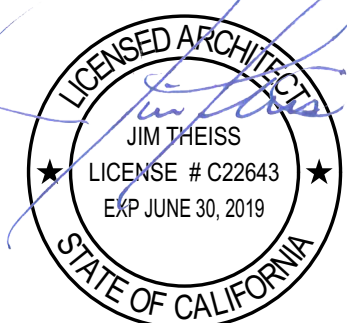


QUATTROCCHI KWOK
ARCHITECTS
Main Office:
636 Fifth Street, Santa Rosa, CA 95404
Pleasanton Office:
600 Main Street, Suite E,
Pleasanton, CA 94566
(707) 576-0929



SIGNED: FEBRUARY 27, 2019

HERITAGE HIGH SCHOOL CULINARY ARTS BUILDING

101 American Ave, Brentwood, CA 94513
LIBERTY UNION HIGH SCHOOL DISTRICT

DSA FILE NO: 7-H4

DSA APPLICATION NO: 01-117845

PTN: 61721-0070

CONSTRUCTION DOCUMENTS

HERITAGE HIGH SCHOOL

CULINARY ARTS BUILDING

101 American Ave
Brentwood, CA 94513

LIBERTY UNION HIGH SCHOOL DISTRICT

ARCH PROJECT NO: 1750.00
DRAWN BY:
DRAWING SCALE: N.T.S.
PTN: 61721-70

CD
FEBRUARY 27, 2019

SHEET TITLE

COVER SHEET

SHEET NUMBER

G-0.1

PROJECT TEAM

OWNER

Liberty Union School District
20 Oak Street
Brentwood, CA 94513
Phone: 925-634-2166 ex 2036
Fax: 925-634-1687
Email: evolta@libertyuhdsd.k12.ca.us

ARCHITECT

Quattrocchi Kwok Architects
636 Fifth Street
Santa Rosa, CA 95404
Phone: 707-576-0829
Fax: 707-576-0295
Email: jimt@qka.com

CONSTRUCTION MANAGER

Lathrop Construction Associates, Inc.
4001 Park Road
Benicia, CA 94510
Phone: 707-746-8000
Direct: 707-746-4450
Email: anthony.damante@lathropconstruction.com

CIVIL ENGINEER

Carlson Barbee & Gibson, Inc.
2633 Camino Ramon, Suite 350
San Ramon, CA 94583
Phone: 925-866-0322
Email: jvogan@cbandg.com

LANDSCAPE ARCHITECT

GSM Landscape Architects Inc.
1700 Soscol Ave., Suite 23
Napa, CA 94559
Phone: 707-255-4630
Email: bart@gsmlainc.com

STRUCTURAL ENGINEER

ZFA Structural Engineers
1212 Fourth Street, Suite Z
Santa Rosa, CA 95404
Phone: 707-526-0992
Fax: 707-526-0217
Email: andrewz@zfa.com

MECHANICAL ENGINEER

Costa Engineers
3274 Villa Lane
Napa, CA 94558
Phone: 707-252-9177
Fax: 707-252-6473
Email: cdelcore@costaengineers.com

ELECTRICAL ENGINEER

O'Mahony & Myer (OM&M)
4340 Redwood Highway, Suite 245
San Rafael, CA 94903
Phone: 415-492-0420
Fax: 415-479-6962
Email: pcolenbrander@ommcconsulting.com

KITCHEN

Ballinger Restaurant Equipment, Inc.
1000 Apollo Way, Suite 170
Santa Rosa, CA 95407
Phone: 707-544-8924
Email: larry@brequipment.com

FIRE PROTECTION

Axiom Engineers
22 Lower Ragsdale Dr., Suite A
Monterey, CA 93940
Phone: 831-649-8000
Email: stever@axiomengineers.com

CATHODIC PROTECTION

Catholic Protection Consultant
V&A Consulting Engineers
1000 Broadway, Suite 320
Oakland, CA 94607
Phone: 510-903-6600
Email: cteall@vaengineering.com

SHADE STRUCTURE

USA SHADE & Fabric Structures.
8505-A Chancellor Row
Dallas, TX 75247
Phone: 800-966-5005
Email: eanslinger@usa-shade.com

ENERGY

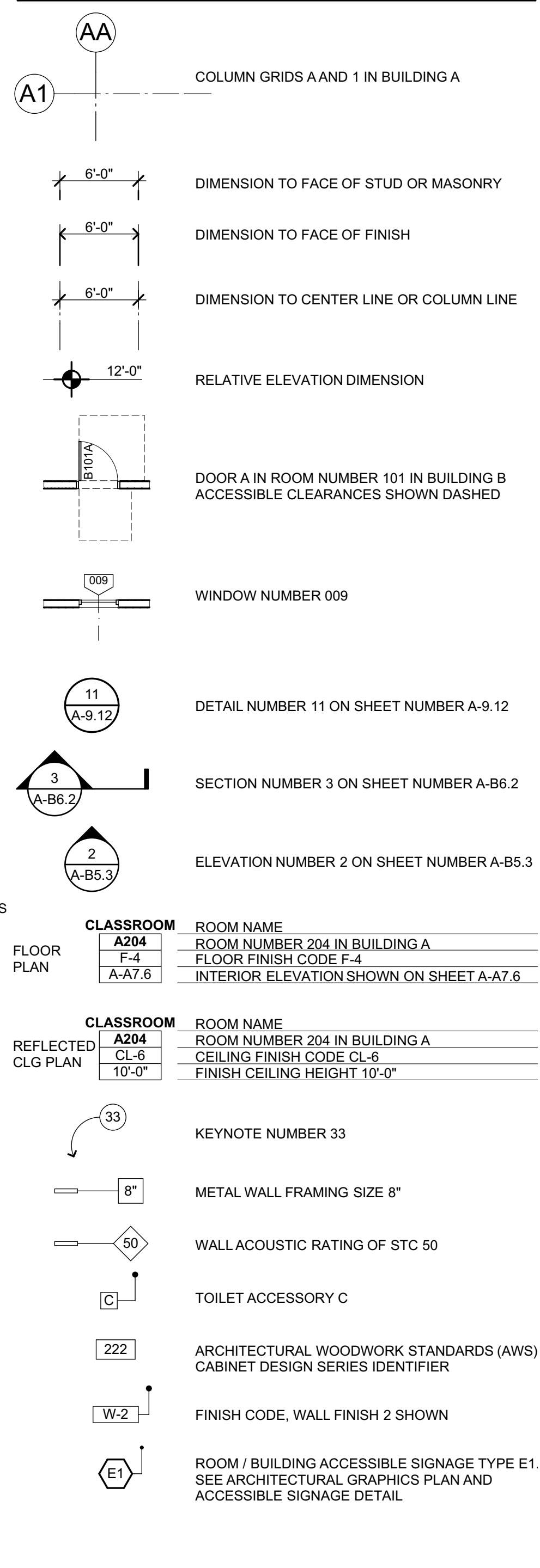
SOLDATA Energy Consulting
2227 Capricorn Way, Suite 202
Santa Rosa, CA 95407
Phone: 707-545-4440
Email: Sarah@soldata.com

ABBREVIATIONS

& L @ C	AND ANGLE CENTERLINE FEET INCHES PENNY POUND/ NUMBER	F FA FCO FD FDC FDN FE FE FE FFC FF FG FGL FH FHS FHS FHW FHS AC T AD ADJ A.F.F. AGG ALUM ANOD APPROX ARCH ASPH	FACE FIRE ALARM FLOOR CLEAN OUT FLOOR DRAIN FIRE DEPARTMENT CONNECTION FOUNDATION FIRE EXTINGUISHER FIRE EXTINGUISHER CABINET FINISH FLOOR FINISH GRADE FIBERGLASS FIRE HYDRANT FLAT HEAD MACHINE SCREW FIRE HOSE STATION FIRE HEAD WOOD SCREW FINISH FIXTURE FLOOR LINE FLASHING FLUORESCENT ALUMINUM ANODIZED APPROXIMATE ARCHITECTURAL ASPHALT	PC P.C.F. PDA PERF PH PL PL PL PLAS PLF PLYWD P.O.C. PAIR PROP PSF PSI PT PTFD PTN PTR PVC PVMT R R / RAD RAJUS ROOF DRAIN REF REFR REG REQD REINF RH RHMS RM RO RWL RWD S S.A.D. S.A.G.D. S.A.V.D. SC S.C.D. SCHED SD SDS SECT S.E.D. SEP SHR SHTG SIM S.K.D. SL S.L.D. SM S.M.D. SOV S.P.D. SPEC SPKR SQ SS S.S.D. S.S.D. S.T.H.D. STA STD STL STOR STRUCT SUSP SYM T T&B TC TEL TER T&G TH TH MC THRU TN T.O.B. T.O.D. T.O.P. T.O.R. T.O.W. T.P. TRN TRANS TS TUB TV TW TYP UNF U.O.N. URN UTIL VB VCT VERT VEST V.I.F. VTR VWC W W WITH WC WD WDW WH WHO WP W.P. WR WSCW WT YD	PORTLAND CEMENT POUNDS PER CUBIC FOOT POWER DRIVEN ANCHOR PERFORATED PLATE HEIGHT PLATE PROPERTY LINE PLASTIC LAMINATE PLASTERY PLASTIC POUNDS PER LINEAL FOOT PLYWOOD POINT OF CONTACT PAIR PROPERTY POUNDS PER SQUARE FOOT POLUNDS PER SQUARE INCH POINT PRESSURE TREATED DOUGLAS FIR PARTITION PAPER TOWEL RECEPTACLE POLYVINYL CHLORIDE PAVEMENT RISER RAJUS ROOF DRAIN REFERENCE REFRIGERATOR REGULAR REQUIRED REINFORCED ROOF HATCH ROUND HEAD MACHINE SCREW ROUND HEAD WOOD SCREW ROOM ROUGH OPENING RAIN WATER LEADER REDWOOD SOUTH SEE ARCHITECTURAL DRAWINGS SEE ARCHITECTURAL GRAPHICS DRAWINGS SEE AUDIO/VIDEO DRAWINGS SOLID CORE SEE CIVIL DRAWINGS SCHEDULE STORM DRAIN SELF-DRILLING SCREWS SECTION SEE ELECTRICAL DRAWINGS SEPARATION SHOWER SHEATHING SIMILAR SEE KITCHEN EQUIPMENT DRAWINGS SLIDING SEE LANDSCAPE DRAWINGS SHEET METAL SEE MECHANICAL DRAWINGS SHUT OFF VALVE SEE PLUMBING DRAWINGS SPECIFICATION SPEAKER SQUARE STAINLESS STEEL SEE STRUCTURAL DRAWINGS SEE THEATER DRAWINGS STATION STANDARD STEEL STORAGE STRUCTURAL SUSPENDED SYMMETRICAL TREAD TOP & BOTTOM TOP OF CURB TELEPHONE TERRAZZO TONGUE & GROOVE THICK THROUGH TOOL JOINT TOE NAIL TOP OF BEAM TOP OF DECK TOP OF PLATE TOP OF ROOF TOP OF WALL TOP OF PAVEMENT TRANSOM TRANSPARENT TUBE STEEL TUBULAR TELEVISION TACKWALL TYPICAL UNFINISHED UNLESS OTHERWISE NOTED URINAL UTILITY VAPOR BARRIER VINYL COMPOSITION TILE VERTICAL VESTIBULE VERIFY IN FIELD VENT THROUGH ROOF VINYL WALL COVERING WEST WITH WATER CLOSET WOOD WINDOW WATER HEATER WITHOUT WATER PROOF WORK POINT WATER RESISTANT WAINSCOT WEIGHT YARD
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LEGEND

ALL NOTES AND SYMBOLS ARE INTENDED TO APPLY AT ALL OTHER LOCATIONS OF SIMILAR GRAPHIC REPRESENTATION. SUCH INDICATIONS MAY BE LIMITED TO PROMOTE CLARITY. NO LIMITATION OF APPLICATION IS INTENDED EXCEPT AS SPECIFICALLY NOTED.



STATEMENT OF GENERAL CONFORMANCE

THESE DRAWINGS (MARKED LANDSCAPING, CIVIL, ELECTRICAL) AND/OR SPECIFICATIONS AND/OR CALCULATIONS FOR THE ITEMS LISTED, HAVE BEEN PREPARED BY OTHER DESIGN PROFESSIONS OR CONSULTANTS WHO ARE LICENSED AND/OR AUTHORIZED TO PREPARE SUCH DRAWINGS IN THIS STATE. THEY HAVE BEEN EXAMINED BY ME FOR:

- DESIGN INTENT AND APPEAR TO MEET THE APPROPRIATE REQUIREMENTS OF TITLE 24, CALIFORNIA CODE OF REGULATIONS AND THE PROJECT SPECIFICATIONS PREPARED BY ME, AND
- COORDINATION WITH MY PLANS AND SPECIFICATIONS, AND IS ACCEPTABLE FOR INCORPORATION INTO THE CONSTRUCTION OF THIS PROJECT.

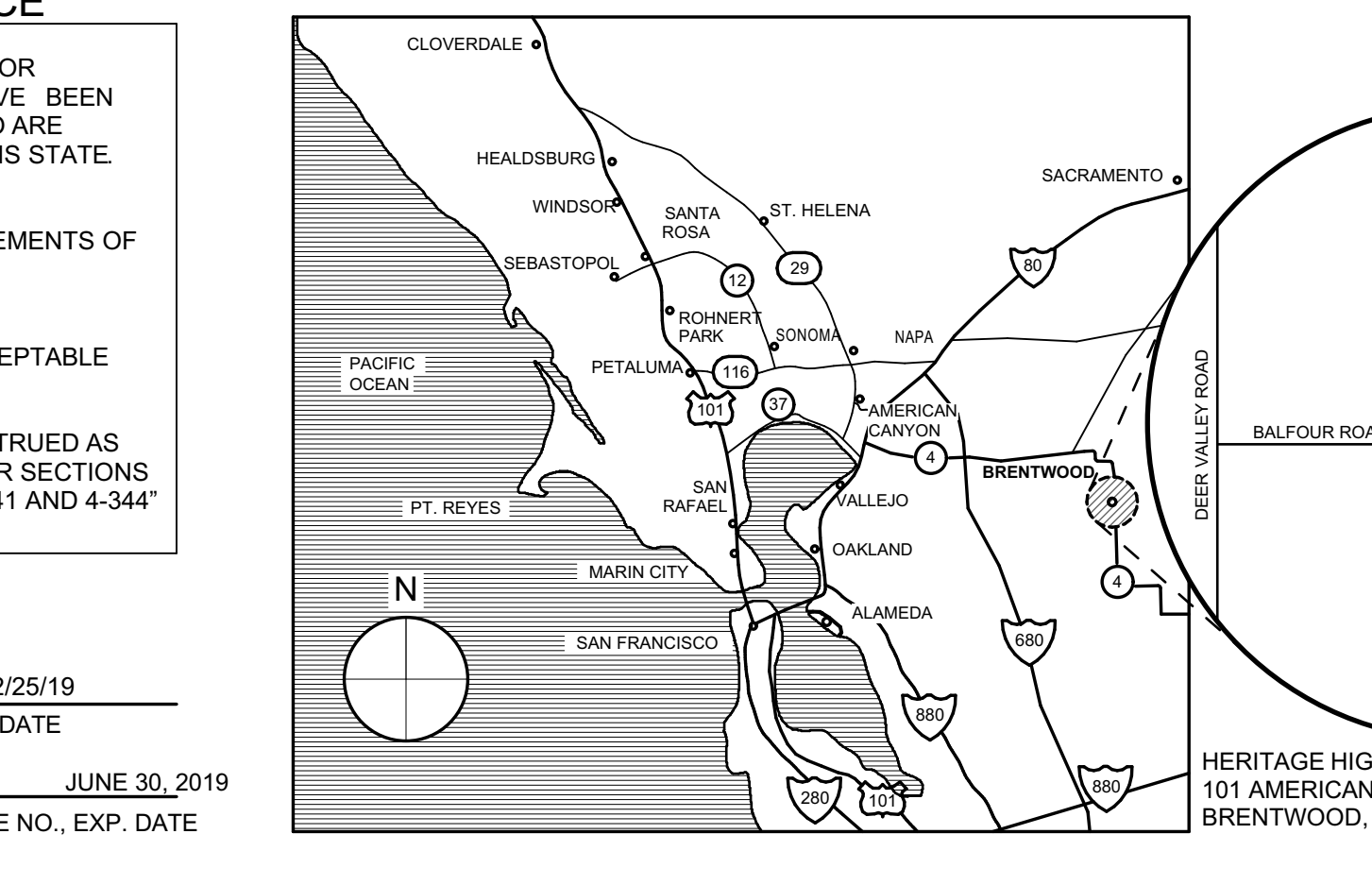
THE STATEMENT OF GENERAL CONFORMANCE "SHALL NOT BE CONSTRUED AS RELIEVING ME OF MY RIGHTS, DUTIES, AND RESPONSIBILITIES UNDER SECTIONS 17302 AND 81138 OF THE EDUCATION CODE AND SECTIONS 4-336, 4-341 AND 4-344" OF TITLE 24, Part 1. (Title 24, Part 1, SECTION 4-317 (b))

SIGNATURE OF ARCHITECT/ENGINEER: DATE: 2/25/19
 JIM THEISS, PRINCIPAL C 22643 JUNE 30, 2019
 NAME, TITLE LICENSE NO., EXP. DATE

GENERAL NOTES

- ALL WORK IS SHOWN, DESCRIBED OR SPECIFIED IN THE DRAWINGS INDEXED ON THIS PAGE OR IN THE SPECIFICATIONS. ALL WORK NOT INDICATED AS EXISTING (E) IS NEW.
- ALL FRAMING DIMENSIONS ARE TO FACE OF STUD UNLESS NOTED OTHERWISE.
- DO NOT SCALE DRAWINGS.
- VERIFY ALL DIMENSIONS WHERE WORK INVOLVES FRAMING FOR WINDOWS, DOORS, OR CABINETS.
- ONLY WORK SO NOTED IS NOT IN CONTRACT (N.I.C.) ALL N.I.C. ITEMS ARE NOT PART OF DSA APPROVAL
- GOVERNING CODES: CALIFORNIA CODE OF REGULATIONS TITLE 24 BUILDING STANDARDS CODE: PART 1 2016 CALIFORNIA ADMINISTRATIVE CODE (CAC), PART 1, TITLE 24 CCR PART 2 2016 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 CCR (2015 INTERNATIONAL BUILDING CODE, VOL. 1 & 2, AND 2016 CALIFORNIA AMENDMENTS) PART 3 2016 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 CCR (2014 NATIONAL ELECTRICAL CODE AND 2016 CALIFORNIA AMENDMENTS) PART 4 2016 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24 CCR (2015 IAQMO UNIFORM MECHANICAL CODE AND 2016 CALIFORNIA AMENDMENTS) PART 5 2016 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 CCR (2015 IAQMO UNIFORM PLUMBING CODE AND 2016 CALIFORNIA AMENDMENTS) PART 6 2016 CALIFORNIA ENERGY CODE (CEC), PART 6, TITLE 24 CCR PART 9 2016 CALIFORNIA FIRE CODE (FC), PART 9, TITLE 24 CCR (2015 INTERNATIONAL FIRE CODE AND 2016 CALIFORNIA AMENDMENTS) PART 10 2016 CALIFORNIA EXISTING BUILDING CODE (CEBC), PART 10, TITLE 24 CCR (2015 INTERNATIONAL EXISTING BUILDING CODE AND 2016 CALIFORNIA AMENDMENTS) PART 11 2016 CALIFORNIA GREEN BUILDING STANDARDS CODE (CAL-GREEN), PART 11, TITLE 24 CCR PART 12 2016 CALIFORNIA REFERENCED STANDARDS CODE, PART 12, TITLE 24 CCR TITLE 19 CCR, PUBLIC SAFETY CODE, STATE FIRE MARSHAL REGULATIONS 2010 ADA STANDARDS FOR ACCESSIBILITY DESIGN 2013 ASME A17.1/CSA B44-13 SAFETY CODE FOR ELEVATORS AND ESCALATORS
- STANDARD AND GUIDES: NFPA 13 INSTALLATION OF FIRE SPRINKLER SYSTEMS (CA AMENDED) 2016 EDITION NFPA 14 INSTALLATION OF STANDPIPE AND HOSE SYSTEMS 2013 EDITION NFPA 17 DRY CHEMICAL EXTINGUISHING SYSTEMS 2013 EDITION NFPA 17A WET CHEMICAL FIRE EXTINGUISHING SYSTEMS 2013 EDITION NFPA 20 INSTALLATION OF STATIONARY PUMPS FOR FIRE PROTECTION 2016 EDITION NFPA 22 STANDARD FOR WATER TANKS FOR PRIVATE FIRE PROTECTION 2013 EDITION NFPA 24 STANDARD FOR THE INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES CALIFORNIA EDITION - TESTING, MAINTENANCE OF WATER-BASED FIRE PROTECTION SYSTEMS 2016 EDITION NFPA 72 NATIONAL FIRE ALARM AND SIGNALING CODE (CA AMENDED) 2013 EDITION NFPA 90 STANDARD FOR FIRE AND OTHER OPENING PROTECTIVES 2016 EDITION NFPA 110 EMERGENCY AND STANDBY POWER SYSTEMS 2016 EDITION NFPA 170 STANDARD FOR FIRE SAFETY AND EMERGENCY SYMBOLS 2015 EDITION NFPA 2001 STANDARD ON CLEAN AGENT FIRE EXTINGUISHING SYSTEMS 2015 EDITION UL 300 STANDARD FOR FIRE TESTING OF FIRE EXTINGUISHING SYSTEMS FOR PROTECTION OF COMMERCIAL COOKING EQUIPMENT 2005 (R2010) UL 464 AUDIBLE SIGNALING DEVICES FOR FIRE ALARM AND SIGNALING SYSTEMS, INCLUDING ACCESSORIES 2003 EDITION UL 521 STANDARD FOR HEAT DETECTORS FOR FIRE PROTECTIVE SIGNALING SYSTEMS 1999 EDITION 2002 EDITION UL 1971 STANDARD FOR SIGNALING DEVICES FOR THE HEARING IMPAIRED 2002 EDITION ICC 300 STANDARD FOR BLEACHERS, FOLDING AND TELESCOPIC SEATING, AND GRANDSTANDS 2012 EDITION
- A COPY OF TITLE 24 PARTS 1-5 SHALL BE KEPT ON THE JOB AT ALL TIMES.
- IN ACCORDANCE WITH TITLE 24 PART 1 CHAPTER 4: THE ADMINISTRATIVE REGULATIONS FOR THE DIVISION OF THE STATE ARCHITECT STRUCTURAL SAFETY (DSA/SS)
 - ALL CONSTRUCTION CHANGE DOCUMENTS AND ADDENDA SHALL BE SIGNED BY THE ARCHITECT AND THE OWNER AND APPROVED BY DSA. CONSTRUCTION CHANGE DOCUMENTS NOT VALID UNTIL APPROVED BY DSA (4-338)
 - ALL TESTS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 4-335 AND APPROVED T & I SHEET (DSA-10)
 - TESTS OF MATERIALS AND TESTING LAB SHALL BE IN ACCORDANCE WITH SECTION 4-335 AND THE DISTRICT SHALL EMPLOY AND PAY THE LAB. COSTS OF RE-TEST MAY BE BACKCHARGED TO THE CONTRACTOR.
 - DSA SHALL BE NOTIFIED AT THE START OF CONSTRUCTION AND PRIOR TO THE PLACEMENT OF CONCRETE IN ACCORDANCE WITH SECTION 4-331
 - INSPECTOR SHALL BE APPROVED BY DSA. INSPECTION SHALL BE IN ACCORDANCE WITH SECTION 4-333(b).
 - THE DUTY OF THE INSPECTOR SHALL BE IN ACCORDANCE WITH SECTION 4-342.
 - SUPERVISION OF CONSTRUCTION BY DSA SHALL BE IN ACCORDANCE WITH SECTION 4-334.
 - VERIFIED REPORTS SHALL BE SUBMITTED BY CONTRACTORS, INSPECTORS (DSA - 6), ARCHITECTS AND ENGINEERS (DSA 5A6) IN ACCORDANCE WITH SECTIONS 4-336 AND 4-343.
 - THE ARCHITECT AND THE STRUCTURAL ENGINEER SHALL PERFORM THEIR DUTIES IN ACCORDANCE WITH SECTIONS 4-333(a) AND 4-341.
 - THE CONTRACTOR SHALL PERFORM HIS DUTIES IN ACCORDANCE WITH SECTION 4-343.
- FOOD HANDLING FACILITIES SHALL COMPLY WITH ALL LOCAL HEALTH REQUIREMENTS AND CALIFORNIA UNIFORM RETAIL FOOD FACILITIES LAW.
- THE INTENT OF THE DRAWINGS AND SPECIFICATIONS IS THAT THE WORK OF ALTERATION, REHABILITATION OR RECONSTRUCTION IS TO BE IN ACCORDANCE WITH TITLE 24, C.C.R. SHOULD ANY EXISTING CONDITIONS BE DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS WHERE IN THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24 C.C.R., A CONSTRUCTION CHANGE DOCUMENT DETAILING AND SPECIFYING THE REQUIRED REPAIR WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE REPAIR WORK. (TITLE 24 PART 1, SECTION 4-338(c))
- COMPLIANCE WITH CFC CHAPTER 33, FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION AND CBC CHAPTER 33, SAFETY DURING CONSTRUCTION SHALL BE ENFORCED.
- EMERGENCY VEHICLE ACCESS ROADS AND ON-SITE FIRE HYDRANTS SHALL BE IN SERVICE AND OPERABLE PRIOR TO LOADING THE SITE WITH COMBUSTIBLE MATERIALS.
- GRADING PLANS, DRAINAGE IMPROVEMENTS, ROAD AND ACCESS REQUIREMENTS, AND ENVIRONMENTAL HEALTH CONSIDERATIONS SHALL COMPLY WITH ALL LOCAL ORDINANCES.

VICINITY MAP



SHEET INDEX

GENERAL	PLUMBING
G-0.1 COVER SHEET	P-1.1 PLUMBING LEGENDS & SCHEDULES
G-0.2 ABBREVIATIONS, NOTES AND INDEX	P-2.1 ENLARGED PLBG PLAN - WASTE & VENT
G-0.3 FIRE & LIFE SAFETY SITE PLAN	P-2.2 ENLARGED PLBG PLAN - WATER & GAS
G-0.4 OVERALL CAMPUS & SITE ACCESSIBILITY PLAN	P-3.1 PLUMBING DETAILS & DIAGRAMS
G-0.5 BUILDING CODE ANALYSIS PLAN	P-3.2 PLUMBING DETAILS
G-0.6 ENLARGED SITE PLAN - (E) VISITOR PARKING LOT	P-3.3 PLUMBING DETAILS
G-0.7 ENLARGED SITE PLAN - (E) PARKING LOTS 1 & 3	
G-0.8 BLDG F EXISTING RESTROOMS - NEW WORK	
ELECTRICAL	ELECTRICAL
E-0.1 SYMBOLS LIST, GENERAL NOTES & LIST OF DRAWINGS	E-0.1 SYMBOLS LIST, GENERAL NOTES & LIST OF DRAWINGS
E-0.2 LUMINAIRE SCHEDULE	E-0.2 LUMINAIRE SCHEDULE
E-1.1 SITE PLAN - ELECTRICAL & TELECOM/SIGNAL	E-1.1 SITE PLAN - ELECTRICAL & TELECOM/SIGNAL
E-1.2 SITE PLAN - LIGHTING	E-1.2 SITE PLAN - LIGHTING
E-2.1 FLOOR PLAN - LIGHTING	E-2.1 FLOOR PLAN - LIGHTING
E-3.1 KITCHEN FLOOR PLAN - ELECTRICAL & TELECOM/SIGNAL	E-3.1 KITCHEN FLOOR PLAN - ELECTRICAL & TELECOM/SIGNAL
E-3.2 KITCHEN FLOOR PLAN - ELECTRICAL	E-3.2 KITCHEN FLOOR PLAN - ELECTRICAL
E-3.3 ROOF PLAN - MECHANICAL CONNECTIONS	E-3.3 ROOF PLAN - MECHANICAL CONNECTIONS
E-5.1 RISER DIAGRAMS - ELECTRICAL & TELECOM/SIGNAL	E-5.1 RISER DIAGRAMS - ELECTRICAL & TELECOM/SIGNAL
E-5.2 LIGHTING CONTROL DIAGRAMS	E-5.2 LIGHTING CONTROL DIAGRAMS
E-6.1 PANEL SCHEDULES	E-6.1 PANEL SCHEDULES
E-7.1 DETAILS	E-7.1 DETAILS
E-7.2 DETAILS	E-7.2 DETAILS
E-8.1 TITLE 24 DOCUMENTS	E-8.1 TITLE 24 DOCUMENTS
E-8.2 TITLE 24 DOCUMENTS	E-8.2 TITLE 24 DOCUMENTS
FIRE ALARM	FIRE ALARM
FE-0.1 FIRE ALARM EQUIPMENT LIST, NOTES & DETAILS	FE-0.1 FIRE ALARM EQUIPMENT LIST, NOTES & DETAILS
FE-1.1 SITE PLAN - FIRE ALARM	FE-1.1 SITE PLAN - FIRE ALARM
FE-3.1 FLOOR PLAN - FIRE ALARM	FE-3.1 FLOOR PLAN - FIRE ALARM
FE-5.1 RISER DIAGRAM - FIRE ALARM	FE-5.1 RISER DIAGRAM - FIRE ALARM
FE-6.1 CALCULATIONS - FIRE ALARM	FE-6.1 CALCULATIONS - FIRE ALARM
FIRE PROTECTION	FIRE PROTECTION
FP-0.1 LEGEND, NOTES AND DETAILS - FIRE PROTECTION	FP-0.1 LEGEND, NOTES AND DETAILS - FIRE PROTECTION
FP-1.1 SITE PLAN - FIRE PROTECTION	FP-1.1 SITE PLAN - FIRE PROTECTION
FP-2.1 PIPING PLAN - FIRE PROTECTION	FP-2.1 PIPING PLAN - FIRE PROTECTION
FP-3.1 CEILING PLAN - FIRE PROTECTION	FP-3.1 CEILING PLAN - FIRE PROTECTION
FP-4.1 SECTIONS - FIRE PROTECTION	FP-4.1 SECTIONS - FIRE PROTECTION
FP-6.1 DETAILS - FIRE PROTECTION	FP-6.1 DETAILS - FIRE PROTECTION
FP-6.2 SEISMIC BRACING CALCULATIONS - FIRE PROTECTION	FP-6.2 SEISMIC BRACING CALCULATIONS - FIRE PROTECTION
KITCHEN	KITCHEN
K-1.0 FOODSERVICE EQUIPMENT FLOOR PLAN	K-1.0 FOODSERVICE EQUIPMENT FLOOR PLAN
K-2.0 FOODSERVICE EQUIPMENT ELECTRICAL PLAN	K-2.0 FOODSERVICE EQUIPMENT ELECTRICAL PLAN
K-3.0 FOODSERVICE EQUIPMENT PLUMBING PLAN	K-3.0 FOODSERVICE EQUIPMENT PLUMBING PLAN
K-4.0 FOODSERVICE BUILDING CONDITIONS PLAN	K-4.0 FOODSERVICE BUILDING CONDITIONS PLAN
K-5.0 FOODSERVICE ELEVATIONS	K-5.0 FOODSERVICE ELEVATIONS
K-5.1 FOODSERVICE ELEVATIONS	K-5.1 FOODSERVICE ELEVATIONS
K-6.0 HOOD PLAN	K-6.0 HOOD PLAN
K-6.1 HOOD DETAILS	K-6.1 HOOD DETAILS
K-6.2 HOOD DETAILS	K-6.2 HOOD DETAILS
K-6.3 FIRE SUPPRESSION PLAN	K-6.3 FIRE SUPPRESSION PLAN
K-7.0 WALK-IN COOLER PLAN	K-7.0 WALK-IN COOLER PLAN
K-7.1 WALK-IN COOLER DETAILS	K-7.1 WALK-IN COOLER DETAILS
K-8.0 FOODSERVICE EQUIPMENT ANCHORAGE DETAILS	K-8.0 FOODSERVICE EQUIPMENT ANCHORAGE DETAILS
K-8.1 FOODSERVICE EQUIPMENT ANCHORAGE DETAILS	K-8.1 FOODSERVICE EQUIPMENT ANCHORAGE DETAILS
CATHODIC PROTECTION	CATHODIC PROTECTION
CP-1.2 CP DETAILS	CP-1.2 CP DETAILS
CP-1.3 CP DETAILS	CP-1.3 CP DETAILS
EXTERIOR SHADE STRUCTURES	EXTERIOR SHADE STRUCTURES
P.C. T-1.0 P.C. TITLE SHEET	P.C. T-1.0 P.C. TITLE SHEET
P.C. T-2.0 DSA 103 FORMS	P.C. T-2.0 DSA 103 FORMS
5.1-1000 PRODUCT INFORMATION	5.1-1000 PRODUCT INFORMATION
5.2-2000 REACTIONS	5.2-2000 REACTIONS
TITLE 24 COMPLIANCE DOCUMENTATION	TITLE 24 COMPLIANCE DOCUMENTATION
T-1 TITLE 24 COMPLIANCE DOCUMENTATION	T-1 TITLE 24 COMPLIANCE DOCUMENTATION
T-2 TITLE 24 COMPLIANCE DOCUMENTATION	T-2 TITLE 24 COMPLIANCE DOCUMENTATION
T-3 TITLE 24 COMPLIANCE DOCUMENTATION	T-3 TITLE 24 COMPLIANCE DOCUMENTATION
TOTAL SHEET COUNT: 121	TOTAL SHEET COUNT: 121

PROJECT DESCRIPTION

PROVISION OF A NEW CULINARY ARTS BUILDING AND ASSOCIATE SITE WORK. THE BUILDING IS 3,200 SQUARE FEET AND HAS A CLASSROOM AND TEACHING KITCHEN, TYPE 5B, WOOD FRAMED, FULLY SPRINKLERED FOR E OCCUPANCY. EXTERIOR CEMENT PLASTER WALL FINISH WITH "FLAT" BUILT-UP ROOFING. SITE WORK INCLUDES ADJACENT COURTYARDS, SHADE STRUCTURES AND GARDENS.

DEFERRED APPROVALS

- NONE

APPROVED
DIV. OF THE STATE ARCHITECT
APP. 01-117845 INC.
REVIEWED FOR
SS [] FLS [] ACS []
DATE: 02/27/2019

QUATTROCCHI KWOK
ARCHITECTS
Main Office:
636 Fifth Street, Santa Rosa, CA 95404
Pleasanton Office:
600 Main Street, Suite E,
Pleasanton, CA 94566
(707) 576-0929

SIGNED: FEBRUARY 27, 2019

HERITAGE HIGH SCHOOL

CULINARY ARTS BUILDING

101 American Ave
Brentwood, CA 94513

LIBERTY UNION HIGH SCHOOL DISTRICT

ARCH PROJECT NO:	1750.00
DRAWN BY:	
DRAWING SCALE:	N.T.S.
PTN:	61721-70
	CD

FEBRUARY 27, 2019
SHEET TITLE

ABBREVIATIONS, NOTES AND INDEX

SHEET NUMBER

G-0.2

FIRE & LIFE SAFETY SITE CONDITIONS SUBMITTAL

To facilitate the Division of the State Architect's (DSA) fire and life safety plan review of project site conditions, DSA requires the design professional to provide the following information at time of project submittal for projects consisting of construction of a new campus, construction of new building(s), additions to existing buildings, and for site alternate design means for fire department emergency vehicle access, and fire suppression water supply.

Information associated with compliance items 1-3 below is to be provided for all project types indicated above. Information associated with items 4-7 is to be completed when an alternate means is utilized. Acknowledgement by the school district and signature from the local fire authority (LFA) is only required when an alternate design means is being requested.

Page 1 of the completed form must be imaged onto the fire access site plan. When an alternate design/means is proposed, completed pages 1 and 2 are to be imaged on the fire access site plan.

For additional information refer to the instructions at the end of this form and DSA Policy 09-01.

PROJECT INFORMATION

School District/Owner: Liberty Union High School District
Project Name/School: Heritage High School Culinary Arts
Project Address: 101 American Ave., Brentwood, CA 94513

FIRE & LIFE SAFETY INFORMATION

Table with 3 columns: Question, Yes, No. Contains 7 questions regarding fire hydrant tests, fire hazard zones, and wildfire interface areas.

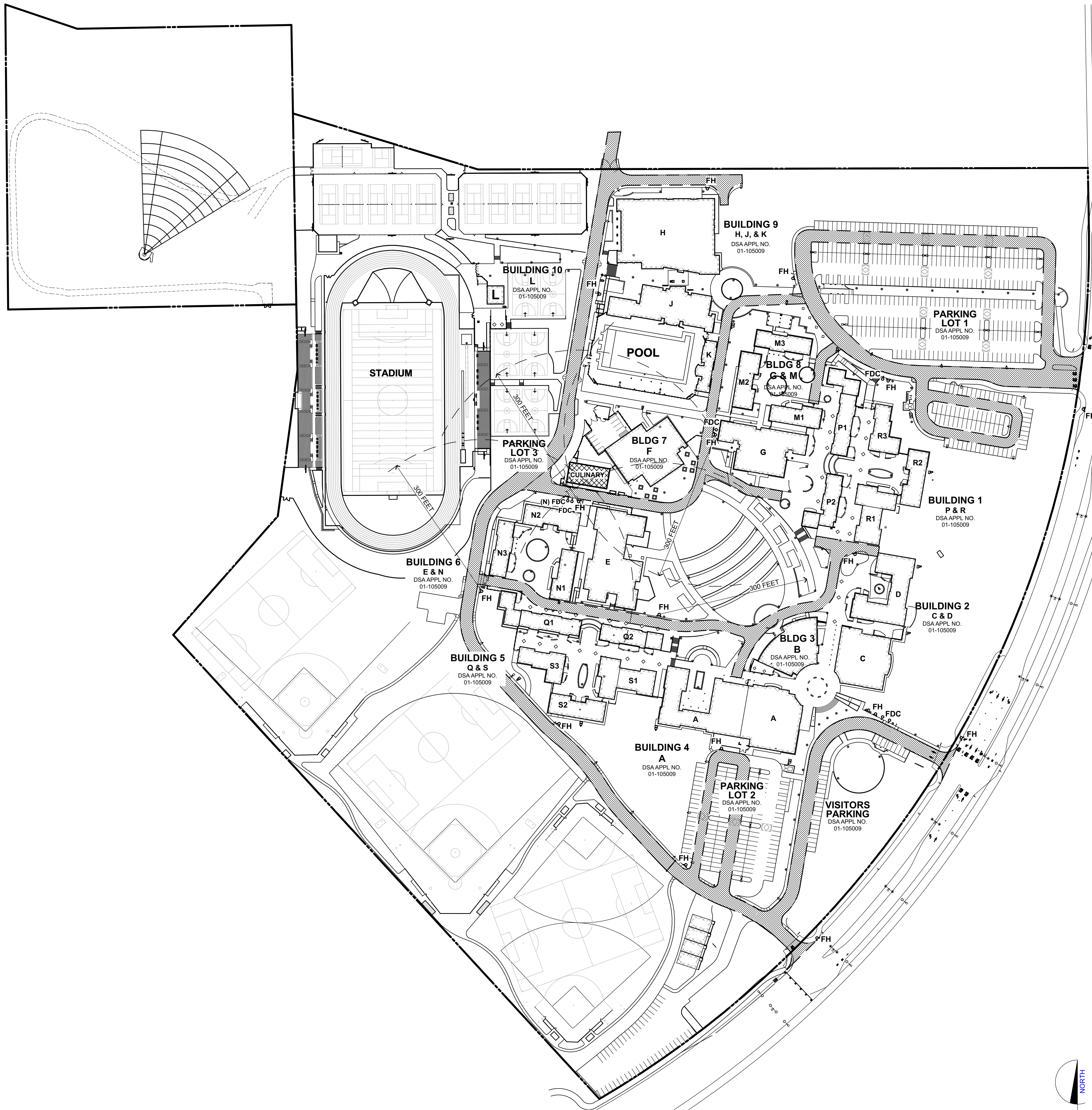
CONDITION MEANS AND METHODS RESOLUTION

Table with 4 columns: Question, Yes, No, N/A, N/R. Contains 7 questions regarding emergency vehicle access, fire hydrants, and fire department connections.

APPROVED DIV. OF THE STATE ARCHITECT APP. 01-117845 INC. REVIEWED FOR SS FLS ACS DATE: 02/27/2019

QUATTROCCHI KWOK ARCHITECTS Main Office: 636 Fifth Street, Santa Rosa, CA 95404 Pleasanton Office: 600 Main Street, Suite E, Pleasanton, CA 94566 (707) 576-0929

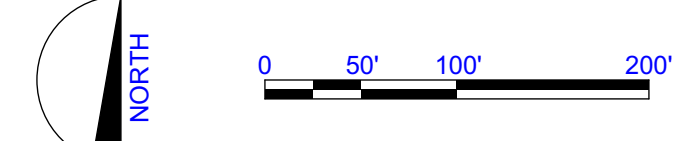
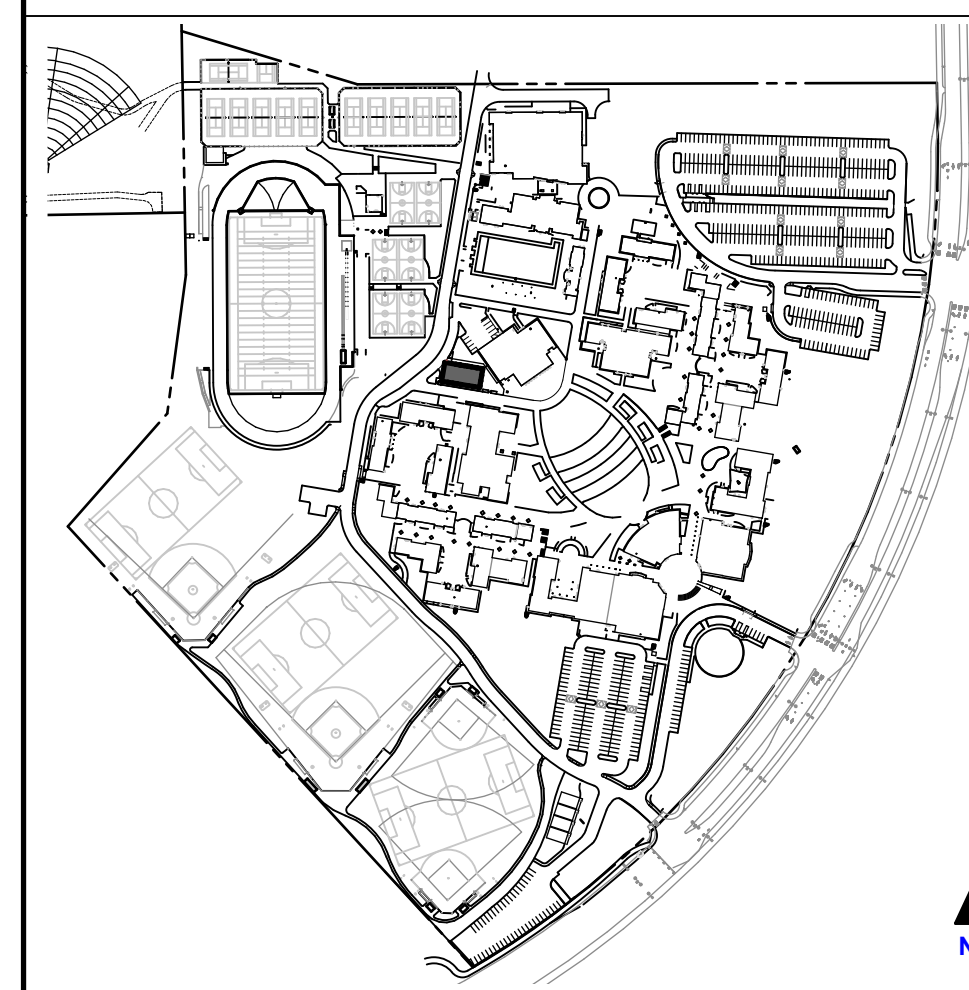
HERITAGE HIGH SCHOOL CULINARY ARTS BUILDING 101 American Ave Brentwood, CA 94513 LIBERTY UNION HIGH SCHOOL DISTRICT



FIRE ACCESS PLAN LEGEND

- NOTE: FOR BUILDING APPLICATION NUMBER, SEE G-0.4
(N) BUILDING
(E) BUILDING TO REMAIN
(E) 20' WIDE EMERGENCY VEHICLE ACCESS
PROPERTY LINE (APPROX)
(E) FIRE HYDRANT, S.C.D.
(E) FIRE DEPARTMENT CONNECTION, S.C.D.
FIRE DEPARTMENT CONNECTION, S.C.D.

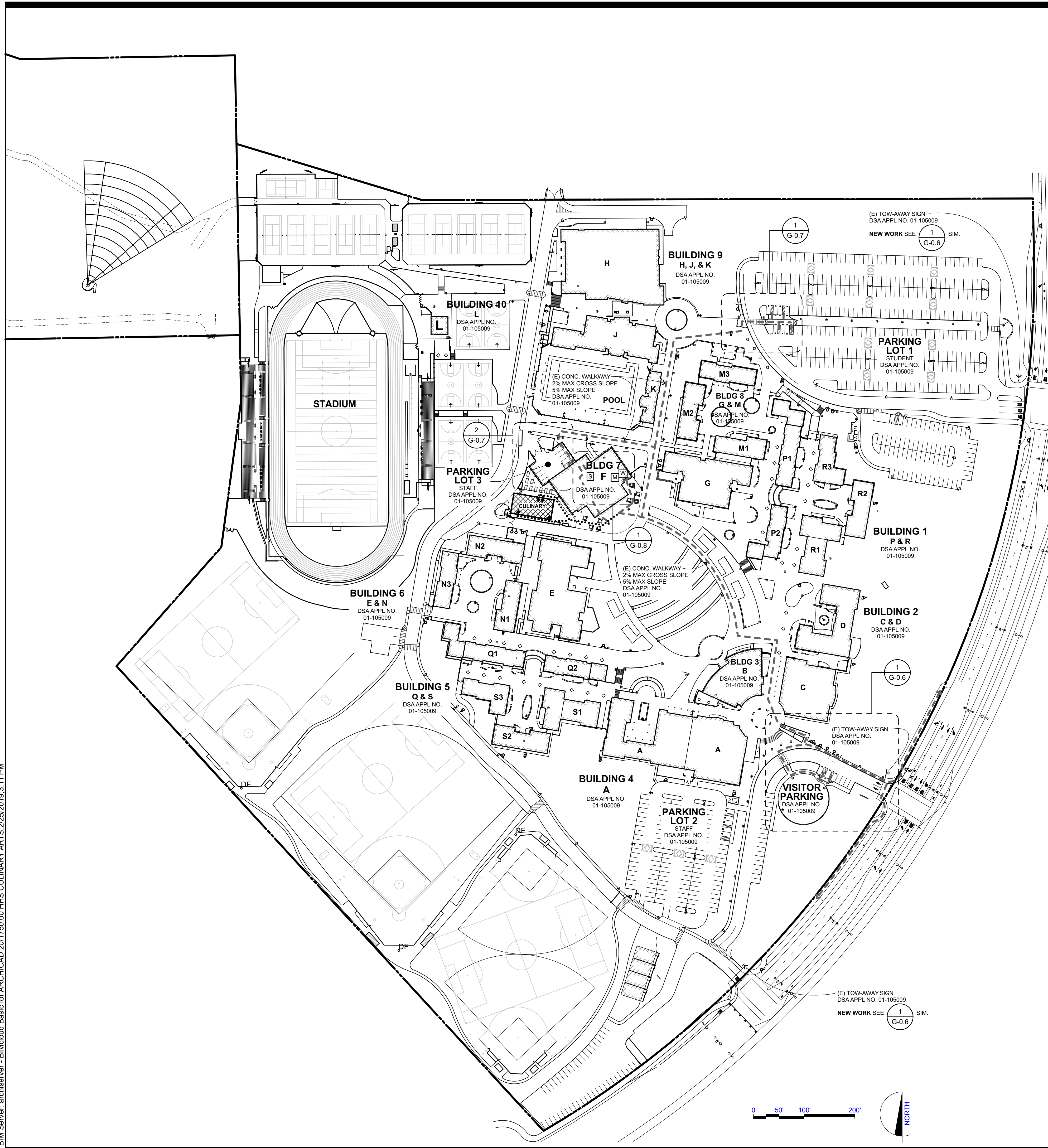
KEYPLAN



ARCH PROJECT NO: 1750.00
DRAWN BY: BSC
DRAWING SCALE: 1" = 100'-0"
PTN: 61721-70
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FEBRUARY 27, 2019
SHEET TITLE

FIRE & LIFE SAFETY SITE PLAN SHEET NUMBER G-0.3

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PARKING COUNT

	OVERALL	ACC		REQUIRED	
		STALL	VAN STALL	STD	VAN
(E) LOT 1	412	9	2	9	2
(E) LOT 2	130	5	1	5	1
(E) LOT 3	8	1	1	1	1
(E) VISITOR LOT	27	2	1	2	1

CBC 2016 TABLE 11B-208.2:
26-50 TOTAL SPACES = 2 REQ'D ACC SPACES

CBC 2016 SECTION 11B-208.2.4:
FOR EVERY 6 OR FRACTION OF 6 ACC PARKING SPACES REQUIRED, AT LEAST 1 SHALL BE A VAN ACCESSIBLE PARKING SPACE.

DSA PR 15-01

DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE STATEMENT:
THE P.O.T. IDENTIFIED IN THESE CONSTRUCTION DOCUMENTS IS COMPLIANT WITH THE CURRENT APPLICABLE CALIFORNIA BUILDING CODE ACCESSIBILITY PROVISIONS FOR PATH OF TRAVEL REQUIREMENTS FOR ALTERATIONS, ADDITIONS AND STRUCTURAL REPAIRS. AS PART OF THE DESIGN OF THIS PROJECT THE P.O.T. WAS EXAMINED AND ANY ELEMENT, COMPONENTS OR PORTIONS OF THE P.O.T. THAT WERE DETERMINED TO BE NON-COMPLIANT:

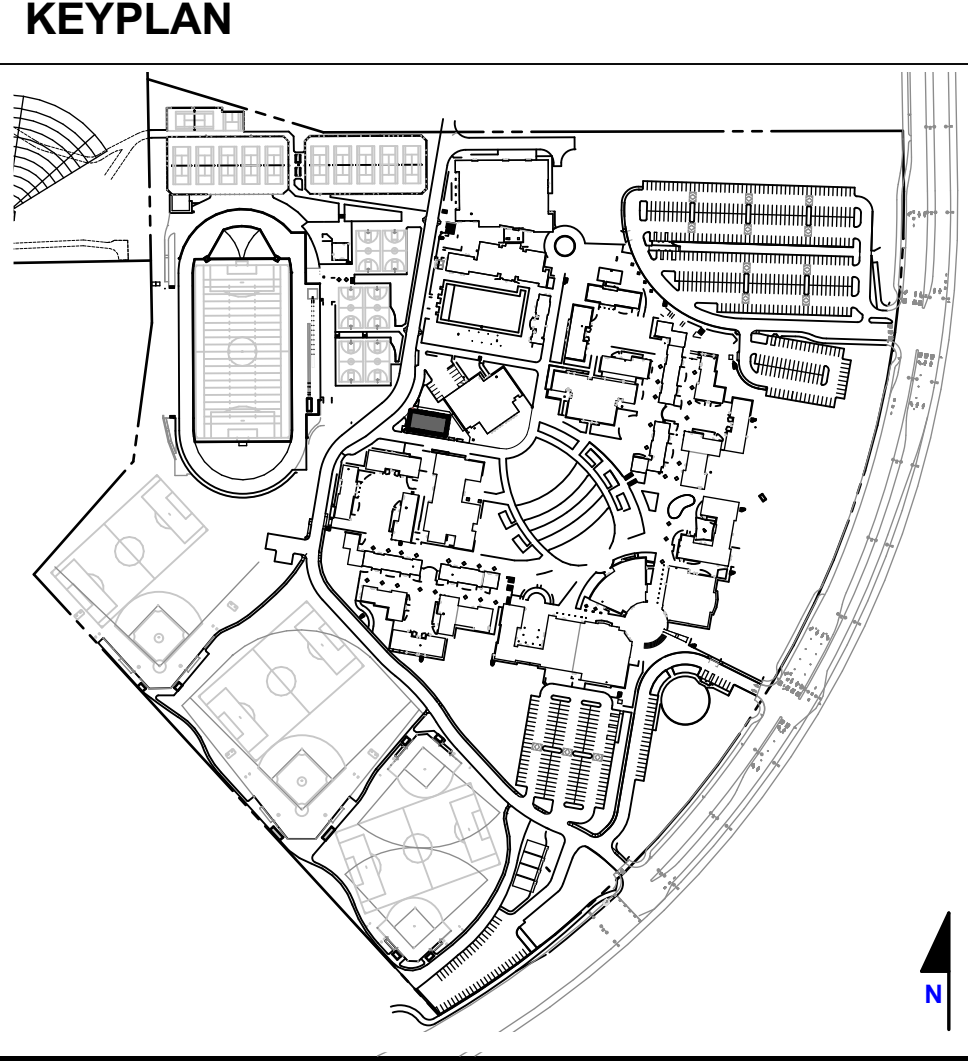
- HAVE BEEN IDENTIFIED AND
- THE CORRECTIVE WORK NECESSARY TO BRING THEM INTO COMPLIANCE HAS BEEN INCLUDED WITHIN THE SCOPE OF THIS PROJECT'S WORK THROUGH DETAILS, DRAWINGS AND SPECIFICATIONS INCORPORATED INTO THESE CONSTRUCTION DOCUMENTS.

ANY NON-COMPLIANT ELEMENT, COMPONENT, OR PORTION OF THE P.O.T. THAT WILL NOT BE CORRECTED BY THIS PROJECT BASED ON VALUATION THRESHOLD LIMITATIONS OR A FINDING OF UNREASONABLE HARDSHIP ARE SO INDICATED IN THESE CONSTRUCTION DOCUMENTS. DURING CONSTRUCTION IF P.O.T. ITEMS WITHIN THE SCOPE OF THE PROJECT REPRESENTED AS CODE-COMPLIANT ARE FOUND TO BE NON-COMFORMING BEYOND REASONABLE CONSTRUCTION TOLERANCES, THEY SHALL BE BROUGHT INTO COMPLIANCE WITH THE CBC AS A PART OF THIS PROJECT BY MEANS OF A CONSTRUCTION CHANGE DOCUMENT.

NOTE: EXISTING ACCESSIBLE ROUTES TO ALL FACILITIES AND BUILDINGS THAT ARE OPERATIONAL DURING CONSTRUCTION PHASE SHALL REMAIN UNOBSTRUCTED, SAFE AND USABLE BY PEOPLE WITH DISABILITIES.

- ### SITE ACCESSIBILITY GENERAL NOTES
- SEE SHEET G-0.2 FOR CODE INFORMATION.
 - SEE SHEET G-0.3 FOR CAMPUS FIRE AUTHORITY APPROVAL PLAN.
 - SEE SHEET G-0.5 FOR BUILDING CODE ANALYSIS PLAN.
 - ALL NEW WORK SHALL BE ACCESSIBLE. ALL NEW WALKWAYS SHALL CONFORM TO CBC 11B-403. ACCESSIBLE P.O.T. AS SHOWN ON THE PLANS CAN BE NEGOTIATED BY A PERSON WITH A DISABILITY USING A WHEELCHAIR, AND IS ALSO SAFE FOR AND USABLE BY PERSONS WITH OTHER DISABILITIES.
 - CONCRETE SHALL SLOPE MIN. 1/8" PER FOOT AWAY FROM BUILDINGS, S.C.D.
 - EXTERIOR DOOR LANDINGS SHALL SLOPE 1/4" PER FOOT MAX. AWAY FROM BUILDING FOR DRAINAGE.
 - RAMP, TRANSITIONS, AND STAIRWAYS SHALL CONFORM TO ALL ACCESSIBLE REQUIREMENTS PER CCR, TITLE 24.
 - REFER TO CIVIL ENGINEERING DWGS FOR SIDEWALK GRADES REFER TO CIVIL ENGINEERING AND LANDSCAPE DRAWINGS FOR SITE FEATURES NOT OTHERWISE INDICATED.
 - PARKING AND PEDESTRIAN SITE SIGNAGE SHALL COMPLY WITH CBC SECTIONS 11B-502.6, 11B-502.8, & 11B-703.7.2.1
 - BUILDING SIGNAGE SHALL COMPLY WITH CBC 11B-703
 - PEDESTRIAN GATES SHALL COMPLY WITH CBC 1008.2 & 11B-206.5
 - INDICATES BARRIER FREE PATH OF TRAVEL
 - THE BARRIER FREE PATH OF TRAVEL INDICATED HAS BEEN PROVIDED IN ACCORDANCE WITH IR 11B-10 AND SHALL COMPLY WITH THE FOLLOWING:
 - 1:20 MAXIMUM SLOPE WITHOUT A RAMP
 - 1:48 MAXIMUM CROSS SLOPE
 - 1:48 MAXIMUM SLOPE EA DIRECTION FOR ACC PARKING SPACES PER 11B-502.4
 - NO ABRUPT VERTICAL CHANGES EXCEEDING 1/4" CHANGES BETWEEN 1/4" TO 1/2" VERTICAL CAN BE AT 1:2
 - NO ABRUPT VERTICAL CHANGES EXCEEDING 1/4" CHANGES BETWEEN 1/4" TO 1/2" VERTICAL CAN BE AT 1:2 MAX SLOPE. CHANGES LESS THAN 1/4" CAN BE VERTICAL
 - 48" MIN. CLEAR IN WIDTH (60" MIN PASSING SPACE)
 - NON-SLIP SURFACE - HEAVY BROOM FINISH AT EXTERIOR CONCRETE PAVING WHERE SLOPED >6%. MEDIUM BROOM FINISH AT SLOPES <6%
 - MAINTAIN FREE OF OVERHANGING OBSTRUCTIONS TO 80" MIN
 - PROTRUDING OBJECTS NOT GREATER THAN 4" SHALL BE MOUNTED BETWEEN 27" AND 80" A.F.F.
 - WHERE A DRAIN INLET IS IN THE PATH OF TRAVEL, THE GRATE SHALL BE ORIENTED SO THAT MAX OPENING IS 1/2" & LONG DIM IS PERPENDICULAR TO THE PREDOMINANT DIRECTION OF PEDESTRIAN TRAVEL
 - CONTRACTOR TO VERIFY THAT NO BELOW-GRADE PULL BOXES OCCUR WITHIN THE AREA OF TRUNCATED DOMES
 - UNDERGROUND CONDUIT, IF USED, SHALL BE PVC SCHEDULE 40 MIN BURIED A MINIMUM OF 24 INCHES BELOW GRADE.
 - ALL EXPOSED CONDUIT SHALL BE STEEL.
 - THE FIRE ALARM SYSTEM SHALL CONFORM TO SECTION 2-809 OF PART 2, TITLE 24 AND ARTICLE 3-760 OF PART 3, TITLE 24 OF THE CALIFORNIA CODE OF REGULATIONS AND THE DSA REQUIREMENTS. UPON COMPLETION OF THE INSTALLATION OF THE FIRE PROTECTION SIGNALING EQUIPMENT, A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN THE PRESENCE OF THE DSA INSPECTOR OF RECORD.
 - EXISTING SOURCES OF WATER, SEWAGE AND WATER DRAINAGE ARE ADEQUATE FOR THE REQUIREMENTS OF THIS CONSTRUCTION. THE CAPACITIES OF THE EXISTING UTILITIES ARE ADEQUATE FOR THE ADDITIONAL LOADS. THE EXISTING FIRE ALARM SYSTEM IS PROVIDED BY THE DISTRICT.
 - THE CONTRACTOR SHALL INSTALL NEW FIRE ALARM SYSTEM COMPONENTS AT THE BUILDING AND CONNECT TO THE EXISTING SYSTEM, COMPLETE.
 - CONTRACTOR SHALL CHECK RESISTANCE TO GROUND. IF RESISTANCE EXCEEDS 25 OHMS, INSTALL ADDITIONAL GROUND RODS UNTIL RESISTANCE IS REDUCED TO 25 OHMS OR LESS. (N.E.C. 250-94). TESTING OF RESISTANCE SHALL BE WITNESSED BY THE DSA INSPECTOR OF RECORD.
 - CONTRACTOR TO PROVIDE "KNOX" LOCKBOX CONTAINING KEYS TO CAMPUS GATES IN ACCORDANCE WITH FIRE DEPARTMENT STANDARDS. COORDINATE WITH ARCHITECT AND FIRE DEPARTMENT FOR LOCATION AND MOUNTING OF LOCKBOX.
 - DSA APPROVAL OF THIS APPLICATION DOES NOT INCLUDE FUTURE CONSTRUCTION.

- ### SITE ACCESSIBILITY LEGEND
- (N) BUILDING
 - (E) BUILDING TO REMAIN
 - BARRIER FREE PATH OF TRAVEL PER GENERAL NOTES
 - (E) BARRIER FREE PATH OF TRAVEL
 - ACCESSIBLE ENTRY/ EXTERIOR DOOR AT P.O.T.
 - ACCESSIBLE DRINKING FOUNTAIN
 - (E) RESTROOM - WOMEN
 - (E) RESTROOM - MEN
 - (E) TOILET - STAFF
 - PROPERTY LINE



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APP. 01-117845 INC.
REVIEWED FOR
SS FLS ACS
DATE: 02/27/2019

QUATTROCCHI KWOK ARCHITECTS
Main Office: 636 Fifth Street, Santa Rosa, CA 95404
Pleasanton Office: 600 Main Street, Suite E, Pleasanton, CA 94566 (707) 576-0929

LICENSED ARCHITECT
JIM THEISS
LICENSE # C22643
EXP JUNE 30, 2019
STATE OF CALIFORNIA

SIGNED: FEBRUARY 27, 2019

HERITAGE HIGH SCHOOL

CULINARY ARTS BUILDING

101 American Ave
Brentwood, CA 94513

LIBERTY UNION HIGH SCHOOL DISTRICT

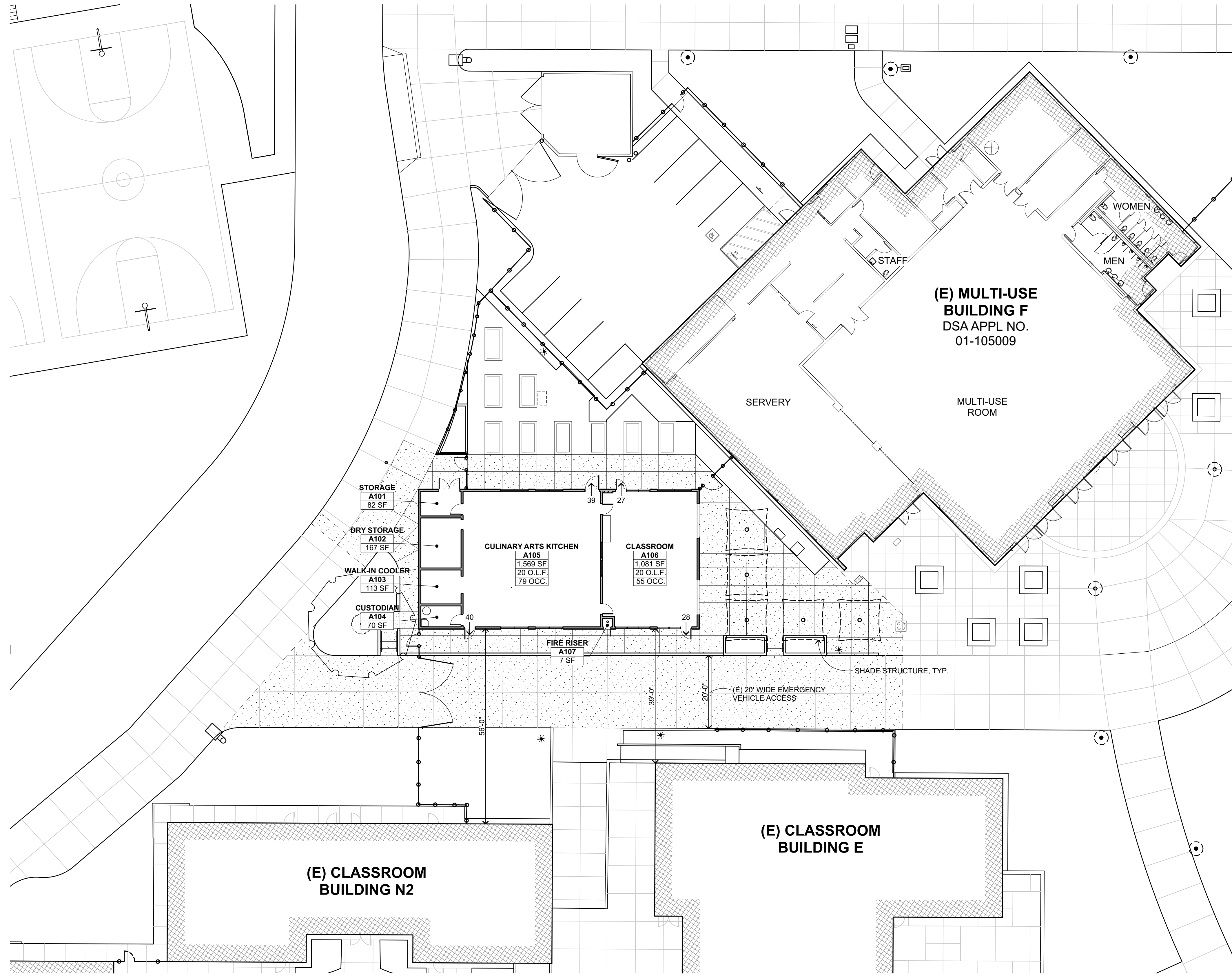
ARCH PROJECT NO: 1750.00
DRAWN BY: BSC
DRAWING SCALE: 1" = 100'-0"
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FEBRUARY 27, 2019
SHEET TITLE

OVERALL CAMPUS & SITE ACCESSIBILITY PLAN

SHEET NUMBER
G-0.4

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BUILDING CODE ANALYSIS			
BUILDING NAME	CULINARY ARTS BUILDING	SHADE STRUCTURE	(E) MULTI-USE BUILDING F
	ANALYZE AS ONE BUILDING NONSEPARATED OCCUPANCIES PER CBC 508.3		
SCOPE	NEW BLDG	SHADE STRUCT	EXISTING BLDG
OCCUPANCY	E	A-2	A-2
USE	CLASSROOM	SHADE STRUCT	MULTI USE
CONSTRUCTION TYPE	5-B	5-B	5-B
AUTOMATIC FIRE SPRINKLERS	YES THROUGHOUT BLDG	NO	YES THROUGHOUT BLDG
ALLOWABLE AREA C.B.C. TABLE 506.2, A1 *USE MOST RESTRICTIVE GROUP, A-2	38,000 S.F.	24,000 S.F.	24,000 S.F.
TOTAL ACTUAL AREA	3,220 S.F.	980 S.F. (196 S.F. X 5 = 980 SF)	13,264 S.F.
TOTAL ACTUAL AREA COMBINED:	3,220 SF + 980 SF + 13,264 SF = 17,464 S.F. : 17,464 S.F. < ALLOWABLE OF 24,000 S.F.		
ALLOWABLE BLDG HEIGHT, TABLE 504.3	40'-0"	50'-0"	50'-0"
ACTUAL BLDG HEIGHT	16'-0"	12'-0"	35'-5"
ALLOWABLE NUMBER OF STORIES, TABLE 504.4	1	1	1
ACTUAL STORIES	1	1	1

BUILDING CODE ANALYSIS LEGEND

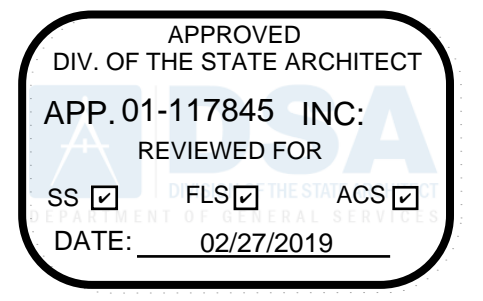
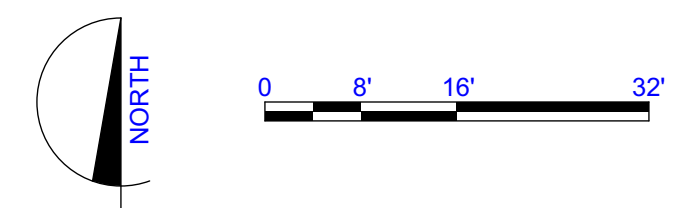
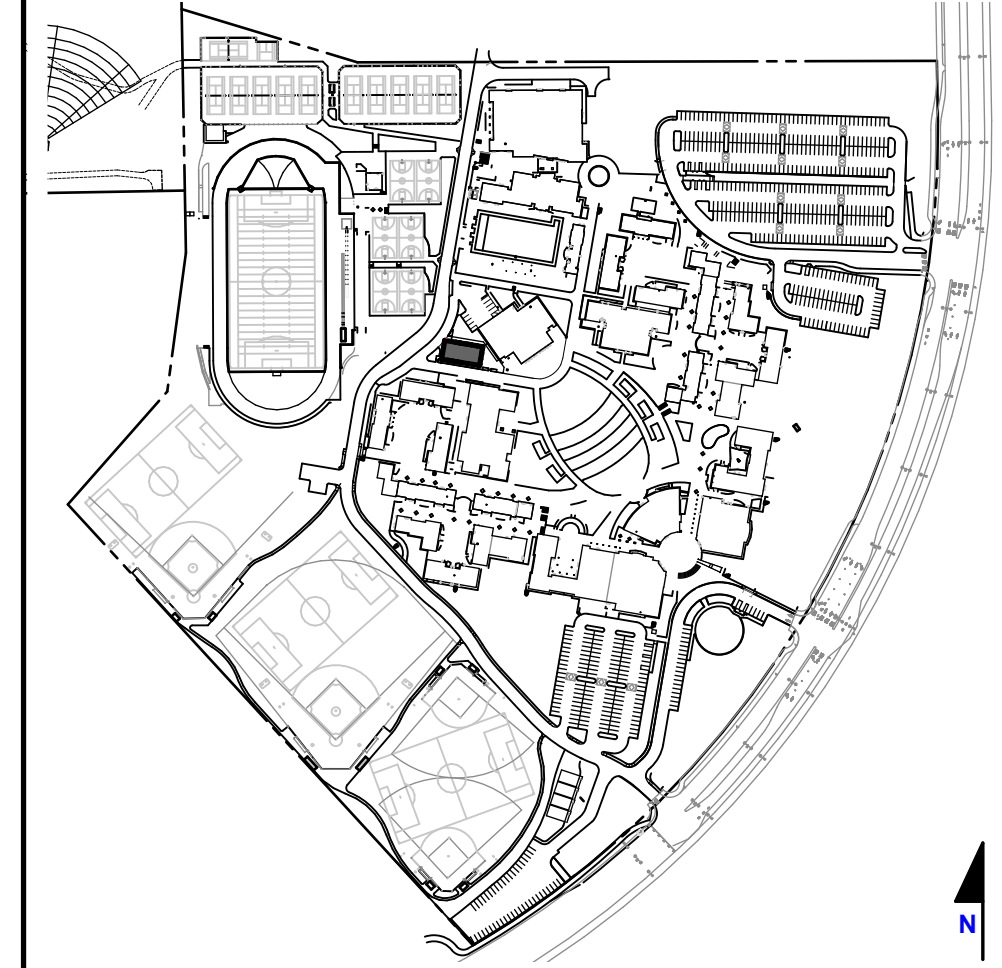
ROOM NAME
 RM #
 # SF
 # O.L.F.
 # OCC.
 # OCCUPANTS → EXIT

— INTERIOR WALL, NON RATED
 (E) BUILDING TO REMAIN

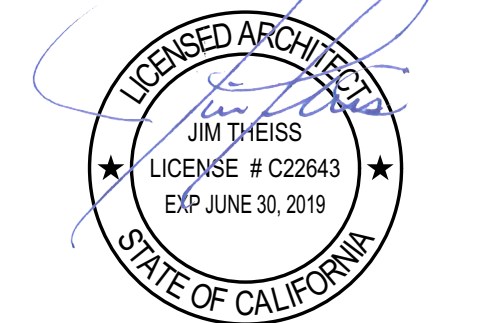
BUILDING CODE ANALYSIS GENERAL NOTES

- SHADE STRUCTURE ARE NOT PROVIDED WITH AUTOMATIC SPRINKLER SYSTEM PER 2016 CALIFORNIA FIRE CODE 903.2.19.1, EXCEPTION 2

KEYPLAN



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 Pleasanton Office: 600 Main Street, Suite E, Pleasanton, CA 94566 (707) 576-0829



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HERITAGE HIGH SCHOOL

CULINARY ARTS BUILDING

101 American Ave
 Brentwood, CA 94513

LIBERTY UNION HIGH SCHOOL DISTRICT

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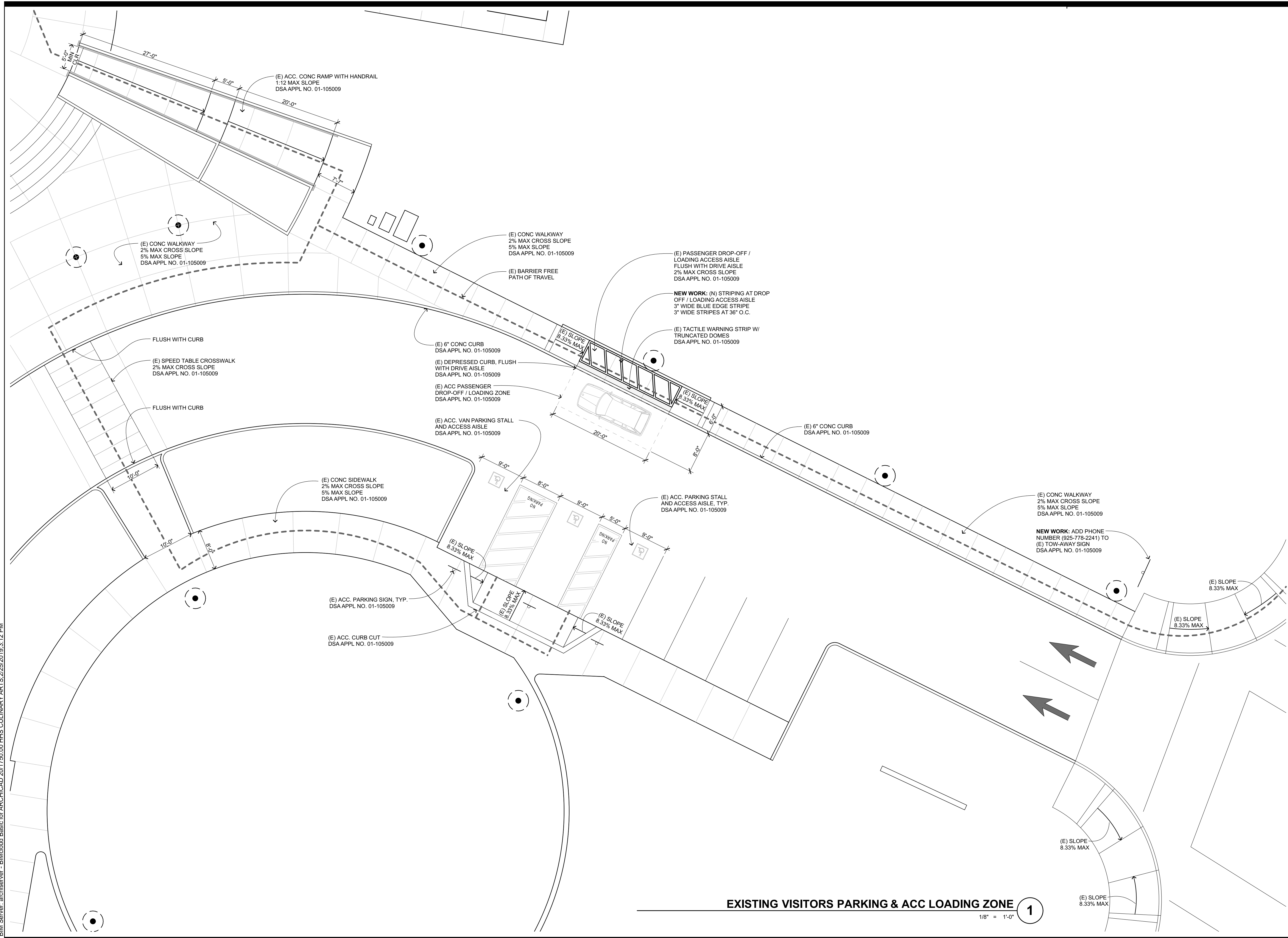
SHEET TITLE

BUILDING CODE ANALYSIS PLAN

SHEET NUMBER

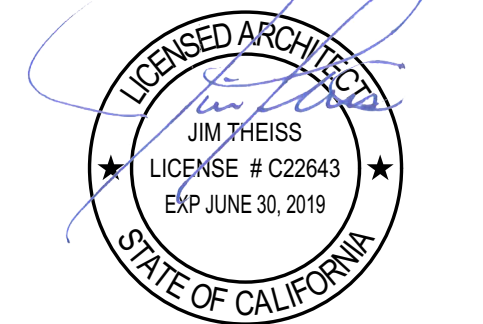
G-0.5

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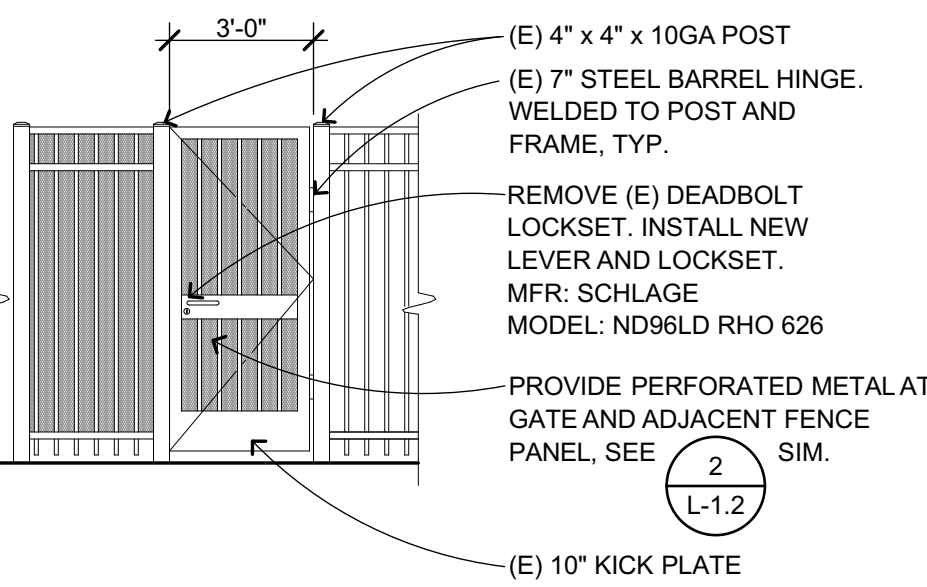
LIBERTY UNION HIGH SCHOOL DISTRICT

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DRAWING SCALE:
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FEBRUARY 27, 2019
SHEET TITLE

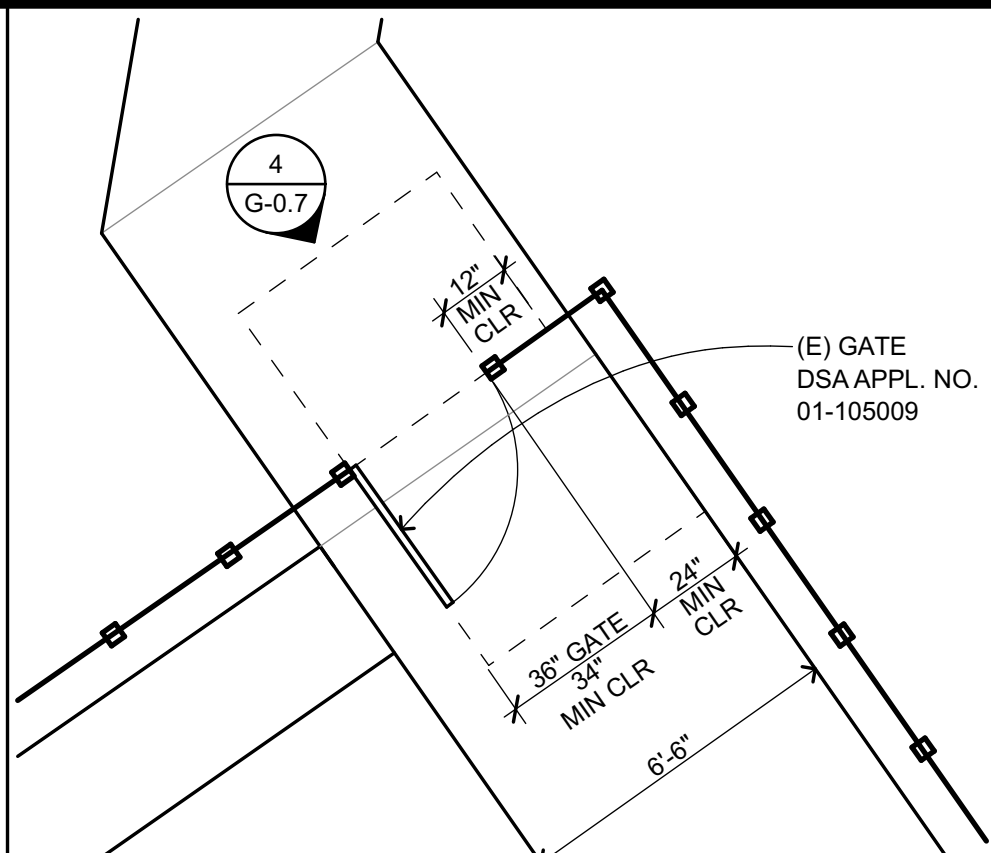
ENLARGED SITE PLAN - (E)
VISITOR PARKING LOT

SHEET NUMBER
G-0.6

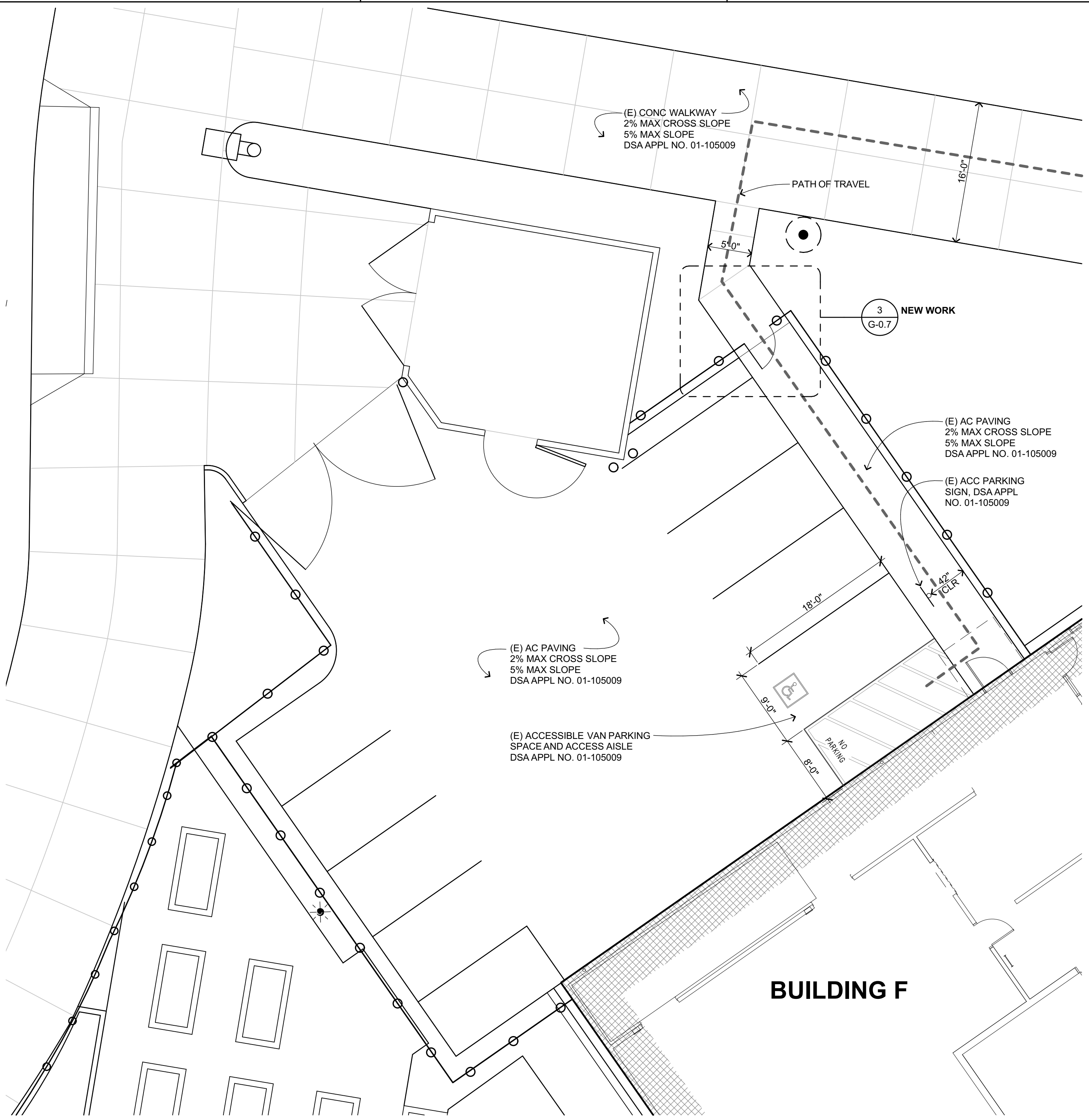
EXISTING VISITORS PARKING & ACC LOADING ZONE 1
1/8" = 1'-0"



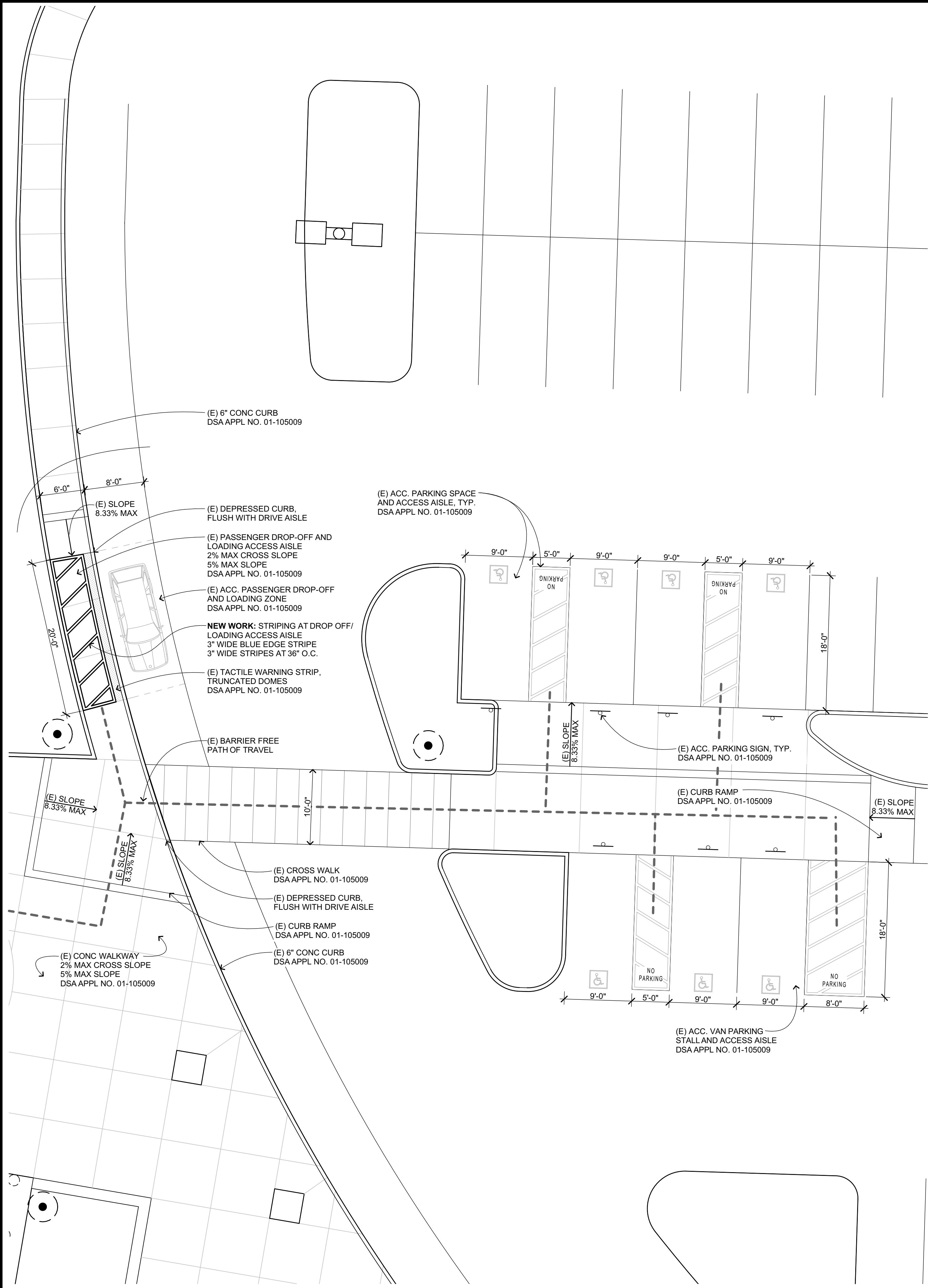
(E) GATE ELEVATION
1/4" = 1'-0"



(E) GATE PLAN
1/4" = 1'-0"

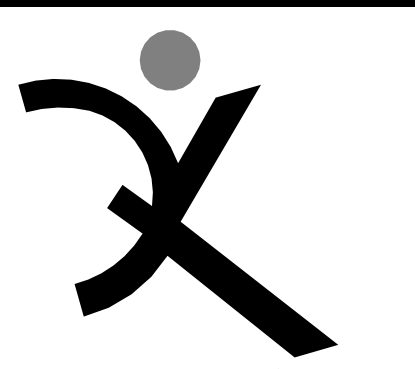


(E) PARKING LOT 3 - STAFF: ACC. PARKING
1/8" = 1'-0"



(E) PARKING LOT 1 - STUDENT: ACC. PARKING
1/8" = 1'-0"

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HERITAGE HIGH SCHOOL

CULINARY ARTS BUILDING

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LIBERTY UNION HIGH SCHOOL DISTRICT

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DRAWING SCALE:

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SHEET TITLE

ENLARGED SITE PLAN - (E) PARKING LOTS 1 & 3

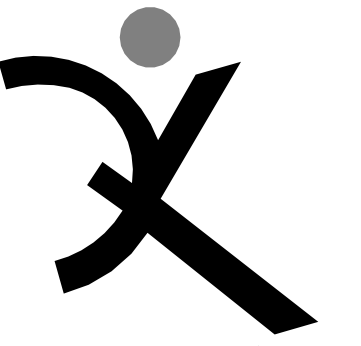
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G-0.7

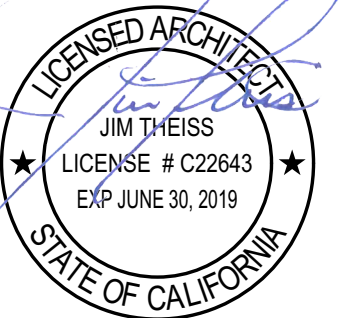
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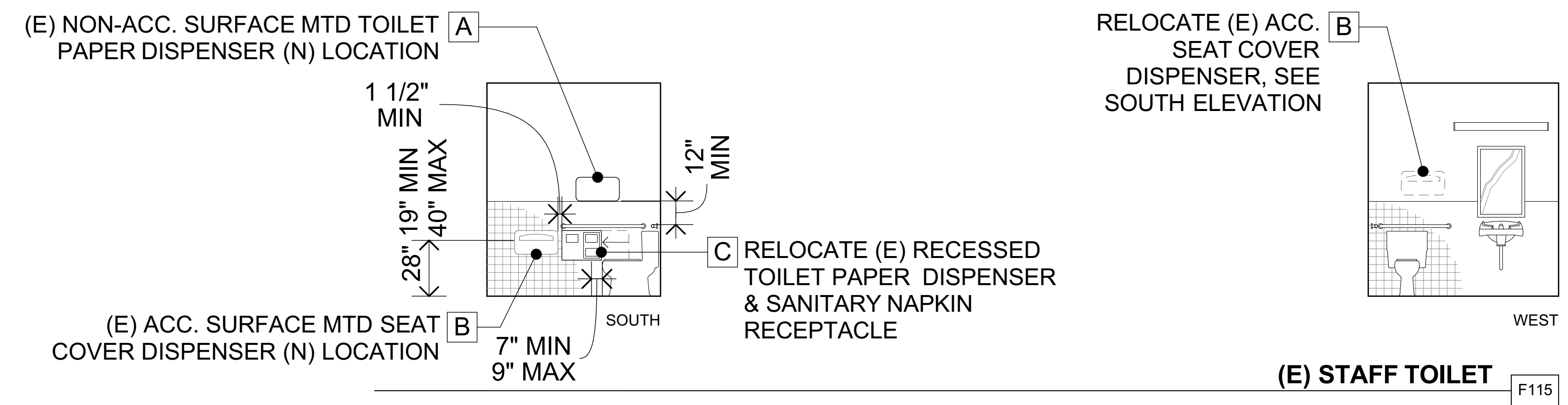
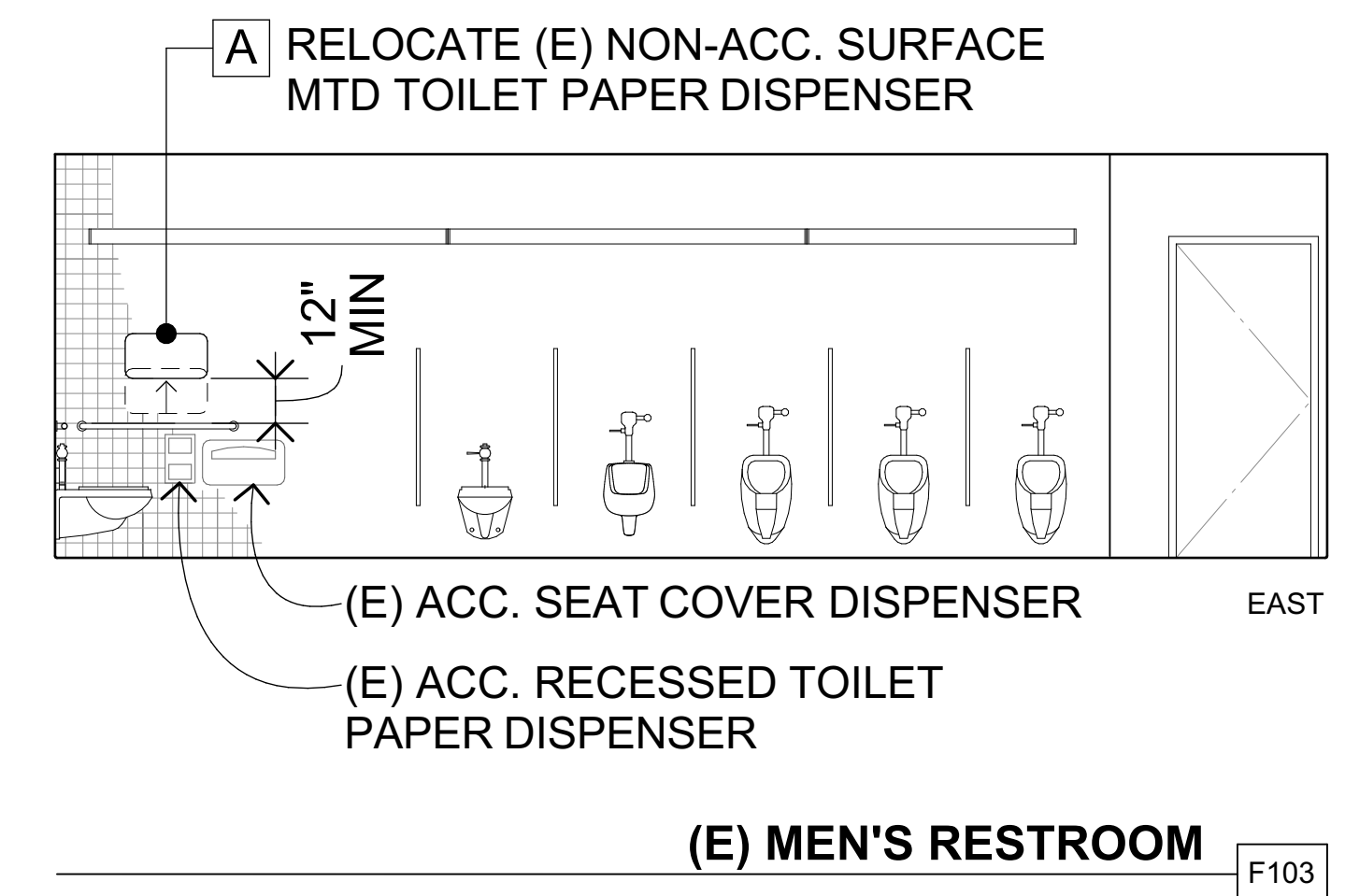
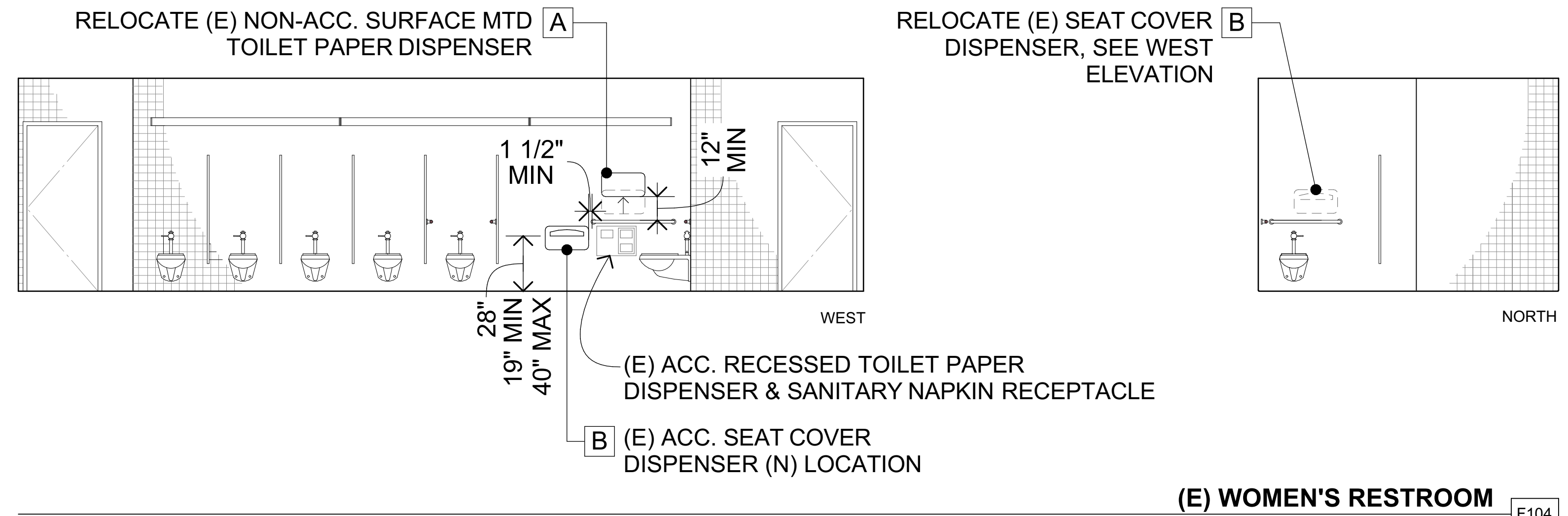
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(E) BLDF F RESTROOMS - INTERIOR ELEVATIONS 1

1/4" = 1'-0"

HERITAGE HIGH SCHOOL

CULINARY ARTS BUILDING

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LIBERTY UNION HIGH SCHOOL DISTRICT

ARCH PROJECT NO: 1750.00

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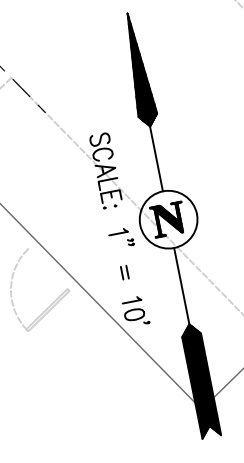
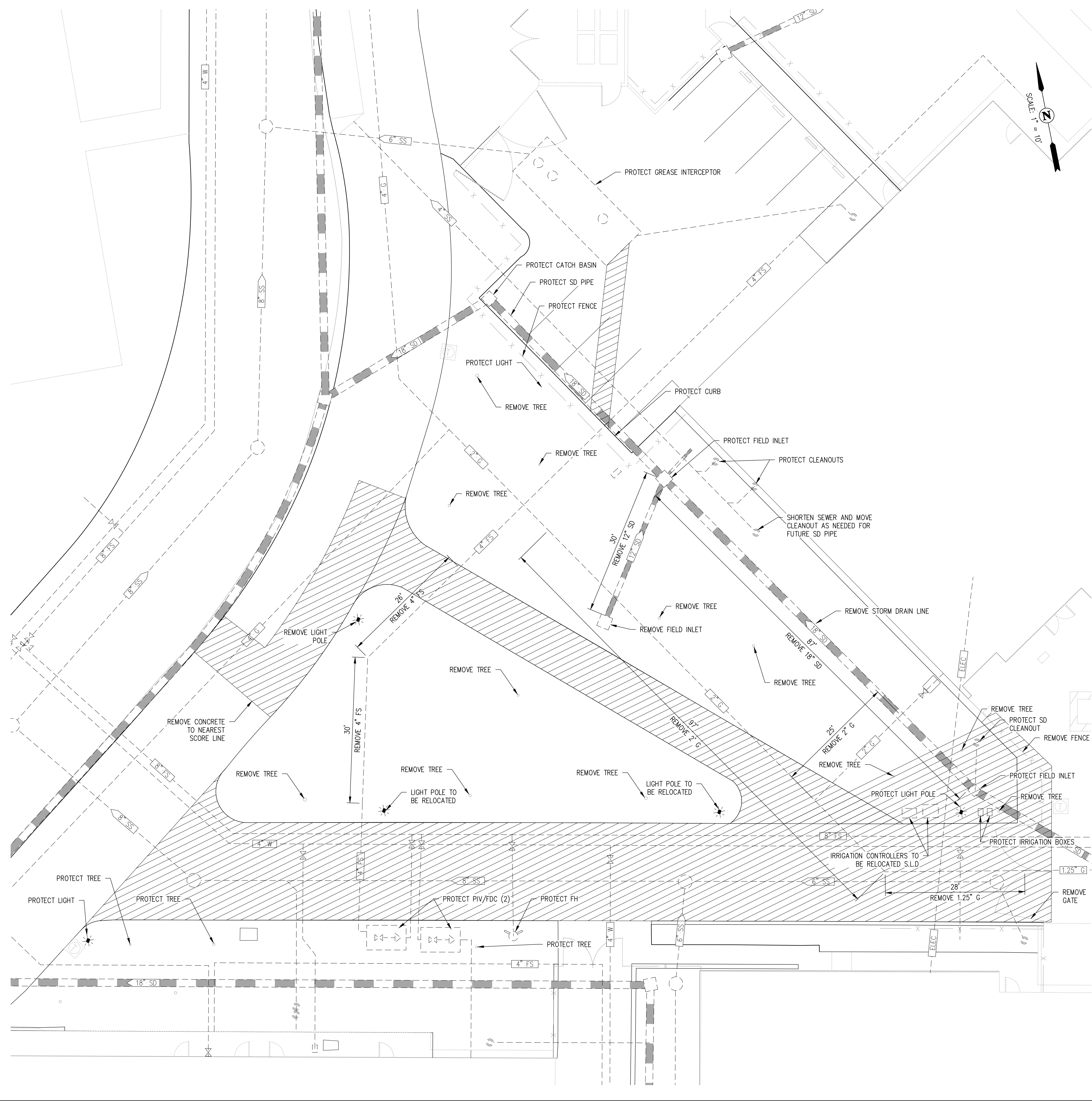
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SHEET TITLE

(E) BUILDING F RESTROOMS - NEW WORK

SHEET NUMBER

G-0.8



LEGEND

- REMOVE CONCRETE/ AC
-

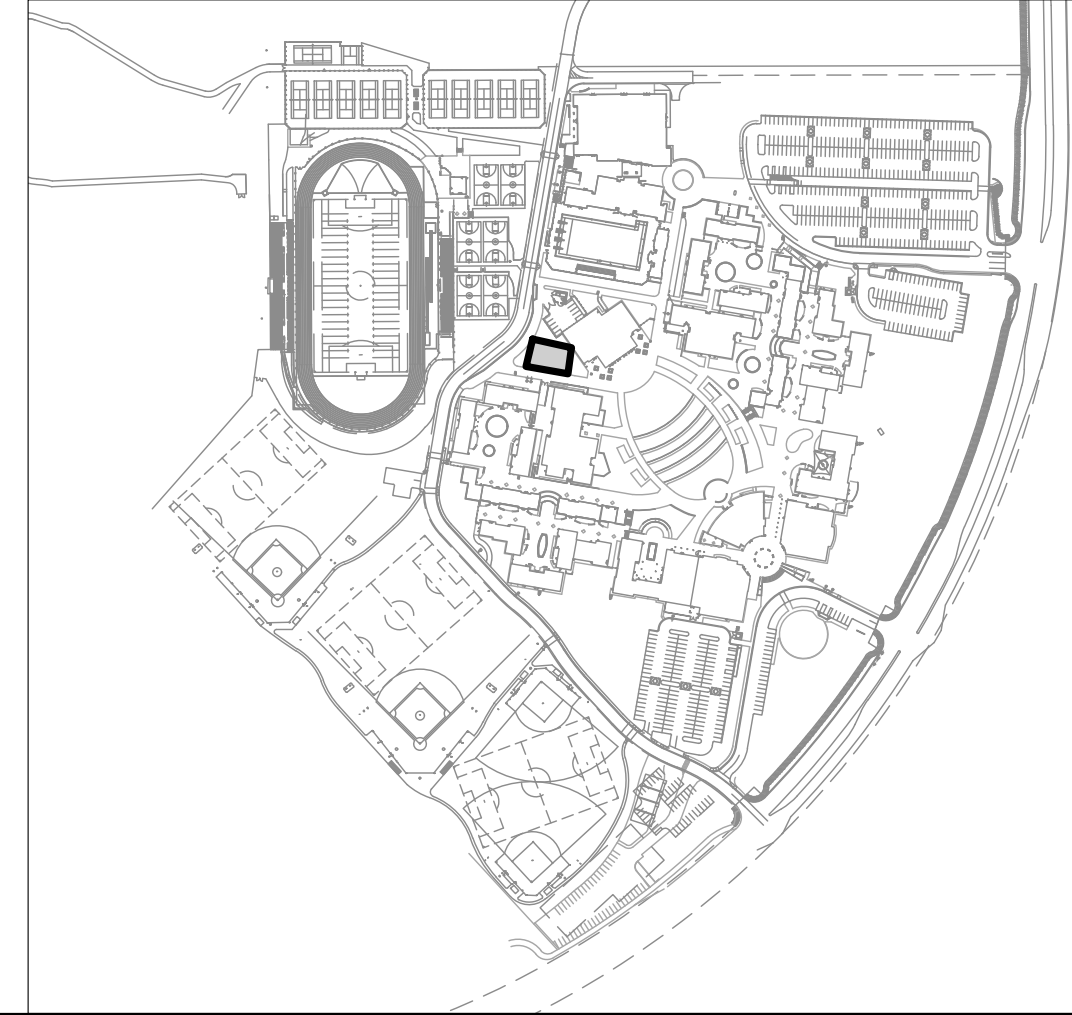
ABBREVIATIONS

- FDC FIRE DEPARTMENT CONNECTION
- FH FIRE HYDRANT
- PIV POST INDICATOR VALVE

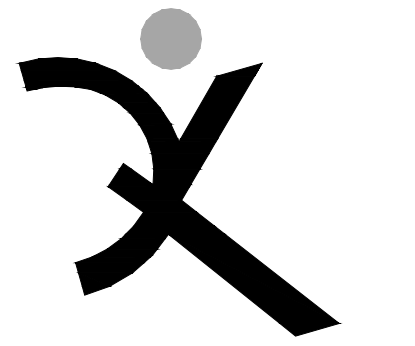
NOTE:

SEE SHEET L3.0 FOR IRRIGATION INFORMATION. CONTRACTOR TO KEEP EXISTING IRRIGATION SERVING LANDSCAPING TO REMAIN IN CONTINUOUS SERVICE.

KEY PLAN



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cbg
CIVIL ENGINEERS



**HERITAGE HIGH SCHOOL
CULINARY ARTS BUILDING**

101 American Ave
Brentwood, CA 94513

LIBERTY UNION HIGH SCHOOL DISTRICT

20 Oak Street
Brentwood, CA 94513

REVISIONS

NO.	DESCRIPTION

ARCH PROJECT NO: 1750.00
DRAWN BY: MJV
DRAWING SCALE: AS NOTED
PTN: 61721-70

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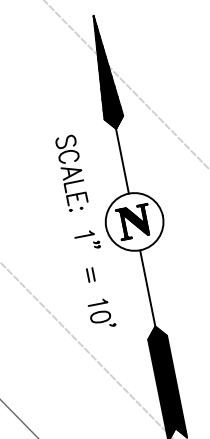
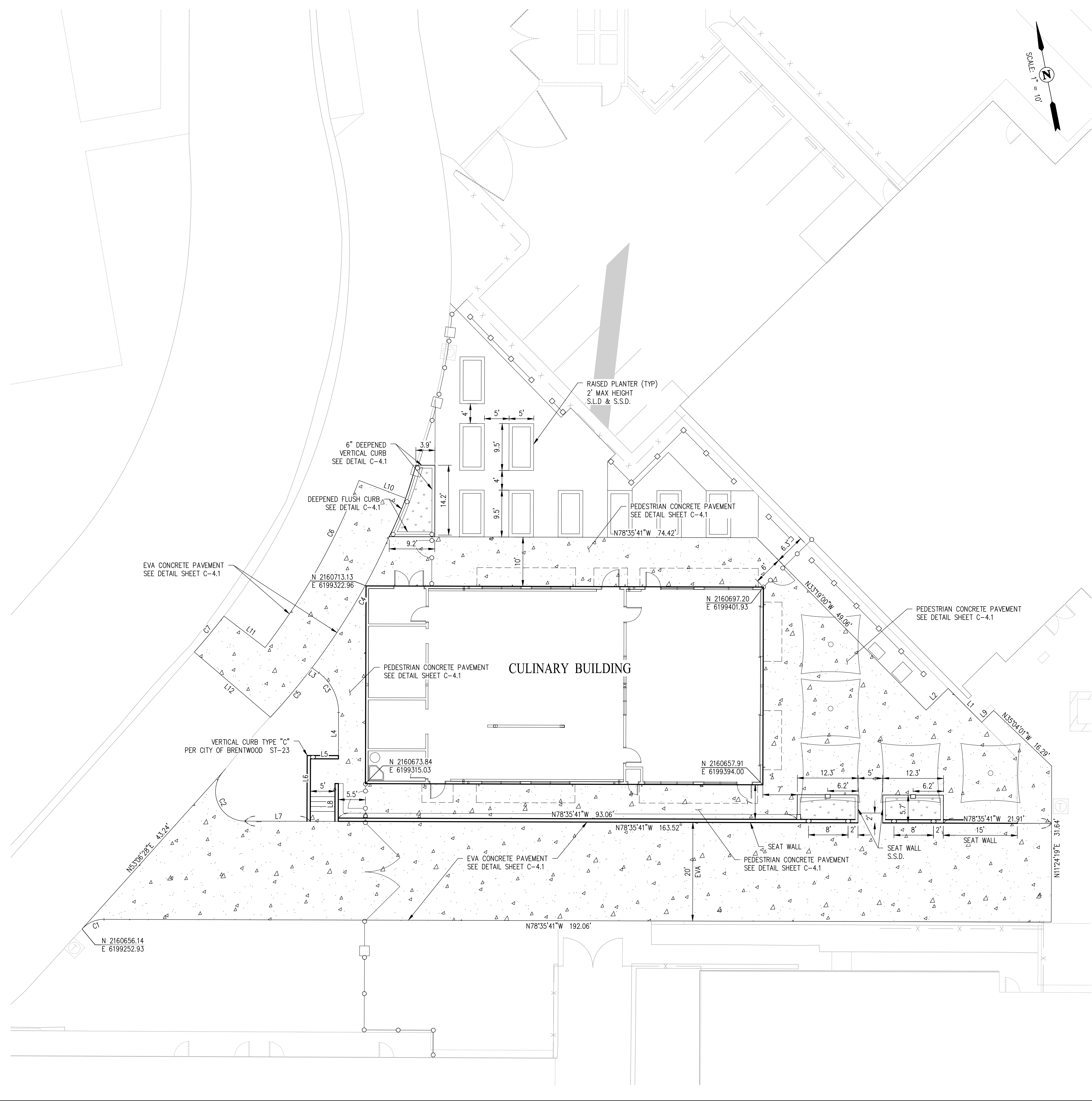
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SHEET TITLE

DEMOLITION PLAN

SHEET NUMBER

C-1.0



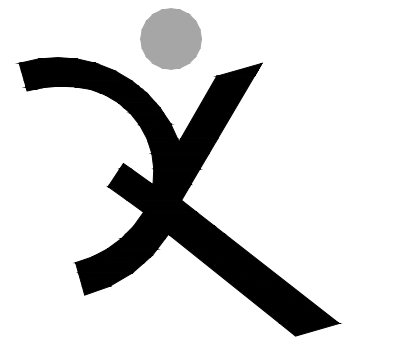
LEGEND

- CONCRETE
- BIO-RETENTION AREA
- TRENCH REPAIR PER CITY OF BRENTWOOD STD. DWG. ST-42A
- BUILDING OVERHANG
- CUT THRU IN WALL, S.S.D.
- CURB CUT, SEE DETAIL SHEET C-4.1

LINE TABLE		
NO	LENGTH	BEARING
L1	9.66'	N33° 29' 25"W
L2	6.28'	N56° 42' 59"E
L3	1.74'	N41° 51' 38"W
L4	9.41'	N11° 24' 19"E
L5	5.67'	S78° 35' 41"E
L6	12.67'	N11° 24' 19"E
L7	13.23'	N78° 35' 41"W
L8	7.67'	N11° 24' 19"E
L9	3.39'	N56° 27' 00"E
L10	10.12'	S57° 47' 09"E
L11	10.48'	S41° 14' 22"E
L12	20.33'	N38° 09' 00"W

CURVE TABLE			
NO	RADIUS	DELTA	LENGTH
C1	6.00'	047°41'48"	4.99'
C2	6.03'	135°15'03"	14.23'
C3	10.00'	053°15'57"	9.30'
C4	132.66'	013°21'17"	30.92'
C5	131.36'	005°42'57"	13.10'
C6	134.13'	016°40'07"	39.02'
C7	133.62'	004°02'51"	9.44'

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SALE RANKIN
CIVIL ENGINEERS
PLANNERS
SURVEYORS



**HERITAGE HIGH SCHOOL
CULINARY ARTS BUILDING**

101 American Ave
Brentwood, CA 94513

LIBERTY UNION HIGH SCHOOL DISTRICT
20 Oak Street
Brentwood, CA 94513

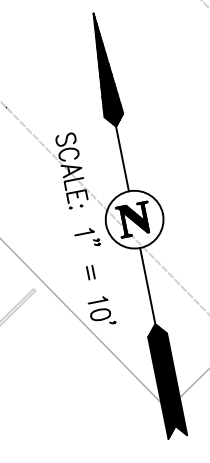
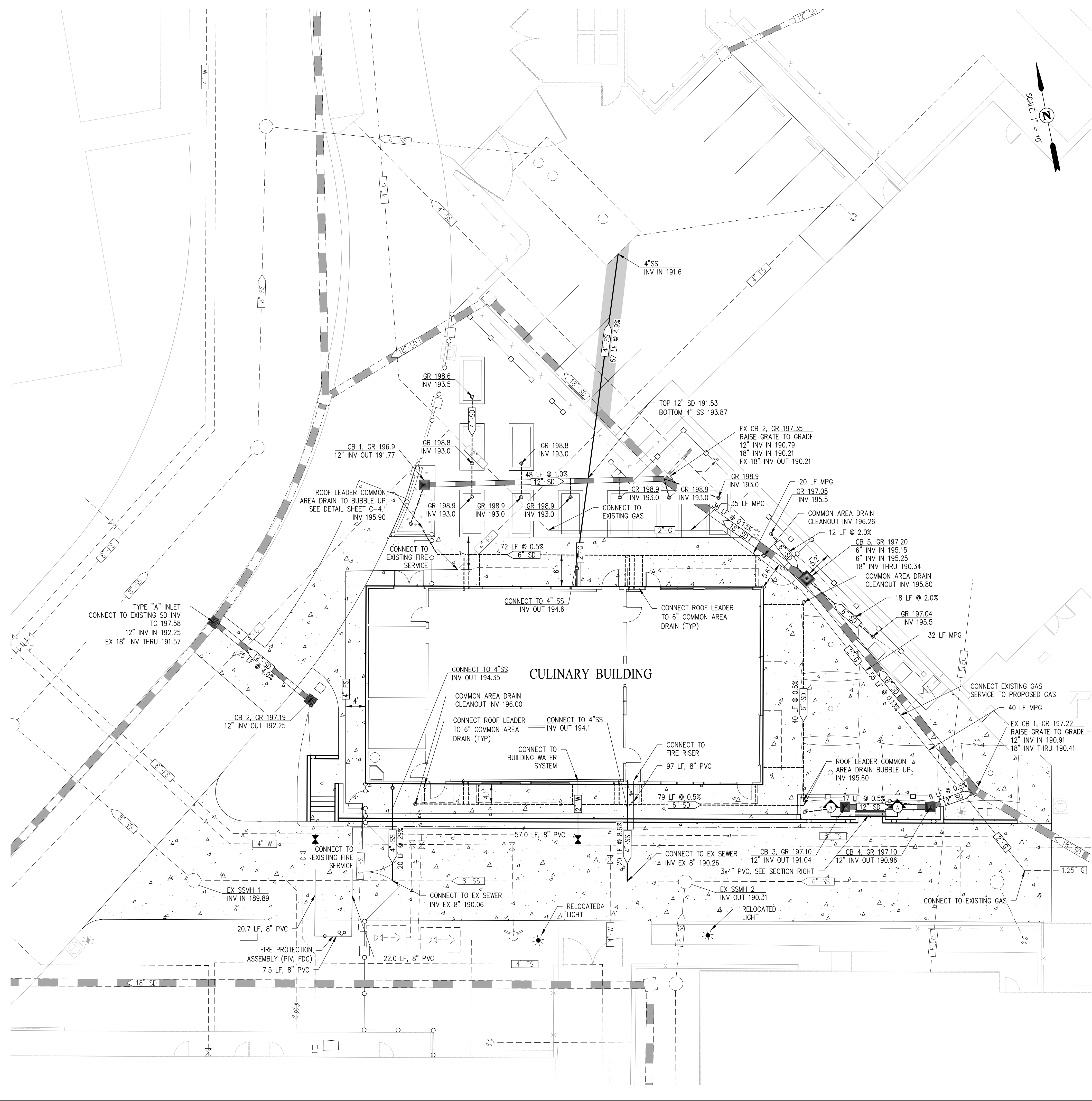
REVISIONS	

ARCH PROJECT NO: 1750.00
DRAWN BY: MJV
DRAWING SCALE: AS NOTED
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FEBRUARY 27, 2019
SHEET TITLE

HORIZONTAL CONTROL PLAN

SHEET NUMBER
C-2.0



LEGEND

- CONCRETE SIDEWALK/GUTTER
- BIO-RETENTION AREA
- PROPOSED STORM DRAIN
- PROPOSED SEWER LATERAL
- PROPOSED WATER LATERAL
- PROPOSED FIRE SERVICE
- PROPOSED CATCH BASIN
- PROPOSED CLEANOUT
- EXISTING SEWER
- EXISTING STORM DRAIN
- EXISTING WATER
- EXISTING FIELD INLET
- EXISTING FIRE SERVICE
- EXISTING MANHOLE

NOTES

1. FOR CATHODIC PROTECTION ALONG THE FIRE SERVICE LINE, SEE DETAILS 1 AND 2 ON SHEET CP1.2.
2. FOR CATHODIC PROTECTION ALONG THE WATER LINE, SEE DETAIL 4 ON SHEET CP1.2.

STORM DRAIN PIPE SCHEDULE	
STRUCTURE	DESCRIPTION
4" PERFORATED PIPE	30 LF PVC
4" PIPE	50 LF PVC
6" PIPE	320 LF PVC
12" PIPE	75 LF HDPE
18" PIPE	90 LF HDPE

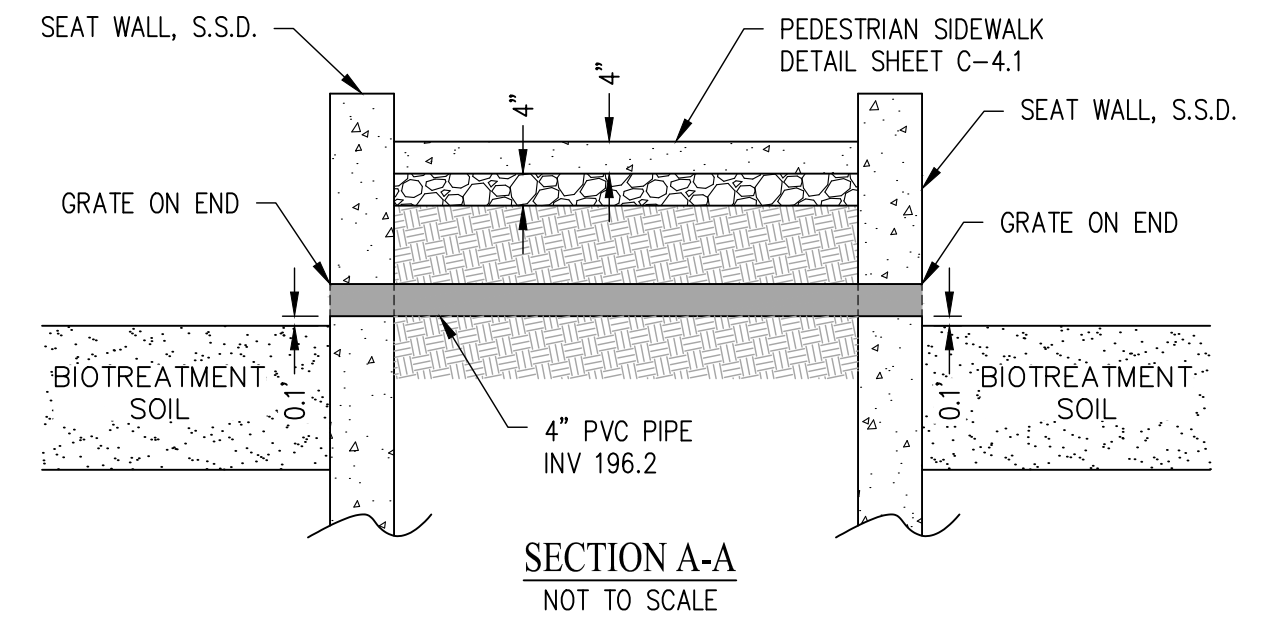
STORM DRAIN STRUCTURE SCHEDULE	
STRUCTURE	DESCRIPTION
AREA DRAIN (11 TOTAL)	NDS 4" ATRIUM GRATE #75
FIELD INLET CB 1 - 4 (4 TOTAL)	OLDCASTLE PRECAST CB1818
FIELD INLET CB 5 (1 TOTAL)	OLDCASTLE PRECAST CB2424
TYPE "A" INLET (1 TOTAL)	PER CITY OF BRENTWOOD STANDARD SD-15A

SANITARY SEWER PIPE SCHEDULE	
STRUCTURE	DESCRIPTION
4" PIPE	108 LF, PVC SDR 35

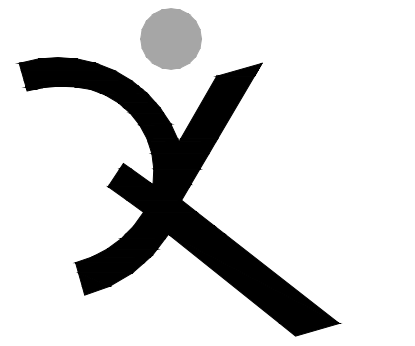
SANITARY SEWER STRUCTURE SCHEDULE	
STRUCTURE	DESCRIPTION
SSCO (2 TOTAL)	PER CITY OF BRENTWOOD STANDARD SS-1

WATER PIPE SCHEDULE	
STRUCTURE	DESCRIPTION
2" PIPE	13 LF PE
8" PIPE	120 LF PVC

WATER STRUCTURE SCHEDULE	
STRUCTURE	DESCRIPTION
PIV (1 TOTAL)	MUELLER A - 20801 PER CITY OF BRENTWOOD STANDARD W-4
FDC (1 TOTAL)	CROKER 6545 4-WAY FDC



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Main Office:
636 Fifth Street, Santa Rosa, CA 95404
Pleasanton Office:
600 Main Street, Suite E, Pleasanton, CA 94566
(707) 576-0829



**HERITAGE HIGH SCHOOL
CULINARY ARTS BUILDING**

101 American Ave
Brentwood, CA 94513

LIBERTY UNION HIGH SCHOOL DISTRICT

20 Oak Street
Brentwood, CA 94513

REVISIONS

NO.	DESCRIPTION

ARCH PROJECT NO: 1750.00
DRAWN BY: MJV
DRAWING SCALE: AS NOTED
PTN: 61721-70

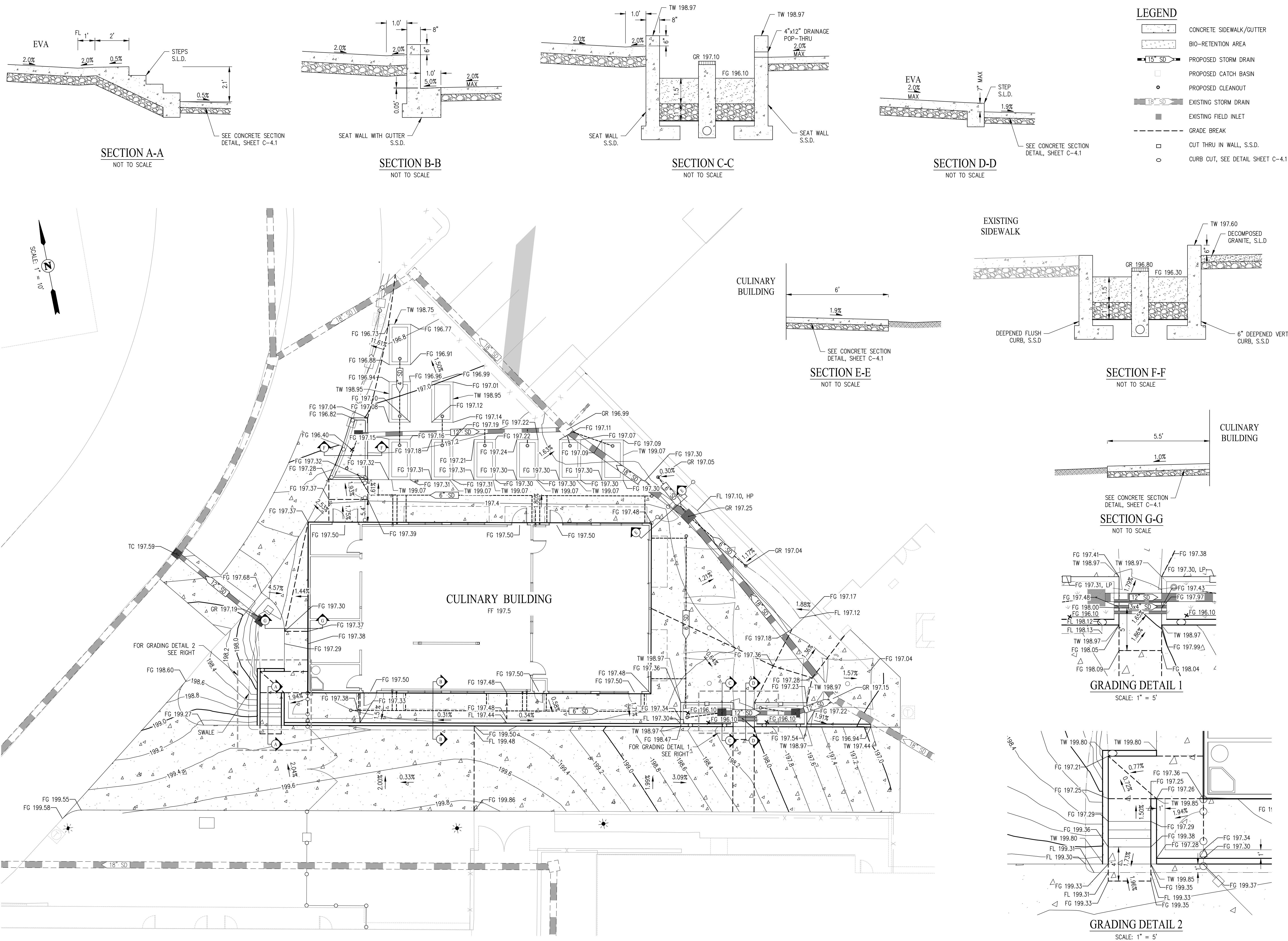
CD
FEBRUARY 27, 2019

SHEET TITLE

UTILITIES PLAN

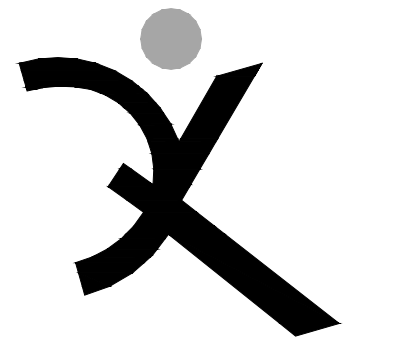
SHEET NUMBER

C-3.0



- LEGEND**
- CONCRETE SIDEWALK/GUTTER
 - BIO-RETENTION AREA
 - PROPOSED STORM DRAIN
 - PROPOSED CATCH BASIN
 - PROPOSED CLEANOUT
 - EXISTING STORM DRAIN
 - EXISTING FIELD INLET
 - GRADE BREAK
 - CUT THRU IN WALL, S.S.D.
 - CURB CUT, SEE DETAIL SHEET C-4.1

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JASON D. VOICIN
59299
STATE OF CALIFORNIA
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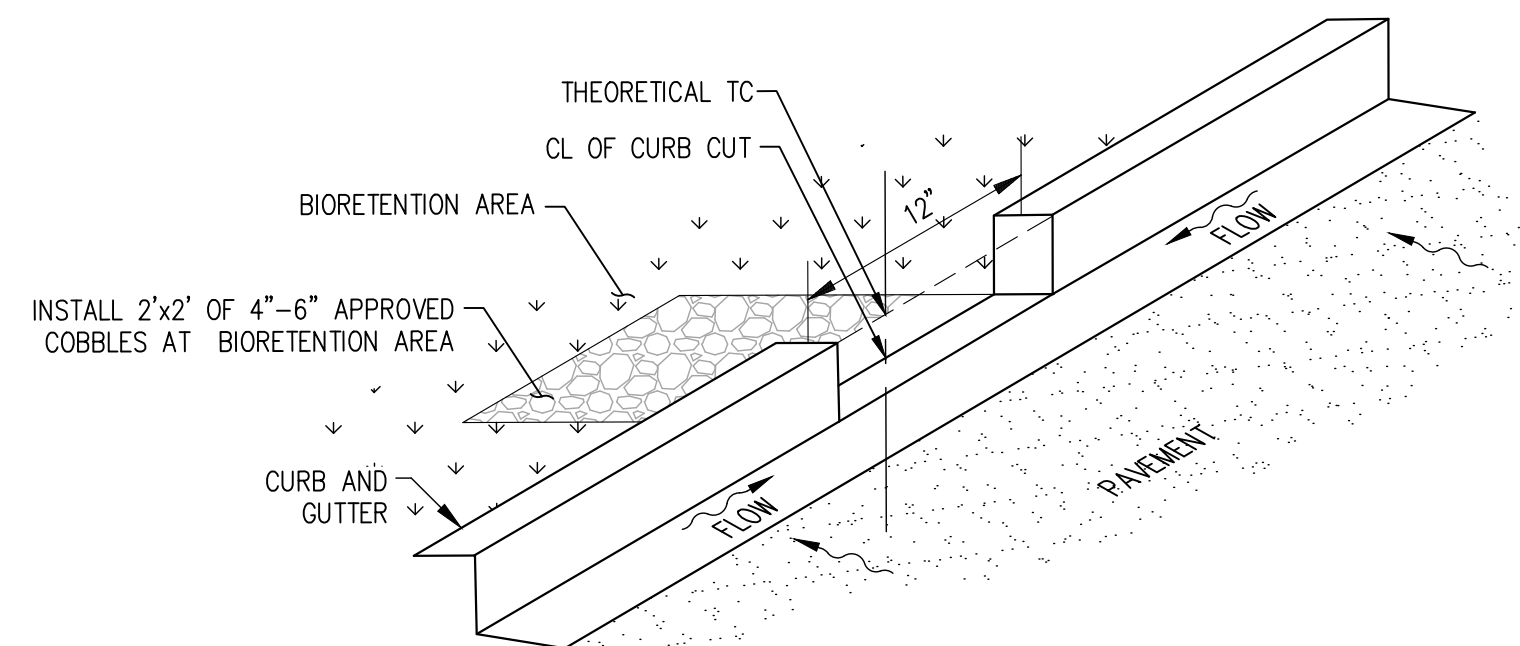
LIBERTY UNION HIGH SCHOOL DISTRICT
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REVISIONS

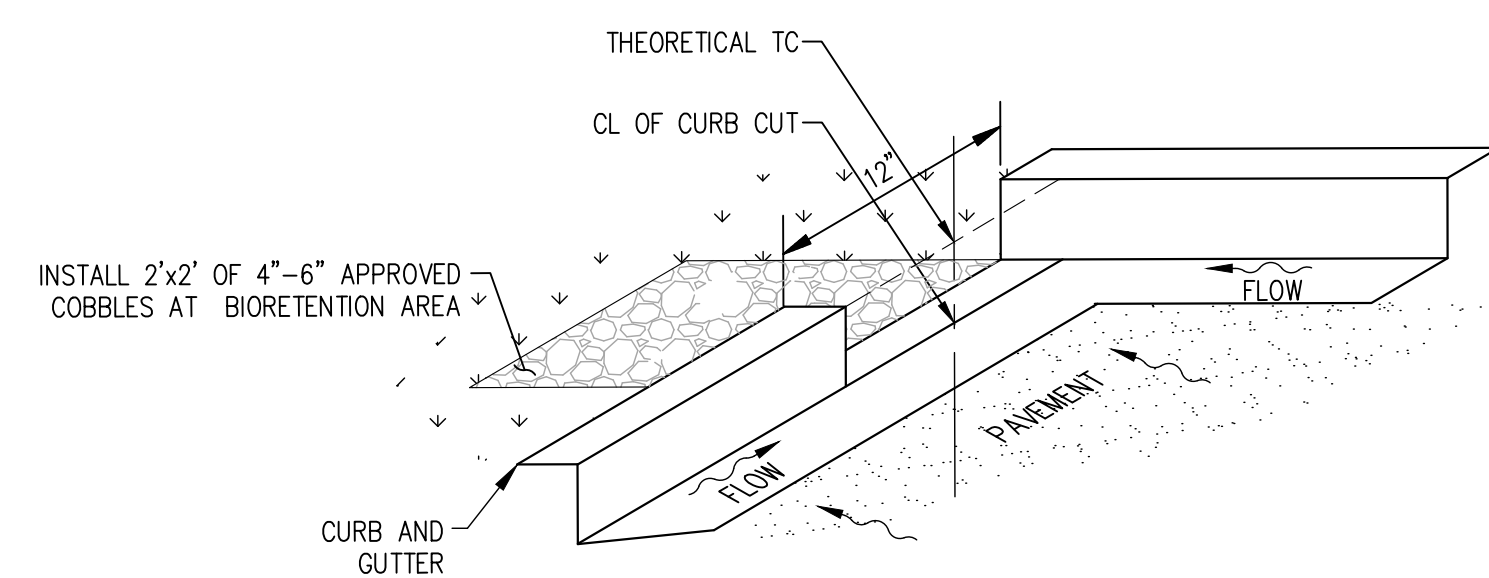
NO.	DESCRIPTION	DATE

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SHEET TITLE

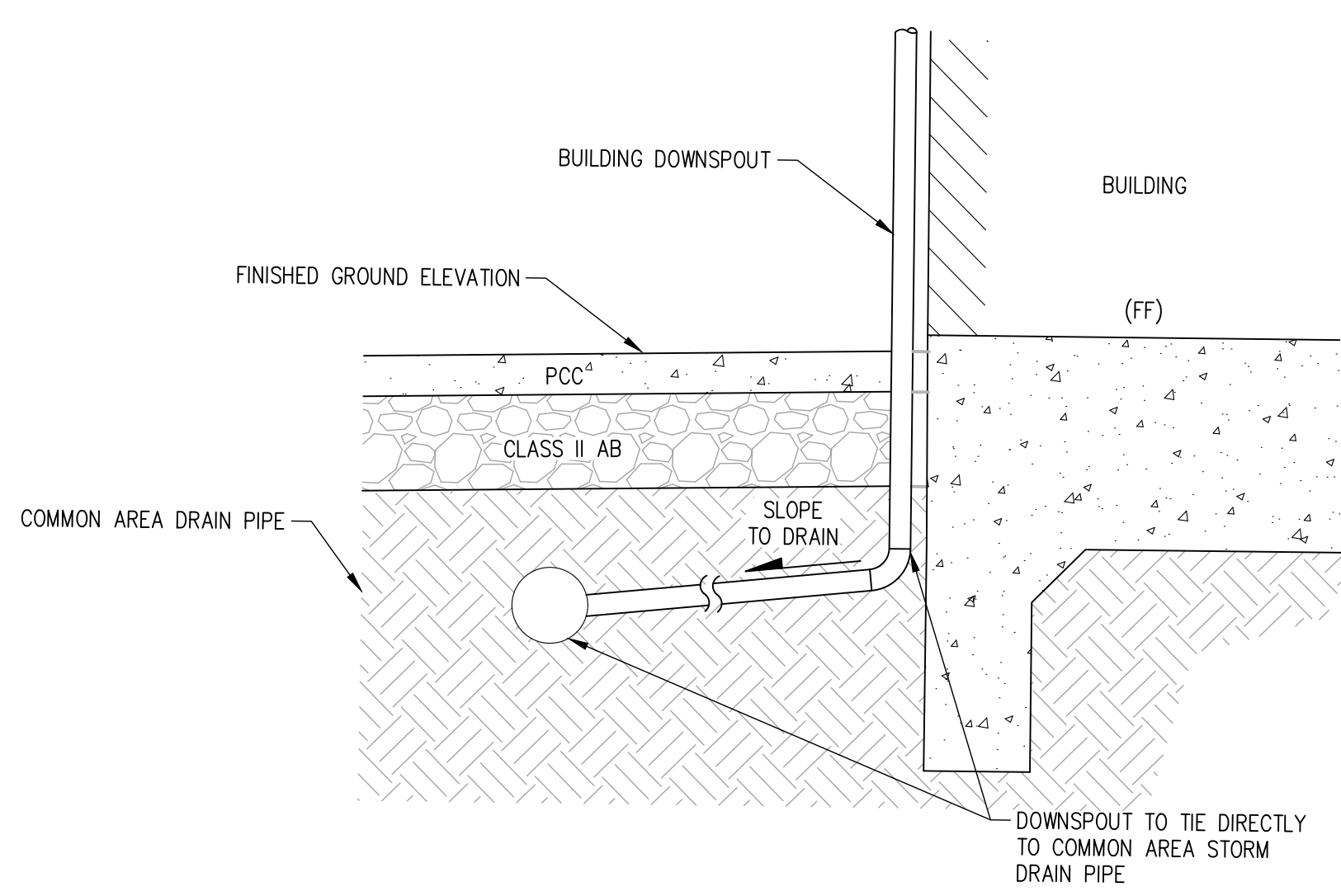
GRADING AND DRAINAGE PLAN
SHEET NUMBER
C-4.0



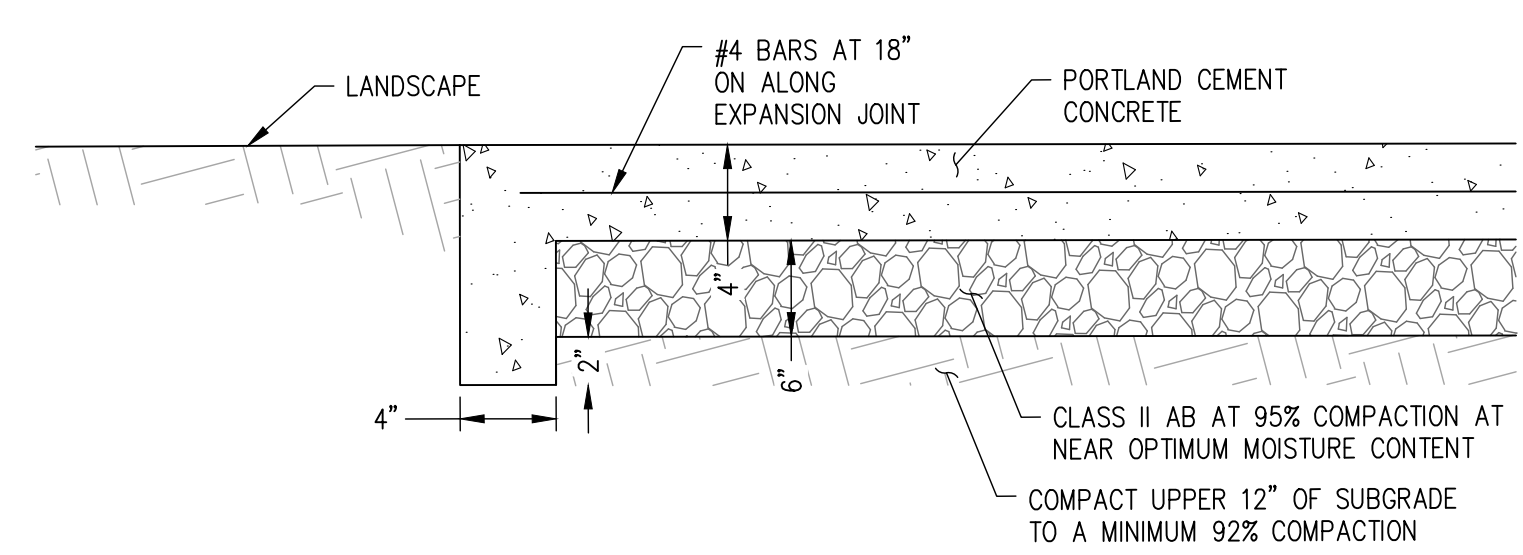
CURB CUT DETAIL
NOT TO SCALE



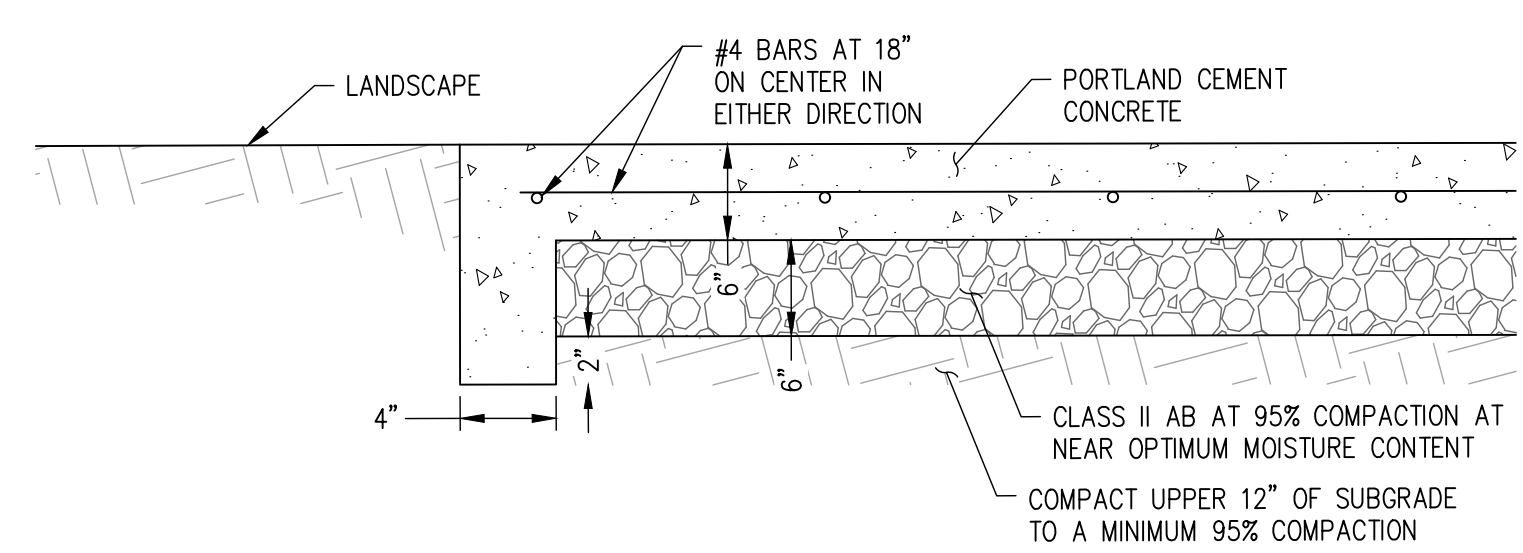
CORNER CURB CUT DETAIL
NOT TO SCALE



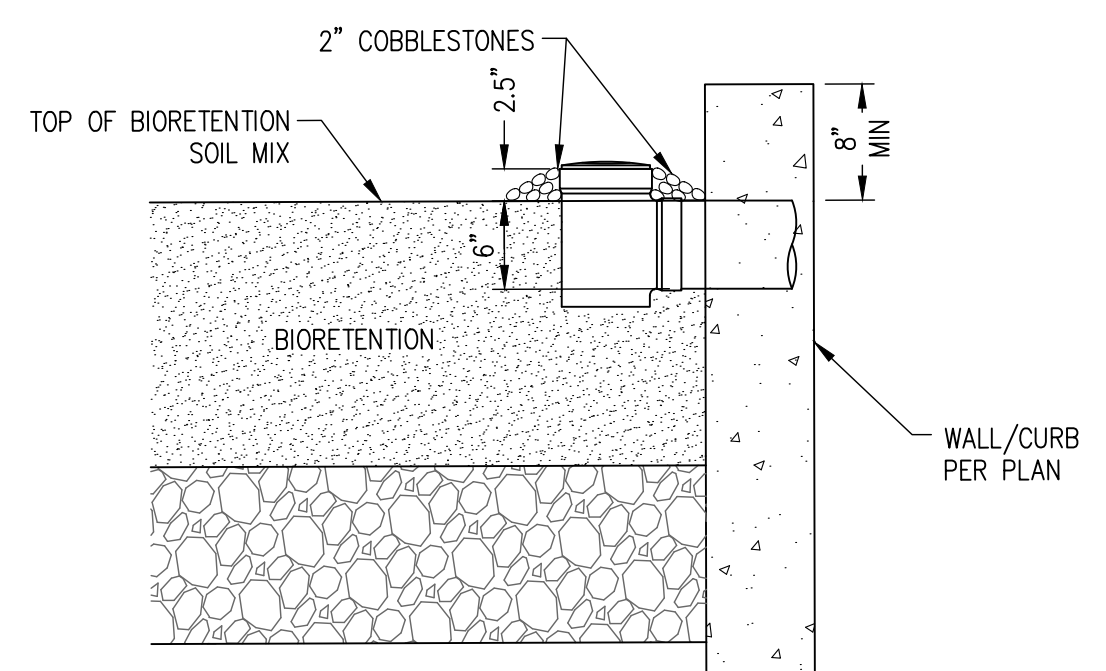
DOWNSPOUT TO COMMON AREA CONNECTION DETAIL
NOT TO SCALE



PEDESTRIAN CONCRETE PAVEMENT SECTION
NOT TO SCALE

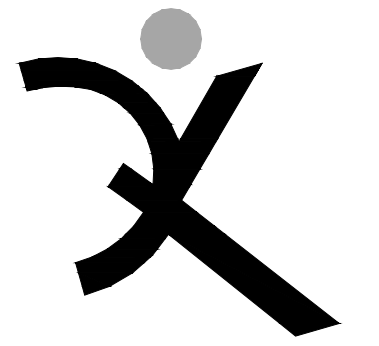


EVA CONCRETE PAVEMENT SECTION
NOT TO SCALE



NDS POP-UP DRAINAGE EMITTER - (OR APPROVED EQUIVALENT) AT BIORETENTION PLANTERS
NOT TO SCALE

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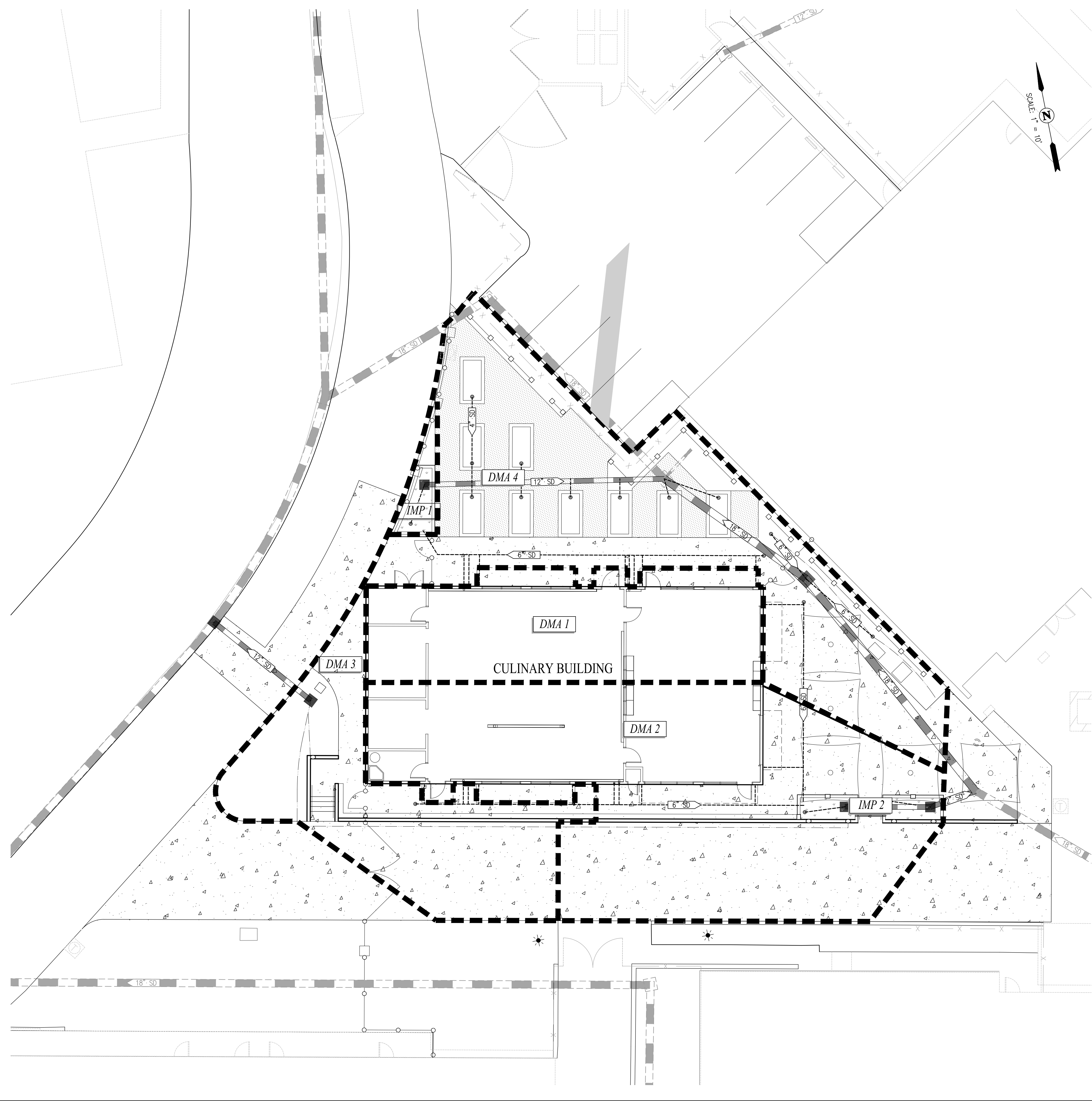
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20 Oak Street
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REVISIONS	

ARCH PROJECT NO: 1750.00
DRAWN BY: MJV
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SHEET TITLE

GRADING DETAILS

SHEET NUMBER
C-4.1



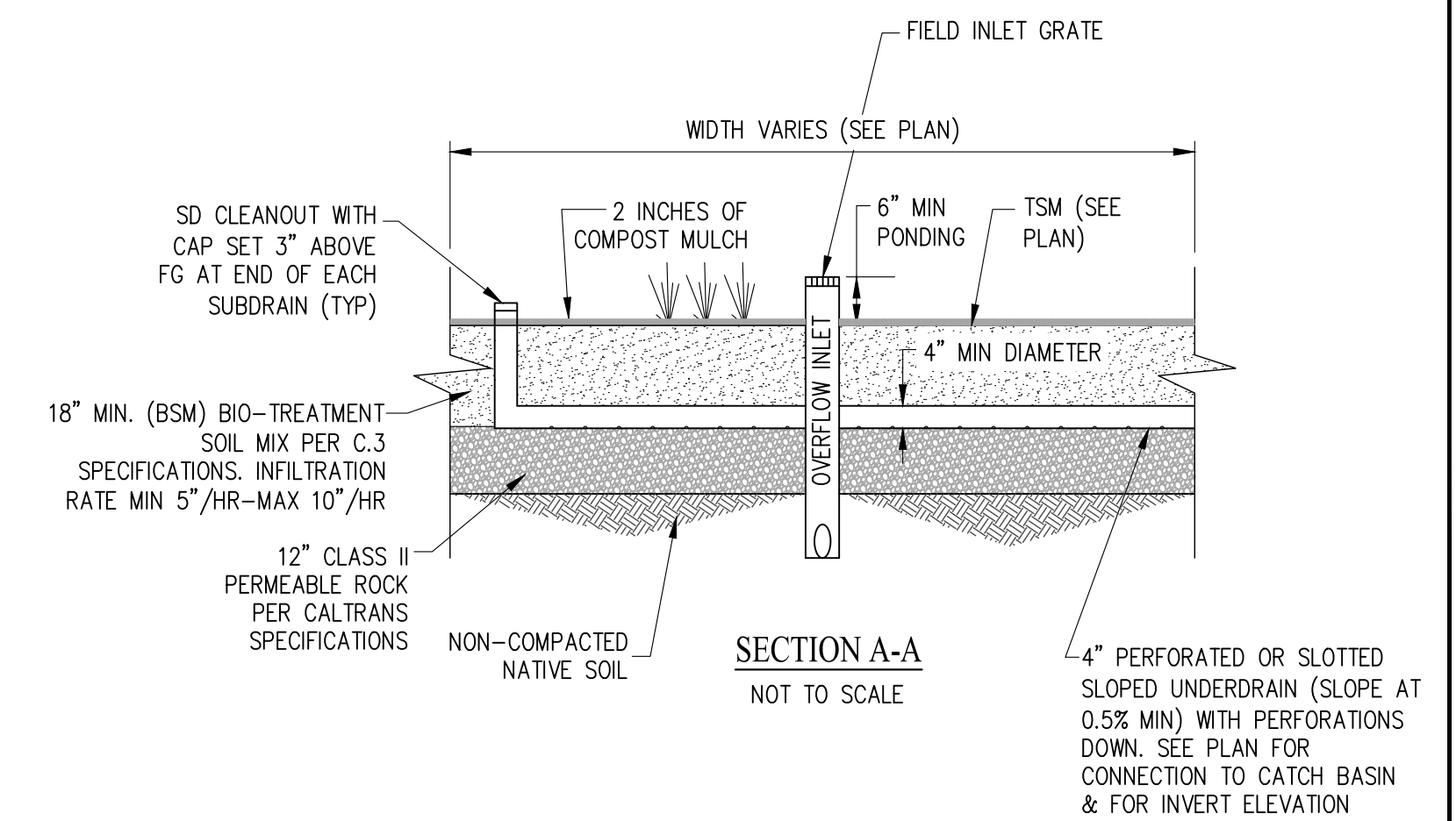
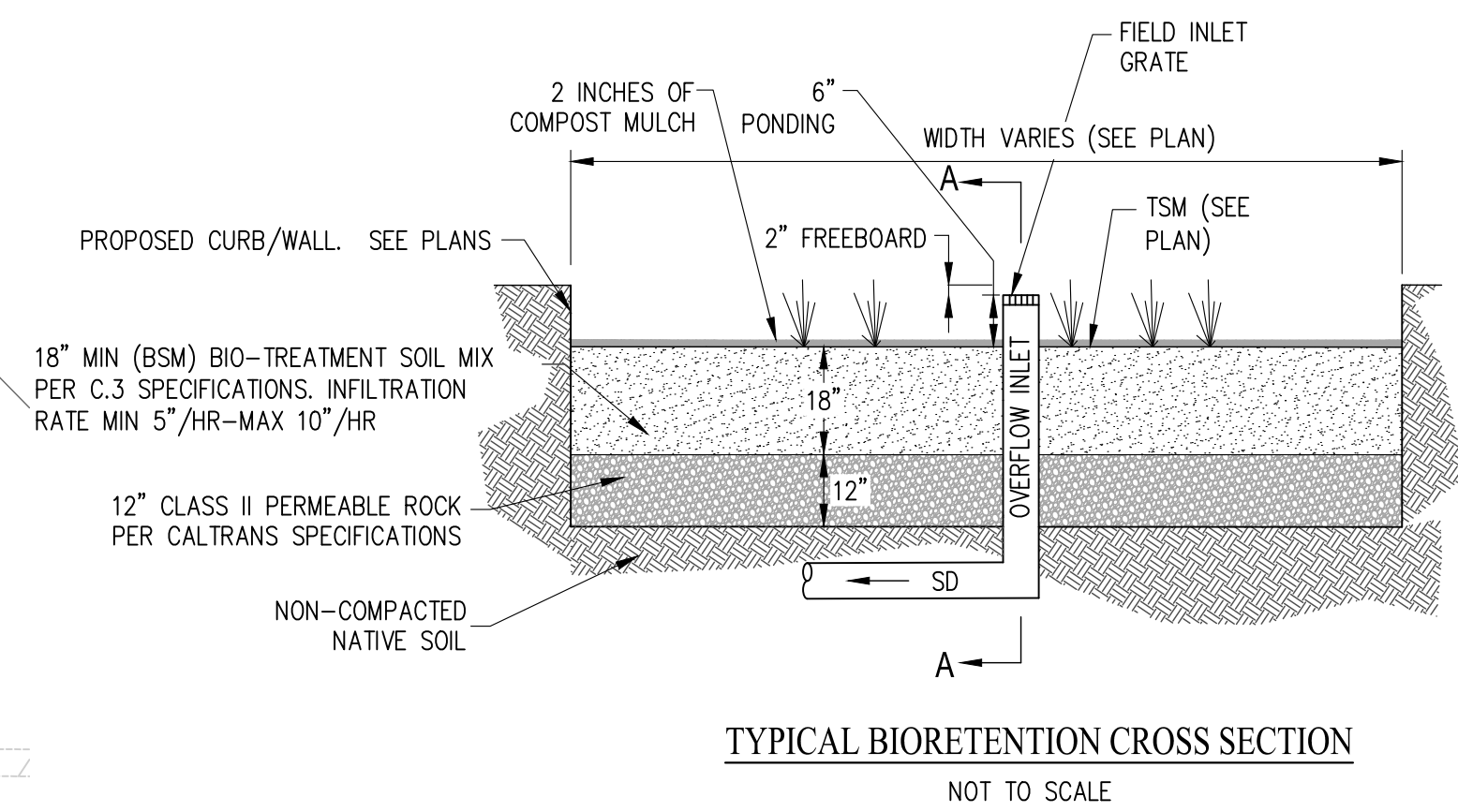
LEGEND

- IMP 1** [Pattern] INTEGRATED MANAGEMENT PRACTICE – BIORETENTION AREA
- [Dashed Line] DRAINAGE MANAGEMENT AREA BOUNDARY
- DMA 1** [Pattern] DRAINAGE MANAGEMENT AREA DRAINING TO PARKING INFILTRATION TRENCH AREA OR BIO-RETENTION AREA

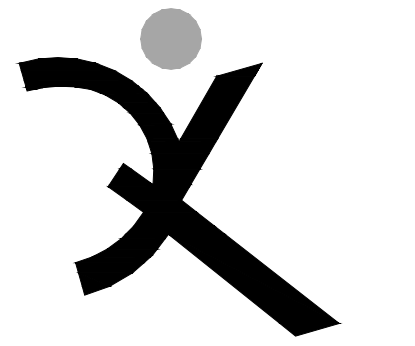
BIORETENTION AREAS

DMA	PROVIDED TREATMENT AREA (SF)
1	58
2	98
TOTAL	156

NOTE
 1. DMA 3 AND 4 ARE SELF RETAINING AREAS. THE IMPERVIOUS AREA DRAINING TO PERVIOUS AREA WILL BE KEPT TO A MAXIMUM RATIO OF 2:1.



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cbg CIVIL ENGINEERS
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 JASON D. VOICIN
 59299
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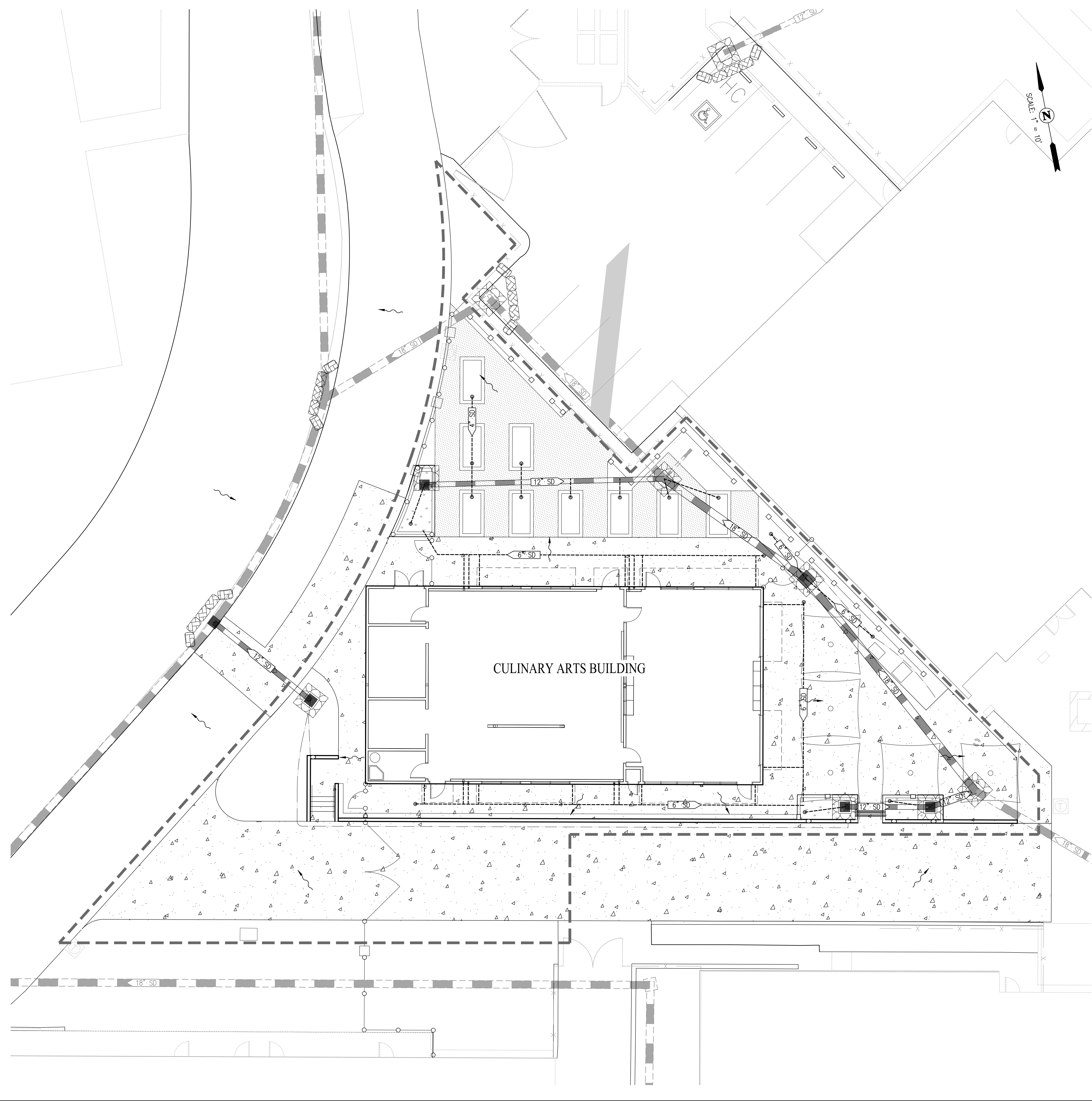
LIBERTY UNION HIGH SCHOOL DISTRICT
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NO.	DATE	DESCRIPTION

ARCH PROJECT NO: 1750.00
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 DRAWING SCALE: AS NOTED
 PTN: 61721-70
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 FEBRUARY 27, 2019
 SHEET TITLE

STORMWATER CONTROL PLAN
 SHEET NUMBER
C-5.0



WDID #:

GENERAL NOTES:

1. LEGALLY RESPONSIBLE PARTY/PERSON (LRP) OWNER/SUBDIVIDER: LIBERTY UNION HIGH SCHOOL DISTRICT
850 2ND STREET
BRENTWOOD, CA 94513
2. CIVIL ENGINEER: CARLSON, BARBEE & GIBSON, INC.
2633 CAMINO RAMON, SUITE 350
SAN RAMON, CA 94583
(925) 866-0322
JASON VOGAN, RCE 59299
3. GEOTECHNICAL ENGINEER: WALLACE-KUHL & ASSOCIATES
3050 INDUSTRIAL BLVD
WEST SACRAMENTO, CA 95691
(916) 372-1434
TOM DESIMONE

LEGEND

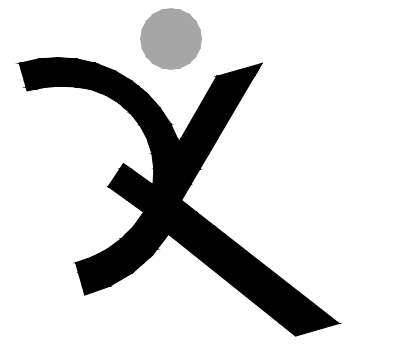
- DIRECTION OF FLOW WITH STORM DRAIN INSTALLED
- FIELD INLET PROTECTION - (SE-10)
- CURB INLET PROTECTION - (SE-10)
- FIBER ROLL - (SE-5)
- STABILIZED CONSTRUCTION ENTRANCE/EXIT - (TC-1)
- FIELD INLET
- CURB CUT
- PROPOSED STORM DRAIN
- EXISTING STORM DRAIN

NOTE:
* STORMWATER DISCHARGE SAMPLING LOCATIONS ARE SUBJECT TO CHANGE AND WILL BE REMOVED, RELOCATED OR ADDED AT THE OSP'S DISCRETION.

APPLICABLE (BUT NOT LIMITED TO) CURRENT CASQA STORMWATER BMP CONSTRUCTION HANDBOOK

- EC-1 SCHEDULING
- EC-3 HYDROMULCH
- EC-4 HYDROSEED
- NS-1 WATER CONSERVATION PRACTICES
- NS-2 DEWATERING OPERATIONS
- NS-3 PAVING & GRINDING OPERATIONS
- NS-8 VEHICLE & EQUIPMENT CLEANING
- NS-9 VEHICLE & EQUIPMENT FUELING
- NS-10 VEHICLE & EQUIPMENT MAINTENANCE
- NS-12 CONCRETE CURING
- NS-13 CONCRETE FINISHING
- SE-1 SILT FENCE
- SE-4 CHECK DAMS
- SE-5 FIBER ROLLS
- SE-10 DI PROTECTION TYPE 1
- SE-10 DI PROTECTION TYPE 2
- SE-10 DI PROTECTION TYPE 3
- TC-1 STABILIZED CONSTRUCTION ENTRANCE/EXIT
- TC-2 STABILIZED CONSTRUCTION ROADWAY
- TC-3 ENTRANCE & OUTLET TIRE WASH
- WE-1 WIND EROSION CONTROL
- WM-1 MATERIAL DELIVERY & STORAGE
- WM-2 MATERIAL USE
- WM-3 STOCKPILE MANAGEMENT
- WM-8 CONCRETE WASTE MANAGEMENT
- WM-9 SANITARY/SEPTIC WASTE MANAGEMENT

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REVISIONS

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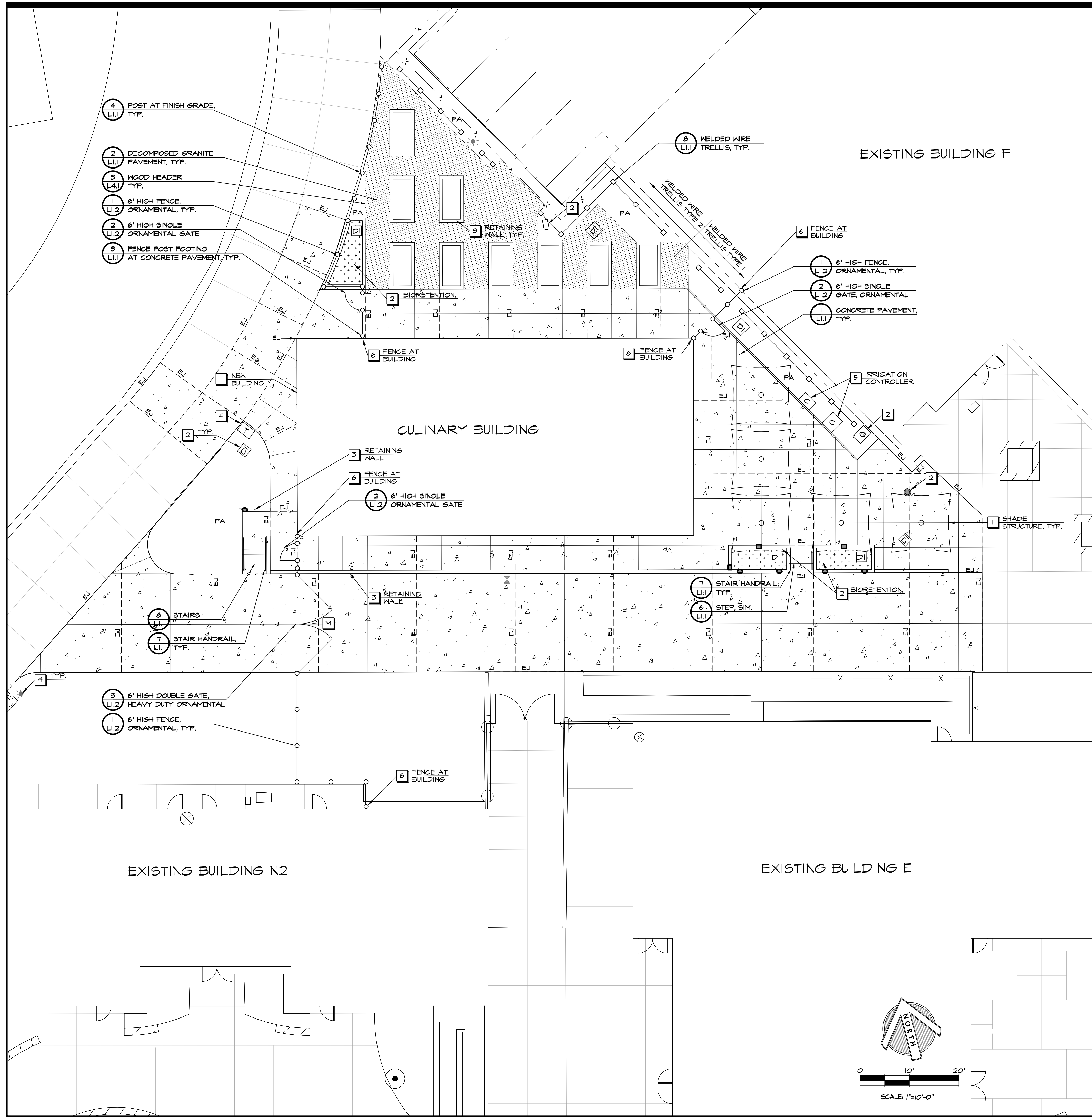
ARCH PROJECT NO: 1750.00
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FEBRUARY 27, 2019
SHEET TITLE

EROSION CONTROL PLAN

SHEET NUMBER

C-6.0



MATERIAL LEGEND

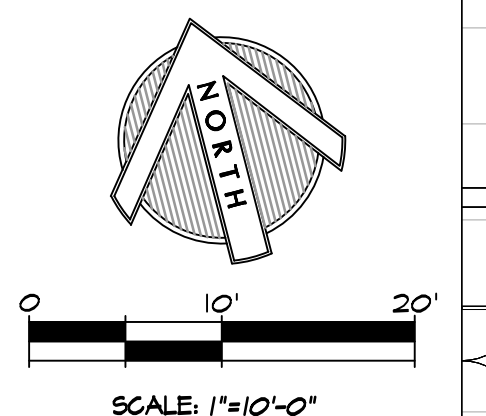
- X - Existing Fence
- Welded Wire Trellis
- 6' High Fence, Ornamental
- 6' High Single Gate, Ornamental
- 6' High Double Gate, Heavy Duty Ornamental (Maintenance)
- EJ - Expansion Joint. See Civil Drawings
- Control Joint. See Civil Drawings
- - - Wood Header
- ↔ Direction of broom finish
- PA Planting Area
- [Pattern] Concrete Pavement
- [Pattern] Biofiltration Facilities. See Civil Drawings
- [Pattern] Decomposed Granite Pavement

KEY NOTES

- 1 See Architectural Drawings
- 2 See Civil Drawings
- 3 See Structural Drawings
- 4 See Electrical Drawings
- 5 See Irrigation Drawings
- 6 Post shall be 4" clear max. at building, typ.

CONCRETE NOTES

1. Subgrade preparation shall be done in accordance with the recommendations in the Geotechnical Report.
2. Tooled control joints shall run continuously and extend through integral curbs and thickened edges. Tooled control joint layout shall be as shown on the Layout Plan, and coincide with the corners of objects, structures and the beginning and ends of curves. Joints should have a minimum depth of 25% of the slab thickness, unless otherwise noted on plans.
3. Expansion joints shall be laid out as shown on the Layout Plan.
4. Contractor shall place 3/8" asphalt impregnated fiber board where new concrete meets building walls, curbs and planters.
5. The base rock layer, prior to placement of concrete, shall be sprinkled with clean water several times to restore any moisture that may have been lost after completion of compaction.
6. Cure concrete with curing compound or keep continuously moist for a minimum of 7 days.
7. Contractor shall prepare a 4"x4" sample of all materials in the field prior to construction, for review and approval by the District.
8. Concrete pavement with slopes less than 6% shall receive a medium broom finish and slopes greater than 6% shall receive a heavy broom finish. Finish shall be in the direction shown on this sheet.



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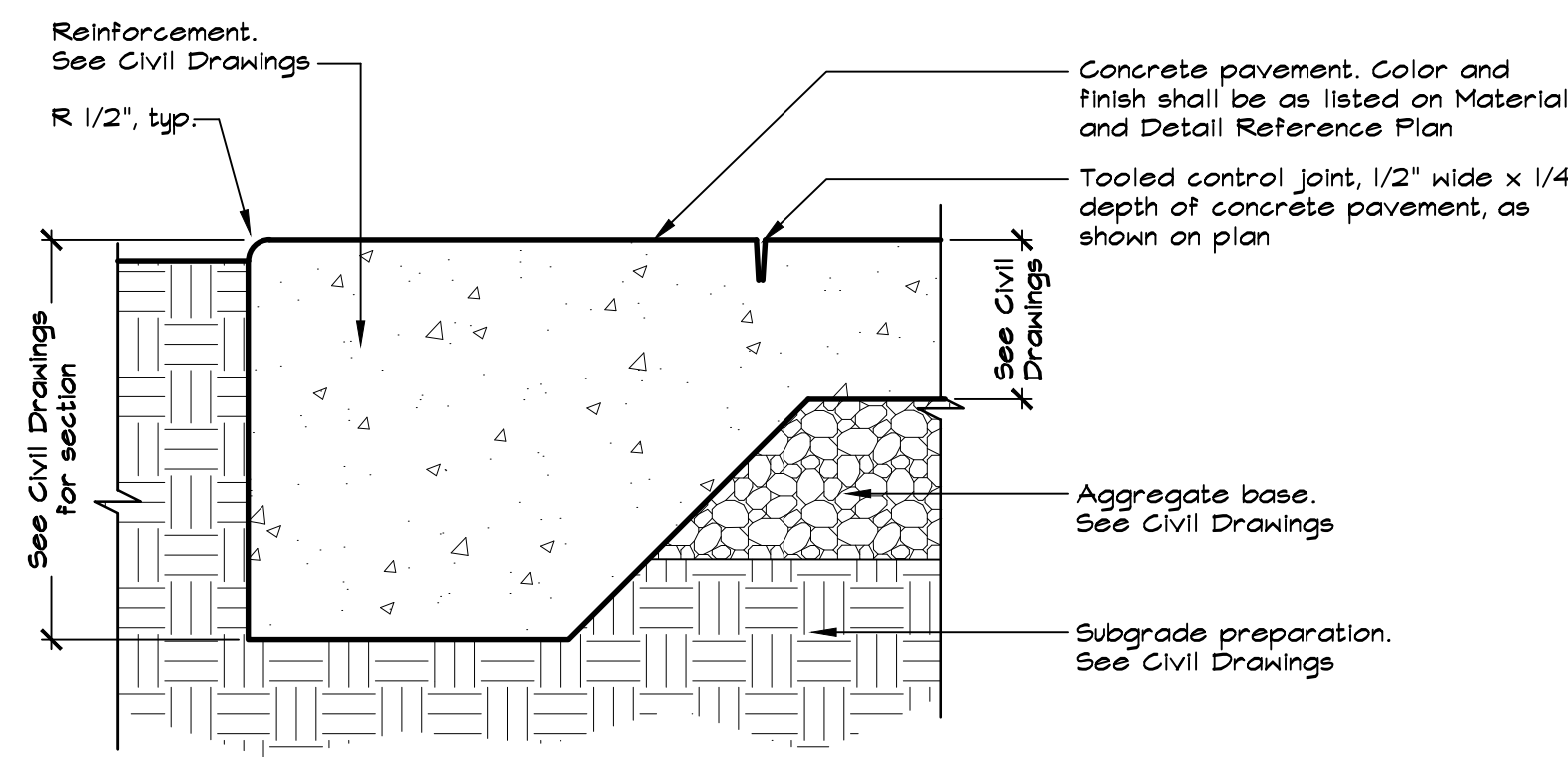
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ARCH PROJECT NO: 1750.00
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DRAWING SCALE: SCALE
PTN: 61721-70

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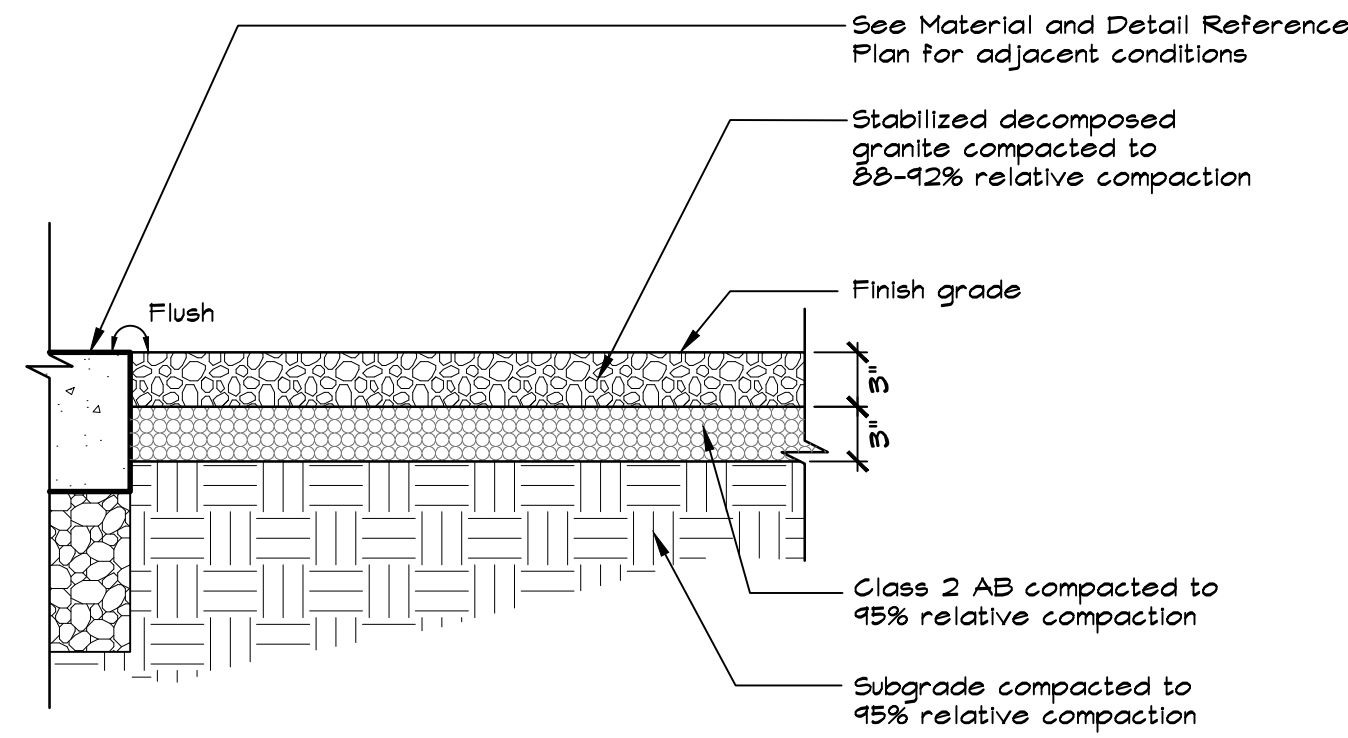
MATERIAL AND DETAIL REFERENCE PLAN

SHEET NUMBER
L1.0



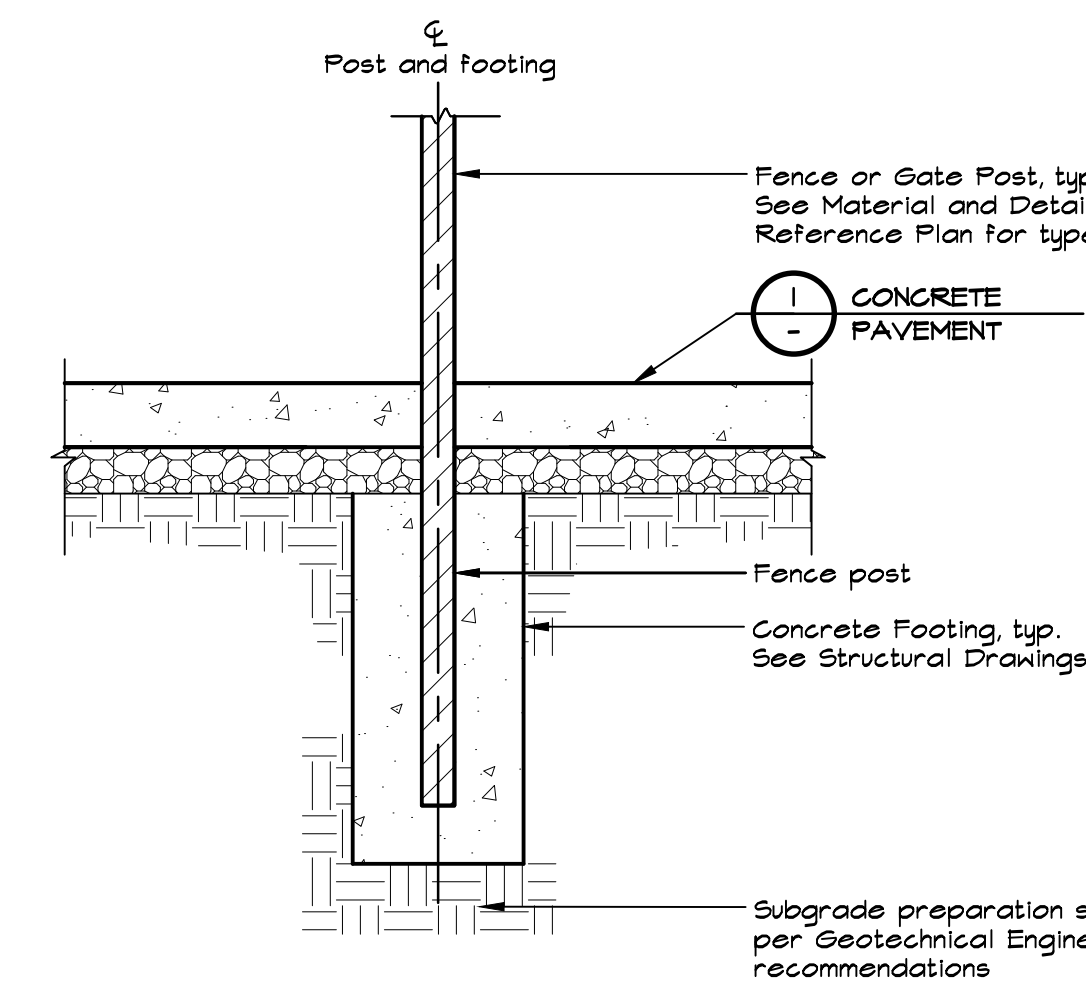
- NOTES:**
1. See Concrete Notes on the Material and Detail Reference Plan in addition to requirements in the Specifications.
 2. See Material and Detail Reference Plan for concrete color and finish.
 3. See Material and Detail Reference Plan for tooled control joint and expansion joint locations.
 4. See Civil Drawings for grading and drainage design and information.

1 CONCRETE PAVEMENT
NOT TO SCALE



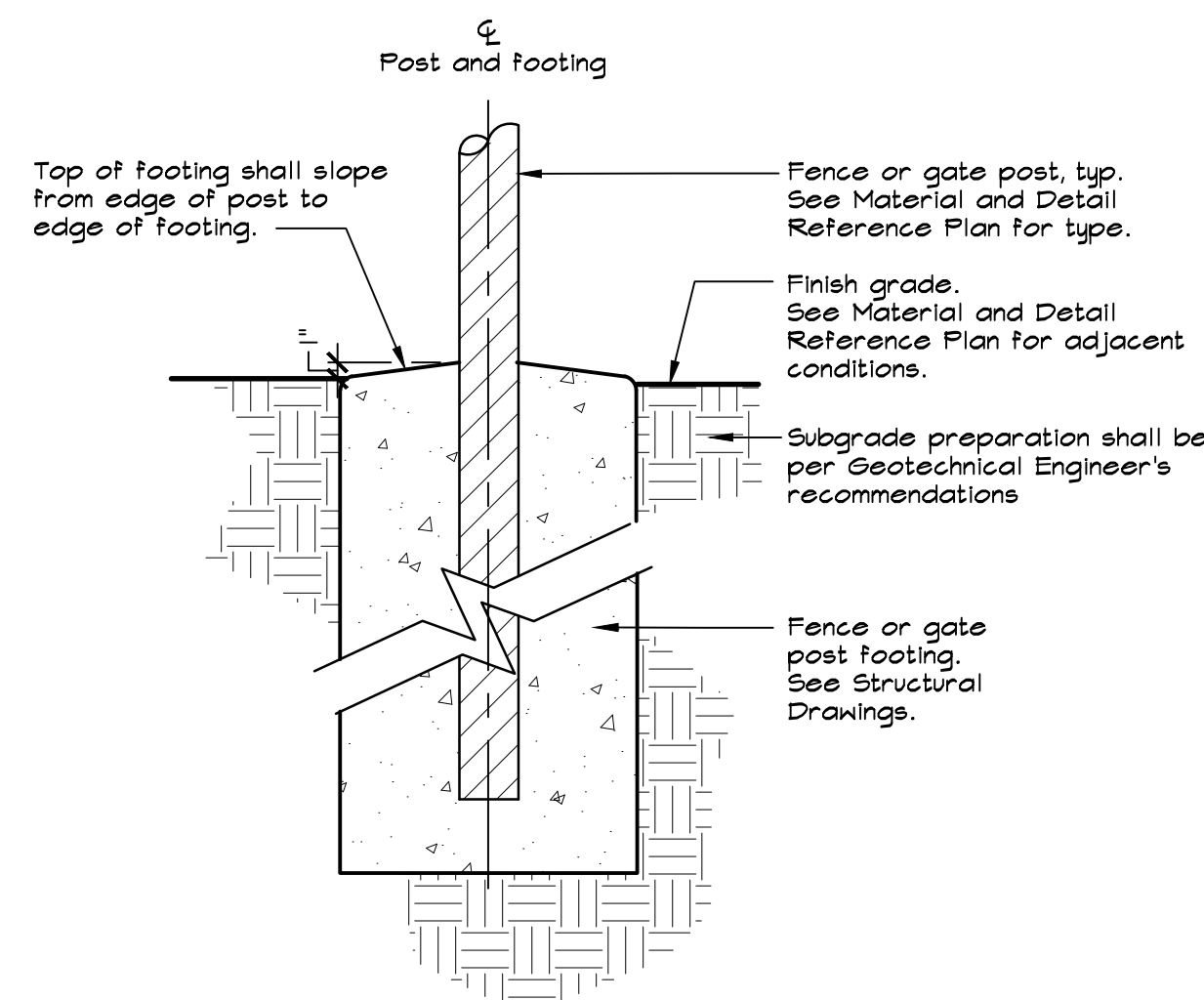
- NOTES:**
1. Decomposed Granite shall be GraniteCrete Paving available through <https://www.granitecrete.com>.
 2. Installer must be a certified installer of GraniteCrete with a minimum of 5 years experience in installation at school sites.
 3. Color of GraniteCrete shall be Natural.
 4. Contractor shall provide two (2) 3' x 3' samples of GraniteCrete with completed finish, on site, for review and approval by the District.

2 DECOMPOSED GRANITE PAVEMENT
NOT TO SCALE



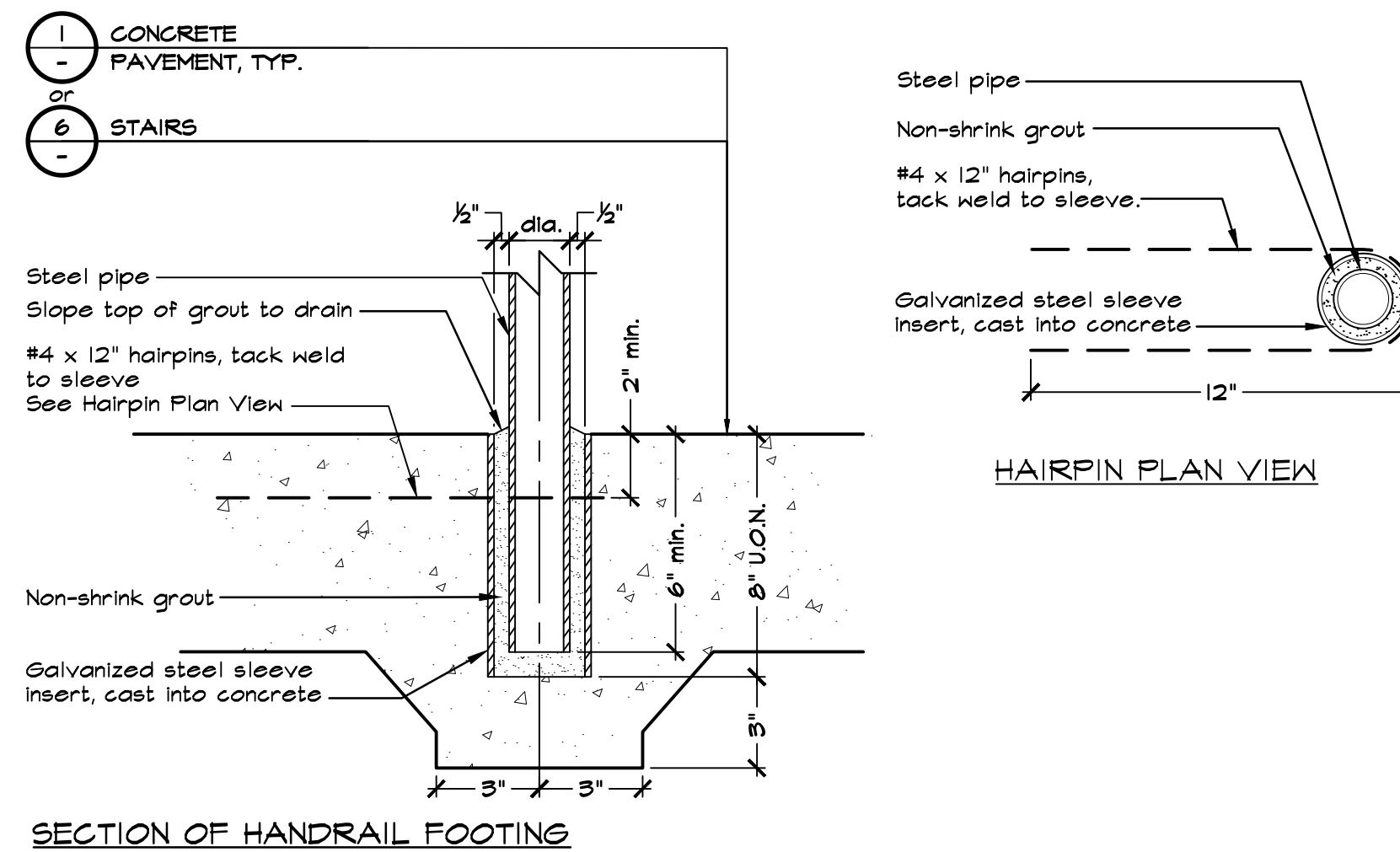
- NOTES:**
1. See Concrete Notes on the Material and Detail Reference Plan.
 2. See Structural Drawings for fence footing design.
 3. See General Fencing and Gate Notes and Schedules on Sheet L1.2.

3 FENCE POST FOOTING AT CONCRETE PAVEMENT
NOT TO SCALE



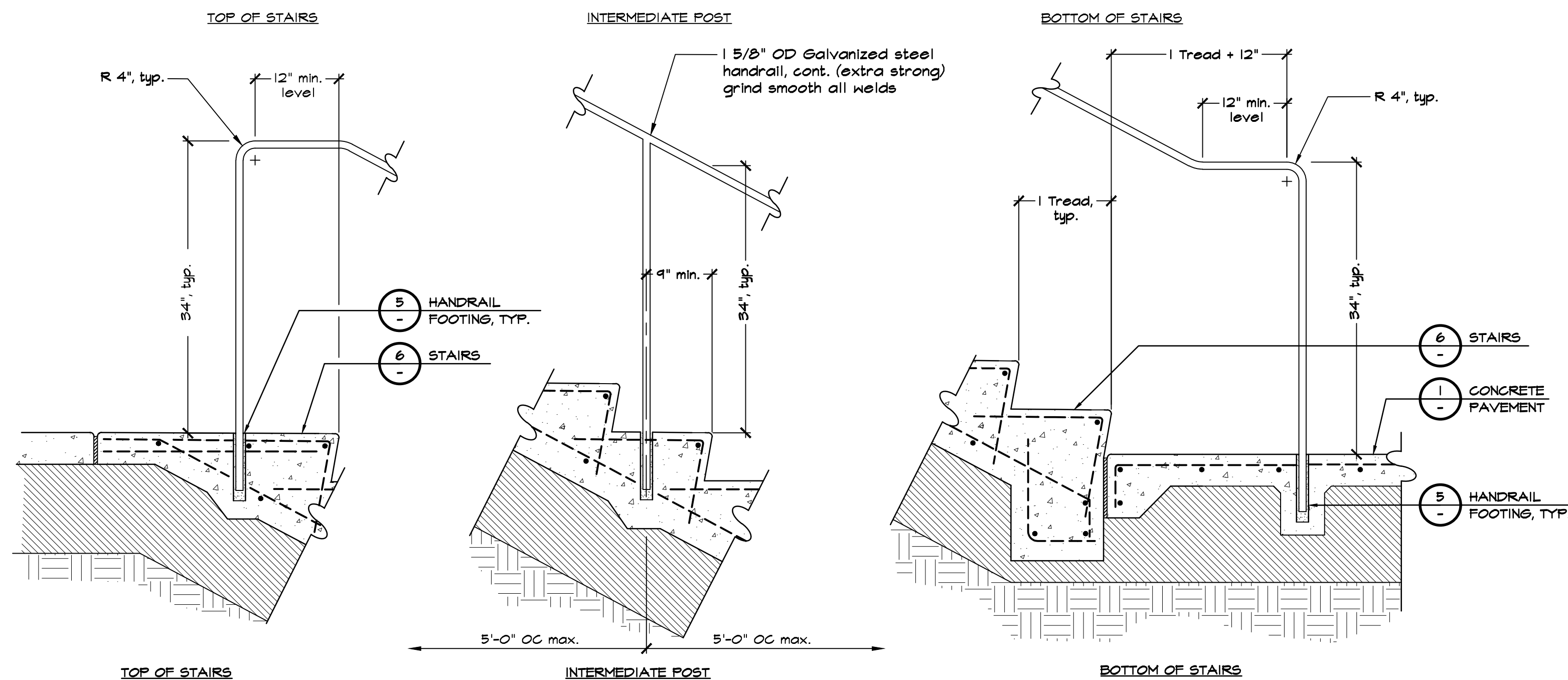
- NOTES:**
1. See Concrete Notes on the Material and Detail Reference Plan.
 2. See Structural Drawings for fence footing design.
 3. See General Fencing and Gate Notes and Schedules on Sheet L1.2.

4 POST AT FINISH GRADE
NOT TO SCALE



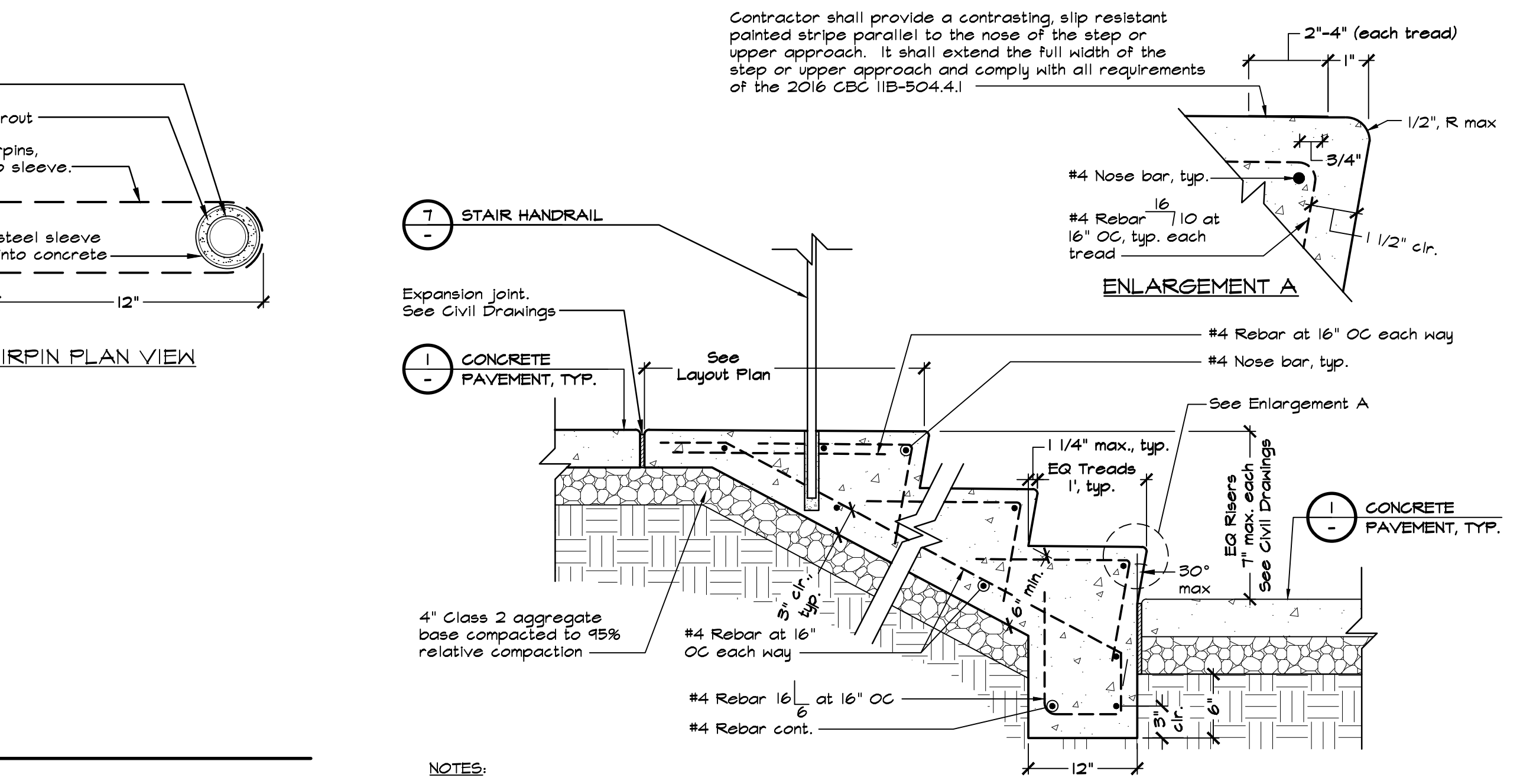
- NOTE:**
1. See Handrails Detail on this Sheet for location of sleeve placement.

5 HANDRAIL FOOTING
NOT TO SCALE



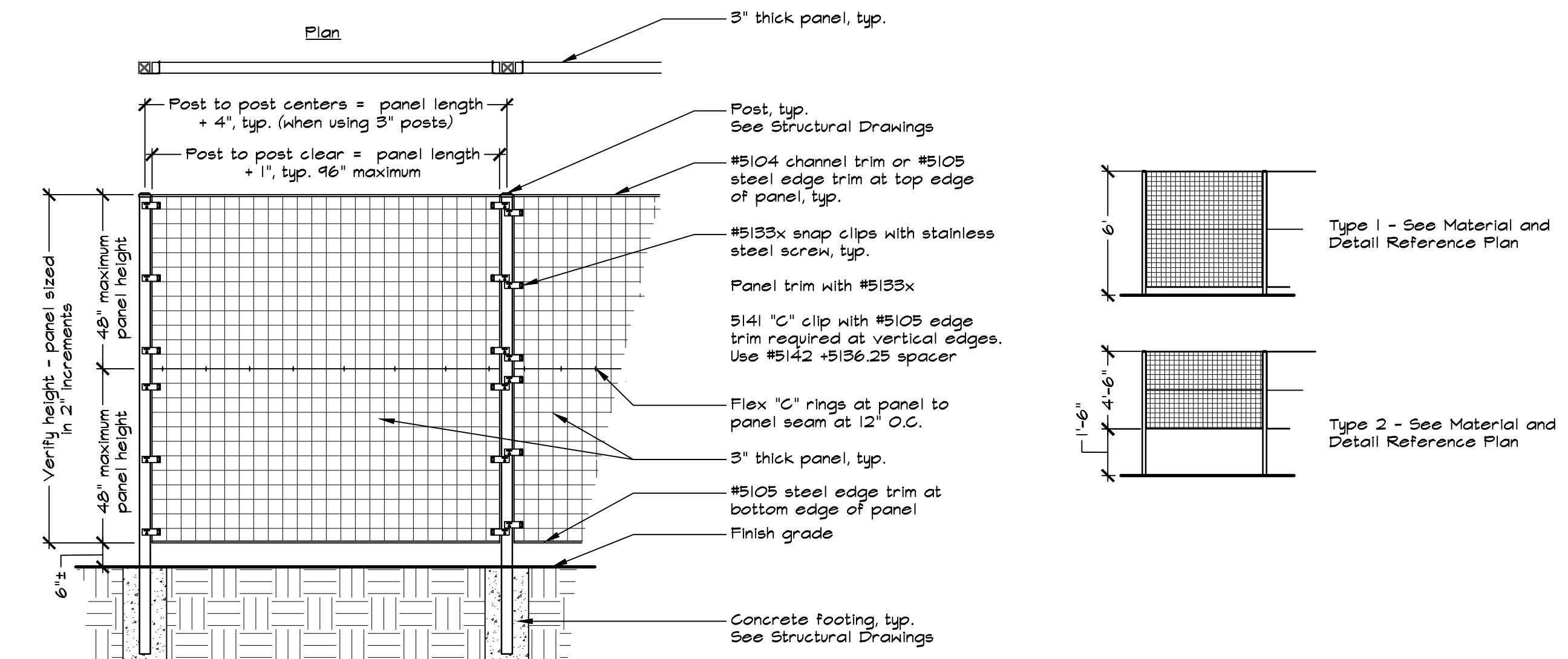
- NOTES:**
1. Handrails shall be manufactured from steel pipe, and then hot-dipped galvanized. All joints shall be fully welded and sanded smooth before hot-dipping the handrails.
 2. Architect shall review and approve handrails in place prior to grouting.
 3. See Material and Detail Reference Plan for handrail locations.

7 STAIR HANDRAIL
NOT TO SCALE



- NOTES:**
1. See Concrete Notes on the Material and Detail Reference Plan in addition to requirements in the Specifications.
 2. Concrete shall be uncolored concrete with a medium broom finish on all sides and parallel with concrete stairs.
 3. Contractor shall submit paint samples that provide 70% contrast with concrete color and with slip resistant finish to the District for review and approval.
 5. See Structural Drawings for lap splice requirements and hook/bend information.

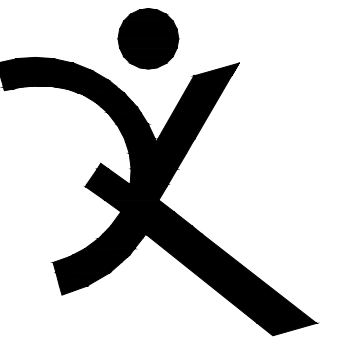
6 STAIRS
NOT TO SCALE



- NOTES:**
1. Welded Wire Trellis shall be Freestanding Horizontal Fence/Screen, manufactured by greenscreen, or approved equal. Contact greenscreen at (510) 857-0526.
 2. See Material and Detail Reference Plan for locations.
 3. See Structural Drawings for post and footing information.

8 WELDED WIRE TRELLIS
NOT TO SCALE

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REVISIONS	DATE	DESCRIPTION

ARCH PROJECT NO: 1750.00
DRAWN BY: BTI
DRAWING SCALE: SCALE
PTN: 61721-70
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FEBRUARY 27, 2019
SHEET TITLE

CONSTRUCTION DETAILS

SHEET NUMBER
L1.1



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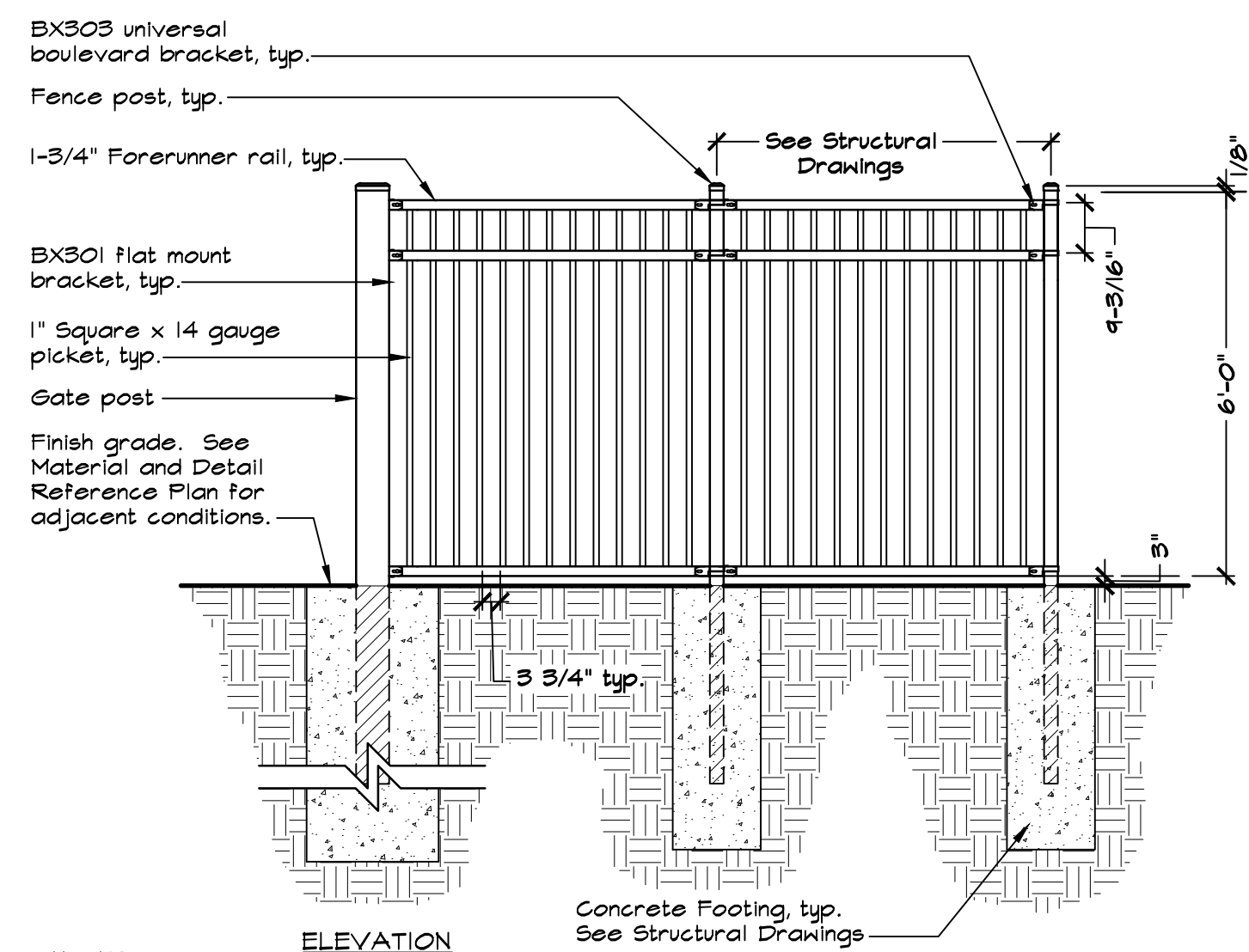
FEBRUARY 27, 2019

SHEET TITLE

CONSTRUCTION
DETAILS

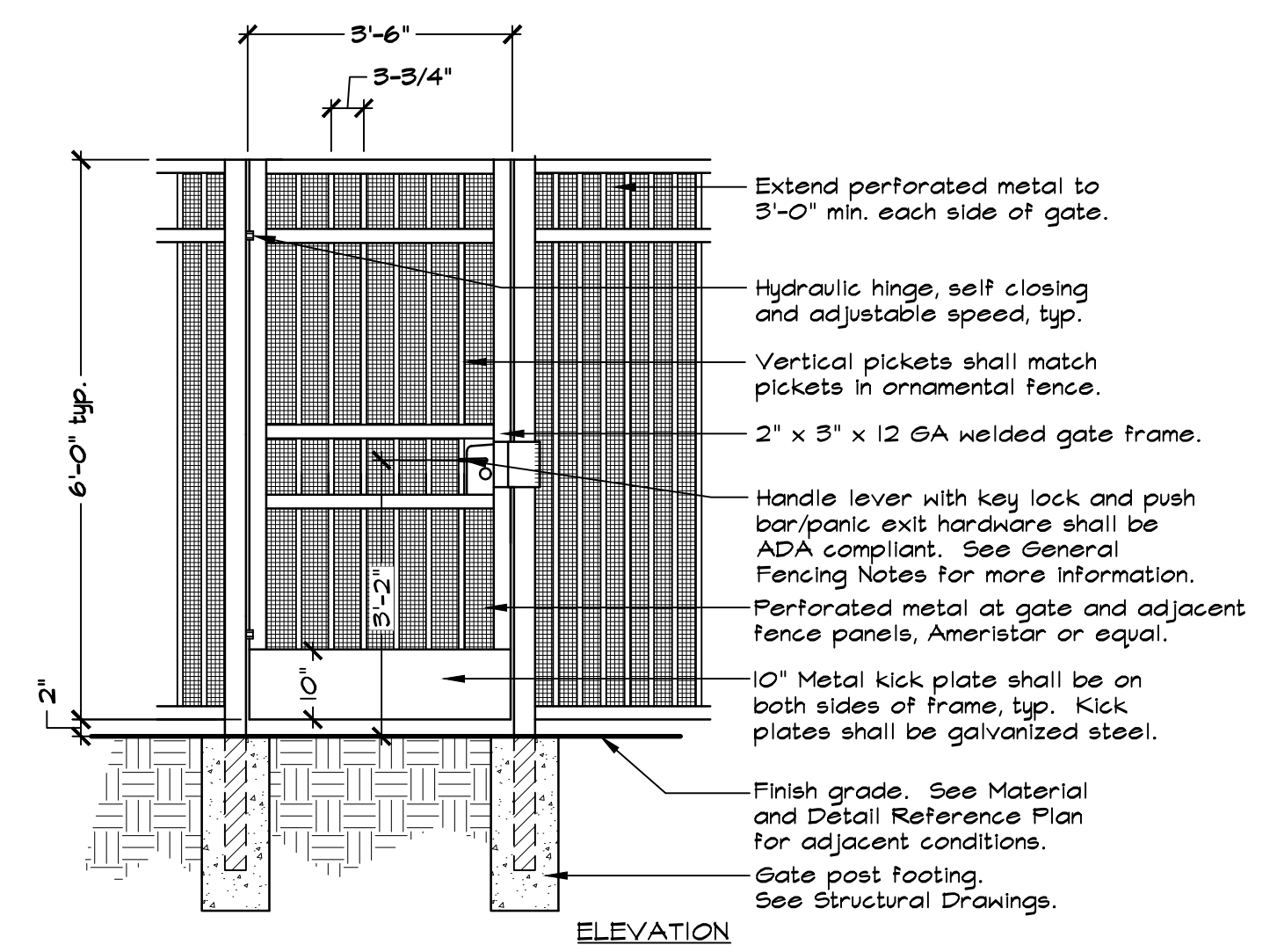
SHEET NUMBER

L1.2



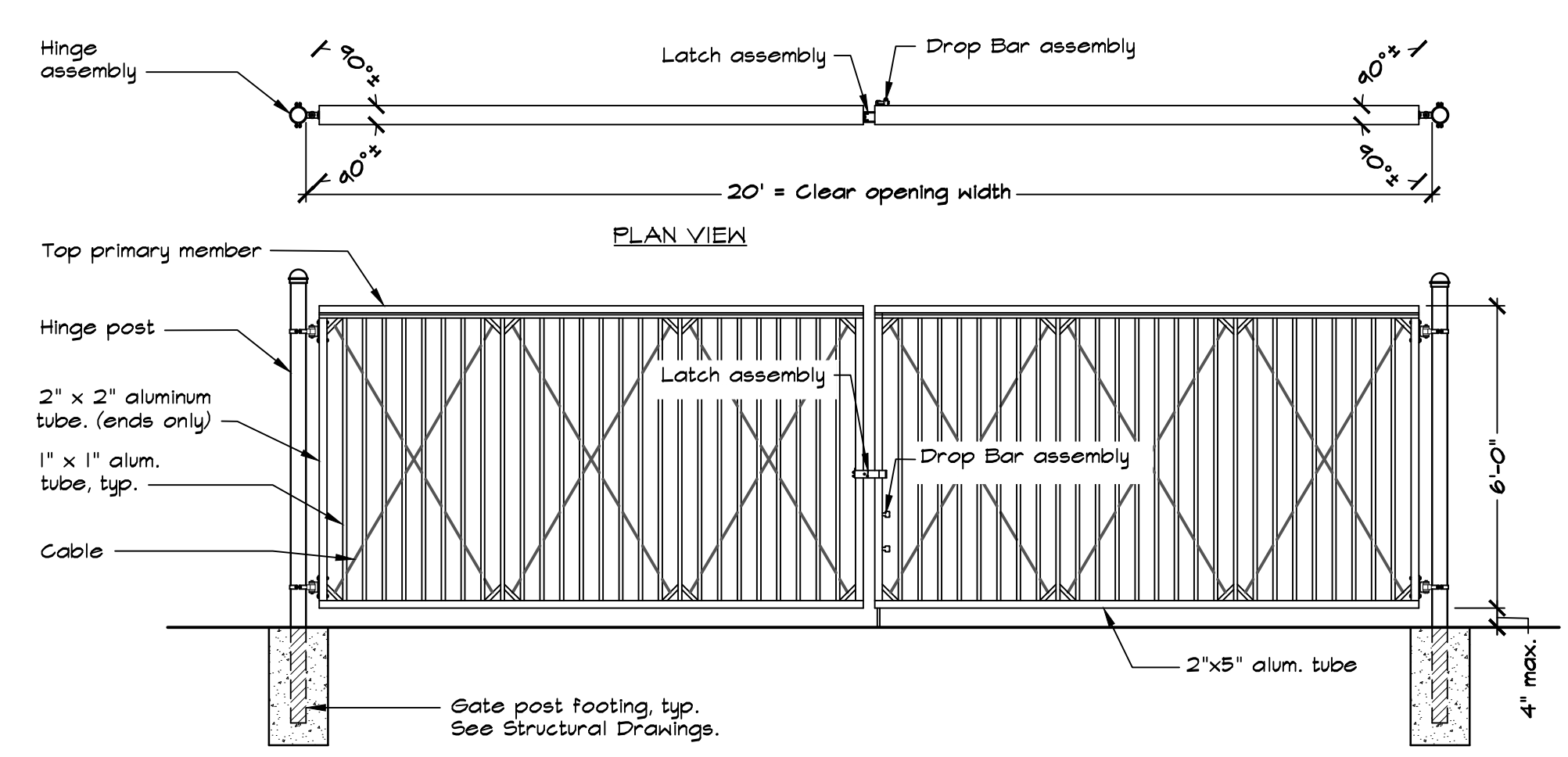
- NOTES:
- See General Fencing and Gate Notes and Schedules on this sheet.
 - See Material and Detail Reference Plan and Layout Plan for post locations.
 - See Structural Drawings for post and footing information.
 - Fence shall be Aegis II Majestic and 3-3/4" picket gap, manufactured by Ameristar, or approved equal. Contact Ed Carini, (510) 352-8605 / (888) 333-3422.
 - Fence shall be black in color.
 - Contractor shall provide 1 gallon of touch up paint from Manufacturer to match black color.

1 6' HIGH FENCE, ORNAMENTAL
NOT TO SCALE



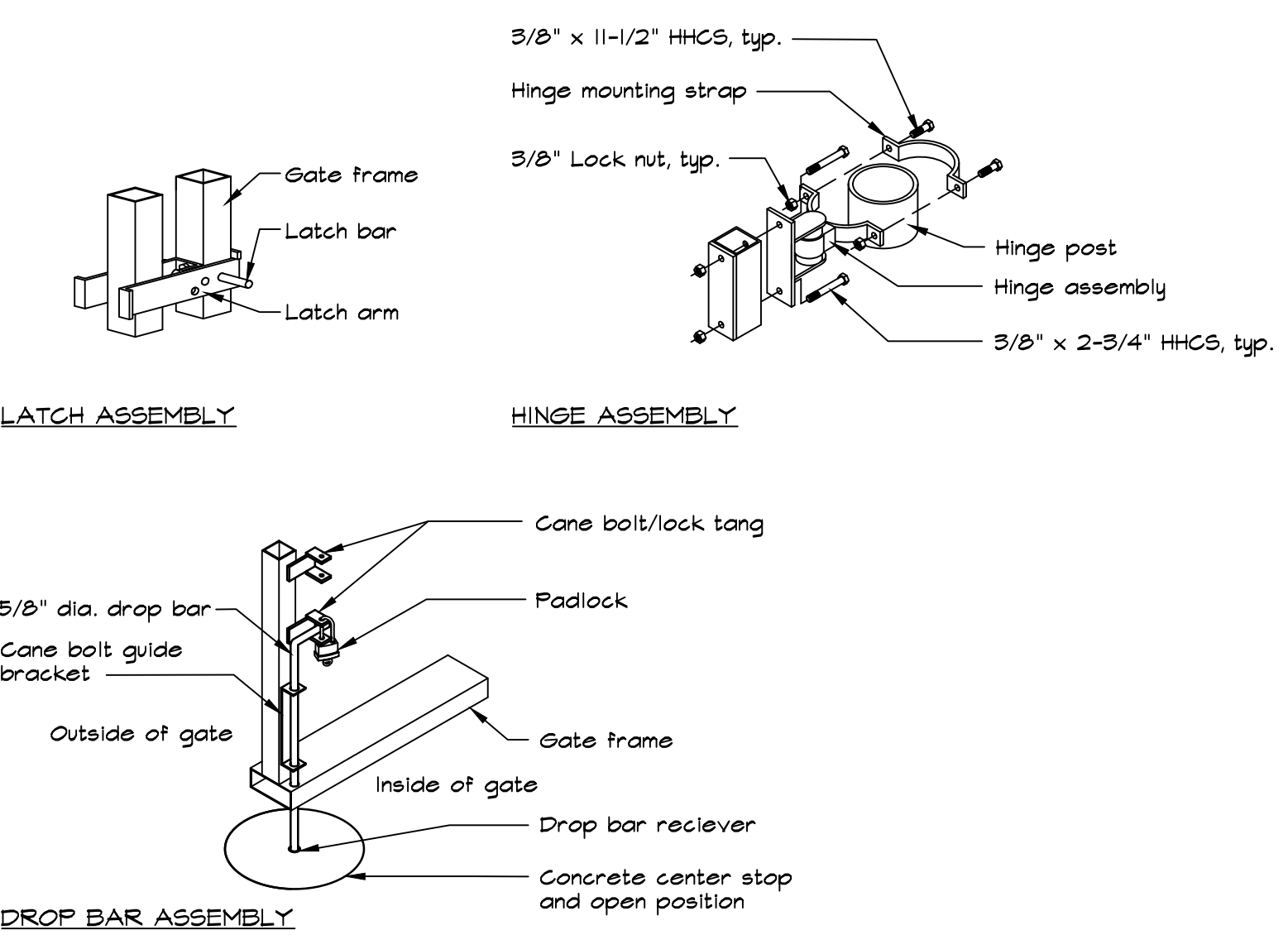
- NOTES:
- See General Fencing and Gate Notes and Schedules on this sheet.
 - See Material and Detail Reference Plan and Layout Plan for post locations.
 - See Structural Drawings for post and footing information.
 - Gate shall be black in color to match Ameristar standard black finish.
 - Contractor shall provide 1 gallon of touch up paint from Manufacturer to match black color.
 - Door opening shall provide clear width of 32 inches minimum, CBC 11B-404.2.3.
 - Provide maneuvering clearances complying with CBC 11B-404.2.4.

2 6' HIGH SINGLE GATE, ORNAMENTAL
NOT TO SCALE



- NOTES:
- Sliding gate shall be Double Heavy Duty Swing Gate, manufactured by Tymetal Corp. (800) 528-4283, or approved equal.
 - See Material and Detail Reference Plan and Layout Plan for gate post locations.
 - See General Fencing and Gate Notes on Sheet L-1.2.
 - All tubular aluminum elements shall have a minimum 1/4" wall thickness.
 - Gate shall be black in color to match Ameristar standard black finish.
 - See Structural Drawings for post and footing information.

3 6' HIGH DOUBLE GATE, HEAVY DUTY ORNAMENTAL
NOT TO SCALE



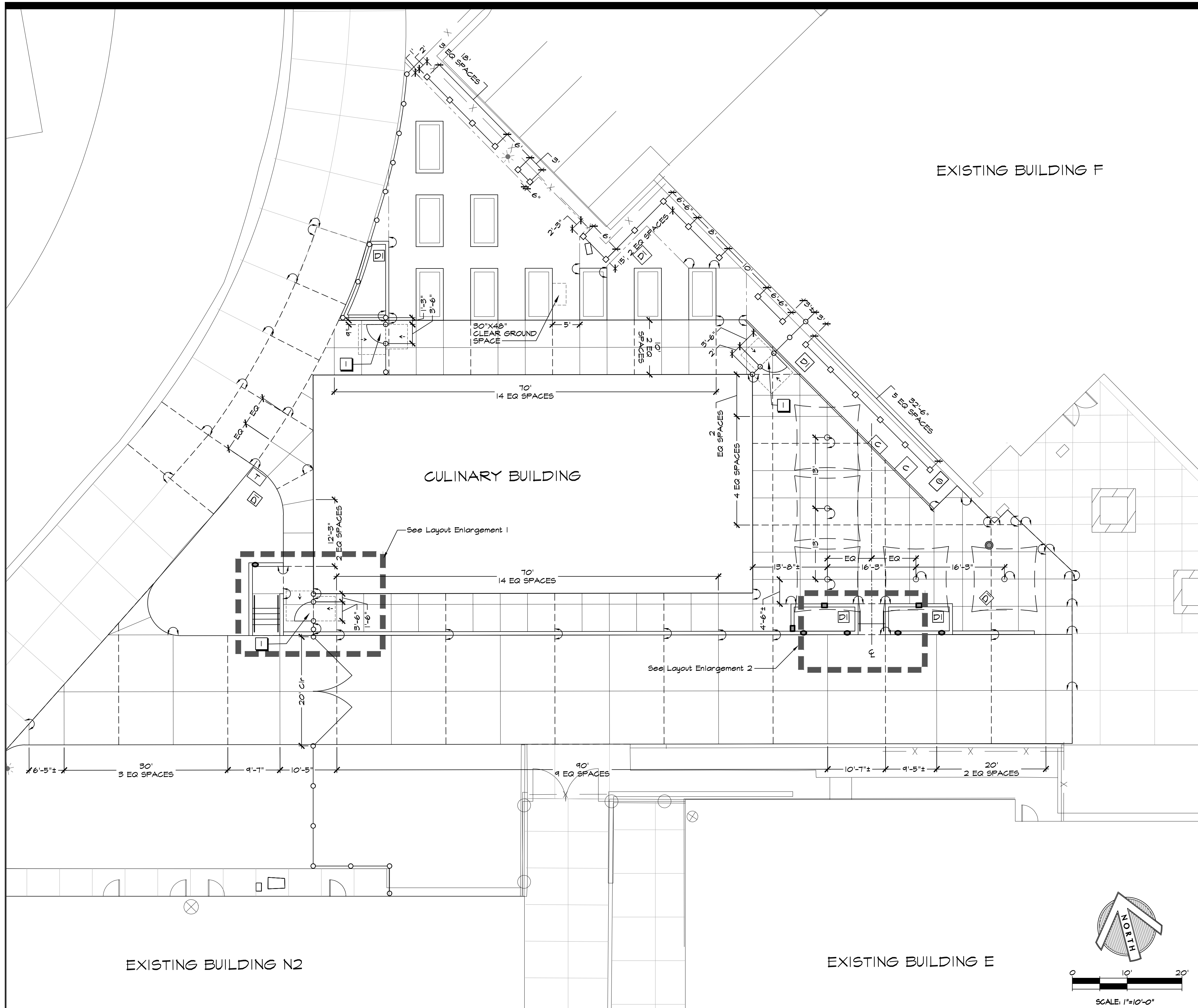
- NOTES:
- Provide all hardware required.
 - Contractor shall field drill hole for drop bar.

GENERAL FENCING AND
GATE NOTES AND SCHEDULES

- Details are for general reference. Contractor shall provide shop drawings prior to construction for approval by the District. Contractor shall include all hardware types and manufacturers' information within shop drawings.
- Gate shall be accessible, have push bar and lockable lever with cylinder dogging, push pad armor, push bar with trim, weep holes and keyed lever all in stainless steel finish. Von Duprin, or equal, product number: CD x AX x PA x 9BL x HH x 996L-NL x 630. Lock shall have an interchangeable large format lock, cylinder dogging and night latch feature. Schlage Lock product number: 20-051 1C rim cylinder (996L) and 20-061 x XA11-448 630 (CD). Contact Debbie White at Allegion for ordering information. (925) 463-7702, Debbie.White@allegion.com.
- All gate hinge hardware shall be commercial/industrial quality.
- See Concrete Notes on Sheet L1.0.
- See Structural Drawings for post and footing information.
- Subgrade preparation shall be per Geotechnical Engineer's recommendations.

