July 22, 2024

TO: ALL BID DOCUMENT HOLDERS OF RECORD

FROM: Gary Elias, Construction Coordinator

SUBJECT: **ADDENDUM NO. 2 TO BID DOCUMENTS FOR PACE EDUCATION CENTER ASPHALT FOR PORTABLES AND PARKING LOT EXPANSION, BID NUMBER 24/25-08**

This Addendum forms a part of the bid documents for the project identified above. All remaining portions of the bid documents not specifically mentioned or otherwise revised by this Addendum remain in full force and effect. Only those firms whose representative(s) were present at the Mandatory Pre-Bid Meeting may submit a bid.

The bid documents are modified as set forth below:

1. Please replace plans and specifications from Addendum #1 with the attached to the project manual.

Failure to acknowledge this addendum in the bid forms will subject the bidder to disqualification.

Sincerely,

Gary Elias
Construction Coordinator

PACE EDUCATION CENTER
PARKING EXPANSION / MODULARS

DOWNEY UNIFIED SCHOOL DISTRICT
11040 BROOKSHIRE AVE, DOWNEY, CA 90241

GENERAL NOTES

THE OWNER OR THE OWNER'S DESIGNATED REPRESENTATIVE, AND THE OWNER'S CONSULTANTS WILL ASSUME NO RESPONSIBILITY FOR VARIANCES BETWEEN ACTUAL EXISTING CONDITIONS AND CONDITIONS DEPICTED AS EXISTING ON THE DRAWINGS.

THE CONTRACTOR SHALL INSPECT THE SITE AND THE BUILDINGS, AND SHALL VERIFY TO HIS OWN SATISFACTION THE CONDITIONS SHOWN ON THE DRAWINGS, WHICH MATERIALLY AFFECT THE CONTRACTOR'S ABILITY TO EXECUTE THE WORK. HE SHALL IMMEDIATELY INFORM THE OWNER OR THE OWNER'S DESIGNATED REPRESENTATIVE OF ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THE DRAWINGS.

THE CONTRACTOR SHALL ASSUME THAT THERE MAY BE MINOR DIFFERENCES BETWEEN ACTUAL FIELD CONDITIONS AND CONDITIONS DEPICTED AS EXISTING ON THE DRAWINGS. THE OWNER WILL NOT CONSIDER REQUESTS FROM THE CONTRACTOR FOR ADDITIONAL CHARGES DUE TO SAID MINOR DISCREPANCIES.

IF THE CONTRACTOR ENCOUNTERS MAJOR DIFFERENCES BETWEEN ACTUAL FIELD CONDITIONS AND CONDITIONS DEPICTED AS EXISTING ON THE DRAWINGS, THE CONTRACTOR SHALL STOP WORK IN THE AFFECTED AREA, AND SHALL IMMEDIATELY NOTIFY THE OWNER OR OWNER'S DESIGNATED REPRESENTATIVE OF SAID DIFFERENCES. THE OWNER OR OWNER'S DESIGNATED REPRESENTATIVE WILL PROVIDE INSTRUCTIONS FOR PROCEEDING IN THE AFFECTED AREA. THE CONTRACTOR SHALL PROCEED WITH ALL OTHER WORK ITEMS AS REQUIRED BY THE CONTRACT DOCUMENTS.

THE CONTRACTOR SHALL VISIT THE SITE AND EXAMINE THE CONDITIONS THEREON, AND THOROUGHLY ACQUAINT HIMSELF WITH OBSTACLES AND ADVANTAGES FOR PERFORMING THE WORK. THE CONTRACTOR SHALL REVIEW THE DRAWINGS AND SPECIFICATIONS, AS THERE ARE REQUIREMENTS SHOWN THEREIN THAT SIGNIFICANTLY AFFECT THE SCOPE OF THE WORK. NO ADDITIONAL CHARGES WILL BE CONSIDERED FOR WORK CAUSED BY THE CONTRACTOR'S UNFAMILIARITY WITH THE SITE, AND THE DRAWINGS AND SPECIFICATIONS, OR FAILURE OF THE OWNER OR THE OWNER'S DESIGNATED REPRESENTATIVE OR OWNER'S CONSULTANTS TO ENUMERATE THE COMPLETE SCOPE OF WORK, AS REQUIRED BY THE CONTRACT DOCUMENTS, IN THE "SCOPE OF WORK" NOTES.

THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS THAT THE WORK OF THE ALTERATION, REHABILITATION OR RECONSTRUCTION IS TO BE IN ACCORDANCE WITH TITLE 24, CCR. SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NON-COMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24, CCR, A CONSTRUCTION CHANGE DOCUMENT OR A SEPARATE SET OF PLANS AND SPECIFICATIONS, DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE WORK. (SECTION 4-317(C), PART 1, TITLE 24, CCR)

THE DRAWINGS IDENTIFY MATERIALS BY GENERIC NAME, UNLESS PREFACED WITH "BASIS OF DESIGN". FOR A DESCRIPTION OF APPROVED MATERIALS AND INSTALLATION PROCEDURES SEE THE SPECIFICATIONS.

UNLESS OTHERWISE NOTED ON THE DRAWINGS OR IN THE SPECIFICATIONS, THE SELECTION OF COLORS AND TEXTURES FOR FINISH MATERIALS SHALL BE PROVIDED BY THE ARCHITECT PRIOR TO EXECUTION OF THE WORK.

SEE THE GENERAL CONDITIONS, THE SUPPLEMENTARY CONDITIONS AND DIVISION 1 OF THE SPECIFICATIONS FOR SPECIFIC REQUIREMENTS RELATED TO PROJECT COORDINATION.

ALL CONSTRUCTION SHALL FULLY COMPLY WITH THE LOCAL BUILDING CODES AND REGULATIONS. ALL WORK SHALL ALSO CONFORM TO TITLE 24, 2019 CALIFORNIA CODE OF REGULATIONS (CCR).

THE CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS REQUIRED BY GOVERNING AUTHORITIES FOR THE COMPLETION OF THE WORK. THE FEES, CHARGES OR OTHER COSTS PAID BY THE CONTRACTOR FOR SAID PERMITS WILL BE REIMBURSED TO THE CONTRACTOR BY THE OWNER IN THE AMOUNTS SO PAID.

THE CONTRACTOR SHALL PROCURE ALL NOTICES AND LICENSES REQUIRED FOR THE COMPLETION OF THE WORK. THE COST OF THESE NOTICES AND LICENSES IS INCIDENTAL TO OTHER ITEMS OF WORK AND NO ADDITIONAL PAYMENT WILL BE MADE FOR COSTS INCURRED BY OBTAINING NOTICES AND LICENSES OR IN CONFORMING TO THE REQUIREMENTS THEREOF.

TRENCHES OR EXCAVATIONS 5 FEET OR MORE IN DEPTH INTO WHICH A PERSON IS REQUIRED TO DESCEND, REQUIRE A SEPARATE PERMIT FROM THE STATE OF CALIFORNIA, DIVISION OF INDUSTRIAL SAFETY.

PRIOR TO THE ISSUANCE OF A BUILDING PERMIT, THE CONTRACTOR SHALL HAVE EVIDENCE OF CURRENT WORKMAN'S COMPENSATION INSURANCE COVERAGE.

THE GENERAL CONDITIONS AND ANY SUPPLEMENTAL CONDITIONS WHICH MAY BE ATTACHED OR INCLUDED AS PART OF OWNER CONTRACTOR AGREEMENT ARE A PART OF THESE CONTRACT DOCUMENTS.

SPECIFICATIONS, WHICH ARE BOUND SEPARATELY, ARE PART OF THE CONTRACT. REFERENCE TO SECTIONS OF THE SPECIFICATIONS IN THE NOTES DESCRIBING THE SCOPE OF WORK ARE INTENDED AS A GUIDE ONLY AND TO ASSIST THE CONTRACTOR IN UNDERSTANDING THE COMPLETE SCOPE OF WORK.

ALL CONTRACTORS, SUB OR GENERAL, BIDDING OR CONSTRUCTING ANY PORTION OF THIS PROJECT, SHALL BE HELD TO BE RESPONSIBLE TO REVIEW AND INCLUDE IN ANY BID SUBMITTED, ALL OTHER DRAWINGS AND SPECIFICATIONS, WHICH FORM A PART OF THESE CONSTRUCTION DOCUMENTS INCLUDING, BUT NOT LIMITED TO, ARCHITECTURAL, GENERAL NOTES, CIVIL, LANDSCAPE, STRUCTURAL, MECHANICAL, PLUMBING, ELECTRICAL AND EQUIPMENT PLANS AS MAY APPLY TO SAID TRADE BIDDING.

THE CONTRACTOR SHALL VERIFY ALL SIZES OR PREPARATORY WORK FOR EQUIPMENT OF OTHERS AND SHALL COORDINATE THE WORK ON THIS CONTRACT WITH ALL WORK FURNISHED BY OTHERS.

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS AND ALL EXISTING CONDITIONS AT THE SITE BEFORE COMMENCING WORK, AND REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO THE START OF WORK.

IF ANY ERRORS OR OMISSION APPEAR IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IN WRITING OF SUCH ERRORS OR OMISSIONS. IF THE CONTRACTOR FAILS TO GIVE SUCH NOTICE IMMEDIATELY, HE WILL BE HELD RESPONSIBLE FOR THE RESULTS OF SUCH ERRORS OR OMISSIONS AND FOR THE COST OF RECTIFYING SAME.

IN CASE OF DISCREPANCIES BETWEEN ARCHITECTURAL AND CONSULTANT DRAWINGS, THE ARCHITECT WILL DETERMINE THE CORRECT INTENT OF THE WORK.

SHOULD THE DRAWINGS IN THEMSELVES OR WITH THE SPECIFICATIONS OR SHOULD THE SPECIFICATIONS IN THEMSELVES DISAGREE, THE HIGHER QUALITY AND / OR GREATER QUANTITY OF WORK OR MATERIAL SHALL BE ESTIMATED UPON, AND UNLESS OTHERWISE CLARIFIED IN WRITING BY THE ARCHITECT, SHALL BE FURNISH AND INSTALLED.

THE CONTRACTOR SHALL NOT DEVIATE FROM THE DESIGN INTENT AND CONSTRUCTION DETAILS WITHOUT OBTAINING PRIOR APPROVAL FROM THE OWNER AND THE ARCHITECT.

DETAILS ARE NOT INTENDED TO SHOW METHOD AND MANNER OF ACCOMPLISHING THE WORK. MINOR MODIFICATIONS MAY BE REQUIRED TO SUIT THE JOB DIMENSIONS OR CONDITIONS AND SHALL BE INCLUDED AS PART OF THE WORK.

DIMENSIONS ARE TO FACE OF STUD (FOS), FACE OF CONCRETE (FOC) OR FACE OF MASONRY (FOM) UNLESS NOTED OTHERWISE. DIMENSIONS AS SHOWN TAKE PRECEDENCE OVER ANY CONDITIONS GRAPHICALLY SHOWN ON THE DRAWINGS. DO NOT SCALE THE DRAWINGS. WHEN IN DOUBT, ASK THE ARCHITECT FOR A CLARIFICATION.

"TYPICAL" MEANS ALL, EXCEPT AS SPECIFICALLY NOTED. "SIMILAR" MEANS THERE ARE SLIGHT VARIATIONS AMONG CONDITIONS WHERE THE DETAIL OCCURS.

ANY WORK OR MATERIALS OF ONE TRADE DAMAGED BY ANOTHER TRADE BECOMES THE RESPONSIBILITY OF THE OFFENDING THE DAMAGED WORK SHALL BE REPAIRED OR REPLACED BY THE ORIGINAL INSTALLER AND THE COSTS BORN E BY THE OFFENDER. ANY MATERIALS STOLEN FROM THE PREMISES OR DAMAGED EITHER BEFORE OR AFTER INSTALLATION SHALL BE REPLACED BY CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL TAKEN ALL NECESSARY PRECAUTIONS SUCH AS BARRICADES, GUARDS, ETC., AS REQUIRED TO PREVENT DAMAGE AND THEFT. SPECIAL CARE SHALL BE TAKEN TO PROTECT WORK IN PLACE, MATERIALS AND EQUIPMENT STORED, ETC., FROM THEFT AND VANDALISM.

THE CONTRACTOR SHALL MAINTAIN THE UTILITIES TO THE EXISTING BUILDING OR PROVIDE TEMPORARY SERVICE CONNECTIONS AS REQUIRED.

GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE TIMELY ARRIVAL OF ALL SPECIFIED FINISH MATERIALS, EQUIPMENT, LIGHT FIXTURES AND OTHER SUCH MATERIAL'S) TO BE UTILIZED ON THIS PROJECT. THE GENERAL CONTRACTOR SHALL NOTIFY THE ARCHITECT IN WRITING WITHIN 30 DAYS OF THE DATE OF CONTRACT OF THOSE SPECIFIED ITEMS THAT MAY NOT BE READILY AVAILABLE AND OF EQUAL QUANTITY AND DESCRIPTION. IF NOTIFICATION IS NOT RECEIVED BY THE ARCHITECT, THE CONTRACTOR SHALL ACCEPT RESPONSIBILITY FOR THE PROPER ORDERING AND FOLLOW UP ON SPECIFIED ITEMS AND SHALL PURSUE WHATEVER MEANS NECESSARY AT NO ADDITIONAL COST TO THE OWNER, TO INSURE AVAILABILITY OF ALL SPECIFIED ITEMS SO AS NOT TO CREATE A HARDSHIP ON THE OWNER AND NOT TO DELAY PROGRESS OF THE WORK. NO EXTENSION OF TIME TO THE CONTRACT WILL BE ALLOWED FOR THE CONTRACTOR'S INABILITY TO SECURE SPECIFIED ITEMS.

CONTRACTOR SHALL PROVIDE AND LOCATE ACCESS PANELS AS REQUIRED AFTER INSTALLATION OF MECHANICAL DUCTS, PLUMBING AND ELECTRICAL WORK. COORDINATE WITH ARCHITECT. CONTRACTOR SHALL PROVIDE A LAYOUT OF ALL ACCESS PANELS TO THE OWNER, OWNER'S REPRESENTATIVE AND ARCHITECT FOR REVIEW AND APPROVAL PRIOR TO INSTALLATION OF EQUIPMENT REQUIRING SAID ACCESS PANELS.

WHERE FACTORY FINISHED OR FACTORY PRIMED ITEMS OCCUR, SUCH AS GRILLS, DIFFUSERS, METAL TRIM AND ACCESSORIES, ETC., THEY SHALL BE PAINTED TO MATCH THE ADJACENT SURFACE AS DIRECTED BY THE ARCHITECT.

CONTRACTOR SHALL COORDINATE THE WORK AMONG ALL TRADES RELATING TO THE MOUNTING AND ATTACHMENTS OF ALL EQUIPMENT AS REQUIRED.

CONTRACTOR SHALL PROVIDE AND COORDINATE THE EXACT DIMENSIONS, SIZES AND POSITIONS OF OPENINGS IN SLABS AND WALLS NECESSARY FOR THE INSTALLATION OF THE WORK.

CONTRACTOR SHALL PROVIDE MOUNTING PLATES AS REQUIRED BEHIND ALL WALL-MOUNTED ITEMS SUCH AS HANDRAILS, RESTROOM PARTITIONS, RESTROOM ROOM ACCESSORIES, LIGHT FIXTURES, ETC..

CONTRACTOR SHALL MAINTAIN CONTINUOUS DUST ABATEMENT PROCEDURES INCLUDING VACUUMING, TRASH REMOVAL AND MATS AT ALL ENTRIES TO THE CONSTRUCTION AREA. PROVIDE EFFECTIVE DUST CONTROL BY MEANS OF FREQUENT SPRINKLING AND WATERING. EXCESSIVE BLOWING OF DUST OR CONCRETE MAY BE PUMPED. THE JOB SITE SHALL BE LEFT CLEAN AND ORDERLY AT THE END OF EACH DAY.

CONTRACTOR SHALL AT ALL TIMES KEEP THE SITE CLEAN AND FREE OF ALL WASTE MATERIAL OR RUBBISH CAUSED BY HIS OPERATIONS. AT THE COMPLETION OF THE WORK, THE CONTRACTOR SHALL REMOVE ALL WASTE MATERIALS AND RUBBISH FROM AND ABOUT THE PROJECT AS WELL AS ALL TOOLS, CONSTRUCTION EQUIPMENT, MACHINERY AND SURPLUS MATERIALS. NEW WORK SHALL CONFORM TO THE REQUIREMENTS OF THE EXISTING CONSTRUCTION TYPE. DRINKING WATER WELL SHALL COMPLY WITH ALL LOCAL HEALTH DEPARTMENT REQUIREMENTS.

DO NOT ALTER OR REMOVE ANY EXISTING SHEAR WALLS OR BEARING WALLS UNLESS SO IDENTIFIED ON THE DRAWINGS AND APPROPRIATE DETAILS ARE PROVIDED AND APPROVED BY D.S.A. GRADING PLANS, DRAINAGE IMPROVEMENTS, ROAD AND ACCESS REQUIREMENTS AND ENVIRONMENTAL HEALTH CONSIDERATIONS SHALL COMPLY WITH ALL LOCAL ORDINANCES. FOR FIRE SAFETY DURING DEMOLITION AND CONSTRUCTION COMPLY WITH CFC CHAPTER 14

SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OF NON-COMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE DSA APPROVED DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH TITLE CALIFORNIA CODE OF REGULATIONS, AND SPECIFICATIONS, DETAILING AND SPECIFYING THE REQUIRED REPAIR WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE REPAIR WORK.

THE FOLLOWING DOCUMENTS SHALL BE ON THE JOB-SITE PRIOR TO INSTALLATION OF THE UNITS. IN-PLANT VERIFICATION REPORT, LABORATORY VERIFIED REPORT, WELDING VERIFIED REPORT. THE SITE INSPECTOR SHALL VERIFY THESE DOCUMENTS AND SERIAL NUMBERS ARE APPLICABLE TO EACH UNIT PRIOR TO INSTALLATION OF THE UNITS. NOTIFY THE ARCHITECT AND THE DIVISON OF THE STATE ARCHITECT FIELD ENGINEER IF ANY DISCREPANCIES OCCUR.

RENOVATION NOTES

COORDINATE ALL DEMOLITION WORK WITH REPAIR WORK. COORDINATE ARCHITECTURAL, AND SHADE STRUCTURE MANUFACTURER'S DRAWINGS, EACH WITH THE OTHERS, FOR LOCATIONS, EXTENT OF WORK AND SIZES.

THE CONTRACTOR SHALL DISPOSE OF ALL REMOVED AND/OR DEMOLISHED MATERIAL, WASTE AND DEBRIS CAUSED BY THE NEW WORK. THIS MATERIAL SHALL BE REMOVED FROM THE PROPERTY AND TAKEN TO A LEGALLY OPERATED DISPOSAL SITE.

MATERIALS, EQUIPMENT OR CONSTRUCTIONS NOT NOTED IN THE CONSTRUCTION DOCUMENTS, ARE A PART OF THE WORK, AND IF DISCOVERED DURING THE COURSE OF THE WORK, SHALL BE REPORTED FOR INSTRUCTIONS PRIOR TO REMOVAL OR ABANDON IN PLACE.

IN ADDITION TO DEMOLITION SHOWN, CUT, MOVE, DISMANTLE OR SALVAGE ITEMS NECESSARY TO PROVIDE ACCESS TO ALLOW REPAIR WORK TO PROCEED. INCLUDE SUCH ITEMS SUCH AS :

A. REPAIR OR REMOVAL OF HAZARDOUS OR UNSANITARY CONDITIONS.

B. REMOVAL OF ABANDONED ITEMS AND ITEMS SERVING NO USEFUL PURPOSE SUCH AS ALL ABANDONED PIPING, CONDUIT AND WIRING.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXPOSED EXISTING STRUCTURES AT THE WORK AREA FROM WEATHER AND OTHER INCLEMENT CONDITIONS AND FROM THE INSTALLATION OF OTHER WORK. ANY DAMAGE INCURRED DUE TO FAILURE BY THE CONTRACTOR TO PROPERLY PROTECT SUCH WORK, SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE.

ALL ADJACENT WORK AND CONSTRUCTIONS DAMAGED DUE TO DEMOLITION SHALL BE REPAIRED AS PART OF THIS CONTRACT

APPLICABLE CODES

APPLICABLE CODES AS OF JANUARY 1, 2023:

2022 CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE, PART 1, TITLE 24 C.C.R.

2022 CALIFORNIA ADMINISTRATIVE CODE, PART 1 OF TITLE 24

2022 CALIFORNIA BUILDING CODE, PART 2 OF TITLE 24
(BASED ON THE 2021 INTERNATIONAL BUILDING CODE (IBC), VOL. 1 & 2, AND 2022 CALIF AMENDMENTS)

2022 CALIFORNIA ELECTRICAL CODE, PART 3 OF TITLE 24
(BASED ON THE 2017 NATIONAL ELECTRICAL CODE (NEC) AND 2019 CALIFORNIA AMENDMENTS)

2022 CALIFORNIA MECHANICAL CODE, PART 4 OF TITLE 24
(BASED ON THE 2018 UNIFORM MECHANICAL CODE (UMC) AND 2019 CALIFORNIA AMENDMENTS)

2022 CALIFORNIA PLUMBING CODE, PART 5 OF TITLE 24
(BASED ON THE 2018 UNIFORM PLUMBING CODE (UPC) AND 2019 CALIFORNIA AMENDMENTS)

2022 CALIFORNIA ENERGY CODE, PART 6 OF TITLE 24

2022 CALIFORNIA FIRE CODE, PART 9 OF TITLE 24
(BASED ON THE 2021 INTERNATIONAL FIRE CODE (IFC) AND 2022 CALIFORNIA AMENDMENTS)

2022 CALIFORNIA EXISTING BUILDING CODE, PART 10 OF TITLE 24
(BASED ON THE 2021 INTERNATIONAL EXISTING BUILDING CODE (IEBC) AND 2022 CALIF AMENDMENTS)

2022 CALIFORNIA GREEN BUILDING STANDARDS CODE, PART 11 OF TITLE 24

2022 CALIFORNIA REFERENCED STANDARDS CODE, PART 12 OF TITLE 24

2010 ADA STANDARDS FOR ACCESSIBLE DESIGN

PARTIAL LIST OF APPLICABLE STANDARDS:

2022 CALIFORNIA BUILDING CODE (FOR SFM) REFERENCED STANDARDS CHAPTER 35

NFPA 13	AUTOMATIC SPRINKLER SYSTEMS	EDITION 2016
NFPA 24	PRIVATE FIRE SERVICE MAINS (CALIFORNIA AMENDED)	EDITION 2016
NFPA 72	NATIONAL FIRE ALARM CODES, (CALIFORNIA AMENDED) (NOTE SEE UL STANDARD 1971 FOR "VISUAL DEVICES")	EDITION 2016
NFPA 80	FIRE DOOR AND OTHER OPENING PROTECTIVES	EDITION 2016

A/E STATEMENT

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

APPLICATION NO. 02-123849

■ THE DRAWINGS ON THIS SHEET LABELED MANUFACTURES DRAWINGS
☐ THIS DRAWING, PAGE OF THE SPECIFICATIONS/CALCULATIONS

HAVE BEEN PREPARED BY OTHER DESIGN PROFESSIONALS OR CONSULTANTS WHO ARE LICENSED AND/OR AUTHORIZED TO PREPARE SUCH DRAWINGS IN THIS STATE. IT HAS BEEN EXAMINED BY ME FOR:

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

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

I FIND THAT
■ ALL DRAWINGS ON THIS SHEET LABELED MANUFACTURES DRAWINGS
☐ THIS DRAWING OR PAGE

■ IS/ARE IN CONFORMANCE WITH THE PROJECT DESIGN,
AND
■ HAS BEEN COORDINATED WITH THE PROJECT PLANS AND SPECIFICATIONS

RHH 7/15/24
SIGNATURE DATE

ARCHITECT OR ENGINEER DESIGNATED TO BE IN RESPONSIBLE CHARGE

RAND C. NICHOLL
PRINT NAME
C-19066 FEBRUARY 2025
LICENSE NUMBER EXPIRATION DATE

☐ IS/ARE IN GENEARL CONFORMANCE WITH THE PROJECT DESIGN INTENT, AND
☐ HAS/HAVE BEEN COORDINATED WITH THE PROJECT PLANS AND SPECIFICATIONS

SIGNATURE DATE

ARCHITECT OR ENGINEER DELEGATED RESPONSIBILITY FOR THIS PORTION OF THE WORK

PRINT NAME

LICENSE NUMBER EXPIRATION DATE

DSA NOTES

ALL WORK SHALL CONFORM TO 2022 TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR).

THE SCOPE OF WORK – CLEARLY INDICATE THE SCOPE OF WORK ON THE COVER SHEET OR GENERAL NOTE SHEET OF THE DRAWINGS.

FABRICATION AND INSTALLATION OF DEFERRED SUBMITTAL ITEMS SHALL NOT BE STARTED UNTIL CONTRACTORS DRAWINGS, SPECIFICATIONS, AND ENGINEERING CALCULATIONS FOR THE ACTUAL SYSTEMS TO BE INSTALLED HAVE BEEN ACCEPTED AND SIGNED BY THE ARCHITECT OR STRUCTURAL ENGINEER AND APPROVED BY THE DSA. LIST DEFERRED SUBMITTAL ITEMS FOR HIS PROJECT.

CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY AN ADDENDUM OR A CONSTRUCTION CHANGED DOCUMENT (CCD) APPROVED BY THE DIVISION OF THE STATE ARCHITECT, AS REQUIRED BY SECTION 4-338, PART 1, TITLE 24, CCR.

A DSA CERTIFIED CLASS-3 PROJECT INSPECTOR EMPLOYED BY THE DISTRICT (OWNER) AND APPROVED BY THE DSA SHALL
PROVIDE CONTINUOUS INSPECTION OF THE WORK. THE DUTIES OF THE INSPECTOR ARE DEFINED IN SECTION 4-342, PART 1, TITLE 24, CCR.

A DSA ACCEPTED TESTING LABORATORY DIRECTLY EMPLOYED BY THE DISTRICT (OWNER) SHALL CONDUCT ALL THE REQUIRED TESTS AND INSPECTIONS FOR THE PROJECT.

THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS IS THAT THE WORK OF THE ALTERATION, REHABILITATION OR RECONSTRUCTION IS TO BE IN ACCORDANCE WITH TITLE 24, CCR. SHOULD ANY EXISTING CONDITIONS SUCH AS DETERIORATION OR NON-COMPLYING CONSTRUCTION BE DISCOVERED WHICH IS NOT COVERED BY THE CONTRACT DOCUMENTS WHEREIN THE FINISHED WORK WILL NOT COMPLY WITH TITLE 24, CCR, A CONSTRUCTION CHANGE DOCUMENT (CCD), OR A SEPARATE SET OF PLANS AND SPECIFICATIONS, DETAILING AND SPECIFYING THE REQUIRED WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE WORK. (SECTION 4-317(C), PART 1, TITLE 24, CCR)

GRADING PLANS, DRAINAGE IMPROVEMENTS, ROAD AND ACCESS REQUIREMENTS AND ENVIRONMENTAL HEALTH CONSIDERATIONS SHALL COMPLY WITH ALL LOCAL ORDINANCES.

CODE ANALYSIS

USE:	CLASSROOM
OCCUPANCY:	E
TYPE OF CONSTRUCTION:	V-B, NON-SPRINKLERED
ALLOWABLE HEIGHT:	2 STORIES, 40'-0" (CBC TABLE 504.3)
BUILDING HEIGHT:	1 STORY, 15'-0"
ALLOWABLE AREA:	9,500 SF (CBC TABLE 506.2)
BUILDING AREA:	SEE SHEET A001 FOR BUILDING AREA ANALYSIS

MODULAR CLASSROOMS: SERIAL NUMBERS
RELOCATED FROM 03-117603 (PC 04-115748, STOCKPILE #164)

P-17-1694 A,B,C,D
P-17-1695 A,B,C,D
P-17-1696 A,B,C,D
P-17-1697 A,B,C,D

MODULAR TOILET BUILDING: SERIAL NUMBERS
RELOCATED FROM 03-117603 (PC 04-112137)

P-10-302

SITE SEISMIC DESIGN DATA: (ASCE 7-16 FROM GEO-HAZARD REPORT)
SEISMIC RISK CATEGORY = II
IMPORTANCE FACTOR = 1
SEISMIC DESIGN CATEGORY D

MAPPED ACCELERATION PARAMETERS
SS = 1.620
S1 = 0.586
SMS = 1.632
SM1 = 1.507
DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETERS
SDS = 1.088
SD1 = 1.005

SITE WIND DESIGN DATA:
BASIC WIND SPEED V = 101 MPH
RISK CATEGORY II
WIND EXPOSURE C

SEE PC SHEET A0.0 FOR MODULAR BUILDING DESIGN VALUES

LOS ANGELES COUNTY PUBLIC WORKS FLOOD ZONE DETERMINATION THAT PROPERTY IS LOCATED IN A NON-HAZARD ZONE "X" WITH LESS THAN .2% CHANCE OF ANNUAL FLOOD DUE TO LEVEE.
FEMA MAP 06037C1840F EFF. 9/26/2008

THE ARCHITECT IN RESPONSIBLE CHARGE HAS INSPECTED AND VERIFIES THAT THE BUILDING CONFORMS TO THE ORIGINAL PLANS AND SPECIFICATIONS AND HAS NOT SUFFERED STRUCTURAL DETERIORATION OR BEEN STRUCTURALLY ALTERED PER DSA IR 16-1

IF ANY CONDITION IS DISCOVERED WHICH, IF LEFT UNCORRECTED, WOULD MAKE THE BUILDING NON-COMPLIANT WITH THE REQUIREMENT OF THE EDITION OF THE CBC IN FORCE AT THE TIME OF THE ORIGINAL CONSTRUCTION, THE CONDITION MUST BE CORRECTED IN ACCORDANCE WITH THE CURRENT CODE REQUIREMENTS. ACHANGE ORDER OR SEPARATE SET OF PLANS AND SPECIFICATIONS DETAILING AND SPECIFYING THE REQUIRED REPAIR WORK SHALL BE SUBMITTED TO AND APPROVED BY DSA BEFORE PROCEEDING WITH THE REPAIR WORK.

SCOPE OF WORK

RELOCATION OF FOUR 40' X 48' MODULAR CLASSROOM BUILDINGS AND ONE 12' X 40' TOILET BUILDING FROM STAUFFER MIDDLE SCHOOL PROJECT #03-117957. ALL BUILDINGS ARE TO BE SET ON WOOD FOUNDATION WITH METAL RAMPS.

EXPANSION OF THE EXISTING PARKING LOT WITH NEW STUDENT DROP-OFF ZONE AN'D ACCESSIBLE PARKING STALLS.

SHEET INDEX

TOTAL SHEETS: 72

ARCHITECTURAL 5 SHEETS
G000 COVER SHEET
D100 SITE DEMOLITION PLAN
A000 SITE PLAN
A100 ENLARGED SITE PLAN
A101 DETAILS

ELECTRICAL 7 SHEETS
E000 ELECTRICAL COVER SHEET
E001 ELECTRICAL SITE PLAN
E002 SINGLE LINE DIAGRAM & SCHEDULES
E101 ELECTRICAL POWER & LOW VOLTAGE PLANS
E501 ELECTRICAL DETAILS
FA101 FIRE ALARM PLANS
FA501 FIRE ALARM DETAILS

CIVIL 11 SHEETS
C100 TITLE SHEET
C200 DEMOLITION PLAN
C300 IMPROVEMENT PLAN
C400 HORIZONTAL CONTROL PLAN
C500 PRECISE GRADING
C501 RAMP DETAILS
C600 STORM DRAIN PLAN
C601 SEWER AND WATER PLAN
C700 EROSION CONTROL PLAN
C800 DETAILS
C801 PUMP DETAILS

MANUFACTURER'S DRAWINGS
MODULAR CLASSROOM BUILDINGS RELOCATED FROM 03-117603 49 SHEETS
PC 04-115748

ARCHITECTURAL
A0.0 COVER SHEET
A0.1 TYPICAL KEY PLAN AND SCHEDULES
A0.2 SIGNAGE AND SYMBOLS
A0.4 DSA103 T&I WOOD FOUNDATION
A0.5 CAL GREEN SPECS
A0.6 CAL GREEN CHECKLIST
A0.7 CAL GREEN CHECKLIST
A1.2 FLOOR PLAN 48' X 40'
A2.1 ARCHITECTURAL DETAILS
A2.9 ARCHITECTURAL DETAILS
A3.2 REFLECTED CEILING PLAN
A3.2.1 CEILING NOTES
A3.3 CEILING DETAILS (T-GRID)
A4.0.1 ROOF PLAN MONO SLOPE (STANDING SEAM)
A4.1 ROOF DETAILS (STANDING SEAM)
A5.0 SIDEWALL ELEVATIONS
A5.1 ENDWALL ELEVATIONS
A5.2 INTERIOR ELEVATIONS
A6.0 SECTION STANDING SEAM (MONO)
A6.2 SECTION

ELECTRICAL
E1.4 ELECTRICAL PLAN 48'X40'
E1.5 ELECTRICAL SCHEDULE 48'X40'

MECHANICAL
M0.1 MISCELLANEOUS NOTES AND DETAILS
M1.0 TITLE 24 CALCS
M2.0 TITLE 24 CALCS
M3.0 TITLE 24 CALCS
M4.0 TITLE 24 CALCS
M7.1 MECHANICAL CEILING PLAN 48'X40'

FOUNDATION
F1.10 WOOD FOUNDATION NOTES & SCHEDULES
F1.13 WOOD FOUNDATION PLAN 48 X 40

STRUCTURAL
S0.1 STRUCTURAL GENERAL NOTES
S1.0.1 WOOD SHEATHING FLOOR FRAMING
S1.2 STRUCTURAL DETAILS (FLOOR)
S3.0.1 MONO SLOPE ROOF FRAMING
S3.1 STRUCTURAL DETAILS (ROOF)
S3.2 ROOF DETAILS (SOFFIT/PARAPET)
S3.3 ROOF PERIMETER TRUSS
S4.1 WOOD WALL FRAMING ELEVATIONS
S4.2 WALL DETAILS (WOOD FRAMING)
S4.4 TYPICAL FRAMING
S4.5 FRAMING SCHEDULES
S5.0 LONG SECTION (MONO)

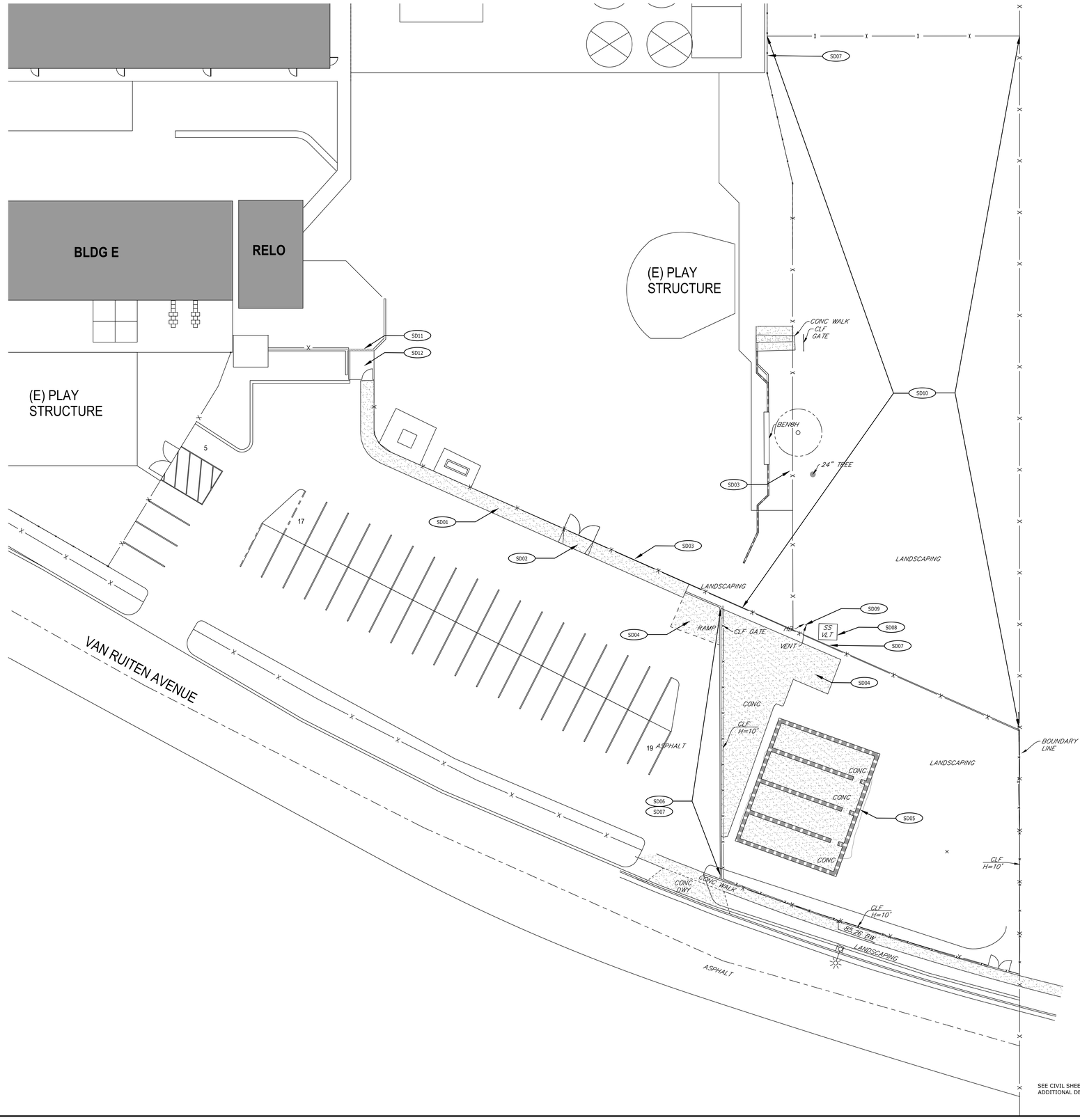
RAMP
SR0 MODULE PLAN AND NOTES
SR1 RAMP LANDING
SR2 LANDING FRAMING
SR3 FOUNDATION PLAN
SR4 RAMP ELEVATION
SR5 RAMP DETAILS
SR6 RAMP DETAILS

MANUFACTURER'S DRAWINGS
MODULAR TOILET BUILDING RELOCATED FROM 03-117603 32 SHEETS

ARCHITECTURAL
A0.0 COVER SHEET
A0.1 SYMBOLS LEGEND, ABBREV., SIGNAGE
A0.2 SCHEDULES
A1.03 FLOOR PLAN – MODEL C – 12' X 40'
A2.03 REFLECTED CEILING PLAN
A2.20 CEILING DETAILS
A3.01 ROOF PLAN – MONO SLOPE
A3.50 ROOF DETAILS MONO SLOPE (STANDING SEAM)
A4.06 CROSS SECTION STANDING SEAM (MONO)
A5.01 CROSS SECTION STANDING SEAM (MONO)
A5.05 CROSS SECTION STANDING SEAM (MONO)
A5.50 ARCHITECTURAL DETAILS – WOOD STUD
A5.70 ARCHITECTURAL DETAILS – WOOD FLOOR
A5.81 ARCHITECTURAL DETAILS – MISCELLANEOUS
A6.02 INTERIOR ELEVATIONS – FLOOR MOUNTED

FOUNDATION
F0.02 WOOD FOUNDATION PLAN 12 X 40
F0.50 WOOD FOUNDATION DETAILS

STRUCTURAL
S0.1 STRUCTURAL GENERAL NOTES & SPECS
S1.01 FLOOR FRAMING PLAN – WOOD FLOOR
S1.50 FLOOR FRAMING DETAILS – WOOD FLOOR
S2.01 ROOF FRAMING PLAN – MONO SLOPE



SEE CIVIL SHEET C200 FOR ADDITIONAL DEMOLITION NOTES

SITE DEMOLITION PLAN

1" = 30'-0"

1

1. FOR TYPICAL SYMBOLS AND ABBREVIATIONS, SEE SHEET G001.
2. ALL ITEMS SHOWN OR NOTED ARE EXISTING, UNLESS INDICATED OTHERWISE AS NEW.
3. SEE SHEET ***A001*** FOR CODE ANALYSIS
4. PROTECT AND SAFEGUARD FROM DAMAGE ALL EXISTING FINISHES AND WORK TO REMAIN.
5. PROVIDE TEMPORARY 6' HIGH CHAIN LINK FENCE ENCLOSURES WITH LOCKABLE GATES AS REQUIRED FOR CONSTRUCTION ACCESS AT CONTRACTOR'S STAGING AREA AND AROUND ALL CONSTRUCTION SITES AS DICTATED BY THE PHASING SCHEDULE.
6. COORDINATE THE REMOVAL, RELOCATION OR MODIFICATION OF EXISTING IRRIGATION LINES WITH THE DISTRICT PRIOR TO ANY TRENCHING, CLEARING AND GRUBBING, OR OTHER SITE EXCAVATIONS REQUIRED FOR NEW CONSTRUCTION.
7. CONTRACTOR SHALL MAINTAIN EXISTING PLANTING WITHIN THE JOB SITE FENCE ENCLOSURE DURING DEMOLITION AND CONSTRUCTION PHASES. EXISTING IRRIGATION SYSTEMS SHALL EITHER REMAIN OPERATIONAL FOR CONTRACTOR'S USE OR CONTRACTOR SHALL HAND-WATER EXISTING PLANT MATERIALS AT LEAST ONCE A WEEK. TURF SHALL BE MOWED AT LEAST ONCE EVERY TWO WEEKS.
8. REPAIR EXISTING IRRIGATION SYSTEMS DAMAGED DURING THE EXECUTION OF THIS CONTRACT. REPLACE PLANT MATERIALS DAMAGED, DECLINING IN HEALTH, SUFFERING DIEBACK, THAT HAVE LOST FORM AND SIZE, OR THAT DIE DURING THE CONSTRUCTION PERIOD, WITH THE SAME SPECIE OF EQUAL OR GREATER SIZE.
9. REPAIR ASPHALT PARKING LOTS, SPEED BUMPS AND PAINTED CROSSWALKS DAMAGED BY THE EXECUTION OF THIS CONTRACT TO ORIGINAL OR BETTER CONDITION. REPAINT CROSSWALKS AND SPEED BUMP STRIPING THEIR FULL LENGTHS ACROSS ROADWAYS.
10. MAXIMUM SLOPE ON NON-RAMPED CONCRETE IS 5% IN THE DIRECTION OF TRAVEL AND 2% CROSS-SLOPE.
11. PROVIDE IRRIGATION SLEEVES UNDER HARDSCAPE AT "PLANTED AREAS" (WITHIN PROJECT LIMITS) - COORDINATE WITH DISTRICT.
12. TREES, SHRUBS, TURF, AND IRRIGATION ARE BY THE DISTRICT. PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL COORDINATE PLANTING AND IRRIGATION WITH DISTRICT.
13. FOR WATER SERVICE DURING CONSTRUCTION, CONTRACTOR SHALL OBTAIN TEMPORARY WATER METER FROM THE CITY OF SANTA ANA FOR CONNECTION TO EXIST. FIRE HYDRANT.
14. ALL BARRIERS IN THE PATH OF TRAVEL HAVE BEEN REMOVED, WILL BE REMOVED, OR MODIFIED TO COMPLY WITH CBC SECTION 11B-402 UNDER THIS PROJECT. CONTRACTOR TO NOTIFY ARCHITECT IF ANY BARRIERS ARE DISCOVERED PRIOR TO PROCEEDING WITH WORK.
15. GRATINGS LOCATED IN THE SURFACE OF ANY PEDESTRIAN WAY IN THE PATH OF TRAVEL, GRID/OPENINGS IN GRATINGS SHALL BE LIMITED TO 1/2" MAXIMUM CLEAR IN THE DIRECTION OF TRAFFIC FLOW. IF SUCH CONDITION OCCURS, PROVIDE MANUFACTURERS CUT-SHEETS REVIEW.

GENERAL NOTES

SD01	REMOVE (E) ASPHALT PAVING. PROTECT THE ADJACENT CONCRETE CURB AND CHAIN LINK FENCE LINE.
SD02	REMOVE (E) CONCRETE VEHICULAR RAMP
SD03	PROTECT IN PLACE (E) CHAIN LINK GATE
SD04	REMOVE (E) CONCRETE SLAB ON GRADE
SD05	REMOVE (E) 18" DEEP CONCRETE FOOTINGS AS SHOWN
SD06	REMOVE (E) CONCRETE CURB
SD07	REMOVE (E) CHAIN LINK FENCE FOR NEW DBL GATES
SD08	REMOVE (E) SEPTIC TANK AND BACKFILL
SD09	REMOVE (E) HOSE BIBB AND CAP BELOW GRADE WITH SHUTOFF VALVE PER DETAIL S/A100
SD10	REMOVE (E) TURF AND SCARIFY THE SOIL. RECOMPACT TO 90% PRIOR TO PLACEMENT OF NE ASPHALT OVER BASE PER CIVIL DRAWINGS.
SD11	REMOVE HATCHED PORTION OF (E) 4'-0" HIGH BLOCK WALL
SD12	REMOVE (E) TURF. RECOMPACT PRIOR TO PLACEMENT OF NEW CONCRETE SIDEWALK

KEYNOTES

RAND NICHOLL ARCHITECTURE
4591 SIRODAY AVENUE
YORBA LINDA, CA 92886
714.915.4504

LICENSED ARCHITECT RAND C. NICHOLL NO. C-19066 EXP. FEB 28, 2025 STATE OF CALIFORNIA

CONSULTANT:

PROJECT NAME:

PACE EDUCATION CENTER
PARKING EXPANSION & MODULARS

PACE ELEMENTARY SCHOOL
9625 VAN RUTEN STREET
BELLFLOWER, CA 90706

CLIENT:

DOWNEY UNIFIED SCHOOL DISTRICT

11627 BROOKSHIRE AVE.
DOWNEY, CA 90242

Rev.	Date	Description

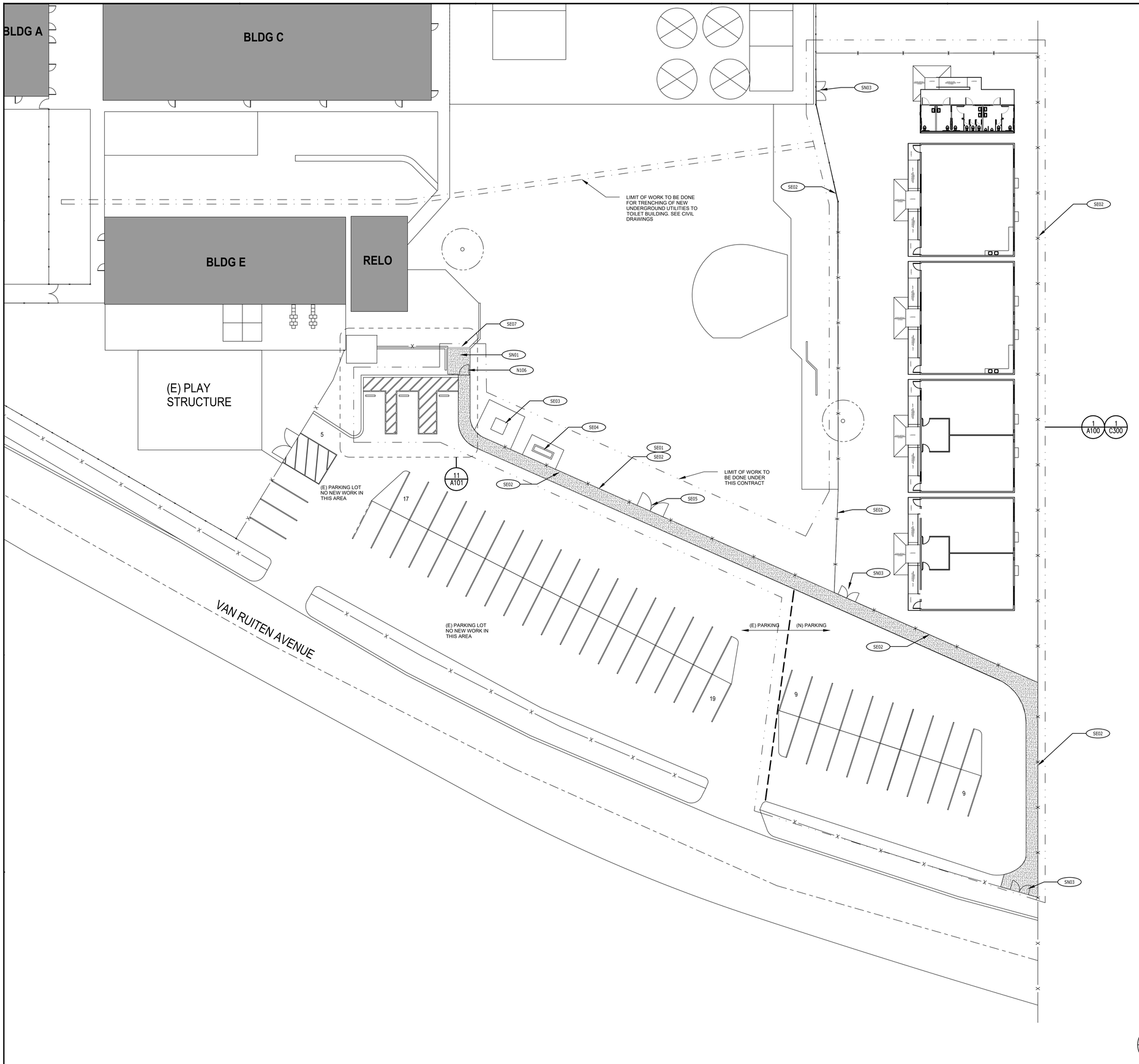
JOB NO: XXX
DATE: XXX
DRAWN: XXX
CHECK: XX
ARCHITECT: RN
ENGINEER:

SHEET DESCRIPTION:

SITE PLAN

SHEET NO:

D000



NORTH

SITE PLAN 1" = 30'-0" | 1

1. FOR TYPICAL SYMBOLS AND ABBREVIATIONS, SEE SHEET G001.
2. ALL ITEMS SHOWN OR NOTED ARE EXISTING, UNLESS INDICATED OTHERWISE AS NEW.
3. SEE CIVIL ENGINEERING SHEETS FOR NEW PAVED SURFACES AND SLOPES
4. PROTECT AND SAFEGUARD FROM DAMAGE ALL EXISTING FINISHES AND WORK TO REMAIN.
5. PROVIDE TEMPORARY 6' HIGH CHAIN LINK FENCE ENCLOSURES WITH LOCKABLE GATES AS REQUIRED FOR CONSTRUCTION ACCESS AT CONTRACTOR'S STAGING AREA AND AROUND ALL CONSTRUCTION SITES AS DICTATED BY THE PHASING SCHEDULE.
6. COORDINATE THE REMOVAL, RELOCATION OR MODIFICATION OF EXISTING IRRIGATION LINES WITH THE DISTRICT PRIOR TO ANY TRENCHING, CLEARING AND GRUBBING, OR OTHER SITE EXCAVATIONS REQUIRED FOR NEW CONSTRUCTION.
7. CONTRACTOR SHALL MAINTAIN EXISTING PLANTING WITHIN THE JOB SITE FENCE ENCLOSURE DURING DEMOLITION AND CONSTRUCTION PHASES. EXISTING IRRIGATION SYSTEMS SHALL EITHER REMAIN OPERATIONAL FOR CONTRACTOR'S USE OR CONTRACTOR SHALL HAND-WATER EXISTING PLANT MATERIALS AT LEAST ONCE A WEEK. TURF SHALL BE MOWED AT LEAST ONCE EVERY TWO WEEKS.
8. REPAIR EXISTING IRRIGATION SYSTEMS DAMAGED DURING THE EXECUTION OF THIS CONTRACT. REPLACE PLANT MATERIALS DAMAGED, DECLINING IN HEALTH, SUFFERING DIEBACK, THAT HAVE LOST FORM AND SIZE, OR THAT DIE DURING THE CONSTRUCTION PERIOD, WITH THE SAME SPECIE OF EQUAL OR GREATER SIZE.
9. REPAIR ASPHALT PARKING LOTS, SPEED BUMPS AND PAINTED CROSSWALKS DAMAGED BY THE EXECUTION OF THIS CONTRACT TO ORIGINAL OR BETTER CONDITION. REPAINT CROSSWALKS AND SPEED BUMP STRIPING THEIR FULL LENGTHS ACROSS ROADWAYS.
10. MAXIMUM SLOPE ON NON-RAMPED CONCRETE IS 5% IN THE DIRECTION OF TRAVEL AND 2% CROSS-SLOPE.
11. PROVIDE IRRIGATION SLEEVES UNDER HARDSCAPE AT "PLANTED AREAS" (WITHIN PROJECT LIMITS) - COORDINATE WITH DISTRICT.
12. TREES, SHRUBS, TURF, AND IRRIGATION ARE BY THE DISTRICT. PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL COORDINATE PLANTING AND IRRIGATION WITH DISTRICT.
13. FOR WATER SERVICE DURING CONSTRUCTION, CONTRACTOR SHALL OBTAIN TEMPORARY WATER METER FROM THE CITY OF SANTA ANA FOR CONNECTION TO EXIST. FIRE HYDRANT.
14. ALL BARRIERS IN THE PATH OF TRAVEL HAVE BEEN REMOVED, WILL BE REMOVED, OR MODIFIED TO COMPLY WITH CBC SECTION 11B-402 UNDER THIS PROJECT. CONTRACTOR TO NOTIFY ARCHITECT IF ANY BARRIERS ARE DISCOVERED PRIOR TO PROCEEDING WITH WORK.

GENERAL NOTES

SE01	EXISTING CONCRETE CURB TO REMAIN IN PLACE ALONG THIS FENCE LINE
SE02	EXISTING CHAIN LINK FENCING TO REMAIN
SE03	(E) TRANSFORMER. PROTECT IN PLACE
SE04	(E) ELECTRICAL MAIN PANEL. PROTECT IN PLACE
SE05	(E) VEHICLE ACCESS GATES TO REMAIN.
SE06	REMOVE (E) ASPHALT FOR CONSTRUCTION OF NEW CONCRETE SIDEWALK
SE07	REMOVE HATCHED PORTION OF EXISTING 4'-0" CONCRETE BLOCK WALL. PROVIDE FLUSH TRANSITION FROM (N) TO (E) CONCRETE
SN01	NEW CONCRETE SIDEWALK FROM GATE TO EDGE OF EXISTING CONCRETE
SN02	NEW CHAIN LINK GATE PER DETAIL 18/A101
SN03	NEW CHAIN LINK DBL GATES PER DETAIL 26/A101

KEYNOTES

PATH OF TRAVEL (P.O.T.) AS INDICATED IS A BARRIER FREE ROUTE WITHOUT ANY ABRUPT VERTICAL CHANGES EXCEEDING 1/2" BEVELED AT 1:2 MAXIMUM SLOPE, EXCEPT THAT LEVEL CHANGES DO NOT EXCEEDS 1/4" VERTICAL AND IS AT LEAST 48" WIDE. SURFACE IS SLIP RESISTANT, STABLE, FIRM AND SMOOTH. CROSS-SLOPE DOES NOT EXCEEDS 2% AND SLOPE IN THE DIRECTION OF TRAVEL IS LESS THAN 5% UNLESS OTHERWISE INDICATED (11B-403.3). (POT) SHALL BE MAINTAINED FREE OF OVERHANGING OBSTRUCTIONS TO 80" MINIMUM (11B-307.4) AND PROTRUDING OBJECTS GREATER THAN 4" PROJECTION FROM WALL AND ABOVE 27" AND LESS THAN 80" (11B-307.2) ARCHITECT TO VERIFY THAT ALL BARRIERS IN THE PATH OF TRAVEL HAVE BEEN REMOVED OR WILL BE REMOVED UNDER THIS PROJECT, AND PATH OF TRAVEL COMPLIES WITH CBC 11B-206.

DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE STATEMENT:

THE POT 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 POT WAS EXAMINED AND ANY ELEMENTS, COMPONENTS OR PORTIONS OF THE POT THAT WERE DETERMINED TO BE NONCOMPLIANT 1) HAVE BEEN IDENTIFIED AND 2) THE CORRECTIVE WORK NECESSARY TO BRING THEM INTO COMPLIANCE HAS BEEN INCLUDED WITHIN THE SCOPE OF THIS PROJECT'S WORK THROUGH DETAILS, DRAWINGS AND SPECIFICATIONS INCORPORATED INTO THESE CONSTRUCTION DOCUMENTS. ANY NONCOMPLIANT ELEMENTS, COMPONENTS OR PORTIONS OF THE POT 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 POT ITEMS WITHIN THE SCOPE OF THE PROJECT REPRESENTED AS CODE COMPLIANT ARE FOUND TO BE NONCONFORMING 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."

PATH OF TRAVEL NOTES

RNA
RAND NICHOLL ARCHITECTURE
4591 SIRODAY AVENUE
YORBA LINDA, CA 92886
714.915.4504

LICENSED ARCHITECT RAND C. NICHOLL NO. C-19066 EXP. FEB 28, 2015 STATE OF CALIFORNIA

CONSULTANT:

PROJECT NAME:

PACE EDUCATION CENTER
PARKING EXPANSION & MODULARS

PACE ELEMENTARY SCHOOL
9625 VAN RUTEN STREET
BELLFLOWER, CA 90706

CLIENT:

DOWNEY UNIFIED SCHOOL DISTRICT

11627 BROOKSHIRE AVE.
DOWNEY, CA 90242

Rev.	Date	Description

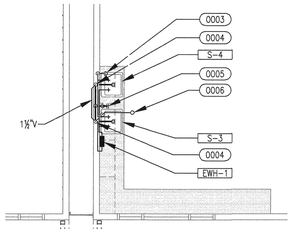
JOB NO: XXX
DATE: XXX
DRAWN: XXX
CHECK: XX
ARCHITECT: RN
ENGINEER:

SHEET DESCRIPTION:

SITE PLAN

SHEET NO:

A000



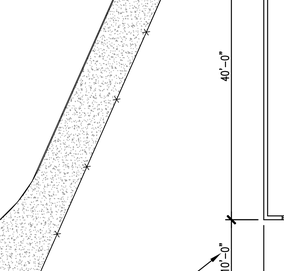
0003 3/4" COLD WATER UP FROM BELOW FLOOR.

0004 2"SS DOWN, 1¼" VENT UP TO ABOVE CEILING HEIGHT AND THRU WALL TO ABOVE CEILING.

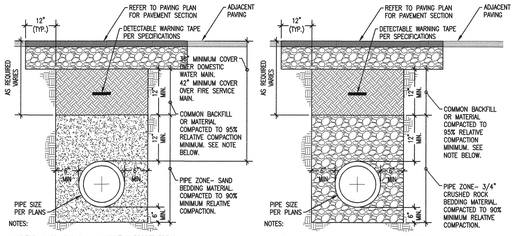
0005 2"SS THRU WALL BELOW CASEWORK AND DOWN TO BELOW FLOOR WITH WALL CLEANOUT.

0006 2" VENT THRU ROOF.

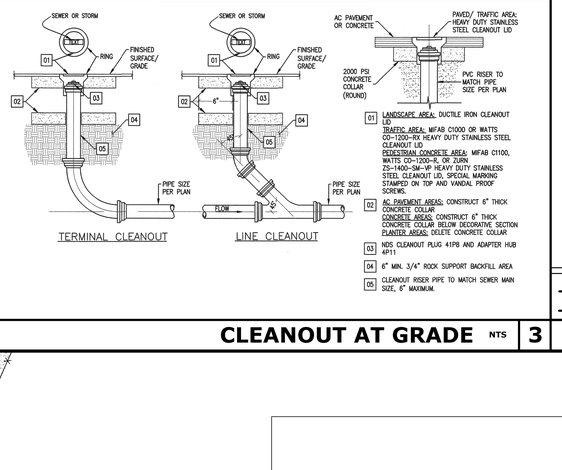
(E) SINKS NTS 6



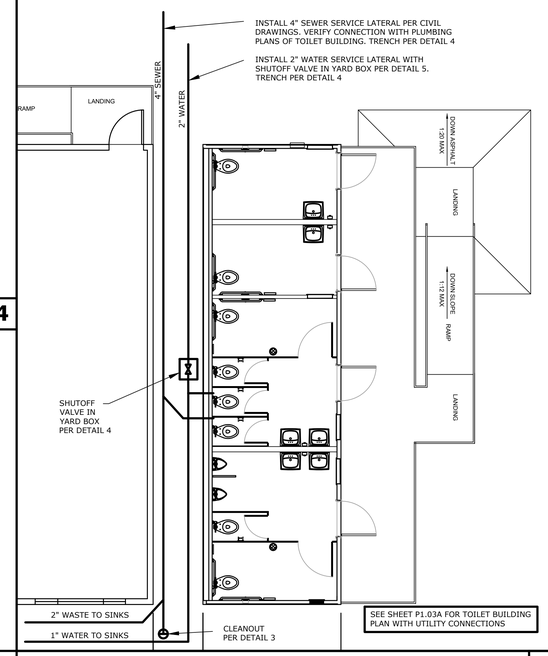
SHUTOFF VALVE NTS 5



TRENCH NTS 4



CLEANOUT AT GRADE NTS 3



UTILITY PLAN 1/4" = 1'-0" 2

SE01 EXISTING CONCRETE CURB TO REMAIN IN PLACE ALONG THIS FENCE LINE

SE02 EXISTING CHAIN LINK FENCING TO REMAIN

SE03 (E) TREE TO REMAIN. PROTECT IN PLACE

SE04 (E) EXISTING CABINETS WITH SINKS TO REMAIN INCLUDING ALL FIXTURES ACCESSORIES, AND UTILITIES STUBBED OUT BELOW THE FLOOR. SEE DETAIL 6/A100.

SN01 NEW CONCRETE SIDEWALK. SEE CIVIL DRAWINGS

SN02 NEW CHAIN LINK GATE PER DETAIL 18/A101

SN03 NEW CHAIN LINK DBL GATES PER DETAIL 26/A101

SN04 CONNECT 1" WATER AND 2" WASTE TO EXISTING SINKS STUBBED OUT BELOW THE FLOOR.

KEYNOTES

1. FOR TYPICAL SYMBOLS AND ABBREVIATIONS, SEE SHEET G001.
2. ALL ITEMS SHOWN OR NOTED ARE EXISTING, UNLESS INDICATED OTHERWISE AS NEW.
3. SEE SHEET ***A001*** FOR CODE ANALYSIS
4. PROTECT AND SAFEGUARD FROM DAMAGE ALL EXISTING FINISHES AND WORK TO REMAIN.
5. PROVIDE TEMPORARY 6' HIGH CHAIN LINK FENCE ENCLOSURES WITH LOCKABLE GATES AS REQUIRED FOR CONSTRUCTION ACCESS AT CONTRACTOR'S STAGING AREA AND AROUND ALL CONSTRUCTION SITES AS DICTATED BY THE PHASING SCHEDULE.
6. COORDINATE THE REMOVAL, RELOCATION OR MODIFICATION OF EXISTING IRRIGATION LINES WITH THE DISTRICT PRIOR TO ANY TRENCHING, CLEARING AND GRUBBING, OR OTHER SITE EXCAVATIONS REQUIRED FOR NEW CONSTRUCTION.
7. CONTRACTOR SHALL MAINTAIN EXISTING PLANTING WITHIN THE JOB SITE FENCE ENCLOSURE DURING DEMOLITION AND CONSTRUCTION PHASES. EXISTING IRRIGATION SYSTEMS SHALL EITHER REMAIN OPERATIONAL FOR CONTRACTOR'S USE OR CONTRACTOR SHALL HAND-WATER EXISTING PLANT MATERIALS AT LEAST ONCE A WEEK. TURF SHALL BE MOWED AT LEAST ONCE EVERY TWO WEEKS.
8. REPAIR EXISTING IRRIGATION SYSTEMS DAMAGED DURING THE EXECUTION OF THIS CONTRACT. REPLACE PLANT MATERIALS DAMAGED, DECLINING IN HEALTH, SUFFERING DIEBACK, THAT HAVE LOST FORM AND SIZE, OR THAT DIE DURING THE CONSTRUCTION PERIOD, WITH THE SAME SPECIE OF EQUAL OR GREATER SIZE.
9. REPAIR ASPHALT PARKING LOTS, SPEED BUMPS AND PAINTED CROSSWALKS DAMAGED BY THE EXECUTION OF THIS CONTRACT TO ORIGINAL OR BETTER CONDITION. REPAINT CROSSWALKS AND SPEED BUMP STRIPING THEIR FULL LENGTHS ACROSS ROADWAYS.
10. MAXIMUM SLOPE ON NON-RAMPED CONCRETE IS 5% IN THE DIRECTION OF TRAVEL AND 2% CROSS-SLOPE.
11. PROVIDE IRRIGATION SLEEVES UNDER HARDSCAPE AT "PLANTED AREAS" (WITHIN PROJECT LIMITS) - COORDINATE WITH DISTRICT.
12. TREES, SHRUBS, TURF, AND IRRIGATION ARE BY THE DISTRICT. PRIOR TO THE START OF CONSTRUCTION THE CONTRACTOR SHALL COORDINATE PLANTING AND IRRIGATION WITH DISTRICT.
13. FOR WATER SERVICE DURING CONSTRUCTION, CONTRACTOR SHALL OBTAIN TEMPORARY WATER METER FROM THE CITY OF SANTA ANA FOR CONNECTION TO EXIST. FIRE HYDRANT.
14. ALL BARRIERS IN THE PATH OF TRAVEL HAVE BEEN REMOVED, WILL BE REMOVED, OR MODIFIED TO COMPLY WITH CBC SECTION 11B-402 UNDER THIS PROJECT. CONTRACTOR TO NOTIFY ARCHITECT IF ANY BARRIERS ARE DISCOVERED PRIOR TO PROCEEDING WITH WORK.
15. GRATINGS LOCATED IN THE SURFACE OF ANY PEDESTRIAN WAY IN THE PATH OF TRAVEL, GRID/OPENINGS IN GRATINGS SHALL BE LIMITED TO 1/2" MAXIMUM CLEAR IN THE DIRECTION OF TRAFFIC FLOW. IF SUCH CONDITION OCCURS, PROVIDE MANUFACTURERS CUT-SHEETS REVIEW.

GENERAL NOTES

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

RNA
RAND NICHOLL ARCHITECTURE
4591 SIRODAY AVENUE
YORBA LINDA, CA 92886
714.915.4504

LICENSED ARCHITECT RAND C. NICHOLL NO. C-19085 EXP. FEB 28, 2025 STATE OF CALIFORNIA

CONSULTANT:

PROJECT NAME:

PACE EDUCATION CENTER
PARKING EXPANSION & MODULARS

PACE ELEMENTARY SCHOOL
9625 VAN RUTEN STREET
BELLFLOWER, CA 90706

CLIENT:

DOWNEY UNIFIED SCHOOL DISTRICT

11627 BROOKSHIRE AVE.
DOWNEY, CA 90242

No.	Rev. Date	Description

JOB NO: XXX
DATE: XXX
DRAWN: XXX
CHECK: XX
ARCHITECT: RN
ENGINEER:

SHEET DESCRIPTION:

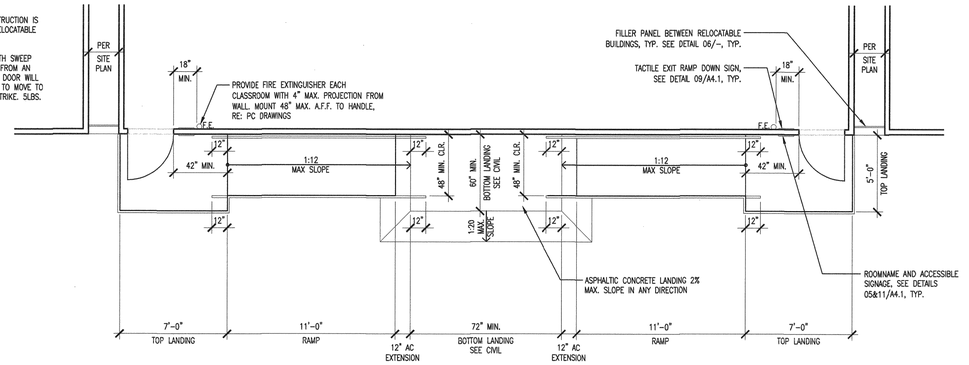
ENLARGED SITE PLAN

SHEET NO:

A100

NOTES:

1. RAMP AND PLATFORM CONSTRUCTION IS DOCUMENTED WITHIN THE RELOCATABLE DRAWINGS.
2. PROVIDE DOOR CLOSURE WITH SWEEP PERIOD ADJUSTED SO THAT FROM AN OPEN POSITION OF 70° THE DOOR WILL TAKE AT LEAST 3 SECONDS TO MOVE TO A POINT 3 IN. FROM THE STRIKE. 5LBS. MAX. FORCE.



SEE CIVIL DRAWINGS ON SHEET C601 FOR MORE INFORMATION

RAMP TRANSITION AT RELOS 1/4" = 1'-0" | 19

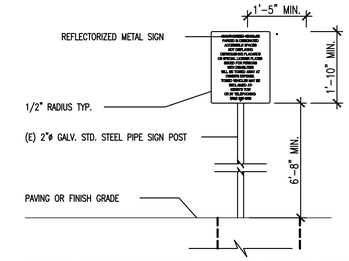
SEE CIVIL DRAWINGS ON SHEET C601 FOR MORE INFORMATION

RAMP AT TOILETS 1/4" = 1'-0" | 14

SIGN NOTES:
A REFLECTORIZED SIGN SHALL BE PERMANENTLY POSTED IN A CONSPICUOUS PLACE AT EACH ENTRANCE TO OFF-STREET PARKING FACILITIES, OR IMMEDIATELY ADJACENT TO TO AND VISIBLE FROM EACH STALL OR SPACE. THE SIGN SHALL NOT BE LESS THAN 17" BY 22" IN SIZE WITH WHITE LETTERING NOT LESS THAN 1" IN HEIGHT ON A DARK BLUE BACKGROUND, WHICH CLEARLY AND CONSPICUOUSLY STATES THE FOLLOWING:

"UNAUTHORIZED VEHICLES PARKED IN DESIGNATED ACCESSIBLE SPACES NOT DISPLAYING DISTINGUISHING PLACARDS OR SPECIAL LICENSE PLATES ISSUED FOR PERSONS WITH DISABILITIES WILL BE TOWED AWAY AT OWNER'S EXPENSE. TOWED VEHICLES MAY BE RECLAIMED AT KENNY'S TOW OR BY TELEPHONING 562-925-9531"

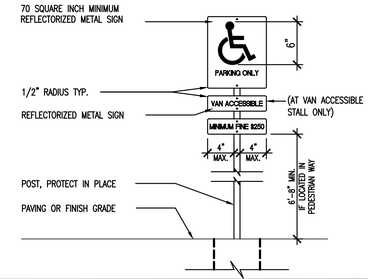
RECLAMATION ADDRESS AND TELEPHONE NUMBER SHALL BE PROVIDED AS A PERMANENT PART OF THIS SIGN. DARK BLUE BACKGROUND COLOR SHALL BE EQUAL TO COLOR NUMBER 15090 IN FEDERAL STANDARD 595C. SIGN SHALL NOT OBSTRUCT PASSAGE BETWEEN STALL AND ANY ACCESSIBLE WALKWAY. SEE SITE PLAN FOR LOCATIONS.



11B-703.5.9 LINE SPACING. SPACING BETWEEN THE BASELINES OF SEPARATE LINES OF CHARACTERS WITHIN A MESSAGE SHALL BE 135 PERCENT MINIMUM AND 170 PERCENT MAXIMUM OF THE CHARACTER HEIGHT.

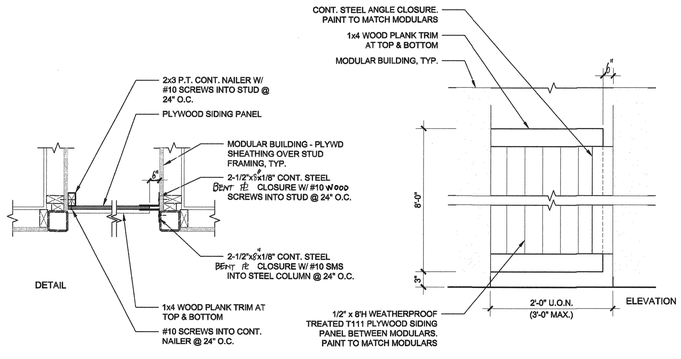
SITE ENTRY SIGN 1/4" = 1'-0" | 5

SIGN NOTES:
EACH PARKING SPACE RESERVED FOR PERSONS WITH DISABILITIES SHALL BE IDENTIFIED BY A REFLECTORIZED SIGN PERMANENTLY POSTED IMMEDIATELY ADJACENT TO AND VISIBLE FROM EACH STALL OR SPACE, CONSISTING OF A PROFILE VIEW OF A WHEELCHAIR WITH OCCUPANT IN WHITE ON A DARK BLUE BACKGROUND. THE SIGN SHALL NOT BE SMALLER THAN 70 SQUARE INCHES IN AREA, AND WHEN IN A PATH OF TRAVEL, SHALL BE POSTED AT A MINIMUM HEIGHT OF 80" FROM THE BOTTOM OF THE SIGN TO THE PARKING SPACE FINISH GRADE. SPACES COMPLYING WITH C.B.C. SECTION 11B-502, ITEM 2 SHALL HAVE AN ADDITIONAL REFLECTORIZED SIGN STATING "VAN ACCESSIBLE" IN WHITE ON A DARK BLUE BACKGROUND MOUNTED BELOW THE SYMBOL OF ACCESSIBILITY. DARK BLUE BACKGROUND COLOR SHALL BE EQUAL TO COLOR NUMBER 15090 IN FEDERAL STANDARD 595C. ALL LETTERING SHALL BE WHITE AND A MINIMUM OF 2" IN HEIGHT. SIGN SHALL NOT OBSTRUCT PASSAGE BETWEEN STALL AND ANY ACCESSIBLE WALKWAY. PROVIDE "MINIMUM FINE $250" SIGN. PROVIDE SIGNS ON BOTH SIDES OF POST WHERE REQUIRED. SEE SITE PLAN FOR LOCATIONS.



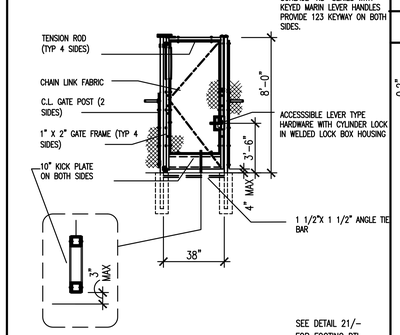
11B-703.5.9 LINE SPACING. SPACING BETWEEN THE BASELINES OF SEPARATE LINES OF CHARACTERS WITHIN A MESSAGE SHALL BE 135 PERCENT MINIMUM AND 170 PERCENT MAXIMUM OF THE CHARACTER HEIGHT.

PARKING STALL SIGN 1/4" = 1'-0" | 4

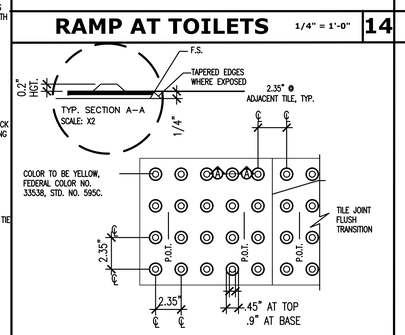


THESE ENCLOSURE PANELS ARE EXISTING AND TO BE RELOCATED WITH THE BUILDINGS FROM STAUFFER MS

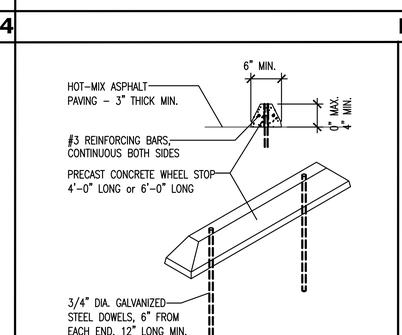
(E) ENCLOSURE PANEL 1" = 1'-0" | 23



CL GATE 1/4" = 1'-0" | 18

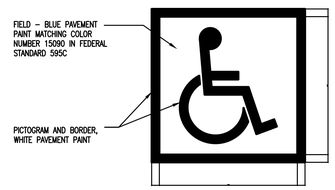


DETECTABLE WARNING NTS | 13

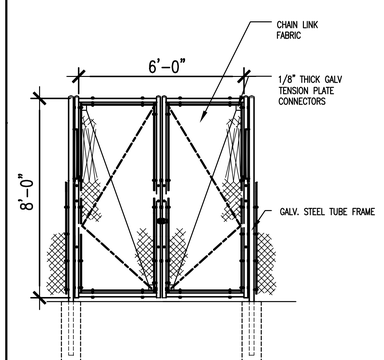


WHEEL STOP 1/4" = 1'-0" | 8

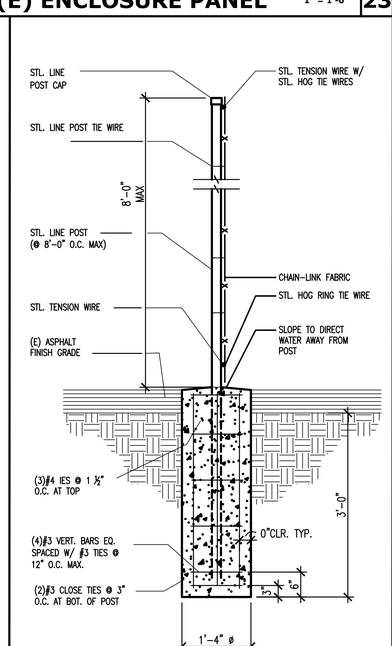
THE SURFACE OF EACH ACCESSIBLE PARKING SPACE OR STALL SHALL HAVE A SURFACE IDENTIFICATION. THE PAVEMENT SYMBOL SHALL CONSIST OF A PROFILE VIEW OF A WHEELCHAIR WITH OCCUPANT IN WHITE ON A BLUE BACKGROUND. THE PROFILE VIEW SHALL BE LOCATED SO THAT IT IS VISIBLE TO A TRAFFIC ENFORCEMENT OFFICER WHEN A VEHICLE IS PROPERLY PARKED IN THE SPACE AND SHALL BE 36" HIGH BY 36" WIDE.



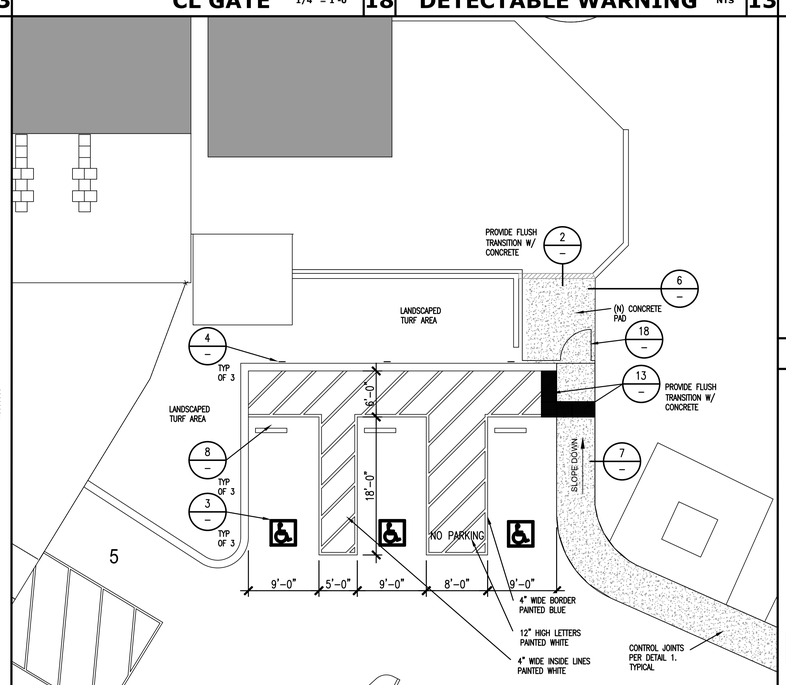
PARKING SYMBOL 1/4" = 1'-0" | 3



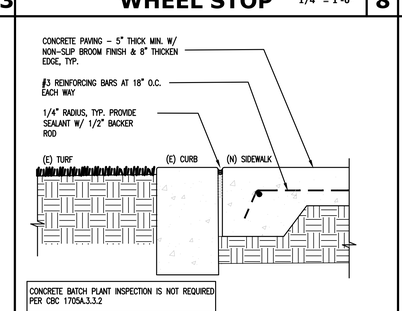
CL DBL GATES 1/4" = 1'-0" | 26



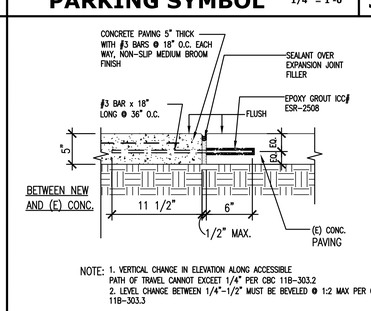
CL FENCE POST 1/4" = 1'-0" | 21



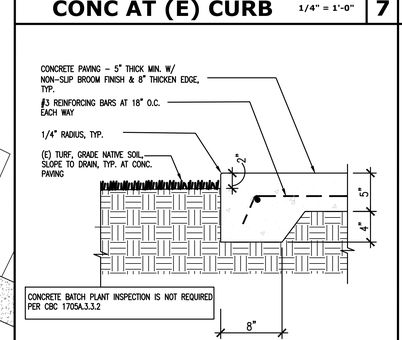
ACCESSIBLE PARKING 1/8" = 1'-0" | 11



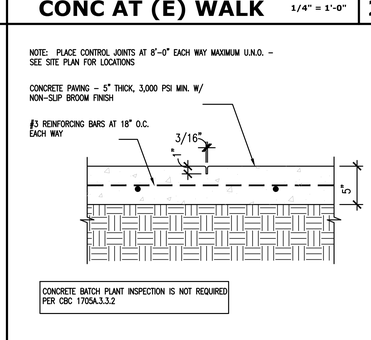
CONC AT (E) CURB 1/4" = 1'-0" | 7



CONC AT (E) WALK 1/4" = 1'-0" | 2



CONC EDGE 1/4" = 1'-0" | 6



CONC SIDEWALK 1/4" = 1'-0" | 1

RAND NICHOLL ARCHITECTURE
4591 SIRODAY AVENUE
YORBA LINDA, CA 92886
714.915.4504

LICENSED ARCHITECT RAND C. NICHOLL NO. C-19085 EXP. FEB 28, 2025 STATE OF CALIFORNIA

CONSULTANT:

PROJECT NAME:

PACE EDUCATION CENTER
PARKING EXPANSION & MODULARS

PACE ELEMENTARY SCHOOL
9625 VAN RUTEN STREET
BELLFLOWER, CA 90706

CLIENT:

DOWNEY UNIFIED SCHOOL DISTRICT

11627 BROOKSHIRE AVE.
DOWNEY, CA 90242

Rev.	Date	Description

JOB NO: XXX
DATE: XXX
DRAWN: XXX
CHECK: XX
ARCHITECT: RN
ENGINEER:

SHEET DESCRIPTION:

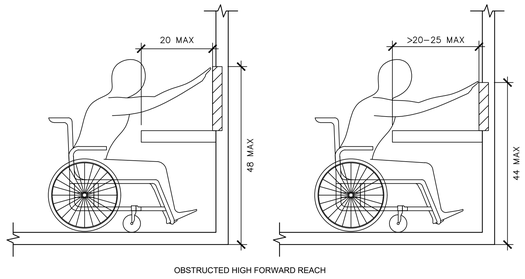
DETAILS

SHEET NO:

A101

GENERAL NOTES

1. THE ELECTRICAL CONTRACTOR (EC) SHALL INCLUDE AND PROVIDE IN BID ALL LABOR AND MATERIALS NECESSARY FOR A COMPLETE AND OPERATIONAL INSTALLATION OF ALL ELECTRICAL SYSTEMS.
2. EC SHALL COORDINATE AND OBTAIN ALL APPROVALS, PERMITS, AND DOCUMENTS FROM REGULATORY AGENCIES AND UTILITY COMPANIES.
3. ALL CONDUIT RACEWAY SYSTEMS ARE TO BE INSTALLED AS FOLLOWS:
   a. RIGID GALVANIZED STEEL IS TO BE INSTALLED IN ALL AREAS WHICH ARE EXPOSED TO WEATHER AND/OR PHYSICAL DAMAGE.
   b. FLEXIBLE METALLIC CONDUIT I S PERMITTED FOR SHORT CONNECTIONS TO LIGHT FIXTURES (6'-0" MAX). FLEXIBLE CONDUIT SHALL ALSO BE INSTALLED FOR EQUIPMENT REQUIRING VIBRATION ISOLATION AND HORIZONTAL RUNS IN WOODEN STUD WALLS.
   c. ELECTRICAL METALLIC TUBING (EMT) WITH COMPRESSION TYPE FITTINGS SHALL BE USED FOR BUILDING INTERIOR WORK.
   d. P.V.C. CONDUIT SHALL BE USED FOR UNDERGROUND CONDUITS. ROUTE CODE SIZED GROUND WIRE INSIDE OF CONDUIT. CONDUIT RISERS AND STUBS ABOVE GRADE SHALL BE I.M.C. WITH HALF-LAPPED TAPE COVERING OR P.V.C. COATING.
4. UNLESS OTHERWISE NOTED OR REFERENCED ON THE DRAWINGS ALL NEW ELECTRICAL WIRING IS TO BE 600V RATED COPPER WITH TYPE "THHN/THWN" INSULATION.
5. ALL MOUNTING HEIGHTS REFERENCED ON DRAWINGS ARE MEASURED FROM FINISHED FLOOR UNLESS OTHERWISE REFERENCED OR INDICATED ON THE DRAWINGS.
6. ALL ELECTRICAL EQUIPMENT LOCATIONS (LIGHTING, RECEPTACLE, FLOOR BOX, ETC.) ARE TO BE VERIFIED WITH THE ARCHITECT AND/OR EQUIPMENT SUPPLIER PRIOR TO BEGINNING ANY ROUGH-IN.
7. ALL LIGHTING FIXTURES SHALL BE MOUNTED AND SUPPORTED IN ACCORDANCE WITH OSHA STANDARDS, AND ALL STATE, LOCAL, SEISMIC, AND NATIONAL ELECTRIC CODES.
8. THE DRAWINGS INCLUDED IN THIS DOCUMENT SET ARE DIAGRAMMATIC. THEY ARE REPRESENTATIVE OF THE ENGINEER OF RECORDS DESIGN INTENT FOR ALL ELECTRICAL DEVICES/EQUIPMENT AND THE INDIVIDUAL POWER FEEDS THEY ARE TO BE CONNECTED TO. THE SELECTED EC SHALL BE RESPONSIBLE FOR PROVIDING ALL J-BOXES, CONDUIT, WIRING/ CABLING, ETC. AS REQUIRED FOR A COMPLETE AND OPERATIONAL ELECTRICAL INSTALLATION.
9. ALL ELECTRICAL EQUIPMENT (PANELS, RECEPTACLES, J-BOXES, ETC.) SHALL BE WEATHERPROOF AND/OR INSTALLED IN A NEMA 3R ENCLOSURE WHERE APPLICABLE OR INSTALLED OUTDOORS.
10. ALL ELECTRICAL WORK SHALL BE PERFORMED ACCORDING TO STATE, LOCAL, NATIONAL, AND DISTRICT STANDARDS AND CODES. COORDINATE SPECIFIC REQUIREMENTS WITH DISTRICT STANDARDS AND AUTHORITY HAVING JURISDICTION.
11. ALL ELECTRICAL EQUIPMENT SHALL BE NEW AND IS TO BE CLEARLY LABELED/IDENTIFIED AS UNDERWRITER LABORATORIES (UL) COMPLIANT UNLESS OTHERWISE NOTED OR REFERENCED IN THE DRAWINGS OR SPECIFICATIONS.
12. EC IS RESPONSIBLE FOR SECURING ALL REQUIRED BUILDING PERMITS AND SHALL INCLUDE THE COST TO SECURE BUILDING PERMITS IN THEIR FINAL BID.
13. UNLESS OTHERWISE WRITTEN, STATED, OR REFERENCED IN DRAWINGS OR SPECIFICATIONS CONTRACTOR SHALL GUARANTEE THE COMPLETE ELECTRICAL INSTALLATION FOR A PERIOD OF 1-YEAR.
14. ALL ELECTRICAL DISTRIBUTION EQUIPMENT (PANELS, DISTRIBUTION BOARDS, TRANSFORMERS, ETC), FEEDERS (CONDUIT, CONDUCTOR SIZE, AND QUANTITY), MECHANICAL EQUIPMENT, ELEVATORS, VARIABLE FREQUENCY DRIVES (VFD'S), ETC. MAY ONLY BE REFERENCED ON THE SINGLE-LINE DRAWING AND NOT INDIVIDUAL PLAN SHEETS. EC SHALL REVIEW AND VERIFY ALL REFERENCED INFORMATION ON THE SINGLE-LINE DRAWING.
15. EC SHALL BE RESPONSIBLE FOR ALL REQUIRED SAW-CUTTING, CORE DRILLING, PATCHING, REFINISHING, ETC. AS REQUIRED FOR INSTALLATION OF ELECTRICAL EQUIPMENT AND SYSTEMS. ANY PENETRATIONS OR OPENINGS MADE IN WALLS OR STRUCTURES SHALL BE PATCHED AND/OR SEALED AS REQUIRED TO MAINTAIN THE INTEGRITY AND/OR RATING OF THE WALL OR STRUCTURE.
16. EC SHALL VISIT THE SITE PRIOR TO SUBMISSION OF THEIR FINAL BID TO VERIFY ALL EXISTING SITE CONDITIONS WHICH MAY AFFECT THE COMPLETION OF THE ELECTRICAL INSTALLATION. ALL METHODS AND REQUIREMENTS FOR \ INSTALLATION SHALL BE DETERMINED PRIOR TO BID DATE. ELECTRICAL EC SHALL NOTIFY THE ENGINEER OF RECORD OF ANY REQUIRED MODIFICATIONS WHICH ARE NOT REFERENCED ON THESE ELECTRICAL PLANS. SUBMITTAL OF THE EC'S BID DEMONSTRATES THE CONTRACTOR'S AWARENESS OF ALL SITE CONDITIONS AND REQUIRED WORK TO BE PERFORMED.
17. EC IS RESPONSIBLE FOR COMPLETING ALL FINAL ELECTRICAL CONNECTIONS TO OWNER FURNISHED EQUIPMENT AND SHALL PROVIDE ALL MOTOR START SWITCHES, DISCONNECTS, ETC. AS REQUIRED.
18. ALL ELECTRICAL EQUIPMENT CONNECTIONS, MOUNTING LOCATIONS, ELECTRICAL REQUIREMENTS, ETC. ARE TO BE COORDINATED AND VERIFIED PRIOR TO COMMENCEMENT OF ELECTRICAL ROUGH-IN.
19. EC TO SUBMIT SHOP DRAWINGS FOR THE APPROVAL OF THE ELECTRICAL ENGINEER OF RECORD FOR ALL ELECTRICAL EQUIPMENT AND MATERIALS TO BE UTILIZED IN THE ELECTRICAL INSTALLATION. ALL APPROVALS BY THE ENGINEER OF RECORD MUST BE SECURED PRIOR TO COMPLETION OF ANY PURCHASE ORDERS OR ROUGH-IN WORK.
20. THESE ELECTRICAL DRAWINGS AND ASSOCIATED SPECIFICATIONS ARE TO BE CONSIDERED CONTRACT DOCUMENTS FOR AGENCY REVIEW/APROVAL AND EC BIDDING PURPOSES.
21. THE COMPLETE ELECTRICAL SYSTEM SHALL BE GROUNDED IN ACCORDANCE WITH NEC/CEC ARTICLE 250. ALL POWER AND LIGHTING CIRCUITS SHALL BE INSTALLED WITH A MINIMUM #12AWG CU GROUND WIRE UNLESS OTHERWISE NOTED OR REFERENCED.
22. EC TO PROVIDE ENGRAVED PHENOLIC NAMEPLATES ON ALL DISCONNECT SWITCHES, DISTRIBUTION EQUIPMENT, J-BOXES ETC. WITH METALLIC COVERS. SEE GENERAL NOTES ON SINGLE-LINE DIAGRAM FOR SPECIFIC INFORMATION REGARDING NAMEPLATE REQUIREMENTS.
25. AT THE COMPLETION OF THE PROJECT THE EC SHALL PROVIDE THE OWNER WITH A COMPLETE SET OF AS-BUILT ELECTRICAL DRAWINGS.
26. ANY AND ALL WORK THAT REQUIRES AN INTERRUPTION TO A BUILDING(S) ELECTRICAL SERVICE MUST BE COORDINATED WITH THE DISTRICT A MINIMUM OF 48 HOURS IN ADVANCE. ANY SERVICE DOWNTOWN SHALL NOT OCCUR DURING SCHOOL HOURS.
27. EC SHALL BE RESPONSIBLE FOR FOR ENSURING THAT ALL LOW VOLTAGE SYSTEMS ARE COMPATIBLE AND ARE COMPLETE AND OPERATIONAL.
28. EC SHALL PERMANENTLY TAG ALL CONDUCTORS IN EACH ELECTRICAL AND LOW VOLTAGE SYSTEM AS REFERENCED IN THE SPECIFICATIONS.
29. ANY SURFACE MOUNTED EXPOSED CONDUIT IN VIEW OF THE PUBLIC SHALL BE PAINTED TO MATCH THE FINISH OF THE SURFACE TO WHICH IT IS MOUNTED WITH TWO (2) COATS OF PAINT. ALL EXTERIOR SURFACE MOUNTED EXPOSED CONDUITS ARE TO BE PAINTED WITH TWO (2) COATS OF WEATHERPROOF LATEX PAINT.
30. THE SEISMIC ANCHORAGE OF ELECTRICAL EQUIPMENT SHALL CONFORM TO C.C.R. TITLE 24, 2022 CBC SECTIONS 1617A.1.18 THROUGH 1617A.1.26 AND ASCE 7-16 CHAPTERS 13, 26 AND 30. ANCHORAGE DETAILS NOT SHOWN ON THE APPOROVED PLANS OR OTHERWISE APPROVED BY DSA ARE SUBJECT TO FIELD APPROVAL BY THE ARCHITECT AND/OR STRUCTURAL ENGINEER OF RECORD AND DSA.
31. ELECTRICAL DRAWINGS ARE DIAGRAMMATIC. AS SUCH, ALL ELECTRICAL EQUIPMENT LOCATIONS, CONDUIT ROUTING, ETC. ARE NOT PRECISE AND SHALL BE COORDINATED, VERIFIED, AND DETERMINED IN THE FIELD. EC TO INSTALL ALL ELECTRICAL EQUIPMENT AND ROUTE ALL CONDUITS IN LOCATIONS WHICH MEET CODE REQUIREMENTS FOR ACCESSIBILITY/MOUNTING AND DO NOT INTERFERE WITH ANY BUILDING STRUCTURES, UTILITIES, OR OTHER TRADE EQUIPMENT.
32. ALL EXISTING ELECTRICAL EQUIPMENT INDICATED TO BE DEMOLISHED SHALL BE REMOVED ENTIRELY AND ALL AFFECTED SURFACES OR STRUCTURES SHALL BE REPAIRED, REPLACED, AND/OR REFINISHED TO MATCH THE ADJACENT SURFACES OR DAMAGED ITEM(S).
33. FOR CLARITY ONLY RECONSTRUCTION OR NEW WORK RELATED ELEMENTS AND SELECT EXISTING FACILITIES SPECIFICALLY REQUIRING COORDINATION WITH ANY NEW WORK.
34. ALL CONDUITS, BOXES, SURFACE MOUNTED RACEWAYS, SUPPORT DEVICES, AND ASSOCIATED FITTINGS SHALL BE MOUNTED IN CONCEALED LOCATIONS ABOVE CEILINGS, DUCTS, TRUSSES, BEAMS, ETC. IN AREAS WHERE A CONCEALED MOUNTING LOCATION IS NOT AVAILABLE EQUIPMENT SHALL BE PAINTED TO MATCH THE ADJACENT SURFACES.
35. ANY PENETRATIONS BY CONDUITS OR OTHER ELECTRICAL EQUIPMENT THROUGH A FIRE RATED WALL - WHETHER EXISTING OR NEW - SHALL MAINTAIN THE APPROPRIATE FIRE RATING BY SEALING THE PENETRATION WITH THE APPROPRIATE UL-LISTED FIRE-STOP MATERIAL/SYSTEM.
36. ELECTRICAL CONTRACTOR SHALL PREPARE AND SUBMIT THE FOLLOWING CALIFORNIA ENERGY COMMISSION T-24 FORMS: CERTIFICATE OF ACCEPTANCE LTG-1-1, PARTS 1, 2, & 3; LIGHTING CONTROL LTG-2-A; AND/OR AUTOMATIC DAYLIGHTING CONTROL LTG-3-A, AS THEY APPLY TO THE BUILDING DEPARTMENT PRIOR TO ISSUANCE OF THE CERTIFICATE OF OCCUPANCY.



