054\_CA5602\_Oak Hill ES Mod/Oak Hill\_ES\_Mod\_R22



# 1 ENLARGED CENTER CAMPUS PLAZA PLAN

## DRAWING NOTES

117 (E) TREE TO REMAIN. PROTECT FROM DAMAGE.310 (N) DECORATIVE CONCRETE FLATWORK, SCD.

- (N) LANDSCAPE AREA, SLD.
- (N) GROUNDCOVER, SLD. (N) 18" PLANTER WALL, SCD FOR DETAIL.
- 329 (N) 18" PLANTER WALL, SCD FOR DETAIL.
  330 (N) PRE-FAB CONCRETE BENCHES, SEE SPECIFICATIONS.
  331 (E) DRAIN TO REMAIN, SCD.

# SITE LEGEND





327

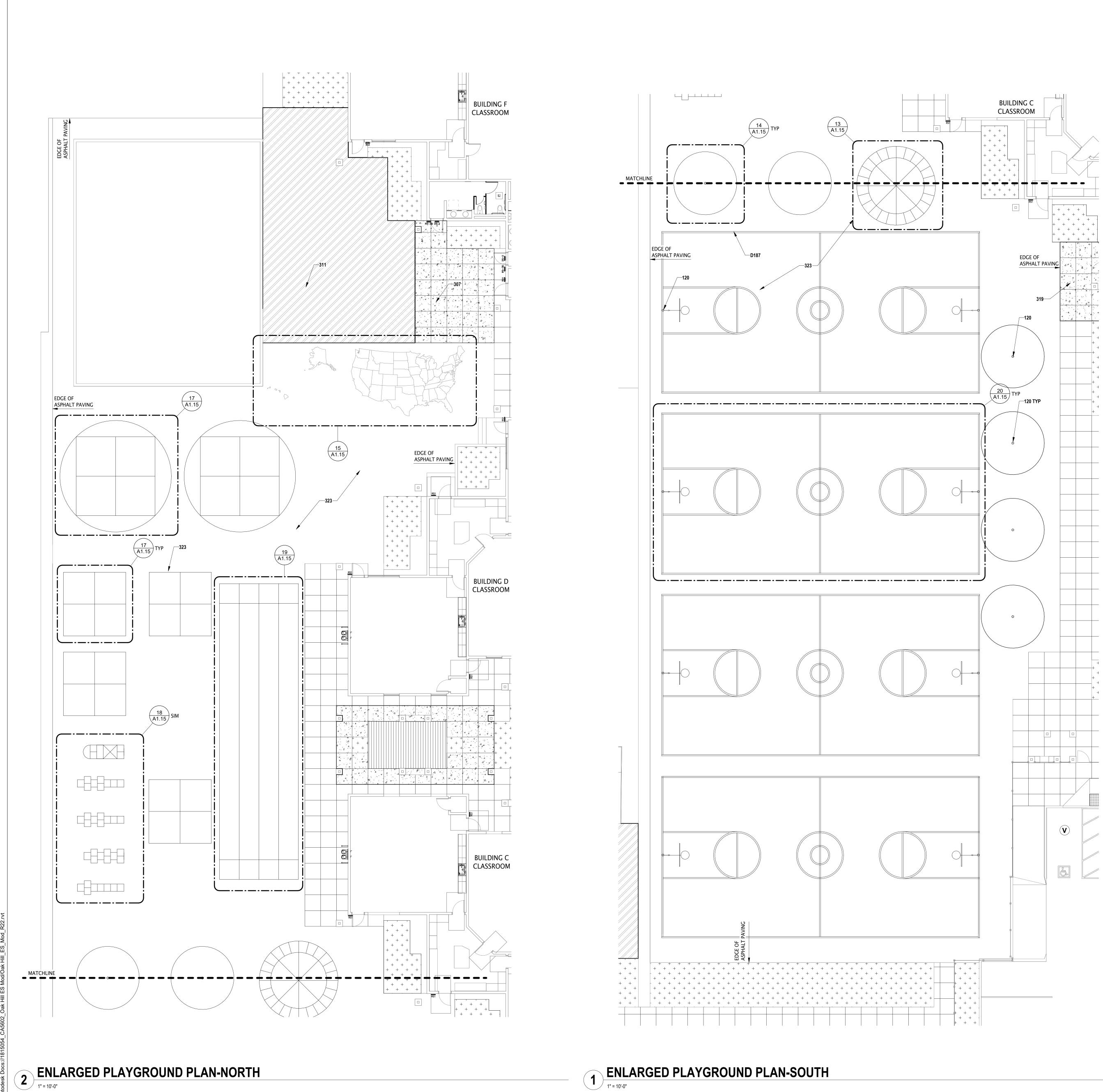
328

+ + + + + + + + EXISTING LANDSCAPING



NEW LANDSCAPING, S.L.D.

dsa IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT APP: 02-121265 INC: REVIEWED FOR SS 🔲 FLS 🗹 ACS 🗹 DATE: 05/24/2023 architect ACMARTIN S009 DOUGLAS BLVD SUITE 290 ROSEVILLE CA 95661 T 916 772 1800 stamp consultant project number CA5602 project director project designer project architect revisions no \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_ project status DSA BACKCHECK - V2 4-25-2023 client / project OAK HILL ES HARDSHIP MODERNIZATION CJUSD 3909 NORTH LOOP BLVD ANTELOPE, CA 95843 sheet name ENLARGED CENTER CAMPUS PLAZA A1.12 plot date 5/15/2023 4:53:24 PM



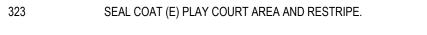
# **DEMOLITION NOTES**

REMOVE STRIPING AND PREP PAVING FOR RESEAL. D187

#### DRAWING NOTES



- COORDINATE WITH CIVIL DRAWINGS.
- (N) ASPHALTIC CONCRETE PAVING, FLUSH W/ (E) & (N) ADJACENT SURFACES. COORDINATE WITH CIVIL DRAWINGS.
- (N) CONCRETE FLATWORK W/ SCORE LINES TO MATCH (E) ADJACENT FLATWORK. COORDINATE WITH CIVIL 319 DRAWINGS.



# SITE LEGEND

311



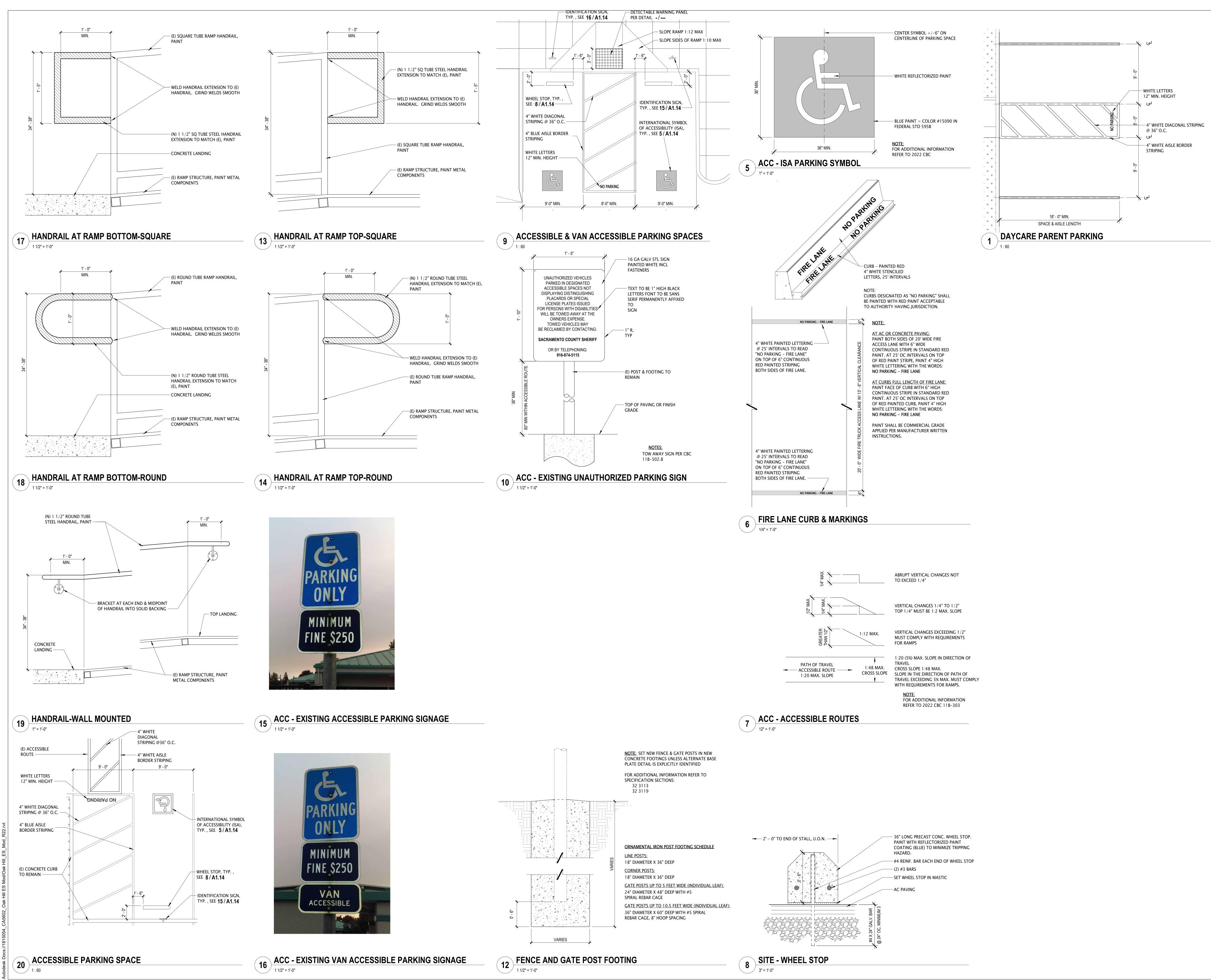


EXISTING LANDSCAPING

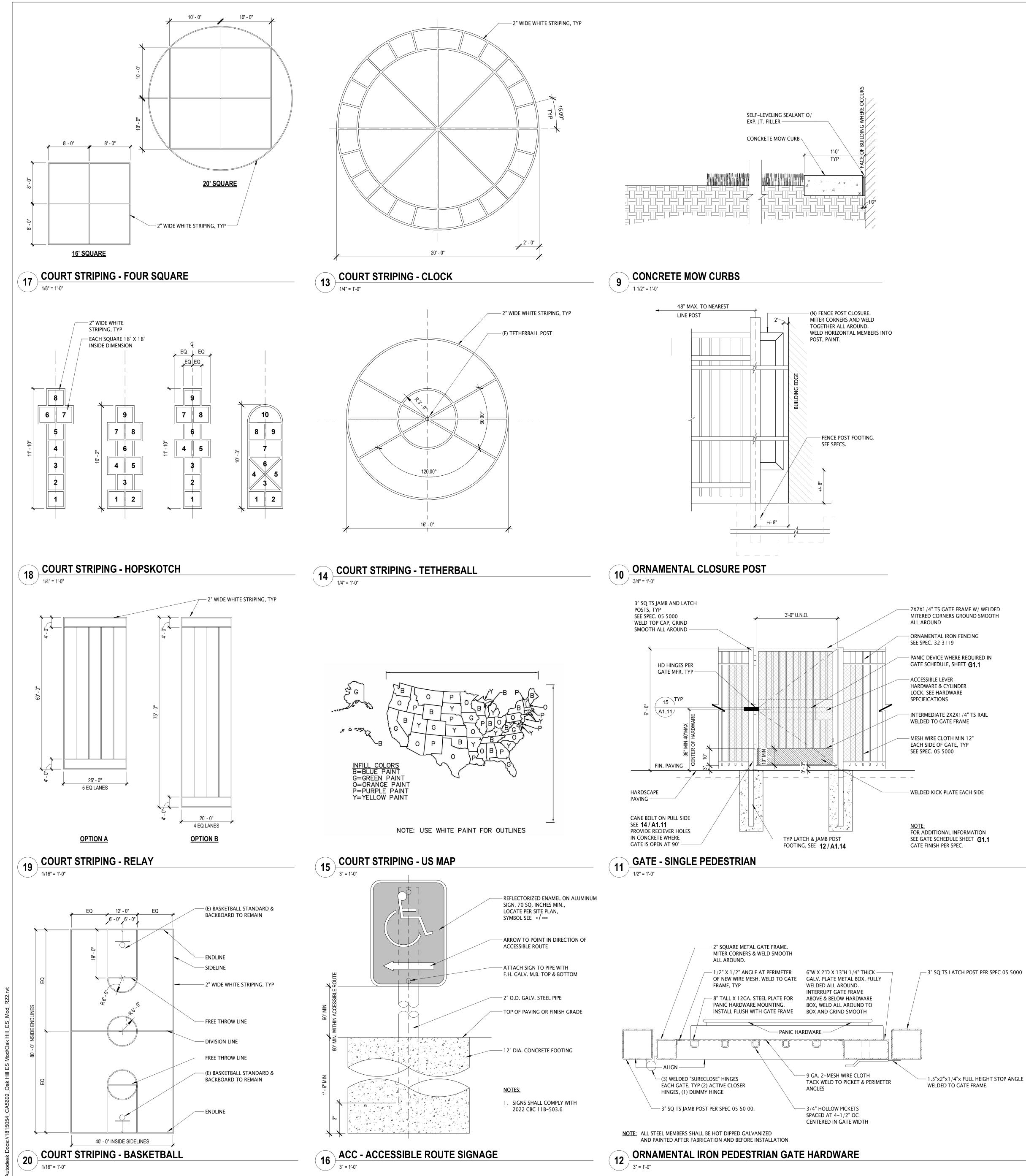


NEW LANDSCAPING, S.L.D.

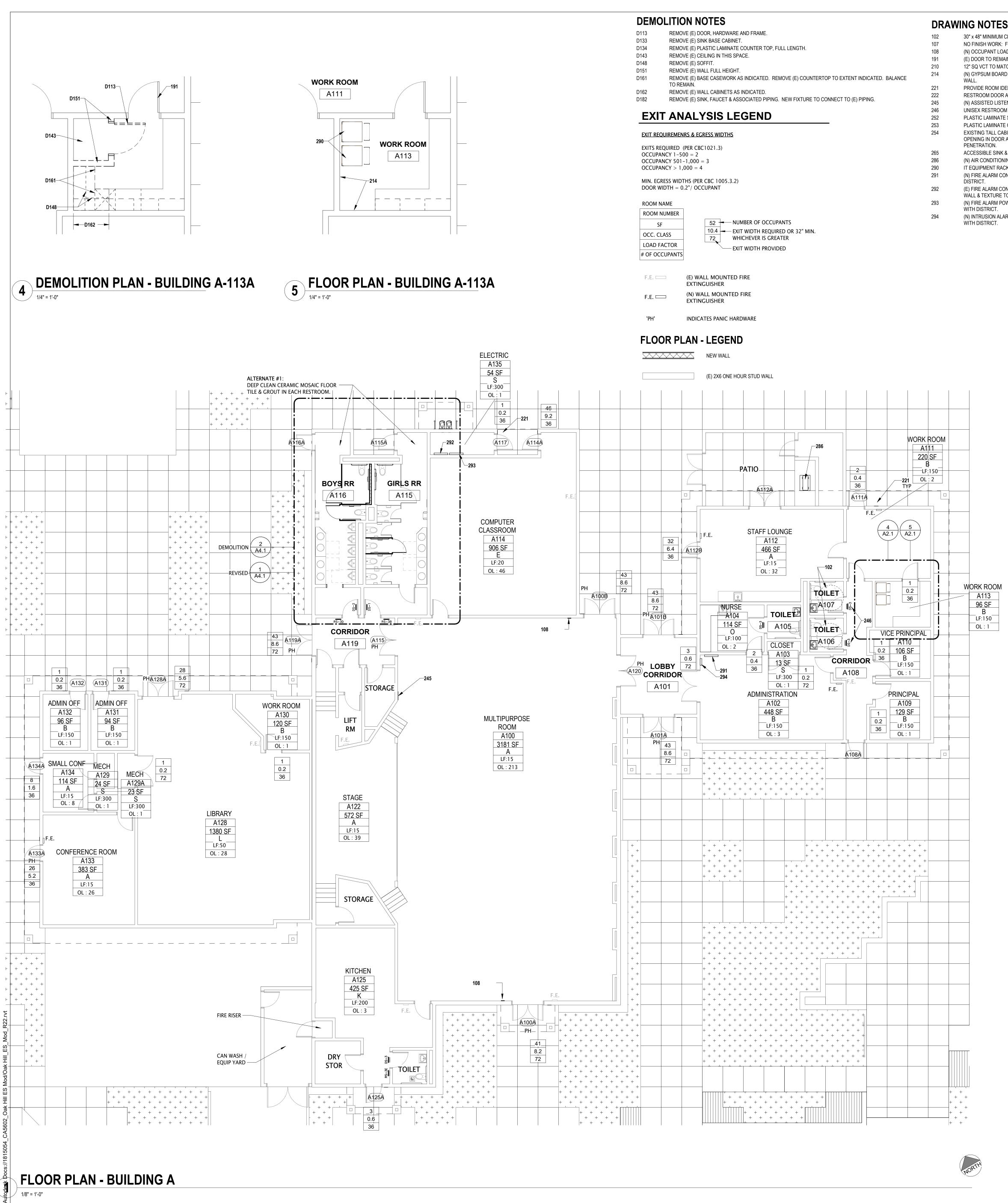
dsa IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 02-121265 INC: REVIEWED FOR SS 🔲 FLS 🗹 ACS 🗹 DATE: 05/24/2023 architect ACMARTIN 3009 DOUGLAS BLVD SUITE 290 ROSEVILLE CA 95661 T 916 772 1800 stamp consultant project number CA5602 project director project designer project architect revisions no \_\_\_\_\_ project status DSA BACKCHECK - V2 4-25-2023 client / project OAK HILL ES HARDSHIP MODERNIZATION CJUSD 3909 NORTH LOOP BLVD ANTELOPE, CA 95843 sheet name ENLARGED PLAY **GROUND PLAN** sheet number A1.13 5/15/2023 4:53:26 PM plot date



dsa IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 02-121265 INC: REVIEWED FOR SS 🔲 FLS 🗹 ACS 🗹 DATE: 05/24/2023 architect ACMARTIN ▼3009 DOUGLAS BLVD SUITE 290 ROSEVILLE CA 95661 T 916 772 1800 stamp consultant project number CA5602 project director project designer project architect revisions no. date \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ project status DSA BACKCHECK - V2 4-25-2023 client / project OAK HILL ES HARDSHIP MODERNIZATION CJUSD 3909 NORTH LOOP BLVD ANTELOPE, CA 95843 sheet name SITE DETAILS sheet number A1.14 plot date 5/24/2023 9:37:58 AM



dsa IDENTIFICATION STAMF DIV. OF THE STATE ARCHITE APP: 02-121265 INC: REVIEWED FOR SS 🔲 FLS 🗹 ACS 🗹 DATE: 05/24/2023 architect ACMARTIN 3009 DOUGLAS BLVD SUITE 290 ROSEVILLE CA 95661 T 916 772 1800 stamp consultant project number CA5602 project director project designer project architect revisions no. date \_\_\_\_\_ \_\_\_\_\_ project status DSA BACKCHECK - V2 4-25-2023 client / project OAK HILL ES HARDSHIP MODERNIZATION CJUSD 3909 NORTH LOOP BLVD ANTELOPE, CA 95843 sheet name SITE DETAILS sheet number A1.15 plot date 5/15/2023 4:53:28 PM



30" x 48" MINIMUM CLEAR FLOOR SPACE FOR WHEELCHAIR ACCESS. NO FINISH WORK: FLOOR, WALLS, CEILING, DOORS & FRAMES TYPICAL IN WORK ROOM.

(N) OCCUPANT LOAD SIGN. SEE DETAIL 2/A9.2 (E) DOOR TO REMAIN. PROTECT FROM DAMAGE.

12" SQ VCT TO MATCH EXISTING. (N) GYPSUM BOARD ON (E) STUDS WHERE SOFFIT WAS REMOVED. TEXTURE TO MATCH (E). PAINT ENTIRE

PROVIDE ROOM IDENTIFICATION SIGNAGE, TYP AT EACH DOOR.

RESTROOM DOOR AND WALL SIGNAGE, TYP AT EACH RESTROOM DOOR.

(N) ASSISTED LISTENING SYSTEM SIGN. MOUNT AT MIN 6'-0" A.F.F. UNISEX RESTROOM DOOR AND WALL SIGNAGE.

PLASTIC LAMINATE SINK BASE CASEWORK. INSTALL ON EXISTING CASEWORK. PLASTIC LAMINATE COUNTER TOP W/ BACKSPLASH.

EXISTING TALL CABINET WITH IDF EQUIPMENT. RETROFIT DOOR TO MAKE CABINET LOCKABLE. CUT VENT OPENING IN DOOR AND PROVIDE METAL LOUVER FOR VENTING. DRILL UPPER CABINET FOR CONDUIT PENETRATION.

ACCESSIBLE SINK & FAUCET WITH DRINKING FOUNTAIN BUBBLER. CONNECT TO (E) PIPING. (N) AIR CONDITIONING SPLIT SYSTEM COMPRESSOR ON CONCRETE PAD. SEE MECHANICAL DRAWINGS.

IT EQUIPMENT RACK, SEE ELECTRICAL DRAWINGS. (N) FIRE ALARM CONTROL PANEL. COORDINATE WITH FIRE ALARM DRAWINGS. VERIFY LOCATION WITH

(E) FIRE ALARM CONTROL PANEL TO BE REMOVED. COORDINATE WITH FIRE ALARM DRAWINGS. PATCH WALL & TEXTURE TO MATCH (E). REPAINT ENTIRE WALL. (N) FIRE ALARM POWER SUPPLY PANEL. COORDINATE WITH FIRE ALARM DRAWINGS. VERIFY LOCATION

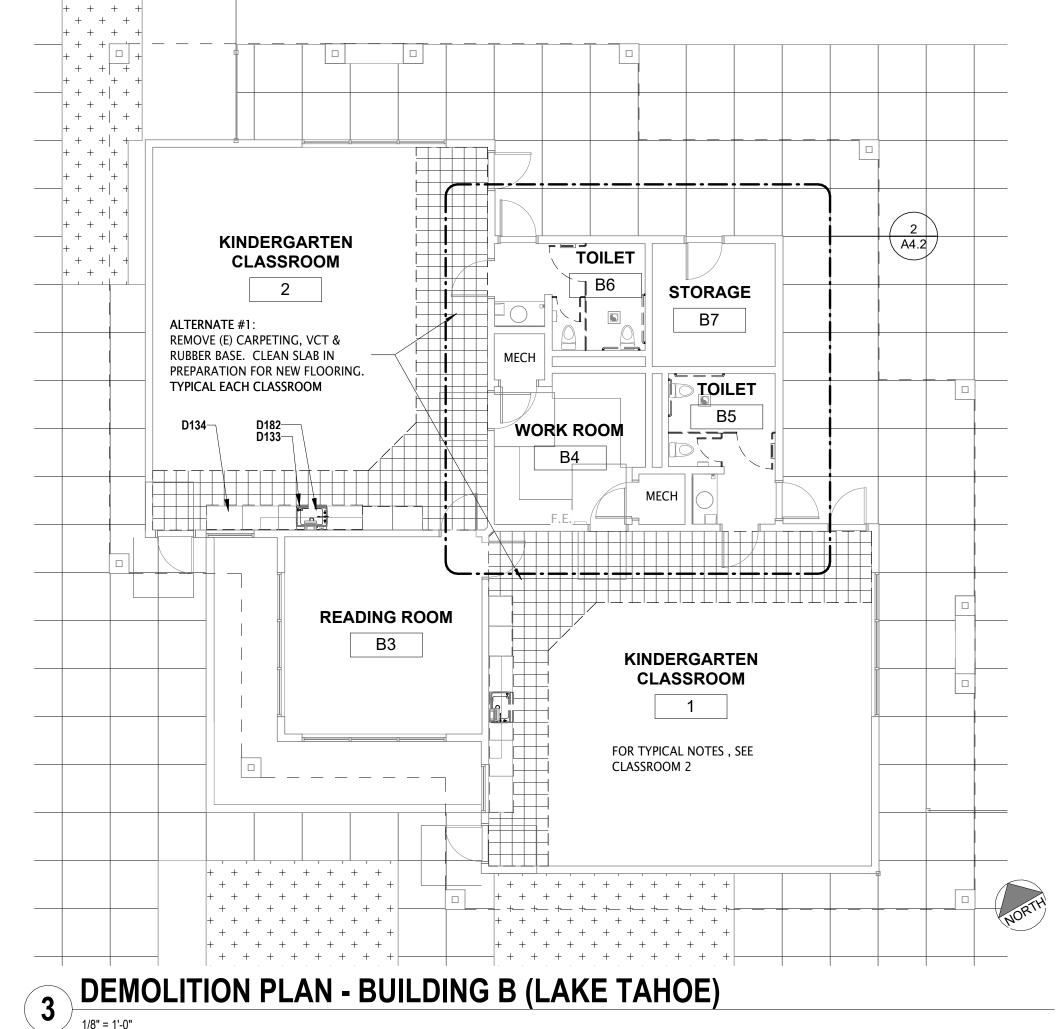
WITH DISTRICT. (N) INTRUSION ALARM CONTROL PANEL. COORDINATE WITH ELECTRICAL DRAWINGS. VERIFY LOCATION WITH DISTRICT.

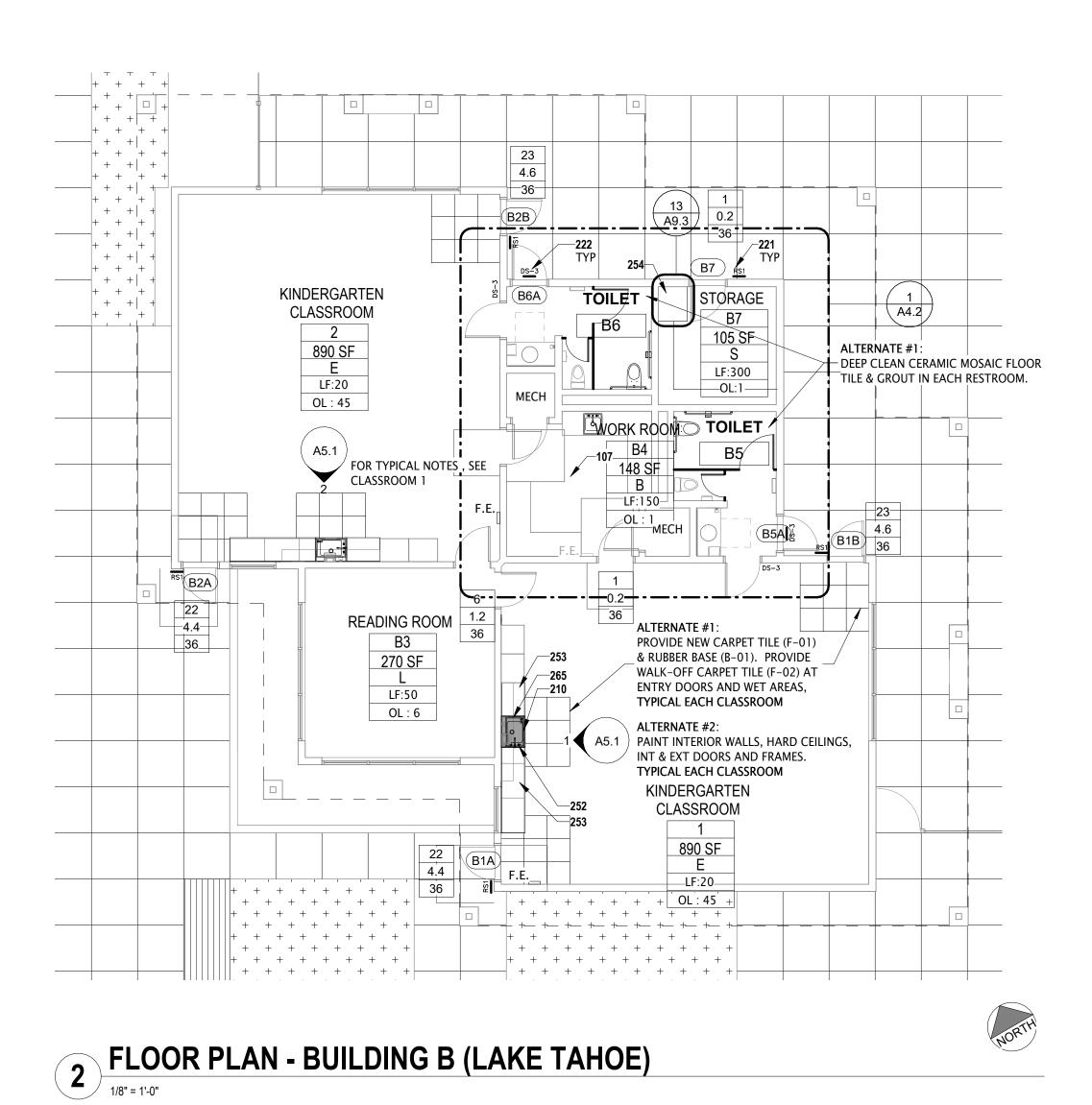
#### **DEMOLITION GENERAL NOTES**

- A. SEE SHEET G0.1, PROJECT NOTE 12 REGARDING FIRE SAFETY DURING DEMOLITION AND
- CONSTRUCTION. B. AT EXTERIOR WALLS MAKE CUTS TIGHT TO PENITRATING ITEMS AND SEAL W/ JOINT SEALANTS. C. REMOVE (E) GYPSUM BOARD AT LOCATIONS OF NEW CASEWORK AS NECESSARY FOR
- INSTALLATION OF BLOCKING IN WALL. D. FOR ADDITIONAL INFORMATION SEE MECHANICAL, PLUMBING & ELECTRICAL DRAWINGS. WORK SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AS NOTED ON THE TITLE SHEET. PRESERVE AND PROTECT EXISTING CONDITIONS THAT ARE TO REMAIN. SECURE THE
- PROPERTY DURING CONSTRUCTION. G. IN AREAS OF WORK, VERIFY AND LOCATE EXISTING UNDERGROUND UTILITIES AND AVOID
- DAMAGE TO SAME. H. CONDITIONS OBSERVED ON SITE WHICH SHALL AFFECT THE DEMOLITION. THAT ARE NOT
- OTHERWISE NOTED IN THESE DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT. I. ITEMS NOTED TO BE REMOVED AND NOT RELOCATED ARE TO BE REMOVED FROM THE SITE
- AND DISPOSED OF IN THE PROPER MANNER. J. FOR PROJECT GOVERNING CODES SEE SHEET G0.1.

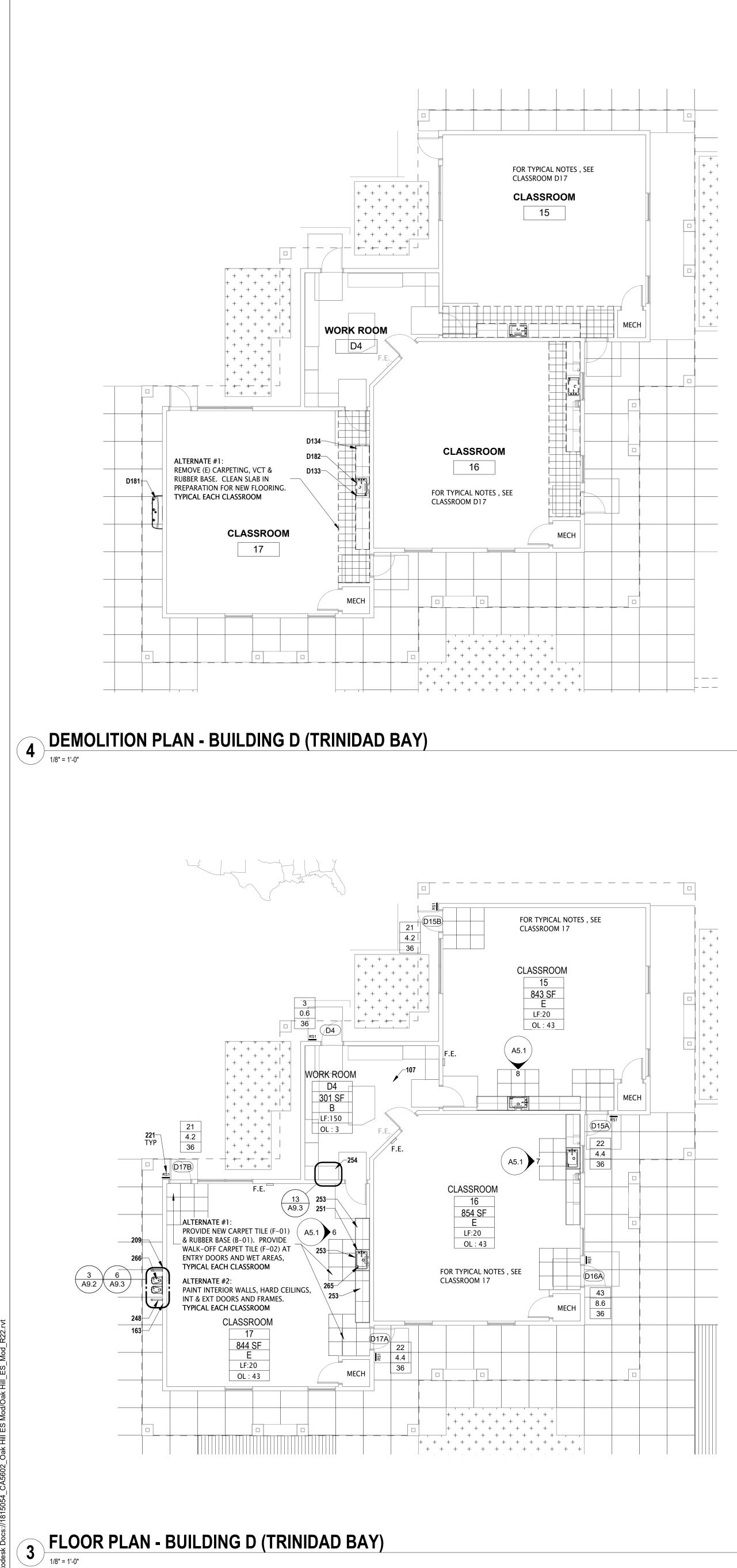
#### **GENERAL NOTES**

- A. FOR ADDITIONAL INFORMATION SEE MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS. FOR DOOR SCHEDULE AND DOOR LEGEND, SEE SHEET A10.1
- FOR WALL TYPES AND WALL FRAMING DETAILS, SEE SHEET **A8.2**
- FOR INTERIOR ELEVATIONS, SEE SHEETS A5.1 A5.2 FOR MOUNTING HEIGHTS AND DIMENSIONS SEE DETAIL 8 / A9.2
- FOR ACCESSIBILITY CLEARANCES AND DIMENSIONS SEE SHEET **A9.1** . DIMENSIONS: DIMENSIONS ARE SHOWN TO FACE OF WALL, U.N.O. H. FOR SIGNAGE REQUIREMENTS, SEE SHEET A9.2
- I. FOR ACCESSIBLE CONTROL HEIGHTS SEE DETAIL 7 / A9.2

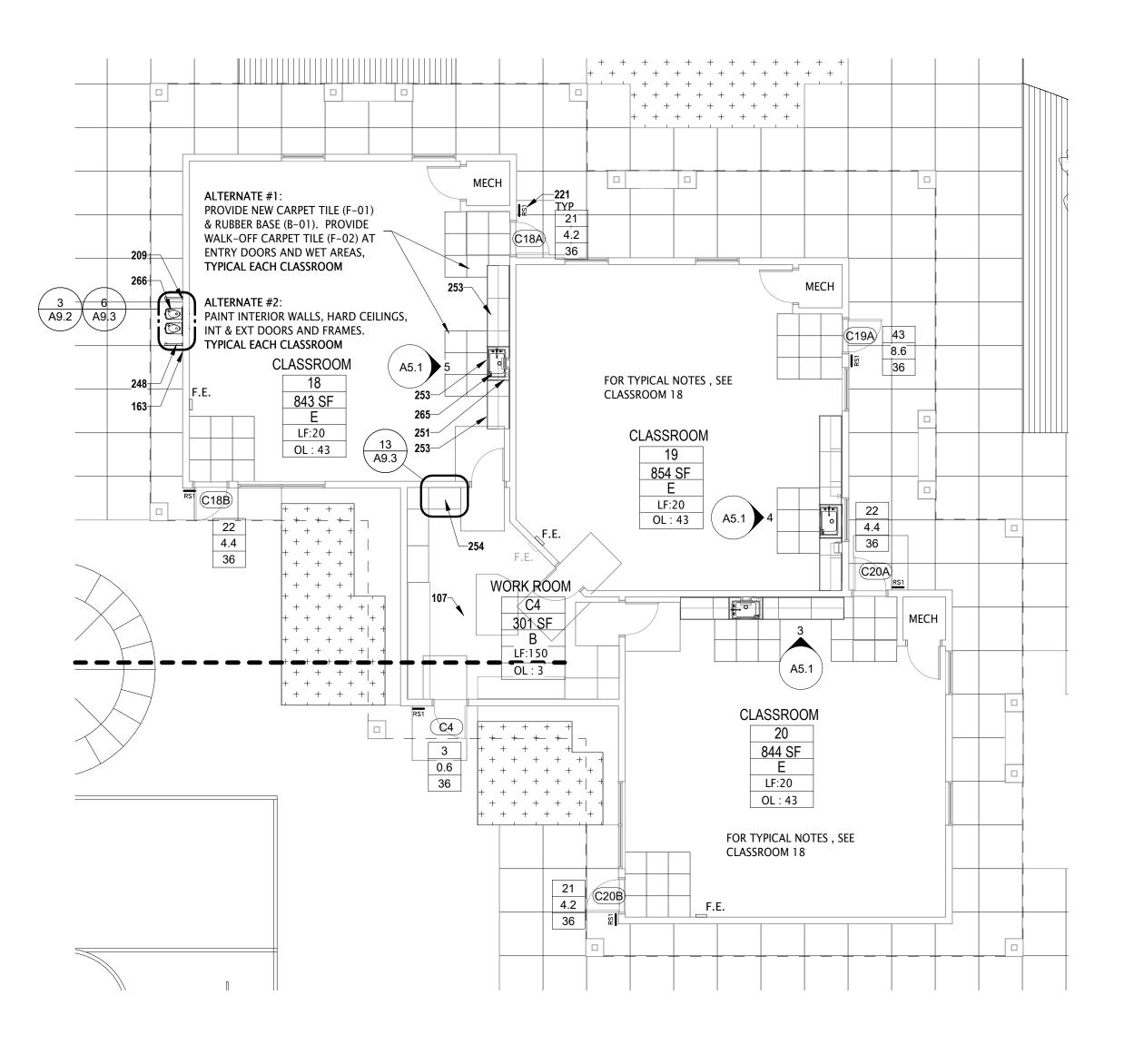




dsa IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 02-121265 INC: **REVIEWED FOR** SS 🗌 FLS 🗹 ACS 🗹 DATE: 05/24/2023 architect ACMARTIN ▼3009 DOUGLAS BLVD SUITE 290 ROSEVILLE CA 95661 T 916 772 1800 🔒 stamp consultant project number CA5602 project director project designer project architect revisions project status DSA BACKCHECK - V2 4-25-2023 client / project OAK HILL ES HARDSHIP MODERNIZATION CJUSD 3909 NORTH LOOP BLVD ANTELOPE, CA 95843 sheet name **FLOOR PLANS & DEMOLITION PLANS BUILDINGS A&B** sheet number **A2.1** plot date 5/16/2023 11:16:39 AM



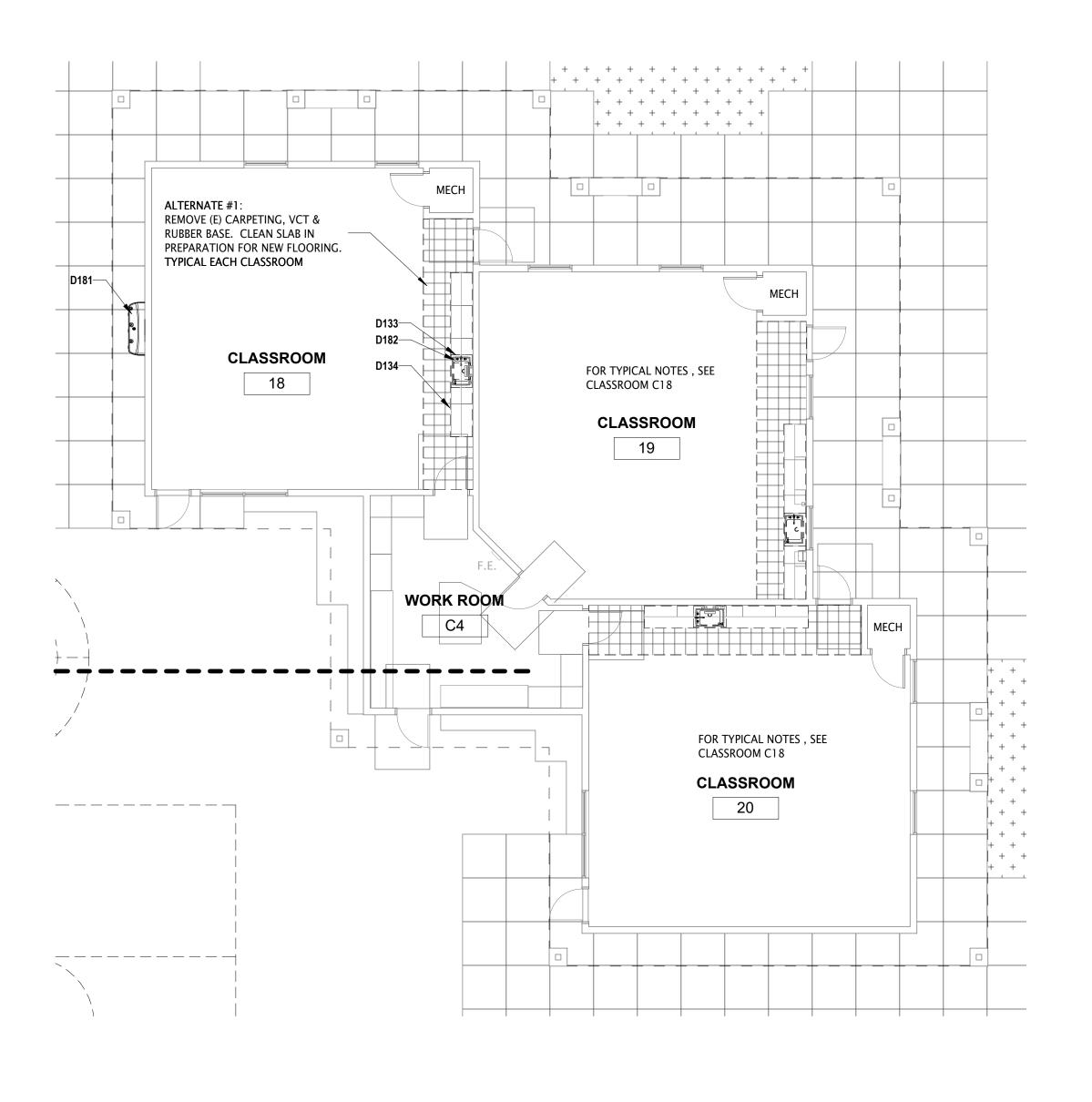
# 1 FLOOR PLAN - BUILDING C (BODEGA BAY)





NORTH

# 2 DEMOLITION PLAN - BUILDING C (BODEGA BAY)



# **DEMOLITION GENERAL NOTES**

- A. SEE SHEET G0.1, PROJECT NOTE 12 REGARDING FIRE SAFETY DURING DEMOLITION AND CONSTRUCTION.
- B. AT EXTERIOR WALLS MAKE CUTS TIGHT TO PENITRATING ITEMS AND SEAL W/ JOINT SEALANTS. C. REMOVE (E) GYPSUM BOARD AT LOCATIONS OF NEW CASEWORK AS NECESSARY FOR INSTALLATION OF BLOCKING IN WALL.
- D. FOR ADDITIONAL INFORMATION SEE MECHANICAL, PLUMBING & ELECTRICAL DRAWINGS. WORK SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AS NOTED ON THE TITLE SHEET.
- PRESERVE AND PROTECT EXISTING CONDITIONS THAT ARE TO REMAIN. SECURE THE PROPERTY DURING CONSTRUCTION.
- G. IN AREAS OF WORK, VERIFY AND LOCATE EXISTING UNDERGROUND UTILITIES AND AVOID DAMAGE TO SAME. H. CONDITIONS OBSERVED ON SITE WHICH SHALL AFFECT THE DEMOLITION. THAT ARE NOT
- OTHERWISE NOTED IN THESE DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.
- I. ITEMS NOTED TO BE REMOVED AND NOT RELOCATED ARE TO BE REMOVED FROM THE SITE AND DISPOSED OF IN THE PROPER MANNER. J. FOR PROJECT GOVERNING CODES SEE SHEET G0.1.

#### **GENERAL NOTES**

- A. FOR ADDITIONAL INFORMATION SEE MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS. B. FOR DOOR SCHEDULE AND DOOR LEGEND, SEE SHEET **A10.1**
- FOR WALL TYPES AND WALL FRAMING DETAILS, SEE SHEET **A8.2** FOR INTERIOR ELEVATIONS, SEE SHEETS A5.1 A5.2
- FOR MOUNTING HEIGHTS AND DIMENSIONS SEE DETAIL 8 / A9.2 FOR ACCESSIBILITY CLEARANCES AND DIMENSIONS SEE SHEET **A9.1**
- G. DIMENSIONS: DIMENSIONS ARE SHOWN TO FACE OF WALL, U.N.O. H. FOR SIGNAGE REQUIREMENTS, SEE SHEET **A9.2** I. FOR ACCESSIBLE CONTROL HEIGHTS SEE DETAIL 7/A9.2

## **DEMOLITION NOTES**

- REMOVE (E) SINK BASE CABINET. D133
- REMOVE (E) PLASTIC LAMINATE COUNTER TOP, FULL LENGTH. D134 D181 REMOVE (E) DRINKING FOUNTAIN, SPD. REWORK (E) PIPING FOR (N) HI-LOW DRINKING FOUNTAIN.
- REMOVE (E) SINK, FAUCET & ASSOCIATED PIPING. NEW FIXTURE TO CONNECT TO (E) PIPING. D182

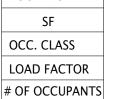
#### **DRAWING NOTES**

- NO FINISH WORK: FLOOR, WALLS, CEILING, DOORS & FRAMES TYPICAL IN WORK ROOM. 107 163 PROVIDE BLOCKING IN WALL FOR (N) HIGH-LOW DRINKING FOUNTAIN. REPAIR CEMENT PLASTER WALL FINISH AS NECESSARY FOR REWORK OF PIPING FOR 209
- INSTALLATION OF (N) DRINKING FOUNTAIN. MATCH SURROUNDING TEXTURE AND PAINT FINISH. PROVIDE ROOM IDENTIFICATION SIGNAGE, TYP AT EACH DOOR. 221
- PROVIDE GUARD RAILS AT EACH SIDE OF (N) HI-LOW DRINKING FOUNTAIN. 248
- PLASTIC LAMINATE SINK BASE CABINET. INSERT BETWEEN (E) CASEWORK. 251 PLASTIC LAMINATE COUNTER TOP W/ BACKSPLASH. 253
- EXISTING TALL CABINET WITH IDF EQUIPMENT. RETROFIT DOOR TO MAKE CABINET 254 LOCKABLE. CUT VENT OPENING IN DOOR AND PROVIDE METAL LOUVER FOR VENTING. DRILL
- UPPER CABINET FOR CONDUIT PENETRATION. ACCESSIBLE SINK & FAUCET WITH DRINKING FOUNTAIN BUBBLER. CONNECT TO (E) PIPING. 265
- HI-LOW ACCESSIBLE DRINKING FOUNTAIN. SEE PLUMBING DRAWINGS. 266

#### EXIT ANALYSIS LEGEND

EXIT REQUIREMENRS & EGRESS WIDTHS EXITS REQUIRED (PER CBC1021.3 OCCUPANCY 1-500 = 2OCCUPANCY 501 - 1,000 = 3OCCUPANCY > 1,000 = 4MIN. EGRESS WIDTHS (PER CBC 1005.3.2) DOOR WIDTH = 0.2"/ OCCUPANT

ROOM NAME ROOM NUMBER



52 - NUMBER OF OCCUPANTS 10.4 – EXIT WIDTH REQUIRED OR 32" MIN. WHICHEVER IS GREATER 72 EXIT WIDTH PROVIDED

F.E. 🗔 (E) WALL MOUNTED FIRE EXTINGUISHER F.E. 🗔

(N) WALL MOUNTED FIRE EXTINGUISHER

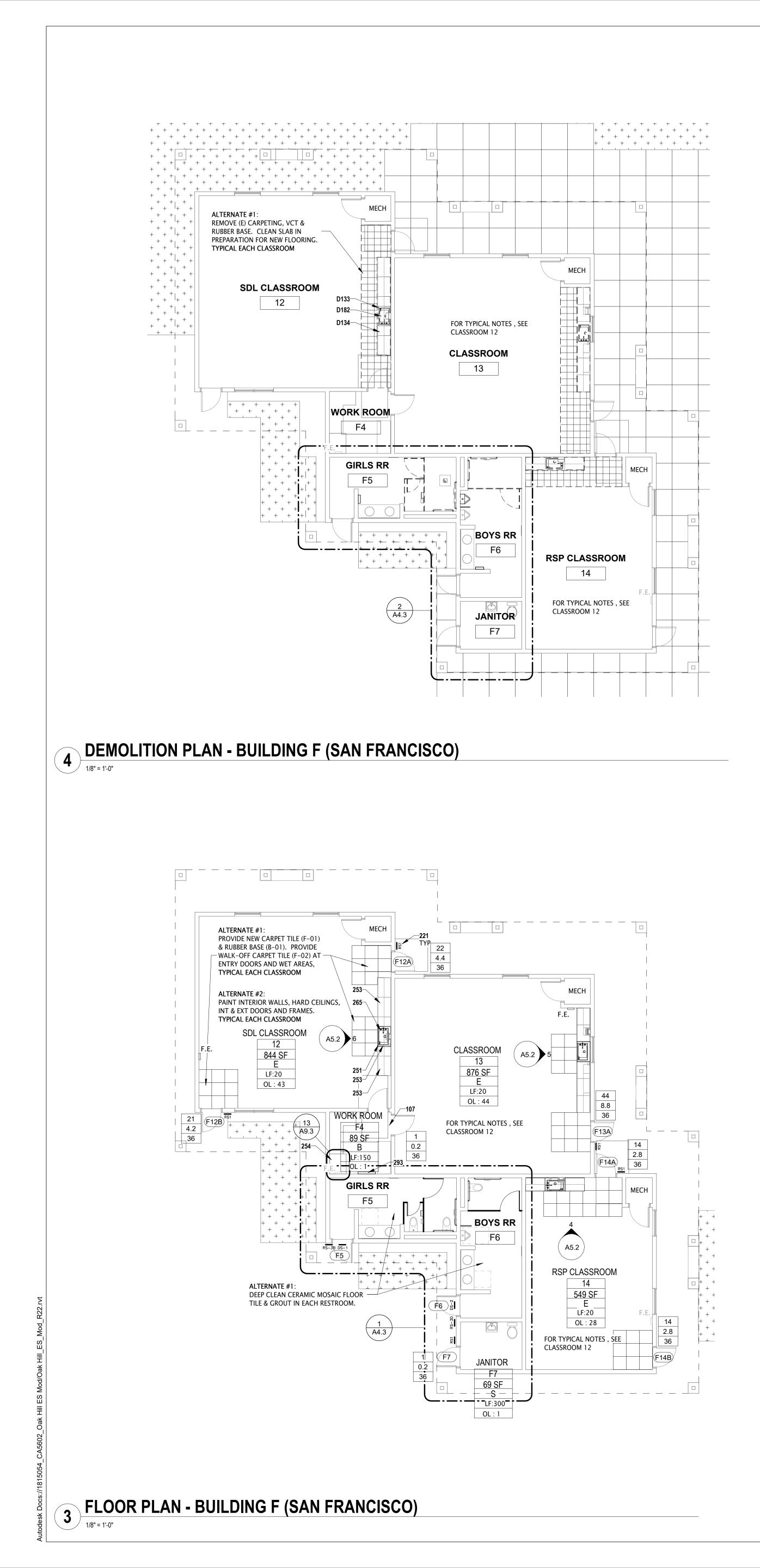
'PH' INDICATES PANIC HARDWARE

# WALL LEGEND

(E) 2X6 ONE HOUR STUD WALL

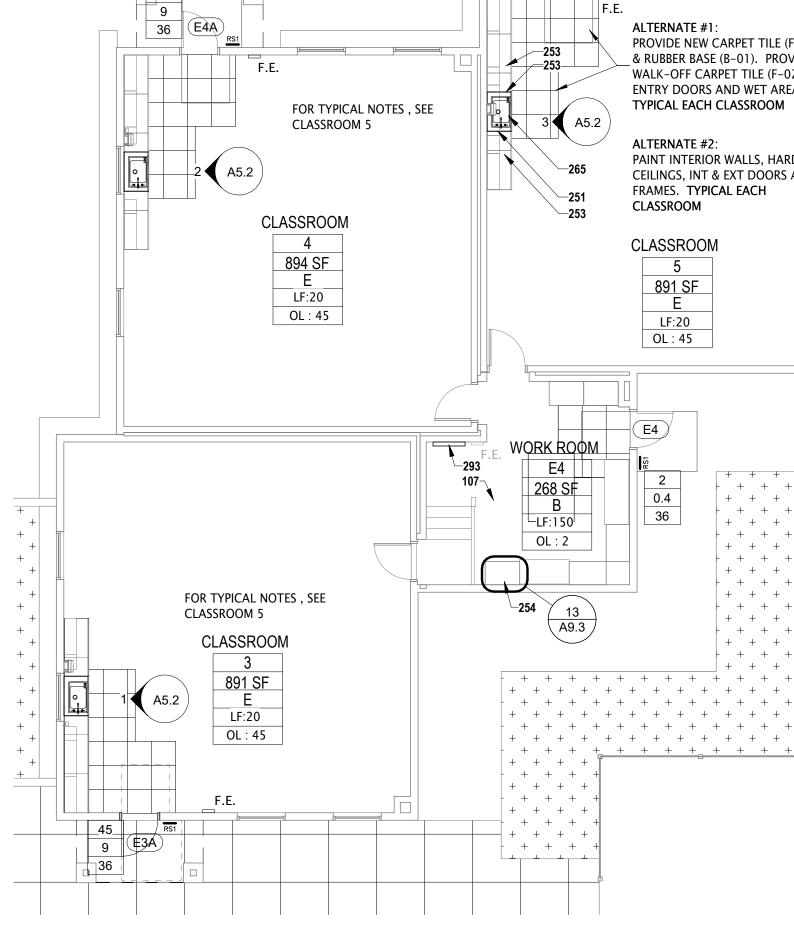


dsa IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 02-121265 INC: REVIEWED FOR SS 🗌 FLS 🗹 ACS 🗹 DATE: 05/24/2023 architect ACMARTIN ▼3009 DOUGLAS BLVD SUITE 290 ROSEVILLE CA 95661 T 916 772 1800 stamp Exp: Dec 31,2023 consultant project number CA5602 project director project designer project architect revisions no. date \_\_\_\_\_ project status DSA BACKCHECK - V2 4-25-2023 client / project OAK HILL ES HARDSHIP MODERNIZATION CJUSD 3909 NORTH LOOP BLVD ANTELOPE, CA 95843 sheet name FLOOR PLANS & **DEMOLITION PLANS BUILDINGS C&D** sheet number A2.2 plot date 5/16/2023 11:18:03 AM



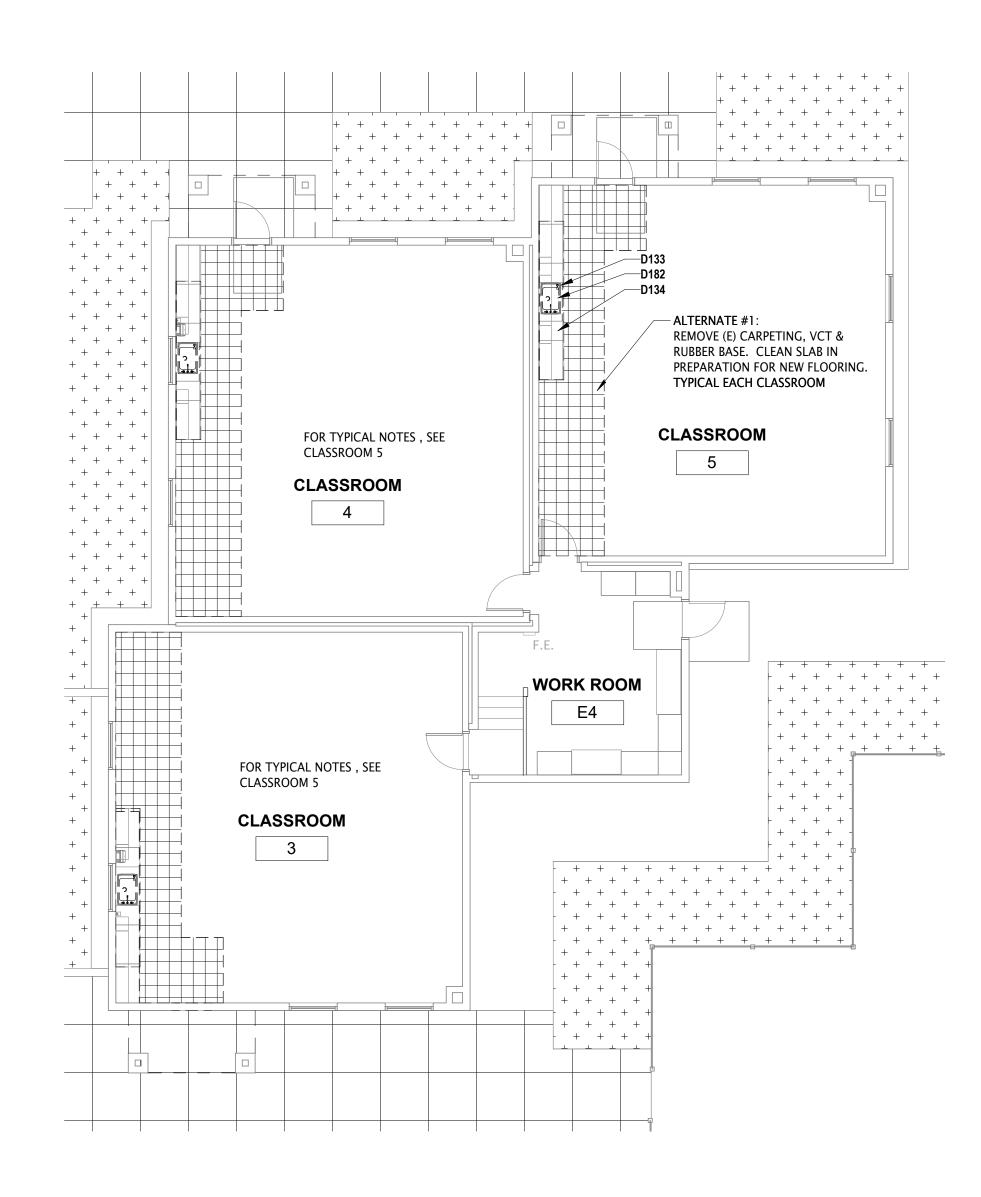


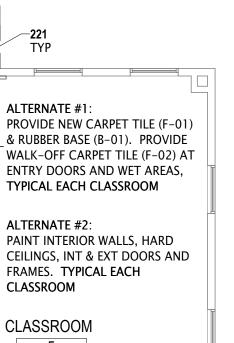
NORTH

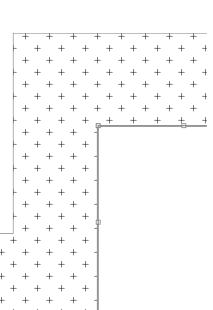




d 45







# **DEMOLITION GENERAL NOTES**

- A. SEE SHEET G0.1, PROJECT NOTE 12 REGARDING FIRE SAFETY DURING DEMOLITION AND CONSTRUCTION.
- B. AT EXTERIOR WALLS MAKE CUTS TIGHT TO PENITRATING ITEMS AND SEAL W/ JOINT SEALANTS. C. REMOVE (E) GYPSUM BOARD AT LOCATIONS OF NEW CASEWORK AS NECESSARY FOR INSTALLATION OF BLOCKING IN WALL.
- D. FOR ADDITIONAL INFORMATION SEE MECHANICAL, PLUMBING & ELECTRICAL DRAWINGS. . WORK SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AS NOTED ON THE TITLE SHEET.
- F PRESERVE AND PROTECT EXISTING CONDITIONS THAT ARE TO REMAIN. SECURE THE PROPERTY DURING CONSTRUCTION.
- G. IN AREAS OF WORK, VERIFY AND LOCATE EXISTING UNDERGROUND UTILITIES AND AVOID DAMAGE TO SAME. H. CONDITIONS OBSERVED ON SITE WHICH SHALL AFFECT THE DEMOLITION, THAT ARE NOT
- OTHERWISE NOTED IN THESE DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT. I. ITEMS NOTED TO BE REMOVED AND NOT RELOCATED ARE TO BE REMOVED FROM THE SITE
- AND DISPOSED OF IN THE PROPER MANNER. J. FOR PROJECT GOVERNING CODES SEE SHEET G0.1.

#### **GENERAL NOTES**

- A. FOR ADDITIONAL INFORMATION SEE MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS. B. FOR DOOR SCHEDULE AND DOOR LEGEND, SEE SHEET A10.1
- C FOR WALL TYPES AND WALL FRAMING DETAILS, SEE SHEET **A8.2** D. FOR INTERIOR ELEVATIONS, SEE SHEETS **A5.1 A5.2**
- E. FOR MOUNTING HEIGHTS AND DIMENSIONS SEE DETAIL 8 / A9.2 F. FOR ACCESSIBILITY CLEARANCES AND DIMENSIONS SEE SHEET **A9.1**
- G. DIMENSIONS: DIMENSIONS ARE SHOWN TO FACE OF WALL, U.N.O. H. FOR SIGNAGE REQUIREMENTS, SEE SHEET **A9.2**
- I. FOR ACCESSIBLE CONTROL HEIGHTS SEE DETAIL 7/A9.2

# **DEMOLITION NOTES**

D133 REMOVE (E) SINK BASE CABINET. D134 REMOVE (E) PLASTIC LAMINATE COUNTER TOP, FULL LENGTH. D182 REMOVE (E) SINK, FAUCET & ASSOCIATED PIPING. NEW FIXTURE TO CONNECT TO (E) PIPING.

#### DRAWING NOTES

- NO FINISH WORK: FLOOR, WALLS, CEILING, DOORS & FRAMES TYPICAL IN WORK ROOM. 107
- PROVIDE ROOM IDENTIFICATION SIGNAGE, TYP AT EACH DOOR. 221 PLASTIC LAMINATE SINK BASE CABINET. INSERT BETWEEN (E) CASEWORK. 251
- PLASTIC LAMINATE COUNTER TOP W/ BACKSPLASH. 253
- EXISTING TALL CABINET WITH IDF EQUIPMENT. RETROFIT DOOR TO MAKE CABINET 254 LOCKABLE. CUT VENT OPENING IN DOOR AND PROVIDE METAL LOUVER FOR VENTING. DRILL
- UPPER CABINET FOR CONDUIT PENETRATION. ACCESSIBLE SINK & FAUCET WITH DRINKING FOUNTAIN BUBBLER. CONNECT TO (E) PIPING. 265 (N) FIRE ALARM POWER SUPPLY PANEL. COORDINATE WITH FIRE ALARM DRAWINGS. VERIFY 293 LOCATION WITH DISTRICT.

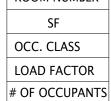
# EXIT ANALYSIS LEGEND

EXIT REQUIREMENRS & EGRESS WIDTHS EXITS REQUIRED (PER CBC1021.3) OCCUPANCY 1-500 = 2OCCUPANCY 501 - 1,000 = 3OCCUPANCY > 1,000 = 4

MIN. EGRESS WIDTHS (PER CBC 1005.3.2) DOOR WIDTH = 0.2"/ OCCUPANT

#### ROOM NAME ROOM NUMBER

NORTH



52 - NUMBER OF OCCUPANTS 10.4 – EXIT WIDTH REQUIRED OR 32" MIN. WHICHEVER IS GREATER - EXIT WIDTH PROVIDED

| RE |
|----|
| RE |
| F  |

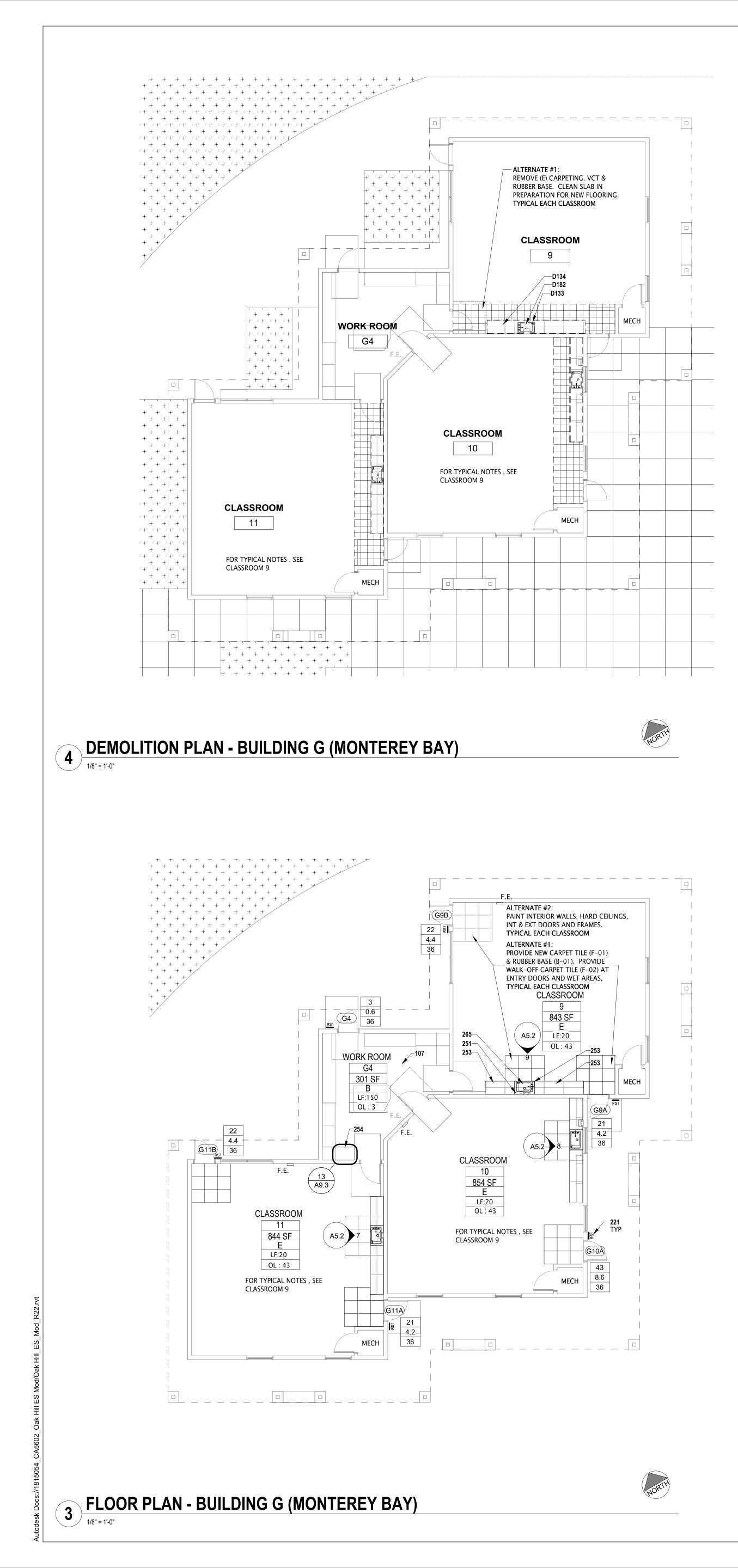
INDICATES PANIC HARDWARE

#### WALL LEGEND

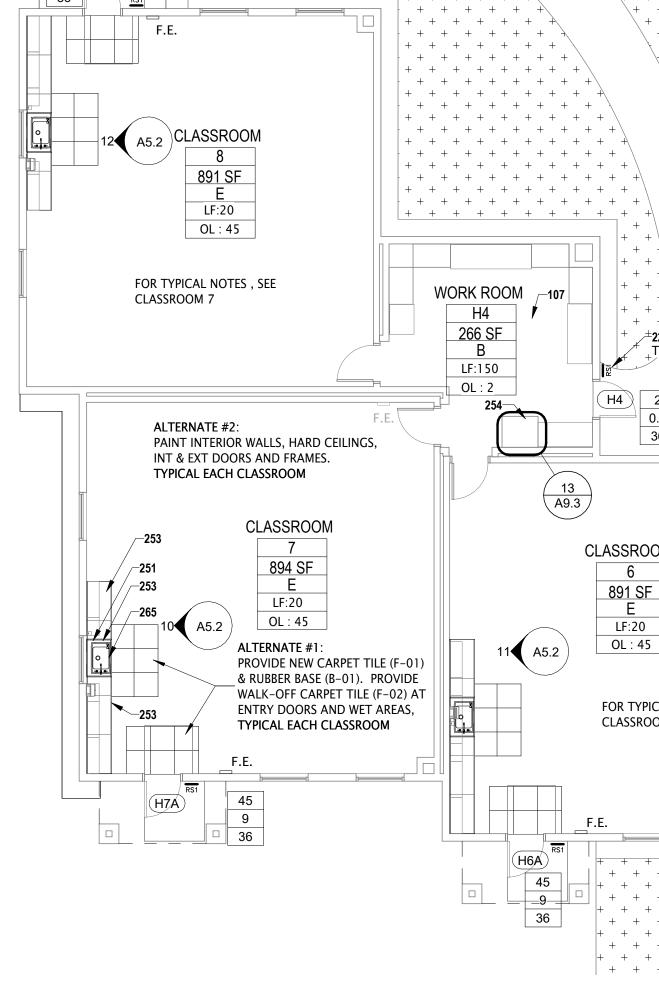
(E) 2X6 ONE HOUR STUD WALL



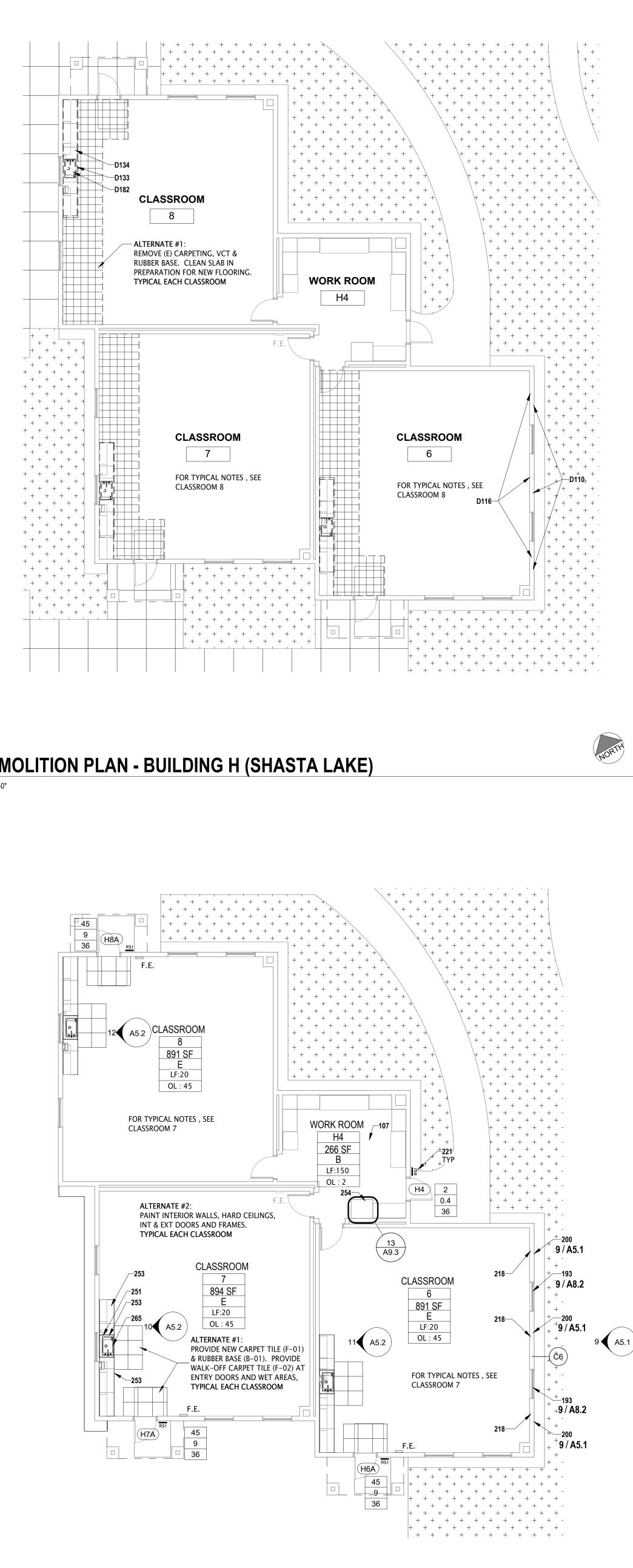
dsa IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 02-121265 INC: **REVIEWED FOR** SS 🗌 FLS 🗹 ACS 🗹 DATE: 05/24/2023 architect ACMARTIN 3009 DOUGLAS BLVD SUITE 290 ROSEVILLE CA 95661 T 916 772 1800 stamp Exp: Dec 31,202 consultant project number CA5602 project director project designer project architect revisions no. date \_\_\_\_ project status DSA BACKCHECK - V2 4-25-2023 client / project OAK HILL ES HARDSHIP MODERNIZATION CJUSD 3909 NORTH LOOP BLVD ANTELOPE, CA 95843 sheet name **FLOOR PLANS & DEMOLITION PLANS BUILDINGS E&F** sheet number A2.3 5/16/2023 11:18:51 AM plot date



# 1 FLOOR PLAN - BUILDING H (SHASTA LAKE)







### **DEMOLITION GENERAL NOTES**

- A. SEE SHEET G0.1, PROJECT NOTE 12 REGARDING FIRE SAFETY DURING DEMOLITION AND CONSTRUCTION.
- B. AT EXTERIOR WALLS MAKE CUTS TIGHT TO PENITRATING ITEMS AND SEAL W/ JOINT SEALANTS. C. REMOVE (E) GYPSUM BOARD AT LOCATIONS OF NEW CASEWORK AS NECESSARY FOR
- INSTALLATION OF BLOCKING IN WALL. D. FOR ADDITIONAL INFORMATION SEE MECHANICAL, PLUMBING & ELECTRICAL DRAWINGS.
- WORK SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AS NOTED ON THE TITLE SHEET. F PRESERVE AND PROTECT EXISTING CONDITIONS THAT ARE TO REMAIN. SECURE THE
- PROPERTY DURING CONSTRUCTION. G. IN AREAS OF WORK, VERIFY AND LOCATE EXISTING UNDERGROUND UTILITIES AND AVOID
- DAMAGE TO SAME. H. CONDITIONS OBSERVED ON SITE WHICH SHALL AFFECT THE DEMOLITION, THAT ARE NOT
- OTHERWISE NOTED IN THESE DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT
- I. ITEMS NOTED TO BE REMOVED AND NOT RELOCATED ARE TO BE REMOVED FROM THE SITE AND DISPOSED OF IN THE PROPER MANNER. J. FOR PROJECT GOVERNING CODES SEE SHEET G0.1.

### **GENERAL NOTES**

- A. FOR ADDITIONAL INFORMATION SEE MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS. B. FOR DOOR SCHEDULE AND DOOR LEGEND, SEE SHEET A10.1
- C FOR WALL TYPES AND WALL FRAMING DETAILS, SEE SHEET **A8.2**
- D. FOR INTERIOR ELEVATIONS, SEE SHEETS A5.1 A5.2 E. FOR MOUNTING HEIGHTS AND DIMENSIONS SEE DETAIL 8/A9.2
- F. FOR ACCESSIBILITY CLEARANCES AND DIMENSIONS SEE SHEET A9.1 G. DIMENSIONS: DIMENSIONS ARE SHOWN TO FACE OF WALL, U.N.O. H. FOR SIGNAGE REQUIREMENTS, SEE SHEET **A9.2**
- I. FOR ACCESSIBLE CONTROL HEIGHTS SEE DETAIL 7/A9.2

### **DEMOLITION NOTES**

- REMOVE (E) CEMENT PLASTER, LATH & UNDERLAYMENT TO WALL SHEATHING, TO EXTENT D110 INDICATED ON EXTERIOR ELEVATION.
- REMOVE (E) GYPSUM BOARD & BATT INSULATION AT THIS WALL. D116 D133 REMOVE (E) SINK BASE CABINET.
- D134 REMOVE (E) PLASTIC LAMINATE COUNTER TOP, FULL LENGTH. D182 REMOVE (E) SINK, FAUCET & ASSOCIATED PIPING. NEW FIXTURE TO CONNECT TO (E) PIPING.

### **DRAWING NOTES**

- NO FINISH WORK: FLOOR, WALLS, CEILING, DOORS & FRAMES TYPICAL IN WORK ROOM.
- (E) H.M. WINDOW TO REMAIN. 193 (N) CEMENT PLASTER ON LATH OVER WEATHER RESISTIVE BARRIER. 200
- 5/8" GYPSUM BOARD OVER INTERIOR FACE OF (E) STUDS. FILL STUD SPACES W/ R-19 BATT 218 INSULATION.
- PROVIDE ROOM IDENTIFICATION SIGNAGE, TYP AT EACH DOOR. 221 251 PLASTIC LAMINATE SINK BASE CABINET. INSERT BETWEEN (E) CASEWORK.
- 253 PLASTIC LAMINATE COUNTER TOP W/ BACKSPLASH.
- 254 EXISTING TALL CABINET WITH IDF EQUIPMENT. RETROFIT DOOR TO MAKE CABINET LOCKABLE. CUT VENT OPENING IN DOOR AND PROVIDE METAL LOUVER FOR VENTING. DRILL UPPER CABINET FOR CONDUIT PENETRATION.

ACCESSIBLE SINK & FAUCET WITH DRINKING FOUNTAIN BUBBLER. CONNECT TO (E) PIPING.

265

## EXIT ANALYSIS LEGEND

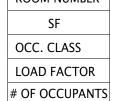
**EXIT REQUIREMENRS & EGRESS WIDTHS** 

EXITS REQUIRED (PER CBC1021.3) OCCUPANCY 1-500 = 2OCCUPANCY 501 - 1,000 = 3

OCCUPANCY > 1,000 = 4

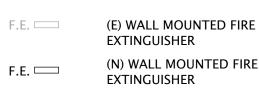
MIN. EGRESS WIDTHS (PER CBC 1005.3.2) DOOR WIDTH = 0.2"/ OCCUPANT

### ROOM NAME ROOM NUMBER



'PH'

52 - NUMBER OF OCCUPANTS 10.4 — EXIT WIDTH REQUIRED OR 32" MIN. WHICHEVER IS GREATER 



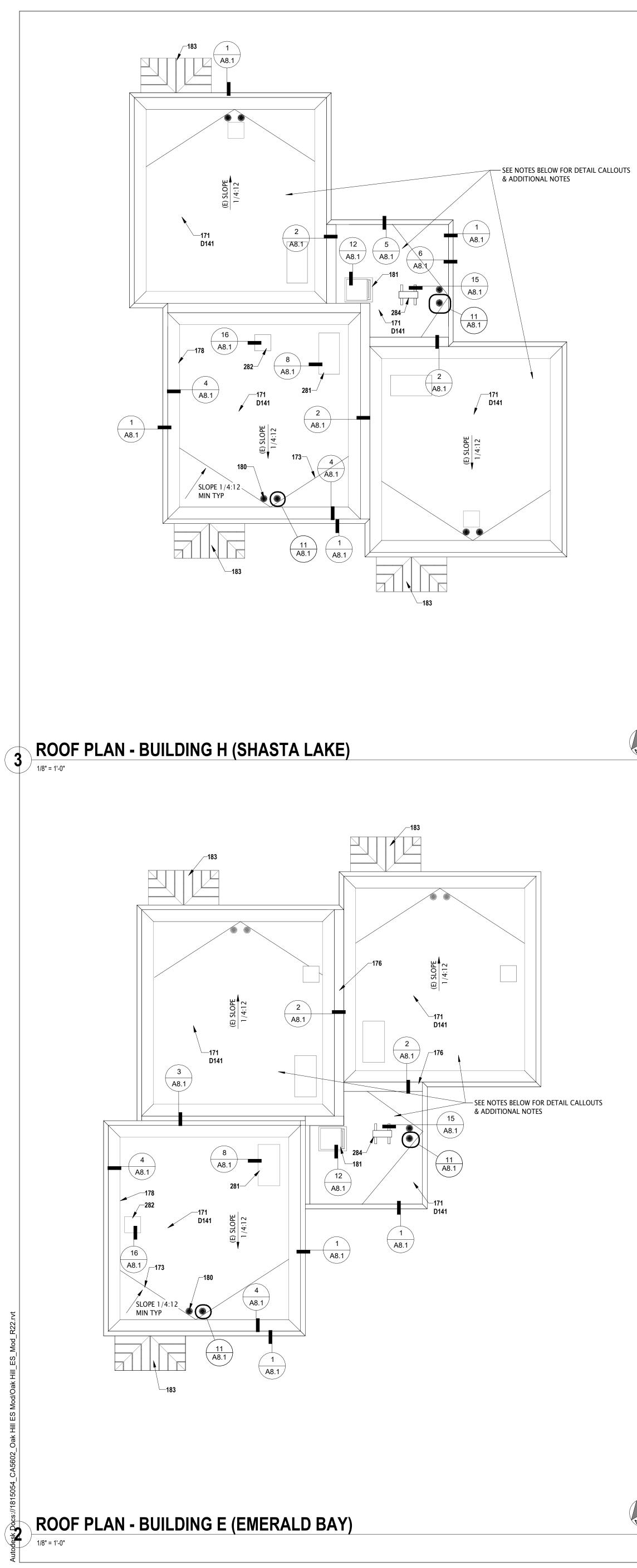
(N) WALL MOUNTED FIRE

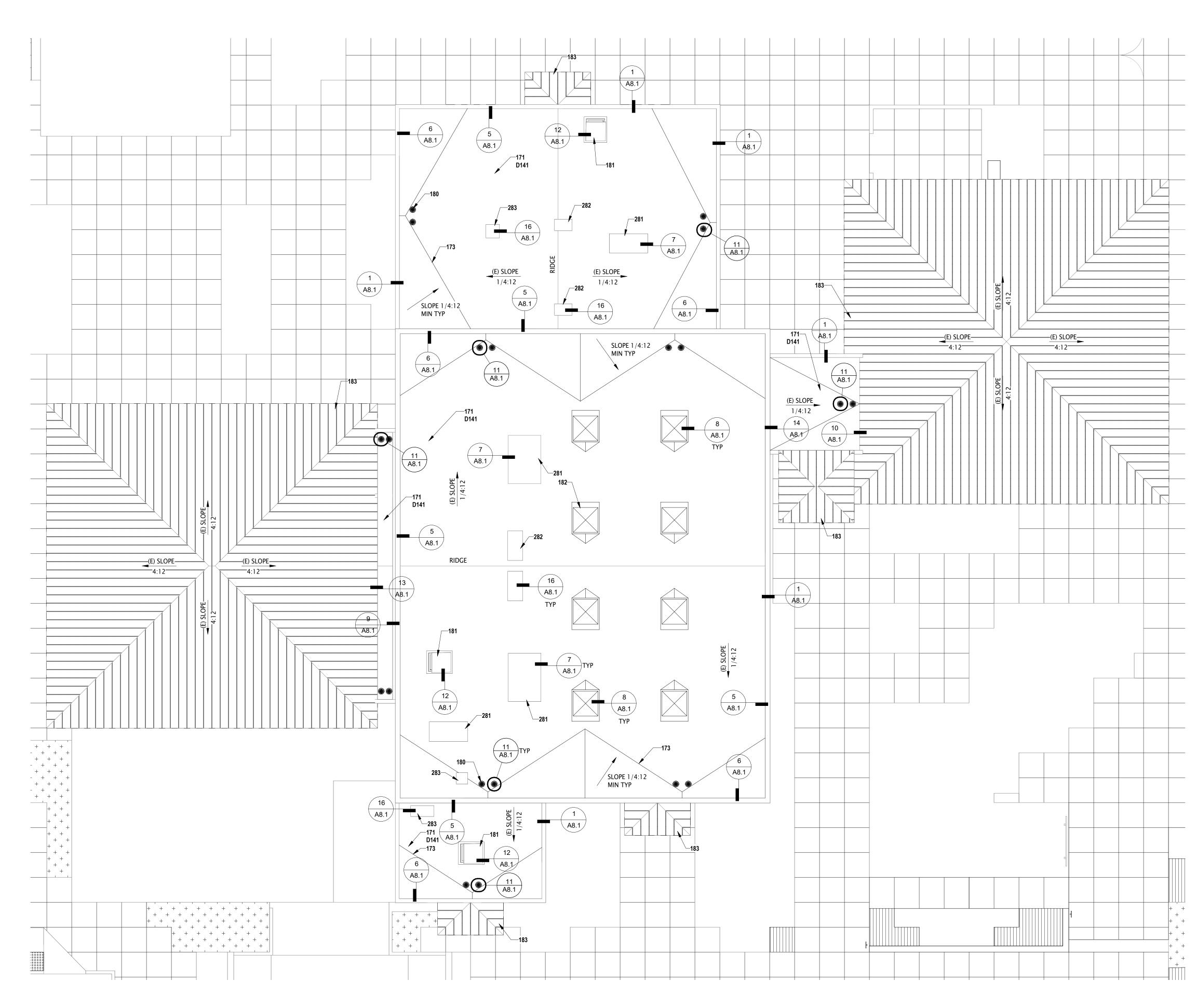
INDICATES PANIC HARDWARE

### WALL LEGEND

(E) 2X6 ONE HOUR STUD WALL

dsa IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 02-121265 INC: **REVIEWED FOR** SS 🔲 FLS 🗹 ACS 🗹 DATE: 05/24/2023 architect ACMARTIN 3009 DOUGLAS BLVD SUITE 290 ROSEVILLE CA 95661 T 916 772 1800 stamp 28637 Exp: Dec 31,2023 consultant project number CA5602 project director project designer project architect revisions no. date \_\_\_\_ \_\_\_\_\_ project status DSA BACKCHECK - V2 4-25-2023 client / project OAK HILL ES HARDSHIP MODERNIZATION CJUSD 3909 NORTH LOOP BLVD ANTELOPE, CA 95843 sheet name **FLOOR PLANS & DEMOLITION PLANS BUILDINGS G&H** sheet number **A2.4** plot date 5/16/2023 11:19:20 AM





# NORTH

NORTH



### **DEMOLITION NOTES**

REMOVE (E) BUILT-UP ROOFING AND RIGID INSULATION TO ROOF DECK. (E) COPINGS AND D141 COUNTER FLASHINGS TO REMAIN IF UNDAMAGED.

### DRAWING NOTES

181

182

282

283

284

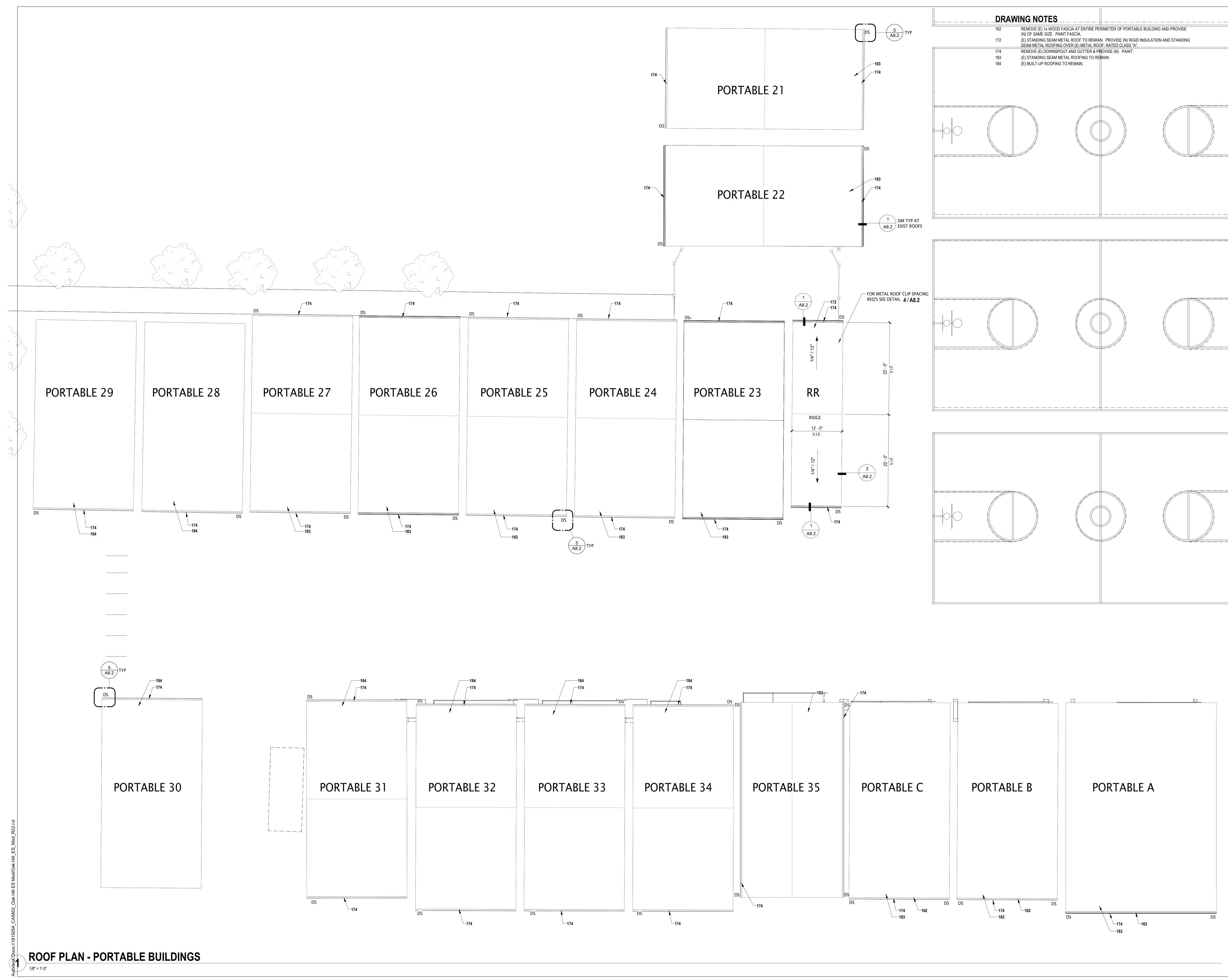
- CLASS "A" MODIFIED BITUMINOUS MULTI-PLY ROOFING OVER (E) PLYWOOD ROOF DECK. 171 173
- CRICKET TAPERED RIGID INSULATION W/ COVER BOARD OVER. SLOPE TO ROOF DRAIN. G.I. PARAPET COPING OVER DOUBLE PARAPET. (E) MAY REMAIN IF UNDAMAGED BY REMOVAL OF (E) 176 ROOF. OTHERWISE PROVIDE (N).
- 178 (E) ROOF EDGE CANT TO REMAIN. 180
  - (E) ROOF DRAIN & OVERFLOW. REMOVE & REINSTALL W/ ROOFING WORK. (E) ROOF HATCH TO REMAIN.
  - (E) SKYLIGHT TO REMAIN, OR REMOVE AS NECESSARY FOR ROOFING WORK AND REINSTALL.
- (E) STANDING SEAM METAL ROOFING TO REMAIN. 183 (E) AIR CONDITIONING PACKAGE UNIT ON PLATFORM ON ROOF TO REMAIN. INSTALL (N) ROOFING UNDER 281
  - (E) COUNTER FLASHING.
  - (E) MAKE UP AIR UNIT TO REMAIN, OR REMOVE & REINSTALL AS NECESSARY FOR ROOF INSTALLATION. (E) EXHAUST FAN TO REMAIN, OR REMOVE & REINSTALL AS NECESSARY FOR ROOF INSTALLATION.
  - (E) AIR CONDITIONING SPLIT SYSTEM COMPRESSOR ON CURB TO REMAIN, OR REMOVE & REINSTALL AS NECESSARY FOR ROOF INSTALLATION.