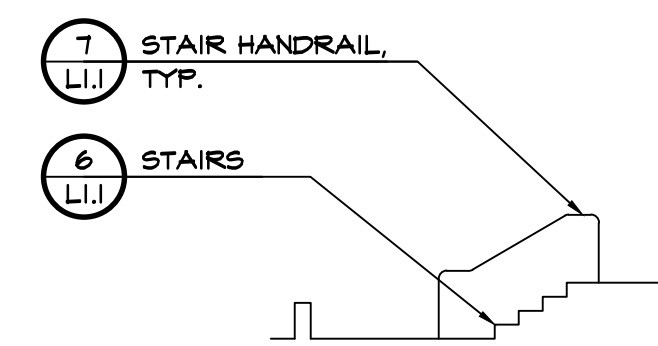
Description	6' High x 3'-6" Wide	6' High x 20' Wide
Detail Reference	2	3
Gate Post	See Structural Drawings	See Structural Drawings
Gate Frame	2" x 3" x 12 GA	By Manufacturer
Footing Size	See Structural Drawings	See Structural Drawings

Description	6' High Ornamental Fence
Detail Reference	1
Line Post	See Structural Drawings
Corner/ End Post	See Structural Drawings
Bottom Rail (STD SCH 40 Pipe)	1 5/8" OD
Center Rail (STD SCH 40 Pipe)	None
Top Rail (STD SCH 40 Pipe)	1 5/8" OD
Footing Size	See Structural Drawings

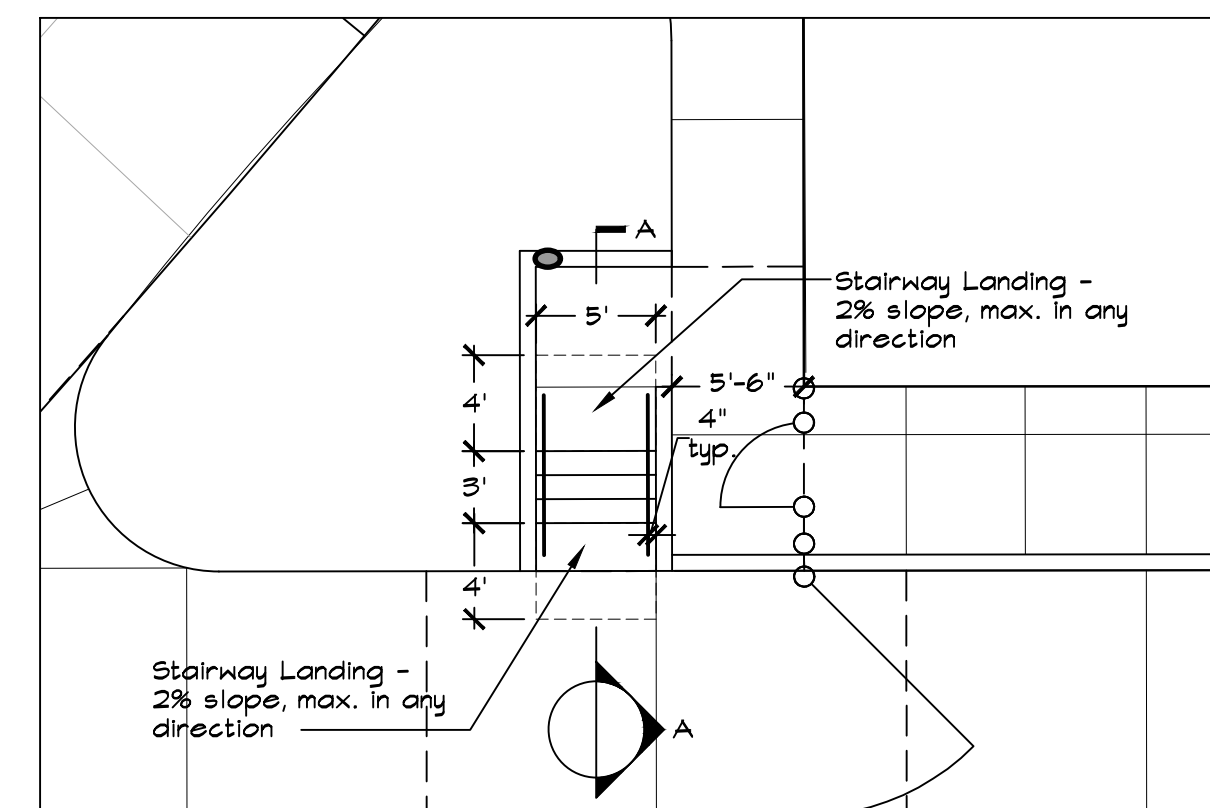


LAYOUT LEGEND

- Radial Dimension
- Centerline
- Arc Dimension
- MA Midpoint of Arc
- Linear Dimension
- PT Point of Tangency
- Align
- Clr Clear Opening
- 90 Degree Angle
- Guideline to show alignment
- Control Points
- EQ Equal



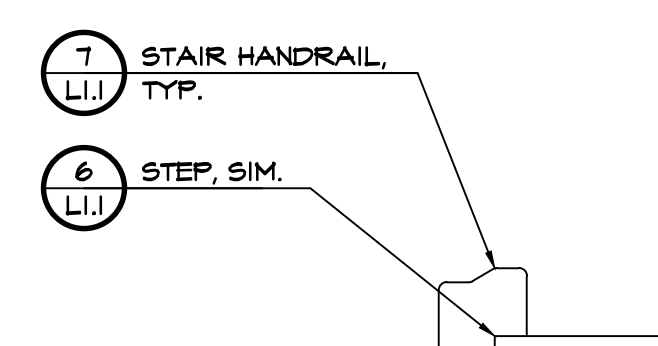
SECTION A-A



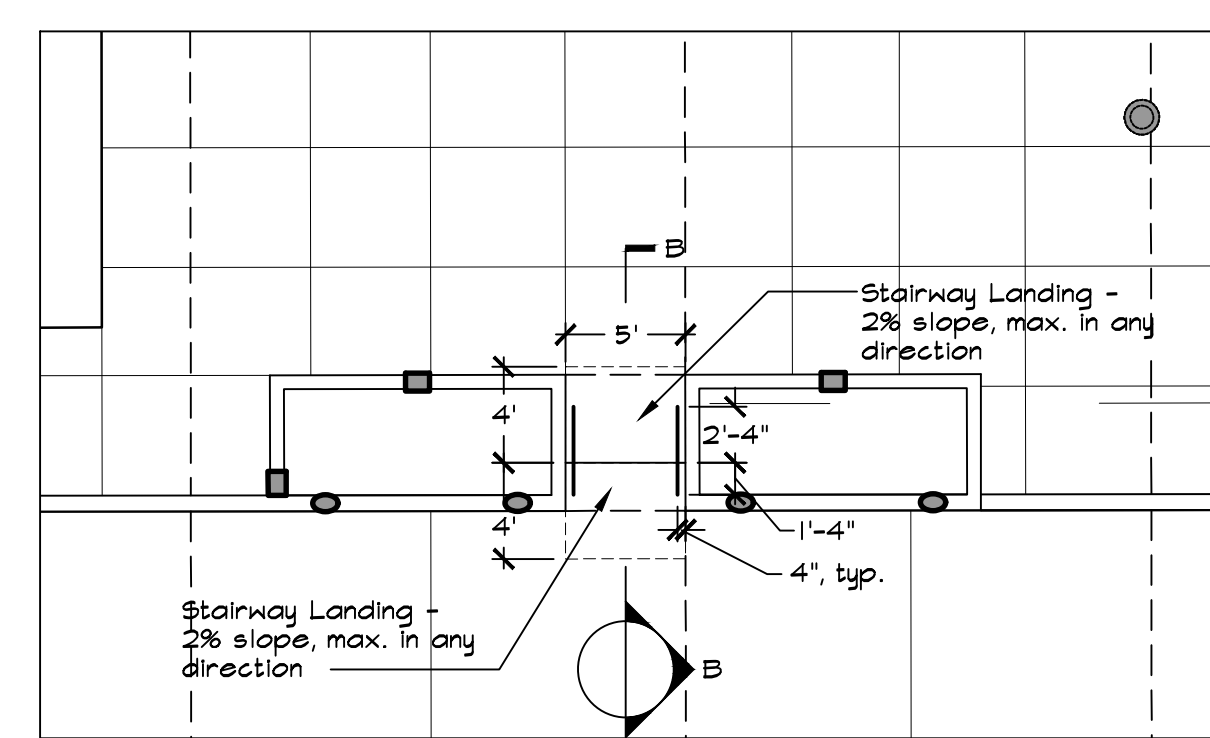
- NOTES:
- Stairs shall comply with 2016 C.B.C. 11B-504.
 - Handrails shall comply with 2016 C.B.C. 11B-505.

1 LAYOUT ENLARGEMENT 1

SCALE: 1/8"=1'-0"



SECTION B-B



- NOTES:
- Stairs shall comply with 2016 C.B.C. 11B-504.
 - Handrails shall comply with 2016 C.B.C. 11B-505.

2 LAYOUT ENLARGEMENT 2

SCALE: 1/8"=1'-0"

KEY NOTES

- Swinging doors and gates shall have maneuvering clearance complying with CBC 11B-404.2.4.

LAYOUT NOTES

- Contractor shall notify all public or private utility companies two (2) working days prior to commencement of work on this project to verify the locations of existing utility lines. Call Underground Service Alert (U.S.A.) toll free at 1-800-221-2600 or 811, 7:00am to 5:00pm, Monday through Friday.
- All coordinates and dimensions shown are in a horizontal plane.
- Written dimensions always take precedence over scaled dimensions. If there is a conflict, notify the Architect and obtain a clarification. No deviation or substitution shall be allowed without obtaining written approval from the Architect.
- See Civil Drawings for additional layout information.
- This Plan does not represent a Property Line Survey. Property lines shown hereon may not represent the true position of the line.
- The Contractor shall coordinate all construction elements including utility locations and required sleeving prior to installation of any underground utilities.
- The Contractor shall verify critical dimensions, reference and control point locations and construction conditions prior to construction.
- All dimensions shall be verified in the field, chalked pointed, and/or string lined. Any minor adjustments required to achieve overall design layout shall be reviewed and approved by the Architect prior to construction.
- All materials shall be furnished and installed by the Contractor per Manufacturer's specifications, unless otherwise noted in these Plans or Specifications.
- Existing features and topographic information have been taken from Survey performed by Carlson Barbee & Gibson, Inc. on October 9, 2018, provided by Quattrocchi Kwok Architects. GSM landscape architects, inc. assumes no liability, real or alleged, regarding the accuracy of the existing features or topographic information shown.

APPROVED
DIV. OF THE STATE ARCHITECT
APP. 01-117845 INC.
REVIEWED FOR
SS FLS ACS
DATE: 02/27/2019



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REVISIONS	

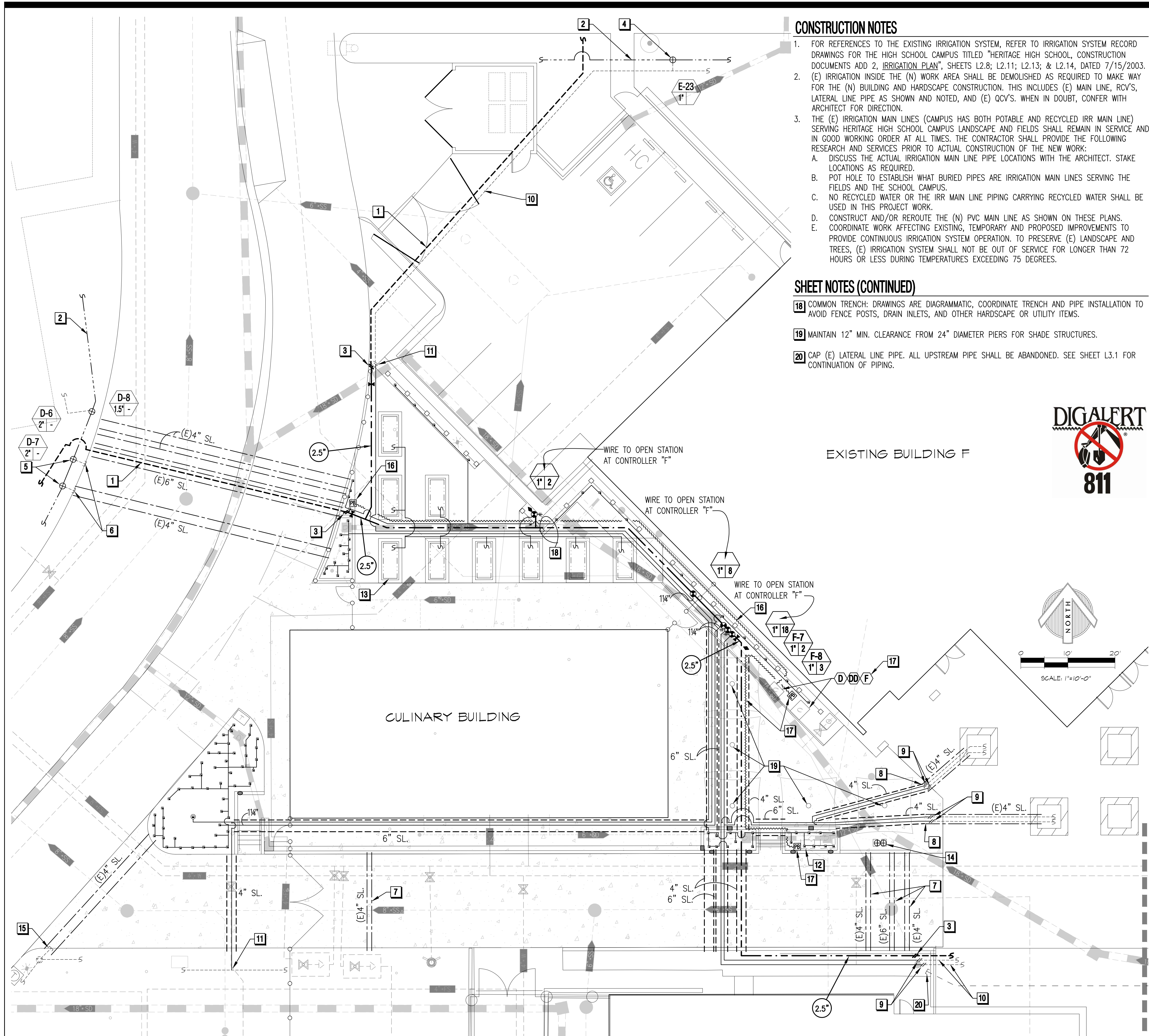
ARCH PROJECT NO: 1750.00
DRAWN BY: BTI
DRAWING SCALE: SCALE
PTN: 61721-70

CD
FEBRUARY 27, 2019
SHEET TITLE

LAYOUT PLAN

SHEET NUMBER

L2.0



CONSTRUCTION NOTES

- FOR REFERENCES TO THE EXISTING IRRIGATION SYSTEM, REFER TO IRRIGATION SYSTEM RECORD DRAWINGS FOR THE HIGH SCHOOL CAMPUS TITLED "HERITAGE HIGH SCHOOL, CONSTRUCTION DOCUMENTS ADD 2, IRRIGATION PLAN", SHEETS L2.8; L2.11; L2.13; & L2.14, DATED 7/15/2003.
- (E) IRRIGATION INSIDE THE (N) WORK AREA SHALL BE DEMOLISHED AS REQUIRED TO MAKE WAY FOR THE (N) BUILDING AND HARDSCAPE CONSTRUCTION. THIS INCLUDES (E) MAIN LINE, RCV'S, LATERAL LINE PIPE AS SHOWN AND NOTED, AND (E) QCV'S. WHEN IN DOUBT, CONFER WITH ARCHITECT FOR DIRECTION.
- THE (E) IRRIGATION MAIN LINES (CAMPUS HAS BOTH POTABLE AND RECYCLED IRR MAIN LINE) SERVING HERITAGE HIGH SCHOOL CAMPUS LANDSCAPE AND FIELDS SHALL REMAIN IN SERVICE AND IN GOOD WORKING ORDER AT ALL TIMES. THE CONTRACTOR SHALL PROVIDE THE FOLLOWING RESEARCH AND SERVICES PRIOR TO ACTUAL CONSTRUCTION OF THE NEW WORK:
 - DISCUSS THE ACTUAL IRRIGATION MAIN LINE PIPE LOCATIONS WITH THE ARCHITECT. STAKE LOCATIONS AS REQUIRED.
 - POT HOLE TO ESTABLISH WHAT BURIED PIPES ARE IRRIGATION MAIN LINES SERVING THE FIELDS AND THE SCHOOL CAMPUS.
 - NO RECYCLED WATER OR THE IRR MAIN LINE PIPING CARRYING RECYCLED WATER SHALL BE USED IN THIS PROJECT WORK.
 - CONSTRUCT AND/OR REROUTE THE (N) PVC MAIN LINE AS SHOWN ON THESE PLANS.
 - COORDINATE WORK AFFECTING EXISTING, TEMPORARY AND PROPOSED IMPROVEMENTS TO PROVIDE CONTINUOUS IRRIGATION SYSTEM OPERATION. TO PRESERVE (E) LANDSCAPE AND TREES, (E) IRRIGATION SYSTEM SHALL NOT BE OUT OF SERVICE FOR LONGER THAN 72 HOURS OR LESS DURING TEMPERATURES EXCEEDING 75 DEGREES.

SHEET NOTES (CONTINUED)

- COMMON TRENCH: DRAWINGS ARE DIAGRAMMATIC, COORDINATE TRENCH AND PIPE INSTALLATION TO AVOID FENCE POSTS, DRAIN INLETS, AND OTHER HARDSCAPE OR UTILITY ITEMS.
- MAINTAIN 12" MIN. CLEARANCE FROM 24" DIAMETER PIERS FOR SHADE STRUCTURES.
- CAP (E) LATERAL LINE PIPE. ALL UPSTREAM PIPE SHALL BE ABANDONED. SEE SHEET L3.1 FOR CONTINUATION OF PIPING.

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 P: (925) 867-3339
 EMAIL: JDE@EDDYASSOCIATES.COM
 PLANNING - DESIGN - MANAGEMENT
 JDE PROJECT NO: 18023

IRRIGATION DESIGNER:
James D. Eddy
 JAMES D. EDDY ASSOCIATES, DANVILLE, CALIFORNIA
 NOTE: NO LICENSE FOR THE LANDSCAPE IRRIGATION SYSTEM DESIGN PROFESSION IS AVAILABLE IN THE STATE OF CALIFORNIA.
 MEMBER: AMERICAN SOCIETY OF IRRIGATION CONSULTANTS

SHEET NOTES

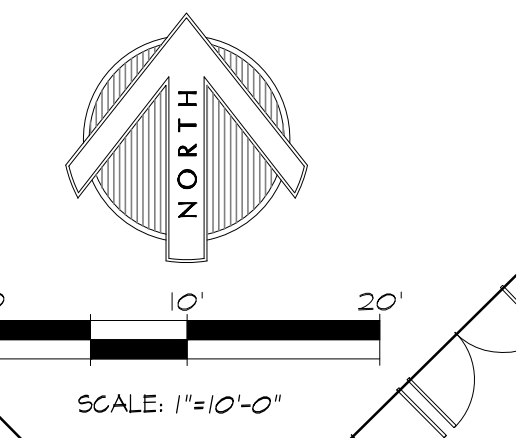
- (E) 2.5" DIA. POTABLE WATER IRR MAIN LINE TO REMAIN IN SERVICE.
- (E) RECYCLED WATER IRR MAIN LINE TO REMAIN IN SERVICE.
- CONNECT (N) PVC MAIN LINE PIPE TO (E) PVC MAIN LINE PIPE.
- (E) REMOTE CONTROL VALVE TO REMAIN IN SERVICE.
- (E) REMOTE CONTROL VALVE TO BE PUT OUT OF SERVICE. DISCONNECT LOW VOLTAGE WIRES FROM SOLENOID. ABANDON DOWNSTREAM LATERAL LINE PIPING FROM DISCHARGE SIDE OF REMOTE CONTROL VALVE.
- CAP LATERAL LINE PIPE, ALL SPRAY DOWNSTREAM OF THE VALVE SHALL BE DEMOLISHED.
- ABANDON (E) SLEEVE IN PLACE.
- INSTALL (N) SLEEVE TO (E) SLEEVE (WITHOUT ANY CONNECTION OR SOLVENT WELDING-ABUT SLEEVES TOGETHER). CONTINUE LATERAL LINE PIPING AS SHOWN.
- RECONNECT (E) LATERAL LINE PIPE TO (N) LATERAL LINE PIPE FROM REMOTE CONTROL VALVES F7 AND F8.
- (E) LATERAL LINE PIPE TO REMAIN IN SERVICE.
- CONNECT (N) LATERAL LINE PIPE TO (E) TREE BUBBLER LATERAL LINE PIPE.
- (E) CONTROLLERS TO BE RELOCATED. (E) SYSTEM SHALL NOT BE OUT OF SERVICE LONGER THAN 72 HOURS.
- VEGETABLE AND FRUIT GARDEN AREAS: INSTALL A THREADED HOSE CONNECTION AT EACH GARDEN PLANTER FOR EASY REMOVAL OF SUBSURFACE DRIP TUBE DURING CYCLIC BED PLANTING, TYPICAL.
- DEMOLISH (E) REMOTE CONTROL VALVES F7 AND F8 WHICH SERVE THE (E) TREE ZONES. THE (E) LATERAL LINE PIPE TO (E) TREE ZONES SHALL BE RE-CONNECTED TO THE DESIGNATED (N) REMOTE CONTROL VALVE LOCATION (AS SHOWN) WITH (N) PVC LATERAL PIPE. FIELD DETERMINE DURING CONSTRUCTION WHETHER THE LOW VOLTAGE WIRE TO THE DEMOLISHED RCVS SHALL BE SAVED AND REUSED FOR THE (N) REMOTE CONTROL VALVES OR (N) CONTROL WIRE SHALL BE INSTALLED AS NEEDED.
- CAP LATERAL LINE PIPE BELOW GRADE, DOWNSTREAM OF SPRAY HEAD, AND BEFORE ENTERING THE (E) SLEEVE.
- LOCATE BURIED EXISTING LOW VOLTAGE STATION, MASTER VALVE AND FLOW SENSOR WIRES FROM FIELD AREA VALVES AND CONTROLLER MAXICOM CABLE FROM (E) CCU. INSTALL A PULL BOX, CUT WIRES, SPLICE TO (N) WIRES AND MAXICOM CCU CABLE. REROUTE (N) LOW VOLTAGE WIRE AND MAXICOM CCU CABLE ALONG (N) MAIN LINE TO EXISTING AND RELOCATED CONTROLLERS "D", "DD" AND "F". MAKE CONNECTIONS AT CONTROLLER(S) AS REQUIRED.
- MOVE (E) CONTROLLERS FROM (E) LOCATION TO (N) LOCATION AS FOLLOWS:

DISASSEMBLY:

 - DETERMINE IN THE FIELD, BY ZONE OPERATION, WHICH STATION CONTROL WIRES AT THESE CONTROLLERS OPERATE ZONES AROUND SCHOOL BUILDINGS AND MUST BE EXTENDED TO (N) CONTROLLER LOCATION. NOTE AND INVENTORY EACH WIRE'S STATION NUMBER FOR FUTURE CONNECTION AT (N) CONTROLLER LOCATION.
 - DISCONNECT ALL LOW VOLTAGE WIRES FROM CONTROLLERS, INCLUDING STATION WIRES, CCU CABLE, MASTER VALVE AND FLOW SENSOR WIRES.
 - SHUT-OFF THE (E) 120 VAC ELECTRICAL TO (E) CONTROLLERS AT THE ELECTRICAL PANEL. DISCONNECT THE (E) 120 VAC ELECTRICAL AT THE (E) CONTROLLERS.
 - UNBOLT CONTROLLER PEDESTALS FROM (E) CONCRETE PAD.
 - DEMOLISH (E) CONCRETE PAD WHILE SALVAGING ALL (E) CONTROL WIRES AND CCU CABLES.

REASSEMBLY:

 - INSTALL (N) CONCRETE PEDESTALS INCLUDING A (N) CONTROLLER PEDESTAL STEEL MOUNTING KIT, SWEEP ELLS, AND CONDUITS AS DETAILED AND AT (N) SPECIFIED LOCATION.
 - RE-MOUNT (E) CONTROLLERS TO (N) CONCRETE PADS AT (N) LOCATION.
 - ELECTRICAL CONTRACT WORK SHALL CONSTRUCT AND RELOCATE 120 VAC/15 AMP ELECTRICAL SOURCE TO (N) CONTROLLER LOCATION.
 - CONNECT 120 VAC ELECTRICAL TO CONTROLLERS.
 - CONTROL WIRE: SEE NOTE #16 ABOVE FOR CHANGES TO THE LOW VOLTAGE STATION CONTROL WIRING AND MAXICOM CCU CABLE FROM THE BALLFIELDS ZONES. USE THE STATION INFORMATION RECORDED DURING DISASSEMBLY (BY ZONE OPERATION WHICH STATION CONTROL WIRES OPERATE ZONES AROUND SCHOOL BUILDINGS) AND EXTEND (N) CONTROL WIRE TO (N) CONTROLLER LOCATIONS. INSTALL A PULL BOX INSIDE THE PLANTED AREA, SPLICE (N) WIRE TO THESE (E) CONTROL WIRES, PLACE ALL SPLICES IN THE PULL BOX, AND EXTENDED (N) WIRE BUNDLE WITH MASTER VALVE AND FLOW SENSOR WIRE AS REQUIRED IN A (N) TRENCH TO (N) CONTROLLER LOCATIONS. INCLUDE MAXICOM CCU PE-39 CABLE WITHIN PVC ELECTRICAL CONDUIT.
 - CONNECT (N) EXTENDED CONTROL WIRES, MASTER VALVE WIRES, FLOW SENSOR WIRES, AND CCU PE-39 CABLE TO THE CONTROLLERS AS PREVIOUSLY WIRED. KEEP STATION NUMBERS AT ZONES AS THEY WERE NUMBERED PREVIOUSLY.



WATER SOURCE NOTE: THIS PROJECT AREA WILL BE USING A POTABLE WATER SOURCE FOR IRRIGATION WATER.

APPROVED
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 APP. 01-117845 INC.
 REVIEWED FOR
 SS FLS ACS
 DATE: 02/27/2019

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REVISIONS

NO.	DESCRIPTION

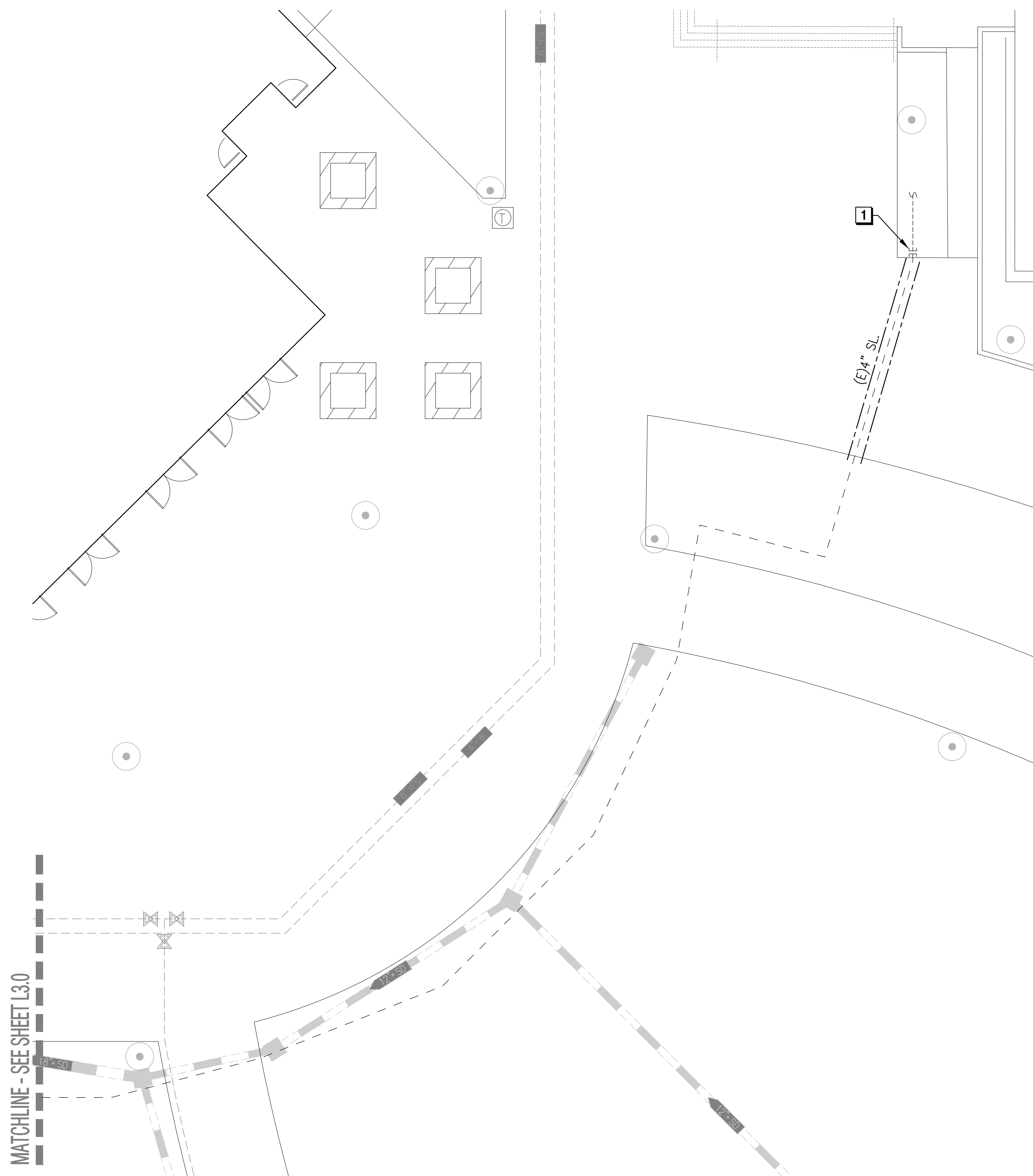
ARCH PROJECT NO: 1750.00
 DRAWN BY: JDE
 DRAWING SCALE: SCALE
 PTN: 61721-70

CD
 FEBRUARY 27, 2019
 SHEET TITLE

IRRIGATION PLAN

SHEET NUMBER
L3.0

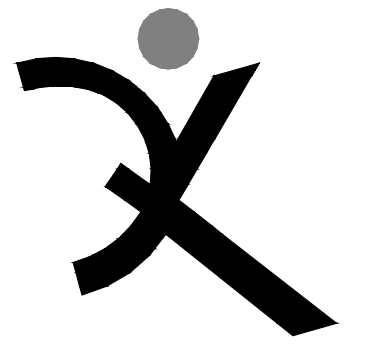
MATCHLINE - SEE SHEET L3.1



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 PLANNING-DESIGN-MANAGEMENT
 JDE PROJECT NO: 18023

IRRIGATION DESIGNER:
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SHEET NOTES

1 CAP (E) LATERAL LINE PIPE. ALL DOWNSTREAM PIPE SHALL BE ABANDONED.

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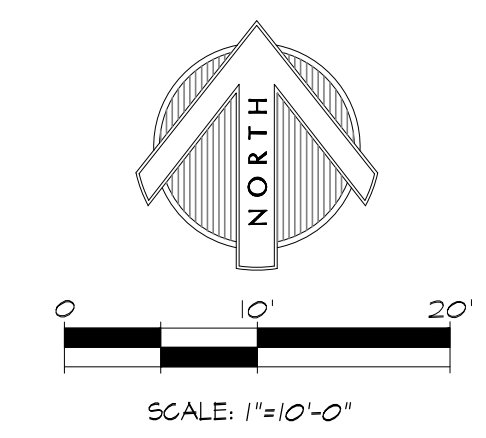
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**IRRIGATION
 PLAN**

SHEET NUMBER

L3.1

WATER SOURCE NOTE: THIS PROJECT AREA WILL BE USING A POTABLE WATER SOURCE FOR IRRIGATION WATER.



IRRIGATION INSTALLATION NOTES

REFER TO IRRIGATION SPECIFICATIONS FOR DETAILED INFORMATION.

LUHSD = LIBERTY UNION HIGH SCHOOL DISTRICT

1. PROVIDE INSTALLATION BY PERSONS FAMILIAR WITH IRRIGATION WORK AND UNDER THE SUPERVISION OF A QUALIFIED SUPERVISOR.

2. OBTAIN THE PERMITS REQUIRED AND PROVIDE LABOR AND MATERIALS NECESSARY TO FULLY COMPLETE THE WORK IN ACCORDANCE WITH THE DRAWINGS AND THE SPECIFICATIONS.

3. LOCATE AND PROTECT NEW AND EXISTING UTILITIES PRIOR TO EXCAVATION. DO NOT DAMAGE EXISTING UTILITIES, PAVING OR STRUCTURES. PROVIDE THE NECESSARY REPAIRS AT NO ADDITIONAL COST TO LUHSD.

4. REMOVE DEBRIS AND ACCUMULATION OF DEBRIS AS A RESULT OF IRRIGATION CONSTRUCTION FROM THE SITE AND LEAVE AREA IN A CLEAN CONDITION ACCEPTABLE TO LUHSD. MAINTAIN SITE FOR THE SPECIFIED CALENDAR DAYS FOLLOWING ACCEPTANCE OF THE WORK BY LUHSD AND MAKE CORRECTIONS OR REPAIRS TO THE IRRIGATION AS DIRECTED BY LUHSD AT THE COMPLETION OF THE MAINTENANCE PERIOD.

5. THE DRAWINGS ARE DIAGRAMMATIC. PIPE AND EQUIPMENT MAY BE SHOWN IN PAVING FOR CLARITY ONLY – INSTALL IN PLANTING AREAS WHERE POSSIBLE. DUE TO THE SCALE OF THE DRAWINGS, ALL OFFSETS, FITTINGS, SLEEVES, ETC. WHICH MAY BE REQUIRED ARE NOT INDICATED. INVESTIGATE THE STRUCTURAL AND FINISHED CONDITIONS AFFECTING THE CONTRACT WORK INCLUDING OBSTRUCTIONS GRADE DIFFERENCES OR AREA DIFFERENCES WHICH MAY HAVE NOT BEEN CONSIDERED IN THE ENGINEERING. WHERE FIELD CHANGES EXIST, COORDINATE THE INSTALLATION WORK ACCORDINGLY BY NOTIFICATION AND APPROVAL OF LUHSD AS PER THE CONTRACT SPECIFICATIONS. COORDINATE IRRIGATION CONTRACT WORK WITH ALL APPLICABLE CONTRACTORS FOR THE LOCATION AND INSTALLATION OF PIPE, CONDUIT, OR SLEEVES OF PIPE, CONDUIT OR SLEEVES THROUGH OR UNDER WALLS, ROADWAYS, PAVING, STRUCTURE, ETC. BEFORE CONSTRUCTION. ASSUME FULL RESPONSIBILITY FOR REQUIRED REVISIONS IF THESE NOTIFICATIONS ARE NOT PERFORMED.

6. CONTRACTOR SHALL COORDINATE WITH OTHER CONTRACTORS ALL IRRIGATION SLEEVES, CONDUIT, AND PIPING INSTALLED UNDER PAVEMENT PRIOR TO INSTALLATION.

7. THE INTENT OF THIS IRRIGATION SYSTEM DESIGN IS TO PROVIDE THE MINIMUM AMOUNT OF WATER REQUIRED TO SUSTAIN GOOD PLANT HEALTH.

8. PROGRAM THE CONTROLLER TO PROVIDE THE MINIMUM AMOUNT OF WATER NEEDED TO SUSTAIN GOOD PLANT HEALTH. MAKE ADJUSTMENTS TO THE PROGRAM FOR SEASONAL WEATHER CHANGES, PLANT MATERIAL, WATER REQUIREMENTS, MOUNDS AND SLOPES, SUN, SHADE AND WIND EXPOSURES.

9. THE IRRIGATION SYSTEM IS DESIGNED FOR 1 VALVE TO OPERATE AT ONE TIME. THIS WILL ALLOW THE SYSTEM TO IRRIGATE IN APPROXIMATELY 8 HOURS OR LESS ACCORDING TO WEATHER CONDITIONS. TOTAL GPM DEMAND OF SYSTEM WILL BE APPROXIMATELY 20 GPM MAXIMUM. DO NOT UNDER ANY CIRCUMSTANCE EXCEED 20 GPM OR OPERATE MORE THAN ONE (1) VALVE AND ONE QUICK COUPLING VALVE AT THE SAME TIME.

11. IRRIGATION CONTROL WIRE: RAINMASTER 2–WIRE CABLE, TW–CAB–14, WITH U.L. APPROVAL FOR DIRECT BURIAL IN GROUND, SIZE AWG–UF #14–1.

12. SPLICES: MADE WITH 3M–DBY, OR SPEARS MODEL #400, OR APPROVED EQUAL SEAL PACKS.

13. INSTALL ONE SPARE 2–WIRE CABLE FROM CONTROLLER ALONG THE ENTIRE MAIN LINE. INSTALL 36" EXCESS WIRE INTO A QUICK COUPLER BOX AT EACH VALVE GROUP. WEATHERPROOF UNUSED WIRE ENDS. SPLICING OF 2–WIRE CABLE AND 24 VOLT WIRES IS NOT PERMITTED EXCEPT IN VALVE BOXES. LEAVE A 36" LONG, 1" DIAMETER COIL OF EXCESS WIRE AT EACH SOLENOID WIRE SPLICE.

14. PLASTIC VALVE BOXES AND LIDS SHALL BE BLACK IN COLOR WITH BOLT DOWN, NON-HINGED COVER MARKED "IRRIGATION". BOX BODY SHALL HAVE KNOCK OUTS. MANUFACTURER: RAIN BIRD, NDS, OLD CASTLE, OR APPROVED EQUAL.

15. INSTALL REMOTE CONTROL VALVE BOXES 12" FROM WALK, CURB, BUILDING OR LANDSCAPE FEATURE. AT MULTIPLE VALVE BOX GROUPS, EACH BOX SHALL BE AN EQUAL DISTANCE FROM THE WALK, CURB, ETC. AND EACH BOX SHALL BE 12" APART. SHORT SIDE OF RECTANGULAR VALVE BOXES SHALL BE PARALLEL TO WALK, CURB, ETC. REFER TO BOX INSTALLATION DETAIL.

16. FLUSH AND ADJUST IRRIGATION HEADS FOR EFFICIENT PERFORMANCE. PREVENT OVERSPRAY ON THE WALKS, PLAYGROUNDS, ROADWAYS, SIGNS, LIGHTS, AND/OR BUILDINGS. SELECT THE BEST DEGREE OF ARC TO FIT THE EXISTING SITE CONDITIONS AND THROTTLE THE FLOW CONTROL OR PRESSURE REGULATION DEVICE AT EACH VALVE TO OBTAIN THE BEST OPERATING PRESSURE FOR EACH SYSTEM.

17. SET POP–UP HEADS PERPENDICULAR TO FINISH GRADE OF THE AREA TO BE IRRIGATED UNLESS OTHERWISE NOTED ON THE DRAWINGS.

18. IRRIGATION HEAD LAYOUT AND PIPING AS SHOWN ON THE DRAWINGS IS INDICATIVE OF THE WORK TO BE INSTALLED. IRRIGATION HEADS, ARC OF SPRAY, RADIUS OF SPRAY AND PIPING AT CERTAIN LOCATIONS MAY REQUIRE FIELD ADJUSTMENT TO PREVENT HARM TO TREE ROOTS AND INTERFERENCE OF TREES TO IRRIGATION SPRAY.

19. EXERCISE PARTICULAR ATTENTION AT ALL EXISTING AND NEW TREES TO ELIMINATE DIRECT SPRAY OF IRRIGATION HEADS ON TREE TRUNKS.

20. THE SPRINKLER SYSTEM DESIGN IS BASED ON THE MINIMUM OPERATING PRESSURE SHOWN ON THE IRRIGATION DRAWINGS. VERIFY WATER PRESSURE PRIOR TO CONSTRUCTION. REPORT ANY DIFFERENCE BETWEEN THE WATER PRESSURE INDICATED ON THE DRAWINGS AND THE ACTUAL PRESSURE READING AT THE IRRIGATION POINT OF CONNECTION TO LUHSD.

21. IRRIGATION DEMAND: 20 GPM MAX. AT (E) POTABLE PSI WATER PRESSURE.

22. PIPE SIZING SHOWN ON THE DRAWINGS IS TYPICAL. AS CHANGES IN LAYOUT OCCUR DURING STAKING AND CONSTRUCTION ADJUST THE SIZE ACCORDINGLY.

23. PIPE THREAD SEALANT COMPOUND SHALL BE PERMATX 51 OR RECTORSEAL T+2.

24. BEFORE COMMENCING WITH WORK UNDER THIS CONTRACT, NOTIFY UNDERGROUND SERVICE ALERT AT 811 OR 1–800–227–2600. DETERMINE THE EXACT LOCATION OF EXISTING UTILITIES, PIPES, AND STRUCTURES BEFORE COMMENCING WORK. COSTS OF DAMAGES WHICH OCCUR FROM FAILURE TO ACCURATELY LOCATE AND PRESERVE THESE UTILITIES SHALL BE THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR.

25. CAUTION: USE SHOVELS AND HAND DIG TRENCHES AROUND (E) TREE ROOT SYSTEMS. INSTALL PIPING AWAY FROM (E) TREE ROOT SYSTEMS. PROTECT (E) TREE ROOT SYSTEMS AT ALL TIMES. TYPICAL FOR ALL (E) TREE ROOT SYSTEMS. INSTALL ALL BURIED IRRIGATION SUCH AS PVC PIPING, VALVES, HEADS, BOXES, CONDUIT WITH WIRES, IN A MANNER TO AVOID EXCAVATING OR TRENCHING WITHIN THE EXISTING TREE DRIPLINES AND ROOTZONES.

26. NOTE: NO PLASTIC PIPE OR SOLVENT WELDED JOINTS ARE PERMITTED ABOVE GRADE.

27. CONTROLLER, MASTER VALVE, AND FLOW SENSOR NOTE: CONTRACTOR SHALL BE RESPONSIBLE FOR ORDERING, COORDINATION WITH DISTRIBUTOR AND CONTROLLER ASSEMBLY VENDOR, THE INSTALLATION OF MASTER VALVE, FLOW SENSOR, AND ALL ASSOCIATED PARTS AND HARDWARE TO PROVIDE A COMPLETE AND FULLY OPERABLE SYSTEM.

28. CONTRACTOR SHALL COORDINATE WORK AFFECTING EXISTING, TEMPORARY AND PROPOSED IMPROVEMENTS TO PROVIDE CONTINUOUS IRRIGATION SYSTEM OPERATION.

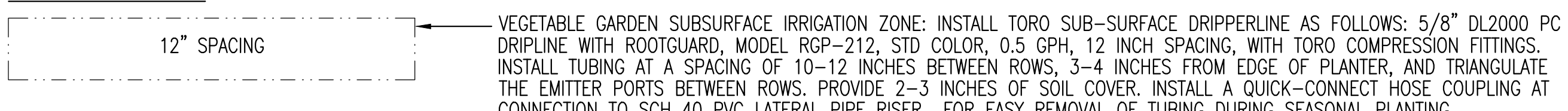
29. SUBSURFACE EMITTER IRRIGATION:

- CONTACT THE LOCAL SUBSURFACE MANUFACTURER'S REPRESENTATIVE FOR THE INSTALLATION PROCEDURES AND FOR ASSISTANCE WITH THE INSTALLATION OF THE SUBSURFACE EMITTER LINE.
- INSTALL EMITTER DRIPPERLINE ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS AND GUIDELINES AND THE DETAILS SHOWN ON THE PLANS.
- PRIOR TO PLANTING, THOROUGHLY FLUSH ALL EMITTER TUBING TO REMOVE CONSTRUCTION DEBRIS AND SOIL FROM THE TUBING.
- PRIOR TO PLANT INSTALLATION MAKE SURE THE SURROUNDING SHRUB PLANTING SOIL AND SOIL BASE FOR PLANTS IS THOROUGHLY MOISTENED.
- TEMPORARY SURFACE WATERING IS REQUIRED AFTER INITIAL PLANTING OF THE PLANTS, SEED, OR SOD. ALLOW TWO WEEKS OR MORE AS NEEDED TO PROMOTE ROOT GROWTH AND SUSTAIN GOOD PLANT HEALTH.
- CONTAINER ROOTBALL SOIL WILL HOLD WATER DIFFERENTLY FROM THE SITE'S NATIVE SOIL. DO NOT ALLOW SHRUB CONTAINER ROOTBALLS TO DRY OUT. KEEP CONTAINER ROOTBALLS MOIST AT ALL TIMES.
- OBSERVE PLANTS TO MAKE SURE THAT THE PLANTS ARE ROOTING IN THE PREPARED SURROUNDING SOIL BASE AND HAVE ENOUGH MOISTURE.

IRRIGATION LEGEND

SYMBOL	NUMBER	DESCRIPTION	PSI	GPM OR GPH	RADIUS (MIN./MAX.)	PRECIP. RATE
TREE ROOT WATERING SYSTEM WITH SOCK						
	[RWS–B–C–1401]+[RWS–SOCK]	RAIN BIRD (INSTALL 2 BUBBLERS PER INDIVIDUAL STAND–ALONE TREE)	30	0.25	FLOOD	0.5 GPM
BUBBLERS						
	1401	RAIN BIRD BUBBLER	30	0.25	FLOOD	0.25 GPM

SUBSURFACE DRIPPERLINE



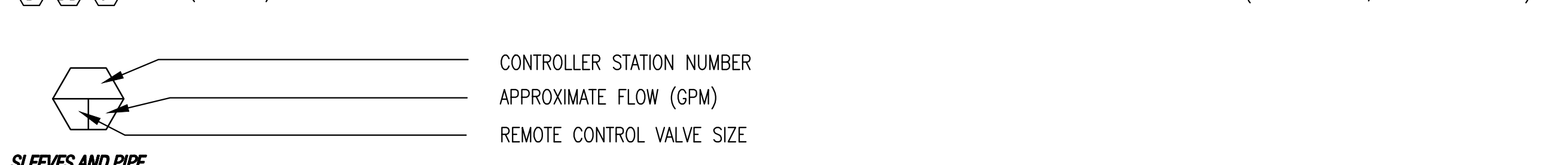
VEGETABLE GARDEN SUBSURFACE IRRIGATION ZONE: INSTALL TORO SUB–SURFACE DRIPPERLINE AS FOLLOWS: 5/8" DL2000 PC DRIPLINE WITH ROOTGUARD, MODEL RGP–212, STD COLOR, 0.5 GPH, 12 INCH SPACING, WITH TORO COMPRESSION FITTINGS. INSTALL TUBING AT A SPACING OF 10–12 INCHES BETWEEN ROWS, 3–4 INCHES FROM EDGE OF PLANTER, AND TRIANGULATE THE EMITTER PORTS BETWEEN ROWS. PROVIDE 2–3 INCHES OF SOIL COVER. INSTALL A QUICK–CONNECT HOSE COUPLING AT CONNECTION TO SCH 40 PVC LATERAL PIPE RISER FOR EASY REMOVAL OF TUBING DURING SEASONAL PLANTING.

VALVES

	DWS–100LIB (1")	GRISWOLD REMOTE CONTROL VALVE, NORMALLY CLOSED, BRASS CONSTRUCTION, FIPT, WITH INTERNAL BLEED, INTEGRAL UNION AND BALL VALVE (MINIMUM FLOW: 0.1 GPM).
	[DWS–100LIS1]+[PRL–30]	GRISWOLD REMOTE CONTROL VALVE, NORMALLY CLOSED, BRASS CONSTRUCTION, FIPT, WITH INTERNAL BLEED, INTEGRAL UNION AND BALL VALVE, STRAINER (100 MESH), AND SENNINGER LOW FLOW PRESSURE REGULATOR. SIZE: 1". (EMITTER ZONES)
	33DLRC (3/4")	RAIN BIRD QUICK COUPLING VALVE WITH YELLOW LOCKING RUBBER COVER
	LMV–22BB (2.5")	LEEMCO RESILIENT WEDGE GATE VALVE WITH SLIP–ON CONNECTIONS AND 2" SQ. WRENCH NUT. IPS SERIES (BELL X BELL).

CONTROLLER

	(EXISTING)	CONTROLLER ASSEMBLY CONSISTING OF A RAIN BIRD "MAXICOM" SATELLITE CONTROLLER (TO BE MOVED, SEE PLAN NOTES)
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SLEEVES AND PIPE

MAIN LINE: 1120–SCHEDULE 40 PVC PLASTIC PIPE WITH SOLVENT WELDED CONNECTIONS, SCHEDULE 40 PVC PLASTIC SOLVENT WELDED FITTINGS. SOIL COVER: 18–INCH IN SOIL, 18–INCH UNDER PEDESTRIAN PAVEMENT, 24–INCH UNDER VEHICULAR PAVEMENT. SIZE: 1.5–INCH.

(E) IRR MAIN LINE USING POTABLE WATER

(E) IRR MAIN LINE USING NON–POTABLE WATER

LATERAL LINE: 1120–SCHEDULE 40 PVC PLASTIC PIPE WITH SCHEDULE 40 PVC PLASTIC SOLVENT WELDED FITTINGS. 12–INCH SOIL COVER. SIZE 1–INCH UNLESS OTHERWISE NOTED.

SLEEVE: 1120–CLASS 200 OR 1120–SCHEDULE 40 PVC PLASTIC PIPE, WHICHEVER HAS THE LARGEST WALL THICKNESS, WITH SCHEDULE 40 PVC PLASTIC SOLVENT WELDED FITTINGS. SOIL COVER TO BE EQUAL TO COVER REQUIRED FOR PIPE CONTAINED WITHIN SLEEVE 18–INCH MINIMUM COVER. 2–INCH DIA. UNLESS OTHERWISE NOTED.

(E) IRR SLEEVE

ELECTRICAL CONDUIT FOR LOW VOLTAGE CONTROL WIRES: 1120–SCHEDULE 40 PVC GRAY PLASTIC ELECTRICAL CONDUIT WITH SCHEDULE 40 PVC GRAY PLASTIC SOLVENT WELDED SWEEP ELBOWS AND FITTINGS. COVER: 24–INCHES; SIZE: 2–INCH DIA.

ELECTRICAL PULL BOX FOR CONDUIT: RECTANGULAR PLASTIC BOX WITH PLASTIC BOLT–DOWN LID. USE A CONCRETE PULL BOX WITH A TRAFFIC RATED LID FOR ALL PULL BOXES LOCATED IN VEHICULAR PAVEMENT (WHERE NECESSARY).

(N) LOW VOLTAGE WIRE RUN FOR 24 VAC CONTROL WIRES AND MAXICOM CCU CABLE FROM (E) CONTROLLERS "D", "DD" & "F"

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ABBREVIATIONS:

AV	AIR VALVE
CI	CAST IRON
CU	COPPER
DEG	DEGREES
DI	DUCTILE IRON
DIA	DIAMETER
ECV	EMITTER CONTROL VALVE
EFF	EFFICIENCY
ETWU	ESTIMATED TOTAL WATER USE
ETO(ET)	EVAPOTRANSPIRATION
(E)	EXISTING
FT	FEET
FIPT	FEMALE IRON PIPE THREAD
FPS	FEET PER SECOND
(F)	FUTURE
FS	FLOW SENSOR
FV	FLUSH VALVE
GA	GAUGE
GI	GALVANIZED IRON
GV	GATE VALVE
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
ID	INTERNAL DIAMETER
IN	INCHES
IRR	IRRIGATION
MAWA	MAXIMUM APPLIED WATER ALLOWANCE
MAX	MAXIMUM
MCV	MASTER CONTROL VALVE
MV	MASTER VALVE
MIN	MINIMUM
MIPT	MALE IRON PIPE THREAD
MPR	MATCHED PRECIPITATION RATE
MWEL0	MODEL WATER EFFICIENT LANDSCAPE ORDINANCE
(N)	NEW
NIC	NOT IN CONTRACT
NPW	NON POTABLE WATER
NTS	NOT TO SCALE
OD	OUTSIDE DIAMETER
PE	POLYETHYLENE
POC	POINT OF CONNECTION
PRECIP	PRECIPITATION
PRV	PRESSURE REDUCING VALVE
PVBA	PRESSURE VACUUM BREAKER ASSEMBLY
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYLCHLORIDE
PW	POTABLE WATER
QTY	QUANTITY
QCV	QUICK COUPLING VALVE
RCV	REMOTE CONTROL VALVE
RPBA	REDUCED PRESSURE BACKFLOW ASSEMBLY
RS	RIGID STEEL
RW	RECYCLED WATER
SCH	SCHEDULE
SF	SQUARE FOOT OR FEET
SQ	SQUARE
SS	STAINLESS STEEL
STD	STANDARD
TBD	TO BE DETERMINED
TBE	THREADED BOTH ENDS
TOE	THREADED ONE END
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
UPC	UNIFORM PLUMBING CODE
UV	ULTRAVIOLET
UVR	ULTRAVIOLET RESISTANT
VAC	VOLTS–ALTERNATING CURRENT
VB	VALVE BOX
WM	WATER METER

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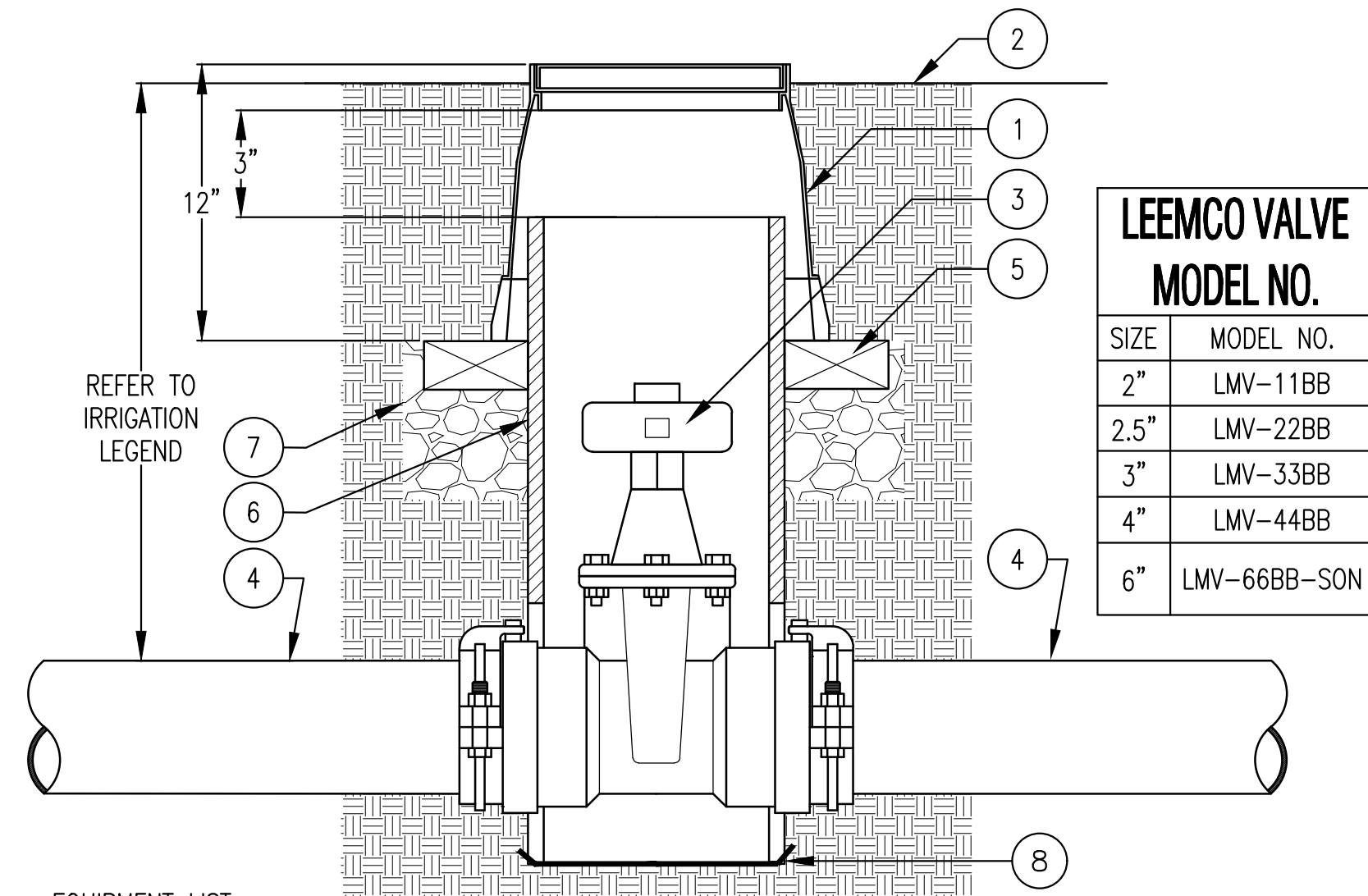
REVISIONS

ARCH PROJECT NO:	1750.00
DRAWN BY:	JDE
DRAWING SCALE:	SCALE
PTN:	61721-70

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FEBRUARY 27, 2019
 SHEET TITLE

IRRIGATION LEGEND & NOTES

SHEET NUMBER
L3.2



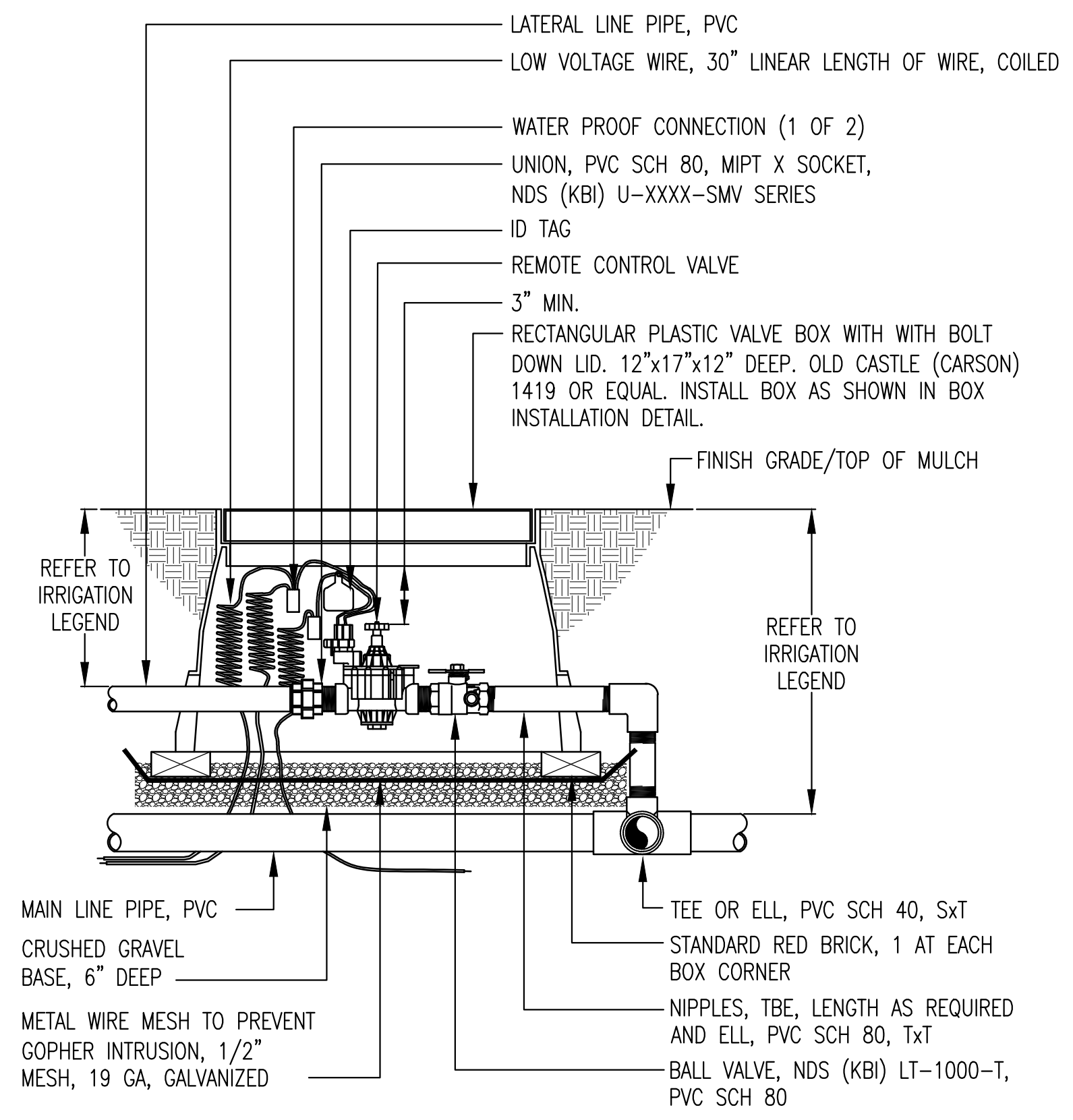
SIZE	MODEL NO.
2"	LMV-11BB
2.5"	LMV-22BB
3"	LMV-33BB
4"	LMV-44BB
6"	LMV-66BB-SON

EQUIPMENT LIST:

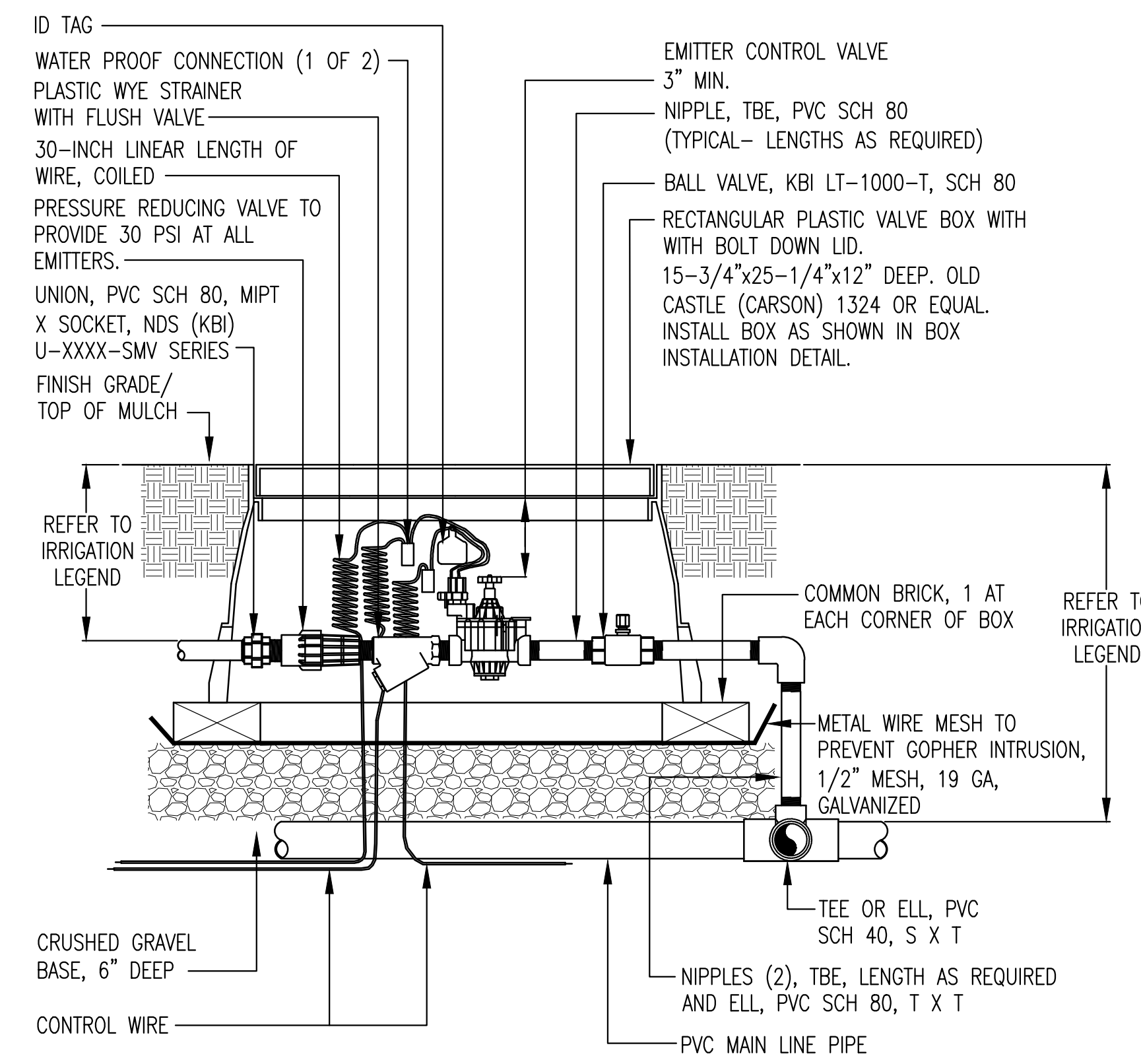
(REFER TO BUBBLED NUMBERS)

- 10" ROUND PLASTIC VALVE BOX WITH PLASTIC BOLT-DOWN LID.
 - FINISH GRADE
 - LEEMCO GATE VALVE, BELL CONNECTIONS WITH INTEGRAL RESTRAINTS. UNLESS OTHERWISE NOTED, PLACE VALVE IN THE OPEN POSITION. BOLT TORQUE: 3" = 20 FT-LBS; 4", 6" & 8" = 50 FT-LBS.
 - MAIN LINE PIPE (ACCORDING TO LEGEND AND SPECIFICATIONS)
 - BRICK BASE (2 TOTAL, 180 DEGREES APART)
 - 10" SCH. 40 OR CLASS 200 PVC RISER-NOTCH RISER TO FIT OVER PIPE
 - CRUSHED GRAVEL, 6" DEEP, ALL AROUND
 - METAL WIRE MESH TO PREVENT GOPHER INTRUSION, 1/2" MESH, 19 GA, GALVANIZED
- INSTALLATION NOTES:**
- INSTALL VALVE BOX FLUSH WITH FINISH GRADE IN TURF AND 1" ABOVE FINISH GRADE IN SHRUB AREAS.
 - KEEP BRICKS AWAY FROM PIPE.

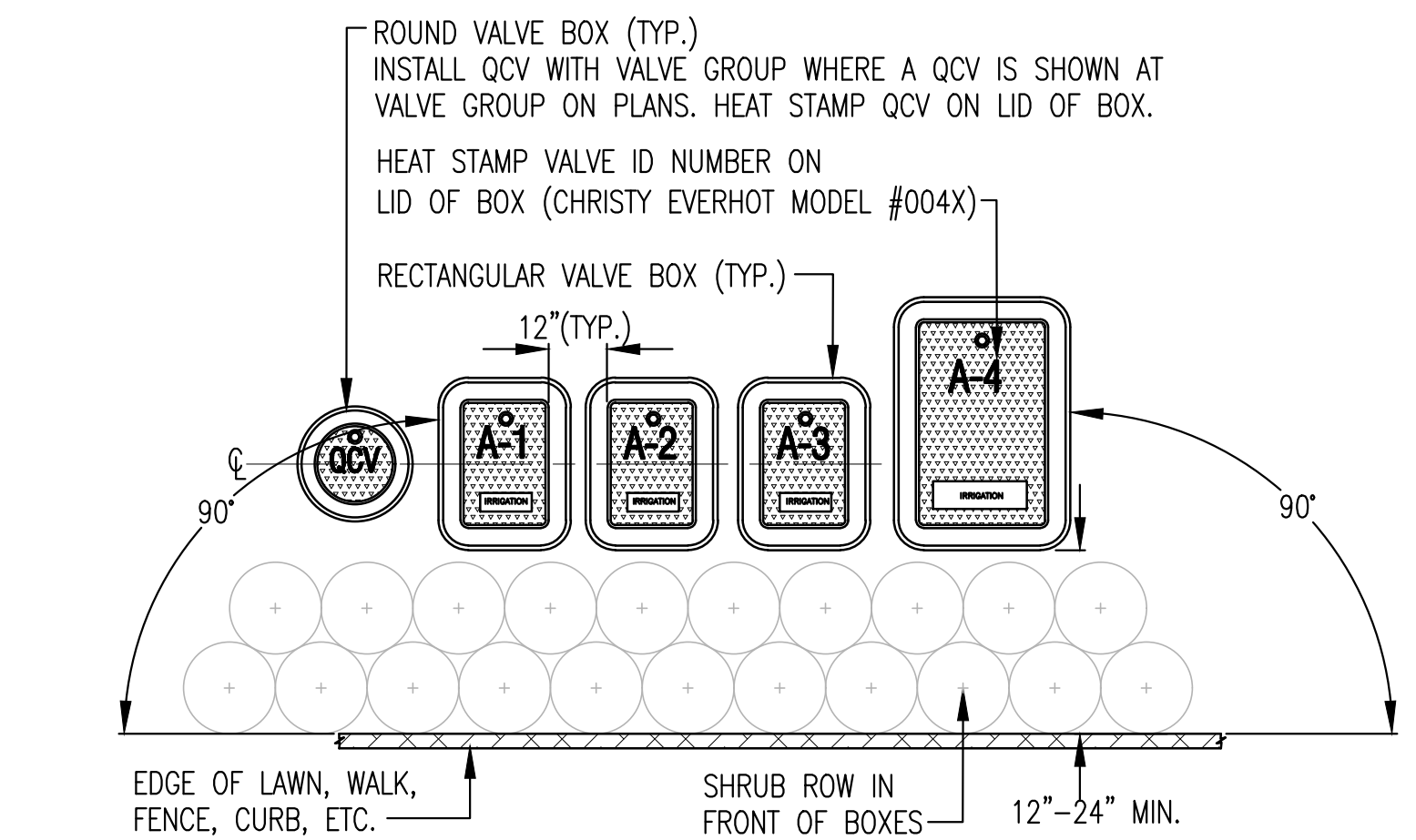
1 GATE VALVE, LEEMCO WITH BELL CONNECTIONS & RESTRAINTS (2", 2.5", 3", & 4")
NOT TO SCALE



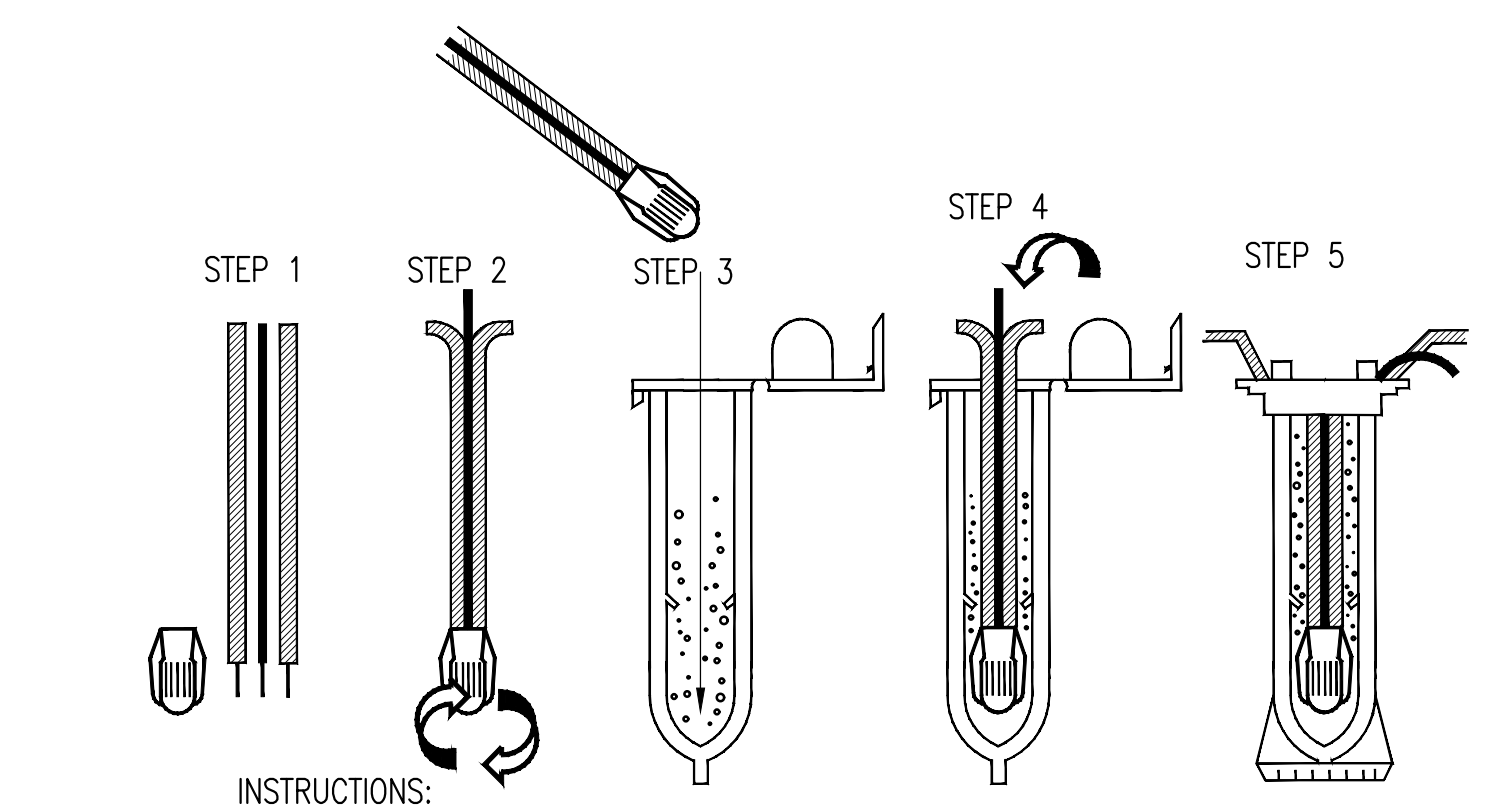
2 REMOTE CONTROL VALVE (SPRAY AND BUBBLER ZONES)
NOT TO SCALE



3 EMITTER CONTROL VALVE
NOT TO SCALE



4 BOX INSTALLATION
NOT TO SCALE



5 WIRE SPLICE
NOT TO SCALE

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REVISIONS

NO.	DESCRIPTION

ARCH PROJECT NO: 1750.00
 DRAWN BY: JDE
 DRAWING SCALE: SCALE
 PTN: 61721-70

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 SHEET TITLE

IRRIGATION DETAILS

SHEET NUMBER
L3.3

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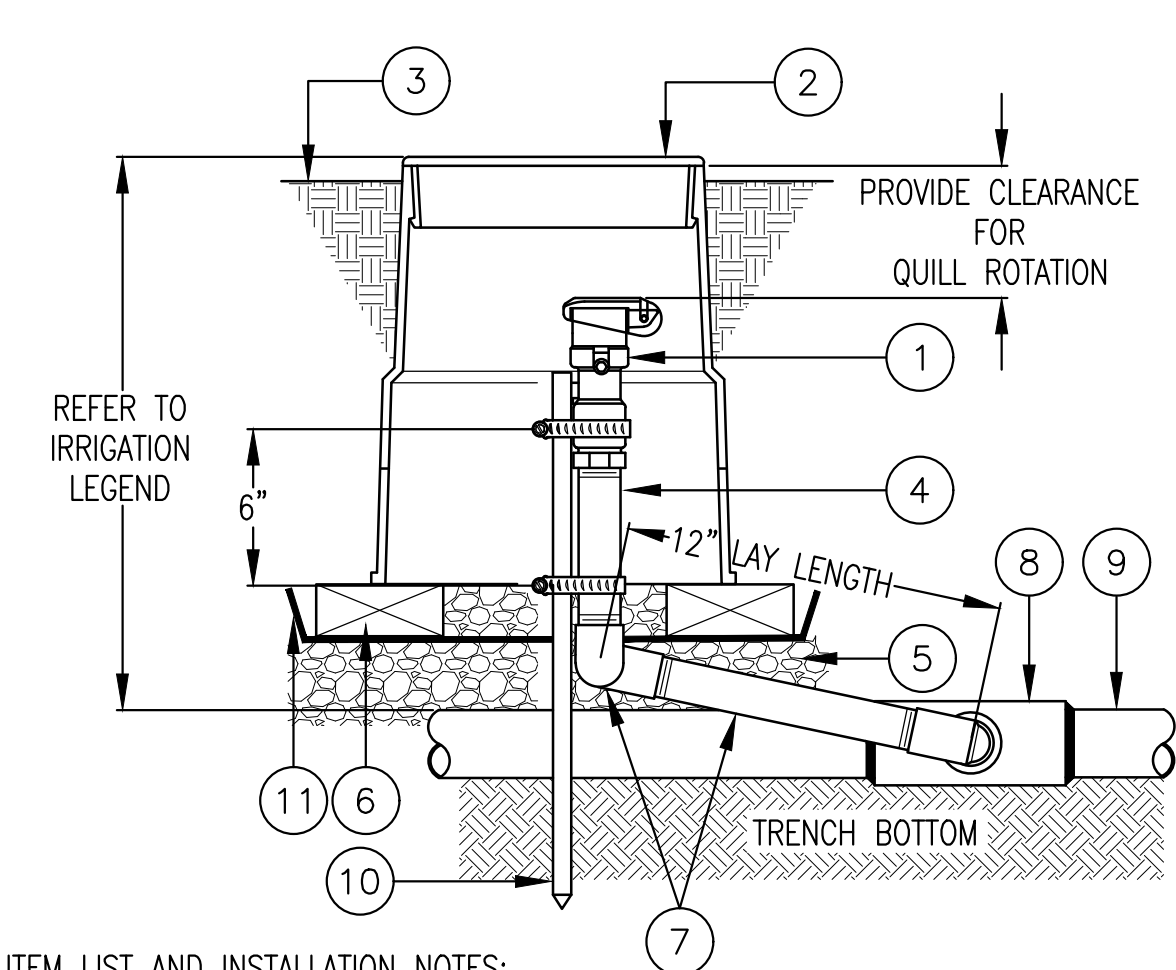
NO.	REVISIONS

ARCH PROJECT NO: 1750.00
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 DRAWING SCALE: SCALE
 PTN: 61721-70

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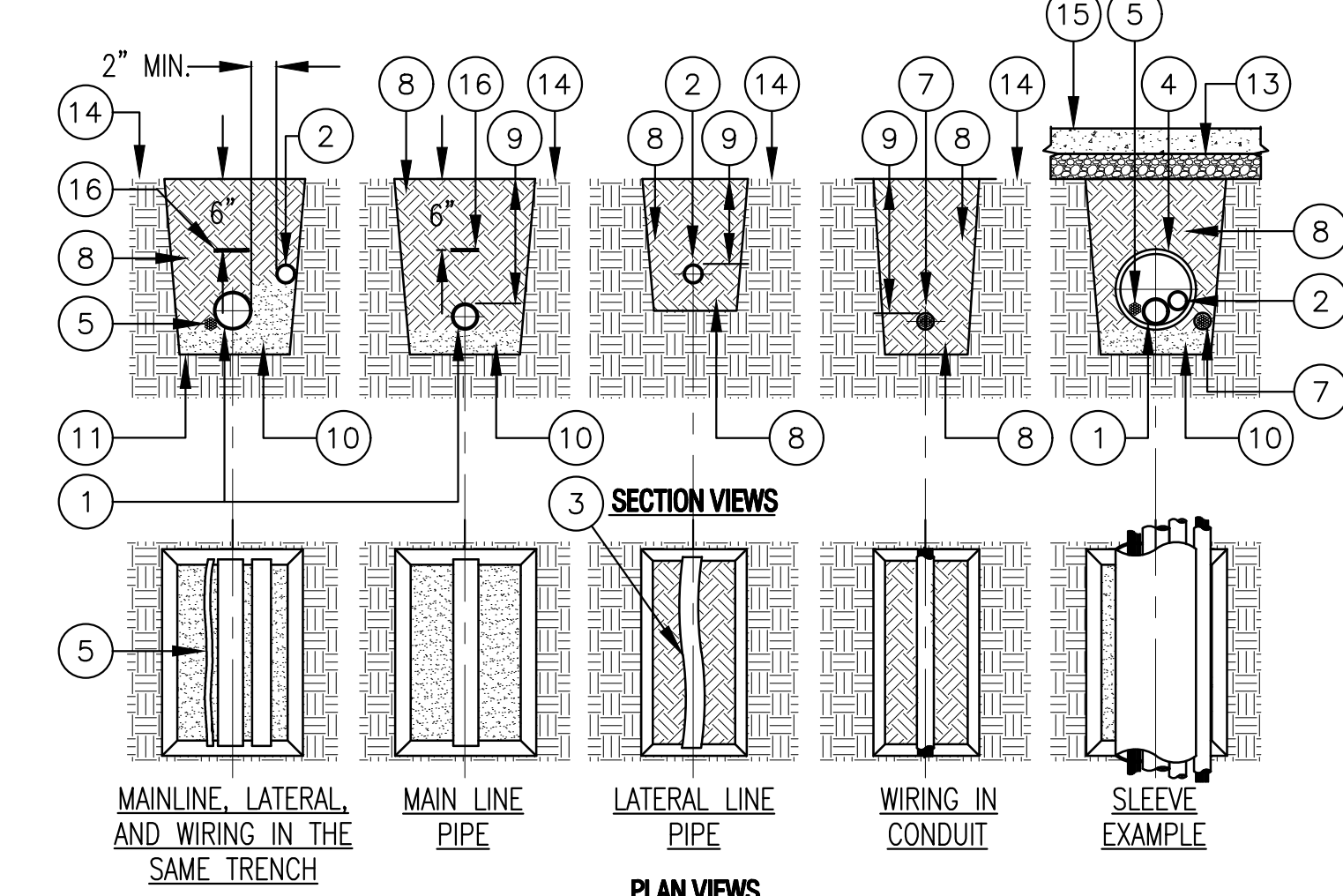
**IRRIGATION
 DETAILS**

SHEET NUMBER
L3.4



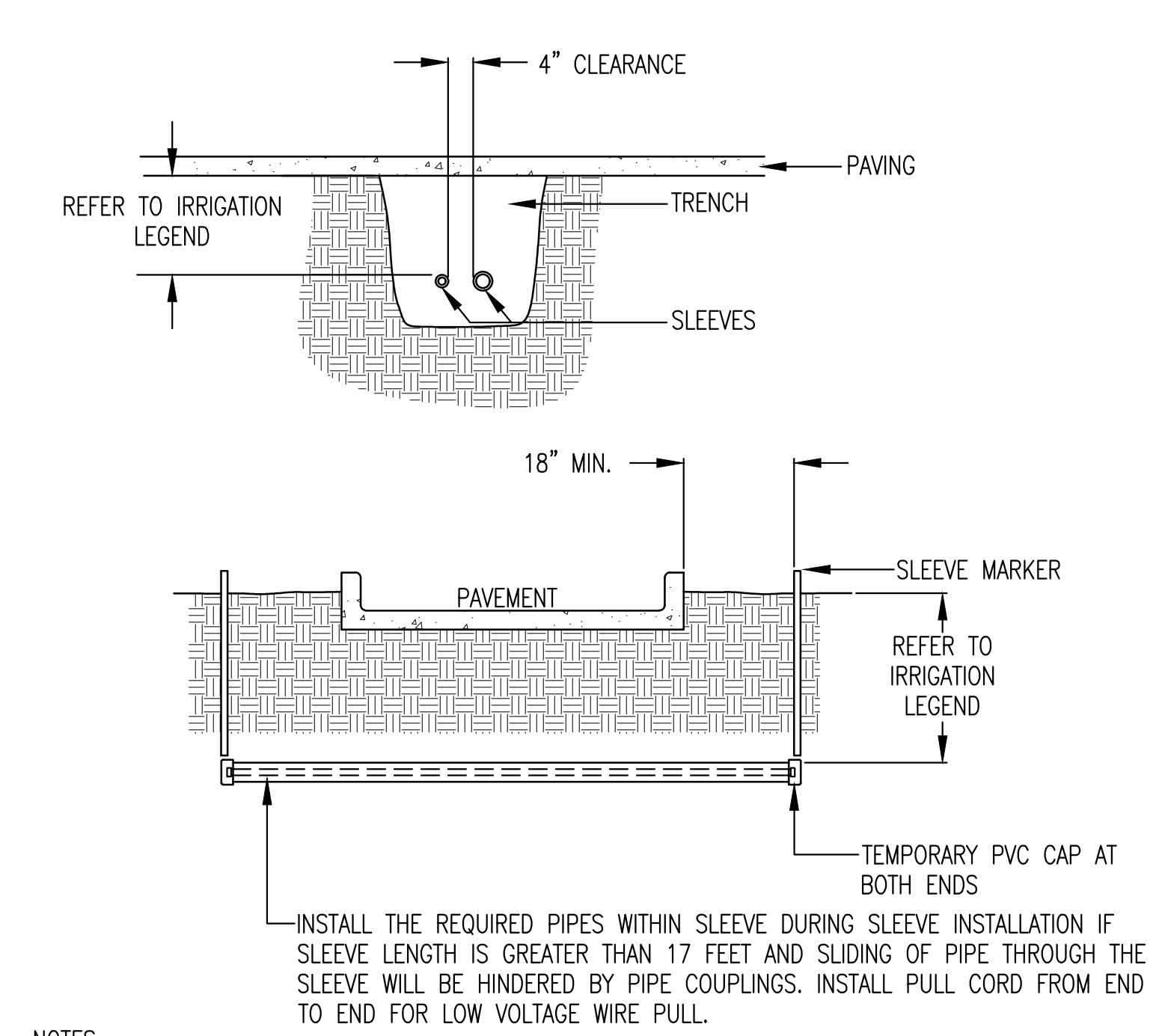
- ITEM LIST AND INSTALLATION NOTES:**
1. QUICK COUPLING VALVE - INSTALL VALVE PERPENDICULAR TO FINISHED GRADE UNLESS FIELD CONDITIONS REQUIRE ADJUSTMENT. INSTALL IN OUT-OF-PLAY OR PEDESTRIAN ACCESS AREAS. UNLESS OTHERWISE NOTED, FITTINGS ARE THE SAME IPT SIZE AS THE VALVE IPT INLET THREAD SIZE.
 2. PLASTIC VALVE BOX AND LID, 10" ROUND, BOLT-DOWN LID - INSTALL VALVE BOX FLUSH WITH FINISH GRADE IN TURF AND 1" ABOVE FINISH GRADE IN SHRUB AREAS
 3. FINISH GRADE OR TOP OF MULCH
 4. PVC SCH 80 NIPPLE (LENGTH AS REQUIRED)
 5. CRUSHED GRAVEL BASE, 6" DEEP
 6. COMMON BRICK, 2 TOTAL, 180 DEGREES APART
 7. SWING JOINT ASSEMBLY:
 - A. FINGER TIGHTEN O-RING JOINTS AND BACK-OFF ONE FULL TURN TO ALLOW FOR SWING ACTION.
 - B. PROVIDE 12" BETWEEN CENTER LINES OF ELBOWS ON SWING ARM.
 - C. INSTALL THE SWING JOINT LAY ARM AT AN ANGLE BETWEEN 30° AND 45° OF THE LATERAL IN ORDER TO ABSORB DOWNWARD IMPACT.
 - D. SWING JOINT MANUFACTURER: RAIN BIRD SWJ SERIES, 1" DURA STANDARD UNI-BODY MODEL 1-A2-2-1-12, OR APPROVED EQUAL.
 8. TEE, ELBOW OR SADDLE CONNECTION (PER MAIN LINE FITTING SPECIFICATIONS)
 9. MAIN LINE PIPE, (MATERIAL AND TYPE PER LEGEND AND SPECIFICATIONS)
 10. #4 X 24" REBAR STAKE W/STAINLESS STEEL GEAR CLAMPS OR EQUIVALENT SUPPORT SYSTEM
 11. METAL WIRE MESH TO PREVENT GOPHER INTRUSION, 1/2" MESH, 19 GA, GALVANIZED

1 QUICK COUPLING VALVE IN LANDSCAPED AREAS
 NOT TO SCALE



- PLAN VIEWS**
- ITEM LIST AND INSTALLATION NOTES:**
1. MAIN LINE PIPE; PROVIDE A MINIMUM OF 2" BETWEEN ALL PIPES.
 2. LATERAL LINE PIPE; PROVIDE A MINIMUM OF 2" BETWEEN ALL PIPES.
 3. SNAKE SOLVENT WELD PLASTIC PIPING IN TRENCH AS SHOWN.
 4. SLEEVE BELOW ALL HARDSCAPE ELEMENTS WITH SLEEVING TWICE THE DIAMETER OF THE PIPE OR WIRE BUNDLE WITHIN.
 5. WIRE BUNDLE: INSTALL WIRING BENEATH AND BESIDE MAIN LINE. TAPE AND BUNDLE AT 10-FOOT INTERVALS.
 6. TIE A 24-INCH LOOP IN WIRING AT CHANGES OF DIRECTION OF 30° OR GREATER. UNTIE AFTER ALL CONNECTIONS HAVE BEEN MADE.
 7. LOW VOLTAGE WIRE CONDUIT (WHERE SPECIFIED).
 8. CLEAN BACKFILL PER THE SPECIFICATIONS, TYPICAL.
 9. FOR PIPE, SLEEVE AND WIRE BURIAL DEPTHS, REFER TO IRRIGATION LEGEND AND SPECIFICATIONS.
 10. PROVIDE A SAND BED FOR PIPE.
 11. TRENCH BOTTOM OF UNDISTURBED SOIL, TYPICAL.
 12. WHERE BORING UNDER EXISTING PAVEMENT IS REQUIRED - REFER TO DRAWINGS FOR SPECIFIC INFORMATION.
 13. PAVEMENT AND SUBGRADE
 14. FINISH GRADE
 15. PAVED OR CONCRETE SURFACE
 16. DETECTABLE WARNING TAPE PER SPECIFICATIONS

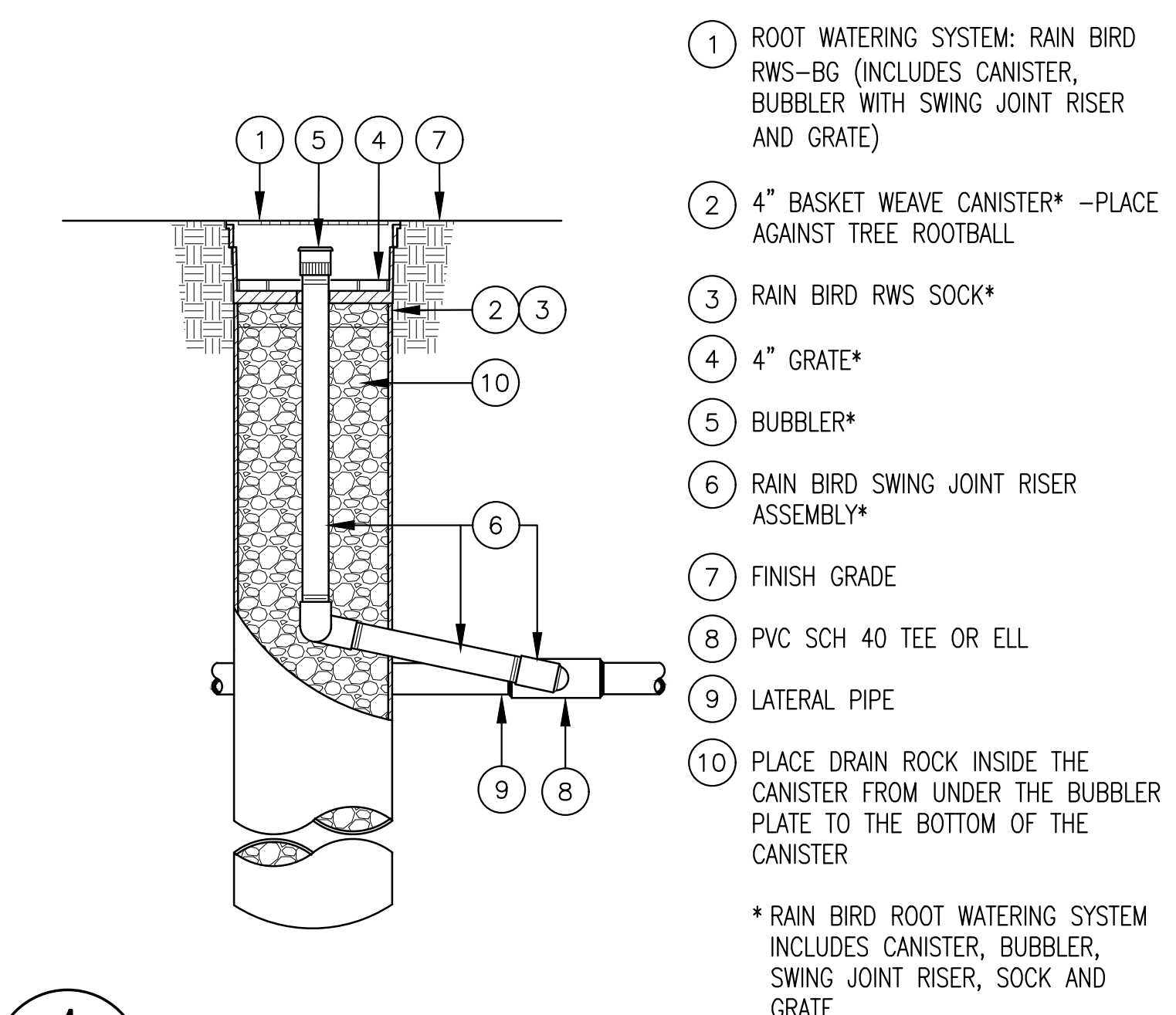
2 TRENCH
 NOT TO SCALE



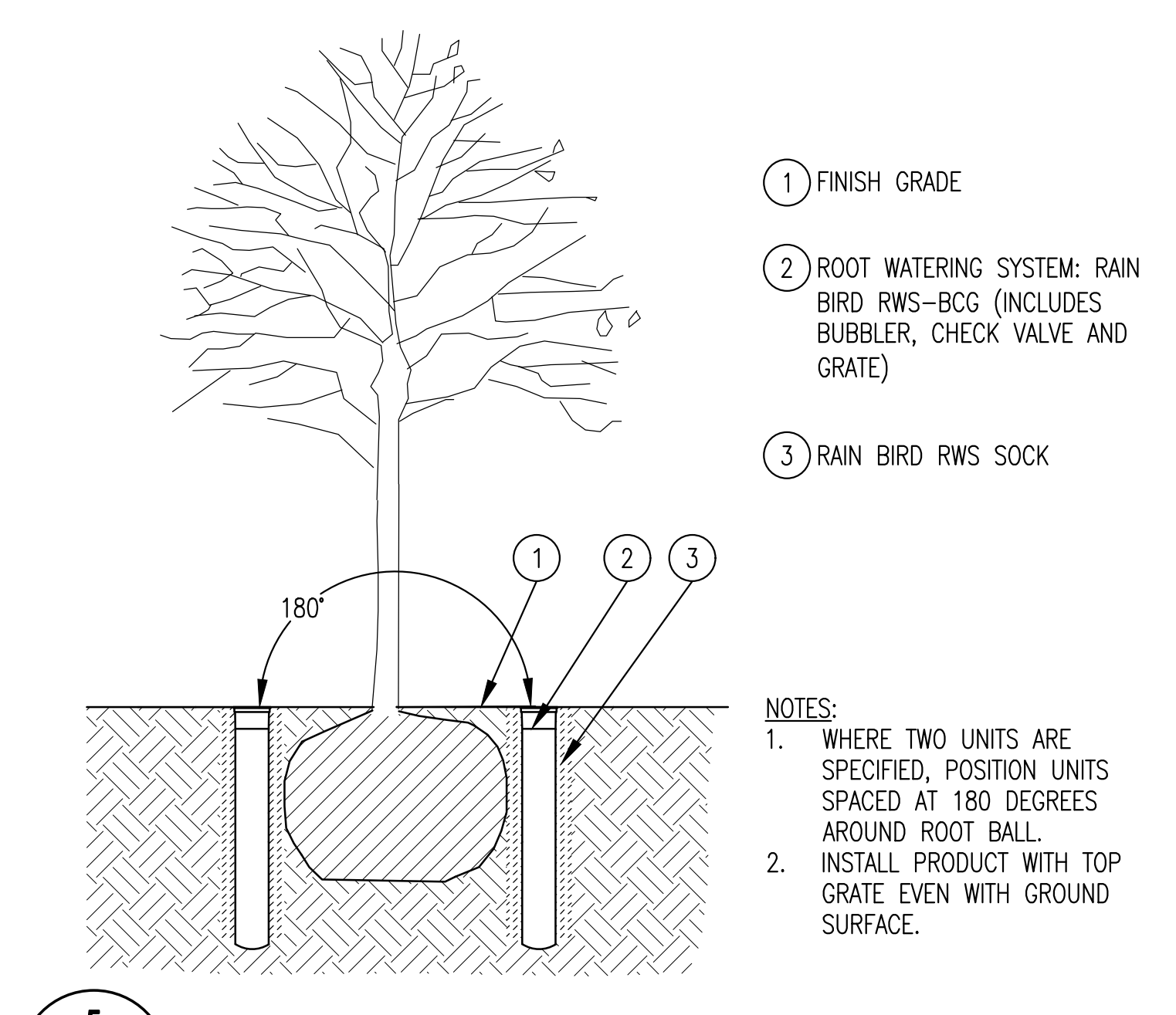
- NOTES:**
1. IRRIGATION SLEEVES TO BE PVC CLASS 200 OR SCH 40 PIPE. USE THE PIPE WITH THE THICKEST WALL DIMENSION.
 2. JOINTS TO BE SOLVENT WELDED AND WATERTIGHT.
 3. IF PIPING IS TO BE INSTALLED AFTER SLEEVING IS BACKFILLED, MARK SLEEVE LOCATION WITH A T. CHRISTY ENTERPRISES FIBERGLASS COMPOSITE MARKING POST, LABELED "IRRIGATION", EXPOSED AT GRADE, MODEL #ID-SF66-IRR.
 4. MECHANICALLY TAMP BACKFILL TO 95% COMPACTION.
 5. INSTALL SLEEVES LEVEL AND AFTER PIPE INSTALLATION, SEAL ENDS OF PIPE WITH GROUT TO PREVENT ROOT INTRUSION INTO THE SLEEVE.

3 SLEEVE INSTALLATION
 NOT TO SCALE

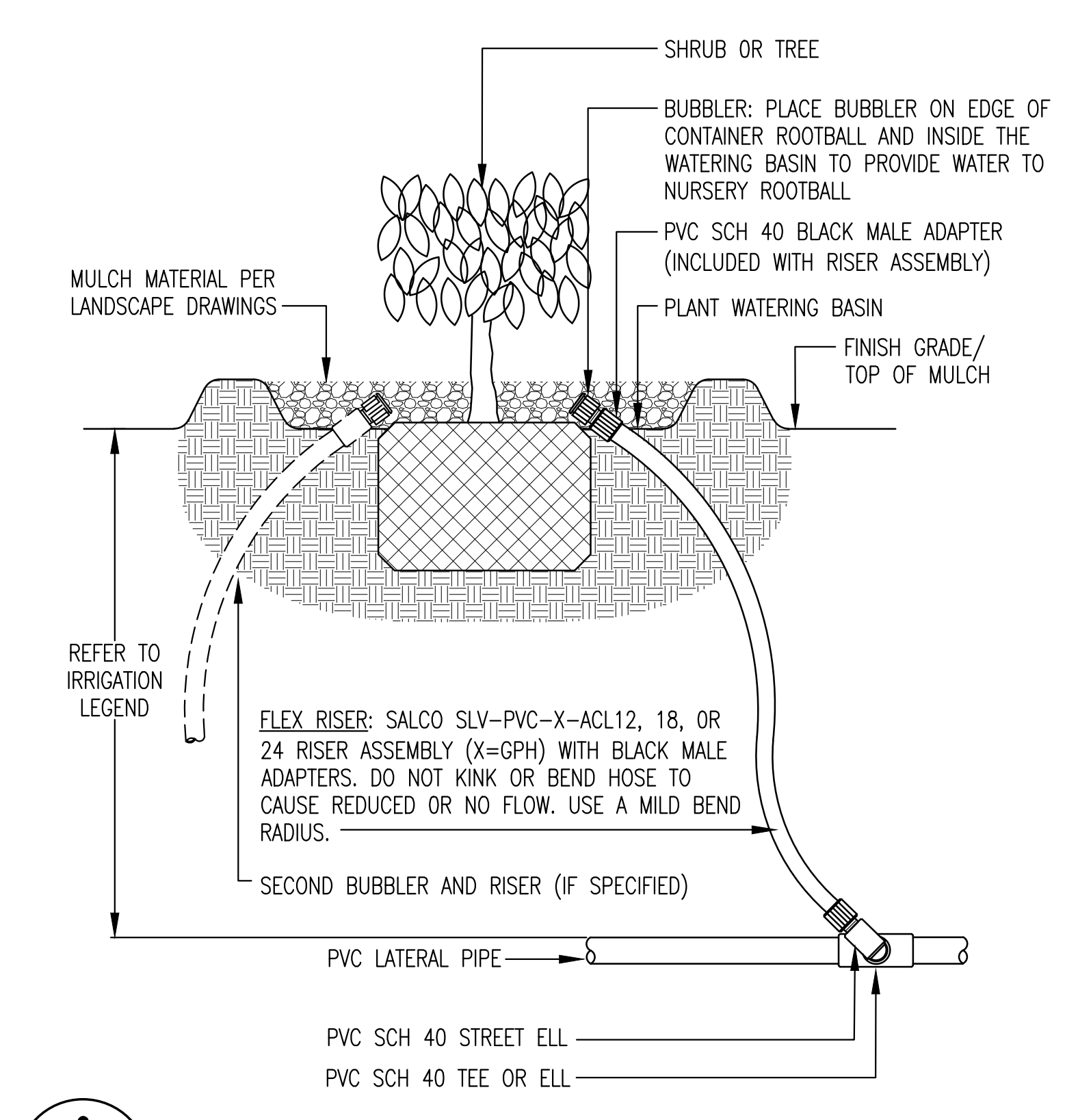
- INSTALLATION NOTES:**
1. INSTALL QUANTITY OF BUBBLERS PER "TREE BUBBLER QUANTITY CHART" AND LEGEND, SEE SHEET L2.1.
 2. INSTALL DEEP WATERING TUBE ADJACENT AND AGAINST THE ROOTBALL.



4 TREE DEEP ROOT WATERING SYSTEM
 NOT TO SCALE



5 TREE WATERING SYSTEM
 NOT TO SCALE



6 SHRUB BUBBLER, MICRO-BUBBLER, OR TREE BUBBLER RISER
 NOT TO SCALE

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 Brentwood, CA 94513

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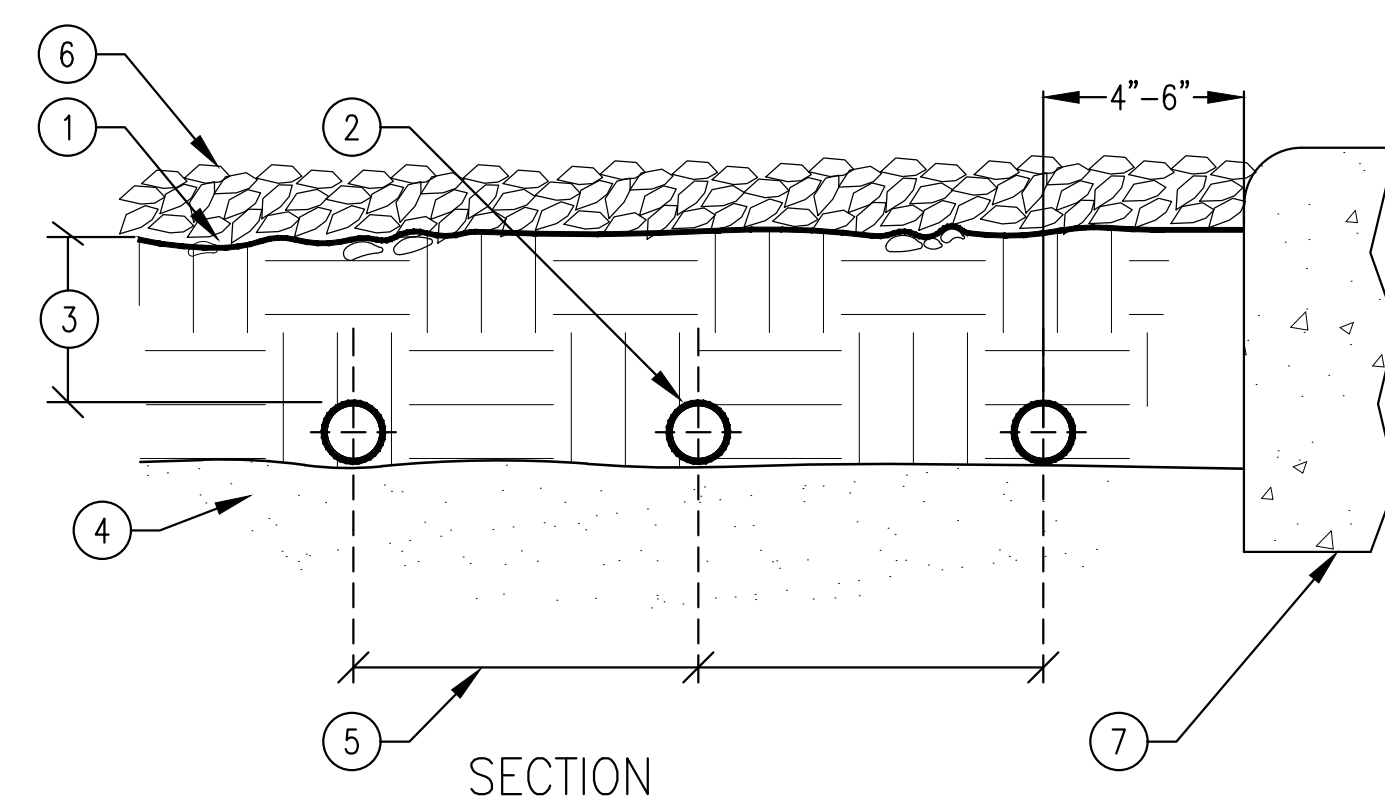
REVISIONS	

ARCH PROJECT NO: 1750.00
 DRAWN BY: JDE
 DRAWING SCALE: SCALE
 PTN: 61721-70

CD
 FEBRUARY 27, 2019
 SHEET TITLE

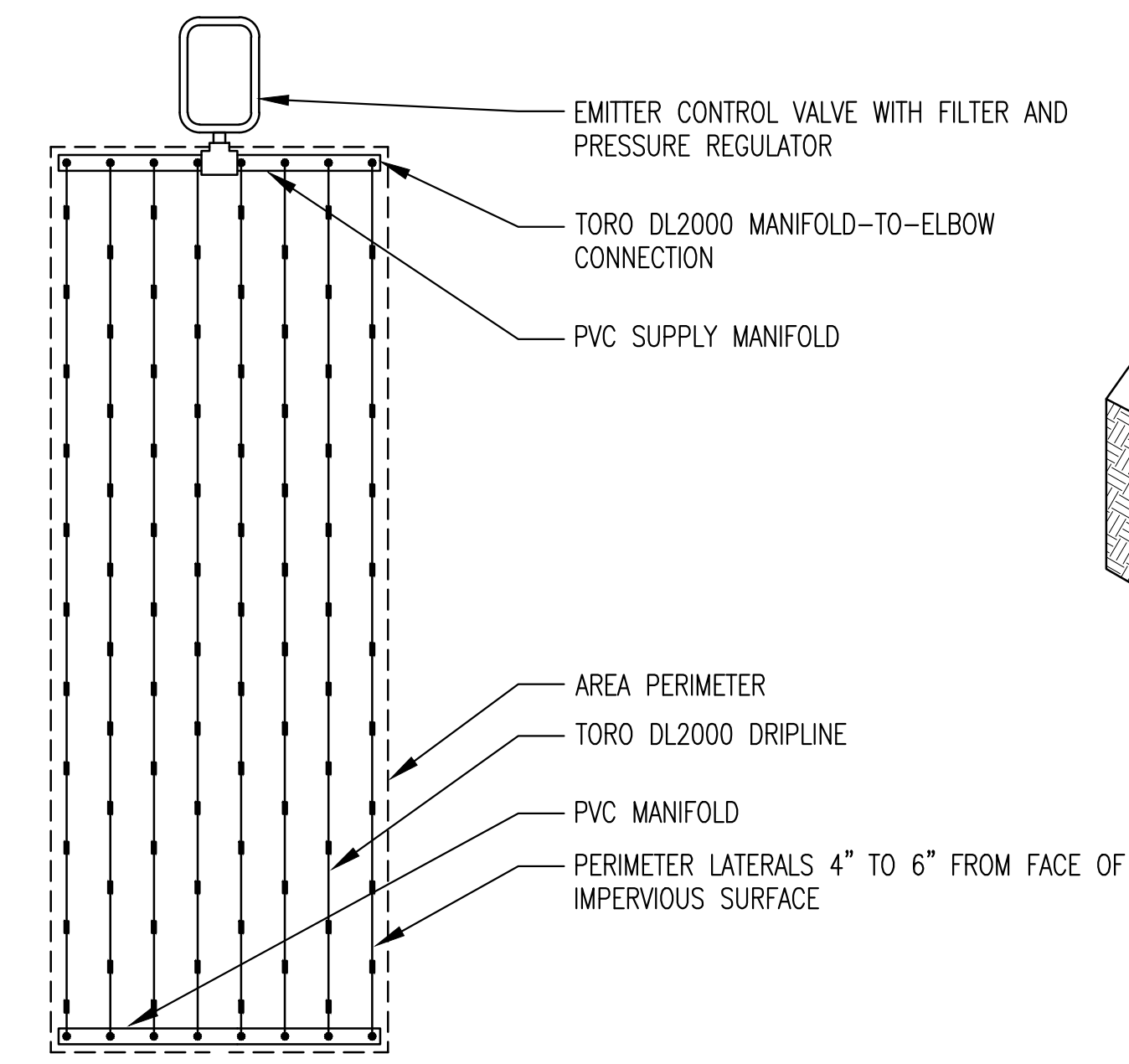
**IRRIGATION
 DETAILS**

SHEET NUMBER
L3.5



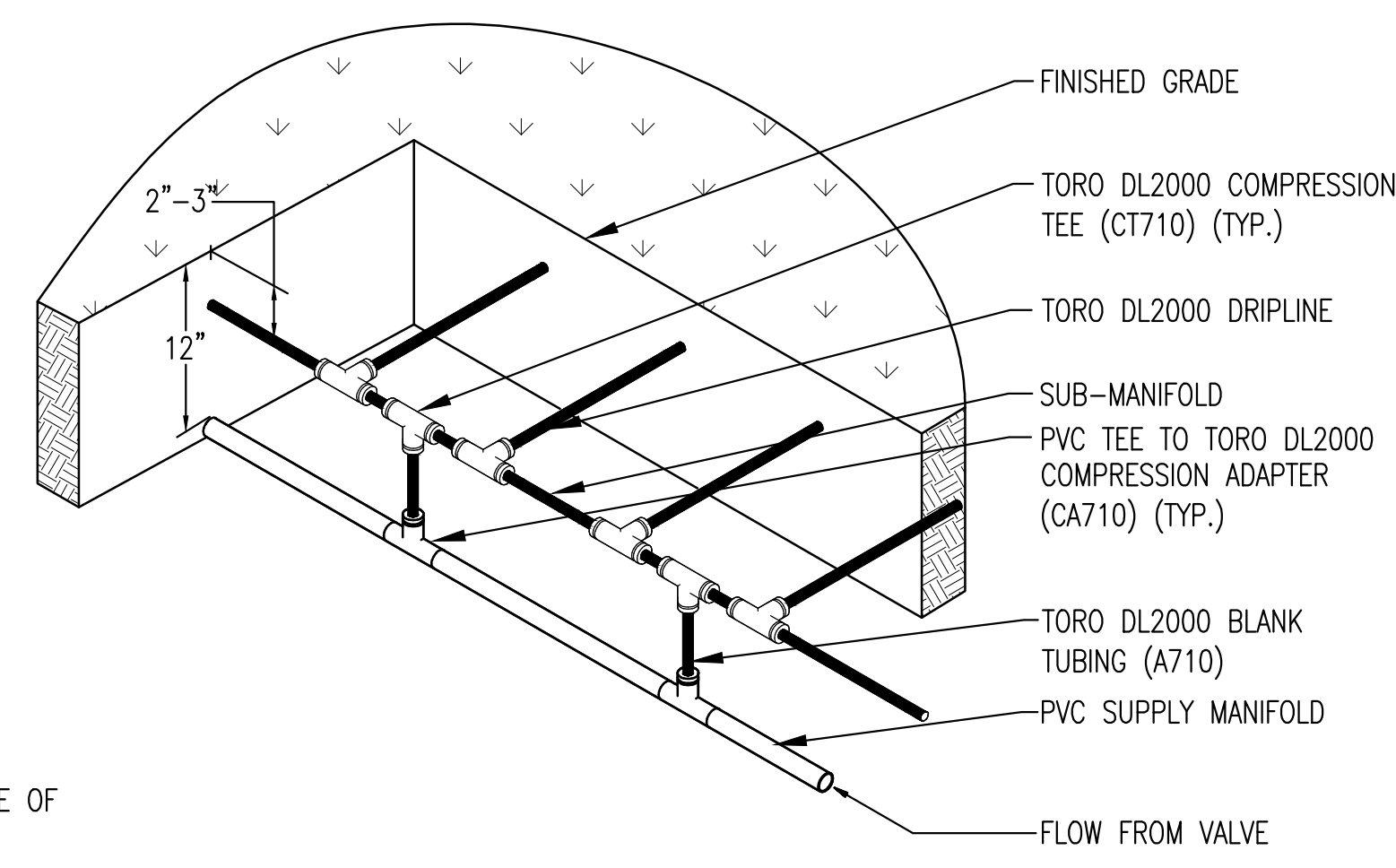
- ① FINISHED GRADE
- ② TORO DL2000 DRIPLINE (TYP.)
- ③ DEPTH OF TORO DL2000 DRIPLINE = 2"-3"
- ④ GARDEN PLANTING SOIL.
- ⑤ TORO DL2000 DRIPLINE LATERAL SPACING, SEE LEGEND FOR DISTANCE.
- ⑥ MULCH - SEE LANDSCAPE DRAWINGS
- ⑦ PLANTER EDGE

1 SUB-GRADE LATERAL - TORO DL2000
 NOT TO SCALE



- PLAN**
 NOTES:
1. REFER TO DRAWINGS, IRRIGATION LEGEND AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
 2. PLANT EDIBLE PLANTS BETWEEN DRIPPERLINE TUBES.
 3. INSTALL DRIPPERLINE 2"-3" BELOW FINISHED GRADE AND STAKE DRIPPERLINE EVERY 4' OR AS NECESSARY TO SECURE THE TUBING FROM MOVEMENT.
 4. USE ONLY TORO COMPRESSION FITTINGS WITH TORO DRIPPERLINE TUBING.
 5. INSTALL FITTINGS TO TUBING AS DIRECTED BY MANUFACTURER.

2 END FEED LAYOUT
 NOT TO SCALE



- ISOMETRIC**
 NOTES:
1. REFER TO DRAWINGS, IRRIGATION LEGEND AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
 2. PLANT EDIBLE PLANTS BETWEEN DRIPPERLINE TUBES.
 3. INSTALL DRIPPERLINE 2"-3" BELOW FINISHED GRADE AND STAKE DRIPPERLINE EVERY 4' OR AS NECESSARY TO SECURE THE TUBING FROM MOVEMENT.
 4. USE ONLY TORO COMPRESSION FITTINGS WITH TORO DRIPPERLINE TUBING.
 5. INSTALL FITTINGS TO TUBING AS DIRECTED BY MANUFACTURER.

3 END FEED MANIFOLD
 NOT TO SCALE

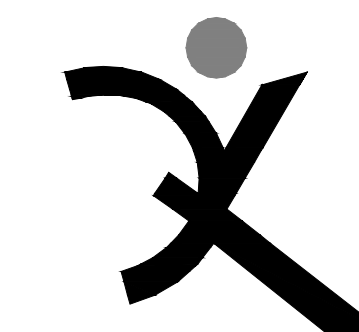
THESE DETAILS ARE SPECIFIC TO BURIED TORO DRIPPERLINE TUBING



JAMES D. EDDY ASSOCIATES
 LANDSCAPE IRRIGATION ENGINEERS
 P.O. BOX 2291
 DANVILLE, CALIFORNIA 94526
 P:(925) 867-3339
 EMAIL: JDE@EDDYASSOCIATES.COM
 PLANNING-DESIGN-MANAGEMENT
 JDE PROJECT NO: 18023

IRRIGATION DESIGNER:
James D. Eddy
 JAMES D. EDDY ASSOCIATES, DANVILLE, CALIFORNIA
 *NOTE: NO LICENSE FOR THE LANDSCAPE IRRIGATION
 SYSTEM DESIGN PROFESSION IS AVAILABLE IN THE STATE
 OF CALIFORNIA.
 MEMBER: AMERICAN SOCIETY OF IRRIGATION CONSULTANTS

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 DATE: 02/27/2019



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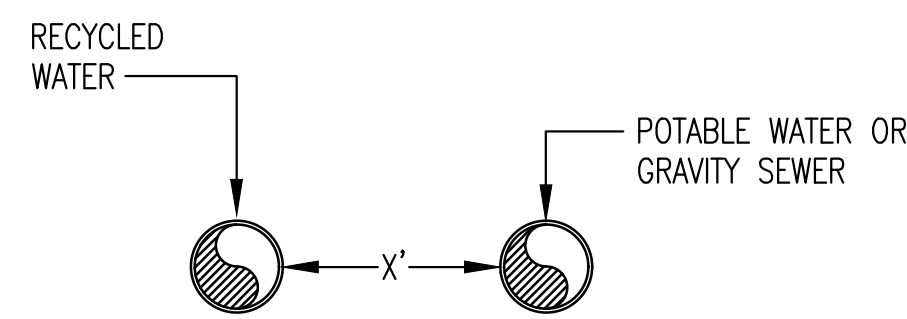
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IRRIGATION
 DETAILS

SHEET NUMBER
 L3.6



IF DIMENSION "X" IS:
 LESS THAN 4' - THIS IS NOT ALLOWED

- 4' - 10' PIPE MUST MEET ONE OF THESE REQUIREMENTS:
- SOLVENT-WELDED PVC PIPE
 - JOINT RESTRAINED PVC PIPE
 - JOINT RESTRAINED DUCTILE IRON PIPE
 - SOLDERED COPPER PIPE
 - SLEEVED RECYCLED PIPE
 - SLEEVED POTABLE PIPE
- 10' OR GREATER - NO SPECIAL CONSTRUCTION REQUIREMENTS

PIPE CONDITION - PARALLEL PIPES

INSTALLATION NOTES:

- * NO JOINT CONTROL FOR PVC PIPE

SEPARATION STANDARDS

PARALLEL CONSTRUCTION

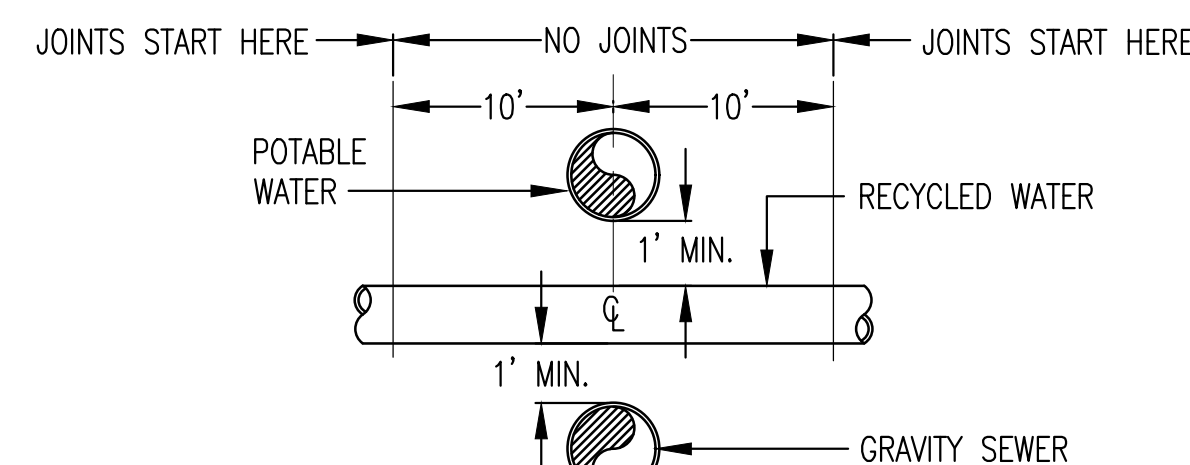
- WHEN THE RECYCLED WATER MAIN LINE PIPE IS AT LEAST 10 FEET (MEASURED FROM EDGE OF PIPE TO EDGE OF OTHER PIPE) FROM POTABLE WATER, SANITARY SEWER MAINS OR STORM DRAINS, INSTALL THE RECYCLED WATER MAIN LINE PIPE USING THE SPECIFIED PVC PIPE, WITHOUT CONCERN WHERE PIPE JOINTS ARE LOCATED.
- WHEN THE RECYCLED WATER MAIN LINE PIPE IS LOCATED NEAR A SEWER FORCE MAIN, INSTALL THE RECYCLED WATER MAIN LINE PIPE MAINTAINING THE 10 FOOT MINIMUM SEPARATION REQUIREMENT AND INSTALL STEEL PIPE (SP) WITH DOUBLE WELDED JOINTS OR DUCTILE IRON PIPE (DIP) WITH MECHANICALLY RESTRAINED JOINTS INSTEAD OF THE PVC PIPE AS SPECIFIED.

CROSSING CONSTRUCTION

- REFER TO CROSSOVER #1 DETAIL: WHERE THE RECYCLED WATER MAIN LINE PIPE IS INSTALLED ABOVE OR BELOW UNDERGROUND UTILITY PIPE OR CONDUIT, LOCATE THE RECYCLED WATER MAIN LINE PIPE JOINTS AT LEAST 5 FEET FROM THE UTILITY PIPE OR CONDUIT, MEASURED FROM THE CENTERLINE OF THE UTILITY PIPE OR CONDUIT AND TO THE JOINT. UTILITY LINES MAY BE:
 1. POTABLE WATER PIPE
 2. SANITARY SEWER PIPE
 3. STORM DRAIN PIPE
 4. NATURAL GAS PIPE
 5. ELECTRICAL DUCTS
 PVC PIPE IS ACCEPTABLE FOR USE IN THIS SITUATION.
- REFER TO CROSSOVER #2 DETAIL: WHEN CROSSING A SANITARY SEWER FORCE MAIN, LOCATE THE RECYCLED WATER MAIN LINE PIPE AT LEAST 1 FOOT ABOVE THE FORCE MAIN. INSTALL STEEL PIPE WITH DOUBLE WELDED JOINTS OR DUCTILE IRON PIPE WITH MECHANICALLY RESTRAINED JOINTS. LOCATE THE RECYCLED WATER PIPE JOINTS 10 FEET OR MORE AWAY FROM THE CENTERLINE OF THE SANITARY SEWER FORCE MAIN.
- REFER TO CROSSOVER #3 DETAIL: WHEN THE RECYCLED WATER MAIN LINE PIPE IS 1 FOOT ABOVE THE POTABLE WATER PIPE AND/OR 1 FOOT BELOW THE SANITARY SEWER MAIN, INSTALL STEEL PIPE WITH DOUBLE WELDED JOINTS OR DUCTILE IRON PIPE WITH MECHANICALLY RESTRAINED JOINTS. LOCATE THE JOINTS 10 FEET OR MORE AWAY FROM THE CENTERLINE OF THE SANITARY SEWER PIPES OR WATER PIPES. PVC CAN BE USED FOR THE RECYCLED WATER MAIN LINE PIPE AT THE CROSSING; INSTALL JOINT RESTRAINT DEVICES ON THE JOINTS AND A CONTINUOUS PVC SLEEVE FOR A DISTANCE OF 20 FEET ON EITHER SIDE OF THE CROSSING.

GENERAL NOTES

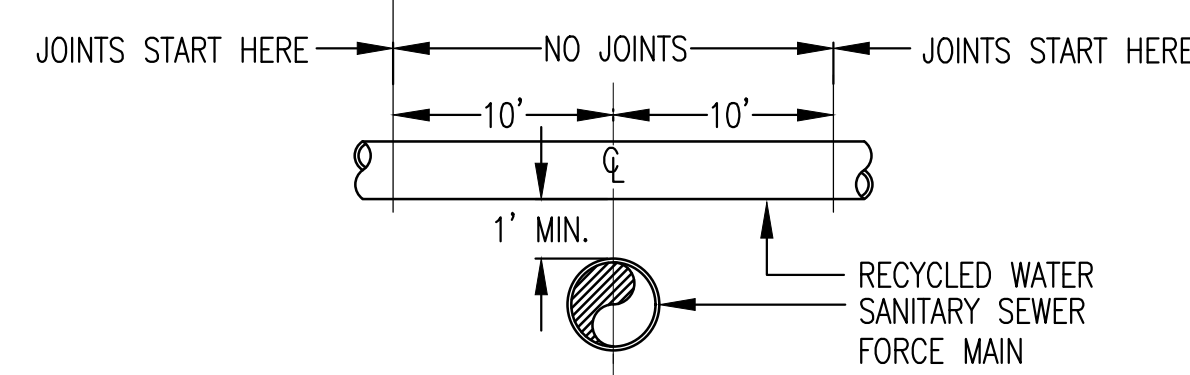
1. ALL STEEL PIPE USED FOR RECYCLED WATER MAIN LINE PIPE SHALL MEET A MINIMUM INTERNAL PRESSURE OF 200 PSI. NO MINIMUM PIPE WALL THICKNESS IS REQUIRED.
2. ALL DUCTILE IRON PIPE USED FOR RECYCLED WATER MAIN LINE PIPE SHALL MEET A MINIMUM INTERNAL PRESSURE OF 200 PSI. NO MINIMUM PIPE WALL THICKNESS IS REQUIRED.
3. DIP PIPE: CEMENT LINED DUCTILE IRON PIPE WITH PUSH-ON JOINTS CONFORMING TO AWWA C151. THE PUSH-ON JOINT PIPE DIMENSIONS AND WEIGHTS SHALL CONFORM TO THICKNESS CLASS 52 AS SHOWN ON TABLE 51.6: DIMENSIONS AND WEIGHTS FOR SPECIAL CLASSES OF PUSH-ON-JOINT DUCTILE IRON PIPE OF THE AWWA C151 STANDARD.
4. SP PIPE:
5. ALL PVC PIPE USED FOR RECYCLED WATER MAIN LINE PIPE SHALL BE AS SPECIFIED IN THE IRRIGATION LEGEND.
6. PROPER CORROSION PROTECTION TO PIPING IS REQUIRED. THIS INCLUDES BUT IS NOT LIMITED TO OUTSIDE COATING, INSIDE LINING, DIELECTRIC TREATMENT, AND OTHER CATHODIC PROTECTION.
7. ANY EXCEPTIONS TO THE REQUIREMENTS OF THIS DETAIL WILL REQUIRE SPECIAL REVIEW AND AN APPROVAL GRANTED BY THE CALIFORNIA DEPARTMENT OF HEALTH SERVICES.



PIPE CONDITION - CROSSOVER #1

INSTALLATION NOTES:

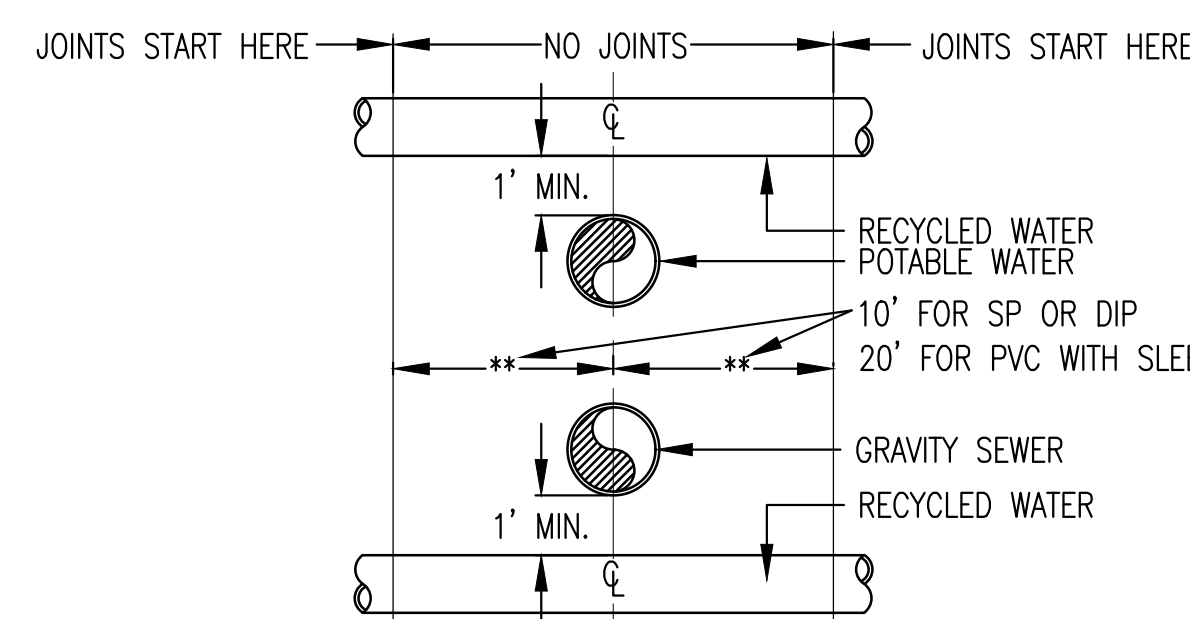
- * PROVIDE JOINT CONTROL FOR PVC PIPE
- * INSTALL RECYCLED WATER PIPE BELOW POTABLE PIPE AND ABOVE STORM AND SANITARY PIPES
- * INSTALLATION OF RECYCLED WATER PIPE LESS THAN 1' BELOW POTABLE PIPE OR ABOVE GRAVITY SEWER PIPE IS NOT ALLOWED



PIPE CONDITION - CROSSOVER #2

INSTALLATION NOTES:

- * PVC PIPE IS NOT ALLOWED
- * USE SP WITH DOUBLE WELDED JOINTS OR USE DIP WITH MECHANICAL RESTRAINT JOINTS
- * LOCATE JOINTS MIN. 10' FROM THE CROSSING

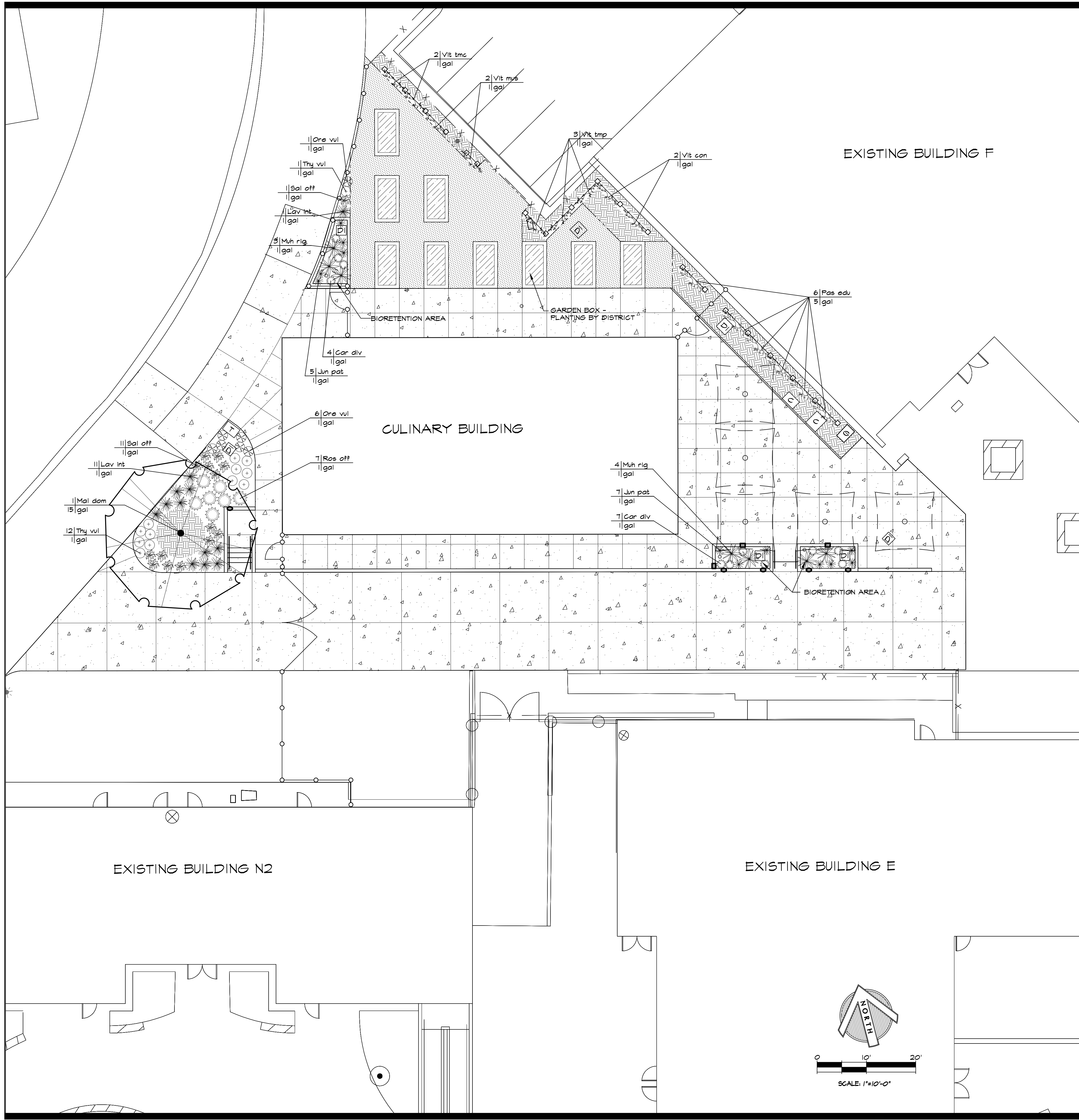


PIPE CONDITION - CROSSOVER #3

INSTALLATION NOTES:

- * INSTALLATION OF RECYCLED WATER PIPE LESS THAN 1' ABOVE POTABLE PIPE IS NOT ALLOWED
- * USE SP WITH DOUBLE WELDED JOINTS OR DIP WITH MECHANICAL RESTRAINT JOINTS OR PVC PIPE WITH JOINT RESTRAINT AND SLEEVED CONTINUOUSLY FOR 20' FROM THE CROSSING
- * LOCATE JOINTS MIN. 10' FROM THE CROSSING (SP & DIP)

1 POTABLE PIPE CLEARANCE REQUIREMENTS WHERE (E) RECYCLED PIPE IS LOCATED
 NOT TO SCALE

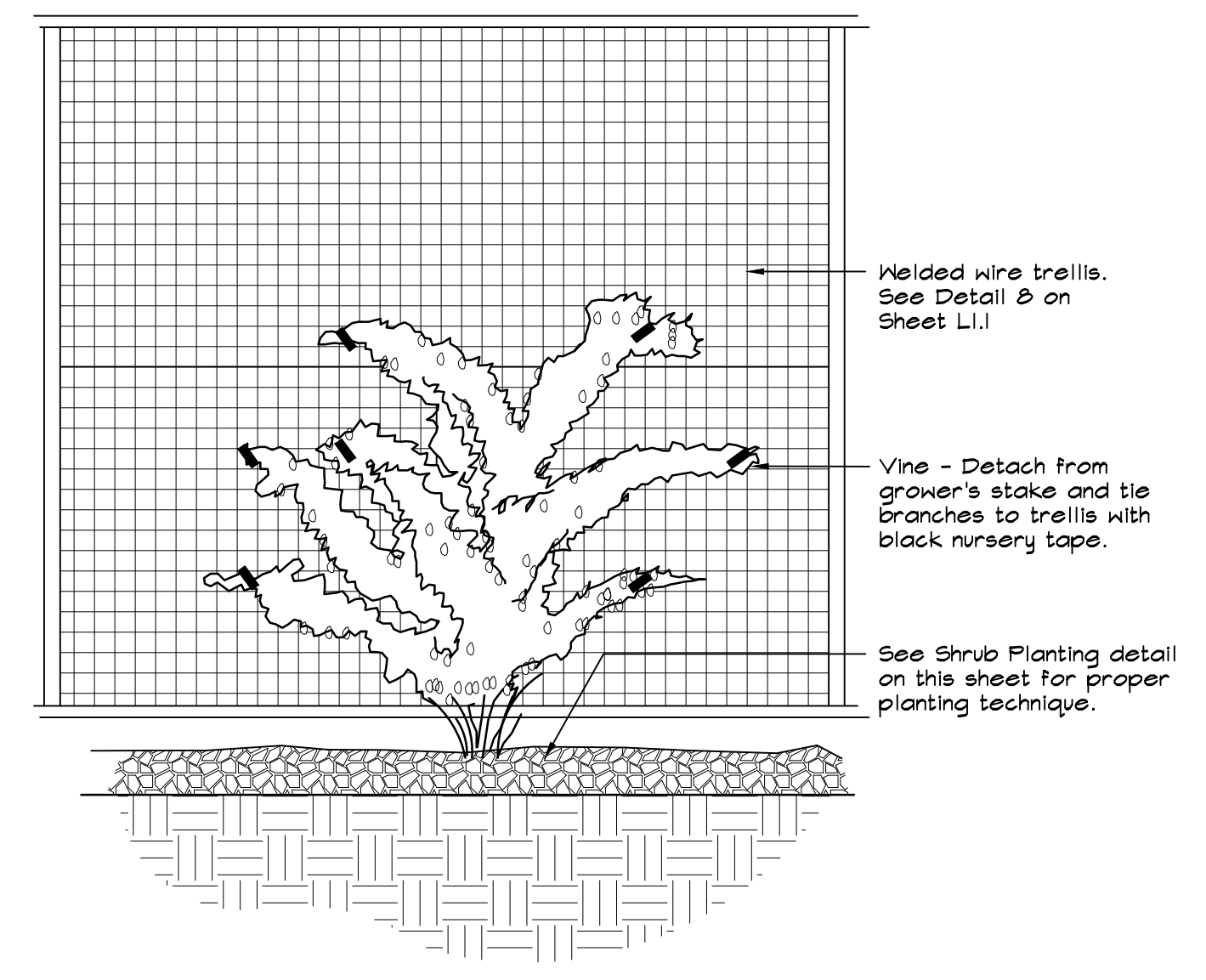


PLANT LEGEND

SYMBOL	BOTANICAL NAME/ COMMON NAME	SIZE	QTY.	WATER USE
TREES				
	Mal dom Malus domestica 'Pink Lady' Pink Lady Apple	15 gallon	1	M
SHRUBS				
	Lav int Lavandula x intermedia 'Provence' Provence French Lavender	1 gallon	12	L
	Ore vul Origanum vulgare var. hirtum Greek Oregano	1 gallon	7	M
	Ros off Rosmarinus officinalis 'Barbeque' Barbeque Rosemary	1 gallon	7	L
	Sal off Salvia officinalis Common Sage	1 gallon	12	L
	Thy vul Thymus vulgaris Common Thyme	1 gallon	13	L
VINES				
	Pas edu Passiflora edulis Purple Passion Fruit	5 gallon	6	M
	Vit con Vitis vinifera 'Concord' Concord Grape	1 gallon	2	L
	Vit mus Vitis vinifera 'Muscat of Alexandria' Muscat of Alexandria Grape	1 gallon	2	L
	Vit tmc Vitis vinifera 'Thompson Seedless' Thompson Seedless	1 gallon	3	L
BIOPFILTRATION FACILITY				
	Car div Carex divisa Berkeley Sedge	1 gallon	11	L
	Jun pat Juncus patens California Gray Rush	1 gallon	12	L
	Muh rig Muhlenbergia rigens Deergrass	1 gallon	7	L

LANDSCAPE MATERIALS

- Mulch (shown graphically for areas not planted). See Planting Notes on L4.1 for mulch type.
- Planter Mix, Zanker Landscape Materials with Lab Recommended Amendments, or approved equal. 2" minimum depth. Provide and install 1/2" welded wire mesh 19 ga. galvanized steel, 2" minimum below finish grade and extend up all sides 6" minimum.
- Concrete Pavement. See Material and Detail Reference Plan.
- Decomposed Granite. See Material and Detail Reference Plan.



① VINE PLANTING
NOT TO SCALE

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Exp. 10-31-20
STATE OF CALIFORNIA

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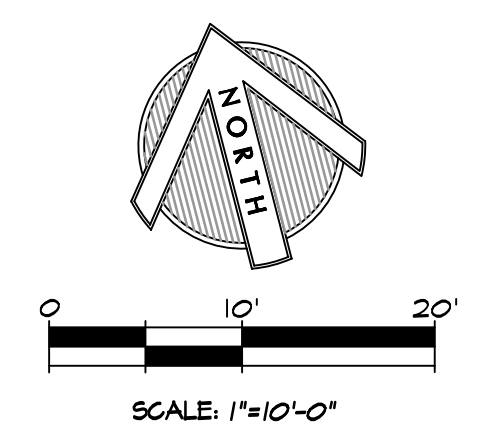
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REVISIONS

ARCH PROJECT NO: 1750.00
DRAWN BY: BTI
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SHEET TITLE

**PLANTING
PLAN**
SHEET NUMBER
L4.0

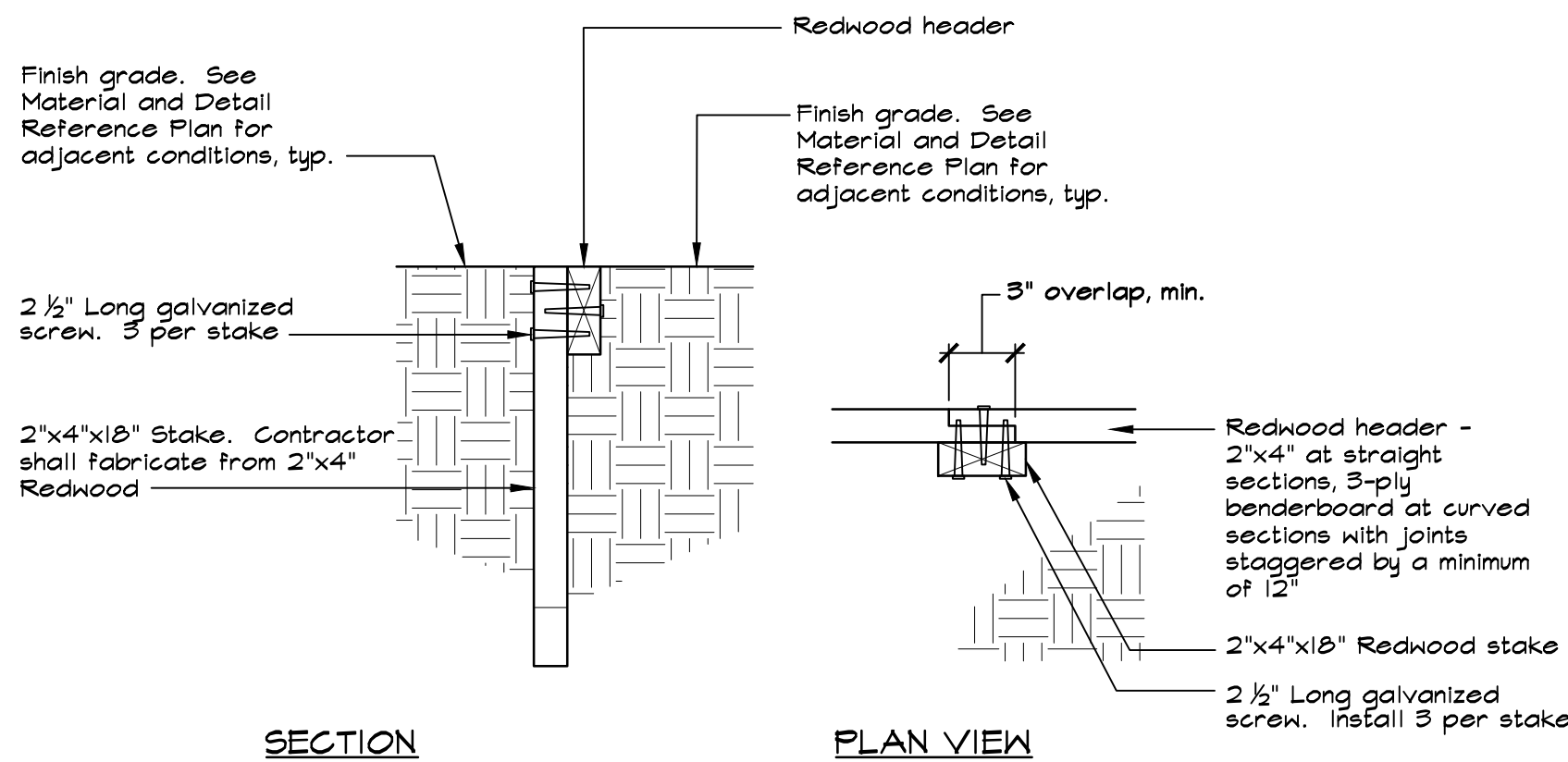


PLANTING NOTES

- Prior to commencement of planting, the Contractor shall verify locations of all underground utilities.
- Contractor shall adjust all plant material around electrical utilities, valve boxes, etc., as required in the field.
- All landscape grades shall be smooth and feathered in appearance.
- Irrigation system shall be fully operational prior to planting. Contractor shall thoroughly water all plants immediately after planting.
- All trees shall be double staked and installed per planting details. All trees shall be of adequate trunk caliper to stand without support.
- Installing Contractor shall verify existing grade in the field prior to planting. Finished surfaces shall be uniform and smooth. Finished grade of planting and bark mulch areas shall be flush with top of edging, pavement and walks.
- Soil for garden beds and all planting areas (except for bioretention areas) shall receive recycled cardboard sheet mulching, as available through Zanker Landscape Materials, 408-506-4242, or approved equal. Planting areas shall receive 3" minimum depth of bark mulch installed over recycled cardboard sheet mulching. Bark mulch shall be Eco-Mini Natural Mulch, as available through EcoMulch, 5010 Pacheco Blvd., Martinez, (425) 228-1675. Garden beds and bioretention areas shall receive a 3" minimum depth of the compost used in the bioretention soil mix.
- All trees planted within 8' of adjacent paving, curbing, hardscape, water meters, joint trenches, etc. shall receive Deep Root Barrier UB 24-2 (24" depth x 10' min. length) as manufactured by Deep Root Partners (800) 458-7668, or approved equal.
- No plant material shall be substituted without prior written consent from the Landscape Architect.
- Contractor shall be responsible for the pre-ordering of all plant material after the Notice to Proceed. Photographs for all plants shall be submitted to the Landscape Architect prior to placing order.
- All plant material shall be certified by the Agricultural Commissioner inspection program for freedom from the glossy winged sharpshooter or other pests identified by the Agricultural Commissioner. The Agricultural Commissioner's office shall be notified of all impending deliveries of live plants with points of origin outside of the County so that inspection can be arranged.
- All plants of the same type and container size shall be matched in height and width.
- The Plant Legend is provided for convenience only, not accurate bidding purposes. Graphic depiction of plant material shall take precedence over stated quantities. Contractor shall notify the Architect to obtain clarification if there are discrepancies.

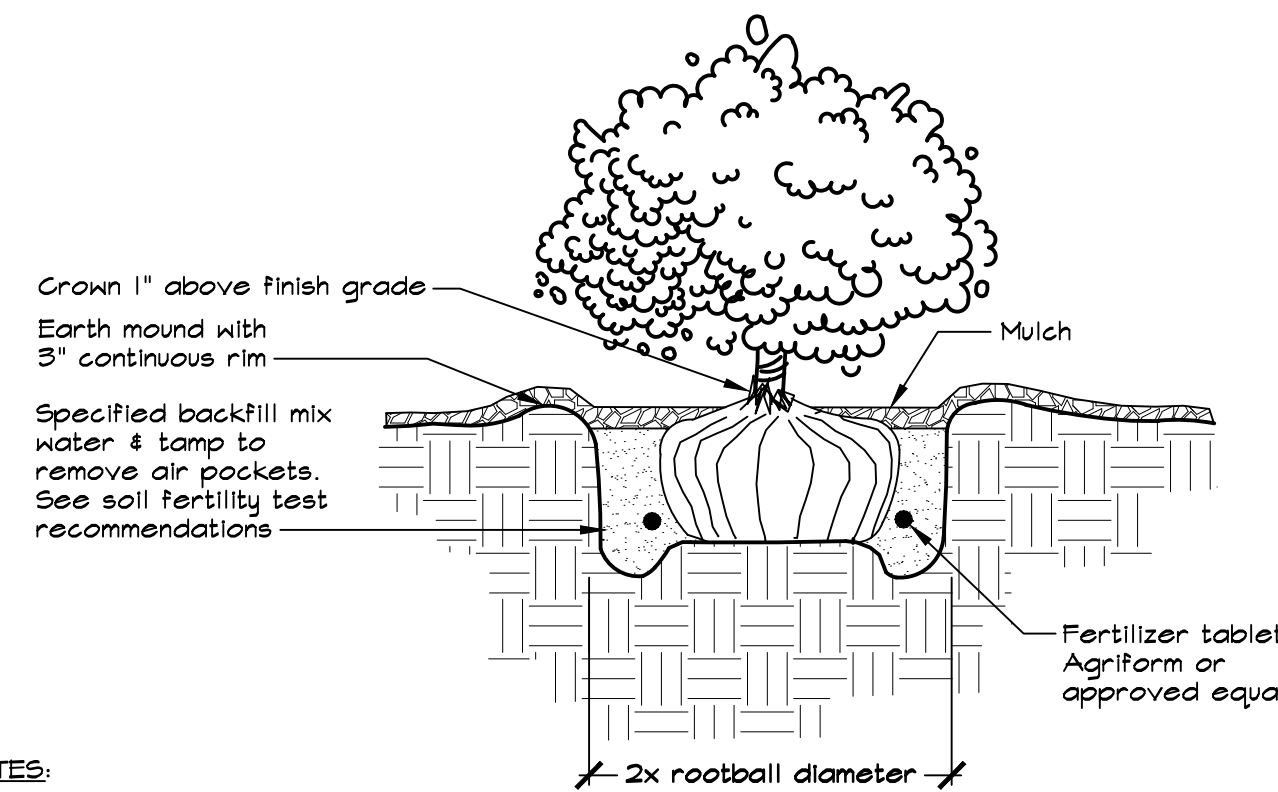
SOILS MANAGEMENT NOTES

- The following organic amendments, soil amendments and fertilizer rates and quantities shall be used for bid basis only. Contractor shall arrange and pay for a soil fertility test by an accredited soils laboratory of existing site soil after rough grading operations are complete, and shall amend the soils, according to said laboratory's recommendations. The soils recommendations shall be considered a part of these contract documents. The soils report must provide the following information:
 - Soil permeability rate in inches per hour.
 - Soil texture test.
 - Cation exchange capacity.
 - Soil fertility, including test for nitrogen, potassium, phosphorus, pH, organic matter and specific conductance (electrical conductivity).
 - Recommendation for amendments to the planting area soil.
- Topsail:** All landscape areas shall have a minimum 8" depth of topsail with greater depths as required for planting work. Contractor shall provide topsail which is fertile and friable, possessing characteristics of representative productive soils on the site. It shall not contain toxic substances which may be harmful to plant growth. When herbicide contamination is suspected then a radish/rye grass growth trial must be performed. Consult with the District prior to decision to test. It shall be uniformly textured and free of all objectionable foreign materials, oil or chemicals which may be injurious to plant growth. Natural topsail shall possess a pH factor between 5.5 and 7.5, a sodium absorption ratio (SAR) of less than 8, a boron concentration of the saturation extract of less than 1 ppm, and salinity of the saturation extract at 25 degrees C. of less than 4.0 millimhos per centimeter. If required to import topsail, Contractor shall obtain topsail from naturally well-drained sites where topsail occurs in a depth of not less than four inches (4"); do not obtain from bogs or marshes.
- Organic Amendment:** Nitrified fir bark having a minimum organic content of 44% and a nitrogen content of 0.8% minimum to 1.2% maximum on a dry weight basis. Fir bark shall be shredded to pass a one quarter inch (1/4") mesh screen. Incorporate organic amendment and fertilizer into the soil to a minimum depth of six inches (6") at a minimum rate of six cubic yards (6 cy) per one thousand square feet (1,000 sf) or per specific amendment recommendations from the soils report.
- Fertilizer:**
 - Fertilizer shall be a commercial inorganic fertilizer in the granular or pelleted form. Fertilizer shall be delivered to the site in containers labeled in accordance with the applicable State of California regulations, bearing the warranty of the producer or the grade furnished, and shall be uniform in composition, dry and free-flowing.
 - Turf, Shrubs and Vines:**
 - 6N-20P-20K, and 16-6-8, pelleted type.
 - Sulphate - sulphur
 - Lime for pH adjustment of moderately acid soil
 - Starting one (1) month after planting, on a monthly basis, 21N-0P-0K Ammonium sulfate, 5 lbs. per 1,000 square feet.
 - Trees:**
 - 21 gram 20N-10P-5K slow release fertilizer tablets as manufactured by Agriform. Apply according to manufacturer's instructions.
 - After planting: 21N-0P-0K Ammonium sulfate 5lbs. per 1,000 square feet.



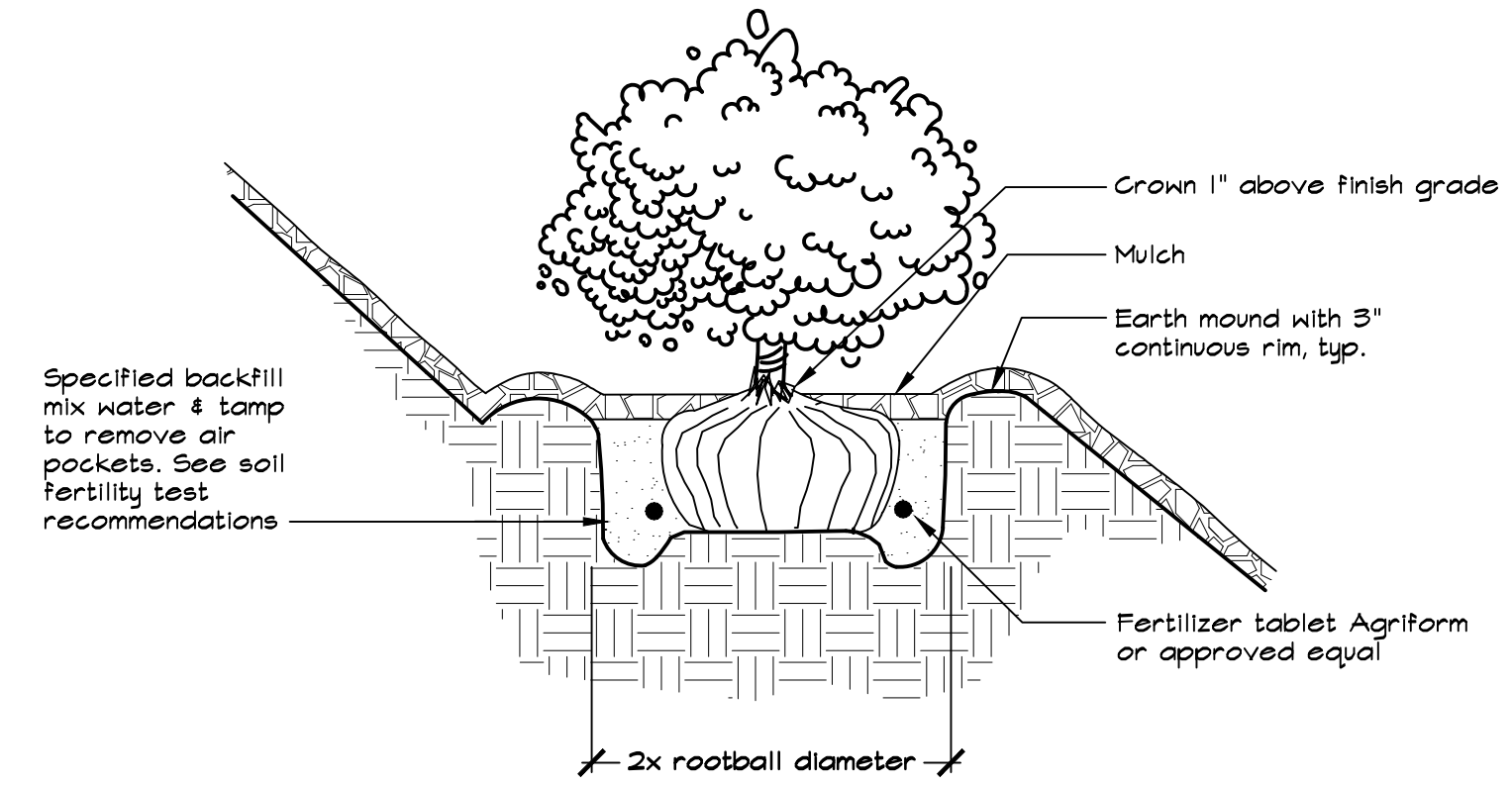
- NOTE:
- Wood header and stakes shall be Redwood Construction Heart or better, or approved equal.

3 WOOD HEADER NOT TO SCALE



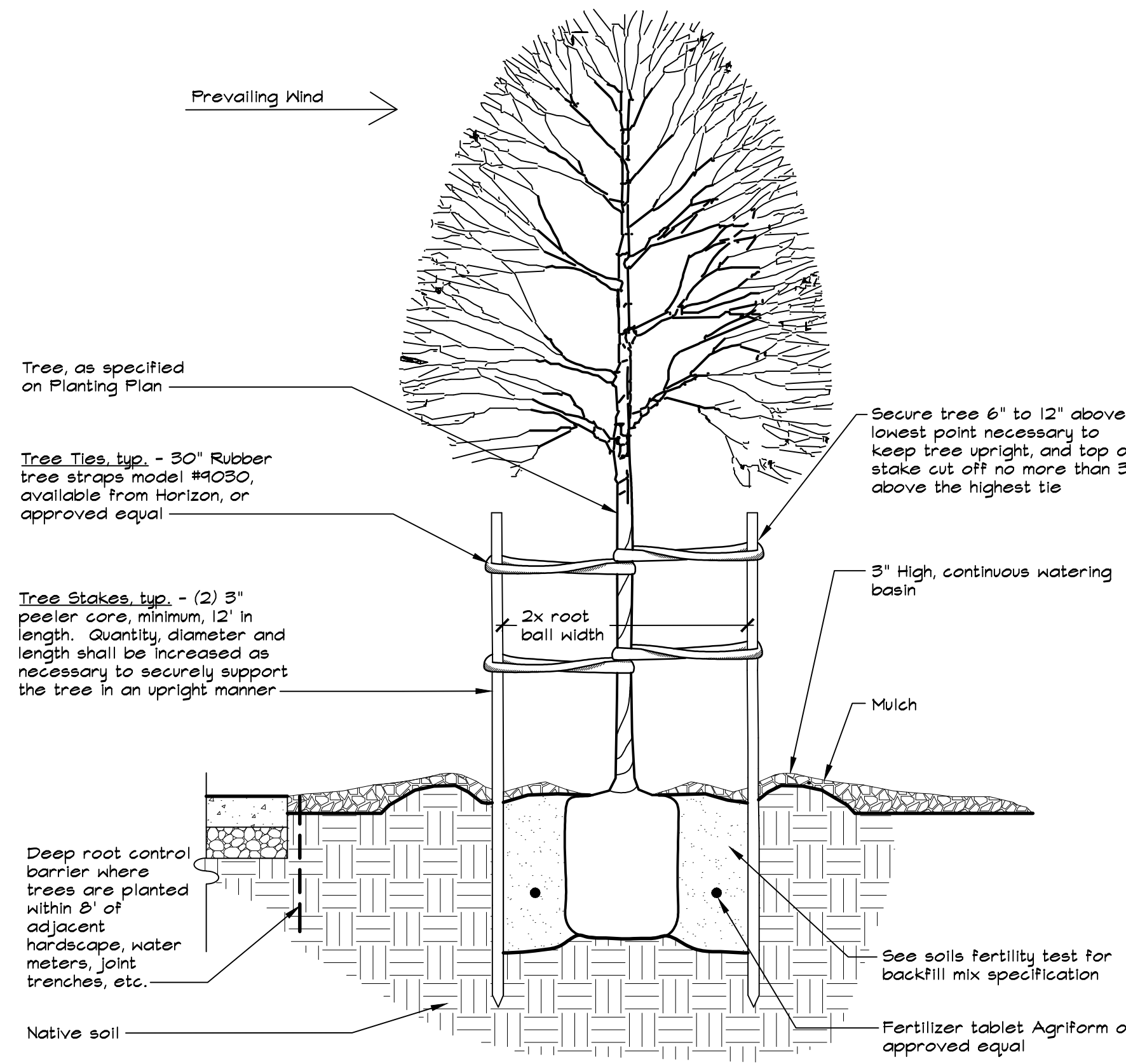
- NOTES:
- Root ball shall rest on undisturbed soil.
 - Plant tablets shall be equally spaced around root ball. The number of tablets shall be 1 for 4" pot or liner, 2 for 1 gallon, 3 for 5 gallon, and 4 for 15 gallon, or as specified in the soils fertility test recommendations.
 - Contractor shall water planting pit thoroughly following planting.
 - See Planting Notes on this sheet for mulch specification.

1 SHRUB/GROUNDCOVER PLANTING NOT TO SCALE



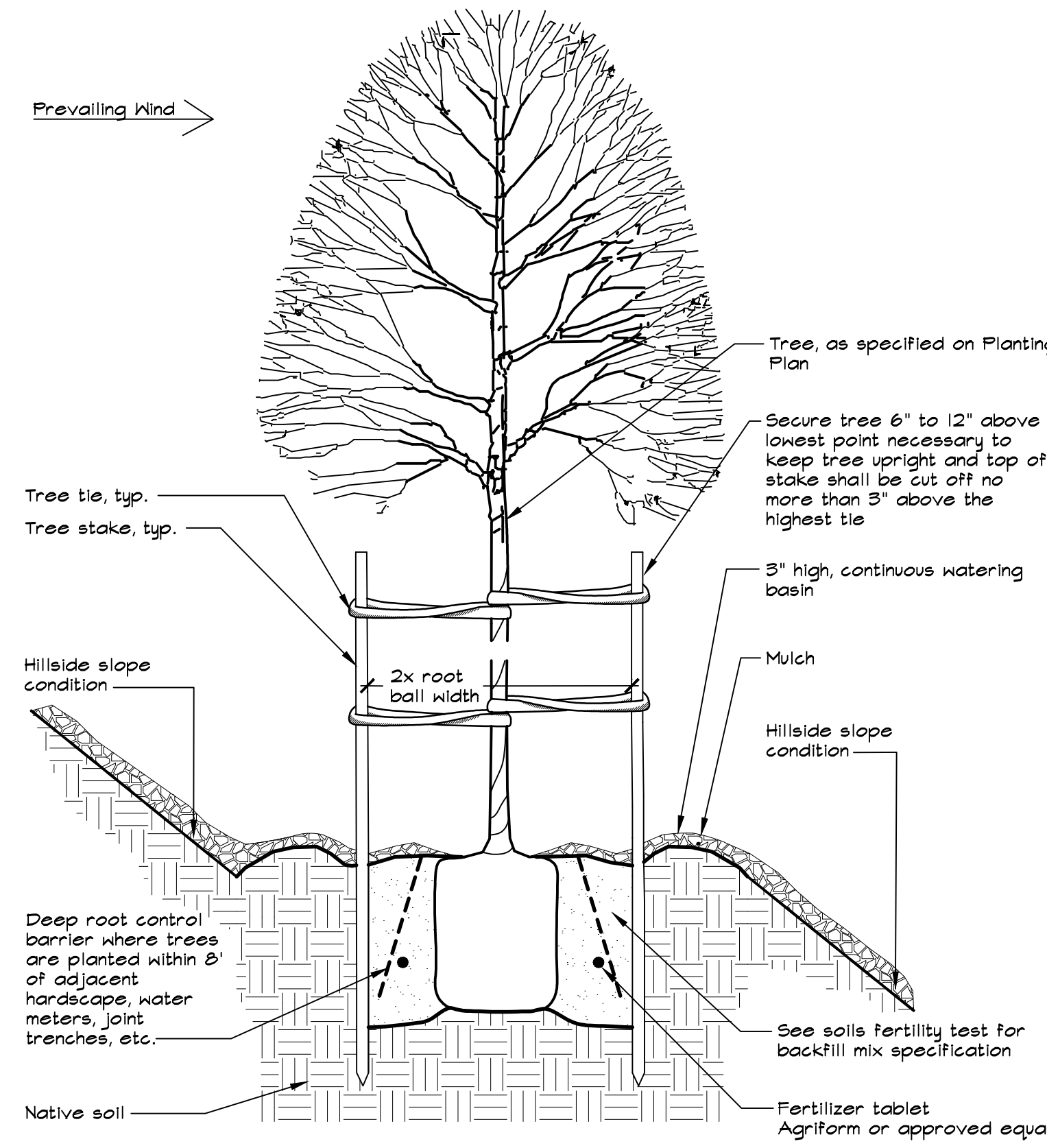
- NOTES:
- Root ball shall rest on undisturbed soil.
 - Plant tablets shall be equally spaced around root ball. The number of tablets shall be 1 for 4" pot or liner, 2 for 1 gallon, 3 for 5 gallon, and 4 for 15 gallon, or as specified in the soils fertility test recommendations.
 - Contractor shall water planting pit thoroughly following planting.
 - See Planting Notes on this sheet for mulch specification.

2 HILLSIDE SHRUB/GROUNDCOVER PLANTING NOT TO SCALE



- NOTES:
- Root ball shall rest on undisturbed soil.
 - Plant tablets shall be equally spaced around root ball. The number of tablets shall be 4 for 15 gallon and 6 for 24", 36" box, or as specified in the soils fertility test recommendations.
 - Contractor shall water planting pit thoroughly following planting.
 - Trees shall be staked parallel with the direction of the prevailing wind.
 - Tree stakes shall have equal degree of separation between stakes.
 - Contractor shall use Deep Root Barrier where trees are planted within 8' of adjacent hardscape, water meters, joint trenches, etc. See Planting Notes on Planting Plan for more information.
 - See Planting Notes on this sheet for mulch specification.

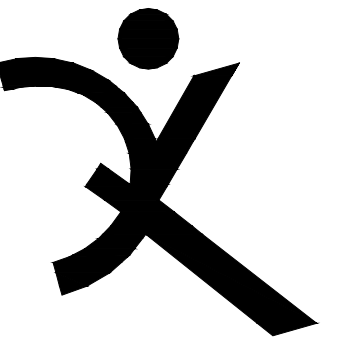
4 TREE PLANTING AND STAKING NOT TO SCALE



- NOTES:
- Root ball shall rest on undisturbed soil.
 - Plant tablets shall be equally spaced around root ball. The number of tablets shall be 4 for 15 gallon and 6 for 24", 36" box, or as specified in the soils fertility test recommendations.
 - Contractor shall water planting pit thoroughly following planting.
 - Trees shall be staked parallel with the direction of the prevailing wind.
 - Tree stakes shall have equal degree of separation between stakes.
 - Contractor shall use Deep Root Barrier where trees are planted within 8' of adjacent hardscape, water meters, joint trenches, etc. See Planting Notes on Planting Plan for more information.
 - See Planting Notes on this sheet for mulch specification.

5 HILLSIDE TREE PLANTING AND STAKING NOT TO SCALE

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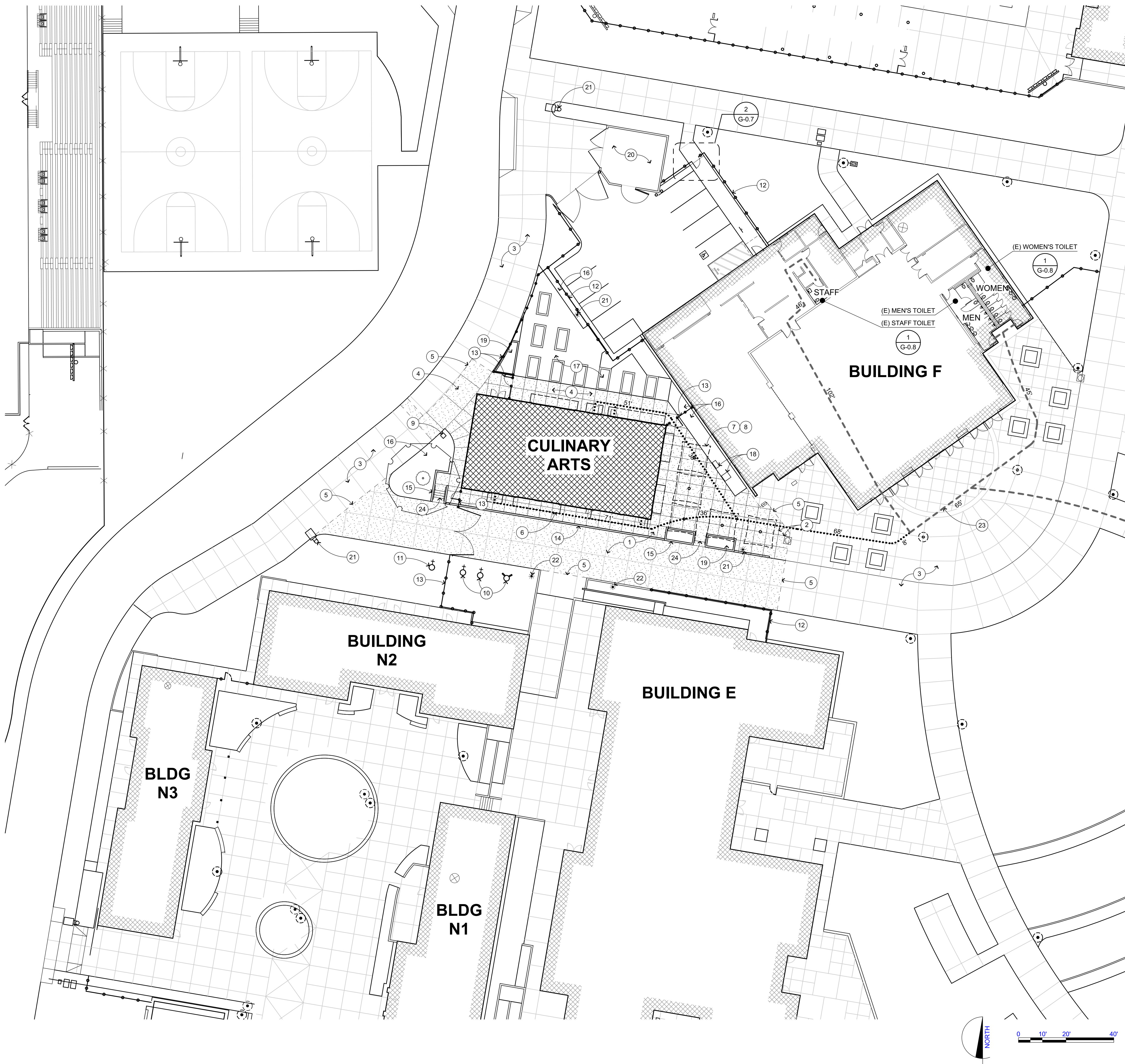
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SHEET TITLE

PLANTING DETAILS

SHEET NUMBER
L4.1



ENLARGED SITE PLAN

NOT ALL KEYNOTES MAY APPLY TO THIS SHEET

- 1 PAVING, S.C.D., S.L.D.
- 2 CONC EXP JT OR CONTROL JT, S.L.D.
- 3 (E) CONC WALKWAY, DSA #01-105009
- 4 CONC WALKWAY, S.C.D.
- 5 FLUSH TRANSITION, S.C.D.
- 6 BLDG-MTD RAIN CANOPIES, SEE RCP
- 7 EXTERIOR SHADE STRUCTURES, S.S.S.D.
- 8 LIGHTING AT EXT SHADE STRUCTURE, S.E.D., S.S.S.D.
- 9 ELECTRICAL ITEM, S.E.D.
- 10 (E) FIRE HYDRANT / FDC, DSA #01-105009
- 11 FDC FOR CULINARY BLDG, S.C.D.
- 12 (E) FENCING / GATES, DSA #01-105009
- 13 FENCING / GATES, S.L.D.
- 14 CONCRETE RETAINING SEATWALL, S.C.D., S.L.D., S.S.D.
- 15 CONCRETE CURB, S.C.D.
- 16 PLANTING AREA, S.L.D.
- 17 PLANTERS, S.L.D.
- 18 IRRIGATION ITEM, S.E.D., S.L.D.
- 19 BIO-RETENTION AREA, S.C.D.
- 20 (E) TRASH ENCLOSURE, DSA #01-105009
- 21 (E) SITE LIGHTING, S.C.D.
- 22 SITE LIGHTING, S.C.D. & S.E.D.
- 23 293' TOTAL PATH OF TRAVEL TO ACCESSIBLE MEN & WOMEN'S RESTROOMS, AND 331' TO ACCESSIBLE STAFF TOILET
- 24 CONCRETE STEP / STAIRS W/ HANDRAIL, S.C.D. & S.L.D.

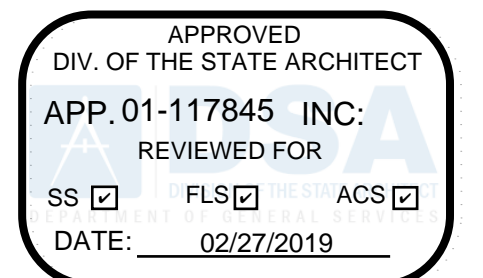
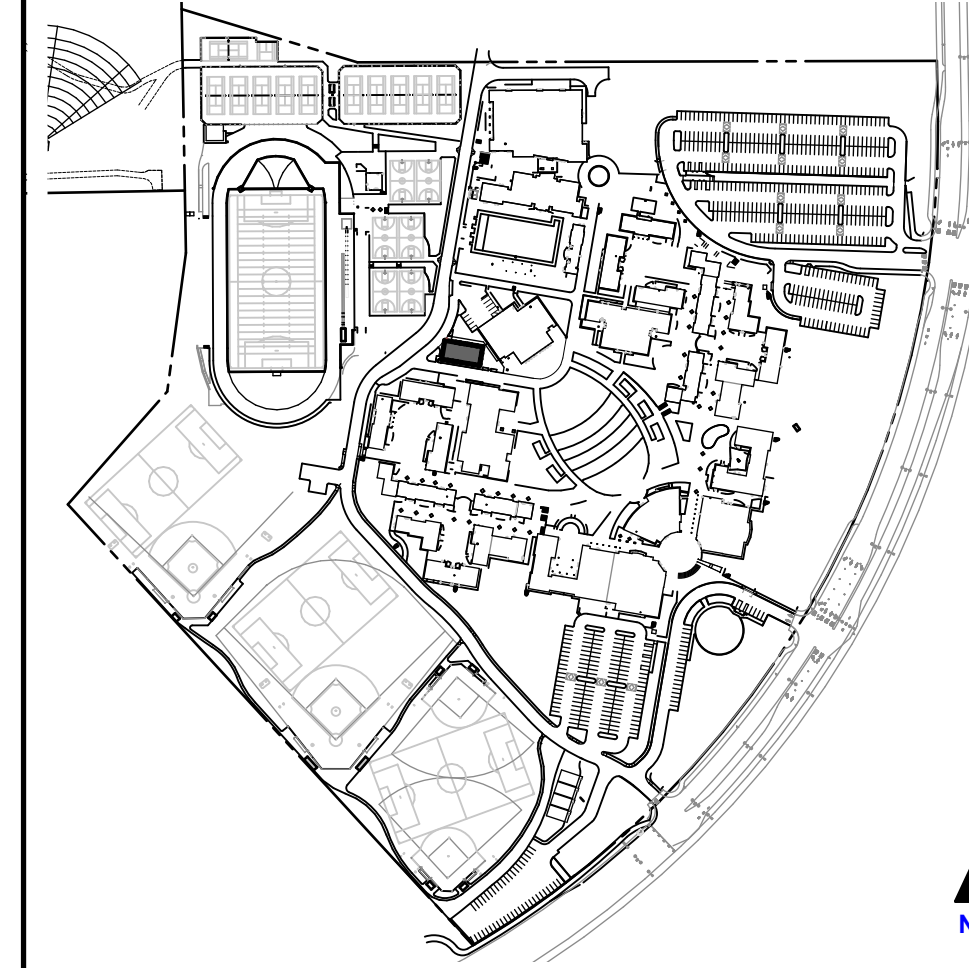
SITE PLAN GENERAL NOTES

- 1. SEE SHEET G-0.3 FOR FIRE & LIFE SAFETY SITE PLAN
- 2. SEE SHEET G-0.4 FOR ACCESSIBILITY SITE PLAN
- 3. SEE SHEET G-0.5 FOR BUILDING CODE ANALYSIS PLAN
- 4. REFER TO CIVIL ENGINEERING DWGS FOR SIDEWALK GRADES
- 5. REFER TO CIVIL ENGINEERING DRAWINGS AND LANDSCAPE PLANS FOR SITE FEATURES NOT OTHERWISE INDICATED
- 6. CONCRETE SHALL SLOPE 1/8" PER FOOT AWAY FROM BUILDINGS

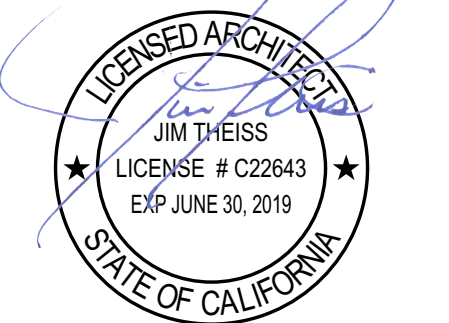
ENLARGED SITE PLAN LEGEND

- (N) BUILDING
- (E) BUILDING TO REMAIN
- PAVING, S.C.D. & S.L.D.
- (E) FIRE HYDRANT, S.C.D.
- (E) FIRE DEPARTMENT CONNECTION, S.C.D.
- FIRE DEPARTMENT CONNECTION, S.C.D.
- BARRIER FREE PATH OF TRAVEL PER G-0.4 GENERAL NOTES
- (E) BARRIER FREE PATH OF TRAVEL

KEYPLAN



QUATTROCCHI KWOK ARCHITECTS
 Main Office: 636 Fifth Street, Santa Rosa, CA 95404
 Pleasanton Office: 600 Main Street, Suite E, Pleasanton, CA 94566 (707) 576-0829



SIGNED: FEBRUARY 27, 2019

HERITAGE HIGH SCHOOL

CULINARY ARTS BUILDING

101 American Ave
 Brentwood, CA 94513

LIBERTY UNION HIGH SCHOOL DISTRICT

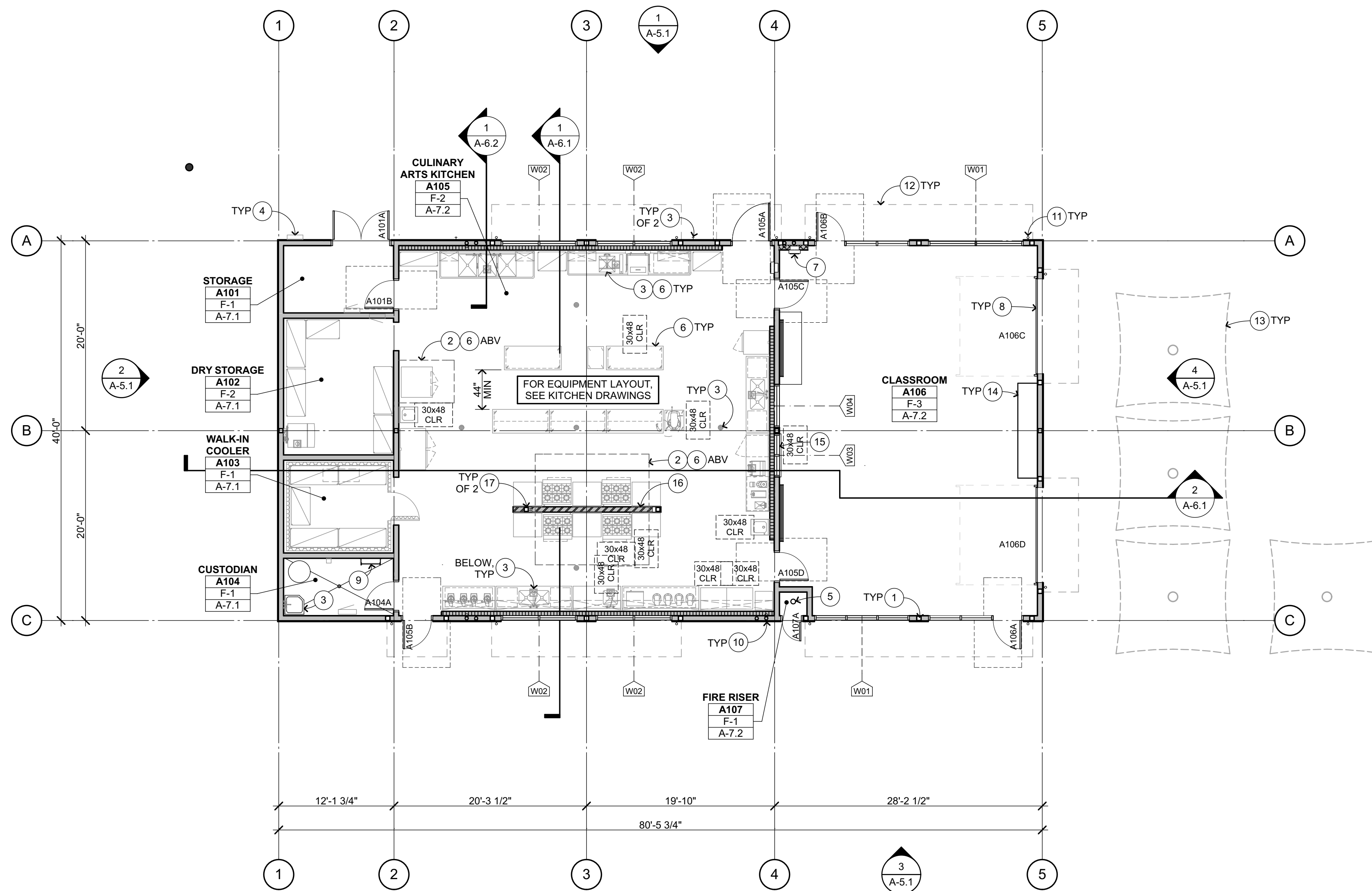
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DRAWN BY:	BSC
DRAWING SCALE:	1" = 20'-0"
PTN:	61721-70
	CD
	FEBRUARY 27, 2019
	SHEET TITLE

ENLARGED SITE PLAN

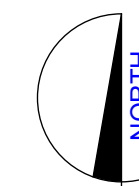
SHEET NUMBER

A-1.1

BIM Server: archiserver - BIMcloud Basic for ARCHICAD 20/1750.00 HHS CULINARY ARTS/25/2019/3:12 PM



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



FLOOR PLAN KEYNOTES

NOT ALL KEYNOTES MAY APPLY TO THIS SHEET

- 1 STRUCTURAL ITEM, S.S.D.
- 2 MECHANICAL ITEM, S.M.D.
- 3 PLUMBING ITEM / FIXTURE, S.P.D.
- 4 ELECTRICAL ITEM, S.E.D.
- 5 FIRE SPRINKLER RISER, S.F.P.D.
- 6 KITCHEN EQUIPMENT, S.K.D.
- 7 FIRE EXTINGUISHER CABINET, SEMI-RECESSED, SEE INT ELEV
- 8 SECTIONAL DOORS, SEE ELEVATIONS AND DOOR SCHEDULE
- 9 ROOF ACCESS LADDER 10
A-9.3
- 10 ROOF DRAIN & OVERFLOW, IN-WALL, SEE RCP, ROOF PLAN, & S.C.D. 24
A-9.2
- 11 RAIN WATER LEADER, SEE RCP & 19
A-9.2
- 12 RAIN CANOPY ABOVE, SEE RCP
- 13 EXTERIOR SHADE STRUCTURES, S.S.S.D.
- 14 CASEWORK, SEE INTERIOR ELEVATIONS
- 15 PASS-THRU WINDOW, SEE INT ELEVATIONS & WINDOW SCHEDULE
- 16 LOW WALL AT COOKLINE, S.K.D. FOR SS CLADDING, INT ELEVATIONS, AND 19
A-9.1
- 17 HSS AND PLUMBING CHASE, S.S.D., INT ELEVATIONS, AND 18
A-9.1

FLOOR PLAN GENERAL NOTES

1. EXTERIOR CONCRETE FLATWORK SHALL HAVE A MAXIMUM SLOPE OF 1:20, U.O.N.; EXTERIOR DOOR LANDINGS SHALL SLOPE 1/4" PER FOOT FOR 60" PERPENDICULAR TO DOOR FACE, MAXIMUM FOR DRAINAGE. CONCRETE SHALL SLOPE MINIMUM 1/8" PER FOOT AWAY FROM BUILDINGS. S.C.D.
2. FINISHED FLOOR ELEVATIONS SHOWN INDICATE FLOOR SLABS FOR THIS BUILDING. FOR ELEVATIONS RELATIVE TO THE REST OF THE SITE, REFER TO CIVIL ENGINEERING DRAWINGS.
3. REFER TO CIVIL ENGINEERING DRAWINGS AND SITE PLAN FOR SITE FEATURES NOT OTHERWISE INDICATED.
4. REFER TO ARCHITECTURAL GRAPHICS DRAWINGS FOR SIGNAGE NOT SHOWN.
5. ALL INTERIOR WALL FRAMING AND GYP BD EXTEND TO UNDERSIDE OF ROOF SHEATHING ABOVE, U.O.N.
6. FOR MINIMUM DISTANCES OF DOORS FROM ADJACENT PERPENDICULAR WALLS SEE 5
A-9.5

WALL TYPE LEGEND

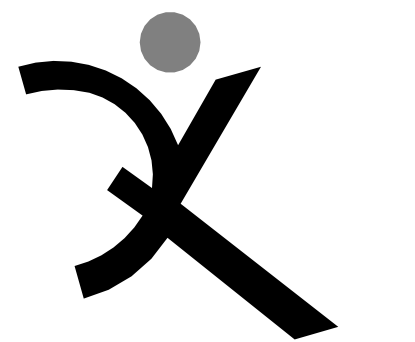
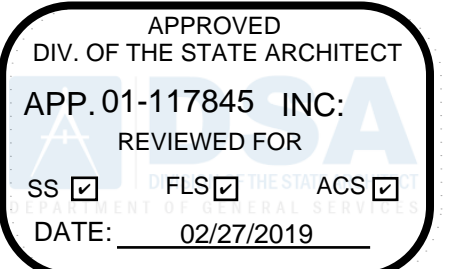
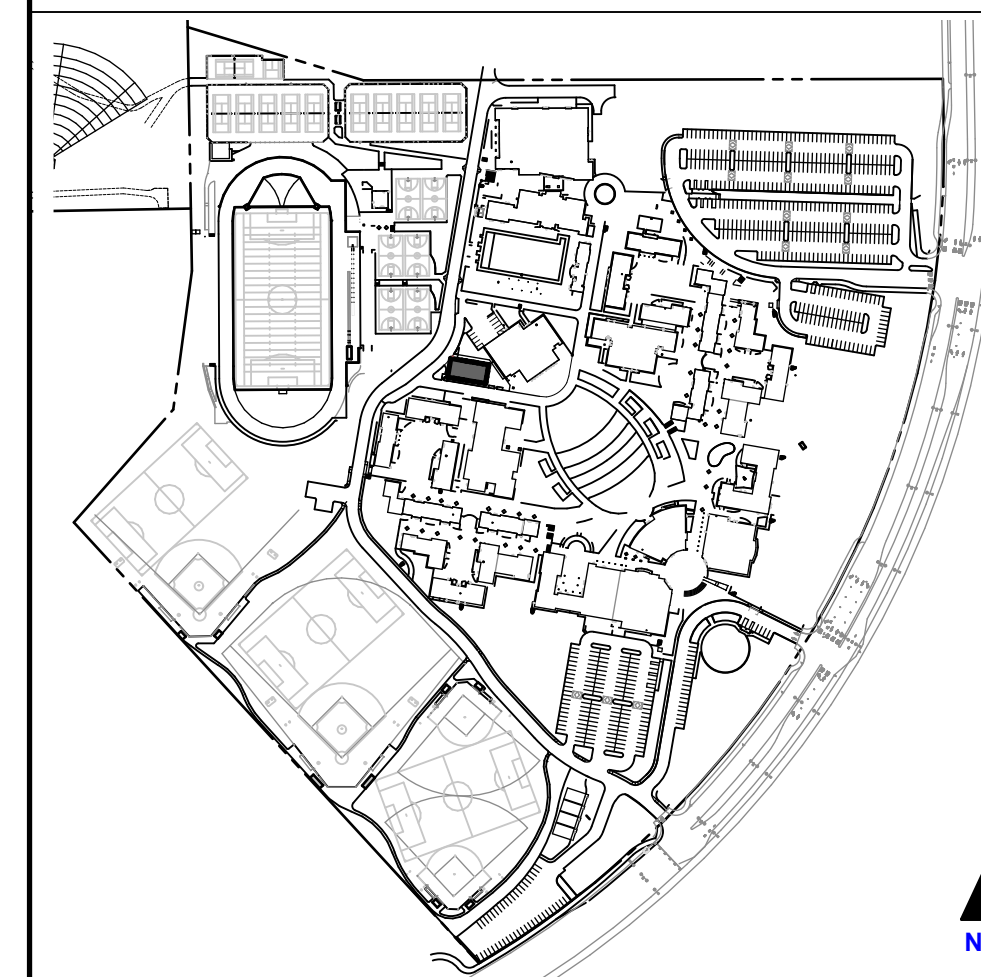
ALL FRAMING IS 6" WOOD STUDS, U.O.N. S.S.D. FOR WOOD FRAMING SIZES

- 14 WOOD FRAMED WALL 15
A-9.1 A-9.1
- 17 WOOD FRAMED FURRED WALL 17
A-9.1
- 17 WOOD FRAMED FURRED PARTIAL HEIGHT WALL 17
A-9.1
- 19 WOOD FRAMED PARTIAL HEIGHT WALL AT COOKLINE 19
A-9.1

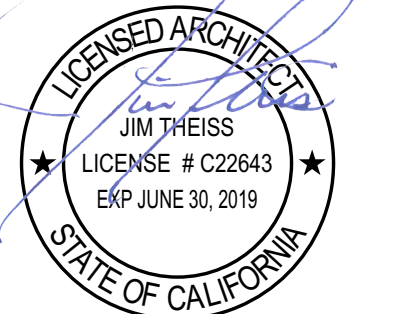
FLOOR FINISH CODES

- F-1 SEALED CONCRETE
 - F-2 FLUID-APPLIED FLOORING W/ INTEGRAL COVE
 - F-3 VCT FLOORING
- FOR FLOOR FINISH TRANSITIONS SEE 4
A-9.5

KEYPLAN



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Pleasanton Office:
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Pleasanton, CA 94566
(707) 576-0929



SIGNED: FEBRUARY 27, 2019

**HERITAGE HIGH SCHOOL
CULINARY ARTS BUILDING**

101 American Ave
Brentwood, CA 94513

LIBERTY UNION HIGH SCHOOL DISTRICT

ARCH PROJECT NO: 1750.00
DRAWN BY: *fill out manually ea sheet*
DRAWING SCALE: 1/8" = 1'-0"
PTN: 61721-70

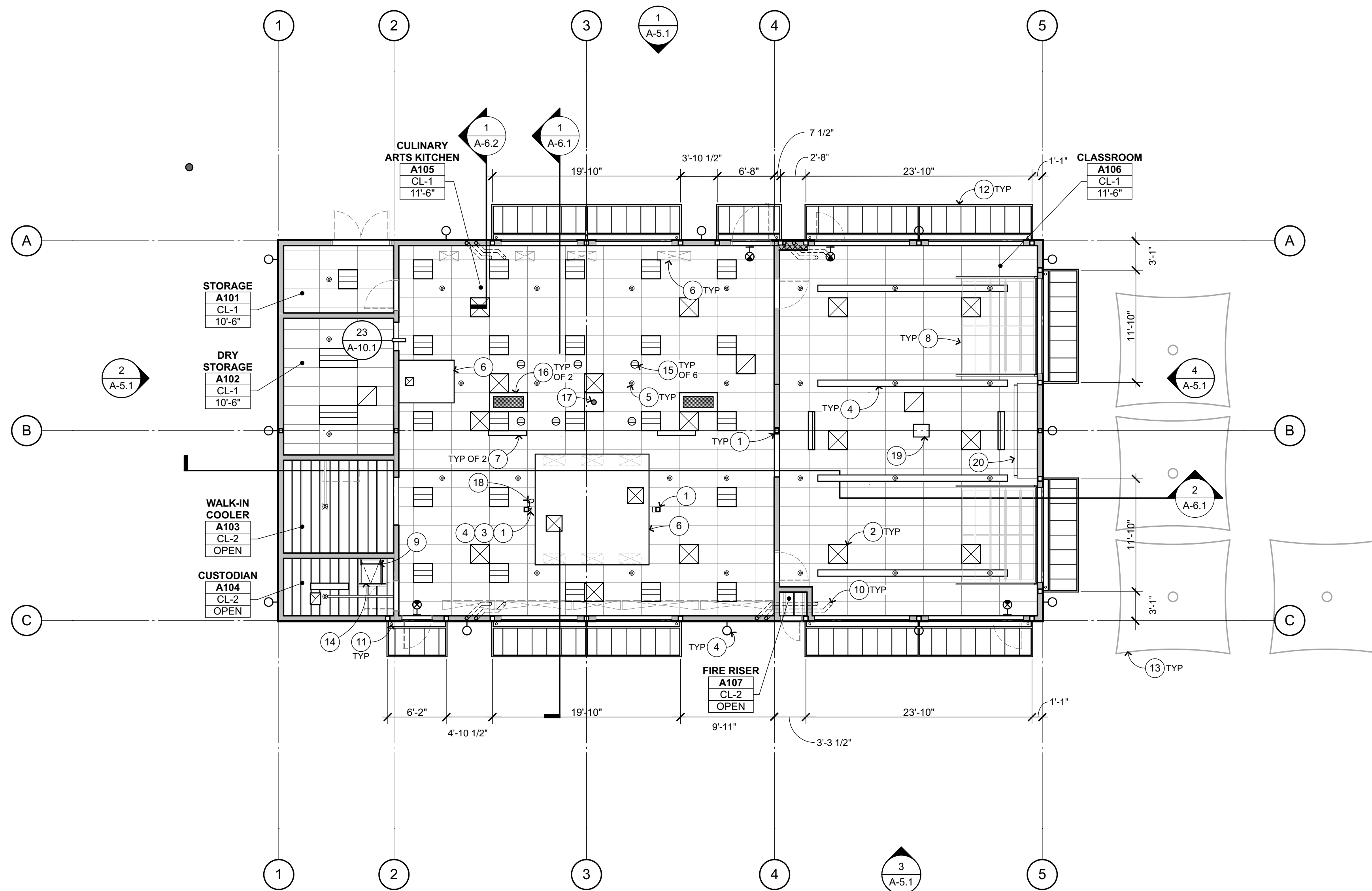
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SHEET TITLE

FLOOR PLAN

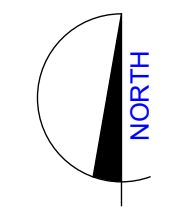
SHEET NUMBER

A-2.1

BIM Server: archiserver - BIMcloud Basic for ARCHICAD 20/1750.00 HHS CULINARY ARTS/2/25/2019 3:12 PM



REFLECTED CEILING PLAN 1
1/8" = 1'-0"



REFLECTED CEILING PLAN KEYNOTES

NOT ALL KEYNOTES MAY APPLY TO THIS SHEET

- 1 STRUCTURAL ITEM, S.S.D.
- 2 MECHANICAL ITEM, S.M.D.
- 3 PLUMBING ITEM / FIXTURE, S.P.D.
- 4 ELECTRICAL ITEM, S.E.D.
- 5 FIRE SPRINKLER, S.F.P.D. AND A-10.1
- 6 KITCHEN EQUIPMENT, S.K.D.
- 7 FLAT SCREEN, S.E.D. AND A-10.1
- 8 SECTIONAL DOORS, SEE FLOOR PLAN, ELEVATIONS, AND DOOR SCHEDULE
- 9 ROOF ACCESS LADDER, SEE FLOOR PLAN
- 10 ROOF DRAIN & OVERFLOW, DN THRU WALL, SEE RCP, ROOF PLAN, & S.C.D.
- 11 RAIN WATER LEADER, SEE RCP & A-9.2
- 12 RAIN CANOPY A-9.4
- 13 EXTERIOR SHADE STRUCTURES, S.S.S.D.
- 14 ROOF HATCH ABOVE, SEE ROOF PLAN AND A-9.3
- 15 CORD REEL A-10.1
- 16 SPEAKERS, S.E.D. A-10.1
- 17 CAMERA, CEILING-MTD FLUSH, S.E.D. A-10.1
- 18 CAMERA BELOW, POST-MTD, S.E.D. AND INT ELEVATIONS A-10.1
- 19 PROJECTOR, S.E.D. AND A-10.1
- 20 PROJECTION SCREEN A-10.2

REFLECTED CEILING PLAN GENERAL NOTES

1. NOTES & SYMBOLS ARE TO APPLY TO ALL AREAS OF SIMILAR GRAPHIC REPRESENTATION. SUCH INDICATIONS MAY BE LIMITED TO PROMOTE CLARITY OR AVOID REDUNDANCY. NO LIMITATION OF APPLICATION SHALL BE CONSTRUED WITHOUT SPECIFIC NOTATION.
2. PENDANT LIGHT FIXTURE LOCATION DIMENSIONS ARE NOMINAL. VERIFY IN FIELD TO MAINTAIN 45° SWING CLEARANCES TO FIXED ELEMENTS.
3. S.E.D. FOR HORNS, SPEAKERS, PULL STATIONS, LIGHT FIXTURES AND OTHER FEATURES NOT OTHERWISE SHOWN.
4. S.E.D. FOR EXIT SIGNS & EMERGENCY LIGHTING CONDITIONS.
5. S.M.D. FOR PIPING, REGISTERS & VENTS NOT OTHERWISE SHOWN. MECHANICAL DUCT LOCATION DIMENSIONS ARE NOMINAL. VERIFY IN FIELD TO MAINTAIN CLEARANCES TO FIXED ELEMENTS.

REFLECTED CEILING PLAN LEGEND

10'-0" CL-XX REFERS TO CEILING FINISH CODE SEE BELOW. X'-X" REFERS TO FINISHED CEILING HEIGHT AFF. WHERE CEILING HEIGHT IS INDICATED AS "OPEN" OR "-". ROOM IS OPEN TO STRUCTURE ABOVE. FOR CEILING CONFIGURATION & HEIGHT WHERE CEILING HEIGHT IS INDICATED AS CURVED, SLOPING, OR VARIES, REFER TO SECTION DRAWINGS.

ROOM NAME ROOM # X'-X"

2x2' SUSPENDED CEILING SYSTEM W/ ACOUSTIC TILE, SEE FINISH CODES

EXPOSED CEILING / ROOF STRUCTURE, SEE FINISH CODES

RAIN CANOPY METAL ROOF DECK

DOORS SHOWN DASHED INDICATE DOOR BELOW. FOR DOOR/FRAME INFORMATION SEE FLOOR PLANS & DOOR SCHEDULE

ELECTRICAL ITEMS, S.E.D.

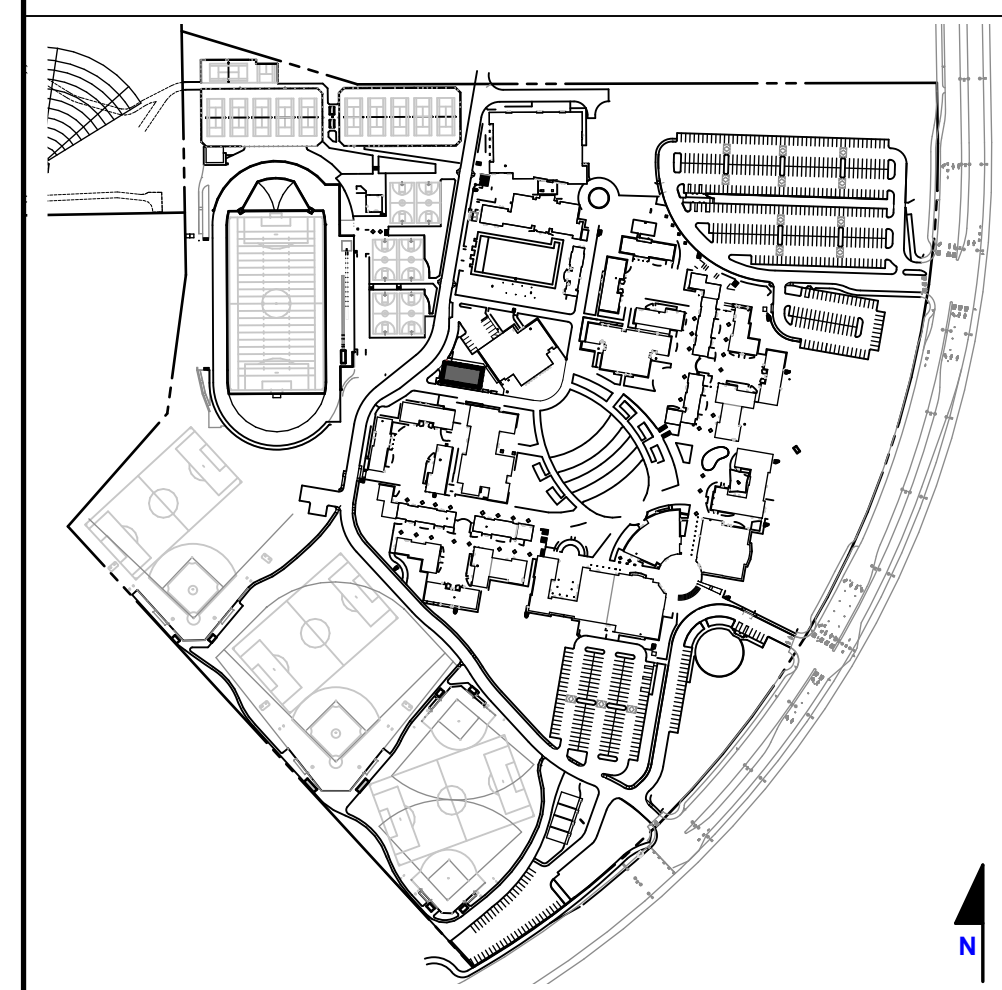
MECHANICAL ITEMS, S.M.D.

FIRE SPRINKLERS, S.F.P.D.

CEILING FINISH CODES FOR PAINT FINISHES SEE SEC. 09 9113 (EXTERIOR) & 09 9123 (INTERIOR).

- CL-1 2'X4' SUSPENDED CEILING SYSTEM W/ ACOUSTIC TILE
- CL-2 EXPOSED CEILING / ROOF STRUCTURE

KEYPLAN



APPROVED
DIV. OF THE STATE ARCHITECT
APP. 01-117845 INC.
REVIEWED FOR
SS FLS ACS
DATE: 02/27/2019

QUATTROCCHI KWOK ARCHITECTS
Main Office: 636 Fifth Street, Santa Rosa, CA 95404
Pleasanton Office: 600 Main Street, Suite E, Pleasanton, CA 94566 (707) 576-0929

LICENSED ARCHITECT
JIM THEISS
LICENSE # C22643
EXP. JUNE 30, 2019
STATE OF CALIFORNIA

SIGNED: FEBRUARY 27, 2019

HERITAGE HIGH SCHOOL

CULINARY ARTS BUILDING

101 American Ave
Brentwood, CA 94513

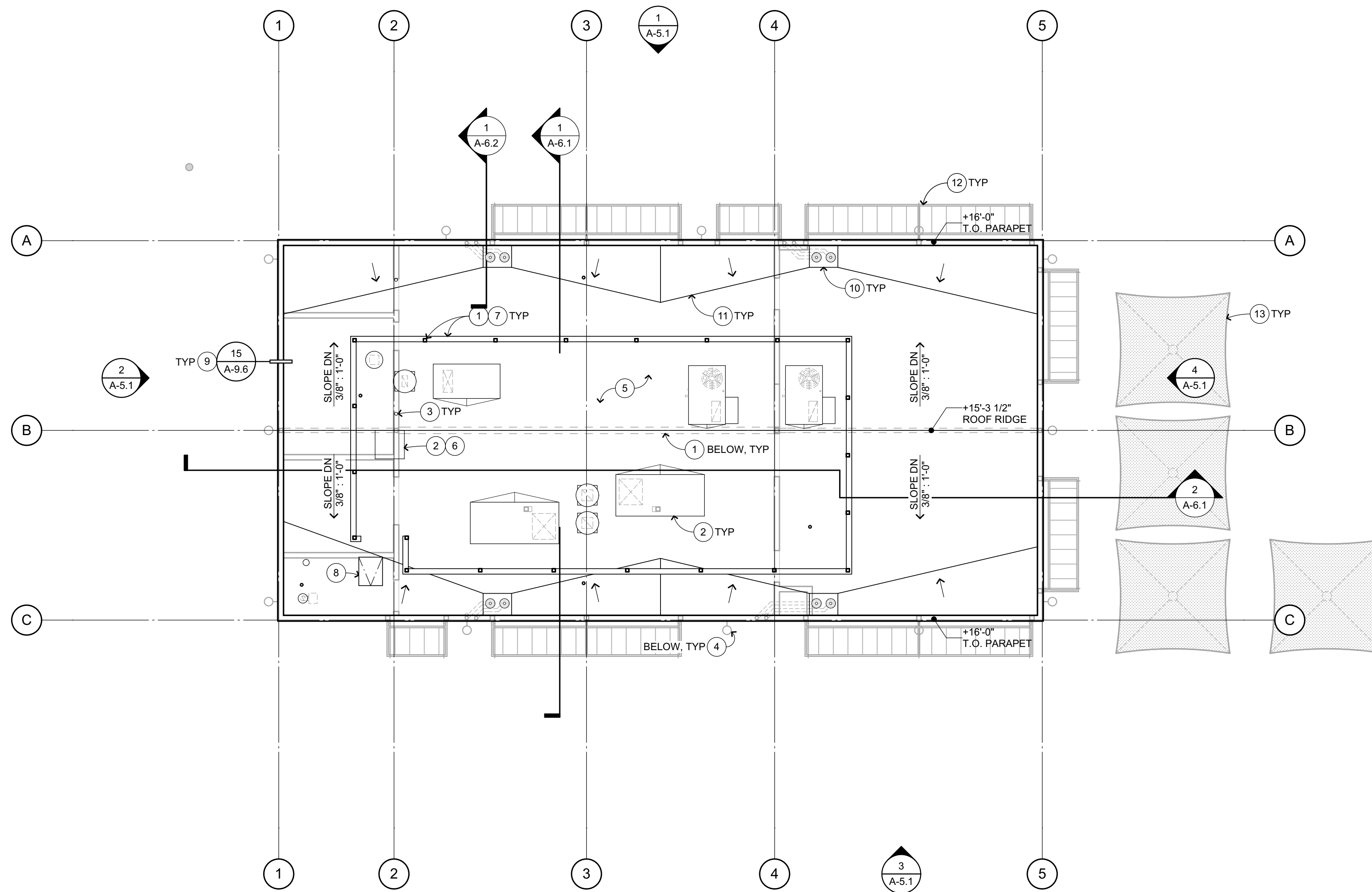
LIBERTY UNION HIGH SCHOOL DISTRICT

ARCH PROJECT NO: 1750.00
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DRAWING SCALE: 1/8" = 1'-0"
PTN: 61721-70
CD
FEBRUARY 27, 2019
SHEET TITLE

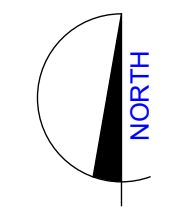
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SHEET NUMBER
A-3.1

BIM Server: archiserver - BIMcloud Basic for ARCHICAD 20/1750.00 HHS CULINARY ARTS/2/25/2019 3:12 PM



ROOF PLAN 1
1/8" = 1'-0"



ROOF PLAN KEYNOTES

NOT ALL KEYNOTES MAY APPLY TO THIS SHEET

- 1 STRUCTURAL ITEM, S.S.D.
- 2 MECHANICAL ITEM, S.M.D.
- 3 PLUMBING ITEM / FIXTURE, S.P.D.
- 4 ELECTRICAL ITEM, S.E.D.
- 5 BUILT-UP ROOFING
- 6 KITCHEN EQUIPMENT, S.K.D.
- 7 MECHANICAL SCREEN, S.S.D. AND
- 8 ROOF HATCH
- 9 PARAPET
- 10 ROOF DRAIN & OVERFLOW
- 11 CRICKET, SLOPE DOWN AT 3/8"=1'-0"
- 12 RAIN CANOPY BELOW, SEE RCP
- 13 EXTERIOR SHADE STRUCTURES BELOW, S.S.S.D.

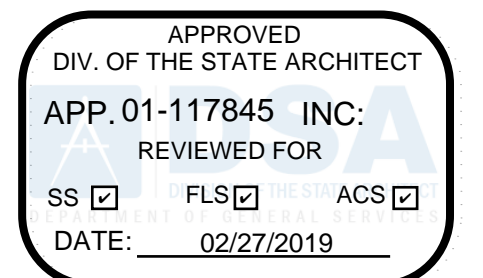
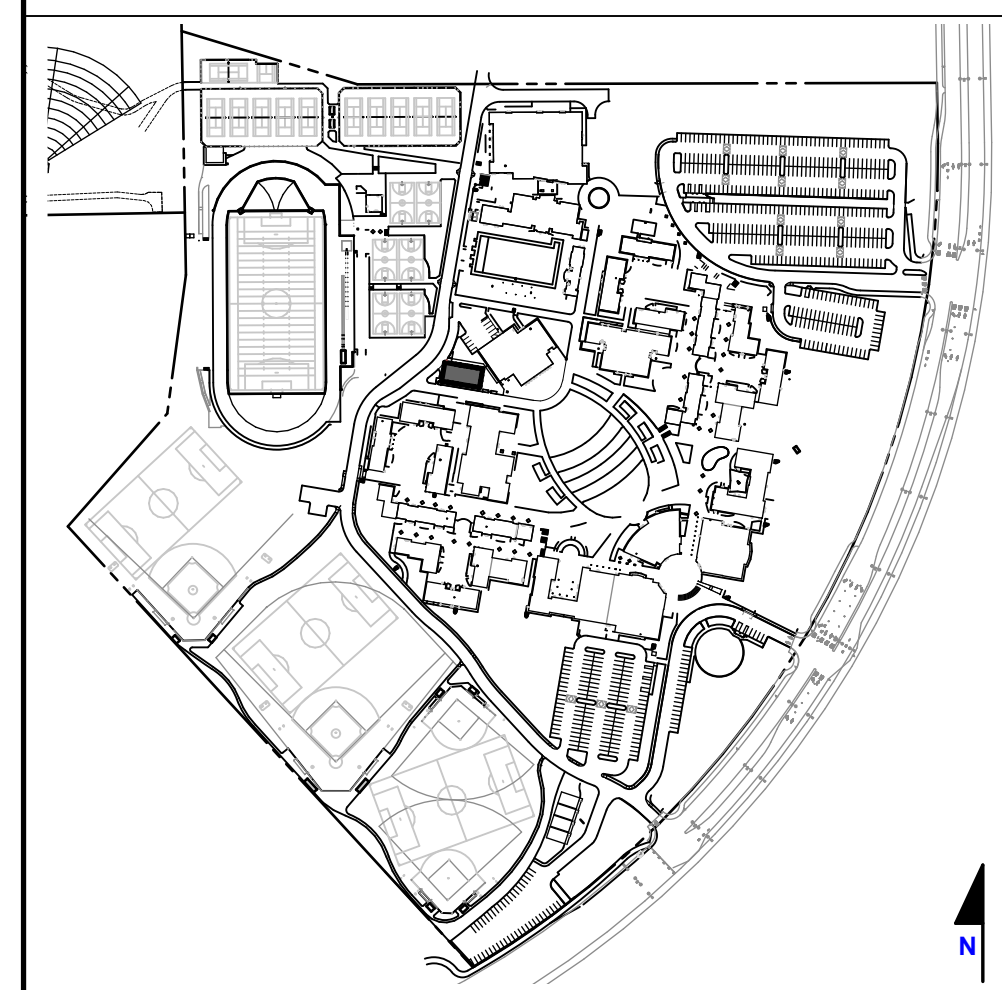
ROOF PLAN GENERAL NOTES

- 1. LOCATE ALL METAL ROOF PENETRATIONS IN THE CENTER OF THE PAN.
- 2. SLOPE MIN 1/4"=12" TO DRAIN.
- 3. ALL ROOFING TO BE CLASS A.
- 4. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR ROOF PENETRATION LOCATIONS NOT OTHERWISE INDICATED, TYPICAL.
- 5. MECHANICAL UNIT MOUNTING CURBS PER S.M.D.
- 6. MECHANICAL OR PLUMBING VENT FLASHING, METAL OR B.U.R.

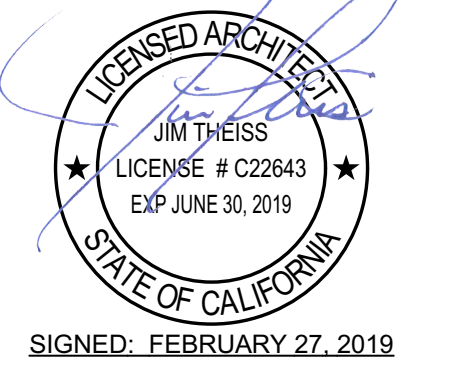
ROOF PLAN LEGEND

- +0'-0" DIMENSION INDICATING TOP OF ROOF LEVEL. SEE DETAILS FOR TOP OF ROOF LOCATION WITHIN ASSEMBLY
- MODIFIED BITUMEN ROOFING OR SLOPED FRAMING
- RAIN CANOPY METAL ROOF DECK, SEE RCP
- SHADE STRUCTURE BELOW

KEYPLAN



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HERITAGE HIGH SCHOOL

CULINARY ARTS BUILDING

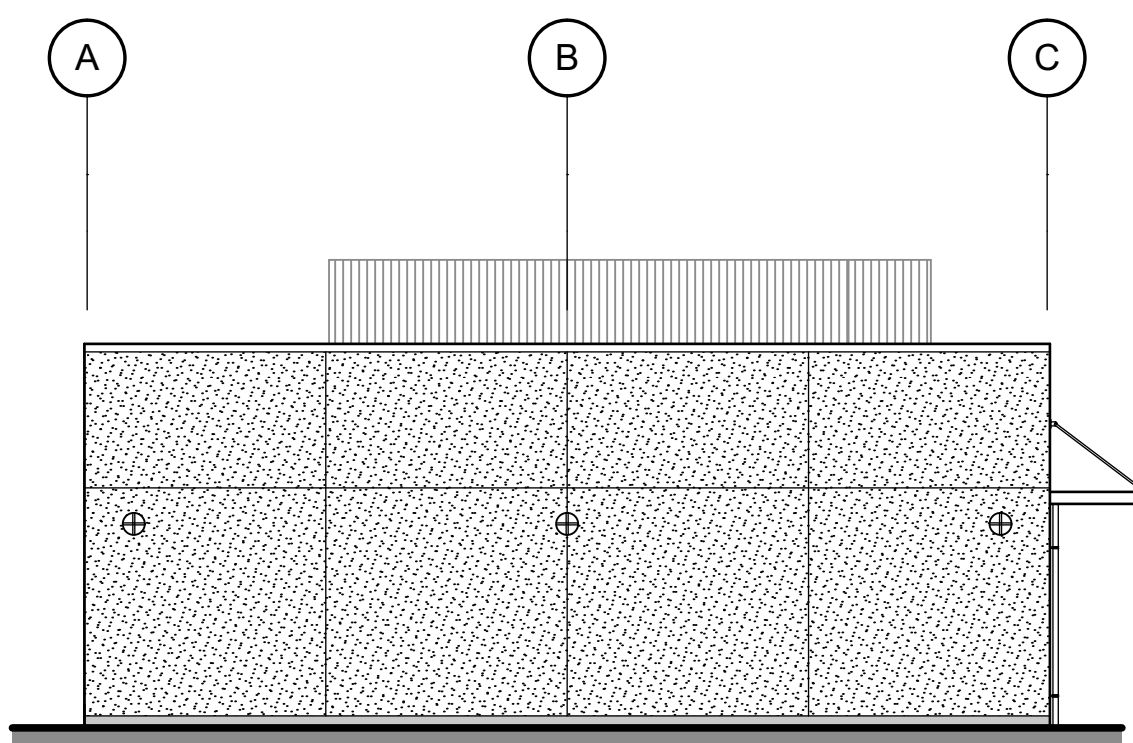
101 American Ave
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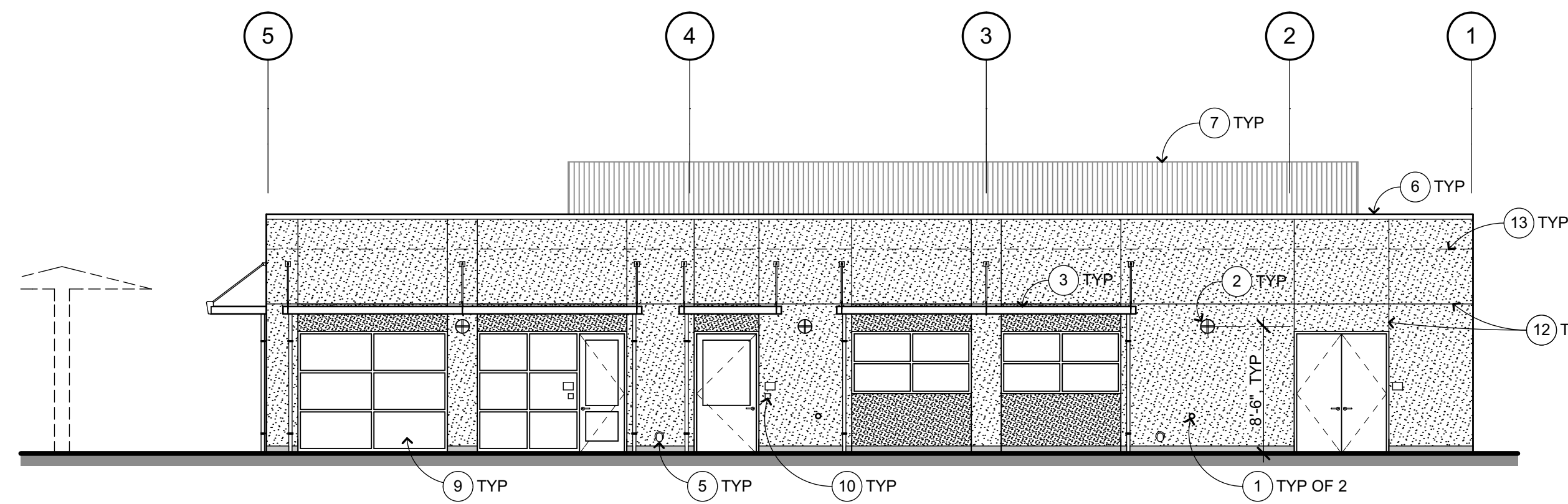
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PTN: 61721-70
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FEBRUARY 27, 2019
SHEET TITLE

ROOF PLAN

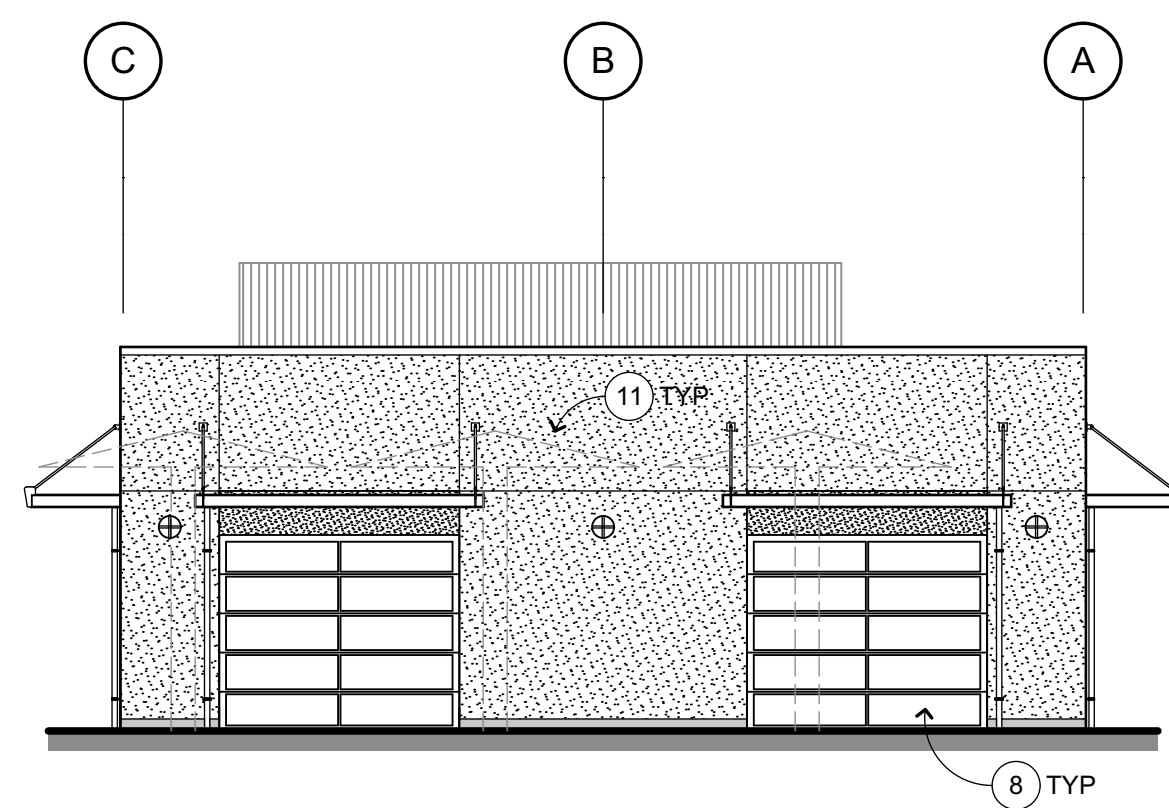
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A-4.1



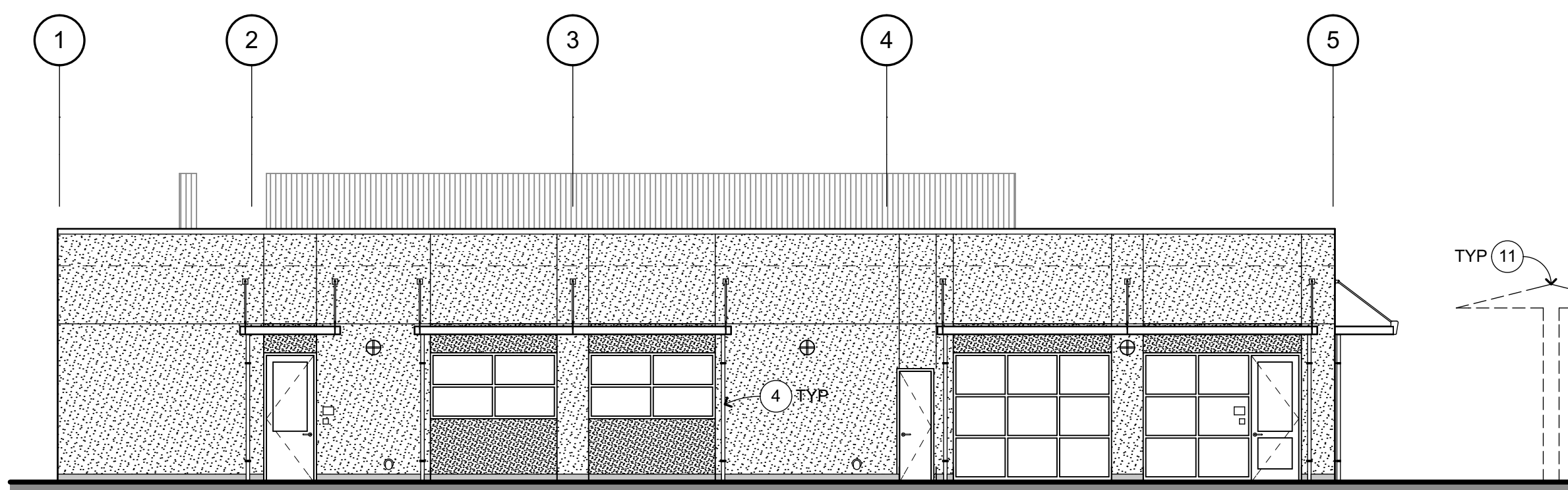
WEST ELEVATION 2
1/8" = 1'-0"



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



EAST ELEVATION 4
1/8" = 1'-0"



SOUTH ELEVATION 3
1/8" = 1'-0"

EXTERIOR ELEVATION KEYNOTES

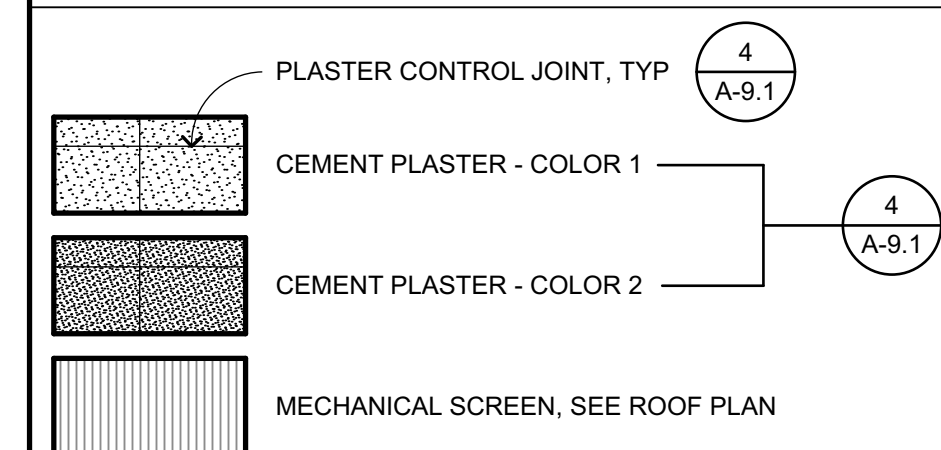
NOT ALL KEYNOTES MAY APPLY TO THIS SHEET

- 1 PLUMBING ITEM / FIXTURE, S.P.D.
- 2 ELECTRICAL ITEM, S.E.D.
- 3 RAIN CANOPY, SEE RCP
- 4 RAIN WATER LEADER, SEE FLOOR PLAN
- 5 ROOF DRAIN OVERFLOW, SEE FLOOR PLAN
- 6 ROOF COPING AT PARAPET, SEE ROOF PLAN
- 7 MECHANICAL SCREEN, S.S.D. AND ROOF PLAN
- 8 SECTIONAL DOOR, SEE FLOOR PLAN
- 9 STOREFRONT, SEE FLOOR PLAN
- 10 SIGNAGE, S.A.G.D.
- 11 EXTERIOR SHADE STRUCTURES, S.S.S.D.
- 12 CONTROL & EXPANSION JOINTS, TYP
- 13 LINE OF ROOF BEYOND, SEE ROOF PLAN AND SECTIONS

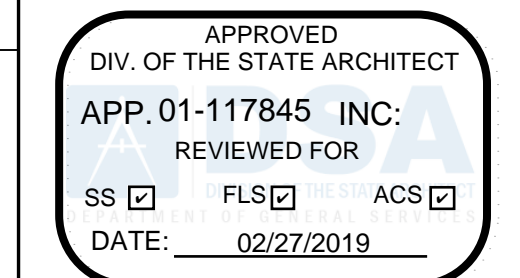
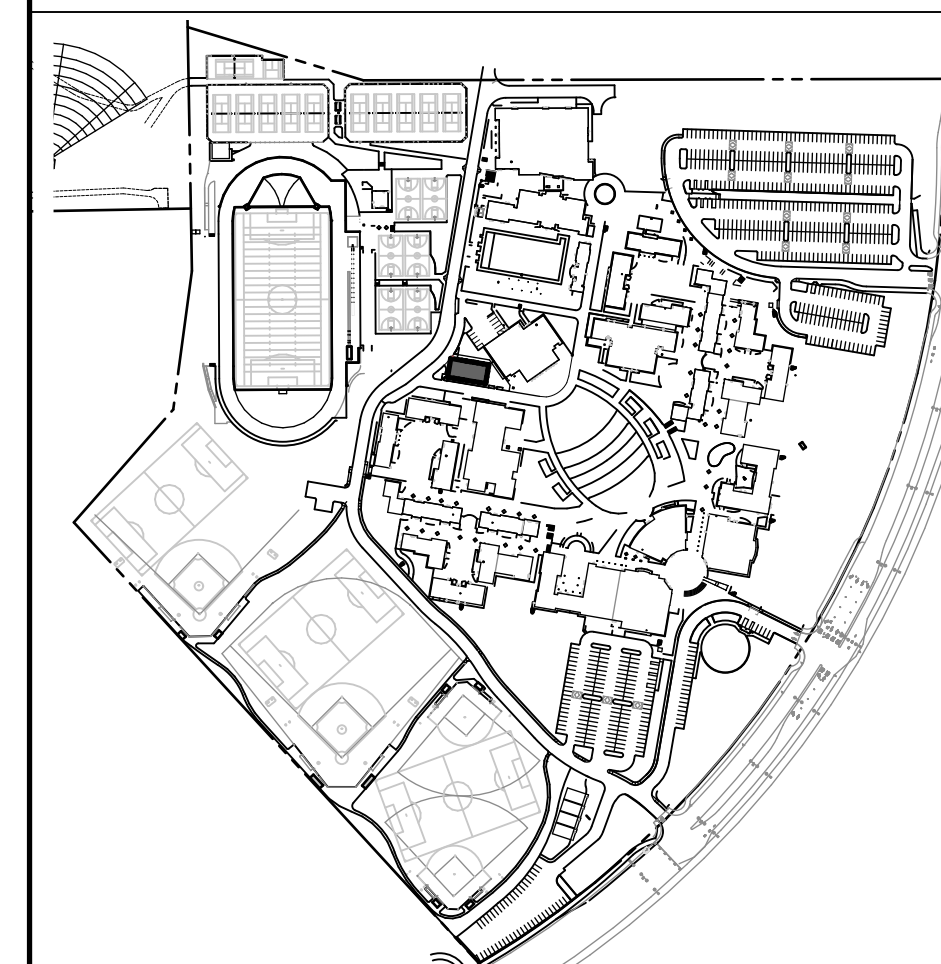
EXTERIOR ELEVATION GENERAL NOTES

1. NOTES AND SYMBOLS ARE TO APPLY AT ALL AREAS OF SIMILAR GRAPHIC REPRESENTATION. SUCH INDICATIONS MAY BE LIMITED TO PROMOTE CLARITY OR AVOID REDUNDANCY. NO LIMITATION OF APPLICATION SHALL BE CONSTRUED WITHOUT SPECIFIC NOTATION.
2. ALL PENETRATIONS THROUGH EXTERIOR ROOF AND WALLS, AND FLOORS SHALL BE FLASHED AND SEALED WEATHER TIGHT. ALL PENETRATIONS THROUGH THE BUILDING INSULATION ENVELOPE SHALL BE PACKED WITH INSULATION.
3. PROVIDE OPENING FLASHINGS AT ALL WINDOWS, DOORS, LOUVERS AND SIMILAR WALL OPENINGS PER 10 A-9.5
4. PROVIDE CEMENT PLASTER CONTROL JOINTS AS INDICATED AND AS FOLLOWS. PROVIDE CONTROL JOINTS SO THAT THE MAXIMUM DISTANCE BETWEEN JOINTS, VERTICALLY OR HORIZONTALLY DOES NOT EXCEED 12'-0". ALL CEMENT PLASTER "PANELS" SHALL BE DEFINED BY FOUR STRAIGHT AND UNINTERRUPTED EDGES; PROVIDE JOINTS AS REQUIRED TO AVOID INSIDE CORNERS IN ANY INDIVIDUAL PANEL.
5. REFER TO MECHANICAL DRAWINGS FOR REGISTERS AND VENTS NOT OTHERWISE SHOWN.
6. REFER TO ELECTRICAL DRAWINGS FOR HORNS, SPEAKERS, PULL STATIONS AND OTHER FEATURES NOT OTHERWISE SHOWN.