OBSTRUCTED HIGH FORWARD REACH

NOTE:

FORWARD OR FRONT APPROACH FOR DEVICES MOUNTED ABOVE COUNTER ASSUMES THAT DIRECTLY BELOW THE DEVICE THE COUNTER HAS A 30" MINIMUM WIDTH X 27" MINIMUM HIGH X 19" MINIMUM DEEP CLEAR OPENING. CBC SECTIONS 11B-306 & 11B-308.

LIGHTING SYMBOLS

- SURFACE MOUNTED FLUORESCENT STRIP LIGHTING FIXTURE. "EM" AND/OR SHADED CONNECTION POINT INDICATES FIXTURE WITH EMERGENCY BATTERY PACK (MINIMUM 1100 LUMEN OUTPUT). "NL" INDICATES FIXTURE ON NIGHT LIGHT CIRCUIT.
- CHAIN HUNG FLUORESCENT STRIP LIGHTING FIXTURE. MOUNTING HEIGHT TO BE AS INDICATED ON FIXTURE SCHEDULE. "EM" AND/OR SHADED CONNECTION POINT INDICATES FIXTURE WITH EMERGENCY BATTERY PACK (MINIMUM 1100 LUMEN OUTPUT). "NL" INDICATES FIXTURE ON NIGHT LIGHT CIRCUIT.
- NL — SURFACE MOUNTED FLUORESCENT WRAPAROUND TYPE LIGHTING FIXTURE. "EM" AND/OR SHADED CONNECTION POINT INDICATES FIXTURE WITH EMERGENCY BATTERY PACK (MINIMUM 1100 LUMEN OUTPUT). "NL" INDICATES FIXTURE ON NIGHT LIGHT CIRCUIT.
- NL — RECESSED FLUORESCENT LIGHTING FIXTURE. "EM" AND/OR SHADED CONNECTION POINT INDICATES FIXTURE WITH EMERGENCY BATTERY PACK (MINIMUM 1100 LUMEN OUTPUT). "NL" INDICATES FIXTURE ON NIGHT LIGHT CIRCUIT.
- RECESSED OR SURFACED MOUNTED DOWN LIGHTING FIXTURE. "NL" INDICATES FIXTURE ON NIGHT LIGHT CIRCUIT.
- RECESSED WALLWASHER LIGHTING FIXTURE.
- WALL MOUNTED LIGHTING FIXTURE.
- RECESSED STEP LIGHTING FIXTURE.
- BOLLARD TYPE LIGHTING FIXTURE. PROVIDE CONCRETE FOOTING PER MFGRS. REQUIREMENTS.
- UPLIGHT TYPE LIGHTING FIXTURE. PROVIDE CONCRETE FOOTING PER MFGRS. REQUIREMENTS.
- SINGLE OR TWO CKT. LIGHTING TRACK AS SPEC'D IN LTG. FIXTURE SCHEDULE.
- LANDSCAPE FLOOD LIGHTING FIXTURE.
- POLE MOUNTED H.I.D. LIGHTING FIXTURE.
- WALL MOUNTED INFRA-RED OCCUPANCY SENSOR. USE WATTSTOPPER "WI 200" FOR SINGLE SWITCH AND "WI 300" FOR "ab" SWITCHING OR EQUAL. MOUNTING HEIGHT PER ADA MOUNTING DETAIL THIS SHEET - UON OR REQUIRED.
- WALL MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR. USE WATTSTOPPER "DT 200" WITH POWER PACK OR EQUAL. MOUNTING HEIGHT PER ADA MOUNTING DETAIL THIS SHEET - UON OR REQUIRED.
- (KS)ab — VACANCY SENSOR (MANUAL ON), MOUNTING HEIGHT PER ADA MOUNTING DETAIL THIS SHEET - UON OR REQUIRED. LETTERS "ab" INDICATES DUAL RELAY SENSOR. BOTH SWITCH LEGS TO BE CONFIGURED IN A "MANUAL ON" CONFIGURATION.
- (KS)ab — WALL MOUNTED ULTRASONIC OCCUPANCY SENSOR. LETTERS "ab" INDICATES DUAL RELAY SENSOR. MOUNTING HEIGHT PER ADA MOUNTING DETAIL THIS SHEET - UON OR REQUIRED.
- (KS)m — CEILING MOUNTED ULTRASONIC OCCUPANCY SENSOR. "m" INDICATES WATTSTOPPER "WT" SENSOR WITH POWER PACK OR EQUAL. "s" INDICATES SATELLITE SENSOR.
- (50) (D)x* — AUTOMATIC CONTINUOUS DIMMING DAYLIGHTING CONTROLLER USED TO DIM LIGHTS WHEN SUFFICIENT NATURAL LIGHT IS PRESENT. NUMBER IN PARENTHESIS INDICATES THE AVERAGE WORKPLANE "TARGET ILLUMINATION" SYMBOL VALUE. ADJACENT LOWER CASE LETTERS "x*" INDICATES SWITCH LEG(S) CONTROLLED.
- — LV — LOW VOLTAGE (LV) WIRING BETWEEN OCCUPANCY, DAYLIGHT SENSORS, AND/OR LV SWITCHES. QUANTITY AND SPECIFICATIONS OF WIRE PER MANUFACTURER REQUIREMENTS.
- ILLUMINATED EXIT SIGN WITH NUMBER OF FACES AND DIRECTION OF EGRESS ARROWS AS INDICATED.
- LOW LEVEL EXIT SIGN AS SPECIFIED ON LIGHTING FIXTURE SCHEDULE.
- EGRESS EMERGENCY BATTERY PACK LIGHT FIXTURE (BUGEYE).

TELEPHONE/DATA SYMBOLS

- TELEPHONE OUTLET BOX, WALL MOUNTED AT +15" A.F.F. (MIN. AS MEASURED TO BOTTOM OF BOX) - UON OR REQUIRED. STUB 3/4"C.O. WITH PULL STRINGS TO 6" ABOVE THE ACCESSIBLE CEILING AND AND PROVIDE A BUSHING. 4S/DP MINIMUM WITH SINGLE GANG RING. "W" = WALL MOUNTED PHONE AT +44" A.F.F. (MAX. TO HIGHEST OPERABLE PART OF DEVICE) "P" = PUBLIC (PAY) PHONE. VERIFY ALL REQUIREMENTS WITH THE TELEPHONE UTILITY COMPANY. PROVIDE 1"C.O. (MIN) TO THE MAIN TELEPHONE BACKBOARD. MOUNTING HEIGHT AS REQUIRED.
- DATA OUTLET BOX, WALL MOUNTED AT +15" A.F.F. (MIN. AS MEASURED TO BOTTOM OF BOX) - UON OR REQUIRED. STUB 3/4"C.O. WITH PULL STRINGS UP 6" ABOVE THE ACCESSIBLE CEILING AND PROVIDE A BUSHING. 4S/DP MINIMUM WITH SINGLE GANG RING.
- COMBINATION TELEPHONE AND DATA OUTLET BOX WALL MOUNTED AT +15" A.F.F. (MIN AS MEASURED TO THE BOTTOM OF THE BOX) - UON OR REQUIRED. STUB A 1-1/4"C.O. WITH PULL STRINGS UP 6" ABOVE THE ACCESSIBLE CEILING AND PROVIDE A BUSHING. 4S/DP MINIMUM WITH SINGLE GANG RING.
- TELEPHONE OUTLET BOX, FLUSH MOUNTED IN CEILING - MOUNT FLUSH IN FLOOR WHEN INDICATED IN A FLOOR BOX SYMBOL.
- DATA OUTLET BOX FLUSH MOUNTED IN CEILING - MOUNT FLUSH IN FLOOR WHEN INDICATED IN A FLOOR BOX SYMBOL.
- COMBINATION TELEPHONE AND DATA OUTLET BOX FLUSH MOUNTED IN CEILING - MOUNT FLUSH IN FLOOR WHEN INDICATED IN A FLOOR BOX SYMBOL.
- TELEPHONE OUTLET BOX, WALL MOUNTED AT 44" MAX AFF TO HIGHEST OPERABLE PART OF DEVICE - UON OR REQUIRED. STUB A 3/4" C.O. WITH PULL STRING UP 6" ABOVE THE ACCESSIBLE CEILING AND PROVIDE A BUSHING. 4S/DP MINIMUM WITH SINGLE GANG RING.
- DATA OUTLET BOX,WALL MOUNTED AT 44" MAX AFF TO HIGHEST OPERABLE PART OF DEVICE - UON OR REQUIRED. STUB A 3/4"C.O. WITH PULL STRING UP 6" ABOVE THE ACCESSIBLE CEILING AND PROVIDE A BUSHING. 4S/DP MINIMUM WITH SINGLE GANG RING.
- COMBINATION TELE AND DATA OUTLET BOX,WALL MOUNTED AT 44" MAX AFF TO HIGHEST OPERABLE PART OF DEVICE - UON OR REQUIRED. STUB A 1-1/4"C.O. WITH PULL STRING UP 6" ABOVE THE ACCESSIBLE CEILING AND PROVIDE A BUSHING. 4S/DP MINIMUM WITH SINGLE GANG RING.
- DATA OUTLET BOX FOR WAP CONNETION, WALL MOUNTED 12" BELOW FINISHED CEILING. STUB A 1" C.O. UP 6" ABOVE THE ACCESSIBLE CEILING AND PROVIDE A BUSHING. 4S/DP MINIMUM WITH SINGLE GANG RING.
- T — CONCEALED TELEPHONE/DATA CONDUIT RUN, 3/4" CONDUIT ONLY (MIN). SEE TABLE FOR CONDUIT SIZE VARIATIONS
  T1 = 1" C.O. T2 = 1-1/4" C.O. T3 = 1-1/2" C.O. T4 = 2" C.O. T5 = (2) 3/4" C.O.
- FLUSH MOUNTED, LOCKABLE TERMINAL CABINET WITH TERMINAL STRIPS AS REQUIRED.
- SURFACE MOUNTED, LOCKABLE TERMINAL CABINET WITH TERMINAL STRIPS AS REQUIRED.
- TELEPHONE TERMINAL BACKBOARD SIZED AS NOTED, REFER TO SYSTEM GROUND DETAIL.

BRANCH CIRCUIT SYMBOLS

- A-1,3,5 — HOME RUN TO PANEL. LETTER DESIGNATES PANEL, NUMBERS INDICATE CIRCUITS. HASH MARKS INDICATE NUMBER OF CONDUCTORS IN CONDUIT RUN, #12 AWG MINIMUM UNLESS OTHERWISE NOTED.
- A-1&3&5 — HOME RUN TO PANEL. LETTER DESIGNATES PANEL, NUMBERS INDICATE CIRCUITS WITH SEPARATE NEUTRALS. "&" INDICATES SEPARATE NEUTRALS.
- A-1+3+5 — HOME RUN TO PANEL. LETTER DESIGNATES PANEL, NUMBERS INDICATE CIRCUITS. "+" INDICATES SEPARATE #10 NEUTRAL THROUGHOUT BRANCH CIRCUIT. HASH MARK " " INDICATES AN ISOLATED GROUND CONDUCTOR.
- CONCEALED CONDUIT OR BRANCH CIRCUIT UNLESS OTHERWISE NOTED. 1/2" CONDUIT MINIMUM, (2) #12 AWG CONDUCTORS MINIMUM
- CONCEALED CONDUIT OR BRANCH CIRCUIT ROUTED IN FLOOR SLAB OR CONCRETE. COORDINATE INSTALLATION WITH GENERAL CONTRACTOR AND SUPPORT AS REQUIRED. 1/2" CONDUIT (2) #12 AWG CONDUCTORS MINIMUM.
- CONDUIT OR BRANCH CIRCUIT CONCEALED BELOW GRADE, 3/4" CONDUIT MINIMUM WITH (2) 12 AWG CONDUCTORS MINIMUM AND A CODE SIZED EQUIPMENT GROUND.
- SURFACE-MOUNTED CONDUIT OR BRANCH CIRCUIT UNLESS OTHERWISE NOTED. 1/2" CONDUIT MINIMUM, (2) #12 AWG CONDUCTORS MINIMUM. CONDUIT SHALL BE PAINT TO MATCH ADJUCENT SURFACE. COORDINATE COLOR WITH ARCHITECT/INTERIORS.
- TANDEM WIRING CONNECTION.
- CONDUIT STUB OUT, CAP, MARK AND RECORD ON AS-BUILT DRAWINGS
- CONDUIT CONTINUATION.
- FLEXIBLE CONNECTION AS REQUIRED. NUMBER OF CONDUCTORS AS REQUIRED. VERIFY CONNECTION REQUIREMENTS WITH MANUFACTURER PRIOR TO ROUGH-IN.
- CONDUIT/ BRANCH CIRCUIT/FEEDER CONTINUATION DOWN WALL TO FLOOR BELOW
- CONDUIT/ BRANCH CIRCUIT/FEEDER CONTINUATION UP WALL TO FLOOR ABOVE

ANNOTATIONS

- EF / 2 — MECHANICAL EQUIPMENT CALLOUT, "AC" INDICATES UNIT TYPE AND "2" INDICATES UNIT NUMBER. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATION AND ELECTRICAL REQUIREMENTS.
- 3 / E-1 — DETAIL CALLOUT, "3" INDICATES DETAIL NUMBER "E-1" INDICATES SHEET NUMBER.
- XXX-X — LIGHTING FIXTURE DESIGNATION
- X — PLAN NOTE REFERENCE, REFER TO NOTES ON SHEET, OR AS DIRECTED.
- 1 — REVISION REFERENCE.
- WYE CONFIGURATION △ DELTA CONFIGURATION
- GROUND

UNLESS SPECIFICALLY SHOWN ON THESE PLANS, STRUCTURAL MEMBERS SHALL NOT BE CUT, DRILLED, OR NOTCHED WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE STRUCTURAL ENGINEER AND THE DIVISION OF THE STATE ARCHITECT.

POWER SYMBOLS

- DUPLEX RECEPTACLE - MOUNTING HEIGHT PER ADA DEVICE MOUNTING REQUIREMENTS OR AS NOTED.
- DOUBLE DUPLEX RECEPTACLE, MOUNTING HEIGHT PER ADA DEVICE MOUNTING REQUIREMENTS OR AS NOTED.
- DUPLEX RECEPTACLE, MOUNTING HEIGHT PER ADA DEVICE MOUNTING REQUIREMENTS - UON OR REQUIRED. DEVICE TO BE CONTROLLED ON/OFF BY OCCUPANCY SENSOR PER CALIFORNIA T-24 REQUIREMENTS. DEVICE IS TO BE GREEN IN COLOR CLEARLY LABELED AND ENGRAVED WITH "SENSOR CONTROLLED" TO IDENTIFY ITS PURPOSE TO THE USER. REFER TO LIGHTING CONTROL WIRING DIAGRAM FOR ADDITIONAL REQUIREMENTS.
- DUPLEX, GFCI RECEPTACLE, MOUNTING HEIGHT PER ADA DEVICE MOUNTING REQUIREMENTS OR AS NOTED. WP INDICATES WEATHERPROOF, REFER TO THE GENERAL PRODUCT SPECIFICATIONS.
- DOUBLE DUPLEX, GFCI RECEPTACLE, MOUNTING HEIGHT PER ADA DEVICE MOUNTING REQUIREMENTS OR AS NOTED. WP INDICATES WEATHERPROOF, REFER TO THE GENERAL PRODUCT SPECIFICATIONS.
- SPECIAL RECEPTACLE, MOUNTING HEIGHT PER ADA DEVICE MOUNTING REQUIREMENTS OR AS NOTED. REFER TO PLAN NOTES.
- DUPLEX RECEPTACLE FLUSH IN CEILING - MOUNT FLUSH IN FLOOR WHEN INDICATED IN A FLOOR BOX SYMBOL.
- DOUBLE DUPLEX RECEPTACLE FLUSH IN CEILING - MOUNT FLUSH IN FLOOR WHEN INDICATED IN A FLOOR BOX SYMBOL.
- DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER, MOUNTING HEIGHT PER ADA DEVICE MOUNTING REQUIREMENTS - UON OR REQUIRED.
- DOUBLE DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER, MOUNTING HEIGHT PER ADA DEVICE MOUNTING REQUIREMENTS - UON OR REQUIRED.
- DUPLEX, GFCI RECEPTACLE MOUNTED ABOVE COUNTER, MOUNTING HEIGHT PER ADA DEVICE MOUNTING REQUIREMENTS - UON OR REQUIRED. WP INDICATES WEATHERPROOF, REFER TO THE GENERAL PRODUCT SPECIFICATIONS.
- DOUBLE DUPLEX, GFCI RECEPTACLE MOUNTED ABOVE COUNTER. MOUNTING HEIGHT PER ADA DEVICE MOUNTING REQUIREMENTS - UON OR REQUIRED. WP INDICATES WEATHERPROOF, REFER TO THE GENERAL PRODUCT SPECIFICATIONS.
- SPECIAL RECEPTACLE MOUNTED ABOVE COUNTER, MOUNTING HEIGHT PER ADA DEVICE MOUNTING REQUIREMENTS - UON OR REQUIRED.
- WALL MOUNTED JUNCTION BOX. MOUNTING HEIGHT AS NOTED. 4S/DP MINIMUM OR AS REQUIRED BY N.E.C..
- JUNCTION BOX, MOUNTED IN ACCESSIBLE CEILING FOR APPLICATION DENOTED ON PLAN. 4S/DP MINIMUM OR AS REQUIRED BY N.E.C..
- (M) — ELECTRICAL CONNECTION TO INTERACTIVE MARKER-BOARD. COORDINATE CONNECTION TYPE AND REQUIREMENTS WITH MANUFACTURER'S INSTALLATION GUIDES. VERIFY MOUNTING LOCATION AND HEIGHT WITH ARCHITECT AND DISTRICT EQUIPMENT INSTALLER PRIOR TO ROUGH-IN OF ELECTRICAL.
- SURFACE MOUNTED MULTI-OUTLET ASSEMBLY. REFER TO GENERAL PRODUCT SPECIFICATIONS. PROVIDE ALL COMPONENTS NECESSARY FOR A COMPLETE INSTALLATION.
- T — THERMOSTAT OUTLET BOX, PROVIDE 1/2"C.O. TO RESPECTIVE MECHANICAL UNIT.
- 3 — EXHAUST FAN, OR MOTOR LOAD. REFER TO MECHANICAL, PLUMBING OR KITCHEN DRAWINGS FOR SPECIFIC LOAD REQUIREMENTS OR AS NOTED.
- FLUSH MOUNTED ELECTRICAL PANELBOARD OR LOAD CENTER. REFER TO PANEL SCHEDULE.
- SURFACE MOUNTED ELECTRICAL PANELBOARD OR LOAD CENTER. REFER TO PANEL SCHEDULE.
- DISTRIBUTION SWITCHBOARD. REFER TO SINGLE LINE DIAGRAM.
- T — TRANSFORMER, REFER TO SINGLE LINE DIAGRAM.
- F — FUSED DISCONNECT SWITCH, HP RATED, OR COMBINATION MOTOR STARTER/DISCONNECT SWITCH WITH FUSES PER EQUIPMENT MANUFACTURER AND WEATHERPROOF AS REQUIRED. PROVIDE FINAL CONNECTION TO UNIT EQUIPMENT. SEE MOTORIZED EQUIPMENT SCHEDULE FOR DISCONNECT AND STARTER SIZES.
- ST — NON-FUSED DISCONNECT SWITCH, HP RATED AND WEATHERPROOF AS REQUIRED. PROVIDE FINAL CONNECTION TO UNIT EQUIPMENT. SEE MOTORIZED EQUIPMENT SCHEDULE FOR DISCONNECT SIZES.
- (M) CT. — UTILITY COMPANY METER. PROVIDE "CT's" AND "PT's" AS REQUIRED, REFER TO SINGLE LINE DIAGRAM.
- 1 / 150AF 150AT 3P — CIRCUIT BREAKER, LINE 1 REPRESENTS FRAME SIZE/RATING; LINE 2 REPRESENTS TRIP SIZE/RATING; LINE 3 REPRESENTS NUMBER OF POLES AND LINE 4 REPRESENTS MISCELLANEOUS BREAKER INFO. (SEE BELOW):
  ST = PROVIDE SHUNT TRIP MECHANISM.
  HACR = PROVIDE HACR-RATED BREAKER.
  GFP = GROUND FAULT PROTECTION
  CLCB = CURRENT LIMITING CIRCUIT BREAKER
  SS = PROVIDE SOLID STATE CIRCUIT BREAKER
- 60AS 3P / 50AF CLASS J — FUSIBLE SWITCH: LINE 1 REPRESENTS SWITCH SIZE/RATING; LINE 2 REPRESENTS NUMBER OF POLES; LINE 3 REPRESENTS FUSE SIZE/RATING; LINE 4 REPRESENTS FUSE TYPE; LINE 5 REPRESENTS MISCELLANEOUS FUSE INFO. (SEE BELOW):
  SHUNT= PROVIDE SHUNT TRIP MECHANISM.
  GFP = GROUND FAULT PROTECTION
  CLF = CURRENT LIMITING FUSE
- GROUND CONNECTION, SIZE AS INDICATED OR AS REQUIRED.
- 3 / ab — SINGLE POLE SWITCHES, MOUNTING HEIGHT PER ADA DEVICE MOUNTING REQUIREMENTS. SUBSCRIPTS AT SYMBOL INDICATE THE FOLLOWING:
  2 - DOUBLE POLE — LV - LOW VOLTAGE
  3 - THREE WAY — P - PILOT LIGHT
  4 - FOUR WAY — R - REMOTE CONTROL
  K - KEY OPERATED — M - MOTOR STARTING
  NOTE: ALL WALL SWITCHES CONTROLLING EMERGENCY CIRCUITS SHALL BE ENGRAVED WITH "EMERGENCY"
- PB OR P — PULLBOX, SIZED PER N.E.C. OR AS NOTED.

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 2022 CBC, SECTIONS 1616A.1.18 THROUGH 1616A.1.26 AND ASCE 7-10 CHAPTERS 13, 26 AND 30.

1. ALL PERMANENT EQUIPMENT AND COMPARTMENTS.
2. TEMPORARY OR MOVABLE EQUIPMENT THAT IS PERMANENTLY ATTACHED (E.G. HARD WIRED) TO THE BUILDING UTILITY SERVICES SUCH AS ELECTRICITY, GAS OR WATER.
3. 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 NEED NOT BE DETAILED ON THE PLANS. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT.

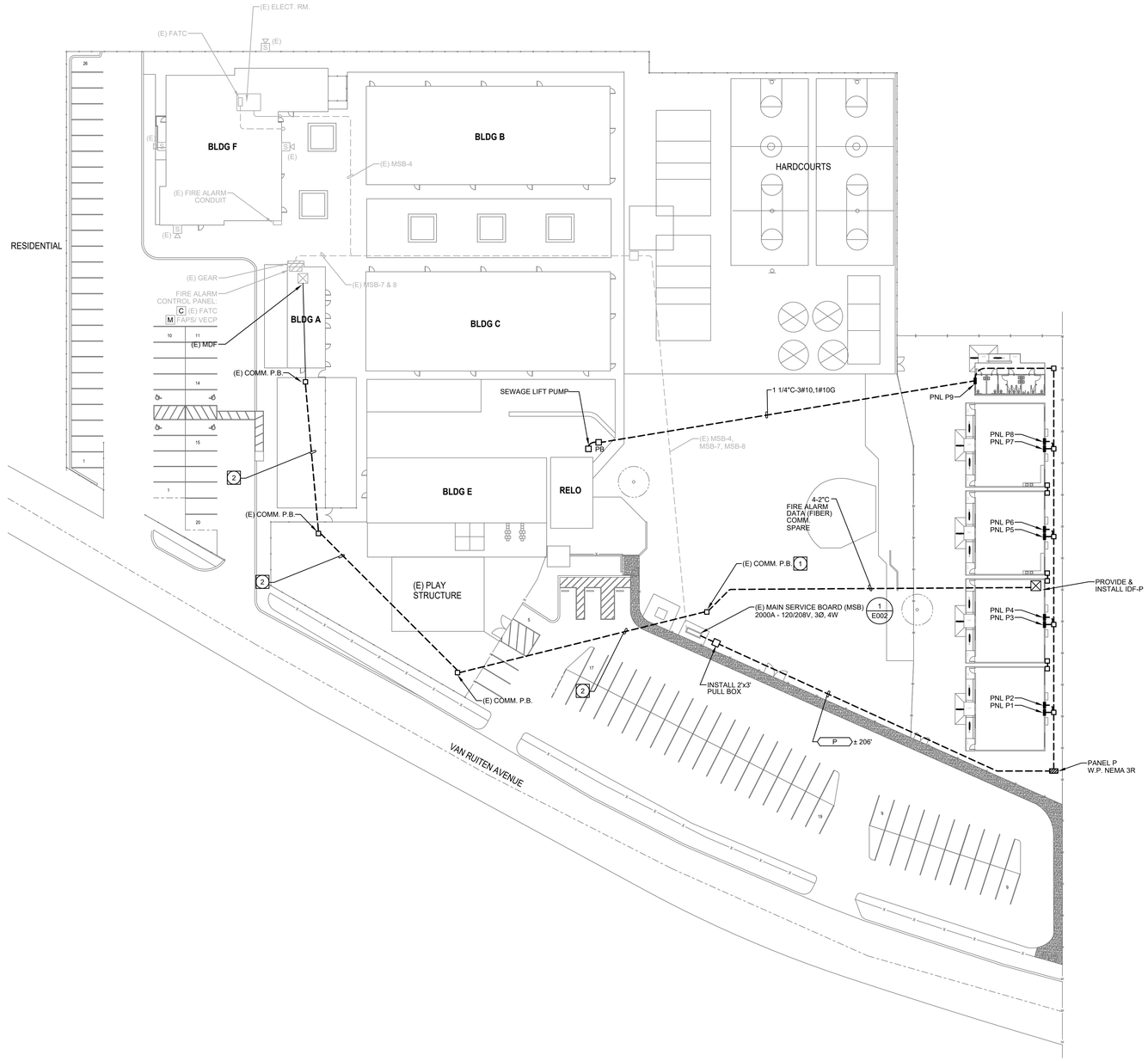
A. COMPONENTS WEIGHING LESS THAN 400 POUNDS AND HAVE A CENTER OF MASS LOCATED 4 FEET OR LESS ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT.

B. COMPONENTS WEIGHING LESS THAN 20 POUNDS, OR IN THE CASE 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 STRUCTURAL ENGINEER. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN

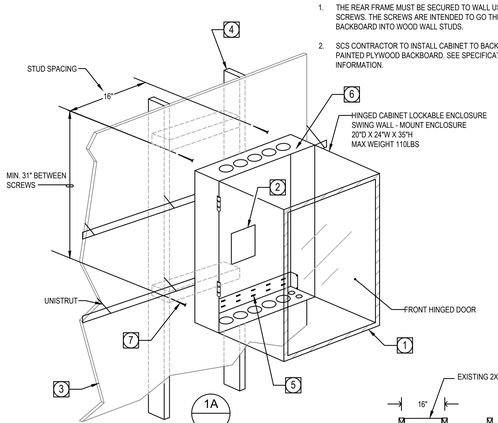
PLAN NOTE:

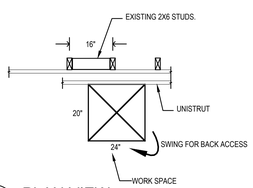
1. INTERCEPT PULL BOX & EXTEND.
2. EXISTING UNDERGROUND PATHWAY TO BE USED. INSTALL FIBER BETWEEN MDF & IDF-P.



NOTES:

1. THE REAR FRAME MUST BE SECURED TO WALL USING (6) 1/4" X 2" LAG SCREWS. THE SCREWS ARE INTENDED TO GO THROUGH 3/4" PLYWOOD BACKBOARD INTO WOOD WALL STUDS.
2. SCS CONTRACTOR TO INSTALL CABINET TO BACKBOARD. E.C. TO INSTALL PAINTED PLYWOOD BACKBOARD. SEE SPECIFICATIONS FOR MORE INFORMATION.





1B - PLAN VIEW
SCALE: NONE

1. BOTTOM EDGE OF IDF CABINET SHALL BE +65" AFF MINIMUM.
2. 6" X 6" CUTOUT.
3. 3/4" PAINTED PLYWOOD BACKBOARD BY E.C. SEE DETAIL 3/S-560 FOR TYPICAL BACKING.
4. WALL STUDS 16" ON CENTER.
5. MOUNTING KEYHOLES.
6. INSTALL 2 LAG SCREWS IN HOLES BELOW TOP KEYHOLES AFTER THE REAR FRAME HAS BEEN MOUNTED TO WALL.
7. 1/4" X 3" LAG SCREWS MINIMUM. TOTAL OF (6) PER ENCLOSURE.

WALL MOUNTED IDF CABINET DETAIL | NOT TO SCALE | 2

NORTH

ELECTRICAL SITE PLAN | 1 | 1" = 30'-0"

RAND NICHOLL ARCHITECTURE
4591 SIRODAY AVENUE
YORBA LINDA, CA 92886
714.915.4504

LICENSED ARCHITECT RAND C. NICHOLL NO. C-19066 EXP. FEB 29, 2024 STATE OF CALIFORNIA

CONSULTANT:

REGISTERED PROFESSIONAL ENGINEER No. E 18589 12.31.2024 ELECTRICAL STATE OF CALIFORNIA

AG Design Inc.
Consulting Electrical Engineers
714.769.9900
www.AGDesignEng.com
2100 W Orangewood Ave Suite 165 | Orange, CA 92868

PROJECT NAME:

PACE EDUCATION CENTER PARKING EXPANSION & MODULARS

PACE ELEMENTARY SCHOOL
9625 VAN RUTEN STREET
BELLFLOWER, CA 90706

CLIENT:

DOWNEY UNIFIED SCHOOL DISTRICT

11627 BROOKSHIRE AVE.
DOWNEY, CA 90242

No.	Rev. Date	Description

JOB NO:	XXX
DATE:	XXX
DRAWN:	XXX
CHECK:	XX
ARCHITECT:	RN
ENGINEER:	

SHEET DESCRIPTION:

ELECTRICAL OVERALL SITE PLAN

SHEET NO:

E001

P1 - 100A 2P MCB

4-20A RECEPTS & LIGHTS	60A, 2P HVAC

P2 - 100A 2P MCB

4-20A RECEPTS & LIGHTS	60A, 2P HVAC

P3 - 150A 2P MCB

20A RECEPTS 2-20A LIGHTS	60A, 2P HVAC 2-20A WIREMOLD

P4 - 100A 2P MCB

4-20A RECEPTS PROJECTOR LTGS	60A, 2P HVAC

P5 - 100A 2P MCB

4-20A RECEPTS LTGS	40A, 2P H/W 60A, 2P HVAC 20A, 2P WIREMOLD IDF

P6 - 100A 2P MCB

5-20A RECEPTS LTGS RECEPTS	60A, 2P HVAC (3) 20A IDF F/A WIREMOLD

P7 - 150A 2P MCB

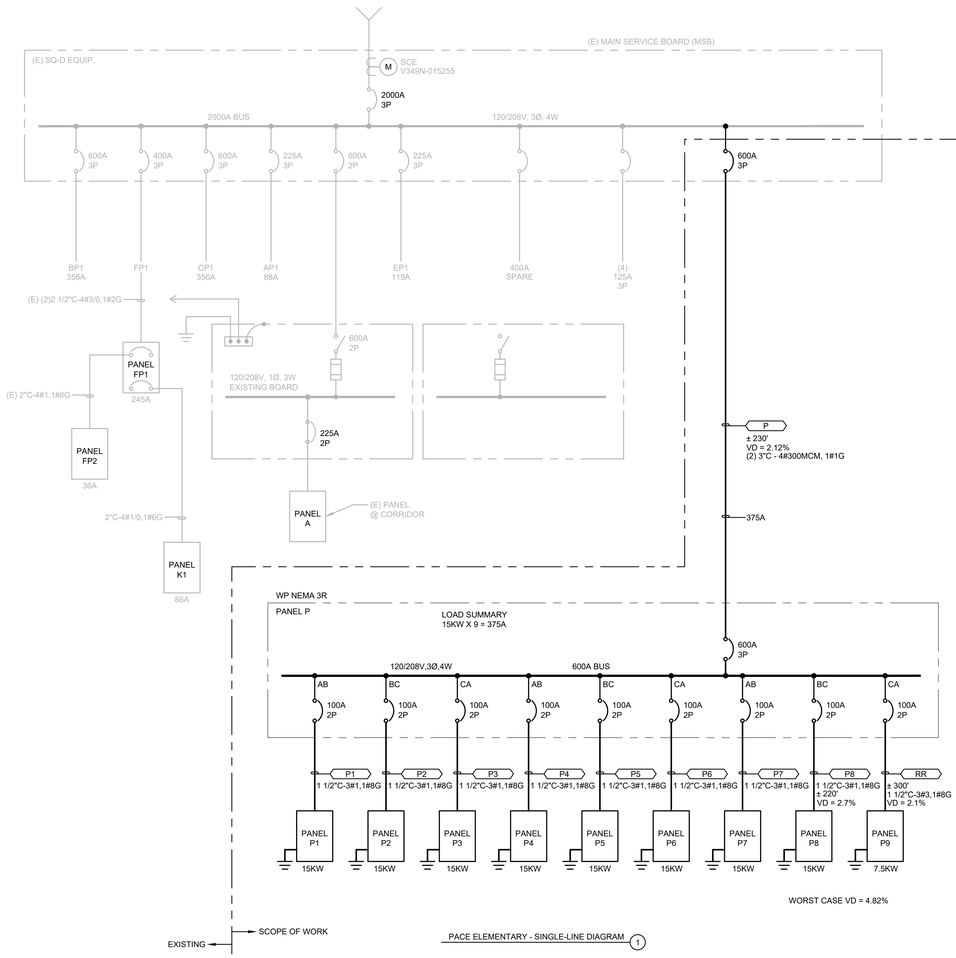
20A RECEPTS 2-20A LTGS	60A, 2P HVAC 2-20A WIREMOLD

P8 - 150A 2P MCB

4-20A RECEPTS LTGS	60A, 2P HVAC 2-20A WIREMOLD

RESTROOM P6 - 100A 2P MCB

3-15A	20A ALARM



RAND NICHOLL ARCHITECTURE
4591 SIRODAY AVENUE
YORBA LINDA, CA 92886
714.915.4504

LICENSED ARCHITECT RAND C. NICHOLL NO. C-19066 FEB 28, 2025 STATE OF CALIFORNIA

CONSULTANT:

REGISTERED PROFESSIONAL ENGINEER R. No. E 18589 12.31.2024 ELECTRICAL STATE OF CALIFORNIA

AG Design Inc.
Consulting Electrical Engineers
714.769.9900
www.AGDesignEng.com
2100 W Orangewood Ave Suite 165 | Orange, CA 92868

PROJECT NAME:

PACE EDUCATION CENTER
PARKING EXPANSION & MODULARS

PACE ELEMENTARY SCHOOL
9625 VAN RUTEN STREET
BELLFLOWER, CA 90706

CLIENT:

DOWNEY UNIFIED SCHOOL DISTRICT

11627 BROOKSHIRE AVE.
DOWNEY, CA 90242

Rev.	Date	Description

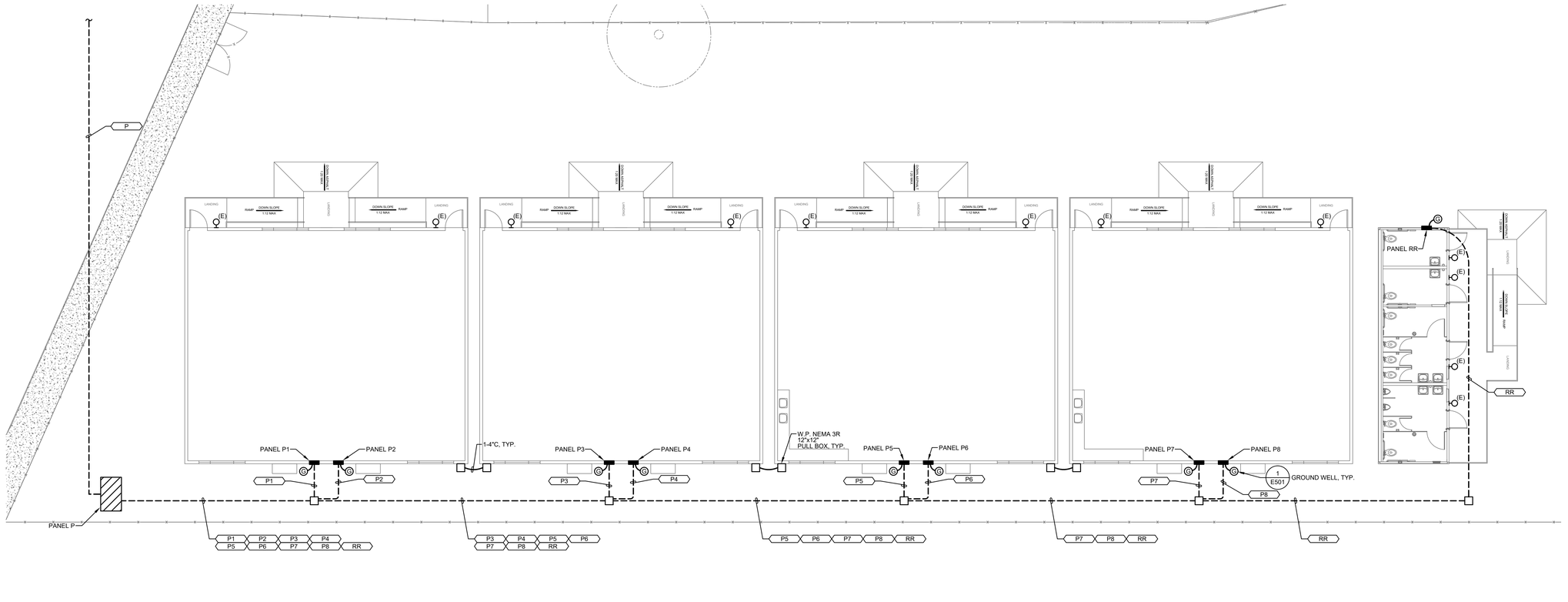
JOB NO:	XXX
DATE:	XXX
DRAWN:	XXX
CHECK:	XX
ARCHITECT:	RN
ENGINEER:	

SHEET DESCRIPTION:

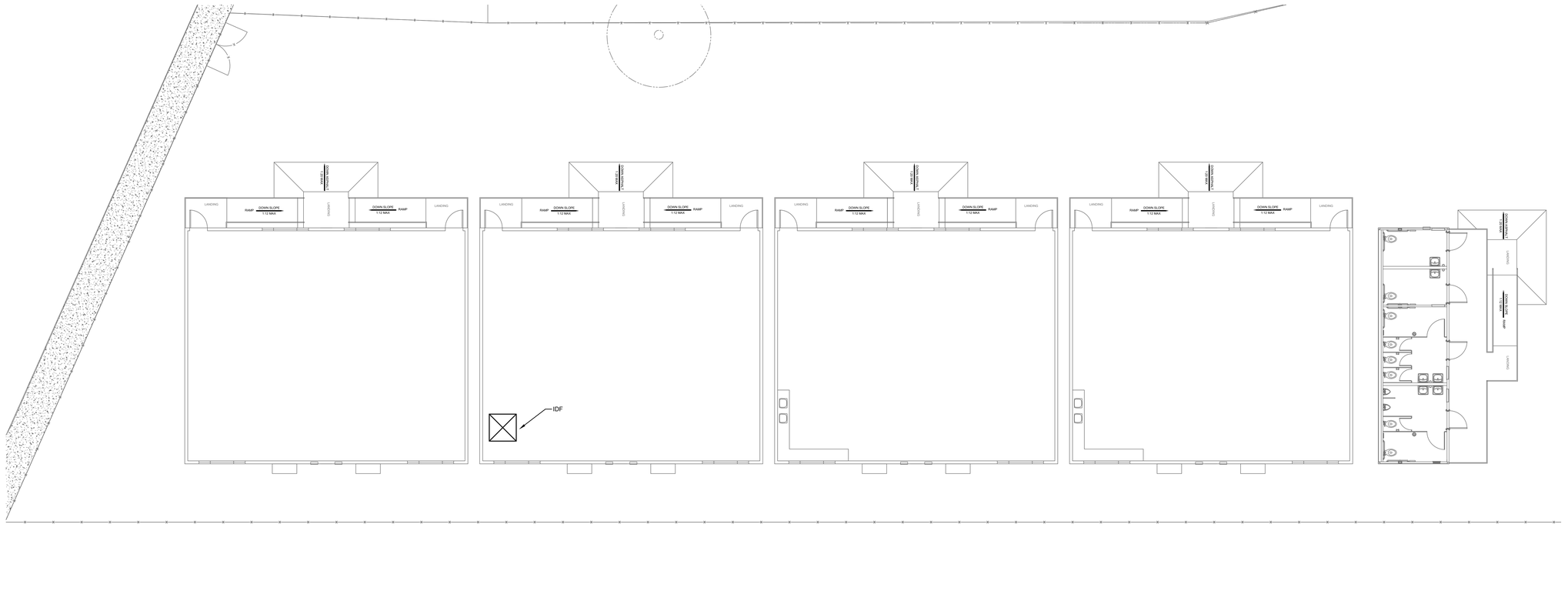
SINGLE-LINE DIAGRAM & PANEL SCHEDULES

SHEET NO:

E002



ENLARGED POWER FLOOR PLAN | 1
1/8" = 1'-0"



ENLARGED LOW VOLTAGE FLOOR PLAN | 2
1/8" = 1'-0"

RAND NICHOLL ARCHITECTURE
4591 SIRODAY AVENUE
YORBA LINDA, CA 92886
714.915.4504

LICENSED ARCHITECT
RAND C. NICHOLL
No. C-19066
FEB 28, 2025
STATE OF CALIFORNIA

CONSULTANT:

REGISTERED PROFESSIONAL ENGINEER
No. E 18589
12.31.2024
ELECTRICAL
STATE OF CALIFORNIA

AG Design Inc.
Consulting Electrical Engineers
714.769.9900
www.AGDesignEng.com
2100 W Orangewood Ave Suite 165 | Orange, CA 92868

PROJECT NAME:

PACE EDUCATION CENTER
PARKING EXPANSION & MODULARS

PACE ELEMENTARY SCHOOL
9625 VAN RUTEN STREET
BELLFLOWER, CA 90706

CLIENT:

DOWNEY UNIFIED SCHOOL DISTRICT

11627 BROOKSHIRE AVE.
DOWNEY, CA 90242

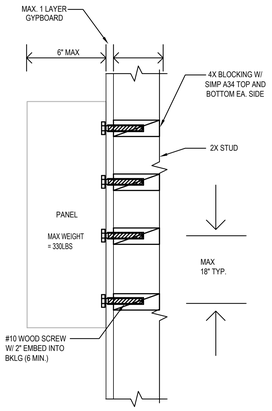
NO.	Rev.	Date	Description

JOB NO: XXX
DATE: XXX
DRAWN: XXX
CHECK: XX
ARCHITECT: RN
ENGINEER:

SHEET DESCRIPTION:
ENLARGED POWER & LOW VOLTAGE FLOOR PLANS

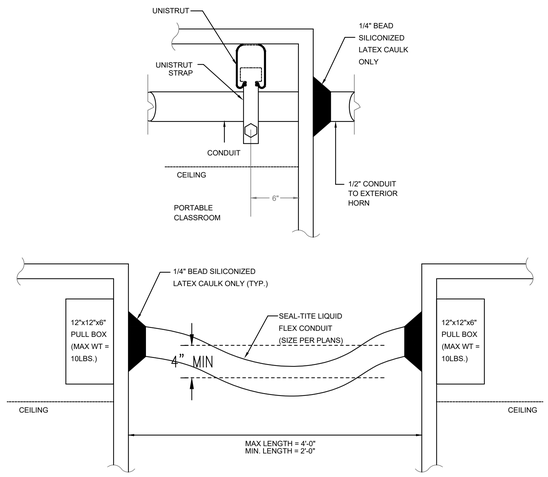
SHEET NO:

E101

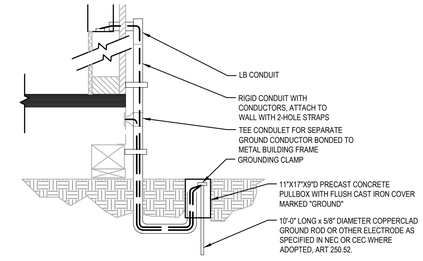


WOOD MOUNTING

SURFACE MOUNTED PANEL/CABINET (TYP.) | NOT TO SCALE | 3



SEAL TIGHT PENETRATION | NOT TO SCALE | 2



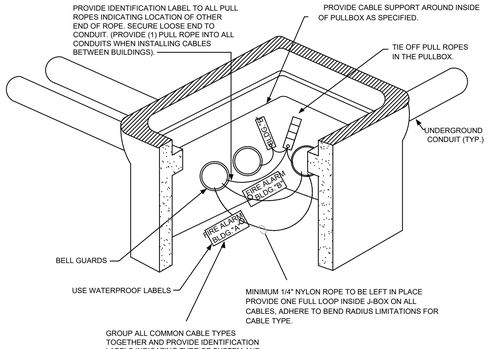
NOTES:

1. METAL MODULAR BUILDINGS : WHEN METAL BUILDINGS ARE MADE OF COMPONENTS, EACH BUILDING COMPONENT MUST BE ELECTRICALLY BONDED TOGETHER IN A MANNER ACCEPTABLE TO DSA/SSS. PAINT ON THE SURFACE WILL INHIBIT PASSAGE OF ELECTRICAL CURRENT, THEREFORE BOLTED CONNECTIONS OF COMPONENT PARTS ARE NOT AN ACCESSIBLE ELECTRICAL BOND.
2. WOOD MODULAR BUILDINGS : IN WOOD FRAME MODULAR BUILDINGS, THE ELECTRICAL SYSTEM MUST BE GROUNDED AS REQUIRED IN TITLE 24.
3. GROUNDING : THE ELECTRICAL CIRCUITS ARE USUALLY PROPERLY GROUNDED, HOWEVER, IT IS ALSO NECESSARY TO INDEPENDENTLY GROUND THE STEEL FRAMES. THIS IS PARTICULARLY IMPORTANT WHEN THE BUILDING IS SUPPORTED ON A FOUNDATION MADE OF WOOD.
4. INSPECTOR OF RECORD SHALL WITNESS GROUND TEST AND SUBMIT A COPY OF THE REPORT TO THE ARCHITECT. ALL BUILDING COMPONENTS MUST BE ELECTRICALLY BONDED TOGETHER AND MUST BE INDEPENDENTLY GROUNDED. ALL GROUNDING SYSTEMS ARE TO BE TESTED WITH A MEGGER UNIT OR IN AN OTHERWISE ACCEPTABLE MANNER. REFER TO C.E.C. SECTIONS 250-81 AND 250-83 FOR SPECIFIC GROUNDING REQUIREMENTS.
5. SIZE OF CONDUCTORS SHALL COMPLY WITH NEC TABLE 250.95.
6. BOND SEPARATE CONDUCTORS FROM GROUND ROD TO ELECTRICAL PANEL AND TO METAL BUILDING FRAME (NEC 250-81). IN ADDITION TO THE DETAIL SHOWN ABOVE, BOND THE ELECTRICAL CONDUCTOR GROUND TO METAL WATER PIPE EMBEDDED AT LEAST 10 FEET INTO THE SOIL IF AVAILABLE (NEC 250-81 AND NEC 250-83).
7. ALL MODULES OF METAL FRAME BUILDINGS AND RAMPS SHALL BE ELECTRICALLY BONDED TOGETHER (BOLTING ONLY IS NOT ACCEPTABLE BONDING).
8. CHECK RESISTANCE TO GROUND. IF RESISTANCE EXCEEDS 25 OHMS, INSTALL ADDITIONAL GROUND RODS WITH CONDUCTORS AS SHOWN, SEPARATED AT LEAST 6'-0" UNTIL RESISTANCE IS REDUCED TO 25 OHMS OR LESS. (NEC 250-84).
9. SEE SPECIFICATIONS FOR TESTING OF GROUNDING REQUIRED.
10. ALL ELECTRICAL WORK TO MEET THE REQUIREMENTS OF THE STATE ELECTRICAL CODES. PART 3 OF TITLE 24, CAC, WHICH REQUIRES PROPER GROUNDING OF ALL ELECTRICAL CIRCUITS, EQUIPMENT, ETC. FOR PUBLIC SCHOOL BUILDING(S), REGARDLESS OF THE TYPE OF CONSTRUCTION.

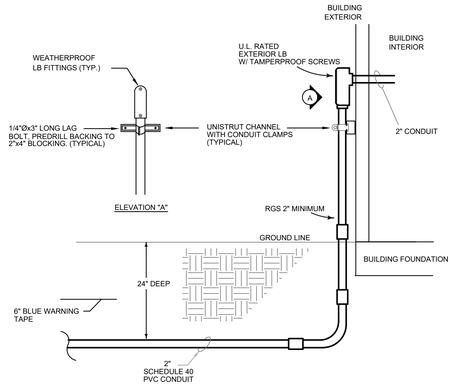
PORTABLE/OVERHEAD POLE BUILDING GROUNDING DETAIL | NOT TO SCALE | 1

NOTE:

1. THIS DETAIL APPLIES TO ALL CONDUITS AND WIRING ENTERING BUILDINGS FROM IN-GROUND PULLBOXES. ALL LABELING SHALL BE WATERPROOF.
2. CABLES SHALL NOT BE PULLED UNTIL CONDUIT BELL GUARDS HAVE BEEN PLACED.
3. ALL CABLES SHALL BE UL LISTED FOR WET LOCATIONS.

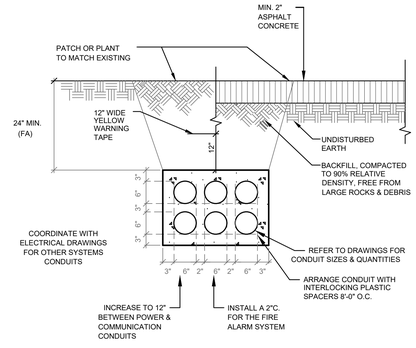


IN-GROUND PULL BOX WIRING & LABELING | NOT TO SCALE | 6



NOTE: REFER TO THE ELECTRICAL SPECIFICATION FOR UNDERGROUND CONDUIT REQUIREMENTS. DO NOT DISTURB THE EXISTING BUILDING FOUNDATION DURING INSTALLATION OF BUILDING ENTRY CONDUITS.

UNDERGROUND CONDUIT ENTRY INTO BUILDINGS | NOT TO SCALE | 5



NOTE: REFER TO THE ELECTRICAL SPECIFICATION AND PLANS FOR UNDERGROUND CONDUIT & TRENCH REQUIREMENTS.

UNDERGROUND MULTI-CONDUIT DETAIL | NOT TO SCALE | 4

RAND NICHOLL ARCHITECTURE
4591 SIRODAY AVENUE
YORBA LINDA, CA 92886
714.915.4504

LICENSED ARCHITECT RAND C. NICHOLL NO. C-19066 EXP. FEB 28, 2025 STATE OF CALIFORNIA

RN

CONSULTANT:

REGISTERED PROFESSIONAL ENGINEER No. E 18589 12.31.2024 ELECTRICAL STATE OF CALIFORNIA

AG Design Inc.
Consulting Electrical Engineers
714.769.9900
www.AGDesignEng.com
2100 W Orangewood Ave Suite 165 | Orange, CA 92868

PROJECT NAME:

PACE EDUCATION CENTER
PARKING EXPANSION & MODULARS

PACE ELEMENTARY SCHOOL
9625 VAN RUTEN STREET
BELLFLOWER, CA 90706

CLIENT:

DOWNEY UNIFIED SCHOOL DISTRICT

11627 BROOKSHIRE AVE.
DOWNEY, CA 90242

No.	Rev. Date	Description

JOB NO: XXX
DATE: XXX
DRAWN: XXX
CHECK: XX
ARCHITECT: RN
ENGINEER:

SHEET DESCRIPTION:

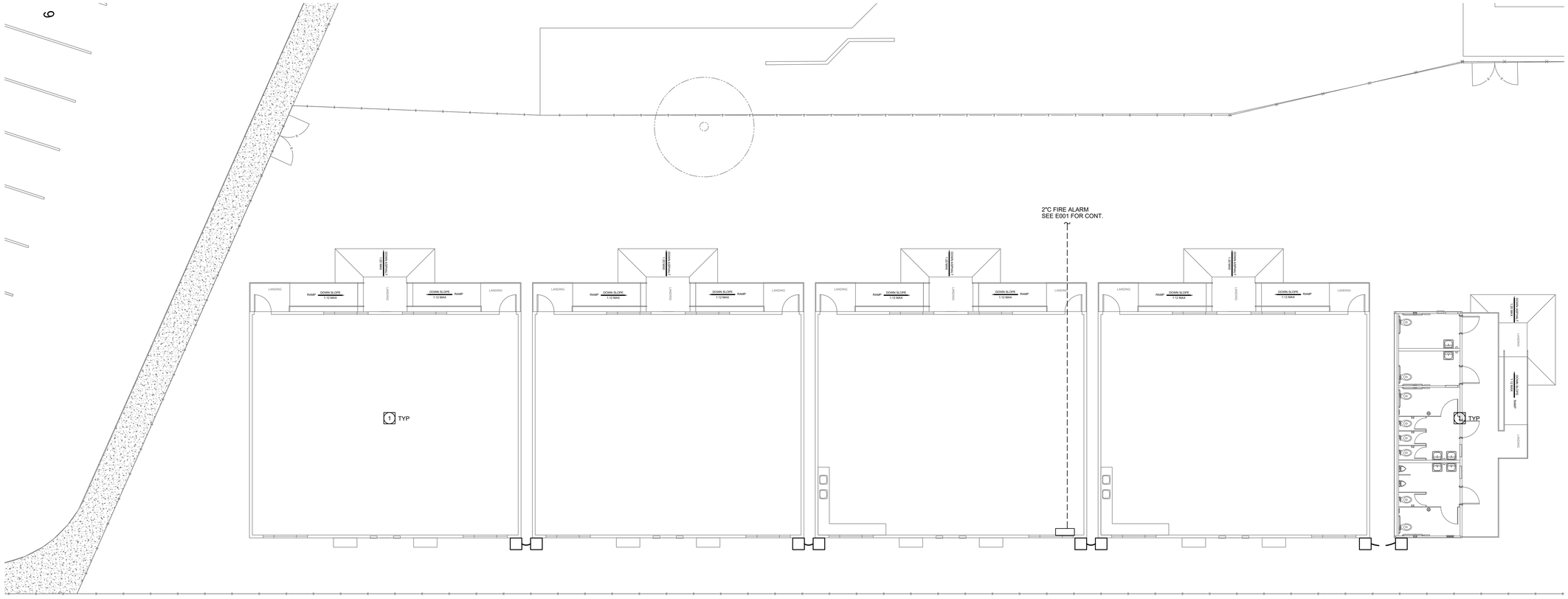
ELECTRICAL DETAILS

SHEET NO:

E501

PLAN NOTE:

1. ALL DEVICES ARE TO BE EXISTING AND REMAIN. RECONNECT WITH MAIN FIRE ALARM CONTROL PANEL.



NORTH

ENLARGED LIRE ALARM PLAN | 1 | 1/8" = 1'-0"

RAND NICHOLL ARCHITECTURE
4591 SIRODAY AVENUE
YORBA LINDA, CA 92886
714.915.4504

LICENSED ARCHITECT
RAND C. NICHOLL
NO. C-19066
EXP. FEB 29, 2024
STATE OF CALIFORNIA

CONSULTANT:

REGISTERED PROFESSIONAL ENGINEER
No. E 18589
12.31.2024
ELECTRICAL
STATE OF CALIFORNIA

AG Design Inc.
Consulting Electrical Engineers
714.769.9900
www.AGDesignEng.com
2100 W Orangewood Ave Suite 165 | Orange, CA 92868

PROJECT NAME:

PACE EDUCATION CENTER
PARKING EXPANSION & MODULARS

PACE ELEMENTARY SCHOOL
9625 VAN RUTEN STREET
BELLFLOWER, CA 90706

CLIENT:

DOWNEY UNIFIED SCHOOL DISTRICT

11627 BROOKSHIRE AVE.
DOWNEY, CA 90242

No.	Rev. Date	Description

JOB NO:	XXX
DATE:	XXX
DRAWN:	XXX
CHECK:	XX
ARCHITECT:	RN
ENGINEER:	

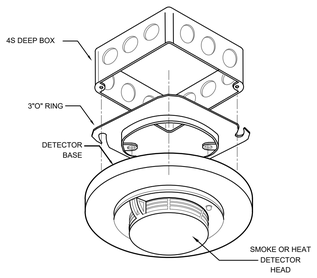
SHEET DESCRIPTION:

ENLARGED FIRE ALARM PLAN

SHEET NO:

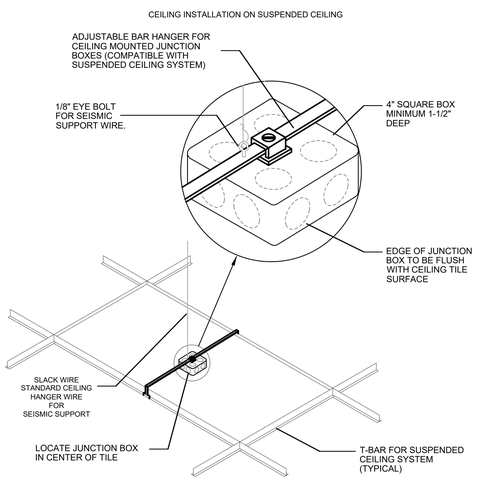
FA101

BACKBOX SHALL BE MOUNTED ACCORDING TO THE ELECTRICAL SPECIFICATIONS. INSTALL WIREMOLD EQUIVALANT FOR SURFACE MOUNTING



CEILING/ATTIC MOUNT SMOKE & HEAT DETAIL

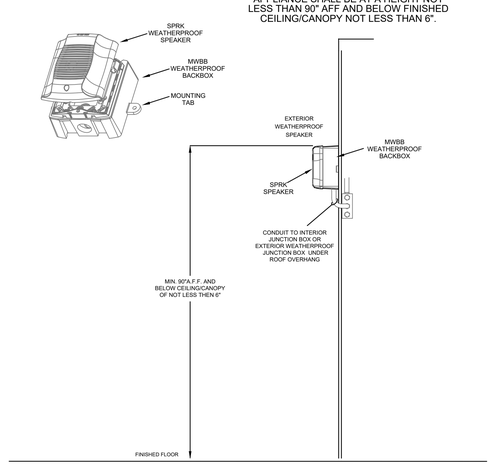
NOT TO SCALE | 6



SMOKE DETECTOR, STROBE, SPEAKER & SPEAKER/STROBE MOUNTING

NOT TO SCALE | 3

TOP OF WALL MOUNTED AUDIBLE NOTIFICATION APPLIANCE SHALL BE AT A HEIGHT NOT LESS THAN 90" AFF AND BELOW FINISHED CEILING/CANOPY NOT LESS THEN 6".

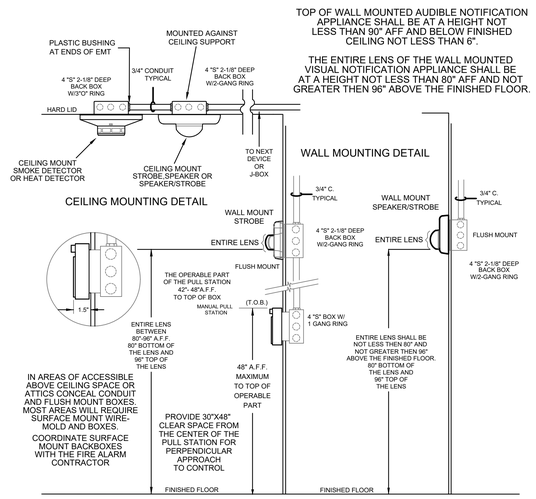


EXTERIOR SPEAKER MOUNTING

NOT TO SCALE | 5

TOP OF WALL MOUNTED AUDIBLE NOTIFICATION APPLIANCE SHALL BE AT A HEIGHT NOT LESS THAN 90" AFF AND BELOW FINISHED CEILING NOT LESS THAN 6".

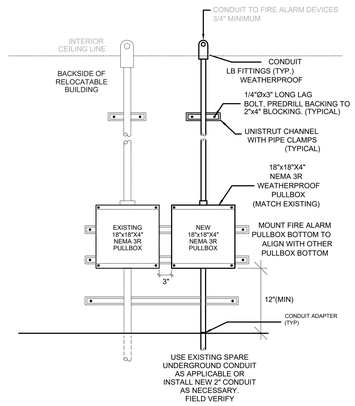
THE ENTIRE LENS OF THE WALL MOUNTED VISUAL NOTIFICATION APPLIANCE SHALL BE AT A HEIGHT NOT LESS THAN 80" AFF AND NOT GREATER THEN 96" ABOVE THE FINISHED FLOOR.



DEVICE MOUNTING HEIGHT DETAIL

NOT TO SCALE | 2

FIRE ALARM SYSTEM PULLBOX MOUNTING DETAIL



PORTABLE BUILDING CONDUIT DETAIL

NOT TO SCALE | 4

NOT USED

NOT TO SCALE | 1

RAND NICHOLL ARCHITECTURE
4591 SIRODAY AVENUE
YORBA LINDA, CA 92886
714.915.4504

LICENSED ARCHITECT RAND C. NICHOLL NO. C-19066 FEB 28, 2025 STATE OF CALIFORNIA

CONSULTANT:

REGISTERED PROFESSIONAL ENGINEER No. E 18589 12.31.2024 ELECTRICAL STATE OF CALIFORNIA

AG Design Inc.
Consulting Electrical Engineers
714.769.9900
www.AGDesignEng.com
2100 W Orangewood Ave Suite 165 | Orange, CA 92868

PROJECT NAME:

PACE EDUCATION CENTER
PARKING EXPANSION & MODULARS

PACE ELEMENTARY SCHOOL
9625 VAN RUTEN STREET
BELLFLOWER, CA 90706

CLIENT:

DOWNEY UNIFIED SCHOOL DISTRICT

11627 BROOKSHIRE AVE.
DOWNEY, CA 90242

No.	Rev. Date	Description

JOB NO:	XXX
DATE:	XXX
DRAWN:	XXX
CHECK:	XX
ARCHITECT:	RN
ENGINEER:	

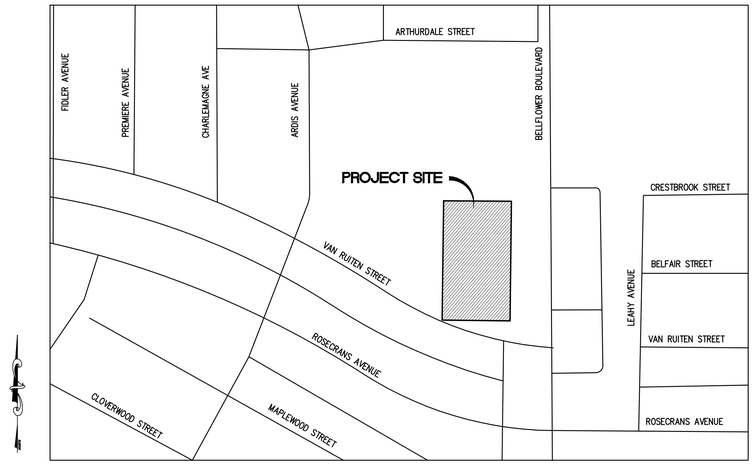
SHEET DESCRIPTION:

FIRE ALARM DETAILS

SHEET NO:

FA501

PACE EDUCATION CENTER
PARKING EXPANSION AND MODULARS
9625 VAN RUITEN STREET
BELLFLOWER, CA 90706



VICINITY MAP
N.T.S.

SHEET INDEX

C-100	TITLE SHEET
C-200	DEMOLITION PLAN
C-300	IMPROVEMENT PLAN
C-400	HORIZONTAL CONTROL PLAN
C-500	PRECISE GRADING PLAN
C-501	RAMP DETAILS
C-600	STORM DRAIN PLAN
C-601	SEWER AND WATER PLAN
C-700	EROSION CONTROL PLAN
C-800	DETAILS
C-801	PUMP DETAILS

SYMBOL LEGEND

(139.0)	EXISTING CONTOUR
139.0	PROPOSED CONTOUR
	SANDBAGS
DW	DOMESTIC WATER LINE
FW	FIRE WATER LINE
SD	STORM DRAIN LINE
SS	SANITARY SEWER LINE
R/W	RIGHT-OF-WAY LINE
PL	PROPERTY LINE
℄	CENTERLINE
	EXISTING
GB	GRADE BREAK
R	RIDGE
	STREET LIGHT
	DIRECTION OF FLOW
	ASPHALT PAVING
	CONCRETE
	LANDSCAPING
(139.00)	EXISTING ELEVATION
139.00	PROPOSED ELEVATION

ABBREVIATIONS

AC	ASPHALT CONCRETE
ADA	AMERICANS WITH DISABILITIES ACT
APP.	APPROXIMATE
AVE.	AVENUE
BFP	BACKFLOW PREVENTER
BLDG	BUILDING
BLVD	BOULEVARD
BMP	BEST MANAGEMENT PRACTICES
C&G	CURB AND GUTTER
CF	CURB FACE
CL	CENTER LINE
CO	CLEANOUT
CONC	CONCRETE
CY	CUBIC YARDS
DF	DEEPENED FOOTING
DW	DOMESTIC WATER
EA.	EACH
EX./EXIST.	EXISTING
FF	FINISHED FLOOR
FG	FINISHED GRADE
FL	FLOW LINE
FS	FINISHED SURFACE
GB	GRADE BREAK
GM	GAS METER
HB	HOSE BIBB
INV	INVERT
L.F.	LINEAR FEET
L.S.	LUMP SUM
MAX.	MAXIMUM
MIN.	MINIMUM
MH	MANHOLE
N.T.S.	NOT TO SCALE
NO.	NUMBER
O.C.	ON CENTER
P	PROTECT IN PLACE
PA	PLANTER AREA
PB	PULL BOX
PCC	PORTLAND CEMENT CONCRETE
PL	PROPERTY LINE
P.O.T.	PATH OF TRAVEL
PROP.	PROPOSED
PVC	POLYVINYL CHLORIDE
QTY.	QUANTITY
R	RIDGE
R/W	RIGHT OF WAY
SD	STORM DRAIN
S.F.	SQUARE FEET
SS	SANITARY SEWER
ST.	STREET
STD.	STANDARD
TC	TOP OF CURB
TF	TOP OF FOOTING
TG	TOP OF GRATE
TOI	TOP OF ISLAND
TYP.	TYPICAL
VCP	VITRIFIED CLAY PIPE
W	WATER
WM	WATER METER
WV	WATER VALVE

NOTICE TO CONTRACTOR

CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FORM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.

UNAUTHORIZED CHANGES & USES

CAUTION: THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.

EXISTING UTILITIES AND PAVEMENT OX

THE DEPTH OF THE EXISTING UTILITIES IS UNKNOWN AND MAY CONFLICT WITH THE OVER-EXCAVATION, (OX) FOR THE PROPOSED STREET STRUCTURAL SECTION AND OTHER PAVEMENT AREAS. NA CIVIL IS NOT RESPONSIBLE FOR THE COST OF LOWERING THE EXISTING UTILITY TO AVOID ANY CONFLICT BETWEEN THE OX ZONE AND THE EXISTING UTILITY. IN THE EVENT THERE IS A CONFLICT BETWEEN THE EXISTING UTILITY AND THE PROPOSED OX, THE CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER IMMEDIATELY.

PRIVATE ENGINEER'S NOTICE TO CONTRACTORS

THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THIS PLAN ARE OBTAINED BY A SEARCH OR AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE THERE ARE NO EXISTING UTILITIES EXCEPT AS SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE UTILITIES SHOWN AND ANY OTHER LINES OR STRUCTURES NOT SHOWN ON THESE PLANS.

ALL CONTRACTORS AND SUBCONTRACTORS PERFORMING WORK SHOWN ON OR RELATED TO THESE PLANS SHALL CONDUCT THEIR OPERATIONS SO THAT ALL EMPLOYEES ARE PROVIDED A SAFE PLACE TO WORK AND THE PUBLIC IS PROTECTED. ALL CONTRACTORS AND SUBCONTRACTORS SHALL COMPLY WITH THE "OCCUPATIONAL SAFETY AND HEALTH REGULATION" OF THE U.S. DEPARTMENT OF LABOR, AND WITH THE STATE OF CALIFORNIA DEPARTMENT OF INDUSTRIAL RELATIONS' "CONSTRUCTION SAFETY ORDERS."

CONTRACTOR FURTHER AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS; AND THAT THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.

ALL CONTRACTORS AND SUBCONTRACTORS PERFORMING WORK SHOWN ON OR RELATED TO THESE PLANS SHALL EXAMINE THESE PLANS PRIOR TO THE FINAL BID & SUBMIT AN RFI TO THE ENGINEER TO CLARIFY ANY CONFUSION OR DISCREPANCY OF ANY DETAILS OR STANDARDS SHOWN ON THESE PLANS OR RELATED TO THESE PLANS.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO EXAMINE THE STAKES BEFORE COMMENCING THE OPERATIONS. SHOULD OCCASION ARISE WHERE THE VALIDITY OF A STAKE IS QUESTIONABLE, EITHER AS TO ITS LOCATION OR THE OFFSET MARKED THEREON, OR AS TO THE ELEVATION OF CUT OR FILL MARKED THEREON, CONTRACTOR SHALL NOTIFY THE ENGINEER WHO WILL CHECK THE STAKE OR STAKES IN QUESTION. ANY STAKES FOUND TO BE IN ERROR WILL BE RESET WITHOUT CHARGE. IT IS UNDERSTOOD THAT THE ENGINEER WILL NOT BE CHARGED FOR ANY STANDBY OR "DOWN" TIME AS A RESULT OF SUCH CHECKING AND/OR RESETTING PROCEDURE. THE ENGINEER IS NOT LIABLE FOR ALLEGED ERRORS WHEN STAKES HAVE BEEN DESTROYED AND FIELD NOTES AND RECORDS INDICATE STAKES WERE SET CORRECTLY.

THE ESTIMATED QUANTITIES SHOWN ON THESE PLANS ARE ONLY FOR THE PURPOSE OF OBTAINING THE NECESSARY PERMIT. THE CONTRACTOR SHALL PERFORM THEIR OWN QUANTITY TAKEOFF BEFORE SUBMITTING A BID FOR ANY PORTION OF THE IMPROVEMENTS COVERED BY THESE PLANS INCLUDING ANY ADDITIONAL TRAFFIC CONTROL PLANS OR TRAFFIC CONTROL MEASURES MAY BE REQUESTED BY THE AGENCY INSPECTOR.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL EXISTING ELEVATIONS ON THE SITE AND COMPARE THEM WITH THE PLANS. REPORT ANY DISCREPANCY BACK TO THE ENGINEER IMMEDIATELY.

OWNER / DEVELOPER

REEF-SUNSET UNIFIED SCHOOL DISTRICT
500 S 1ST AVE.
AVENAL, CA 93204
(559) 386-5287

BASIS OF BEARINGS

THE BEARING OF NORTH 00°09'40" WEST BETWEEN THE FOLLOWING DESCRIBED STATION "A" AND STATION "B" MONUMENTS WAS TAKEN AS THE BASIS OF BEARINGS. THE BEARINGS SHOWN HEREON ARE BASED UPON THE CALIFORNIA COORDINATE SYSTEM OF 1983, CCS83, ZONE 5, EPOCH 2017.50, AND ESTABLISHED LOCALLY BY FIELD-OBSERVED TIES RELATIVE TO TO CALIFORNIA SPATIAL REFERENCE NETWORK STATION "HOLP" AND "LBV1", IN ACCORDANCE WITH THE CALIFORNIA PUBLIC RESOURCES CODE, SECTIONS 8801-8819. STATION VALUES (NAD83) AND ACCURACIES AS PUBLISHED BY THE CSRC. ALL LINEAR MEASUREMENTS ARE IN USE SURVEY FEET.

BENCHMARK

LOS ANGELES COUNTY PUBLIC WORKS VERTICAL CONTROL BENCHMARK

DESIGNATION:	EY5868
DATUM:	NAVD'88
ELEVATIONS:	26.343'
YEAR:	2013
DESCRIPTION:	L&T AT BCR (E END CB) SW COR ROSECRANS AVE & WOODRUFF AVE.

FLOOD ZONE

THIS PROPERTY IS IN FLOOD ZONE "X" OF THE FLOOD MAP NO. 06037C1820F, WHICH BEARS AN EFFECTIVE DATE OF 09/26/2008.

RNA
RAND NICHOLL ARCHITECTURE
4591 SIRODAY AVENUE
YORBA LINDA, CA 92886
714.915.4504

LICENSED ARCHITECT RAND C. NICHOLL NO. C-19066 EXP. 02-29-2025 STATE OF CALIFORNIA

CONSULTANT:

NA CIVIL, INC.
CIVIL ENGINEERING • SURVEYING
22672 LAMBERT STREET,
SUITE 606
LAKE FOREST, CA 92630
949.753.0600

REGISTERED PROFESSIONAL ENGINEER MATTHEW JOHN PALOMINO No. C78355 Exp. 09-30-25 CIVIL STATE OF CALIFORNIA

PROJECT NAME:

PACE EDUCATION CENTER
PARKING EXPANSION & MODULARS

PACE ELEMENTARY SCHOOL
9625 VAN RUTEN STREET
BELLFLOWER, CA 90706

CLIENT:

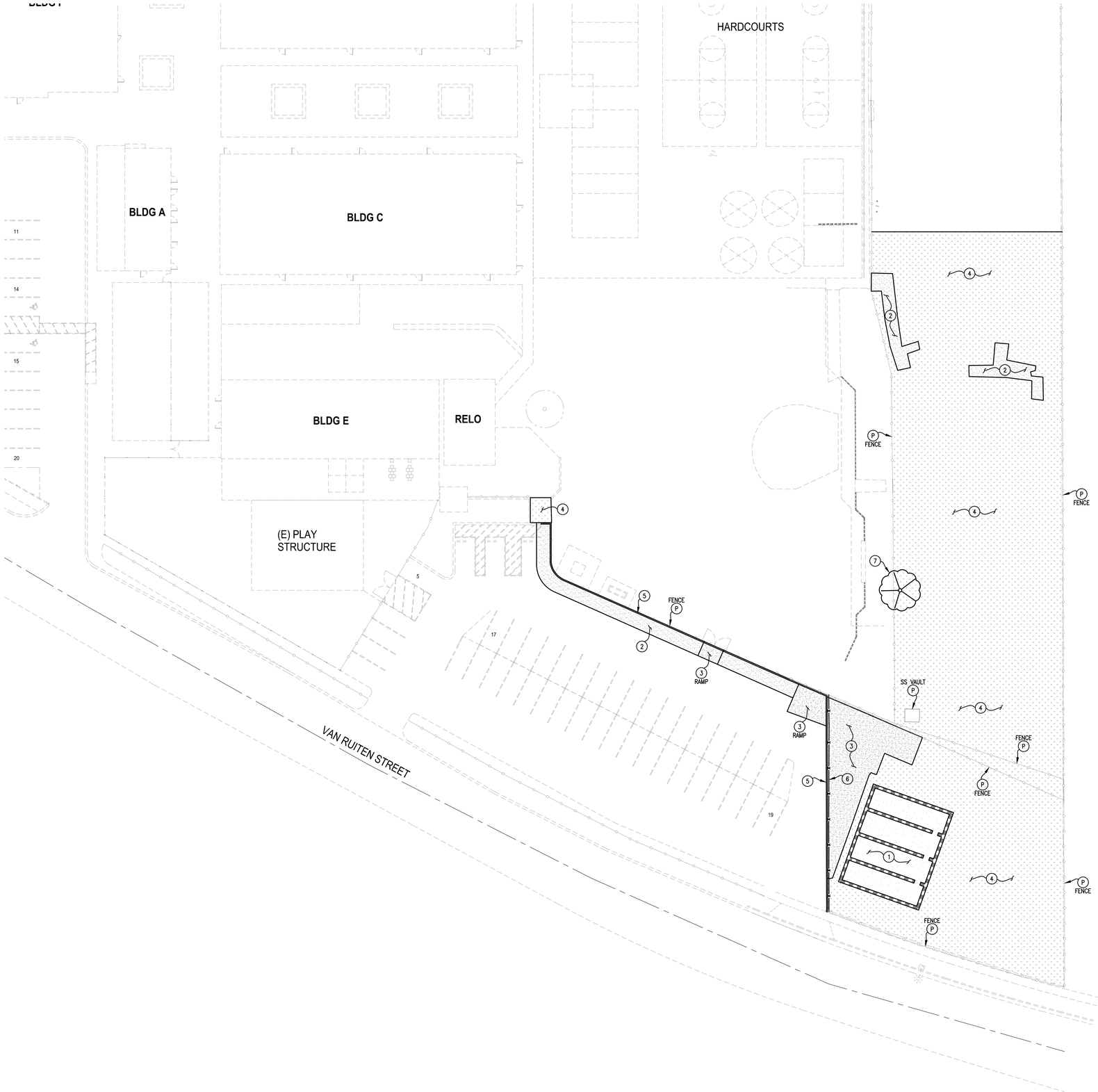
DOWNEY UNIFIED SCHOOL DISTRICT
11627 BROOKSHIRE AVE.
DOWNEY, CA 90242

Rev.	Date	Description

JOB NO:	240610
DATE:	07/12/2024
DRAWN:	KN
CHECK:	MP
ARCHITECT:	RN
ENGINEER:	MP

SHEET DESCRIPTION:
TITLE SHEET

SHEET NO:
C-100



DEMOLITION NOTES:

		APP. QTY.:
1	REMOVE EXISTING BUILDING, FOOTINGS, FOUNDATIONS, AND ALL ASSOCIATED UTILITIES SERVICING THE BUILDING.	1,950 S.F.
2	SAWCUT AND REMOVE EXISTING ASPHALT PAVING.	1,650 S.F.
3	SAWCUT AND REMOVE EXISTING CONCRETE.	1,900 S.F.
4	CLEAR AND GRUB EXISTING LANDSCAPING.	26,800 S.F.
5	SAWCUT AND REMOVE EXISTING CURB.	300 L.F.
6	REMOVE EXISTING FENCE, POSTS, AND FOOTINGS.	120 L.F.
7	REMOVE EXISTING TREE AND ROOT BALL. CHASE AND REMOVE ROOTS FOR TEN (10) FEET FROM TRUNK.	1 EA.
P	PROTECT IN PLACE.	