NORTH

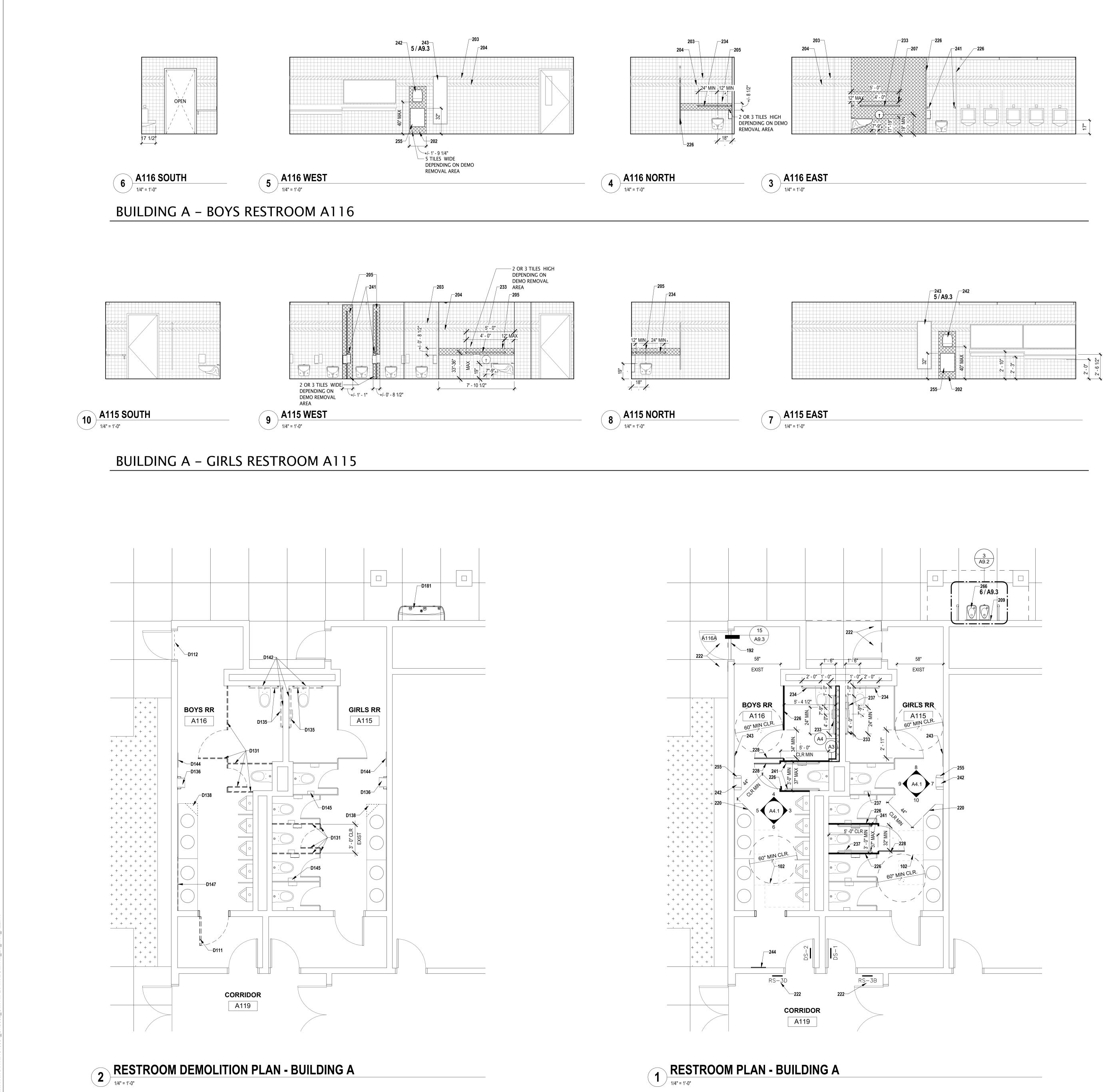
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plot date

<sup>5/15/2023 4:53:40</sup> PM



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|   | ACMARTIN<br>3009 DOUGLAS BLVD SUITE 290<br>ROSEVILLE CA 95661 T 916772 1800   |
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|   | consultant  |
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| · | project number CA5602<br>project director   |
|   | project designer<br>project architect<br>revisions<br>no. date revision<br>   |
|   |   |
|   | project status DSA BACKCHECK - V2   |
|   | 4-25-2023   |
|   |   |
|   | OAK HILL ES   |
|   | HARDSHIP<br>MODERNIZATION<br>CJUSD<br>3909 NORTH LOOP BLVD<br>ANTELOPE, CA 95843  |
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|   | plot date 5/15/2023 4:53:43 PM  |



Docs://1815054 CA5602 Oak Hill ES Mod/Oak Hill ES Mod R22

### **DEMOLITION GENERAL NOTES**

- A. SEE SHEET G0.1, PROJECT NOTE 12 REGARDING FIRE SAFETY DURING DEMOLITION AND CONSTRUCTION.
- B. AT EXTERIOR WALLS MAKE CUTS TIGHT TO PENITRATING ITEMS AND SEAL W/ JOINT SEALANTS.
  C. REMOVE (E) GYPSUM BOARD AT LOCATIONS OF NEW CASEWORK AS NECESSARY FOR INSTALLATION OF BLOCKING IN WALL.
  D. FOR ADDITIONAL INFORMATION SEE MECHANICAL, PLUMBING & ELECTRICAL DRAWINGS.
- E. WORK SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AS NOTED ON THE TITLE SHEET.
   F PRESERVE AND PROTECT EXISTING CONDITIONS THAT ARE TO REMAIN. SECURE THE PROPERTY DURING CONSTRUCTION.
   G. IN AREAS OF WORK, VERIFY AND LOCATE EXISTING UNDERGROUND UTILITIES AND AVOID
- BAMAGE TO SAME.
  CONDITIONS OBSERVED ON SITE WHICH SHALL AFFECT THE DEMOLITION, THAT ARE NOT
- OTHERWISE NOTED IN THESE DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.
- I. ITEMS NOTED TO BE REMOVED AND NOT RELOCATED ARE TO BE REMOVED FROM THE SITE AND DISPOSED OF IN THE PROPER MANNER.
- J. FOR PROJECT GOVERNING CODES SEE SHEET G0.1.

### GENERAL NOTES

- A. FOR ADDITIONAL INFORMATION SEE MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS.
  B. FOR DOOR SCHEDULE AND DOOR LEGEND, SEE SHEET A10.1
- C FOR WALL TYPES AND WALL FRAMING DETAILS, SEE SHEET **A8.2** D. FOR INTERIOR ELEVATIONS, SEE SHEETS **A5.1 A5.2**
- E. FOR MOUNTING HEIGHTS AND DIMENSIONS SEE DETAIL 8 / A9.2
  F. FOR ACCESSIBILITY CLEARANCES AND DIMENSIONS SEE SHEET A9.1
- G. DIMENSIONS: DIMENSIONS ARE SHOWN TO FACE OF WALL, U.N.O.
   H. FOR SIGNAGE REQUIREMENTS, SEE SHEET A9.2
- I. FOR ACCESSIBLE CONTROL HEIGHTS SEE DETAIL 7 / A9.2 DEMOLITION NOTES
- D111 REMOVE (E) DOOR & HARDWARE, FRAME TO REMAIN.
- D112REMOVE (E) NON- ACCESSIBLE THRESHOLD.D131REMOVE (E) TOILET PARTITIONS AND DOORS AS INDICATED. BALANCE TO REMAIN.
- D135REMOVE (E) GRAB BARS AND SAVE FOR REINSTALLATION.D136REMOVE (E) PAPER TOWEL DISPENSER AND TRASH RECEPTACLE. SAVE PAPER TOWEL
- D136REMOVE (E) PAPER TOWEL DISPENSER AND TRASH RECEPTACLE. SAVE PAPER TOWEL<br/>DISPENSER FOR REINSTALLATION.D138SAWCUT & REMOVE CORNER OF (E) GRANITE COUNTERTOP TO PROVIDE 44" CLEAR SPACE
- D138SAWCUT & REMOVE CORNER OF (E) GRANITE COUNTERTOP TO PROVIDE 44" CLEAR SPACE<br/>BETWEEN COUNTERTOP AND TOILET PARTITIONS. ALSO CUT BACK COUNTERTOP END LEG.D142REMOVE (E) CERAMIC TILE AND WATER RESISTANT GYPSUM BOARD BACKING TO EXTENT
- D142 REMOVE (E) CERAMIC TILE AND WATER RESISTANT SHOWN ON INTERIOR ELEVATIONS.
- D144REMOVE (E) STAINLESS STEEL MIRROR.D145REMOVE (E) SANITARY NAPKIN DISPOSAL, AT EACH STALL, TYP.
- D147REMOVE (E) GLASS MIRROR & REPAIR WALL SURFACE BEHIND.D181REMOVE (E) DRINKING FOUNTAIN, SPD. REWORK (E) PIPING FOR (N) HI-LOW DRINKING

## FOUNTAIN.

### DRAWING NOTES 102 30" x 48" MINIMUM CL

220

234

237

102 30" x 48" MINIMUM CLEAR FLOOR SPACE FOR WHEELCHAIR ACCESS.192 (N) ACCESSIBLE THRESHOLD.

- (N) ACCESSIBLE THRESHOLD.
   202 (N) CERAMIC TILE OVER WATER RESISTANT GYPSUM BOARD. INFILL WHERE WASTE RECEPTACLE IS REMOVED.
- 203 (E) BLUE CERAMIC TILE ACCENT BAND.204 (E) GREEN CERAMIC TILE ACCENT BAND.
- 204 (E) GREEN CERAMIC TILE ACCENT BAND.
  205 (N) CERAMIC TILE OVER WATER RESISTANT GYPSUM BOARD WHERE TILE WAS REMOVED.
- 207 (N) CERAMIC TILE OVER FURRED WALL. SEE FLOOR PLAN.
   209 REPAIR CEMENT PLASTER WALL FINISH AS NECESSARY FOR REWORK OF PIPING FOR INSTALLATION OF (N)
  - REPAIR CEMENT PLASTER WALL FINISH AS NECESSARY FOR REWORK OF PIPING FOR INSTALLATION OF (N) DRINKING FOUNTAIN. MATCH SURROUNDING TEXTURE AND PAINT FINISH. GRIND CUT EDGE TO ROUND PROFILE TO MATCH (E). SALVAGE MATERIAL CUT FROM CORNER TO MAKE FULL ROUND EDGE. PROVIDE (N) COUNTERTOP FRAMING AND SKIRT TO MATCH (E).
- RESTROOM DOOR AND WALL SIGNAGE, TYP AT EACH RESTROOM DOOR.
   TOILET PARTITION FLOOR MOUNTED OVERHEAD BRACED. PROVIDE BLOCKING AND MOUNT PER DETAILS
- 228 TOTLET PARTITION FLOOR MOUNTED OVERHEAD BRACED. PROVIDE BLOCKING AND MOUNT PER DETAIL ON SHEET A9.3
   228 36" WIDE TOTLET PARTITION DOOR TYPICAL AT ACCESSIBLE STALLS. 34" WIDE TOTLET PARTITION DOOR
- TYPICAL AT AMBULATORY STALLS.
   (E) GRAB BAR, 48" LONG x 1 1/2" DIA, REINSTALL AT SIDE WALL OF ACCESSIBLE W.C., SEE DETAIL 4/A9.3
- (E) GRAB BAR, 36" LONG x 1 1/2" DIA, REINSTALL AT REAR WALL OF ACCESSIBLE W.C., SEE DETAIL 4/A9.3 SURFACE MOUNTED FEMININE NAPKIN DISPOSAL, MOUNT PER DETAIL 8/A9.2. PROVIDE ONE AT EACH STALL IN WOMENS AND GIRLS RESTROOMS.
- GRAB BAR, 42" LONG x 1 1/2" DIA, AT EACH SIDE OF AMBULATORY STALL.
   REINSTALL (E) SURFACE MOUNTED PAPER TOWEL DISPENSER PER DETAIL 8/A9.2
- REINSTALL (E) SURFACE MOUNTED PAPER TOWEL DISPENSER PER DETAIL 8/AS
   (N) STAINLESS STEEL MIRROR. MOUNT AT SAME LOCATION AS ORIGINAL.
- 244 (N) GLASS MIRROR WITH STAINLESS STEEL FRAME.
  255 (N) SURFACE MOUNTED WASTE RECEPTACLE.
- 66 HI-LOW ACCESSIBLE DRINKING FOUNTAIN. SEE PLUMBING DRAWINGS.

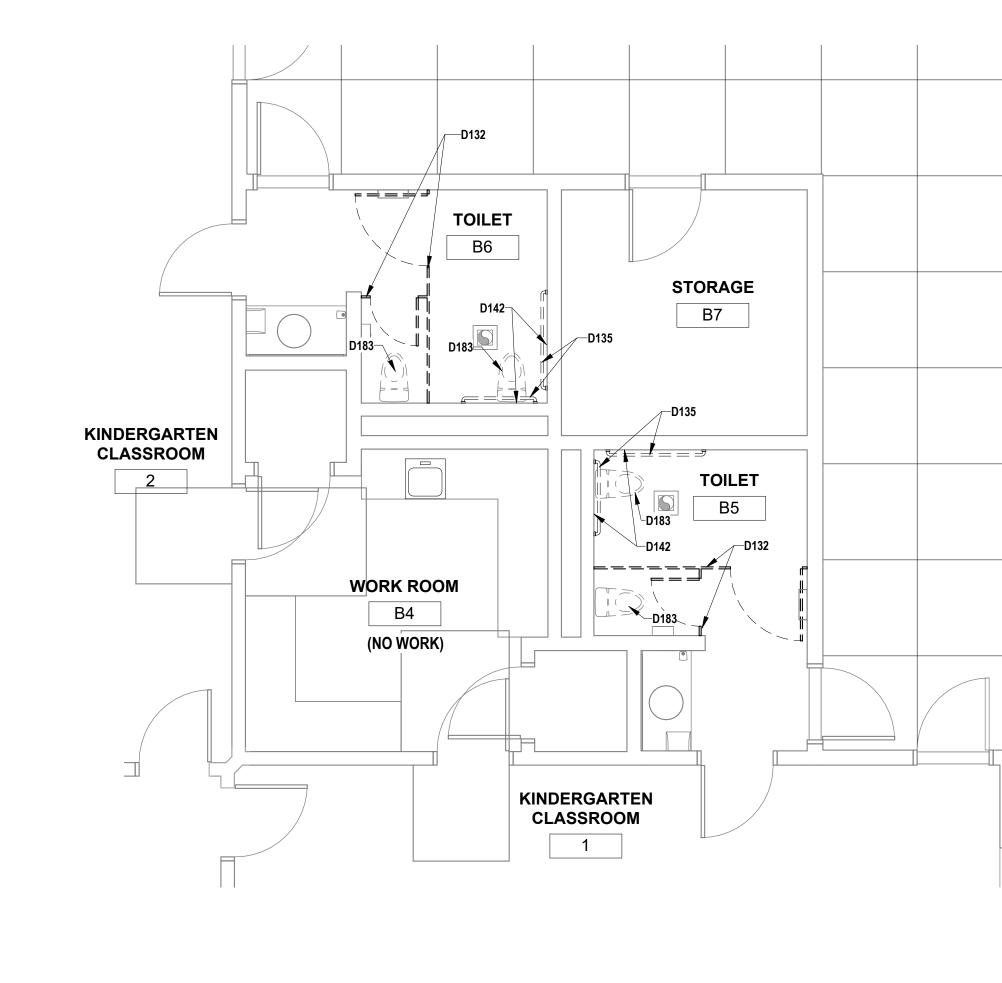
### FLOOR PLAN - LEGEND

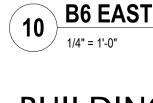
NEW WALL

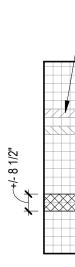
(E) 2X6 ONE HOUR STUD WALL

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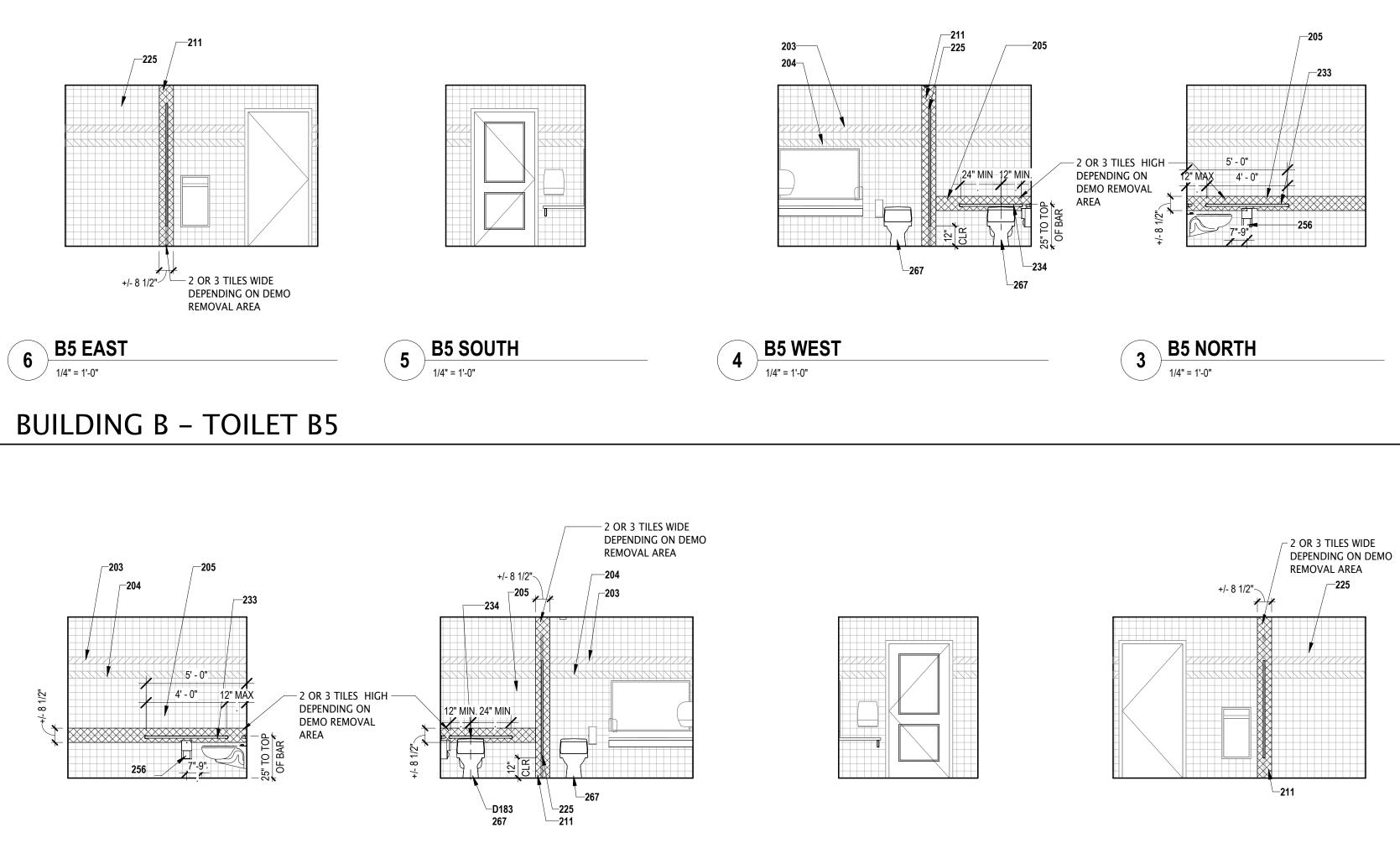








6



**B6 WEST** 

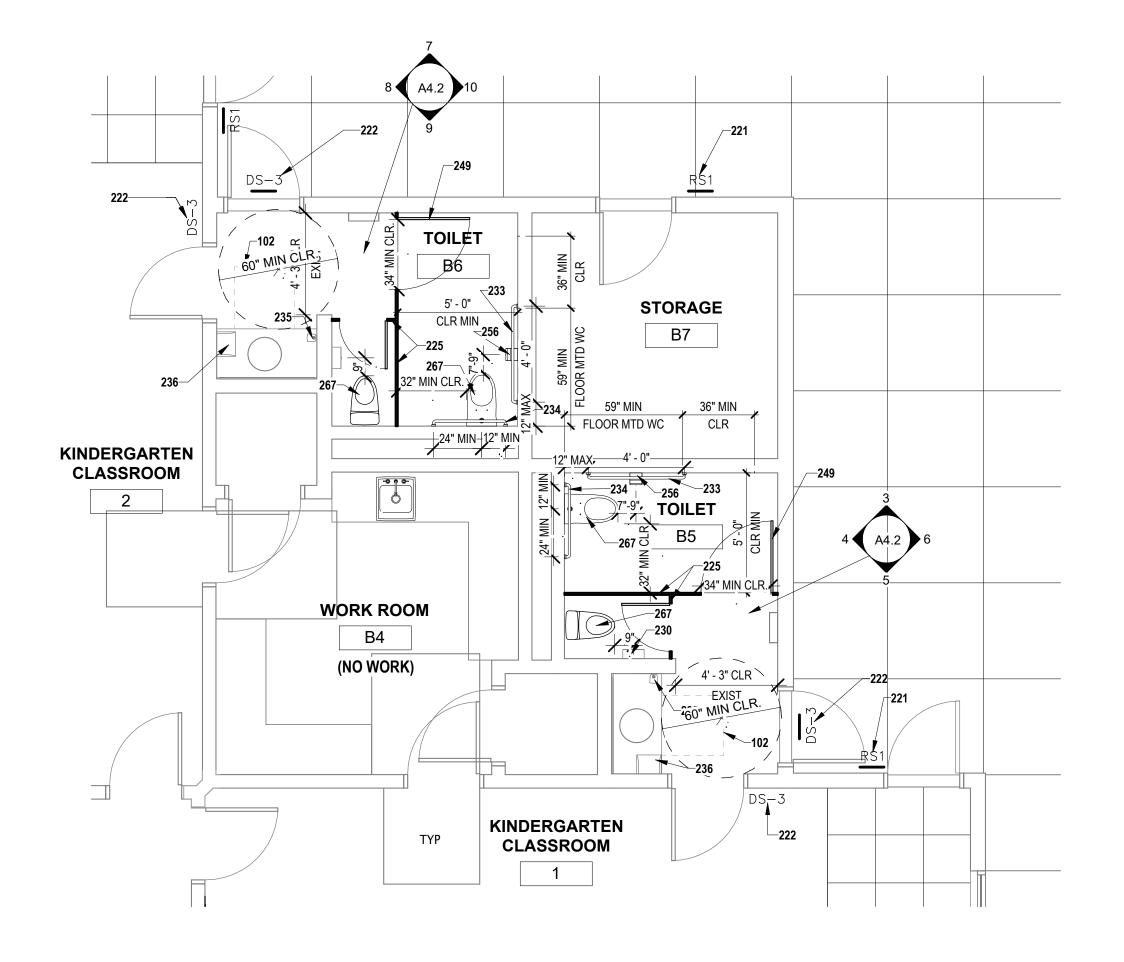
1/4" = 1'-0"

8

BUILDING B – TOILET B6

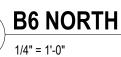
9 B6 SOUTH

1/4" = 1'-0"





## **1** RESTROOM PLAN - BUILDING B (LAKE TAHOE)



 $\searrow$ 

### **DEMOLITION GENERAL NOTES**

- A. SEE SHEET G0.1, PROJECT NOTE 12 REGARDING FIRE SAFETY DURING DEMOLITION AND CONSTRUCTION.
- B. AT EXTERIOR WALLS MAKE CUTS TIGHT TO PENITRATING ITEMS AND SEAL W/ JOINT SEALANTS. C. REMOVE (E) GYPSUM BOARD AT LOCATIONS OF NEW CASEWORK AS NECESSARY FOR INSTALLATION OF BLOCKING IN WALL.
- D. FOR ADDITIONAL INFORMATION SEE MECHANICAL, PLUMBING & ELECTRICAL DRAWINGS. E. WORK SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AS NOTED ON THE TITLE SHEET.
- F PRESERVE AND PROTECT EXISTING CONDITIONS THAT ARE TO REMAIN. SECURE THE PROPERTY DURING CONSTRUCTION. G. IN AREAS OF WORK, VERIFY AND LOCATE EXISTING UNDERGROUND UTILITIES AND AVOID
- DAMAGE TO SAME. H. CONDITIONS OBSERVED ON SITE WHICH SHALL AFFECT THE DEMOLITION, THAT ARE NOT
- OTHERWISE NOTED IN THESE DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.
- I. ITEMS NOTED TO BE REMOVED AND NOT RELOCATED ARE TO BE REMOVED FROM THE SITE AND DISPOSED OF IN THE PROPER MANNER.
- J. FOR PROJECT GOVERNING CODES SEE SHEET G0.1.

### **GENERAL NOTES**

- A. FOR ADDITIONAL INFORMATION SEE MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS. B. FOR DOOR SCHEDULE AND DOOR LEGEND, SEE SHEET **A10.1**
- C FOR WALL TYPES AND WALL FRAMING DETAILS, SEE SHEET **A8.2** D. FOR INTERIOR ELEVATIONS, SEE SHEETS A5.1 A5.2
- FOR MOUNTING HEIGHTS AND DIMENSIONS SEE DETAIL 8 / A9.2 FOR ACCESSIBILITY CLEARANCES AND DIMENSIONS SEE SHEET A9.1
- G. DIMENSIONS: DIMENSIONS ARE SHOWN TO FACE OF WALL, U.N.O. H. FOR SIGNAGE REQUIREMENTS, SEE SHEET A9.2 I. FOR ACCESSIBLE CONTROL HEIGHTS SEE DETAIL 7 / A9.2

## **DEMOLITION NOTES**

- REMOVE (E) TOILET PARTITIONS & SAVE FOR REINSTALLATION. D132
- D135 REMOVE (E) GRAB BARS AND SAVE FOR REINSTALLATION. D142 REMOVE (E) CERAMIC TILE AND WATER RESISTANT GYPSUM BOARD BACKING TO EXTENT SHOWN ON INTERIOR ELEVATIONS. D183 REMOVE (E) WATER CLOSET.

### **DRAWING NOTES**

221

222

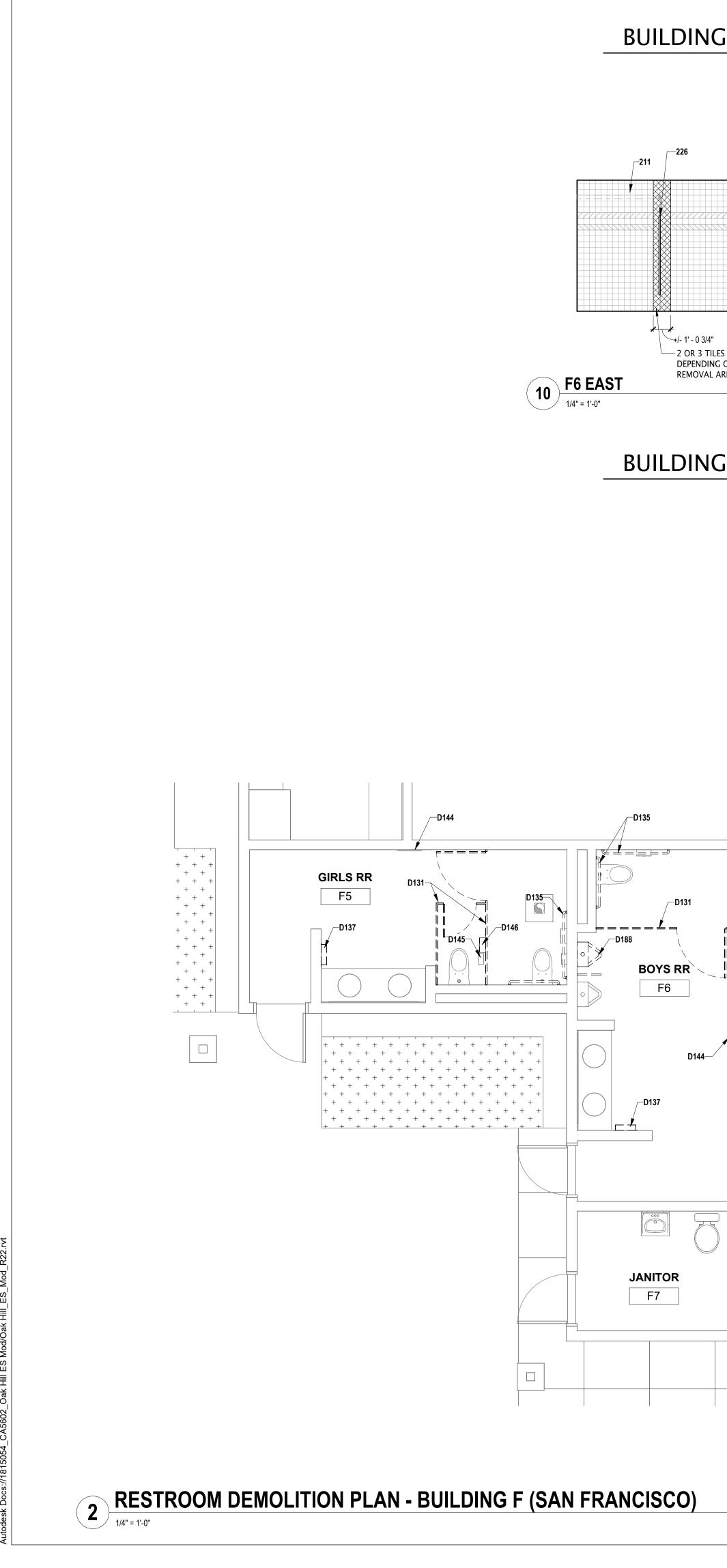
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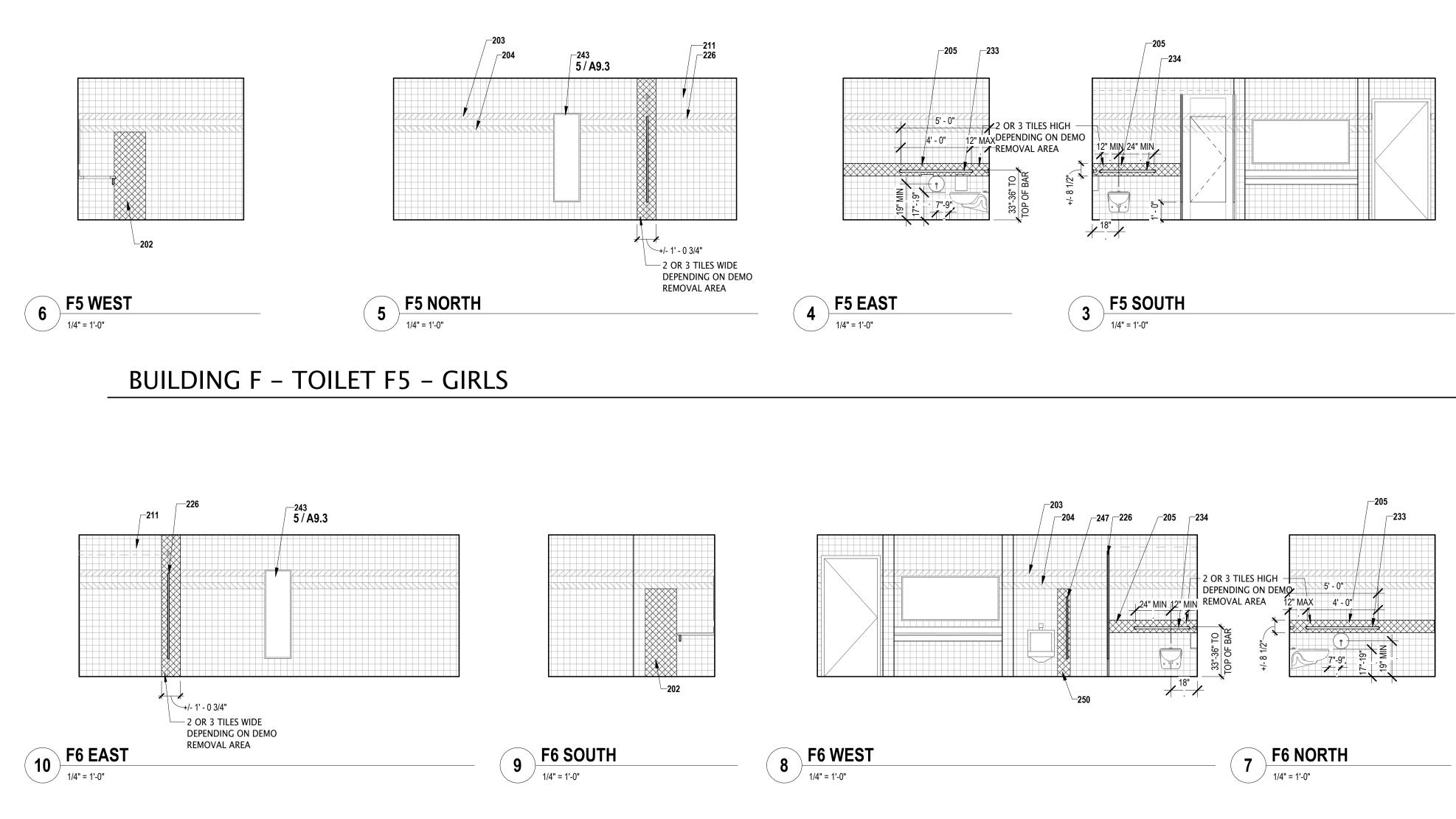
256 267

- 30" x 48" MINIMUM CLEAR FLOOR SPACE FOR WHEELCHAIR ACCESS. 102
- (E) BLUE CERAMIC TILE ACCENT BAND. 203 (E) GREEN CERAMIC TILE ACCENT BAND. 204
- (N) CERAMIC TILE OVER WATER RESISTANT GYPSUM BOARD WHERE TILE WAS REMOVED. 205 211
- (N) CERAMIC TILE. PROVIDE ROOM IDENTIFICATION SIGNAGE, TYP AT EACH DOOR.
- RESTROOM DOOR AND WALL SIGNAGE, TYP AT EACH RESTROOM DOOR.
- 225 (E) TOILET PARTITION REINSTALLED. MODIFY AS NECESSARY TO FIT ACCESSIBILITY DIMENSIONS. PROVIDE BLOCKING AND MOUNT PER DETAILS. 230 (E) SURFACE MOUNTED TOILET PAPER DISPENSER TO REMAIN.
- 233 (E) GRAB BAR, 48" LONG x 1 1/2" DIA, REINSTALL AT SIDE WALL OF ACCESSIBLE W.C., SEE DETAIL 4/A9.3 (E) GRAB BAR, 36" LONG x 1 1/2" DIA, REINSTALL AT REAR WALL OF ACCESSIBLE W.C., SEE DETAIL
- 234 4/A9.3
- 235 (E) SURFACE MOUNTED SOAP DISPENSER TO REMAIN. 236 (E) WALL MOUNTED PAPER TOWEL DISPENSER, TO REMAIN.
- REWORK (E) 36" WIDE TOILET PARTITION DOOR TO OPEN IN.
- (N) SURFACE MOUNTED TOILET PAPAER DISPENSER. (N) WATER CLOSET AT ORIGINAL LOCATION W/ FLUSH HANDLE ON WIDE SIDE OF STALL.

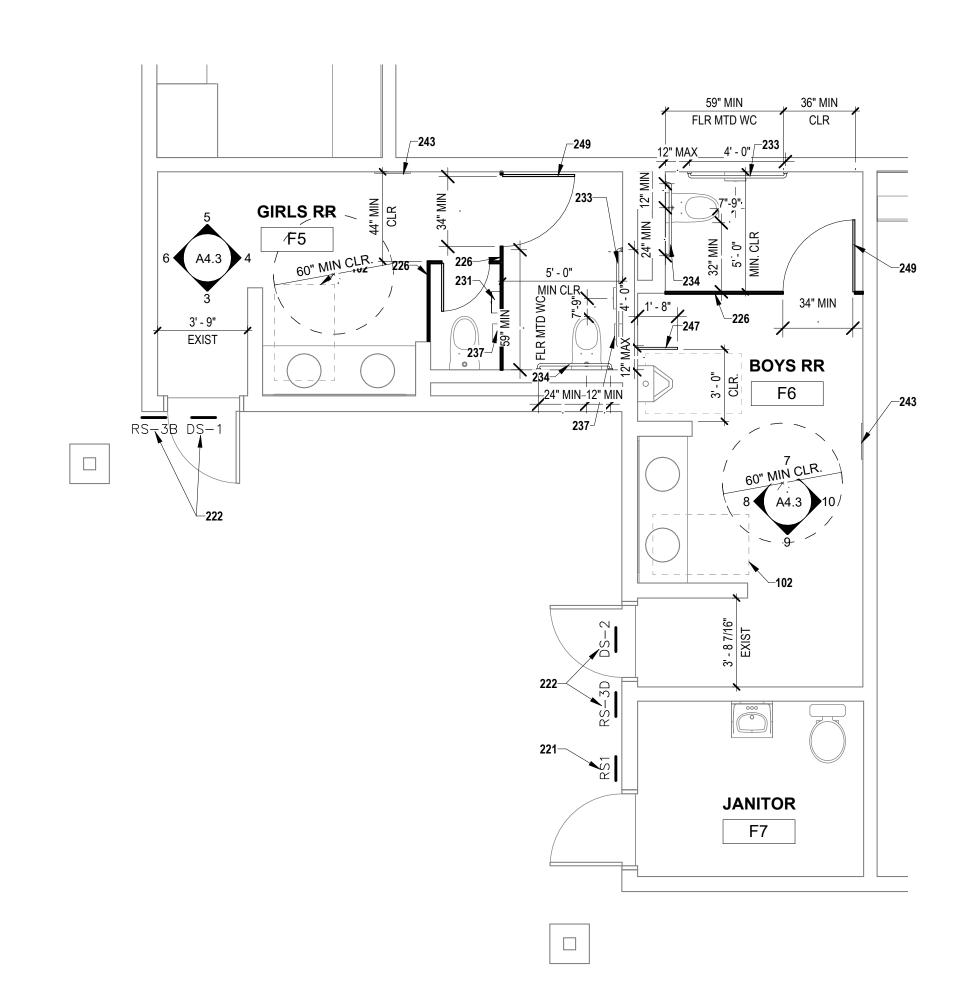


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## BUILDING F – TOILET F6 – BOYS



### **DEMOLITION GENERAL NOTES**

- A. SEE SHEET G0.1, PROJECT NOTE 12 REGARDING FIRE SAFETY DURING DEMOLITION AND CONSTRUCTION.
- B. AT EXTERIOR WALLS MAKE CUTS TIGHT TO PENITRATING ITEMS AND SEAL W/ JOINT SEALANTS. C. REMOVE (E) GYPSUM BOARD AT LOCATIONS OF NEW CASEWORK AS NECESSARY FOR
- INSTALLATION OF BLOCKING IN WALL. D. FOR ADDITIONAL INFORMATION SEE MECHANICAL, PLUMBING & ELECTRICAL DRAWINGS. E. WORK SHALL BE IN ACCORDANCE WITH APPLICABLE CODES AS NOTED ON THE TITLE SHEET.
- F PRESERVE AND PROTECT EXISTING CONDITIONS THAT ARE TO REMAIN. SECURE THE PROPERTY DURING CONSTRUCTION.
- G. IN AREAS OF WORK, VERIFY AND LOCATE EXISTING UNDERGROUND UTILITIES AND AVOID DAMAGE TO SAME.
- H. CONDITIONS OBSERVED ON SITE WHICH SHALL AFFECT THE DEMOLITION, THAT ARE NOT OTHERWISE NOTED IN THESE DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT.
- I. ITEMS NOTED TO BE REMOVED AND NOT RELOCATED ARE TO BE REMOVED FROM THE SITE AND DISPOSED OF IN THE PROPER MANNER.
- J. FOR PROJECT GOVERNING CODES SEE SHEET G0.1.

### **GENERAL NOTES**

- A. FOR ADDITIONAL INFORMATION SEE MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS. B. FOR DOOR SCHEDULE AND DOOR LEGEND, SEE SHEET A10.1
- C FOR WALL TYPES AND WALL FRAMING DETAILS, SEE SHEET **A8.2** D. FOR INTERIOR ELEVATIONS, SEE SHEETS A5.1 A5.2
  E. FOR MOUNTING HEIGHTS AND DIMENSIONS SEE DETAIL 8 / A9.2
- F. FOR ACCESSIBILITY CLEARANCES AND DIMENSIONS SEE SHEET **A9.1**
- G. DIMENSIONS: DIMENSIONS ARE SHOWN TO FACE OF WALL, U.N.O. H. FOR SIGNAGE REQUIREMENTS, SEE SHEET A9.2
  I. FOR ACCESSIBLE CONTROL HEIGHTS SEE DETAIL 7 / A9.2

### **DEMOLITION NOTES**

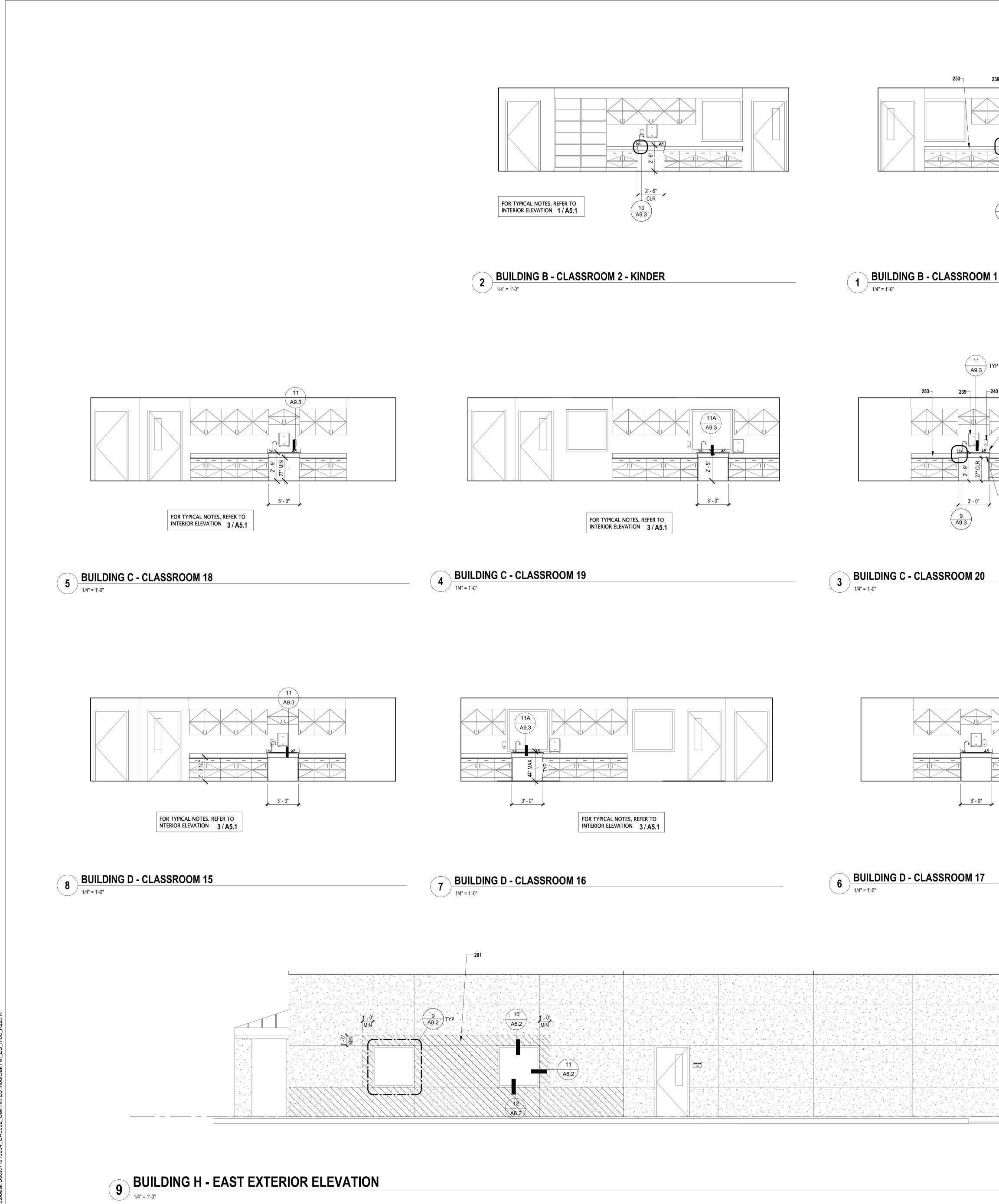
- REMOVE (E) TOILET PARTITIONS AND DOORS AS INDICATED. BALANCE TO REMAIN. D131
- D135 REMOVE (E) GRAB BARS AND SAVE FOR REINSTALLATION. D137 REMOVE (E) TRASH RECEPTACLE.
- D144 REMOVE (E) STAINLESS STEEL MIRROR. D145 REMOVE (E) SANITARY NAPKIN DISPOSAL, AT EACH STALL, TYP.
- D146 REMOVE (E) TOILET PAPER DISPENSER AND SAVE FOR REUSE. D188 REMOVE (E) URINAL AND CAP PIPING.

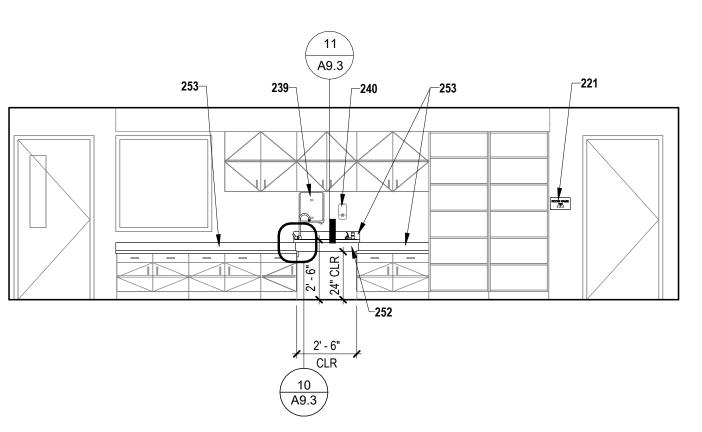
## DRAWING NOTES

231

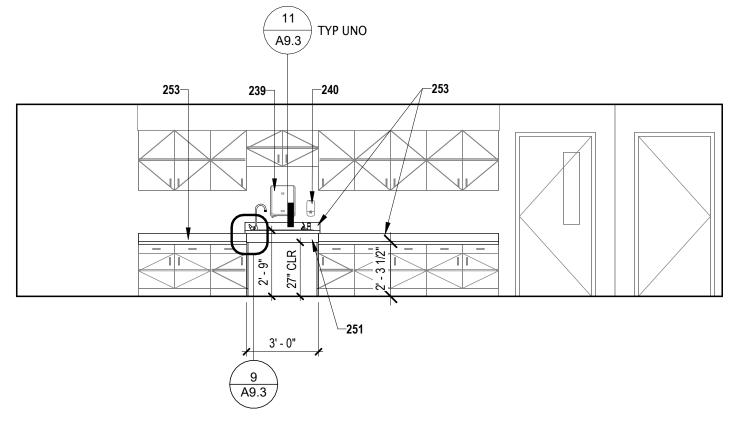
- 30" x 48" MINIMUM CLEAR FLOOR SPACE FOR WHEELCHAIR ACCESS. 102 (N) CERAMIC TILE OVER WATER RESISTANT GYPSUM BOARD. INFILL WHERE WASTE RECEPTACLE 202 IS REMOVED.
- (E) BLUE CERAMIC TILE ACCENT BAND. 203 204 (E) GREEN CERAMIC TILE ACCENT BAND.
- (N) CERAMIC TILE OVER WATER RESISTANT GYPSUM BOARD WHERE TILE WAS REMOVED. 205
- 211 (N) CERAMIC TILE. 221 PROVIDE ROOM IDENTIFICATION SIGNAGE, TYP AT EACH DOOR.
- 222 RESTROOM DOOR AND WALL SIGNAGE, TYP AT EACH RESTROOM DOOR. TOILET PARTITION - FLOOR MOUNTED OVERHEAD BRACED. PROVIDE BLOCKING AND MOUNT PER 226 DETAILS ON SHEET A9.3
- SURFACE MOUNTED TOILET PAPER DISPENSER, MOUNT PER DETAIL 8/A9.2. 233 (E) GRAB BAR, 48" LONG x 1 1/2" DIA, REINSTALL AT SIDE WALL OF ACCESSIBLE W.C., SEE DETAIL
- 4/A9.3 (E) GRAB BAR, 36" LONG x 1 1/2" DIA, REINSTALL AT REAR WALL OF ACCESSIBLE W.C., SEE DETAIL 234 4/A9.3
- 237 SURFACE MOUNTED FEMININE NAPKIN DISPOSAL, MOUNT PER DETAIL 8/A9.2. PROVIDE ONE AT EACH STALL IN WOMENS AND GIRLS RESTROOMS. (N) STAINLESS STEEL MIRROR. MOUNT AT SAME LOCATION AS ORIGINAL. 243 247 URINAL PARTITION - WALL MOUNTED. PROVIDE BLOCKING AND MOUNT PER DETAILS ON SHEET
- A9.3 REWORK (E) 36" WIDE TOILET PARTITION DOOR TO OPEN IN. 249 250 PATCH CERAMIC TILE WHERE TOILET PARTITION/URINAL SCREEN IS RELOCATED.

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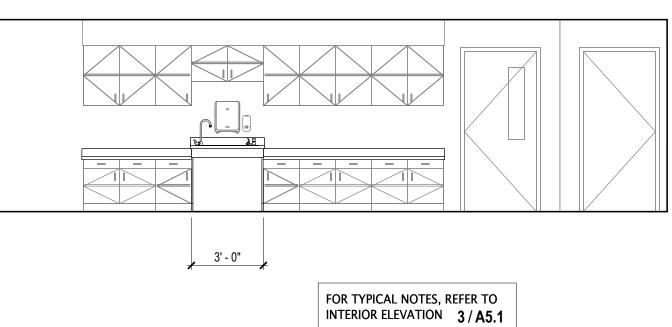












## **DRAWING NOTES**

201

221

239

240

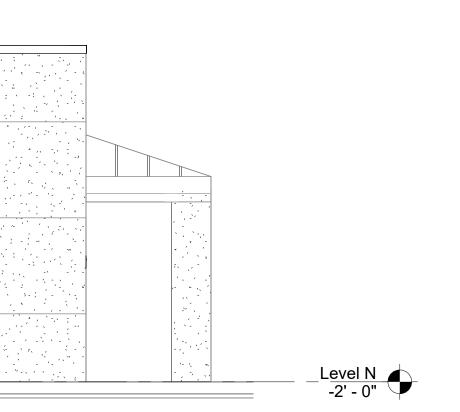
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253

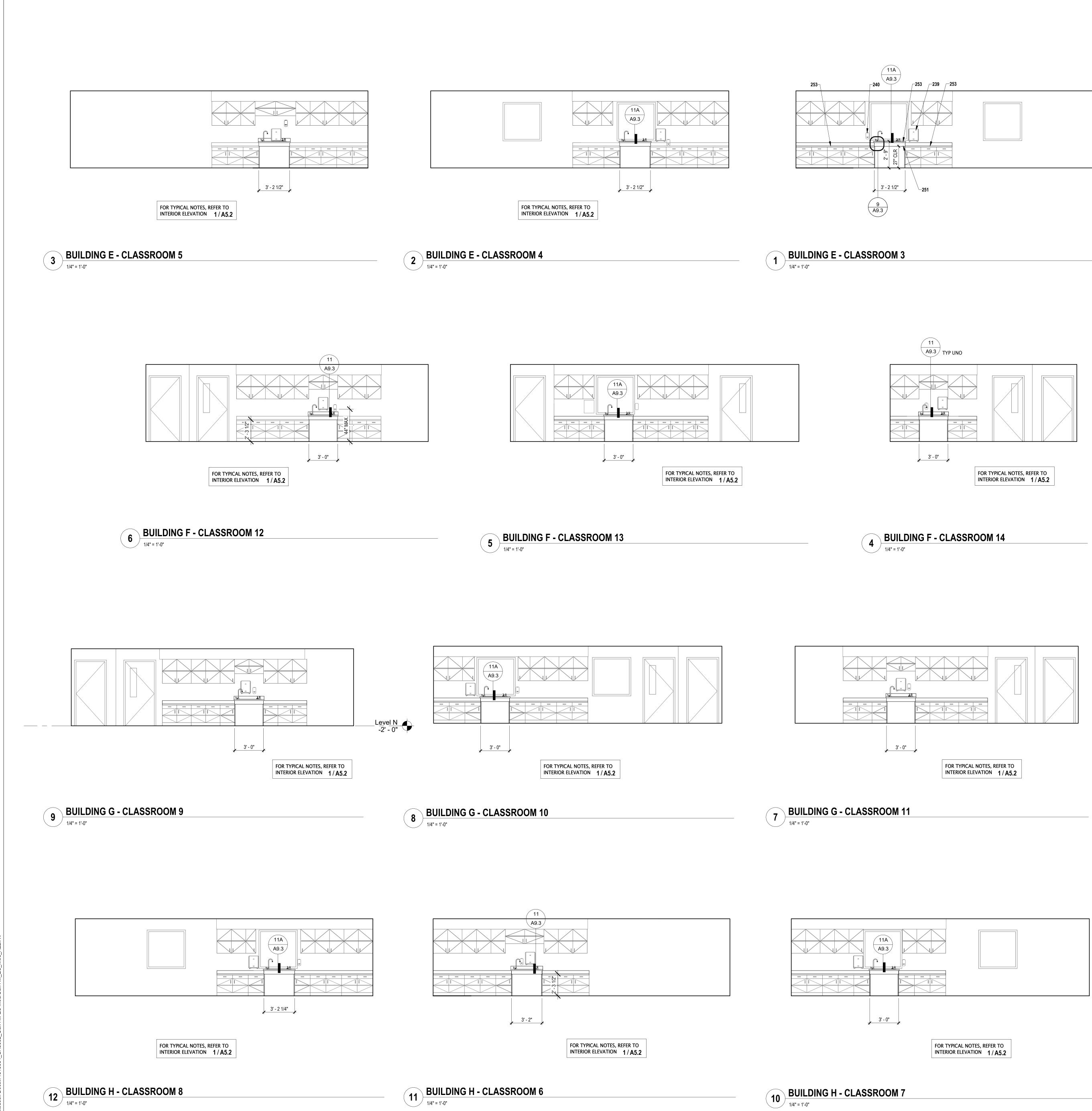
251

REMOVE (E) CEMENT PLASTER AND LATH AS INDICATED. PROVIDE (N) FLASHING AND FLEXIBLE FLASHING AT WINDOW OPENINGS. PROVIDE (N) CEMENT PLASTER ON LATH OVER 2 LAYERS (N) GRADE D PAPER W/ TEXTURE AND CONTROL JOINTS TO MATCH (E).

- PROVIDE ROOM IDENTIFICATION SIGNAGE, TYP AT EACH DOOR. WALL MOUNTED PAPER TOWEL DISPENSER. REMOVE & REINSTALL PER DETAIL 8/A9.2.
- WALL MOUNTED SOAP DISPENSER. REMOVE & REINSTALL PER DETAIL 8/A9.2
- PLASTIC LAMINATE SINK BASE CABINET. INSERT BETWEEN (E) CASEWORK. PLASTIC LAMINATE SINK BASE CASEWORK. INSTALL ON EXISTING CASEWORK.
- PLASTIC LAMINATE COUNTER TOP W/ BACKSPLASH.



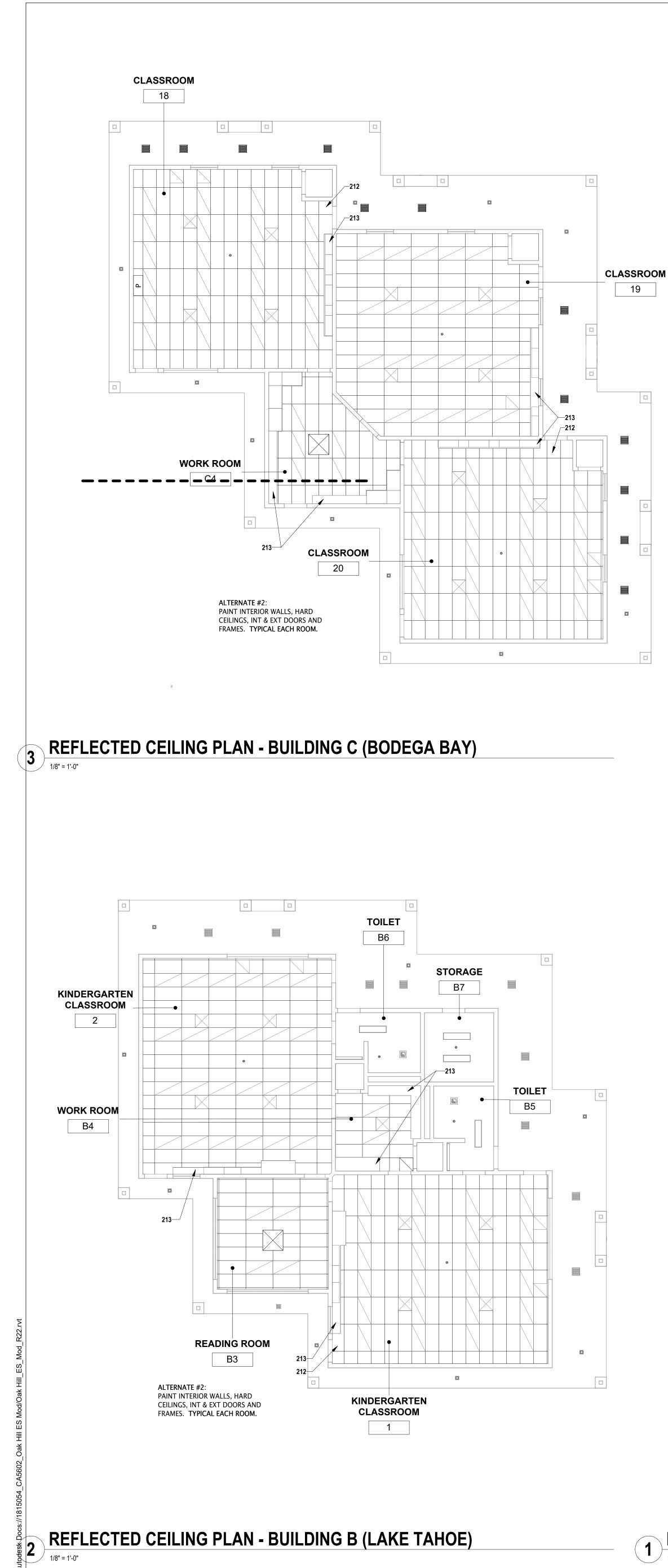
dsa IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 02-121265 INC: **REVIEWED FOR** SS 🔲 FLS 🗹 ACS 🗹 DATE: 05/24/2023 architect ACMARTIN ▼3009 DOUGLAS BLVD SUITE 290 ROSEVILLE CA 95661 T 916 772 1800 stamp consultant project number CA5602 project director project designer project architect revisions no. date \_\_\_\_\_ \_\_\_\_\_ project status DSA BACKCHECK - V2 4-25-2023 client / project OAK HILL ES HARDSHIP MODERNIZATION CJUSD 3909 NORTH LOOP BLVD ANTELOPE, CA 95843 sheet name CLASSROOM INTERIOR ELEVATIONS sheet number A5.1 5/15/2023 4:53:51 PM plot date



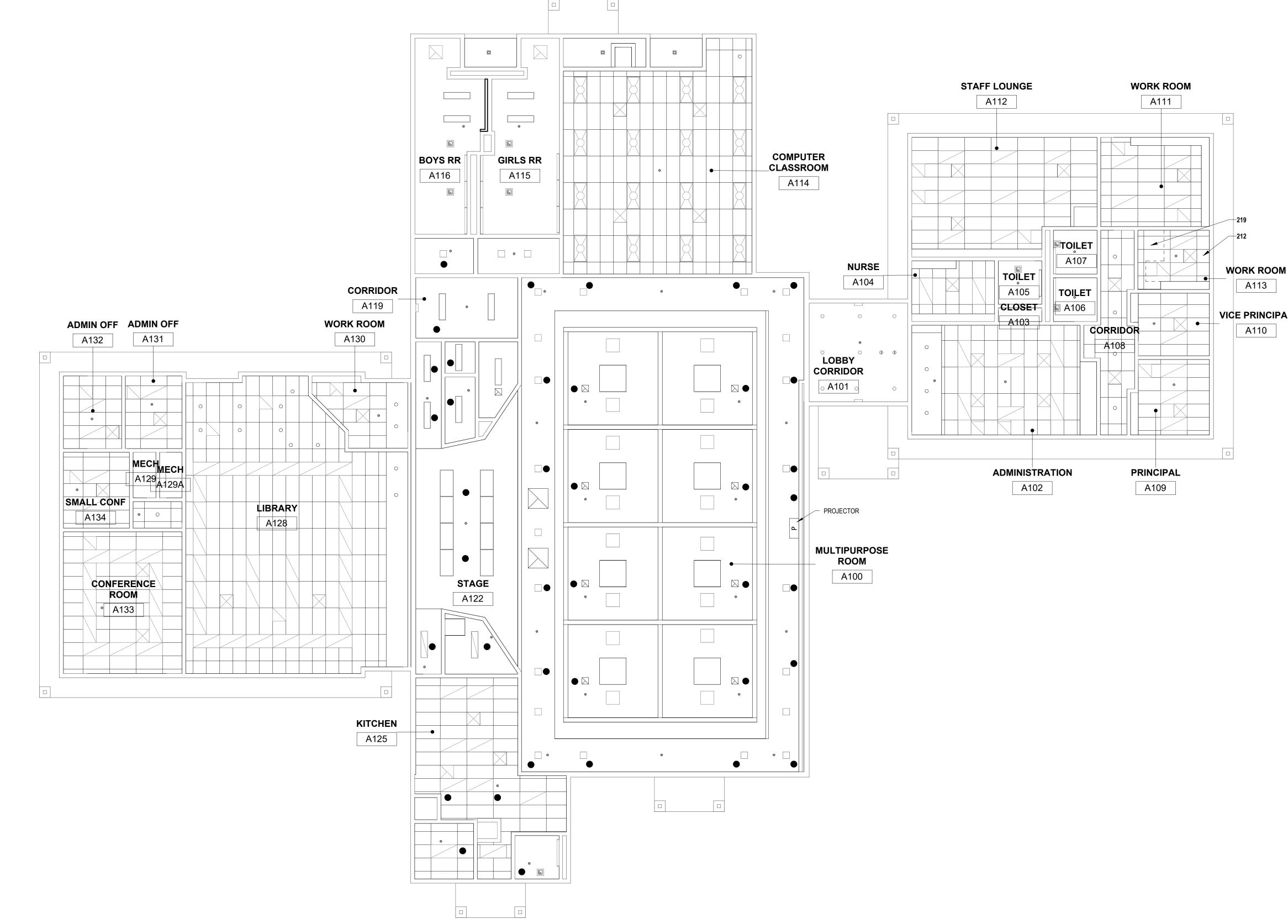
### DRAWING NOTES

WALL MOUNTED PAPER TOWEL DISPENSER. REMOVE & REINSTALL PER DETAIL 8/A9.2. WALL MOUNTED SOAP DISPENSER. REMOVE & REINSTALL PER DETAIL 8/A9.2 PLASTIC LAMINATE SINK BASE CABINET. INSERT BETWEEN (E) CASEWORK. PLASTIC LAMINATE COUNTER TOP W/ BACKSPLASH.

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19

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### **GENERAL NOTES**

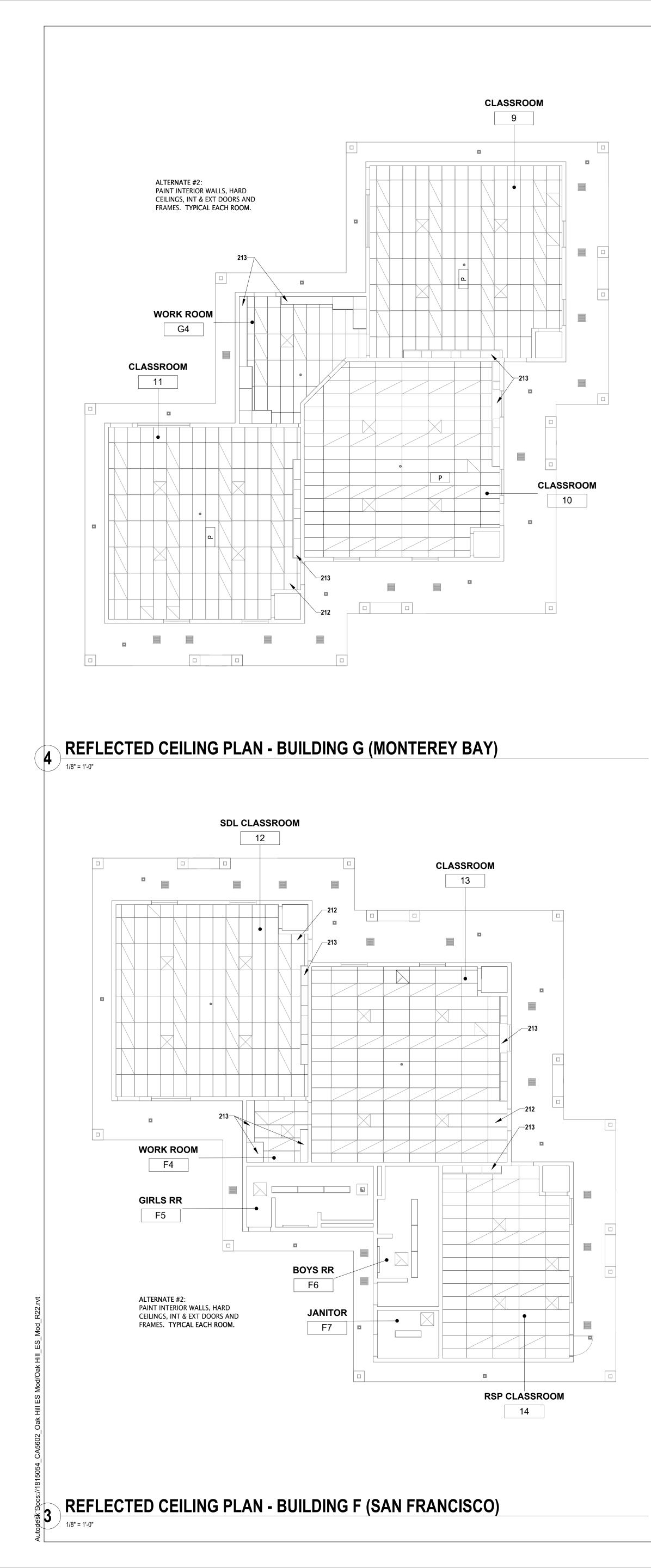
- 1. FOR ADDITIONAL INFORMATION SEE PLUMBING, ELECTRICAL AND FIRE ALARM DRAWINGS.
- 2. REPLACE CEILING PANELS IF DAMAGED OR AS REQUIRED FOR FIRE ALARM WORK. PROVIDE MINIMUM 30% CEILING PANEL REPLACEMENT.
- 3. PROTECT SPRINKLER HEADS FROM DAMAGE OR OVERSPRAY.

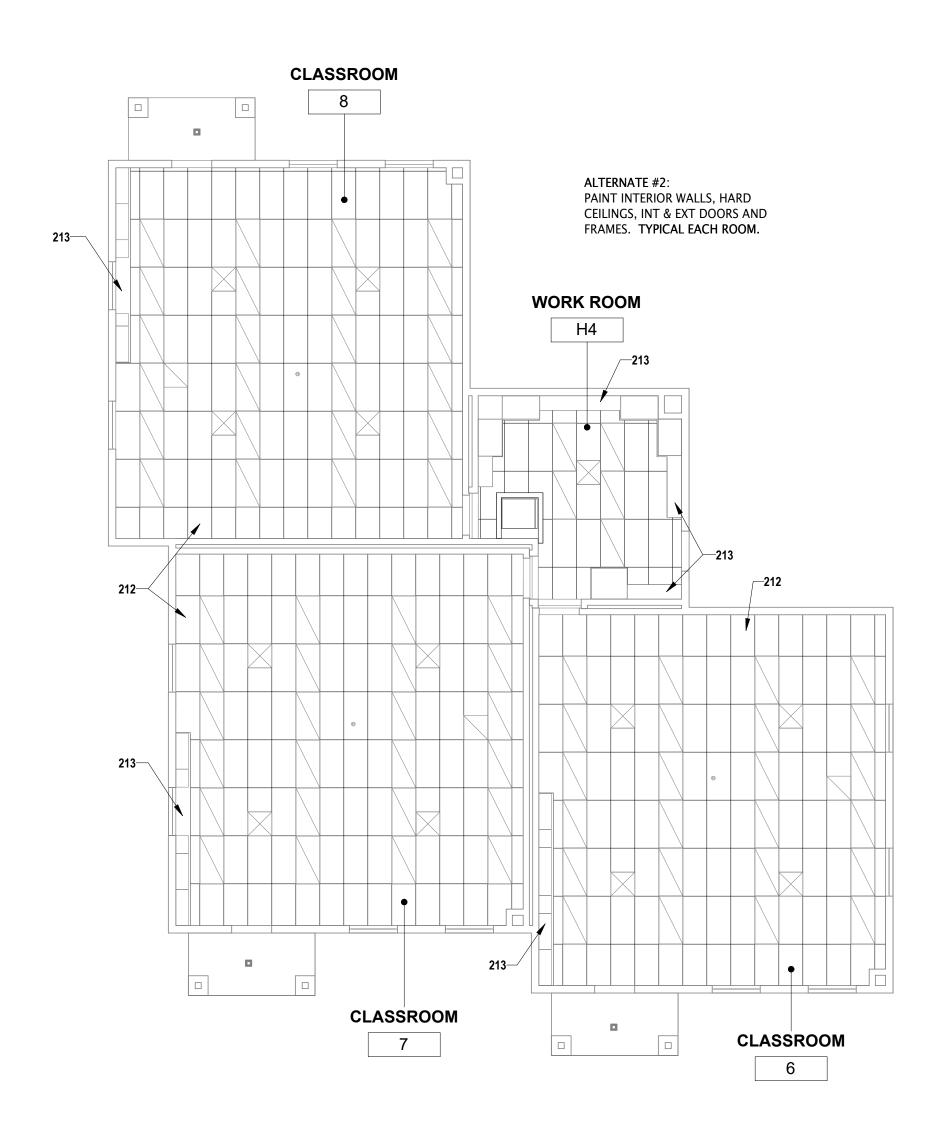
### **DRAWING NOTES**

| 212 |  |
|-----|--|
| 213 |  |
| 219 |  |

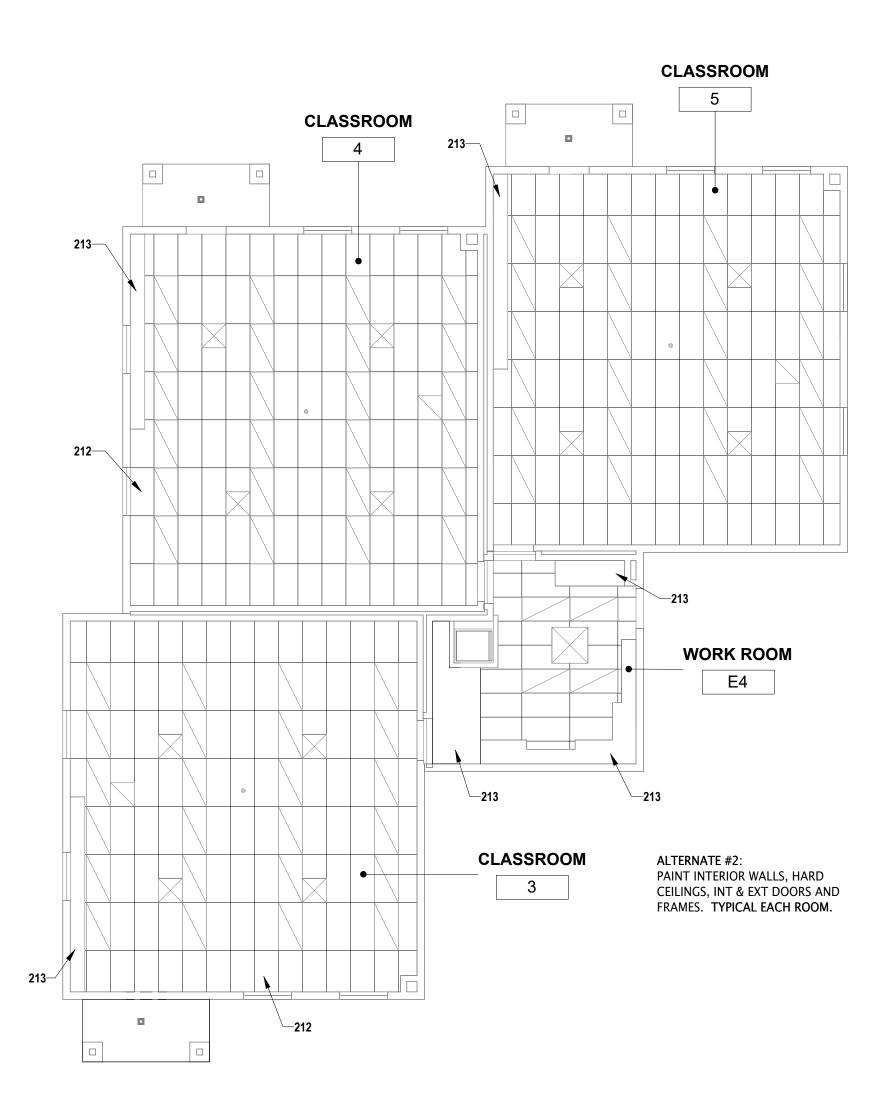
- (E) 2x4 LAY-IN ACOUSTIC PANEL CEILING IN SUSPENDED METAL GRID TO REMAIN. (E) GYPSUM BOARD CEILING/SOFFIT TO REMAIN. PAINT AS PART OF ALTERNATE #1.
- EXTEND (E) CEILING TO MATCH (E) WHERE EQUIPMENT CLOSET AND SOFFIT WERE REMOVED.









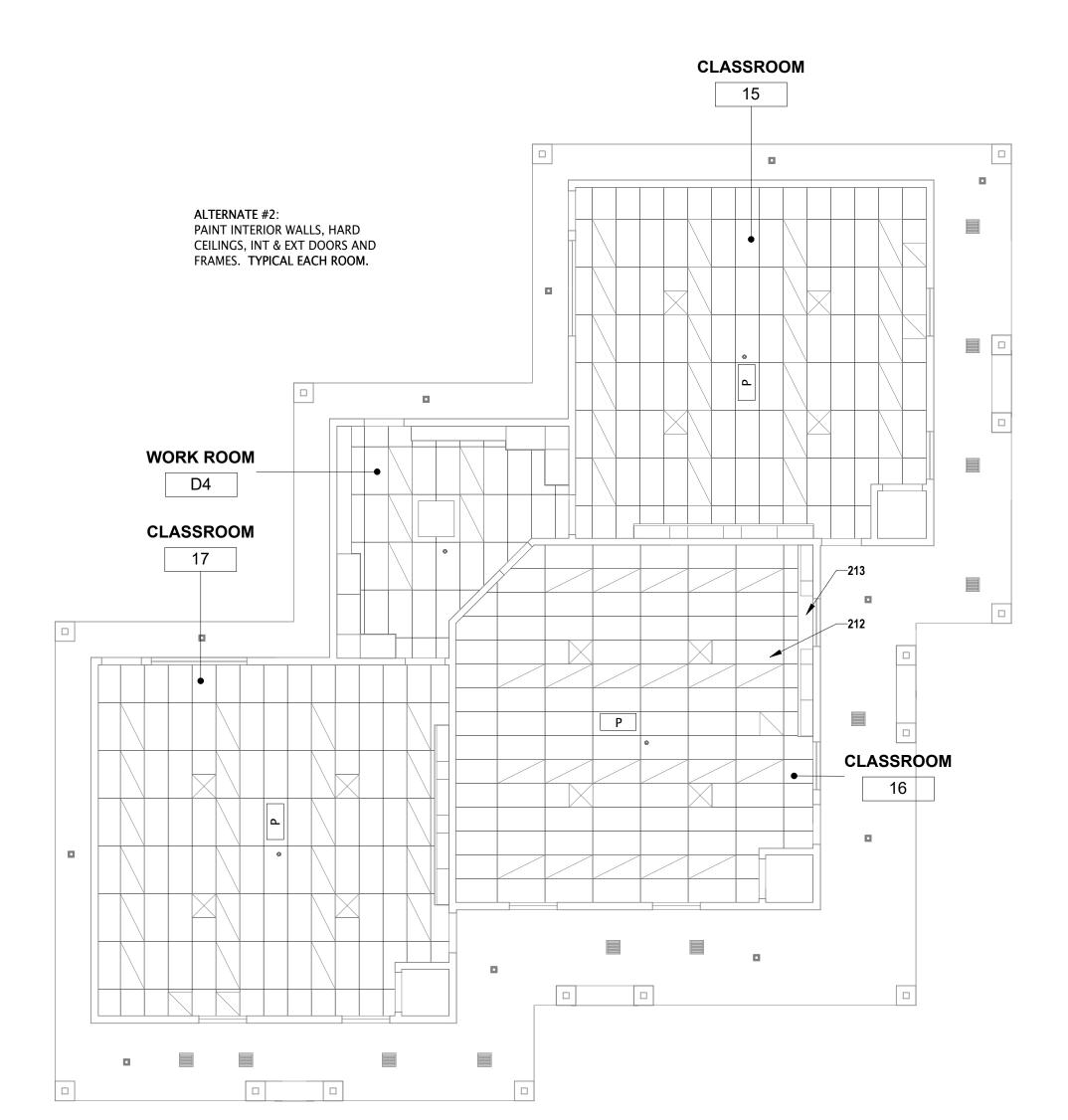


### **GENERAL NOTES**

- 1. FOR ADDITIONAL INFORMATION SEE PLUMBING, ELECTRICAL AND FIRE ALARM DRAWINGS.
- 2. REPLACE CEILING PANELS IF DAMAGED OR AS REQUIRED FOR FIRE ALARM WORK. PROVIDE MINIMUM 30% CEILING PANEL REPLACEMENT.
- 3. PROTECT SPRINKLER HEADS FROM DAMAGE OR OVERSPRAY.

### DRAWING NOTES

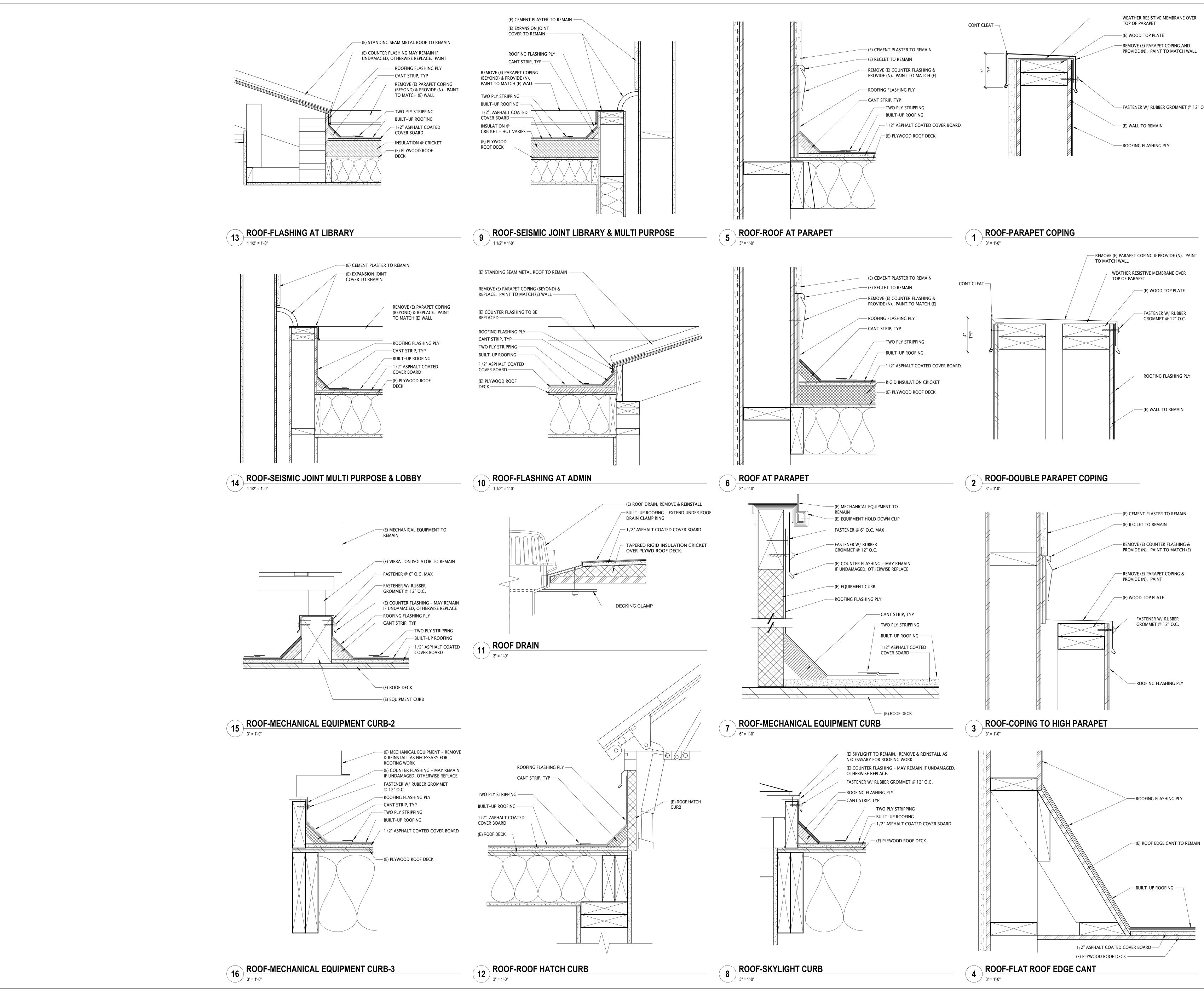
(E) 2x4 LAY-IN ACOUSTIC PANEL CEILING IN SUSPENDED METAL GRID TO REMAIN. 212 (E) GYPSUM BOARD CEILING/SOFFIT TO REMAIN. PAINT AS PART OF ALTERNATE #1. 213



# 1 REFLECTED CEILING PLAN - BUILDING D (TRINIDAD BAY)

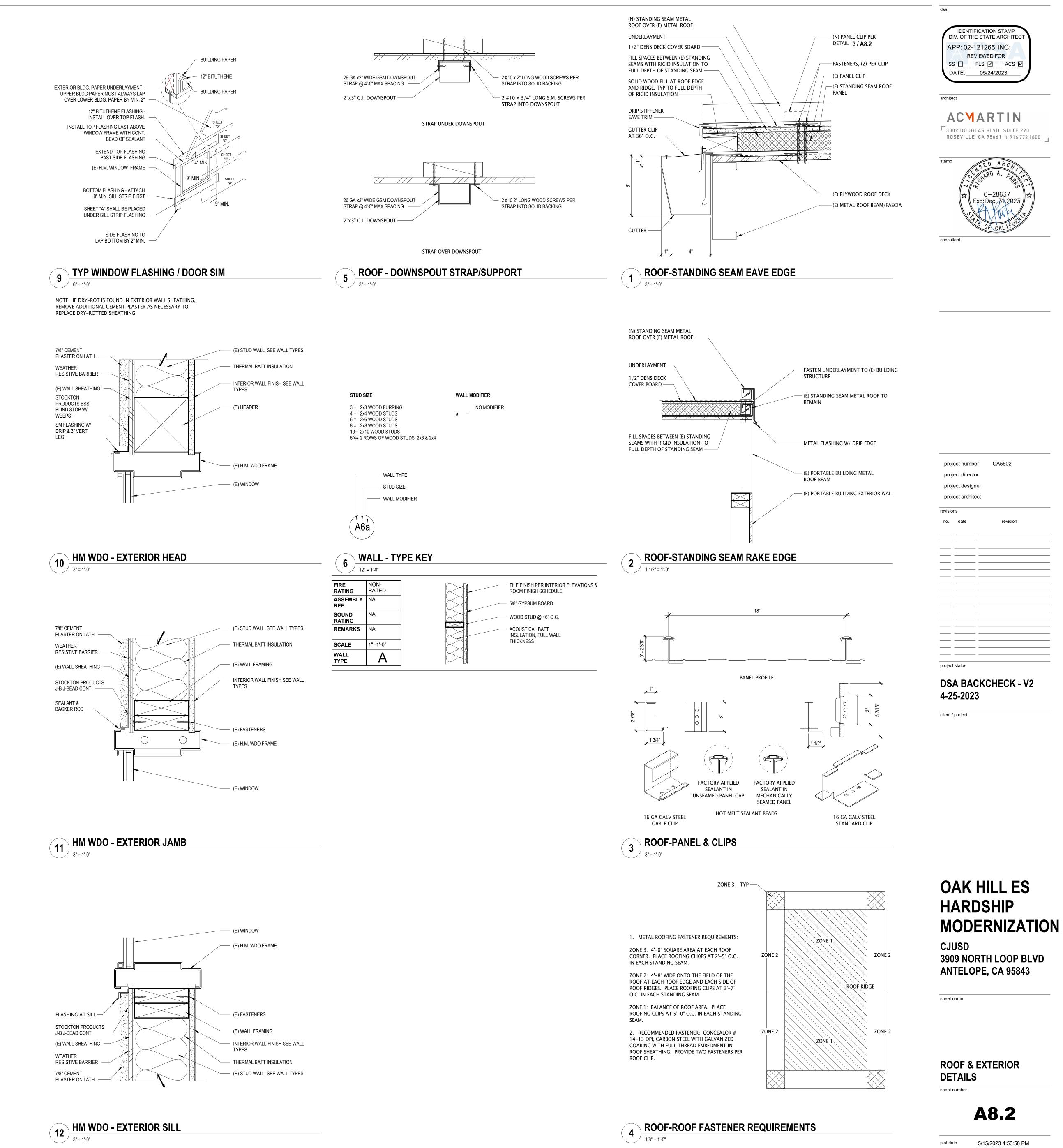
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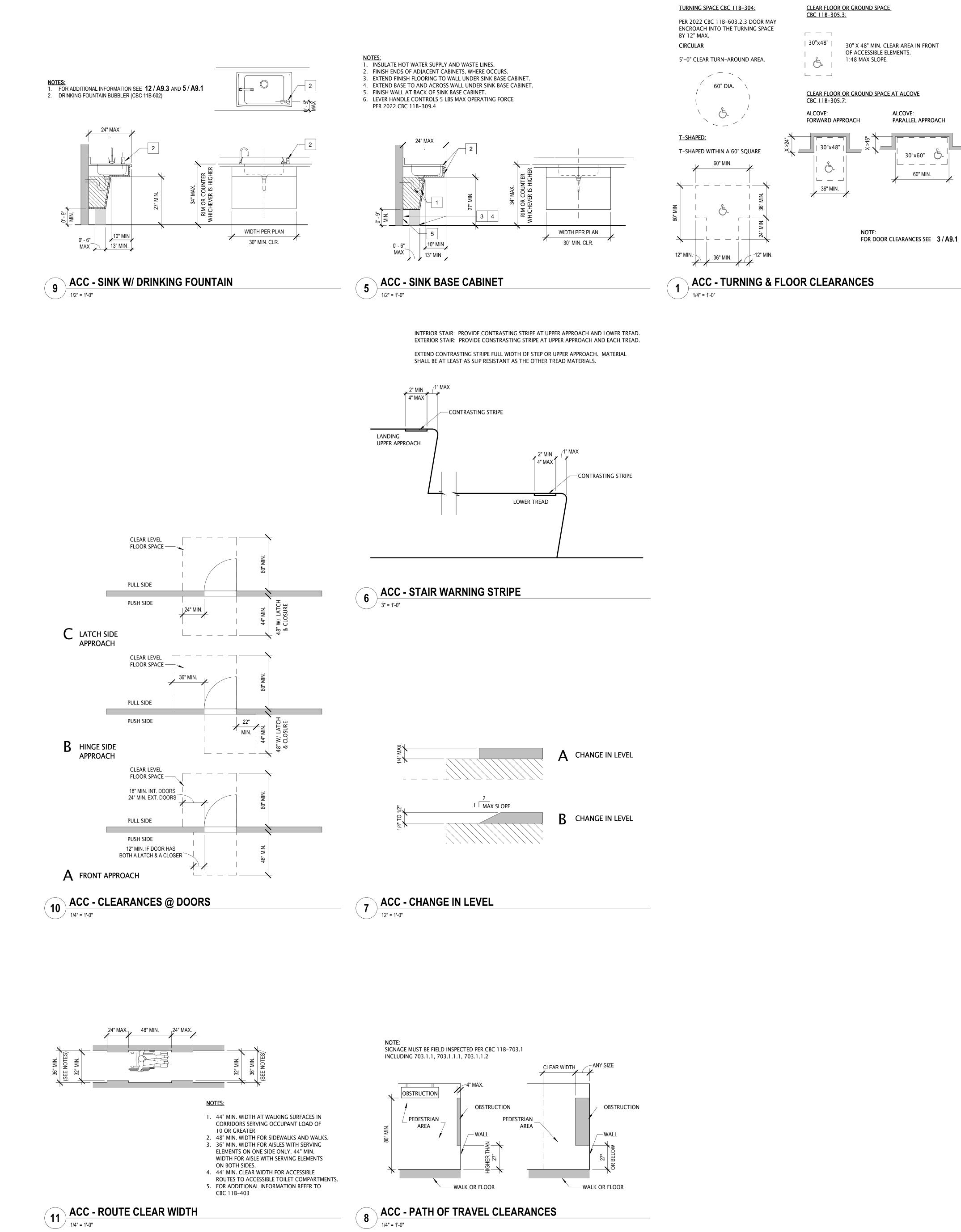
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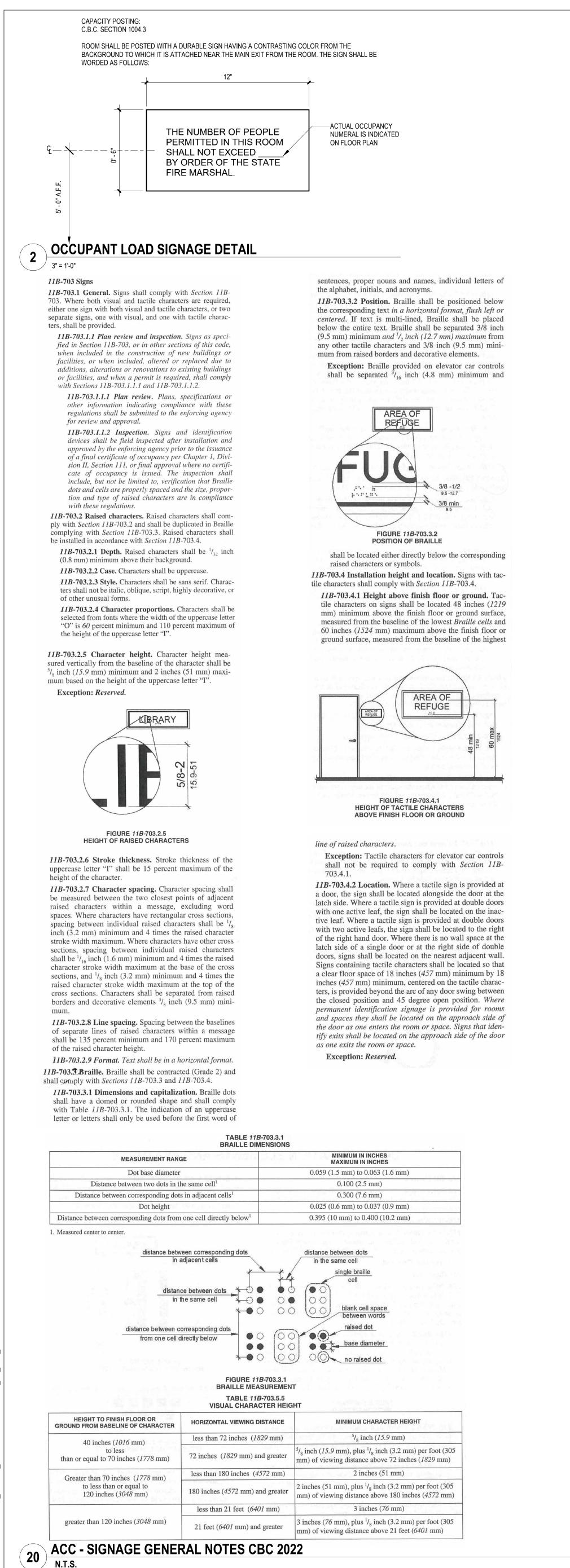
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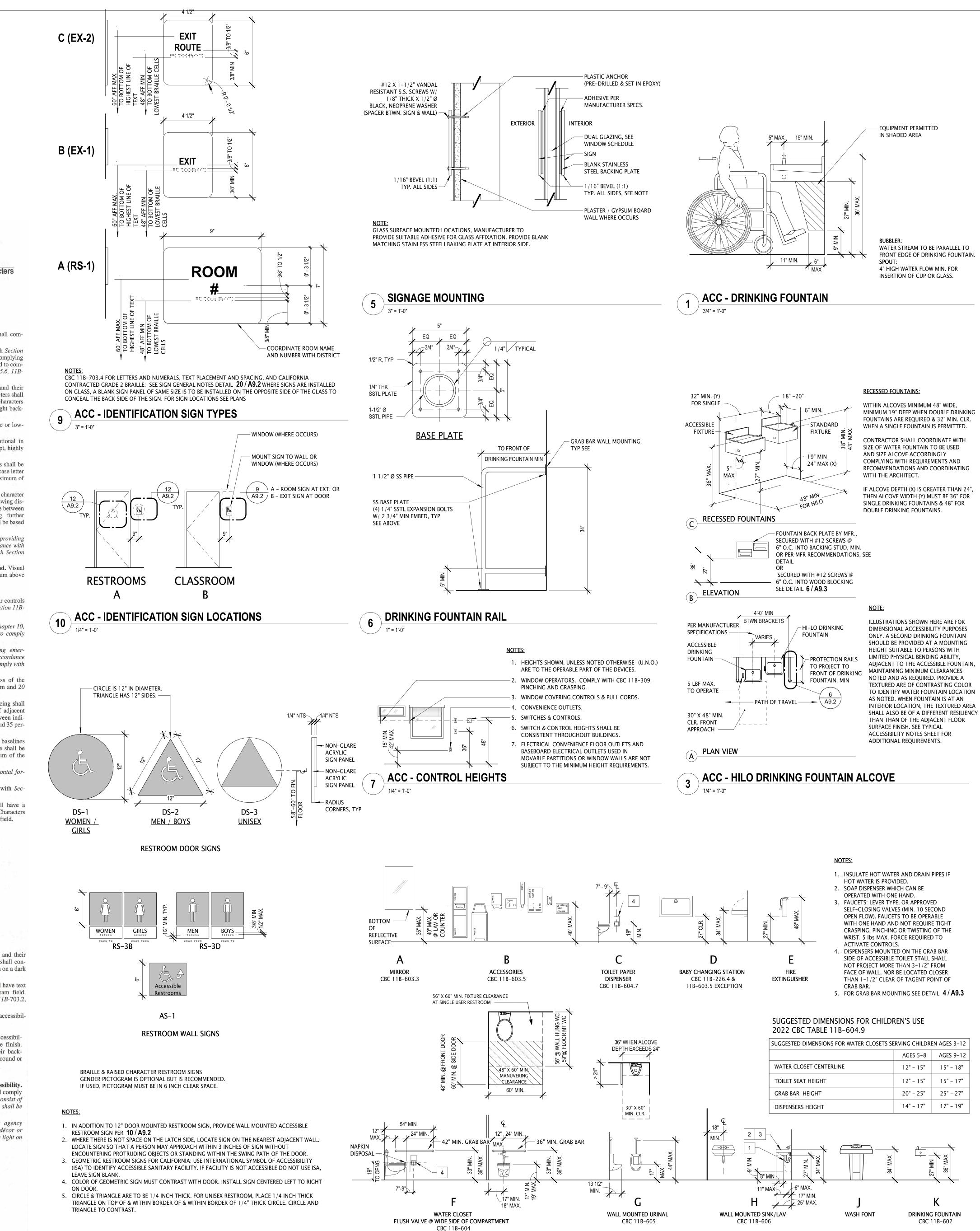
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| D.C. | ACMARTIN<br>3009 DOUGLAS BLVD SUITE 290<br>ROSEVILLE CA 95661 T 916 772 1800   |
|      | stamp<br>C, H, S, E, D, A, C, A, L,  |
|      |  |
|      |  |
|      |  |
|      | project number CA5602<br>project director<br>project designer<br>project architect   |
|      | revisions           no.         date           revision  |
|      |  |
|      |  |
|      | project status DSA BACKCHECK - V2 4-25-2023  |
|      | Client / project   |
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|      | plot date 5/15/2023 4:53:57 PM   |





dsa IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 02-121265 INC: REVIEWED FOR SS 🔲 FLS 🗹 ACS 🗹 DATE: 05/24/2023 architect ACMARTIN 3009 DOUGLAS BLVD SUITE 290 ROSEVILLE CA 95661 T 916 772 1800 stamp consultant project number CA5602 project director project designer project architect revisions no. date \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ project status DSA BACKCHECK - V2 4-25-2023 client / project OAK HILL ES HARDSHIP MODERNIZATION CJUSD 3909 NORTH LOOP BLVD ANTELOPE, CA 95843 sheet name ACCESSIBLE **CLEARANCE DETAILS** sheet number **A9.1** 5/15/2023 4:53:59 PM plot date





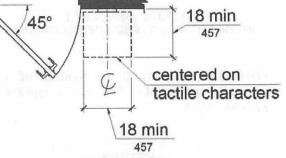


FIGURE 11B-703.4.2 LOCATION OF TACTILE SIGNS AT DOORS

11B-703.5 Visual characters. Visual characters shall comply with Section 11B-703.5. Exception: Where visual characters comply with Section

11B-703.2 and are accompanied by Braille complying with Section 11B-703.3, they shall not be required to comply with Sections 11B-703.5.2 through 11B-703.5.6, 11B-703.5.8 and 11B-703.5.9.