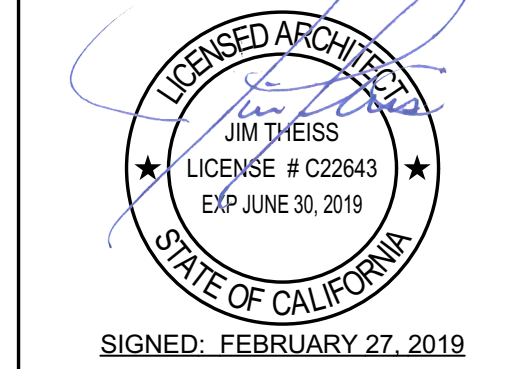
EXTERIOR ELEVATION LEGEND



KEYPLAN



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LIBERTY UNION HIGH SCHOOL DISTRICT

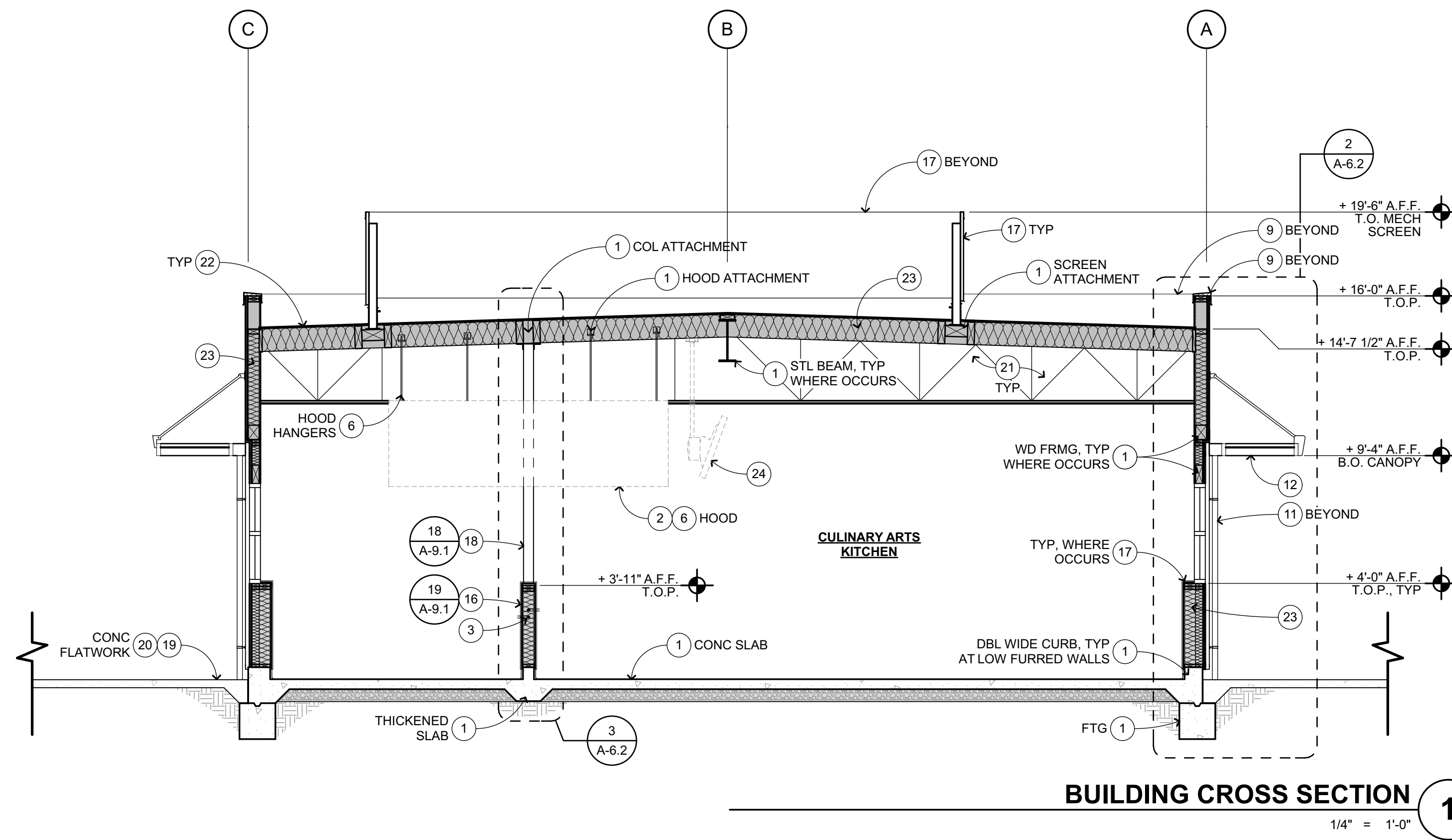
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PTN: 61721-70

CD
FEBRUARY 27, 2019
SHEET TITLE

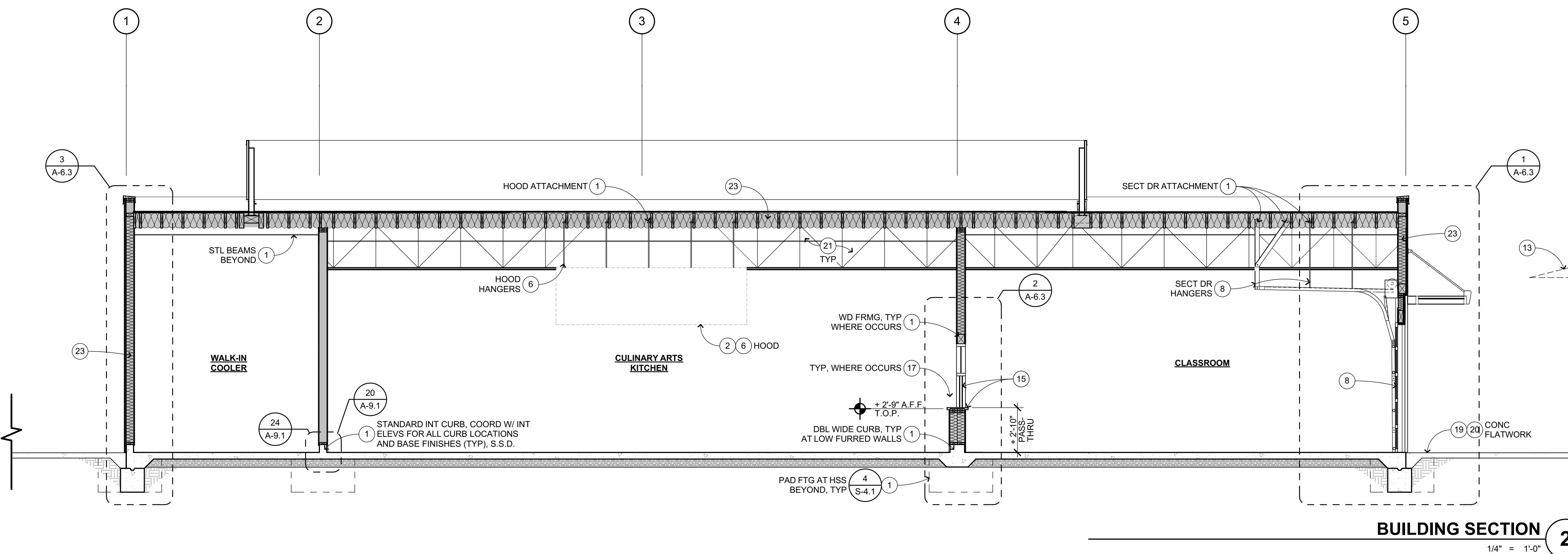
EXTERIOR ELEVATIONS

SHEET NUMBER
A-5.1

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BUILDING CROSS SECTION 1
1/4" = 1'-0"



BUILDING SECTION 2
1/4" = 1'-0"

SECTION KEYNOTES

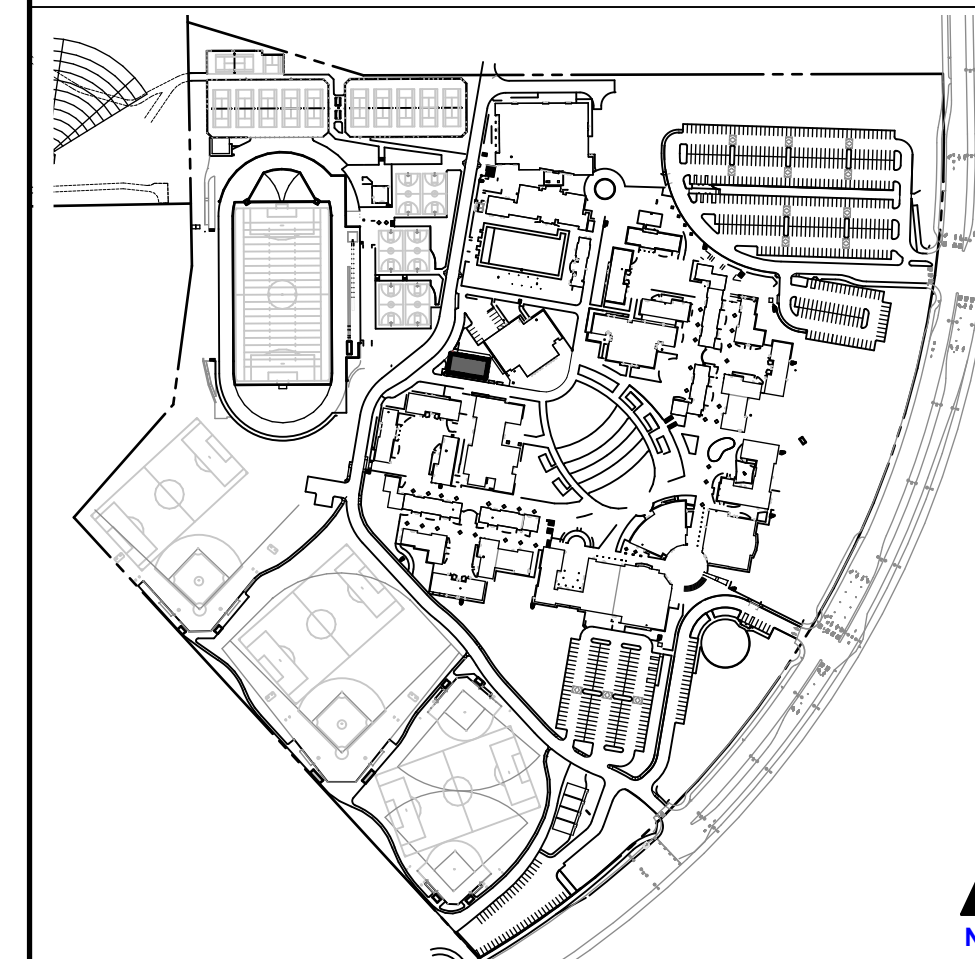
NOT ALL KEYNOTES MAY APPLY TO THIS SHEET

- 1 STRUCTURAL ITEM, S.S.D.
- 2 MECHANICAL ITEM, S.M.D.
- 3 PLUMBING ITEM / FIXTURE, S.P.D.
- 4 ELECTRICAL ITEM, S.E.D.
- 5 FIRE SPRINKLER RISER, S.F.P.D.
- 6 KITCHEN EQUIPMENT, S.K.D.
- 7 MECHANICAL SCREEN, S.S.D. AND ROOF PLAN
- 8 SECTIONAL DOORS (MOTORIZED), SEE ELEVATIONS AND DOOR SCHEDULE
- 9 PARAPET & COPING, SEE ROOF PLAN
- 10 ROOF DRAIN & OVERFLOW, IN-WALL, SEE RCP, ROOF PLAN, & S.C.D.
- 11 RAIN WATER LEADER, SEE RCP & A-9.2
- 12 RAIN CANOPY, SEE RCP
- 13 EXTERIOR SHADE STRUCTURES, S.S.S.D.
- 14 CASEWORK, SEE INTERIOR ELEVATIONS
- 15 PASS-THRU WDW & COUNTER, SEE INT ELEVATIONS & WDW SCHEDULE
- 16 LOW WALL AT COOKLINE, S.K.D. FOR SS CLADDING & INT ELEVATIONS
- 17 LOW FURRED WALL / PLUMBING CHASE, SEE FLR PLAN & INT ELEVATIONS
- 18 SS CLADDING / PLUMBING CHASE AT HSS, S.S.D. AND INT ELEVATIONS
- 19 CIVIL ITEM, S.C.D.
- 20 LANDSCAPE ITEM, S.L.D.
- 21 SUSP CLG SPLAY BRACING, SEE RCP
- 22 LOW SLOPE ROOFING, SEE ROOF PLAN
- 23 BATT INSUL AT WALLS & ROOFING, SEE GENERAL NOTES
- 24 FLAT SCREEN, S.E.D., RCP, AND INT ELEVATIONS

SECTION GENERAL NOTES

- 1. NOTES AND SYMBOLS ARE TO APPLY AT ALL AREAS OF SIMILAR GRAPHIC REPRESENTATION. SUCH INDICATIONS MAY BE LIMITED TO PROMOTE CLARITY OR AVOID REDUNDANCY. NO LIMITATION OF APPLICATION SHALL BE CONSTRUED WITHOUT SPECIFIC NOTATION.
- 2. ALL PENETRATIONS THROUGH EXTERIOR ROOF AND WALLS, AND FLOORS SHALL BE FLASHED AND SEALED WEATHER TIGHT. ALL PENETRATIONS THROUGH THE BUILDING INSULATION ENVELOPE SHALL BE PACKED WITH INSULATION.
- 3. PROVIDE OPENING FLASHINGS AT ALL WINDOWS, DOORS, LOUVERS AND SIMILAR WALL OPENINGS PER DETAIL.
- 4. PROVIDE FIRESTOPPING AT CONCEALED SPACES, INCLUDING FURRED SPACES, CEILING/FLOOR LEVELS AND 10'-0" INTERVALS ALONG LENGTHS OF WALL, SOFFITS, DROP CEILINGS, AND COVE CEILINGS PER CBC 718.
- 5. REFER TO INTERIOR ELEVATIONS FOR WALL FINISHES AND INFORMATION NOT SHOWN, TYPICAL.
- 6. REFER TO FLOOR PLAN FOR FLOOR FINISHES, TYPICAL.
- 7. REFER TO REFLECTED CEILING PLAN FOR CEILING FINISHES, TYPICAL.
- 8. REFER TO MECHANICAL DRAWINGS FOR REGISTERS AND VENTS NOT OTHERWISE SHOWN.
- 9. REFER TO ELECTRICAL DRAWINGS FOR HORNS, SPEAKERS, PULL STATIONS AND OTHER FEATURES NOT OTHERWISE SHOWN.
- 10. PROVIDE CONTINUOUS R30 BATT INSULATION AT ROOF AND CONTINUOUS R19 BATT INSUL AT ALL EXTERIOR WALLS (INTERIOR WALLS AS OCCURS), SEE BLDG & WALL SECTIONS.

KEYPLAN



APPROVED
DIV. OF THE STATE ARCHITECT
APP. 01-117845 INC.
REVIEWED FOR
SS FLS ACS
DATE: 02/27/2019

QUATTROCCHI KWOK ARCHITECTS
Main Office:
636 Fifth Street, Santa Rosa, CA 95404
Pleasanton Office:
600 Main Street, Suite E,
Pleasanton, CA 94566
(707) 576-0829

LICENSED ARCHITECT
JIM THEISS
LICENSE # C22643
EXP. JUNE 30, 2019
STATE OF CALIFORNIA
SIGNED: FEBRUARY 27, 2019

HERITAGE HIGH SCHOOL

CULINARY ARTS BUILDING

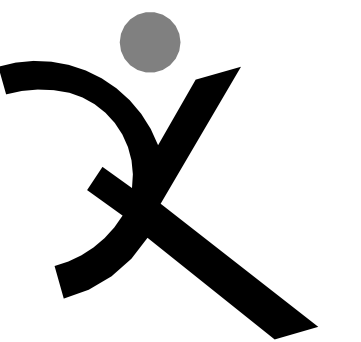
101 American Ave
Brentwood, CA 94513

LIBERTY UNION HIGH SCHOOL DISTRICT

ARCH PROJECT NO:	1750.00
DRAWN BY:	
DRAWING SCALE:	1/4" = 1'-0"
PTN:	61721-70
CD	
FEBRUARY 27, 2019	
SHEET TITLE	

BUILDING SECTIONS

SHEET NUMBER
A-6.1



QUATTROCCHI KWOK
 ARCHITECTS
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 636 Fifth Street, Santa Rosa, CA 95404
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 600 Main Street, Suite E,
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 (707) 576-0929



SIGNED: FEBRUARY 27, 2019

HERITAGE HIGH SCHOOL

CULINARY ARTS BUILDING

101 American Ave
 Brentwood, CA 94513

LIBERTY UNION HIGH SCHOOL DISTRICT

ARCH PROJECT NO: 1750.00

DRAWN BY:

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

PTN: 61721-70

CD

FEBRUARY 27, 2019

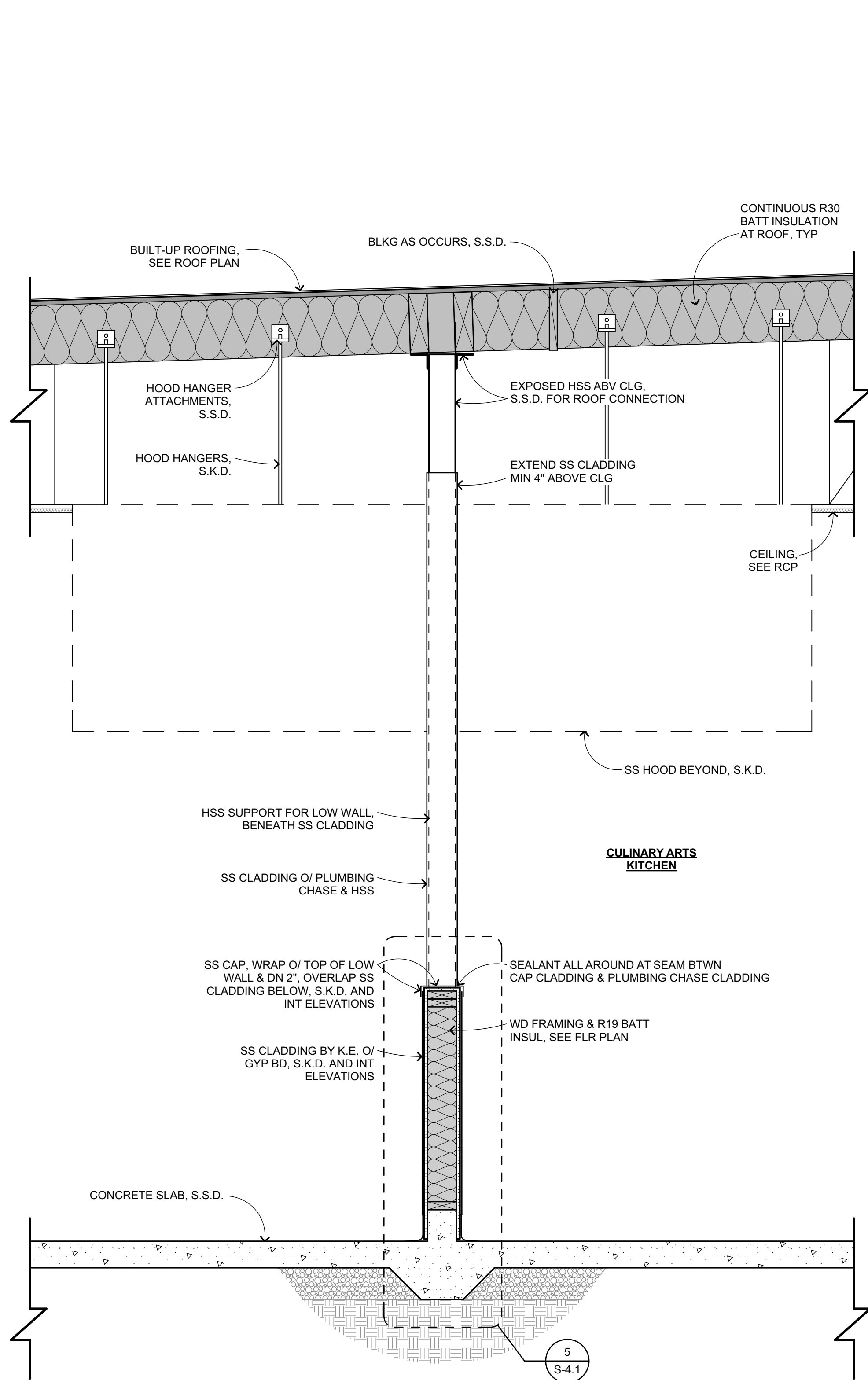
SHEET TITLE

WALL SECTIONS

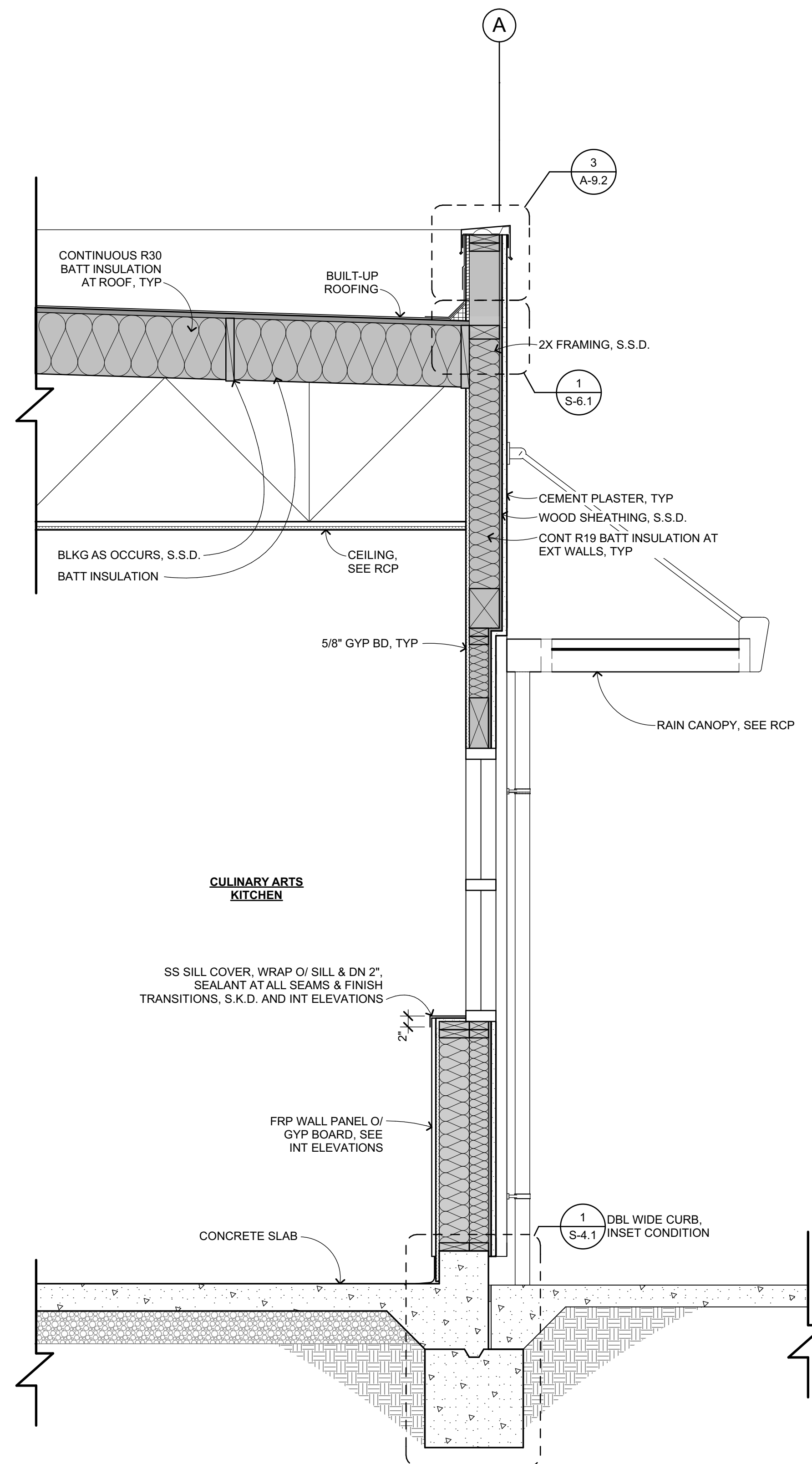
SHEET NUMBER

A-6.2

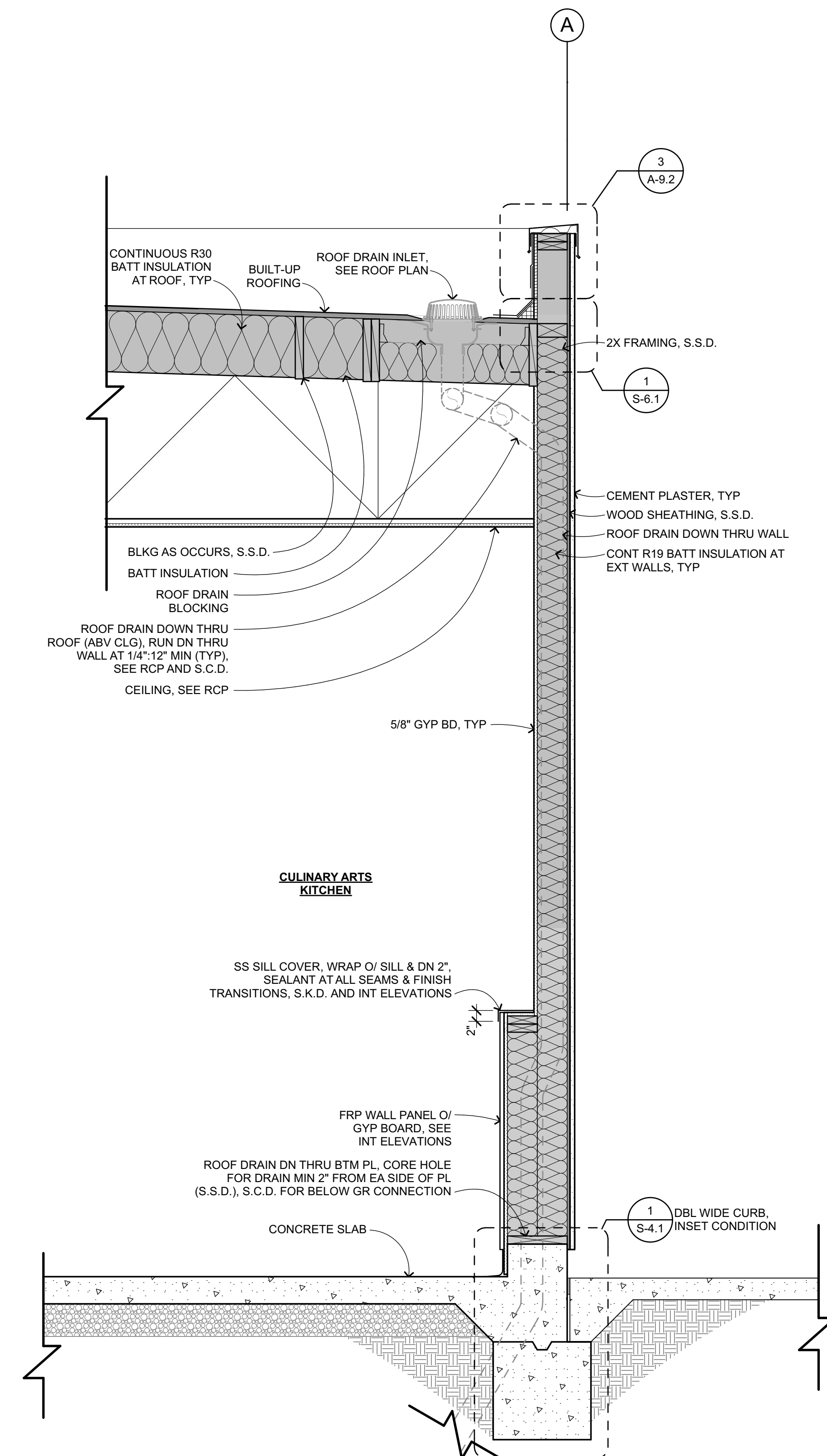
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WALL SECTION 3
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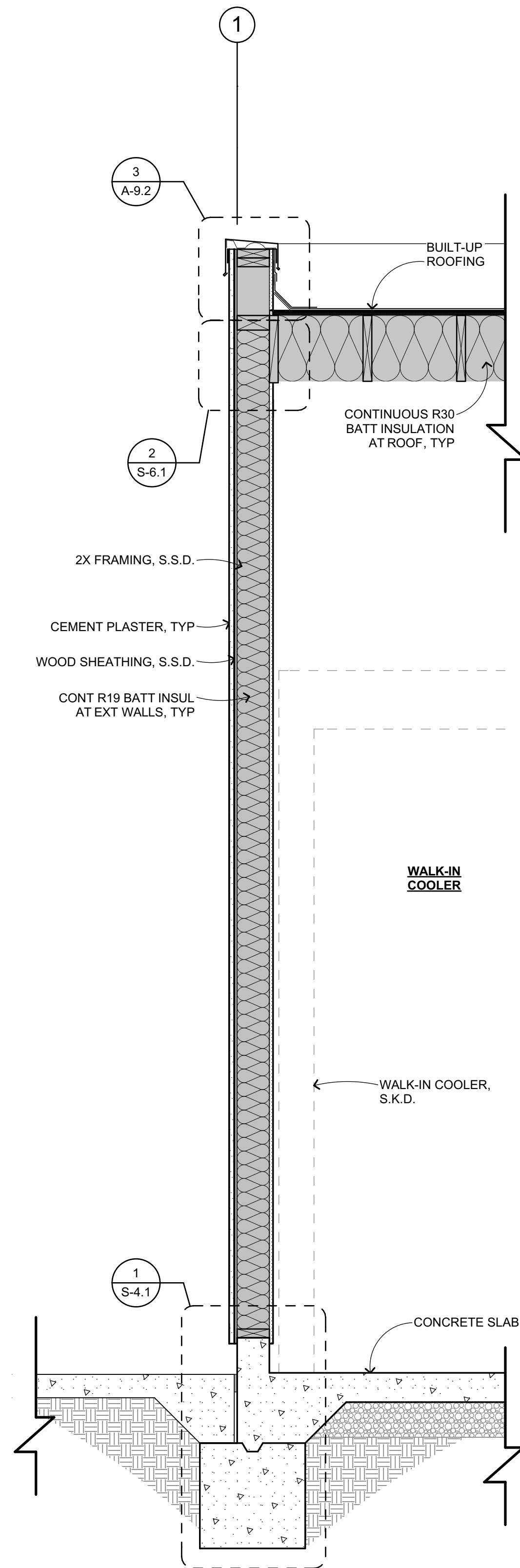


WALL SECTION 2
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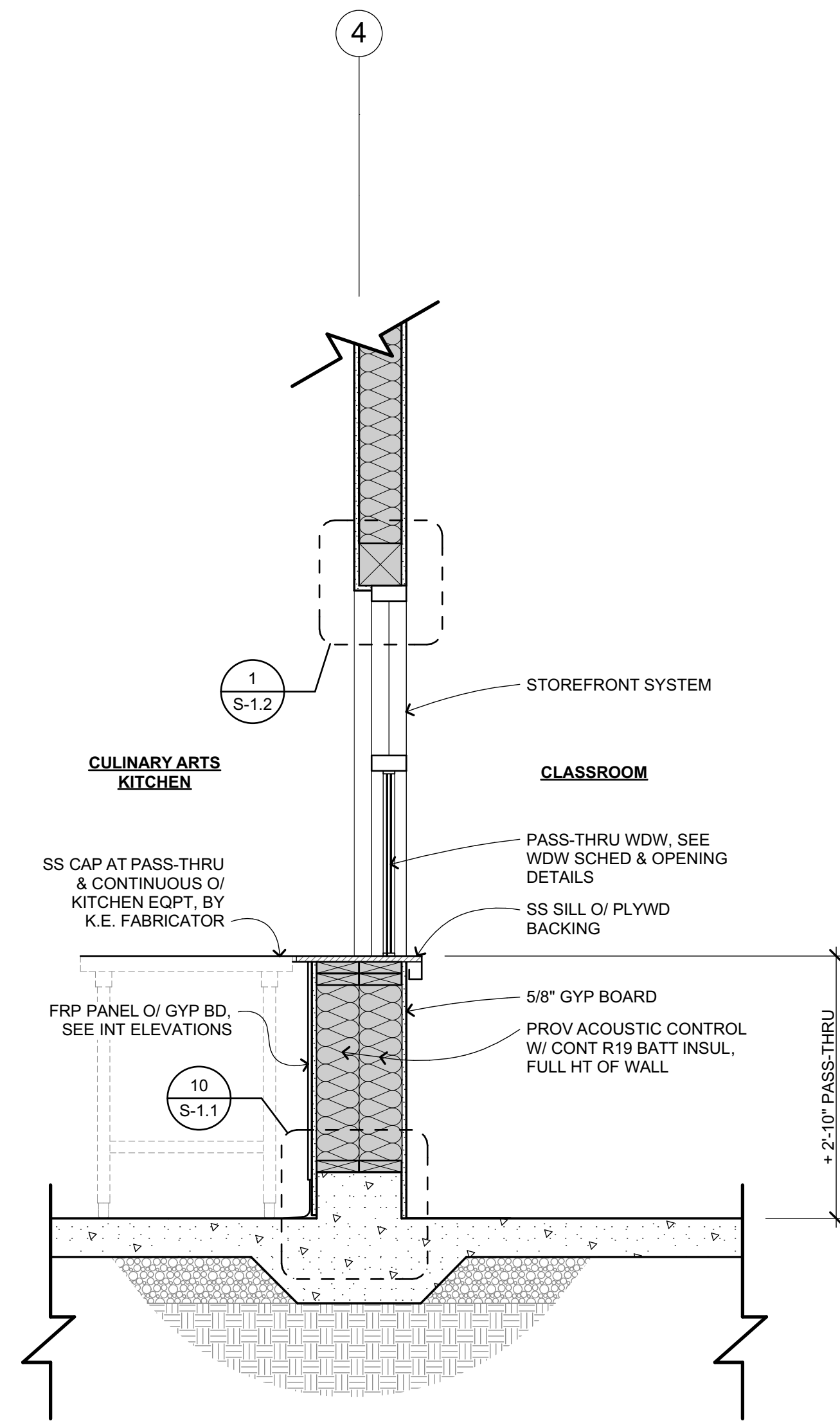


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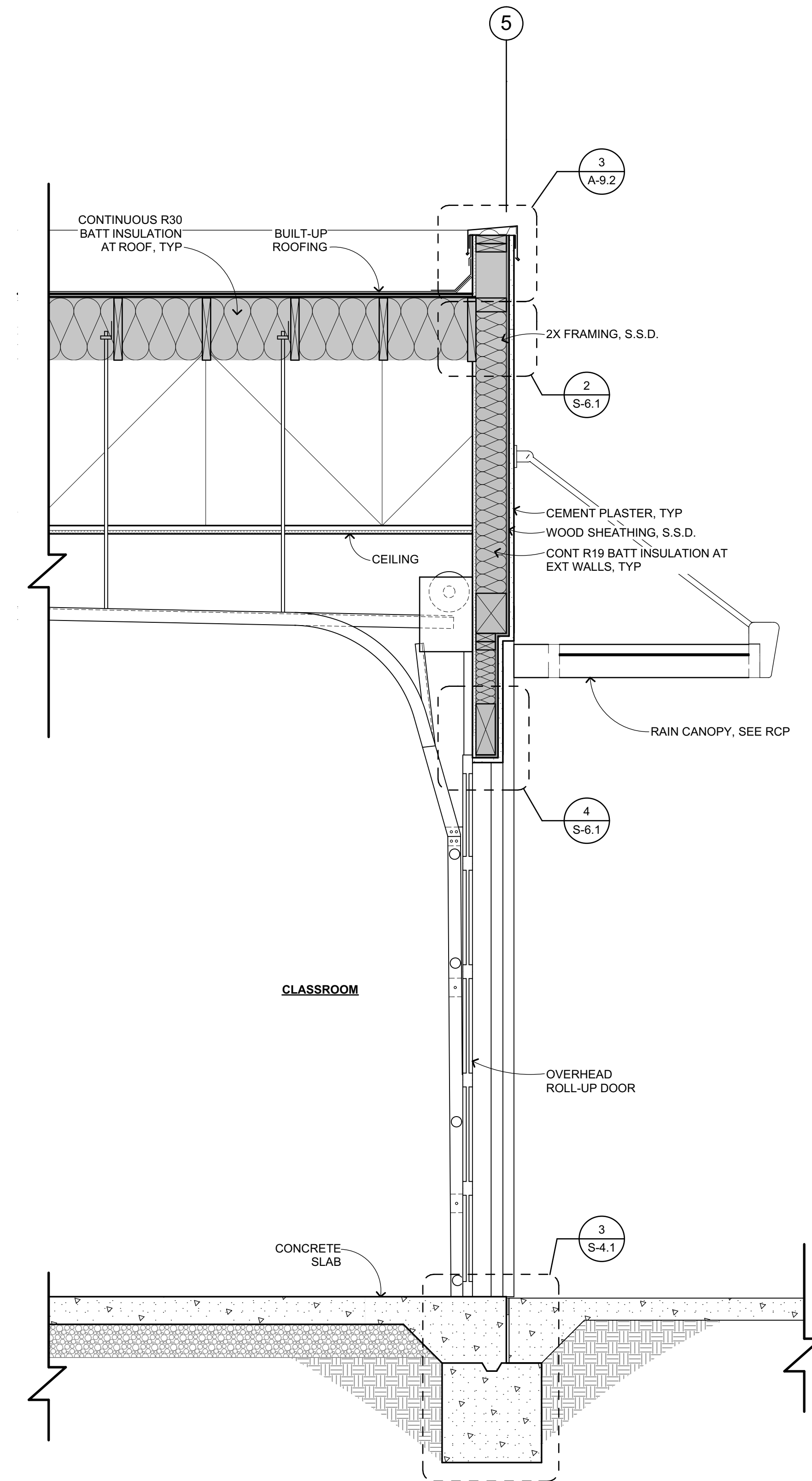
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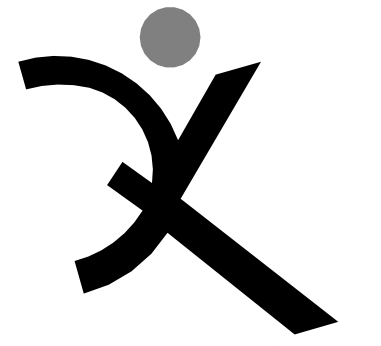


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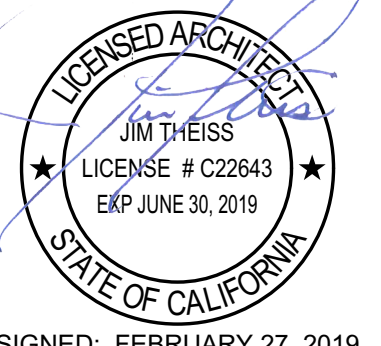


WALL SECTION 1
3/4" = 1'-0"

APPROVED
DIV. OF THE STATE ARCHITECT
APP. 01-117845 INC.
REVIEWED FOR
SS FLS ACS
DATE: 02/27/2019



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(707) 576-0929



HERITAGE HIGH SCHOOL

CULINARY ARTS BUILDING

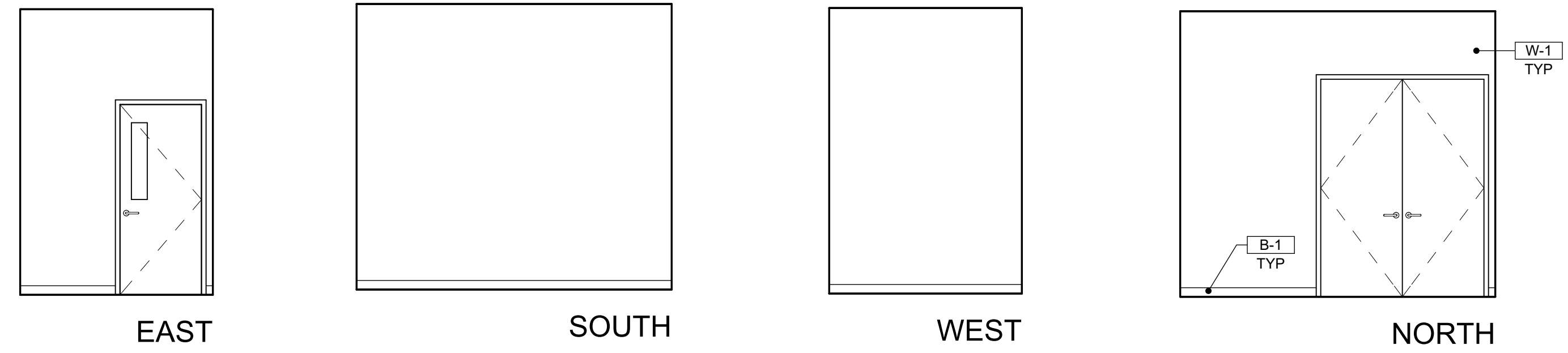
101 American Ave
Brentwood, CA 94513

LIBERTY UNION HIGH SCHOOL DISTRICT

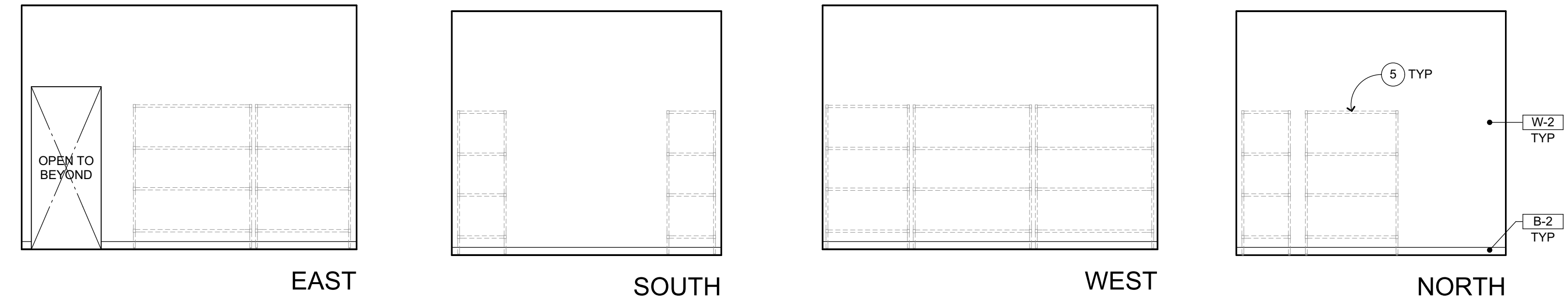
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DRAWN BY:
DRAWING SCALE: 3/4" = 1'-0"
PTN: 61721-70
CD
FEBRUARY 27, 2019
SHEET TITLE

WALL SECTIONS

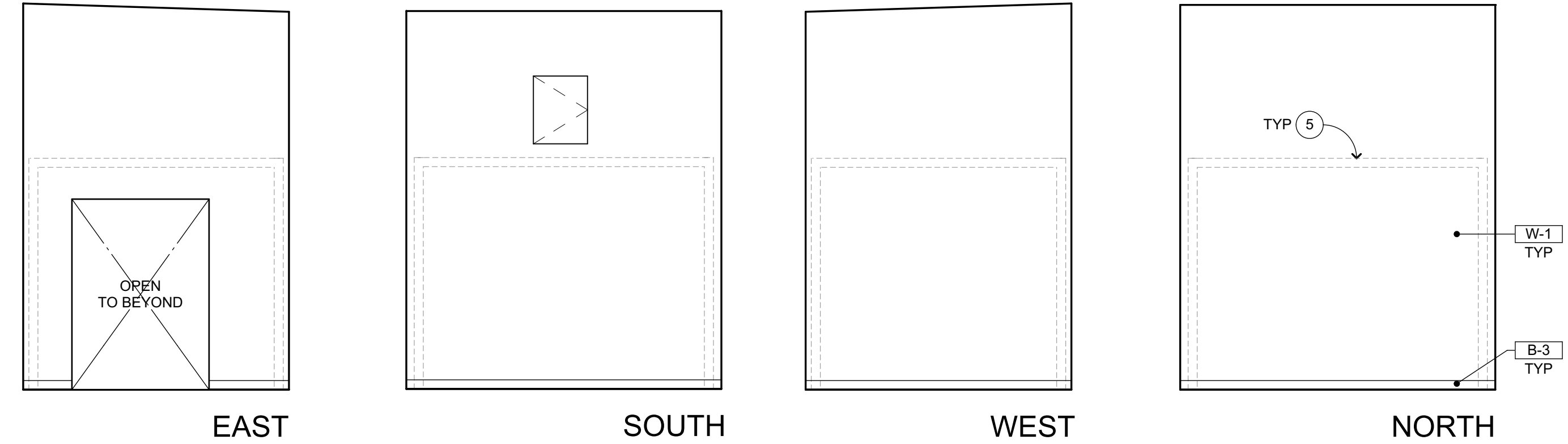
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A-6.3



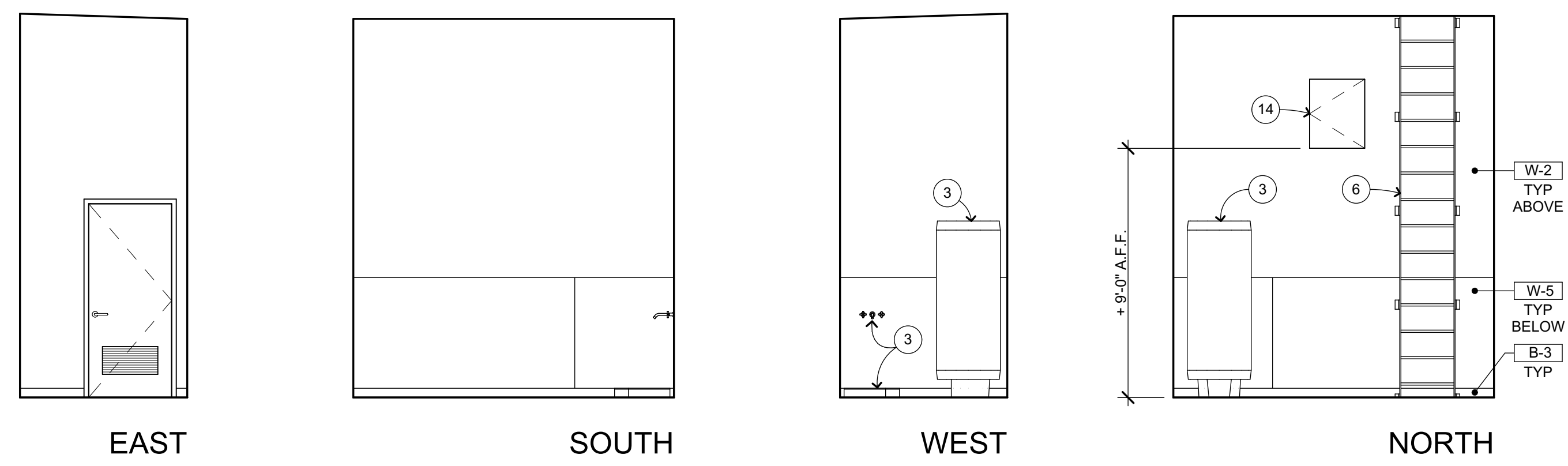
STORAGE A101
1/4" = 1'-0" A-2.1



DRY STORAGE A102
1/4" = 1'-0" A-2.1



WALK-IN COOLER A103
1/4" = 1'-0" A-2.1



CUSTODIAN A104
1/4" = 1'-0" A-2.1

INTERIOR ELEVATION KEYNOTES

NOT ALL KEYNOTES MAY APPLY TO THIS SHEET

- 1 STRUCTURAL ITEM, S.S.D.
- 2 MECHANICAL ITEM, S.M.D.
- 3 PLUMBING FIXTURE, S.P.D.
- 4 ELECTRICAL ITEM, S.E.D.
- 5 KITCHEN EQUIPMENT, S.K.D.
- 6 ROOF ACCESS LADDER, SEE FLOOR PLAN
- 7 FIRE EXTINGUISHER CABINET, SEMI-RECESSED
- 8 SECTIONAL DOORS (MOTORIZED), S.E.D. AND DOOR SCHEDULE
- 9 MARKERBOARD, SEE 4
- 10 SIGNAGE, S.A.G.D.
- 11 TEACHING WALL CASEWORK, SEE 8 10
- 12 PROJECTOR SCREEN, SEE 3
- 13 CANTILEVER CAMERA MOUNT (CAMERA N.I.C.), FASTEN TO SS CLADDING/CHASE W/ (4) #8 SMS MINIMUM (PREDRILL AS REQD), STUB OPENING THRU CLADDING FOR POWER/DATA (S.E.D.) & CAP OFF / PROTECT CABLES FOR FUTURE USE
- 14 THROUGH-WALL LIMITED ACCESS PANEL
- 15 SS SILL COVER BY KITCHEN EQPT FABRICATOR, WRAP O/ SILL & DN 2", SEALANT AT ALL SEAMS & FINISH TRANSITIONS, S.K.D.
- 16 CASEWORK, SEE 8
- 17 FLAT SCREEN, S.E.D. AND RCP

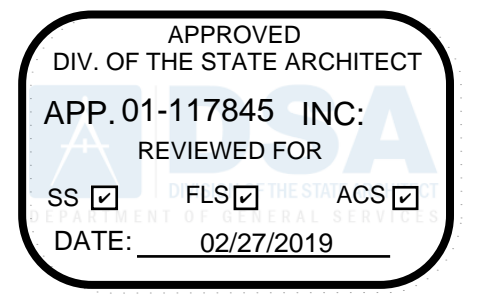
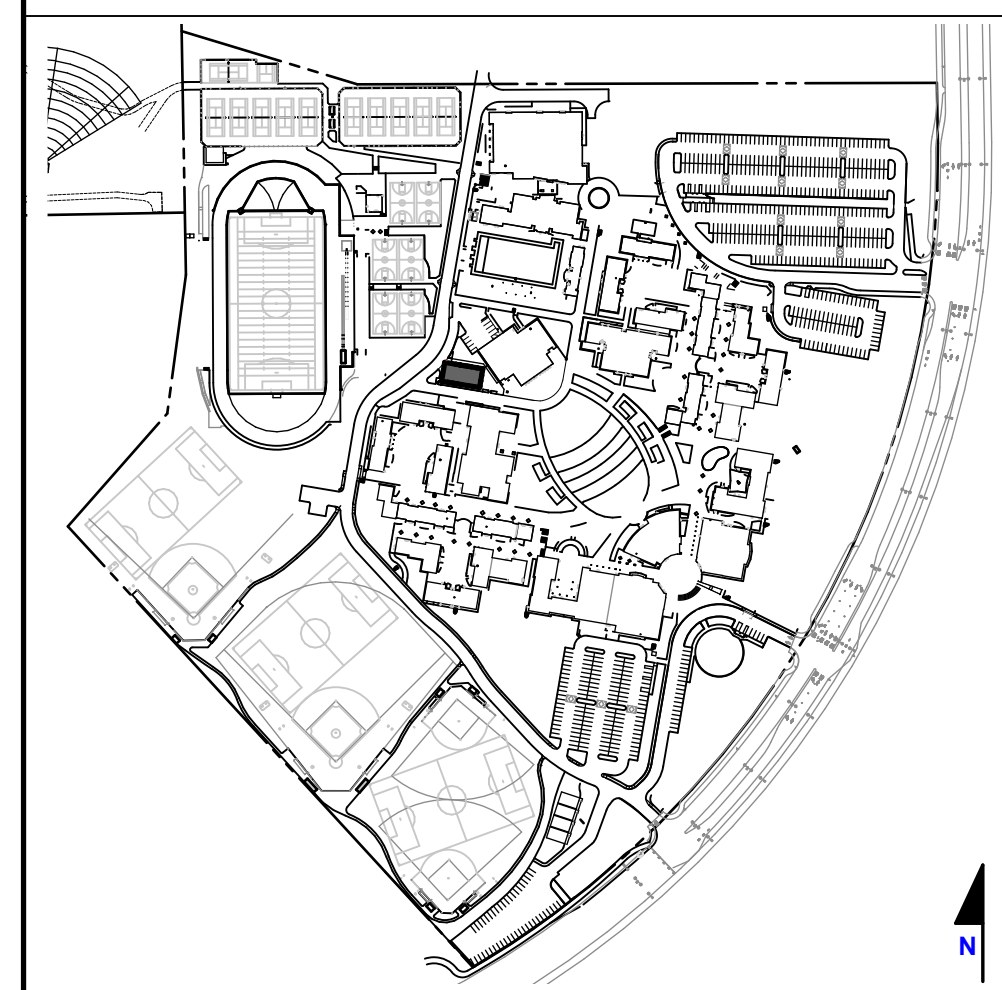
INTERIOR ELEVATION GENERAL NOTES

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- 3. REFER TO ELECTRICAL DRAWINGS FOR HORNS, SPEAKERS, PULL STATIONS AND OTHER FEATURES NOT OTHERWISE SHOWN.
- 4. TYPICAL MOUNTING HEIGHTS OF ACCESSIBLE ELEMENTS AT ACCESSIBLE FIXTURES SEE 1
- 5. PROVIDE SOLID BLOCKING FOR CABINET, ACCESSORY, OR EQUIPMENT MOUNTING 2

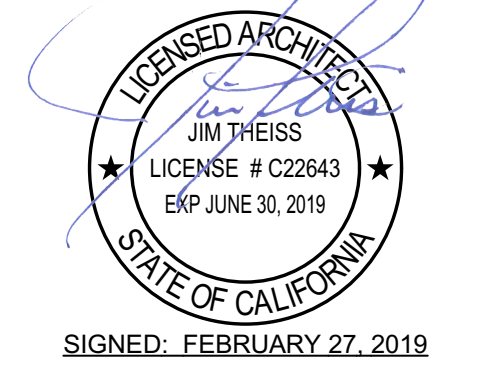
WALL AND BASE FINISH CODES

- FOR PAINT FINISHES SEE SEC. 09 9113 (EXTERIOR) & 09 9123 (INTERIOR). ALL GYP BD TO BE TYPE 'X'.
- W-1 GYP BD B-1 4" RESILIENT BASE 23
 - W-2 GYP BD - MOISTURE RESISTANT B-2 EPOXY COVE A-9.1
 - W-3 3/4" MDO PLYWOOD BASE 20
 - W-4 VINYL-WRAPPED TACKBOARD B-3 SEALED 24
 - WALL PANELS CONC CURB A-9.1
 - W-5 FRP PANEL O/ MOISTURE RESISTANT GYP BD
 - W-6 SS CLADDING O/ HSS PLUMBING CHASE 18
 - W-7 SS CLADDING BY K.E. O/ MOISTURE RESISTANT GYP BD 19

KEYPLAN



QUATTROCCHI KWOK ARCHITECTS
Main Office: 636 Fifth Street, Santa Rosa, CA 95404
Pleasanton Office: 600 Main Street, Suite E, Pleasanton, CA 94566 (707) 576-0929



SIGNED: FEBRUARY 27, 2019

HERITAGE HIGH SCHOOL
CULINARY ARTS BUILDING

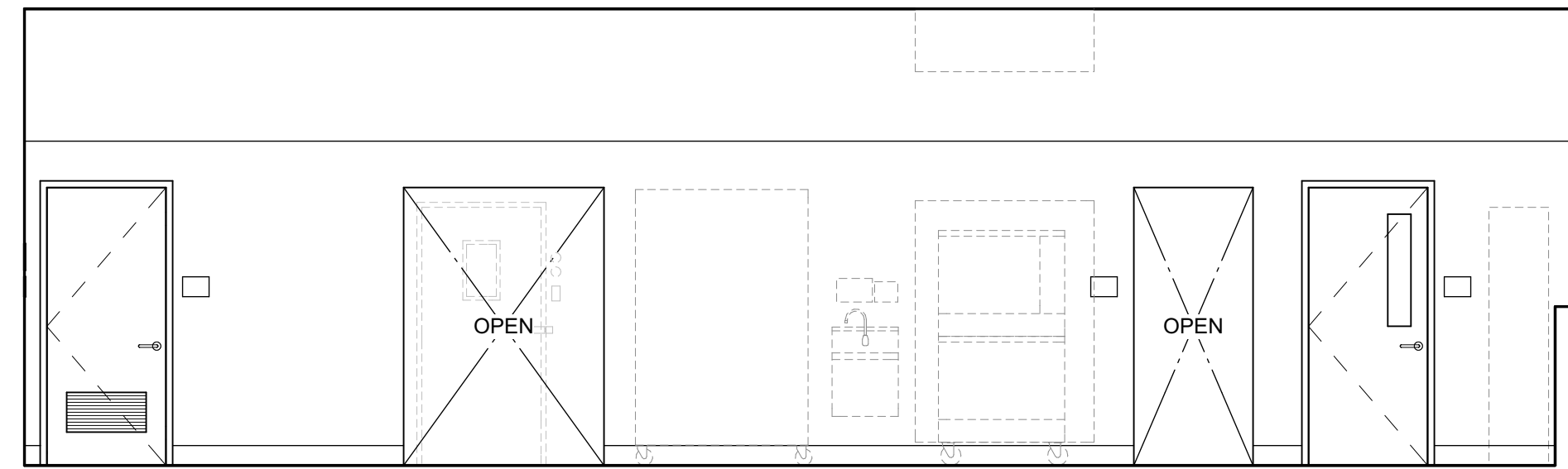
101 American Ave
Brentwood, CA 94513

LIBERTY UNION HIGH SCHOOL DISTRICT

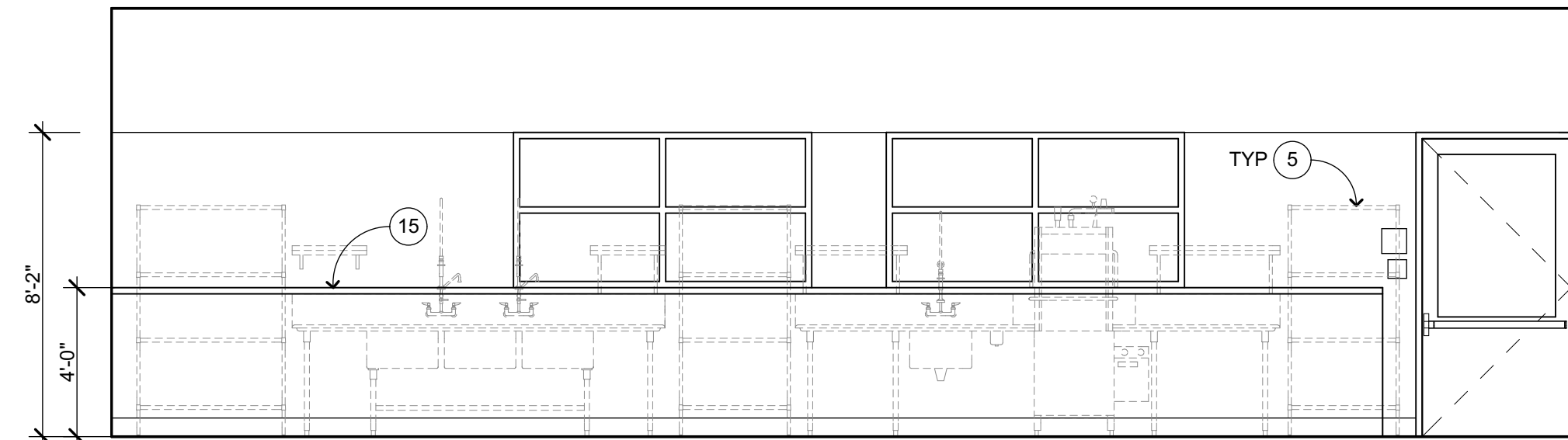
ARCH PROJECT NO: 1750.00
DRAWN BY:
DRAWING SCALE: 1/4" = 1'-0"
PTN: 61721-70
CD
FEBRUARY 27, 2019
SHEET TITLE

INTERIOR ELEVATIONS

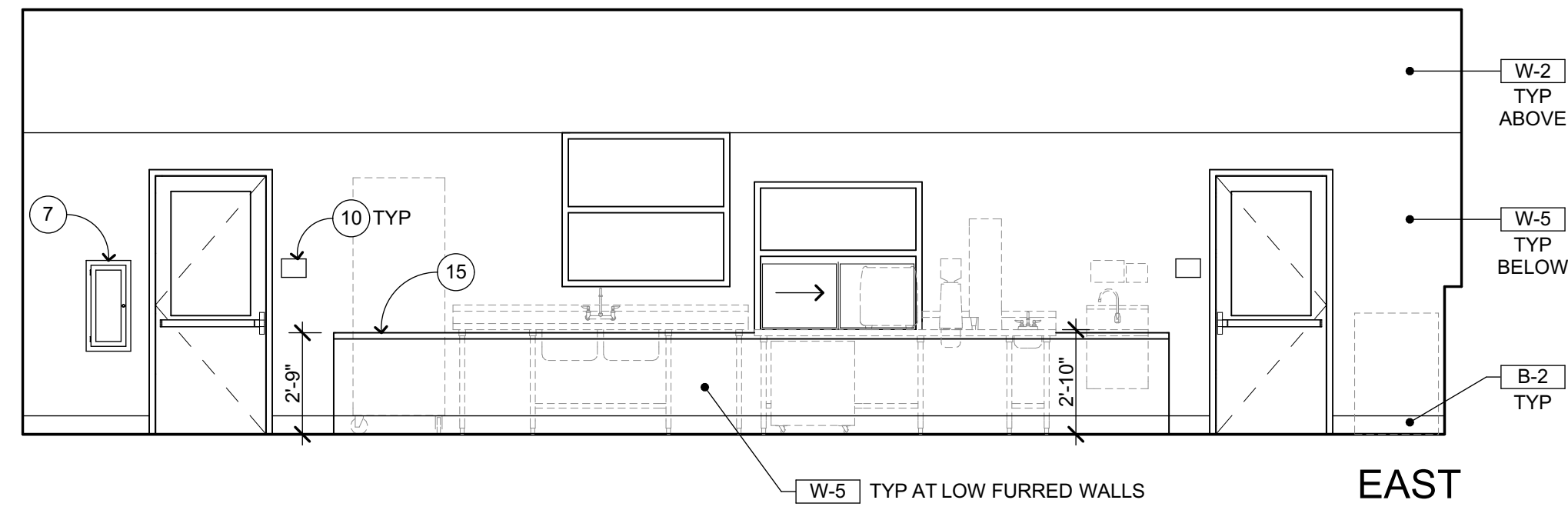
SHEET NUMBER
A-7.1



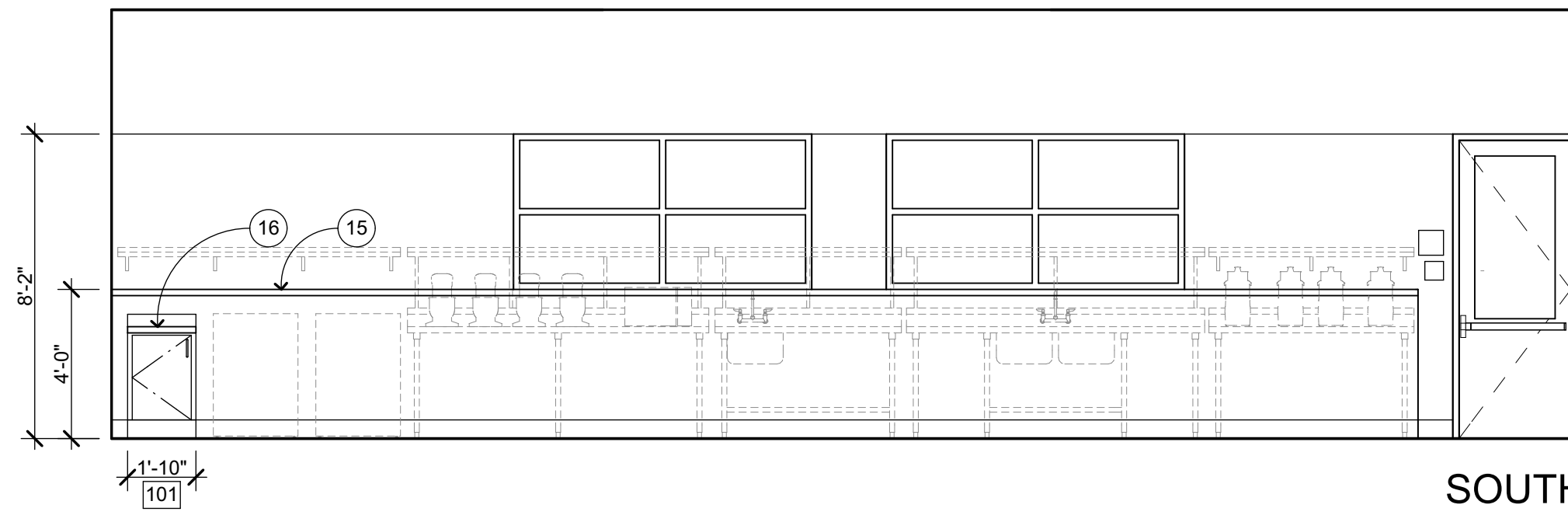
WEST



NORTH

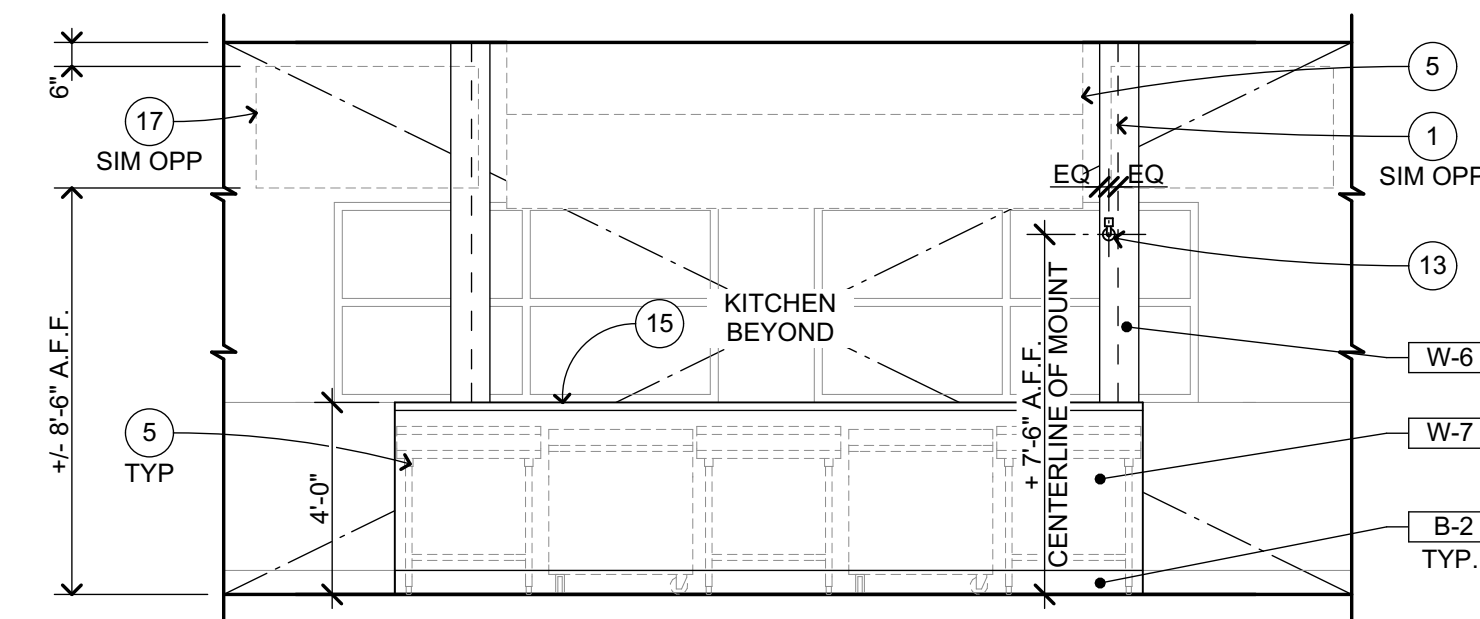


EAST



SOUTH

CULINARY ARTS KITCHEN **A105**
1/4" = 1'-0" A-2.1

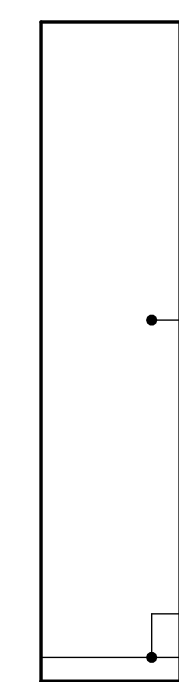


NORTH (SOUTH SIM)

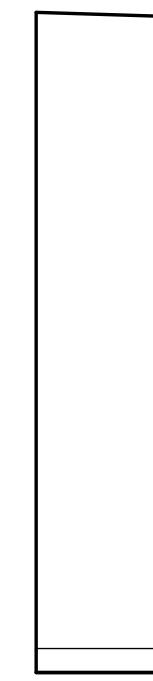
KITCHEN - COOKLINE AREA **A105**
1/4" = 1'-0" A-2.1



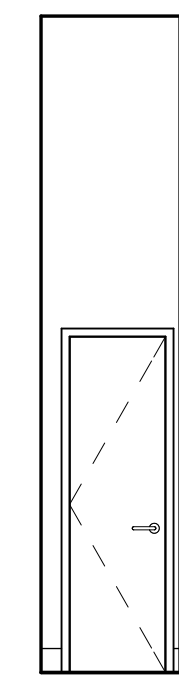
WEST



NORTH

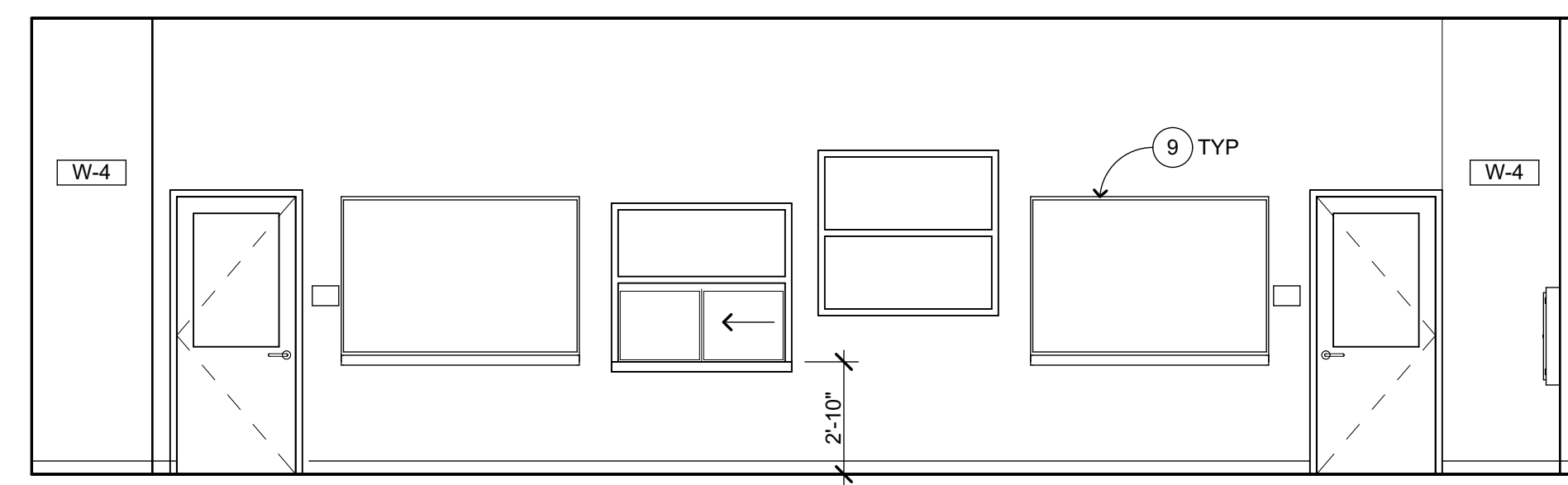


EAST

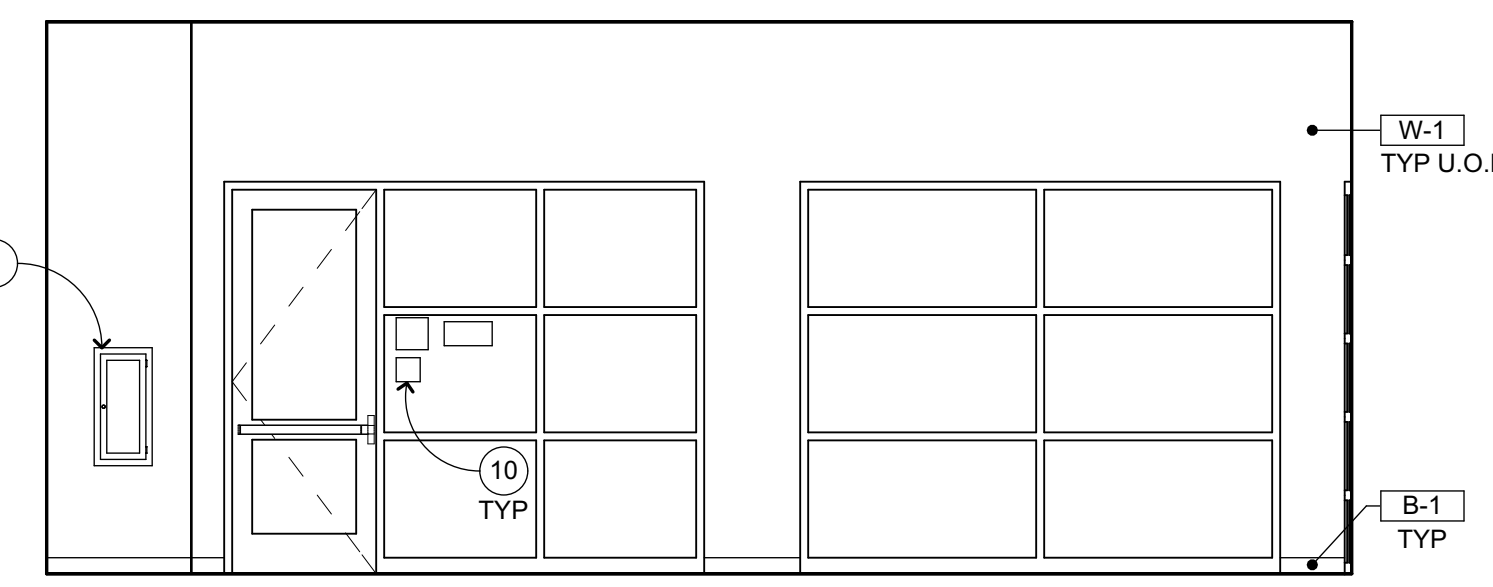


SOUTH

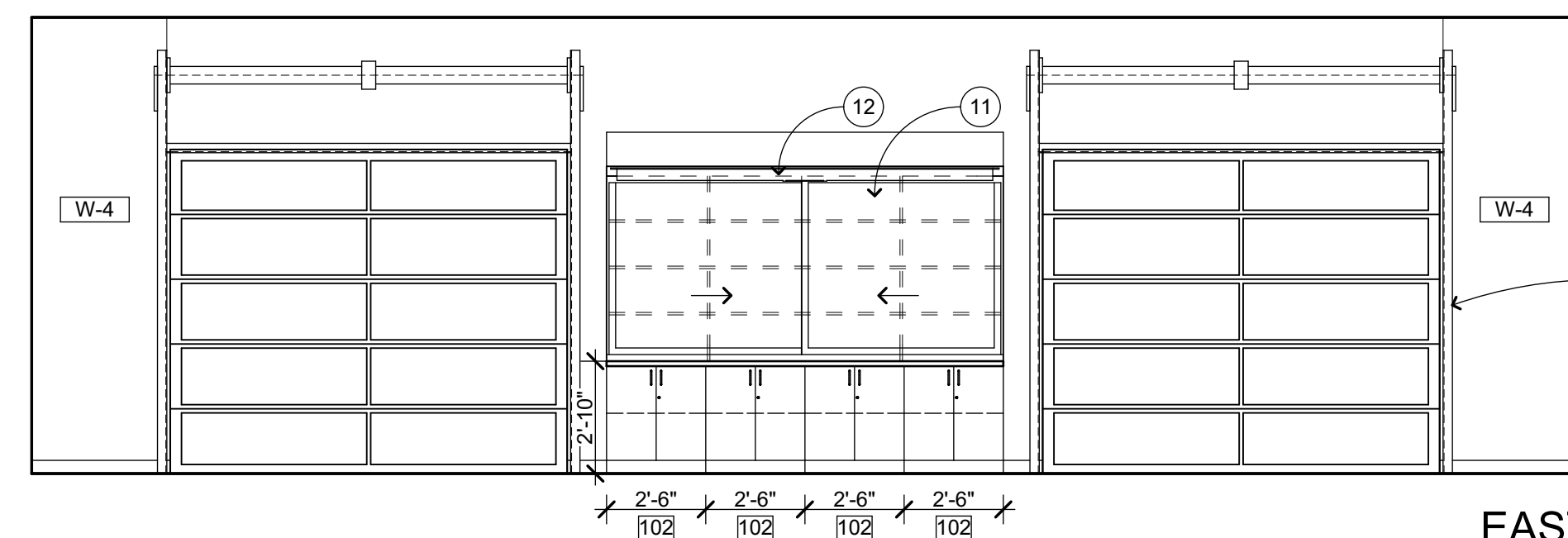
FIRE RISER **A107**
1/4" = 1'-0" A-2.1



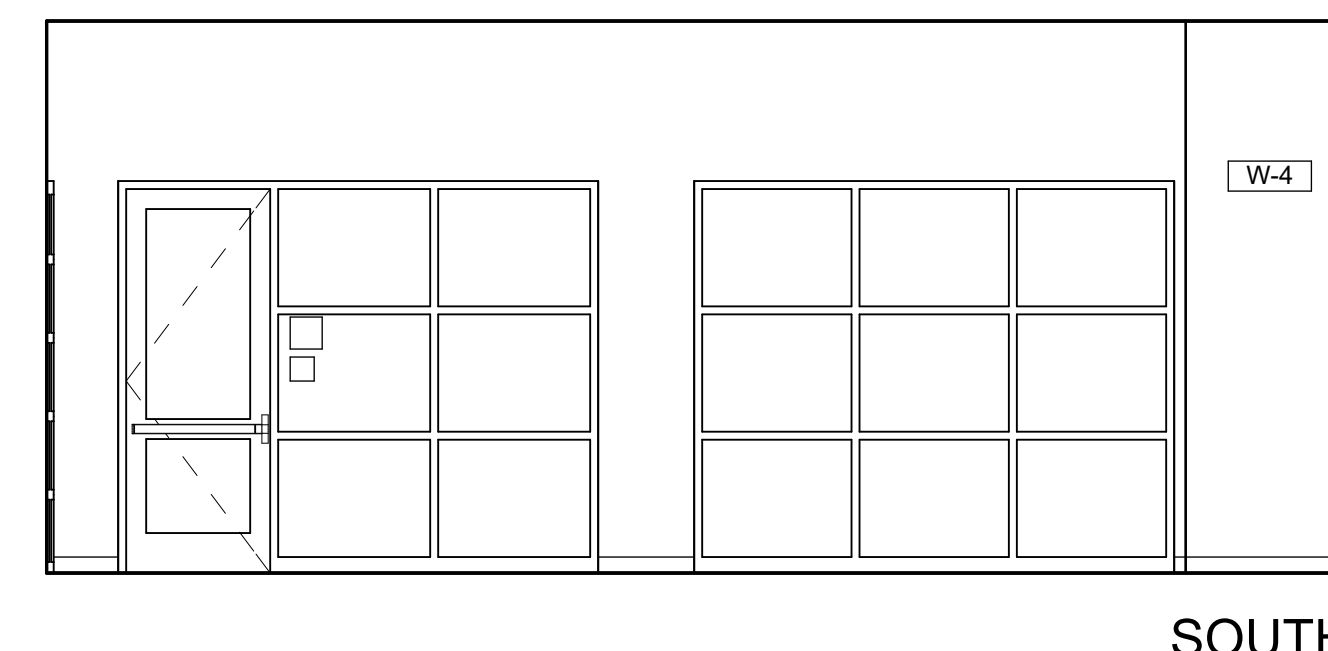
WEST



NORTH



EAST



SOUTH

CLASSROOM **A106**
1/4" = 1'-0" A-2.1

INTERIOR ELEVATION KEYNOTES

NOT ALL KEYNOTES MAY APPLY TO THIS SHEET

- 1 STRUCTURAL ITEM, S.S.D.
- 2 MECHANICAL ITEM, S.M.D.
- 3 PLUMBING FIXTURE, S.P.D.
- 4 ELECTRICAL ITEM, S.E.D.
- 5 KITCHEN EQUIPMENT, S.K.D.
- 6 ROOF ACCESS LADDER, SEE FLOOR PLAN
- 7 FIRE EXTINGUISHER CABINET, SEMI-RECESSED
- 8 SECTIONAL DOORS (MOTORIZED), S.E.D. AND DOOR SCHEDULE
- 9 MARKERBOARD, SEE $\frac{4}{A-10.2}$
- 10 SIGNAGE, S.A.G.D.
- 11 TEACHING WALL CASEWORK, SEE $\frac{8}{A-10.2}/\frac{10}{A-10.2}$
- 12 PROJECTOR SCREEN, SEE $\frac{3}{A-10.2}$
- 13 CANTILEVER CAMERA MOUNT (CAMERA N.I.C.), FASTEN TO SS CLADDING/CHASE W/ (4) #8 SMS MINIMUM (PREDRILL AS REQD), STUB OPENING THRU CLADDING FOR FUTURE DATA (S.E.D.) & CAP OFF / PROTECT CABLES FOR FUTURE USE
- 14 THROUGH-WALL LIMITED ACCESS PANEL
- 15 SS SILL COVER BY KITCHEN EQPT FABRICATOR, WRAP O/ SILL & DN 2", SEALANT AT ALL SEAMS & FINISH TRANSITIONS, S.K.D.
- 16 CASEWORK, SEE $\frac{8}{A-10.2}$
- 17 FLAT SCREEN, S.E.D. AND RCP

INTERIOR ELEVATION GENERAL NOTES

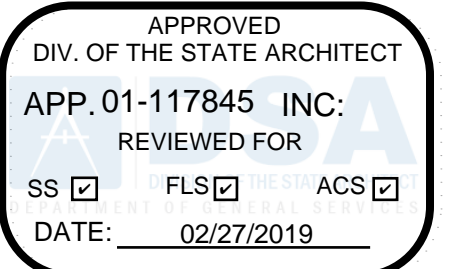
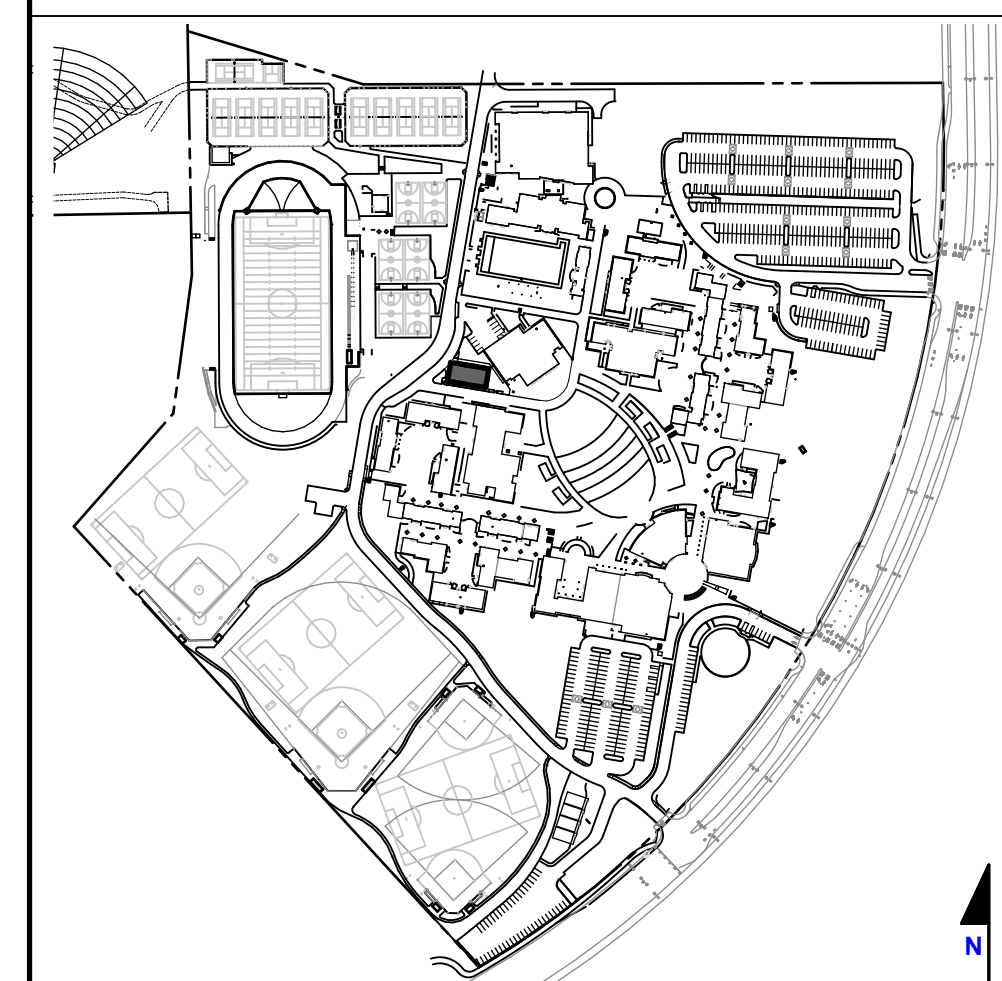
- 1. NOTES AND SYMBOLS ARE TO APPLY AT ALL AREAS OF SIMILAR GRAPHIC REPRESENTATION. SUCH INDICATIONS MAY BE LIMITED TO PROMOTE CLARITY OR AVOID REDUNDANCY. NO LIMITATION OF APPLICATION SHALL BE CONSTRUED WITHOUT SPECIFIC NOTATION. REFER TO MECHANICAL DRAWINGS FOR REGISTERS AND VENTS NOT OTHERWISE SHOWN.
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- 3. TYPICAL MOUNTING HEIGHTS OF ACCESSIBLE ELEMENTS AT ACCESSIBLE FIXTURES SEE $\frac{1}{A-10.2}$
- 4. PROVIDE SOLID BLOCKING FOR CABINET, ACCESSORY, OR EQUIPMENT MOUNTING $\frac{2}{A-10.2}$

WALL AND BASE FINISH CODES

FOR PAINT FINISHES SEE SEC. 09 9113 (EXTERIOR) & 09 9123 (INTERIOR). ALL GYP BD TO BE TYPE 'X'.

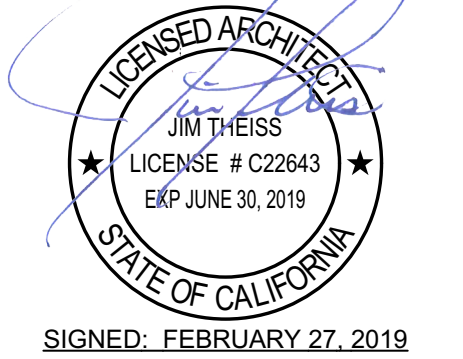
- | | | |
|--|-----------------------|--------------------|
| W-1 GYP BD | B-1 4" RESILIENT BASE | $\frac{23}{A-9.1}$ |
| W-2 GYP BD - MOISTURE RESISTANT | B-2 EPOXY COVE | $\frac{20}{A-9.1}$ |
| W-3 3/4" MDO PLYWOOD | BASE | $\frac{24}{A-9.1}$ |
| W-4 VINYL-WRAPPED TACKBOARD | SEALED | $\frac{24}{A-9.1}$ |
| W-5 FRP PANEL O/ MOISTURE RESISTANT GYP BD | CONC CURB | $\frac{24}{A-9.1}$ |
| W-6 SS CLADDING O/ HSS PLUMBING CHASE | | $\frac{18}{A-9.1}$ |
| W-7 SS CLADDING BY K.E. O/ MOISTURE RESISTANT GYP BD | | $\frac{19}{A-9.1}$ |

KEYPLAN



APPROVED
DIV. OF THE STATE ARCHITECT
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DATE: 02/27/2019

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SIGNED: FEBRUARY 27, 2019

HERITAGE HIGH SCHOOL
CULINARY ARTS BUILDING

101 American Ave
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LIBERTY UNION HIGH SCHOOL DISTRICT

ARCH PROJECT NO: 1750.00
DRAWN BY:
DRAWING SCALE: 1/4" = 1'-0"
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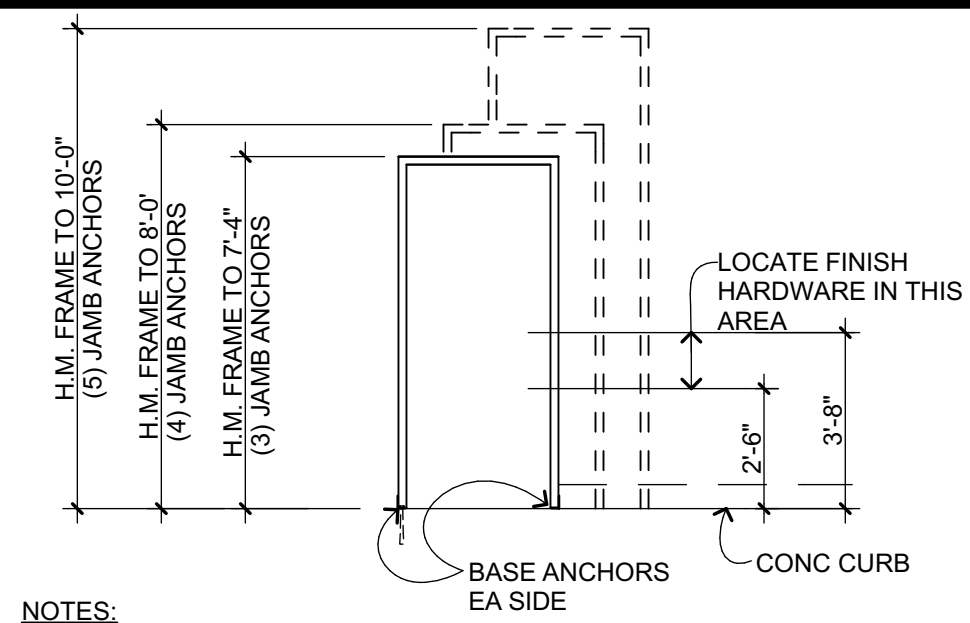
CD
FEBRUARY 27, 2019
SHEET TITLE

INTERIOR ELEVATIONS

SHEET NUMBER
A-7.2

DOOR SCHEDULE SEE DOOR FRAME TYPES FOR DETAILS, TYP U.O.N.

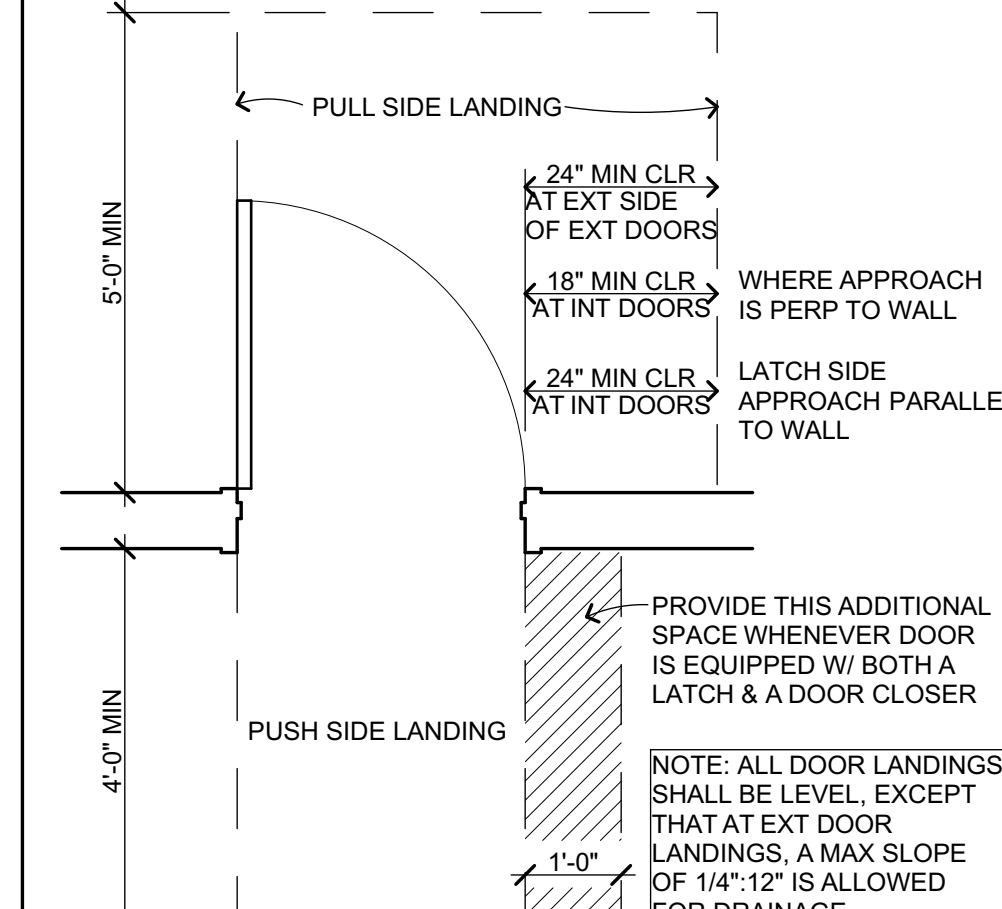
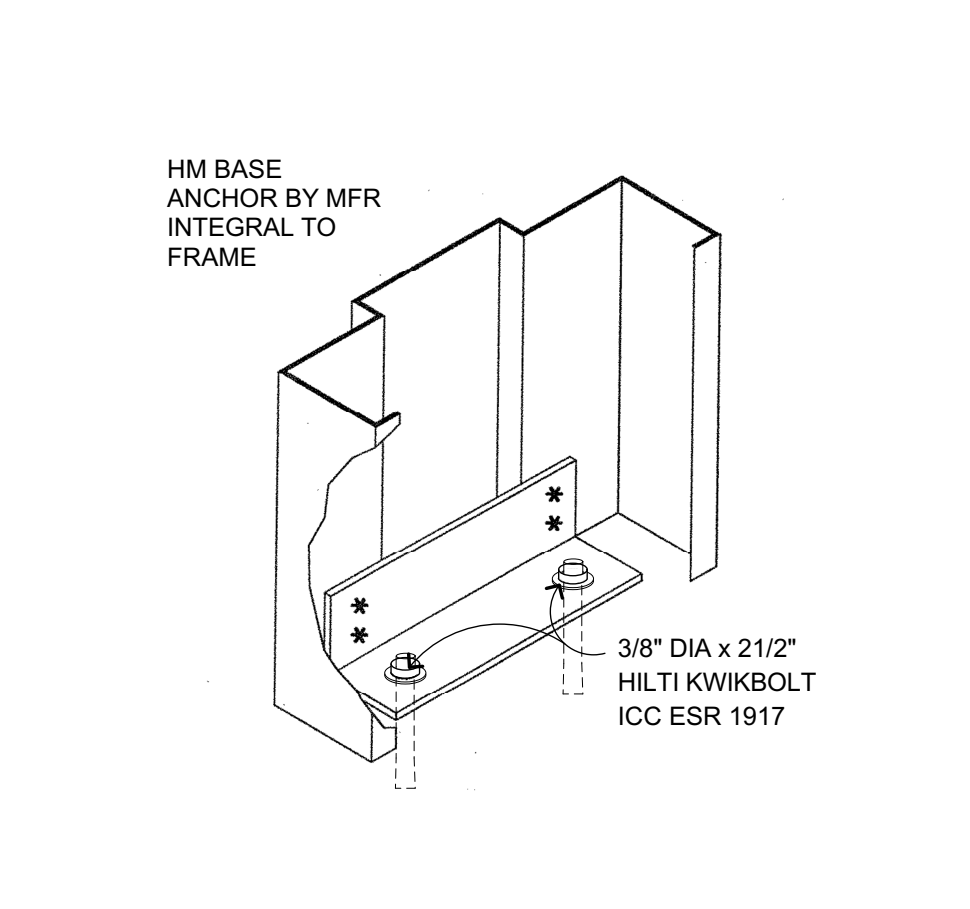
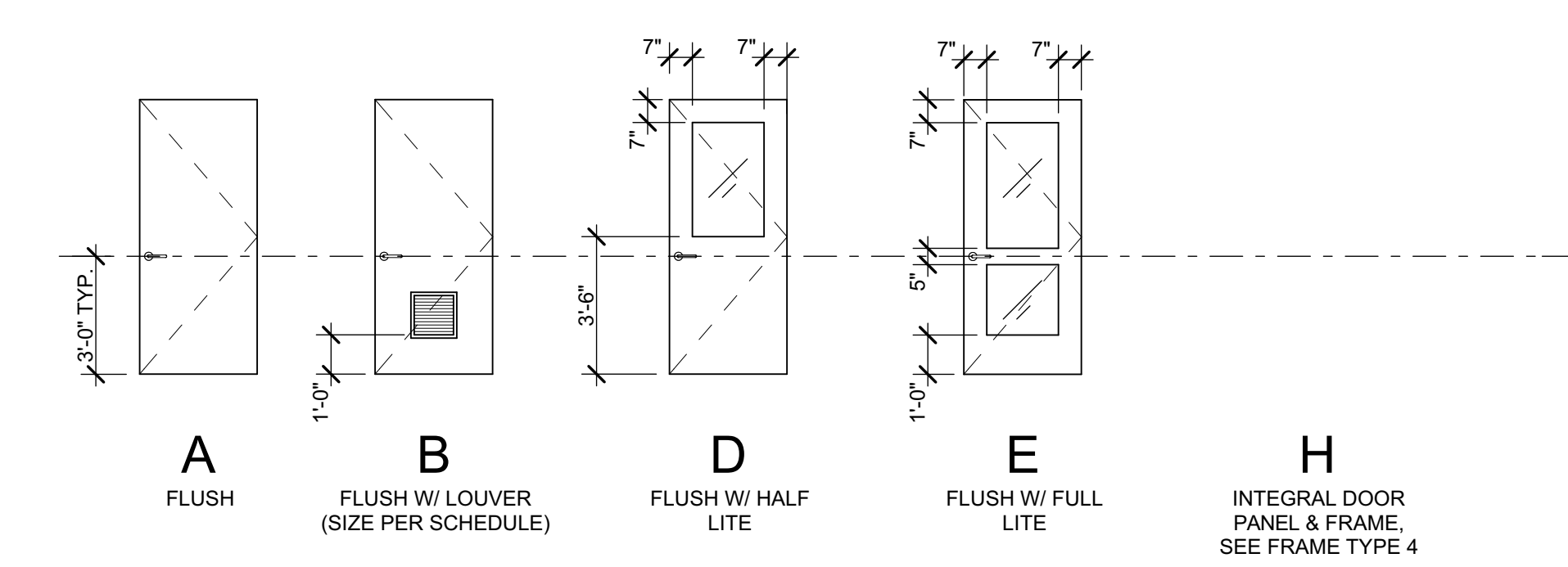
ID	TYPE	DOOR			FRAME			LOUVER SIZE	LABEL	HDWR	P. H.	REMARKS
		SIZE	MAT	FIN	TYPE	MAT	FIN					
A101A	A	PR - 3'-0" x 8'-0"	H.M.	PAINT	2	H.M.	PAINT		-	1		
A101B	C	3'-0" x 7'-0"	H.M.	PAINT	1	H.M.	PAINT		-	6		
A104A	B	3'-0" x 7'-0"	H.M.	PAINT	1	H.M.	PAINT	2'-0" x 1'-0"	-	6		
A105A	D	4'-0" x 8'-0"	H.M.	PAINT	1	H.M.	PAINT		-	2	PH	
A105B	D	3'-0" x 8'-0"	H.M.	PAINT	1	H.M.	PAINT		-	2	PH	
A105C	D	3'-0" x 7'-0"	H.M.	PAINT	1	H.M.	PAINT		-	5	PH	
A105D	D	3'-0" x 7'-0"	H.M.	PAINT	1	H.M.	PAINT		-	5	PH	
A106A	E	3'-0" x 8'-0"	ALUM	FAC FIN	3	ALUM	FAC FIN		-	3	PH	
A106B	E	3'-0" x 8'-0"	ALUM	FAC FIN	3	ALUM	FAC FIN		-	3	PH	
A106C	H	10'-0" x 8'-2"	ALUM	FAC FIN	4	H.M.	PAINT		-	-		TYPE 1 MOTORIZED
A106D	H	10'-0" x 8'-2"	ALUM	FAC FIN	4	H.M.	PAINT		-	-		TYPE 1 MOTORIZED
A107A	A	2'-0" x 7'-0"	H.M.	PAINT	1	H.M.	PAINT		-	4		



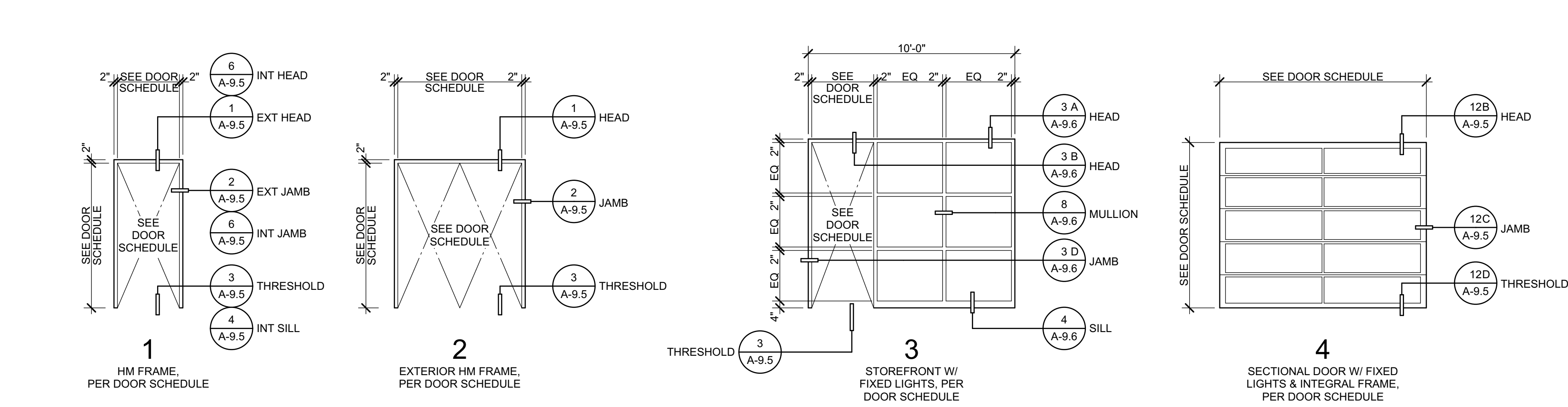
- DOOR GENERAL NOTES**
1/4" = 1'-0" Z101005 1
- ALL EXIT DOORS IN SCHOOL BUILDINGS, INCLUDING BUT NOT LIMITED TO DOORS OF TOILET ROOMS AND STORAGE ROOMS SHALL CONFORM TO CBC 1010. EXIT DOORS SHALL BE OPERABLE FROM THE INSIDE WITHOUT THE USE OF A KEY, OR SPECIAL KNOWLEDGE OR EFFORT.
 - EXIT DEVICES (PANIC HARDWARE) SHALL BE INSTALLED IN CONFORMANCE WITH CBC 1010.1.10. THE ACTIVATING MEMBER SHALL BE CENTERED AT A HEIGHT OF NOT LESS THAN 34 INCHES OR MORE THAN 44 INCHES ABOVE THE FLOOR.
 - PANIC HARDWARE IS REQUIRED FROM ROOMS AND CORRIDORS OF E OCCUPANCY WHERE OCCUPANT LOAD EXCEEDS, 50 PER CBC 1010.1.10
 - DOORS WITH CLOSERS SHALL BE ADJUSTED TO PROVIDE MINIMUM DOOR CLOSER PERIOD OF FIVE SECONDS FROM A POSITION OF 90 DEGREES TO WITHIN 12 DEGREES OF THE DOOR LATCH, MEASURED FROM THE LEADING EDGE OF THE DOOR.
 - MAXIMUM EFFORT TO OPERATE DOORS SHALL NOT EXCEED 5 POUNDS APPLIED IN THE DIRECTION OF TRAVEL. REQUIRED FIRE DOORS SHALL HAVE A MAXIMUM OPERATING EFFORT NOT TO EXCEED 15 POUNDS.
 - SEE ARCHITECTURAL SIGNAGE DRAWINGS FOR SIGNS ON DOORS AND SIGNS RELATED TO ENTRANCE AND EXIT. REFER TO SITE PLAN FOR SITE SIGNAGE.

DOOR PANEL TYPES

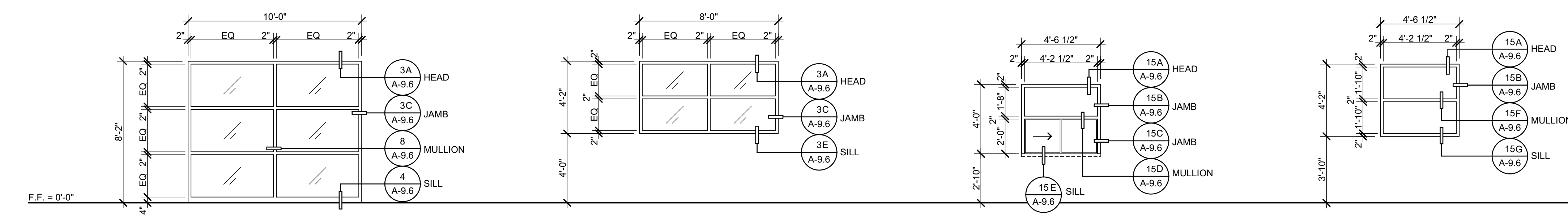
GENERAL NOTE: SEE ALSO 1 A-8.1, 2 A-8.1 AS OCCURS, TYP



DOOR FRAME TYPES



WINDOW TYPES



	W1	W2	W3	W4
TYPE	ALUMINUM STOREFRONT SYSTEM WINDOW	ALUMINUM STOREFRONT SYSTEM WINDOW	ALUMINUM STOREFRONT SYSTEM WINDOW	ALUMINUM STOREFRONT SYSTEM WINDOW
GLAZING	INSULATED GLASS	INSULATED GLASS	INSULATED GLASS	INSULATED GLASS
OPERATION	FIXED	FIXED	FIXED ABOVE, OPERABLE BELOW	FIXED
RATING	-	-	-	-
NOTES	-	-	SVC COUNTER AT SILL. ADJUST SLIDING WDW FOR 5 LBS. MAX FORCE	-

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(707) 576-0929

LICENSED ARCHITECT
JIM THEISS
LICENSE # C22643
EXP. JUNE 30, 2019
SIGNED: FEBRUARY 27, 2019

HERITAGE HIGH SCHOOL

CULINARY ARTS BUILDING

101 American Ave
Brentwood, CA 94513

LIBERTY UNION HIGH SCHOOL DISTRICT

ARCH PROJECT NO: 1750.00
DRAWN BY:
DRAWING SCALE: AS NOTED
PTN: 61721-70

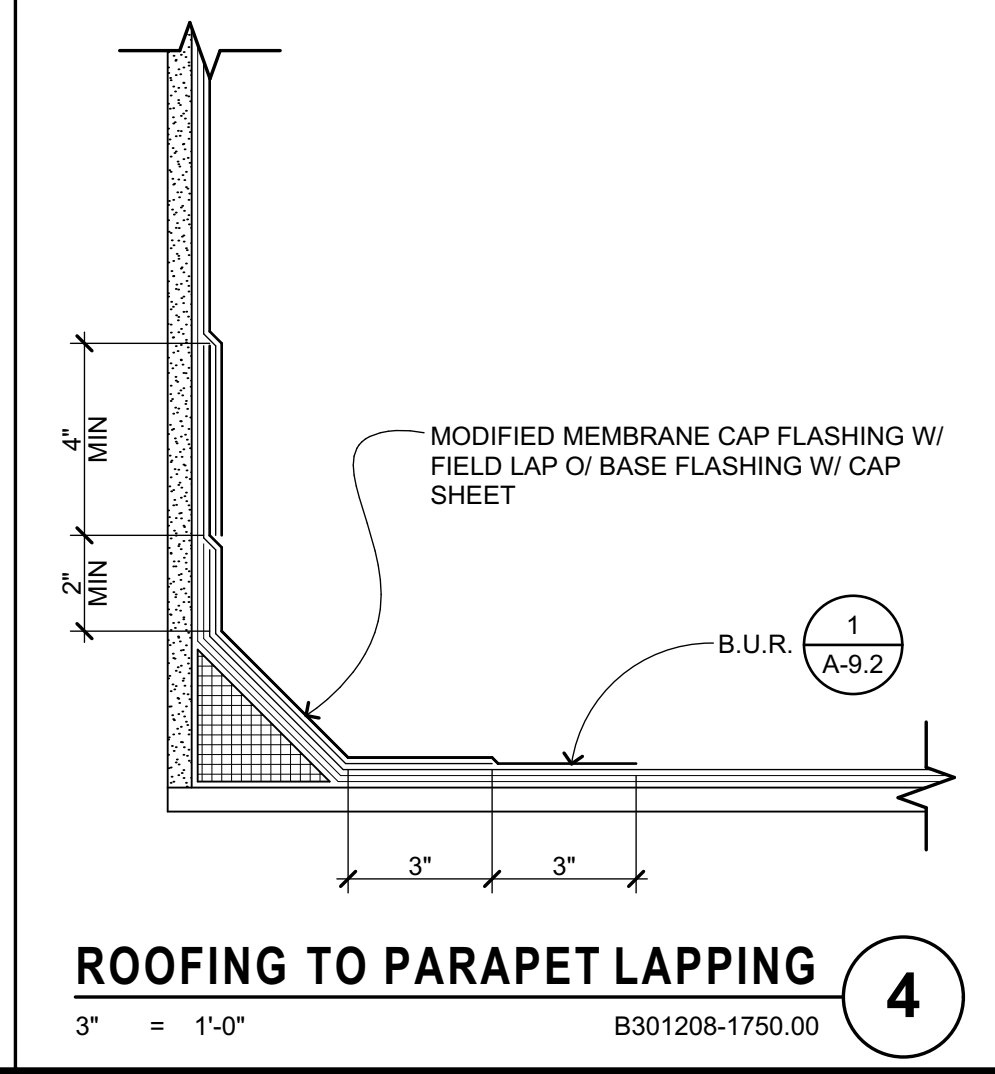
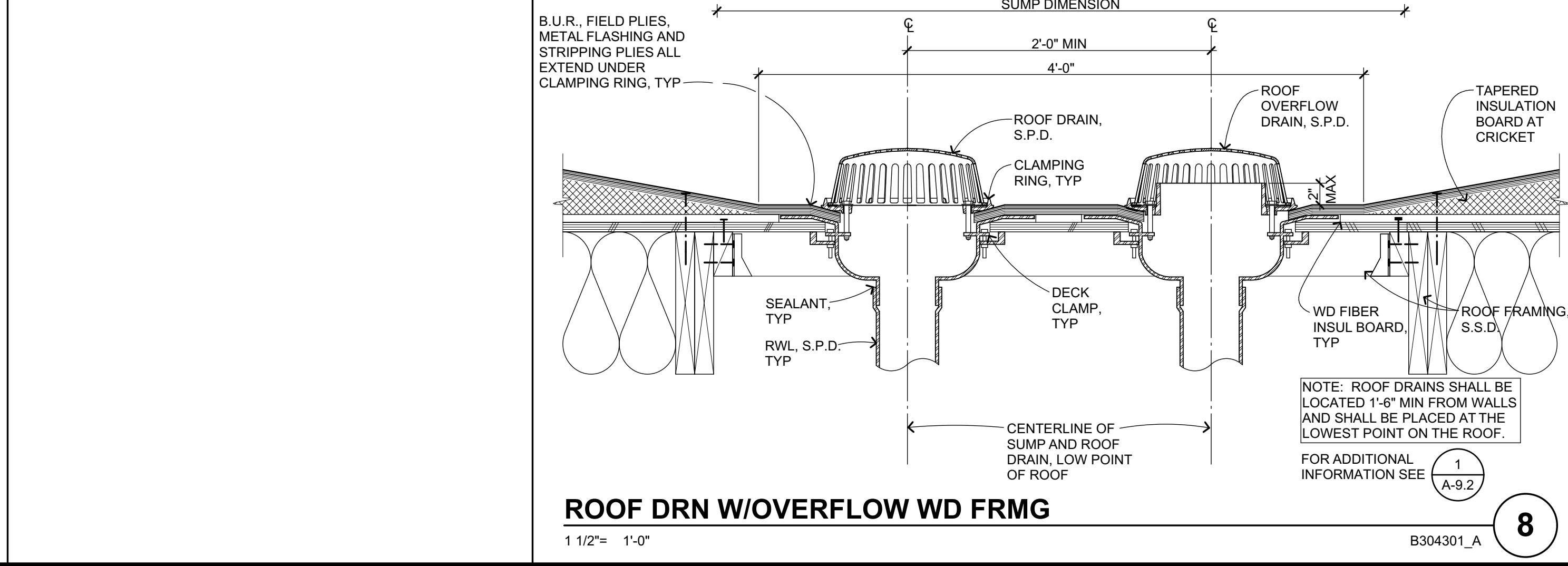
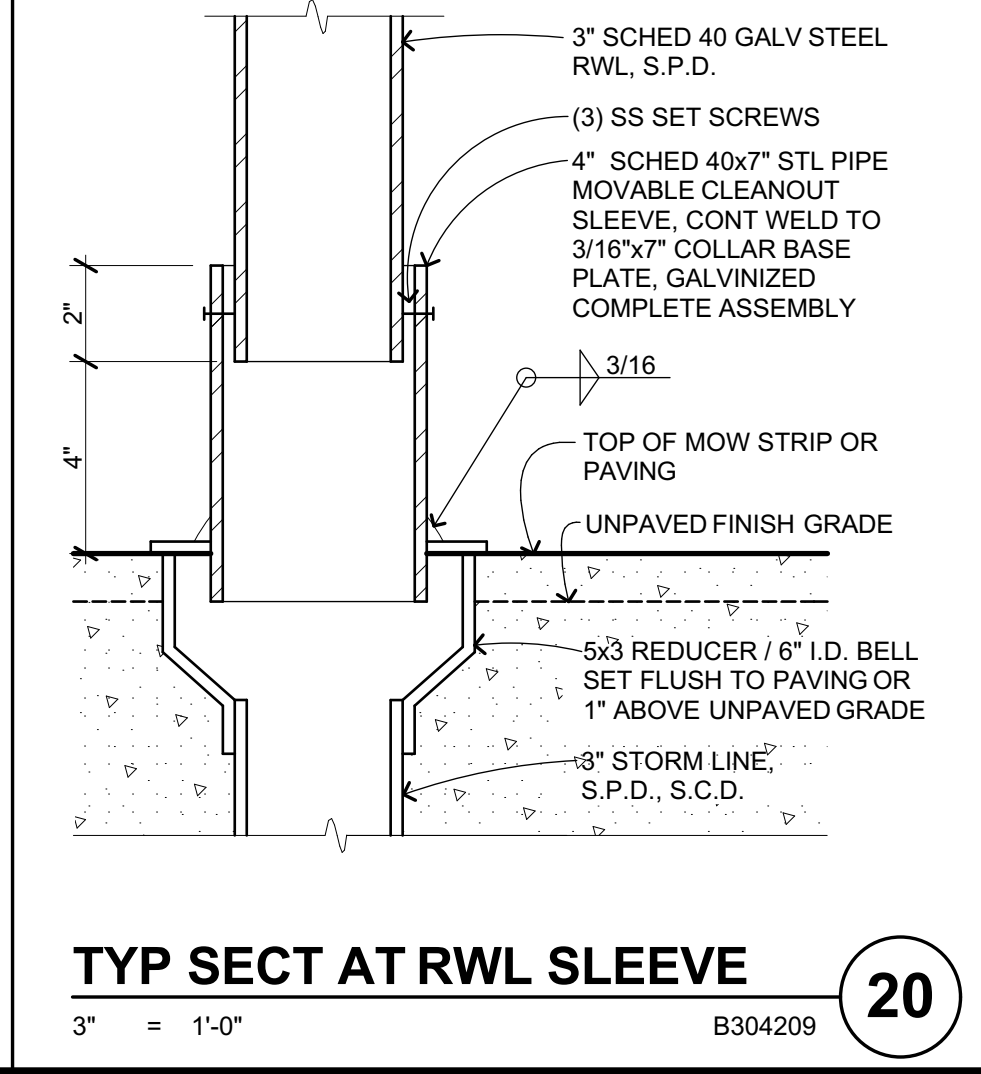
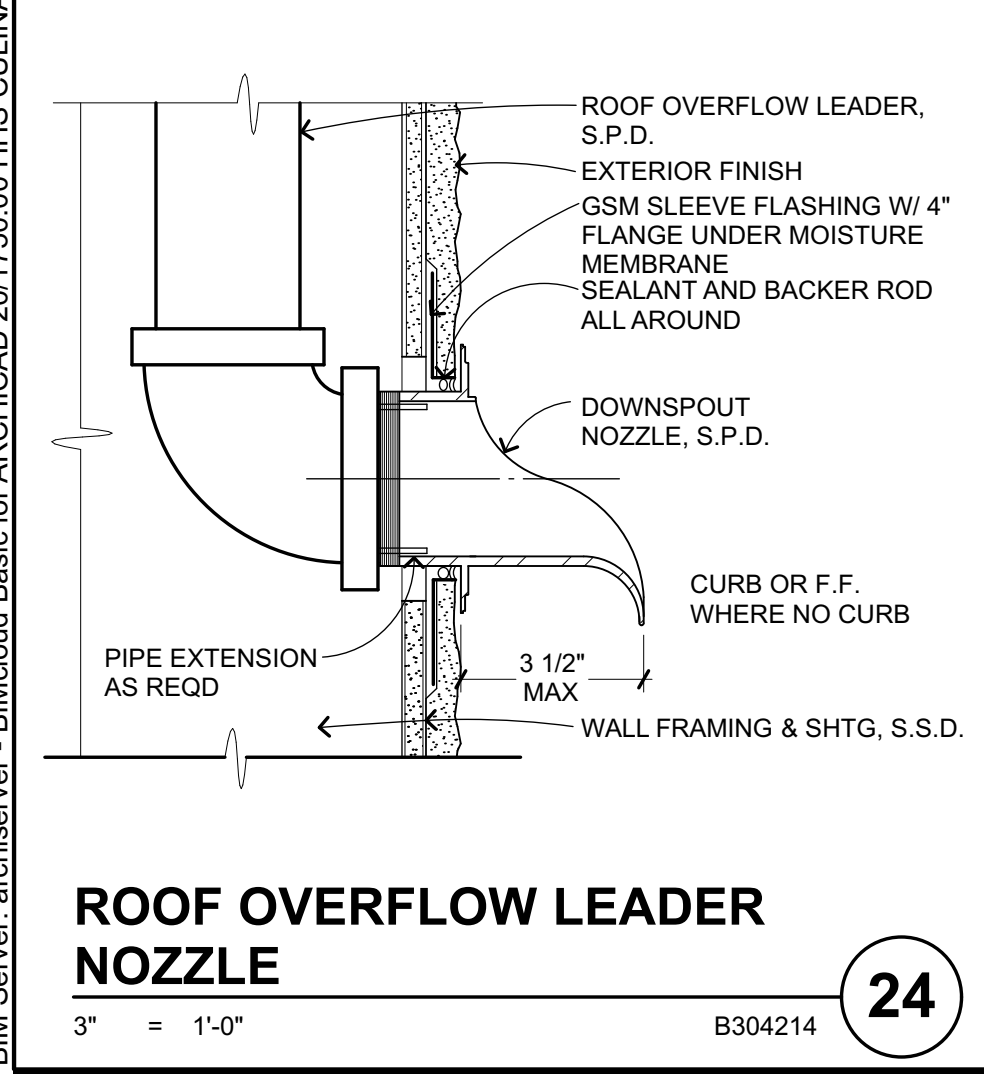
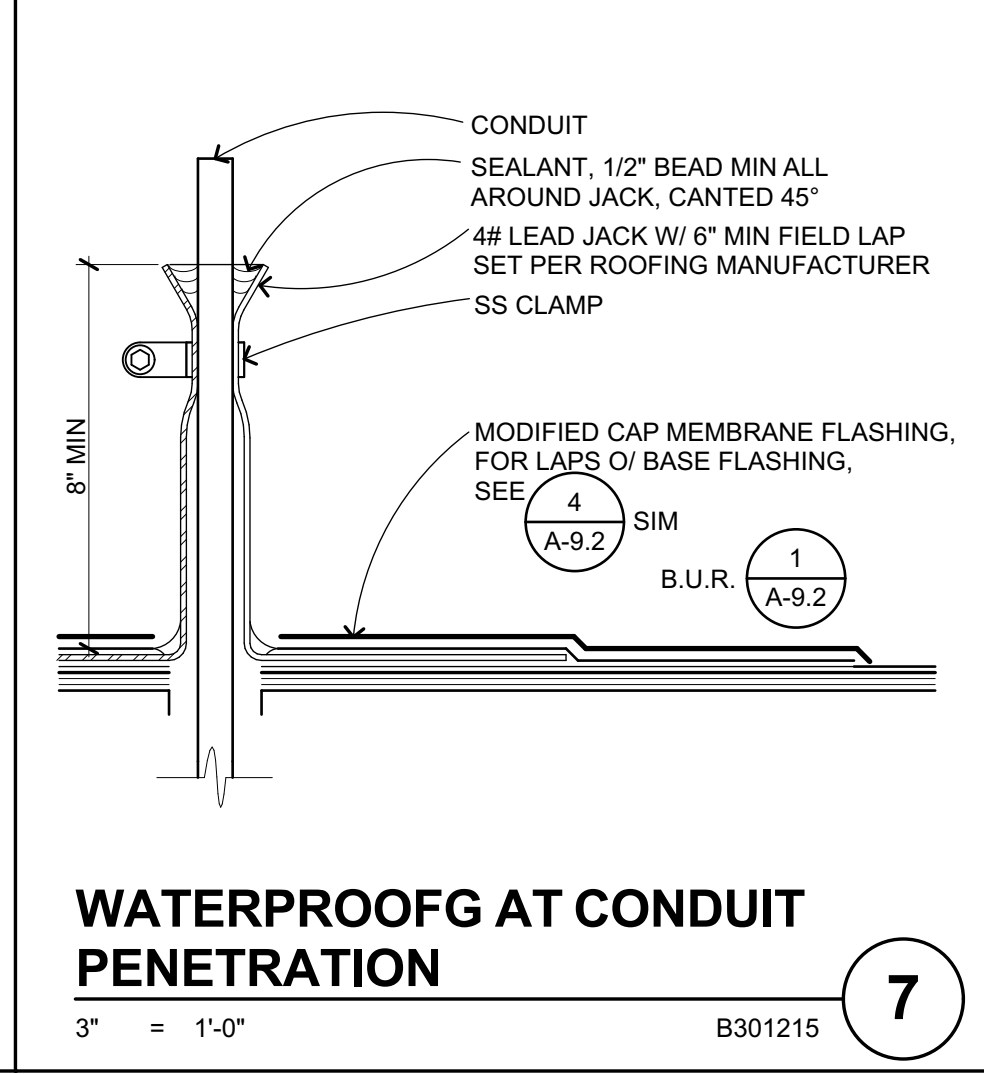
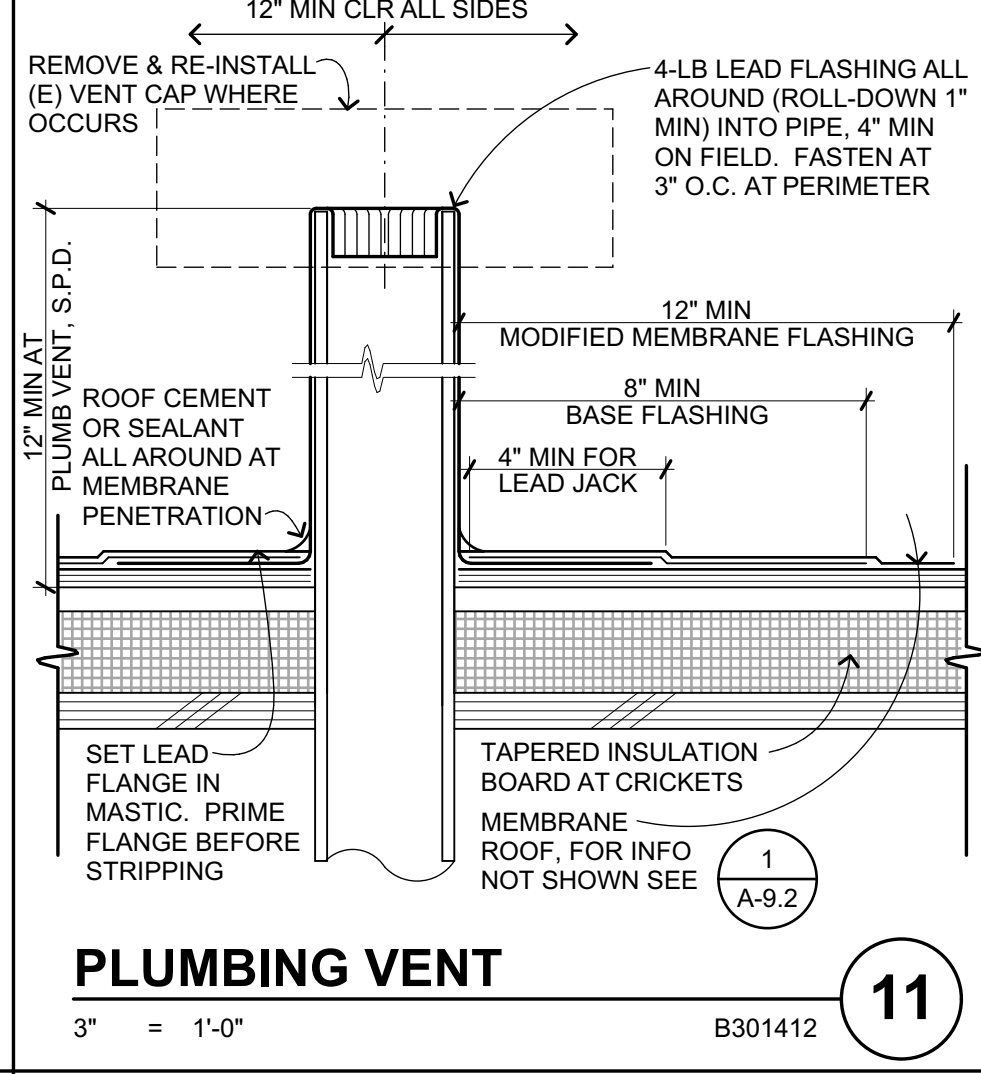
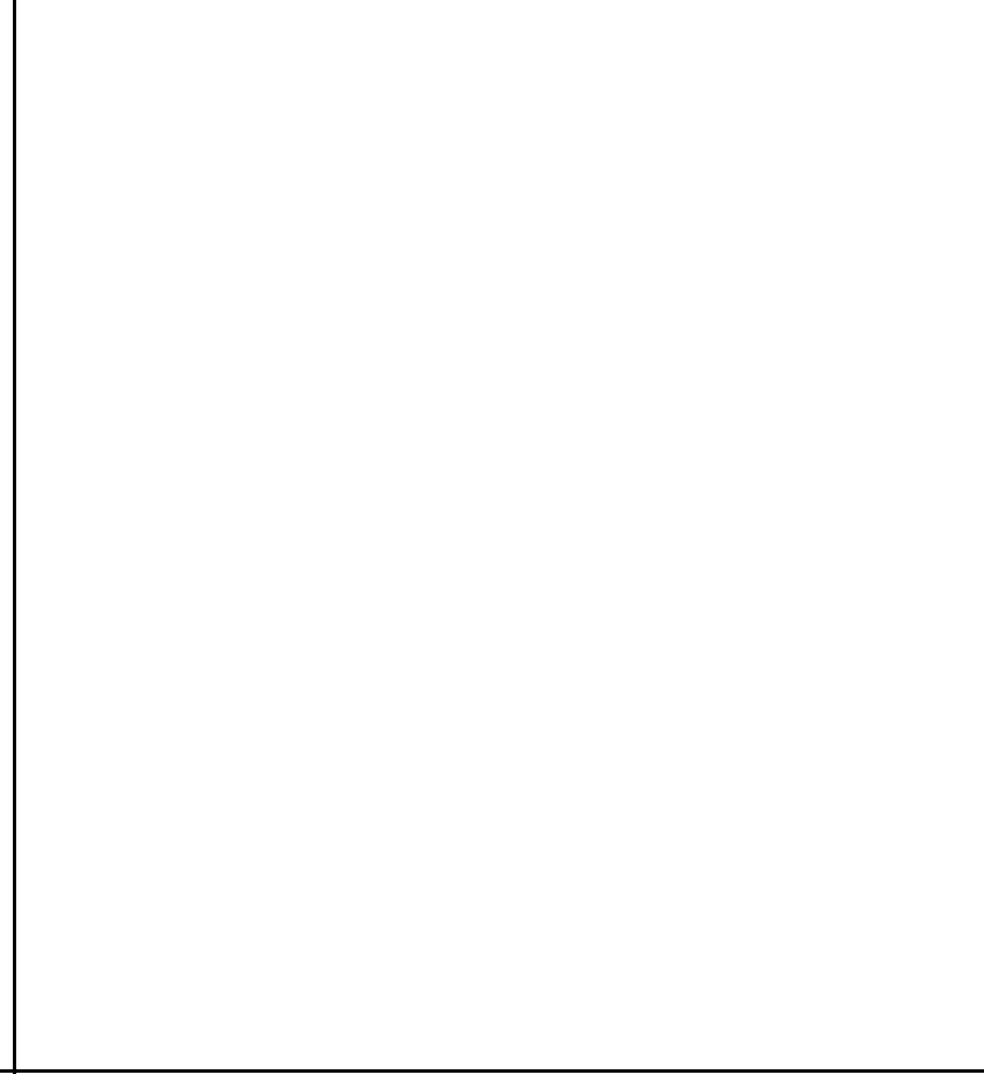
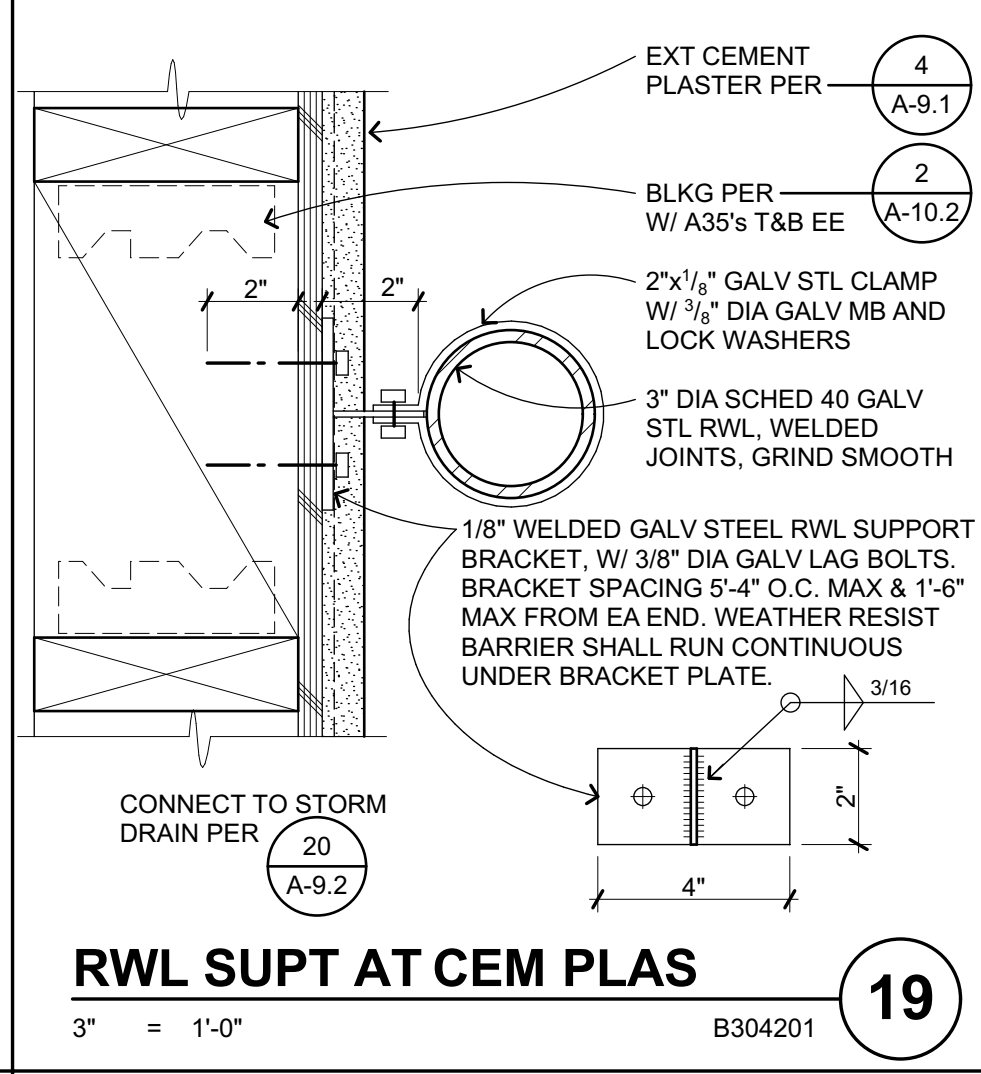
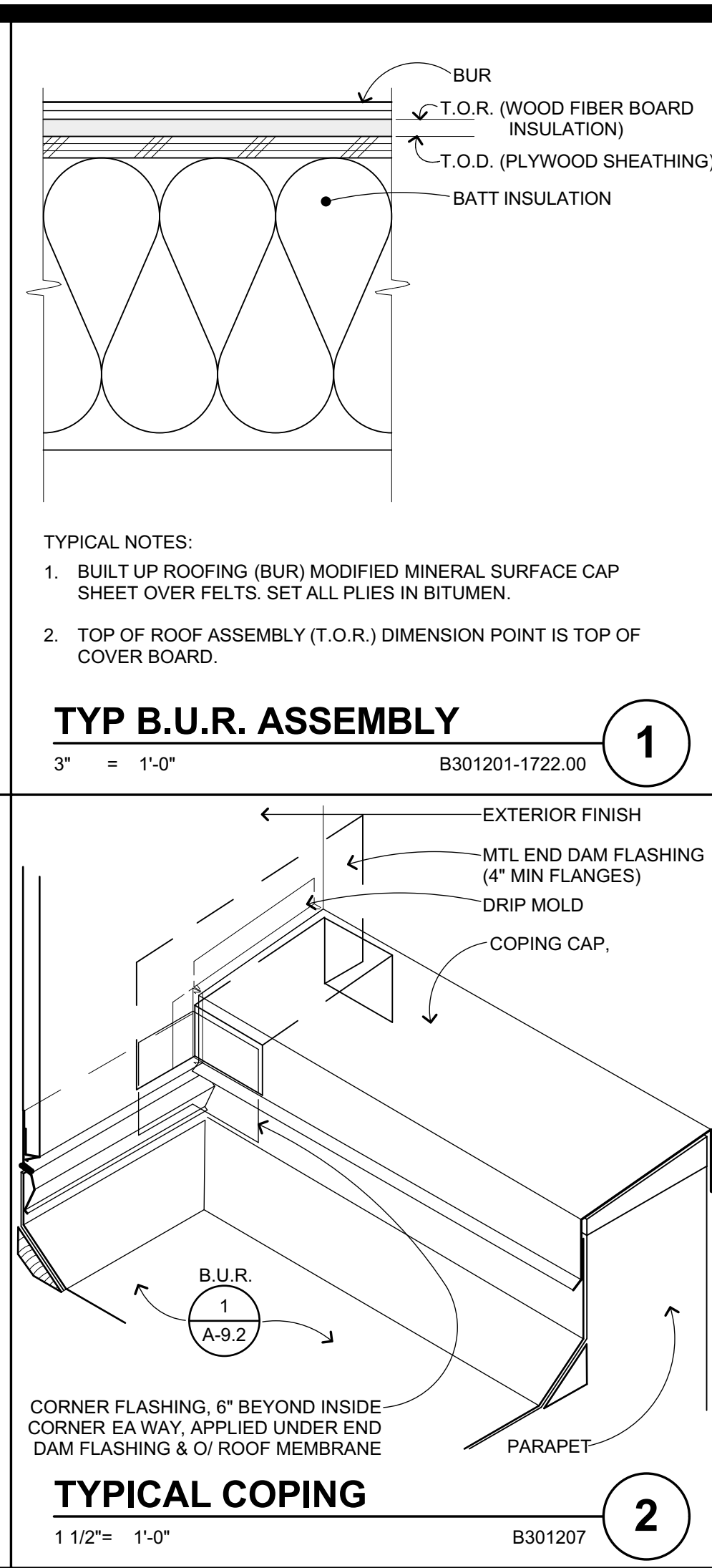
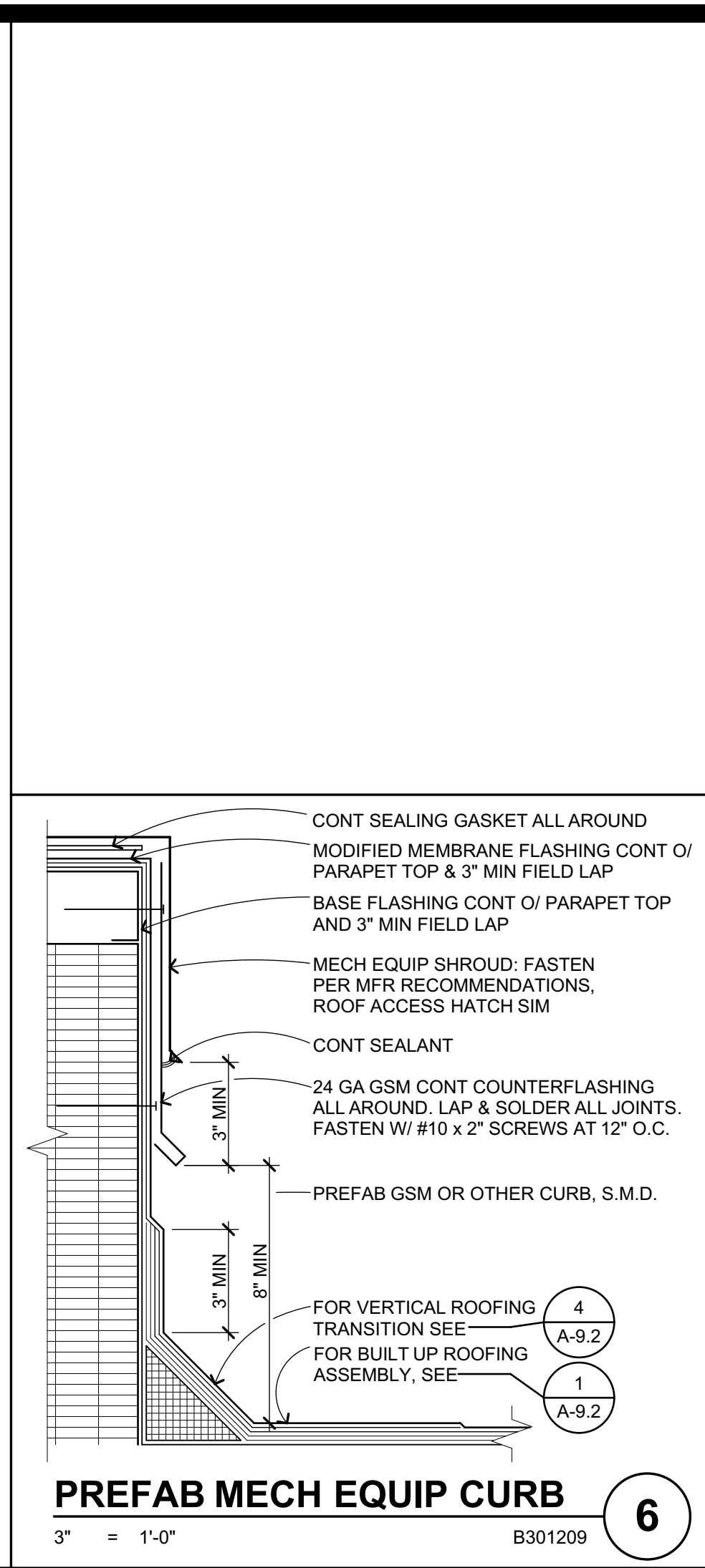
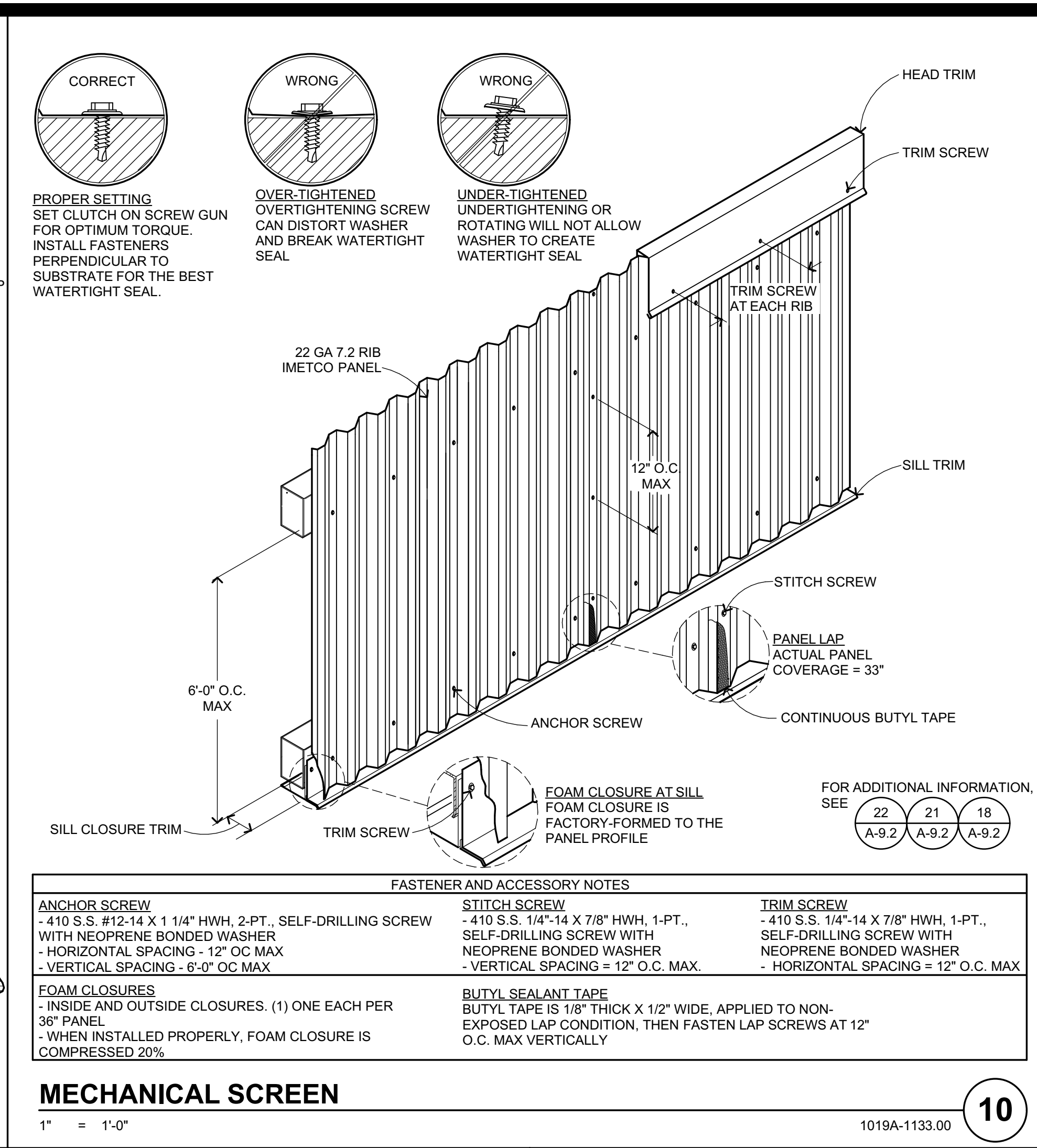
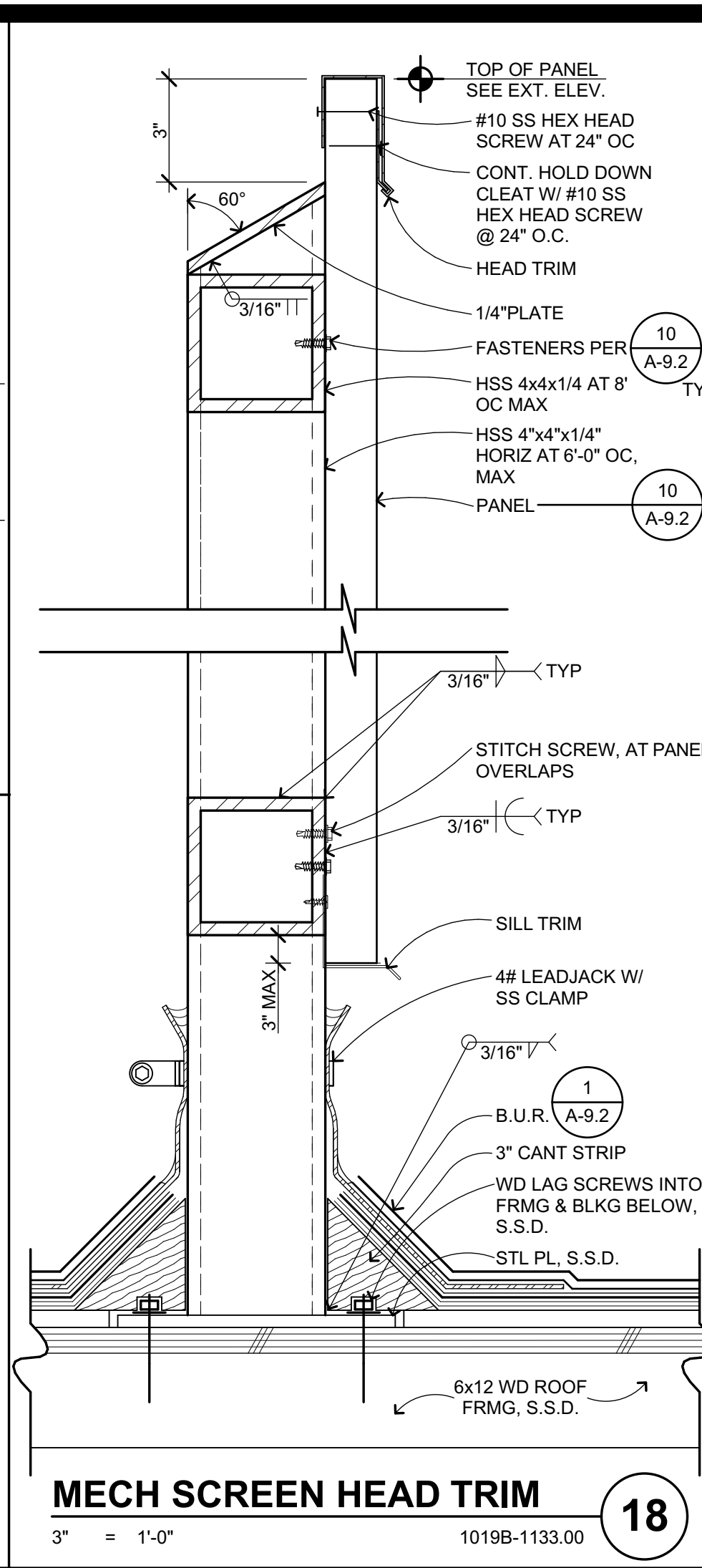
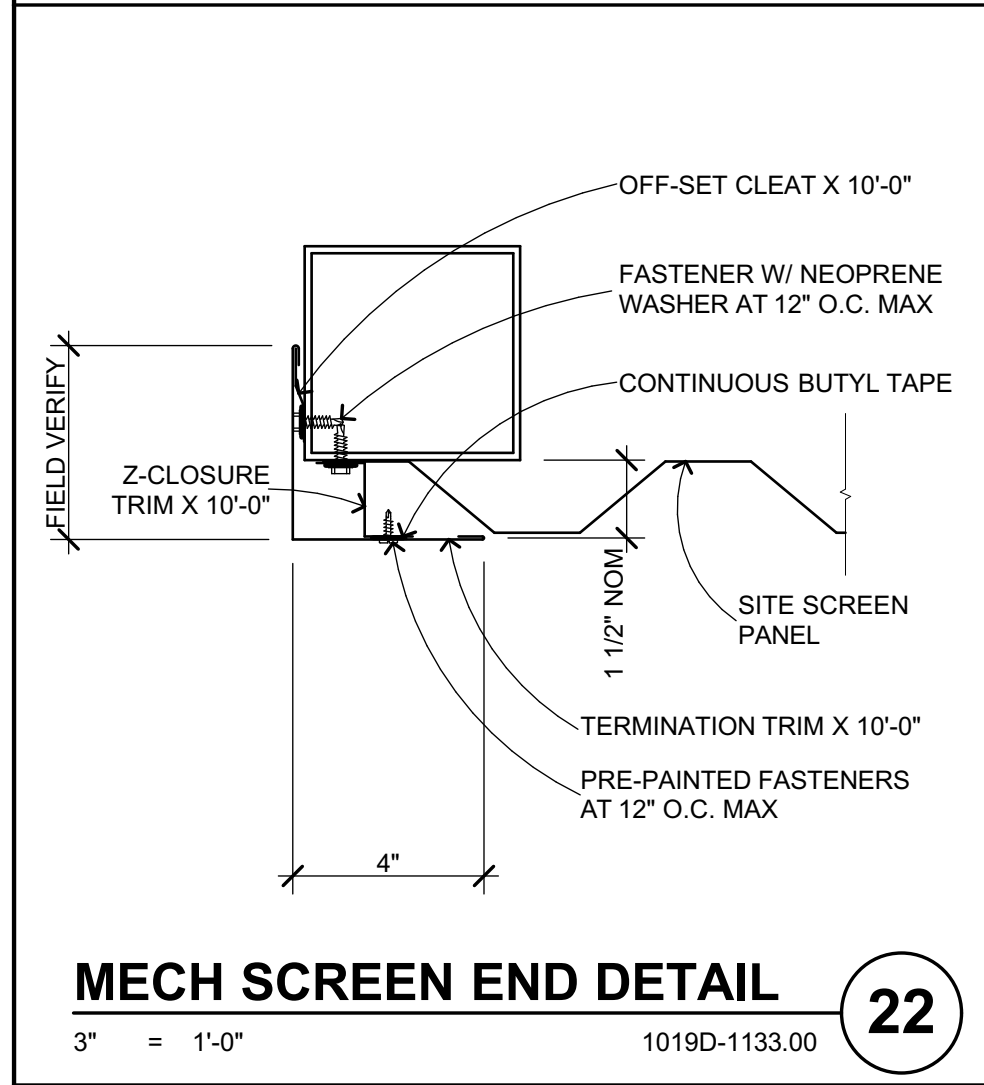
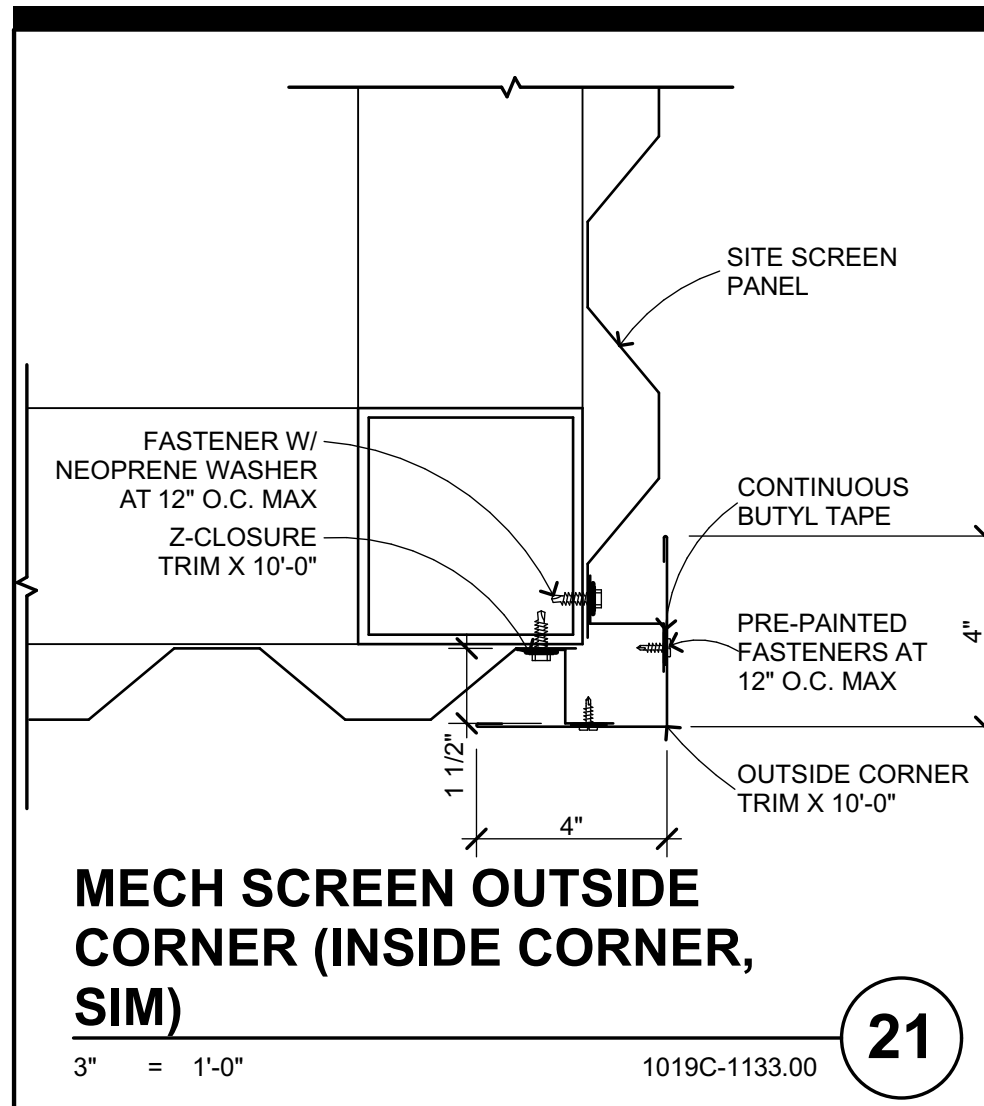
CD
FEBRUARY 27, 2019
SHEET TITLE

DOOR & WINDOW SCHEDULE

SHEET NUMBER

A-8.1

BIM Server: archiserver - BIMcloud Basic for ARCHICAD 20/1750.00.HHS.CULINARY ARTS/2/25/2019.3:12 PM



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 DRAWING SCALE: AS NOTED
 PTN: 61721-70

CD
 FEBRUARY 27, 2019
 SHEET TITLE

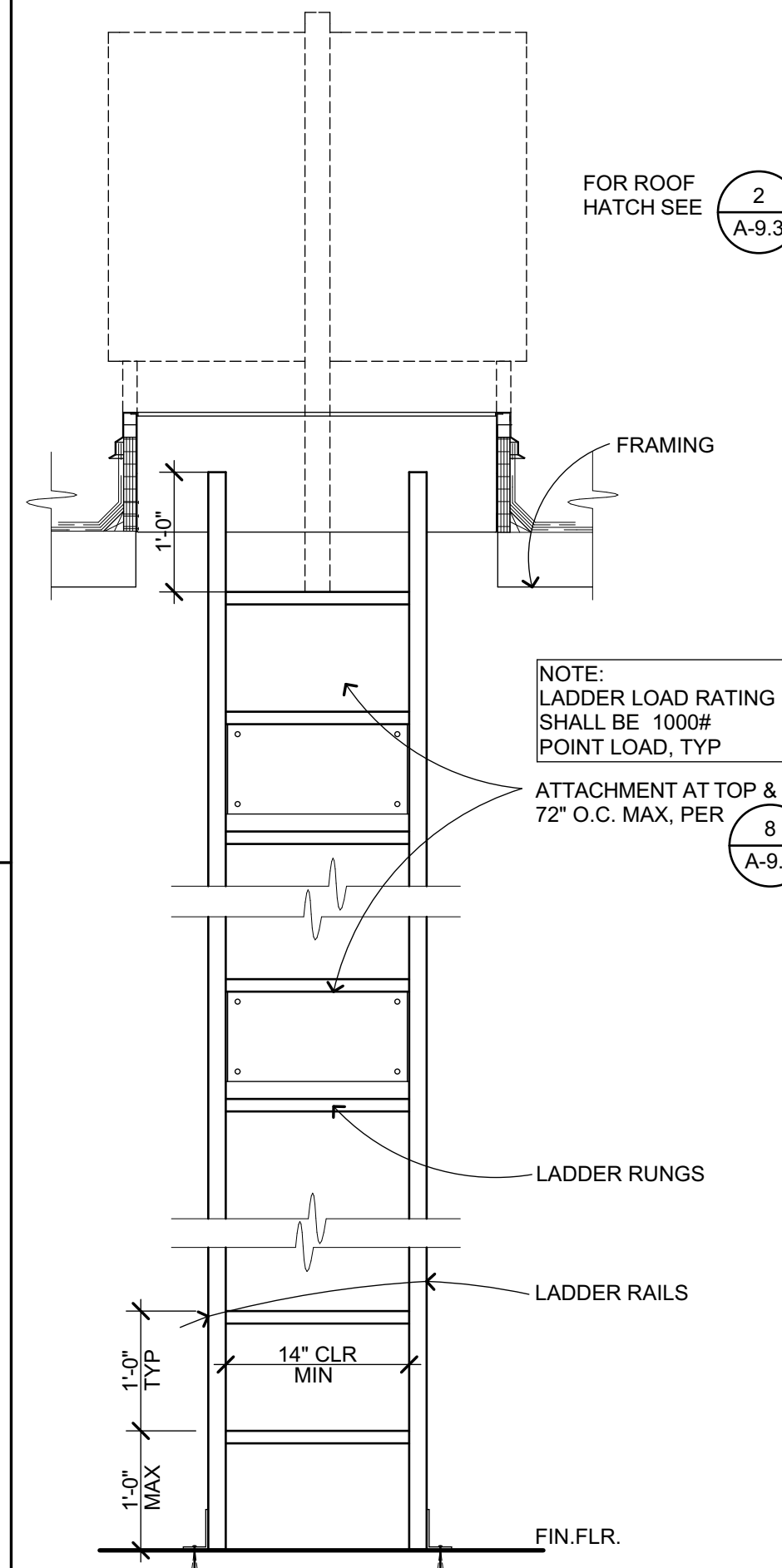
ROOF DETAILS

SHEET NUMBER

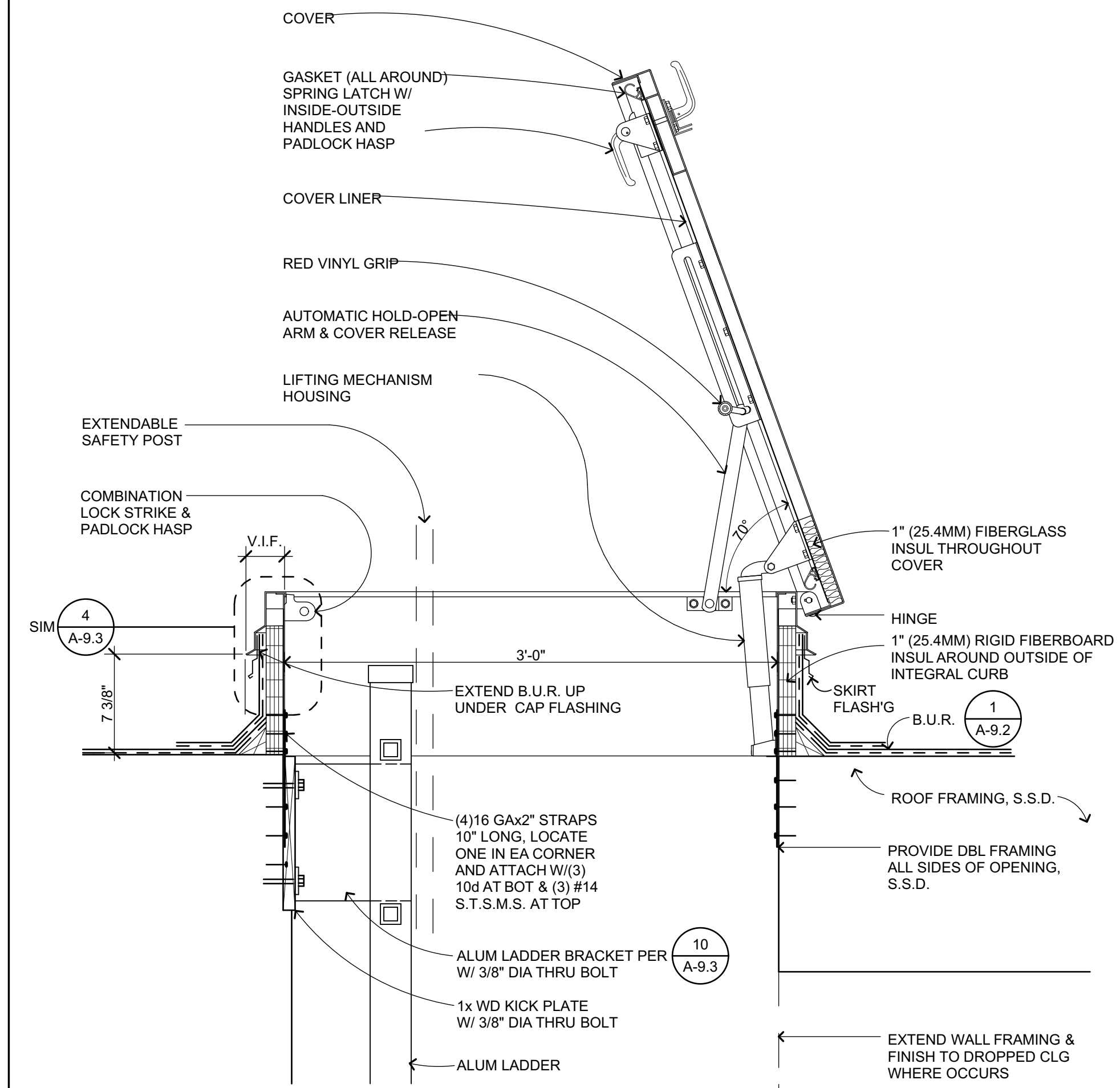
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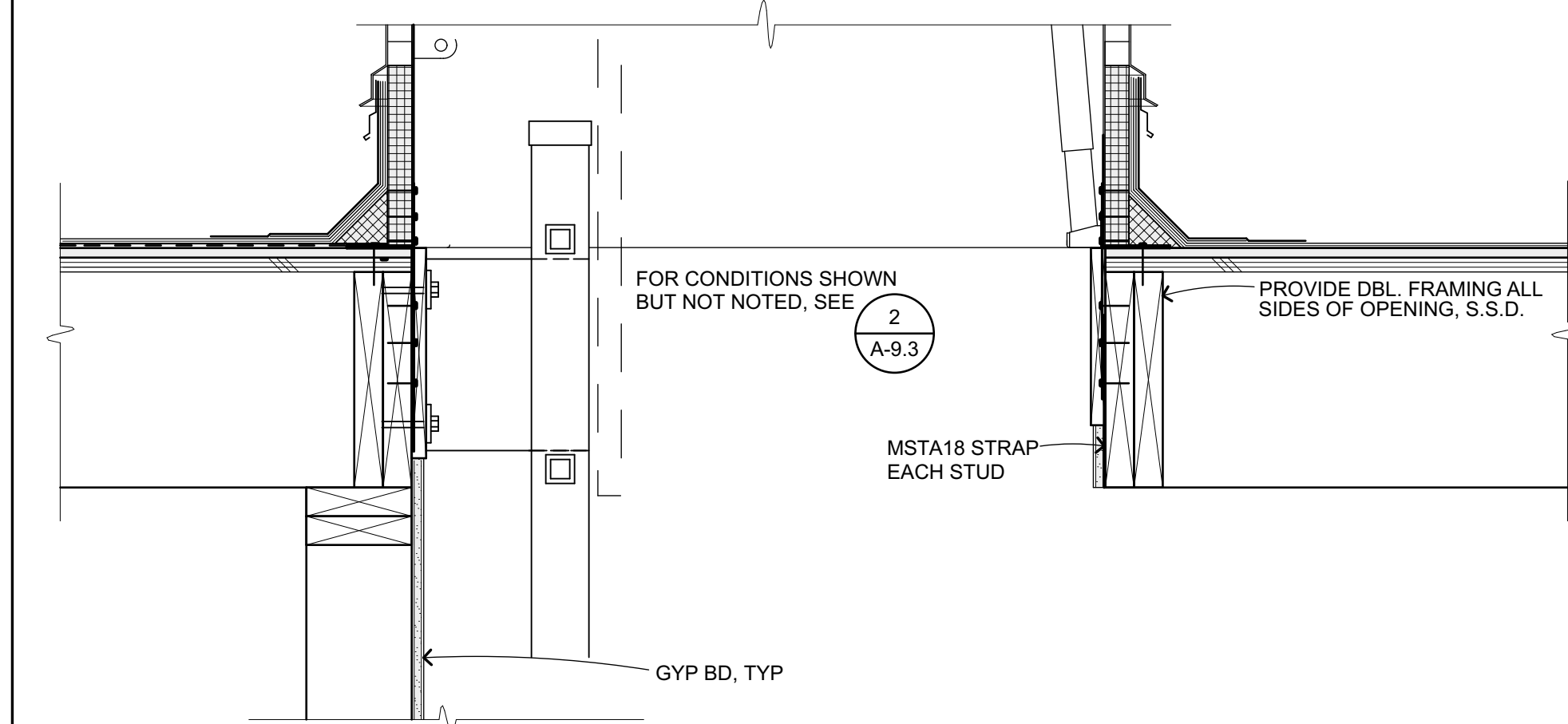
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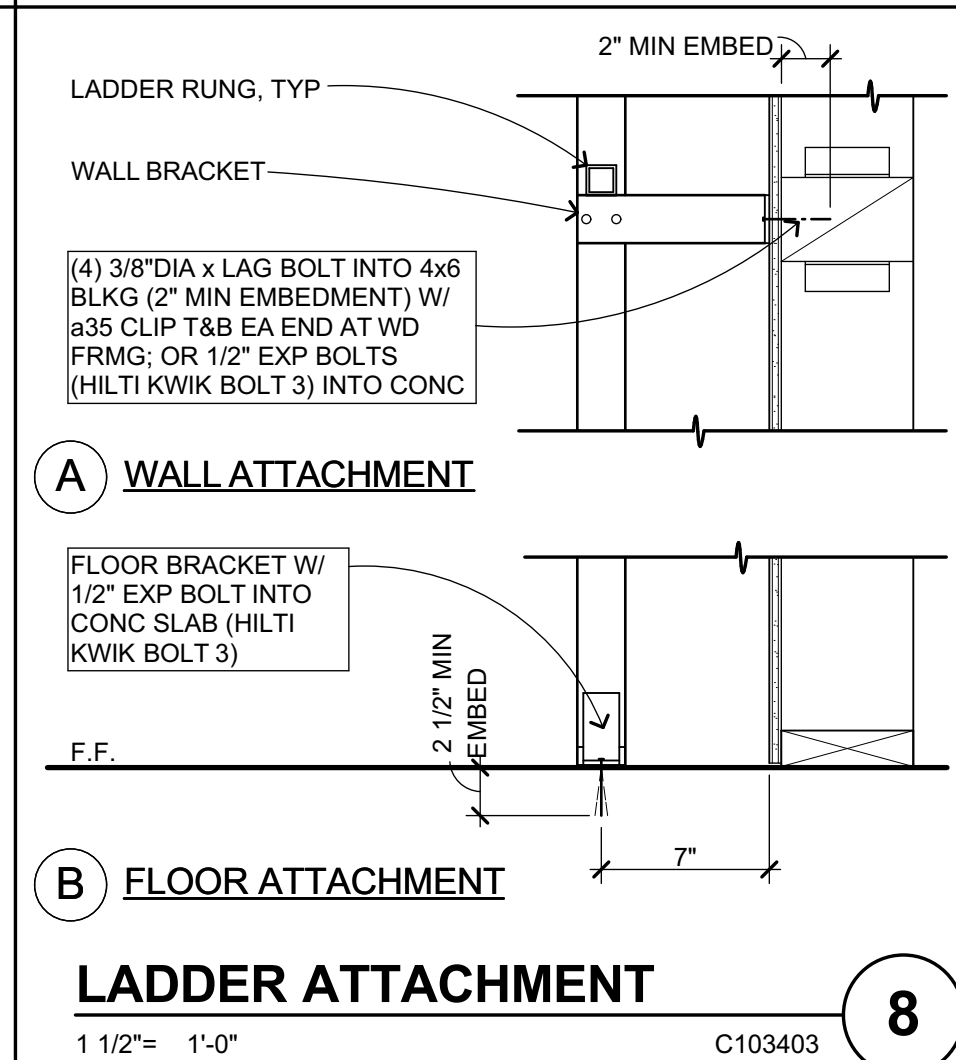
WALL MTD ACCESS LADDER 10
3/4" = 1'-0" C103401



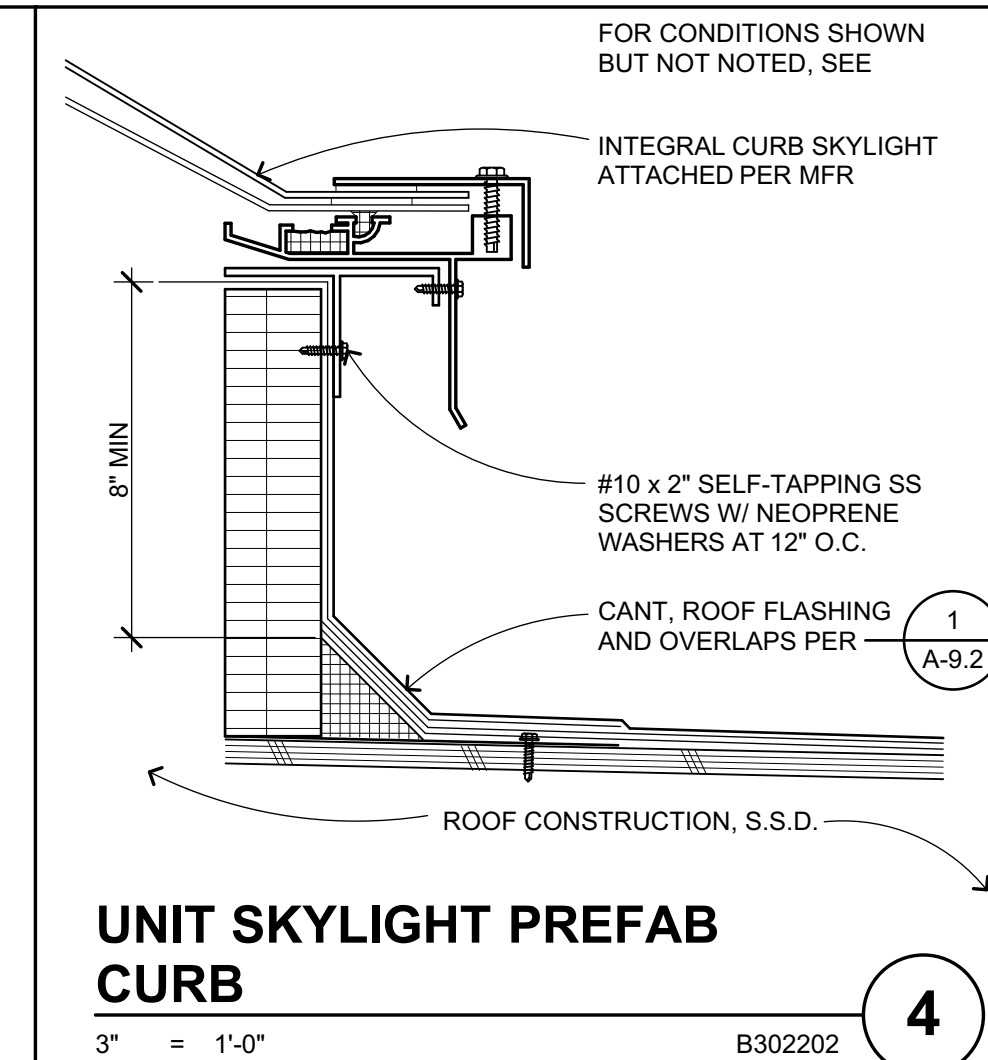
ROOF ACCESS HATCH 2
1 1/2" = 1'-0" B302301



ROOF HATCH AT WD FRMG 3
1 1/2" = 1'-0" B302303-1750.00

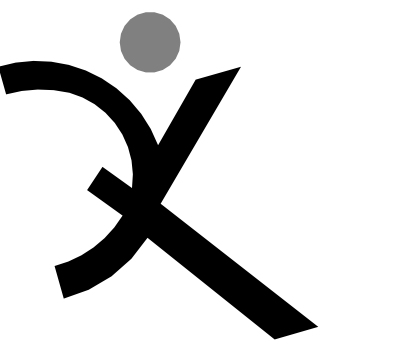


LADDER ATTACHMENT 8
1 1/2" = 1'-0" C103403

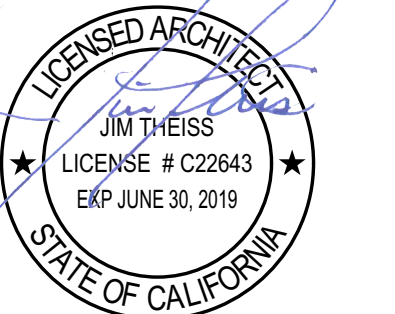


UNIT SKYLIGHT PREFAB CURB 4
3" = 1'-0" B302202

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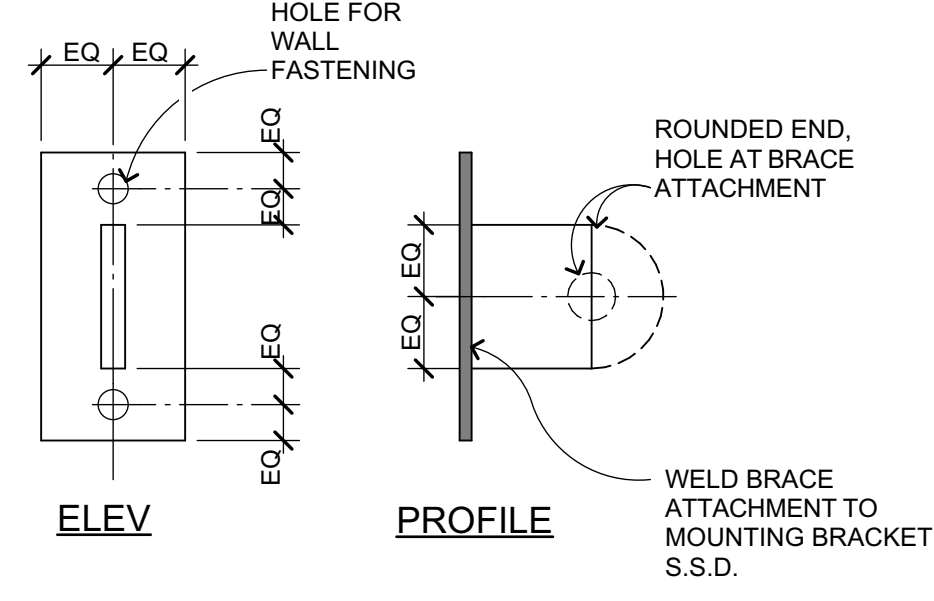
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FEBRUARY 27, 2019
SHEET TITLE

ROOF DETAILS

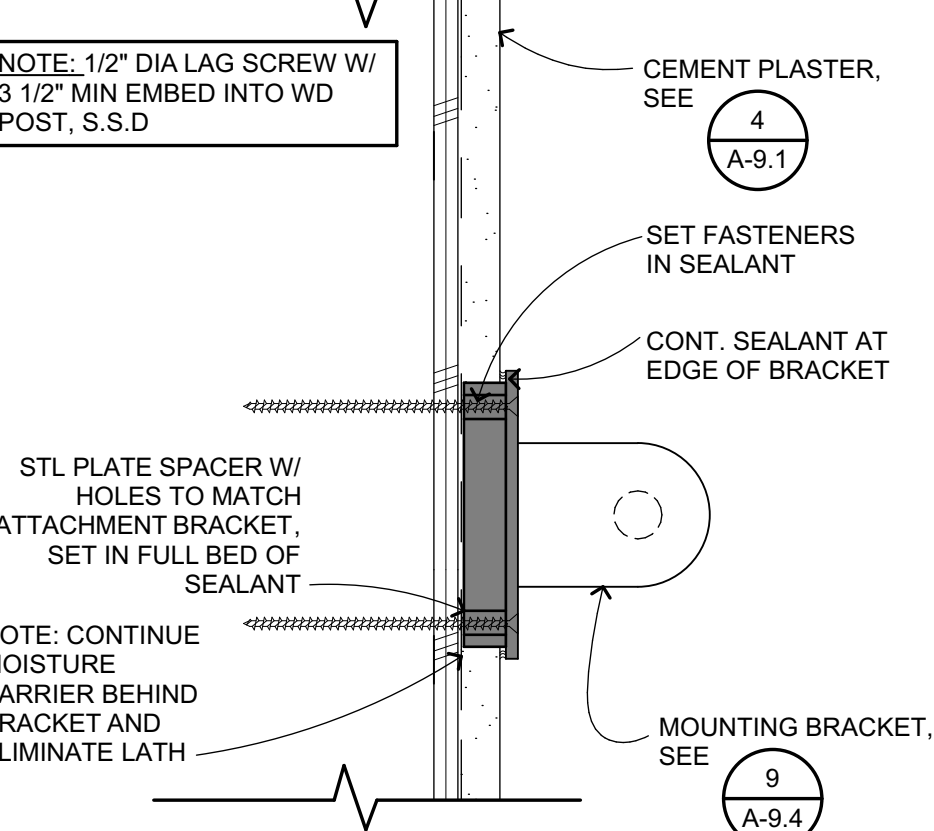
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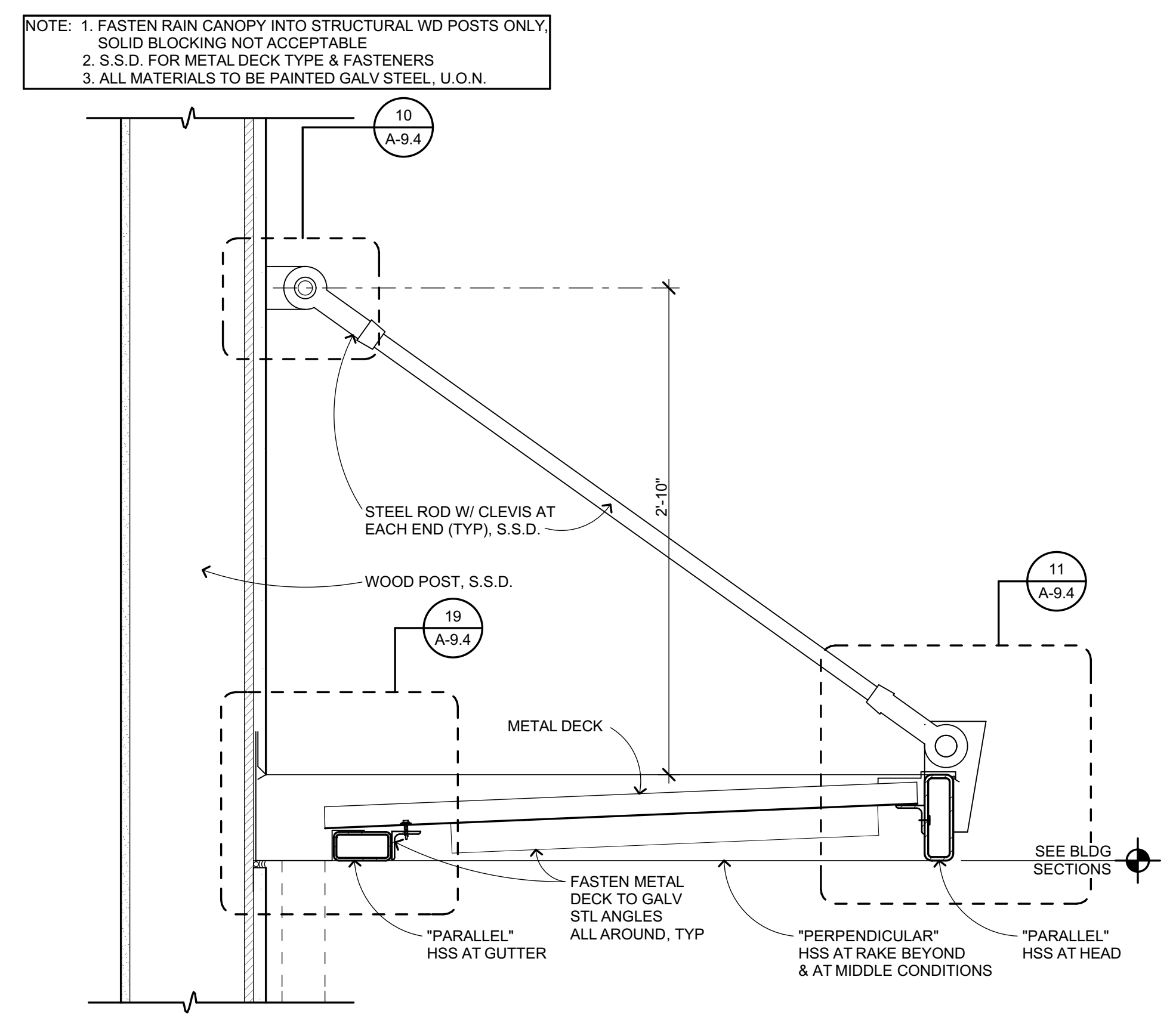
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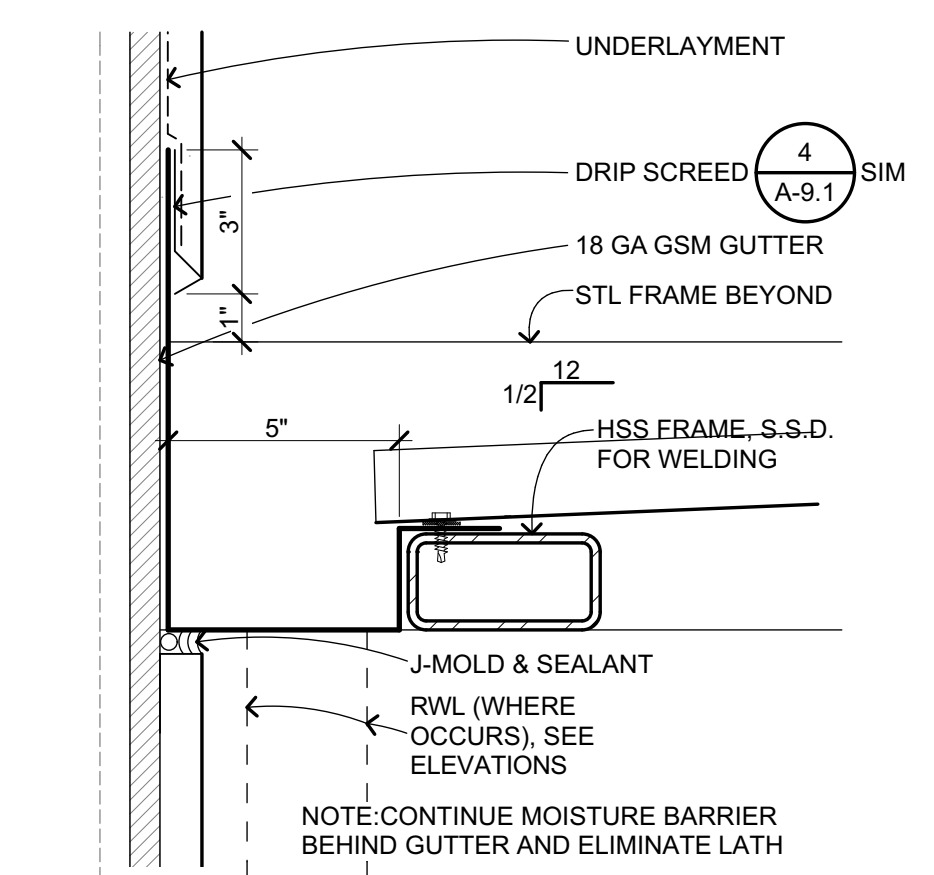
UPPER WALL BRACKET
3" = 1'-0" B205001 **9**



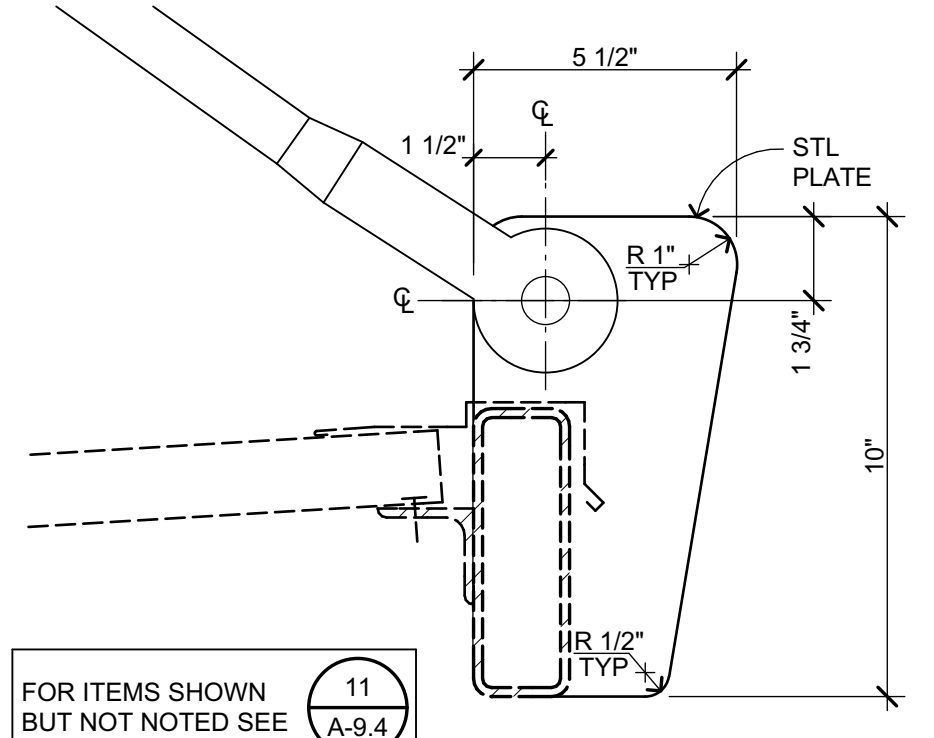
UPPER BRACKET INSTALLATION
3" = 1'-0" B205002 **10**



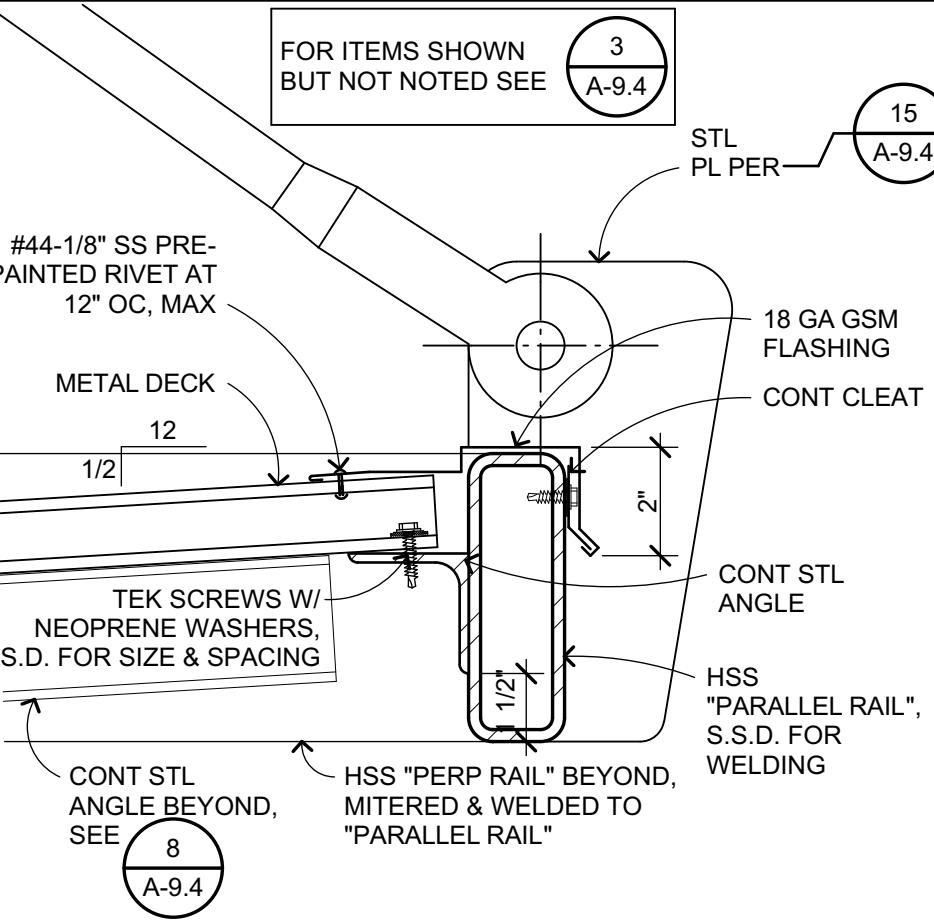
TYP RAIN CANOPY
1 1/2" = 1'-0" B205110 **2**



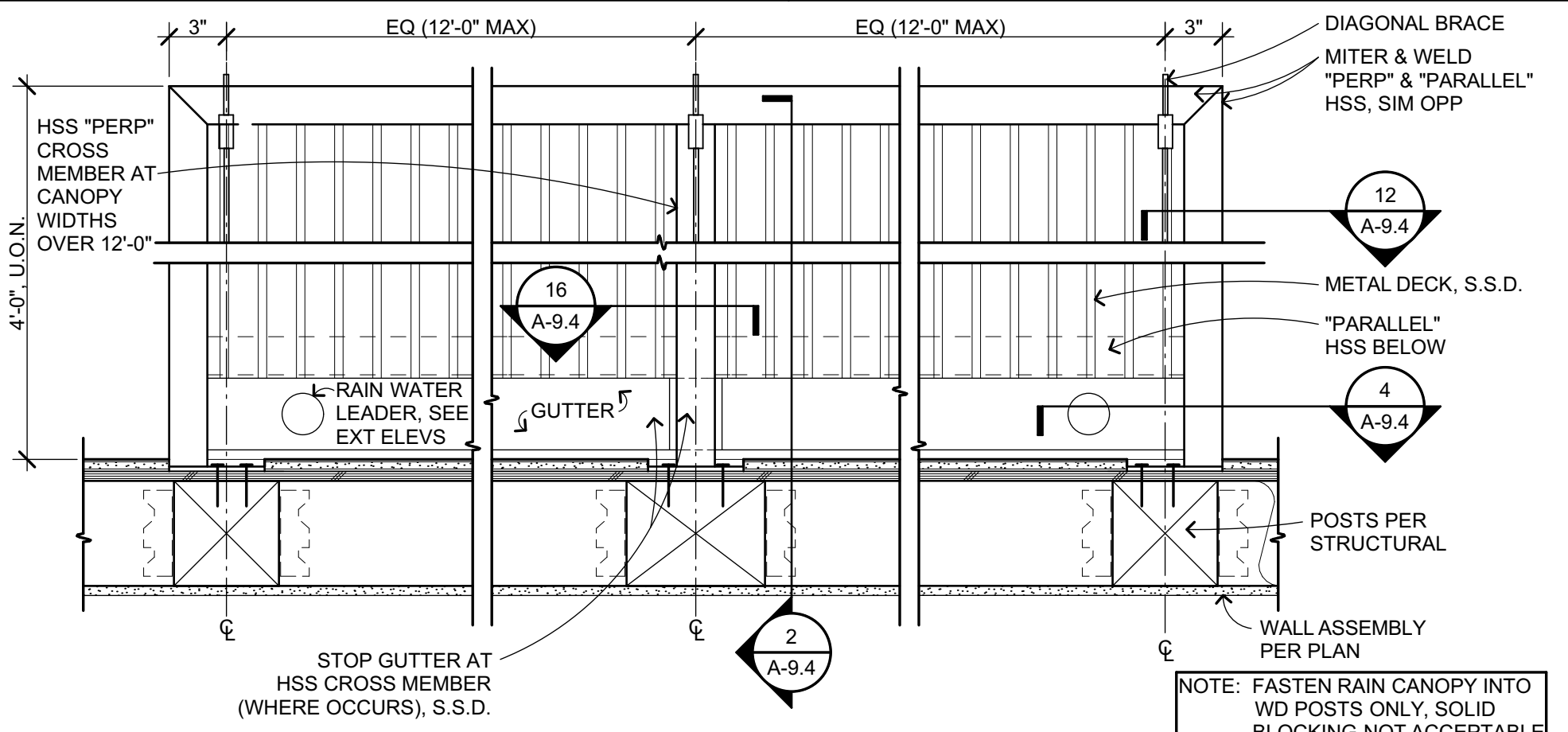
RAIN CANOPY GUTTER
3" = 1'-0" B205115 **19**



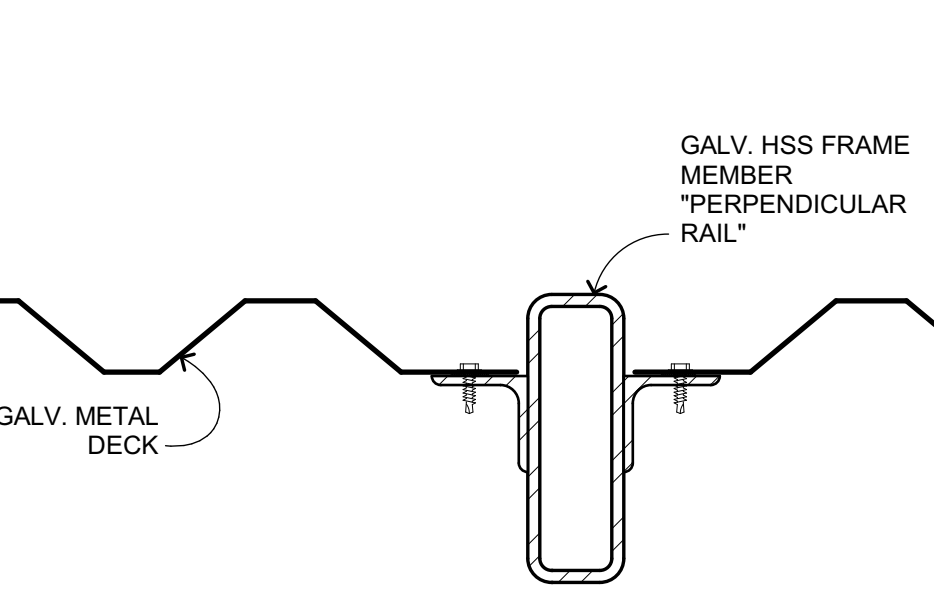
ATTACHMENT BRACKET
3" = 1'-0" B205108B **15**



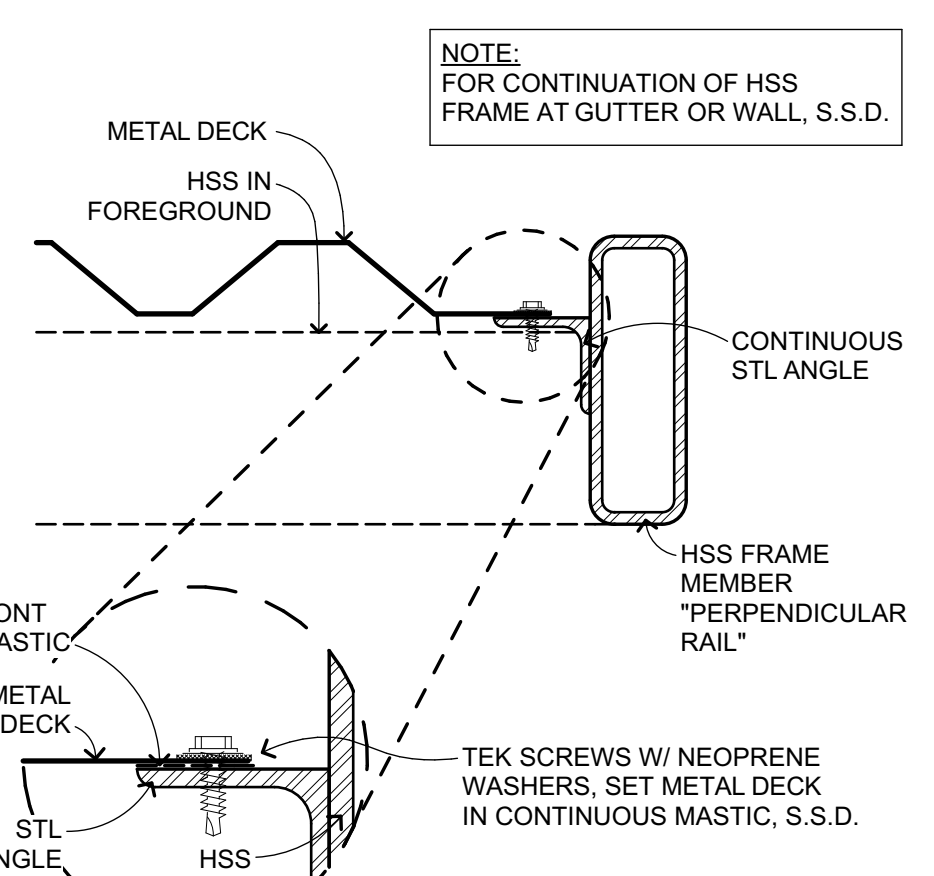
RAIN CANOPY HEAD
3" = 1'-0" B205112 **11**



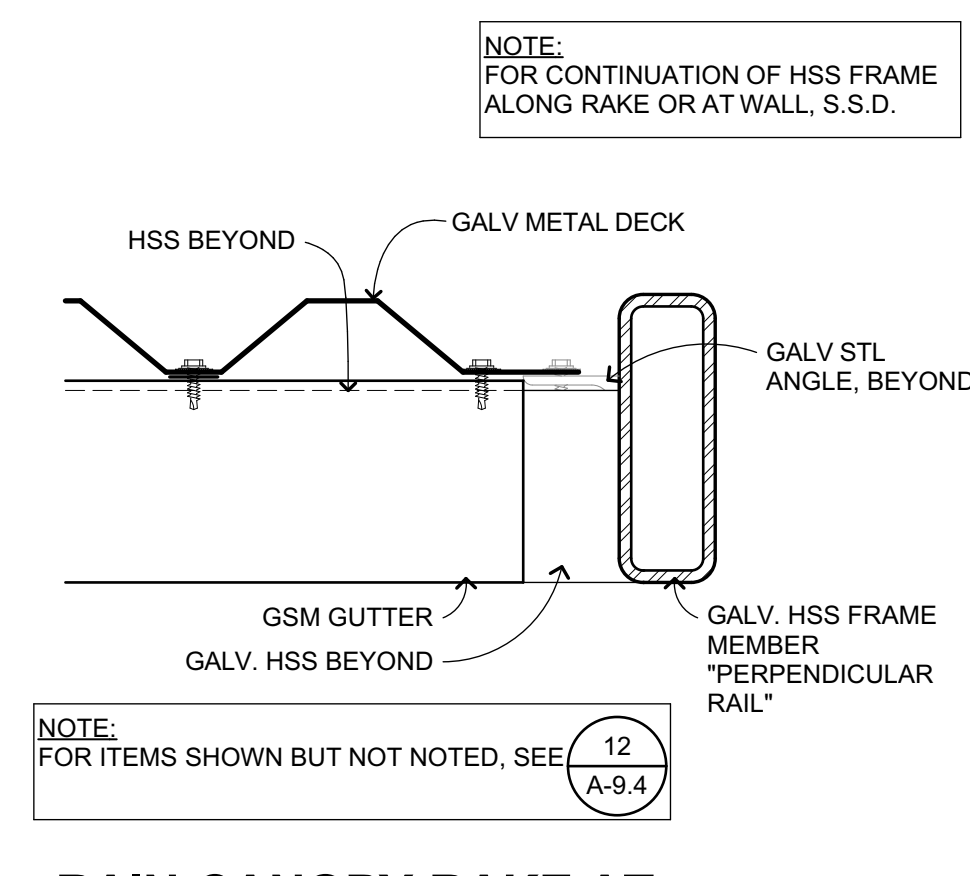
RAIN CANOPY PLAN
1 1/2" = 1'-0" B205111-1750.00 **3**



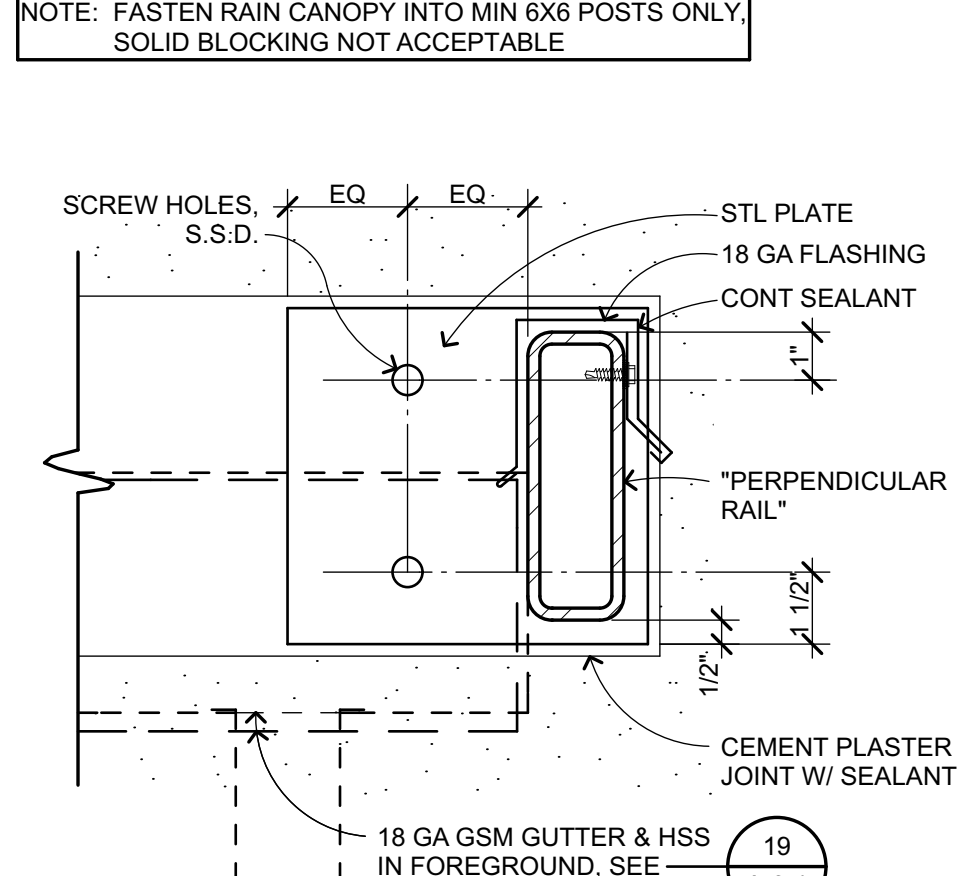
RAIN CANOPY CROSS MEMBER
3" = 1'-0" B205113.C-1594.00 **16**



RAIN CANOPY RAKE AT GUTTER
3" = 1'-0" B205113.A-1594.00 **12**



RAIN CANOPY RAKE AT GUTTER
3" = 1'-0" B205113.B-1594.00 **8**



RAIN CANOPY ATTACH
3" = 1'-0" B205114 **4**

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SHEET TITLE

RAIN CANOPY DETAILS

SHEET NUMBER

A-9.4

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FLEX FLASHING INSTALLED BEFORE BUILDING PAPER, U.O.N.

DETAIL APPLIES TO ALL FRAMED WALL PENETRATIONS

FLEX FLASH MATERIAL SHALL BE SELF SEALING, FULLY ADHERED COMPOSITE FLEX FLASH, U.O.N.

12" WIDE FLEX SILL FLASH - X LENGTH REQD TO EXTEND 12" BEYOND OPNG AS SHOWN. ATTACH AT TOP ONLY (SEE BELOW) BUILDING PAPER FLAP BENEATH. DO NOT ATTACH AT BTM.

1 STEP 1 - SILL FLASHING

12" WIDE FLEX FLASH - WRAP HEAD & EXTEND TO ADJ STUDS O/ JAMB - WRAP

4 STEP 4 - WRAP AT HEAD

INSTALL PREFORMED CORNER FLASH AT ALL CORNERS UNDER FLEX FLASH

FLEX FLASH: WRAP SILL. EXTEND 4" MIN UP JAMB, LAP DOWN O/ SILL FLASH

SILL FLASH BELOW

2 STEP 2 - WINDOW WRAP AT SILL

12" WIDE FLEX JAMB FLASH - EXTEND 2" MIN ABOVE HEAD WRAP & 4" MIN BELOW SILL FLASH - LEAVE BOTTOM FREE TO LAP O/ BUILDING PAPER

5 STEP 5 - JAMB FLASHING

12" WIDE FLEX FLASH: WRAP JAMB, EXTEND 4" MIN ABOVE HEAD, EXTEND O/ SILL WRAP & SILL FLASH & 4" MIN BEYOND - LEAVE BOTTOM FREE TO LAP O/ BUILDING PAPER

SILL WRAP O/ SILL FLASH

SILL FLASH

3 STEP 3 - WRAP AT JAMB

12" WIDE FLEX HD FLASH - EXTEND 2" MIN ABOVE JAMB FLASH & 2" MIN BEYOND HEADWRAP FLASH AT ADJ STUDS

6 STEP 6 - HEAD FLASHING

TYP FLASHING/PAPERING

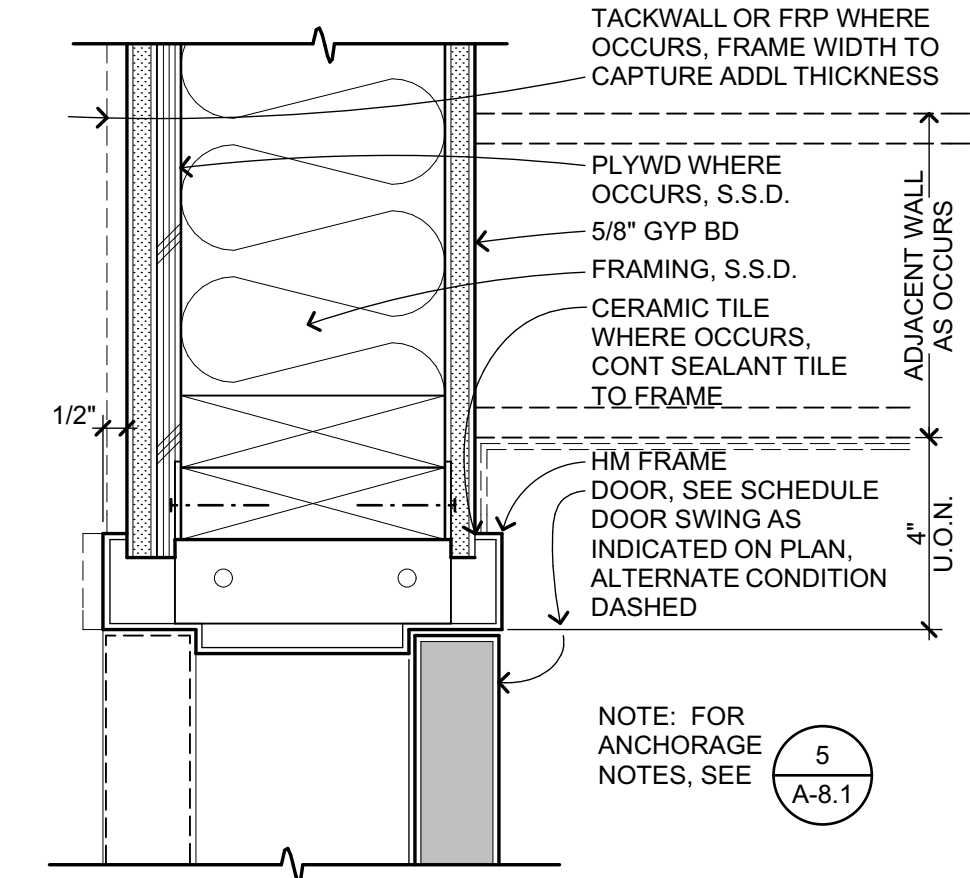
1/4" = 1'-0"

B201103 10

INT HM DOOR JAMB ADJACENCIES

3" = 1'-0"

C102502A 5



INT HM DOOR HEAD/JAMB

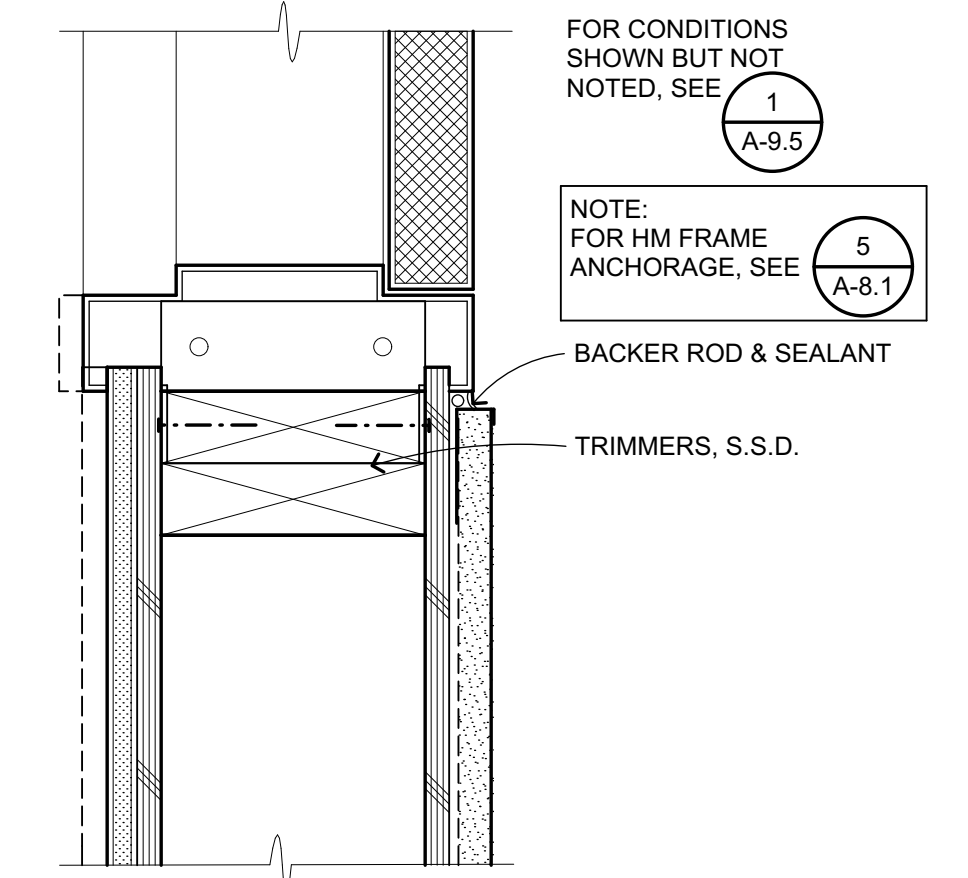
3" = 1'-0"

C102501 6

EXT HM DR HEAD

3" = 1'-0"

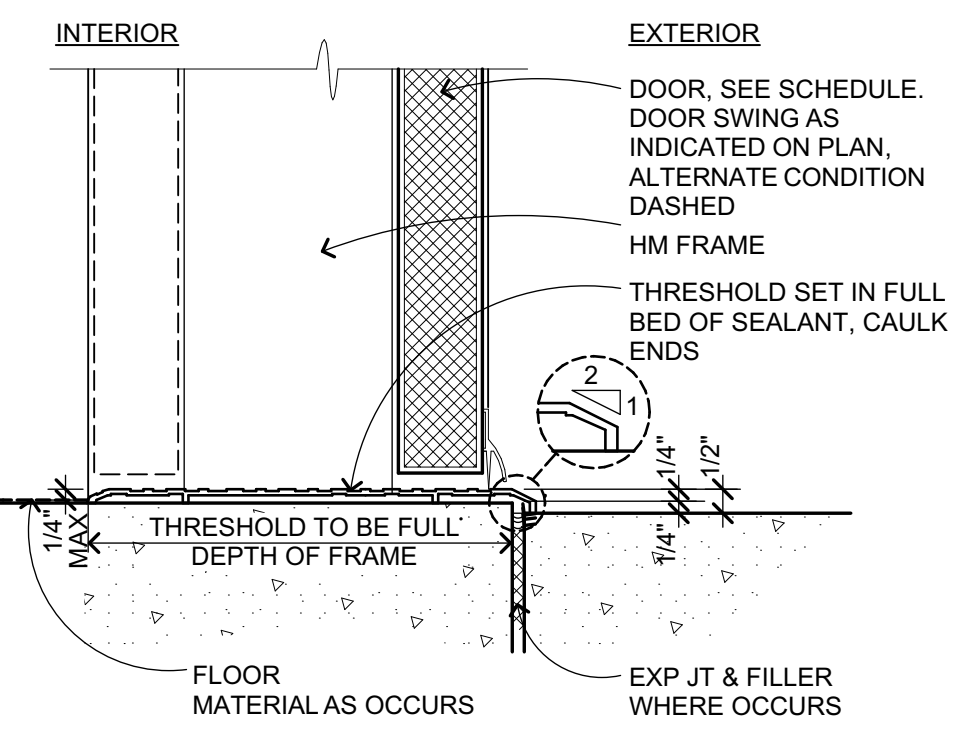
B203101_A 1



EXT HM JAMB

3" = 1'-0"

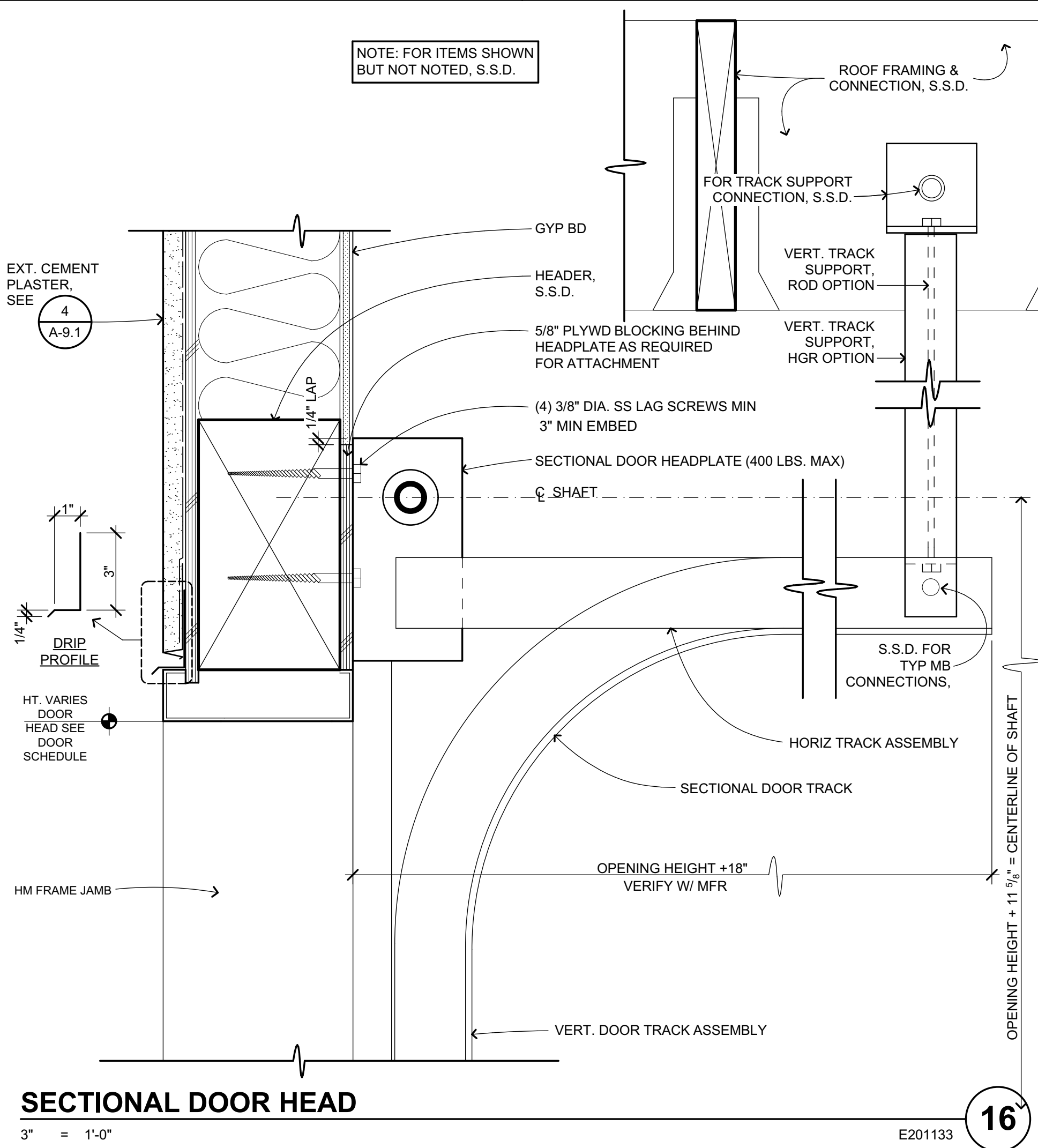
B203102 2



THRESHOLD

3" = 1'-0"

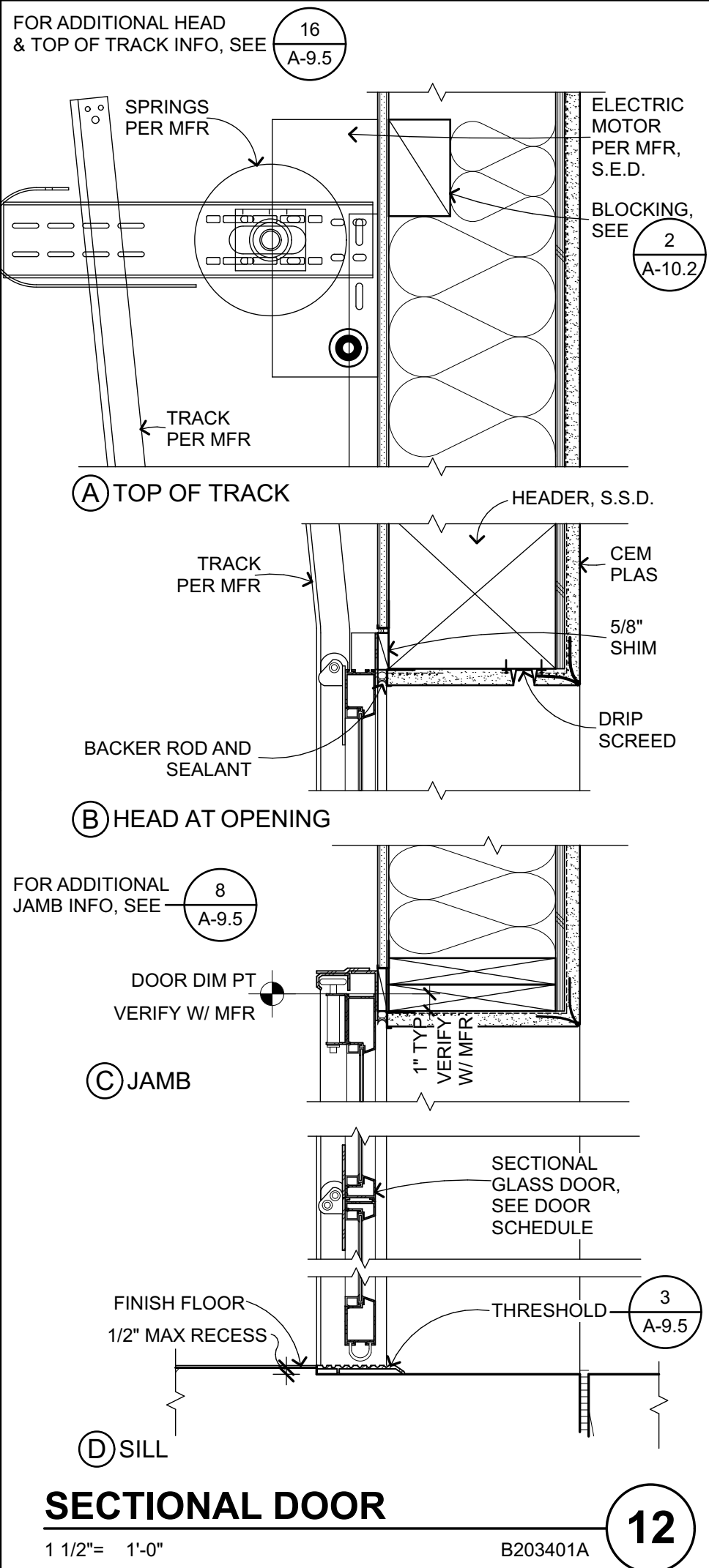
B203103 3



SECTIONAL DOOR HEAD

3" = 1'-0"

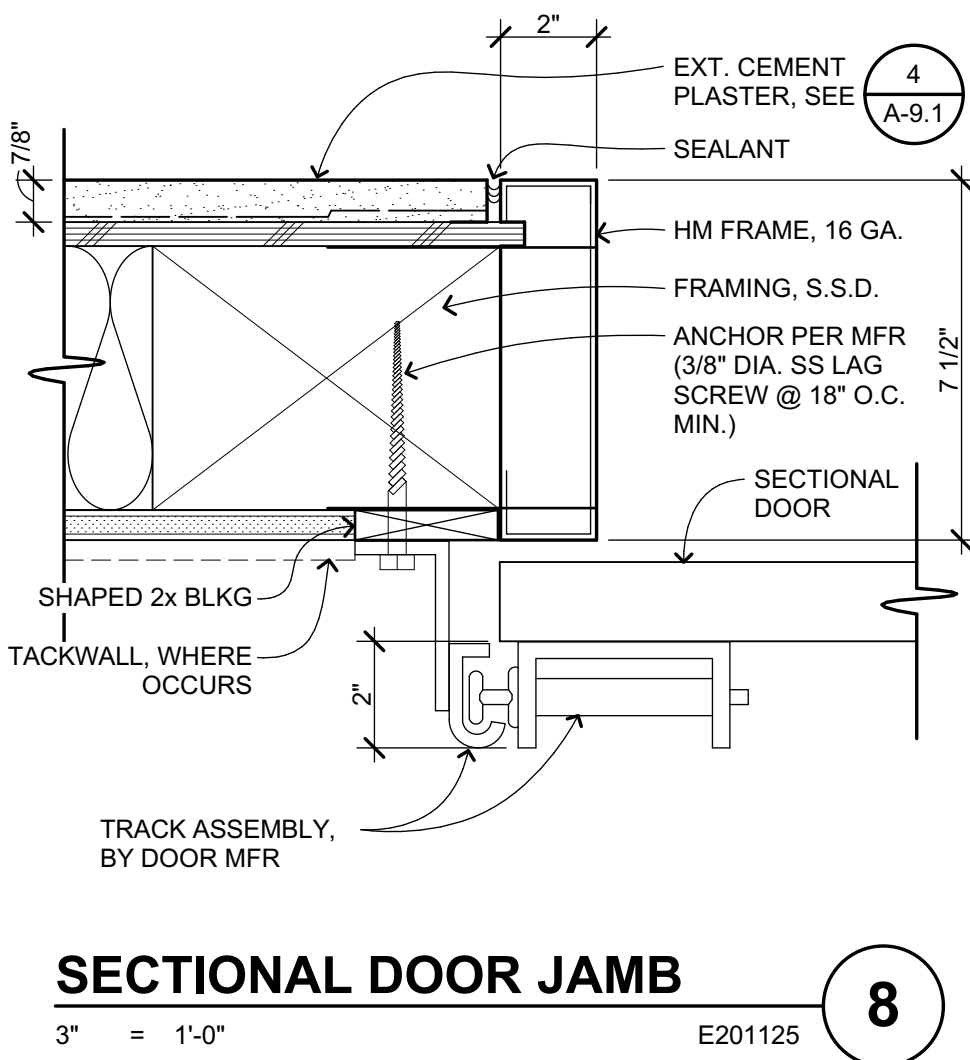
E201133 16



SECTIONAL DOOR

1 1/2" = 1'-0"

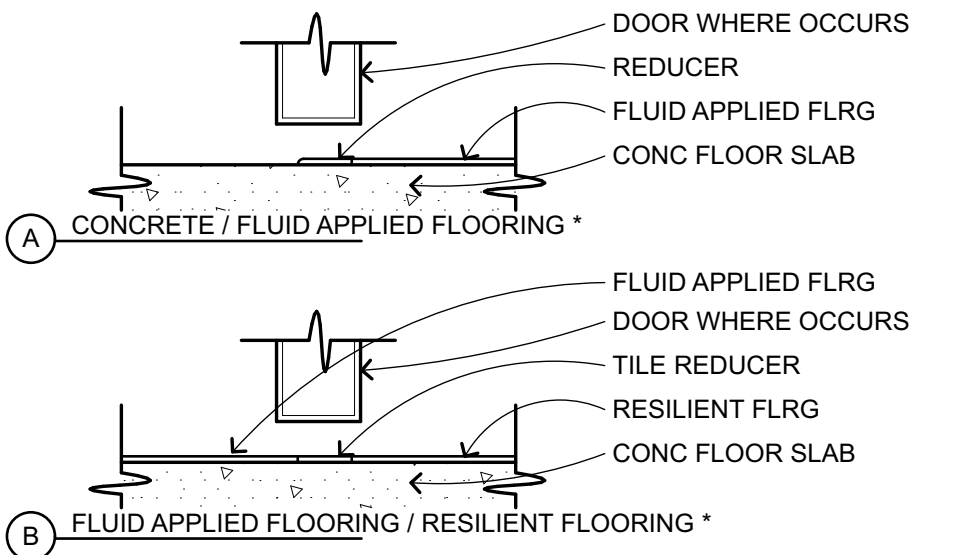
B203401A 12



SECTIONAL DOOR JAMB

3" = 1'-0"

E201125 8



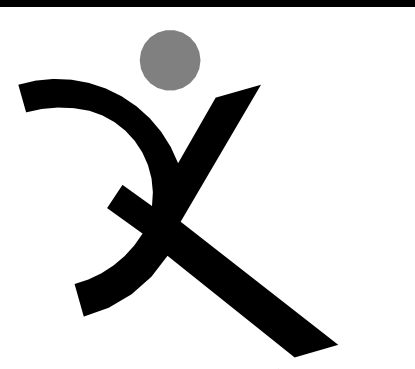
FLOOR TRANSITIONS / SILLS

3" = 1'-0"

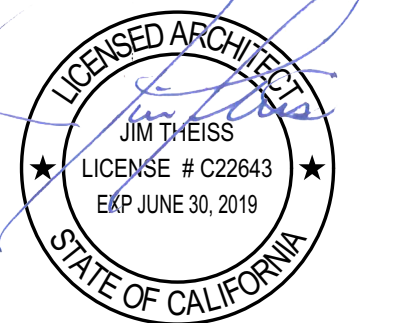
C102601 4

NOTES:
1. RESILIENT FLOORING - TILE OR SHEET MATERIAL AS NOTED OR SPECIFIED ELSEWHERE.
2. WHERE TRANSITION STRIP > 1/4" HT. SHALL BE BEVELED 1/2" MAX OR EQUIVALENT THERETO.