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

RNA
RAND NICHOLL ARCHITECTURE
4591 SIRODAY AVENUE
YORBA LINDA, CA 92886
714.915.4504

LICENSED ARCHITECT — RAND C. NICHOLL — NO. C-19066 — EXP. FEB 28-2025 — STATE OF CALIFORNIA

CONSULTANT:

NA CIVIL, INC.
CIVIL ENGINEERING • SURVEYING
22672 LAMBERT STREET,
SUITE 606
LAKE FOREST, CA 92630
949.753.0600

REGISTERED PROFESSIONAL ENGINEER — MATTHEW JOHN PALERMO — No. C78355 — Exp. 09-30-25 — CIVIL — STATE OF CALIFORNIA

PROJECT NAME:

PACE EDUCATION CENTER
PARKING EXPANSION & MODULARS

PACE ELEMENTARY SCHOOL
9625 VAN RUTEN STREET
BELLFLOWER, CA 90706

CLIENT:

DOWNEY UNIFIED
SCHOOL DISTRICT

11627 BROOKSHIRE AVE.
DOWNEY, CA 90242

Rev.	Date	Description

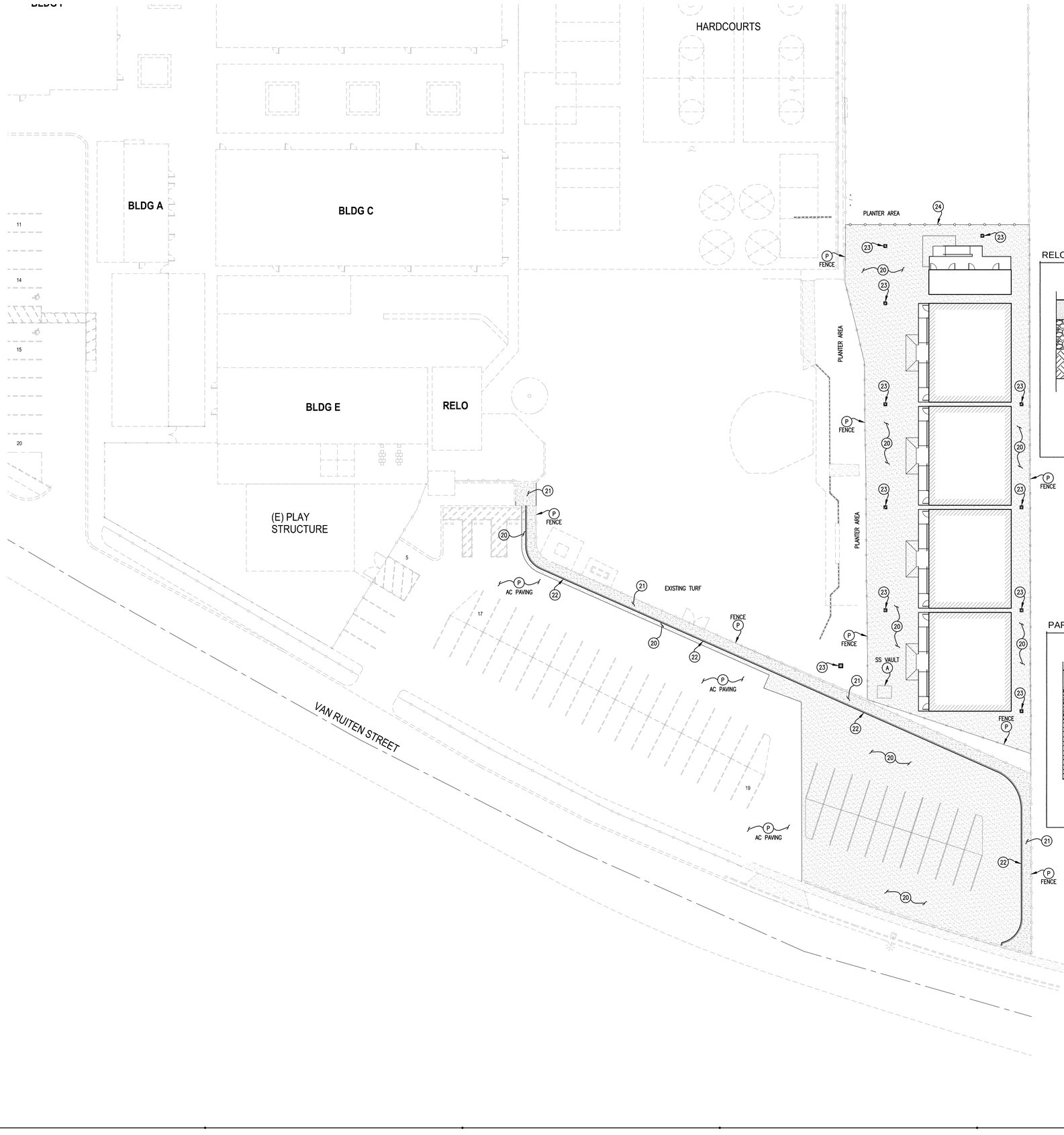
JOB NO:	240610
DATE:	07/12/2024
DRAWN:	KN
CHECK:	MP
ARCHITECT:	RN
ENGINEER:	MP

SHEET DESCRIPTION:

DEMOLITION PLAN

SHEET NO:

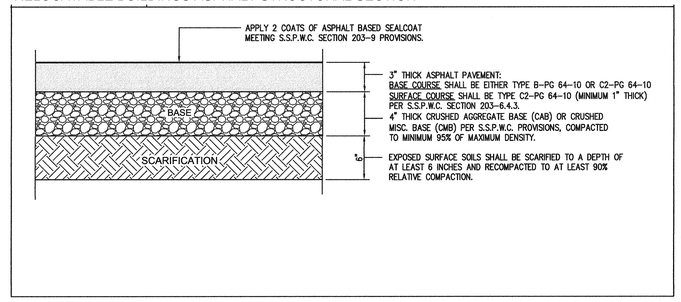
C-200



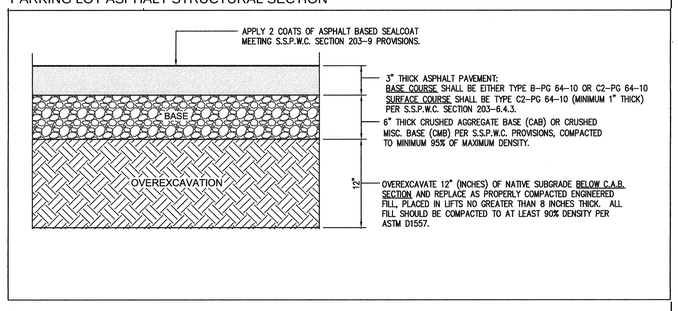
CONSTRUCTION NOTES:

		APP. QTY.:
(20)	CONSTRUCT ASPHALT PAVING OVER AGGREGATE BASE, PER GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.	20,300 S.F.
(21)	CONSTRUCT 4" PCC SIDEWALK, PER DETAILS 1, 2, 6, & 7 ON ARCHITECTURAL PLAN SHEET A101.	2,000 S.F.
(22)	CONSTRUCT 6" PCC CURB, PER DETAIL ON SHEET C-800.	380 L.F.
(23)	CONSTRUCT CATCH BASIN PER STORM DRAIN PLAN ON SHEET C-600.	11 EA.
(24)	CONSTRUCT FENCE, POSTS, AND FOOTINGS PER ARCHITECTURAL PLANS.	120 L.F.
(P)	PROTECT IN PLACE.	
(A)	ADJUST TO GRADE.	

RELOCATABLE BUILDINGS ASPHALT STRUCTURAL SECTION



PARKING LOT ASPHALT STRUCTURAL SECTION



GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

RNA
RAND NICHOLL ARCHITECTURE
4591 SIRODAY AVENUE
YORBA LINDA, CA 92886
714.915.4504

LICENSED ARCHITECT RAND C. NICHOLL NO. C-19066 EXP. FEB 28, 2025 STATE OF CALIFORNIA

CONSULTANT:

NA CIVIL, INC.
CIVIL ENGINEERING · SURVEYING
22672 LAMBERT STREET,
SUITE 606
LAKE FOREST, CA 92630
949.753.0600

REGISTERED PROFESSIONAL ENGINEER MATTHEW JOHN PALOMINO No. C78355 Exp. 09-30-25 CIVIL STATE OF CALIFORNIA

PROJECT NAME:

PACE EDUCATION CENTER
PARKING EXPANSION & MODULARS

PACE ELEMENTARY SCHOOL
9625 VAN RUTEN STREET
BELLFLOWER, CA 90706

CLIENT:

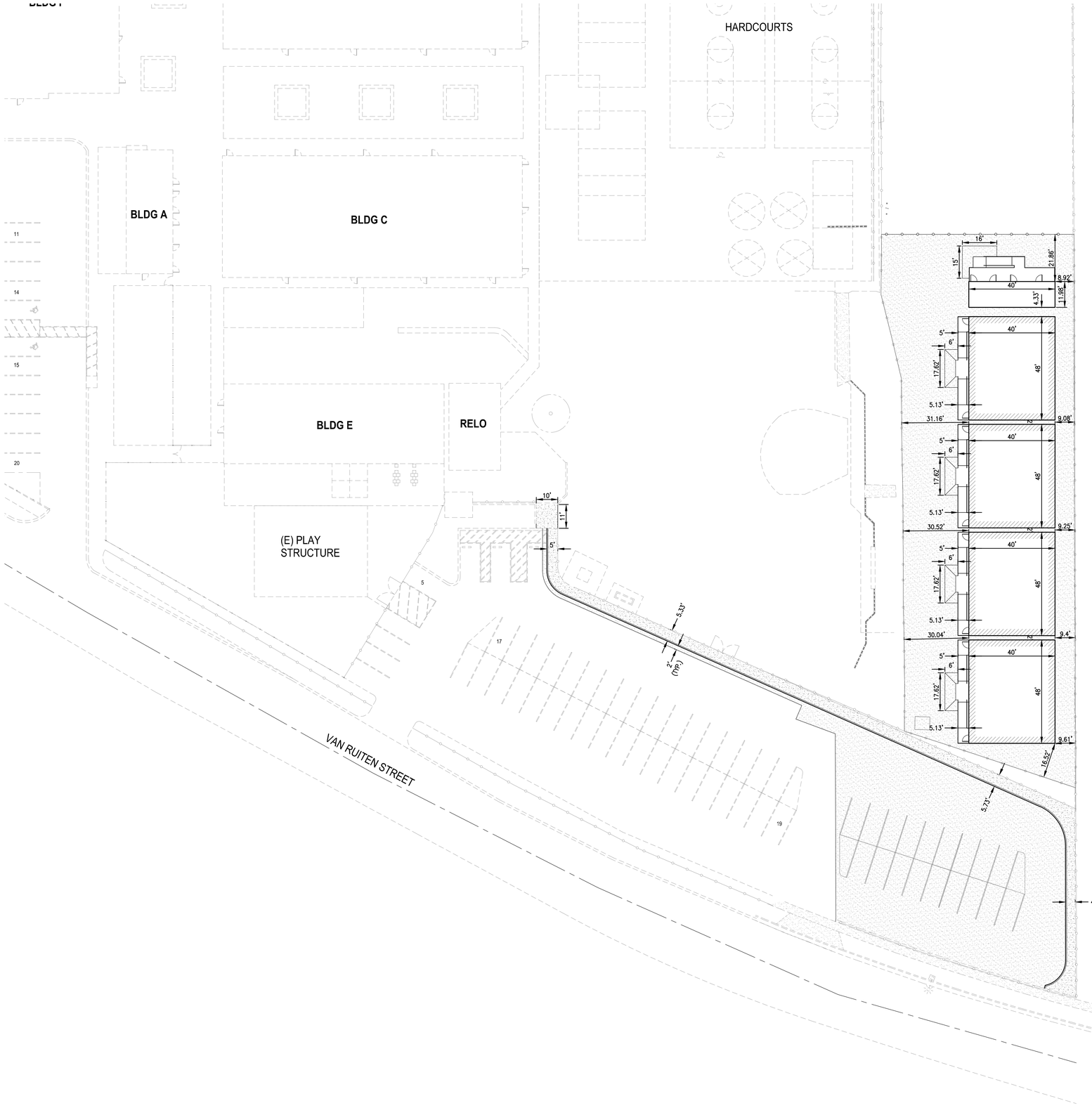
DOWNEY UNIFIED SCHOOL DISTRICT
11627 BROOKSHIRE AVE.
DOWNEY, CA 90242

Rev.	Date	Description

JOB NO:	240610
DATE:	07/12/2024
DRAWN:	KN
CHECK:	MP
ARCHITECT:	RN
ENGINEER:	MP

SHEET DESCRIPTION:
IMPROVEMENT PLAN

SHEET NO:
C-300



GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

RNA

RAND NICHOLL ARCHITECTURE
4591 SIRODAY AVENUE
YORBA LINDA, CA 92886
714.915.4504

LICENSED ARCHITECT RAND C. NICHOLL NO. C-19066 EXP. FEB 28-2025 STATE OF CALIFORNIA

CONSULTANT:

NA CIVIL, INC.
CIVIL ENGINEERING • SURVEYING
22672 LAMBERT STREET,
SUITE 606
LAKE FOREST, CA 92630
949.753.0600

REGISTERED PROFESSIONAL ENGINEER MATTHEW JOHN PALERMO No. C78355 Exp. 09-30-25 CIVIL STATE OF CALIFORNIA

PROJECT NAME:

PACE EDUCATION CENTER
PARKING EXPANSION & MODULARS

PACE ELEMENTARY SCHOOL
9625 VAN RUTEN STREET
BELLFLOWER, CA 90706

CLIENT:

DOWNEY UNIFIED
SCHOOL DISTRICT
11627 BROOKSHIRE AVE.
DOWNEY, CA 90242

Rev.	Date	Description

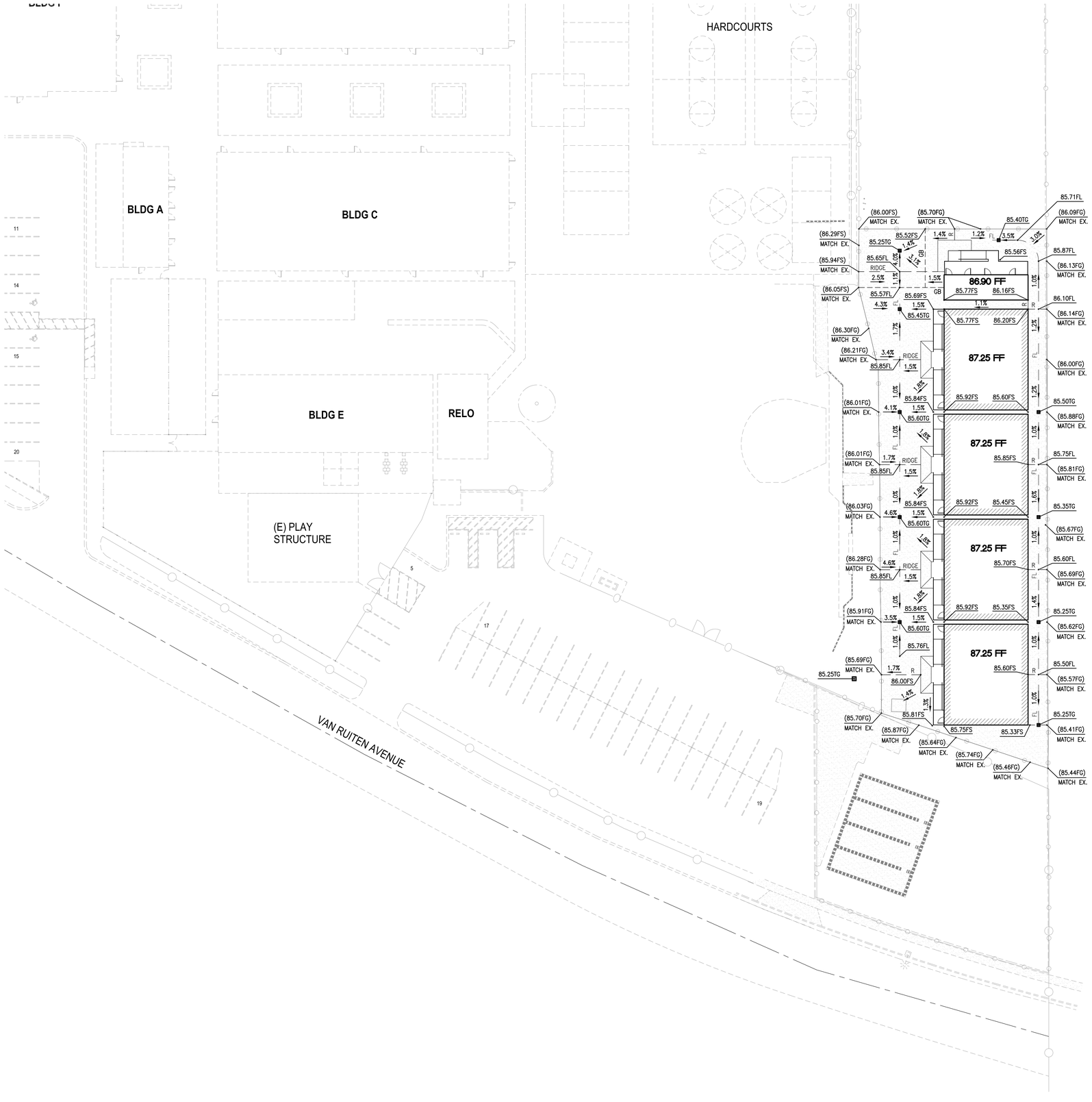
JOB NO:	240610
DATE:	07/12/2024
DRAWN:	KN
CHECK:	MP
ARCHITECT:	RN
ENGINEER:	MP

SHEET DESCRIPTION:

HORIZONTAL CONTROL PLAN

SHEET NO:

C-400



RAND NICHOLL ARCHITECTURE
4591 SIRODAY AVENUE
YORBA LINDA, CA 92886
714.915.4504

LICENSED ARCHITECT RAND C. NICHOLL NO. C-19066 EXP. FEB 28, 2025 STATE OF CALIFORNIA

CONSULTANT:

NA CIVIL, INC.
CIVIL ENGINEERING · SURVEYING
22672 LAMBERT STREET,
SUITE 606
LAKE FOREST, CA 92630
949.753.0600

REGISTERED PROFESSIONAL ENGINEER MATTHEW JOHN PALERMO No. C78355 Exp. 09-30-25 CIVIL STATE OF CALIFORNIA

PROJECT NAME:

PACE EDUCATION CENTER
PARKING EXPANSION & MODULARS

PACE ELEMENTARY SCHOOL
9625 VAN RUTEN STREET
BELLFLOWER, CA 90706

CLIENT:

DOWNEY UNIFIED SCHOOL DISTRICT

11627 BROOKSHIRE AVE.
DOWNEY, CA 90242

Rev.	Date	Description

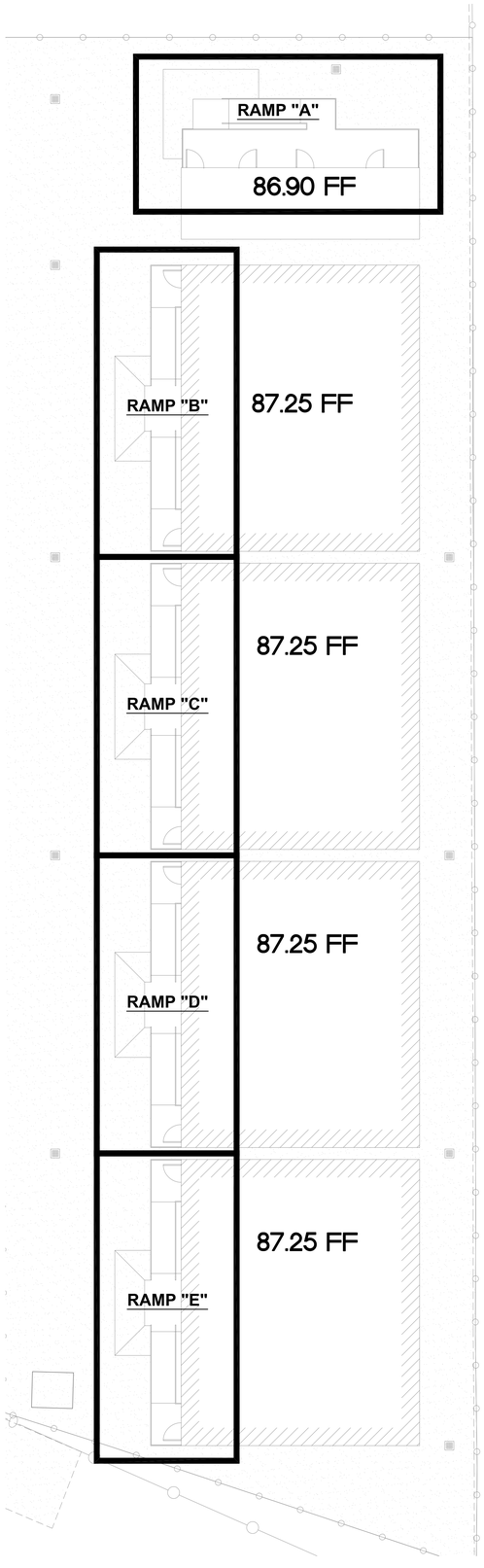
JOB NO:	240610
DATE:	07/12/2024
DRAWN:	KN
CHECK:	MP
ARCHITECT:	RN
ENGINEER:	MP

SHEET DESCRIPTION:

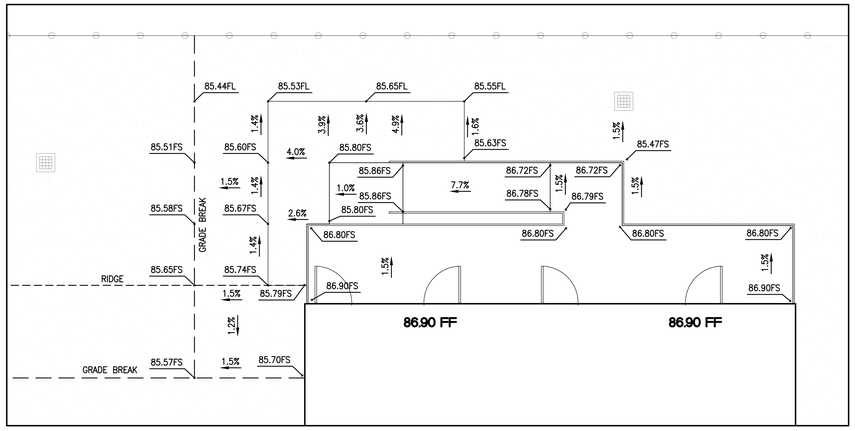
PRECISE GRADING PLAN

SHEET NO:

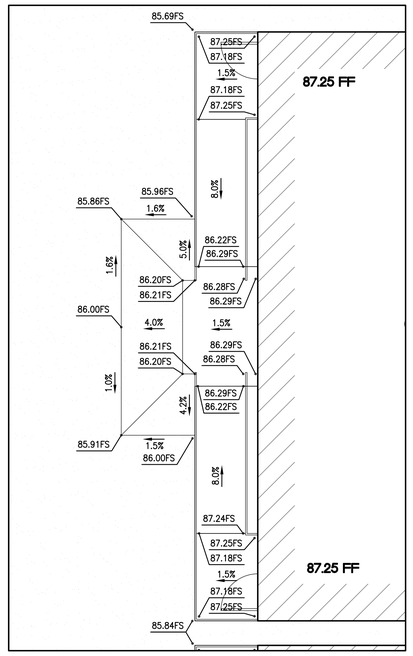
C-500



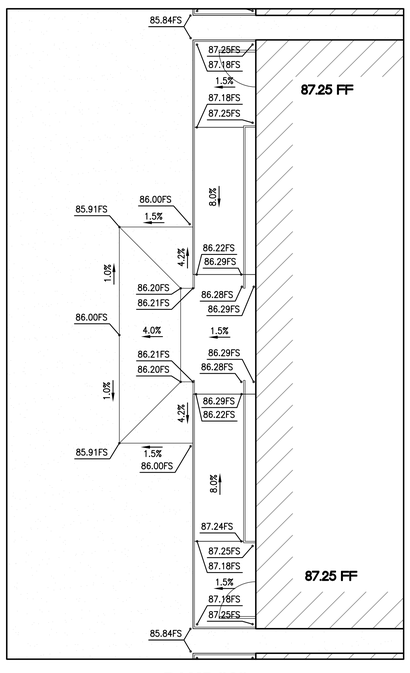
LOCATION MAP
SCALE 1" = 10'



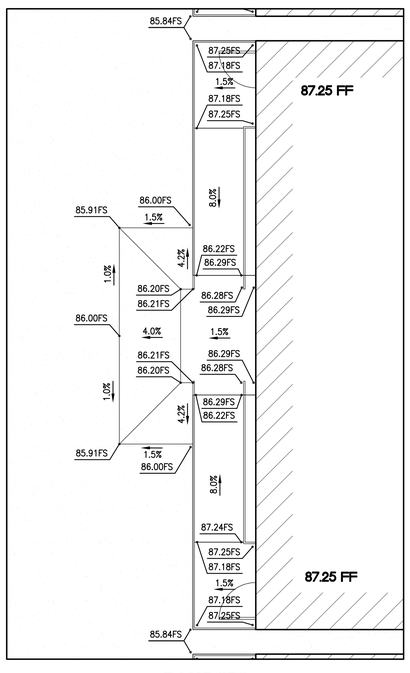
RAMP "A"
SCALE 1" = 5'



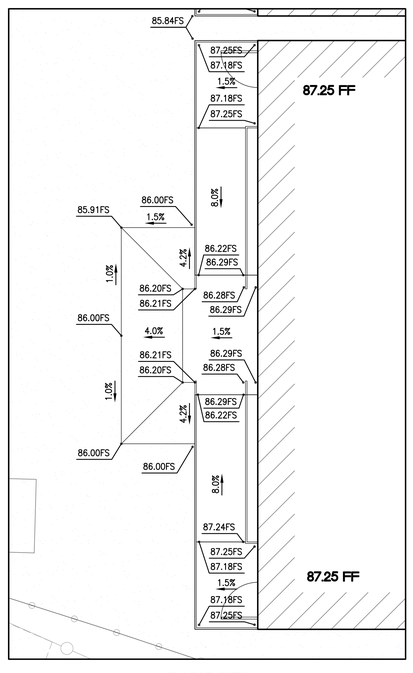
RAMP "B"
SCALE 1" = 5'



RAMP "C"
SCALE 1" = 5'



RAMP "D"
SCALE 1" = 5'



RAMP "E"
SCALE 1" = 5'

RAND NICHOLL ARCHITECTURE
4591 SIRODAY AVENUE
YORBA LINDA, CA 92886
714.915.4504

REGISTERED ARCHITECT RAND C. NICHOLL NO. C-19066 EXP. FEB 28, 2025 STATE OF CALIFORNIA

CONSULTANT:

NA CIVIL, INC.
CIVIL ENGINEERING · SURVEYING
22672 LAMBERT STREET,
SUITE 606
LAKE FOREST, CA 92630
949.753.0600

REGISTERED PROFESSIONAL ENGINEER MATTHEW JOHN PALERMO No. C78355 Exp. 09-30-25 CIVIL STATE OF CALIFORNIA

PROJECT NAME:

PACE EDUCATION CENTER
PARKING EXPANSION & MODULARS

PACE ELEMENTARY SCHOOL
9625 VAN RUTEN STREET
BELLFLOWER, CA 90706

CLIENT:

DOWNEY UNIFIED SCHOOL DISTRICT

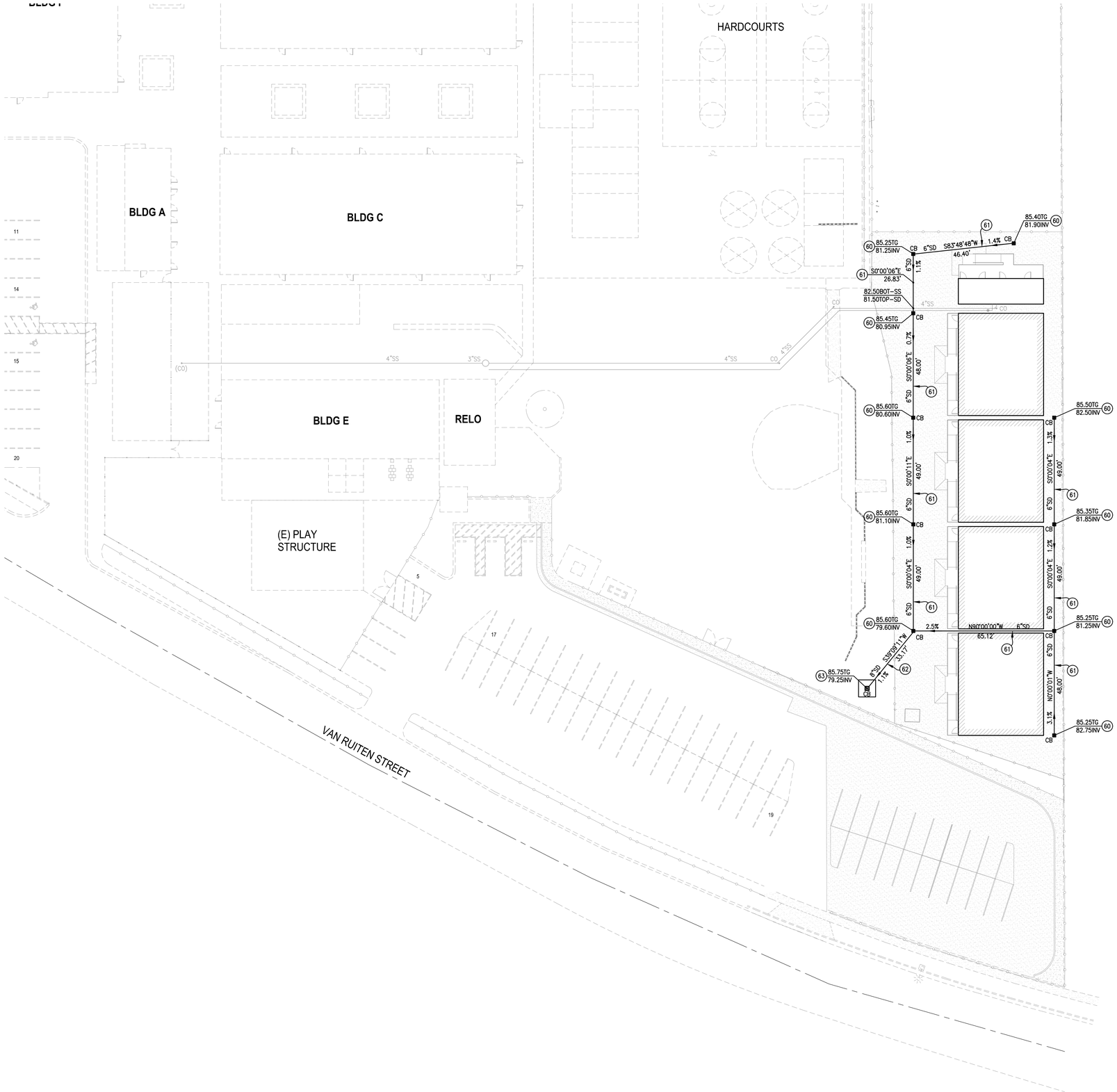
11627 BROOKSHIRE AVE.
DOWNEY, CA 90242

No.	Rev. Date	Description

JOB NO: 240610
DATE: 07/12/2024
DRAWN: KN
CHECK: MP
ARCHITECT: RN
ENGINEER: MP

SHEET DESCRIPTION:
RAMP DETAILS

SHEET NO:
C-501



STORM DRAIN NOTES:

		APP. QTY.:
(60)	CONSTRUCT 12"x12" PRECAST CONCRETE CATCH BASIN, JENSEN PRECAST MODEL NO. 1212HDI, WITH RISERS AS NECESSARY (OR APPROVED EQUAL). INSTALL ADA COMPLIANT GRATE.	10 EA.
(61)	CONSTRUCT 6" SDR-35 PVC STORM DRAIN PIPE. BEDDING AND BACKFILL PER DETAIL ON SHEET C-800.	405 L.F.
(62)	CONSTRUCT 8" SDR-35 PVC STORM DRAIN PIPE. BEDDING AND BACKFILL PER DETAIL ON SHEET C-800.	35 L.F.
(63)	CONSTRUCT DRY WELL PER DETAIL ON SHEET C-800.	1 EA.

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

RNA
RAND NICHOLL ARCHITECTURE
4591 SIRODAY AVENUE
YORBA LINDA, CA 92886
714.915.4504

LICENSED ARCHITECT RAND C. NICHOLL NO. C-19066 EXP. FEB 28, 2025 STATE OF CALIFORNIA

CONSULTANT:

NA CIVIL, INC.
CIVIL ENGINEERING • SURVEYING
22672 LAMBERT STREET,
SUITE 606
LAKE FOREST, CA 92630
949.753.0600

REGISTERED PROFESSIONAL ENGINEER MATTHEW JOHN PALOMINO No. C78355 Exp. 09-30-25 CIVIL STATE OF CALIFORNIA

PROJECT NAME:

PACE EDUCATION CENTER
PARKING EXPANSION & MODULARS

PACE ELEMENTARY SCHOOL
9625 VAN RUTEN STREET
BELLFLOWER, CA 90706

CLIENT:

DOWNEY UNIFIED SCHOOL DISTRICT

11627 BROOKSHIRE AVE.
DOWNEY, CA 90242

Rev.	Date	Description
1		

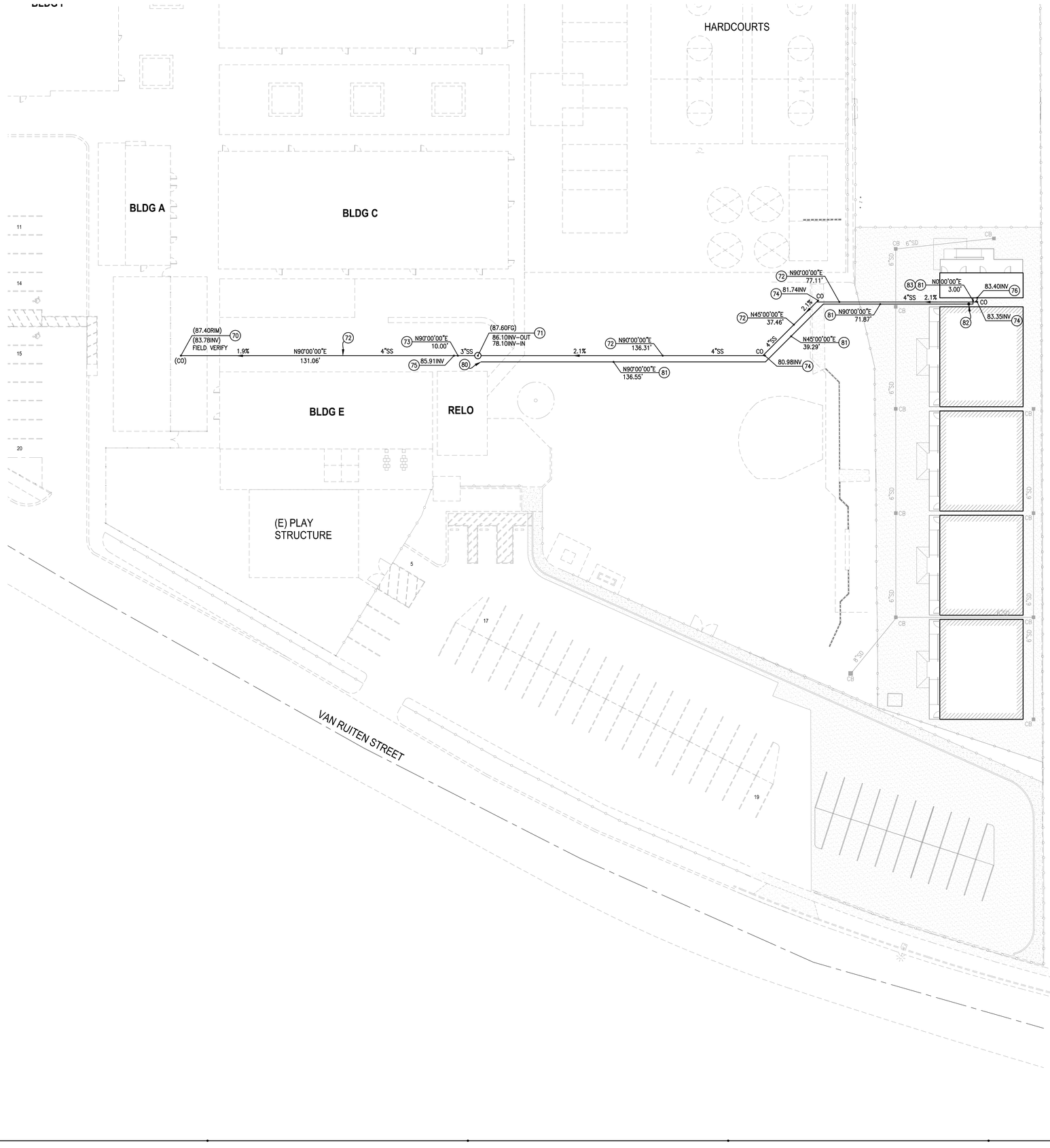
JOB NO:	240610
DATE:	07/12/2024
DRAWN:	KN
CHECK:	MP
ARCHITECT:	RN
ENGINEER:	MP

SHEET DESCRIPTION:

STORM DRAIN PLAN

SHEET NO:

C-600



SEWER NOTES:

		APP. QTY.:
70	POINT OF CONNECTION TO EXISTING SEWER PIPE. FIELD VERIFY SIZE AND INVERT PRIOR TO ANY CONSTRUCTION.	1 EA.
71	CONSTRUCT SUMP AND PUMP SYSTEM PER DETAILS ON SHEET C-801.	1 EA.
72	CONSTRUCT 4"ø SDR 35 SEWER PIPE. BEDDING AND BACKFILL PER DETAIL ON SHEET C-800.	255 L.F.
73	CONSTRUCT 3"ø PVC SEWER PIPE PER PUMP MANUFACTURER SPECIFICATIONS. BEDDING AND BACKFILL PER DETAIL ON SHEET C-800.	135 L.F.
74	CONSTRUCT 4" CLEANOUT, TO GRADE, PER DETAIL ON SHEET C-800.	3 EA.
75	CONSTRUCT 4"X3" REDUCER FITTING.	1 EA.
76	POINT OF CONNECTION. SEE PLUMBING PLAN FOR CONTINUATION.	1 EA.

WATER NOTES:

		APP. QTY.:
80	POINT OF CONNECTION TO EXISTING WATER LINE. FIELD VERIFY SIZE AND LOCATION PRIOR TO ANY CONSTRUCTION.	1 EA.
81	CONSTRUCT 2" WATER LINE. BEDDING AND BACKFILL PER DETAIL HEREON.	255 L.F.
82	CONSTRUCT SHUT OFF VALVE IN YARD BOX TO GRADE.	1 EA.
83	POINT OF CONNECTION. SEE PLUMBING PLAN FOR CONTINUATION.	1 EA.

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

RNA
RAND NICHOLL ARCHITECTURE
4591 SIRODAY AVENUE
YORBA LINDA, CA 92886
714.915.4504

LICENSED ARCHITECT RAND C. NICHOLL NO. C-19066 EXP. FEB 28, 2025 STATE OF CALIFORNIA

CONSULTANT:

NA CIVIL, INC.
CIVIL ENGINEERING • SURVEYING
22672 LAMBERT STREET,
SUITE 606
LAKE FOREST, CA 92630
949.753.0600

REGISTERED PROFESSIONAL ENGINEER MATTHEW JOHN PALOMINO No. C78355 Exp. 09-30-25 CIVIL STATE OF CALIFORNIA

PROJECT NAME:

PACE EDUCATION CENTER
PARKING EXPANSION & MODULARS

PACE ELEMENTARY SCHOOL
9625 VAN RUTEN STREET
BELLFLOWER, CA 90706

CLIENT:

DOWNEY UNIFIED
SCHOOL DISTRICT

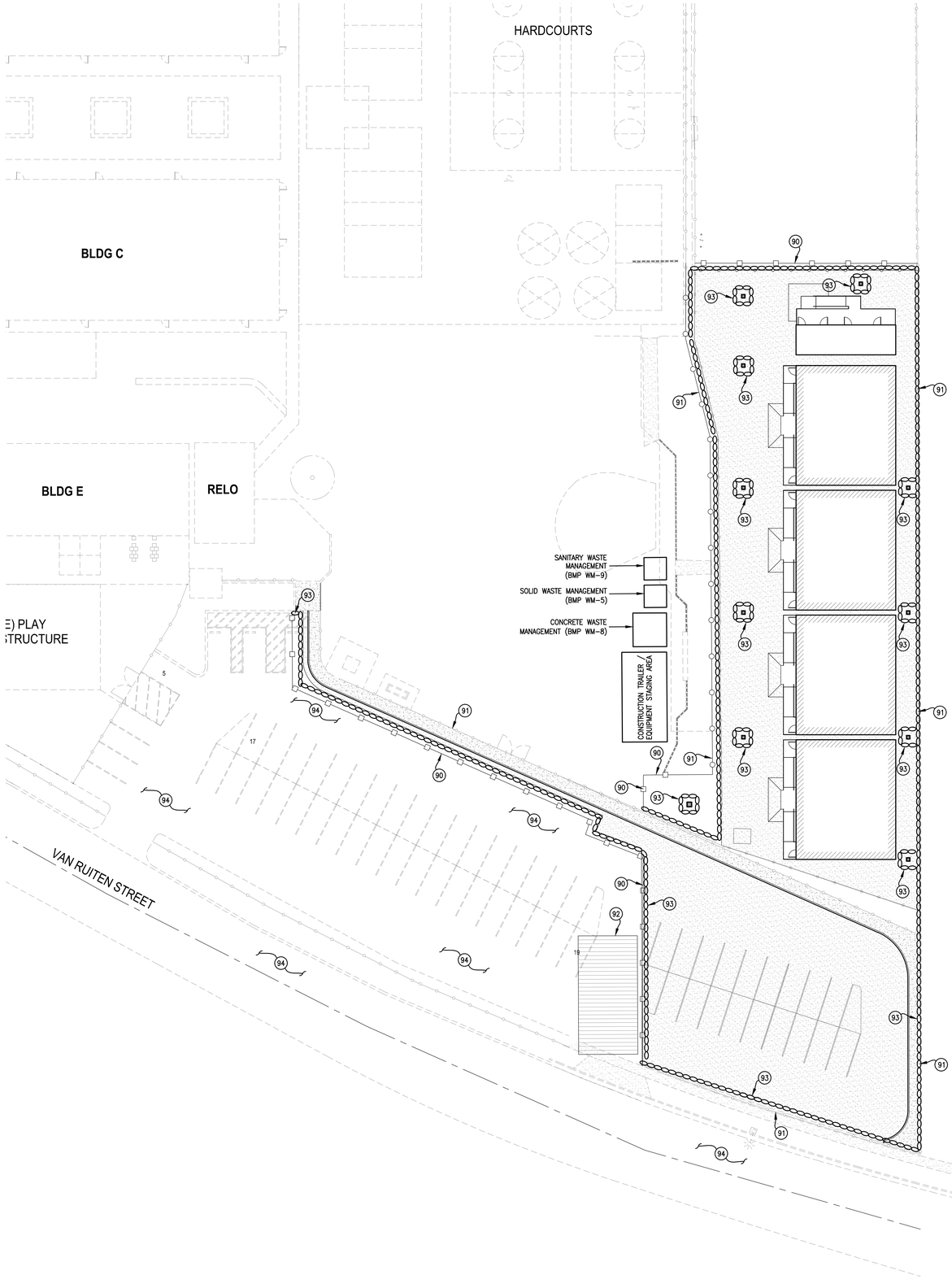
11627 BROOKSHIRE AVE.
DOWNEY, CA 90242

Rev.	Date	Description

JOB NO: 240610
DATE: 07/12/2024
DRAWN: KN
CHECK: MP
ARCHITECT: RN
ENGINEER: MP

SHEET DESCRIPTION:
SEWER AND WATER PLAN

SHEET NO:
C-601



EROSION CONTROL NOTES:

(90) PROVIDE FENCE, WITH WIND BARRIER, AROUND PERIMETER OF SITE PER DETAIL HEREON; BMP WE-1.

(91) INSTALL WIND BARRIER ON EXISTING FENCE PER DETAIL HEREON; BMP WE-1.

(92) CONSTRUCT STABILIZED CONSTRUCTION ENTRANCE PER DETAIL HEREON; BMPS TC-1 & TC-3.

(93) PLACE GRAVEL BAGS PER DETAIL HEREON; BMPS SE-6 & SE-10.

(94) PROVIDE STREET SWEEPING PER CASQA BMP FACT SHEET SE-7.

NOTES:
- INSTALL FILTER FABRIC AT ALL CATCH BASINS. ALL STORM DRAIN CATCH BASINS MUST BE SURROUNDED BY GRAVEL BAGS, PER DETAIL HEREON; BMP SE-10.
- ACTUAL TRAILER, SANITARY WASTE, SOLID WASTE, AND CONCRETE WASHOUT LOCATIONS ARE AT THE DISCRETION OF THE CONTRACTOR IN ORDER TO MAINTAIN A PROPERLY FUNCTIONING CONSTRUCTION SITE.

24-HOUR EMERGENCY CONTACT

NAME: TBD
PHONE: TBD

EROSION AND SEDIMENT CONTROL GENERAL NOTES:

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE EROSION CONTROL PLANS, THE PROJECT'S STORM WATER POLLUTION PREVENTION PLAN (SWPPP), AND THE RECOMMENDATIONS OF SOILS REPORT.
2. EROSION CONTROL MEASURES SHALL BE IN PLACE AT THE END OF EACH WORKING DAY WHENEVER THE DAILY RAINFALL PROBABILITY EXCEEDS 40%.
3. EQUIPMENT AND WORKERS FOR EMERGENCY WORK SHALL BE MADE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON. NECESSARY MATERIALS SHALL BE AVAILABLE ON SITE AND STOCKPILED AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY EROSION CONTROL DEVICES AT ALL TIME.
4. CONTROLS SHALL BE SET UP AND MAINTAINED AS CONSTRUCTION PROCEEDS. ADJUSTMENTS TO THE EROSION CONTROL PLANS ARE ALLOWABLE AS REQUIRED AND APPROVED BY CITY.
5. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL IMPLEMENT STRUCTURAL AND NONSTRUCTURAL BEST MANAGEMENT PRACTICES (BMPS) IN CONFORMANCE WITH THE GUIDELINES OF THE CALIFORNIA STORM WATER BMP HANDBOOKS.
6. AFTER A RAINSTORM, ALL SEDIMENT AND DEBRIS SHALL BE REMOVED FROM STREETS, BERMS AND DESILTING BASINS. ANY GRADED SLOPE SURFACE PROTECTION MEASURES DAMAGED DURING A RAINSTORM SHALL BE IMMEDIATELY REPAIRED.
7. THE PERMITTEE AND CONTRACTOR SHALL BE RESPONSIBLE AND SHALL TAKE NECESSARY PRECAUTIONS TO PREVENT TRESPASS ONTO AREAS WHERE IMPOUNDED WATER CREATED A HAZARDOUS CONDITION.

THE FOLLOWING NOTES AND BMPs (AS OUTLINED IN, BUT NOT LIMITED TO, THE BEST MANAGEMENT PRACTICE CONSTRUCTION HANDBOOK, CALIFORNIA STORMWATER QUALITY ASSOCIATION, LATEST REVISED EDITION, MAY APPLY DURING THE CONSTRUCTION OF THIS PROJECT. (ADDITIONAL MEASURES MAY BE REQUIRED IF DEEMED APPROPRIATE BY THE INSPECTORS).

I. TRACKING CONTROL (TC)

TC-1 – STABILIZED CONSTRICTION ENTRANCE/EXIT
TC-3 – ENTRANCE/OUTLET TIRE WASH

II. SEDIMENT CONTROL (SE)

SE-2 – SEDIMENT/DESILTING BASIN
SE-6 – GRAVEL BAG BERM
SE-7 – STREET SWEEPING & VACUUMING
SE-10 – STORM DRAIN INLET PROTECTION

III. WIND EROSION CONTROL (WE)

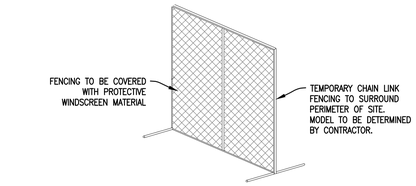
WE-1 – WIND EROSION CONTROL

IV. NON-STORM WATER MANAGEMENT (NS)

NS-1 – WATER CONSERVATION PRACTICES
NS-3 – PAVING & GRINDING OPERATIONS
NS-6 – ILLICIT CONNECTION/ILLEGAL DISCHARGE DETECTION AND REPORTING
NS-7 – POTABLE WATER/IRRIGATION
NS-8 – VEHICLE AND EQUIPMENT CLEANING
NS-9 – VEHICLE AND EQUIPMENT FUELING
NS-10 – VEHICLE AND EQUIPMENT MAINTENANCE

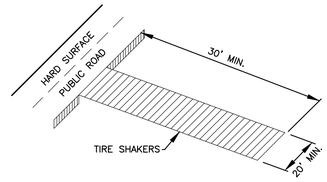
V. WASTE MANAGEMENT + MATERIALS POLLUTION CONTROL (WM)

WM-1 – MATERIAL DELIVERY & STORAGE
WM-2 – MATERIAL USE
WM-3 – STOCKPILE MANAGEMENT
WM-4 – SPILL PREVENTION & CONTROL
WM-5 – SOLID WASTE MANAGEMENT
WM-8 – CONCRETE WASTE MANAGEMENT
WM-9 – SANITARY WASTE MANAGEMENT

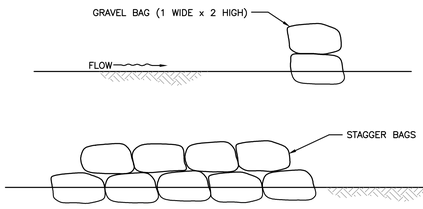


NOTE: DETAIL SHOWN FOR REFERENCE ONLY, AND MAY NOT RESEMBLE FENCING USED ON-SITE. CONTRACTOR TO SOURCE ALL NECESSARY MATERIALS, AND MUST ENSURE MATERIALS COMPLY WITH BMP WE-1.

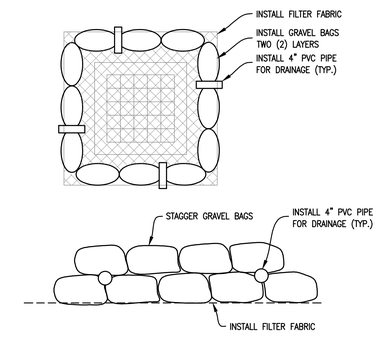
(90) (91) TEMPORARY CONSTRUCTION FENCING
N.T.S.



(92) STABILIZED CONSTRUCTION ENTRANCE
N.T.S.



(93) GRAVEL BAGS (1 WIDE x 2 HIGH)
N.T.S.



INLET PROTECTION
N.T.S.

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)
1 inch = 20 ft.

RNA
RAND NICHOLL ARCHITECTURE
4591 SIRODAY AVENUE
YORBA LINDA, CA 92886
714.915.4504

LICENSED ARCHITECT — RAND C. NICHOLL — NO. C-19066 — EXP. FEB 28, 2025 — STATE OF CALIFORNIA

CONSULTANT:

NA CIVIL, INC.
CIVIL ENGINEERING • SURVEYING
22672 LAMBERT STREET,
SUITE 606
LAKE FOREST, CA 92630
949.753.0600

REGISTERED PROFESSIONAL ENGINEER — MATTHEW JOHN PALOMINO — No. C78355 — Exp. 09-30-25 — CIVIL — STATE OF CALIFORNIA

PROJECT NAME:

PACE EDUCATION CENTER
PARKING EXPANSION & MODULARS

PACE ELEMENTARY SCHOOL
9625 VAN RUTEN STREET
BELLFLOWER, CA 90706

CLIENT:

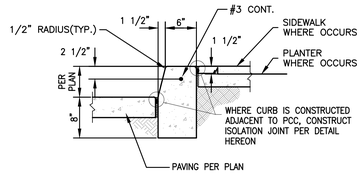
DOWNEY UNIFIED SCHOOL DISTRICT
11627 BROOKSHIRE AVE.
DOWNEY, CA 90242

Rev.	Date	Description

JOB NO:	240610
DATE:	07/12/2024
DRAWN:	KN
CHECK:	MP
ARCHITECT:	RN
ENGINEER:	MP

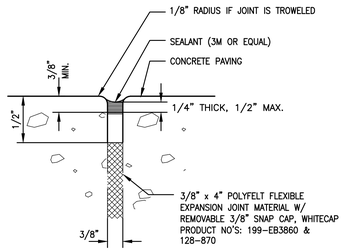
SHEET DESCRIPTION:
EROSION CONTROL PLAN

SHEET NO:
C-700

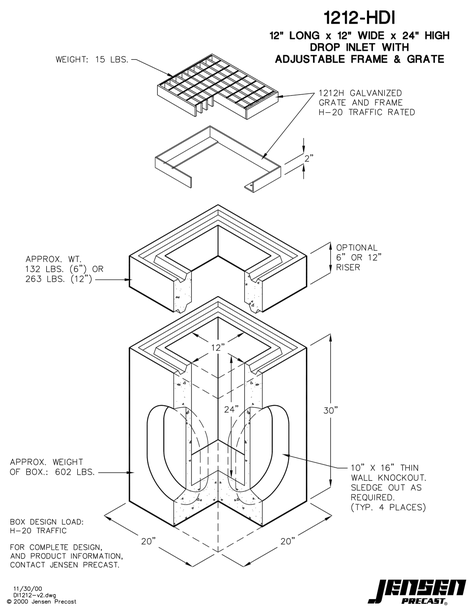


NOTE:
ALL CONCRETE USED SHALL BE MIN. CLASS B 3,000 PSI @ 28 DAYS.

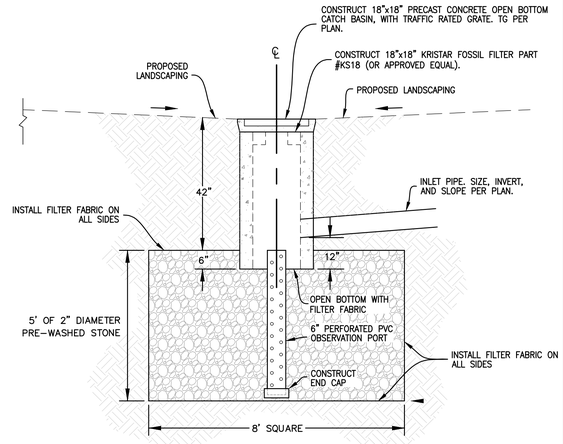
21 PCC CURB N.T.S.



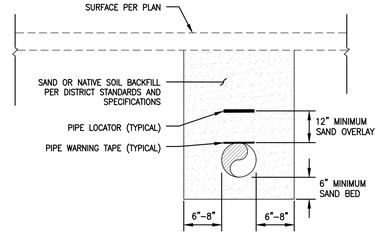
ISOLATION JOINT N.T.S.



60 12"x12" CATCH BASIN N.T.S.

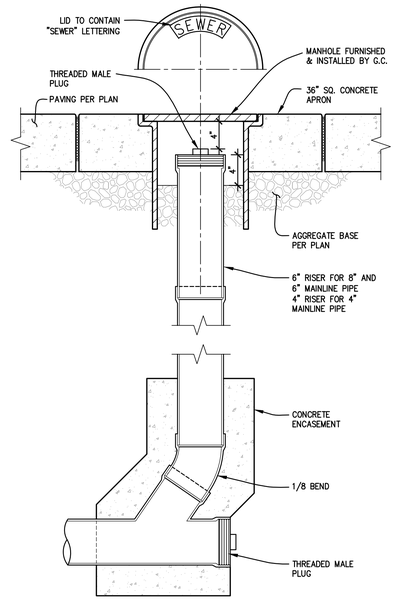


63 DRY WELL N.T.S.



NOTE:
BACKFILL SHALL MEET OR EXCEED REQUIREMENTS SET IN SECTION 306-1 OF THE STANDARD SPECIFICATION FOR PUBLIC WORKS CONSTRUCTION (LATEST EDITION).

PIPE BEDDING N.T.S.



74 SEWER CLEANOUT N.T.S.

RNA
RAND NICHOLL ARCHITECTURE
4591 SIRODAY AVENUE
YORBA LINDA, CA 92886
714.915.4504

LICENSED ARCHITECT RAND C. NICHOLL NO. C-19066 EXP. FEB 28, 2025 STATE OF CALIFORNIA

CONSULTANT:

NA CIVIL, INC.
CIVIL ENGINEERING • SURVEYING
22672 LAMBERT STREET,
SUITE 606
LAKE FOREST, CA 92630
949.753.0600

REGISTERED PROFESSIONAL ENGINEER MATTHEW JOHN PALOMINO No. C78355 Exp. 09-30-25 CIVIL STATE OF CALIFORNIA

PROJECT NAME:

PACE EDUCATION CENTER
PARKING EXPANSION & MODULARS

PACE ELEMENTARY SCHOOL
9625 VAN RUTEN STREET
BELLFLOWER, CA 90706

CLIENT:

DOWNEY UNIFIED SCHOOL DISTRICT
11627 BROOKSHIRE AVE.
DOWNEY, CA 90242

Rev.	Date	Description

JOB NO: 240610
DATE: 07/12/2024
DRAWN: KN
CHECK: MP
ARCHITECT: RN
ENGINEER: MP

SHEET DESCRIPTION:
DETAILS

SHEET NO:
C-800

PACKAGED SEWAGE LIFT STATION
PACE ELEMENTARY SCHOOL - BELLFLOWER - SEWAGE STATION

Furnish and install complete pre-packaged duplex Lift Station model **#PSI-**NAC071024 as manufactured by Pacific Southwest Industries (national phone # 800-358-9095)

This pre-packaged Lift Station shall incorporate a quick removal system manufactured by the pump manufacturer. The pump(s) shall be guided to the discharge base elbow by a single or double guide rail and shall be stainless steel and shall extend from the discharge base elbow to the upper guide bracket mounted on 1-5/8" x 1-5/8" channel strut just below the basin cover. Stainless steel lifting chain or cable shall be supplied and properly installed to remove the pump from the wet well. The internal discharge piping shall be completely pre-plumbed with pressure rated schedule 40 or 80 PVC pipe as indicated and extend 12" beyond the wet well and valve vault side wall for contractor connection to the force main piping. The pump(s) discharge piping shall have a check and ball valve installed on each pump discharge. The Lift Station shall include control panel and level control floats. The control panel shall be suitable for surface mounting or free standing on a leg kit if the site conditions require it.

PUMP(S):

Furnish and install Tsurumi, VANC'S series submersible pump(s). Each unit shall be shall be designed to pump waste water, sewage or effluent containing 1.5-inch (40mm) diameter solids without damage during operation. The pump(s) shall be designed so that the shaft power required (BHP) / (kW) shall not exceed the motor rated output throughout the entire operating range of the pump performance curve. A two-year warranty "out of the box" shall be standard.

MATERIALS OF CONSTRUCTION:

Construction of major parts of the pumping unit(s) including pump casing, impeller, motor head cover and intermediate brackets shall be manufactured from recyclable, application appropriate resins. The need for a protective coating shall not be required. All exposed fasteners shall be stainless steel and shall have stainless mating anchors integrally cast into the mating part. All units shall be furnished with a NPT discharge companion flange. Impellers shall be of the multi-vane, semi-vortex, solids handling design and shall be slip fit to the shaft. The motor shaft shall be machined to provide a positive drive of the impeller. The pump casing shall incorporate an air relief valve.

MECHANICAL SEAL:

All units shall be furnished with a dual inside mechanical shaft seal located completely out of the pumpage, running in a separate oil filled chamber. Units shall be fitted with a device that shall provide positive lubrication of top mechanical seal, (down to one third of the standard oil level). The device shall not consume any additional electrical power. Units shall have silicon carbide mechanical seal faces. Mechanical seal hardware shall be stainless steel.

MOTOR:

Motor(s) shall have a 1.15 service factor and shall be rated for 6 starts per hour. Motor(s) shall be air filled, copper wound, class E insulated with built-in thermal protection. Motor shaft shall be 403 stainless steel and shall be supported by two permanently lubricated, high temperature ball bearings, with a B-10 life rating at best efficiency point of 60,000 hours. The bearings shall be single row, double shielded, C3, deep groove type ball bearings. Bearing seats shall be rolled carbon steel or aluminum die casting. Motor housing shall be 304 stainless steel. Motors shall be suitable variable speed applications, utilizing a properly sized variable frequency drive.

POWER CABLE AND CABLE ENTRANCE:

The pump power cable shall be suitable for submersible pump applications. The cable entrance shall incorporate built in strain relief, a one-piece, three-way mechanical compression seal with a fatigue reducing cable boot. The cable entrance assembly shall contain an anti-wicking block to eliminate water incursion into the motor due to Capillary wicking should the power cable be accidentally damaged.

QUICK REMOVAL SYSTEM:

The pumping unit(s) shall be equipped with quick removal system (QRS). The construction shall be such that the pump(s) will automatically connect to the discharge piping when lowered into place on the discharge connector. There shall be no need for personnel to enter the wet well to accomplish installation or removal of the pump(s). The pumping unit(s) shall be fitted with stainless steel lifting chain(s) of sufficient length and strength to permit the raising and lowering of the unit(s). The chain(s) shall be fastened at the top of the structure near the access opening. The need for a protective coating shall not be required. A sliding guide bracket shall be an integral part of the pumping unit and the pump casing shall have a machined connection with a bracket to connect with the discharge connection. Sealing of the pumping unit to the discharge connection shall be accomplished by a single linear downward motion of the pump with the entire weight of the pumping unit guided by a pawl, thereby wedging the pumping unit tightly against the discharge connector. No portion of the pump shall bear directly on the floor of the sump nor shall a rotary motion of the pump be required for sealing. All fasteners coming into contact with the pumpage shall be stainless steel. Two corrosion resistant guide pipes shall be furnished and installed for each pump to permit raising and lowering of the pump.

FIBERGLASS WET WELL:

The fiberglass wet well with an anti-flotation flange shall have the proper diameter and depth below the lowest inlet to promote proper cycling while maintaining the rim at grade. The fiberglass wet well shall be manufactured using a process that is filament wound and or chopped spray. The wet well shall be constructed with a anti flotation flange. Lifting lugs shall be required for those wet wells 48 inches in diameter and larger for setting of the wet well. The laminate shall have a Barco hardness of at least 90% of the resin manufactures minimum specified hardness for cured resin on both the interior and exterior surfaces. The minimum wall thickness of the wet well shall not be less than 1/4". Stainless steel studs will be encapsulated in the bottom of the wet well to allow the mounting of the quick removal system. The top rim flange will be a minimum of 2" wide to allow for the installation of the pedestrian rated aluminum cover to the rim flange or shall be rimless if the cover is specified for H20 off street locations. The wet well shall be provided with "unseal" fittings that can be installed in the field to insure proper elevation of the inlet, vent, and electrical on the side of the wet well. The wet well will house 2 - swing check valves, and 2 – shut off valves.

COVER(s)

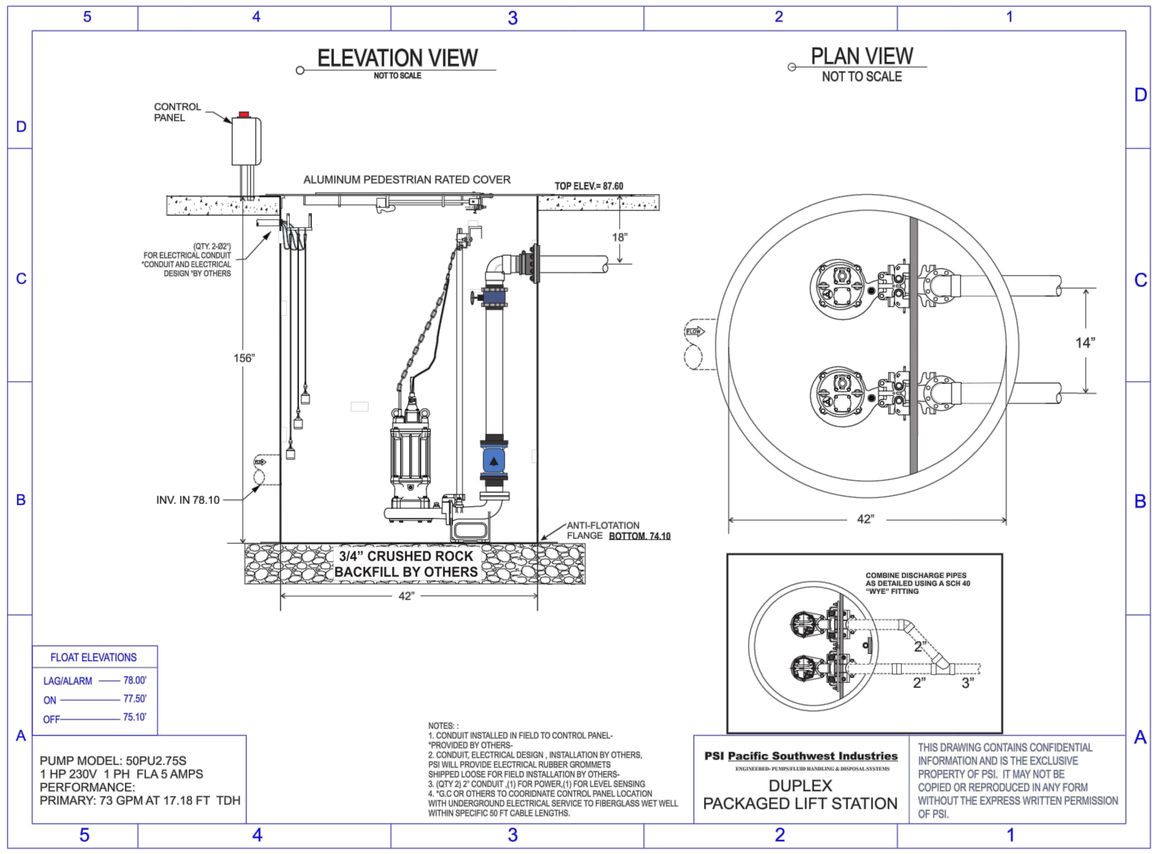
The wet well cover shall always be gasketed and bolted to the rim flange of the fiber glass tank using 7/16" stainless steel hex head bolts unless the cover is to be in a H20 off street location. The type of material to be used for the cover shall be as indicated on this plan sheet.

DUPLEX ALTERNATING CONTROL PANEL:

The duplex control panel, as a minimum, shall include the appropriate enclosure type for the environment it is to be installed in and should include the following: Motor starters, motor circuit protectors or variable frequency drives (VFD), pump run indicator(s), operation selector switch(es), high water alarm and light, silence switch, dry contact for alarm, numbered terminals for all incoming power, pump motor(s) and level controls. The control panel shall be UL listed 508 or 913.

The following options marked "x" shall be included and specific for this site.

NEMA 4X ___ NEMA 3R ___ LEG KIT ___ ETM's ___ SEAL FAIL ___ THERMAL CUTOUTS ___ PHASE LOSS MONITOR ___ SOFT START ___ GENSET HOOKUP ___ DOOR IN DOOR DEAD FRONT ___ THROUGH DOOR MAIN DISCONNECT ___ TRANSDUCER OPERATED ___ FLOAT BACKUP ___ CURRENT CENSOR ___ AUTO DIALER ___ REDUNDANT OFF ___ INTRINSICALLY SAFE ___ SMART RELAY WHICH INCLUDES EXERCISER, RUN COUNT, ALARM COUNT AND FLOAT POSITION ___



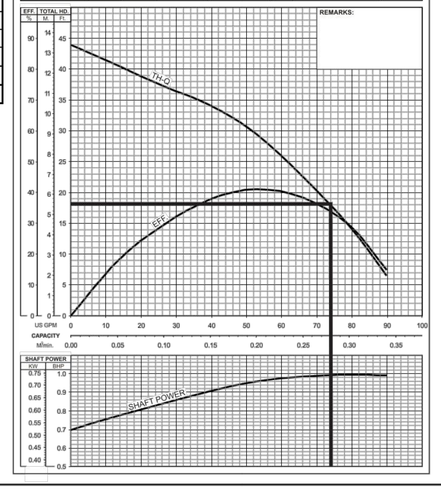
STORM LIFT STATION PROFILE & CALCULATIONS								
2" SCH 40 = 2.06 SCH 80 = 1.94								
2" PVC PIPE	(QTY)	14	x	1	FT		14	FT
2" PVC 90 ELBOW	(QTY)	1	x	5.5	FT		5.5	FT
2" PVC 45 BEND	(QTY)	1	x	2.5	FT		2.5	FT
2" PVC TEE	(QTY)	0	x	11	FT		0	FT
2" BALL VALVE	(QTY)	1	x	1.2	FT		1.2	FT
2" CHECK VALVE	(QTY)	1	x	13	FT		13	FT
TOTAL EQUIVALENT LENGTH							36.2	FT
FRICTION LOSS PER 100 FT 2" PVC	73 GPM		9.37	FT	PER 100 FT			
FRICTION LOSS 2"	36.2	/	100	x	9.37	FT	3.39	FT
3" SCH 40 = 3.048 SCH 80 = 2.90								
3 PVC PIPE	(QTY)	200	x	1	FT		200	FT
3" PVC 90 ELBOW	(QTY)	0	x	8.1	FT		0	FT
3" PVC 45 BEND	(QTY)	0	x	3.8	FT		0	FT
3" PVC TEE	(QTY)	0	x	17	FT		0	FT
TOTAL EQUIVALENT LENGTH							200	FT
FRICTION LOSS PER 100 FT 3" PVC	73 GPM		1.39	FT	PER 100 FT			
FRICTION LOSS 3"	200	/	100	x	1.39	FT	2.79	FT
TOTAL DYNAMIC HEAD								
2" FRICTION LOSS							3.39	FT
3" FRICTION LOSS							2.79	FT
COMBINED 2" AND 3" FRICTION LOSS							6.18	FT
STATIC HEAD						+	11.00	FT
PERFORMANCE	73 GPM	@	17.18		FT TDH THROUGH 3" PVC LINE			

HAZEN-WILLIAMS EQUATION/HEAD LOSS IN WATER PIPE	
(f) = 0.2083 (100 / c)$^{1.852}$ q$^{1.852}$ / dh$^{4.8655}$	
c=	140 HDPE / PVC
q=	73 GPM
dh=	2" SCH 40 = 2.06
2" FRICTION LOSS PER 100 FT =	9.37
c=	140 HDPE / PVC
q=	73 GPM
dh=	3" SCH 40 = 3.048
3" FRICTION LOSS PER 100 FT =	1.39
Velocity (ft/s)	3.21

TSURUMI — VANCS - SERIES - PU — (FRP) SEMI-VORTEX - SEWAGE & WASTEWATER PUMPS — PERFORMANCE CURVE

MODEL	BORE	HP	KW	RPM	SOLIDS DIA	LIQUID	SG.	VISCOSITY	TEMP.
50PU(A/W)2.75S -62	2"/50mm	1	0.75	3374	1.38"/35mm	Water	1.0	1.81 CST	60F
PUMP TYPE	PHASE	VOLTAGE		AMPERAGE		HZ	STARTING METHOD		INS. CLASS
Semi-Vortex - Sewage & Wastewater	Single	110/115/220/230		9.0 / 8.9 / 5.0 / 4.8		60	Capacitor-Start		E
CURVE No.	DATE	PHASE	VOLTAGE		AMPERAGE	HZ	STARTING METHOD		INS. CLASS
-	-	-	-	-	-	-	-	-	-

REMARKS:



RNA
RAND NICHOLL ARCHITECTURE
4591 SIRODAY AVENUE
YORBA LINDA, CA 92886
714.915.4504

LICENSED ARCHITECT — RAND C. NICHOLL — NO. C-19066 — EXP. FEB 28-2025 — STATE OF CALIFORNIA

CONSULTANT:

NA CIVIL, INC.
CIVIL ENGINEERING · SURVEYING
22672 LAMBERT STREET,
SUITE 606
LAKE FOREST, CA 92630
949.753.0600

REGISTERED PROFESSIONAL ENGINEER — MATTHEW JOHN PALOMINO — No. C78355 — Exp. 09-30-25 — CIVIL — STATE OF CALIFORNIA

PROJECT NAME:

PACE EDUCATION CENTER
PARKING EXPANSION & MODULARS

PACE ELEMENTARY SCHOOL
9625 VAN RUTEN STREET
BELLFLOWER, CA 90706

CLIENT:

DOWNEY UNIFIED SCHOOL DISTRICT
11627 BROOKSHIRE AVE.
DOWNEY, CA 90242

Rev.	Date	Description

JOB NO: 240610
DATE: 07/12/2024
DRAWN: KN
CHECK: MP
ARCHITECT: RN
ENGINEER: MP

SHEET DESCRIPTION:
PUMP DETAILS

SHEET NO:
C-801

SEWAGE PUMP SYSTEMS DETAILS

NOTE: VERIFY ALL ELEVATIONS PRIOR TO FABRICATION. OTHERS TO VERIFY ALL INLET/OUTLET ORIENTATIONS PRIOR TO FABRICATION AND INSTALLATION. *OUTLET ORIENTATION AND SIZING SHALL BE COMPLETED IN FIELD BY OTHERS.

PSI Pacific Southwest Industries
ENGINEERED- PUMPS/FLUID HANDLING & DISPOSAL SYSTEMS
18541 COLLIER AVE., LAKE ELSINORE, CA 92530 PH: 800 358-9095

No.	Description	Date

LIFT STATION DETAILS
PACE ELEMENTARY SCHOOL

Date: 07/10/24
Drawn by: OR
Checked by:
Scale: NTS
Sheet No. 1 OF 1

LSD-1

Sheet List

Sheet Number	Sheet Name
Cover	
A0.0	COVER SHEET
A0.0.1	PROJECT OPTIONS SCHEDULE
A0.1	TYPICAL KEY PLAN AND SCHEDULES, GEN NOTES,
A0.2	SIGNAGE AND SYMBOLS
A0.3	DSA-103 T&I CONCRETE FLOORS
A0.4	DSA-103 T&I PLYWOOD FLOORS
A0.5	CALGREEN SPEC'S
A0.6	CAL GREEN CHECKLIST
A0.7	CAL GREEN CHECKLIST
Architectural	
~~A1.0~~	~~24x40 FLOOR PLAN~~
~~A1.1~~	~~36x40 FLOOR PLAN~~
A1.2	48x40 FLOOR PLAN
A2.1	ARCHITECTURAL DETAILS (WOOD FRAMING SHTG FINISH)
~~A2.2~~	~~ARCHITECTURAL DETAILS (WOOD FRAMING PLASTER FINISH)~~
~~A2.3~~	~~ARCHITECTURAL DETAILS (MTL FRAMING SHTG FINISH)~~
~~A2.4~~	~~ARCHITECTURAL DETAILS (MTL FRAMING PLASTER FINISH)~~
~~A2.5~~	~~ARCHITECTURAL DETAILS (1 HR WOOD FRAMING SHTG FINISH)~~
~~A2.6~~	~~ARCHITECTURAL DETAILS (1 HR WOOD FRAMING PLASTER FINISH)~~
~~A2.7~~	~~ARCHITECTURAL DETAILS (1 HR MTL FRAMING SHTG FINISH)~~
~~A2.8~~	~~ARCHITECTURAL DETAILS (1 HR MTL FRAMING PLASTER FINISH)~~
A2.9	ARCHITECTURAL DETAILS (FLOOR)
~~A3.0~~	~~ADDITIONAL FIRE RATING DETAILS AND NOTES~~
A3.1	SINGLE OCC. BATHROOM
A3.2	RCP
A3.2.1	CEILING NOTES
A3.3	CEILING DETAILS (T-GRID)
A3.4	CEILING DETAILS (GYP BOARD)
A4.0.1	ROOF PLAN MONO SLOPE (STANDING SEAM)
~~A4.0.2~~	~~ROOF PLAN DUAL SLOPE (STANDING SEAM)~~
A4.1	ROOF DETAILS (STANDING SEAM)
~~A4.2.1~~	~~ROOF PLAN MONO SLOPE (EPDM)~~
~~A4.2.2~~	~~ROOF PLAN DUAL SLOPE (EPDM)~~
~~A4.3~~	~~ROOF DETAILS (EPDM)~~
~~A4.4.1~~	~~ROOF PLAN w/ PARAPET MONO SLOPE (EPDM)~~
~~A4.5~~	~~ARCHITECTURAL DETAILS (PARAPET)~~
A5.0	SIDEWALL ELEVATION
A5.1	ENDWALL ELEVATIONS
A5.2	INTERIOR ELEVATIONS
A6.0	SECTION - STANDING SEAM (MONO)
~~A6.0.1~~	~~SECTION - STANDING SEAM (DUAL)~~
~~A6.1~~	~~SECTION - EPDM (DUAL)~~
A6.2	SECTION
~~A6.3~~	~~SECTION - EPDM (MONO)~~
MEP	
~~E1.0~~	~~ELECTRICAL PLAN 24x40~~
~~E1.1~~	~~ELECTRICAL SCHEDULES 24x40~~
~~E1.2~~	~~ELECTRICAL PLAN 36x40~~
~~E1.3~~	~~ELECTRICAL SCHEDULE 36x40~~
E1.4	ELECTRICAL PLAN 48x40
E1.5	ELECTRICAL SCHEDULE 48x40
M0.1	MISCELLANEOUS NOTES & DETAILS
M1.0	RESERVED FOR T24 ENERGY CALCS
M2.0	RESERVED FOR T24 ENERGY CALCS
M3.0	RESERVED FOR T24 ENERGY CALCS
M4.0	RESERVED FOR T24 ENERGY CALCS
~~M5.1~~	~~MECHANICAL CEILING PLAN 24x40~~
~~M5.2~~	~~MECHANICAL ROOF MOUNT 24x40~~
~~M6.1~~	~~MECHANICAL CEILING PLAN 36x40~~
~~M6.2~~	~~MECHANICAL ROOF MOUNT 36x40~~
M7.1	MECHANICAL CEILING PLAN 48x40
~~M7.2~~	~~MECHANICAL ROOF MOUNT 48x40~~
P1.0	TYPICAL PLUMBING DETAILS

Sheet List

Sheet Number	Sheet Name
Foundation	
F1.10	WOOD FOUNDATION NOTES SCHED FOR BLDG W/ 50+15
~~F1.11~~	~~WOOD FOUNDATION PLAN 24x40 BLDG W/ 50+15~~
~~F1.12~~	~~WOOD FOUNDATION PLAN 36x40 BLDG W/ 50+15~~
F1.13	WOOD FOUNDATION PLAN 48x40 BLDG W/ 50+15
~~F1.14~~	~~MODLINE "B" W/ EXTERIOR WALLS BACK TO BACK 100 PSF~~
~~F1.20~~	~~WOOD FOUNDATION NOTES SCHED FOR BLDG W/ 100 PSF~~
~~F1.21~~	~~WOOD FOUNDATION PLAN 24x40 BLDG W/ 100 PSF~~
~~F1.22~~	~~WOOD FOUDATION PLAN 36x40 BLDG W/ 100 PSF~~
~~F1.23~~	~~WOOD FOUNDATION PLAN 48x40 BLDG W/ 100 PSF~~
~~F1.24~~	~~MODLINE "B" W/ EXTERIOR WALLS BACK TO BACK 100 PSF~~
~~F1.30~~	~~WOOD FOUNDATION NOTES SCHED FOR BLDG W/ 150 PSF~~
~~F1.31~~	~~WOOD FOUNDATION PLAN 24x40 BLDG W/ 150 PSF~~
~~F1.32~~	~~WOOD FOUNDATION PLAN 36x40 BLDG W/ 150 PSF~~
~~F1.33~~	~~WOOD FOUNDATION PLAN 48x40 BLDG W/ 150 PSF~~
~~F1.34~~	~~MODLINE "B" W/ EXTERIOR WALL BACK TO BACK 150 PSF~~
F1.40	WOOD FOUNDATION DETAILS
~~F2.10~~	~~CONCRETE FOUNDATION PLAN~~
~~F2.20~~	~~CONCRETE FOUNDATION DETAILS~~
~~F2.22~~	~~CONCRETE FOUNDATION DETAILS~~
~~F2.30~~	~~CONCRETE FOUNDATION DETAILS~~
Structural	
S0.1	STRUCTURAL GEN NOTES
S1.0.1	WD SHTH'G FLR FRM'G PLAN (50+15 PSF)
~~S1.0.2~~	~~WD SHTH'G FLR FRM'G PLAN (100 PSF)~~
~~S1.0.3~~	~~WD SHTH'G FLR FRM'G PLAN (150 PSF)~~
~~S1.1.1~~	~~CONC FLR FRM'G PLAN (50+15 PSF)~~
~~S1.1.2~~	~~CONC FLR FRM'G PLAN (100 PSF)~~
~~S1.1.3~~	~~CONC FLR FRM'G PLAN (150 PSF)~~
S1.2	STRUCTURAL DETAILS (FLOOR)
S3.0.1	MONO SLOPE ROOF FRM'G PLAN
~~S3.0.2~~	~~DUAL SLOPE ROOF FRM'G PLAN~~
S3.1	STRUCTURAL DETAILS (ROOF)
S3.2	ROOF DETAILS (SOFFIT/PARAPET)
S3.3	ROOF PERIMETER TRUSS
~~S4.0~~	~~MTL WALL FRAMING ELEVATIONS~~
S4.1	WD WALL FRAMING ELEVATIONS
S4.2	WALL DETAILS (WOOD FRAMING)
~~S4.3~~	~~WALL DETAILS (MTL FRAMING)~~
S4.4	TYP FRAMING
S4.5	FRAMING SCHEDULES
S5.0	LONG. SECTION - (MONO)
~~S5.1~~	~~LONG SECTION - (DUAL)~~
SR0	Module Plan and Notes
SR1	Ramp Landing
SR2	Landing Frame
SR3	Foundation Plan
SR4	Ramp Elevation
SR5	Ramp Details
SR6	Ramp Details
Under Separate Cover	
~~FS-1~~	~~FIRE SPRINKLER DESIGN 1~~
~~FS-2~~	~~FIRE SPRINKLER DESIGN 2~~

1

FROM STOCKPILE TO SITE SPECIFIC RELOCATION PACKAGE

ALL WORK SHALL CONFORM TO TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR)

CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY AN ADDENDUM OR A CONSTRUCTION CHANGED DOCUMENT APPROVED BY THE DIVISION OF THE STATE ARCHITECT, AS REQUIRED BY SECTION 4-338, PART 1, TITLE 24, CCR.