11B-703.5.1 Finish and contrast. Characters and their background shall have a non-glare finish. Characters shall contrast with their background with either light characters on a dark background or dark characters on a light background.

11B-703.5.2 Case. Characters shall be uppercase or lowercase or a combination of both. 11B-703.5.3 Style. Characters shall be conventional in

form. Characters shall not be italic, oblique, script, highly decorative, or of other unusual forms. 11B-703.5.4 Character proportions. Characters shall be

selected from fonts where the width of the uppercase letter "O" is 60 percent minimum and 110 percent maximum of the height of the uppercase letter "I".

11B-703.5.5 Character height. Minimum character height shall comply with Table 11B-703.5.5. Viewing distance shall be measured as the horizontal distance between the character and an obstruction preventing further approach towards the sign. Character height shall be based on the uppercase letter "I" Exception: Where provided, floor plans providing

emergency procedures information in accordance with Title 19 shall not be required to comply with Section 11B-703.5.5. 11B-703.5.6 Height from finish floor or ground. Visual

characters shall be 40 inches (1016 mm) minimum above the finish floor or ground. Exceptions:

1. Visual characters indicating elevator car controls shall not be required to comply with Section 11B-703.5.6.

2. Floor-level exit signs complying with Chapter 10, Section 1011.7 shall not be required to comply with Section 11B-703.5.6. 3. Where provided, floor plans providing emergency procedures information in accordance

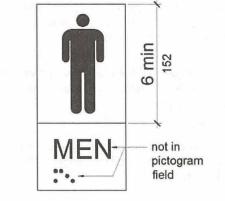
with Title 19 shall not be required to comply with Section 11B-703.5.6. 11B-703.5.7 Stroke thickness. Stroke thickness of the uppercase letter "I" shall be 10 percent minimum and 20

percent maximum of the height of the character. 11B-703.5.8 Character spacing. Character spacing shall be measured between the two closest points of adjacent characters, excluding word spaces. Spacing between individual characters shall be 10 percent minimum and 35 percent maximum of character height.

11B-703.5.9 Line spacing. Spacing between the baselines of separate lines of characters within a message shall be 135 percent minimum and 170 percent maximum of the character height.

11B-703.5.10 Format. Text shall be in a horizontal for-11B-703.6 Pictograms. Pictograms shall comply with Sec-

11B-703.6.1 Pictogram field. Pictograms shall have a field height of 6 inches (152 mm) minimum. Characters and Braille shall not be located in the pictogram field.



tion 11B-703.6.

### FIGURE 11B-703.6.1 **PICTOGRAM FIELD**

11B-703.6.2 Finish and contrast. Pictograms and their field shall have a non-glare finish. Pictograms shall contrast with their field with either a light pictogram on a dark field or a dark pictogram on a light field.

11B-703.6.3 Text descriptors. Pictograms shall have text descriptors located directly below the pictogram field. Text descriptors shall comply with Sections 11B-703.2, 11B-703.3 and 11B-703.4. 11B-703.7 Symbols of accessibility. Symbols of accessibil-

ity shall comply with Section 11B-703.7. 11B-703.7.1 Finish and contrast. Symbols of accessibil-

ity and their background shall have a non-glare finish. Symbols of accessibility shall contrast with their background with either a light symbol on a dark background or a dark symbol on a light background.

11B-703.7.2 Symbols 11B-703.7.2.1 International Symbol of Accessibility.

The International Symbol of Accessibility shall comply with Figure 11B-703.7.2.1. The symbol shall consist of a white figure on a blue background. The blue shall be Color No. 15090 in Federal Standard 595B.

**Exception:** The appropriate enforcement agency may approve other colors to complement décor or unique design. The symbol contrast shall be light on dark or dark on light.



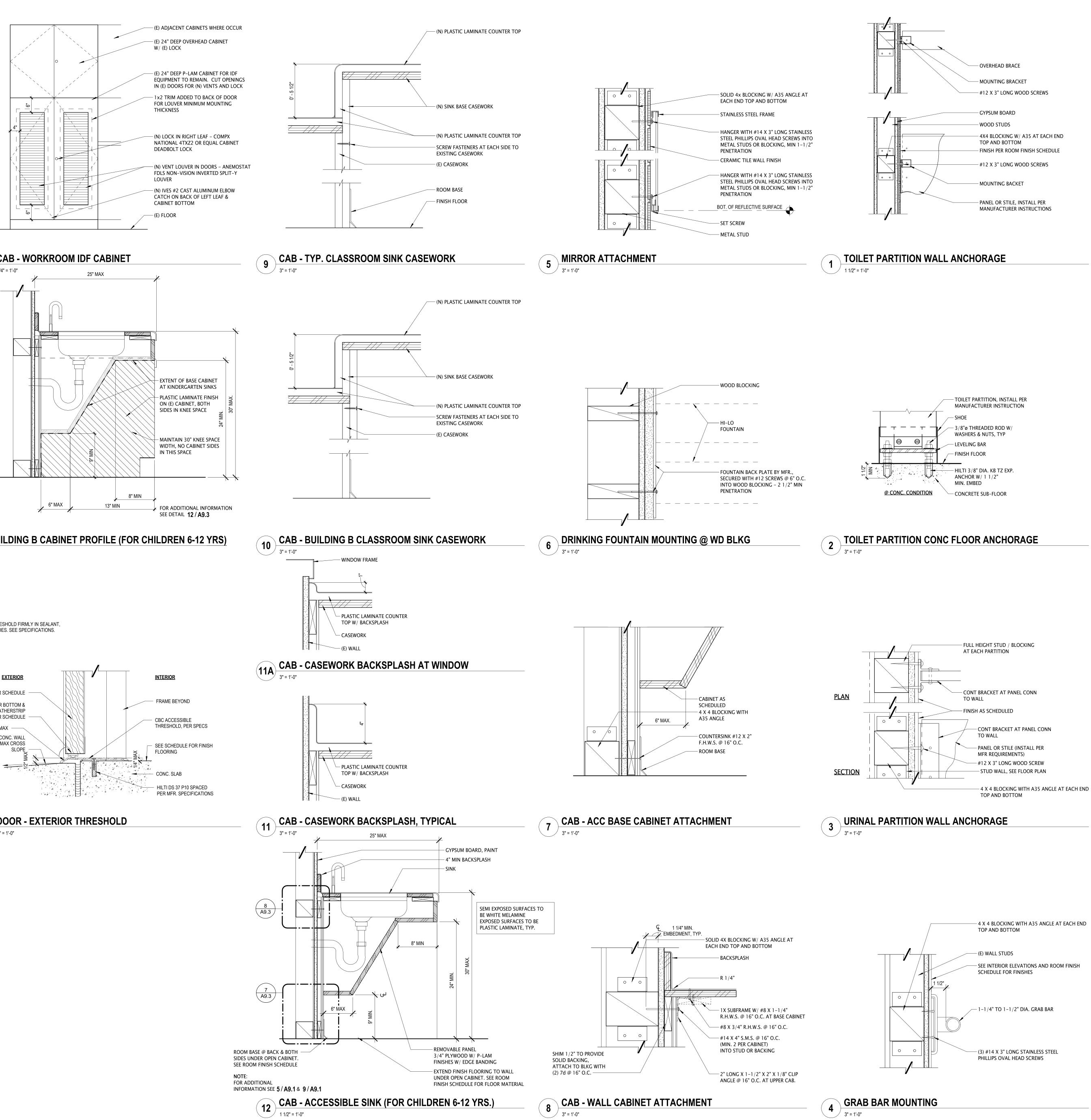
FIGURE 11B-703.7.2.1 INTERNATIONAL SYMBOL OF ACCESSIBILITY ACC - TYP. RESTROOM SIGNAGE

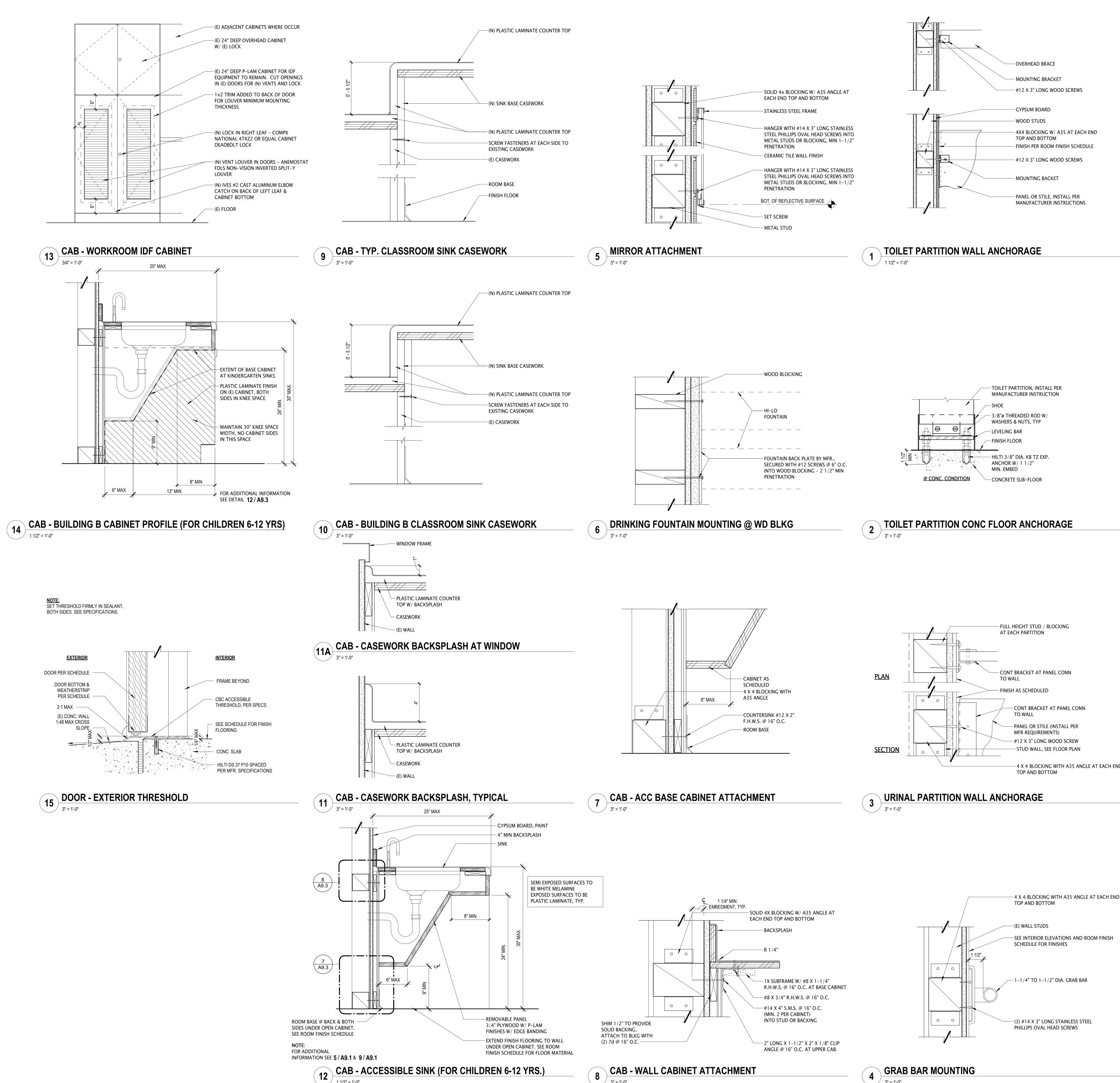
1 1/2" = 1'-0"

ACC - FIXTURE MOUNTING HEIGHTS

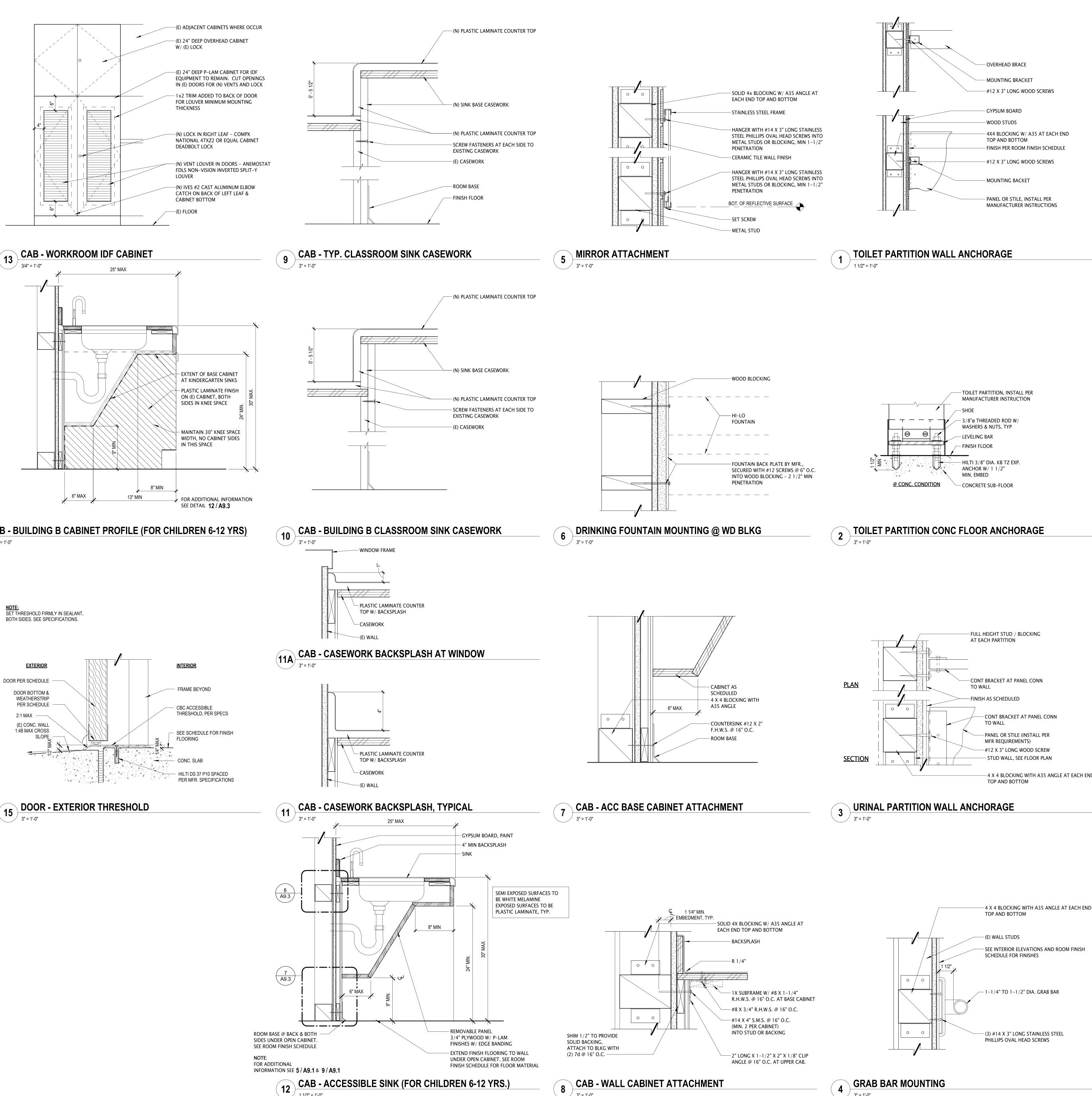
/ 1/4" = 1'-0"

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|   | IDENTIFICATION STAMP<br>. OF THE STATE ARCHITECT  |
|   | P: 02-121265 INC:<br>REVIEWED FOR   |
| SS<br>DA  | □ FLS ☑ ACS ☑<br>TE: <u>05/24/2023</u>  |
|   |   |
| architect   |   |
| Δ   |   |
| <b>7</b> 3009   | DOUGLAS BLVD SUITE 290  |
|   | EVILLE CA 95661 T 916 772 1800  |
| stamp   |   |
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|   | ☆ C-28637<br>Exp: Dec 31,2023   |
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| revisions   | ;   |
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| DSA   | tatus<br>BACKCHECK - V2<br>-2023  |
| DSA<br>4-25   | BACKCHECK - V2<br>-2023   |
| DSA   | BACKCHECK - V2<br>-2023   |
| DSA<br>4-25   | BACKCHECK - V2<br>-2023   |
| DSA<br>4-25<br>client / p   | A BACKCHECK - V2<br>-2023   |
| DSA<br>4-25   | ABACKCHECK - V2<br>-2023  |
| DSA<br>4-25   | A BACKCHECK - V2<br>-2023   |
| DSA<br>4-25<br>client / pl  | ABACKCHECK - V2<br>-2023  |
| DSA<br>4-25<br>client / pl  | ABACKCHECK - V2<br>-2023  |
| DSA<br>4-25<br>client / pl<br>Client / pl<br>CJU                                  | ABACKCHECK - V2<br>-2023  |
| DSA<br>4-25<br>client / pu<br>client / pu<br>OA<br>HA<br>MC<br>CJU<br>3909        | ABACKCHECK - V2<br>-2023  |
| DSA<br>4-25<br>client / pu<br>client / pu<br>OA<br>HA<br>MC<br>CJU<br>3909        | ABACKCHECK - V2<br>-2023  |
| DSA<br>4-25<br>client / pl<br>client / pl<br>CJU<br>3909                          | A BACKCHECK - V2<br>-2023   |
| DSA<br>4-25<br>client / pl<br>CJU<br>3909<br>ANT                                  | A BACKCHECK - V2<br>-2023   |
| DSA<br>4-25<br>client / pl<br>CJU<br>3909<br>ANT                                  | A BACKCHECK - V2<br>-2023   |
| DSA<br>4-25<br>client / pl<br>CJU<br>3909<br>ANT                                  | A BACKCHECK - V2<br>-2023   |
| DSA<br>4-25<br>client / pl<br>OA<br>HA<br>MC<br>CJU<br>3909<br>ANT                | ABACKCHECK - V2<br>-2023  |
| DSA<br>4-25<br>client / pl<br>OA<br>HA<br>CJU<br>3909<br>ANT<br>sheet na          | A BACKCHECK - V2<br>-2023   |
| DSA<br>4-25<br>client / pl<br>OA<br>HA<br>CJU<br>3909<br>ANT                      | A BACKCHECK - V2<br>-2023   |
| DSA<br>4-25<br>client / pl<br>Client / pl<br>OA<br>HA<br>MC<br>CJU<br>3909<br>ANT | A BACKCHECK - V2<br>-2023<br>roject<br>AK HILL ES<br>ARDSHIP<br>DDERNIZATIO<br>SD<br>DDERNIZATIO<br>SD<br>DONORTH LOOP BLVD<br>ELOPE, CA 95843<br>THE<br>CESSIBILITY AND<br>NOETAILS<br>THE         |
| DSA<br>4-25<br>client / pl<br>Client / pl<br>OA<br>HA<br>MC<br>CJU<br>3909<br>ANT | A BACKCHECK - V2<br>-2023   |
| DSA<br>4-25<br>client / pl<br>Client / pl<br>CJU<br>3909<br>ANT                   | A BACKCHECK - V2<br>-2023<br>roject<br>AK HILL ES<br>AK HILL ES<br>ARDSHIP<br>DDERNIZATIO<br>SD<br>D NORTH LOOP BLVD<br>ELOPE, CA 95843<br>TO<br>TO<br>TO<br>TO<br>TO<br>TO<br>TO<br>TO<br>TO<br>TO |









dsa IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 02-121265 INC: REVIEWED FOR SS 🔲 FLS 🗹 ACS 🗹 DATE: 05/24/2023 architect ACMARTIN ▼3009 DOUGLAS BLVD SUITE 290 ROSEVILLE CA 95661 T 916 772 1800 stamp consultant project number CA5602 project director project designer project architect revisions no. date \_\_\_\_\_ \_\_\_\_\_ project status DSA BACKCHECK - V2 4-25-2023 client / project OAK HILL ES HARDSHIP MODERNIZATION CJUSD 3909 NORTH LOOP BLVD ANTELOPE, CA 95843 sheet name **INTERIOR DETAILS** sheet number **A9.3** 5/15/2023 4:54:02 PM plot date

|                                   | R                        |
|-----------------------------------|--------------------------|
| NUMBER                            |                          |
| 4407                              |                          |
| A137<br>BUILDING A                | Room                     |
| A100<br>A101                      | MULTIPURF                |
| A101                              | ADMINISTR                |
| A103<br>A104                      | CLOSET<br>NURSE          |
| A104<br>A105                      | TOILET                   |
| A106<br>A107                      | TOILET<br>TOILET         |
| A107                              | CORRIDOR                 |
| A109<br>A110                      | PRINCIPAL<br>VICE PRINC  |
| A111                              | WORK ROO                 |
| A112<br>A113                      | STAFF LOU<br>WORK ROO    |
| A114                              | COMPUTER                 |
| A115<br>A116                      | GIRLS RR<br>BOYS RR      |
| A119                              | CORRIDOR                 |
| A122<br>A125                      | STAGE<br>KITCHEN         |
| A128                              | LIBRARY                  |
| A129<br>A129A                     | MECH<br>MECH             |
| A130                              | WORK ROO                 |
| A131<br>A132                      | ADMIN OFF                |
| A133                              | CONFEREN                 |
| A134<br>A135                      | SMALL CON                |
| A136                              | FIRE RISER               |
| BUILDING B-LAKE                   | I AHOE<br>KINDERGAF      |
| 2                                 | KINDERGAR                |
| B3<br>B4                          | READING R<br>WORK ROO    |
| B5                                | TOILET                   |
| B6<br>B7                          | TOILET<br>STORAGE        |
| BUILDING C-BODE                   |                          |
| 18<br>19                          | CLASSROO<br>CLASSROO     |
| 20<br>C4                          | CLASSROO<br>WORK ROO     |
| BUILDING D-TRINIE                 |                          |
| 15<br>16                          | CLASSROO<br>CLASSROO     |
| 17                                | CLASSROO                 |
| D4<br>BUILDING E-EMER             | WORK ROO<br>ALD BAY      |
| 3 4                               | CLASSROO                 |
| 4<br>5                            | CLASSROO<br>CLASSROO     |
| E4<br>BUILDING F-SAN F            | WORK ROO                 |
| 12                                | SDL CLASS                |
| <u>13</u><br>14                   | CLASSROO<br>RSP CLASS    |
| F4                                | WORK ROO                 |
| F5<br>F6                          | GIRLS RR<br>BOYS RR      |
| F7                                | JANITOR                  |
| BUILDING G-MONT<br>9              | CLASSROO                 |
| 10<br>11                          | CLASSROO                 |
| G4                                | CLASSROO<br>WORK ROO     |
| BUILDING H-SHAS <sup>-</sup><br>6 | TA LAKE<br>CLASSROO      |
| 7                                 | CLASSROO                 |
| 8<br>H4                           | CLASSROO<br>WORK ROO     |
| PORTABLE BUILDI                   | NGS - DRAKI              |
| 21<br>22                          | PORTABLE<br>PORTABLE     |
| PORTABLE BUILDI                   |                          |
| 23<br>24                          | PORTABLE<br>PORTABLE     |
| 25                                | PORTABLE                 |
| 26<br>27                          | PORTABLE<br>PORTABLE     |
| 28                                | PORTABLE                 |
| 29<br>I-01                        | PORTABLE<br>BOYS RR      |
| I-02<br>I-03                      | GIRLS RR<br>STAFF RR     |
| I-03<br>I-04                      | JANITOR                  |
| PORTABLE BUILDII<br>30            | NGS - TULE I<br>PORTABLE |
| 31                                | PORTABLE                 |
| 32<br>33                          | PORTABLE<br>PORTABLE     |
| 34                                | PORTABLE                 |
| 35<br>A                           | PORTABLE<br>PORTABLE     |
| B                                 | PORTABLE                 |
| С                                 | PORTABLE                 |
|                                   |                          |

| FLOOF | R   |                         |
|-------|---|-------------------------|
| F-01: | MODULAR CA<br>Manufacturer:<br>Product:<br>Color:<br>Contact: |                         |
| F-02: | MODULAR CA<br>Manufacturer:<br>Product:<br>Color:<br>Contact: | TANDUS                  |
| F-04: | (E) CERAMIC   | TILE FLOORING TO REMAIN |
| F-05: | RUBBER RES  | ILIENT FLOORING         |
|       |   |                         |

BASE B-01: RESILIENT BASE

Height: 4" Color: 63 BURNT UMBER B-02: (E) BASE TO REMAIN

|                            |                          |              | ROOM             | FINISH SCH     |                  |                  |                              |                          |                |              |
|----------------------------|--------------------------|--------------|------------------|----------------|------------------|------------------|------------------------------|--------------------------|----------------|--------------|
| ROOM<br>NAME               | FLOOR                    | BASE         | NORTH            | WAL<br>EAST    | LS<br>SOUTH      | WEST             | DOORS/TRIM                   | CEIL                     | NG<br>FINISH   | NOTES        |
|                            |                          |              |                  |                |                  |                  |                              |                          |                |              |
| URPOSE ROOM<br>CORRIDOR    | -                        | -            | -                | -              | -                | -                | -                            | -                        | -              |              |
| STRATION                   | -                        | -            | -                | -              | -                | -                | -                            | -                        | -              |              |
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| OR                         | -                        | -            | -                | -              | -                | -                | -                            | -                        | -              |              |
| PAL                        | -                        | -            | -                | -              | -                | -                | -                            | -                        | -              |              |
| ROOM                       | -                        | -            | -                | -              | -                | -                | -                            | -                        | -              |              |
| OUNGE<br>ROOM              | -<br>F-01                | -<br>B-01    | -<br>W-01, PT-01 | -<br>PT-01     | -<br>W-01, PT-01 | -<br>W-01, PT-01 | -                            | -<br>C-02, C-03          | -              | 4            |
| ER CLASSROOM               | -                        | -            | -                | -              | -                | -                | -                            | -                        | -              | 4            |
| 2                          | F-04                     | B-02         | W-02             | W-02           | W-02             | W-02             | PT-03, PT-04                 | -                        | -              | 4            |
| R<br>OR                    | F-04                     | B-02         | W-02             | W-02           | W-02             | W-02             | PT-03, PT-04<br>-            | -                        | -              | 4            |
|                            | -                        | -            | -                | -              | -                | -                | -                            | -                        | -              |              |
| <u> </u>                   |                          | -            | -                | -              | -                | -                | -                            | •                        | -              |              |
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| MOC                        | -                        | -            | -                | -              | -                | -                | -                            | -                        | -              |              |
| FF                         | -                        | -            | -                | -              | -                | -                | -                            | -                        | -              |              |
| FF<br>ENCE ROOM            | -                        | -            | -                | -              | -                | -                | -                            | -                        | -              |              |
| INCE ROOM                  | -                        | -            | -                | -              | -                | -                | -                            | -                        | -              |              |
|                            |                          |              |                  |                |                  |                  |                              |                          |                |              |
| ER                         |                          |              |                  |                |                  |                  |                              |                          |                |              |
| ARTEN CLASSROOM            | F-01, F-02               | B-01         | PT-01            | PT-01          | PT-01            | PT-01            | PT-03, PT-04                 | C-01, C-02               | PT-01          | 1, 2         |
| ARTEN CLASSROOM            | F-01, F-02               | B-01         | PT-01            | PT-01<br>-     | PT-01<br>-       | PT-01<br>-       | PT-03, PT-04<br>-            | C-01, C-02<br>-          | PT-01<br>-     | 1, 2         |
| DOM                        | -                        | -            | -                | -              | -                | -                | -                            | -                        | -              | NO WORK      |
|                            | F-04<br>F-04             | B-02<br>B-02 | W-02<br>W-02     | W-02<br>W-02   | W-02<br>W-02     | W-02<br>W-02     | PT-03, PT-04<br>PT-03, PT-04 | -                        | -              | 4            |
|                            | -                        | -            | -                | -              | -                | -                | -                            | -                        | -              | 4            |
| 014                        |                          | D.04         | DT 04            | DT 04          | DT 04            | DT 04            |                              | 0.04.0.00                | DT 04          | 4.0          |
| OM OM                      | F-01, F-02<br>F-01, F-02 | B-01<br>B-01 | PT-01<br>PT-01   | PT-01<br>PT-01 | PT-01<br>PT-01   | PT-01<br>PT-01   | PT-03, PT-04<br>PT-03, PT-04 | C-01, C-02<br>C-01, C-02 | PT-01<br>PT-01 | 1, 2<br>1, 2 |
| ОМ                         | F-01, F-02               | B-01         | PT-01            | PT-01          | PT-01            | PT-01            | PT-03, PT-04                 | C-01, C-02               | PT-01          | 1, 2         |
| OM                         | -                        | -            | -                | -              | -                | -                | -                            | -                        | -              | NO WORK      |
| ОМ                         | F-01, F-02               | B-01         | PT-01            | PT-01          | PT-01            | PT-01            | PT-03, PT-04                 | C-01, C-02               | PT-01          | 1, 2         |
| OM OM                      | F-01, F-02<br>F-01, F-02 | B-01         | PT-01<br>PT-01   | PT-01          | PT-01<br>PT-01   | PT-01            | PT-03, PT-04                 | C-01, C-02               | PT-01          | 1, 2<br>1, 2 |
| OM                         |                          | B-01         | -                | PT-01<br>-     | -                | PT-01<br>-       | PT-03, PT-04<br>-            | C-01, C-02<br>-          | PT-01          | NO WORK      |
|                            | E 04 E 00                | <b>D</b> 04  | DT 04            | DT 04          | DT 04            | DT 04            |                              | 0.01.0.00                | DT 04          |              |
| DOM                        | F-01, F-02<br>F-01, F-02 | B-01<br>B-01 | PT-01<br>PT-01   | PT-01<br>PT-01 | PT-01<br>PT-01   | PT-01<br>PT-01   | PT-03, PT-04<br>PT-03, PT-04 | C-01, C-02<br>C-01, C-02 | PT-01<br>PT-01 | 1, 2<br>1, 2 |
| DOM                        | F-01, F-02               | B-01         | PT-01            | PT-01          | PT-01            | PT-01            | PT-03, PT-04                 | C-01, C-02               | PT-01          | 1, 2         |
| DOM                        | -                        | -            | -                | -              | -                | -                | -                            | -                        | -              | NO WORK      |
| SSROOM                     | F-01, F-02               | B-01         | PT-01            | PT-01          | PT-01            | PT-01            | PT-03, PT-04                 | C-01, C-02               | PT-01          | 1, 2         |
| OOM<br>SSROOM              | F-01, F-02<br>F-01, F-02 | B-01<br>B-01 | PT-01<br>PT-01   | PT-01<br>PT-01 | PT-01<br>PT-01   | PT-01<br>PT-01   | PT-03, PT-04<br>PT-03, PT-04 | C-01, C-02<br>C-01, C-02 | PT-01<br>PT-01 | 1, 2<br>1, 2 |
| DOM                        | -                        | -            | -                | -              | -                | -                | -                            | -                        | -              | NO WORK      |
|                            | F-04<br>F-04             | B-02         | W-02<br>W-02     | W-02<br>W-02   | W-02<br>W-02     | W-02<br>W-02     | PT-04<br>PT-04               | -                        | -              | 4            |
|                            | F-04                     | B-02         | - VV-02          | - W-02         | - W-02           | - W-02           | P1-04<br>-                   | -                        | -              | <b>4</b>     |
| ,<br>                      |                          |              | DT 6 (           |                | <b>NT</b> 64     |                  |                              | 0.04.0.55                |                | 4.0          |
| OM<br>OM                   | F-01, F-02<br>F-01, F-02 | B-01<br>B-01 | PT-01<br>PT-01   | PT-01<br>PT-01 | PT-01<br>PT-01   | PT-01<br>PT-01   | PT-03, PT-04<br>PT-03, PT-04 | C-01, C-02<br>C-01, C-02 | PT-01<br>PT-01 | 1, 2         |
| ОМ                         | F-01, F-02               | B-01         | PT-01            | PT-01          | PT-01            | PT-01            | PT-03, PT-04                 | C-01, C-02               | PT-01          | 1, 2         |
| DOM                        | -                        | -            | -                | -              | -                | -                | -                            | -                        | -              | NO WORK      |
| ЮМ                         | F-01, F-02               | B-01         | PT-01            | W-01, PT-01    | PT-01            | PT-01            | PT-03, PT-04                 | C-01, C-02               | PT-01          | 1, 2, 3      |
| OM<br>OM                   | F-01, F-02               | B-01<br>B-01 | PT-01<br>PT-01   | PT-01<br>PT-01 | PT-01<br>PT-01   | PT-01<br>PT-01   | PT-03, PT-04                 | C-01, C-02               | PT-01<br>PT-01 | 1, 2<br>1, 2 |
| DOM DOM                    | F-01, F-02               | B-01         | -                | -              | -                | -                | PT-03, PT-04<br>-            | C-01, C-02<br>-          | -              | NO WORK      |
| KES BAY                    |                          |              |                  |                |                  |                  |                              |                          |                | 2            |
| E CLASSROOM<br>E CLASSROOM |                          |              | PT-01<br>PT-01   | PT-01<br>PT-01 | PT-01<br>PT-01   | PT-01<br>PT-01   | PT-04<br>PT-04               | -                        | PT-01<br>PT-01 | 2            |
| SION BAY                   |                          |              | 1                |                |                  |                  |                              |                          | 1              |              |
| E CLASSROOM<br>E CLASSROOM | -                        | -            | PT-01<br>PT-01   | PT-01<br>PT-01 | PT-01<br>PT-01   | PT-01<br>PT-01   | PT-04<br>PT-04               | -                        | PT-01<br>PT-01 | 2            |
| E CLASSROOM                | -                        | -            | PT-01            | PT-01          | PT-01            | PT-01            | PT-04                        | -                        | PT-01          | 2            |
| E CLASSROOM<br>E CLASSROOM | -                        | -            | PT-01<br>PT-01   | PT-01<br>PT-01 | PT-01<br>PT-01   | PT-01<br>PT-01   | PT-04<br>PT-04               | -                        | PT-01<br>PT-01 | 2            |
| E CLASSROOM<br>E CLASSROOM | -                        | -            | PT-01<br>PT-01   | PT-01<br>PT-01 | PT-01<br>PT-01   | PT-01<br>PT-01   | PT-04<br>PT-04               | -                        | PT-01<br>PT-01 | 2            |
| E CLASSROOM                | -                        | -            | PT-01            | PT-01          | PT-01            | PT-01            | PT-04                        | -                        | PT-01          | 2            |
|                            | -                        |              | -                | -              | -                | -                | PT-04<br>PT-04               | -                        | -              | 2            |
| R                          | -                        | -            | -                | -              | -                | -                | PT-04                        | -                        | -              | 2            |
| E LAKE                     | -                        | -            | -                | -              | -                | -                | PT-04                        | -                        | -              | 2            |
| E CLASSROOM                | -                        | -            | PT-01            | PT-01          | PT-01            | PT-01            | PT-04                        | -                        | PT-01          | 2            |
| E CLASSROOM                | -                        | -            | PT-01            | PT-01          | PT-01            | PT-01            | PT-04                        | -                        | PT-01          | 2            |
| E CLASSROOM<br>E CLASSROOM |                          |              | PT-01<br>PT-01   | PT-01<br>PT-01 | PT-01<br>PT-01   | PT-01<br>PT-01   | PT-04<br>PT-04               | -                        | PT-01<br>PT-01 | 2            |
| E CLASSROOM                | -                        | -            | PT-01            | PT-01          | PT-01            | PT-01            | PT-04                        | -                        | PT-01          | 2            |
| E CLASSROOM<br>E CLASSROOM |                          |              | PT-01            | PT-01<br>-     | PT-01<br>-       | PT-01<br>-       | PT-04<br>-                   | -                        | PT-01<br>-     | 2            |
| LE CLASSROOM               |                          |              | -                | -              | -                | -                | -                            | -                        | -              |              |

## **ROOM FINISH MATERIAL SPECIFICATION**

- Color: 75007 MINERAL SPRING Contact: https://www.tandus-centiva.com/ 800-248-2878 MODULAR CARPET TILE
- Manufacturer: TANDUS Product: ABRASIVE ACTION II (WALK-OFF)
- Color: 02578-19103 WINTER GREY Contact: https://www.tandus-centiva.com/ 800-248-2878

(E) CERAMIC TILE FLOORING TO REMAIN, DEEP CLEAN RUBBER RESILIENT FLOORING

### **CEILING MATERIALS**

WALL MATERIALS

W-01: 5/8" Gypsum Board W/ Texture to Match (E)

W-02 (E) Ceramic Tile W/ (N) Ceramic Tile over Gypsum

Board Where Indicated on Interior Elevations

## C-01: (E) Gypsum Board

C-02: (E) Lay-in Acoustic Panel Ceiling C-03: Lay-In Acoustic Panel in Suspended Metal Grid Standard Acoustic Panels Manufacturer: Armstrong Style: Ultima Square Lay-In Size: 24" x 48" x 3/4"

## FINISHES

| <b><u>PAINT</u></b><br>PT-01: | Paint - Walls & Ceilings, Typical UNO<br>Manufacturer: PPG<br>Color: TBD |
|-------------------------------|--|
| PT-02:                        | Paint - Walls & Ceilings, Restrooms<br>Manufacturer: PPG<br>Color: TBD   |
| PT-03:                        | Paint - Interior Doors & Trim<br>Manufacturer: PPG<br>Color: TBD         |
| PT-04:                        | Paint - Exterior Doors and Trim<br>Manufacturer: PPG<br>Color: TBD       |

### **CASEWORK / COUNTERTOPS**

| PL-01: | Plastic Lamina    |                            |
|--------|-------------------|----------------------------|
|        | Manufacturer:     |                            |
|        | Color:<br>Finish: | tbd                        |
|        | Finish:           | tbd                        |
| PL-02: | Plastic Lamina    | te - Countertops           |
|        | Manufacturer:     | Wilsonart                  |
|        | Color:            | 4830K-18, SATIN STAINLESS  |
|        | Finish:           | LINEARITY FINISH WITH AEON |
|        |                   |                            |

### FINISH SCHEDULE NOTES

- 1. FLOORING FINISHES NOTED ARE INCLUDED IN AI ALTERNATE #1. IF THIS ALTERNATE IS NOT
- ACCEPTED, OMIT THESE FINISHES. 2. WALL, CEILING AND DOOR PAINT FINISHES NOTED ARE INCLUDED IN ADD ALTERNATE #2. IF THIS
- ALTERNATE IS NOT ACCEPTED, OMIT THESE FINISHES. 3. WALL MATERIALS AND FINISHES AT EAST WALL ARE INCLUDED IN BASE BID.
- 4. FINISHES IN THIS ROOM ARE INCLUDED IN BASE BID.

Manufacturer: JOHNSONITE

Style: TRADITIONAL WALL BASE -

TOP SET WITH TOE

| N | ADD |
|---|-----|
|   |     |

|                  |                        |                    |                            |      | DOOR     | SCHED  | ULE                  |                      |                   |          |
|------------------|------------------------|--------------------|----------------------------|------|----------|--------|----------------------|----------------------|-------------------|----------|
|                  |                        |                    |                            |      | FRAME    |        |                      | HAI                  | RDWARE            |          |
| No.              | WIDTH                  | HEIGHT             | тнк                        | МАТ  | TYPE     | MAT    | TYPE                 | GROUP                | PANIC<br>HARDWARE | COMMENTS |
| UILDING<br>A100A | A<br>6' - 0"           | 6' - 8*            | 0' - 1 3/4*                | HM   | EXISTING | HM     | EXISTING             | 9                    | Yes               | 1,4      |
| A100B            | 6' - 0"                | 6' - 8*            | 0' - 1 3/4"                | HM   | EXISTING | HM     | EXISTING             | 9                    | Yes               | 1,4      |
| A101A            | 6' - 0"                | 6' - 8"            | 0' - 1 3/4"                | HM   | EXISTING | HM     | EXISTING             | 9                    | Yes               | 1,4      |
| A101B<br>A108A   | 6' - 0"<br>3' - 0"     | 6' - 8"<br>6' - 8" | 0' - 1 3/4"<br>0' - 1 3/4" | HM   | EXISTING | HM     | EXISTING             | 9                    | Yes               | 1,4      |
| A111A            | 3'-0"                  | 6' - 8"            | 0'-13/4"                   | HM   | EXISTING | HM     | EXISTING             | 11                   | No                | 1        |
| A112A            | 6' - 0"                | 6' - 8*            | 0' - 1 3/4"                | HM   | EXISTING | HM     | EXISTING             | 12                   | No                | 1        |
| A112B            | 3' - 0"                | 6' - 8*            | 0' - 1 3/4"                | HM   | EXISTING | HM     | EXISTING             | 1                    | No                | 1        |
| A114A<br>A115    | 3' - 0"<br>6' - 0"     | 6' - 8"<br>7' - 0" | 0' - 1 3/4"<br>0' - 1 3/4" | HM   | EXISTING | HM     | EXISTING             | 1 14                 | No<br>Yes         | 1,4      |
| A115A            | 3' - 0*                | 6" - 8"            | 0'-13/4"                   | HM   | EXISTING | HM     | EXISTING             | 2                    | No                | 1        |
| A116A            | 3' - 0"                | 6' - 8*            | 0' - 1 3/4"                | HM   | EXISTING | HM     | EXISTING             | 2C                   | No                | 1,2      |
| A117             | 3' - 0"<br>6' - 0"     | 6' - 8*            | 0' - 1 3/4"                | HM   | EXISTING | HM     | EXISTING             | 1                    | No                | 1        |
| A119A<br>A120    | 6' - 0"                | 6' - 8"<br>7' - 0" | 0' - 1 3/4"<br>0' - 1 3/4" | HM   | EXISTING | HM     | EXISTING             | 9                    | Yes<br>Yes        | 1,4      |
| A125A            | 3' - 0"                | 6' - 8*            | 0' - 1 3/4"                | HM   | EXISTING | HM     | EXISTING             | 11                   | No                | 1        |
| A128A            | 6' - 0*                | 6' - 8*            | 0' - 1 3/4"                | HM   | EXISTING | HM     | EXISTING             | 9                    | Yes               | 1,4      |
| A131             | 3' - 0"                | 6' - 8*            | 0' - 1 3/4"                | HM   | EXISTING | HM     | EXISTING             | 7                    | No                | 1        |
| A132<br>A133A    | 3' - 0"<br>3' - 0"     | 6' - 8*<br>6' - 8* | 0' - 1 3/4"<br>0' - 1 3/4" | HM   | EXISTING | HM     | EXISTING             | 7 8                  | No<br>Yes         | 1,4      |
| A134A            | 3' - 0*                | 6' - 8*            | 0' - 1 3/4"                | HM   | EXISTING | HM     | EXISTING             | 10                   | No                | 1        |
|                  | B-LAKE TAHOR           |                    |                            |      |          |        |                      |                      |                   | 1        |
| B1A<br>B1B       | 3' - 0*                | 6' - 8*            | 0' - 1 3/4"                | HM   | EXISTING | HM     | EXISTING             | EXISTING<br>1B       | No                | 3        |
| B1B<br>B2A       | 3' - 0*<br>3' - 0*     | 6' - 8"<br>6' - 8" | 0' - 1 3/4"<br>0' - 1 3/4" | HM   | EXISTING | HM     | EXISTING             | 1B<br>EXISTING       | No                | 3        |
| B2B              | 3' - 0*                | 6' - 8*            | 0' - 1 3/4"                | HM   | EXISTING | HM     | EXISTING             | 1B                   | No                | 1        |
| B5A              | 3' - 0*                | 6' - 8*            | 0' - 1 3/4*                | HM   | EXISTING | HM     | EXISTING             | 2                    | No                | 1        |
| B6A<br>B7        | 3' - 0*                | 6' - 8*            | 0' - 1 3/4"                | HM   | EXISTING | HM     | EXISTING             | 2                    | No                | 1        |
| B7<br>BUILDING   | 3' - 0"<br>C-BODEGA BA | 6' - 8"<br>Y       | 0' - 1 3/4*                | HM   | EXISTING | HM     | EXISTING             | 3                    | No                | 11       |
| C4               | 3' - 0"                | 6' - 8"            | 0' - 1 3/4*                | HM   | EXISTING | HM     | EXISTING             | EXISTING             | No                | 3        |
| C18A             | 3' - 0"                | 6' - 8*            | 0' - 1 3/4"                | HM   | EXISTING | HM     | EXISTING             | EXISTING             | No                | 3        |
| C18B             | 3' - 0*                | 6' - 8"            | 0' - 1 3/4"                | HM   | EXISTING | HM     | EXISTING             | 1B                   | No                | 1        |
| C19A<br>C20A     | 3' - 0*                | 6' - 8"<br>6' - 8" | 0' - 1 3/4"<br>0' - 1 3/4" | HM   | EXISTING | HM     | EXISTING             | 1<br>EXISTING        | No                | 3        |
| C20B             | 3'-0"                  | 6'-8"              | 0'-13/4"                   | HM   | EXISTING | HM     | EXISTING             | 1B                   | No                | 1        |
|                  | D-TRINIDAD B           | AY                 |                            |      |          |        |                      |                      |                   |          |
| D4               | 3' - 0"                | 6' - 8"            | 0' - 1 3/4"                | HM   | EXISTING | HM     | EXISTING             | EXISTING             | No                | 3        |
| D15A             | 3' - 0*                | 6' - 8"            | 0' - 1 3/4"                | HM   | EXISTING | HM     | EXISTING             | EXISTING<br>1        | No                | 3        |
| D15B<br>D16A     | 3'-0"                  | 6' - 8"<br>6' - 8" | 0' - 1 3/4"<br>0' - 1 3/4" | HM   | EXISTING | HM     | EXISTING             | 1                    | No                | 1        |
| D17A             | 3' - 0*                | 6' - 8"            | 0' - 1 3/4"                | HM   | EXISTING | HM     | EXISTING             | EXISTING             | No                | 3        |
| D17B             | 3' - 0*                | 6' - 8"            | 0' - 1 3/4*                | HM   | EXISTING | HM     | EXISTING             | 1B                   | No                | 1        |
|                  | E-EMERALD B            |                    | 0. 4 0.45                  |      | EVICTING |        | EVICTING             |                      | No                |          |
| E3A<br>E4        | 3' - 0*                | 6' - 8"<br>6' - 8" | 0' - 1 3/4"<br>0' - 1 3/4" | HM   | EXISTING | HM     | EXISTING             | EXISTING             | No                | 3        |
| E4A              | 3' - 0"                | 6' - 8"            | 0' - 1 3/4"                | HM   | EXISTING | HM     | EXISTING             | 1                    | No                | 1        |
| E5A              | 3' - 0*                | 6' - 8"            | 0' - 1 3/4"                | HM   | EXISTING | HM     | EXISTING             | 1                    | No                | 1        |
|                  | F-SAN FRANC            | 1                  | 0. 4 0.48                  |      | 5107010  |        | EVICE THIS           | <u> </u>             |                   |          |
| F5<br>F6         | 3' - 0*                | 6' - 8"<br>6' - 8" | 0' - 1 3/4"<br>0' - 1 3/4" | HM   | EXISTING | HM     | EXISTING<br>EXISTING | 2                    | No                | 1        |
| F7               | 3'-0"                  | 6'-8"              | 0'-13/4"                   | HM   | EXISTING | HM     | EXISTING             | 5                    | No                | 1        |
| F12A             | 3' - 0*                | 6' - 8"            | 0' - 1 3/4"                | HM   | EXISTING | HM     | EXISTING             | EXISTING             | No                | 3        |
| F12B             | 3' - 0*                | 6' - 8"            | 0' - 1 3/4"                | HM   | EXISTING | HM     | EXISTING             | 1B                   | No                | 1        |
| F13A             | 3' - 0"                | 6' - 8"            | 0' - 1 3/4"                | HM   | EXISTING | HM     | EXISTING             |                      | No                | 1        |
| F14A<br>F14B     | 3' - 0*                | 6' - 8"<br>6' - 8" | 0' - 1 3/4"<br>0' - 1 3/4" | HM   | EXISTING | HM     | EXISTING             | EXISTING<br>EXISTING | No                | 3        |
|                  | G-MONTEREY             | 1 1                | 0 101                      |      | Ductate  |        | Loternite            | Litterinte           |                   | ÷        |
| G4               | 3' - 0"                | 6' - 8"            | 0' - 1 3/4*                | HM   | EXISTING | HM     | EXISTING             | EXISTING             | No                | 3        |
| G9A<br>G9B       | 3' - 0"                | 6' - 8"            | 0' - 1 3/4"                | HM   | EXISTING | HM     | EXISTING             | EXISTING<br>1B       | No                | 3        |
| G9B<br>G10A      | 3' - 0*                | 6' - 8"<br>6' - 8" | 0' - 1 3/4"<br>0' - 1 3/4" | HM   | EXISTING | HM     | EXISTING             | 1B<br>1              | No                | 1        |
| G11A             | 3'-0"                  | 6' - 8"            | 0'-13/4"                   | HM   | EXISTING | HM     | EXISTING             | EXISTING             | No                | 3        |
| G11B             | 3' - 0"                | 6' - 8"            | 0' - 1 3/4*                | HM   | EXISTING | HM     | EXISTING             | 1B                   | No                | 1        |
|                  | H-SHASTA LA            |                    | 0/ 4 9/4*                  | LIN  | EVICTING | UN     | EVICTING             | 40                   | No                | 1        |
| H4<br>H6A        | 3' - 0"<br>3' - 0"     | 6' - 8"<br>6' - 8" | 0' - 1 3/4"                | HM   | EXISTING | HM     | EXISTING             | 10                   | No<br>No          | 1        |
| H7A              | 3' - 0"                | 6' - 8"            | 0' - 1 3/4"                | HM   | EXISTING | HM     | EXISTING             | 1                    | No                | 1        |
| H8A              | 3' - 0"                | 6' - 8"            | 0' - 1 3/4"                | HM   | EXISTING | HM     | EXISTING             | 1                    | No                | 1        |
| 21A              | BUILDINGS -<br>3' - 0" | DRAKES BAY         | 0' - 1 3/4"                | НМ   | EXISTING | НМ     | EXISTING             | 1B                   | No                | 1        |
| 21A<br>22A       | 3' - 0"                | 7' - 0"            | 0' - 1 3/4"                | HM   | EXISTING | HM     | EXISTING             | 1B<br>1B             | No                | 1        |
| PORTABLE         | BUILDINGS -            | MISSION BAY        |                            |      |          |        |                      |                      |                   |          |
| 23A              | 3' - 0"                | 7' - 0"            | 0' - 1 3/4"                | HM   | EXISTING | HM     | EXISTING             | 1B                   | No                | 1        |
| 24A<br>25A       | 3' - 0"<br>3' - 0"     | 7' - 0"<br>7' - 0" | 0' - 1 3/4"<br>0' - 1 3/4" | HM   | EXISTING | HM     | EXISTING             | 1B<br>1B             | No<br>No          | 1        |
| 25A<br>26A       | 3' - 0"                | 7' - 0"            | 0' - 1 3/4"                | HM   | EXISTING | HM     | EXISTING             | 1B<br>1B             | No                | 1        |
| 27A              | 3' - 0"                | 7' - 0"            | 0' - 1 3/4"                | HM   | EXISTING | HM     | EXISTING             | 1B                   | No                | 1        |
| 28A              | 3' - 0"                | 7' - 0"            | 0' - 1 3/4"                | HM   | EXISTING | HM     | EXISTING             | 1B                   | No                | 1        |
| 29A              | 3' - 0"<br>3' - 0"     | 7' - 0"<br>7' - 0" | 0' - 1 3/4"<br>0' - 1 3/4" | HM   | EXISTING | HM     | EXISTING             | 1B<br>1              | No                | 1        |
| RRA<br>RRB       | 3' - 0"                | 7' - 0"<br>7' - 0" | 0' - 1 3/4"<br>0' - 1 3/4" | HM   | EXISTING | HM     | EXISTING             | 1 5                  | No                | 1        |
| RRC              | 3' - 0"                | 7' - 0"            | 0' - 1 3/4"                | HM   | EXISTING | HM     | EXISTING             | 15                   | No                | 1        |
| RRD              | 3' - 0"                | 7' - 0"            | 0' - 1 3/4"                | HM   | EXISTING | HM     | EXISTING             | 1                    | No                | 1        |
|                  | BUILDINGS -            |                    | 01 4 0745                  | 1114 | EVICTING | 1.00.4 | EVICTING             | 40                   | AL-               | 1        |
| 30A<br>31A       | 3' - 0"<br>3' - 0"     | 7' - 0"<br>7' - 0" | 0' - 1 3/4"<br>0' - 1 3/4" | HM   | EXISTING | HM     | EXISTING             | 1B<br>1B             | No<br>No          | 1        |
| 32A              | 3'-0"                  | 7' - 0"            | 0' - 1 3/4"                | HM   | EXISTING | HM     | EXISTING             | 1B<br>1B             | No                | 1        |
| 33A              | 3' - 0"                | 7' - 0"            | 0' - 1 3/4"                | HM   | EXISTING | HM     | EXISTING             | 1B                   | No                | 1        |
| 34A              | 3' - 0"                | 7' - 0"            | 0' - 1 3/4"                | HM   | EXISTING | HM     | EXISTING             | 1B                   | No                | 1        |
| 35A              | 3' - 0"                | 7' - 0"            | 0' - 1 3/4"                | HM   | EXISTING | HM     | EXISTING             | 1B<br>7              | No                | 1        |
| A1<br>B1         | 3' - 0"<br>3' - 0"     | 7' - 0"<br>7' - 0" | 0' - 1 3/4"<br>0' - 1 3/4" | HM   | EXISTING | HM     | EXISTING             | 7                    | No                | 1        |
|                  | 3'-0"                  | 7'-0"              | 0' - 1 3/4"                | HM   | EXISTING | HM     | EXISTING             | 7                    | No                | 1.       |

### DOOR SCHEDULE COMMENTS

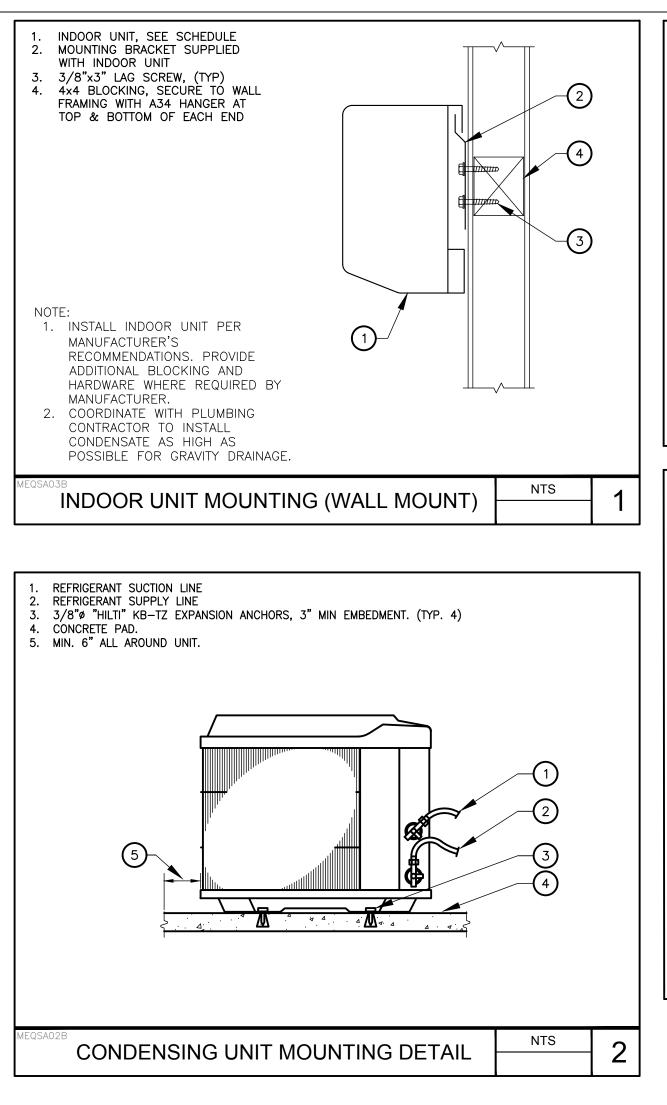
(E) DOOR, FRAME AND HINGES TO REMAIN. REMOVE AND REPLACE BALANCE OF HARDWARE PER HARDWARE SET.
 REMOVE (E) THRESHOLD AND PROVIDE (N). SEE DETAIL 15 / A9.3

GROUP # LISTED AS "EXISTING" DOOR/HARDWARE. NO WORK AT THIS DOOR.
 DOOR WITH PANIC HARDWARE. SEE SPEC SECTION 08 7100

### DOOR SCHEDULE ABBREVIATIONS

- AL ALUMINUM CLR CLEAR
- DBL DUAL GLAZED INSULATED EXIST EXISTING FR FIRE RATED
- GL GLASS
- HM HOLLOW METAL PLAM PLASTIC LAMINATE FACE ON SOLID CORE WOOD PR PAIR
- SCW SOLID CORE WOOD T TEMPERED GLASS WD WOOD

| OUGLAS BLVD SUITE 290<br>ILLE CA 95661 T 916 772 1800  |
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| OUTDOOR UNIT SCHEDULE   |   |  |  |  |
|---|---|--|--|--|
| NUMBER  | ODU-A1  |  |  |  |
| TYPE  | PROPELLER FAN   |  |  |  |
| MOUNTING<br>MCA/MOCP  | SLAB<br>7 / 15  |  |  |  |
| VOLTS/PHASE   | 208/1   |  |  |  |
| COOLING CAP. (MBH)  | 9.0   |  |  |  |
| AMB. TEMP. (°F)<br>CONDENSER COIL ROWS  | 95  |  |  |  |
| SERVICE   | IDU-A1  |  |  |  |
| ACCESSORIES<br>OPER. WT. (LBS.)   | SEE NOTES   |  |  |  |
|   | 100   |  |  |  |
| MANUFACTURER  | MITSUBISHI  |  |  |  |
| MODEL   | MUY-GL09NA  |  |  |  |
| SWITCH.<br>2. MOUNT UNIT PER DETAIL 2,  | /MO.1.  |  |  |  |
|   |   |  |  |  |
| 2. MOUNT UNIT PER DETAIL 2,   |   |  |  |  |
| 2. MOUNT UNIT PER DETAIL 2,<br>INDOOR UNIT<br>NUMBER  | SCHEDULE<br>IDU-A1  |  |  |  |
| 2. MOUNT UNIT PER DETAIL 2,<br>INDOOR UNIT<br>NUMBER<br>TYPE  | SCHEDULE<br>IDU-A1<br>WALL  |  |  |  |
| 2. MOUNT UNIT PER DETAIL 2,<br>INDOOR UNIT<br>NUMBER<br>TYPE<br>MOUNTING<br>MCA/MOCP  | SCHEDULE<br>IDU-A1<br>WALL<br>ON WALL<br>1 / 15   |  |  |  |
| 2. MOUNT UNIT PER DETAIL 2,<br>INDOOR UNIT<br>NUMBER<br>TYPE<br>MOUNTING<br>MCA/MOCP<br>VOLTS/PHASE   | SCHEDULE<br>IDU-A1<br>WALL<br>ON WALL<br>1 / 15<br>208/1  |  |  |  |
| 2. MOUNT UNIT PER DETAIL 2,<br>INDOOR UNIT<br>NUMBER<br>TYPE<br>MOUNTING<br>MCA/MOCP<br>VOLTS/PHASE<br>DRIVE  | SCHEDULE<br>IDU-A1<br>WALL<br>ON WALL<br>1 / 15   |  |  |  |
| 2. MOUNT UNIT PER DETAIL 2,<br>INDOOR UNIT<br>NUMBER<br>TYPE<br>MOUNTING<br>MCA/MOCP<br>VOLTS/PHASE<br>DRIVE<br>CFM<br>OUTSIDE AIR (CFM)  | IDU-A1<br>IDU-A1<br>WALL<br>ON WALL<br>1 / 15<br>208/1<br>DIRECT<br>201<br>0  |  |  |  |
| 2. MOUNT UNIT PER DETAIL 2,<br>INDOOR UNIT<br>NUMBER<br>TYPE<br>MOUNTING<br>MCA/MOCP<br>VOLTS/PHASE<br>DRIVE<br>CFM<br>OUTSIDE AIR (CFM)<br>EADB / EAWB (*F)  | SCHEDULE<br>IDU-A1<br>WALL<br>ON WALL<br>1 / 15<br>208/1<br>DIRECT<br>201<br>0<br>80 / 67   |  |  |  |
| 2. MOUNT UNIT PER DETAIL 2,<br>INDOOR UNIT<br>NUMBER<br>TYPE<br>MOUNTING<br>MCA/MOCP<br>VOLTS/PHASE<br>DRIVE<br>CFM<br>OUTSIDE AIR (CFM)<br>EADB / EAWB (*F)<br>TOTAL CAPACITY (MBH)  | IDU-A1<br>IDU-A1<br>WALL<br>ON WALL<br>1 / 15<br>208/1<br>DIRECT<br>201<br>0  |  |  |  |
| 2. MOUNT UNIT PER DETAIL 2,<br>INDOOR UNIT<br>NUMBER<br>TYPE<br>MOUNTING<br>MCA/MOCP<br>VOLTS/PHASE<br>DRIVE<br>CFM<br>OUTSIDE AIR (CFM)<br>EADB / EAWB (*F)<br>TOTAL CAPACITY (MBH)<br>SEER<br>FILTER EFFICIENCY   | IDU-A1           WALL           ON WALL           1 / 15           208/1           DIRECT           201           0           80 / 67           9.0           24.6           30%  |  |  |  |
| 2. MOUNT UNIT PER DETAIL 2,<br>INDOOR UNIT<br>NUMBER<br>TYPE<br>MOUNTING<br>MCA/MOCP<br>VOLTS/PHASE<br>DRIVE<br>CFM<br>OUTSIDE AIR (CFM)<br>EADB / EAWB (*F)<br>TOTAL CAPACITY (MBH)<br>SEER<br>FILTER EFFICIENCY<br>SERVICE                                    | SCHEDULE           IDU-A1           WALL           ON WALL           1 / 15           208/1           DIRECT           201           0           80 / 67           9.0           24.6           30%           WORK ROOM                     |  |  |  |
| 2. MOUNT UNIT PER DETAIL 2,<br>INDOOR UNIT<br>NUMBER<br>TYPE<br>MOUNTING<br>MCA/MOCP<br>VOLTS/PHASE<br>DRIVE<br>CFM<br>OUTSIDE AIR (CFM)<br>EADB / EAWB (*F)<br>TOTAL CAPACITY (MBH)<br>SEER<br>FILTER EFFICIENCY   | IDU-A1           WALL           ON WALL           1 / 15           208/1           DIRECT           201           0           80 / 67           9.0           24.6           30%  |  |  |  |
| 2. MOUNT UNIT PER DETAIL 2,<br>INDOOR UNIT<br>NUMBER<br>TYPE<br>MOUNTING<br>MCA/MOCP<br>VOLTS/PHASE<br>DRIVE<br>CFM<br>OUTSIDE AIR (CFM)<br>EADB / EAWB (*F)<br>TOTAL CAPACITY (MBH)<br>SEER<br>FILTER EFFICIENCY<br>SERVICE<br>ACCESSORIES<br>OPER. WT. (LBS.) | IDU-A1           WALL           ON WALL           1 / 15           208/1           DIRECT           201           0           80 / 67           9.0           24.6           30%           WORK ROOM           SEE NOTES           50       |  |  |  |
| 2. MOUNT UNIT PER DETAIL 2,<br>INDOOR UNIT<br>NUMBER<br>TYPE<br>MOUNTING<br>MCA/MOCP<br>VOLTS/PHASE<br>DRIVE<br>CFM<br>OUTSIDE AIR (CFM)<br>EADB / EAWB (*F)<br>TOTAL CAPACITY (MBH)<br>SEER<br>FILTER EFFICIENCY<br>SERVICE<br>ACCESSORIES                     | SCHEDULE           IDU-A1           WALL           ON WALL           1 / 15           208/1           DIRECT           201           0           80 / 67           9.0           24.6           30%           WORK ROOM           SEE NOTES |  |  |  |

PROVIDE WIRED WALL MOUNTED CONTROLLER.

INDOOR UNIT POWERED FROM OUTDOOR UNIT.

ELECTRICAL CONTRACTOR TO PROVIDE

. MOUNT UNIT PER DETAIL 1/MO.1.

DISCONNECT SWITCH.

| SYMBOL  | ITEM   | ABBR.   |  |  |  |  |
|---|--|---------|--|--|--|--|
|   | SUPPLY AIR   | SA      |  |  |  |  |
|   | RETURN AIR   | RA      |  |  |  |  |
|   | EXHAUST AIR  | EA      |  |  |  |  |
|   | OUTSIDE AIR  | OSA     |  |  |  |  |
|   | TRANSFER AIR   | TA      |  |  |  |  |
| 1<br>M-2  | DETAIL DESIGNATION<br>DETAIL NUMBER<br>SHEET NO. WHERE SHOWN |         |  |  |  |  |
| AC<br>1   | EQUIPMENT DESIGNATION<br>UNIT ABBREVIATION<br>NUMBER         |         |  |  |  |  |
| GRILLE DESIGNATION<br>A 10×10-3<br>FIRE DAMPER WHERE REQ'D<br>CFM |  |         |  |  |  |  |
| <u> </u>  | ACOUSTIC LINED DUCT  | L       |  |  |  |  |
|   | TURNING VANES  | TV      |  |  |  |  |
|   | DUCT FLEXIBLE CONNECTION                                     |         |  |  |  |  |
| £ X   | DUCT RISER   |         |  |  |  |  |
| <u>í</u> X  | DUCT DROP  |         |  |  |  |  |
| <u>/</u> ]9   | RECTANGULAR TO ROUND FITTING                                 |         |  |  |  |  |
|   | VOLUME CONTROL DAMPER  | VD      |  |  |  |  |
|   | FIRE DAMPER W/ ACCESS  | FD      |  |  |  |  |
| FSD   | FIRE SMOKE DAMPER W/ ACCESS                                  | FSD     |  |  |  |  |
| /\/\/\/\/   | OPPOSED BLADE DAMPER   | OBD     |  |  |  |  |
| /////   | BACKDRAFT DAMPER   | BDD     |  |  |  |  |
| M   | MOTORIZED DAMPER   |         |  |  |  |  |
| Ū   | THERMOSTAT @ +48" AFF  | T-STAT  |  |  |  |  |
| <u> </u>  | SENSOR @ +48" AFF  |         |  |  |  |  |
|   | TIMECLOCK @ +48" AFF   |         |  |  |  |  |
| TCP   | TEMPERATURE CONTROL PANEL                                    | TCP     |  |  |  |  |
| \$D   | DUCT SMOKE DETECTOR  | SD      |  |  |  |  |
| <b></b> 0   | PIPE RISER/DROP  | (R)/(D) |  |  |  |  |
|   | ABOVE FINISHED FLOOR   | AFF     |  |  |  |  |
|   | UNLESS OTHERWISE NOTED                                       | UON     |  |  |  |  |
|   | TYPICAL  | (TYP)   |  |  |  |  |
|   | BOTTOM OF DUCT   | BOD     |  |  |  |  |
|   | UNDERCUT DOOR 3/4"   | UCD     |  |  |  |  |
|   | NEW  | (N)     |  |  |  |  |
|   | EXISTING   | (E)     |  |  |  |  |
|   | POINT OF DIS/CONNECTION                                      | POD/PC  |  |  |  |  |

| EQUIPMENT ANCHORAGE NOTES  |
|--|
| ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCI<br>INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUM<br>FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE F<br>DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2022 CBC SECTIONS 16<br>THROUGH 1617A.1.26 AND ASCE 7–16 CHAPTERS 13, 26 AND 30.                                      |
| <ol> <li>ALL PERMANENT EQUIPMENT AND COMPONENTS.</li> <li>TEMPORARY, MOVABLE OR MOBILE EQUIPMENT THAT IS PERMANEN<br/>ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES<br/>ELECTRICITY, GAS OR WATER. "PERMANENTLY ATTACHED" SHALL IN<br/>ELECTRICAL CONNECTIONS EXCEPT PLUGS FOR 110/220 VOLT RE<br/>HAVING A FLEXIBLE CABLE.</li> </ol>                         |
| 3. TEMPORARY, MOVABLE OR MOBILE EQUIPMENT WHICH IS HEAVIER<br>POUNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE<br>ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE<br>IS REQUIRED TO BE RESTRAINED IN A MANNER APPROVED BY DS   |
| THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POS<br>ATTACHED TO THE STRUCTURE BUT NEED NOT DEMONSTRATE DESIGN COMP<br>THE REFERENCES NOTED ABOVE. THESE COMPONENTS SHALL HAVE FLEXIBLI<br>CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTV<br>AND CONDUIT. FLEXIBLE CONNECTIONS MUST ALLOW MOVEMENT IN BOTH TR<br>AND LONGITUDINAL DIRECTIONS: |
| <ul> <li>A. COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CLMASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT.</li> <li>B. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.</li> </ul>              |
| THE ANCHORAGE OF ALL MECHANICAL, ELECTRICAL AND PLUMBING COMPONI<br>BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL<br>RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILIT<br>ACCEPTANCE BY DSA. THE PROJECT INSPECTOR WILL VERIFY THAT ALL CO<br>AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQU                              |
|  |
| PIPING AND DUCTWORK DISTRIBUTION SYSTEM<br>BRACING NOTES   |
| PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRA<br>COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7–1<br>13.3 AS DEFINED IN ASCE 7–16 SECTIONS 13.6.5, 13.6.6, 13.6.7, 13.6.8;<br>CBC, SECTIONS 1617A.1.24, 1617A.1.25 AND 1617A.1.26.   |
| THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE<br>IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW. WHEN BRACING A<br>ATTACHMENTS ARE BASED ON A PRE-APPROVED INSTALLATION GUIDE (E.G.,<br>FOR 2013 CBC OR LATER), COPIES OF THE BRACING SYSTEM INSTALLATION  |

AND BRACE LOADS. DISTRIBUTION SYSTEMS (E): MP MD PP E OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT

□ □ □ □ (OPM#) #0043−13.

### EQUIPMENT ANCHORAGE NOTES

MBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND ETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. THE NTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND EMENTS PRESCRIBED IN THE 2022 CBC SECTIONS 1617A.1.18 AND ASCE 7-16 CHAPTERS 13, 26 AND 30.

NENT EQUIPMENT AND COMPONENTS. MOVABLE OR MOBILE EQUIPMENT THAT IS PERMANENTLY E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS GAS OR WATER. "PERMANENTLY ATTACHED" SHALL INLUDE ALL CONNECTIONS EXCEPT PLUGS FOR 110/220 VOLT RECEPTACLES

FLEXIBLE CABLE. MOVABLE OR MOBILE EQUIPMENT WHICH IS HEAVIER THAN 400 HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE LOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT TO BE RESTRAINED IN A MANNER APPROVED BY DSA.

IANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY RUCTURE BUT NEED NOT DEMONSTRATE DESIGN COMPLIANCE WITH ED ABOVE. THESE COMPONENTS SHALL HAVE FLEXIBLE D BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, E CONNECTIONS MUST ALLOW MOVEMENT IN BOTH TRANSVERSE RECTIONS:

WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER OF TED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF DIRECTLY SUPPORT THE COMPONENT. WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE

ALL MECHANICAL, ELECTRICAL AND PLUMBING COMPONENTS SHALL APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL E OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.

### AND DUCTWORK DISTRIBUTION SYSTEM BRACING NOTES

ND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO DRCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-16 SECTION ASCE 7-16 SECTIONS 13.6.5, 13.6.6, 13.6.7, 13.6.8; AND 2022 A.1.24, 1617A.1.25 AND 1617A.1.26.

WING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE ON SYSTEM ARE AS NOTED BELOW. WHEN BRACING AND ASED 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

MECHANICAL PIPING (MP), MECHANICAL DUCTS (MD), PLUMBING PIPING (PP), ELECTRICAL

[X] [X] [] [] SPECIFIC NOTES AND DETAILS. MP MD PP E OPTION 2: SHALL COMPLY WITH THE APPLICABLE HCAI PRE-APPROVAL

### MECHANICAL SPECIFICATIONS

A. THIS CONTRACTOR SHALL COMPLY WITH ALL CODES AND REGULATIONS IN EFFECT AT THE JOB SITE, INCLUDING, BUT NOT LIMITED TO: A.1. 2022 CALIFORNIA BUILDING CODE

A.2. 2022 CALIFORNIA MECHANICAL CODE

A.3. 2022 CALIFORNIA PLUMBING CODE A.4. 2022 CALIFORNIA ELECTRICAL CODE

- A.5. 2022 CALIFORNIA GREEN BUILDING STANDARDS A.6. 2022 CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARDS - TITLE 24
- A.7. NATIONAL FIRE PROTECTION ASSOCIATION A.8. CALIFORNIA STATE FIRE MARSHAL
- B. ALL MATERIALS AND EQUIPMENT INSTALLED UNDER THIS CONTRACT SHALL BE GUARANTEED FREE FROM ALL
- MECHANICAL, ELECTRICAL AND WORKMANSHIP DEFECTS FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ALL DAMAGED ITEMS INSTALLED UNDER THIS CONTRACT WITHOUT ADDITIONAL COST TO OWNER.
- C. THE MECHANICAL CONTRACTOR SHALL PROVIDE THE OWNER COPIES OF OPERATION, MAINTENANCE AND PREVENTATIVE MAINTENANCE MANUALS FOR EACH MODEL AND TYPE OF MECHANICAL EQUIPMENT. . CHECK AND VERIFY EXISTING CONDITIONS AT THE JOB SITE BEFORE BEGINNING WORK. ADJUST THE LOCATION AND
- CONFIGURATION OF THE WORK NECESSARY TO SUIT ACTUAL CONDITIONS AND OTHER TRADES. ANY CHANGES REQUIRED MUST FIRST BE APPROVED BY THE ARCHITECT OR ENGINEER. . THE LOCATIONS OF EQUIPMENT, PIPING, DUCTWORK AND SYSTEMS SHOWN ON THE DRAWINGS ARE DIAGRAMMATIC AND SHALL BE FOLLOWED AS CLOSELY AS POSSIBLE. CHANGES REQUIRED TO SUIT EXISTING CONDITIONS AND DUE TO
- COORDINATION WITH OTHER TRADES SHALL BE MADE AT NO EXTRA COST TO THE OWNER. SUBMIT MANUFACTURER'S PRODUCT DATA INCLUDING NAME OF MANUFACTURER, TRADE NAME, MODEL, CAPACITY, OPTIONS, DIMENSIONS, WEIGHTS, INSTALLATION AND STARTUP DATA. EQUIPMENT PERFORMANCES SCHEDULED ARE
- MINIMUM CAPACITY, AIR FLOW, EFFICIENCY, ETC. REQUIRED. WEIGHTS AND ELECTRICAL DATA SCHEDULED IS MAXIMUM AVAILABLE OR ALLOWABLE. . ALL EQUIPMENT IS TO BE INSTALLED AS RECOMMENDED BY THE MANUFACTURER. USING ALL ACCESSORY EQUIPMENT
- AVAILABLE FROM THE MANUFACTURER FOR SUPPORTS, CONTROLS, ETC., TO MAKE A COMPLETE SYSTEM. ALL EQUIPMENT OR ACCESSORIES NEEDED AND NOT SHOWN OR SPECIFIED SHALL BE FURNISHED AND INSTALLED BY THIS CONTRACTOR. ADJUST THE EQUIPMENT FOR PROPER OPERATION, CHECK ALL CONTROLS AND VERIFY THAT ALL SAFETY DEVICES ARE FUNCTIONING PROPERLY. PROVIDE ACCESS DOORS WHERE ACCESS THROUGH FLOORS, WALLS OR CEILINGS IS REQUIRED TO ACCESS MECHANICAL
- CONTROL SYSTEM COMPONENTS, FIRE/SMOKE DAMPERS, SMOKE DETECTORS, ETC., OR OTHER SYSTEMS REQUIRING ACCESS FOR MAINTENANCE, TESTING OR OBSERVATION. COORDINATE THE EXACT TYPE AND LOCATION OF ACCESS DOORS TO PROVIDE PROPER ACCESS TO THE ITEM CONCEALED.
- CHECK ALL PIPE AND DUCTWORK FOR LEAKS AND EXCESSIVE AIR LOSS AND NOISE. CORRECT ANY DEFICIENCIES AS SOON AS DISCOVERED. OPERATE THE SYSTEMS AS A TEST AND DEMONSTRATE TO THE OWNER AND ARCHITECT OR ENGINEER THAT THE SYSTEM IS FUNCTIONING PROPERLY.
- . GALVANIZED STEEL DUCTS SHALL BE ASTM A 653/A 653M GALVANIZED STEEL SHEET, FORMING STEEL (FS) DESIGNATION, WITH G90/Z275 ZINC COATING.
- . FABRICATE, SUPPORT AND SEAL DUCTWORK IN ACCORDANCE WITH SMACNA HVAC DUCT CONSTRUCTION STANDARDS -METAL AND FLEXIBLE, AND AS INDICATED. PROVIDE DUCT MATERIAL, GAGES, REINFORCING, AND SEALING FOR 4" STATIC PRESSURE UPSTREAM OF TERMINAL UNITS (VAV, CAV BOXES) AND 2" STATIC PRESSURE DOWNSTREAM OF TERMINAL UNITS (VAV, CAV BOXES).
- CONSTRUCT DUCTWORK T'S, BENDS, AND ELBOWS WITH RADIUS OF NOT LESS THAN 1-1/2 TIMES WIDTH OF DUCT ON CENTERLINE. WHERE NOT POSSIBLE RECTANGULAR ELBOWS MUST BE USED, PROVIDE AIR FOIL TURNING VANES. WHERE ACOUSTICAL LINING IS INDICATED, PROVIDE TURNING VANES OF PERFORATED METAL WITH GLASS FIBER INSULATION.
- M. COMBINATION FIRE AND SMOKE DAMPERS SHALL MEET THE REQUIREMENTS OF NFPA 90A, UL 555, UL 555S, AND AS INDICATED. PROVIDE FACTORY SLEEVE AND COLLAR FOR EACH DAMPER. N. ALL INSULATION AND LINER PRODUCTS SURFACE BURNING CHARACTERISTICS: FLAME SPREAD/SMOKE DEVELOPED INDEX
- OF 25/50, MAXIMUM, WHEN TESTED IN ACCORDANCE WITH ASTM E 84, NFPA 255, OR UL 723. O. DUCT INSULATION BLANKET (INTERIOR APPLICATIONS): 0.1. INSULATION: ASTM C553; FLEXIBLE, NONCOMBUSTIBLE BLANKET. 'K' ('KSI') VALUE: 0.31 AT 75 DEGREES F (0.045
- AT 24 DEGREES C), WHEN TESTED IN ACCORDANCE WITH ASTM C 518. MAXIMUM SERVICE TEMPERATURE: 250 DEGREES F (121 DEGREES C). MAXIMUM MOISTURE ABSORPTION: 0.20 PERCENT BY VOLUME. DUCT APPLICATION: 2" THICK, 3/4 LB. DENSITY. 0.2. VAPOR BARRIER JACKET: KRAFT PAPER WITH GLASS FIBER YARN AND BONDED TO ALUMINIZED FILM. MOISTURE
- VAPOR TRANSMISSION: ASTM E 96; 0.02 PERM. SECURE WITH PRESSURE SENSITIVE TAPE. P. DUCT INSULATION BOARD (EXTERIOR APPLICATIONS):
- P.1. INSULATION: ASTM C 612; RIGID, NONCOMBUSTIBLE BLANKET. 'K' ('KSI') VALUE: 0.24 AT 75 DEGREES F (0.036 AT 24 DEGREES C), WHEN TESTED IN ACCORDANCE WITH ASTM C 518. MAXIMUM SERVICE TEMPERATURE: 250 DEGREES F (121 DEGREES C). MAXIMUM MOISTURE ABSORPTION: 0.20 PERCENT BY VOLUME. DENSITY: 3.0 LB/CU FT (48 KG/CU M).
- P.2. VAPOR BARRIER JACKET: KRAFT PAPER WITH GLASS FIBER YARN AND BONDED TO ALUMINIZED FILM. MOISTURE VAPOR TRANSMISSION: ASTM E 96; 0.04 PERM. SECURE WITH PRESSURE SENSITIVE TAPE. P.3. ALUMINUM JACKET: ASTM B 209 (ASTM B 209M). THICKNESS: 0.016 INCH (0.40 MM) SHEET. FINISH: SMOOTH.
- JOINING: LONGITUDINAL SLIP JOINTS AND 2 INCH (50 MM) LAPS. FITTINGS: 0.016 INCH (0.4 MM) THICK DIE SHAPED FITTING COVERS WITH FACTORY ATTACHED PROTECTIVE LINER. METAL JACKET BANDS: 3/8 INCH (10 MM) WIDE; 0.015 INCH (0.38 MM) THICK ALUMINUM. Q. DUCT LINER:
- Q.1. INSULATION: INCOMBUSTIBLE GLASS FIBER COMPLYING WITH ASTM C 1071; FLEXIBLE BLANKET; WITH ACRYLIC POLYMER SHOWN TO BE FUNGUS AND BACTERIA RESISTANT BY TESTING TO ASTM G 21 IMPREGNATED SURFACE AND EDGE COAT. APPARENT THERMAL CONDUCTIVITY: MAXIMUM OF 0.31 AT 75 DEGREES F (0.045 AT 24 DEGREES C). DUCT APPLICATION: 1-1/2" THICK, 1-1/2 POUND DENSITY. SERVICE TEMPERATURE: UP TO 250 DEGREES F (121 DEGREES C). RATED VELOCITY ON COATED AIR SIDE FOR AIR EROSION: 5,000 FPM (25.4 M/S), MINIMUM Q.2. LINER FASTENERS: GALVANIZED STEEL, SHEET METAL WELD PINS OR CLINCH PINS AND WASHERS.
- R. INSULATED FLEXIBLE DUCTS
- R.1. FLEXIBLE DUCTS SHALL BE U.L. LISTED AND SHALL COMPLY WITH UMC STANDARD 6-1. R.2. THE MAXIMUM LENGTH OF FLEXIBLE DUCTWORK SHALL BE 5 FEET PER CMC SECTION 603.4.1 DUCTWORK SHALL BE EXTENDED TO FULL LENGTH WHENEVER POSSIBLE WITHOUT SEVERE BENDS OR KINKS. BENDS SHALL BE MADE TO MAINTAIN R/W EQUAL TO 1.5.
- R.3. BLACK POLYMER FILM SUPPORTED BY HELICALLY WOUND SPRING STEEL WIRE; FIBERGLASS INSULATION; POLYETHYLENE VAPOR BARRIER FILM. R.3.1. PRESSURE RATING: 4 INCHES WG POSITIVE PRESSURE AND 1 INCH NEGATIVE PRESSURE.
- R.3.2. INSULATION SHALL BE 1-1/2 INCH THICK FIBERGLASS. R.3.3. MAXIMUM VELOCITY: 4000 FPM (20.3 M/SEC).

SHEET NO.

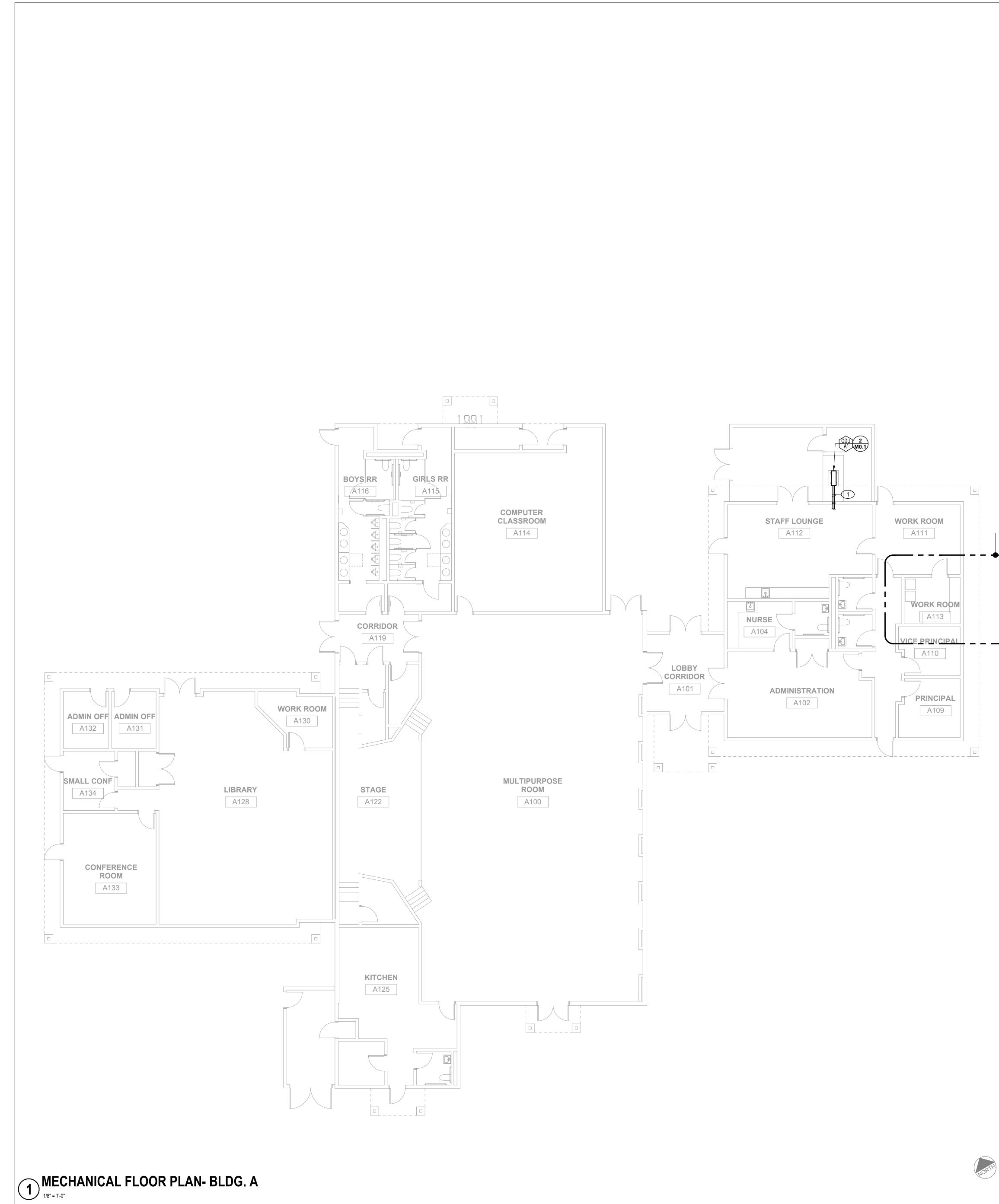
M2.1 MECHANICAL FLOOR PLANS BLDG. A

- R.3.4. TEMPERATURE RANGE: -20 DEGREES F TO 175 DEGREES F (-28 DEGREES C TO 79 DEGREES C).
- S. SEAL ALL STANDING SEAMS AND TRANSVERSE JOINTS IN ALL SHEETMETAL DUCTWORK WITH HARDCAST IRON GRIP PREMIUM FLEXIBLE WATER BASED DUCT SEALANT.
- . DURING CONSTRUCTION PROVIDE TEMPORARY CLOSURES OF METAL OR TAPED POLYETHYLENE ON OPEN DUCTWORK TO PREVENT CONSTRUCTION DUST FROM ENTERING DUCTWORK SYSTEM.
- U. ALL BRANCH DUCTS SHALL HAVE BALANCING DAMPERS WITH ACCESSIBLE LOCKING TYPE QUADRANT. WHERE DAMPER IS INACCESSIBLE, PROVIDE YOUNG REGULATOR MODEL 270–301 CABLE KIT WITH EITHER 830A–CC (RECTANGULAR) OR 5020-CC (ROUND) DAMPER.
- V. PERFORM TOTAL SYSTEMS BALANCE IN ACCORDANCE WITH AABC, ASHRAE STD 111, OR NEBB PROCEDURAL STANDARDS FOR TESTING, BALANCING AND ADJUSTING OF ENVIRONMENTAL SYSTEMS. W. THE INSTALLATION OF DUCT SMOKE DETECTORS FOR AUTOMATIC SHUTDOWN OF AIR MOVING SYSTEMS AS REQUIRED BY
- CMC SECTION 609 OR AS REQUIRED FOR THE OPERATION OF FIRE SMOKE DAMPERS SHALL COMPLY WITH THE REQUIREMENTS OF THE LOCAL FIRE DEPARTMENT'S STANDARD "FIRE PROTECTION DESIGN GUIDELINES FOR SMOKE CONTROL WITHIN BUILDINGS". WHERE AIR DUCT SMOKE DETECTORS SERVING AIR-MOVING SYSTEMS ARE INSTALLED WITHIN CONDCEALED SPACES, AND/OR DROP CEILING AREAS, THE DETECOR SHALL BE PROVIDED WITH THE UNIT SERVED. SAID REMOTE ALARM LED DEVICE SHALL BE LABELED TO CLEARLY IDENTIFY THE UNIT SERVED (AC-1, ETC.). WHERE AIR DUCT SMOKE DETECTORS SERVING AIR-MOVING SYSTEMS ARE INSTALLED IN CONCEALED SPACES, AND/OR DROP CEILING AREAS MORE THAN 10 FEET ABOVE THE FINISHED FLOOR, THE DETECTOR SHALL BE PROVIDED WITH A
- REMOTE TEST AND RESET SWITCH, SAID REMOTE TEST AND RESET SWITCH SHALL BE ATTACHED TO AN ADJACENT WALL OR STRUCTURAL COLUMN AT A MAXIMUM HEIGHT OF 6 FEET ABOVE FINISHED FLOOR. PRIOR TO MECHANICAL PERMIT FINAL, A SMOKE DETECTOR SHUT-OFF TEST WILL BE REQUIRED.