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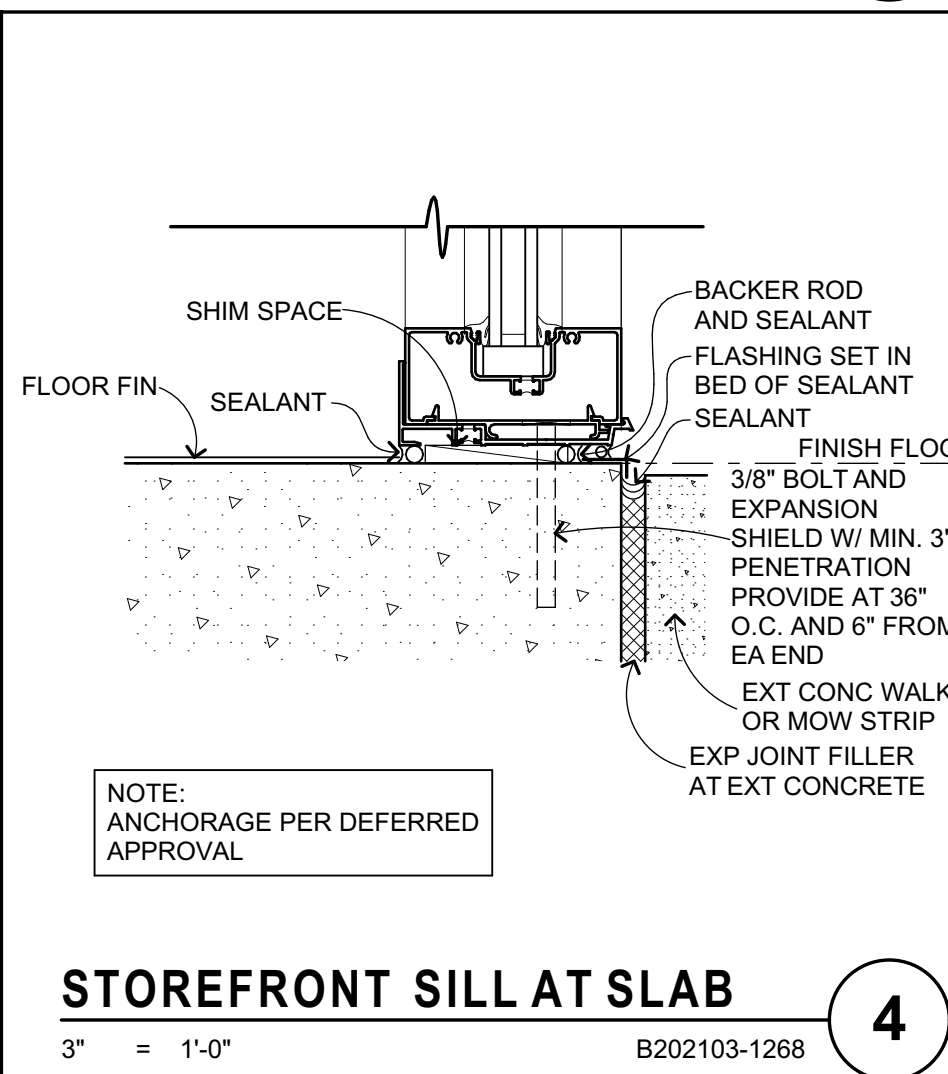
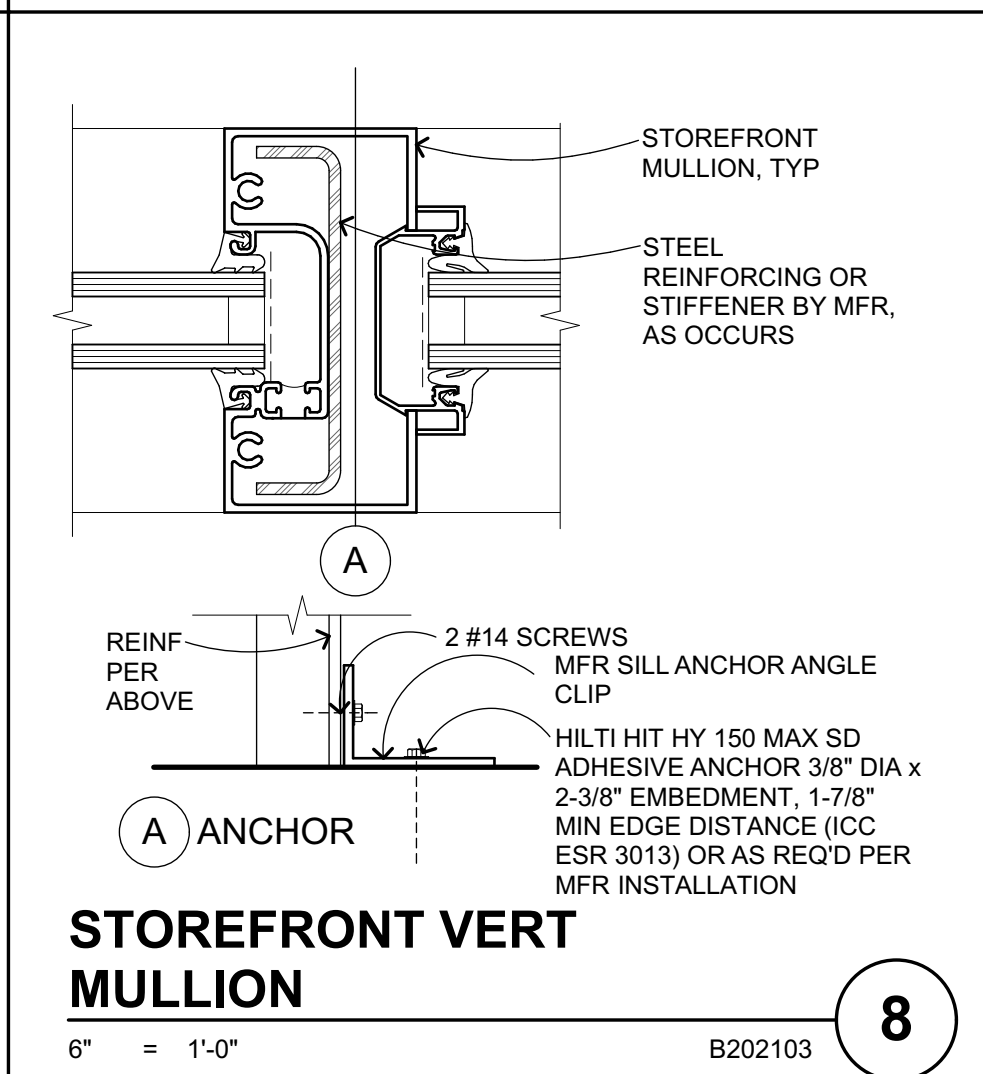
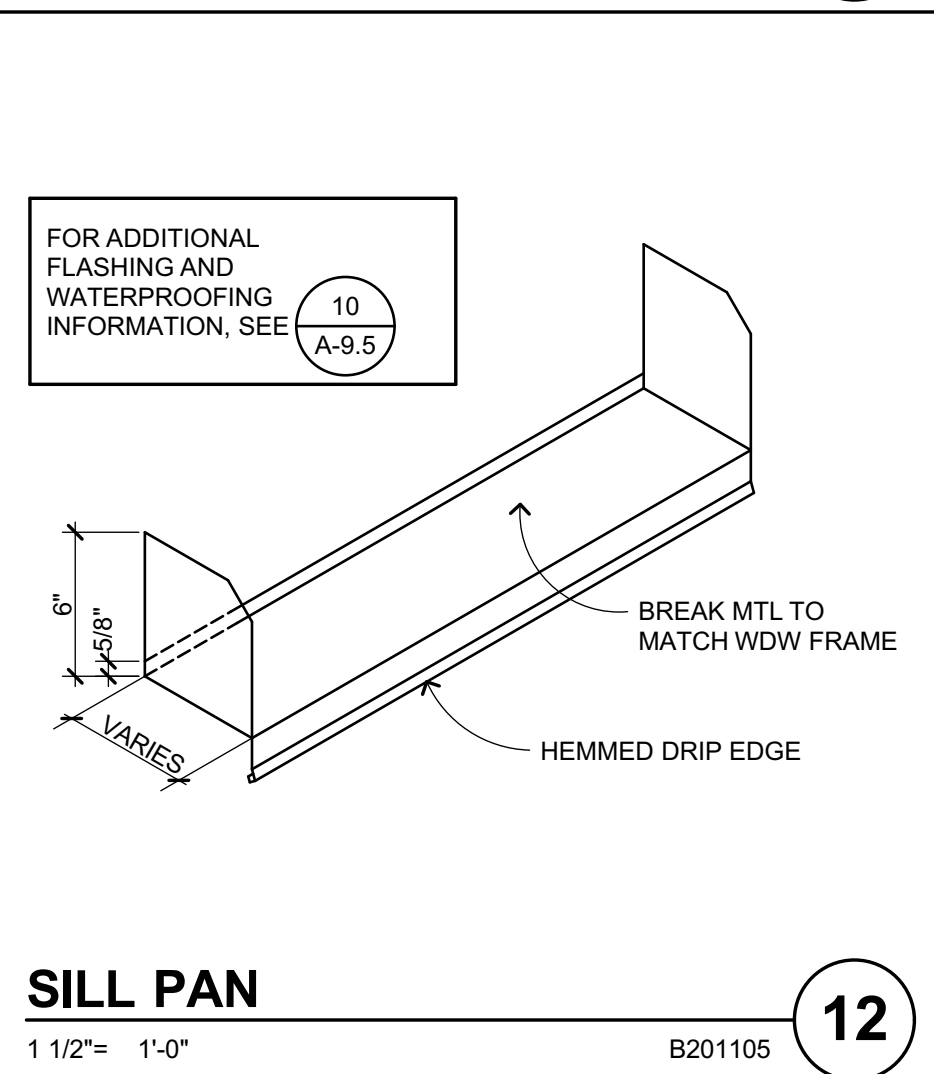
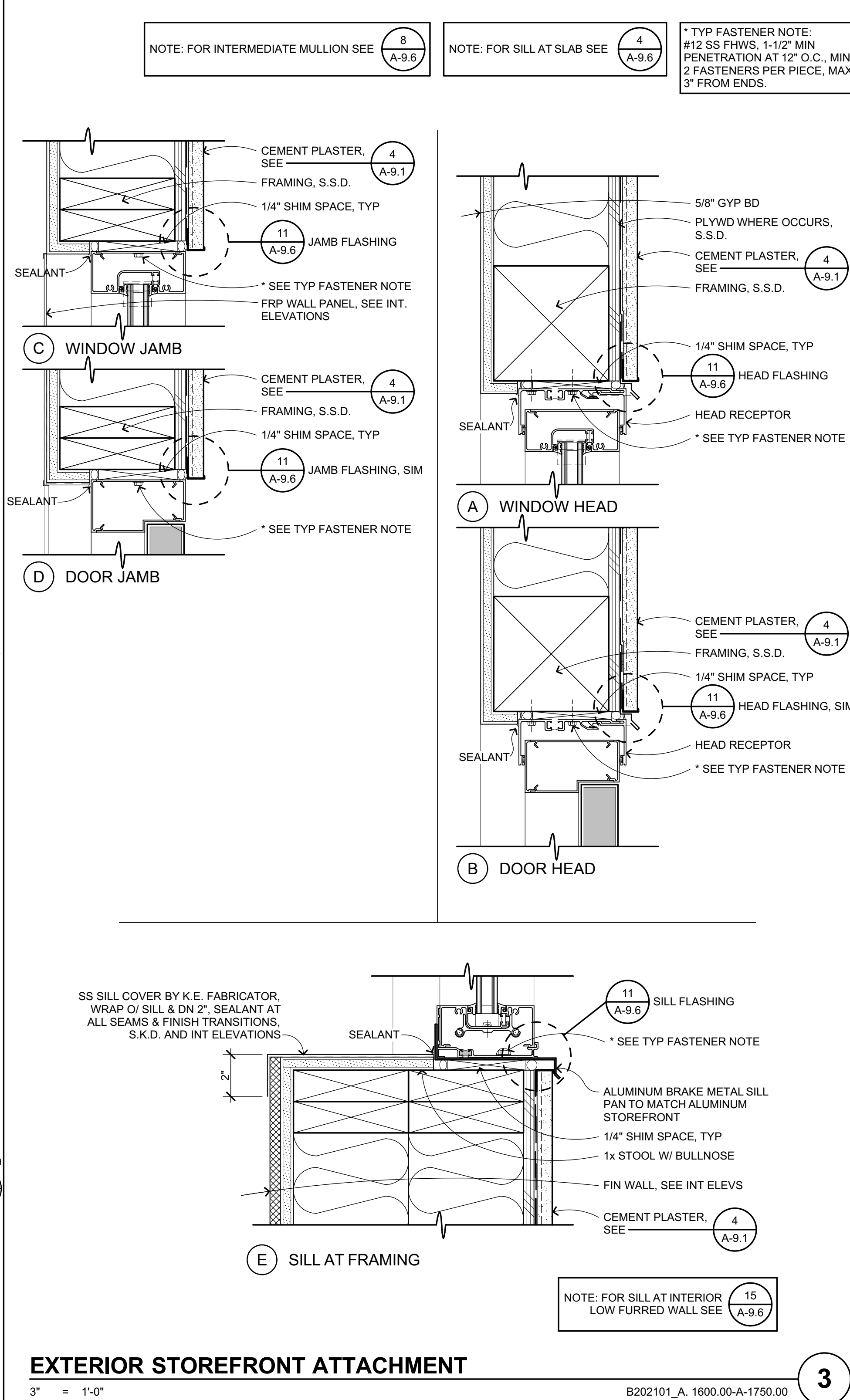
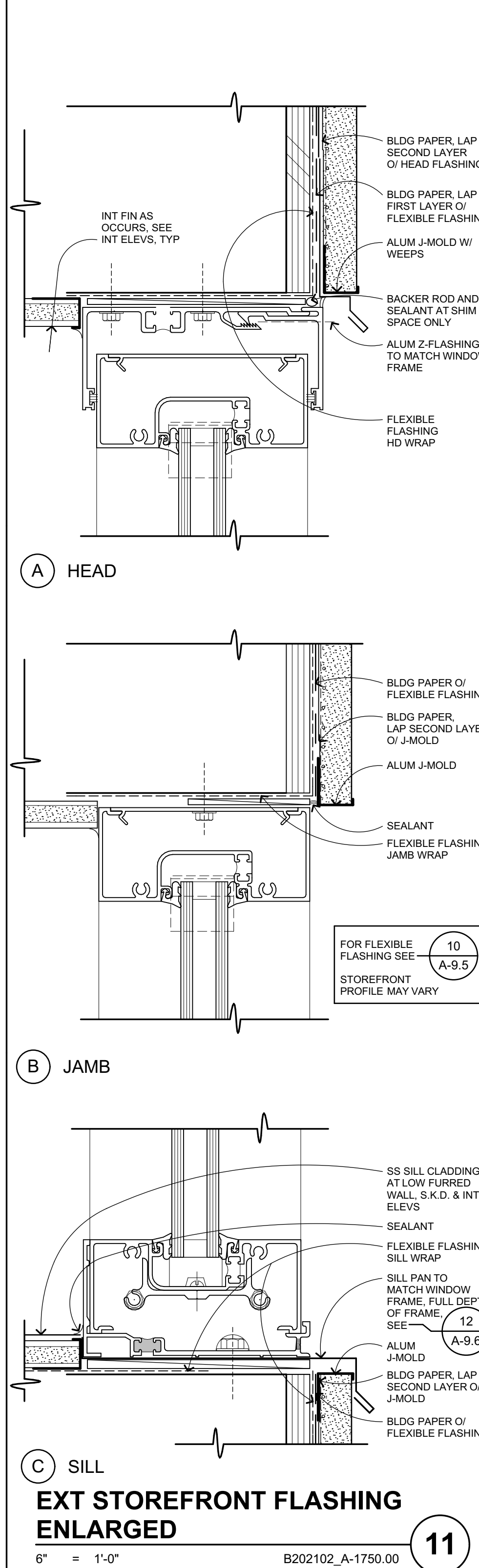
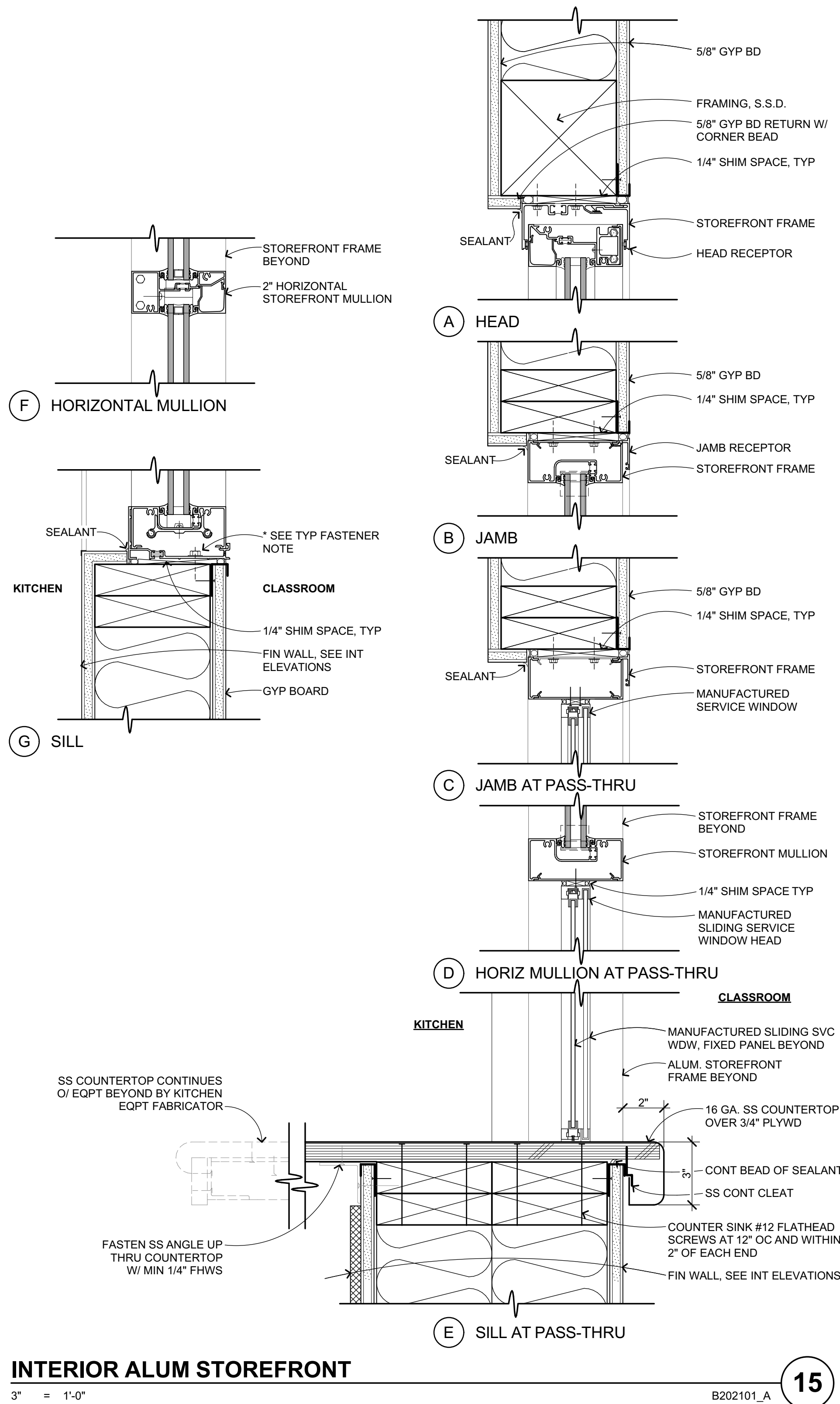
ARCH PROJECT NO: 1750.00
DRAWN BY:
DRAWING SCALE: AS NOTED
PTN: 61721-70

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FEBRUARY 27, 2019
SHEET TITLE

OPENING DETAILS

SHEET NUMBER

A-9.5



NOTE: FOR INTERMEDIATE MULLION SEE 8 A-9.6

NOTE: FOR SILL AT SLAB SEE 4 A-9.6

* TYP FASTENER NOTE: #12 SS FHWS, 1-1/2" MIN PENETRATION AT 12" O.C., MIN 2 FASTENERS PER PIECE, MAX 3" FROM ENDS.

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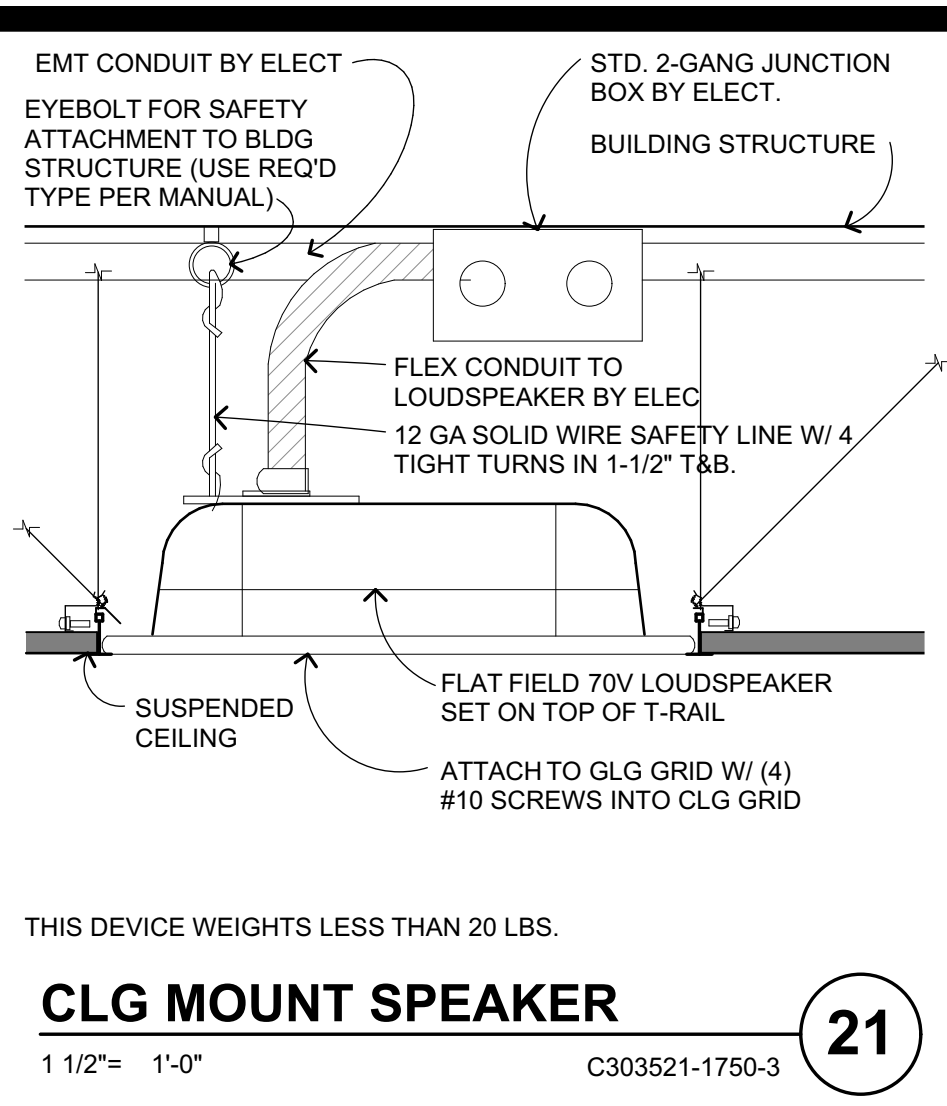
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DRAWING SCALE: AS NOTED
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FEBRUARY 27, 2019
SHEET TITLE

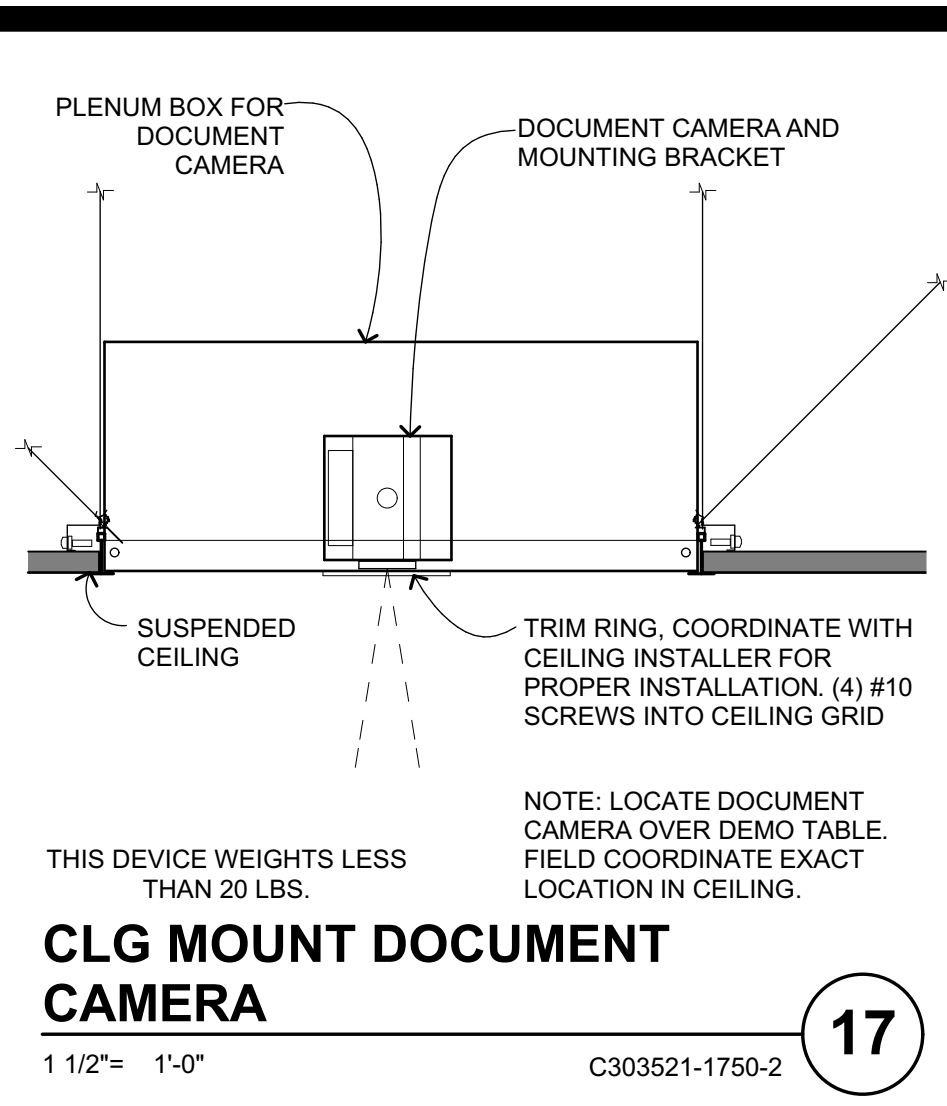
OPENING DETAILS

SHEET NUMBER
A-9.6

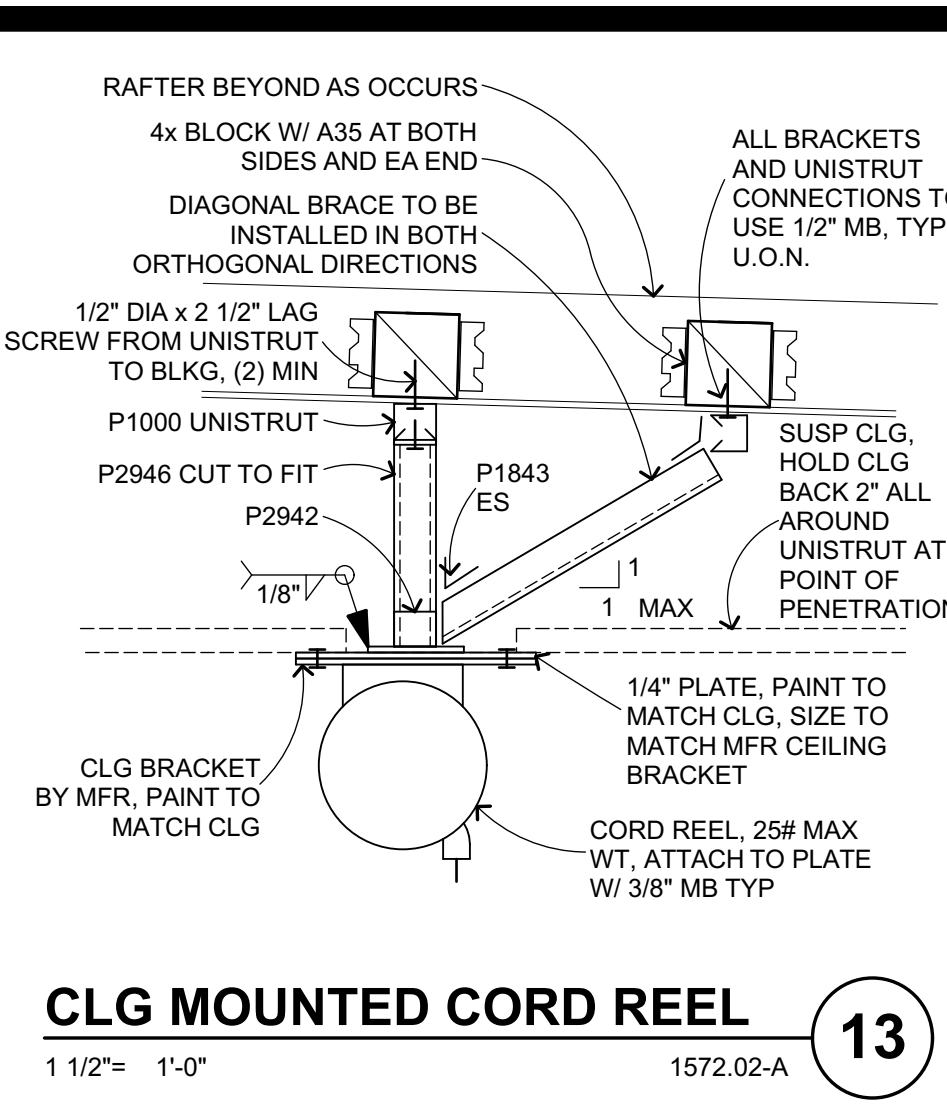
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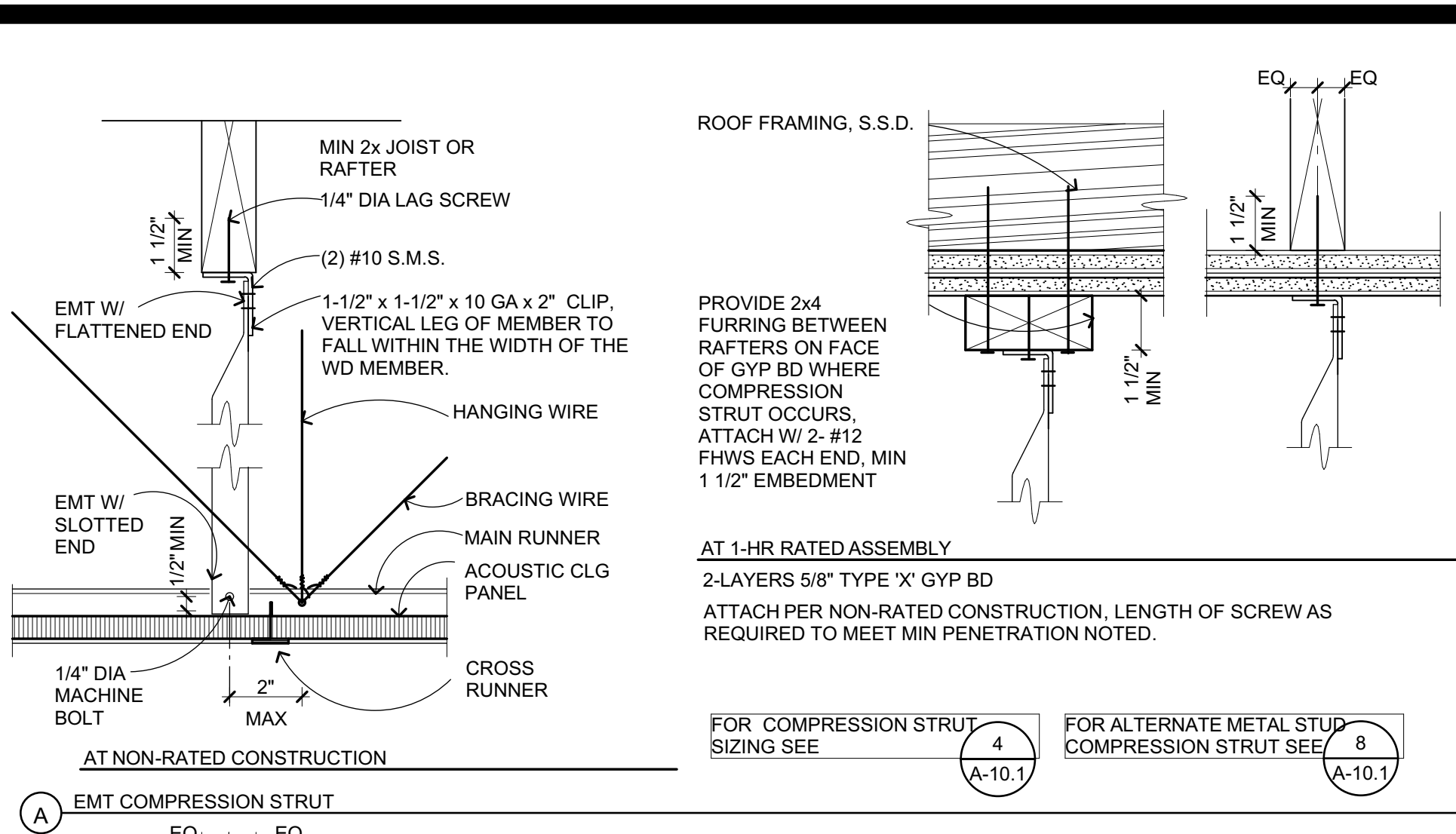
CLG MOUNT SPEAKER
 1 1/2" = 1'-0"
 C303521-1750-3 **21**



CLG MOUNT DOCUMENT CAMERA
 1 1/2" = 1'-0"
 C303521-1750-2 **17**



CLG MOUNTED CORD REEL
 1 1/2" = 1'-0"
 1572.02-A **13**



SUSP ACOUS CLG
 3" = 1'-0"
 C303204 **7**

1. GENERAL REQUIREMENTS: CBC Section 1616 & IR 25-2.13 govern the design and installation of suspended ceiling systems. The details are for ceilings whose total weight does not exceed 4 PSF. **SEE DETAILS FOR SPECIFIC REQUIREMENTS**

2. Refer to reflected ceiling plans for locations of expansion joints and seismic separation joints as occur.

3. Lateral force bracing may be omitted for suspended acoustical ceiling systems with a ceiling area of 144 square feet or less, and fire rated suspended acoustical ceiling systems with a ceiling area of 96 square feet or less, when perimeter support in accordance with governing regulations are provided and perimeter walls are designed to carry the ceiling lateral forces.

4. For attachment of all light fixtures, flush, recessed or otherwise ceiling mounted, refer to electrical drawings for details.

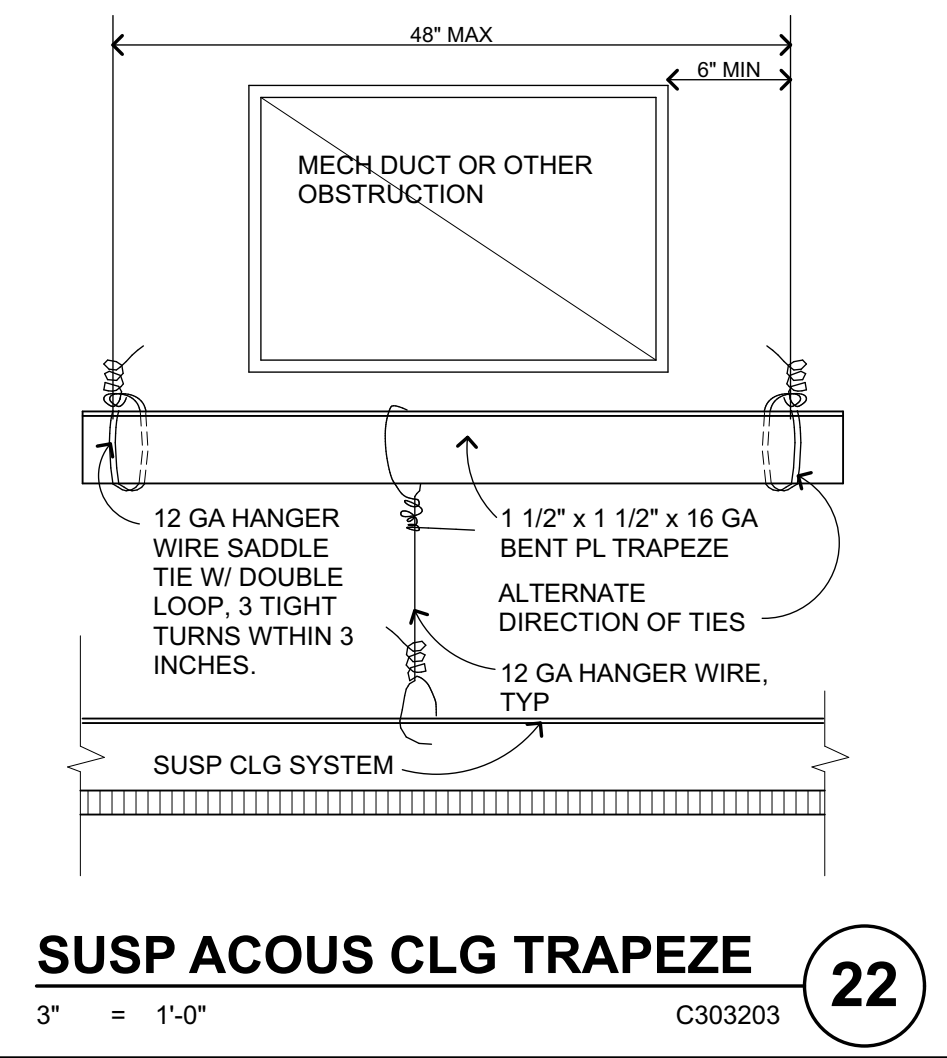
5. For attachment of ceiling mounted air terminals, grilles, mechanical terminals, and flexible sprinkler hose fittings or other services be supported directly on runner, refer to mechanical drawings for details.

6. Ceiling panels shall not support any light fixture, air terminals or devices.

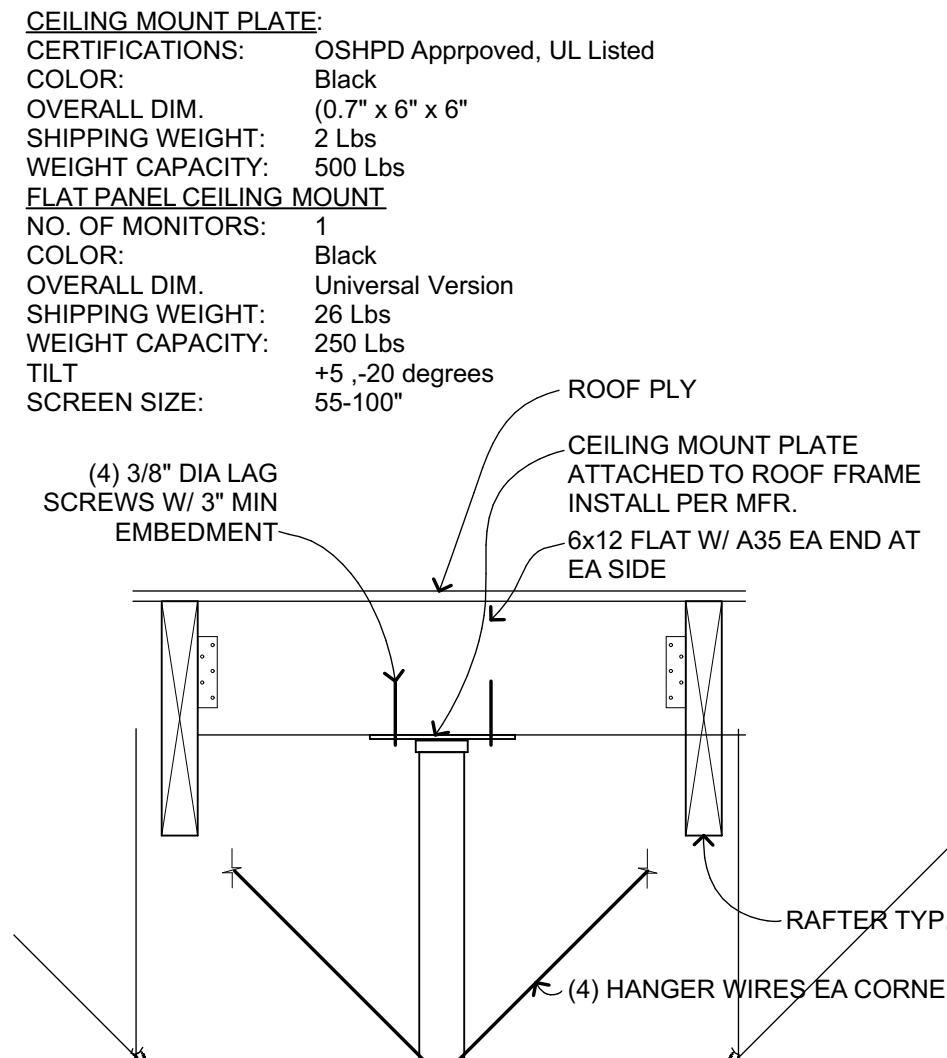
TYPICAL WIRE FASTENING:
HANGER WIRES: 12 GA WIRE WITH MINIMUM OF 3 TIGHT TURNS IN 1-1/2" EACH END, TYPICAL.

BRACING WIRES: 12 GA WIRE WITH MINIMUM OF 4 TIGHT TURNS IN 1-1/2" EACH END, TYPICAL.

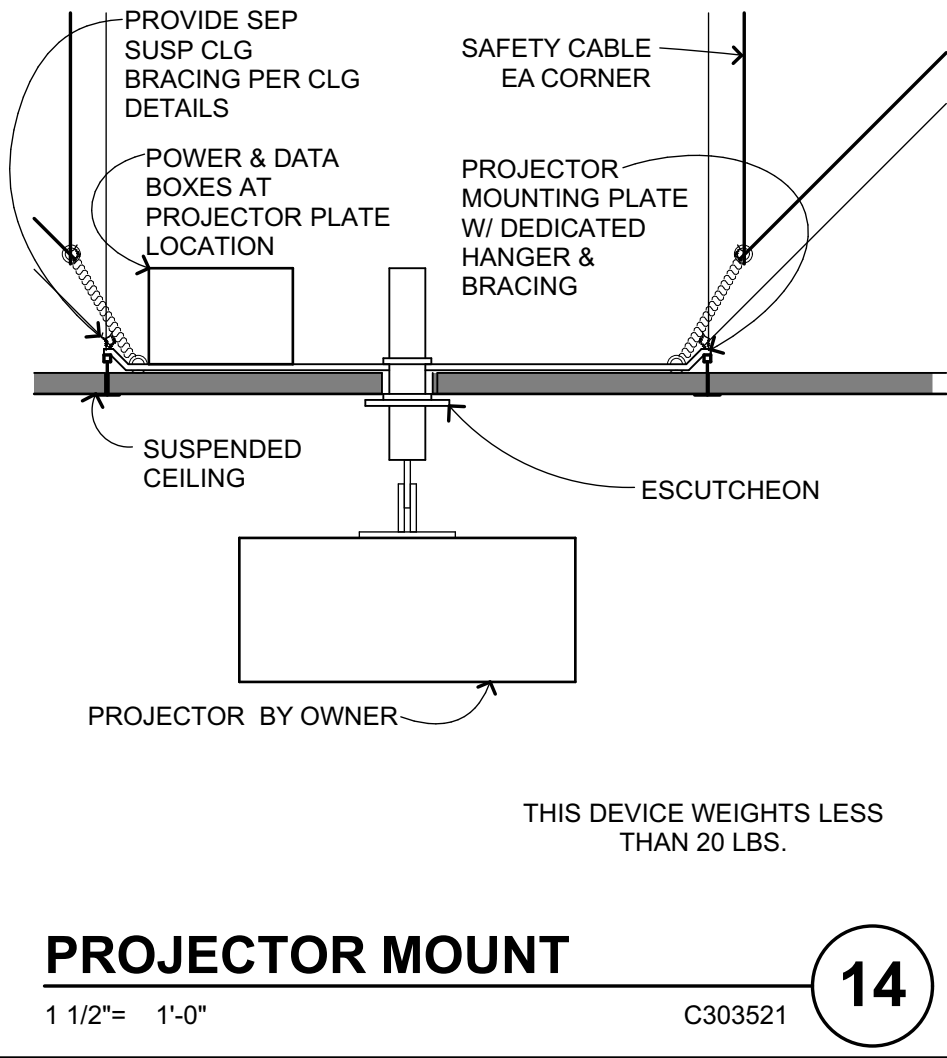
TYP SUSP CEILING NOTES
 1/8" = 1'-0"
 C303209 2013 **1**



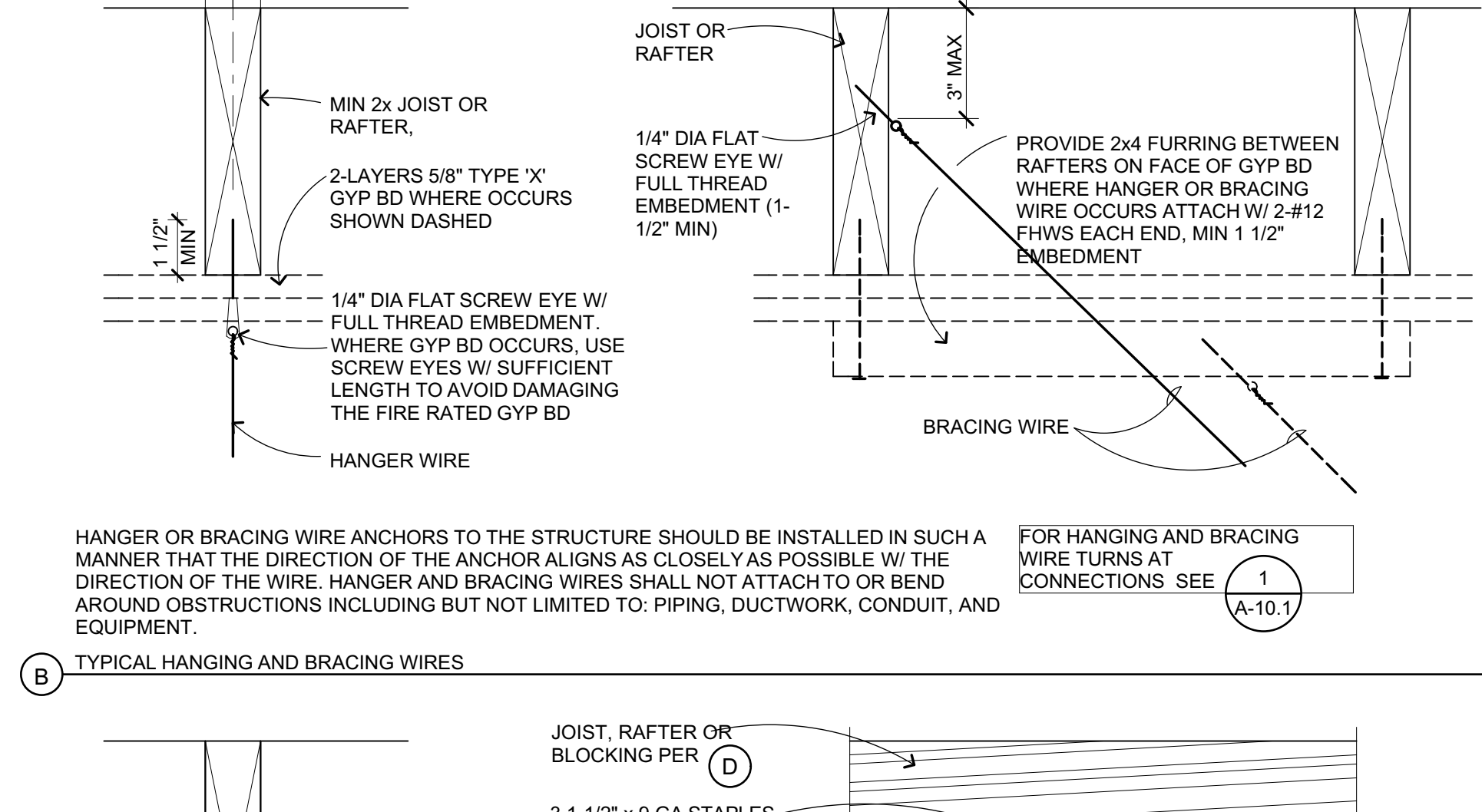
SUSP ACOUS CLG TRAPEZE
 3" = 1'-0"
 C303203 **22**



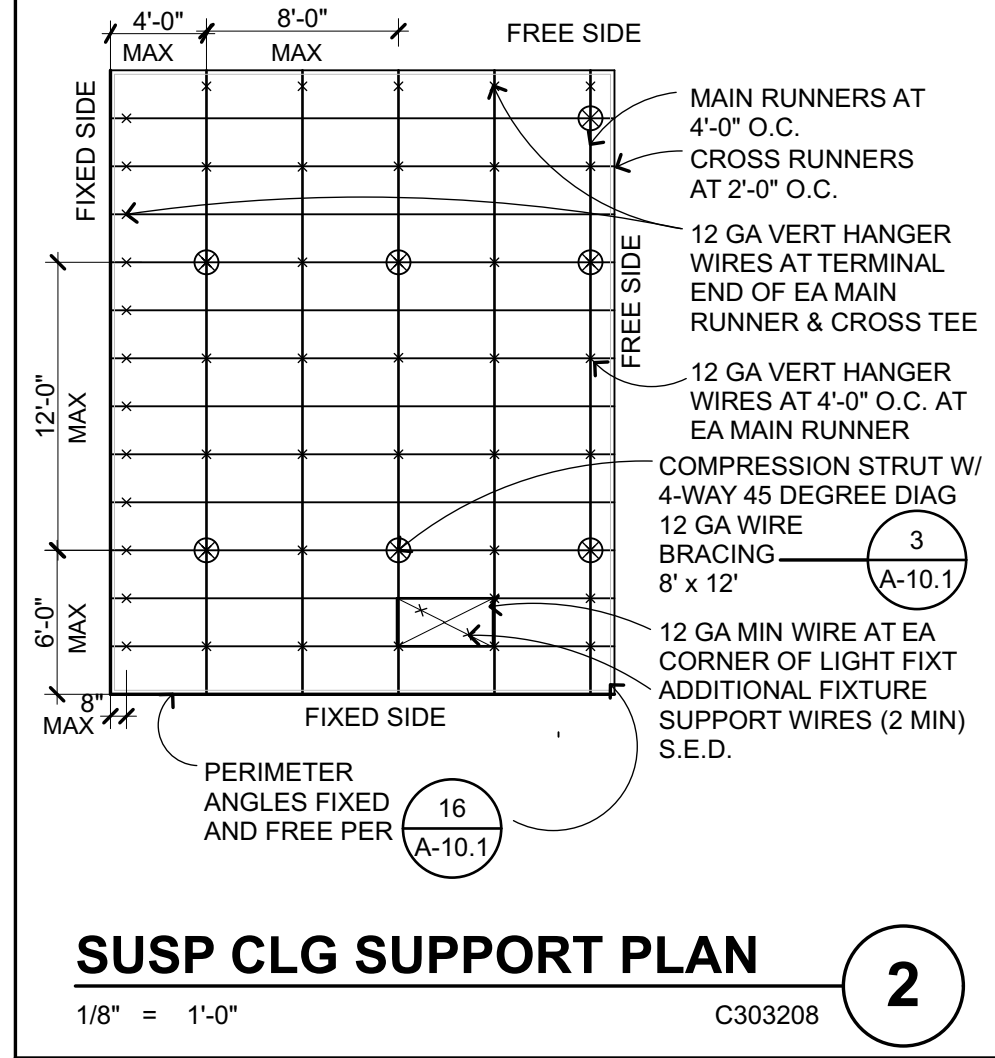
FLAT PANEL SCREEN MOUNT
 1 1/2" = 1'-0"
 C303521-1750.00 **19**



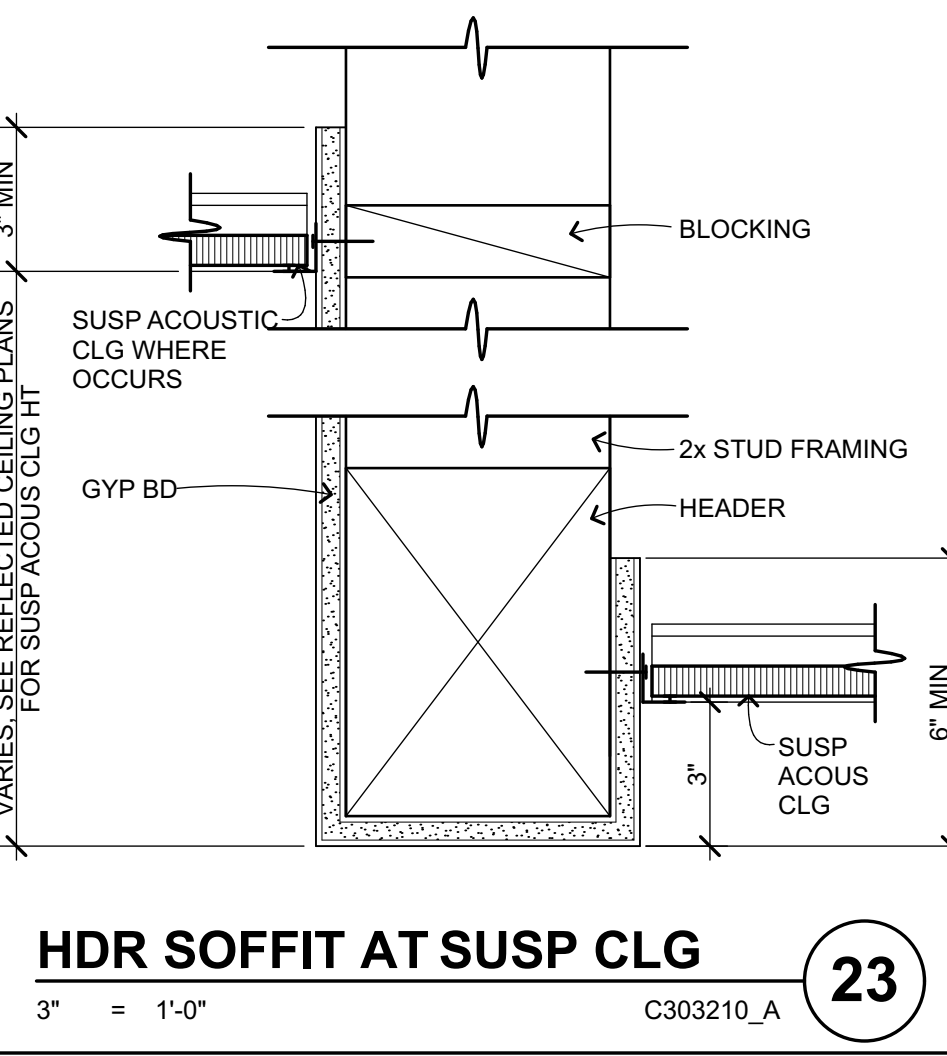
PROJECTOR MOUNT
 1 1/2" = 1'-0"
 C303521 **14**



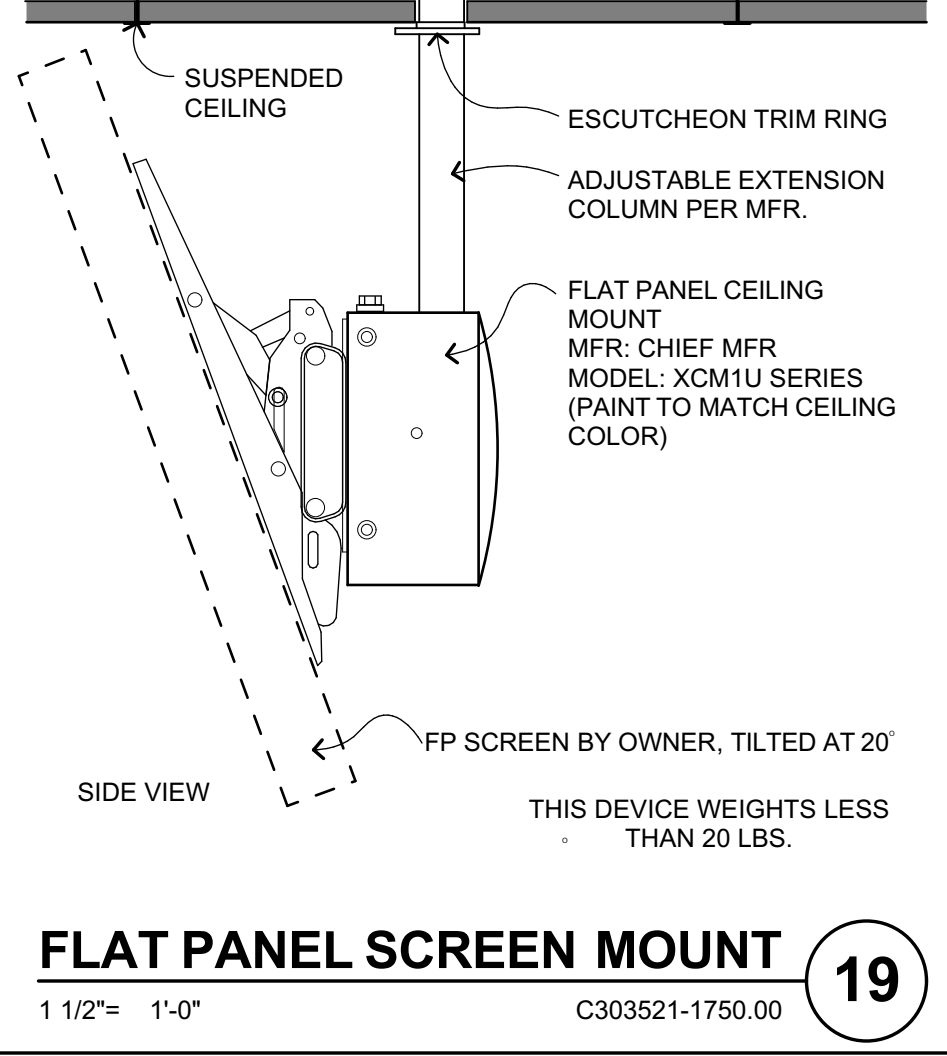
FIRE SPRINKLER HD PLATE
 6" = 1'-0"
 C303217 **15**



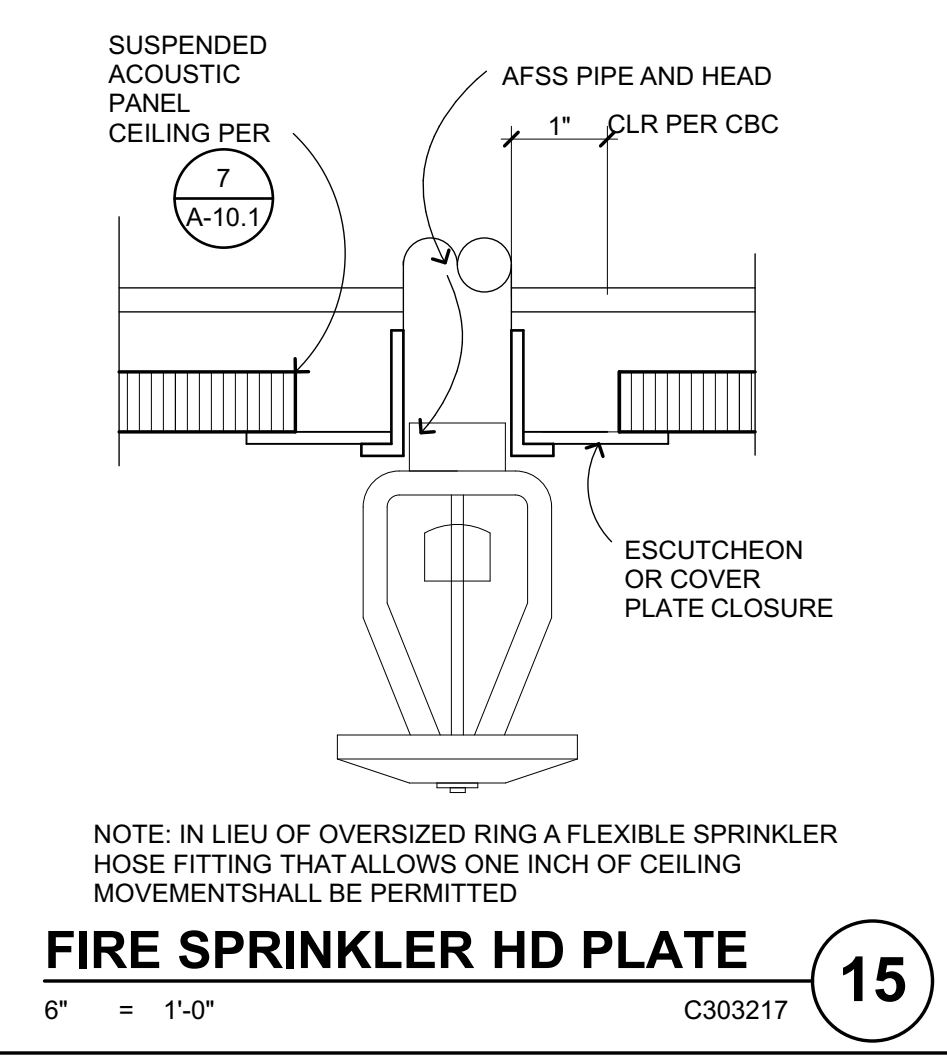
SUSP CLG SUPPORT PLAN
 1/8" = 1'-0"
 C303208 **2**



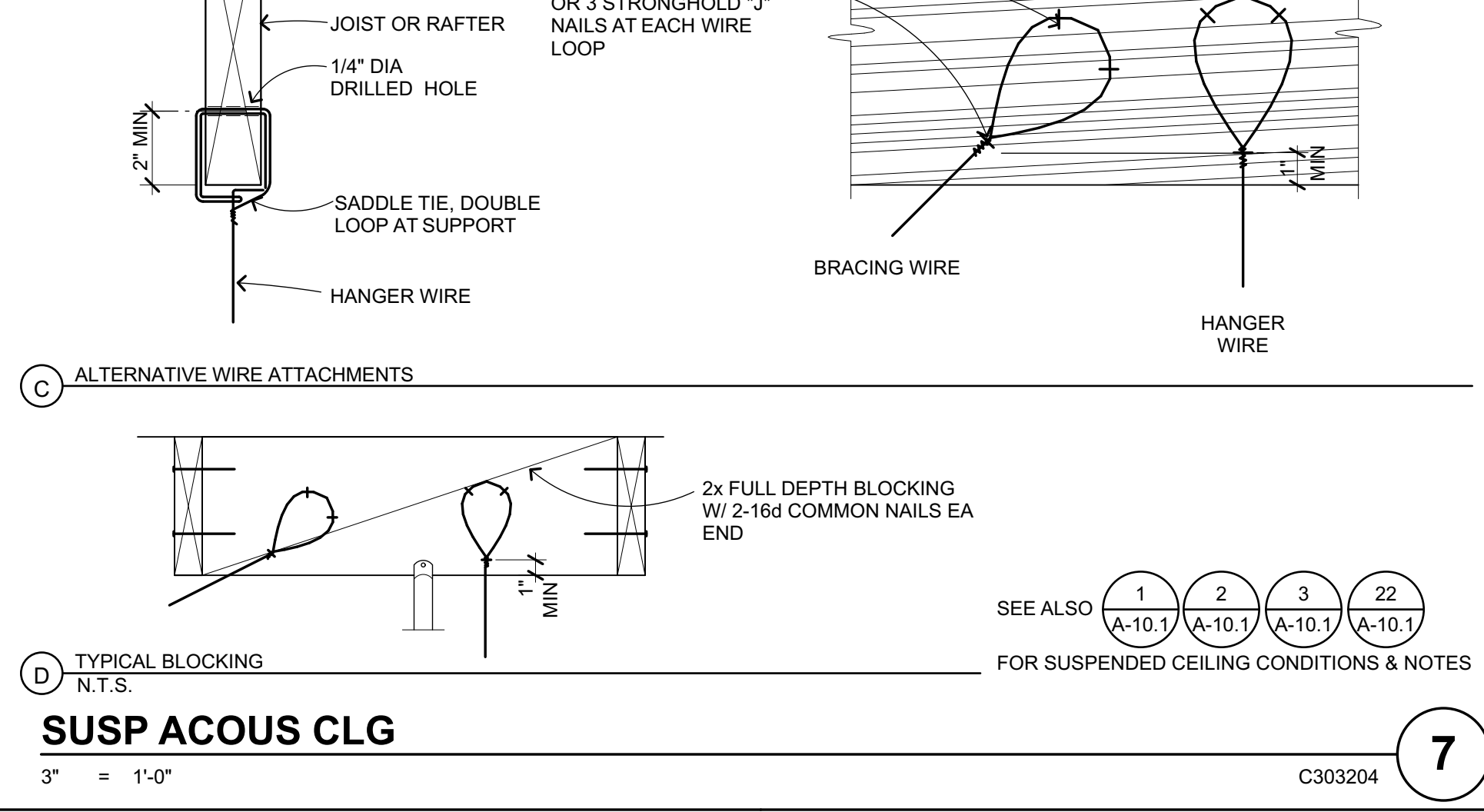
HDR SOFFIT AT SUSP CLG
 3" = 1'-0"
 C303210_A **23**



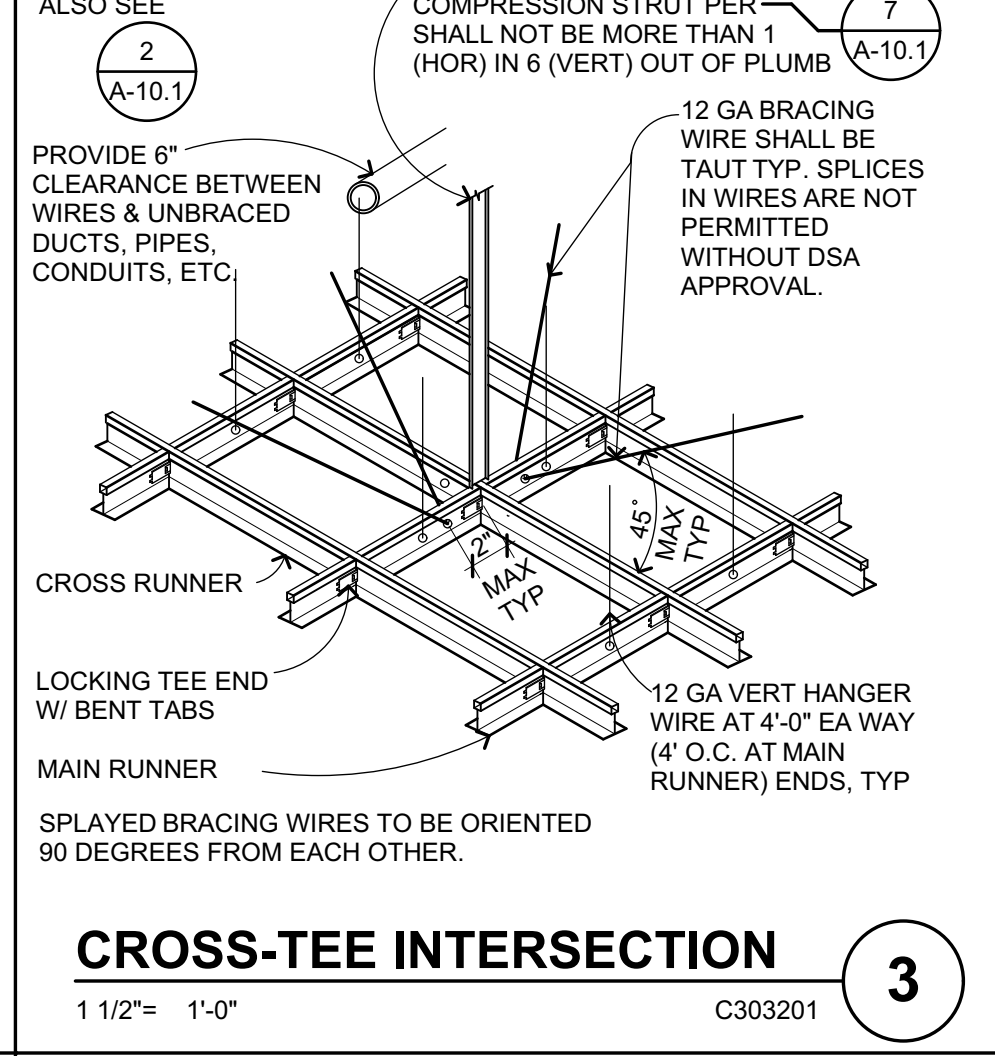
SUSP CLG PERIMETER - MFR CLIP
 6" = 1'-0"
 C303206 **16**



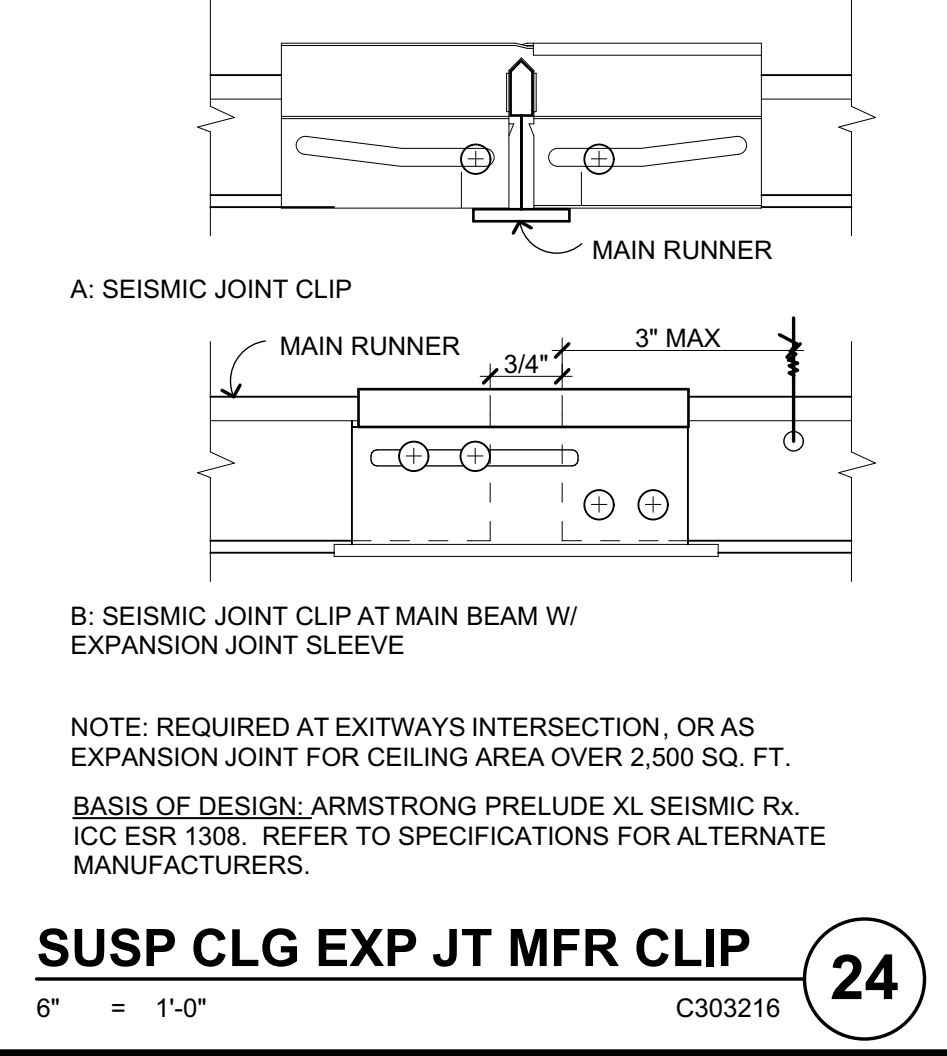
PROJECTOR MOUNT
 1 1/2" = 1'-0"
 C303521 **14**



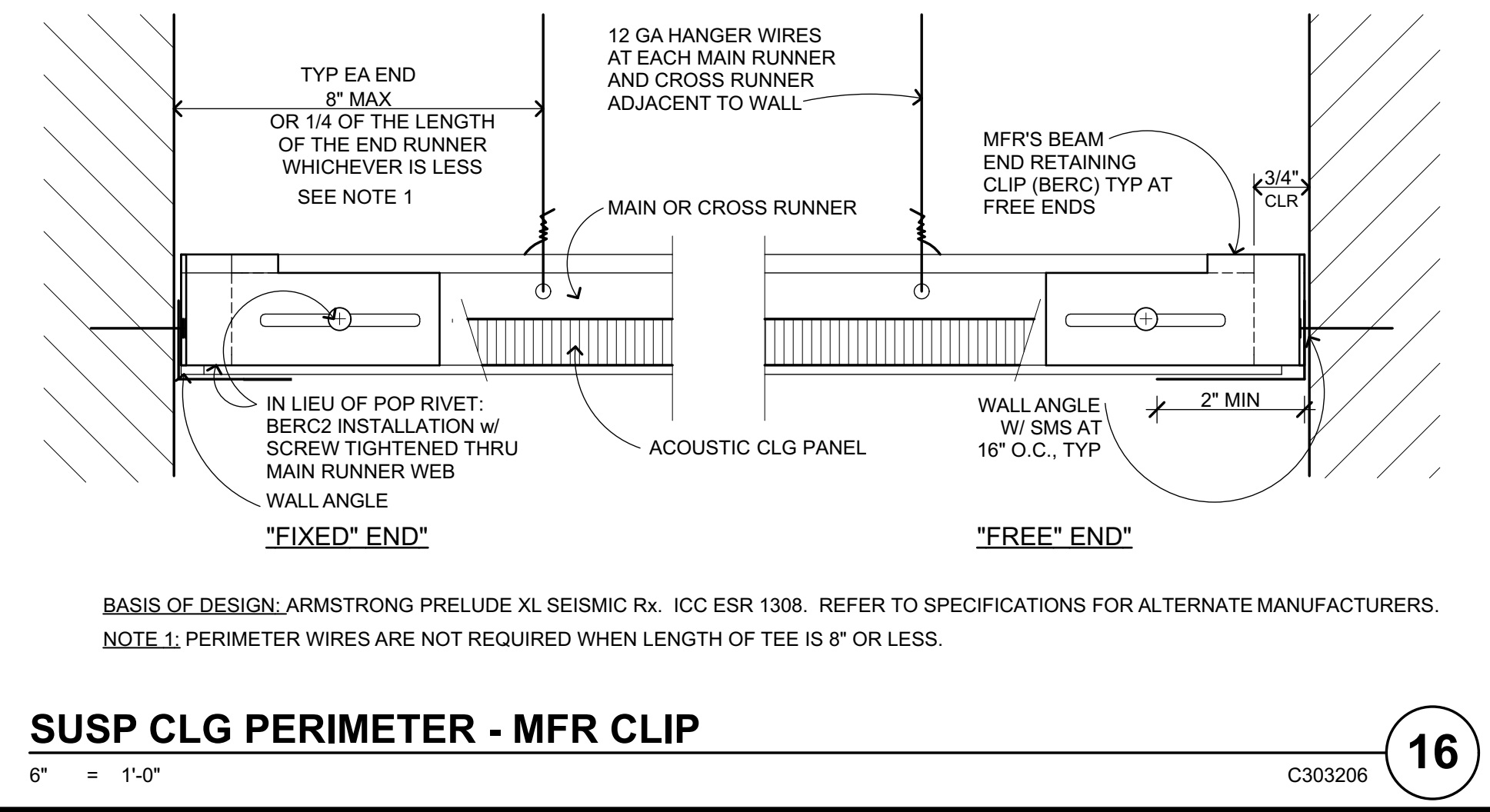
SUSP ACOUS CLG
 3" = 1'-0"
 C303204 **7**



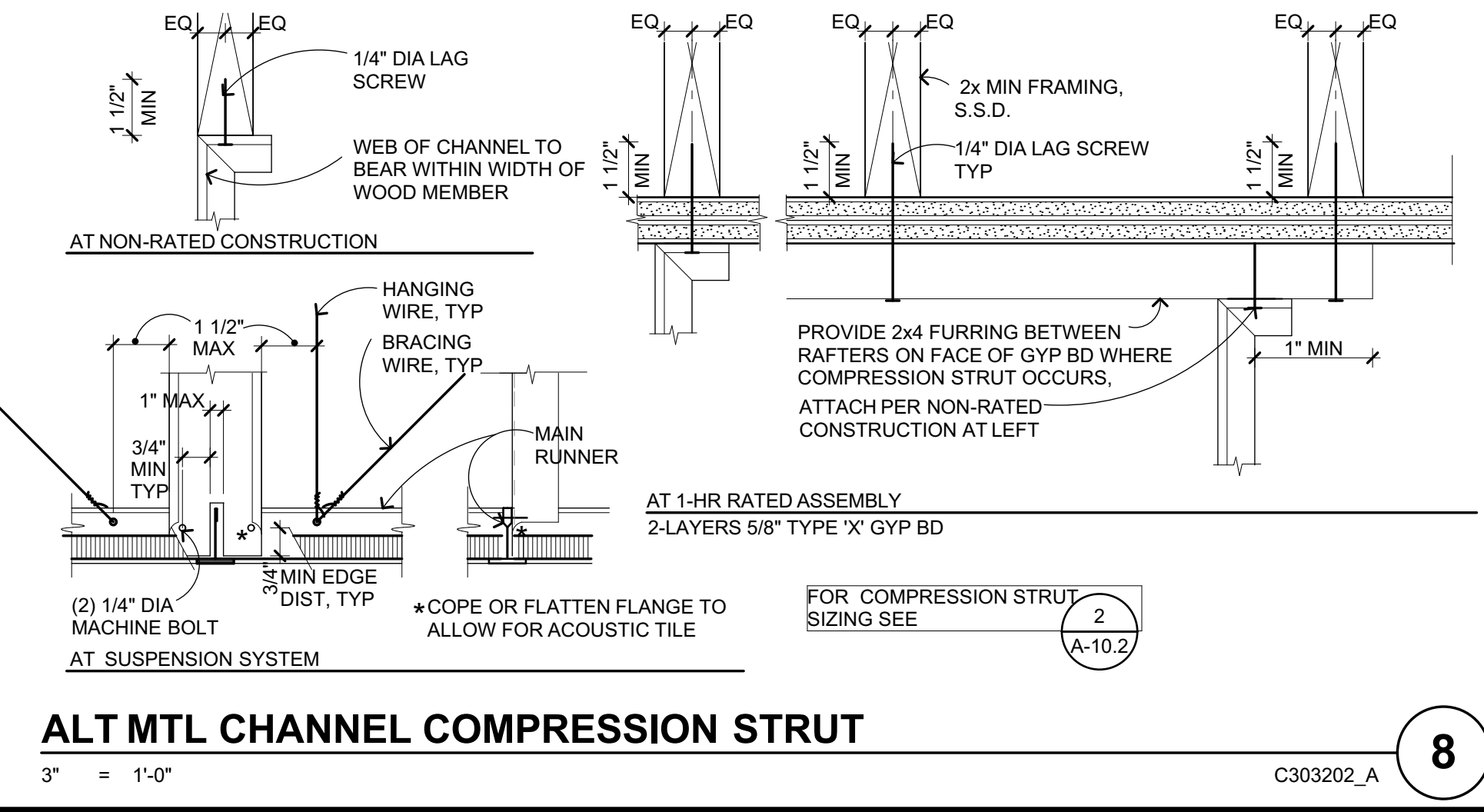
CROSS-TEE INTERSECTION
 1 1/2" = 1'-0"
 C303201 **3**



SUSP CLG EXP JT MFR CLIP
 6" = 1'-0"
 C303216 **24**



SUSP CLG PERIMETER - MFR CLIP
 6" = 1'-0"
 C303206 **16**



ALT MTL CHANNEL COMPRESSION STRUT
 3" = 1'-0"
 C303202_A **8**

EMT COMPRESSION STRUT

EMT TYPE	MAXIMUM LENGTH
1/2" DIA EMT (0.042" WALL TH)	4'-7"
3/4" DIA EMT (0.049" WALL TH)	7'-5"
1" DIA EMT (0.057" WALL TH)	9'-9"
1 1/4" DIA EMT (0.065" WALL TH)	12'-9"
1-1/2" DIA EMT (0.065" WALL TH)	14'-9"
2" DIA EMT (0.065" WALL TH)	18'-10"

CHANNEL COMPRESSION STRUT

Channel Type	MAXIMUM LENGTH
250S125-33	5'-0"
250S137-33	6'-10"
362S137-33	8'-0"
250137-43	8'-10"
400S137-43	10'-10"

COMPRESSION STRUT TABLE
 1' = 1'-0"
 C303214 **4**

APPROVED
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 APP. 01-117845 INC.
 REVIEWED FOR
 SS FLS ACS
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QUATTROCCHI KWOK ARCHITECTS
 Main Office: 636 Fifth Street, Santa Rosa, CA 95404
 Pleasanton Office: 600 Main Street, Suite E, Pleasanton, CA 94566 (707) 576-0829

LICENSED ARCHITECT
 JIM THEISS
 LICENSE # C22643
 EXP. JUNE 30, 2019
 STATE OF CALIFORNIA
 SIGNED: FEBRUARY 27, 2019

HERITAGE HIGH SCHOOL

CULINARY ARTS BUILDING

101 American Ave
 Brentwood, CA 94513

LIBERTY UNION HIGH SCHOOL DISTRICT

ARCH PROJECT NO: 1750.00
 DRAWN BY:
 DRAWING SCALE: AS NOTED
 PTN: 61721-70

CD
 FEBRUARY 27, 2019
 SHEET TITLE

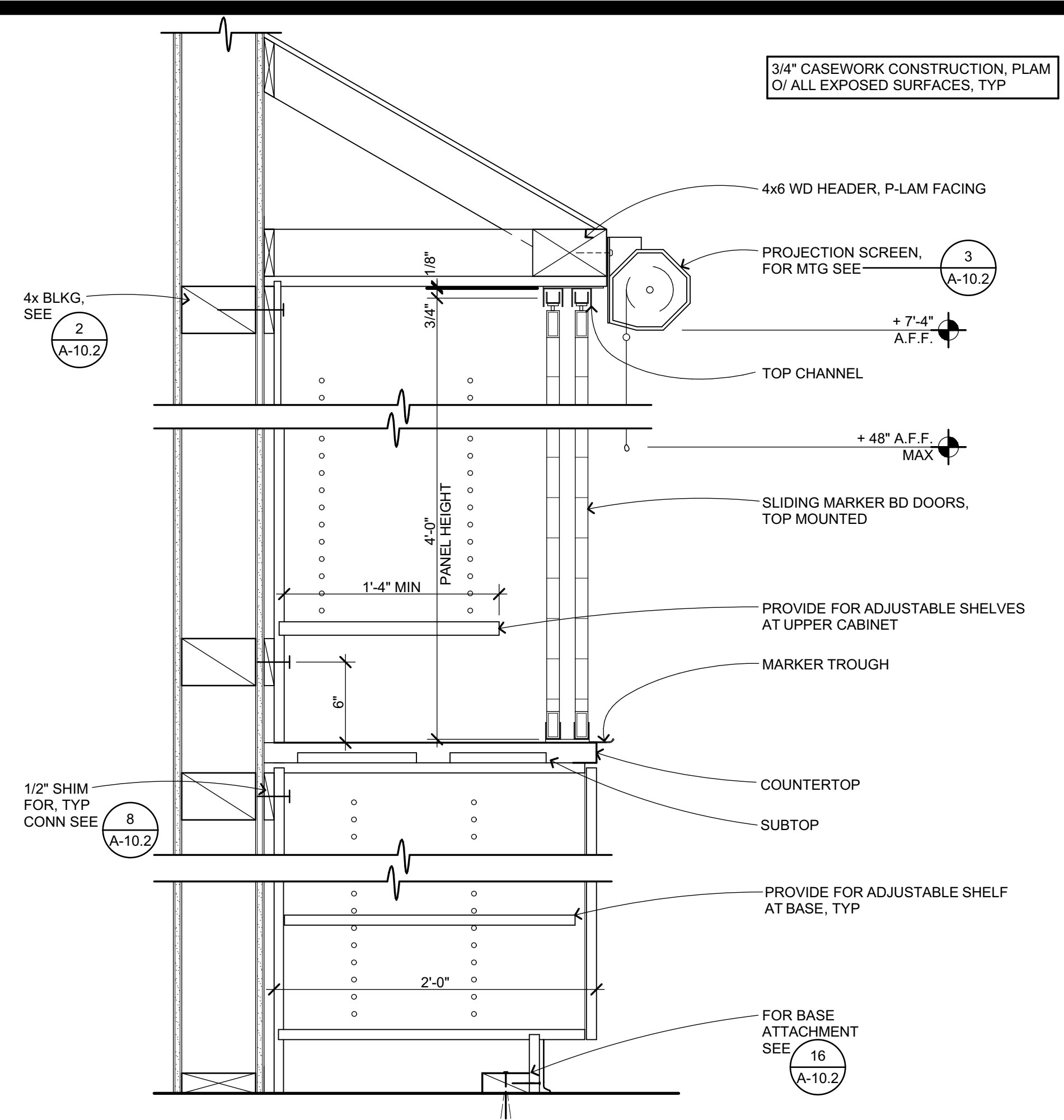
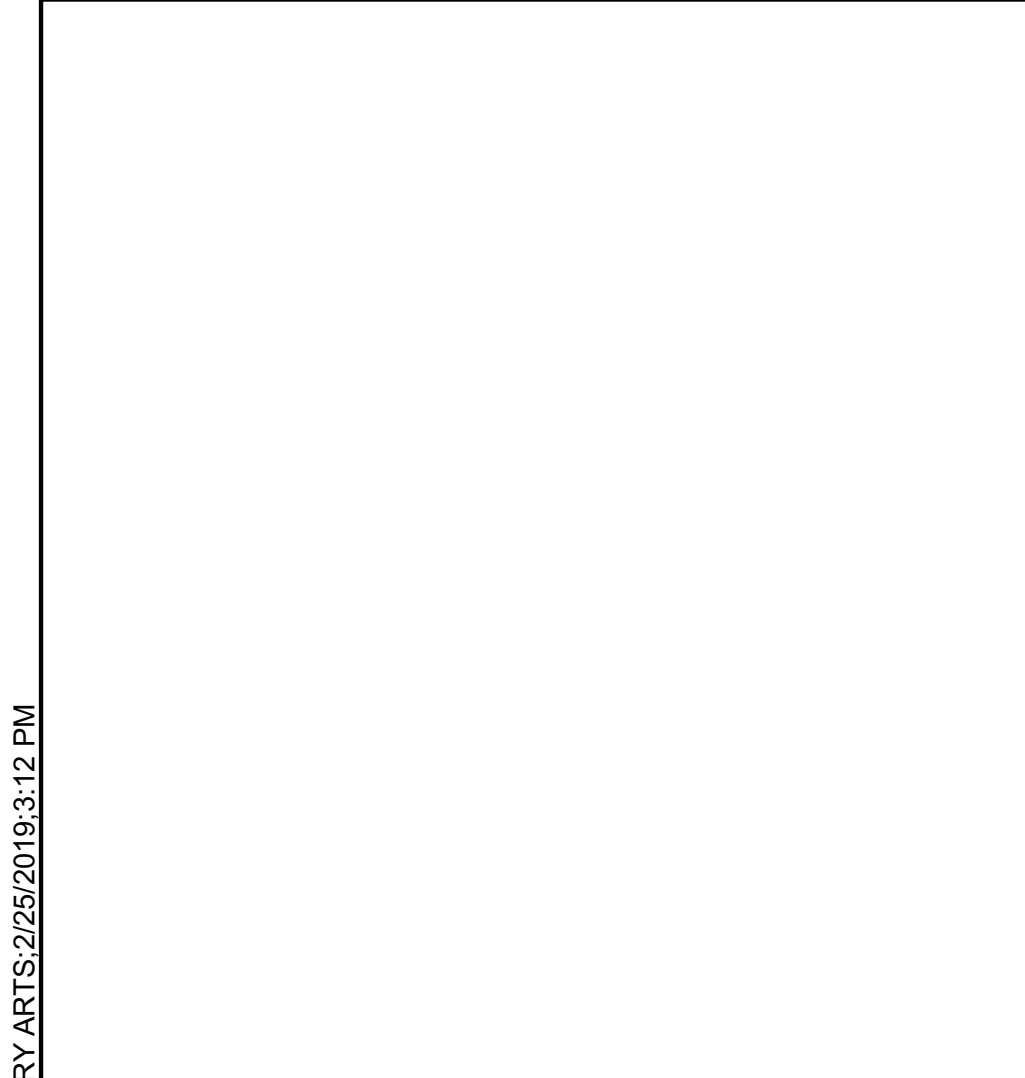
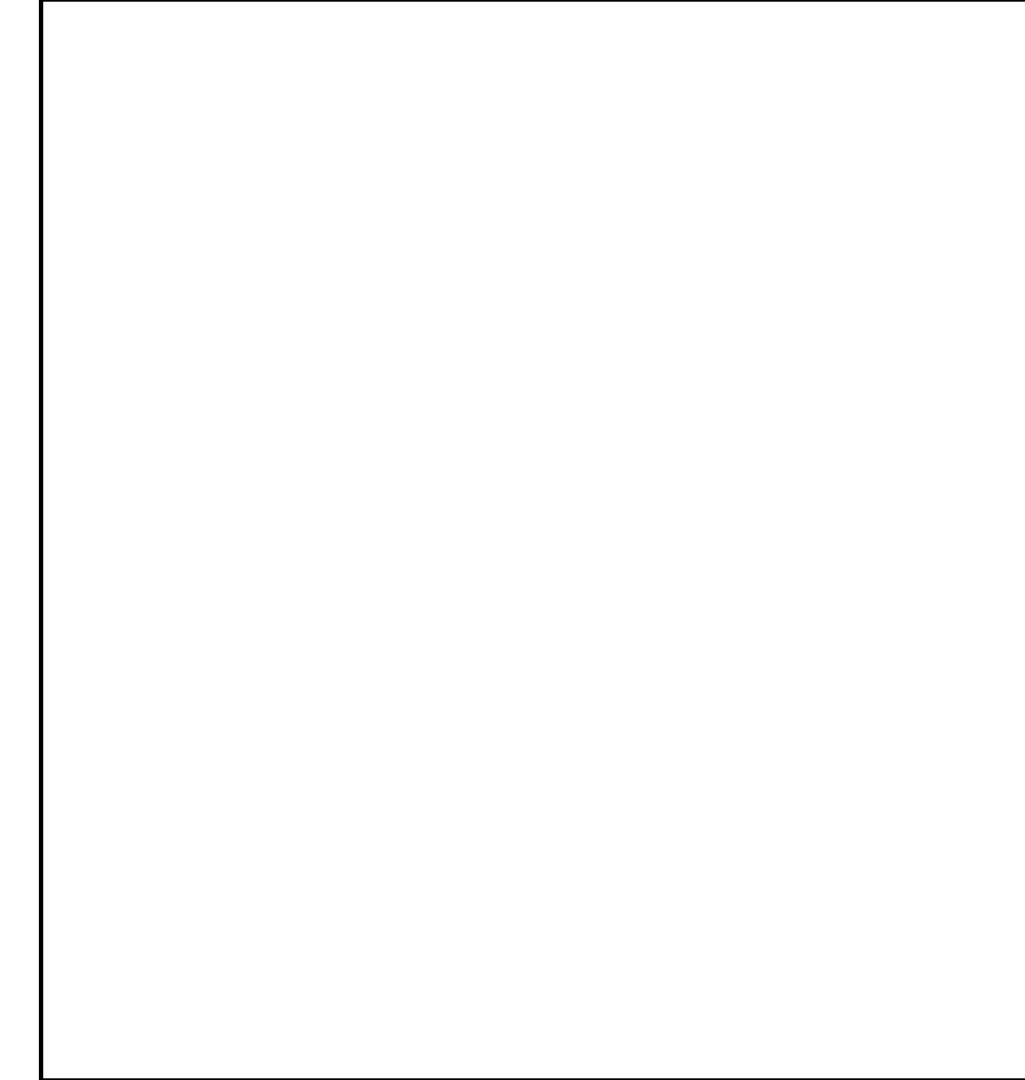
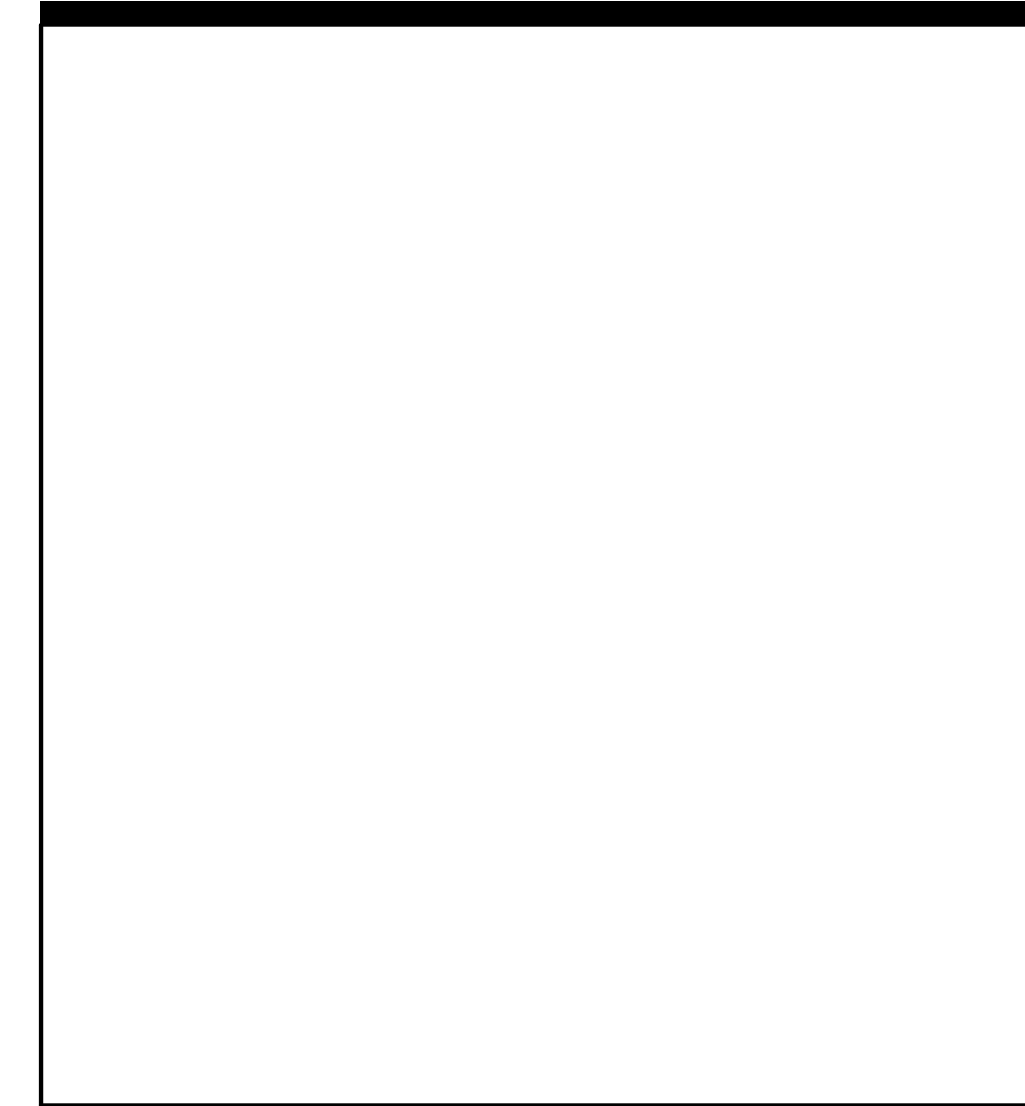
CEILING DETAILS

SHEET NUMBER

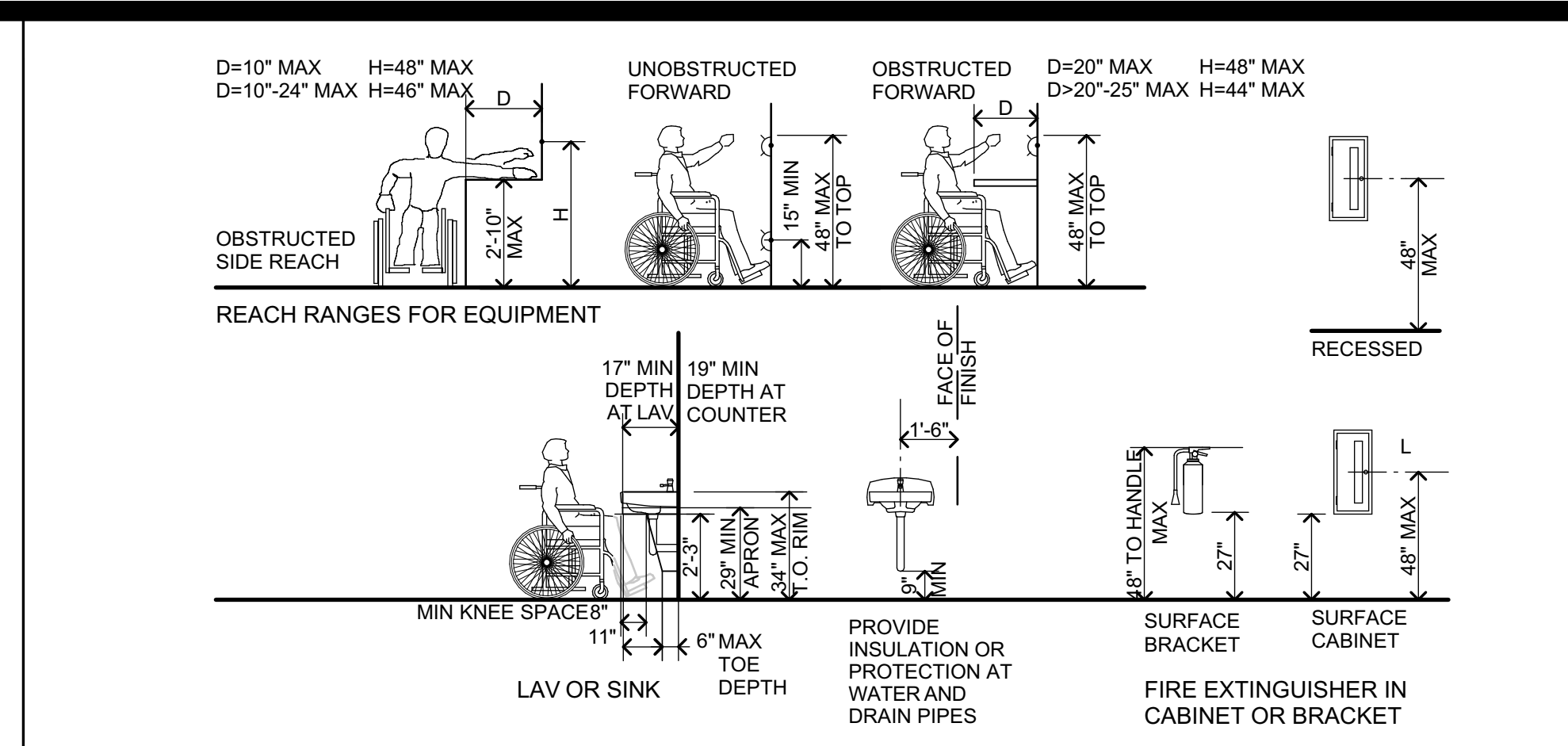
A-10.1

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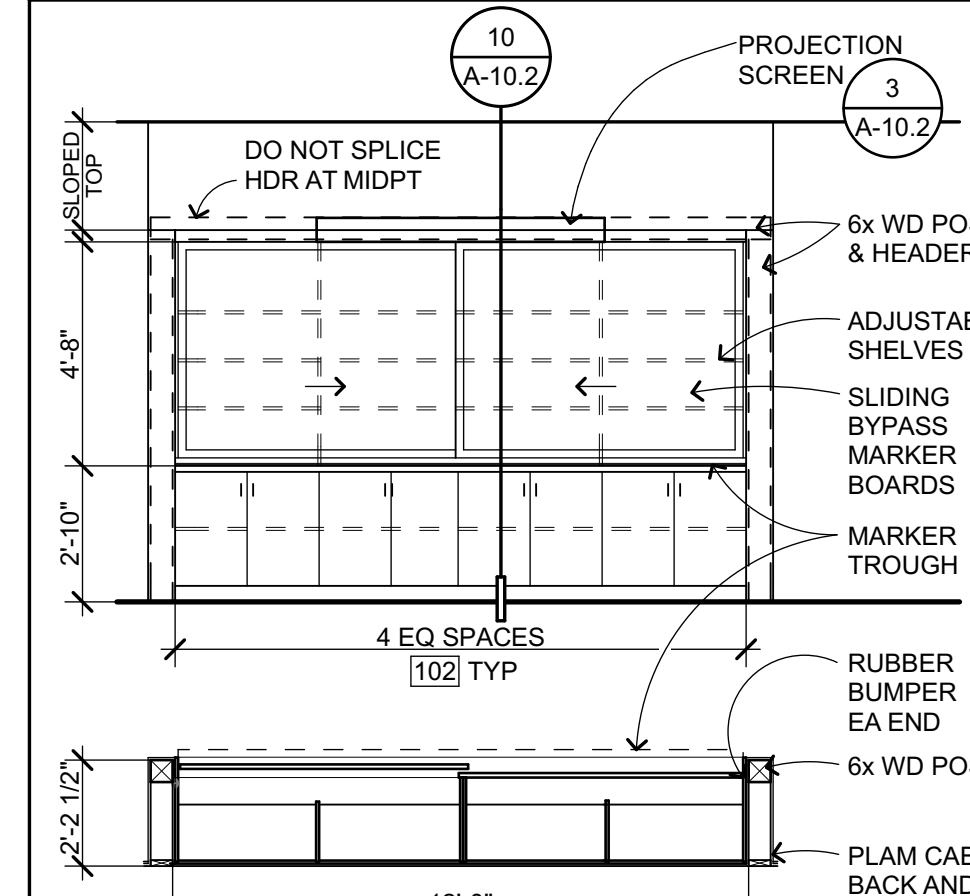
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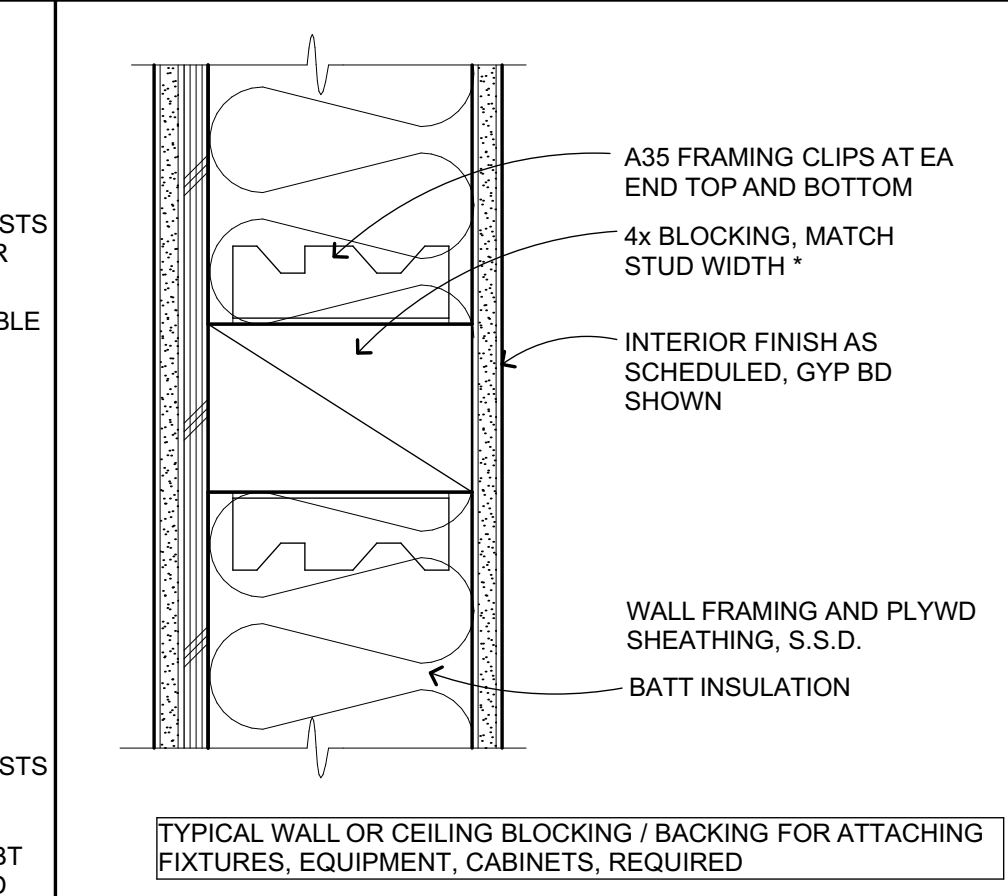
TEACHING WALL CABINET SECTION
1 1/2" = 1'-0" E201212 **10**



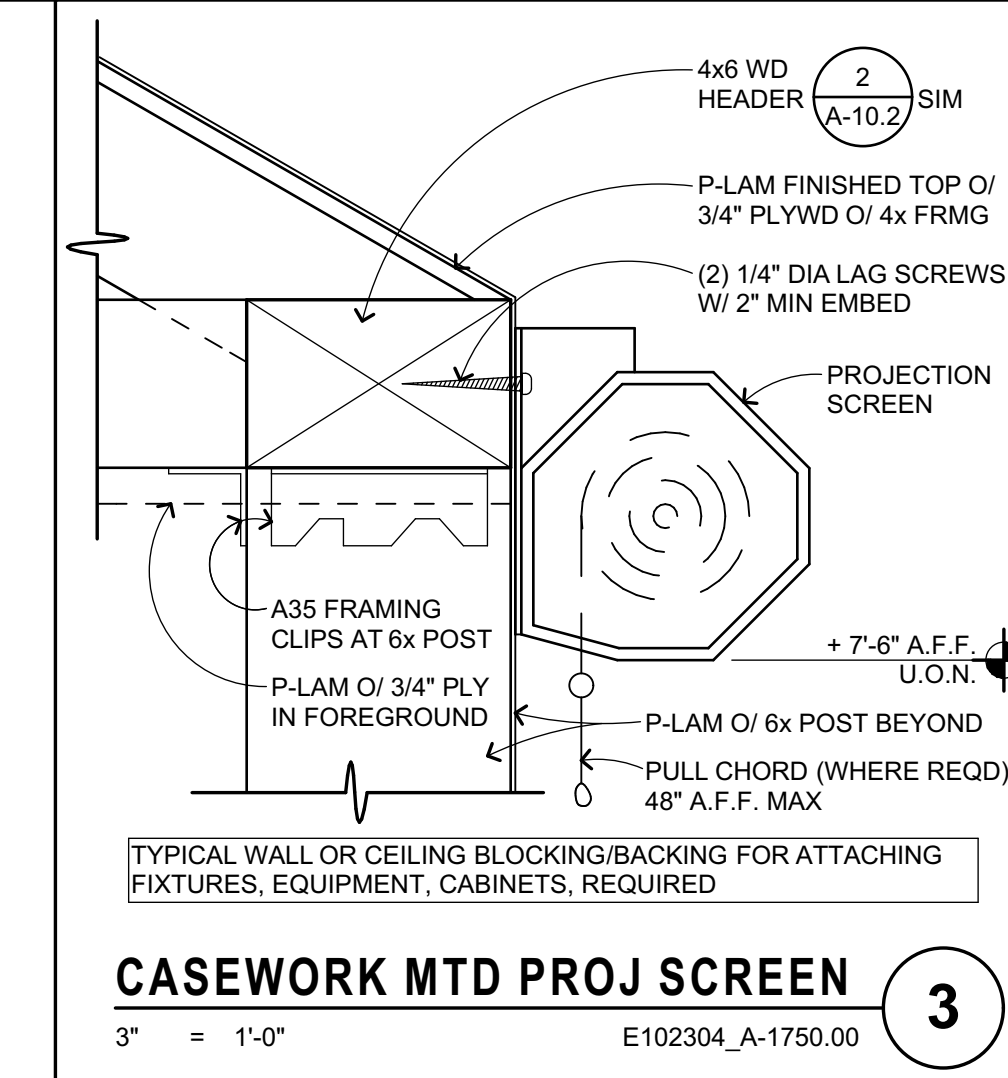
ACC MOUNTING HEIGHTS - ADULT
1/4" = 1'-0" C401101-2016 **1**



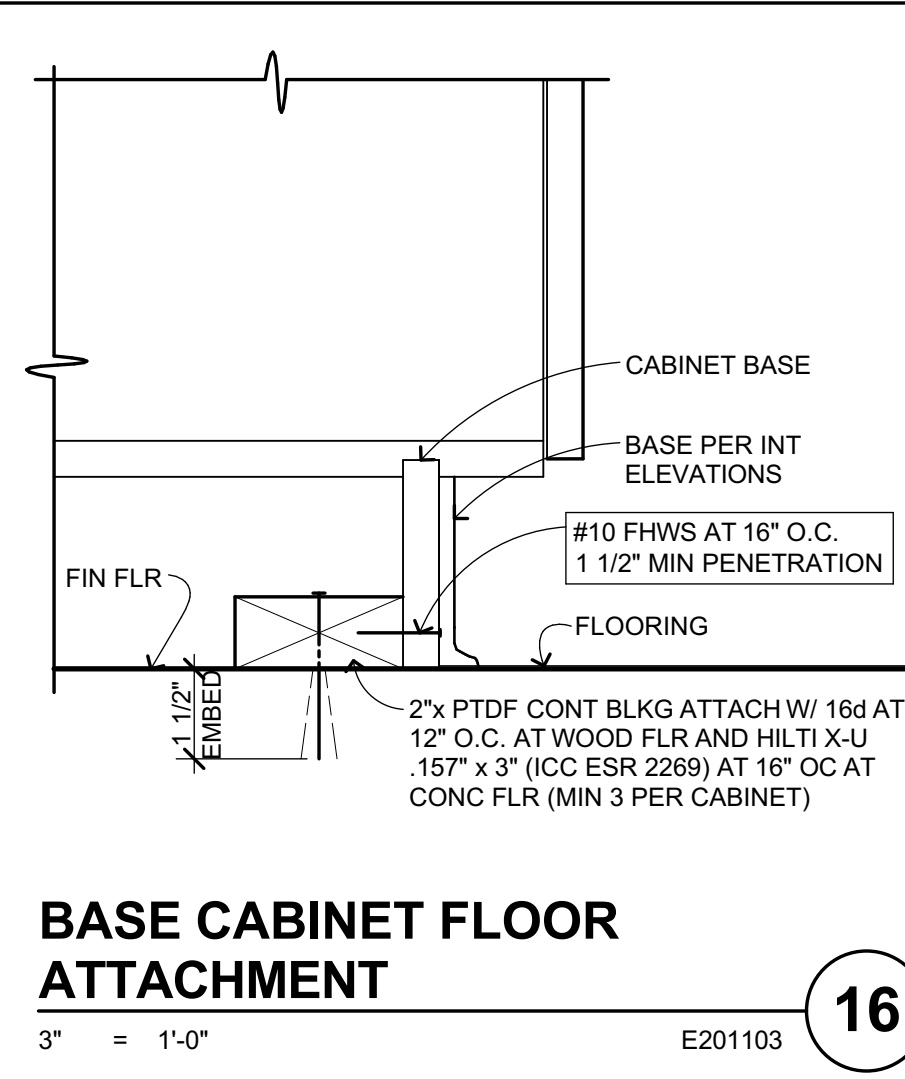
TEACHING WALL PLAN & ELEV
1/4" = 1'-0" E201213 **6**



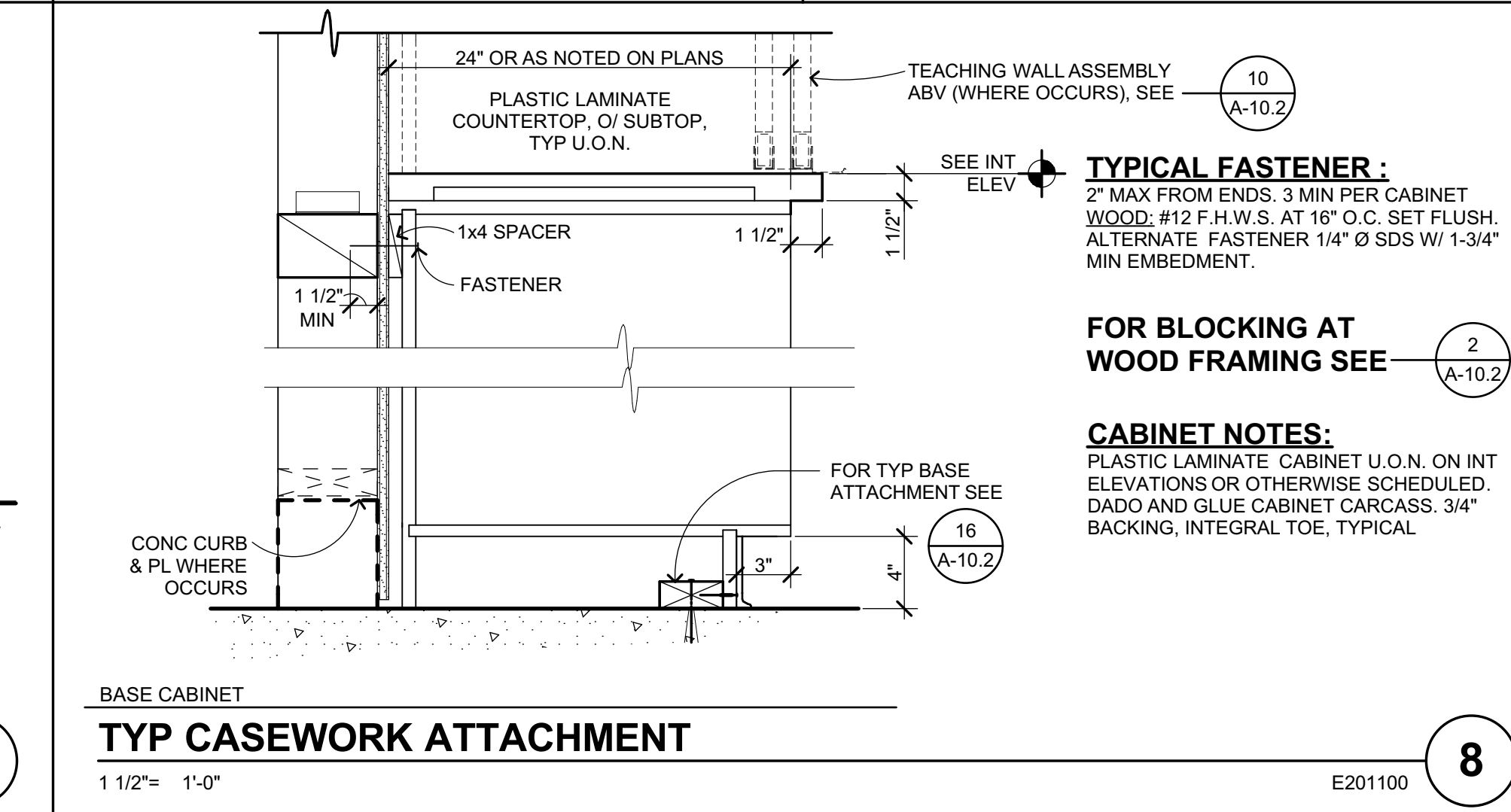
BLK'G/BACKING
3" = 1'-0" C108101_A **2**



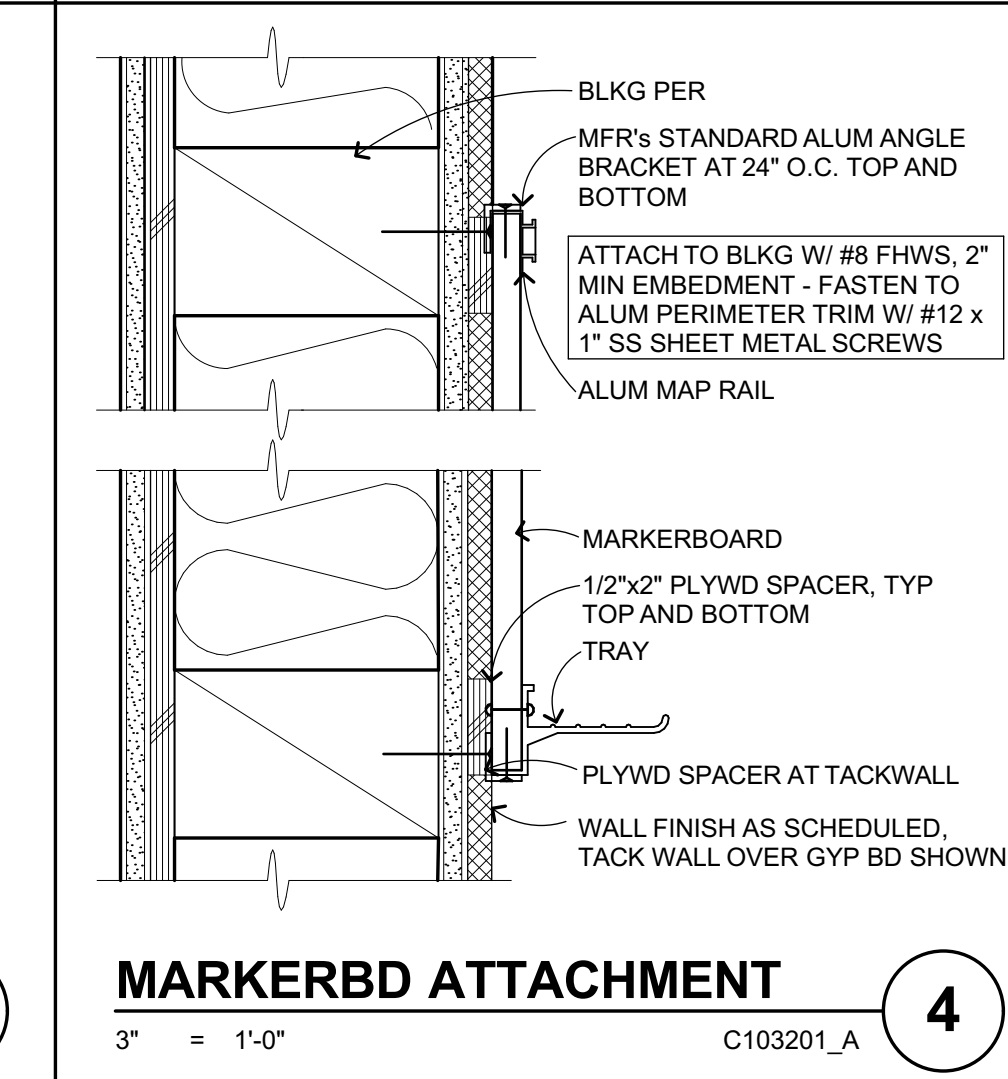
CASEWORK MTD PROJ SCREEN
3" = 1'-0" E102304_A-1750.00 **3**



BASE CABINET FLOOR ATTACHMENT
3" = 1'-0" E201103 **16**



TYP CASEWORK ATTACHMENT
1 1/2" = 1'-0" E201100 **8**



MARKERBD ATTACHMENT
3" = 1'-0" C103201_A **4**

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DRAWING SCALE: AS NOTED

PTN: 61721-70

CD

FEBRUARY 27, 2019

SHEET TITLE

SHEET NUMBER

INTERIOR DETAILS

A-10.2

MINIMUM CBC REQUIREMENTS.

TYPICAL PLAQUE NOTES U.O.N.

PLAQUES WITH TACTILE LETTERING AND SYMBOLS (RAISED 1/32") INCLUDES CALIFORNIA CONTRACTED GRADE 2 BRAILLE RAISED 1/40" PER CBC REQUIREMENTS. SAN SERIF FONT SELECTION SHALL HAVE THE WIDTH OF THE UPPERCASE LETTER "O" IS 60% MIN AND 110% MAX OF THE HEIGHT OF THE UPPERCASE LETTER "I". A STROKE WIDTH TO HEIGHT OF THE UPPERCASE LETTER "I" SHALL BE 15% MAX OF HT OF CHARACTER.

CUSTOM COLORS, LAYOUT & LETTER STYLES TO BE SELECTED & APPROVED BY ARCHITECT. SIGNAGE SYMBOLS, BACKGROUND, MOUNTING SURFACE TO CONTRAST, 70% MINIMUM CONTRAST.

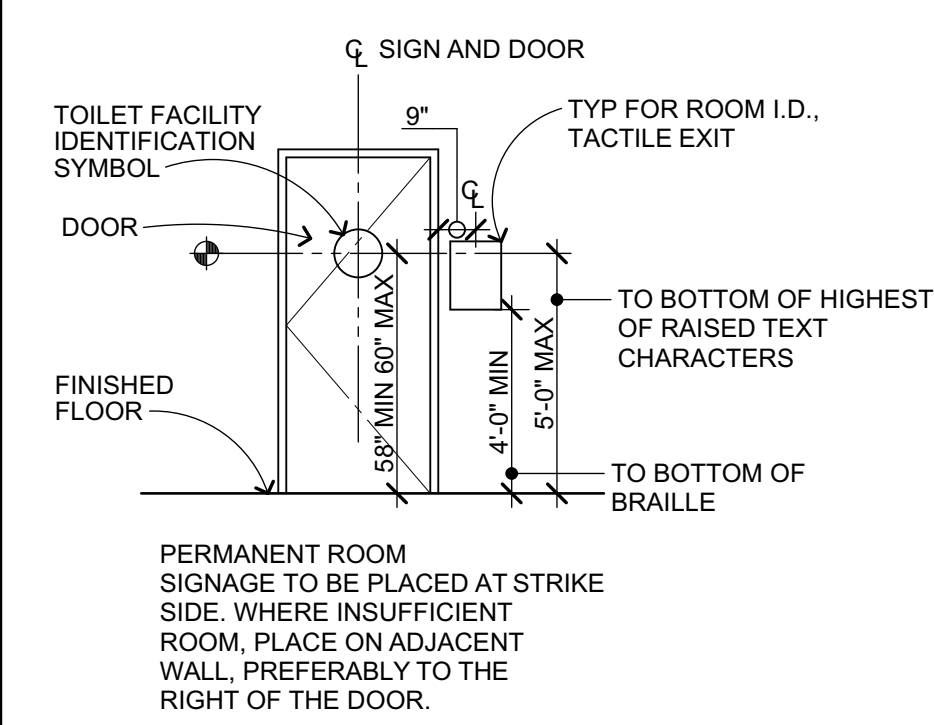
WHERE SIGN PLAQUES ARE PLACED ON GLASS, ANY BACKING PLAQUE OR SIGN IS TO BE THE SAME SIZE.

TEXT

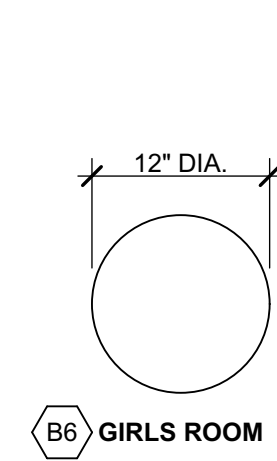
TEXT HT A.F.F.	TEXT SIZE*
48"-70"	5/8" MIN. TEXT (48 PT)
> 70"	2" MAX.

* FOR WALL MOUNTED SIGNS WHICH MAY BE VIEWED W/O OBSTRUCTION.

MOUNTING OF SIGNS

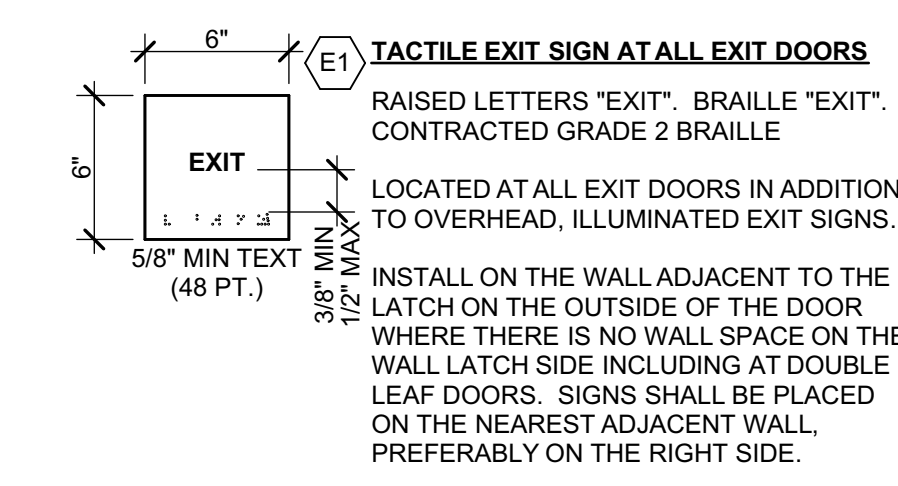
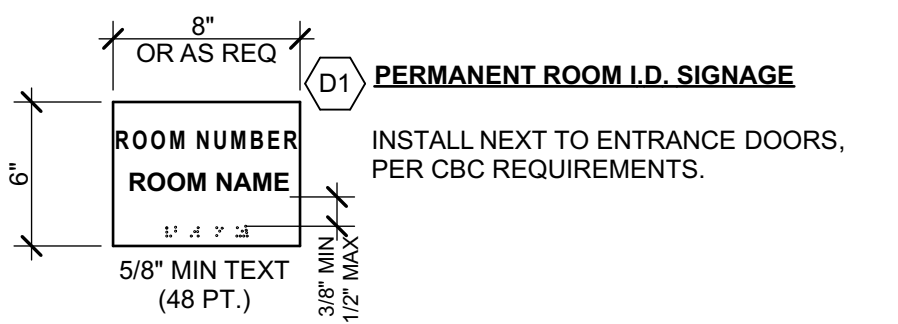
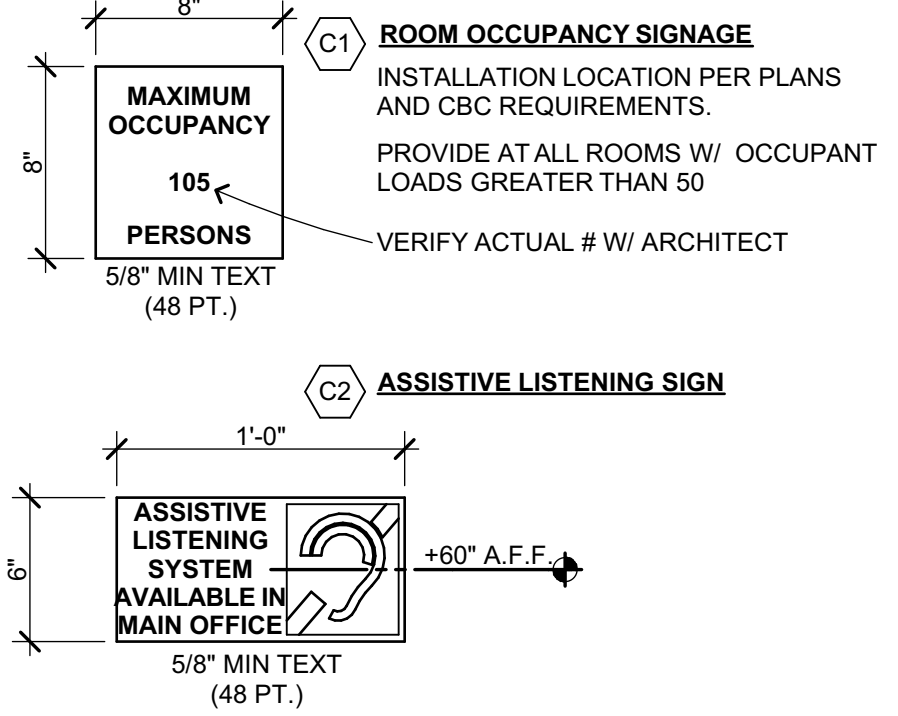


PERMANENT ROOM SIGNAGE TO BE PLACED AT STRIKE SIDE, WHERE INSUFFICIENT ROOM, PLACE ON ADJACENT WALL, PREFERABLY TO THE RIGHT OF THE DOOR.



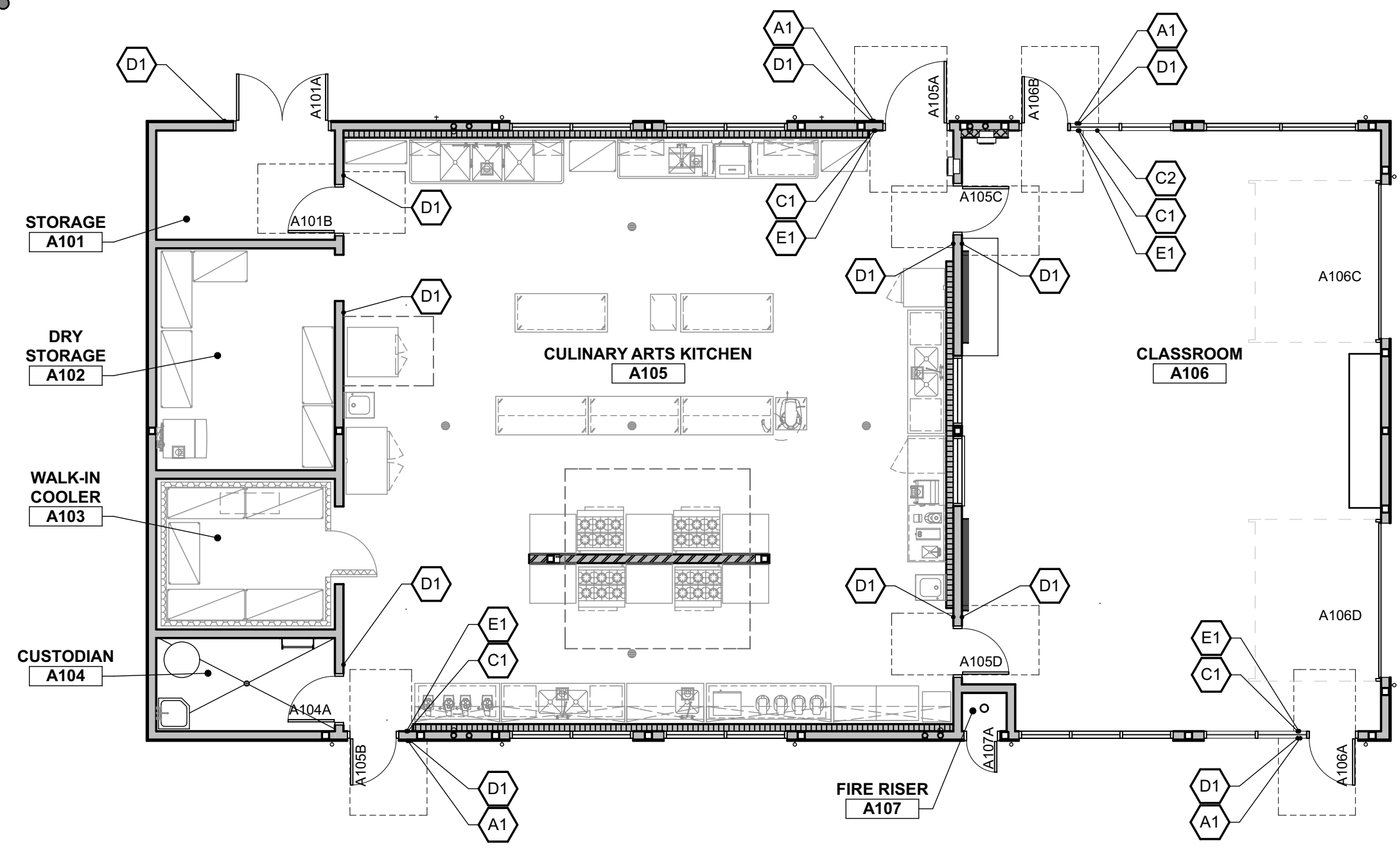
TOILET ROOM DOOR SIGNAGE (NOTES TYP FOR EACH SIGN)
PROVIDE AT ACCESSIBLE TOILET ROOMS.

UNISEX TOILET FACILITY IDENTIFICATION SYMBOLS
CIRCLE, 12 INCHES IN DIAMETER WITH AN EQUILATERAL TRIANGLE 1/4" THICK SUPERIMPOSED ON THE CIRCLE AND WITHIN THE 12 INCH DIAMETER VERTEX POINTING UPWARD. COLOR AND CONTRAST SHALL BE DISTINCTLY DIFFERENT THAN THAT OF THE DOOR, 70 LETTER STYLE MINIMUM CONTRAST. DOUBLE STICK FOAM TAPE ADHESIVE. SEE PLANS FOR LOCATIONS.
PROVIDE AT ACCESSIBLE TOILET ROOM DOOR CENTERED AT 60" HIGH. SEE ACCOMPANYING DIAGRAM.



GENERAL NOTES:

- FOR SIGNAGE GENERAL NOTES, SEE 7
- FOR TYPICAL SIGNAGE ATTACHMENT, SEE 3
- FOR SIGNAGE ATTACHMENT AT GLASS, SEE 4
- SIGNAGE TAG (E1) INDICATES SIGNAGE TYPE E1, PER 14
- FOR SIGNAGE ELEVATIONS, SEE INTERIOR & EXTERIOR ELEVATION SHEETS



ACCESSIBLE SIGNAGE

1/4" = 1'-0"

14

C103332-2016

FLOOR PLAN GRAPHICS

1/8" = 1'-0"

2

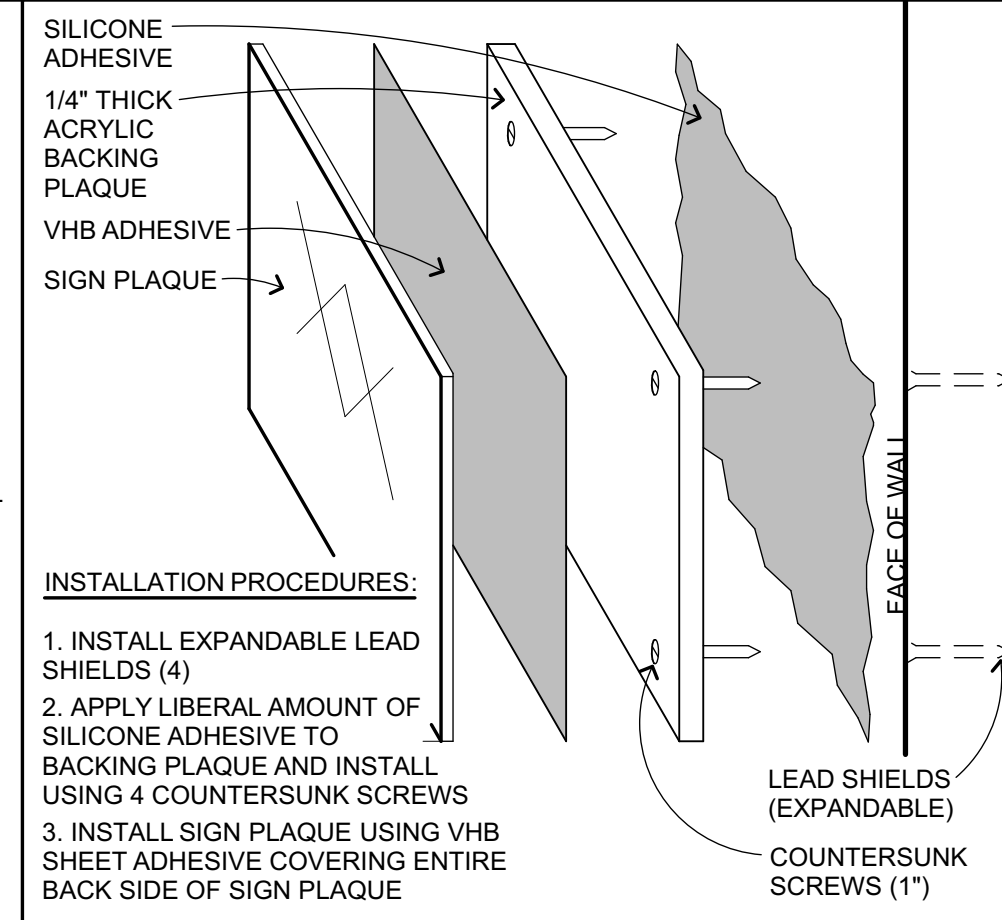
- ALL SIGNAGE AT MAIN ENTRANCES, TOILETS, PERMANENT ROOMS, ASSISTIVE LISTENING SYSTEMS SHALL COMPLY WITH TITLE 24 CBC AND CBC 11B-703
- RAISED CHARACTERS SHALL CONFORM TO CBC 11B-703.2 BRAILLE SHALL CONFORM TO 11B-703.3 PICTORIAL SIGNAGE SHALL CONFORM TO 11B-703.6
- MOUNTING LOCATION AND HEIGHT: (WHERE PERMANENT IDENTIFICATION IS PROVIDED OR WHERE SIGNAGE IS REQUIRED FOR ROOMS AND SPACES): CBC 11B-703.4
- INTERNATIONAL SYMBOL OF ACCESSIBILITY DESIGN AND COLOR SHALL CONFORM TO CBC 11B-703.7.1 & 11B-703.7.2.1
- DOORS TO TOILET ROOMS: PROVIDE SIGNAGE CONFORMING TO CBC 11B-703.7.2.6
- CONTRAST AND FINISH OF SYMBOLS SHALL CONFORM TO CBC 11B-703.7.1.

SIGNAGE GENERAL NOTES

1/4" = 1'-0"

Z101006

7

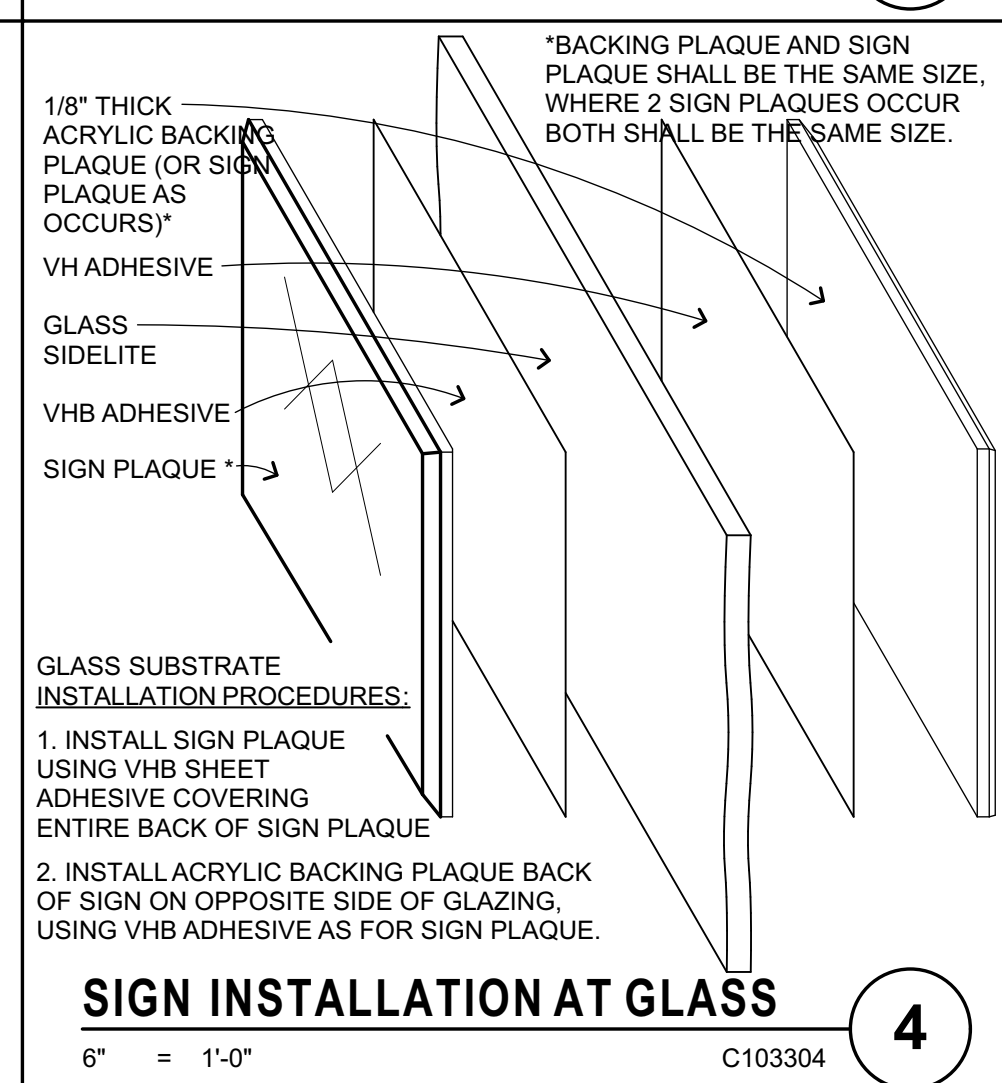


SIGN INSTALLATION

6" = 1'-0"

C103301

3

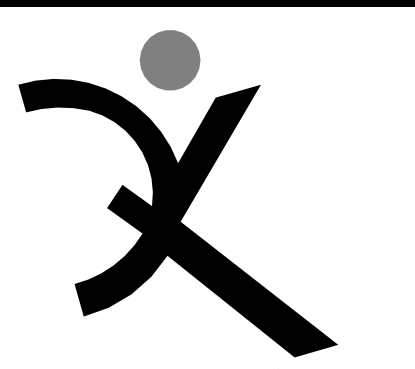


6" = 1'-0"

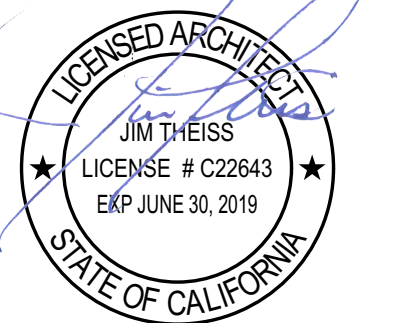
C103304

4

APPROVED
DIV. OF THE STATE ARCHITECT
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SHEET TITLE

ARCHITECTURAL GRAPHICS FLOOR PLAN & DETAILS

SHEET NUMBER
AG-2.1

E SHEAR WALL NOTES

- PEN = PLYWOOD/OSB SHEATHING EDGE NAILING. BLOCK ALL UNSUPPORTED EDGES WITH 2x MATERIAL UNO. BLOCK EDGES WITH 3x MATERIAL WHERE NAILING IS 4"oc OR LESS. SEE 8/S-1.3 FOR NAIL STAGGER AT ALL 3x.
- FIELD NAILING TO BE 12"oc UNO.
- ALL SHEATHING NAILS TO BE COMMON WIRE. SEE D/S-0.1 AND SPECIFICATIONS FOR OTHER NAIL REQUIREMENTS.
- ALL EXTERIOR WALLS NOT DESIGNATED AS SHEAR WALLS ON PLANS TO HAVE SHEATHING AND PEN NAILING PER SHEAR WALL TYPE 'A'.
- SHEAR WALL LENGTHS, WHERE NOTED, ARE MINIMUM. DO NOT LOCATE HOLD-DOWNS FROM THESE DIMENSIONS. SAD FOR ACTUAL WALL LENGTHS.
- HOLD-DOWN REFERS TO SIMPSON STRONG TIE CO. HOLD-DOWNS. INSTALL HOLD-DOWNS AND REQUIRED POSTS PER 8/S-1.2 AND 9/S-1.2. SEE PLANS FOR OTHER REQUIREMENTS.
- EDGE NAIL WALL SHEATHING TO STUDS OR POSTS WITH HOLD-DOWNS.
- PORTIONS OF INTERIOR WALL SURFACES ADJACENT TO SPECIFIED SHEAR WALLS SHALL BE SHEATHED FOR THE FULL, UNINTERRUPTED LENGTH TO MATCH EXTERIOR WALLS OR WITH GYPSUM BOARD OF THE SAME THICKNESS TO PROVIDE AN EVEN WALL SURFACE FOR FINISH MATERIALS.
- SHEAR WALLS MORE THAN ONE VERTICAL PANEL IN HEIGHT SHALL HAVE STAGGERED HORIZONTAL OR VERTICAL SPLICE JOINTS.
- WHERE PANELS ARE APPLIED ON BOTH FACES OF A WALL AND NAIL SPACING IS LESS THAN 6"oc ON EITHER SIDE, PANEL JOINTS SHALL BE OFFSET TO FALL ON DIFFERENT FRAMING MEMBERS OR FRAMING SHALL BE 3x OR THICKER AND NAILS ON EACH SIDE SHALL BE STAGGERED.
- ANCHOR BOLTS (AB) FOR SHEAR WALLS SHALL INCLUDE STEEL PLATE WASHERS, A MINIMUM OF 0.229 INCH BY 3 INCHES SQUARE IN SIZE, BETWEEN THE SILL PLATE AND NUT. THE HOLE IN THE PLATE WASHER IS PERMITTED TO BE DIAGONALLY SLOTTED WITH A WIDTH OF UP TO 3/4" LARGER THAN THE AB DIAMETER AND A SLOT LENGTH NOT TO EXCEED 1 1/2". PROVIDED A STANDARD CUT WASHER IS PLACED BETWEEN THE PLATE WASHER AND THE NUT. PLATE WASHER TO EXTEND WITHIN 1/2" OF SHEAR WALL SHEATHING UNO. PROVIDE OVERSIZED PLATE WASHER OR OFFSET AB AS REQUIRED. AT DOUBLE-SIDED SHEAR WALLS, STAGGER AB AS REQUIRED. AB TO BE PLACED A MINIMUM OF 4 1/2" AND A MAXIMUM OF 12" FROM ENDS OF ALL SILL PLATES AND AT NOTCHES IN SILL PLATES.
- NO OPENINGS ARE ALLOWED IN SHEAR WALLS UNLESS SHOWN ON THE STRUCTURAL PLANS. OPENINGS NOTED ARE PER 8/S-1.2. COORDINATE ANY OPENINGS NOT SHOWN WITH THE STRUCTURAL ENGINEER.

SHEAR WALL SCHEDULE					
SW	APA RATED SHEATHING	NAILING (PEN)	ANCHORAGE		REMARKS
			3/4" BOLT FDN	3/4" BOLT FDN	
(A)	1/2" (32/16) EXP 1	10d @ 6"oc	32"oc	48"oc	3x MIN AT ALL ADJOINING PANEL EDGES
(B)	1/2" (32/16) EXP 1	10d @ 4"oc	24"oc	32"oc	

F STEEL NOTES

- COORDINATE TOP OF FOOTING ELEVATIONS AS DETERMINED BY THE CONTRACTOR PER C/S-0.1 NOTE #10.
- TOP OF STEEL ELEVATIONS ARE TO BE DETERMINED BY THE CONTRACTOR BASED ON ARCHITECTURAL DRAWINGS AND STRUCTURAL DRAWINGS.
- WHERE INDICATED ON PLAN "C" INDICATES MIDSPAN CAMBER IN INCHES.
- DEMAND CRITICAL WELDS ARE AS INDICATED ON PLANS. DEMAND CRITICAL WELDS AND THE TESTING AND INSPECTION OF THEM ARE TO MEET ALL REQUIREMENTS OF AISC 341, AWS D1.1, AND AWS D1.8. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

G MATERIAL DATA

(INFORMATION SHOWN IS FOR STRUCTURAL DESIGN REFERENCE ONLY. SEE THE PROJECT SPECIFICATIONS FOR ALL MATERIAL SPECIFICATIONS.)

CONCRETE 28-DAY ULTIMATE COMPRESSIVE STRENGTH:
 F_c = 3,000 PSI FOUNDATIONS
 F_c = 3,000 PSI INTERIOR SLAB ON GRADE

REINFORCING STEEL YIELD STRENGTH:
 F_y = 40,000 PSI AT #3 AND SMALLER
 F_y = 60,000 PSI AT #4 AND LARGER

STEEL YIELD STRENGTH (UNO):
 F_y = 50,000 PSI W SHAPES
 F_y = 36,000 PSI ANGLES, CHANNELS, AND PLATES
 F_y = 46,000 PSI RECTANGULAR HSS
 F_y = 35,000 PSI PIPES

FASTENERS:
 MACHINE BOLTS SHALL BE ASTM A307
 HIGH STRENGTH BOLTS SHALL BE ASTM F3125 GRADE A325 OR F1852 UNO
 ANCHOR RODS SHALL BE ASTM F1554 GR 36 UNO
 ARC-WELDING ELECTRODES SHALL BE E70

WOOD BASE DESIGN STRESSES (UNO):

SAWN LUMBER MEMBER	SPECIES AND MINIMUM GRADE, UNO	F _b (PSI)	F _v (PSI)	E (PSI)
6x POSTS	DOUGLAS FIR - #1	1200	170	1.6x10 ⁶
6x BEAMS	DOUGLAS FIR - #1	1350	170	1.6x10 ⁶
4x POSTS & BEAMS	DOUGLAS FIR - #1	1000	180	1.7x10 ⁶
2x JOISTS, RAFTERS	DOUGLAS FIR - #1	1000	180	1.7x10 ⁶
R MATERIAL	DOUGLAS FIR - #1	1000	180	1.6x10 ⁶
2x STUDS	DOUGLAS FIR - #1	1000	180	1.6x10 ⁶
EXTERIOR 4x POST	REDWOOD - SS	1350	160	1.4x10 ⁶

FOR METAL CONNECTOR DESIGNATION REFER TO SIMPSON STRONG-TIE PER SPECIFICATIONS.

D WOOD FRAMING NOTES

- HEADERS, BEAMS, POSTS, TOP PLATE SPLICES, AND ETC., ARE PER 1/S-1.2 AND 3/S-1.2 WHERE NOT NOTED ON PLAN AND DETAILS.
- ALL BEAMS, JOISTS, AND RAFTERS SHALL BE SEAT CUT FOR FULL UNIFORM BEARING AT SUPPORTS, INCLUDING BEAM SEATS AND COLUMN CAPS.
- SEE 8/S-1.3 FOR SHEATHING NAILING REQUIREMENTS. ALL NAILING NOT NOTED OR DETAILED OTHERWISE SHALL BE PER 10/S-1.2. NAIL LENGTH TO BE SUFFICIENT TO MEET CBC PENETRATION REQUIREMENTS. STUDS ADJACENT TO SEISMIC SEPARATIONS ARE TO BE 2x6 @ 16"oc UNLESS NOTED OTHERWISE.
- EXTERIOR STUD WALL SHALL BE 2x6 @ 16"oc UNLESS NOTED OTHERWISE. INTERIOR BEARING WALLS AND SHEAR WALLS SHALL BE 2x6 @ 16"oc UNLESS NOTED OTHERWISE. SEE ARCHITECTURAL DRAWINGS FOR OTHER INTERIOR WALL FRAMING SIZES. COORDINATE STUD AND PLATE SIZES WITH THE REQUIREMENTS OF THE SHEAR WALL SCHEDULE.
- WOOD POST SIZES ARE TO MATCH BEAM AND STUD WIDTH, UNO. PEN PER E/S-0.1 TO POSTS AT ALL EXTERIOR WALLS AND INTERIOR SHEAR WALLS. POSTS AT HOLD-DOWNS TO BE FULL HEIGHT AND PER 8/S-1.2.
- FOR ROOF DRAINAGE, TOP OF FRAMING BETWEEN NOTED POINTS IS A STRAIGHT LINE.
- ALL MECHANICAL SUPPLY AND RETURN OPENINGS TO BE BETWEEN FRAMING UNO.
- HSS OR PIPE COLUMNS IN STUD WALLS ARE TO BE TRIMMED PER 5/S-1.3. REFER TO PLANS AND DETAILS FOR OTHER REQUIREMENTS.
- JOISTS AND RAFTERS ARE PER PLAN, WITH "BA" HANGERS (SKEWED AND/OR SLOPED AS REQUIRED) AT FLUSH FRAMING UNO. HANGER SIZE TO BE CORRECT FULL SIZE FOR JOIST SIZE (I.E. HU210 FOR 2x10). HANGERS FOR SAWN BEAMS TO BE HUS. HANGERS FOR GLULAM BEAMS TO BE HGUS, UNO.
- PROVIDE SOLID BLOCKING @ 8'-0"oc MAX FOR ALL 2x12 REPETITIVE FRAMING.
- ROUND HOLES IN STEEL PLATES TO BE 1/4" OVERSIZE. SLOTTED HOLES IN STEEL PLATES SHALL BE 1/8" WIDER THAN THE BOLT DIAMETER AND HAVE A LENGTH OF 2 TIMES THE BOLT DIAMETER. THE DIRECTION OF THE SLOTTED LENGTH IS INDICATED ON THE DETAILS (VSH OR HSH). INSTALL BOLT AT THE CENTER LINE OF THE HOLE. BOLT HOLES IN WOOD SHALL BE ROUND AND 1/4" OVERSIZE. CUT OFF BOLT THREADED END FLUSH WITH NUT WHEN REQUIRED BY FINISHES AND 1" MAXIMUM FROM NUT OTHERWISE. PROVIDE STANDARD CUT WASHERS UNDER HEAD AND NUT WHERE BOLT BEARS ON WOOD. USE PLATE OR MALLEABLE IRON WASHERS AT EXPOSED CONDITIONS OR AS INDICATED.
- ALL BOLTED OR NAILED STRAP CONNECTIONS SHALL HAVE AN EQUAL NUMBER OF BOLTS OR NAILS EACH SIDE OF THE SPLICE JOINT. THE FIRST BOLT OR NAIL FROM EACH SIDE OF THE SPLICED OR STRAPPED MEMBER SHALL BE EQUIDISTANT FROM THE SPLICE. STRAPS USING 16d NAILS ON 2x MATERIAL TO BE INSTALLED ON THE 1 1/2" EDGE OF THE MEMBER.
- THE CONTRACTOR SHALL VERIFY THAT THE MOISTURE CONTENT OF ALL FRAMING LUMBER AND SHEATHING MEET THE REQUIREMENTS OF THE SPECIFICATIONS AT THE TIME OF INSTALLATION AND AT CLOSE-IN. THE CONTRACTOR SHALL PROVIDE ALLOWANCE FOR DIFFERENTIAL SHRINKAGE BETWEEN FLOORS, ETC.
- VENTING IS REQUIRED IN ENCLOSED FRAMING AREAS. SAD, DRILL BLOCKING AND LEDGERS AND PROVIDE SKIP BLOCKING AS DETAILED.
- SAD FOR CEILING INFO. WHERE REQUIRED PROVIDE CEILING JOISTS PER 3/S-1.3, UNO.
- ALL SHEATHING SHALL HAVE 1/8" GAP AT ALL EDGES AND JOINTS. TYPICAL SHEATHING:
 - FLAT ROOF SHEATHING (SLOPE 2:12 OR LESS): 1/2" T&G APA RATED SHEATHING (4020) EXP 1 WITH 10d @ 6"oc EDGES (PEN) AND 12"oc FIELD UNO ON PLANS. LAY PERPENDICULAR TO FRAMING MEMBERS. BLOCK EDGES WITH 2x4 LAID FLAT WHERE NOTED ON THE PLANS AND DETAILS. NO PANELS LESS THAN 24" WIDE SHALL BE USED. STAGGER SHEETS.

C FOUNDATION NOTES

- FOUNDATION DESIGN PRESSURES ARE:
 - SHALLOW FOOTINGS:
 - DEAD LOAD + LIVE LOAD = 2,500 PSF
 - DEAD LOAD + LIVE LOAD + LATERAL = 3,333 PSF
- ALL SOILS WORK SHALL BE DONE IN ACCORDANCE WITH THE SPECIFICATIONS, THE REQUIREMENTS OF THE GEOTECHNICAL REPORT NOTED BELOW AND CHAPTER 18A OF THE CBC, TITLE 24, PART 2. ALL FOUNDATIONS SHALL BEAR ON FIRM, UNDISTURBED, NATIVE SOILS OR ENGINEERED FILL AT OR EXCEEDING DEPTHS SHOWN ON THE DRAWINGS. ENGINEERED FILL TO BE COMPACTED PER GEOTECHNICAL REPORT. INCREASE FILL AND OR FOOTING DEPTH AS REQUIRED BY GEOTECHNICAL ENGINEER. ALL FOOTING EXCAVATIONS SHALL BE AS NEAT AS PRACTICABLE. OVER-EXCAVATIONS IN WIDTH SHALL BE FILLED WITH CONCRETE, AND IN DEPTH MAY BE FILLED WITH LEAN CONCRETE OR COMPACTED APPROVED BACKFILL. ALL LOOSE SOILS SHALL BE REMOVED FROM EXCAVATIONS PRIOR TO PLACEMENT OF REINFORCING OR CONCRETE. ALL UNFORMED FOUNDATIONS SHALL BE EXCAVATED AND FORMED PER 14/S-1.1. GEOTECHNICAL REPORT BY:
 - WALLACE KUHL & ASSOCIATES
 - REPORT NO. 12048.01P
 - DATED: OCTOBER 29, 2018
- WHERE BOTTOM OF ADJACENT FOOTINGS ARE DIFFERENT PROVIDE STEPPED FOOTING PER 5/S-1.1.
- USE 5/8" DIAMETER x 12" (18" AT CURBS) ANCHOR BOLTS (AB) AT 48"oc WHERE NOT OTHERWISE NOTED. MINIMUM EMBEDMENT INTO CONCRETE IS 7" (EXCLUDING CURB) UNLESS DETAILED OTHERWISE. ANCHOR BOLTS ARE TO BE TIED IN PLACE PRIOR TO PLACEMENT OF CONCRETE. SEE SHEAR WALL SCHEDULE FOR ADDITIONAL REQUIREMENTS. MINIMUM TWO ANCHOR BOLTS PER SILL PIECE.
- TYPICAL SLAB: 5" CONCRETE REINFORCED WITH #4 @ 16"oc EACH WAY LOCATED 1 1/2" CLEAR FROM TOP OF SLAB OVER VAPOR RETARDER (PER SPECIFICATIONS) AND 6" MINIMUM FREE DRAINING COMPACTED ROCK PER SPECIFICATIONS ON SUBGRADE FOR THE GEOTECHNICAL RECOMMENDATIONS, AND AS APPROVED BY THE GEOTECHNICAL ENGINEER. DO NOT DRIVE CONCRETE TRUCKS OR LARGE SCREED MACHINES ON VAPOR BARRIER WITHOUT ADDITIONAL BUFFER MATERIAL AND APPROVAL FROM THE STRUCTURAL ENGINEER.
- REFER TO ARCHITECTURAL AND PLUMBING DRAWINGS FOR DEPRESSED SLABS FOR ARCHITECTURAL FLOORING OR INSERTS, SLOPED SLABS TO DRAIN AND PIPES OR CONDUITS AT SLAB. SEE 8/S-1.1 & 9/S-1.1 AT DEPRESSED SLAB & 7/S-1.1 FOR PIPES AND CONDUITS.
- PROVIDE CONTROL JOINTS PER 8/S-1.1 (OR CONSTRUCTION/DOWEL JOINTS AT CONTRACTOR'S OPTION) AS SHOWN ON PLAN AND AS REQUIRED TO MEET A MAXIMUM SPACING IN FEET OF 3 TIMES THE SLAB DEPTH IN INCHES (FOR EXAMPLE 3x4" = 12'-0"oc MAX). PROVIDE CONSTRUCTION/DOWEL JOINTS PER 8/S-1.1 AS SHOWN ON PLAN, BUT NOT GREATER THAN 60'-0"oc EACH WAY. INSTALL JOINTS TO DIVIDE SLAB INTO RECTANGULAR AREAS WITH LONG DIMENSION LESS THAN 1.5 x SHORT DIMENSION. INSTALL JOINTS AT FACE OF STUDS OF WALL WHERE POSSIBLE. SUBMIT JOINT LAYOUT PLAN FOR REVIEW PRIOR TO PLACEMENT.
- DRILLING FOR CAST IN PLACE CONCRETE PIERS REQUIRES OBSERVATION AND APPROVAL OF GEOTECHNICAL ENGINEER. ALL PIERS SHALL BE POURED IN ONE CONTINUOUS POUR WITH STEEL IN PLACE. ALL PIERS TO BE VIBRATED WHILE POURING CONCRETE.
- DO NOT UNDERCUT EXISTING FOUNDATIONS. NOTIFY ENGINEER FOR REVIEW AND POSSIBLE REVISIONS, IF EXISTING FOUNDATION CONDITIONS ARE NOT AS SHOWN.
- TOP OF FOOTING ELEVATIONS TO BE DETERMINED BY THE CONTRACTOR BASED ON INFORMATION FROM THE CIVIL DRAWINGS, GEOTECHNICAL REPORT, LANDSCAPE, ETC.
- EXTERIOR WALLS TO HAVE MINIMUM 6" TALL CURB. SAD FOR CURB CONFIGURATION. INTERIOR WALLS AT TOILET ROOM TO HAVE MINIMUM 6" TALL CURB, UNO.

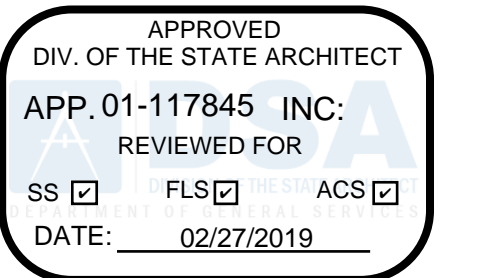
A DESIGN CRITERIA

DESIGN CRITERIA: 2016 CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 2 (CBC)
 FLOOR LEVEL LOAD: 60 PSF (REDUCIBLE) + 15 PSF PARTITION
 ROOF LIVE LOAD: 20 PSF (REDUCIBLE)
 FUTURE SOLAR RISK CATEGORY: 3 PSF
 WIND DATA: II
 ULTIMATE WIND SPEED (3 SEC GUST) IN MPH: 110
 WIND EXPOSURE: C
 INTERNAL WIND PRESSURE COEFFICIENT (GCPI) = ±0.18
 COMPONENTS AND CLADDING DESIGN PRESSURES FOR SYSTEMS DESIGNED BY OTHERS SHALL COMPLY WITH THE "ASCE 7" DESIGN STANDARD
 SEISMIC IMPORTANCE FACTOR, I_p: 1.0
 MAPPED SPECTRAL RESPONSE ACCELERATIONS: S_s = 1.50; S₁ = 0.59
 SITE CLASS: C
 SPECTRAL RESPONSE COEFFICIENTS: S_{DS} = 1.00; S_{DI} = 0.51
 SEISMIC DESIGN CATEGORY: D
 SEISMIC FORCE RESISTING SYSTEM: WOOD FRAMED SHEAR WALLS
 RESPONSE MODIFICATION FACTOR: R = 6.5
 DESIGN BASE SHEAR: 11.8k (ASD)
 SEISMIC RESPONSE COEFFICIENT, C_s = 0.108 (ASD)
 ANALYSIS PROCEDURE USED: EQUIVALENT LATERAL FORCE

B GENERAL NOTES

- REFER TO SHEETS S-1.1, S-1.2 AND S-1.3 FOR STANDARD DETAILS OF CONSTRUCTION. REFER TO THE PROJECT SPECIFICATIONS FOR MATERIALS AND METHODS.
- BUILDING DIMENSIONS SHOWN ARE FOR GENERAL REFERENCE ONLY. SEE ARCHITECTURAL DRAWINGS (SAD) FOR ALL ACTUAL BUILDING DIMENSIONS. ANY DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE ARCHITECT/ENGINEER SO CLARIFICATION CAN BE MADE PRIOR TO COMMENCING WORK.
- STRUCTURAL DRAWINGS SHALL NOT BE SCALED. ALL DIMENSIONS AND FIT SHALL BE DETERMINED AND VERIFIED BY THE CONTRACTOR PRIOR TO COMMENCING WORK.
- DETAILS NOT FULLY OR SPECIFICALLY SHOWN SHALL BE OF SAME NATURE AS OTHER SIMILAR CONDITIONS.
- REFER TO ARCHITECTURAL DRAWINGS FOR SIDEWALK SLABS AND DIMENSIONS.
- COORDINATION OF MECHANICAL, ELECTRICAL, PLUMBING, AND SITE UTILITY SYSTEMS WITH THE STRUCTURAL SYSTEM IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. USE DETAILS 2/S-1.1, 3/S-1.1, 7/S-1.1, 2/S-1.2, 5/S-1.2 AND 8/S-1.2. AT CONDITIONS WHERE THESE DETAILS DO NOT APPEAR TO APPLY, NOTIFY THE STRUCTURAL ENGINEER PRIOR TO INSTALLATION. AT CONDITIONS WHERE FIELD MODIFICATIONS OF MECHANICAL, ELECTRICAL, PLUMBING, OR SITE UTILITIES AFFECT STRUCTURAL SYSTEMS, NOTIFY STRUCTURAL ENGINEER PRIOR TO INSTALLATION.
- VERIFY WEIGHTS AND LOCATIONS OF MECHANICAL UNITS WITH MECHANICAL ENGINEER PRIOR TO PLACEMENT. UNITS VARYING OVER 10% IN WEIGHT SHALL BE REVIEWED BY THE STRUCTURAL ENGINEER PRIOR TO INSTALLATION (MECHANICAL WEIGHTS SHOWN ARE MAXIMUM). CONTRACTOR TO VERIFY MECHANICAL UNIT SIZES AND WEIGHTS AS INSTALLED PRIOR TO INSTALLATION OF SPECIAL FRAMING TO ENSURE CORRECT PLACEMENT UNDER CURBS, ETC. SEE 8/S-1.3.
- SHORING AND BRACING DESIGN, MATERIALS AND INSTALLATION SHALL BE PROVIDED BY THE GENERAL CONTRACTOR, AND SHALL BE ADEQUATE FOR ALL LOADS. LEAVE IN PLACE AS LONG AS MAY BE REQUIRED FOR SAFETY AND UNTIL FINAL STRUCTURAL CONSTRUCTION IS COMPLETED. THE CONTRACTOR SHALL ENGAGE A LICENSED CIVIL OR STRUCTURAL ENGINEER TO PROVIDE SHORING.
- SPECIAL INSPECTIONS ARE REQUIRED PER THE TESTING AND INSPECTION FORM, SEE SPECIFICATIONS.
- VEHICULAR TRAFFIC, HEAVY EQUIPMENT AND MATERIAL STAGING SHALL NOT BE ALLOWED ADJACENT TO ANY RETAINING/BASEMENT WALL, NEW OR EXISTING WITHIN A HORIZONTAL DISTANCE EQUAL TO THE WALL HEIGHT MEASURED FROM THE BOTTOM OF FOOTING OR 5'-0" WHICHEVER IS GREATER, UNLESS APPROVED BY THE STRUCTURAL ENGINEER OR NOTED OTHERWISE. WITHIN THIS ZONE, ONLY HAND-OPERATED EQUIPMENT ("WACKERS", VIBRATORY PLATES, OR PNEUMATIC COMPACTORS) SHALL BE USED TO COMPACT THE BACKFILL SOILS.
- SITE REVIEWS BY ZFA ARE REQUIRED FOR THE FOLLOWING UNLESS DIRECTED OTHERWISE:
 - REINFORCING STEEL
 - STRUCTURAL WOOD FRAMING INCLUDING ROOF & WALL SHEATHING.
- NOTIFY ZFA AT LEAST 2 WORKING DAYS PRIOR TO COMPLETION OF WORK.
- SUBMIT ENGINEERING OF ITEMS TO ARCHITECT/ENGINEER FOR REVIEW PRIOR TO FABRICATION. SAD AND SPECIFICATIONS FOR THE REQUIREMENTS. GENERAL CONTRACTOR SHALL REVIEW AND APPROVE DIMENSIONS AND DETAILS SHOWN ON THE SHOP DRAWINGS PRIOR TO SUBMITTAL. CONTRACTOR TO PROVIDE DRAWINGS AND CALCULATIONS PREPARED AND SIGNED BY A CALIFORNIA LICENSED CIVIL / STRUCTURAL ENGINEER FOR THE FOLLOWING ITEMS, UNLESS NOTED OTHERWISE:
 - ROOFTOP MECHANICAL UNIT SCREEN FRAMING AND ATTACHMENT TO BUILDING STRUCTURE

SHEET INDEX	
S-0.1	GENERAL NOTES
S-1.1	TYPICAL CONCRETE DETAILS
S-1.2	TYPICAL WOOD DETAILS
S-1.3	TYPICAL WOOD DETAILS
S-2.1	FOUNDATION PLAN
S-2.2	ROOF FRAMING PLAN
S-4.1	FOUNDATION DETAILS
S-6.1	FRAMING DETAILS
S-7.1	RAIN CANOPY DETAILS



QUATTROCCHI KWOK ARCHITECTS
 Main Office: 636 Fifth Street, Santa Rosa, CA 95404
 Pleasanton Office: 600 Main Street, Suite E, Pleasanton, CA 94566 (707) 576-0629

ZFA STRUCTURAL ENGINEERS
 1212 fourth street | suite z zfa.com
 santa rosa ca 95404 707.526.0992
 zfa job no: 18330 copyright © 2019

HERITAGE HIGH SCHOOL

CULINARY ARTS BUILDING

101 American Avenue
 Brentwood, CA 94513

LIBERTY UNION HIGH SCHOOL DISTRICT

REVISIONS	

ZFA PROJECT NO: 18330
 ENGINEER: KP/B
 PROJECT MANAGER: AIZ
 PTN:

CD

FEBRUARY 27, 2018

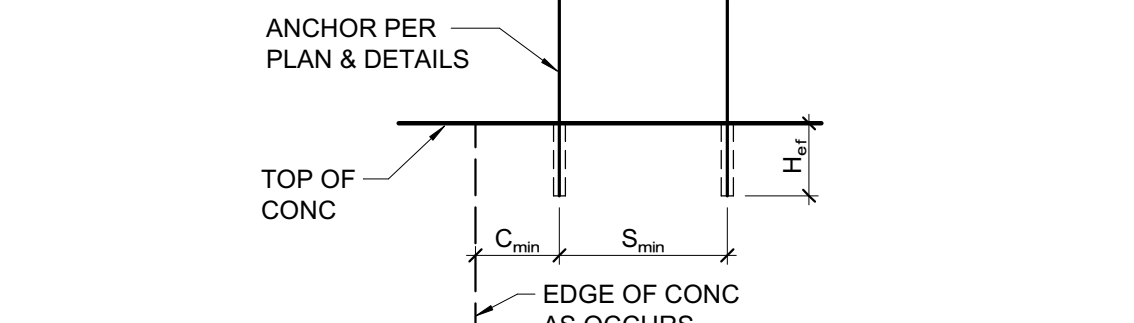
SHEET TITLE

GENERAL NOTES

S-0.1

SHEET NUMBER

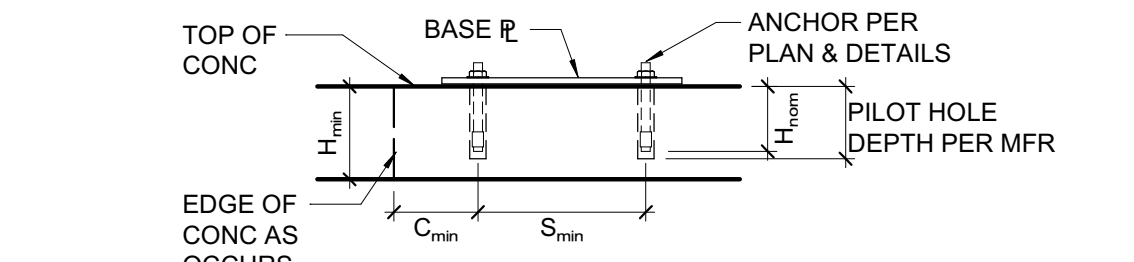
ADHESIVE ANCHOR IN 2500 PSI MIN CONCRETE							
ADHESIVE TYPE	ANCHOR		PILOT HOLE	MIN EMBED UNO H _{min}	MIN EDGE DISTANCE C _{min}	MIN SPCG S _{min}	MIN CONC DEPTH H _{min}
	THRD ROD	REBAR					
SIMPSON SET-XP (ICC-ESR 2508)	3/8"	#3	1/2"	1 1/4"	3"	3"	5"
	1/2"	#4	3/4"	4"	1 1/4"	3"	6 1/2"
	5/8"	#5	3/4"	5"	1 1/4"	3"	8 1/4"
	3/4"	#6	1"	6"	1 1/4"	3"	9 1/4"
	1/2"	#7	1"	7"	1 1/4"	3"	11 1/2"
	1"	#8	1 1/4"	8"	1 1/4"	3"	13"
	1 1/4"	#10	1 3/4"	10"	2 1/4"	6"	16 1/2"
	3/4"	N/A	3/4"	3"	1 1/4"	1 1/4"	4 1/4"
	N/A	#3	1/2"	3"	1 1/4"	1 1/4"	4 1/4"
	1/2"	N/A	3/4"	4"	1 1/4"	2 1/2"	5 1/4"
HILTI HIT-HY 200R (ICC-ESR 3187)	N/A	#4	3/4"	4"	1 1/4"	2 1/2"	5 1/4"
	N/A	#5	3/4"	5"	1 1/4"	3 1/4"	6 1/2"
	3/4"	#6	3/4"	6"	1 1/4"	3 1/4"	7 1/4"
	1/2"	#7	1"	7"	1 1/4"	4 1/4"	9"
	1"	#8	1 1/4"	8"	1 1/4"	5"	10 1/4"
	N/A	#9	1 3/4"	9"	1 1/4"	5 1/4"	11 1/4"
	1 1/4"	N/A	1 3/4"	10"	1 1/4"	6 1/4"	12 3/4"
	N/A	#10	1 1/2"	10"	1 1/4"	6 1/4"	13"



- NOTES:**
- INSTALL ADHESIVE ANCHORS PER MANUFACTURER'S INFORMATION AND ICC REPORT.
 - CONTRACTOR TO VERIFY MINIMUM EDGE DISTANCES, SPACING, AND THICKNESS ARE IN ACCORDANCE W/ SCHEDULE PRIOR TO INSTALLING ANCHOR.
 - HOLES TO BE DRILLED W/ ROTARY DRILL ONLY. WHEN DRILLING HOLES IN EXISTING CONCRETE, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING BARS. MAINTAIN A REASONABLE CLEARANCE BETWEEN REINFORCEMENT AND THE DRILLED-IN ANCHOR. FILL ABANDONED HOLES W/ HIGH STRENGTH GROUT.
 - SPECIAL INSPECTION IS REQUIRED PER SECTION 1705A AND THE REQUIREMENTS OF THE ICC REPORTS. THE SPECIAL INSPECTOR MUST BE ON THE JOB SITE PERIODICALLY DURING ANCHOR INSTALLATION TO VERIFY ANCHOR TYPE, ANCHOR DIMENSIONS, HOLE CLEANLINESS, EMBEDMENT DEPTH, CONCRETE TYPE, CONCRETE COMPRESSIVE STRENGTH, DRILL BIT DIAMETER, HOLE DEPTH, EDGE DISTANCE(S), ANCHOR SPACING(S), CONCRETE THICKNESS, AND ADHESIVE INJECTION. TEST ANCHORS IN ACCORDANCE W/ CBC SECTION 1910A.5. SEE DRAWINGS FOR SPECIFIC TENSION TEST LOADS FOR ANCHORS.

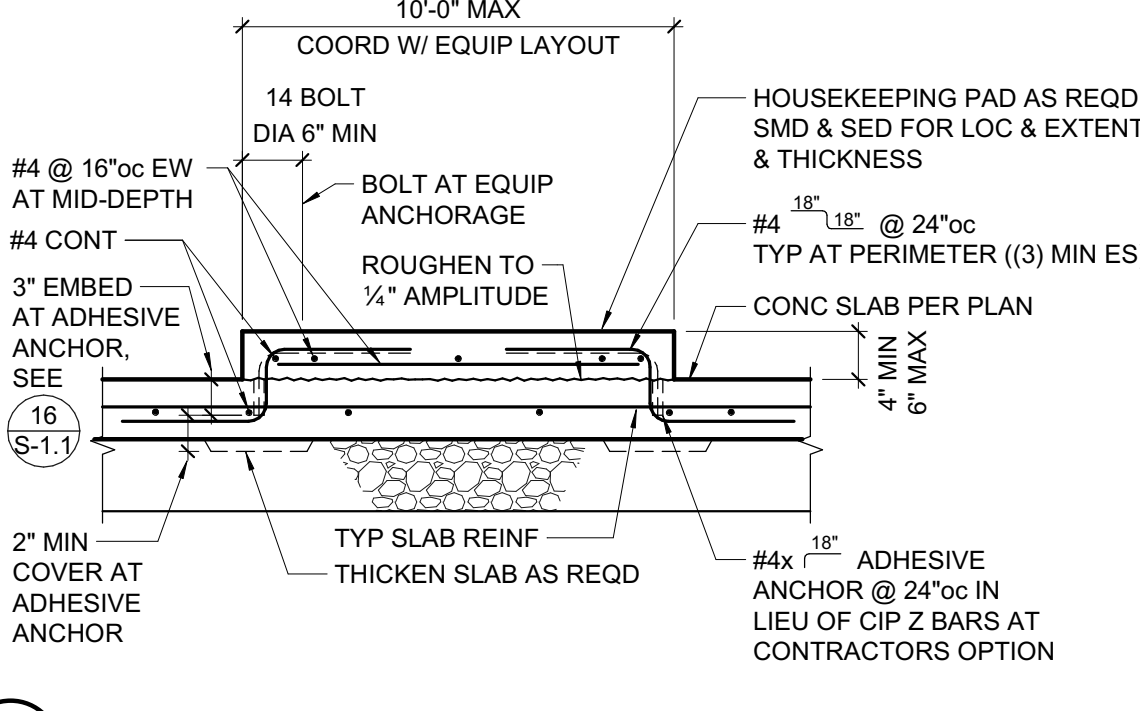
16 ADHESIVE ANCHOR IN CONCRETE
3/4" = 1'-0"

CARBON STL EXPANSION ANCHORS IN 2500 PSI MIN CONC						
ANCHOR TYPE	ANCHOR & PILOT HOLE DIA	MIN NOMINAL EMBED H _{min}	MIN EDGE DISTANCE C _{min}	MIN SPCG S _{min}	MIN CONC THICKNESS H _{min}	INSTALL TORQUE (FT-LB)
SIMPSON STRONG-BOLT 2 (ICC-ESR 3037)	3/4"	1 1/4"	6"	3"	3 1/4"	30
	1"	2 1/4"	7"	7"	4 1/4"	60
	3/4"	3 3/4"	6 1/2"	5"	5 1/2"	90
	1"	4 1/4"	6 1/2"	8"	6 1/4"	150
HILTI KWIK BOLT TZ (ICC-ESR 1917)	3/4"	2 1/4"	2 1/4"	5"	4"	25
	1/2"	2 3/4"	2 3/4"	5 1/4"	4"	40
	3/4"	3 3/4"	3 3/4"	6 1/4"	5"	60
	3/4"	4 3/4"	4 3/4"	10 1/2"	6"	110

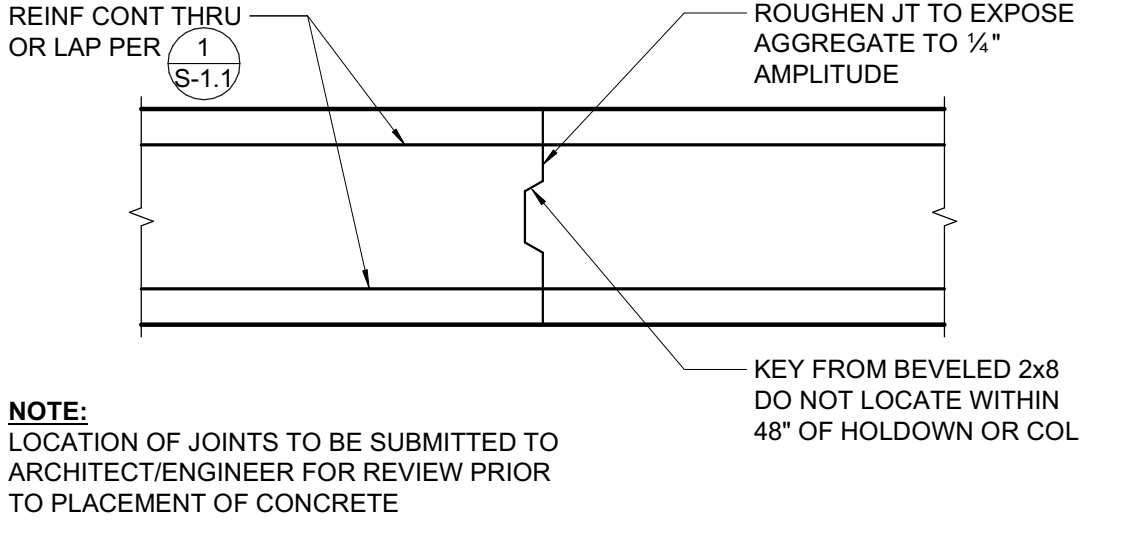


- NOTES:**
- INSTALL EXPANSION ANCHORS PER MANUFACTURER'S INFORMATION AND ICC REPORT INSTRUCTIONS. SPECIAL INSPECTION IS REQUIRED PER SECTION 1705A AND THE REQUIREMENTS OF THE ICC REPORTS.
 - CONTRACTOR TO VERIFY MINIMUM EDGE DISTANCES, SPACING AND THICKNESS ARE IN ACCORDANCE W/ SCHEDULE PRIOR TO INSTALLING ANCHOR.
 - WHEN INSTALLING DRILLED-IN ANCHORS IN EXISTING REINFORCED CONCRETE, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING BARS. MAINTAIN A REASONABLE CLEARANCE BETWEEN REINFORCEMENT AND THE DRILLED-IN ANCHOR. FILL ABANDONED HOLES W/ HIGH STRENGTH GROUT.
 - THE SPECIAL INSPECTOR MUST BE ON THE JOBSITE PERIODICALLY DURING ANCHOR INSTALLATION TO VERIFY ANCHOR TYPE, ANCHOR DIMENSIONS, HOLE CLEANLINESS, EMBEDMENT DEPTH, CONCRETE TYPE, CONCRETE COMPRESSIVE STRENGTH, DRILL BIT DIAMETER, HOLE DEPTH, EDGE DISTANCE(S), ANCHOR SPACING(S), CONCRETE THICKNESS, AND TIGHTENING TORQUE.
 - TEST ANCHORS IN ACCORDANCE W/ CBC SECTION 1910A.5.

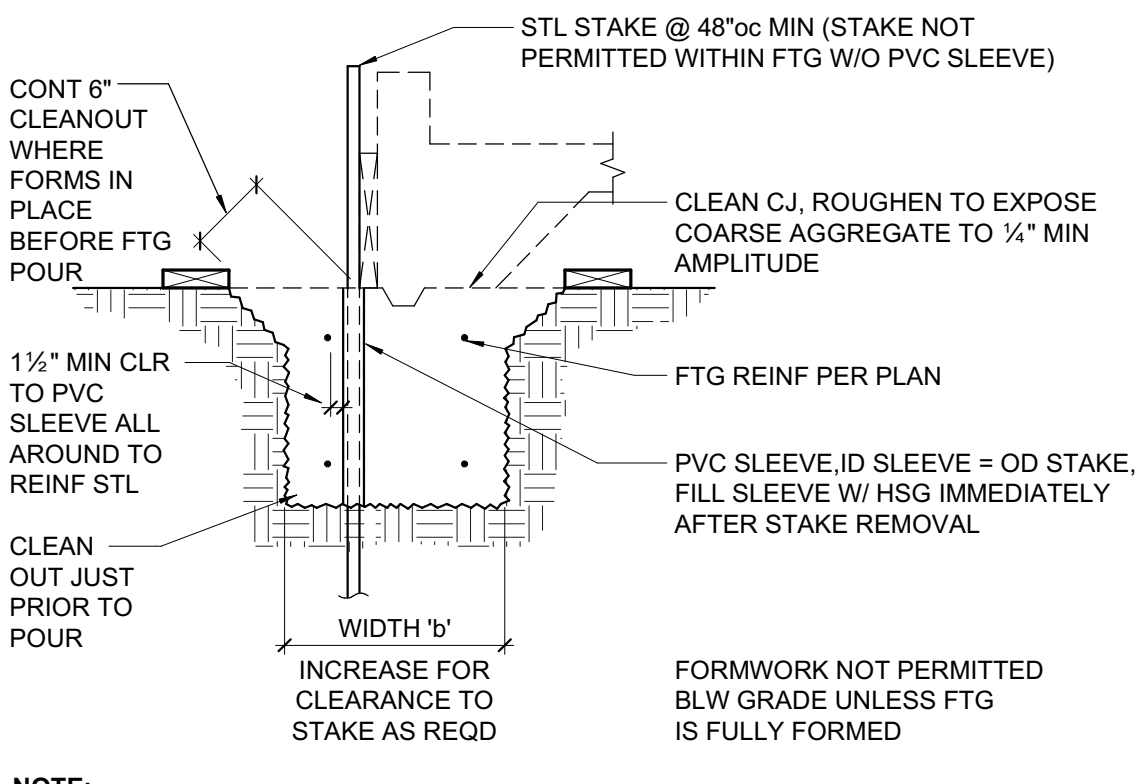
17 EXPANSION ANCHOR IN CONCRETE
3/4" = 1'-0"



12 TYPICAL HOUSEKEEPING PAD AT SLAB ON GRADE
3/4" = 1'-0"

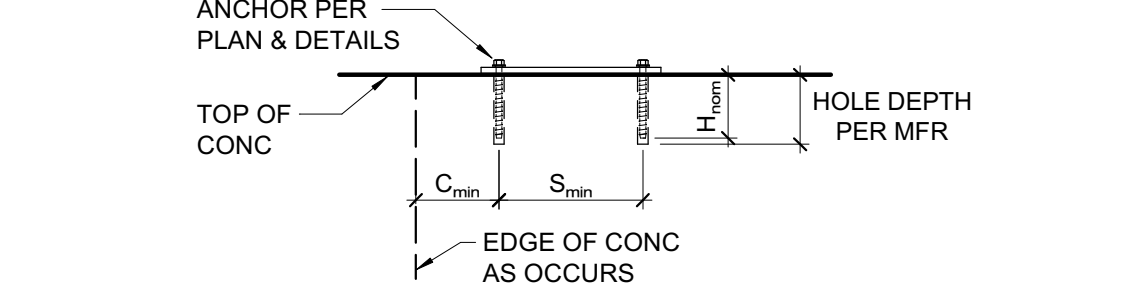


13 FOOTING CONSTRUCTION JOINT
3/4" = 1'-0"



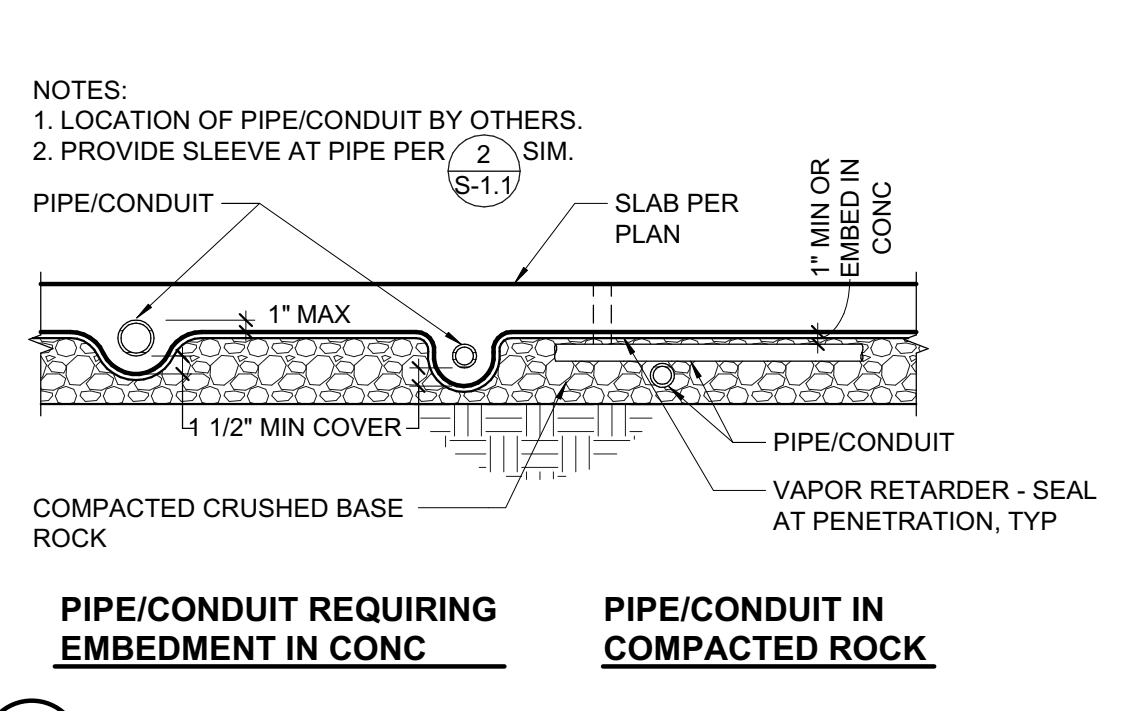
14 FORMWORK STAKES AT FOOTING
3/4" = 1'-0"

SCREW ANCHOR IN 2500 PSI MIN CONCRETE							
ANCHOR TYPE	ANCHOR AND PILOT HOLE DIA	MINIMUM EMBEDMENT H _{min}	MINIMUM EDGE DIST C _{min}	MINIMUM SPCG S _{min}	MINIMUM CONCRETE DEPTH H _{min}	INSTALL TORQUE (FT-LB)	MAX INSTALL TORQUE (FT-LB)
SIMPSON TITEN HD (ICC-ESR 2713)	3/8"	2 1/2"	1 3/4"	3"	4"	10	50
	1/2"	3 3/4"	1 3/4"	3"	5"	10	65
	3/4"	4"	1 3/4"	3"	6"	10	100
HILTI KH-EZ (ICC-ESR 3027)	3/8"	5 1/2"	1 1/4"	3"	8 3/4"	20	150
	1/2"	5 1/2"	1 1/4"	3"	8 3/4"	20	150
	3/4"	4"	1 1/4"	4"	6"	20	115

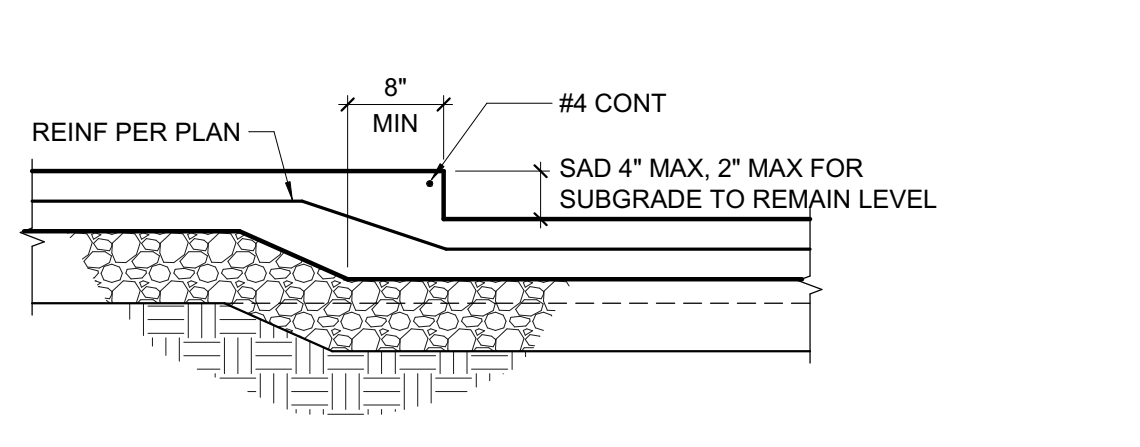


- NOTES:**
- INSTALL SCREW ANCHORS PER MANUFACTURER'S INFORMATION AND ICC REPORT INSTRUCTIONS. SPECIAL INSPECTION IS REQUIRED PER SECTION 1705A OF THE CBC AND THE REQUIREMENTS OF THE ICC REPORTS. INSTALLED ANCHORS SHALL BRING CONNECTED PLIES INTO FIRM CONTACT, MEETING THE INSTALL TORQUE BUT NOT EXCEEDING THE MAXIMUM INSTALL TORQUE.
 - CONTRACTOR TO VERIFY MINIMUM EDGE DISTANCES, SPACING AND THICKNESS ARE IN ACCORDANCE W/ SCHEDULE PRIOR TO INSTALLING ANCHOR.
 - HOLES TO BE DRILLED W/ ROTARY DRILL ONLY. WHEN INSTALLING DRILLED-IN ANCHORS IN EXISTING REINFORCED CONCRETE, USE CARE AND CAUTION TO AVOID CUTTING OR DAMAGING THE EXISTING REINFORCING BARS. MAINTAIN A REASONABLE CLEARANCE BETWEEN REINFORCEMENT AND THE DRILLED-IN ANCHOR. FILL ABANDONED HOLES W/ HIGH STRENGTH GROUT.
 - THE SPECIAL INSPECTOR MUST BE ON THE JOBSITE PERIODICALLY DURING ANCHOR INSTALLATION TO VERIFY ANCHOR TYPE, ANCHOR DIMENSIONS, HOLE CLEANLINESS, EMBEDMENT DEPTH, CONCRETE TYPE, CONCRETE COMPRESSIVE STRENGTH, DRILL BIT DIAMETER, HOLE DEPTH, EDGE DISTANCE(S), ANCHOR SPACING(S), CONCRETE THICKNESS, AND TIGHTENING TORQUE.
 - TEST ANCHORS IN ACCORDANCE W/ CBC SECTION 1910A.5.

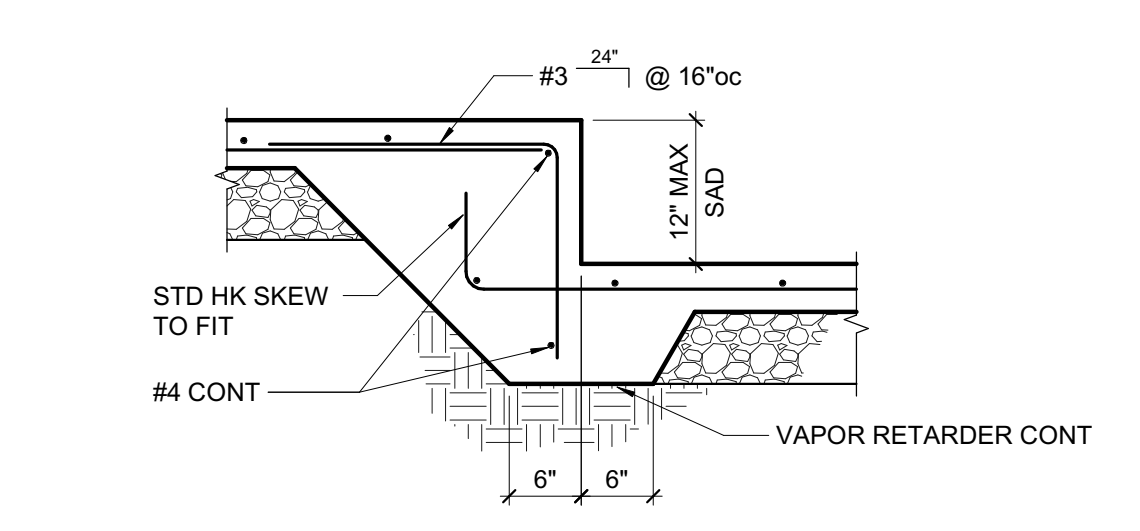
15 SCREW ANCHOR IN CONCRETE
3/4" = 1'-0"



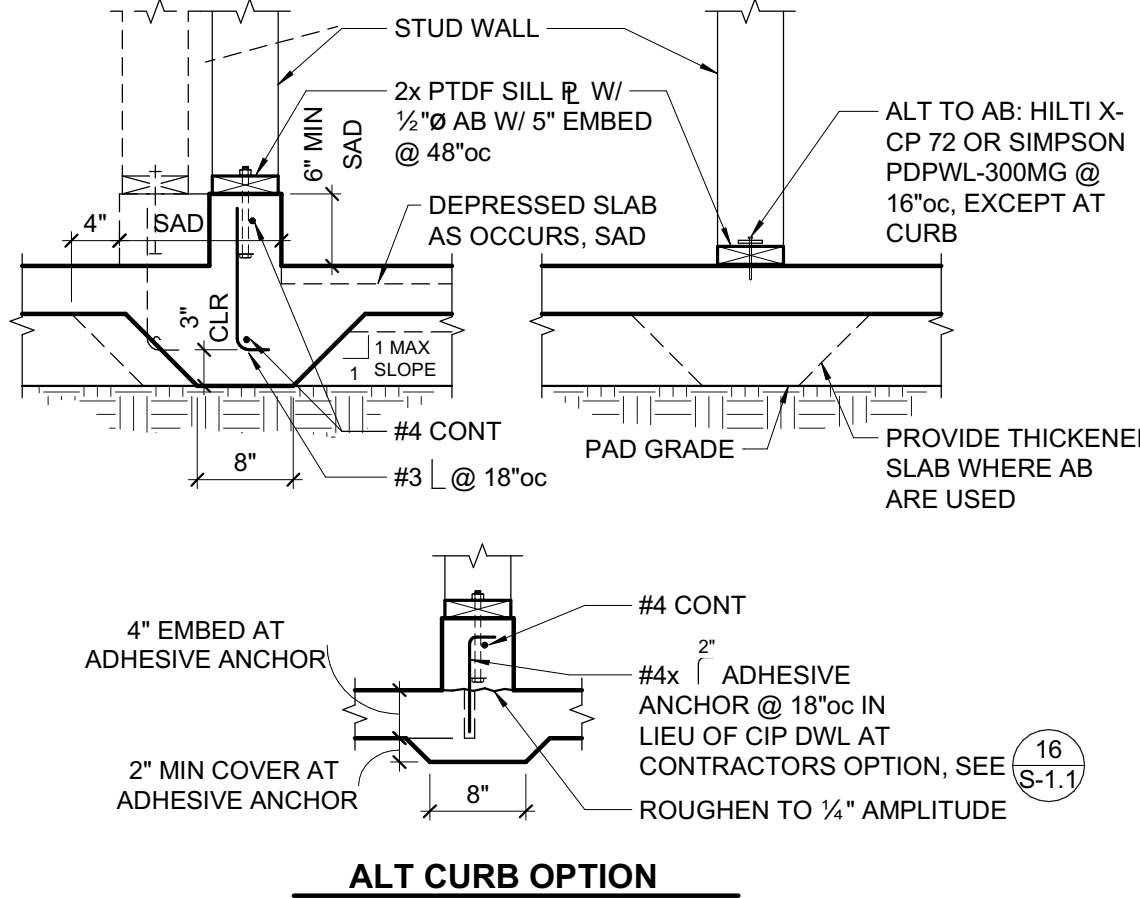
7 CONDUIT & PIPE AT SLAB ON GRADE
3/4" = 1'-0"



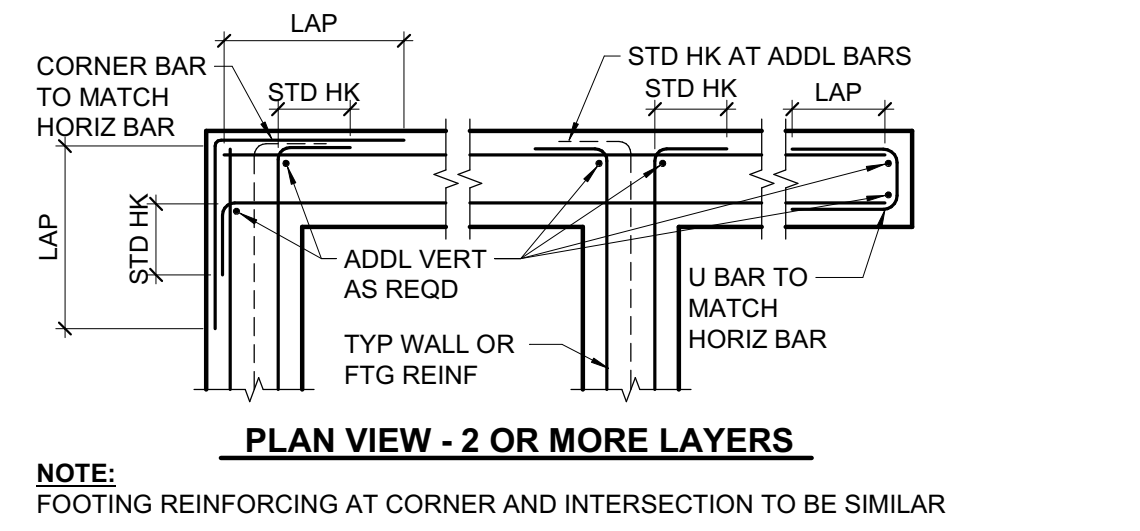
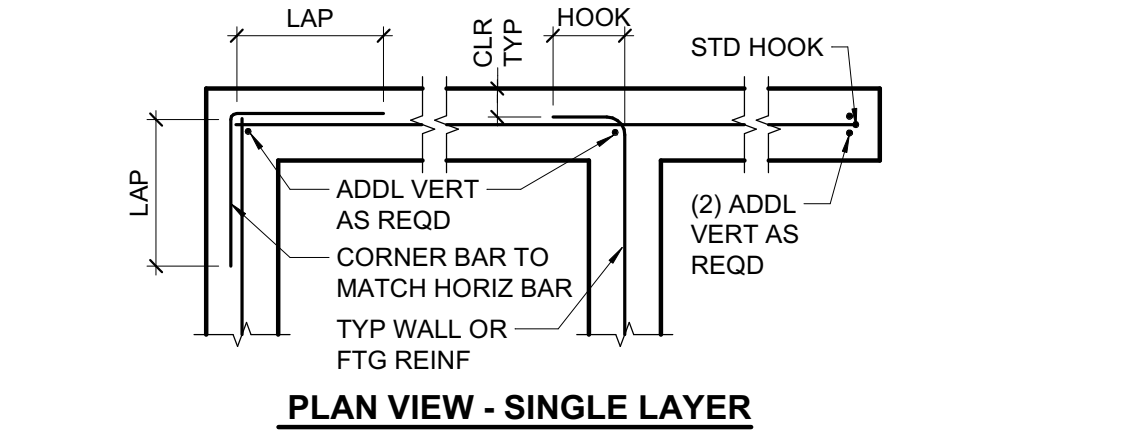
8 DEPRESSED SLAB - 4\"/>



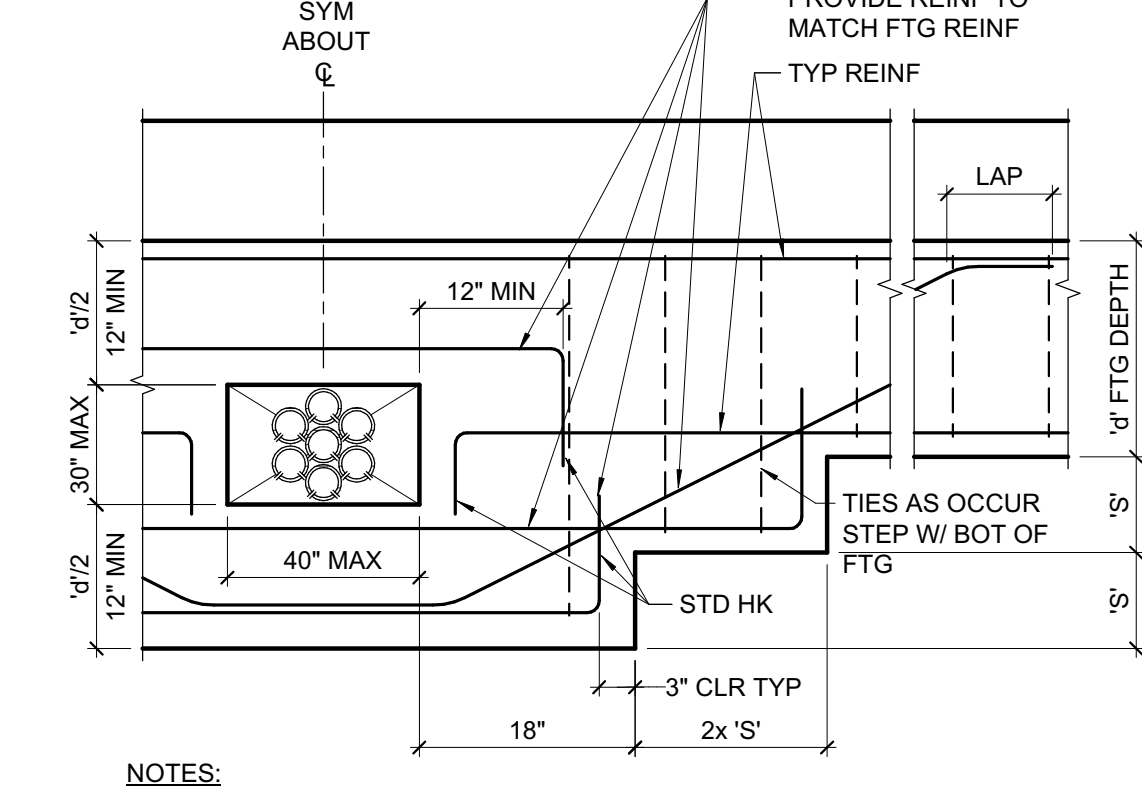
9 DEPRESSED SLAB - 12\"/>



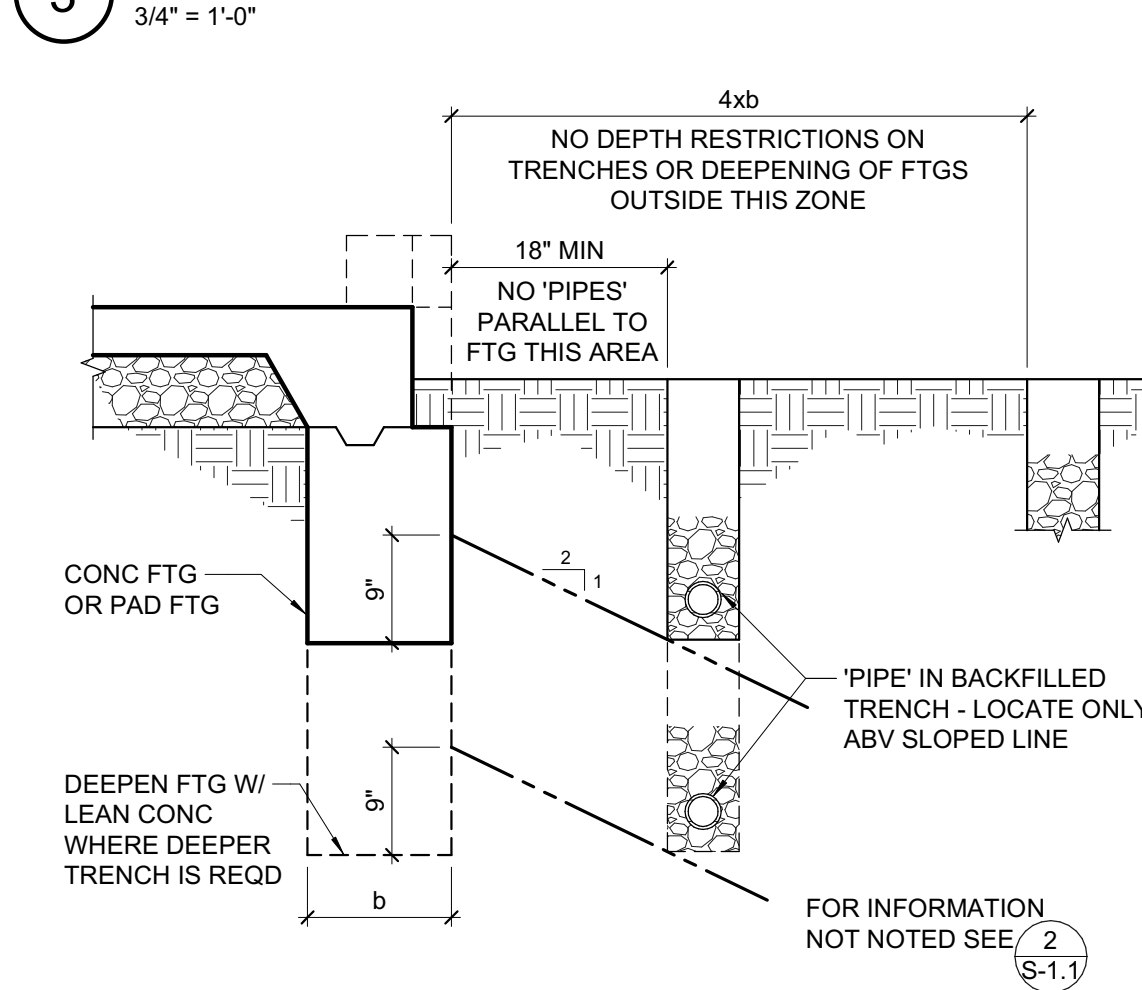
10 NON-BEARING STUD WALL AT SLAB
3/4" = 1'-0"



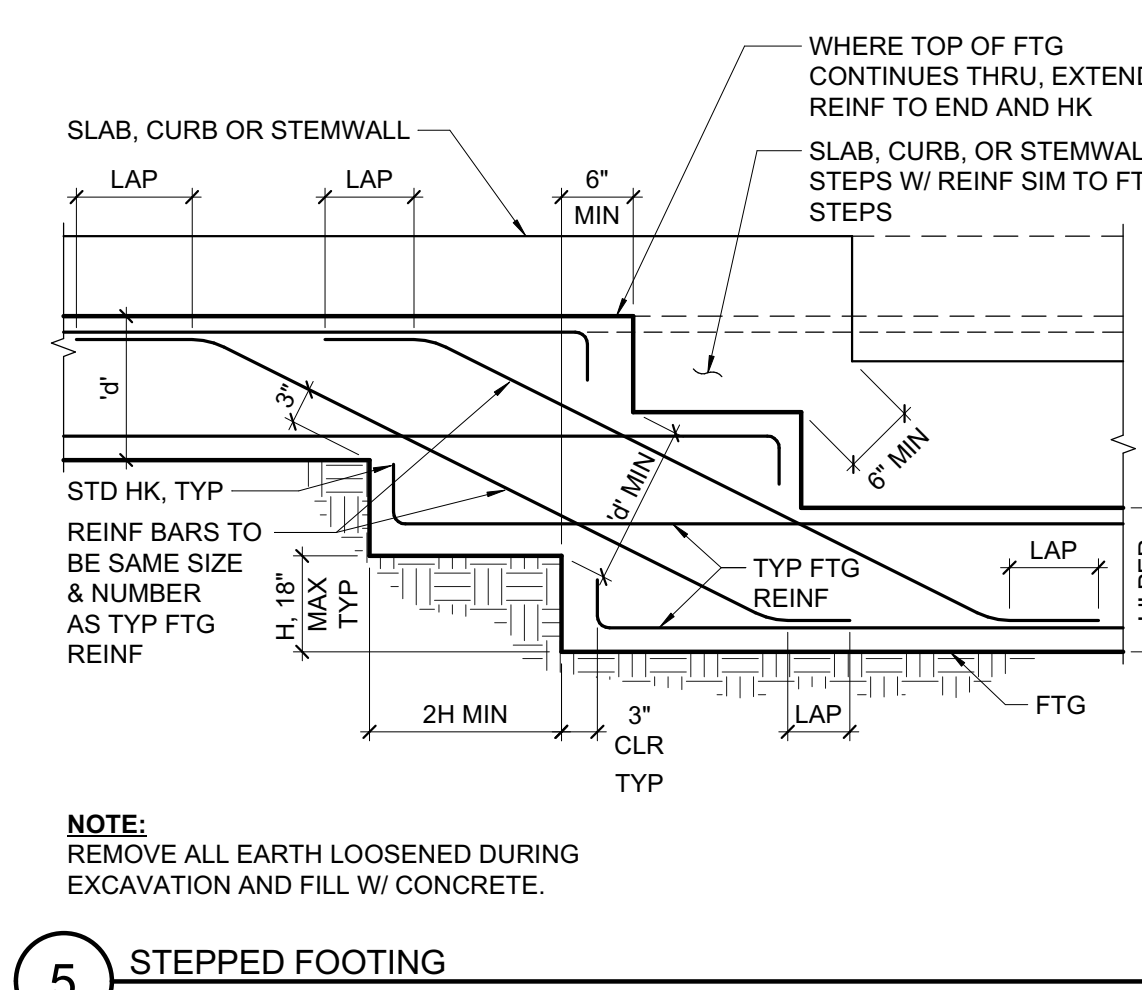
11 TYPICAL CORNER, INTERSECTION AND END REINFORCING
3/4" = 1'-0"



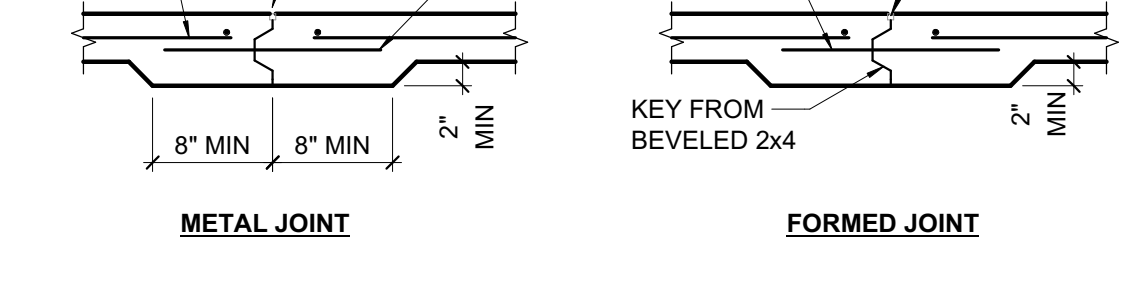
3 FOUNDATION BLOCKOUT
3/4" = 1'-0"



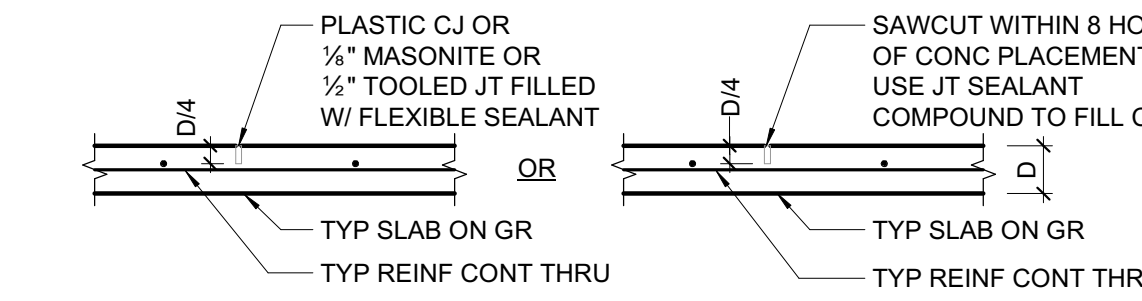
4 TRENCHING ADJACENT TO FOOTING
3/4" = 1'-0"



5 STEPPED FOOTING
3/4" = 1'-0"



A CONSTRUCTION/DOWEL JOINT



B CONTROL JOINT

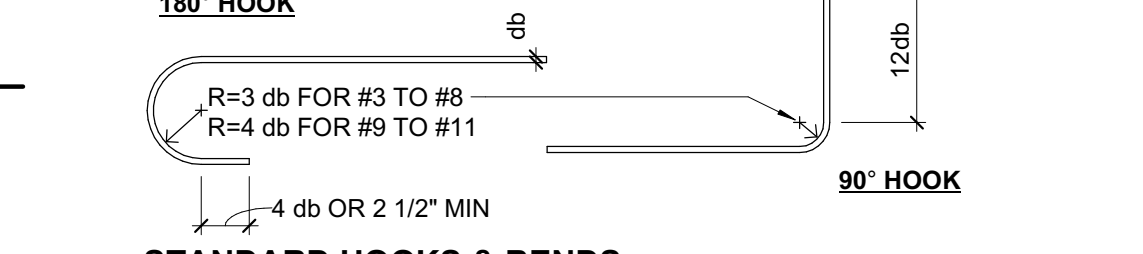
6 SLAB ON GRADE JOINTS
3/4" = 1'-0"

MINIMUM BAR LAPS FOR REINFORCING STEEL CONCRETE STRENGTH: 3000 PSI OR GREATER - (STAGGER SPLICES)					
SIZE	LAP LENGTH	SIZE	LAP LENGTH	SIZE	LAP LENGTH
#3	18"	#6	34"	#9	86"
#4	24"	#7	56"	#10	102"
#5	28"	#8	70"	#11	120"

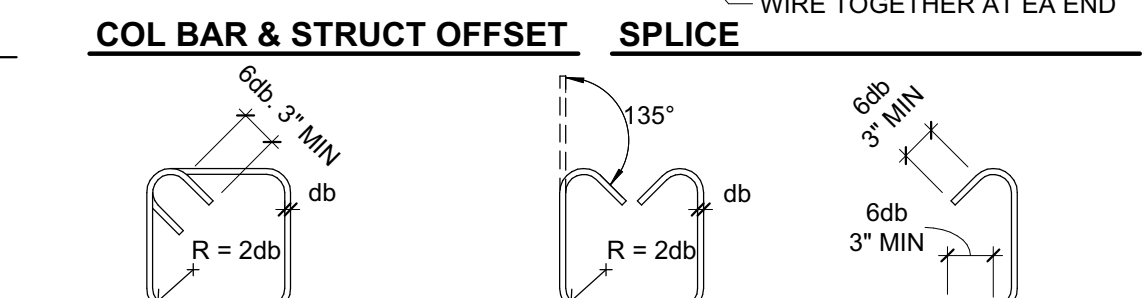
(CLASS B TOP BAR)
BAR SPCG SHALL NOT BE LESS THAN 4x BAR DIA OR 4".

CONC COVER FOR REINF STL 'CLR'

- CAST AGAINST EARTH OR GR 3"
EXPOSED TO EARTH (FORMED) OR WEATHER
#5 & SMALLER 1 1/2"
#6 & LARGER 2"
NOT EXPOSED TO EARTH OR WEATHER
#5 & SMALLER 1"
#6 & LARGER, & ALL BM STIRRUPS, COL TIES & SPIRALS 1 1/2"

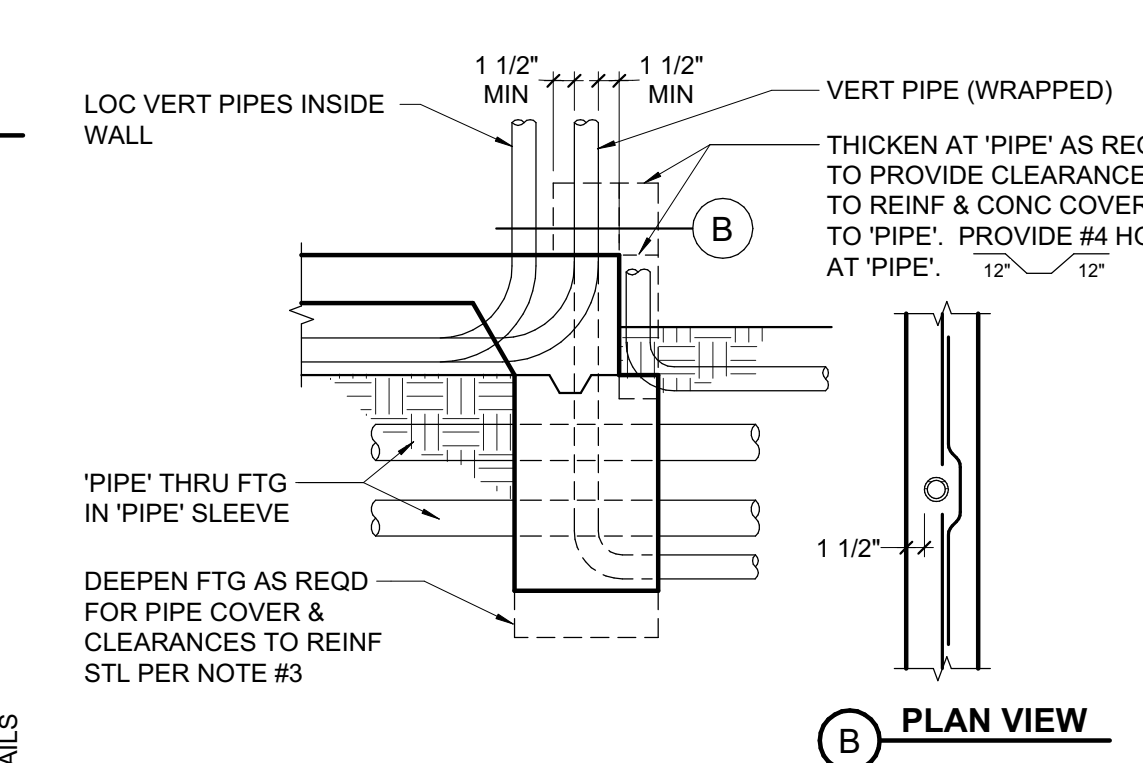


STANDARD HOOKS & BENDS

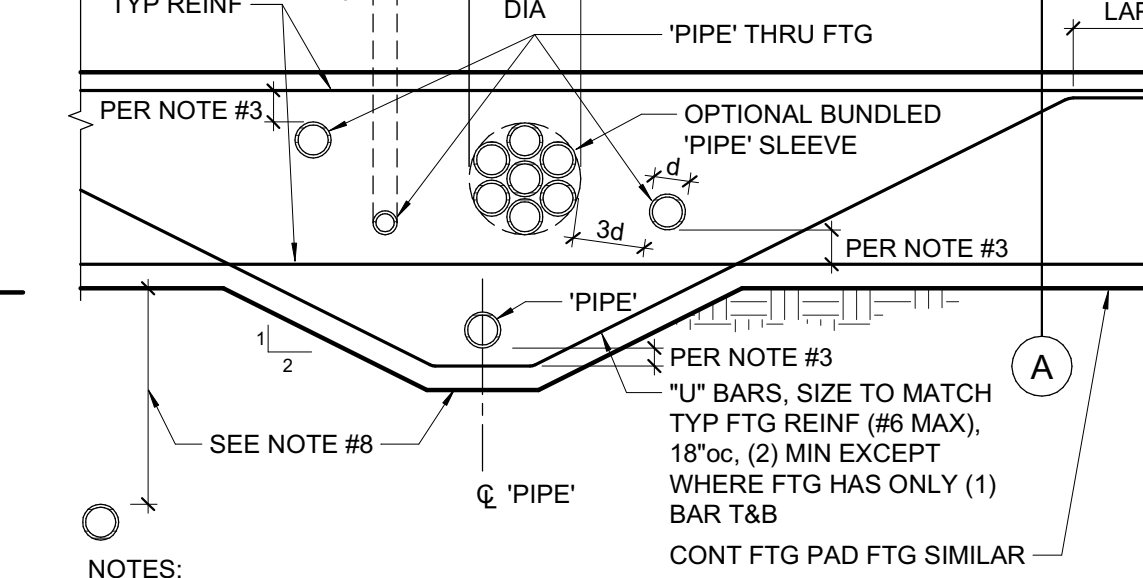


135° STIRRUP TIES #3, #4, #5
STIRRUP #3, #4, #5
CROSSTIE #3, #4, #5

1 TYPICAL REINFORCING DETAIL (f_c = 3000psi MIN)
3/4" = 1'-0"



A PLAN VIEW



NOTES:

- 'PIPE' = ANY PENETRATION THRU OR EMBEDDED IN FOUNDATION.
- ALL PIPES THROUGH FOOTINGS TO BE WRAPPED OR SLEEVED AS FOLLOWS:
a. SLEEVES: PROVIDE 1" MIN CLEAR ALL AROUND O.D. PIPE TO I.D. SLEEVE. UNO. SEAL SLEEVE ENDS W/ MASTIC OR PLASTIC BITUMINOUS CEMENT.
b. WRAPPED VERTICAL PIPES: PROVIDE 1/4" NOMINAL SHEET FOAM W/ (3) WRAPS MINIMUM, UNO.
c. WRAPPED HORIZONTAL PIPES: PROVIDE 1/4" NOMINAL SHEET FOAM W/ (8) WRAPS MINIMUM, UNO.
d. UNDERGROUND FIRE LINES 4" AND LARGER:
1. SLEEVES: PROVIDE 2" MIN CLEAR ALL AROUND O.D. PIPE TO I.D. SLEEVE. SEAL ENDS PER ABOVE.
2. WRAPPED: PROVIDE 1/4" NOMINAL SHEET FOAM W/ (16) WRAPS MINIMUM. MINIMUM CONCRETE COVER AT PIPES TO BE 3".
- WRAPPED AND SLEEVED PIPES SHALL HAVE 1 1/2" MIN CLEAR TO REINF STEEL.
- CLEARANCE BETWEEN 'PIPES' TO BE 3d MIN TYP W/ A MAXIMUM OF (8) PIPES PER 48". GROUPS OF PIPES MAY BE BUNDLED AS SHOWN, EXCEPT IN PAD FOOTINGS.
- NO 'PIPE' TO RUN PARALLEL IN FOOTINGS, STEM OR CURB.
- PVC CONDUIT ('PIPE') EMBEDDED IN CURB/STEM MAY BE WIRE TIED TO HORIZONTAL REINF.
- NO HORIZONTAL PIPES ALLOWED THROUGH FOOTING WITHIN 2'-0" EACH SIDE OF HOLD-DOWNS OR STEEL COLUMNS. NO VERTICAL PIPES ALLOWED IN FOOTINGS AT BRACED FRAMES.
- PROVIDE 18" MIN OF COMPACTED FILL ABOVE PIPES UP TO 12", FOR LARGER PIPES INCREASE COMPACTED FILL DEPTH 1'-0" OF FOR EACH 6" INCREASE IN PIPE DIAMETER. OTHERWISE DEEPEN FOOTING AS SHOWN.