A PROJECT INSPECTOR EMPLOYED BY THE DISTRICT (OWNER) AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT SHALL PROVIDE CONTINUOUS INSPECTION OF THE WORK. THE DUTIES OF THE INSPECTOR ARE DEFINED IN SECTION 4-342, PART 1, TITLE 24, CCR; CLASS 3

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

7/26/2016 9:23:48 AM C:\Users\Sarah\Documents\15046 - Aries, 24x40 PC - MainFile_Sarah.rvt

CLASS LEASING, LLC. STOCKPILE
(70) 2440 Relocatable CR Bldgs
SERIAL NUMBERS:

P 17 1601 A/B	P 17 1636 A/B
P 17 1602 A/B	P 17 1637 A/B
P 17 1603 A/B	P 17 1638 A/B
P 17 1604 A/B	P 17 1639 A/B
P 17 1605 A/B	P 17 1640 A/B
P 17 1606 A/B	P 17 1641 A/B
P 17 1607 A/B	P 17 1642 A/B
P 17 1608 A/B	P 17 1643 A/B
P 17 1609 A/B	P 17 1644 A/B
P 17 1610 A/B	P 17 1645 A/B
P 17 1611 A/B	P 17 1646 A/B
P 17 1612 A/B	P 17 1647 A/B
P 17 1613 A/B	P 17 1648 A/B
P 17 1614 A/B	P 17 1649 A/B
P 17 1615 A/B	P 17 1650 A/B
P 17 1616 A/B	P 17 1651 A/B
P 17 1617 A/B	P 17 1652 A/B
P 17 1618 A/B	P 17 1653 A/B
P 17 1619 A/B	P 17 1654 A/B
P 17 1620 A/B	P 17 1655 A/B
P 17 1621 A/B	P 17 1656 A/B
P 17 1622 A/B	P 17 1657 A/B
P 17 1623 A/B	P 17 1658 A/B
P 17 1624 A/B	P 17 1659 A/B
P 17 1625 A/B	P 17 1660 A/B
P 17 1626 A/B	P 17 1661 A/B
P 17 1627 A/B	P 17 1662 A/B
P 17 1628 A/B	P 17 1663 A/B
P 17 1629 A/B	P 17 1664 A/B
P 17 1630 A/B	P 17 1665 A/B
P 17 1631 A/B	P 17 1666 A/B
P 17 1632 A/B	P 17 1667 A/B
P 17 1633 A/B	P 17 1668 A/B
P 17 1634 A/B	P 17 1669 A/B
P 17 1635 A/B	P 17 1670 A/B

CLASS LEASING, LLC. STOCKPILE
(20) 3640 Relocatable CR Bldgs
SERIAL NUMBERS:

P 17 1671 A/B/C	P 17 1681 A/B/C
P 17 1672 A/B/C	P 17 1682 A/B/C
P 17 1673 A/B/C	P 17 1683 A/B/C
P 17 1674 A/B/C	P 17 1684 A/B/C
P 17 1675 A/B/C	P 17 1685 A/B/C
P 17 1676 A/B/C	P 17 1686 A/B/C
P 17 1677 A/B/C	P 17 1687 A/B/C
P 17 1678 A/B/C	P 17 1688 A/B/C
P 17 1679 A/B/C	P 17 1689 A/B/C
P 17 1680 A/B/C	P 17 1690 A/B/C

CLASS LEASING, LLC. STOCKPILE
(10) 4840 Relocatable CR Bldgs
SERIAL NUMBERS:

P 17 1691 A/B/C/D	P 17 1696 A/B/C/D
P 17 1692 A/B/C/D	P 17 1697 A/B/C/D
P 17 1693 A/B/C/D	P 17 1698 A/B/C/D
P 17 1694 A/B/C/D	P 17 1699 A/B/C/D
P 17 1695 A/B/C/D	P 17 1700 A/B/C/D

CLASS LEASING LLC

PC # 04-114654

STKP 164 A# 04-115748

24' x 40' EXPANDABLE TO 48' x 40'

@ AT
AB ANCHOR BOLT
ABC AGGREGATE BASE COURSE
ABV ABOVE
AD AREA DRAIN
ADD ADDENDUM
ADH ADHESIVE
ADJ ADJACENT, ADJUSTABLE
ADOH ALTERNATE DIRECTION OF HOOK
AFF ABOVE FINISHED FLOOR
AGG AGGREGATE
ALT ALTERNATE
ALUM ALUMINUM
ANCH ANCHOR (AGE)
ANOD ANODIZED
APPRX APPROXIMATE
ARCH ARCHITECT (URAL)
ASPH ASPHALT
AUTO AUTOMATIC

B BOTTOM
BB BOND BEAM
BC BOTTOM CHORD
BD BOARD
BEG BEGIN (ING)
BEL BELOW
BIT BITUMINOUS
BJT BED JOINT
BLDG BUILDING
BLK BLOCK ('G, ING)
BLW BELOW
BM BEAM
BMK BENCH MARK
BO' BOTTOM OF ___
BPL BEARING PLATE
BRD BOARD
BRDG BRIDGING
BRG BEARING
BRK BRICK
BRZ BRONZE
BS BOTH SIDES
BTWN BETWEEN
BVL BEVELED
BW BOTH WAYS

C CHANNEL, COMPRESSION
CAD CADMIUM
CAM CAMBER
C/C CENTER TO CENTER
CEM CEMENT
CF CUBIC FOOT
CHAM CHAMFER
CI CAST IRON
CIP CAST-IN-PLACE
CIR CIRCLE
CIRC CIRCUMFERENCE
CJ CONSTRUCTION JOINT
CJT CONTROL JOINT
CLG CEILING
CLK CAULK, ('G, ING)
CLKG CAULKING
CLR CLEAR
CLS CLOSURE
CM CENTIMETER
CMP CORRUDATED METAL PIPE
CMU CONCRETE MASONRY UNIT
CNTR CENTER
COL COLUMN
COG CENTER OF GRAVITY
COMB COMBINATION
COMP COMPRESS (ED)(ION)(IBLE)
COMPO COMPOSITE
CONN CONNECT (ION)
CONC CONCRETE
CONST CONSTRUCT (ION) (ED)
CONT CONTINUE, CONTINUOUS
CONTR CONTRACTOR
COR CORRUGATED
CP COMPLETE PENETRATION
CPG COPING
CPR COPPER
CRS COURSE (S)
CS COUNTERSINK
CTSK COUNTERSUNK SCREW
CU CUBIC
CX CONNECTION
CY CUBIC YARD

D DEEP, DEPTH
DBL DOUBLE
DEF DEFLECTION
DEG DEGREE
DEMO DEMOLISH, DEMOLITION
DEP DEPRESSED
DEPT DEPARTMENT
DET DETAIL
DIAG DIAGONAL
DIA DIAMETER
DIM DIMENSION (ED)
DIV DIVISION
DL DEAD LOAD
DN DOWN
DO DITTO
DP DAMPROOFING
DWL DOWEL (ED)
DWG DRAWING, (S)

E EAST, MODULUS OF ELASTICITY
EA EACH
EB EXPANSION BOLT
EF EACH FACE
EJT EXPANSION JOINT
EL ELEVATION
ELEC ELECTRIC (AL)
ENCL ENCLOSURE, ENCLOSED
ENG ENGINEER
EQ EQUAL, EQUALIBRIUM
EQUIP EQUIPMENT
ESTM ESTIMATE (ED)
EV EXPANSION BOLT
EW EACH WAY
EXCA EXCAVATE (D) (ION)
(E), EXIST EXISTING
EXMP EXPANDED METAL PLATE
EXP EXPOSED
EXPN EXPANSION
EXS EXTRA STRONG
EXT EXTERIOR, EXTERNAL

FAS FASTENER
FBO FURNISHED BY OTHERS
FD FLOOR DRAIN
FHMS FLATHEAD MACHINE SCREW
FHS FIRE HOSE STATION
FHWS FLATHEAD WOOD SCREW
FIN FINISH (ED)
FIXT FIXTURE
FJT FLUSH JOINT
FLR FLOOR
FLUR FLUORESCENT
FLEX FLEXIBLE
FND FOUNDATION
FO' FACE OF ___
FP FIREPROOF (ED)
FP'G FIREPROOFING
FR FRAME (D)(ING)
FRC FIRE RESISTANT COATING
FRGD FORGED
FRMG FRAMING
FT FOOT, FEET
FTG FOOTING
FURR FURRED, FURRING
FV FIELD VERIFY

GA GAUGE
GALV GALVANIZED
GC GENERAL CONTRACTOR
GI GALVANIZED IRON
GKT GASKET
GL GLASS, GLAZING
GLM GLULAM
GP GALVANIZED PIPE
GPM GALLONS PER MINUTE
GPPL GYPSUM PLASTER
GRVL GRAVEL, GRANULAR
GRD GRADE, GRADING
GRN GRANITE
GSS GALVANIZED SHEET STEEL
GT GROUT
GVL GRAVEL
GWB GYPSUM WALLBOARD
GYP GYPSUM

H HIGH
HBD HARDBOARD
HC HOLLOW CORE
HD HEAVY DUTY
HDNR HARDENER
HDR HEADER
HDWR HARDWARE
HDWD HARDWOOD
HES HIGH EARLY STRENGTH CEMENT
HH HANDHOLE
HJT HEADJOINT
HK HOOK
HM HOLLOW METAL
HORIZ HORIZONTAL
HPT HIGH POINT
HR HOUR
HSA HEADED STUD ANCHOR
HSB HIGH STRENGHT BOLT
HT HEIGHT
HWD HARDWOOD

ID INSIDE DIAMETER
IN INCHE (ES)
INCL INCLUDE (D), INCLUDING
INSUL INSULATE, INSULATION
INT INTERIOR
INTM INTERMEDIATE
INV INVERT

JST JOIST
JT JOINT

K KIP (S)
KO KNOCKOUT
KSI KIPS PER SQUARE INCH

L LONG, LENGTH
LAM LAMINATE (D)
LB POUND, LAG BOLT
LBL LABEL
LC LIGHT CONTROL
LD DEVELOPMENT LENGHT
LF LINEAR FOOT
LH LEFT HAND
LL LIVE LOAD
LLH LONG LEG HORIZONTAL
LLV LONG LEG VERTICAL
LPT LOW POINT
LT LIGHT
LTL LINTEL
LVL LEVEL (ING)
LW LIGHT WEIGHT
LWC LIGHT WEIGHT CONCRETE
LWF LIGHT WEIGHT FILL

M METER (S) MOMENT
MATL MATERIAL
MAS MASONRY
MAX MAXIMUM
MB MACHINE BOLT
MBR MEMBER
MCONN MOMENT CONNECTION
MECH MECHANICAL
MED MEDIUM
MET METAL
MEMB MEMBER
MEP MECHANICAL, ELECTRICAL, & PLUMBING
MFD METAL FLOOR DECKING
MFR MANUFACTURE (R) (ED)
MID MID, MIDDLE
MIN MINIMUM, MINUTE
MISC MISCELLANEOUS
MM MILLIMETER (S)
MMB MEMBRANE
MO MASONRY OPENING
MOD MODEL
MODU MODULAR
MOV MOVABLE
MTL MATERIAL

N NORTH, NEW
NAT NATURAL
NL NAILABLE
NMT NONMETALLIC
NO NUMBER
NOM NOMINAL
NTS NOT TO SCALE

OA OVERALL
o.c. ON CENTER
OD OUTSIDE DIAMETER
OH OVERHEAD
OHMS OVALHEAD MACHINE SCREW
OHWS OVALHEAD WOOD SCREW
OJ OPEN-WEB JOINT (S)
OPH OPPOSITE HAND
OPNG OPENING
OPP OPPOSITE

PAR PARALLEL
PBD PARTICLE BOARD
PCC PRECAST CONCRETE
PCF POUNDS PER CUBIC FOOT
PCS PIECES
PERF PERFORATE (D)
PERI PERIMETER
PFB PREFABRICATE (D)
PFS POUNDS PER SQUARE FOOT
PL PLATE
PLBG PLUMBING
PLF POUNDS PER LINEAR FOOT
P.L. PARALLAM
PLWD PLYWOOD
PMT PAVEMENT
PNL PANEL
POSTEN POST TENSION (D)
PRETEN PRETENSIONED
POLY POLYETHYLENE
PR PAIR
PRJ PROJECT
PSC PRESTRESSED CONCRETE
PSF POUNDS PER SQUARE FOOT
PSI POUNDS PER SQUARE INCH
PT POINT
P.T. PRESSURE TREATED
PTC POST-TENSIONED CONCRETE
PTD PAINTED
PVC POLYVINYL CHLORIDE
PVMT PAVEMENT

QTY QUANTITY
R RADIUS, RISER
RAD RADIUS
RD ROOF DRAIN
RECT RETANGULAR
REF REFERENCE, REFER TO
REINF REFORCE (D) (ING)
REM REMOVE
REQD REQUIRED
REQS REQUIREMENTS
RETG RETAINING
REV REVISION, REVISED
RFG ROOFING
RFH ROOF HATCH
RFL REFLECT (ED)(IVE)(OR)
RM ROOM
RO ROUGH OPENING
RT FIRE RETARDANT TREATED
RT RUBBER TILE
RTG RATING
RVS REVERSE SIDE
RVT RIVET

S SOUTH
SC SOLID CORE
SCHED SCHEDULE
SDL SUPERIMPOSED DEAD LOAD
SDS SELF DRILL SCREW
SE STRUCTURAL ENGINEER
SDST SELF-DRILL, SELF-TAP'G SCREW
SECT SECTION
SF SQUARE FOOT, SQUARE FEET
SHO SHORE, SHORING
SHT SHEET
SHTH SHEATHING
SI SQUARE INCH
SIM SIMILAR
SL SLOPE
SLNT SEALANT
SMS SHEET METAL SCREW
SOG SLAB ON GRADE
SPA SPACE, (ING)
SPC SPACER
SPEC SPECIFICATION (S)
SQ SQUARE
SSTL STAINLESS STEEL
STG STAGGERED
STD STANDARD
STL STEEL
STOR STORAGE
STRUCT STRUCTURE
STR STRUCTURAL
SYM SYMETRICAL, SYMETRY
SYS SYSTEM

T TOP, TORSION, TREAD
T&B TOP AND BOTTOM
T&G TONGUE AND GROOVE
TC TOP CHORD
TEN TESION, TENSILE
TEMP TEMPORARY, TEMPERATURE
THD THREAD (ED)
THK THICK (NESS)
TMPD TEMPERED
TO' TOP OF ___
TL TOTAL LOAD
TR TREAD
TS TUBE STEEL
TYP TYPICAL

UC UNDERCUT
UGD UNDERGROUND
UL UNDEREWRITERS LABORATORY
UND UNDER
UNF UNFINISHED
UNO UNLESS NOTED OTHERWISE

V SHEAR FORCE, VELOCITY
VB VAPOR BARRIER
VER VERIFY
VERT VERTICAL
VG VERTICAL GRAIN
VIF VERIFY IN FIELD
VJ V-JOINTED
VNR VENEER
V.T.R. VENT THROUGH ROOF

W WEST, WIDTH, WIDE, WIDE FLANGE
W/ WITH
W/O WITHOUT
WD WOOD
WI WROUGHT IRON
WM WIRE MESH
WP WATERPROFFING
WPR WATER REPELLENT
WPT WORKING POINT
WS WATER STOP
WT WEIGHT
WTW WALL TO WALL (W/W)
WWF WELDED WIRE FABRIC
WWM WELDED WIRE MESH

9 — 1" = 1'-0" ABBREVIATIONS

DOWNEY SD -
STAUFFER M.S.

(8) 24X40 CLASSROOMS (RH)

S/N:
P-17-1601 A / B
P-17-1602 A / B
P-17-1603 A / B
P-17-1604 A / B
P-17-1605 A / B
P-17-1606 A / B
P-17-1607 A / B
P-17-1608 A / B

(1) 36X40 CLASSROOMS

S/N:
P-17-1671 A / B / C

(2) 48X40 CLASSROOMS

S/N:
P-17-1691 A / B / C / D
P-17-1692 A / B / C / D

CONSTRUCTION OF CLASSROOM BUILDING (RELOCATABLE)

SCOPE OF WORK

BUILDING DESIGN

NUMBER OF STORIES: 1
OCCUPANCY: "E"
CONSTRUCTION TYPE: VB
FLOOR LIVE LOAD: ☒ 50+15 PSF PARTITION; ☐ 100 PSF ☐ 150 PSF
FLOOR DEAD LOAD: ☒ WOOD FLOOR - 11 PSF; ☐ CONC. FLOOR - 33 PSF

ROOF LIVE LOAD: 20 PSF
ROOF SNOW LOAD: 0 PSF
ROOF DEAD LOAD: 17 PSF (INCLUDES SPRINKLER)

BUILDING AREA ALLOWABLE AREA =9,000 sf	NO OVERHANG	WITH OVERHANG
	☐ 24x40 960 sf	☒ 24x40 1140 sf
	☐ 36x40 1440 sf	☒ 36x40 1710 sf
	☐ 48x40 1920 sf	☒ 48x40 2280 sf

FOUNDATION: ☐ WOOD ☐ CONCRETE

CEC CLIMATE ZONE: 1-16

WIND DESIGN

ULTIMATE DESIGN SPEED: Vult = 130 mph, 3 sec GUST, Kzt = 1.0
RISK CATEGORY: II
EXPOSURE: C

EARTHQUAKE DESIGN

RISK CATEGORY: II
SEISMIC IMPORTANCE FACTOR: I = 1
MAPPED SPECTRAL RESPONSE: Ss = 1.5 (FOR BUILDING Cs); Ss = 1.875 (FOR COMPONENTS Cs); S1 = 0.675

SITE CLASS: D
SEISMIC DESIGN CATEGORY: D
DEISIGN SPECTRAL RESPONSE: Sds = 1.00, Sd1 = 0.68
RESPONSE COEFFICIENT, Cs: 0.286
BASIC SEISMIC FORCE-RESISTING SYS: OMF, R = 3.5
ANALYSIS PROCEDURE: EQUIVALENT LATERAL FORCE
BASE SHEAR PER 12X40 MODULE:
WOOD FLOOR, LL ≤ 100, BASE SHEAR= 9.61 kip
WOOD FLOOR, LL = 150, BASE SHEAR= 12.94 kip
CONC. FLOOR, LL ≤ 100, BASE SHEAR= 12.63 kip
CONC. FLOOR, LL = 150, BASE SHEAR= 17.77 kip

5 — 12" = 1'-0" DESIGN LOADS

PARTIAL LIST OF APPLICABLE CODES AS OF July 1, 2014

2013 Administrative Code, Part 1, Title 24 C.C.R. *
2013 California Building Code (CBC), Part 2, Title 24 C.C.R.
(2012 International Building Code Volumes 1-2 and 2013 California Amendments)
2013 California Electrical Code (CEC), Part 3, Title 24 C.C.R.
(2011 National Electrical Code and 2013 California Amendments)
2013 California Mechanical Code (CMC), Part 4, Title 24 C.C.R.
(2012 Uniform Mechanical Code and 2013 California Amendments)
2013 California Plumbing Code (CPC), Part 5, Title 24 C.C.R.
(2012 Uniform Plumbing Code and 2013 California Amendments)
2013 California Energy Code (CEC), Part 6, Title 24 C.C.R
2013 California Fire Code, Part 9, Title 24 C.C.R.
(2012 International Fire Code and 2013 California Amendments)
2013 California Green Building Standards Code, Part 11, Title 24 C.C.R.
2013 California Referenced Standards, Part 12, Title 24 C.C.R
Title 19 C.C.R., Public Safety, State Fire Marshal Regulations.
2007 ASME A17.1 (w/ A17.1a/CSA B44a-08 addenda) Safety Code for Elevators and Escalators

PARTIAL LIST OF APPLICABLE STANDARDS

NFPA 13	Automatic Sprinkler Systems	2013 Edition
NFPA 14	Standpipe Systems	2013 Edition
NFPA 17	Dry Chemical Extinguishing Systems	2013 Edition
NFPA 17a	Wet Chemical Systems	2013 Edition
NFPA 20	Stationary Pumps	2013 Edition
NFPA 22	Water Tanks for Private Fire Protection	2013 Edition
NFPA 24	Private Fire Mains	2013 Edition
NFPA 72	National Fire Alarm Code	2013 Edition
NFPA 80	Fire Doors and Other Opening Protectives	2013 Edition
NFPA 92	Standard for Smoke Control Systems	2012 Edition
NFPA 253	Critical Radiant Flux of Floor Covering Systems	2006 Edition
NFPA 2001	Clean Agent Fire Extinguishing Systems	2012 Edition
ICC 300	ICC Standards on Bleachers, Folding and Telescoping Seating and Grand stands	2012 Edition
UL 300	Fire Testing of Fire Extinguishing System for Protection Of Restaurant Cooking Areas	2005 Edition
UL 464	Audible Signal Appliances	2003 Edition
UL 521	Heat Detectors for Fire Protective Signaling Systems	1999 Edition

Reference Code Section for NFPA Standards - 2013 CBC (SFM) Chapter 35. See Chapter 35 for State of California amendments to NFPA Standards.

* California Administrative Code, Part 1, Chapter 10, Administrative Regulations for the California Energy Commission (CEC).

3 — 12" = 1'-0" DESIGN CODES

CODE	ADOPTED YEAR	ITEM
NFPA 13	2013	AUTOMATIC SPRINKLER SYSTEMS
NFPA 72	2013	NATIONAL FIRE ALARM CODE w/ CALIFORNIA AMENDMENTS

NOTE: VISUAL DEVICES PER UL STANDARD 1971

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
03 117603
AC M. FLS SS CL
Date APR 26 2017

~~IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT 04 115748 AC FLS SS DATE JAN 26 2017 G. CHAN~~
REVISED #1

2 — 12" = 1'-0" NFPA STANDARDS

1. ARCHITECT OF RECORD SHALL PROVIDE FIRE ALARM DRAWINGS WITH SITE ADAPTED PROJECTS. FIRE ALARM IS NOT PART OF THIS PC.
2. THIS PC HAS BEEN STRUCTURALLY DESIGNED TO SUPPORT THE WEIGHT OF A FIRE SPRINKLER SYSTEM
3. ALLOWABLE AREA IS BASED ON 10'-0" SETBACK FROM ASSUMED LINE
4. PC DESIGNED AS A SINGLE-STORY MODULAR BUILDING
5. SEE STRUCTURAL FOR SOIL TYPES & BEARING STRENGTHS
6. WORK SHALL CONFORM TO TITLE 24 OF THE CALIFORNIA CODE OF REGULATIONS
7. THIS PC IS NOT APPROVED FOR "A" OCCUPANCY USAGE
8. EXTERIOR PROJECTIONS TO BE FIRE PROTECTED WHERE REQUIRED
9. SEE A0.5 AND ENGERY CALC M-SHEETS FOR REQUIRED ENVELOPE ASSEMBLIES & HVAC SYSTEMS
10. ALL SPECIFICATIONS BASED ON PERFORMANCE AND ABLE TO BE SUBSTITUTED BY "EQUAL" PRODUCTS PENDING APPROVAL BY D.S.A.
11. BUILDINGS TO COMPLY WITH WILDLAND URBAN INTERFACE GUIDELINES WHERE APPLICABLE
12. BUILDING AND SITE FEATURES MUST COMPLY WITH CALGREEN CODE FOR ITS SPECIFIC LOCATION WHEN ADAPTED FOR SITE-USE
13. SHOULD THIS P.C. CLASSROOM BE DESIGNED TO CONNECT TO ANOTHER P.C. CLASSROOM, INTERIOR SOUND TRANSMISSION IN THE WALL AND FLOOR-CEILING ASSEMBLY MUST MEET A MINIMUM STC OF 40 PER CALGREEN

1 — 12" = 1'-0" GENERAL NOTES

R&S TAVARES ASSOCIATES
DESIGN ♦ CONSULTING ♦ PROJECT MGT
11777 BERNARDO PLAZA CT. SUITE 105
SAN DIEGO, CA 92128 858.444.3344
WWW.RSTAVARES.COM

PROJECT SPECIFIC STATE AGENCY

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLIENT
CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

STAMP
REGISTERED PROFESSIONAL ENGINEER — MANNY D. FRISCH — S3380 — STRUCTURAL — STATE OF CALIFORNIA
07/27/2016

PROJECT TITLE
24' x 40' EXPANDABLE TO 48' x 40'

LICENSED ARCHITECT — JACK F. SHIVELY III — No. C-33467 — RENEWAL DATE — STATE OF CALIFORNIA

ORIGINAL PC STATE AGENCY

PRE-CHECK (PC) DOCUMENT CODE 2013 CBC A SEP. PROJECT APPLICATION IS REQUIRED
~~IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES PC 04-114654 AC FLS SS DATE OCT 25 2016~~

Revision Schedule

#	Description	Date
1	Revision 1	10.24.201

SHEET TITLE
COVER SHEET

PROJECT NUMBER
15046

DRAWN BY
rMc/SM

CHECKED BY
JA/RT

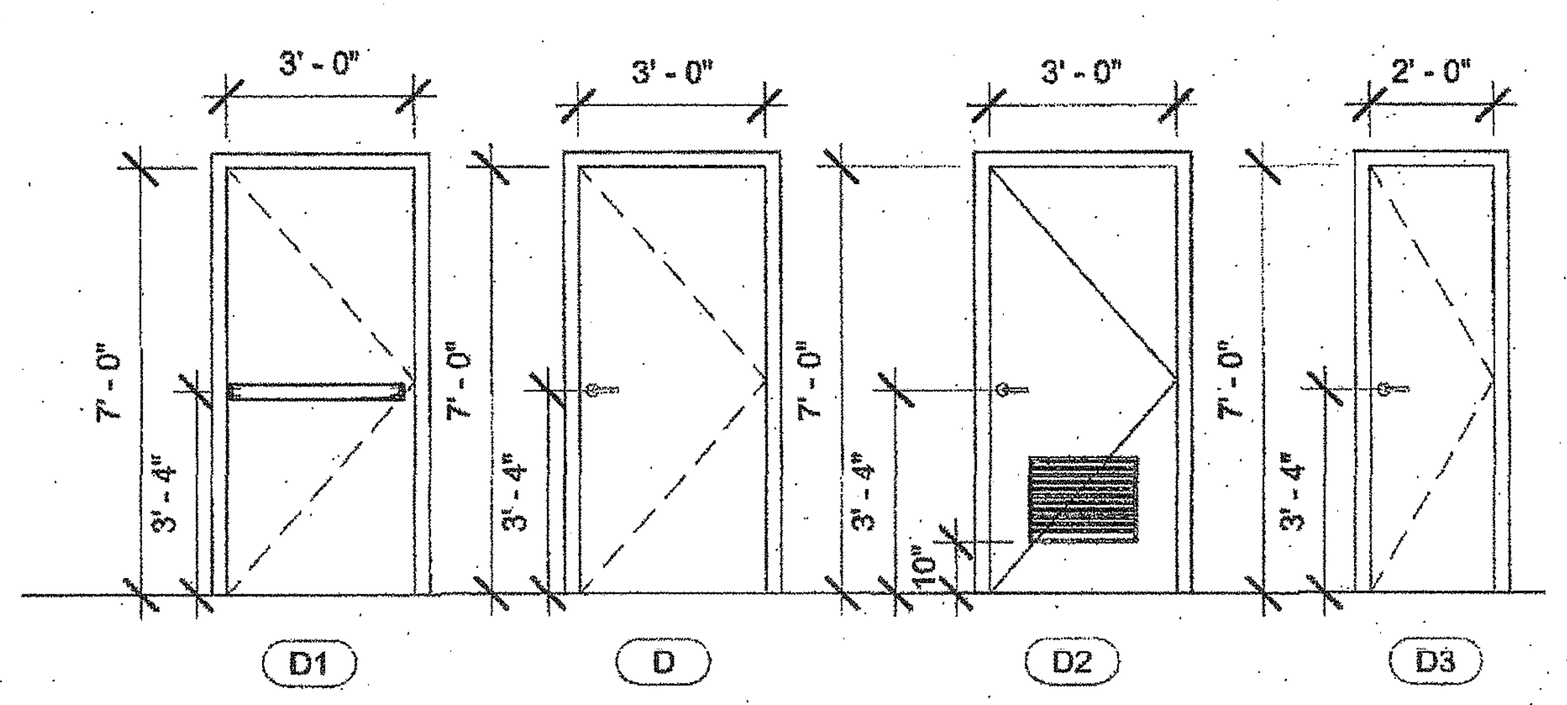
DATE
2016/07/27

SHEET NO.
A0.0

SHEET OF SHEETS

Door Schedule

Mark	Type	Width	Height	Door Material	Frame Type	Wall Thickness	Hardware
1	D1	3' - 0"	7' - 0"	18GA Hollow Metal	Knock Down	5 1/4"	HW1
2	D	3' - 0"	7' - 0"	18GA Hollow Metal	Knock Down	5 1/4"	HW2
3	D	3' - 0"	7' - 0"	Solid Core Wood Legacy	Knock Down	5 1/2"	HW3
4	D2	3' - 0"	7' - 0"	18GA Hollow Metal	Knock Down	4 7/8"	HW4
5	D2	3' - 0"	7' - 0"	18GA Hollow Metal	Knock Down	4 7/8"	HW5
6	D3	2' - 0"	7' - 0"	18GA Hollow Metal	Knock Down	4 1/8"	HW6



1. ALL DOORS SHALL COMPLY WITH CBC SECTION 11B-404 AND BE 1 3/4" THK (UNO)

2. CENTER ALL DOOR LEVERS FOR ACCESS AND LOCKING @ 40" ABOVE FINISH FLOOR. ALL HARDWARE SHALL OPEN FROM THE INTERIOR AND NOT REQUIRE ANY SPECIFIC KNOWLEDGE OF THE HARDWARE OR REQUIRE ANY SPECIAL EFFORT FOR EGRESS. THE LEVER OF LEVER-ACTUATED LEVERS OR LOCKS SHALL BE CURVED WITH A RETURN TO WITHIN 1/2" OF THE FACE OF THE DOOR TO PREVENT CATCHING ON THE CLOTHING (etc.) OF PERSONS DURING EGRESS. THE LEVER OF LEVER-ACTUATED LEVERS OR LOCKS SHALL EXTEND AT A MINIMUM OF ONE-HALF THE DOOR WIDTH.

3. PER CBC 1008.1.10 FOR ANY ROOM CONFIGURATION WHICH PROVIDES AN OCCUPANT LOAD OF 50 OR GREATER SHALL NOT BE PROVIDED WITH A LATCH OR LOCK UNLESS IT IS PANIC HARDWARE OR FIRE EXIT HARDWARE AND COMPLY WITH ALL REQUIREMENTS OF SECTION 11B-309 OF THE CBC. ALL HARDWARE SHALL COMPLY WITH HARDWARE SCHEDULE THIS SHEET.

4. PER CBC 11B-309.4 THE FORCE REQUIRED TO ACTIVATE OPERABLE PARTS SHALL BE 5 POUNDS (22.2 N) MAX.

5. PER CBC 11B-404.2.8.2 DOOR SPRING HINGES SHALL BE ADJUSTED SO THAT FROM THE OPEN POSITION OF 70 DEGREES, THE DOOR SHALL MOVE TO THE CLOSE POSITION IN 1.5 SECONDS MINIMUM. ALL CLOSER MUST COMPLY WITH CBC 11B-404.2.8.1 - DOOR CLOSER AND GATE CLOSERS SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 90 DEGREES, THE TIME REQUIRED TO MOVE THE DOOR TO A POSITION OF 12 DEGREES FROM THE LATCH IS 5 SECONDS OR LESS.

6. THE MAXIMUM AREA OF EXTERIOR WALL OPENING PER CBC TABLE 705.8 AND THE FIRE PROTECTION FOR EXTERIOR WALL PER CBC TABLE 602. ALL FIRE PROTECTION BASED ON THE FIRE SEPARATION DISTANCE.

7. DOOR LOCATION MAY VARY BASED ON PROJECT REQUIREMENTS.

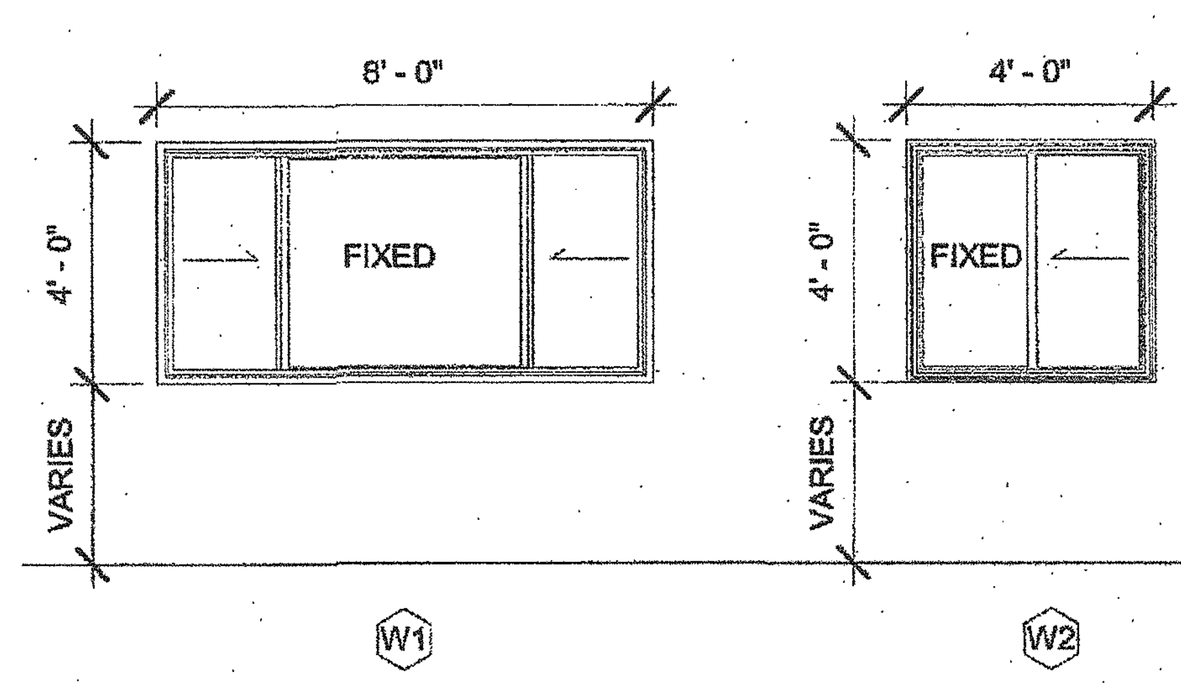
8. (PH) ON PLANS THE SHEET INDICATES REQUIRED PANIC HARDWARE.

9. PROVIDE EXIT SIGNS AS REQUIRED PER CBC SECTION 1011. SEE DETAILS PER A0.2

9 *1/4" = 1'-0"* **Doors**

Window Schedule

Mark	Type Mark	Height x Width	Function	Type Comments	Glazing	Wall Thickness
A	W1	4'-0" x 8'-0"	XOX	Clear Anodized Alum. Frame	*DP	
B	W2	4'-0" x 4'-0"	XO	Clear Anodized Alum. Frame	*DP	



WINDOW LOCATION MAY VARY BASED ON PROJECT REQUIREMENTS.

WINDOW - 3/4" INSULATING GLASS UNIT PERFORMANCE
U-VALUE : 0.35
SHGC : 0.24
VT : 0.5

3/3/2016 8:59:38 PM C:\Users\Sarah\Documents\15046 - Aries, 24x40 PC - MainFile_Sarah.rvt

8 *1/4" = 1'-0"* **Windows**

HARDWARE SCHEDULE

1.CLASSROOM :

LOCKSET	SCHLAGE ND75PDRHO626 (cylindrical)	Finish 26D or equal
BUTTS	HAGER BB1191 4 1/2" x 4 1/2" NRP	Finish 26D or equal
CLOSER	NORTON 8501 BFDA STRIP	Finish 689 or equal
WEATHER STRIP	HAGER 891SAV 3684	Finish Alum or equal
THRESHOLD	HAGER 413SA 36	Finish Alum or equal
DOOR BOTTOM	HAGER 783SAV 35N	Finish Alum or equal

NOTE: ALL CLASSROOM DOORS SHALL BE LOCKABLE FROM INSIDE

2.PANIC HARDWARE (PH) :

EXIT DEVICE	VON DUPRIN AX99L-2-PA w/ SCHLAGE RIM (cylindrical)	Finish Alum or equal
BUTTS	HAGER BB1191 4 1/2" x 4 1/2" NRP	Finish 26D or equal
CLOSER	NORTON 8501 BFDA	Finish 689 or equal
WEATHER STRIP	HAGER 891SAV 3684	Finish Alum or equal
THRESHOLD	HAGER 413SA 36	Finish Alum or equal
DOOR BOTTOM	HAGER 783SAV 35N	Finish Alum or equal

NOTE: ALL CLASSROOM DOORS SHALL BE LOCKABLE FROM INSIDE

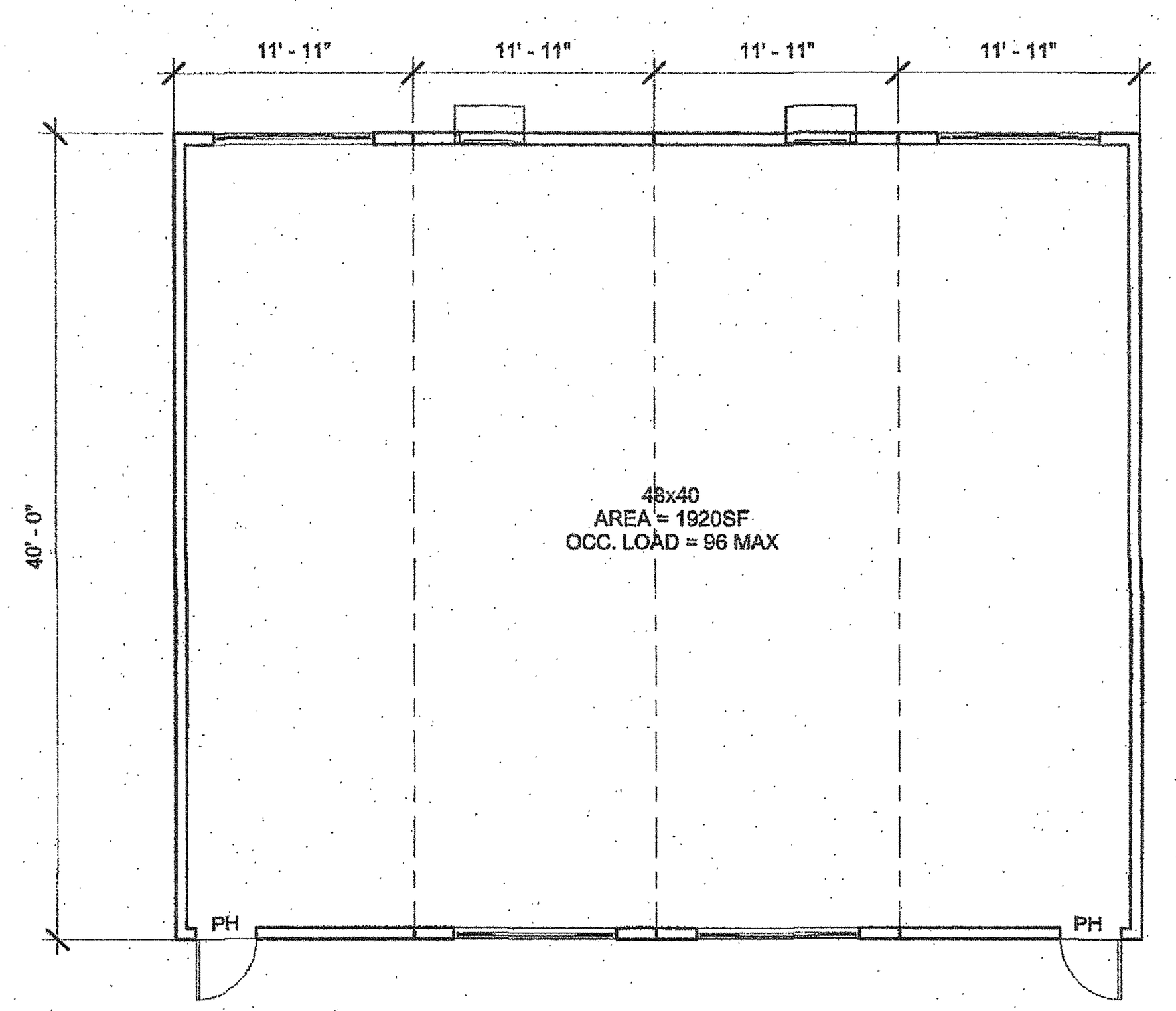
3.SINGLE-OCCUPANCY :

LOCKSET	SCHLAGE ND40SRHO626 (cylindrical)	Finish 26D or equal
BUTTS	HAGER BB1191 4 1/2" x 4 1/2" NRP	Finish 26D or equal

Tell Mfg Cross Reference DSA Finish Hardware Schedule Per Print 15046 Page A0.1 — Tell Mfg Equal to Original Part # Specification

		DSA Original Requirement	Abv	Mfg.	Equal Mfg.	Tell Manufacturing
Set #1 CLASSROOM						
1	Each	LOCKSET ND75PDRHO626 (CYLINDRICAL) (26D)	SL	SCHLAGE	Tell Mfg.	LC12110CTL 26D 234 A SCC LOCKSET INTRUDER/CLASSROOM, Keyed Both Sides
1	Each	BUTTS BB1191 4-1/2" X 4-1/2" NRP (26D) Brass or SS	HA	HAGER	Tell Mfg.	H4545BB32DNRP 4.5 X 4.5 BB NRP 32D HINGE
1	Each	CLOSER 8501 BFDA STRIP (689)	NO	NORTON	Tell Mfg.	12816 BC SN1 COV PA AL Closer Grade 1 HD Adjustable w/ Cover (Alum)
1	Each	WEATHER STRIP 891SAV 3684 (ALUM)	HA	HAGER	Tell Mfg.	DT100584 - WEATHERSTRIP 3684 VINYL/ALUM
1	Each	THRESHOLD 413SA 36 1/4" x 5" Saddle (ALUM)	HA	HAGER	Pemko	271A THRESHOLD SADDLE 36" X 5" X 1/4" ALUM Pemko
1	Each	DOOR BOTTOM 783SAV 35N (ALUM)	HA	HAGER	Pemko	216AV36 DOOR BOTTOM 36" U STYLE W DRIP ALUM Pemko
Set #2 PANIC HARDWARE (HP)						
1	Each	EXIT DEVICE 99L-2 (Classroom Double Cylinder)	VO	VON DUPRIN	Von Puprin	99L-2 Von Duprin (Lever Classroom Double Cylinder) (or Equal)
						Tell Does Not Offer Double Cylinder Classroom Exit Device, Currently in Development
1	Each	SCHLAGE RIM (CLYINDERICAL)	SL	SCHLAGE	Schlage	SCHLAGE RIM (CLYINDERICAL) (or Equal)
1	Each	BUTTS BB1191 4-1/2" X 4-1/2" NRP (26D)	HA	HAGER	Tell Mfg.	H4545BB32DNRP 4.5 X 4.5 BB NRP 32D HINGE
1	Each	CLOSER 8501 BFDA (689)	NO	NORTON	Tell Mfg.	12816 BC SN1 COV PA AL Closer Grade 1 HD Adjustable w/ Cover (Alum)
1	Each	WEATHER STRIP 891SAV 3684 (ALUM)	HA	HAGER	Tell Mfg.	DT100584 - WEATHERSTRIP 3684 VINYL/ALUM
1	Each	THRESHOLD 413SA 36 1/4" x 5" Saddle (ALUM)	HA	HAGER	Pemko	271A THRESHOLD SADDLE 36" X 5" X 1/4" ALUM Pemko
1	Each	DOOR BOTTOM 783SAV 35N (ALUM)	HA	HAGER	Pemko	216AV36 DOOR BOTTOM 36" U STYLE W DRIP ALUM Pemko
Set #3 SINGLE-OCCUANCY						
1	Each	LOCKSET ND40PDRHO626 (CYLINDRICAL) (26D) *Note: ND40PD is an error Correct # should be ND40SRHO626 PD= 6 Pin Cylinder. If 6 Pin Cylinder is Required see ND50PDRHO*	SL	SCHLAGE	Tell Mfg.	LC1278CTL 26D 234 A LOCKSET PRIVACY, Emerg Outside, Push Button Inside
1	Each	BUTTS BB1191 4-1/2" X 4-1/2" NRP (26D)	HA	HAGER	Tell Mfg.	H4545BB32DNRP 4.5 X 4.5 BB NRP 32D HINGE
Mark #1 Door and Frame						
1	Each	TYPE D1, 3'-0" x 7'-0" Door 18 Ga Hollow Metal			Tell Mfg.	Tell Spartan Door 3'-0" x 7'-0" Door 18 Ga Hollow Metal Primed (Door Type D1)
1	Each	Frame Type Knock Down 5-1/4" Wall Thickness			Tell Mfg.	Tell Spartan Frame 3'-0" x 7'-0" 5-1/4" Wall Thickness 16 Ga Hollow Metal Primed
Mark #2 Door and Frame						
1	Each	TYPE D, 3'-0" x 7'-0" Door 18 Ga Hollow Metal			Tell Mfg.	Tell Spartan Door 3'-0" x 7'-0" Door 18 Ga Hollow Metal Primed (Door Type D)
1	Each	Frame Type Knock Down 5-1/4" Wall Thickness			Tell Mfg.	Tell Spartan Frame 3'-0" x 7'-0" 5-1/4" Wall Thickness 16 Ga Hollow Metal Primed
Mark #3 Door and Frame						
1	Each	TYPE D, 3'-0" x 7'-0" Door Solid Core Wood Legacy Walnut			Tell Mfg.	Tell Wood Solid Core Door 3'-0" x 7'-0" Legacy Walnut (Door Type D)
1	Each	Frame Type Knock Down 5-1/2" Wall Thickness			Tell Mfg.	Tell Spartan Frame 3'-0" x 7'-0" 5-1/2" Wall Thickness 16 Ga Hollow Metal Primed
Mark #4 Door and Frame						
1	Each	TYPE D2, 3'-0" x 7'-0" Door 18 Ga Hollow Metal w/ Louver 24" x 12"			Tell Mfg.	Spartan Door 3'-0" x 7'-0" Door 18 Ga Hollow Metal Primed w/ Louver 24" x 12" (Door Type D2)
1	Each	Frame Type Knock Down 4-7/8" Wall Thickness			Tell Mfg.	Spartan Frame 3'-0" x 7'-0" 4-7/8" Wall Thickness 16 Ga Hollow Metal Primed
Mark #5 Door and Frame						
1	Each	TYPE D2, 3'-0" x 7'-0" Door 18 Ga Hollow Metal w/ Louver 24" x 12"			Tell Mfg.	Spartan Door 3'-0" x 7'-0" Door 18 Ga Hollow Metal Primed w/ Louver 24" x 12" (Door Type D2)
1	Each	Frame Type Knock Down 4-7/8" Wall Thickness			Tell Mfg.	Spartan Frame 3'-0" x 7'-0" 4-7/8" Wall Thickness 16 Ga Hollow Metal Primed
Mark #6 Door and Frame						
1	Each	TYPE D3, 2'-0" x 7'-0" Door 18 Ga Hollow Metal			Tell Mfg.	Spartan Door 2'-0" x 7'-0" Door 18 Ga Hollow Metal Primed (Door Type D3)
1	Each	Frame Type Knock Down 4-1/8" Wall Thickness			Tell Mfg.	Spartan Frame 2'-0" x 7'-0" 4-1/8" Wall Thickness 16 Ga Hollow Metal Primed

7 *1/4" = 1'-0"* **Door Hardware**



INTERIOR PARTITION MAY BE ADDED AND LOCATION MAY VARY BASED ON PROJECT REQUIREMENTS.
SEE GENERAL NOTES THIS SHEET

6 *1/8" = 1'-0"* **48x40 (Total Area 1920sf)**

Finish Schedule

Room Number	Flooring: Floor	Flooring: Base	Wall Finish: Front	Wall Finish: Left	Wall Finish: Rear	Wall Finish: Right	Ceiling: Type	Ceiling: Ht.	Notes
CLASSROOM	Carp.	4" TS	Tack	Tack	Tack	Tack	CP	8'-6"	
CLASSROOM w/ PH	Carp.	4" TS	Tack	Tack	Tack	Tack	CP	8'-6"	
SINGLE OCC.	SV	6" TS	FRP	FRP	FRP	FRP	CP	8'-0"	
SINGLE OCC.	SV	SC	FRP	FRP	FRP	FRP	GBP	8'-0"	

Abbreviations:

FLOORING
- CARP: CARPET PER STATE OF CALIFORNIA SPECIFICATIONS COMPLYING WITH GROUP 1; TYPE "A" OR TYPE "B"; CLASS 2; DENSITY 4600; DIRECT GLUE DOWN
- SV: SHEET VINYL FLOORING
- VCT: VINYL COMPOSITION TILE

BASE
- 4" TS: 4" TOP SET BASE
- 6" TS: 6" TOP SET BASE

WALLS
- TACK: 1/2" VINYL TACKBOARD CLASS 1 OVER 1/2" GYPSUM BOARD BACKING
- FRP: 1/8" FIBER REINFORCED PANEL OVER 1/2" WATER RESISTANT GYPSUM BOARD
- GYP: 1/2" GYPSUM BOARD; TAPE; TEXTURE; PAINTED FINISH
- PLY: 1/2" PLYWOOD FINISH
- NF: NO FINISH SC: 6" SELF-COVE BASE

CEILING
- CP: ACOUSTICAL LAY IN GRID CEILING PANELS
- HC: 5/8" GYPSUM BOARD; TAPE; TEXTURE; PAINTED FINISH
- GBP: 1/2" GYPSUM BOARD WASHABLE PANELS (PAINTED)

Finishes Notes

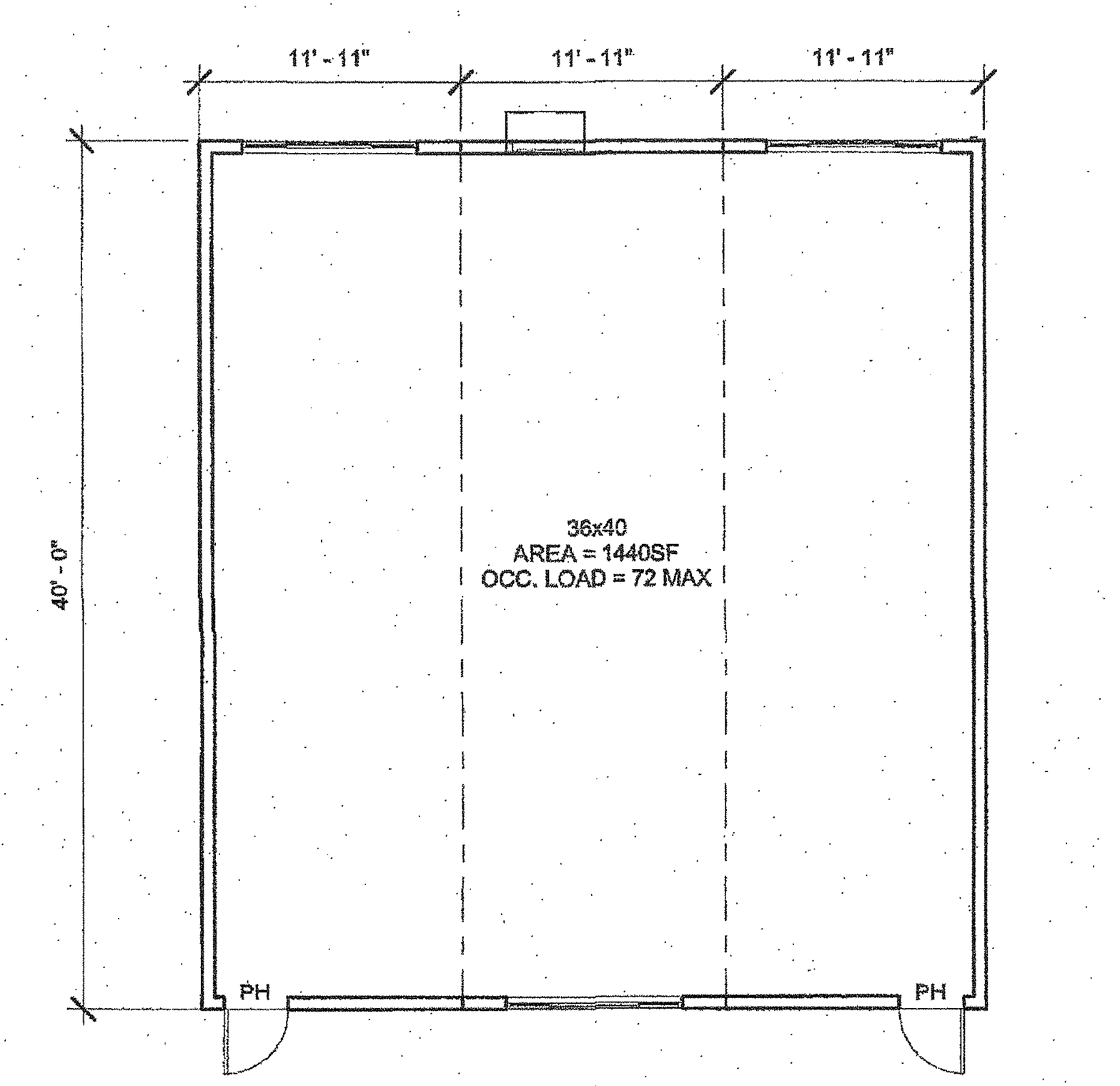
1. ALL FINISHES SHALL COMPLY WITH CBC, CCR , AND CFR

2. PER ASTM D2047 ALL FLOORING WITH A COEFFICIENT OF FRICTION OF A MINIMUM OF 0.6 WILL BE CONSIDERED TO OBTAIN THE INTENT OF A SLIP RESISTANCE SURFACE.

3. FLOORING CONTRACTOR IS RESPONSIBLE FOR SUB-FLOORING PREPARATION. ALL PLYWOOD TO BE APA RATED AND COMPLY WITH PS1-09. PLYWOOD SURFACE TO BE CARPETED IS TO BE PLUGGED AND SANDED BY FLOORING CONTRACTOR. ALL DEFORMITIES OCCURRING DUE TO STANDARD CONSTRUCTION PRACTICES SHALL BE PLUGGED AND SANDED BY FLOOR CONTRACTOR. MATELINE JOINTS TO BE A MAX OF 1/8" AND SHALL BE PLUGGED AND SANDED BY FLOORING CONTRACTORS.

4. ALL CARPET AND FLOOR FINISH MUST COMPLY PER CBC SECTION 11B-302 FLOOR AND GROUND SURFACES. ALL CHANGES IN ELEVATION SHALL COMPLY WITH CBC SECTION 11B-303 CHANGES IN LEVELS

5 *1/4" = 1'-0"* **Finishes and Materials**



INTERIOR PARTITION MAY BE ADDED AND LOCATION MAY VARY BASED ON PROJECT REQUIREMENTS.
SEE GENERAL NOTES THIS SHEET

4 *1/8" = 1'-0"* **36x40 (Total Area 1440sf)**

MOISTURE PROTECTION INSULATION:

MATERIAL:
INSULATING MATERIAL FOR WALLS, CEILINGS, AND FLOORS SHALL BE FIBERGLASS BATTS (UNFACED) AND SHALL COMPLY WITH CBC 2013.
(CLASS A = 0-25 FLAME SPREAD:) SMOKE DEVELOPMENT DENSITY LESS THAN 450.

INSULATION VALUES
SEE TITLE 24 SHEETS FOR REQUIRED INSULATION VALUES PER CLIMATE ZONE

EXTERIOR WALL INSULATION (MIN.)
- X R-19 (2x6 STUD)
- ☐ R-19 (MTL STUD)

INTERIOR WALL INSULATION (MIN.)
- ☐ R-13

FLOOR INSULATION (MIN.)
UNINSULATED

ROOF INSULATION (MIN.)
- ☐ R-30

3 *1/4" = 1'-0"* **Insulation Specs**

1. PLACE (2) PERMANENT METAL IDENTIFICATION LABELS ON EACH MODULE.
(1) LABEL AT REAR EXTERIOR
(1) LABEL ABOVE CEILING LINE AT INTERIOR FRAME.
LABELS WILL BE MECHANICALLY FASTENED AND SHOW THE DSA APPLICATION NUMBER, MANUFACTURERS NAME AND SERIAL NUMBER, DESIGN LIVE LOAD FOR ROOF AND FLOOR FRAMING, WIND SPEED, EXPOSURE CATEGORY, AND Kzt = 1.0 PER 2013 CBC

2. VINYL TACKBOARD TO HAVE A CLASS 1 FLAME SPREAD RATING AND COMPLY WITH A SMOKE DENSITY OF 175

3. VERIFIED ALL DIMENSIONS PRIOR TO CONSTRUCTION

4. SEE INTERIOR ELEVATIONS FOR ALL REQUIRED EGRESS SIGNAGE AND FIRE ALARM SYSTEM COMPONENTS

5. WHEN RELOCATING OR REMOVING INTERIOR PARTITIONS (2) EXITS OR EXIT ACCESS DOORWAYS FROM ANY SPACE SHALL BE PROVIDED. EXIT DOORS MUST BE SEPERATED BY A DISTANCE APART EQUAL TO OR NOT LESS THAN ONE-HALF OF THE MAXUMUM OVERALL DIAGONAL DIMENSION FOR ALL NONSPRINKLERED BUILDINGS. EXIT DOORS MUST BE SEPERATED BY A DISTANCE APART EQUAL TO OR NOT LESS THAN ONE-THIRD OF THE MAXUMUM OVERALL DIAGONAL DIMENSION FOR ALL SPRINKLERED BUILDINGS. ALL EXIT AND EXIT ACCESS DOORWAYS MUST COMPLY WITH CBC SECTION 1015 EXIT AND EXIT ACCESS DOORWAYS AND CBC SECTION 1016 EXIT ACCESS TRAVEL DISTANCE.

6. OCCUPANCY LOAD SIGNS SHALL BE POSTING AND COMPLY WITH CBC SECTION 1004.3

7. SEE ADDITIONAL PC FOR ACCESS RAMPS AND STAIRS. WHERE RAMP IS AGAINST THE WALL AT PLASTER EXTERIOR OR ADJACENT TO ANY ABRASIVE SURFACE THEN A SMOOTH TROWEL SURFACE MUST BE PROVIDED AT THESE LOCATIONS OR AN ALTERNATIVE APPLICATION THAT COMPLIES WITH CBC SECTION 11B-505.8

8. ALL SURFACES ADJACENT TO HANDRAILS SHALL NOT HAVE ANY SHARP, ABRASIVE, OR PROTRUDING COMPONENTS

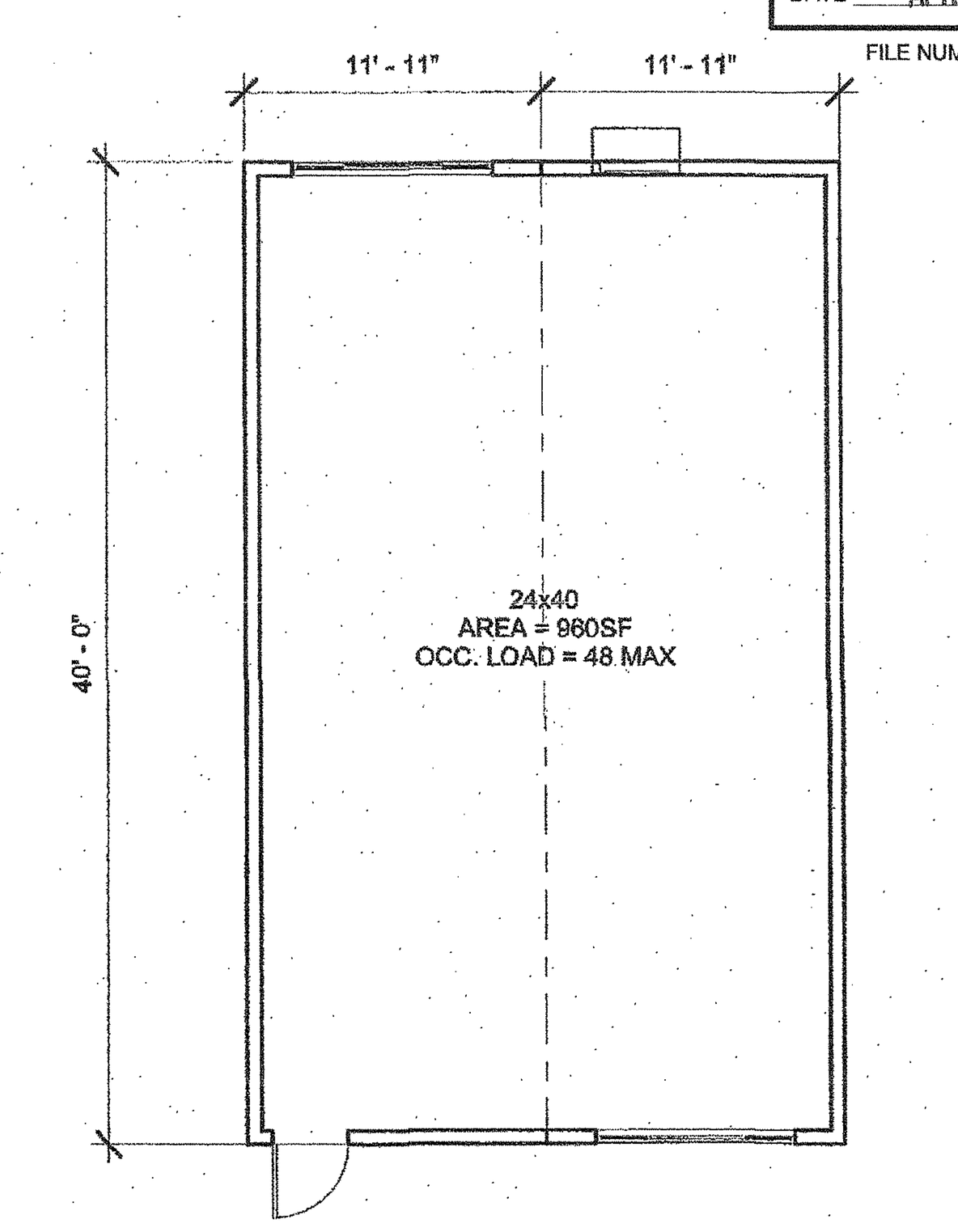
9. ALL METAL RAILINGS AND CONNECTIONS SHALL HAVE A SMOOTH SURFACE WHICH EXTENDS 8" ABOVE THE HANDRAIL

10. FOR PLASTER WALLS PROVIDE CONTROL JOINTS AT ALL MODLINES, ENDWALLS @ 2'-0 FROM EDGE, 10'-0" o/c @ SIDEWALLS, AND ABOVE AND BELOW ALL OPENING. SEE EXTERIOR ELEVATIONS. ALL MATERIALS, MEANS, METHODS, AND PROCEEDURES OF CONSTRUCTION USED TO PROTECT JOINTS SHALL COMPLY WITH FIRE RATED WALL ASSEMPLY PER CBC SECTION 703.2 - FIRE RESISTANCE RATING AND CBC SECTION 705 - EXTERIOR WALLS

11. FOR HVAC UNITS WHICH HEIGHT FROM GRADE TO BOTTOM OF UNIT EXCEEDS 27" AND LOCATED IN PEDESTRIAN PATH OF TRAVEL, A PROTECTION RAIL AROUND THE HVAC UNIT WILL BE PROVIDED. PER MNF INSTALLATION INSTRUCTIONS

2 *1 1/2" = 1'-0"* **A0.1 GENERAL NOTES**

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC V.N. FLS ___ SS CL
DATE APR 2 6 2016
FILE NUMBER: 19-29



INTERIOR PARTITION MAY BE ADDED AND LOCATION MAY VARY BASED ON PROJECT REQUIREMENTS.
SEE GENERAL NOTES THIS SHEET

1 *1/8" = 1'-0"* **24x40 (Total Area 960sf)**

R&S TAVARES ASSOCIATES
DESIGN ♦ CONSULTING ♦ PROJECT MGT
11777 BERNARDO PLAZA CT. SUITE 105
SAN DIEGO, CA 92128 858.444.3344
WWW.RSTAVARES.COM

PROFESSIONAL STAMP
REGISTERED PROFESSIONAL ENGINEER MANNY D. FRISCH No. S5580 STRUCTURAL STATE OF CALIFORNIA
03/02/2016

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLIENT
CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL
PRE-CHECK (PC) DOCUMENT CODE 2013 CBC A SEP. PROJECT PPLICATION IS REQUIRED
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-114654
AC SC FLS ___ SS
DATE MAR 1 8 2016

PROJECT TITLE
24' x 40'
EXPANDABLE TO
48' x 40'

LICENSED ARCHITECT JACK F. SHIVELY III No. C-33467 01/31/17 RENEWAL DATE STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 115748
ACS ___ FLS ___ SS
DATE JAN 2 6 2017
REVISED

Revision Schedule

#	Description	Date

SHEET TITLE
TYPICAL KEY PLAN AND SCHEDULES, GEN NOTES,

PROJECT NUMBER	15046
DRAWN BY	rMc/SM
CHECKED BY	JA/RT
DATE	2016/03/02
SHEET NO.	A0.1

SHEET OF SHEETS

Advisory 1008.4.2 Clear Floor or Ground Space. Clear floor or ground spaces, turning spaces, and accessible routes are permitted to overlap within play areas. A specific location has not been designated for the clear floor or ground spaces or turning spaces, except swings, because each play component may require that the spaces be placed in a unique location. Where play components include a seat or entry point, designs that provide for an unobstructed transfer from a wheelchair or other mobility device are recommended. This will enhance the ability of children with disabilities to independently use the play component.

When designing play components with manipulative or interactive features, consider appropriate reach ranges for children seated in wheelchairs. The following table provides guidance on reach ranges for children seated in wheelchairs. These dimensions apply to either forward or side reaches. The reach ranges are appropriate for use with those play components that children seated in wheelchairs may access and reach. Where transfer systems provide access to elevated play components, the reach ranges are not appropriate.

Children's Reach Ranges

Forward or Side Reach	High (maximum)	Low (minimum)
Ages 3 and 4	36 in (915 mm)	20 in (510 mm)
Ages 5 through 8	40 in (1015 mm)	18 in (455 mm)
Ages 9 through 12	44 in (1120 mm)	16 in (405 mm)

CHAPTER 7: COMMUNICATION ELEMENTS AND FEATURES

702 Fire Alarm Systems

702.1 General. Fire alarm systems shall have permanently installed audible and visible alarms complying with NFPA 72 (1999 or 2002 edition) (incorporated by reference, see "Referenced Standards" in Chapter 1), except that the maximum allowable sound level of audible notification appliances complying with section 4-3.2.1 of NFPA 72 (1999 edition) shall have a sound level no more than 110 dB at the minimum hearing distance from the audible appliance. In addition, alarms in guest rooms required to provide communication features shall comply with sections 4-3 and 4-4 of NFPA 72 (1999 edition) or sections 7.4 and 7.5 of NFPA 72 (2002 edition).

703 Signs

703.1 General. Signs shall comply with 703. Where both visual and tactile characters are required, either one sign with both visual and tactile characters, or two separate signs, one with visual, and one with tactile characters, shall be provided.

703.2 Raised Characters. Raised characters shall comply with 703.2 and shall be duplicated in braille complying with 703.3. Raised characters shall be installed in accordance with 703.4.

703.2.1 Depth. Raised characters shall be 1/32 inch (0.8 mm) minimum above their background.

703.2.2 Case. Characters shall be uppercase.

703.2.3 Style. Characters shall be sans serif. Characters shall not be italic, oblique, script, highly decorative, or of other unusual forms.

703.2.4 Character Proportions. Characters shall be selected from fonts where the width of the uppercase letter "O" is 55 percent minimum and 110 percent maximum of the height of the uppercase letter "I".

703.2.5 Character Height. Character height measured vertically from the baseline of the character shall be 5/8 inch (16 mm) minimum and 2 inches (51 mm) maximum based on the height of the uppercase letter "I".

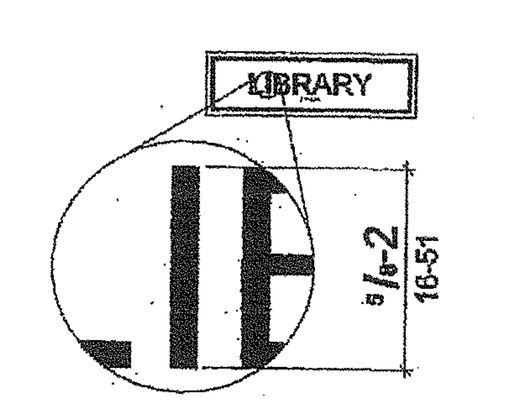


Figure 703.2.5 Height of Raised Characters

703.2.6 Stroke Thickness. Stroke thickness of the uppercase letter "I" shall be 15 percent maximum of the height of the character.

703.2.7 Character Spacing. Character spacing shall be measured between the two closest points of adjacent raised characters within a message, excluding word spaces. Where characters have rectangular cross sections, spacing between individual raised characters shall be 1/8 inch (3.2 mm) minimum and 4 times the raised character stroke width maximum. Where characters have other cross sections, spacing between individual raised characters shall be 1/16 inch (1.6 mm) minimum and 4 times the raised character stroke width maximum at the base of the cross sections, and 1/8 inch (3.2 mm) minimum and 4 times the raised character stroke width maximum at the top of the cross sections. Characters shall be separated from raised borders and decorative elements 3/8 inch (9.5 mm) minimum.

703.2.8 Line Spacing. Spacing between the baselines of separate lines of raised characters within a message shall be 135 percent minimum and 170 percent maximum of the raised character height.

703.3 Braille. Braille shall be contracted (Grade 2) and shall comply with 703.3 and 703.4.

703.3.1 Dimensions and Capitalization. Braille dots shall have a domed or rounded shape and shall comply with Table 703.3.1. The indication of an uppercase letter or letters shall only be used before the first word of sentences, proper nouns and names, individual letters of the alphabet, initials, and acronyms.

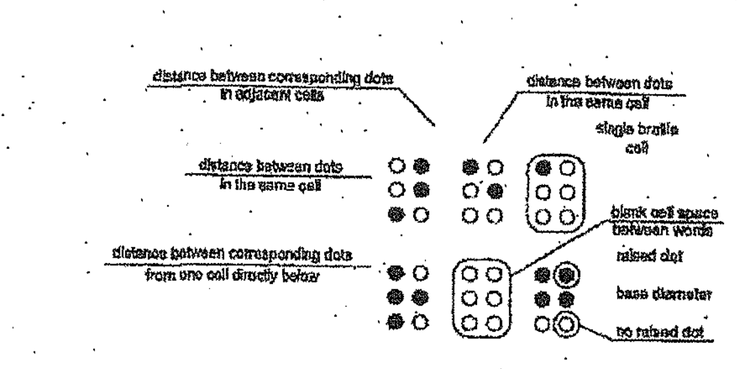


Figure 703.3.1 Braille Measurement

703.3.2 Position. Braille shall be positioned below the corresponding text. If text is multi-lined, braille shall be placed below the entire text. Braille shall be separated 3/8 inch (9.5 mm) minimum from any other tactile characters and 3/8 inch (9.5 mm) minimum from raised borders and decorative elements.

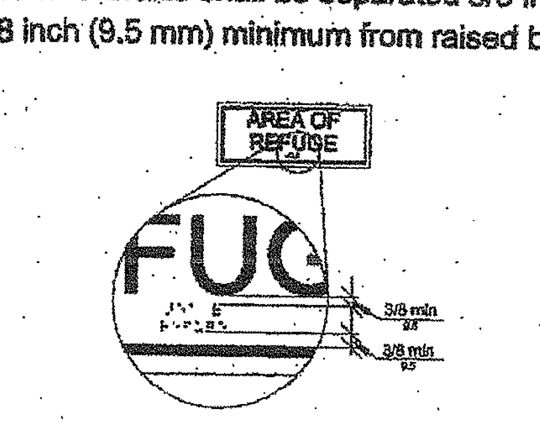


Figure 703.3.2 Position of Braille

703.4 Installation Height and Location. Signs with tactile characters shall comply with 703.4.

703.4.1 Height Above Finish Floor or Ground. Tactile characters on signs shall be located 48 inches (1220 mm) minimum above the finish floor or ground surface, measured from the baseline of the lowest tactile character and 60 inches (1525 mm) maximum above the finish floor or ground surface, measured from the baseline of the highest tactile character.

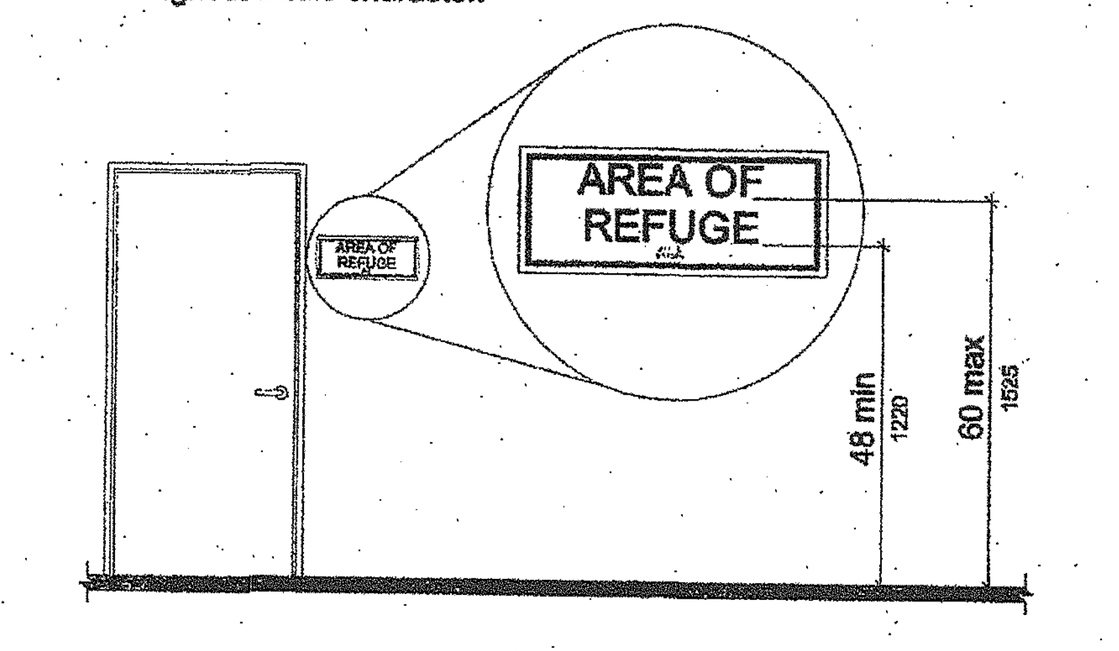


Figure 703.4.1 Height of Tactile Characters Above Finish Floor or Ground

703.4.2 Location. Where a tactile sign is provided at a door, the sign shall be located alongside the door at the latch side. Where a tactile sign is provided at double doors with one active leaf, the sign shall be located on the inactive leaf. Where a tactile sign is provided at double doors with two active leafs, the sign shall be located to the right of the right hand door. Where there is no wall space at the latch side of a single door or at the right side of double doors, signs shall be located on the nearest adjacent wall. Signs containing tactile characters shall be located so that a clear floor space of 18 inches (455 mm) minimum by 18 inches (455 mm) minimum, centered on the tactile characters, is provided beyond the arc of any door swing between the closed position and 45 degree open position.

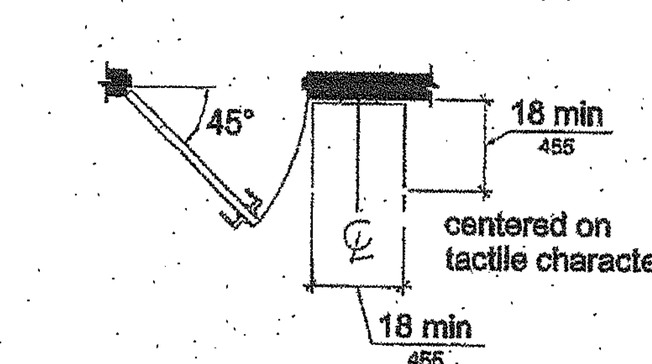


Figure 703.4.2 Location of Tactile Signs at Doors

703.5 Visual Characters. Visual characters shall comply with 703.5.

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

703.5.2 Case. Characters shall be uppercase or lowercase or a combination of both.

703.5.3 Style. Characters shall be conventional in form. Characters shall not be italic, oblique, script, highly decorative, or of other unusual forms.

703.5.4 Character Proportions. Characters shall be selected from fonts where the width of the uppercase letter "O" is 55 percent minimum and 110 percent maximum of the height of the uppercase letter "I".

703.5.5 Character Height. Minimum character height shall comply with Table 703.5.5. Viewing distance shall be measured as the horizontal distance between the character and an obstruction preventing further approach towards the sign. Character height shall be based on the uppercase letter "I".

703.5.6 Height From Finish Floor or Ground. Visual characters shall be 40 inches (1015 mm) minimum above the finish floor or ground.

703.5.7 Stroke Thickness. Stroke thickness of the uppercase letter "I" shall be 10 percent minimum and 30 percent maximum of the height of the character.

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

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

703.6 Pictograms. Pictograms shall comply with 703.6.

703.6.1 Pictogram Field. Pictograms shall have a field height of 6 inches (150 mm) minimum. Characters and braille shall not be located in the pictogram field.

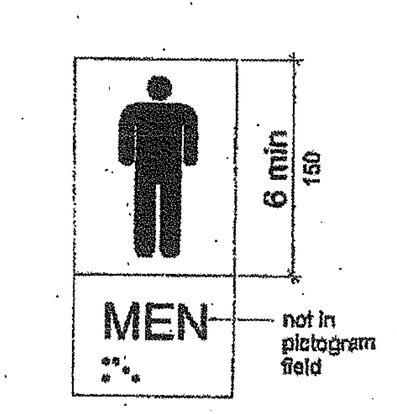
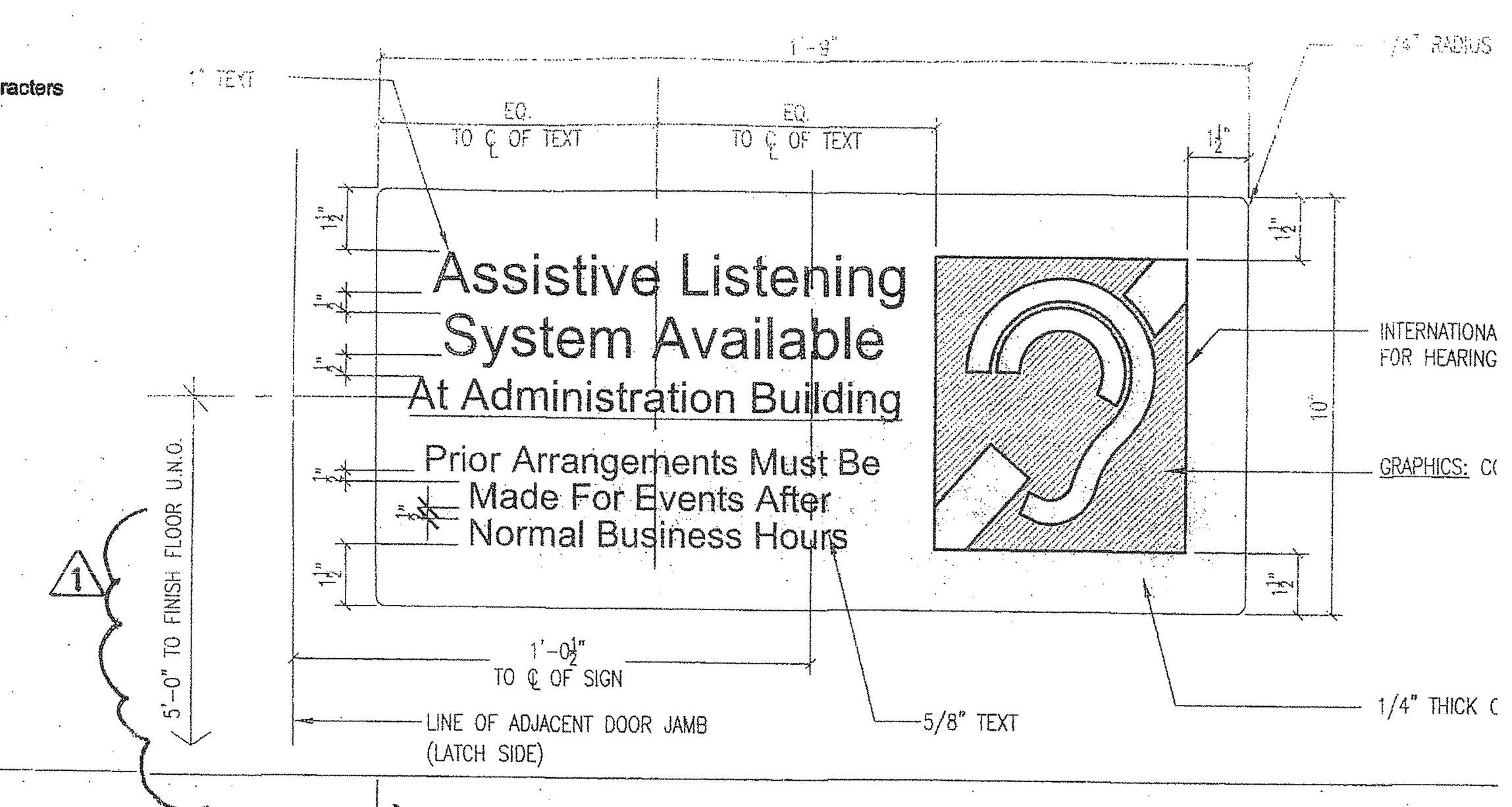
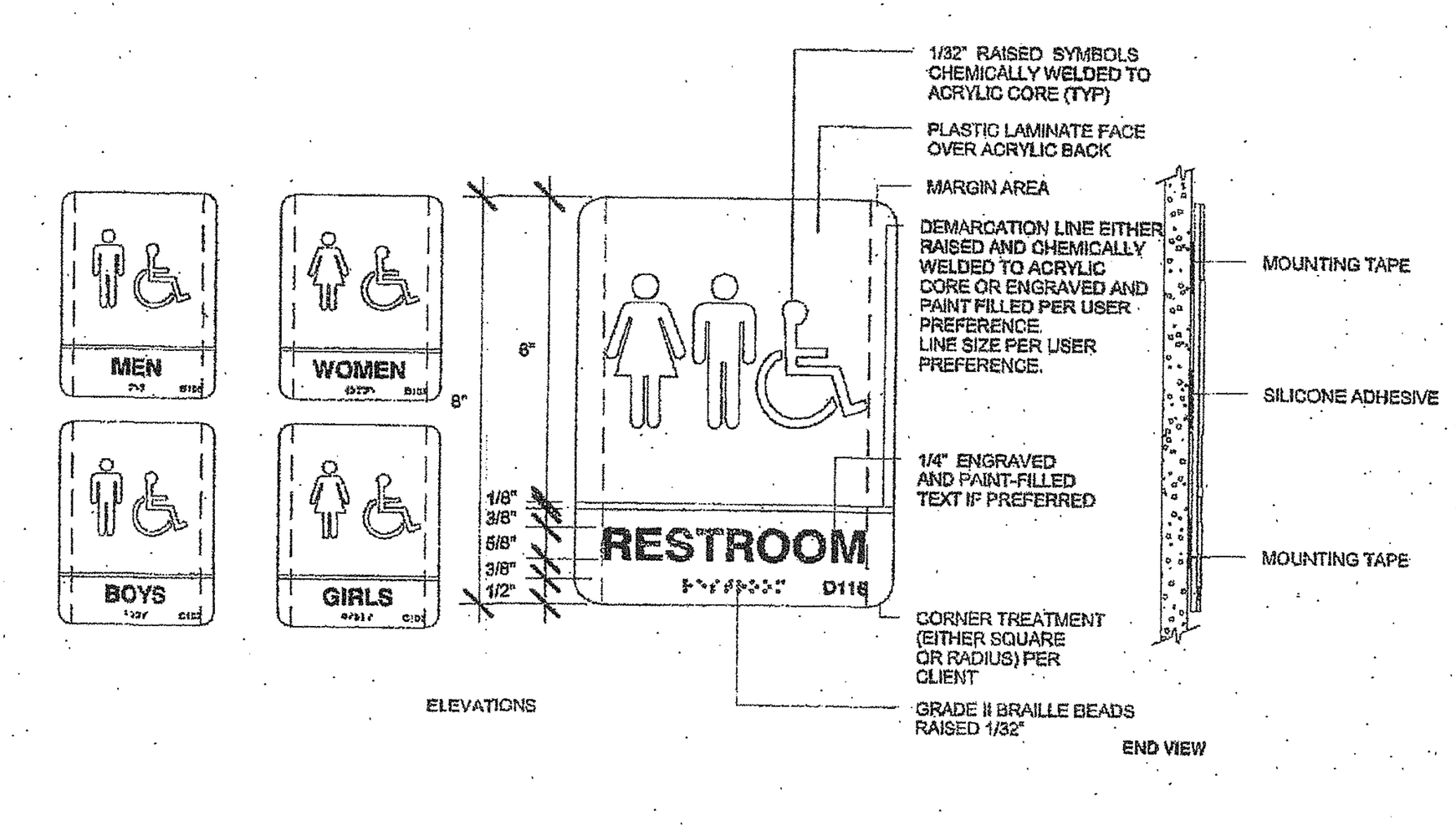
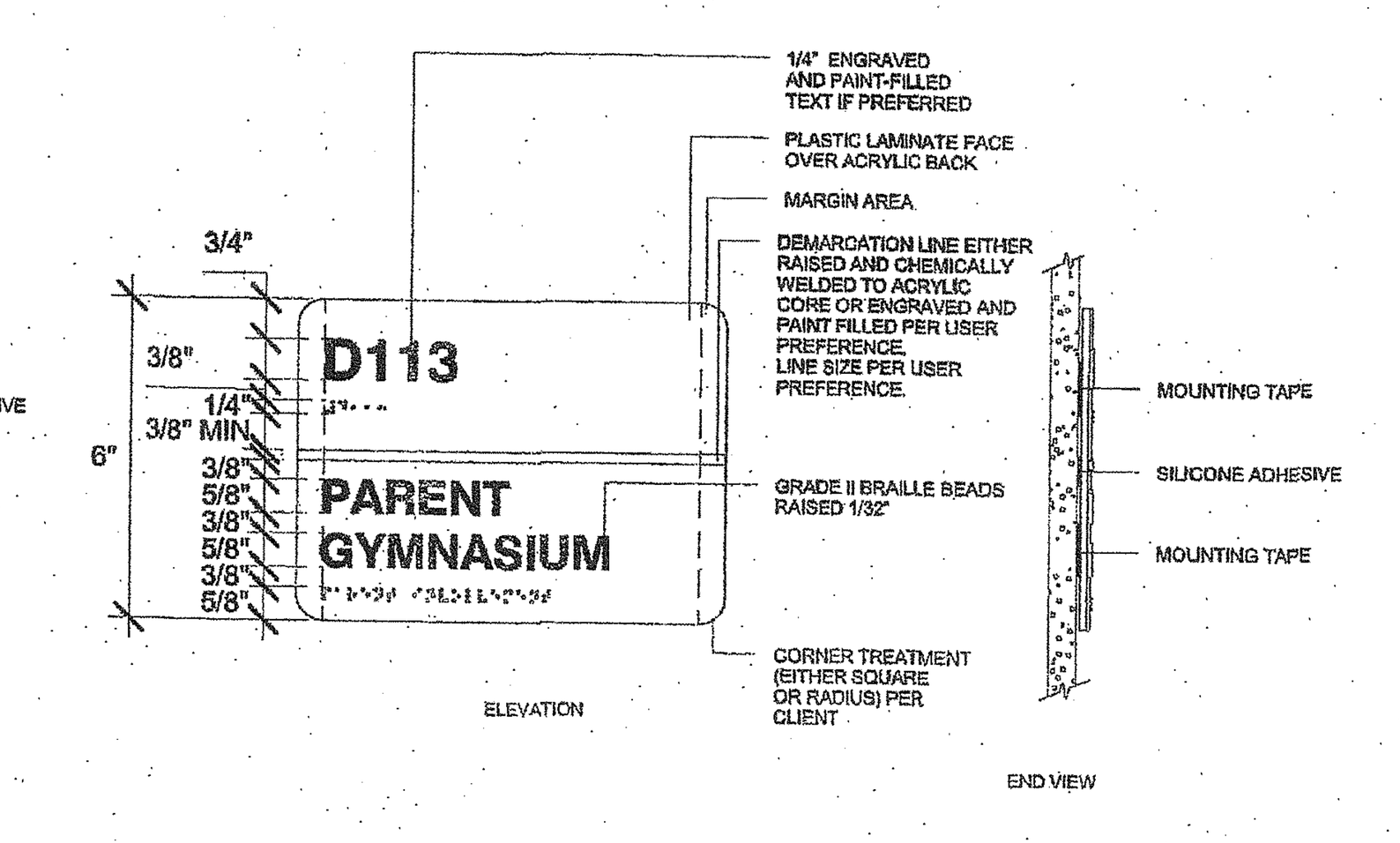


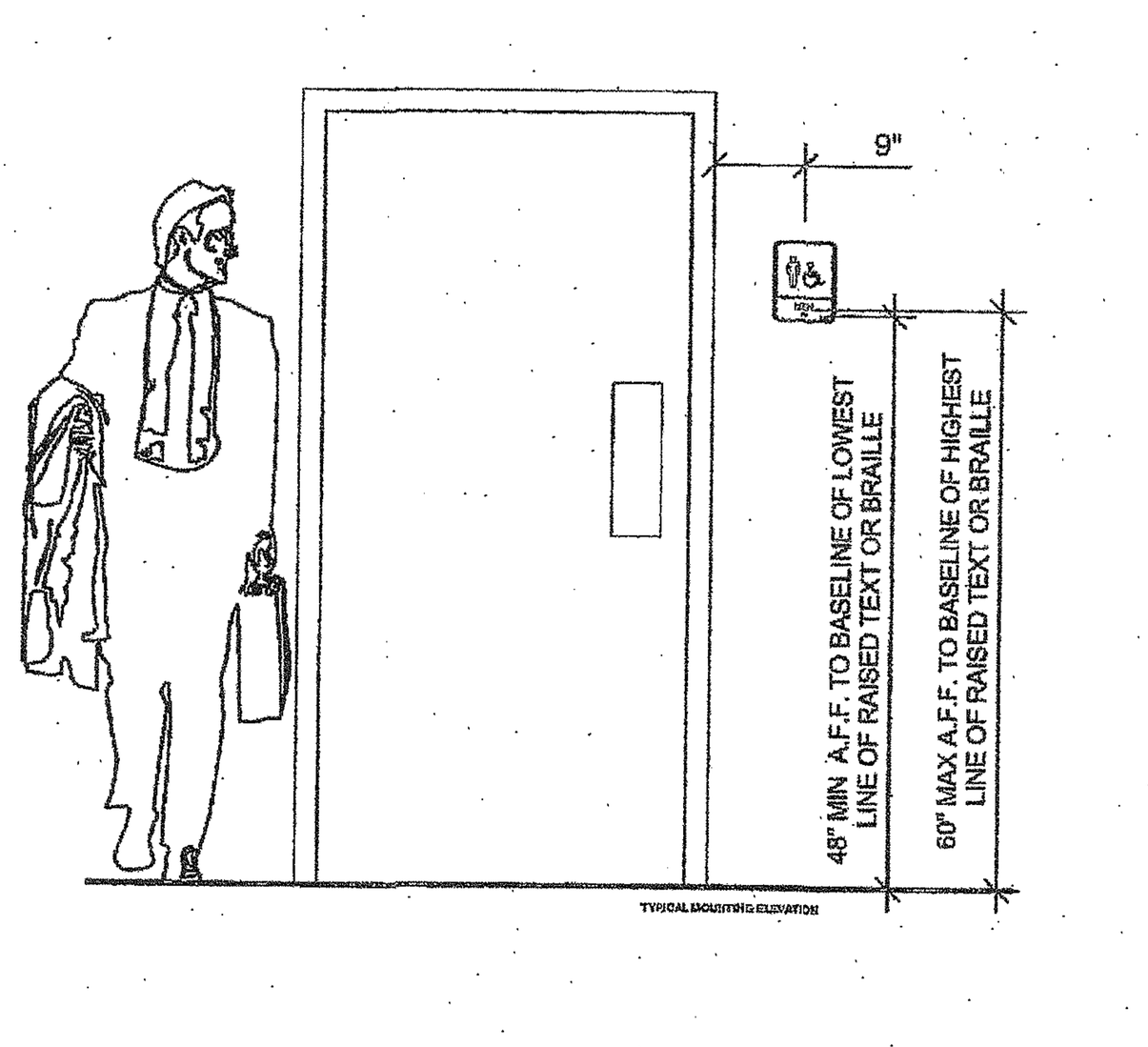
Figure 703.6.1 Pictogram Field dark-on-light.