### MECHANICAL SHEET INDEX

SHEET TITLE M0.1 MECHANICAL NOTES, LEGENDS, & SPECIFICATIONS

| dsa   |   |
|---|---|
| DIV. OF THE ST<br>APP: 02-1212<br>REVIEW                                      | ed for<br>ACS   |
| architect   |   |
| ACMAR<br>3009 DOUGLAS BLV<br>ROSEVILLE CA 956                                 | D SUITE 290   |
|   | /★//  |
| consultant  | MEP & FS /<br>Sustainability / CxA<br>1209 Pleasant Grove Blve<br>Roseville, CA 95678 |
| CONSULTING  | p 916-771-0778<br>www.lpengineers.com   |
| ENGINEERS   | Job #: 18-2150  |
|   |   |
| project number C<br>project director<br>project designer<br>project architect | CA5602  |
| revisions date  | revision  |
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| project status  |   |
| DSA SUBMIT<br>4-25-2023   | ΓAL   |
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| CJUSD<br>3909 NORTH   |   |
| ANTELOPE, C   | JA JJ04J  |
| sheet name  |   |
| MECHANICAL<br>LEGENDS, &<br>SPECIFICATIO                                      |   |
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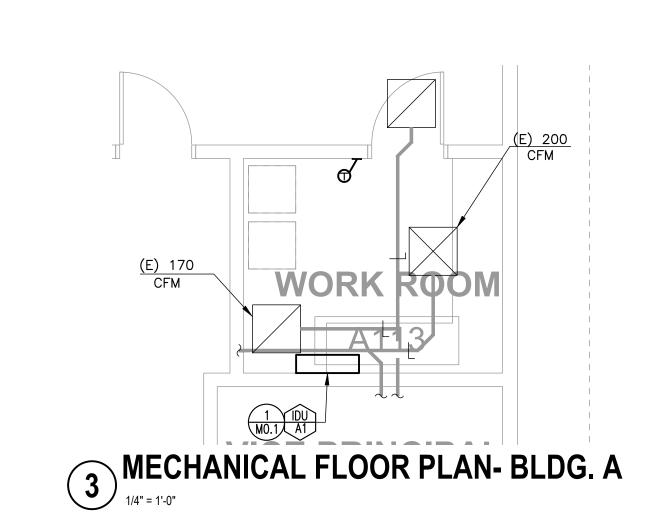
### GENERAL NOTES

1. FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK AND NOTIFY ARCHITECT/ENGINEER OF ANY CONFLICTS/DISCREPANCIES.

### **KEY NOTES**

1 ROUTE REFRIGERANT PIPING TO CORRESPONDING INDOOR UNIT PER MANUFACTURERS REQUIREMENTS.

2 ADJUST (E) GRILLES AS NEEDED FOR CEILING WORK. SEE ARCHITECTURAL PLANS.



WORK KOOM

2 MECHANICAL DEMO FLOOR PLAN- BLDG. A

(E) 170 CFM

(E) 200 (2)



NORTH

dsa IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 02-121265 INC: REVIEWED FOR SS 🔲 FLS 🗹 ACS 🗹 DATE: 05/24/2023 architect ACMARTIN ▼3009 DOUGLAS BLVD SUITE 290 ROSEVILLE CA 95661 T 916 772 1800 stamp REN. 03-31-2 consultant MEP & FS / Sustainability / CxA 1209 Pleasant Grove Blvd. Roseville, CA 95678 p 916-771-0778 CONSULTING<br/>ENGINEERSwww.lpengineers.c<br/>Job #: 18-2150 www.lpengineers.com project number CA5602 project director project designer project architect revisions no. da project status DSA SUBMITTAL 4-25-2023 client / project OAK HILL ES HARDSHIP MODERNIZATION CJUSD 3909 NORTH LOOP BLVD ANTELOPE, CA 95843 sheet name MECHANICAL FLOOR PLANS BLDG A sheet number M2.1 3/22/2023 3:38:04 PM plot date

| PLUMBING FIXTURE SCHEDULE |                                    |        |        |      |    |  |
|---------------------------|------------------------------------|--------|--------|------|----|--|
| MARK                      | FIXTURE                            | S or W | V      | CW   | нพ | DESCRIPTION  |
| WC<br>1                   | WATER<br>CLOSET                    | 3"     | 2"     | 3/4" |    | KOHLER MODEL K-3575-RA, "WELLWORTH" FLOOR MOUNTED<br>VITREOUS CHINA ELONGATED BOWL, 1.28 GPF FLUSH TANK<br>WITH TRIP LEVER ON RIGHT-HAND SIDE, PROVIDE OLSONITE<br>#95 SEAT WITH SELF-SUSTAINING CHECK HINGE. INSTALL<br>PER CBC ACCESS REQUIREMENTS.  |
| S<br>1                    | CLASSROOM<br>SINK<br>CBC ACCESS    | 2"     | 1-1/2" | 1/2" |    | JUST MODEL CRA-ADA-1725-A-GR, ADA COMPLIANT SELF RIMMING<br>COUNTER MOUNTED SINK, 18 GAUGE TYPE 304 STAINLESS STEEL<br>SINGLE COMPARTMENT UNIT WITH 14"X16"X5" DEEP BOWL, CENTER<br>REAR DRAIN, MODEL J-ADA-35-SSF DRAIN, 2 HOLE PUNCH FOR<br>CHICAGO MODEL 350-LHE35ABCP GOOSNECK-SPOUT WRISTBLADE<br>HANDLE FAUCET AND CHICAGO MODEL 748-665ABCP BUBBLER,<br>PROVIDE 1.5 GPM AERATOR, PROVIDE ADA TRAP, SUPPLIES AND<br>STOPS. |
| DF<br>1                   | DRINKING<br>FOUNTAIN<br>CBC ACCESS | 2"     | 1-1/2" | 1/2" |    | HAWS MODEL 1119FR, WALL MOUNT HI-LO, TYPE 304, NO.<br>4 SATIN FINISH STAINLESS STEEL FREEZE-RESISTANT<br>DRINKING FOUNTAIN. PROVIDE WITH FILTER AND SUPPORT<br>CARRIER MODEL 6800. INSTALL PER ADA REQUIREMENTS.   |

| PLUMBING LEGEND   |                               |              |  |  |  |
|---|-------------------------------|--------------|--|--|--|
| SYMBOL  | ITEM                          | ABBR.        |  |  |  |
| WG  | -FIXTURE DESIGNATION          |              |  |  |  |
|   |                               |              |  |  |  |
|   | NUMBER                        |              |  |  |  |
|   |                               |              |  |  |  |
| P-1+  | P-17- SHEET NO. WHERE SHOWN   |              |  |  |  |
| -cw   | DOMESTIC COLD WATER           |              |  |  |  |
| -HW   | DOMESTIC HOT WATER            |              |  |  |  |
|   | DOMESTIC HOT WATER SUPPLY     |              |  |  |  |
|   | DOMESTIC HOT WATER RETURN     | HWR          |  |  |  |
| V   | VENT                          | ۷            |  |  |  |
| G   | GAS                           | G            |  |  |  |
| — MG —  | MEDIUM PRESSURE GAS           | MG           |  |  |  |
| — LPG —   | LIQUID PROPANE GAS            | LPG          |  |  |  |
| <b>—</b> S <b>—</b>   | SEWER                         | S            |  |  |  |
| GW  | GREASE WASTE                  | GW           |  |  |  |
| <b>—</b> 0S <b>—</b>  | OIL/SAND WASTE                | 0S           |  |  |  |
| AW  | ACID WASTE                    | AW           |  |  |  |
| SD  | STORM DRAIN                   | SD           |  |  |  |
|   | ROOF DRAIN                    | RD           |  |  |  |
| OD  | OVERFLOW DRAIN                | OD           |  |  |  |
| C   | CONDENSATE DRAIN              | С            |  |  |  |
| D   | SECONDARY DRAIN               | D            |  |  |  |
| — T&P—  | TEMPERATURE & PRESSURE RELIEF | T&P          |  |  |  |
| — FS —  | FIRE SPRINKLER                | FS           |  |  |  |
| <b>_</b>  | PIPE CAP                      | (R)/(D)      |  |  |  |
| <b>o</b>  |                               |              |  |  |  |
|   | SHUT-OFF VALVE IN BOX         |              |  |  |  |
| <b>— —</b>  | FLOOR CLEANOUT                | FCO          |  |  |  |
|   | CLEANOUT TO GRADE             | COTG         |  |  |  |
| બા  | WALL CLEANOUT                 | WCO          |  |  |  |
|   | CLEANOUT                      | CO           |  |  |  |
| · ·   | HOSE BIBB                     | HB           |  |  |  |
| ⊶⊳<br>Г   | OVERFLOW DRAIN OUTLET         |              |  |  |  |
| ြုပ်  | BALL VALVE                    | BV           |  |  |  |
| N<br>N  | GATE VALVE                    | GV           |  |  |  |
|   | CHECK VALVE MIXING VALVE      | CHK.V<br>TMV |  |  |  |
| R<br>R<br>R<br>R<br>R<br>R<br>R<br>R<br>R<br>R<br>R<br>R<br>R<br>R<br>R<br>R<br>R<br>R<br>R | SHUT-OFF COCK                 | SOC          |  |  |  |
|   | CIRCULATION PUMP              | CP           |  |  |  |
|   |                               |              |  |  |  |
|   | TRAP PRIMER                   | BLV<br>TP    |  |  |  |
|   | TYPICAL                       | (TYP)        |  |  |  |
|   | VENT THRU ROOF                | VTR          |  |  |  |
|   | UNDERGROUND                   | UG           |  |  |  |
|   | UNDER FLOOR                   | UF           |  |  |  |
|   | ABOVE CEILING                 | AB.C.        |  |  |  |
|   | TO ABOVE/BELOW                | TA/TB        |  |  |  |
|   | FROM ABOVE/BELOW              | FA/FB        |  |  |  |
| <b></b>   | CONTINUATION                  | CONT.        |  |  |  |
|   | NEW                           | (N)          |  |  |  |
|   |                               |              |  |  |  |
|   | (E)<br>POD/POC                |              |  |  |  |
| <b></b>   | POINT OF DIS/CONNECTION       |              |  |  |  |

AND BRACE LOADS.

### EQUIPMENT ANCHORAGE NOTES

CAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. THE OMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND REQUIREMENTS PRESCRIBED IN THE 2022 CBC SECTIONS 1617A.1.18 17A.1.26 AND ASCE 7-16 CHAPTERS 13, 26 AND 30.

- PERMANENT EQUIPMENT AND COMPONENTS. IPORARY, MOVABLE OR MOBILE EQUIPMENT THAT IS PERMANENTLY ACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS CTRICITY, GAS OR WATER. "PERMANENTLY ATTACHED" SHALL INLUDE ALL CTRICAL CONNECTIONS EXCEPT PLUGS FOR 110/220 VOLT RECEPTACLES
- VING A FLEXIBLE CABLE. MPORARY, MOVABLE OR MOBILE EQUIPMENT WHICH IS HEAVIER THAN 400 UNDS OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE JACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT REQUIRED TO BE RESTRAINED IN A MANNER APPROVED BY DSA.
- NG MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY THE STRUCTURE BUT NEED NOT DEMONSTRATE DESIGN COMPLIANCE WITH NCES NOTED ABOVE. THESE COMPONENTS SHALL HAVE FLEXIBLE PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, FLEXIBLE CONNECTIONS MUST ALLOW MOVEMENT IN BOTH TRANSVERSE DINAL DIRECTIONS:
- MPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER OF SS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF EL THAT DIRECTLY SUPPORT THE COMPONENT. MPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF TRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.
- AGE OF ALL MECHANICAL, ELECTRICAL AND PLUMBING COMPONENTS SHALL TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND BY DSA. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS ENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.

### IPING AND DUCTWORK DISTRIBUTION SYSTEM **BRACING NOTES**

WORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-16 SECTION NED IN ASCE 7–16 SECTIONS 13.6.5, 13.6.6, 13.6.7, 13.6.8; AND 2022 NS 1617A.1.24, 1617A.1.25 AND 1617A.1.26.

- OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE STRIBUTION SYSTEM ARE AS NOTED BELOW. WHEN BRACING AND ARE BASED ON A PRE-APPROVED INSTALLATION GUIDE (E.G., OSHPD OPM BC 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
- 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 X X □ □ SPECIFIC NOTES AND DETAILS.
- MP MD PP E OPTION 2: SHALL COMPLY WITH THE APPLICABLE HCAI PRE-APPROVAL □ □ □ □ (OPM#) #0043−13.

### PLUMBING SPECIFICATIONS

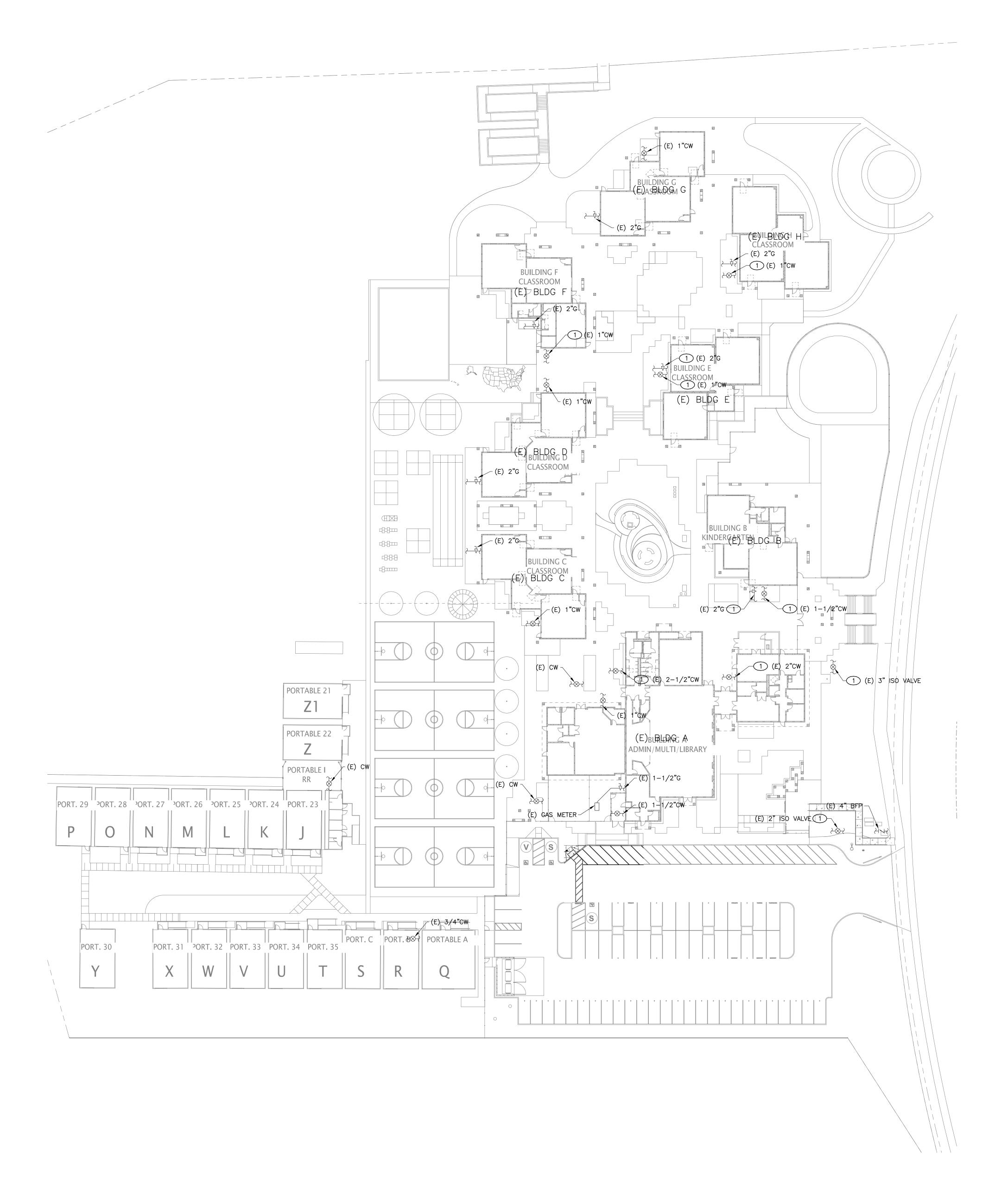
A. THIS CONTRACTOR SHALL COMPLY WITH ALL CODES AND REGULATIONS IN EFFECT AT THE JOB SITE, INCLUDING, BUT NOT LIMITED TO:

- A.1. 2022 CALIFORNIA BUILDING CODE A.2. 2022 CALIFORNIA MECHANICAL CODE
- A.3. 2022 CALIFORNIA PLUMBING CODE A.4. 2022 CALIFORNIA ELECTRICAL CODE
- A.5. 2022 CALIFORNIA GREEN BUILDING STANDARDS A.6. 2022 CALIFORNIA BUILDING ENERGY EFFICIENCY STANDARDS - TITLE 24
- A.7. NATIONAL FIRE PROTECTION ASSOCIATION A.8. CALIFORNIA STATE FIRE MARSHAL
- B. ALL MATERIALS AND EQUIPMENT INSTALLED UNDER THIS CONTRACT SHALL BE GUARANTEED FREE FROM ALL MECHANICAL, ELECTRICAL AND WORKMANSHIP DEFECTS FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING OR REPLACING ALL DAMAGED ITEMS INSTALLED UNDER THIS CONTRACT WITHOUT ADDITIONAL COST TO OWNER.
- . THE PLUMBING CONTRACTOR SHALL PROVIDE THE OWNER COPIES OF OPERATION, MAINTENANCE AND PREVENTATIVE MAINTENANCE MANUALS FOR EACH MODEL AND TYPE OF PLUMBING EQUIPMENT. D. CHECK AND VERIFY EXISTING CONDITIONS AT THE JOB SITE BEFORE BEGINNING WORK. ADJUST THE
- LOCATION AND CONFIGURATION OF THE WORK NECESSARY TO SUIT ACTUAL CONDITIONS AND OTHER TRADES. ANY CHANGES REQUIRED MUST FIRST BE APPROVED BY THE ARCHITECT OR ENGINEER. . THE LOCATIONS OF EQUIPMENT, PIPING, AND SYSTEMS SHOWN ON THE DRAWINGS ARE DIAGRAMMATIC AND
- SHALL BE FOLLOWED AS CLOSELY AS POSSIBLE. CHANGES REQUIRED TO SUIT EXISTING CONDITIONS AND DUE TO COORDINATION WITH OTHER TRADES SHALL BE MADE AT NO EXTRA COST TO THE OWNER. F. SUBMIT MANUFACTURER'S PRODUCT DATA INCLUDING NAME OF MANUFACTURER, TRADE NAME, MODEL, CAPACITY, OPTIONS, DIMENSIONS, WEIGHTS, INSTALLATION AND STARTUP DATA. EQUIPMENT PERFORMANCES SCHEDULED ARE MINIMUM CAPACITY, FLOW, EFFICIENCY, ETC. REQUIRED. WEIGHTS AND ELECTRICAL DATA
- SCHEDULED IS MAXIMUM AVAILABLE OR ALLOWABLE. G. ALL EQUIPMENT IS TO BE INSTALLED AS RECOMMENDED BY THE MANUFACTURER. USING ALL ACCESSORY EQUIPMENT AVAILABLE FROM THE MANUFACTURER FOR SUPPORTS, CONTROLS, ETC., TO MAKE A COMPLETE SYSTEM. ALL EQUIPMENT OR ACCESSORIES NEEDED AND NOT SHOWN OR SPECIFIED SHALL BE FURNISHED
- AND INSTALLED BY THIS CONTRACTOR. ADJUST THE EQUIPMENT FOR PROPER OPERATION, CHECK ALL CONTROLS AND VERIFY THAT ALL SAFETY DEVICES ARE FUNCTIONING PROPERLY. H. PROVIDE ACCESS DOORS WHERE ACCESS THROUGH FLOORS, WALLS OR CEILINGS IS REQUIRED TO ACCESS PLUMBING COMPONENTS OR OTHER SYSTEMS REQUIRING ACCESS FOR MAINTENANCE, TESTING OR OBSERVATION. COORDINATE THE EXACT TYPE AND LOCATION OF ACCESS DOORS TO PROVIDE PROPER
- ACCESS TO THE ITEM CONCEALED. CHECK ALL SYSTEMS FOR LEAKS. CORRECT ANY DEFICIENCIES AS SOON AS DISCOVERED. OPERATE THE SYSTEMS AS A TEST AND DEMONSTRATE TO THE OWNER AND ARCHITECT OR ENGINEER THAT THE SYSTEM IS FUNCTIONING PROPERLY.
- BEFORE COMMENCING WORK CHECK INVERT ELEVATIONS REQUIRED FOR SEWER CONNECTIONS, CONFIRM INVERTS AND ENSURE THAT THESE CAN BE PROPERLY CONNECTED WITH SLOPE FOR DRAINAGE AND COVER TO AVOID FREEZING. VERIFY THE LOCATION OF ALL SERVICES. NO EXTRA COSTS SHALL BE ALLOWED IF SERVICES ARE NOT AS SHOWN.
- K. COORDINATE ALL NEW OR CHANGING UTILITY SERVICES WITH UTILITY PROVIDER AS SOON AS POSSIBLE. ALL WORK PERFORMED NOT IN ACCORDANCE WITH THE UTILITY COMPANIES REQUIREMENTS PRIOR TO COORDINATING WITH THE UTILITY COMPANY SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. INSTALL PIPING TO ALLOW FOR EXPANSION AND CONTRACTION WITHOUT STRESSING PIPE, JOINTS, OR
- CONNECTED EQUIPMENT. M. MAKE ALL CONNECTIONS TO EQUIPMENT AS RECOMMENDED BY THE EQUIPMENT MANUFACTURER AS FAR AS TRAPS, DRAINS, FLEXIBLE CONNECTIONS, ETC. AND AS REQUIRED BY THE EQUIPMENT AND LOCATION.
- N. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS, FIXTURE MOUNTING HEIGHTS AND ADA ACCESSIBILITY REQUIREMENTS.
- 0. PIPING INSULATION (INTERIOR APPLICATIONS):
- 0.1. GLASS FIBER INSULATION: ASTM C 547 AND ASTM C 795. 'K' ('KSI') VALUE: 0.24 AT 75 DEGREES F, WHEN TESTED IN ACCORDANCE WITH ASTM C 177. MAXIMUM SERVICE TEMPERATURE: 850 DEGREES F. MAXIMUM MOISTURE ABSORPTION: 0.20 PERCENT BY VOLUME. 0.2. VAPOR BARRIER JACKET: WHITE KRAFT PAPER WITH GLASS FIBER YARN, BONDED TO ALUMINIZED FILM; MOISTURE VAPOR TRANSMISSION WHEN TESTED IN ACCORDANCE WITH ASTM E 96/E 96M OF 0.02.
- 0.3. INSULATION THICKNESS SCHEDULES:
- 0.3.1. DOMESTIC HOT AND TEMPERED WATER SUPPLY: 0.3.1.1. 2 INCH THICKNESS FOR PIPING 2 INCH AND LARGER.
- 0.3.1.2. 1-1/2 INCH THICKNESS FOR PIPING 1 INCH TO 1-1/2 INCH.
- 0.3.1.3. 1 INCH THICKNESS FOR PIPING LESS THAN 1 INCH. 0.3.2. DOMESTIC COLD WATER LOCATED IN UNHEATED AREAS:
- 0.3.2.1. 1 INCH THICKNESS FOR PIPING 1-1/2 INCHES AND LARGER.
- 0.3.2.2. 3/4 INCH THICKNESS FOR PIPING 1 INCHES AND SMALLER. P. INSULATE DOMESTIC HOT WATER. TEMPERED WATER AND WASTE PIPING BELOW HANDICAPPED PLUMBING
- FIXTURES WITH MOLDED SINGLE PIECE REMOVABLE INSULATION COVERS, FOAM, FIRE RESISTANT, TRUEBRO, OR EQUAL. INSTALL INSULATION COVERS IN ACCORDANCE WITH CBC ACCESS REQUIREMENTS. Q. FIXTURES, DOMESTIC WATER PIPING AND COMPONENTS SHALL BE PROVIDED AND INSTALLED IN COMPLIANCE
- WITH CALIFORNIA AB 1953 LEGISLATION WHICH LIMITS THE ALLOWABLE LEAD CONTENT IN CERTAIN DOMESTIC WATER SYSTEM COMPONENTS.
- R. PROVIDE COMPRESSION SHUTOFF CONTROL STOP VALVES WITH IPS INLETS AND THREADED BRASS NIPPLES AT PIPE CONNECTION ON WATER SUPPLIES TO EACH FIXTURE.
- S. PROVIDE CHROMIUM-PLATED FINISH ON FITTINGS AND ACCESSORIES EXPOSED TO VIEW.
- T. FIXTURE FITTINGS AND TRIM: CONFORM TO ASME A112.18.1M AND ASME A112.19.5, AS APPLICABLE. U. PROVIDE WATER HAMMER ARRESTORS AT END OF PIPE RUNS TO TWO OR MORE FIXTURES, PROPERLY SIZED WITH SUFFICIENT DISPLACEMENT VOLUME TO DISSIPATE CALCULATED ENERGY IN THE PIPING SYSTEMS.
- WATER HAMMER ARRESTORS SHALL BE STAINLESS STEEL SHELL WITH STAINLESS STEEL BELLOWS CONTAINED WITHIN THE CASING. V. PROVIDE PIPE SLEEVES WHERE PIPES AND TUBING PASS THROUGH WALLS, FLOORS, ROOFS, AND
- PARTITIONS. FINISH FLUSH AT BOTH ENDS. EXTEND 2 INCHES (50 MM) ABOVE FINISHED FLOORS. PACK SPACE BETWEEN PIPE OR TUBING AND SLEEVE, AND CALK.
- W. IDENTIFY PIPING WITH TAPE AND DECALS. INSTALL LABELING ON PIPE AT INTERVALS OF NOT MORE THAN 20 FEET (6 METERS) AND AT LEAST ONCE IN EACH ROOM AND EACH STORY TRAVERSED BY PIPELINE. X. PROVIDE NON-CONDUCTING DIELECTRIC CONNECTIONS WHEREVER JOINTING DISSIMILAR METALS.
- Y. ALL PLUMBING VENTS SHALL TERMINATE NOT LESS THAN 10' FROM ANY OUTSIDE AIR INTAKE OR OPENING TO THE BUILDING.
- Z. ALL EXPOSED MATERIAL SHALL BE PREPARED WITH A PRIME COAT AND THEN PAINTED.

### PLUMBING SHEET INDEX

| SHEET NO. | SHEET TITLE                               |
|-----------|---|
| P0.1      | PLUMBING NOTES, LEGENDS, & SPECIFICATIONS |
| P1.1      | PLUMBING OVERALL SITE PLAN                |
| P2.1      | PLUMBING FLOOR PLANS BLDG. A & B          |
| P2.2      | PLUMBING FLOOR PLANS BLDG. C & D          |
| P2.3      | PLUMBING FLOOR PLANS BLDG. E & F          |
| P2.4      | PLUMBING FLOOR PLANS BLDG. G & H          |
| P2.5      | PLUMBING FLOOR PLANS POTABLE BULDINGS     |
| P3.1      | ENLARGED PLUMBING FLOOR PLANS             |

| dsa  |  |  |  |  |
|--|--|--|--|--|
| IDENTIFICATION STAMP<br>DIV. OF THE STATE ARCHITECT<br>APP: 02-121265 INC:<br>REVIEWED FOR<br>SS □ FLS ☑ ACS ☑<br>DATE: 05/24/2023 |  |  |  |  |
| architect  |  |  |  |  |
| ACMARTIN<br>3009 DOUGLAS BLVD SUITE 290<br>ROSEVILLE CA 95661 T 916 772 1800   |  |  |  |  |
| stamp  |  |  |  |  |
| stamp<br>PROFESS/044<br>RNAN EANY OF THE<br>M 41413<br>REN. 03-31-25<br>CALIFORNIA<br>OF CALIFORNIA<br>Consultant                  |  |  |  |  |
| MEP & FS /<br>Sustainability / CxA<br>1209 Pleasant Grove Blvd.<br>Roseville, CA 95678<br>p 916-771-0778                           |  |  |  |  |
| CONSULTING<br>ENGINEERS<br>Job #: 18-2150  |  |  |  |  |
| project number CA5602  |  |  |  |  |
| project director<br>project designer   |  |  |  |  |
| project architect revisions  |  |  |  |  |
| no. date revision  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |
| project status DSA SUBMITTAL 4-25-2023 Client / project  |  |  |  |  |
| OAK HILL ES<br>HARDSHIP  |  |  |  |  |
| <b>MODERNIZATION</b><br>CJUSD<br>3909 NORTH LOOP BLVD<br>ANTELOPE, CA 95843  |  |  |  |  |
| sheet name   |  |  |  |  |
| PLUMBING NOTES,<br>LEGENDS, &<br>SPECIFICATIONS<br>sheet number  |  |  |  |  |
| P0.1   |  |  |  |  |





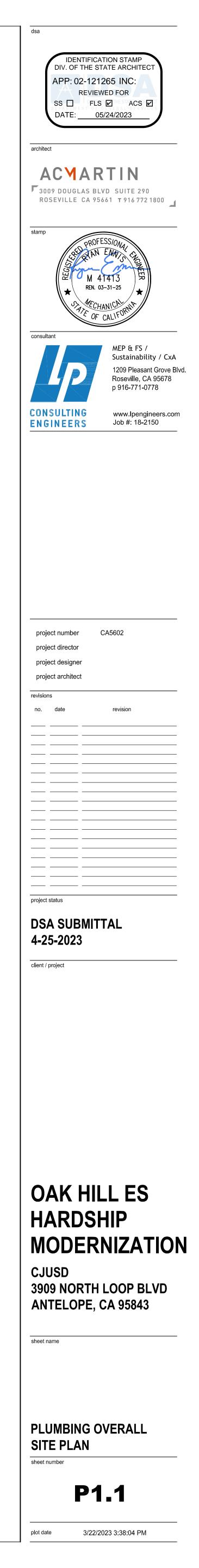
**KEY NOTES** 

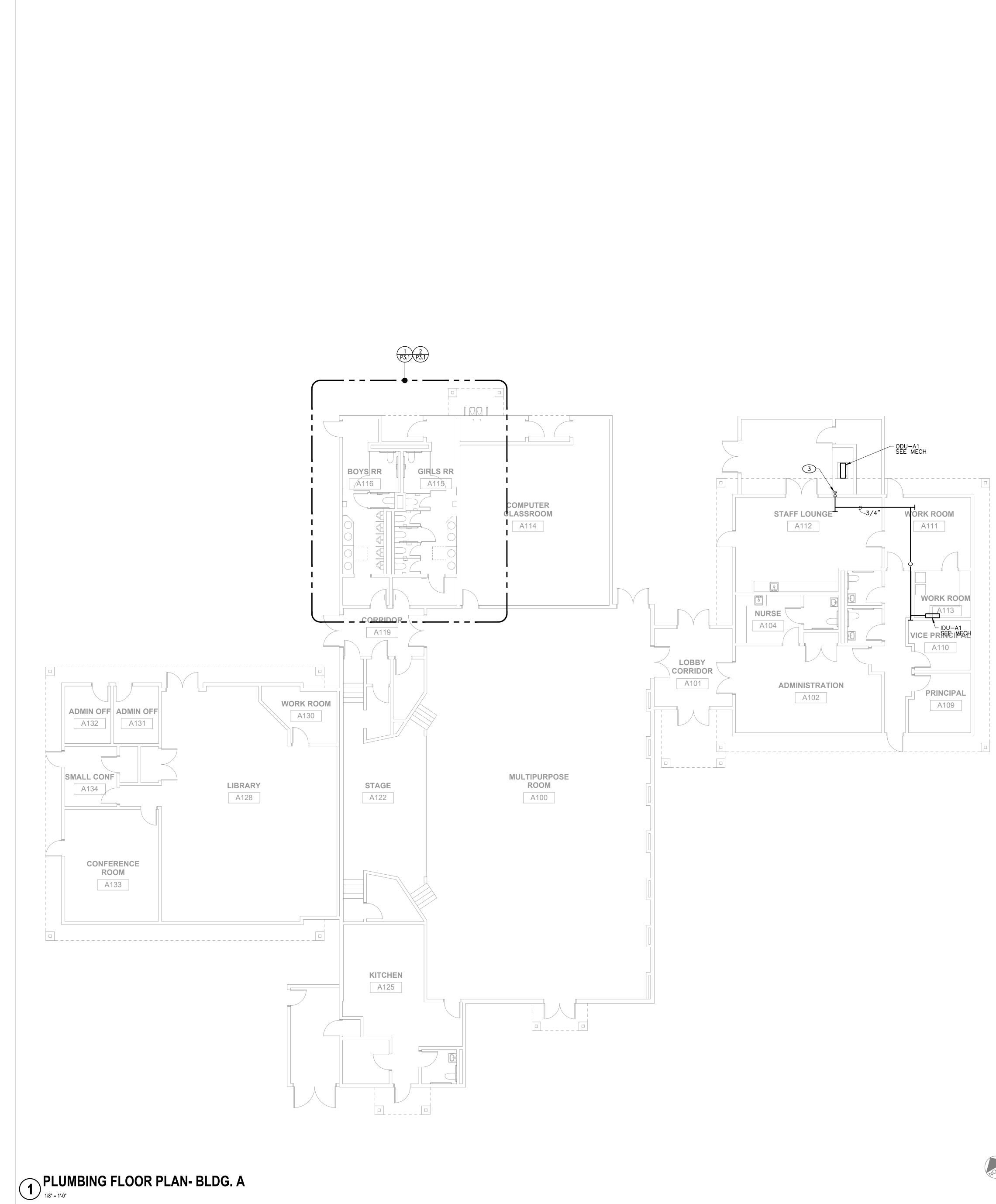
1 REMOVE AND REPLACE EXISTING SHUT-OFF VALVE IN THIS LOCATION. FIELD VERIFY EXISTING SIZE, TYPE AND CONNECTION TO PIPING. REPLACEMENT VALVE ACTUATOR TO BE KEYED TYPE TO ACCEPT DISTRICT VALVE KEY. COORDINATE WITH DISTRICT FOR REQUIREMENTS.

GENERAL NOTES

FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK AND NOTIFY ARCHITECT/ENGINEER OF ANY CONFLICTS/DISCREPANCIES.





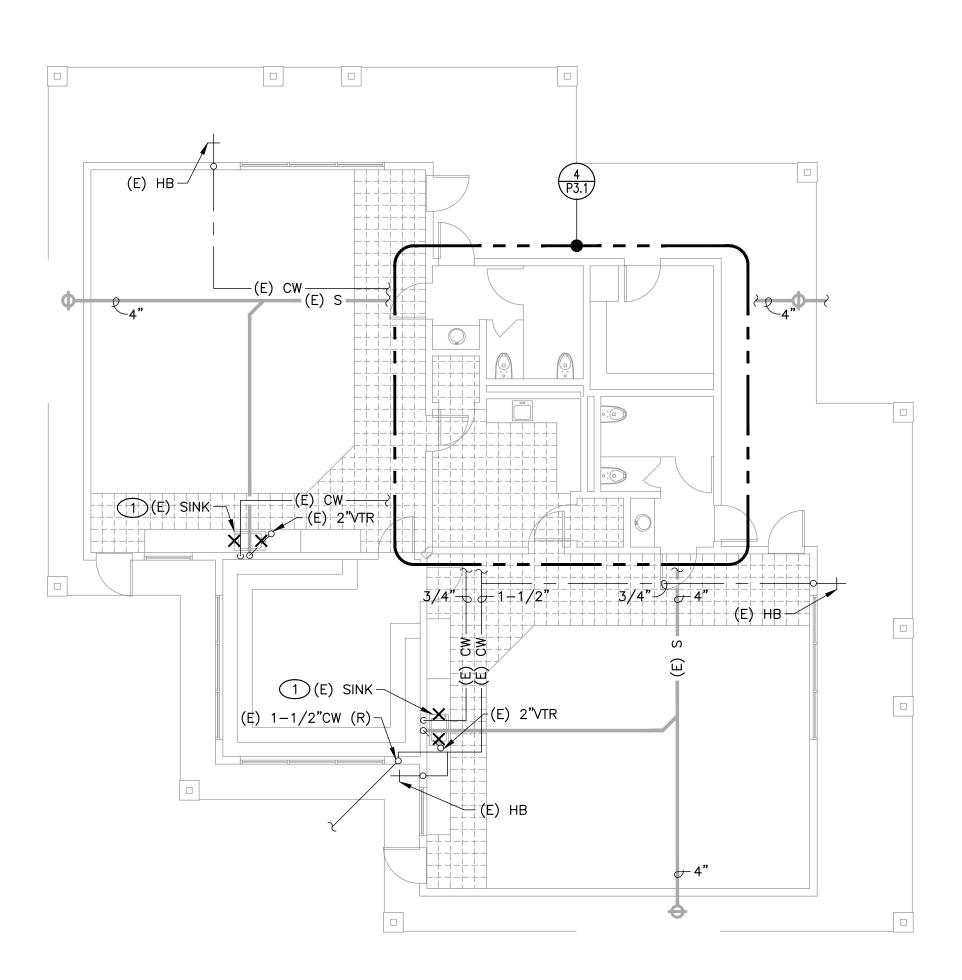


NORTH

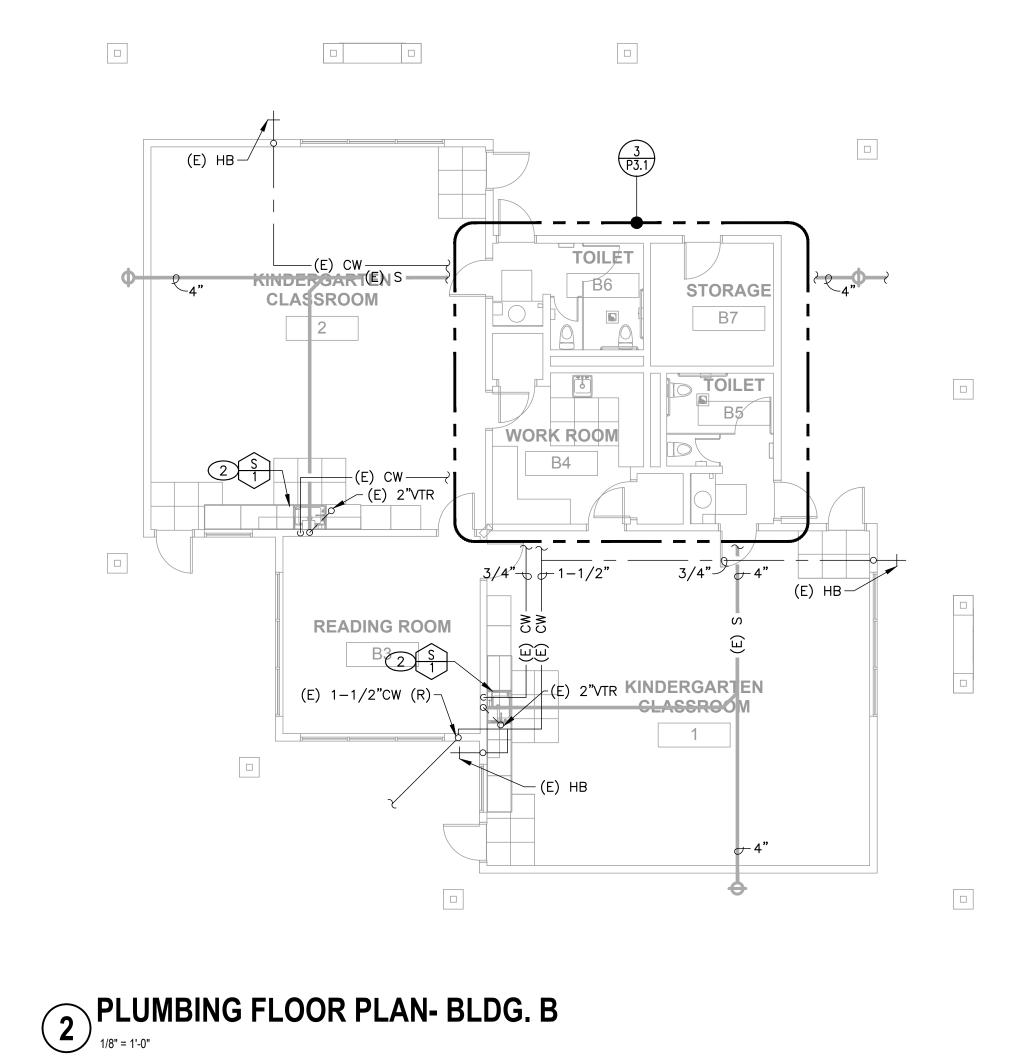
### GENERAL NOTES

- 1. FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK AND NOTIFY ARCHITECT/ENGINEER OF ANY CONFLICTS/DISCREPANCIES.
- 2. CLEAN EXISTING PLUMBING FIXTURES AND APPURTENANCES INSIDE RESTROOMS WITHIN SCOPE OF WORK. VERIFY FIXTURES AND FITTINGS ARE SECURED AND SEALED, OR REPAIR AS NECESSARY.

- 1 REMOVE (E) PLUMBING FIXTURE SHOWN HATCHED. PIPING TO REMAIN FOR CONNECTION TO (N) FIXTURE.
- 2 RECONNECT (N) PLUMBING FIXTURE TO (E) PIPING AS NEEDED.
- 3 ROUTE CONDENSATE DRAIN ABOVE CEILING FROM IDU CONDENSATE PUMP PROVIDED BY MECHANICAL. DROP IN EXTERIOR WALL AND ELBOW OUT AND DOWN AT +8" ABOVE PLANTER. PAINT OUTLET TO MATCH BUILDING EXTERIOR.



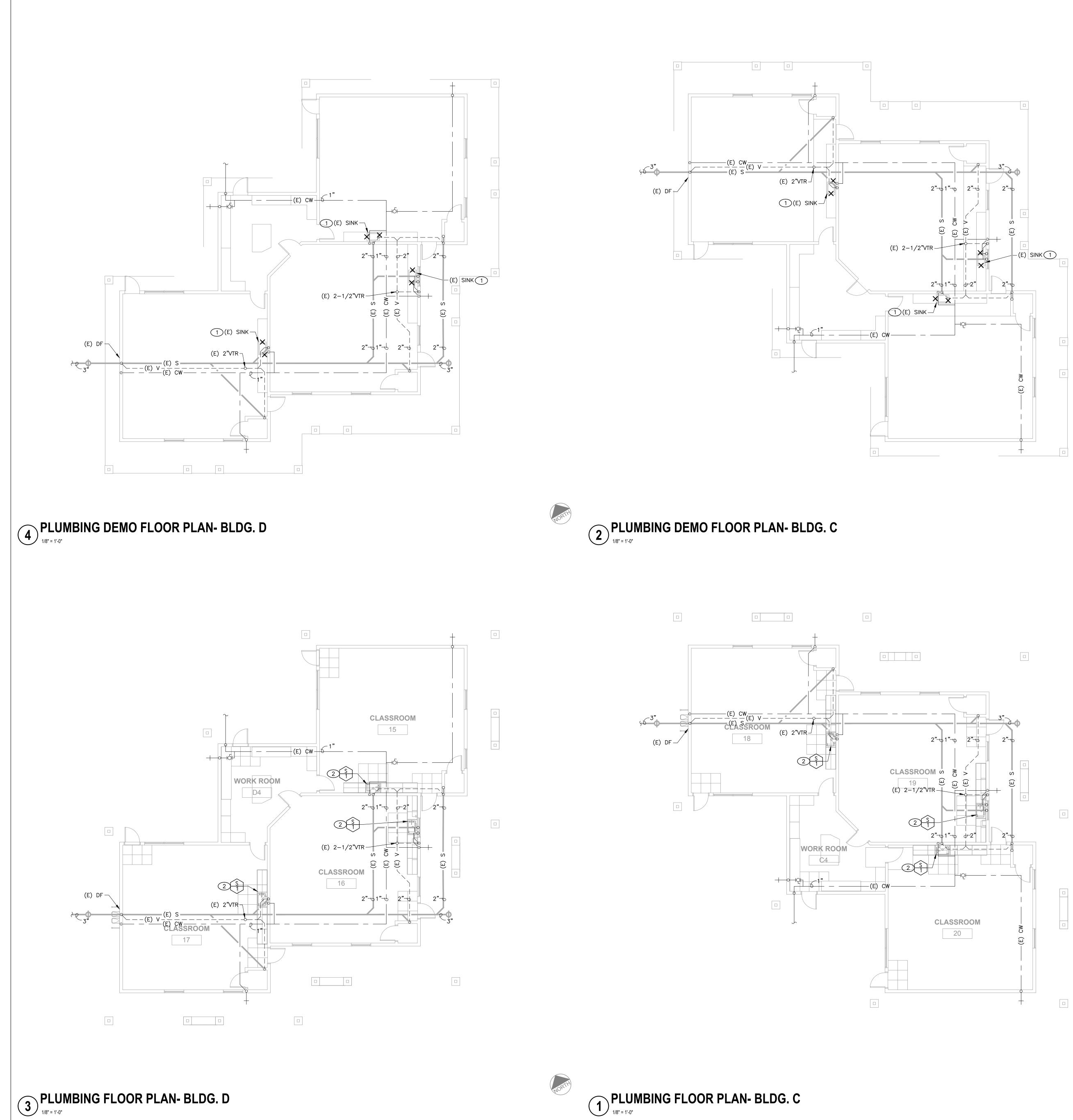
# 3 PLUMBING DEMO FLOOR PLAN- BLDG. B





NORT

dsa IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 02-121265 INC: REVIEWED FOR SS 🔲 FLS 🗹 ACS 🗹 DATE: 05/24/2023 architect ACMARTIN 3009 DOUGLAS BLVD SUITE 290 ROSEVILLE CA 95661 T 916772 1800 stamp J M 4141 REN. 03-31-25 consultant MEP & FS / Sustainability / CxA 1209 Pleasant Grove Blvd. Roseville, CA 95678 p 916-771-0778 CONSULTING Engineers www.lpengineers.com Job #: 18-2150 project number CA5602 project director project designer project architect revisions no. da project status DSA SUBMITTAL 4-25-2023 client / project OAK HILL ES HARDSHIP MODERNIZATION CJUSD 3909 NORTH LOOP BLVD ANTELOPE, CA 95843 sheet name PLUMBING FLOOR PLANS BLDG A & B sheet number **P2.1** 3/22/2023 3:38:04 PM plot date



1 PLUMBING FLOOR PLAN- BLDG. C

### **KEY NOTES**

- 1 REMOVE (E) PLUMBING FIXTURE SHOWN HATCHED. PIPING TO REMAIN FOR CONNECTION TO (N) FIXTURE.
- 2 RECONNECT (N) PLUMBING FIXTURE TO (E) PIPING AS NEEDED.

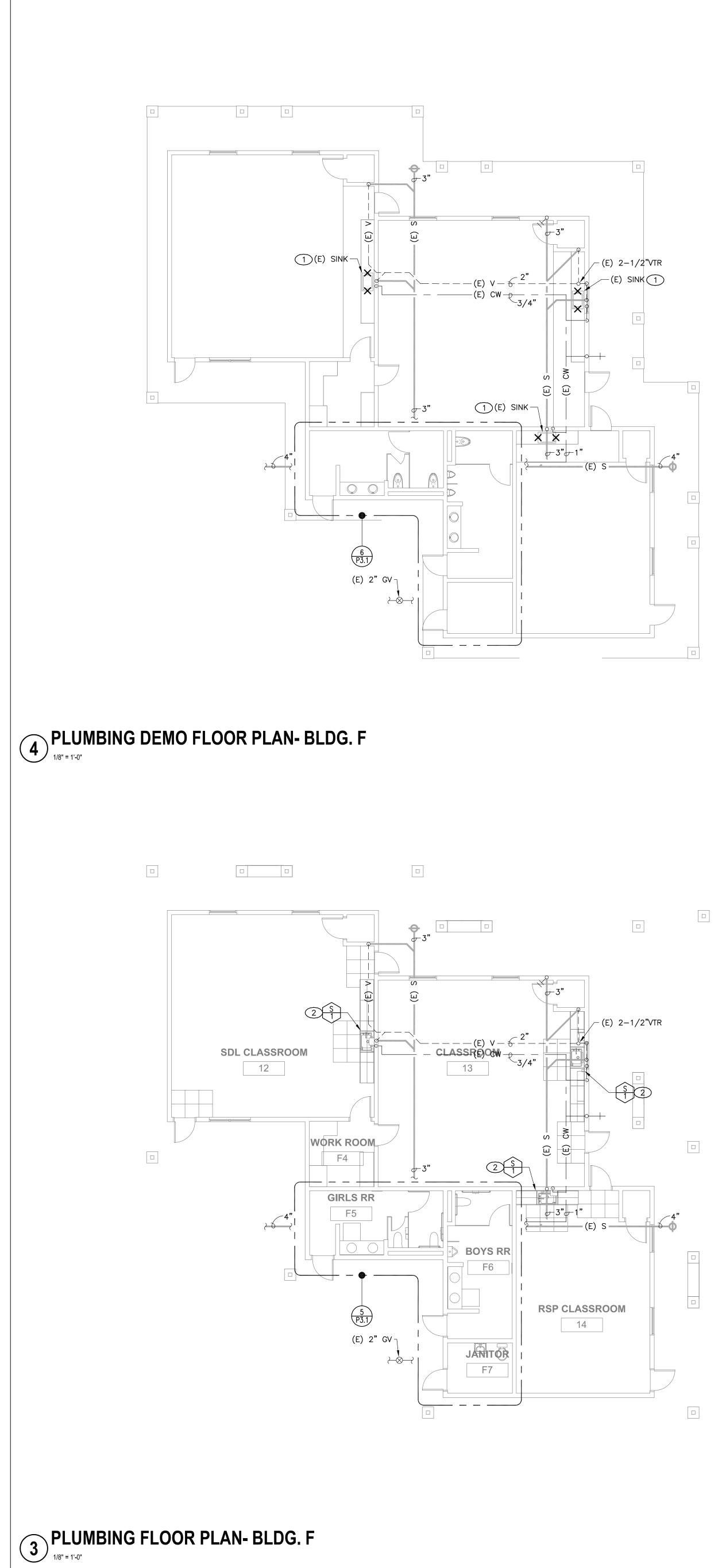


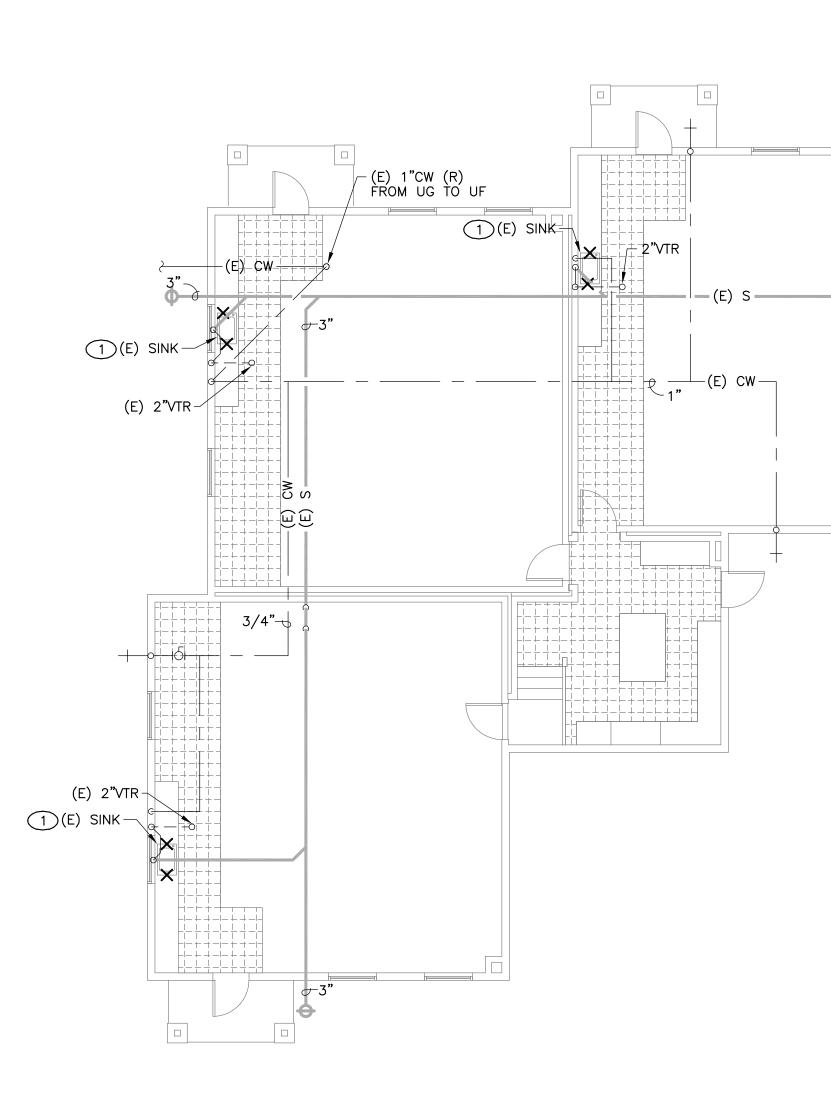


- FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK AND NOTIFY ARCHITECT/ENGINEER OF ANY CONFLICTS/DISCREPANCIES.
- CLEAN EXISTING PLUMBING FIXTURES AND APPURTENANCES INSIDE RESTROOMS WITHIN SCOPE OF WORK. VERIFY FIXTURES AND FITTINGS ARE SECURED AND SEALED, OR REPAIR AS NECESSARY.

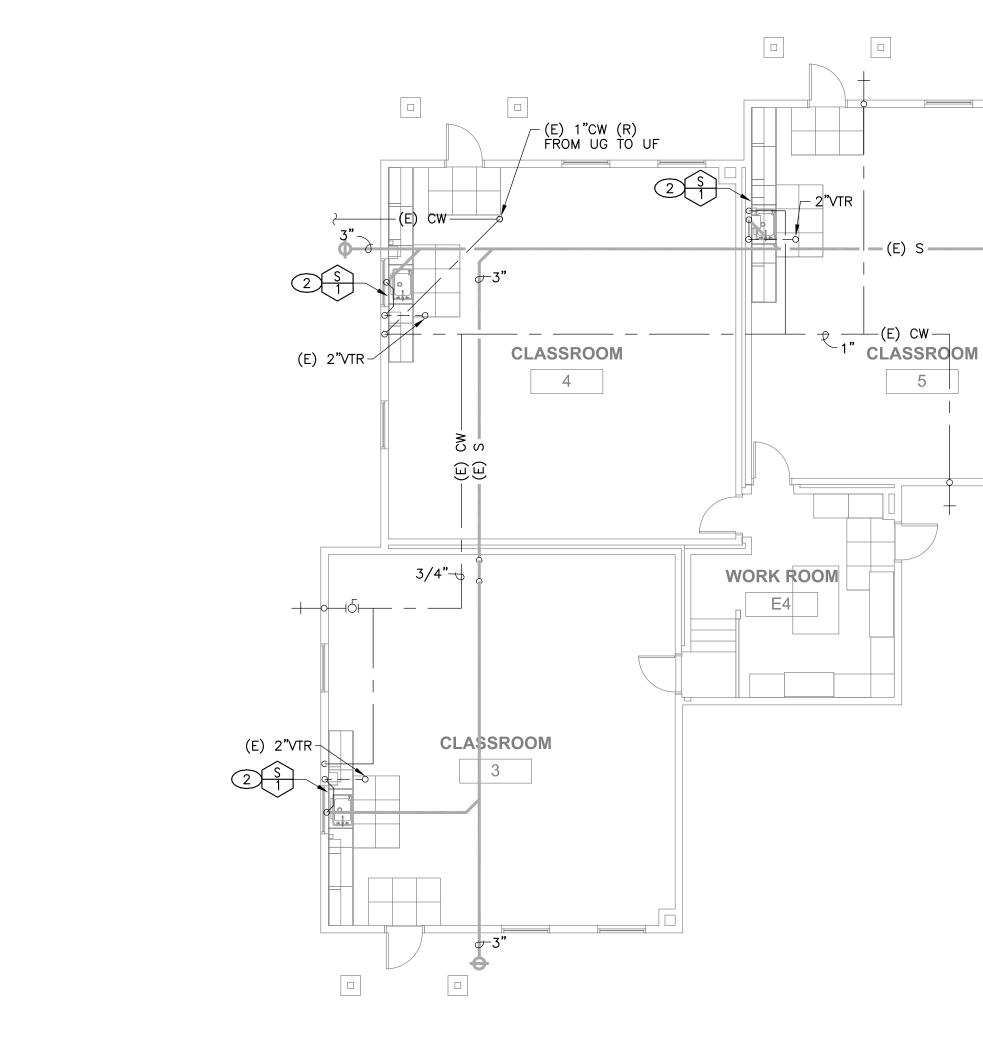


| dsa<br>IDENTIFICATION STAMP<br>DIV. OF THE STATE ARCHITECT<br>APP: 02-121265 INC:<br>REVIEWED FOR<br>SS I FLS ACS D<br>DATE: 05/24/2023            |
|--|
| architect ACMARTIN S009 DOUGLAS BLVD SUITE 290 ROSEVILLE CA 95661 T 916 772 1800   |
| stamp<br>Stamp<br>PROFESSION<br>NAN ENNY<br>MATAT3<br>REN. 03-31-25<br>MECHANICAL<br>PROFESSION<br>MATAT3<br>REN. 03-31-25<br>MECHANICAL<br>FORMIN |
| MEP & FS /<br>Sustainability / CxA<br>1209 Pleasant Grove Blvd.<br>Roseville, CA 95678<br>p 916-771-0778   |
| CONSULTING<br>ENGINEERSwww.lpengineers.com<br>Job #: 18-2150   |
|  |
| project number CA5602<br>project director<br>project designer  |
| project designed<br>project architect<br>revisions<br>no. date revision  |
|  |
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| project status DSA SUBMITTAL 4-25-2023 client / project  |
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### **KEY NOTES**

- 1 REMOVE (E) PLUMBING FIXTURE SHOWN HATCHED. PIPING TO REMAIN FOR CONNECTION TO (N) FIXTURE.
- 2 RECONNECT (N) PLUMBING FIXTURE TO (E) PIPING AS NEEDED.

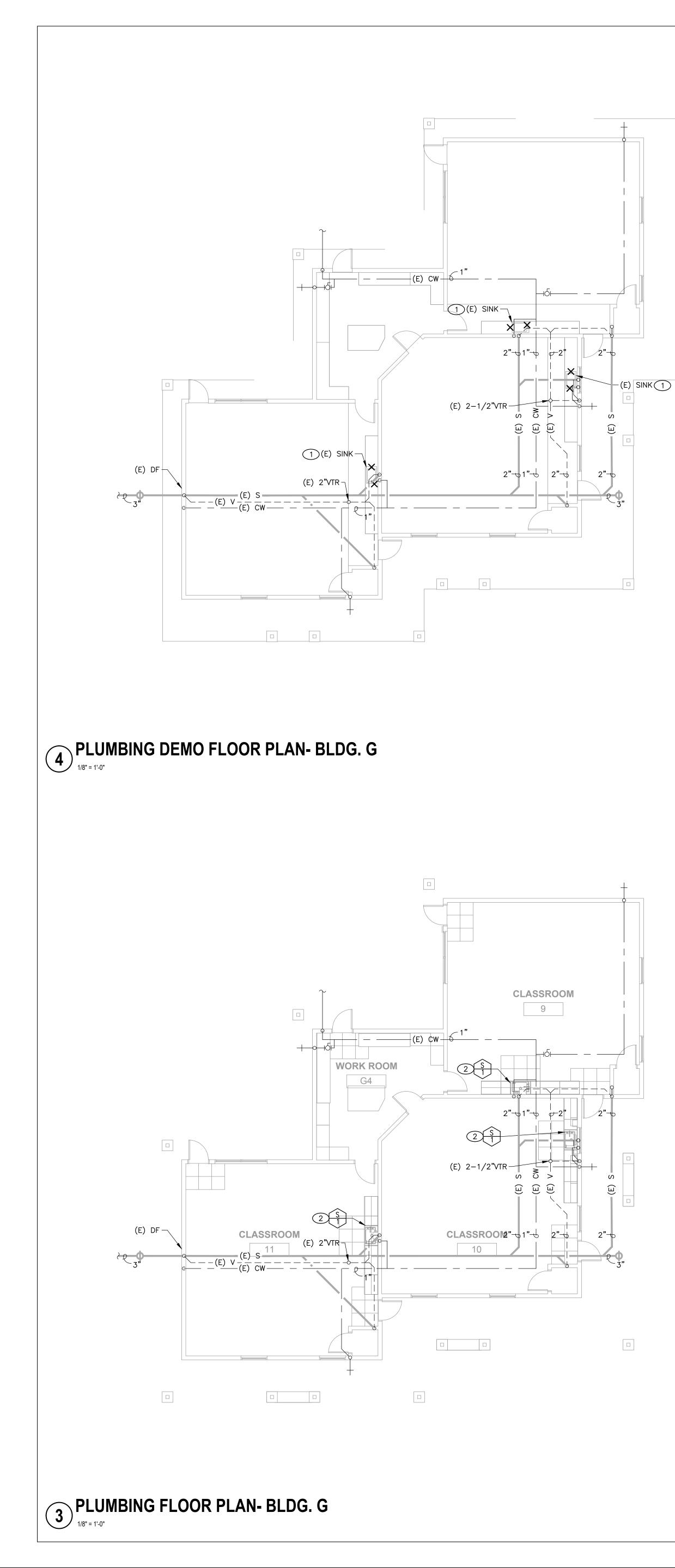
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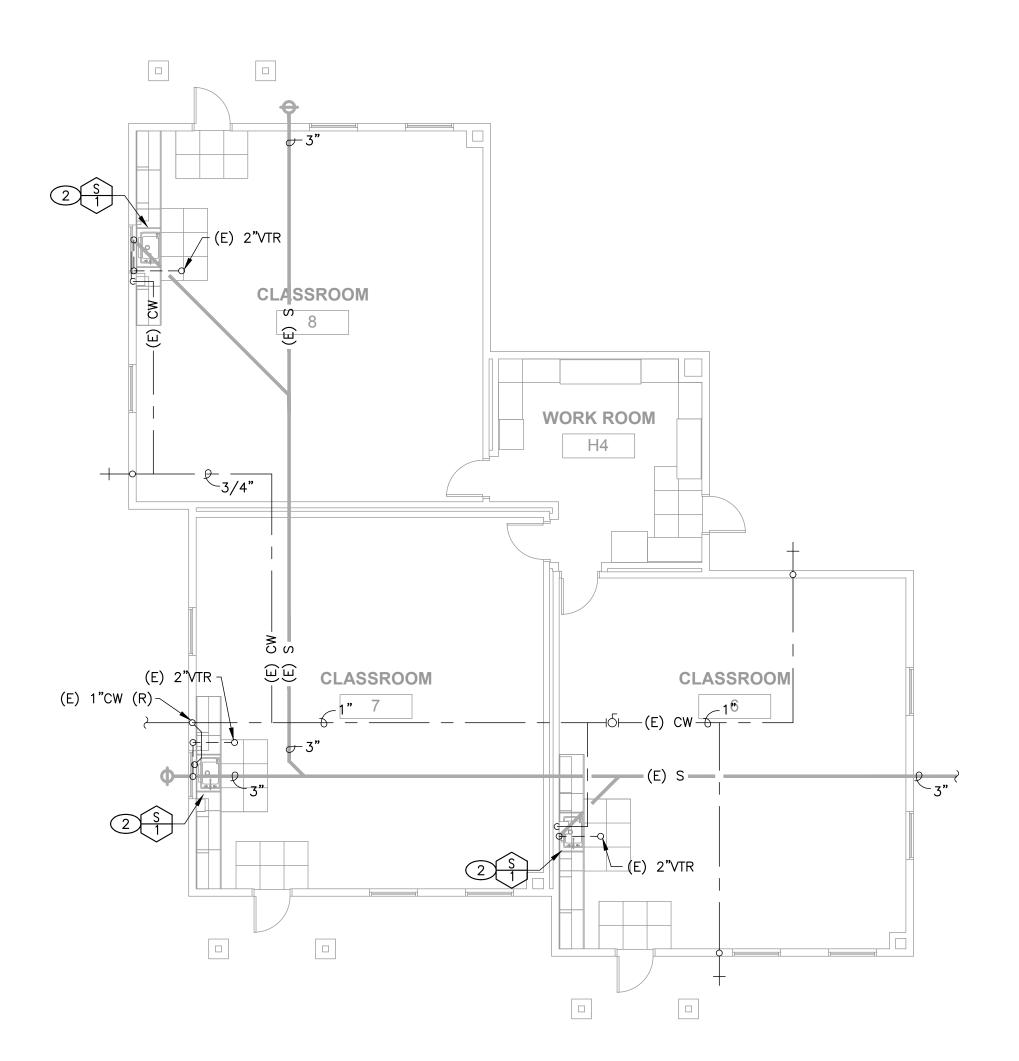
- FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK AND NOTIFY ARCHITECT/ENGINEER OF ANY CONFLICTS/DISCREPANCIES.
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IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 02-121265 INC: **REVIEWED FOR** SS 🔲 FLS 🗹 ACS 🗹 DATE: 05/24/2023 architect ACMARTIN S009 DOUGLAS BLVD SUITE 290 ROSEVILLE CA 95661 T 916 772 1800 stamp REN. 03-31-25 consultant MEP & FS / Sustainability / CxA 1209 Pleasant Grove Blvd. Roseville, CA 95678 p 916-771-0778 CONSULTING Engineers www.lpengineers.com Job #: 18-2150 project number CA5602 project director project designer project architect revisions project status DSA SUBMITTAL 4-25-2023 client / project OAK HILL ES HARDSHIP MODERNIZATION CJUSD 3909 NORTH LOOP BLVD ANTELOPE, CA 95843 sheet name PLUMBING FLOOR PLANS BLDG E & F sheet number **P2.3** 3/22/2023 3:38:04 PM plot date

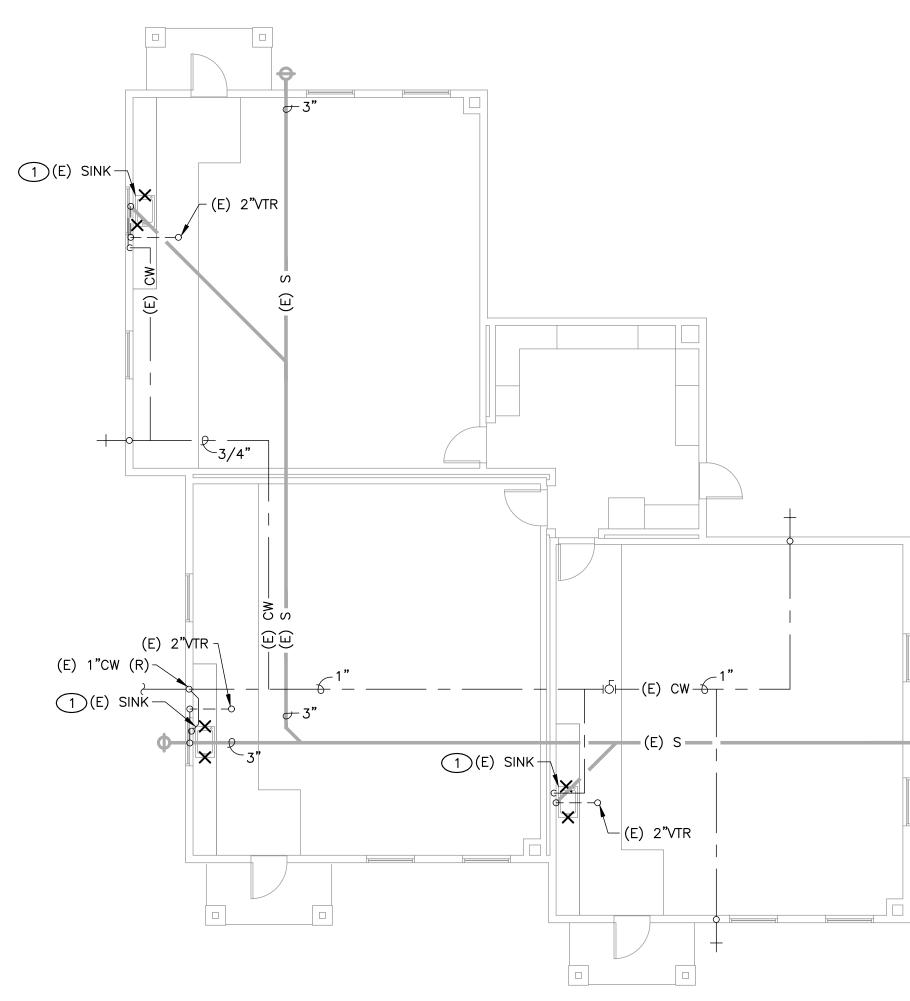


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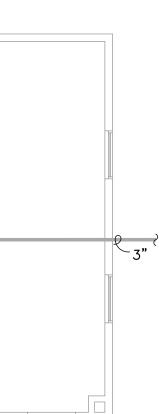


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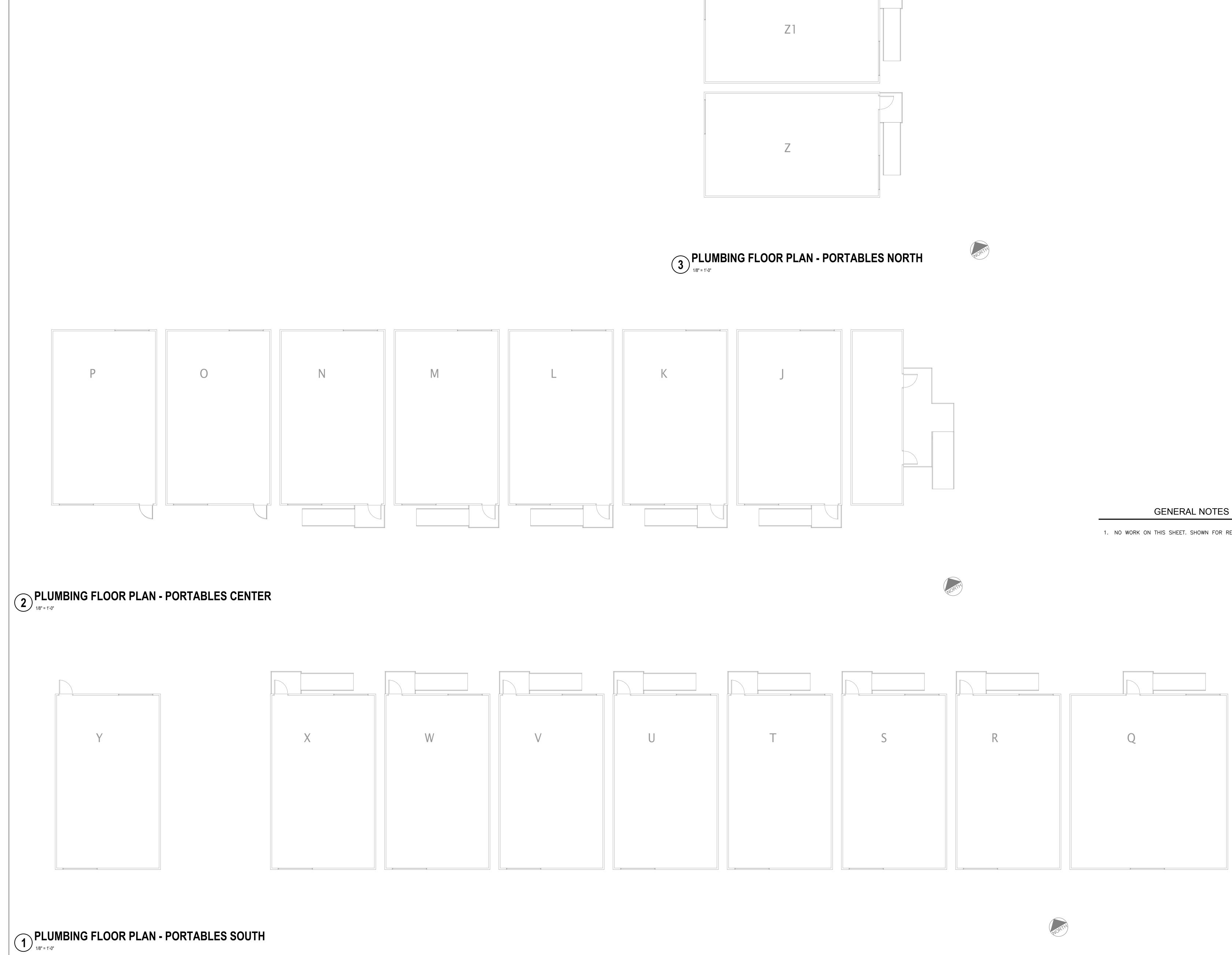




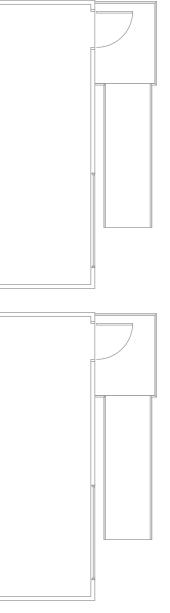
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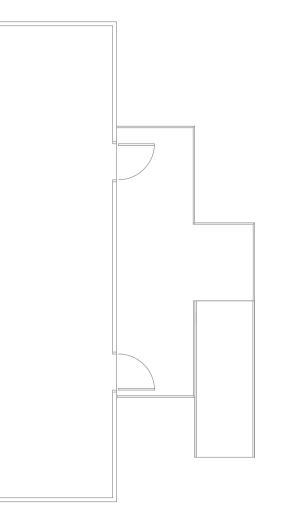


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| consultant   | MEP & FS /<br>Sustainability / CxA                  |  |  |
|  | 1209 Pleasant Grove Blvd.<br>Roseville, CA 95678    |  |  |
|  | p 916-771-0778                                      |  |  |
| CONSULTING<br>ENGINEERS  | www.lpengineers.com<br>Job #: 18-2150               |  |  |
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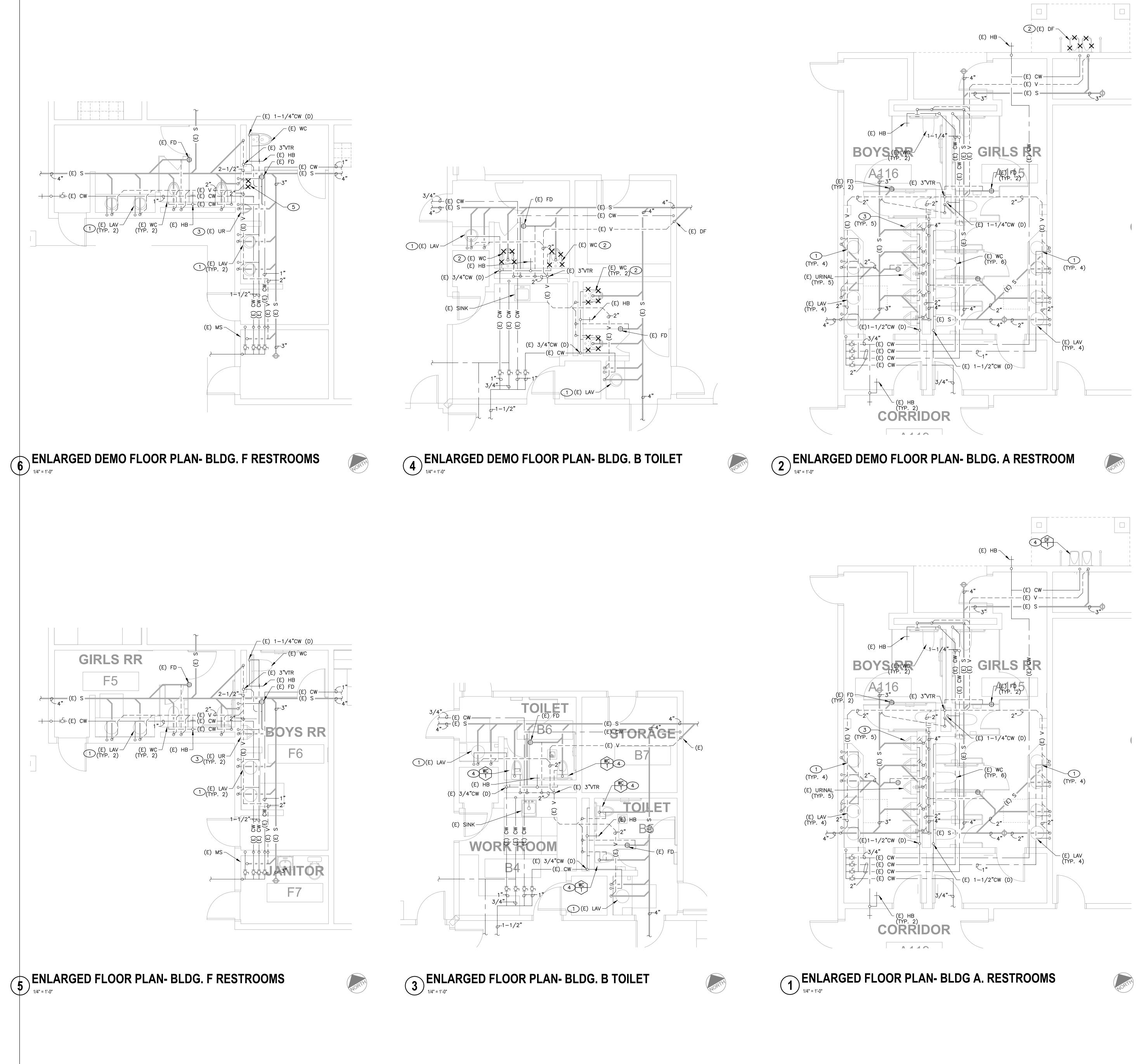
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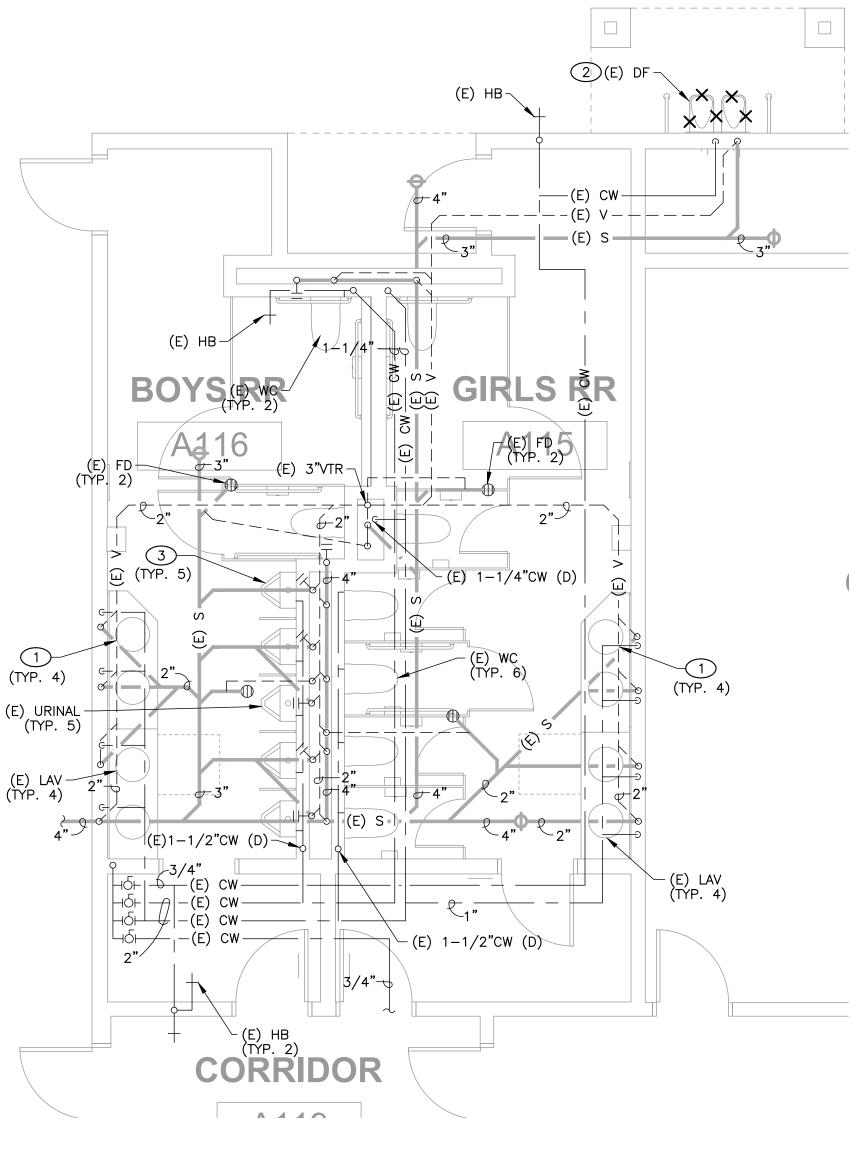


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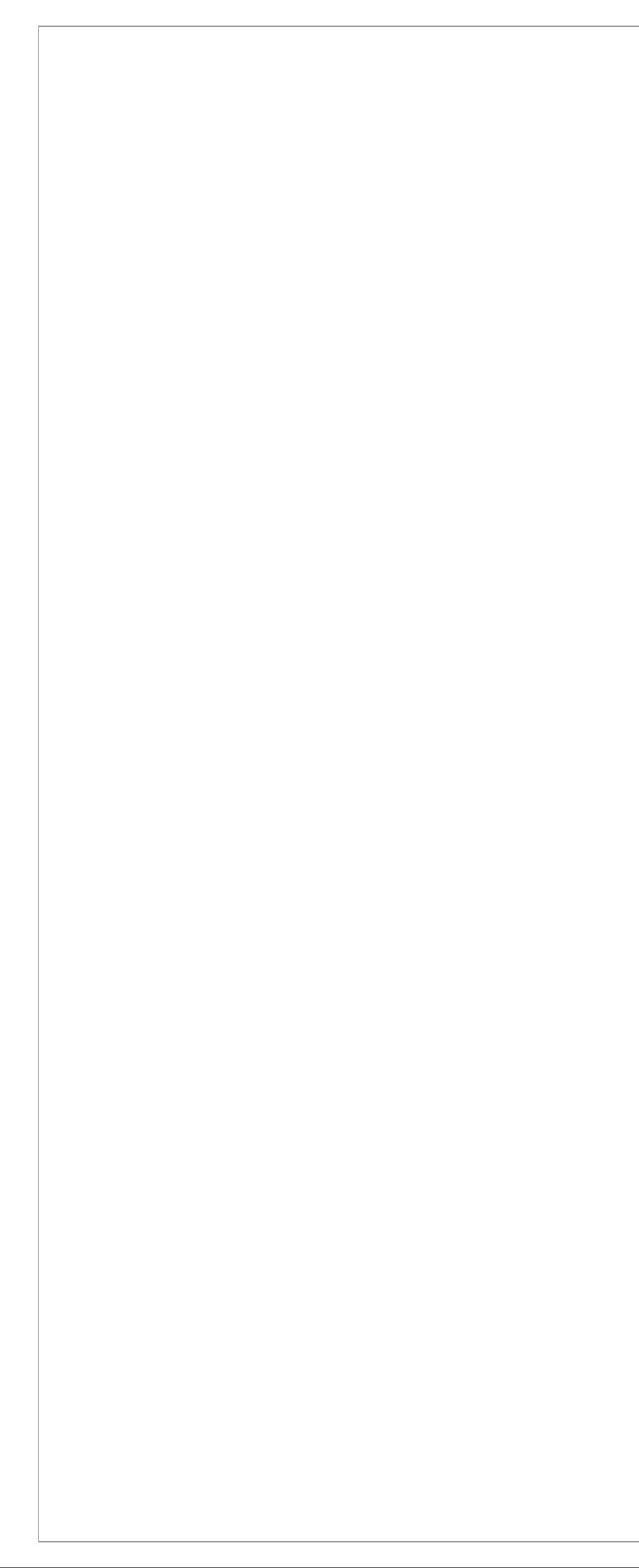
### **KEY NOTES**

- PROVIDE (N) ADA WRAP FOR LAVATORY TRAP AND SUPPLIES.
- 2 REMOVE (E) PLUMBING FIXTURE SHOWN HATCHED. PIPING TO REMAIN FOR CONNECTION TO (N) FIXTURE.
- 3 REPLACE (E) WATERLESS URINAL DRAIN CARTRIDGE KIT. 4 RECONNECT (N) PLUMBING FIXTURE TO (E) PIPING AS NEEDED.