2 PIPES THRU FOOTING
3/4" = 1'-0"

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APP. 01-117845 INC.
REVIEWED FOR
SS [] FLS [] ACS []
DATE: 02/27/2019



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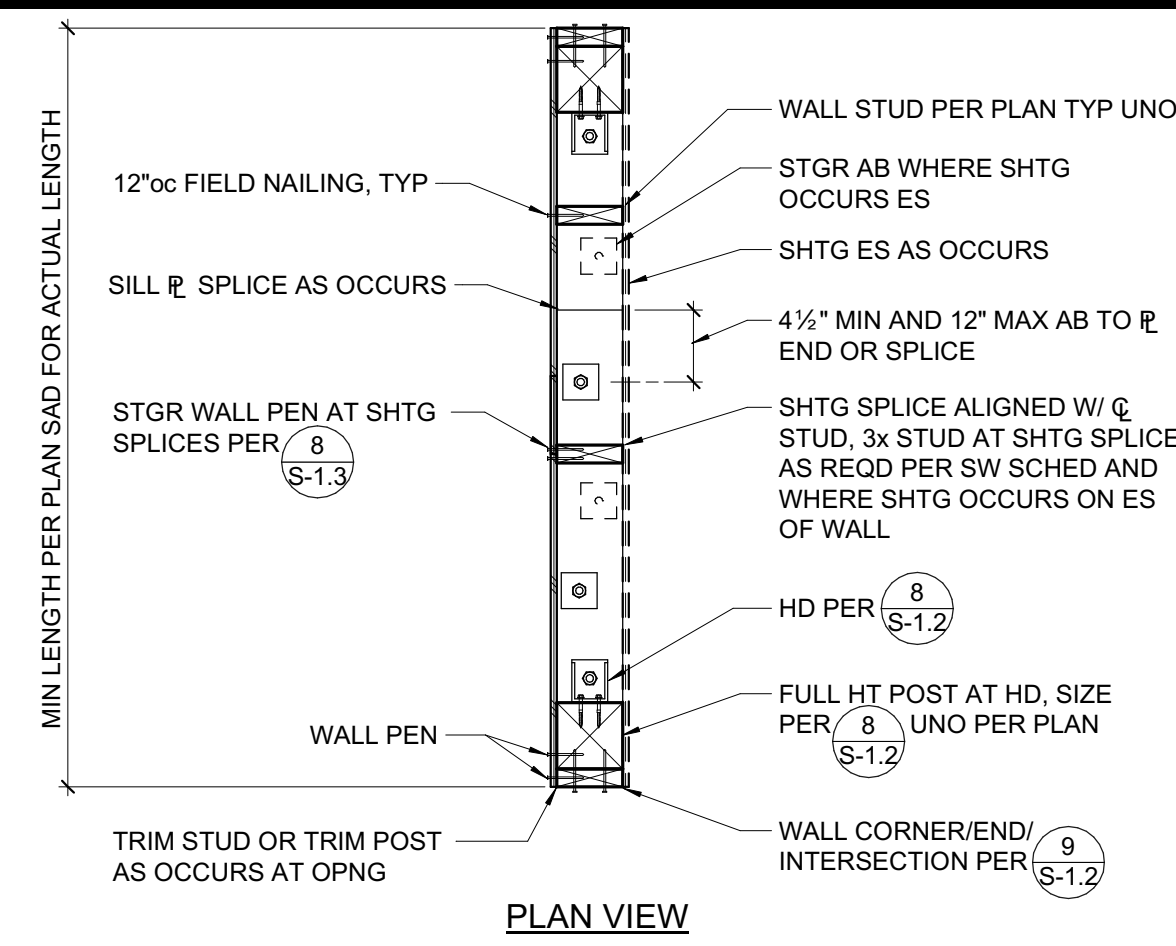
ZFA PROJECT NO: 18330
ENGINEER: KPB
PROJECT MANAGER: AIZ
PTN:

CD
FEBRUARY 27, 2018
SHEET TITLE

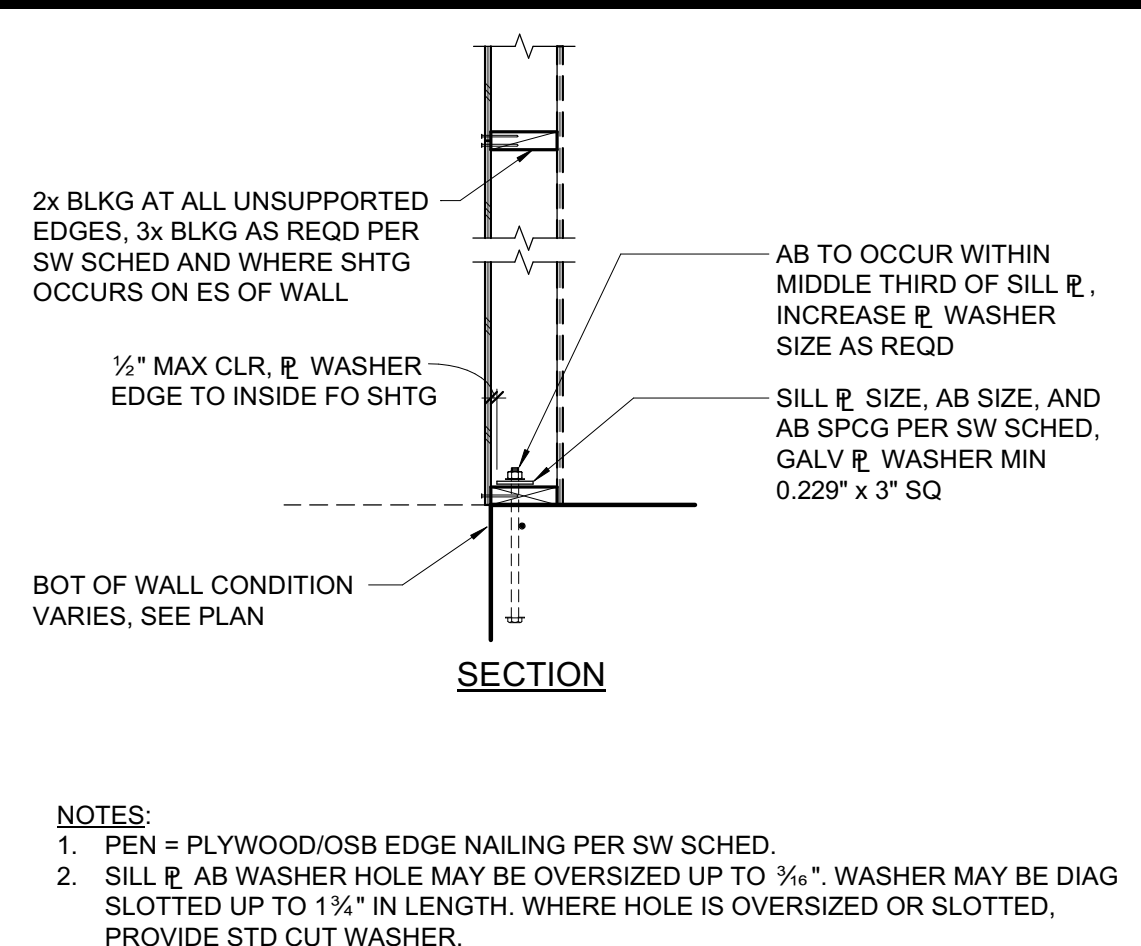
TYPICAL CONCRETE DETAILS

SHEET NUMBER

S-1.1



7 SCHEMATIC SHEAR WALL CONSTRUCTION
3/4" = 1'-0"



NOTES:
1. PEN = PLYWOOD/OSB EDGE NAILING PER SW SCHED.
2. SILL PLATE WASHER HOLE MAY BE OVERSIZED UP TO 3/8\"/>

RIM JOIST TO TOP PLATE, TOE NAIL 10d @ 6\"/>

TRUSSES, JOISTS OR RAFTERS AT ALL BEARING POINTS (2) 10d
TOE NAILS EACH SIDE

TRUSSES, JOISTS OR RAFTERS TO SIDE OF STUDS (3) 16d
EIGHT (8) INCH JOISTS OR LESS

FOR EACH ADDITIONAL 4 INCHES OF DEPTH OF JOIST (1) 16d
BLOCKING BETWEEN JOISTS OR RAFTERS:

TO JOIST OR RAFTERS - TOE NAILS EA SIDE, EA END (2) 10d
TO JOIST OR RAFTER BEARINGS - TOE NAILS EA SIDE (2) 10d

BLOCKING BETWEEN STUDS, EACH END TOE NAILS (2) 10d OR (2) 16d
BRIDGING TO JOIST, TOE NAIL EACH END (2) 8d
2\"/>

SOLE PLATE TO JOIST OR GIRDER, BLIND & FACE NAIL (2) 16d
SOLE PLATE TO JOIST OR BLOCKING, FACE NAIL 16d @ 16\"/>

SOLE PLATE TO JOIST OR BLOCKING AT (3) 16d @ 16\"/>

BRACED WALL PANELS (2) 16d @ 16\"/>

TOP PLATE TO STUD, END NAIL (4) 8d
STUD TO SOLE PLATE, TOE NAIL

DOUBLE STUDS AT EXTERIOR WALLS, FACE NAIL 16d @ 12\"/>

DOUBLE STUDS, FACE NAIL 16d @ 24\"/>

DOUBLE TOP PLATES, FACE NAIL 16d @ 12\"/>

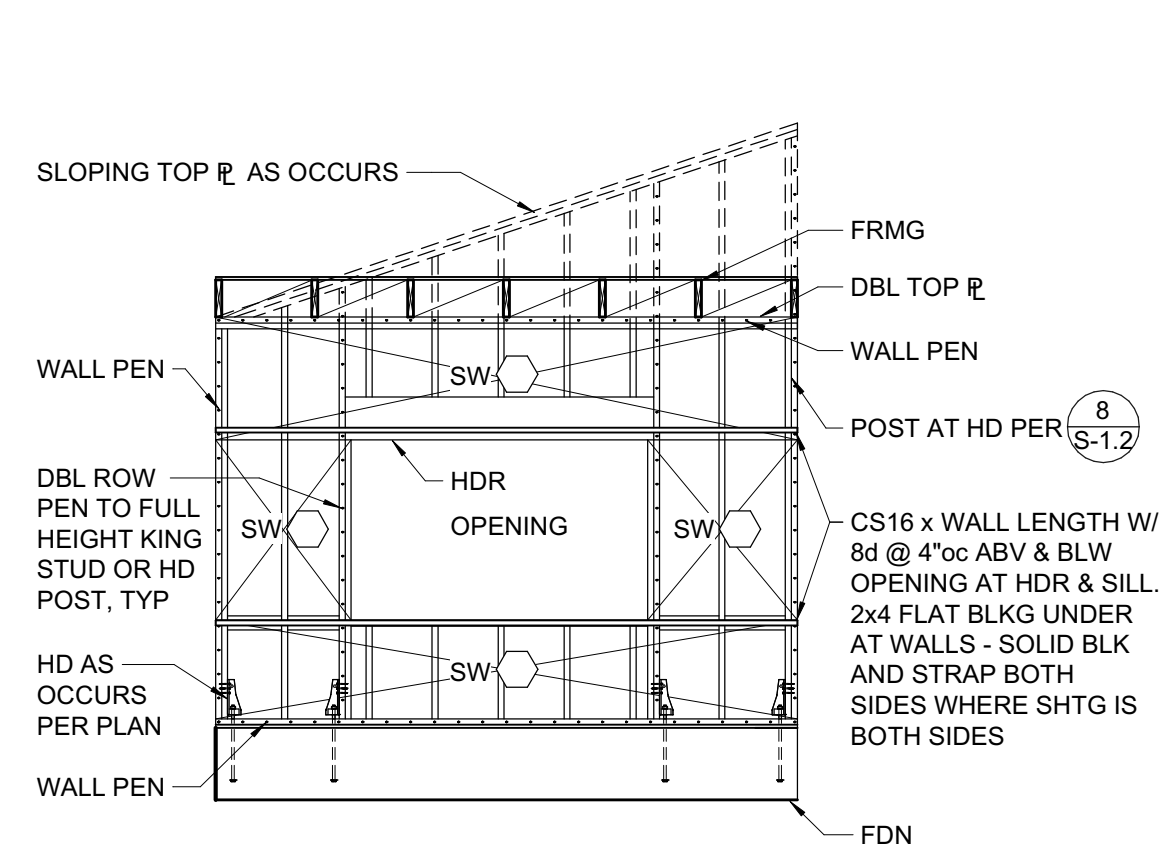
TOP PLATES, LAPS & INTERSECTIONS, FACE NAIL (3) 16d
CONTINUOUS HEADER, TWO PIECES 16d @ 16\"/>

ALONG EACH EDGE (3) 16d
DOUBLE TOP PLATE LAP AT CORNER

CONTINUOUS HEADER TO STUD, TOE NAIL (4) 8d
CEILING JOISTS, LAPS OVER PARTITIONS, FACE NAIL (3) 16d
CEILING JOISTS TO PARALLEL RAFTERS, FACE NAIL (3) 16d
BUILT-UP CORNER STUDS 16d @ 12\"/>

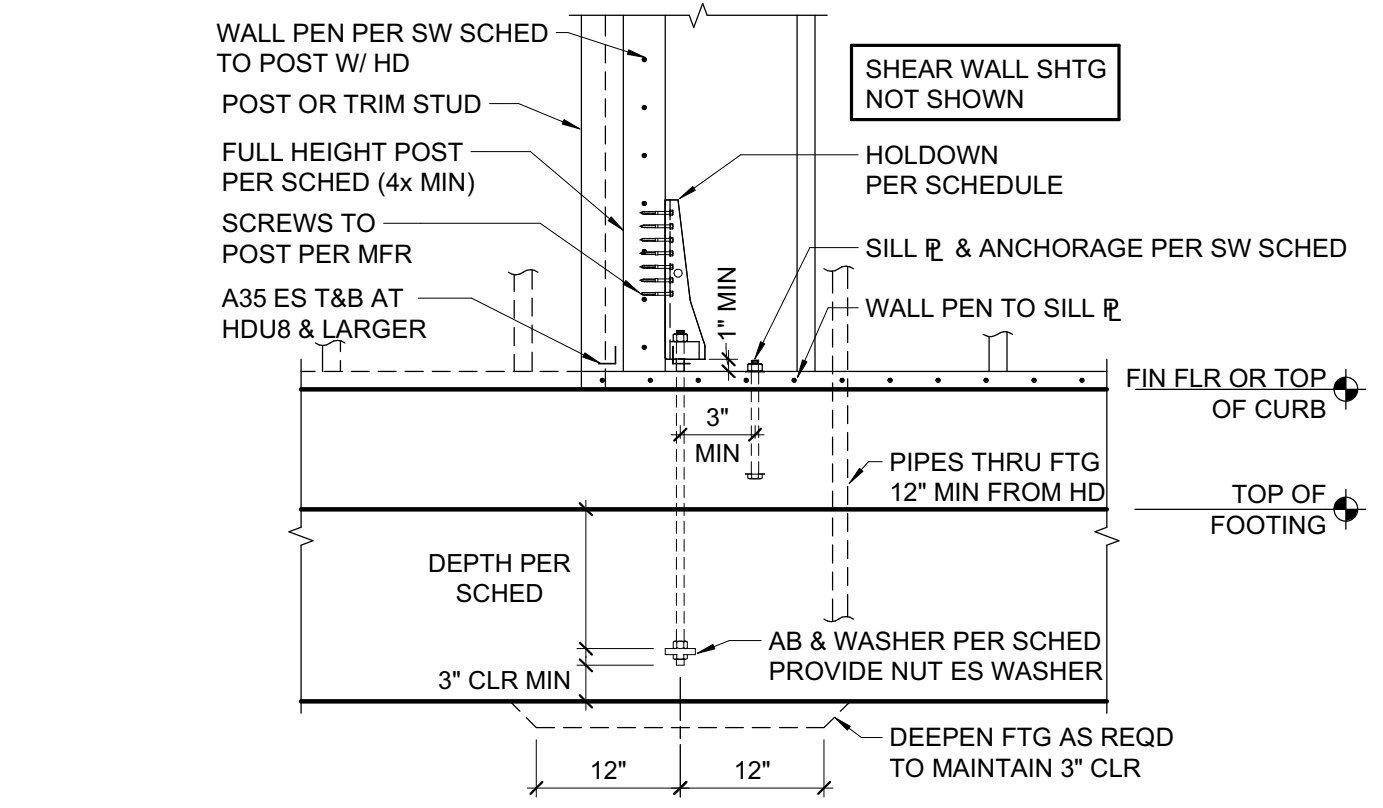
POST TO SILL/SOLE/TOP PLATE, EACH SIDE TOE NAIL (4) 10d

10 NAILING SCHEDULE
3/4" = 1'-0"

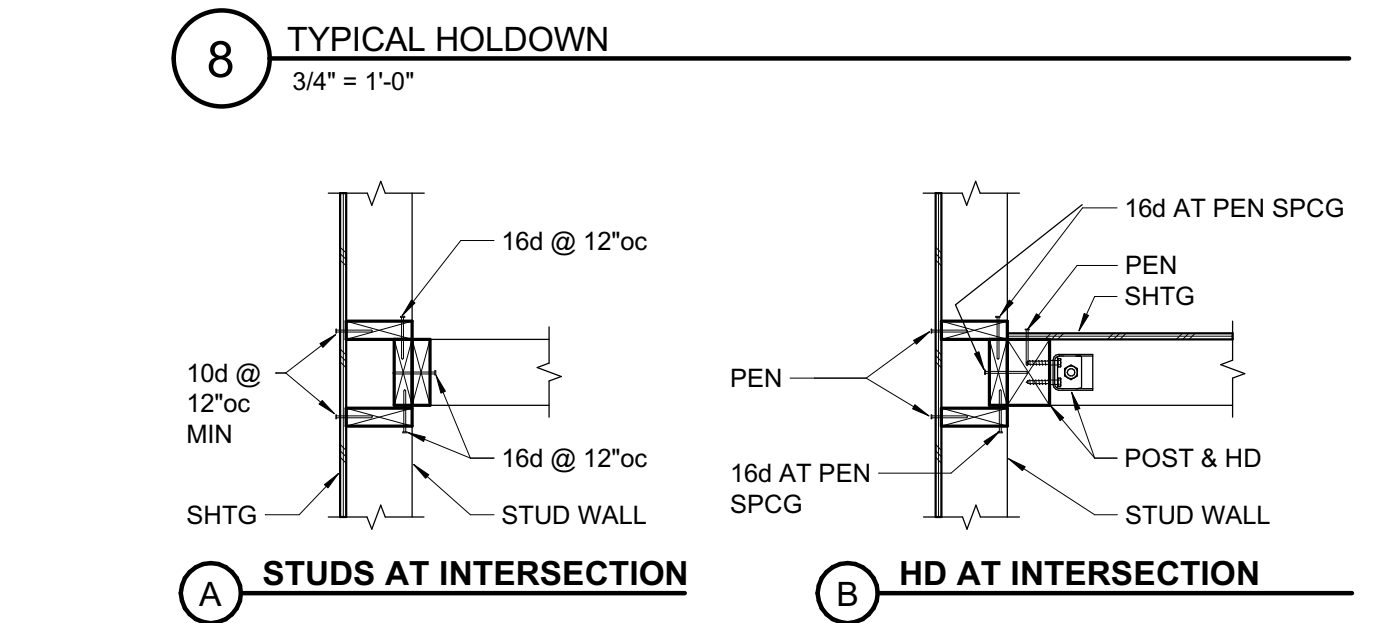


NOTE:
FRAMING SHOWN IS SCHEMATIC.
SEE PLAN FOR SPECIFIC REQUIREMENTS

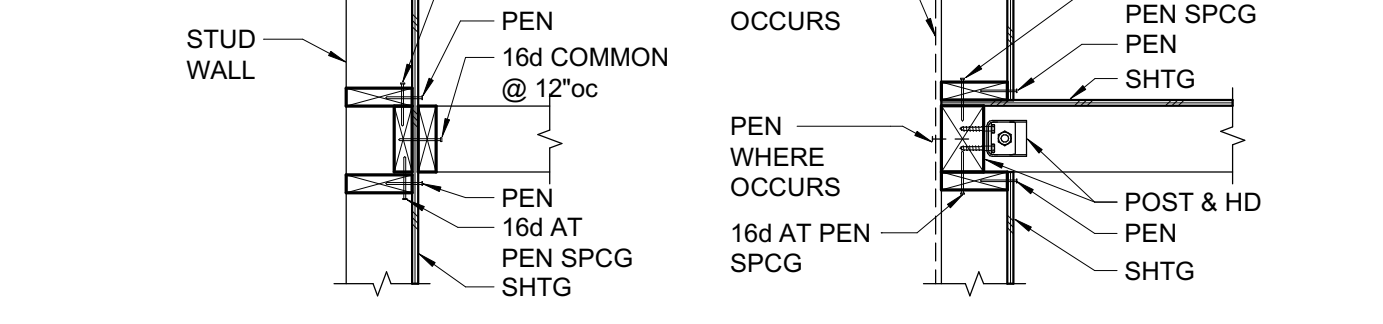
11 SCHEMATIC SHEAR WALL ELEVATION
1/4" = 1'-0"



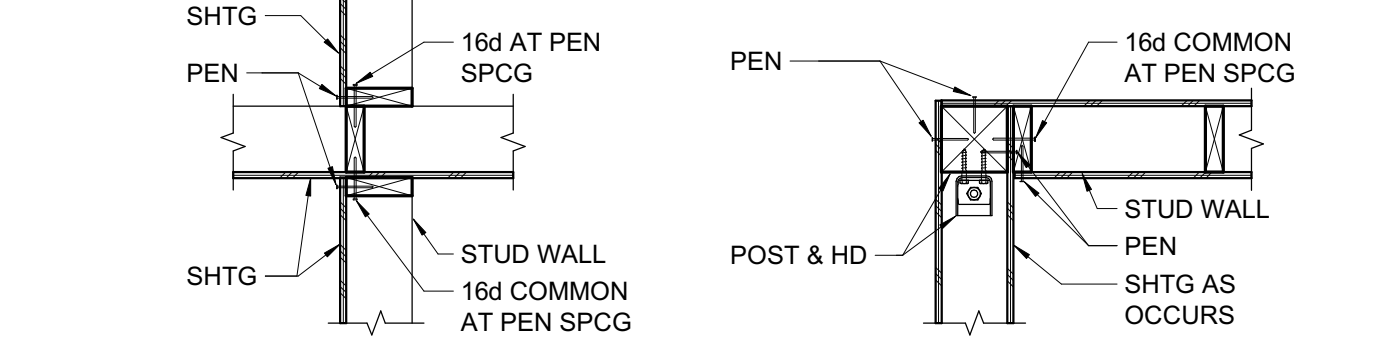
8 TYPICAL HOLDDOWN
3/4" = 1'-0"



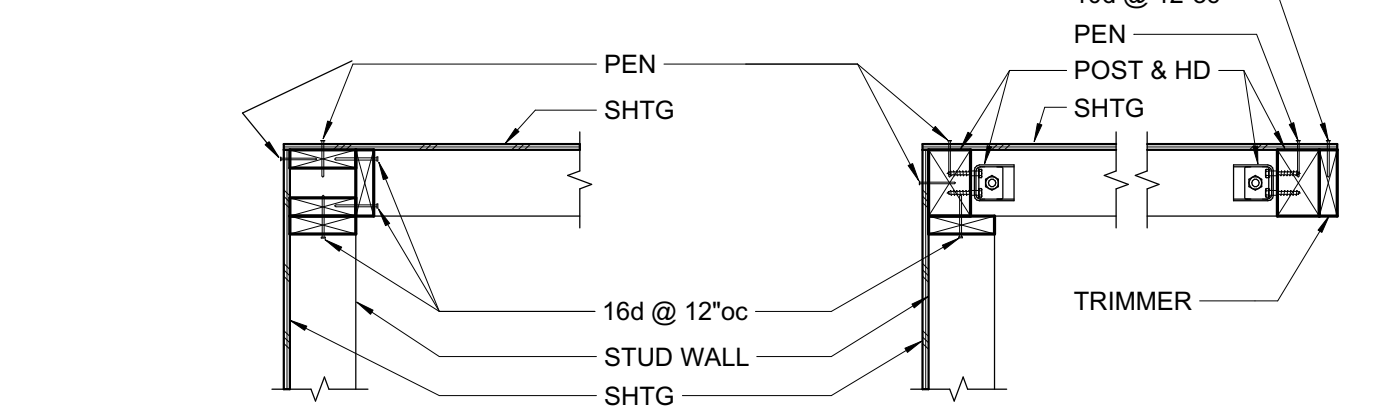
A STUDS AT INTERSECTION B HD AT INTERSECTION



C STUDS AT INTERSECTION D HD AT INTERSECTION

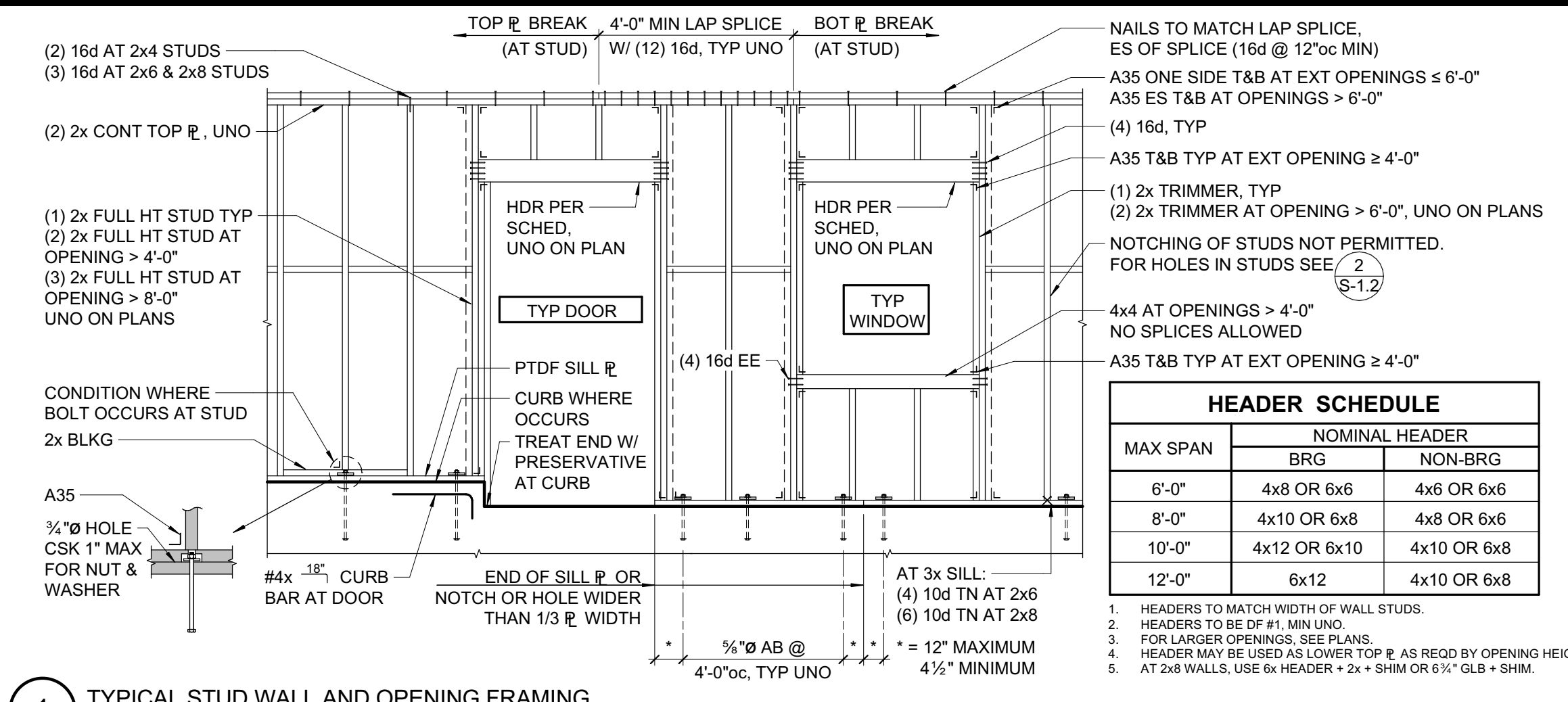


E STUDS AT INTERSECTION F HD AT CORNER

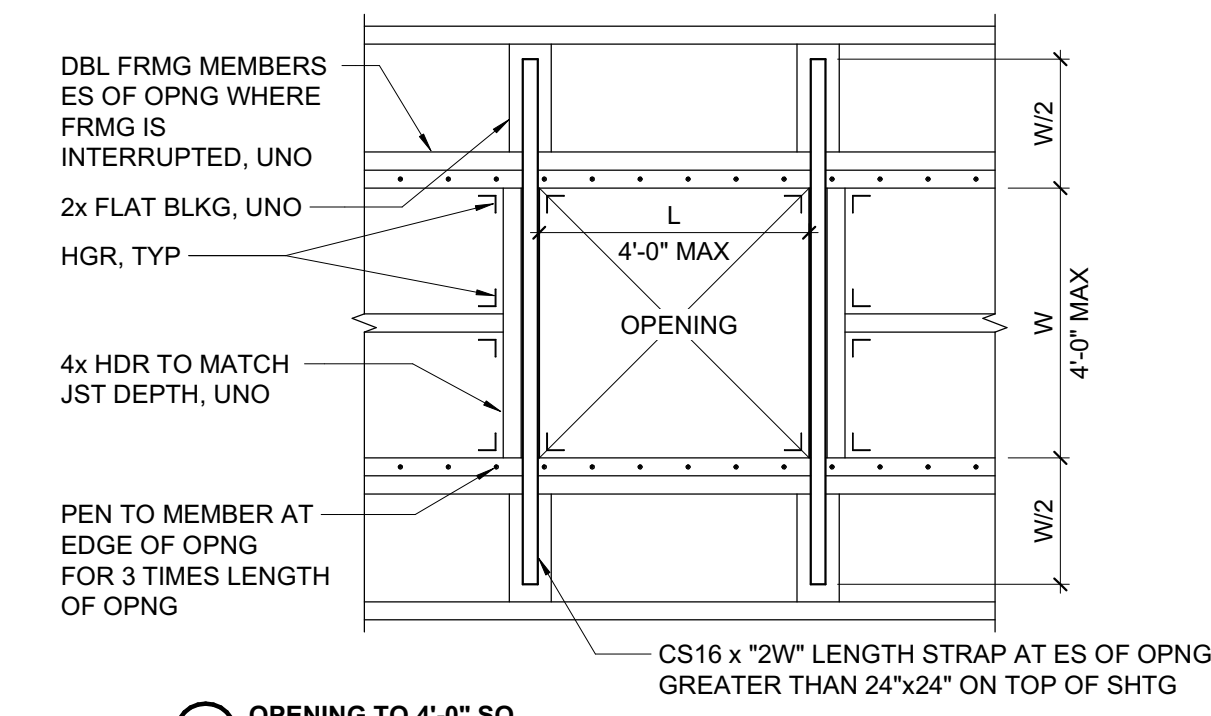


G STUDS AT CORNER H HD AT CORNER AND END

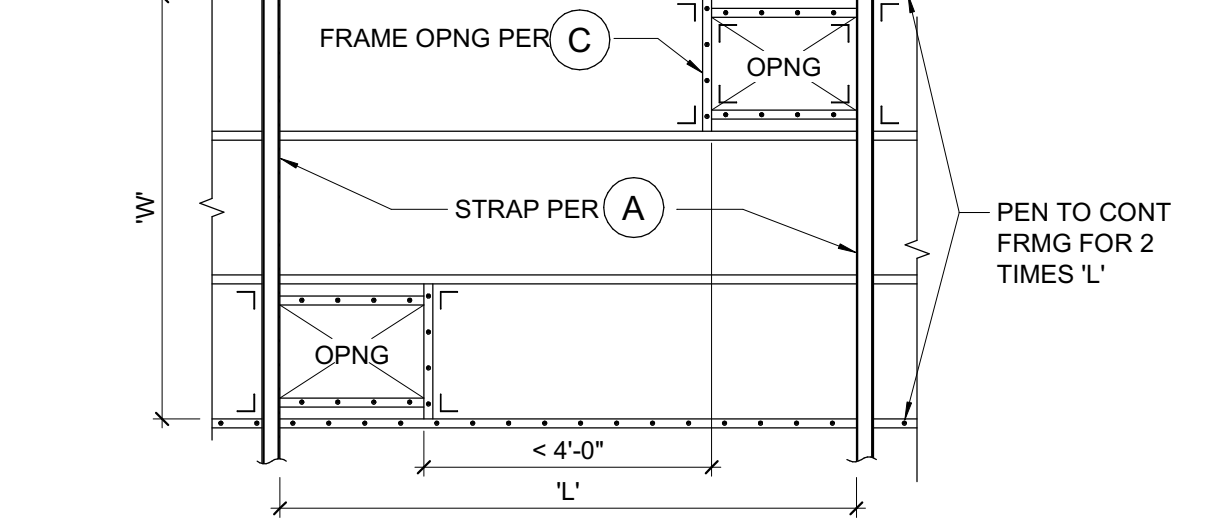
9 TYPICAL PLAN VIEW OF STUD WALL INTERSECTIONS
3/4" = 1'-0"



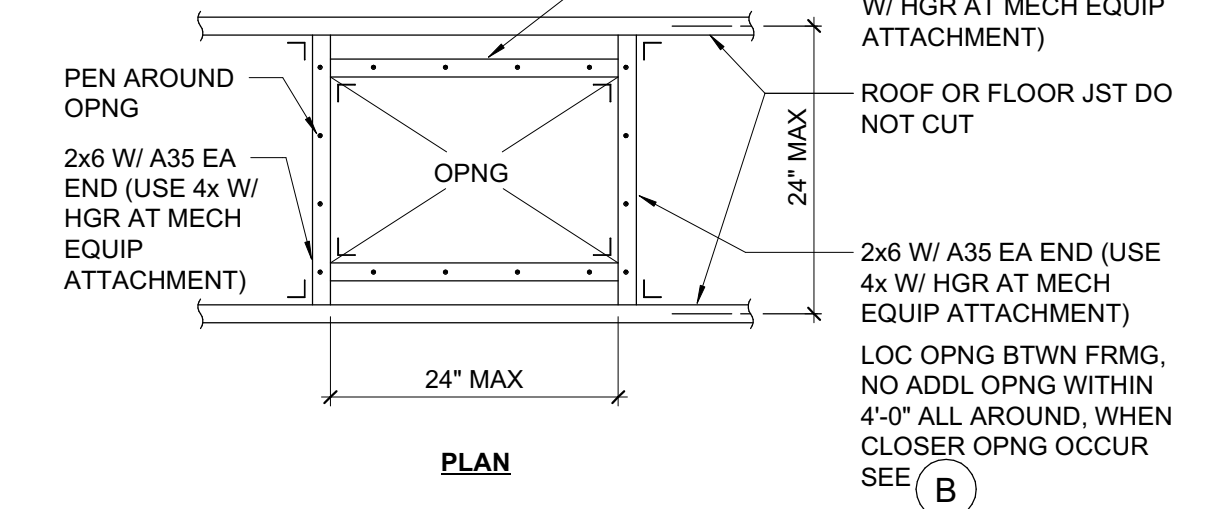
1 TYPICAL STUD WALL AND OPENING FRAMING
3/8" = 1'-0"



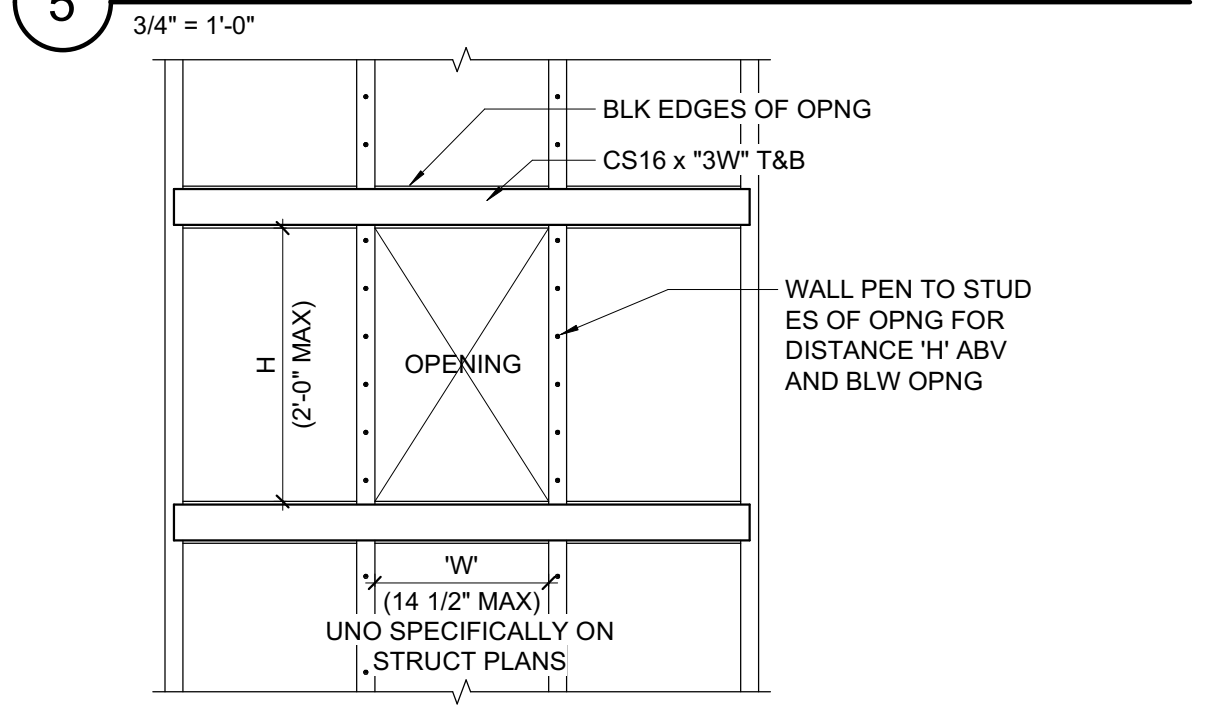
A OPENING TO 4'-0" SQ



B CLOSELY SPACED OPENINGS BETWEEN FRAMING



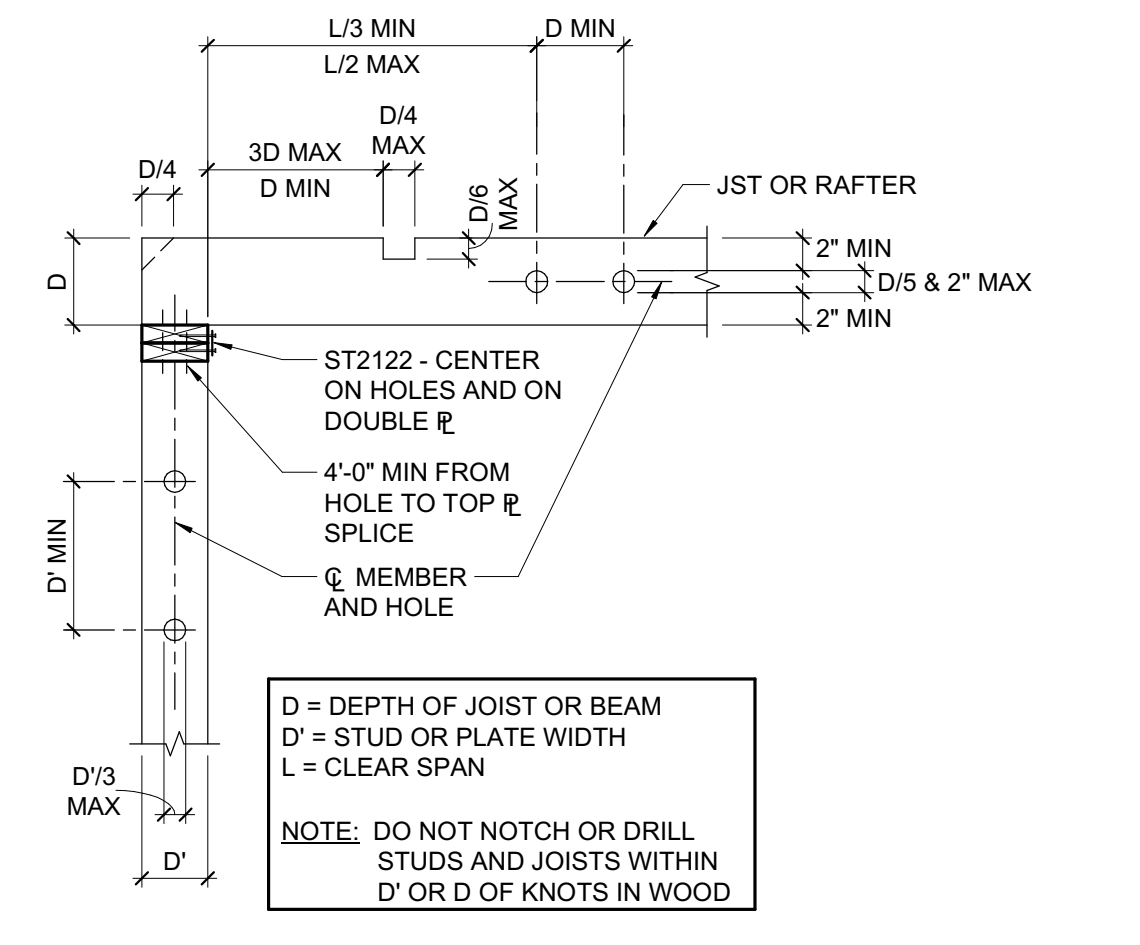
C ISOLATED OPENING BETWEEN FRAMING UP TO 24"



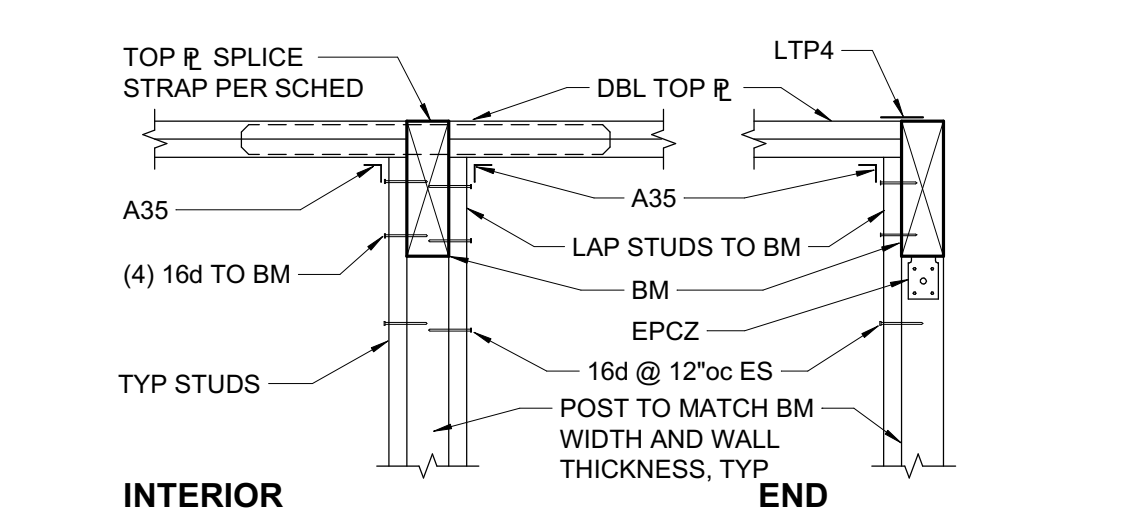
5 OPENING IN DIAPHRAGM
3/4" = 1'-0"

NOTES:
1. OPENINGS < 6\"/>

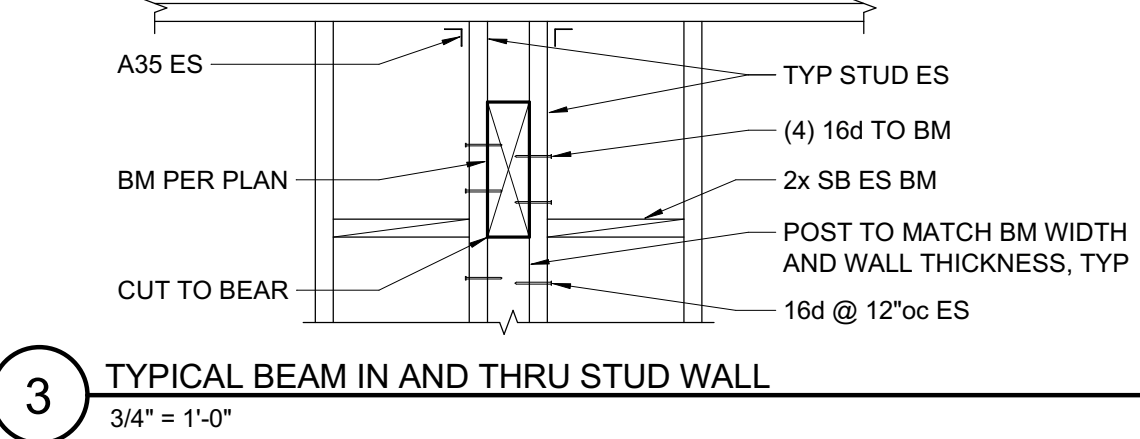
6 SMALL OPENINGS IN SHEARWALLS
3/4" = 1'-0"



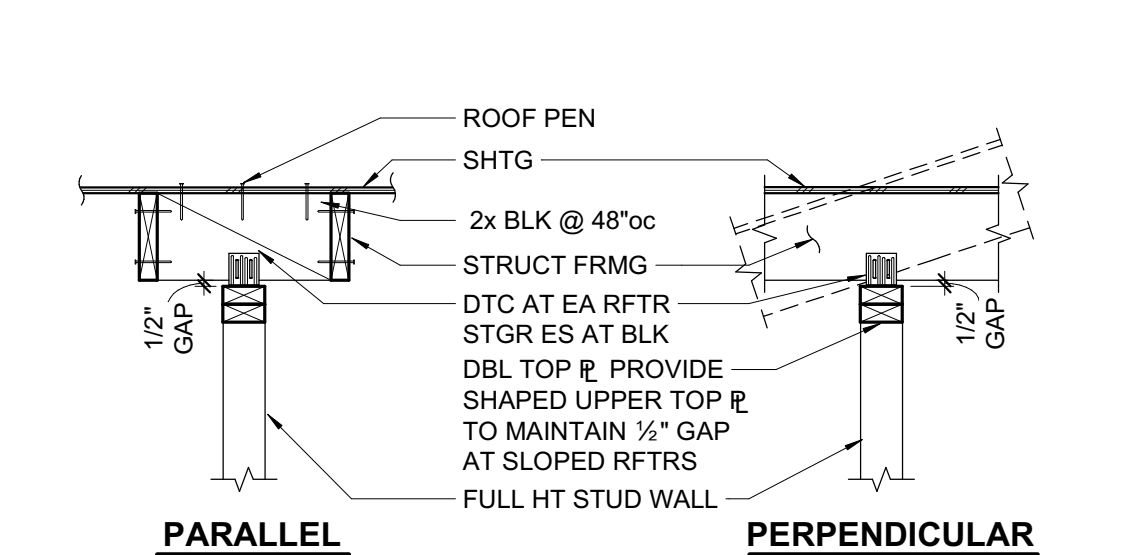
2 HOLES AND NOTCHES IN WOOD STUDS, JOISTS, AND PLATES
3/4" = 1'-0"



3 TYPICAL BEAM IN AND THRU STUD WALL
3/4" = 1'-0"



4 TYPICAL NON-STRUCTURAL STUD WALL DETAILS
3/4" = 1'-0"



NOTE:
INSTALL SLOT NAILS AT Q OF SLOT
WI 1/8\"/>

4 TYPICAL NON-STRUCTURAL STUD WALL DETAILS
3/4" = 1'-0"

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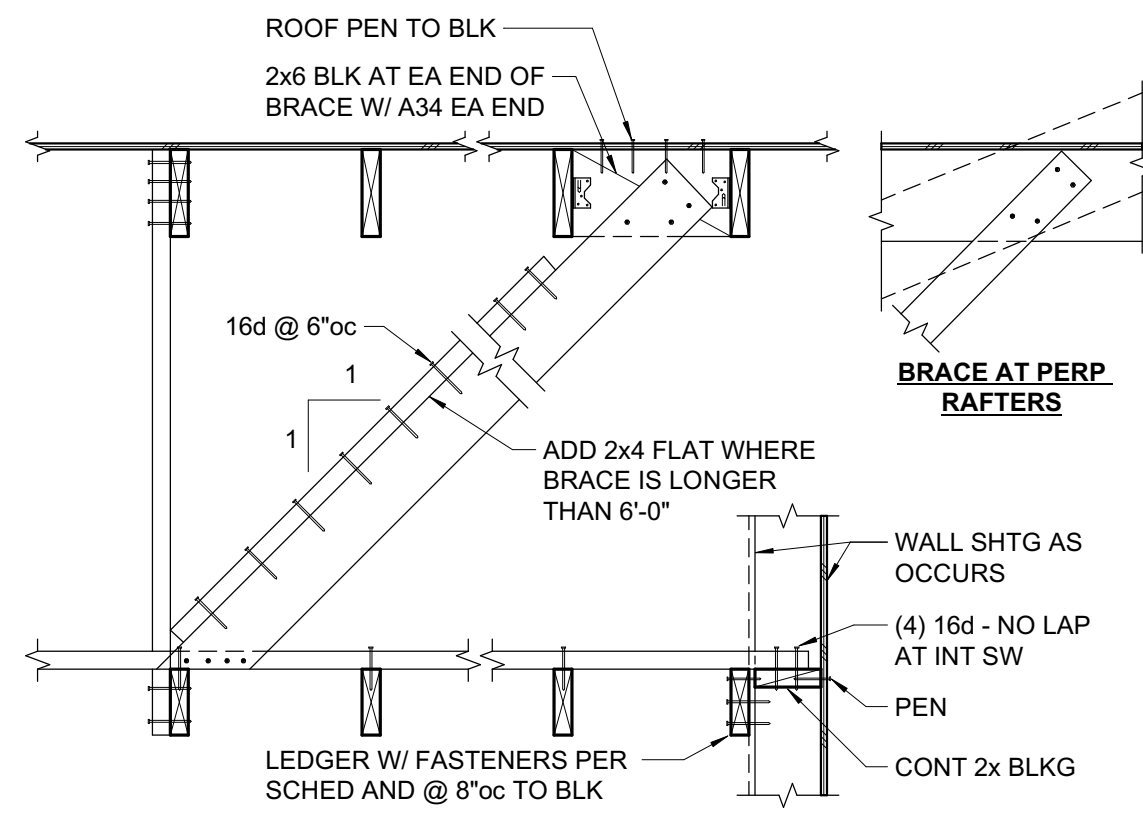
ZFA PROJECT NO: 18330
ENGINEER: KPB
PROJECT MANAGER: AIZ
PTN:

CD
FEBRUARY 27, 2018
SHEET TITLE

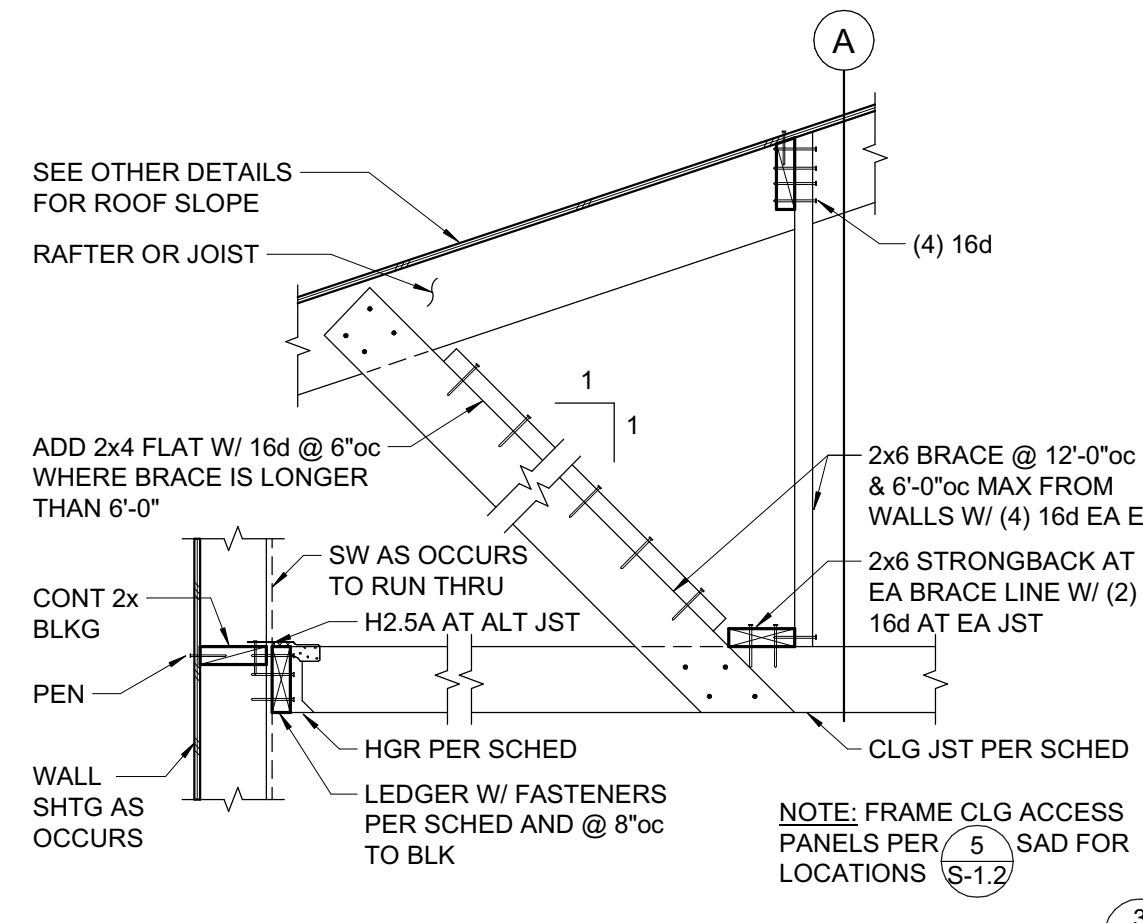
TYPICAL WOOD DETAILS

SHEET NUMBER

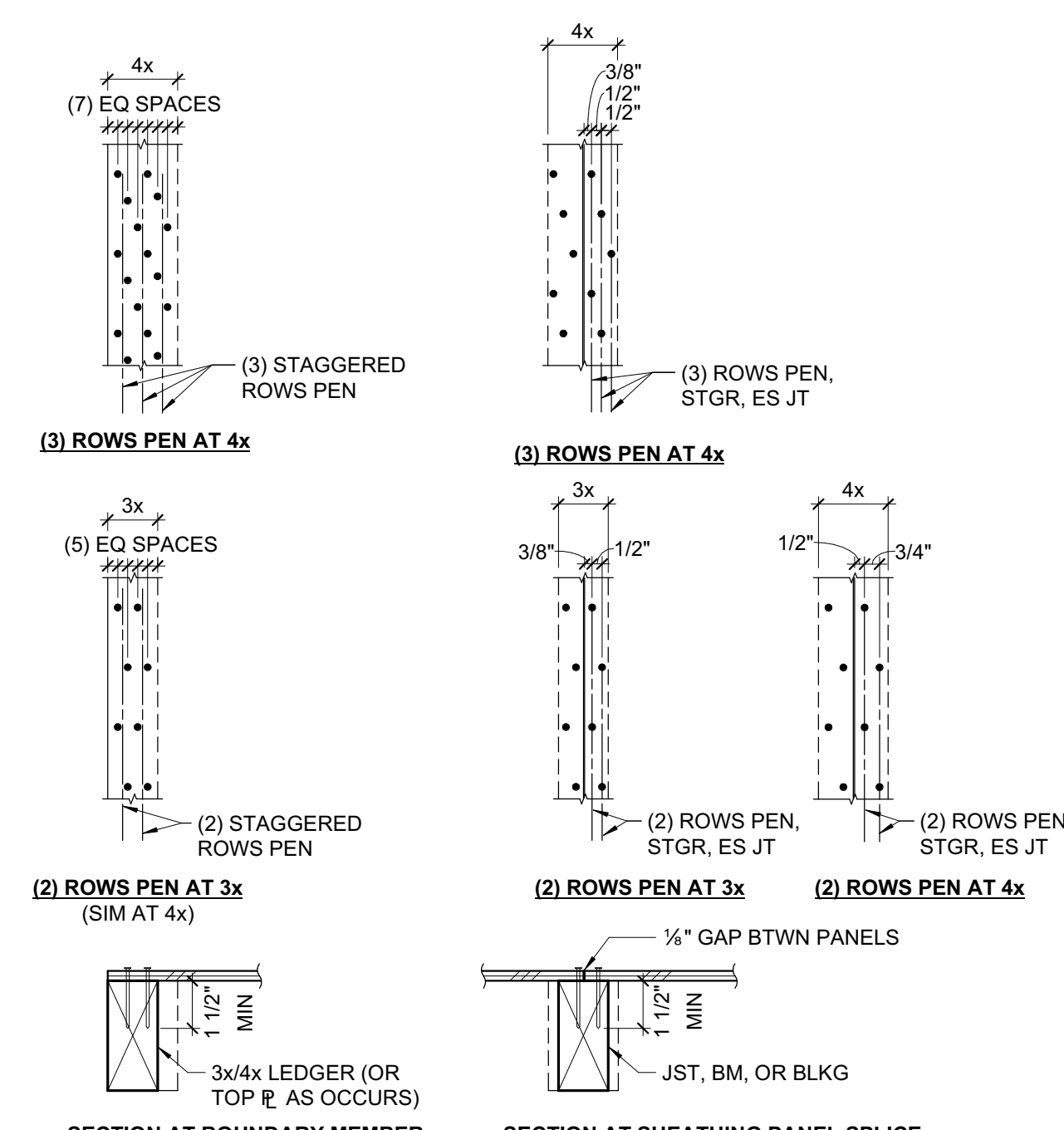
S-1.2



A AT END WALL OR FULL HEIGHT PARTITION

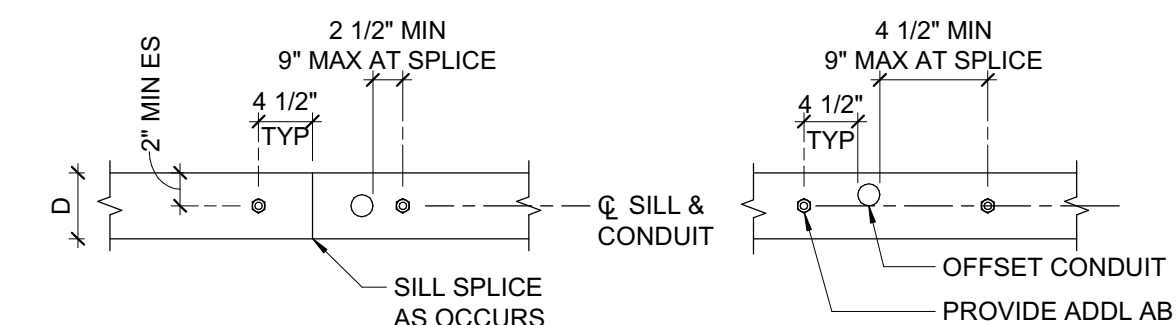


7 CEILING JOISTS (SPAN TO WALLS)
3/4" = 1'-0"

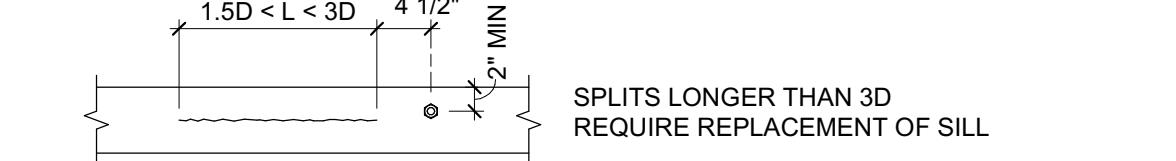


NOTE: SHEATHING SHEETS ARE TO BE AS LARGE AS POSSIBLE. STAGGER SHEETS. JOINTS ARE TO BE CENTERED OVER BEARING. NAIL HEADS SHALL BE DRIVEN FLUSH W/ SHEATHING. MINIMUM SHEATHING SIZE IS 24" WIDTH x 48" LENGTH.

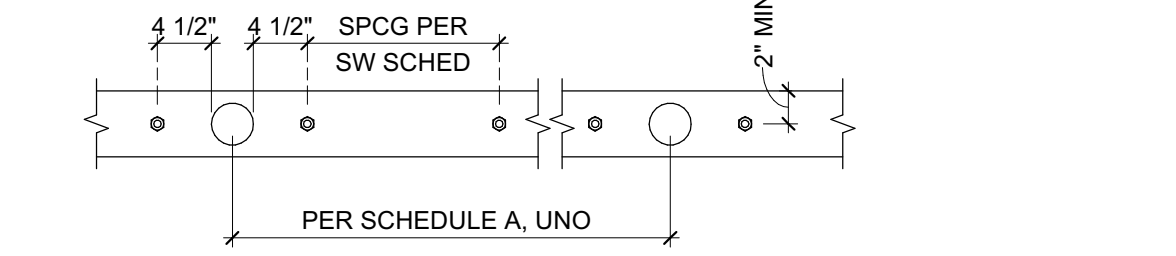
8 FLOOR/ROOF SHEATHING - MULTIPLE NAIL ROWS
1 1/2" = 1'-0"



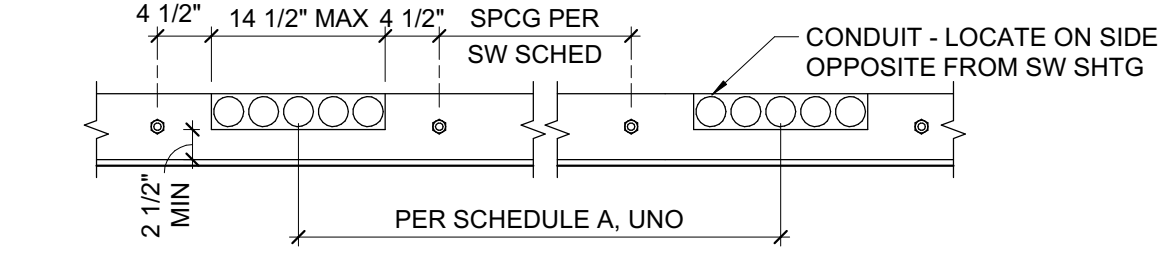
CASE 1 - SINGLE, CONDUIT DIAMETER ≤ D/3, MAX SPCG = 16"oc



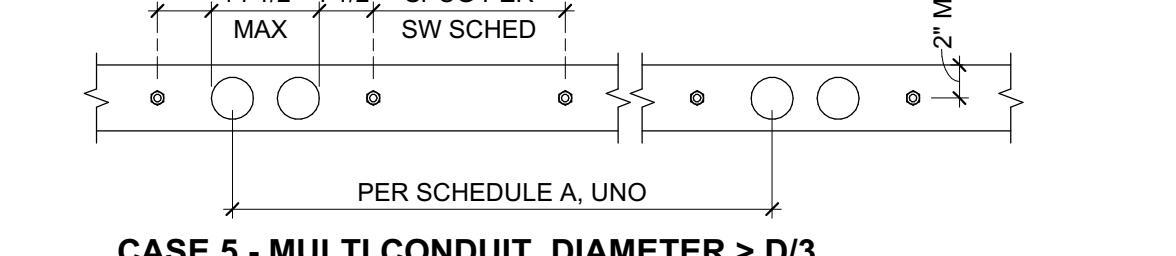
CASE 2 - SPLIT IN SILL



CASE 3 - SINGLE, CONDUIT DIAMETER > D/3



CASE 4 - NOTCH FOR CONDUIT



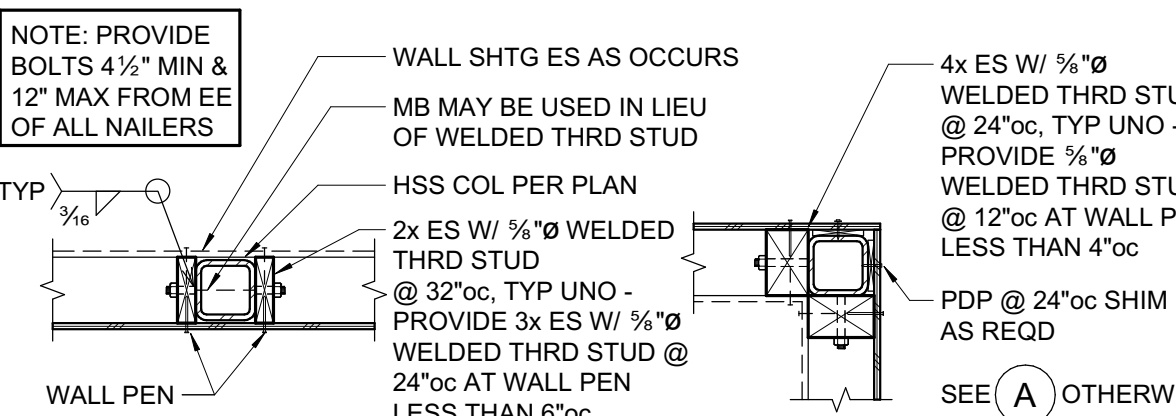
CASE 5 - MULTI CONDUIT, DIAMETER > D/3

NOTE:

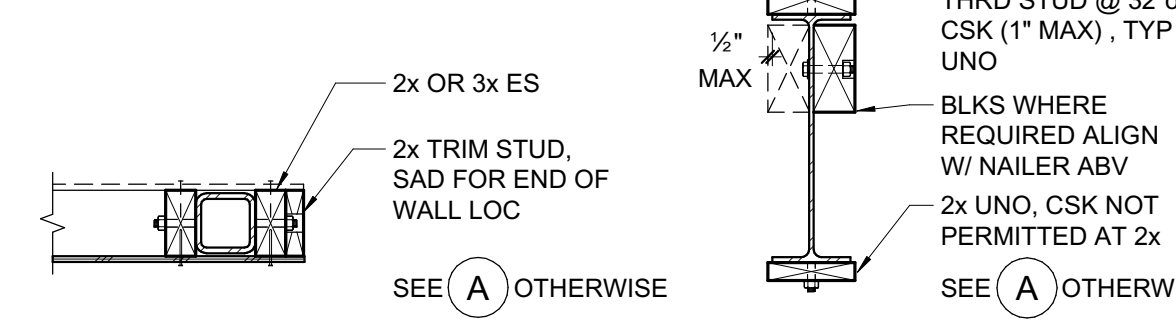
- ALL PENETRATIONS THROUGH SHEAR WALL SILL PLATE SHALL CONFORM TO THE REQUIREMENTS OF THIS DETAIL OR BE REROUTED PRIOR TO INSTALLATION OF SILL.
- ADDITIONAL ANCHOR BOLTS TO BE INSTALLED PER 15S-1.1 WHERE NECESSARY. AB DIA AS REQD BY SW SCHED.

SCHEDULE A	
MARK	CASE 5
SW (A)	48"
SW (B)	64"

4 HOLES IN PLATES AT SHEAR WALLS
3/4" = 1'-0"

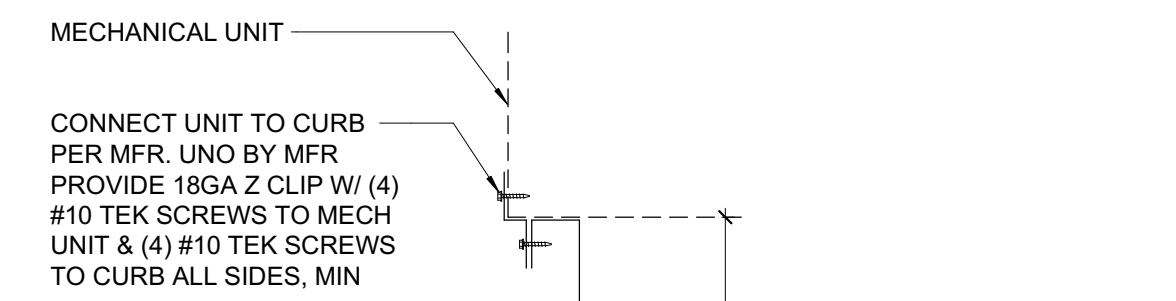


A HSS COLUMN WITHIN WALL

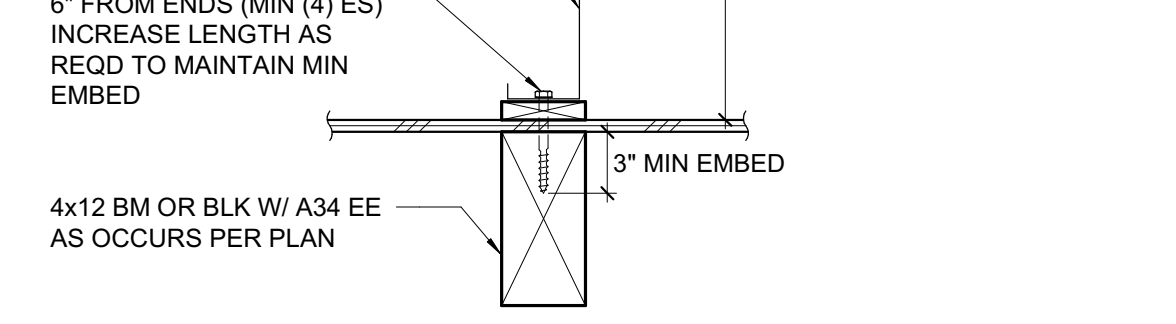


C HSS COLUMN AT CORNER

B HSS COLUMN AT END OF WALL (EDGE OF OPNG SIM)



D WIDE FLANGE NAILER (CHANNEL & HSS SIM)



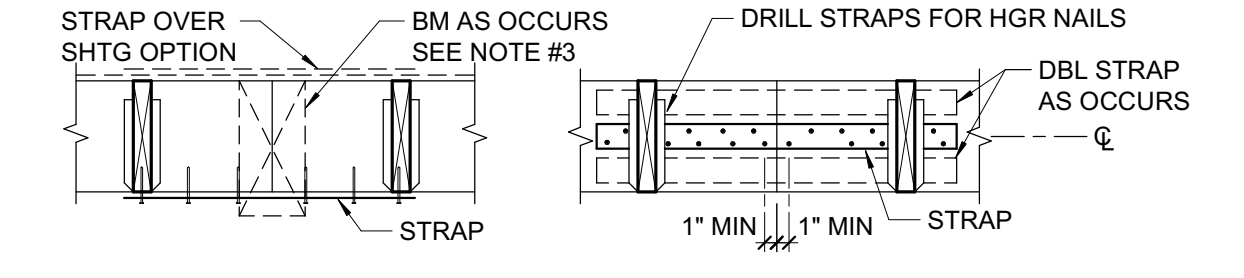
5 TYPICAL STEEL BEAM/COLUMN NAILERS
3/4" = 1'-0"

6 MECHANICAL UNIT ON ROOF
1 1/2" = 1'-0"

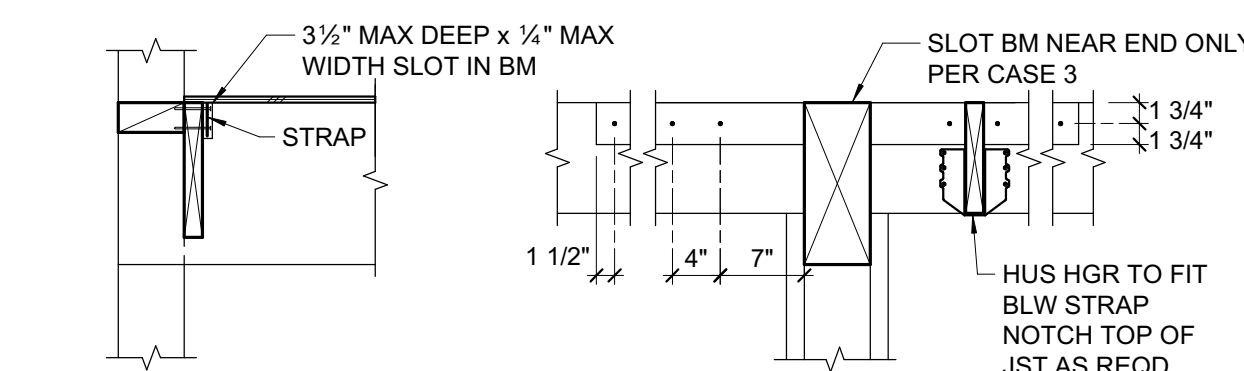
LEDGER SPLICE SCHEDULE

MARK	CASE	STRAP/PLATE	CASE	STRAP/PLATE
A	1	MSTA24	1	
B	1	MSTA30	1	
C	2	MST148	3	MST160
D	2	CMST14x5'-6"	3	CMST14x6'-0"
E	2	(2) MST148	4	1/2" W/ (6) 1" MB ES OF SPLICE

- SPLICE NOTES:**
- PROVIDE 3x OR (2) 2x STUDS AT SPLICE
 - ALL NAILS TO BE 10d NAIL ALL HOLES
 - FOR CASE 1, SPLICE W/ MSTA36 AT BM
 - USE SPLICE TYPE 'A' UNO

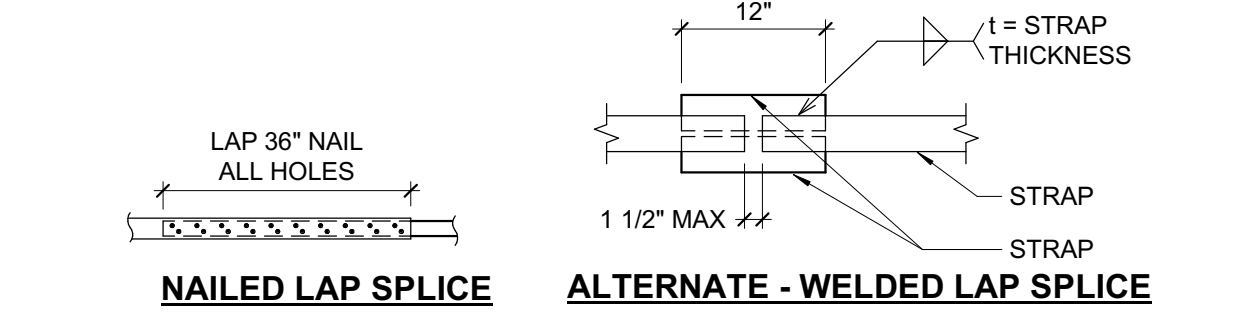


CASE 1



CASE 2

1 LEDGER OR RIM SPLICE SCHEDULE
3/4" = 1'-0"

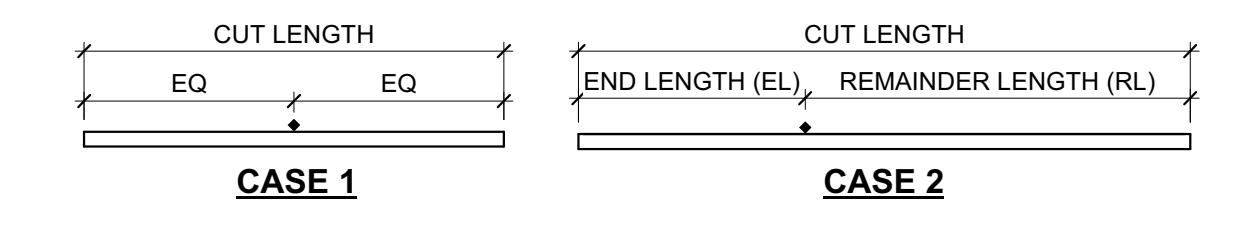


NAILED LAP SPLICE **ALTERNATE - WELDED LAP SPLICE**

TIE STRAP SCHEDULE

MARK	STRAP	MIN. NAILING ES OF *	MAX. NAIL SPACING (SEE NOTES #1 & #2)		MIN. END LENGTH (EL)	
			CASE 1	CASE 2		
A	CS16	(10) 10d	10d @ 4"oc STGR	FILL ALL NAIL HOLES	10d @ 4"oc STGR	12"
B	CS14	(13) 10d	10d @ 4"oc STGR	FILL ALL NAIL HOLES	10d @ 4"oc STGR	16"
C	CMSTC16	(25) 10d	10d @ 3"oc STGR	FILL ALL NAIL HOLES	10d @ 3"oc STGR	24"
D	CMST14	(33) 10d	10d @ 3 1/2"oc STGR	FILL ALL NAIL HOLES	10d @ 3 1/2"oc STGR	32"
E	CMST12	(43) 10d	10d @ 3 3/4"oc STGR	FILL ALL NAIL HOLES	10d @ 3 3/4"oc STGR	48"

- CASE 1 APPLIES UNLESS END LENGTH (EL) IS NOTED ON PLANS. WHERE END LENGTH (EL) IS NOTED, SEE CASE 2.



- AS REQUIRED, PROVIDE CLOSER NAIL SPACING TO MEET MINIMUM NAILING EACH SIDE OF *
- LOCATE STRAPS OVER SHEATHING AND BLOCK UNDER STRAP W/ FLAT 2x6 (2x4 AT CS16/CS14) WHERE NO FRAMING OCCURS, UNO.
- SEE PLANS FOR STRAP LENGTHS, LOCATIONS AND DETAILS, UNO.
- SPLICE STRAPS AS SHOWN WHERE LENGTH PER PLAN EXCEEDS AVAILABLE PRODUCT LENGTH

2 TIE STRAP SCHEDULE
3/4" = 1'-0"

CEILING JOIST SCHEDULE

MAX SPAN	JOIST SIZE	HANGER IF REQUIRED	LEDGER IF REQUIRED
9'-0"	2x4 @ 16"oc	LU24	2x4 W/ (2) 16d @ 16"oc
12'-6"	2x6 @ 16"oc	LU26	2x6 W/ (3) 16d @ 16"oc
14'-0"	2x8 @ 16"oc	LU28	2x8 W/ (4) 16d @ 16"oc
19'-0"	2x10 @ 16"oc	LU210	2x10 W/ (5) 16d @ 16"oc

- NOTES:**
- CEILING JOIST SCHEDULE IS BASED ON LL = 10 psf.
 - WHERE LEDGERS ARE NAILED THROUGH WALL SHTG, USE 20d NAILS IN LIEU OF 16d NAILS.
 - PROVIDE MIDSPAN BLOCKING AT 2x10 JOISTS.

3 CEILING JOIST SCHEDULE
3/4" = 1'-0"

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APP. 01-117845 INC.
REVIEWED FOR
SS [] FLS [] ACS []
DATE: 02/27/2019

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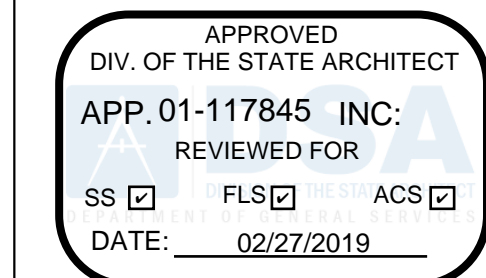
ZFA PROJECT NO: 18330
ENGINEER: KPB
PROJECT MANAGER: AIZ
PTN:

CD
FEBRUARY 27, 2018
SHEET TITLE

TYPICAL WOOD DETAILS

SHEET NUMBER

S-1.3



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FOUNDATION PLAN NOTES:

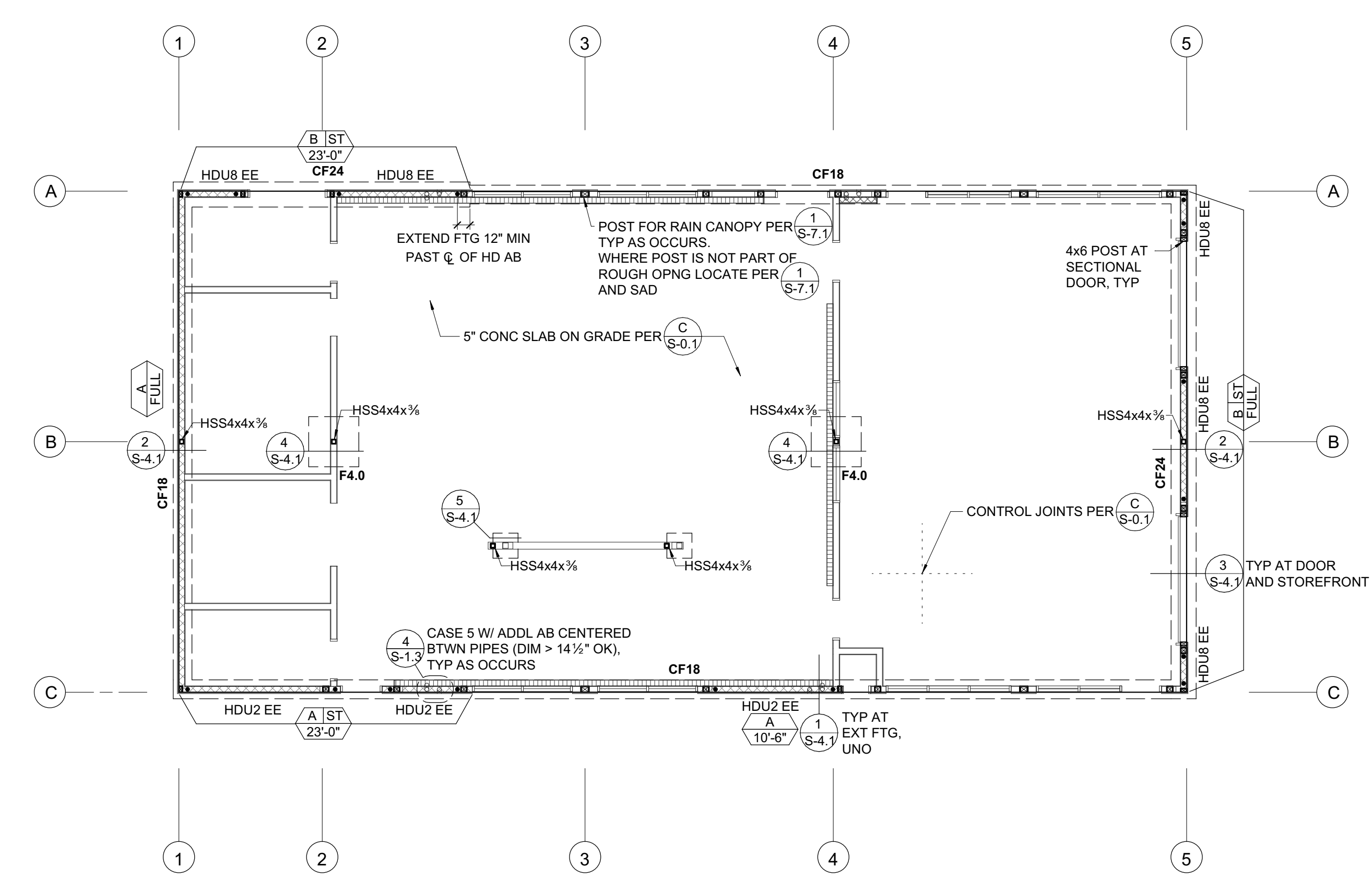
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- DIMENSIONS ARE TO FACE OF STUD UNLESS NOTED OTHERWISE. COORDINATE ALL DIMENSIONS WITH ARCHITECTURAL DRAWINGS PRIOR TO CONSTRUCTION. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES.
- SEE DETAILS FOR CURB LOCATIONS. COORDINATE WITH ARCHITECTURAL DRAWINGS PRIOR TO CONSTRUCTION. NOTIFY ARCHITECT/ENGINEER OF ANY DISCREPANCIES. PROVIDE LONGER ANCHOR BOLTS AT CURBS PER **C/S-0.1**.
- ALL EXTERIOR WALLS NOT DESIGNATED AS SHEAR WALLS ON PLANS SHALL BE SHEATHED AS SHEAR WALL TYPE 'A' PER SHEAR WALL SCHEDULE, UNO.
- PLUMBING AND ELECTRICAL CONDUIT AND GROUND STRAP SHALL NOT BE LAID WITHIN FOUNDATIONS. NO UTILITY PIPES OR CONDUITS SHALL BE LOCATED THRU COLUMN FOOTINGS OR FRAME FOOTINGS. NO PIPES OR CONDUITS THRU SILL PLATES SHALL BE WITHIN 12" OF HOLDOWN BOLTS. NO MECHANICAL, ELECTRICAL, OR PLUMBING OPENINGS SHALL BE LOCATED IN SHEAR WALLS UNLESS SHOWN AND DETAILED ON THE STRUCTURAL DRAWINGS. NO VERTICAL OR HORIZONTAL PIPES OR CONDUITS SHALL BE LOCATED THROUGH STEEL FRAMES, STEEL COLUMNS, OR STEEL BASE PLATES. PROVIDE FURRING AND/OR THICKENED CONCRETE WHERE REQUIRED TO CLEAR UTILITY SYSTEMS. NOTIFY STRUCTURAL ENGINEER/ARCHITECT PRIOR TO ANY INSTALLATION NOT CONFORMING TO THESE DETAILS.
 PIPES THROUGH FOOTINGS SHALL BE PER **2/S-1.1** AND **3/S-1.1**.
 PIPES PARALLEL TO FOOTINGS SHALL BE PER **4/S-1.1**.
 PIPES AT SLAB ON GRADE SHALL BE PER **7/S-1.1**.
 PIPES THROUGH WOOD FRAMING SHALL BE PER **2/S-1.2** AND **4/S-1.3**.
- CONTRACTOR SHALL DETERMINE FOUNDATION STEP LOCATIONS BASED ON GEOTECHNICAL REPORT, CIVIL, ARCHITECTURAL AND LANDSCAPE DRAWINGS. STEP FOOTING PER **9/S-1.1**.

PLAN LEGEND		
SYMBOL	REFERENCE DETAIL	DESCRIPTION
=====	1/S-1.2	INDICATES STRUCTURAL WALL.
-----	7/S-1.2	INDICATES SHEAR WALL TYPE AND MINIMUM WALL LENGTH. SYMBOL LOCATION INDICATES SHEATHED FACE OF WALL UNLESS NOTED OTHERWISE.
⬠	E/S-0.1	INDICATES STRAPPED SHEAR WALL WITH TYPE AND OVERALL WALL LENGTH, SEE ARCHITECTURAL DRAWINGS FOR OPENINGS.
⊠	11/S-1.2	INDICATES STRAPPED SHEAR WALL WITH TYPE AND OVERALL WALL LENGTH, SEE ARCHITECTURAL DRAWINGS FOR OPENINGS.
⊞	D/S-0.1	INDICATES WOOD POST.
⊞•	9/S-1.2	INDICATES POST WITH HOLDOWN. POSTS WITH HOLDOWN ARE FULL HEIGHT FROM SILL TO TOP PLATE.
□	5/S-1.3	INDICATES STEEL COLUMN.
▭		INDICATES FOUNDATION.
CF24		INDICATES CONTINUOUS FOOTING SIZE AND REINFORCING PER SCHEDULE.
F2.0		INDICATES PAD FOOTING SIZE AND REINFORCING PER SCHEDULE.
⊘	88	INDICATES GRIDLINE.

SHEAR WALL SCHEDULE					
SW	APA RATED SHEATHING	NAILING (PEN)	ANCHORAGE		REMARKS
			1/2" BOLT FROM 2x SILL	3x SILL	
(A)	1 1/2" (32/16) EXP 1	10d @ 6"oc	32"oc	48"oc	
(B)	1 1/2" (32/16) EXP 1	10d @ 4"oc	24"oc	32"oc	3x MIN AT ALL ADJOINING PANEL EDGES

CONTINUOUS FOOTING SCHEDULE				
MARK	'b'	'd'	REINF 'a'	NOTES
CF18	18"	18"	(2) #5 T&B	PROVIDE #3 TIES @ 24"oc
CF24	24"	18"	(3) #5 T&B	PROVIDE #3 TIES @ 24"oc

PAD FOOTING SCHEDULE		
MARK	SIZE	REINFORCING
F4.0	4'-0" SQ x 18" DEEP	(5) #5



FOUNDATION PLAN
 1/8" = 1'-0"

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ZFA PROJECT NO: 18330
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 SHEET TITLE

FOUNDATION PLAN

SHEET NUMBER
S-2.1



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ENGINEER: KPB
PROJECT MANAGER: AIZ
PTN:

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FEBRUARY 27, 2018
SHEET TITLE

ROOF FRAMING PLAN

SHEET NUMBER
S-2.2

FRAMING PLAN NOTES:

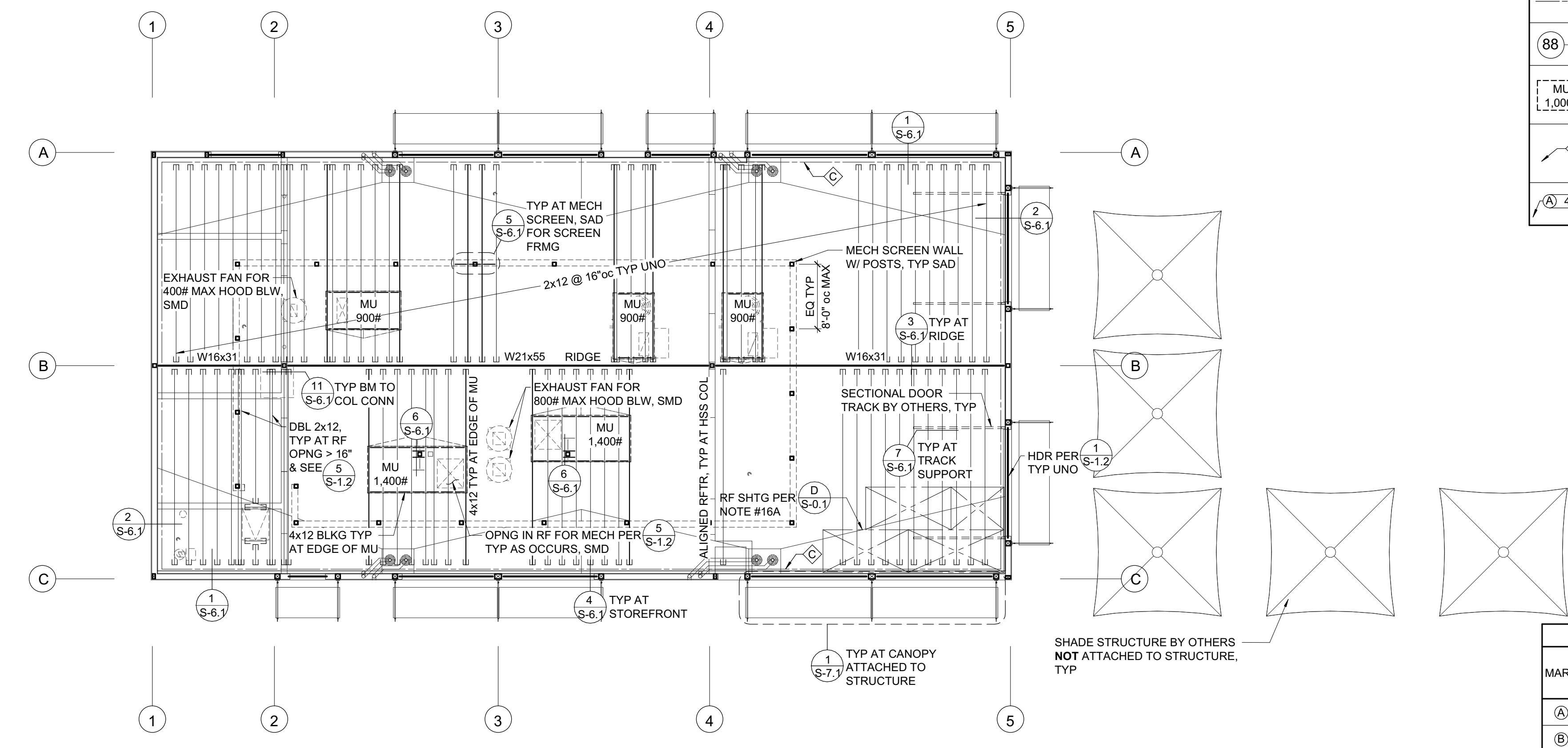
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- MECHANICAL, ELECTRICAL AND PLUMBING PENETRATIONS THROUGH WALLS, ROOFS OR FLOORS SHALL BE PER REFERENCES BELOW UNLESS SHOWN AND DETAILED OTHERWISE ON THE STRUCTURAL PLANS. NOTIFY ARCHITECT/ENGINEER PRIOR TO ANY INSTALLATION NOT CONFORMING TO THESE DETAILS.
PENETRATIONS THROUGH SHEAR WALLS SHALL BE PER 6/S-1.2
PENETRATIONS THROUGH FLOORS/ROOFS SHALL BE PER 5/S-1.2
- ALL EXTERIOR WALLS NOT DESIGNATED AS SHEAR WALLS ON PLANS SHALL BE SHEATHED AS SHEAR WALL TYPE 'A' PER SHEAR WALL SCHEDULE, UNLESS NOTED OTHERWISE.

PLAN LEGEND		
SYMBOL	REFERENCE DETAIL	DESCRIPTION
=====	1/S-1.2	INDICATES STRUCTURAL WALL.
-----	1/S-1.2	INDICATES STRUCTURAL WALL ABOVE.
□	D/S-0.1	INDICATES WOOD POST.
□•	8/S-1.2	INDICATES POST WITH HOLDOWN. POSTS WITH HOLDOWN ARE FULL HEIGHT FROM SILL TO TOP PLATE.
□	5/S-1.3	INDICATES STEEL COLUMN.
.....	8/S-1.3	INDICATES PANEL EDGE NAILING ALONG FULL LENGTH OF MEMBER.
=====	D/S-0.1	INDICATES HANGER.
-----		INDICATES LEDGER. SEE DETAIL ON PLAN FOR SIZE AND ANCHORAGE.
⊖		INDICATES GRIDLINE.
⊖	6/S-1.3	INDICATES APPROXIMATE LOCATION, SIZE AND MAXIMUM WEIGHT OF MECHANICAL UNIT. SEE MECHANICAL DRAWINGS FOR ANCHORAGE AND ADDITIONAL INFORMATION.
⊖	1/S-1.3	INDICATES LEDGER SPLICE. SPLICE TYPE SHALL OCCUR ALONG THE ENTIRE LENGTH OF THE WALL, UNO. PROVIDE SPLICE TYPE 'A' IF NOT NOTED ON PLANS.
⊖	2/S-1.3	INDICATES TIE STRAP. SEE SCHEDULE FOR STRAP, NAILING AND LENGTH.

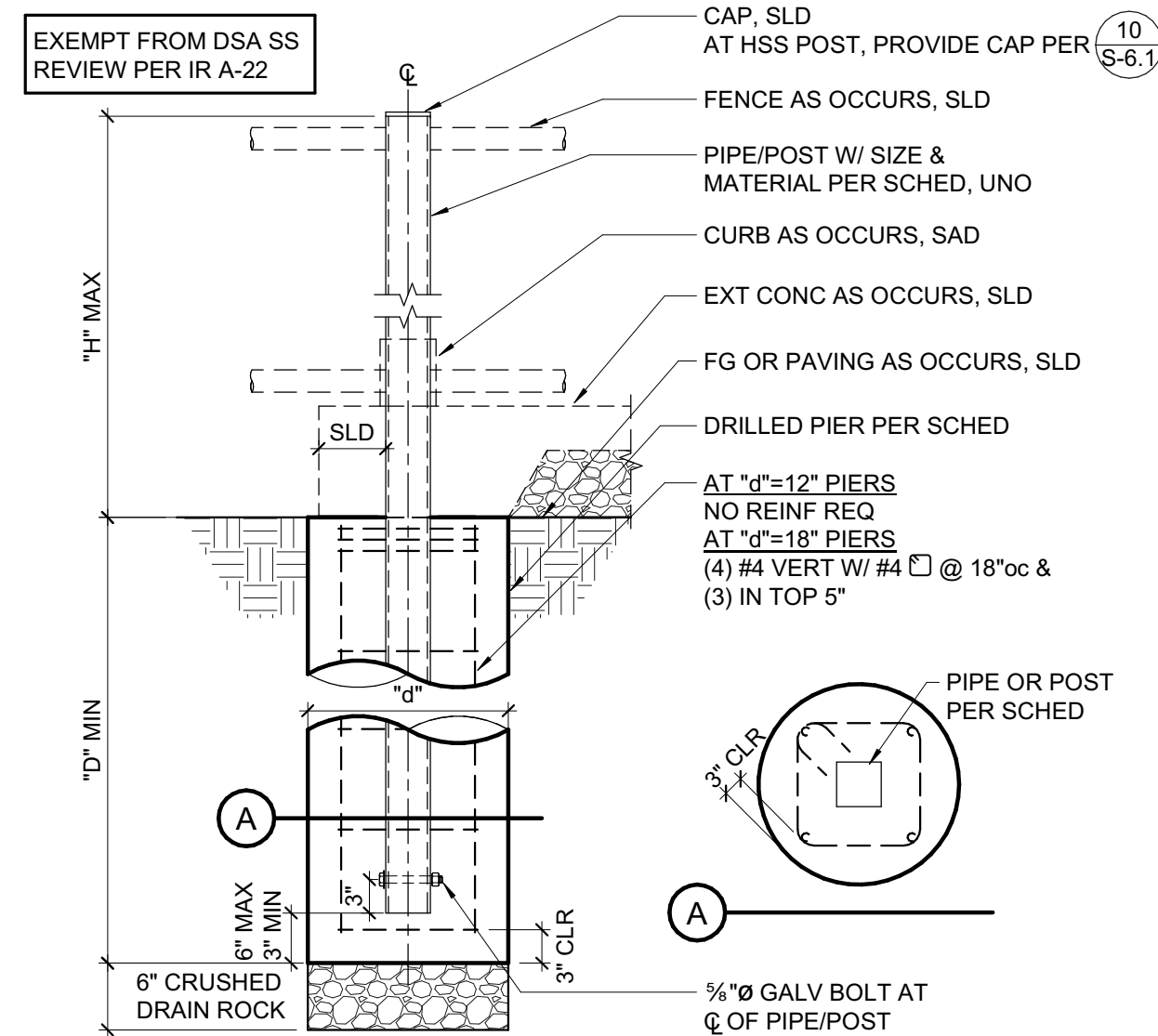
LEDGER SPLICE SCHEDULE				
MARK	CASE	STRAP/PLATE	CASE	STRAP/PLATE
⊖	1	MSTA24	1	
⊖	1	MSTA30	1	
⊖	2	MST148	3	MST160
⊖	2	CMST14x5'-6"	3	CMST14x6'-0"
⊖	2	(2) MST148	4	1/4" W/ (6) 1"Ø MB ES OF SPLICE

TIE STRAP SCHEDULE						
MARK	STRAP	MIN. NAILING ES OF *	MAX. NAIL SPACING (SEE NOTES #1 & #2)		MIN. END LENGTH (EL)	
			CASE 1	CASE 2		
				EL		RL
⊖	CS16	(10) 10d	10d @ 4"oc STGR	FILL ALL NAIL HOLES	10d @ 4"oc STGR	12"
⊖	CS14	(13) 10d	10d @ 4"oc STGR	FILL ALL NAIL HOLES	10d @ 4"oc STGR	16"
⊖	CMSTC16	(25) 10d	10d @ 3"oc STGR	FILL ALL NAIL HOLES	10d @ 3"oc STGR	24"
⊖	CMST14	(33) 10d	10d @ 3 1/2"oc STGR	FILL ALL NAIL HOLES	10d @ 3 1/2"oc STGR	32"
⊖	CMST12	(43) 10d	10d @ 3 1/2"oc STGR	FILL ALL NAIL HOLES	10d @ 3 1/2"oc STGR	48"

1. CASE 1 APPLIES UNLESS END LENGTH (EL) IS NOTED ON PLANS. WHERE END LENGTH (EL) IS NOTED, SEE CASE 2.



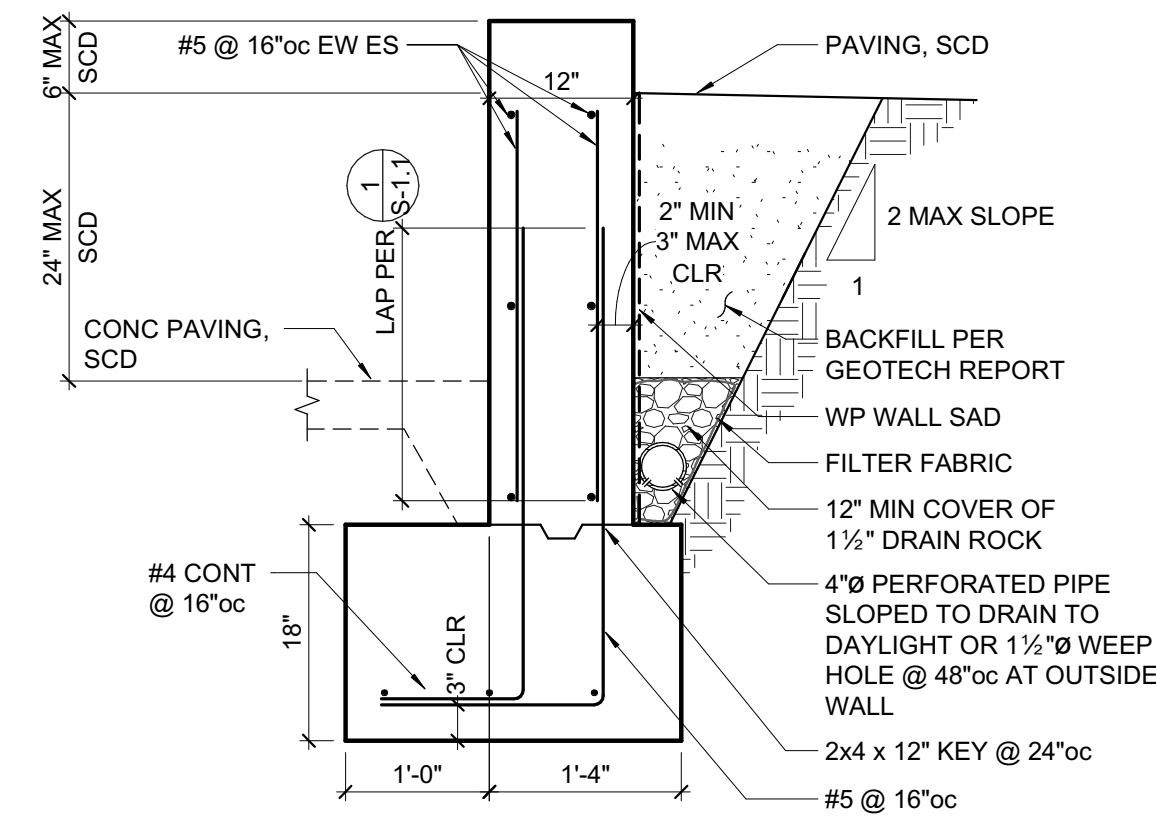
ROOF FRAMING PLAN
1/8" = 1'-0"



PIPE & PIER SCHEDULE 1.2					
TYPE	1" MAX PIPE HT ABV GR	PIPE/POST SIZE & MATERIAL	MAX SPCG OR MAX GATE LEAF PER MFR	10" MIN PIER DEPTH	10" PIER DIA
6' HIGH ORNAMENTAL FENCE*	6'-0"	2 1/2" SQ x 12GA PER MFR	8'-0"oc SPCG PER MFR	5'-0"	18"
6' HIGH SINGLE & DOUBLE ORNAMENTAL GATE*	6'-0"	3" SQ x 12GA PER MFR	4' GATE LEAF PER MFR	6'-0"	18"
6' HIGH DOUBLE GATE, HEAVY DUTY ORNAMENTAL*	6'-0"	4" SQ x 11GA PER MFR	10' GATE LEAF PER MFR	7'-0"	18"
WELDED WIRE TRELLIS	6'-0"	HSS 3x3x1/8	8'-0"oc SPCG	5'-0"	12"

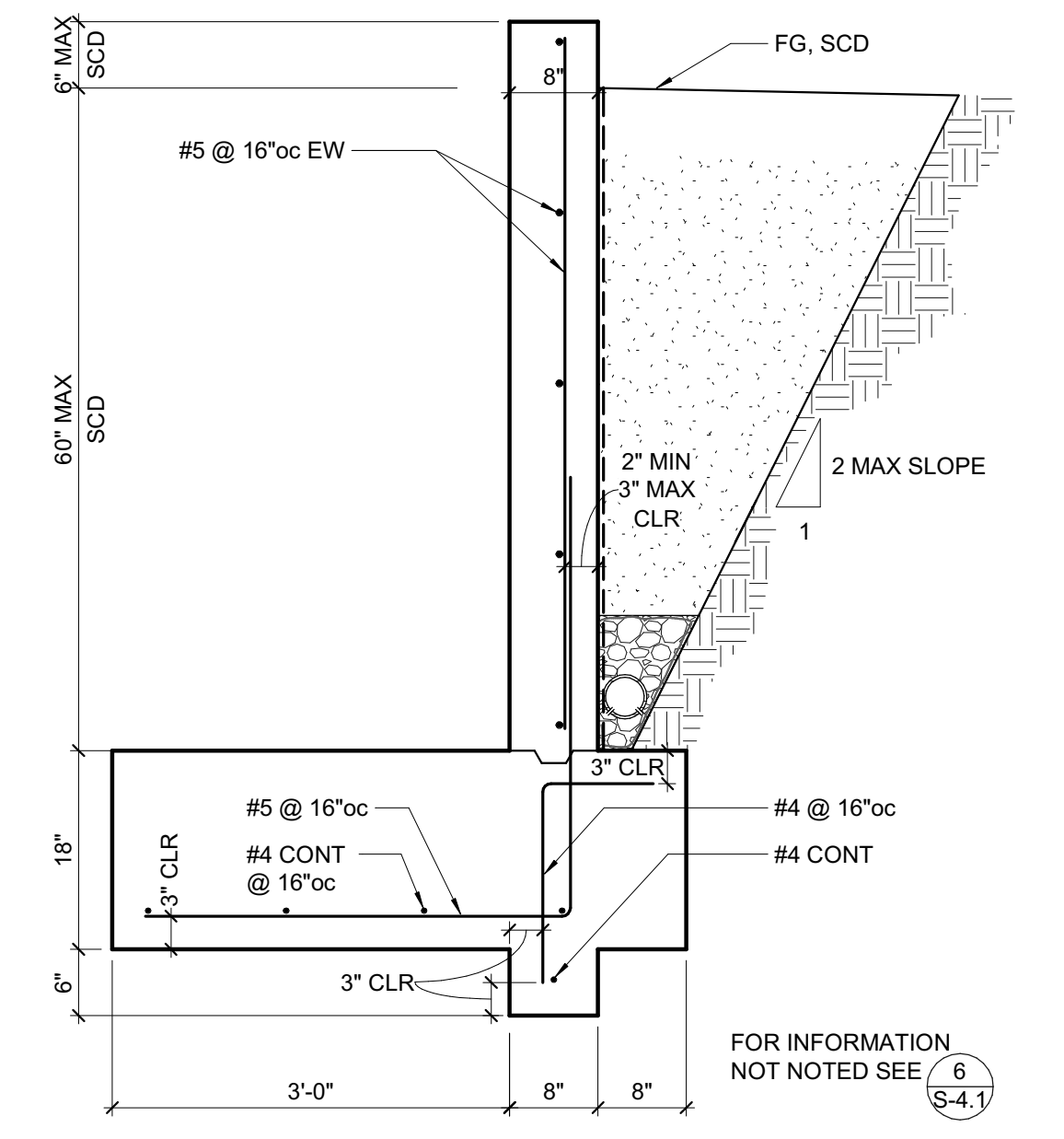
- NOTES:
- IF GROUND WATER IS ENCOUNTERED AT PIERS CONSULT GEOTECHNICAL ENGINEER FOR PIER CASTING REQUIREMENTS.
 - WINDSCREENS, PRIVACY NETTINGS, AND SLATS ARE ONLY ALLOWED WHERE SPECIFICALLY NOTED. PERFORATED METAL AT GATES PER LANDSCAPE O.K.
 - 6' ORNAMENTAL FENCE AND GATE PIER DESIGN BASED ON AEGIS II MAJESTIC. IF AN ALTERNATIVE IS USED, CONTACT ZFA IMMEDIATELY.

8 DRILLED PIERS FOR FENCING & TRELLIS
3/4" = 1'-0"

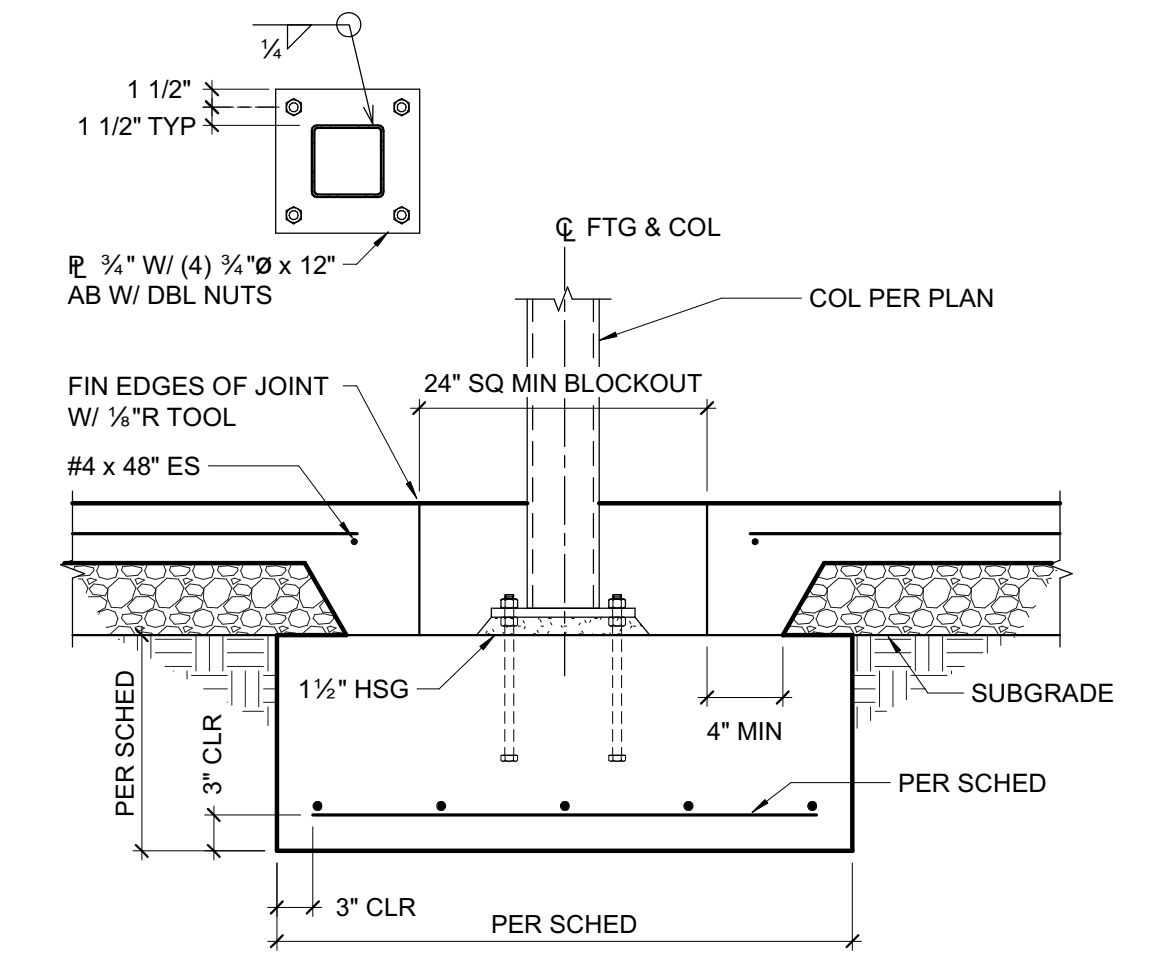


- NOTES:
- PROVIDE FORMED DOWELED CONSTRUCTION JOINTS AT 100'-0" MAX.
 - PROVIDE VERTICAL CONTROL JOINTS AT 2H ON CENTER MAX (10'-0" MIN). COORDINATE LOCATIONS W/ ARCH AND ENGINEER.
 - PROVIDE ENGINEERED FILL OR LIME TREATMENT PER GEOTECH REPORT.

6 TYPICAL SEAT WALL
3/4" = 1'-0"

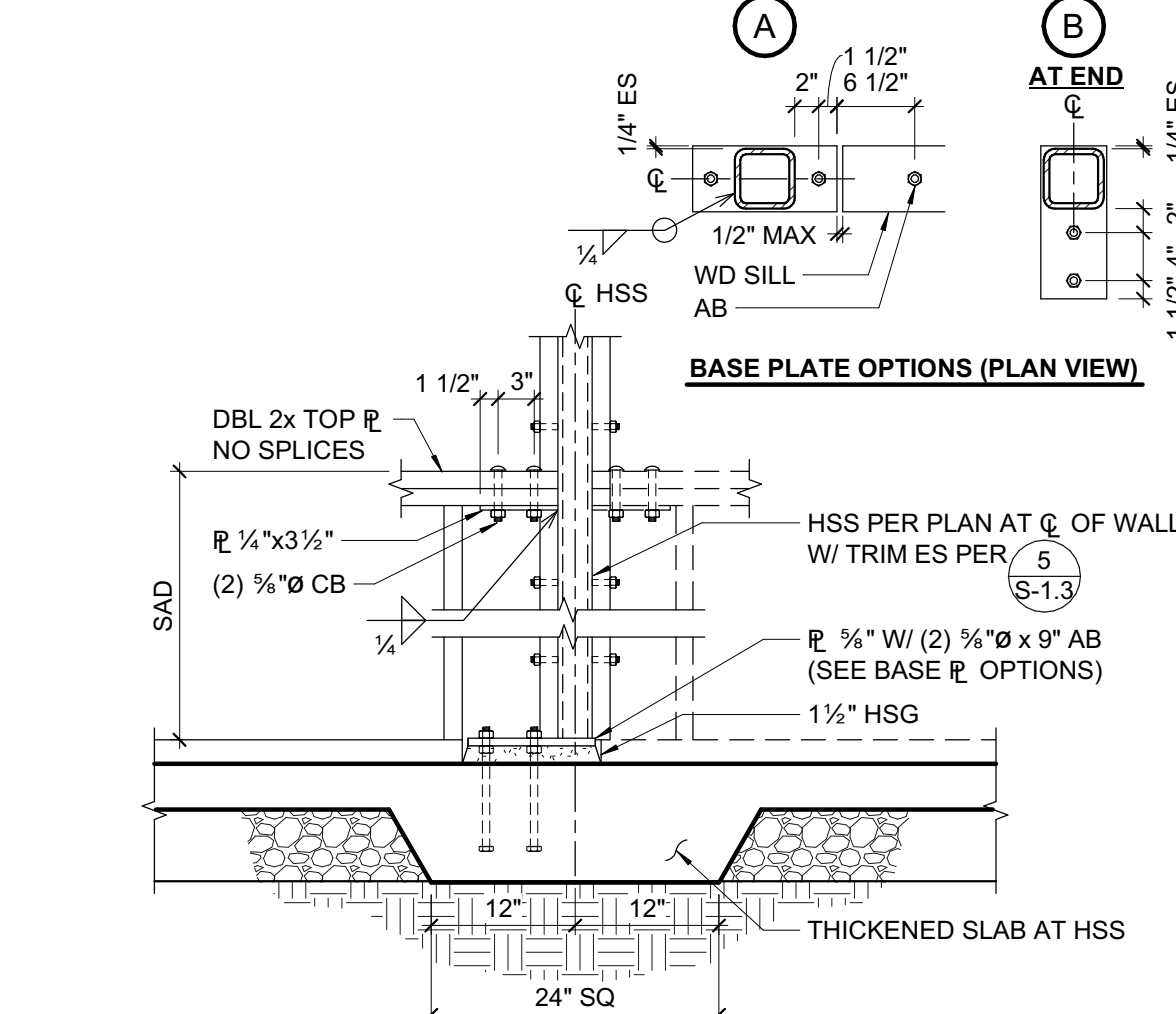


7 TYPICAL BIORETENTION WALL
3/4" = 1'-0"

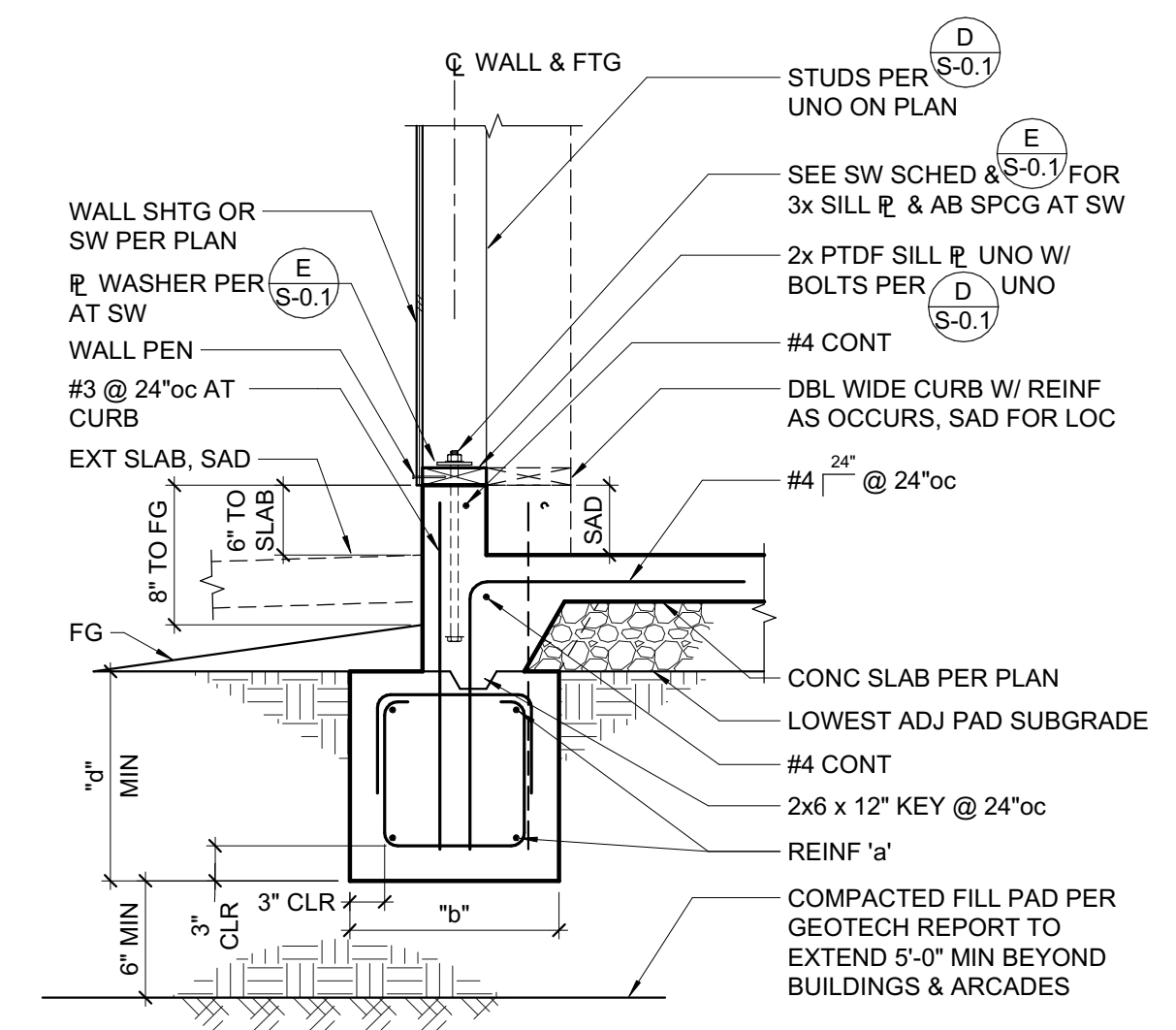


PAD FOOTING SCHEDULE		
MARK	SIZE	REINFORCING
F4.0	4'-0" SQ x 18" DEEP	(5) #5

4 HSS COLUMN PAD FOOTING
3/4" = 1'-0"

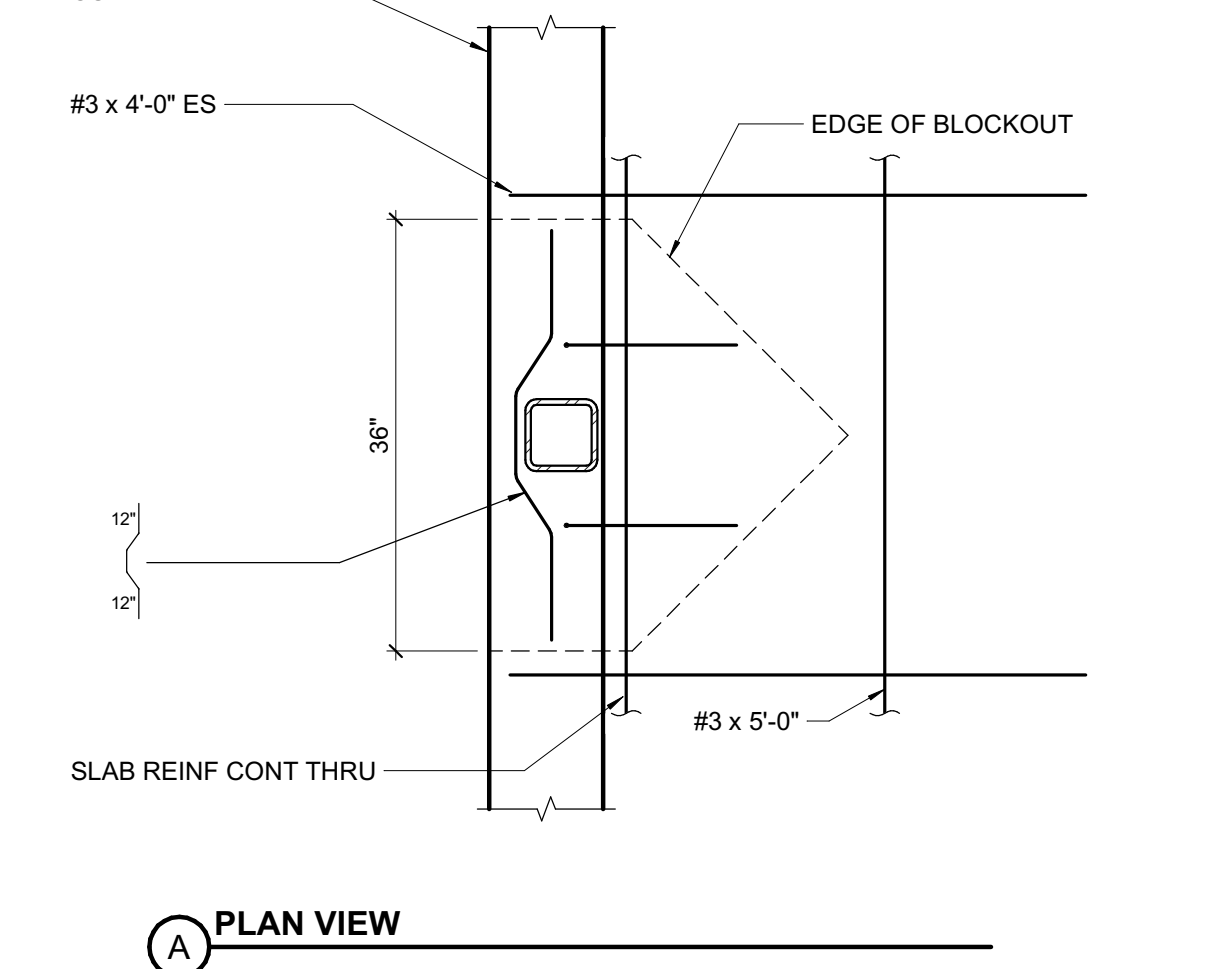


5 PONY WALL
3/4" = 1'-0"

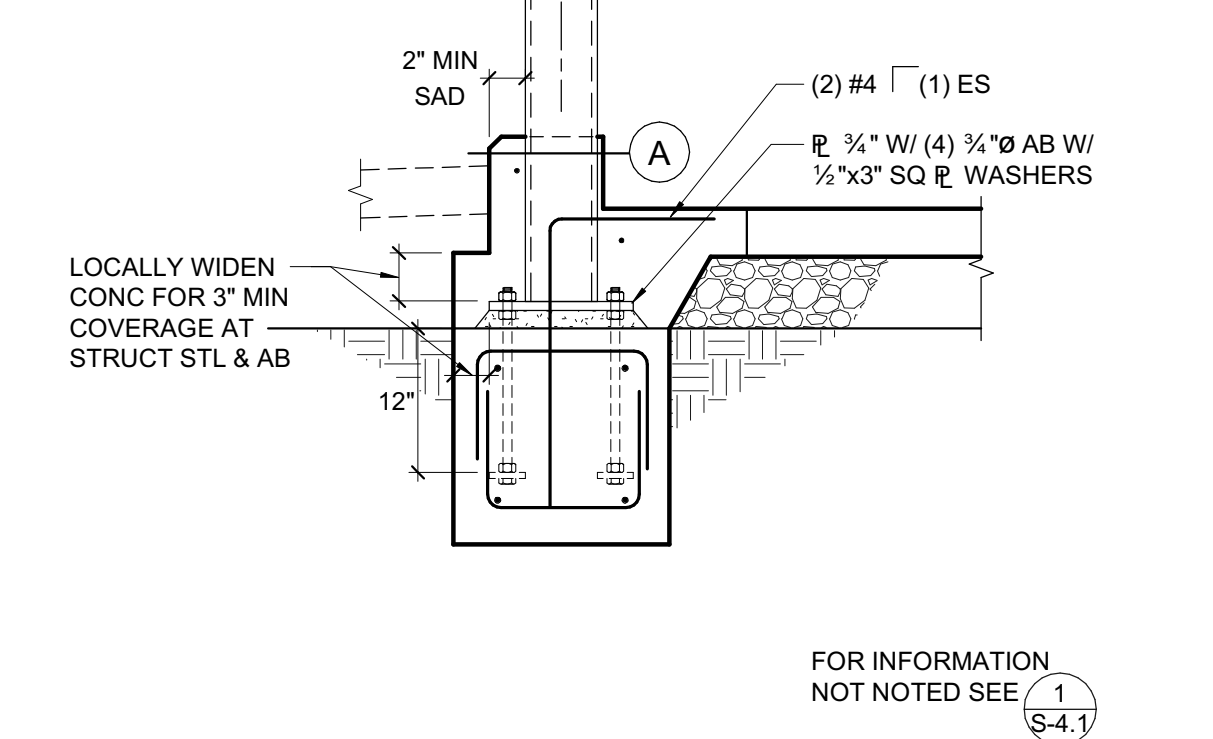


CONTINUOUS FOOTING SCHEDULE				
MARK	'b'	'd'	REINF 'a'	NOTES
CF18	18"	18"	(2) #5 T&B	PROVIDE #3 TIES @ 24"oc
CF24	24"	18"	(3) #5 T&B	PROVIDE #3 TIES @ 24"oc

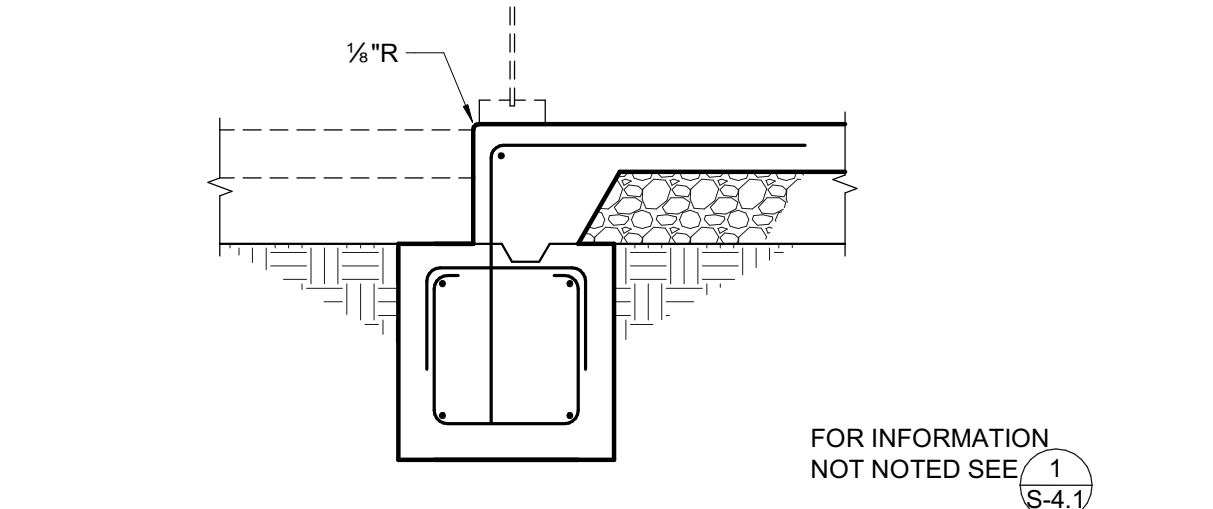
1 TYPICAL EXTERIOR FOOTING
3/4" = 1'-0"



2 HSS COLUMN AT CURB
3/4" = 1'-0"



3 FOOTING AT SLAB EDGE
3/4" = 1'-0"



4 FOOTING AT SLAB EDGE
3/4" = 1'-0"

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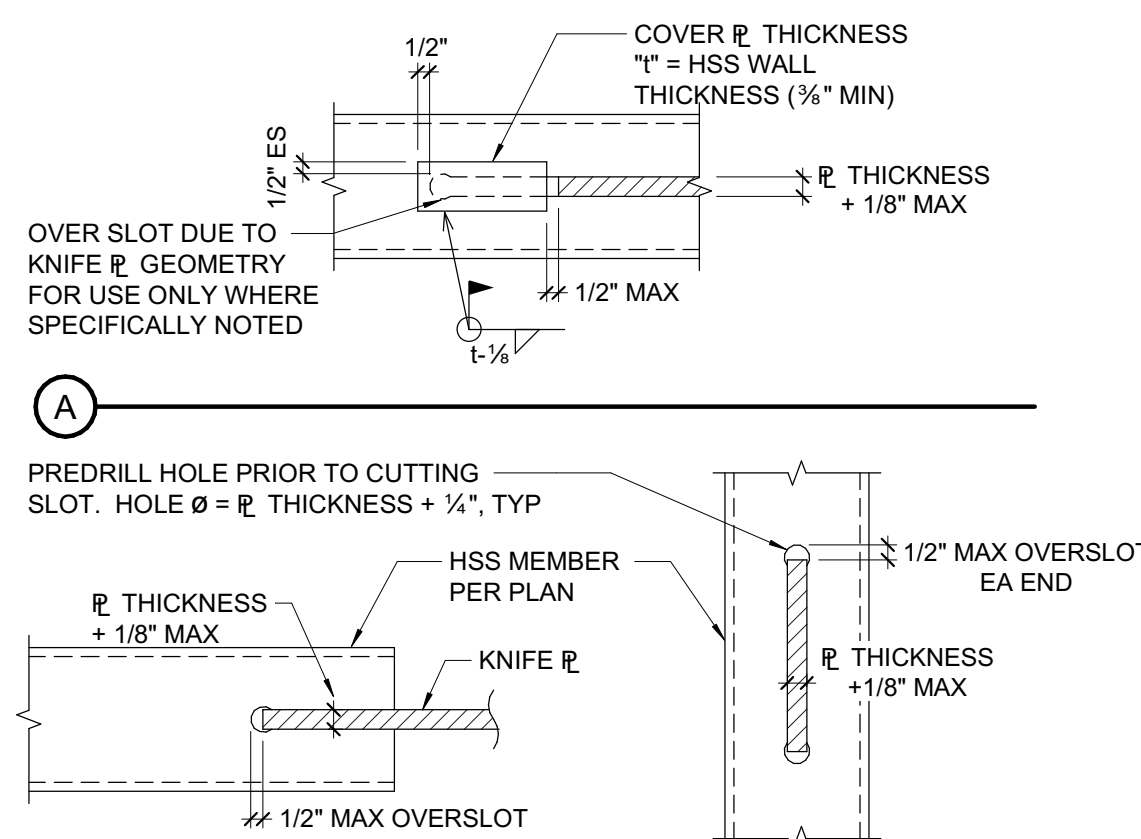
FOUNDATION DETAILS

SHEET NUMBER
S-4.1

BEAM DEPTH	NO. BOLTS PER ROW	CONN. PLATE	WELD SIZE
W16	4	R 3/4"	3/8"
W21	5	R 1/2"	3/8"

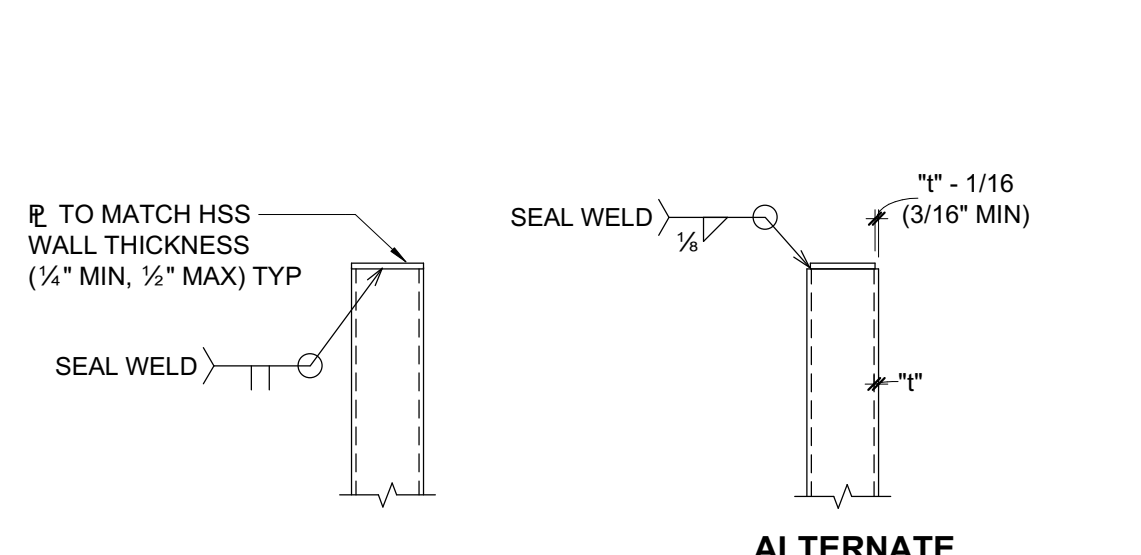
- NOTES:**
- R = 1 1/4" SEE TYP CONNECTION DETAILS. BOLT SPACING AND EDGE DISTANCE SHALL CONFORM TO AISC SPECIFICATIONS.
 - HIGH STRENGTH BOLTS (HSB) ARE GRADE A325-N UNO. PREPARE MATING SURFACES & TIGHTEN "SNUG TIGHT" AS DEFINED IN THE SPECIFICATIONS.
 - USE ASTM A36 CONNECTION PLATES, UNO.
 - A COMPLETE PENETRATION BEVEL WELD MAY BE SUBSTITUTED FOR THE FILLET WELDS SPECIFIED.
 - HOLE SIZE = BOLT SIZE + 1/16". SHORT SLOTTED HOLES (+ 1/16" VERT, + 1/4" HORIZ) MAY BE SUBSTITUTED (EXCEPT AS NOTED) ROUND HOLES ARE REQUIRED AT SFRS CONNECTIONS.

8 1/8"Ø HIGH STRENGTH BOLT (HSB) CONNECTION SCHEDULE
3/4" = 1'-0"

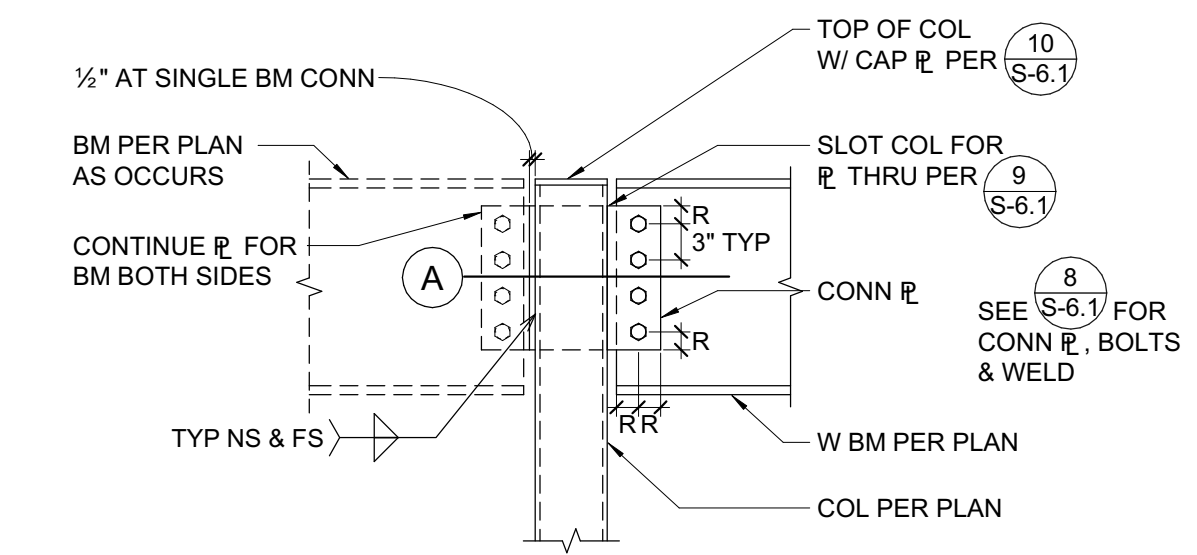
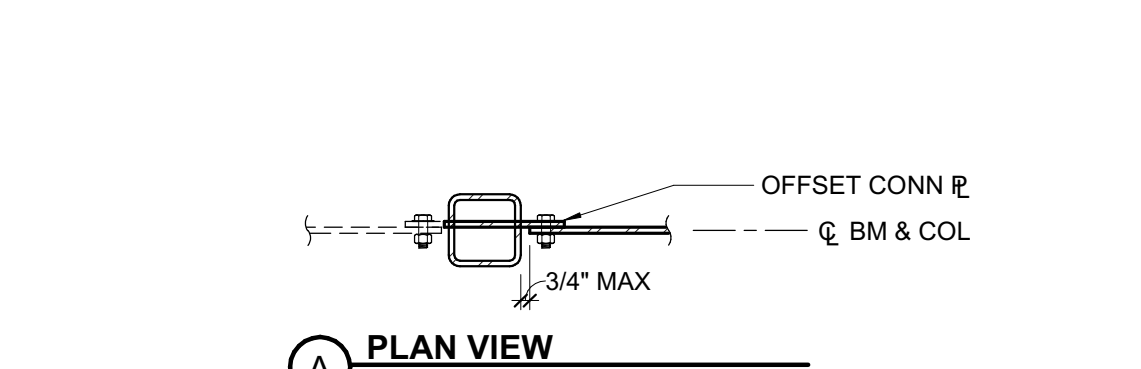


SLOT AT END OF HSS **SLOT IN MIDDLE OF HSS**

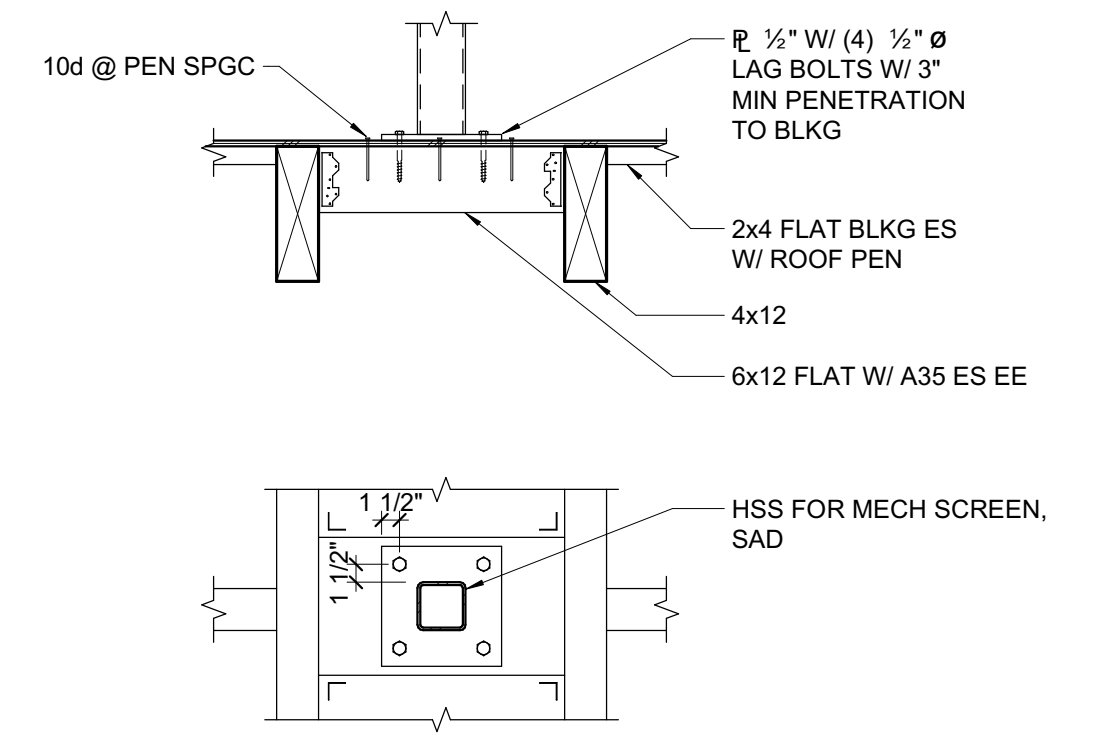
9 TYPICAL SLOTTED HSS FOR GUSSET CONNECTION
1 1/2" = 1'-0"



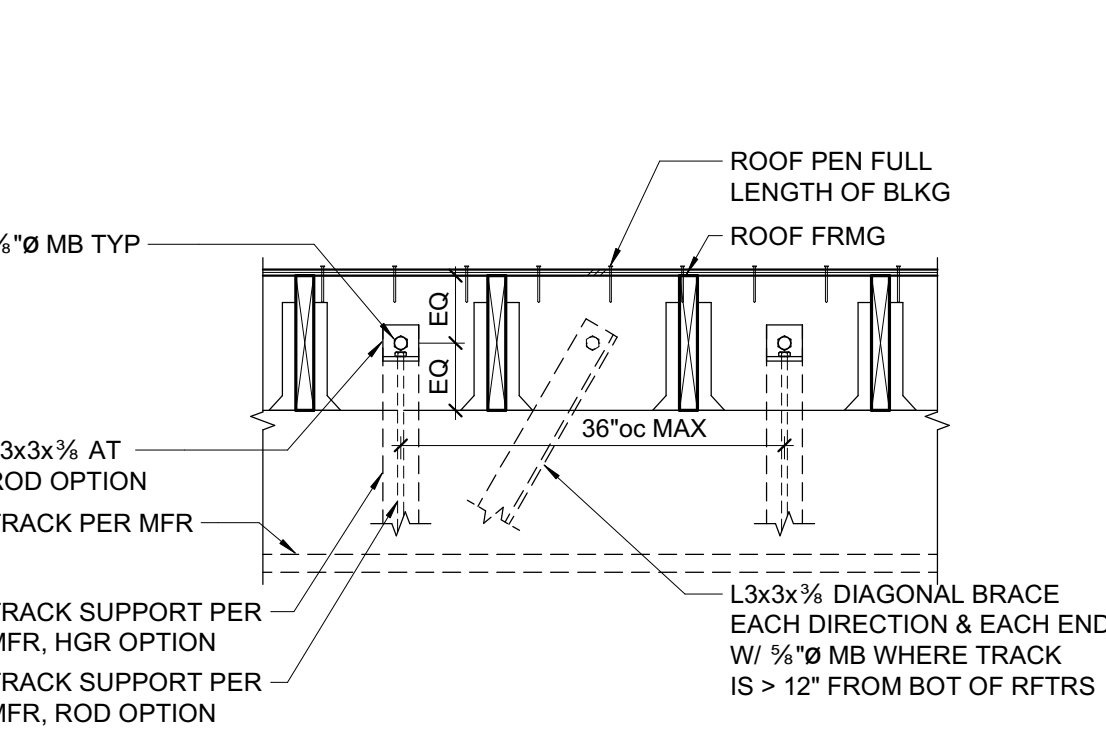
10 TYPICAL CAP PLATE
3/4" = 1'-0"



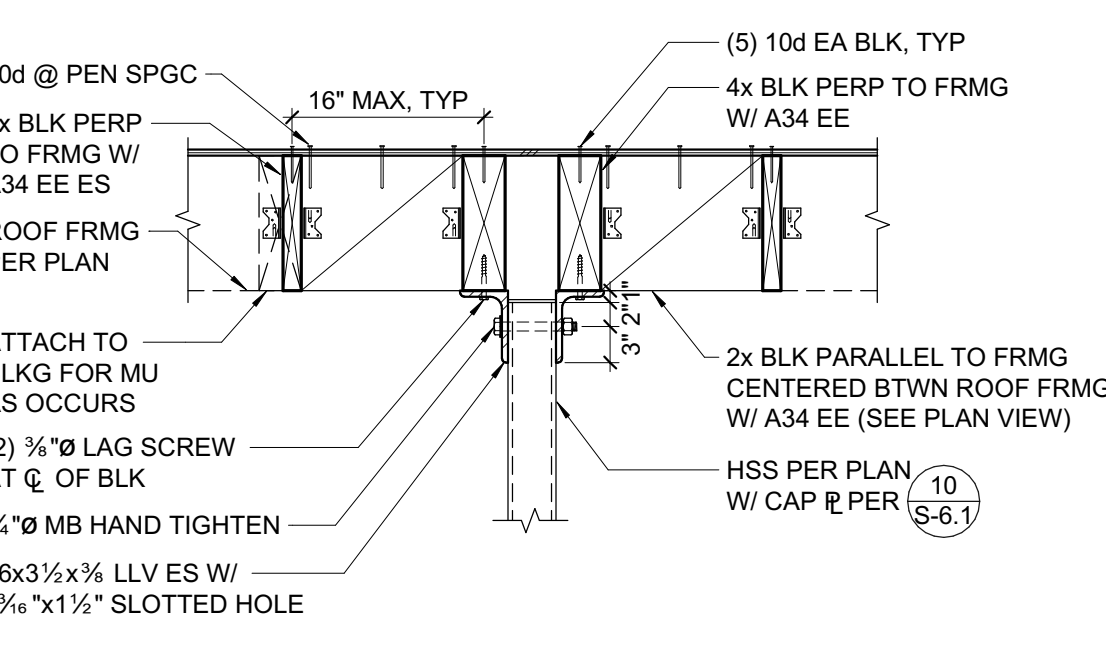
11 BEAM EACH SIDE TO HSS COLUMN
3/4" = 1'-0"



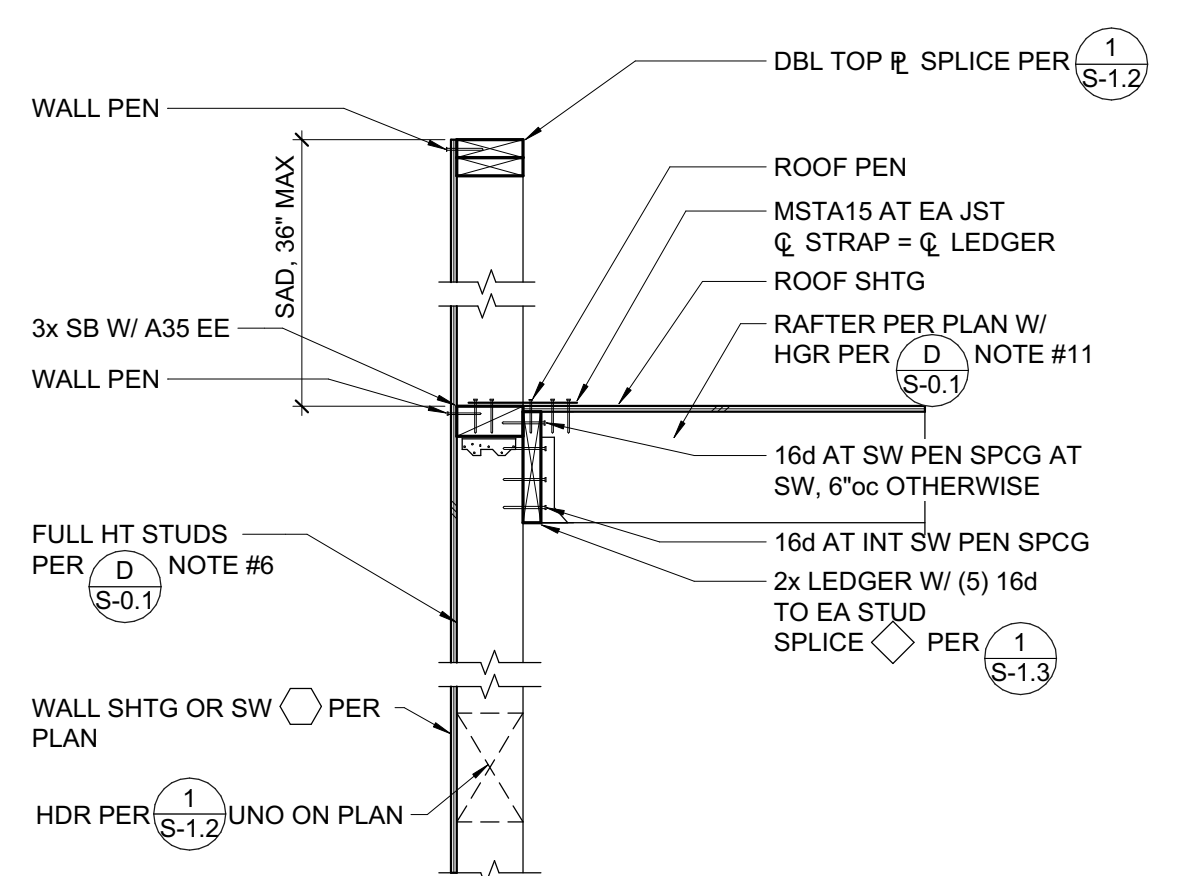
5 MECH SCREEN
3/4" = 1'-0"



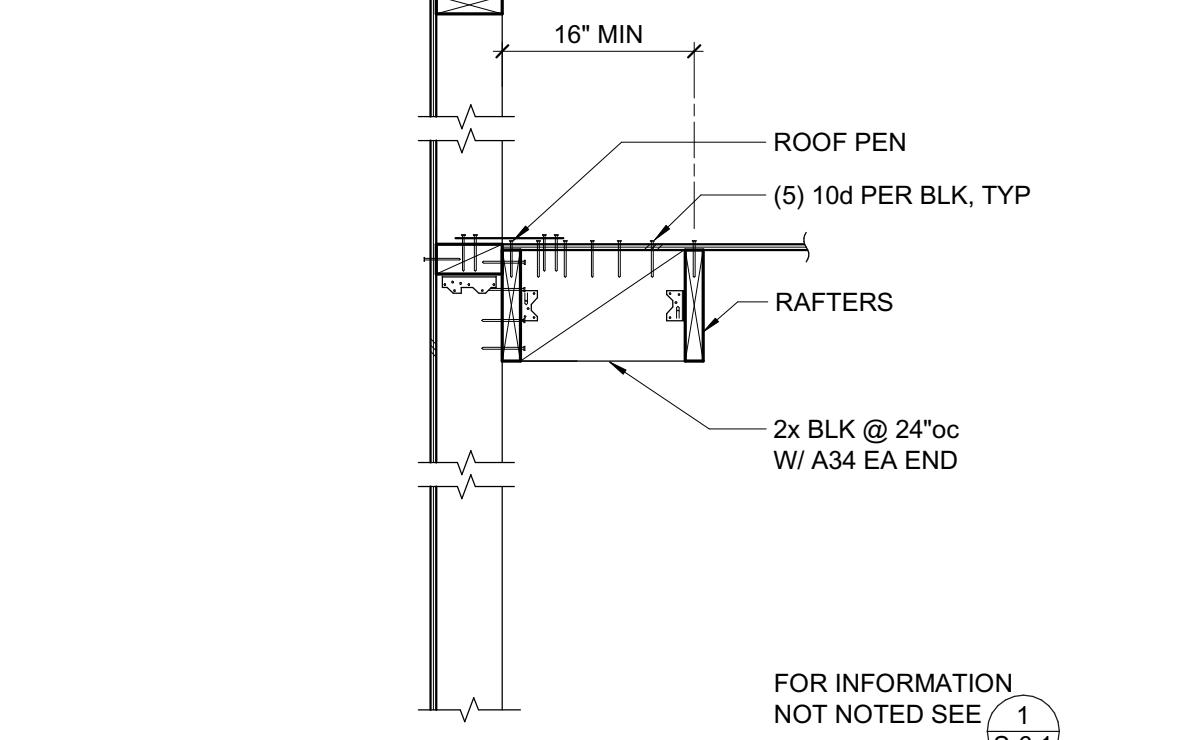
7 SECTIONAL DOOR TRACK SUPPORT
3/4" = 1'-0"



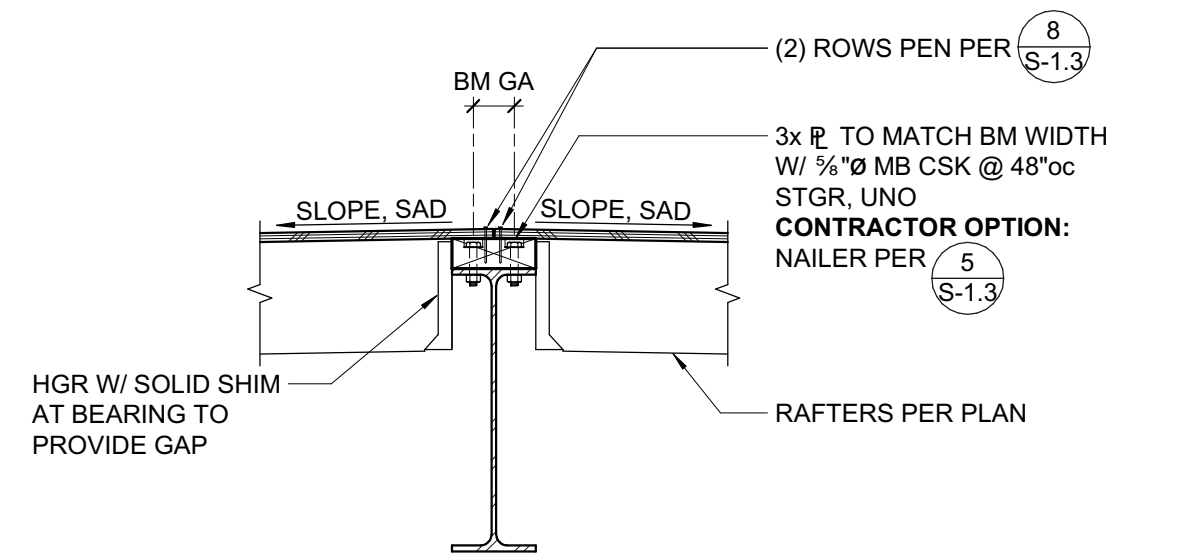
6 FULL HEIGHT HSS TO ROOF BLOKING
3/4" = 1'-0"



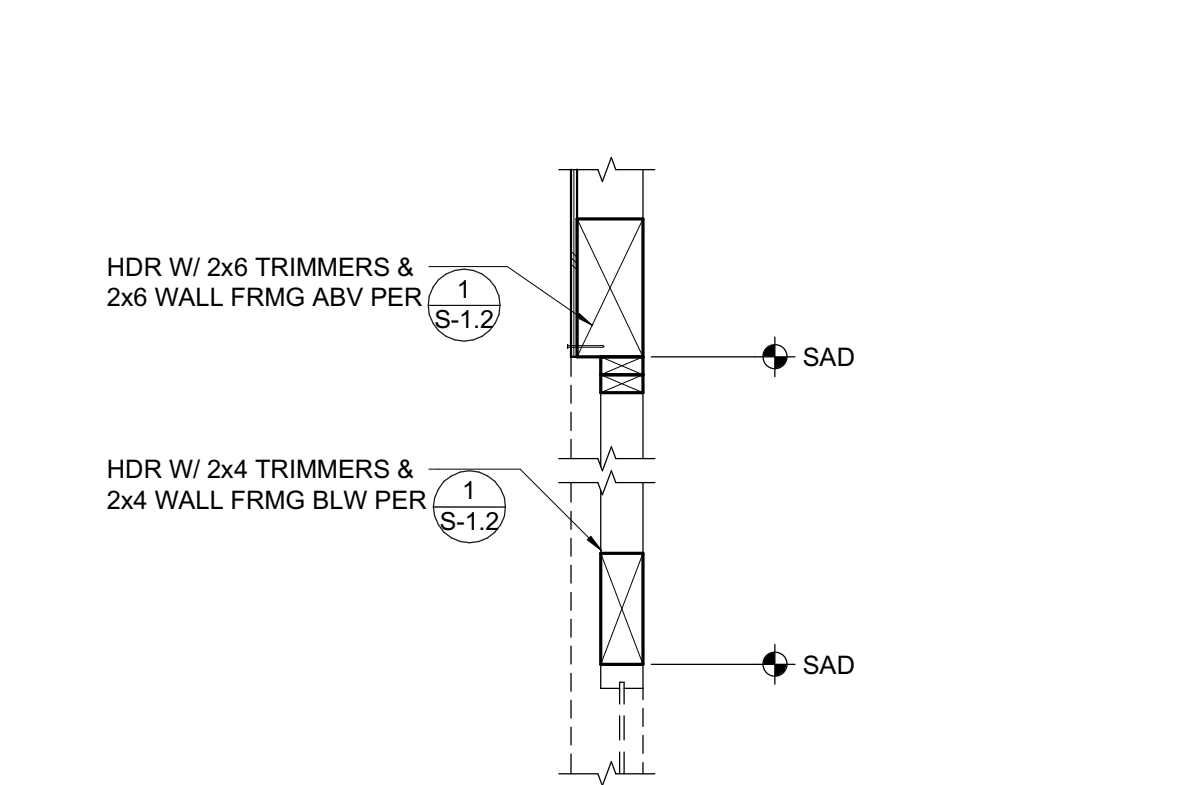
1 PERPENDICULAR FRAMING AT EXTERIOR WALL
3/4" = 1'-0"



2 PARALLEL FRAMING AT EXTERIOR WALL
3/4" = 1'-0"



3 RIDGE BEAM
3/4" = 1'-0"



4 WALL FRAMING AT INSET STOREFRONT
3/4" = 1'-0"

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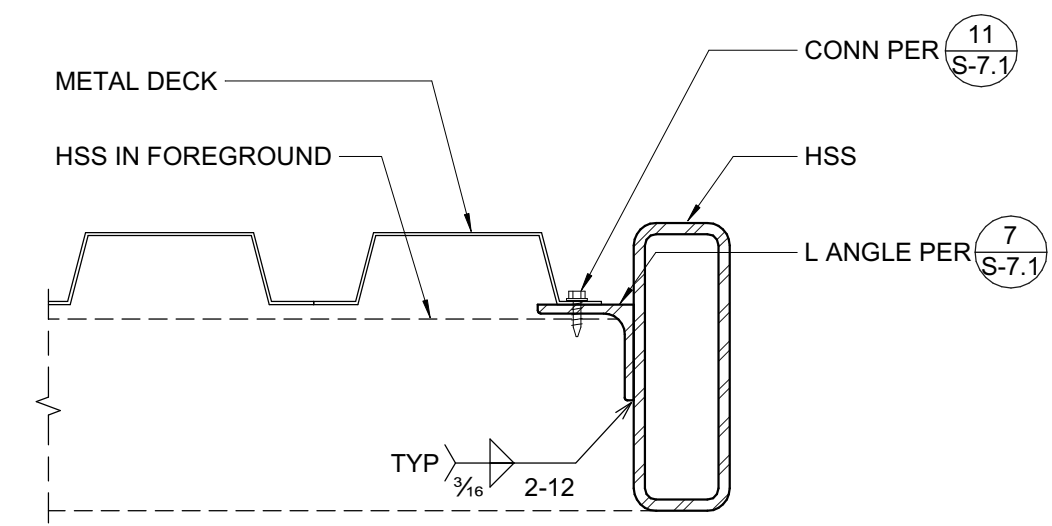
NO.	DESCRIPTION

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PROJECT MANAGER: AIZ
PTN:

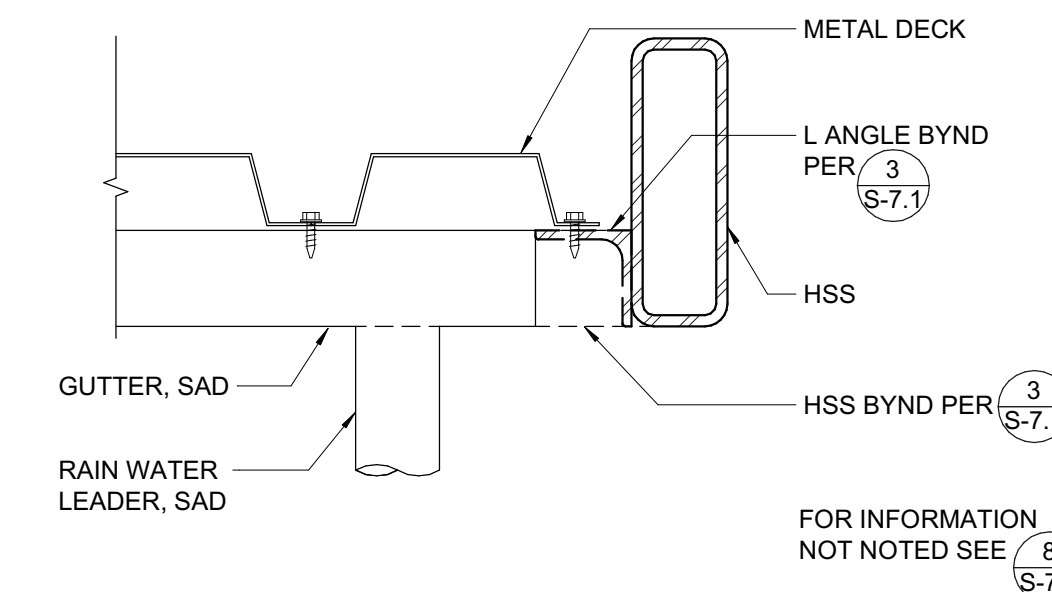
CD
FEBRUARY 27, 2018
SHEET TITLE

FRAMING DETAILS

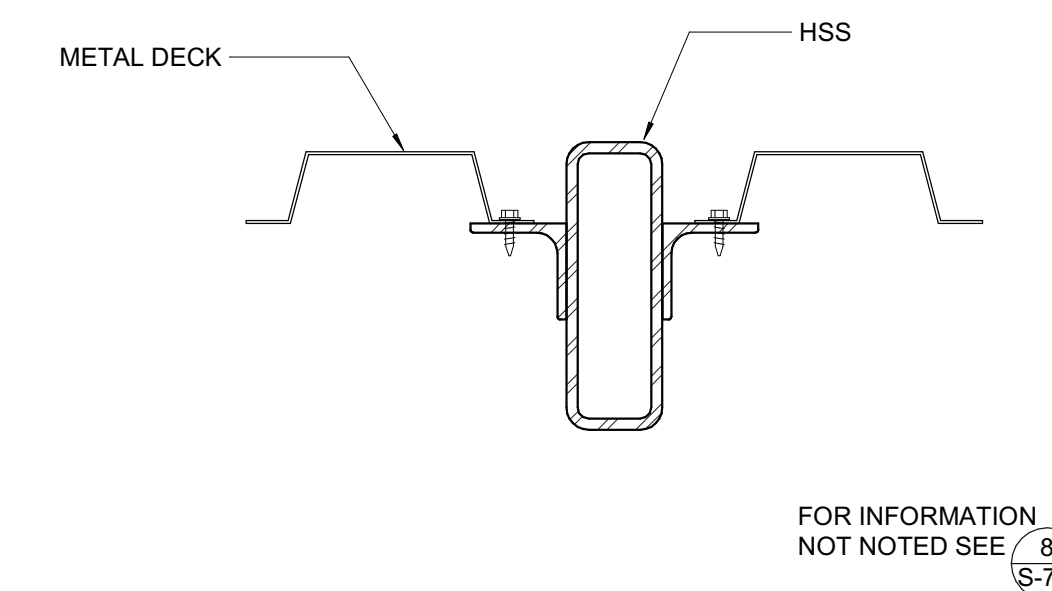
SHEET NUMBER
S-6.1



8 RAIN CANOPY RAKE
3" = 1'-0"



9 RAIN CANOPY AT GUTTER
3" = 1'-0"

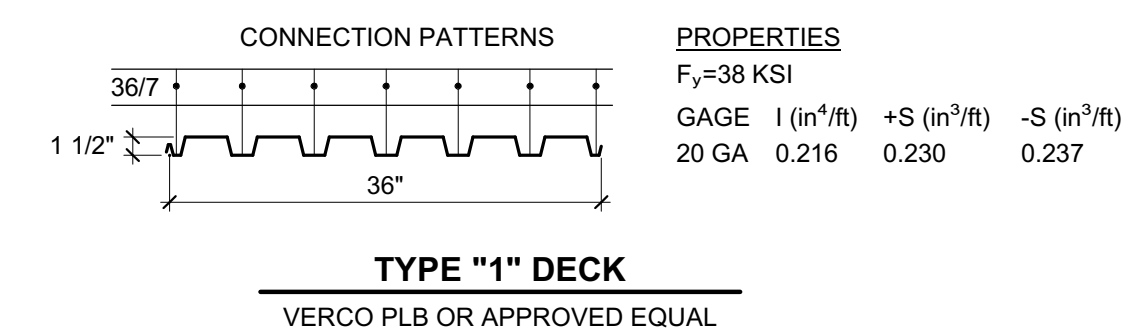


10 RAIN CANOPY CROSS MEMBER
3" = 1'-0"

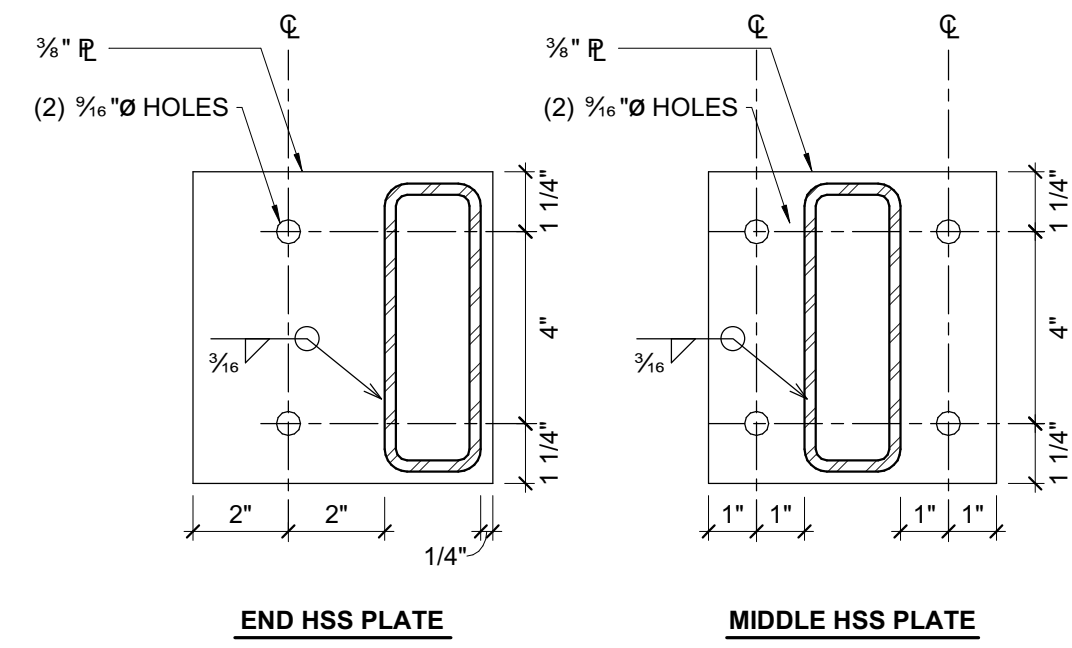
MARK	STEEL DECK GAGE & PROFILE TYPE SEE 12 (S-7.1)	DECK CONNECTIONS					
		ENDINT BEARING CONN (A)		SIDE BEARING CONN (B)		SIDELAP CONNECTION (C)	
		SIZE & TYPE	PATTERN	SIZE & TYPE	SPACING	SIZE & TYPE	SPACING
1	20 GA	SCREWS	36/7	SCREWS	12"	BP	12"

- NOTES:
- ATTACH DECK TO ALL STEEL SUPPORT FRAMING AS OCCURS.
 - SCREWS = STEEL DECK INSTITUTE (SDI) RECOGNIZED #12 SELF-DRILLING SCREWS, HILTI S-SLC01 M HWH, OR HILTI S-SLC02 M HWH, EXTERIOR-RATED AND W/ INTEGRAL NEOPRENE WASHER AT EXTERIOR CONDITIONS.
 - BP = BUTTON PUNCH.
 - ABOVE REFERENCED DECK IS BASED ON ALLOWABLE DESIGN LOADS PER IAPMO ER-0217 VERCO MANUFACTURING - EQUIVALENT DECK MUST HAVE EQUIVALENT ALLOWABLE VERTICAL LOADS, DIAPHRAGM SHEAR VALUES, AND FLEXIBILITY FACTORS.

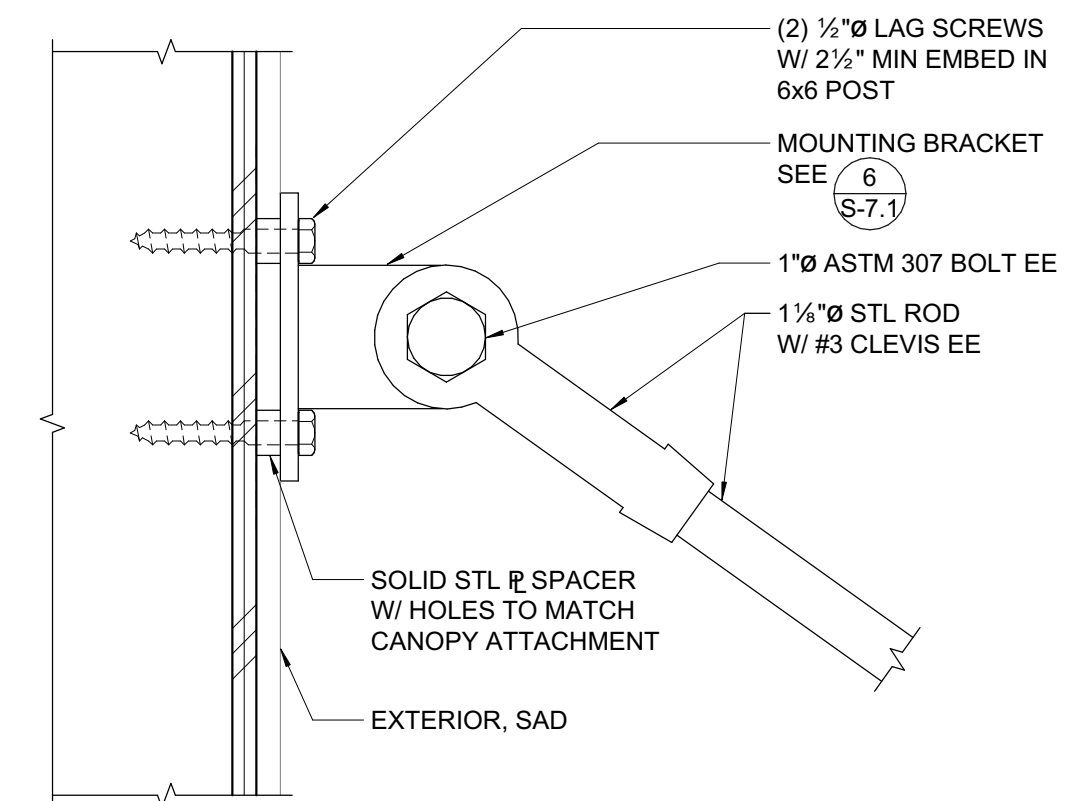
11 DECKING SCHEDULE
3/4" = 1'-0"



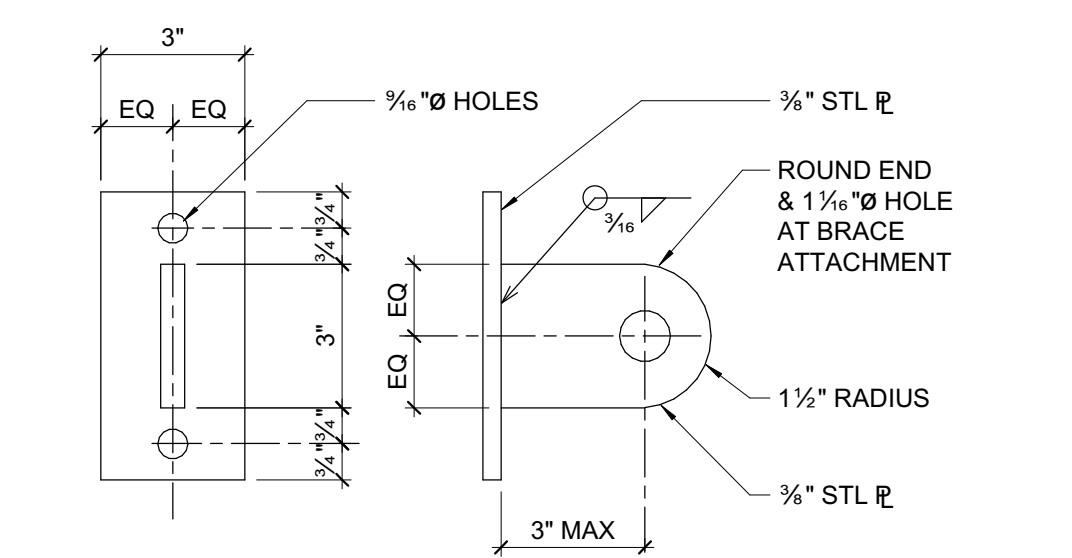
12 DECKING TYPE AND CONNECTION PATTERN
3/4" = 1'-0"



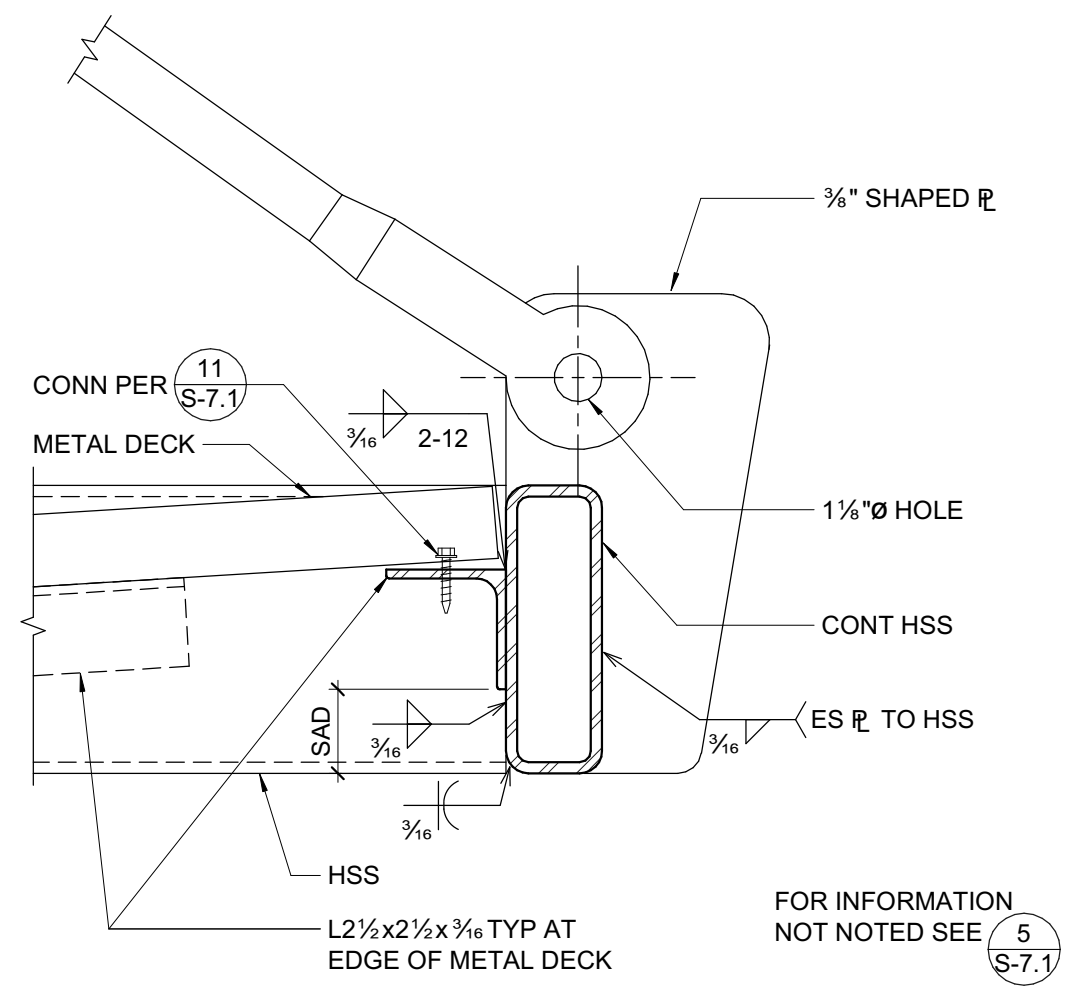
4 CANOPY ATTACHMENT
3" = 1'-0"



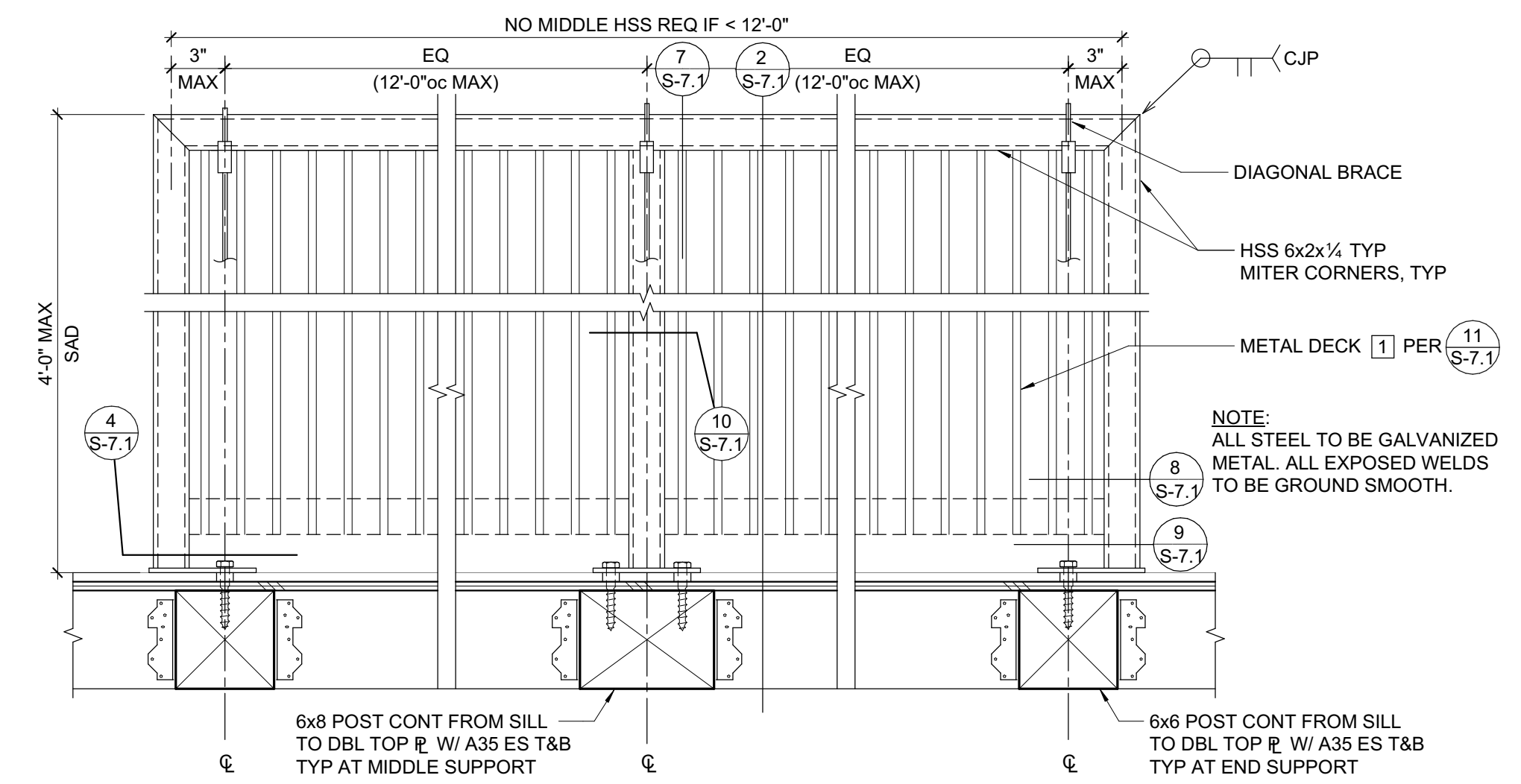
5 DIAGONAL BRACE MOUNTING BRACKET
3" = 1'-0"



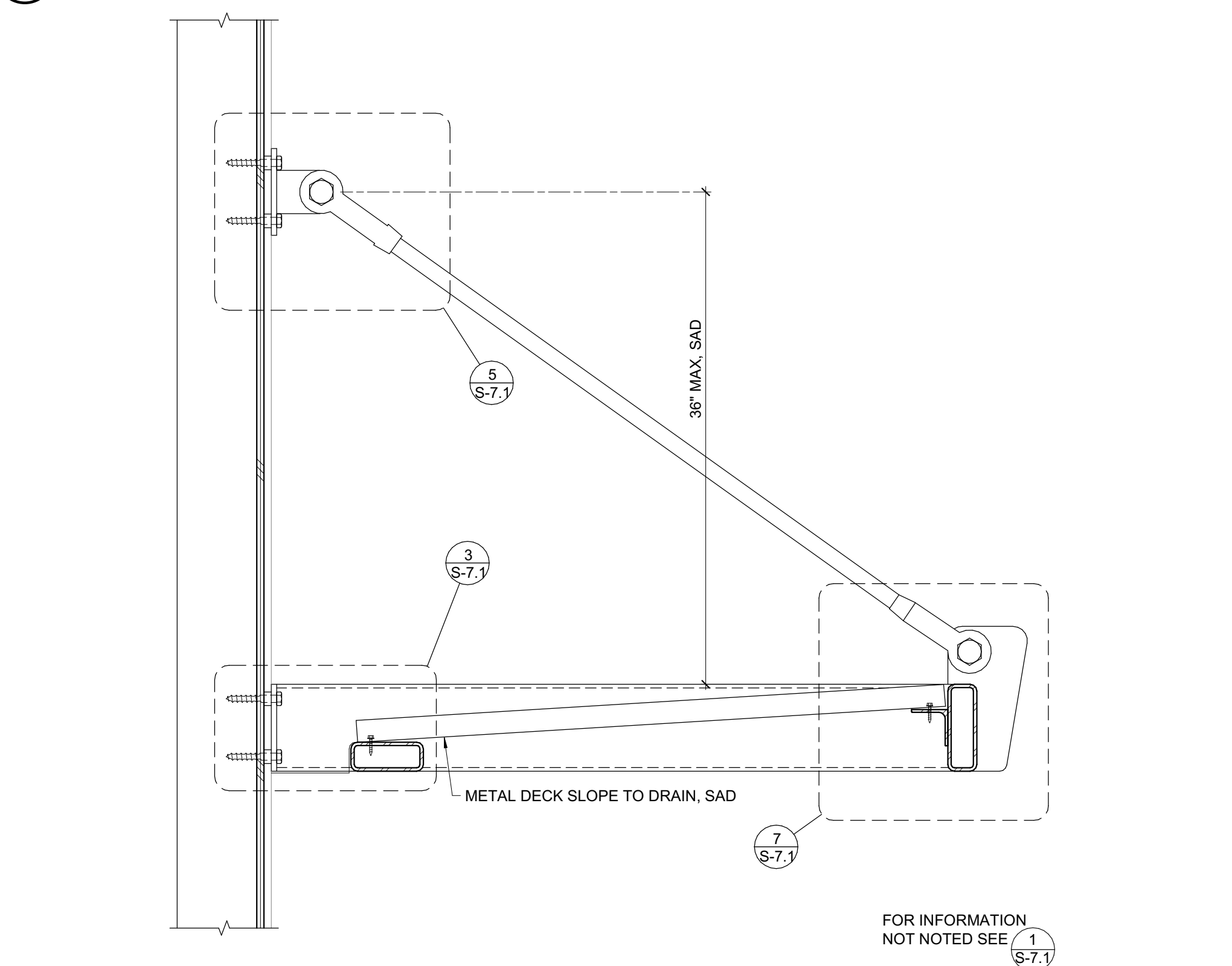
6 DIAGONAL BRACE MOUNTING
3" = 1'-0"



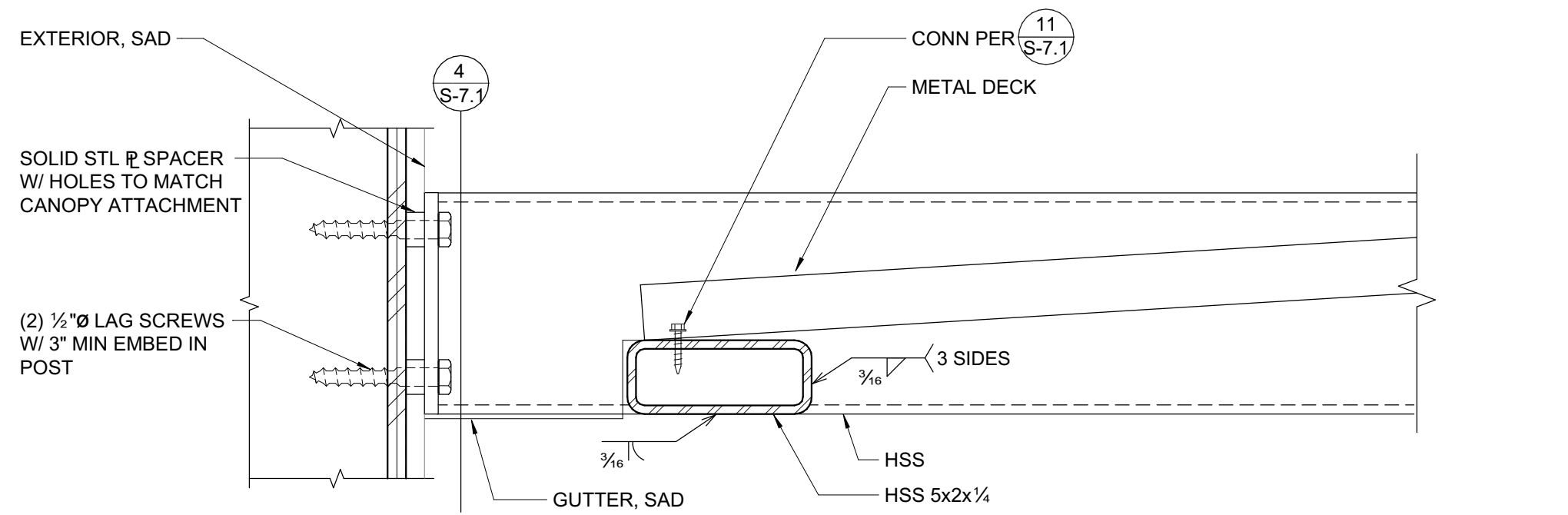
7 RAIN CANOPY HEAD
3" = 1'-0"



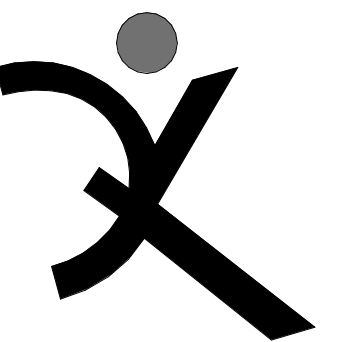
1 RAIN CANOPY - PLAN VIEW
1 1/2" = 1'-0"



2 RAIN CANOPY - SECTION
1 1/2" = 1'-0"



3 RAIN CANOPY LOWER CANOPY ATTACHMENT
3" = 1'-0"



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santa rosa ca 95404 707.526.0992
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02/20/2019
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HERITAGE HIGH SCHOOL

CULINARY ARTS BUILDING

101 American Avenue
Brentwood, CA 94513

LIBERTY UNION HIGH SCHOOL DISTRICT

REVISIONS

NO.	DESCRIPTION

ZFA PROJECT NO: 18330
ENGINEER: KPB
PROJECT MANAGER: AIZ
PTN:

CD
FEBRUARY 27, 2018
SHEET TITLE

RAIN CANOPY DETAILS

SHEET NUMBER

S-7.1

MAKE UP AIR UNIT SCHEDULE

MANUFACTURER: GREENHECK

MARK	MODEL	SUPPLY FAN					NATURAL GAS HEATING		EFF. %	EVAP. SEC.	COOLING COIL	EXH FAN	FILTERS		OPER WEIGHT (LBS)	MTG DETAIL	REMARKS
		CFM	TSP * W.C.	BHP HP	RPM	VOLTS-PH-MCA	INPUT (BTU)	OUTPUT (BTU)					DESCRIPTION	AIR PD * W.C.			
MAU 1	IG-112-H20	2,640	1,339	1.11 1-1/2	964	460-3Ø-9.4	250.0	200.0	-	YES	CELDEK	EF-1	MERV8	-	1,218	A M-3.1	1, 2, 3, 4
MAU 2	IG-112-H20	2,640	1,339	1.11 1-1/2	964	460-3Ø-9.4	250.0	200.0	-	YES	CELDEK	EF-2	MERV8	-	1,218	A M-3.1	1, 2, 3, 4
MAU 3	IG-108-H10	1,080	1,011	0.55 3/4	1377	460-3Ø-2.7	100.0	80.0	-	NO	-	EF-3	MERV8	-	787	A M-3.1	1, 2, 3

REMARKS: 1. PROVIDE WITH REMOTE CONTROL PANEL MODEL KSCP; INTERLOCK WITH EXH FAN, AS SCHEDULED
 2. PROVIDE WITH INTEGRAL DISCONNECT SWITCH, HIGH EFFICIENCY MOTOR
 3. OPERATING WEIGHT INCLUDES ROOF CURB
 4. PROVIDE WITH AUTO DRAIN & FILL EVAPORATIVE PIPING; COMPLETE WITH SUPPLY, SUPPLY LINE DRAIN & DRAIN LINE SOLENOID VALVES

PACKAGED AIR CONDITIONING SCHEDULE

MANUFACTURER: CARRIER

MARK	MODEL	AIR FLOW (CFM)	ESP (* WC)	HP		COOLING (MBH)		NATURAL GAS HEATING (MBH)		SEER	THER EFF	MIN O.A. (CFM)	ELECTRICAL					OPER WT (LBS)	MTG DETAIL	REMARKS			
				RPM	SENS.	TOTAL	INPUT	OUTPUT	Volts				Ø	MCA	MOCP	FLA	NO.				L	W	D
AC 1	48HCD-A06	2,200	0.60	1/4 1100	51.2	61.3	90	73.5	15.2	80%	550	460	3Ø	17	20	16	4	16	16	2	800	A M-3.1	1 - 8
AC 2	48HCD-A05	1,600	0.60	1/4 1100	51.2	50.6	90	73.5	15.6	81%	400	460	3Ø	14	15	14	1	16	16	2	790	A M-3.1	1 - 8

REMARKS: 1. AC UNIT CAPACITIES BASED IN ARI CONDITIONS, 80°F EDB/67°F EWB, 95°F AMBIENT
 2. PROVIDE WITH FACTORY INSTALLED ECONOMIZER WITH BAROMETRIC RELIEF, INCLUDING DAMPERS
 3. CONTROLS CONTRACTOR SHALL PROVIDE ALL ECONOMIZER CONTROLS, INCLUDING BELIMO ACTUATORS
 4. PROVIDE WITH EMS SYSTEM INTERFACE MODULE, INTERLOCK WITH EMS SYSTEM
 5. SINGLE STAGE COOLING MODEL, LOW NOX
 6. PROVIDE WITH POWERED CONVENIENCE OUTLET
 7. ALL CONDENSER COILS SHALL BE FULLY PROTECTED WITH GALVANIZED EXPANDED METAL. EXPANDED METAL SHALL HAVE FULL PERIMETER GALVANIZED STEEL FRAMES, 10 GAUGE MINIMUM.
 8. OPERATING WEIGHT INCLUDES ROOF CURB

EXHAUST FAN SCHEDULE

MANUFACTURER: GREENHECK

MARK	MODEL	AIR FLOW (CFM)	SP (* WC)	HP		RPM	ELECTRICAL		NEC FLA	SERVICE	LOCATION	WT (LBS)	MTG DETAIL	REMARKS
				BHP	RPM		Volts	Ph						
EF 1	CUE-141-VG	2,640	0.92	1 0.9	1725	230	1Ø	-	-	KITCHEN HOOD (MAU-1)	ROOF	120	B M-3.1	2, 7, 9, 10, 11
EF 2	CUE-141-VG	2,640	0.92	1 0.9	1725	230	1Ø	-	-	KITCHEN HOOD (MAU-2)	ROOF	120	B M-3.1	2, 7, 9, 10, 11
EF 3	CUE-121-VG	1,080	0.125	1/4 0.08	997	115	1Ø	3.4	-	OVEN HOOD (MAU-3)	ROOF	49	B M-3.1	2, 8, 9, 10
EF 4	G-095-VG	250	0.125	1/6 0.01	765	115	1Ø	3.4	-	DRY STORAGE	ROOF	28	C M-3.1	2, 3, 6
EF 5	SP-A125	100	0.125	- 52.5 W	941	115	1Ø	0.62	-	CUSTODIAN	CEILING	18	D M-3.1	1, 4, 5

REMARKS: 1. INTERLOCK WITH LIGHT SWITCH
 2. PROVIDE WITH VARI-GREEN EC MOTOR
 3. PROVIDE WITH BACKDRAFT DAMPER, DISCONNECT SWITCH & BIRDSCREEN
 4. PROVIDE WITH SOLID STATE SPEED CONTROLLER, BACKDRAFT DAMPER & ROOF CAP
 5. PROVIDE WITH HANGING VIBRATION ISOLATOR KIT
 6. THERMOSTATICALLY CONTROLLED, SET @ 75°F
 7. INTERLOCK WITH MAU, AS SCHEDULED
 8. INTERLOCK WITH MAU-3
 9. PROVIDE WITH VENTED CURB EXTENSION
 10. PROVIDE WITH WINDBAND EXTENSION
 11. PROVIDE WITH GREASE TRAP

AIR TERMINAL SCHEDULE

MANUFACTURER: TITUS

CD	SYMBOL	DESCRIPTION	DETAILS
CD		CEILING SUPPLY DIFFUSER	MODEL TDCA. COMPLETE WITH EQUALIZING GRID, ADJUSTABLE VANES, STEEL CONSTRUCTION
CR		CEILING RETURN GRILLE	MODEL 50F. 1/2' x 1/2' x 1/2' ALUMINUM CORE WITH ALUMINUM BORDER
CEG		CEILING EXHAUST GRILLE	MODEL 50F. 1/2' x 1/2' x 1/2' ALUMINUM CORE WITH ALUMINUM BORDER
DL		DOOR LOUVER	MODEL T-700. STEEL CONSTRUCTION WITH FLANGED AND AUXILIARY FRAME

NOTES: 1. ADAPTER NEEDED FOR TRANSITION FROM SQUARE NECK TO ROUND DUCT.
 2. SIZE (NECK/FACE) TYPE FACE SIZE FOR T-BAR CEILING ONLY
 CFM (NO. OF THROW)

MEP COMPONENT ANCHORAGE NOTE

ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. WHERE NO DETAIL IS INDICATED, THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2016 CBC, SECTIONS 1616A.1.18 THROUGH 1616A.1.26 AND ASCE 7-10 CHAPTER 13, 26, AND 30.

- ALL PERMANENT EQUIPMENT AND COMPONENTS.
- TEMPORARY OR MOVABLE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER.
- MOVABLE EQUIPMENT WHICH IS STATIONED IN ONE PLACE FOR MORE THAN 8 HOURS AND HEAVIER THAN 400 POUNDS ARE REQUIRED TO BE ANCHORED WITH TEMPORARY ATTACHMENTS.

THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE BUT THE ATTACHMENT NEED NOT BE DETAILED ON THE PLANS. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT.

- COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT.
- COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

FOR THOSE ELEMENTS THAT DO NOT REQUIRE DETAILS ON THE APPROVED DRAWINGS, THE INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND THE DSA DISTRICT STRUCTURAL ENGINEER. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-10 SECTION 13.3 AS DEFINED IN ASCE 7-10 SECTION 13.6.5.6, 13.6.7, 13.6.8, AND 2016 CBC, SECTIONS 1616A.1.24, 1616A.1.25, AND 1616A.1.26.

THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEMS ARE AS NOTED BELOW. WHEN BRACING AND ATTACHMENTS ARE BASED ON PRE APPROVED INSTALLATION GUIDE (e.g. SMACNA OR OSHPD OPM), 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 SYSTEM. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

MECHANICAL PIPING (MP), MECHANICAL DUCTS (MD), PLUMBING PIPING (PP), ELECTRICAL DISTRIBUTION SYSTEMS (E)
 MP MD PP E OPTION 1: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS.

MP MD PP E OPTION 2: SHALL COMPLY WITH THE OSHPD PRE-APPROVAL (OPM#) #0043-13

MP MD PP E OPTION 3: SHALL COMPLY WITH THE SMACNA SEISMIC RESTRAINT MANUAL, OSHPD EDITION (2009), INCLUDING ANY ADDENDA, FASTENERS AND OTHER ATTACHMENTS NOT SPECIFICALLY IN THE SMACNA SEISMIC RESTRAINT MANUAL, OSHPD EDITION, ARE DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS. THE DETAILS SHALL ACCOUNT APPLICABLE SEISMIC HAZARD LEVEL _____ AND CONNECTIONS LEVEL _____ FOR THE PROJECT AND CONDITIONS.

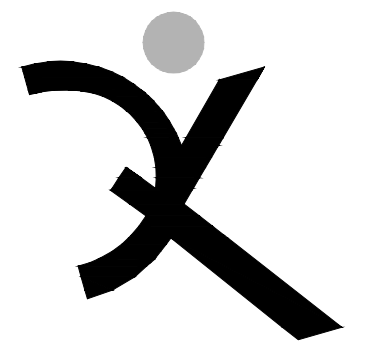
MECHANICAL LEGEND

SYMBOL	ABBREVIATION	DESCRIPTION
		DRAWING NUMBER
		DETAIL/DRAWING NUMBER SHEET NUMBER
		SECTION NUMBER SHEET NUMBER
		EQUIPMENT TYPE EQUIPMENT NUMBER
	SA OR OA	SECTION THRU SUPPLY AIR OR OUTSIDE AIR DUCT
	RA OR EA	SECTION THRU RETURN AIR OR EXHAUST AIR DUCT
		ROUND DUCT DOWN
	DN OR UP	SLOPE DUCT DOWN OR UP IN DIRECTION OF FLOW
	AL	ACOUSTICAL LINING
	FC	FLEXIBLE DUCT CONNECTION
	VD	VOLUME DAMPER
	FD OR FSD	FIRE DAMPER OR FIRE/SMOKE DAMPER
	TV	TURNING VANES
		FLEXIBLE DUCT
		45° ROUND DUCT TAKE-OFF
		45° RECTANGULAR DUCT TAKE-OFF
		90° TURN - ROUND DUCT
		90° RADIUS TURN - ROUND OR RECTANGULAR DUCT
		SQUARE TO ROUND DUCT TRANSITION
		DUCT TRANSITION
		RECTANGULAR DUCT 90° SPLIT
		THERMOSTAT @ 48" AFF TO TOP OF BOX
	AP	ACCESS PANEL
	BHP	BRAKE HORSEPOWER
	HP	HORSEPOWER
	NIMC	NOT IN MECHANICAL CONTRACT
	UTR	UP THRU ROOF

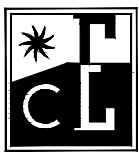
APPLICABLE GOVERNING CODES:

2016 CALIFORNIA BUILDING CODE
 2016 CALIFORNIA ELECTRICAL CODE
 2016 CALIFORNIA MECHANICAL CODE
 2016 CALIFORNIA PLUMBING CODE

APPROVED
 DIV. OF THE STATE ARCHITECT
 APP. 01-117845 INC.
 REVIEWED FOR
 SS FLS ACS
 DATE: 02/27/2019



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HERITAGE HIGH SCHOOL

CULINARY ARTS BUILDING

101 American Ave
 Brentwood, CA 94513

LIBERTY UNION HIGH SCHOOL DISTRICT

20 Oak Street
 Brentwood, CA 94513

REVISIONS

NO.	DESCRIPTION

ARCH PROJECT NO: 1750.00

DRAWN BY: MC.

DRAWING SCALE: AS NOTED

PTN: 61721-70

CD

FEBRUARY 27, 2019

SHEET TITLE

MECHANICAL LEGENDS & SCHEDULES

SHEET NUMBER

M-1.1

APPROVED
 DIV. OF THE STATE ARCHITECT
 APP. 01-117845 INC.
 REVIEWED FOR
 SS FLS ACS
 DATE: 02/27/2019

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REGISTERED PROFESSIONAL ENGINEER
 REGISTERED PROFESSIONAL MECHANICAL ENGINEER
 NO. 24800
 Exp. 12-31-20
 MECHANICAL
 STATE OF CALIFORNIA

HERITAGE HIGH SCHOOL
CULINARY ARTS BUILDING
 101 American Ave
 Brentwood, CA 94513

LIBERTY UNION HIGH SCHOOL DISTRICT
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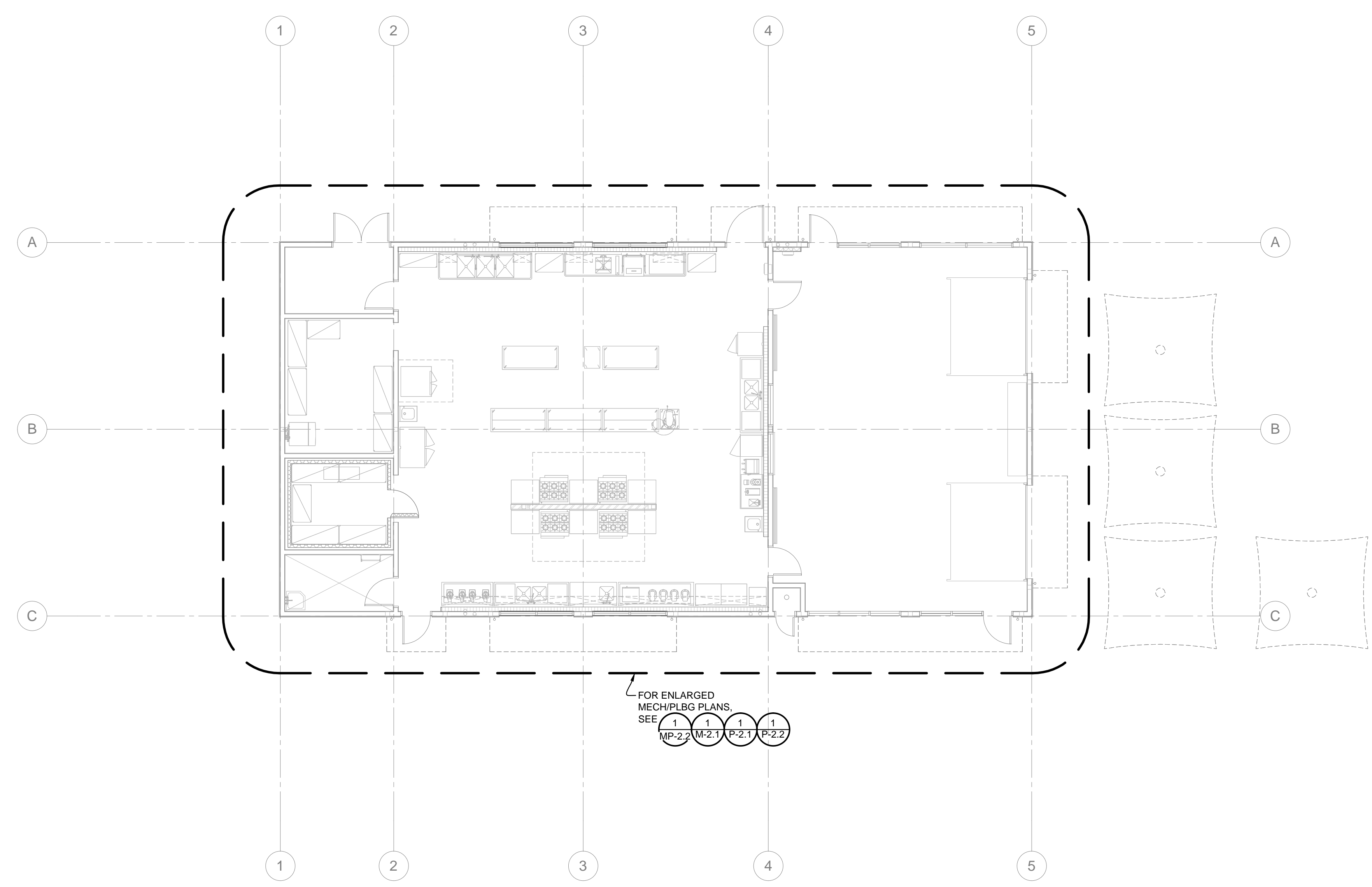
REVISIONS

NO.	DESCRIPTION

ARCH PROJECT NO. 1750.00
 DRAWN BY: MC.
 DRAWING SCALE: AS NOTED
 PTN: 61721-70
 CD
 FEBRUARY 27, 2019

OVERALL MECH/PLBG PLAN

SHEET NUMBER
MP-2.1



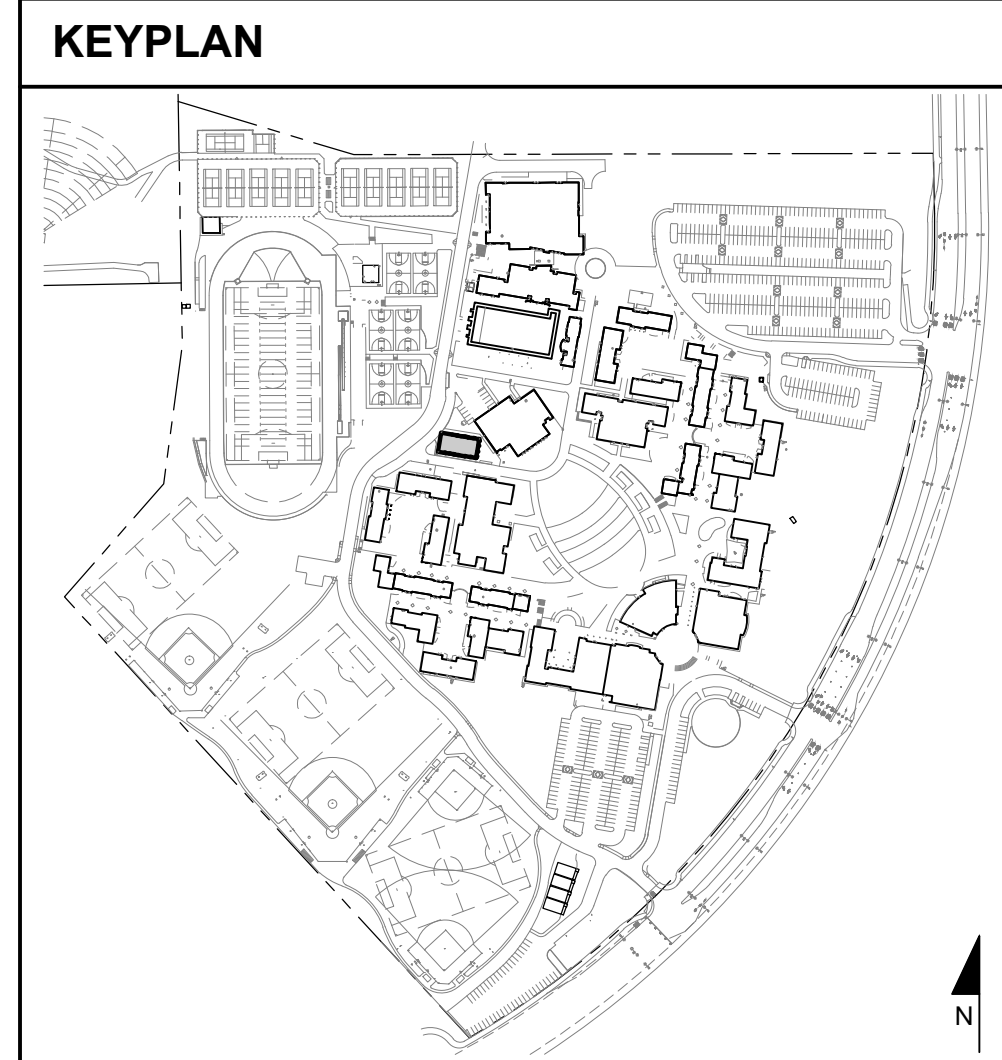
FOR ENLARGED MECH/PLBG PLANS, SEE:
 1 MP-2.2, 1 M-Z.1, 1 P-2.1, 1 P-2.2

OVERALL MECHANICAL/PLUMBING PLAN 1
 1/8" = 1'-0"

WALL TYPE LEGEND

ALL FRAMING IS 6" WOOD STUDS, U.O.N. S.S.D. FOR WOOD FRAMING SIZES

	WOOD FRAMED WALL
	WOOD FRAMED FURRED WALL
	WOOD FRAMED FURRED PARTIAL HEIGHT WALL
	WOOD FRAMED PARTIAL HEIGHT WALL AT COOKLINE



APPROVED
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HERITAGE HIGH SCHOOL
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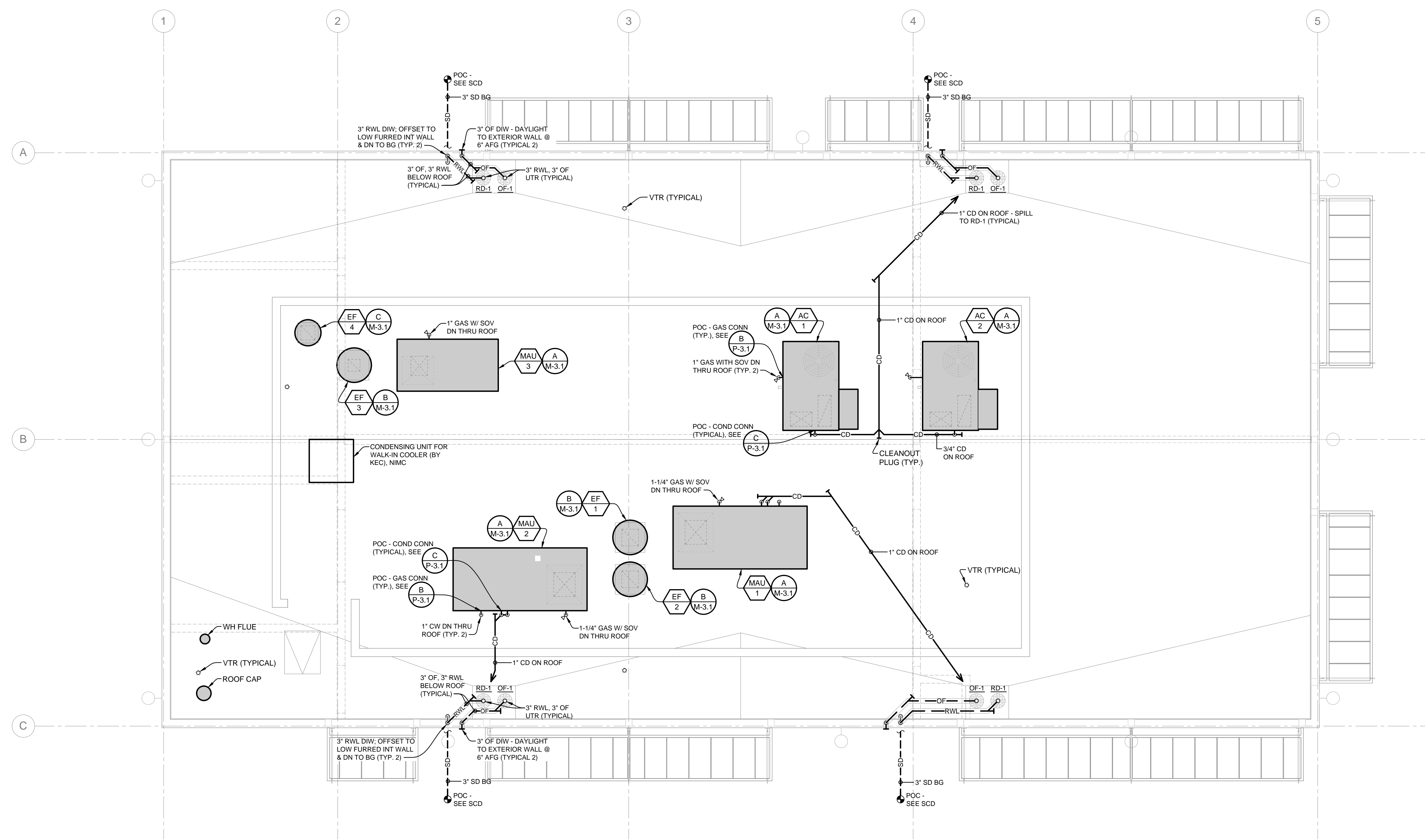
LIBERTY UNION HIGH SCHOOL DISTRICT
 20 Oak Street
 Brentwood, CA 94513

REVISIONS

NO.	DESCRIPTION

ARCH PROJECT NO: 1750.00
 DRAWN BY: MC.
 DRAWING SCALE: AS NOTED
 PTN: 61721-70
 CD
 FEBRUARY 27, 2019

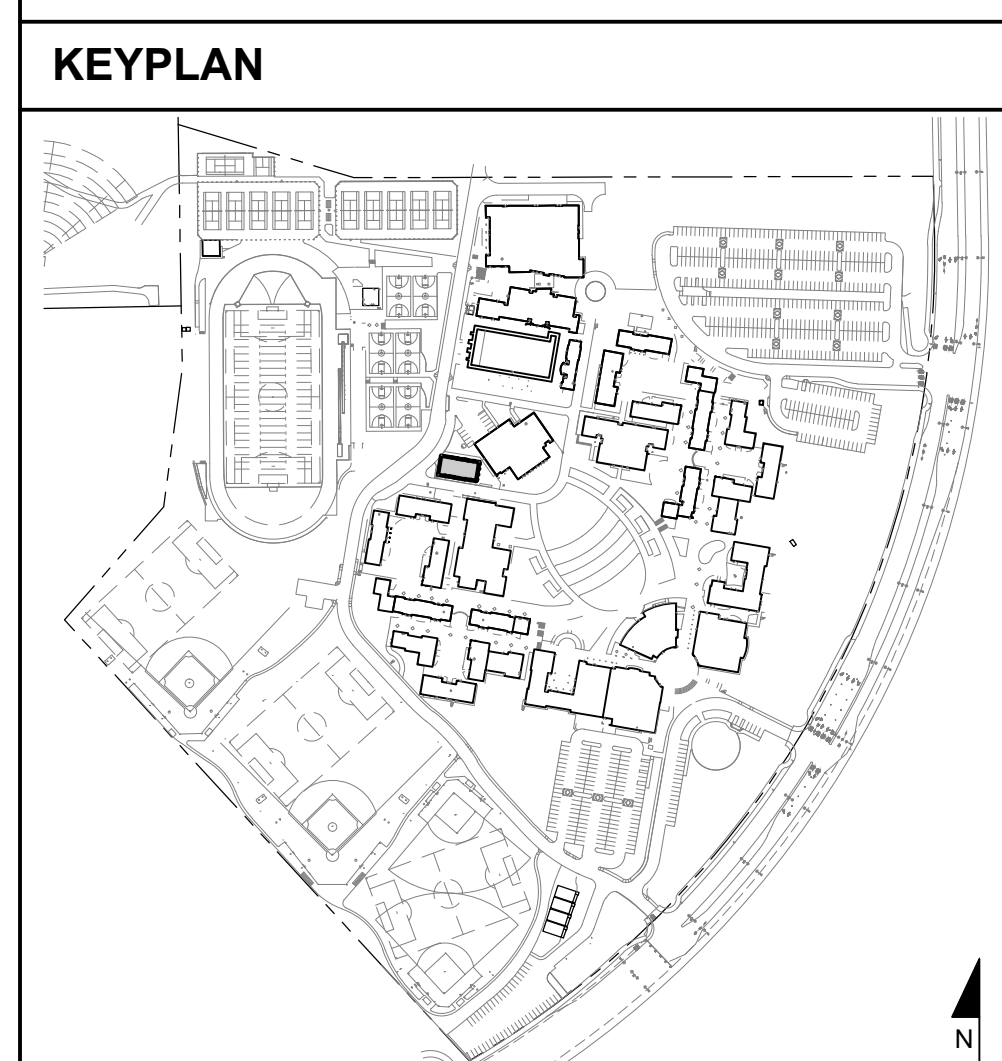
ENLARGED ROOF PLAN MECH & PLBG
 SHEET NUMBER
MP-2.2



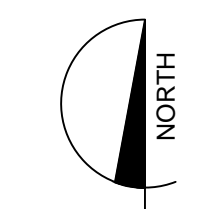
WALL TYPE LEGEND

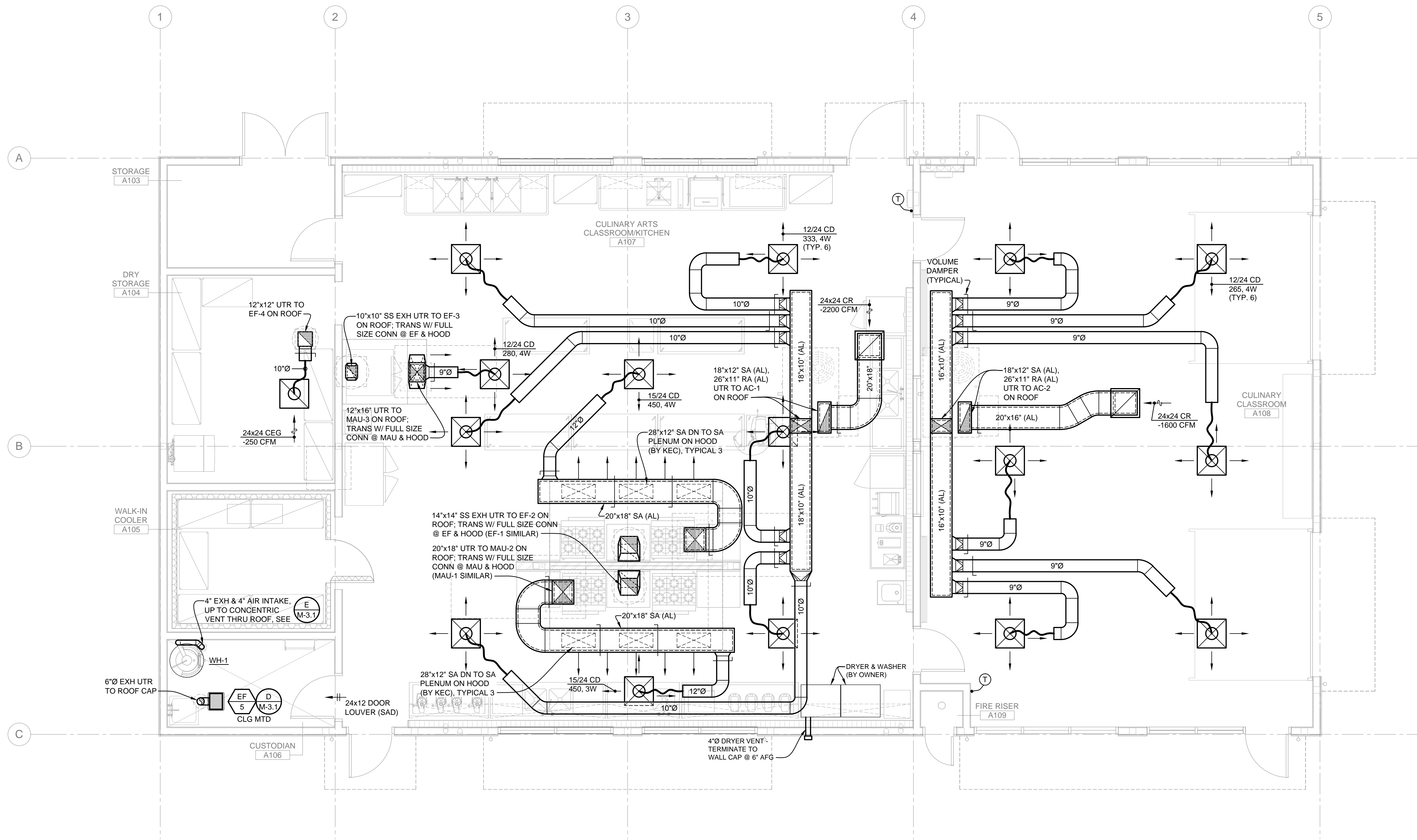
ALL FRAMING IS 6" WOOD STUDS, U.O.N. S.S.D. FOR WOOD FRAMING SIZES

	WOOD FRAMED WALL
	WOOD FRAMED FURRED WALL
	WOOD FRAMED FURRED PARTIAL HEIGHT WALL
	WOOD FRAMED PARTIAL HEIGHT WALL AT CROOKLINE



ENLARGED ROOF PLAN - MECHANICAL & PLUMBING 1
 1/4" = 1'-0"

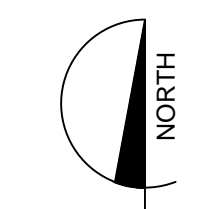




ENLARGED PLAN - MECHANICAL

1/4" = 1'-0"

1

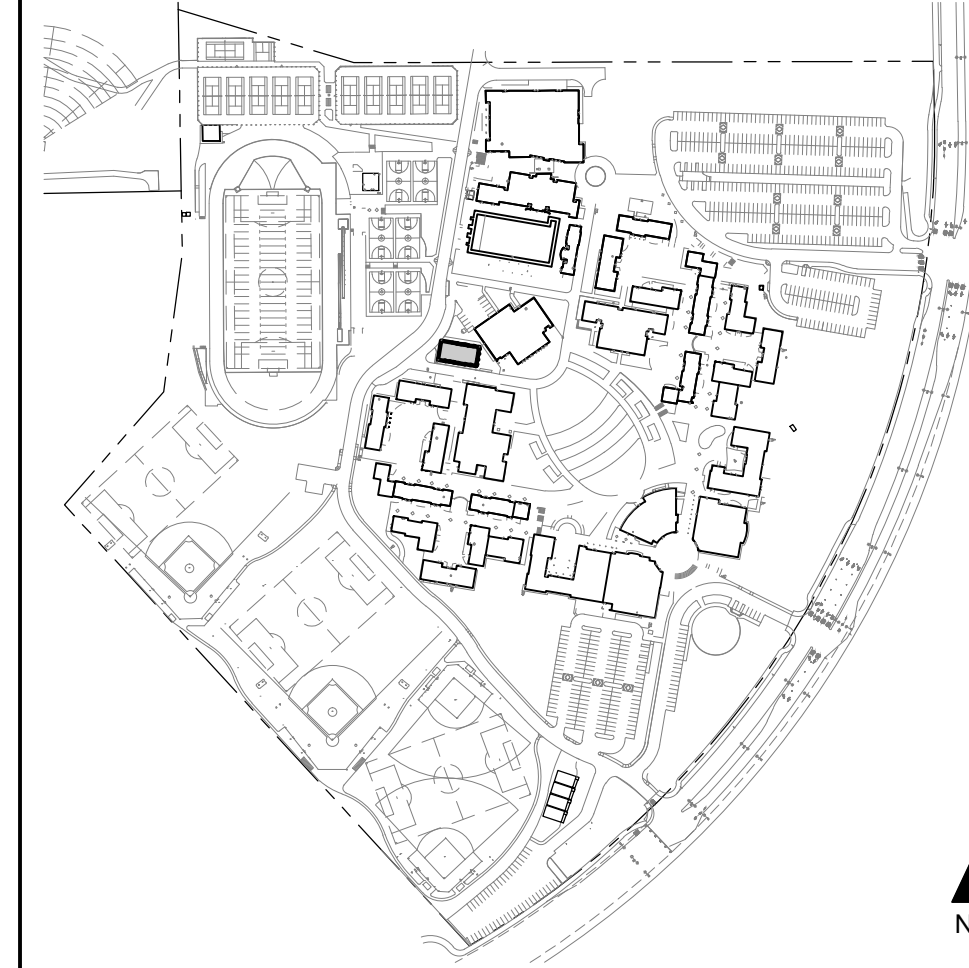


WALL TYPE LEGEND

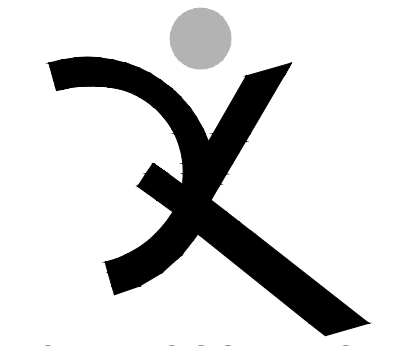
ALL FRAMING IS 6" WOOD STUDS, U.O.N. S.S.D. FOR WOOD FRAMING SIZES

	WOOD FRAMED WALL
	WOOD FRAMED FURRED WALL
	WOOD FRAMED FURRED PARTIAL HEIGHT WALL
	WOOD FRAMED PARTIAL HEIGHT WALL AT COOKLINE

KEYPLAN



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Brentwood, CA 94513

REVISIONS

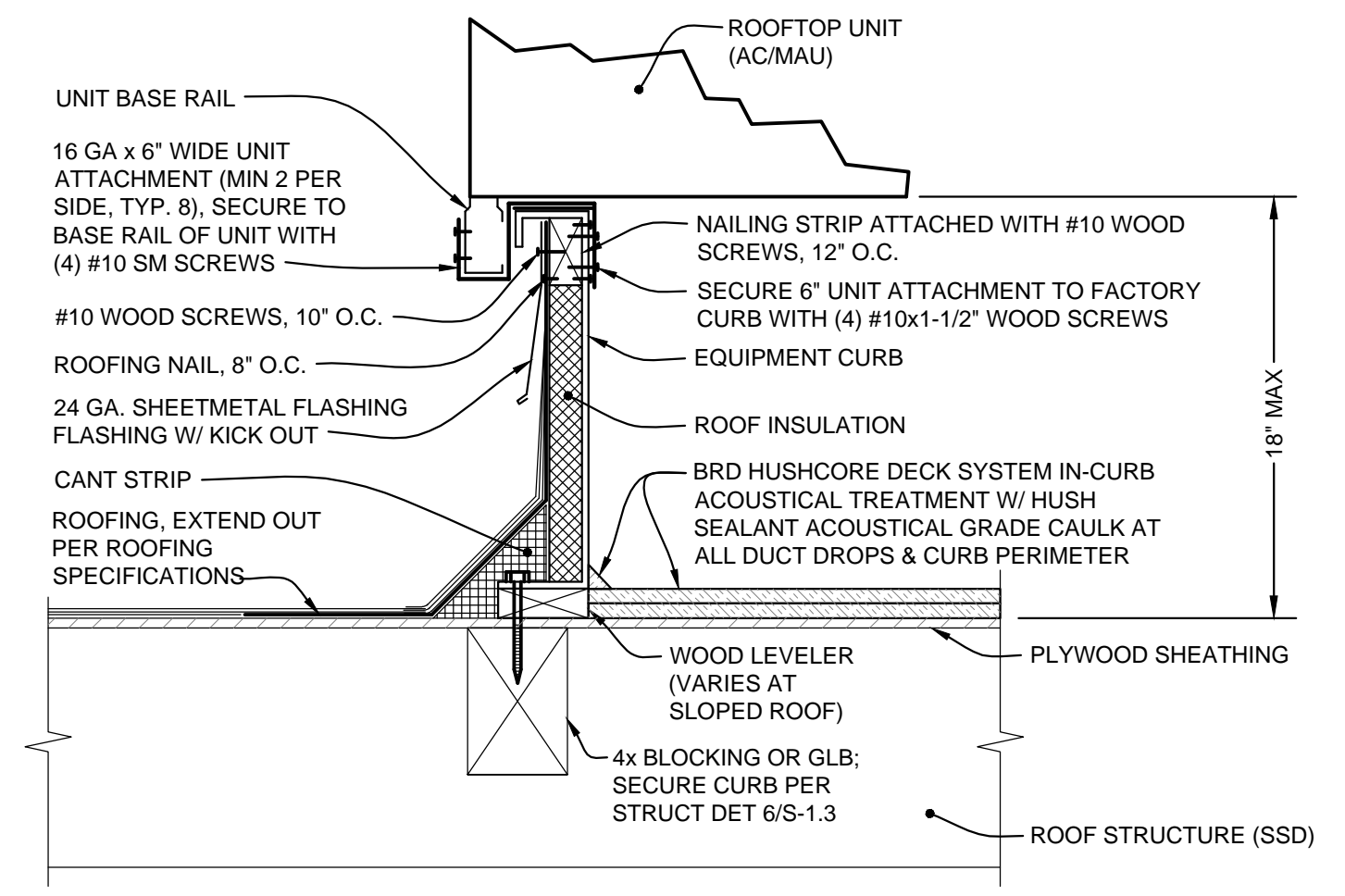
ARCH PROJECT NO. 1750.00
DRAWN BY: MC.
DRAWING SCALE: AS NOTED
PTN: 61721-70
CD
FEBRUARY 27, 2019

ENLARGED PLAN MECHANICAL

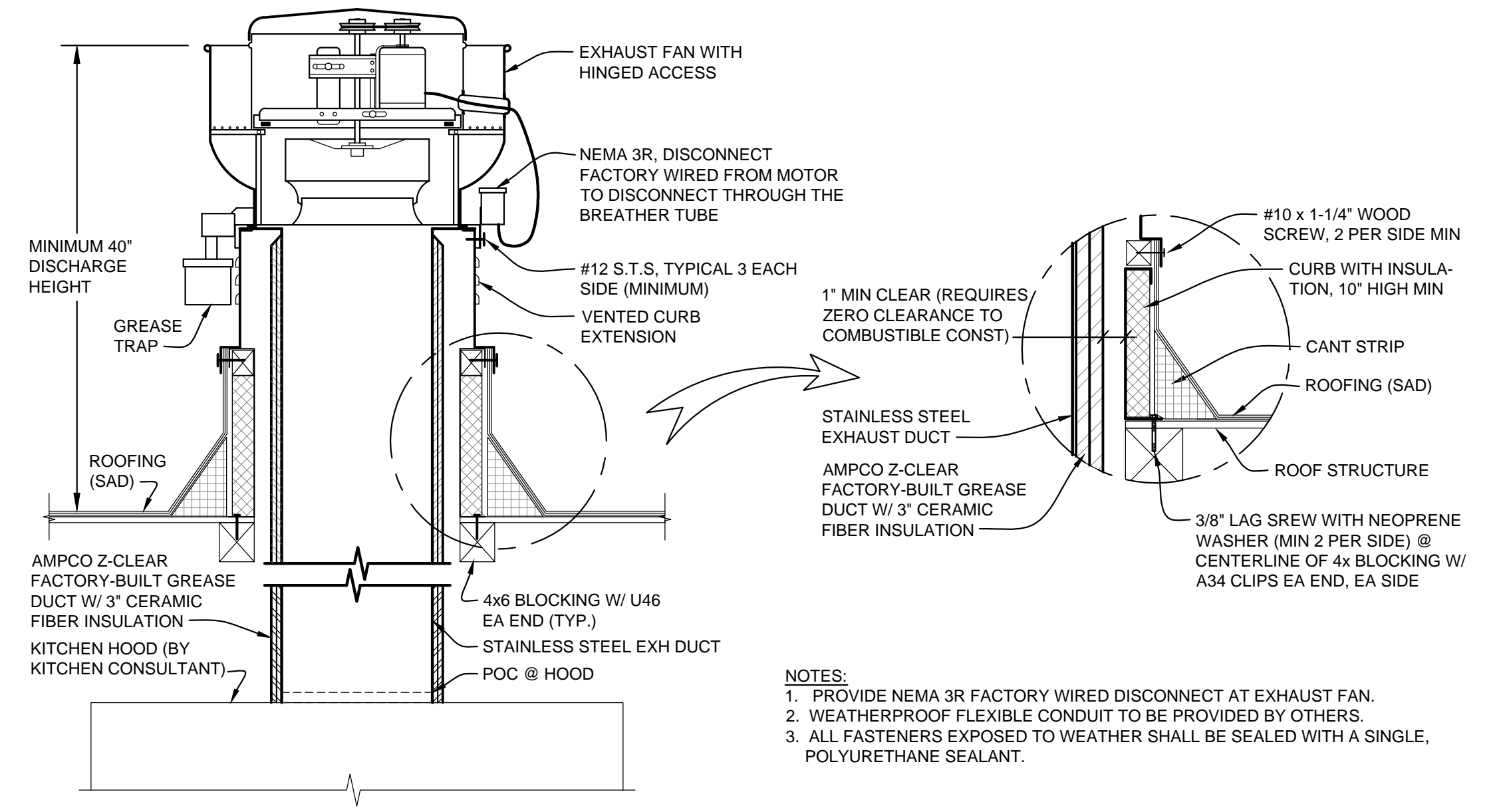
SHEET NUMBER
M-2.1

REVISIONS	

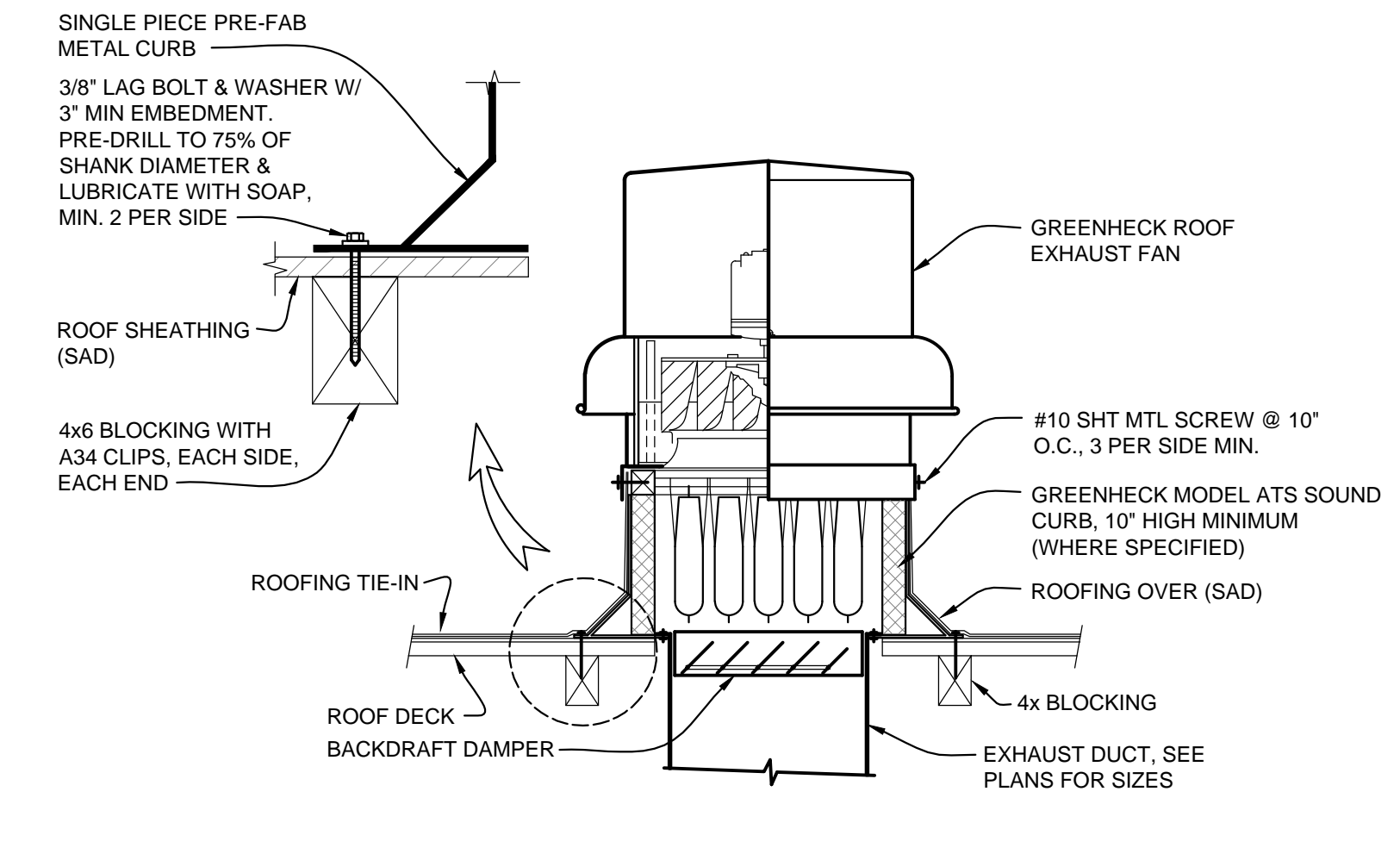
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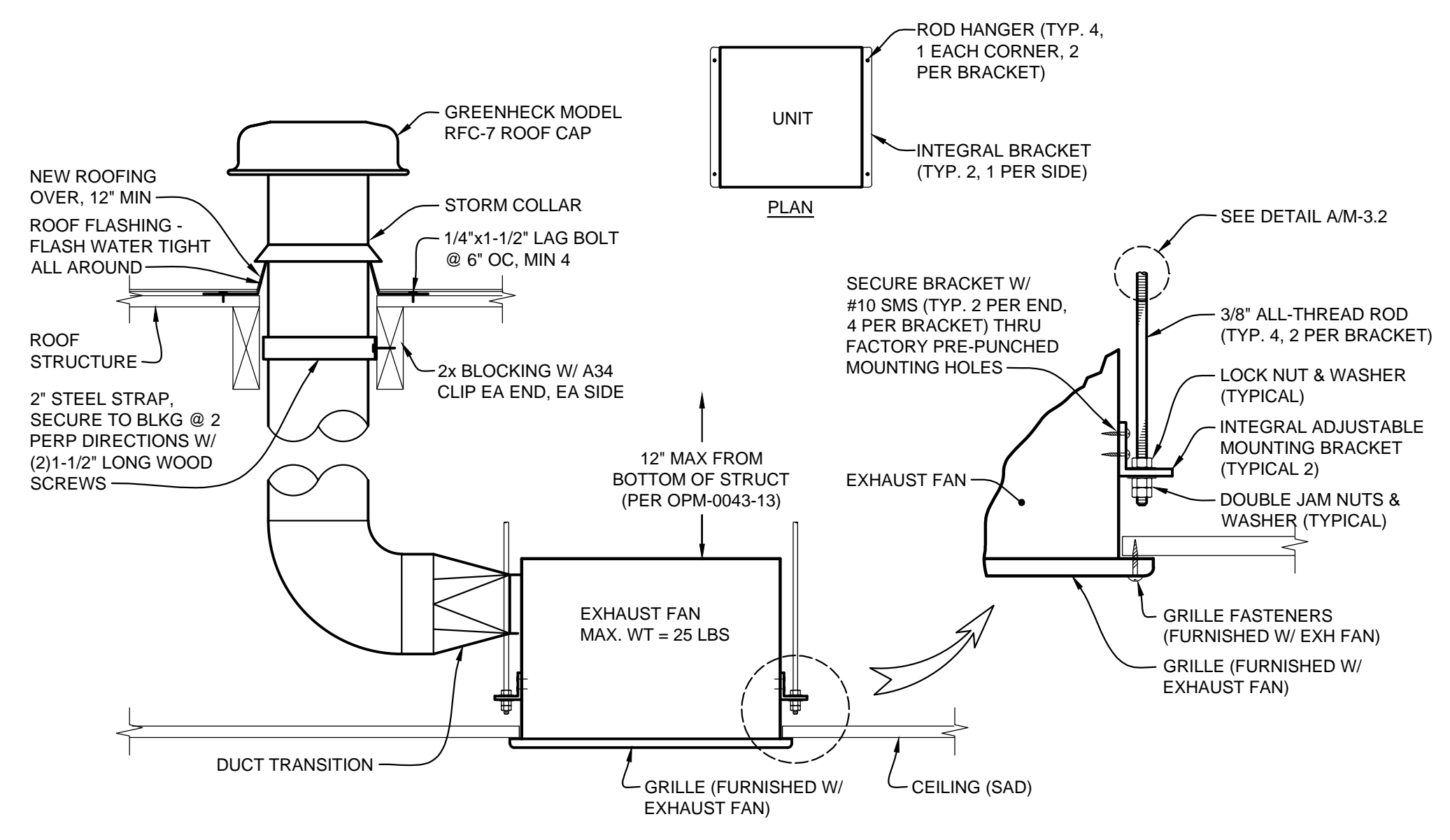
A ROOFTOP EQUIPMENT MOUNTING DETAIL
SCALE: NONE



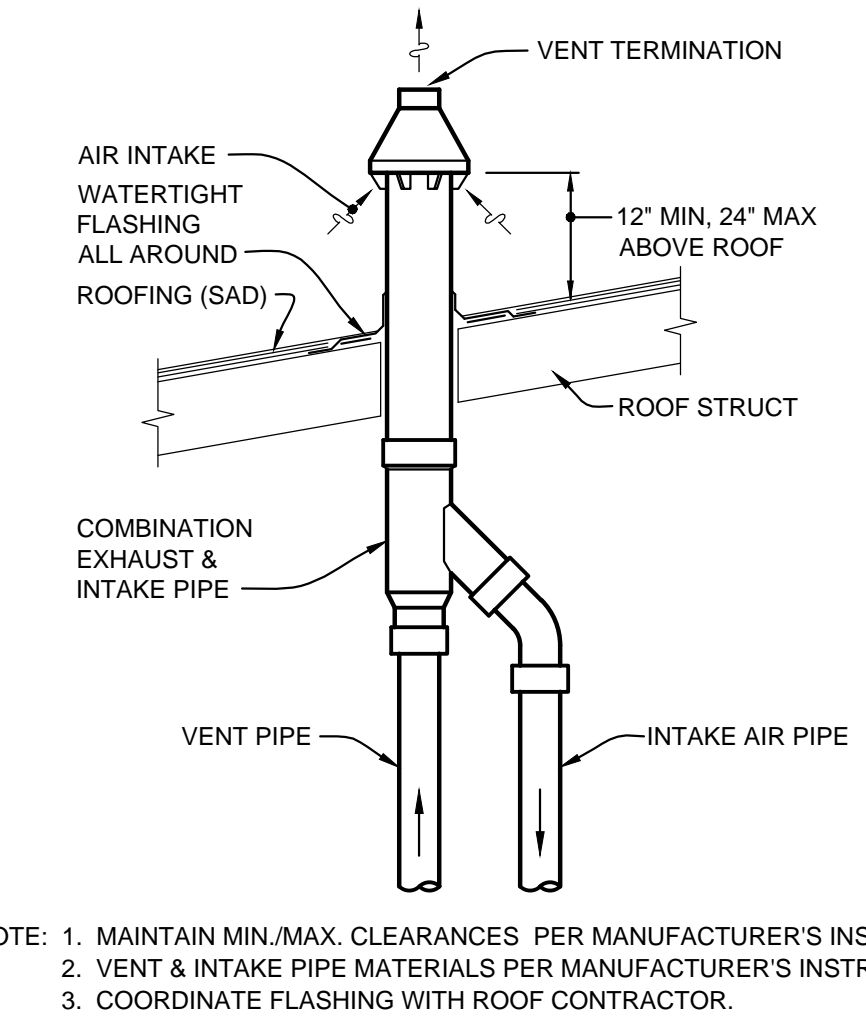
B ROOFTOP KITCHEN EXHAUST FAN MOUNTING DETAIL
SCALE: NONE



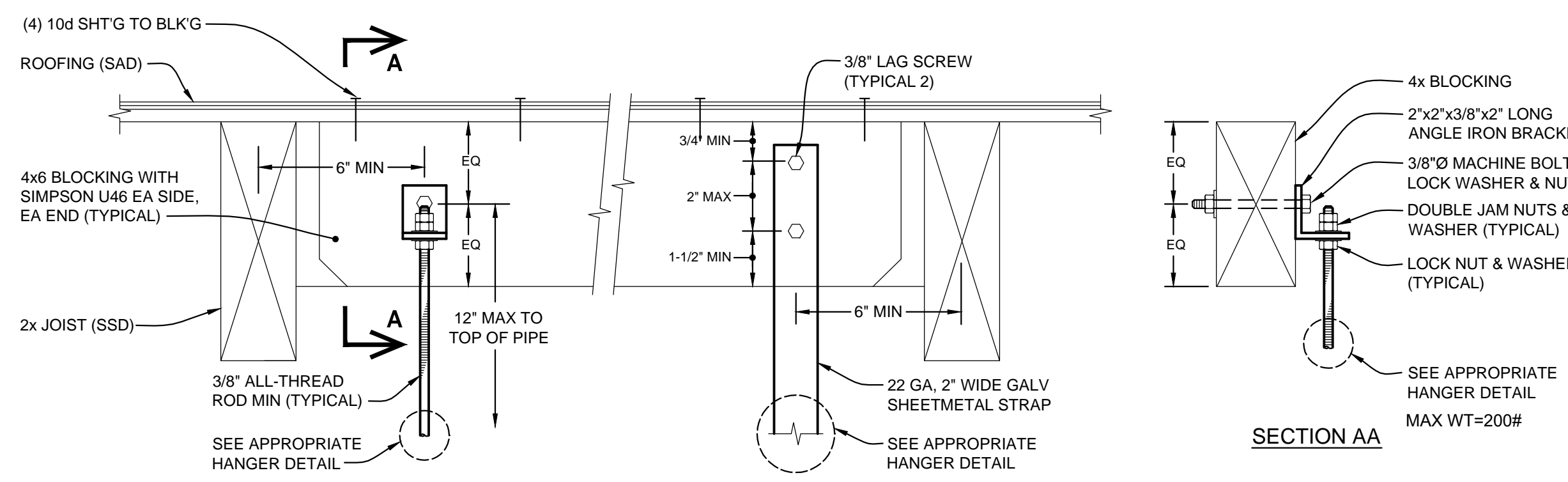
C ROOFTOP EXH FAN MOUNTING DETAIL
SCALE: NONE



D CEILING EXHAUST FAN MOUNTING DETAIL
SCALE: NONE

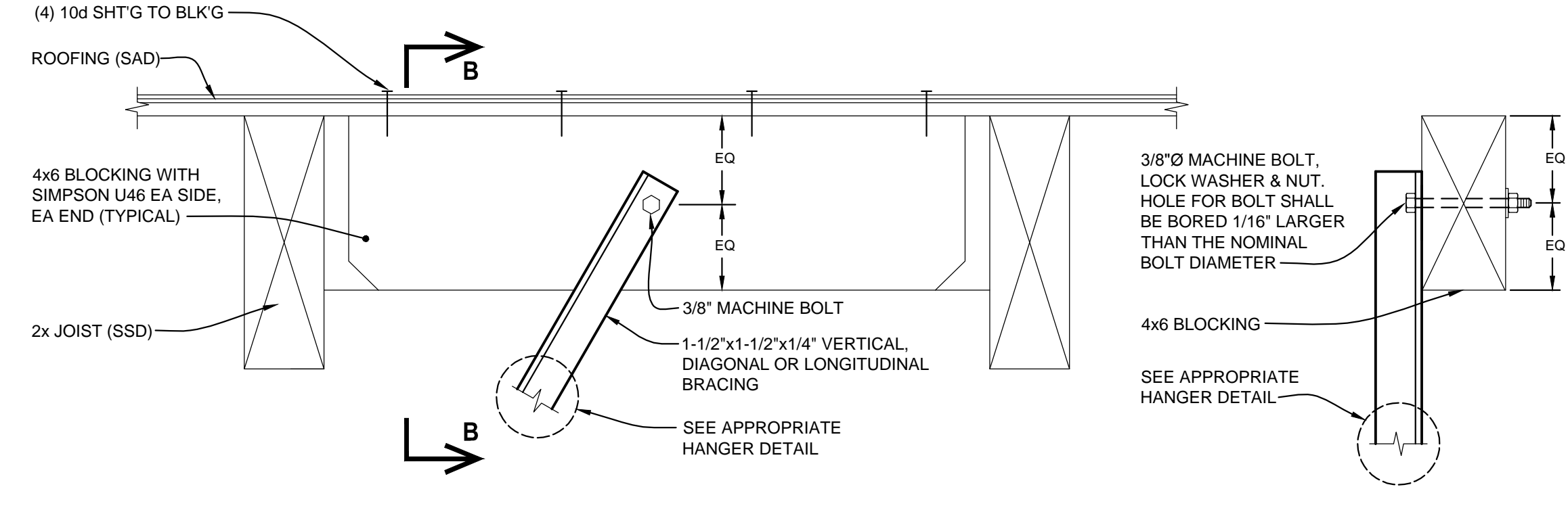


E WATER HEATER CONCENTRIC VENT DETAIL
SCALE: NONE



A HANGER CONNECTION DETAILS @ WOOD STRUCTURE

SCALE: NONE



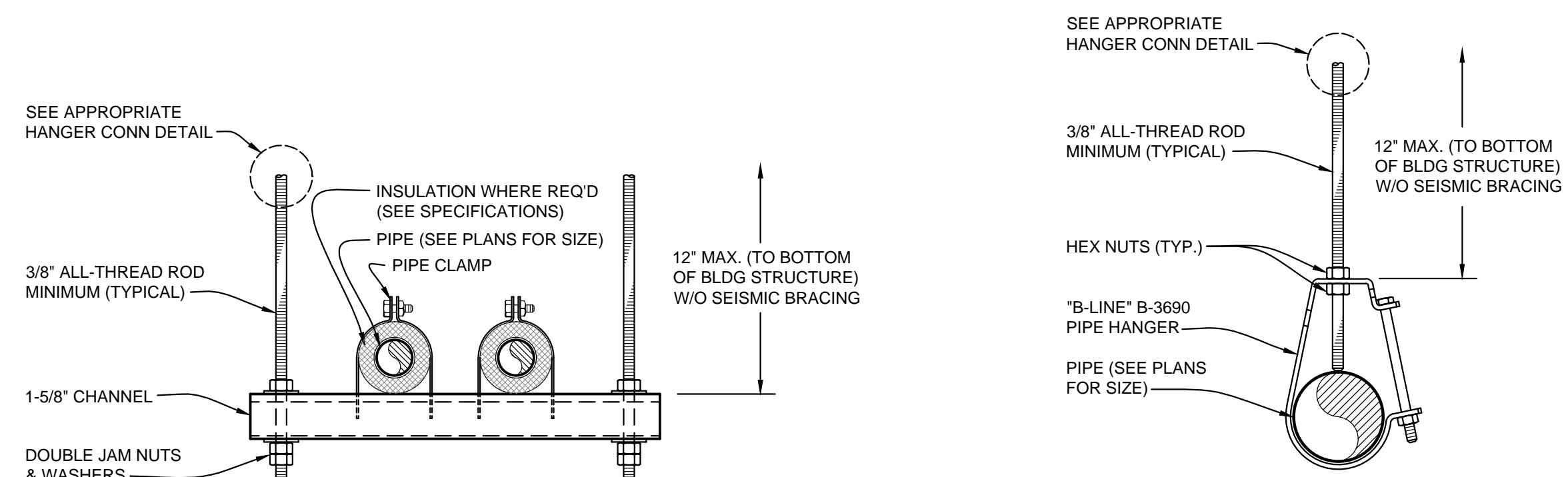
B SEISMIC BRACE CONNECTION DETAIL @ WOOD STRUCTURE

SCALE: NONE

MINIMUM ROD SIZES (INCHES)	PIPE DIAMETER (INCHES)
3/8"	2" & SMALLER PIPE
1/2"	2-1/2" & 3" PIPE

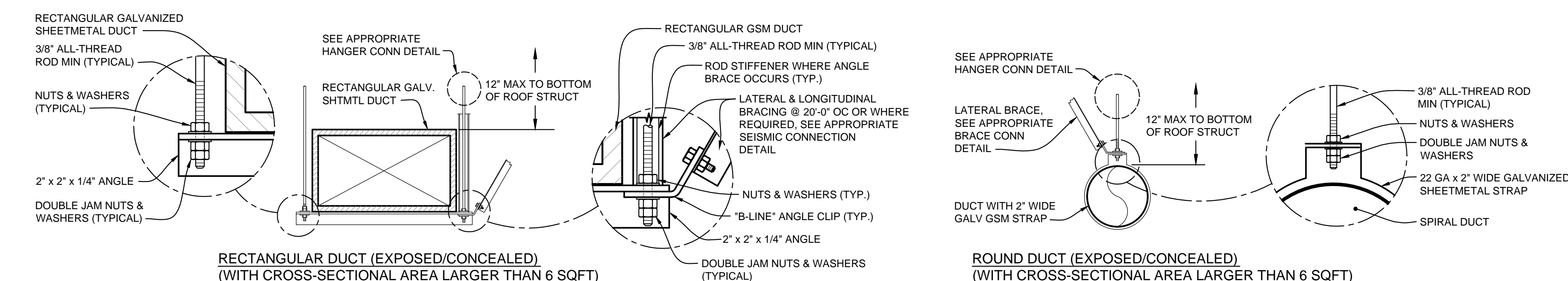
GENERAL NOTES:

1. RUN PIPING TRAPEZE AS CLOSE AS POSSIBLE TO STRUCTURE.
2. SUPPORT PIPING AT A MAXIMUM OF 8'-0" INTERVALS.
3. SEE PLANS FOR PIPE SIZES.
4. CHANNEL DEFLECTION SHALL NOT EXCEED 1/360 OF THE SPAN BETWEEN RODS. DOUBLE-UP CHANNELS AS REQUIRED.
5. B-LINE CHANNEL ROD STIFFENER @ ALL-THREAD WHERE DIAGONAL BRACE OCCURS. INCLUDE SC228 ASSEMBLY AS RECOMMENDED BY MANUFACTURER.
6. NO BRACING IS REQUIRED ON GAS PIPES WITH LESS THAN 1" I.D. AND ALL OTHER PIPES LESS THAN 2-1/2" IN DIAMETER, AND WHEN SUPPORTED LESS THAN 12' FROM BOTTOM OF ROOF STRUCTURE.
7. PIPING SUPPORTED MORE THAN 12' FROM BOTTOM OF ROOF STRUCTURE SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2016 CBC, SECTIONS 1616A.1.18 THROUGH 1616A.1.26 AND ASCE 7-10 CHAPTER 13, 26, AND 30. BRACING AND ATTACHMENTS TO THE STRUCTURE SHALL COMPLY WITH ONE OF THE OSHPD PREAPPROVALS WITH AN OPA NUMBER, AS MODIFIED TO SATISFY ANCHORAGE REQUIREMENTS OF ACI 318, APPENDIX D.