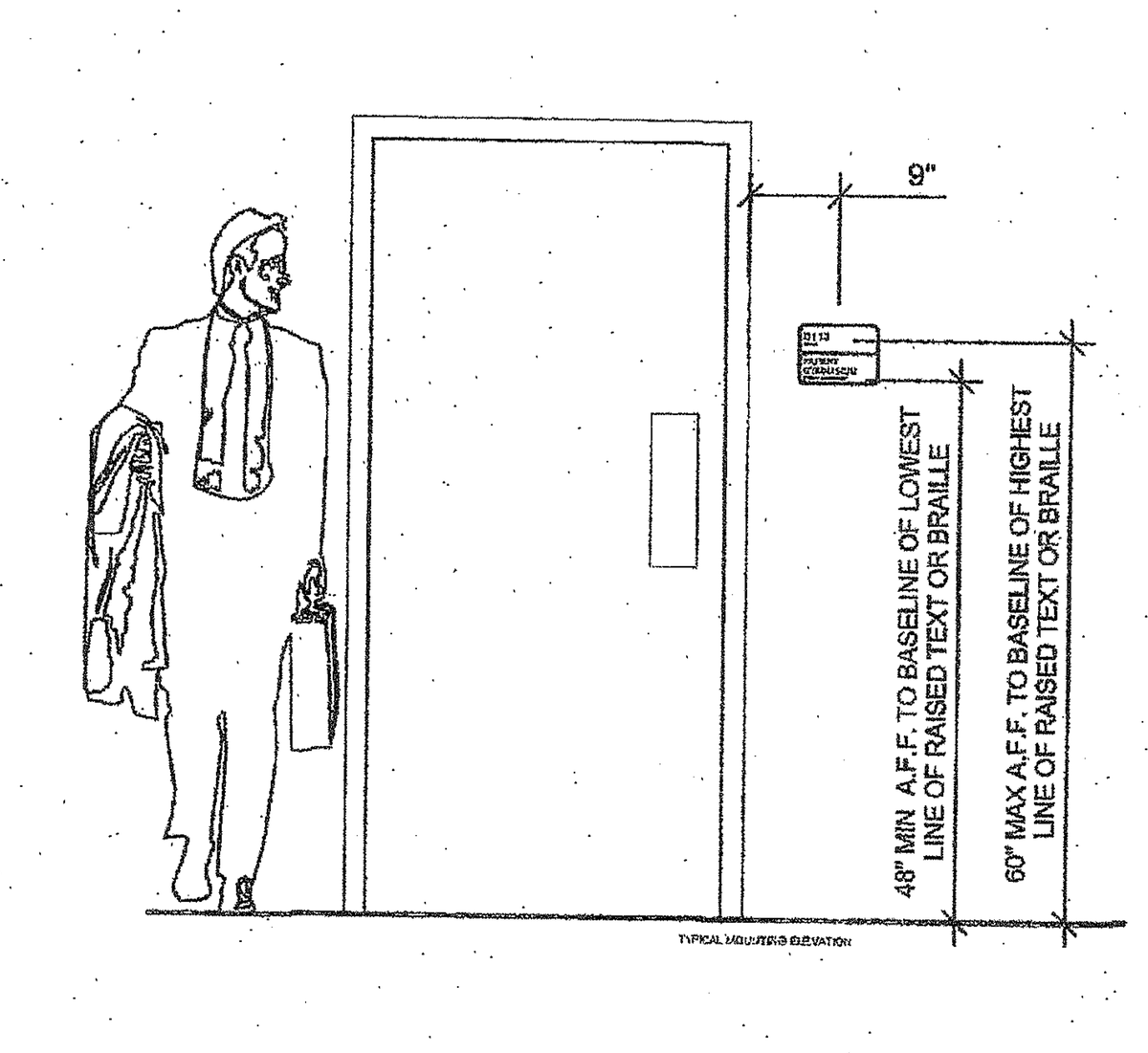
5 *1/4" = 1'-0"* ***Sign Notes***



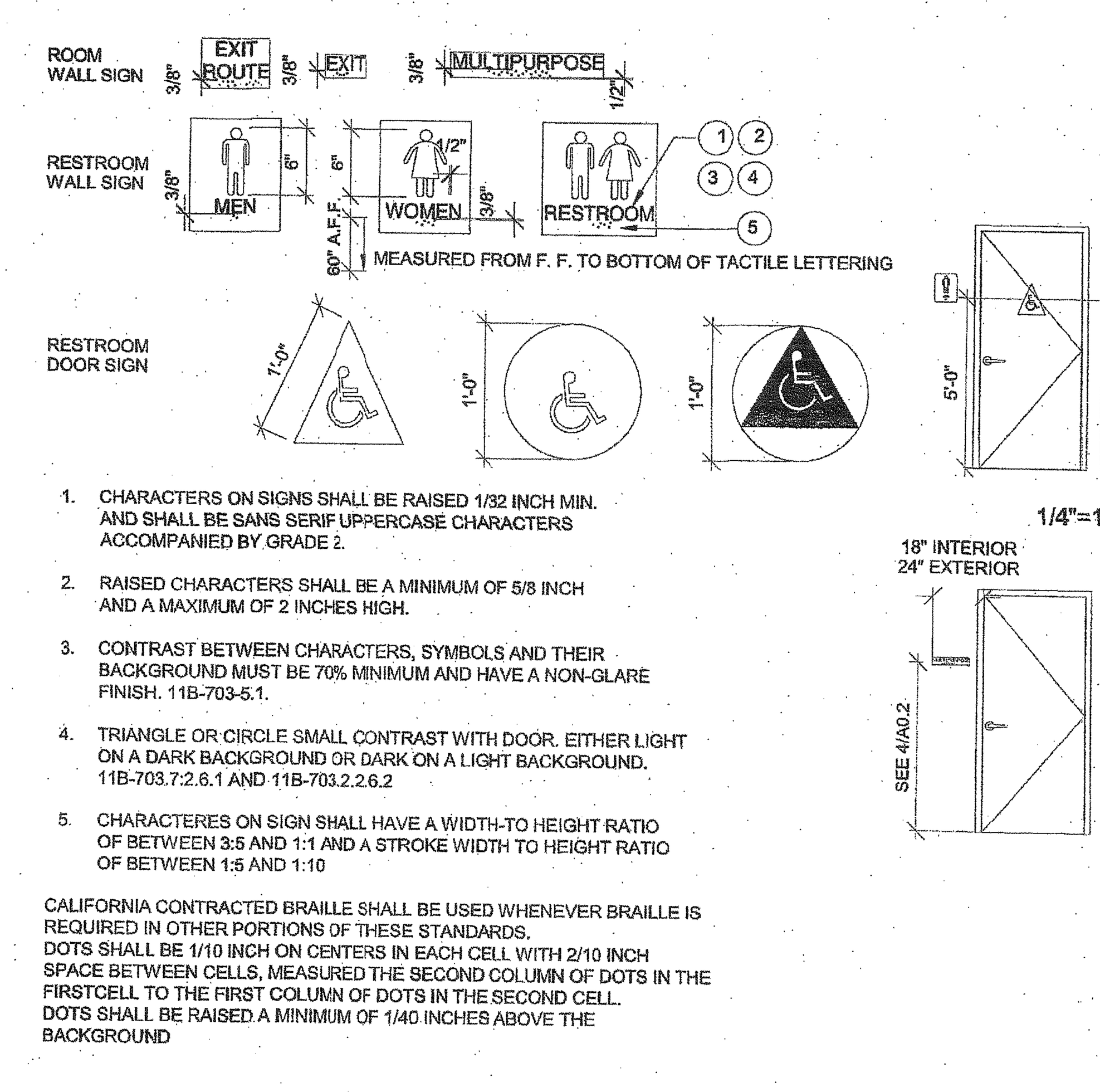








4 *1/2" = 1'-0"* ***Signage***

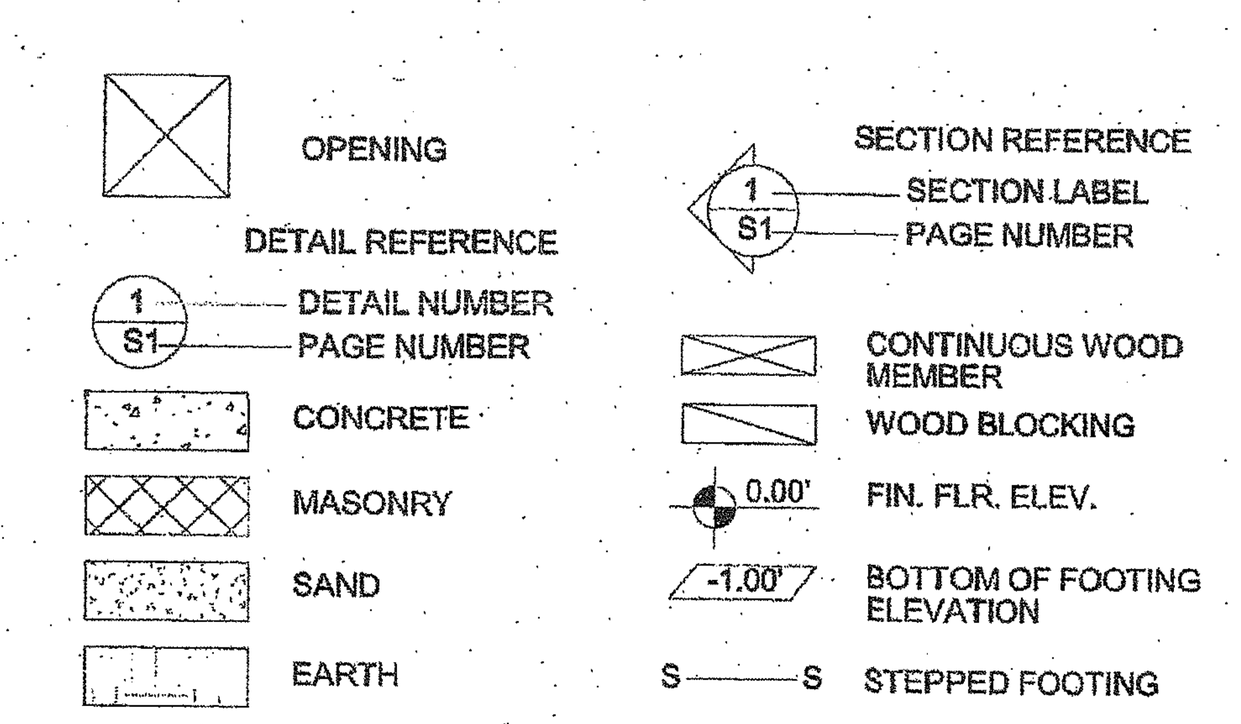


1. CHARACTERS ON SIGNS SHALL BE RAISED 1/32 INCH MIN. AND SHALL BE SANS SERIF UPPERCASE CHARACTERS ACCOMPANIED BY GRADE 2.
2. RAISED CHARACTERS SHALL BE A MINIMUM OF 5/8 INCH AND A MAXIMUM OF 2 INCHES HIGH.
3. CONTRAST BETWEEN CHARACTERS, SYMBOLS AND THEIR BACKGROUND MUST BE 70% MINIMUM AND HAVE A NON-GLARE FINISH. 11B-703-5.1.
4. TRIANGLE OR CIRCLE SMALL CONTRAST WITH DOOR. EITHER LIGHT ON A DARK BACKGROUND OR DARK ON A LIGHT BACKGROUND. 11B-703.7:2.6.1 AND 11B-703.2.2.6.2
5. CHARACTERES ON SIGN SHALL HAVE A WIDTH-TO HEIGHT RATIO OF BETWEEN 3:5 AND 1:1 AND A STROKE WIDTH TO HEIGHT RATIO OF BETWEEN 1:5 AND 1:10

CALIFORNIA CONTRACTED BRAILLE SHALL BE USED WHENEVER BRAILLE IS REQUIRED IN OTHER PORTIONS OF THESE STANDARDS.
DOTS SHALL BE 1/10 INCH ON CENTERS IN EACH CELL WITH 2/10 INCH SPACE BETWEEN CELLS, MEASURED THE SECOND COLUMN OF DOTS IN THE FIRSTCELL TO THE FIRST COLUMN OF DOTS IN THE SECOND CELL.
DOTS SHALL BE RAISED A MINIMUM OF 1/40 INCHES ABOVE THE BACKGROUND

3 *1/4" = 1'-0"* ***Signage and Notes***

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC ___ FLS ___ SS ___
DATE APR 26 2016
FILE NUMBER: 19-29



1 *6" = 1'-0"* ***Symbols***

R&S TAVARES ASSOCIATES
DESIGN ♦ CONSULTING ♦ PROJECT MGT
11777 BERNARDO PLAZA CT. SUITE 105
SAN DIEGO, CA 92128 858.444.3344
WWW.RSTAVARES.COM

PROFESSIONAL STAMP
REGISTERED PROFESSIONAL ENGINEER
MANNY D. FRISCH
No. S5580
STRUCTURAL
STATE OF CALIFORNIA
03/02/2016

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLIENT
CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL
PRE-CHECK (PC) DOCUMENT CODE 2013 CBC A SEP. PROJECT APPLICATION IS REQUIRED
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-114654
AC ___ FLS ___ SS ___
DATE MAR 18 2016

PROJECT TITLE
24' x 40'
EXPANDABLE TO
48' x 40'

LICENSED ARCHITECT
JACK F. SHIVELY III
No. C-33467
9/31/17
RENEWAL DATE
STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 115748
AC ___ FLS ___ SS ___
DATE JAN 26 2017
REVISED

Revision Schedule

#	Description	Date

SHEET TITLE
SIGNAGE AND SYMBOLS

PROJECT NUMBER
15046

DRAWN BY
rMc/SM

CHECKED BY
JA/RT

DATE
2016/03/02

SHEET NO.
A0.2

SHEET OF SHEETS

Proprietary Property of Class Leasing
Proprietary Property of Class Leasing
Proprietary Property of Class Leasing

3/3/2016 8:59:40 PM C:\Users\Sarah\Documents\15046 - Aries, 24x40 PC - MainFile_Sarah.rvt

DSA-103 — Statement of Structural Tests & Special Inspections - 2013 CBC (Stockpile)

DSA — DIVISION OF THE STATE ARCHITECT — DEPARTMENT OF GENERAL SERVICES

DSA-103 rev 12/20/13

Statement of Structural Tests & Special Inspections - 2013 CBC

INCREMENT # | DSA File No.: | Application No.: | Date Submitted: | Revised: | Revised:

School Name | District

IMPORTANT: This form is only a summary list of structural tests and special inspections required for the project. The actual tests and inspections must be performed as detailed on the DSA approved documents. The project inspector is responsible for providing inspection of all facets of construction, including but not limited to, special inspections not listed on this form such as structural wood framing, high-load wood diaphragms, cold-formed steel framing, anchorage of non-structural components, etc., per Title 24, Part 2, Chapter 17A.
NOTE: This form is also available for projects submitted for review under the 2007 and 2010 CBC.

INSTRUCTIONS: Click a plus sign (+) before any category or subcategory to reveal additional tests and special inspections. An "X" before a listed test or inspection indicates it is a mandatory requirement. A shaded box indicates a test or special inspection that may be required, depending on the scope of the construction and other issues. A shaded box can be clicked indicating your selection of that test. Note: A minus (-) on a category or subcategory heading indicates that it can be collapsed. However, any selections you may have made will be cleared. Click on the "COMPILE" button to show only the tests finally selected. **For more information on use of this form, see DSA-103.INSTR.**

Note: References are to the 2013 edition of the California Building Code (CBC) unless otherwise noted.

Required	Test or Special Inspection	Type	Performed By	Code Reference and Notes
+	**SOILS**			
+	**CONCRETE**	Table 1705A.3		
+	**MASONRY**	TMS 402-11/ACI 530-11/ASCE 5-11 Table 1.19.3		
-	**STEEL**	Table 1705A.2.1		
-	**17. STRUCTURAL STEEL AND COLD-FORMED STEEL USED FOR STRUCTURAL PURPOSES**			
	Material Verification:			
X	a. Verify that all materials are appropriately marked and that: • Mill certificates indicate material properties that comply with requirements, • Material sizes, types and grades comply with requirements.	Periodic	*	* By special inspector when performed off-site; by project inspector for steel shipped directly to project site without welding or fabrication.
X	b. Test unidentified materials	Test	Lab	2203A.1 (2203.1*), ASTM A370.
X	c. Examine seam welds of structural tubes and pipes	Periodic	SI*	* DSA IR 17-3.
	Inspection:			
X	d. Verify member locations, bracing and all details constructed in the field.	Continuous	PI	
X	e. Verify stiffener locations, connection tab locations and all construction details fabricated in the shop.	Periodic	SI	
+	**18. HIGH STRENGTH BOLTS:**			
-	**19. WELDING:**			DSA IR 17-3, AWS D1.1 and AWS D1.8 (AWS D1.3 for cold formed steel).
	Verification of Materials, Equipment, Welders, etc:			
X	a. Verify weld filler material identification markings per AWS designation listed on the DSA approved documents and the WPS.	Periodic	SI	
X	b. Verify weld filler material manufacturer's certificate of compliance.	Periodic	SI	
X	c. Verify WPS, welder qualifications and equipment.	Periodic	SI	DSA IR 17-3.
-	**19.1 SHOP WELDING:**			
X	a. Inspect groove, multi-pass, and fillet welds > 5/16"	Continuous	SI	Per AISC 360 (and AISC 341 as applicable), DSA IR 17-3.
X	b. Inspect single-pass fillet welds ≤ 5/16"	Periodic	SI	Per AISC 360 (and AISC 341 as applicable). DSA IR 17-3.
	c. Inspect welding of stairs and railing systems.	Periodic	SI	1705A.2.2.1 Per AISC 360 (and AISC 341 as applicable), DSA IR 17-3.
	d. Verification of reinforcing steel weldability	Periodic	SI	1705A.3.1; verify carbon equivalent reported on mill certificates. DSA IR 17-3.
	e. Inspect welding of reinforcing steel.	Continuous	SI	1705A.2.2.1.2, 1705A.2.2.5 and Table 1705A.2.1 Item 5b. AWS D1.4. DSA IR 17-3.
+	**19.2 FIELD WELDING:**			
-	**20. NONDESTRUCTIVE TESTING:**			
	a. Ultrasonic	Test	Lab	AISC 341, App. Q 5.2. AWS D1.1, D1.8.- ANSI/ASNT CP-189, SNT-TC-1A. - ASTM E543, E1444, E164 - DSA IR 17-2.
X	b. Magnetic Particle	Test	Lab	
	c.	Test	Lab	
	d.	Test	Lab	
+	**21. STEEL JOISTS AND TRUSSES:**			
+	**22. SPRAY APPLIED FIRE-PROOFING:**			
-	**23. OTHER STEEL:**			
	a. High Strength Threaded Rod	Test	Lab	2212A.1 May be waived if the rod has an identifying mark from manufacturer and a mill cert.
X	b. Shop Welding of Cold Form Steel	Periodic	SI	
	~~c. Shop Welding of Steel Floor Deck Welds~~	~~Periodic~~	~~SI~~	
+	**WOOD**			
+	**OTHER**			

THE EXAMPLE OF FORM DSA-103s SHOWN ON THIS SHEET ARE FOR ILLUSTRATION PURPOSES ONLY. A FORM DSA-103 IS TO BE COMPLETED FOR EACH APPLICATION THAT THIS PC IS BEING INCORPORATED INTO AND ALL EXAMPLE FORM DSA-103s ARE TO BE CROSSED OUT ON THIS DRAWING

3/3/2016 8:59:43 PM C:\Users\Sarah\Documents\15046 - Aries, 24x40 PC - MainFile_Sarah.rvt

3 *6" = 1'-0"*
DSA-103 PLYWOOD FLOOR (Stockpile)

DSA-103 — Statement of Structural Tests & Special Inspections - 2013 CBC (Concrete Foundation)

DSA — DIVISION OF THE STATE ARCHITECT — DEPARTMENT OF GENERAL SERVICES

DSA-103 rev 12/20/13

Statement of Structural Tests & Special Inspections - 2013 CBC

INCREMENT # | DSA File No.: | Application No.: | Date Submitted: | Revised: | Revised:

School Name | District

IMPORTANT: This form is only a summary list of structural tests and special inspections required for the project. The actual tests and inspections must be performed as detailed on the DSA approved documents. The project inspector is responsible for providing inspection of all facets of construction, including but not limited to, special inspections not listed on this form such as structural wood framing, high-load wood diaphragms, cold-formed steel framing, anchorage of non-structural components, etc., per Title 24, Part 2, Chapter 17A.
NOTE: This form is also available for projects submitted for review under the 2007 and 2010 CBC.

INSTRUCTIONS: Click a plus sign (+) before any category or subcategory to reveal additional tests and special inspections. An "X" before a listed test or inspection indicates it is a mandatory requirement. A shaded box indicates a test or special inspection that may be required, depending on the scope of the construction and other issues. A shaded box can be clicked indicating your selection of that test. Note: A minus (-) on a category or subcategory heading indicates that it can be collapsed. However, any selections you may have made will be cleared. Click on the "COMPILE" button to show only the tests finally selected. **For more information on use of this form, see DSA-103.INSTR.**

Note: References are to the 2013 edition of the California Building Code (CBC) unless otherwise noted.

Required	Test or Special Inspection	Type	Performed By	Code Reference and Notes
-	**SOILS**			
-	**1. GENERAL:**	Table 1705A.6		
* X	a. Verify that: • site has been prepared properly prior to placement of controlled fill and/or excavations for foundations, • foundation excavations are extended to proper depth and have reached proper material, and • materials below footings are adequate to achieve the design bearing capacity.	Periodic	GE*	* By geotechnical engineer or his or her qualified representative.
-	**2. COMPACTED FILLS:**	Table 1705A.6		
	a. Perform qualification testing of fill materials.	Test	Lab*	* Under the supervision of the geotechnical engineer.
X	b. Verify use of proper materials and inspect lift thicknesses, placement, and compaction during placement of fill.	Continuous	GE*	* By geotechnical engineer or his or her qualified representative.
X	c. Test compaction of fill.	Test	Lab*	* Under the supervision of the geotechnical engineer.
+	**3. DRIVEN DEEP FOUNDATIONS (PILES):**	Table 1705A.7		
+	**4. CAST-IN-PLACE DEEP FOUNDATIONS (PIERS):**	Table 1705A.7		
+	**5. RETAINING WALLS:**			
+	**6. OTHER SOILS:**			
-	**CONCRETE**	Table 1705A.3		
-	**7. CAST IN PLACE CONCRETE**			
	Material Verification and Testing:			
X	a. Verify use of required design mix.	Periodic	SI & PI*	* To be performed by batch-plant special inspector and project inspector.
	b. Test reinforcing steel.	Test	Lab	1913A.2 (1913.2.8*), ASTM A370, DSA IR 17-10
X	c. Perform slump, temperature, and (where required) air content tests.	Test	Lab	ASTM C172, ASTM C31.
X	d. Test concrete (compression).	Test	Lab	ACI 318 Section 5.6 and 1905A.1.2 (1913.3.1*), ASTM C39.
	Inspection:			
	e. Batch plant inspection	Continuous	SI	1705A.3.2; If approved by DSA, batch plant inspection may be reduced to periodic if plant complies with 1705A.3.3, Item 1, and requires first batch inspection, weighmaster, and batch tickets.
X	f. Batch plant inspection – design complies with 1705A.3.3 item 2	Periodic	SI	1705A.3.3, Item 2. Requires first batch inspection, weighmaster, and batch tickets.
X	g. Inspect placement of formwork, reinforcing steel, embedded items and concrete. Inspect curing and form removal.	Continuous	PI*	* May be performed by a special inspector when specifically approved by DSA.
	h. Welding of reinforcing steel.	Provide special inspection per STEEL, category 19.1(d) & (e) and/or 19.2(g) & (h) below.		
	i. Verify in-situ concrete strength prior to removal of shores and forms from beams and structural slabs.	N/A	PI*	* Project inspector to verify concrete strength test reports prior to removal of shores or formwork.
+	**8. PRESTRESSED CONCRETE (in addition to Cast in Place Concrete tests and inspections):**			
+	**9. PRECAST CONCRETE (in addition to Cast in Place Concrete tests and inspections):**			
+	**10. SHOTCRETE (in addition to Cast in Place Concrete tests and inspections):**			
** -	**11. POST-INSTALLED ANCHORS:**			
X	a. Inspect installation of post-installed anchors	Continuous	SI	Table 1705A.3 * May be performed by the project inspector when specifically approved by DSA.
X	b. Test post-installed anchors.	Test	Lab	1913A.7 (1913.2.11*).
+	**12. OTHER CONCRETE:**			
+	**MASONRY**	TMS 402-11/ACI 530-11/ASCE 5-11 Table 1.19.3		
-	**STEEL**	Table 1705A.2.1		
-	**17. STRUCTURAL STEEL AND COLD-FORMED STEEL USED FOR STRUCTURAL PURPOSES**			
	Material Verification:			
X	a. Verify that all materials are appropriately marked and that: • Mill certificates indicate material properties that comply with requirements, • Material sizes, types and grades comply with requirements.	Periodic	*	* By special inspector when performed off-site; by project inspector for steel shipped directly to project site without welding or fabrication.
X	b. Test unidentified materials	Test	Lab	2203A.1 (2203.1*), ASTM A370.
X	c. Examine seam welds of structural tubes and pipes	Periodic	SI*	* DSA IR 17-3.
	Inspection:			
X	d. Verify member locations, bracing and all details constructed in the field.	Continuous	PI	
X	e. Verify stiffener locations, connection tab locations and all construction details fabricated in the shop.	Periodic	SI	
+	**18. HIGH STRENGTH BOLTS:**			
-	**19. WELDING:**			DSA IR 17-3, AWS D1.1 and AWS D1.8 (AWS D1.3 for cold formed steel).
	Verification of Materials, Equipment, Welders, etc:			
X	a. Verify weld filler material identification markings per AWS designation listed on the DSA approved documents and the WPS.	Periodic	SI	
X	b. Verify weld filler material manufacturer's certificate of compliance.	Periodic	SI	
X	c. Verify WPS, welder qualifications and equipment.	Periodic	SI	DSA IR 17-3.
-	**19.1 SHOP WELDING:**			
X	a. Inspect groove, multi-pass, and fillet welds > 5/16"	Continuous	SI	Per AISC 360 (and AISC 341 as applicable), DSA IR 17-3.
X	b. Inspect single-pass fillet welds ≤ 5/16"	Periodic	SI	Per AISC 360 (and AISC 341 as applicable). DSA IR 17-3.
	c. Inspect welding of stairs and railing systems.	Periodic	SI	1705A.2.2.1 Per AISC 360 (and AISC 341 as applicable), DSA IR 17-3.
	d. Verification of reinforcing steel weldability	Periodic	SI	1705A.3.1; verify carbon equivalent reported on mill certificates. DSA IR 17-3.
	e. Inspect welding of reinforcing steel.	Continuous	SI	1705A.2.2.1.2, 1705A.2.2.5 and Table 1705A.2.1 Item 5b. AWS D1.4. DSA IR 17-3.
-	**19.2 FIELD WELDING:**			
	a. Inspect groove, multi-pass, and fillet welds > 5/16"	Continuous	SI	Per AISC 360 (and AISC 341 as applicable), DSA IR 17-3.
X	b. Inspect single-pass fillet welds ≤ 5/16"	Periodic	SI	Per AISC 360 (and AISC 341 as applicable), DSA IR 17-3.
	c. Inspect end-welded studs (ASTM A-108) installation (including bend test)	Periodic	SI	Per AISC 360 (and AISC 341 as applicable), DSA IR 17-3.
	d. Inspect floor and roof deck welds	Periodic	SI	Per AISC 360 (and AISC 341 as applicable), DSA IR 17-3.
	e. Inspect welding of structural cold-formed steel	Periodic	SI*	* May be performed by the project inspector when specifically approved by DSA. DSA IR 17-3. 1705A.2.2.1.1 and 1705A.2.2.5
	f. Inspect welding of stairs and railing systems	Periodic	SI*	* May be performed by the project inspector when specifically approved by DSA. DSA IR 17-3. 1705A.2.2.1.1 and 1705A.2.2.5
	g. Verification of reinforcing steel weldability	Periodic	SI	1705A.3.1; verify carbon equivalent reported on mill certificates.
	h. Inspect welding of reinforcing steel.	Continuous	SI	1705A.2.2.1.2, 1705A.2.2.5 and Table 1705A.2.1 Item 5b. AWS D1.4
-	**20. NONDESTRUCTIVE TESTING:**			
	a. Ultrasonic	Test	Lab	AISC 341, App. Q 5.2. AWS D1.1, D1.8.- ANSI/ASNT CP-189, SNT-TC-1A. - ASTM E543, E1444, E164 - DSA IR 17-2.
X	b. Magnetic Particle	Test	Lab	
	c.	Test	Lab	
	d.	Test	Lab	
+	**21. STEEL JOISTS AND TRUSSES:**			
+	**22. SPRAY APPLIED FIRE-PROOFING:**			
-	**23. OTHER STEEL:**			
	a. High Strength Threaded Rod	Test	Lab	2212A.1 May be waived if the rod has an identifying mark from manufacturer and a mill cert.
X	b. Shop Welding of Cold Form Steel	Periodic	SI	
	~~c. Shop Welding of Steel Floor Deck Welds~~	~~Periodic~~	~~SI~~	
+	**WOOD**			
+	**OTHER**			

* SOILS ITEMS 1.GENERAL-A AND 2. COMPACTED FILL-A,B,C
ARE ONLY APPLICABLE AS REQUIRED BY SITE SPECIFIC GEOTECHNICAL REPORT

** CONCRETE ITEM 11.POST INSTALLED ACHORS-A,B
ARE ONLY APPLICABLE IF DETAILS 3/F2.22AND 5/F2.22POST-INSTALLED ANCHOR OPTION IS USED

THE EXAMPLE OF FORM DSA-103s SHOWN ON THIS SHEET ARE FOR ILLUSTRATION PURPOSES ONLY. A FORM DSA-103 IS TO BE COMPLETED FOR EACH APPLICATION THAT THIS PC IS BEING INCORPORATED INTO AND ALL EXAMPLE FORM DSA-103s ARE TO BE CROSSED OUT ON THIS DRAWING

2 *6" = 1'-0"*
DSA-103 PLYWOOD FLOOR (Concrete Foundation)

DSA-103 — Statement of Structural Tests & Special Inspections - 2013 CBC (Wood Foundation)

DSA — DIVISION OF THE STATE ARCHITECT — DEPARTMENT OF GENERAL SERVICES

DSA-103 rev 12/20/13

Statement of Structural Tests & Special Inspections - 2013 CBC

INCREMENT # | DSA File No.: | Application No.: | Date Submitted: | Revised: | Revised:

School Name | District

IMPORTANT: This form is only a summary list of structural tests and special inspections required for the project. The actual tests and inspections must be performed as detailed on the DSA approved documents. The project inspector is responsible for providing inspection of all facets of construction, including but not limited to, special inspections not listed on this form such as structural wood framing, high-load wood diaphragms, cold-formed steel framing, anchorage of non-structural components, etc., per Title 24, Part 2, Chapter 17A.
NOTE: This form is also available for projects submitted for review under the 2007 and 2010 CBC.

INSTRUCTIONS: Click a plus sign (+) before any category or subcategory to reveal additional tests and special inspections. An "X" before a listed test or inspection indicates it is a mandatory requirement. A shaded box indicates a test or special inspection that may be required, depending on the scope of the construction and other issues. A shaded box can be clicked indicating your selection of that test. Note: A minus (-) on a category or subcategory heading indicates that it can be collapsed. However, any selections you may have made will be cleared. Click on the "COMPILE" button to show only the tests finally selected. **For more information on use of this form, see DSA-103.INSTR.**

Note: References are to the 2013 edition of the California Building Code (CBC) unless otherwise noted.

Required	Test or Special Inspection	Type	Performed By	Code Reference and Notes
+	**SOILS**			
+	**CONCRETE**	Table 1705A.3		
+	**MASONRY**	TMS 402-11/ACI 530-11/ASCE 5-11 Table 1.19.3		
-	**STEEL**	Table 1705A.2.1		
-	**17. STRUCTURAL STEEL AND COLD-FORMED STEEL USED FOR STRUCTURAL PURPOSES**			
	Material Verification:			
X	a. Verify that all materials are appropriately marked and that: • Mill certificates indicate material properties that comply with requirements, • Material sizes, types and grades comply with requirements.	Periodic	*	* By special inspector when performed off-site; by project inspector for steel shipped directly to project site without welding or fabrication.
X	b. Test unidentified materials	Test	Lab	2203A.1 (2203.1*), ASTM A370.
X	c. Examine seam welds of structural tubes and pipes	Periodic	SI*	* DSA IR 17-3.
	Inspection:			
X	d. Verify member locations, bracing and all details constructed in the field.	Continuous	PI	
X	e. Verify stiffener locations, connection tab locations and all construction details fabricated in the shop.	Periodic	SI	
+	**18. HIGH STRENGTH BOLTS:**			
-	**19. WELDING:**			DSA IR 17-3, AWS D1.1 and AWS D1.8 (AWS D1.3 for cold formed steel).
	Verification of Materials, Equipment, Welders, etc:			
X	a. Verify weld filler material identification markings per AWS designation listed on the DSA approved documents and the WPS.	Periodic	SI	
X	b. Verify weld filler material manufacturer's certificate of compliance.	Periodic	SI	
X	c. Verify WPS, welder qualifications and equipment.	Periodic	SI	DSA IR 17-3.
-	**19.1 SHOP WELDING:**			
X	a. Inspect groove, multi-pass, and fillet welds > 5/16"	Continuous	SI	Per AISC 360 (and AISC 341 as applicable). DSA IR 17-3.
X	b. Inspect single-pass fillet welds ≤ 5/16"	Periodic	SI	Per AISC 360 (and AISC 341 as applicable). DSA IR 17-3.
	c. Inspect welding of stairs and railing systems.	Periodic	SI	1705A.2.2.1 Per AISC 360 (and AISC 341 as applicable). DSA IR 17-3.
	d. Verification of reinforcing steel weldability	Periodic	SI	1705A.3.1; verify carbon equivalent reported on mill certificates. DSA IR 17-3.
	e. Inspect welding of reinforcing steel.	Continuous	SI	1705A.2.2.1.2, 1705A.2.2.5 and Table 1705A.2.1 Item 5b. AWS D1.4. DSA IR 17-3.
-	**19.2 FIELD WELDING:**			
	a. Inspect groove, multi-pass, and fillet welds > 5/16"	Continuous	SI	Per AISC 360 (and AISC 341 as applicable). DSA IR 17-3.
	b. Inspect single-pass fillet welds ≤ 5/16"	Periodic	SI	Per AISC 360 (and AISC 341 as applicable). DSA IR 17-3.
	c. Inspect end-welded studs (ASTM A-108) installation (including bend test)	Periodic	SI	Per AISC 360 (and AISC 341 as applicable). DSA IR 17-3.
	d. Inspect floor and roof deck welds	Periodic	SI	Per AISC 360 (and AISC 341 as applicable). DSA IR 17-3.
	e. Inspect welding of structural cold-formed steel	Periodic	SI*	* May be performed by the project inspector when specifically approved by DSA. DSA IR 17-3. 1705A.2.2.1.1 and 1705A.2.2.5
	f. Inspect welding of stairs and railing systems	Periodic	SI*	* May be performed by the project inspector when specifically approved by DSA. DSA IR 17-3. 1705A.2.2.1.1 and 1705A.2.2.5
	g. Verification of reinforcing steel weldability	Periodic	SI	1705A.3.1; verify carbon equivalent reported on mill certificates.
	h. Inspect welding of reinforcing steel.	Continuous	SI	1705A.2.2.1.2, 1705A.2.2.5 and Table 1705A.2.1 Item 5b. AWS D1.4
-	**20. NONDESTRUCTIVE TESTING:**			
	a. Ultrasonic	Test	Lab	AISC 341, App. Q 5.2. AWS D1.1, D1.8.- ANSI/ASNT CP-189, SNT-TC-1A. - ASTM E543, E1444, E164 - DSA IR 17-2.
X	b. Magnetic Particle	Test	Lab	
	c.	Test	Lab	
	d.	Test	Lab	
+	**21. STEEL JOISTS AND TRUSSES:**			
+	**22. SPRAY APPLIED FIRE-PROOFING:**			
-	**23. OTHER STEEL:**			
	a. High Strength Threaded Rod	Test	Lab	2212A.1 May be waived if the rod has an identifying mark from manufacturer and a mill cert.
X	b. Shop Welding of Cold Form Steel	Periodic	SI	
	~~c. Shop Welding of Steel Floor Deck Welds~~	~~Periodic~~	~~SI~~	
+	**WOOD**			
+	**OTHER**			

THE EXAMPLE OF FORM DSA-103s SHOWN ON THIS SHEET ARE FOR ILLUSTRATION PURPOSES ONLY. A FORM DSA-103 IS TO BE COMPLETED FOR EACH APPLICATION THAT THIS PC IS BEING INCORPORATED INTO AND ALL EXAMPLE FORM DSA-103s ARE TO BE CROSSED OUT ON THIS DRAWING

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC N.N. FLS SS CL
DATE APR 2 6 2016
FILE NUMBER: 19-29

1 *6" = 1'-0"*
DSA-103 PLYWOOD FLOOR (Wood Foundation)

R&S TAVARES ASSOCIATES
DESIGN ◆ CONSULTING ◆ PROJECT MGT
11777 BERNARDO PLAZA CT. SUITE 105
SAN DIEGO, CA 92128 858.444.3344
WWW.RSTAVARES.COM

PROFESSIONAL STAMP
REGISTERED PROFESSIONAL ENGINEER — MANNY D. FRIAS — No. S3580 — STRUCTURAL — STATE OF CALIFORNIA
03/02/2016

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLIENT
CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL
PRE-CHECK (PC) DOCUMENT CODE 2013 CBC A SEP. PROJECT APPLICATION IS REQUIRED
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-114654
AC SC FLS SS
DATE MAR 18 2016

PROJECT TITLE
24' x 40'
EXPANDABLE TO
48' x 40'

LICENSED ARCHITECT — JACK E. SHIVELY III — No. C-33467 — 9/31/17 RENEWAL DATE — STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 115748
ACS FLS SS
DATE JAN 2 6 2017
REVISED

Revision Schedule

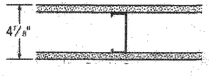
#	Description	Date

SHEET TITLE
DSA-103 T&I
PLYWOOD FLOORS

PROJECT NUMBER 15046
DRAWN BY rMc/SM
CHECKED BY JA/RT
DATE 2016/03/02
SHEET NO. A0.4
SHEET OF SHEETS

Proprietary Property of Class Leasing
Proprietary Property of Class Leasing

UL U419 OR UL U465 (OR EQ) BE BE USED FOR INT. STC RATING. WOOD STUD MAY BE USED ILO OF MTL STUD





	Fire Test	Fire Rating	STC	Thickness (in.)	
4 7/8"	**UL U419 or MEA 81-98-M** Steel Stud (Non-loadbearing) Interior Partitions Sound Test: RAL-TL11-125	1 hr.	40	4-7/8"	• **Gypsum Board** - 5/8 in. thick gypsum board applied vertically or horizontally. - SHEETROCK Brand FIRECODE Core (Type X) • **Steel Studs** - 3-5/8 in. wide min. 25 gauge steel studs @ max 24 in. OC - **362S125-18** • **Gypsum Board** - 5/8 in. thick gypsum board applied vertically or horizontally. - SHEETROCK Brand FIRECODE Core (Type X) Visit U419
4 7/8"	**UL U465** Steel Stud (Non-loadbearing) Interior Partitions Sound Test: RAL-TL11-125	1 hr.	40	4-7/8"	• **Gypsum Board** - 5/8 in. thick board, applied vertically, attached to studs with 1 in. long, Type S-12 screws, spaced 8 in. OC along the edges and 12 in. OC of the board - SHEETROCK Brand FIRECODE Core (Type X) • **Steel Studs** - 3-5/8 in. wide min. 25 gauge steel. Attached to floor and ceiling with fasteners, 24 in. OC - **362S125-18** • **Gypsum Board** - 5/8 in. thick gypsum board applied vertically or horizontally. - SHEETROCK Brand FIRECODE Core (Type X) Visit U465

UL U457 (OR EQ) BE BE USED FOR EXT. STC RATING . WOOD STUD MAY BE USED ILO OF MTL STUD



	Fire Test	Fire Rating	STC	Thickness (in.)	
4 3/4"	**UL U457** Steel Stud (Non-loadbearing) Interior Partitions Sound Test: USG-840222	1 hr.	50	4-3/4"	• **Cement Board** - 1/2 thick board, square edge - DUROCK Brand Cement Board Next Gen • **Steel Studs** - 3-5/8 in. wide by 1-1/4 in. deep, min. 20 gauge steel, max 16 in. OC - **362S125-30** • **Batts and Blankets** - 3 in. mineral wool batt insulation • **Gypsum Board** - 5/8 in. thick gypsum board applied vertically - SHEETROCK Brand FIRECODE Core (Type X) Visit U457 U457

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC FLS SS
DATE APR 2 6 2016
FILE NUMBER: 19-29

ACOUSTIC CONTROL- When the Pre-check building is site adapted, the building and site features need to comply with the CALGreen Code, Section 5.507.4 for the specific site location, and when PC building is place adjacent to another PC building, the adjoining wall section for interior sound transmission must meet the minimum requirement of a STC rating of 40 (per 2013 CALGreen Code, Section 507.4.3).

1 12" = 1'-0"
SITE ADOPTION (CAL GREEN AND ENERGY)

R&S TAVARES ASSOCIATES
DESIGN ✦ CONSULTING ✦ PROJECT MGT
11777 Bernardo Plaza Ct. Suite 105
San Diego, CA 92128 858.444.3344
www.rstavares.com

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER
MANNY D. FRISCH
No. S3380
STRUCTURAL
STATE OF CALIFORNIA

03/02/2016

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-114654
AC FLS SS
DATE MAR 1 8 2016

PROJECT TITLE

24' x 40'
EXPANDABLE TO
48' x 40'

LICENSED ARCHITECT
JACK F. SHIVELY III
No. C-33467
RENEWAL DATE
STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04-115748
AC FLS SS
DATE JAN 2 6 2017
REVISED

Revision Schedule

#	Description	Date

SHEET TITLE
CALGREEN SPEC'S

PROJECT NUMBER
15046

DRAWN BY
rMc/SM

CHECKED BY
JA/RT

DATE
2016/03/02

SHEET NO.
A0.5

SHEET OF SHEETS

3/15/2016 9:53:26 AM C:\Users\Sarah\Documents\15046 - Aries, 24x40 PC - MainFile_Sarah.rvt

AIA|CC CALIFORNIA COUNCIL

2013 CALIFORNIA GREEN BUILDING STANDARDS CODE
NONRESIDENTIAL MANDATORY MEASURES, SHEET 1

INSPECTOR SIGNOFF

CHAPTER 3
GREEN BUILDING
SECTION 301 GENERAL

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

301.3 NONRESIDENTIAL ADDITIONS AND ALTERATIONS. [BSC] The provisions of individual sections of Chapter 5 apply to newly constructed buildings, building additions of 1,000 square feet or greater, and/or building alterations with a permit valuation of $200,000 or above (for occupancies within the authority of California Building Standards Commission). Code sections relevant to additions and alterations shall only apply to the portions of the building being added or altered within the scope of the permitted work.

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

SECTION 302 MIXED OCCUPANCY BUILDINGS

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

ABBREVIATION DEFINITIONS:

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

CHAPTER 5
NONRESIDENTIAL MANDATORY MEASURES
DIVISION 5.1 PLANNING AND DESIGN
SECTION 5.101 GENERAL

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

SECTION 5.102 DEFINITIONS

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

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

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

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

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

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

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

ZEV. Any vehicle certified to zero-emission standards.

SECTION 5.106 SITE DEVELOPMENT

5.106.1 STORM WATER POLLUTION PREVENTION. Newly constructed projects and additions which disturb less than one acre of land shall prevent the pollution of storm water runoff from the construction activities through one or more of the following measures:

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

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

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

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

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

5.106.4.1.2 Long-term bicycle parking. For new buildings with over 10 tenant-occupants or for additions or alterations that add 10 or more tenant vehicular parking spaces, provide secure bicycle parking for 5 percent of the tenant vehicle parking spaces being added, with a minimum of one space. Acceptable parking facilities shall be convenient from the street and shall meet one of the following:
1. Covered, lockable enclosures with permanently anchored racks for bicycles;
2. Lockable bicycle rooms with permanently anchored racks; or
3. Lockable, permanently anchored bicycle lockers.

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

INSPECTOR SIGNOFF

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

5.106.4.2.1 Short-term bicycle parking. Provide permanently anchored bicycle racks within 200 feet of the student entrance, readily visible to passers-by, for 5 percent of the student population based on the total occupant load of the campus, with a minimum of one two-bike capacity rack.

5.106.4.2.2 Long-term bicycle parking. Provide secure bicycle parking for 5% of employees, based on the total number of motorized vehicle parking capacity in the staff parking lot, with a minimum of one space. Acceptable bicycle parking facilities shall be convenient from the street or staff parking area and shall meet one of the following:
1. Covered, lockable enclosures with permanently anchored racks for bicycles;
2. Lockable bicycle rooms with permanently anchored racks; or
3. Lockable, permanently anchored bicycle lockers.

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

TABLE 5.106.5.2 - PARKING

TOTAL NUMBER OF PARKING SPACES	NUMBER OF REQUIRED SPACES
0-9	0
10-25	1
26-50	3
51-75	6
76-100	8
101-150	11
151-200	16
201 AND OVER	AT LEAST 8% OF TOTAL

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

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

5.106.8 LIGHT POLLUTION REDUCTION. [N] Outdoor lighting systems shall be designed and installed to comply with the following:
1. The minimum requirements in the California Energy Code for Lighting Zones 1-4 as defined in Chapter 10 of the California Administrative Code; and
2. Backlight, Uplight and Glare (BUG) ratings as defined in IES TM-15-11; and
3. Allowable BUG ratings not exceeding those shown in Table 5.106.8, or
Comply with a local ordinance lawfully enacted pursuant to Section 101.7, whichever is more stringent.

Exceptions: [N]
1. Luminaires that qualify as exceptions in Section 147 of the California Energy Code.
2. Emergency lighting.

Note: [N] See also California Building Code, Chapter 12, Section 1205.6 for college campus lighting requirements for parking facilities and walkways.

5.106.10 GRADING AND PAVING. Construction plans shall indicate how site grading or a drainage system will manage all surface water flows to keep water from entering buildings. Examples of methods to manage surface water include, but are not limited to, the following:
1. Swales.
2. Water collection and disposal systems.
3. French drains.
4. Water retention gardens.
5. Other water measures which keep surface water away from buildings and aid in groundwater recharge.

Exception: Additions and alterations not altering the drainage path.

DIVISION 5.2 ENERGY EFFICIENCY
SECTION 5.201 GENERAL

5.201.1 Scope. For the purposes of mandatory energy efficiency standards in this code, the California Energy Commission will continue to adopt mandatory building standards.

DIVISION 5.3 WATER EFFICIENCY AND CONSERVATION
SECTION 5.301 GENERAL

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

SECTION 5.302 DEFINITIONS

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

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

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

MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO). [HCD] The California model ordinance 9California Code of Regulations, Title 23, Division 2, Chapter 2.7), regulating landscape design, installation and maintenance practices. Local agencies are required to adopt the updated MWELO, or adopt a local ordinance at least as effective as the MWELO.

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

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

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

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

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

SECTION 5.303 INDOOR WATER USE

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

5.303.1.1 Buildings in excess of 50,000 square feet. Separate submeters shall be installed as follows:
1. For each individual leased, rented or other tenant space within the building projected to consume more than 100 gal/day (380 L/day), including, but not limited to, spaces used for laundry or cleaners, restaurant or food service, medical or dental office, laboratory, or beauty salon or barber shop.
2. Where separate submeters for individual building tenants are unfeasible, for water supplied to the following subsystems:
   a. Makeup water for cooling towers where flow through is greater than 500 gpm (30 L/s).
   b. Makeup water for evaporative coolers greater than 6 gpm (0.04 L/s).
   c. Steam and hot water boilers with energy input more than 500,000 Btu/h (147 kW).

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

5.303.2 WATER REDUCTION. Plumbing fixtures shall meet the maximum flow rate values shown in Table 5.303.2.3

Exception: Building that demonstrate 20% overall water use reduction. In this case, a calculation demonstrating a 20% reduction in the building "water use baseline," as established in Table 5.303.2.2, shall be provided.

5.303.2.1 Areas of addition or alteration. For those occupancies within the authority of the California Building Standards Commission as specified in Section 103, the provisions of Section 5.303.2 and Section 5.303.3 shall apply to new fixtures in additions or areas of alteration to the building.

INSPECTOR SIGNOFF

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

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

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

5.303.3.2 Urinals. The effective flush volume of urinals shall not exceed 0.5 gallons per flush.

5.303.3.3 Showerheads.
5.303.3.3.1 Single showerhead. Showerheads shall have a maximum flow rate of not more than 2.0 gallons per minute at 80 psi. Showerheads shall be certified to the performance criteria of the U.S. EPA WaterSense Specification for Showerheads.

5.303.3.3.2 Multiple showerheads serving one shower. When a shower is served by more than one showerhead, the combined flow rate of all the showerheads and/or other shower outlets controlled by a single valve shall not exceed 2.0 gallons per minute at 80 psi, or the shower shall be designed to allow only one shower outlet to be in operation at a time.
Note: A hand-held shower shall be considered a showerhead.

5.303.4 WASTEWATER REDUCTION. [N] Each building shall reduce by 20 percent wastewater by one of the following methods:
1. [BSC, DSA-SS] The installation of water-conserving fixtures (water closets, urinals) meeting the criteria established in sections 5.303.2 or 5.303.3.
2. [BSC] Utilizing non-potable water systems [captured rainwater, graywater, and municipally treated wastewater (recycled water) complying with the current edition of the California Plumbing Code or other methods described in Section A5.304.8.

5.303.6 STANDARDS FOR PLUMBING FIXTURES AND FITTINGS. Plumbing fixtures and fittings shall be installed in accordance with the California Plumbing Code, and shall meet the applicable standards referenced in Table 1401.1 of the California Plumbing Code and in Chapter 6 of this code.

TABLE 5.303.2.2 - WATER USE BASELINE[3]

FIXTURE TYPE	FLOW RATE[2]	DURATION	DAILY USES	OCCUPANTS[2]
SHOWER HEADS	2.0 GPM @ 80 PSI	5 MIN.	1	X_{2a}
LAVATORY FAUCETS (NON-RESIDENTIAL)	0.5 GPM @ 60 PSI	.25 MIN.	3	X
KITCHEN FAUCETS	2.2 GPM @ 60 PSI	4 MIN.	1	X_{2b}
REPLACEMENT AERATORS	2.2 GPM @ 60 PSI			X
WASH FOUNTAINS	2.2 [RIM SPACE (IN.)/20 GPM@60 PSI]			X
METERING FAUCETS	0.25 GAL/CYCLE	0.25 MIN.	3	X
METERING FAUCETS FOR WASH FOUNTAINS	.25 [RIM SPACE (IN.)/20 GPM@60 PSI]	0.25 MIN.		X
GRAVITY TANK WATER CLOSET	1.28 GAL/FLUSH	1 FLUSH	1 MALE[1], 3 FEMALE	X
FLUSHOMETER TANK WATER CLOSET	1.28 GAL/FLUSH	1 FLUSH	1 MALE[1], 3 FEMALE	X
FLUSHOMETER VALVE WATER CLOSET	1.28 GAL/FLUSH	1 FLUSH	1 MALE[1], 3 FEMALE	X
ELECTROMECHANICAL HYDRAULIC WATER CLOSET	1.28 GAL/FLUSH	1 FLUSH	1 MALE[1], 3 FEMALE	X
URINALS	0.5 GAL/FLUSH	1 FLUSH	2 MALE	X

FIXTURE "WATER USE" = FLOW RATE X DURATION X OCCUPANTS X DAILY USES

1. THE DAILY USE NUMBER SHALL BE INCREASED TO THREE IF URINALS ARE NOT INSTALLED IN THE ROOM.

2. REFER TO TABLE A, CHAPTER 4, CALIF. PLUMBING CODE, FOR OCCUPANT LOAD FACTORS.
a. SHOWER USE BY OCCUPANTS DEPENDS ON THE TYPE OF USE OF A BUILDING OR PORTION OF A BUILDING, E.G., TOTAL OCCUPANT LOAD FOR A HEALTH CLUB, BUT ONLY A FRACTION OF THE OCCUPANTS IN AN OFFICE BUILDING AS DETERMINED BY THE ANTICIPATED NUMBER OF USERS
b. NONRESIDENTIAL KITCHEN FAUCET USE IS DETERMINED BY THE OCCUPANT LOAD OF THE AREA SERVED BY THE FIXTURE.

3. USE WORKSHEET WS-1 TO CALCULATE BASELINE WATER USE.

TABLE 5.303.2.3 - FIXTURE FLOW RATES

FIXTURE TYPE	MAX. FLOW RATE @ 20% REDUCTION
KITCHEN FAUCETS	1.8 GPM @ 60 PSI
WASH FOUNTAINS	1.8 [RIM SPACE (IN.)/20 GPM @ 60 PSI]
METERING FAUCETS	0.20 GALLONS/CYCLE
METERING FAUCETS FOR WASH FOUNTAINS	.20 [RIM SPACE (IN.)/20 GPM @ 60 PSI]

SECTION 5.304 OUTDOOR WATER USE

5.304.1 WATER BUDGET. A water budget shall be developed for landscape irrigation use that installed in conjunction with a new building or an addition or alteration conforms to the local water efficient landscape ordinance or to the California Department of Water Resources Water Efficient Landscape Ordinance where no local ordinance is applicable.

Note: Prescriptive measures to assist in compliance with the water budget are listed in Sections 492.5 through 492.8, 492.10 and 492.11 of the ordinance, which may be found at:
http://www.water.ca.gov/wateruseefficiency/docs/WaterOrdSec492.cfm

5.304.2 OUTDOOR POTABLE WATER USE. For new water service or for addition or alteration requiring upgraded water service for landscaped areas of at least 1,000 square feet but not more than 5,000 square feet (the level at which Water Code §535 applies), separate submeters or metering devices shall be installed for outdoor potable water use.

5.304.3 IRRIGATION DESIGN. In new nonresidential construction with at least 1,000 but not more than 2,500 square feet of cumulative landscaped area (the level at which the MWELO applies), install irrigation controllers and sensors which include the following criteria, and meet manufacturer's recommendations.

5.304.3.1 Irrigation controllers. Automatic irrigation system controllers installed at the time of final inspection shall comply with the following:

1. Controllers shall be weather- or soil moisture-based controllers that automatically adjust irrigation in response to changes in plants' needs as weather conditions change.
2. Weather-based controllers without integral rain sensors or communication systems that account for local rainfall shall have a separate wired or wireless rain sensor which connects or communicates with the controller(s). Soil moisture-based controllers are not required to have rain sensor input.

Note: More information regarding irrigation controller function and specifications is available from the Irrigation Association.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC ___ FLS ___ SS ___
DATE APR 26 [illegible]
FILE NUMBER: 19-29

INSPECTOR SIGNOFF

DIVISION 5.4 MATERIAL CONSERVATION AND RESOURCE EFFICIENCY
SECTION 5.401 GENERAL

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

SECTION 5.402 DEFINITIONS

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

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

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

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

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

SECTION 5.407 WATER RESISTANCE AND MOISTURE MANAGEMENT

5.407.1 WEATHER PROTECTION. Provide a weather-resistant exterior wall and foundation envelope as required by California Building Code Section 1403.2 (Weather Protection) and California Energy Code Section 150, (Mandatory Features and Devices), manufacturer's installation instructions or local ordinance, whichever is more stringent.

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

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

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

5.407.2.2.1 Exterior door protection. Primary exterior entries shall be covered to prevent water intrusion by using nonabsorbent floor and wall finishes within at least 2 feet around and perpendicular to such openings plus at least one of the following:
1. An installed awning at least 4 feet in depth.
2. The door is protected by a roof overhang at least 4 feet in depth.
3. The door is recessed at least 4 feet.
4. Other methods which provide equivalent protection.

5.407.2.2.2 Flashing. Install flashings integrated with a drainage plane.

SECTION 5.408 CONSTRUCTION WASTE REDUCTION, DISPOSAL AND RECYCLING

5.408.1 CONSTRUCTION WASTE MANAGEMENT. Recycle and/or salvage for reuse a minimum of 50% of the non-hazardous construction and demolition waste in accordance with Section 5.408.1.1, 5.408.1.2 or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent.

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

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

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

Exceptions to Sections 5.408.1.1 and 5.408.1.2:
1. Excavated soil and land-clearing debris.
2. Alternate waste reduction methods developed by working with local agencies if diversion or recycle facilities capable of compliance with this item do not exist.
3. Demolition waste meeting local ordinance or calculated in consideration of loacl recycleing facilities and markets.

5.408.1.3 Waste stream reduction alternative. The combined weight of new construction disposal that does not exceed two pounds per square foot of building area may be deemed to meet the 50% minimum requirement as approved by the enforcing agency.

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

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

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

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

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

SECTION 5.410 BUILDING MAINTENANCE AND OPERATIONS

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

5.410.1.1 Additions. [A] All additions conducted within a 12-month period under single or multiple permits, resulting in an increase of 30% or more in floor area, shall provide recycling areas on site.
Exception: Additions within a tenant space resulting in less than a 30% increase in the tenant space floor area.

5.410.1.2 Sample ordinance. Space allocation for recycling areas shall comply with Chapter 18, Part 3, Division 30 of the *Public Resources Code*. Chapter 18 is known as the California Solid Waste Reuse and Recycling Access Act of 1991 (Act).
Note: A sample ordinance for use by local agencies may be found in Appendix A of the document at the CalRecycle's web site.

5.410.2 COMMISSIONING. [N] For new buildings 10,000 square feet and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements. Commissioning shall be performed in accordance with this section by trained personnel with experience on projects of comparable size and complexity. Commissioning requirements shall include:
1. Owner's or Owner representative's project requirements.
2. Basis of design.
2. Commissioning measures shown in the construction documents.
4. Commissioning plan.
5. Functional performance testing.
6. Documentation and training.
7. Commissioning report.

Exceptions:
1. Dry storage warehouses of any size.
2. Areas under 10,000 square feet used for offices or other conditioned accessory spaces within dry storage warehouses.
3. Tenant improvements under 10,000 square feet as described in Section 303.1.1
4. Commissioning requirements for energy systems covered by the 2013 California Energy Code.

All building systems and components covered by Title 24, Part 6, as well as process equipment and controls, and renewable energy systems shall be included in the scope of the commissioning requirements.

R&S TAVARES ASSOCIATES
DESIGN ♦ CONSULTING ♦ PROJECT MGT
11777 BERNARDO PLAZA CT. SUITE 105
SAN DIEGO, CA 92128 858.444.3344
WWW.RSTAVARES.COM

PROFESSIONAL STAMP
REGISTERED PROFESSIONAL ENGINEER
MANNY D. FRISCH
No. S5580
STRUCTURAL
STATE OF CALIFORNIA
03/02/2016

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLIENT
CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL
PRE-CHECK (PC) DOCUMENT CODE 2013 CBC A SEP. PROJECT PPLICATION IS REQUIRED
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-114654
AC SC FLS ___ SS ___
DATE MAR 1 8 2016

PROJECT TITLE
24' x 40'
EXPANDABLE TO
48' x 40'

LICENSED ARCHITECT
JACK F. SHIVELY III
No. C-33467
RENEWAL DATE
STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 115748
AC ___ FLS ___ SS ___
DATE JAN 2 6 2017
REVISED

Revision Schedule

#	Description	Date

SHEET TITLE
CAL GREEN
CHECKLIST

PROJECT NUMBER
15046

DRAWN BY
rMc/SM

CHECKED BY
JA/RT

DATE
2016/03/02

SHEET NO.
A0.6

SHEET OF SHEETS

3/3/2016 8:59:47 PM C:\Users\Sarah\Documents\15046 - Aries, 24x40 PC - MainFile_Sarah.rvt

AIA|CC CALIFORNIA COUNCIL 2013 CALIFORNIA GREEN BUILDING STANDARDS CODE
NONRESIDENTIAL MANDATORY MEASURES, SHEET 2

INSPECTOR SIGNOFF

5.410.2.1 Owner's or Owner Representative's Project Requirements (OPR). [N] The expectations and requirements of the building appropriate to its phase shall be documented before the design phase of the project begins. This documentation shall include the following:
1. Environmental and sustainability goals.
2. Energy efficiency goals (refer to 2013 California Energy Code, Section 120.8(b)).
3. Indoor environmental quality requirements.
4. Project program, including facility functions and hours of operation, and need for after hours operation.
5. Equipment and systems expectations.
6. Building occupant and operation and maintenance (O&M) personnel expectations.

5.410.2.2 Basis of Design (BOD). [N] A written explanation of how the design of the building systems meets the OPR shall be completed at the design phase of the building project. The Basis of Design document shall cover the following systems:
1. Heating, ventilation, air conditioning (HVAC) systems and controls (refer to 2013 California Energy Code, Section 120.8(c)).
2. Indoor lighting system and controls (refer to 2013 California Energy Code, Section 120.8(c)).
3. Water heating system (refer to 2013 California Energy Code, Section 120.8(c)).
4. Renewable energy systems.
5. Landscape irrigation systems.
6. Water reuse systems.

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

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

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

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

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

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

Note: Guidance on implementation and enforcement of commissioning requirements, including sample compliance forms and templates, may be found in Appendix A8, Division A8.1, of this code.

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

5.410.4.2 Systems. Develop a written plan of procedures for testing and adjusting systems. Systems to be included for testing and adjusting shall include at a minimum, as applicable to the project:
1. HVAC systems and controls.
2. Indoor and outdoor lighting and controls.
3. Water heating systems.
4. Renewable energy systems.
5. Landscape irrigation systems.
6. Water reuse systems.

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

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

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

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

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

DIVISION 5.5 ENVIRONMENTAL QUALITY

SECTION 5.501 GENERAL

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

SECTION 5.502 DEFINITIONS

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

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

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

Note: See CCR, Title 17, Section 93120.1.

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

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

VOC. A volatile organic compound broadly defined as a chemical compound based on carbon chains or rings with vapor pressures greater than 0.1 millimeters of mercury at room temperature. These compounds typically contain hydrogen and may contain oxygen, nitrogen and other elements. See CCR Title 17, Section 94508(a).
Note: Where specific regulations are cited from different agencies such as SCAQMD, ARB, etc., the VOC definition included in that specific regulation is the one that prevails for the specific measure in question.

SECTION 5.503 FIREPLACES

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

5.503.1.1 Woodstoves. Woodstoves and pellet stoves shall comply with U.S. EPA Phase II emission limits where applicable.

INSPECTOR SIGNOFF

SECTION 5.504 POLLUTANT CONTROL

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

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

5.504.4 Finish material pollutant control. Finish materials shall comply with Sections 5.504.4.1 through 5.504.4.4.

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

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

TABLE 5.504.4.1 - ADHESIVE VOC LIMIT[1,2]
Less Water and Less Exempt Compounds in Grams per Liter

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

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

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

TABLE 5.504.4.2 - SEALANT VOC LIMIT
Less Water and Less Exempt Compounds in Grams per Liter

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

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

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

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

INSPECTOR SIGNOFF

TABLE 5.504.4.3 - VOC CONTENT LIMITS FOR ARCHITECTURAL COATINGS[1,2,3]
GRAMS OF VOC PER LITER OF COATING, LESS WATER & LESS EXEMPT COMPOUNDS

COATING CATEGORY	CURRENT VOC LIMIT
FLAT COATINGS	50
NONFLAT COATINGS	100
NONFLAT HIGH GLOSS COATINGS	150
SPECIALTY COATINGS	
ALUMINUM ROOF COATINGS	400
BASEMENT SPECIALTY COATINGS	400
BITUMINOUS ROOF COATINGS	50
BITUMINOUS ROOF PRIMERS	350
BOND BREAKERS	350
CONCRETE CURING COMPOUNDS	350
CONCRETE/MASONRY SEALERS	100
DRIVEWAY SEALERS	50
DRY FOG COATINGS	150
FAUX FINISHING COATINGS	350
FIRE RESISTIVE COATINGS	350
FLOOR COATINGS	100
FORM-RELEASE COMPOUNDS	250
GRAPHIC ARTS COATINGS (SIGN PAINTS)	500
HIGH-TEMPERATURE COATINGS	420
INDUSTRIAL MAINTENANCE COATINGS	250
LOW SOLIDS COATINGS[3]	120
MAGNESITE CEMENT COATINGS	450
MASTIC TEXTURE COATINGS	100
METALLIC PIGMENTED COATINGS	500
MULTICOLOR COATINGS	250
PRETREATMENT WASH PRIMERS	420
PRIMERS, SEALERS, & UNDERCOATERS	100
REACTIVE PENETRATING SEALERS	350
RECYCLED COATINGS	250
ROOF COATINGS	50
RUST PREVENTATIVE COATINGS	250
SHELLACS:	
CLEAR	730
OPAQUE	550
SPECIALTY PRIMERS, SEALERS & UNDERCOATERS	100
STAINS	250
STONE CONSOLIDANTS	450
SWIMMING POOL COATINGS	340
TRAFFIC MARKING COATINGS	100
TUB & TILE REFINISH COATINGS	420
WATERPROOFING MEMBRANES	250
WOOD COATINGS	275
WOOD PRESERVATIVES	350
ZINC-RICH PRIMERS	340

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

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

3. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, ARCHITECTURAL COATINGS SUGGESTED CONTROL MEASURE, FEB. 1, 2005. MORE INFORMATION IS AVAILABLE FROM THE AIR RESOURCES BOARD.

5.504.4.3.2 Verification. Verification of compliance with this section shall be provided at the request of the enforcing agency. Documentation may include, but is not limited to, the following:
1. Manufacturer's product specification
2. Field verification of on-site product containers

5.504.4.4 Carpet Systems. All carpet installed in the building interior shall meet at least one of the testing and product requirements:
1. Carpet and Rug Institute's Green Label Plus Program.
2. Compliant with the VOC-emission limits and testing requirements specified in the California Department of Public Health Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers, Version 1.1, February 2010 (also known as CDPH Standard Method V1.1 or Specification 01350).
3. NSF/ANSI 140 at the Gold level or higher;
4. Scientific Certifications Systems Sustainable Choice; or
5. Compliant with the California Collaborative for High Performance Schools (CA-CHPS) Criteria Interpretation for EQ 2.2 dated July 2012 and listed in the CHPS High Performance Product Database.

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

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

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

5.504.4.5.3 Documentation. Verification of compliance with this section shall be provided as requested by the enforcing agency. Documentation shall include at least one of the following:
1. Product certifications and specifications.
2. Chain of custody certifications.
3. Product labeled and invoiced as meeting the Composite Wood Products regulation (see CCR, Title 17, Section 93120, et seq.).
4. Exterior grade products marked as meeting the PS-1 or PS-2 standards of the Engineered Wood Association, the Australian AS/NZS 2269 or European 636 3S standards.
5. Other methods acceptable to the enforcing agency.

TABLE 5.504.4.5 – FORMALDEHYDE LIMITS[1]
MAXIMUM FORMALDEHYDE EMISSIONS IN PARTS PER MILLION

PRODUCT	CURRENT LIMIT
HARDWOOD PLYWOOD VENEER CORE	0.05
HARDWOOD PLYWOOD COMPOSITE CORE	0.05
PARTICLE BOARD	0.09
MEDIUM DENSITY FIBERBOARD	0.11
THIN MEDIUM DENSITY FIBERBOARD[2]	0.13

1. VALUES IN THIS TABLE ARE DERIVED FROM THOSE SPECIFIED BY THE CALIFORNIA AIR RESOURCES BOARD, ARTICLE 4, AIRBORNE TOXIC CONTROL MEASURE FOR COMPOSITE WOOD AS TESTED IN ACCORDANCE WITH ASTM E 1333. FOR ADDITIONAL INFORMATION, SEE CALIFORNIA CODE OF REGULATIONS, TITLE 17, SECTIONS 93120 THROUGH 93120.12.

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

INSPECTOR SIGNOFF

5.504.4.6 Resilient flooring systems. For 80 percent of floor area receiving resilient flooring, installed resilient flooring shall meet at least one of the following:
1. Certified under the Resilient Floor Covering Institute (RFCI) FloorScore program;
2. Compliant with the VOC-emission limits and testing requirements specified in the California Department of Public Health's 2010 Standard Method for the Testing and Evaluation Chambers, Version 1.1, February 2010;
3. Compliant with the California Collaborative for High Performance Schools (CA-CHPS) Criteria Interpretation for EQ 2.2 dated July 2012 and listed in the CHPS High Performance Product Database; or
4. Compliant with CDPH criteria as certified under the Greenguard Children's & Schools Program.

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

5.504.5.3 Filters. In mechanically ventilated buildings, provide regularly occupied areas of the building with air filtration media for outside and return air that provides at least a Minimum Efficiency Reporting Value (MERV) of 8. MERV 8 filters shall be installed prior to occupancy, and recommendations for maintenance with filters of the same value shall be included in the operation and maintenance manual.
Exceptions:
1. An ASHRAE 10% to 15% efficiency filter shall be permitted for an HVAC unit meeting the 2013 California Energy Code having 60,000 Btu/h or less capacity per fan coil, if the energy use of the air delivery system is 0.4 W/cfm or less at design airflow.
2. Existing mechanical equipment.

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

SECTION 5.505 INDOOR MOISTURE CONTROL

5.505.1 INDOOR MOISTURE CONTROL. Buildings shall meet or exceed the provisions of *California Building Code*, CCR, Title 24, Part 2, Sections 1203 (Ventilation) and Chapter 14 (Exterior Walls). For additional measures not applicable to low-rise residential occupancies, see Section 5.407.2 of this code.

SECTION 5.506 INDOOR AIR QUALITY

5.506.1 OUTSIDE AIR DELIVERY. For mechanically or naturally ventilated spaces in buildings, meet the minimum requirements of Section 121 (Requirements For Ventilation) of the 2010 California Energy Code, or the applicable local code, whichever is more stringent, and Division 1, Chapter 4 of CCR, Title 8.

5.506.2 CARBON DIOXIDE (CO_2) MONITORING. For buildings or additions equipped with demand control ventilation, CO_2 sensors and ventilation controls shall be specified and installed in accordance with the requirements of the 2013 California Energy Code, Section 120(c)(4).

SECTION 5.507 ENVIRONMENTAL COMFORT

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

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

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

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

1. Within the 65 CNEL noise contour of an airport.
   Exceptions:
   1. Ldn or CNEL for military airports shall be determined by the facility Air Installation Compatible Land Use Zone (AICUZ) plan.
   2. Ldn or CNEL for other airports and heliports for which a land use plan has not been developed shall be determined by the local general plan noise element.

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

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

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

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

5.507.4.3 Interior sound. Wall and floor-ceiling assemblies separating tenant spaces and tenant spaces and public places shall have an STC of at least 40.
Note: Examples of assemblies and their various STC ratings may be found at the California Office of Noise Control: www.toolbase.org/PDF/CaseStudies/stc_icc_ratings.pdf.

CHAPTER 7
INSTALLER & SPECIAL INSPECTOR QUALIFICATIONS

702 QUALIFICATIONS

702.1 INSTALLER TRAINING. HVAC system installers shall be trained and certified in the proper installation of HVAC systems including ducts and equipment by a nationally or regionally recognized training or certification program. Uncertified persons may perform HVAC installations when under the direct supervision and responsibility of a person trained and certified to install HVAC systems or contractor licensed to install HVAC systems. Examples of acceptable HVAC training and certification programs include but are not limited to the following:
1. State certified apprenticeship programs.
2. Public utility training programs.
3. Training programs sponsored by trade, labor or statewide energy consulting or verification organizations.
4. Programs sponsored by manufacturing organizations.
5. Other programs acceptable to the enforcing agency.

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

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

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

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

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

703 VERIFICATIONS

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

R&S TAVARES ASSOCIATES
DESIGN ★ CONSULTING ★ PROJECT MGT
11777 Bernardo Plaza Ct. Suite 105
San Diego, CA 92128 858.444.3344
www.rstavares.com

PROFESSIONAL STAMP



03/02/2016

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLIENT

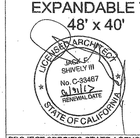
CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-114654
AC FL SS CL
DATE MAR 1 8 2015

PROJECT TITLE

24' x 40'
EXPANDABLE TO
48' x 40'



PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OS 115748
AC FL SS CL
DATE JAN 26 2016
REVISED

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL #: 03-117603
AC FL SS CL
DATE APR 26 2016
FILE NUMBER: 19-29

SHEET TITLE
CAL GREEN
CHECKLIST

PROJECT NUMBER
15046

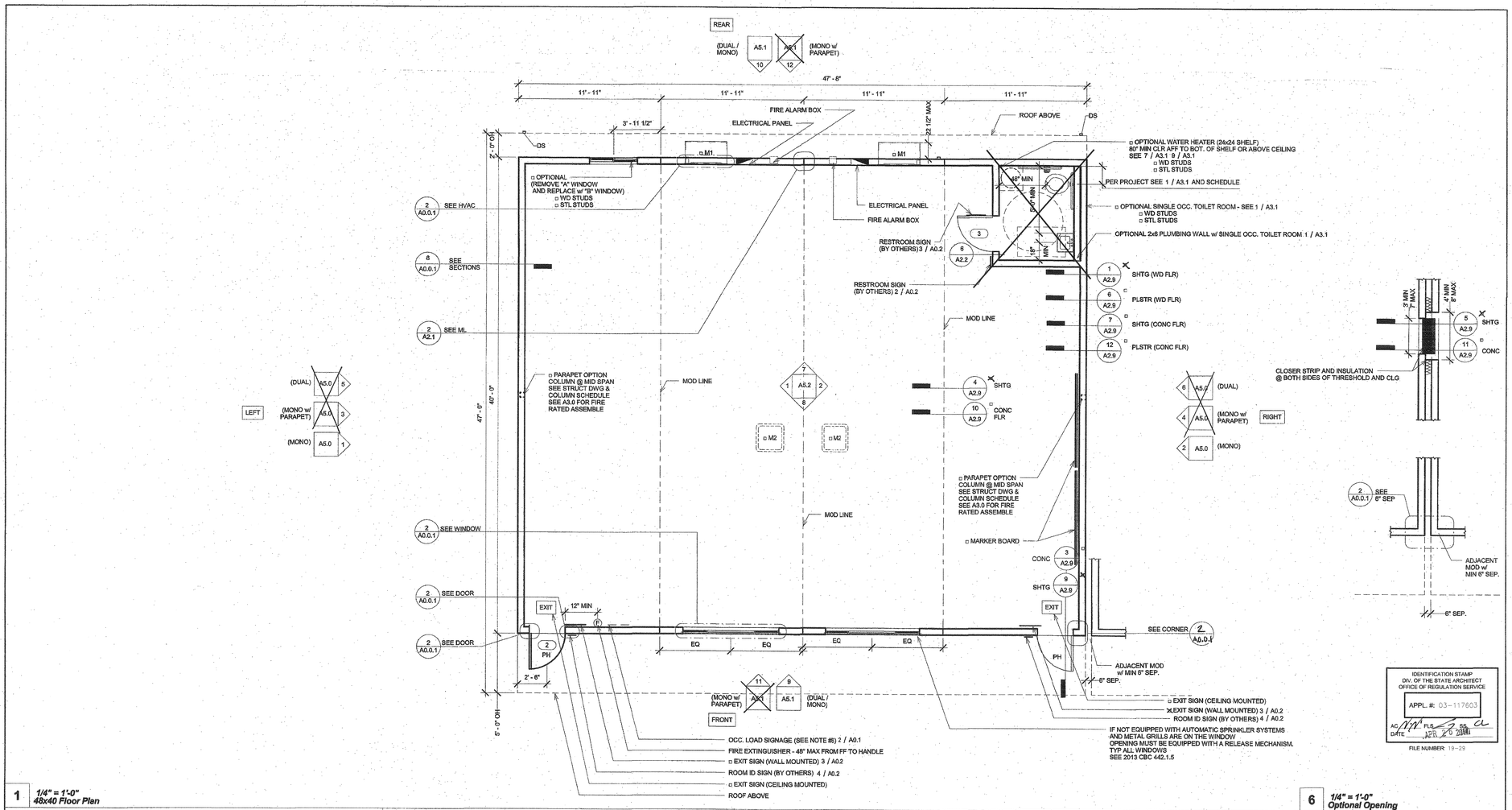
DRAWN BY
rMc/SM

CHECKED BY
JA/RT

DATE
2016/03/02

SHEET NO.
A0.7
SHEET OF SHEETS

3/2/2016 5:59:49 PM C:\Users\Sarah\Documents\15046 - Arvin, 24x40 PC - MailFile_Sarah.rvt



1 *1/4" = 1'-0"*
48x40 Floor Plan

6 *1/4" = 1'-0"*
Optional Opening

Wall Schedule

	Stud Size	Sheet	Notes
X	Wood Wall Stud	S4.5	
□	Mtl Wall Stud	S4.5	

5 *1/4" = 1'-0"*
Wall Schedule

Fire Rating Schedule

	Rating	Sheet	Notes
□	1 HOUR - SIDING OVER WD STUDS	A2.5	
□	1 HOUR - PLASTER OVER 1/2" OSB OR 1/2" CDX PLY w/ WD STUDS	A2.6	
□	1 HOUR - SIDING OVER STL STUDS	A2.7	
□	1 HOUR - PLASTER OVER 1/2" OSB OR 1/2" CDX PLY w/ STL STUDS	A2.8	

SEE A3.0 FOR ADDITIONAL FIRE ASSEMBLY NOTES AND DETAILS

4 *1/4" = 1'-0"*
Fire Rating Scedule

Ext. Finish Schedule

	Finishes	Sheet	Notes
X	SIDING OVER WD STUDS	A2.1	
□	PLASTER OVER 1/2" OSB OR 1/2" CDX PLY w/ WD STUDS	A2.2	
□	SIDING OVER STL STUDS	A2.3	
□	PLASTER OVER 1/2" OSB OR 1/2" CDX PLY w/ STL STUDS	A2.4	

3 *1/4" = 1'-0"*
Ext. Finish Scedule

Roofing Schedule

"SLOPE"	EDPM	Standing Seam	Parapet	Notes
Dual	□ A4.2.2	□ A4.0.2	N/A	
Mono	□ A4.2.1	X A4.0.1	□ A4.4.1	

2 *1/4" = 1'-0"*
Roofing Scedule

HVAC Unit

Keynote	Type	Type Comments
X M1	Wall Mounted HVAC	See (M)-Sheets
□ M2	Roof Mounted HVAV	See (M)-Sheets

C:\Users\Sarah\Documents\15046 - Arlee, 24x40 PC - MasterFile_Sarah.rvt
3/3/2016 8:35:51 PM

R&S TAVARES ASSOCIATES
DESIGN ◆ CONSULTING ◆ PROJECT MGT
11777 Bernardo Plaza Ct. Suite 105
San Diego, CA 92128 858.444.3344
www.rstavares.com

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER JIMMY D. FRANCIS No. 25550 STRUCTURAL STATE OF CALIFORNIA

03/02/2016

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-114854
AC FLS SS
DATE MAR 10 2016

PROJECT TITLE

24' x 40'
EXPANDABLE TO
48' x 40'

LICENSED ARCHITECT JACK A. SHAFFER No. C-33467 RENEWAL DATE 01/31/17 STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
01 117603
AC FLS SS
DATE JAN 26 2017
REVISED

Revision Schedule

#	Description	Date

SHEET TITLE

48x40 FLOOR PLAN

PROJECT NUMBER
15046

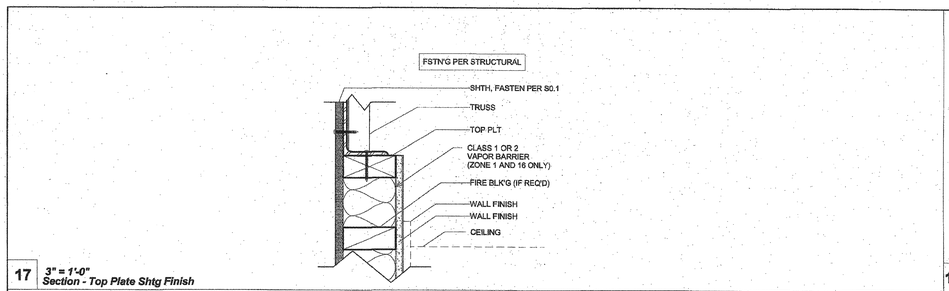
DRAWN BY
rMc/SM

CHECKED BY
JA/RT

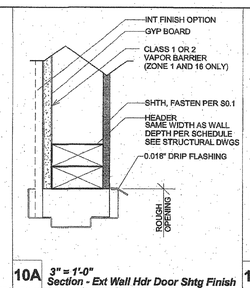
DATE
2016/03/02

SHEET NO.
A1.2
SHEET OF SHEETS

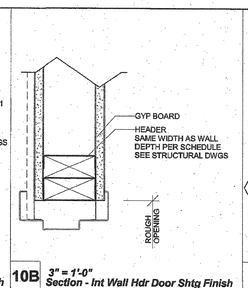
Proprietary Property of Class Leasing
Proprietary Property of Class Leasing
Proprietary Property of Class Leasing



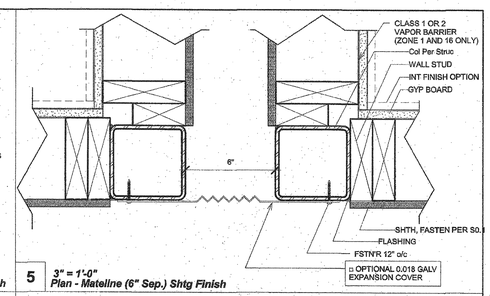
17 *3" = 1'-0"*
Section - Top Plate Shtg Finish



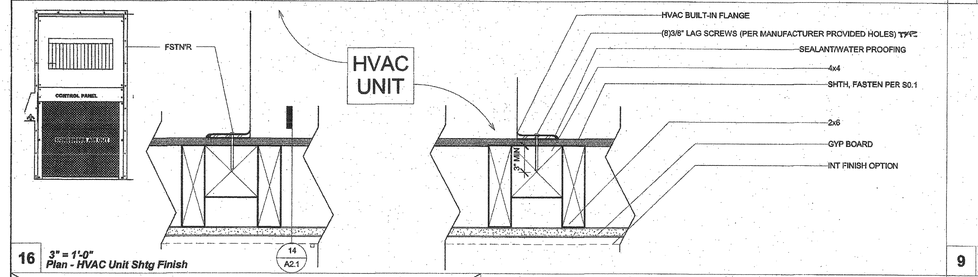
10A *3" = 1'-0"*
Section - Ext Wall Hdr Door Shtg Finish



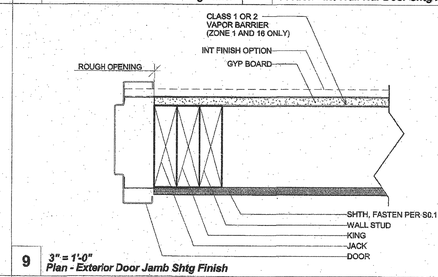
10B *3" = 1'-0"*
Section - Int Wall Hdr Door Shtg Finish



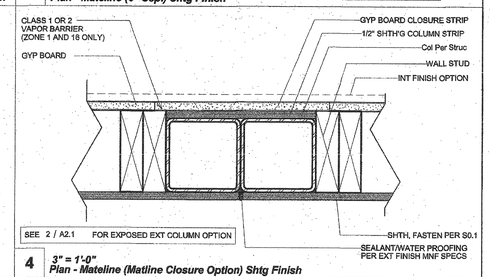
5 *3" = 1'-0"*
Plan - Mateline (6" Sep.) Shtg Finish



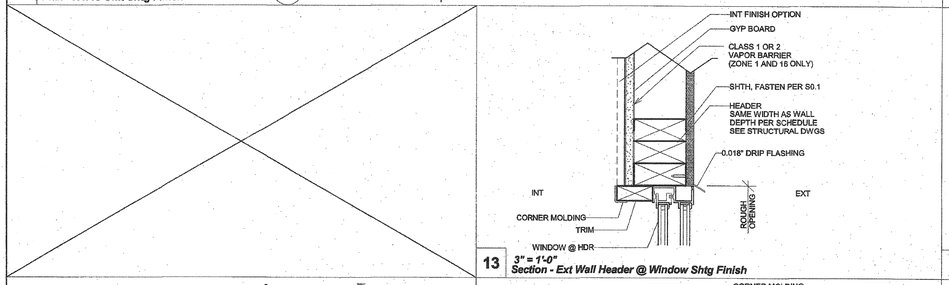
16 *3" = 1'-0"*
Plan - HVAC Unit Shtg Finish



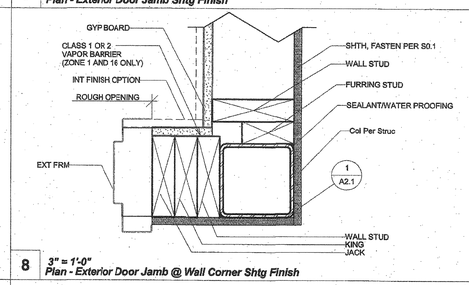
9 *3" = 1'-0"*
Plan - Exterior Door Jamb Shtg Finish



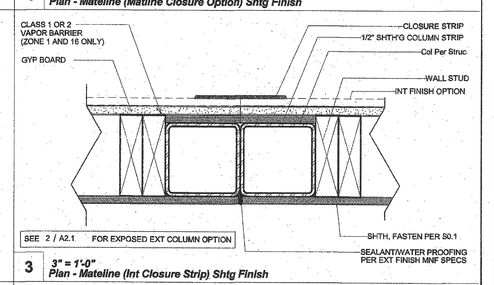
4 *3" = 1'-0"*
Plan - Mateline (Matline Closure Option) Shtg Finish



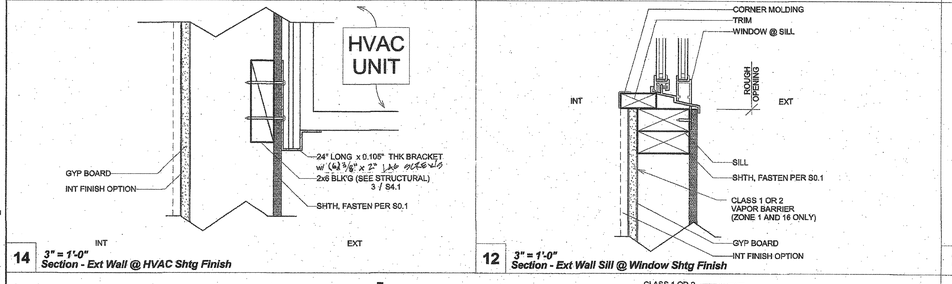
13 *3" = 1'-0"*
Section - Ext Wall Header @ Window Shtg Finish



8 *3" = 1'-0"*
Plan - Exterior Door Jamb @ Wall Corner Shtg Finish

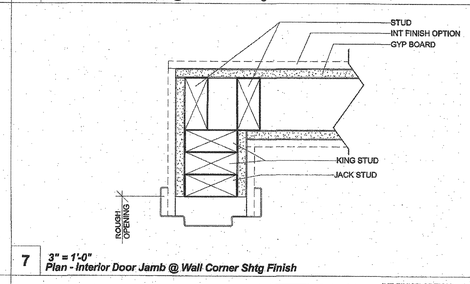


3 *3" = 1'-0"*
Plan - Mateline (Int Closure Strip) Shtg Finish

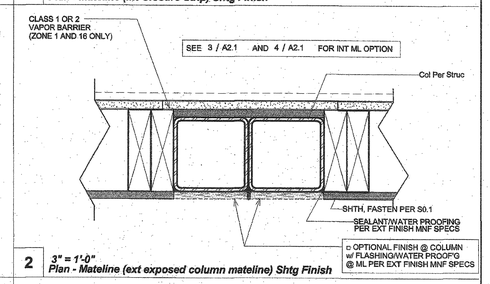


14 *3" = 1'-0"*
Section - Ext Wall @ HVAC Shtg Finish

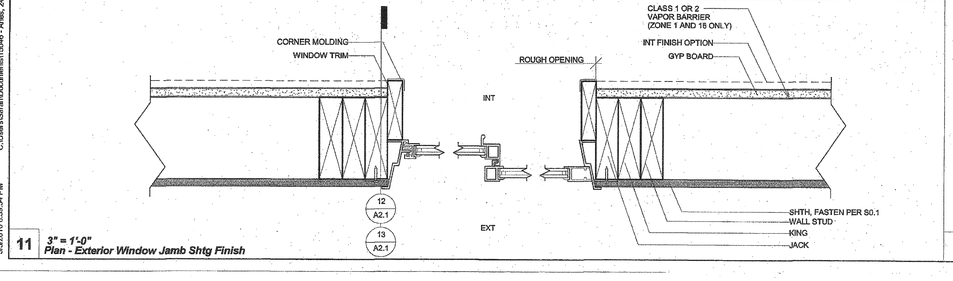
12 *3" = 1'-0"*
Section - Ext Wall Sill @ Window Shtg Finish



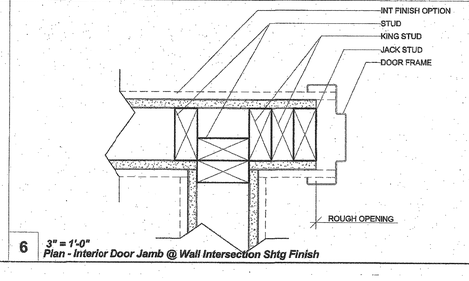
7 *3" = 1'-0"*
Plan - Interior Door Jamb @ Wall Corner Shtg Finish



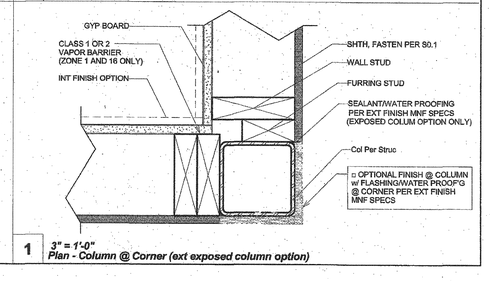
2 *3" = 1'-0"*
Plan - Mateline (ext exposed column mateline) Shtg Finish