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| CONSULTING   | www.lpengineers.com  |
| ENGINEERS  | Job #: 18-2150   |
| project number<br>project director<br>project designer | CA5602   |
| project architect                                      |  |
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|          | ELECTRICAL ABBREVIATIONS                       |  |  |
|----------|--|--|--|
| SYMBOL   | DESCRIPTIONS                                   |  |  |
| A/AMP    | AMPERES  |  |  |
| AC       | ALTERNATING CURRENT                            |  |  |
| AFF      | ABOVE FINISHED FLOOR                           |  |  |
| AFC      | ABOVE FINISHED CEILING                         |  |  |
| AFG      | ABOVE FINISHED GRADE                           |  |  |
| AIC      | AMPERES INTERRUPTING CAPACITY (SYMMETRICAL)    |  |  |
| С        | CONDUIT  |  |  |
| CCT      | CIRCUIT  |  |  |
| СКТ      | CIRCUIT  |  |  |
| DC       | DIRECT CURRENT                                 |  |  |
| (E)      | EXISTING TO REMAIN                             |  |  |
| EC       | EMPTY CONDUIT                                  |  |  |
| EM       | EMERGENCY                                      |  |  |
| EMT      | ELECTRICAL METALLIC TUBING                     |  |  |
| FACP     | FIRE ALARM CONTROL PANEL                       |  |  |
| FLA      | FULL LOAD AMPS                                 |  |  |
| FLEX     | FLEXIBLE METALLIC CONDUIT                      |  |  |
| GFCI     | GROUND FAULT CIRCUIT INTERRUPTER               |  |  |
| GND/G    | GROUND   |  |  |
| HP       | HORSEPOWER                                     |  |  |
| IG       | ISOLATED GROUND                                |  |  |
| J-BOX    | JUNCTION BOX                                   |  |  |
| KVA      | KILOVOLT-AMPS                                  |  |  |
| ĸw       | KILOWATTS                                      |  |  |
| LTG      | LIGHTING                                       |  |  |
| MCA      | MINIMUM CIRCUIT AMPACITY                       |  |  |
| мсв      | MAIN CIRCUIT BREAKER                           |  |  |
| MLO      | MAIN LUGS ONLY                                 |  |  |
| MTD      | MOUNTED  |  |  |
| (N)      | NEW  |  |  |
| N        | NEUTRAL CONDUCTOR (GROUNDED CIRCUIT CONDUCTOR) |  |  |
| N.I.E.S. | NOT IN ELECTRICAL SCOPE OR SPECIFICATIONS      |  |  |
| NL       | NIGHT LIGHT                                    |  |  |
| PH/P     | PHASE OR POLE                                  |  |  |
| PNL      | PANELBOARD                                     |  |  |
| PVC      | POLYVINYL CHLORIDE CONDUIT (SCHEDULE 40)       |  |  |
| (R)      | RELOCATE/RELOCATED                             |  |  |
| RECEP    | RECEPTACLE                                     |  |  |
| RGSC     | RIGID GALVANIZED STEEL CONDUIT                 |  |  |
| U        | UNSWITCHED                                     |  |  |
| UNO      | UNLESS NOTED OTHERWISE                         |  |  |
| V        | VOLTAGE OR VOLTS                               |  |  |
| W        | WATTS  |  |  |
| WP       | WEATHERPROOF                                   |  |  |
| WPU      | WEATHERPROOF WHILE IN USE                      |  |  |
| (X)      | REMOVE   |  |  |
| XFMR     | TRANSFORMER                                    |  |  |
|          | <u> </u>                                       |  |  |

| TECHNOLOGY SHEET INDEX |   |  |
|------------------------|---|--|
| SHEET NO.              | SHEET TITLE   |  |
| T0.1                   | TECHNOLOGY ABBREVIATIONS, NOTES AND SHEET INDEX     |  |
| T0.2                   | TECHNOLOGY SYMBOL LEGEND                            |  |
| T1.1                   | TECHNOLOGY SITE PLAN                                |  |
| T2.1                   | TECHNOLOGY FLOOR PLAN- BLDG. A                      |  |
| T2.2                   | TECHNOLOGY FLOOR PLANS- BLDG. B & C & D & E         |  |
| T2.3                   | TECHNOLOGY FLOOR PLANS- BLDG. F & G & H & PORTABLES |  |
| T3.1                   | TECHNOLOGY DIAGRAMS                                 |  |
| T3.2                   | TECHNOLOGY ONE LINE, SCHEDULES AND DETAILS          |  |

|     | DEMOLITION GENERAL NOTES<br>DEMOLITION GENERAL NOTES SHOWN BELOW ARE NOT NECESSARILY USED ON PLANS IF NOT REQUIR  |
|-----|---|
| 1.  | ALL EXISTING EQUIPMENT, DEVICES, CONDUIT AND WIRING, ETC., WHERE SHOWN ON PLANS ARE<br>BASED ON AVAILABLE EXISTING DOCUMENTS AND LIMITED SITE SURVEYS AND ARE SHOWN FOR<br>CLARITY. IT SHALL BE REGARDED AS AN APPROXIMATION ONLY. CONSTRUCTION CONTRACTOR<br>AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE<br>CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE<br>CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT. PRIOR TO SUBMITTING BID<br>AND BEFORE START OF ANY ELECTRICAL WORK, CONTRACTOR SHALL VERIFY ON-SITE ALL EXISTING<br>LOCATIONS AND CONDITIONS TO ASCERTAIN ALL WORK REQUIRED. |
| 2.  | EXISTING ELECTRICAL MAIN SERVICE IS BEING REPLACED WITH NEW THAT IS TO BE INCLUDED IN TH<br>SCOPE OF WORK. CONTRACTOR SHALL VERIFY AND COORDINATE THE SEQUENCE OF WORK WITH THE<br>LOCAL UTILITY COMPANY, THE OWNER/DISTRICT'S REPRESENTATIVE AND OTHER TRADES AT THE<br>EARLIEST START OF CONSTRUCTION FOR ALL REQUIREMENT AND SCHEDULE THE REQUIRED WORK FO<br>A SMOOTH AND TIMELY TRANSFORMATION FROM THE EXISTING SERVICE TO THE NEW SERVICE TO<br>ENSURE THAT ALL WORK PROCEED WITH A MINIMUM OF INTERFERENCE AND DELAY. LIMIT THE<br>ELECTRICAL SHUTDOWN TO A MINIMAL SO IT WILL NOT AFFECT THE EXISTING FACILITY'S NORMAL<br>DAILY FUNCTIONS AND OPERATION.              |
| 3.  | CAUSE AS LITTLE INTERFERENCE OR INTERRUPTION OF EXISTING UTILITIES AND/OR OTHER EXISTING FACILITY'S SYSTEMS AND SERVICES AS POSSIBLE. CONTRACTOR SHALL NOTIFY THE OWNER/DISTRICT'S REPRESENTATIVE AT LEAST 72 HOURS TO SCHEDULE ALL NECESSARY SHUTDOWN. SHUTDOWN WORK SHALL BE PERFORMED AFTER THE NORMAL OPERATION HOURS OF THE FACILITY, IF SO DIRECTED BY THE OWNER/DISTRICT'S REPRESENTATIVE.   |
| 4.  | ALL REMOVED AND/OR DEMOLISHED ELECTRICAL MATERIALS AND EQUIPMENT TO BE ACCOMPLISHED<br>UNDER THIS CONTRACT, WHICH IN THE OPINION OF THE OWNER/DISTRICT'S REPRESENTATIVE ARE<br>DEEM SALVAGEABLE, SHALL REMAIN THE PROPERTY OF THE OWNER/DISTRICT. ALL ELECTRICAL<br>MATERIAL AND EQUIPMENT CONSIDERED NOT SALVAGEABLE SHALL BE REMOVED FROM THE SITE AND<br>DISPOSED BY THE CONTRACTOR ACCORDINGLY.   |
| 5.  | WHERE REMOVAL OF AN EXISTING SYSTEM'S DEVICE WILL RESULT IN LOSS OF CIRCUIT CONTINUITY,<br>THE ISOLATED PORTIONS OF THE CIRCUIT SHALL BE RECONNECTED TO PROVIDE SERVICE TO ALL<br>REMAINING DEVICES. IF SITE CONDITIONS MAKE RECONNECTION IMPOSSIBLE, CONNECTION SHALL BE<br>MADE FROM AN ADJACENT AVAILABLE DEVICE AS NOTED AND/OR AS DIRECTED BY THE ARCHITECT<br>AND/OR THE OWNER/DISTRICTS REPRESENTATIVE.  |
| 6.  | WHERE EXISTING CONCEALED CONDUITS, WHETHER SHOWN OR NOT, OR SPECIFIED TO BE REUSED, WHICH BECAME EXPOSED DUE TO CONSTRUCTION CHANGES, IT SHALL BE REROUTED TO THE NEAREST AVAILABLE REUSED OUTLET.  |
| 7.  | ALL EXISTING EXPOSED CONDUITS AND/OR WIRING THAT ARE DETERMINED BY THE DISTRICT AND<br>ARCHITECT TO BE MAINTAIN FOR EXISTING SYSTEM FUNCTION AND CONTINUITY, WHETHER SHOWN ON<br>PLAN OR NOT, ARE TO BE REROUTED CONCEALED IN WALL AND/OR CEILING FOR A CLEAN FINISHEE<br>SURFACE WITH NO EXPOSED CONDUITS AND/OR WRING WITHIN THE REMODELED AREA.  |
| 8.  | REMOVE ALL EXISTING EXPOSED CONDUITS, WIRING, ELECTRICAL OUTLETS, DEVICES AND EQUIPMENT<br>THAT ARE DETERMINED BY THE DISTRICT AND ARCHITECT TO BE NON FUNCTIONAL AND/OR NOT<br>BEING USED FROM WITHIN THE REMODELED ARE FOR A CLEAN FINISHED SURFACE.  |
| 9.  | <ul> <li>WHERE EXISTING WIRING OR EQUIPMENT IS ABANDONED AS A RESULT OF THIS CONTRACT, IT SHALL BE REMOVED INSOFAR AS POSSIBLE. THIS INCLUDES BUT IS NOT LIMITED TO:</li> <li>A. REMOVE ALL WIRE AND CABLE.</li> <li>B. REMOVE ALL DEVICES AND EQUIPMENT.</li> <li>C. REMOVE ALL EXPOSED CONDUIT AND CONDUIT IN ACCESSIBLE CONCEALED AREA, AS FAR AS POSSIBLE.</li> <li>D. CUT OFF AND CAP ALL ABANDONED CONDUIT. STUBS SHALL NOT BE PROTRUDED ABOVE FLOOR AND/OR FINISHED WALLS AND CEILINGS.</li> </ul>   |
| 10. | WHEREVER EXISTING ELECTRICAL DEVICES, PANELS, CONDUITS, CABLES, ETC., CONFLICT WITH<br>REMODEL WORK, WHETHER SHOWN OR NOT, RELOCATE THESE ITEMS AS DIRECTED BY THE ARCHITEC<br>AND/OR OWNER/DISTRICT'S REPRESENTATIVE.  |
| 11. | WHERE SHOWN ON PLAN FOR REMOVAL OF EXISTING CONDUITS, REMOVE ALL PORTIONS OF CONDUIT<br>WHERE IT IS ACCESSIBLE AND ABANDON PORTIONS OF CONDUITS WHERE IT IS INACCESSIBLE. CUT<br>OFF AND CAP ALL ABANDONED CONDUITS. STUBS SHALL NOT BE PROTRUDED ABOVE FLOOR<br>AND/OR FINISHED WALLS AND CEILINGS.  |
| 12. | CONTRACTOR SHALL UPDATE WITH NEW TYPED WRITTEN PANEL DIRECTORIES TO EXISTING PANELS INVOLVED IN THIS RENOVATION WORK THAT SHALL REFLECT ALL CHANGES TO THE CIRCUIT DESIGNATIONS.  |
| 13. | PROVIDE AND INSTALL PROTECTIVE COVERING OVER EXISTING EQUIPMENT IN AREA WHEN INSTALLING ANY NEW WORK.   |
| 14. | COORDINATE WITH OTHER TRADES AND PROMPTLY TRANSMIT ALL INFORMATION REQUIRED BY THEM.<br>COORDINATE THE SEQUENCE OF DEMOLITION WITH OTHER TRADES TO ENSURE THAT ALL WORK<br>PROCEEDS WITH A MINIMUM OF INTERFERENCE AND DELAY.   |
| 15. | REFER TO MECHANICAL AND PLUMBING DRAWING FOR HEATERS, EXHAUST FANS, WATER HEATERS, PUMPS, AND ETC., WHICH REQUIRE TO BE DISCONNECTED BY THE ELECTRICAL CONTRACTOR FOR REMOVAL OR ABANDONMENT BY THE MECHANICAL AND/OR PLUMBING CONTRACTOR. THE ELECTRICAL CONTRACTOR SHALL COORDINATE THE SEQUENCE FOR WORK WITH THE MECHANICAL AND/OR PLUMBING FOR REMOVAL OF ALL APPLICABLE STARTERS, DISCONNECT SWITCHES AND ASSOCIATED CONDUIT AND WIRING.  |

16. ALL LIGHT FIXTURES INDICATED AS RELOCATED SHALL BE CLEANED AND RE-LAMPED PRIOR TO THE RE-INSTALLATION.

### RAL NOTES OT NECESSARILY USED ON PLANS IF NOT REQUIRED.

### WIRING, ETC., WHERE SHOWN ON PLANS ARE IMITED SITE SURVEYS AND ARE SHOWN FOR ATION ONLY. CONSTRUCTION CONTRACTOR CCEPTED CONSTRUCTION PRACTICES, THE AND COMPLETE RESPONSIBILITY FOR JOB SITE

ONTRACTOR SHALL VERIFY ON-SITE ALL EXISTING ORK REQUIRED. LACED WITH NEW THAT IS TO BE INCLUDED IN THE COORDINATE THE SEQUENCE OF WORK WITH THE REPRESENTATIVE AND OTHER TRADES AT THE JIREMENT AND SCHEDULE THE REQUIRED WORK FOR E EXISTING SERVICE TO THE NEW SERVICE TO JM OF INTERFERENCE AND DELAY. LIMIT THE NOT AFFECT THE EXISTING FACILITY'S NORMAL

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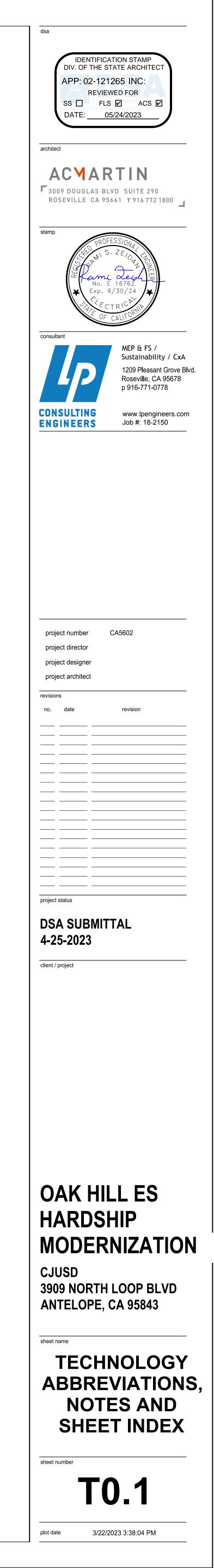
NG CONDUITS, REMOVE ALL PORTIONS OF CONDUITS OF CONDUITS WHERE IT IS INACCESSIBLE. CUT SHALL NOT BE PROTRUDED ABOVE FLOOR

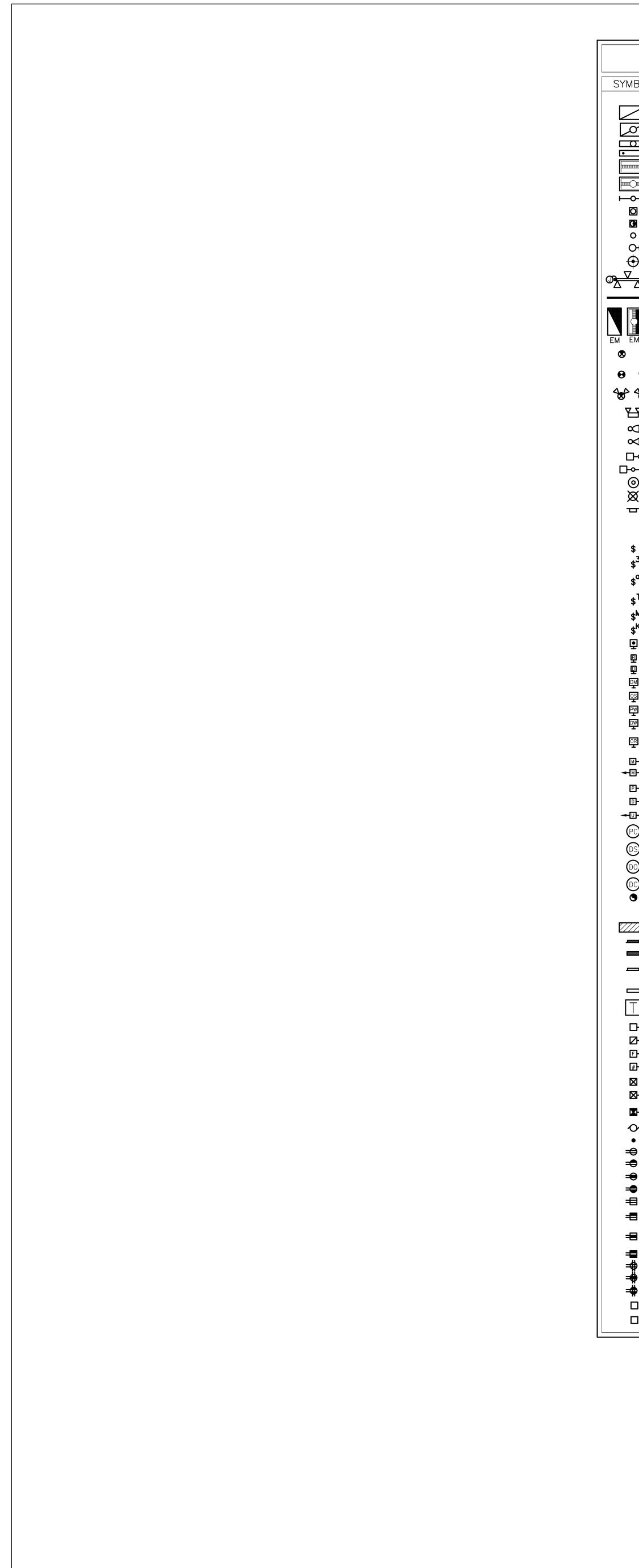
GENERAL NOTES ALL GENERAL NOTES SHOWN BELOW ARE NOT NECESSARILY USED ON PLANS IF NOT REQUIRED.

- THESE GENERAL NOTES ARE INTENDED TO ASSIST THE CONTRACTOR IN THE EXECUTION OF THE ELECTRICAL WORK AND TO BE INCLUDED IN CONJUNCTION WITH THE CONTRACT DOCUMENT DRAWINGS AND SPECIFICATION REQUIREMENTS. SOME OF THE GENERAL NOTES ARE EXCERPTS FROM THE SPECIFICATION.
- PROCURE PERMITS AND LICENSES REQUIRED. PAY ALL NECESSARY FEES AND ARRANGE FOR INSPECTIONS REQUIRED BY LOCAL CODES AND ORDINANCES AND UTILITY COMPANIES.
- COORDINATE ALL ELECTRICAL SERVICES WITH THE RESPECTIVE UTILITY COMPANIES AND PROVIDE ALL TRENCHING, CONDUITS, WIRING, METER FACILITIES AND OUTLETS REQUIRED BY THEM.
- WORKMANSHIP SHALL BE OF THE HIGHEST GRADE. DEFECTIVE EQUIPMENT OR EQUIPMENT DAMAGED IN THE COURSE OF INSTALLATION OR TEST SHALL BE REPLACED OR REPAIRED IN A MANNER MEETING WITH THE ACCEPTANCE OF THE ARCHITECT. INSTALL ALL EQUIPMENT, CONDUITS, OUTLETS, AND FIXTURES IN STRICT ACCORDANCE WITH THE
- CURRENT EDITION OF ALL APPLICABLE CODES (CEC, STATE, COUNTY AND CITY).
- 6. DO NOT SCALE PLANS FOR FIXTURES, DEVICES, OR APPLIANCE LOCATIONS. USE FIGURED DIMENSIONS IF GIVEN OR CHECK MECHANICAL AND ARCHITECTURAL PLANS. ALSO REFER TO ACTUAL ON-SITE CONDITIONS.
- ALL MATERIAL AND EQUIPMENT IS TO BE LISTED AND INSTALLED PER MANUFACTURER'S SPECIFICATIONS AND CEC 110.3.
- 8. ALL ELECTRICAL DEVICES AND EQUIPMENT, FIXTURES, CONDUITS AND WIRING SHOWN ON THESE PLANS ARE NEW, UNLESS OTHERWISE NOTED.
- 9. OUTLET BOXES INSTALLED IN FIRE WALLS SHALL BE ONE-PIECE STEEL AND INSTALLED IN SEPARATE (STAGGERED) STUD PENETRATIONS, MINIMUM 24 INCHES HORIZONTAL SEPARATION. FIRE WALLS SHALL BE MADE IN ACCORDANCE WITH CBC AND ELECTRICAL CODES.
- 10. THE FINAL LOCATION OF ALL OUTLETS SHALL BE VERIFIED WITH THE ARCHITECT AND/OR OWNER AT TIME OF CONSTRUCTION.
- 11. ALL OUTDOOR ELECTRICAL EQUIPMENT SHALL BE WEATHER-PROTECTED.
- 12. CONTRACTOR SHALL VERIFY THAT ALL LIGHTING FIXTURES, CEILING TRIMS, AND FRAMES ARE COMPATIBLE WITH CEILING SYSTEM INSTALLED.
- 13. CONTRACTOR SHALL COORDINATE LIGHT FIXTURE LOCATIONS AND INSTALLATIONS WITH THE MECHANICAL CONTRACTOR. MAINTAIN REQUIRED CLEARANCES (MINIMUM 3 INCHES) BETWEEN THE LIGHT FIXTURES AND MECHANICAL DUCTS OR EQUIPMENT FOR PROPER OPERATION, INSTALLATION AND/OR REMOVAL OF FIXTURES.
- 14. BEFORE SUBMITTING FOR ARCHITECT'S REVIEW AND PLACING ORDER FOR THE LIGHT FIXTURES, THE CONTRACTOR SHALL VERIFY THE VOLTAGE OF ALL THE LIGHTING FIXTURES TO MATCH THE VOLTAGE OF THE SERVICE PANEL, WHETHER THE VOLTAGE FOR THE LIGHT FIXTURES ARE SHOWN ON THE PLAN OR NOT.
- 15. PLACEMENT AND CIRCUITING OF EXIT SIGNS AND EGRESS LIGHTING SHALL COMPLY WITH CBC REQUIREMENTS.
- 16. ALL CONDUIT SHALL BE ROUTED CONCEALED UNLESS NOTED ON PLAN OR ACCEPTED BY THE ARCHITECT.
- 17. PROVIDE ALL NECESSARY SLEEVES AND INSERTS FOR ALL WORK PASSING THROUGH OR ATTACHING TO WALLS, FLOORS, OR CEILINGS.
- 18. ALL WIRING SHALL BE INSTALLED IN RIGID METALLIC CONDUIT, UNLESS OTHERWISE NOTED. CONDUITS INSTALLED CONCEALED IN WALL AND CEILING MAY BE EMT WITH STEEL COMPRESSION TYPE FITTINGS. PVC WHERE INSTALLED UNDERGROUND AND/OR UNDER SLAB. ALL EXPOSED CONDUITS SHALL BE RIGID STEEL CONDUITS WITH THREADED TYPE FITTINGS. INSTALL ALL CONDUITS IN ACCORDANCE WITH CECA STANDARDS OF INSTALLATION.
- 19. ELECTRICAL NON-METALLIC TUBING (ENT) AND MC CABLE ARE NOT PERMITTED TO BE USED FOR THIS PROJECT, NO EXCEPTIONS.
- 20. WHERE EXISTING CONDUITS, CONCEALED OR EXPOSED, AND (WIREMOLD) SURFACE RACEWAY IS NOT IN PLACE AS SHOWN ON PLANS, PROVIDE NEW CONDUITS AND (WIREMOLD) SURFACE RACEWAY FOR THE NEW WORK. VERIFY EXISTING CONDITION ON SITE AND PROVIDE ALL NECESSARY NEW MATERIAL, APPARATUS, AND WORK THAT ARE REQUIRED TO BE INCLUDED IN THE BID PACKAGE.
- 21. CONDUCTORS, #8 AND LARGER, SHALL BE STRANDED COPPER WITH THNN/THWN INSULATION, UNLESS OTHERWISE NOTED.
- 22. PROVIDE WORKING CLEARANCE PER CEC 110.26 FOR SERVICE PANEL, SUBPANELS, MOTOR DISCONNECT SWITCHES, CONTROL SECTIONS. HVAC EQUIPMENT, APPLIANCES, ETC.
- 23. PROVIDE A WARNING LABEL (SIGN) CLEARLY VISIBLE TO QUALIFIED PERSONS TO COMPLY WITH NEC AND CEC 116.16 OF POTENTIAL ELECTRIC ARC FLASH HAZARDS AT SWITCHBOARDS, PANELBOARDS, INDUSTRIAL CONTROL PANELS AND MOTOR CONTROL CENTERS THAT ARE LIKELY TO REQUIRE EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE WHILE ENERGIZED. SERVICE EQUIPMENT SHALL BE LEGIBLY MARKED WITH THE MAXIMUM AVAILABLE FAULT CURRENT PER CEC SECTION 110.24(A).
- 24. BUILDING SERVICE AND SUBPANELS TO COMPLY WITH CEC 110.9 AND 110.10 INTERRUPTING RATING AND BRACING. PROVIDE A.I.C. CALCULATIONS FOR SUBPANELS IF INTERRUPTING RATING TO BE USED IS LOWER THAN MAIN SERVICE RATING.
- 25. ALL APPLIANCES SHALL COMPLY WITH CEC ARTICLE 422. APPLIANCE CONTROL AND PROTECTION PER CEC 422-III; BRANCH CIRCUITS PER 422-II. 26. BUILDING EXPANSION JOINTS MAY OR MAY NOT BE INDICATED ON THE ELECTRICAL DRAWINGS.
- VERIFY THE LOCATIONS OF ALL APPLICABLE BUILDING EXPANSION JOINTS WITH THE ARCHITECTURAL DRAWINGS. WIRING METHODS ACROSS EXPANSIONS JOINTS SHALL INCLUDE USE OF FLEXIBLE FITTINGS OR OTHER DEVICES AS APPROPRIATE TO EACH APPLICATION. IN NO CASE SHALL CONDUIT CROSS SUCH A JOINT IN BUILDING CONSTRUCTION WITHOUT USE OF THE APPROPRIATE WIRING METHODS.
- 27. CONTRACTOR SHALL SIZE ALL THE INTERIOR AND EXTERIOR BUILDING PULL BOXES AND UNDERGROUND PULL BOXES PER CEC 314.16 AND COMPLY WITH CEC 314.28 FOR INSTALLATION OF RACEWAYS AND WIRING AS REQUIRED BY CODE, UNLESS OTHERWISE NOTED.
- 28. WHERE ACCESSIBILITY IS NOT AVAILABLE TO ELECTRICAL OUTLETS, DEVICES AND/OR EQUIPMENT, COORDINATE WITH THE ARCHITECT FOR PROVISIONS TO PROVIDE ACCESSIBILITY TO THEM.
- 29. CONTRACTOR IS RESPONSIBLE FOR REVIEWING THE MECHANICAL DRAWINGS AND PROVIDES ALL CONDUITS AND CONTROL WIRING AND POWER WIRING SHOWN ON THE MECHANICAL DRAWINGS THAT IS NOT SHOWN ON THE ELECTRICAL PLANS.
- 30. CONTRACTOR SHALL REFER TO THE MECHANICAL DRAWINGS AND COORDINATE FOR THE EQUIPMENT LOCATIONS. COORDINATE ROOF PENETRATION WITH THE MECHANICAL CONTRACTOR FOR MECHANICAL CONNECTIONS. ENTER ROOF MOUNTED UNITS THROUGH EQUIPMENT MOUNTING CURES WHERE POSSIBLE. VERIFY ON-SITE.
- 31. PROVIDE CONVENIENCE OUTLET WITHIN 25 FEET OF MECHANICAL EQUIPMENT PER U.M.C. WHERE LOCATED OUTSIDE, PROVIDE WEATHER PROOF AND GFCI CONVENIENCE OUTLET. SECURE ROOF MOUNTED OUTLET TO THE MECHANICAL EQUIPMENT. VERIFY LOCATION IN FIELD WITH THE MECHANICAL CONTRACTOR.
- 32. VERIFY SINGLE-POINT CONNECTIONS TO ROOF MOUNTED HVAC UNITS WITH MECHANICAL CONTRACTOR ON-SITE PRIOR TO ELECTRICAL ROUGH-IN. PROVIDE DUAL DISCONNECTS IF TWO-POINT CONNECTIONS IS REQUIRED, WHETHER SHOWN ON PLANS OR NOT.
- 33. SWITCH DEVICES CONTROLLING MECHANICAL EQUIPMENT SHALL BE SIZE AND TYPE REQUIRED AND SHALL BE SERVED WITH QUANTITY OF WIRES AS REQUIRED. REFER TO DIVISION 15 MECHANICAL PLANS AND SPECIFICATIONS.
- 34. COORDINATE THE HVAC EQUIPMENT FOR FUSES REQUIRE. WHERE FUSES ARE REQUIRED. VERIFY FUSE SIZE ON-SITE AND PROVIDE FOR HVAC EQUIPMENT PER UNIT NAMEPLATE SPECIFICATIONS.
- 35. MOTOR DISCONNECT SWITCHES SHALL COMPLY WITH CEC 430-IX AND 440.II. 36. MOTOR STARTERS FOR HVAC EQUIPMENT ARE PROVIDED BY MECHANICAL CONTRACTOR AND
- CONNECTED BY ELECTRICAL CONTRACTOR, UNLESS NOTED OTHERWISE.
- 37. ALL CONNECTIONS FROM THE DISCONNECT SWITCHES TO HVAC UNITS SHALL BE COPPER CONDUCTORS. MOTOR DISCONNECT SWITCHES SHALL COMPLY WITH CEC 430-VII, 430-VIII, AND 440-II.
- 38. VERIFY LOCATION AND HEIGHT OF ALL MECHANICAL OR FIXTURE EQUIPMENT OUTLETS WITH SUPPLIER PRIOR TO ANY ROUGH-IN WORK. PROVIDE ALL RUNS AND CONNECTIONS TO EQUIPMENT.
- 39. ALL TERMINATION PROVISIONS OF EQUIPMENT, INCLUDING CIRCUITS RATED 100 AMPERES OR LESS, SHALL BE RATED AT 60 DEGREE, CENTIGRADE PER CEC 110.14(c).

PROTECTED WITH SHATTERPROOF SHIELDS AND SHALL BE READILY CLEANABLE

40. ALL LIGHT FIXTURES INSTALLED OVER FOOD HANDLING OR FOOD PREPARATION AREAS, OPEN FOOD STORAGE AND UTENSIL WASHING AREAS SHALL BE OF SHATTERPROOF CONSTRUCTION OR SHALL BE

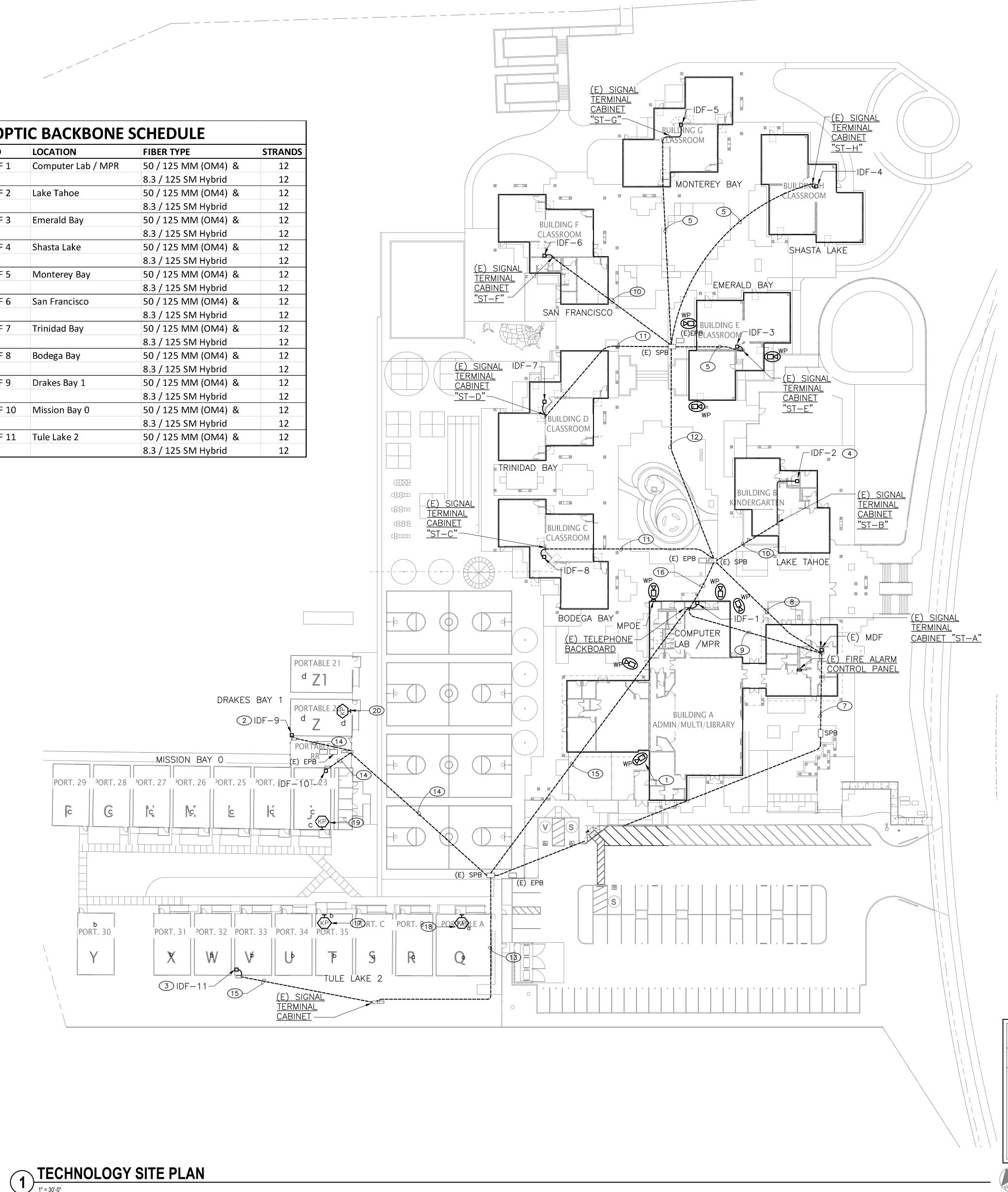




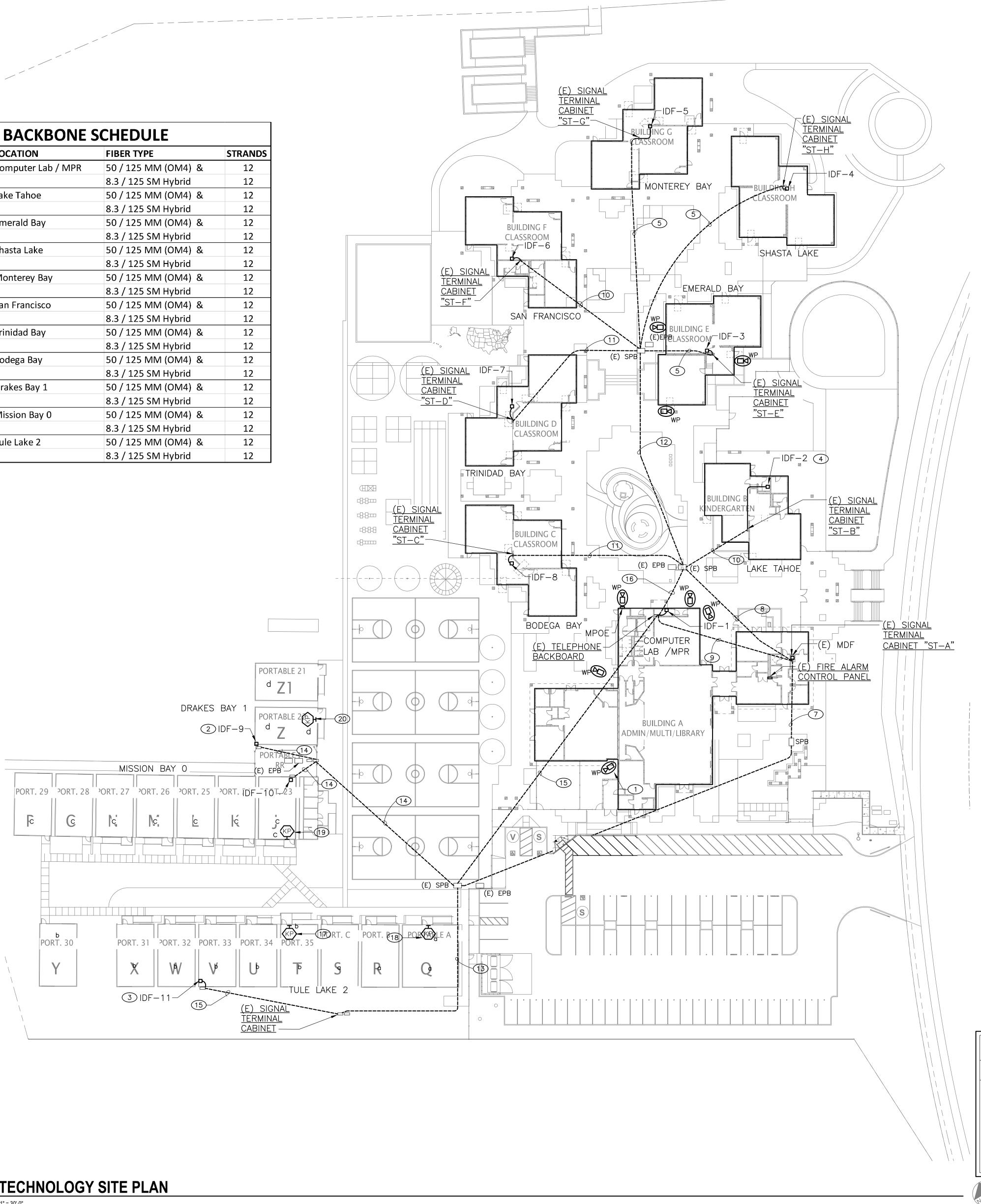
|          |   | ALL SYMB              | TECHNOLOGY SYMBOL  |
|----------|---|-----------------------|--|
|          | DESCRIPTION   | SYMBOL                | DESCRIPTION  |
|          | <u>IGHTING</u>  | -#                    | GFCI FOURPLEX RECEPTACLE OUTLET 20A, 120   |
|          | LUORESCENT/LED LUMINAIRE - T-BAR LAY-IN   | -#                    | GFCI FOURPLEX RECEPTACLE OUTLET MOUNTED  |
|          | LUORESCENT/LED LUMINAIRE – RECESSED IN GYPBOARD   |                       | BACKSPLASH   |
|          | LUORESCENT/LED LUMINAIRE - SUSPENDED  | =##                   | ISOLATED GROUND GFCI FOURPLEX RECEPTACL BOX, UNO.                                  |
| F        | LUORESCENT/LED DIRECT/INDIRECT LUMINAIRE - T-BAR LAY-IN   | <b>=#</b>             | DEDICATED GFCI FOURPLEX RECEPTACLE OUTLE   |
| F        | LUORESCENT/LED DIRECT/INDIRECT LUMINAIRE - RECESSED IN GYPBOARD   |                       | UNO<br>CONTROLLED/UNCONTROLLED FOURPLEX RECEF                                      |
| F        | LUORESCENT/LED STRIP LIGHT – SURFACE OR SUSPENDED   |                       | SPECIAL RECEPTACLE OUTLET, SIZE AND NEMA   |
|          | OWNLIGHT LUMINAIRE – RECESSED   | ✓                     | +16" TO BOTTOM OF BOX, UNO.  |
|          | /ALLWASH_LUMINAIRE — RECESSED<br>UMINAIRE — SURFACE   | ۲                     | FLOOR MOUNTED DUPLEX RECEPTACLE, 20A, 1  |
|          | UMINAIRE - WALL   | •                     | FLOOR MOUNTED FOURPLEX RECEPTACLE, 20A   |
| L        | UMINAIRE – PENDANT  |                       | CEILING MOUNTED DUPLEX RECEPTACLE, 20A,  |
| Т        | RACK LIGHT – SUSPENDED OR SURFACE MOUNTED   |                       | CEILING MOUNTED FOURPLEX RECEPTACLE, 20/   |
|          | CONTINUOUS LINEAR LED TAPE OR LED COVE LIGHT  | QΟ                    | JUNCTION BOX – SIZE AS REQUIRED BY CODE  |
|          | SINTINGOUS LINEAR LED TALE OR LED COVE LIGHT  |                       | JUNCTION BOX (FLOOR MOUNTED) - SIZE AS   |
|          | ATCHED LUMINAIRE WITH "EM" ABBREVIATION INDICATES AN EMERGENCY LUMINAIRE WITH   | 0                     | PLUGMOLD   |
|          |   |                       | POWER POLE   |
|          | SINGLE FACE EXIT SIGN. SEE LIGHTING FIXTURE SCHEDULE FOR SPECIFICATION.   | ₽<br>₽<br>₽           | POWER AND TELEPHONE POKE THROUGH FOR   |
| D        | OUBLE FACE EXIT SIGN. SEE LIGHTING FIXTURE SCHEDULE FOR SPECIFICATION.  |                       | FLOOR MOUNTED COMBO DUPLEX RECEPTACLE  |
|          | DIRECTIONAL ARROW AS INDICATED ON PLANS. (CEILING OR WALL)  |                       | FLOOR MOUNTED COMBO FOURPLEX RECEPTAC  |
|          | BACK-UP.  |                       | TELECOM  |
| В        | ATTERY POWERED EMERGENCY EGRESS LUMINAIRE – SURFACE MOUNTED   |                       |  |
| s        | POT/FLOOD LUMIANIRE – CEILING   | 1 🕨                   | TELEPHONE OUTLET, 4–11/16"SQ. x 2–1/8"<br>@ +16"TO BOTTOM OF BOX & ¾"CONDUIT       |
| S        | POT/FLOOD LUMINAIRE – ABOVE GROUND  | 3⊳                    | DATA OUTLET, 4–11/16" SQ. x 2–1/8" DEEP<br>+16" TO BOTTOM OF BOX & ¾" CONDUIT STU  |
|          | XTERIOR POLE FIXTURE – SINGLE HEAD  |                       | TELE/DATA OUTLET, $4-11/16$ " SQ. x $2-1/8$ "                                      |
|          | XTERIOR POLE FIXTURE - TWIN HEAD  | 1/3                   | $@$ +16" TO BOTTOM OF BOX & (2) $\frac{3}{4}$ " COND                               |
|          | XTERIOR PATHWAY POLE FIXTURE  | 1/3₽                  | TELE/DATA OUTLET, 4-11/16" SQ. x 2-1/8"<br>ABOVE COUNTER AND (2) ¾" CONDUIT STUB   |
|          | ITEP LUMINAIRE  | 2 🕑                   | FLOOR MOUNTED DATA OUTLET, FLUSH IN FINI   |
|          |   | 1                     | FLOOR MOUNTED TELEPHONE OUTLET, FLUSH I  |
| <b>L</b> | <u>IGHTING CONTROLS</u>   | 1/3 🌘                 | FLOOR MOUNTED TELEPHONE/DATA OUTLET, FL  |
| s        | SINGLE POLE TOGGLE SWITCH, 20A, 120-277V @ +46" TO TOP OF BOX, UNO.   | 2                     | CEILING MOUNTED DATA OUTLET, 4" SQ. BOX  |
|          | HREE WAY TOGGLE SWITCH 20A,120-277V @ +46" TO TOP OF BOX, UNO.  |                       | - NUMBER BY DEVICE SYMBOL PARENTHESIS IND  |
| S<br>F   | SUBSCRIPTS "a,b,c" DESIGNATE THE QUANTITY OF SWITCHES AT EACH LOCATION (TYPICAL<br>OR ALL SWITCH TYPES).  |                       | FOR VOICE/DATA OUTLETS, THE FIRST NUMBER<br>THE SECOND NUMBER REPRESENTS THE # OF  |
|          | HERMAL OVERLOAD SWITCH  | <b>⊳</b> wap          | " WIRELESS ACCESS POINT  |
|          | IOTOR RATED SWITCH  |                       | TELEPHONE TERMINAL BACKBOARD   |
|          | SINGLE POLE KEYED TOGGLE SWITCH 20A, 120–277 @ +46" TO TOP OF BOX, UNO.   | Ţ                     | COAXIAL CABLE OUTLET   |
|          | PUSH BUTTON   | Ū Ū                   | CLOCK  |
|          | ALL MOUNTED DECORA IN LIEU OF ROCKER SWITCH @ +46" TO TOP OF BOX, UNO.  |                       | INTERCOM/PAGING SPEAKER AND CLOCK COME   |
| w        | ALL MOUNTED DIMMER SWITCH SWITCH @ +46" TO TOP OF BOX, UNO.   |                       |  |
|          | ALL MOUNTED DIGITAL DIMMER CONTROL SWITCH @ +46" TO TOP OF BOX, UNO.  | S                     | CEILING MOUNTED SPEAKER  |
|          | ALL SWITCH OCCUPANCY SENSOR SWITCH @ +46" TO TOP OF BOX, UNO.   | <b>⊆</b>              | WALL MOUNTED SPEAKER<br>CALL SWITCH  |
|          | VIR WALL SWITCH OCCUPANCY SENSOR SWITCH @ +46" TO TOP OF BOX, UNO.  |                       | OALL SWITCH  |
|          | DUAL TECH WALL OCCUPANCY SENSOR SWITCH @ +46" TO TOP OF BOX, UNO.   |                       | SURVEILLANCE CAMERAS   |
| C        | DIGITAL WALL CONTROL (OVERRIDE SWITCH). RUN CABLING BACK TO LIGHTING<br>CONTROL PANEL SWITCH @ +46" TO TOP OF BOX, UNO.                               | ß                     | 360 DEGREES CAMERA   |
|          | CORNER MOUNT MOTION SENSOR. DUAL TECHNOLOGY, PIR OR ULTRASONIC  | Ъ<br>В                | FIXED POSITION CAMERA  |
|          | EILING MOTION SENSOR. DUAL TECHNOLOGY PIR & ULTRASONIC  |                       | WEATHERPROOF FIXED POSITION CAMERA   |
|          | PIR DIGITAL CORNER SENSOR   |                       | ACCESS CONTROL   |
|          | DUAL TECH DIGITAL CORNER SENSOR   | CR                    | CARD READER  |
|          |   |                       | ELECTRONIC LOCK  |
| Р        | PHOTO SENSOR  |                       | INTRUSION ALARM  |
| S        | KYLIGHT PHOTOCONTROL SENSOR   |                       | KEYPAD   |
| С        | PEN LOOP PHOTOCONTROL SENSOR  |                       |  |
| С        | CLOSED LOOP PHOTOCONTROL SENSOR   | ⋈╾                    | WALL/CEILING MOUNTED FIXED POSITION INTRU  |
| С        | EILING EXHAUST FAN  |                       | WIRELESS CEILING MOUNTED 360 DEGREES INT   |
| F        | POWER   | WAP                   | WIRELESS CEILING MOUNTED ACCESS POINT  |
| _        | IAIN SWITCHBOARD OR DISTRIBUTION PANEL,AS NOTED   |                       |  |
|          | RECESSED MOUNTED LIGHTING OR DISTRIBUTION PANEL   |                       | <u>FIRE ALARM</u>  |
|          | SURFACE MOUNTED LIGHTING OR DISTRIBUTION PANEL  | FACP                  | FIRE ALARM CONTROL PANEL   |
| R        | RECESSED TERMINAL CABINET w/ ¾"C PLYWOOD BACKBOARD, DUPLEX<br>RECEPTACLE & #6 CU GND, UON.  | FAPS                  | FIRE ALARM POWER SUPPLY  |
| S        | SURFACE MOUNTED TERMINAL CABINET w/ ¾"C PLYWOOD BACKBOARD, DUPLEX   |                       | FIRE ALARM ANNUNCIATOR   |
|          | RECEPTACLE & #6 CU GND, UON.  | B                     | FIRE ALARM BELL  |
|          |   |                       | HEAT DETECTOR  |
|          | ION-FUSED DISCONNECT SWITCH   | Ū <sub>A</sub>        | ABOVE CEILING HEAT DETECTOR  |
|          | INCLOSED CIRCUIT BREAKER DISCONNECT SWITCH  | 0                     | SMOKE DETECTOR   |
|          | USED DISCONNECT SWITCH; SIZE DISCONNECT AND FUSES PER UNIT LABEL  | 0 <del>-</del>        | DUCT SMOKE DETECTOR  |
|          | NOTOR STARTER/CONTROLLER  | P                     | MANUAL PULL STATION  |
|          | COMBINATION CIRCUIT BREAKER DISCONNECT/MOTOR STARTER.   |                       | END OF LINE RESISTOR   |
| С        | COMBINATION FUSIBLE DISCONNECT/MOTOR CONTROLLER; PROVIDE FUSES PER  |                       | TAMPER SWITCH  |
| Ν        | IANUFACTURERE'S REQUIREMENTS. N.F. INDICATES NON-FUSED.   | TS                    |  |
|          | POWER CONNECTION  | FS                    | WATERFLOW SWITCH   |
|          | DUPLEX RECEPTACLE OUTLET 20A, 120V, @ +16" TO BOTTOM OF BOX, UNO.   | MM                    | MONITOR MODULE   |
| D        | DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER TOP +36" AFF.   | СМ                    | CONTROL MODULE   |
|          | SOLATED GROUND DUPLEX RECEPTACLE, 20A, 120V @ +16" TO BOTTOM OF BOX, UNO.   | PIV                   | POST INDICATOR VALVE   |
|          | DEDICATED DUPLEX RECEPTACLE OUTLET 20A, 120V, @ +16" TO BOTTOM OF BOX, UNO.<br>SFCI DUPLEX RECEPTACLE OUTLET 20A, 120V, @ +16" TO BOTTOM OF BOX, UNO. | FSD                   | FIRE SMOKE DAMPNER   |
| G        | FCI DUPLEX RECEPTACLE OUTLET MOUNTED ABOVE COUNTER TOP AND/OR SINK  | 品                     | HORN SPEAKER   |
| E        | BACKSPLASH  | X1-1<br>XXXcd         | WALL MOUNTED SPEAKER STROBE (15cd, 30cd<br>X1-1 RESEMBLES THE NAC CIRCUIT AND QUA  |
|          | SOLATED GROUND GFCI DUPLEX RECEPTACLE OUTLET 20A, 120V, @ +16" TO BOTTOM OF   | X1−1 <sub>⊽</sub> C   | CEILING MOUNTED SPEAKER STROBE (15cd, 30   |
| D        | DEDICATED GFCI DUPLEX RECEPTACLE OUTLET 20A, 120V, @ +16" TO BOTTOM OF BOX, UNO   | XXXcd 🖾               | X1-1 RESEMBLES THE NAC CIRCUIT AND QUA   |
|          | OURPLEX RECEPTACLE OUTLET 20A, 120V, @ +16" TO BOTTOM OF BOX, UNO.  | X1−1<br>XXXcd⊠        | WALL MOUNTED STROBE (15cd, 30cd, 75cd, 1<br>X1-1 RESEMBLES THE NAC CIRCUIT AND QUA |
|          | SOLATED GROUNDED FOURPLEX RECEPTACLE 20A, 120V @ +16" TO BOTTOM OF BOX, UNO.  |                       | CEILING MOUNTED STROBE (15cd, 30cd, 75cd   |
| D        | DEDICATED FOURPLEX RECEPTACLE OUTLET 20A, 120V, @ +16" TO BOTTOM OF BOX, UNO.   | X1-1 🗹 C<br>XXXcd 🖾 C | X1-1 RESEMBLES THE NAC CIRCUIT AND QUA   |
|          |   | 11 1                  |  |
| E        | ELECTRICAL PULL BOX   |                       |  |

| OL LEGEND<br>SSARILY USED ON PLANS IF NOT REQUIRED.   |  |  |
|---|--|--|
|   | SYMBOL   | DESCRIPTION  |
| 120V, @ +16" TO BOTTOM OF BOX, UNO.   |  | CIRCUITS   |
| NTED ABOVE COUNTER TOP AND/OR SINK  | ▶  | ARROW  |
| ACLE OUTLET 20A, 120V, @ +16" TO BOTTOM OF  |  | STUB<br>STUB AND ARROW   |
|   | ~  | CONTINUATION   |
| UTLET 20A, 120V, @ +16" TO BOTTOM OF BOX,   | o  | CONDUIT RISER - UP   |
| ECEPTACLE   | ●  | CONDUIT DROP – DOWN<br>CONDUIT CONCEALED IN CEILING OR WALL.   |
| EMA CONFIGURATION AS NOTED, MOUNTED @   |  | CONDUIT CONCEALED IN FLOOR OR UNDERGROUND  |
| A, 125V FLUSH IN FINISHED FLOOR   |  | EXISTING CONDUIT TO REMAIN.  |
| 20A, 125V FLUSH IN FINISHED FLOOR   |  | CONDUIT & CONDUCTORS FOR LOW VOLTAGE MOTION SENSORS<br>EXISTING CONDUIT AND/OR CONDUCTORS TO BE REMOVED. UNDERGROUND CONDUIT MAY   |
| DA, 125V  | ×  | BE ABANDONED IN PLACE.   |
| 20A, 125V<br>CODE. (WALL MOUNTED AND REGULAR)   | ♥ `  | HOMERUN TO PANELBOARD OR TERMINAL CABINET w/ CONDUCTORS AS NOTED   |
| AS REQUIRED BY CODE.  |  | CIRCUIT CONDUTORS:<br>LONG DASH INDICATES NEUTRAL CONDUCTOR; SHORT DASHES INDICATE PHASE CONDUCTORS;<br>CURVED DASH INDICATES EQUIPMENT GROUNDING CONDUCTOR; ADDITIONAL CURVED DASH<br>INDICATES ISOLATED GROUNDING CONDUCTOR. NUMBER BY DASHES INDICATE WIRE GAUGE<br>OTHER THAN 12 AWG CU. NO DASHES INDICATE 2#12 CU, 1#12 CU GND, IN ½" CONDUIT.<br>OTHERS AS NOTED ON PLAN. |
| OR PARTITION FURNITURE  |  | FLEXIBLE CONDUIT, 6'-0" LONG MAX. w/ #12 CU GROUND UON.  |
| CLE / TELEPHONE/DATA  |  | TAGS AND LEADERS   |
| PTACLE / TELEPHONE/DATA   |  | BRACKET  |
| /8" DEEP BOX w/ SINGLE DEVICE RING & PLATE  |  | LEADERS  |
| JIT STUB UP TO ACCESSIBLE CEILING SPACE, UNO  | $ \begin{array}{c} (\times) \\ (\overline{\times}) \end{array} $ | KEY NOTE SHOWN ON SAME SHEET<br>LIGHT FIXTURE TAG  |
| EEP BOX w/ SINGLE DEVICE RING & PLATE @<br>STUB UP TO ACCESSIBLE CEILING SPACE, UNO                     |  | FEEDER DESIGNATION TAG   |
| /8" DEEP BOX w/ SINGLE DEVICE RING & PLATE<br>ONDUIT STUB UP TO ACCESSIBLE CLG SPACE, UNO               |  | KITCHEN EQUIPMENT DESIGNATION TAG  |
| /8" DEEP BOX w/ SINGLE DEVICE RING & PLATE<br>JB UP TO ACCESSIBLE CEILING SPACE, UNO                    |  | DETAIL DESIGNATION: TOP LETTER INDICATES   |
| FINISHED FLOOR – SIZE PER PLAN  | Ex.1   | DETAIL BOTTOM LETTER/NUMBER INDICATES SHEET  |
| SH IN FINISHED FLOOR - SIZE PER PLAN  | REF  | MECHANICAL EQUIPMENT I.D. TAG – MP&S   |
| , FLUSH IN FINISHED FLOOR – SIZE PER PLAN<br>OX WITH SINGLE DEVICE RING & PLATE                         |  |  |
| INDICATES NUMBER OF REQUIRED ACTIVE JACKS<br>IBER REPRESENTS THE # OF VOICE PORTS AND<br>OF DATA PORTS. | <b>A</b>   | ASSISTED LISTENING   |
|   |  | ONE LINE DIAGRAM   |
|   | (N)<br>PANEL<br>"A"<br>100A                                      | PANEL IDENTIFICATION   |
| OMBINATION  |  | CIRCUIT BREAKER  |
|   |  | FUSED SWITCH   |
|   |  | GROUND FAULT CIRCUIT INTERRUPTER   |
|   | ÷  | GROUND   |
|   | F  | UNDERGROUND TERMINATION SERVICE LUG  |
|   | M  | UTILITY METER  |
|   |  | UTILITY METER WITH C.T. COMPARTMENT METER SOCKET   |
| ITRUSION SENSOR   | └ ──   | SHELL WELLY WITH S.I. COWI ANIWLINI WELLY SUCKET   |
| INTRUSION SENSOR  |  | TRANSFORMER WITH GROUND  |
|   |  | UFER GROUND  |
|   |  | BOND TO COLD WATER PIPE, GAS PIPE, BUILDING STEEL  |
|   |  | AUTOMATIC TRANSFER SWITCH  |
|   |  | NEUTRAL LINK   |
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|   | TVSS   | TRANSIENT VOLTAGE SURGE SUPPRESSION  |
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| , 30cd, 75cd, 110cd) "cd" IS CANDELA.<br>QUANTITY ON THAT CIRCUIT.                                      |  |  |
| d, 110cd) "cd" IS CANDELA.<br>QUANTITY ON THAT CIRCUIT.   |  |  |
| 5cd, 110cd) "cd" IS CANDELA.  |  |  |
| QUANTITY ON THAT CIRCUIT.   |  |  |
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| APP: 02-121265 INC:<br>REVIEWED FOR<br>SS FLS ACS ACS ACS ACS ACS ACS ACS ACS ACS AC |
| architect  |
| ACMARTIN   |
| 3009 DOUGLAS BLVD SUITE 290<br>ROSEVILLE CA 95661 T 916 772 1800                     |
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| AN S. ZEIDER   |
| No. E 16762<br>Exp. $9/30/24$  |
| consultant MEP & FS /  |
| Sustainability / CxA<br>1209 Pleasant Grove Blvd.<br>Roseville, CA 95678             |
| p 916-771-0778 CONSULTING www.lpengineers.com  |
| ENGINEERS Job #: 18-2150   |
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|      | FIBER OPTIC BACKBONE SCHED |        |                    |          |  |
|------|----------------------------|--------|--------------------|----------|--|
| FROM | LOCATION                   | то     | LOCATION           | FIBER T  |  |
| MDF  | Administration             | IDF 1  | Computer Lab / MPR | 50 / 12  |  |
|      |                            |        |                    | 8.3 / 12 |  |
| MDF  | Administration             | IDF 2  | Lake Tahoe         | 50 / 12  |  |
|      |                            |        |                    | 8.3 / 12 |  |
| MDF  | Administration             | IDF 3  | Emerald Bay        | 50 / 12  |  |
|      |                            |        |                    | 8.3 / 12 |  |
| MDF  | Administration             | IDF 4  | Shasta Lake        | 50 / 12  |  |
|      |                            |        |                    | 8.3 / 12 |  |
| MDF  | Administration             | IDF 5  | Monterey Bay       | 50 / 12  |  |
|      |                            |        |                    | 8.3 / 12 |  |
| MDF  | Administration             | IDF 6  | San Francisco      | 50 / 12  |  |
|      |                            |        |                    | 8.3 / 12 |  |
| MDF  | Administration             | IDF 7  | Trinidad Bay       | 50 / 12  |  |
|      |                            |        |                    | 8.3 / 12 |  |
| MDF  | Administration             | IDF 8  | Bodega Bay         | 50 / 12  |  |
|      |                            |        |                    | 8.3 / 12 |  |
| MDF  | Administration             | IDF 9  | Drakes Bay 1       | 50 / 12  |  |
|      |                            |        |                    | 8.3 / 12 |  |
| MDF  | Administration             | IDF 10 | Mission Bay 0      | 50 / 12  |  |
|      |                            |        |                    | 8.3 / 12 |  |
| MDF  | Administration             | IDF 11 | Tule Lake 2        | 50 / 12  |  |
|      |                            |        |                    | 8.3 / 12 |  |





### GENERAL NOTES

1. REMOVE ALL EXISTING 62.5MM FIBER OPTIC CABLES BETWEEN THE IDF TO THE MDF AND REPLACE WITH NEW CABLE. SEE BACKBONE FIBER OPTICS SCHEDULE SHOWN ON THIS SHEET.

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- 2. FURNISH AND INSTALL NEW COMPUTER BASED THREESIXTY GALAXY COMMUNICATION SYSTEM COMPLETE FOR PAGING, EMERGENCY NOTIFICATION, INTERCOM, CLOCK AND SPEAKER. FURNISH AND INSTALL HEAD-END EQUIPMENT AT MDF. FURNISH AND INSTALL ALL IP CLOCK AND SPEAKERS AND ASSOCIATED HARDWARE NETWORKED THROUGH IDF AND STC BACK TO MDF. SEE SHEET E3.1 FOR DIAGRAM.
- 3. FURNISH AND INSTALL NEW HONEYWELL/ADEMCO VISTA -50P CONTROL PANEL FOR INTRUSION SYSTEM. INSTALL HEAD-END EQUIPMENT AT MDF. FURNISH AND INSTALL COMPLETE FOR WIRELESS PASSIVE INFRARED MOTION SENSORS, ALARM BELLS AND KEY PADS. FURNISH AND INSTALL ALL ASSOCIATED HARDWARE THROUGH IDF AND STC WITH CABLING BACK TO MDF.
- 4. FURNISH AND INSTALL NEW WILLIAMS WIRELESS FM ASSISTIVE LISTENING SYSTEM COMPLETE WITH TRAMSMITTER, RECEIVERS AND CONTROL EQUIPMENT IN ASSEMBLY AREAS IN THE ADMIN BUILDING A.
- 5. NEW IP BASED DIGITAL VIDEO SECURITY CAMERAS SHALL BE OWNER FURNISHED, CONTRACTOR INSTALLED. PROVIDE CONNECTION TO DISTRICT NETWORK SYSTEM WITH BACKBONE CABLING TO MDF. SEE SHEET E3.1 FOR DIAGRAM.
- 6. CLEAN OUT ALL EXISTING PULL BOXES OF ALL DEBRIS. REMOVE ROCKS AND DIG OUT SO THAT ALL EXISTING CONDUIT ENTRY IS ACCESSIBLE. VERIFY EXISTING CONDUIT PATHWAY AND FINAL DESTINATION.
- 7. VERIFY EXISTING CABLING USAGE AT EACH EXISTING BUILDING IDF LOCATION AND EXISTING SIGNAL TERMINAL CABINET BASED ON CONDUIT ROUTES.

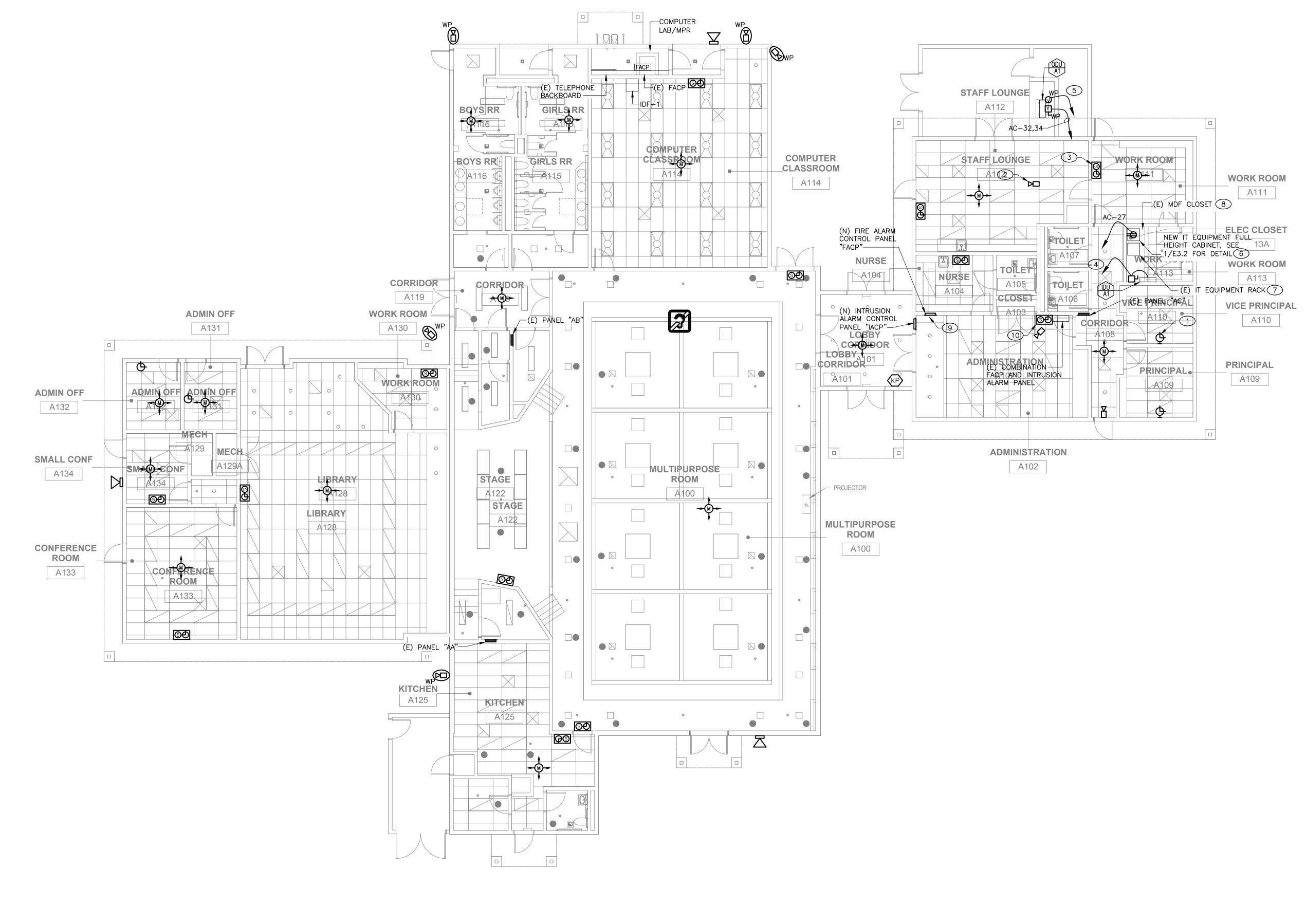
### **KEY NOTES**

- (1) DISCONNECT AND REMOVE EXISTING CAMERA ON ANTENNA MAST AND REPLACE WITH NEW IP CAMERA.
- (2) INSTALL NEW WALL MOUNTED IDF CABINET AT CEILING. MOUNT TO NEW PLYWOOD BACKBOARD.
- (3) INSTALL NEW WALL MOUNTED IDF CABINET AT WHITE WOODEN BOX.
- (4) IDF-2 LOCATED IN STORAGE ROOM NEXT TO RESTROOM.
- 5 EXISTING (1) 2"C. REMOVE EXISTING FIBER OPTIC CABLES AND INSTALL NEW FIBER OPTIC CABLES. SEE FIBER OPTIC BACKBONE SCHEDULE THIS SHEET. EXISTING (1) 2"C.-1A,4B,1C,2D,4TV,4F
- (6) EXISTING (3) 2"C. REMOVE EXISTING FIBER OPTIC CABLES AND INSTALL NEW FIBER OPTIC CABLES FOR IDF-9, IDF-10, AND IDF-11. SEE FIBER OPTIC BACKBONE SCHEDULE THIS SHEET. EXISTING (2) 2"C.
- 7 EXISTING (3) 2"C. REMOVE EXISTING FIBER OPTIC CABLES AND INSTALL NEW FIBER OPTIC CABLES FOR IDF-9, IDF-10, AND IDF-11. SEE FIBER OPTIC BACKBONE SCHEDULE THIS SHEET.
- (8) EXISTING (7) 2"C. REMOVE EXISTING FIBER OPTIC CABLES AND INSTALL NEW FIBER OPTIC CABLES FOR IDF-2 THROUGH IDF-8. SEE FIBER OPTIC BACKBONE SCHEDULE THIS SHEET. EXISTING (1) 2"C.-1A,3B,1C,2D,3B,5F EXISTING (5) 2"C.-1A,4B,1C,2D,4B,4F EXISTING (1) 2"C.-1A,4B,1C,2D,4B,9FM
- (9) EXISTING (1) 2"C. REMOVE EXISTING FIBER OPTIC CABLES AND INSTALL NEW FIBER OPTIC CABLE FOR IDF-1. SEE FIBER OPTIC BACKBONE SCHEDULE THIS SHEET.
- (1) EXISTING (1) 2"C. REMOVE EXISTING FIBER OPTIC CABLES AND INSTALL NEW FIBER OPTIC CABLES. SEE FIBER OPTIC BACKBONE SCHEDULE THIS SHEET. EXISTING (1) 2"C.-1A,4B,10,2D,3TV,5F
- (11) EXISTING (1) 1-1/2"C. REMOVE EXISTING FIBER OPTIC CABLES AND INSTALL NEW FIBER OPTIC CABLES. SEE FIBER OPTIC BACKBONE SCHEDULE THIS SHEET. EXISTING (1) 1-1/2"C.-1A,4B,1C,2D,4B,4F
- (12) EXISTING (5) 2"C. REMOVE EXISTING FIBER OPTIC CABLES AND INSTALL NEW FIBER OPTIC CABLES. SEE FIBER OPTIC BACKBONE SCHEDULE THIS SHEET. EXISTING (1) 2"C.-1A,3B,1C,2D,5TV,5F EXISTING (4) 2"C.-1A,4B,1C,2D,4TV,4F
- (13) EXISTING (2) 2"C. REMOVE EXISTING FIBER OPTIC CABLES AND INSTALL NEW FIBER OPTIC CABLES. SEE FIBER OPTIC BACKBONE SCHEDULE THIS SHEET. EXISTING (1) 2"C.-1A,4B,1C,2D,4TV,4F
- (14) REMOVE EXISTING FIBER OPTIC CABLES IN EXISTING CONDUIT RUNS AND REPLACE WITH NEW FIBER OPTIC CABLES FOR IDF-9 AND IDF-10.
- (15) EXISTING (3) 1"C.
- (16) EXISTING (2) 2"C.-10TV EXISTING (1) 2"C.
- (17) INSTALL ONE SECURITY KEY PAD ADJACENT TO DOOR INSIDE PORTABLE CLASSROOM FOR 6 PORTABLES.
- (18) INSTALL NEW KEY PAD FOR 3 PORTABLES.
- (19) INSTALL NEW KEY PAD FOR 7 PORTABLES.
- (20) INSTALL NEW KEY PAD FOR 2 PORTABLES.

### EXISTING TECHNOLOGY CABLE SCHEDULE

|   | TYPE | CONDUCTOR                                     | USE  |
|---|------|---|--|
|   | Α.   | WEST PENN 289 1 PAIR #20<br>SHIELDED          | INTERCOM<br>TELEPHONE                      |
|   | В.   | WEST PENN 055 2 PAIR #22<br>(1 PAIR SHIELDED) | SPEAKER<br>INTRUSION ALARM                 |
|   | C.   | 8#14 (THHN)                                   | CLOCK                                      |
|   | D.   | WEST PENN #228 1 PAIR #18<br>2#14 (THHN)      | FIRE ALARM INITIATION<br>FIRE ALARM SIGNAL |
|   | F.   | EXECUTONE #W55 MICROPHONE<br>CABLE            | TELEVISION<br>FA DATA                      |
| \ | G.   | TV – RG/GA4 COAXIAL                           | TEL TRUNK                                  |
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| APP: 02-121265 INC:<br>REVIEWED FOR  |
| SS FLS ACS<br>DATE: 05/24/2023   |
| architect  |
| ACMARTIN   |
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| consultant MEP & FS /  |
| Sustainability / CxA<br>1209 Pleasant Grove Blvd.  |
| Roseville, CA 95678<br>p 916-771-0778  |
| CONSULTING<br>ENGINEERSwww.lpengineers.com<br>Job #: 18-2150   |
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## 1 TECHNOLOGY FLOOR PLAN- BLDG. A

### SHEET GENERAL NOTES

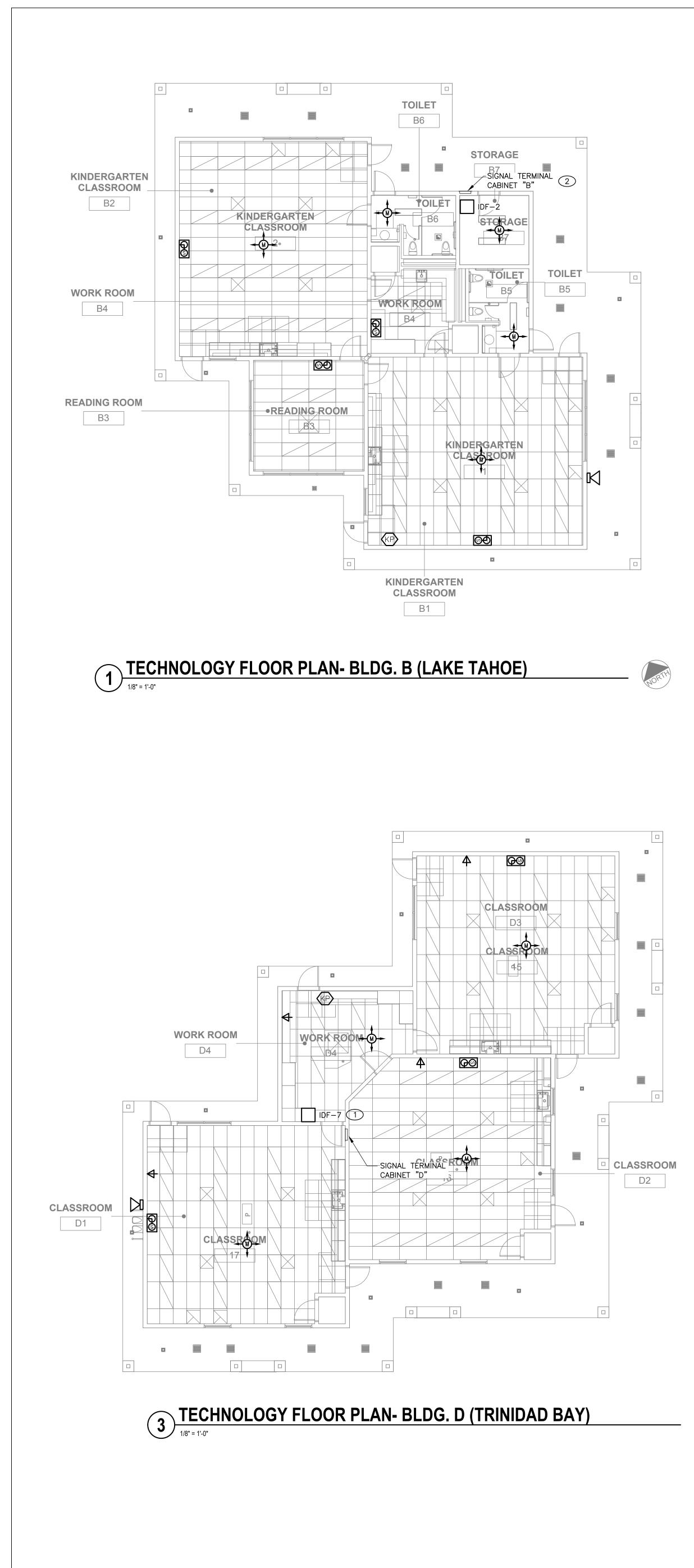
- 1. ALL DEVICES SHOWN ON SHEET ARE NEW UNLESS OTHERWISE NOTED. MAKE FINAL CONNECTION AND OPERATIONAL.
- 2. DISCONNECT AND REMOVE ALL EXISTING INTRUSION ALARM DEVICES AND RETURN TO SCHOOL DISTRICT.
- 3. DISCONNECT AND REMOVE ALL EXISTING CLOCK AND SPEAKER AND RETURN TO SCHOOL DISTRICT.
- 4. (E) COMBINATION FIRE ALARM AND BURGLAR ALARM SYSTEM SHALL REMAIN IN OPERATION WHILE NEW FIRE ALARM PANEL AND BURGLAR ALARM PANEL ARE INSTALLED.
- 5. REMOVE ALL EXISTING CABLES FROM CONDUITS NOT CONNECTED OR NOT USED FOR NEW LV SYSTEM.
- 6. (E) DIGITAL SIGN TO REMAIN IN OPERATION.
- 7. SEE ARCHITECTURAL DETAILS FOR MODIFICATION TO (E) MILLWORK CABINET FOR VENTILATION OF IDF EQUIPMENT.
   (E) DUPLEX RECEPTACLE IN CABINET SPACE TO REMAIN.
- 8. SEE FIRE ALARM DRAWINGS FOR ANY REFERENCE TO FIRE ALARM EQUIPMENT SHOWN ON THIS SHEET.
- RE-USE EXISTING LOWER HALF OF IDF CABINET FOR LV SYSTEMS. EXISTING DUPLEX RECEPTACLES AND POWER CIRCUITS TO REMAIN.
- 10. FINAL LOCATION FOR NEW "FACP" AND "IACP" SHALL BE COORDINATED WITH SCHOOL DISTRICT PRIOR TO ROUGH-IN.

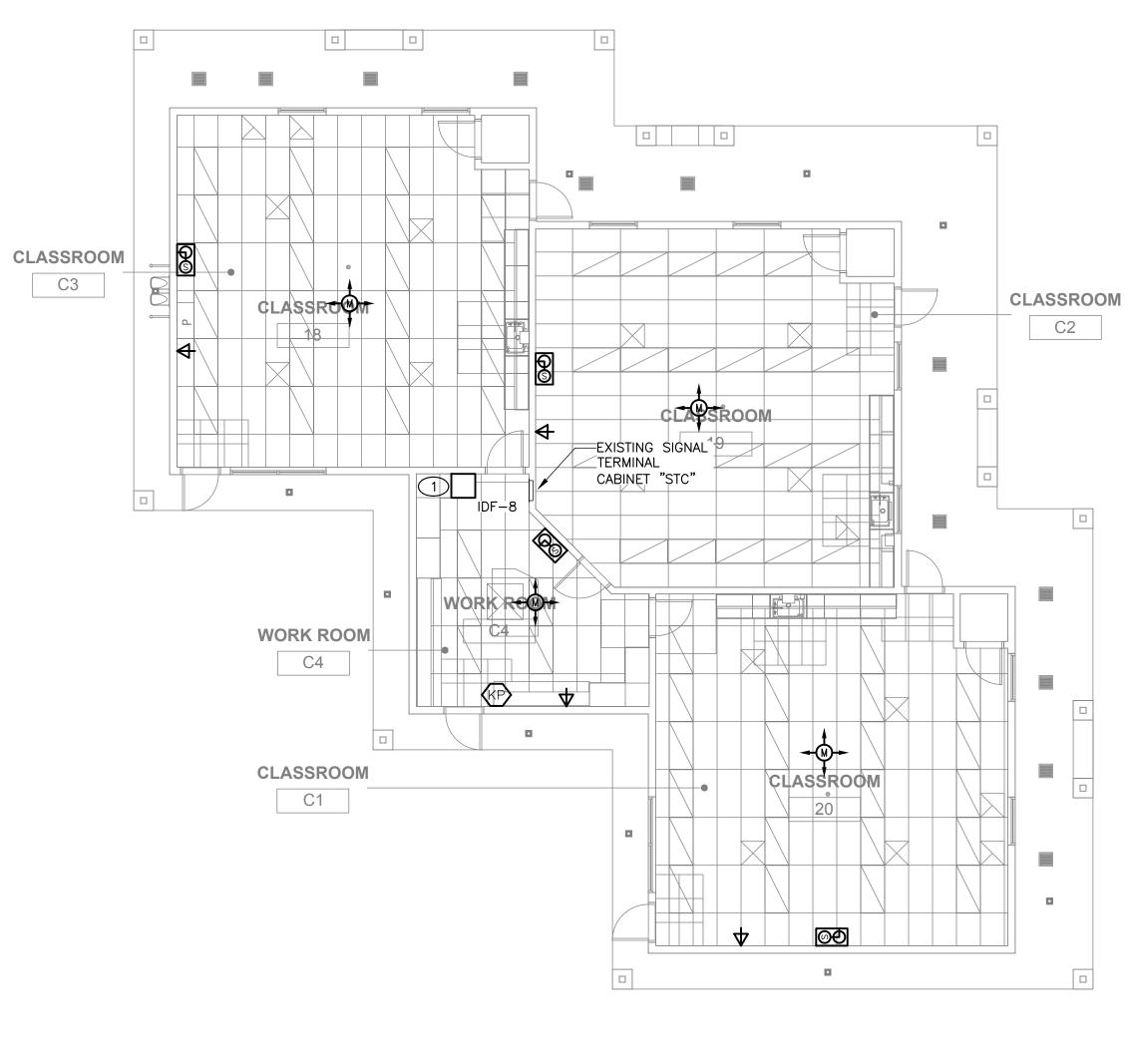
### **KEY NOTES**

- DISCONNECT AND REMOVE (E) CLOCK AND REPLACE WITH (N) IP CLOCK, TYPICAL.
- 2 DISCONNECT AND REMOVE (E) SECURITY CAMERA, REPLACE WITH NEW IP SECURITY CAMERA, TYPICAL.
- DISCONNECT AND REMOVE (E) CLOCK/SPEAKER, REPLACE WITH NEW IP CLOCK AND SPEAKER, TYPICAL.
- (4) INSTALL POWER CONNECTION BACK TO ODU-A1.
- 5 HOMERUN TO IDU-A1 FOR CONTROLS.
- 6 COORDINATE NEW CABINET LOCATION WITH (E) CONDUIT STUBS AT CEILING. (E) RECEPTACLE AT BACK WALL TO REMAIN. SHIFT (E) IT EQUIPMENT RACK TO CLEAR (N) IT EQUIPMENT CABINET.
- 7 INSTALL (E) IT EQUIPMENT IN NEW CABINET FOR SECURITY.
- 8 DISCONNECT AND REMOVE (E) LIGHT FIXTURE.
- 9 DISCONNECT AND REMOVE (E) CLOCK/SPEAKER. MAKE WALL SPACE FOR NEW "FACP".
- 10 NEW LOCATION FOR NEW CLOCK/SPEAKER.

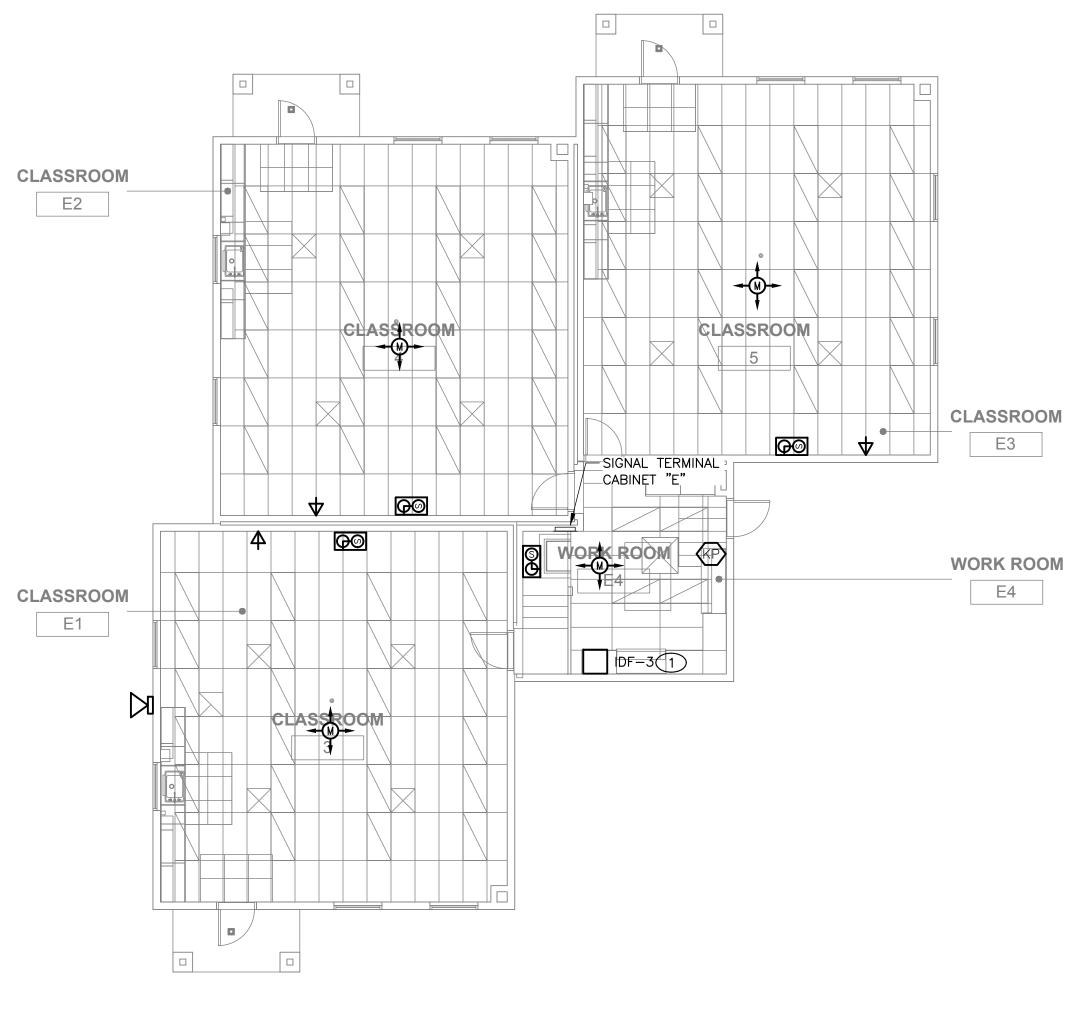


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| OF CALLFORNIA   |
| Consultant<br>MEP & FS /<br>Sustainability / CxA                              |
| 1209 Pleasant Grove Blvd.<br>Roseville, CA 95678<br>p 916-771-0778            |
| CONSULTING www.lpengineers.com<br>ENGINEERS Job #: 18-2150                    |
| <b>ENGINEERS</b> Job #: 18-2150   |
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# 2 TECHNOLOGY FLOOR PLAN- BLDG. C (BODEGA BAY)



4 TECHNOLOGY FLOOR PLAN- BLDG. E (EMERALD BAY) NORTH



### SHEET GENERAL NOTES

1. ALL DEVICES SHOWN ON SHEET ARE NEW UNLESS OTHERWISE NOTED. MAKE FINAL CONNECTION AND

OPERATIONAL.

- 2. DISCONNECT AND REMOVE ALL EXISTING INTRUSION ALARM DEVICES AND RETURN TO SCHOOL DISTRICT.
- 3. DISCONNECT AND REMOVE ALL EXISTING CLOCK AND SPEAKER AND RETURN TO SCHOOL DISTRICT.
- 4. RE-USE EXISTING LOWER HALF OF CABINET FOR LV SYSTEMS.
- 5. REMOVE ALL EXISTING CABLES FROM CONDUITS NOT CONNECTED OR NOT USED FOR NEW LV SYSTEM.

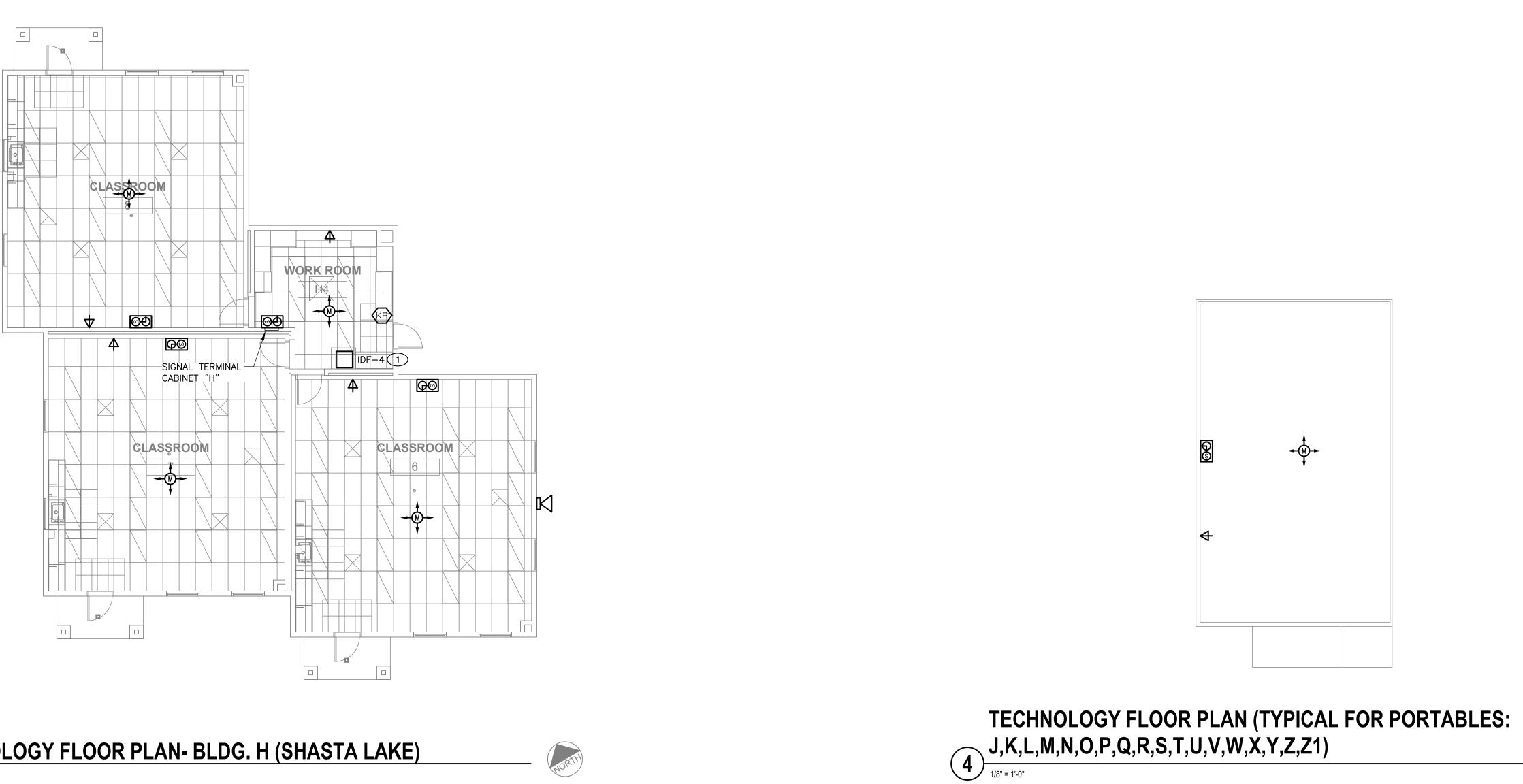
### **KEY NOTES**

- EXISTING IDF IN THE BOTTOM OF THE CABINET TO REMAIN.
- INSTALL IDF IN OUTSIDE STORAGE ROOM, NEXT TO RESTROOMS.

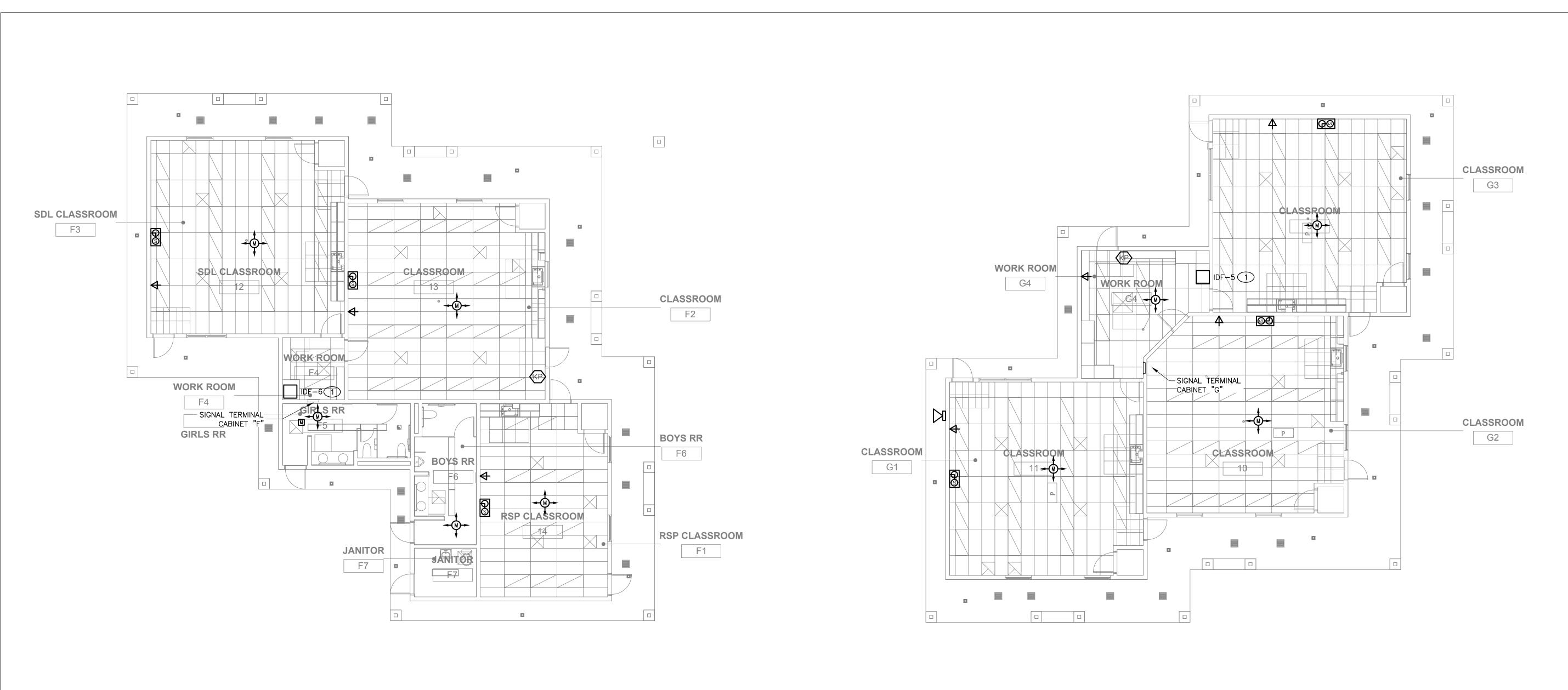
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| REVIEWED FOR<br>SS $\square$ FLS $\square$ ACS $\square$<br>DATE: 05/24/2023   |
| architect  |
| ACMARTIN<br>3009 DOUGLAS BLVD SUITE 290<br>ROSEVILLE CA 95661 T 916 772 1800   |
| stamp  |
| PROFESSIONA<br>PROFESSIONA<br>NN S. ZEJO<br>TZ<br>TZ<br>NO. E 16762<br>Exp. 9/30/24<br>MILE<br>CTRICE<br>PROFESSIONA<br>TZ<br>CTRICE<br>PROFESSIONA<br>TZ<br>COMPANIE<br>PROFESSIONA<br>TZ<br>TZ<br>TZ<br>TZ<br>TZ<br>TZ<br>TZ<br>TZ<br>TZ<br>TZ |
| consultant<br>MEP & FS /<br>Sustainability / CxA   |
| 1209 Pleasant Grove Blvd.<br>Roseville, CA 95678<br>p 916-771-0778   |
| CONSULTING<br>ENGINEERSwww.lpengineers.com<br>Job #: 18-2150   |
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# 1 TECHNOLOGY FLOOR PLAN- BLDG. F (SAN FRANCISCO)



NORTH

## 2 TECHNOLOGY FLOOR PLAN- BLDG. G (MONTEREY BAY) \_\_\_\_\_

### SHEET GENERAL NOTES

- ALL DEVICES SHOWN ON SHEET ARE NEW UNLESS OTHERWISE NOTED. MAKE FINAL CONNECTION AND OPERATIONAL.
- 2. DISCONNECT AND REMOVE ALL EXISTING INTRUSION ALARM DEVICES AND RETURN TO SCHOOL DISTRICT.
- 3. DISCONNECT AND REMOVE ALL EXISTING CLOCK AND SPEAKER AND RETURN TO SCHOOL DISTRICT.
- 4. RE-USE EXISTING LOWER HALF OF CABINET FOR LV SYSTEMS.
- 5. REMOVE ALL EXISTING CABLES FROM CONDUITS NOT CONNECTED OR NOT USED FOR NEW LV SYSTEM.