D TYPICAL REFRIGERANT PIPE HANGER DETAILS

SCALE: NONE



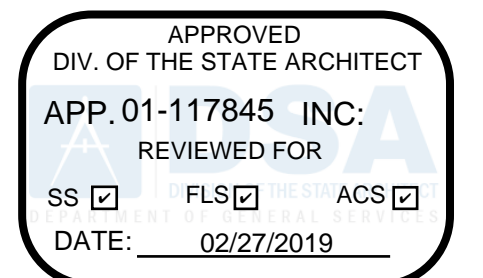
C TYPICAL DUCT HANGER DETAILS

SCALE: NONE

ANGLE (INCHES)	MAX LENGTH (INCHES)
1-1/2 x 1-1/2 x 1/8	3'-0"
2 x 2 x 3/16	6'-0"
3 x 3 x 1/4	8'-0"

DUCT SUPPORT NOTES:

1. ALL STRAPS, RODS, TRAPEZE ANGLES AND TRAPEZE CHANNELS SHALL BE SIZED AND INSTALLED IN ACCORDANCE WITH THE LATEST SMACNA REQUIREMENTS.
2. ALL BOLTS, NUTS, SCREWS AND OTHER FASTENING DEVICES SHALL BE LOAD-RATED AND SHALL MEET ALL CODE REQUIREMENTS AND SAFETY FACTORS WHICH APPLY.
3. WIRE, USED IN LIEU OF STRAPS AND RODS, IS NOT ALLOWED.
4. WHERE APPLICABLE, INSTALL INSULATION AFTER INSTALLING DUCT HANGERS.
5. SUPPORTS SHALL BE PLACED AT 8'-0" ON CENTER (MAX) AND AT ALL CHANGES IN DIRECTION.
6. LATERAL BRACING REQUIRED ON DUCTS WITH CROSS-SECTIONAL AREA LARGER THAN 6 SQ FT.
7. SEISMIC BRACING IS NOT REQUIRED AT HVAC DUCTS THAT ARE 6 FT SQ OR LESS IN CROSS-SECTIONAL AREA, OR WEIGH 10 LB/FT OR LESS.
8. SUPPORTS SHALL BE PLACED AT 8'-0" ON CENTER (MAX) AND AT ALL CHANGES IN DIRECTION.
9. SEISMIC BRACING IS NOT REQUIRED AT HVAC DUCTS SUPPORTED BY HANGERS THAT ARE 12" OR LESS IN LENGTH FROM THE DUCT SUPPORT POINT TO THE SUPPORTING STRUCTURE. HVAC DUCTS SUPPORTED WITH ROD HANGERS WITH DIAMETER GREATER THAN 3/8 INCH SHALL BE EQUIPPED WITH SWIVELS TO PREVENT INELASTIC BENDING IN THE ROD.
10. HVAC DUCTS ARE FREE TO SWING AT 45° IN ANY HORIZONTAL DIRECTION WITHOUT COLLIDING WITH THE STRUCTURE, ARCHITECTURAL ITEMS OR OTHER MECHANICAL, PLUMBING OR ELECTRICAL ITEMS.



QUATTROCCHI KWOK ARCHITECTS
 Main Office:
 636 Fifth Street, Santa Rosa, CA 95404
 Pleasanton Office:
 600 Main Street, Suite E,
 Pleasanton, CA 94566
 (707) 576-0829



HERITAGE HIGH SCHOOL
CULINARY ARTS BUILDING
 101 American Ave
 Brentwood, CA 94513

LIBERTY UNION HIGH SCHOOL DISTRICT
 20 Oak Street
 Brentwood, CA 94513

NO.	DESCRIPTION

ARCH PROJECT NO: 1750.00
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MECHANICAL DETAILS

SHEET NUMBER
M-3.2

CONTROL SYMBOL LEGEND

- (DO) DIGITAL OUTPUT, EMS
- (DI) DIGITAL INPUT, EMS
- (AO) ANALOG OUTPUT, EMS
- (AI) ANALOG INPUT, EMS

INDICATES WIRING BY ELECTRICAL CONTRACTOR

INDICATES WIRING BY CONTROL / EMS CONTRACTOR

APPROX. NO. OF WIRES SHOWN

APPROVED
DIV. OF THE STATE ARCHITECT
APP. 01-117845 INC.
REVIEWED FOR
SS FLS ACS
DATE: 02/27/2019



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COSTA ENGINEERS INC.
3274 Villa Lane Napa, CA 94558
ph: 707-252-9177 fax: 707-252-6473



**HERITAGE HIGH SCHOOL
CULINARY ARTS BUILDING**
101 American Ave
Brentwood, CA 94513

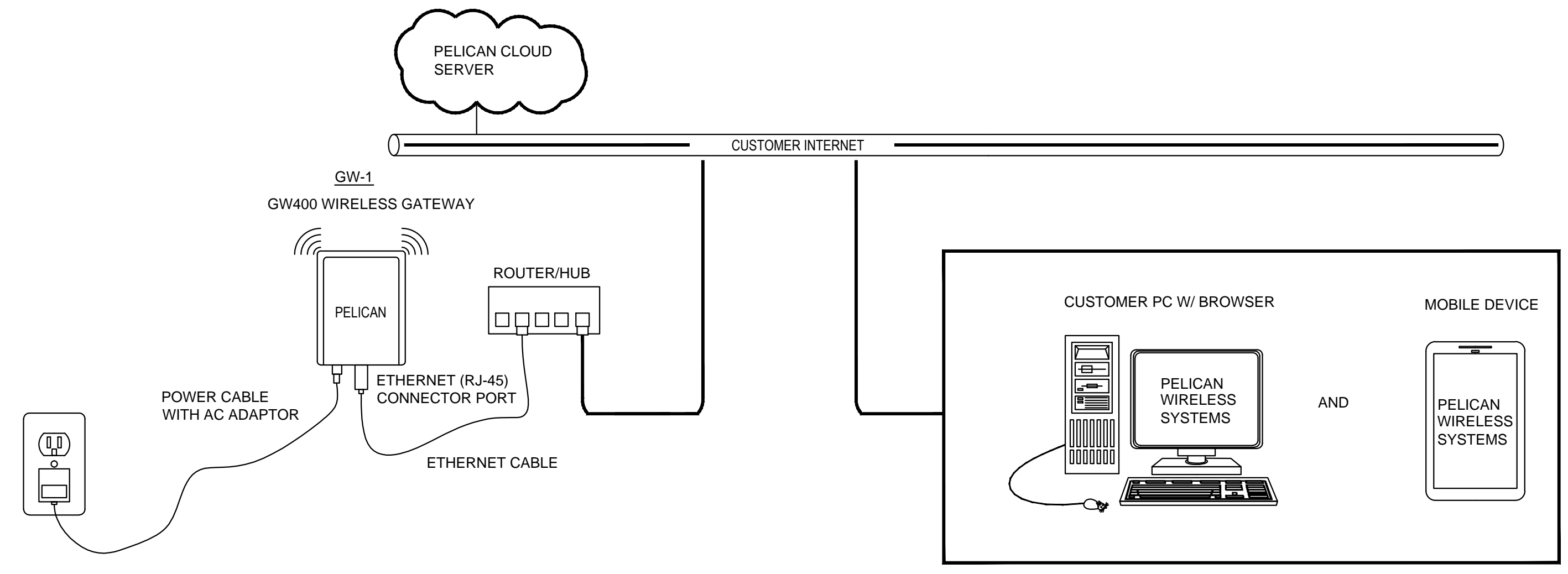
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CONTROL DIAGRAMS
SHEET NUMBER

M-4.1



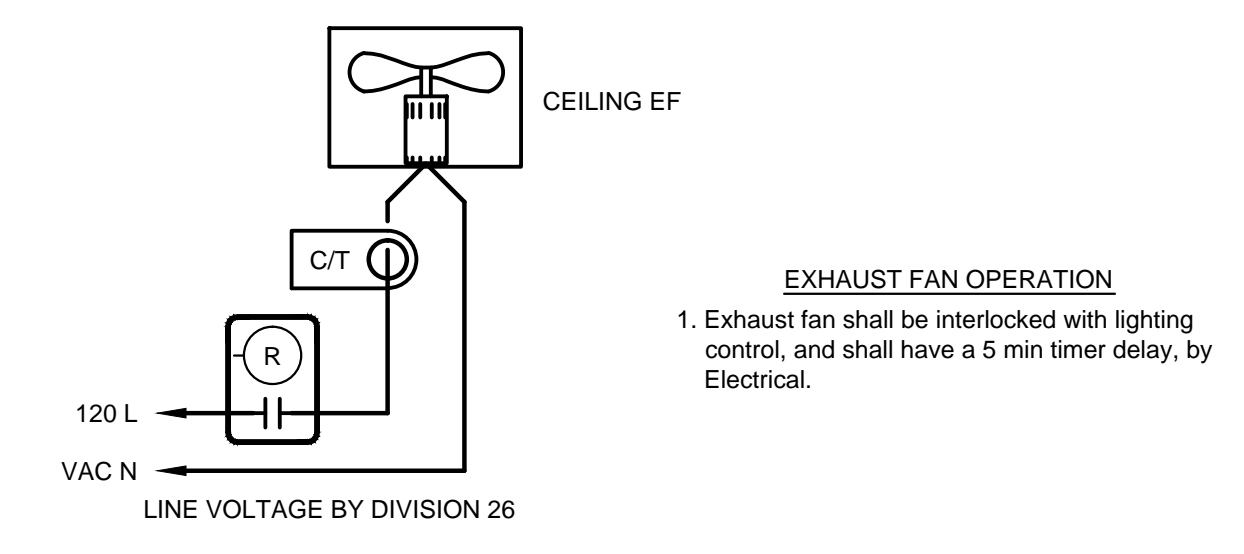
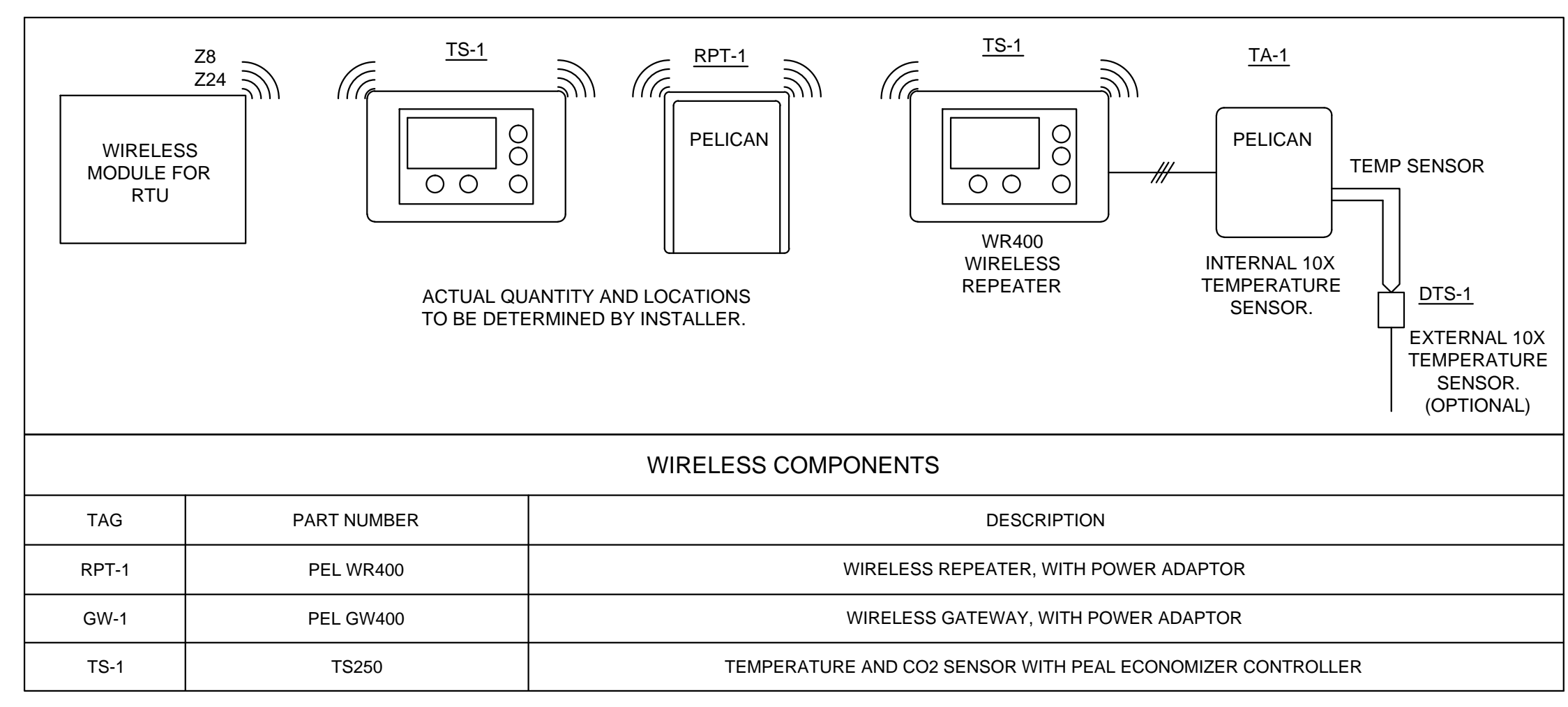
THE WIRELESS GATEWAY IS DESIGNATED TO BE WALL MOUNTED USING THE INCLUDED 3M COMMAND REMOVABLE STRIPS.

FIND A SUITABLE LOCATION WHICH IS:

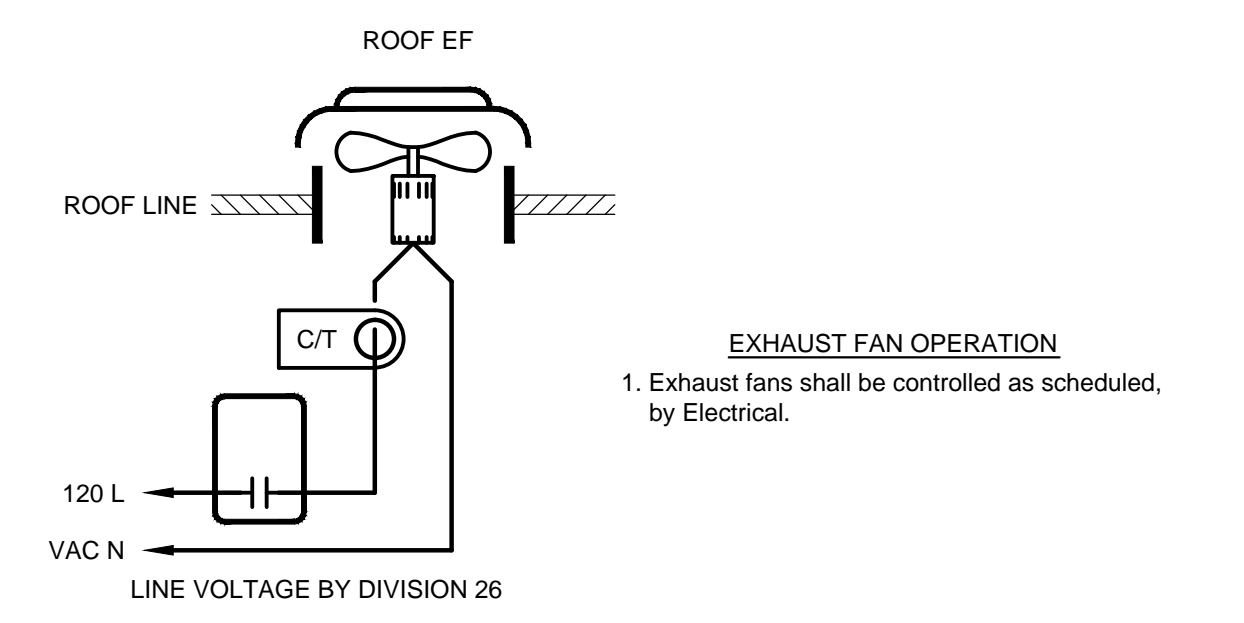
- WITHIN 10 FEET OF YOUR INTERNET ROUTER
- WITHIN 4 FEET OF AN ELECTRICAL OUTLET
- AT LEAST 4 FEET AWAY FROM OTHER WIRELESS DEVICES
- AWAY FROM LARGE METAL OBJECTS WHICH MAY INTERFERE WITH THE WIRELESS SIGNAL.
- ABOVE OFFICE EQUIPMENT WHICH MAY INTERFERE WITH THE WIRELESS SIGNAL
- ACTUAL QUANTITY AND LOCATIONS TO BE DETERMINED BY INSTALLER. NO PRACTICAL LIMITS TO NUMBER OF THERMOSTATS SUPPORTED BY A SINGLE GATEWAY

FACTORY IP ADDRESS GATE WAY WILL CONNECT AUTOMATICALLY TO PELICAN SERVER AFTER SERIAL NO. OF GATEWAY IS REGISTERED ON PELICAN SITE.

GO TO: <http://www.pelicanwireless.com/new-site-subscription/>

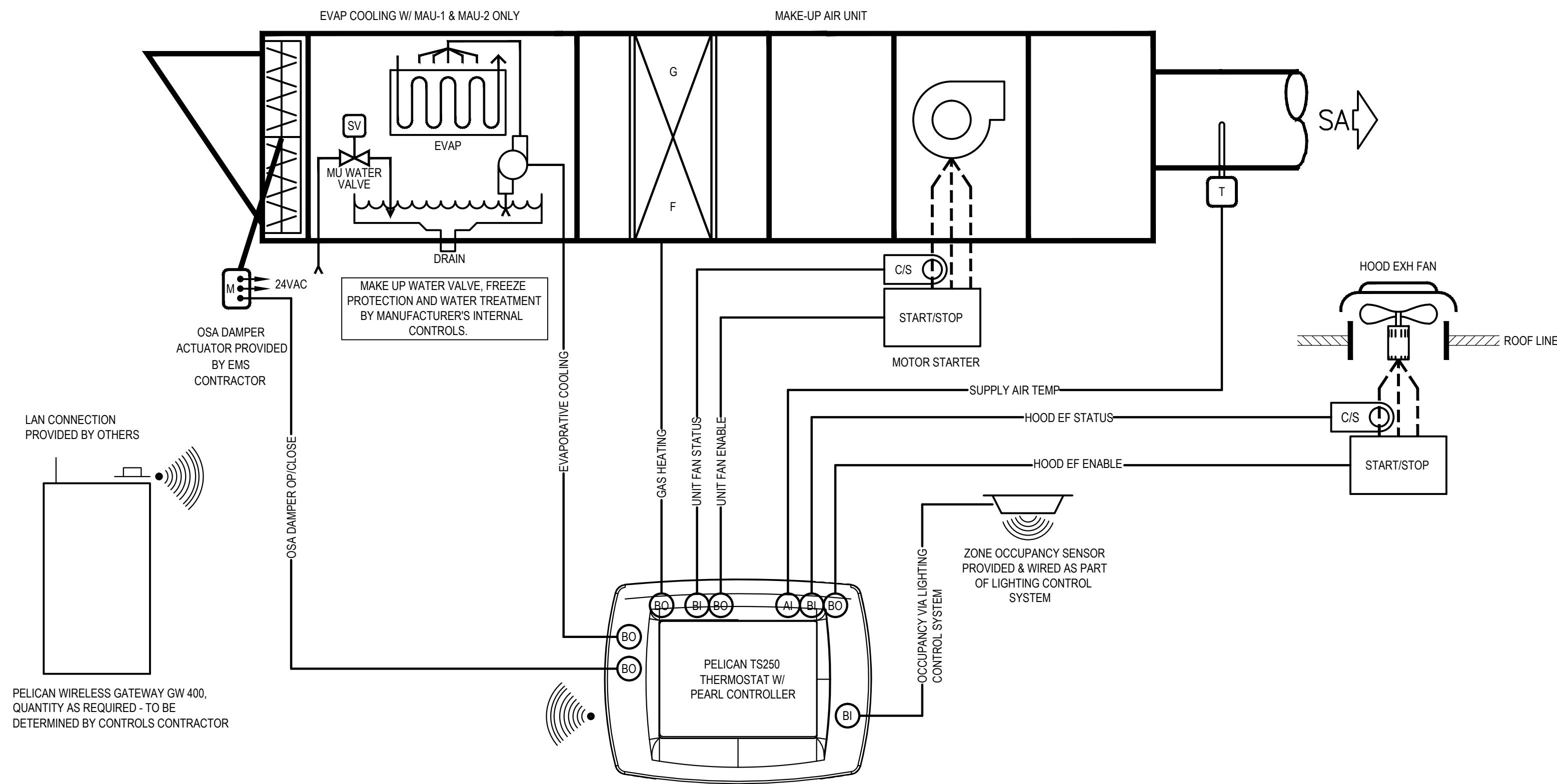


(B) CEILING EF FAN CONTROL DIAGRAM
SCALE: NONE



(C) EXHAUST FAN CONTROL DIAGRAM
SCALE: NONE

(A) TYPICAL PELICAN WIRELESS LAN LAYOUT
SCALE: NONE



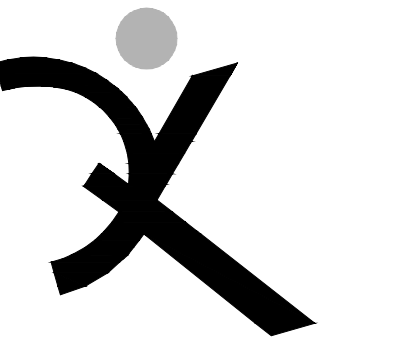
Make Up Air Unit (MAU) System

1. System Overview
 - a. Each Make Up Air unit will be directly controlled by its own dedicated EMS (Energy Management System) unitary controller.
 - b. EMS unitary controller will be connected to a wall mounted electronic zone temperature sensor with integral relative humidity sensor.
 - c. Electronic zone temperature sensor shall have a touch screen LCD interface which includes: 1) digital pushbuttons for warmer/cooler setpoint control; 2) visual display of room temperature, room humidity and ambient OSA temperature; and 3) digital pushbutton after-hours override timer control, with user adjustable duration. The after-hours override duration shall have the ability to be limited from the front-end.
2. Outside air damper shall be commanded 100% open any time MAU is in operation and shall be commanded 100% closed any time MAU is not in operation. Hood Exhaust Fans shall run when MAU is in operation.
3. Heating operation: The unitary controller compares the heating setpoint with the space temperature and determines a heating control signal to engage the gas furnace heating section to maintain space temperature setpoint.
4. Cooling operation (MAU-1 & MAU-2 ONLY): The unitary controller compares the cooling setpoint with the space temperature and determines a cooling signal. The unitary controller shall command the evap cooler circulating pump on when cooling is required to maintain space temperature setpoint.

CONTROL SYMBOL LEGEND

- (DO) DIGITAL OUTPUT, EMS
- (DI) DIGITAL INPUT, EMS
- (AO) ANALOG OUTPUT, EMS
- (AI) ANALOG INPUT, EMS
- INDICATES WIRING BY ELECTRICAL CONTRACTOR
- INDICATES WIRING BY CONTROL / EMS CONTRACTOR
- APPROX. NO. OF WIRES SHOWN

APPROVED
DIV. OF THE STATE ARCHITECT
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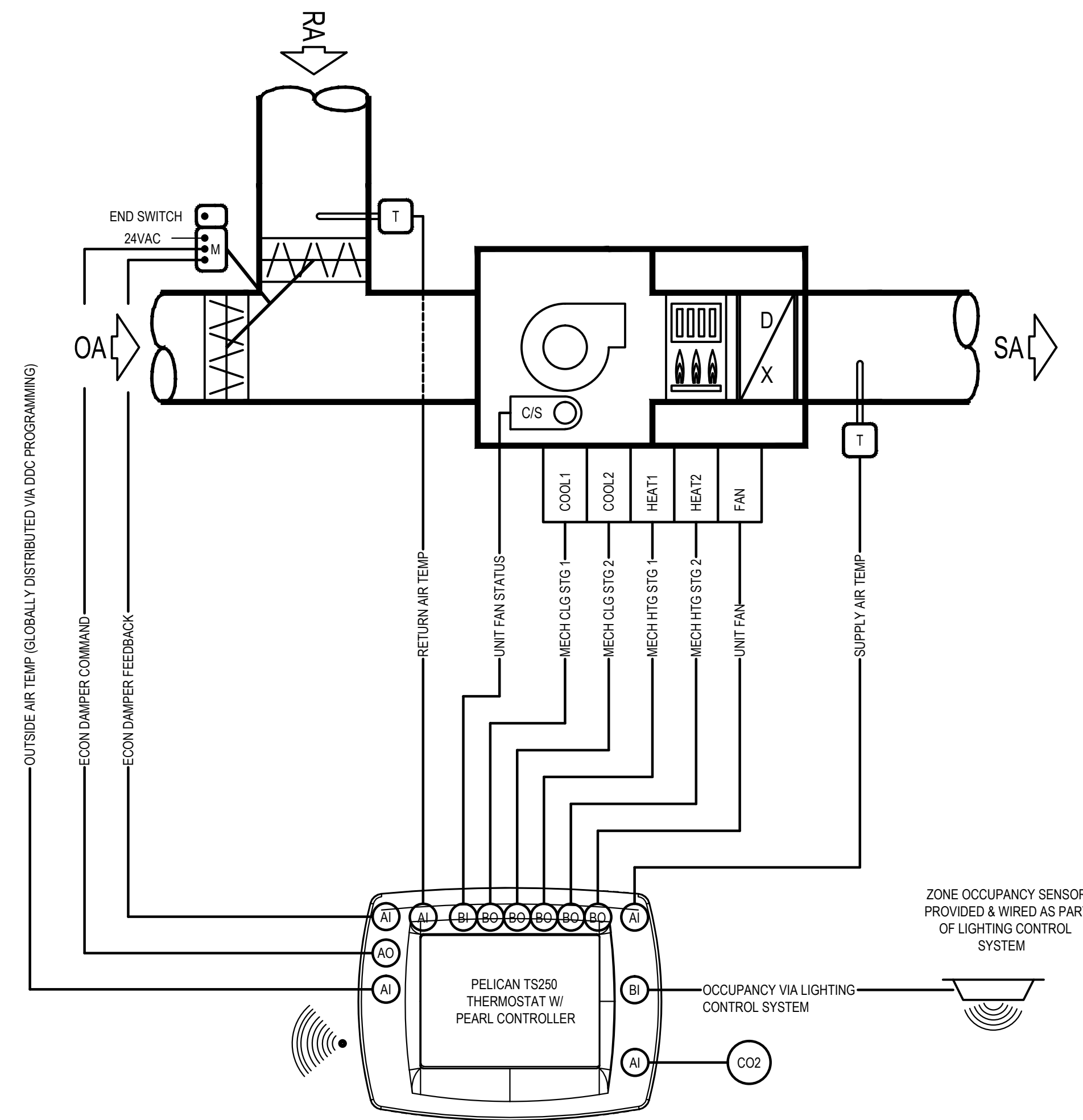
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(A) MAKE-UP AIR (MAU-1 & MAU-2 ONLY) CONTROL AND MONITORING SYSTEM

SCALE: NONE



Packaged AC Unit with Economizer, Demand Control Ventilation, Zone Occupancy Monitoring

1. System Overview
 - a. Each AC unit will be directly controlled by its own dedicated EMS (Energy Management System) unitary controller.
 - b. EMS unitary controller will be connected to a wall mounted electronic zone temperature sensor with integral relative humidity sensor and CO2 sensor.
 - c. Electronic zone temperature sensor shall have a touch screen LCD interface which includes: 1) digital pushbuttons for warmer/cooler setpoint control; 2) visual display of room temperature, room humidity, room CO2 and ambient OSA temperature; and 3) digital pushbutton after-hours override timer control, with user adjustable duration. The after-hours override duration shall have the ability to be limited from the front-end.
2. Occupancy/Vacancy Monitoring
 - a. Zone occupancy and vacancy will be actively monitored by connection to Lighting Control System occupancy sensor(s). If available, monitoring shall be accomplished via BACnet system integration. Otherwise, BAS contractor shall monitor auxiliary contacts on Lighting Control System occupancy sensor(s).
3. Unit Fan Operation
 - a. When the zone is in Occupied Mode or in Afterhours Mode, the fan shall run continuously, unless Vacant Mode has been triggered.
 - b. Low speed and high speed fan operation to be controlled by AC Unit Manufacturer's internal controls independent of EMS based upon call for heating, cooling or ventilation.
 - c. During the Unoccupied Mode as determined by EMS time schedule, the unit fan cycles with demand and the temperature is controlled by the unoccupied space temperature heating and cooling setpoints.
4. Minimum Outdoor Air Ventilation
 - a. During Occupied Mode or Afterhours Mode, the economizer damper shall be commanded by the EMS unitary controller to maintain a position which satisfies the Minimum Outdoor Air ventilation requirements for the zone. Damper position(s) determined by Air Balancing Contractor.
5. Demand Control Ventilation
 - a. EMS unitary controller will be connected to a wall mounted CO2 sensor to monitor zone CO2 concentration.
 - b. During Occupied Mode or Afterhours Mode, the EMS unitary controller shall reset the outside air damper minimum position to maintain the CO2 concentration below 1,000 ppm.
6. Automatic Demand Reduction Controls
 - a. EMS shall be programmed with capability to implement centralized demand shed for all non-critical zones upon call for Automatic Demand Reduction. Critical zones shall not be impacted by demand shed conservation measures.
7. Vacant Mode Control
 - a. When the zone has been scheduled for occupancy for at least one hour and the occupancy sensor has confirmed that zone has been vacant for 5 minutes (adjustable; maximum 30 minutes), zone shall be placed into Vacant Mode.
 - b. Reset cooling and heating setpoints up and down by 2°F (adjustable) or more.
 - c. Minimum Outdoor Air ventilation requirements in the zone need only be maintained 15 minutes out of every 60 minutes while the zone is in Vacant Mode.
 - d. Upon detection of occupancy, Vacant Mode shall be cleared.
8. Zone Pre-Occupancy Purge
 - a. The EMS shall schedule the zone to be in Occupied Mode one hour prior to the actual time of anticipated occupancy.
9. Heating operation
 - a. The controller compares the heating setpoint with the space temperature and determines a need-heating control signal to stage a gas regulating valve on the unit.
 - b. Economizer to be commanded to Min CFM setpoint and mechanical cooling to be locked out during heating mode.
10. Cooling operation
 - a. The controller compares the cooling setpoint with the space temperature and determines a need-cooling signal.
 - b. The first stage of cooling will enable the economizer to provide free cooling for as long as possible.
 - c. The second stage will enable the compressor(s) to maintain the room set point.
 - d. Mechanical heating to be locked out during cooling mode.
11. Fault Detection Diagnostics
 - a. The EMS DDC Controller shall monitor the following economizer actuator Fault Detection Diagnostic conditions and broadcast results via EMS network:
 - i. Temperature Sensor Failure/Fault
 - ii. Economizer not economizing when enabled
 - iii. Economizer economizing when disabled
 - iv. Economizer damper modulation failure
 - v. Excess outdoor air
12. Monitoring - The following conditions shall be monitored and displayed at EMS Operator Workstation/Graphical User Interface:
 - a. Supply air temperature.
 - b. Room temperature.
 - c. Room CO2 concentration.
 - d. Room occupancy status.
 - e. Current mode (heating/cooling/fan).
 - f. Supply air temperature attained last time unit was in heating.
 - g. Supply air temperature attained last time unit was in cooling.
 - h. Current command status of fan, economizer, compressor and gas valve.
 - i. Run time meters on fan, compressor, and heat.
 - j. Fan Status thru Current Switch.
 - k. Economizer actuator feedback status.

(B) PACKAGE AC UNIT W/ DEMAND CONTROL VENTILATION & OCCUPANCY MONITORING

SCALE: NONE

HERITAGE HIGH SCHOOL

CULINARY ARTS BUILDING

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MEP COMPONENT ANCHORAGE NOTE

ALL MECHANICAL, PLUMBING, AND ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS. WHERE NO DETAIL IS INDICATED, THE FOLLOWING COMPONENTS SHALL BE ANCHORED OR BRACED TO MEET THE FORCE AND DISPLACEMENT REQUIREMENTS PRESCRIBED IN THE 2016 CBC, SECTIONS 1616A.1.18 THROUGH 1616A.1.26 AND ASCE 7-10 CHAPTER 13, 26, AND 30.

- ALL PERMANENT EQUIPMENT AND COMPONENTS.
- TEMPORARY OR MOVABLE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER.
- MOVABLE EQUIPMENT WHICH IS STATIONED IN ONE PLACE FOR MORE THAN 8 HOURS AND HEAVIER THAN 400 POUNDS ARE REQUIRED TO BE ANCHORED WITH TEMPORARY ATTACHMENTS.

THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE, BUT THE ATTACHMENT NEED NOT BE DETAILED ON THE PLANS. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT.

- COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT.
- COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM A WALL.

FOR THOSE ELEMENTS THAT DO NOT REQUIRE DETAILS ON THE APPROVED DRAWINGS, THE INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND THE DSA DISTRICT STRUCTURAL ENGINEER. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-10 SECTION 13.3 AS DEFINED IN ASCE 7-10 SECTION 13.6.5.6, 13.6.7, 13.6.8, AND 2016 CBC, SECTIONS 1616A.1.24, 1616A.1.25, AND 1616A.1.26.

THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEMS ARE AS NOTED BELOW. WHEN BRACING AND ATTACHMENTS ARE BASED ON PRE APPROVED INSTALLATION GUIDE (e.g. SMACNA OR OSHPD OPM), 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 SYSTEM. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

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

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

MP MD PP E OPTION 2: SHALL COMPLY WITH THE OSHPD PRE-APPROVAL (OPM#) #0043-13

MP MD PP E OPTION 3: SHALL COMPLY WITH THE SMACNA SEISMIC RESTRAINT MANUAL, OSHPD EDITION (2009), INCLUDING ANY ADDENDA, FASTENERS AND OTHER ATTACHMENTS NOT SPECIFICALLY IN THE SMACNA SEISMIC RESTRAINT MANUAL, OSHPD EDITION, ARE DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS. THE DETAILS SHALL ACCOUNT APPLICABLE SEISMIC HAZARD LEVEL _____ AND CONNECTIONS LEVEL _____ FOR THE PROJECT AND CONDITIONS.

LOCAL CONNECTION SCHEDULE							
MARK	FIXTURE	SS	V	CW	HW	GAS	REMARKS
P-4	MOP SINK	3"	2"	3/4"	3/4"	-	FLOOR MOUNTED
FD-1	FLOOR DRAIN	2"	1-1/2"	-	-	-	PROVIDE WITH 1/2" TRAP PRIMER & HEEL-PROOF GRATES (5/16" MAX SIZE)
HB-2	HOSE BIBB (WALL HYDRANT)	-	-	3/4"	-	-	MODERATE CLIMATE; ENCASED; STAINLESS STEEL BOX
FS-1	FLOOR SINK	2"	1-1/2"	-	-	-	12"x12"x8" DEEP W/ ANTI-SPLASH DOME STRAINER; 1/2 GRATE; W/ 1/2" TRAP PRIMER
K-4	ICE MACHINE	-	-	3/4"	-	-	SEE KITCHEN CONSULTANT'S DRAWINGS; INDIRECT WASTE TO FLOOR SINK
K-8	HAND SINK	2"	1-1/2"	1/2"	1/2"	-	SEE KITCHEN CONSULTANT'S DRAWINGS;
K-11	CONVECTION OVEN	-	-	-	-	1"	SEE KITCHEN CONSULTANT'S DRAWINGS; (120 CFH)
K-20	WORKTABLE SINK (ACCESSIBLE)	-	-	1/2"	1/2"	-	SEE KITCHEN CONSULTANT'S DRAWINGS; INDIRECT WASTE TO FLOOR SINK
K-24	2-COMPARTMENT SINK	-	-	1/2"	1/2"	-	SEE KITCHEN CONSULTANT'S DRAWINGS; INDIRECT WASTE TO FLOOR SINK
K-37	6-BURNER RANGE	-	-	-	-	3/4"	SEE KITCHEN CONSULTANT'S DRAWINGS; (215 CFH)
K-50	DISHWASHER	-	-	3/4"	-	-	SEE KITCHEN CONSULTANT'S DRAWINGS; INDIRECT WASTE TO FLOOR SINK
K-51	PRE-RINSE SINK	-	-	1/2"	1/2"	-	SEE KITCHEN CONSULTANT'S DRAWINGS; INDIRECT WASTE TO FLOOR SINK
K-55	3-TUB POT SINK	-	-	1/2"	1/2"	-	SEE KITCHEN CONSULTANT'S DRAWINGS; INDIRECT WASTE TO FLOOR SINK
K-61	SERVICE STATION SINK	-	-	1/2"	1/2"	-	SEE KITCHEN CONSULTANT'S DRAWINGS; INDIRECT WASTE TO FLOOR SINK
K-62	COFFEE BREWER	-	-	1/2"	-	-	SEE KITCHEN CONSULTANT'S DRAWINGS; INDIRECT WASTE TO FLOOR SINK
K-65	ESPRESSO MACHINE	-	-	1/2"	-	-	SEE KITCHEN CONSULTANT'S DRAWINGS; INDIRECT WASTE TO FLOOR SINK
K-68	2-COMPARTMENT SINK	-	-	1/2"	1/2"	-	SEE KITCHEN CONSULTANT'S DRAWINGS; INDIRECT WASTE TO FLOOR SINK

CIRCULATOR PUMP SCHEDULE									
MARK	MODEL	TYPE	MOTOR				PERFORMANCE		REMARKS
			HP	VOLT/PH	AMPS	WATTS	GPM	HEAD	
CP 1	UPS 26-99 BFC	CIRCULATING PUMP	1/6	115/1Ø	2.15	245	2.2	6 FT	1, 2, 3

REMARKS: 1. ALL BRONZE CONSTRUCTION; VARIABLE SPEED; PROVIDE WITH CHECK VALVE & AQUASTAT
 2. FOR DOMESTIC HOT WATER RECIRCULATION
 3. PROVIDE WITH PIGTAIL CONNECTION

GAS WATER HEATER SCHEDULE											
MARK	MODEL #	GALLON CAPACITY	GAS TYPE	INPUT (BTU/HR)	GPH RECOVERY @ 70° RISE	VENT SIZE	THERMAL EFFICIENCY	OPER WEIGHT	MTG DETAIL	ELECT	REMARKS
WH 1	CYCLONE Mxi BTH-150	100 gal.	NATURAL	150,000	255 gal.	4"	98%	1325 lbs.	A P-3.1	120v/1Ø/60 5.0 AMPS	1, 2, 3, 4

REMARKS: 1. SEALED COMBUSTION; LOW NOx; SEAMLESS GLASS-LINED TANK
 2. COMPLETE WITH HOT WATER RECIRC PUMP W/ AQUASTAT
 3. PROVIDE WITH EXPANSION TANK, AMTROL MODEL "THERM-X-TROL" ST-8
 4. PROVIDE WITH CONCENTRIC VENT KIT
 5. PROVIDE WITH CONDENSATE NEUTRALIZING KIT FOR CONDENSATE DRAIN FROM EXHAUST VENT/CONDENSATE ELBOW
 6. AIR INTAKE DRAIN SHALL BE FIELD-SUPPLIED & INSTALLED PER MANUFACTURER'S INSTRUCTIONS

PLUMBING LEGEND		
SYMBOL	ABBREVIATION	DESCRIPTION
		DRAWING NUMBER
		DETAIL NUMBER
		EQUIPMENT IDENTIFICATION
		PIPE UP
		PIPE DOWN
	CW	COLD WATER LINE
	HW	HOT WATER LINE
	HWR	HOT WATER RETURN LINE
	SS	SANITARY SEWER LINE
	SS(G)	GREASE SEWER LINE
	V	VENT LINE
	BG	PIPE BELOW GRADE
		DIRECTION OF FLOW
	MPG	MEDIUM PRESSURE GAS
	G	GAS LINE
	RVD	RELIEF VALVE DISCHARGE
	CD	CONDENSATE DRAIN LINE
	SD	STORM DRAIN LINE
	FCO	FLOOR CLEANOUT
	WCO	WALL CLEANOUT
	GCO	CLEANOUT TO GRADE
	GM	GAS METER
	SA	SHOCK ABSORBER
	CV	CHECK VALVE
	GC	GAS COCK
	STR	STRAINER
		UNION
	POC	POINT OF CONNECTION
	AP	ACCESS PANEL
	BF	BELOW FLOOR
	AFG	ABOVE FINISHED GRADE
	DIW	DOWN IN WALL
	UIW	UP IN WALL
	DN	DOWN
	DTBG	DOWN TO BELOW GRADE
	GA	GAUGE
	HB	HOSE BIBB
	IW	IN WALL
	IFC	IN FURRED CEILING
	SHMTL	SHEET METAL
	TP	TRAP PRIMER
	ICS	IN CRAWL SPACE
	DTR	DOWN THROUGH ROOF
	CFH	CUBIC FEET PER HOUR
	UTR	UP THROUGH ROOF
	SCV	SEE CIVIL DRAWINGS
	UC	UNDER COUNTER

APPLICABLE GOVERNING CODES:

2016 CALIFORNIA BUILDING CODE
 2016 CALIFORNIA ELECTRICAL CODE
 2016 CALIFORNIA MECHANICAL CODE
 2016 CALIFORNIA PLUMBING CODE

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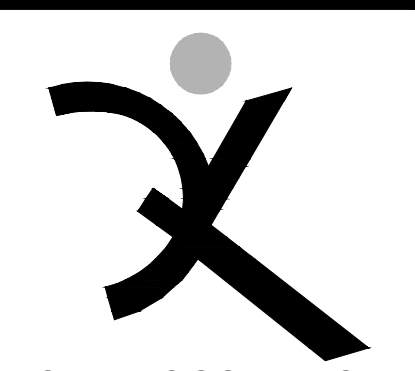
NO.	DATE	REVISIONS

ARCH PROJECT NO: 1750.00
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 DRAWING SCALE: AS NOTED
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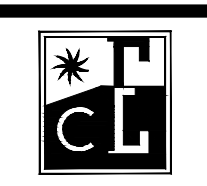
CD
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 SHEET TITLE

PLUMBING LEGENDS & SCHEDULES

SHEET NUMBER
P-1.1



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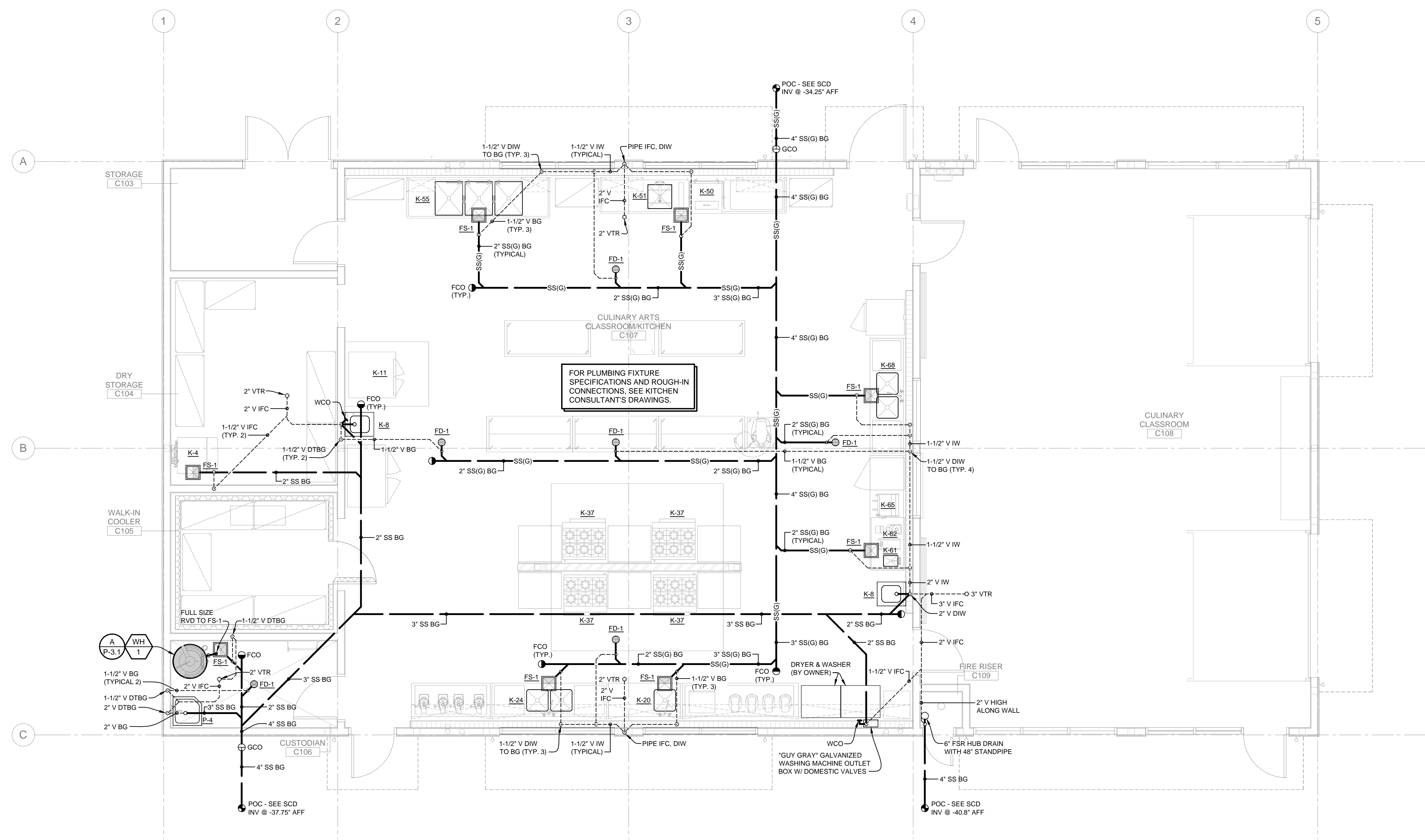
REVISIONS

NO.	DESCRIPTION

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 FEBRUARY 27, 2019
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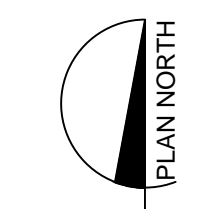
ENLARGED PLBG PLAN - WASTE & VENT

SHEET NUMBER
P-2.1



FOR PLUMBING FIXTURE SPECIFICATIONS AND ROUGH-IN CONNECTIONS, SEE KITCHEN CONSULTANT'S DRAWINGS.

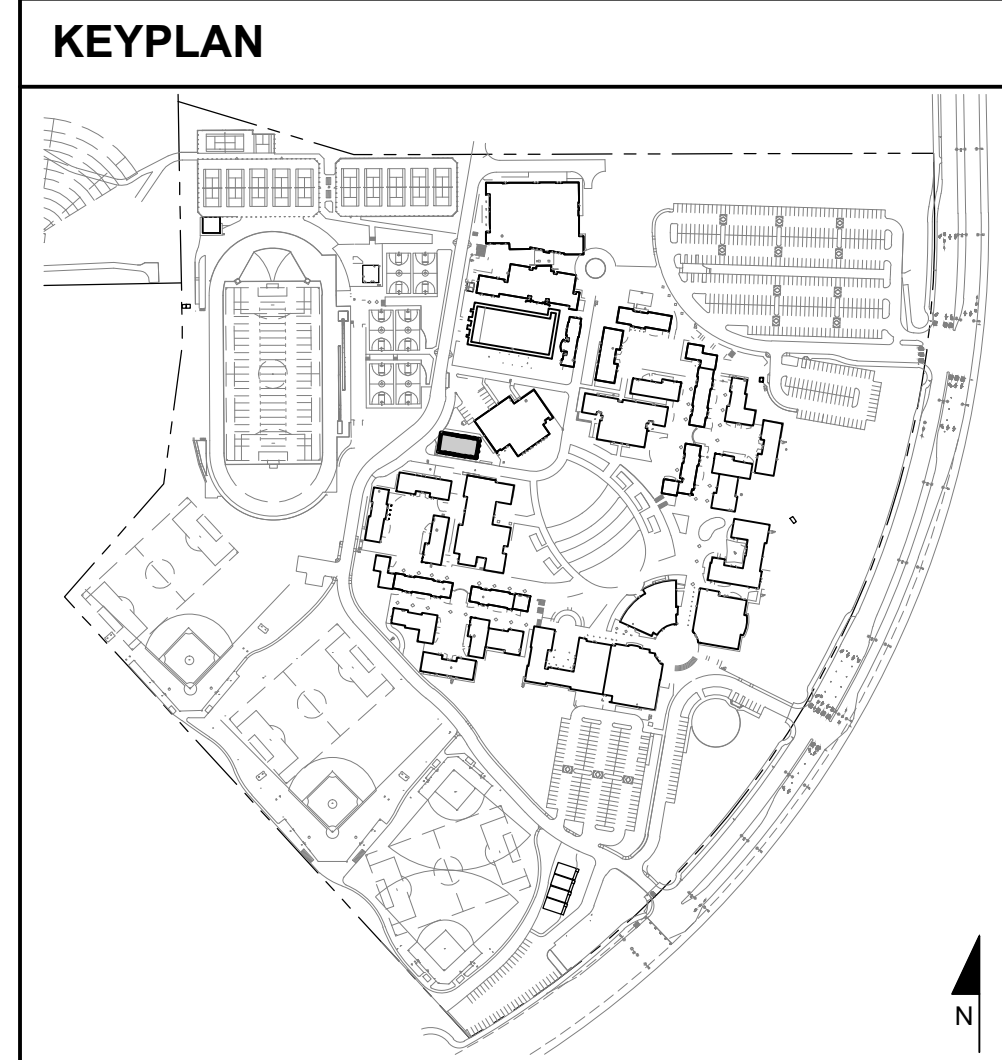
ENLARGED PLUMBING PLAN - WASTE & VENT 1
 1/4" = 1'-0"



WALL TYPE LEGEND

ALL FRAMING IS 6" WOOD STUDS, U.O.N. S.S.D. FOR WOOD FRAMING SIZES

	WOOD FRAMED WALL
	WOOD FRAMED FURRED WALL
	WOOD FRAMED FURRED PARTIAL HEIGHT WALL
	WOOD FRAMED PARTIAL HEIGHT WALL AT COKLINE



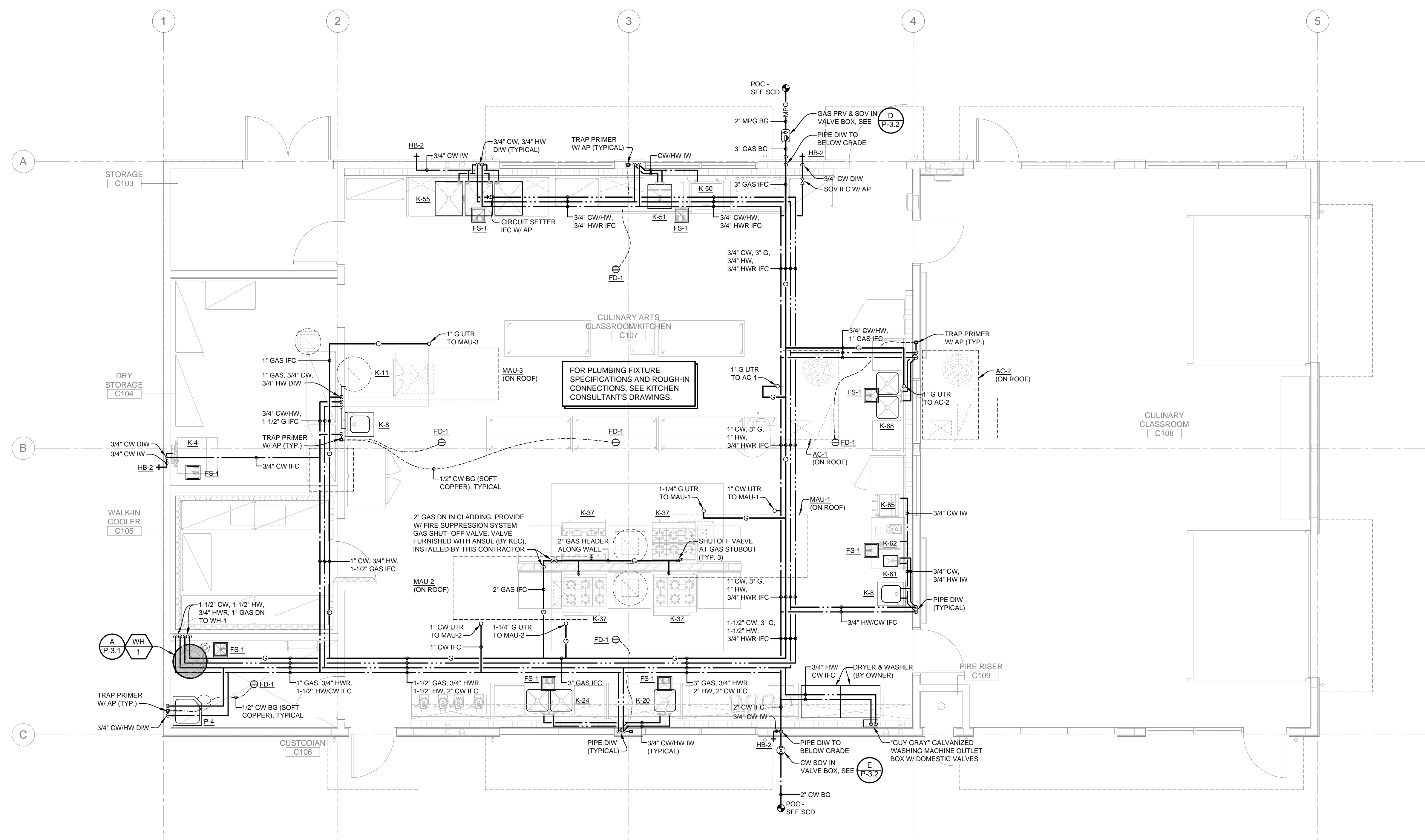
REVISIONS

NO.	DESCRIPTION

ARCH PROJECT NO. 1750.00
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 DRAWING SCALE: AS NOTED
 PTN: 61721-70
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 SHEET TITLE

ENLARGED
 PLBG PLAN -
 WATER & GAS

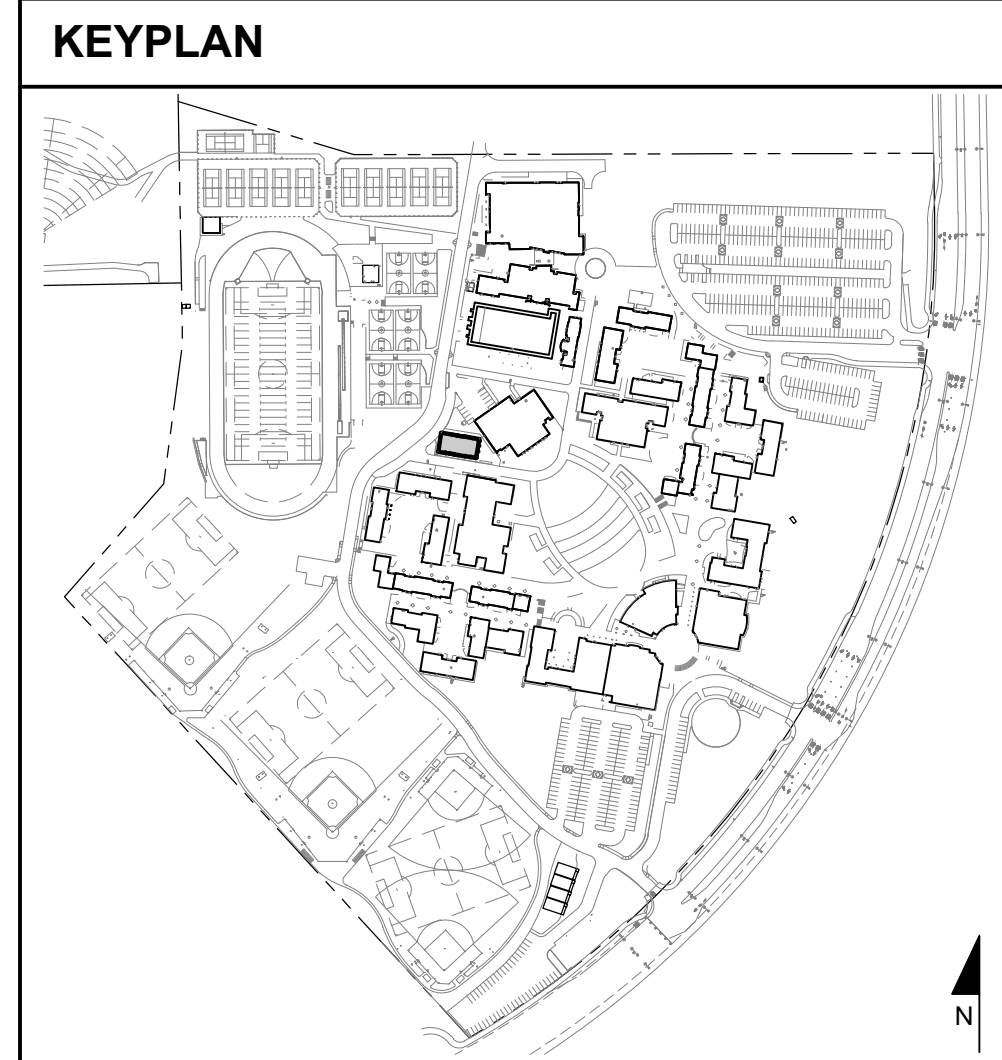
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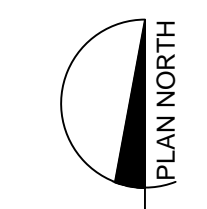
WALL TYPE LEGEND

ALL FRAMING IS 6" WOOD STUDS, U.O.N. S.S.D. FOR WOOD FRAMING SIZES

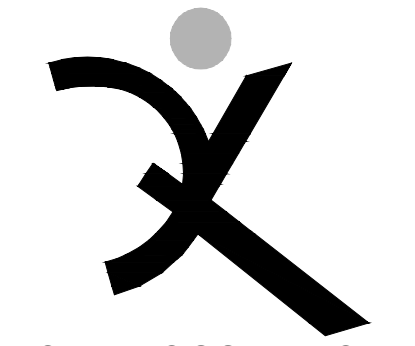
	WOOD FRAMED WALL
	WOOD FRAMED FURRED WALL
	WOOD FRAMED FURRED PARTIAL HEIGHT WALL
	WOOD FRAMED PARTIAL HEIGHT WALL AT COOKLINE



ENLARGED PLUMBING PLAN - WATER & GAS 1
 1/4" = 1'-0"



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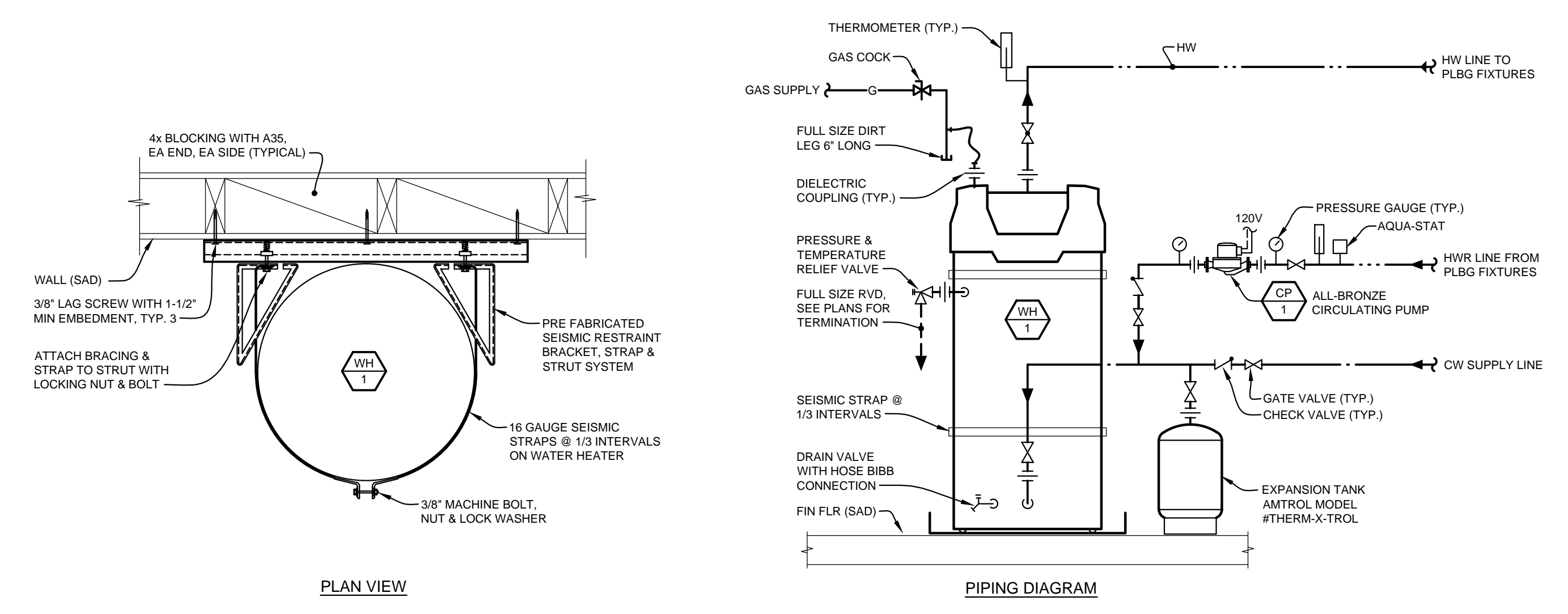
REVISIONS

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PTN: 61721-70

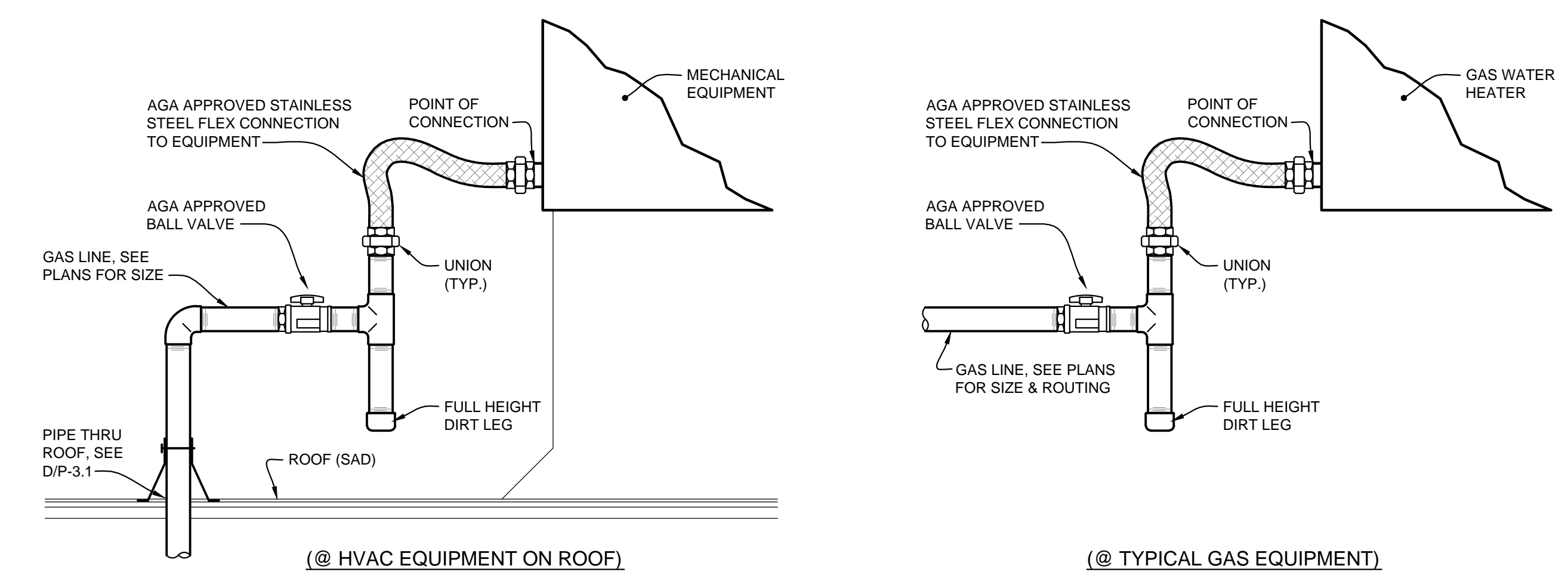
CD
FEBRUARY 27, 2019
SHEET TITLE

PLUMBING DETAILS & DIAGRAMS

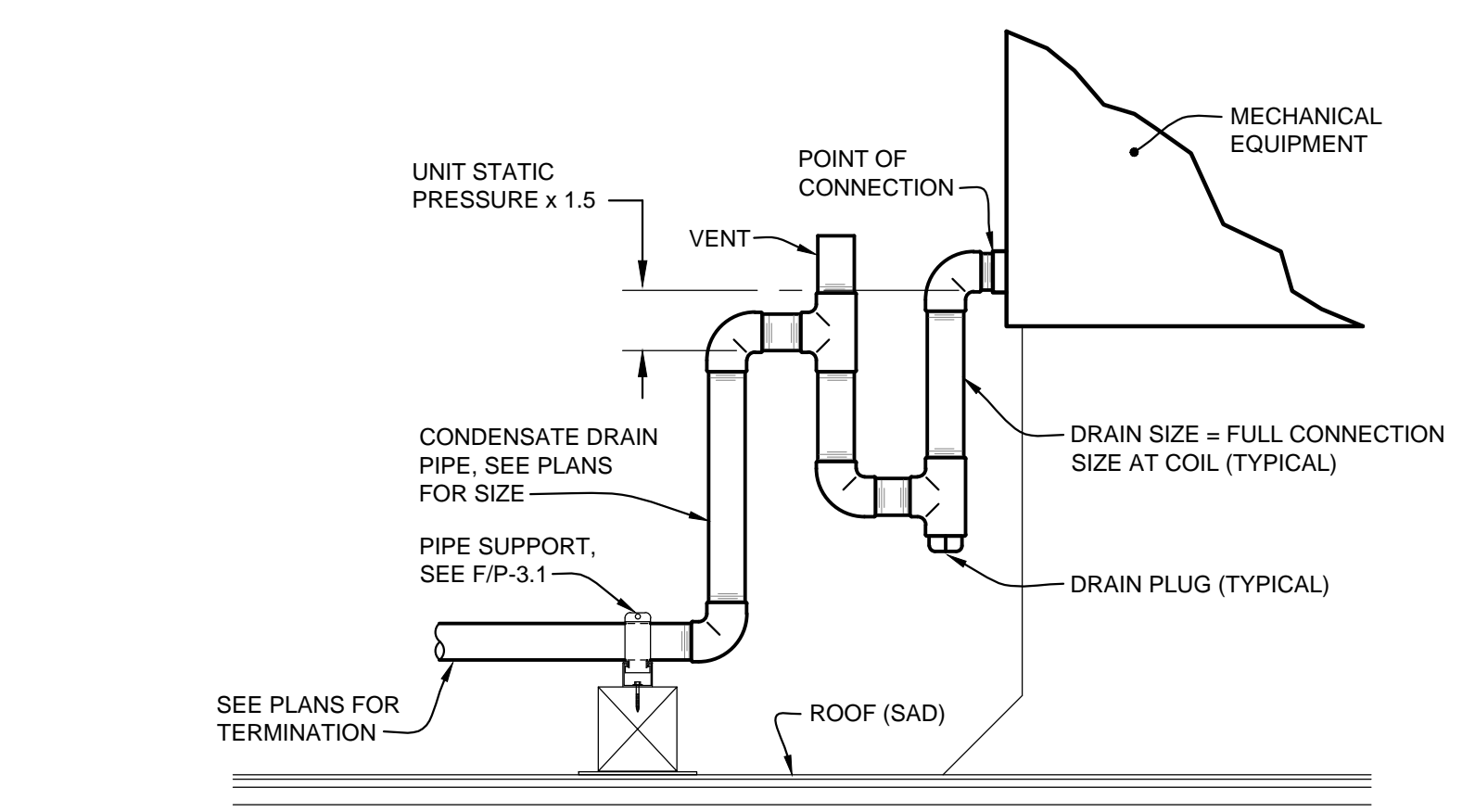
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P-3.1



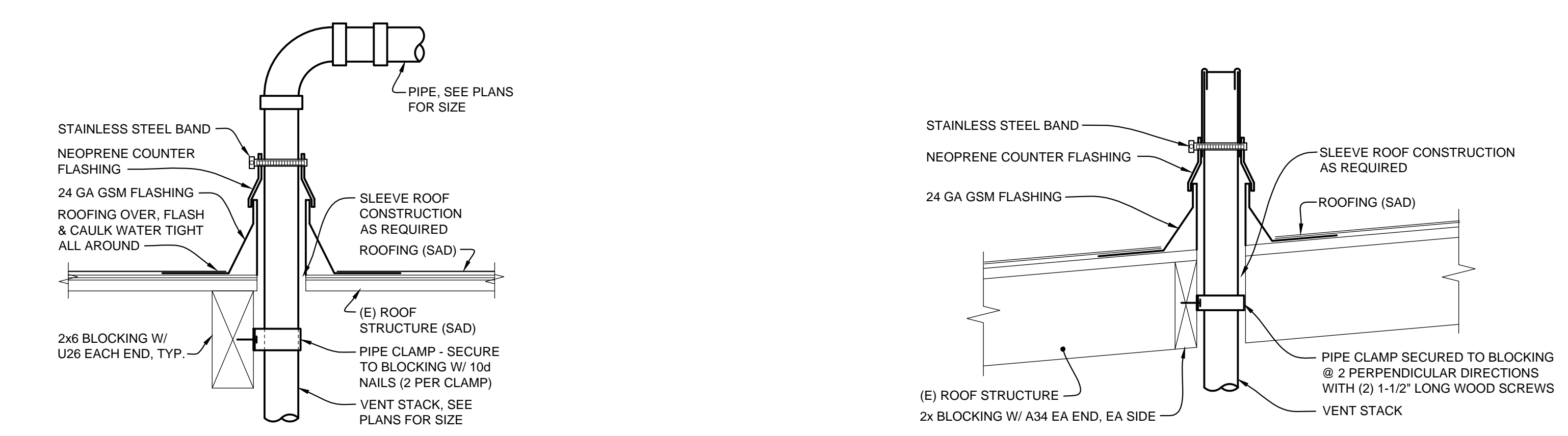
A WATER HEATER MOUNTING DETAILS & PIPING DIAGRAM
SCALE: NONE



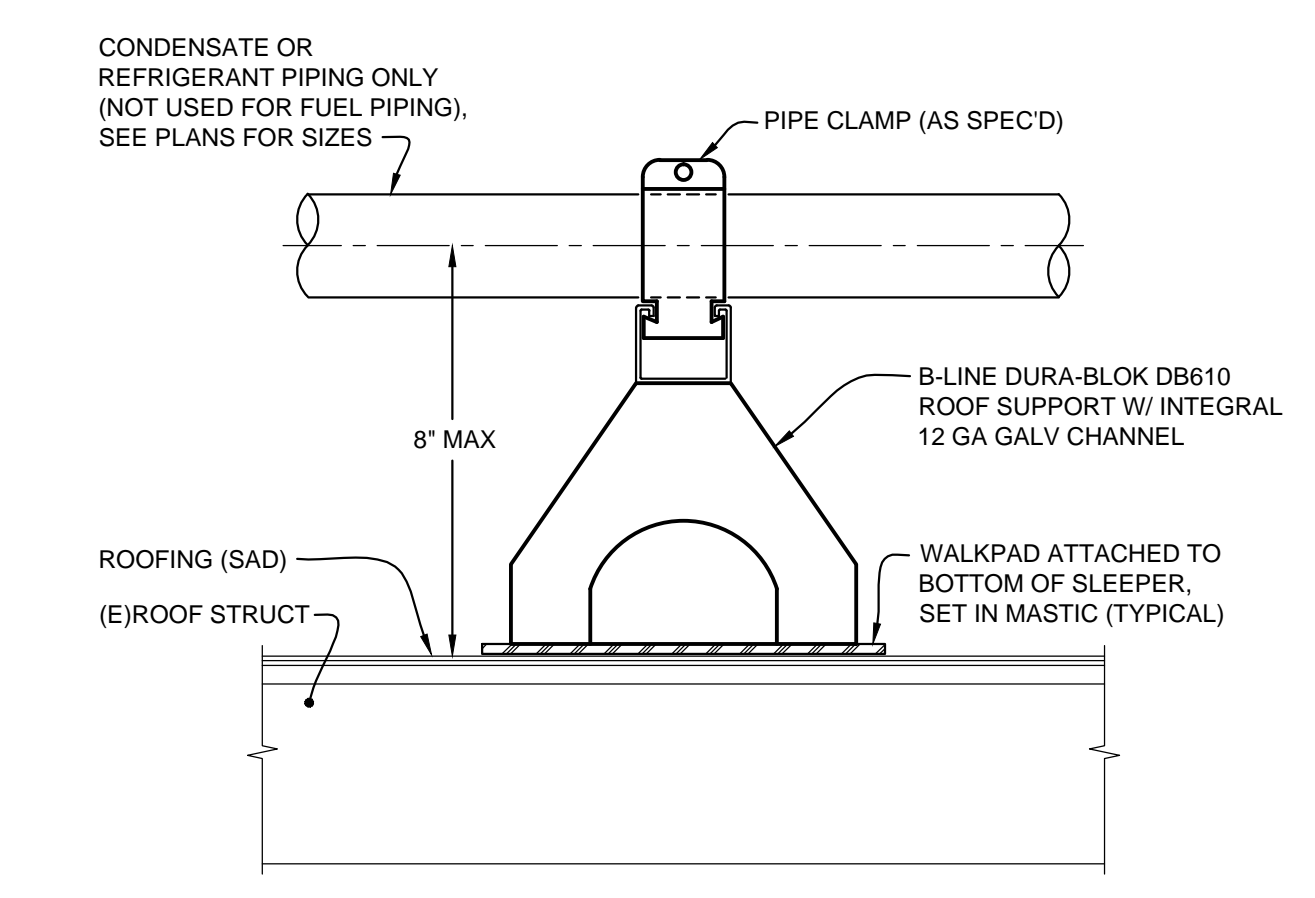
B TYPICAL GAS CONNECTION DETAILS
SCALE: NONE



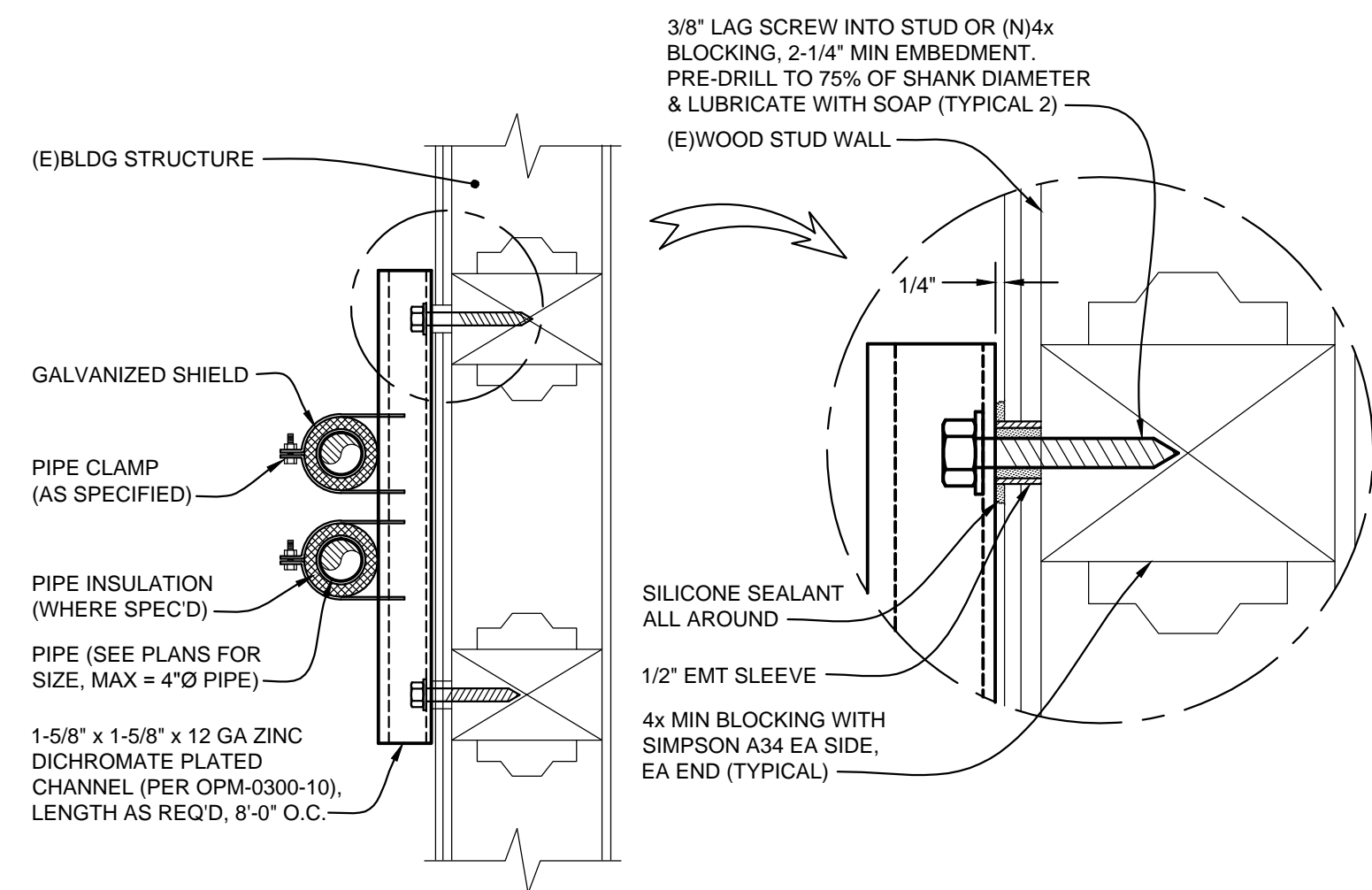
C TYPICAL CONDENSATE CONNECTION DETAIL
SCALE: NONE



D PIPE THRU ROOF DETAIL SCALE: NONE
E VENT THRU ROOF DETAIL SCALE: NONE

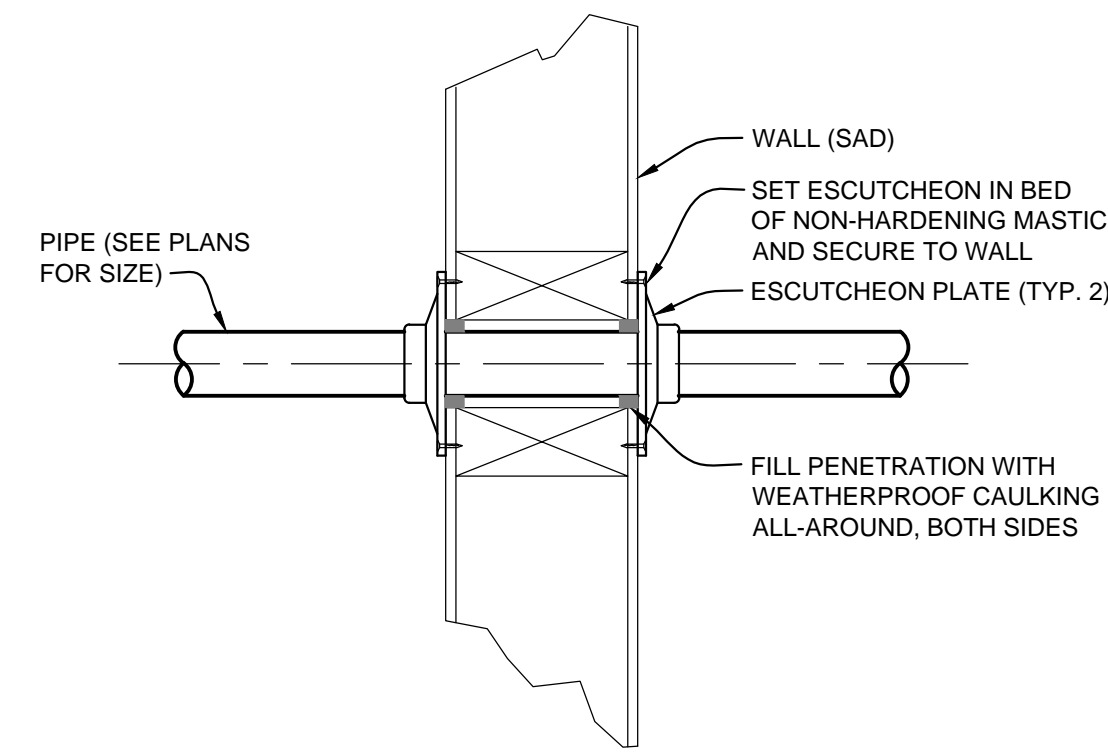


F PIPE SUPPORT ON ROOF DETAIL
SCALE: NONE
NOTE: SUPPORTS SHALL BE AT 8'-0\"/>



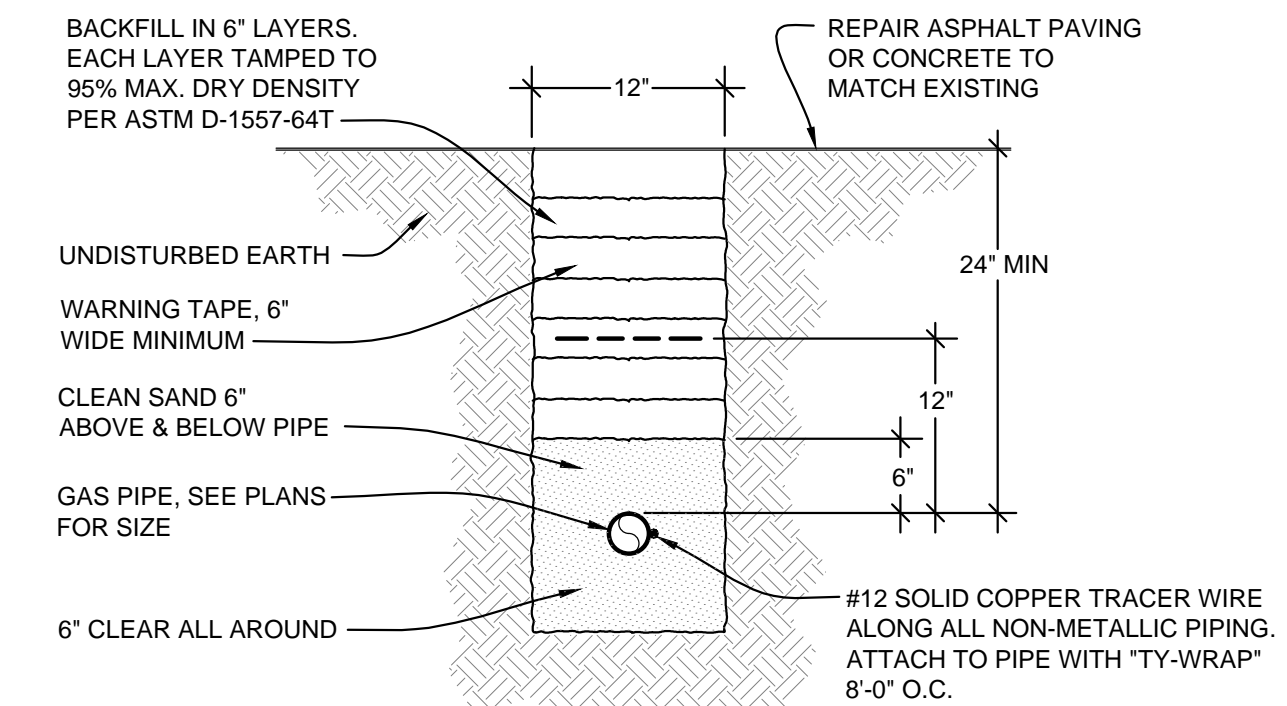
A CHANNEL ON WALL SUPPORT DETAIL

SCALE: NONE



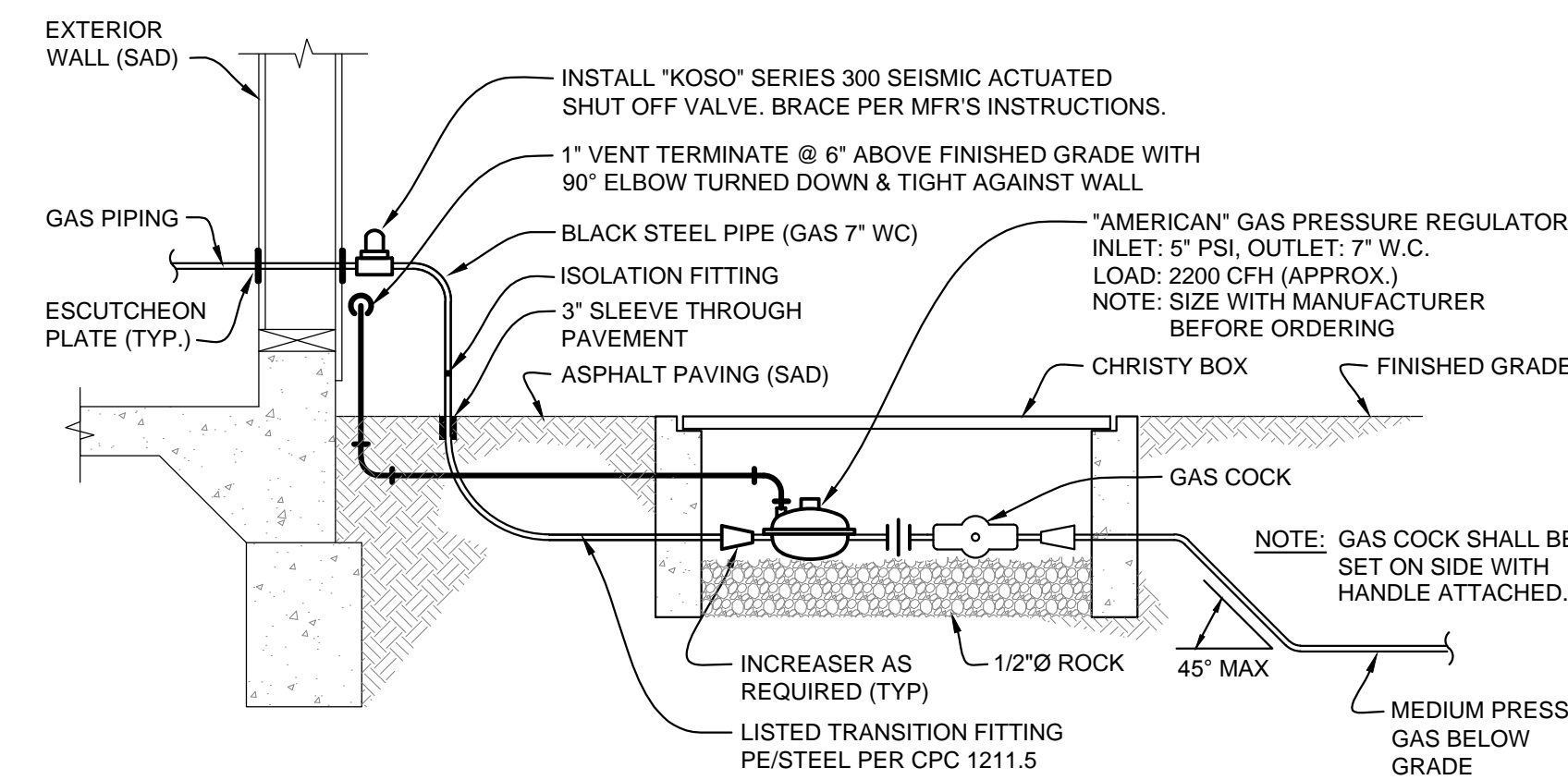
B PIPE THRU WALL DETAIL

SCALE: NONE



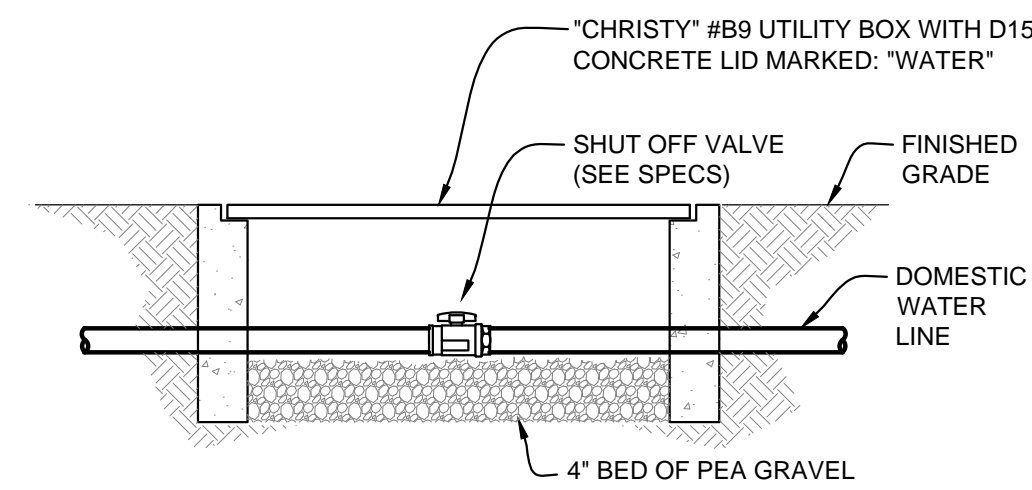
C GAS PIPE TRENCH DETAIL

SCALE: NONE



D GAS SHUTOFF VALVE & REGULATOR DETAIL

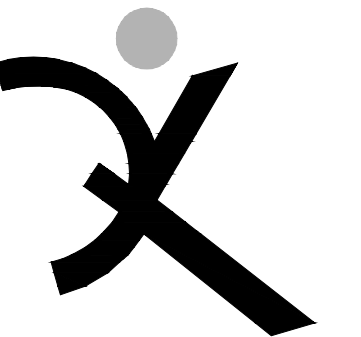
SCALE: NONE



E DOMESTIC WATER SHUT-OFF DETAIL

SCALE: NONE

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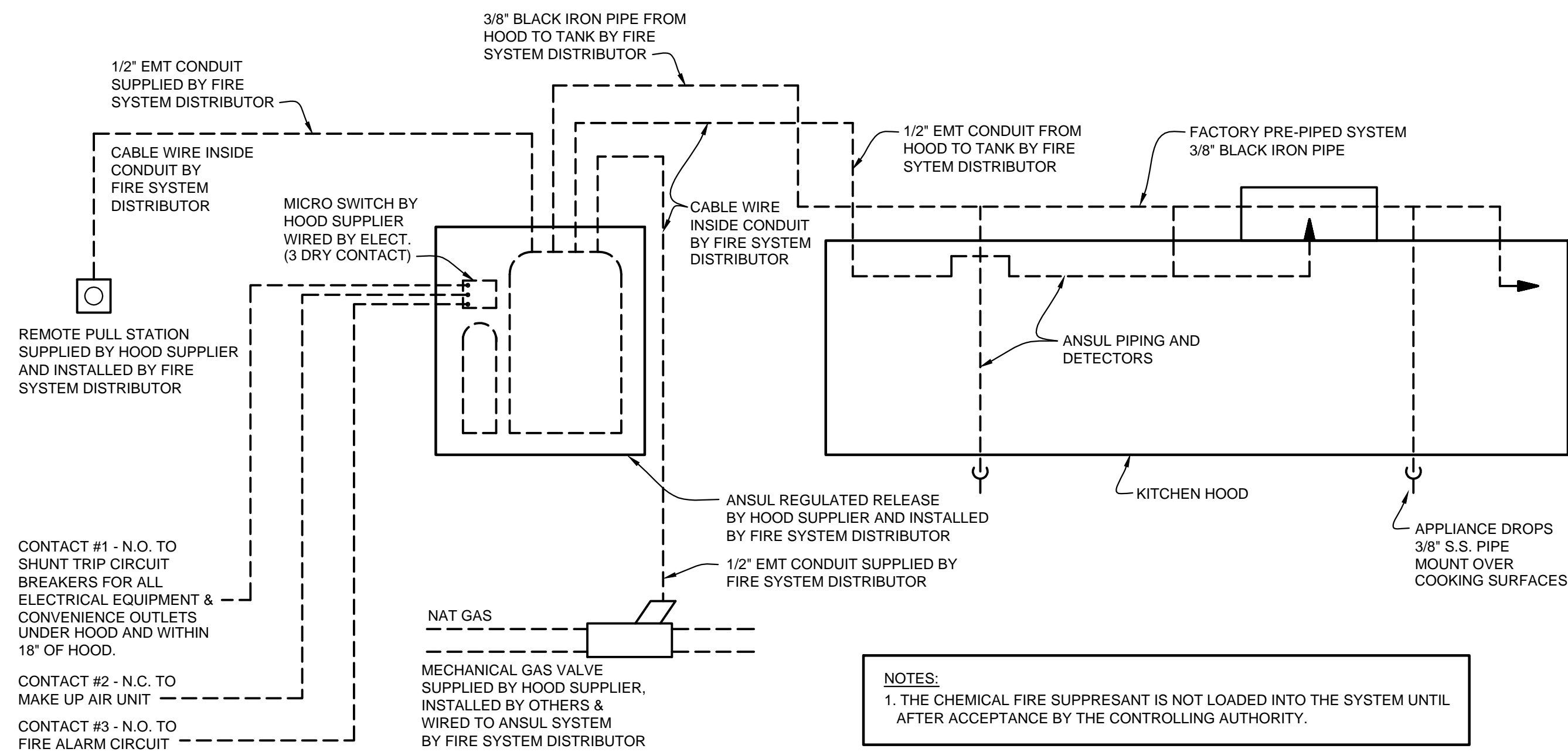
FEBRUARY 27, 2019

SHEET TITLE

PLUMBING
DETAILS

SHEET NUMBER

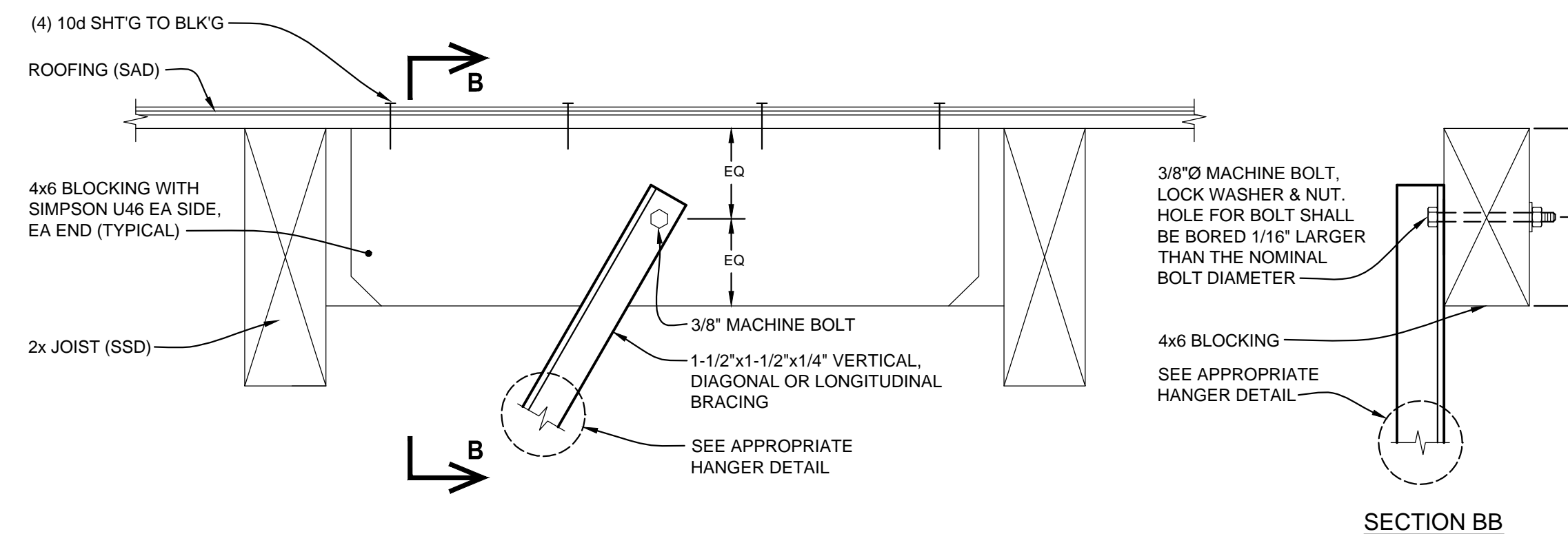
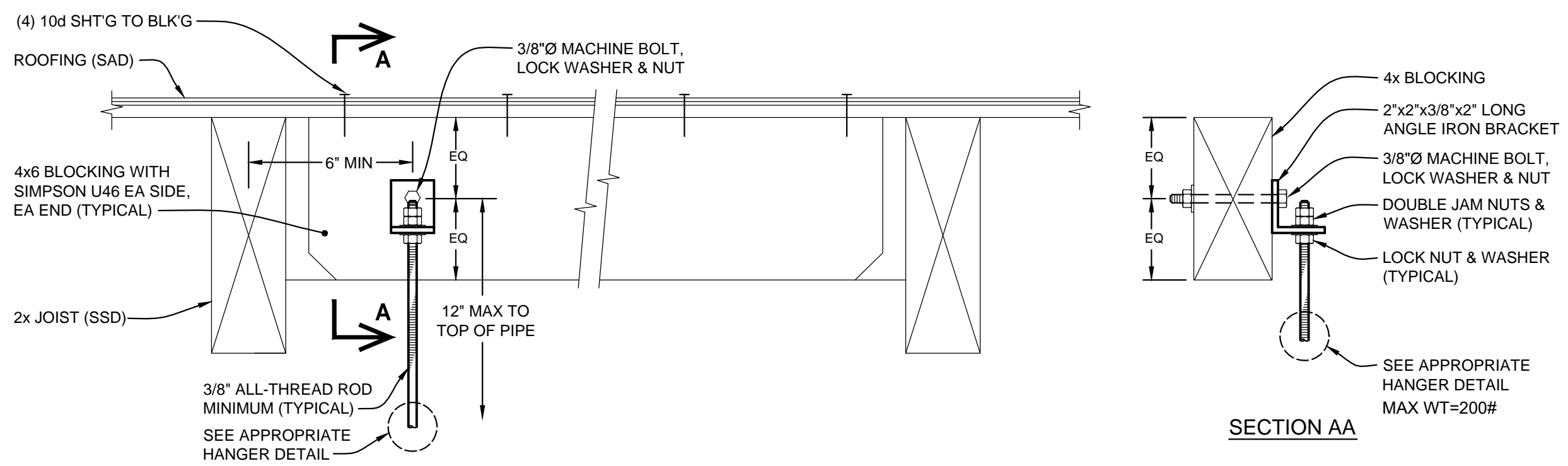
P-3.2



NOTES:
 1. THE CHEMICAL FIRE SUPPRESSANT IS NOT LOADED INTO THE SYSTEM UNTIL AFTER ACCEPTANCE BY THE CONTROLLING AUTHORITY.

A ANSUL FIRE SUPPRESSION SYSTEM

SCALE: NONE

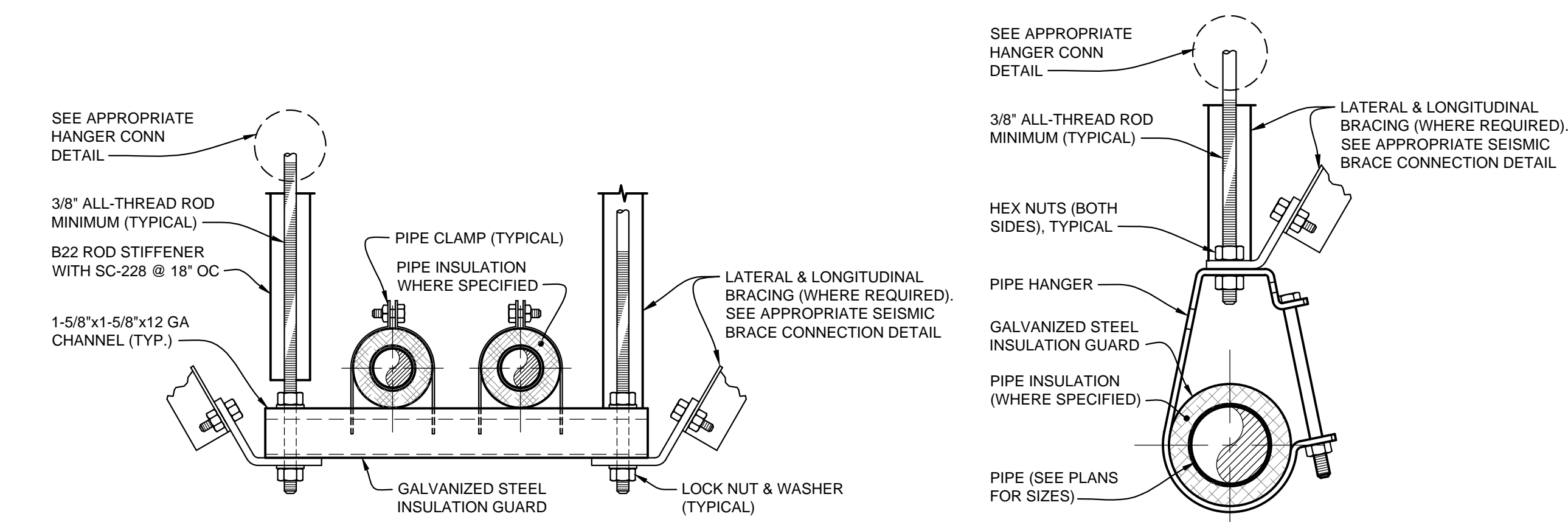


B HANGER CONNECTION DETAILS @ WOOD STRUCTURE

SCALE: NONE

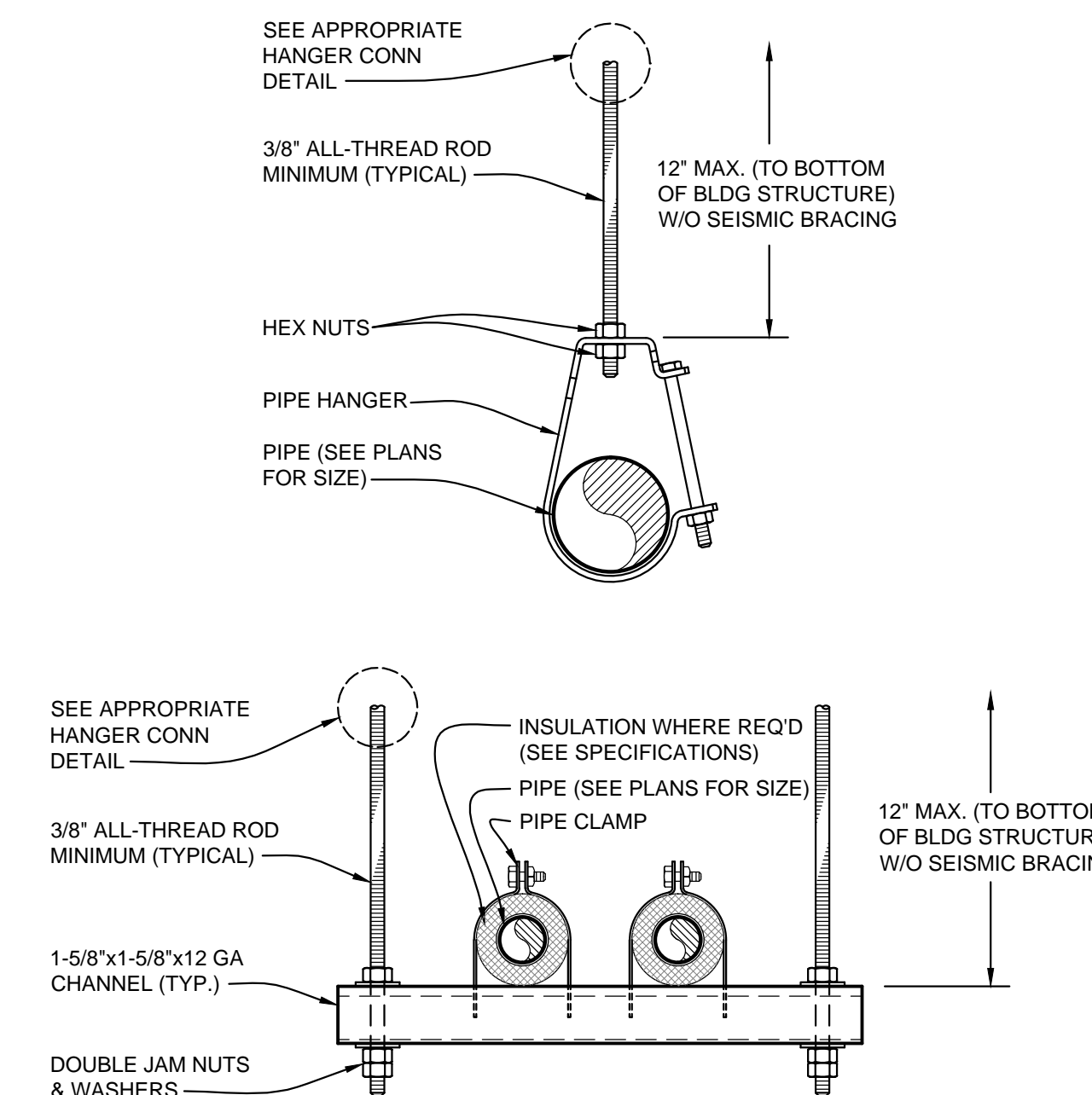
C SEISMIC BRACE CONNECTION DETAIL @ WOOD STRUCTURE

SCALE: NONE



D TYPICAL PIPE HANGER DETAILS

SCALE: NONE

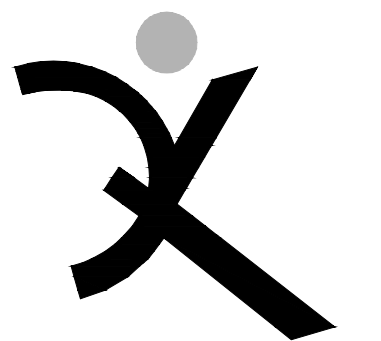


MINIMUM ROD SIZES (INCHES)	PIPE DIAMETER (INCHES)
3/8"	2" & SMALLER PIPE
1/2"	2-1/2" & 3" PIPE

GENERAL NOTES:

1. RUN PIPING TRAPEZE AS CLOSE AS POSSIBLE TO STRUCTURE.
2. SUPPORT PIPING AT A MAXIMUM OF 8'-0" INTERVALS.
3. SEE PLANS FOR PIPE SIZES.
4. CHANNEL DEFLECTION SHALL NOT EXCEED 1/360 OF THE SPAN BETWEEN RODS. DOUBLE-UP CHANNELS AS REQUIRED.
5. B-LINE CHANNEL ROD STIFFENER @ ALL-THREAD WHERE DIAGONAL BRACE OCCURS. INCLUDE SC228 ASSEMBLY AS RECOMMENDED BY MANUFACTURER.
6. NO BRACING IS REQUIRED ON PIPES WITH LESS THAN 1" I.D. AND ALL OTHER PIPES LESS THAN 2-1/2" IN DIAMETER, AND WHEN SUPPORTED LESS THAN 12" FROM BOTTOM OF ROOF STRUCTURE.
7. PIPING SUPPORTED MORE THAN 12" FROM BOTTOM OF ROOF STRUCTURE SHALL BE BRACED TO RESIST THE FORCES PRESCRIBED IN ASCE 7-05 SECTION 13.3 AS DEFINED IN ASCE 7-05 SECTION 13.6.7, 13.6.7, AND 13.6.5.5, ITEM 6, RESPECTIVELY. BRACING AND ATTACHMENTS TO THE STRUCTURE SHALL COMPLY WITH ONE OF THE OSHPD PREAPPROVALS WITH AN OPA NUMBER, AS MODIFIED TO SATISFY ANCHORAGE REQUIREMENTS OF ACI 318, APPENDIX D.

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REVISIONS

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FEBRUARY 27, 2019

SHEET TITLE

PLUMBING DETAILS

SHEET NUMBER

P-3.3

ELECTRICAL EQUIPMENT ANCHORAGE

ELECTRICAL ANCHORAGE NOTES:

ALL ELECTRICAL COMPONENTS SHALL BE ANCHORED AND INSTALLED PER THE DETAILS ON THE DSA APPROVED CONSTRUCTION DOCUMENTS...

- 1. ALL PERMANENT EQUIPMENT AND COMPONENTS.
2. TEMPORARY OR MOVABLE EQUIPMENT THAT IS PERMANENTLY ATTACHED (e.g. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER...

THE FOLLOWING ELECTRICAL SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE, BUT THE ATTACHMENT NEED NOT BE DETAILED ON THE PLANS...

- A. COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT.
B. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE OF DISTRIBUTED SYSTEMS, LESS THAN 5 POUNDS PER FOOT, WHICH ARE SUSPENDED FROM A ROOF OR FLOOR OR HUNG FROM WALL.

FOR THOSE ELEMENTS THAT DO NOT REQUIRE DETAILS ON THE APPROVED DRAWINGS, THE INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE DESIGN PROFESSIONAL...

ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE:

ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-10 SECTION 13.3 AS DEFINED IN ASCE 7-10 SECTION 13.6.5.6, 13.6.7, 13.6.8, AND 2016 CBC, SECTIONS 1616A.1.24, 1616A.1.25, AND 1616A.1.26.

THE METHOD OF SHOWING BRACING AND ATTACHMENTS TO THE STRUCTURE FOR THE IDENTIFIED DISTRIBUTION SYSTEM ARE AS NOTED BELOW. WHEN BRACING AND ATTACHMENTS ARE BASED ON A PRE-APPROVED INSTALLATION GUIDE (e.g., SMACNA OR OSHPD OPM), 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...

ELECTRICAL DISTRIBUTION SYSTEMS ARE: DETAILED ON THE APPROVED DRAWINGS WITH PROJECT SPECIFIC NOTES AND DETAILS.

LIGHT FIXTURES:

ALL LIGHT FIXTURES SHALL BE POSITIVELY ATTACHED TO THE CEILING SUSPENSION SYSTEMS BY MECHANICAL MEANS TO RESIST A HORIZONTAL FORCE EQUAL TO THE WEIGHT OF THE FIXTURE...

SURFACE-MOUNTED LIGHT FIXTURES SHALL BE ATTACHED TO THE MAIN RUNNER WITH AT LEAST TWO POSITIVE CLAMPING DEVICES. THE CLAMPING DEVICE SHALL COMPLETELY SURROUND THE SUPPORTING CEILING RUNNER AND BE MADE OF STEEL WITH A MINIMUM THICKNESS OF #14 GAGE...

LIGHT FIXTURES WEIGHING LESS THAN OR EQUAL TO 10 LB. SHALL HAVE A MINIMUM OF ONE (1) #12 GAGE SLACK SAFETY WIRE CONNECTED FROM THE FIXTURE HOUSING TO THE STRUCTURE ABOVE.

LIGHT FIXTURES WEIGHING GREATER THAN 10 LB. BUT LESS THAN OR EQUAL TO 56 LBS. MAY BE SUPPORTED DIRECTLY ON THE CEILING RUNNERS, BUT THEY SHALL HAVE A MINIMUM OF TWO (2) #12 GAGE SLACK SAFETY WIRES CONNECTED FROM THE FIXTURE HOUSING AT DIAGONAL CORNERS TO THE STRUCTURE ABOVE.

ALL LIGHT FIXTURES WEIGHING GREATER THAN 56 LB. SHALL BE INDEPENDENTLY SUPPORTED BY NOT LESS THAN FOUR (4) TAUT #12 GAGE HANGER WIRES (ONE AT EACH CORNER) ATTACHED FROM THE FIXTURE HOUSING TO THE STRUCTURE ABOVE OR OTHER APPROVED HANGERS...

SYMBOLS LIST

Table listing electrical symbols and their descriptions, including fire alarm system components, mechanical equipment, and utility meters.

ABBREVIATIONS

Table listing abbreviations and their corresponding descriptions, such as A.F.F. ABOVE FINISHED FLOOR, C. CONDUIT, and E. ELECTRICAL CONTRACTOR.

SYMBOLS LIST

Table listing electrical symbols and their descriptions, including main switchboards, flush mounted panelboards, and various receptacles.

SYMBOLS LIST

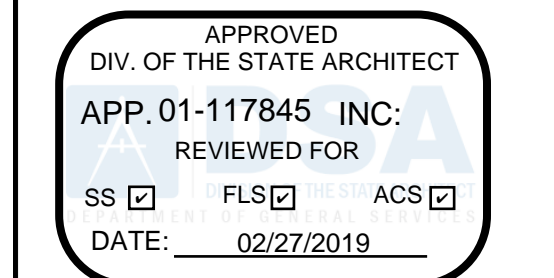
Table listing electrical symbols and their descriptions, including luminaire types, emergency luminaires, and various lighting fixtures.

GENERAL NOTES

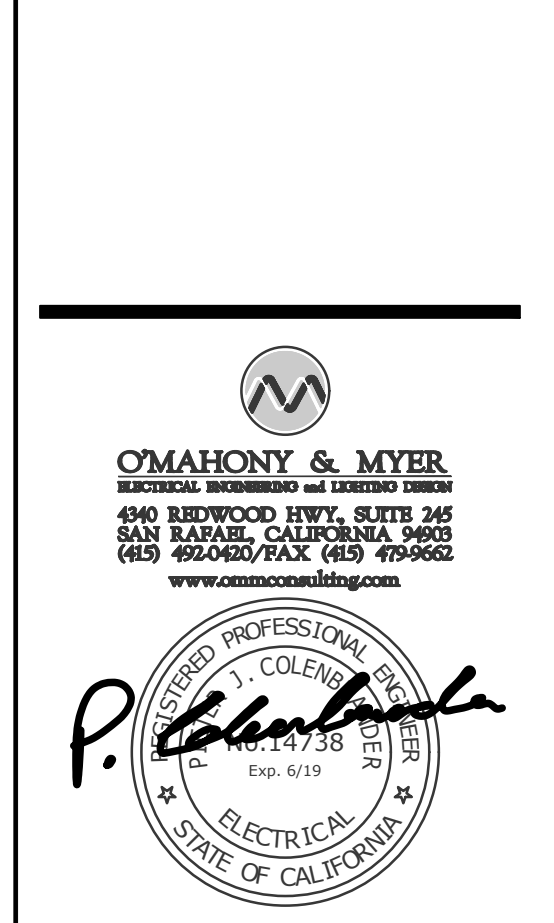
- 1. PRIOR TO BID THE CONTRACTOR SHALL VISIT THE SITE TO ADEQUATELY DETERMINE ALL PRE-EXISTING CONDITIONS. BY THE ACT OF SUBMITTING A BID, THE CONTRACTOR WILL BE DEEMED TO HAVE COMPLIED WITH THE FOREGOING...
2. PROVIDE PARITY SIZED GREEN GROUND WIRE IN ALL POWER CONDUITS, BRANCH CIRCUITS (LIGHTING & POWER) AND HOMERUNS...

LIST OF DRAWINGS

Table listing drawing titles and their corresponding sheet numbers, such as E-0.1 SYMBOLS LIST, GENERAL NOTES & LIST OF DRAWINGS, and E-1.1 SITE PLAN - ELECTRICAL & TELECOM.



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Table for REVISIONS with columns for revision number, description, and date.

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DRAWING SCALE: SCALE
PTN: 61721-70
CD
FEBRUARY 27, 2019
SHEET TITLE

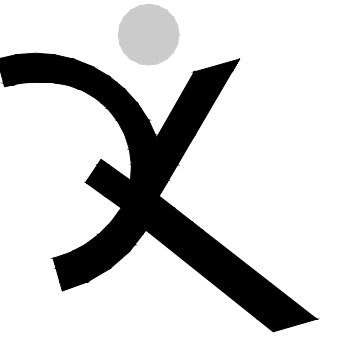
SYMBOLS LIST, GENERAL NOTES, & LIST OF DRAWINGS

SHEET NUMBER
E-0.1

LUMINAIRE SCHEDULE

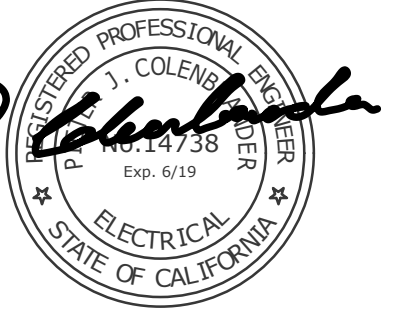
TYPE	MOUNTING	DESCRIPTION	MANUFACTURER CATALOG #	LIGHT SOURCE	POWER SUPPLY	VOLTS	INPUT WATTS
EX1	WALL SURFACE	SINGLE FACE WALL MOUNTED LED EXIT SIGN. DIE CAST ALUMINUM HOUSING. REMOVABLE FACE SHIELD WITH FIELD SELECTABLE DIRECTIONAL CHEVRONS. INTEGRAL BATTERY BACKUP WITH SELF TEST, SELF DIAGNOSTICS. GREEN LETTERING. FACE & BODY FINISHES AVAILABLE IN ALL BRUSHED ALUMINUM, ALL BLACK, ALL WHITE OR CUSTOM COLOR. 13-1/16"W X 9-5/8"H X 5/8"D.	EVENLITE RZR3-EM-G-1-FINISH-1B-SD	LED	NON-DIM	120V	2.4W
EX2	WALL SURFACE	SINGLE FACE PHOTOLUMINESCENT (NON-ELECTRIC) EXIT SIGN. ABS GREEN FACE PANEL WITH 7"H X 7/8" STROKE PHOTOLUMINESCENT LETTERING. INCLUDES FIELD APPLIED DIRECTIONAL CHEVRONS. 16"W X 8-5/8"H X 1/4"D. 6-3/8"W X 1-3/8"D UNIVERSAL MOUNTING BRACKET.	EVENLITE PL100-1-G-U	PHOTO-LUMINESCENT	NON-ELECTRIC	NA	NA
LA1	WALL SEMI RECESSED	WALL MOUNTED LED SCONCE. DIE CAST ALUMINUM HOUSING, FACEPLATE WITH VERTICAL AND HORIZONTAL DOUBLE HEMISPHERIC RIBS. SOLID UPPER "EYELID" FOR CUTOFF OPTICS. FLAT TEMPERED GLASS LENS WITH INTERNAL SANDBLAST FINISH. STANDARD POWDERCOAT FINISHES ARE BLACK, DARK BRONZE, WHITE, PLATINUM SILVER, STEALTH GRAY, LIGHT GRAY. CUSTOM COLORS AVAILABLE. FINISH TO MATCH ADJACENT BUILDINGS, SELECTED BY THE ARCHITECT. 10-7/8" DIA X 6-7/8"D.	KIM LIGHTING WF32H-18L3KUV-FINISH	3000K LED 1530 LUMENS	NON-DIM	120V	30W
LB1	CEILING RECESSED	RECESSED LED 2X2 TROFFER. DIE FORMED CRS HOUSING. FULL FRAME FLAT ALUMINUM DOOR (NO REVEAL). 1/8" THICK FROSTED ACRYLIC #12 PRISMATIC LENS. TRIPLE GASKET WITH INVERTED LENS INSTALLATION. 24"L X 24"W X 4-3/8"D. SUITABLE FOR NEMA TYPE "G" CEILING GRID. EARTHQUAKE CLIPS. PAF WHITE FINISH.	WILLIAMS 50G-S22-L65/835-F-AF12125 MOD INVERT LENS-TG-EQCLIPS-DIM-120	3500K/80CRI LED 6500 LUMENS	0-10V 10-100% DIMMING	120V	56W
LB2	CEILING RECESSED	SIMILAR TO TYPE LB2 EXCEPT 24" X 48".	WILLIAMS 50G-S24-L59/835-F-AF12125 MOD INVERT LENS-TG-EQCLIPS-DIM-120	3500K CCT LED 5900 LUMENS	0-10V 10-100% DIMMING	120V	48W
LC1	CEILING SUSPENDED	CABLE SUSPENDED NARROW LINEAR LED WITH WRAP AROUND DIFFUSER. DIE FORM STEEL HOUSING. SPRING FASTENED ALUMINUM END PLATES. ROUNDED SINGLE PIECE EXTRUDED ACRYLIC DIFFUSER. 48"L ADJUSTABLE AIRCRAFT CABLE MOUNTING. TEXTURED MATTE WHITE FINISH. 96"L X 3"H X 2-3/8"D. WEIGHT: 16 LBS.	PRUDENTIAL LIGHTING R1-LED35-MO-WA-TMW-UNV-CA4 8-X3-DM10-PRUBIN	3500K/80CRI LED 5488 LUMENS	0-10V 10-100% DIMMING	120V	56W
LD1	CEILING SUSPENDED	CABLE SUSPENDED NARROW LINEAR LED WITH DIRECT/INDIRECT DISTRIBUTION (44%U/56%D). EXTRUDED ALUMINUM HOUSING. DIE CAST ALUMINUM FLAT END CAPS. DIE FORMED CRS REFLECTORS. WIDE SPREAD INDIRECT OPTICS, FLUSH BOTTOM LENS. FULLY ADJUSTABLE AIRCRAFT CABLE SUSPENSION. STANDARD WHITE FINISH. 20'L X 4-3/4"H X 2-1/4"D. WEIGHT: 58 LBS.	FINELITE HP-2ID-20'-B-H-835-WSO-F-96LG-1 20V-FA-FE-SC-VERIFY CEILING TYPE	3500K/80CRI LED 488 LUMENS UP/ 620 LUMENS DN PER FOOT	0-10V 10-100% DIMMING	120V	234W
LE1	CEILING RECESSED	RECESSED LED LINEAR WALL WASHER. DIE FORMED CRS HOUSING AND REFLECTOR. FROSTED UV STABILIZED AND IMPACT RESISTANT LENS. STANDARD WHITE FINISH. 48"L X 8"W X 4"D.	FINELITE HPW-LED-4'-FR-H-8-35-120V-SC-V ERIFY CEILING TYPE	3500K/80CRI LED 3038 LUMENS	0-10V 10-100% DIMMING	120V	28.4W
LF1	SURFACE	SURFACE MOUNTED LED FLOODLIGHT. DIE CAST ALUMINUM SEMI-CYLINDRICAL HOUSING & SEPARATE DOOR FRAME. SILICONE GASKETING THROUGHOUT. WIDE FLOOD OPTICS. FIXED HOOD GLARE SHIELD. DIE CAST ALUMINUM LOCKING SWIVEL MOUNTING KNUCKLE WITH 1/2" NPSM THREAD. STANDARD FINISHES ARE BLACK, DARK BRONZE, PLATINUM SILVER, LIGHT FRAY, TITANIUM, WHITE. CUSTOM FINISH AVAILABLE. ARCHITECT TO SELECT FINISH TO MATCH ADJACENT LUMINAIRES. 10.5"W X 6"H X 5.1"D, MAX 9"H.	KIM LIGHTING CFL-WF-21-3K-35-UV-FINISH-FH-C FL	3000K/70+CRI LED 4067 LUMENS	NON-DIM 350mA	120V	26W

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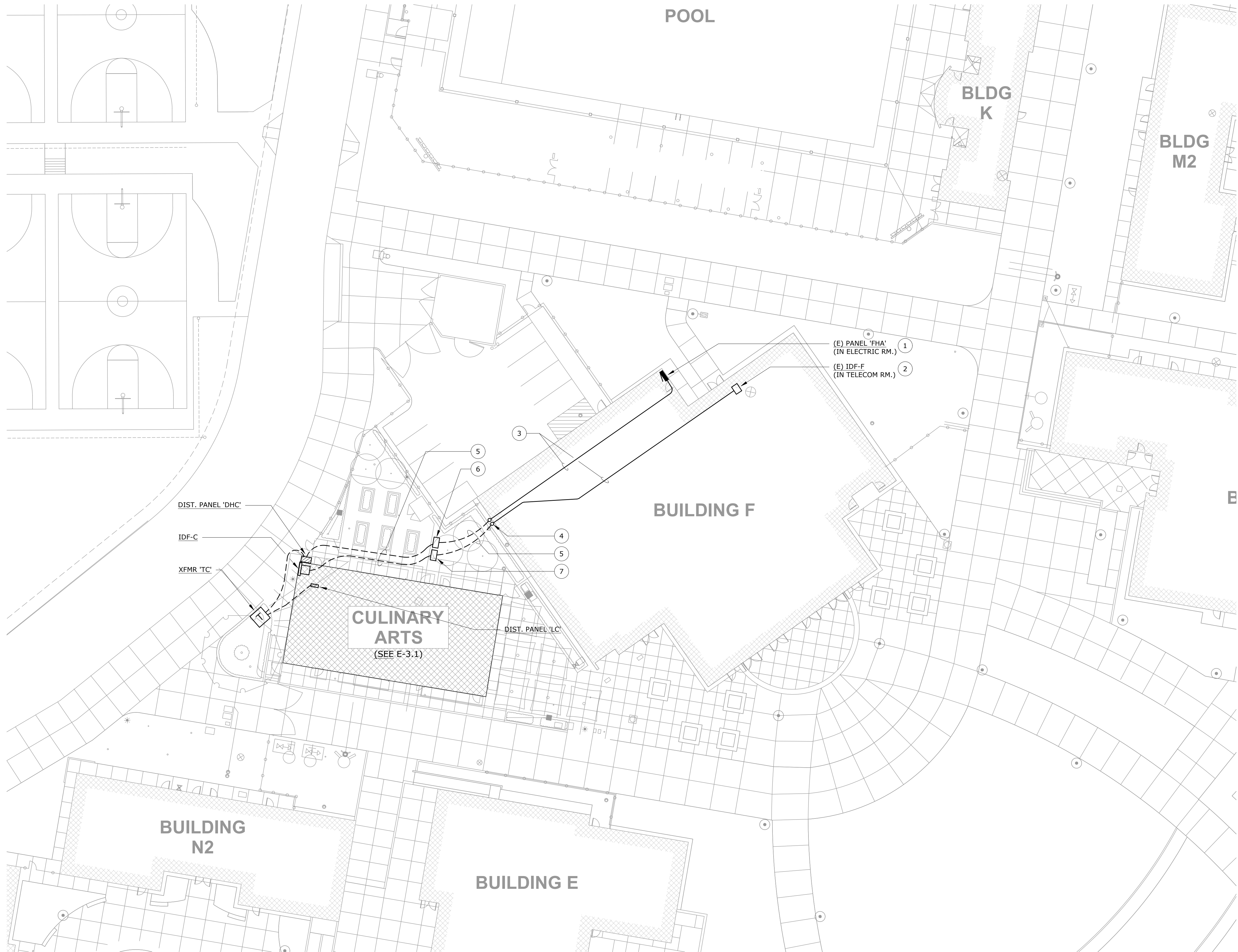
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PTN: 61721-70

CD
FEBRUARY 27, 2019
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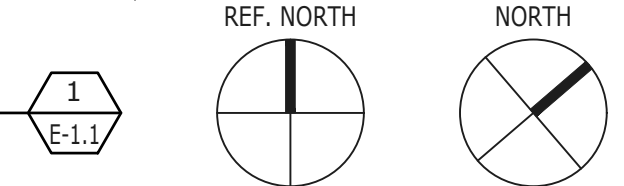
LUMINAIRE SCHEDULE

SHEET NUMBER

E-0.2

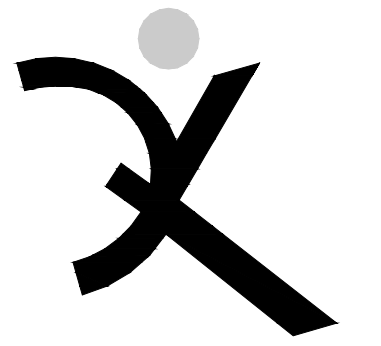


SITE PLAN - ELECTRICAL & TELECOM/SIGNAL
 SCALE: 1" = 20'-0"



- ### NUMBERED SHEET NOTES
- 1 PROVIDE AND INSTALL (N) 150A/3P BREAKER IN (E) PANEL AVAILABLE SPACE 10/12/14. (N) BREAKER TO MATCH (E) IN MANUFACTURER AND AIC RATINGS. SEE E-5.1 FOR SINGLE LINE DIAGRAM.
 - 2 TERMINATE (N) FIBER AND COPPER AT (E) FIBER PATCH PANEL AND COPPER PUNCH DOWN BLOCKS AT TELECOM IDF. EXTEND TO (N) BUILDING PER 2/ AND 3/E-5.1.
 - 3 EXTEND OVERHEAD ABOVE (E) ACCESSIBLE DROPPED CEILING SPACES THROUGH BUILDING; (1) 2" POWER; (2) 2" TELECOM/CLOCK/PA. SEE FE-1.1 FOR FIRE ALARM RACEWAY AND ROUTING.
 - 4 PENETRATE (E) EXTERIOR WALL, SEAL WEATHER-TIGHT, AND TRANSITION DOWN WALL AT EXTERIOR WITH CONDULET ELBOWS FOR POWER, TELECOM, AND FIRE ALARM. SEE FE-1.1 FOR FIRE ALARM.
 - 5 UNDERGROUND SCHEDULE 40 PVC FOR POWER, TELECOM, AND FIRE ALARM. SEE FE-1.1 FOR FIRE ALARM.
 - 6 (N) FLUSH IN-GROUND PULLBOX, CHRISTY #N16, WITH LABELED LID "POWER". CO-LOCATE WITH TELECOM AND FIRE ALARM BOXES. COORDINATE EXACT LOCATION AND ORIENTATION TO SITE LAYOUT WITH ARCHITECT, PRIOR TO ROUGH-IN. SEE FE-1.1 FOR FIRE ALARM.
 - 7 (N) FLUSH IN-GROUND PULLBOX, CHRISTY #N16, WITH LABELED LID "COMMUNICATIONS". CO-LOCATE WITH POWER AND FIRE ALARM BOXES. COORDINATE EXACT LOCATION AND ORIENTATION TO SITE LAYOUT WITH ARCHITECT, PRIOR TO ROUGH-IN. SEE FE-1.1 FOR FIRE ALARM.

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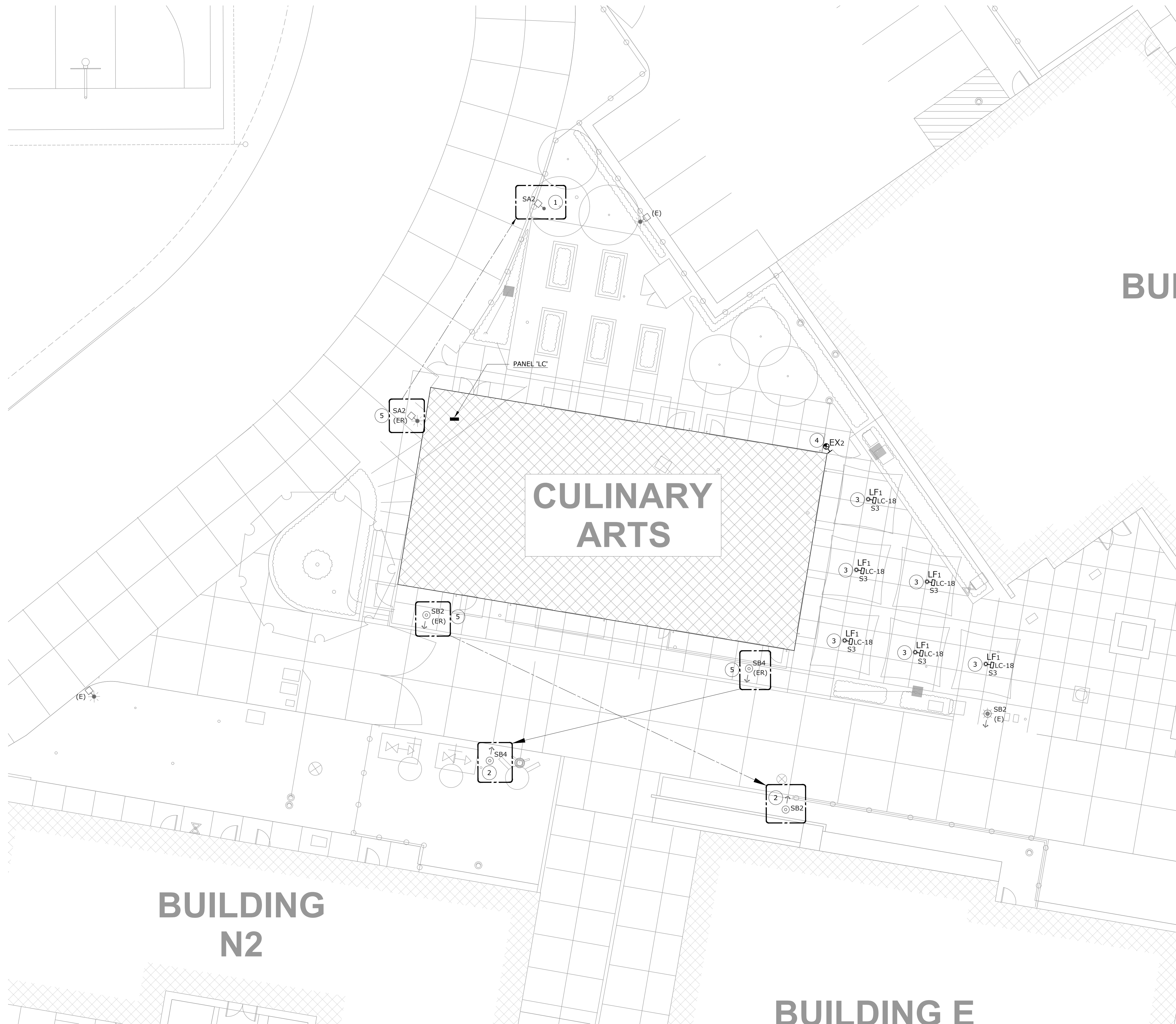
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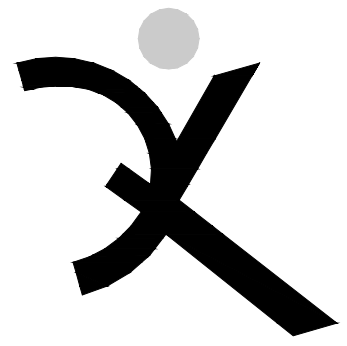
SITE PLAN - ELECTRICAL & TELECOM/SIGNAL

SHEET NUMBER
E-1.1



- ### NUMBERED SHEET NOTES
- EXISTING ROADWAY LUMINAIRE RELOCATED TO LOCATION INDICATED. SEE DETAIL 6/E-7.1.
 - EXISTING PATHWAY LUMINAIRE RELOCATED TO LOCATION INDICATED. SEE DETAIL 7/E-7.1.
 - LUMINAIRE SURFACE MOUNTED TO SHADE STRUCTURE COLUMN AT 9'-0" A.F.G. TO THE BOTTOM OF THE LUMINAIRE.
 - NON-POWERED PHOTO LUMINESCENT EXIT SIGN SURFACE MOUNTED TO GATE.
 - INTERCEPT (E) CONDUIT & WIRING WITH A CHRISTY N9 PULLBOX. EXTEND TO EXISTING LUMINAIRE'S NEW LOCATION CALLED OUT WITH SHEET NOTE 1. PROVIDE 1" C. WITH (3)#10 & (1)#10G.

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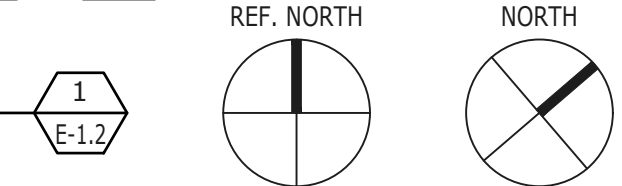
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SHEET TITLE

SITE PLAN - LIGHTING

SHEET NUMBER
E-1.2

SITE PLAN - LIGHTING
SCALE: 1" = 10'-0"

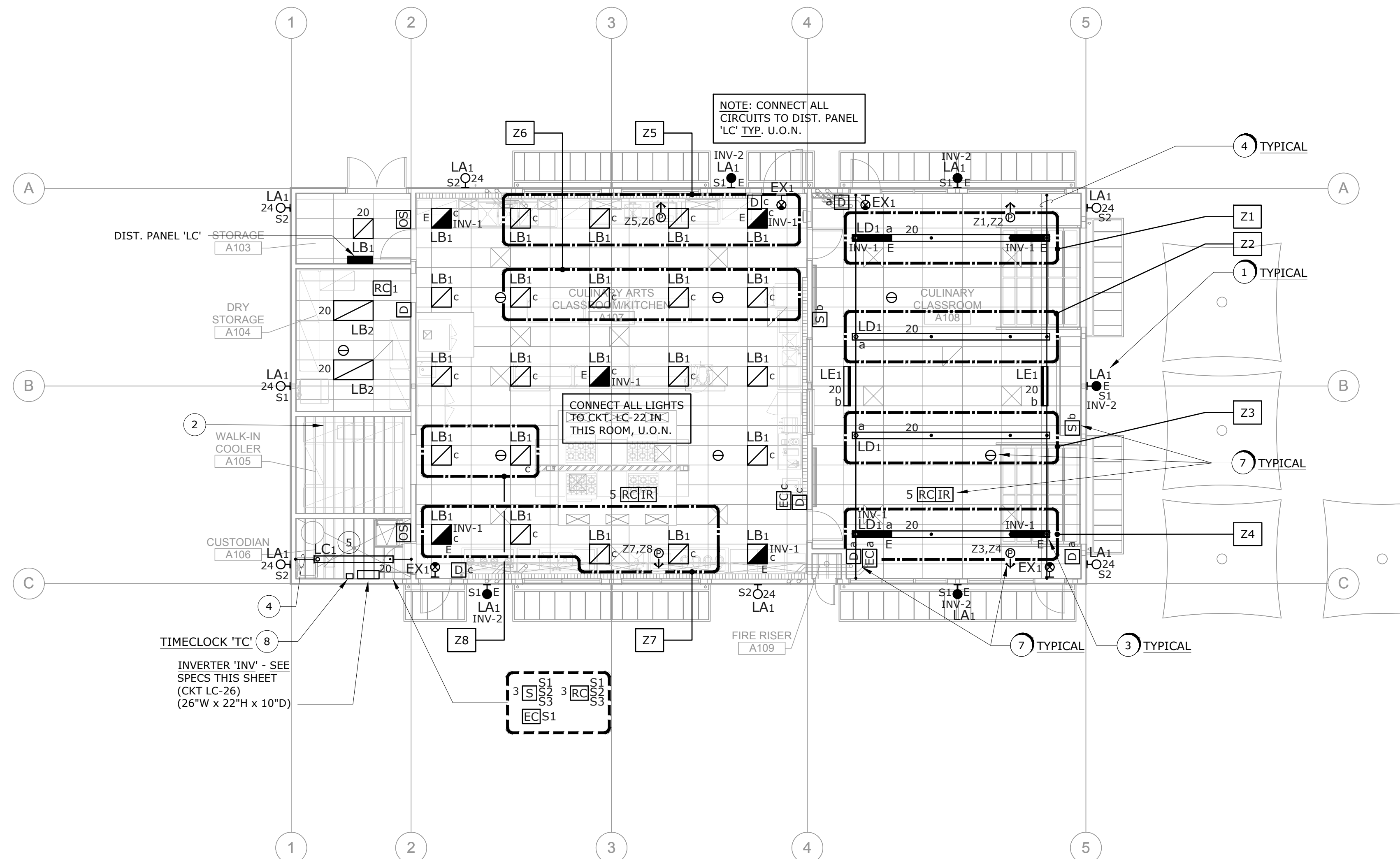


INVERTER UNIT SPECIFICATIONS 'INV'

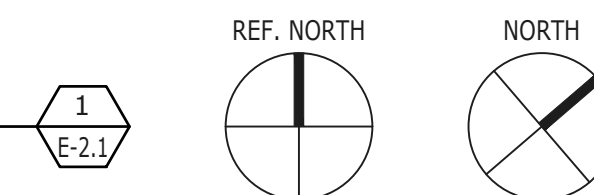
- ALL EMERGENCY SOURCE CIRCUITS SHALL BE INSTALLED IN SEPARATE RACEWAYS (FROM NORMAL POWER), PER 2014 NEC 700.10(B), OR APPLICABLE CODE AT THE TIME OF PERMITTING.
- REFER ALSO TO SPECIFICATIONS SECTION 265101. UNIT SHALL BE MYERS "ILLUMINATOR LV" OR APPROVED EQUAL NO. LV-4-R-1-B2002-F.
- UNIT SHALL BE 120V 1PH 2W INPUT, 120V OUTPUT, RATED .75KVA WITH 20AMP OUTPUT CIRCUIT BREAKERS.
- INPUT SHALL BE EQUIPPED WITH ANSI 62.41 SURGE PROTECTION AND 1HZ NOMINAL SYNCHRONIZING SLEW RATE.
- OUTPUT VOLTAGE STATIC REGULATION SHALL BE +/- 5% FOR 100% RESISTIVE LOAD.
- OUTPUT DISTORTION SHALL BE 5% THD MAXIMUM.
- OVERLOAD RATING: 150% MOMENTARY; 120% FOR 5 MINUTES.
- TRANSFER TIME: NO BREAK
- BATTERY SHALL BE SEALED LEAD CALCIUM, 10 YEAR LIFE, 90 MINUTE RUN TIME, WITH AUTO-DISCONNECT FOR LOW BATTERY VOLTAGE.
- PROVIDE RS232 PORT FOR EXTERNAL COMMUNICATIONS.
- INVERTER SHALL BE PWM TYPE.
- PROVIDE MAINTENANCE BYPASS.
- PROVIDE IN NEMA 1 ENCLOSURE, FRONT ACCESS ONLY.
- PROVIDE FACTORY STARTUP AND TEST OF UNIT TO THE SATISFACTION OF BUILDING INSPECTION AUTHORITIES AND WITH MAXIMUM 4 HOURS OF PERSONNEL TRAINING FOLLOWING STARTUP.
- AUTO SELF TESTING.
- PROVIDE (2) OUTPUT CIRCUIT BREAKERS RATED 20AMPS EACH WITH DEDICATED CIRCUITS FOR EACH OF THE EMERGENCY LIGHTING LOADS.
- SEISMIC QUALIFIED.
- SUBMIT FOR REVIEW AND APPROVAL.

NUMBERED SHEET NOTES

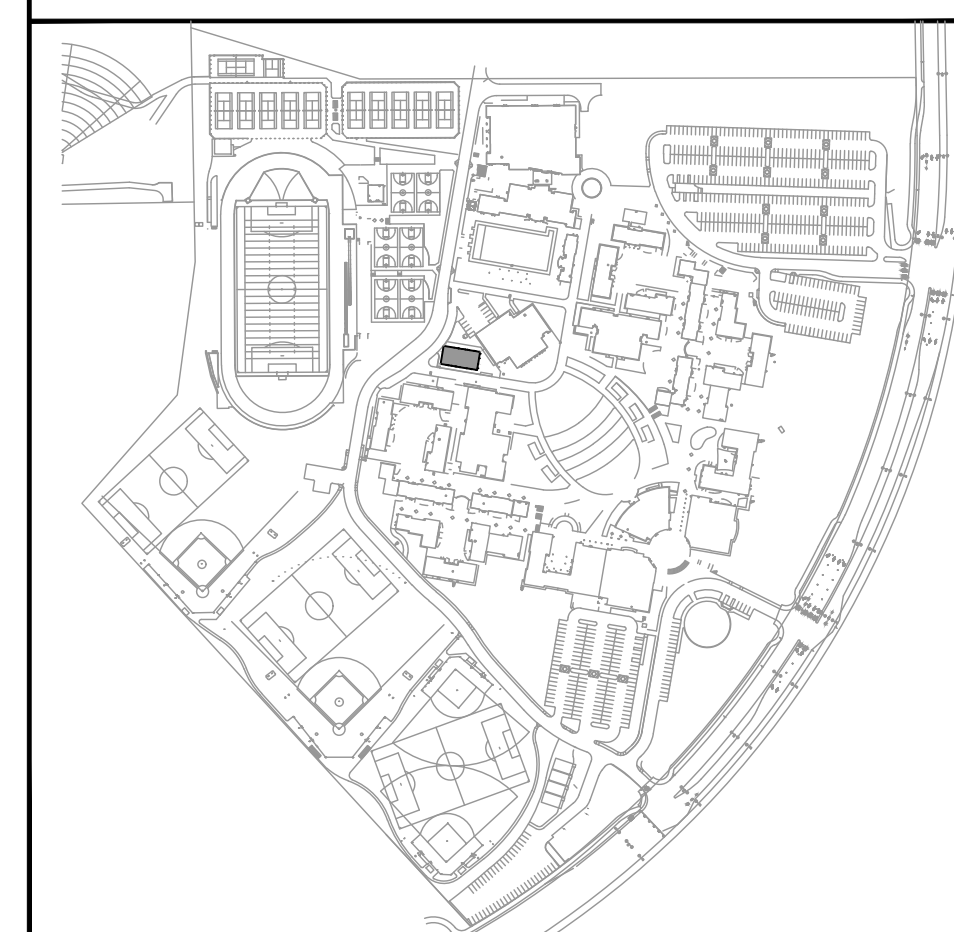
- WALL MOUNTED AT 9'-0" A.F.F. TO THE CENTERLINE OF THE LUMINAIRE.
- SEE KITCHEN EQUIPMENT DRAWINGS FOR LIGHTING IN THE WALK-IN COOLER.
- PENDANT MOUNTED AT 10'-3" A.F.F. TO THE BOTTOM OF THE LUMINAIRE. SEE DETAIL 4/E-7.1.
- SWAY BRACING. SEE DETAIL 5/E-7.1.
- PENDANT MOUNTED AT 10'-6" A.F.F. TO THE BOTTOM OF THE LUMINAIRE.
- PROVIDE AN EMERGENCY LIGHTING CONTROL MODULE FOR ALL SWITCHED LIGHT FIXTURES ON EMERGENCY INVERTER. THIS INCLUDES EMERGENCY FIXTURES CONTROLLED BY OCCUPANCY SENSORS. SEE DETAILS ON E-5.2. MOUNT CONTROL MODULE/TEST SWITCH 7'-6" A.F.F. AND ALIGN WITH LIGHT SWITCH BELOW WHEREVER POSSIBLE.
- PROVIDE AND INSTALL DIMMER SWITCH(ES), OCCUPANCY SENSOR(S), PHOTOSENSOR(S), ROOM CONTROLLERS, AND ISOLATED RELAYS FOR HVAC INTERFACE WHERE SHOWN. SEE DETAILS ON SHEET E-5.2. MOUNT ROOM AND PLUG CONTROLLERS ABOVE ACCESSIBLE CEILING WHEREVER POSSIBLE.
- DIGITAL ASTRONOMICAL TIMECLOCK; WATTSTOPPER #LM2C-301.



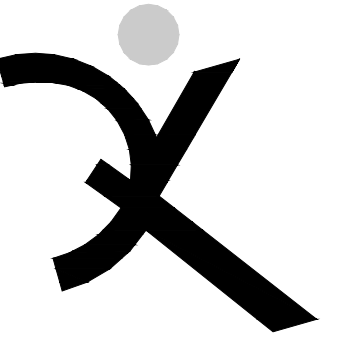
FLOOR PLAN - LIGHTING
SCALE: 1/8" = 1'-0"



KEYPLAN

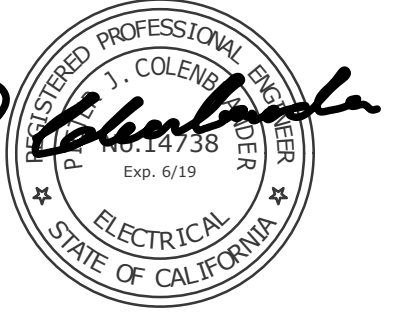


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REVISIONS

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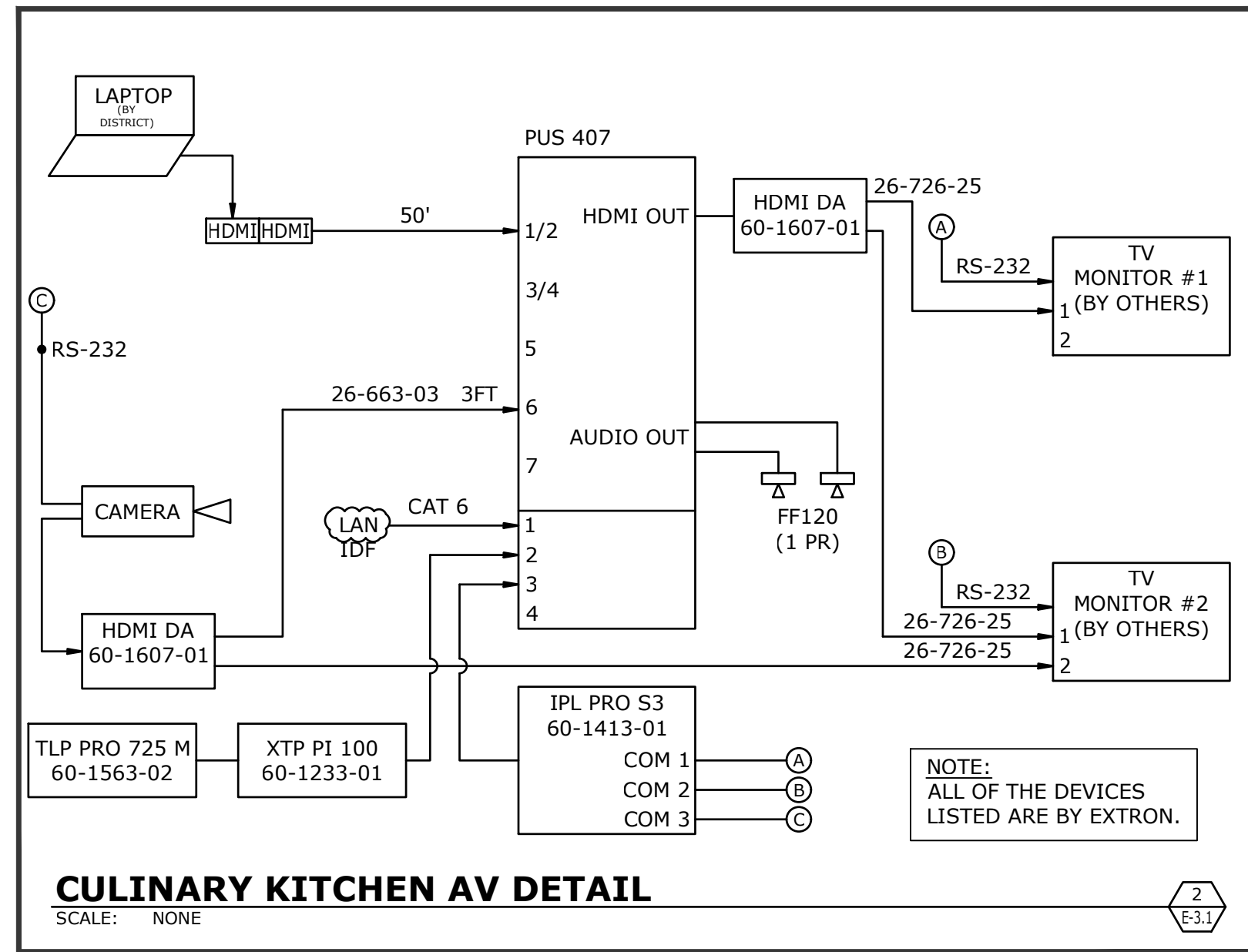
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PTN: 61721-70

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FEBRUARY 27, 2019
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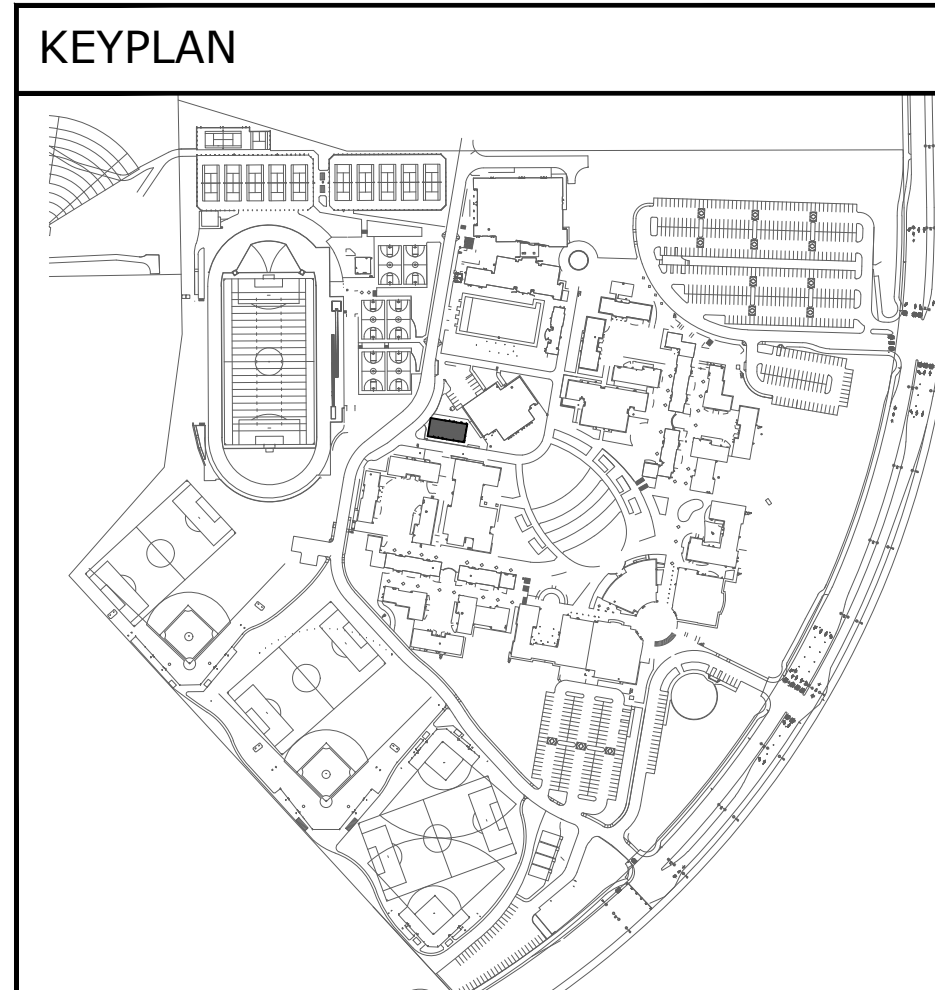
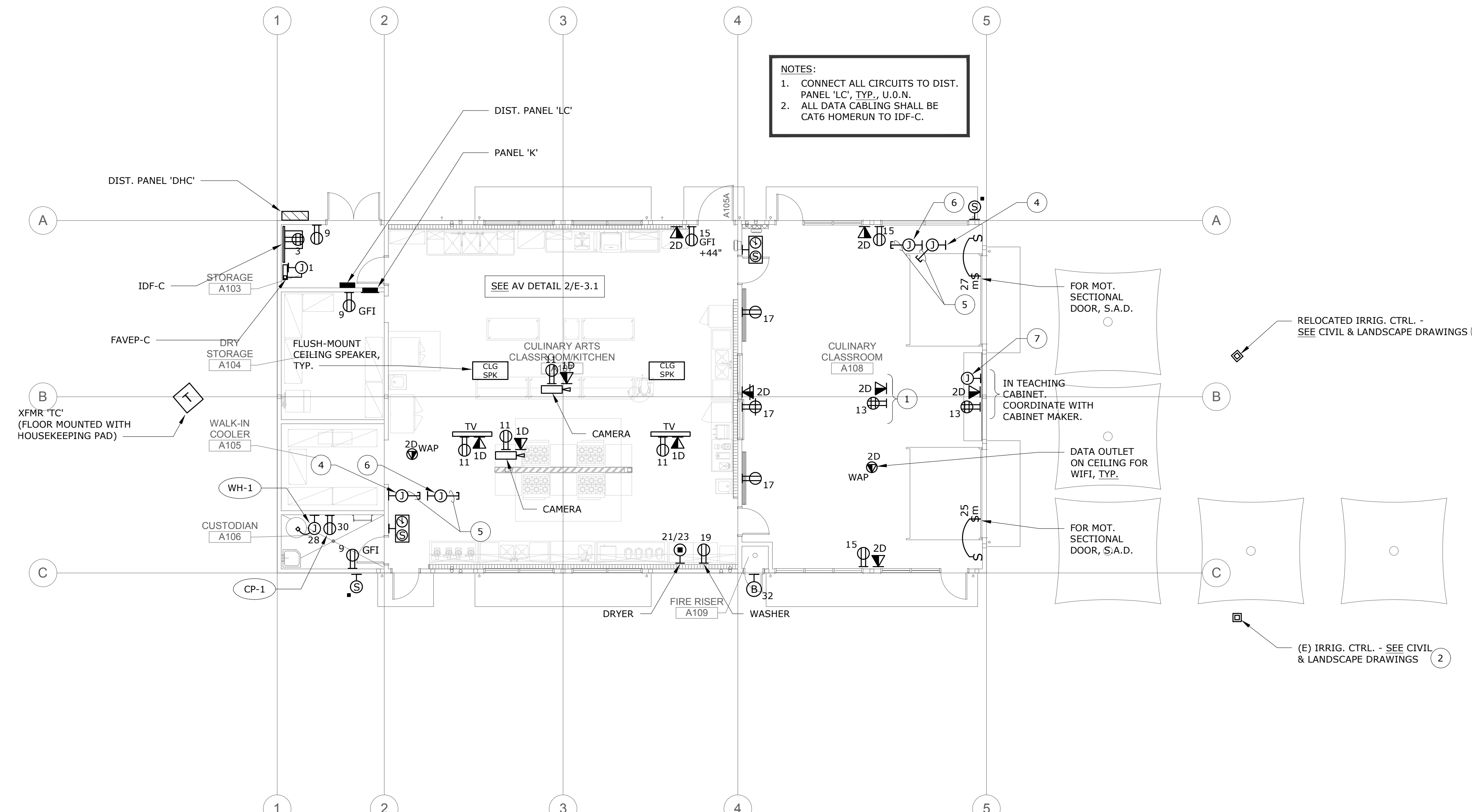
FLOOR PLAN - LIGHTING

SHEET NUMBER

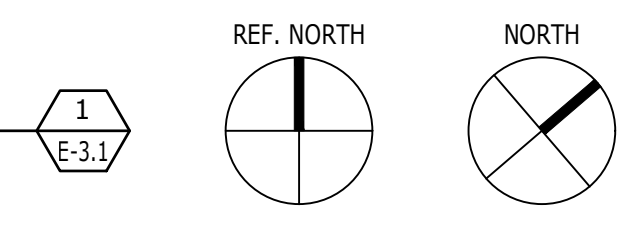
E-2.1



- ### NUMBERED SHEET NOTES
1. INSTALL POWER AND DATA ADJACENT TO THE DISTRICT-PROVIDED CEILING-MOUNTED PROJECTOR.
 2. INTERCEPT AND EXTEND (E) IRRIGATION CONTROL ELECTRICAL/CONTROLS TO NEW LOCATION AS CALLED OUT BY SHEET NOTE 3.
 3. IRRIGATION CONTROL NEW LOCATION. CONNECT COMPLETE. COORDINATE WITH LANDSCAPE DIVISION.
 4. 2-GANG RECESSED OUTLET BOX, EXTRA DEEP WITH BLANK COVERPLATE AT +18" A.F.F. TO BOTTOM OF BOX.
 5. 1-1/4" C.O. STUBBED TO ACCESSIBLE CEILING SPACE.
 6. 2-GANG RECESSED OUTLET BOX, EXTRA DEEP WITH BLANK COVERPLATE AT +44" A.F.F. TO TOP OF BOX.
 7. 2-GANG RECESSED OUTLET BOX, EXTRA DEEP WITH BLANK COVERPLATE IN TEACHING CABINET.



FLOOR PLAN - ELECTRICAL & TELECOM/SIGNAL
SCALE: 1/8" = 1'-0"



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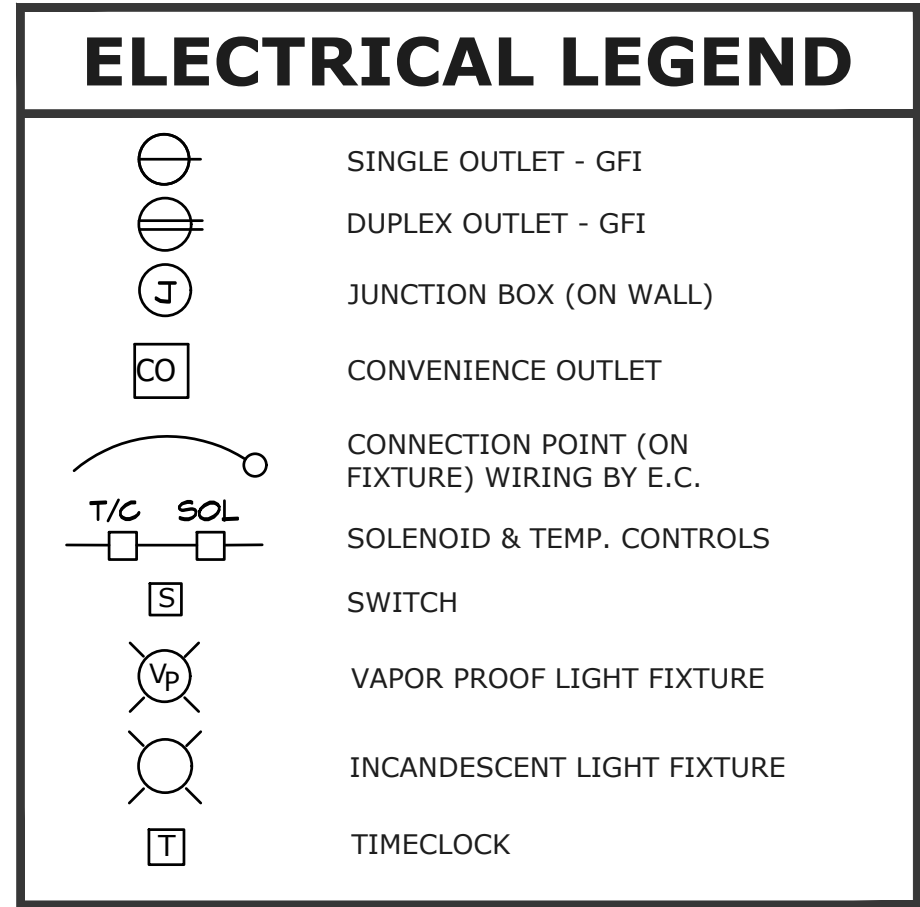
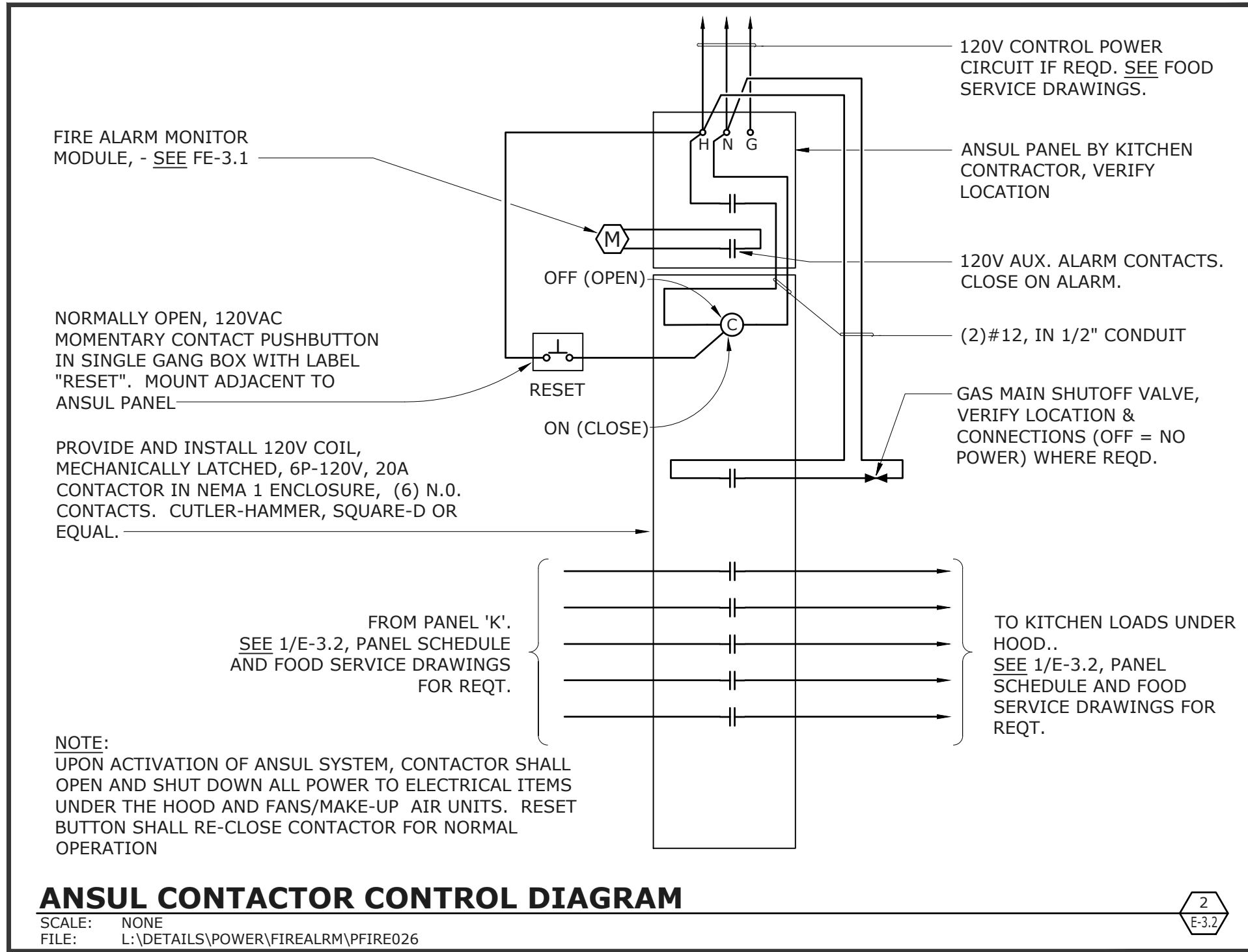
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FLOOR PLAN - ELECTRICAL & TELECOM/SIGNAL
SHEET NUMBER
E-3.1

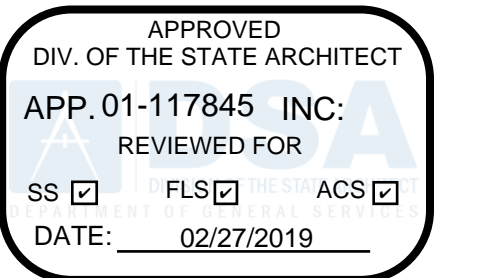
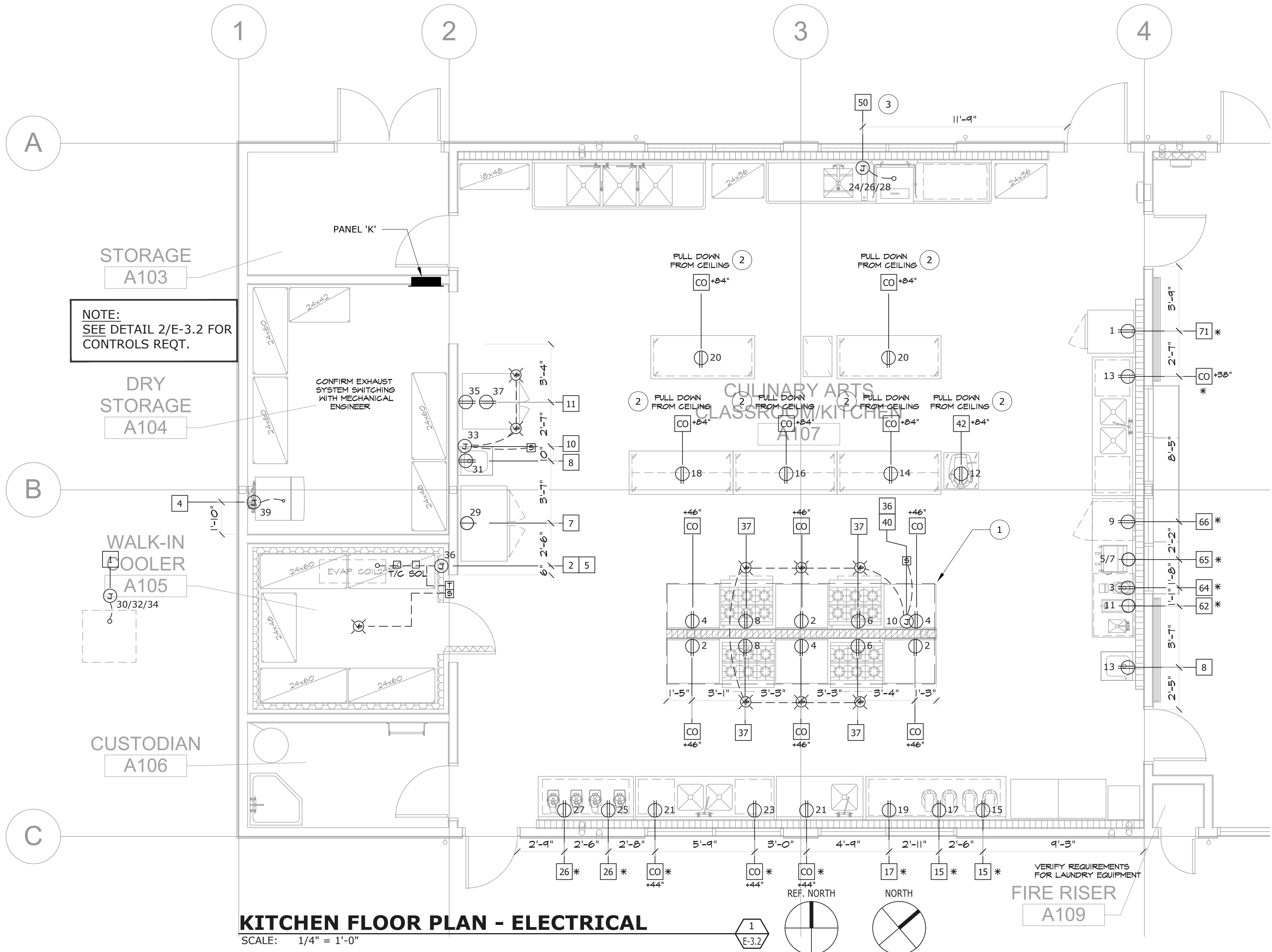


- NOTES:**
- CONNECT ALL CIRCUITS IN THE KITCHEN TO PANEL 'K', TYP., U.O.N. REFER TO FOOD SERVICE DRAWINGS FOR OTHER RELATED ELECTRICAL REQUIREMENTS.
 - COORDINATE ALL ELECTRICAL PROVISIONS WITH THE FOOD SERVICE DRAWINGS AND SPECIFICATIONS PRIOR TO ROUGH-IN. SEE KITCHEN ELECTRICAL SYMBOLS AND ABBREVIATIONS THIS SHEET.
 - SEE FOOD SERVICE DRAWINGS FOR EQUIPMENT TAG DESCRIPTION, CONNECTIONS, AND EXACT OUTLET TYPE REQUIREMENTS, TYP., U.O.N.
 - ALL DUPLEX RECEPTACLE IN THE KITCHEN SHALL BE GFI RATED.

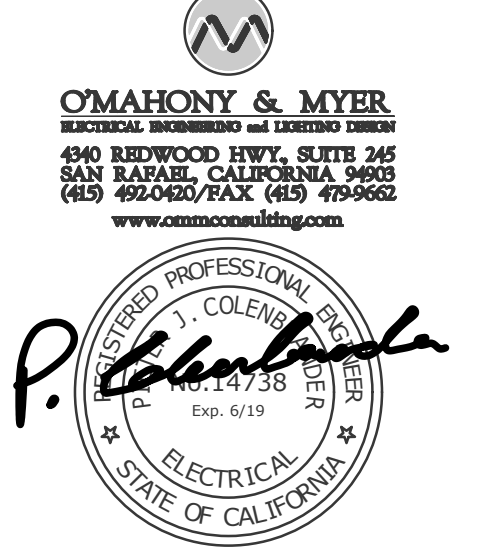
NUMBERED SHEET NOTES

- ALL CIRCUITS UNDER THE EXHAUST HOOD SHALL BE WIRED PER DETAIL 2/E-3.2.
- CORD REEL, 20A, #12/3, 45' HUBBELL #HBL45123R20 WITH PIVOT BASE HUBBELL #HBL340PB. SEE ARCH RCP FOR EXACT LOCATION.
- (3)#6 AND (1)#8G. IN 1" CONDUIT.

ITEM	QTY	DESCRIPTION	MFG	MODEL	ELECTRICAL				
					VOLTS	PHASE	AMPS	CONN	HT
1	1	CONDENSING UNIT FOR WI COOLER	HEATCRAFT	MOH015X63					
2	1	EVAP COIL FOR WI COOLER	LARKIN	LCA6135AEB					SEE REFRIGERATION SCHEDULE
3	1	(LOT) WALK-IN SHELVE	METRO	SUPERRECTA					ROOF +110"
4	1	ICE MACHINE, BIN, & FILTER	MANITOWOC	ITY-500A/B570	120	1	11.5	JBOX	+78"
5	1	WALK-IN COOLER	DURACOLD	CUSTOM	120	1	5.0	JBOX	+110"
6	1	(LOT) DRY STORAGE SHELVE	METRO	METROSEAL3					
7	1	2-DOOR FREEZER	TRAUlsen	G22000	120	1	11.2	PLUG	+88"
8	2	S/S HAND SINK	ADVANCE	7-PS-41	120	1	1.0	PLUG	+24"
9	--	SPARE	--	--					
10	1	S/S EXHAUST HOOD	CAPTIVEAIRE	ND-2	120	1	5.0	JBOX	+110"
11	1	CONVECTION OVEN	BLODGETT	DFG-200 DBL	(2) 120	1	6.0	PLUG	+18"
12	1	S/S WALL LINER	CUSTOM	CUSTOM					
13	--	SPARE	--	--					
14	--	SPARE	--	--					
15	4	5 QUART MIXER	GLOBE	SP5	120	1	4.0	PLUG	+44"
16	1	S/S WORKTABLE 96 x 30	CUSTOM	CUSTOM					
17	1	MICROWAVE OVEN	ACP	RCS10TS	120	1	13.0	PLUG	+44"
18	1	S/S TABLE MOUNTED OVERSHELF 96 x 12	CUSTOM	CUSTOM					
19	1	FAUCET	T&S BRASS	B-0230/061X					
20	1	S/S WORKTABLE W/SINK - ACCESSIBLE 60 x 30	CUSTOM	CUSTOM					
21	1	S/S TABLE MOUNTED OVERSHELF 60 x 12	CUSTOM	CUSTOM					
22	1	S/S TABLE MOUNTED OVERSHELF 96 x 12	CUSTOM	CUSTOM					
23	1	FAUCET	T&S BRASS	B-0230/061X					
24	1	S/S WORKTABLE W/SINKS	CUSTOM	CUSTOM					
25	--	SPARE	--	--					
26	4	FOOD PROCESSOR	ROBOT COUPE	R2N	120	1	7.0	PLUG	+44"
27	1	S/S WALL SHELF 54 x 12	CUSTOM	CUSTOM					
28	1	S/S WORKTABLE 54 x 30	CUSTOM	CUSTOM					
29	3	S/S WALL CAPS	CUSTOM	CUSTOM					
30	--	SPARE	--	--					
31	1	S/S WALL SHELF	CUSTOM	CUSTOM					
32	1	MILLWORK LAUNDRY COUNTER	TBD	TBD					
33	--	SPARE	--	--					
34	--	SPARE	--	--					
35	6	S/S WORKTABLE - ACCESSIBLE 36 x 36	CUSTOM	CUSTOM					
36	1	S/S TYPE I EXHAUST HOOD	CAPTIVEAIRE	ND-2	120	1	5.0	JBOX	+110"
37	4	6-BURNER RANGE	VULCAN	36S-6B					
38	1	FIRE SUPPRESSION SYSTEM	ANSUL	R-102					
39	1	S/S WALL LINER AND WALL CAP	CUSTOM	CUSTOM					
40	1	S/S TYPE I EXHAUST HOOD	CAPTIVEAIRE	ND-2					
41	--	SPARE	--	--					
42	1	20 QT. MIXER ON STAND	HOBART	HL200	120	1	8.0	PLUG	DFC
43	3	S/S WORKTABLE 72 x 30	CUSTOM	CUSTOM					
44	2	S/S WORKTABLE - ACCESSIBLE 72 x 30	CUSTOM	CUSTOM					
45	1	SHEET PAN RACK	NEW AGE	1330					
46	--	SPARE	--	--					
47	--	SPARE	--	--					
48	1	S/S TABLE MOUNTED OVERSHELF 42 x 12	CUSTOM	CUSTOM					
49	1	S/S CLEAN SIDE DISHTABLE 52 x 30	CUSTOM	CUSTOM					
50	1	HIGH-TEMP DISHWASHER - VENTLESS	JACKSON	TEMPSTAR HH-E	208	3	51.8	JBOX	+44"
51	1	PRERINSE UNIT	T&S BRASS	B-0133-B					
52	1	S/S SOILED DISHTABLE 72 x 30	CUSTOM	CUSTOM					
53	1	S/S TABLE MOUNTED OVERSHELF 36 x 12	CUSTOM	CUSTOM					
54	2	S/S TABLE MOUNTED OVERSHELF 24 x 12	CUSTOM	CUSTOM					
55	1	S/S 3-TUB POT SINK 120 x 36	CUSTOM	CUSTOM					
56	2	PRERINSE UNIT W/FAUCET	T&S BRASS	B-0133-ADF14					
57	--	SPARE	--	--					
58	--	SPARE	--	--					
59	--	SPARE	--	--					
60	1	FAUCET	T&S BRASS	B-1110					
61	1	S/S SERVICE STATION W/SINK 96 x 30	CUSTOM	CUSTOM					
62	1	COFFEE BREWER	FETCO	CBS-51H-15	120	1	15.8	PLUG	+38"
63	1	GROUNDNS KNOCKBOX	FMP	521-1007					
64	1	ESPRESSO GRINDER	NUOVA SIM.	MDX	120	1	3.0	PLUG	+38"
65	1	ESPRESSO MACHINE	NUOVA SIM.	APPRIA II COMPACT	220	1	14.0	PLUG	+38"
66	1	UNDERCOUNTER REFRIGERATOR	DELFIELD	406P	120	1	4.0	PLUG	+15"
67	--	SPARE	--	--					
68	1	S/S WORKTABLE W/SINKS 96 x 30	CUSTOM	CUSTOM					
69	1	FAUCET	T&S BRASS	B-0230/061X					
70	--	SPARE	--	--					
71	1	1-DOOR REFRIGERATOR	TRAUlsen	G10010	120	1	4.9	PLUG	+38"



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DRAWING SCALE: SCALE
PTN: 61721-70

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FEBRUARY 27, 2019
SHEET TITLE

KITCHEN FLOOR PLAN - ELECTRICAL

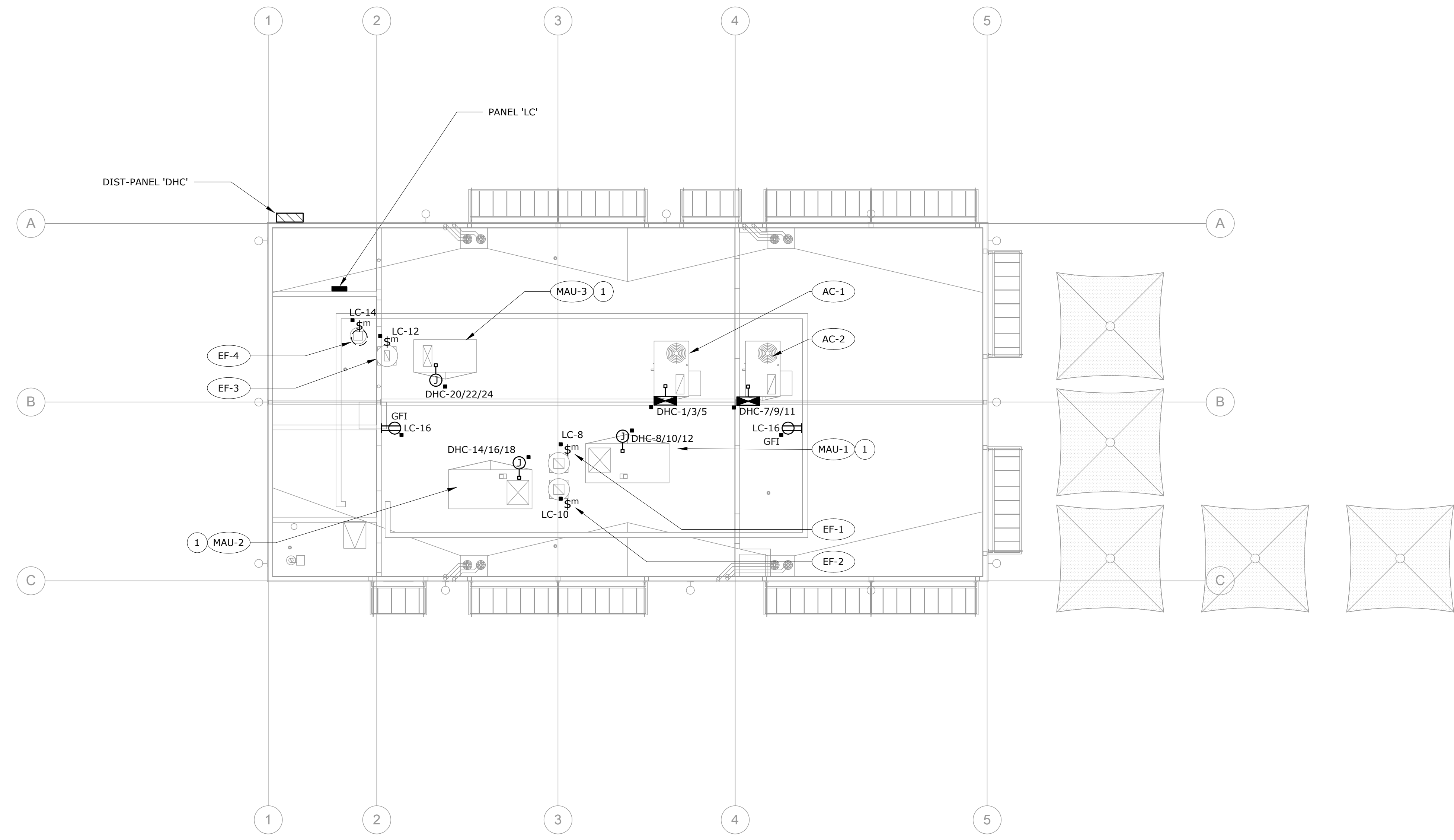
SHEET NUMBER
E-3.2

MECHANICAL EQPT. FEEDER SCHEDULE				
EQPT. TAG	ELECTRICAL RATING	CONDUIT/ CONDUCTOR	PANEL	REMARKS
MAU 1	480V, 3PH, 9.4MCA	1 1/4" - (3) #2 & (1) #6G.	DHC	
MAU 2	480V, 3PH, 9.4MCA	1" - (3) #8 & (1) #10G.	DHC	
MAU 3	480V, 3PH, 2.7MCA	1/2" - (2) #12 & (1) #12G.	DHC	
AC 1	208V, 1PH	1/2" - (2) #12 & (1) #12G.	DHC	
AC 2	208V, 1PH, 12MCA, 15MOCP	1/2" - (2) #12 & (1) #12G.	DHC	
EF 1	115V, 62FLA	1/2" - (2) #12 & (1) #12G.	LC	INTERLOCK WITH MAU
EF 2	115V, 62FLA	1/2" - (2) #12 & (1) #12G.	LC	INTERLOCK WITH MAU
EF 3	115V, 1.3FLA	1/2" - (2) #12 & (1) #12G.	LC	INTERLOCK WITH MAU
EF 4	115V, 3.4FLA	1/2" - (2) #12 & (1) #12G.	LC	THERMOSTATICALLY CONTROLLED
EF 5	115V, 1/2HP	1/2" - (2) #12 & (1) #12G.	LC	CONTROLLED BY LIGHT OCC SENSOR
CP H 1	115V, 1PH, 16HP, 245W	1/2" - (2) #12 & (1) #12G.	LC	
WH H 1	120V, 5A	1/2" - (2) #12 & (1) #12G.	LC	

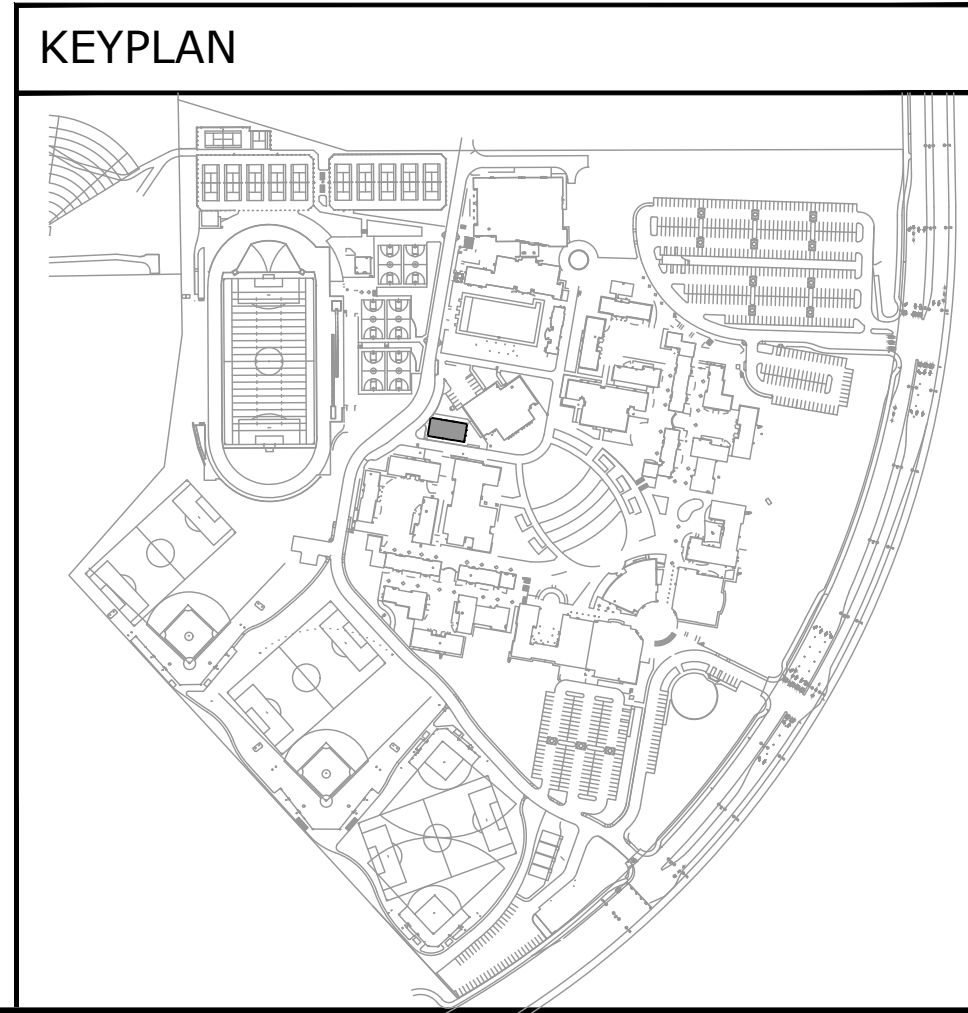
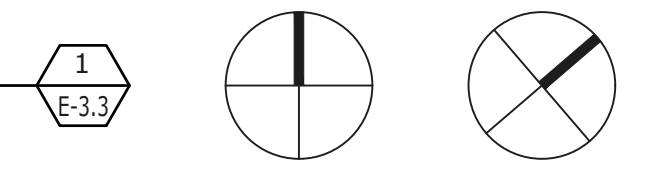
NOTES:
 1. PROVIDE NEW EQUIPMENT DISCONNECT SWITCHES, BRANCH CIRCUITS, RACEWAYS (GRS) & WIRING, TYPICAL, U.O.N.
 2. COORDINATE ALL ELECTRICAL REQUIREMENTS & CONTROLS WITH MECHANICAL AND INCLUDE ALL WORK IN BID. PROVIDE NEW CONTROL WIRING.

NUMBERED SHEET NOTES

1 MECHANICAL EQUIPMENT WITH INTEGRAL DISCONNECT SWITCH PER SHEET M-1.1.



ROOF PLAN - MECHANICAL CONNECTIONS
 SCALE: 1/8" = 1'-0"



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P. Colonna
 REGISTERED PROFESSIONAL ENGINEER
 No. 14738
 Exp. 07-19
 ELECTRICAL
 STATE OF CALIFORNIA

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ROOF PLAN - MECHANICAL CONNECTIONS

SHEET NUMBER
E-3.3

GENERAL NOTES:

1. ALL NEW FIBER OPTIC SITE CABLING SHALL BE 12-STRAND SINGLE MODE (OS2), FOR 10GB OPERATION. U.O.N.
2. ALL CABLES NOT INSTALLED IN INNER-DUCT TO BE ARMORED CABLE.
3. SEE FLOOR PLANS FOR EXACT DEVICE QUANTITIES & LOCATIONS.
4. ALL SITE DISTRIBUTION & UNDERGROUND CABLES SHALL BE OSP-RATED.

NUMBERED SHEET NOTES

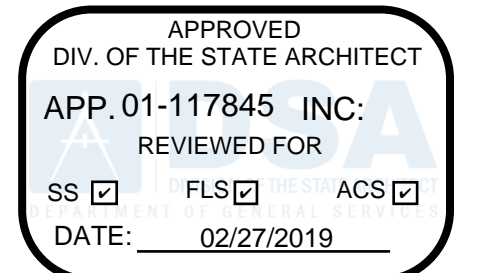
- 1 FIBER OPTIC DISTRIBUTION PANEL, MINIMUM 12-PORT / LC CONNECTORS. PROVIDE 30' SERVICE LOOP COILED ABOVE RACK.
- 2 SPACE FOR ACTIVE NETWORK EQUIPMENT BY DISTRICT.
- 3 48-PORT PATCH PANELS - CATEGORY 6A RATED.
- 4 CHATSWORTH CUBE-IT SERIES, OR EQUAL; MIN. 48"Hx19"Wx30"D, BLACK.
- 5 HORIZONTAL WIRE MANAGEMENT - 1RU.
- 6 CATEGORY 6A PATCH CORDS - CONTRACTOR TO PROVIDE COMPLETE CONNECTIONS BETWEEN ALL PASSIVE AND ACTIVE EQUIPMENT.
- 7 RACKMOUNTED UNIVERSAL COPPER GROUND BAR. PROVIDE #6AWG GROUNDING STRAP(S) WITH CRIMPED LUG CONNECTORS AT EACH END TO EACH RACK MOUNTED PIECE OF EQUIPMENT, LENGTHS AS REQUIRED. NO DAISY CHAIN ALLOWED.
- 8 110 PUNCH DOWN BLOCK, WALL MOUNTED.
- 9 TERMINATE ALL CABLING COMPLETE AT (E) SYSTEMS.

COPPER FEEDER SCHEDULE		
FEEDER	CONDUIT	CONDUCTORS
1504	(1) 2"	(4)#1/0 & (1)#6 G.
2254	(1) 2-1/2"	(4)#4/0 & (1)#2 G.
1253	(1) 1-1/2"	(3)#1 & (1)#6 G.

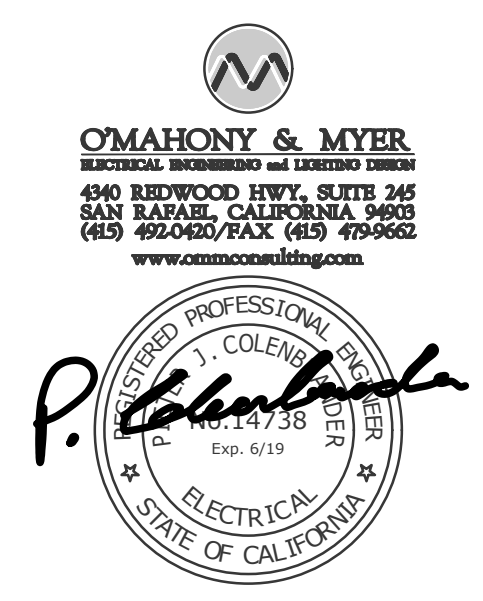
FEEDER TAG KEY

400 4 N
 INDICATES DOUBLE NEUTRAL
 WIRE QUANTITY
 FEEDER AMPACITY

NOTE: NOT ALL FEEDERS ON THIS SCHEDULE ARE NECESSARILY USED ON THIS PROJECT.