11 *3" = 1'-0"*
Plan - Exterior Window Jamb Shtg Finish



6 *3" = 1'-0"*
Plan - Interior Door Jamb @ Wall Intersection Shtg Finish



1 *3" = 1'-0"*
Plan - Column @ Corner (ext exposed column option)

C:\Users\Sonal\Documents\15046 - Aries, 24x40 PC - MainPlan_Sonal.rvt
3/2/2016 8:58:54 PM

R&S TAVARES ASSOCIATES
DESIGN ◆ CONSULTING ◆ PROJECT MGT
11777 Bernardo Plaza Ct. Suite 105
San Diego, CA 92128 858.444.3344
www.rstavares.com

PROFESSIONAL STAMP
REGISTERED PROFESSIONAL ENGINEER
MANNY D. FRIAS
No. 29560
STRUCTURAL
STATE OF CALIFORNIA
03/02/2016

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLIENT
CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-114654
AC SC FLS SS
DATE MAR 1 8 2016

PROJECT TITLE
24' x 40'
EXPANDABLE TO
48' x 40'

LICENSED ARCHITECT
JACK A. S. SHIVELY III
No. C-33467
RENEWAL DATE
STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
01 115748
AC SC FLS SS
DATE JAN 2 6 2017
REVISED

#
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC SC FLS SS
DATE APR 2 6 2016
FILE NUMBER: 19-29

SHEET TITLE
ARCHITECTURAL
DETAILS
(WOOD FRAMING
SHTG FINISH)

PROJECT NUMBER
15046

DRAWN BY
rMc/SM

CHECKED BY
JA/RT

DATE
2016/03/02

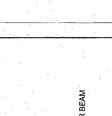
SHEET NO.
A2.1
SHEET OF SHEETS

Proprietary Property of Class Leasing
Proprietary Property of Class Leasing
Proprietary Property of Class Leasing

Proprietary Property of Class Leasing

TAVARES ASSOCIATES
DESIGN ◆ CONSULTATION ◆ PROJECT MGT
11777 Bernardo Plaza Ct., Suite 135
San Diego, California 92128 (858) 674-5444
www.tavares.com

PROFESSIONAL STAMP



03/02/2016

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF TAVARES ASSOCIATES, INC. AND ARE USED SOLELY FOR THIS CONTRACT. THESE DRAWINGS SHALL NOT BE REPRODUCED IN PART OR WHOLE, NOT BE USED, IN WHOLE OR IN PART, FOR ANY OTHER CONSTRUCTION THEY WERE NOT INTENDED WITHOUT THE EXPRESSED WRITTEN CONSENT OF TAVARES ASSOCIATES, INC. ©

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

Proprietary Property of Class Leasing

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-114854
DATE MAR 1 a 2016

PROJECT TITLE

24' x 40'
EXPANDABLE TO
48' x 40'

LICENSED ARCHITECTS
Robert M. Tavares
SHIRLEY No. C-33467
My C-33467
RENEWAL 08/31/2017
STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL

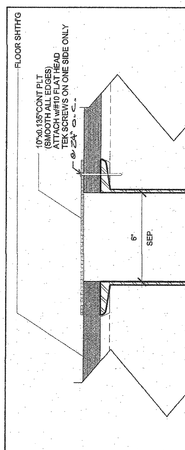
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
DATE JAN 26 2016
REVISED

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
APPL #: 03-117603
DATE 2/26/2016

SHEET TITLE
ARCHITECTURAL DETAILS (FLOOR)

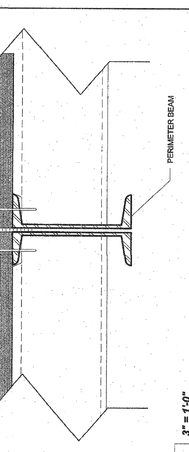
PROJECT NUMBER	15046
DRAWN BY	rMc/SM
CHECKED BY	JA/RT
DATE	2016/03/02
SHEET NO.	A2.9

SHEET OF SHEETS

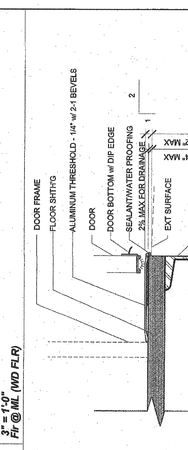


5 *3" = 1'-0" Flr @ 6" SEP. ML (WD FLR)*

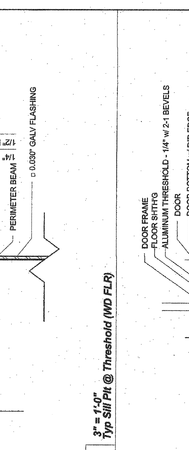
4 *3" = 1'-0" Flr @ ML (WD FLR)*



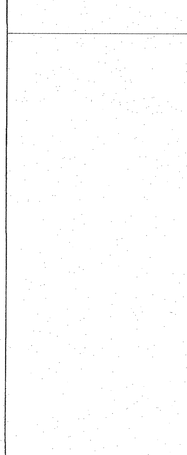
3 *3" = 1'-0" Typ Sill Plt @ Threshold (WD FLR)*



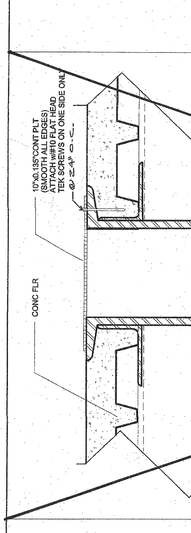
2 *1 1/2" = 1'-0" Threshold @ Fnd (WD FLR)*



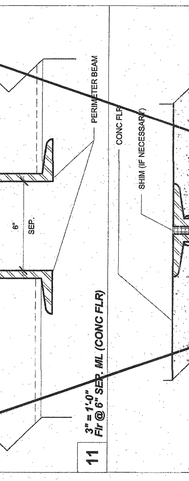
1 *1 1/2" = 1'-0" Typ Skirt @ Fnd SHTHG FIN (WD FLR)*



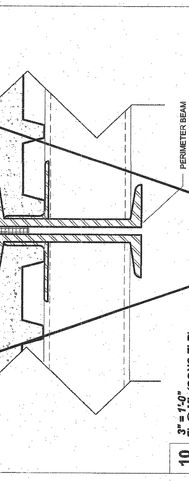
6 *1 1/2" = 1'-0" Typ Skirt @ Fnd PLSTR FIN (WD FLR)*



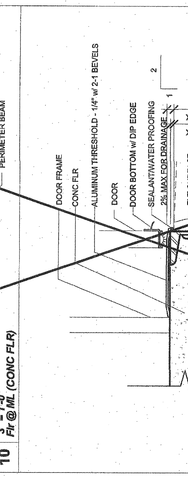
11 *3" = 1'-0" Flr @ 6" SEP. ML (CONC FLR)*



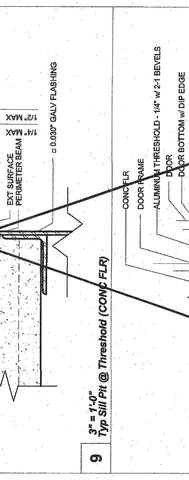
10 *3" = 1'-0" Flr @ ML (CONC FLR)*



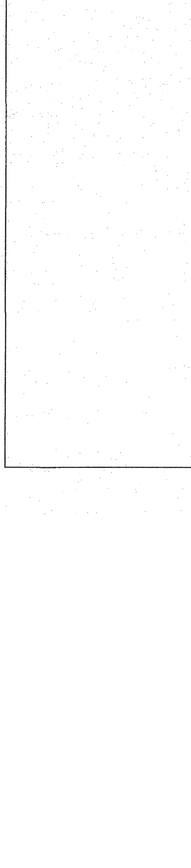
9 *3" = 1'-0" Typ Sill Plt @ Threshold (CONC FLR)*



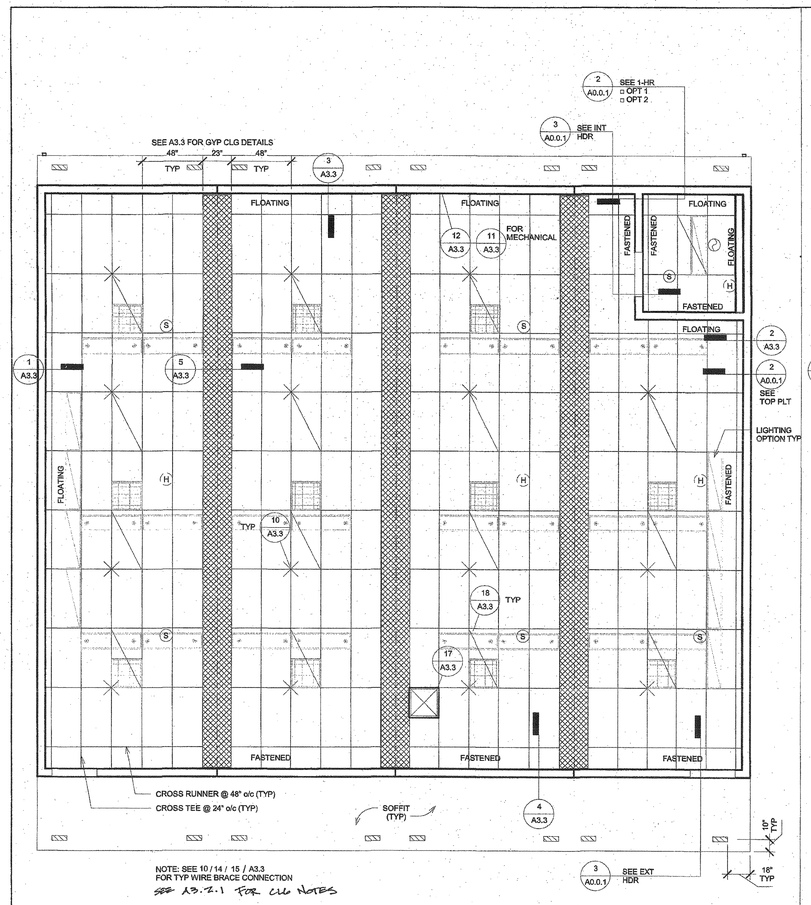
8 *1 1/2" = 1'-0" Threshold @ Fnd (CONC FLR)*



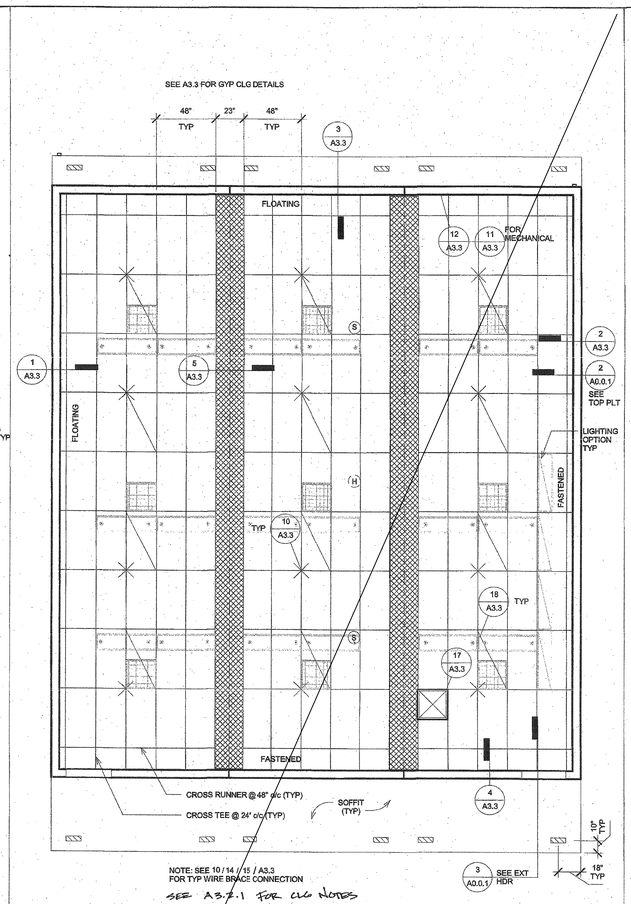
7 *1 1/2" = 1'-0" Typ Skirt @ Fnd SHTHG FIN (CONC FLR)*



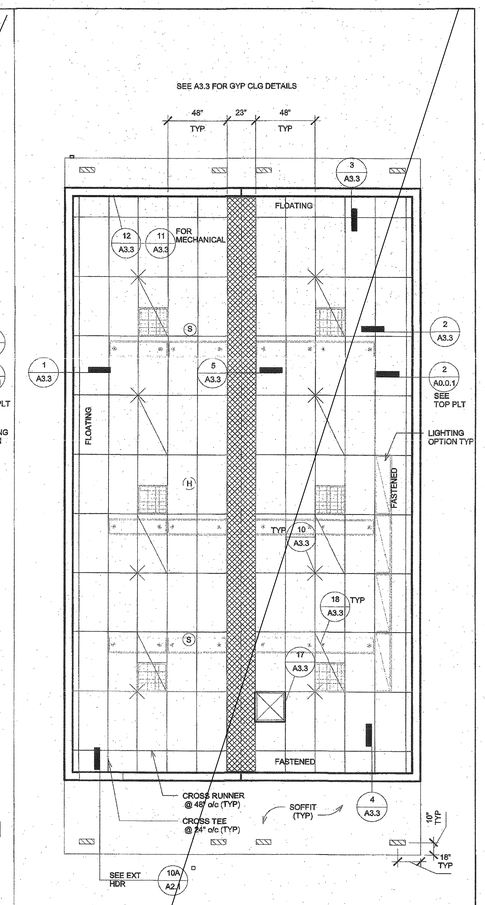
12 *1 1/2" = 1'-0" Typ Skirt @ Fnd PLSTR FIN (CONC FLR)*



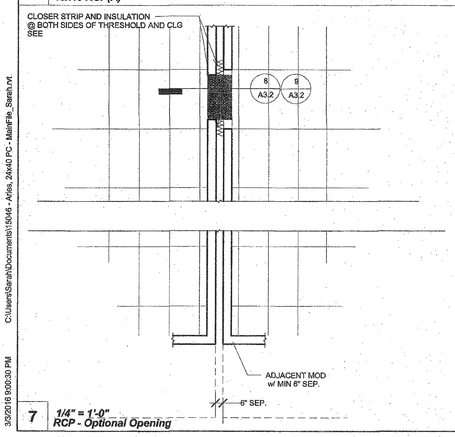
3 *1/4" = 1'-0"*
48x40 RCP(A)



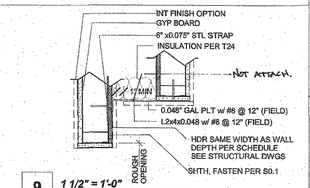
2 *1/4" = 1'-0"*
36x40 RCP(A)



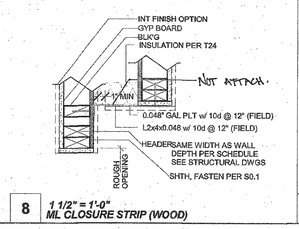
1 *1/4" = 1'-0"*
24x40 RCP(A)



7 *1/4" = 1'-0"*
RCP - Optional Opening



9 *1 1/2" = 1'-0"*
ML CLOSURE STRIP (MTL)



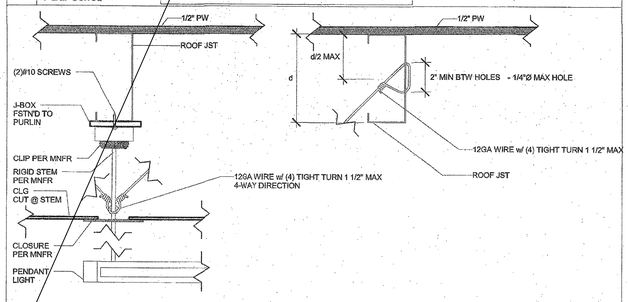
8 *1 1/2" = 1'-0"*
ML CLOSURE STRIP (WOOD)

ARMSTRONG #:
PA-041

MAIN RUNNER 7301
4' CROSS T #: XL7341
2' CROSS T #: XL7328

STANDARD 7/8" WALL ANGLE CLIP w/ BERC-2 CLIP (ICC #ESR-1308)
2" WALL ANGLE: 7810 (OPTIONAL)

5 *1/4" = 1'-0"*
T-Bar Sched



6 *3" = 1'-0"*
Section - Pendant Mounting Detail

HVAC REG. (SEE MECH FOR DIFFUSER) LOCATION

4x12 SOFFIT VENTS

RECESSED LIGHT FIXTURE 2'x4'

RECESSED LIGHT FIXTURE 16'x1'

PENDANT LIGHT FIXTURE 8'x1'
6 / A3.2

SITE INSTALLED ML CLG PANEL

SINGLE OCC : (1 LIGHT FIXTURE) = 32 SYSTEM WATTS
(3)32 SYSTEM WATTS X .80 = 25.6
25.6 / 68 S.F. ROOM =
.38 LUMINAIRE WATTS/SF

T-GRID CLG

SKYLIGHT DIFFUSER SEE ROOF PLAN FOR LOCATION

SPLAY WIRE

(S) CLG MOUNTED SMOKE DETECTOR

(H) ATTIC MOUNTED HEAT SENSOR

(F) CLG EXHAUST FAN

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC JA/RT FLS SS CL
DATE APR 26 2016
FILE NUMBER: 19-29

4 *1/4" = 1'-0"*
RCP Legend

R&S TAVARES ASSOCIATES
DESIGN • CONSULTING • PROJECT MGT
11777 Bernardo Plaza Ct. Suite 105
San Diego, CA 92128 858.444.2344
www.rstavares.com

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER JIMMY D. FRANCIS No. 39552E STRUCTURAL STATE OF CALIFORNIA

03/02/2016

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-114654
AC SC FLS SS
DATE MAR 1 8 2016

DISCRETIONARY DOCUMENT
NOT VALID FOR CONSTRUCTION
A BSD PROJECT PLICATION IS REQUIRED

PROJECT TITLE

24' x 40'
EXPANDABLE TO
48' x 40'

LICENSED ARCHITECT JAMIE A. SHIVELY No. C-33467 RENEWAL DATE 08-31-17 STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OA 115748
AC FLS SS
DATE JAN 2 6 2017
REVISED

Revision Schedule

#	Description	Date

SHEET TITLE

RCP

PROJECT NUMBER 15046

DRAWN BY rMc/SM

CHECKED BY JA/RT

DATE 2016/03/02

SHEET NO. A3.2

SHEET OF SHEETS

Proprietary Property of Class Leasing
Proprietary Property of Class Leasing

3/3/2016 9:00:30 PM C:\Users\Sarah\Documents\15046 - Arliss, 24x40 PC - MainFile_Sarah.rvt

1. CEILING SYSTEM GENERAL NOTES:

1.01 Ceiling system components shall comply with ASTM C635-07 and Section 5.1 of ASTM E580-10a.

1.02 The ceiling grid system must be rated heavy duty as defined by ASTM C635-08.

1.03 Ceiling systems. The following ceiling system(s) is/are part of the scope of this project:

Manufacturer's Name _____.
Product Evaluation Report Type and Number _____.
Manufacturer's Model Number - main runner _____.
Manufacturer's catalog number - cross runner _____.

SEE A9.2

1.04 Seismic Wall Clip:

Manufacturer's Model _____.

1.05 Ceiling panels shall not support any light fixtures, air terminals or devices.

1.06 For ceiling installations utilizing acoustical tile panels of mineral or glass fiber, it is not mandatory to provide ¾" clearance between the acoustical tile panels and the wall on the sides of the ceiling which are free to slip. For all other ceiling panel types, provide ¾" clearance between the ceiling panel and the wall on the sides of the ceiling free to slip.

2. MATERIALS:

2.01 Ceiling wire shall be Class 1 zinc coated (galvanized) carbon steel conforming to ASTM A641-09a. Wire shall be #12 gage (0.106" diameter) with soft temper and minimum tensile strength = 70 ksi.

2.02 Galvanized sheet steel (including that used for metal stud and track compression struts/post) shall conform to ASTM A653-11, or other equivalent sheet steel listed in Section A2.1 of the North American Specification for the Design of Cold-Formed Steel Structural Members 2007, including supplement 2 dated 2010 (AISI S100-07/S2-10). Material 43 mil (18 gage) and lighter shall have minimum yield strength of 33 ksi. Material 54 mil (16 gage) and heavier shall have a minimum yield strength of 50 ksi.

2.03 Electrical metallic tube (EMT) shall be ANSI C80.3/UL 797 carbon steel with G90 galvanizing. EMT shall have minimum yield strength (Fy) of 30 ksi and minimum ultimate strength (Fu) of 48 ksi.

Basis Document: DSA IR 25-2.13			Sheet No:
Sheet Title: **Ceiling Notes**	rev.	09-21-15	1.00

3. ATTACHMENT OF HANGER AND BRACING WIRES:

3.01 Separate all ceiling hanger and bracing wires at least six (6) inches from all unbraced ducts, pipes, conduit, etc.

3.02 Hanger and bracing wires shall not attach to or bend around obstructions including but not limited to: piping, ductwork, conduit and equipment.

3.03 Hanger wires that are more than one (horizontal) in six (vertical) out of plumb shall have counter-sloping wires.

3.04 Slack safety wires shall be considered hanger wires for installation and testing requirements.

3.05 Hanger and bracing wire anchorage to the structure shall be installed in such a manner that the direction of the anchorage aligns closely with the direction of the wire. (e.g. bracing wire ceiling clips must be bent as shown in the details and rotated as required to align closely with the direction of the wire, screw eyes in wood must be installed so they align closely with the direction of the wire, etc.)

4. FASTENERS AND WELDING:

4.01 Sheet metal screws shall comply with ASTM C1513-10, ASME B18.6.4-89 (R2005). Penetration of screws through joined material shall not be less than three exposed threads.

4.02 Expansion anchors shall be:

4.03 Power-Actuated Fasteners shall be:

4.04 If not otherwise specified in the evaluation report, power-actuated fasteners installed in steel shall be installed so the entire pointed end of the fastener is driven through the steel member.

4.05 Power-actuated fasteners in concrete are not permitted for bracing wires.

4.06 Concrete reinforcement and prestressing tendons shall be located by non-destructive means prior to installing post - installed anchor.

4.07 Welding shall be in accordance with AWS D1.3 using E60XX series electrodes.

5. TESTING: All field testing must be performed in the presence of the project inspector.

5.01 Post-installed anchors in concrete used to support hanger wires shall be tested at a frequency of 10 percent. Power actuated fasteners in concrete shall be field tested for 200 lbs. in tension. All other post-installed anchors in concrete shall be tested in accordance with CBC Section 1913A.7.

5.02 Post-installed anchors in concrete used to attach bracing wires shall be tested at a frequency of 50 percent in accordance with CBC Section 1913A.7.

Basis Document: DSA IR 25-2.13			Sheet No:
Sheet Title: **Ceiling Notes**	rev.	09-21-15	1.01

6. LIGHT FIXTURES:

6.01 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. A minimum of two screws or approved fasteners are required at each light fixture, per ASTM E580, Section 5.3.1.

6.02 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. Rotational spring catches do not comply. A #12 gage slack safety wire shall be connected from each clamping device to the structure above. Provide additional supports when light fixtures are eight (8) feet or longer or exceed 56 lb. Maximum spacing between supports shall not exceed eight (8) feet.

6.03 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.

6.04 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.

6.05 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.

Exception: All light fixtures greater than two by four feet weighing less than 56 lbs. shall have a #12 gage slack safety wire at each corner.

6.06 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. The four (4) taut #12 gage wires or other approved hangers, including their attachment to the structure above, shall be capable of supporting four (4) times the weight of the fixture.

7. SERVICES WITHIN THE CEILING:

7.01 All flexible sprinkler hose fitting mounting brackets, ceiling-mounted air terminals or other services shall be positively attached to the ceiling suspension systems by mechanical means. Screws or approved fasteners are required. A minimum of two attachments are required at each component.

7.02 Ceiling-mounted air terminals or other services weighing less than or equal to 20 lb. shall have one (1) #12 gage slack safety wire attached from the terminal or service to the structure above.

7.03 Flexible sprinkler hose fittings, ceiling-mounted air terminals or other services weighing more than 20 lb. but less than or equal to 56 lb. shall have two (2) #12 gage slack safety wires (at diagonal corners) connected from the terminal or service to the structure above.

7.04 Flexible sprinkler hose fittings, ceiling-mounted air terminals or other services weighing more than 56 lb. shall be supported directly from the structure above by not less than four (4) taut #12 gage hanger wires attached from the terminal or service to the structure above or other approved hangers.

Basis Document: DSA IR 25-2.13			Sheet No:
Sheet Title: **Ceiling Notes**	rev.	09-21-15	1.02

8. OTHER DEVICES WITHIN THE CEILING:

8.01 All lightweight miscellaneous devices, such as strobe lights, occupancy sensors, speakers, exit signs, etc., shall be attached to the ceiling grid. In addition, devices weighing more than 10 lbs. shall have a #12 gage slack safety wire anchored to the structure above. Devices weighing more than 20 lb. shall be supported independently from the structure above.

Basis Document: DSA IR 25-2.13			Sheet No:
Sheet Title: **Ceiling Notes**	rev.	09-21-15	1.03

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC 11 FLS 7 SS CL
DATE APR 2 9 2016
FILE NUMBER: 19-28

R&S TAVARES ASSOCIATES
DESIGN ★ CONSULTING ★ PROJECT MGT
11777 Bernardo Plaza Ct, Suite 105
San Diego, CA 92128 858.444.3344
www.rstavares.com

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER
TIMOTHY D. FRASER
No. 23580
STRUCTURAL
STATE OF CALIFORNIA

03/02/2016

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLIENT
CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-114654
AC 5C FLS SS
DATE MAR 18 2016
PRECHECK (PC) DOCUMENT
A SEPT PROJECT REVISION IS REQUIRED

PROJECT TITLE
24' x 40'
EXPANDABLE TO
48' x 40'

LICENSED ARCHITECT
MARK F. SHEWALTER
No. C-33487
9/30/16
RENEWAL DATE
STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 116748
ACS FLS SS K
DATE JAN 25 2017
REVISED

Revision Schedule

#	Description	Date

SHEET TITLE
CEILING NOTES

PROJECT NUMBER
15046

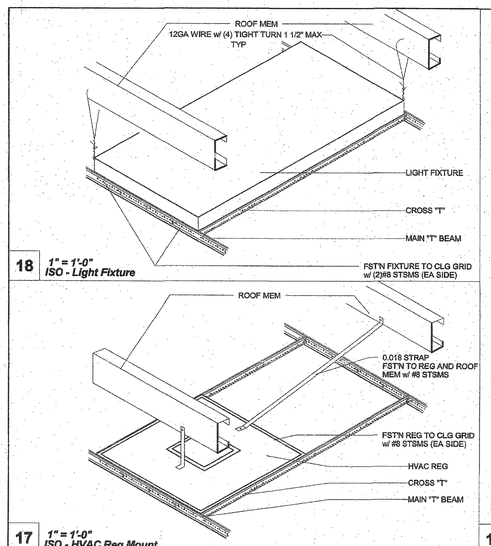
DRAWN BY
Author

CHECKED BY
Checker

DATE
2016/03/02

SHEET NO.
A3.2.1
SHEET OF SHEETS

3/2/2016 9:03:21 PM C:\Users\Sarah\Documents\15046 - Aviles, 24x40 PC - MakeFile_Sarah.rvt

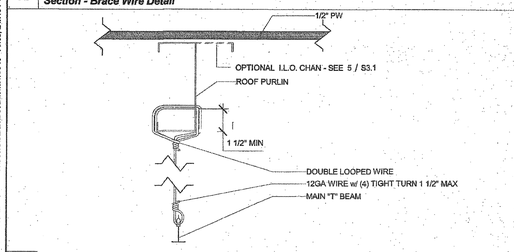


18 1" = 1'-0"
ISO - Light Fixture

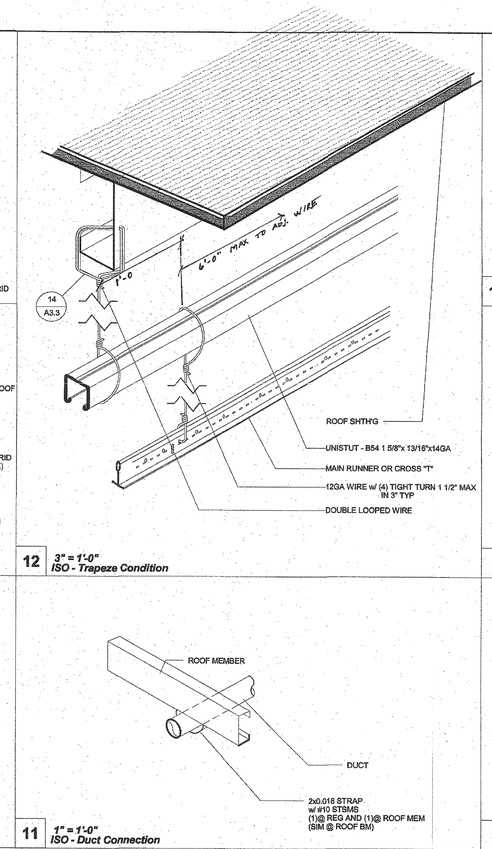
17 1" = 1'-0"
ISO - HVAC Reg Mount

16 3" = 1'-0"
Section - "T" Grid @ Mod Line

15 3" = 1'-0"
Section - Brace Wire Detail

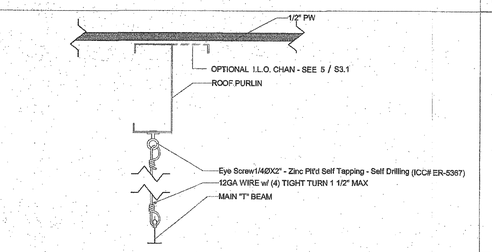


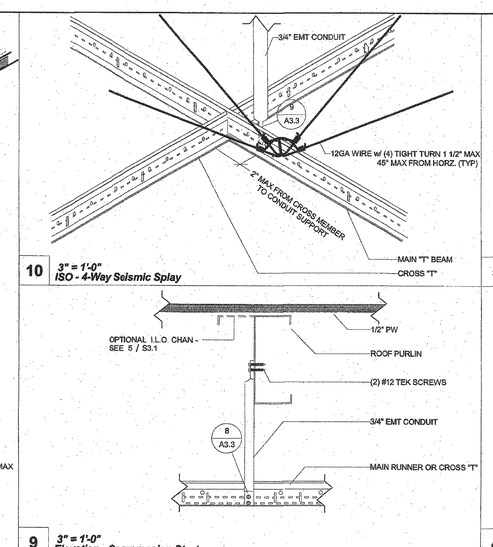
14 3" = 1'-0"
Section - Hanger Wire Detail



12 3" = 1'-0"
ISO - Trapeze Condition

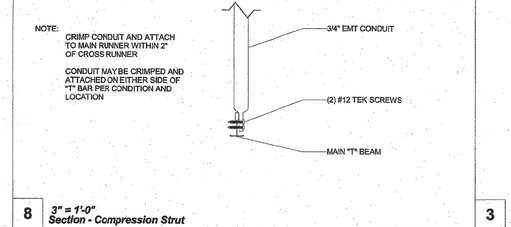
11 1" = 1'-0"
ISO - Duct Connection



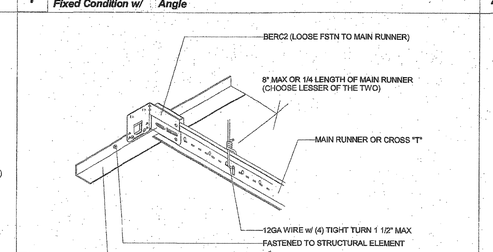


10 3" = 1'-0"
ISO - 4-Way Seismic Splay

9 3" = 1'-0"
Elevation - Compression Strut

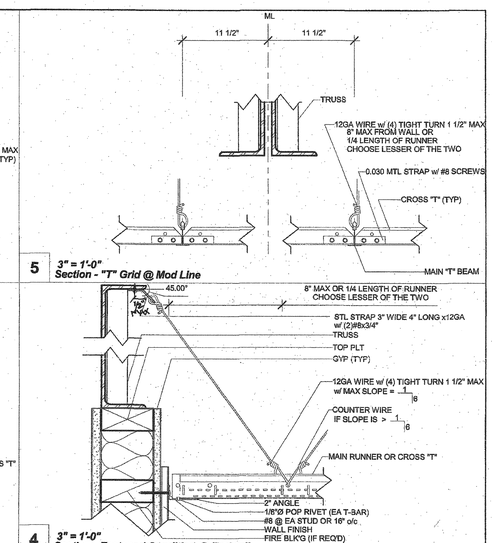


8 3" = 1'-0"
Section - Compression Strut



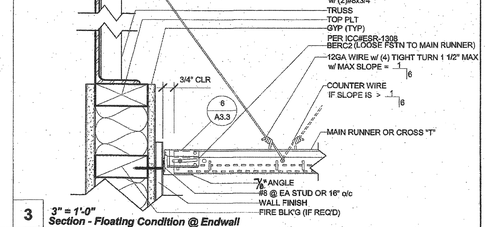
7 3" = 1'-0"
Fixed Condition w/ Angle

6 3" = 1'-0"
Floating Condition w/ Angle

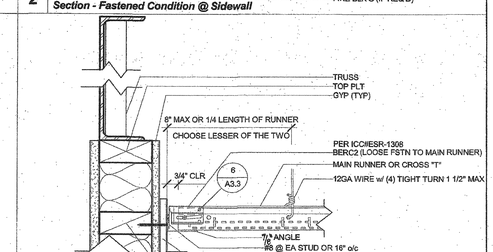


5 3" = 1'-0"
Section - "T" Grid @ Mod Line

4 3" = 1'-0"
Section - Fastened Condition @ Endwall



3 3" = 1'-0"
Section - Floating Condition @ Endwall



2 3" = 1'-0"
Section - Fastened Condition @ Sidewall

1 3" = 1'-0"
Section - Floating Condition @ Sidewall

R&S TAVARES ASSOCIATES
DESIGN ✦ CONSULTING ✦ PROJECT MGT
11777 Bernardo Plaza Dr, Suite 100
San Diego, CA 92128 858.443.3644
www.rstavaresassoc.com

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER MANNY D. FRANCO 25552 STRUCTURAL STATE OF CALIFORNIA

03/02/2016

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES
PC 04-114654
AC ACS FLS SS
DATE MAR 1 8 2016

PROJECT TITLE

24' x 40'
EXPANDABLE TO
48' x 40'

LICENSED ARCHITECT JACK F. SHAFER III No. C-34457 RENEWAL DATE 01/31/17 STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT
04 115748
ACS FLS SS
DATE JAN 26 2016
REVISED

#
IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC FLS SS
DATE APR 26 2016
FILE NUMBER: 19-29

SHEET TITLE
CEILING DETAILS
(T-GRID)

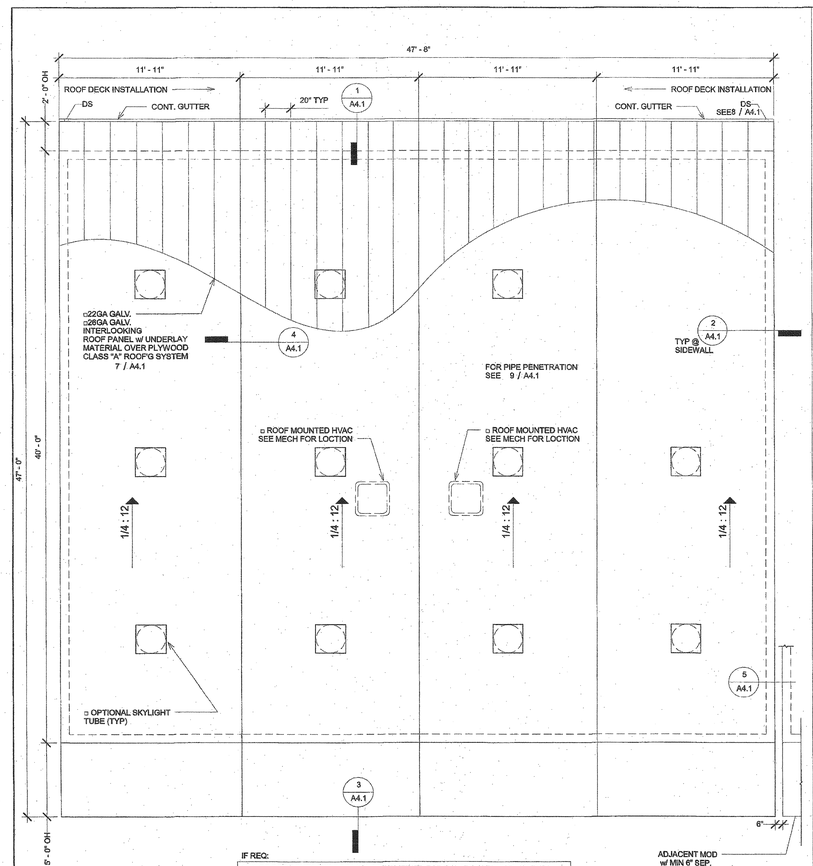
PROJECT NUMBER	15046
DRAWN BY	rMc/SM
CHECKED BY	JA/RT
DATE	2016/03/02
SHEET NO.	A3.3

SHEET OF SHEETS

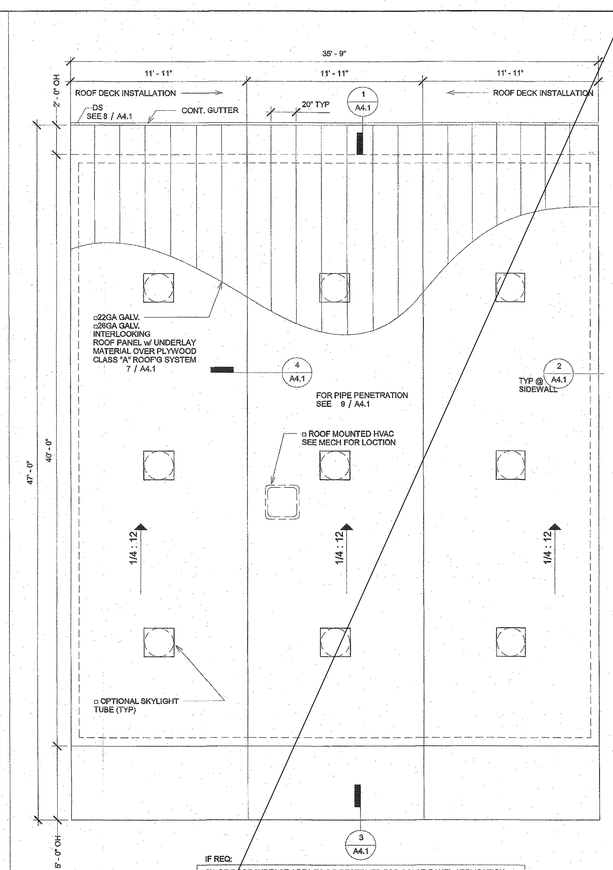
Proprietary Property of Class Leasing

Proprietary Property of Class Leasing

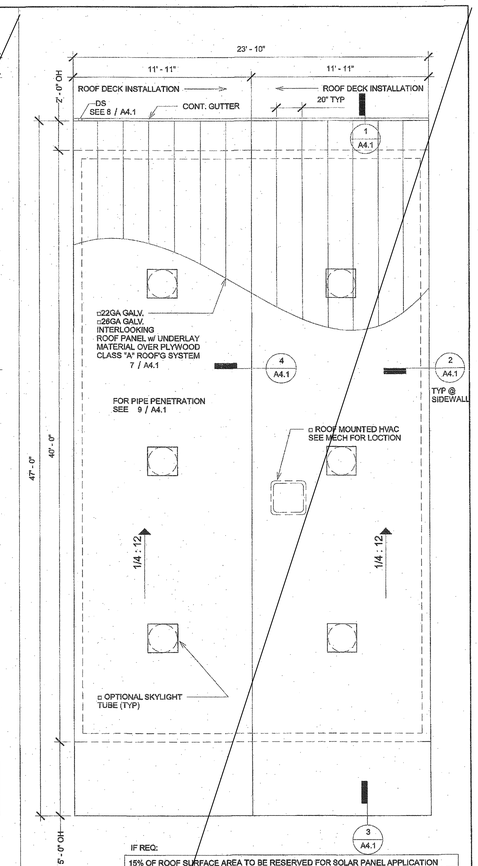
3/3/2016 8:00:38 PM C:\Users\Smart\Documents\15046 - Arlee, 24x40 PC - Main\Fix_Sarah.rvt



3 *1/4" = 1'-0"*
48x40 Roof Plan (Mt Mono)



2 *1/4" = 1'-0"*
36x40 Roof Plan (Mtl Mono)



1 *1/4" = 1'-0"*
24x40 Roof Plan (Mtl Mono)

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC FLS SS CL
DATE APR 26 2016

FILE NUMBER: 19-29

R&S TAVARES ASSOCIATES
DESIGN & CONSULTING & PROJECT MGT.
11777 Bernardo Plaza Ct. Suite 109
San Diego, CA 92128 858.444.3544
www.rstavares.com

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER
MANNY D. FRIAS
No. S-3380
STRUCTURAL
STATE OF CALIFORNIA

03/02/2016

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-116654
AC SL FLS SS
DATE MAR 18 2016

PROJECT TITLE

24' x 40'
EXPANDABLE TO
48' x 40'

LICENSED ARCHITECT
JAMES SHIVELY III
No. C-39457
RENEWAL DATE
STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 116749
AC FLS SS CL
DATE JAN 26 2017
REVISED

Revision Schedule

#	Description	Date

SHEET TITLE

ROOF PLAN MONO SLOPE (STANDING SEAM)

PROJECT NUMBER
15046

DRAWN BY
rMc/SM

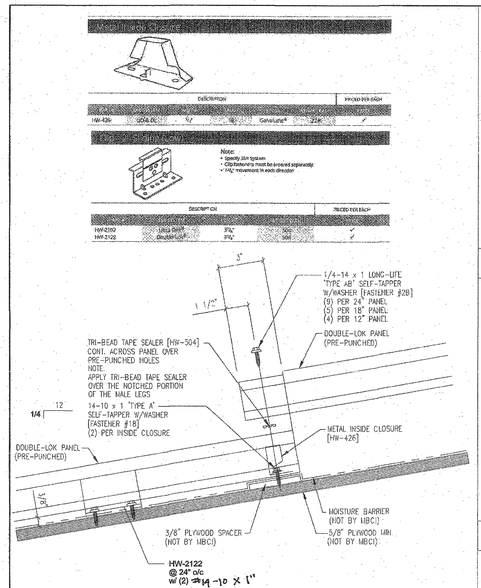
CHECKED BY
JA/RT

DATE
2016/03/02

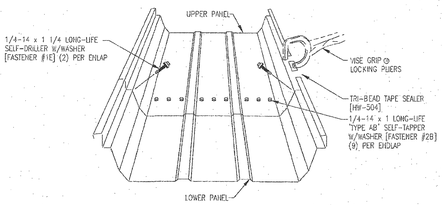
SHEET NO.
A4.0.1
SHEET OF SHEETS

Proprietary Property of Class Leasing
Proprietary Property of Class Leasing
Proprietary Property of Class Leasing

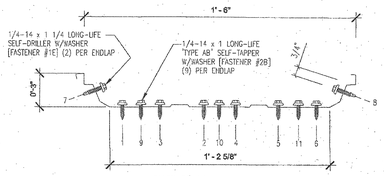
3/15/2016 12:22:33 PM C:\Users\Sarah\Documents\15046 - Aries, 24x40 PC - Main File_Sarah.rvt



7 **3" = 1'-0"**
Standing Seam



PANEL INSTALLATION SEQUENCE



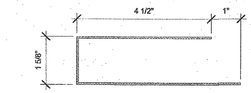
FASTENER SEQUENCE @ ENDLAP

18" DOUBLE-LOK 22GA STANDING SEAM PANEL BY MBCI

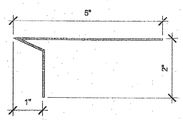
NEG		POS	
t	= 0.0299"	t	= 0.0299"
S_x	= 0.1846 IN³	S_x	= 0.2154 IN³
I_x	= 0.2718 IN⁴	I_x	= 0.4068 IN⁴
F_y	= 50 KSI	F_y	= 50 KSI

18" 26GA STANDING SEAM PANEL

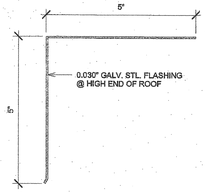
NEG		POS	
t	= 0.018"	t	= 0.018"
S_x	= 0.1383 IN³	S_x	= 0.7560 IN³
I_x	= 0.351 IN ⁴	I_x	= 0.351 IN ⁴
F_y	= 33 KSI	F_y	= 33 KSI



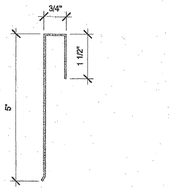
14 **6" = 1'-0"**
FLASHING @ ROOF HIGH SIDE



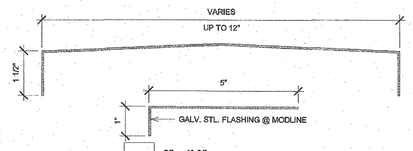
13 **6" = 1'-0"**
FLASHING @ ROOF LOW SIDE



12 **6" = 1'-0"**
ROOF FLASHING

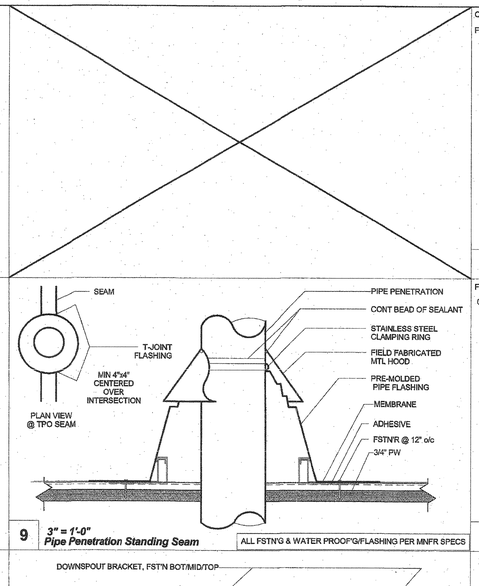


11 **6" = 1'-0"**
ROOF FLASHING @ SIDEWALL

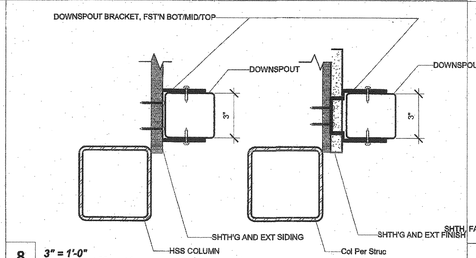


10A **6" = 1'-0"**
FLASHING @ MODLINE WALL

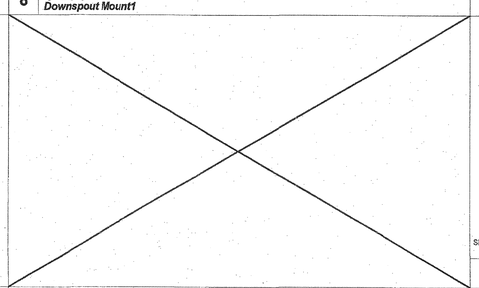
10 **6" = 1'-0"**
ROOF CAP @ MODLINE



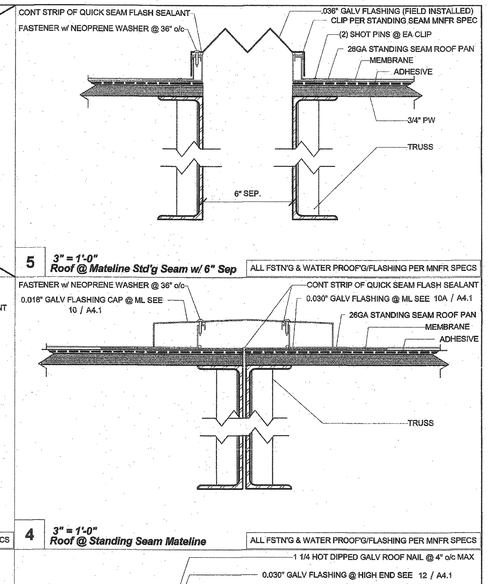
9 **3" = 1'-0"**
Pipe Penetration Standing Seam
ALL FSTN'G & WATER PROOF'G/FLASHING PER MNFR SPECS



8 **3" = 1'-0"**
Downspout Mount1

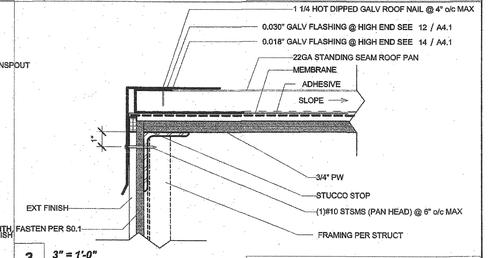


6 **3" = 1'-0"**
Gutter and Strap1

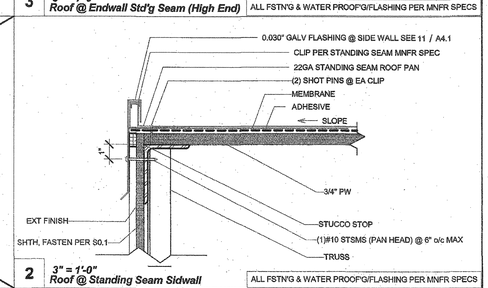


5 **3" = 1'-0"**
Roof @ Mateline Std'g Seam w/ 6" Sep
ALL FSTN'G & WATER PROOF'G/FLASHING PER MNFR SPECS

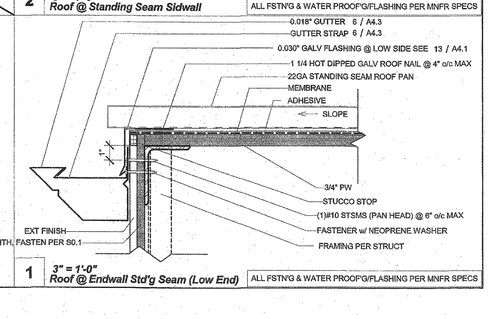
4 **3" = 1'-0"**
Roof @ Standing Seam Mateline
ALL FSTN'G & WATER PROOF'G/FLASHING PER MNFR SPECS



3 **3" = 1'-0"**
Roof @ Endwall Std'g Seam (High End)
ALL FSTN'G & WATER PROOF'G/FLASHING PER MNFR SPECS



2 **3" = 1'-0"**
Roof @ Standing Seam Sidwall
ALL FSTN'G & WATER PROOF'G/FLASHING PER MNFR SPECS



1 **3" = 1'-0"**
Roof @ Endwall Std'g Seam (Low End)
ALL FSTN'G & WATER PROOF'G/FLASHING PER MNFR SPECS

TAVARES ASSOCIATES
DESIGN + CONSULTING + PROJECT MGT
11777 Bernardo Plaza Ct, Suite 105
San Diego, CA 92128 858.444.3344
www.rstavares.com

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER MANNY D. FRANCISCO No. S3380 STRUCTURAL STATE OF CALIFORNIA

03/02/2016

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES
PC 04-114854
AC FLS SS
DATE MAR 16 2016

PROJECT TITLE

24' x 40'
EXPANDABLE TO
48' x 40'

REGISTERED ARCHITECT JACK P. SHINGLETON No. C-28407 RENEWAL DATE 08/31/17 STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT
04 115748
AC FLS SS
DATE JAN 26 2017
REVISED

#
IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC FLS SS
DATE APR 25 2016
FILE NUMBER: 19-29

SHEET TITLE

ROOF DETAILS
(STANDING SEAM)

PROJECT NUMBER
15046

DRAWN BY
rMc/SM

CHECKED BY
JA/RT

DATE
2016/03/02

SHEET NO.
A4.1
SHEET OF SHEETS

Proprietary Property of Class Leasing

Proprietary Property of Class Leasing

3/16/2016 12:29:45 PM C:\Users\Sarah\Documents\15046 - Arbis, 24x40 PC - Main\Fla_Sarah.rvt

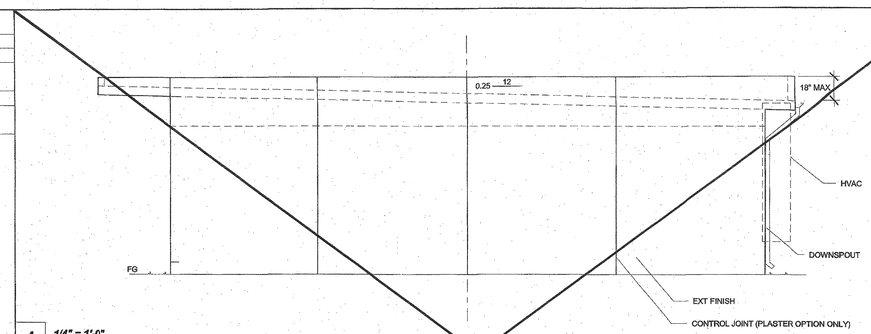
Ext. Finish Schedule			
	Finishes	Sheet	Notes
X	SIDING OVER WD STUDS	A2.1	
□	PLASTER OVER 1/2" OSB OR 1/2" CDX PLY w/ WD STUDS	A2.2	
□	SIDING OVER STL STUDS	A2.3	
□	PLASTER OVER 1/2" OSB OR 1/2" CDX PLY w/ STL STUDS	A2.4	

9 1/4" = 1'-0"
Ext. Finish Scedule

Fire Rating Schedule			
	Rating	Sheet	Notes
□	1 HOUR - SIDING OVER WD STUDS	A2.5	
□	1 HOUR - PLASTER OVER 1/2" OSB OR 1/2" CDX PLY w/ WD STUDS	A2.6	
□	1 HOUR - SIDING OVER STL STUDS	A2.7	
□	1 HOUR - PLASTER OVER 1/2" OSB OR 1/2" CDX PLY w/ STL STUDS	A2.8	

SEE A3.0 FOR ADDITIONAL FIRE ASSEMBLY NOTES AND DETAILS

10 1/4" = 1'-0"
Fire Rating Scedule

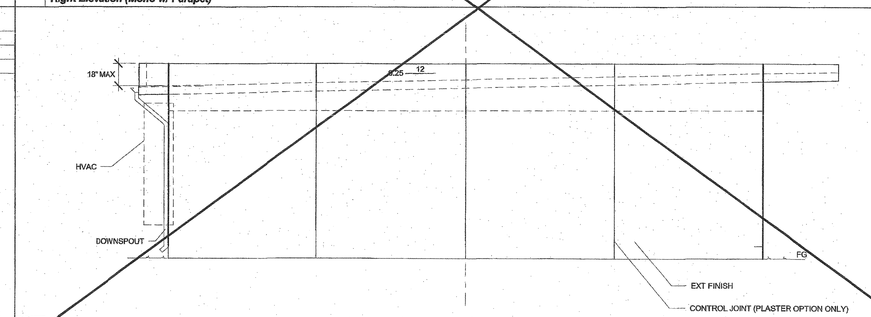


4 1/4" = 1'-0"
Right Elevation (Mono w/ Parapet)

SEE A0.1 FOR GENERAL NOTES

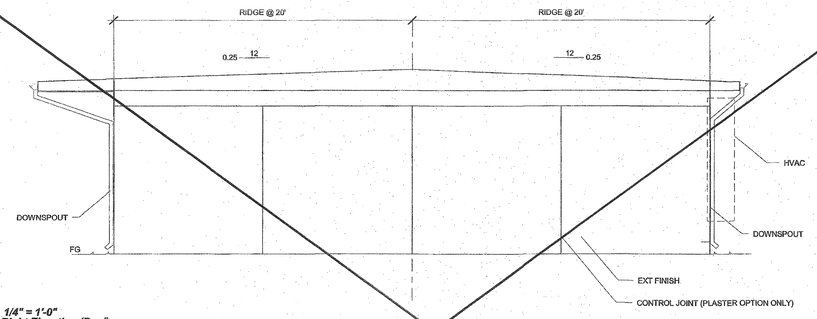
Wall Schedule			
	Stud Size	Sheet	Notes
X	Wood Wall Stud	S4.5	
□	Mtl Wall Stud	S4.5	

8 1/4" = 1'-0"
Wall Schedule

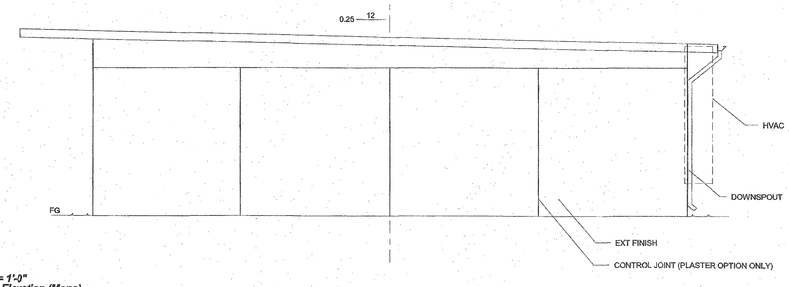


3 1/4" = 1'-0"
Left Elevation (Mono w/ Parapet)

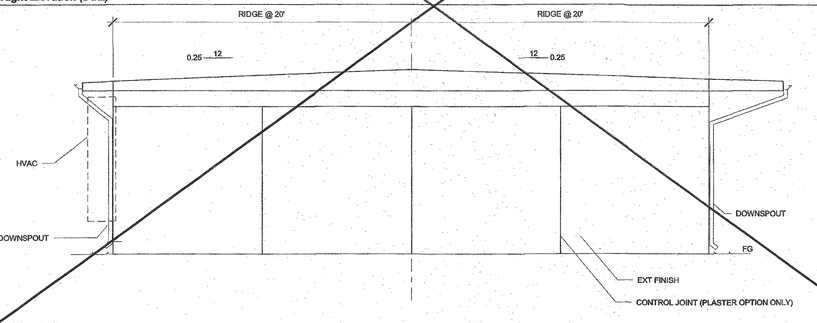
7 3" = 1'-0"
Notes A5.0



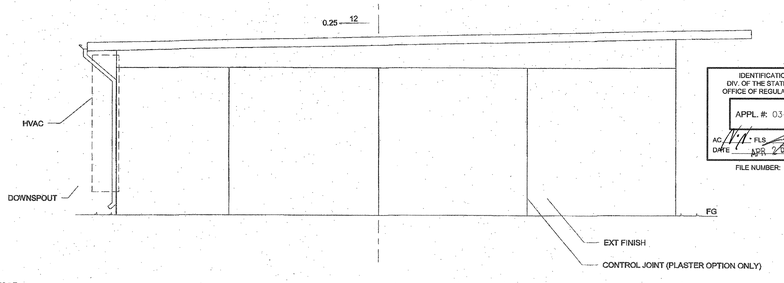
6 1/4" = 1'-0"
Right Elevation (Dual)



2 1/4" = 1'-0"
Right Elevation (Mono)



5 1/4" = 1'-0"
Left Elevation (Dual)



1 1/4" = 1'-0"
Left Elevation (Mono)

R&S TAVARES ASSOCIATES
DESIGN ★ CONSULTING ★ PROJECT MGT
11777 Bernardo Plaza Ct. Suite 105
San Diego, CA 92128 858.444.3344
www.rstavares.com

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER MANNY D. FRANCO No. 28580 STRUCTURAL STATE OF CALIFORNIA

03/02/2016

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-114654
AC SC DATE MAR 18 2016

PROJECT TITLE

24' x 40'
EXPANDABLE TO
48' x 40'

LICENSED ARCHITECT JACK F. SHIVELY III No. C-39487 RENEWAL DATE 08/31/17 STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04-115748
ACS SC
DATE JAN 23 2017
REVISED

Revision Schedule

#	Description	Date

SHEET TITLE
SIDEWALL ELEVATION

PROJECT NUMBER
15046

DRAWN BY
rMc/SM

CHECKED BY
JA/RT

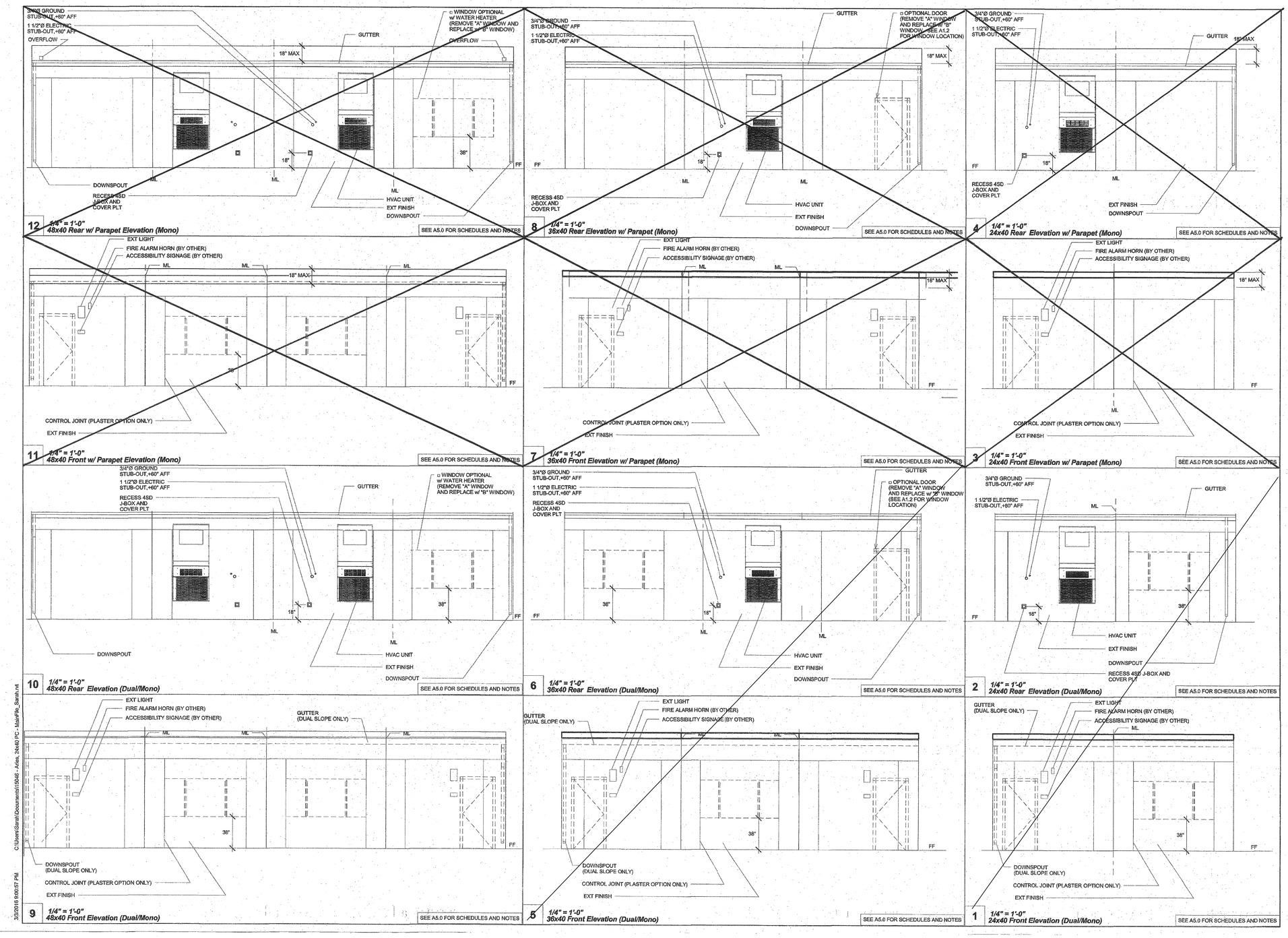
DATE
2016/03/02

SHEET NO.
A5.0
SHEET OF SHEETS

Proprietary Property of Class Leasing

Proprietary Property of Class Leasing

3/8/2016 12:14:47 PM C:\Users\Rick\Documents\15046 - Antex, 24x40 PC - MainFile_Rick.rvt



R&S TAVARES ASSOCIATES
DESIGN • CONSULTING • PROJECT MGT
11777 BERNARDO PLAZA CT. SUITE 105
SAN DIEGO, CA 92128 858.444.3344
WWW.RSTAVARES.COM

PROFESSIONAL STAMP
REGISTERED PROFESSIONAL ENGINEER MANNY D. FRANCO No. 46580 STRUCTURAL STATE OF CALIFORNIA
03/02/2016

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLIENT
CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL
IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES
PC 04-114654
AC FLS SS
DATE MAR 1 8 2016

PROJECT TITLE
24' x 40'
EXPANDABLE TO
48' x 40'
LICENSED ARCHITECT JACK R. SHIVELY No. C-33487 01/31/17 RENEWAL DATE STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT
04 115748
ACS FLS SS
DATE JAN 26 2017
REVISED

#
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC FLS SS
DATE APR 26 2017
FILE NUMBER: 19-29

SHEET TITLE
ENDWALL ELEVATIONS

PROJECT NUMBER
15046

DRAWN BY
rMc/SM

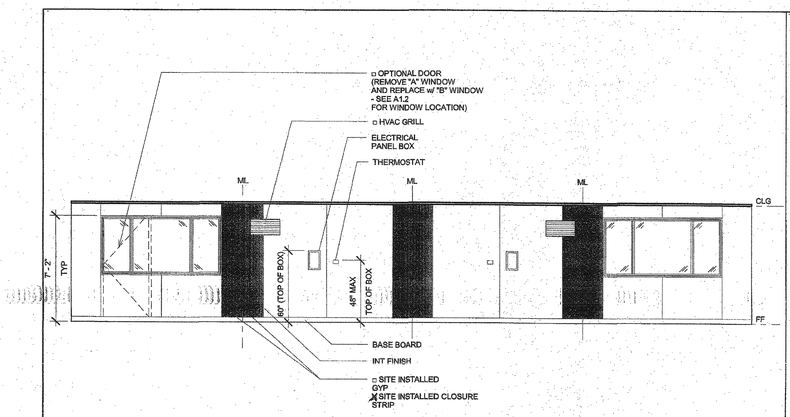
CHECKED BY
JA/RT

DATE
2016/03/02

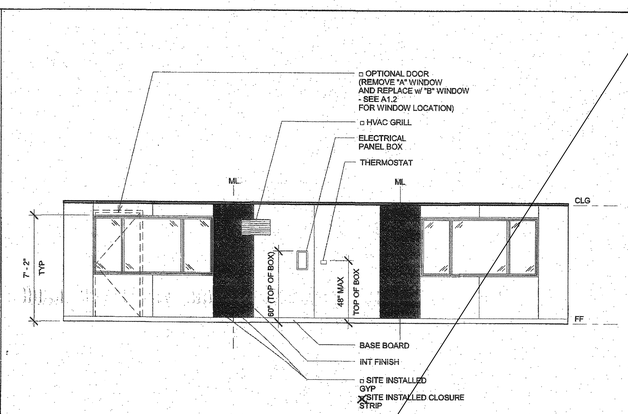
SHEET NO.
A5.1
SHEET OF SHEETS

Proprietary Property of Class Leasing
Proprietary Property of Class Leasing
Proprietary Property of Class Leasing

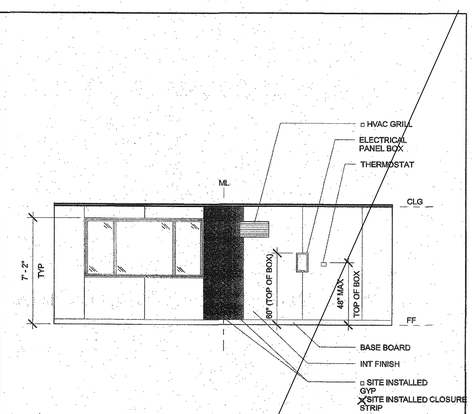
C:\Users\Sarah\Documents\15046 - Aries, 24x40 PC - MainFile_Sarah.rvt
3/3/2016 9:00:57 PM



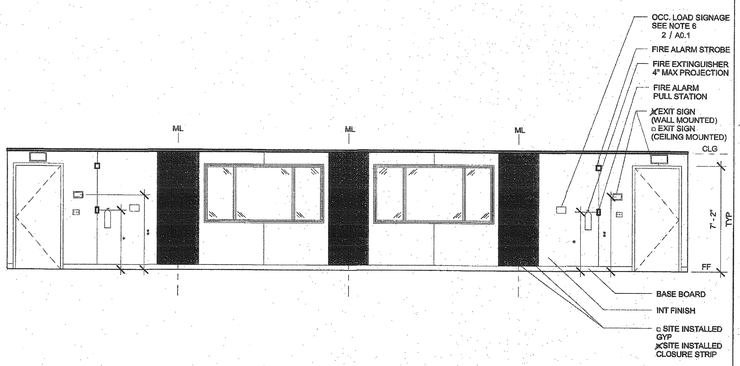
7 1/4" = 1'-0"
48x40 Rear Interior Elevation



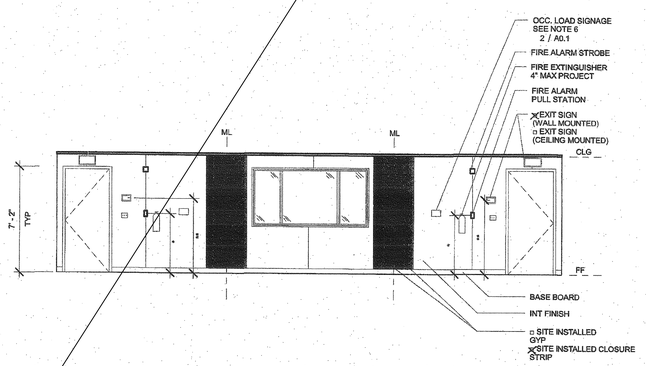
6 1/4" = 1'-0"
36x40 Rear Interior Elevation



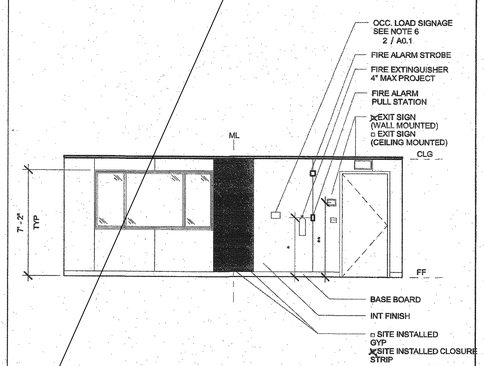
4 1/4" = 1'-0"
24x40 Rear Interior Elevation



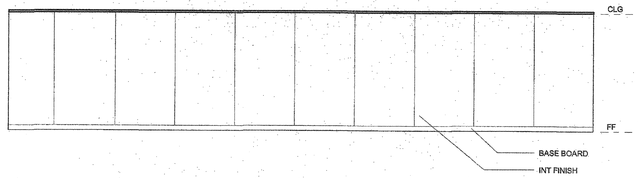
8 1/4" = 1'-0"
48x40 Front Interior Elevation



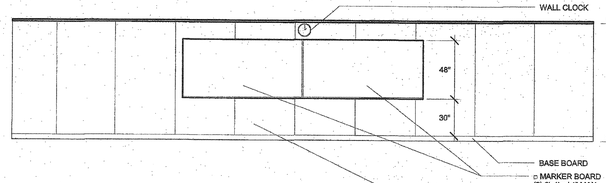
5 1/4" = 1'-0"
36x40 Front Interior Elevation



3 1/4" = 1'-0"
24x40 Front Interior Elevation



1 1/4" = 1'-0"
Interior Elevation (Left)



2 1/4" = 1'-0"
Interior Elevation (Right)

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC FLS SS CL
DATE APR. 6 2016
FILE NUMBER: 19-29

C:\Users\Sarah\Documents\15046 - Artist, 24x40 PC - MainFile_Sarah.rvt
3/3/2016 8:00:57 PM

R&S TAVARES ASSOCIATES
DESIGN ◆ CONSULTING ◆ PROJECT MGT
11777 Bernardo Plaza Ct. Suite 105
San Diego, CA 92128 858.444.3346
www.rstavares.com

PROFESSIONAL STAMP
REGISTERED PROFESSIONAL ENGINEER
MANNY D. FERNANDEZ
No. 20560
STRUCTURAL
STATE OF CALIFORNIA
03/02/2016

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLIENT
CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-114654
AC SS FLS CL
DATE MAR 1 8 2016
FIRE-SAFETY AND ACCESS REQUIREMENTS ONLY. OTHER CODES AND POLICIES ARE REQUIRED.

PROJECT TITLE
24' x 40'
EXPANDABLE TO
48' x 40'

LICENSED ARCHITECT
JACK F. SHIVELY III
No. C-10467
9/11/17
RENEWAL DATE
STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
DA 115748
ACC FLS SS CL
DATE JAN 2 6 2017
REVISED

Revision Schedule

#	Description	Date

SHEET TITLE
INTERIOR
ELEVATIONS

PROJECT NUMBER
15046

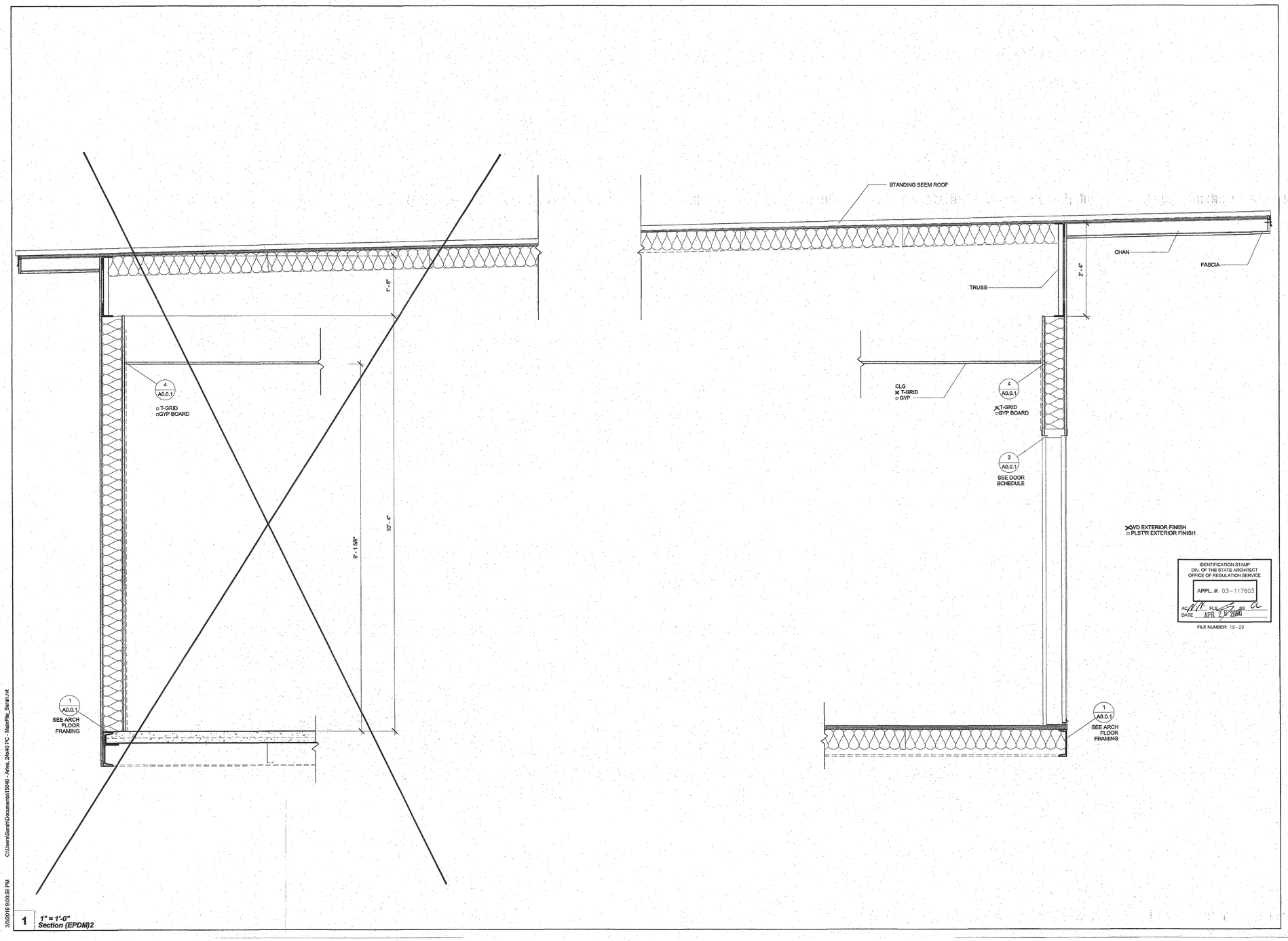
DRAWN BY
rMc/SM

CHECKED BY
JA/RT

DATE
2016/03/02

SHEET NO.
A5.2
SHEET OF SHEETS

Proprietary Property of Class Leasing
Proprietary Property of Class Leasing



1 1" = 1'-0"
Section (EPDM)2

C:\Users\Sarah\Documents\15046 - Aries, 24x40 PC - MainFile_Sarah.rvt

3/3/2016 9:00:58 PM

R&S TAVARES ASSOCIATES
DESIGN • CONSULTING • PROJECT MGT
11777 Bernardo Plaza Ct. Suite 105
San Diego, CA 92128 858.444.3244
www.rstavares.com

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER
MANNY D. FRIEDLER
No. 20580
STRUCTURAL
STATE OF CALIFORNIA

03/02/2016

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-114654
AC SC FLS SS
DATE MAR 18 2016

PROJECT TITLE

24' x 40'
EXPANDABLE TO
48' x 40'

LICENSED ARCHITECT
JACK P. SHIVELY III
No. C-33467
01/31/17
RENEWAL DATE
STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 115748
ACS FLS SS
DATE JAN 26 2017
REVISED

Revision Schedule

#	Description	Date

SHEET TITLE

SECTION - STANDING SEAM (MONO)

PROJECT NUMBER
15046

DRAWN BY
rMc/SM

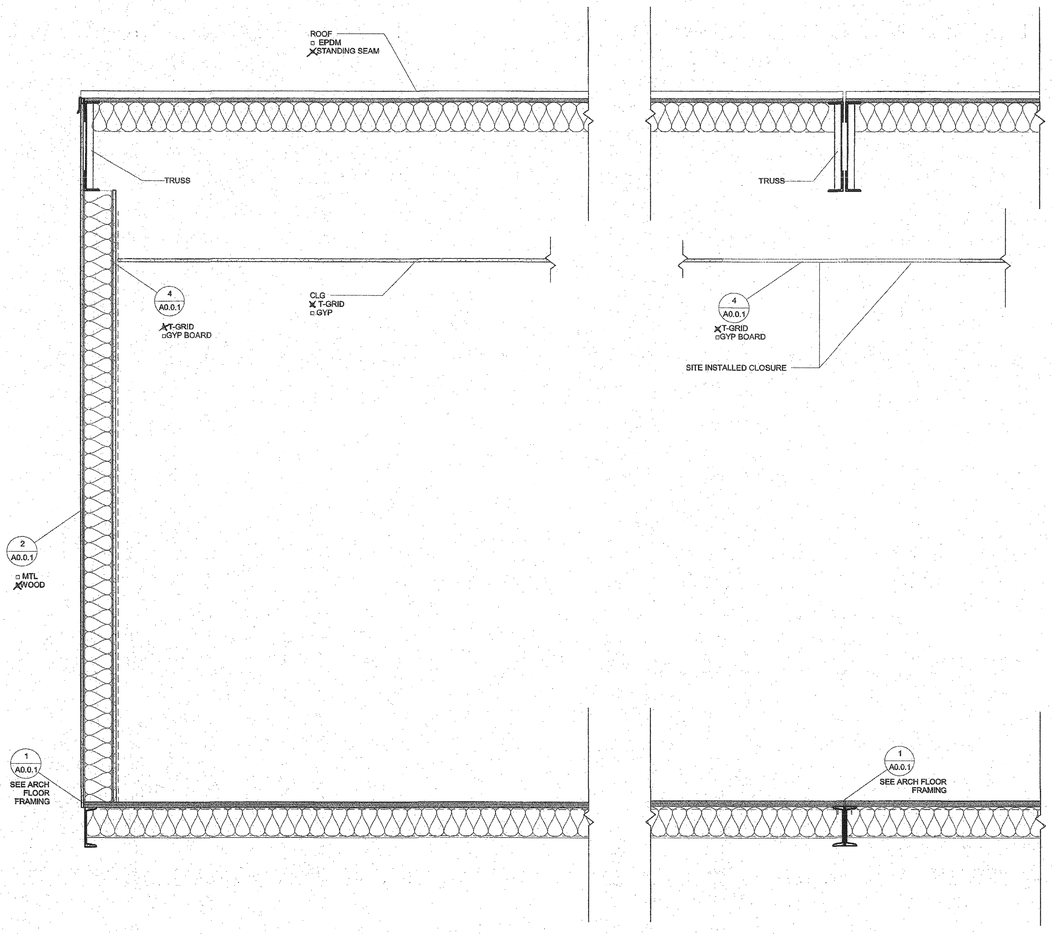
CHECKED BY
JA/RT

DATE
2016/03/02

SHEET NO.
A6.0

SHEET OF SHEETS

Proprietary Property of Class Leasing



1 **1" = 1'-0"**
Latitudinal Section

C:\Users\Sarah\Documents\15046 - Aries, 24x40 PC - MainFile_Sarah.rvt
3/2/2016 9:01:01 PM

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC DATE APR 2 8 2016 FLS SS

FILE NUMBER: 19-29

R&S TAVARES ASSOCIATES
DESIGN & CONSULTING & PROJECT MGT
11777 Bernardo Plaza Dr. Suite 105
San Diego, CA 92128 858.444.3544
www.rstavares.com

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER MANNY D. FRANCISCO No. 24080 STRUCTURAL STATE OF CALIFORNIA

03/02/2016

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL

PROJECT SPECIFIC SUBMITTAL DOCUMENT
USER PROJECT PVC/ADHESIVE IS REQUIRED

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-114654
AC SC FLS SS
DATE JAN 1 8 2016

PROJECT TITLE

24' x 40'
EXPANDABLE TO
48' x 40'

LICENSED ARCHITECT JOSEPH SHIVELY III No. C-28467 Exp. 08/31/2017 STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 115718
AC SC FLS SS
DATE JAN 2 6 2017
REVISED

Revision Schedule

#	Description	Date

SHEET TITLE

SECTION

PROJECT NUMBER
15046

DRAWN BY
rMc/SM

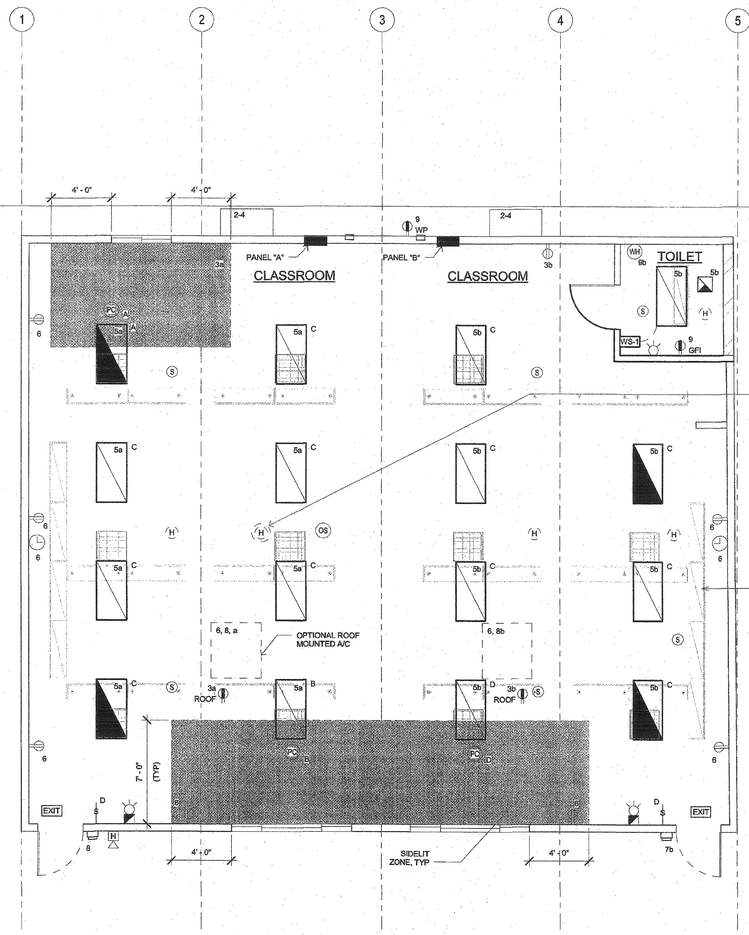
CHECKED BY
JA/RT

DATE
2016/03/02

SHEET NO.
A6.2

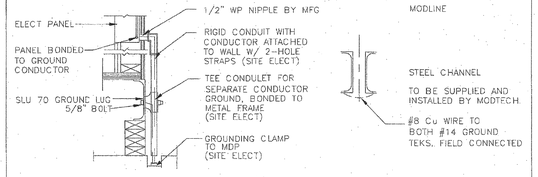
SHEET OF SHEETS

Proprietary Property of Class Leasing
Proprietary Property of Class Leasing



NOTE: PROVIDE A MINIMUM OF 72 SF SOLAR READY AREA PER MODULE. AREA TO BE A MINIMUM OF 5' IN ANY DIRECTION WITH A MINIMUM SPACE OF 80 SF PER BUILDING.

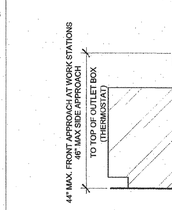
1 *1/4" = 1'-0"*
ELECTRICAL PLAN



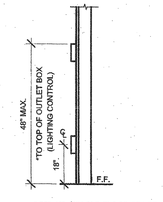
NOTES:

1. BOND SEPARATE CONDUCTORS FROM GROUND ROD TO ELECT. PANEL & TO METAL BUILDING FRAME (CEC 250.52) IN ADDITION TO THE DETAIL SHOWN ABOVE. BOND THE ELECTRICAL GROUND TO METAL UNDERGROUND WATER PIPE IN DIRECT CONTACT WITH THE EARTH FOR 10 FT. OR MORE, IF AVAILABLE (CEC 250.52)
2. CHECK RESISTANT TO GROUND ROD. IF RESISTANCE EXCEEDS 25 OHMS, INSTALL ADDITIONAL GROUND RODS WITH CONDUCTORS AS SHOWN SEPARATED AT LEAST 6'-0" UNTIL RESISTANCE IS REDUCED TO 25 OHMS OR LESS (CEC 250.56).
3. ELEC. TRADE SHALL CHECK AREA FOR EXISTING CONDUITS, SEWER, GAS & WATER PIPING BEFORE DRIVING GROUND RODS.
4. ALL MODULES OF STEEL FRAME BLDGS. SHALL BE ELECTRICALLY BONDED TOGETHER (BOLTING ONLY IS NOT ACCEPTABLE BONDING). BONDING SHALL INCLUDE METAL RAMP & STAIRS.
5. SIZE OF CONDUCTORS SHALL COMPLY WITH CEC TABLE 250.66

2 *1 1/2" = 1'-0"*
TYPICAL GROUNDING DETAIL

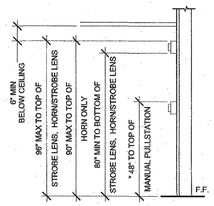


3 *1" = 1'-0"*
ELEV. @ WORKSTATION



* 30"x48" MIN CLR FLOOR SPACE AT EACH LOCATION FOR PERPENDICULAR APPROACH

4 *1" = 1'-0"*
MOUNTING ELEV.



* PROVIDE MIN 30"x48" CLR FLOOR SPACE FOR PERPENDICULAR APPROACH AT EACH LOCATION

5 *1" = 1'-0"*
FIRE ALARM MOUNTING HEIGHTS

GENERAL GROUNDING NOTES

EACH BUILDING SHALL BE GROUNDED SEPARARELY WITH A ¾" ROUND X 8 FEET COPPERCLAD STEEL GROUND ROD. WHERE ROCK BOTTOM IS FOUND, DRIVE ROD AT 45 DEGREES MAXIMUM FROM THE VERTICAL OR HAVE IT BURIED IN A TRENCH 30" DEEP MINIMUM.

TESTING FOR RESISTANCE TO GROUND, IF RESISTANCE EXCEEDS 25 OHMS INSTALL ADDITIONAL GROUND RODS SEPARATED AT LEAST 6 FEET, UNTIL RESISTANCE REDUCES TO 25 OHMS OR LESS. GROUND TEST MUST BE DONE IN THE PRESENCE OF THE PROJECT INSPECTOR AND ALL GROUNDING SHALL BE IN ACCORDANCE WITH CEC ARTICLE 250

6 *1" = 1'-0"*
GENERAL GROUNDING NOTES

EQUIPMENT ANCHORAGE AND BRACING

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 2013 CBC, SECTIONS 1615A.1.12 THROUGH 1615A.1.22 AND 7-10 CHAPTER 13 AND 26.