### **KEY NOTES**

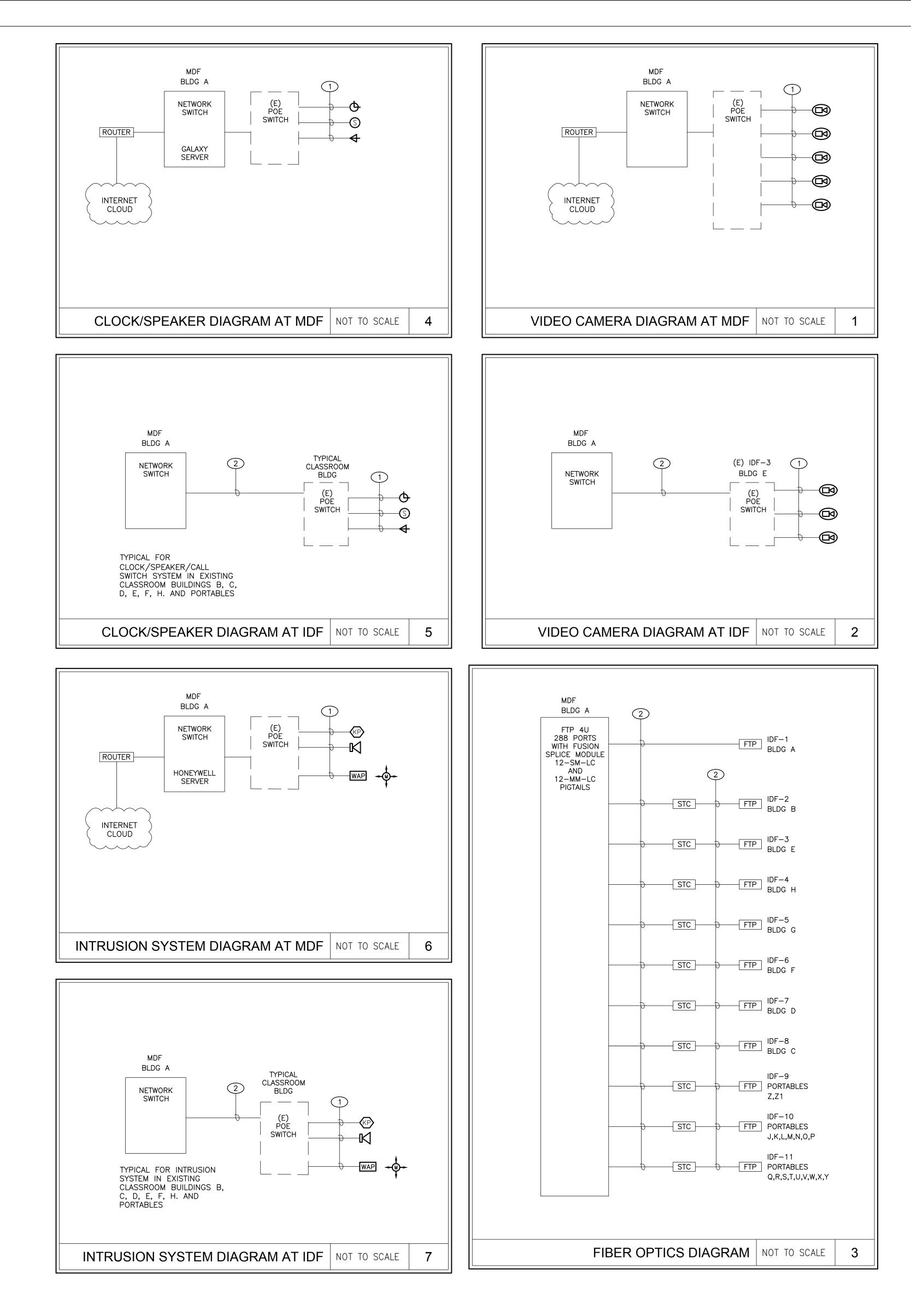
EXISTING IDF IN THE BOTTOM OF THE CABINET TO REMAIN.



NORTH

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|---|
| IDENTIFICATION STAMP<br>DIV. OF THE STATE ARCHITECT   |
| APP: 02-121265 INC:<br>REVIEWED FOR<br>SS I FLS ACS I   |
| DATE: 05/24/2023  |
| architect   |
| AC TARIIN<br>Soo9 DOUGLAS BLVD SUITE 290<br>ROSEVILLE CA 95661 T 916 772 1800   |
| stamp   |
| PROFESSIONA<br>REPROFESSIONA<br>REPROFESSIONA<br>REPROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA<br>PROFESSIONA |
| $\stackrel{\text{ami deil \overline{z}}}{=}No. E 16762Exp. 9/30/24$   |
| OF CALIFORNIU<br>consultant   |
| MEP & FS /<br>Sustainability / CxA<br>1209 Pleasant Grove Blvd.   |
| Roseville, CA 95678<br>p 916-771-0778   |
| CONSULTING<br>ENGINEERSwww.lpengineers.com<br>Job #: 18-2150  |
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| project number CA5602   |
| project director<br>project designer  |
| project architect   |
| no. date revision   |
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| project status  |
| DSA SUBMITTAL<br>4-25-2023  |
| client / project  |
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| OAK HILL ES   |
| HARDSHIP  |
| MODERNIZATION<br>CJUSD  |
| 3909 NORTH LOOP BLVD  |
| ANTELOPE, CA 95843  |
| sheet name<br>TECHNOLOGY  |
| FLOOR PLANS -   |
| BLDG. F & G & H   |
| & PORTABLES   |
| sheet number  |
| <b>T2.3</b>   |
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### DIGITAL VIDEO SURVEILLANCE SYSTEM (CCTV) NOTES

- COORDINATE FINAL PLACEMENT OF CAMERAS WITH DISTRICT PROJECT MANAGER PRIOR TO INSTALLATION.
   COORDINATE FINAL ALIGNMENT OF CAMERAS WITH DISTRICT
- PROJECT MANAGER PRIOR TO ACCEPTANCE. 3. INTEGRATE INTO EXISTING STORAGE AND MANAGEMENT SYSTEM. VERIFY COMPATIBILITY OF ALL COMPONENTS WITH THE EXISTING SYSTEM.
- 4. DRAWINGS MUST HAVE A CAMERA SCHEDULE THAT INDICATES THE FOLLOWING: CAMERA IP ADDRESS, MODEL NUMBER, PART NUMBER, MOUNTING TYPE, REQUIRED ACCESSORIES, POWER REQUIREMENTS, LICENSING AND SOFTWARE OPTIONS.

### STRUCTURED CABLING SYSTEM NOTES

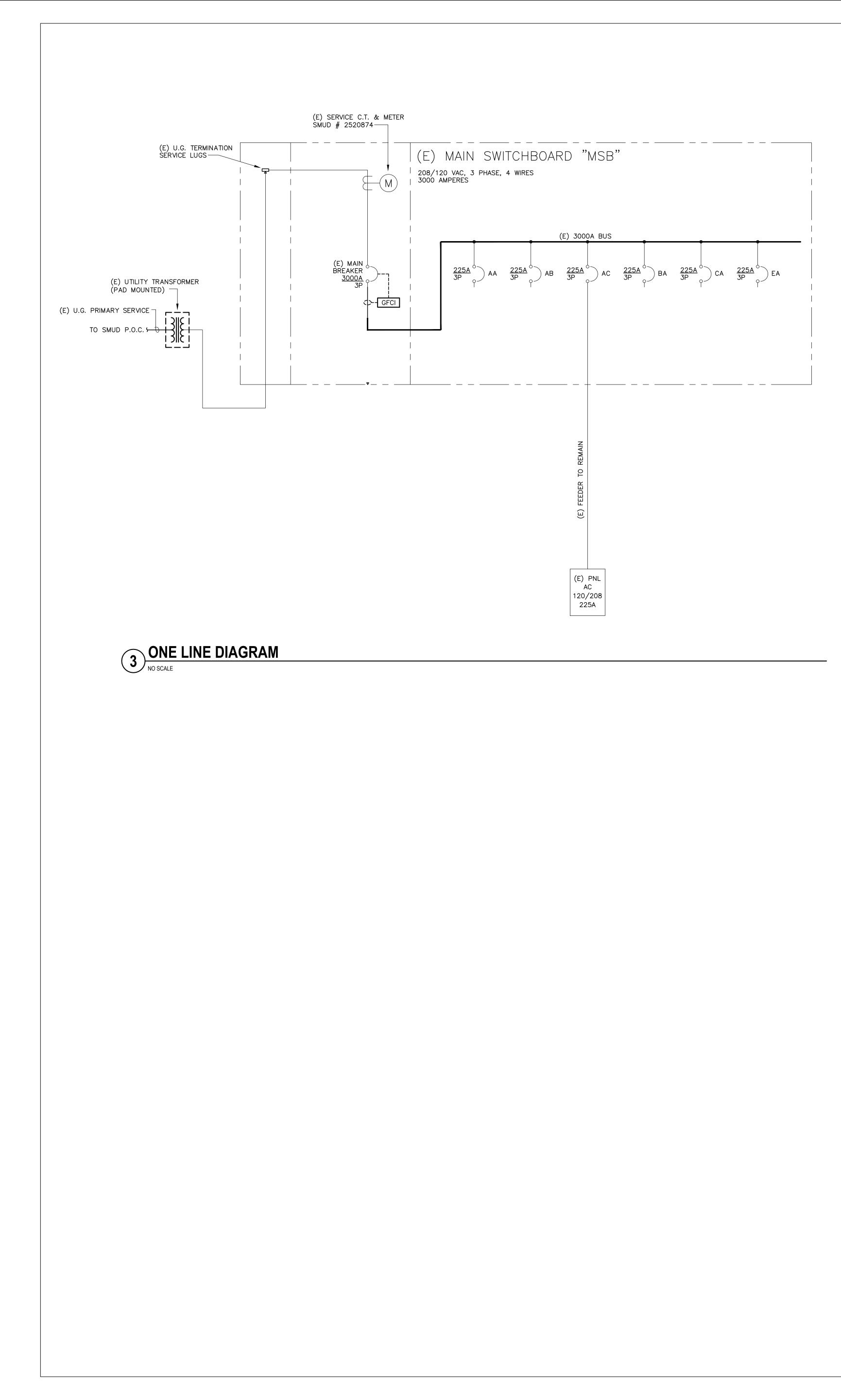
- DATA OUTLETS AND VOIP PHONES MAY USE THE SAME DATA OUTLET. RE-USE EXISTING CABLING WHENEVER POSSIBLE.
- 2. CABLE TRAYS ARE NOT ALLOWED EXCEPT IN OPEN OR ACCESSIBLE, NON-PLENUM CEILING SPACES FOR AREAS OF HIGH CABLE DENSITY.
- 3. PROVIDE "J" HOOKS IN ACCESSIBLE CEILING INTERIOR PATHWAYS.
- 4. ALL MDF/IDF LOCATIONS SHALL INCLUDE AN AS-BUILT DRAWING FOR THE AREA IT SERVES PRINTED OUT ON AN 11"x17" LAMINATED PAPER. DRAWING TO INCLUDE ALL STATION LOCATIONS AND PATHWAYS. AS-BUILTS TO ALSO BE PROVIDED ELECTRONICALLY IN A FORMAT ACCEPTABLE TO THE DISTRICT.
- 5. FULL TEST REPORTS SHALL BE SUBMITTED TO THE DISTRICT FOR ALL NEWLY INSTALLED, OR REPAIRED DATA CABLES PRIOR TO SIGN OFF. MANUFACTURER CERTIFICATION AND WARRANTY ACCEPTANCE REQUIRED.

## KEY NOTES

- 1 CONNECT WITH CAT6 CABLE.
- 2 CONNECT WITH 12 STRAND 50/125 MM OM4 AND 12 STRAND 8.3/125 SM HYBRID FIBER OPTIC CABLE.

| VIDEO CAMERA ABBREV.            |
|---------------------------------|
| FAP = FIBER ADAPTER PANEL       |
| FSM = FUSION SPLICE MODULE      |
| STC = EXISTING TERMINAL CABINET |
| FTP = FIBER TERMINAL PANEL      |
| NVR = NETWORK VIDEO RECORDER    |
| MON = MONITOR                   |

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| IDENTIFICATION STAMP<br>DIV. OF THE STATE ARCHITECT<br>APP: 02-121265 INC:   |
| $\begin{array}{c c} \text{REVIEWED FOR} \\ \text{SS} \square & \text{FLS} \blacksquare & \text{ACS} \blacksquare \\ \text{DATE:} & 05/24/2023 \end{array}$ |
| architect  |
| ACMARTIN<br>Soog Douglas BLVD SUITE 290<br>ROSEVILLE CA 95661 T 916 772 1800   |
| stamp  |
| $\mathbb{P}_{\mathbf{x}}^{ROFESS_{A}}$   |
| consultant<br>MEP & FS /   |
| Sustainability / CxA<br>1209 Pleasant Grove Blvd.<br>Roseville, CA 95678<br>p 916-771-0778   |
| CONSULTING<br>ENGINEERSwww.lpengineers.com<br>Job #: 18-2150   |
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| project number CA5602<br>project director  |
| project designer<br>project architect  |
| revisions<br>no. date revision   |
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| OAK HILL ES<br>HARDSHIP  |
| MODERNIZATION  |
| CJUSD  |
| 3909 NORTH LOOP BLVD<br>ANTELOPE, CA 95843   |
| , sheet name   |
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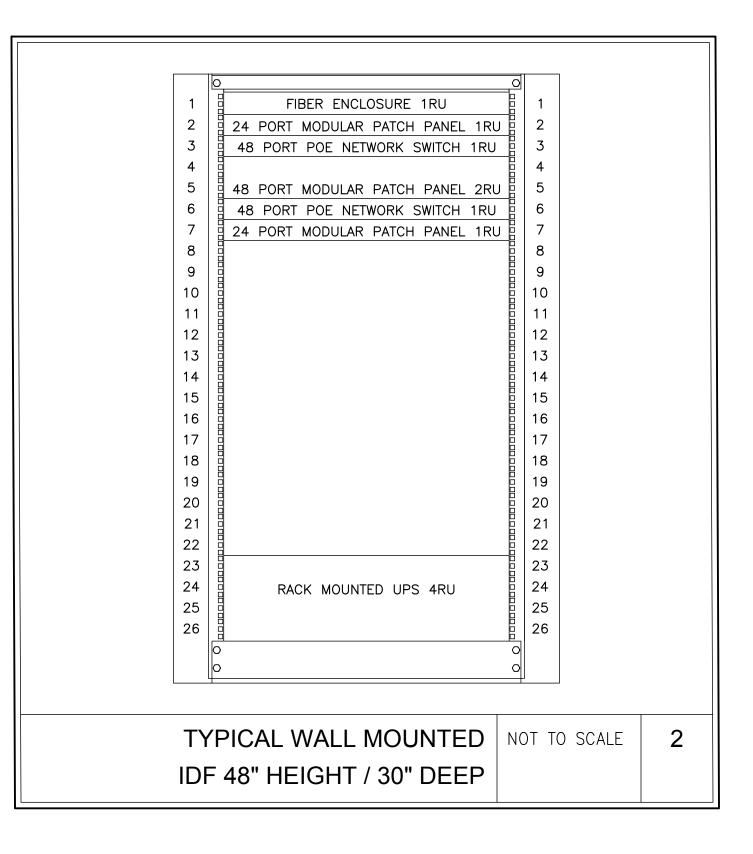


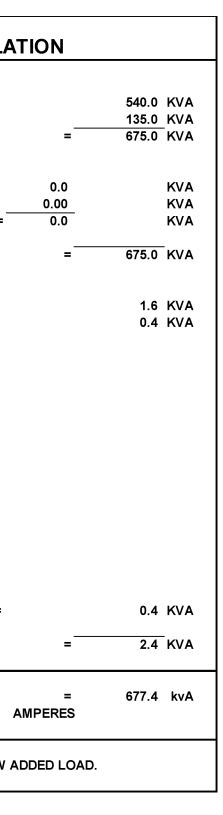
|      |         |                                |        | (E    | E) P/   | ANEL   | . "AC  |       |           |
|------|---------|--------------------------------|--------|-------|---------|--------|--------|-------|-----------|
|      | 120/208 | 3 Volt, 3 Phase, 4 Wire        |        | •     | -       |        |        |       |           |
|      | 225     | Amp BUS CU.                    |        |       |         |        |        |       |           |
|      |         | Amp MCB                        |        |       |         |        |        |       |           |
|      | 225     | Amp MLO                        |        |       |         |        |        |       |           |
|      |         | -                              |        | P     | HASE SI | JMMAR  | Y (WAT | TS)   |           |
| CKT. | BKR     | DESCRIPTION                    | А      | В     | С       |        | Α      | В     |           |
| 1    | 20/1    | LIGHTING                       | 960    |       |         |        | 1,040  |       |           |
| 3    | 20/1    | LIGHTING                       |        | 960   |         | 1      |        | 1,040 |           |
| 5    | 20/1    | LIGHTING                       |        |       | 960     |        |        |       | 1,0       |
| 7    | 20/1    | LIGHTING                       | 960    |       |         |        | 720    |       |           |
| 9    | 20/1    | DISPOSAL                       |        | 600   |         | 1      |        | 720   |           |
| 11   | 20/1    | RECEPTACLE                     |        |       | 1,020   |        |        |       | 7         |
| 13   | 20/1    | F-A5 - STAFF LOUNGE FURN       | 1,020  |       |         | 1      | 720    |       |           |
| 15   | 20/1    | F-A4 - RECEPTION FURN          |        | 1,020 |         | 1      |        | 1,020 |           |
| 17   | 20/1    | F-A6 - VP FURN                 |        |       | 1,020   |        |        |       | 1,(       |
| 19   | 20/1    | FIRE ALARM                     | 200    |       | , î     |        | 1,020  |       |           |
| 21   | 20/1    | FIRE ALARM                     |        | 200   |         |        | ,      | 1,020 |           |
| 23   | 20/1    | CEFF A4,A5,A6, RESTRM EXST FAN |        |       | 1,640   |        |        |       | 1,2       |
| 25   | 20/1    | SPARE                          |        |       |         | 1      | 1,200  |       |           |
| 27   | 20/1    | NEW RECEPTACLE                 |        | 400   |         |        | ,      | 1,200 |           |
| 29   | 20/1    | SPARE                          |        |       |         |        |        |       | 1,2       |
| 31   | 30/2    | CU-A4                          | 2,400  |       |         | 1      | 832    |       |           |
| 33   | -       | -                              |        | 2,400 |         |        |        | 832   |           |
| 35   | 30/2    | CU-A5                          |        |       | 2,400   | 1      |        |       | 2,4       |
| 37   | -       | -                              | 2,400  |       |         |        | 2,400  |       |           |
| 39   | 30/2    | CU-A6                          |        | 2,400 |         |        |        | 2,400 |           |
| 41   | -       | -                              |        |       | 2,400   |        |        |       | 2,4       |
|      |         | ·                              | •      | •     | PHA     | SE TOT | ALS    |       |           |
|      |         |                                |        |       | Α       | В      | С      |       |           |
|      |         |                                |        |       |         | 16,212 |        |       |           |
|      | PANEI   | AND CIRCUIT BREAKER NOTES:     |        |       |         |        | ,      |       |           |
| [1]  |         | L NEW BREAKER IN CIRCUIT 32 A  | ND 34  |       |         |        |        |       |           |
| [2]  |         |                                | но от. |       |         |        |        |       | LIG<br>RE |
| [2]  |         |                                |        |       |         |        |        |       |           |

[3]

| EXISTING ELECTRICAL SERV  | ICE LOAD CALCULATIO         | ON                 |
|---|-----------------------------|--------------------|
| EXISTING MAXIMUM PEAK DEMAND LOAD<br>(SOURCE: SMUD PREVIOUS 12 MONTHS DATA)<br>PLUS 25% OF EXISTING CONNECTED LOAD<br>TOTAL EXISTING CONNECTED LOAD |                             | =                  |
| REMOVED EXISTING LOAD<br>-<br>-<br>TOTAL LOAD REMOVED   | =                           | 0.0<br>0.00<br>0.0 |
| TOTAL EXISTING LOAD MINUS REMOVED LOAD<br>ADD NEW LOAD<br>IDU-A1<br>RECEPTACLE  |                             | =                  |
| 25% OF LARGEST NEW MOTOR=   | 1.6 KVA @ 25% =             | =                  |
| EXISTING AND ADDED TOTAL SERVICE LOAD<br>677.4 KVA @ 120/208 VOLT , 3   | PHASE = 1882 AMP            | =<br>ERES          |
| THEREFORE: EXISTING MAIN 3000 AMP SERVICE HAS T   | HE CAPACITY FOR THE NEW ADD |                    |

|                 |          |   | 1   |          |                 |  |
|-----------------|----------|---|-----|----------|-----------------|--|
| VERTICAL        | 1        |   |     | 1        | VERTICAL        |  |
| WIRE<br>MANAGER | 2        |   |     | 2        | WIRE<br>MANAGER |  |
| TWO<br>SIDED    | 3<br>4   | 4RU FIBER ENCLOSURE<br>4RU OR 1RU DEPENDING ON FIBER<br>COUNTS  |     | 3<br>4   | TWO<br>SIDED    |  |
| 6<br>INCHES     | 5        | 24 PORT MODULAR PATCH PANEL 1RU   |     | 5        | 6<br>INCHES     |  |
| WIDE            | 6        | 48 PORT POE NETWORK SWITCH 1RU  |     | 6        | WIDE            |  |
|                 | 7        | 48 PORT POE NETWORK SWITCH 1RU<br>48 PORT MODULAR PATCH PANEL 2RU<br>48 PORT POE NETWORK SWITCH 1RU<br>48 PORT MODULAR PATCH PANEL 2RU<br>48 PORT MODULAR PATCH PANEL 2RU<br>48 PORT MODULAR PATCH PANEL 2RU<br>48 PORT POE NETWORK SWITCH 1RU<br>48 PORT MODULAR PATCH PANEL 2RU<br>48 PORT MODULAR PATCH PANEL 2RU<br>48 PORT MODULAR PATCH PANEL 2RU |     | 7        |                 |  |
|                 | 8        | 48 PORT MODULAR PATCH PANEL 2RU   |     | 8        |                 |  |
|                 | 9        | 48 PORT POE NETWORK SWITCH 1RU  |     | 9        |                 |  |
|                 | 10       |   |     | 10       |                 |  |
|                 | 11<br>12 | 48 PORT MODULAR PATCH PANEL 2RU   | -81 | 11<br>12 |                 |  |
|                 | 13       | 48 PORT POE NETWORK SWITCH 1RU  | _8  | 12       |                 |  |
|                 | 14       |   |     | 13<br>14 |                 |  |
|                 | 15       | 48 PORT MODULAR PATCH PANEL 2RU<br>48 PORT POE NETWORK SWITCH 1RU   |     | 15       |                 |  |
|                 | 16       | 48 FORT FOE NETWORK SWITCH INO  |     | 16       |                 |  |
|                 | 17       | 48 PORT MODULAR PATCH PANEL 2RU   |     | 17       |                 |  |
|                 | 18       | 48 PORT POE NETWORK SWITCH 1RU  | -81 | 18       |                 |  |
|                 |          |   |     | 19       |                 |  |
|                 | 20       | RACK MOUNTED PDU  |     | 20       |                 |  |
|                 | 21       |   |     | 21       |                 |  |
|                 | 22       |   |     | 22       |                 |  |
|                 | 23       | RESERVED FOR DISTRICT SERVERS   |     | 23       |                 |  |
|                 | 24       | 4RU   |     | 24       |                 |  |
|                 | 25       | 24 PORT MODULAR PATCH PANEL 1RU<br>RACK MOUNTED PDU<br>RESERVED FOR DISTRICT SERVERS<br>4RU<br>RESERVED FOR NETWORK VIDEO<br>RECORDER 2RU   |     | 25       |                 |  |
|                 |          |   |     | 26       |                 |  |
|                 | 27       | RACK MOUNTED UPS 4RU  |     | 27       |                 |  |
|                 | 28       |   |     | 28       |                 |  |
|                 | 29<br>30 |   |     | 29<br>30 |                 |  |
|                 | 31       |   |     | 30<br>31 |                 |  |
|                 | 32       |   |     | 32       |                 |  |
|                 | 33       |   |     | 33       |                 |  |
|                 | 34       |   |     | 34       |                 |  |
|                 | 35       |   |     | 35       |                 |  |
|                 | 36       |   |     | 36       |                 |  |
|                 | 37       |   |     | 37       |                 |  |
|                 | 38       |   |     | 38       |                 |  |
|                 | 39       |   |     | 39       |                 |  |
|                 | 40       | RACK MOUNTED UPS 4RU  |     | 40       |                 |  |
|                 | 41       |   |     | 41       |                 |  |
|                 | 42       |   |     | 42       |                 |  |
|                 |          |   | 0   |          |                 |  |
|                 |          |   | 0   |          |                 |  |
| ם יד ו∆י        |          | OR CABINET LAYOUT   |     | г т      | O SCALE 1       |  |
|                 |          |   |     | 1        |                 |  |





10 KAIC Rating

BKR CKT.

20/1 26

30/2 36

- 38 30/2 40

- 42

147 AMPS

T)

34

20/1

15/2

SURFACE Mounted NEMA 1 Type

DESCRIPTION

ECEPTACLE - SERVER TWO

1,040 RECEPTACLE -ROUTER

EPTACLE

RECEPTACLE - NURSE OFFICE 1,020 RECEPTACLE - LOUNGE TV

ELECTRONIC SIGN

ELECTRONIC SIGN

DEMAND LOADS

LIGHTING / CONTINUOUS LOAD x 125%4,800WattsRECEPTACLES / OTHER x 100%47,664WattsLARGEST MOTOR x 25%600WattsTOTAL DEMAND LOADS53,064Watts

1,200 ELECTRONIC SIGN
NEW ODU-A1 & IDU-A1

2.400 EWH-3

2 400

FWH-4

OTAL DEMAND AMPS

CEPTACLE

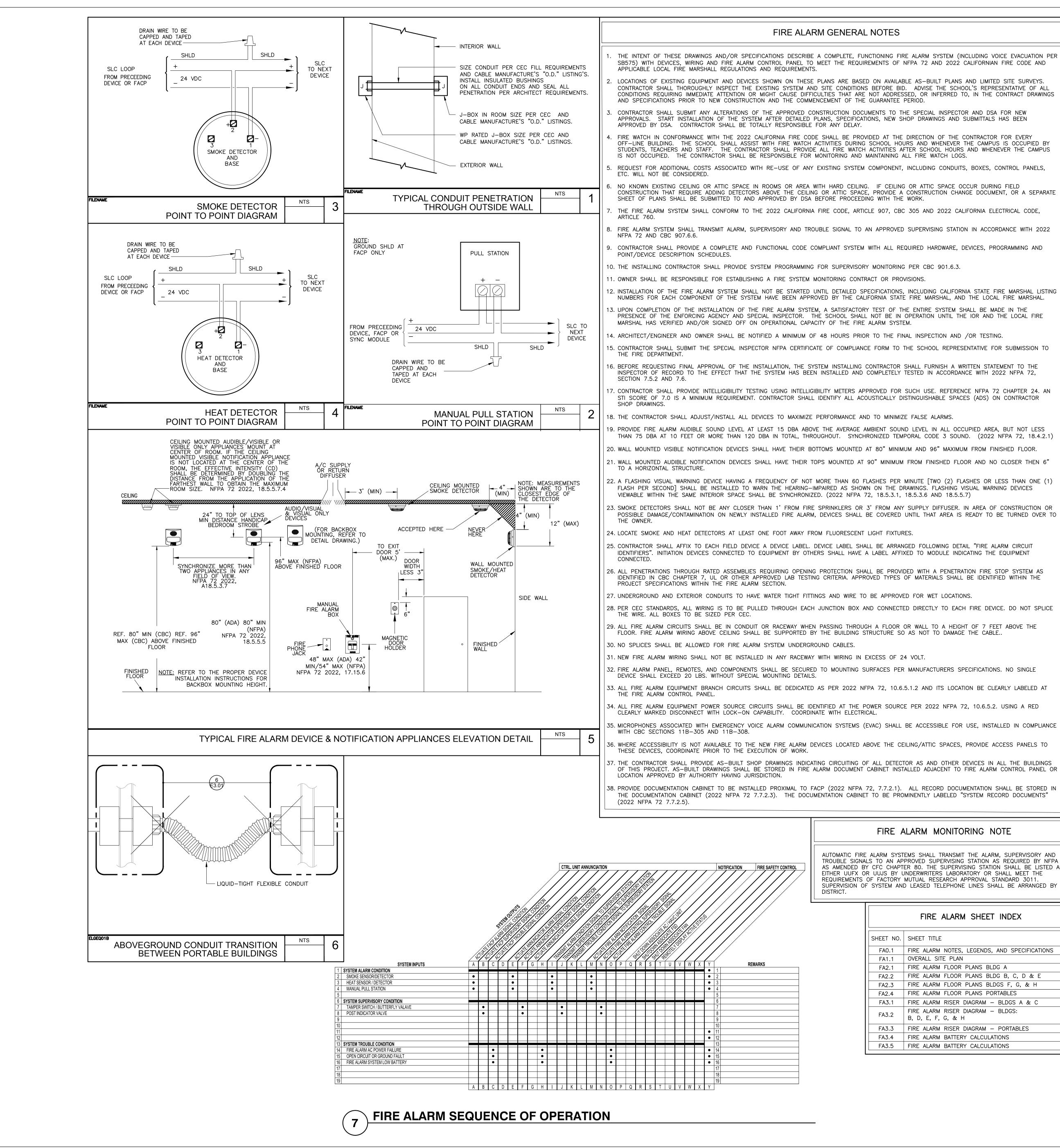
RECEPTACLE RECEPTACLE

RECEPTACLE ECEPTACLE

ECEPTACLE - SERVER ONE 20/1

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dsa IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 02-121265 INC: REVIEWED FOR SS 🔲 FLS 🗹 ACS 🗹 DATE: 05/24/2023 architect ACMARTIN 3009 DOUGLAS BLVD SUITE 290 ROSEVILLE CA 95661 T 916 772 1800 stamp consultant MEP & FS / Sustainability / CxA 1209 Pleasant Grove Blvd. Roseville, CA 95678 p 916-771-0778 CONSULTING Engineers www.lpengineers.com Job #: 18-2150 project number CA5602 project director project designer project architect revisions no. date revision \_\_\_\_\_ \_\_\_\_ \_\_\_\_ \_\_\_\_ \_\_\_\_ \_\_\_ \_\_\_\_\_ \_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ project status DSA SUBMITTAL 4-25-2023 client / project OAK HILL ES HARDSHIP MODERNIZATION CJUSD 3909 NORTH LOOP BLVD ANTELOPE, CA 95843 sheet name TECHNOLOGY ONE LINE, SCHEDULES & DETAILS sheet number **T3.2** 3/22/2023 3:38:04 PM plot date



|   |                           |   |                                       |     |                    |     |   |           |   | CTI  | RL. UN   | IT AN | NUNC | ATION | 1   |     |    |      |   |   |                                       |               |              |   |   | N       | OTIFICATION | FIRE S | AFETY CONT | ROL |  |
|---|---------------------------|---|---------------------------------------|-----|--------------------|-----|---|-----------|---|------|--|-------|------|-------|-----|-----|----|------|---|---|---------------------------------------|---------------|--------------|---|---|---------|-------------|--------|------------|-----|--|
|   |                           |   | A A A A A A A A A A A A A A A A A A A |     | BURNESS CONTRACTOR |     |   | TO STATES |   |      | Contraction of the second seco |       |      |       |     |     |    |      |   |   | A A A A A A A A A A A A A A A A A A A | CONTRACTOR OF | A CONTRACTOR |   |   |         |             |        |            |     |  |
|   | $\langle \hat{k} \rangle$ | X | ÿ/ş                                   | \$/ |                    | 5/4 |   | 5/        |   | \$J? | \$/a   | \$)   |      | \$¥   | \$¥ | \$/ | /e | \$/~ | Ŵ | Ŷ | )IV                                   | /             |              |   | / | . /     |             |        |            |     |  |
|   | Α                         | В | С                                     | D   | E                  | F   | G | Н         |   | J    | K  | L     | М    | N     | 0   | Р   | Q  | R    | S | Т | U                                     | ٧             | W            | X | 1 | Ĺ       | R           | EMARKS |            |     |  |
|   | •                         |   |                                       |     | •                  |     |   |           | • |      |  |       | •    |       |     |     |    |      |   |   |                                       |               |              |   | • | 1       |             |        |            |     |  |
|   | •                         |   |                                       |     | •                  |     |   |           | • |      |  |       | •    |       |     |     |    |      |   |   |                                       |               |              |   | • | 2       |             |        |            |     |  |
|   | •                         |   |                                       |     | •                  |     |   |           | • |      |  |       | •    |       |     |     |    |      |   |   |                                       |               |              |   | • | 4       |             |        |            |     |  |
|   |                           |   |                                       |     |                    |     |   |           |   |      |  |       |      |       |     |     |    |      |   |   |                                       |               |              |   |   | 5       |             |        |            |     |  |
|   | _                         |   |                                       |     |                    |     |   |           |   |      |  |       |      |       |     |     |    |      |   |   |                                       |               |              |   |   | 6       |             |        |            |     |  |
|   |                           | • |                                       |     |                    | •   |   |           |   | •    |  |       |      | •     |     |     |    |      |   |   |                                       |               |              |   |   | 7       |             |        |            |     |  |
|   |                           | • |                                       |     |                    | •   |   |           |   | •    |  |       |      | •     |     |     |    |      |   |   |                                       |               |              |   |   | 8       |             |        |            |     |  |
|   |                           |   |                                       |     |                    |     |   |           |   |      |  |       |      |       |     |     |    |      |   |   |                                       |               |              |   |   | 9<br>10 |             |        |            |     |  |
|   |                           |   |                                       |     |                    |     |   |           |   |      |  |       |      |       |     |     |    |      |   |   |                                       |               |              |   | • | 11      |             |        |            |     |  |
| _ |                           |   |                                       |     |                    |     |   |           |   |      |  |       |      |       |     |     |    |      |   |   |                                       |               |              |   | • | 12      |             |        |            |     |  |
|   |                           |   |                                       |     |                    |     |   |           |   |      |  |       |      |       |     |     |    |      |   |   |                                       |               |              |   | - | 13      |             |        |            |     |  |
|   |                           |   | •                                     |     |                    |     |   | •         |   |      |  |       |      |       | ٠   |     |    |      |   |   |                                       |               |              |   | • | 14      |             |        |            |     |  |
|   |                           |   | •                                     |     |                    |     |   | •         |   |      |  |       |      |       | ٠   |     |    |      |   |   |                                       |               |              |   | • | 15      |             |        |            |     |  |
|   |                           |   | ٠                                     |     |                    |     |   | •         |   |      |  |       |      |       | ٠   |     |    |      |   |   |                                       |               |              |   | • | 16      |             |        |            |     |  |
|   |                           |   |                                       |     |                    |     |   |           |   |      |  |       |      |       |     |     |    |      |   |   |                                       |               |              |   |   | 17      |             |        |            |     |  |
|   |                           |   |                                       |     |                    |     |   |           |   |      |  |       |      |       |     |     |    |      |   |   |                                       |               |              |   |   | 18      |             |        |            |     |  |
|   |                           |   |                                       |     |                    |     |   |           |   |      |  |       |      |       |     |     |    |      |   |   |                                       |               |              |   |   | 19      |             |        |            |     |  |
| L | A                         | В | С                                     | D   | Ε                  | F   | G | H         |   | J    | K  | L     | М    | Ν     | 0   | Р   | Q  | R    | S | T | U                                     | V             | W            | Х | Y |         |             |        |            |     |  |

## FIRE ALARM MONITORING NOTE

AUTOMATIC FIRE ALARM SYSTEMS SHALL TRANSMIT THE ALARM. SUPERVISORY AND TROUBLE SIGNALS TO AN APPROVED SUPERVISING STATION AS REQUIRED BY NFPA 72 AS AMENDED BY CFC CHAPTER 80. THE SUPERVISING STATION SHALL BE LISTED AS EITHER UUFX OR UUJS BY UNDERWRITERS LABORATORY OR SHALL MEET THE REQUIREMENTS OF FACTORY MUTUAL RESEARCH APPROVAL STANDARD 3011. SUPERVISION OF SYSTEM AND LEASED TELEPHONE LINES SHALL BE ARRANGED BY

FIRE ALARM SHEET INDEX

| ET TITLE                                 |
|--|
| ALARM NOTES, LEGENDS, AND SPECIFICATIONS |
| RALL SITE PLAN                           |
| ALARM FLOOR PLANS BLDG A                 |
| ALARM FLOOR PLANS BLDG B, C, D & E       |
| ALARM FLOOR PLANS BLDGS F, G, & H        |
| ALARM FLOOR PLANS PORTABLES              |
| ALARM RISER DIAGRAM – BLDGS A & C        |
| ALARM RISER DIAGRAM – BLDGS:             |
| D, E, F, G, & H                          |
| ALARM RISER DIAGRAM – PORTABLES          |
| ALARM BATTERY CALCULATIONS               |
| ALARM BATTERY CALCULATIONS               |
|  |
|  |

|                 | F   | FIRE ALARM D   | EVICE LEGEN           | D   |                |
|-----------------|-----|----------------|-----------------------|---|----------------|
| SYMBOL          | QTY | MANUFACTURER   | PART NO               | DESCRIPTION   | CSFM           |
| [FACU]          | 1   | SILENT KNIGHT  | 5820XL-EVS (SK)       | FIRE ALARM CONTROL<br>PANEL, ADDRESSABLE<br>W/ EMERGENCY VOICE<br>SYSTEM, SK PROTOCOL | 7165-0559:0172 |
|                 | 3   | SILENT KNIGHT  | 5815XL SK PROTOCOL    | SIGNALING LINE CIRCUIT<br>EXPANDER, 198 PTS (SK)                                      | 7165-0559:0172 |
|                 | 1   | SILENT KNIGHT  | 5820XL-EVS MAIN BOARD | FIRE ALARM CONTROL<br>PANEL MAIN BOARD SK<br>PROTOCOL                                 | 7165-0559:0500 |
|                 | 1   | SILENT KNIGHT  | EVS-50W MAIN BOARD    | PANEL COMPONENT,<br>INTELLIGENT 50 WATT<br>AMPLIFIER                                  | 7165-0559:0500 |
| NAC             | 2   | SILENT KNIGHT  | SK-PS10               | 10.0 A, 120 VAC REMOTE<br>CHARGER POWER<br>SUPPLY IN A LOCKABLE,<br>METAL ENCLOSURE   | 7315-0559:0522 |
|                 | 2   | SILENT KNIGHT  | SK-PS10 MAIN BOARD    | FIRE ALARM POWER<br>SUPPLY MAIN BOARD   | 7315-0559:0522 |
| FAA             | 1   | SILENT KNIGHT  | SK-5235               | REMOTE ANNUNCIATOR  | 7165-0559:0137 |
| F               | 1   | SILENT KNIGHT  | SK-PULL-DA            | ADDRESSABLE MANUAL<br>PULL STATION,<br>DOUBLE-ACTION                                  | 7150-0559:0161 |
| AIM             | 3   | SILENT KNIGHT  | SK-MONITOR            | ADDRESSABLE MONITOR<br>MODULE   | 7300-0559:0155 |
| (H)             | 18  | SILENT KNIGHT  | SK-HEAT               | ADDRESSABLE HEAT<br>DETECTOR, FIXED TEMP  | 7270-0559:0147 |
| (H) 190°F       | 150 | SILENT KNIGHT  | SK-HEAT-HT-W          | ADDRESSABLE HEAT<br>DETECTOR, FIXED TEMP  | 7270-0559:0511 |
| S               | 277 | SILENT KNIGHT  | SK-PHOTO              | ADDRESSABLE<br>PHOTOELECTRIC SMOKE<br>DETECTOR  | 7272-0559:0149 |
| X               | 63  | EATON WHEELOCK | ET90-24MCC-FW         | SPEAKER/STROBE, 24<br>VDC, MULTI-CANDELA, ,<br>25/70 VRMS, WHITE                      | 7125-0785:0152 |
| X               | 17  | EATON WHEELOCK | ELSTW                 | WALL STROBE, WHITE,<br>FIRE   | 7135-0785:0504 |
| S <sub>WP</sub> | 43  | EATON WHEELOCK | ET-1010-R W/WBB-R     | SPEAKER, 25 OR 70.7<br>VRMS, 1/8 TO 8 WATTS<br>W/BACKBOX WP                           | 7320-0785:0105 |

GOVERNING CODES & APPLICABLE STANDARDS

TITLE 24 CODES: 1. 2022 CALIFORNIA BUILDING STANDARD ADMINISTRATIVE CODE (CAC), (PART 1, TITLE 24, CCR).

2. 2022 CALIFORNIA BUILDING CODE (CBC), VOLUMES 1 AND 2 (PART 2, TITLE 24, CCR), (2021 EDITION INTERNATIONAL BUILDING CODE WITH CALIFORNIA AMENDMENTS).

3. 2022 CALIFORNIA ELECTRICAL CODE, (PART 3, TITLE 24, CCR), (2020 EDITION NATIONAL ELECTRICAL CODE WITH CALIFORNIA AMENDMENTS).

4. 2022 CALIFORNIA MECHANICAL CODE (CMC), (PART 4, TITLE 24, CCR), (2021 EDITION IAPMO UNIFORM

MECHANICAL CODE). 5. 2022 CALIFORNIA PLUMBING CODE (CPC), (PART 5, TITLE 24, CCR), (2021 EDITION IAPMO UNIFORM PLUMBING

CODE WITH CALIFORNIA AMENDMENTS).

6. 2022 CALIFORNIA ENERGY CODE, (PART 6, TITLE 24. CCR), (2022 EDITION CALIFORNIA ENERGY COMMISSION BUILDING ENERGY EFFICIENCY STANDARDS).

2022 CALIFORNIA FIRE CODE (CFC), (PART 9, TITLE 24, CCR) (2021 EDITION INTERNATIONAL FIRE CODE WITH CALIFORNIA AMENDMENTS).

8. 2022 CALIFORNIA REFERENCE CODE, (PART 12, TITLE 24, CCR).

REFERENCE CODE SECTIONS FOR APPLICABLE STANDARDS:

1. 2022 CBC, CHAPTER 35.

2. 2022 CFC, CHAPTER 80.

3. 2022 NFPA 72, AS AMENDED.

### SCOPE OF WORK AND BUILDING INFORMATION

REPLACE AND UPGRADE NEW FIRE ALARM AUTOMATIC SYSTEM TO ENTIRE CAMPUS.

IN AREAS WHERE THE NEW INSTALLATION OF FIRE ALARM DEVICES, INFRASTRUCTURE (INCLUDING PATHWAY, DEVICE BOXES, ETC.) PROVIDE ALL NEW CABLING, CABLING SHALL BE INSTALLED TO MATCH EXISTING CONSTRUCTION IN CONDUIT, SURFACE RACEWAY, OR EXPOSED IN ACCESSIBLE CEILING SPACE.

OCCUPANCY CLASSIFICATION: B, E, A-3

TYPE OF CONSTRUCTION: V-B

NUMBER OF STORIES: 1 STORY

SPRINKLER PROTECTION: NO

ALTERNATIVE PROTECTION: NOT APPLICABLE

TYPE OF SYSTEM: MANUAL, AUTOMATIC FIRE ALARM SYSTEM

|   |      |          |             | FIRE AI         | ARM CABLE SC         | HEDULE             |                   |
|---|------|----------|-------------|-----------------|----------------------|--------------------|-------------------|
| l | TYPE | DESCRIPT | ION         | JACKET<br>COLOR | SERVES               | ENVIRONMENT<br>USE | NOTES             |
|   | Α    | 2#16 UTP | FPLR, SOLID | RED/BLK         | SLC INTELLIGENT LOOP | INTERIOR           |                   |
|   | В    | 2#14 UTP | FPLR, SOLID | RED/BLK         | NAC STROBE (VISUAL)  | INTERIOR           |                   |
|   | С    | 2#16 STP | FPLR, SOLID | RED/BLK         | VOICE (SPEAKER)      | INTERIOR           |                   |
|   | D    | 2#16 UTP | FPLR, SOLID | RED/BLK         | IDC CIRCUIT          | INTERIOR           |                   |
|   | E    | 2#16 UTP | FPLR, SOLID | RED/BLK         | FAA RS485 COMM       | INTERIOR           |                   |
|   | Р    | 2#14 UTP | FPLR, SOLID | RED/BLK         | 24VDC POWER          | INTERIOR           |                   |
| l | R    | 2#16 UTP | FPLR, SOLID | RED/BLK         | SPEAKER RISER        | INTERIOR           |                   |
|   |      |          |             |                 |                      |                    |                   |
| L | AU   | 2#16 UTP | WP#AQ225    | RED/BLK         | SLC ADDRESS LOOP     | EXTERIOR/UDGND     | DIRECT BURIAL CAB |
|   | ΒU   | 2#14 UTP | WP#AQ226    | RED/BLK         | NAC STROBE (VISUAL)  | EXTERIOR/UDGND     | DIRECT BURIAL CAE |
|   | CU   | 2#16 STP | WP#AQ294    | RED/BLK         | NAC VOICE (SPEAKER)  | EXTERIOR/UDGND     | DIRECT BURIAL CAE |
|   | DU   | 2#16 STP | WP#AQ225    | RED/BLK         | IDC CIRCUIT          | EXTERIOR/UDGND     | DIRECT BURIAL CAE |
| L | EU   | 2#16 UTP | WP#AQ225    | RED/BLK         | FAA RS485 COMM       | EXTERIOR/UDGND     | DIRECT BURIAL CAB |
|   | ΡU   | 2#14 UTP | WP#AQ226    | RED/BLK         | 24VDC POWER          | EXTERIOR/UDGND     | DIRECT BURIAL CAE |
|   | RU   | 2#16 UTP | WP#AQ225    | RED/BLK         | SPEAKER RISER        | EXTERIOR/UDGND     | DIRECT BURIAL CAB |
|   |      |          |             |                 |                      |                    |                   |

. ALL CONDUCTORS SHALL BE COPPER AND SOLID – STRANDED CONDUCTOR IS NOT ACCEPTABLE 2. MINIMUM CONDUIT SIZE IS 3/4" - CONCEALED IN CEILING SPACE OR APPROPRIATE WALLS.

3. ALL SURFACE ROUTED RACEWAYS SHALL BE WIREMOLD OR APPROVED EQUAL.

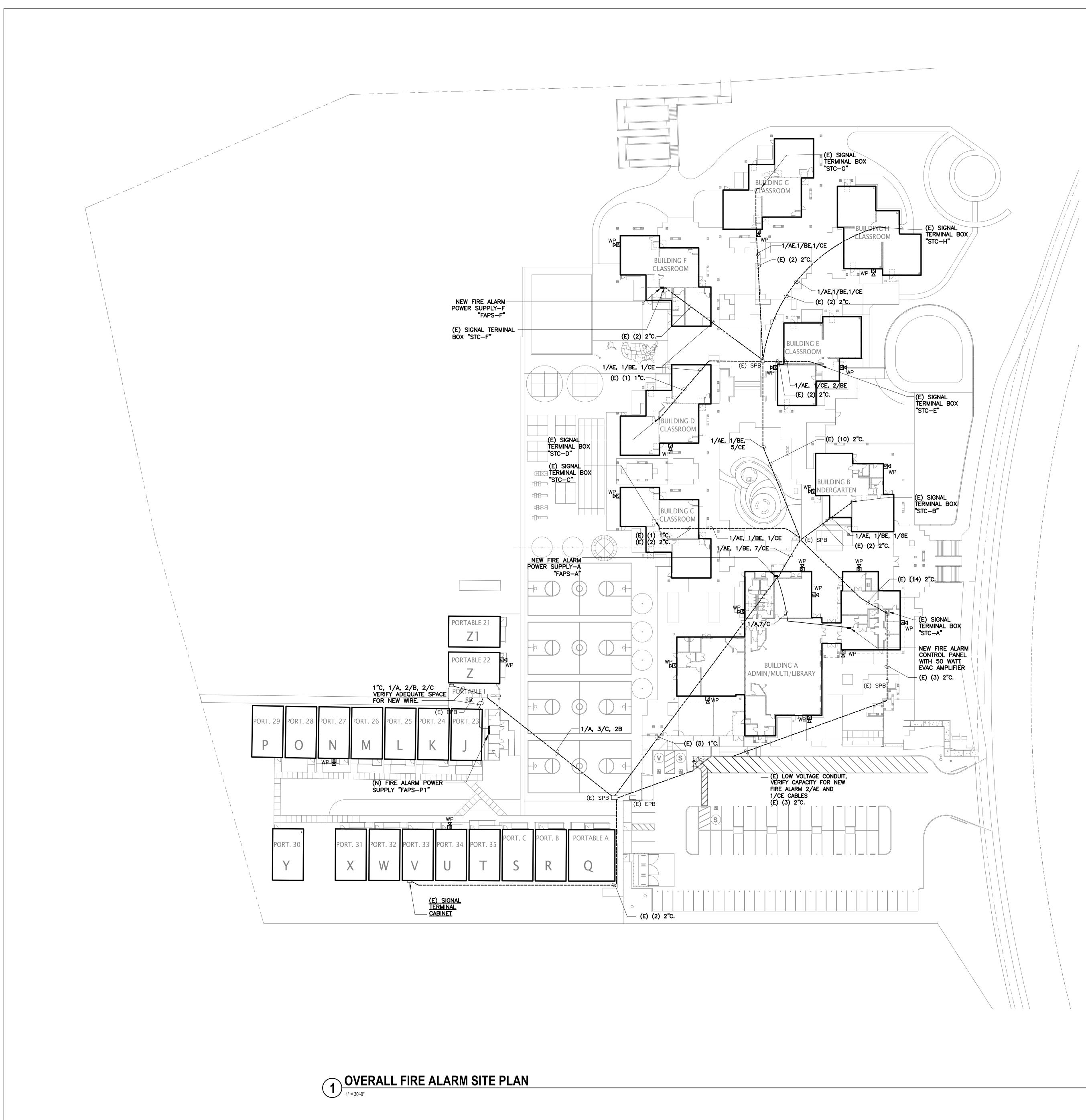
CABLE ABBREVIATIONS: STP SHIELDED TWISTED PAIR SLC SIGNAL LINE CIRCUIT NAC NOTIFICATION APPLIANCE CIRCUIT IDC INITIATE DEVICE CIRCUIT

PA PUBLIC ADDRESS UTP UNSHIELDED TWISTED PAIR WP WEST PENN (CABLE MANUFACTURER)

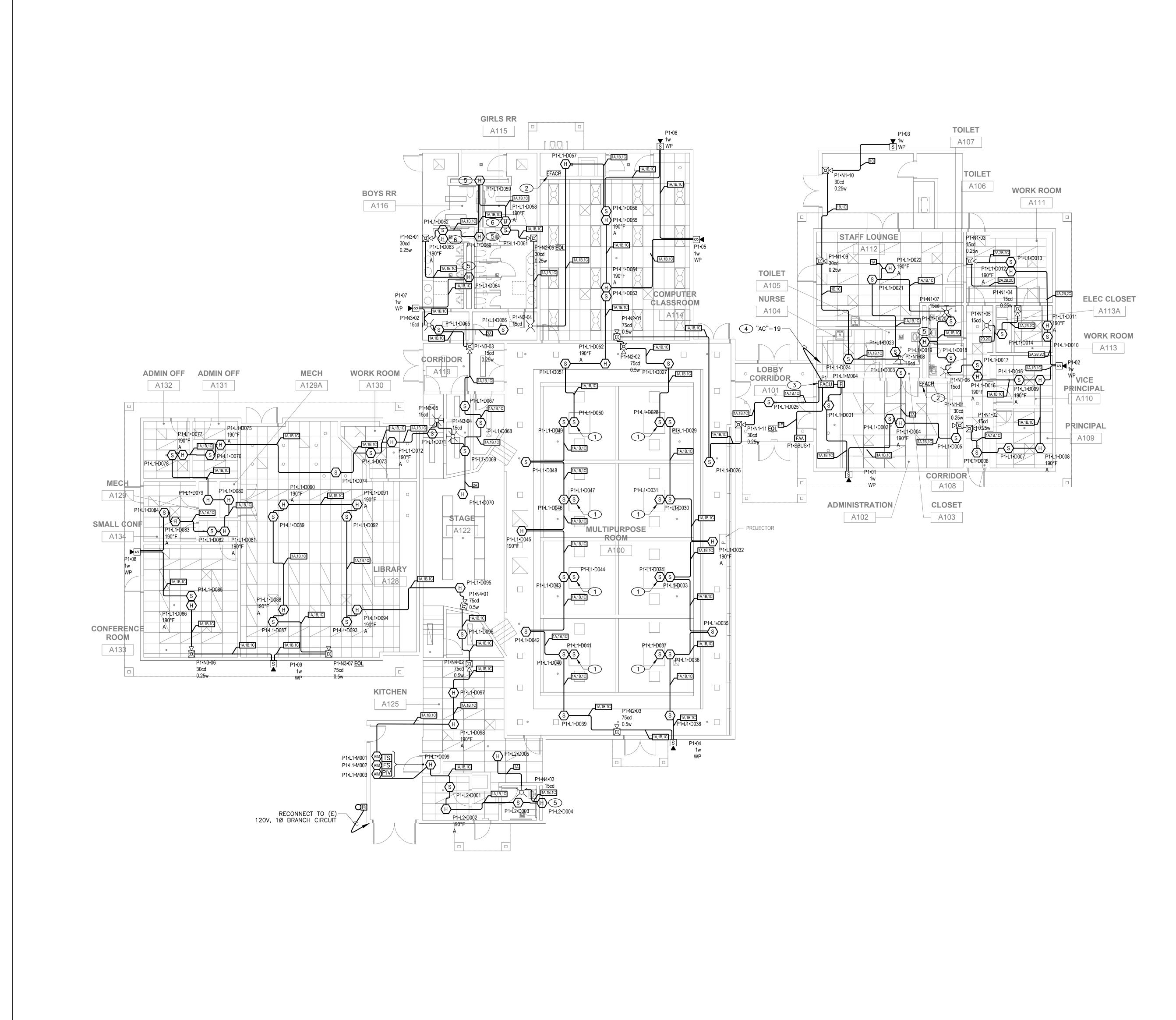
## FIRE ALARM ABBREVIATIONS/SYMBOLS

| SYMBOL                    | DESCRIPTIONS   | SYMBOL              | DESCRIPTIONS                                      |
|---------------------------|--|---------------------|---|
| AFF<br>A<br>ANN           | ABOVE FINISHED FLOOR<br>ABOVE FINISHED CEILING<br>ANNUNCIATOR                                  | J-BOX<br>MTD<br>(N) | JUNCTION BOX<br>MOUNTED<br>NEW                    |
| С                         | CONDUIT  | N.I.E.S.            | NOT IN ELECTRICAL SCOPE OR SPECIFICATION          |
| (E)<br>EM                 | EXISTING TO REMAIN<br>EMERGENCY  | PIV<br>TYP          | POST INDICATE VALVE<br>TYPICAL                    |
| FACP<br>FAPS<br>FSD<br>FS | FIRE ALARM CONTROL PANEL<br>REMOTE FIRE ALARM POWER SUPPLY<br>FIRE SMOKE DAMPER<br>FLOW SWITCH | UNO<br>VT<br>W      | UNLESS NOTED OTHERWISE<br>VALVE TAMPER<br>WATTAGE |
| 13                        |  | WP                  | WEATHERPROOF                                      |





IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 02-121265 INC: REVIEWED FOR SS 🔲 FLS 🗹 ACS 🗹 DATE: 05/24/2023 architect ACMARTIN 3009 DOUGLAS BLVD SUITE 290 ROSEVILLE CA 95661 T 916 772 1800 stamp consultant MEP & FS / Sustainability / CxA 1209 Pleasant Grove Blvd. Roseville, CA 95678 p 916-771-0778 CONSULTING Engineers www.lpengineers.com Job #: 18-2150 project number CA5602 project director project designer project architect revisions no. da project status DSA SUBMITTAL 4-25-2023 client / project OAK HILL ES HARDSHIP MODERNIZATION CJUSD 3909 NORTH LOOP BLVD ANTELOPE, CA 95843 sheet name OVERALL SITE PLAN sheet number FA1.1 plot date 3/22/2023 3:38:04 PM



## 1 FIRE ALARM FLOOR PLAN- BLDG. A

- 1. FOR ALL FIRE ALARM PANELS, PROVIDE NEW DEDICATED 20A, 120V CIRCUIT. PROVIDE 20/1 BREAKER AS NECESSARY. FIRE ALARM DEDICATED CIRCUITS SHALL BE IDENTIFIED WITH A RED MARKING. DISCONNECT WITH LOCK-ON CAPABILITY NFPA 72, 10.6.5.2. FIELD VERIFY SPARE CIRCUITS, USE CLOSEST SPARE CIRCUIT.
- 2. FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK AND NOTIFY ARCHITECT/ENGINEER OF ANY CONFLICTS/DISCREPANCIES.

### **KEY NOTES**

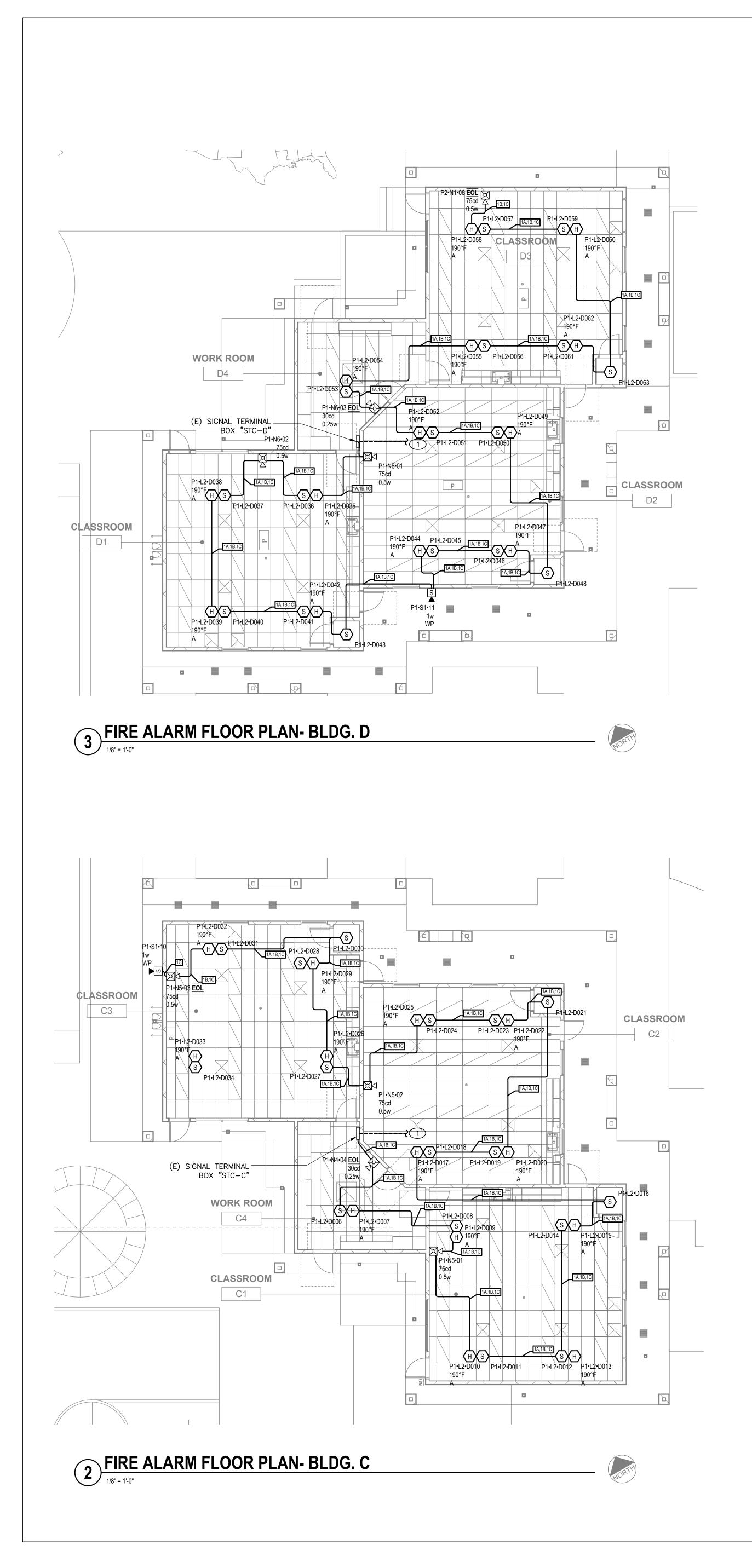
- 1 INSTALL DETECTORS ON SIDE WALL OF SKYLIGHTS.
- 2 EXISTING FIRE ALARM CONTROL PANEL TO BE DEMOLISHED ONCE NEW FIRE ALARM SYSTEM IS FULLY FUNCTIONAL AND TESTED BY THE IOR.
- 3 NEW FIRE ALARM CONTROL PANEL WITH 50 WATT SPEAKER AMPLIFIER FOR VOICE EVACUATION.
- (N) 1/2"C WITH (2)#12 AND (1)#10 GND. SEE GENERAL NOTE 3 FOR ADDITIONAL REQUIREMENTS.
- 5 PROVIDE ACCESS DOOR TO SERVICE HEAT DETECTOR LOCATED IN CHASE.
- 6 IF NO SPACE ABOVE CEILING EXISTS, REMOVE ABOVE CEILING HEAT DETECTORS AND CREDIT TO OWNER.

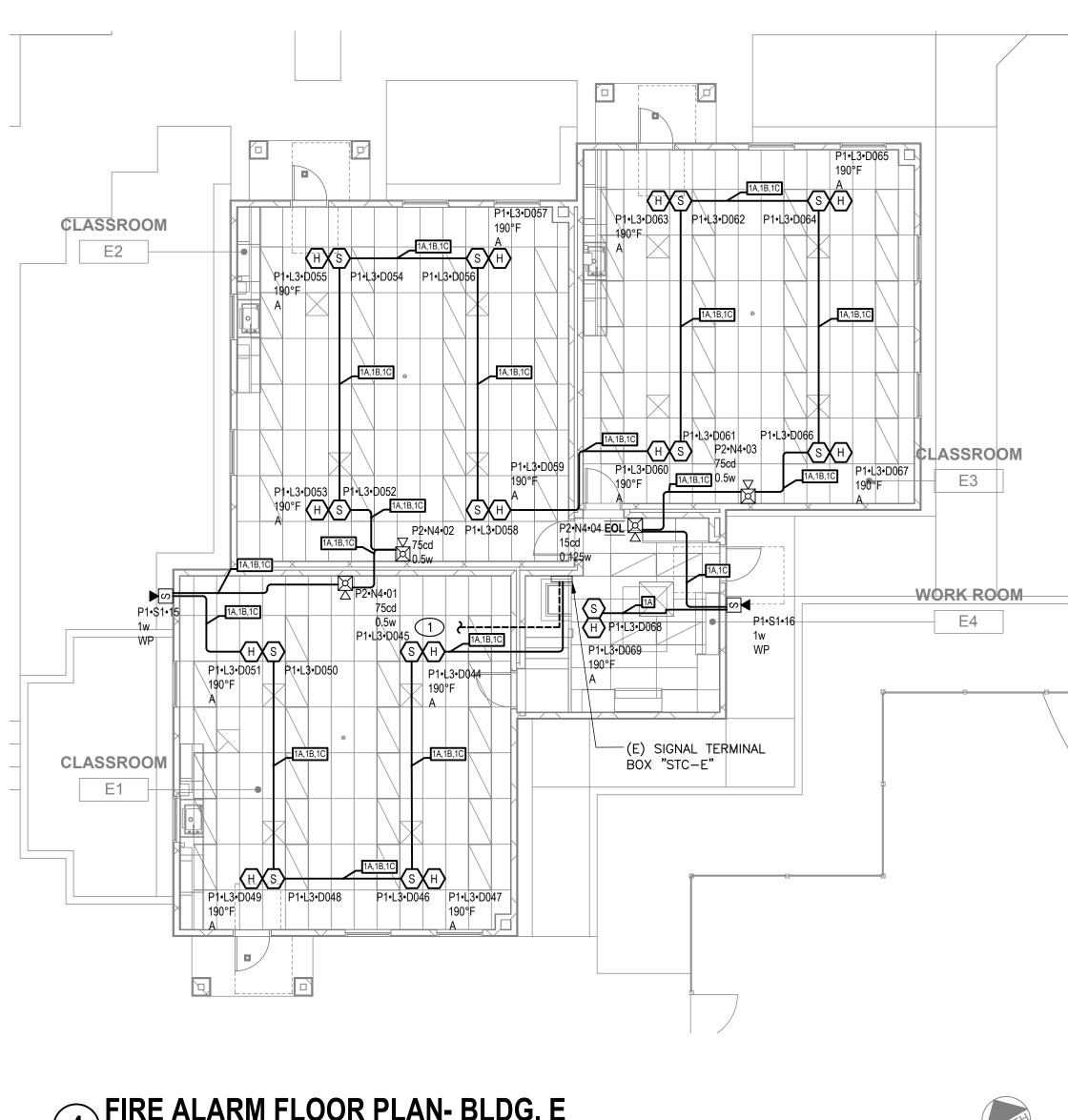


IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 02-121265 INC: **REVIEWED FOR** SS 🔲 FLS 🗹 ACS 🗹 DATE: 05/24/2023 architect ACMARTIN ■ 3009 DOUGLAS BLVD SUITE 290 ROSEVILLE CA 95661 T 916 772 1800 stamp No. F 16762 consultant MEP & FS / Sustainability / CxA 1209 Pleasant Grove Blvd. Roseville, CA 95678 p 916-771-0778 CONSULTING Engineers www.lpengineers.com Job #: 18-2150 project number CA5602 project director project designer project architect revisions project status DSA SUBMITTAL 4-25-2023 client / project OAK HILL ES HARDSHIP MODERNIZATION CJUSD 3909 NORTH LOOP BLVD ANTELOPE, CA 95843 sheet name FIRE ALARM **FLOOR PLANS BLDG A** sheet number **FA2.1** 

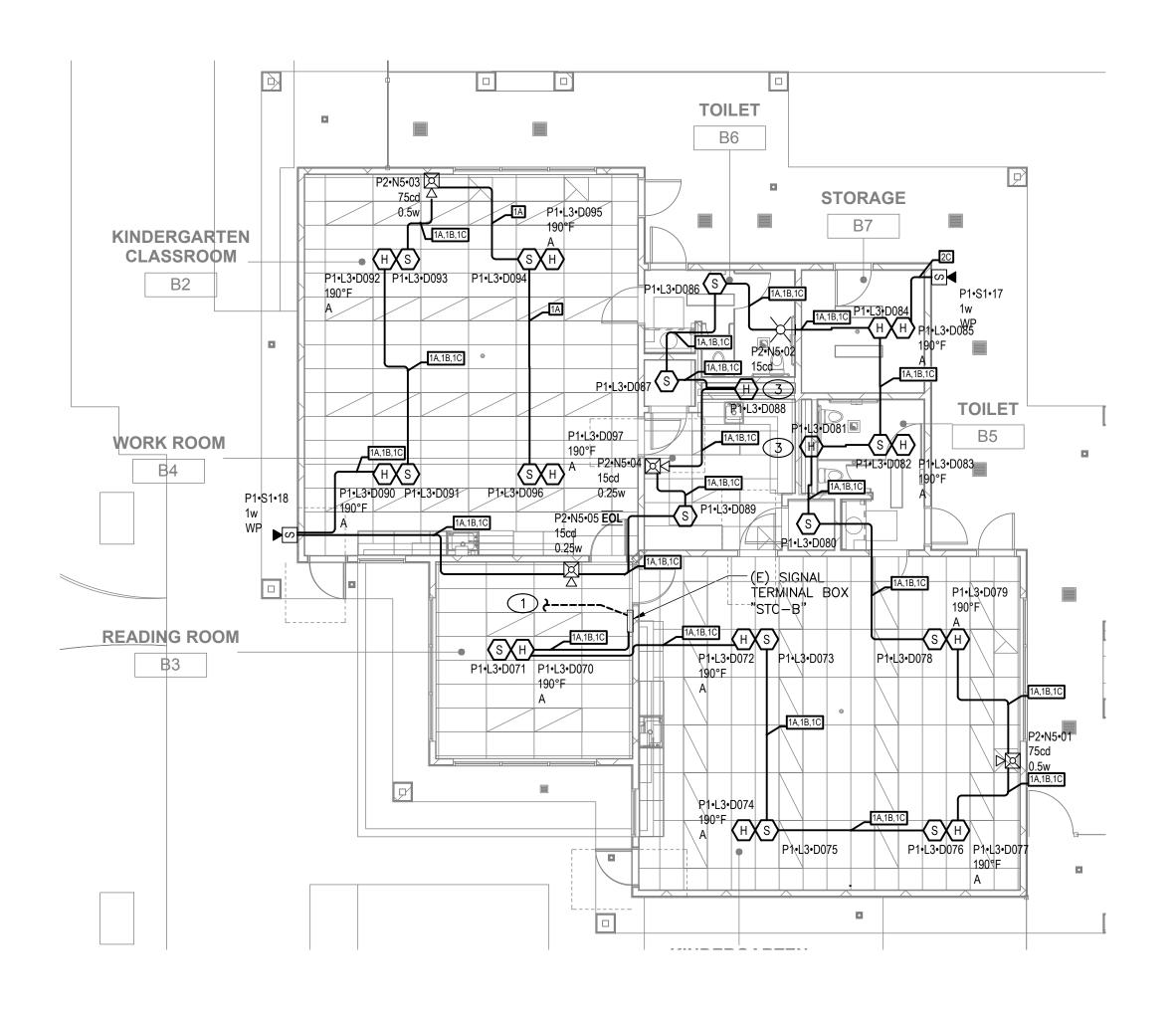
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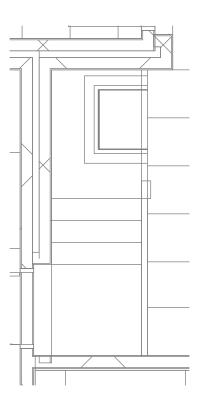
1 FIRE ALARM FLOOR PLAN- BLDG. B

### **GENERAL NOTES**

- 1. FOR ALL FIRE ALARM PANELS, PROVIDE NEW DEDICATED 20A, 120V CIRCUIT. PROVIDE 20/1 BREAKER AS NECESSARY. FIRE ALARM DEDICATED CIRCUITS SHALL BE IDENTIFIED WITH A RED MARKED DISCONNECT WITH LOCK-ON CAPABILITY NFPA 72, 10.6.5.2 COORDINATE WITH ELECTRICAL.
- 2. FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK AND NOTIFY ARCHITECT/ENGINEER OF ANY CONFLICTS/DISCREPANCIES.
- 3. FIELD VERIFY SPARE 120V 20A BREAKER FOR ALL FIRE ALARM CONTROL PANELS.

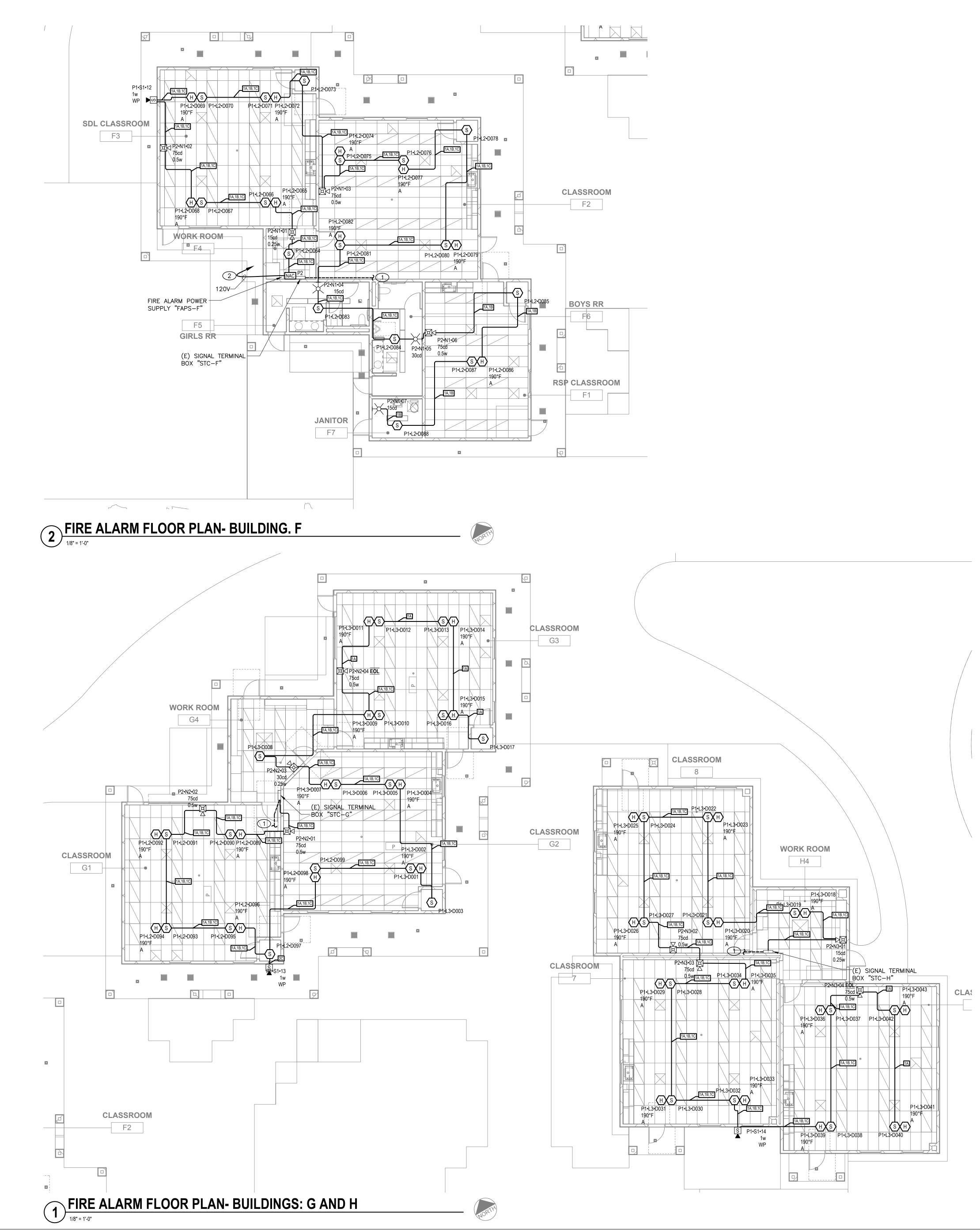
### **KEY NOTES**

- 1 SEE FA1.1 FOR CONDUIT PATHWAYS AND WIRE.
- (N) 1/2"C WITH (2)#12 AND (1)#10 GND. SEE GENERAL NOTE 3 FOR ADDITIONAL REQUIREMENTS.
- 3 PROVIDE ACCESS DOOR TO SERVICE HEAT DETECTOR LOCATED IN CHASE.



4 FIRE ALARM FLOOR PLAN- BLDG. E

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 02-121265 INC: **REVIEWED FOR** SS 🔲 FLS 🗹 ACS 🗹 DATE: 05/24/2023 architect ACMARTIN 3009 DOUGLAS BLVD SUITE 290 ROSEVILLE CA 95661 T 916 772 1800 stamp consultant MEP & FS / Sustainability / CxA 1209 Pleasant Grove Blvd. Roseville, CA 95678 p 916-771-0778 CONSULTING Engineers www.lpengineers.com Job #: 18-2150 project number CA5602 project director project designer project architect evisions project status DSA SUBMITTAL 4-25-2023 client / project OAK HILL ES HARDSHIP MODERNIZATION CJUSD 3909 NORTH LOOP BLVD ANTELOPE, CA 95843 sheet name FIRE ALARM **FLOOR PLANS** BLDG B,C,D & E sheet number **FA2.2** plot date 3/22/2023 3:38:04 PM



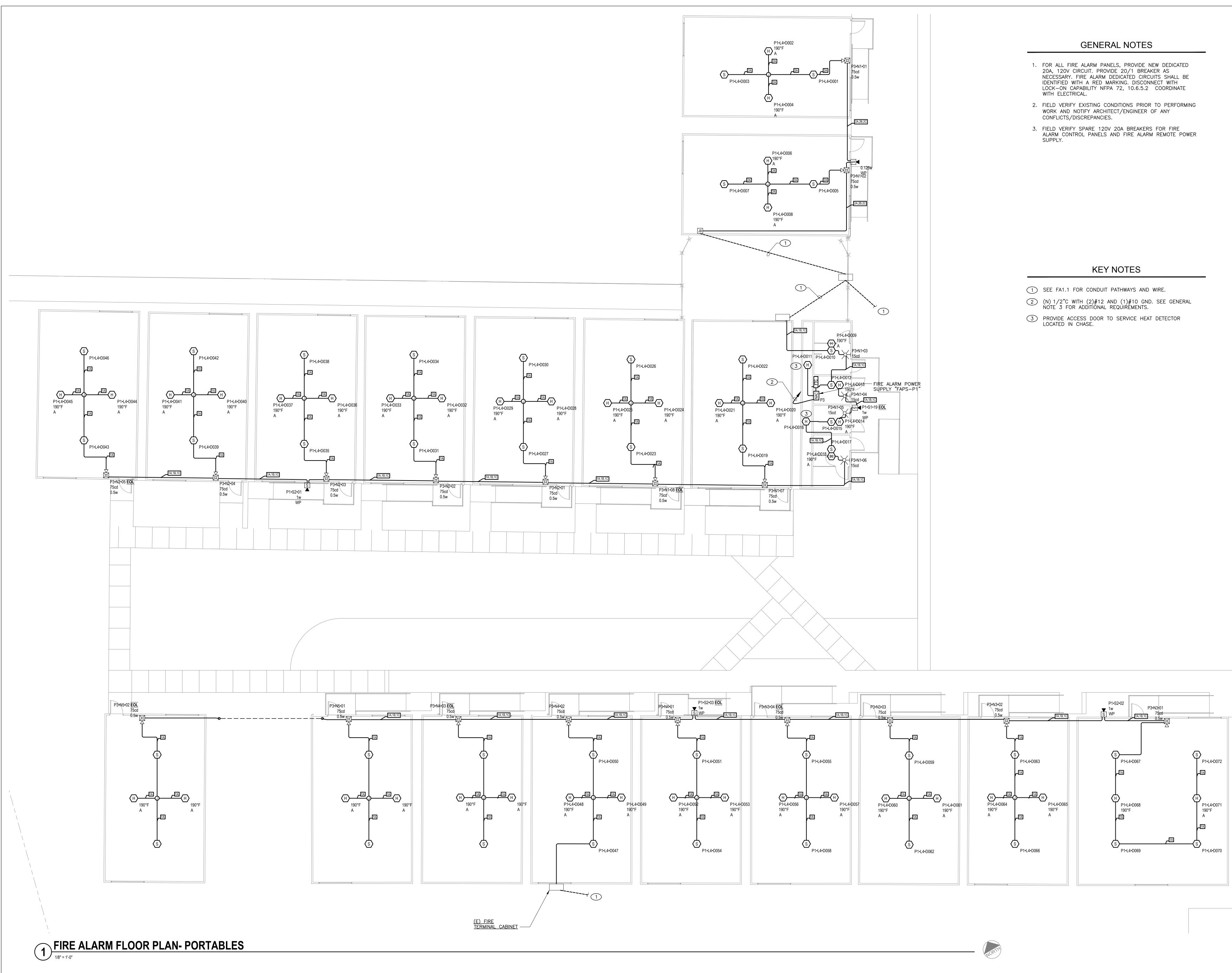
### **GENERAL NOTES**

- 1. FOR ALL FIRE ALARM PANELS, PROVIDE NEW DEDICATED 20A, 120V CIRCUIT. PROVIDE 20/1 BREAKER AS NECESSARY. FIRE ALARM DEDICATED CIRCUITS SHALL BE IDENTIFIED WITH A RED MARKED DISCONNECT WITH LOCK-ON CAPABILITY NFPA 72, 10.6.5.2 COORDINATE WITH ELECTRICAL.
- 2. FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK AND NOTIFY ARCHITECT/ENGINEER OF ANY CONFLICTS/DISCREPANCIES.
- 3. FIELD VERIFY SPARE 120V 20A BREAKER FOR ALL FIRE ALARM CONTROL PANELS.

### **KEY NOTES**

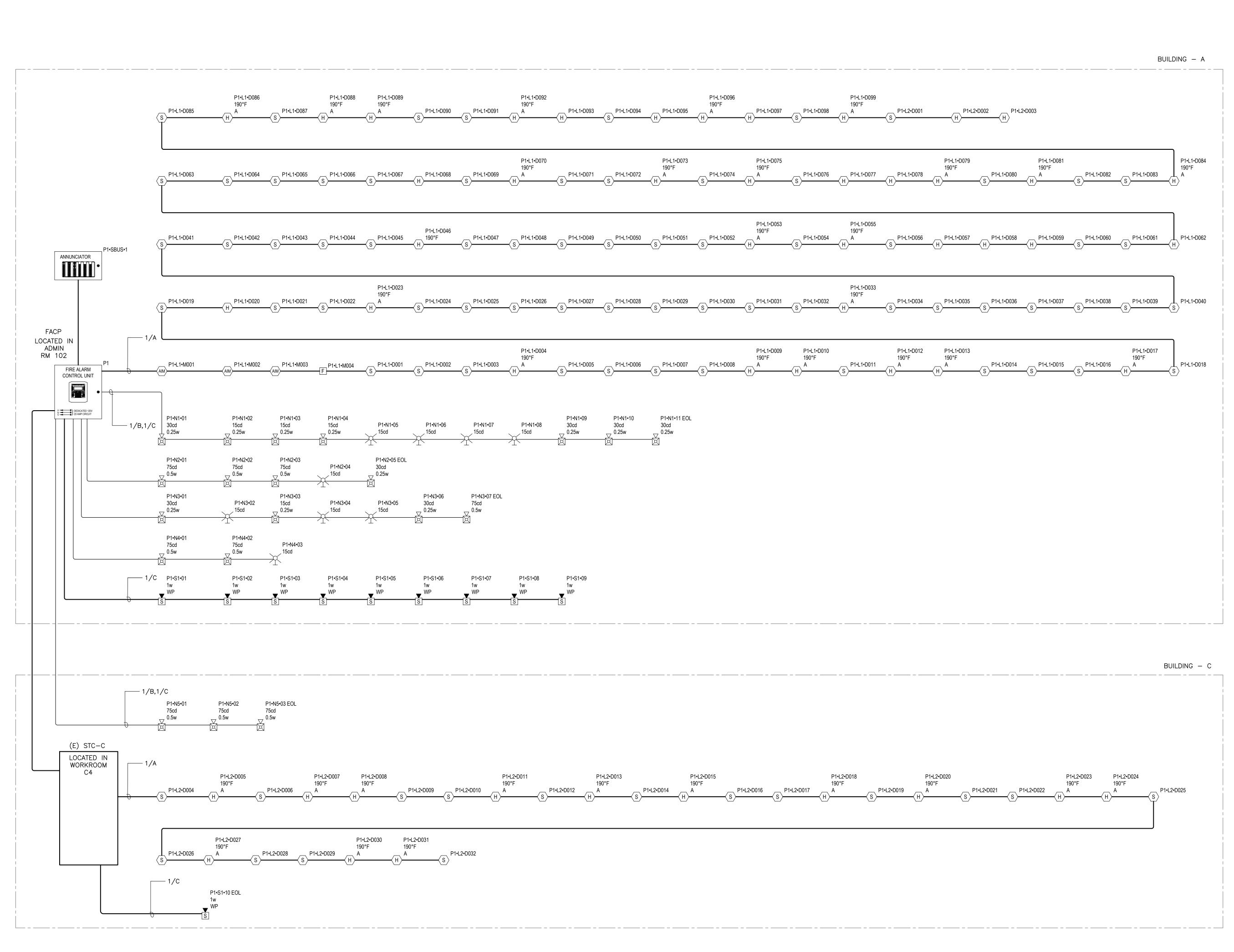
- 1 SEE FA1.1 FOR CONDUIT PATHWAYS AND WIRE.
- (N) 1/2"C WITH (2)#12 AND (1)#10 GND. SEE GENERAL NOTE 3 FOR ADDITIONAL REQUIREMENTS.

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 02-121265 INC: REVIEWED FOR SS 🔲 FLS 🗹 ACS 🗹 DATE: 05/24/2023 architect ACMARTIN ▼3009 DOUGLAS BLVD SUITE 290 ROSEVILLE CA 95661 T 916772 1800 stamp No. F 16762 consultant MEP & FS / Sustainability / CxA 1209 Pleasant Grove Blvd. Roseville, CA 95678 p 916-771-0778 CONSULTING Engineers www.lpengineers.com Job #: 18-2150 project number CA5602 project director project designer project architect revisions project status DSA SUBMITTAL 4-25-2023 client / project OAK HILL ES HARDSHIP MODERNIZATION CJUSD 3909 NORTH LOOP BLVD ANTELOPE, CA 95843 sheet name FIRE ALARM **FLOOR PLANS** BLDGS: F, G & H sheet number **FA2.3** plot date 3/22/2023 3:38:04 PM



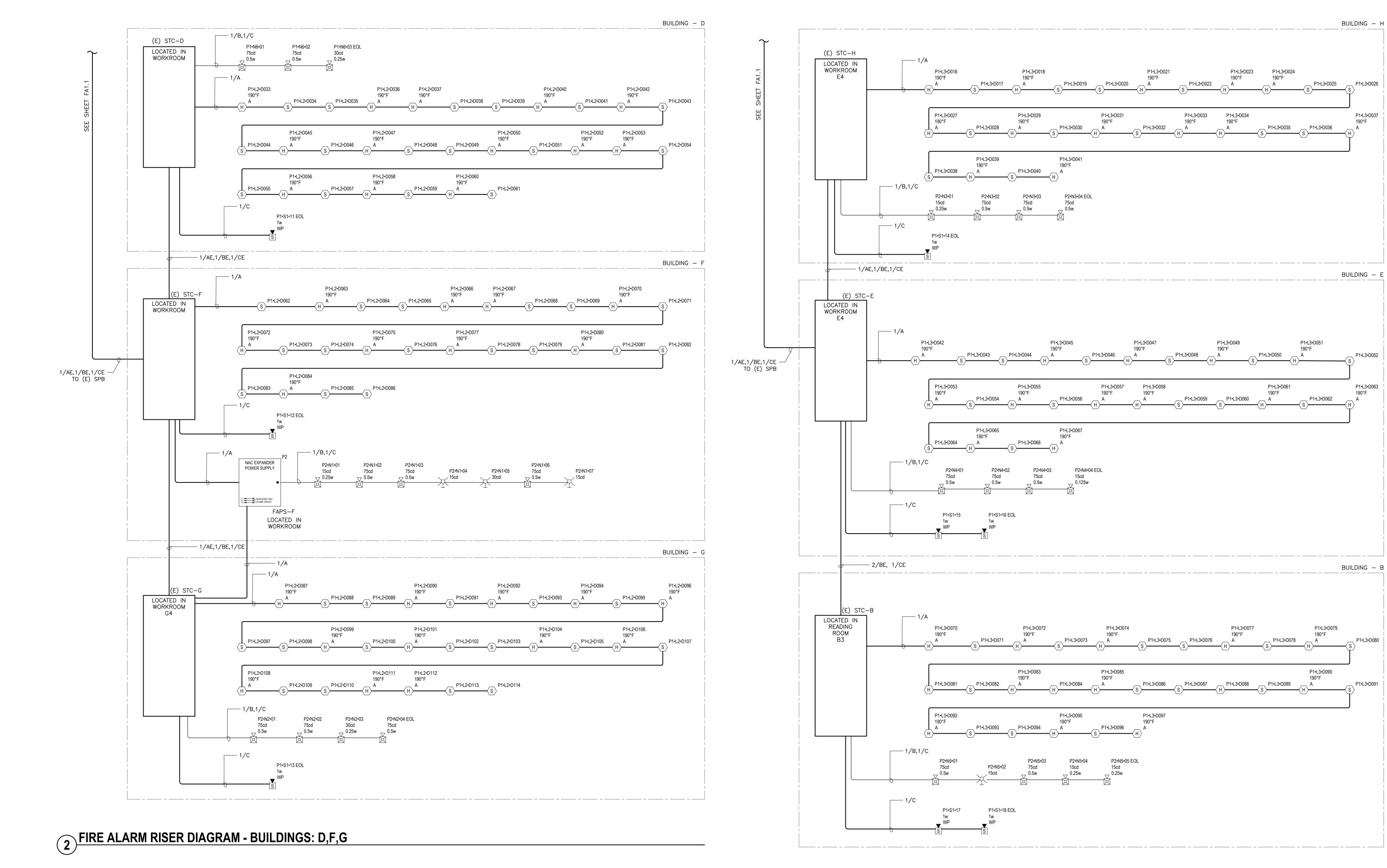
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| DIV. OF THE ST<br>APP: 02-1212<br>REVIEW<br>SS I FLS | ED FOR  |
| DATE: 05   | ENERAL SERVICES.  |
| architect  |   |
| ACMAR<br>3009 DOUGLAS BLV<br>ROSEVILLE CA 956        | D SUITE 290   |
| stamp  | SSIONAL   |
| Jami   | ZEINA CI  |
| No. E<br>Exp. 9/<br>√∠ECT                            |   |
| consultant   |   |
| <b>I</b> p   | MEP & FS /<br>Sustainability / CxA<br>1209 Pleasant Grove Blvc<br>Roseville, CA 95678<br>p 916-771-0778 |
| CONSULTING<br>Engineers                              | www.lpengineers.com<br>Job #: 18-2150   |
| ENGINEERS  | JOD #. 10-2130  |
|  |   |
| project number C project director                    | CA5602  |
| project designer<br>project architect                |   |
| revisions  | rovision  |
| no. date   | revision  |
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| project status                                       |   |
| DSA SUBMITT<br>4-25-2023                             | ΓAL   |
| client / project                                     |   |
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| OAK HIL  | L ES  |
| HARDSH   |   |
| MODERI   | NIZATION  |
| CJUSD<br>3909 NORTH I                                | LOOP BLVD   |
| ANTELOPE, C  |   |
| sheet name   |   |
| FIRE A   | LARM  |
| FLOOR  | PLANS   |
| PORTA  | ABLES   |
| sheet number   |   |
|  |   |
|  |   |
| FA2  | .4  |

## **FIRE ALARM RISER DIAGRAM - BUILDINGS: A & C**



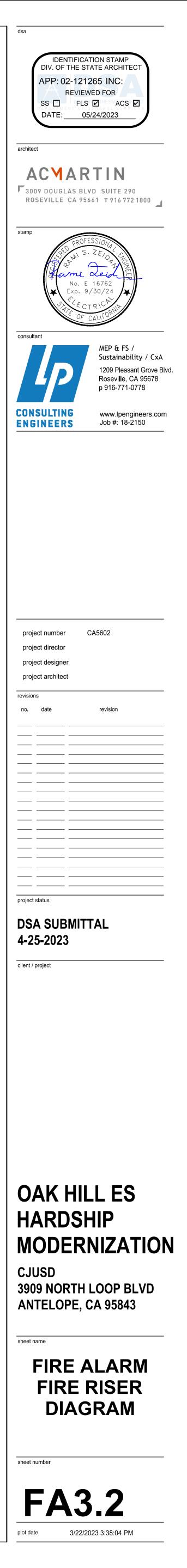
- 1. FOR ALL FIRE ALARM PANELS, PROVIDE NEW DEDICATED 20A, 120V CIRCUIT. PROVIDE 20/1 BREAKER AS NECESSARY. FIRE ALARM DEDICATED CIRCUITS SHALL BE IDENTIFIED WITH A RED MARKING. DISCONNECT WITH LOCK-ON CAPABILITY NFPA 72, 10.6.5.2 COORDINATE WITH ELECTRICAL.
- 2. FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK AND NOTIFY ARCHITECT/ENGINEER OF ANY CONFLICTS/DISCREPANCIES.