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 PTN: 61721-70
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RISER DIAGRAMS - ELECTRICAL & TELECOM/SIGNAL

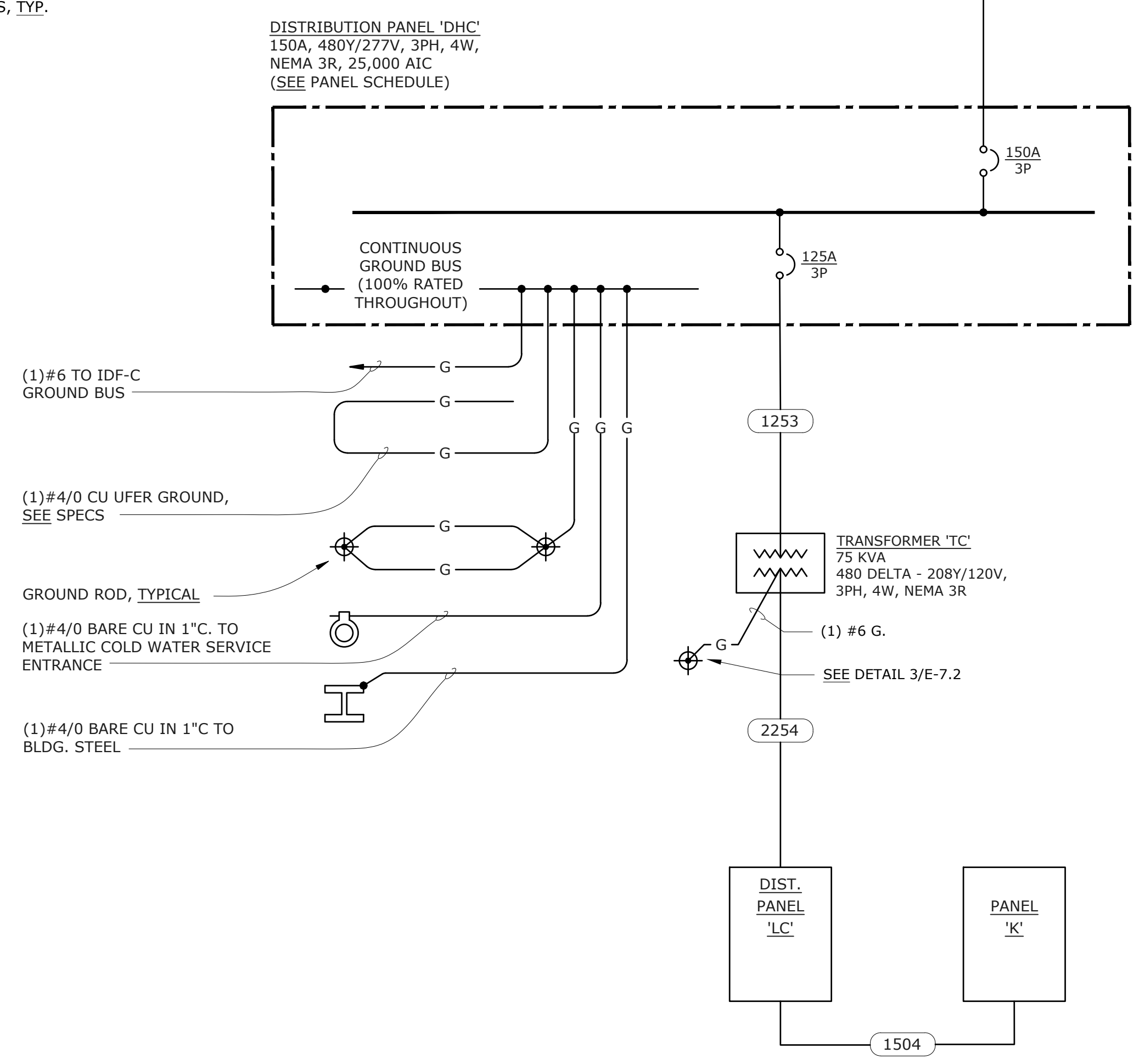
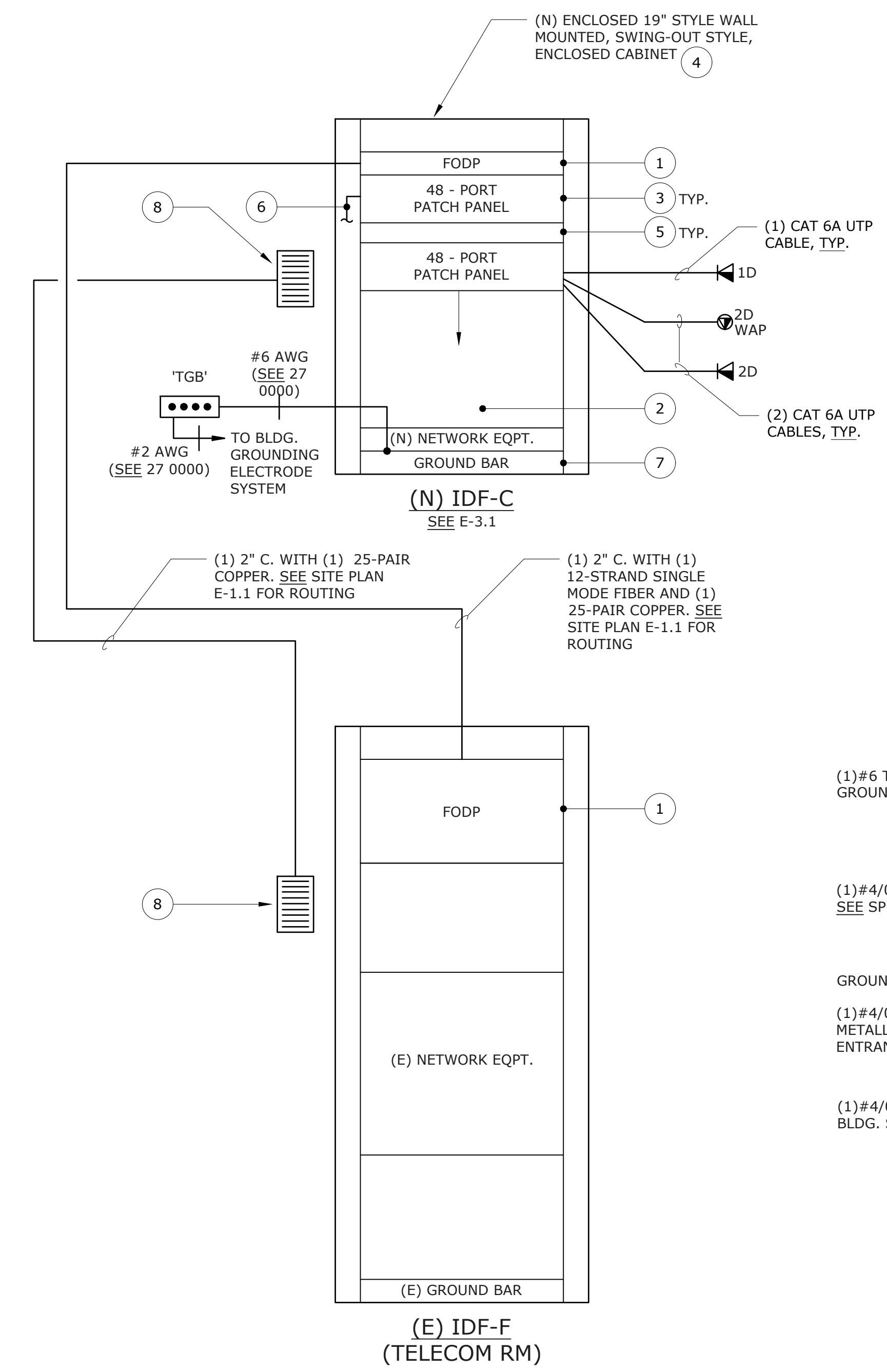
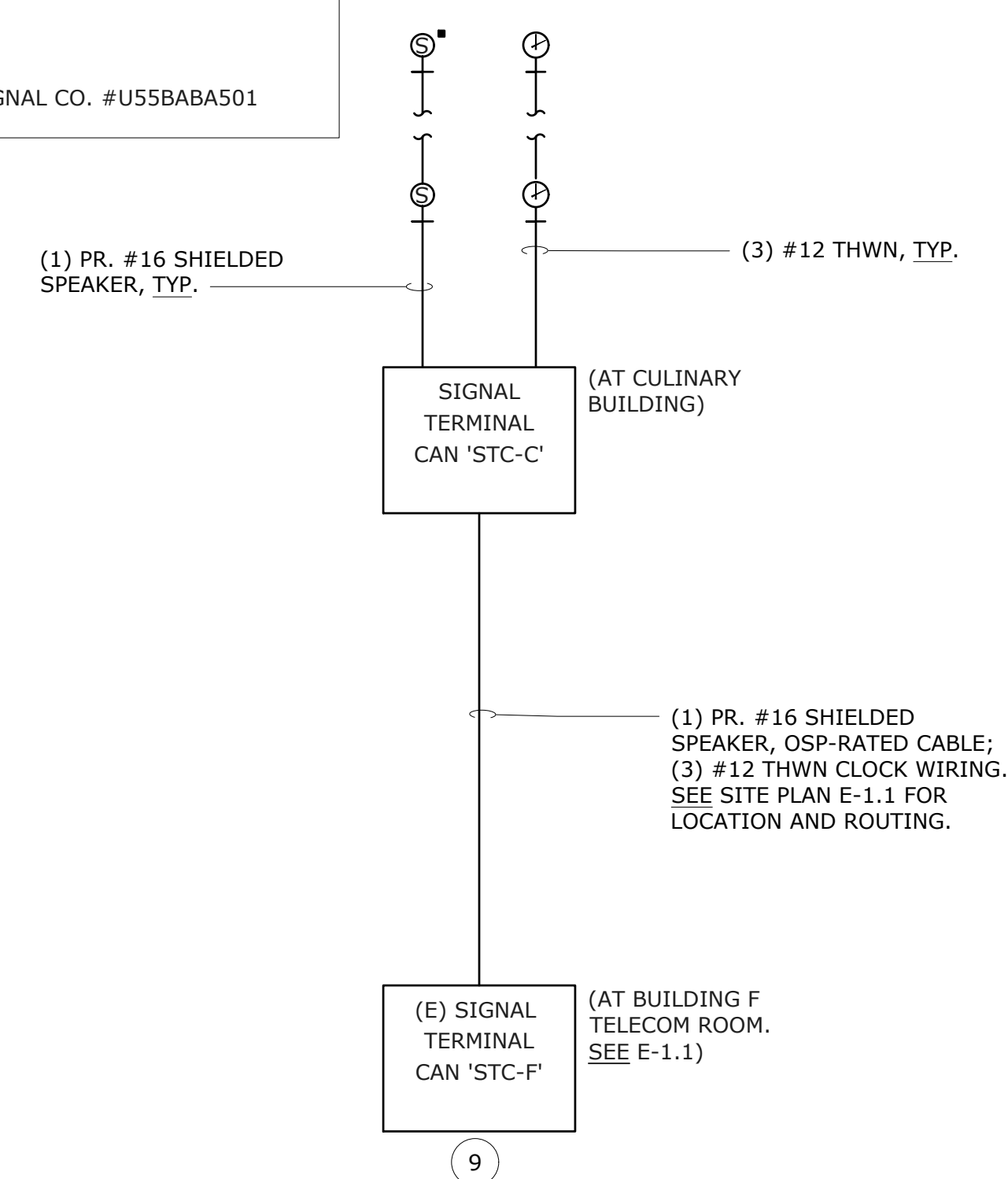
SHEET NUMBER
E-5.1

PA SPEAKERS:

1. INDOOR - BOGEN #WBS810T725
2. OUTDOOR - BOGEN #FMH15T WITH #SGHD8, ADAPTER RING GRILL #FMR8 & SURFACE BOX #BBSM6.

CLOCKS:

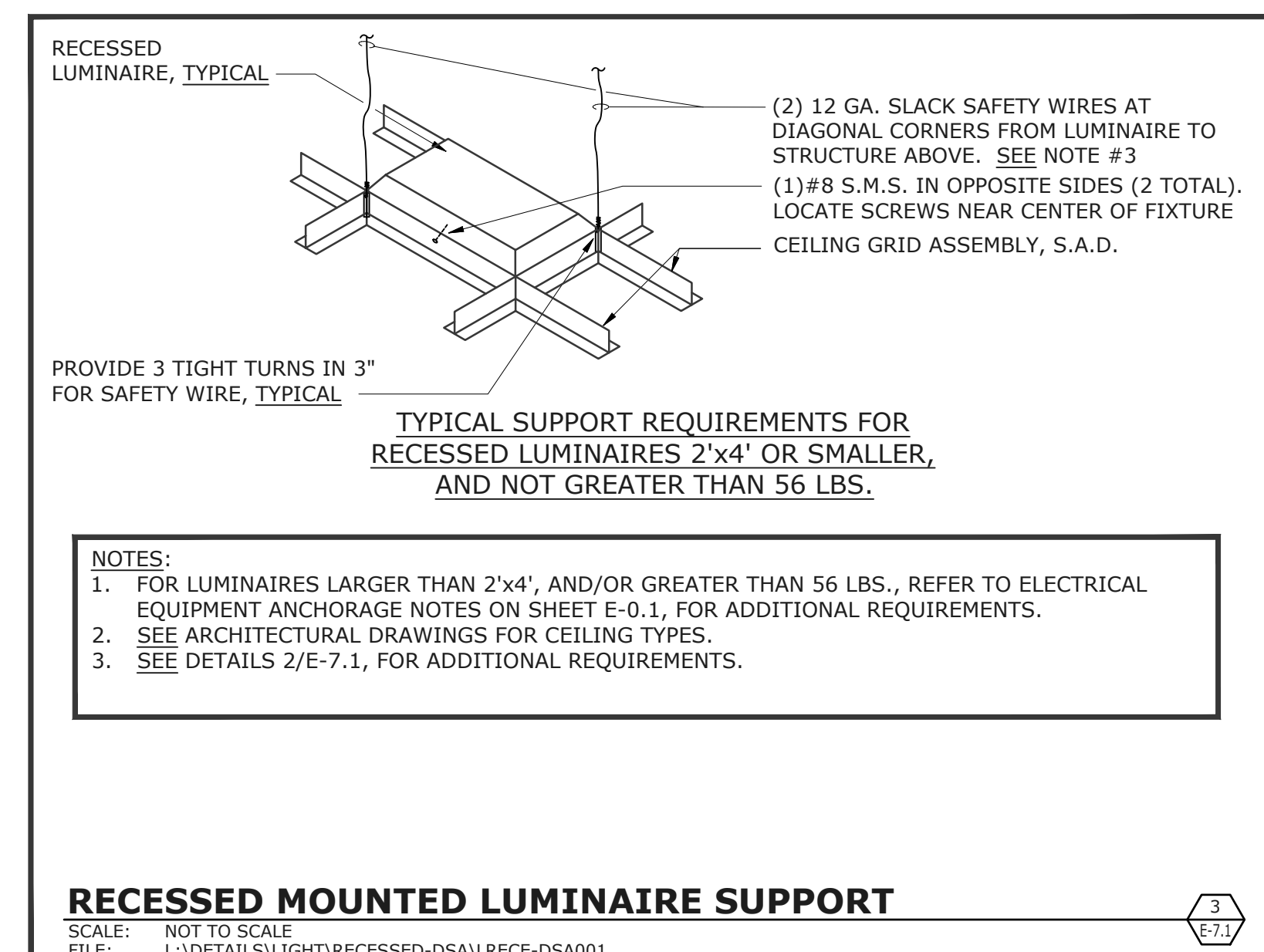
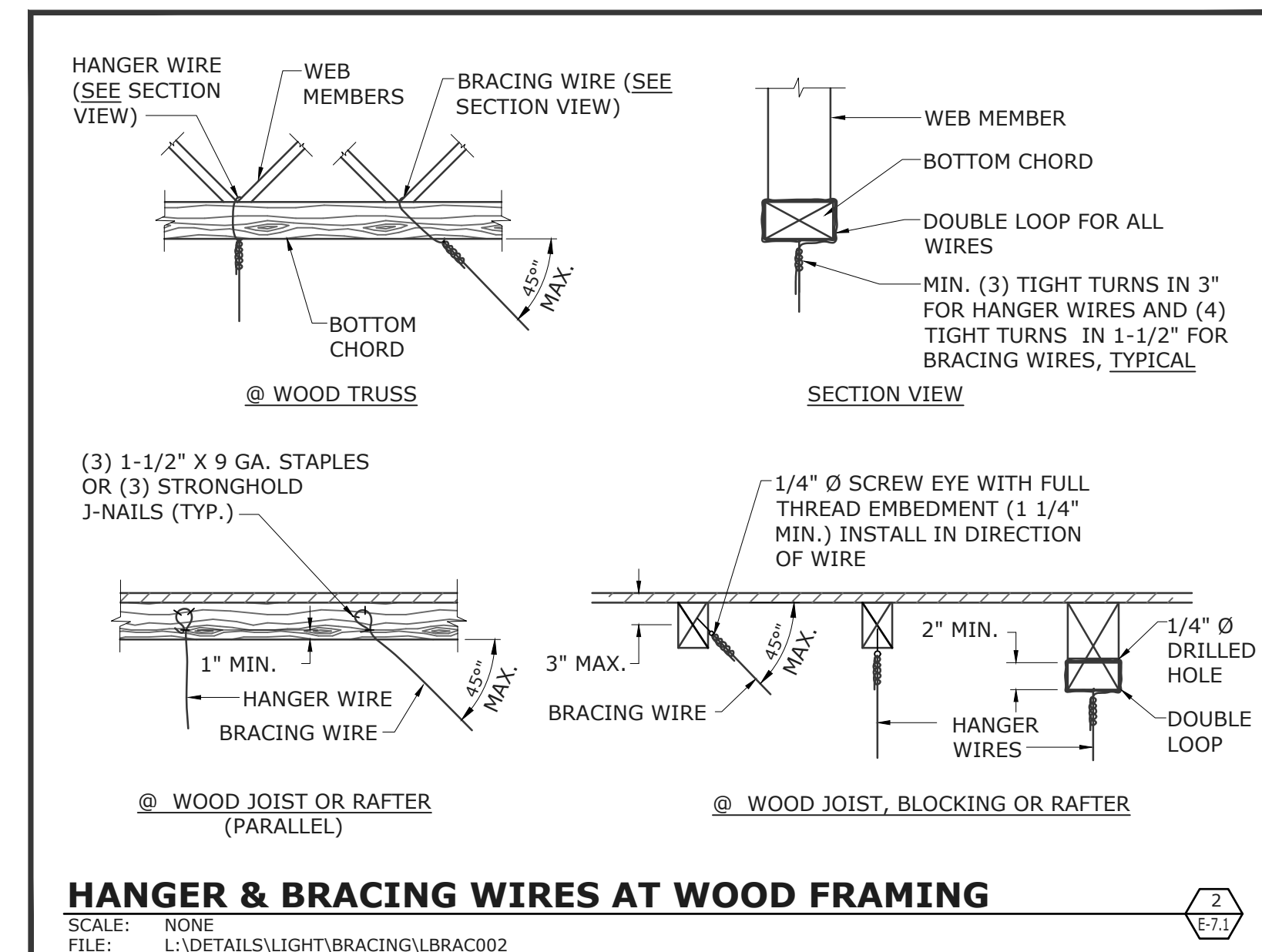
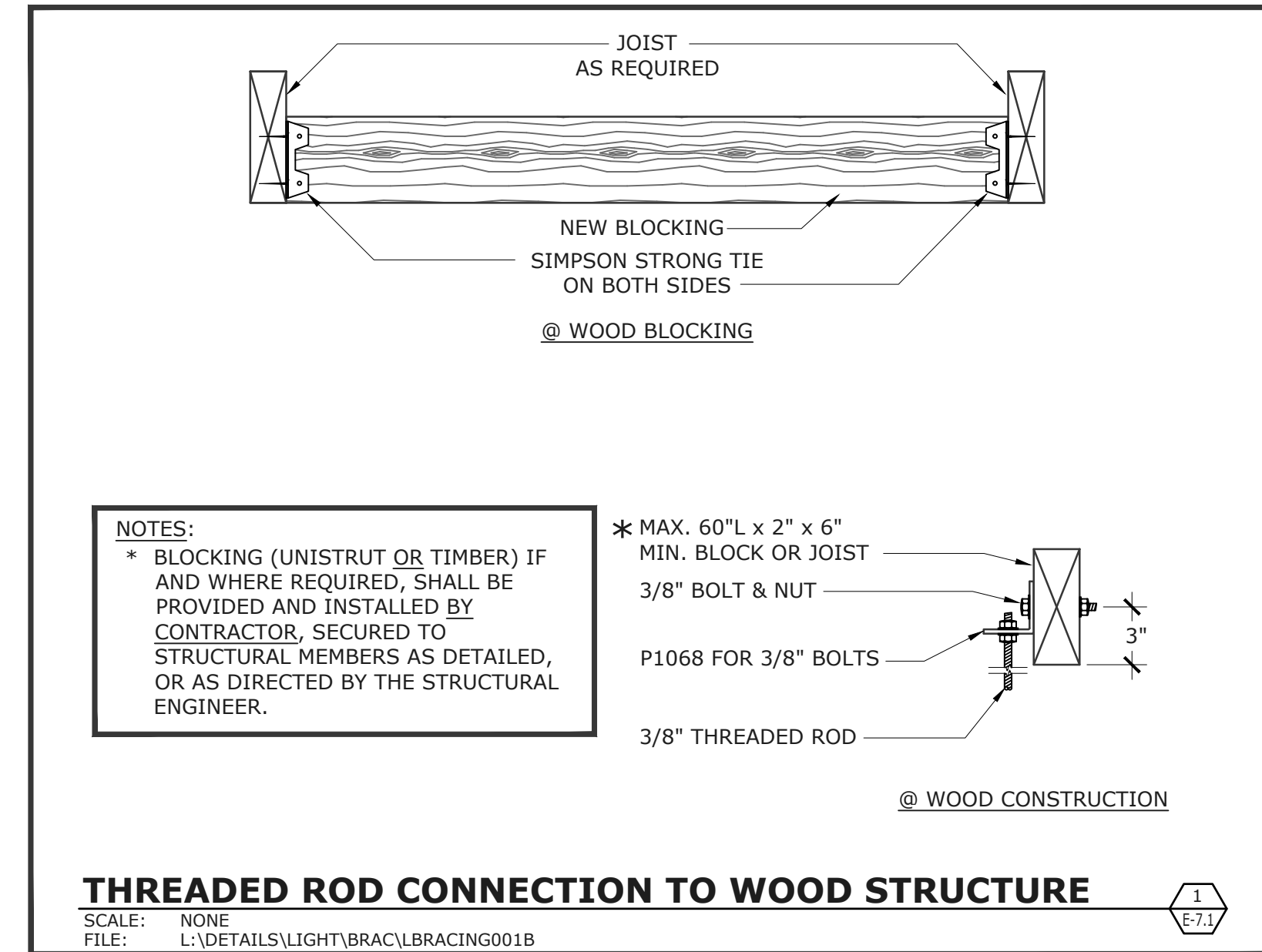
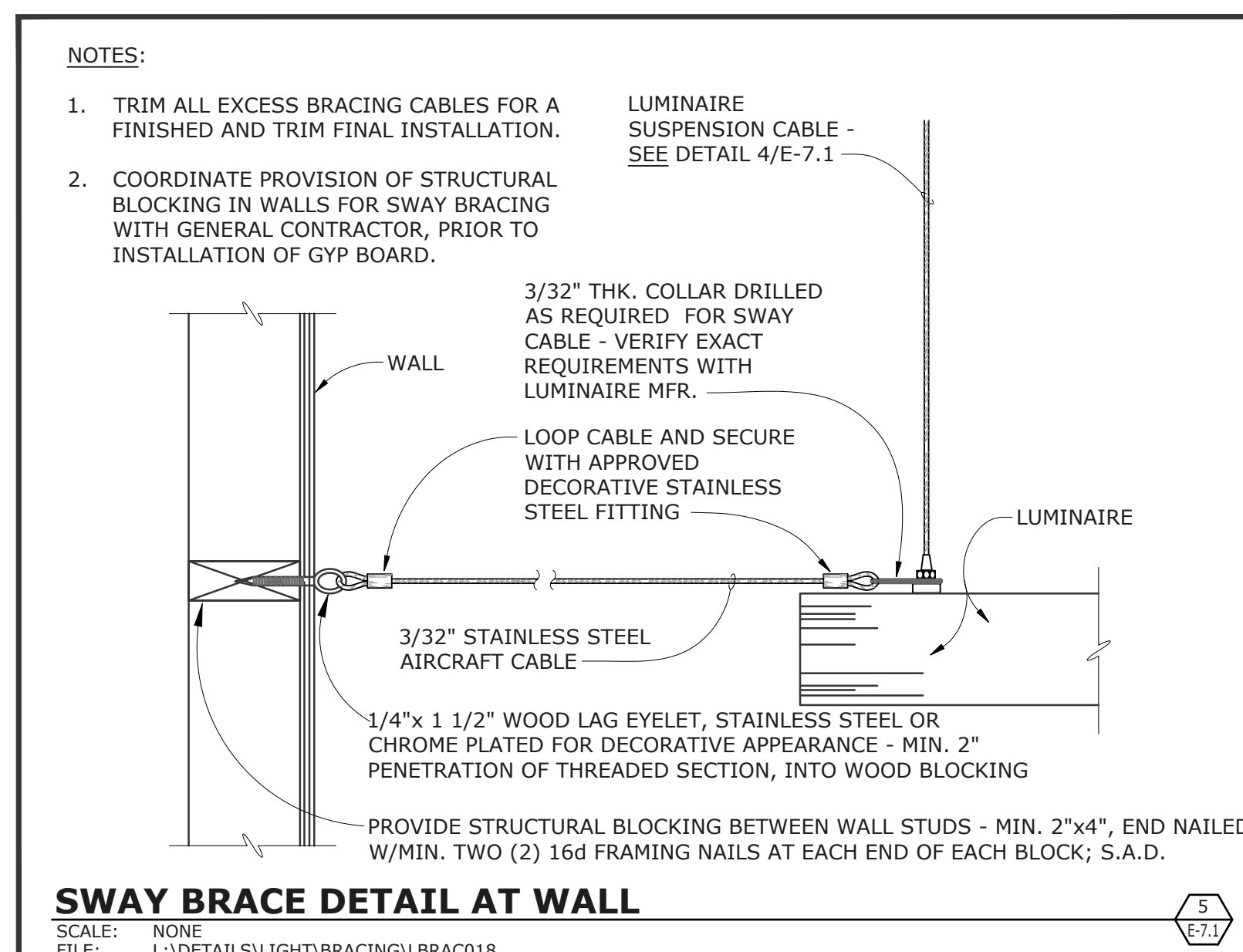
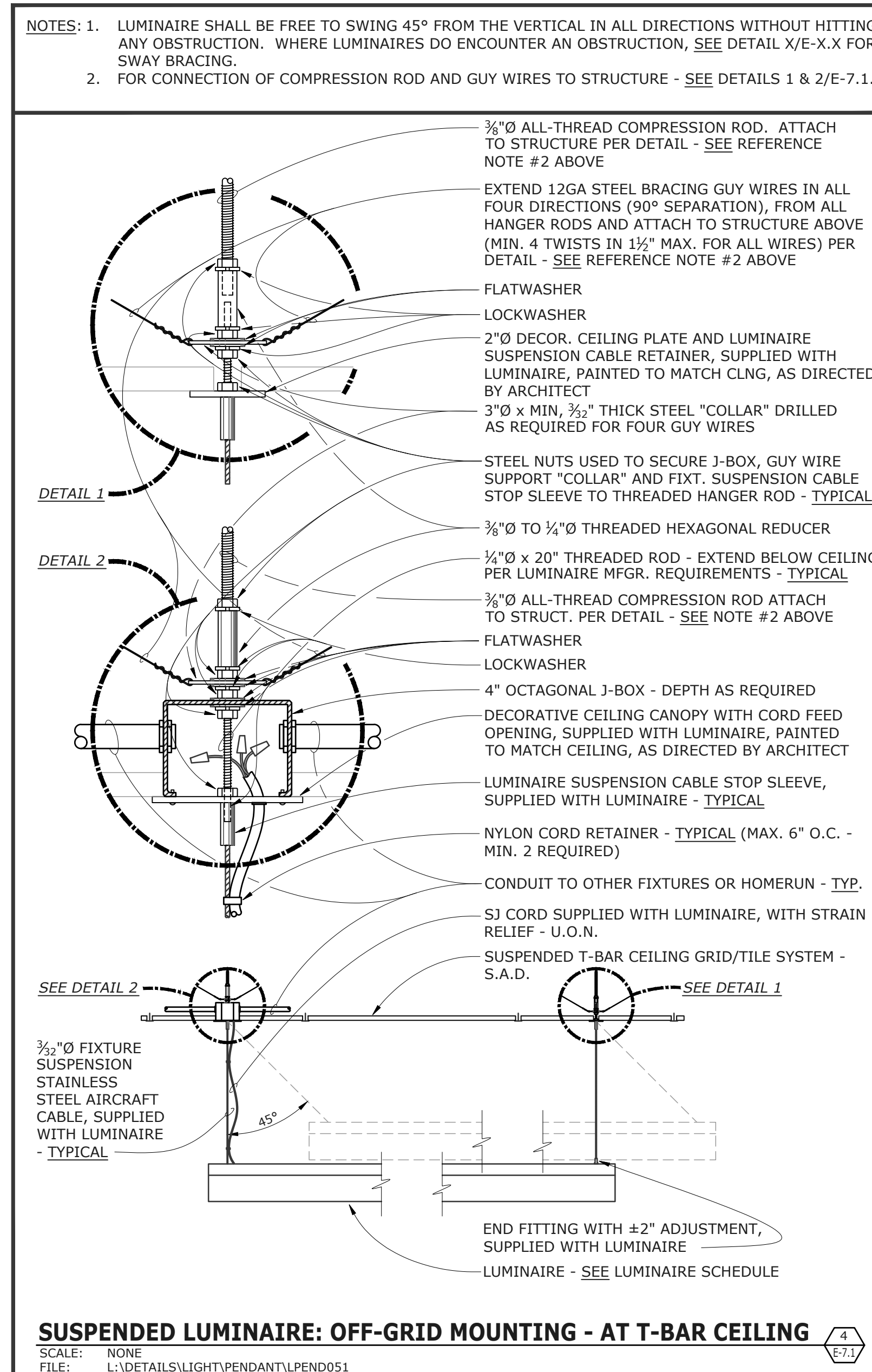
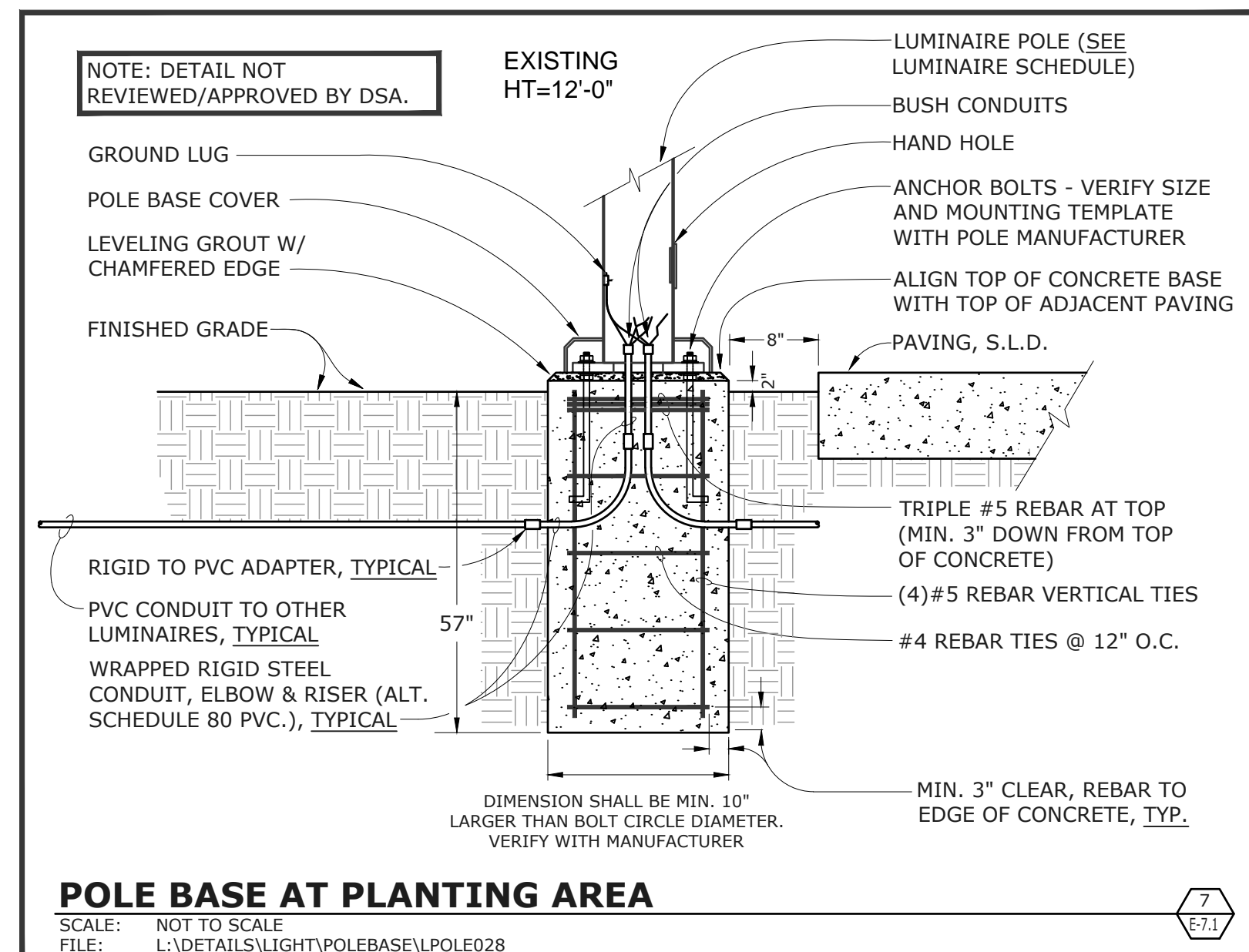
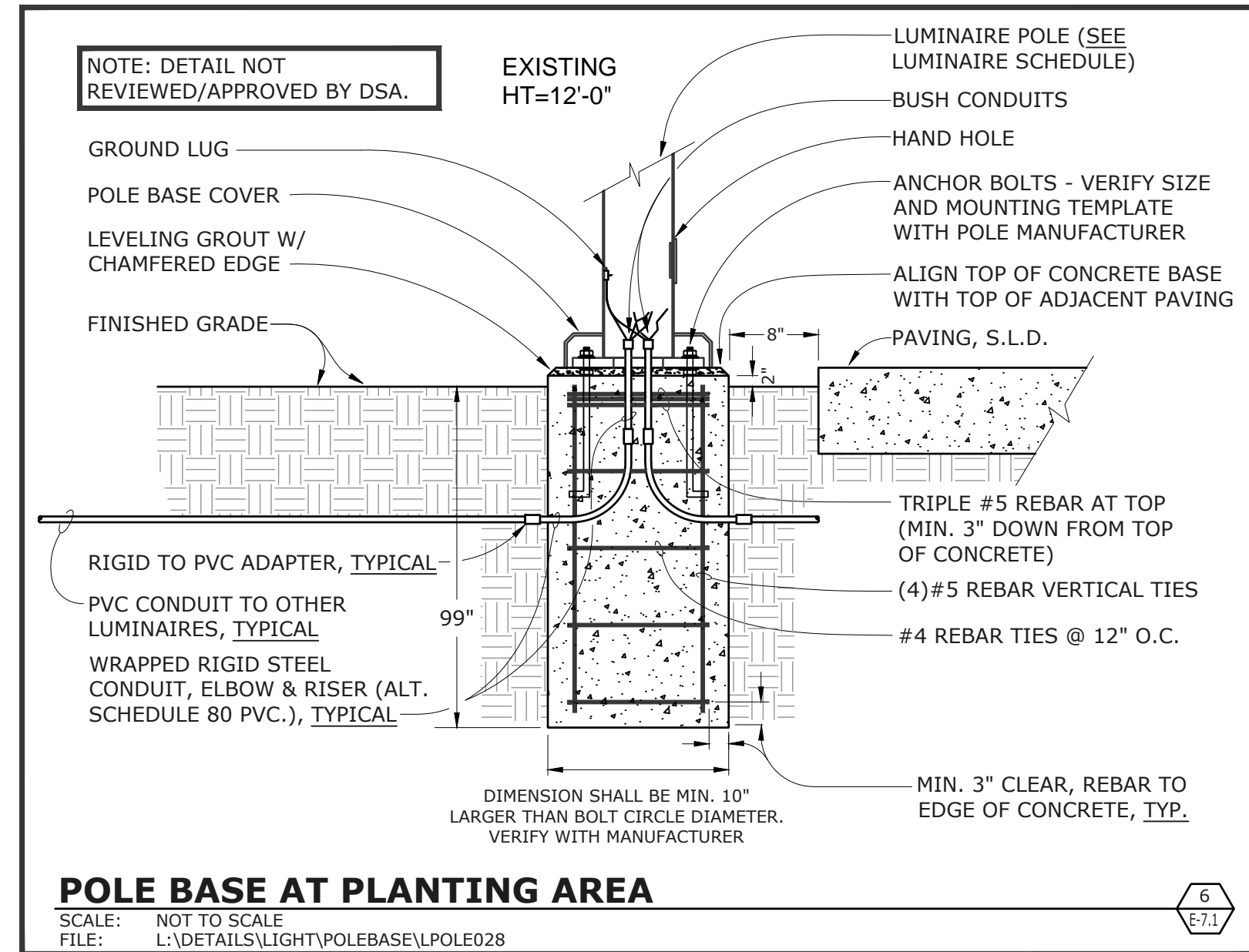
1. AMERICAN TIME & SIGNAL CO. #U55BABA501



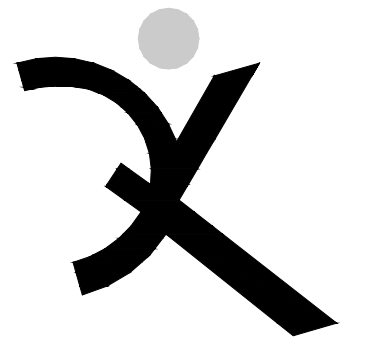
SINGLE LINE DIAGRAM - CLOCK/SPEAKER SYSTEM
 SCALE: NONE

SINGLE LINE DIAGRAM - TELECOM SYSTEM
 SCALE: NONE

SINGLE LINE DIAGRAM - ELECTRICAL
 SCALE: NONE

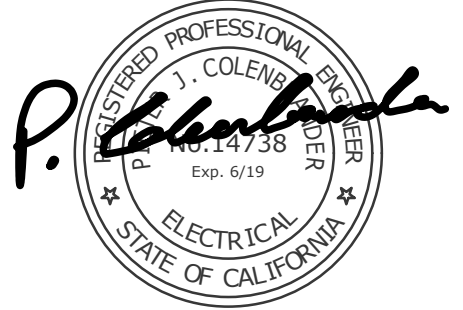


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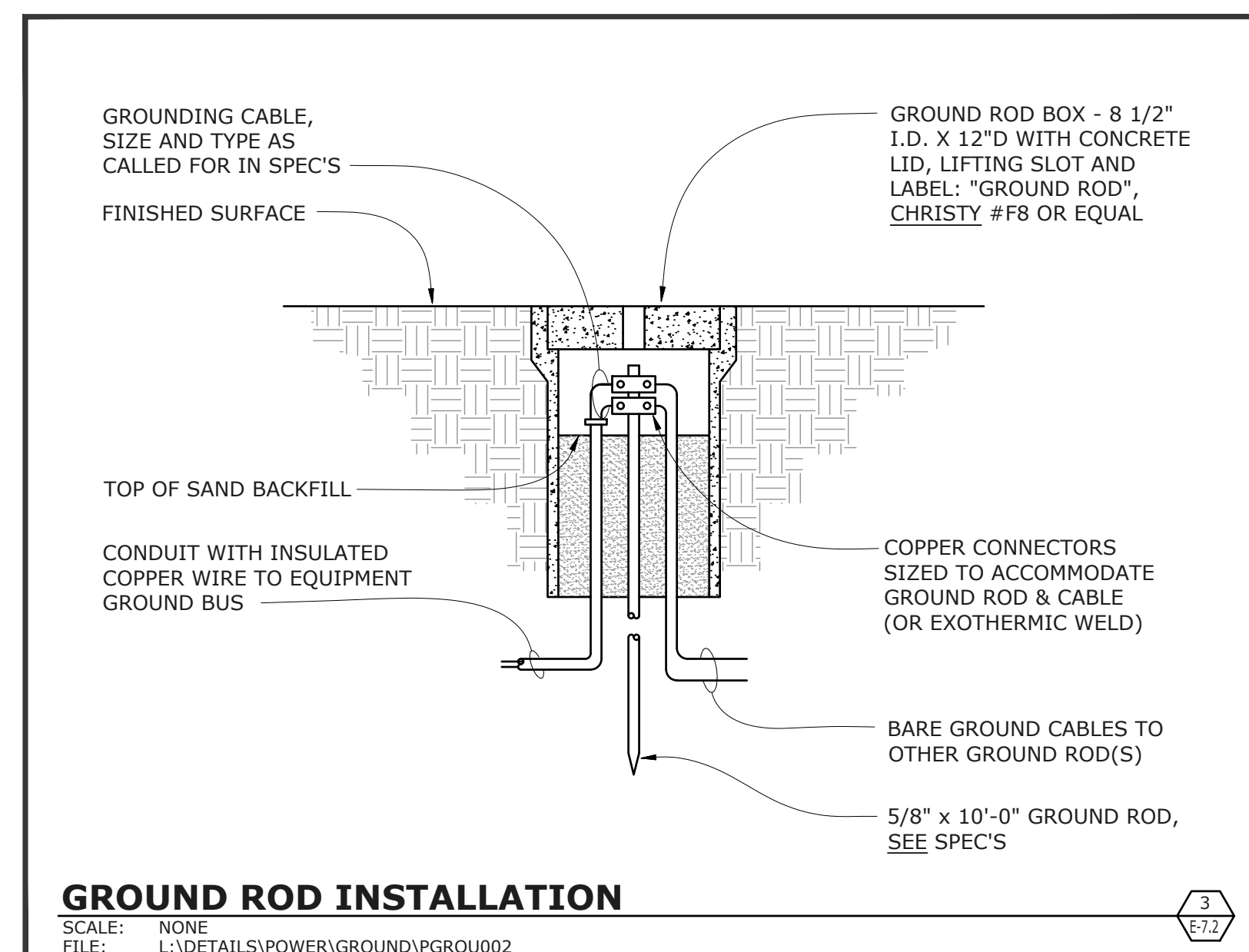
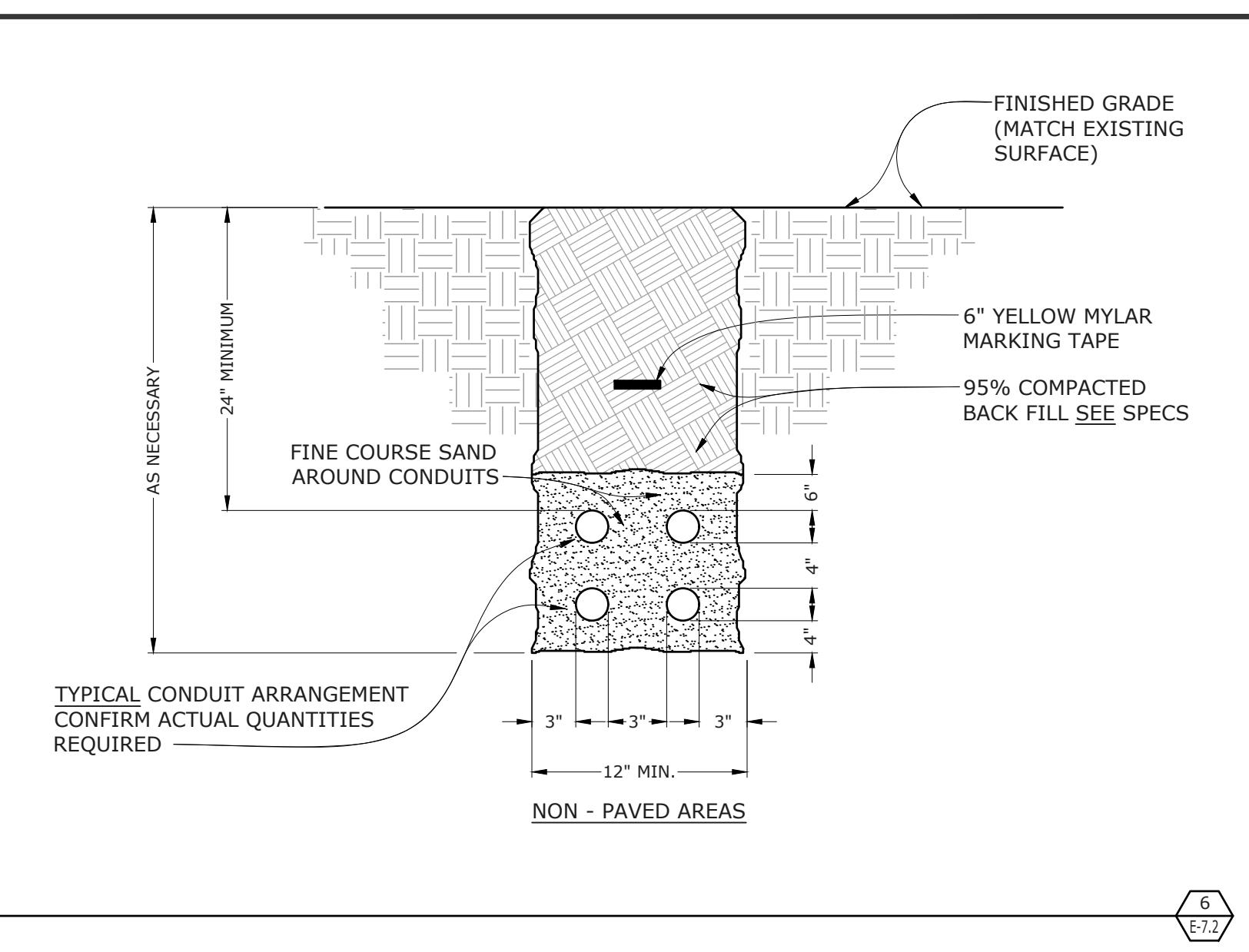
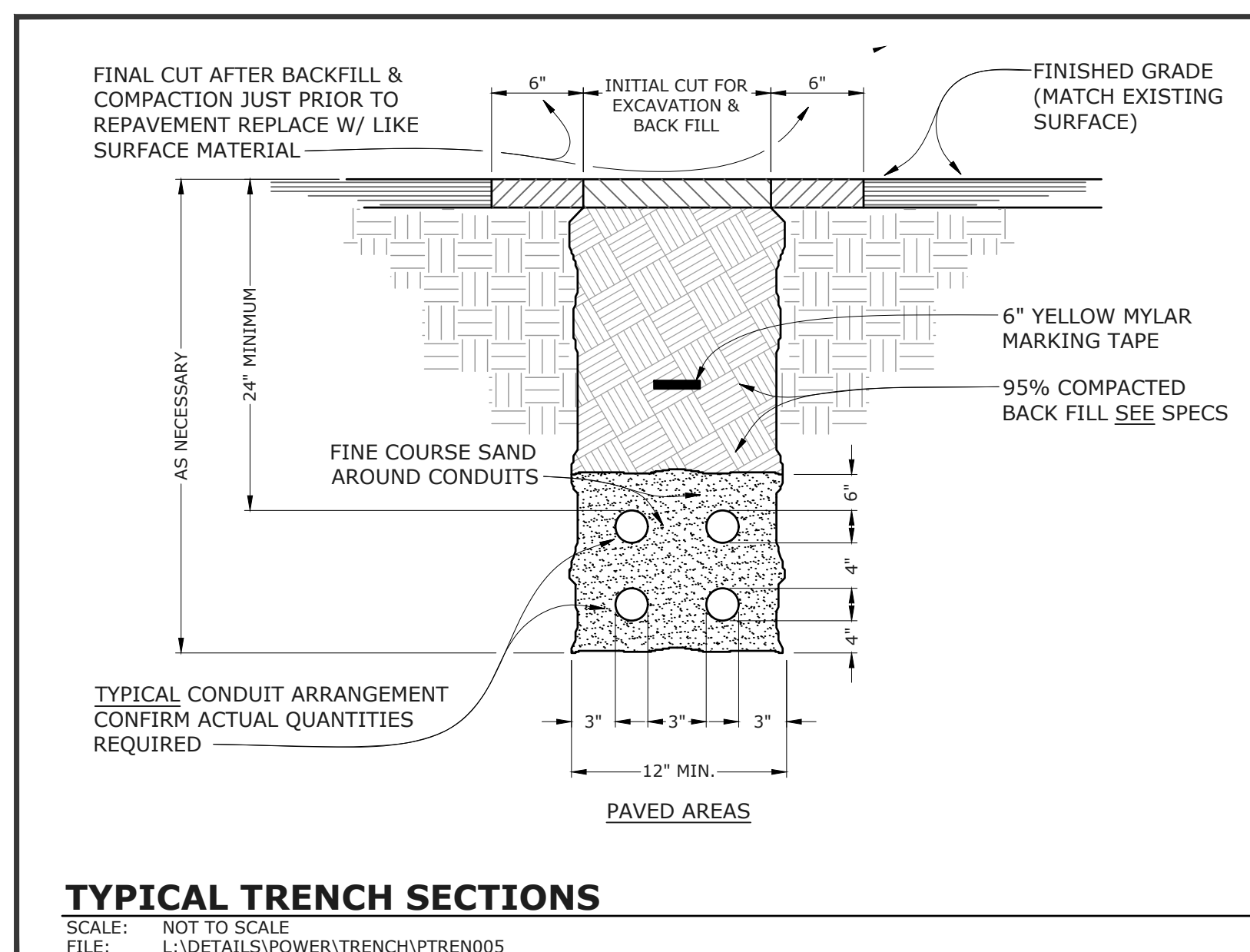
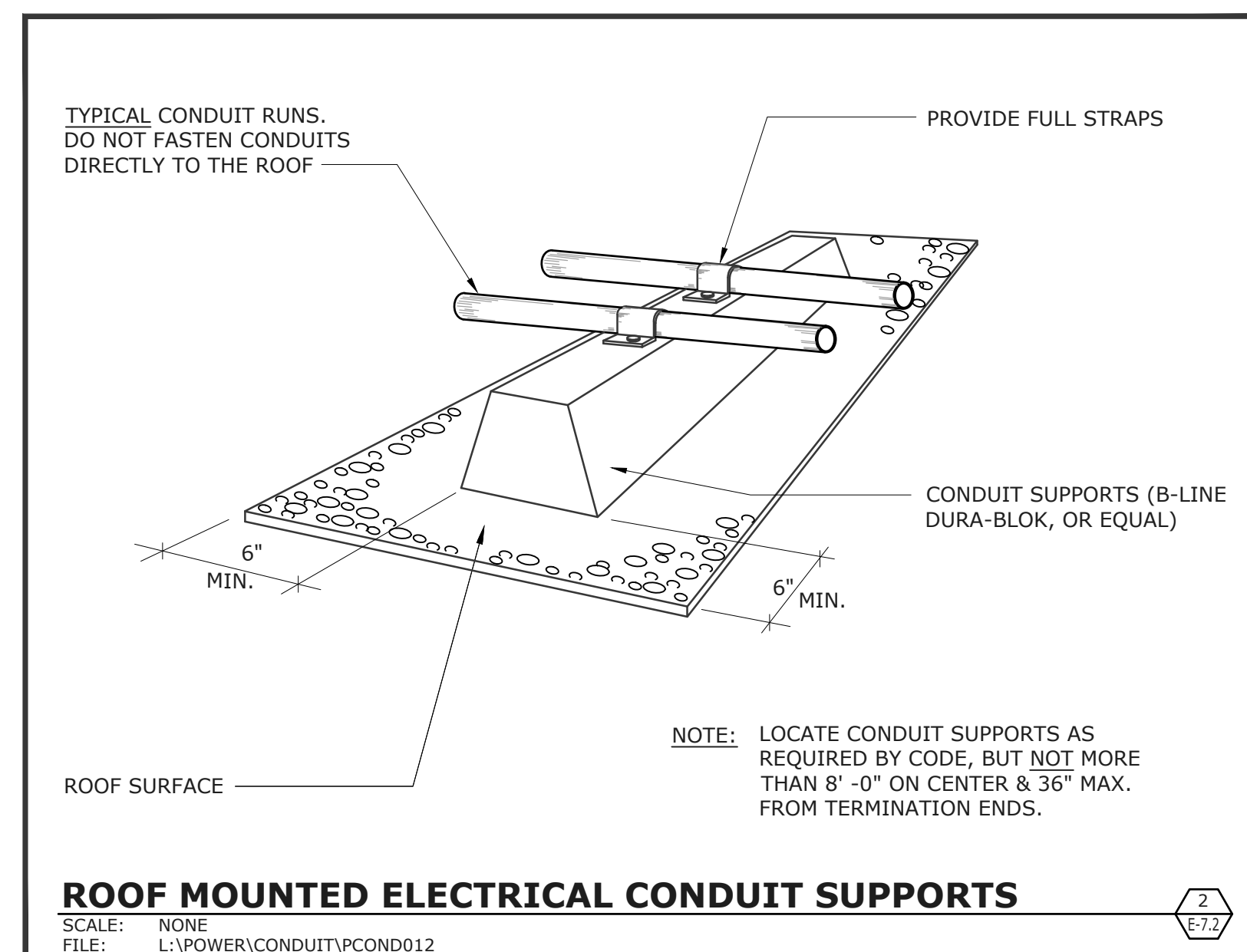
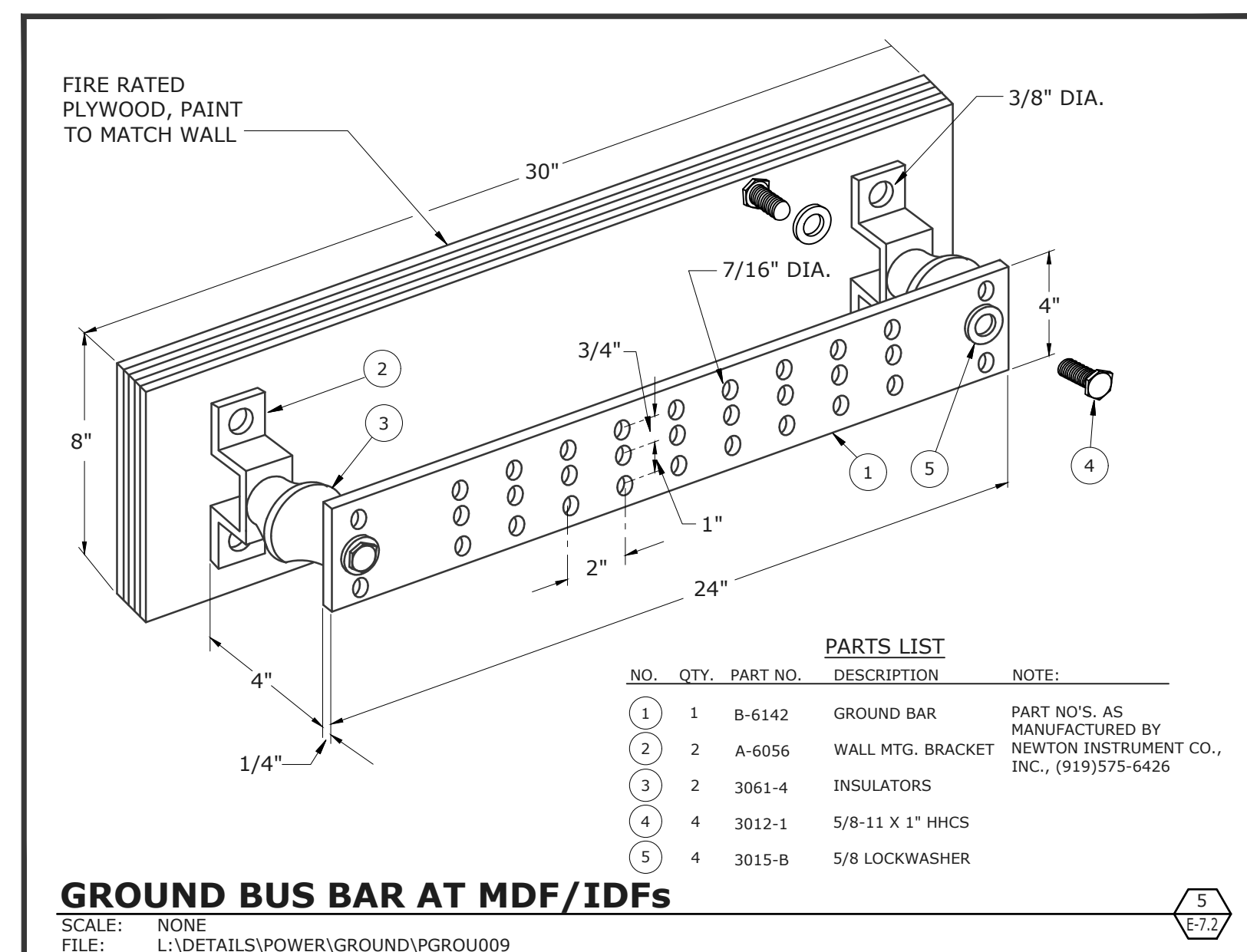
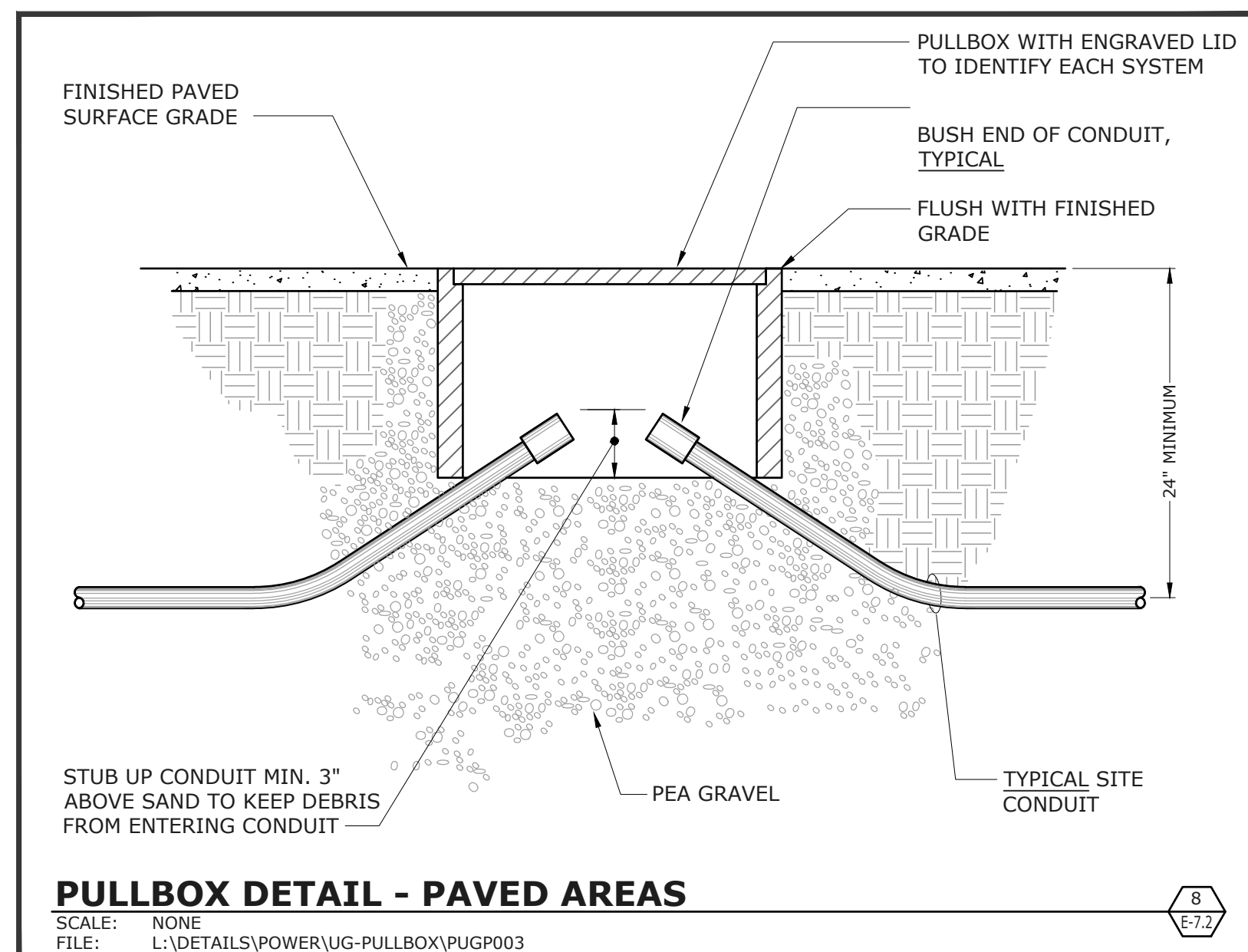
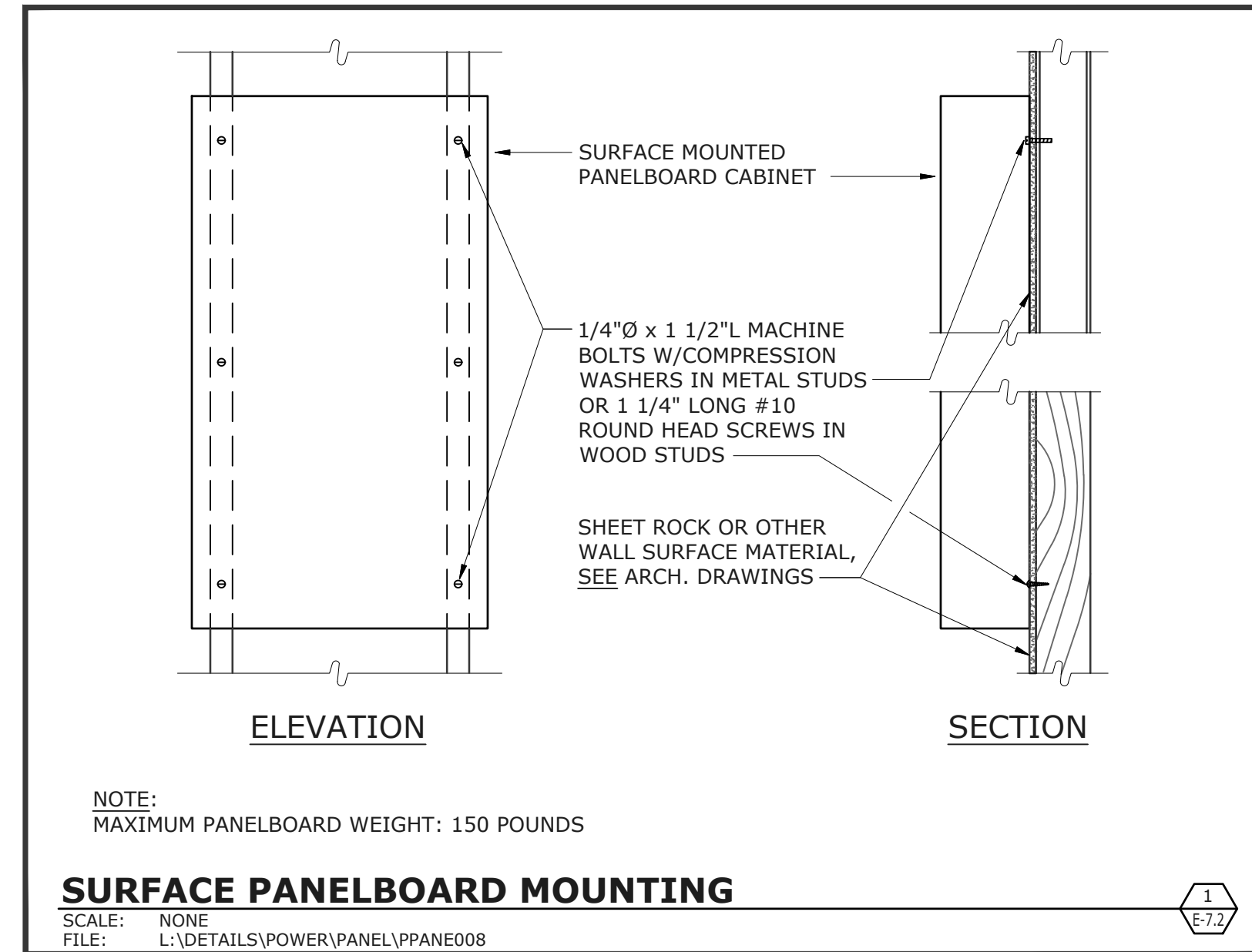
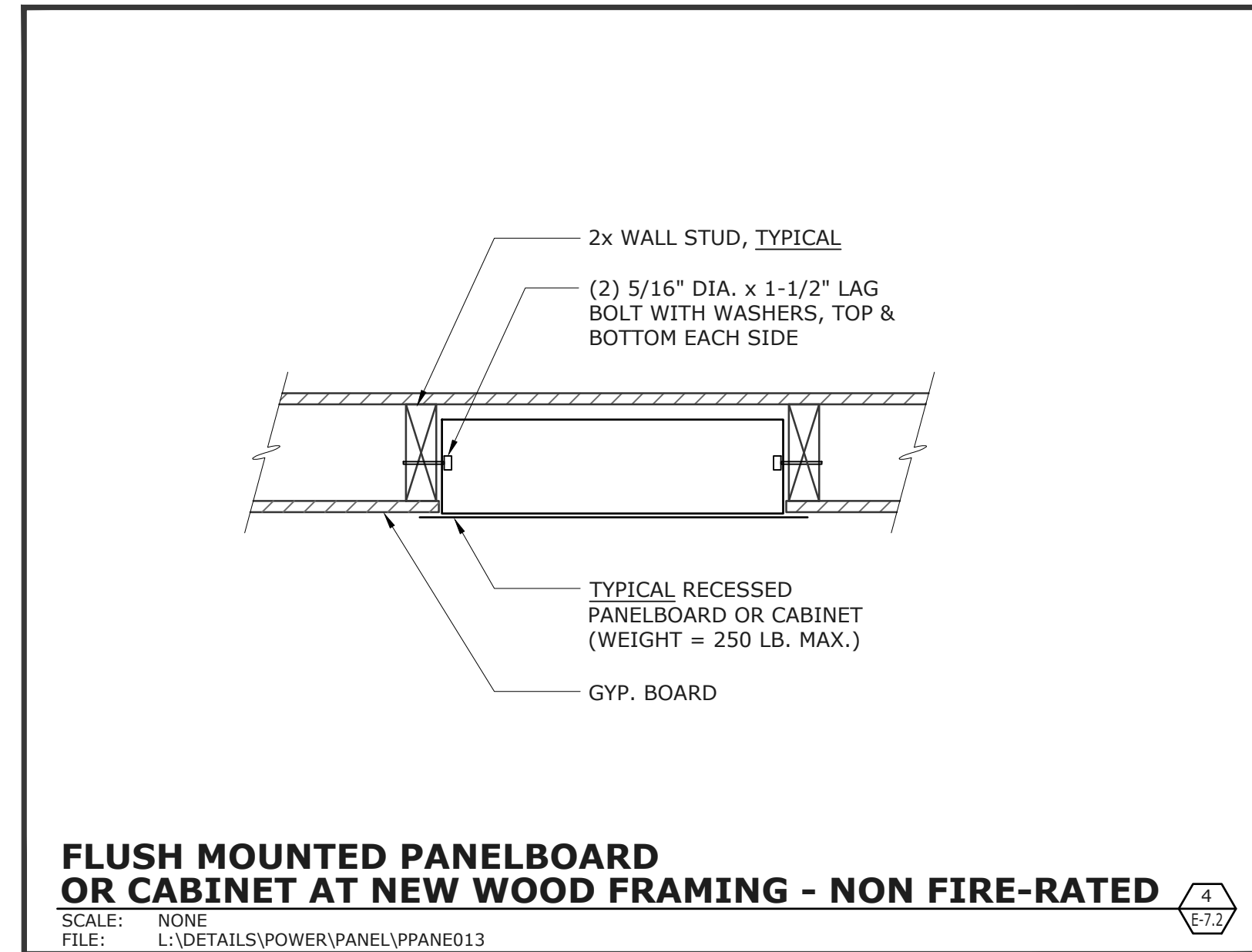
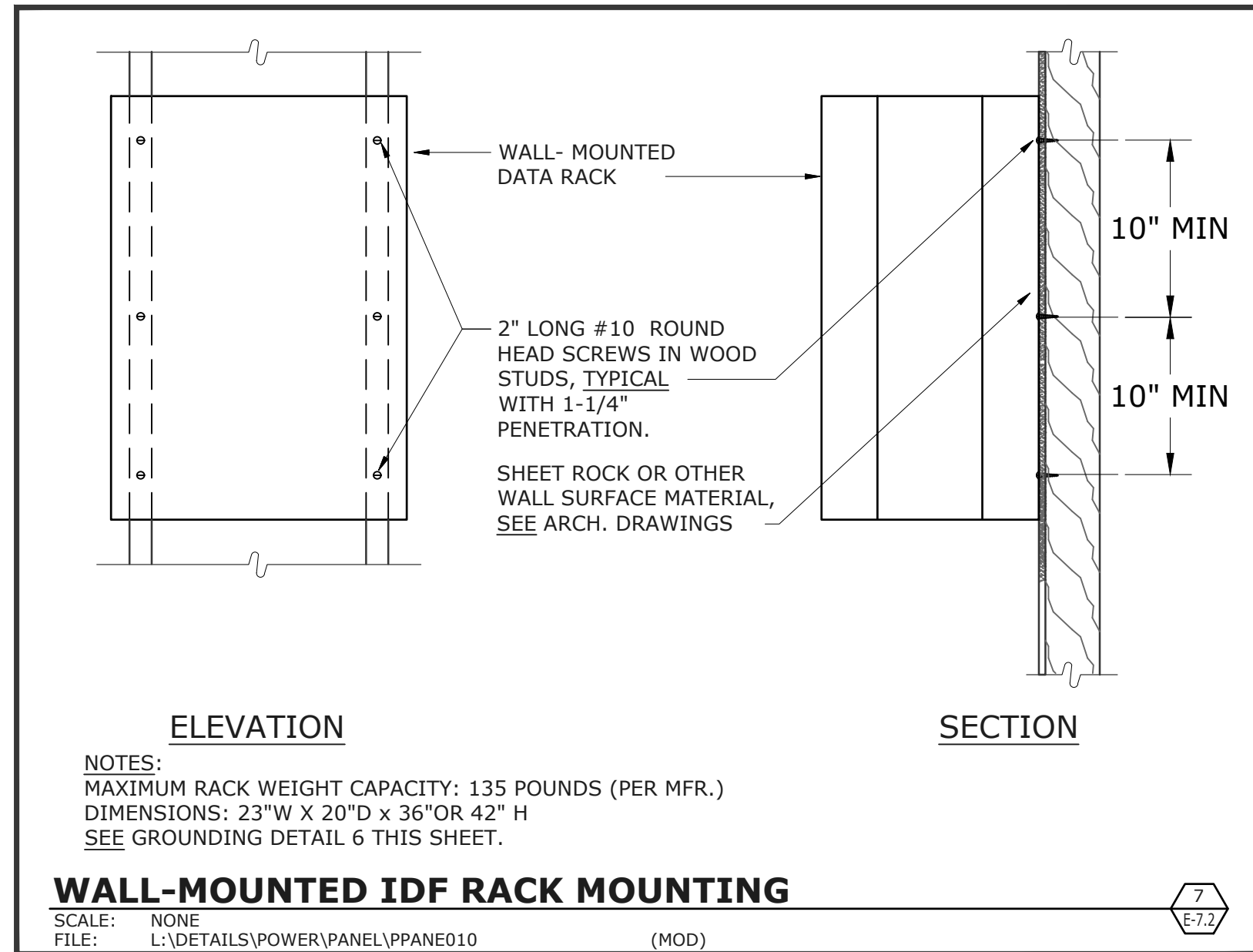
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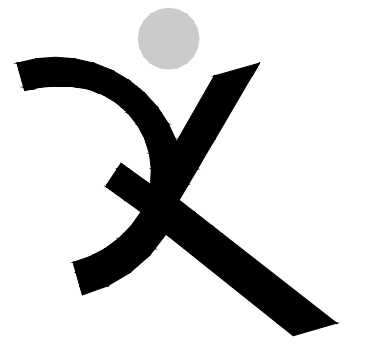
DETAILS

SHEET NUMBER

E-7.1

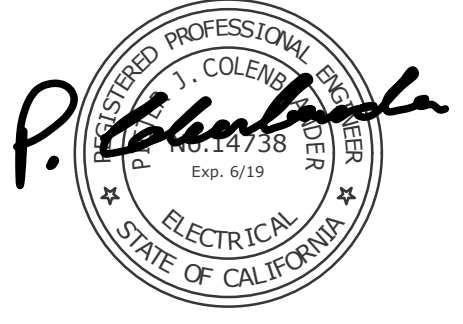


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E-7.2

STATE OF CALIFORNIA
Outdoor Lighting
 NRCC-LTO-E (Created 9/17) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE
 Project Name: Heritage High School Culinary Arts Building Report Page: Page 5 of 5
 Project Address: 101 American Ave Date Prepared: 11/1/2018

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT
 Documentation Author Name: Brian O'Mahony Documentation Author Signature: *P. Colenbrander*
 Company: O'Mahony & Myer Signature Date:
 Address: 4340 Redwood Hwy, Suite 245 CEA/HERS Certification Identification (if applicable): E10332
 City/State/Zip: San Rafael, CA 94903 Phone: 415-492-0420

RESPONSIBLE PERSON'S DECLARATION STATEMENT
 I certify the following under penalty of perjury, under the laws of the State of California:
 1. The information provided on this Certificate of Compliance is true and correct.
 2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
 3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
 4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
 5. I will ensure that a completed signed copy of this certificate of compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Pieter Colenbrander Responsible Designer Signature: *P. Colenbrander*
 Company: O'Mahony & Myer Date Signed:
 Address: 4340 Redwood Hwy, Suite 245 License: E14738
 City/State/Zip: San Rafael, CA 94903 Phone: 415-492-0420

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2016standards> September 2017

STATE OF CALIFORNIA
Outdoor Lighting
 NRCC-LTO-E (Created 9/17) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE
 Project Name: Heritage High School Culinary Arts Building Report Page: Page 3 of 5
 Project Address: 101 American Ave Date Prepared: 11/1/2018

Table Instructions: Complete this table demonstrating compliance with controls requirements for all new or altered luminaires installed as part of the permit application. For alteration projects, luminaires which are existing to remain (ie untouched) and luminaires which are removed and reinstalled (wiring only) do not need to be included in this table even if they are within the spaces covered by the permit application. When an option having a * is selected, the notes section of this table must be completed. The lighting controls section of the Compliance Summary Table on the first page will show "DOES NOT COMPLY" if the notes are left blank. For each requirement in columns 02 through 07, do not leave the field blank, instead select NA or Exempt* from the dropdown list to indicate not applicable or an exemption.

Mandatory Controls

01	02	03	04	05	06	07	08
Area Description	Motion Sensor: Incandescent-100W §130.2(c)1	Shut-Off §130.2(c)1	Auto-Schedule §130.2(c)2	Motion Sensor §130.2(c)3	Sales Frontage §130.2(c)4	Facade, Ornament, Outdoor Dining §130.2(c)5	Field Inspector
	NA: No Incand-100W	Photocontrol	Yes	Yes	NA: No Sales Front Ltg	No Applicable Lt	Pass Fail

*NOTES: Controls with a * require a note in the space below explaining how compliance is achieved.
 EX: Not permitted by health & safety to be turned off; EXCEPTION 1 to §130.2(c).

L. LIGHTING POWER ALLOWANCE (per §140.7)
 Table Instructions: Please complete this table for areas using the allowance calculations per §140.7. General Hardscape Allowance is per Table 140.7-A while "Use it or lose it" Allowances are per Table 140.7-B. Indicate which allowances are being used to expand sections for user input. Luminaires that qualify for one of the "Use it or lose it" allowances shall not qualify for another "Use it or lose it" allowance.

01	02	03	04	05	06	07	08	09
General Hardscape Allowance	Per Application	Sales Frontage	Ornamental	Per Specific Area	Existing Power	Total Allowed (Watts)	Total Actual (Watts)	07 Must be ≥ 08
(See Table I)	(See Table J)	(See Table K)	(See Table L)	(See Table M)	(See Table N)	757.61	490	COMPLIES

Calculated General Hardscape Lighting Power Allowance per Table 140.7-A

02	03	04	05	06	07	08	09
Area Description	Area Wattage Allowance (AWA) Illuminated Area (ft²)	Allowed Density (W/ft²)	Area Allowance (Watts)	Perimeter Length (lf)	Allowed Density (W/lf)	Linear Allowance (Watts)	Total General AWA + LWA (Watts)
Pedestrian Hardscape	3,044	0.04	121.76	331	0.35	115.85	237.61

Initial Wattage Allowance for Entire Site (Watts): 520
 Total General Hardscape Allowance (Watts): 757.61

J. LIGHTING ALLOWANCE: PER APPLICATION
 This Section Does Not Apply

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2016standards> September 2017

STATE OF CALIFORNIA
Outdoor Lighting
 NRCC-LTO-E (Created 9/17) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE
 Project Name: Heritage High School Culinary Arts Building Report Page: Page 4 of 5
 Project Address: 101 American Ave Date Prepared: 11/1/2018

K. LIGHTING ALLOWANCE: SALES FRONTAGE
 This Section Does Not Apply

L. LIGHTING ALLOWANCE: ORNAMENTAL
 This Section Does Not Apply

M. LIGHTING ALLOWANCE: PER SPECIFIC AREA
 This Section Does Not Apply

N. EXISTING CONDITIONS POWER ALLOWANCE (alterations only)
 This Section Does Not Apply

O. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION
 Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E, Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at <http://www.energy.ca.gov/2015publications/CEC-400-2015-033/appendices/forms/NRCC>

YES	NO	Form/Title	Field Inspector
<input checked="" type="radio"/>	<input type="radio"/>	NRCC-LTO-01-E - Must be submitted for all buildings.	Pass Fail
<input checked="" type="radio"/>	<input type="radio"/>	NRCC-LTO-02-E - Must be submitted for a lighting control system; or for an Energy Management Control System (EMCS), to be recognized for compliance.	Pass Fail

P. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE
 Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E, Additional Remarks. These documents must be provided to the building inspector during construction and must be completed through an Acceptance Test Technician Certification Provider (ATTCP). For more information visit: <http://www.energy.ca.gov/title24/attcp/providers.html>

YES	NO	Form/Title	Field Inspector
<input checked="" type="radio"/>	<input type="radio"/>	NRCA-LTO-02-A - Must be submitted for all outdoor lighting controls except for alterations where controls area added to ≤ 20 luminaires.	Pass Fail

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2016standards> September 2017

STATE OF CALIFORNIA
Outdoor Lighting
 NRCC-LTO-E (Created 9/17) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE
 Project Name: Heritage High School Culinary Arts Building Report Page: Page 1 of 5
 Project Address: 101 American Ave Date Prepared: 11/1/2018

A. GENERAL INFORMATION
 01 Project Location (city): Brentwood 04 Total Illuminated Hardscape Area (ft²): 3,044
 02 Climate Zone: 12
 03 Outdoor Lighting Zone per Title 24, Part 1 §10-114 or as designated by Authority Having Jurisdiction (AHJ):
 LZ-0: Very Low - Undeveloped Parkland LZ-2: Moderate - Rural Areas LZ-4: High - Must be reviewed by CA Energy Commission for Approval
 LZ-1: Low - Developed Parkland LZ-3: Moderately High - Urban Areas

B. PROJECT SCOPE
 Table Instructions: Include any outdoor lighting systems that are within the scope of the permit application and are demonstrating compliance using the prescriptive path outlined in §140.7 or §141.0(b)(2) for alterations.
 My project consists of:
 New Lighting System Must Comply with Allowances from §140.7.
 Altered Lighting System Is your alteration increasing the connected lighting load (Watts)? Yes No
 *FOOTNOTES: % of Existing Luminaires Being Altered = (Sum Total of Luminaires Being Added or Altered / Existing Luminaires within the Scope of the Permit Application) x 100

C. COMPLIANCE RESULTS
 Table Instructions: If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D, for guidance.

01	02	03	04	05	06	07	08	09
General Hardscape Allowance §140.7(d)1	Per Application §140.7(d)2	Sales Frontage §140.7(d)2	Ornamental §140.7(d)2	Per Specific Area §140.7(d)2	Existing Power §141.0(b)2L	Total Allowed (Watts)	Total Actual (Watts)	07 Must be ≥ 08
(See Table I)	(See Table J)	(See Table K)	(See Table L)	(See Table M)	(See Table N)	757.61	490	COMPLIES

Cutoff Compliance (See Table G for Details) Not Applicable
 Controls Compliance (See Table H for Details) COMPLIES

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2016standards> September 2017

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Outdoor Lighting
 NRCC-LTO-E (Created 9/17) CALIFORNIA ENERGY COMMISSION

CERTIFICATE OF COMPLIANCE
 Project Name: Heritage High School Culinary Arts Building Report Page: Page 2 of 5
 Project Address: 101 American Ave Date Prepared: 11/1/2018

D. EXCEPTIONAL CONDITIONS
 This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.
 No exceptional conditions apply to this project.

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

F. OUTDOOR LIGHTING FIXTURE SCHEDULE
 Table Instructions: For new or altered lighting systems demonstrating compliance with §140.7 (ie Table I has expanded for input), include all luminaires being installed and any existing luminaires remaining or being moved within the spaces covered by the permit application in the Table below. For altered lighting systems using the Existing Power method per §141.0(b)(2), (ie Table N has expanded for input), include only new luminaires being installed and replacement luminaires being installed as part of the project scope (ie, do not include existing luminaires remaining or existing luminaires being moved).

Designed Wattage:

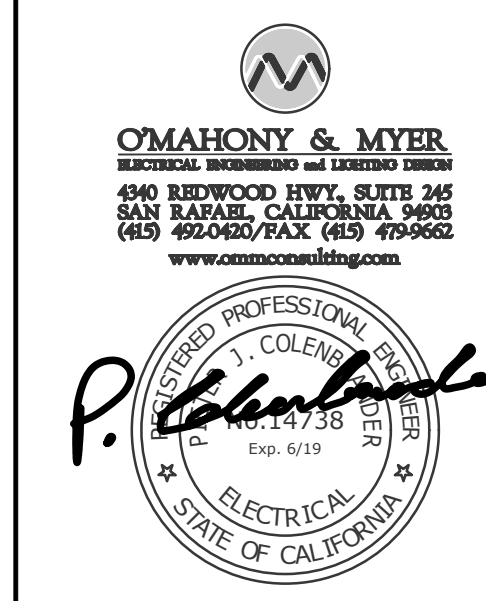
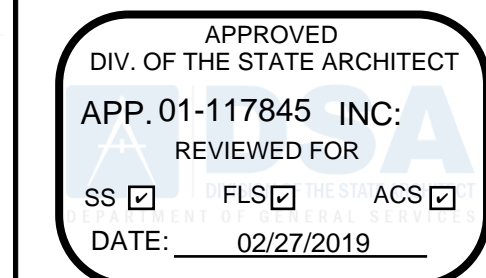
01	02	03	04	05	06	07	08	09	10
Name or Item Tag	Complete Luminaire Description	Watts per luminaire¹	How Wattage is determined	Total number luminaires	Luminaire Status²	Excluded per §140.7(a)	Design Watts	Cutoff Req. > 150W §130.2(b)³	Field Inspector
LA1	LA1 - LED Non-Dim	30	Mfr. Spec¹	12	New		360		Pass Fail
LF1	LF1 - LED Non-Dim	26	Mfr. Spec¹	5	New		130		Pass Fail
							Total Designed Watts:	490	

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

G. CUTOFF REQUIREMENTS (BUG)
 This Section Does Not Apply

H. OUTDOOR LIGHTING CONTROLS

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance: <http://www.energy.ca.gov/title24/2016standards> September 2017



HERITAGE HIGH SCHOOL CULINARY ARTS BUILDING
 101 American Ave
 Brentwood, CA 94513

LIBERTY UNION HIGH SCHOOL DISTRICT
 20 Oak Street
 Brentwood, CA 94513

REVISIONS

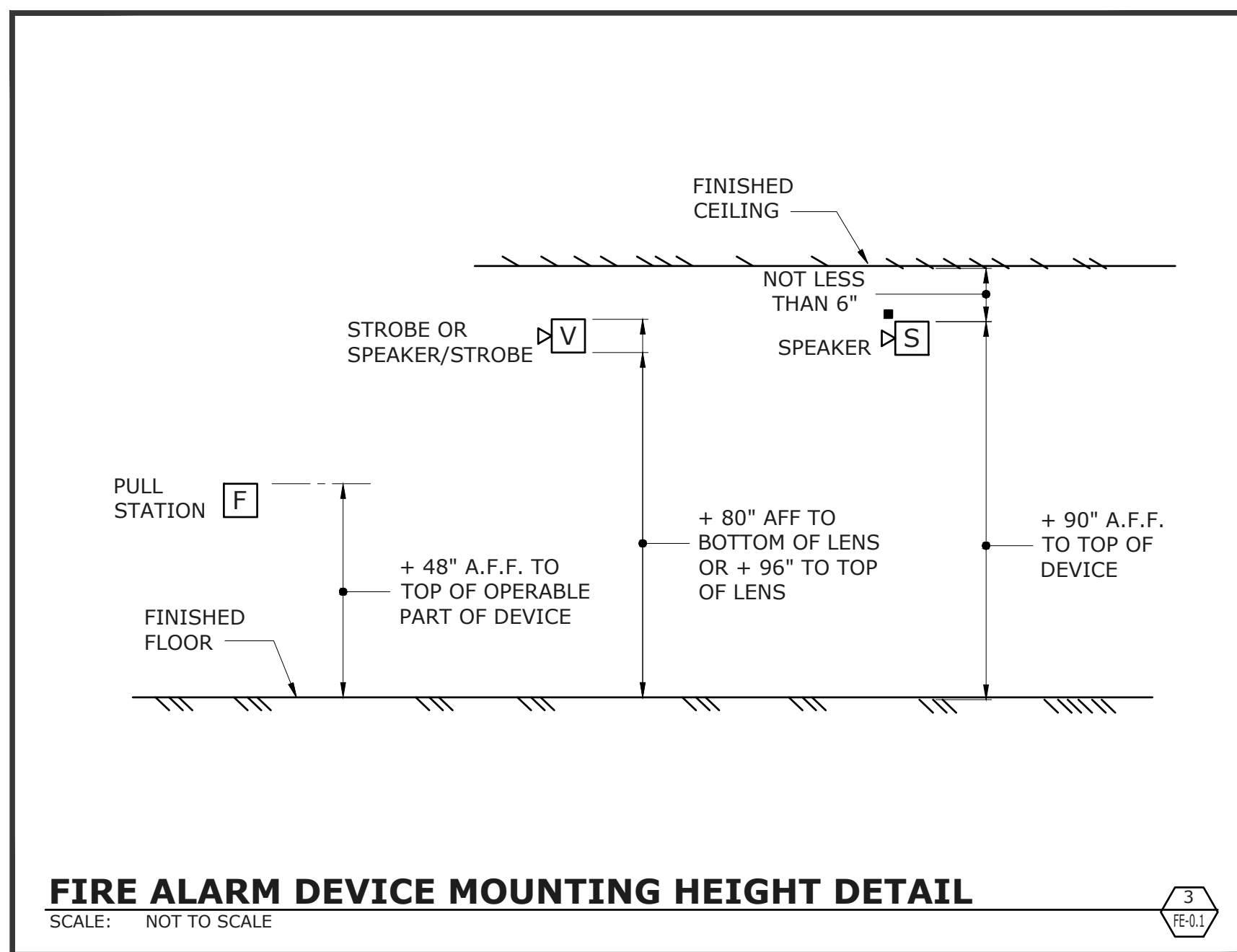
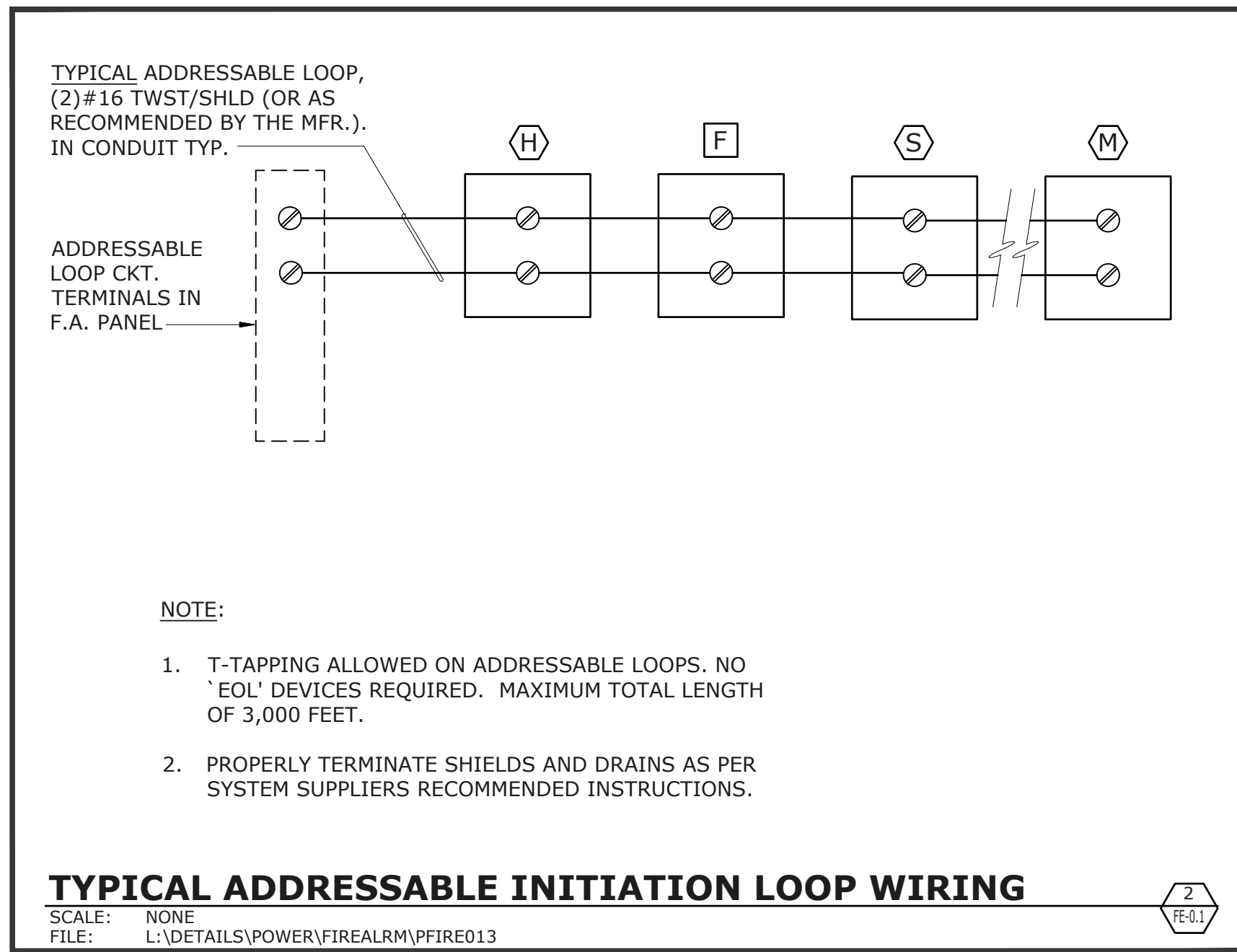
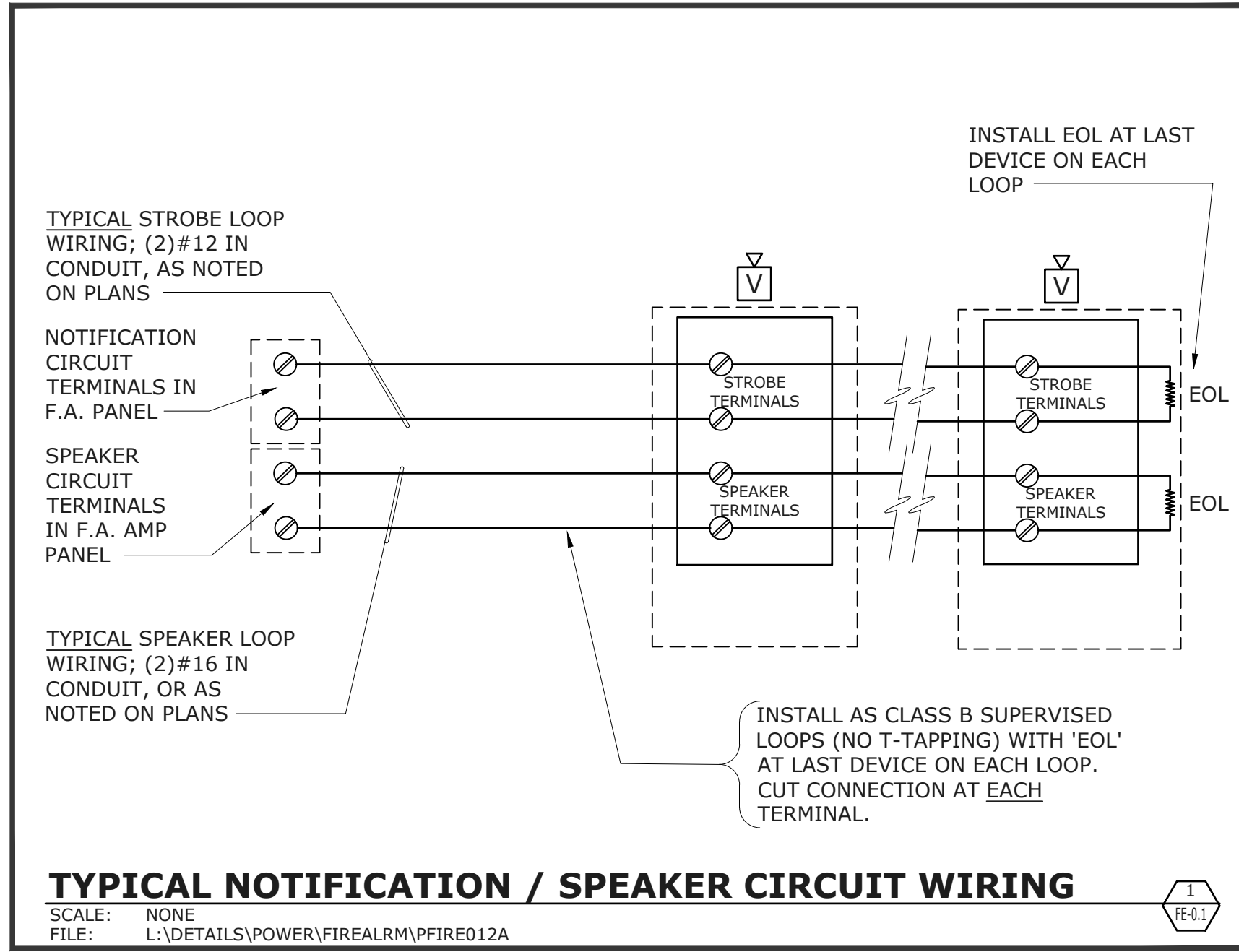
NO.	DESCRIPTION

ARCH PROJECT NO: 1750.00
 DRAWN BY: RG
 DRAWING SCALE: SCALE
 PTN: 61721-70

CD
 FEBRUARY 27, 2019
 SHEET TITLE

TITLE 24 DOCUMENTS

SHEET NUMBER
E-8.2



GENERAL FIRE ALARM NOTES

- FINAL FIRE ALARM TEST SHALL BE MADE WITH THE DSA INSPECTOR OF RECORD (IOR). LOCAL FIRE AUTHORITY SHALL BE NOTIFIED OF DATE AND TIME OF FINAL ALARM TESTING AND SHALL ASSIST/WITNESS SUCH TESTING WHEN ABLE. DSA/ARCHITECT/ENGINEER AND OWNER SHALL BE NOTIFIED A MINIMUM OF (48) HOURS PRIOR TO THE FINAL INSPECTION AND/OR TESTING.
- FIRE ALARM CONTRACTOR SHALL PROVIDE SYSTEM PROGRAMMING FOR SUPERVISORY MONITORING PER CBC SECTION 901.6.2. MONITORING SHALL BE TESTED AND VERIFIED AS SENDING THE CORRECT SIGNALS IN CONJUNCTION WITH FINAL ACCEPTANCE TEST. OWNER SHALL BE RESPONSIBLE FOR ESTABLISHING A FIRE SYSTEM MONITORING CONTRACT AND/OR PROVISIONS
- UNDERGROUND AND EXTERIOR CONDUITS SHALL HAVE WATERTIGHT FITTINGS.
- FIRE ALARM DEVICE MOUNTING HEIGHTS:
PULL STATION: 48" TO TOP OF OPERATOR ABOVE FINISHED FLOOR.
HORN INTERIOR: 90" MIN. TO TOP OF DEVICE ABOVE FINISHED FLOOR, OR 100" MAX TO TOP OF DEVICE, BUT NOT LESS THAN 6" FROM CEILING.
WALL MOUNTED STROBE OR HORN/STROBE: BETWEEN 80" TO BOTTOM OF DEVICE LENS TO +96" TO TOP OF DEVICE LENS ABOVE FINISH FLOOR, BUT NOT LESS THAN 6" FROM CEILING.
CONTROL PANELS / ANNUNCIATORS: 48" TO BOTTOM OF EQUIPMENT.
- AUDIBLE FIRE ALARM SYSTEM LEVEL SHALL BE AT LEAST 15dBA ABOVE THE AVERAGE AMBIENT SOUND LEVEL IN ALL OCCUPIABLE AREAS, OR 5 dBA ABOVE THE MAXIMUM SOUND LEVEL HAVING A DURATION OF AT LEAST 60 SECONDS, WHICHEVER IS GREATER, MEASURED AT 5 FEET ABOVE THE FLOOR. AUDIBLE SIGNALS SHALL NOT BE LESS THAN 75dBA AT 10 FEET, OR MORE THAN 110dBA AT THE MINIMUM HEARING DISTANCE.
- AUDIBLE DEVICES SHALL BE SYNCHRONIZED TEMPORAL THREE DISTINCTIVE FIRE ALARM SOUND PER NFPA 72.
- APPLICABLE CODES:
a. CBC 2016; CEC 2016; CMC 2016; CFC 2016.
b. STATE FIRE MARSHAL TITLE 19, PUBLIC SAFETY.
c. NFPA 72, 2016 EDITION W/CA AMENDMENTS, FIRE ALARM CODE.
- STROBES SHALL FLASH AT A RATE NOT EXCEEDING TWO FLASHES PER SECOND, AND NOT LESS THAN ONE FLASH EVERY SECOND. THE DEVICE SHALL HAVE A PULSING LIGHT SOURCE NOT LESS THAN 15 CANDELA. VISUAL DEVICES WITHIN 55 FEET OF EACH OTHER SHALL BE SYNCHRONIZED.
- FIRE ALARM CONTRACTOR SHALL PROVIDE A COPY OF NFPA 72 SYSTEM RECORD OF COMPLETION, SYSTEM RECORD OF INSPECTION AND TESTING, AND THE "EMERGENCY COMMUNICATIONS SUPPLEMENTARY RECORD OF COMPLETION", TO THE INSPECTOR OF RECORD IOR/DSA, SCHOOL DISTRICT, ARCHITECT AND LOCAL FIRE AUTHORITY.
- POWER SERVICE TO THE FACP, REMOTE POWER SUPPLIES, AND CENTRAL STATION AUTO DIALER SHALL BE ON A DEDICATED BRANCH CIRCUIT WITH A RED MARKING AND IDENTIFIED AS "FIRE ALARM CIRCUIT CONTROL".
- INSTALL ALL WIRING IN CONDUIT, MIN. 3/4" CONDUIT. ALL FIRE ALARM SYSTEM WIRING SHALL BE FLP (FIRE POWER LIMITED) OR FPLP (FIRE POWER LIMITED PLENUM RATED) AS REQUIRED FOR APPLICATION. WIRING IN CONDUIT ABOVE GROUND MAY BE THIN OR THWN.
- CONDUIT AND WIRING SHALL BE PER MANUFACTURERS REQUIREMENTS.
- ALL FIRE ALARM COMPONENTS SHALL BE SECURED TO MOUNTING SURFACES PER MANUFACTURERS SPECIFICATIONS. NO SINGLE DEVICES/EQPT. SHALL EXCEED 20LBS. WITHOUT SPECIAL MOUNTING DETAILS.
- INSTALLATION OF SYSTEM SHALL NOT BE STARTED UNTIL COMPLETE SET OF CONSTRUCTION DOCUMENTS (WITH DEVICE TYPES AND LISTINGS) HAVE BEEN REVIEWED AND APPROVED BY DSA.
- A STAMPED SET OF APPROVED PLANS SHALL BE ON THE JOB SITE AT ALL TIMES AND SHALL BE USED FOR INSTALLATION.
- ANY DISCREPANCIES BETWEEN THE CONTRACT DOCUMENTS AND CODE OR RECOGNIZED STANDARDS SHALL BE BROUGHT TO THE ATTENTION OF DSA AND ARCHITECT/ENGINEER OF RECORD.
- THE CONTRACTOR SHALL INSTALL AND ADJUST ALL DEVICES TO MAXIMIZE PERFORMANCE AND TO MINIMIZE FALSE ALARMS.
- SMOKE DETECTORS SHALL NOT BE ANY CLOSER THAN 1 FOOT FROM FIRE SPRINKLER HEADS OR 3 FEET FROM ANY SUPPLY DIFFUSER. IN AREAS OF CONSTRUCTION OR POSSIBLE DAMAGE /CONTAMINATION, INSTALLED DEVICES SHALL BE COVERED UNTIL AREA IS READY TO BE TURNED OVER TO THE OWNER.
- PER CEC STANDARDS, ALL WIRING IS TO BE PULLED THROUGH EACH JUNCTION BOX AND CONNECTED DIRECTLY TO EACH FIRE ALARM DEVICE. DO NOT SPLICE WIRE. THERE MUST BE AT LEAST 6" OF WIRE LEAD FROM THE BOX TO THE DEVICE. ALL BOXES TO BE SIZED PER CEC FOR PROPER VOLUME WITH INSTALLED WIRING AND DEVICES.
- PER CEC STANDARDS, ALL WIRING IS TO BE PULLED THROUGH EACH JUNCTION BOX AND CONNECTED DIRECTLY TO EACH FIRE ALARM DEVICE. DO NOT SPLICE WIRE. THERE MUST BE AT LEAST 6" OF WIRE LEAD FROM THE BOX TO THE DEVICE. ALL BOXES TO BE SIZED PER CEC FOR PROPER VOLUME WITH INSTALLED WIRING AND DEVICES.
- SUPERVISING STATION: 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 UJFX OR UJUS BY UNDERWRITERS LABORATORY OR SHALL MEET THE REQUIREMENTS OF FACTORY MUTUAL RESEARCH APPROVAL STANDARD 3011.
- A DOCUMENTATION CABINET SHALL BE INSTALLED ADJACENT TO THE FACP IN THE MAIN ELECTRICAL ROOM (NFPA 72, 7.7.2.1). SPACE AGE ELECTRONICS INC, ACERBOX FAD SERIES (#SSU00685 OR EQUAL).
- ALL RECORD DOCUMENTATION SHALL BE STORED IN THE DOCUMENTATION CABINET (NFPA 72, 7.7.2.3): PROVIDE NAMEPLATE "FIRE ALARM SYSTEM RECORD DOCUMENTS" (NFPA 72, 7.7.2.5).
- FIRE ALARM MANUAL PULLSTATIONS SHALL MEET THE CALIFORNIA ACCESSIBILITY REQUIREMENTS OUTLINED IN THE CBC. ("CONTROLS AND OPERATING MECHANISMS SHALL BE OPERABLE WITH ONE HAND AND NOT REQUIRE TIGHT GRASPING, PINCHING OR TWISTING OF THE WRIST. THE FORCE TO ACTIVATE THE CONTROLS SHALL BE NO GREATER THAN 5 POUNDS OF FORCE". REFER TO DSA ACCESSIBILITY STAFF FOR QUESTIONS OR CLARIFICATION.)

SEQUENCE OF OPERATION

- MANUAL PULL STATION - WHEN A PULL STATION IS PULLED, IT SHALL ANNUNCIATE AN ALARM AT THE FACP. ALARM SHALL ACTIVATE ALL AUDIO AND VISUAL DEVICES THROUGHOUT THE CAMPUS.
- SMOKE AND HEAT DETECTORS - WHEN A SMOKE OR HEAT DETECTOR IS ACTIVATED, IT SHALL ANNUNCIATE AN ALARM AT THE FACP. ALARM SHALL ACTIVATE ALL AUDIO AND VISUAL DEVICES THROUGHOUT THE CAMPUS.
- UPON CO DETECTION, IT SHALL ANNUNCIATE AN ALARM AT THE FACP AND SHALL ACTIVATE THE NOTIFICATION DEVICE AT THE ADMIN-RECEPTION ONLY WITH TEMPORAL 4 FORM.
- ANY BUILDING POWER FAILURE- IF THE BUILDING LOSES POWER, THE FAILURE SHALL SHOW UP AS A TROUBLE SIGNAL ON THE FACP. THE SYSTEM SHALL STAY ACTIVE ON BATTERY BACK-UP POWER IN ACCORDANCE WITH THE STATE FIRE CODE.
- SYSTEM SHALL INDICATE TROUBLE ALARMS FOR ALL SYSTEM FAULTS (i.e. GROUND FAULTS, SHORTS, OPEN CIRCUITS, BATTERY DISCONNECT, ETC.).
- FIRE/SMOKE DAMPERS - WHEN A FIRE/SMOKE DAMPER SMOKE DETECTOR IS ACTIVATED, IT SHALL ANNUNCIATE AN ALARM AT THE MAIN FACP. ALARM SHALL ACTIVATE ALL AUDIO AND VISUAL DEVICES THROUGHOUT THE CAMPUS AND SHALL SHUT DOWN THE ASSOCIATED HVAC UNIT.
- FIRE SPRINKLER SYSTEM - WHEN A FLOW SWITCH IS ACTIVATED, IT SHALL ANNUNCIATE AN ALARM AT THE MAIN FACP. ALARM SHALL ACTIVATE ALL AUDIO AND VISUAL DEVICES THROUGHOUT THE CAMPUS. WHEN TAMPER SWITCH IS ACTIVATED, IT SHALL ANNUNCIATE A SUPERVISORY ALARM AT THE MAIN FACP.
- UPON ALARM CONDITION, AUTO DIALER TO NOTIFY THE SUPERVISING STATION, AND AUTHORIZED SCHOOL PERSONNEL TO NOTIFY THE FIRE DEPARTMENT AND INITIATE EVACUATION OF STUDENTS AND FACULTY AS PER THE SCHOOL'S EVACUATION PLAN.
- UPON TROUBLE CONDITION, AUTO DIALER TO NOTIFY THE SUPERVISING STATION, AND AUTHORIZED SCHOOL PERSONNEL TO NOTIFY AUTHORIZED TECHNICIAN TO CORRECT THE TROUBLE CONDITION.

FIRE ALARM EQUIPMENT LIST

SYMBOL	DESCRIPTION	MANUFACTURER & MODEL NUMBER	CSFM LISTING NUMBER	STANDBY CURRENT	ALARM CURRENT
[FACP]	(E) FIRE ALARM CONTROL PANEL "FACP"	NOTIFIER NFS-640	-	348mA	2713mA
[FAA]	FIRE ALARM VOICE EVAC AMP WITH MICROPHONE "FAA"	NOTIFIER NFC-50/100 W/ CABINET	6911-0028-0265	272mA	446mA
[FAEP]	FIRE ALARM EXPANDER PANEL	NOTIFIER ACP5-610 W/ CAB-PS1 CABINET	7315-0028-0248	150mA	90mA
[H]	ADDRESSABLE FIXED TEMPERATURE HEAT DETECTOR (135F)	NOTIFIER FST-851	7270-0028-0196	0.30mA	6.50mA
[D]	ADDRESSABLE DETECTOR BASE	SYSTEM SENSOR B210LP	7300-1653-0109	-	-
[M]	ADDRESSABLE MONITOR MODULE	NOTIFIER FMM-1	7300-0028-0219	0.38mA	5.10mA
[C]	ADDRESSABLE CONTROL MODULE	NOTIFIER FCM-1	7300-0028-0219	0.38mA	5.10mA
[S]	ADDRESSABLE PHOTOELECTRIC SMOKE DETECTOR	NOTIFIER FSP-851	7272-0028-0206	0.36	7mA
[CO]	CONVENTIONAL CARBON MONOXIDE DETECTOR WITH SOUNDER BASE	SYSTEM SENSOR CO1224TR	5278-1653-0219	20mA	40mA
[V]	COMBINATION VISUAL STROBE AND HORN, TEMPORAL 4 WALL MOUNT, FOR CO DETECTION ONLY	WHEELLOCK LFHSCR-CO	7125-0785-0182	-	-
[H]	COMBINATION VISUAL STROBE AND SPEAKER (1W), WALL MOUNT, SELECTABLE CANDELA	WHEELLOCK #E70H-24MCW-FR (1/4 WATT TAP)	7125-0785-0173	-	-
[S]	EXTERIOR AUDIBLE SPEAKER (1W) WITH WEATHER-PROOF CABINET	WHEELLOCK #ET-1010R	7320-0785-0105	0mA	7mA
[]	DOCUMENTATION CABINET	SPACE AGE ELECT. SSU00672	-	-	-

NOTE:
DETECTOR SUBSCRIPTS:
"c" - DETECTOR IN ACCESSIBLE CEILING SPACE
"p" - DETECTOR WITHIN 36" OF PEAK

FIRE ALARM WIRING LEGEND

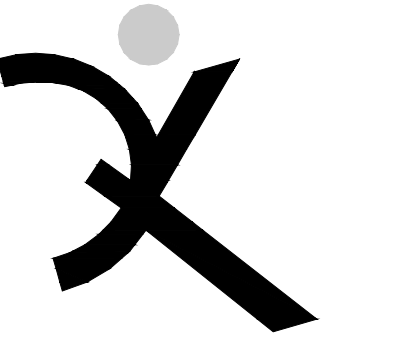
TAG	DESCRIPTION	CABLING
A	INITIATION CIRCUIT	(2) #16 TWISTED/UNSHIELDED
B	STROBE NOTIFICATION CIRCUIT(S)	(2) #12 THHN/THWN
C	SPEAKER NOTIFICATION CIRCUIT(S)	(2) #16 TWISTED/SHIELDED
D	CONSTANT 24V SUPPLY	(2) #14 THHN/THWN

NOTE:
CONTRACTOR SHALL VERIFY EXACT CABLE/WIRE TYPES WITH SYSTEM MANUFACTURER PRIOR TO ROUGH-IN. INSTALL WIRING IN WIREMOLD RACEWAYS (IN FINISH AREAS, I.E. CLASSROOMS, OFFICES, HALLWAYS, ETC.) AND IN 3" CONDUIT MIN. (IN UTILITY ROOMS).

FIRE ALARM SYSTEM DESCRIPTION

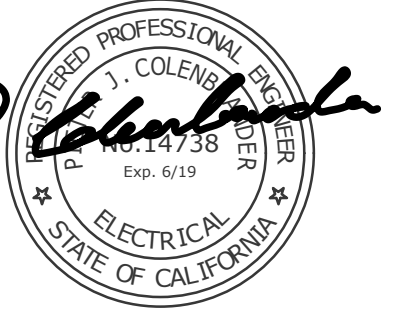
- THE FIRE ALARM SYSTEM SHALL BE AN AUTOMATIC ADDRESSABLE SYSTEM WITH STYLE 4, CLASS B WIRING FOR IDC'S, NAC'S, AND SLC'S WITH EMERGENCY VOICE / ALARM COMMUNICATIONS.
- PROVIDE COMPLETE CROSS TRIP CONNECTIONS, PROGRAMMING, AND ALL NECESSARY DEVICES FOR COMPLETE SYSTEMS INTEGRATION WITH THE EXISTING FACP.
- CIRCUIT PATHWAY SURVIVABILITY SHALL BE LEVEL 1.
- PROVIDE AND INSTALL NEW EQUIPMENT, DEVICES AND REQUIRED MODULES AND PROVIDE CONNECTIONS COMPLETE FOR A FULLY FUNCTIONING NETWORKED FIRE ALARM SYSTEM.
- THE NAME OF THE SPECIFIC PERSON RESPONSIBLE FOR THE SYSTEM DESIGN IS ALVIN CHU (OMAHONY & MYER).
- SYSTEM INSTALLATION SHALL BE BY A LICENSED ELECTRICAL OR FIRE ALARM CONTRACTOR WITH A CALIFORNIA C-10 LICENSE, REGULARLY ENGAGED IN THE INSTALLATION AND COMMISSIONING OF FIRE ALARM SYSTEMS TO NFPA 72 STANDARDS. INSTALLING CONTRACTOR'S NAME AND CONTACT INFORMATION SHALL BE LISTED IN THE NFPA CLOSE OUT DOCUMENTATION AT COMPLETION OF PROJECT.

APPROVED
DIV. OF THE STATE ARCHITECT
APP. 01-117845 INC.
REVIEWED FOR
SS [] FLS [] ACS []
DATE: 02/27/2019



QUATTROCCHI KWOK ARCHITECTS
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**HERITAGE HIGH SCHOOL
CULINARY ARTS BUILDING**

101 American Ave
Brentwood, CA 94513

LIBERTY UNION HIGH SCHOOL DISTRICT
20 Oak Street
Brentwood, CA 94513

REVISIONS

NO.	DESCRIPTION	DATE

ARCH PROJECT NO: 1750.00
DRAWN BY: LN
DRAWING SCALE: SCALE
PTN: 61721-70

CD
FEBRUARY 27, 2019
SHEET TITLE

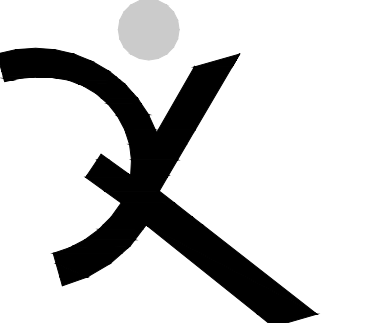
FIRE ALARM EQUIPMENT LIST, NOTES & DETAILS

SHEET NUMBER
FE-0.1



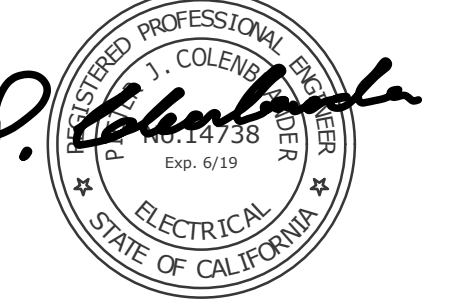
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- 1 1-1/2" CONDUIT WITH (1) TYPE 'A' AND (1) TYPE 'C' CABLES.
 - 2 PROVIDE (1) TYPE 'A' CABLE IN (E) 3" TELECOM CONDUIT.
 - 3 EXTEND (1) 1-1/2" CONDUIT FROM THIS TELECOM PULLBOX TO FAEP-C.
 - 4 INTERCEPT AND EXTEND (E) FIRE ALARM TYPE 'A' CABLE AND UTILIZE (E) 3" TELECOM CONDUIT.
 - 5 PROVIDE (1) TYPE 'C' CABLE IN (E) 3" TELECOM CONDUIT.
 - 6 PROVIDE (1) TYPE 'C' CABLE IN (E) 4" TELECOM CONDUIT.
 - 7 INTERCEPT AND EXTEND WITH 1-1/2" CONDUIT WITH (1) TYPE 'C' CABLE.

APPROVED
 DIV. OF THE STATE ARCHITECT
 APP. 01-117845 INC.
 REVIEWED FOR
 SS FLS ACS
 DATE: 02/27/2019



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REVISIONS

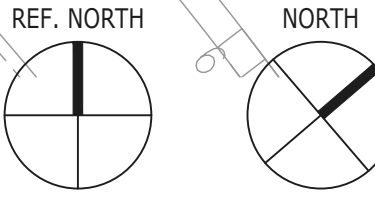
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ARCH PROJECT NO: 1750.00
 DRAWN BY: AC
 DRAWING SCALE: SCALE
 PTN: 61721-70

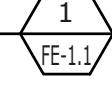
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 FEBRUARY 27, 2019
 SHEET TITLE

**SITE PLAN -
 FIRE ALARM**

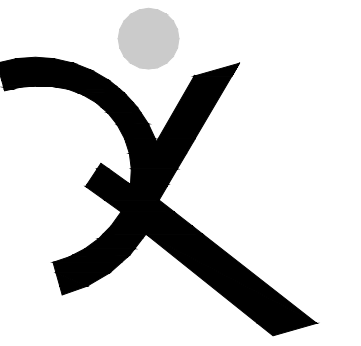
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FE-1.1



SITE PLAN - FIRE ALARM
 SCALE: 1" = 30'-0"

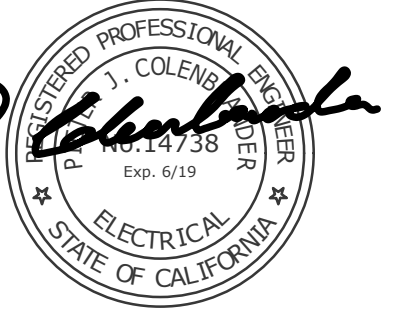


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 www.omahonyandmyer.com



HERITAGE HIGH SCHOOL

CULINARY ARTS BUILDING

101 American Ave
 Brentwood, CA 94513

LIBERTY UNION HIGH SCHOOL DISTRICT

20 Oak Street
 Brentwood, CA 94513

REVISIONS

NO.	DESCRIPTION

ARCH PROJECT NO: 1750.00
 DRAWN BY: LNTV
 DRAWING SCALE: SCALE
 PTN: 61721-70

CD

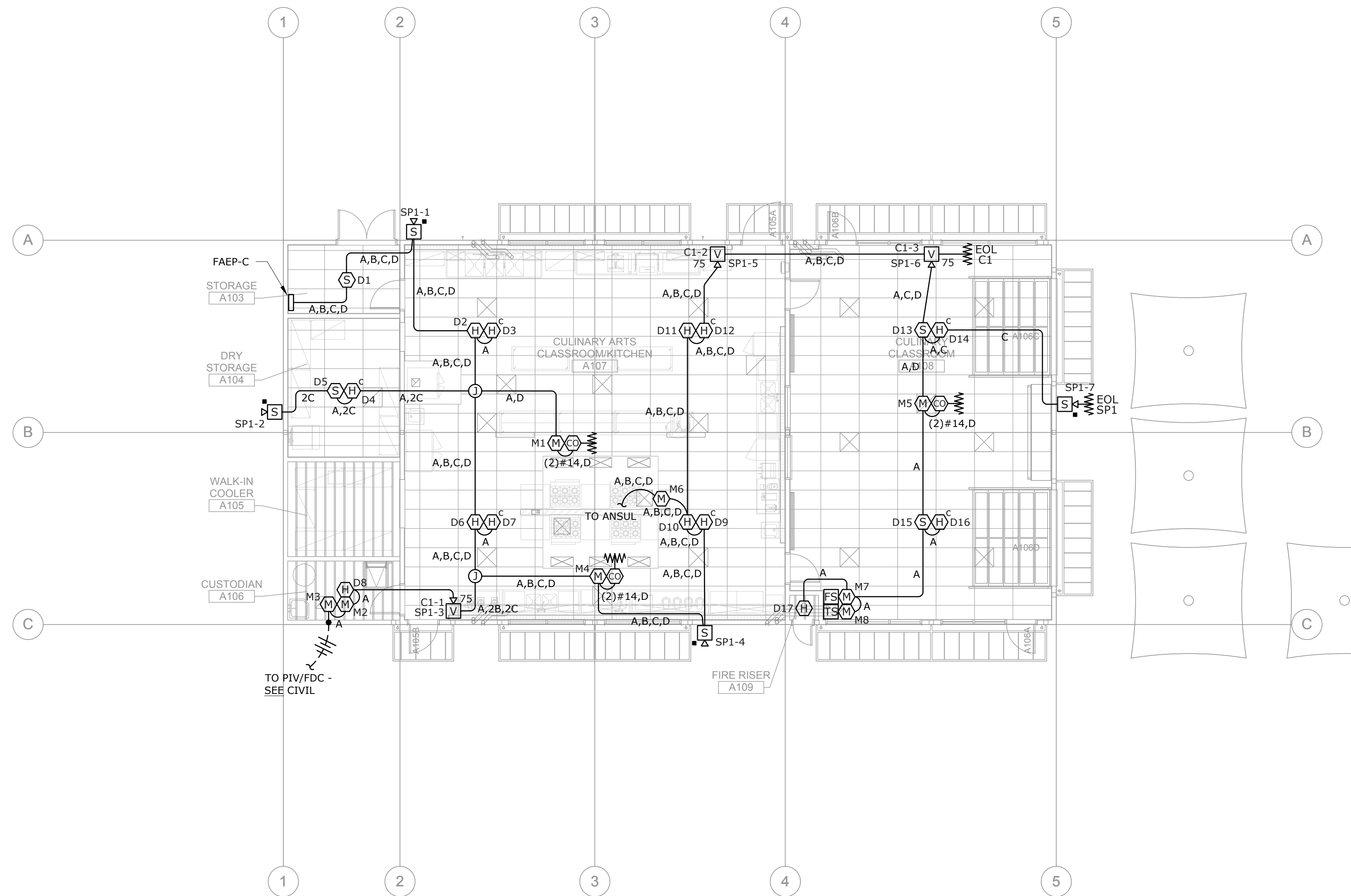
FEBRUARY 27, 2019

SHEET TITLE

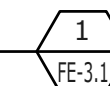
FLOOR PLAN - FIRE ALARM

SHEET NUMBER

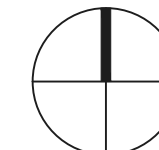
FE-3.1



FLOOR PLAN - FIRE ALARM
 SCALE: 1/8" = 1'-0"



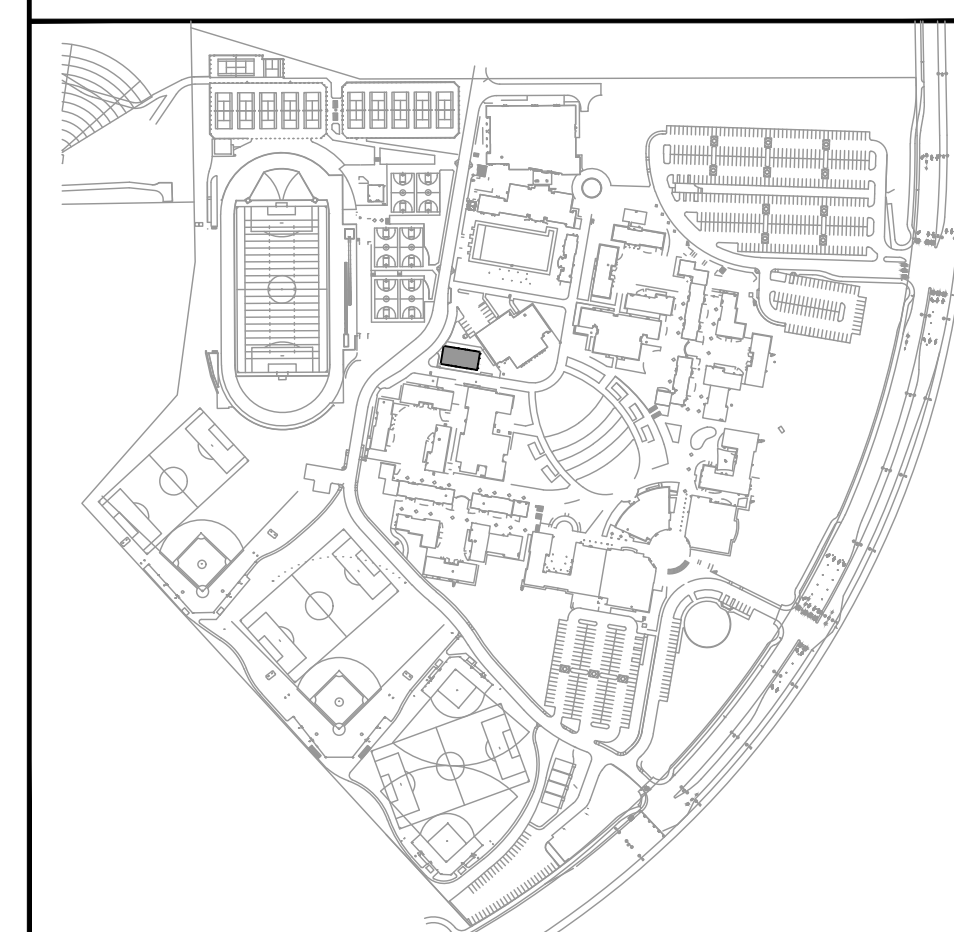
REF. NORTH

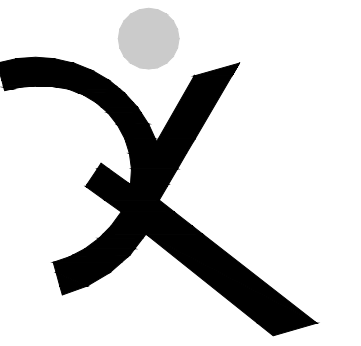


NORTH



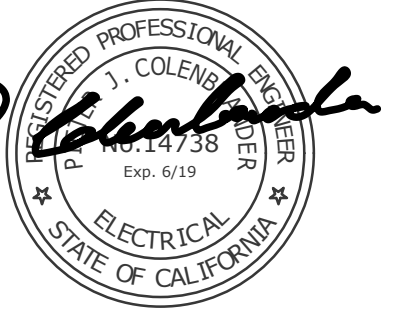
KEYPLAN





QUATTROCCHI KWOK ARCHITECTS
 Main Office:
 636 Fifth Street, Santa Rosa, CA 95404
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DATE	DESCRIPTION
08/09/18	FA REVISIONS

ARCH PROJECT NO: 1750.00
 DRAWN BY: LN
 DRAWING SCALE: SCALE
 PTN: 61721-70

CD

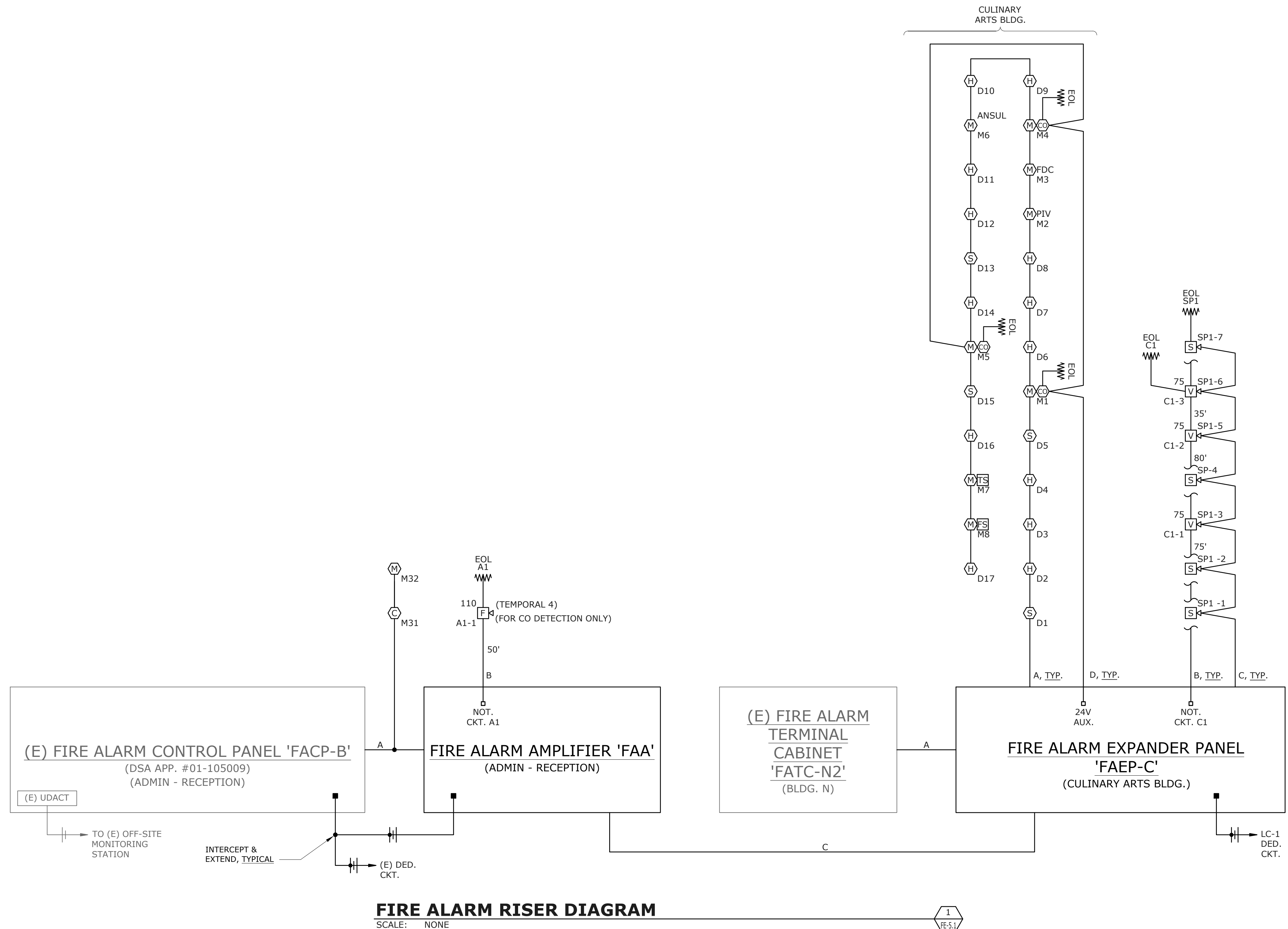
FEBRUARY 27, 2019

SHEET TITLE

RISER DIAGRAM - FIRE ALARM

SHEET NUMBER

FE-5.1



VOLTAGE DROP CALCULATIONS

FIRE ALARM EXPANDER PANEL 'FAEP-C'

SIGNAL CIRCUIT:	C1			
TOTAL CKT CURRENT =	0.500 A			
MAX VOLT-DROP =	1.33%			
SYSTEM VOLTAGE =	20.4 V			
Device Address-->	C1-1	C1-2	C1-3	
Type of Device -->	75SPSTR	75SPSTR	75SPSTR	eol
Current of Device (Amp) -->	0.165	0.165	0.165	0.005
Size of Wire (AWG) -->	#12	#12	#12	#12
Distance to each Device (Ft) -->	75	80	35	5
Current Total (Amp) -->	0.500	0.335	0.170	0.005
Device Volt-drop -->	0.71%	1.22%	1.33%	1.33%
Device Volt -->	20.3	20.2	20.1	20.1

BATTERY CALCULATIONS:

FIRE ALARM EXPANDER PANEL 'FAEP-C'

STANDBY MODE			
	<u>EA (A)</u>	<u>QTY.</u>	<u>CURRENT</u>
FAEP CTRL UNIT	0.150	1	0.150
CO SOUNDER BASE	0.020	3	0.060
TOTAL STANDBY CURRENT = 0.210 A			
REQUIRED (24 HOURS) = 5.040 AH			
ALARM MODE			
	<u>EA (A)</u>	<u>QTY.</u>	<u>CURRENT</u>
FAEP CTRL UNIT	0.090	1	0.090
NOTIFICATION CKT C1	0.500	1	0.500
CO SOUNDER BASE	0.040	1	0.040
TOTAL ALARM CURRENT = 0.630 A			
REQUIRED (15 MIN) = 0.158 AH			
TOTAL POWER REQUIRED WITH 120%			
BATTERY DERATING FACTOR = 6.237 AH			
PROVIDE TWO 12V, 12.0AH BATTERIES			

BATTERY CALCULATIONS:

(E) FIRE ALARM CONTROL PANEL 'FACP-B'

STANDBY MODE			
	<u>EA (A)</u>	<u>QTY.</u>	<u>CURRENT</u>
(E) LOADS	0.348	1	0.348
(N) MODULES	0.0004	2	0.001
TOTAL STANDBY CURRENT = 0.349 A			
REQUIRED (24 HOURS) = 8.370 AH			
ALARM MODE			
	<u>EA (A)</u>	<u>QTY.</u>	<u>CURRENT</u>
(E) LOADS	2.713	1	2.713
(N) MODULES	0.007	2	0.014
TOTAL ALARM CURRENT = 2.727 A			
REQUIRED (15 MIN) = 0.682 AH			
TOTAL POWER REQUIRED WITH 120%			
BATTERY DERATING FACTOR = 10.862 AH			
REPLACE EXISTING BATTERIES WITH (4) 12V, 7AH NEW			
(NOTE: (E) LOADS INFO ARE FROM DSA APP. #01-105009)			

BATTERY CALCULATIONS:

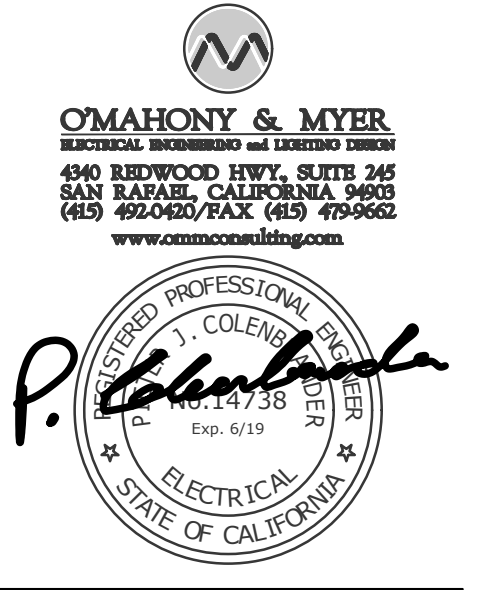
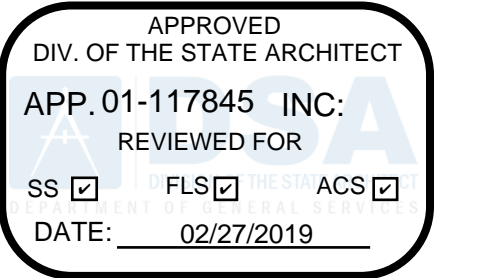
(E) FIRE ALARM CONTROL PANEL 'FACP-S'

STANDBY MODE			
	<u>EA (A)</u>	<u>QTY.</u>	<u>CURRENT</u>
(E) LOADS	0.303	1	0.303
(N) DETECTORS	0.0003	17	0.005
TOTAL STANDBY CURRENT = 0.308 A			
REQUIRED (24 HOURS) = 7.394 AH			
ALARM MODE			
	<u>EA (A)</u>	<u>QTY.</u>	<u>CURRENT</u>
(E) LOADS	1.166	1	1.166
(N) DETECTORS	0.007	17	0.119
TOTAL ALARM CURRENT = 1.285 A			
REQUIRED (15 MIN) = 0.321 AH			
TOTAL POWER REQUIRED WITH 120%			
BATTERY DERATING FACTOR = 9.259 AH			
REPLACE EXISTING BATTERIES WITH (4) 12V, 7AH NEW			
(NOTE: (E) LOADS INFO ARE FROM DSA APP. #01-105009)			

BATTERY CALCULATIONS:

FIRE ALARM AMPLIFIER 'FAA'

STANDBY MODE			
	<u>EA (A)</u>	<u>QTY.</u>	<u>CURRENT</u>
FAA CTRL UNIT	0.272	1	0.272
TOTAL STANDBY CURRENT = 0.272 A			
REQUIRED (24 HOURS) = 6.528 AH			
ALARM MODE			
	<u>EA (A)</u>	<u>QTY.</u>	<u>CURRENT</u>
FAA CTRL UNIT	0.446	1	0.446
SPEAKERS	0.007	7	0.049
NOTIFICATION CKT A1	0.297	1	0.297
TOTAL ALARM CURRENT = 0.495 A			
REQUIRED (15 MIN) = 0.124 AH			
TOTAL POWER REQUIRED WITH 120%			
BATTERY DERATING FACTOR = 7.982 AH			
PROVIDE TWO 12V, 12.0AH BATTERIES			



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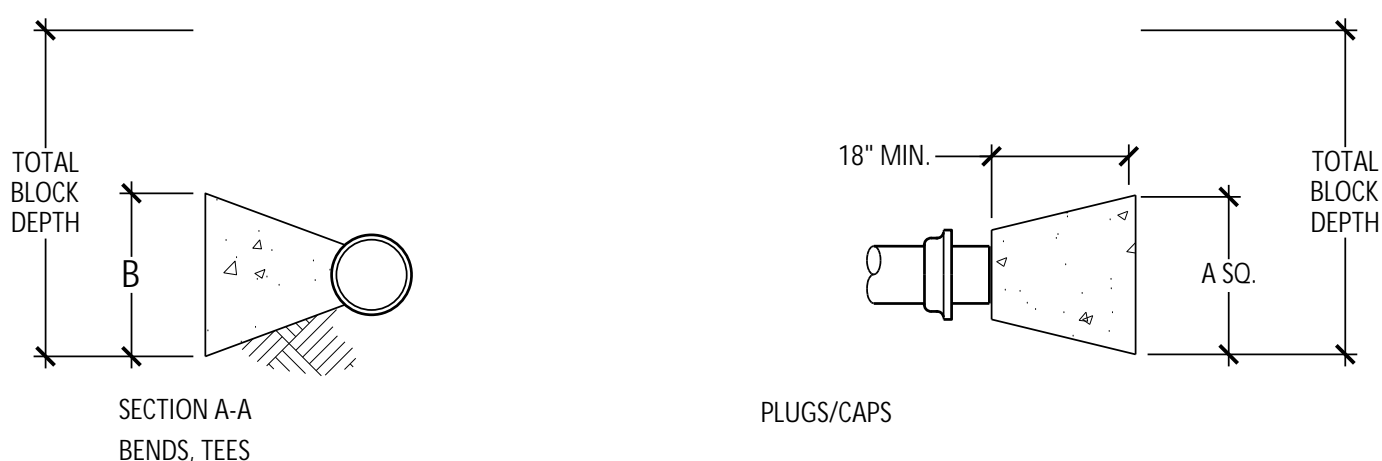
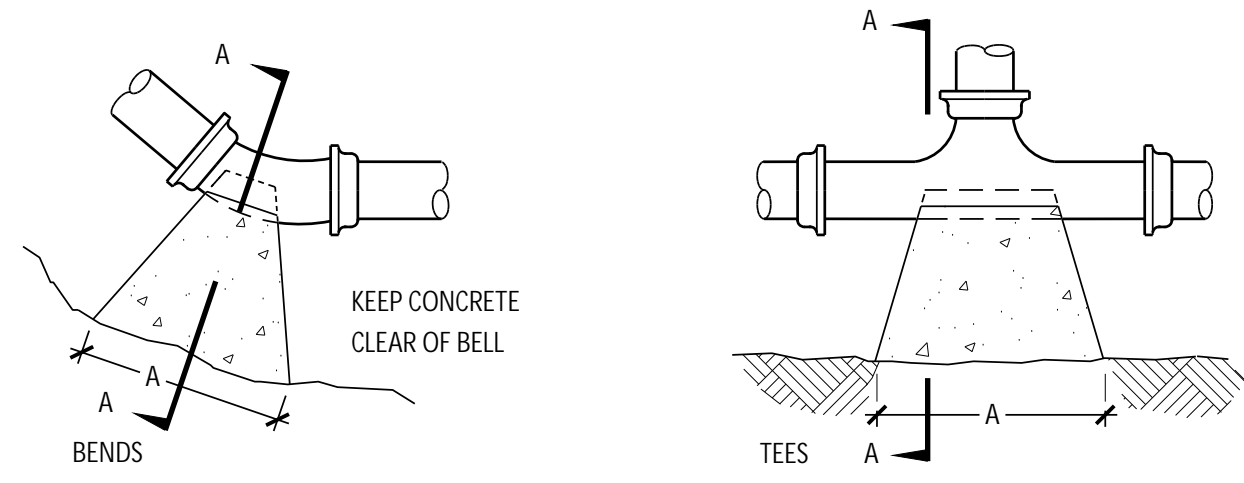
REVISIONS

DATE	FA REVISIONS
08/09/18	

ARCH PROJECT NO: 1750.00
 DRAWN BY: LN
 DRAWING SCALE: SCALE
 PTN: 61721-70
CD
FEBRUARY 27, 2019
 SHEET TITLE

CALCULATIONS - FIRE ALARM
 SHEET NUMBER
FE-6.1

DRAWING NO. 2018-02-23 (REV. 11/15) PROJECT NO. 18-0001-001
 CLIENT: HERITAGE HIGH SCHOOL DISTRICT
 PROJECT: HERITAGE HIGH SCHOOL CULINARY ARTS BUILDING
 DRAWING: FIRE PROTECTION LEGEND
 DATE: 11/15/18
 DESIGNED BY: [Signature]
 CHECKED BY: [Signature]
 APPROVED BY: [Signature]
 TITLE: FIRE PROTECTION LEGEND
 SHEET NO.: FP-0.1
 SCALE: AS SHOWN
 THE USER OF THESE DRAWINGS AND SPECIFICATIONS SHALL BE RESPONSIBLE TO THE EXTENT OF THESE SPECIFICATIONS AND NOTIFICATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. THE USER OF THESE DRAWINGS AND SPECIFICATIONS SHALL BE RESPONSIBLE TO THE EXTENT OF THESE SPECIFICATIONS AND NOTIFICATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. THE USER OF THESE DRAWINGS AND SPECIFICATIONS SHALL BE RESPONSIBLE TO THE EXTENT OF THESE SPECIFICATIONS AND NOTIFICATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.



SOIL BEARING CAPACITY 2000 PSF. SEE PAGE 5 OF PROJECT GEOTECH REPORT.

THRUST BLOCK CALCULATIONS PER NFPA 13: TABLE A.10.6.1(b)

- 4" 90 BEND AREA = (3.8 S.F.) (225PSI/100PSI) (1000PSF/2000PSF) = 4.3 S.F.
- 4" 45 BEND AREA = 4.3 S.F. x 0.541 = 2.3 S.F.
- 4" 22.5 BEND AREA = 4.3 S.F. x 0.276 = 1.2 S.F.
- 4" DEAD END AREA = (2.7 S.F.) (225PSI/100PSI) (1000PSF/2000PSF) = 3.0 S.F.

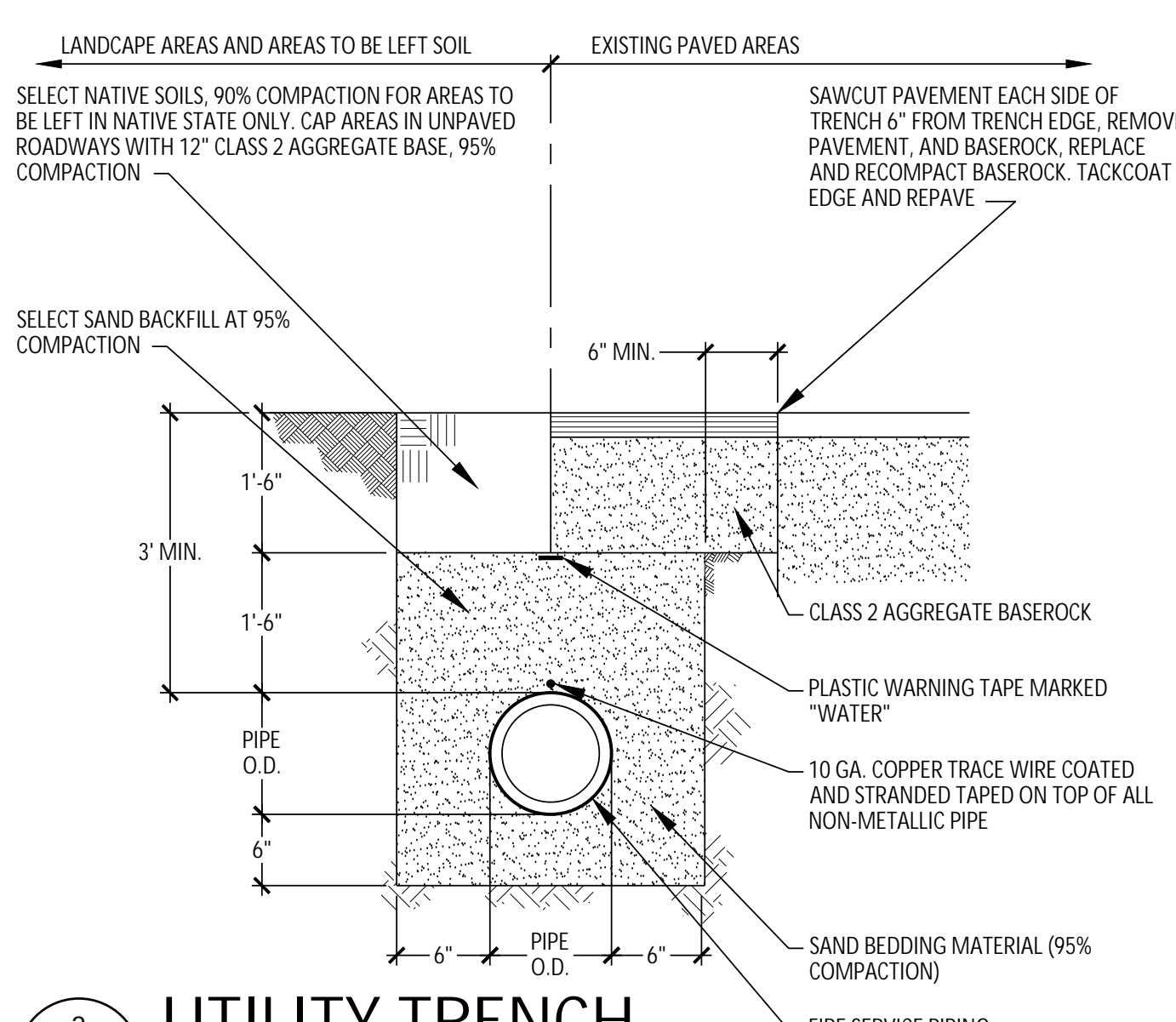
PIPE SIZE	90° BENDS			45° BENDS			22.5° BENDS			TEES and PLUGS		
	SIZE SQ. FT.	"A"	"B"	SIZE SQ. FT.	"A"	"B"	SIZE SQ. FT.	"A"	"B"	SIZE SQ. FT.	"A"	"B"
4"	4.3	30"	21"	2.3	28"	12"	2	24"	12"	3	24"	18"

BASED ON A WATER PRESSURE OF 225 POUNDS PER SQUARE INCH AND A SOIL RESISTANCE OF 2000 POUNDS PER SQUARE FOOT, PER NFPA TABLE A.10.6.1(b).

TOTAL BLOCK DEPTH SHALL BE AT LEAST TWICE THE BLOCK DEPTH "B" IN ACCORDANCE WITH NFPA 24.

2 THRUST BLOCKS

FP-0.1 NO SCALE



3 UTILITY TRENCH

FP-0.1 NO SCALE

OVERHEAD FIRE SPRINKLER SYSTEM GENERAL NOTES:

NFPA 13 (2016) SEC. 9.2.1.3.3.4 WHERE FLEXIBLE SPRINKLER HOSE FITTINGS ARE USED TO CONNECT SPRINKLERS TO BRANCH LINES IN SUSPENDED CEILINGS, A LABEL LIMITING RELOCATION OF THE SPRINKLER SHALL BE PROVIDED ON THE ANCHORING COMPONENT.

NFPA 13 (2016) SEC. 10.10.2.1 UNDERGROUND MAINS AND LEAD-IN CONNECTION MADE TO OVERHEAD SPRINKLER PIPING SYSTEMS SHALL BE COMPLETELY FLUSHED.

NFPA 13 (2016) SEC. 10.10.2.2 ALL INTERIOR PIPING AND APPURTENANCES SUBJECTED TO SYSTEM WORKING PRESSURE SHALL BE HYDROSTATICALLY TESTED AT 200 PSI AND SHALL MAINTAIN THAT PRESSURE WITHOUT LOSS FOR 2 HOURS. LOCAL FIRE DEPARTMENT SHOULD BE NOTIFIED OF DATE AND TESTING SO THEY MAY OBSERVE TESTING.

NFPA 13 (2016) SEC. 6.2.9 PROVIDE SPARE SPRINKLER HEAD CABINET, SPRINKLER WRENCH, AND NO FEWER THAN A TOTAL OF 6 SPARE HEADS MATCHING THE TYPES AND TEMPERATURE RATINGS IN EACH PROTECTED BUILDING FOR SYSTEMS LESS THAN 300 SPRINKLERS AND FEWER THAN 12 FOR SYSTEMS HAVING 300 TO 1000 SPRINKLERS.

- NFPA 13 (2016) SEC. 9.3.6.1 PROVIDE RESTRAINT OF BRANCH LINES BY USING ONE OF THE FOLLOWING:
- LISTED SWAY BRACE ASSEMBLY
 - WRAP AROUND U-HOOK SATISFYING THE REQUIREMENTS OF 9.3.5.5.11
 - NO. 12, 440LB (200KG) WIRE INSTALLED AT LEAST 45 DEGREES FROM THE VERTICAL PLANE AND ANCHORED ON BOTH SIDES OF THE PIPE
 - CPVC HANGERS LISTED TO PROVIDE RESTRAINT
 - HANGER NOT LESS THAN 45 DEGREES FROM VERTICAL INSTALLED WITHIN 6IN. OF THE VERTICAL HANGER ARRANGED FOR RESTRAINT AGAINST UPWARD MOVEMENT, PROVIDED IT IS UTILIZED SUCH THAT L/R DOES NOT EXCEED 400, WHERE THE ROD EXTENDS TO THE PIPE OR A SURGE CLIP HAS BEEN INSTALLED.

NFPA 72 (2016) SEC. 17.12.2 SPRINKLER FLOW SWITCH SHALL BE TESTED BY IOR TO CONFIRM THAT WHEN THE INSPECTOR'S TEST VALVE IS ACTIVATED AN ALARM WILL SOUND IN NOT MORE THAN 90 SECONDS.

NFPA 13 (2016) SEC. 6.9.3 FLOW SWITCH SHALL BE CONNECTED TO AN OUTSIDE ALARM BELL FOR EACH RISER. APPROVED IDENTIFICATION SIGN SHALL BE PROVIDED FOR OUTSIDE ALARM BELL. "SPRINKLER FIRE ALARM - WHEN BELL RINGS CALL 911/FIRE DEPARTMENT".

NFPA 13 (2016) SEC. 25.5 FIGURE A25.5 HYDRAULIC CALCULATIONS DESIGN DATA PLACARD SHALL BE ATTACHED TO RISER. SHALL INCLUDE: 1) LOCATION OF DESIGN AREA(S). 2) DISCHARGE DENSITIES. 3) REQUIRED FLOW AND RESIDUAL PRESSURE DEMAND AT BASE OF RISER. 4) OCCUPANCY CLASSIFICATION. 5) HOSE STREAM DEMAND INCLUDED IN ADDITION TO SPRINKLER DEMAND. 6) THE NAME OF THE INSTALLING CONTRACTOR.

NFPA 13 (2016) SEC. 25.1 (3) SPRINKLER CONTRACTOR (C16) SHALL COMPLETE AND SIGN CONTRACTOR'S MATERIAL AND TEST CERTIFICATE FOR THE OVERHEAD SPRINKLER SYSTEM USING FORM IN FIGURE 25.1. THIS COMPLETED FORM SHALL BE GIVEN TO THE APPROVING AUTHORITY, OWNER, AND CONTRACTOR.

NFPA 13 (2016) SEC. 25.2.3.4.1 THE MAIN DRAIN VALVE SHALL BE OPENED AND REMAIN OPENED UNTIL THE SYSTEM PRESSURE STABILIZES. THE STATIC AND RESIDUAL PRESSURES SHALL BE RECORDED ON THE CONTRACTOR'S TEST CERTIFICATE.

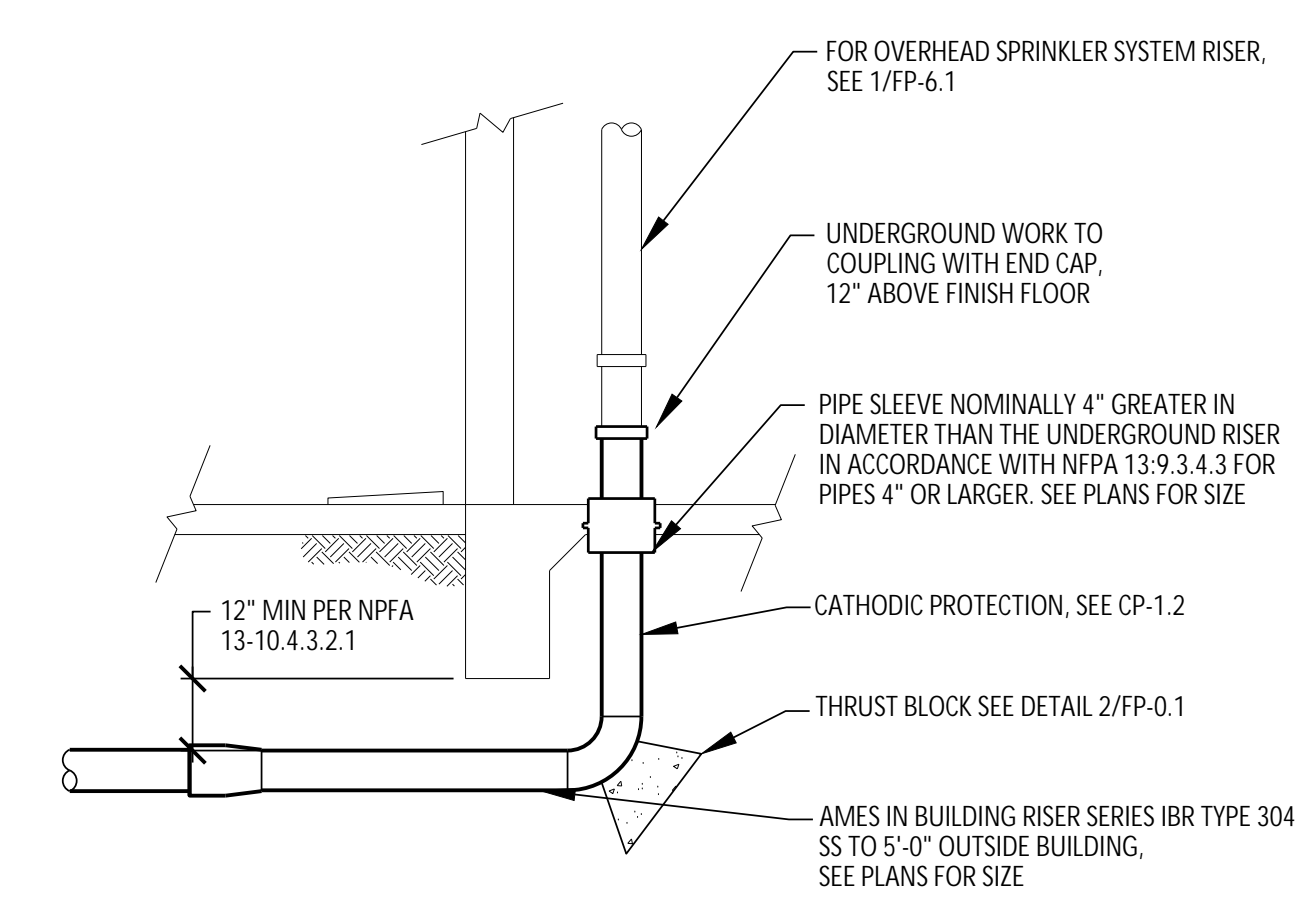
TITLE 19 ARTICLE (A) A LABEL OF SELF-ADHESIVE TYPE SHALL BE PLACED ON THE FIRE DEPARTMENT CONNECTION OR ON THE RISER FOR THE FIRE SPRINKLER SYSTEM WITH THE DATE OF SERVICE AND/OR DATE OF INSTALLATION WAS PERFORMED AND LICENSE NUMBER OF PERSON PERFORMING SERVICE WORK.

THE SPRINKLER CONTRACTOR SHALL HAVE A REPRESENTATIVE PRESENT AT THE ROUGH-IN/HYDRO INSPECTION.

NFPA 13 (2016) SEC. 9.3.4.2 WHERE PIPE PASSES THROUGH HOLES IN PLATFORMS, FOUNDATIONS, WALLS, OR FLOORS, THE HOLES SHALL BE SIZED SUCH THAT THE DIAMETER OF THE HOLE IS NOMINALLY 2" LARGER THAN THE PIPE FOR PIPE 1" NOMINAL TO 3 1/2" NOMINAL AND 4" LARGER THAN PIPE FOR PIPE 4" NOMINAL AND LARGER.

1 IN BUILDING RISER

FP-0.1 NO SCALE



LIST OF GOVERNING CODES:

- 2016 BUILDING STANDARDS ADMINISTRATIVE CODE, PART 1, TITLE 24, C.C.R.
- 2016 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24, C.C.R.
- 2016 CALIFORNIA ELECTRICAL CODE, PART 3, TITLE 24, C.C.R.
- 2016 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24, C.C.R.
- 2016 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24, C.C.R.
- 2016 CALIFORNIA ENERGY CODE (CEC), PART 6, TITLE 24, C.C.R.
- 2016 CALIFORNIA FIRE CODE (CFC), PART 9, TITLE 24, C.C.R.
- 2016 CALIFORNIA REFERENCED STANDARDS CODE, PART 12, TITLE 24, C.C.R.
- TITLE 19, C.C.R., PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS.
- 2016 NFPA 13 AS AMENDED
- 2016 NFPA 24 AS AMENDED

ALL SECTION NUMBERS BELOW REFER TO GROUP 1, CHAPTER 4, PART 1, TITLE 24, C.C.R.

- ADDENDA, CHANGE ORDERS PER SECTION 4-338.
- INSPECTOR APPROVED BY DSA, INSPECTOR AND CONTINUOUS INSPECTION OF WORK PER SECTION 4-333(b) AND 4-342.
- TESTS AND TESTING LABORATORY PER SECT. 4-335.
- SPECIAL INSPECTION PER SECT. 4-333(c).
- CONTRACTOR SHALL SUBMIT VERIFIED REPORTS PER SECT. 4-336 AND 4-343(g).
- ADMINISTRATION OF CONSTRUCTION PER PART 1, TITLE 24, C.C.R. - DUTIES OF ARCHITECT, STRUCTURAL ENGINEER OR PROFESSIONAL ENGINEER PER SECT. 4-333(a) AND 4-341.
- GOVERNING CODES: TITLE 24.
- A COPY OF PARTS 1, 2, 3, 4, AND 5 OF TITLE 24 SHALL BE KEPT AVAILABLE IN THE FIELD DURING CONSTRUCTION.
- DSA SHALL BE NOTIFIED OF START OF CONSTRUCTION PER SECT. 4-331.
- SUPERVISION BY THE OFFICE OF REGULATION SERVICE PER SECT. 4-334.

DSA GENERAL NOTES

- THE INTENT OF THE CONTRACT DOCUMENTS IS TO CONSTRUCT A NEW CULINARY BUILDING ON THE EXISTING SCHOOL CAMPUS. SHOULD ANY CONDITIONS DEVELOP NOT COVERED BY THE CONTRACT DOCUMENTS, A CONSTRUCTION CHANGE DOCUMENT DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE WORK.
- ALL HANGERS AND SEISMIC SWAY BRACING SHALL BE DESIGNED AND INSTALLED PER NFPA 13 AND CHAPTER 16A CALIFORNIA BUILDING CODE.
- WHERE ANCHORAGE DETAILS ARE NOT SHOWN ON THE DRAWINGS, THE FIELD INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER AND THE FIELD REPRESENTATIVE OF THE DIVISION OF THE STATE ARCHITECT.

FIRE DEPARTMENT CONNECTIONS:

NFPA 13 (2016) SEC. 8.17.2.5.1 CHECK-VALVE SHALL BE PROVIDED AT FIRE DEPARTMENT CONNECTION ASSEMBLY (FDC) TO PREVENT WATER (PRESSURE) AT INLET OF FDC VALVE.

TITLE 19 ARTICLE 906 (A) A LABEL OF THE SELF-ADHESIVE TYPE SHALL BE PLACED ON THE FIRE DEPARTMENT CONNECTION OR ON THE RISER FOR FIRE SPRINKLER SYSTEMS WITH THE DATE OF SERVICE AND/OR DATE INSTALLATION WAS PERFORMED AND LICENSE NUMBER OF PERSON PERFORMING SERVICE WORK.

FIRE DEPARTMENT SIGNAGE:

CONTRACTOR SHALL PROVIDE SIGNS AT FIRE DEPARTMENT CONNECTIONS SERVING THIS SYSTEM. SIGNS SHALL INDICATE BUILDINGS SERVED BY FIRE DEPARTMENT CONNECTIONS.

CONTRACTOR SHALL PROVIDE SIGNS AT EXISTING BACKFLOW PREVENTER. SIGNS SHALL INDICATE BUILDINGS AND HYDRANTS SERVED BY BACKFLOW PREVENTER.

SEE SITE PLAN FOR BUILDING AND HYDRANT MARKS/IDENTIFICATIONS.

FIRE PROTECTION LEGEND

SYMBOL	ABBRV.	IDENTIFICATION	ABBRV.	IDENTIFICATION
— F —	F	FIRE WATER	(E)	EXISTING
— SPKR —	SPKR	SPRINKLER	ELEC	ELECTRICAL
●		PENDENT	ELEV	ELEVATION
○		RECESSED PENDENT	EQUIP	EQUIPMENT
○		UPRIGHT W/ 1" OUTLET BELOW	FFE	FINISHED FLOOR ELEVATION
○		UPRIGHT ON 1" SPRIG UP	FLA	FULL LOAD AMPS
○		UPRIGHT ON BRANCH LINE	FLEX	FLEXIBLE
○		UPRIGHT OVER PENDENT	FLR	FLOOR
△		SIDEWALL	FS	FLOOR SINK
—		GROOVED COUPLING	FPM	FEET PER MINUTE
—		EQ BRACE LOCATION	FT	FEET
—		4WAY EQ BRACE LOCATION	FT HD	FEET HEAD
—		HANGER LOCATION	GPM	GALLONS PER MINUTE
—		BRANCH LINE RESTRAINT	HP	HORSEPOWER
⊗		HYDRAULIC CALCULATION NODE	HZ	HERTZ
—	CHVA	CHECK VALVE	IE	INVERT ELEVATION
—		GATE VALVE	IN	INCH
—	T&PRV	TEMP & PRESS RELIEF VALVE	INV	INVERT
—	DCDA	DOUBLE CHECK DETECTOR ASSEMBLY	KW	KILOWATTS
—		UNION	LBS	POUNDS
⊗		PRESSURE GAUGE	MAX	MAXIMUM
—	FC	FLEXIBLE CONNECTION	MBH	1000 BTU PER HOUR
—	RBPB	REDUCE PRESS BACKFLOW PREVENTER	MFR	MANUFACTURER
—			MIN	MINIMUM
⊗	FH	FIRE HYDRANT	(N)	NEW
⊗	PIV	POST INDICATING VALVE	NC	NORMALLY CLOSED
⊗	AD	ACCESS DOOR	NIC	NOT IN CONTRACT
—		BACK OF ELBOW	NO	NORMALLY OPEN
∅	DIA	DIAMETER	OC	ON CENTER
⊗	P.O.C.	POINT OF CONNECTION	PH	PHASE
—		CENTERLINE	PRV	PRESSURE REDUCING VALVE
&		AND	PSI	POUNDS PER SQUARE INCH
@	AT		P/T	PRESSURE/TEMPERATURE
°F		DEGREES FAHRENHEIT	QTY	QUANTITY
AFF		ABOVE FINISH FLOOR	REQD	REQUIRED
AMP		AMPERE	RLA	RATED/RUNNING LOAD AMPS
APPROX		APPROXIMATE	RPM	REVOLUTIONS PER MINUTE
BHP		BRAKE HORSEPOWER	SOV	SHUT-OFF VALVE
BLDG		BUILDING	STD	STANDARD
CFH		CUBIC FEET PER HOUR	STRUCT	STRUCTURAL
CI		CAST IRON	TEMP	TEMPERATURE
CIRC		CIRCULATING	TYP	TYPICAL
CLG		CEILING	UL	UNDERWRITER'S LABORATORIES
CONC		CONCRETE	UON	UNLESS OTHERWISE NOTED
CONN		CONNECTION	V	VOLT
CONT		CONTINUED	VTR	VENT THROUGH ROOF
COORD		COORDINATE	W/	WITH
CONST		CONSTRUCTION	WC	WATER COLUMN
DN		DOWN	WT	WEIGHT
DWGS		DRAWINGS	BOR	BOTTOM OF RISER
↕	FDC	FIRE DEPARTMENT CONNECTION	TOR	TOP OF RISER

FIRE FLOW CALCULATIONS:

CONSTRUCTION TYPE: V-B SPRINKLED
 FIRE FLOW CALCULATION AREA: 3,220 SF
 2016 CFC FIRE FLOW TABLE BB105.1): 1500 GPM
 2016 CFC MINIMUM FIRE FLOW: 1500 GPM

AVAILABLE WATER SUPPLY:
 CONTRA COSTA FIRE PROTECTION DISTRICT OCTOBER 23, 2018
 STATIC PRESSURE: 67.5 PSI SEE FP.1 FOR LOCATION
 RESIDUAL PRESSURE: 46.5 PSI
 OBSERVED FLOW: 954 GPM
 AVAILABLE FLOW: 1482 GPM AT 20 PSI RESIDUAL (WITHIN 1% OF CODE MINIMUM, 1500GPM)

SEISMIC BRACING:

SPECTRAL RESPONSE:
 LATITUDE: 37.9244° N
 LONGITUDE: 121.7529° W
 S_s = 1.5 (SEE DESIGN CRITERIA ON STRUCTURAL DRAWING S-0.1)

SEISMIC COEFFICIENT:
 C_s = 0.7 (2016 NFPA 13-TABLE 9.3.5.9.3)

USE C_p = 0.7

APPROVED
 DIV. OF THE STATE ARCHITECT
 APP. 01-117845 INC.
 REVIEWED FOR
 SS FLS ACS
 DATE: 02/27/2019

QUATTROCCHI KWOK ARCHITECTS
 Main Office:
 636 Fifth Street, Santa Rosa, CA 95404
 Pleasanton Office:
 600 Main Street, Suite E,
 Pleasanton, CA 94566
 (707) 576-0829

REGISTERED PROFESSIONAL MECHANICAL ENGINEER
 STATE OF CALIFORNIA
 No. M30657
 EXP. JUN 30, 2020

HERITAGE HIGH SCHOOL
CULINARY ARTS BUILDING
 101 American Ave
 Brentwood, CA 94513

LIBERTY UNION HIGH SCHOOL DISTRICT
 20 Oak Street
 Brentwood, CA 94513

REVISIONS

NO.	DESCRIPTION

ARCH PROJECT NO: 1750.00
 DRAWN BY: CAD
 DRAWING SCALE: NONE
 PTN: 61721-70

CD
 FEBRUARY 27, 2019
 SHEET TITLE

LEGEND, NOTES, AND DETAILS - FIRE PROTECTION

SHEET NUMBER
FP-0.1

ph (811) 649-8000
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 AE Project #: 20180196
 22 Lower Regedale Dr., Suite A
 Monterey, California 93940-5188

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NOTES

1. FIRE SERVICE PIPING IS SHOWN ON DRAWING FP1.1 TO SHOW NODE LOCATIONS REQUIRED FOR OVERHEAD FIRE SPRINKLER HYDRAULIC CALCULATIONS. DESIGN AND SPECIFICATION NEW UNDERGROUND FIRE SERVICE PIPING IS BY THE PROJECT CIVIL ENGINEER. SEE CIVIL DRAWINGS AND SPECIFICATIONS.

KEY NOTES

- ① FIRE RISER WITH CONTROL VALVE AND FLOW SWITCH THAT REQUIRES MONITORING BY THE FIRE ALARM SYSTEM

APPROVED
 DIV. OF THE STATE ARCHITECT
 APP. 01-117845 INC.
 REVIEWED FOR
 SS FLS ACS
 DATE: 02/27/2019



QUATTROCCHI KWOK ARCHITECTS
 Main Office:
 636 Fifth Street, Santa Rosa, CA 95404
 Pleasanton Office:
 600 Main Street, Suite E,
 Pleasanton, CA 94566
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HERITAGE HIGH SCHOOL

CULINARY ARTS BUILDING

101 American Ave
 Brentwood, CA 94513

LIBERTY UNION HIGH SCHOOL DISTRICT

20 Oak Street
 Brentwood, CA 94513

REVISIONS

NO.	DESCRIPTION

ARCH PROJECT NO: 1750.00

DRAWN BY: CAD

DRAWING SCALE: 1" = 20' - 0"

PTN: 61721-70

CD

FEBRUARY 27, 2019

SHEET TITLE

SITE PLAN - FIRE PROTECTION

SHEET NUMBER

FP-1.1

SITE PLAN - FIRE PROTECTION
 SCALE: 1" = 20'-0"

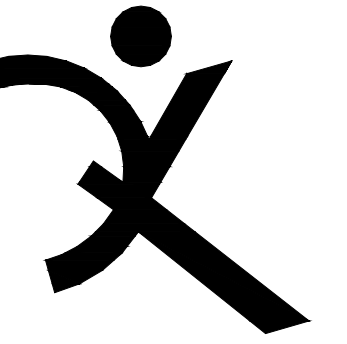
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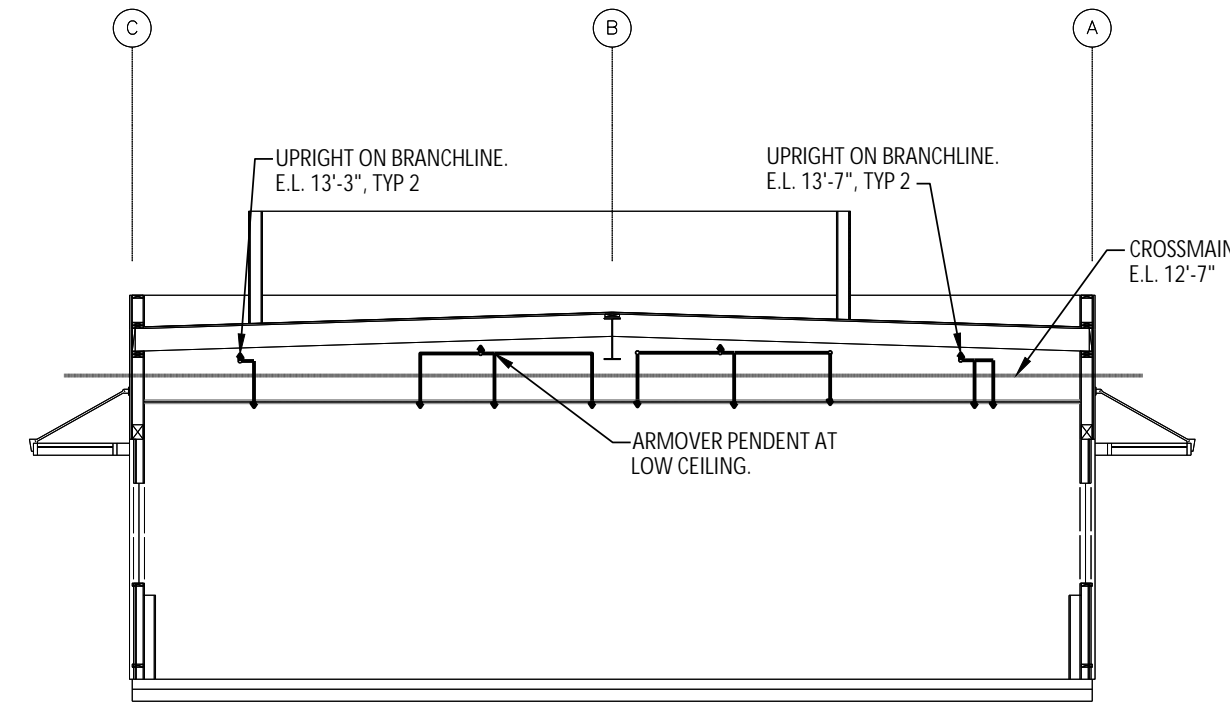
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1 BUILDING SECTION - FIRE PROTECTION
 SCALE: 1/8" = 1'-0"
 FP-4.1



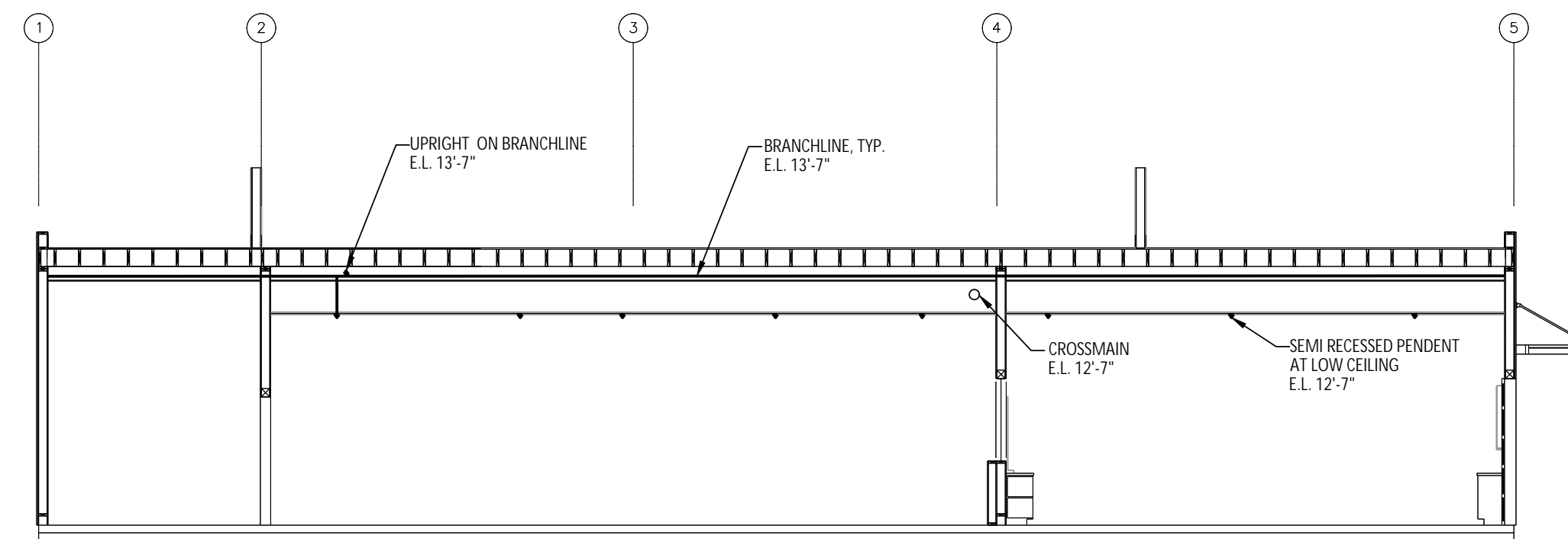
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Brentwood, CA 94513



2 BUILDING SECTION - FIRE PROTECTION
 SCALE: 1/8" = 1'-0"
 FP-4.1

REVISIONS	

ARCH PROJECT NO: 1750.00
 DRAWN BY: CAD
 DRAWING SCALE: 1/8" = 1'-0"
 PTN: 61721-70

CD
 FEBRUARY 27, 2019
 SHEET TITLE

SECTIONS - FIRE PROTECTION

SHEET NUMBER
FP-4.1

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BALLINGER
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1000 APOLLO WAY, SUITE 170
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(707) 544-8924

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REVISIONS

NO.	DESCRIPTION

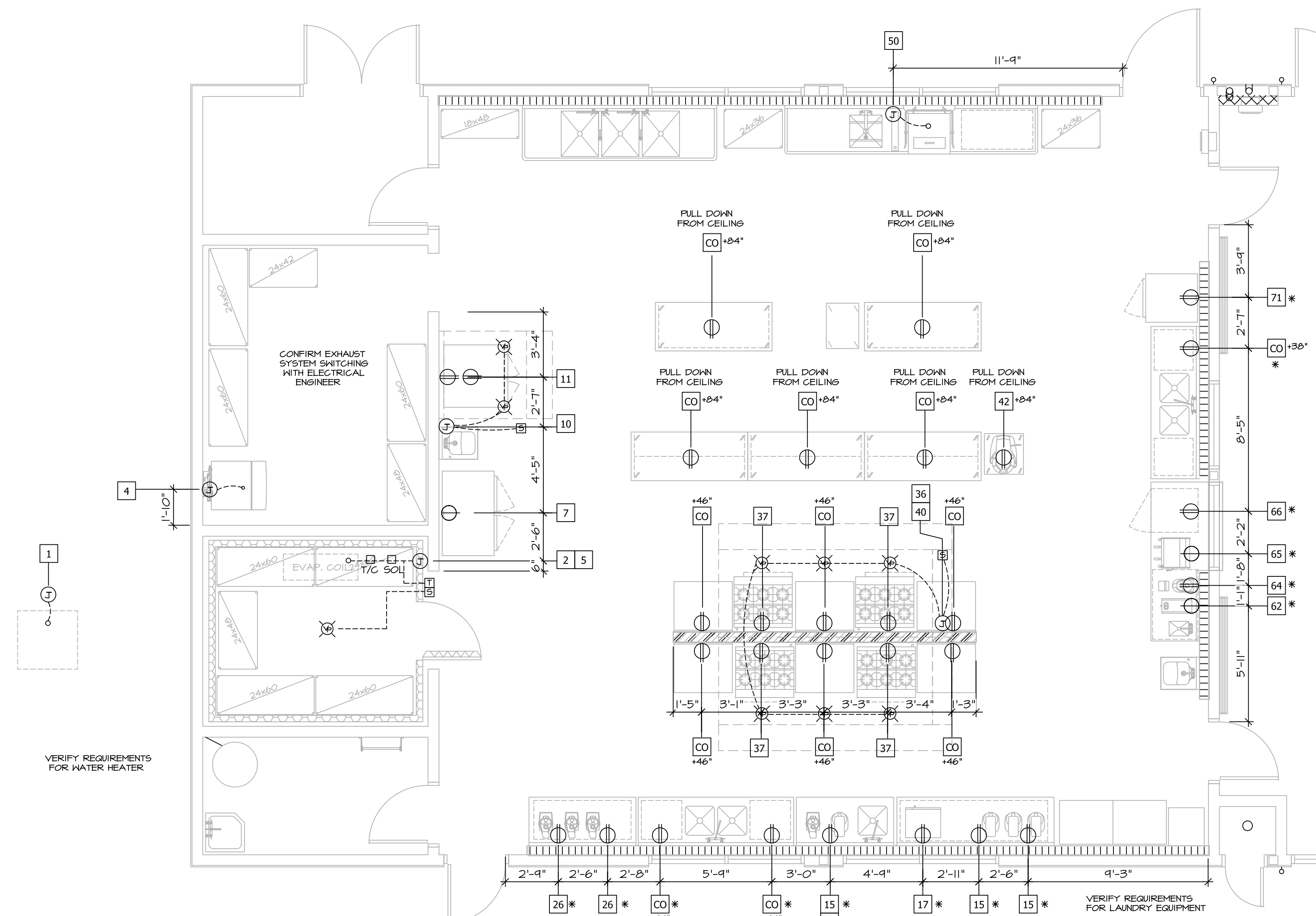
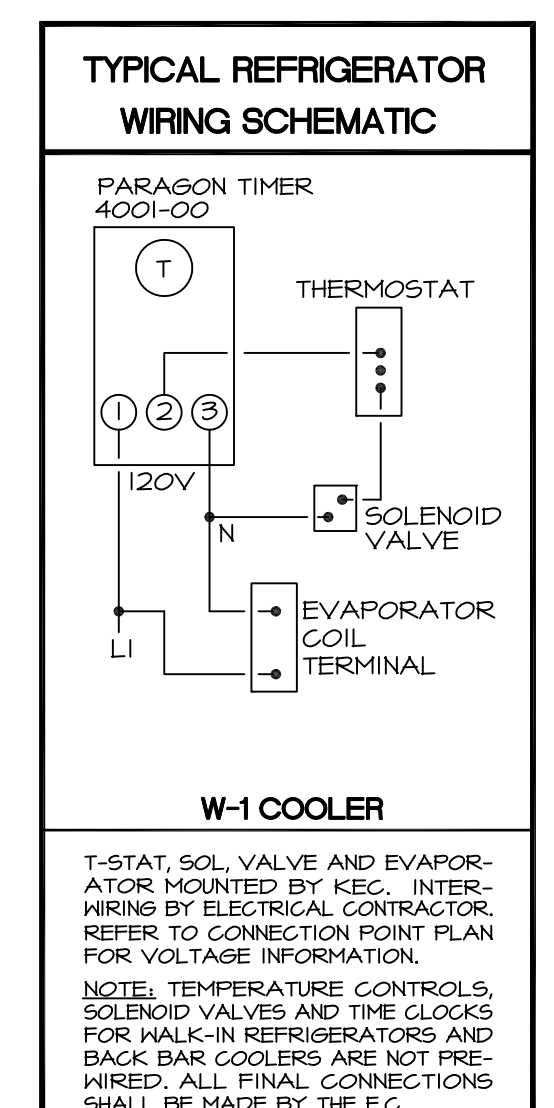
ARCH PROJECT NO: 1750.00
DRAWN BY: LB
DRAWING SCALE: AS SHOWN
PTN: 61721-70

CD
FEBRUARY 27, 2019
SHEET TITLE

FOODSERVICE EQUIPMENT ELECTRICAL PLAN

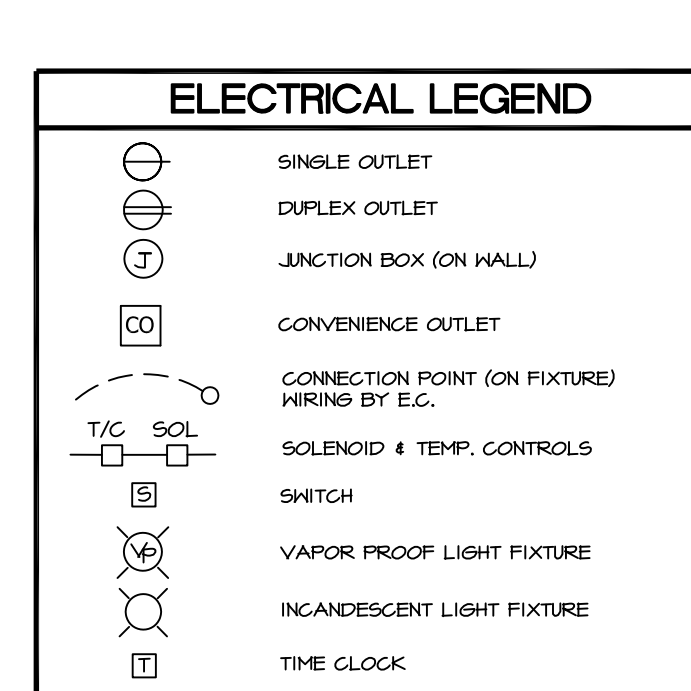
SHEET NUMBER
K-2.0

ELECTRICAL SCHEDULE		ELECTRICAL		ELECTRICAL			
ITEM	QTY	DESCRIPTION	VOLTS	PHASE	AMPS	CONN	HT
1	1	CONDENSING UNIT FOR W1 COOLER					
2	1	EVAP COIL FOR W1 COOLER					SEE REFRIGERATION SCHEDULE +110"
3	1	(LOT) WALK-IN SHELVING					
4	1	ICE MACHINE, BIN, & FILTER	120	1	11.5	JBOX	+78"
5	1	WALK-IN COOLER	120	1	5.0	JBOX	+110"
6	1	(LOT) DRY STORAGE SHELVING					
7	1	2-DOOR FREEZER	120	1	11.2	PLUG	+88"
8	2	S/S HAND SINK					
9	-	SPARE					
10	1	S/S EXHAUST HOOD	120	1	5.0	JBOX	+110"
11	1	CONVECTION OVEN	(2) 120	1	6.0	PLUG	+18"
12	1	S/S WALL LINER					
13	-	SPARE					
14	-	SPARE					
15	4	5 QUART MIXER	120	1	4.0	PLUG	+44"
16	1	S/S WORKTABLE 96 x 30					
17	1	MICROWAVE OVEN	120	1	13.0	PLUG	+44"
18	1	S/S TABLE MOUNTED OVERSHELF 96 x 12					
19	1	FAUCET					
20	1	S/S WORKTABLE W/SINK - ACCESSIBLE 60 x 30					
21	1	S/S TABLE MOUNTED OVERSHELF 80 x 12					
22	1	S/S TABLE MOUNTED OVERSHELF 96 x 12					
23	1	FAUCET					
24	1	S/S WORKTABLE W/SINKS					
25	-	SPARE					
26	4	FOOD PROCESSOR	120	1	7.0	PLUG	+44"
27	1	S/S WALL SHELF 54 x 12					
28	1	S/S WORKTABLE 54 x 30					
29	3	S/S WALL CAPS					
30	-	SPARE					
31	1	S/S WALL SHELF					
32	1	MILLWORK LAUNDRY COUNTER					
33	-	SPARE					
34	-	SPARE					
35	6	S/S WORKTABLE - ACCESSIBLE 36 x 36					
36	1	S/S TYPE I EXHAUST HOOD	120	1	5.0	JBOX	+110"
37	4	6-BURNER RANGE					
38	1	FIRE SUPPRESSION SYSTEM					
39	1	S/S WALL LINER AND WALL CAP					
40	1	S/S TYPE I EXHAUST HOOD					
41	-	SPARE					
42	1	20 QT. MIXER ON STAND	120	1	8.0	PLUG	DFC
43	3	S/S WORKTABLE 72 x 30					
44	2	S/S WORKTABLE - ACCESSIBLE 72 x 30					
45	1	SHEET PAN RACK					
46	-	SPARE					
47	-	SPARE					
48	1	S/S TABLE MOUNTED OVERSHELF 42 x 12					
49	1	S/S CLEAN SIDE DISHTABLE 52 x 30					
50	1	HIGH-TEMP DISHWASHER - VENTLESS	208	3	51.8	JBOX	+44"
51	1	PRERINSE UNIT					
52	1	S/S SOILED DISHTABLE 72 x 30					
53	1	S/S TABLE MOUNTED OVERSHELF 36 x 12					
54	2	S/S TABLE MOUNTED OVERSHELF 24 x 12					
55	1	S/S 3-TUB POT SINK 120 x 36					
56	2	PRERINSE UNIT W/FAUCET					
57	-	SPARE					
58	-	SPARE					
59	-	SPARE					
60	1	FAUCET					
61	1	S/S SERVICE STATION W/SINK 96 x 30					
62	1	COFFEE BREWER	120	1	15.8	PLUG	+38"
63	1	GROUND KNOCKBOX					
64	1	ESPRESSO GRINDER	120	1	3.0	PLUG	+38"
65	1	ESPRESSO MACHINE	220	1	14.0	PLUG	+38"
66	1	UNDERCOUNTER REFRIGERATOR	120	1	4.0	PLUG	+15"
67	-	SPARE					
68	1	S/S WORKTABLE W/SINKS 96 x 30					
69	1	FAUCET					
70	-	SPARE					
71	1	1-DOOR REFRIGERATOR	120	1	4.9	PLUG	+38"



ELECTRICAL NOTES

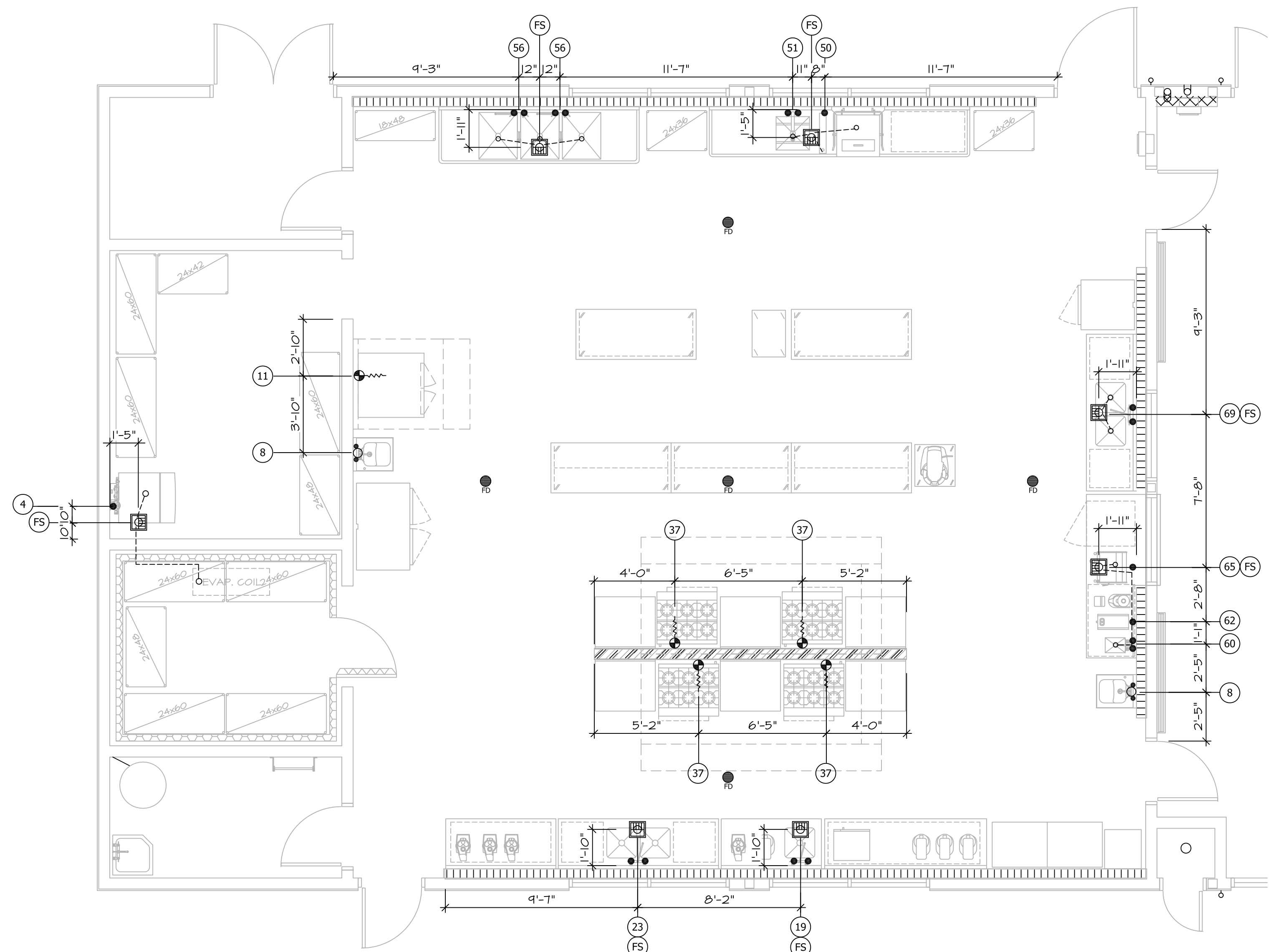
- BALLINGER RESTAURANT EQUIPMENT DOES NOT PERFORM ARCHITECTURAL, MECHANICAL, ELECTRICAL, HEATING OR STRUCTURAL ENGINEERING SERVICES. THE PURPOSE OF THESE PLANS IS TO ASSIST THE PLUMBING, ELECTRICAL, GENERAL CONTRACTOR AND OTHERS UTILIZING THESE DRAWINGS TO COMPLETE THEIR WORK IN CONNECTION WITH THIS PROJECT.
- ALL ELECTRICAL WORK AND FINAL CONNECTIONS TO ALL KITCHEN EQUIPMENT AND FIXTURES INCLUDING BUT NOT LIMITED TO SWITCHES, WIRING, CONDUIT OR SEAL TIGHT FLEX CONDUIT, MAGNETIC STARTERS, DISCONNECTS, ELECTRICAL PANELS THERMAL OVERLOAD PROTECTION (COP) & PLUGS, ETC., SHALL BE PROVIDED AND INSTALLED BY THE E.C., UNLESS OTHERWISE SPECIFIED.
- ALL ELECTRICAL ROUGH-INS SHOWN ON THIS PLAN PERTAINS ONLY TO THE EQUIPMENT BEING FURNISHED BY THE E.C. ANY ADDITIONAL REQUIREMENTS SHALL BE SPECIFIED BY THE ARCHITECT AND/OR THE GENERAL CONTRACTOR.
- ALL EXISTING EQUIPMENT AND OWNER OR VENDOR SUPPLIED ITEMS SHALL BE VERIFIED BY THE ELECTRICAL CONTRACTOR FOR UTILITY REQUIREMENTS.
- ELECTRICAL ROUGH-IN LOCATIONS AND CHARACTERISTICS ARE SUBJECT TO CHANGE PENDING THE FINAL SELECTION OF EQUIPMENT AND LOCATION OF SAME.
- ELECTRICAL SYMBOLS SHOWN +12" (UP 12") OR +48" (UP 48"), ETC., DENOTES HEIGHT FROM FINISHED FLOOR TO CENTER LINE OF OUTLET IN WALL. SYMBOLS SHOWN (STUB) DENOTES TO TERMINATE ROUGH-INS APPROXIMATELY 4" ABOVE FINISHED FLOOR, UNLESS OTHERWISE NOTED.
- ALL DIMENSIONS SHOWN ARE FROM FINISHED FACE OF WALLS, FLOORS, CEILINGS, OR CENTER LINE OF COLUMNS, UNLESS OTHERWISE NOTED.
- E.C. TO PROVIDE ALL NECESSARY COMPONENTS AND WIRING REQUIRED TO HOOK-UP FIRE SUPPRESSION SYSTEM TO BUILDING ALARM, EXHAUST BLOWER, & MAKE-UP AIR SYSTEM. VERIFY REQUIREMENTS WITH FIRE MARSHALL.
- E.C. SHALL PROVIDE POWER, DISCONNECT SWITCHES, MOTOR STARTERS, ETC., AND MAKE ALL FINAL CONNECTIONS REQUIRED FOR EXHAUST, RETURN AIR SYSTEMS AND REFRIGERATION SYSTEMS, UNLESS OTHERWISE NOTED.
- E.C. SHALL FURNISH AND INSTALL CONTACTORS AND/OR SHUNT TRIP BREAKERS FOR ELECTRICAL COOKING EQUIPMENT LOCATED BELOW THE EXHAUST HOODS. IF APPLICABLE, FIRE PROTECTION SYSTEM SHALL INCLUDE SWITCHING DEVICE IN THE EXHAUST HOOD FIRE PROTECTION SYSTEM TO FACILITATE SHUT-DOWN OF APPLIANCES BY THE E.C., UNLESS OTHERWISE SPECIFIED.
- E.C. SHALL MAKE ALL FINAL CONNECTIONS TO REFRIGERATION SYSTEMS, REMOTE COMPRESSORS, BLOWER COILS, SOLENOIDS, TEMPERATURE CONTROLS, HEAT STRIP SYSTEMS AND PRESSURE SWITCHES. DISCONNECTS, SHALL BE SUPPLIED BY THE E.C. AND MUST BE INCLUDED AS PART OF HIS SCOPE OF WORK. E.C. SHALL FURNISH ALL NECESSARY WIRING AND MATERIALS IN ORDER TO PROVIDE A COMPLETE AND FINISHED WORKING SYSTEM. PRESSURE CONTROL SWITCHES FOR EACH COMPRESSOR ARE FURNISHED BY THE K.E.G. AND SHALL BE WIRED BY THE E.C. DISCONNECT SWITCHES FOR EACH COMPRESSOR SHALL BE FURNISHED AND INSTALLED BY THE E.C.
- IN ALL KITCHEN FOOD PREP AREAS, E.C. SHALL PROVIDE STAINLESS STEEL OUTLET COVER PLATES. IN OTHER AREAS VERIFY WITH ARCHITECT OR INTERIOR DESIGNER.
- ALL JUNCTION BOXES AND ELECTRICAL OUTLETS AS WELL AS ELECTRICAL CONNECTIONS SHALL BE PROPERLY PROTECTED FROM AMBIENT HEAT, HUMIDITY AND ANY SIMILAR CONDITIONS WHICH MAY AFFECT THE SAFETY OF THE OPERATION. ALL FLEXIBLE HARD WIRED ELECTRICAL CONNECTIONS IN THE EXPOSED KITCHEN AREAS SHALL BE DONE IN SEAL TIGHT CONDUIT AND FITTINGS.
- ALTHOUGH WE HAVE ENDEAVORED TO SHOW ALL UTILITIES AT THE PROJECT SITE, ALL UTILITY LOCATIONS ARE NOT NECESSARILY KNOWN OR SHOWN. ELECTRICAL CONTRACTOR SHALL DETERMINE ELECTRICAL SERVICE FOR ALL PROJECT SITES.
- ELECTRICAL CONTRACTOR OR ENGINEER SHALL DETERMINE THE NEW ELECTRICAL SERVICE LOAD REQUIREMENTS FOR KITCHEN EQUIPMENT, LIGHTING, ETC. IF PROJECT HAS EXISTING ELECTRICAL SERVICE, E.C. OR ENGINEER SHALL ANALYZE AND UPGRADE THE SERVICE AS REQUIRED. POWER REQUIREMENTS SHALL BE REVIEWED WITH LOCAL UTILITY COMPANY.
- IF REQUIRED BY THE BUILDING DEPARTMENT, THE ELECTRICAL CONTRACTOR UNDER HIS PERMIT APPLICATION SHALL PROVIDE DRAWINGS OR WIRING DIAGRAMS OF ELECTRICAL PANELS, ETC.
- ELECTRICAL SYMBOLS SHOWN WITH AN ASTERISK (*) DENOTES THAT THOSE OUTLETS SHALL BE MOUNTED ON WALL ON THE HORIZONTAL PLANE, AS SHOWN BELOW:



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

REFRIGERATION SCHEDULE

ROOM	TYPE	MODEL #	PERFORMANCE		ELECTRICAL DATA				PHYSICAL DATA					
			BTU CAP.	VOLT	PHASE	RUNNING LOAD AMPS (RLA)	MCA	MOPD	LENGTH (FRONT)	WIDTH (SIDE)	HEIGHT	WEIGHT	LIQ	SUCT
COOLER	CONDENSING UNIT (1.5HP)	MOHD15X6	13780	208/230	3	8.7	15	15	37.75"	28.25"	17.25"	195 lbs.	3/8	5/8
	EVAPORATOR	LCA6-135	13500	115	1	3.0	15	15	61.50"	16"	16"	70 lbs.		



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

PLUMBING NOTES	
1. BALLINGER RESTAURANT EQUIPMENT DOES NOT PERFORM ARCHITECTURAL, MECHANICAL, ELECTRICAL, HEATING OR STRUCTURAL ENGINEERING SERVICES THE PURPOSE OF THESE PLANS IS TO ASSIST THE PLUMBING, ELECTRICAL GENERAL CONTRACTOR AND OTHERS UTILIZING THESE DRAWINGS TO COMPLETE THEIR WORK IN CONNECTION WITH THIS PROJECT.	13. HOT AND COLD WATER SUPPLIED TO DISHWASHER, GLASS WASHERS, AND CONVECTION STEAMERS SHOULD BE TREATED AND SOFTENED TO A MINIMUM OF 17-51 PPM (0-3 GRAINS/GAL.) VERIFY WITH THE ARCHITECT AND/OR G.C. IF APPLICABLE.
2. ALL PLUMBING ROUGH-IN WORK, FINAL CONNECTIONS TO ALL FOOD-SERVICE EQUIPMENT AND FIXTURES, INCLUDING FAUCETS, SHUT-OFF VALVES, GREASE TRAPS, MISCELLANEOUS FITTINGS, VACUUM BREAKERS, PRESSURE REGULATORS, PRESSURE REDUCING VALVES, TAIL PIECES, DIRECT AND INDIRECT WASTE LINES, ETC., SHALL BE FURNISHED AND INSTALLED BY THE P.C., UNLESS OTHERWISE NOTED.	14. P.C. SHALL COMPLY WITH ALL LOCAL COUNTY, STATE, AND FEDERAL CODES, ORDINANCES, RULES AND REGULATIONS, INCLUDING ALL REQUIREMENTS OF SERVING AGENCIES; PAY ALL COSTS REQUIRED FOR METER INSTALLATION, SEWER TAPS, BUILDING APPLICATION FEES, ETC.
3. ALL MECHANICAL ROUGH-INS SHOWN ON THIS PLAN PERTAIN ONLY TO THE EQUIPMENT BEING FURNISHED BY THE KEC; ANY ADDITIONAL REQUIREMENTS SHALL BE SPECIFIED BY THE ARCHITECT AND/OR THE GENERAL CONTRACTOR.	15. P.C. SHALL INSTALL INSULATION AROUND ALL HOT WATER PIPING IN WALLS OR ABOVE CEILING. INSULATE DRAIN LINES FROM ICE SINKS, ICE BINS, OR ICE PANS TO ELIMINATE CONDENSATION ON THOSE ITEMS.
4. ALL EXISTING EQUIPMENT AND OWNER SUPPLIED ITEMS SHALL BE VERIFIED BY THE P.C. FOR UTILITY REQUIREMENTS.	16. HOT AND COLD RUNNING WATER UNDER PRESSURE SHALL BE PROVIDED IN ALL AREAS IN WHICH FOOD IS PREPARED OR UTENSILS ARE WASHED. ALL HANDWASHING FACILITIES SHALL BE EQUIPPED WITH HOT AND COLD WATER. UNLESS OTHERWISE SPECIFIED, G.C. SHALL PROVIDE PAPER TOWEL AND SOAP DISPENSERS PER HEALTH DEPT. REQUIREMENTS.
5. MECHANICAL ROUGH-INS ARE SUBJECT TO CHANGE PENDING THE FINAL SELECTION OF EQUIPMENT AND LOCATION OF SAME.	18. P.C. TO RUN ALL INDIRECT WASTE LINES AND DRAINS TO APPROPRIATE FLOOR SINK, (NUMBER OF DRAINS TO MATCH FLOOR SINK CAPACITY).
6. MECHANICAL SYMBOLS SHOWN (1/2" (UP 12") OR 1/8" (UP 16"), ETC. DENOTES HEIGHT FROM FINISHED FLOOR TO CENTER LINE OF OUTLET OR PLUMBING CONNECTION IN WALL. SYMBOLS SHOWN (STUB) DENOTES TERMINATE ROUGH-INS APPROXIMATELY 4" ABOVE FINISHED FLOOR, UNLESS OTHERWISE NOTED.	19. IF REQUIRED BY THE BUILDING DEPT., THE P.C., UNDER HIS PERMIT APPLICATION SHALL PROVIDE DRAWINGS OR DIAGRAMS OR PIPING LAYOUT, SEWER PIPE SIZES, VENTING CONNECTIONS, ETC.
7. ALL DIMENSIONS SHOWN ARE FROM FINISHED FACE OF WALLS, FLOORS, CEILING, OR CENTER LINE OF COLUMNS, UNLESS OTHERWISE NOTED.	20. MOBILE COOKING EQUIPMENT SHALL BE MOUNTED ON NSF APPROVED CASTERS. THE KEC SHALL PROVIDE AGA APPROVED GAS HOSES, QUICK DISCONNECT COUPLINGS, AND SECURE EQUIPMENT TO WALL WITH RESTRAINING DEVICES.
8. ALL FINISHED BUILDING DIMENSIONS SHALL BE VERIFIED BEFORE FABRICATION AND/OR INSTALLATION OF EQUIPMENT AND FIXTURES.	23. FLOOR SINKS SHALL BE INSTALLED AS PER HEALTH DEPT. CODES. ALL FLOOR SINKS ARE 12" X 2" UNLESS OTHERWISE NOTED. IN LOCATIONS WHERE FLOOR SINKS FLUSH LEVEL WITH FINISHED FLOOR ARE PERMITTED, THEY SHALL BE LOCATED AS SHOWN ON PLAN (ONE HALF GRATE EXPOSED ON THE WORKING SIDE, AND ONE HALF OPEN ON THE UNEXPOSED SIDE BELOW EQUIPMENT).
9. ESCUTCHEON COVERS, RINGS, ETC. AT ALL FLOOR, HALL, & CEILING PENETRATIONS FOR PLUMBING LINES AND/OR FIXTURES SHALL BE PROVIDED BY THE P.C. ALL FLOOR GAPS, HOLES, ETC. AROUND LINES AT PENETRATIONS SHALL BE SEALED AND CAULKED SOLIDLY AS PER HEALTH DEPT. REQUIREMENTS.	24. IF APPLICABLE, ALL EXISTING UTILITIES AND SERVICES SHALL BE RE-USED WHENEVER POSSIBLE. ALL FINAL CONNECTIONS SHALL BE MADE IN ACCORDANCE TO LOCAL CODES AND REGULATIONS. ALL OTHER EXISTING PLUMBING SERVICES WHICH WILL NOT BE NEEDED MUST BE REMOVED, CAPPED, AND/OR SEALED AS NECESSARY.
10. UNLESS OTHERWISE SPECIFIED, FAUCETS AND DRAIN FITTINGS FOR SINKS IN THE KITCHEN EQUIPMENT CONTRACT SHALL BE PROVIDED BY THE KEC. ALL FINAL CONNECTIONS SHALL BE MADE BY THE P.C.	
12. P.C. SHALL SIZE, FURNISH, AND LOCATE GREASE TRAP IF REQUIRED BY LOCAL CODE. GREASE TRAPS SHALL BE LOCATED BELOW OR SET FLUSH WITH FINISHED FLOOR. LOCATION TO BE COORDINATED AND VERIFIED WITH THE KEC.	

ITEM	QTY	DESCRIPTION	WATER		WASTE		GAS	
			HOT	COLD	DIRECT	INDIRECT	HT	SIZE
1	1	CONDENSING UNIT FOR WI COOLER						
2	1	EVAP COIL FOR WI COOLER						
3	1	(LOT) WALK-IN SHELVING				1"	FS	
4	1	ICE MACHINE, BIN, & FILTER		3/4"	+84"	1"	FS	
5	1	WALK-IN COOLER						
6	1	(LOT) DRY STORAGE SHELVING						
7	1	2-DOOR FREEZER						
8	2	S/S HAND SINK	1/2"	1/2"	+22"	1-1/2"	+22"	
9	-	SPARE						
10	1	S/S EXHAUST HOOD						
11	1	CONVECTION OVEN					1"	120,000 +24"
12	1	S/S WALL LINER						
13	-	SPARE						
14	-	SPARE						
15	4	5 QUART MIXER						
16	1	S/S WORKTABLE 96 x 30						
17	1	MICROWAVE OVEN						
18	1	S/S TABLE MOUNTED OVERSHELF 96 x 12						
19	1	FAUCET	1/2"	1/2"	+16"			
20	1	S/S WORKTABLE W/SINK - ACCESSIBLE 60 x 30						
21	1	S/S TABLE MOUNTED OVERSHELF 60 x 12						
22	1	S/S TABLE MOUNTED OVERSHELF 96 x 12						
23	1	FAUCET	1/2"	1/2"	+16"			
24	1	S/S WORKTABLE W/SINKS				2"	FS	
25	-	SPARE						
26	4	FOOD PROCESSOR						
27	1	S/S WALL SHELF 54 x 12						
28	1	S/S WORKTABLE 54 x 30						
29	3	S/S WALL CAPS						
30	-	SPARE						
31	1	S/S WALL SHELF						
32	1	MILLWORK LAUNDRY COUNTER						
33	-	SPARE						
34	-	SPARE						
35	6	S/S WORKTABLE - ACCESSIBLE 36 x 36						
36	1	S/S TYPE I EXHAUST HOOD						
37	4	6-BURNER RANGE				3/4"	215,000 +24"	
38	1	FIRE SUPPRESSION SYSTEM						
39	1	S/S WALL LINER AND WALL CAP						
40	1	S/S TYPE I EXHAUST HOOD						
41	-	SPARE						
42	1	20 QT. MIXER ON STAND						
43	3	S/S WORKTABLE 72 x 30						
44	2	S/S WORKTABLE - ACCESSIBLE 72 x 30						
45	1	SHEET PAN RACK						
46	-	SPARE						
47	-	SPARE						
48	1	S/S TABLE MOUNTED OVERSHELF 42 x 12						
49	1	S/S CLEAN SIDE DISHTABLE 52 x 30						
50	1	HIGH-TEMP DISHWASHER - VENTLESS		3/4"	+84"	2"	FS	
51	1	PRERINSE UNIT	1/2"	1/2"	+16"			
52	1	S/S SOILED DISHTABLE 72 x 30				2"	FS	
53	1	S/S TABLE MOUNTED OVERSHELF 36 x 12						
54	2	S/S TABLE MOUNTED OVERSHELF 24 x 12						
55	1	S/S 3-TUB POT SINK 120 x 36				2"	FS	
56	2	PRERINSE UNIT W/FAUCET	1/2"	1/2"	+16"			
57	-	SPARE						
58	-	SPARE						
59	-	SPARE						
60	1	FAUCET	1/2"	1/2"	+16"			
61	1	S/S SERVICE STATION W/SINK 96 x 30				1-1/2"	FS	
62	1	COFFEE BREWER	1/2"	+48"				
63	1	GROUND KNOCKBOX						
64	1	ESPRESSO GRINDER						
65	1	ESPRESSO MACHINE	1/2"	+48"		1"	FS	
66	1	UNDERCOUNTER REFRIGERATOR						
67	-	SPARE						
68	1	S/S WORKTABLE W/SINKS 96 x 30				2"	FS	
69	1	FAUCET	1/2"	1/2"	+16"			
70	-	SPARE						
71	1	1-DOOR REFRIGERATOR						

PLUMBING LEGEND	
	GAS CONNECTION
	GAS CONNECTION WITH QUICK DISCONNECT
	HOT & COLD WATER SUPPLY (H & CW)
	WASTE (DIRECT CONNECTED)
	DRAIN (INDIRECT CONN. TO FS BY OTHERS)
	FLOOR DRAIN (FD)
	FLOOR SINK (FS) WITH HALF GRATE

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DIV. OF THE STATE ARCHITECT
APP. 01-117845 INC.
REVIEWED FOR
SS FLS ACS
DATE: 02/27/2019



QUATTROCCHI KWOK
ARCHITECTS
Main Office:
636 Fifth Street, Santa Rosa, CA 95404
Pleasanton Office:
600 Main Street, Suite E,
Pleasanton, CA 94566
(707) 576-9829



BALLINGER
RESTAURANT EQUIPMENT, INC.
1000 APOLLO WAY, SUITE 170
SANTA ROSA, CA 95407
(707) 544-8924

HERITAGE HIGH SCHOOL
CULINARY ARTS BUILDING
101 American Ave
Brentwood, CA 94513

LIBERTY UNION HIGH SCHOOL DISTRICT
20 Oak Street
Brentwood, CA 94513

REVISIONS	

ARCH PROJECT NO: 1750.00
DRAWN BY: LB
DRAWING SCALE: AS SHOWN
PTN: 61721-70

CD
FEBRUARY 27, 2019
SHEET TITLE

FOODSERVICE EQUIPMENT PLUMBING PLAN

SHEET NUMBER
K-3.0

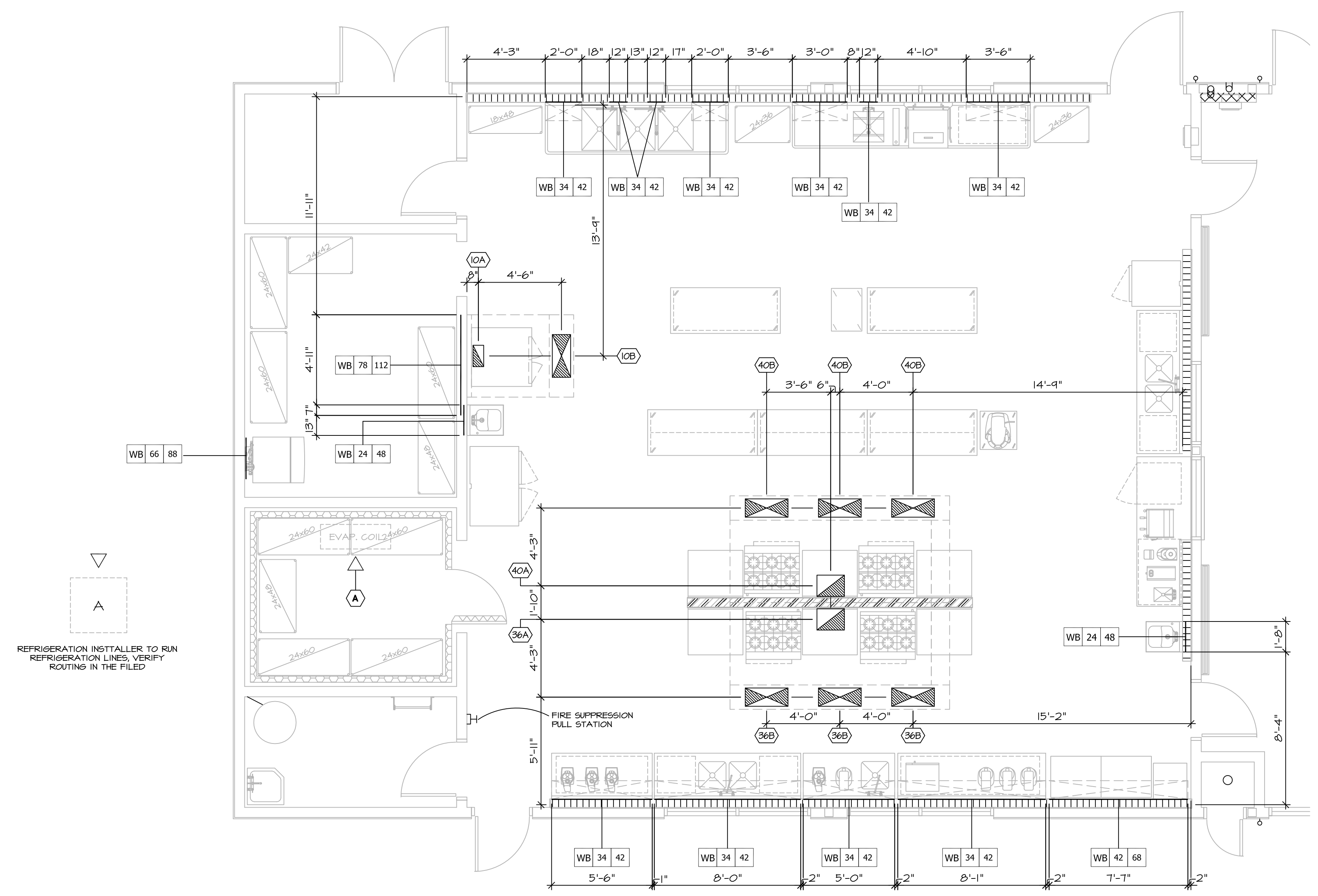
REVISIONS

ARCH PROJECT NO: 1750.00
 DRAWN BY: LB
 DRAWING SCALE: AS SHOWN
 PTN: 61721-70

CD
 FEBRUARY 27, 2019
 SHEET TITLE

FOODSERVICE BUILDING CONDITIONS PLAN

SHEET NUMBER
K-4.0

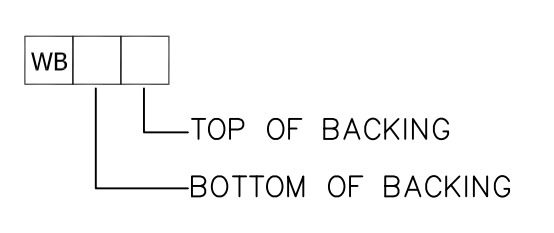
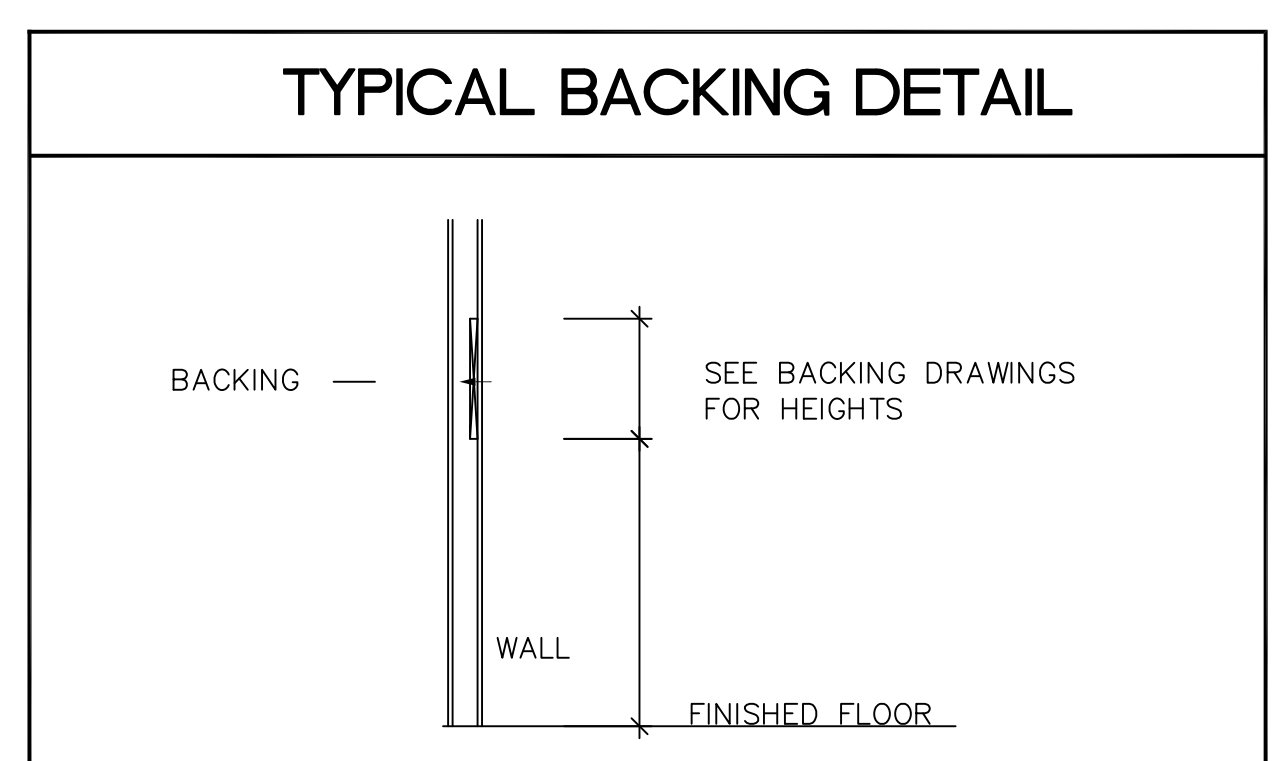


REFRIGERATION INSTALLER TO RUN REFRIGERATION LINES, VERIFY ROUTING IN THE FILED

WALL BACKING NOTES

- GC TO PROVIDE WALL BACKING PER THIS DRAWING.
- THIS WALL BACKING PLAN SHOWS WALL BACKING REQUIRED FOR FOODSERVICE EQUIPMENT ONLY. CONTACT ARCHITECT FOR ANY OTHER BACKING REQUIREMENTS.

BOTTOM = THE LOWEST EDGE OF THE WALL BACKING ABOVE THE FINISHED FLOOR.
 TOP = THE HIGHEST EDGE OF THE WALL BACKING ABOVE THE FINISHED FLOOR.

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

MECHANICAL LEGEND

- SUPPLY DUCT
- ROUND EXHAUST DUCT
- REMOTE FIRE PULL STATION
- WALL BACKING BY GENERAL CONTRACTOR

VENTILATION SCHEDULE

10A	ONE (1) 17" X 14" 1080 CFM, -0.671" SP. EXHAUST HOOD CONNECTOR.
10B	ONE (1) 12" X 28" 799 CFM, 0.205" SP. SUPPLY AIR.
36A	ONE (1) 14" X 18" 2640 CFM, -0.153" SP. EXHAUST HOOD CONNECTOR.
36B	THREE (3) 12" X 28" 730 CFM, 0.200" SP. SUPPLY AIR.
40A	ONE (1) 14" X 18" 2640 CFM, -0.153" SP. EXHAUST HOOD CONNECTOR.
40B	THREE (3) 12" X 28" 730 CFM, 0.200" SP. SUPPLY AIR.

REFRIGERATION SCHEDULE

SYSTEM	ITEM #	DESCRIPTION	SERVICE TO ITEM #	DESCRIPTION
A	1	COMPRESSOR	2	EVAPORATOR COIL - COOLER

△ = REFRIGERATION ROUGH-IN

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LICENSED ARCHITECT
 JIM THEISS
 LICENSE # C22643
 EXP. JUNE 30, 2019
 STATE OF CALIFORNIA
 SIGNED: 2/27/2019

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 RESTAURANT EQUIPMENT, INC.
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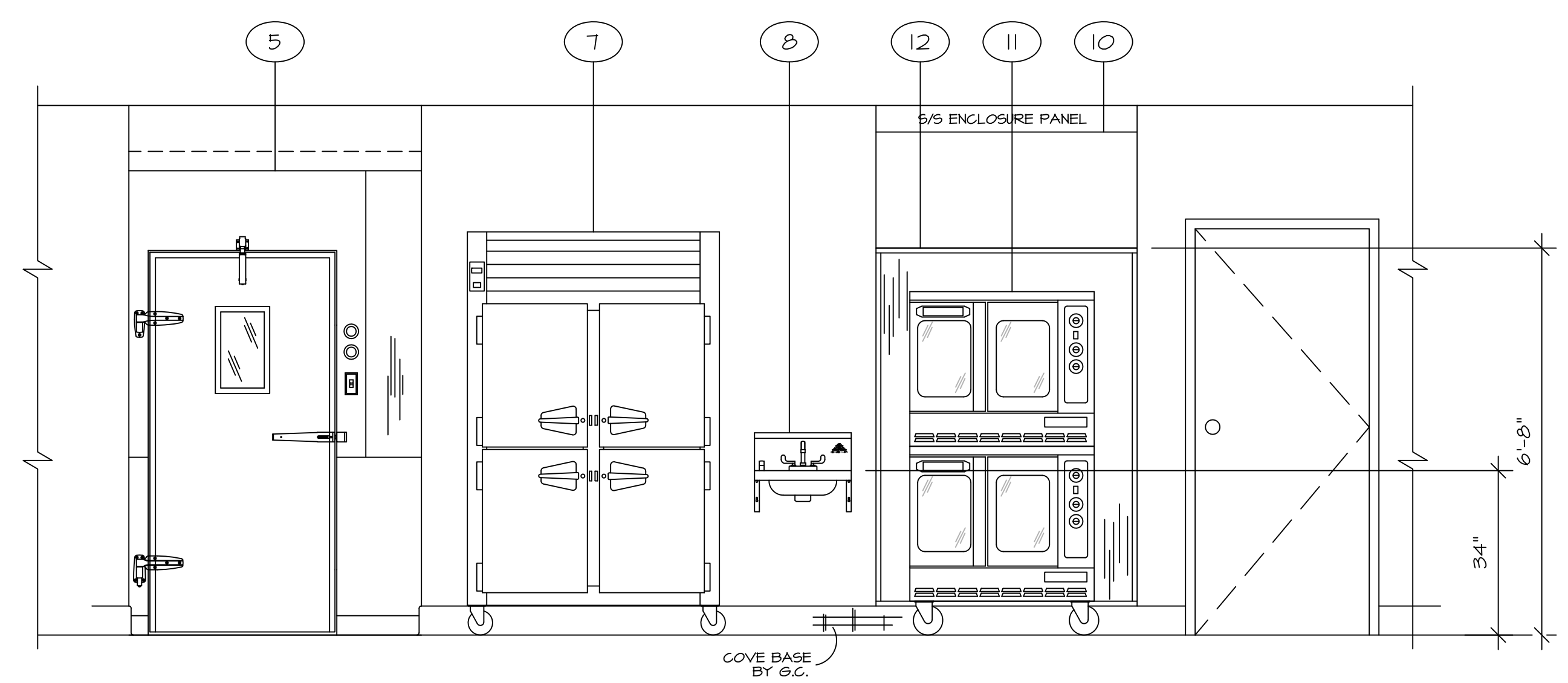
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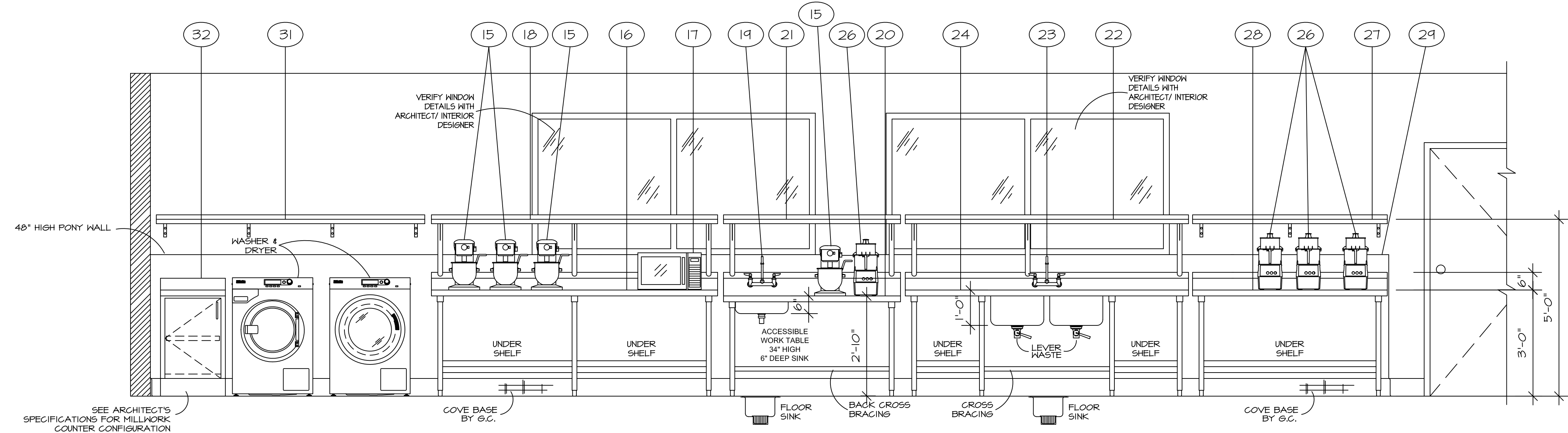
CD
 FEBRUARY 27, 2019
 SHEET TITLE

FOODSERVICE ELEVATIONS

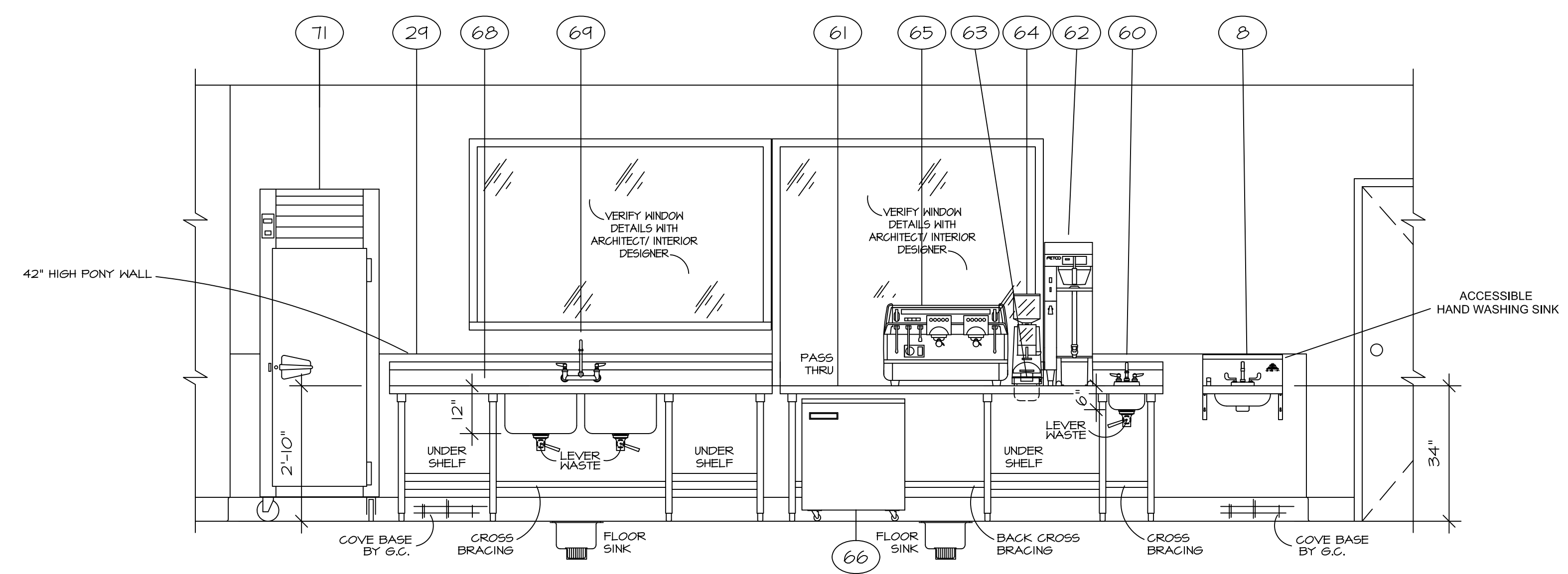
SHEET NUMBER
K-5.0



1 WEST ELEVATION - LOCKERS/ WALK-IN COOLER & COOKLINE AREA
 1/2" = 1' - 0"



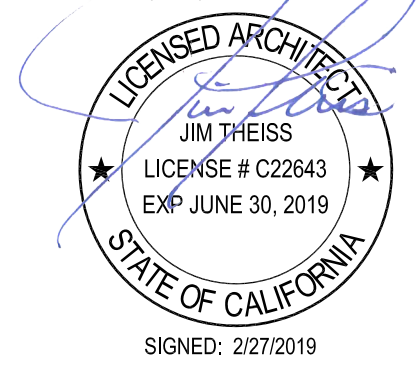
2 SOUTH ELEVATION - PREP/WASHER & DRYER AREA
 1/2" = 1' - 0"



3 EAST ELEVATION - PREP/BEVERAGE AREA
 1/2" = 1' - 0"



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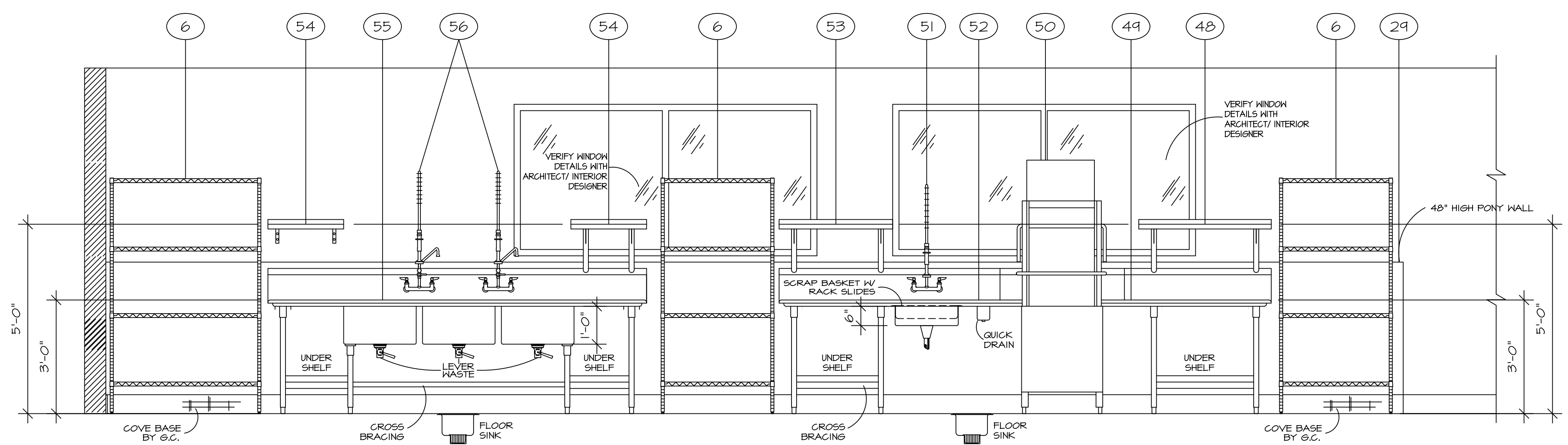
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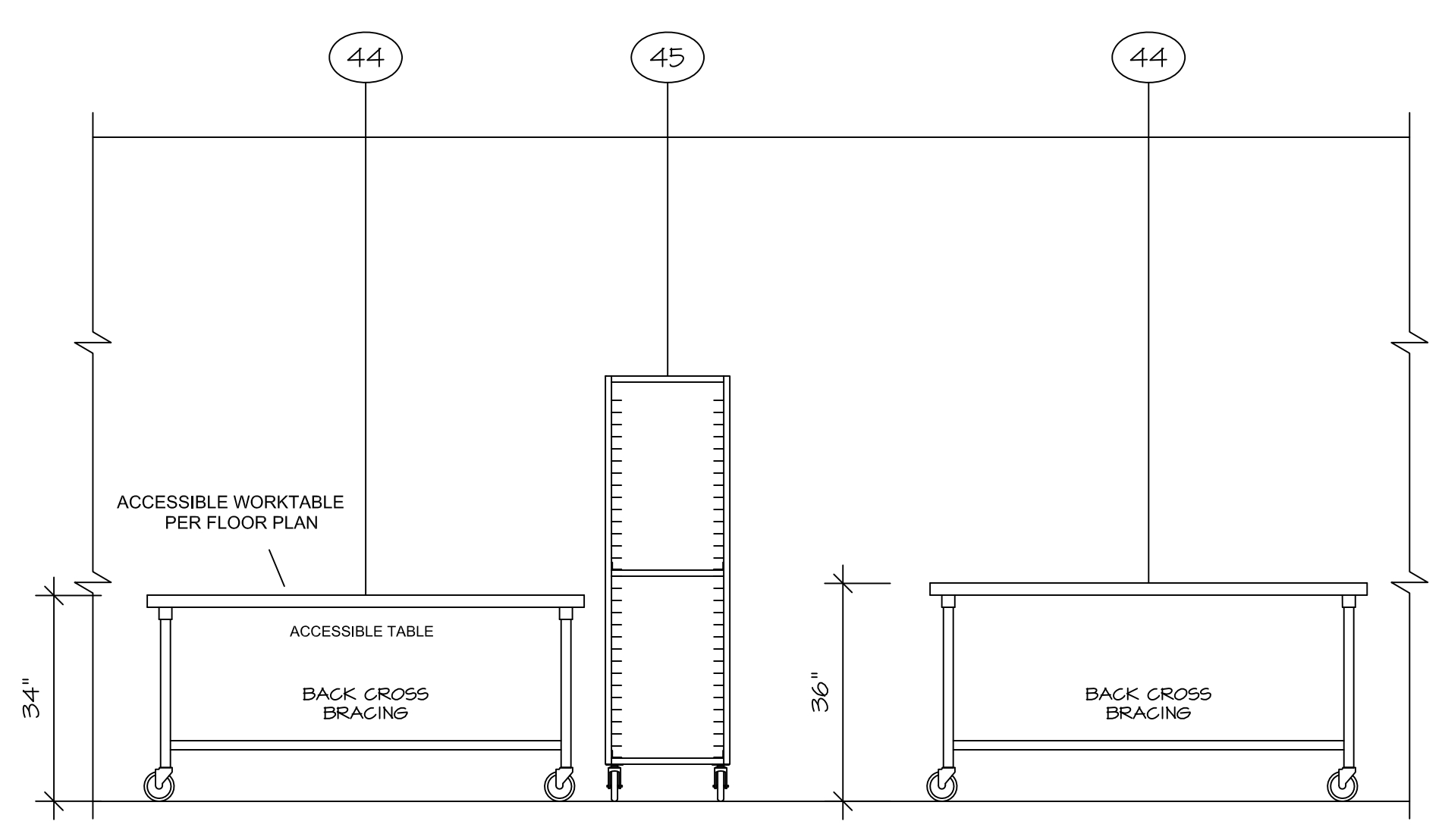
CD
FEBRUARY 27, 2019
SHEET TITLE

FOODSERVICE ELEVATIONS

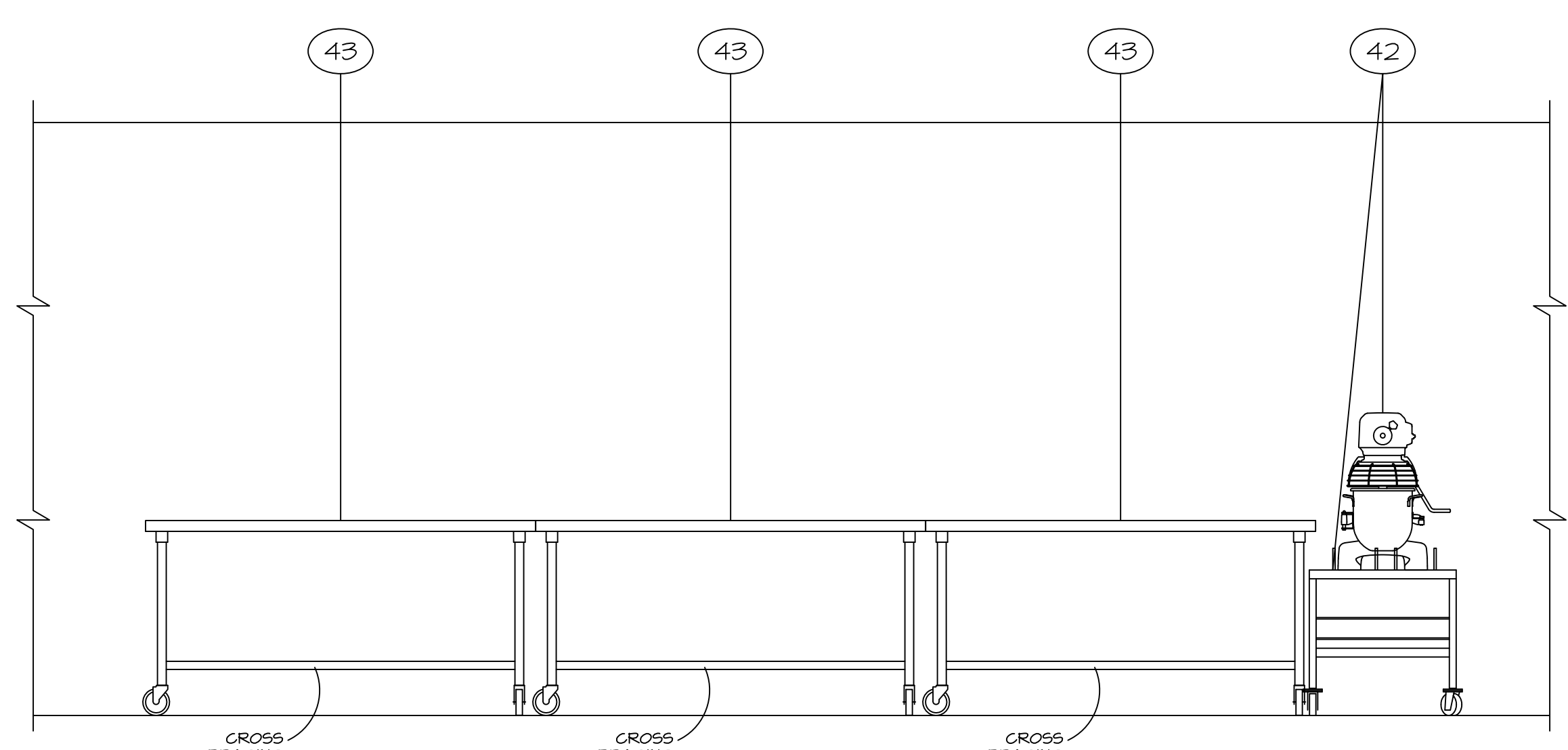
SHEET NUMBER
K-5.1



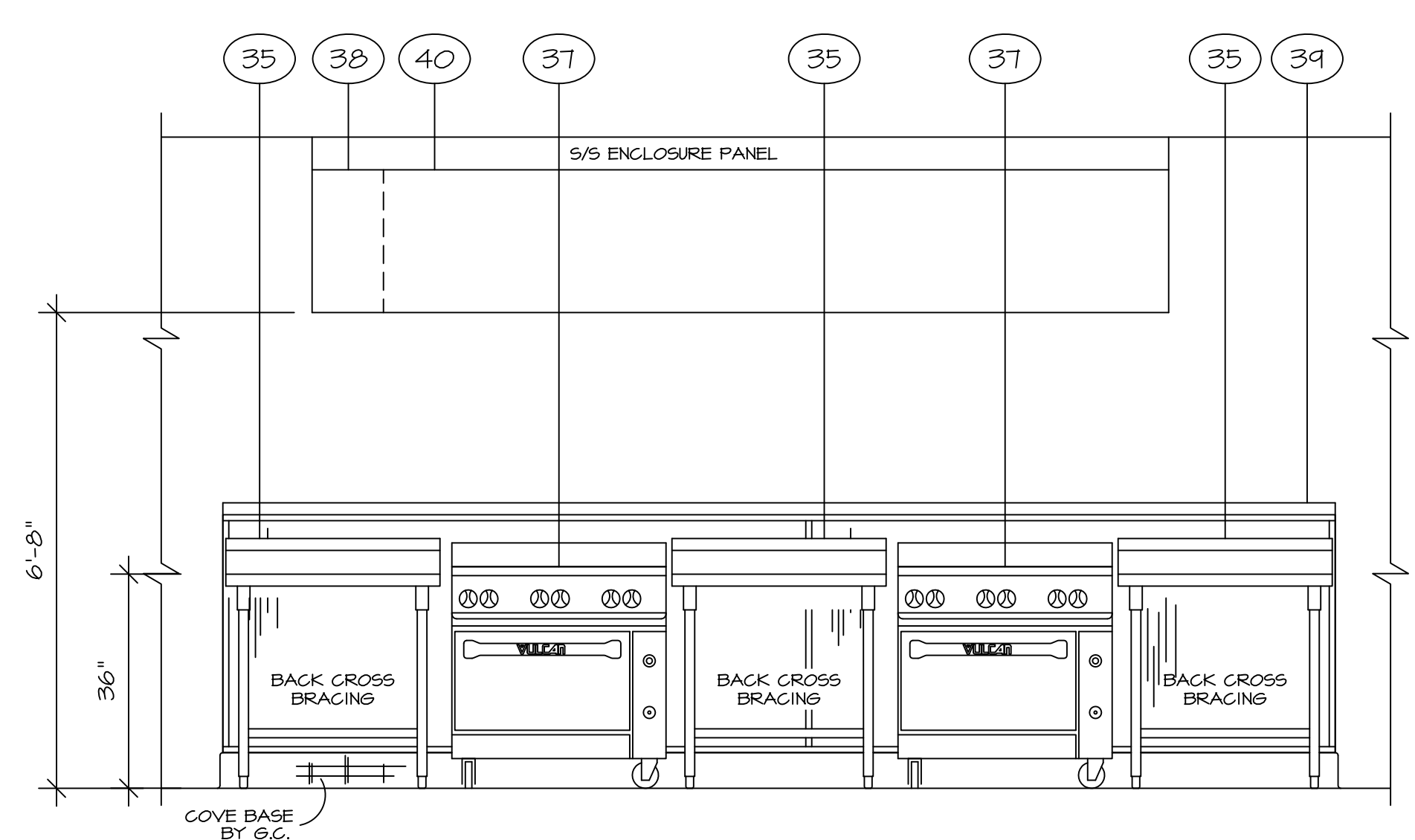
4 NORTH ELEVATION - POT/WARE WASH AREA
1/2" = 1' - 0"



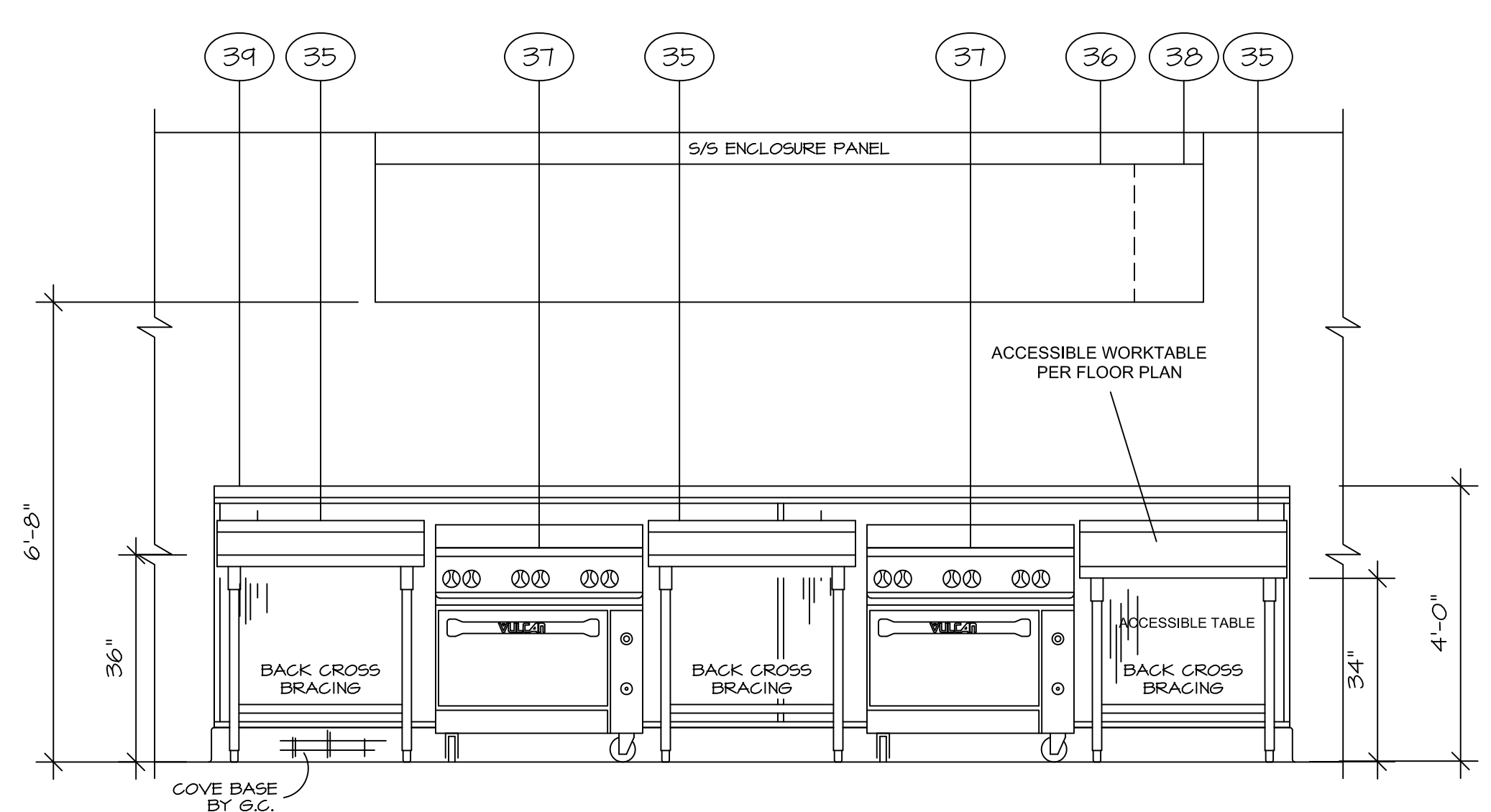
5 ELEVATION - PREP AREA
1/2" = 1' - 0"



6 ELEVATION - BAKERY AREA
1/2" = 1' - 0"

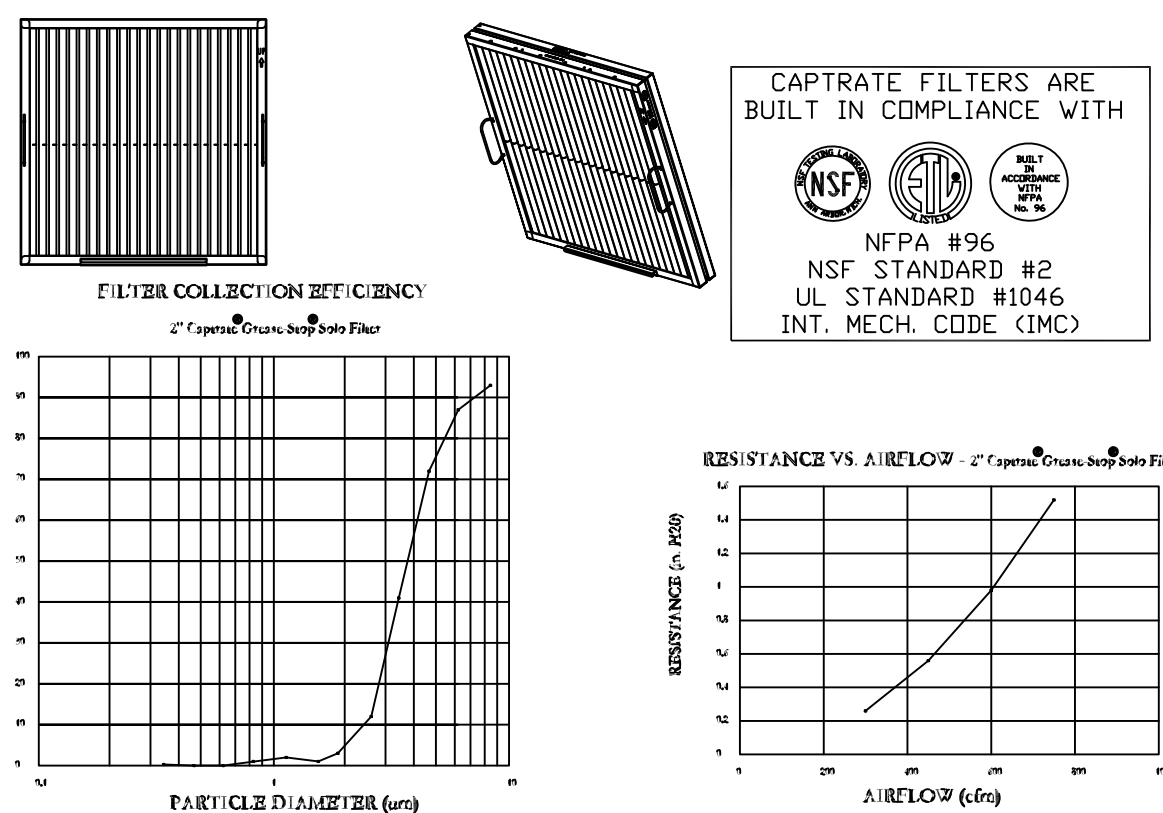


7 ELEVATION - COOKLINE AREA
1/2" = 1' - 0"



8 ELEVATION - COOKLINE AREA
1/2" = 1' - 0"

CAPTRATE SOLO FILTERS



CAPTRATE FILTERS ARE BUILT IN COMPLIANCE WITH
 NSF #96
 NSF STANDARD #2
 UL STANDARD #1046
 INT. MECH. CODE (IMC)

SPECIFICATION: CAPTRATE® GREASE-STOP® SOLO FILTER

THE CAPTRATE GREASE-STOP SOLO FILTER IS A SINGLE-STAGE FILTER FEATURING A UNIQUE S-Baffle DESIGN IN CONJUNCTION WITH A SLOTTED REAR Baffle DESIGN, TO DELIVER EXCEPTIONAL FILTRATION EFFICIENCY.
 FILTER IS CONSTRUCTED OF 430 STAINLESS STEEL, AND SIZED TO FIT INTO STANDARD 2-INCH DEEP HOOD CHANNEL(S).
 UNITS SHALL INCLUDE STAINLESS STEEL HANDLES AND A FASTENING DEVICE TO SECURE THE TWO COMPONENTS WHEN ASSEMBLED.
 ***GREASE EXTRACTION EFFICIENCY PERFORMANCE SHALL REMOVE AT LEAST 75% OF GREASE PARTICLES FIVE MICRONS IN SIZE, AND 90% GREASE PARTICLES SEVEN MICRONS IN SIZE AND LARGER, WITH A CORRESPONDING PRESSURE DROP NOT TO EXCEED 1.0 INCHES' OF WATER GAUGE.

FILTER INFORMATION - CAPTRATE® GREASE-STOP® SOLO

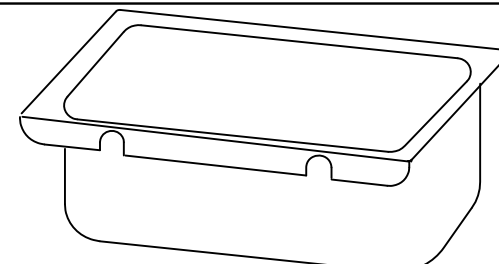
NOMINAL SIZE (H x W)	ACTUAL DIMENSIONS (H x W x D)	FREE AREA (SQ. FEET)	WEIGHT (POUNDS)	VELOCITY (FEET PER MINUTE)	STATIC PRESSURE (WATER GAUGE)
20 x 20	19-5/8" x 19-5/8" x 1-7/8"	2.28	11	100	0.25
20 x 16	19-5/8" x 15-5/8" x 1-7/8"	1.78	8.9	125	0.35
16 x 20	15-5/8" x 19-5/8" x 1-7/8"	1.78	9.1	150	0.45
16 x 16	15-5/8" x 15-5/8" x 1-7/8"	1.39	7.4	175	0.75
12 x 20	11-5/8" x 19-5/8" x 1-7/8"	1.23	6.8	200	0.90
12 x 16	11-5/8" x 15-5/8" x 1-7/8"	0.96	5.6	225	1.00
10 x 20	9-5/8" x 19-5/8" x 1-7/8"	1.00	5.6	250	1.30
10 x 16	9-5/8" x 15-5/8" x 1-7/8"	0.78	4.6	275	1.50

CAPTIVE-AIRE HOODS ARE BUILT IN COMPLIANCE WITH:

- NFPA #96
- NSF
- ETL Listed
- CALIFORNIA MECHANICAL CODE
- INTERNATIONAL MECHANICAL CODE

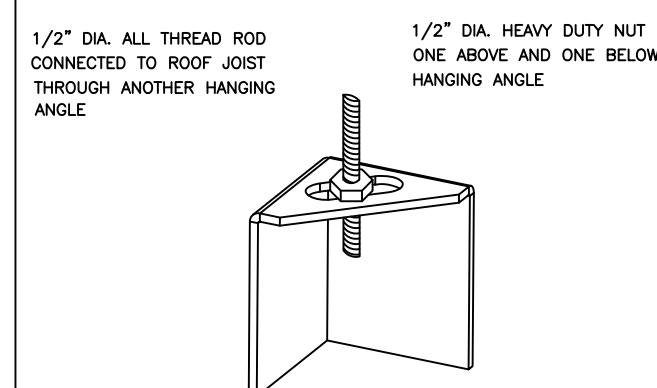


BUILDING CODES



Grease cup will be supported by 2 studs on the inside wall of the hood. The grease will drain through a concealed grease trough and into this removable cup.