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

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 A WALL.

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

BRACING OF PIPING, DUCTWORK AND ELECTRICAL SYSTEM

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 13.6.8, 13.6.7, 13.6.5.6 AND 2013 CBC SECTIONS 1615A.1.20, 1615A.1.21 AND 1615A.1.22.

THE BRACING AND ATTACHMENTS TO THE STRUCTURE SHALL BE DETAILED ON THE APPROVED DRAWINGS OR THEY SHALL COMPLY WITH ONE OF THE OSHPD PRE-APPROVALS (OPA #) AS MODIFIED TO SATISFY ANCHORAGE REQUIREMENTS OF ACI 318, APPENDIX D.

COPIES OF THE MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF HANGING AN. BRACING OF THE PIPE, DUCTWORK AND ELECTRICAL DISTRIBUTION SYSTEMS.

THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC. FLS SS CL
DATE APR 26 2013
FILE NUMBER: 19-29

7 *1" = 1'-0"*
EQUIPMENT ANCHORAGE AND BRACING

FIRE ALARM NOTES

PROVIDE SPACE ON ELECTRICAL PANEL FOR LOCK-ON BREAKER, IDENTIFIED WITH RED MARKING, FOR 120 VOLTS FIRE ALARM CIRCUIT, WITH BREAKER LABELED AS FIRE ALARM CIRCUIT, CEC 760.41 (B).
BREAKER AND CIRCUIT PROVIDED AND INSTALLED ON SITE BY OTHERS.

SMOKE AND HEAT DETECTOR CONDUIT AND DEVICES TO BE PROVIDED AND INTERCONNECTED TO THE FIRE ALARM SYSTEMS ON SITE BY OTHERS

APPROVAL OF THIS PLAN DOES NOT CONSTITUTE APPROVAL OF THIS FIRE ALARM SYSTEM FOR ALL SITES, THE FIRE ALARM SYSTEM AND COMPONENTS MAYBE REQUIRED TO BE CHANGED DUE TO EXISTING CONDITIONS OR INCOMPATIBLE COMPONENTS.

8 *1" = 1'-0"*
FIRE ALARM NOTES

CONDUIT FILL AND CONDUCTOR CAPACITY TABLE

(ALL CONDUCTORS SHALL BE TYPE THHN/THWN 75 DEG. C. COPPER)

WIRE SIZE	CAPACITY	WIRE TYPE	NO. OF CONDUCTOR PERMITTED			
			1/2" C	3/4" C	1" C	1 1/4" C
#12	20A	THHN	9	16	25	45
#10	30A	THHN	5	10	16	28
#8	45A	THHN	2	5	8	14
#6	65A	THHN	1	3	5	10
#4	85A	THHN	1	2	4	7

9 *1" = 1'-0"*
CONDUIT FILL AND CONDUCTOR CAPACITY TABLE

JUNCTION BOX SIZE TABLE

BOX	SIZE	CU. IN.	MAX NO. OF CONDUCTORS			
			#12	#10	#8	#6
4SS	1 1/4"x4" SQ.	18.0	8	7	6	0
4S	1 1/2"x4" SQ.	21.0	9	8	7	0
4SD	2 1/8"x4" SQ.	30.3	13	12	10	6
4SX	2 7/8"x4" SQ.	43.5	23	21	17	10
5SD	2 1/8"x4-11/16" SQ.	42.0	18	16	14	6
5SX	3 7/8"x4-11/16" SQ.	66.0	38	34	28	17
664	4"x5" SQ.	144.0	64	57	48	28

* DEDUCT ONE CONDUCTOR FOR (1) OR MORE GROUNDING CONDUCTORS ENTERING THE BOX

10 *1" = 1'-0"*
JUNCTION BOX SIZE TABLE

R&S TAVARES ASSOCIATES
DESIGN ◆ CONSULTING ◆ PROJECT MGT.
11777 Bernardo Plaza Dr, Suite 105
San Diego, CA 92128 858-444-3544
www.rstavares.com

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER MANNY D. FRIAS No. S33807 STRUCTURAL STATE OF CALIFORNIA

03/02/2016

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-114654
AC. FLS SS
DATE MAR 18 2014

PROJECT TITLE

24' x 40'
EXPANDABLE TO
48' x 40'

LICENSED ARCHITECT JACK T. CHRISTELY III No. C-35487 RENEWAL DATE 08/31/17 STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
DSA 115748
AC. FLS SS
DATE JAN 25 2017
REVISED

Revision Schedule

#	Description	Date

SHEET TITLE

ELECTRICAL PLAN
48x40

PROJECT NUMBER
15046

DRAWN BY
rMc/SM

CHECKED BY
JA/RT

DATE
2016/03/02

SHEET NO.
E1.4

SHEET OF SHEETS

Proprietary Property of Class Leasing

Proprietary Property of Class Leasing

3/1/2016 5:16:26 PM C:\Users\Sarah\Documents\15046 - Artes, 24x40 PC - MainFile_Sarah.rvt

PANEL A= 100A	120/208 VOLTS, 3 ϕ, 3 WIRE							MAIN LUGS ONLY		
	LOADCENTER	SURFACE MOUNTED						GRD & NEUTRAL BARS		AMP BUS
	VOLTAMPS		10000 AIC					VOLTAMPS		
DESCRIPTION	ϕ A	ϕ B	C/B	CKT	ϕ	CKT	C/B	ϕA	ϕ B	DESCRIPTION
AC WALL MOUNTED- 4 TON	7360		30	1	A	2	20	1080		OUTLETS
		7360	30	3	B	4	20		180	EXTERIOR GFI WP/GC
GENERAL LIGHTING/FAN	1020		20	5	A	6	20	180		ROOF GFI WPGC
EXTERIOR LIGHTING		40	20	7	B	8	20			
			20	9	B	10	20			
DED SOLAR READY										
DED SOLAR READY										
SUBTOTAL	ϕ A 8560	ϕ B 7400						ϕ A 1260	ϕ B 180	SUBTOTAL
TOTAL	9820	7580	9820/120 VOLTS= 81.84 A 81.84 x 1.07= 91.91							

2 1" = 1'-0"
ELECTRICAL PANEL_A

PANEL A= 100A	120/208 VOLTS, 3 ϕ, 3 WIRE							MAIN LUGS ONLY		
	LOADCENTER	SURFACE MOUNTED						GRD & NEUTRAL BARS		AMP BUS
	VOLTAMPS		10000 AIC					VOLTAMPS		
DESCRIPTION	ϕ A	ϕ B	C/B	CKT	ϕ	CKT	C/B	ϕA	ϕ B	DESCRIPTION
AC ROOF MOUNTED- 4 TON	7360		30	1	A	2	20	1080		OUTLETS
		7360	30	3	B	4	20		180	EXTERIOR GFI WP/GC
GENERAL LIGHTING/FAN	1020		20	5	A	6	20	180		ROOF GFI WPGC
EXTERIOR LIGHTING		40	20	7	B	8	20			
BATH GFI	180		20	9	B	10	20			
DED SOLAR READY										
DED SOLAR READY										
SUBTOTAL	ϕ A 8560	ϕ B 7400						ϕ A 1280	ϕ B 180	SUBTOTAL
TOTAL	9820	7580	9820/120 VOLTS= 81.84 A 81.84 x 1.07= 91.91							

3 1" = 1'-0"
ELECTRICAL PANEL_B

LEGEND

- ELECTRICAL PANEL AT +60" AFF TO TOP OF ELECTRICAL PANEL WITH 1 1/2" DIA POWER STUB OUT
- ROOF MOUNTED HVAC UNIT-SEE MECHANICAL DWGS
- WALL MOUNTED HVAC UNIT, SEE MECHANICAL DWGS
- 100 CFM CEILING MOUNTED EXHAUST FAN. INTERLOCKED WITH LIGHT SWITCH
- (HW) 4SD J-BOX FOR WATER HEATER LOCATE ABOVE CEILING W/ COVER PLATE, HARD WIRE TO UNIT
- (H) 4SD J-BOX IN ATTIC FOR ATTIC MOUNTED HEAT DETECTOR (DEVICE BY OTHERS). MAXIMUM 35'-0" FROM ANY POINT IN ATTIC AND 50'-0" BETWEEN THEM. PROVIDE A 6'-0" CONDUIT FROM EACH J-BOX TO HEAT DETECTOR LOCATION. CONDUIT & CONNECTION TO CEILING DEVICE & DEVICE BY OTHERS (ALARM NOTE #1)
- (S) 4SD J-BOX IN ATTIC FOR CEILING MOUNTED SMOKE DETECTOR (DEVICE BY OTHERS). MAXIMUM 21'-0" FROM ANY POINT IN ROOM AND 30'-0" BETWEEN THEM. PROVIDE A 6'-0" CONDUIT FROM EACH J-BOX TO SMOKE DETECTOR LOCATION. CONDUIT & CONNECTION TO CEILING DEVICE & DEVICE BY OTHERS (ALARM NOTE #1)
- RECESSED 4SD J-BOX W/ COVER PLATE FOR FUTURE FIRE ALARM SYSTEM BY OTHERS. MOUNT AT +18" AFF U.O.N. TO CENTERLINE OF BOX AND PROVIDE 1" CO STUB TO ATTIC SPACE WITH PULLSTRING
- [H] 4SD J-BOX FOR EXTERIOR FIRE ALARM HORN (DEVICE BY OTHERS). MOUNT AT +90" AFF TO TOP OF DEVICE WITH 3/4" CONDUIT STUBBED TO ATTIC WITH PULLSTRING
- 4SD J-BOX FOR FIRE ALARM STROBE (DEVICE BY OTHERS). BOTTOM OF LENS SHALL BE BETWEEN 80" AND 96" AFF AND AT LEAST 6" BELOW THE CEILING LINE WITH 3/4" CONDUIT TO EXTERIOR FIRE ALARM HORN WITH PULLSTRING
- 4SD J-BOX FOR FIRE ALARM PULLSTATION (DEVICE BY OTHERS). MOUNT AT +48" AFF TO TOP OF OUTLET BOX WITH 3/4" CONDUIT TO FIRE ALARM STROBE WITH PULLSTRING
- EXIT EXIT SIGN WITH BATTERY BACK UP. EXIT SIGN REQUIRED FOR CLASSROOMS WITH TWO OR MORE EXTERIOR DOORS. CLASSROOMS WITH ONE EXTERIOR DOOR-OPTIONAL.
- CLOCK OUTLET AT +90" AFF TO CENTERLINE OF DEVICE
- EXTERIOR LED LIGHT FIXTURE. 30w MAX WITH PHOTOCELL MOUNT AT +93" AFF
- ROOF ROOF MOUNTED WEATHER PROOF GFI RECEPTACLE
- GFI GROUND FAULT CIRCUIT INTERRUPT RECEPTACLE WITHIN 6'-0" OF ALL SINKS
- WP EXTERIOR WEATHER PROOF GFI RECEPTACLE AT +24" AFF FOR A/C SERVICES (MAX 25'-0" FROM UNITS)
- DUPLEX (WALL MOUNTED) RECEPTACLE 15A-125V-3 WIRE. MOUNT AT +18" AFF U.O.N. TO CENTERLINE OF DEVICE
- $3 3-WAY LIGHT SWITCH. MOUNT AT+48" AFF TO TOP OF OUTLET BOX
- $ LIGHT SWITCH. MOUNT AT+48" AFF TO TOP OF OUTLET BOX
- $D SINGLE BUTTON DIMMER SWITCH, AT +48" AFF, TO TOP OF OUTLET BOX, WATTSTOPPER #LMDM-101 OR EQUAL
- WS-1 SINGLE SWITCH WALL OCCUPANCY SENSOR. WATTSTOPPER PW-100 OR EQUAL. SENSOR TO BE MOUNTED AT +44" AFF AND USE FOR OPEN ROOM (OR RESTROOM) LESS THAN 100 SQ FT W/ (1) CIRCUIT.
- (US) ULTRASONIC CEILING OCCUPANCY SENSOR. WATTSTOPPER W-500A OR EQUAL. SENSOR TO BE CONNECTED TO KEYED LIGHT SWITCHES FOR MANUAL OVERRIDE AND USE FOR RESTROOM W/ PARTITIONS.
- (PC) CEILING MOUNTED PHOTOCELL. WATTSTOPPER #LMLS-500 OR EQUAL
- (OS) CEILING MOUNTED OCCUPANCY SENSOR. WATTSTOPPER #LMPC-100 OR EQUAL.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC. FLS SS
DATE JAN 2 6 2017

FILE NUMBER: 19-29

- 2x4 CEILING LIGHT WITH (3) T-8 LAMPS, LAY-IN FLUORESCENT LIGHT FIXTURE WITH DIMMABLE BALLAST ORACLE LIGHTING-MODEL 24.0T.332.2.T8A12L41KC4 WATTAGE: 32W T8 (48" LG) OR EQUAL
- 2x4 CEILING LIGHT WITH (3) T-8 LAMPS, LAY-IN FLUORESCENT LIGHT FIXTURE WITH DIMMABLE BALLAST ORACLE LIGHTING-MODEL 24.0T.332.2.T8A12L41KC4 WATTAGE: 32W T8 (48" LG) OR EQUAL EACH LIGHT FIXTURE WHICH IS INDICATED AS BEING AN EMERGENCY LIGHT SHALL HAVE A BALLAST BATTERY PACK INSTALLED ON THE FIXTURE. THE BATTERY PACK SHALL PROVIDE POWER TO A SINGLE LAMP WITHIN THE FIXTURE FOR NO LESS THAN 90 MINUTES. ANY LIGHT FIXTURE Equipped WITH A BATTERY PACK SHALL BE WIRED IN SUCH A MANNER THAT THE BATTERY WILL BE ACTIVATED IMMEDIATELY UPON LOSS OF POWER TO THE FIXTURE. ADDITIONALLY THE BATTERY PACK SHALL BE OPERATED USING BATTERY POWER LIGHTING CONTROL SWITCHES AND SENSORS SHALL NOT BE ABLE TO SHUT THE FIXTURE OFF.

1 1" = 1'-0"
LEGEND

R&S TAVARES ASSOCIATES
DESIGN ◆ CONSULTING ◆ PROJECT MGT
11777 Bernardo Plaza Dr. Suite 108
San Diego, CA 92128 858.444.3344
www.rstavares.com

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER
MANNY D. PRASAD
No. 53307
STRUCTURAL
STATE OF CALIFORNIA
03/02/2016

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-114654
AC. FLS SS
DATE MAR 1 8 2016

PROJECT TITLE
24' x 40'
EXPANDABLE TO
48' x 40'

LICENSED ARCHITECT
MARK F. SHIVELY III
No. C-33467
01/31/17
RENEWAL DATE
STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 115748
AC. FLS SS
DATE JAN 2 6 2017
REVISED

Revision Schedule

#	Description	Date

SHEET TITLE
ELECTRICAL
SCHEDULE 48x40

PROJECT NUMBER
15046

DRAWN BY
rMc/SM

CHECKED BY
JA/RT

DATE
2016/03/02

SHEET NO.
E1.5
SHEET OF SHEETS

Proprietary Property of Class Leasing
Proprietary Property of Class Leasing
Proprietary Property of Class Leasing

3/15/2016 8:11:57 AM C:\Users\Sarah\Documents\15046 - Aries, 24x40 PC - MainFile_Sarah.rvt

ABB.	DESCRIPTION	SYMBOL
WM	WALL MOUNTED UNIT (SEE SCHEDULE THIS SHEET)	WM-1
RM	ROOF MOUNTED UNIT (SEE SCHEDULE THIS SHEET)	RM-1
P.O.C	POINT OF CONNECTION	P.O.C
CO2	CARBON MONOXIDE SENSOR	(CO2)
BT	BYPASS TIMER	(BT)
STAT	THERMOSTAT	(T)
UC	UNDERCUT DOOR	UC
MVD	MANUAL VOLUME DAMPER	
FD	FIRE DAMPER	
VTR	VENT THRU ROOF	
ER	EXHAUST CEILING REGISTER	
CR	RETURN CEILING REGISTER	
CD	SUPPLY CEILING DIFFUSER	
(L)	LINED DUCTWORK	
EAD	EXHAUST AIR DUCT	
RAD	RETURN AIR DUCT	
SAD	SUPPLY AIR DUCT	
EF	EXHAUST FAN	EF

1 *1" = 1'-0"* ***LEGEND***

CEILING MOUNTED EXHAUST FAN

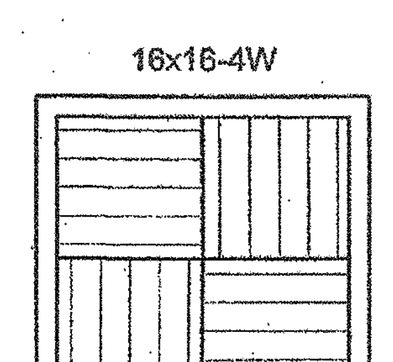
SYM.	USE	MFR/MODEL	CFM	SOUND LEVEL	SP	VOLTS	Ø	POWER	WGT#	NOTES
EF A	BATHROOM EXHAUST	* BROAN L100	109	1.0 SONES	0.25	120	1	87 WATTS	22.80#	WITH BROAN ROOF CAP #634. PROVIDE 6" DIA. EXHAUST DUCT UP TO ROOF. INTERLOCK WITH LIGHT SWITCH.
EF B	BATHROOM EXHAUST	* BROAN L200	210	2.0 SONES	0.25	120	1	127 WATTS	23#	WITH BROAN ROOF CAP #634. PROVIDE 8" DIA. EXHAUST DUCT UP TO ROOF. INTERLOCK WITH LIGHT SWITCH.
EF C	BATHROOM EXHAUST	* BROAN L300	308	2.8 SONES	0.25	120	1	212 WATTS	23.1O#	WITH BROAN ROOF CAP #634. PROVIDE 8" DIA. EXHAUST DUCT UP TO ROOF. INTERLOCK WITH LIGHT SWITCH.
EF D	BATHROOM EXHAUST	* BROAN 676	100	4.0 SONES	0.25	120	1	156 WATTS	7#	WITH BROAN ROOF CAP #636. PROVIDE 4" DIA. EXHAUST DUCT UP TO ROOF. INTERLOCK WITH LIGHT SWITCH.

* OR APPROVED EQUAL.

2 *1" = 1'-0"* ***CEILING MOUNTED EXHAUST FAN SCHEDULE***

PERFORATED FACE GRILLE SCHEDULE (SUPPLY)

16x16-4W



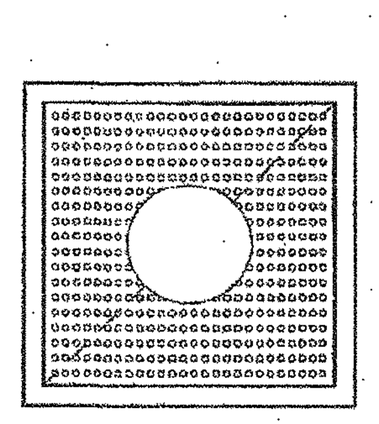
T-BAR SUPPLY

Fixed Curve Blade, 4-way throw

NECK SIZE	CFM (RANGE)	NOTES
6"Ø	0-150	SEE DETAIL FOR MAKE AND MODEL
8"Ø	150-230	SEE DETAIL FOR MAKE AND MODEL
10"Ø	230-350	SEE DETAIL FOR MAKE AND MODEL
12"Ø	350-460	SEE DETAIL FOR MAKE AND MODEL
14"Ø	460-640	SEE DETAIL FOR MAKE AND MODEL

3 *1" = 1'-0"* ***PFG SCHED (SUPPLY)***

PERFORATED FACE GRILLE SCHEDULE (RETURN)



T-BAR RETURN

Perforated Face

Shoemaker 105P with 24 ga. 45 deg.

NECK SIZE	CFM (RANGE)	NOTES
6"Ø	0-230	SEE MECH CLG PLAN FOR SIZE
10"Ø	230-460	SEE MECH CLG PLAN FOR SIZE
14"Ø	460-710	SEE MECH CLG PLAN FOR SIZE

4 *1" = 1'-0"* ***PFG SCHED (RETURN)***

3/15/2016 5:16:27 PM C:\Users\Sarah\Documents\15046 - Aries, 24x40 PC - MainFile_Sarah.rvt

EQUIPMENT ANCHORAGE AND BRACING

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 2013 CBC, SECTIONS 1615A.1.12 THROUGH 1615A.1.22 AND 7-10 CHAPTER 13 AND 26.

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.
3. 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.

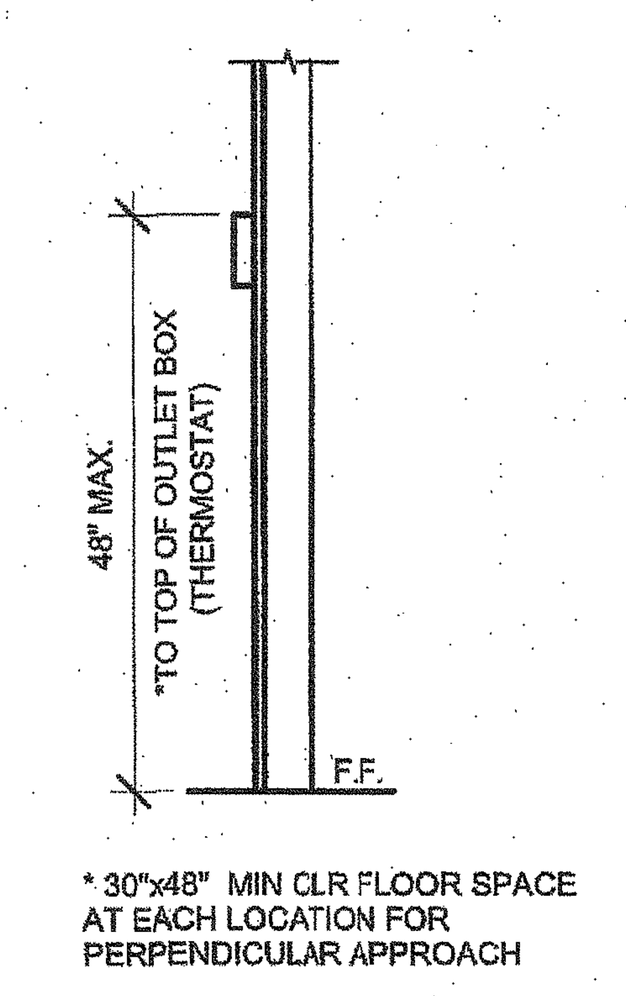
THE ATTACHMENT OF THE FOLLOWING MECHANICAL AND ELECTRICAL COMPONENTS SHALL BE POSITIVELY ATTACHED TO THE STRUCTURE, BUT NEED NOT BE DETAILED ON THE PLANS. THESE COMPONENTS SHALL HAVE FLEXIBLE CONNECTIONS PROVIDED BETWEEN THE COMPONENT AND ASSOCIATED DUCTWORK, PIPING, AND CONDUIT.

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 A WALL.

FOR THOSE ELEMENTS THAT DO NOT REQUIRE DETAILS ON THE APPROVED DRAWINGS, THE INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER OR RECORD 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 SYSTEM 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 13.6.8, 13.6.7, 13.6.5.6 AND 2013 CBC SECTIONS 1615A.1.20, 1615A.1.21 AND 1615A.1.22. THE BRACING AND ATTACHMENTS TO THE STRUCTURE SHALL BE DETAILED ON THE APPROVED DRAWINGS OR THEY SHALL COMPLY WITH ONE OF THE OSHPD PRE-APPROVALS (OPA #) AS MODIFIED TO SATISFY ANCHORAGE REQUIREMENTS OF ACI 318, APPENDIX D. COPIES OF THE MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF HANGING AN BRACING OF THE PIPE, DUCTWORK AND ELECTRICAL DISTRIBUTION SYSTEMS. THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

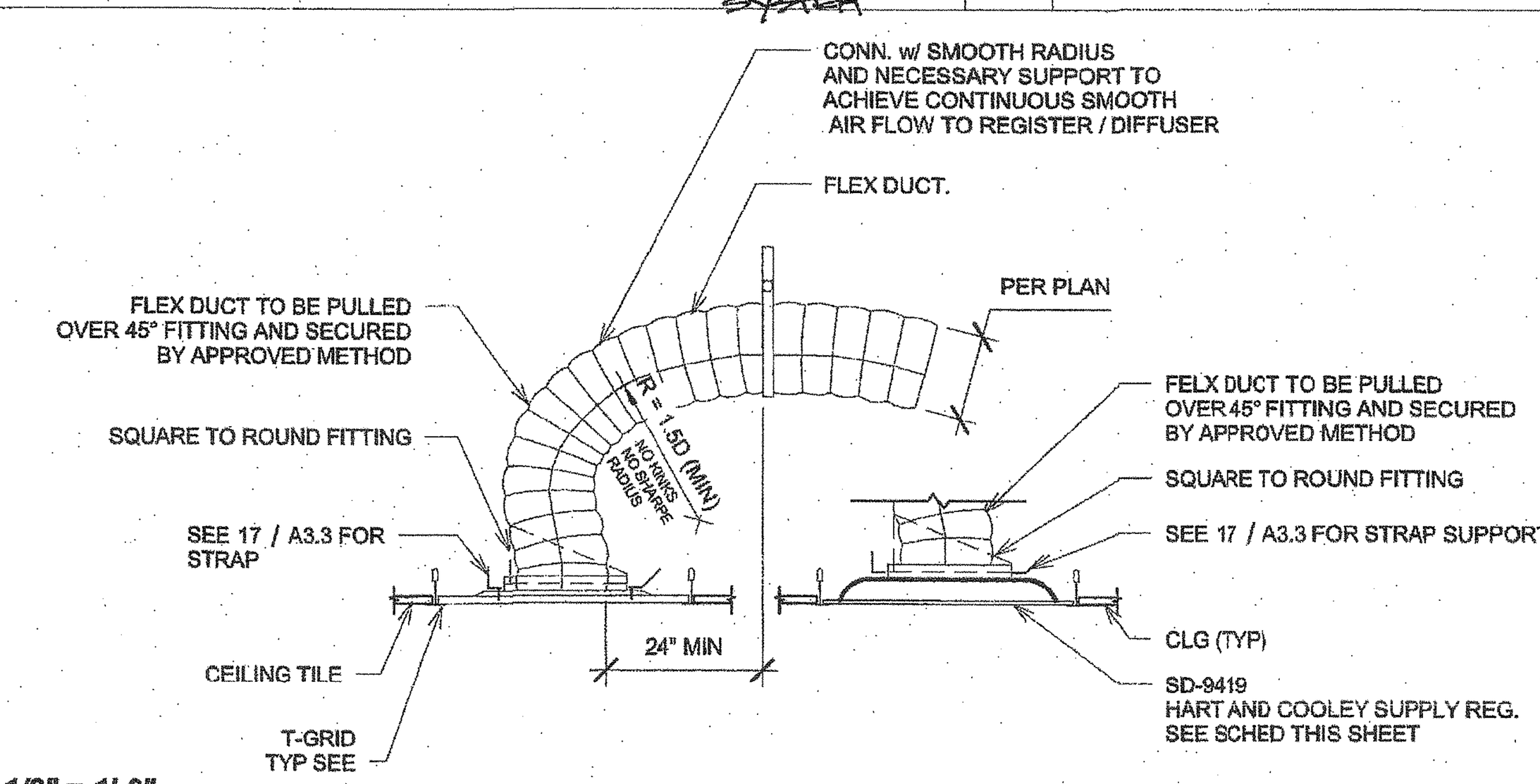
NOTE: BRACING OF PIPING, DUCTWORK AND ELECTRICAL SYSTEM

5 *1" = 1'-0"* ***EQUIPMENT ANCHORAGE AND BRACING***

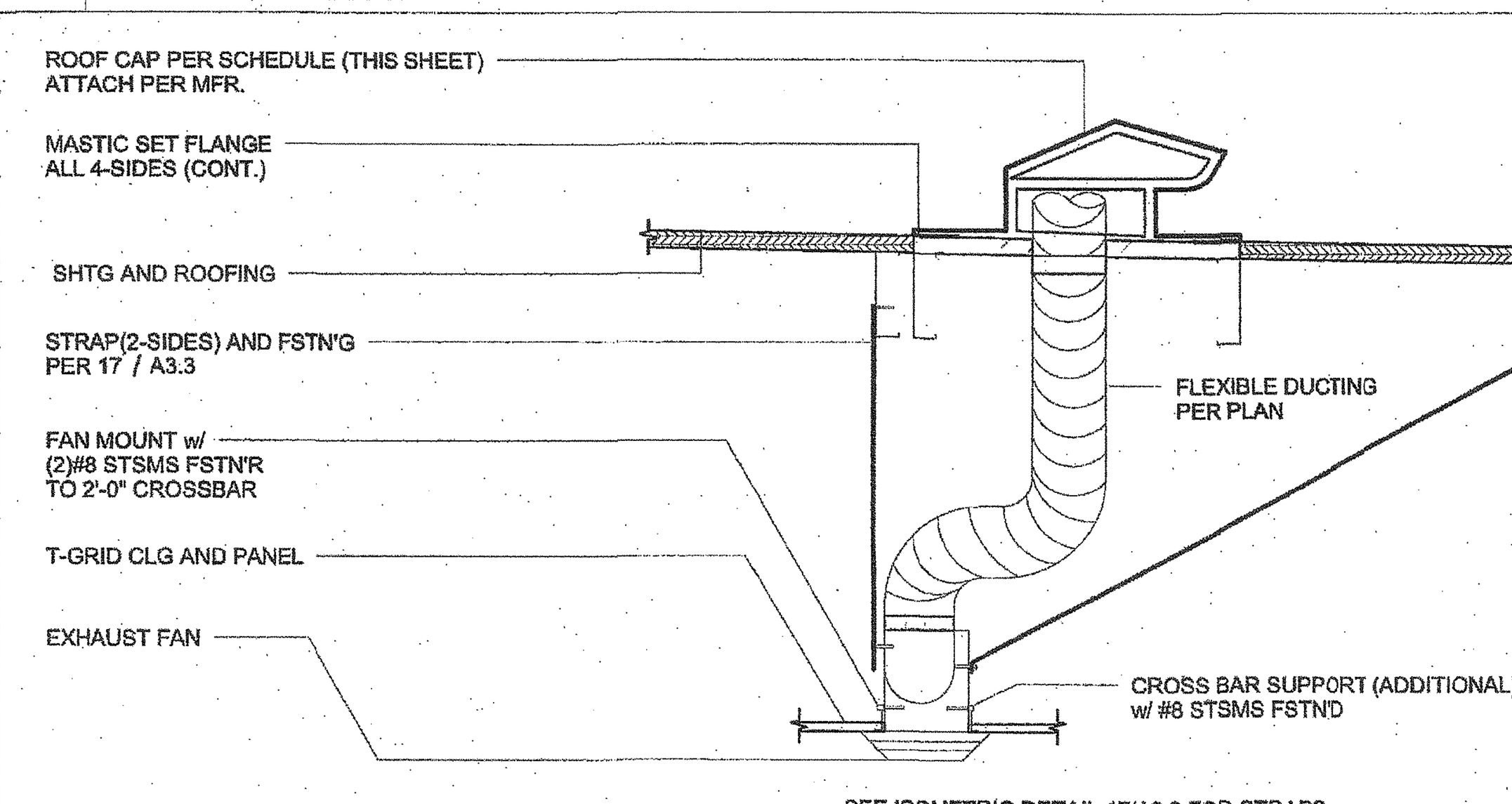


* 30"x48" MIN CLR FLOOR SPACE AT EACH LOCATION FOR PERPENDICULAR APPROACH

9 *1" = 1'-0"* ***MOUNTING ELEV.***

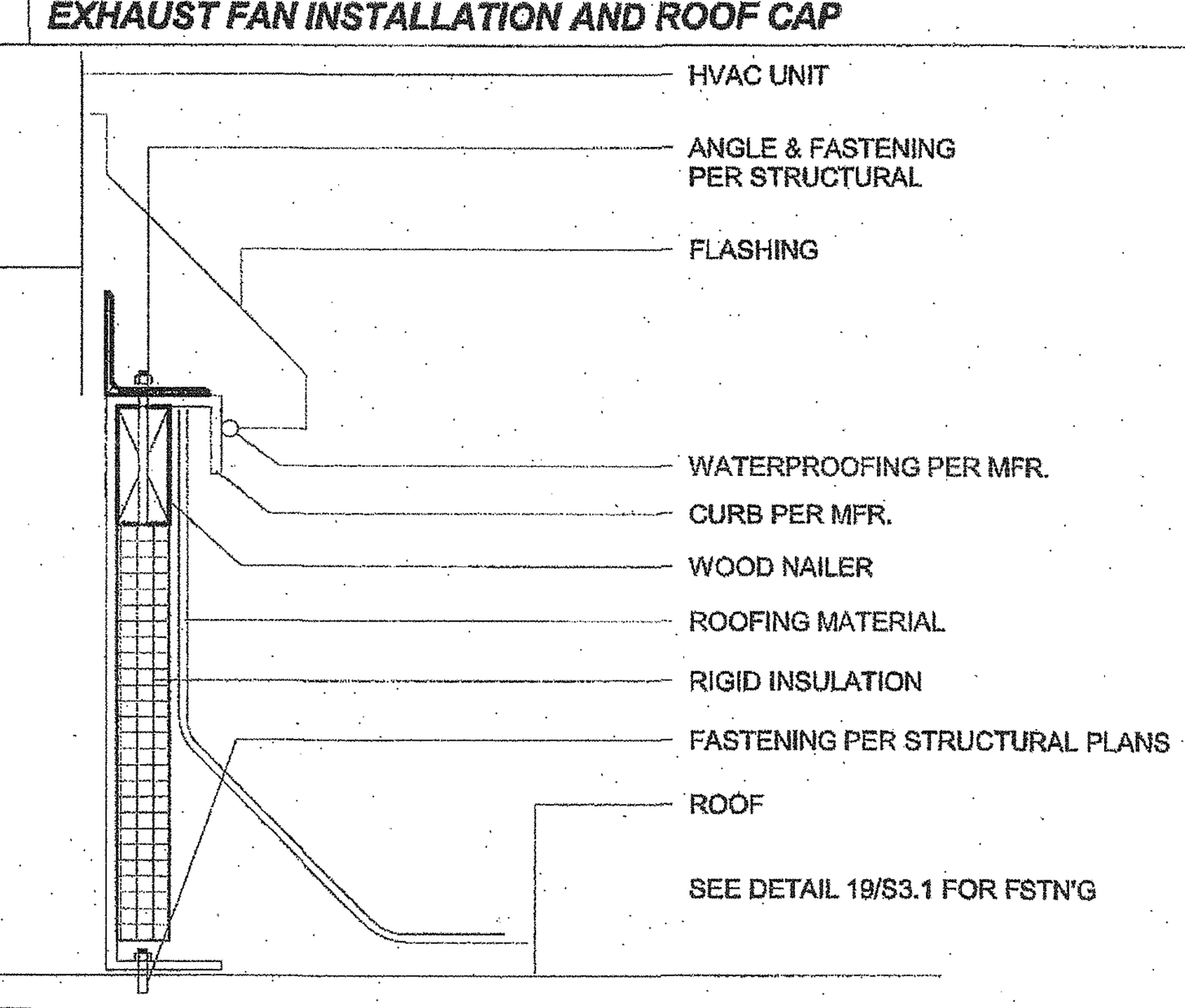


6 *1/2" = 1'-0"* ***Round Air Distribution***

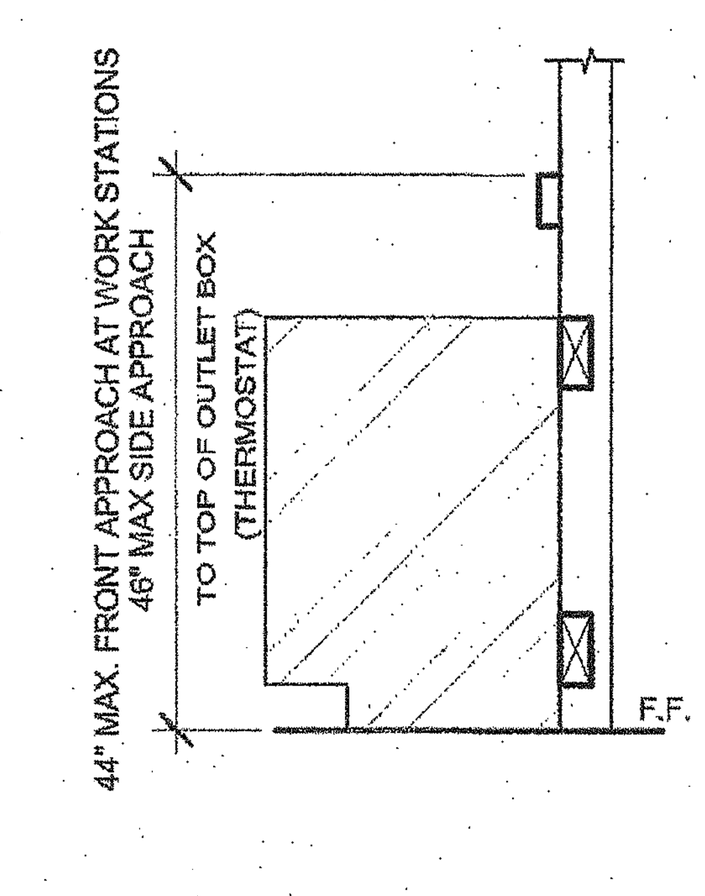


SEE ISOMETRIC DETAIL 17/A3.3 FOR STRAPS

7 *1" = 1'-0"* ***EXHAUST FAN INSTALLATION AND ROOF CAP***



8 *1" = 1'-0"* ***CURB AND MOUNTING***



10 *1" = 1'-0"* ***ELEV. @ WORKSTATION***

9 EER

SINGLE PACKAGE VERTICAL HEAT PUMP SCHEDULE

	STANDARD	OPTION #I	OPTION #2
TAG	WM-1	WM-1	WM-1
NOMINAL TONNAGE	4.0 TONS	*5 TONS	3.5 TONS
MANUFACTURER	**BARD	**BARD	**BARD
MODEL#	W48H2-A04	W60H2-A05	W42H2-A04
CFM	1550	1700	1400
STATIC PRESSURE	0.3	0.3	0.3
DRIVE	DIRECT	DIRECT	DIRECT
MCA	58	67	57
MOCP	60	80	60
VOLTAGE	208/230-1	208/230-1	208/230-1
WIRE SIZE (PWR/GRND)	#6/#10	#4/#8	#6/#10
DESIGN RETURN AIR (DB/WB)	80/67	80/67	80/67
SENSIBLE COOLING @ 95° F	35.600	39.600	32.700
TOTAL COOLING @ 95° F	46.000	54.000	42.000
HEATING CAP. BTUH @ 47° F	44.000	54.000	42.000
HEATING CAP. BTUH @ 17° F	26.000	32.000	25.000
OPERATING WEIGHT	550#	580#	550#
EER	9.00	9.00	9.00
COP @ 47° F	3.00	3.00	3.00
COP @ 17° F	2.00	2.00	2.00

10 EER

SINGLE PACKAGE VERTICAL HEAT PUMP SCHEDULE

	STANDARD	OPTION #I	OPTION #2
TAG	WM-1	WM-1	WM-1
NOMINAL TONNAGE	4.0 TONS	*5 TONS	3.5 TONS
MANUFACTURER	**BARD	**BARD	**BARD
MODEL#	S49H2-A05	S61H2-A05	S43H2-A04
CFM	1400	1450	1250
STATIC PRESSURE	0.2	0.2	0.15
DRIVE	DIRECT	DIRECT	DIRECT
MCA	65	69	55
MOCP	70	80	60
VOLTAGE	208/230-1	208/230-1	208/230-1
WIRE SIZE (PWR/GRND)	#6/#10	#4/#8	#6/#10
DESIGN RETURN AIR (DB/WB)	80/67	80/67	80/67
SENSIBLE COOLING @ 95° F	34.400	37.900	31.200
TOTAL COOLING @ 95° F	46.000	55.000	41.500
HEATING CAP. BTUH @ 47° F	45.000	52.000	39.000
HEATING CAP. BTUH @ 17° F	26.000	30.000	23.000
OPERATING WEIGHT	550#	580#	550#
EER	10.00	10.40	10.50
COP @ 47° F	3.00	3.00	3.20
COP @ 17° F	2.00	2.00	2.10

9 EER (GAS ALTERNATE)

SINGLE PACKAGE VERTICAL AIR CONDITIONER WITH GAS FURNACE

	STANDARD	OPTION #I	OPTION #2
TAG	WM-2	WM-2	WM-2
NOMINAL TONNAGE	4.0 TONS	*5 TONS	3.5 TONS
MANUFACTURER	BARD	**BARD	BARD
MODEL#	W48G2-AXB	W60G2-AXB	W42G2-AXB
CFM	1600	1750	1300
STATIC PRESSURE	0.2	0.2	0.2
DRIVE	DIRECT	DIRECT	DIRECT
MCA	38	40	32
MOCP	50	60	50
VOLTAGE	208/230-1	208/230-1	208/230-1
WIRE SIZE (PWR/GRND)	#6/#10	#6/#10	#6/#10
DESIGN RETURN AIR (DB/WB)	80/67	80/67	80/67
SENSIBLE COOLING @ 95° F	35.260	40.700	30.500
TOTAL COOLING @ 95° F	46.500	57.000	40.500
HEATING INPUT	75.000	75.000	75.000
HEATING OUTPUT	61.500	61.500	61.500
OPERATING WEIGHT	710#	725#	700#
EER	9.7	9.8	9.8
THERMAL EFFICIENCY (TE)	82	82	82

14 SEER

SINGLE PACKAGE ROOF TOP HEAT PUMP SCHEDULE

	STANDARD	OPTION #I	OPTION #2
TAG	RM-1	RM-1	RM-1
NOMINAL TONNAGE	4.0 TONS	*5 TONS	3.5 TONS
MANUFACTURER	**CARRIER	**CARRIER	**CARRIER
MODEL#	50VT-A-48-31	50VT-A-60-31	50VT-A-42-31
CFM	1600	1750	1400
STATIC PRESSURE	0.2	0.2	0.15
DRIVE	DIRECT	DIRECT	DIRECT
MCA	64	72	59
MOCP	70	80	60
VOLTAGE	208/230-1	208/230-1	208/230-1
WIRE SIZE (PWR/GRND)	#4/#8	#4/#8	#6/#10
DESIGN RETURN AIR (DB/WB)	80/67	80/67	80/67
SENSIBLE COOLING @ 95° F	35.260	40.700	30.500
TOTAL COOLING @ 95° F	46.500	57.000	40.500
HEATING CAP. BTUH @ 47° F	45.500	59.000	41.500
HEATING CAP. BTUH @ 17° F	26.000	32.000	23.000
OPERATING WEIGHT	560#	615#	572#
SEER/EER	14.5/12.0	14.5/12.0	14.5/12.0
HSPF	8.0	8.0	8.0
COP @ 47° F	3.4	3.5	3.4
COP @ 17° F	2.4	2.4	2.3

14 SEER (GAS ALTERNATE)

SINGLE PACKAGE ROOF TOP AIR CONDITIONER WITH GAS FURNACE

	STANDARD	OPTION #I	OPTION #2
TAG	RM-2	RM-2	RM-2
NOMINAL TONNAGE	4.0 TONS	*5 TONS	3.5 TONS
MANUFACTURER	**CARRIER	**CARRIER	**CARRIER
MODEL#	48VL-A-4809030	48VL-A-6009030	48VL-A-4209030
CFM	1600	1750	1400
STATIC PRESSURE	0.2	0.2	0.15
DRIVE	DIRECT	DIRECT	DIRECT
MCA	36.1	41.8	29.6
MOCP	50	60	40
VOLTAGE	208/230-1	208/230-1	208/230-1
WIRE SIZE (PWR/GRND)	#6/#10	#6/#10	#6/#10
DESIGN RETURN AIR (DB/WB)	80/67	80/67	80/67
SENSIBLE COOLING @ 95° F	35.260	40.700	30.500
TOTAL COOLING @ 95° F	46.500	57.000	40.500
HEATING INPUT	90.000	90.000	90.000
HEATING OUTPUT	73.000	73.000	73.000
OPERATING WEIGHT	590#	618#	572#
SEER/EER	14.2/12.0	14.2/12.0	14.5/12.0
AFUE	80.4%	80.4%	80.4%

HVAC NOTES
1. SET BACK THERMOSTAT SHALL BE PROVIDED
2. MINIMUM OUTSIDE AIR 15 CFM PER OCCUPANT AND THE UNIT SHALL UTILIZE DEMAND CONTROL VENTILATION
3. THE CO2 SENSOR SHALL NOT BE OBSTRUCTED BY FURNITURE OR EQUIPMENT AND NEED TO BE LOCATED ACCORDINGLY, AND PLACED NO LESS THAN 35" AFF AND NO MORE THAN 72" AFF.
4. AIR HANDLERS WITH OTHER VOLTAGES SHOULD BE ACCEPTABLE, AS WELL AS OTHERS THAN THE MAKE AND MODELS LISTED ON THESE TABLES, WHEN THE NOMINAL TONNAGE DOES NOT EXCEEDS 5 TON AND THE SEER, HSPF AND COP VALUES ARE NO LESS THAN SHOWN.
5. MODEL NUMBERS FOR HEAT PUMP UNITS WITH OPTIONAL 5.0 AUXILIARY HEAT STRIPS, WHEN THE HEAT STRIP IS NOT USED, THE MCA AND MOCP MUST BE VERIFIED AND HEAT STRIPS LARGER THAN THE SIZES SHOWN MAY NOT BE USED.

*FOR 24x40 BUILDING A 5 TONS UNIT IS ONLY TO BE USED ON COMPUTER LAB APPLICATION

**OR EQUAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC ___ FLS ___ SS ___
DATE APR 2 6 2017
FILE NUMBER: 19-29

R&S TAVARES ASSOCIATES
DESIGN ♦ CONSULTING ♦ PROJECT MGT
11777 BERNARDO PLAZA CT. SUITE 105
SAN DIEGO, CA 92128 858.444.3344
WWW.RSTAVARES.COM

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER
MANNY D. FRISH
No. S3380
STRUCTURAL
STATE OF CALIFORNIA

03/02/2016

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-114654
AC SC FLS ___ SS ___
DATE MAR 1 8 2016

PROJECT TITLE

24' x 40' EXPANDABLE TO 48' x 40'

LICENSED ARCHITECT
JACK F. SHIVELY III
No. C-33467
01/31/17
RENEWAL DATE
STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 115748
ACS ___ FLS ___ SS ___
DATE JAN 2 6 2017
REVISED

Revision Schedule

#	Description	Date

SHEET TITLE

MISCELLANEOUS NOTES & DETAILS

PROJECT NUMBER	15046
DRAWN BY	rMc/SM
CHECKED BY	JA/RT
DATE	2016/03/02
SHEET NO.	M0.1

SHEET OF SHEETS

Proprietary Property of Class Leasing
Proprietary Property of Class Leasing
Proprietary Property of Class Leasing

BUILDING ENERGY ANALYSIS REPORT

PROJECT:

24X40 PC
Climate Zone 16
Mount Shasta, CA

Project Designer:

R&S Tavares Associates
11777 Bernardo Plaza Ct. Suite 105
San Diego, Ca. 92128

Report Prepared by:

LAL SAHGAL
LSA CONSULTING ENGINEERS
83, Windswept Way
Mission Viejo, Ca. 92692
(949) 830-4746

Job Number:

Date:

10/5/2015

The EnergyPro computer program has been used to perform the calculations summarized in this compliance report. This program has approval and is authorized by the California Energy Commission for use with both the Residential and Nonresidential 2013 Building Energy Efficiency Standards.

This program developed by EnergySoft, LLC – www.energysoft.com.

TABLE OF CONTENTS

Cover Page	1
Table of Contents	2
Form PRF-01-E Certificate of Compliance	3
Form ENV-MM Envelope Mandatory Measures	21
HVAC System Heating and Cooling Loads Summary	22

A. PROJECT GENERAL INFORMATION

1.	Project Location (city)	Mount Shasta	7.	# of dwelling units	0
2.	CA Zip Code		8.	Compliance Software (version)	EnergyPro 6.7
3.	Climate Zone	16	9.	Building Orientation (deg)	(N) 0 deg
4.	Total Conditioned Floor Area	960 ft²	10.	Permitted Scope of Work	NewComplete
5.	Total Unconditioned Floor Area	0 ft²	11.	Building Type(s)	Nonresidential
6.	# of Stories (Habitable Above Grade)	1			

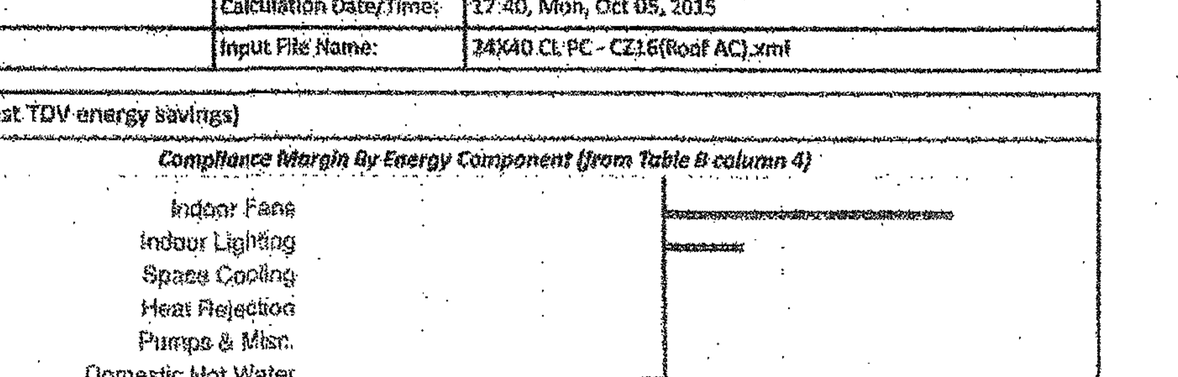
B. COMPLIANCE RESULTS FOR PERFORMANCE COMPONENTS § 140.1

BUILDING COMPLIES

1. Energy Component	2. Standard Design (TDV)	3. Proposed Design (TDV)	4. Compliance Margin (TDV)	5. Percent Better than Standard
Space Heating	46.5	149.3	-102.8	-221.1%
Space Cooling	99.9	99.6	0.3	0.3%
Indoor Fans	175.9	90.3	85.6	48.7%
Heat Rejection	--	--	--	--
Pumps & Misc.	--	--	--	--
Domestic Hot Water	36.3	42.1	-5.8	-16.0%
Indoor Lighting	60.6	37.4	23.2	38.3%
COMPLIANCE TOTAL	419.2	418.7	0.5	0.1%
Receptacle	66.8	66.8		0.0%
Process	--	--		--
Process Ltg	--	--		--
TOTAL	486.0	485.5		0.1%

C. PRIORITY PLAN CHECK/ INSPECTION ITEMS (in order of highest to lowest TDV energy savings)

1st	Indoor Fans: Check envelope and mechanical
2nd	Indoor Lighting: Check lighting
3rd	Space Cooling: Check envelope and mechanical
4th	Heat Rejection: Check envelope and mechanical
5th	Pumps & Misc.: Check mechanical
6th	Domestic Hot Water: Check mechanical
7th	Space Heating: Check envelope and mechanical



D. EXCEPTIONAL CONDITIONS

The aged solar reflectance and aged thermal emittance must be listed in the Cool Roof Rating Council database of certified products. For projects where initial reflectance is used, the initial reflectance must be listed, and the aged reflectance is calculated by the software program and used in the compliance model.

E. HERS VERIFICATION

This Section Does Not Apply

F. ADDITIONAL REMARKS

Standard Building (Compliance)

G. COMPLIANCE PATH & CERTIFICATE OF COMPLIANCE SUMMARY

Identify which building components use the performance or prescriptive path for compliance. "NA"= not in project

For components that utilize the performance path, indicate the sheet number that includes mandatory notes on plans.

Building Component		Compliance Path	Compliance Forms *(required for submittal)*	Location of Mandatory Notes on Plans
Envelope	☒	Performance	NRCC-PRF-ENV-DETAILS (section of the NRCC-PRF-01-E)	
	☐	Prescriptive	NRCC-ENV-01 / 02 / 03 / 04 / 05 / 06-E	
	☐	NA		
Mechanical	☒	Performance	NRCC-PRF-MCH-DETAILS (section of the NRCC-PRF-01-E)	
	☐	Prescriptive	NRCC-MCH-01 / 02 / 03 / 04 / 05 / 06 / 07-E	
	☐	NA		
Domestic Hot Water	☒	Performance	NRCC-PRF-PLB-DETAILS (section of the NRCC-PRF-01-E)	
	☐	Prescriptive	NRCC-PLB-01-E	
	☐	NA		
Lighting (Indoor Conditioned)	☒	Performance	NRCC-PRF-LTI-DETAILS (section of the NRCC-PRF-01-E)	
	☐	Prescriptive	NRCC-LTI-01 / 02 / 03 / 04 / 05-E	
	☐	NA		
Covered Process: Commercial Kitchens	☐	Performace	S2 (section of the NRCC-PRF-01-E)	
	☐	Prescriptive	NRCC-PRC-01/ 03-E	
	☒	NA		
Covered Process: Computer Rooms	☐	Performance	S3 (section of the NRCC-PRF-01-E)	
	☐	Prescriptive	NRCC-PRC-01/ 04-E	
	☒	NA		
Covered Process: Laboratory Exhaust	☐	Performace	S4 (section of the NRCC-PRF-01-E)	
	☐	Prescriptive	NRCC-PRC-01/ 09-E	
	☒	NA		

O. EQUIPMENT CONTROLS § 120.2

1. Equip Name	2. Equip Type	3. Controls	Confirmed Pass	Confirmed Fail
AC-13	SZHP	No DCV Controls No Economizer No Supply Air Temp. Control	☐	☐
Plant - DHW1 - SHW	Service Hot Water, Primary Only	Fixed Temperature Control, No DDC	☐	☐

P. SYSTEM DISTRIBUTION SUMMARY § 120.4/ § 140.4(I)

This Section Does Not Apply

Does the Project Include Zonal Systems? (If "Yes", see NRCC-PRF-MCH-DETAILS for system information)	No
Does the Project Include a Solar Hot Water System? (If "Yes", see NRCC-PRF-MCH-DETAILS for system information)	No
Multifamily or Hotel/ Motel Occupancy? (If "Yes", see NRCC-PRF-MCH-DETAILS for DHW system information)	No

Q. INDOOR CONDITIONED LIGHTING GENERAL INFO (see NRCC-PRF-LTI-DETAILS for more info)[3] § 140.6

1. Occupancy Type [1]	2. Conditioned Floor Area [2] (ft²)	3. Installed Lighting Power (Watts)	4. Lighting Control Credits (Watts)	5. Additional (Custom) Allowance: Area Category Footnotes (Watts)	5. Additional (Custom) Allowance: Tailored Method (Watts)	Confirmed Pass	Confirmed Fail
Classrooms, Lecture, Training, Vocational Areas	960	711	237	0	0	☐	☐
Building Totals:	960	711	237	0			

[1] See Table 140.6-C
[2] See NRCC-LTI-01-E for unconditioned spaces
[3] Lighting information for existing spaces modeled is not included in the table

H. CERTIFICATE OF INSTALLATION, CERTIFICATE OF ACCEPTANCE & CERTIFICATE OF VERIFICATION SUMMARY (NRCI/NRCA/NRCV) –
Documentation Author to indicate which Certificates must be submitted for the features to be recognized for compliance
(Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify).
See Tables G. and H. in MCH and LTI Details Sections for Acceptance Tests and forms by equipment.

Building Component	Compliance Forms *(required for submittal)*	Confirmed Pass	Confirmed Fail
Envelope	☒ NRCI-ENV-01-E - For all buildings	☐	☐
	☐ NRCA-ENV-02-F- NFRC label verification for fenestration	☐	☐
Mechanical	☒ NRCI-MCH-01-E - For all buildings with Mechanical Systems	☐	☐
	☒ NRCA-MCH-02-A- Outdoor Air	☐	☐
	☒ NRCA-MCH-03-A – Constant Volume Single Zone HVAC	☐	☐
	☐ NRCA-MCH-04-H- Air Distribution Duct Leakage	☐	☐
	☐ NRCA-MCH-05-A- Air Economizer Controls	☐	☐
	☐ NRCA-MCH-06-A- Demand Control Ventilation	☐	☐
	☐ NRCA-MCH-07-A – Supply Fan Variable Flow Controls	☐	☐
	☐ NRCA-MCH-08-A- Valve Leakage Test	☐	☐
	☐ NRCA-MCH-09-A – Supply Water Temp Reset Controls	☐	☐
	☐ NRCA-MCH-10-A- Hydronic System Variable Flow Controls	☐	☐
	☐ NRCA-MCH-11-A – Auto Demand Shed Controls	☐	☐
	☐ NRCA-MCH-12-A- Packaged Direct Expansion Units	☐	☐
	☐ NRCA-MCH-13-A- Air Handling Units and Zone Terminal Units	☐	☐
	☐ NRCA-MCH-14-A- Distributed Energy Storage	☐	☐
	☐ NRCA-MCH-15-A – Thermal Energy Storage	☐	☐
	☐ NRCA-MCH-16-A- Supply Air Temp Reset Controls	☐	☐
	☐ NRCA-MCH-17-A – Condensate Water Temp Reset Controls	☐	☐
	☐ NRCA-MCH-18-A- Energy Management Controls Systems	☐	☐
	☐ NRCV-MCH-04-H- Duct Leakage Test	☐	☐

H. CERTIFICATE OF INSTALLATION, CERTIFICATE OF ACCEPTANCE & CERTIFICATE OF VERIFICATION SUMMARY (NRCI/NRCA/NRCV) –
Documentation Author to indicate which Certificates must be submitted for the features to be recognized for compliance
(Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify).
See Tables G. and H. in MCH and LTI Details Sections for Acceptance Tests and forms by equipment.

Building Component	Compliance Forms *(required for submittal)*	Confirmed Pass	Confirmed Fail
Plumbing	☒ NRCI-PLB-01-E - For all buildings with Plumbing Systems	☐	☐
	☐ NRCI-PLB-02-E - required on central systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCI-PLB-03-E - Single dwelling unit systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCI-PLB-21-E - HERS verified central systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCI-PLB-22-E - HERS verified single dwelling unit systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCV-PLB-21-H- HERS verified central systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCV-PLB-22-H - HERS verified single dwelling unit systems in high-rise residential, hotel/motel application.	☐	☐
	☐ NRCI-STH-01-E - Any solar water heating	☐	☐
Indoor Lighting	☒ NRCI-LTI-01-E - For all buildings	☐	☐
	☐ NRCI-LTI-02-E - Lighting control system, or for an Energy Management Control System (EMCS)	☐	☐
	☐ NRCI-LTI-03-E - Line-voltage track lighting integral current limiter, or for a supplementary overcurrent protection panel used to energize only line-voltage track lighting	☐	☐
	☐ NRCI-LTI-04-E - Two interlocked systems serving an auditorium, a convention center, a conference room, or a theater	☐	☐
	☒ NRCI-LTI-05-E - Lighting Control Credit Power Adjustment Factor (PAF)	☐	☐
	☐ NRCI-LTI-06-E - Additional wattage installed in a video conferencing studio	☐	☐
	☐ NRCA-LTI-02-A - Occupancy sensors and automatic time switch controls.	☐	☐
	☐ NRCA-LTI-03-A - Automatic daylighting controls	☐	☐
	☐ NRCA-LTI-04-A - Demand responsive lighting controls	☐	☐
Outdoor Lighting	☐ NRCI-LTO-01-E – Outdoor Lighting	☐	☐
	☐ NRCI-LTO-02-E- EMCS Lighting Control System	☐	☐
	☐ NRCA-LTO-02-A - Outdoor Lighting Control	☐	☐
Sign Lighting	☐ NRCI-LTS-01-E – Sign Lighting	☐	☐
Electrical	☐ NRCI-ELC-01-E - Electrical Power Distribution	☐	☐
Photovoltaic	☐ NRCI-SPV-01-E Photovoltaic Systems	☐	☐

H. CERTIFICATE OF INSTALLATION, CERTIFICATE OF ACCEPTANCE & CERTIFICATE OF VERIFICATION SUMMARY (NRCI/NRCA/NRCV) –
Documentation Author to indicate which Certificates must be submitted for the features to be recognized for compliance
(Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify).
See Tables G. and H. in MCH and LTI Details Sections for Acceptance Tests and forms by equipment.

Building Component	Compliance Forms *(required for submittal)*	Confirmed Pass	Confirmed Fail
Covered Process	☐ NRCI-PRC-01-E Refrigerated Warehouse	☐	☐
	☐ NRCA-PRC-01-F- Compressed Air Systems	☐	☐
	☐ NRCA-PRC-02-F- Kitchen Exhaust	☐	☐
	☐ NRCA-PRC-03-F- Garage Exhaust	☐	☐
	☐ NRCA-PRC-04-F- Refrigerated Warehouse- Evaporator Fan Motor Controls	☐	☐
	☐ NRCA-PRC-05-F- Refrigerated Warehouse- Evaporative Condenser Controls	☐	☐
	☐ NRCA-PRC-06-F- Refrigerated Warehouse- Air Cooled Condenser Controls	☐	☐
	☐ NRCA-PRC-07F- Refrigerated Warehouse- Variable Speed Compressor	☐	☐
	☐ NRCA-PRC-08-F- Electrical Resistance Underslab Heating System	☐	☐

I. ENVELOPE GENERAL INFORMATION (See NRCC-PRF-ENV-DETAILS for more information)

1.	Total Conditioned Floor Area	960 ft²	5.	Number of Floors Above Grade	1
2.	Total Unconditioned Floor Area	0 ft²	6.	Number of Floors Below Grade	0
3.	Addition Conditioned Floor Area	0 ft²			
4.	Addition Unconditioned Floor Area	0 ft²			

7. Opaque Surfaces & Orientation	8. Total Gross Surface Area	9. Total Fenestration Area	10. Window to Wall Ratio	Confirmed Pass	Confirmed Fail
North Wall	240 ft²	32 ft²	13.3%	☐	☐
East Wall	400 ft²	0 ft²	00.0%	☐	☐
South Wall	240 ft²	32 ft²	13.3%	☐	☐
West Wall	400 ft²	0 ft²	00.0%	☐	☐
Total	1,280 ft²	64 ft²	05.0%	☐	☐
Roof	960 ft²	0 ft²	00.0%	☐	☐

J. FENESTRATION ASSEMBLY SUMMARY § 110.6

1. Fenestration Assembly Name / Tag or I.D.	2. Fenestration Type	3. Certification Method[1]	4. Assembly Method	5. Area ft²	6. Overall U-factor	7. Overall SHGC	8. Overall VT	9. Status[2]	Confirmed Pass	Confirmed Fail
Sierra Pacific Windows	VerticalFenestration	NFRCRated	Manufactured	64	0.35	0.24	0.50	N	☐	☐

[1] Newly installed fenestration shall have a certified NFRC Label Certificate or use the CEC default tables found in Table 110.6-A and Table 110.6-B. Site-built fenestration less than 1,000 ft², or more than or equal to 1,000 ft² see Reference Nonresidential Appendix NA6.
[2] Status: N - New, A – Altered, E – Existing

Taking compliance credit for fenestration shading devices? (If "Yes", see NRCC-PRF-ENV-DETAILS for more information)	

K. OPAQUE SURFACE ASSEMBLY SUMMARY § 120.7/ § 140.3

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[1]	Confirmed Pass	Confirmed Fail
R-19 Wall Metal Stud10	ExteriorWall	1280	Metal	19	4	U-Factor: 0.104	N	☐	☐
Uninsulated Raised Slab F17	ExteriorFloor	960	NA	0	NA	U-Factor: 0.258	N	☐	☐
R-30 Roof Cathedral19	Roof	960	Wood	30	NA	U-Factor: 0.034	N	☐	☐

[1] Status: N - New, A – Altered, E – Existing

L. ROOFING PRODUCT SUMMARY § 140.3

1. Product Type	2. Product ≥25 lb ft²	3. Aged Solar Reflectance	4. Thermal Emittance	5. SRI	6. Cool Roof Credit	7. CRRC Product ID Number	Confirmed Pass	Confirmed Fail
R-30 Roof Cathedral19	No	0.63	0.75	Not Provided	Yes	CRRC Prod. ID: R-30 Roof Cathedral	☐	☐

APPROVED
DIVISION OF STATE ARCHITECT
HIGH PERFORMANCE SECTION
APP.# 04-114654 DATE: 3/14/16

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03–117603
AC / FLS / SS CL
DATE APR 2 6 2017
FILE NUMBER: 19–29

R&S TAVARES ASSOCIATES
DESIGN ♦ CONSULTING ♦ PROJECT MGT
11777 Bernardo Plaza Ct. Suite 105
San Diego, CA 92128 858.444.3344
www.rstavares.com

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER
MANNY D. FRISH
No. S3380
STRUCTURAL
STATE OF CALIFORNIA

03/02/2016

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL

PRE-CHECK (PC) DOCUMENT CODE 2013 CBC A SEP. PROJECT APPLICATION IS REQUIRED

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-114654
AC FLS SS
DATE MAR 1 8 2016

PROJECT TITLE

24' x 40'
EXPANDABLE TO
48' x 40'

LICENSED ARCHITECT
JACK F. SHIVELY III
No. C-33467
9/31/17
RENEWAL DATE
STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 115748
ACS / FLS / SS M
DATE JAN 2 6 2017
REVISED

Revision Schedule

#	Description	Date

SHEET TITLE

RESERVED FOR T24 ENERGY CALCS

PROJECT NUMBER	15046
DRAWN BY	rMc/SM
CHECKED BY	JA/RT
DATE	2016/03/02
SHEET NO.	M1.0

SHEET OF SHEETS

C:\Users\Rick\Documents\15046 - Aries, 24x40 PC - MainFile_Rick.rvt   3/11/2016 3:22:43 PM

Project Name:	24X40 PC	NRCC-PRF-01-E	Page 9 of 18
Project Address:	Climate Zone 16 Mount Shasta	Calculation Date/Time:	17:40, Mon, Oct 05, 2015
Compliance Scope:	NewComplete	Input File Name:	24X40 CL PC - CZ16(Roof AC).xml

M. HVAC SYSTEM SUMMARY (see NRCC-PRF-MCH-DETAILS for more information) § 110.1 / § 110.2

Dry System Equipment [1] (Fan & Economizer info included below in Table N)

1. Equip Name	2. Equip Type	3. System Type (Simple [3] or Complex [4])	4. Qty	5. Total Heating Output (kBtu/h)	6. Supp Heat Source (Y/N)	7. Supp Heat Output (kBtuh)	8. Total Cooling Output (kBtu/h)	9. Efficiency Cooling	9. Efficiency Heating	10. Acceptance Testing Required? (Y/N) [5]	11. Status [6]	Confirmed Pass	Confirmed Fail
AC-13	SZHP	Simple	1	47	No	0	44	SEER-13.0	HSPF-7.8	Yes	N	☐	☐

Wet System Equipment [2] / Pumps

12. Equip Name	13. Equip Type	14. Qty	15. Vol (gal)	16. Rated Capacity (kBtu/h)	17. Efficiency	18. Standby Loss	19. Tank Ext. R Value	20. Qty	21. GPM	22. HP	23. VSD (Y/N)	24. Status [6]	Confirmed Pass	Confirmed Fail
Standard Gas 50 gal or Le2	Storage	1	50	40	EF: 0.575	NA	NA	NA	NA	NA	No	N	☐	☐

[1] Dry System Equipment includes furnaces, air handling units, heat pumps, etc.
[2] Wet System Equipment includes boilers, chillers, cooling towers, water heaters, etc.
[3] Simple Systems must complete NRCC-CXR-03-E commissioning design review form
[4] Complex Systems must complete NRCC-CXR-04-E commissioning design review form
[5] A summary of which acceptance tests are applicable is provided in NRCC-PRF-MCH-DETAILS
[6] Status: N - New, A - Altered, E - Existing

Discrepancy between modeled and designed equipment sizing? (If "Yes", see Table F. "Additional Remarks" for an explanation)	No

N. ECONOMIZER & FAN SYSTEMS SUMMARY[1] § 140.4

1. Equip Name	2. Outside Air CFM	3. Supply Fan CFM	HP	BHP	TSP (inch WC)	Control	4. Return Fan CFM	HP	BHP	TSP (inch WC)	Control	5. Economizer Type (if present)	Confirmed Pass	Confirmed Fail
AC-13	960	1600	0.700	0.700	1.39	ConstantVolume	NA	NA	NA	NA	NA	NoEconomizer	☐	☐

[1] Mechanical ventilation calculations and exhaust fans are included in the NRCC-PRF-MCH-DETAILS section

Project Name:	24X40 PC	NRCC-PRF-01-E	Page 4 of 18
Project Address:	Climate Zone 16 Mount Shasta	Calculation Date/Time:	17:40, Mon, Oct 05, 2015
Compliance Scope:	NewComplete	Input File Name:	24X40 CL PC - CZ16(Roof AC).xml

G. COMPLIANCE PATH & CERTIFICATE OF COMPLIANCE SUMMARY

The following building components are only eligible for prescriptive compliance. Indicate which are relevant to the project. / *The following building components may have mandatory requirements per Part 6. Indicate which are relevant to the project.*

Yes	NA	Prescriptive Requirement	Compliance Forms	Yes	NA	Mandatory Requirement	Compliance Forms
☐	☒	Lighting (Indoor Unconditioned) §140.6	NRCC-LTI-01 / 02 / 03 / 04 / 05-E	☐ ☐	☒ ☒	Commissioning: §120.8 Simple Systems Complex Systems	NRCC-CXR-01 / 02 / 03 / 05-E NRCC-CXR-01 / 02 / 04 / 05-E
☐	☒	Lighting (Outdoor) §140.7	NRCC-LTO-01 / 02 / 03-E	☐	☒	Electrical §130.5	NRCC-ELC-01-E
☐	☒	Lighting (Sign) §140.8	NRCC-LTS-01-E	☐	☒	Solar Ready: §110.10	NRCC-SRA-01 / 02-E
☐	☒	Solar Thermal Water Heating: §140.5	NRCC-STH-01-E	☐ ☐ ☐ ☐ ☐ ☐	☒ ☒ ☒ ☒ ☒ ☒	Covered Process: §120.6 Parking Garage Commercial Refrigeration Warehouse Refrigeration Compressed Air Process Boilers	NRCC-PRC-01-E NRCC-PRC-02-E NRCC-PRC-05-E NRCC-PRC-06/07/08-E NRCC-PRC-10-E NRCC-PRC-11-E

Project Name:	24X40 PC	NRCC-PRF-01-E	Page 11 of 18
Project Address:	Climate Zone 16 Mount Shasta	Calculation Date/Time:	17:40, Mon, Oct 05, 2015
Compliance Scope:	NewComplete	Input File Name:	24X40 CL PC - CZ16(Roof AC).xml

R. INDOOR CONDITIONED LIGHTING SCHEDULE (Adapted from NRCC-LTI-01-E)[1] § 130.0

Luminaire Schedule (includes all permanent installed lighting in conditioned space, and portable lighting over 0.3 w/ft² in offices) — Installed Watts (Conditioned)

Name or Item Tag	Complete Luminaire Description (i.e., 3-lamp fluorescent troffer, F32T8, one dimmable electronic ballast)	Watts per luminaire	How Wattage is Determined: CEC Default from NA8	How Wattage is Determined: According to §130.0(c)	Total Number Luminaires	Installed Watts	Confirmed Pass	Confirmed Fail
L-1	3 Lamp 4 ft T8 Energy Savings Elec	79	Yes	No	12	948	☐	☐

[1] If lighting power densities were used in the compliance model Building Departments will need to check prescriptive forms for Luminaire Schedule details.

S1. COVERED PROCESS SUMMARY – ENCLOSED PARKING GARAGES § 140.9
This Section Does Not Apply

S2. COVERED PROCESS SUMMARY – COMMERCIAL KITCHENS § 140.9
This Section Does Not Apply

S3. COVERED PROCESS SUMMARY – COMPUTER ROOMS § 140.9
This Section Does Not Apply

S4. COVERED PROCESS SUMMARY – LABORATORY EXHAUSTS § 140.9
This Section Does Not Apply

T. UNMET LOAD HOURS

Thermal Zone Name	Cooling Unmet Load Hour Limit for Thermal Zone	Proposed Cooling Unmet Load Hours	Heating Unmet Load Hour Limit for Thermal Zone	Proposed Heating Unmet Load Hours
1-First Floor	150	10	150	692.5

U. ENERGY USE SUMMARY

	Electric (kWh/yr)	Natural Gas (therms/yr)
Total Annual Baseline	14035	457.963
Total Annual Proposed	17433.1	245.278

Project Name:	24X40 PC	NRCC-PRF-01-E	Page 12 of 18
Project Address:	Climate Zone 16 Mount Shasta	Calculation Date/Time:	17:40, Mon, Oct 05, 2015
Compliance Scope:	NewComplete	Input File Name:	24X40 CL PC - CZ16(Roof AC).xml

DOCUMENTATION AUTHOR'S DECLARATION STATEMENT § 10-103

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

Documentation Author Name: LAL SAHGAL	Signature: Lal Sahgal	
Company: LSA CONSULTING ENGINEERS		
Address: 83, Windswept Way	Signature Date: 3-10-16	
City/State/Zip: Mission Viejo Ca. 92692	CEA Identification (If applicable):	
Phone: (949) 830-4746		

RESPONSIBLE PERSON'S DECLARATION STATEMENT

I certify the following under penalty of perjury, under the laws of the State of California:

1	I hereby affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code to sign this document as the person responsible for its preparation; and that I am licensed in the State of California as a civil engineer, mechanical engineer, electrical engineer, or I am a licensed architect.
2	I affirm that I am eligible under the provisions of Division 3 of the Business and Professions Code by section 5537.2 or 6737.3 to sign this document as the person responsible for its preparation; and that I am a licensed contractor performing this work.
3	I affirm that I am eligible under Division 3 of the Business and Professions Code to sign this document because it pertains to a structure or type of work described as exempt pursuant to Business and Professions Code Sections 5537, 5538 and 6737.1.

Responsible Envelope Designer Name:	Signature: [signature]	
Company: R&S Tavares Associates		
Address: 11777 Bernardo Plaza Ct. Suite 105	Date Signed: 03/10/2016	
City/State/Zip: San Diego Ca. 92128	Declaration Statement Type:	
Phone: 858-444-3344	Title: Principal	License #: 60484
Responsible Lighting Designer Name:	Signature: [signature]	
Company: R&S Tavares Associates		
Address: 11777 Bernardo Plaza Ct. Suite 105	Date Signed: 03/10/2016	
City/State/Zip: San Diego Ca. 92128	Declaration Statement Type:	
Phone: 858-444-3344	Title: Principal	License #: 60484
Responsible Mechanical Designer Name: Lal Sahgal	Signature: Lal Sahgal	
Company: LSA Consulting Engineers		
Address: 83, Windswept Way	Date Signed: 3-10-16	
City/State/Zip: Mission Viejo Ca. 92692	Declaration Statement Type:	
Phone:	Title: OWNER	License #: M26885

Project Name:	24X40 PC	NRCC-PRF-01-E	Page 13 of 18
Project Address:	Climate Zone 16 Mount Shasta	Calculation Date/Time:	17:40, Mon, Oct 05, 2015
Compliance Scope:	NewComplete	Input File Name:	24X40 CL PC - CZ16(Roof AC).xml

NRCC-PRF-ENV-DETAILS -SECTION START-

A. OPAQUE SURFACE ASSEMBLY DETAILS

1. Surface Name	2. Surface Type	3. Description of Assembly Layers	4. Notes	Confirmed Pass	Confirmed Fail
R-19 Wall Metal Stud10	ExteriorWall	Stucco - 7/8 in. Vapor permeable felt - 1/8 in. Metal framed wall, 16in. OC, 5.5in., R-19 Gypsum Board - 1/2 in. Expanded Polystyrene - EPS - 1 in. R4.2		☐	☐
Uninsulated Raised Slab F17	ExteriorFloor	Compliance Insulation R0.10 Concrete - 140 lb/ft3 - 4 in. Carpet - 3/4 in.		☐	☐
R-30 Roof Cathedral19	Roof	Asphalt shingles - 1/4 in. Vapor permeable felt - 1/8 in. Plywood - 1/2 in. Air - Cavity - Wall Roof Ceiling - 4 in. or more Wood framed roof, 16in. OC, 11.25in., R-30 Gypsum Board - 1/2 in.		☐	☐

B. OVERHANG DETAILS (Adapted from NRCC-ENV-02-E)
This Section Does Not Apply

C. OPAQUE DOOR SUMMARY

1. Opaque Door Assembly Name / Tag or I.D.	2. Door Type	3. Certification Method	4. Operation	5. Overall U-factor	Confirmed Pass	Confirmed Fail

Project Name:	24X40 PC	NRCC-PRF-01-E	Page 14 of 18
Project Address:	Climate Zone 16 Mount Shasta	Calculation Date/Time:	17:40, Mon, Oct 05, 2015
Compliance Scope:	NewComplete	Input File Name:	24X40 CL PC - CZ16(Roof AC).xml

NRCC-PRF-MCH-DETAILS -SECTION START-

A. MECHANICAL VENTILATION AND REHEAT *(Adapted from 2013-NRCC-MCH-03-E)*

1. DESIGN AIR FLOWS / 2. VENTILATION (§ 120.1)

CONDITIONED ZONE NAME	HEATING / COOLING SYSTEM ID	DESIGN PRIMARY AIR FLOW (CFM)	DESIGN PRIMARY MINIMUM AIR FLOW (CFM)	MINIMUM PRIMARY AIR FLOW FRACTION	MAXIMUM HEATING AIR FLOW (CFM)	MAXIMUM HEATING AIR FLOW FRACTION	DDC CONTROL (Y/N)	VENT SYSTEM ID	CONDITIONED AREA (ft2)	MIN. VENT PER AREA (CFM/ft2)	DESIGN NUM. OF PEOPLE	MIN. VENT PER PERSON (CFM/person)	REQ'D VENT AIR FLOW (CFM)	DESIGN VENT AIR FLOW (CFM)	TRANSFER AIRFLOW (CFM)	DCV (Y/N)	Confirmed Pass	Confirmed Fail
1-First Floor	AC-13	1,600	NA	NA	NA	NA	N	AC-13	960	0.50	64	7.5	480	960	NA	N	☐	☐
								TOTAL	960		64		480	960	NA		☐	☐

B. ZONAL SYSTEM AND TERMINAL UNIT SUMMARY § 140.4

1. System ID	2. System Type	3. Qty	4. Rated Capacity (kBtuh) Heating	4. Cooling	5. Economizer	6. Zone Name	7. Airflow (cfm) Design	Min.	Min. Ratio	8. Fan BHP	Cycles	ECM Motor	Confirmed Pass	Confirmed Fail
First Floor5-TRM	Uncontrolled	1	NA	NA	NA	1-First Floor	1600	NA	NA	NA	NA	☐	☐	☐

C. EXHAUST FAN SUMMARY
This Section Does Not Apply

Project Name:	24X40 PC	NRCC-PRF-01-E	Page 15 of 18
Project Address:	Climate Zone 16 Mount Shasta	Calculation Date/Time:	17:40, Mon, Oct 05, 2015
Compliance Scope:	NewComplete	Input File Name:	24X40 CL PC - CZ16(Roof AC).xml

D. DHW EQUIPMENT SUMMARY – *(Adapted from NRCC-PLB-01)* § 110.3

1. DHW Name	2. Fuel	3. Type	4. Qty	5. Distribution Type	6. Rated Input kBtuh	7. Efficiency	8. Pilot Energy (Btu/h)	9. External Tank Insulation	10. Vol	11. Standby Loss	12. Vol. of Suppl. Storage Tank	Confirmed Pass	Confirmed Fail
Standard Gas 50 gal or Le2	NaturalGas	Storage	1	Nonrecirculating	40	EF: 0.575	0	NA	50	0	NA	☐	☐

E. MULTI-FAMILY CENTRAL DHW SYSTEM DETAILS
This Section Does Not Apply

F. SOLAR HOT WATER HEATING SUMMARY (Adapted from NRCC-STH-01)
This Section Does Not Apply

G. MECHANICAL HVAC ACCEPTANCE TESTS & FORMS *(Adapted from 2013-NRCC-MCH-01-E)* § RA4

Declaration of Required Acceptance Certificates (NRCA) – Acceptance Certificates that may be submitted. (Retain copies and verify forms are completed and signed to post in field for Field Inspector to verify).

Test Description		MCH-02A	MCH-03A	MCH-04A	MCH-05A	MCH-06A	MCH-07A	MCH-08A	MCH-09A	MCH-10A	MCH-11A	MCH-12A	MCH-13A	MCH-14A	MCH-15A	MCH-16A	MCH-17A	MCH-18A	Confirmed	
Equipment Requiring Testing or Verification	# of units	Outdoor Air	Single Zone Unitary	Air Dist. Ducts	Economizer Controls	DCV	Supply Fan VAV	Valve leakage	Supply Water Temp. Reset	Hyd. Variable Flow Control	Auto Demand Shed Control	FDD for DX Units	Auto FDD for Air & Zone	Dist. Energy Storage DX AC	TES Systems	Supply Air Temp. Reset	Condenser Water Reset Controls	ECMS	Pass	Fail
Plant - DHW1 - SHW	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐
AC-13	1	X	X	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	☐	☐

Project Name:	24X40 PC	NRCC-PRF-01-E	Page 16 of 18
Project Address:	Climate Zone 16 Mount Shasta	Calculation Date/Time:	17:40, Mon, Oct 05, 2015
Compliance Scope:	NewComplete	Input File Name:	24X40 CL PC - CZ16(Roof AC).xml

NRCC-PRF-LTI-DETAILS -SECTION START-

A. INDOOR CONDITIONED LIGHTING CONTROL CREDITS (Adapted from NRCC-LTI-02-E) § 140.6

Lighting Control Credits Schedule (includes all lighting controls installed in conditioned space for compliance credit per §140.6(a)2 and Table 140.6-A) / Control Credit Calculation

Location in Building	Occupancy Type (must meet requirements of Table 140.6-A)	Type/Description of Lighting Control (i.e., partial-on occupancy sensor, manual dimming, etc.)	# of Units	Watts of Controlled Lighting	Power Adjustment Factor	Control Credit Watts	√ If Acceptance Test Required	Confirmed Pass	Confirmed Fail
5-1-First Floor	Classrooms, Lecture, Training, Vocational Areas	CombinedManualDimmingPlusPartialOnOccupantSensingControl	1	948	0.25	237	X	☐	☐

B. INDOOR CONDITIONED LIGHTING MANDATORY LIGHTING CONTROLS (Adapted from NRCC-LTI-02-E) § 130.1
This Section Does Not Apply
§130.1(a) = Manual area controls; §130.1(b) = Multi Level; §130.1(c) = Auto Shut-Off; §130.1(d) = Mandatory Daylight; §130.1(e) = Demand Response

C. TAILORED METHOD LIGHTING POWER ALLOWANCE SUMMARY AND CHECKLIST (Adapted from NRCC-LTI-04-E) § 140.6

General lighting power (see Table D)	0
General lighting power from special function areas (see Table E)	NA
Additional "use it or lose it" (See Table G)	0
Total watts	0

D. GENERAL LIGHTING POWER (Adapted from NRCC-LTI-04-E) § 140.6-D
This Section Does Not Apply

E. GENERAL LIGHTING FROM SPECIAL FUNCTION AREAS (Adapted from NRCC-LTI-04-E) § 140.6(c) 3H

Room Number	Primary Function Area	Illuminance Value (LUX)	Room Cavity Ratio (Table G)	Allowed LPD	Floor Area (ft²)	Allowed Watts	Confirmed Pass	Confirmed Fail
NA	NA	NA	NA	NA	NA	NA	☐	☐

Note: Tailored Method for Special Function Areas is not currently implemented

Project Name:	24X40 PC	NRCC-PRF-01-E	Page 17 of 18
Project Address:	Climate Zone 16 Mount Shasta	Calculation Date/Time:	17:40, Mon, Oct 05, 2015
Compliance Scope:	NewComplete	Input File Name:	24X40 CL PC - CZ16(Roof AC).xml

F. ROOM CAVITY RATIO (Adapted from NRCC-LTI-04-E)

Rectangular Spaces

Room Number	Task/Activity Description	Room Length (ft)	Room Width (ft)	Room Cavity Height (ft)	RCR	Confirmed Pass	Confirmed Fail
NA	NA	NA	NA	NA	NA	☐	☐

Non-Rectangular Spaces
This Section Does Not Apply
Note: All applicable spaces are listed under the Non-Rectangular Spaces table

G. ADDITIONAL "USE IT OR LOSE IT" (Adapted from NRCC-LTI-04-E)

1. Wall Display	2. Combined Floor Display and Task Lighting	3. Combined Ornamental and Special Effects Lighting	4. Very Valuable Merchandise	Allowed Watts	Confirmed Pass	Confirmed Fail
0	0	0	0	0	☐	☐

5. Wall Display
This Section Does Not Apply

6. Floor Display and Task Lighting
This Section Does Not Apply

7. Combined Ornamental and Special Effects Lighting
This Section Does Not Apply

8. Very Valuable Merchandise
This Section Does Not Apply

APPROVED
DIVISION OF STATE ARCHITECT
HIGH PERFORMANCE SECTION
APP.# 04-114654 DATE: 3/14/16
[signature]

R&S TAVARES ASSOCIATES
DESIGN ◆ CONSULTING ◆ PROJECT MGT
11777 Bernardo Plaza Ct. Suite 105
San Diego, CA 92128 858.444.3344
www.rstavares.com

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER
MANNY D. FRISCH
No. S3380
STRUCTURAL
STATE OF CALIFORNIA
03/02/2016

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL

PRE-CHECK (PC) DOCUMENT
A SEP. PROJECT APPLICATION IS REQUIRED

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-114654
AC FLS SS
DATE MAR 18 2016

PROJECT TITLE

24' x 40'
EXPANDABLE TO
48' x 40'

LICENSED ARCHITECT
JACK F. SHIVELY III
No. C-33467
01/31/17
RENEWAL DATE
STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 115748
ACS FLS SS
DATE JAN 26 2017
REVISED

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC FLS SS
DATE APR 26 2017
FILE NUMBER: 19-29

SHEET TITLE

RESERVED FOR
T24 ENERGY
CALCS

PROJECT NUMBER	15046
DRAWN BY	rMc/SM
CHECKED BY	JA/RT
DATE	2016/03/02
SHEET NO.	M2.0

SHEET OF SHEETS

3/11/2016 4:36:55 PM C:\Users\Rick\Documents\15046 - Aries, 24x40 PC - MainFile_Rick.rvt

Project Name:	24X40 PC	NRCC-PRF-01-E	Page 18 of 18
Project Address:	Climate Zone 10 Moore Shorts	Calculation Date/Time:	17:40, Mon, Oct 05, 2015
Compliance Scope:	New/Complete	Input File Name:	24X40 CL PC - CZ10(Roof AC).xml

H. INDOOR & OUTDOOR LIGHTING ACCEPTANCE TESTS & FORMS (Adapted from NRCC-LTI-01-E and NRCC-LTO-01-E) — § 130.4

Declaration of Required Acceptance Certificates (NRCA) -Acceptance Certificates that must be verified in the field. (Details copies and verify forms are completed and signed to post in field for Field Inspector to verify).