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 02-121265 INC: REVIEWED FOR SS 🔲 FLS 🗹 ACS 🗹 DATE: 05/24/2023 architect ACMARTIN 3009 DOUGLAS BLVD SUITE 290 ROSEVILLE CA 95661 T 916 772 1800 stamp No. E 16762 consultant MEP & FS / Sustainability / CxA 1209 Pleasant Grove Blvd. Roseville, CA 95678 p 916-771-0778 CONSULTING Engineers www.lpengineers.com Job #: 18-2150 project number CA5602 project director project designer project architect revisions no. da \_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_ project status DSA SUBMITTAL 4-25-2023 client / project OAK HILL ES HARDSHIP MODERNIZATION CJUSD 3909 NORTH LOOP BLVD ANTELOPE, CA 95843 sheet name FIRE ALARM FIRE RISER DIAGRAM -**BUILDINGS: A & C** sheet number FA3.1 3/22/2023 3:38:04 PM plot date



(1) FIRE ALARM RISER DIAGRAM - BUILDINGS: B,E,H

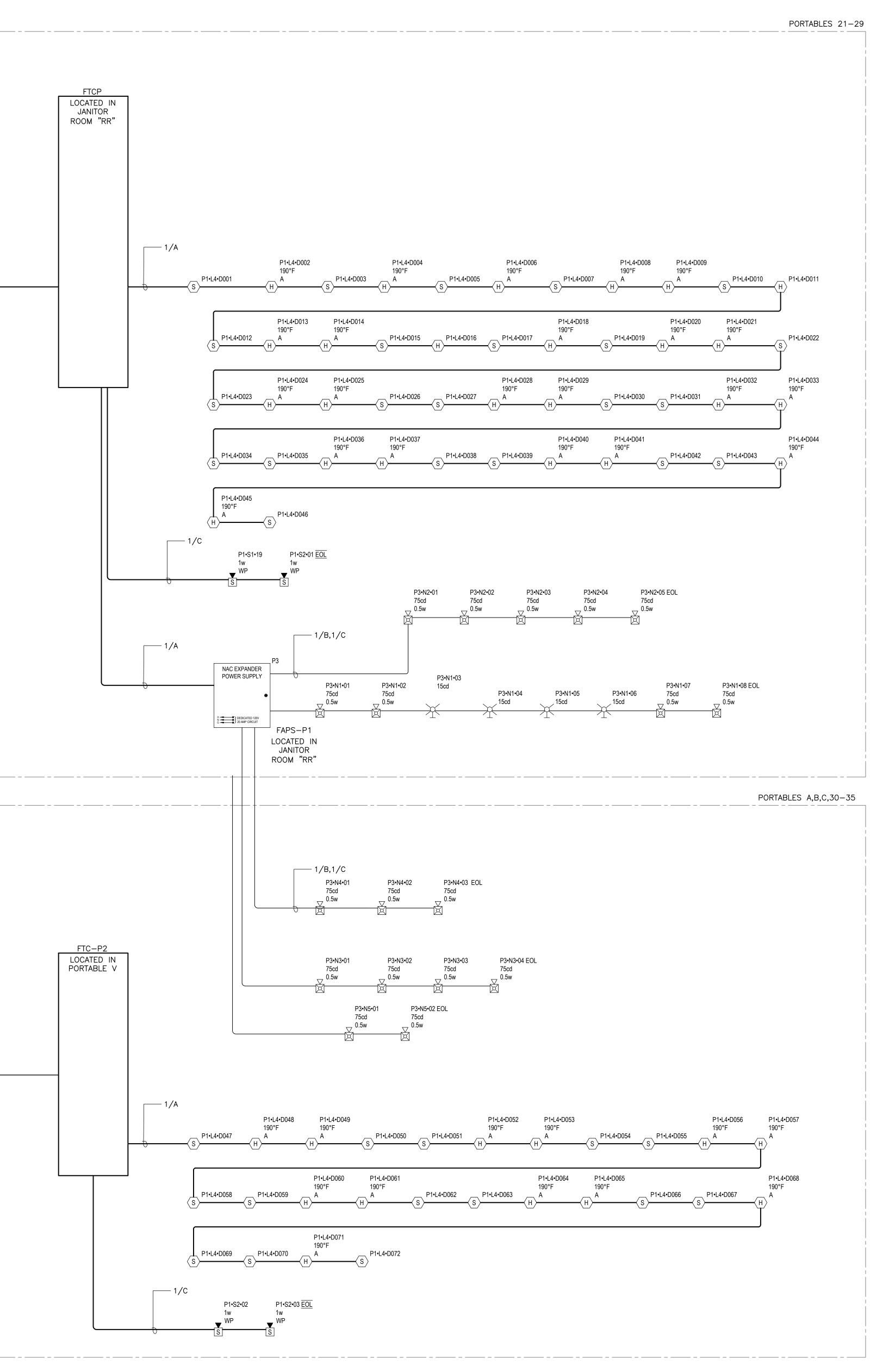
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- 2. FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK AND NOTIFY ARCHITECT/ENGINEER OF ANY CONFLICTS/DISCREPANCIES.







## 1)FIRE ALARM RISER DIAGRAM & CALCULATIONS - PORTABLES



- 1. FOR ALL FIRE ALARM PANELS, PROVIDE NEW DEDICATED 20A, 120V CIRCUIT. PROVIDE 20/1 BREAKER AS NECESSARY. FIRE ALARM DEDICATED CIRCUITS SHALL BE IDENTIFIED WITH A RED MARKING. DISCONNECT WITH LOCK-ON CAPABILITY NFPA 72, 10.6.5.2 COORDINATE WITH ELECTRICAL.
- 2. FIELD VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK AND NOTIFY ARCHITECT/ENGINEER OF ANY CONFLICTS/DISCREPANCIES.

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITEC APP: 02-121265 INC: **REVIEWED FOR** SS 🔲 FLS 🗹 ACS 🗹 DATE: 05/24/2023 architect ACMARTIN 3009 DOUGLAS BLVD SUITE 290 ROSEVILLE CA 95661 T 916 772 1800 stamp consultant MEP & FS / Sustainability / CxA 1209 Pleasant Grove Blvd. Roseville, CA 95678 p 916-771-0778 CONSULTING Engineers www.lpengineers.com Job #: 18-2150 project number CA5602 project director project designer project architect revisions no. date revisio \_\_\_\_ \_\_\_\_ project status DSA SUBMITTAL 4-25-2023 client / project OAK HILL ES HARDSHIP MODERNIZATION CJUSD 3909 NORTH LOOP BLVD ANTELOPE, CA 95843 sheet name FIRE ALARM RISER DGM & CALCS-PORTABLES sheet number **FA3.3** 3/22/2023 3:38:04 PM plot date

|          |                                 | • <b>•</b> •                          | 1   | 1   | STANDBY CUR       | ( )       | SECONDARY ALARM                            | , ,       |
|----------|---------------------------------|---------------------------------------|---|---|-------------------|-----------|--|-----------|
|          |                                 | QTY                                   | PART NO.                                    | DESCRIPTION<br>Signaling Line Circuit                                 | CURRENT DRAW (A)  | TOTAL (A) | CURRENT DRAW (A)                           | TOTAL     |
| PANEL CO | MPONENTS                        | 3                                     | 5815XL SK PROTOCOL<br>5820XL-EVS MAIN BOARD | Expander, 198 pts (SK)<br>FIRE ALARM CONTROL<br>PANEL MAIN BOARD SK   | 0.035             | 0.105     | 0.12                                       | 0.36      |
|          |                                 | 1                                     | EVS-50W MAIN BOARD                          | PROTOCOL<br>PANEL COMPONENT,<br>INTELLIGENT 50 WATT                   | 0.35              | 0.35      | 1.2  | 1.2       |
| CIRCUIT  | SYMBOL                          | QTY                                   | PART NO                                     | AMPLIFIER<br>DESCRIPTION  | CURRENT DRAW (A)  | TOTAL (A) | CURRENT DRAW (A)                           | TOTAL (A) |
|          | H                               | 11                                    | SK-HEAT                                     | ADDRESSABLE HEAT  | 0.0003            | 0.0033    | 0.0003                                     | 0.0033    |
|          |                                 | 25                                    |   | DETECTOR, FIXED TEMP<br>ADDRESSABLE HEAT                              | 0.0002            | 0.005     | 0.0045                                     |           |
|          | (H) 190°F                       |                                       | SK-HEAT-HT-W                                | DETECTOR, FIXED TEMP<br>ADDRESSABLE MONITOR                           |                   |           |  | 0.1125    |
| P1•L1    | AIM                             | 3                                     | SK-MONITOR                                  | MODULE<br>ADDRESSABLE   | 0.000375          | 0.001125  | 0.000375                                   | 0.001125  |
|          | <u>(s)</u>                      | 63                                    | SK-PHOTO                                    | PHOTOELECTRIC SMOKE<br>DETECTOR<br>ADDRESSABLE MANUAL                 | 0.0003            | 0.0189    | 0.0003                                     | 0.0189    |
|          | F                               | 1                                     | SK-PULL-DA                                  | PULL STATION,<br>DOUBLE-ACTION  | 0.000375          | 0.000375  | 0.000375                                   | 0.000375  |
|          | H                               | 2                                     | SK-HEAT                                     | ADDRESSABLE HEAT<br>DETECTOR, FIXED TEMP                              | 0.0003            | 0.0006    | 0.0003                                     | 0.0006    |
| P1•L2    | (H) 190°F                       | 41                                    | SK-HEAT-HT-W                                | ADDRESSABLE HEAT<br>DETECTOR, FIXED TEMP                              | 0.0002            | 0.0082    | 0.0045                                     | 0.1845    |
|          | (S)                             | 56                                    | SK-PHOTO                                    | ADDRESSABLE<br>PHOTOELECTRIC SMOKE<br>DETECTOR                        | 0.0003            | 0.0168    | 0.0003                                     | 0.0168    |
|          | H                               | 3                                     | SK-HEAT                                     | ADDRESSABLE HEAT<br>DETECTOR, FIXED TEMP                              | 0.0003            | 0.0009    | 0.0003                                     | 0.0009    |
| 5410     | (H) 190°E                       | 44                                    | SK-HEAT-HT-W                                | ADDRESSABLE HEAT  | 0.0002            | 0.0088    | 0.0045                                     | 0.198     |
| P1•L3    | 130 1                           |                                       |   | DETECTOR, FIXED TEMP<br>ADDRESSABLE                                   |                   |           |  |           |
|          | <u>(S)</u>                      | 50                                    | SK-PHOTO                                    | PHOTOELECTRIC SMOKE<br>DETECTOR                                       | 0.0003            | 0.015     | 0.0003                                     | 0.015     |
|          | H                               | 2                                     | SK-HEAT                                     | ADDRESSABLE HEAT<br>DETECTOR, FIXED TEMP<br>ADDRESSABLE HEAT          | 0.0003            | 0.0006    | 0.0003                                     | 0.0006    |
| P1•L4    | (H) 190°F                       | 34                                    | SK-HEAT-HT-W                                | ADDRESSABLE HEAT<br>DETECTOR, FIXED TEMP<br>ADDRESSABLE               | 0.0002            | 0.0068    | 0.0045                                     | 0.153     |
|          | <s></s>                         | 36                                    | SK-PHOTO                                    | PHOTOELECTRIC SMOKE<br>DETECTOR                                       | 0.0003            | 0.0108    | 0.0003                                     | 0.0108    |
|          | ×                               | 4                                     | ELSTW                                       | WALL STROBE, WHITE,<br>FIRE 15cd                                      | 0                 | 0         | 0.022                                      | 0.088     |
| P1•N1    | X                               | 3                                     | ET90-24MCC-FW                               | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 15cd | 0                 | 0         | 0.11                                       | 0.33      |
|          | ×                               | 4                                     | ET90-24MCC-FW                               | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 30cd | 0                 | 0         | 0.17                                       | 0.68      |
|          | X                               | 1                                     | ELSTW                                       | WALL STROBE, WHITE,<br>FIRE 15cd                                      | 0                 | 0         | 0.022                                      | 0.022     |
| P1•N2    | X                               | 1                                     | ET90-24MCC-FW                               | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 30cd | 0                 | 0         | 0.17                                       | 0.17      |
|          | X                               | 3                                     | ET90-24MCC-FW                               | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd | 0                 | 0         | 0.28                                       | 0.84      |
|          | X                               | 3                                     | ELSTW                                       | WALL STROBE, WHITE,<br>FIRE 15cd                                      | 0                 | 0         | 0.022                                      | 0.066     |
|          | ×                               | 1                                     | ET90-24MCC-FW                               | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 15cd | 0                 | 0         | 0.11                                       | 0.11      |
| P1•N3    | ×                               | 2                                     | ET90-24MCC-FW                               | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 30cd | 0                 | 0         | 0.17                                       | 0.34      |
|          | ×                               | 1                                     | ET90-24MCC-FW                               | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd | 0                 | 0         | 0.28                                       | 0.28      |
|          | X                               | 1                                     | ELSTW                                       | WALL STROBE, WHITE,<br>FIRE 15cd                                      | 0                 | 0         | 0.022                                      | 0.022     |
| P1•N4    | X                               | 1                                     | ET90-24MCC-FW                               | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 30cd | 0                 | 0         | 0.17                                       | 0.17      |
|          | X                               | 2                                     | ET90-24MCC-FW                               | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd | 0                 | 0         | 0.28                                       | 0.56      |
| P1•N5    | X                               | 3                                     | ET90-24MCC-FW                               | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd | 0                 | 0         | 0.28                                       | 0.84      |
| D4 .::2  | ×                               | 1                                     | ET90-24MCC-FW                               | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 30cd | 0                 | 0         | 0.17                                       | 0.17      |
| P1•N6    | X                               | 2                                     | ET90-24MCC-FW                               | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd | 0                 | 0         | 0.28                                       | 0.56      |
| P1•S1    | S <sub>WP</sub>                 | 19                                    | ET-1010-R w/WBB-R                           | Speaker, 25 or 70.7 Vrms,<br>1/8 to 8 watts w/Backbox<br>WP 1w        | 0                 | 0         | 0  | 0         |
| P1•S2    | S <sub>WP</sub>                 | 3                                     | ET-1010-R w/WBB-R                           | Speaker, 25 or 70.7 Vrms,<br>1/8 to 8 watts w/Backbox<br>WP 1w        | 0                 | 0         | 0  | 0         |
| P1•SBUS  | FAA                             | 1                                     | SK-5235                                     | REMOTE ANNUNCIATOR  | 0.03              | 0.03      | 0.05                                       | 0.05      |
|          |                                 |                                       | •   | ,   | TOTAL STANDBY (A) | 0.8572    |  | 8.0144    |
|          |                                 |                                       |   |   |                   |           | DBY TIME = 24 HOURS<br>M TIME = 15 MINUTES |           |
|          |                                 | ANDBY LOAD (A)                        |   | 0.8572  | 24                | 4         | 20.57                                      | 1         |
|          |                                 | LARM LOAD (A)<br>SUBTOTAL (AMP HOURS) |   | 8.0144  | 0.2               |           | 22.58                                      |           |
|          | DERATING<br>SECONDARY LOAD REQU |                                       | \<br>\                                      |   |                   |           | 1.2<br>27.09                               |           |
|          |                                 |                                       |   |   |                   |           |  |           |

|                      |   |  |                            |                             |                              |                           |                          |                   |                   | CIRCUIT S  |                      | TOTA                                  | -            |
|----------------------|---|--|----------------------------|-----------------------------|------------------------------|---------------------------|--------------------------|-------------------|-------------------|--|----------------------|---------------------------------------|--------------|
|                      |   |  |                            | D4 04 0D7 ···               |                              |                           |                          |                   |                   | Starting Calculation Voltage:<br>Min. Operational Voltage: | 70.7                 | Max. dB Loss:<br>End Of Line Voltage: | -0.335548    |
|                      |   |  |                            | P1 51 SPEAK                 | KER SCHEDULE                 |                           |                          |                   |                   |  | 63                   |                                       | 68.02        |
|                      |   |  |                            |                             |                              |                           |                          |                   |                   | Max. Circuit Watts:  | 25                   | Voltage Drop Percent:                 | 3.79 %       |
|                      |   |  |                            |                             |                              |                           |                          |                   |                   | Wire Resistance (Ω/kFt):                                   | 4.89                 | Total Circuit Watts:                  | 19           |
|                      |   |  | Circuit Wiring Properties: | 'S' 16/2 FPLP/R (SPEAKER)   | 16 AWG, 2 Cond. Solid Cop    | per FPLP/R Analog Speaker |                          |                   |                   | Total Circuit Length (Ft):                                 | 2430                 | Spare Watts:                          | 6 W          |
|                      |   |  | Distance meas              | ured using drawn segment le | ngths with 10.00 % additiona | I length calculated       |                          |                   |                   | Total Circuit Resistance (Ω):                              | 23.76897 Ω           | Spare Watts Percent:                  | 24.00 %      |
| Device Label         | Part No.  | Description  | Device Watts               | Watts To Amps               | Remaining Watts              | Dist. From Previous (Ft)  | Resistance From Previous | Voltage Drop From | Voltage At Device | Total Voltage Drop   | Voltage Drop Percent | dB Loss From Previous                 | Total dB Los |
|                      |   | Speaker, 25 or 70.7 Vrms,                                      | Device Walls               | Conversion                  |                              |                           | (Ω)                      | Previous          | Vollage At Device |  | Volage Brop Percent  | ub Loss From Frevious                 |              |
| P1•01                | ET-1010-R w/WBB-R                               | 1/8 to 8 watts w/Backbox<br>WP 1w                              | 1                          | 0.014144                    | 19                           | 22                        | 0.218251                 | 0.06              | 70.64             | 0.06   | 0.08 %               | -0.007209                             | -0.007209    |
| P1•02                | ET-1010-R w/WBB-R                               | Speaker, 25 or 70.7 Vrms,<br>1/8 to 8 watts w/Backbox<br>WP 1w | 1                          | 0.014144                    | 18                           | 65                        | 0.639168                 | 0.16              | 70.48             | 0.22   | 0.31 %               | -0.020032                             | -0.027241    |
| P1•03                | ET-1010-R w/WBB-R                               | Speaker, 25 or 70.7 Vrms,<br>1/8 to 8 watts w/Backbox<br>WP 1w | 1                          | 0.014144                    | 17                           | 79                        | 0.774617                 | 0.19              | 70.29             | 0.41   | 0.58 %               | -0.022985                             | -0.050226    |
| P1•04                | ET-1010-R w/WBB-R                               | Speaker, 25 or 70.7 Vrms,<br>1/8 to 8 watts w/Backbox<br>WP 1w | 1                          | 0.014144                    | 16                           | 169                       | 1.655316                 | 0.37              | 69.92             | 0.78   | 1.11 %               | -0.046414                             | -0.09664     |
| P1•05                | ET-1010-R w/WBB-R                               | Speaker, 25 or 70.7 Vrms,<br>1/8 to 8 watts w/Backbox<br>WP 1w | 1                          | 0.014144                    | 15                           | 109                       | 1.063325                 | 0.23              | 69.69             | 1.01   | 1.43 %               | -0.028072                             | -0.124711    |
| P1•06                | ET-1010-R w/WBB-R                               | Speaker, 25 or 70.7 Vrms,<br>1/8 to 8 watts w/Backbox<br>WP 1w | 1                          | 0.014144                    | 14                           | 26                        | 0.250788                 | 0.05              | 69.64             | 1.06   | 1.50 %               | -0.006192                             | -0.130903    |
| P1•07                | ET-1010-R w/WBB-R                               | Speaker, 25 or 70.7 Vrms,<br>1/8 to 8 watts w/Backbox<br>WP 1w | 1                          | 0.014144                    | 13                           | 84                        | 0.818248                 | 0.15              | 69.49             | 1.21   | 1.71 %               | -0.018785                             | -0.149688    |
| P1•08                | ET-1010-R w/WBB-R                               | Speaker, 25 or 70.7 Vrms,<br>1/8 to 8 watts w/Backbox<br>WP 1w | 1                          | 0.014144                    | 12                           | 109                       | 1.068598                 | 0.18              | 69.31             | 1.39   | 1.97 %               | -0.0227                               | -0.172388    |
| P1•09                | ET-1010-R w/WBB-R                               | Speaker, 25 or 70.7 Vrms,<br>1/8 to 8 watts w/Backbox<br>WP 1w | 1                          | 0.014144                    | 11                           | 51                        | 0.494563                 | 0.08              | 69.23             | 1.47   | 2.07 %               | -0.009648                             | -0.182036    |
| P1•S1•10             | ET-1010-R w/WBB-R                               | Speaker, 25 or 70.7 Vrms,<br>1/8 to 8 watts w/Backbox<br>WP 1w | 1                          | 0.014144                    | 10                           | 247                       | 2.412991                 | 0.34              | 68.89             | 1.81   | 2.56 %               | -0.042924                             | -0.22496     |
| P1•S1•11             | ET-1010-R w/WBB-R                               | Speaker, 25 or 70.7 Vrms,<br>1/8 to 8 watts w/Backbox<br>WP 1w | 1                          | 0.014144                    | 9                            | 91                        | 0.892717                 | 0.11              | 68.78             | 1.92   | 2.72 %               | -0.01434                              | -0.2393      |
| P1•S1•12             | ET-1010-R w/WBB-R                               | Speaker, 25 or 70.7 Vrms,<br>1/8 to 8 watts w/Backbox<br>WP 1w | 1                          | 0.014144                    | 8                            | 216                       | 2.112116                 | 0.24              | 68.54             | 2.16   | 3.06 %               | -0.030234                             | -0.269534    |
| P1•S1•13             | ET-1010-R w/WBB-R                               | Speaker, 25 or 70.7 Vrms,<br>1/8 to 8 watts w/Backbox<br>WP 1w | 1                          | 0.014144                    | 7                            | 131                       | 1.280167                 | 0.13              | 68.41             | 2.29   | 3.23 %               | -0.016077                             | -0.285612    |
| P1•S1•14             | ET-1010-R w/WBB-R                               | Speaker, 25 or 70.7 Vrms,<br>1/8 to 8 watts w/Backbox<br>WP 1w | 1                          | 0.014144                    | 6                            | 131                       | 1.281885                 | 0.11              | 68.3              | 2.4  | 3.39 %               | -0.013823                             | -0.299434    |
| P1•S1•15             | ET-1010-R w/WBB-R                               | Speaker, 25 or 70.7 Vrms,<br>1/8 to 8 watts w/Backbox<br>WP 1w | 1                          | 0.014144                    | 5                            | 166                       | 1.620137                 | 0.11              | 68.19             | 2.51   | 3.55 %               | -0.014583                             | -0.314017    |
| P1•S1•16             | ET-1010-R w/WBB-R                               | Speaker, 25 or 70.7 Vrms,<br>1/8 to 8 watts w/Backbox<br>WP 1w | 1                          | 0.014144                    | 4                            | 54                        | 0.529044                 | 0.03              | 68.16             | 2.54   | 3.59 %               | -0.003814                             | -0.317831    |
| P1•S1•17             | ET-1010-R w/WBB-R                               | Speaker, 25 or 70.7 Vrms,<br>1/8 to 8 watts w/Backbox<br>WP 1w | 1                          | 0.014144                    | 3                            | 121                       | 1.179443                 | 0.05              | 68.11             | 2.59   | 3.66 %               | -0.00638                              | -0.32421     |
| P1•S1•18             | ET-1010-R w/WBB-R                               | Speaker, 25 or 70.7 Vrms,<br>1/8 to 8 watts w/Backbox<br>WP 1w | 1                          | 0.014144                    | 2                            | 82                        | 0.804017                 | 0.02              | 68.09             | 2.61   | 3.70 %               | -0.002901                             | -0.327111    |
| P1•S1•19 EOL         | ET-1010-R w/WBB-R                               | Speaker, 25 or 70.7 Vrms,<br>1/8 to 8 watts w/Backbox<br>WP 1w | 1                          | 0.014144                    | 1                            | 478                       | 4.673579                 | 0.07              | 68.02             | 2.68   | 3.79 %               | -0.008437                             | -0.335548    |
| ulation Methods:     | n - Device Wette (M-tt-su                       |  |                            |                             |                              |                           |                          |                   |                   |  |                      |                                       |              |
|                      | n = Device Watts / Voltage                      |  |                            |                             |                              |                           |                          |                   |                   |  |                      |                                       |              |
|                      | $s(\Omega)$ = Wire Resistance ( $\Omega$ /Ft) x |  |                            |                             |                              |                           |                          |                   |                   |  |                      |                                       |              |
|                      | us = Resistance From Previous                   |  |                            |                             |                              |                           |                          |                   |                   |  |                      |                                       |              |
|                      | 20 × Log (Voltage At Previous I                 |  |                            |                             |                              |                           |                          |                   |                   |  |                      |                                       |              |
| dB Loss = 20 × Log ( | Voltage At Last Device / Start \                | /oltage)   |                            |                             |                              |                           |                          |                   |                   |  |                      |                                       |              |
|                      |   |  |                            |                             |                              |                           |                          |                   |                   |  |                      |                                       |              |
|                      |   |  |                            |                             |                              |                           |                          |                   |                   | CIRCUIT  | SETTINGS             | TOTA                                  | LS           |
|                      |   |  |                            |                             |                              |                           |                          |                   |                   | Starting Calculation Voltage:                              |                      | Max. dB Loss:                         | -0.038947    |
|                      |   |  |                            |                             |                              |                           |                          |                   |                   |  |                      |                                       |              |

|                       |                                |                                   |                            |                              |                              |                           |                                 |                               |                   | CIRCUIT                       | SETTINGS             | TOTAI                 | S             |
|-----------------------|--------------------------------|-----------------------------------|----------------------------|------------------------------|------------------------------|---------------------------|---------------------------------|-------------------------------|-------------------|-------------------------------|----------------------|-----------------------|---------------|
|                       |                                |                                   |                            |                              |                              |                           |                                 |                               |                   | Starting Calculation Voltage: | 70.7                 | Max. dB Loss:         | -0.038947     |
|                       |                                |                                   |                            | P1 S2 SPEAK                  | ER SCHEDULE                  |                           |                                 |                               |                   | Min. Operational Voltage:     | 63                   | End Of Line Voltage:  | 70.38         |
|                       |                                |                                   |                            |                              |                              |                           |                                 |                               |                   | Max. Circuit Watts:           | 20                   | Voltage Drop Percent: | 0.45 %        |
|                       |                                |                                   |                            |                              |                              |                           |                                 |                               |                   | Wire Resistance (Ω/kFt):      | 4.89                 | Total Circuit Watts:  | 3             |
|                       |                                |                                   | Circuit Wiring Properties: | 'S' 16/2 FPLP/R (SPEAKER)    | 16 AWG, 2 Cond. Solid Copp   | per FPLP/R Analog Speaker |                                 |                               |                   | Total Circuit Length (Ft):    | 923                  | Spare Watts:          | 17 W          |
|                       |                                |                                   | Distance meas              | ured using drawn segment len | gths with 10.00 % additional | l length calculated       |                                 |                               |                   | Total Circuit Resistance (Ω): | 9.029629 Ω           | Spare Watts Percent:  | 85.00 %       |
| Device Label          | Part No.                       | Description                       | Device Watts               | Watts To Amps<br>Conversion  | Remaining Watts              | Dist. From Previous (Ft)  | Resistance From Previous<br>(Ω) | Voltage Drop From<br>Previous | Voltage At Device | Total Voltage Drop            | Voltage Drop Percent | dB Loss From Previous | Total dB Loss |
|                       |                                | Speaker, 25 or 70.7 Vrms,         |                            |                              |                              |                           |                                 |                               |                   |                               |                      |                       |               |
| P1•S2•01              | ET-1010-R w/WBB-R              | 1/8 to 8 watts w/Backbox<br>WP 1w | 1                          | 0.014144                     | 3                            | 547                       | 5.351572                        | 0.23                          | 70.47             | 0.23                          | 0.32 %               | -0.027943             | -0.027943     |
|                       |                                | Speaker, 25 or 70.7 Vrms,         |                            |                              |                              |                           |                                 |                               |                   |                               |                      |                       |               |
| P1•S2•02              | ET-1010-R w/WBB-R              | 1/8 to 8 watts w/Backbox<br>WP 1w | 1                          | 0.014144                     | 2                            | 269                       | 2.63043                         | 0.07                          | 70.4              | 0.3                           | 0.43 %               | -0.009176             | -0.037119     |
|                       |                                | Speaker, 25 or 70.7 Vrms,         |                            |                              |                              |                           |                                 |                               |                   |                               |                      |                       |               |
| P1•S2•03 EOL          | ET-1010-R w/WBB-R              | 1/8 to 8 watts w/Backbox<br>WP 1w | 1                          | 0.014144                     | 1                            | 107                       | 1.047627                        | 0.01                          | 70.38             | 0.32                          | 0.45 %               | -0.001828             | -0.038947     |
| ulation Methods:      |                                |                                   |                            |                              |                              |                           |                                 |                               |                   |                               |                      |                       |               |
| s To Amps Conversior  | n = Device Watts / Voltage     |                                   |                            |                              |                              |                           |                                 |                               |                   |                               |                      |                       |               |
| tance From Previous   | (Ω) = Wire Resistance (Ω/Ft) x | 2 x Dist. From Previous (Ft)      |                            |                              |                              |                           |                                 |                               |                   |                               |                      |                       |               |
| ge Drop From Previou  | is = Resistance From Previous  | (Ω) x Remaining Current (A)       |                            |                              |                              |                           |                                 |                               |                   |                               |                      |                       |               |
| oss From Previous = 2 | 0 × Log (Voltage At Previous I | Device / Voltage At Device)       |                            |                              |                              |                           |                                 |                               |                   |                               |                      |                       |               |



|          |                     |                      | PANEL P                  | 2 (SK-PS10) BATTERY CALC  | ULATION               |           |   |           |
|----------|---------------------|----------------------|--------------------------|---|-----------------------|-----------|---|-----------|
|          |                     |                      |                          |   |                       |           |   |           |
|          | PANEL P             | OWER SUPPLY MAX CUR  | RENT = 10A               |   | STANDBY CURF          |           | IN ALARM) = 5.201A (52.01 %)<br>SECONDARY ALARM |           |
|          |                     | QTY                  | PART NO.                 | DESCRIPTION   | CURRENT DRAW (A)      | TOTAL (A) | CURRENT DRAW (A)                                | TOTAL     |
| PANEL CC | OMPONENTS           | 1                    | SK-PS10 MAIN BOARD       | Fire Alarm Power Supply   | 0.156                 | 0.156     | 0.185   | 0.185     |
| CIRCUIT  | SYMBOL              | QTY                  | PART NO                  | Main Board<br>DESCRIPTION   | CURRENT DRAW (A)      | TOTAL (A) | CURRENT DRAW (A)                                | TOTAL (A) |
|          | X                   | 2                    | ELSTW                    | WALL STROBE, WHITE,<br>FIRE 15cd                                      | 0                     | 0         | 0.022   | 0.044     |
|          | ¥                   | 1                    | ELSTW                    | WALL STROBE, WHITE,<br>FIRE 30cd                                      | 0                     | 0         | 0.03  | 0.03      |
| P2•N1    | ×                   | 1                    | ET90-24MCC-FW            | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 15cd | 0                     | 0         | 0.11  | 0.11      |
|          | ×                   | 4                    | ET90-24MCC-FW            | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd | 0                     | 0         | 0.28  | 1.12      |
| P2•N2    | X                   | 1                    | ET90-24MCC-FW            | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 30cd | 0                     | 0         | 0.17  | 0.17      |
| 1 2 112  | ×                   | 3                    | ET90-24MCC-FW            | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd | 0                     | 0         | 0.28  | 0.84      |
| P2•N3    | X                   | 1                    | ET90-24MCC-FW            | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 15cd | 0                     | 0         | 0.11  | 0.11      |
| 12110    | ×                   | 3                    | ET90-24MCC-FW            | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd | 0                     | 0         | 0.28  | 0.84      |
| P2•N4    | \                   | 1                    | ET90-24MCC-FW            | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 15cd | 0                     | 0         | 0.11  | 0.11      |
|          | ×                   | 3                    | ET90-24MCC-FW            | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd | 0                     | 0         | 0.28  | 0.84      |
|          | × ⊥                 | 1                    | ELSTW                    | WALL STROBE, WHITE,<br>FIRE 15cd                                      | 0                     | 0         | 0.022   | 0.022     |
| P2•N5    | ×                   | 2                    | ET90-24MCC-FW            | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 15cd | 0                     | 0         | 0.11  | 0.22      |
|          | ×                   | 2                    | ET90-24MCC-FW            | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd | 0                     | 0         | 0.28  | 0.56      |
|          |                     |                      |                          |   | TOTAL STANDBY (A)     | 0.156     | TOTAL ALARM (A)                                 | 5.201     |
|          |                     |                      |                          |   |                       |           | M TIME = 15 MINUTES                             |           |
|          | SECONDARY ST        | ANDBY LOAD (A)       |                          | 0.156   | 24                    |           | 3.7   | 4         |
|          |                     | LARM LOAD (A)        |                          | 5.201   | 0.25                  | 5         | 1.3   |           |
|          |                     | SUBTOTAL (AMP HOURS) |                          |   |                       |           | 5.04  |           |
|          |                     | G FACTOR             |                          |   |                       |           | 1.2   |           |
|          | SECONDARY LOAD REQU | JIKEMENTS (AMP HOURS |                          | ROVIDE (2) 12V 7AH BATTERI  |                       |           | 6.05  |           |
|          |                     | *D^T                 | TERY BOX SIZE CAPACITY N | ()  |                       |           |   |           |
|          |                     | ואם                  |                          |   | NOT ACTORER DOCOMENTA | anon.     |   |           |
|          |                     |                      | PANEL P                  | 23 (SK-PS10) BATTERY CALC   | ULATION               |           |   |           |
|          | PANEL P             | OWER SUPPLY MAX CUR  | RENT = 10A               |   |                       |           | IN ALARM) = 5.313A (53.13 %)                    |           |
|          |                     |                      |                          |   | STANDBY CURF          |           | SECONDARY ALARN                                 | . ,       |
|          |                     | QTY                  | PART NO.                 | DESCRIPTION   | CURRENT DRAW (A)      | TOTAL (A) | CURRENT DRAW (A)                                | TOTAL     |
|          | DMPONENTS           | 1                    | SK-PS10 MAIN BOARD       | Fire Alarm Power Supply<br>Main Board                                 | 0.156                 | 0.156     | 0.185   | 0.185     |
| CIRCUIT  | SYMBOL              | QTY                  | PART NO                  | DESCRIPTION<br>WALL STROBE WHITE                                      | CURRENT DRAW (A)      | TOTAL (A) | CURRENT DRAW (A)                                | TOTAL (A) |
|          |                     | i                    |                          |   |                       |           |   |           |

|          | PANEL PC            | WER SUPPLY MAX CU  | RRENT = 10A               |   |                       |               | (IN ALARM) = 5.313A (53.13 %) |                |
|----------|---------------------|--------------------|---------------------------|---|-----------------------|---------------|-------------------------------|----------------|
|          |                     |                    |                           |   | STANDBY CURR          | ENT (AMPS)    | SECONDARY ALARM               | CURRENT (AMPS) |
|          |                     | QTY                | PART NO.                  | DESCRIPTION   | CURRENT DRAW (A)      | TOTAL (A)     | CURRENT DRAW (A)              | TOTAL          |
| PANEL CO | OMPONENTS           | 1                  | SK-PS10 MAIN BOARD        | Fire Alarm Power Supply<br>Main Board                                 | 0.156                 | 0.156         | 0.185                         | 0.185          |
| CIRCUIT  | SYMBOL              | QTY                | PART NO                   | DESCRIPTION   | CURRENT DRAW (A)      | TOTAL (A)     | CURRENT DRAW (A)              | TOTAL (A)      |
|          | X                   | 4                  | ELSTW                     | WALL STROBE, WHITE,<br>FIRE 15cd                                      | 0                     | 0             | 0.022                         | 0.088          |
| P3•N1    | ×                   | 4                  | ET90-24MCC-FW             | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd | 0                     | 0             | 0.28                          | 1.12           |
| P3•N2    | ×                   | 5                  | ET90-24MCC-FW             | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd | 0                     | 0             | 0.28                          | 1.4            |
| P3•N3    | ×                   | 4                  | ET90-24MCC-FW             | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd | 0                     | 0             | 0.28                          | 1.12           |
| P3•N4    | ×                   | 3                  | ET90-24MCC-FW             | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd | 0                     | 0             | 0.28                          | 0.84           |
| P3•N5    | X                   | 2                  | ET90-24MCC-FW             | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd | 0                     | 0             | 0.28                          | 0.56           |
|          |                     |                    |                           |   | TOTAL STANDBY (A)     | 0.156         | TOTAL ALARM (A)               | 5.313          |
|          |                     |                    |                           |   |                       |               | DBY TIME = 24 HOURS           |                |
|          |                     |                    |                           |   |                       | REQUIRED ALAR | M TIME = 15 MINUTES           |                |
|          | SECONDARY ST        | ( )                |                           | 0.156   | 24                    |               | 3.74                          |                |
|          | SECONDARY A         | ( )                |                           | 5.313   | 0.25                  |               | 1.33                          |                |
|          | STANDBY AND ALARM S | 1                  | )                         |   |                       |               | 5.07                          |                |
|          | DERATING            |                    | 0)                        |   |                       |               | 1.2                           |                |
|          | SECONDARY LOAD REQU | IREMENTS (AMP HOUR | /                         |   | 50                    |               | 6.09                          |                |
|          |                     |                    |                           | ROVIDE (2) 12V 7AH BATTERI  |                       |               |                               |                |
|          |                     | *BA                | TTERY BOX SIZE CAPACITY N | DT SPECIFIED. REFER TO M  | ANUFACTURER DOCUMENTA | TION.         |                               |                |

## (1) FIRE ALARM RISER BATTERY CALCULATIONS

| dsa  |
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| IDENTIFICATION STAMP<br>DIV. OF THE STATE ARCHITECT<br>APP: 02-121265 INC:   |
| REVIEWED FOR<br>SS I FLS I ACS I<br>DATE: 05/24/2023                         |
| architect  |
| ACMARTIN<br>3009 DOUGLAS BLVD SUITE 290<br>ROSEVILLE CA 95661 T 916 772 1800 |
| stamp  |
| No. E 16762<br>¥ Exp. 9/30/24  |
| OF CALIFORNIA  |
| MEP & FS /<br>Sustainability / CxA<br>1209 Pleasant Grove Blvd.              |
| Roseville, CA 95678<br>p 916-771-0778  |
| CONSULTING<br>ENGINEERSwww.lpengineers.com<br>Job #: 18-2150                 |
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|  |
| project number CA5602  |
| project director<br>project designer<br>project architect                    |
| revisions<br>no. date revision   |
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|  |
| project status DSA SUBMITTAL   |
| 4-25-2023  |
| client / project   |
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|  |
| OAK HILL ES  |
| HARDSHIP   |
| MODERNIZATION<br>CJUSD   |
| 3909 NORTH LOOP BLVD<br>ANTELOPE, CA 95843                                   |
| sheet name   |
| FIRE ALARM   |
| BATTERY<br>CALCULATIONS  |
|  |
| sheet number   |
| FA3.4  |
| plot date 3/22/2023 3:38:04 PM   |





## 1)FIRE ALARM RISER BATTERY CALCULATIONS

| LS         |                                 |                              | white 30cd                       |                               |                    |                            | 1       |
|------------|---------------------------------|------------------------------|----------------------------------|-------------------------------|--------------------|----------------------------|---------|
| Ī          | $\nabla$                        |                              | Speaker/Strobe, 24 VDC,          |                               |                    |                            |         |
|            | X                               | ET90-24MCC-FW                | Multi-Candela, , 25/70 Vrms,     | 2                             | 0.28               | 0.56                       |         |
|            |                                 |                              | white 75cd                       |                               |                    |                            |         |
| ls:        |                                 |                              |                                  |                               |                    |                            |         |
|            | Resistance (Ω/Ft) x 2 x Total C |                              |                                  |                               |                    |                            |         |
| = Total Re | esistance (Ω) x Total Circuit C | urrent (A)                   |                                  |                               |                    |                            |         |
|            |                                 |                              |                                  |                               |                    |                            |         |
|            |                                 |                              |                                  | CIRCUIT S                     | ETTINGS            | TOT                        | ALS     |
|            |                                 |                              |                                  | Starting Calculation Voltage: | 20.4               | Max. Voltage Drop:         | 1.92    |
|            | P3 N1 LUMP S                    | SUM REPORT                   |                                  | Min. Operational Voltage:     | 16                 | End Of Line Voltage:       | 18.48   |
|            |                                 |                              |                                  | Max. Circuit Current (A):     | 3                  | Voltage Drop Percent:      | 9.41 %  |
|            |                                 |                              |                                  | Wire Resistance (Ω/kFt):      | 3.07               | Total Circuit Current (A): | 1.208   |
| roperties: | 'V' 14/2 FPLP/R (NAC) 14 AV     | NG, 2 Cond. Solid Copper Fl  | PLP/R Analog Unshielded          | Total Circuit Length (Ft):    | 259                | Spare Current (A):         | 1.792   |
| ce measu   | red using drawn segment leng    | gths with 10.00 % additional | length calculated                | Total Circuit Resistance (Ω): | 1.589374           | Spare Current (A) Percent: | 59.73 % |
|            | Symbol                          | Part No.                     | Description                      | Qty.                          | Device Current (A) | Total Current (A)          |         |
|            | X                               | ELSTW                        | WALL STROBE, WHITE,<br>FIRE 15cd | 4                             | 0.022              | 0.088                      |         |
| LS         |                                 |                              | Speaker/Strobe, 24 VDC,          |                               |                    |                            |         |
|            | X                               | ET90-24MCC-FW                | Multi-Candela, , 25/70 Vrms,     | 4                             | 0.28               | 1.12                       |         |
|            |                                 |                              | white 75cd                       |                               |                    |                            |         |
| ls:        |                                 |                              |                                  |                               |                    |                            |         |
| ) = Wire F | Resistance (Ω/Ft) x 2 x Total C | Circuit Length (Ft)          |                                  |                               |                    |                            |         |
| Total Re   | esistance (Ω) x Total Circuit C | urrent (A)                   |                                  |                               |                    |                            |         |
|            |                                 |                              |                                  |                               |                    |                            |         |
|            |                                 |                              |                                  | CIRCUIT S                     | ETTINGS            | TOT                        | ALS     |
|            |                                 |                              |                                  | Starting Calculation Voltage: | 20.4               | Max. Voltage Drop:         | 1.81    |
|            | P3 N2 LUMP S                    | SUM REPORT                   |                                  | Min. Operational Voltage:     | 16                 | End Of Line Voltage:       | 18.59   |
|            |                                 |                              |                                  | Max. Circuit Current (A):     | 3                  | Voltage Drop Percent:      | 8.88 %  |
|            |                                 |                              |                                  | Wire Resistance (Ω/kFt):      | 3.07               | Total Circuit Current (A): | 1.4     |
| roperties: | 'V' 14/2 FPLP/R (NAC) 14 AV     | NG. 2 Cond. Solid Copper F   | PLP/R Analog Unshielded          | Total Circuit Length (Ft):    | 211                | Spare Current (A):         | 1.6     |
|            | red using drawn segment leng    |                              | 0                                | Total Circuit Resistance (Ω): | 1.294532           | Spare Current (A) Percent: | 53.33 % |
|            | Symbol                          | Part No.                     | Description                      | Qty.                          | Device Current (A) | Total Current (A)          |         |
|            | •                               |                              | Speaker/Strobe, 24 VDC,          |                               |                    |                            |         |
| LS         | X                               | ET90-24MCC-FW                | Multi-Candela, , 25/70 Vrms,     | 5                             | 0.28               | 1.4                        |         |
|            |                                 |                              | white 75cd                       |                               |                    |                            |         |
| ls:        |                                 |                              |                                  |                               |                    |                            |         |
| ) = Wire F | Resistance (Ω/Ft) x 2 x Total C | Circuit Length (Ft)          |                                  |                               |                    |                            |         |
| = Total Re | esistance (Ω) x Total Circuit C | urrent (A)                   |                                  |                               |                    |                            |         |
|            |                                 |                              |                                  |                               |                    |                            |         |

| Ω) = Wire F | Resistance (Ω/Ft) x 2 x Total C | Circuit Length (Ft)          |   |                               |                    |                            |         |
|-------------|---------------------------------|------------------------------|---|-------------------------------|--------------------|----------------------------|---------|
| = Total Re  | esistance (Ω) x Total Circuit C | urrent (A)                   |   |                               |                    |                            |         |
|             |                                 |                              |   |                               |                    |                            |         |
|             |                                 |                              |   | CIRCUIT SE                    | ETTINGS            | TOT                        | ALS     |
|             |                                 |                              |   | Starting Calculation Voltage: | 20.4               | Max. Voltage Drop:         | 1.72    |
|             | P1 N6 LUMP S                    | SUM REPORT                   |   | Min. Operational Voltage:     | 16                 | End Of Line Voltage:       | 18.68   |
|             |                                 |                              |   | Max. Circuit Current (A):     | 3                  | Voltage Drop Percent:      | 8.43 %  |
|             |                                 |                              |   | Wire Resistance (Ω/kFt):      | 3.07               | Total Circuit Current (A): | 0.73    |
| Properties  | : 'V' 14/2 FPLP/R (NAC) 14 AV   | NG, 2 Cond. Solid Copper Fl  | PLP/R Analog Unshielded   | Total Circuit Length (Ft):    | 384                | Spare Current (A):         | 2.27    |
| nce measu   | ired using drawn segment leng   | gths with 10.00 % additional | ength calculated  | Total Circuit Resistance (Ω): | 2.354752           | Spare Current (A) Percent: | 75.67 % |
|             | Symbol                          | Part No.                     | Description   | Qty.                          | Device Current (A) | Total Current (A)          |         |
| ALS         | X                               | ET90-24MCC-FW                | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 30cd | 1                             | 0.17               | 0.17                       |         |
|             | N<br>N                          | ET90-24MCC-FW                | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd | 2                             | 0.28               | 0.56                       |         |

| ×                               | E190-24MCC-FW                                 | Multi-Candela, , 25/70 Vrms,<br>white 30cd   | 1  | 0.17   | 0.17   |  |
|---------------------------------|---|--|--|--|--|--|
| X                               | ET90-24MCC-FW                                 | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,  | 2  | 0.28   | 0.56   |  |
|                                 |   | wnite / 5cd  |  |  |  |  |
| Resistance (Ω/Ft) x 2 x Total ( | Circuit Length (Ft)                           |  |  |  |  |  |
| · · ·                           |   |  |  |  |  |  |
| . ,                             |   |  |  |  |  |  |
|                                 |   |  | CIRCUIT S  | ETTINGS  | TOT  | ALS  |
|                                 |   |  | Starting Calculation Voltage:  | 20.4   | Max. Voltage Drop:   | 1.57   |
| P1 N5 LUMP                      | SUM REPORT                                    |  | Min. Operational Voltage:  | 16   | End Of Line Voltage:   | 18.83  |
|                                 |   |  | Max. Circuit Current (A):  | 3  | Voltage Drop Percent:  | 7.68 %   |
|                                 |   |  | Wire Resistance (Ω/kFt):   | 3.07   | Total Circuit Current (A):   | 0.84   |
| 'V' 14/2 FPLP/R (NAC) 14 A'     | NG, 2 Cond. Solid Copper F                    | PLP/R Analog Unshielded  | Total Circuit Length (Ft):   | 304  | Spare Current (A):   | 2.16   |
| red using drawn segment len     | gths with 10.00 % additional                  | length calculated  | Total Circuit Resistance (Ω):  | 1.864441   | Spare Current (A) Percent:   | 72.00 %  |
| Symbol                          | Part No.                                      | Description  | Qty.   | Device Current (A)   | Total Current (A)  |  |
| X                               | ET90-24MCC-FW                                 | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,  | 3  | 0.28   | 0.84   |  |
|                                 | P1 N5 LUMP s V' 14/2 FPLP/R (NAC) 14 A Symbol | ΕΤ90-24MCC-FW         Resistance (Ω/Ft) x 2 x Total Circuit Length (Ft)         esistance (Ω) x Total Circuit Current (A)         P1 N5 LUMP SUM REPORT         'V' 14/2 FPLP/R (NAC) 14 AWG, 2 Cond. Solid Copper F         red using drawn segment lengths with 10.00 % additional         Symbol       Part No. | White 30cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd         Resistance (Ω/Ft) x 2 x Total Circuit Length (Ft)         esistance (Ω) x Total Circuit Current (A)         P1 N5 LUMP SUM REPORT         'V' 14/2 FPLP/R (NAC) 14 AWG, 2 Cond. Solid Copper FPLP/R Analog Unshielded         red using drawn segment lengths with 10.00 % additional length calculated         Symbol       Part No.         Description | white 30cd         White 30cd         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd         Resistance (Ω/Ft) x 2 x Total Circuit Length (Ft)         esistance (Ω) x Total Circuit Current (A)         P1 N5 LUMP SUM REPORT       CIRCUIT S<br>Starting Calculation Voltage:<br>Min. Operational Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>'V' 14/2 FPLP/R (NAC) 14 AWG, 2 Cond. Solid Copper FPLP/R Analog Unshielded<br>rotal Circuit Length (Ft):<br>red using drawn segment lengths with 10.00 % additional length calculated<br>Symbol       Total Circuit Resistance (Ω):<br>Part No. | white 30cd       white 30cd         White 30cd       Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd       2       0.28         Resistance (Ω/Ft) x 2 x Total Circuit Length (Ft)       white 75cd       2       0.28         P1 N5 LUMP SUM REPORT       CIRCUIT SETTINGS       Starting Calculation Voltage:       20.4         Min. Operational Voltage:       16       Max. Circuit Current (A):       3         'V' 14/2 FPLP/R (NAC) 14 AWG, 2 Cond. Solid Copper FPLP/R Analog Unshielded       Total Circuit Length (Ft):       3.07         'V' 14/2 FPLP/R (NAC) 14 AWG, 2 Cond. Solid Copper FPLP/R Analog Unshielded       Total Circuit Resistance (Ω):       1.864441         Symbol       Part No.       Description       Qty.       Device Current (A): | white 30cd       white 30cd         White 30cd       Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd       2       0.28       0.56         Resistance (Ω/Ft) x 2 x Total Circuit Length (Ft)         esistance (Ω) x Total Circuit Current (A)       CIRCUIT SETTINGS       TOTA         P1 N5 LUMP SUM REPORT       Starting Calculation Voltage:       20.4       Max. Voltage Drop:         Min. Operational Voltage:       16       End Of Line Voltage:         Max. Circuit Current (A):       3       Voltage Drop Percent:         Wire Resistance (Ω/kFt):       3.07       Total Circuit Current (A):         'V' 14/2 FPLP/R (NAC) 14 AWG, 2 Cond. Solid Copper FPLP/R Analog Unshielded       Total Circuit Length (Ft):       30.4       Spare Current (A):         'V' 14/2 FPLP/R (NAC) 14 AWG, 2 Cond. Solid Copper FPLP/R Analog Unshielded       Total Circuit Resistance (Ω):       1.864441       Spare Current (A):         Symbol       Part No.       Description       Qty.       Device Current (A)       Total Current (A) |

| Properties:  | 'V' 14/2 FPLP/R (NAC) 14 AV     | VG, 2 Cond. Solid Copper FF   | PLP/R Analog Unshielded   | Total Circuit Length (Ft):    | 307                | Spare Current (A):         | 2.204   |  |
|--------------|---------------------------------|-------------------------------|---|-------------------------------|--------------------|----------------------------|---------|--|
| ance measu   | red using drawn segment leng    | ths with 10.00 % additional I | ength calculated  | Total Circuit Resistance (Ω): | 1.884573           | Spare Current (A) Percent: | 73.47 % |  |
|              | Symbol                          | Part No.                      | Description   | Qty.                          | Device Current (A) | Total Current (A)          |         |  |
|              | X                               | ELSTW                         | WALL STROBE, WHITE,<br>FIRE 15cd                                      | 3                             | 0.022              | 0.066                      |         |  |
| TALS         | X                               | ET90-24MCC-FW                 | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 15cd | 1                             | 0.11               | 0.11                       |         |  |
| IALU         | ×                               | ET90-24MCC-FW                 | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 30cd | 2                             | 0.17               | 0.34                       |         |  |
|              | X                               | ET90-24MCC-FW                 | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd | 1                             | 0.28               | 0.28                       |         |  |
| ods:         |                                 |                               |   |                               |                    |                            |         |  |
| Ω) = Wire F  | Resistance (Ω/Ft) x 2 x Total C | ircuit Length (Ft)            |   |                               |                    |                            |         |  |
| p = Total Re | esistance (Ω) x Total Circuit C | urrent (A)                    |   |                               |                    |                            |         |  |
|              |                                 |                               |   |                               |                    |                            |         |  |
|              |                                 |                               |   | CIRCUIT S                     | ETTINGS            | TOTALS                     |         |  |
|              |                                 |                               |   | Starting Calculation Voltage: | 20.4               | Max. Voltage Drop:         | 1.98    |  |

|              |  | CIRCUIT SETTINGS       TOTALS         P1 N3 LUMP SUM REPORT       Starting Calculation Voltage: 20.4       Max. Voltage Drop:         Min. Operational Voltage:       16       End Of Line Voltage:         Max. Circuit Current (A):       3       Voltage Drop Percent:         Wire Resistance (Ω/kFt):       3.07       Total Circuit Current (A):         Report       Total Circuit Length (Ft):       307         Spare Current (A):       Total Circuit Resistance (Ω):       1.884573         Spare Current (A)       Total Circuit Resistance (Ω):       1.884573         Symbol       Part No.       Description       Qty.         ELSTW       WALL STROBE, WHITE, FIRE 15cd       3       0.022       0.066 |                              |                               |                    |                            |         |
|--------------|--|--|------------------------------|-------------------------------|--------------------|----------------------------|---------|
|              | $\nabla$   |  |                              |                               |                    |                            |         |
|              | Σ       ET90-24MCC-FW       Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd       3       0.28       0.84         Wire Resistance (Ω/Ft) x 2 x Total Circuit Length (Ft)         total Resistance (Ω/Ft) x 2 x Total Circuit Length (Ft)         total Resistance (Ω/Ft) x 2 x Total Circuit Length (Ft)         total Resistance (Ω/Ft) x 2 x Total Circuit Current (A)         P1 N3 LUMP SUM REPORT       CIRCUIT SETTINGS       TOTALS         Starting Calculation Voltage:         Min. Operational Voltage:       16       End Of Line Voltage:         Max. Circuit Current (A):       3       Voltage Drop       Max. Circuit Current (A):       3         Wire Resistance (Ω/KFt):       3.07       Total Circuit Current (A):       C         Min. Operational Voltage:       16       End Of Line Voltage:         Max. Circuit Current (A):       3       Voltage Drop Percent:       7         Wire Resistance (Ω/KFt):       3.07       Total Circuit Current (A):       2         Max. Voltage Drop Percent:       7         Wire Resistance (Ω):       1.84573       Spare Current (A):       2         Matter Strobe (Ω/KFt):       3.07       Total Circuit Current (A):       2 <td colspan<="" td=""><td></td></td> |  | <td></td>                    |                               |                    |                            |         |
|              | ET90-24MCC-FW       Speaker/Strobe, 24 VDC,<br>Multi-Candela, 25/70 Vrms,<br>white 75cd       3       0.28       0.84         P Resistance (Ω/Ft) x 2 x Total Circuit Length (Ft)<br>Resistance (Ω) x Total Circuit Current (A)       Etermination       Etermination       TOTALS         P1 N3 LUMP SUM REPORT       Starting Calculation Voltage:<br>Min. Operational Voltage:<br>Max. Circuit Current (A):       20.4       Max. Voltage Drop:<br>Max. Voltage Drop:<br>Min. Operational Voltage:<br>Max. Circuit Current (A):<br>3       Voltage Drop Percent:<br>Wire Resistance (Ω/kFt):<br>3.07       Total Circuit Current (A):<br>Total Circuit Current (A):         st: 'V' 14/2 FPLP/R (NAC) 14 AWG, 2 Cond. Solid Copper FPLP/R Analog Unshielded<br>sured using drawn segment lengths with 10.00 % additional length calculated       Total Circuit Resistance (Ω):<br>Total Circuit Length (Ft):<br>307       Spare Current (A):<br>Spare Current (A):<br>Spare Current (A)         Symbol       Part No.       Description       Qty.       Device Current (A)       Total Current (A)         Multi StROBE, WHITE,<br>FIRE 15cd       3       0.022       0.066       0.066   |  |                              |                               |                    |                            |         |
| ods:         |  |  |                              |                               |                    |                            |         |
| Ω) = Wire F  | Resistance (Ω/Ft) x 2 x Total (  | Circuit Length (Ft)  |                              |                               |                    |                            |         |
| ) = Total Re | esistance (Ω) x Total Circuit C  | urrent (A)   |                              |                               |                    |                            |         |
|              |  |  |                              |                               |                    |                            |         |
|              |  |  |                              | CIRCUIT S                     | ETTINGS            | TOT                        | ALS     |
|              |  |  |                              | Starting Calculation Voltage: | 20.4               | Max. Voltage Drop:         | 1.5     |
|              | P1 N3 LUMP S   | SUM REPORT   |                              | Min. Operational Voltage:     | 16                 | End Of Line Voltage:       | 18.9    |
|              |  |  |                              | Max. Circuit Current (A):     | 3                  | Voltage Drop Percent:      | 7.35 %  |
|              |  |  |                              | Wire Resistance (Ω/kFt):      | 3.07               | Total Circuit Current (A): | 0.796   |
| Properties   | : 'V' 14/2 FPLP/R (NAC) 14 AV  | NG, 2 Cond. Solid Copper FF  | PLP/R Analog Unshielded      | Total Circuit Length (Ft):    | 307                | Spare Current (A):         | 2.204   |
| nce measu    | ired using drawn segment len   | gths with 10.00 % additional I   | ength calculated             | Total Circuit Resistance (Ω): | 1.884573           | Spare Current (A) Percent: | 73.47 % |
|              | Symbol   | Part No.   | Description                  | Qty.                          | Device Current (A) | Total Current (A)          |         |
|              | X  | EI STW   | WALL STROBE, WHITE,          | 3                             | 0.022              | 0.066                      |         |
|              | Y  |  |                              | 5                             | 0.022              | 0.000                      |         |
|              | $\nabla$   |  |                              |                               |                    |                            |         |
|              | $\square$  | ET90-24MCC-FW  | Multi-Candela, , 25/70 Vrms, | 1                             | 0.11               | 0.11                       |         |

|            |                               |                             |   | CIRCUIT S                     | ETTINGS            | TOTAL                      | S       |
|------------|-------------------------------|-----------------------------|---|-------------------------------|--------------------|----------------------------|---------|
|            |                               |                             |   | Starting Calculation Voltage: | 20.4               | Max. Voltage Drop:         | 1.65    |
|            | P1 N2 LUMP                    | SUM REPORT                  |   | Min. Operational Voltage:     | 16                 | End Of Line Voltage:       | 18.75   |
|            |                               |                             |   | Max. Circuit Current (A):     | 3                  | Voltage Drop Percent:      | 8.07 %  |
|            |                               |                             |   | Wire Resistance (Ω/kFt):      | 3.07               | Total Circuit Current (A): | 1.032   |
| Properties | : 'V' 14/2 FPLP/R (NAC) 14 A' | NG, 2 Cond. Solid Copper F  | PLP/R Analog Unshielded   | Total Circuit Length (Ft):    | 260                | Spare Current (A):         | 1.968   |
| nce measu  | ired using drawn segment len  | gths with 10.00 % additiona | length calculated   | Total Circuit Resistance (Ω): | 1.595255           | Spare Current (A) Percent: | 65.60 % |
|            | Symbol                        | Part No.                    | Description   | Qty.                          | Device Current (A) | Total Current (A)          |         |
|            | ¥                             | ELSTW                       | WALL STROBE, WHITE,<br>FIRE 15cd                                      | 1                             | 0.022              | 0.022                      |         |
| ALS        | X                             | ET90-24MCC-FW               | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 30cd | 1                             | 0.17               | 0.17                       |         |
|            | X                             | ET90-24MCC-FW               | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd | 3                             | 0.28               | 0.84                       |         |

|                               |                                |                              |   | Max. Circuit Current (A):     | 3                  | Voltage Drop Percent:      | 9.63 %  |
|-------------------------------|--------------------------------|------------------------------|---|-------------------------------|--------------------|----------------------------|---------|
|                               |                                |                              |   | Wire Resistance (Ω/kFt):      | 3.07               | Total Circuit Current (A): | 1.098   |
| Circuit Wiring Properties: '\ | V' 14/2 FPLP/R (NAC) 14 A      | NG, 2 Cond. Solid Copper F   | PLP/R Analog Unshielded   | Total Circuit Length (Ft):    | 291                | Spare Current (A):         | 1.902   |
| Distance measure              | ed using drawn segment len     | gths with 10.00 % additional | length calculated   | Total Circuit Resistance (Ω): | 1.788366           | Spare Current (A) Percent: | 63.40 % |
|                               | Symbol                         | Part No.                     | Description   | Qty.                          | Device Current (A) | Total Current (A)          |         |
|                               | ¥                              | ELSTW                        | WALL STROBE, WHITE,<br>FIRE 15cd                                      | 4                             | 0.022              | 0.088                      |         |
| DEVICE TOTALS                 | X                              | ET90-24MCC-FW                | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 15cd | 3                             | 0.11               | 0.33                       |         |
|                               | X                              | ET90-24MCC-FW                | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 30cd | 4                             | 0.17               | 0.68                       |         |
| Iculation Methods:            |                                |                              |   |                               |                    |                            |         |
| tal Resistance (Ω) = Wire Re  | esistance (Ω/Ft) x 2 x Total ( | Circuit Length (Ft)          |   |                               |                    |                            |         |
| otal Voltage Drop = Total Res | istance (Ω) x Total Circuit C  | urrent (A)                   |   |                               |                    |                            |         |
|                               |                                |                              |   |                               |                    |                            |         |
|                               |                                |                              |   | CIRCUIT SI                    | ETTINGS            | TOTAL                      | S       |
|                               |                                |                              |   | Starting Calculation Voltage  | 20.4               | Max Voltage Drop:          | 1 65    |

P1 N1 LUMP SUM REPORT

CIRCUIT

End Of Line Voltag Voltage Drop Percent: Total Circuit Current (A):

> 18.42 9.71 % 0.752 2.248 74.93 %

arting Calculation Voltage

Min. Operational Voltage:

Max. Circuit Current (A):