1/2 Pint Grease Cup Detail



ND-2 HANGING ANGLE DETAIL

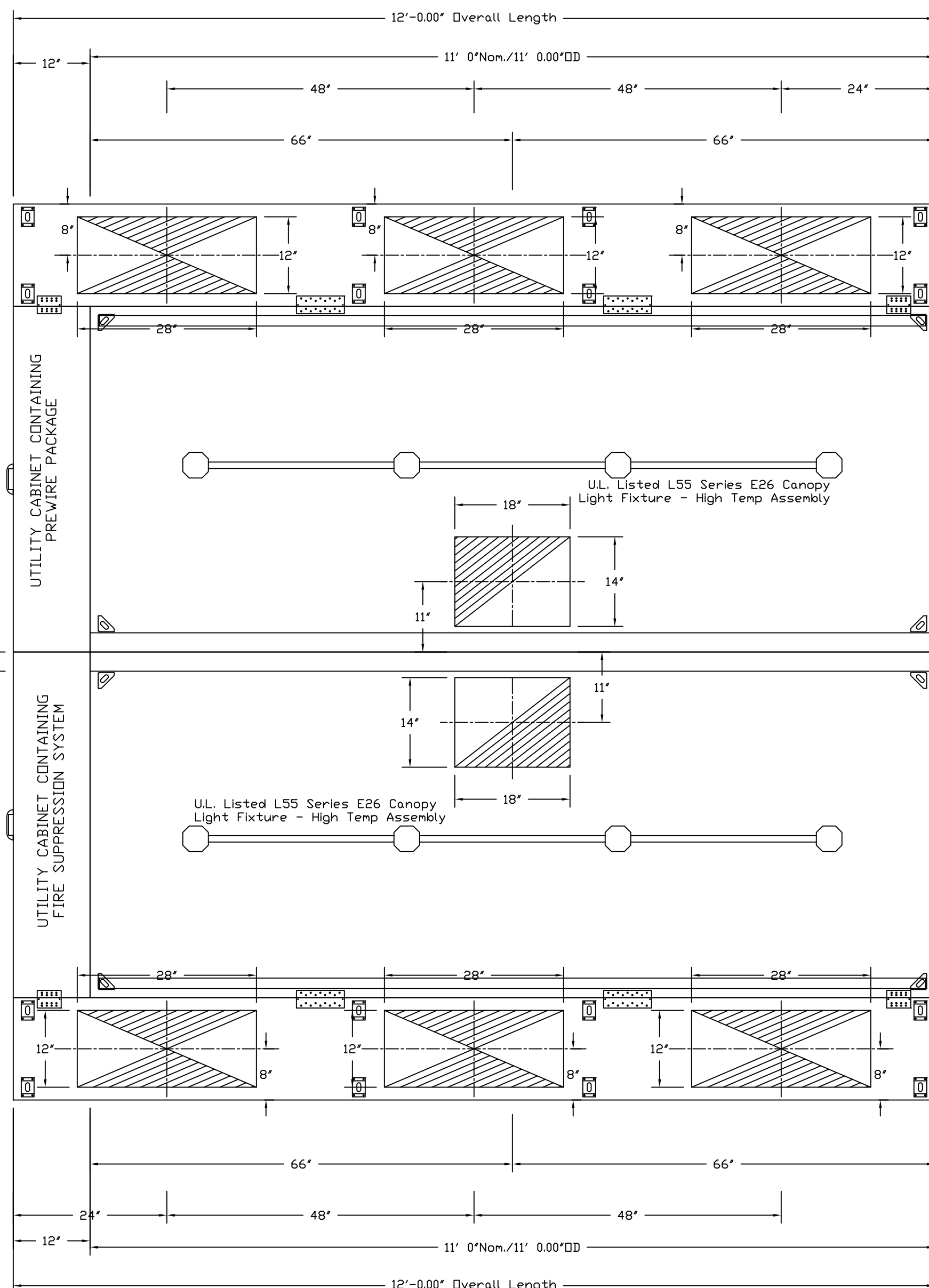
HANGING ANGLES WILL BE LOCATED IN THE FOLLOWING LOCATIONS FOR WALL CANOPIES

HOOD STYLE	DIM FROM REAR	DIM FROM FRONT (24" High Hood)	DIM FROM SIDES (24" High Hood)
ND-2 (W1) Exhaust only	4.125"	2.25"	2.25"
VHB (-B)	2.25"	2.25"	2.25"

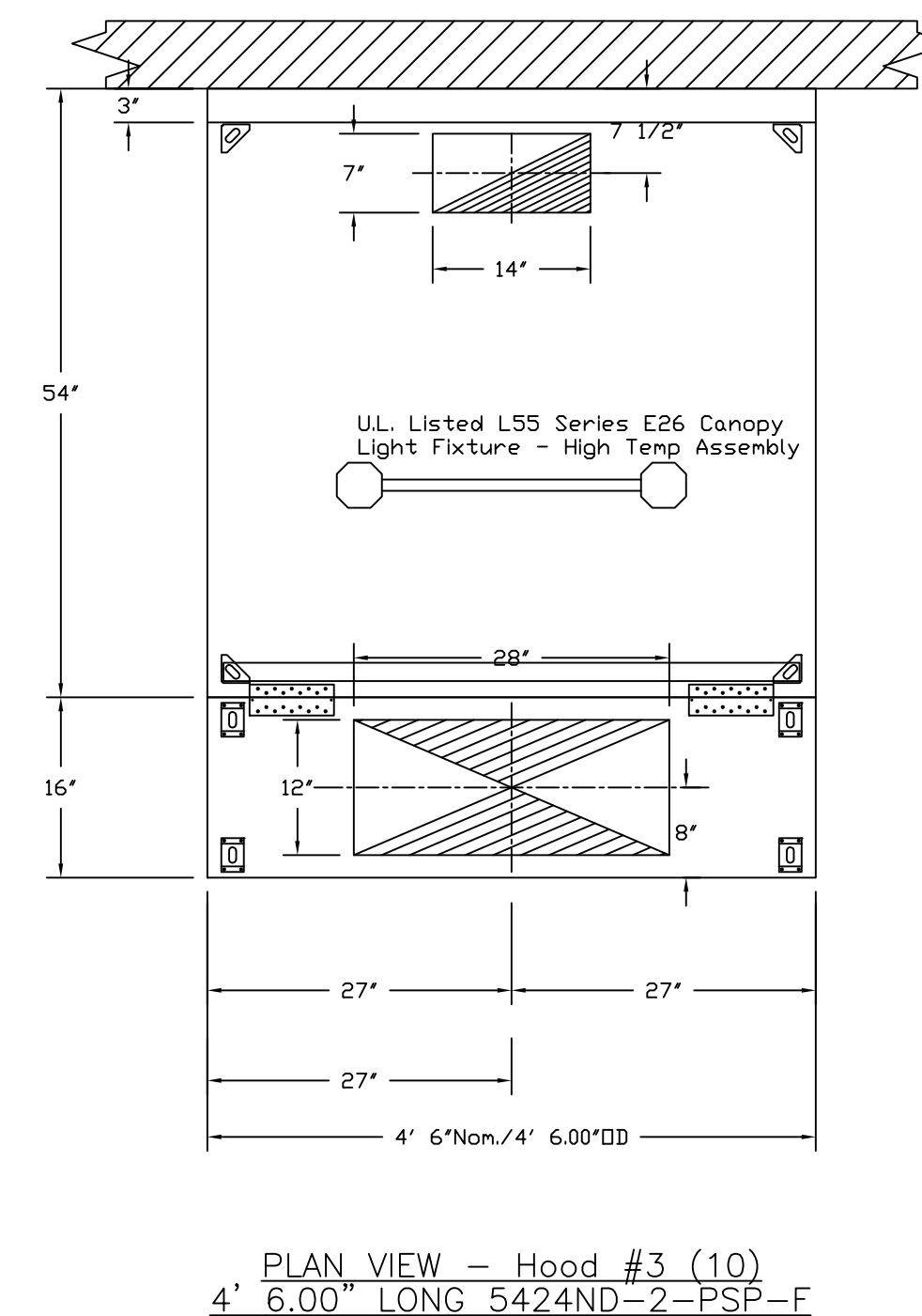
ALL OTHER HOOD MODELS CONTACT CAPTIVE-AIRE FOR HANGING ANGLE LOCATIONS

HANGING ANGLE LOCATIONS

PLAN VIEW - Hood #1 (40)
 11' 0.00" LONG 5424ND-2-PSP-F



PLAN VIEW - Hood #2 (36)
 11' 0.00" LONG 5424ND-2-PSP-F



These products and others are available for demonstration at the Northern CA display center --For more information or questions Contact--
 Captive Aire Systems
 1110 Burnett Ave, Suite G, Concord, CA 94520
 Phone: (925)962-1999, Fax: (925)566-8565
 Email: reg92@captiveaire.com

HOOD INFORMATION - Job#3468233

HOOD NO.	TAG	MODEL	LENGTH	MAX. COOKING TEMP.	TOTAL EXH. CFM	EXHAUST PLENUM RISER(S)					TOTAL SUPPLY CFM	HOOD CONSTRUCTION	HOOD CONFIG.		
						WIDTH	LENG.	HEIGHT	DIA.	CFM			VEL.	S.P.	END TO END
1	40	5424 ND-2-PSP-F	11' 0"	600 Deg.	2640	14"	18"	4'	2640	1509	-0.753"	2191	304 SS 100%	ALONE	FRONT
2	36	5424 ND-2-PSP-F	11' 0"	600 Deg.	2640	14"	18"	4'	2640	1509	-0.753"	2191	304 SS 100%	ALONE	BACK
3	10	5424 ND-2-PSP-F	4' 6"	600 Deg.	1080	7"	14"	4'	1080	1587	-0.671"	799	304 SS 100%	ALONE	ALONE

PERFORATED SUPPLY PLENUM(S)

HOOD NO.	TAG	POS.	LENGTH	WIDTH	HEIGHT	RISER(S)					
						TYPE	WIDTH	LENG.	DIA.	CFM	S.P.
1	40	Front	144"	16"	6'	MUA	12"	28"		730	0.200"
						MUA	12"	28"		730	0.200"
						MUA	12"	28"		730	0.200"
2	36	Front	144"	16"	6'	MUA	12"	28"		730	0.200"
						MUA	12"	28"		730	0.200"
						MUA	12"	28"		730	0.200"
3	10	Front	54"	16"	6'	MUA	12"	28"		799	0.205"
						MUA	12"	28"		799	0.205"
						MUA	12"	28"		799	0.205"

HOOD INFORMATION

HOOD NO.	TAG	FILTER(S)					LIGHT(S)					UTILITY CABINET(S)				FIRE SYSTEM PIPING	HOOD HANGING WTGHT	
		TYPE	QTY.	HEIGHT	LENGTH	EFFICIENCY @ 7 MICRONS	QTY.	TYPE	WIRE GUARD	LOCATION	SIZE	TYPE	SIZE	MODEL #	SWITCHES QUANTITY			
1	40	Captrate Solo Filter	8	20"	16"	85% See Filter Spec.	4	L55 Series E26	ND	Left	12"x54"x24"	Ansul R102	3.0/3.0/3.0				YES	729 LBS
2	36	Captrate Solo Filter	8	20"	16"	85% See Filter Spec.	4	L55 Series E26	ND	Right	12"x54"x24"			DCV-3111	1 Light 1 Fan		YES	724 LBS
3	10	Captrate Solo Filter	3	20"	16"	85% See Filter Spec.	2	L55 Series E26	ND								YES	297 LBS

REVISIONS

NO.	DESCRIPTION	DATE

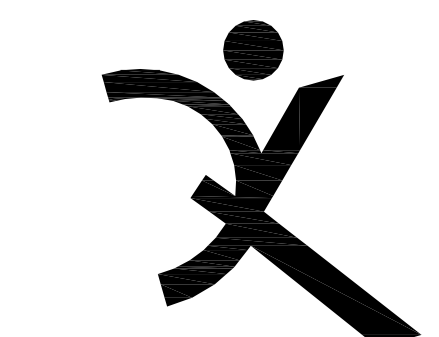
CAPTIVE-AIRE
 Northern California Office
 www.captiveaire.com
 1110 Burnett Ave, Suite G, Concord, CA, 94520 PHONE: (925) 962-1999 FAX: (925) 566-8565 EMAIL: reg92@captiveaire.com

Heritage HS Culinary Arts
 BRENTWOOD, CA,

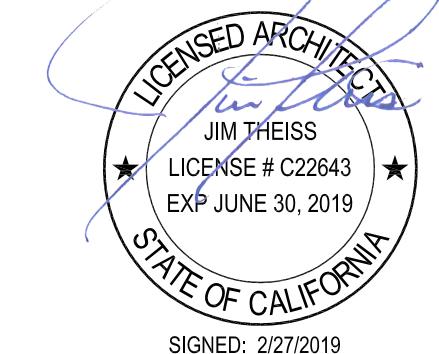
DATE: 7/6/2018
 DWG.#: 3468233
 DRAWN BY:
 SCALE: 3/4" = 1'-0"
 MASTER DRAWING

SHEET NO.
 1

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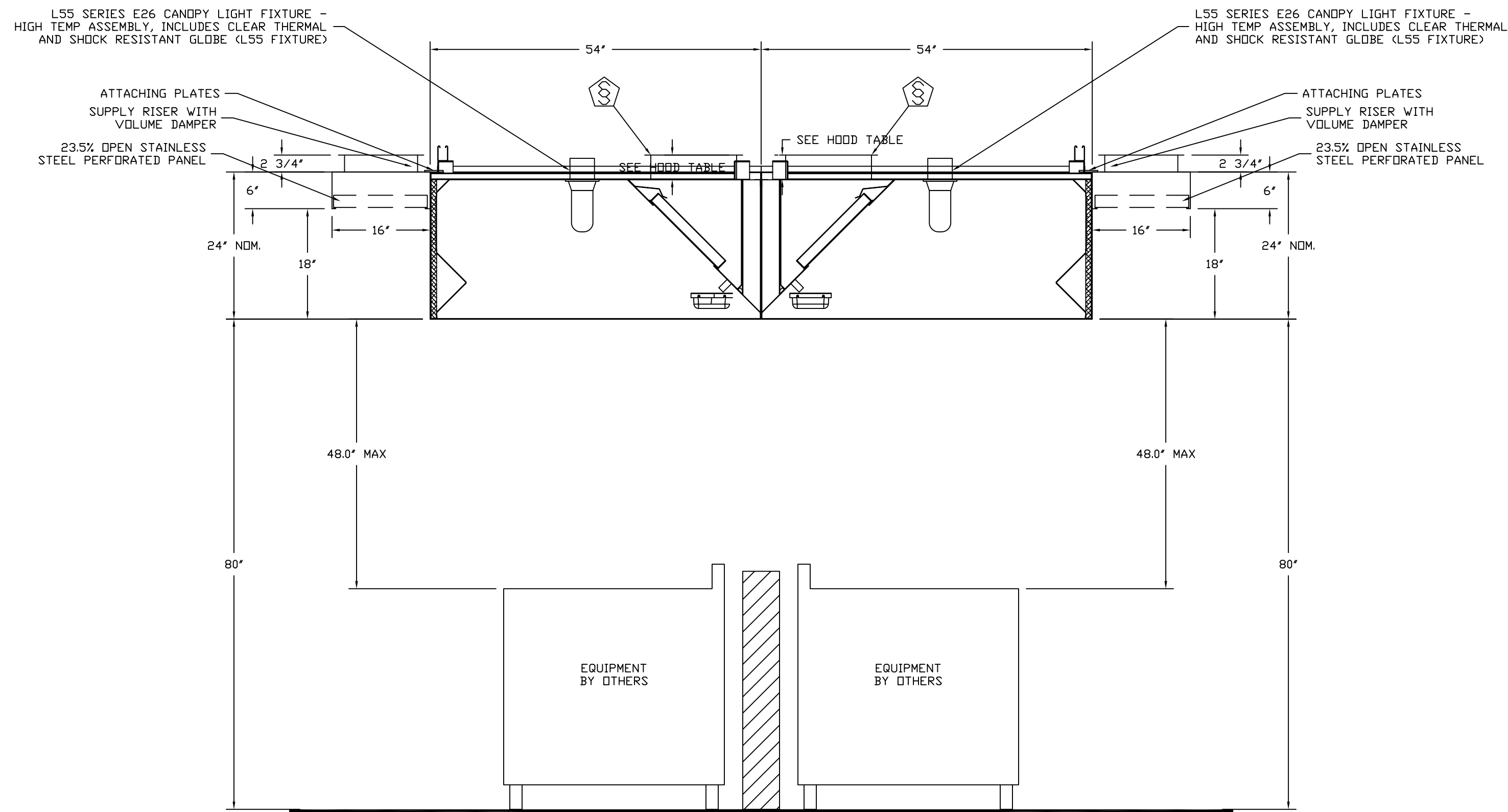
FEBRUARY 27, 2019

SHEET TITLE

HOOD PLAN

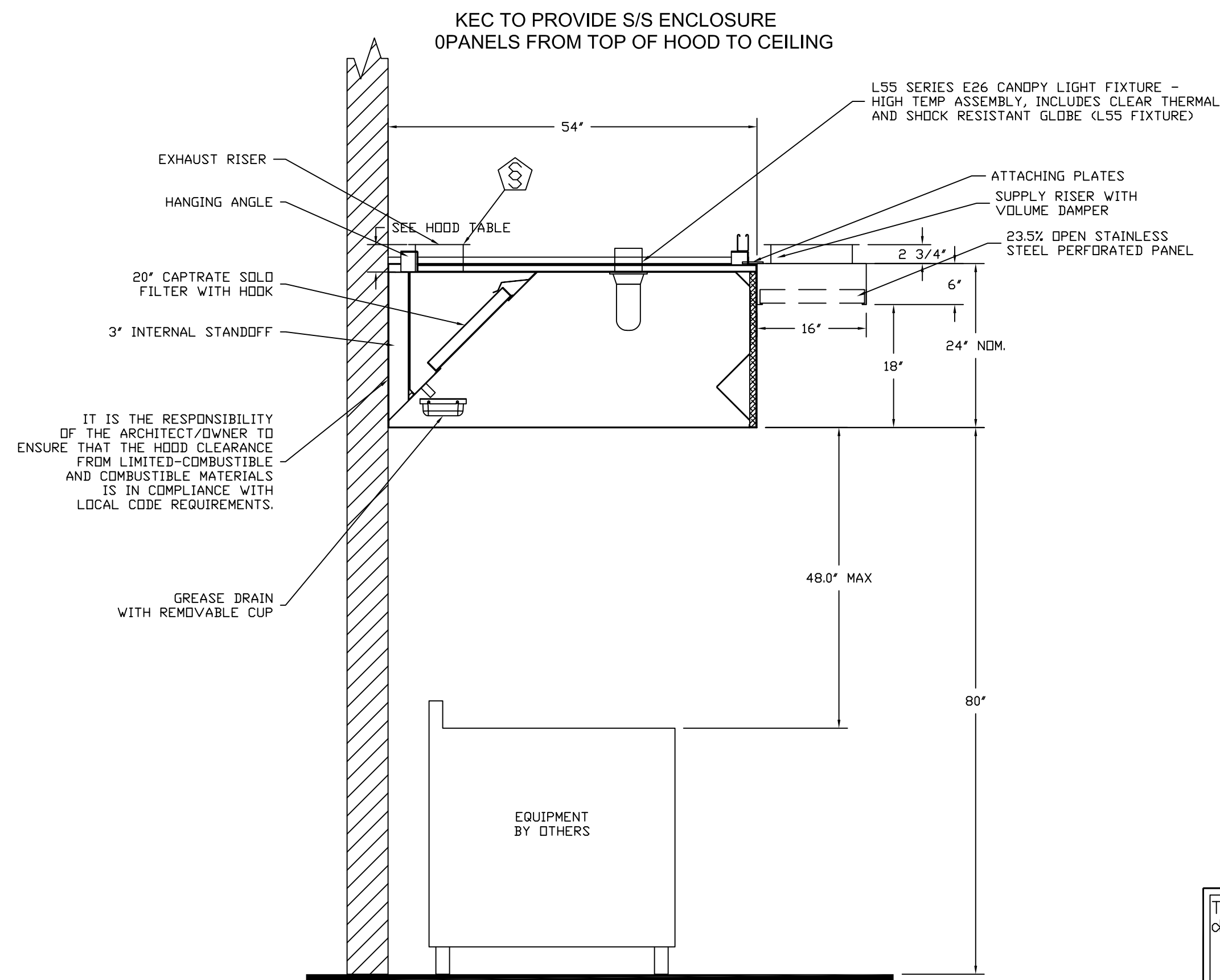
SHEET NUMBER

K-6.0



SECTION VIEW - MODEL 5424ND-2-PSP-F
HOOD - #2 (36)

SECTION VIEW - MODEL 5424ND-2-PSP-F
HOOD - #1 (40)



SECTION VIEW - MODEL 5424ND-2-PSP-F
HOOD - #3 (10)

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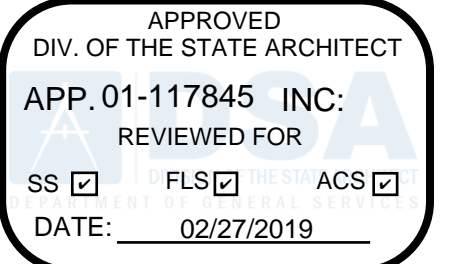


Heritage HS Culinary Arts
BRENTWOOD, CA,

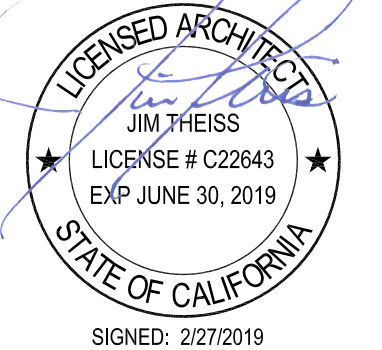
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DWG.#: 3468233

DRAWN BY:
SCALE: 3/4" = 1'-0"
MASTER DRAWING

SHEET NO. 2



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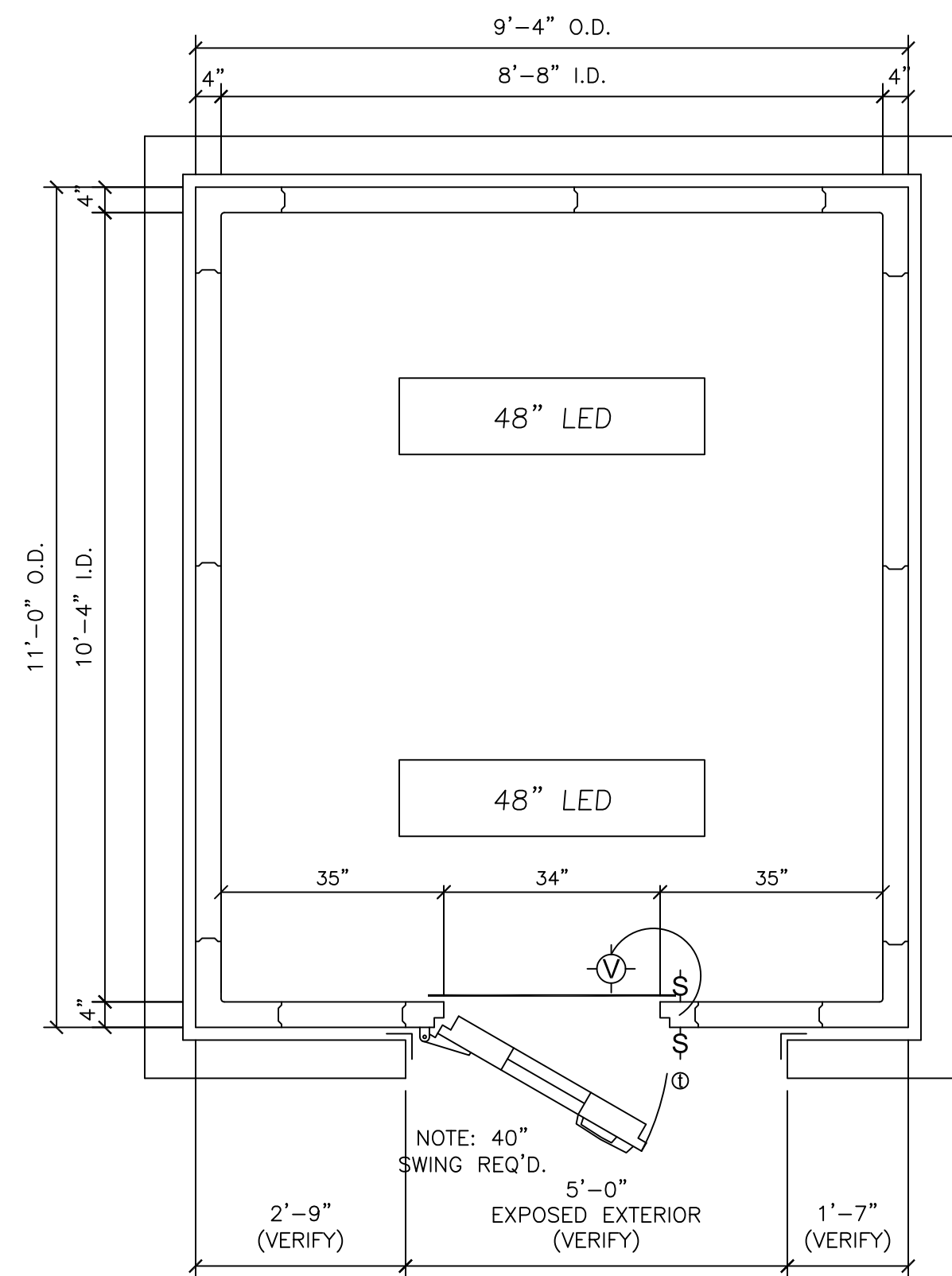
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ARCH PROJECT NO: 1750.00
DRAWN BY: LB
DRAWING SCALE: AS SHOWN
PTN: 61721-70

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FEBRUARY 27, 2019
SHEET TITLE

HOOD
DETAILS

SHEET NUMBER
K-6.1

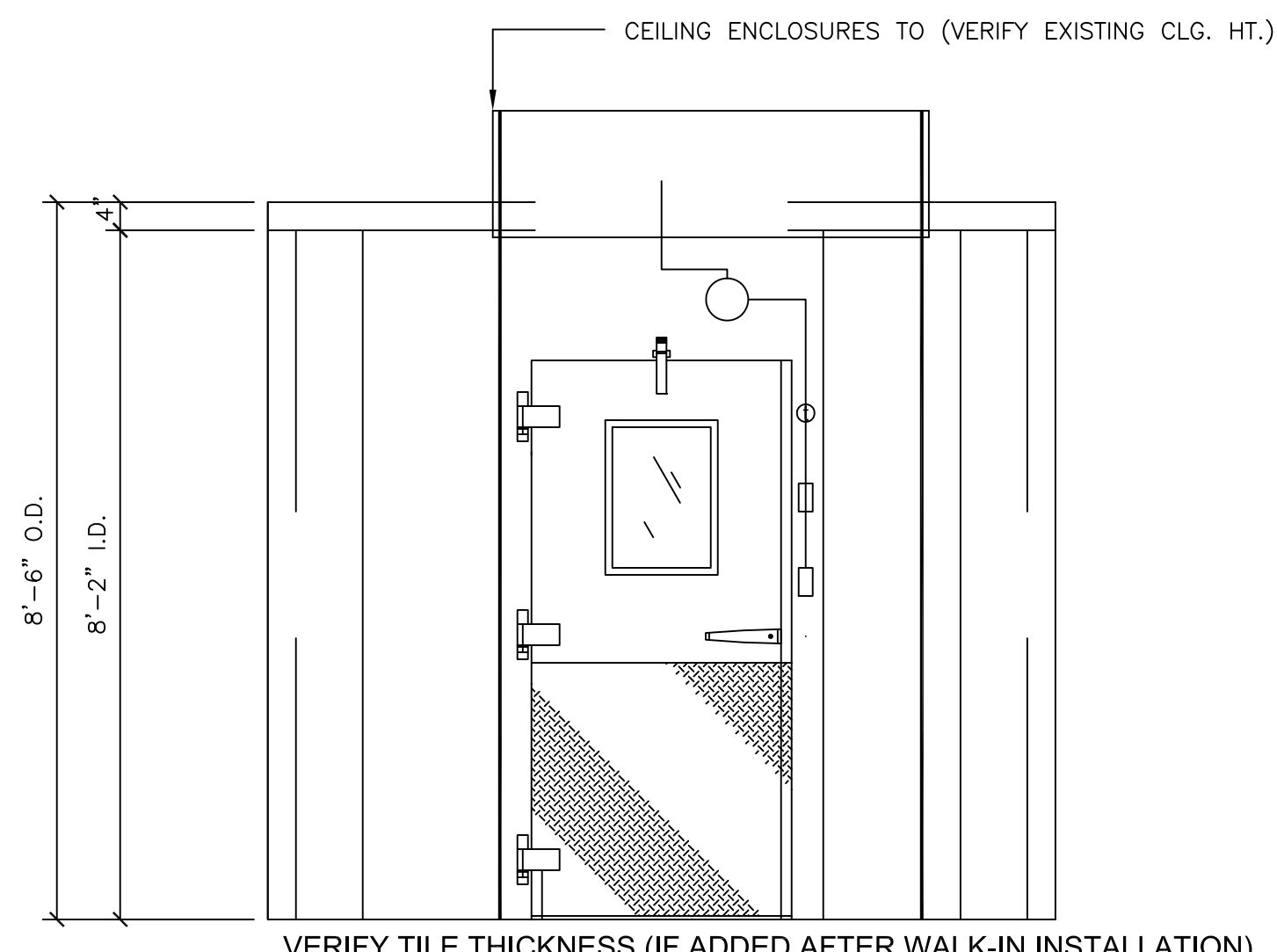


WALK-IN COOLER ITEM# 5 PLAN
SCALE: 1/2" = 1'

Duracold REFRIGERATION MANUFACTURING
1551 SOUTH PRIMROSE AVENUE
MONROVIA, CA 91016
TELEPHONE: (626) 358-1710
FAX: (626) 358-6410

WALK-IN COOLER SPEC'S:	
CONSTRUCTION	4" T & G HIGH DENSITY RAILING W/ FACTORY MUTUAL APPROVED CLASS I FOAM
PANEL FINISH	WALL INT. STUCCO EMBOSSED WHITE GALV. STL. CLG. INT. STUCCO EMBOSSED WHITE GALV. STL. EXPOSED EXT. STUCCO EMBOSSED WHITE GALV. STL. UNEXPOSED EXT. STUCCO EMBOSSED GALV. STL.
DOOR	34"x78" WALK-IN DOOR FLUSH MOUNTED, SELF CLOSING FINISH - TO MATCH PANEL LOCKING HANDLE W/ INSIDE RELEASE HINGES (3) CLOSER 36" HIGH, INT. & EXT. ALUMINUM TREAD KICKPLATES 3-WAY INT. & EXT. LIGHT SWITCH W/ PILOT LIGHT VAPOR PROOF LIGHT FIXTURE VISION PANEL PLASTIC VINYL STRIP CURTAIN
ACCESSORIES	2-1/2" DIAL THERMOMETER PER COMPARTMENT (2) 48" LED LIGHT FIXTURES MATCHING VERTICAL TRIMS MATCHING INT. & EXPOSED EXT. COVE BASE MATCHING CEILING ENCLOSURES SEISMIC ANCHOR
REFRIGERATION	1.5HP OUTDOOR HERMETIC COOLER COND.UNIT(230V,3PH) W/ MATCHING 13500BTU AIR DEFROST EVAPORATOR

DEALER: BALLINGER RESTAURANT EQUIPMENT SANTA ROSA, CA	SCALE: AS SHOWN DRAWN BY: EFM DATE: JULY 6, 2018	REVISIONS - - - 7/9/18
COOLER PLAN FOR: HERITAGE HIGH SCHOOL, BRENTWOOD, CA	DWG -	1 OF 3



WALK-IN COOLER ITEM# 5 ELEVATION
SCALE: 1/2" = 1'

Duracold REFRIGERATION MANUFACTURING
1551 SOUTH PRIMROSE AVENUE
MONROVIA, CA 91016
TELEPHONE: (626) 358-1710
FAX: (626) 358-6410

WALK-IN COOLER SPEC'S:	
CONSTRUCTION	4" T & G HIGH DENSITY RAILING W/ FACTORY MUTUAL APPROVED CLASS I FOAM
PANEL FINISH	WALL INT. STUCCO EMBOSSED WHITE GALV. STL. CLG. INT. STUCCO EMBOSSED WHITE GALV. STL. EXPOSED EXT. STUCCO EMBOSSED WHITE GALV. STL. UNEXPOSED EXT. STUCCO EMBOSSED GALV. STL.
DOOR	34"x78" WALK-IN DOOR FLUSH MOUNTED, SELF CLOSING FINISH - TO MATCH PANEL LOCKING HANDLE W/ INSIDE RELEASE HINGES (3) CLOSER 36" HIGH, INT. & EXT. ALUMINUM TREAD KICKPLATES 3-WAY INT. & EXT. LIGHT SWITCH W/ PILOT LIGHT VAPOR PROOF LIGHT FIXTURE VISION PANEL PLASTIC VINYL STRIP CURTAIN
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REFRIGERATION	1.5HP OUTDOOR HERMETIC COOLER COND.UNIT(230V,3PH) W/ MATCHING 13500BTU AIR DEFROST EVAPORATOR

DEALER: BALLINGER RESTAURANT EQUIPMENT SANTA ROSA, CA	SCALE: AS SHOWN DRAWN BY: EFM DATE: JULY 6, 2018	REVISIONS - - - -
COOLER ELEVATION FOR: HERITAGE HIGH SCHOOL, BRENTWOOD, CA	DWG -	2 OF 3

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Pleasanton, CA 94566
(707) 576-0929

LICENSED ARCHITECT
JIM THEISS
LICENSE # C22843
EXP. JUNE 30, 2019
STATE OF CALIFORNIA
SIGNED: 2/27/2019

BALLINGER RESTAURANT EQUIPMENT, INC.
1000 APOLLO WAY, SUITE 170
SANTA ROSA, CA 95407
(707) 544-8924

HERITAGE HIGH SCHOOL CULINARY ARTS BUILDING
101 American Ave
Brentwood, CA 94513

LIBERTY UNION HIGH SCHOOL DISTRICT
20 Oak Street
Brentwood, CA 94513

REVISIONS

ARCH PROJECT NO: 1750.00
DRAWN BY: LB
DRAWING SCALE: AS SHOWN
PTN: 61721-70
CD

FEBRUARY 27, 2019
SHEET TITLE

WALK-IN COOLER PLAN

SHEET NUMBER
K-7.0

NO.	REVISIONS

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1"= 1'-0" CD
FEBRUARY 27, 2019
SHEET TITLE

WALK-IN COOLER DETAILS

SHEET NUMBER

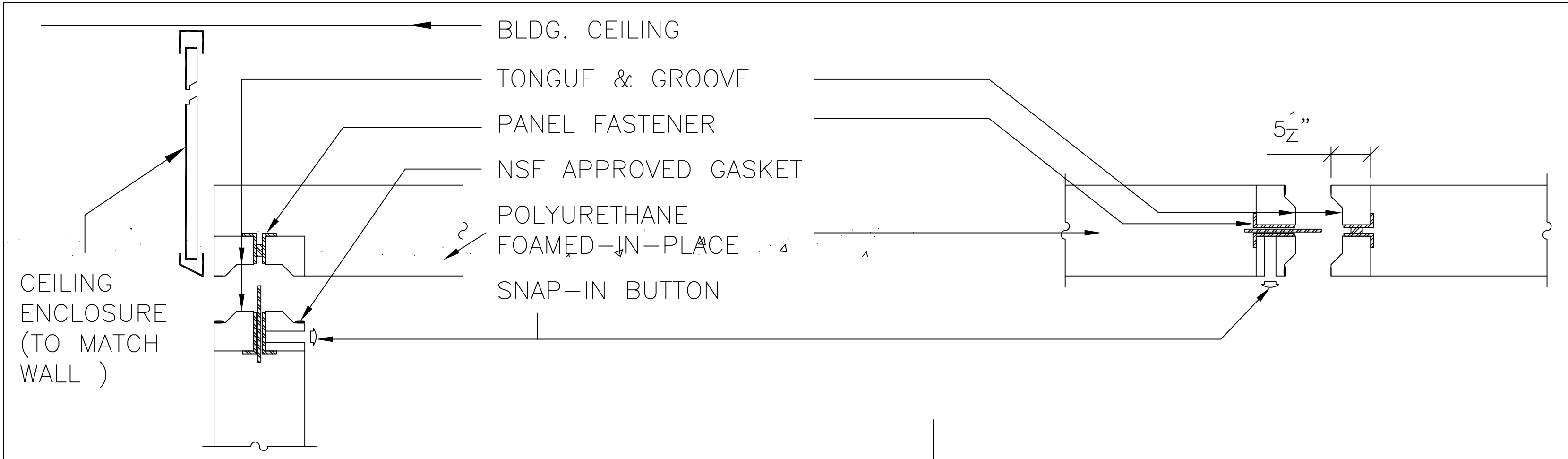
K-7.1

Duracold



REFRIGERATION MANUFACTURING
1551 SOUTH PRIMROSE AVENUE
MONROVIA, CA 91016

TELEPHONE: (626) 358-1710
FAX: (626) 358-6410



WALL PANEL TO CLG. CONN.

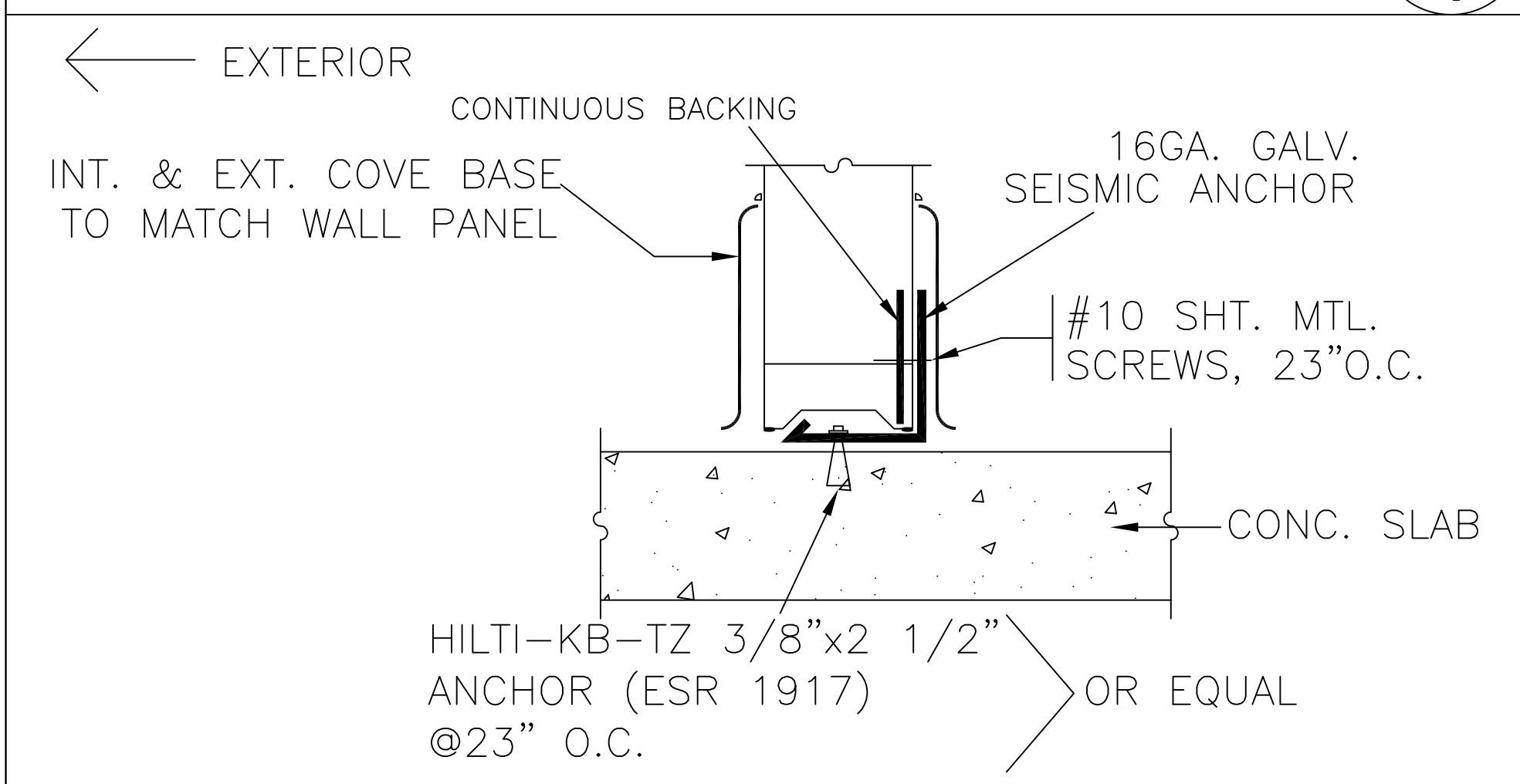
SCALE: 1-1/2" = 1'

1/4

CLG. TO CLG. CONN.

SCALE: 1-1/2" = 1'

4/4



WALL PANEL TO FLOOR CONN.

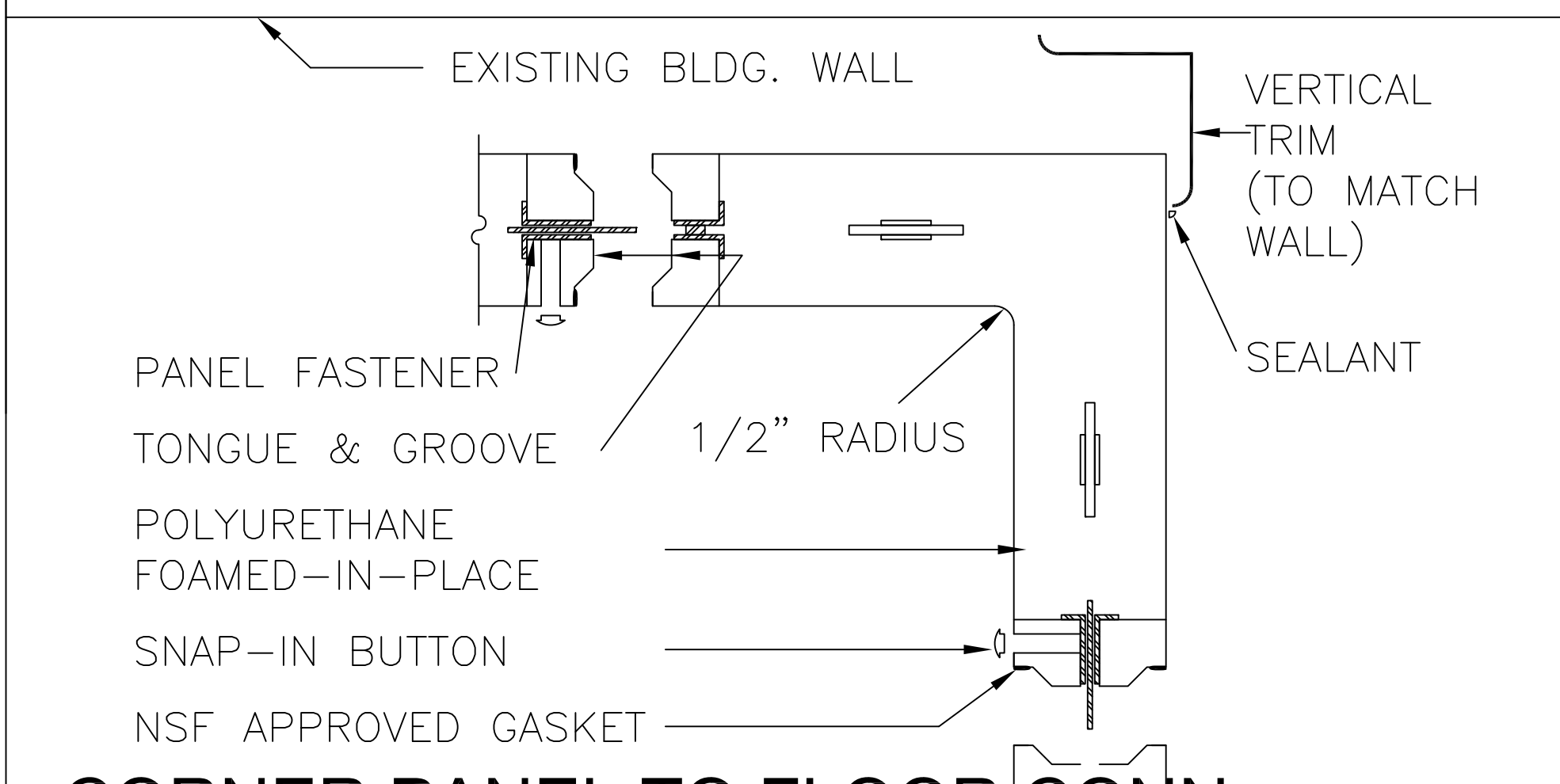
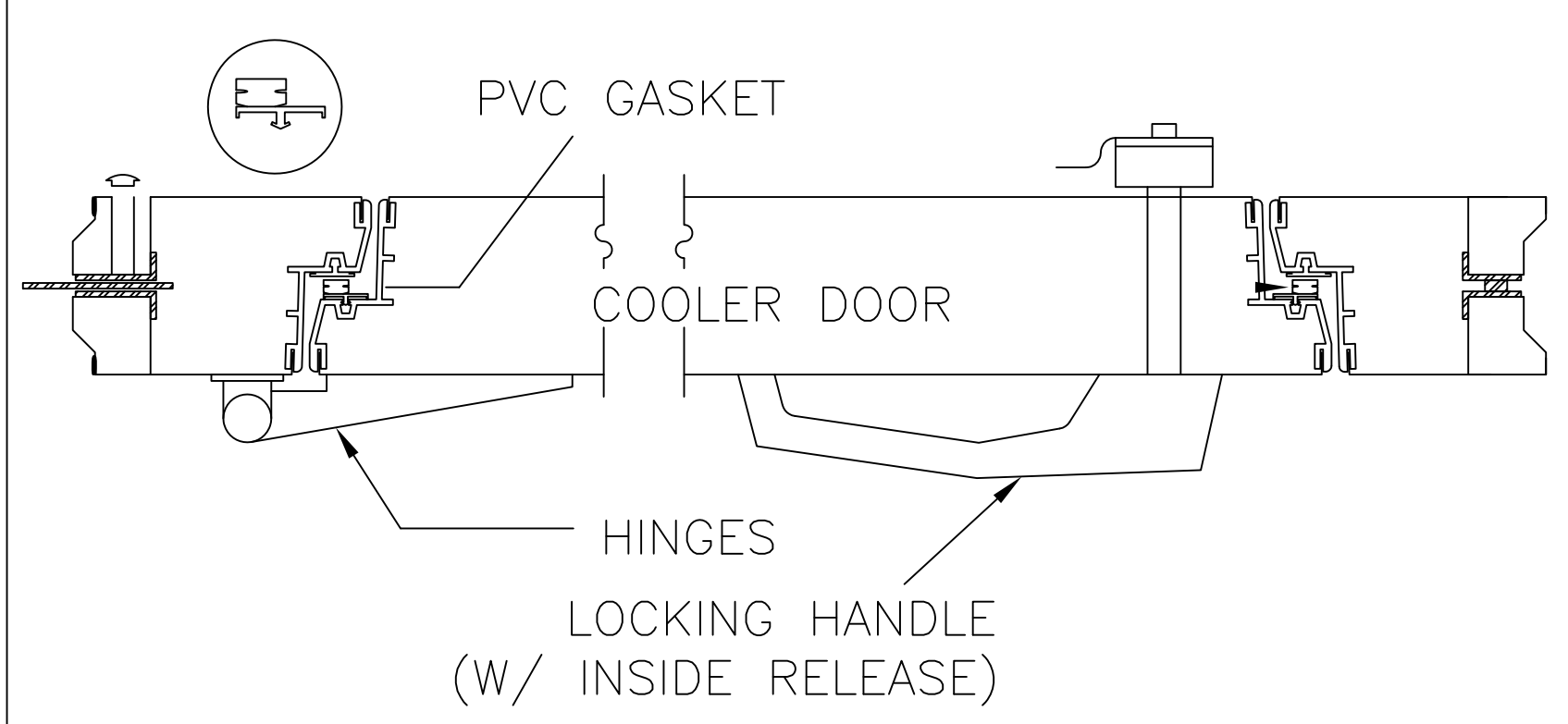
SCALE: 1-1/2" = 1'

2/4

DOOR JAMBS

SCALE: 1-1/2" = 1'

5/4



CORNER PANEL TO FLOOR CONN..

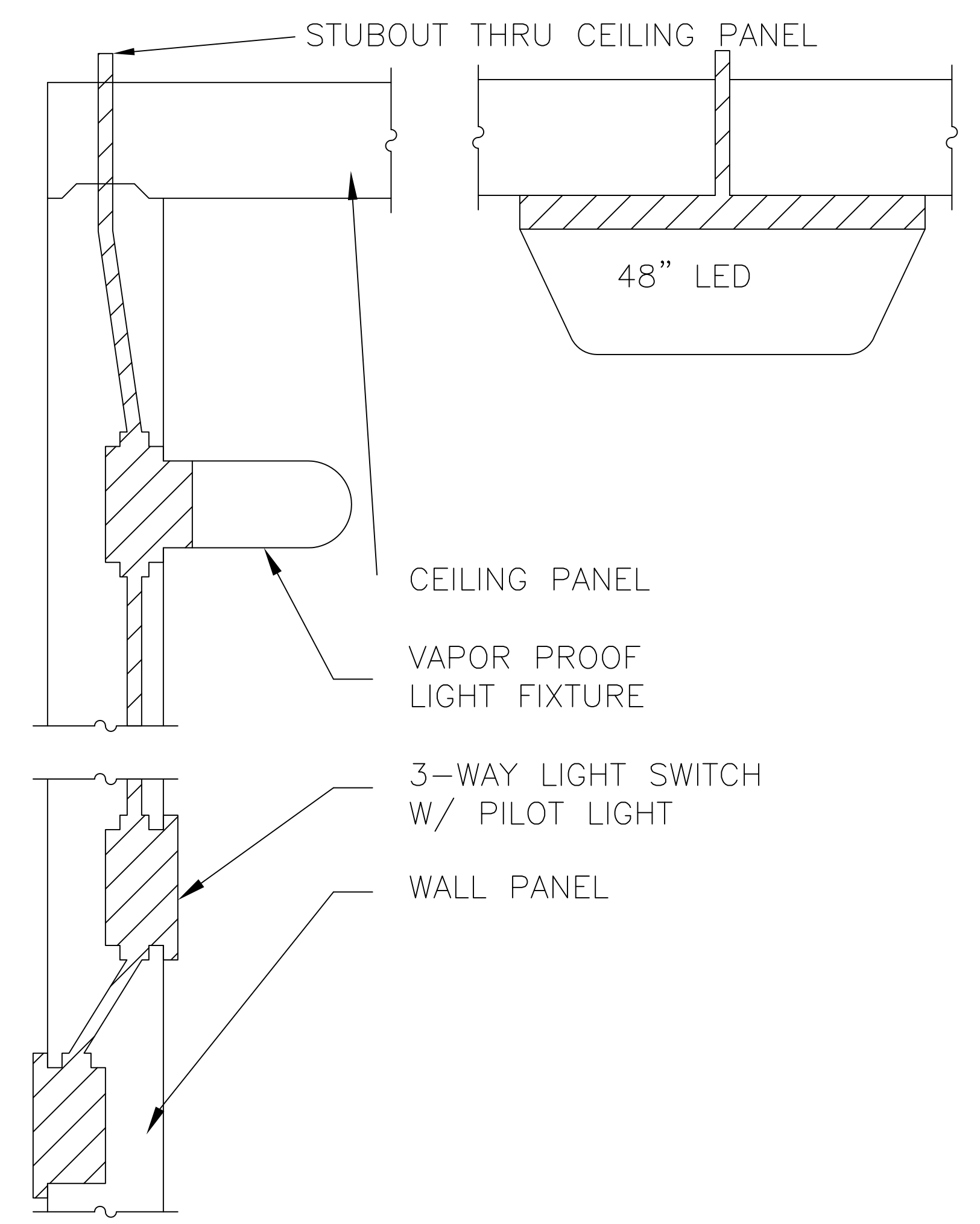
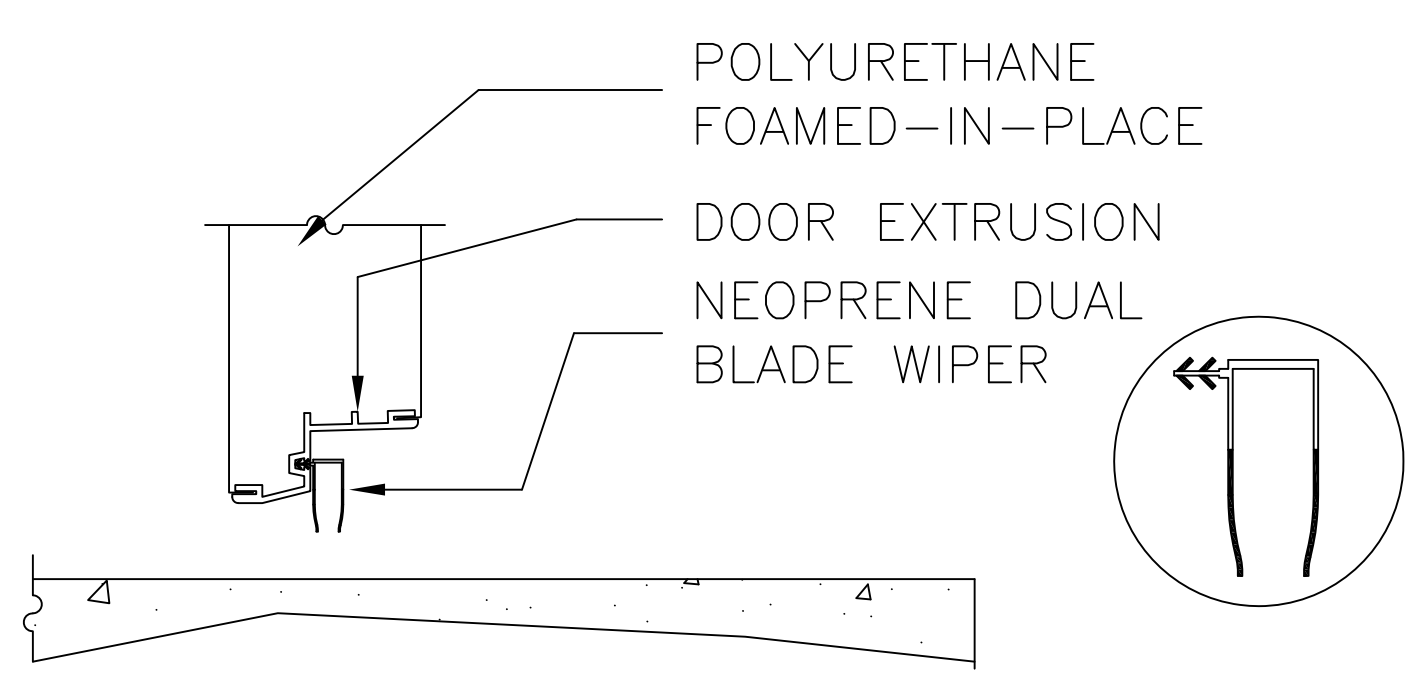
SCALE: 1-1/2" = 1'

3/4

DOOR SILL

SCALE: 1-1/2" = 1'

6/4



LIGHT SWITCH TO LIGHT FIXT. CONN.

SCALE: 1-1/2" = 1'

7/4

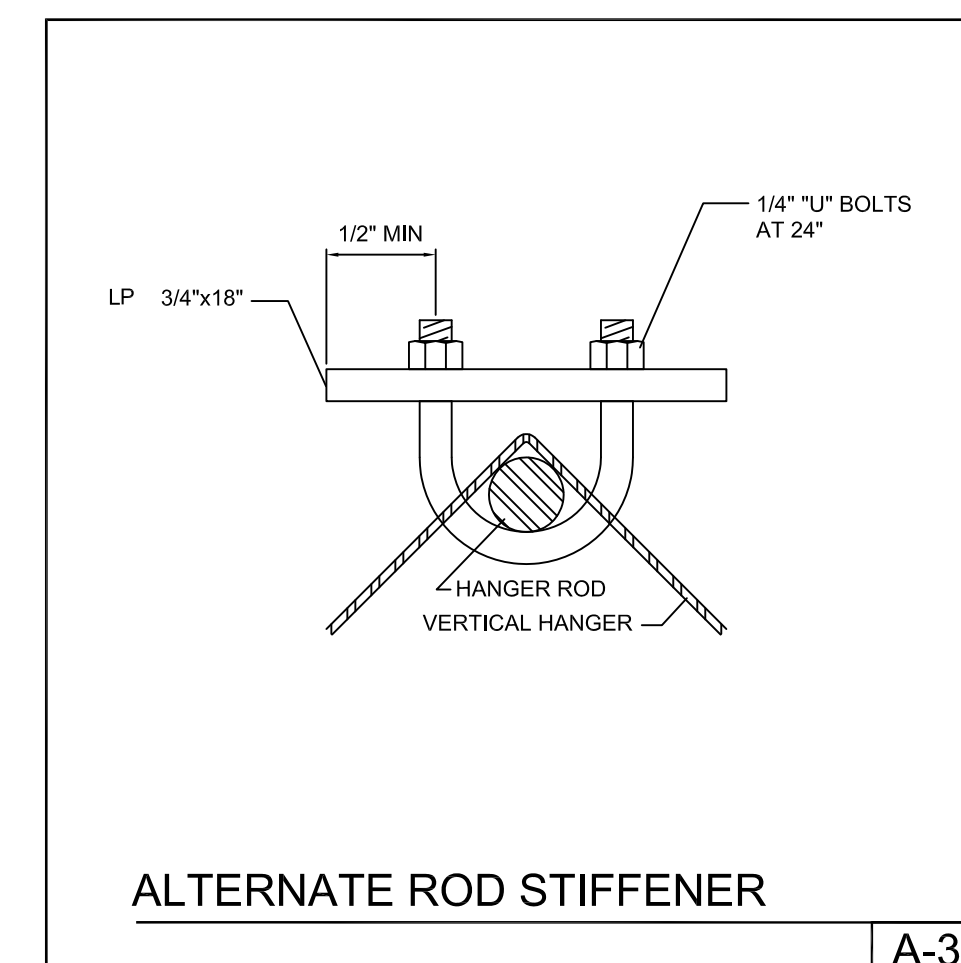
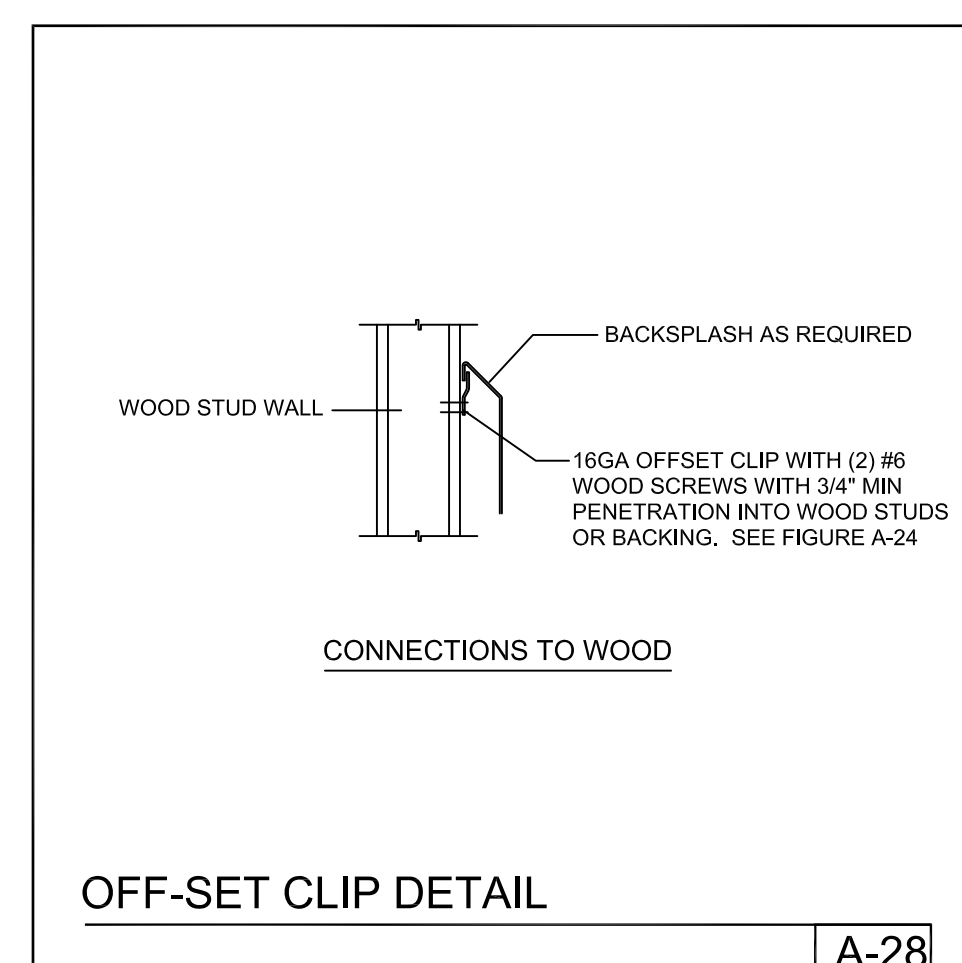
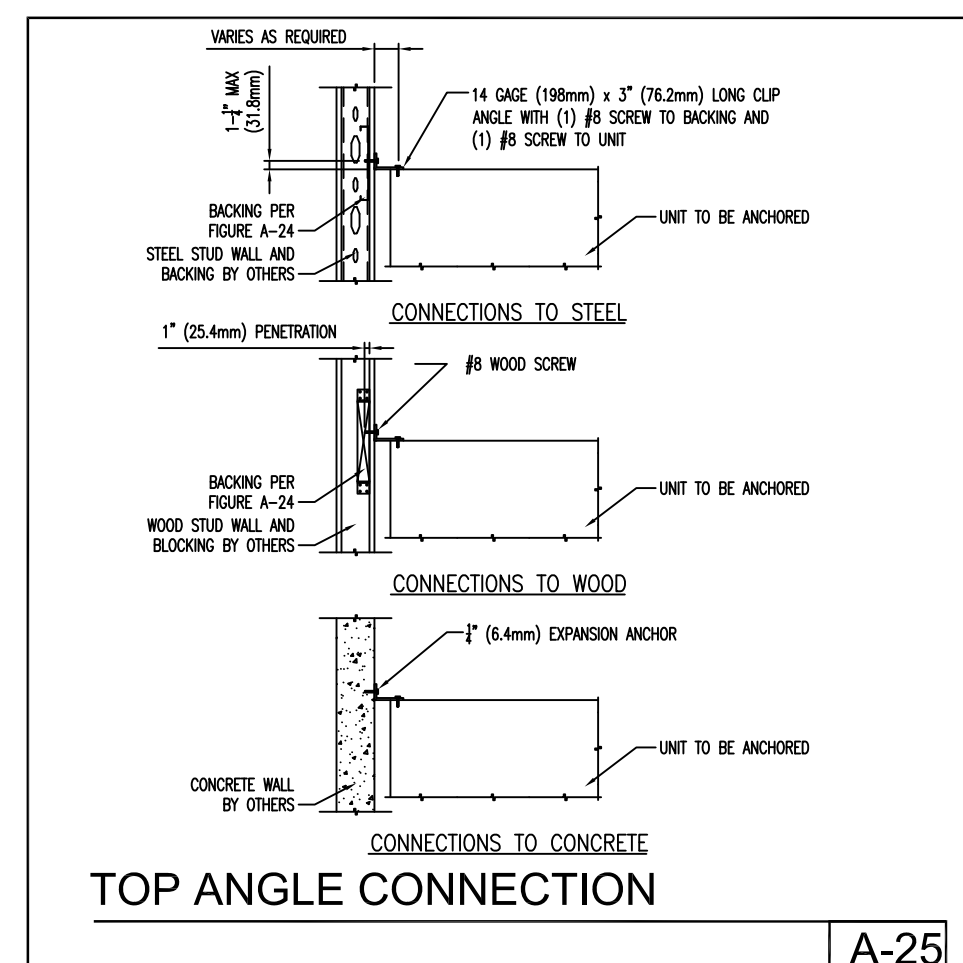
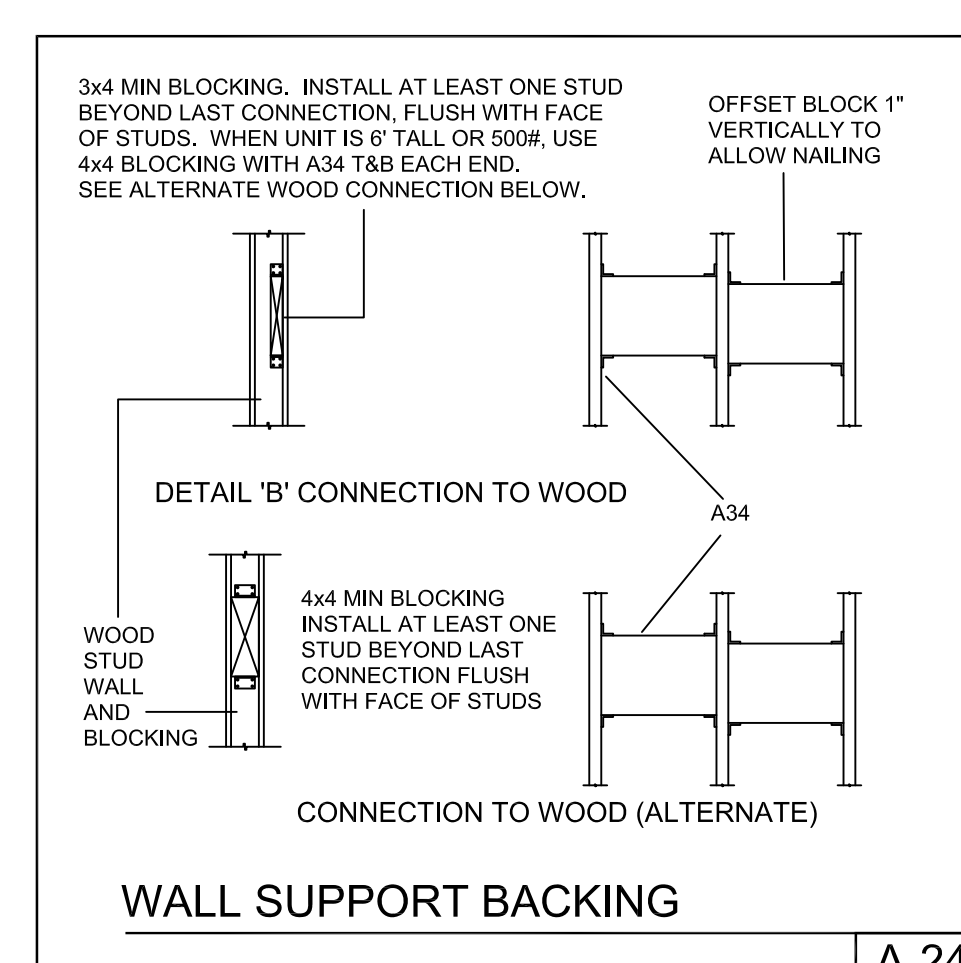
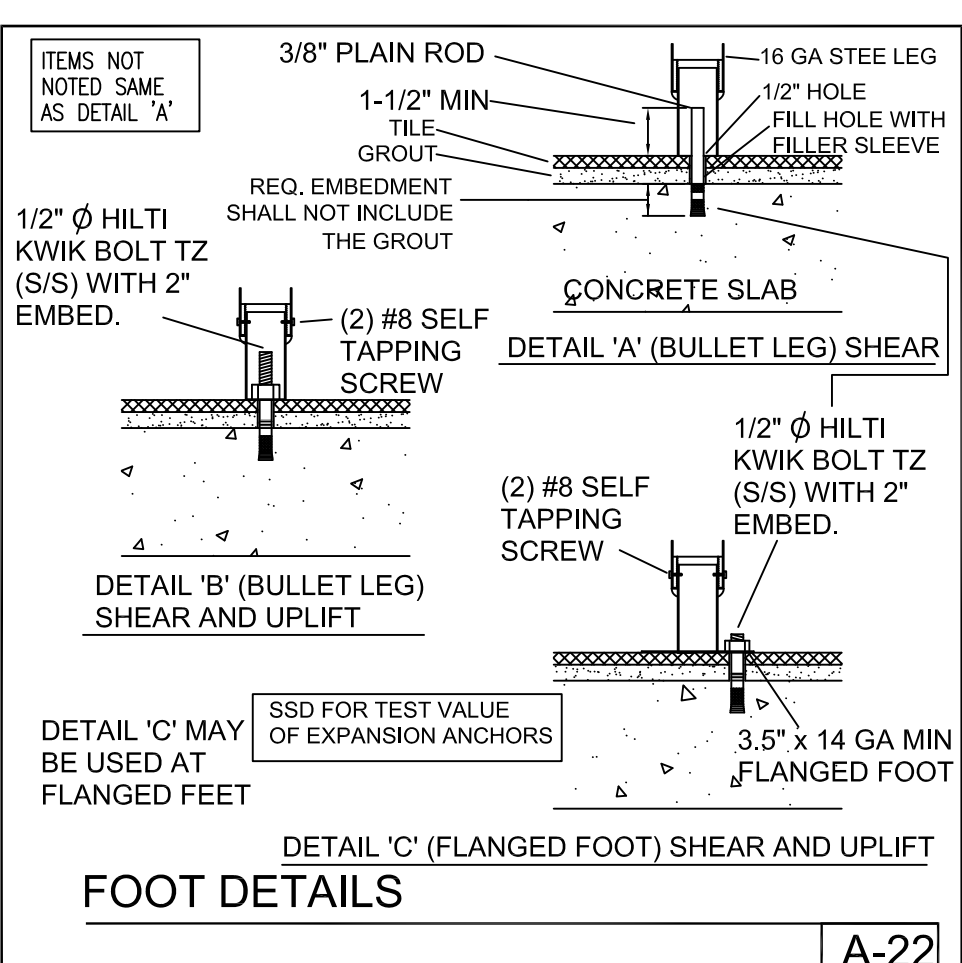
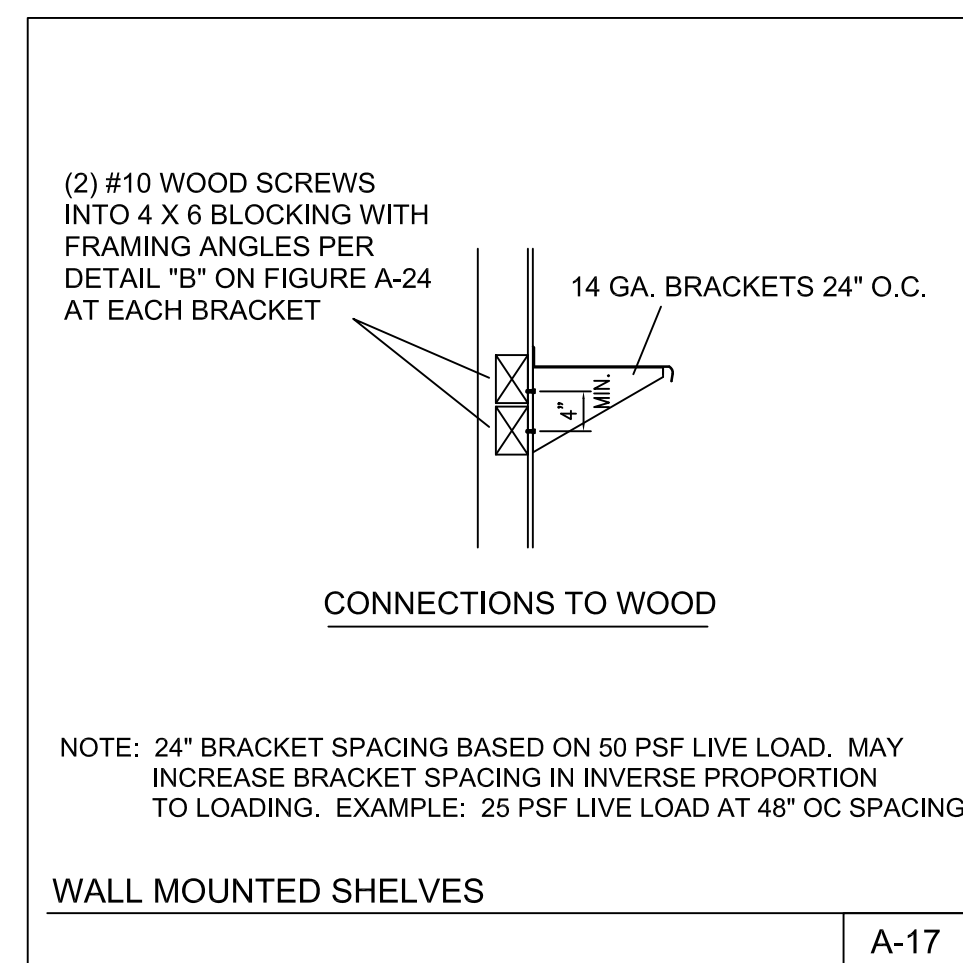
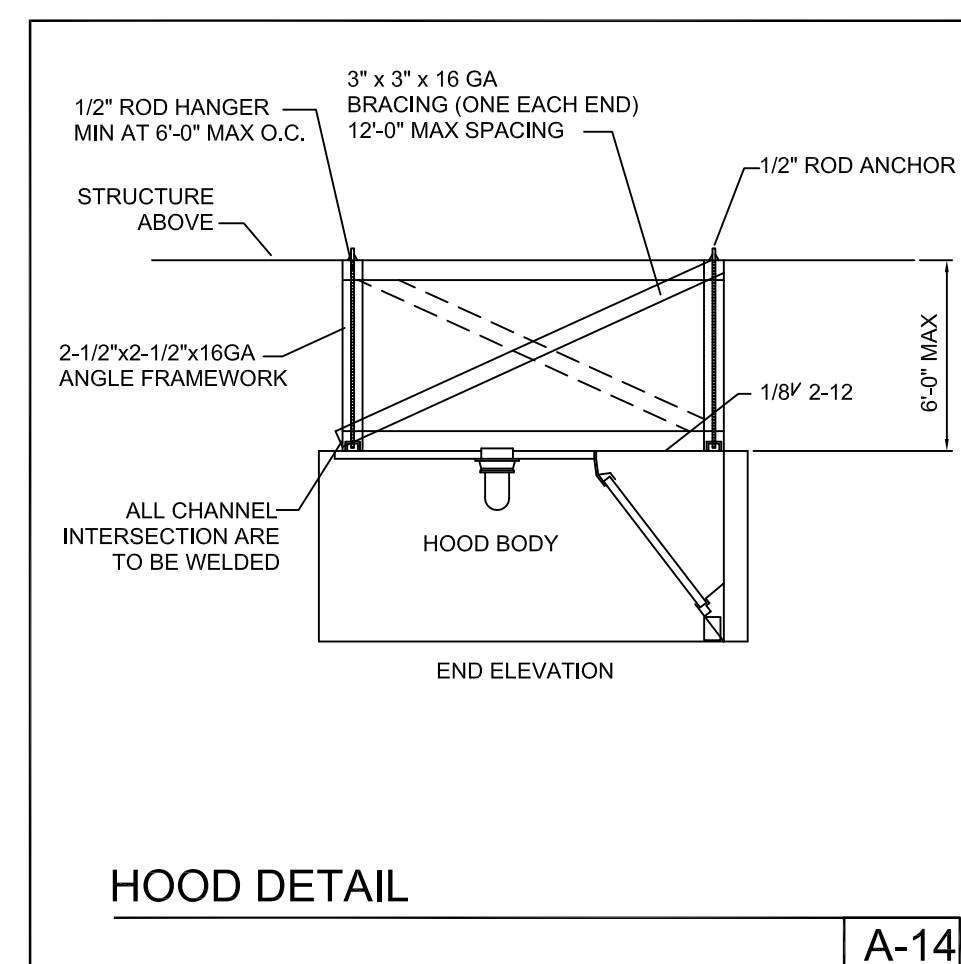
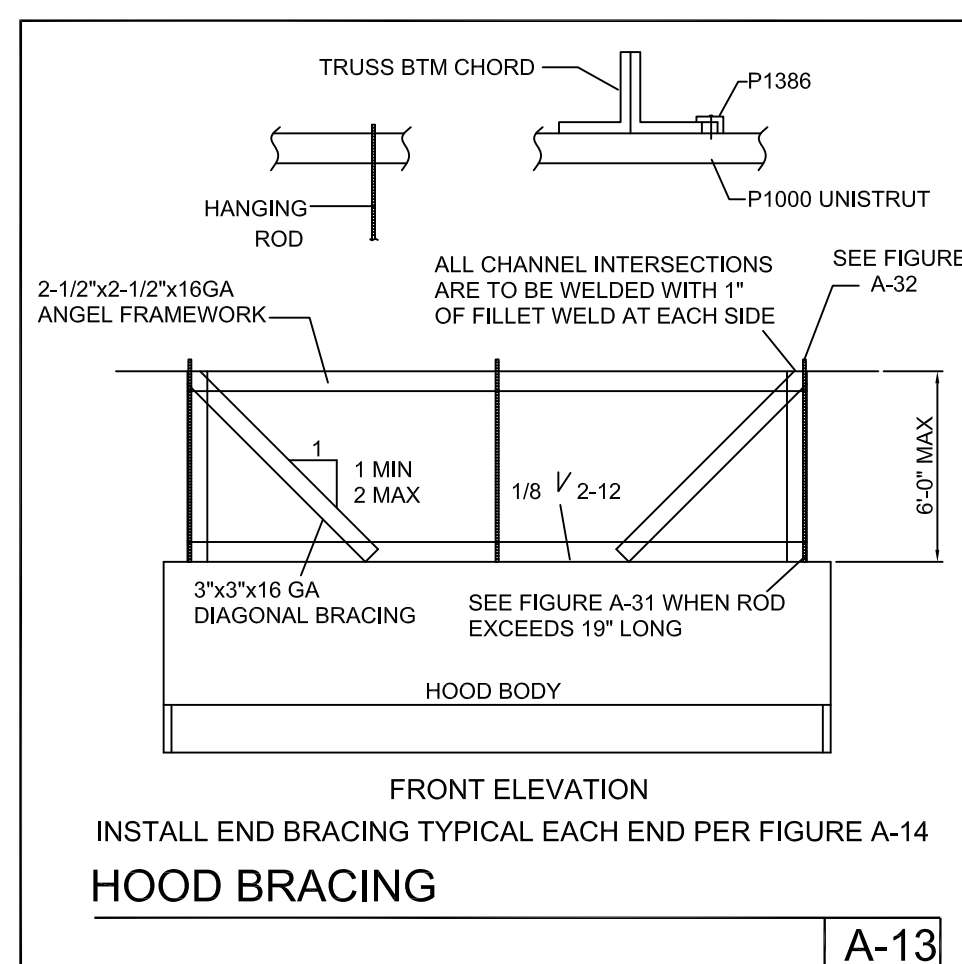
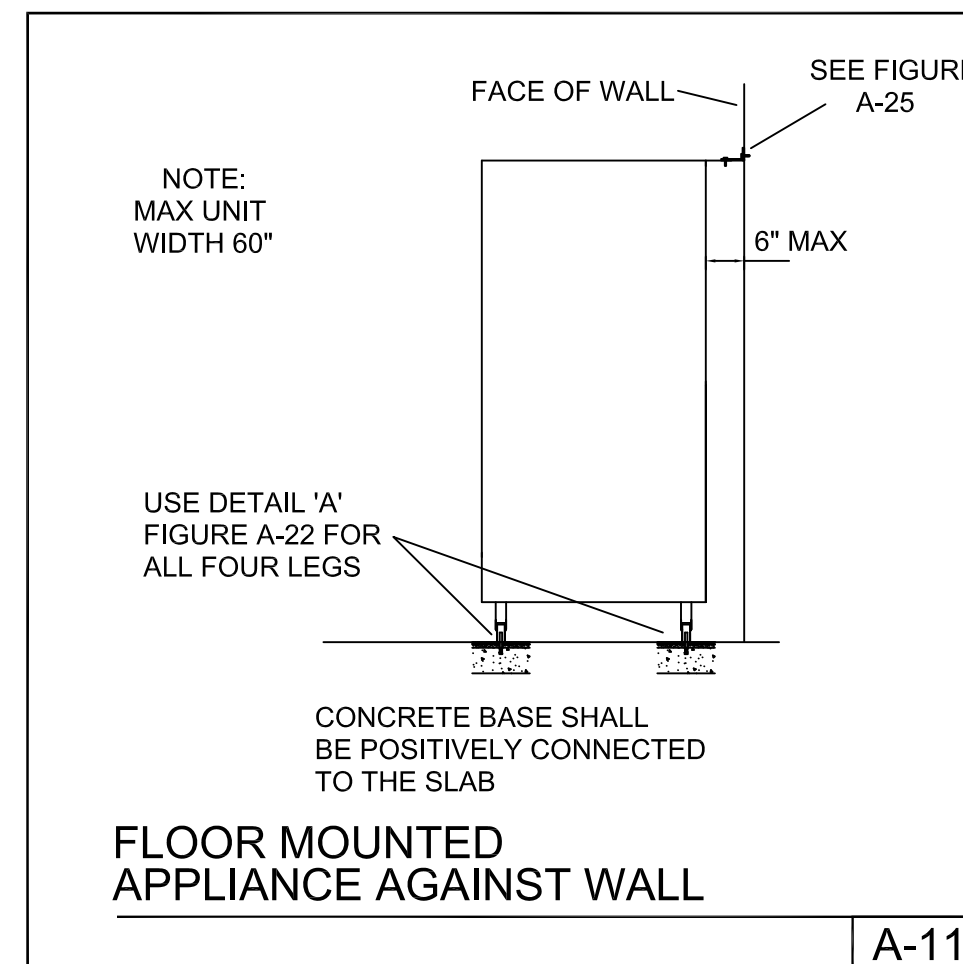
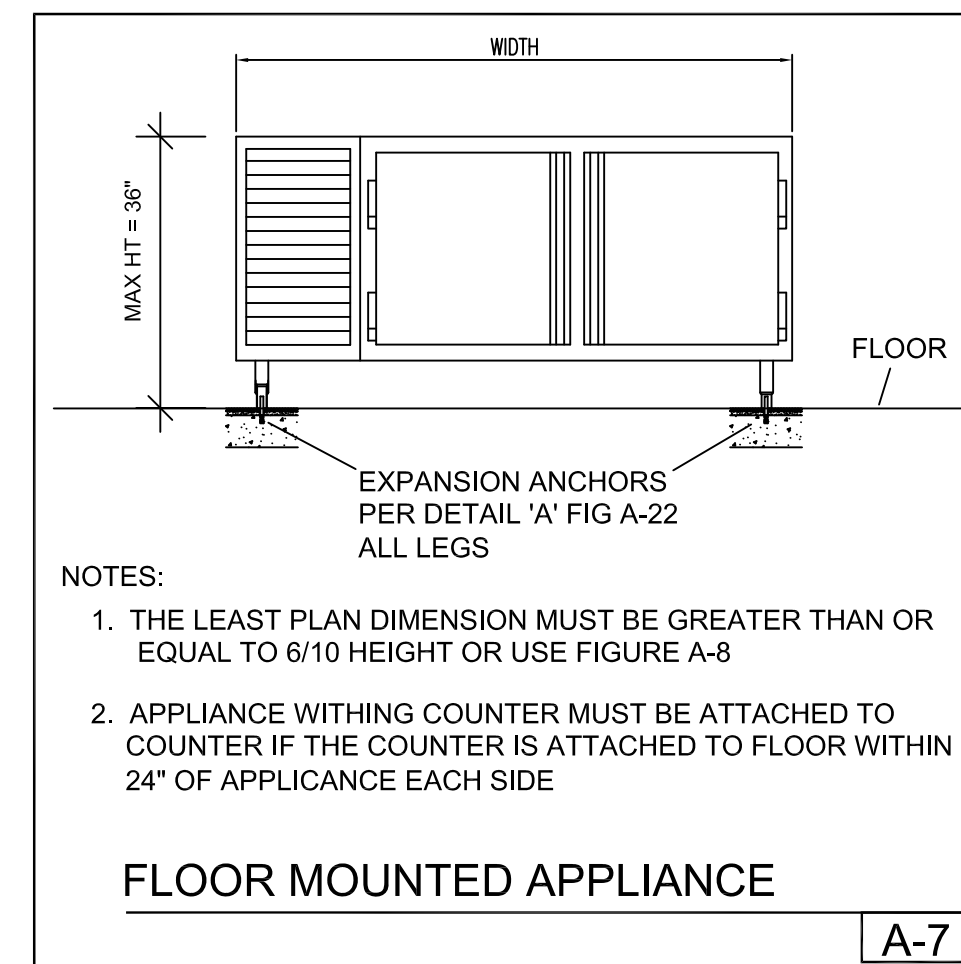
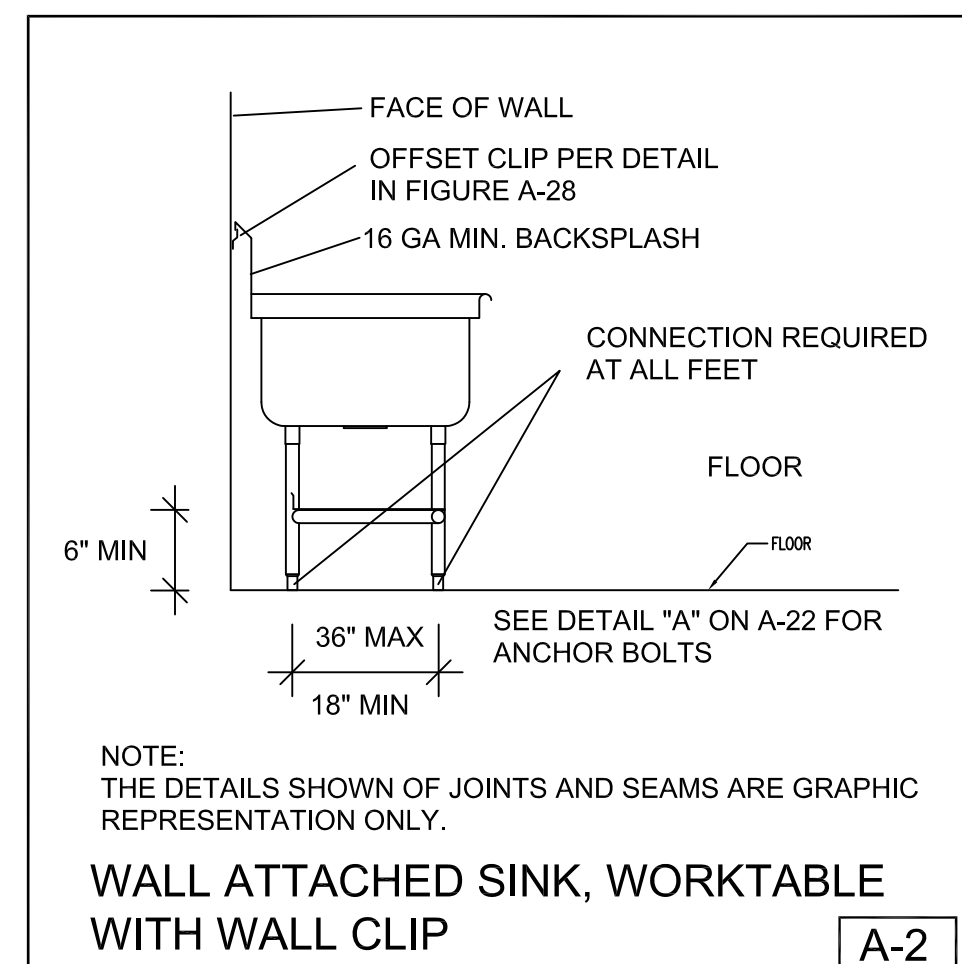
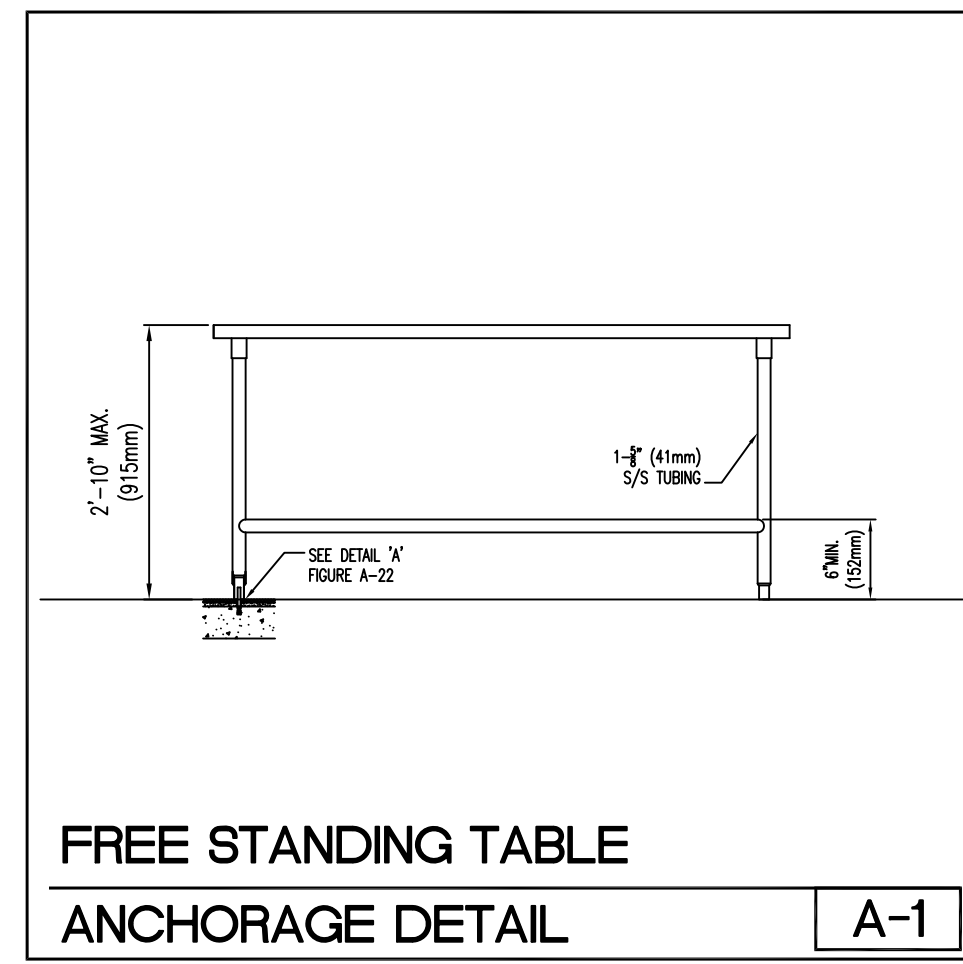
DEALER:
BALLINGER RESTAURANT EQUIPMENT
SANTA ROSA, CA

SCALE: AS SHOWN
DRAWN BY: EPM
DATE: JULY 6, 2018

REVISIONS

DETAILS FOR:
HERITAGE HIGH SCHOOL, BRENTWOOD, CA

DWG -
3 OF 3



ANCHORAGE DETAILS						
ITEM	QTY	DESCRIPTION	MFG	MODEL	ANCHORAGE	
					WT/LBS	DETAIL
1	1	CONDENSING UNIT FOR WI COOLER	HEATCRAFT	MOH015X63	195	R-1
2	1	EVAP COIL FOR WI COOLER	LARKIN	LCA613SAEB	70	EC
3	1	(LOT) WALK-IN SHELVING	METRO	SUPERRECTA	250/EA	M-1
4	1	ICE MACHINE, BIN, & FILTER	MANITOWOC	ITY-500A/B570	272	A-11
5	1	WALK-IN COOLER	DURACOLD	CUSTOM	272	SEE K7.1
6	1	(LOT) DRY STORAGE SHELVING	METRO	METROSEAL3	1720	M-1
7	1	2-DOOR FREEZER	TRAUlsen	G22000	510	B-4
8	2	S/S HAND SINK	ADVANCE	7-PS-41	37	NA
9	--	SPARE	--	--	--	--
10	1	S/S EXHAUST HOOD	CAPTIVEAIRE	ND-2	297	A-13/A-14
11	1	CONVECTION OVEN	BLODGETT	DFG-200 DBL	1130	B-6
12	1	S/S WALL LINER	CUSTOM	CUSTOM	NA	NA
13	--	SPARE	--	--	--	--
14	--	SPARE	--	--	--	--
15	4	5 QUART MIXER	GLOBE	KEC	34	NA
16	1	S/S WORKTABLE	CUSTOM	CUSTOM	224	A-2
17	1	MICROWAVE OVEN	ACP	RCS10TS	42	NA
18	1	S/S OVERSHELF	CUSTOM	CUSTOM	32	WELDED TO #16
19	1	FAUCET	T&S BRASS	B-0230/061X	5	NA
20	1	S/S WORKTABLE W/SINK - ACCESSIBLE	CUSTOM	CUSTOM	144	A-2
21	1	S/S OVERSHELF	CUSTOM	CUSTOM	24	WELDED TO #20
22	1	S/S OVERSHELF	CUSTOM	CUSTOM	24	WELDED TO #24
23	1	FAUCET	T&S BRASS	B-0230/061X	5	NA
24	1	S/S WORKTABLE W/SINKS	CUSTOM	CUSTOM	214	A-2
25	--	SPARE	--	--	--	--
26	4	FOOD PROCESSOR	ROBOT COUPE	R2N	28	NA
27	1	S/S OVERSHELF	CUSTOM	CUSTOM	28	WELDED TO #28
28	1	S/S WORKTABLE	CUSTOM	CUSTOM	162	A-2
29	3	S/S WALL CAPS	CUSTOM	CUSTOM	15	NA
30	--	SPARE	--	--	--	--
31	1	S/S WALL SHELF	CUSTOM	CUSTOM	28	A-17
32	1	MILLWORK LAUNDRY COUNTER	TBD	TBD	SEE ARCH PLANS	
33	--	SPARE	--	--	--	--
34	--	SPARE	--	--	--	--
35	6	S/S WORKTABLE - ACCESSIBLE	CUSTOM	CUSTOM	96	A-2
36	1	S/S TYPE I EXHAUST HOOD	CAPTIVEAIRE	ND-2	724	A-13/A-14
37	4	6-BURNER RANGE	VULCAN	365-6B	520	B-3
38	1	FIRE SUPPRESSION SYSTEM	ANSUL	R-102	NA	INCL 36 & 40
39	1	S/S WALL LINER AND WALL CAP	CUSTOM	CUSTOM	NA	NA
40	1	S/S TYPE I EXHAUST HOOD	CAPTIVEAIRE	ND-2	729	A-13/A-14
41	--	SPARE	--	--	--	--
42	1	20 QT. MIXER ON STAND	HOBART	HL200	280	OLC
43	3	S/S WORKTABLE	CUSTOM	CUSTOM	168	OLC
44	2	S/S WORKTABLE - ACCESSIBLE	CUSTOM	CUSTOM	150	OLC
45	1	SHEET PAN RACK	NEW AGE	1330	70	OLC
46	--	SPARE	--	--	--	--
47	--	SPARE	--	--	--	--
48	1	S/S OVERSHELF	CUSTOM	CUSTOM	16	WELDED TO #28
49	1	S/S CLEAN SIDE DISHWASHER	CUSTOM	CUSTOM	120	A-2
50	1	HIGH-TEMP DISHWASHER - VENTLESS	JACKSON	TEMPSTAR HH-E	451	A-7
51	1	PRERINSE UNIT	T&S BRASS	B-0133-B	8	NA
52	1	S/S SOILED DISHTABLE	CUSTOM	CUSTOM	210	A-2
53	1	S/S OVERSHELF	CUSTOM	CUSTOM	14	WELDED TO #28
54	2	S/S OVERSHELF	CUSTOM	CUSTOM	12	WELDED TO #28
55	1	S/S 3-TUB POT SINK	CUSTOM	CUSTOM	230	A-2
56	2	PRERINSE UNIT W/FAUCET	T&S BRASS	B-0133-ADF14	8	NA
57	--	SPARE	--	--	--	--
58	--	SPARE	--	--	--	--
59	--	SPARE	--	--	--	--
60	1	FAUCET	T&S BRASS	B-1110	5	NA
61	1	S/S SERVICE STATION W/SINK	CUSTOM	CUSTOM	266	A-2
62	1	COFFEE BREWER	FETCO	CBS-51H-15	54	NA
63	1	GROUND S KNOCKBOX	FMP	521-1007	1	NA
64	1	ESPRESSO GRINDER	NUOVA SIM.	MDX	7	NA
65	1	ESPRESSO MACHINE	NUOVA SIM.	APPRIA II COMPACT	128	NA
66	1	UNDERCOUNTER REFRIGERATOR	DELFIELD	408P	176	OLC
67	--	SPARE	--	--	--	--
68	1	S/S WORKTABLE W/SINKS	CUSTOM	CUSTOM	224	A-2
69	1	FAUCET	T&S BRASS	B-0230/061X	5	NA
70	--	SPARE	--	--	--	--
71	1	1-DOOR REFRIGERATOR	TRAUlsen	G10010	350	B-4

OLC = ON LOCKING CASTERS

APPROVED
DIV. OF THE STATE ARCHITECT
APP. 01-117845 INC.
REVIEWED FOR
SS FLS ACS
DATE: 02/27/2019

QUATTROCCHI KWOK ARCHITECTS
Main Office: 636 Fifth Street, Santa Rosa, CA 95404
Pleasanton Office: 600 Main Street, Suite E, Pleasanton, CA 94566 (707) 576-0829
LICENSED ARCHITECT
JIM THEISS
LICENSE # C22643
EXP. JUNE 30, 2019
STATE OF CALIFORNIA
SIGNED: 2/27/2019

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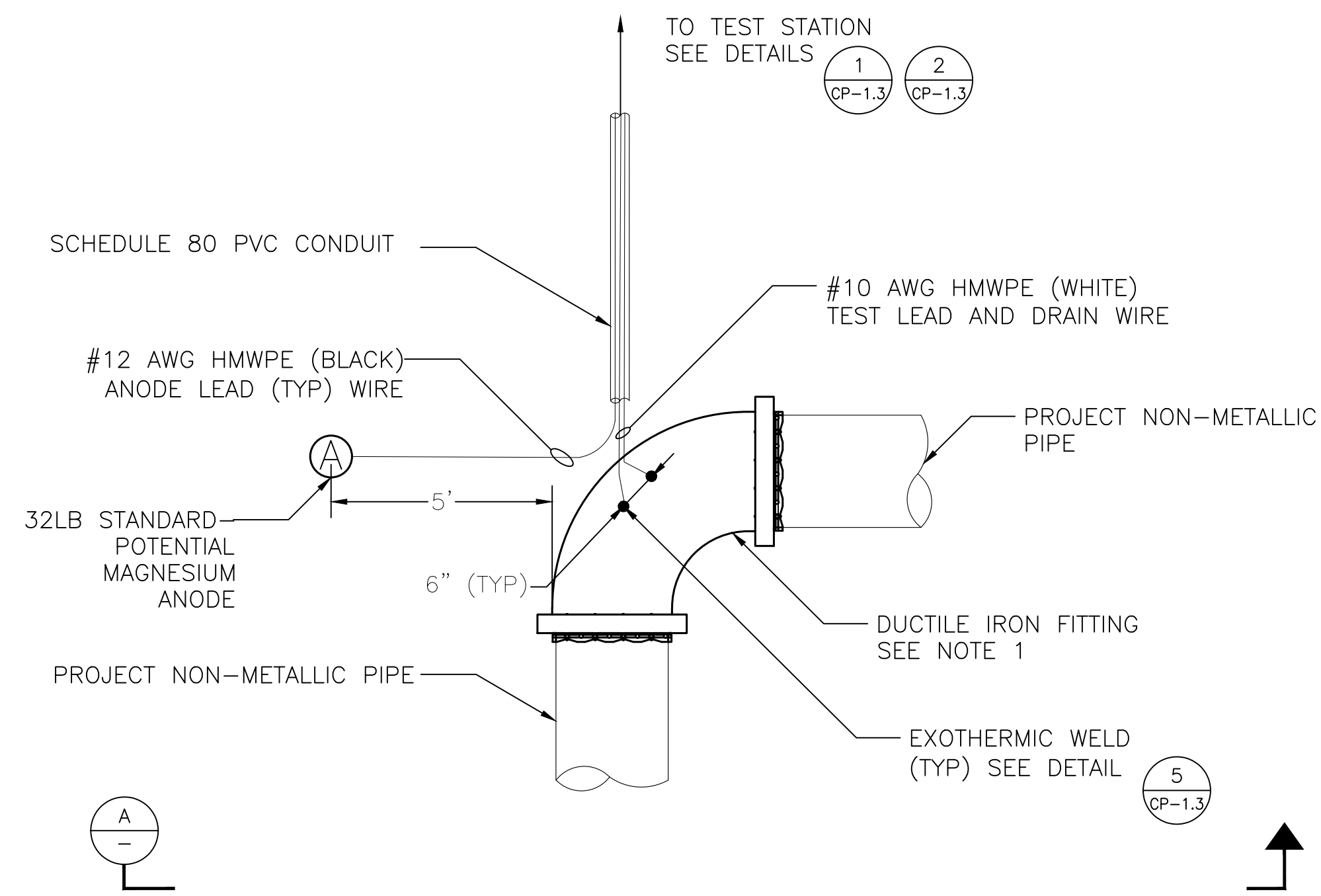
LIBERTY UNION HIGH SCHOOL DISTRICT
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REVISIONS

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FEBRUARY 27, 2019
SHEET TITLE

FOODSERVICE EQUIPMENT ANCHORAGE DETAILS

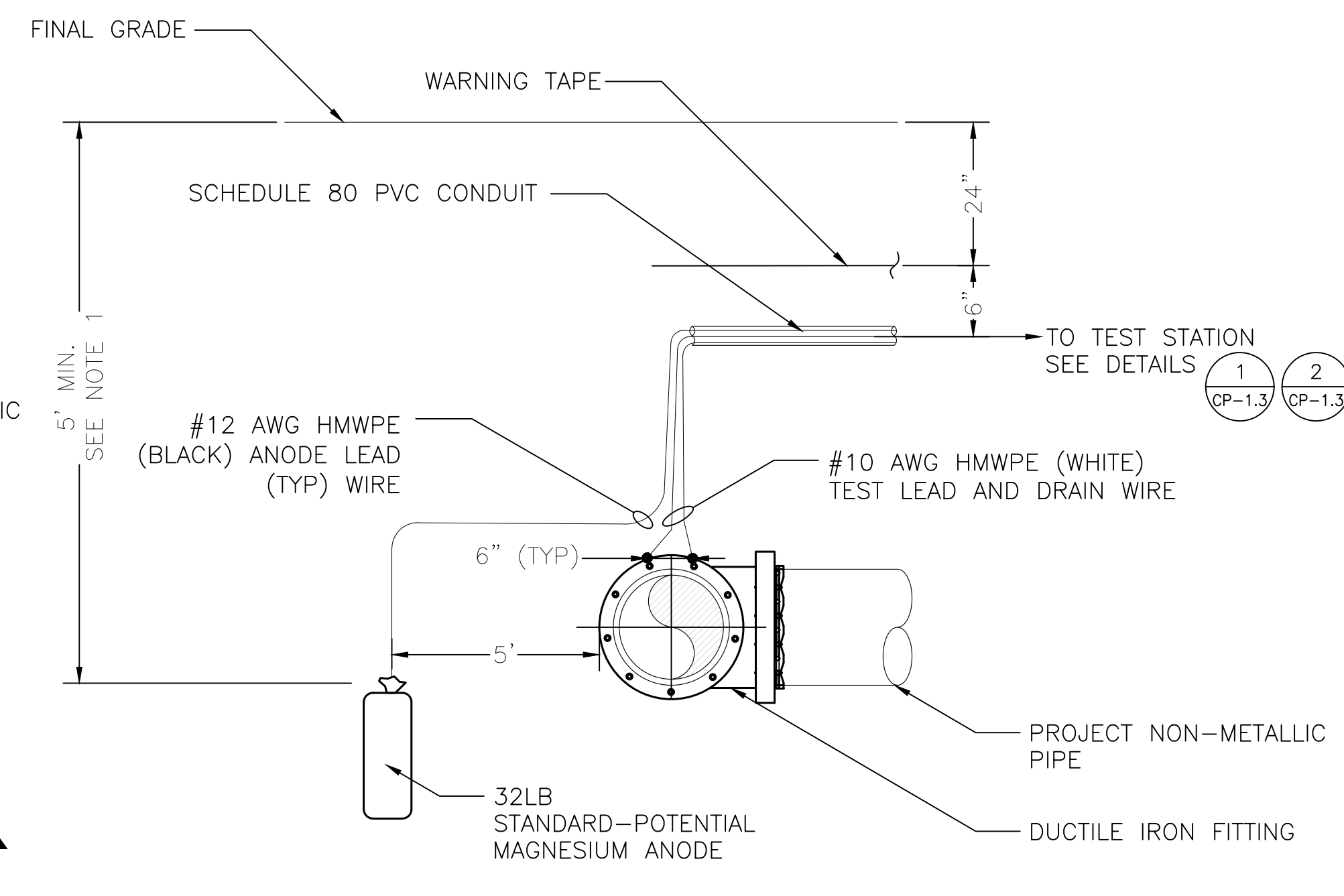
SHEET NUMBER
K-8.0



NOTE:

1. DUCTILE IRON FITTING MAY BE DIFFERENT GEOMETRY, SUCH AS TEE OR INLINE.
2. WRAP FITTING IN PETROLATUM WAX TAPE AND OVERLAP PIPE BY 2 TIMES THE PIPE DIAMETER.

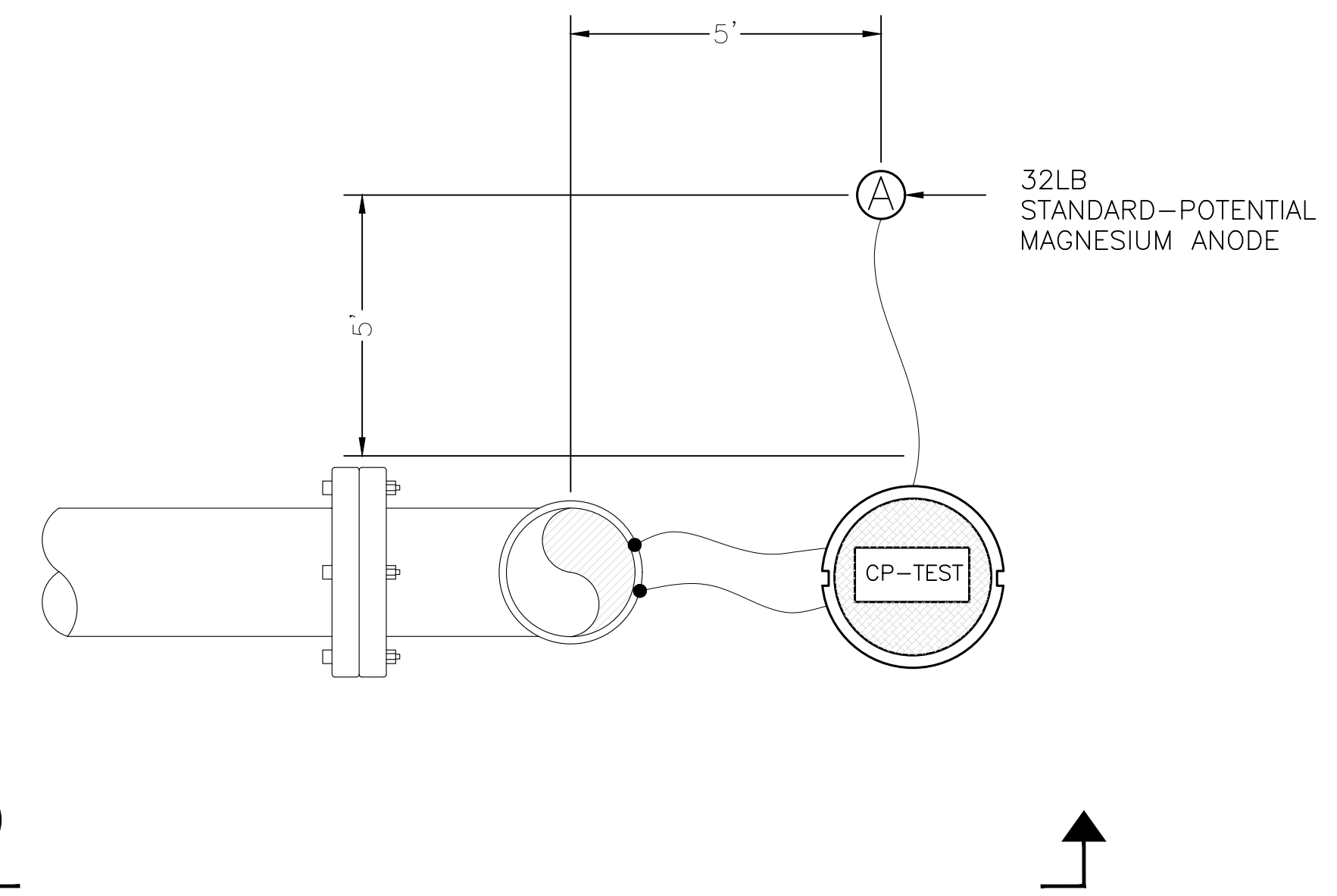
ANODE TEST STATION (ATS) FOR METALLIC FITTING OR VALVE ON NON-METALLIC PIPE PLAN VIEW NTS 1



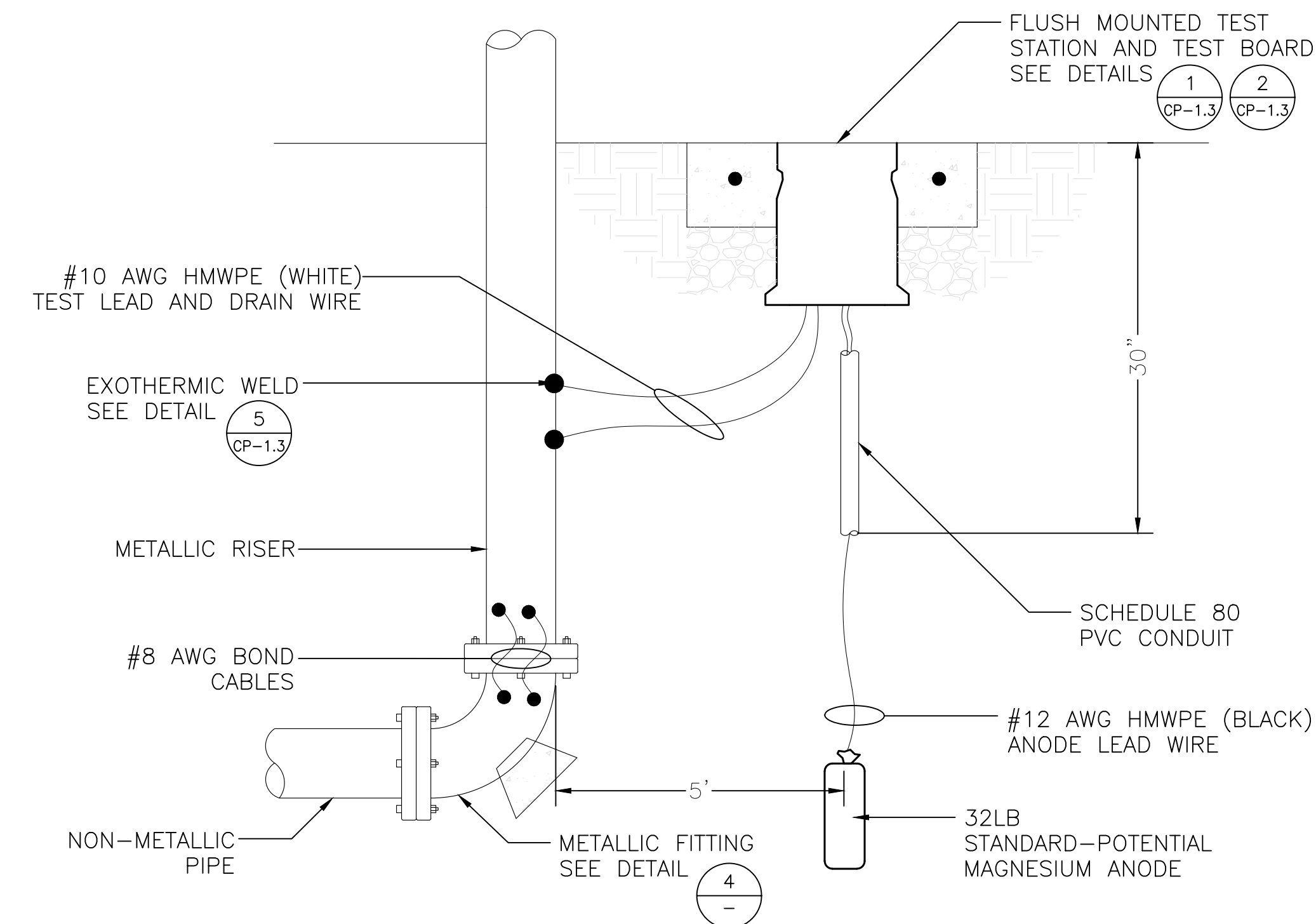
NOTE:

1. TOP OF ANODE SHALL BE AT OR BELOW PIPE INVERT.

ANODE TEST STATION (ATS) FOR METALLIC FITTING OR VALVE ON NON-METALLIC PIPE SECTION VIEW NTS A



ANODE TEST STATION (ATS) FOR RISER PLAN VIEW NTS 2

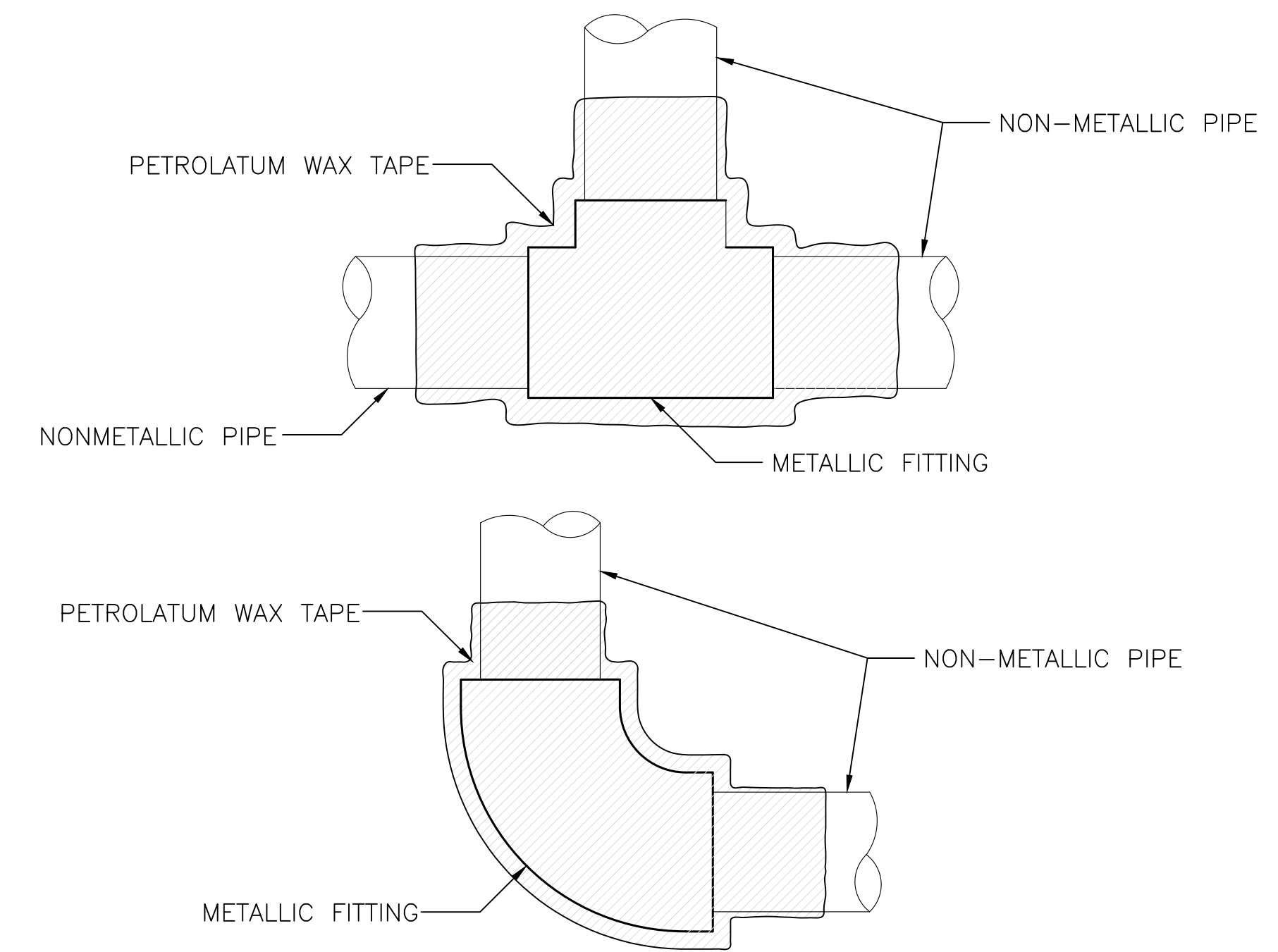


NOTE:

1. IF RISER IS DUCTILE IRON, BOND PIPE AND FITTINGS. RISER MAY HAVE 90 DEGREE ELBOW OR TEE. DUCTILE IRON PIPE AND FITTINGS SHALL HAVE POLYETHYLENE ENCASUREMENT.
2. IF RISER IS STAINLESS STEEL, WRAP IN PETROLATUM WAX TAPE.

ANODE TEST STATION (ATS) FOR RISER SECTION VIEW NTS B

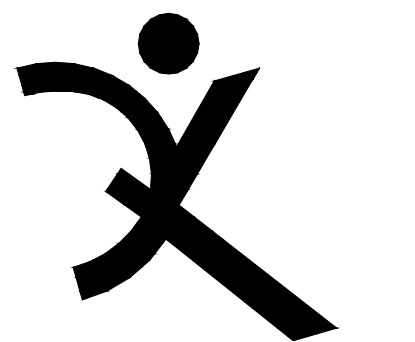
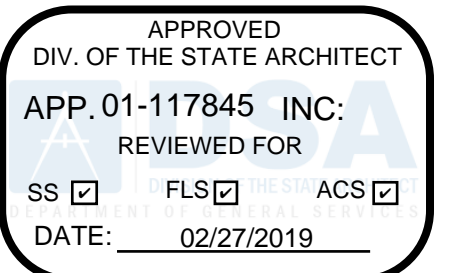
DETAIL NOT USED



NOTES:

1. PETROLATUM WAX TAPE SHALL OVERLAP PIPE BY 2 TIMES THE PIPE DIAMETER.
2. ENCASE FITTING AND PETROLATUM WAX TAPE IN CONCRETE WITH 2-INCH COVER AT MINIMUM

CORROSION CONTROL FOR 2-INCH DIAMETER METALLIC FITTING NTS 4



QUATTROCCHI KWOK ARCHITECTS
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636 Fifth Street, Santa Rosa, CA 95404
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(707) 576-0829



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Oakland, CA 94607
Tel. (510) 903-6600, Fax (510) 903-6601



Glenn H. Willson

HERITAGE HIGH SCHOOL

CULINARY ARTS BUILDING

101 American Ave
Brentwood, CA 94513

LIBERTY UNION HIGH SCHOOL DISTRICT

20 Oak Street
Brentwood, CA 94513

REVISIONS

NO.	DESCRIPTION

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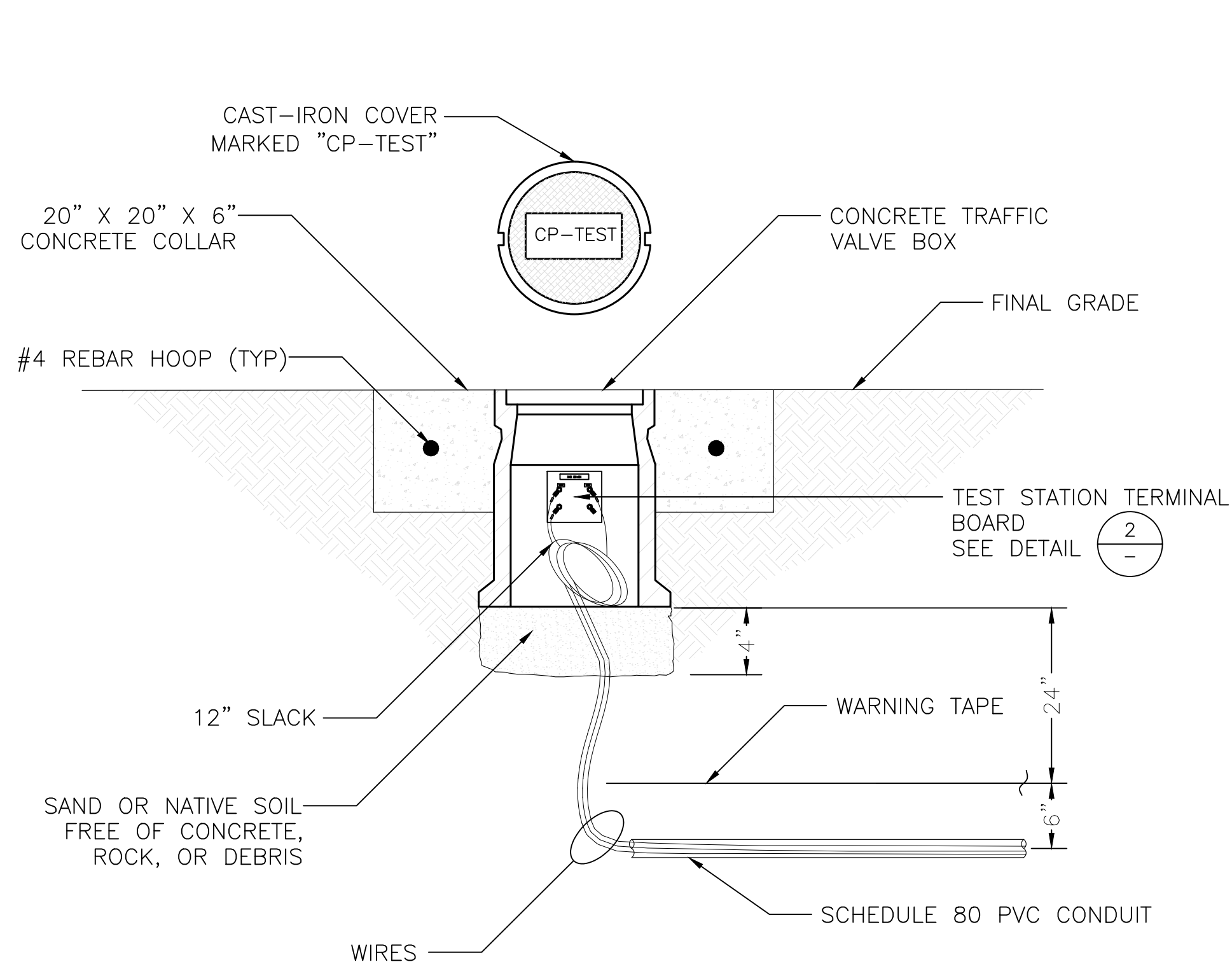
FEBRUARY 27, 2019

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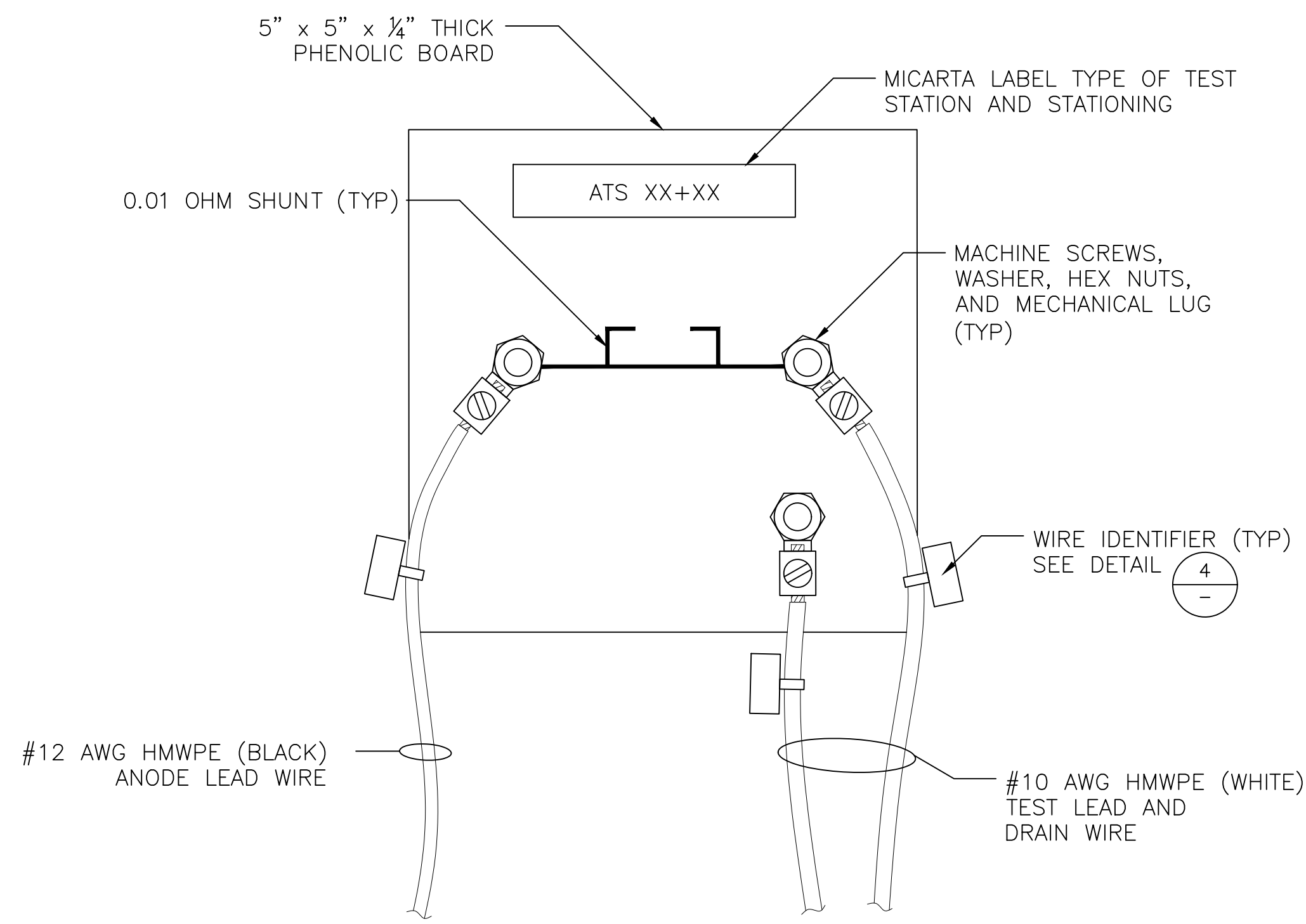
CP DETAILS

SHEET NUMBER

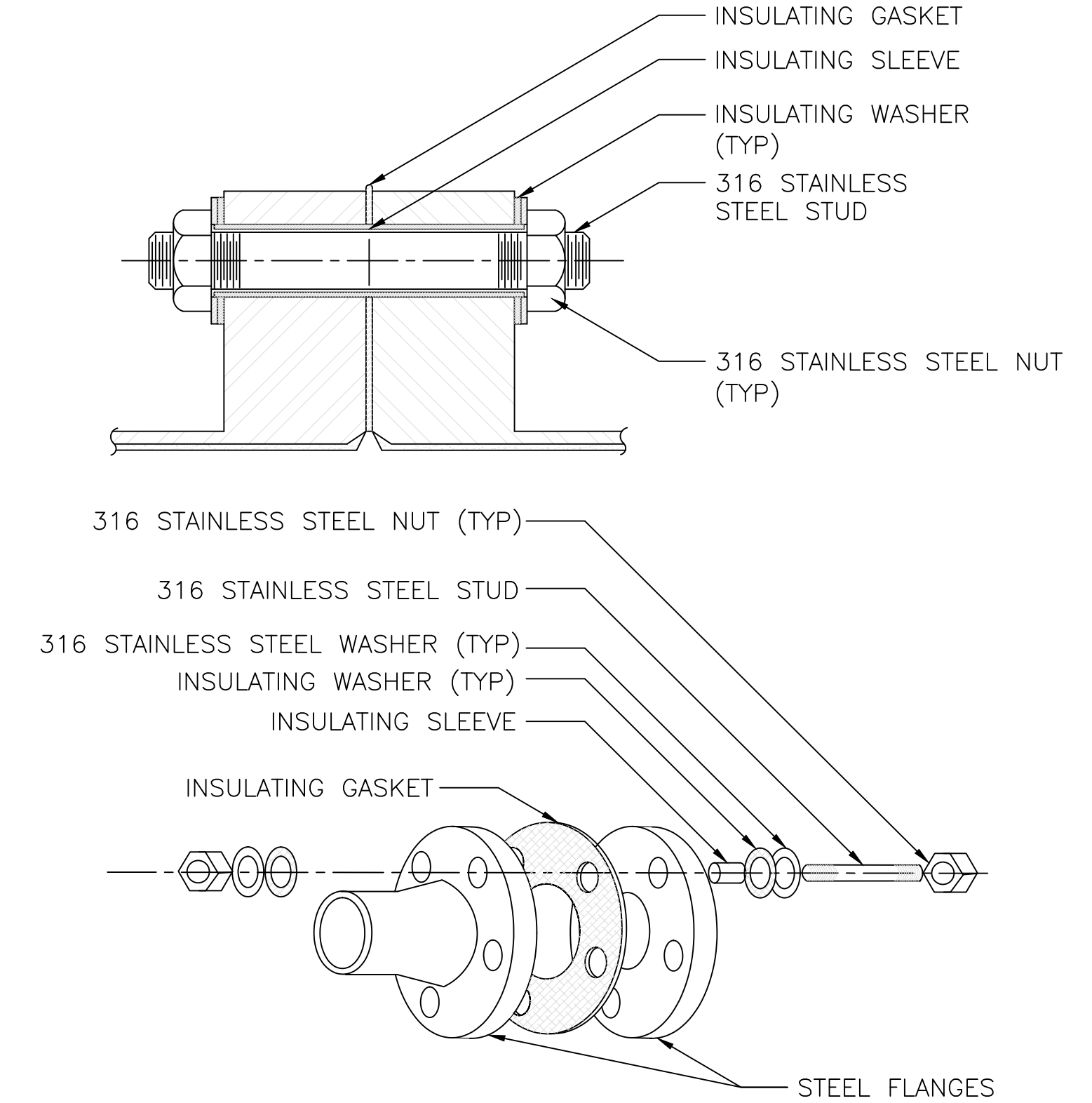
CP-1.2



FLUSH MOUNTED TEST STATION DETAIL (1) NTS

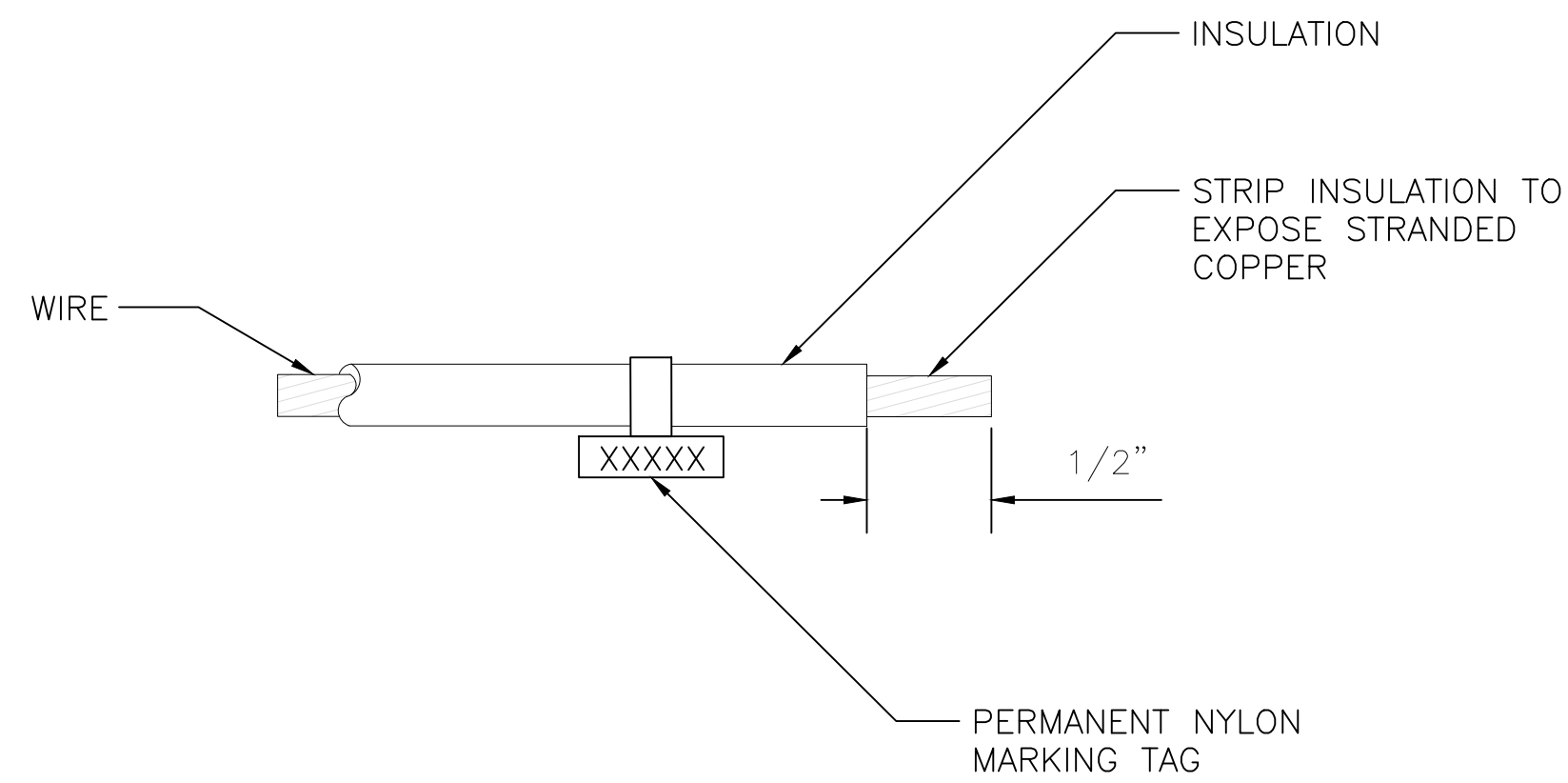


FLUSH-MOUNTED ANODE TEST STATION (ATS) TERMINAL BOARD DETAIL (2) NTS

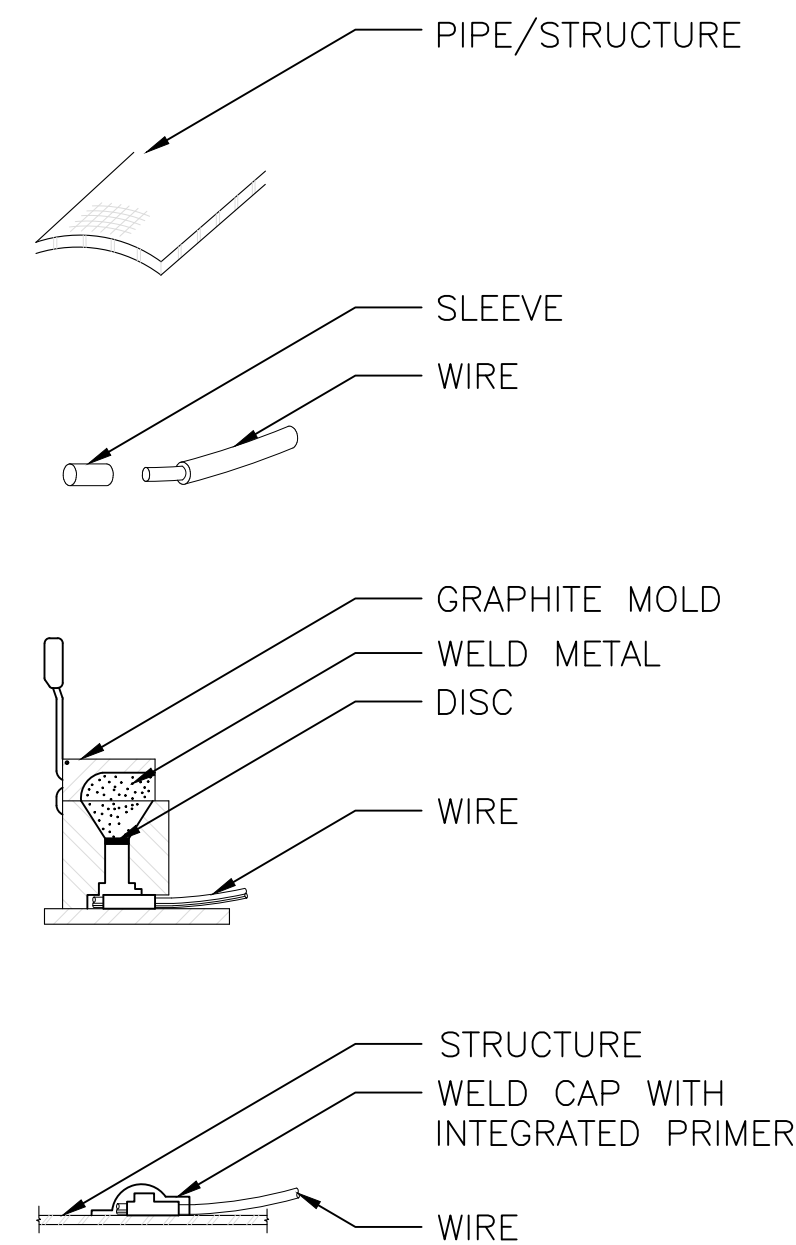


DIELECTRIC INSULATING FLANGE KIT DETAIL WITH SECTION VIEW (3) NTS

NOTE:
PETROLATUM WAX TAPE NOT SHOWN



WIRE IDENTIFIER DETAIL (4) NTS



EXOTHERMIC WELD DETAIL FOR DUCTILE IRON AND STEEL PIPE (5) NTS

1. GRIND PIPE/STRUCTURE TO BARE METAL AND CLEAN SURFACE. GROUND AREA SHALL BE LARGE ENOUGH FOR EXOTHERMIC WELD AND SMALL ENOUGH TO BE COMPLETELY COVERED BY WELD CAP.
2. STRIP INSULATION FROM WIRE AND ATTACH SLEEVE.
3. HOLD MOLD FIRMLY WITH OPENING AWAY FROM OPERATOR. IGNITE WITH FLINT GUN. REMOVE SLAG FROM CONNECTION WITH CHIPPING HAMMER. TEST WELD WITH 22 OZ HAMMER.
4. COVER CONNECTION WITH WELD CAP WITH INTEGRATED PRIMER. REPAIR ALL DAMAGE TO COATING AND LINING IN ACCORDANCE WITH COATING AND LINING MFG RECOMMENDATIONS.

APPROVED
DIV. OF THE STATE ARCHITECT
APP. 01-117845 INC.
REVIEWED FOR
SS FLS ACS
DATE: 02/27/2019

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(707) 576-0829

V&A
1000 Broadway, Suite 320
Oakland, CA 94607
Tel. (510) 903-6600, Fax (510) 903-6601

REGISTERED PROFESSIONAL ENGINEER
GLENN H. WILLSON
NO. CR1076
CORROSION
STATE OF CALIFORNIA

Glenn H. Willson

HERITAGE HIGH SCHOOL

CULINARY ARTS BUILDING

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FEBRUARY 27, 2019
SHEET TITLE

CP DETAILS

SHEET NUMBER

CP-1.3



FABRIC SHADE STRUCTURE

DSA P.C. 04-117140

SITE SPECIFIC APPLICATION SITE PLAN SHALL INCLUDE:

- ACTUAL DIMENSIONS OF SHADE STRUCTURES.
- DIMENSIONS FROM ADJACENT STRUCTURES AND PROXIMITY OF ASSUMED OR ACTUAL PROPERTY LINES.
- PROVIDE CODE ANALYSIS INCLUDING ACTUAL SHADE STRUCTURE AREA (SQ. FT.), OCCUPANCY TYPE (A-3), AND TYPE OF CONSTRUCTION (V-B). INDICATE OCCUPANT LOAD FACTOR per 2016 CBC, SECTION 1004.
- INDICATE LOCATIONS OF FIRE EXTINGUISHER WITHIN 75 FEET.
- SHOW LOCATIONS OF AUDIBLE FIRE ALARM.
- INDICATE DIMENSIONS FROM THE ROOF TO THE HIGHER STRUCTURE OR TERRAIN FEATURE. MINIMUM DIMENSION OF 20' FOR SNOW LOAD MODEL (ASCE 7-10).
- ACTUAL SITE ELEVATION (FT.) TO DETERMINE SITE OCCURS AT OR BELOW THE UPPER ELEVATION LIMIT FOR THE GROUND SNOW LOAD SHOWN IN ASCE 7-10 (FOR SNOW LOAD MODEL).
- FOR RECESSED BASE PLATE (RBP) OPTION: ARCHITECT/ENGINEER OF RECORD TO SPECIFY THE LOWEST ANTICIPATED SERVICE TEMPERATURE (LAST), AS DEFINED IN ASCE 34-10 SECTION A.3.4b, A4.1 AND A4.2 PER NOTE ON EACH INDIVIDUAL MODEL ENGINEERING DRAWING WHICH RELATES TO DEMAND CRITICAL WELD AND "L.A.S.T." TEMPERATURE (EITHER STRUCTURAL STEEL NOTE #14).
- COMPLETE SCOPE OF WORK INCLUDING THE SHADE STRUCTURE MODEL NUMBER, P.C. NUMBER, AND SPECIFIC SIZE OF SHADE STRUCTURE.
- ALL SADDLES, CLAMPS AND FITTINGS SHALL CONFORM TO THE GUIDELINES AS SPECIFIED IN APPENDICES "A, B & C" RESPECTIVELY IN ASCE 19-10, "STRUCTURAL APPLICATIONS OF STEEL CABLES FOR BUILDINGS."
- ARCHITECTS OF RECORD TO DETERMINE IF SPECIFIC SITE IS IN MAPPED GEOLOGIC HAZARD ZONE. GEOHAZARD REPORT REQUIREMENTS PER DSA IR A-4.

THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF USA SHADE AND FABRIC STRUCTURES AND SHALL NOT BE REPRODUCED WITHOUT THEIR WRITTEN PERMISSION.



CORPORATE HEADQUARTERS
8505-A CHANCELLOR ROW
DALLAS, TX, 75247
800-966-5005

CERTIFICATIONS:
IAS CERTIFICATION No: FA-428
CLARK COUNTY MANUFACTURER CERTIFICATION NUMBER (NEVADA): 355

DSA PC APPLICATION STAMP:

FILE NUMBER: PC-SS
IDENTIFICATION STAMP
DIVISION OF THE STATE ARCHITECT
APP. NO: 04 - 117140 INCR:
AC __ DF __ FLS __ DS __ SS __ VN __
DATE: 08/14/2018

CODE UPDATE FOR 04-113245

PRE-CHECK (PC) DOCUMENT
Code : 2016 CBC
A separate project application for construction is required.

APPROVED
DIV. OF THE STATE ARCHITECT
APP. 01-117845 INC:
REVIEWED FOR:
SS FLS ACS
DATE: 02/27/2019

GENERAL NOTES

SITE SPECIFIC APPLICATION TITLE SHEET SHALL INCLUDE:

APPLICABLE CODES

- 2016 BUILDING STANDARDS ADMINISTRATIVE CODE, PART 1, TITLE 24 C.C.R. *
- 2016 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 C.C.R. (2015 INTERNATIONAL BUILDING CODE VOLUMES 1-2 AND 2016 CALIFORNIA AMENDMENTS)
- 2016 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 C.C.R. (2014 NATIONAL ELECTRICAL CODE AND 2016 CALIFORNIA AMENDMENTS)
- 2016 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24 C.C.R. (2015 UNIFORM MECHANICAL CODE AND 2016 CALIFORNIA AMENDMENTS)
- 2016 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 C.C.R. (2015 UNIFORM PLUMBING CODE AND 2016 CALIFORNIA AMENDMENTS)
- 2016 CALIFORNIA ENERGY CODE (CEC), PART 6, TITLE 24 C.C.R. *
- 2016 CALIFORNIA FIRE CODE, PART 9, TITLE 24 C.C.R. (2015 INTERNATIONAL FIRE CODE AND 2016 CALIFORNIA AMENDMENTS)
- 2016 CALIFORNIA GREEN BUILDING STANDARDS CODE, PART 11, TITLE 24 C.C.R.
- 2016 CALIFORNIA REFERENCED STANDARDS, PART 12, TITLE 24 C.C.R.
- TITLE 19 C.C.R., PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS
- 2013 ASME A17.1 SAFETY CODE FOR ELEVATORS AND ESCALATORS

PARTIAL LIST OF APPLICABLE STANDARDS

NFPA 13	AUTOMATIC FIRE SPRINKLER SYSTEMS	2016 EDITION
NFPA 14	STANDPIPE AND HOSE SYSTEMS	2013 EDITION
NFPA 17	DRY CHEMICAL EXTINGUISHING SYSTEMS	2013 EDITION
NFPA 17a	WET CHEMICAL EXTINGUISHING SYSTEMS	2013 EDITION
NFPA 20	STATIONARY PUMPS FOR FIRE PROTECTION	2016 EDITION
NFPA 22	WATER TANKS FOR PRIVATE FIRE PROTECTION	2013 EDITION
NFPA 24	PRIVATE FIRE MAINS & THEIR APPURTENANCES	2016 EDITION
NFPA 25	STANDARD FOR INSPECTION, TESTING AND MAINTENANCE OF WATER-BASED FIRE PROTECTION SYSTEMS	2013 EDITION
NFPA 72	NATIONAL FIRE ALARM & SIGNALING CODE	2016 EDITION
NFPA 80	FIRE DOORS AND OTHER OPENING PROTECTIVES	2016 EDITION
NFPA 92	STANDARD FOR SMOKE CONTROL SYSTEMS	2015 EDITION
NFPA 253	CRITICAL RADIANT FLUX OF FLOOR COVERING SYSTEMS	2015 EDITION
NFPA 2001	CLEAN AGENT FIRE EXTINGUISHING SYSTEMS	2015 EDITION
ICC 300	ICC STANDARDS ON BLEACHERS, FOLDING AND TELESCOPING SEATING, AND GRAND STANDS	2012 EDITION
UL 300	FIRE TESTING OF FIRE EXTINGUISHING SYSTEMS FOR PROTECTION OF RESTAURANT COOKING AREAS	2005 EDITION
UL 464	AUDIBLE SIGNAL APPLIANCES	2003 EDITION
UL521	HEAT DETECTORS FOR FIRE PROTECTIVE SIGNALING SYSTEMS	1999 EDITION

REFERENCE CODE SECTION FOR NFPA STANDARDS-2016 CBC (SFM) CHAPTER 35. SEE CHAPTER 35 FOR STATE OF CALIFORNIA AMENDMENTS TO NFPA STANDARDS.

SEE INDIVIDUAL STRUCTURAL DRAWINGS FOR SPECIFIC DESIGN NOTES AND LOADING.

ALL WORK SHALL CONFORM TO 2016 EDITION TITLE 24, CALIFORNIA CODE OF REGULATIONS (C.C.R.)

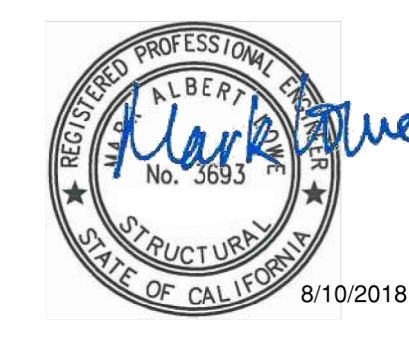
DRAWING NUMBER	DRAWING DESCRIPTION	STRUCTURE TYPE	MAX SIZE	MODEL NUMBER
P.C. T-1.0	P.C. TITLE SHEET			
P.C. T-2.0	DSA 103 FORMS			
1.1-1000	PRODUCT INFORMATION	HIP	20 X 30	DSA4012030-16
1.2-2000	REACTIONS	HIP	20 X 30	DSA4012030-16
2.1-1000	PRODUCT INFORMATION	HIP	30 X 30	DSA4013030-16
2.2-2000	REACTIONS	HIP	30 X 30	DSA4013030-16
3.1-1000	PRODUCT INFORMATION	HIP	30 X 40	DSA4013040-16
3.2-2000	REACTIONS	HIP	30 X 40	DSA4013040-16
4.1-1000	PRODUCT INFORMATION	HIP (20W SNOW LOAD)	20 X 30	DSA40152030-16
4.2-2000	REACTIONS	HIP (20W SNOW LOAD)	20 X 30	DSA40152030-16
5.1-1000	PRODUCT INFORMATION	SINGLE POST PYRAMID	14 X 14	DSA1031414-16
5.2-2000	REACTIONS	SINGLE POST PYRAMID	14 X 14	DSA1031414-16
6.1-1000	PRODUCT INFORMATION	MARINER	30 X 30	DSA4073030-16
6.2-2000	REACTIONS	MARINER	30 X 30	DSA4073030-16
7.1-1000	PRODUCT INFORMATION	JOINED MARINER	30 X 200	DSA4073060-16
7.2-2000	REACTIONS	JOINED MARINER	30 X 200	DSA4073060-16
8.1-1000	PRODUCT INFORMATION	QUAD MARINER	60 X 60	DSA4073060-16
8.2-2000	REACTIONS	QUAD MARINER	60 X 60	DSA4073060-16
9.1-1000	PRODUCT INFORMATION	FULL CANTILEVER	20 X 30	DSA2022030-16
9.2-2000	REACTIONS	FULL CANTILEVER	20 X 30	DSA2022030-16
10.1-1000	PRODUCT INFORMATION	FULL CANTILEVER JOINED	20 X 300	DSA3022060-16
10.2-2000	REACTIONS	FULL CANTILEVER JOINED	20 X 300	DSA3022060-16
11.1-1000	PRODUCT INFORMATION	TRI TRUSS CANTILEVER	20 X 30	DSA2062030-16
11.2-2000	REACTIONS	TRI TRUSS CANTILEVER	20 X 30	DSA2062030-16
12.1-1000	PRODUCT INFORMATION	TRI TRUSS CANTILEVER JOINED	20 X 300	DSA2062060-16
12.2-2000	REACTIONS	TRI TRUSS CANTILEVER JOINED	20 X 300	DSA2062060-16
13.1-1000	PRODUCT INFORMATION	THREE POINT SAILS	30 X 200	DSA30730-16
13.2-2000	REACTIONS	THREE POINT SAILS	30 X 200	DSA30730-16
14.1-1000	PRODUCT INFORMATION	FOUR POINT SAILS	30 X 300	DSA4182020-16
14.2-2000	REACTIONS	FOUR POINT SAILS	30 X 300	DSA4182020-16
15.1-1000	PRODUCT INFORMATION	FOUR POINT SAILS	30 X 200	DSA4183030-16
15.2-2000	REACTIONS	FOUR POINT SAILS	30 X 200	DSA4183030-16

SHEET INDEX - P.C. DRAWINGS

HA HIGGINSON ARCHITECTS INCORPORATED
707 Brookside Avenue
Redlands, CA 92373
(909)375-3030
www.haarchinc.com



Mark Lowe, S.E.
Structural Engineer
19471 Misty Ridge Lane
Trabuco Canyon, California 923679
949-400-1265
malowe@me.com



SCALE: AS NOTED

DRAWING SIZE:

REV	DESCRIPTION	DATE	DRW	CHK	ENG
	SITE PROJECT NAME: Heritage High School				
	DISTRICT/OWNER: Liberty Union HS District				
	LOCATION/ADDRESS: 101 American Avenue Brentwood, CA 94513				

Eng. By: DWH 08/07/18

Design By: DWH 08/07/18

Approved By: DWH 08/07/18

DRAWING DESCRIPTION:

P.C. TITLE SHEET

DWG.

SHEET P.C. T-1.0

REV.

BUILDING CODE DATA

UNIT SELECTION AND DESCRIPTION

ARCHITECT OF RECORD

ENGINEER OF RECORD

GENERAL NOTES

DESIGN LOADS

BUILDING CODE	CBC 2016 (BASED ON IBC 2015)
LIVE LOADS	5 PSF
SNOW LOAD	5 PSF
WIND LOADS	115 MPH (3-SEC. GUST); EXPOSURE C; TOPOGRAPHIC FACTOR, Kzt = 1.0

1. SPECIAL INSPECTION REQUIREMENTS SHALL FOLLOW THE ATTACHED SAMPLE TEST AND INSPECTION LIST (T & I LIST) APPROVED BY DSA. THE SHOP WELDING INSPECTION SHALL INCLUDE WELDING OF ALL STEEL MEMBERS AND IDENTIFICATION OF STEEL THROUGH MILL CERTIFICATE OR MATERIAL TESTING. UNCERTIFIED STEEL SHALL BE TESTED TO THE REQUIREMENTS OF CBC 2016 CHAPTER 17A. THE FIELD SPECIAL INSPECTION SHALL INCLUDE COMPRESSION CYLINDER TESTS FOR THE CONCRETE FOUNDATION.

2. STRUCTURE SHALL BE IN THE LOCATION SHOWN ON THE SITE SPECIFIC DSA APPLICATION DRAWING.

3. FOUNDATION DESIGN BASED ON CBC 2016, TABLE 1806A.2, SOIL CLASS 5 (ALLOWABLE FOUNDATION PRESSURE 1500 PSF)

4. DESIGN PER FOLLOWING CODES: CBC 2016, ASCE 7-10, AISC 360-10, AISC 341-10, ACI 318-14, ASCE 55-10 & ASCE 19-10

STRUCTURAL STEEL

1. FABRICATION OF THE STEEL STRUCTURES SHALL BE PERFORMED BY SHADE STRUCTURES OR AN AUTHORIZED LICENSEE. MATERIAL TESTING (OR MILL CERTIFICATES) AND INSPECTION OF WELDING SHALL BE CONDUCTED PER CBC 2016 SECTIONS 1704A, 1705A, 1705A.2, AND TABLE 1705A.2.1.

2. ONLY CALIFORNIA LICENSED CONTRACTORS AUTHORIZED BY SHADE STRUCTURES SHALL INSTALL THE SHADE STRUCTURES.

3. ALL WORK SHALL CONFORM TO CBC 2016 EDITION, TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR).

4. ALL GALVANIZED STEEL TUBE PRODUCTS MANUFACTURED BY ALLIED TUBE & CONDUIT FOR THIS STRUCTURE SHALL BE, AND CONFORM TO ASTM A500-10: GRADE "B", IN ITS ENTIRETY. TYPICAL MECHANICAL PROPERTIES ARE:

ROUND TUBE 42,000 PSI YIELD STRESS / 58,000 PSI TENSILE STRESS

5. ALL STRUCTURAL SHAPES SHALL BE COLD FORMED HSS ASTM A500 GRADE B, UNLESS OTHERWISE NOTED. TYPICAL MECHANICAL PROPERTIES ACHIEVED FOR HSS PRODUCTS:

SQUARE AND RECTANGULAR 46,000 PSI YIELD STRESS / 58,000 PSI TENSILE STRESS

ROUND PIPE 42,000 PSI YIELD STRESS / 58,000 PSI TENSILE STRESS

6. ALL PLATES PRODUCTS SHALL COMPLY WITH ASTM A572 GRADE 50.

7. STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH A.I.S.C. SPECIFICATIONS.

8. ALL WELDING TO CONFORM WITH AMERICAN WELDING SOCIETY STANDARDS AND SHALL BE INSPECTED BY AN AWS/CWI INSPECTOR. AWS D1.1 FOR HOT ROLLED. AWS D1.3 FOR SHEET/COLD FORMED. AWS D1.8 SEISMIC SUPPLEMENT.

9. ALL FULL PENETRATION WELD SHALL BE CONTINUOUSLY INSPECTED PER AWS D1.1 & D1.8.

10. SHOP CONNECTIONS SHALL BE WELDED UNLESS NOTED OTHERWISE. FIELD CONNECTIONS SHALL BE AS INDICATED ON THE DRAWINGS (IF REQUIRED). ALL FILLET WELDS SHALL BE A MINIMUM OF 3/16" ER70SX ELECTRODES UNLESS OTHERWISE NOTED. EITHER SMAW OR GMAW IS ACCEPTABLE.

11. ALL STAINLESS STEEL BOLTS SHALL COMPLY WITH ASTM F-593, FYS = 60 KSI, FS = 96KSI. ALLOY GROUP 1 OR 2 ALL NUTS SHALL COMPLY WITH ASTM F-594 ALLOY GROUP 1 OR 2. REFERRING TO RCSC, ASTM F-593 IS NOT CONSIDERED AS HIGH STRENGTH BOLTS.

12. ALL HIGH STRENGTH BOLTS SHALL COMPLY WITH ASTM A325 GRADE BD (GALVANIZED). ALL NUTS SHALL COMPLY WITH ASTM A563DH, AND WASHERS SHALL COMPLY WITH ASTM F436. ALL HIGH STRENGTH BOLTS SHALL BE TIGHTENED TO A SNUG TIGHT CONDITION.

13. ALL STRUCTURAL STEEL (ITEMS FROM NOTE 5) SHALL BE PAINTED WITH ONE SHOP COAT (2.5 TO 3.5 MILS THICK MIN) OF ZINC-RICH PRIMER, UNDERCOAT, AND FINISH COAT, OR EQUIVALENT PAINT SYSTEM. THIS COAT IS A WEATHER RESISTANT POWDER COATING BASED ON POLYESTER TGIC (MANUFACTURED BY SHERWIN WILLIAMS OR TIGER DRYLAC), TO ACHIEVE OPTIMUM ADHESION. IT IS RECOMMENDED THAT THE PROPER TREATMENT AND DRYING TAKE PLACE BEFORE COATING. POLYESTER POWDER (TGIC) SPECIFICATIONS SHALL BE AS FOLLOWS: - PENCIL HARDNESS (ASTM D-3363), - HUMIDITY (ASTM D-2247), - SOLVENT RESISTANCE (PCI METHOD) - 50 DBL RUBS SL SOFTNESS.

14. ALL STEEL ROUND TUBING (ITEMS FROM NOTE 4) SHALL BE TRIPLE COATED FOR RUST PROTECTION USING THE IN-LINE ELECTROPLATING COAT PROCESS. TUBING SHALL BE INTERNALLY COATED WITH ZINC AND ORGANIC COATINGS TO PREVENT CORROSION AS MANUFACTURED BY ALLIED TUBE & CONDUIT.

15. COLD-FORMED STEEL MEMBERS SHALL BE 55% ALUMINUM ZINC ALLOY COATED PER ASTM A792/A792M STANDARD IN ACCORDANCE TO AISI S200 TABLE A4-1, CP 90 COATING DESIGNATION. ALL EXPOSED STEEL FASTENERS, INCLUDING CAST-IN-PLACE ANCHOR BOLTS/RODS, SHALL BE STAINLESS STEEL (TYPE 304 MINIMUM), HOT DIP GALVANIZED (ASTM A153, CLASS D MINIMUM OR ASTM F2329), OR PROTECTED WITH CORROSION PREVENTIVE COATING THAT DEMONSTRATED NO MORE THAN 2% OF RED RUST IN MINIMUM 1,000 HOURS OF EXPOSURE IN SALT SPRAY TEST PER ASTM B117. ZINC-PLATED FASTENERS DO NOT COMPLY WITH THIS REQUIREMENT.

CONCRETE SPECIFICATION

1. CONCRETE SHALL BE TESTED PER CBC 2016 SECTION 1903A & SHALL BE INSPECTED PER SECTION 1903A.

2. CONCRETE TO BE F'c = 4500 PSI, TYPE V CEMENT, WATER/CEMENT RATIO OF 0.45, PER ACI 318-14 CHAPTER 5. REINFORCING STEEL TO BE Fy = 60000 PSI, MIN. GR. 60

3. ALL ANCHOR BOLTS SET IN NEW CONCRETE (WHEN APPLICABLE) SHALL COMPLY WITH ASTM F-1554 GRADE 55 (GALVANIZED). ANCHOR BOLTS EMBEDMENT NEEDS TO BE AS FOLLOWS:
A) ANCHOR BOLT Ø1 1/4" 30 IN (MINIMUM EMBEDMENT)

4. CERTIFIED MILL TEST REPORTS ARE TO BE PROVIDED FOR EACH SHIPMENT OF REINFORCEMENT.

5. ALL NON-SHRINK GROUT SHALL HAVE A MINIMUM 28 DAYS COMPRESSIVE STRENGTH OF 5000 PSI, AND SHALL COMPLY THE REQUIREMENTS OF ASTM C109, ASTM C939, ASTM C1090, ASTM C1107, WHEN APPLICABLE.

FABRIC SPECIFICATION

1. FABRIC SHALL BE MANUFACTURED BY MULTIKINT LTD. OR OTHER COMPANY WHO CAN MANUFACTURE FABRIC, WHICH MEETS THE SPECIFICATIONS LISTED ON PAGE 2000, AND SHALL BE FABRICATED FROM POLYETHYLENE MATERIALS.

2. THE FABRIC SHALL RETAIN 80% OF ITS TENSILE AND TEARING STRENGTH AFTER ULTRAVIOLET EXPOSURE PER ASTM G53 USING A 313 NM LIGHT SOURCE FOR 500 HOURS WHILE MOISTENED FOR 1 HOUR EVERY 12 HOURS.

3. PROVIDE CERTIFICATION BY MANUFACTURER AND STATE FIRE MARSHALL TO DSA AT SITE SPECIFIC INSTALLATION.

4. FABRIC SHALL REQUIRE ANNUAL INSPECTION AND MAINTENANCE BY THE DISTRICT. FABRICS SAMPLES OF THE SAME MATERIAL WHICH ARE MAINTAINED AT THE PROJECTS SITE SHALL BE TESTED TO BE IN COMPLIANCE WITH ASTM D5034 AND D2261. THE ANNUAL TESTING ON THE APPROVED PLANS SHALL BE COMPARED TO THE FABRIC SPECIFICATIONS INDICATED IN NOTE 1 OF "FABRIC SPECIFICATION" ON THE APPROVED PLANS. THE FABRIC SHALL BE REPLACED WHEN THE TEST RESULTS RETURN LESS THAN 50% OF THE ULTIMATE VALUES IN NOTE 1 OF "FABRIC SPECIFICATION".

5. FABRIC TOP NEEDS TO BE REMOVED IF SNOW EXCEEDING 5 PSF ARE ANTICIPATED. FABRIC TOP NEEDS TO BE REMOVED IF WINDS EXCEEDING 115 MPH ARE ANTICIPATED.

6. A VISUAL INSPECTION LOOKING FOR TEAR AND ABNORMAL WEAR IN FABRIC MATERIAL AND THREAD IS REQUIRED PRIOR TO RE-INSTALLATION. SHADE STRUCTURE SHALL BE NOTIFIED IF SIGNIFICANT DAMAGE IS PRESENT BEFORE RE-INSTALLATION.

AIRCRAFT CABLE

1. FOR FABRIC ATTACHMENT USE 1/4" 7x19 GALV. CABLE PER ASTM A1023A, ASTM 1023M-02, WITH A BREAKING STRENGTH VALUE OF 7,000 LBS. CABLE SHALL BE TENSIONED TO 250 LBS MINIMUM. THE MAXIMUM CALCULATED CABLE TENSION IS 1229 LB.

2. CABLES SHALL BE FED THROUGH THE FABRIC SLEEVES AROUND THE PERIMETER OF THE CANOPY AND TENSIONED UNTIL THE FABRIC PANELS (DESIGNED PURPOSELY UNDERSIZED) REACH A TAUT APPEARANCE. ANY LONG TERM CABLE SAG SHALL BE MINIMIZED DURING THE MAINTENANCE RE-TIGHTING VISITS AS REQUIRED.

2016 CBC PC DESIGN NOTES

FLOOR LIVE LOAD	N/A	RLL	5 PSF
ROOF LIVE LOAD			

ALLOWABLE SOIL PRESSURE:
DL + LL (CONC FTG) 1500 PSF
DL + LL + SEISMIC (CONC FTG) 1500 PSF
LATERAL BEARING DESIGN VALUE 100 PSF/FT BELOW NATURAL GRADE, PER TABLE 1806A.2
TWO TIMES THE TABULAR VALUE IS USED (200 PSF/FT)
PER CBC SECTION 1806A.3.4.

ALLOWABLE PIER FRICTIONAL RESISTANCE 250 PSF MAXIMUM
BASED ON SECTION 1810A.3.3.1.4 (ONE SIXTH OF THE BEARING VALUE).
UPLIFT FRICTIONAL RESISTANCE HAVE A SAFETY FACTOR OF 3.

ROOF SNOW LOAD 5 PSF

FLOOD HAZARD AREA NO
WHEN A SITE SPECIFIC PROJECT IS LOCATED IN A FLOOD ZONE OTHER THAN ZONE X, A LETTER STAMPED AND SIGNED FROM A SOILS ENGINEER IS NEEDED TO VALIDATE THE ALLOWABLE SOIL VALUES SPECIFIED IN THE PC ARE STILL APPLICABLE.

WIND DESIGN DIRECTIONAL PROCEDURE: ASCE 7-10, SECTION 27.4.3
-ULTIMATE DESIGN WIND SPEED (3 SEC GUST) V 115 MPH
-WIND EXPOSURE FACTOR C 1
-TOPOGRAPHIC FACTOR Kzt 1
-RISK CATEGORY II
-VELOCITY PRESSURE EXPOSURE COEFFICIENT Kz 0.85
-VELOCITY PRESSURE qz 24.46 PSF

SEISMIC DESIGN:
-SITE CLASS D
SS 3.00g
S1 1.389g
SDS 2.00
SD1 1.39
-SPECTRAL RESPONSE COEFFICIENTS

-LATERAL FORCE RESISTING SYSTEM G.2 ORDINARY CANTILEVERED COLUMN SYSTEM.

-SEISMIC IMPORTANCE FACTOR I 1.0
-DESIGN BASE SHEAR V 1029 LB
-SEISMIC RESPONSE COEFFICIENTS Cs 1.6
-RESPONSE MODIFICATION FACTOR R 1.25
-ANALYSIS PROCEDURE R EQUIVALENT LATERAL FORCE
II
-RISK CATEGORY II
-SEISMIC DESIGN CATEGORY E
-SITE COEFFICIENT CATEGORY Fa 1, Fv 1.5

GEOHAZARD REPORT IS NOT REQUIRED FOR OPEN FABRIC STRUCTURES 1,600 SQ. FT OR LESS COMPLYING WITH THE REQUIREMENTS OF IR A-4 SECTION 3.1.1. OPEN FABRIC SHADE STRUCTURES GREATER THAN 1,600 SQUARE FEET UP TO A MAXIMUM OF 4,000 SQUARE FEET AND COMPLYING WITH THE REQUIREMENTS NOTED IN IR A-4 SECTION 3.1.1 DO NOT REQUIRE A GEOHAZARD REPORT PROVIDED A GEOTECHNICAL REPORT INDICATES THAT NO LIQUEFACTION POTENTIAL EXISTS.

ARCHITECT OF RECORD TO DETERMINE IF SPECIFIC SITE IS IN GEOLOGIC HAZARD ZONE. GEOHAZARD REPORT REQUIREMENTS PER DSA IR A-4.

PC OPTIONS SHALL NOT INCLUDE LIQUEFIABLE SOIL (EXCEPTION: OPEN FABRIC SHADE STRUCTURES 1,600 SQUARE FEET OR LESS COMPLYING WITH REQUIREMENTS OF IR A-4 SECTION 3.1.1). IF STRUCTURE IS LOCATED IN AN AREA WITH LIQUEFIABLE SOIL OR SITE CLASS F, OVER-THE-COUNTER SUBMITTAL IS NOT ALLOWED AND REGULAR PROJECT SUBMITTAL IS REQUIRED. IF SITE IS NOT IN A MAPPED LIQUEFACTION HAZARD ZONE, IT MAY BE PRESUMED THAT NO LIQUEFACTION HAZARD EXISTS ON THAT SITE UNLESS A SITE-SPECIFIC GEOTECHNICAL REPORT IDENTIFIES SUCH HAZARD.

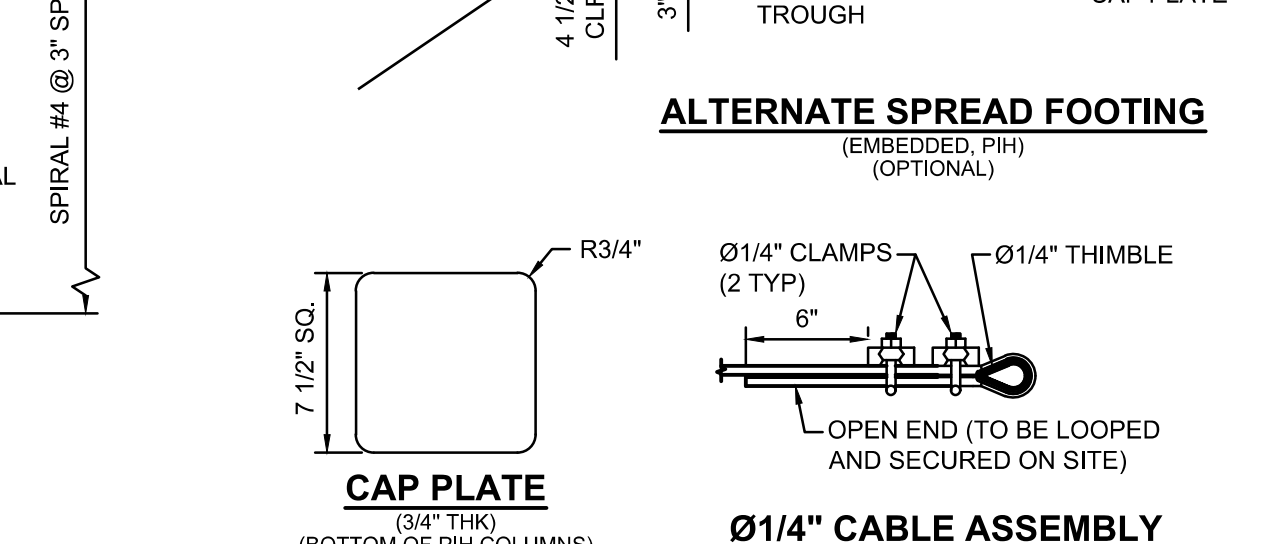
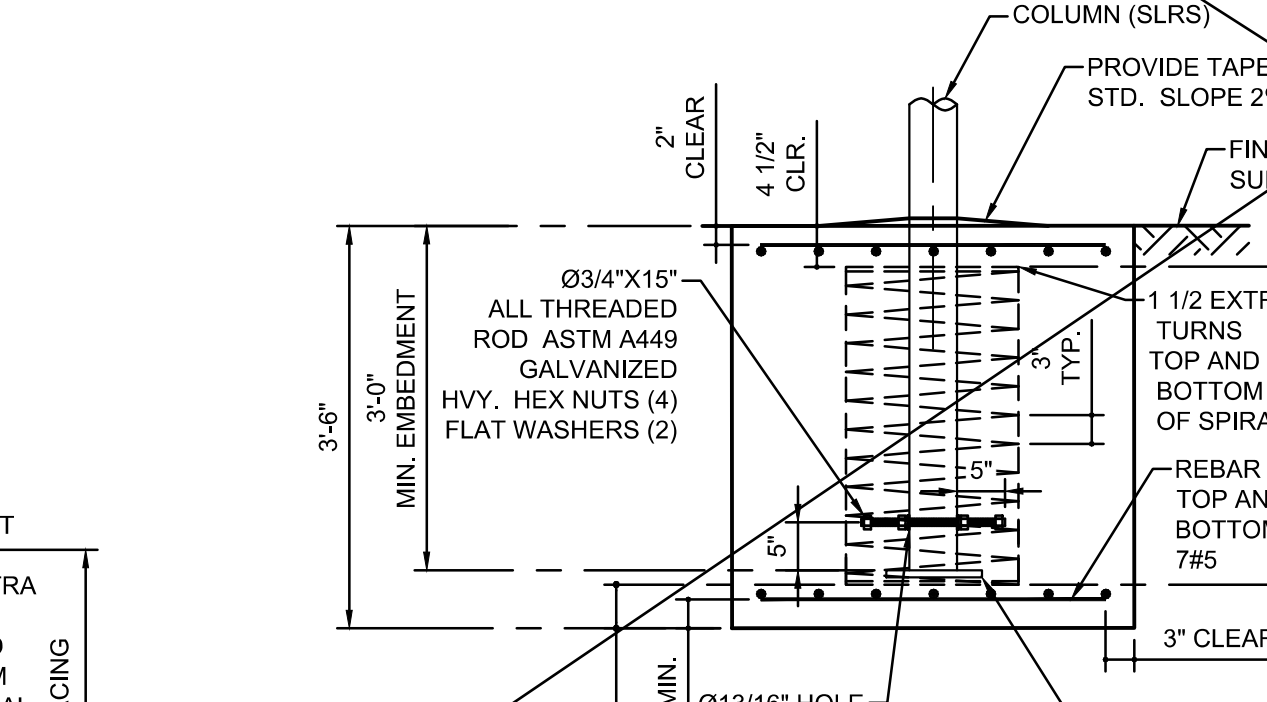
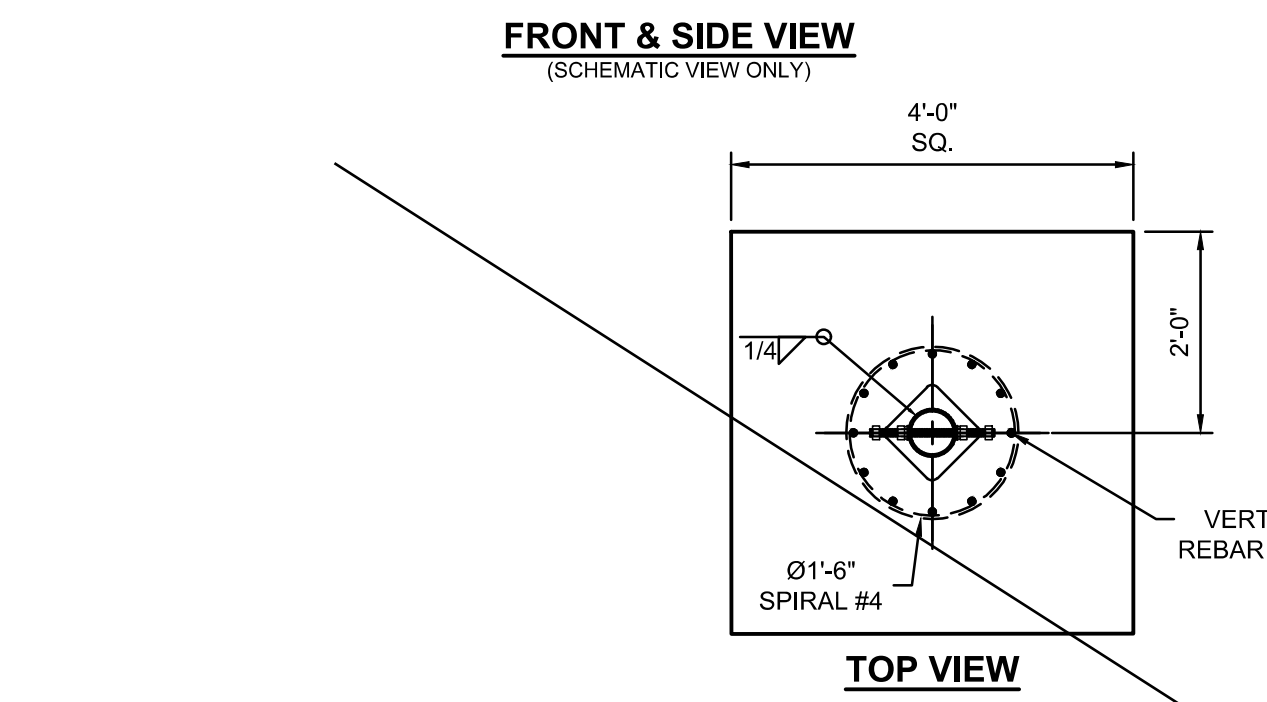
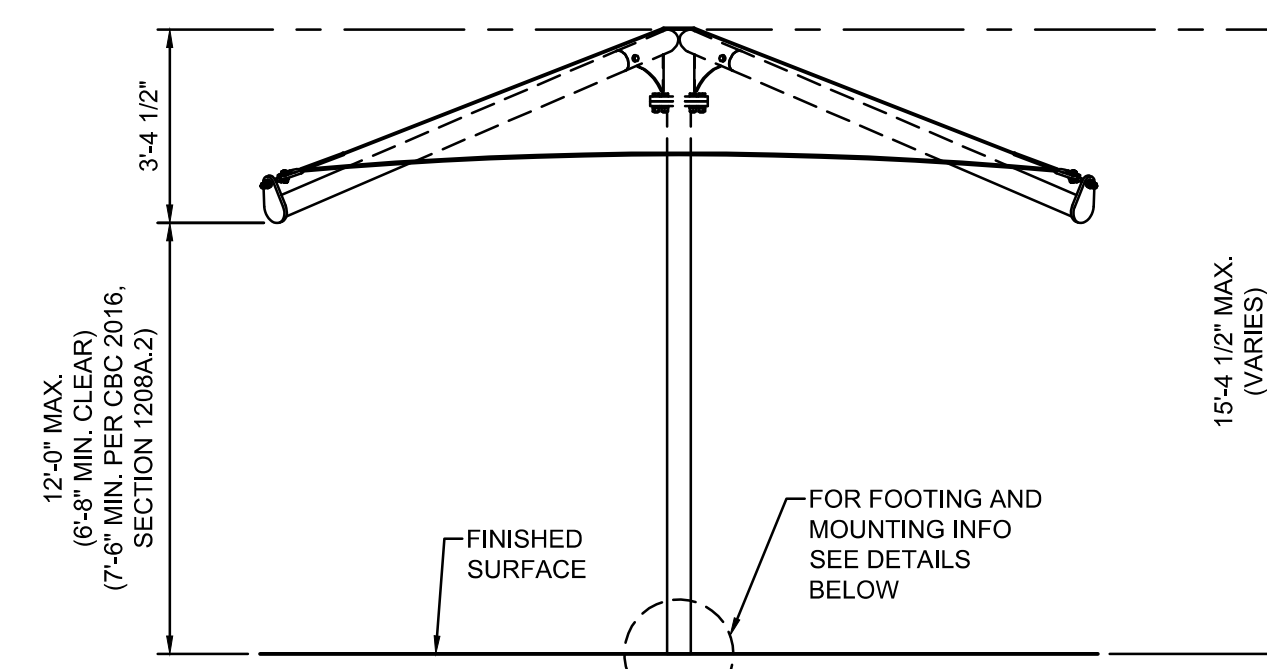
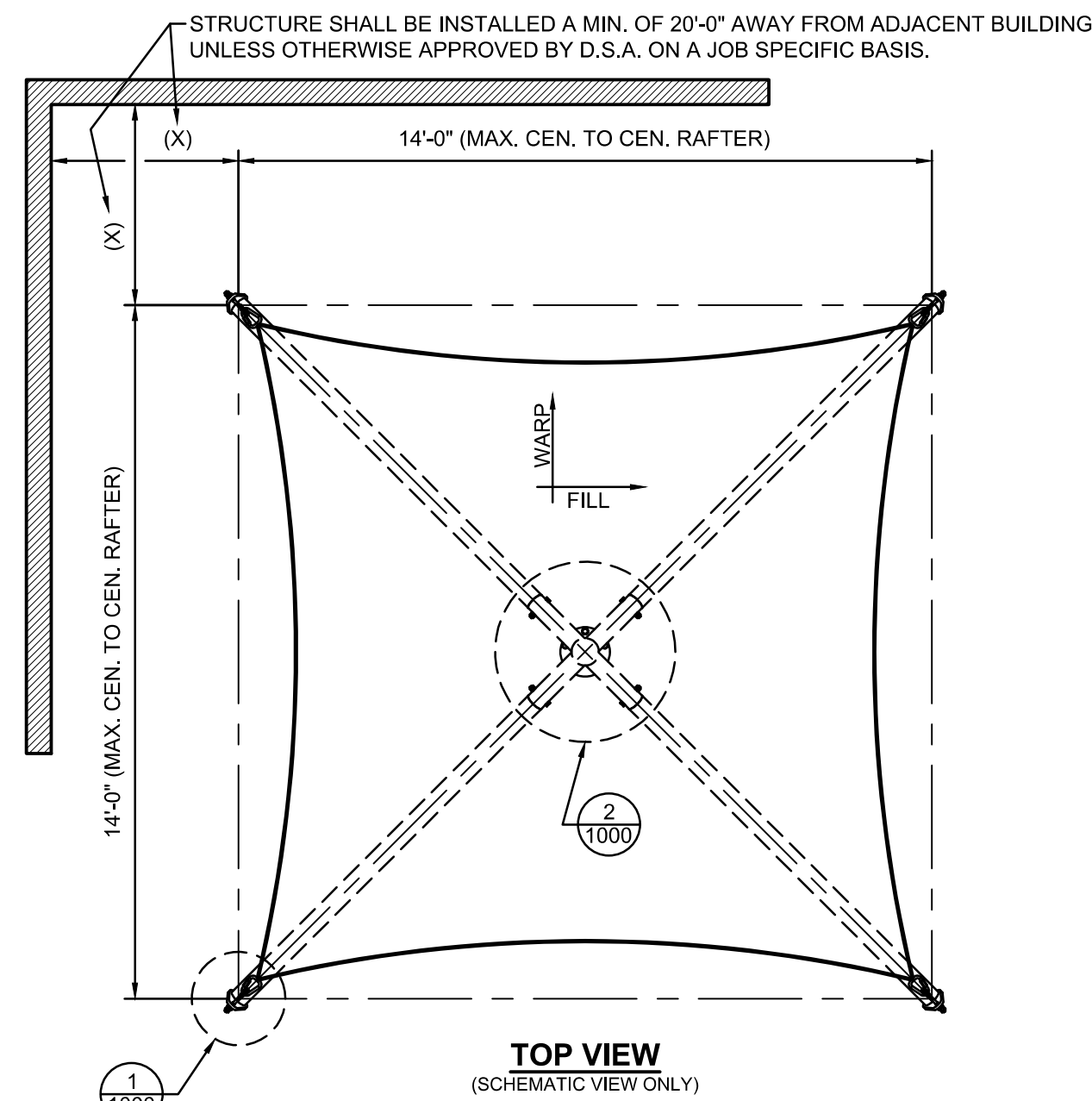
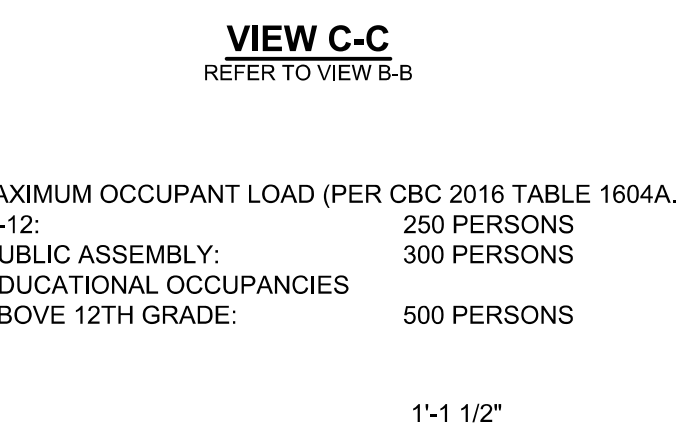
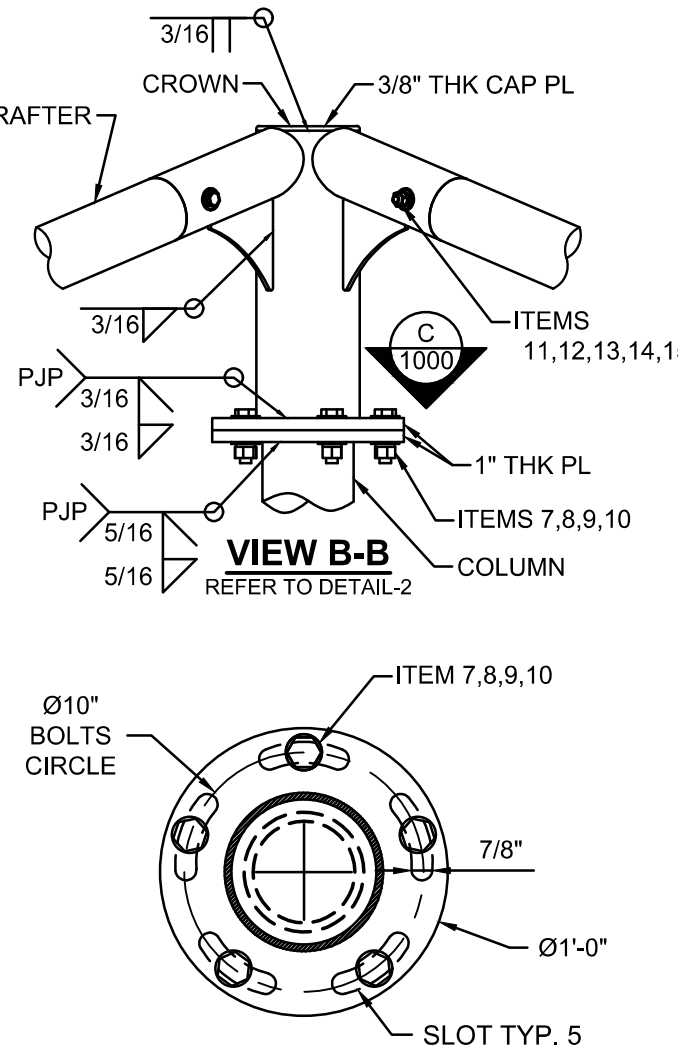
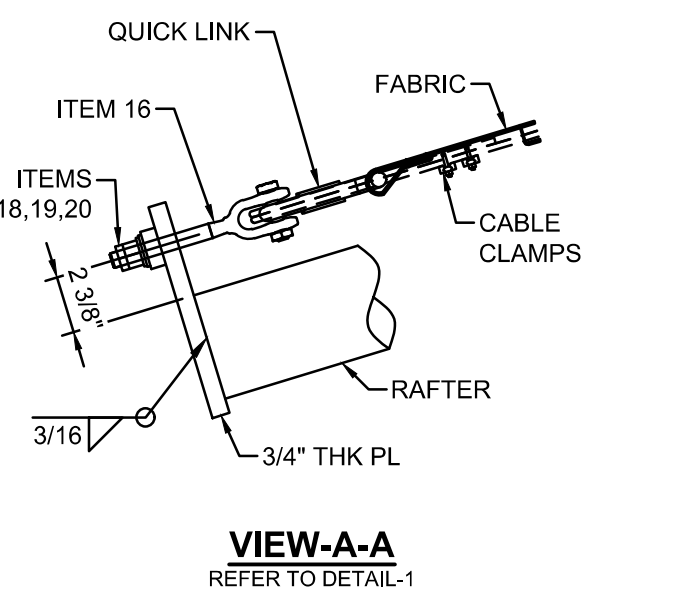
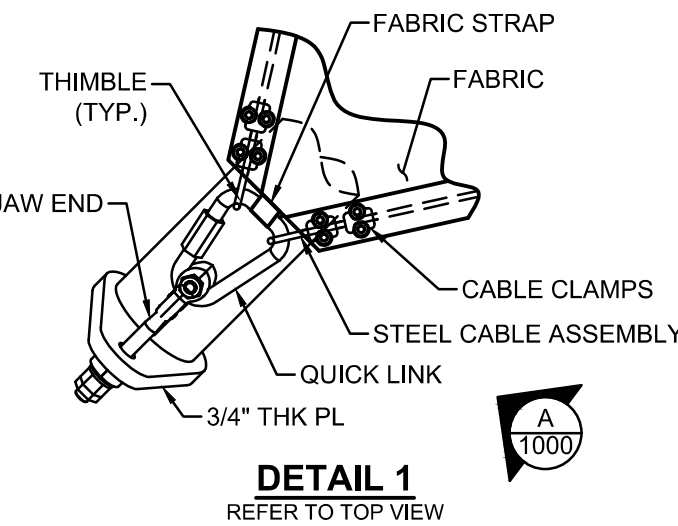
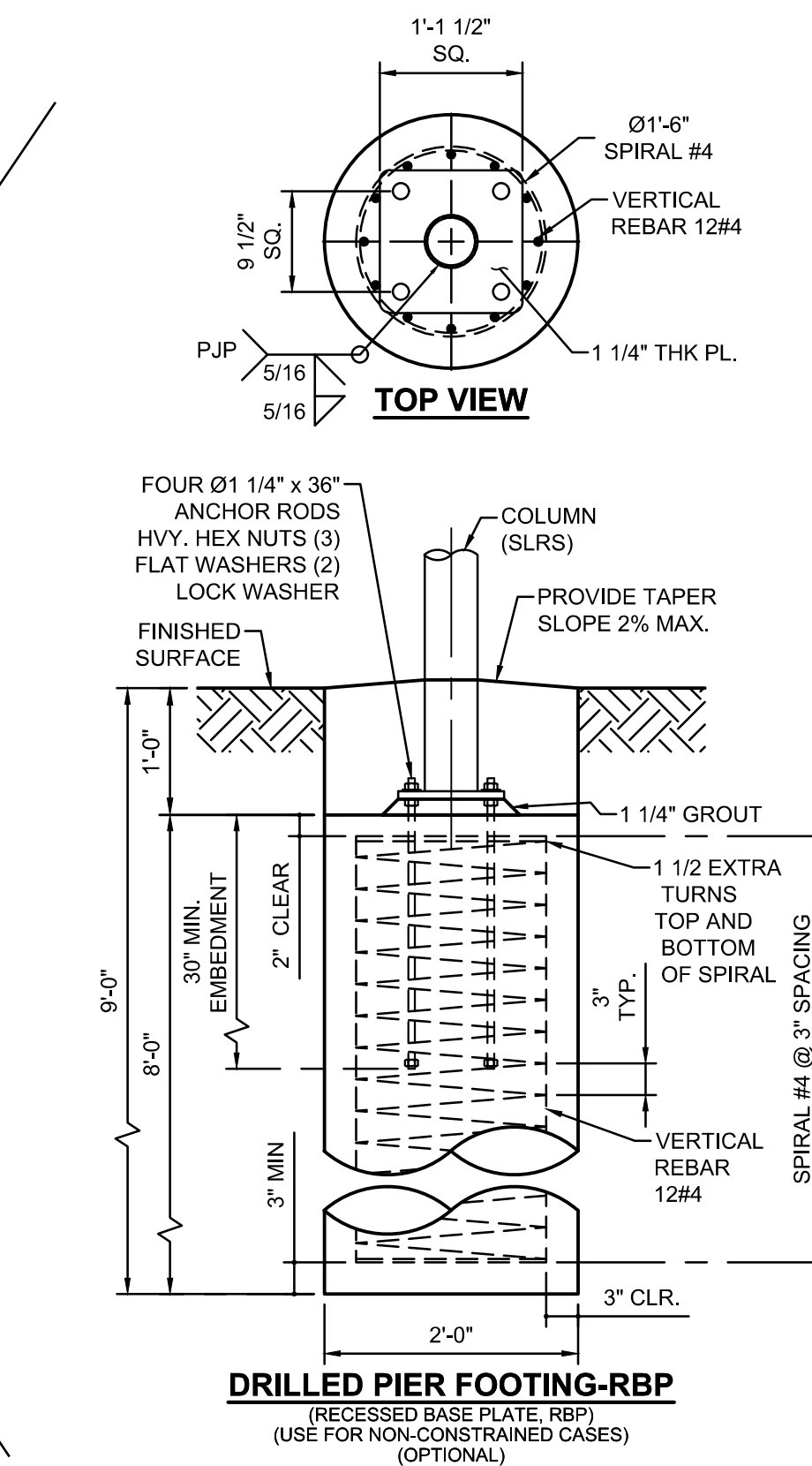
MINIMUM FOUNDATION SETBACK LIMIT IN ADJACENT SLOPE: THE DEPTH OF REQUIRED PIER EMBEDMENT SHALL START FROM AN ELEVATION THAT CORRESPONDS WITH A HORIZONTAL CLEAR DISTANCE OF 14 FEET THAT INTERSECT WITH THE SLOPE (DAYLIGHTING). IF SETBACK LIMITS ARE SMALLER THAN CBC REQUIRES, A SITE-SPECIFIC SOILS REPORT IS REQUIRED.

MINIMUM CLASS 2 PROJECT INSPECTOR REQUIRED.

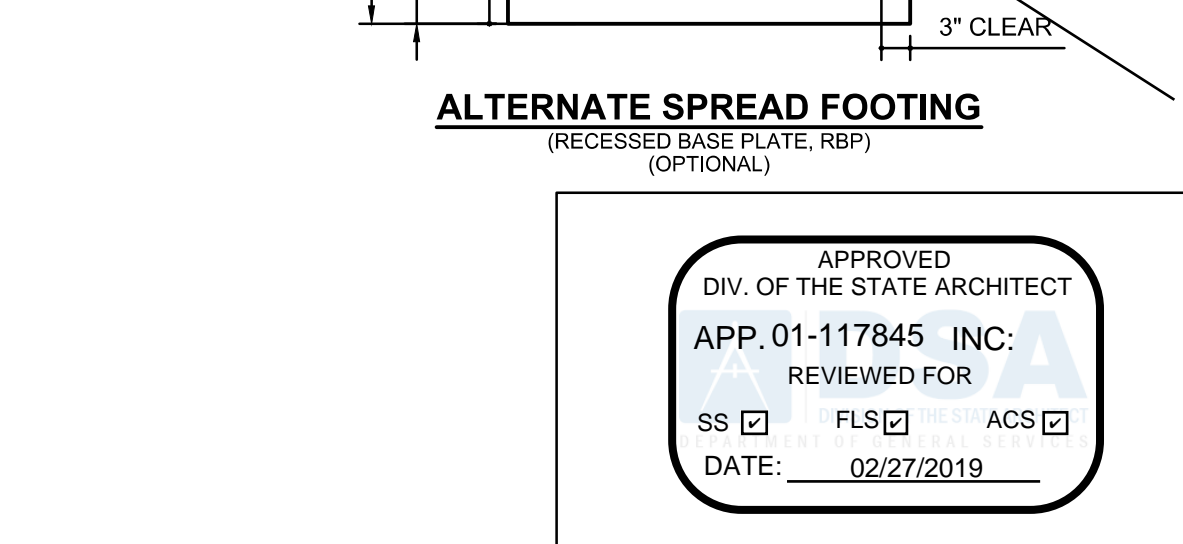
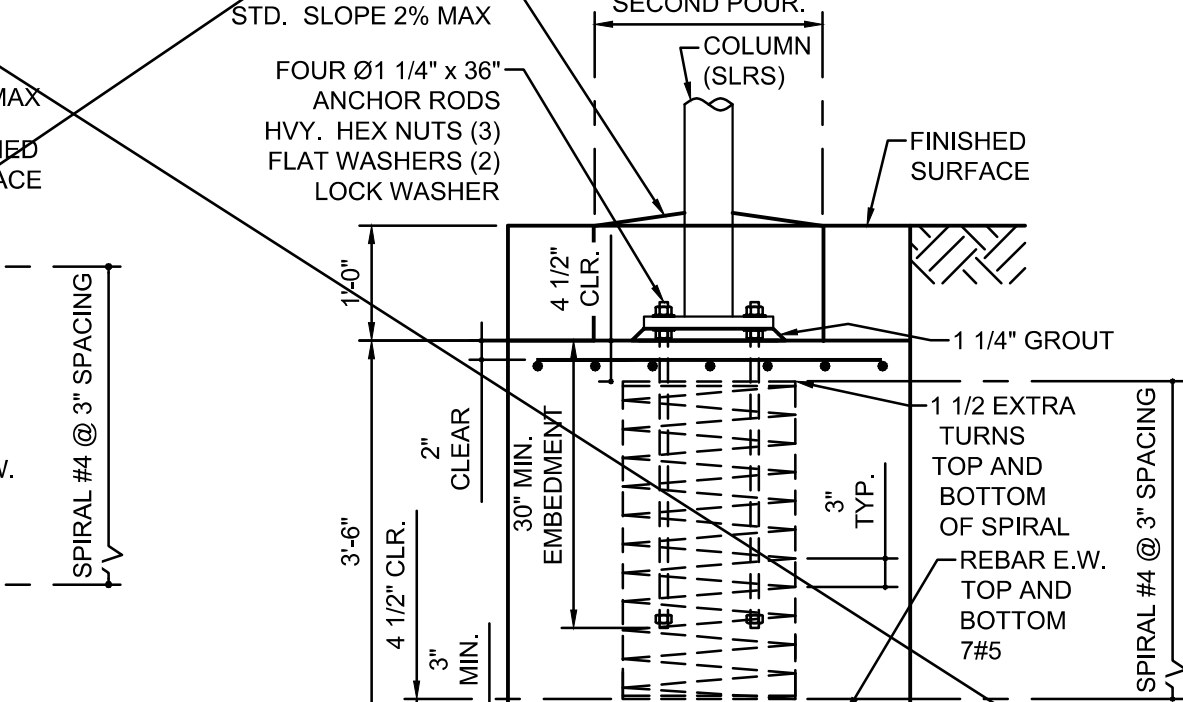
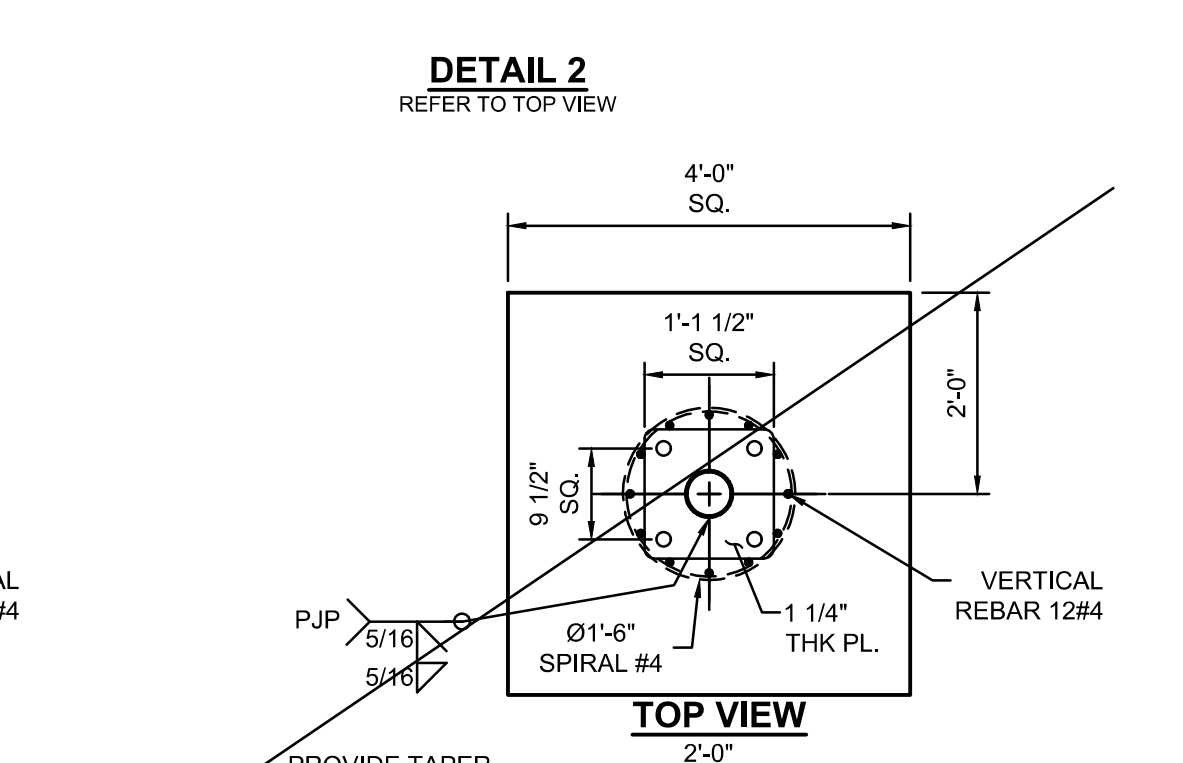
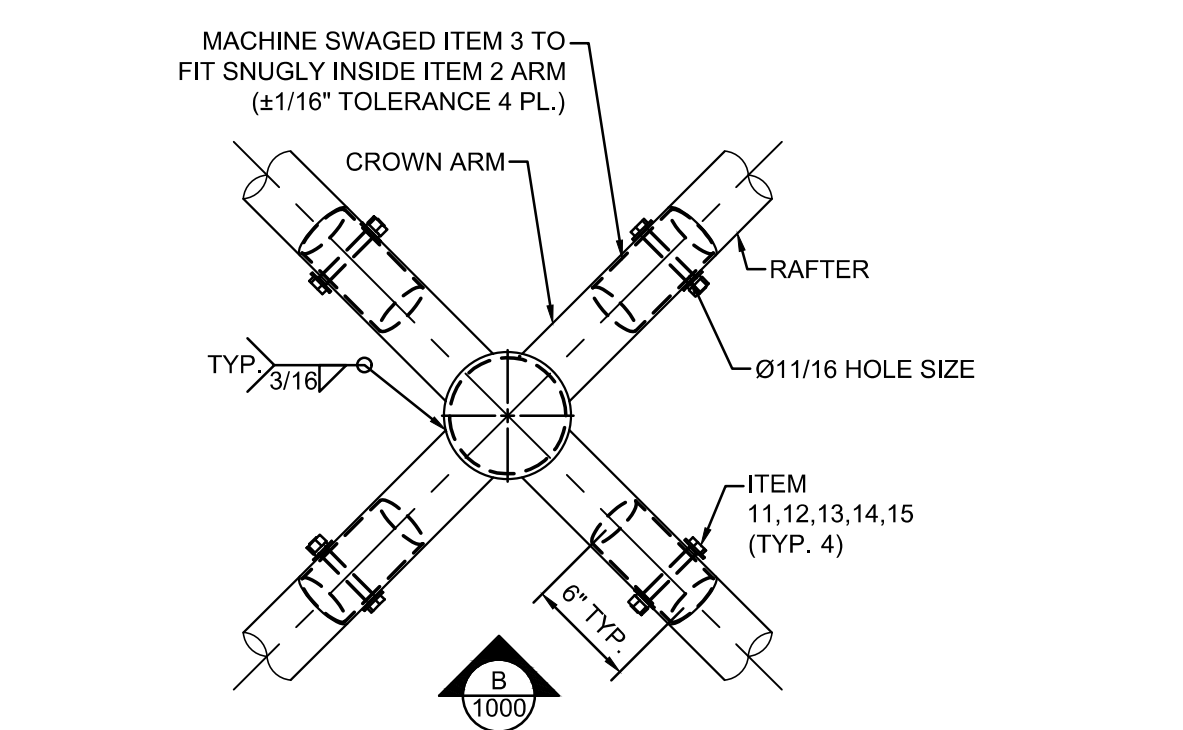
CODE ANALYSIS				
BUILDING	OCCUPANCY	CONST. TYPE	AREA (SQ. FT.)	OCCUPANT LOAD FACTOR
SHADE STRUCTURE				

MAXIMUM OCCUPANT LOAD (PER CBC 2016 TABLE 1604A.5)

- K-12: 250 PERSONS
- PUBLIC ASSEMBLY: 300 PERSONS
- EDUCATIONAL OCCUPANCIES ABOVE 12TH GRADE: 500 PERSONS



LIST OF MATERIALS			
ITEM	QTY	DESCRIPTION	MATERIAL
1	1	COLUMN	HSS 5.0 x 0.375
2	1	CROWN	HSS 6.625 x 0.28
3	4	RAFTER (GALVANIZED STEEL TUBE)	4.50 GA 7 RD. TUBE (4.5 x 0.188)
4	1	FABRIC TOP	FR COLOURSHADE Z25
5	4	Ø1/4" CABLE	GALVANIZED STEEL
6	16	Ø1/4" CABLE CLAMP	GALVANIZED
7	5	Ø3/4"-10NC x 3 1/2" HEX BOLT	ASTM A325 GALVANIZED
8	5	Ø3/4"-10NC HEX NUT	ASTM A563 GALVANIZED
9	5	Ø3/4" SPLIT LOCK WASHER	ASTM F436 GALVANIZED
10	10	Ø3/4" FLAT WASHER	ASTM F436 GALVANIZED
11	4	Ø5/8"-11NC x 6" HEX BOLT	18-8 SS
12	4	Ø5/8"-11NC HEX NUT	18-8 SS
13	8	Ø5/8" FLAT WASHER	18-8 SS
14	8	Ø5/8" FLAT WASHER	DELTRIN (ACETAL)
15	4	Ø5/8" SPLIT LOCK WASHER	18-8 SS
16	4	5/8" x 6" JAW END	GALVANIZED
17	4	5/8" FLAT WASHER	GALVANIZED
18	4	5/8"-11NC HEX NUT	GALVANIZED
19	4	5/8"-11NC JAM NUT	GALVANIZED
20	4	5/8" SPHERICAL WASHER+CUP	GALVANIZED
21	4	5/8" QUICK LINK	ZINC PLATED



THESE PLANS AND SPECIFICATIONS ARE THE PROPERTY OF USA SHADE AND FABRIC STRUCTURES AND SHALL NOT BE REPRODUCED WITHOUT THEIR WRITTEN PERMISSION.



CORPORATE HEADQUARTERS
8505-A HANCELOR ROW
DALLAS, TX, 75247
800-966-5005

CERTIFICATIONS:
IAS CERTIFICATION No: FA-428
CLARK COUNTY MANUFACTURER CERTIFICATION NUMBER (NEVADA): 355

CUSTOMER:
Liberty Union HS District

PROJECT NAME:
Heritage High School

LOCATION:
101 American Avenue
Brentwood, CA 94513
MODEL NUMBER:
DSA1031414-16

STRUCTURE TYPE:
SINGLE POST PYRAMID
DSA

SIZE: MAXIMUM
14' x 14 x 12' MAX.

SCALE: NONE

DRAWING SIZE: D

Professional seals and stamps for the architect and engineer, including dates and descriptions.

PRE-CHECK (PC) DOCUMENT
Code - 2016 CBC
A separate project application for construction is required.

Eng. By: JO 03/12/18
Design By: MP 03/12/18
Approved By: JO 03/12/18

DRAWING DESCRIPTION:
PRODUCT INFORMATION
DWG. DSA1031414-16
SHEET 5.1-1000
REV. NC

Project Name: 1750 Heritage HS Culinary Arts
Project Address: 101 American Avenue Brentwood 94513
Compliance Scope: NewEnvelopeAndMechanical

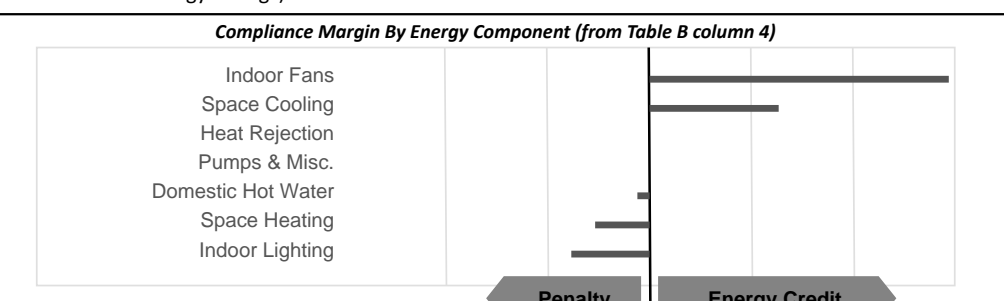
A. PROJECT GENERAL INFORMATION
1. Project Location (city): Brentwood
2. CA Zip Code: 94513
3. Climate Zone: 12
4. Total Conditioned Floor Area in Scope: 3,218 ft²

B. COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS (Annual TDV Energy Use, kWh/ft²-yr)
Table with 5 columns: 1. Energy Component, 2. Standard Design (TDV), 3. Proposed Design (TDV), 4. Compliance Margin (TDV), 5. Percent Better than Standard

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-09132018-5583 Report Generated at: 2018-11-01 16:56:44

Project Name: 1750 Heritage HS Culinary Arts
Project Address: 101 American Avenue Brentwood 94513
Compliance Scope: NewEnvelopeAndMechanical

C. PRIORITY PLAN CHECK/ INSPECTION ITEMS (in order of highest to lowest TDV energy savings)
Table with 7 rows of items like Indoor Fans, Space Cooling, Heat Rejection, etc.



D. EXCEPTIONAL CONDITIONS
This project includes partial performance compliance scope options. The building must show compliance with all other applicable compliance scope options (performance or prescriptive) before occupying.

E. HERS VERIFICATION
This Section Does Not Apply
F. ADDITIONAL REMARKS
None Provided

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-09132018-5583 Report Generated at: 2018-11-01 16:56:44

Project Name: 1750 Heritage HS Culinary Arts
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G. COMPLIANCE PATH & CERTIFICATE OF COMPLIANCE SUMMARY
Table with 4 columns: Building Component, Compliance Path, Compliance Forms (required for submittal), Location of Mandatory Notes on Plans

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-09132018-5583 Report Generated at: 2018-11-01 16:56:44

Project Name: 1750 Heritage HS Culinary Arts
Project Address: 101 American Avenue Brentwood 94513
Compliance Scope: NewEnvelopeAndMechanical

H. CERTIFICATE OF INSTALLATION, CERTIFICATE OF ACCEPTANCE & CERTIFICATE OF VERIFICATION SUMMARY (NRC/NRCA/NRCV) - Documentation Author to indicate which Certificates must be submitted for the features to be recognized for compliance.

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-09132018-5583 Report Generated at: 2018-11-01 16:56:44

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H. CERTIFICATE OF INSTALLATION, CERTIFICATE OF ACCEPTANCE & CERTIFICATE OF VERIFICATION SUMMARY (NRC/NRCA/NRCV) - Documentation Author to indicate which Certificates must be submitted for the features to be recognized for compliance.

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H. CERTIFICATE OF INSTALLATION, CERTIFICATE OF ACCEPTANCE & CERTIFICATE OF VERIFICATION SUMMARY (NRC/NRCA/NRCV) - Documentation Author to indicate which Certificates must be submitted for the features to be recognized for compliance.

I. ENVELOPE GENERAL INFORMATION (See NRCC-PRF-ENV-DETAILS for more information)
Table with 10 columns: 1. Total Conditioned Floor Area, 2. Total Unconditioned Floor Area, 3. Addition Conditioned Floor Area, 4. Addition Unconditioned Floor Area, 5. Number of Floors Above Grade, 6. Number of Floors Below Grade, 7. Opaque Surfaces & Orientation, 8. Total Gross Surface Area, 9. Total Fenestration Area, 10. Window to Wall Ratio

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-09132018-5583 Report Generated at: 2018-11-01 16:56:44

Project Name: 1750 Heritage HS Culinary Arts
Project Address: 101 American Avenue Brentwood 94513
Compliance Scope: NewEnvelopeAndMechanical

J. FENESTRATION ASSEMBLY SUMMARY
Table with 10 columns: 1. Fenestration Assembly Name / Tag or I.D., 2. Fenestration Type / Product Type / Frame Type, 3. Certification Method, 4. Assembly Method, 5. Area ft², 6. Overall U-factor, 7. Overall SHGC, 8. Overall VT, 9. Status, 10. Confirmed

K. OPAQUE SURFACE ASSEMBLY SUMMARY
Table with 8 columns: 1. Surface Name, 2. Surface Type, 3. Area (ft²), 4. Framing Type, 5. Cavity R-Value, 6. Continuous R-Value, 7. U-Factor / F-Factor / C-Factor, 8. Status, 9. Confirmed

L. ROOFING PRODUCT SUMMARY
Table with 7 columns: 1. Product Type, 2. Product Density (lb/ft²), 3. Aged Solar Reflectance, 4. Thermal Emittance, 5. SRI, 6. Cool Roof Credit, 7. Roofing Product Description

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-09132018-5583 Report Generated at: 2018-11-01 16:56:44

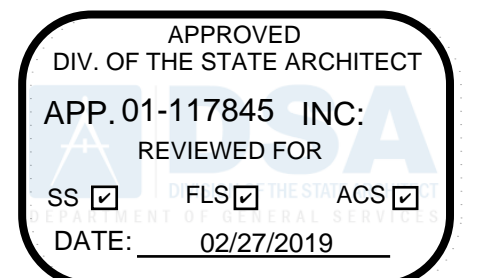
Project Name: 1750 Heritage HS Culinary Arts
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M. HVAC SYSTEM SUMMARY (see NRCC-PRF-MCH-DETAILS for more information)
Table with 11 columns: 1. Equip Name, 2. Equip Type, 3. System Type (Simple or Complex), 4. Qty, 5. Total Heating Output (kBtu/h), 6. Supp Heat Source (Y/N), 7. Supp Heat Output (kBtu/h), 8. Total Cooling Output (kBtu/h), 9. Efficiency (Cooling/Heating), 10. Acceptance Testing Required? (Y/N), 11. Status, 12. Confirmed

N. Wet System Equipment Summary
Table with 12 columns: 1. Equip Name, 2. Equip Type, 3. Qty, 4. Vol (gal), 5. Rated Capacity (kBtu/h), 6. Efficiency, 7. Standby Loss, 8. Tank Est. R. Value, 9. Pumps (Qty, HP, VSD (Y/N)), 10. Status, 11. Confirmed

O. Discrepancy between modeled and designed equipment sizing? (if "yes", see Table F. "Additional Remarks" for an explanation) No

CA Building Energy Efficiency Standards- 2016 Nonresidential Compliance Report Version: NRCC-PRF-01-E-09132018-5583 Report Generated at: 2018-11-01 16:56:44



QUATTROCCHI KWOK ARCHITECTS
Main Office: 636 Fifth Street, Santa Rosa, CA 95404
Pleasanton Office: 600 Main Street, Suite E, Pleasanton, CA 94566 (707) 576-0829



HERITAGE HIGH SCHOOL

CULINARY ARTS BUILDING

101 American Ave Brentwood, CA 94513

LIBERTY UNION HIGH SCHOOL DISTRICT

ARCH PROJECT NO: 1750.00
DRAWN BY:
DRAWING SCALE: AS NOTED
PTN: 61721-70

CD
FEBRUARY 27, 2019
SHEET TITLE

TITLE 24 COMPLIANCE DOCUMENTATION

SHEET NUMBER
T-1

BIM Server: archiver - BIMcloud Basic for ARCHICAD 20/1750.00 HHS CULINARY ARTS/2/25/2019 3:12 PM

STATE OF CALIFORNIA
PROCESS COMPLIANCE FORMS AND WORKSHEETS
 CERTIFICATE OF COMPLIANCE
 Process Compliance Forms & Checklists (Page 1 of 3)
 Project Name: Heritage High School Culinary Arts 1750 Date Prepared: 11/1/2018

A. PROCESS COMPLIANCE DOCUMENTS & WORKSHEETS
 Check box if worksheet is included.
 For detailed instructions on the use of this and all Energy Standards compliance documents, refer to the 2016 Nonresidential Manual.
 Note: The Enforcement Agency may require all forms to be incorporated onto the building plans.

YES	NO	Doc/Worksheet #	Title
<input type="checkbox"/>	<input type="checkbox"/>	PRC-01-E (1 of 2)	Covered Process Certificate of Compliance. Required on plans for all submittals with covered processes.
<input type="checkbox"/>	<input type="checkbox"/>	PRC-01-E (2 of 2)	Certificate of Compliance, Required Acceptance Tests (PRC-02-A to PRC-08-A). Required on plans for all submittals.
<input type="checkbox"/>	<input type="checkbox"/>	PRC-02-E	Certificate of Compliance for Enclosed Parking Garage Exhaust Fans
<input type="checkbox"/>	<input type="checkbox"/>	PRC-03-E	Certificate of Compliance for Commercial Kitchens
<input type="checkbox"/>	<input type="checkbox"/>	PRC-04-E	Certificate of Compliance for Computer Rooms
<input type="checkbox"/>	<input type="checkbox"/>	PRC-05-E	Certificate of Compliance for Commercial Refrigeration
<input type="checkbox"/>	<input type="checkbox"/>	PRC-06-E	Certificate of Compliance for ALL Refrigerated Warehouses
<input type="checkbox"/>	<input type="checkbox"/>	PRC-07-E	Certificate of Compliance for Refrigerated Warehouse $\geq 3,000$ ft ²
<input type="checkbox"/>	<input type="checkbox"/>	PRC-08-E	Certificate of Compliance for Refrigerated Warehouse Where Multiple Spaces that (i) comprise a total of 3,000ft ² or more; and (ii) are collectively served by the same refrigeration system (compressor(s) and condenser(s) (central systems).
<input type="checkbox"/>	<input type="checkbox"/>	PRC-09-E	Certificate of Compliance for Laboratory Exhaust
<input type="checkbox"/>	<input type="checkbox"/>	PRC-10-E	Certificate of Compliance for Compressed Air Systems
<input type="checkbox"/>	<input type="checkbox"/>	PRC-11-E	Certificate of Compliance for Process Boilers
<input type="checkbox"/>	<input type="checkbox"/>	PRC-12-E	Certificate of Compliance for Elevator Lighting and Ventilation Controls
<input type="checkbox"/>	<input type="checkbox"/>	PRC-13-E	Certificate of Compliance for Escalators and Moving Walkways Speed Controls

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance April 2016

STATE OF CALIFORNIA
Solar Ready Areas
 NRCC-SRA-E (Created 12/17)
 CERTIFICATE OF COMPLIANCE
 This document is used to demonstrate compliance with mandatory requirements in §110.10 for newly constructed buildings which are either high-rise multifamily ten stories or fewer, hotel/motel ten stories or fewer or all other nonresidential buildings three stories or fewer. It is also used to demonstrate compliance for additions to these building types which add more than 2,000 ft² of roof area. Alterations or additions of less than 2,000 ft² of roof area are not required to comply with §110.10.
 Project Name: Heritage High School Culinary Arts 1750 Report Page: Page 1 of 5
 Project Address: 101 American Avenue Date Prepared: 11/1/2018

A. GENERAL INFORMATION

01 Project Location (city)	Brentwood	04 Building Type	Other nonresidential bldg 3 stories or fewer
02 Climate Zone	12	05 Construction Type	New Construction
03 <input type="checkbox"/> Roof is designed for vehicle traffic, parking or for heliport			

B. PROJECT SCOPE
 Table Instructions: Select the compliance path the project is using to comply per §110.10(b)(18).
 My project consists of (check one):

Allocated Solar Zone The project has allocated a solar zone on the roof plan per requirements in §110.10(b), as documented in Table F.

Installed Solar Photovoltaic System The project includes a permanently installed solar electric system having a nameplate DC power rating, measured under Standard Test Conditions, of no less than one watt per square foot of roof area, as documented in Table G.

Installed Solar Water Heating System The project includes a permanently installed domestic solar water-heating system complying with §150.11(c)(8)(ii) and Reference Residential Appendix RA.4, as documented in Table H.

Smart Thermostat and Alternative Energy Efficiency Measure The project is a high-rise multifamily occupancy where all thermostats in each dwelling unit comply with Reference Joint Appendix JA.5 and are capable of receiving and responding to demand response signals AND at least one additional energy efficiency measure listed in Exception 4 to §110.10(b)(18) is installed, as documented in Table I.

C. COMPLIANCE RESULTS
 Table Instructions: If any cell on this table says "DOES NOT COMPLY" or "COMPLIES with Exceptional Conditions" refer to Table D, for guidance.

Allocated Solar Zone		Installed PV System		Installed SWH System		Smart Tstat and Alternative EE Measure		Compliance Results	
01	02	03	04	05	06	07	08	09	
Required Minimum Area (ft ²)	Designated Area (ft ²)	Required Minimum DC Power Rating (Watts)	Designed DC Power Rating (Watts)	Required Minimum Solar Savings Fraction	Designed/Rated Solar Savings Fraction	JAS Compliant Thermostat Specified?	Alternative Energy Efficiency Measure		
(See Table F)	(See Table G)	(See Table G)	(See Table G)	(See Table H)	(See Table H)	(See Table I)			
482.7	485								COMPLIES
AA.1 within the construction documents shows the location for inverters and metering equipment and a pathway for the routing of conduit/plumbing to the electrical service/water heating system.									COMPLIES

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance: http://www.energy.ca.gov/title24/2016standards December 2017

STATE OF CALIFORNIA
Solar Ready Areas
 NRCC-SRA-E (Created 12/17)
 CERTIFICATE OF COMPLIANCE
 Project Name: Heritage High School Culinary Arts 1750 Report Page: Page 4 of 5
 Project Address: 101 American Avenue Date Prepared: 11/1/2018

J. DECLARATION OF REQUIRED CERTIFICATES OF INSTALLATION
 Table Instructions: Selections have been made based on information provided in previous tables of this document. If any selection needs to be changed, please explain why in Table E, Additional Remarks. These documents must be provided to the building inspector during construction and can be found online at http://www.energy.ca.gov/2015publications/CEC-400-2015-033/appendices/forms/NRCI

YES	NO	Form/Title	Field Inspector	
			Pass	Fail
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCI-SPV-01-E - Must be submitted for all newly installed Photovoltaic Systems (PV) being used to comply with §110.10(b)(18) for high-rise multifamily, Hotel/Motel buildings less than 10 stories and nonresidential buildings less than 4 stories.	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	NRCI-STH-01-E - Must be submitted for all newly installed Solar Water Heating systems being used to comply with §110.10(b)(18) for high-rise multifamily, Hotel/Motel buildings less than 10 stories and nonresidential buildings less than 4 stories.	<input type="checkbox"/>	<input type="checkbox"/>

K. DECLARATION OF REQUIRED CERTIFICATES OF ACCEPTANCE
 There are no Certificates of Acceptance applicable to solar ready requirements.

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance: http://www.energy.ca.gov/title24/2016standards December 2017

STATE OF CALIFORNIA
PROCESS COMPLIANCE FORMS AND WORKSHEETS
 CERTIFICATE OF COMPLIANCE
 Process Compliance Forms & Checklists (Page 2 of 3)
 Project Name: Heritage High School Culinary Arts 1750 Date Prepared: 11/1/2018

B. PROCESS ACCEPTANCE DOCUMENTS
 Check box for required compliance documents.

Designer:
 This compliance document is to be used by the designer and attached to the plans. Listed below are all the acceptance tests for process systems. The designer is required to check the applicable boxes for all acceptance tests that apply and list all equipment that requires an acceptance test. All equipment of the same type requires a test, list the equipment description and the number of systems.

Installing Contractor:
 The contractor who installed the equipment is responsible to either conduct the acceptance test themselves or have a qualified entry run the test for them. If more than one person has responsibility for the acceptance testing, each person shall sign and submit the Certificate of Acceptance applicable to the portion of the construction or installation for which they are responsible.

Enforcement Agency:
 Plancheck - The NRCC-PRC-01-E compliance document is not considered a completed document and is not to be accepted by the building department unless the correct boxes are checked. Inspector - Before occupancy permit is granted all newly installed process systems must be tested to ensure proper operation.

Test Description	PRC-01-A	PRC-02-A	PRC-03-A	PRC-04-A	PRC-05-A	PRC-06-A	PRC-07-A	PRC-08-A	PRC-12-A	PRC-13-A
Equipment Requiring Testing or Verification										
Compressed Air Systems										
Garage Exhaust										
Kitchen Exhaust										
RHW Evap Fan Motor Controls										
RHW Evap Condenser Controls										
RHW Air-Cooled Condenser Controls										
RHW Variable Speed Compressors										
RHW Elect. Underlath Heating										
Elevator Lighting and Ventilation Controls										
Escalators and Moving Walkways Speed Controls										
MAU T1,T2	2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
MAU T3	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance April 2016

STATE OF CALIFORNIA
Solar Ready Areas
 NRCC-SRA-E (Created 12/17)
 CERTIFICATE OF COMPLIANCE
 Project Name: Heritage High School Culinary Arts 1750 Report Page: Page 2 of 5
 Project Address: 101 American Avenue Date Prepared: 11/1/2018

D. EXCEPTIONAL CONDITIONS
 This table is auto-filled with uneditable comments because of selections made or data entered in tables throughout the form.
 No exceptional conditions apply to this project.

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

F. ALLOCATED SOLAR ZONE
 This Section Does Not Apply

Required Minimum Solar Zone

01	02	03	04	05	06	07	08
Minimum Solar Zone Area Calculation Method	Total New or Added Roof Area (ft ²)	Total New or Added Roof Area Covered with Skylights (ft ²)	Minimum Solar Zone Based on Total or Added Roof Area (0.15 x (Roof-Skylight) (ft ²))	Method/Tool(s) Used to Determine Annual Solar Access for Potential Zones	Potential Solar Zone Areas: Roof Areas with $\geq 70\%$ Solar Access Low-Sloped Area ($\leq 2:12$ pitch) (ft ²) Steep-Sloped Area ($> 2:12$ pitch), Oriented 110° - 270° (ft ²) Total Potential Solar Zone Area (ft ²)	Minimum Solar Zone Based on Potential Zone (0.5 x (Total Potential Zone)) (ft ²)	Required Minimum Solar Zone Area (ft ²)
	3,218	0	482.7				482.7

Designated Solar Zone Subareas

09	10	11	12	13	14	15	16	17	18	19
Subarea Name or Tag	Building Plan Reference	Roof or Overhang Slope (Low $\leq 2:12$ pitch) (Steep $> 2:12$ pitch)	Is Steep-Sloped Roof or Overhang between 110 and 270 degrees?	Subarea Complies with Title 24, Part 9	Solar Subarea Free of Obstructions per §110.10(b)(3A)	Subarea is Required Distance from Potential Obstructions per §110.10(b)(3B)	Is the Smallest Dimension 5 feet or greater?	Min. Area Required per Subarea (ft ²)	Designated Area (ft ²)	Subarea Complies?
Roof	A4.1	Low-Sloped		Yes	Yes	Yes	Yes	80	485	COMPLIES
Total Designated Solar Zone Area (ft²):									485	

Table Continued

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance: http://www.energy.ca.gov/title24/2016standards December 2017

STATE OF CALIFORNIA
Solar Ready Areas
 NRCC-SRA-E (Created 12/17)
 CERTIFICATE OF COMPLIANCE
 Project Name: Heritage High School Culinary Arts 1750 Report Page: Page 5 of 5
 Project Address: 101 American Avenue Date Prepared: 11/1/2018

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT
 Documentation Author Name: Sarah Pernula
 Documentation Author Signature: Sarah Pernula
 Company: SOLDATA Energy Consulting
 Signature Date: 11/1/18
 Address: 2227 Capricorn Way, Suite 202
 CEA/HERS Certification Identification (if applicable): NR16-90-20043
 City/State/Zip: Santa Rosa, CA 95407
 Phone: 707.545.4440

RESPONSIBLE PERSON'S DECLARATION STATEMENT
 I certify the following under penalty of perjury, under the laws of the State of California:
 1. The information provided on this Certificate of Compliance is true and correct.
 2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
 3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
 4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
 5. I will ensure that a completed signed copy of this Certificate of Compliance shall be made available with the building permit(s) issued for the building, and made available to the enforcement agency for all applicable inspections. I understand that a completed signed copy of this Certificate of Compliance is required to be included with the documentation the builder provides to the building owner at occupancy.

Responsible Designer Name: Pieter Colenbrander
 Responsible Designer Signature: P. Colenbrander
 Company: O'Mahony & Myer Inc.
 Date Signed: 11/6/18
 Address: 4340 Redwood Hwy., Suite 245
 License: E14738
 City/State/Zip: San Rafael, CA 94903
 Phone: (415) 492-0420

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance: http://www.energy.ca.gov/title24/2016standards December 2017

STATE OF CALIFORNIA
PROCESS COMPLIANCE FORMS AND WORKSHEETS
 CERTIFICATE OF COMPLIANCE
 Process Compliance Forms & Checklists (Page 3 of 3)
 Project Name: Heritage High School Culinary Arts 1750 Date Prepared: 11/1/2018

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT
 I certify that this Certificate of Compliance documentation is accurate and complete.
 Documentation Author Name: Sarah Pernula
 Documentation Author Signature: Sarah Pernula
 Company: SOLDATA Energy Consulting
 Signature Date: 11/1/2018
 Address: 2227 Capricorn Way, Suite 202
 CEA/HERS Certification Identification (if applicable):
 City/State/Zip: Santa Rosa, CA 95407
 Phone: 707.545.4440

RESPONSIBLE PERSON'S DECLARATION STATEMENT
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 1. The information provided on this Certificate of Compliance is true and correct.
 2. I am eligible under Division 3 of the Business and Professions Code to accept responsibility for the building design or system design identified on this Certificate of Compliance (responsible designer).
 3. The energy features and performance specifications, materials, components, and manufactured devices for the building design or system design identified on this Certificate of Compliance conform to the requirements of Title 24, Part 1 and Part 6 of the California Code of Regulations.
 4. The building design features or system design features identified on this Certificate of Compliance are consistent with the information provided on other applicable compliance documents, worksheets, calculations, plans and specifications submitted to the enforcement agency for approval with this building permit application.
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Responsible Designer Name: Chris Del Core
 Responsible Designer Signature: Chris Del Core
 Company: Costa Engineers Inc.
 Date Signed: 11-5-18
 Address: 3274 Villa Lane
 License: M31600
 City/State/Zip: Napa, CA 94558
 Phone: 707-252-9177

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance April 2016

STATE OF CALIFORNIA
Solar Ready Areas
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Designated Solar Zone Subareas

09	10	11	12	13	14	15	16	17	18	19
Subarea Name or Tag	Building Plan Reference	Roof or Overhang Slope (Low $\leq 2:12$ pitch) (Steep $> 2:12$ pitch)	Is Steep-Sloped Roof or Overhang between 110 and 270 degrees?	Subarea Complies with Title 24, Part 9	Solar Subarea Free of Obstructions per §110.10(b)(3A)	Subarea is Required Distance from Potential Obstructions per §110.10(b)(3B)	Is the Smallest Dimension 5 feet or greater?	Min. Area Required per Subarea (ft ²)	Designated Area (ft ²)	Subarea Complies?
Roof	A4.1	Low-Sloped		Yes	Yes	Yes	Yes	80	485	COMPLIES
Total Designated Solar Zone Area (ft²):									485	

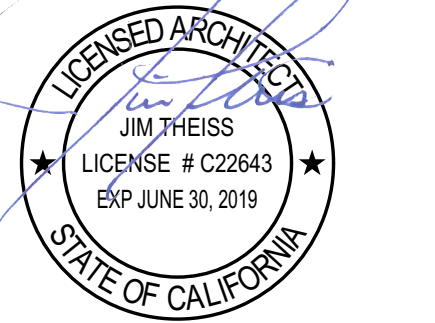
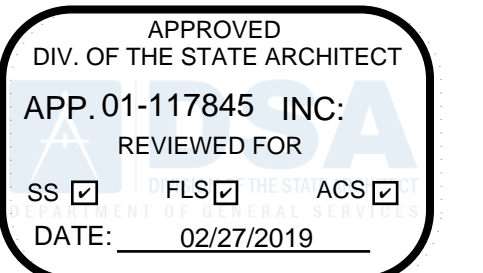
Interconnection Pathways
 Location in construction documents showing the location for inverters and metering equipment and a pathway for the routing of conduit/plumbing to the electrical service/water heating system per §110.10(c).
 AA.1

G. PERMANENTLY INSTALLED SOLAR PHOTOVOLTAIC (PV) SYSTEM
 This Section Does Not Apply

H. PERMANENTLY INSTALLED SOLAR HOT WATER SYSTEM
 This Section Does Not Apply

I. SMART THERMOSTATS AND ALTERNATIVE EFFICIENCY MEASURE
 This Section Does Not Apply

CA Building Energy Efficiency Standards - 2016 Nonresidential Compliance: http://www.energy.ca.gov/title24/2016standards December 2017



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