| P2 N1 LUMP SUM REPORT  |  |   |  | Starting Calculation Voltage:<br>Min. Operational Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):   | 20.4<br>16<br>3<br>3.07   | Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):  | 1.82<br>18.58<br>8.93 %<br>1.304  |
|--|--|---|--|---|---|--|---|
|  | :: 'V' 14/2 FPLP/R (NAC) 14 A  |   |  | Total Circuit Length (Ft):  | 228   | Spare Current (A):   | 1.696   |
| Distance meas  | ured using drawn segment ler<br>Symbol   | Part No.  | Description  | Total Circuit Resistance (Ω):<br><b>Qty.</b>  | 1.397703<br>Device Current (A)  | Spare Current (A) Percent:<br>Total Current (A)  | 56.53 %   |
|  | ×  | ELSTW   | WALL STROBE, WHITE,<br>FIRE 15cd   | 2   | 0.022   | 0.044  |   |
| DEVICE TOTALS  | X  | ELSTW   | WALL STROBE, WHITE,<br>FIRE 30cd<br>Speaker/Strobe, 24 VDC,  | 1   | 0.03  | 0.03   |   |
| DEVICE TOTALS  | X  | ET90-24MCC-FW   | Multi-Candela, , 25/70 Vrms,<br>white 15cd   | 1   | 0.11  | 0.11   |   |
|  | ×  | ET90-24MCC-FW   | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,  | 4   | 0.28  | 1.12   |   |
| alculation Methods:  |  |   | white 75cd   |   |   |  |   |
|  | Resistance ( $\Omega$ /Ft) x 2 x Total<br>esistance ( $\Omega$ ) x Total Circuit C   |   |  |   |   |  |   |
|  |  |   |  | CIRCUIT S   | ETTINGS   | тот  | ALS   |
|  | P2 N2 LUMP   | SUM REPORT  |  | Starting Calculation Voltage:<br>Min. Operational Voltage:  | <u>20.4</u><br>16   | Max. Voltage Drop:<br>End Of Line Voltage:   | 1.54<br>18.86   |
|  |  |   |  | Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):   | 3<br>3.07   | Voltage Drop Percent:<br>Total Circuit Current (A):  | 7.56 %<br>1.01  |
|  | :: 'V' 14/2 FPLP/R (NAC) 14 A<br>ured using drawn segment ler  |   |  | Total Circuit Length (Ft):<br>Total Circuit Resistance (Ω):   | 249<br>1.527847   | Spare Current (A):<br>Spare Current (A) Percent:   | 1.99<br>66.33 %   |
| DEVICE TOTALS  | Symbol   | Part No.  | Description<br>Speaker/Strobe, 24 VDC,   | Qty.  | Device Current (A)  | Total Current (A)  |   |
|  | X  | ET90-24MCC-FW   | Multi-Candela, , 25/70 Vrms,<br>white 30cd   | 1   | 0.17  | 0.17   |   |
|  | ×  | ET90-24MCC-FW   | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,  | 3   | 0.28  | 0.84   |   |
| alculation Methods:  |  |   | white 75cd   |   |   |  |   |
|  | Resistance ( $\Omega$ /Ft) x 2 x Total<br>esistance ( $\Omega$ ) x Total Circuit C   |   |  |   |   |  |   |
|  |  |   |  | CIRCUIT S   | ETTINGS   | тот  | ALS   |
|  | P2 N3 LUMP   | SUM REPORT  |  | Starting Calculation Voltage:<br>Min. Operational Voltage:  | 20.4<br>16  | Max. Voltage Drop:<br>End Of Line Voltage:   | 2.04<br>18.36   |
|  | <b>_</b> emi   | -   |  | Max. Circuit Current (A):<br>Wire Resistance ( $\Omega$ /kFt):  | 3.07  | Voltage Drop Percent:<br>Total Circuit Current (A):  | 10.00 %   |
| <b>v</b> 1   | :: 'V' 14/2 FPLP/R (NAC) 14 A  |   | •  | Total Circuit Length (Ft):<br>Total Circuit Resistance (Ω):   | <u>3.07</u><br>350<br>2.147245  | Spare Current (A):   | 2.05  |
| UISTANCE MEAS  | ured using drawn segment ler<br>Symbol   | egths with 10.00 % additional I<br>Part No.   | Description  | Total Circuit Resistance (Ω):<br>Qty.   | 2.147245<br>Device Current (A)  | Spare Current (A) Percent:<br>Total Current (A)  | 68.33 %   |
| DEVICE TOTALS  | X  | ET90-24MCC-FW   | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 15cd  | 1   | 0.11  | 0.11   |   |
| DEVICE IVIALS  | <br>X  | ET90-24MCC-FW   | white 15cd<br>Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,  | 3   | 0.28  | 0.84   |   |
| Calculation Methods:   |  |   | white 75cd   | 5   | J.2U  | 0.04   |   |
| otal Resistance (Ω) = Wire   | Resistance ( $\Omega$ /Ft) x 2 x Total<br>Resistance ( $\Omega$ ) x Total Circuit C  |   |  |   |   |  |   |
|  |  |   |  | CIRCUIT S   | ETTINGS   | тот  | ALS   |
|  | P2 N4 LUMP   | SUM REPORT  |  | Starting Calculation Voltage:<br>Min. Operational Voltage:  | 20.4<br>16  | Max. Voltage Drop:<br>End Of Line Voltage:   | 1.45<br>18.95   |
|  |  |   |  | Max. Circuit Current (Å):<br>Wire Resistance (Ω/kFt):   | 3 3.07  | Voltage Drop Percent:<br>Total Circuit Current (A):  | 7.10 %  |
|  | :: 'V' 14/2 FPLP/R (NAC) 14 A  |   |  | Total Circuit Length (Ft):  | 248   | Spare Current (A):   | 2.05  |
| UISTANCE MEASI   | ured using drawn segment ler<br>Symbol   | egths with 10.00 % additional I<br>Part No.   | Description  | Total Circuit Resistance (Ω):<br>Qty.   | 1.525428<br>Device Current (A)  | Spare Current (A) Percent:<br>Total Current (A)  | 68.33 %   |
| DEVICE TOTALS  | ×  | ET90-24MCC-FW   | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,  | 1   | 0.11  | 0.11   |   |
|  |  |   | white 15cd<br>Speaker/Strobe, 24 VDC,  |   |   | 1  |   |
|  | X  | ET90-24MCC-FW   | Multi-Candela, , 25/70 Vrms,<br>white 75cd   | 3   | 0.28  | 0.84   |   |
|  | Resistance (Ω/Ft) x 2 x Total<br>esistance (Ω) x Total Circuit C   | Circuit Length (Ft)   | Multi-Candela, , 25/70 Vrms,   |   |   |  | AI S  |
| Total Resistance (Ω) = Wire  | Resistance (Ω/Ft) x 2 x Total<br>lesistance (Ω) x Total Circuit C  | Circuit Length (Ft)<br>Current (A)  | Multi-Candela, , 25/70 Vrms,   | CIRCUIT S<br>Starting Calculation Voltage:  | ettings<br>20.4   | TOT.<br>Max. Voltage Drop:   | 2.83  |
| Total Resistance (Ω) = Wire  | Resistance (Ω/Ft) x 2 x Total<br>lesistance (Ω) x Total Circuit C  | Circuit Length (Ft)   | Multi-Candela, , 25/70 Vrms,   | CIRCUIT S<br>Starting Calculation Voltage:<br>Min. Operational Voltage:<br>Max. Circuit Current (A):  | ETTINGS<br>20.4<br>16<br>3  | TOT.<br>Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:  | 2.83<br>17.57<br>13.85 %  |
| otal Resistance (Ω) = Wire<br>otal Voltage Drop = Total F<br>Circuit Wiring Propertie:   | Resistance (Ω/Ft) x 2 x Total<br>esistance (Ω) x Total Circuit C<br>P2 N5 LUMP<br>s: 'V' 14/2 FPLP/R (NAC) 14 A  | Circuit Length (Ft)<br>Current (A)<br>SUM REPORT<br>WG, 2 Cond. Solid Copper FF   | Multi-Candela, , 25/70 Vrms,<br>white 75cd   | CIRCUIT S<br>Starting Calculation Voltage:<br>Min. Operational Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Length (Ft):  | ETTINGS<br>20.4<br>16<br>3<br>3.07<br>574   | TOT.<br>Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):<br>Spare Current (A):  | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198  |
| otal Resistance (Ω) = Wire<br>otal Voltage Drop = Total F<br>Circuit Wiring Propertie:   | Resistance (Ω/Ft) x 2 x Total<br>esistance (Ω) x Total Circuit C<br>P2 N5 LUMP   | Circuit Length (Ft)<br>Current (A)<br>SUM REPORT<br>WG, 2 Cond. Solid Copper FF   | Multi-Candela, , 25/70 Vrms,<br>white 75cd<br>PLP/R Analog Unshielded<br>length calculated<br>Description  | CIRCUIT S<br>Starting Calculation Voltage:<br>Min. Operational Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):  | ETTINGS<br>20.4<br>16<br>3<br>3.07  | TOT.<br>Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):  | 2.83<br>17.57<br>13.85 %<br>0.802   |
| otal Resistance (Ω) = Wire<br>otal Voltage Drop = Total F<br>Circuit Wiring Propertie:   | Resistance (Ω/Ft) x 2 x Total<br>esistance (Ω) x Total Circuit C<br>P2 N5 LUMP<br>5: 'V' 14/2 FPLP/R (NAC) 14 A<br>ured using drawn segment ler  | Circuit Length (Ft)<br>Current (A)<br>SUM REPORT<br>WG, 2 Cond. Solid Copper FF<br>Igths with 10.00 % additional I  | Multi-Candela, , 25/70 Vrms,<br>white 75cd<br>PLP/R Analog Unshielded<br>length calculated<br>Description<br>WALL STROBE, WHITE,<br>FIRE 15cd  | CIRCUIT S<br>Starting Calculation Voltage:<br>Min. Operational Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Length (Ft):<br>Total Circuit Resistance (Ω):   | ETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469   | TOT.<br>Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):<br>Spare Current (A) Percent:  | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198  |
| otal Resistance (Ω) = Wire<br>otal Voltage Drop = Total F<br>Circuit Wiring Propertie:   | Resistance (Ω/Ft) x 2 x Total<br>esistance (Ω) x Total Circuit C<br>P2 N5 LUMP<br>s: 'V' 14/2 FPLP/R (NAC) 14 A<br>ured using drawn segment ler<br>Symbol  | Circuit Length (Ft)<br>Current (A)<br>SUM REPORT<br>WG, 2 Cond. Solid Copper FF<br>Igths with 10.00 % additional I<br>Part No.  | Multi-Candela, , 25/70 Vrms,<br>white 75cd<br>PLP/R Analog Unshielded<br>length calculated<br><b>Description</b><br>WALL STROBE, WHITE,<br>FIRE 15cd<br>Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,  | CIRCUIT S<br>Starting Calculation Voltage:<br>Min. Operational Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Length (Ft):<br>Total Circuit Resistance (Ω):<br>Qty.   | ETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)   | TOT.<br>Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):<br>Spare Current (A) Percent:<br>Total Current (A)   | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198  |
| otal Resistance (Ω) = Wire<br>otal Voltage Drop = Total F<br>Circuit Wiring Properties<br>Distance meas  | Resistance (Ω/Ft) x 2 x Total<br>tesistance (Ω) x Total Circuit C<br>P2 N5 LUMP<br>:: 'V' 14/2 FPLP/R (NAC) 14 A<br>ured using drawn segment ler<br>Symbol<br>X  | Circuit Length (Ft)<br>Current (A)<br>SUM REPORT<br>WG, 2 Cond. Solid Copper Ff<br>rgths with 10.00 % additional I<br>Part No.<br>ELSTW<br>ET90-24MCC-FW  | Multi-Candela, , 25/70 Vrms,<br>white 75cd<br>PLP/R Analog Unshielded<br>length calculated<br>Description<br>WALL STROBE, WHITE,<br>FIRE 15cd<br>Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 15cd<br>Speaker/Strobe, 24 VDC,  | CIRCUIT S         Starting Calculation Voltage:         Min. Operational Voltage:         Max. Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Length (Ft):         Total Circuit Resistance (Ω):         Qty.         1         2  | ETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11  | TOT.<br>Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):<br>Spare Current (A) Percent:<br>Total Current (A)<br>0.022<br>0.22  | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198  |
| otal Resistance (Ω) = Wire otal Voltage Drop = Total F Circuit Wiring Properties Distance meas DEVICE TOTALS   | Resistance (Ω/Ft) x 2 x Total<br>esistance (Ω) x Total Circuit C<br>P2 N5 LUMP<br>s: 'V' 14/2 FPLP/R (NAC) 14 A<br>ured using drawn segment ler<br>Symbol  | Circuit Length (Ft)<br>Current (A)<br>SUM REPORT<br>WG, 2 Cond. Solid Copper FF<br>rigths with 10.00 % additional I<br>Part No.<br>ELSTW  | Multi-Candela, , 25/70 Vrms,<br>white 75cd<br>PLP/R Analog Unshielded<br>length calculated<br>Description<br>WALL STROBE, WHITE,<br>FIRE 15cd<br>Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 15cd   | CIRCUIT S         Starting Calculation Voltage:         Min. Operational Voltage:         Max. Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Length (Ft):         Total Circuit Resistance (Ω):         Qty.         1         2  | ETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022  | TOT.<br>Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):<br>Spare Current (A) Percent:<br>Total Current (A)<br>0.022  | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198  |
| otal Resistance (Ω) = Wire         otal Voltage Drop = Total F         Otal Voltage Drop = Total F         Otal Voltage Drop = Total F         Distance meas         DEVICE TOTALS         Calculation Methods:         Otal Resistance (Ω) = Wire   | Resistance (Ω/Ft) x 2 x Total<br>tesistance (Ω) x Total Circuit C<br>P2 N5 LUMP<br>:: 'V' 14/2 FPLP/R (NAC) 14 A<br>ured using drawn segment ler<br>Symbol<br>X  | Circuit Length (Ft)<br>Current (A)<br>SUM REPORT<br>WG, 2 Cond. Solid Copper FF<br>rigths with 10.00 % additional I<br>Part No.<br>ELSTW<br>ET90-24MCC-FW<br>ET90-24MCC-FW<br>Circuit Length (Ft)   | Multi-Candela, , 25/70 Vrms,<br>white 75cd<br>PLP/R Analog Unshielded<br>length calculated<br>Description<br>WALL STROBE, WHITE,<br>FIRE 15cd<br>Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>White 15cd   | CIRCUIT S         Starting Calculation Voltage:         Min. Operational Voltage:         Max. Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Length (Ft):         Total Circuit Resistance (Ω):         Qty.         1         2  | ETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11  | TOT.<br>Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):<br>Spare Current (A) Percent:<br>Total Current (A)<br>0.022<br>0.22  | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198  |
| otal Resistance (Ω) = Wire         otal Voltage Drop = Total F         Otal Voltage Drop = Total F         Otal Voltage Drop = Total F         Distance meas         DEVICE TOTALS         Calculation Methods:         Otal Resistance (Ω) = Wire   | Resistance (Ω/Ft) x 2 x Total<br>Resistance (Ω) x Total Circuit C<br>P2 N5 LUMP<br>:: 'V' 14/2 FPLP/R (NAC) 14 A<br>ured using drawn segment len<br>Symbol<br>X<br>Resistance (Ω/Ft) x 2 x Total   | Circuit Length (Ft)<br>Current (A)<br>SUM REPORT<br>WG, 2 Cond. Solid Copper FF<br>rigths with 10.00 % additional I<br>Part No.<br>ELSTW<br>ET90-24MCC-FW<br>ET90-24MCC-FW<br>Circuit Length (Ft)   | Multi-Candela, , 25/70 Vrms,<br>white 75cd   | CIRCUIT S Starting Calculation Voltage: Min. Operational Voltage: Max. Circuit Current (A): Wire Resistance (Ω/kFt): Total Circuit Resistance (Ω): Qty. 1 2 2 2 CIRCUIT S   | ETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11<br>0.28  | TOT.<br>Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):<br>Spare Current (A) Percent:<br>Total Current (A)<br>0.022<br>0.22<br>0.56  | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198<br>73.27 %   |
| otal Resistance (Ω) = Wire         otal Voltage Drop = Total F         Otal Voltage Drop = Total F         Otal Voltage Drop = Total F         Distance meas         DEVICE TOTALS         Calculation Methods:         Otal Resistance (Ω) = Wire   | Resistance (Ω/Ft) x 2 x Total<br>resistance (Ω) x Total Circuit C<br>P2 N5 LUMP<br>S: 'V' 14/2 FPLP/R (NAC) 14 A<br>ured using drawn segment ler<br>Symbol<br>X<br>Resistance (Ω/Ft) x 2 x Total<br>resistance (Ω) x Total Circuit C   | Circuit Length (Ft)<br>Current (A)<br>SUM REPORT<br>WG, 2 Cond. Solid Copper FF<br>rigths with 10.00 % additional I<br>Part No.<br>ELSTW<br>ET90-24MCC-FW<br>ET90-24MCC-FW<br>Circuit Length (Ft)   | Multi-Candela, , 25/70 Vrms,<br>white 75cd   | CIRCUIT S         Starting Calculation Voltage:         Min. Operational Voltage:         Max. Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Length (Ft):         Total Circuit Resistance (Ω):         Qty.         1         2         2         2         Starting Calculation Voltage:         Min. Operational Voltage:  | ETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11<br>0.28  | TOT.         Max. Voltage Drop:         End Of Line Voltage:         Voltage Drop Percent:         Total Circuit Current (A):         Spare Current (A) Percent:         Total Current (A)         0.022         0.22         0.56   | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198<br>73.27 %   |
| otal Resistance (Ω) = Wire         otal Voltage Drop = Total F         Otal Voltage Drop = Total F         Otal Voltage Drop = Total F         Distance meas         DEVICE TOTALS         Calculation Methods:         Otal Resistance (Ω) = Wire   | Resistance (Ω/Ft) x 2 x Total<br>resistance (Ω) x Total Circuit C<br>P2 N5 LUMP<br>S: 'V' 14/2 FPLP/R (NAC) 14 A<br>ured using drawn segment ler<br>Symbol<br>X<br>Resistance (Ω/Ft) x 2 x Total<br>resistance (Ω) x Total Circuit C   | Circuit Length (Ft)<br>Current (A)<br>SUM REPORT<br>WG, 2 Cond. Solid Copper FF<br>rigths with 10.00 % additional I<br>Part No.<br>ELSTW<br>ET90-24MCC-FW<br>ET90-24MCC-FW<br>Circuit Length (Ft)<br>Current (A)  | Multi-Candela, , 25/70 Vrms,<br>white 75cd   | CIRCUIT S         Starting Calculation Voltage:         Min. Operational Voltage:         Max. Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Resistance (Ω):         Qty.         1         2         2         2         2         Starting Calculation Voltage:   | ETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11<br>0.28<br>ETTINGS<br>20.4<br>16<br>3  | TOT. Max. Voltage Drop: End Of Line Voltage: Voltage Drop Percent: Total Circuit Current (A): Spare Current (A) Percent: Total Current (A) 0.022 0.22 0.22 0.56 TOT. Max. Voltage Drop: End Of Line Voltage: Voltage Drop Percent:   | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198<br>73.27 %<br>ALS<br>1.89<br>18.51<br>9.25 %   |
| otal Resistance (Ω) = Wire otal Voltage Drop = Total F Circuit Wiring Properties Distance meas DEVICE TOTALS alculation Methods: otal Resistance (Ω) = Wire otal Voltage Drop = Total F Circuit Wiring Properties  | Resistance (Ω/Ft) x 2 x Total<br>Resistance (Ω) x Total Circuit C<br>P2 N5 LUMP<br>S: 'V' 14/2 FPLP/R (NAC) 14 A<br>ured using drawn segment ler<br>Symbol<br>Resistance (Ω/Ft) x 2 x Total<br>Resistance (Ω/Ft) x 2 x Total (<br>Resistance (Ω) x Total Circuit C<br>P3 N3 LUMP<br>S: 'V' 14/2 FPLP/R (NAC) 14 A  | Circuit Length (Ft) Current (A) SUM REPORT WG, 2 Cond. Solid Copper FF ogths with 10.00 % additional I Part No. ELSTW ET90-24MCC-FW ET90-24MCC-FW Circuit Length (Ft) Current (A) SUM REPORT WG, 2 Cond. Solid Copper FF  | Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         length calculated         Description         WALL STROBE, WHITE,<br>FIRE 15cd         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 15cd         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded  | CIRCUIT S         Starting Calculation Voltage:         Min. Operational Voltage:         Max. Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Length (Ft):         Total Circuit Resistance (Ω):         Qty.         1         2         2         2         Starting Calculation Voltage:         Min. Operational Voltage:         Max. Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Length (Ft):  | ETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274   | TOT.<br>Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):<br>Spare Current (A) Percent:<br>Total Current (A)<br>0.022<br>0.22<br>0.22<br>0.56<br>TOT.<br>Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):<br>Spare Current (A):   | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198<br>73.27 %<br>ALS<br>1.89<br>18.51<br>9.25 %<br>1.12<br>1.88   |
| otal Resistance (Ω) = Wire<br>otal Voltage Drop = Total F<br>Circuit Wiring Properties<br>Distance meas<br><b>DEVICE TOTALS</b><br>Stal Resistance (Ω) = Wire<br>otal Voltage Drop = Total F<br>Otal Voltage Drop = Total F<br>Circuit Wiring Properties<br>Distance meas  | Resistance (Ω/Ft) x 2 x Total<br>P2 N5 LUMP<br>E: 'V' 14/2 FPLP/R (NAC) 14 A<br>ured using drawn segment ler<br>Symbol<br>Resistance (Ω/Ft) x 2 x Total<br>Resistance (Ω/Ft) x 2 x Total<br>Esistance (Ω) x Total Circuit C<br>P3 N3 LUMP<br>E: 'V' 14/2 FPLP/R (NAC) 14 A<br>ured using drawn segment ler<br>Symbol   | Circuit Length (Ft) Current (A) SUM REPORT WG, 2 Cond. Solid Copper FF ogths with 10.00 % additional I Part No. ELSTW ET90-24MCC-FW ET90-24MCC-FW Circuit Length (Ft) Current (A) SUM REPORT WG, 2 Cond. Solid Copper FF  | Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         length calculated         Description         WALL STROBE, WHITE,<br>FIRE 15cd         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 15cd         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         ength calculated         Description   | CIRCUIT S         Starting Calculation Voltage:         Min. Operational Voltage:         Max. Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Length (Ft):         Total Circuit Resistance (Ω):         Qty.         1         2         3         3         4         4         5         5         4         4         5         5         6         7         7         7         8         8         9 </td <td>ETTINGS<br/>20.4<br/>16<br/>3<br/>3.07<br/>574<br/>3.523469<br/>Device Current (A)<br/>0.022<br/>0.11<br/>0.28<br/>ETTINGS<br/>20.4<br/>16<br/>3<br/>3.07</td> <td>TOT. Max. Voltage Drop: End Of Line Voltage: Voltage Drop Percent: Total Circuit Current (A): Spare Current (A) Percent: Total Current (A) 0.022 0.22 0.22 0.56 TOT. Max. Voltage Drop: End Of Line Voltage: Voltage Drop Percent: Total Circuit Current (A):</td> <td>2.83<br/>17.57<br/>13.85 %<br/>0.802<br/>2.198<br/>73.27 %<br/>ALS<br/>1.89<br/>18.51<br/>9.25 %<br/>1.12</td>  | ETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07  | TOT. Max. Voltage Drop: End Of Line Voltage: Voltage Drop Percent: Total Circuit Current (A): Spare Current (A) Percent: Total Current (A) 0.022 0.22 0.22 0.56 TOT. Max. Voltage Drop: End Of Line Voltage: Voltage Drop Percent: Total Circuit Current (A):  | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198<br>73.27 %<br>ALS<br>1.89<br>18.51<br>9.25 %<br>1.12   |
| Total Resistance (Ω) = Wire         Total Voltage Drop = Total F         Circuit Wiring Properties         Distance meas         DEVICE TOTALS         Calculation Methods:         Total Resistance (Ω) = Wire         Total Voltage Drop = Total F         Circuit Wiring Properties   | Resistance (Ω/Ft) x 2 x Total<br>Resistance (Ω) x Total Circuit C<br>P2 N5 LUMP<br>S: 'V' 14/2 FPLP/R (NAC) 14 A<br>ured using drawn segment ler<br>Symbol<br>C<br>Resistance (Ω/Ft) x 2 x Total<br>Resistance (Ω/Ft) x 2 x Total (<br>resistance (Ω) x Total Circuit C<br>P3 N3 LUMP<br>S: 'V' 14/2 FPLP/R (NAC) 14 A<br>ured using drawn segment ler   | Circuit Length (Ft) Current (A) SUM REPORT WG, 2 Cond. Solid Copper FF ogths with 10.00 % additional I Part No. ELSTW ET90-24MCC-FW ET90-24MCC-FW Circuit Length (Ft) Current (A) SUM REPORT WG, 2 Cond. Solid Copper FF ogths with 10.00 % additional I  | Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         length calculated         Description         WALL STROBE, WHITE,<br>FIRE 15cd         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 15cd         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         ength calculated   | CIRCUIT S         Starting Calculation Voltage:         Min. Operational Voltage:         Max. Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Resistance (Ω):         Qty.         1         2         2         2         Starting Calculation Voltage:         Min. Operational Voltage:         Min. Operational Voltage:         Min. Operational Voltage:         Max. Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Length (Ft):         Total Circuit Length (Ft):         Total Circuit Length (Ft):   | ETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093   | TOT.<br>Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):<br>Spare Current (A) Percent:<br>Total Current (A)<br>0.022<br>0.22<br>0.22<br>0.56<br>TOT.<br>Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):<br>Spare Current (A) Percent:   | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198<br>73.27 %<br>ALS<br>1.89<br>18.51<br>9.25 %<br>1.12<br>1.88   |
| otal Resistance (Ω) = Wire         otal Voltage Drop = Total F         Otal Voltage Drop = Total F         Distance meas         DEVICE TOTALS         Salculation Methods:         otal Voltage Drop = Total F         Otal Resistance (Ω) = Wire         otal Voltage Drop = Total F         Distance meas         DEVICE TOTALS         Salculation Methods:         Otal Resistance (Ω) = Wire         Distance meas         DEVICE TOTALS         Salculation Methods:         Otal Resistance (Ω) = Wire   | Resistance (Ω/Ft) x 2 x Total<br>Resistance (Ω) x Total Circuit C<br>P2 N5 LUMP<br>S: 'V' 14/2 FPLP/R (NAC) 14 A<br>ured using drawn segment ler<br>Symbol<br>Resistance (Ω/Ft) x 2 x Total<br>Resistance (Ω/Ft) x 2 x Total 1<br>P3 N3 LUMP<br>S: 'V' 14/2 FPLP/R (NAC) 14 A<br>ured using drawn segment ler<br>Symbol<br>Symbol<br>Symbol<br>Symbol<br>Resistance (Ω/Ft) x 2 x Total 1   | Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper Ff rgths with 10.00 % additional I Part No. ELSTW ET90-24MCC-FW Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper Ff rgths with 10.00 % additional I Part No. ET90-24MCC-FW Circuit Length (Ft) Current (A)   | Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         ength calculated         Description         WALL STROBE, WHITE,<br>FIRE 15cd         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 15cd         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         ength calculated         Description         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd  | CIRCUIT S         Starting Calculation Voltage:         Min. Operational Voltage:         Max. Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Resistance (Ω):         Qty.         1         2         2         2         Starting Calculation Voltage:         Min. Operational Voltage:         Min. Operational Voltage:         Min. Operational Voltage:         Max. Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Length (Ft):         Total Circuit Length (Ft):         Total Circuit Length (Ft):   | ETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)   | TOT.<br>Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):<br>Spare Current (A) Percent:<br>Total Current (A)<br>0.022<br>0.22<br>0.22<br>0.56<br>TOT.<br>Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):<br>Spare Current (A)<br>Spare Current (A)<br>Spare Current (A)  | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198<br>73.27 %<br>ALS<br>1.89<br>18.51<br>9.25 %<br>1.12<br>1.88   |
| otal Resistance (Ω) = Wire<br>otal Voltage Drop = Total F<br>Circuit Wiring Properties<br>Distance meas<br>DEVICE TOTALS<br>ialculation Methods:<br>otal Resistance (Ω) = Wire<br>otal Voltage Drop = Total F<br>Circuit Wiring Properties<br>Distance meas<br>DEVICE TOTALS<br>ialculation Methods:<br>otal Resistance (Ω) = Wire   | Resistance (Ω/Ft) x 2 x Total<br>P2 N5 LUMP<br>E: 'V' 14/2 FPLP/R (NAC) 14 A<br>ured using drawn segment ler<br>Symbol<br>Resistance (Ω/Ft) x 2 x Total<br>resistance (Ω/Ft) x 2 x Total<br>Resistance (Ω/Ft) x 2 x Total<br>P3 N3 LUMP<br>E: 'V' 14/2 FPLP/R (NAC) 14 A<br>ured using drawn segment ler<br>Symbol<br>Symbol<br>Symbol<br>Symbol<br>Symbol<br>Symbol<br>Symbol   | Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper Ff rgths with 10.00 % additional I Part No. ELSTW ET90-24MCC-FW Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper Ff rgths with 10.00 % additional I Part No. ET90-24MCC-FW Circuit Length (Ft) Current (A)   | Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         ength calculated         Description         WALL STROBE, WHITE,<br>FIRE 15cd         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 15cd         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         ength calculated         Description         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd  | CIRCUIT S         Starting Calculation Voltage:         Min. Operational Voltage:         Max. Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Resistance (Ω):         Qty.         1         2         2         2         Starting Calculation Voltage:         Min. Operational Voltage:         Min. Operational Voltage:         Min. Operational Voltage:         Max. Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Length (Ft):         Total Circuit Length (Ft):         Total Circuit Length (Ft):   | ETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)   | TOT.<br>Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):<br>Spare Current (A) Percent:<br>Total Current (A)<br>0.022<br>0.22<br>0.22<br>0.56<br>TOT.<br>Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):<br>Spare Current (A)<br>Spare Current (A)<br>Spare Current (A)  | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198<br>73.27 %<br>ALS<br>1.89<br>18.51<br>9.25 %<br>1.12<br>1.88   |
| otal Resistance (Ω) = Wire<br>otal Voltage Drop = Total F<br>Circuit Wiring Properties<br>Distance meas<br>DEVICE TOTALS<br>ialculation Methods:<br>otal Resistance (Ω) = Wire<br>otal Voltage Drop = Total F<br>Circuit Wiring Properties<br>Distance meas<br>DEVICE TOTALS<br>ialculation Methods:<br>otal Resistance (Ω) = Wire   | Resistance (Ω/Ft) x 2 x Total<br>Resistance (Ω) x Total Circuit C<br>P2 N5 LUMP<br>S: 'V' 14/2 FPLP/R (NAC) 14 A<br>ured using drawn segment ler<br>Symbol<br>Resistance (Ω/Ft) x 2 x Total<br>Resistance (Ω/Ft) x 2 x Total 1<br>P3 N3 LUMP<br>S: 'V' 14/2 FPLP/R (NAC) 14 A<br>ured using drawn segment ler<br>Symbol<br>Symbol<br>Symbol<br>Symbol<br>Resistance (Ω/Ft) x 2 x Total 1   | Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper Ff rgths with 10.00 % additional I Part No. ELSTW ET90-24MCC-FW Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper Ff rgths with 10.00 % additional I Part No. ET90-24MCC-FW Circuit Length (Ft) Current (A)   | Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         ength calculated         Description         WALL STROBE, WHITE,<br>FIRE 15cd         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 15cd         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         ength calculated         Description         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd  | CIRCUIT S         Starting Calculation Voltage:         Min. Operational Voltage:         Max. Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Resistance (Ω):         Qty.         1         2         2         2         Starting Calculation Voltage:         Min. Operational Voltage:         Min. Operational Voltage:         Min. Operational Voltage:         Max. Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Length (Ft):         Total Circuit Length (Ft):         Total Circuit Length (Ft):   | ETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>ETTINGS<br>ETTINGS   | Image: Total Circuit Current (A):         Spare Current (A):         Spare Current (A)         Spare Current (A)         0.022         0.22         0.56   | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198<br>73.27 %<br>ALS<br>1.89<br>18.51<br>9.25 %<br>1.12<br>1.88<br>62.67 %  |
| otal Resistance (Ω) = Wire<br>otal Voltage Drop = Total F<br>Circuit Wiring Properties<br>Distance meas<br>DEVICE TOTALS<br>ialculation Methods:<br>otal Resistance (Ω) = Wire<br>otal Voltage Drop = Total F<br>Circuit Wiring Properties<br>Distance meas<br>DEVICE TOTALS<br>ialculation Methods:<br>otal Resistance (Ω) = Wire   | Resistance (Ω/Ft) x 2 x Total         tesistance (Ω) x Total Circuit C         P2 N5 LUMP         S: 'V' 14/2 FPLP/R (NAC) 14 A         ured using drawn segment ler         Symbol         X         Resistance (Ω/Ft) x 2 x Total         Itesistance (Ω/Ft) x 2 x Total         red using drawn segment ler         Symbol         X         Resistance (Ω/Ft) x 2 x Total         red using drawn segment ler         P3 N3 LUMP         S: 'V' 14/2 FPLP/R (NAC) 14 A         ured using drawn segment ler         Symbol         X         Resistance (Ω/Ft) x 2 x Total         Image: No 14/2 FPLP/R (NAC) 14 A   | Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper Ff rgths with 10.00 % additional I Part No. ELSTW ET90-24MCC-FW Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper Ff rgths with 10.00 % additional I Part No. ET90-24MCC-FW Circuit Length (Ft) Current (A)   | Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         ength calculated         Description         WALL STROBE, WHITE,<br>FIRE 15cd         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 15cd         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         ength calculated         Description         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd  | CIRCUIT S         Starting Calculation Voltage:         Min. Operational Voltage:         Max. Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Length (Ft):         Total Circuit Resistance (Ω):         Qty.         1         2         2         2         Starting Calculation Voltage:         Min. Operational Voltage:         Max. Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Length (Ft):         A         4         CIRCUIT S         Starting Calculation Voltage:         Min. Operational Voltage:         Min. Operational Voltage:  | ETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>ETTINGS<br>20.4<br>1.684093<br>Device Current (A)<br>0.28  | TOT.<br>Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):<br>Spare Current (A) Percent:<br>Total Current (A)<br>0.022<br>0.22<br>0.22<br>0.56<br>TOT.<br>Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):<br>Spare Current (A)<br>Spare Current (A)<br>Spare Current (A)<br>Spare Current (A)<br>Spare Current (A)<br>Total Current (A)<br>1.12<br>TOT.<br>Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop:<br>End Of Line Voltage:<br>TOT.<br>Max. Voltage Drop:<br>End Of Line Voltage:  | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198<br>73.27 %<br>ALS<br>1.89<br>18.51<br>9.25 %<br>1.12<br>1.88<br>62.67 %<br>ALS<br>0.92<br>19.48  |
| tal Resistance (Ω) = Wire         tal Voltage Drop = Total F         Circuit Wiring Properties         Distance meas         DEVICE TOTALS         Salculation Methods:         total Voltage Drop = Total F         Otal Resistance (Ω) = Wire         Oistance meas         DEVICE TOTALS         Circuit Wiring Properties         Otal Voltage Drop = Total F         Oistance meas         Distance meas         DEVICE TOTALS         Salculation Methods:         total Resistance (Ω) = Wire         total Voltage Drop = Total F  | Resistance (Ω/Ft) x 2 x Total<br>P2 N5 LUMP<br>C V 14/2 FPLP/R (NAC) 14 A<br>ured using drawn segment ler<br>Symbol<br>C<br>Resistance (Ω/Ft) x 2 x Total<br>Resistance (Ω/Ft) x 2 x Total<br>P3 N3 LUMP<br>C V 14/2 FPLP/R (NAC) 14 A<br>ured using drawn segment ler<br>Symbol<br>C<br>Resistance (Ω/Ft) x 2 x Total<br>Resistance (Ω/Ft) x 2 x Total<br>P3 N3 LUMP<br>C V 14/2 FPLP/R (NAC) 14 A<br>ured using drawn segment ler<br>Symbol<br>C<br>Resistance (Ω/Ft) x 2 x Total<br>Resistance (Ω/Ft)<br>Resistance  | Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF rights with 10.00 % additional I Part No. ELSTW ET90-24MCC-FW Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF rights with 10.00 % additional I Part No. ET90-24MCC-FW Circuit Length (Ft) Current (A)  SUM REPORT Circuit Length (Ft) Current (A)  SUM REPORT Circuit Length (Ft) Current (A)  SUM REPORT   | Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         length calculated         Description         WALL STROBE, WHITE,<br>FIRE 15cd         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 15cd         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         length calculated         Description         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd  | CIRCUIT S         Starting Calculation Voltage:         Min. Operational Voltage:         Max. Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Resistance (Ω):         Qty.         1         2         4         4         4         4         CIRCUIT S         Starting Calculation Voltage:         Max. Circuit Current (A):         Wire Resistance (Ω/kFt):         4         4         4         4  | ETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>ETTINGS<br>20.4<br>1.684093<br>Device Current (A)<br>0.28  | TOT.<br>Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):<br>Spare Current (A) Percent:<br>Total Current (A)<br>0.022<br>0.22<br>0.22<br>0.56<br>TOT.<br>Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):<br>Spare Current (A)<br>Spare Current (A)<br>Spare Current (A)<br>Spare Current (A)<br>Spare Current (A)<br>Total Current (A)<br>1.12<br>TOT.<br>Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Current (A):<br>Spare Current (A)<br>1.12   | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198<br>73.27 %<br>ALS<br>1.89<br>18.51<br>9.25 %<br>1.12<br>1.88<br>62.67 %<br>ALS<br>0.92<br>19.48<br>4.50 %<br>0.84  |
| cial Resistance (Ω) = Wire         cial Voltage Drop = Total F         Circuit Wiring Properties         Distance meas         DEVICE TOTALS         alculation Methods:         otal Resistance (Ω) = Wire         otal Voltage Drop = Total F         Circuit Wiring Properties         Distance meas         Device Totals         Circuit Wiring Properties         Distance meas         DEVICE TOTALS         alculation Methods:         otal Resistance (Ω) = Wire         otal Voltage Drop = Total F         Circuit Wiring Properties         Otal Resistance (Ω) = Wire         otal Voltage Drop = Total F         Circuit Wiring Properties         Otal Wiring Properties   | Resistance (Ω/Ft) x 2 x Total         tesistance (Ω) x Total Circuit C         P2 N5 LUMP         :: 'V' 14/2 FPLP/R (NAC) 14 A         ured using drawn segment ler         Symbol         Image: Symbol  | Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper Ff ogths with 10.00 % additional I Part No. ELSTW ET90-24MCC-FW ET90-24MCC-FW Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper Ff ogths with 10.00 % additional I Part No. ET90-24MCC-FW Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper Ff ogths with 10.00 % additional I SUM REPORT  WG, 2 Cond. Solid Copper Ff ogths with 10.00 % additional I  | Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         length calculated         Description         WALL STROBE, WHITE,<br>FIRE 15cd         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 15cd         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         length calculated         Description         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         length calculated         Description         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd  | CIRCUIT S         Starting Calculation Voltage:         Min. Operational Voltage:         Max. Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Resistance (Ω):         Qty.         1         2         2         2         Max. Circuit Current (A):         Wire Resistance (Ω):         Max. Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Length (Ft):         Total Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Current (A):         Yire Resistance (Ω/kFt):         Total Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Length (Ft):  | ETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28  | TOT.<br>Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):<br>Spare Current (A) Percent:<br>Total Current (A)<br>0.022<br>0.22<br>0.22<br>0.56<br>TOT.<br>Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):<br>Spare Current (A)<br>Spare Current (A)<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):<br>Spare Current (A)<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):<br>Spare Current (A)<br>1.12<br>TOT.<br>Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):<br>Spare Cur | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198<br>73.27 %<br>ALS<br>1.89<br>18.51<br>9.25 %<br>1.12<br>1.88<br>62.67 %<br>ALS<br>0.92<br>19.48<br>4.50 %  |
| tal Resistance (Ω) = Wire         tal Voltage Drop = Total F         tal Voltage Drop = Total F         Distance meas         DEVICE TOTALS         tal Resistance (Ω) = Wire         total Voltage Drop = Total F         Otal Resistance (Ω) = Wire         Distance meas         DEVICE TOTALS         Circuit Wiring Properties         Otal Resistance (Ω) = Wire         Total Voltage Drop = Total F         Circuit Wiring Properties         Circuit Wiring Properties  | Resistance (Ω/Ft) x 2 x Total         Resistance (Ω) x Total Circuit C         P2 N5 LUMP         S: 'V' 14/2 FPLP/R (NAC) 14 A         ured using drawn segment ler         Symbol         A         Resistance (Ω/Ft) x 2 x Total '         Resistance (Ω) x Total Circuit C         P3 N4 LUMP         S: 'V' 14/2 FPLP/R (NAC) 14 A         ured using drawn segment ler         Symbol  | Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF  Ingths with 10.00 % additional I Part No. ELSTW ET90-24MCC-FW ET90-24MCC-FW Circuit Length (Ft) Current (A)  SUM REPORT WG, 2 Cond. Solid Copper FF Ingths with 10.00 % additional I Part No. ET90-24MCC-FW Circuit Length (Ft) Current (A)  SUM REPORT WG, 2 Cond. Solid Copper FF Ingths with 10.00 % additional I Part No. ET90-24MCC-FW Circuit Length (Ft) Current (A)  SUM REPORT WG, 2 Cond. Solid Copper FF Ingths with 10.00 % additional I Part No. ET90-24MCC-FW Circuit Length (Ft) Current (A)   | Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         ength calculated         Description         WALL STROBE, WHITE,<br>FIRE 15cd         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 15cd         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         Iength calculated         Description         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         Iength calculated         Description         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd   | CIRCUIT S         Starting Calculation Voltage:         Min. Operational Voltage:         Max. Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Resistance (Ω):         Qty.         1         2         2         2         Starting Calculation Voltage:         Min. Operational Voltage:         Min. Operational Voltage:         Max. Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Resistance (Ω):         Qty.         4         CIRCUIT S         Starting Calculation Voltage:         Max. Circuit Length (Ft):         Total Circuit Resistance (Ω):         Qty.         4         CIRCUIT S         Starting Calculation Voltage:         Min. Operational Voltage:         Max. Circuit Length (Ft):         Total Circuit Resistance (Ω/kFt):         4         Starting Calculation Voltage:         Max. Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Length (Ft):         Total Circuit Length (Ft):         Total Circuit Length (Ft):         <  | ETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28  |  | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198<br>73.27 %<br>ALS<br>1.89<br>18.51<br>9.25 %<br>1.12<br>1.88<br>62.67 %<br>ALS<br>0.92<br>19.48<br>4.50 %<br>0.84<br>2.16  |
| otal Resistance (Ω) = Wire         otal Voltage Drop = Total F         Otal Voltage Drop = Total F         Distance meas         DEVICE TOTALS         alculation Methods:         otal Voltage Drop = Total F         Otal Resistance (Ω) = Wire         otal Voltage Drop = Total F         Distance meas         DEVICE TOTALS         alculation Methods:         otal Resistance (Ω) = Wire         otal Voltage Drop = Total F         Circuit Wiring Properties         Distance meas         DEVICE TOTALS         alculation Methods:         otal Resistance (Ω) = Wire         Distance meas         DEVICE TOTALS         alculation Methods:         Otal Resistance (Ω) = Wire         Distance meas         DEVICE TOTALS  | Resistance (Ω/Ft) x 2 x Total         Resistance (Ω) x Total Circuit C         P2 N5 LUMP         S: 'V' 14/2 FPLP/R (NAC) 14 A         ured using drawn segment ler         Symbol         A         Resistance (Ω/Ft) x 2 x Total Circuit C         Resistance (Ω/Ft) x 2 x Total Circuit C         P3 N3 LUMP         S: 'V' 14/2 FPLP/R (NAC) 14 A         ured using drawn segment ler         Symbol         B         Resistance (Ω/Ft) x 2 x Total Circuit C         P3 N3 LUMP         S: 'V' 14/2 FPLP/R (NAC) 14 A         ured using drawn segment ler         Symbol         S         P3 N4 LUMP         S: 'V' 14/2 FPLP/R (NAC) 14 A         ured using drawn segment ler         Symbol         S: 'V' 14/2 FPLP/R (NAC) 14 A         ured using drawn segment ler         Symbol         S: 'V' 14/2 FPLP/R (NAC) 14 A         ured using drawn segment ler         Symbol         S: 'V' 14/2 FPLP/R (NAC) 14 A         ured using drawn segment ler         Symbol         S: 'V' 14/2 FPLP/R (NAC) 14 A         ured using drawn segment ler         Symbol         S   | Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF rights with 10.00 % additional I Part No. ELSTW ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF rights with 10.00 % additional I Part No. ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF rights with 10.00 % additional I Part No. ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF rights with 10.00 % additional I Part No. ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF rights with 10.00 % additional I Part No. ET90-24MCC-FW  Circuit Length (Ft) Current (A)   | Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         length calculated         Description         WALL STROBE, WHITE,<br>FIRE 15cd         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 15cd         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         ength calculated         Description         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         ength calculated         Description         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd  | CIRCUIT S         Starting Calculation Voltage:         Min. Operational Voltage:         Max. Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Resistance (Ω):         Qty.         1         2         2         2         Max. Circuit Current (A):         Wire Resistance (Ω):         Max. Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Length (Ft):         Total Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Current (A):         Yire Resistance (Ω/kFt):         Total Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Length (Ft):  | ETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28  | TOT.<br>Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):<br>Spare Current (A) Percent:<br>Total Current (A)<br>0.022<br>0.22<br>0.22<br>0.56<br>TOT.<br>Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):<br>Spare Current (A)<br>Spare Current (A)<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):<br>Spare Current (A)<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):<br>Spare Current (A)<br>1.12<br>TOT.<br>Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):<br>Spare Cur | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198<br>73.27 %<br>ALS<br>1.89<br>18.51<br>9.25 %<br>1.12<br>1.88<br>62.67 %<br>ALS<br>0.92<br>19.48<br>4.50 %<br>0.84<br>2.16  |
| tal Resistance (Ω) = Wire         tal Voltage Drop = Total F         tal Voltage Drop = Total F         Distance meas         DEVICE TOTALS         tal Resistance (Ω) = Wire         total Voltage Drop = Total F         Otal Voltage Drop = Total F         Circuit Wiring Properties         Distance meas         DEVICE TOTALS         Circuit Wiring Properties         Distance meas         DEVICE TOTALS         Circuit Wiring Properties         Distance meas         DEVICE TOTALS         cital Resistance (Ω) = Wire         total Resistance (Ω) = Wire         Circuit Wiring Properties         Distance meas         DEVICE TOTALS         Circuit Wiring Properti                   | Resistance (Ω/Ft) x 2 x Total         Resistance (Ω) x Total Circuit C         P2 N5 LUMP         S: 'V' 14/2 FPLP/R (NAC) 14 A         ured using drawn segment ler         Symbol         A         Resistance (Ω/Ft) x 2 x Total         Resistance (Ω/Ft) x 2 x Total         read using drawn segment ler         Symbol         A         Resistance (Ω/Ft) x 2 x Total         read using drawn segment ler         Symbol         B         Resistance (Ω/Ft) x 2 x Total         Resistance (Ω/Ft) x 2 x Total         P3 N3 LUMP         S: 'V' 14/2 FPLP/R (NAC) 14 A         Ured using drawn segment ler         Symbol         A         P3 N4 LUMP         S: 'V' 14/2 FPLP/R (NAC) 14 A         Ured using drawn segment ler         Symbol         S: 'V' 14/2 FPLP/R (NAC) 14 A         Ured using drawn segment ler   | Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF rights with 10.00 % additional I Part No. ELSTW ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF rights with 10.00 % additional I Part No. ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF rights with 10.00 % additional I Part No. ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF rights with 10.00 % additional I Part No. ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF rights with 10.00 % additional I Part No. ET90-24MCC-FW  Circuit Length (Ft) Current (A)   | Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         ength calculated         Description         WALL STROBE, WHITE,<br>FIRE 15cd         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 15cd         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         Iength calculated         Description         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         Iength calculated         Description         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         Iength calculated         Description         Speaker/Strobe, 24 VDC,<br>Multi-Candela, 25/70 Vrms,   | CIRCUIT S         Starting Calculation Voltage:         Min. Operational Voltage:         Max. Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Length (Ft):         Total Circuit Length (Ft):         1         2         2         2         3         CIRCUIT S         Starting Calculation Voltage:         Min. Operational Voltage:         Max. Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Length (Ft):         Total Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Length (Ft):         Total Circuit Length (Ft):         Total Circuit Resistance (Ω/kFt):         Total Circuit Length (Ft):         Total Circuit Length (Ft): <td< td=""><td>ETTINGS<br/>20.4<br/>16<br/>3<br/>3.07<br/>574<br/>3.523469<br/>Device Current (A)<br/>0.022<br/>0.11<br/>0.28<br/>ETTINGS<br/>20.4<br/>16<br/>3<br/>3.07<br/>274<br/>1.684093<br/>Device Current (A)<br/>0.28<br/>ETTINGS<br/>20.4<br/>16<br/>3<br/>3.07<br/>274<br/>1.684093<br/>Device Current (A)<br/>0.28<br/>ETTINGS<br/>20.4<br/>16<br/>3<br/>3.07<br/>274<br/>1.684093<br/>Device Current (A)<br/>0.28</td><td></td><td>2.83<br/>17.57<br/>13.85 %<br/>0.802<br/>2.198<br/>73.27 %<br/>ALS<br/>1.89<br/>18.51<br/>9.25 %<br/>1.12<br/>1.88<br/>62.67 %<br/>ALS<br/>0.92<br/>19.48<br/>4.50 %<br/>0.84<br/>2.16<br/>72.00 %</td></td<> | ETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28   |  | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198<br>73.27 %<br>ALS<br>1.89<br>18.51<br>9.25 %<br>1.12<br>1.88<br>62.67 %<br>ALS<br>0.92<br>19.48<br>4.50 %<br>0.84<br>2.16<br>72.00 %   |
| cital Resistance (Ω) = Wire         cital Voltage Drop = Total F         cital Voltage Drop = Total F         Distance meas         DEVICE TOTALS         cital Resistance (Ω) = Wire         cital Voltage Drop = Total F         cital Resistance (Ω) = Wire  | Resistance (Ω/Ft) x 2 x Total         Resistance (Ω) x Total Circuit C         P2 N5 LUMP         S: 'V' 14/2 FPLP/R (NAC) 14 A         ured using drawn segment ler         Symbol         S:         Resistance (Ω/Ft) x 2 x Total         Resistance (Ω/Ft) x 2 x Total         readily a segment ler         Symbol         S:         V' 14/2 FPLP/R (NAC) 14 A         ured using drawn segment ler         Symbol         S:         V' 14/2 FPLP/R (NAC) 14 A         ured using drawn segment ler         Symbol         S:         V' 14/2 FPLP/R (NAC) 14 A         ured using drawn segment ler         Symbol         S:         V' 14/2 FPLP/R (NAC) 14 A         ured using drawn segment ler         Symbol         S:         V' 14/2 FPLP/R (NAC) 14 A         ured using drawn segment ler         Symbol         S:         V' 14/2 FPLP/R (NAC) 14 A         ured using drawn segment ler         Symbol         S:         U' 14/2 FPLP/R (NAC) 14 A         ured using drawn segment ler         Symbol   | Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF rights with 10.00 % additional I Part No. ELSTW ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF rights with 10.00 % additional I Part No. ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF rights with 10.00 % additional I Part No. ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF rights with 10.00 % additional I Part No. ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF rights with 10.00 % additional I Part No. ET90-24MCC-FW  Circuit Length (Ft) Current (A)   | Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         ength calculated         Description         WALL STROBE, WHITE,<br>FIRE 15cd         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 15cd         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         Iength calculated         Description         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         Iength calculated         Description         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         Iength calculated         Description         Speaker/Strobe, 24 VDC,<br>Multi-Candela, 25/70 Vrms,   | CIRCUIT S         Starting Calculation Voltage:         Min. Operational Voltage:         Max. Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Resistance (Ω):         Qty.         1         2         4         4         4         4         3         3   | ETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28   | TOT.<br>Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):<br>Spare Current (A) Percent:<br>Total Current (A)<br>0.022<br>0.22<br>0.22<br>0.56<br>TOT.<br>Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):<br>Spare Current (A)<br>Spare Current (A)<br>Spare Current (A)<br>Spare Current (A)<br>Spare Current (A)<br>Total Circuit Current (A):<br>Spare Current (A)<br>Total Circuit Current (A)<br>Spare Current (A)<br>Current (A)<br>1.12<br>Total Circuit Current (A):<br>Spare Current (A)<br>0.84<br>0.84   | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198<br>73.27 %<br>ALS<br>1.89<br>18.51<br>9.25 %<br>1.12<br>1.88<br>62.67 %<br>ALS<br>0.92<br>19.48<br>4.50 %<br>0.84<br>2.16<br>72.00 %   |
| tal Resistance (Ω) = Wire         tal Voltage Drop = Total F         tal Voltage Drop = Total F         Distance meas         DEVICE TOTALS         tal Resistance (Ω) = Wire         total Voltage Drop = Total F         Otal Voltage Drop = Total F         Circuit Wiring Properties         Distance meas         DEVICE TOTALS         Circuit Wiring Properties         Distance meas         DEVICE TOTALS         Circuit Wiring Properties         Distance meas         DEVICE TOTALS         cital Resistance (Ω) = Wire         total Resistance (Ω) = Wire         Circuit Wiring Properties         Distance meas         DEVICE TOTALS         Circuit Wiring Properti                   | Resistance (Ω/Ft) x 2 x Total         Resistance (Ω) x Total Circuit C         P2 N5 LUMP         S: 'V' 14/2 FPLP/R (NAC) 14 A         ured using drawn segment ler         Symbol         S:         Resistance (Ω/Ft) x 2 x Total         Resistance (Ω/Ft) x 2 x Total         readily a segment ler         Symbol         S:         V' 14/2 FPLP/R (NAC) 14 A         ured using drawn segment ler         Symbol         S:         V' 14/2 FPLP/R (NAC) 14 A         ured using drawn segment ler         Symbol         S:         V' 14/2 FPLP/R (NAC) 14 A         ured using drawn segment ler         Symbol         S:         V' 14/2 FPLP/R (NAC) 14 A         ured using drawn segment ler         Symbol         S:         V' 14/2 FPLP/R (NAC) 14 A         ured using drawn segment ler         Symbol         S:         V' 14/2 FPLP/R (NAC) 14 A         ured using drawn segment ler         Symbol         S:         U' 14/2 FPLP/R (NAC) 14 A         ured using drawn segment ler         Symbol   | Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ELSTW ET90-24MCC-FW Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF rgths with 10.00 % additional I Part No. ET90-24MCC-FW Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ET90-24MCC-FW Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ET90-24MCC-FW Circuit Length (Ft) Current (A)  Circuit Length (Ft) Current (A)   | Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         ength calculated         Description         WALL STROBE, WHITE,<br>FIRE 15cd         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 15cd         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         Iength calculated         Description         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         Iength calculated         Description         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         Iength calculated         Description         Speaker/Strobe, 24 VDC,<br>Multi-Candela, 25/70 Vrms,   | CIRCUIT S         Starting Calculation Voltage:         Min. Operational Voltage:         Max. Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Resistance (Ω):         Qty.         1         2         2         1         2         1         2         1         2         1         2         1         2         1         2         1         2         2         2         1         2         2         1         2         2         2         2         3         CIRCUIT S         Starting Calculation Voltage:         Max. Circuit Length (Ft):         Total Circuit Resistance (Ω/kFt):         Total Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Resistance (Ω/kFt):         Total Circuit Length (Ft):         Total Circuit Resistance (Ω):         Qty.         3   | ETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>178<br>1.093697<br>Device Current (A)<br>0.28 | TOT.<br>Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):<br>Spare Current (A) Percent:<br>Total Current (A)<br>0.022<br>0.22<br>0.22<br>0.56<br>TOT.<br>Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):<br>Spare Current (A)<br>Spare Current (A)<br>Spare Current (A)<br>Spare Current (A)<br>Spare Current (A)<br>Spare Current (A)<br>Total Circuit Current (A):<br>Spare Current (A)<br>Contage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A)<br>Spare Current (A)<br>Percent:<br>Total Circuit Current (A)<br>0.84<br>0.84   | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198<br>73.27 %<br>ALS<br>1.89<br>18.51<br>9.25 %<br>1.12<br>1.88<br>62.67 %<br>ALS<br>0.92<br>19.48<br>4.50 %<br>0.84<br>2.16<br>72.00 %<br>ALS<br>0.92  |
| otal Resistance (Ω) = Wire         otal Voltage Drop = Total F         otal Voltage Drop = Total F         OEVICE TOTALS         DEVICE TOTALS         Otal Resistance (Ω) = Wire         Otal Voltage Drop = Total F         Otal Voltage Drop = Total F         Otal Resistance (Ω) = Wire         Otal Voltage Drop = Total F         Otal Resistance (Ω) = Wire         Otal Voltage Drop = Total F         Otal Voltage Drop = Total F         Otal Voltage Drop = Total F  | Resistance (Ω/Ft) x 2 x Total i         Resistance (Ω) x Total Circuit C         P2 N5 LUMP         x: 'V' 14/2 FPLP/R (NAC) 14 A         ured using drawn segment ler         Symbol         X         Resistance (Ω/Ft) x 2 x Total i         resistance (Ω/Ft) x 2 x Total Circuit C  | Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper Ff gths with 10.00 % additional I Part No. ELSTW ET90-24MCC-FW Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper Ff gths with 10.00 % additional I Part No. ET90-24MCC-FW Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper Ff gths with 10.00 % additional I Part No. ET90-24MCC-FW Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper Ff gths with 10.00 % additional I Part No. ET90-24MCC-FW Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper Ff gths with 10.00 % additional I Part No. ET90-24MCC-FW Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper Ff | Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         ength calculated         Description         WALL STROBE, WHITE,<br>FIRE 15cd         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 15cd         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         Iength calculated         Description         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         Iength calculated         Description         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         Iength calculated         Description         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd   | CIRCUIT S         Starting Calculation Voltage:         Min. Operational Voltage:         Max. Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Length (Ft):         Total Circuit Resistance (Ω):         Qty.         1         2         4         4         4         2         4         3         3         3         3  | ETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.093697<br>Device Current (A)<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>1.093697<br>Device Current (A)<br>0.28   |  | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198<br>73.27 %<br>4<br>4<br>5<br>4<br>5<br>4<br>5<br>4<br>5<br>5<br>4.39 %<br>0.92<br>19.48<br>4.50 %<br>0.92<br>19.5<br>4.39 %<br>0.56<br>2.44 |
| tal Resistance (Ω) = Wire         tal Voltage Drop = Total F         tal Voltage Drop = Total F         Distance meas         DEVICE TOTALS         tal Voltage Drop = Total F         tal Resistance (Ω) = Wire         tal Voltage Drop = Total F         DEVICE TOTALS         Circuit Wiring Properties         Distance meas         DEVICE TOTALS         tal Voltage Drop = Total F         DEVICE TOTALS         tal Resistance (Ω) = Wire         total Resistance (Ω) = Wire         total Voltage Drop = Total F         Distance meas         DEVICE TOTALS         tal Resistance (Ω) = Wire         total Voltage Drop = Total F         Distance meas         DEVICE TOTALS         tal Resistance (Ω) = Wire         Distance meas         DEVICE TOTALS         tal Resistance (Ω) = Wire         total Voltage Drop = Total F         Distance meas         DEVICE TOTALS         talculation Methods:         total Resistance (Ω) = Wire         total Voltage Drop = Total F         Distance meas         DEVICE TOTALS         talculation Methods:         total Resistance (Ω) = Wire | Resistance ( $\Omega$ /Ft) x 2 x Total i<br>resistance ( $\Omega$ ) x Total Circuit C<br>P2 N5 LUMP<br>:: 'V' 14/2 FPLP/R (NAC) 14 A<br>ured using drawn segment ler<br>Symbol<br>Resistance ( $\Omega$ /Ft) x 2 x Total i<br>resistance ( $\Omega$ /Ft) x 2 x Total i<br>Res  | Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper Ff gths with 10.00 % additional I Part No. ELSTW ET90-24MCC-FW Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper Ff gths with 10.00 % additional I Part No. ET90-24MCC-FW Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper Ff gths with 10.00 % additional I Part No. ET90-24MCC-FW Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper Ff gths with 10.00 % additional I Part No. ET90-24MCC-FW Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper Ff gths with 10.00 % additional I Part No. ET90-24MCC-FW Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper Ff | Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         ength calculated         Description         WALL STROBE, WHITE,<br>FIRE 15cd         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 15cd         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         ength calculated         Description         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         ength calculated         Description         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         ength calculated         Description         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         ength calculated         Description         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd | CIRCUIT S         Starting Calculation Voltage:         Min. Operational Voltage:         Max. Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Length (Ft):         Total Circuit Resistance (Ω):         Qty.         1         2         3         4         4         2         4         2         3         3         2         3  | ETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.093697<br>Device Current (A)<br>0.28  |  | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198<br>73.27 %<br>4<br>4<br>5<br>4<br>5<br>4<br>5<br>5<br>4.50 %<br>0.84<br>2.16<br>72.00 %<br>72.00 %<br>4<br>5<br>5<br>4.39 %<br>0.56  |
| otal Resistance (Ω) = Wire         otal Voltage Drop = Total F         otal Voltage Drop = Total F         OEVICE TOTALS         DEVICE TOTALS         otal Resistance (Ω) = Wire         otal Voltage Drop = Total F         Otal Resistance (Ω) = Wire         otal Voltage Drop = Total F         OEVICE TOTALS         Circuit Wiring Properties         Distance meas         DEVICE TOTALS         Circuit Wiring Properties         Distance meas         DEVICE TOTALS         Circuit Wiring Properties         Otal Resistance (Ω) = Wire         Otal Voltage Drop = Total F  | Resistance (Ω/Ft) x 2 x Total         Resistance (Ω) x Total Circuit C         P2 N5 LUMP         x: 'V' 14/2 FPLP/R (NAC) 14 A         ured using drawn segment ler         Symbol         x         y         x         y         x         y         x         y         x         y         x         y         x         y         x         y         y         x         y <td>Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF rgths with 10.00 % additional I Part No. ELSTW ET90-24MCC-FW Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF rgths with 10.00 % additional I Part No. ET90-24MCC-FW Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF rgths with 10.00 % additional I Part No. ET90-24MCC-FW Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF rgths with 10.00 % additional I Part No. ET90-24MCC-FW Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF rgths with 10.00 % additional I Part No. ET90-24MCC-FW Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF rgths with 10.00 % additional I Part No. ET90-24MCC-FW Circuit Length (Ft) Current (A)</td> <td>PLP/R Analog Unshielded         ength calculated         Description         WALL STROBE, WHITE,<br/>FIRE 15cd         Speaker/Strobe, 24 VDC,<br/>Multi-Candela, , 25/70 Vrms,<br/>white 15cd         Speaker/Strobe, 24 VDC,<br/>Multi-Candela, , 25/70 Vrms,<br/>white 75cd         PLP/R Analog Unshielded         length calculated         Description         Speaker/Strobe, 24 VDC,<br/>Multi-Candela, , 25/70 Vrms,<br/>white 75cd         PLP/R Analog Unshielded         length calculated         Description         Speaker/Strobe, 24 VDC,<br/>Multi-Candela, , 25/70 Vrms,<br/>white 75cd         PLP/R Analog Unshielded         ength calculated         Description         Speaker/Strobe, 24 VDC,<br/>Multi-Candela, , 25/70 Vrms,<br/>white 75cd         PLP/R Analog Unshielded         ength calculated         Description         Speaker/Strobe, 24 VDC,<br/>Multi-Candela, , 25/70 Vrms,<br/>white 75cd</td> <td>CIRCUIT S         Starting Calculation Voltage:         Min. Operational Voltage:         Max. Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Length (Ft):         Total Circuit Resistance (Ω):         Qty.         1         2         4         4         4         2         4         4         2         3         3         3         CIRCUIT S         Starting Calculation Voltage:         Min. Operational Voltage:         Min. Operational Voltage:         Min. Operational Voltage:         Max. Circuit Length (Ft):         Total Circuit Current (A):         Wi</td> <td>ETTINGS<br/>20.4<br/>16<br/>3<br/>3.07<br/>574<br/>3.523469<br/>Device Current (A)<br/>0.022<br/>0.11<br/>0.28<br/>ETTINGS<br/>20.4<br/>16<br/>3<br/>3.07<br/>274<br/>1.684093<br/>Device Current (A)<br/>0.28<br/>ETTINGS<br/>20.4<br/>16<br/>3<br/>3.07<br/>274<br/>1.684093<br/>Device Current (A)<br/>0.28<br/>ETTINGS<br/>20.4<br/>16<br/>3<br/>3.07<br/>274<br/>1.684093<br/>Device Current (A)<br/>0.28<br/>ETTINGS<br/>20.4<br/>16<br/>3<br/>3.07<br/>274<br/>1.093697<br/>Device Current (A)<br/>0.28<br/>ETTINGS<br/>20.4<br/>16<br/>3<br/>3.07<br/>1.093697<br/>Device Current (A)<br/>0.28</td> <td></td> <td>2.83<br/>17.57<br/>13.85 %<br/>0.802<br/>2.198<br/>73.27 %<br/>4<br/>4<br/>5<br/>4<br/>5<br/>4<br/>5<br/>4<br/>5<br/>5<br/>4.39 %<br/>0.92<br/>19.48<br/>4.50 %<br/>0.92<br/>19.5<br/>4.39 %<br/>0.56<br/>2.44</td> | Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF rgths with 10.00 % additional I Part No. ELSTW ET90-24MCC-FW Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF rgths with 10.00 % additional I Part No. ET90-24MCC-FW Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF rgths with 10.00 % additional I Part No. ET90-24MCC-FW Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF rgths with 10.00 % additional I Part No. ET90-24MCC-FW Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF rgths with 10.00 % additional I Part No. ET90-24MCC-FW Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF rgths with 10.00 % additional I Part No. ET90-24MCC-FW Circuit Length (Ft) Current (A)   | PLP/R Analog Unshielded         ength calculated         Description         WALL STROBE, WHITE,<br>FIRE 15cd         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 15cd         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         length calculated         Description         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         length calculated         Description         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         ength calculated         Description         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd         PLP/R Analog Unshielded         ength calculated         Description         Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd  | CIRCUIT S         Starting Calculation Voltage:         Min. Operational Voltage:         Max. Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Length (Ft):         Total Circuit Resistance (Ω):         Qty.         1         2         4         4         4         2         4         4         2         3         3         3         CIRCUIT S         Starting Calculation Voltage:         Min. Operational Voltage:         Min. Operational Voltage:         Min. Operational Voltage:         Max. Circuit Length (Ft):         Total Circuit Current (A):         Wi  | ETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.093697<br>Device Current (A)<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>1.093697<br>Device Current (A)<br>0.28        |  | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198<br>73.27 %<br>4<br>4<br>5<br>4<br>5<br>4<br>5<br>4<br>5<br>5<br>4.39 %<br>0.92<br>19.48<br>4.50 %<br>0.92<br>19.5<br>4.39 %<br>0.56<br>2.44 |

|  | P2 N1 LUMP  | SUM REPORT   |  | Starting Calculation Voltage:<br>Min. Operational Voltage:  | 20.4<br>16   | TOTA<br>Max. Voltage Drop:<br>End Of Line Voltage:   | 1.82<br>18.58   |
|--|---|--|--|---|--|--|---|
|  |   |  |  | Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):   | 3<br>3.07  | Voltage Drop Percent:<br>Total Circuit Current (A):  | 8.93 %<br>1.304   |
|  | red using drawn segment len   | WG, 2 Cond. Solid Copper FF<br>gths with 10.00 % additional I  | length calculated  | Total Circuit Length (Ft):<br>Total Circuit Resistance (Ω):   | 228<br>1.397703  | Spare Current (A):<br>Spare Current (A) Percent:   | 1.696<br>56.53 %  |
| -  | Symbol  | Part No.<br>ELSTW  | Description<br>WALL STROBE, WHITE,   | Qty.<br>2   | Device Current (A)<br>0.022  | Total Current (A)<br>0.044   |   |
| -  | <u> </u>  | ELSTW  | FIRE 15cd<br>WALL STROBE, WHITE,   | 1   | 0.022  | 0.03   |   |
| DEVICE TOTALS  |   |  | FIRE 30cd<br>Speaker/Strobe, 24 VDC,   |   |  |  |   |
|  | X   | ET90-24MCC-FW  | Multi-Candela, , 25/70 Vrms,<br>white 15cd   | 1   | 0.11   | 0.11   |   |
|  | ×   | ET90-24MCC-FW  | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,  | 4   | 0.28   | 1.12   |   |
|  | esistance (Ω/Ft) x 2 x Total (<br>sistance (Ω) x Total Circuit C  |  | white 75cd   |   |  |  |   |
|  |   |  |  | CIRCUIT   | ETTINGS  | TOTA   | LS  |
|  | P2 N2 LUMP  | SUM REPORT   |  | Starting Calculation Voltage:<br>Min. Operational Voltage:  | 20.4<br>16   | Max. Voltage Drop:<br>End Of Line Voltage:   | 1.54<br>18.86   |
|  |   |  |  | Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):   | 3<br>3.07  | Voltage Drop Percent:<br>Total Circuit Current (A):  | 7.56 %<br>1.01  |
| U I  | ( )   | WG, 2 Cond. Solid Copper FF<br>oths with 10.00 % additional I  | 0  | Total Circuit Length (Ft):<br>Total Circuit Resistance (Ω):   | 249<br>1.527847  | Spare Current (A):<br>Spare Current (A) Percent:   | 1.99<br>66.33 %   |
|  | Symbol  | Part No.   | Description<br>Speaker/Strobe, 24 VDC,   | Qty.  | Device Current (A)   | Total Current (A)  |   |
| DEVICE TOTALS  | X   | ET90-24MCC-FW  | Multi-Candela, , 25/70 Vrms,<br>white 30cd   | 1   | 0.17   | 0.17   |   |
|  | ×   | ET90-24MCC-FW  | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,  | 3   | 0.28   | 0.84   |   |
| ation Methods:<br>esistance (Ω) = Wire R   | esistance (Ω/Ft) x 2 x Total (  | Circuit Length (Ft)  | white 75cd   |   |  |  |   |
|  | sistance (Ω) x Total Circuit C  |  |  |   |  |  |   |
|  |   |  |  | CIRCUIT S<br>Starting Calculation Voltage:  | ETTINGS<br>20.4  | Max. Voltage Drop:   | LS<br>2.04  |
|  | P2 N3 LUMP  | SUM REPORT   |  | Min. Operational Voltage:<br>Max. Circuit Current (A):  | <u> </u>   | End Of Line Voltage:<br>Voltage Drop Percent:  | 18.36<br>10.00 %  |
| Nuit Mining Day  |   | W/C 2 Cord Card C  |  | Wire Resistance (Ω/kFt):  | 3.07   | Total Circuit Current (A):   | 0.95  |
| <b>v</b> 1   | red using drawn segment len   | WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I   | ength calculated   | Total Circuit Length (Ft):<br>Total Circuit Resistance (Ω):   | 350<br>2.147245  | Spare Current (A):<br>Spare Current (A) Percent:   | 2.05<br>68.33 %   |
| ľ  | Symbol  | Part No.   | Description<br>Speaker/Strobe, 24 VDC,   | Qty.  | Device Current (A)   | Total Current (A)  |   |
| EVICE TOTALS   | ×   | ET90-24MCC-FW  | Multi-Candela, , 25/70 Vrms,<br>white 15cd   | 1   | 0.11   | 0.11   |   |
|  | ×   | ET90-24MCC-FW  | Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd  | 3   | 0.28   | 0.84   |   |
| ation Methods:<br>esistance (0) = Wire R   | Resistance (Ω/Ft) x 2 x Total (   | L  | white 75cd   |   |  |  |   |
|  | sistance ( $\Omega$ ) x Total Circuit C   |  |  |   |  |  |   |
|  |   |  |  | CIRCUIT S   |  | TOTA<br>Max. Voltage Drop:   |   |
|  | P2 N4 LUMP  | SUM REPORT   |  | Starting Calculation Voltage:<br>Min. Operational Voltage:  | 20.4<br>16   | End Of Line Voltage:   | 1.45  |
| 1 Jan  |   |  |  | Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):   | 3<br>3.07  | Voltage Drop Percent:<br>Total Circuit Current (A):  | 7.10 %  |
|  | red using drawn segment len   | WG, 2 Cond. Solid Copper FF<br>gths with 10.00 % additional I  | length calculated  | Total Circuit Length (Ft):<br>Total Circuit Resistance (Ω):   | 248<br>1.525428  | Spare Current (A):<br>Spare Current (A) Percent:   | 2.05<br>68.33 %   |
|  | Symbol  | Part No.   | Description<br>Speaker/Strobe, 24 VDC,   | Qty.  | Device Current (A)   | Total Current (A)  |   |
|  | ×   | ET90-24MCC-FW  |  | 1   | 0.44   | 1  |   |
| EVICE TOTALS   |   |  | Multi-Candela, , 25/70 Vrms,<br>white 15cd   | I   | 0.11   | 0.11   |   |
| EVICE TOTALS   | <br>  | ET90-24MCC-FW  | white 15cd<br>Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,  | 3   | 0.11   | 0.11   |   |
| ation Methods:   | ×   | ET90-24MCC-FW  | white 15cd<br>Speaker/Strobe, 24 VDC,  |   |  |  |   |
| ation Methods:<br>tesistance (Ω) = Wire R  |   | ET90-24MCC-FW<br>Circuit Length (Ft)   | white 15cd<br>Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,  |   |  |  |   |
| ation Methods:<br>esistance (Ω) = Wire R   | esistance (Ω/Ft) x 2 x Total (  | ET90-24MCC-FW<br>Circuit Length (Ft)   | white 15cd<br>Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,  | 3<br>CIRCUIT S  | 0.28<br>SETTINGS   | 0.84   |   |
| ation Methods:<br>esistance (Ω) = Wire R   | tesistance ( $\Omega$ /Ft) x 2 x Total (<br>sistance ( $\Omega$ ) x Total Circuit C   | ET90-24MCC-FW<br>Circuit Length (Ft)   | white 15cd<br>Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,  | 3<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Min. Operational Voltage:  | 0.28<br>SETTINGS<br>20.4<br>16   | 0.84<br>TOTA<br>Max. Voltage Drop:<br>End Of Line Voltage:   | 2.83<br>17.57   |
| ation Methods:<br>tesistance (Ω) = Wire F<br>foltage Drop = Total Re   | Resistance (Ω/Ft) x 2 x Total (<br>sistance (Ω) x Total Circuit C<br>P2 N5 LUMP   | ET90-24MCC-FW<br>Circuit Length (Ft)<br>Current (A)  | white 15cd<br>Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd  | 3<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Min. Operational Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):   | 0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07  | 0.84<br>TOTA<br>Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):  | 2.83<br>17.57<br>13.85 %<br>0.802   |
| ation Methods:<br>esistance (Ω) = Wire R<br>oltage Drop = Total Re<br>cuit Wiring Properties:  | Resistance (Ω/Ft) x 2 x Total (<br>sistance (Ω) x Total Circuit C<br>P2 N5 LUMP<br>'V' 14/2 FPLP/R (NAC) 14 A'<br>red using drawn segment len   | ET90-24MCC-FW<br>Circuit Length (Ft)<br>Current (A)<br>SUM REPORT<br>WG, 2 Cond. Solid Copper FF<br>gths with 10.00 % additional I   | white 15cd<br>Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd<br>PLP/R Analog Unshielded<br>length calculated  | 3<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Min. Operational Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Length (Ft):<br>Total Circuit Resistance (Ω):  | 0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469   | 0.84<br>0.84<br>TOTA<br>Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):<br>Spare Current (A):<br>Spare Current (A) Percent:  | 2.83<br>17.57<br>13.85 %  |
| ation Methods:<br>esistance (Ω) = Wire R<br>oltage Drop = Total Re<br>cuit Wiring Properties:  | Lesistance (Ω/Ft) x 2 x Total (<br>sistance (Ω) x Total Circuit C<br>P2 N5 LUMP<br>'V' 14/2 FPLP/R (NAC) 14 A'<br>red using drawn segment len<br>Symbol   | ET90-24MCC-FW<br>Circuit Length (Ft)<br>Current (A)<br>SUM REPORT<br>WG, 2 Cond. Solid Copper Ff<br>igths with 10.00 % additional I<br>Part No.  | white 15cd<br>Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd<br>PLP/R Analog Unshielded<br>length calculated<br>Description<br>WALL STROBE, WHITE,  | 3<br><b>CIRCUIT S</b><br>Starting Calculation Voltage:<br>Min. Operational Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Length (Ft):  | 0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)   | 0.84<br>TOTA<br>Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):<br>Spare Current (A):<br>Spare Current (A) Percent:<br>Total Current (A)   | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198  |
| ation Methods:<br>esistance (Ω) = Wire R<br>oltage Drop = Total Re<br>cuit Wiring Properties:<br>Distance measur   | Lesistance (Ω/Ft) x 2 x Total (<br>sistance (Ω) x Total Circuit C<br>P2 N5 LUMP S<br>'V' 14/2 FPLP/R (NAC) 14 A<br>red using drawn segment len<br>Symbol  | ET90-24MCC-FW<br>Circuit Length (Ft)<br>Current (A)<br>SUM REPORT<br>WG, 2 Cond. Solid Copper Ff<br>igths with 10.00 % additional I<br>Part No.<br>ELSTW   | white 15cd<br>Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd<br>PLP/R Analog Unshielded<br>length calculated<br>Description<br>WALL STROBE, WHITE,<br>FIRE 15cd<br>Speaker/Strobe, 24 VDC,  | 3<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Min. Operational Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Length (Ft):<br>Total Circuit Resistance (Ω):<br>Qty.<br>1   | 0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022  | 0.84<br>TOTA<br>Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):<br>Spare Current (A) Percent:<br>Total Current (A)<br>0.022  | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198  |
| ation Methods:<br>esistance (Ω) = Wire R<br>oltage Drop = Total Re<br>cuit Wiring Properties:<br>Distance measur   | Lesistance (Ω/Ft) x 2 x Total (<br>sistance (Ω) x Total Circuit C<br>P2 N5 LUMP :<br>"V' 14/2 FPLP/R (NAC) 14 A<br>red using drawn segment len<br>Symbol  | ET90-24MCC-FW<br>Circuit Length (Ft)<br>Current (A)<br>SUM REPORT<br>WG, 2 Cond. Solid Copper Ff<br>igths with 10.00 % additional I<br>Part No.  | white 15cd<br>Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd<br>PLP/R Analog Unshielded<br>length calculated<br>Description<br>WALL STROBE, WHITE,<br>FIRE 15cd<br>Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 15cd  | 3<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Min. Operational Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Length (Ft):<br>Total Circuit Resistance (Ω):<br>Qty.  | 0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)   | 0.84<br>TOTA<br>Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):<br>Spare Current (A):<br>Spare Current (A) Percent:<br>Total Current (A)   | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198  |
| ation Methods:<br>Lesistance (Ω) = Wire R<br>foltage Drop = Total Re<br>rcuit Wiring Properties:<br>Distance measu   | Lesistance (Ω/Ft) x 2 x Total (<br>sistance (Ω) x Total Circuit C<br>P2 N5 LUMP S<br>'V' 14/2 FPLP/R (NAC) 14 A<br>red using drawn segment len<br>Symbol  | ET90-24MCC-FW<br>Circuit Length (Ft)<br>Current (A)<br>SUM REPORT<br>WG, 2 Cond. Solid Copper Ff<br>igths with 10.00 % additional I<br>Part No.<br>ELSTW   | white 15cd<br>Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd<br>PLP/R Analog Unshielded<br>length calculated<br>Description<br>WALL STROBE, WHITE,<br>FIRE 15cd<br>Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,  | 3<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Min. Operational Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Length (Ft):<br>Total Circuit Resistance (Ω):<br>Qty.<br>1   | 0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022  | 0.84<br>TOTA<br>Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):<br>Spare Current (A) Percent:<br>Total Current (A)<br>0.022  | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198  |
| ation Methods:<br>lesistance (Ω) = Wire R<br>oltage Drop = Total Re<br>reuit Wiring Properties:<br>Distance measur<br>EVICE TOTALS<br>ation Methods:<br>lesistance (Ω) = Wire R  | Image: Constraint of the second state of the second st  | ET90-24MCC-FW<br>Circuit Length (Ft)<br>Current (A)<br>SUM REPORT<br>WG, 2 Cond. Solid Copper Ff<br>gths with 10.00 % additional I<br>Part No.<br>ELSTW<br>ET90-24MCC-FW<br>ET90-24MCC-FW<br>Circuit Length (Ft)   | white 15cd<br>Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd<br>PLP/R Analog Unshielded<br>ength calculated<br>Description<br>WALL STROBE, WHITE,<br>FIRE 15cd<br>Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 15cd<br>Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,  | 3<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Min. Operational Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Length (Ft):<br>Total Circuit Length (Ft):<br>Total Circuit Resistance (Ω):<br>Qty.<br>1<br>2  | 0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11  | 0.84<br>TOTA<br>Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):<br>Spare Current (A) Percent:<br>Total Current (A)<br>0.022<br>0.22  | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198  |
| ation Methods:<br>tesistance (Ω) = Wire R<br>foltage Drop = Total Re<br>reuit Wiring Properties:<br>Distance measur<br>EVICE TOTALS<br>ation Methods:<br>tesistance (Ω) = Wire R   | Etesistance (Ω/Ft) x 2 x Total (<br>sistance (Ω) x Total Circuit C<br>P2 N5 LUMP :<br>'V' 14/2 FPLP/R (NAC) 14 A<br>red using drawn segment len<br>Symbol   | ET90-24MCC-FW<br>Circuit Length (Ft)<br>Current (A)<br>SUM REPORT<br>WG, 2 Cond. Solid Copper Ff<br>gths with 10.00 % additional I<br>Part No.<br>ELSTW<br>ET90-24MCC-FW<br>ET90-24MCC-FW<br>Circuit Length (Ft)   | white 15cd<br>Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd<br>PLP/R Analog Unshielded<br>ength calculated<br>Description<br>WALL STROBE, WHITE,<br>FIRE 15cd<br>Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 15cd<br>Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,  | 3<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Min. Operational Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Length (Ft):<br>Total Circuit Resistance (Ω):<br>Qty.<br>1<br>2<br>2   | 0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11<br>0.28  | 0.84<br>TOTA<br>Max. Voltage Drop:<br>End Of Line Voltage:<br>Voltage Drop Percent:<br>Total Circuit Current (A):<br>Spare Current (A) Percent:<br>Total Current (A)<br>0.022<br>0.22<br>0.56  | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198<br>73.27 %   |
| ation Methods:<br>esistance (Ω) = Wire R<br>oltage Drop = Total Re<br>cuit Wiring Properties:<br>Distance measur<br>EVICE TOTALS   | Image: Constraint of the second state of the second st  | ET90-24MCC-FW<br>Circuit Length (Ft)<br>Current (A)<br>SUM REPORT<br>WG, 2 Cond. Solid Copper Ff<br>gths with 10.00 % additional I<br>Part No.<br>ELSTW<br>ET90-24MCC-FW<br>ET90-24MCC-FW<br>Circuit Length (Ft)   | white 15cd<br>Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd<br>PLP/R Analog Unshielded<br>ength calculated<br>Description<br>WALL STROBE, WHITE,<br>FIRE 15cd<br>Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 15cd<br>Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,  | 3<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Length (Ft):<br>Total Circuit Resistance (Ω):<br>Qty.<br>1<br>2<br>2<br>2<br>Starting Calculation Voltage:  | 0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11<br>0.28<br>SETTINGS<br>20.4  | 0.84   O.84    O.84    O.84    O.84     O.84     O.84   | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198<br>73.27 %   |
| ation Methods:<br>esistance (Ω) = Wire R<br>oltage Drop = Total Re<br>cuit Wiring Properties:<br>Distance measur<br>EVICE TOTALS   | tesistance (Ω/Ft) x 2 x Total (<br>sistance (Ω) x Total Circuit C<br>P2 N5 LUMP :<br>'V' 14/2 FPLP/R (NAC) 14 A<br>red using drawn segment len<br>Symbol<br><br><br><br><br><br>tesistance (Ω/Ft) x 2 x Total (<br>sistance (Ω) x Total Circuit C   | ET90-24MCC-FW<br>Circuit Length (Ft)<br>Current (A)<br>SUM REPORT<br>WG, 2 Cond. Solid Copper Ff<br>gths with 10.00 % additional I<br>Part No.<br>ELSTW<br>ET90-24MCC-FW<br>ET90-24MCC-FW<br>Circuit Length (Ft)   | white 15cd<br>Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd<br>PLP/R Analog Unshielded<br>ength calculated<br>Description<br>WALL STROBE, WHITE,<br>FIRE 15cd<br>Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 15cd<br>Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,  | 3<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Length (Ft):<br>Total Circuit Resistance (Ω):<br>Qty.<br>1<br>2<br>2<br>CIRCUIT S   | 0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11<br>0.28<br>SETTINGS  | 0.84   O.84   O.84  O.84   O.84   O.84   O.84   O.84   O.84   O.84   O.84  | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198<br>73.27 %   |
| tion Methods:<br>esistance (Ω) = Wire R<br>oltage Drop = Total Re<br>cuit Wiring Properties:<br>Distance measur<br>EVICE TOTALS<br>tion Methods:<br>esistance (Ω) = Wire R<br>oltage Drop = Total Re   | Image: Symbol         Image: Symbol <t< td=""><td>ET90-24MCC-FW<br/>Circuit Length (Ft)<br/>Current (A)<br/>SUM REPORT<br/>WG, 2 Cond. Solid Copper FF<br/>gths with 10.00 % additional I<br/>Part No.<br/>ELSTW<br/>ET90-24MCC-FW<br/>ET90-24MCC-FW<br/>Circuit Length (Ft)<br/>Current (A)</td><td>white 15cd<br/>Speaker/Strobe, 24 VDC,<br/>Multi-Candela, , 25/70 Vrms,<br/>white 75cd<br/>PLP/R Analog Unshielded<br/>ength calculated<br/>Description<br/>WALL STROBE, WHITE,<br/>FIRE 15cd<br/>Speaker/Strobe, 24 VDC,<br/>Multi-Candela, , 25/70 Vrms,<br/>white 15cd<br/>Speaker/Strobe, 24 VDC,<br/>Multi-Candela, , 25/70 Vrms,<br/>white 75cd</td><td>3<br/>CIRCUIT S<br/>Starting Calculation Voltage:<br/>Min. Operational Voltage:<br/>Max. Circuit Current (A):<br/>Wire Resistance (Ω/kFt):<br/>Total Circuit Length (Ft):<br/>Total Circuit Resistance (Ω):<br/>Qty.<br/>1<br/>2<br/>2<br/>2<br/>Starting Calculation Voltage:<br/>Min. Operational Voltage:</td><td>0.28<br/>SETTINGS<br/>20.4<br/>16<br/>3<br/>3.07<br/>574<br/>3.523469<br/>Device Current (A)<br/>0.022<br/>0.11<br/>0.28<br/>SETTINGS<br/>20.4<br/>16</td><td>0.84   O.84    O.84    O.84    O.84     O.84      O.84</td><td>2.83<br/>17.57<br/>13.85 %<br/>0.802<br/>2.198<br/>73.27 %</td></t<>   | ET90-24MCC-FW<br>Circuit Length (Ft)<br>Current (A)<br>SUM REPORT<br>WG, 2 Cond. Solid Copper FF<br>gths with 10.00 % additional I<br>Part No.<br>ELSTW<br>ET90-24MCC-FW<br>ET90-24MCC-FW<br>Circuit Length (Ft)<br>Current (A)  | white 15cd<br>Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd<br>PLP/R Analog Unshielded<br>ength calculated<br>Description<br>WALL STROBE, WHITE,<br>FIRE 15cd<br>Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 15cd<br>Speaker/Strobe, 24 VDC,<br>Multi-Candela, , 25/70 Vrms,<br>white 75cd  | 3<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Min. Operational Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Length (Ft):<br>Total Circuit Resistance (Ω):<br>Qty.<br>1<br>2<br>2<br>2<br>Starting Calculation Voltage:<br>Min. Operational Voltage:  | 0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11<br>0.28<br>SETTINGS<br>20.4<br>16  | 0.84   O.84    O.84    O.84    O.84     O.84      O.84   | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198<br>73.27 %   |
| tion Methods:<br>esistance (Ω) = Wire R<br>bitage Drop = Total Re<br>cuit Wiring Properties:<br>Distance measur<br>EVICE TOTALS<br>esistance (Ω) = Wire R<br>bitage Drop = Total Re<br>cuit Wiring Properties:   | tesistance (Ω/Ft) x 2 x Total (<br>sistance (Ω) x Total Circuit C<br>P2 N5 LUMP $\stackrel{\circ}{:}$<br>'V' 14/2 FPLP/R (NAC) 14 A'<br>red using drawn segment len<br>Symbol<br>$\stackrel{\circ}{\times}$<br>Etesistance (Ω/Ft) x 2 x Total (<br>sistance (Ω) x Total Circuit C<br>P3 N3 LUMP $\stackrel{\circ}{:}$<br>'V' 14/2 FPLP/R (NAC) 14 A'  | ET90-24MCC-FW<br>Circuit Length (Ft)<br>Current (A)<br>SUM REPORT<br>WG, 2 Cond. Solid Copper FF<br>Igths with 10.00 % additional I<br>Part No.<br>ELSTW<br>ET90-24MCC-FW<br>ET90-24MCC-FW<br>Circuit Length (Ft)<br>Current (A)<br>SUM REPORT<br>WG, 2 Cond. Solid Copper FF<br>Igths with 10.00 % additional I   | white 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd         PLP/R Analog Unshielded         length calculated         Description         WALL STROBE, WHITE,         FIRE 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd   | 3<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Min. Operational Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Resistance (Ω):<br>Qty.<br>1<br>2<br>2<br>2<br>Starting Calculation Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Length (Ft):<br>Total Circuit Length (Ft):<br>Total Circuit Resistance (Ω):   | 0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07   | 0.84   O.84   O.85   O.85  O.85   O.85   O.85   O.85   O.85   O.85   O.85   O.85   O.85   O.85   O.85   O.85   O.85 O | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198<br>73.27 %<br>LS<br>LS<br>1.89<br>18.51<br>9.25 %<br>1.12  |
| tion Methods:<br>esistance (Ω) = Wire R<br>oltage Drop = Total Re<br>cuit Wiring Properties:<br>Distance measur<br>EVICE TOTALS<br>esistance (Ω) = Wire R<br>oltage Drop = Total Re<br>cuit Wiring Properties:<br>Distance measur  | tesistance (Ω/Ft) x 2 x Total (<br>sistance (Ω) x Total Circuit C<br>P2 N5 LUMP :<br>'V' 14/2 FPLP/R (NAC) 14 A'<br>red using drawn segment len<br>Symbol<br><br>tesistance (Ω/Ft) x 2 x Total (<br>sistance (Ω) x Total Circuit C<br>P3 N3 LUMP :<br>'V' 14/2 FPLP/R (NAC) 14 A'<br>red using drawn segment len  | ET90-24MCC-FW<br>Circuit Length (Ft)<br>Current (A)<br>SUM REPORT<br>WG, 2 Cond. Solid Copper FF<br>Igths with 10.00 % additional I<br>Part No.<br>ELSTW<br>ET90-24MCC-FW<br>ET90-24MCC-FW<br>Circuit Length (Ft)<br>Current (A)<br>SUM REPORT<br>WG, 2 Cond. Solid Copper FF  | white 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd         PLP/R Analog Unshielded         ength calculated         Description         WALL STROBE, WHITE,         FIRE 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd  | CIRCUIT S         Starting Calculation Voltage:         Min. Operational Voltage:         Max. Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Length (Ft):         Total Circuit Resistance (Ω):         Qty.         1         2         2         2         Starting Calculation Voltage:         Max. Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Length (Ft):  | 0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093  | 0.84   O.84    O.85   O.85  O.85   O.85   O.85   O.85   O.85   O.85   O.85   O.85  O.85   O.85  O.8 | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198<br>73.27 %<br>LS<br>1.89<br>18.51<br>9.25 %<br>1.12<br>1.88  |
| ation Methods:         esistance (Ω) = Wire R         oltage Drop = Total Re         cuit Wiring Properties:         Distance measure         EVICE TOTALS         ation Methods:         esistance (Ω) = Wire R         oltage Drop = Total Re         cuit Wiring Properties:         Distance measure         cuit Wiring Properties:         Distance measure         cuit Wiring Properties:         Distance measure         EVICE TOTALS         ation Methods:         esistance (Ω) = Wire R         cuit Wiring Properties:         Distance measure         EVICE TOTALS         ation Methods:         esistance (Ω) = Wire R  | tesistance $(\Omega/Ft) \times 2 \times Total (\Omega/Ft) \times 2 \times Total $ | ET90-24MCC-FW<br>Circuit Length (Ft)<br>Surrent (A)<br>SUM REPORT<br>WG, 2 Cond. Solid Copper FF<br>Igths with 10.00 % additional I<br>Part No.<br>ELSTW<br>ET90-24MCC-FW<br>ET90-24MCC-FW<br>Circuit Length (Ft)<br>SUM REPORT<br>WG, 2 Cond. Solid Copper FF<br>Igths with 10.00 % additional I<br>Part No.<br>ET90-24MCC-FW<br>Circuit Length (Ft)  | white 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd         PLP/R Analog Unshielded         ength calculated         Description         WALL STROBE, WHITE,         FIRE 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd  | CIRCUIT S         Starting Calculation Voltage:         Min. Operational Voltage:         Max. Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Length (Ft):         Total Circuit Resistance (Ω):         Qty.         1         2         2         2         2         Starting Calculation Voltage:         Max. Circuit Current (A):         Wire Resistance (Ω/kFt):         Total Circuit Length (Ft):         Total Circuit Length (Ft):         Total Circuit Length (Ft):         Total Circuit Length (Ft):   | 0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11<br>0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)  | 0.84   O.84    O.84    O.84    O.84    O.84    O.84     O.84     O.84     O.84     O.84      O.84   | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198<br>73.27 %<br>LS<br>1.89<br>18.51<br>9.25 %<br>1.12<br>1.88  |
| ation Methods:         esistance (Ω) = Wire R         oltage Drop = Total Re         cuit Wiring Properties:         Distance measure         EVICE TOTALS         ation Methods:         esistance (Ω) = Wire R         oltage Drop = Total Re         cuit Wiring Properties:         Distance measure         cuit Wiring Properties:         Distance measure         cuit Wiring Properties:         Distance measure         EVICE TOTALS         ation Methods:         esistance (Ω) = Wire R         oltage Drop = Total Re         Cuit Wiring Properties:         Distance measure         EVICE TOTALS         ation Methods:         esistance (Ω) = Wire R   | tesistance $(\Omega/Ft) \times 2 \times Total ($<br>sistance $(\Omega) \times Total Circuit C$<br>P2 N5 LUMP :<br>"V' 14/2 FPLP/R (NAC) 14 A'<br>red using drawn segment len<br>Symbol<br>$\swarrow$<br>tesistance $(\Omega/Ft) \times 2 \times Total ($<br>sistance $(\Omega/Ft) \times 2 \times Total Circuit C$<br>P3 N3 LUMP :<br>"V' 14/2 FPLP/R (NAC) 14 A'<br>red using drawn segment len<br>Symbol<br>$\widecheck$  | ET90-24MCC-FW<br>Circuit Length (Ft)<br>Surrent (A)<br>SUM REPORT<br>WG, 2 Cond. Solid Copper FF<br>Igths with 10.00 % additional I<br>Part No.<br>ELSTW<br>ET90-24MCC-FW<br>ET90-24MCC-FW<br>Circuit Length (Ft)<br>SUM REPORT<br>WG, 2 Cond. Solid Copper FF<br>Igths with 10.00 % additional I<br>Part No.<br>ET90-24MCC-FW<br>Circuit Length (Ft)  | white 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd         PLP/R Analog Unshielded         ength calculated         Description         WALL STROBE, WHITE,         FIRE 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd  | 3<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Length (Ft):<br>Total Circuit Resistance (Ω):<br>Qty.<br>1<br>2<br>2<br>2<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Length (Ft):<br>Total Circuit Length (Ft):<br>Total Circuit Length (Ft):<br>Total Circuit Length (Ft):<br>A<br>4  | 0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11<br>0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28   | 0.84   O.84    O.84    O.84    O.84    O.84    O.84    O.84     O.84     O.84     O.84   | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198<br>73.27 %<br>LS<br>1.89<br>18.51<br>9.25 %<br>1.12<br>1.88<br>62.67 %   |
| ation Methods:         esistance (Ω) = Wire R         oltage Drop = Total Re         cuit Wiring Properties:         Distance measure         EVICE TOTALS         ation Methods:         esistance (Ω) = Wire R         oltage Drop = Total Re         cuit Wiring Properties:         Distance measure         cuit Wiring Properties:         Distance measure         cuit Wiring Properties:         Distance measure         EVICE TOTALS         ation Methods:         esistance (Ω) = Wire R         oltage Drop = Total Re         Cuit Wiring Properties:         Distance measure         EVICE TOTALS         ation Methods:         esistance (Ω) = Wire R   | tesistance (Ω/Ft) x 2 x Total (<br>sistance (Ω) x Total Circuit C<br>P2 N5 LUMP :<br>"V" 14/2 FPLP/R (NAC) 14 A<br>red using drawn segment len<br>Symbol<br><br>tesistance (Ω/Ft) x 2 x Total (<br>sistance (Ω) x Total Circuit C<br>P3 N3 LUMP :<br>"V" 14/2 FPLP/R (NAC) 14 A<br>red using drawn segment len<br>Symbol<br><br>tesistance (Ω/Ft) x 2 x Total (<br>sistance (Ω/Ft) x 2 x Total (<br>sistance (Ω/Ft) x 2 x Total (<br>Symbol<br>   | ET90-24MCC-FW<br>Circuit Length (Ft)<br>SUM REPORT<br>WG, 2 Cond. Solid Copper FF<br>gths with 10.00 % additional I<br>Part No.<br>ELSTW<br>ET90-24MCC-FW<br>Circuit Length (Ft)<br>Current (A)<br>SUM REPORT<br>WG, 2 Cond. Solid Copper FF<br>gths with 10.00 % additional I<br>Part No.<br>ET90-24MCC-FW<br>Circuit Length (Ft)<br>Current (A)  | white 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd         PLP/R Analog Unshielded         ength calculated         Description         WALL STROBE, WHITE,         FIRE 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd  | 3<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Length (Ft):<br>Total Circuit Resistance (Ω):<br>Qty.<br>1<br>2<br>2<br>2<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Resistance (Ω):<br>Qty.<br>4<br>4   | 0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>SETTINGS<br>20.4   | 0.84   O.84    O.84    O.85   O.85 | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198<br>73.27 %<br>LS<br>1.89<br>18.51<br>9.25 %<br>1.12<br>1.88<br>62.67 %<br>LS<br>0.92   |
| ation Methods:         esistance (Ω) = Wire R         oltage Drop = Total Re         cuit Wiring Properties:         Distance measure         EVICE TOTALS         ation Methods:         esistance (Ω) = Wire R         oltage Drop = Total Re         cuit Wiring Properties:         Distance measure         cuit Wiring Properties:         Distance measure         cuit Wiring Properties:         Distance measure         EVICE TOTALS         ation Methods:         esistance (Ω) = Wire R         cuit Wiring Properties:         Distance measure         EVICE TOTALS         ation Methods:         esistance (Ω) = Wire R  | tesistance (Ω/Ft) x 2 x Total (<br>sistance (Ω) x Total Circuit C<br>P2 N5 LUMP :<br>"V" 14/2 FPLP/R (NAC) 14 A<br>red using drawn segment len<br>Symbol<br><br>tesistance (Ω/Ft) x 2 x Total (<br>sistance (Ω) x Total Circuit C<br>P3 N3 LUMP :<br>"V" 14/2 FPLP/R (NAC) 14 A<br>red using drawn segment len<br>Symbol<br><br>tesistance (Ω/Ft) x 2 x Total (<br>sistance (Ω/Ft) x 2 x Total (<br>sistance (Ω/Ft) x 2 x Total (<br>Symbol<br>   | ET90-24MCC-FW<br>Circuit Length (Ft)<br>Surrent (A)<br>SUM REPORT<br>WG, 2 Cond. Solid Copper FF<br>Igths with 10.00 % additional I<br>Part No.<br>ELSTW<br>ET90-24MCC-FW<br>ET90-24MCC-FW<br>Circuit Length (Ft)<br>SUM REPORT<br>WG, 2 Cond. Solid Copper FF<br>Igths with 10.00 % additional I<br>Part No.<br>ET90-24MCC-FW<br>Circuit Length (Ft)  | white 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd         PLP/R Analog Unshielded         ength calculated         Description         WALL STROBE, WHITE,         FIRE 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd  | 3<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Min. Operational Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Length (Ft):<br>Total Circuit Resistance (Ω):<br>Qty.<br>1<br>2<br>2<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Resistance (Ω):<br>Qty.<br>4<br>4<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Max. Circuit Current (A):<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Max. Circuit Current (A):   | 0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28  | 0.84   O.84    O.84    O.84    O.84    O.84    O.84    O.84    O.84    O.84    O.84     O.84     O.84   | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198<br>73.27 %<br>LS<br>1.89<br>18.51<br>9.25 %<br>1.12<br>1.88<br>62.67 %<br>LS<br>LS<br>0.92<br>19.48<br>4.50 %  |
| tion Methods:<br>esistance (Ω) = Wire F<br>oltage Drop = Total Re<br>built Wiring Properties:<br>Distance measur<br>EVICE TOTALS<br>bitage Drop = Total Re<br>bitage Drop = Total Re<br>bitage Drop = Total Re<br>cuit Wiring Properties:<br>Distance measur<br>EVICE TOTALS<br>tion Methods:<br>esistance (Ω) = Wire F<br>oltage Drop = Total Re<br>bitage Drop = Total Re<br>cuit Wiring Properties:<br>Distance measur<br>EVICE TOTALS  | tesistance (Ω/Ft) x 2 x Total G<br>sistance (Ω) x Total Circuit C<br>P2 N5 LUMP :<br>"V' 14/2 FPLP/R (NAC) 14 A<br>red using drawn segment len<br>Symbol<br>Carteria Symbol<br>Carteria Symbol<br>P3 N3 LUMP :<br>"V' 14/2 FPLP/R (NAC) 14 A<br>red using drawn segment len<br>Symbol<br>Carteria Symbol<br>Carteria Symbol<br>Ca  | ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ELSTW ET90-24MCC-FW Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ET90-24MCC-FW Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ET90-24MCC-FW Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF WG, 2 Cond. Solid Copper FF   | white 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd         PLP/R Analog Unshielded         ength calculated         Description         WALL STROBE, WHITE,         FIRE 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd  | 3 CIRCUIT S Starting Calculation Voltage: Max. Circuit Current (A): Wire Resistance (Ω/kFt): Total Circuit Length (Ft): Total Circuit Resistance (Ω): Qty. 1 2 2 2 2 CIRCUIT S Starting Calculation Voltage: Max. Circuit Current (A): Wire Resistance (Ω/kFt): Total Circuit Resistance (Ω): Qty. 4 CIRCUIT S Starting Calculation Voltage: A CIRCUIT S Starting Calculation Voltage: Max. Circuit Current (A): Total Circuit Resistance (Ω/kFt): Total Circuit Current (A): Total Circuit Current (A): CIRCUIT S Starting Calculation Voltage: Max. Circuit Current (A): Total Circuit Length (Ft): Total Circuit Length (Ft): Total Circuit Length (Ft): Total Circuit Length (Ft):  | 0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11<br>0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28  | 0.84   O.84    O.84    O.84    O.84    O.84    O.84    O.84    O.84    O.84    O.84    O.84    O.84    O.84    O.84    O.84     O.84     O.84  | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198<br>73.27 %<br>LS<br>1.89<br>18.51<br>9.25 %<br>1.12<br>1.88<br>62.67 %<br>LS<br>LS<br>0.92<br>19.48  |
| tion Methods:<br>esistance (Ω) = Wire F<br>oltage Drop = Total Re<br>built Wiring Properties:<br>Distance measur<br>EVICE TOTALS<br>bitage Drop = Total Re<br>bitage Drop = Total Re<br>bitage Drop = Total Re<br>cuit Wiring Properties:<br>Distance measur<br>EVICE TOTALS<br>tion Methods:<br>esistance (Ω) = Wire F<br>oltage Drop = Total Re<br>bitage Drop = Total Re<br>cuit Wiring Properties:<br>Distance measur<br>EVICE TOTALS  | tesistance (Ω/Ft) x 2 x Total G<br>sistance (Ω) x Total Circuit C<br>P2 N5 LUMP :<br>"V' 14/2 FPLP/R (NAC) 14 A<br>red using drawn segment len<br>Symbol<br>Carteria Symbol<br>Carteria Symbol<br>P3 N3 LUMP :<br>"V' 14/2 FPLP/R (NAC) 14 A<br>red using drawn segment len<br>Symbol<br>Carteria Symbol<br>Carteria Symbol<br>Ca  | ET90-24MCC-FW Circuit Length (Ft) Current (A) SUM REPORT WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ELSTW ET90-24MCC-FW Circuit Length (Ft) Current (A) SUM REPORT WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ET90-24MCC-FW Circuit Length (Ft) Current (A) SUM REPORT Circuit Length (Ft) Current (A) SUM REPORT  | white 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd         PLP/R Analog Unshielded         ength calculated         Description         WALL STROBE, WHITE,         FIRE 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd  | 3<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Min. Operational Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Length (Ft):<br>Total Circuit Resistance (Ω):<br>Qty.<br>1<br>2<br>2<br>2<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Resistance (Ω):<br>Qty.<br>4<br>4<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Max. Circuit Current (A):<br>Starting Calculation Voltage:<br>Max. Circuit Current (A):<br>Starting Calculation Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):   | 0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11<br>0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28  | 0.84   O.84   O.84   O.84   O.84   O.84   O.84   O.84   O.84   O.84   O.82  O.82  O.82  O.82  O.82  O.82  O.82  O.86   | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198<br>73.27 %<br>LS<br>1.89<br>18.51<br>9.25 %<br>1.12<br>1.88<br>62.67 %<br>LS<br>LS<br>LS<br>0.92<br>19.48<br>4.50 %<br>0.84  |
| tion Methods:<br>esistance (Ω) = Wire R<br>oltage Drop = Total Re<br>cuit Wiring Properties:<br>Distance measu<br>EVICE TOTALS<br>tion Methods:<br>esistance (Ω) = Wire R<br>oltage Drop = Total Re<br>cuit Wiring Properties:<br>Distance measu<br>EVICE TOTALS<br>tion Methods:<br>esistance (Ω) = Wire R<br>oltage Drop = Total Re<br>cuit Wiring Properties:<br>Distance measu<br>EVICE TOTALS   | Image: Constraint of the second  | ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I  Part No. ELSTW ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I  Part No. ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I  Part No. ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I  Part No. ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I   | white 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd         PLP/R Analog Unshielded         length calculated         Description         WALL STROBE, WHITE,         FIRE 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd         PLP/R Analog Unshielded         ength calculated         Description         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd         PLP/R Analog Unshielded         ength calculated         Description         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd         PLP/R Analog Unshielded         ength calculated         Description         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd  | 3 CIRCUIT S Starting Calculation Voltage: Min. Operational Voltage: Max. Circuit Current (A): Wire Resistance (Ω/kFt): Total Circuit Length (Ft): Total Circuit Resistance (Ω): Qty. 1 2 2 2 2 CIRCUIT S Starting Calculation Voltage: Max. Circuit Current (A): Wire Resistance (Ω/kFt): Total Circuit Resistance (Ω): Qty. 4 CIRCUIT S Starting Calculation Voltage: Max. Circuit Current (A): Qty. 4 CIRCUIT S Starting Calculation Voltage: Max. Circuit Current (A): Wire Resistance (Ω): Qty. 4 CIRCUIT S Starting Calculation Voltage: Max. Circuit Current (A): Wire Resistance (Ω/kFt): Total Circuit Current (A): Wire Resistance (Ω/kFt): Total Circuit Length (Ft):  | 0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11<br>0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28  | 0.84   O.84    O.84    O.84    O.84    O.84    O.84    O.84    O.84    O.84    O.84    O.84     O.84     O.84   | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198<br>73.27 %<br>LS<br>1.89<br>18.51<br>9.25 %<br>1.12<br>1.88<br>62.67 %<br>LS<br>0.92<br>19.48<br>4.50 %<br>0.84<br>2.16  |
| tion Methods:<br>esistance (Ω) = Wire F<br>oltage Drop = Total Re<br>cuit Wiring Properties:<br>Distance measur<br>EVICE TOTALS<br>tion Methods:<br>esistance (Ω) = Wire F<br>oltage Drop = Total Re<br>cuit Wiring Properties:<br>Distance measur<br>EVICE TOTALS<br>tion Methods:<br>esistance (Ω) = Wire F<br>oltage Drop = Total Re<br>cuit Wiring Properties:<br>Distance measur<br>EVICE TOTALS<br>tion Methods:<br>esistance (Ω) = Wire F<br>oltage Drop = Total Re<br>cuit Wiring Properties:<br>Distance measur<br>EVICE TOTALS<br>tion Methods:<br>EVICE TOTALS  | Image: Constraint of the second  | ET90-24MCC-FW Circuit Length (Ft) Current (A) SUM REPORT WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ELSTW ET90-24MCC-FW Circuit Length (Ft) Current (A) SUM REPORT WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ET90-24MCC-FW Circuit Length (Ft) Current (A) SUM REPORT WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ET90-24MCC-FW Circuit Length (Ft) Current (A) SUM REPORT WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ET90-24MCC-FW Circuit Length (Ft) Current (A) SUM REPORT WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ET90-24MCC-FW   | white 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd         PLP/R Analog Unshielded         length calculated         Description         WALL STROBE, WHITE,         FIRE 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd         PLP/R Analog Unshielded         ength calculated         Description         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd         PLP/R Analog Unshielded         ength calculated         Description         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd         PLP/R Analog Unshielded         ength calculated         Description         Speaker/Strobe, 24 VDC,         PLP/R Analog Unshielded         ength calculated         Description         Speaker/Strobe, 24 VDC, | 3<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Length (Ft):<br>Total Circuit Resistance (Ω):<br>Qty.<br>1<br>2<br>2<br>2<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Resistance (Ω):<br>Qty.<br>4<br>4<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Length (Ft):<br>Total Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Length (Ft):<br>Total Circuit Length (Ft):<br>Circuit Length (Ft):<br>Total Circuit Length (Ft):<br>Total Circuit Length (Ft):<br>Total Circuit Length (Ft):<br>Total Circuit Length (Ft):<br>Circuit Length (Ft):<br>Total Circuit Length (Ft):<br>Circuit Length (Ft):      | 0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11<br>0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28  | 0.84  0.84  0.84  0.84  0.84  0.84  0.84  0.012  0.101  0.022  0.22  0.22  0.22  0.22  0.56  0.5 | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198<br>73.27 %<br>LS<br>1.89<br>18.51<br>9.25 %<br>1.12<br>1.88<br>62.67 %<br>LS<br>0.92<br>19.48<br>4.50 %<br>0.84<br>2.16  |
| ation Methods:         esistance (Ω) = Wire F         oltage Drop = Total Re         cuit Wiring Properties:         Distance measure         EVICE TOTALS         ation Methods:         esistance (Ω) = Wire F         oltage Drop = Total Re         cuit Wiring Properties:         Distance measure         EVICE TOTALS         ation Methods:         esistance (Ω) = Wire F         oltage Drop = Total Re         EVICE TOTALS         ation Methods:         esistance (Ω) = Wire F         oltage Drop = Total Re         EVICE TOTALS         ation Methods:         esistance (Ω) = Wire F         oltage Drop = Total Re         EVICE TOTALS         ation Methods:         EVICE TOTALS         ation Methods:         esistance (Ω) = Wire F         Distance measure         EVICE TOTALS  | Image: Symbol         <   | ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ELSTW ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ET90-24MCC-FW  Circuit Length (Ft) Current (A)   | white 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd         PLP/R Analog Unshielded         length calculated         Description         WALL STROBE, WHITE,         FIRE 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd         PLP/R Analog Unshielded         ength calculated         Description         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd         PLP/R Analog Unshielded         ength calculated         Description         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd         PLP/R Analog Unshielded         ength calculated         Description         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd  | 3<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Length (Ft):<br>Total Circuit Resistance (Ω):<br>Qty.<br>1<br>2<br>2<br>2<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Resistance (Ω):<br>Qty.<br>4<br>4<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Length (Ft):<br>Total Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Length (Ft):<br>Total Circuit Length (Ft):<br>Circuit Length (Ft):<br>Total Circuit Length (Ft):<br>Circuit Length (Ft):<br>Total Circuit Length (Ft):<br>Circuit L     | 0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11<br>0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28  | 0.84  0.84  0.84  0.84  0.84  0.84  0.84  0.012  0.101  0.022  0.22  0.22  0.22  0.22  0.56  0.5 | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198<br>73.27 %<br>LS<br>1.89<br>18.51<br>9.25 %<br>1.12<br>1.88<br>62.67 %<br>LS<br>0.92<br>19.48<br>4.50 %<br>0.84<br>2.16  |
| ation Methods:         esistance (Ω) = Wire F         oltage Drop = Total Re         cuit Wiring Properties:         Distance measure         EVICE TOTALS         ation Methods:         esistance (Ω) = Wire F         oltage Drop = Total Re         cuit Wiring Properties:         Distance measure         EVICE TOTALS         ation Methods:         esistance (Ω) = Wire F         oltage Drop = Total Re         EVICE TOTALS         ation Methods:         esistance (Ω) = Wire F         oltage Drop = Total Re         EVICE TOTALS         ation Methods:         esistance (Ω) = Wire F         oltage Drop = Total Re         EVICE TOTALS         ation Methods:         EVICE TOTALS         ation Methods:         esistance (Ω) = Wire F         Distance measure         EVICE TOTALS  | Image: Constraint of the second  | ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ELSTW ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ET90-24MCC-FW  Circuit Length (Ft) Current (A)   | white 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd         PLP/R Analog Unshielded         length calculated         Description         WALL STROBE, WHITE,         FIRE 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd         PLP/R Analog Unshielded         ength calculated         Description         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd         PLP/R Analog Unshielded         ength calculated         Description         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd         PLP/R Analog Unshielded         ength calculated         Description         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd  | 3<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Length (Ft):<br>Total Circuit Resistance (Ω):<br>Qty.<br>1<br>2<br>2<br>2<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Resistance (Ω):<br>Qty.<br>4<br>4<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω):<br>Qty.<br>4<br>4<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Resistance (Ω/kFt):<br>Total Circuit Length (Ft):<br>Total Circuit Length (Ft):<br>Circuit Length (Ft):<br>Circuit Length (Ft):<br>Circuit Length (Ft):<br>Circu | 0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11<br>0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>1.78<br>1.093697<br>Device Current (A)<br>0.28   | 0.84   O.84   O.84  | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198<br>73.27 %<br>LS<br>1.89<br>18.51<br>9.25 %<br>1.12<br>1.88<br>62.67 %<br>LS<br>0.92<br>19.48<br>4.50 %<br>0.84<br>2.16<br>72.00 %<br>LS   |
| ation Methods:         lesistance (Ω) = Wire R         foltage Drop = Total Re         intrace measure         Distance measure         EVICE TOTALS         ation Methods:         recuit Wiring Properties:         Distance measure         existance (Ω) = Wire R         foltage Drop = Total Re         recuit Wiring Properties:         Distance measure         EVICE TOTALS         ation Methods:         resistance (Ω) = Wire R         foltage Drop = Total Re         ition Methods:         resistance (Ω) = Wire R         foltage Drop = Total Re         ition Methods:         recuit Wiring Properties:         Distance measure         foltage Drop = Total Re         ition Methods:         recuit Wiring Properties:         Distance measure         FUICE TOTALS         ation Methods:         tesistance (Ω) = Wire R         ation Methods:         tesistance (Ω) = Wire R   | Image: Constraint of the second  | ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ELSTW ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ET90-24MCC-FW  Circuit Length (Ft) Current (A)   | white 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd         PLP/R Analog Unshielded         length calculated         Description         WALL STROBE, WHITE,         FIRE 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd         PLP/R Analog Unshielded         ength calculated         Description         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd         PLP/R Analog Unshielded         ength calculated         Description         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd         PLP/R Analog Unshielded         ength calculated         Description         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd  | 3<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Length (Ft):<br>Total Circuit Resistance (Ω):<br>Qty.<br>1<br>2<br>2<br>2<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Resistance (Ω):<br>Qty.<br>4<br>4<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Resistance (Ω/kFt):<br>Total Circuit Length (Ft):<br>Total Circuit Length (Ft):<br>Total Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Length (Ft):<br>Total Ci         | 0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11<br>0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>178<br>1.093697<br>Device Current (A)<br>0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>178<br>1.093697<br>Device Current (A)<br>0.28  | 0.84  O.84  O.84 O | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198<br>73.27 %<br>LS<br>1.89<br>18.51<br>9.25 %<br>1.12<br>1.88<br>62.67 %<br>LS<br>0.92<br>19.48<br>4.50 %<br>0.84<br>2.16<br>72.00 %<br>LS<br>0.92<br>19.5                                       |
| rouit Wiring Properties:         Distance measu         IEVICE TOTALS         ation Methods:         Resistance (Ω) = Wire R         rouit Wiring Properties:         Distance measu         IEVICE TOTALS         ation Methods:         Resistance (Ω) = Wire R         rouit Wiring Properties:         Distance measu         IEVICE TOTALS         ation Methods:         Resistance (Ω) = Wire R         rouit Wiring Properties:         Distance measu         IEVICE TOTALS         ation Methods:         Resistance (Ω) = Wire R         rouit Wiring Properties:         Distance measu         IEVICE TOTALS         ation Methods:         Resistance (Ω) = Wire R         rouit Wiring Properties:         Distance measu         IEVICE TOTALS         ation Methods:         Resistance (Ω) = Wire R         rotiage Drop = Total Re  | Image: Constraint of the second  | ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ELSTW ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  SUM REPORT  SUM REPORT   | white 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd         PLP/R Analog Unshielded         ength calculated         Description         WALL STROBE, WHITE,         FIRE 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd  | 3<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Length (Ft):<br>Total Circuit Resistance (Ω):<br>Qty.<br>1<br>2<br>2<br>2<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Length (Ft):<br>Total Circuit Length (Ft):<br>Total Circuit Resistance (Ω):<br>Qty.<br>4<br>4<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Resistance (Ω):<br>Qty.<br>4<br>3<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Resistance (Ω):<br>Qty.<br>3<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Resistance (Ω):<br>Qty.<br>3<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Starting Calculation Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):  | 0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11<br>0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>178<br>1.093697<br>Device Current (A)<br>0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>178<br>1.093697<br>Device Current (A)<br>0.28  | 0.84  0.84  0.84  0.84  0.84  0.84  0.84  0.012  0.02  0.02  0.02  0.02  0.22  0.56  | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198<br>73.27 %<br>LS<br>1.89<br>18.51<br>9.25 %<br>1.12<br>1.88<br>62.67 %<br>LS<br>0.92<br>19.48<br>4.50 %<br>0.84<br>2.16<br>72.00 %<br>LS<br>0.92<br>19.48<br>4.50 %<br>0.84<br>2.16<br>72.00 % |
| ation Methods:         tesistance (Ω) = Wire R         foltage Drop = Total Re         rcuit Wiring Properties:         Distance measure         EVICE TOTALS         ation Methods:         tesistance (Ω) = Wire R         foltage Drop = Total Re         ation Methods:         tesistance (Ω) = Wire R         foltage Drop = Total Re         totage Drop = Total Re         totage Drop = Total Re         tesistance (Ω) = Wire R         foltage Drop = Total Re         tesistance (Ω) = Wire R         totage Drop = Total Re         tesistance (Ω) = Wire R         foltage Drop = Total Re         tesistance (Ω) = Wire R         foltage Drop = Total Re         tesistance (Ω) = Wire R         foltage Drop = Total Re         tesistance (Ω) = Wire R         foltage Drop = Total Re         tesistance (Ω) = Wire R         totage Drop = Total Re         totage Drop = Total Re   | Image: Symbol         <   | ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ELSTW ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ET90-24MCC-FW  Circuit Length (Ft) Current (A)   | white 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd         PLP/R Analog Unshielded         ength calculated         Description         WALL STROBE, WHITE,         FIRE 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd  | 3<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Length (Ft):<br>Total Circuit Resistance (Ω):<br>Qty.<br>1<br>2<br>2<br>2<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Length (Ft):<br>Total Circuit Length (Ft):<br>Total Circuit Resistance (Ω):<br>Qty.<br>4<br>4<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Length (Ft):<br>Total Circuit         | 0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.093697<br>Device Current (A)<br>0.28<br>SETTINGS<br>20.4<br>16<br>3<br>3.07<br>1.093697<br>Device Current (A)<br>0.28   | 0.84  O.84  O.82  O.22  O.22  O.22  O.22  O.56   | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198<br>73.27 %<br>LS<br>1.89<br>18.51<br>9.25 %<br>1.12<br>1.88<br>62.67 %<br>LS<br>0.92<br>19.48<br>4.50 %<br>0.84<br>2.16<br>72.00 %<br>LS<br>0.92<br>19.5<br>4.39 %                             |
| ation Methods:         esistance (Ω) = Wire F         oltage Drop = Total Re         cuit Wiring Properties:         Distance measure         EVICE TOTALS         ation Methods:         esistance (Ω) = Wire F         oltage Drop = Total Re         cuit Wiring Properties:         Distance measure         cuit Wiring Properties:         Distance measure         EVICE TOTALS         ation Methods:         esistance (Ω) = Wire F         oltage Drop = Total Re         cuit Wiring Properties:         Distance measure         EVICE TOTALS         ation Methods:         esistance (Ω) = Wire F         oltage Drop = Total Re         cuit Wiring Properties:         Distance measure         EVICE TOTALS         ation Methods:         esistance (Ω) = Wire F         oltage Drop = Total Re         cuit Wiring Properties:         Distance measure         EVICE TOTALS         ation Methods:         esistance (Ω) = Wire F         oltage Drop = Total Re         cuit Wiring Properties: | Image: Symbol         <   | ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ELSTW ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ET90-24MCC-FW  Circuit Length (Ft) Current (A)  SUM REPORT  WG, 2 Cond. Solid Copper FF gths with 10.00 % additional I Part No. ET90-24MCC-FW  Circuit Length (Ft) Current (A) | white 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd         PLP/R Analog Unshielded         ength calculated         Description         WALL STROBE, WHITE,         FIRE 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 15cd         Speaker/Strobe, 24 VDC,         Multi-Candela, , 25/70 Vrms,         white 75cd  | 3<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Length (Ft):<br>Total Circuit Resistance (Ω):<br>Qty.<br>1<br>2<br>2<br>2<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Length (Ft):<br>Total Circuit Length (Ft):<br>Total Circuit Resistance (Ω):<br>Qty.<br>4<br>4<br>CIRCUIT S<br>Starting Calculation Voltage:<br>Max. Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Length (Ft):<br>Total Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Length (Ft):<br>Total Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Current (A):<br>Wire Resistance (Ω/kFt):<br>Total Circuit Length (Ft):<br>Total Circuit Length (Ft):<br>Total Circuit Length (Ft):<br>Total Circuit Length (Ft):  | 0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>574<br>3.523469<br>Device Current (A)<br>0.022<br>0.11<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>274<br>1.684093<br>Device Current (A)<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>178<br>1.093697<br>Device Current (A)<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>178<br>1.093697<br>Device Current (A)<br>0.28<br>ETTINGS<br>20.4<br>16<br>3<br>3.07<br>178<br>1.093697<br>Device Current (A)<br>0.28 | 0.84  O.84   | 2.83<br>17.57<br>13.85 %<br>0.802<br>2.198<br>73.27 %<br>LS<br>1.89<br>18.51<br>9.25 %<br>1.12<br>1.88<br>62.67 %<br>LS<br>0.92<br>19.48<br>4.50 %<br>0.84<br>2.16<br>72.00 %<br>LS<br>0.92<br>19.5<br>4.39 %<br>0.56<br>2.44             |

| dsa<br>IDENTIFICATION STAMP<br>DIV. OF THE STATE ARCHITECT   |
|--|
| APP: 02-121265 INC:<br>REVIEWED FOR<br>SS  FLS  ACS  DATE: 05/24/2023  |
| architect           ACMARTIN           3009 DOUGLAS BLVD SUITE 290           ROSEVILLE CA 95661 T 916 772 1800   |
| stamp<br>ROFESS/ONA<br>PROFESS/ONA<br>No. ZE/O<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PROFESS/ONA<br>PR |
| consultantMEP & FS /<br>Sustainability / CxA1209 Pleasant Grove Blvd.<br>Roseville, CA 95678<br>p 916-771-0778CONSULTING<br>ENGINEERSwww.lpengineers.com<br>Job #: 18-2150   |
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| project number CA5602<br>project director<br>project designer  |
| project architect revisions no. date revision  |
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| project status DSA SUBMITTAL   |
| <b>4-25-2023</b><br>client / project   |
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| OAK HILL ES  |
| HARDSHIP<br>MODERNIZATION  |
| CJUSD<br>3909 NORTH LOOP BLVD<br>ANTELOPE, CA 95843  |
| sheet name<br>FIRE ALARM<br>BATTERY<br>CALCULATIONS  |
| sheet number <b>FA3_5</b>  |
| Plot date 3/22/2023 3:38:04 PM   |