Test Description		Indoor			Outdoor	Confirmed	
		NRCA-LTI-02-A	NRCA-LTI-03-A	NRCA-LTI-04-A	NRCA-LTO-02-A		
Equipment Requiring Testing or Verification	# of units	Occ Sensors / Auto Time Switch	Auto Daylight	Demand Responsive	Outdoor Controls	Plan	Inst
Occupant Sensors	0	☐	☐	☐	☐	☐	☐
Automatic Time Switch	0	☐	☐	☐	☐	☐	☐
Automatic Daylighting	0	☐	☐	☐	☐	☐	☐
Demand Responsive	0	☐	☐	☐	☐	☐	☐
Outdoor Controls	0	☐	☐	☐	☐	☐	☐

ENVELOPE MANDATORY MEASURES: NONRESIDENTIAL — ENV-MM

Project Name: 24X40 PC — Date: 10/5/2015

DESCRIPTION

Building Envelope Measures:

§110.8(a):	Installed insulating material shall have been certified by the manufacturer to comply with the California Quality Standards for insulating material, Title 20 Chapter 4, Article 3.
§110.8(c):	All insulating Materials shall be installed in compliance with the flame spread rating and smoke density requirements of Sections 2602 and 707 of Title 24, Part 2.
§110.8(f):	The opaque portions of framed demising walls in nonresidential buildings shall have insulation with an installed R-value of no less than R-13 between framing members.
§110.7(a):	All Exterior Joints and openings in the building that are observable sources of air leakage shall be caulked, gasketed, weatherstripped or otherwise sealed.
§110.6(a):	Manufactured fenestration products and exterior doors shall have air infiltration rates not exceeding 0.3 cfm/ft.² of window area, 0.3 cfm/ft.² of door area for residential doors, 0.3 cfm/ft.²of door area for nonresidential single doors (swinging and sliding), and 1.0 cfm/ft.² for nonresidential double doors (swinging).
§110.6(a):	Fenestration U-factor shall be rated in accordance with NFRC 100, or the applicable default U-factor.
§110.6(a):	Fenestration SHGC shall be rated in accordance with NFRC 200, or NFRC 100 for site-built fenestration, or the applicable default SHGC.
§110.6(b):	Site Constructed Doors, Windows and Skylights shall be caulked between the unit and the building, and shall be weatherstripped (except for unframed glass doors and fire doors).

HVAC SYSTEM HEATING AND COOLING LOADS SUMMARY

Project Name: 24X40 PC — Date: 10/5/2015

System Name: AC-1 — Floor Area: 960

ENGINEERING CHECKS

Number of Systems	1
Heating System	
Output per System	48,600
Total Output (Btuh)	48,600
Output (Btuh/sqft)	48.4
Cooling System	
Output per System	48,300
Total Output (Btuh)	48,300
Total Output (Tons)	3.9
Total Output (Btuh/sqft)	48.2
Total Output (sqft/Ton)	248.6
Air System	
CFM per System	1,600
Airflow (cfm)	1,600
Airflow (cfm/sqft)	1.67
Airflow (cfm/Ton)	414.7
Outside Air (%)	60.0 %
Outside Air (cfm/sqft)	1.00

SYSTEM LOAD

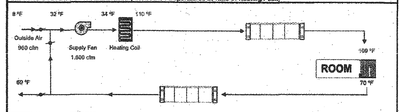
	COIL COOLING PEAK CFM	COIL COOLING PEAK Sensible	COIL COOLING PEAK Latent	COIL HTG. PEAK CFM	COIL HTG. PEAK Sensible
Total Room Loads	2,100	33,316	12,800	753	27,917
Return Vented Lighting		0			0
Return Air Ducts		1,766			1,396
Return Fan		0			0
Ventilation	960	12,686	-16,427	960	85,603
Supply Fan		2,149			-2,149
Supply Air Ducts		1,766			1,396
TOTAL SYSTEM LOAD		53,995	2,373		84,162

HVAC EQUIPMENT SELECTION

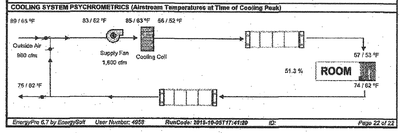
Carrier 50VH/D05-3S/6	44,441	0	16,195
Total Adjusted System Output (Adjusted for Peak Design conditions)	44,441	0	16,195
TIME OF SYSTEM PEAK		Jul 3 PM	Jan 1 AM

Notes: values above given at ARI conditions

HEATING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Heating Peak)



COOLING SYSTEM PSYCHROMETRICS (Airstream Temperatures at Time of Cooling Peak)



IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC. ✓ FLS ✓ SS
DATE APR 2 5 2012

FILE NUMBER: 19-29

APPROVED
DIVISION OF STATE ARCHITECT
HIGH PERFORMANCE SECTION
APP. # 03-117603 DATE: 3/14/16

3/1/2016 9:22:46 PM C:\Users\Rick\Documents\15046 - Arlee_24x40 PC - MainFile_Rick.rvt

R&S TAVARES ASSOCIATES
DESIGN ◆ CONSULTING ◆ PROJECT MGT
11777 Bernardo Plaza Ct, Suite 105
San Diego, CA 92128 858.444.3244
www.rstavares.com

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER
JAMMY D. FRANCISCO
No. S33807
STRUCTURAL
STATE OF CALIFORNIA

03/02/2016

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-114654
AC. ✓ FLS ✓ SS
DATE MAR 1 8 2016

PROJECT TITLE

24' x 40'
EXPANDABLE TO
48' x 40'

LICENSED ARCHITECT
JACOB F. SHIVELY III
No. C-33467
RENEWAL DATE 8/31/17
STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 114654
ACS ✓ FLS ✓ SS
DATE JAN 2 6 2017
REVISED

Revision Schedule

#	Description	Date

SHEET TITLE
RESERVED FOR T24 ENERGY CALCS

PROJECT NUMBER: 15046
DRAWN BY: rMc/SM
CHECKED BY: JA/RT
DATE: 2016/03/02
SHEET NO.: M3.0

SHEET OF SHEETS

Performance Runs By Zone & Orientation

Project Name:	24x40 (Roof A/C)
Date of Title 24 Report:	10/5/2015
DSA File No.:	
DSA Application #:	PC-04-114654
Building Name/Model #:	
Comments:	Please input data from the energy pro runs in columns 2 and 3 for each climate zone worksheet

NOTE: Enter data in colored cells only.

Building Size

Climate Zone: 14 China Lake			
Front Orientation	Std Budget Kbtu/sf-yr	Prop.Design Kbtu/sf-yr	Compliance Margin
0	534.93	506.53	*5.31%*
30	540.07	507.65	6.00%
60	542.74	507.92	6.42%
90	543.04	507.12	6.61%
120	544.55	507.34	6.83%
150	539.21	507.00	5.97%
180	534.93	506.53	*5.31%*
210	540.07	507.65	6.00%
240	542.74	507.92	6.42%
270	543.04	507.12	6.61%
300	544.55	507.34	6.83%
330	539.21	507.00	5.97%

Climate Zone: 15 Palm Springs			
Front Orientation	Std Budget Kbtu/sf-yr	Prop.Design Kbtu/sf-yr	Compliance Margin
0	572.02	497.60	*13.01%*
30	577.17	498.47	13.64%
60	579.99	498.57	14.04%
90	579.91	498.05	14.12%
120	578.33	498.00	13.89%
150	573.16	497.61	13.18%
180	572.02	497.60	*13.01%*
210	577.17	498.47	13.64%
240	579.99	498.57	14.04%
270	579.91	498.05	14.12%
300	578.33	498.00	13.89%
330	573.16	497.61	13.18%

Building Size

Climate Zone: 16 Mount Shasta			
Front Orientation	Std Budget Kbtu/sf-yr	Prop.Design Kbtu/sf-yr	Compliance Margin
0	485.95	485.38	0.12%
30	490.25	486.36	0.79%
60	492.50	486.77	1.16%
90	493.15	486.32	1.38%
120	491.81	486.40	1.10%
150	486.33	485.87	*0.09%*
180	485.95	485.38	0.12%
210	490.25	486.36	0.79%
240	492.50	486.77	1.16%
270	493.15	486.32	1.38%
300	491.81	486.40	1.10%
330	486.33	485.87	*0.09%*

Performance Runs By Zone & Orientation

Project Name:	24x40 (Wall A/C)
Date of Title 24 Report:	10/5/2015
DSA File No.:	
DSA Application #:	PC-04-114654
Building Name/Model #:	
Comments:	Please input data from the energy pro runs in columns 2 and 3 for each climate zone worksheet

NOTE: Enter data in colored cells only.

Building Size

Climate Zone: 14 China Lake			
Front Orientation	Std Budget Kbtu/sf-yr	Prop.Design Kbtu/sf-yr	Compliance Margin
0	534.93	520.93	*2.62%*
30	540.07	522.06	3.33%
60	542.74	522.38	3.75%
90	543.04	521.56	3.96%
120	544.55	521.77	4.18%
150	539.21	521.37	3.31%
180	534.93	520.93	*2.62%*
210	540.07	522.06	3.33%
240	542.74	522.38	3.75%
270	543.04	521.56	3.96%
300	544.55	521.77	4.18%
330	539.21	521.37	3.31%

Climate Zone: 15 Palm Springs			
Front Orientation	Std Budget Kbtu/sf-yr	Prop.Design Kbtu/sf-yr	Compliance Margin
0	572.02	514.67	*10.03%*
30	577.17	515.56	10.67%
60	579.99	515.68	11.09%
90	579.91	515.14	11.17%
120	578.33	515.09	10.93%
150	573.16	514.69	10.20%
180	572.02	514.67	*10.03%*
210	577.17	515.56	10.67%
240	579.99	515.68	11.09%
270	579.91	515.14	11.17%
300	578.33	515.09	10.93%
330	573.16	514.69	10.20%

Building Size

Climate Zone: 16 Mount Shasta			
Front Orientation	Std Budget Kbtu/sf-yr	Prop.Design Kbtu/sf-yr	Compliance Margin
0	485.95	440.20	9.41%
30	490.25	440.88	10.07%
60	492.50	441.17	10.42%
90	493.15	440.83	10.61%
120	491.81	441.07	10.32%
150	486.33	440.68	*9.39%*
180	485.95	440.20	9.41%
210	490.25	440.88	10.07%
240	492.50	441.17	10.42%
270	493.15	440.83	10.61%
300	491.81	441.07	10.32%
330	486.33	440.68	*9.39%*

Performance Runs By Zone & Orientation

Project Name:	36x40 (ROOF A/C)
Date of Title 24 Report:	10/5/2015
DSA File No.:	
DSA Application #:	PC-04-114654
Building Name/Model #:	
Comments:	Please input data from the energy pro runs in columns 2 and 3 for each climate zone worksheet

NOTE: Enter data in colored cells only.

Building Size

Climate Zone: 14 (China Lake)			
Front Orientation	Std Budget Kbtu/sf-yr	Prop.Design Kbtu/sf-yr	Compliance Margin
0	520.03	486.69	6.41%
30	521.52	488.25	6.38%
60	527.90	488.93	7.38%
90	528.51	488.44	7.58%
120	525.76	488.44	7.10%
150	520.99	487.69	6.39%
180	518.80	487.20	6.09%
210	517.23	488.36	5.58%
240	515.85	488.66	*5.27%*
270	515.75	487.85	5.41%
300	517.77	487.54	5.84%
330	518.87	486.86	6.17%

Climate Zone: 15 (Palm Springs)			
Front Orientation	Std Budget Kbtu/sf-yr	Prop.Design Kbtu/sf-yr	Compliance Margin
0	565.39	468.86	17.07%
30	570.36	469.76	17.64%
60	573.56	470.02	18.06%
90	573.43	469.64	18.10%
120	571.31	469.36	17.84%
150	565.93	468.79	17.16%
180	564.54	468.63	16.99%
210	565.20	469.23	*16.97%*
240	569.32	469.66	17.51%
270	569.85	469.33	17.64%
300	567.46	469.27	17.30%
330	566.88	468.76	17.31%

Building Size

Climate Zone: 16 (Mount Shasta)			
Front Orientation	Std Budget Kbtu/sf-yr	Prop.Design Kbtu/sf-yr	Compliance Margin
0	474.88	409.99	13.66%
30	480.59	410.93	14.49%
60	484.98	411.74	15.10%
90	485.62	411.83	15.20%
120	483.09	411.92	14.73%
150	475.36	411.20	13.50%
180	474.71	410.52	13.52%
210	477.84	411.01	13.99%
240	477.88	411.24	13.94%
270	479.75	410.93	14.34%
300	478.22	410.91	14.08%
330	473.93	410.45	*13.39%*

Performance Runs By Zone & Orientation

Project Name:	36x40 (WALL A/C)
Date of Title 24 Report:	10/5/2015
DSA File No.:	
DSA Application #:	PC-04-114654
Building Name/Model #:	
Comments:	Please input data from the energy pro runs in columns 2 and 3 for each climate zone worksheet

NOTE: Enter data in colored cells only.

Building Size

Climate Zone: 14 (China Lake)			
Front Orientation	Std Budget Kbtu/sf-yr	Prop.Design Kbtu/sf-yr	Compliance Margin
0	518.89	435.24	*16.12%*
30	517.23	436.06	15.69%
60	516.85	436.41	15.40%
90	515.75	435.89	15.48%
120	517.77	436.70	15.85%
150	518.87	435.05	16.15%
180	520.03	434.75	16.40%
210	521.52	435.88	16.42%
240	527.90	436.57	17.30%
270	528.51	436.27	17.45%
300	525.76	436.27	17.02%
330	520.99	435.64	16.38%

Climate Zone: 15 (Palm Springs)			
Front Orientation	Std Budget Kbtu/sf-yr	Prop.Design Kbtu/sf-yr	Compliance Margin
0	564.54	423.32	*25.02%*
30	565.20	423.97	24.99%
60	569.32	424.31	25.47%
90	569.85	424.00	25.59%
120	567.46	423.80	25.30%
150	566.88	423.43	25.31%
180	565.39	423.56	25.09%
210	570.36	424.33	25.60%
240	573.56	424.57	25.98%
270	573.43	424.22	26.02%
300	571.31	423.83	25.80%
330	565.93	423.45	25.18%

Building Size

Climate Zone: 16 (Mount Shasta)			
Front Orientation	Std Budget Kbtu/sf-yr	Prop.Design Kbtu/sf-yr	Compliance Margin
0	474.71	430.00	9.42%
30	477.84	430.67	9.87%
60	477.88	431.01	9.81%
90	479.75	430.64	10.24%
120	478.22	430.52	9.97%
150	473.93	429.92	*9.29%*
180	474.88	429.51	9.55%
210	480.59	430.78	10.36%
240	484.98	431.83	10.96%
270	485.62	431.86	11.07%
300	483.09	431.75	10.63%
330	475.36	430.78	9.38%

Performance Runs By Zone & Orientation

Project Name:	48x40 (Roof A/C)
Date of Title 24 Report:	10/5/2015
DSA File No.:	
DSA Application #:	PC-04-114654
Building Name/Model #:	
Comments:	Please input data from the energy pro runs in columns 2 and 3 for each climate zone worksheet

NOTE: Enter data in colored cells only.

Building Size

Climate Zone: 14 China Lake			
Front Orientation	Std Budget Kbtu/sf-yr	Prop.Design Kbtu/sf-yr	Compliance Margin
0	510.83	491.70	3.74%
30	516.74	493.01	4.59%
60	520.69	493.85	5.15%
90	520.71	493.45	5.24%
120	517.06	493.15	4.62%
150	510.47	492.23	*3.57%*
180	510.83	491.70	3.74%
210	516.74	493.01	4.59%
240	520.69	493.85	5.15%
270	520.71	493.45	5.24%
300	517.06	493.15	4.62%
330	510.47	492.23	*3.57%*

Climate Zone: 15 Palm Springs			
Front Orientation	Std Budget Kbtu/sf-yr	Prop.Design Kbtu/sf-yr	Compliance Margin
0	546.82	485.37	*11.24%*
30	552.77	486.36	12.01%
60	556.75	486.77	12.57%
90	557.00	486.53	12.65%
120	554.39	486.24	12.29%
150	548.30	485.57	11.44%
180	546.82	485.37	*11.24%*
210	552.77	486.36	12.01%
240	556.75	486.77	12.57%
270	557.00	486.53	12.65%
300	554.39	486.24	12.29%
330	548.30	485.57	11.44%

Building Size

Climate Zone: 16 Mount Shasta			
Front Orientation	Std Budget Kbtu/sf-yr	Prop.Design Kbtu/sf-yr	Compliance Margin
0	462.79	416.29	10.05%
30	467.47	417.27	10.74%
60	471.53	418.17	11.32%
90	471.89	418.09	11.40%
120	469.33	417.77	10.99%
150	462.63	416.85	*9.90%*
180	462.79	416.29	10.05%
210	467.47	417.27	10.74%
240	471.53	418.17	11.32%
270	471.89	418.09	11.40%
300	469.33	417.77	10.99%
330	462.63	416.85	*9.90%*

Performance Runs By Zone & Orientation

Project Name:	48x40 (WALL A/C)
Date of Title 24 Report:	10/5/2015
DSA File No.:	
DSA Application #:	PC-04-114654
Building Name/Model #:	
Comments:	Please input data from the energy pro runs in columns 2 and 3 for each climate zone worksheet

NOTE: Enter data in colored cells only.

Building Size

Climate Zone: 14 (China Lake)			
Front Orientation	Std Budget Kbtu/sf-yr	Prop.Design Kbtu/sf-yr	Compliance Margin
0	510.83	505.77	0.99%
30	516.74	507.14	1.86%
60	520.69	508.05	2.43%
90	520.71	507.63	2.51%
120	517.06	507.32	1.88%
150	510.47	506.31	*0.81%*
180	510.83	505.77	0.99%
210	516.74	507.14	1.86%
240	520.69	508.05	2.43%
270	520.71	507.63	2.51%
300	517.06	507.32	1.88%
330	510.47	506.31	*0.81%*

Climate Zone: 15 (Palm Springs)			
Front Orientation	Std Budget Kbtu/sf-yr	Prop.Design Kbtu/sf-yr	Compliance Margin
0	546.82	502.18	*8.16%*
30	552.77	503.22	8.96%
60	556.75	503.66	9.54%
90	557.00	503.42	9.62%
120	554.39	503.12	9.25%
150	548.30	502.40	8.37%
180	546.82	502.18	*8.16%*
210	552.77	503.22	8.96%
240	556.75	503.66	9.54%
270	557.00	503.42	9.62%
300	554.39	503.12	9.25%
330	548.30	502.40	8.37%

Building Size

Climate Zone: 16 (Mount Shasta)			
Front Orientation	Std Budget Kbtu/sf-yr	Prop.Design Kbtu/sf-yr	Compliance Margin
0	462.79	423.00	8.60%
30	467.47	424.00	9.30%
60	471.53	424.93	9.88%
90	471.89	424.88	9.96%
120	469.33	424.59	9.53%
150	462.63	423.59	*8.44%*
180	462.79	423.00	8.60%
210	467.47	424.00	9.30%
240	471.53	424.93	9.88%
270	471.89	424.88	9.96%
300	469.33	424.59	9.53%
330	462.63	423.59	*8.44%*

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC ✓ FLS ✓ SS CL
DATE APR 26 2017
FILE NUMBER: 19-29

APPROVED
DIVISION OF STATE ARCHITECT
HIGH PERFORMANCE SECTION
APP.#04-114654 DATE 3/14/16

R&S TAVARES ASSOCIATES
DESIGN ◆ CONSULTING ◆ PROJECT MGT
11777 Bernardo Plaza Ct. Suite 105
San Diego, CA 92128 858.444.3344
www.rstavares.com

PROFESSIONAL STAMP
REGISTERED PROFESSIONAL ENGINEER MANNY D. FRISHE No. S3380 STRUCTURAL STATE OF CALIFORNIA
03/02/2016

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLIENT
CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL
PRE-CHECK (PC) DOCUMENT CODE 2013 CBC A SEP. PROJECT APPLICATION IS REQUIRED
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-114654
AC — FLS SS
DATE MAR 1 8 2016

PROJECT TITLE
24' x 40'
EXPANDABLE TO
48' x 40'
LICENSED ARCHITECT JACK F. SHIVELY III No. C-33467 01/31/17 RENEWAL DATE STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 115748
ACS ✓ FLS ✓ SS
DATE JAN 26 2017
REVISED

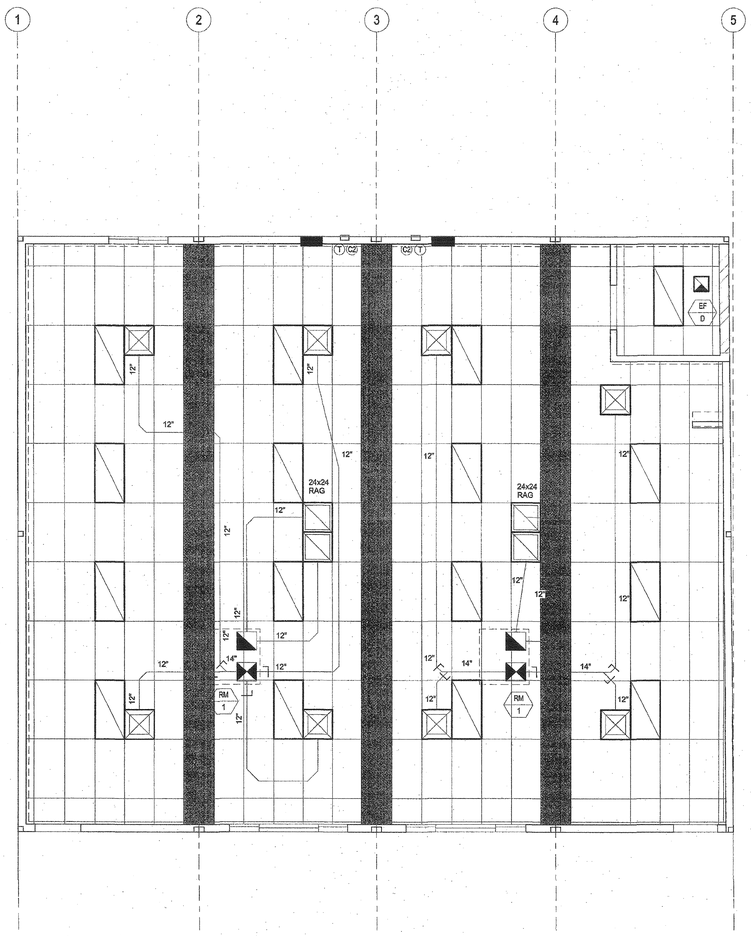
Revision Schedule

#	Description	Date

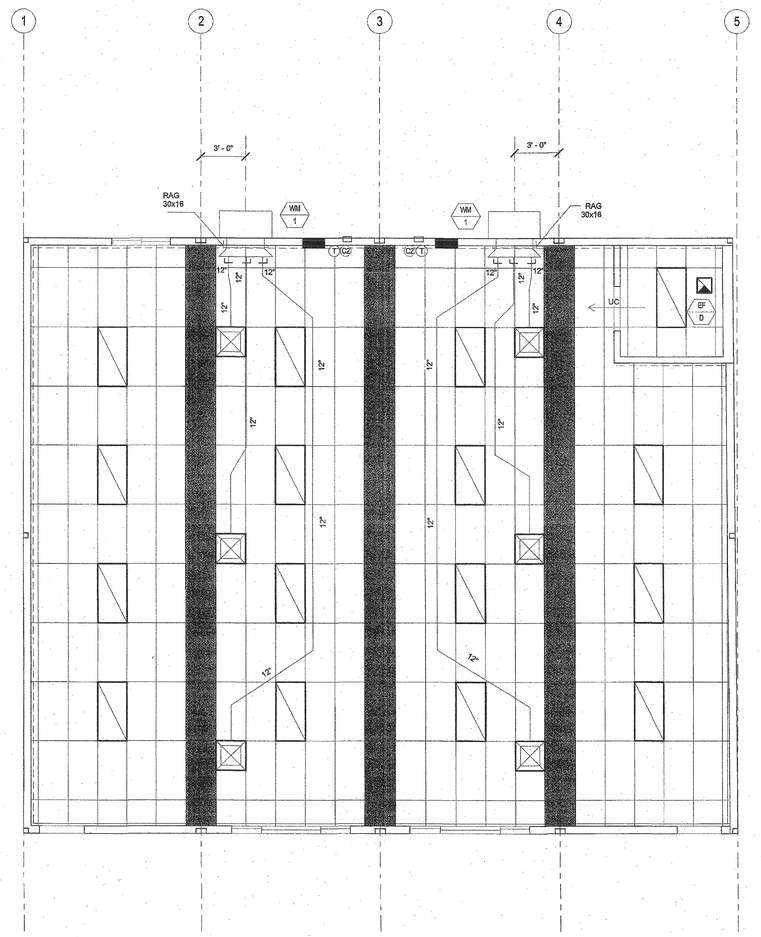
SHEET TITLE
RESERVED FOR T24 ENERGY CALCS

PROJECT NUMBER	15046
DRAWN BY	rMc/SM
CHECKED BY	JA/RT
DATE	2016/03/02
SHEET NO.	M4.0

SHEET OF SHEETS



2 1/4" = 1'-0"
48x40 RM-1 MECH PLAN



1 1/4" = 1'-0"
48x40 WM-1 MECH PLAN

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC FLS SS CL
DATE APR 2 6 2017
FILE NUMBER 19-29

R&S TAVARES ASSOCIATES
DESIGN ◆ CONSULTING ◆ PROJECT MGT
11777 BERNARDO PLAZA CT. SUITE 105
SAN DIEGO, CA 92128 858.444.3344
WWW.RSTAVARES.COM

PROFESSIONAL STAMP
REGISTERED PROFESSIONAL ENGINEER
MANNY D. FRIEDMAN
No. S3380
STRUCTURAL
STATE OF CALIFORNIA
03/02/2016

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLIENT
CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-114654
AC SC FLS SS
DATE MAR 1 8 2016

PROJECT TITLE
24' x 40'
EXPANDABLE TO
48' x 40'
LICENSED ARCHITECT
JACK F. SHIVELY III
No. C-33467
01/31/17
RENEWAL DATE
STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 115748
ACS FLS SS
DATE JAN 2 6 2017
REVISED

Revision Schedule

#	Description	Date

SHEET TITLE
MECHANICAL
CEILING PLAN
48x40

PROJECT NUMBER
15046

DRAWN BY
rMc/SM

CHECKED BY
JA/RT

DATE
2016/03/02

SHEET NO.
M7.1
SHEET OF SHEETS

Proprietary Property of Class Leasing
Proprietary Property of Class Leasing
Proprietary Property of Class Leasing

3/15/2016 9:15:23 AM C:\Users\Sarah\Documents\15046 - Aries, 24x40 PC - MainFile_Sarah.rvt



VENT AREA REQ = 960 SF = 6.4 SF
150

VENT AREA AVAIL = (4) 1.75 VENT = 7 SF



VENT AREA REQ = 1440 SF = 9.6 SF
150

VENT AREA AVAIL = (4) 1.75 SF + (4) 0.75 SF = 10 SF



VENT AREA REQ = 1920 SF = 12.8 SF
150

VENT AREA AVAIL = (4) 1.75 SF + (8) 0.75 = 13 SF

1 1/16" = 1'-0"
50+15 VENTING LAYOUT

1. WOOD FOUNDATION CONSTRUCTION IS ALLOWED FOR BUILDINGS WITH 2150 SF AND UNDER.
2. SILL PLATES SHALL BE OF FOUNDATION GRADE REDWOOD OR PRESERVATIVE PRESSURE TREATED MATERIAL AND IS ALLOWED TO REST DIRECTLY ON SOIL OR PAVEMENT. MATERIALS ABOVE THE SILL PLATES ARE NOT CONTROLLED BY THIS REQUIREMENT.
3. VENTS THAT OCCUR INSIDE RAMP BOUNDARIES SHALL REQUIRE A VENT OF EQUAL SIZE AT RAMP SKIRTING.
4. TO PREVENT SLIDING; A 1 INCH G.S. SCHEDULE 40 PIPE (1.315" ACTUAL O.D.) SHALL BE ATTACHED TO SILL PLATE AND ANCHORED INTO THE EARTH W/ 12" MIN EMBEDMENT (PROJECTED VERTICALLY) @ 10' - 0" MAX O.C. AND SHALL BE LOCATED A MAXIMUM OF 2'-0" FROM CORNERS
5. STACKED FOUNDATION MEMBERS SHALL BE FASTENED TO ONE ANOTHER W/ CORROSION RESISTANT NAILS.
6. WOOD FOUNDATION HAVE BEEN DESIGNED FOR AN ALLOWABLE BEARING PRESSURE OF 1,000 PSF.
7. REFER TO ARCHITECT'S SITE PLAN FOR DRAINAGE.

7 1/4" = 1'-0"
NOTES FOR 50+15

KEY PLAN VENTING SCHEDULE
VENT "A1" (SIDEWALL): 3'-6" x 8" = 1.75 S.F. VENTILATION
VENT "B" (ENDWALL): 3'-0" x 3" = 0.75 S.F. VENTILATION

SEE 2

9 1/4" = 1'-0"
KEY PLAN VENTING SCHEDULE FOR 50+15 PSF

(2) 16d NAILS SILL TO BASE CONNECTION FOR 50+15 SEE 7 / F1.10			
	ENDWALL	SIDEWALL	SEPERATION
24x40	9" O.C	12" O.C	12" O.C
36x40	11" O.C	12" O.C	12" O.C
48x40	12" O.C	12" O.C	12" O.C

6 1/4" = 1'-0"
NAILING SCHEDULE FOR 50+15

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC. FLS. SS
DATE APR 2 6 2017

FILE NUMBER: 19-29

WOOD FOUNDATION PLATE SCHEDULE								
50 + 15 PSF								
PLATES	END WALL	SIDE WALL	MODLINE ENDS	MODLINE INTERIOR	ML "B" ENDS	ML "B" INTERIOR	SEPERATION ENDS	SEPERATION INTERIOR
BOOSTER	2x4	2x4	2x6	2x6	2x8	2x8	2x4	2x4
TOP	2x6	2x8	2x8	2x8	2x10	2x10	2x6	2x6
BASE	2x8	2x8	2x10	2x10	2x12	3x12	2x8	2x8
SILL	2x12	2x12	(6) 2x12, 24" LONG	(6) 2x12, 24" LONG	(8) 2x12, 24" LONG	(8) 1.2x12, 24" LONG	2x12	2x12

* MODLINE "B" - MODLINE W/ EXT. WALLS BACK-TO-BACK SEE F1.14

8 1/4" = 1'-0"
WOOD FOUNDATION PLATE SCHEDULE FOR 50+15

TIE PLATE SCHEDULE		
	END WALL	SIDE WALL
24x40	4	2
36x40	5	2
48x40	7	2

4 1/4" = 1'-0"
TIE PLATE SCHEDULE FOR 50+15

R&S TAVARES ASSOCIATES
DESIGN & CONSULTING & PROJECT MGT
11777 Bernardo Plaza Ct. Suite 105
San Diego, CA 92128 858.444.9544
www.rstavares.com

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER MANNY D. FRANCO No. 26806 STRUCTURAL STATE OF CALIFORNIA

03/02/2016

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL

PRELIMINARY/NOT FOR CONSTRUCTION DOCUMENT
A DSA PROJECT APPLICATION IS REQUIRED

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-114654
AC. FLS. SS
DATE MAR 1 8 2016

PROJECT TITLE

24' x 40'
EXPANDABLE TO
48' x 40'

LICENSED ARCHITECT MARK F. SHIVELY III No. C-30457 RENEWAL DATE 01.31.17 STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 115748
ACS FLS SS
DATE JAN 2 6 2017
REVISED

Revision Schedule

#	Description	Date

SHEET TITLE

WOOD FOUNDATION NOTES SCHED FOR BLDG W/ 50+15

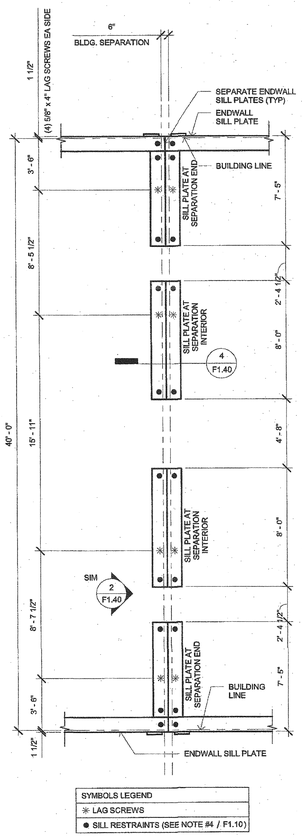
PROJECT NUMBER 15046
DRAWN BY rMc/SM
CHECKED BY JA/RT
DATE 2016/03/02

SHEET NO. F1.10
SHEET OF SHEETS

Proprietary Property of Class Leasing

Proprietary Property of Class Leasing

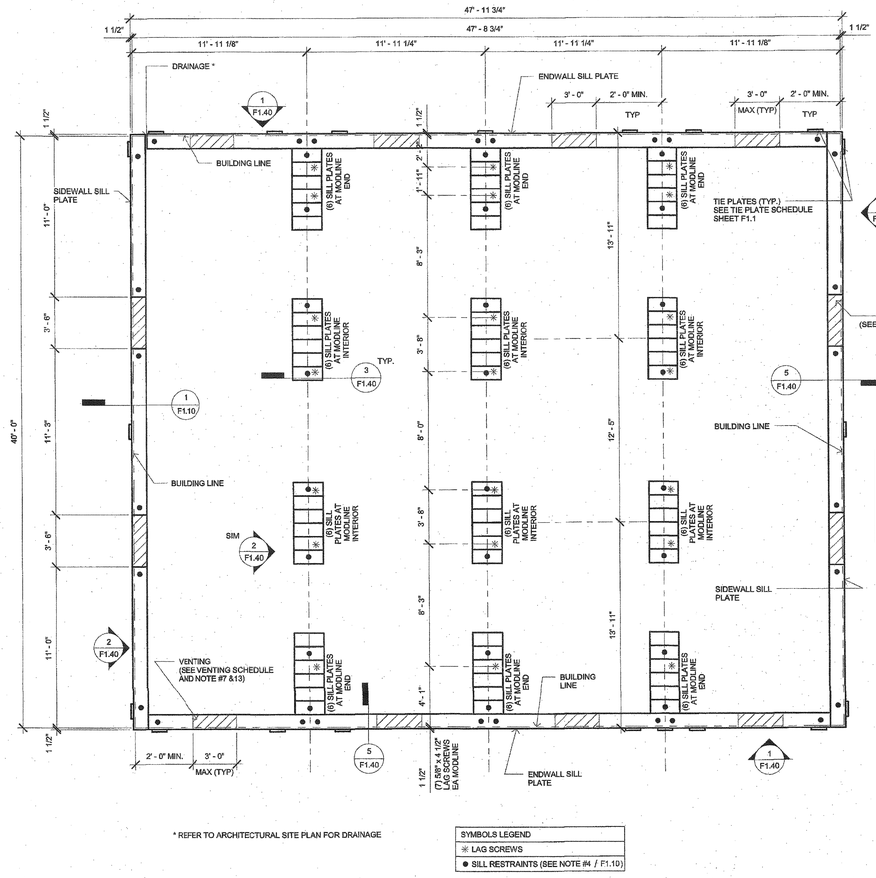
3/2/2016 7:51:21 PM C:\Users\Sarah\Documents\15046 - Arlee, 24x40 PC - MadPlls_Sarah.rvt



SYMBOLS LEGEND

✳	LAG SCREWS
●	SILL RESTRAINTS (SEE NOTE #4 / F1.10)

1 *1/4" = 1'-0"*
FOOTING AT SEPARATION 48x40 FOR 50+15



IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC. FLS. SS. CL
DATE APR 26 2017
FILE NUMBER: 19-29

* REFER TO ARCHITECTURAL SITE PLAN FOR DRAINAGE

SYMBOLS LEGEND

✳	LAG SCREWS
●	SILL RESTRAINTS (SEE NOTE #4 / F1.10)

2 *1/4" = 1'-0"*
FOUNDATION PLAN 48x40 FOR 50+15

3/3/2016 7:51:24 PM C:\Users\rSarell\Documents\15046 - Arlois, 24x40 PC - MainFile_Sarah.rvt

R&S TAVARES ASSOCIATES
DESIGN ✦ CONSULTING ✦ PROJECT MGT.
11777 Bernardo Plaza Ct. Suite 105
San Diego, CA 92128 858.444.2944
www.rstavares.com

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER MANNY D. PROBSTEL No. C-53467 STRUCTURAL STATE OF CALIFORNIA

03/02/2016

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-114854
AC. SC FLS. SS.
DATE JAN 18 2016

PRESCRIPTIVE DOCUMENT
PRESCRIPTIVE DOCUMENT
A VERY PROJECT PC DOCKETS REQUIRED

PROJECT TITLE

24' x 40'
EXPANDABLE TO
48' x 40'

LICENSED ARCHITECT JACK A. SHIRLEY III No. C-33467 01/31/17 RENEWAL DATE STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 115748
ACS FLS SS CL
DATE JAN 26 2017
REVISED

Revision Schedule

#	Description	Date

SHEET TITLE

WOOD
FOUNDATION PLAN
48x40 BLDG W/
50+15

PROJECT NUMBER
15046

DRAWN BY
rMc/SM

CHECKED BY
JA/RT

DATE
2016/03/02

SHEET NO.
F1.13
SHEET OF SHEETS

Proprietary Property of Class Leasing
Proprietary Property of Class Leasing
Proprietary Property of Class Leasing

STRUCTRUAL STEEL:

A. ALL WORK SHALL, UNLESS MODIFIED BY THE CONCTRACT DOCUMENTS, SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT AISC SPECIFICATIONS AND STANDARDS.
B. STEEL SHAPES SHALL COMFORM TO THE FOLLOWING STANDARD:
   a. STRUCTURAL HSS COLUMNS: ASTM A500 GRADE B
   b. STRUCTURAL W-SHAPES: ASTM A992 GRADE 50
   c. TUBE STEEL: ASTM A500 GRADE A
   d. ALL OTHER: ASTM A36
C. FABRICATION, ERECTION, AND SHOP PAINTING SHALL BE IN ACCORDANCE WITH THE PROVISIONS OF THE AISC *CODE OF STANDARD PRACTICE FOR STEEL BUILDING AND BRIDGES.*
D. HOLES IN STRUCTURAL STEEL SHALL NO BE PERMITTED, UNLESS SPECIFIED IN THE STRUCTURAL DRAWINGS

CONCRETE

A. ALL CONCRETE WORK, UNLESS MODIFIED BY CONTRACT DOCUMENTS, SHALL BE PERFORMED IN ACCORDANCE WITH CHAPTER 19A, CBC 2013 AND ACI 318-11.

B. TESTS AND INSPECTION SHALL BE PERFORMED BY A TESTING LABORATRY CONTRACTED BY THE DISTRICT.

C. MIX DESIGN SHALL BE SUBMITTED FOR QUALIFICATION AND PROVIDE A 28-DAY COMPRESSIVE STRENGTH F'C OF 3500 PSI, COMPOSED OF NORMAL WEIGHT TYPE I PORTALAND CEMENT U.N.O CONFORMANCE WITH ASTM C150.

D. FORMWORK SHALL RESULT IN FINAL STRUCTURE THAT CONFORMS TO SHAPES, LINES, AND DIMENSIONS AS REQUIRED BY THE CONTRACT DOCUMENTS.

E. LOCATIONS OF VENTS AND OPENINGS FOR MECHANICAL AND ELECTRICAL USE SHALL BE VERIFIED BY ARCHITECT.

F. EMBEDMENT OF MATERIALS NOT HARMFULL TO CONCRETE AND WITHIN LIMITATIONS OF SECTION 6.3, ACI-318-11 SHALL BE PERMITTED. REFER TO OTHER DISCIPLINES FOR LOCATION OF CONDUIT, PIPES, FITTINGS, SLEEVES, ETC.

G. CONTINUOUS BATCH PLANT INSPECTION WAIVED PER CBC 1705A3.3. WHEN CONTINUOUS BATCH PLANT INSPECTION IS WAIVED, THE FOLLOWING PERIODIC INSPECTION SHALL BE REQUIRED:

   1. QUALIFIED TECHNICIAN OF THE TESTING LABORATORY SHALL CHECK THE FIRST BATCH AT THE START OF THE DAY.
   2. LICENSED WEIGHMASTER TO POSITIVELY IDENTIFY MATERIALS AS TO QUANTIFY AND CERTIFY TO EACH LOAD BY A BATCH TICKET.
   3. BATCH TICKETS, INCLUDING MATERIAL QUANTITIES AND WEIGHTS SHALL ACCOMPANY THE LOAD, SHALL BE TRANSMITTED TO THE INSPECTOR OF RECORD BY A TRUCK DRIVER WITH THE LOAD IDENTIFIED THEREON. THE LOAD SHALL NO BE PLACED WITHOUT A BATCH TICKETS IDENTIFYING THE MIX. THE INSPECTOR WILL KEEP A DAILY RECORD OF PLACEMENTS, IDENTIFYING EACH TRUCK, ITS LOAD, AND TIME OF RECEIPT, AND APPROXIMATE LOCATION OF DEPOSIT IN THE STRUCTURE AND WILL TRANSMIT A COPY OF THE DAILY RECORD TO THE ENFORCEMENT AGENCY.

H. ANCHOR BOLTS, AND REINFORCING STEEL SHALL BE SECURELY TIED BEFORE CONCRETE IS POURED.

STEEL REINFORCEMENT

A. DEFORMED BARS SHALL CONFORM TO ASTM A615.
B. fy= 40,000 PSI, FOR ALL BARS EXEPT FOR #3 BARS, fy= 60,000 PSI.
C. PROVIDE A MINIMUM CONCRETE COVER FOR REINFORCEMENT EMBEDDED IN:
   a. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH = 3"
   b. CONCRETE EXPOSED TO EARTH OR WEATHER FOR #5 BARS OR SMALLER = 1.5"
D. SPLICE LENGTHS SHALL BE A MINIMUM OF 48" FOR #5 BARS, AND 30" FOR #4 BARS UNLESS OTHERWISE SPECIFIED IN DRAWINGS.

BOLTS

A. ALL BOLTS AND ANCHOR BOLTS SHALL COMFORM ATO ASTM A-307
B. BOLTS EXPOSED TO THE ELEMENTS SHALL BE GALVANIZED BY THE HOT-DIP OR MECHANICAL PROCESS

WELDING

A. ALL WELDING SAHLL BE IN COMFORMANCE TO:
   a. AWS D1.1, EXCEPT AS MODIFIED IN SECTION J2, AISC-360 FOR STEEL
   b. AWS D1.3 FOR LIGHT GUAGE STEEL
   c. AWS D1.4 FOR REINFORCING STEEL

B. ELECTRODE CLASSIFICATION:
   a. E70XX FOR STEEL AND CONCRETE STEEL REINFORCEMENT
   b. E60XX FOR LIGHT GUAGE STEEL

C. WELDS SHALL BE CAPABLE OF PRODUCING THE FOLLOWING V-NOTCH TOUGHNESS AS DETERMINED BY APPROPRIATE AWS A5 CLASSIFICATION TEST METHOD OR MANUFACTURER CERTIFICATION:
   a. LATERAL FORCE RESISTING SYSTEM (LFRS) = 20 FT-LB AT 0 DEGREE F
   b. COMPLETE JOINT PENETRATION GROOVE WELD = 20 FT-LB AT 40 DEGREE F

D. SHOP AND FIELD WELDING SHALL BE PERFORMED BY APPROVED AND QUALIFIED WELDERS.

E. INSPECTION:
   a. PERIODIC INSPECTION OF FILLET WELDS LESS THAN OR EQUAL TO 5/16", FLOOR AND ROOF DECK WELDS.
   b. CONTINUOUS INSPECTION FOR OTHER WELDS.

F. NONDESTRUCTIVE TESTING (NDT):
   a. ULTRASONIC TESTING SHALL BE PERFORMED ON 100 PERCENT OF CJP GROOVE WELDS IN MATERIALS 5/16" OR THICK OR GREATER. ULTRASONIC TESTING NOT REQUIRED FOR MATERIALS LESS THAN 5/16" THICK. TESTING FREQUENCY MAY BE REDUCED TO 25%, PROVIDED PROVISIONS SET FORTH IN SECTION N5.5e, AISC-360 IS MET.
   b. MAGNETIC PARTICLE TESTING SHALL BE PERFORMED ON 25 PERCENT OF ALL BEAM-TO-COLUMN CJP GROOVE WELDS. TESTING FREQUENCY MAY BE REDUCED TO 10%, PROVIDED PROVISIONS SET FORTH IN J6.2g, AISC-341 IS MET.

FOUNDATIONS

GEOTECHNICAL INVESTIGATION SHALL BE CONDUCTED IN ACCORDANCE WITH SECTION 1803A.1 THROUGH 1803A.8 BY A GEOTECHNICAL ENGINEER CONTRACTED BY THE DISTRICT. ALLOWABLE FOUNDATION AND LATERAL SOIL PRESSURE VALUES MAY BE DETERMINED FROM TALBLE 1806A.2, WHERE GEOTECHNINCAL REPORTS IS NOT REQUIRED PER SECTION 1803A.2. A MAXIMUM ALLOWABLE SOIL PRESSURE OF 1000 PSF AND 1500 PSF SHALLBE PERMITTED FOR TEMPORARY WOOD AND PERMANENT CONCRETE FOUNDATIONS RESPECTIVELY IN ACCORDANCE WITH SECTION 4.6, IR 16-1.13

A PREVIIOUS REPORT FOR A SPECIFIC SITE MAY BE RESUBMITTED. THE ALLOWABLE FOUNDATIONA AND LATERAL SOIL PRESSURE VALUES ARE ALLOWED A 33% INCREASE FOR SHORT TERM WIND AND SEIMIC LOADS.

THE DISTRCT SHALL BE RESPONSIBLE FOR EXCAVATION, BACKFILL, SETTING ELEVATIONS, CRANING AND RIGGING. PROVIDE SHIMS TO LEVEL BUILDING WITHIN 1/2" TOLERANCE.

COLD-FORMED STEEL:

A. ALL WORK SHALL, UNLESS MODIFIED BY THE CONCTRACT DOCUMENTS, SHALL BE PERFORMED IN ACCORDANCE WITH CURRENT AISI SPECIFICATIONS AND STANDARDS.

B. MATERIAL SPECIFICATION:
   a. ASTM A-1011/A, GRADE 33 FOR MATERIALS THICKNESS 0.120 OR LESS UNLESS OTHERWISE NOTED
   b ASTM A-1003, GRADE 33 TYPE H FOR LIGHT GUAGE STUDS AND TRACKS
   c. SHAPES SHALL BE DIMENSIONED TO SSMA SPECIFICATIONS.

C. SCREWS EXPOSED TO THE ELEMENTS SHALL BE GALVANIZED

STEEL DECK

MINIMUM THICKNESS PERMITTED FOR FLOOR STEEL DECKS IS 20GA.

CHANGES

CHANGES AFFECTING STRUCTURAL PORTION OF THE APPROVED PC SHALL NEED DSA APPROVAL AND SHALL BE CLASSIFIED AS CCD CATEFORY A.

WOOD

ALL FRAMING LUMBER SHALL BE GRADE MARKED BY AN APPORVED GRADING AGENCY

SHEATHING:

EACH SHEETS SHALL BE GRADE MARKED BY THE AMERICAN PLYWOOD ASSOCIATION IN ACCORDANCE WITH THE PROCEDURES AND QUALIFICATIONS SET FORTH BY PS 1-07.

1. SUB FLOOR: 1 1/8" T&G UNBLOCKED PLYWOOD, SHALL PROVIDE A SMOOTH AND UNIFORM SURFACE CAPABLE OF ACCEPTING CARPET FINISH
2. PLYWOOD ROOF DECK OPTION: APA RATED 3/4" T&G OSB OR EQUIVALENT RATED SHEATHING
3. EXTERIOR WALL SIDING:
   I. STANDARD: 5/8" DURATEMP OR 5/8" SMART PANEL
   II. OPTION: 5/8" MDO
   III. OPTION: 1/2" OSB OR CDX PLYWOOD FOR PLATER/STUCCO FINISH
4. EXTERIOR WALL SIDING ATTACHMENT:

   FASTENERS USED FOR THE ATTACHMENT OF EXTERIOR WALL COVERINGS SHALL BE HOT-DIPPED GALVANIZED, MECHANICALLY DEPOSITED ZINC-COATED, STAINLESS, SILICON BRONZE OR COPPER PER CBC SECTION 2304.9.1.1

   FASTEN TO WOOD FRAMING WITH 8D BOX NAILS @ 6" E.N., 12" F.N.
   FASTEN TO LIGHT GAGE METAL FRAMING WITH #8 WAFER HEAD STSMS @ 6" E.N., 12" F.N.
   FASTEN TO STRUCTURAL STEEL WITH #12 STSMS OR 0.145 DIAM SHOT PINS @ 12" O.C.

TREATED WOOD:

ALL WOOD LOCATED WITHIN 18" OF EXPOSED EARTH SHALL BE "PRESERVATIVE TREATED" OR SHALL BE "NATURALLY DURABLE" MATERIAL IN ACCORDANCE WITH CBC SECTION 2304.11.2.2.
1. ALL ROUGH LUMBER SHALL BE DF #2 OR BETTER.
2. ALL POWER DRIVEN FASTENERS SHALL BE HILTI FASTENERS ICC# ESR-1663, AND RAMSET POWER DRIVEN FASTENERS (ICC # ESR-1799), OR SIMPSON POWER DRIVEN FASTENERS ICC #ESR-2138, OR OTHER EQUIVALENT PRODUCTS WITH ICC REPORTS AND APPROVED BY DSA.
3. FASTENERS, INCLUDING NUTS AND WASHERS, IN CONTACT WITH PRESERVATIVE-TREATED WOOD SHALL BE OF HOT-DIPPED ZINC-COATED GALVANIZED STEEL, STAINLESS STEEL, SILICON BRONZE OR COPPER PER CBC 2304.9.5.1

ROOF DIAPHRAGM:

3/4" T&G RATED SHEATHING, EXPOSURE 1, 48/24 SPAN RATING
FASTEN AT METAL SUPPORTS W/ #8 x 1 1/4" SELF-TAPPING PHILLIPS FLAT-HEAD ZINC COATED TEKS SCREWS @ 4" O.C. BN, 6" O.C. EN, AND 12" O.C. FN. PROVIDE A MINIMUM OF 3/8" EDGE DISTANCE FOR FASTENERS TO PLYWOOD EDGE PER CBC SECTION 2306.2.

FLOOR DIAPHRAGM:

1 1/8" PLYWOOD - STURD-I-FLOOR T&G RATED SHEATHING, EXTERIOR, 48" oc SPAN RATING
FASTEN AT METAL SUPPORTS W/ #8 - 24 x 1 3/4" SELF-TAPPING PHILLIPS FLAT-HEAD
ZINC COATED TEKS @ 6" O.C. BN, 6" O.C. EN, 12" FN. PROVIDE A MINIMUM OF 3/8" EDGE DISTANCE FOR FASTENERS TO PLYWOOD EDGE PER CBC SECTION 2306.2

CONCRETE FLOOR DATA: LIGHTWEIGHT CONCRETE FLOOR
STRENGHT: 3500 PSI OR 4000 PSI
TYPE: I OR II
DESINTY: 110 PCF - MAX

DIMENSION LUMBER ATTACHMENT TO STEEL FRAMING:

2 x STUDS AT CORNER STEEL COLUMNS (NAILING STUD)
USE: #10 - 24 x 2 1/2" LG. SELF-DRILLING SELF-TAPPING PHILLIPS FLAT-HEAD WITH WASHER ZINC COATED TEK SCREWS AT 24" OC.

NAILING NOTES:

1. ALL NAILS SHALL BE COMMON UNLESS OTHERWISE NOTED
2. MACHINE APPLIED 16d FASTENERS SHALL HAVE AN EMBDMENT OF NOT LESS THAN 1 1/2" INTO THE SECOND MEMBER, AND SHALL NOT BE LESS THAN 3" IN OVERALL LENGHT.
3. NAILS SHALL BE ACCEPTABLE FOR HAND NAILING, PROVIDED THE REQUIREMENT EMBEDMENT IS MAINTAINED.

CONNECTIONS AND FASTENERS:

ALL CONNECTIONS AND FASTENERS IN DRAWINGS CAN BE SUBSTITUTED BY AN EQUIVALENT PRODUCT PROVIDING ICC REPORTS ARE SUBMITTED TO AND APPROVED BY DSA.

CONNECTIONS LAG SCREWS:

LAG SCREWS SHALL BE INSTALLED WITH WHASHER AND TURNED BY WRENCH, OVER-TORQUING SHALL BE AVOIDED. A PRE-DRILLED CLEARANCE AND LEAD HOLE SHALL BE REQUIRED AS DESCRIBED BELOW:

a) THE CLEARANCE HOLE FOR THE UNTHREADED PORTION OR THE SHANK SHALL HAVE SAME DEPTH AND DIAMETER.

b) THE LEAD HOLE FOR THE THREADED PORTION OF THE SHANK SHALL HAVE SAME DEPTH AND
65% TO 85% OF SHANK DIAMETER FOR LUMBER WITH SPECIFC GRAVITY OF, G > 0.6
60% TO 75% OF SHANK DIAMETER FOR LUMBER WITH SPECIFC GRAVITY OF, 0.5 < G ≤ 0.6
40% TO 70% OF SHANK DIAMETER FOR LUMBER WITH SPECIFC GRAVITY OF, G ≤ 0.5

LEAD OR CLEARANCE HOLES SHALL NOT BE REQUIRED FOR 3/8" DIAMETER OR SMALLER LAG SCREWS.

BALLISTIC PINS OPTIONS

1. HILTI X-CR PIN WITH 0.145 SHANK DIAMTER, ICC ESR-1663
2. RAMPSET 1500 PIN WITH 0.145 SHANK DIAMTER, ICC ESR-1799
3. SIMPSON STRONG TIE PDP PIN WITH 0.145 SHANK DIAMTER, ICC ESR-2138

NAILING SCHEDULE: (ALL NAILS SHALL BE COMMON, GALVANIZED WHERE EXPOSED) PER C.B.C. TABLE 2304.9.1

	CONNECTION	FASTENING	LOCATION
1.	JOIST TO SILL OR GIRDER	3-8d	TOENAIL
2.	BRIDGING TO JOIST	2-8d	TOENAIL EA. END
3.	1X6 OR LESS SUBFLOOR TO EA. JOIST	2-8d	FACE NAIL
4.	WIDER THAN 1X6 SUBFLOOR TO EA. JOIST	3-8d	FACE NAIL
5.	2" SUBFLOOR TO JOIST	2-16d	BLIND & FACE NAIL
6.	SOLE PLT. TO JOIST OR BLK'G. TO EA. JOIST	16d@16"	TYP. FACE NAIL
	SOLE PLT. TO JOIST OR BLK'G. @ BRACED WALL PANEL	3-16d@16"	TYP. FACE NAIL
7.	TOP PLT. TO STUD	2-16d	END NAIL
8.	STUD TO SOLE PLT.	2-16d	END NAIL
	OR	4-8d	TOENAIL
9.	DOUBLE STUDS	16d@24"	END NAIL
10.	DOUBLE TOP PLT.	16d@16"	TYP. FACE NAIL
	DOUBLE TOP PLT.	8-16d MIN. U.N.O.	LAP SPLICE
11.	BLKG. BTW. JOIST OR RAFTERS TO TOP PLT.	3-8d	TOENAIL
12.	RIM JOIST TO TOP PLT.	8d@6"	TOENAIL
13.	TOP PLT., LAPS & INTERSECTIONS	2-16d	FACE NAIL
14.	CONT. HDR. 2 PIECES	16d@16"	ALONG EDGE
15.	CLG. JOIST TO PLT.	3-8d	TOENAIL
16.	CONT. HDR. TO STUD	4-8d	TOENAIL
17.	CLG. JOIST LAP OVER PARTITONS	3-16d	FACE NAIL
18.	CLG. JOIST PARALLEL TO RAFTERS	3-16d	FACE NAIL
19.	RAFTER TO PLT.	3-8d	TOENAIL
20.	1" DIA. BRACE TO EA. STUD & PLT.	2-8d	FACE NAIL
21.	1X8 SHT'G. TO EA. BRG.	3-8d	FACE NAIL
22.	WIDER THAN 1X8 SHT'G. TO BRG.	3-8d	FACE NAIL
23.	BUILT-UP CORNER STUDS	16d@24"	FACE NAIL
24.	BUILT-UP GIRDERS & BEAMS	20d@32"	FACE NAIL @ TOP & BTM. STAGR. ON OPP. SIDES
		2-20d	FACE NAIL @ ENDS & @ EA. SPLICE
25.	2" PLANKS	2-16d	@ EA. BRG.
26.	COLLAR TIE TO RAFTER	3-10d	FACE NAIL
27.	JACK RAFTER TO HIP	3-10d	TOENAIL
28.	ROOF RAFTER TO 2X RIDGE	2-16d	TOENAIL
		2-16d	FACE NAIL
29.	JOIST TO BAND JOIST	3-16d	FACE NAIL
30.	4X BLOCKING TO STUDS	1-A34	FACE NAIL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC ___ FLS ___ SS ___
DATE APR 2 6 2018
FILE NUMBER: 19-29

12" = 1'-0"
STRUCTURAL NOTES

3/3/2016 8:15:48 PM C:\Users\Sarah\Documents\15046 - Aries, 24x40 PC - MainFile_Sarah.rvt

R&S TAVARES ASSOCIATES
DESIGN • CONSULTING • PROJECT MGT
11777 BERNARDO PLAZA CT. SUITE 105
SAN DIEGO, CA 92128 858.444.3244
WWW.RSTAVARES.COM

PROFESSIONAL STAMP
REGISTERED PROFESSIONAL ENGINEER MANNY D. FRIAS No. S5580 STRUCTURAL STATE OF CALIFORNIA
03/02/2016

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLIENT
CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL
PRE-CHECK (PC) DOCUMENT CODE 2013 CBC A SEP. PROJECT PPLICATION IS REQUIRED
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-114654
AC ___ FLS ___ SS ___
DATE MAR 1 8 2016

PROJECT TITLE
24' x 40'
EXPANDABLE TO
48' x 40'

LICENSED ARCHITECT JACK F. SHIVELY III No. C-33467 01/31/17 RENEWAL DATE STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 115748
ACS ___ FLS ___ SS ___
DATE JAN 2 5 2017
REVISED

Revision Schedule

#	Description	Date

SHEET TITLE
STRUCTURAL GEN NOTES

PROJECT NUMBER
15046

DRAWN BY
rMc/SM

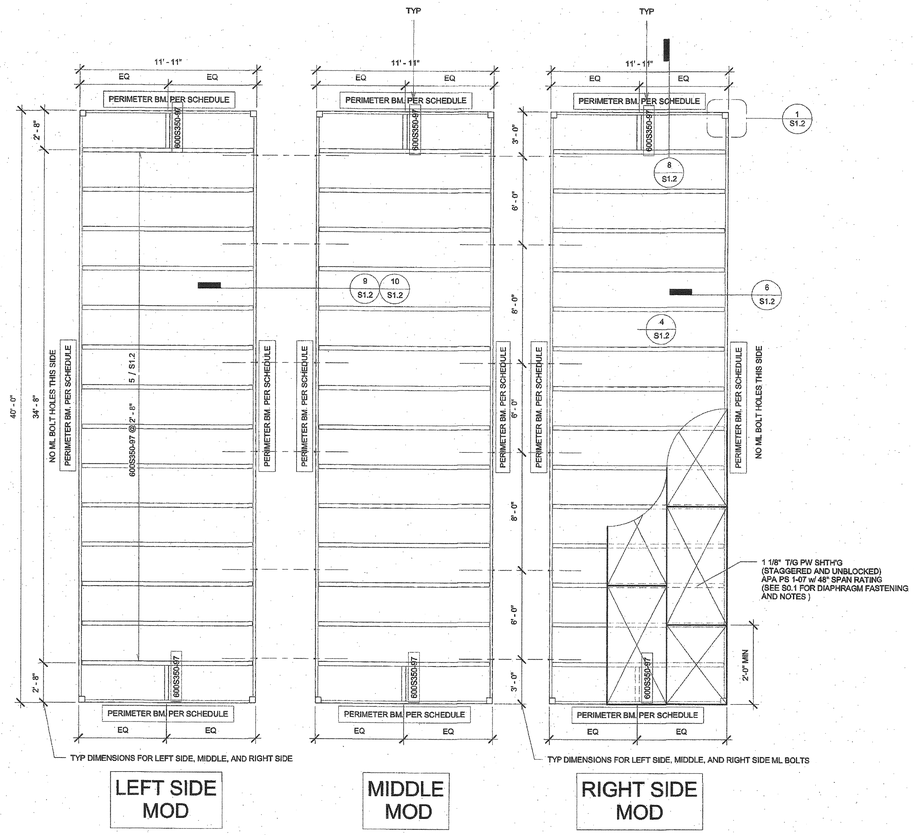
CHECKED BY
JA/RT

DATE
2016/03/02

SHEET NO.
S0.1

SHEET OF SHEETS

Proprietary Property of Class Leasing
Proprietary Property of Class Leasing
Proprietary Property of Class Leasing



IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC ___ FLS ___ SS cl
DATE APR 2 6 2016
FILE NUMBER: 19-29

Perimeter Floor Beam Schedule			
HT	No Plaster Walls	Plaster Walls	w/ Parapet, 18" max
□ 9'	C7x9.8	C7x9.8	C7x9.8
□ 10'	C7x9.8	C8x11.5	C8x11.5

NOTE: SPLICE AT FLOOR BEAM PERMITTED PER 3/S1.2

Column Schedule			
HT	No Plaster Walls	Plaster Walls	w/ Parapet, 18" max
□ 9'	5x5X1/4	5x5X1/4	5x5X1/4
□ 10'	5x5X1/4	5x5X1/4	5x5X1/4
			3x3X3/16 mid-span column

1 1/4" = 1'-0"
WD Shth'g Flr Framing Plan (50+15 PSF)

C:\Users\Sarah\Documents\15046 - Aries, 24x40 PC - MainFile_Sarah.rvt
3/3/2016 8:15:59 PM

R&S TAVARES ASSOCIATES
DESIGN • CONSULTING • PROJECT MGT
11777 Bernardo Plaza Ct. Suite 105
San Diego, CA 92128 858-444-3344
www.rstavares.com

PROFESSIONAL STAMP
REGISTERED PROFESSIONAL ENGINEER MANNY D. FRUCHT No. 50550 STRUCTURAL STATE OF CALIFORNIA
03/02/2016

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLIENT
CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-114654
AC ___ FLS ___ SS ___
DATE MAR 1 8 2016

PROJECT TITLE
24' x 40'
EXPANDABLE TO
48' x 40'
LICENSED ARCHITECT JASON R. SHIVELY III No. C-33467 04/01/17 RENEWAL DATE STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 115748
ACS ___ FLS ___ SS ___
DATE JAN 2 8 2017
REVISED

Revision Schedule

#	Description	Date

SHEET TITLE
WD SHTH'G FLR
FRM'G PLAN
(50+15 PSF)

PROJECT NUMBER
15046

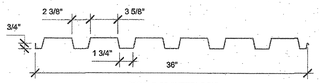
DRAWN BY
rMc/SM

CHECKED BY
JA/RT

DATE
2016/03/02

SHEET NO.
S1.0.1
SHEET OF SHEETS

Proprietary Property of Class Leasing
Proprietary Property of Class Leasing
Proprietary Property of Class Leasing

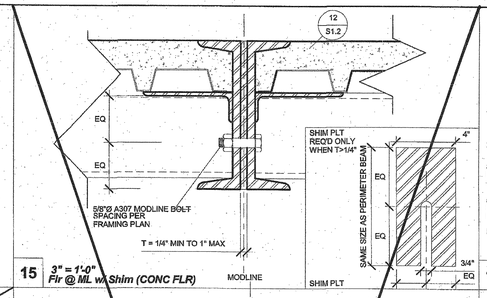


TYPE B-36 (INTERLOCK)

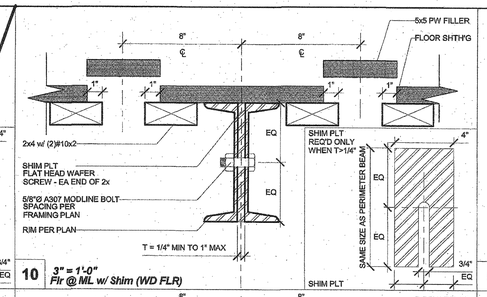
DECK SECTION PROPERTIES
TYPE B

THICKNESS	= 0.036"
POSITIVE	= 0.235 IN⁴
NEGITIVE	= 0.246 IN⁴
I	= 0.22 IN⁴

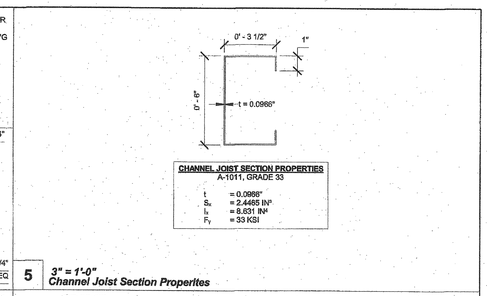
20 *1 1/2" = 1'-0"*
MTL Deck Section Properites



15 *3" = 1'-0"*
Flr @ ML w/ Shim (CONC FLR)



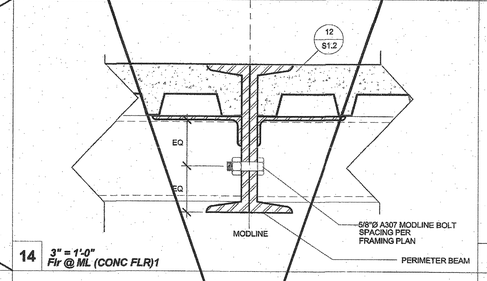
10 *3" = 1'-0"*
Flr @ ML w/ Shim (WD FLR)



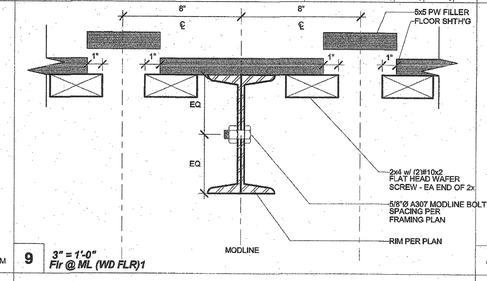
CHANNEL JOIST SECTION PROPERTIES
A-1011, GRADE 33

t	= 0.0966"
S_x	= 2.4466 IN³
I_x	= 8.631 IN⁴
F_y	= 33 KSI

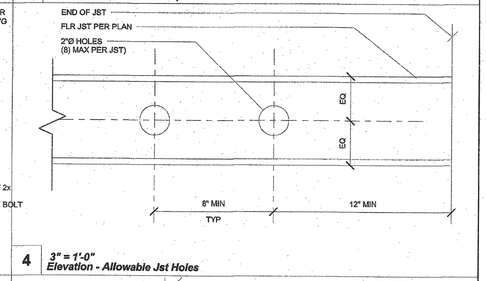
5 *3" = 1'-0"*
Channel Joist Section Properites



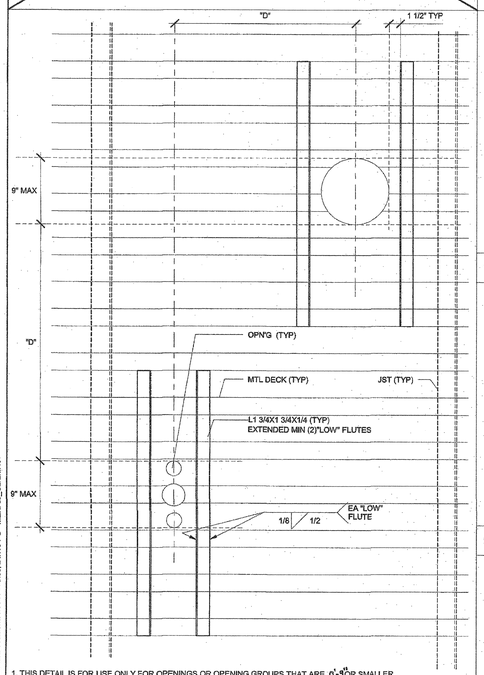
14 *3" = 1'-0"*
Flr @ ML (CONC FLR)1



9 *3" = 1'-0"*
Flr @ ML (WD FLR)1

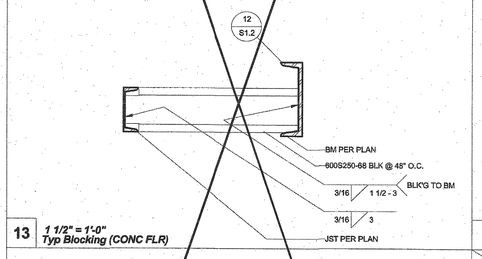


4 *3" = 1'-0"*
Elevation - Allowable Jst Holes

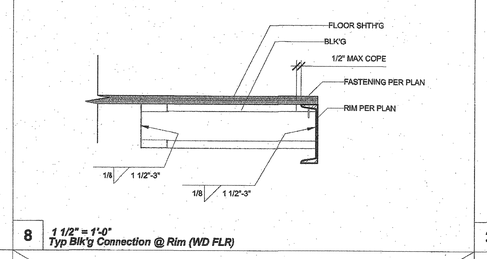


1. THIS DETAIL IS FOR USE ONLY FOR OPENINGS OR OPENING GROUPS THAT ARE 6'-0" OR SMALLER.
2. OPENINGS 2"Ø OR LESS NOT OCCURING IN THE FLUTE DO NOT REQUIRE REINFORCING AND MAY BE CORED THRU THE CONCRETE.
3. IF "D" IS LESS THAN 32" THEN THE GROUP OF OPENINGS MUST BE BLOCKED OUT WITH ADDITIONAL FRAMING.
4. PRIOR TO CONCRETE POUR, BLOCK OUT THE OPENINGS. AFTER THE CONCRETE HAS BEEN CURED THE DECK MAY BE CUT.
5. INDIVIDUAL HOLES LESS THAN 6"Ø (152 MM) AND CUTTING NO MORE THAN ONE FLUTE NEEDS NO REINFORCING

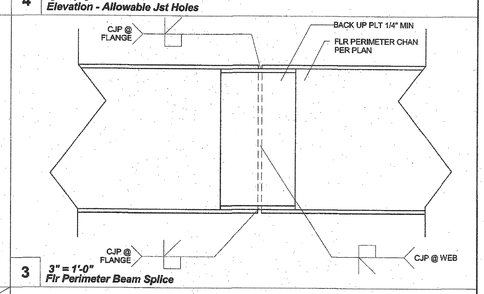
16 *1 1/2" = 1'-0"*
Typ Deck Penetrations (CONC FLR)



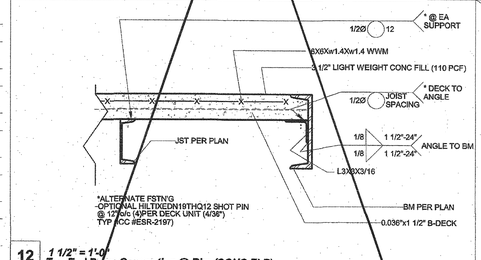
13 *1 1/2" = 1'-0"*
Typ Blocking (CONC FLR)



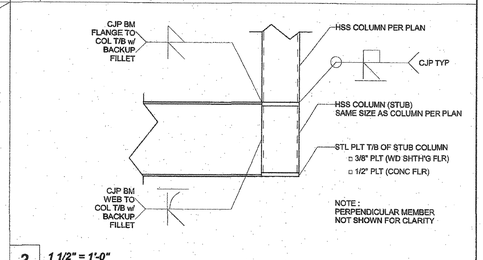
8 *1 1/2" = 1'-0"*
Typ Blk'g Connection @ Rim (WD FLR)



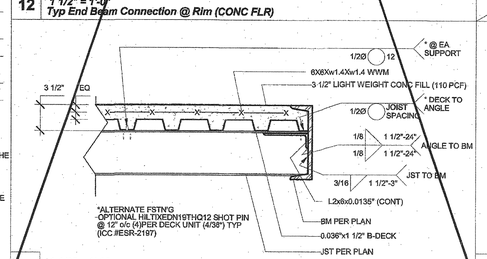
3 *3" = 1'-0"*
Flr Perimeter Beam Splice



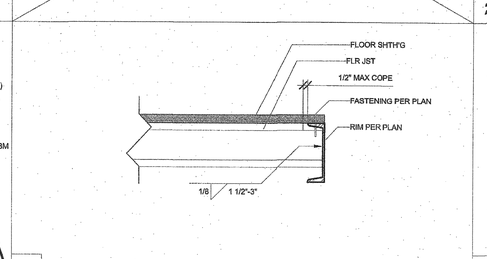
12 *1 1/2" = 1'-0"*
Typ End Beam Connection @ Rim (CONC FLR)



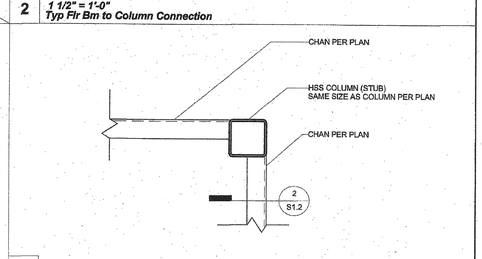
2 *1 1/2" = 1'-0"*
Typ Flr Bm to Column Connection



11 *1 1/2" = 1'-0"*
Typ Side Beam Connection @ Rim (CONC FLR)



6 *1 1/2" = 1'-0"*
Typ Joist Connection @ Rim (WD FLR)



1 *1 1/2" = 1'-0"*
Typ Corner Connection

C:\Users\Sarah\Documents\15046 - Alvis, 24x40 PC - Master File_Sarah.rvt
3/3/2016 8:16:21 PM

R&S TAVARES ASSOCIATES
DESIGN ✦ CONSULTING ✦ PROJECT MGT
11777 Bernardo Plaza Ct, Suite 105
San Diego, CA 92128 858-444-3344
www.rstavares.com

PROFESSIONAL STAMP



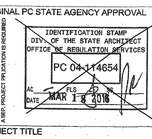
03/02/2016

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLIENT

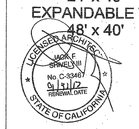
CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL



PROJECT TITLE

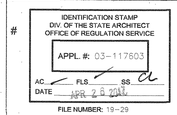
24' x 40'
EXPANDABLE TO
48' x 40'



PROJECT SPECIFIC STATE AGENCY APPROVAL



#



FILE NUMBER: 19-29

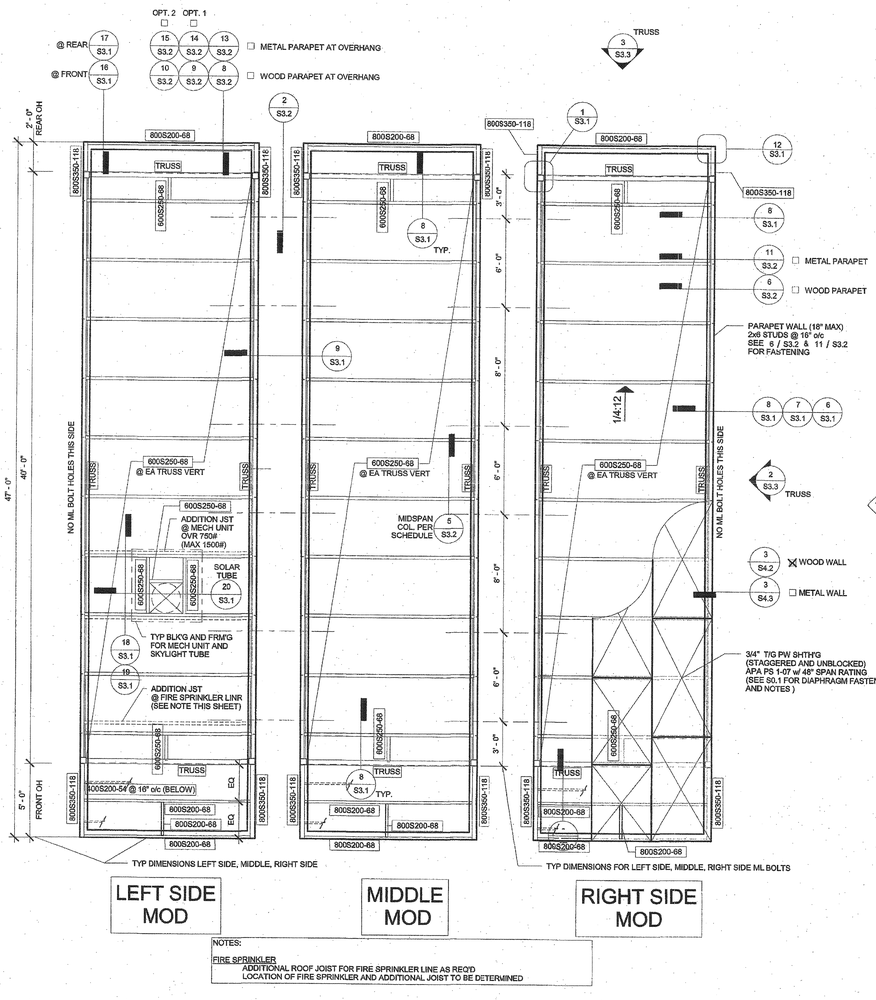
SHEET TITLE

STRUCTURAL DETAILS (FLOOR)

PROJECT NUMBER	15046
DRAWN BY	rMc/SM
CHECKED BY	JA/RT
DATE	2016/03/02
SHEET NO.	S1.2

SHEET OF SHEETS

Proprietary Property of Class Leasing
Proprietary Property of Class Leasing



NOTES:

FIRE SPRINKLER
ADDITIONAL ROOF JOIST FOR FIRE SPRINKLER LINE AS REQ'D
LOCATION OF FIRE SPRINKLER AND ADDITIONAL JOIST TO BE DETERMINED

1 *1/4" = 1'-0"*
Mono Roof Framing Plan

3/15/2016 9:53:50 AM C:\Users\Sarah\Documents\15046 - Arbis, 24x40 PC - MainFile_Sarah.rvt

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL #: 03-117603
AC. FLS. SS
DATE APR 26 2016
FILE NUMBER: 19-29

R&S TAVARES ASSOCIATES
DESIGN ✦ CONSULTING ✦ PROJECT MGT
11777 Bernardo Plaza Dr. Suite 105
San Diego, CA 92128 858.444.3344
www.rstavares.com

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER MANNY D. PRASAD S3380 STRUCTURAL STATE OF CALIFORNIA

03/02/2016

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-114654
AC. FLS. SS
DATE MAR 2 8 2016

PROJECT TITLE

24' x 40'
EXPANDABLE TO
48' x 40'

LICENSED ARCHITECT JACK F. SHIRELY III No. C-33467 RENEWAL DATE 08/31/17 STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 118748
ACS FLS SS
DATE JAN 25 2017
REVISED

Revision Schedule

#	Description	Date

SHEET TITLE
MONO SLOPE
ROOF FRM'G PLAN

PROJECT NUMBER 15046

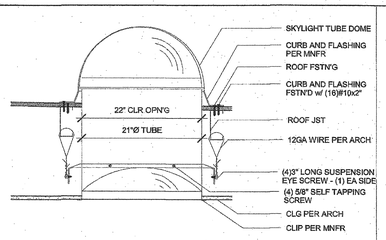
DRAWN BY rMc/SM

CHECKED BY JA/RT

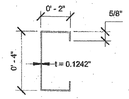
DATE 2016/03/02

SHEET NO.
S3.0.1
SHEET OF SHEETS

Proprietary Property of Class Leasing
Proprietary Property of Class Leasing
Proprietary Property of Class Leasing



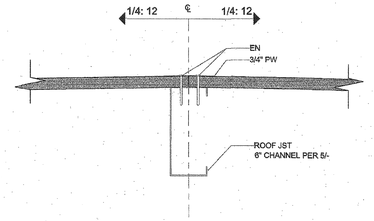
20 *1" = 1'-0"*
SKYLIGHT TUBE



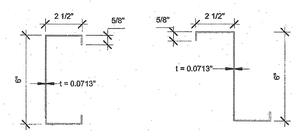
OVERHANG CHANNEL SECTION PROPERTIES
400S200-54
A-1003, GRADE 33, TYPE H

t	= 0.1242"
S_x	= 0.623 IN^3
I_x	= 1.292 IN^4
F_y	= 33 KSI

15 *3" = 1'-0"*
Soffit Channel Section Properties



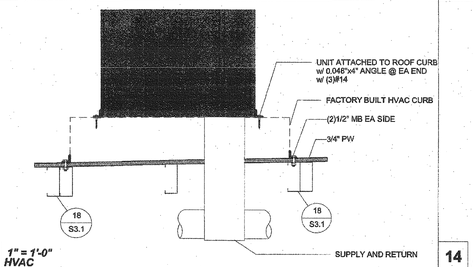
10 *3" = 1'-0"*
Roof @ Ridge



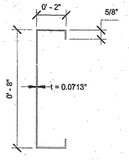
CHANNEL JOIST SECTION PROPERTIES
600S250-68 OR ZEX2.5X5/8-14GA
A-1003, GRADE 33, TYPE H

t	= 0.0713"
S_x	= 1.508 IN^3
I_x	= 4.727 IN^4
F_y	= 33 KSI

5 *3" = 1'-0"*
Roof Channel Joist Section Properites



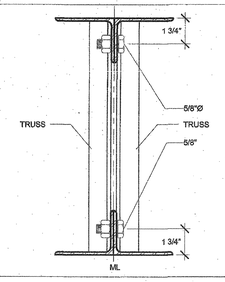
19 *1" = 1'-0"*
HVAC



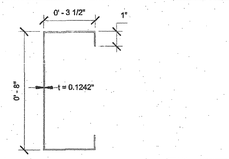
OVERHANG CHANNEL SECTION PROPERTIES
800S200-68
A-1003, GRADE 33, TYPE H

t	= 0.0713"
S_x	= 0.740 IN^3
I_x	= 8.140 IN^4
F_y	= 33 KSI

14 *3" = 1'-0"*
Fascia Channel Section Properties



9 *3" = 1'-0"*
Truss @ ML

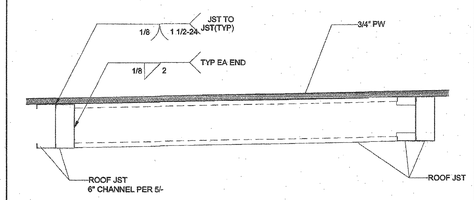


OVERHANG CHANNEL SECTION PROPERTIES
800S350-118
A-1003, GRADE 33, TYPE H

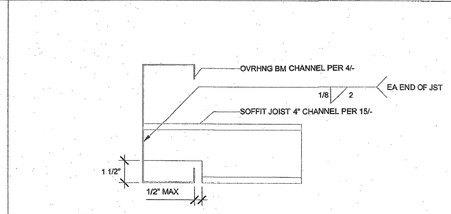
t	= 0.1242"
S_x	= 5.1831 IN^3
I_x	= 20.041 IN^4
F_y	= 33 KSI

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC. FLS SS. CL
DATE APR 2 6 2004
FILE NUMBER: 19-29

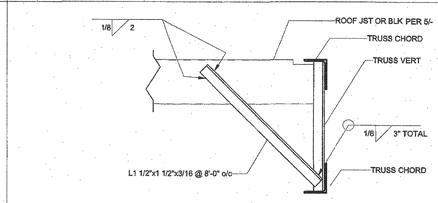
4 *3" = 1'-0"*
Overhang Beam Section Properites



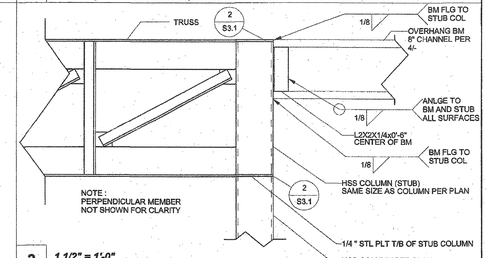
18 *1 1/2" = 1'-0"*
HVAC Frmg



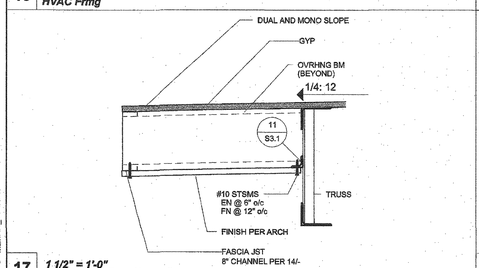
13 *3" = 1'-0"*
Typ Soffit Joist Connection



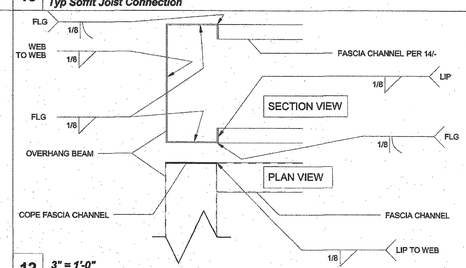
8 *1 1/2" = 1'-0"*
Typ Roof Jst Bracing



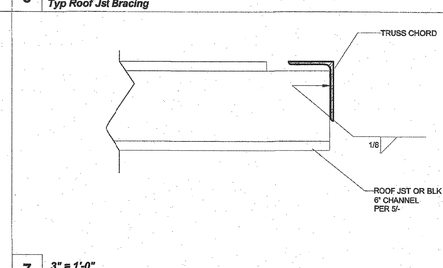
3 *1 1/2" = 1'-0"*
Typ Overhang Beam to Column Connection



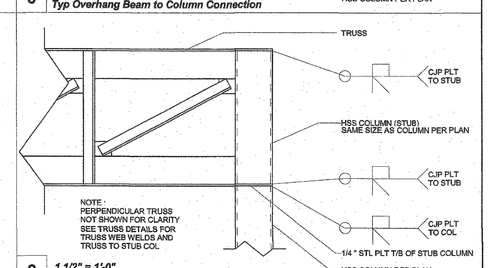
17 *1 1/2" = 1'-0"*
Overhang @ Rear Endwall



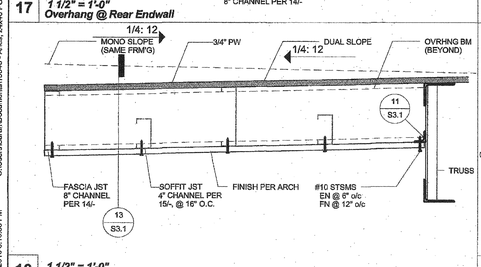
12 *3" = 1'-0"*
Fascia to Overhang Beam



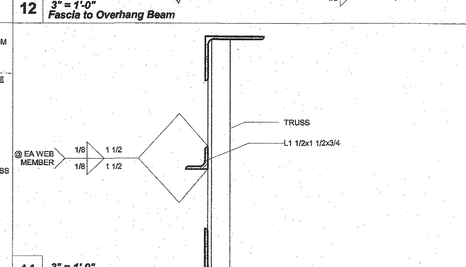
7 *3" = 1'-0"*
Typ Roof Joist Connection @ Truss Chord



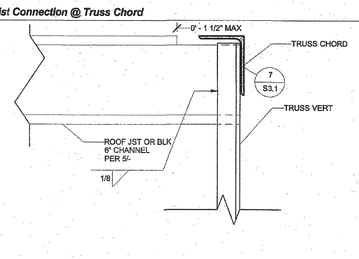
2 *1 1/2" = 1'-0"*
Typ Stub Column Connection



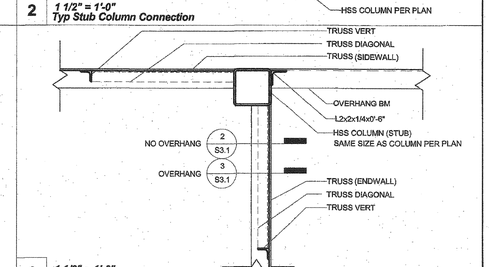
16 *1 1/2" = 1'-0"*
Overhang @ Front Endwall



11 *3" = 1'-0"*
Angle to Truss



6 *3" = 1'-0"*
Typ Roof Joist Connection @ Truss Vert



1 *1 1/2" = 1'-0"*
Typ Corner Connection @ Roof

3/2/2016 8:16:33 PM C:\Users\Sarah\Documents\15046 - Aries, 24x40 PC - MainFile_Sarah.rvt

R&S TAVARES ASSOCIATES
DESIGN ✦ CONSULTING ✦ PROJECT MGT
11777 Bernardo Plaza Dr, Suite 105
San Diego, CA 92128 858.444.3544
www.rstavaresdm.com

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER MARK D. PRUSSMAN No. 36660 STRUCTURAL STATE OF CALIFORNIA

03/02/2016

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-114654
AC. FLS. SS. JN
DATE MAR 2 8 2016

PROJECT TITLE

24' x 40'
EXPANDABLE TO
48' x 40'

LICENSED ARCHITECT NICK F. SHIVELY III No. C-33487 RENEWAL DATE 08/31/17 STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 115748
ACS FLS SS
DATE JAN 2 6 2017
REVISED

Revision Schedule

#	Description	Date

SHEET TITLE
STRUCTURAL DETAILS (ROOF)

PROJECT NUMBER
15046

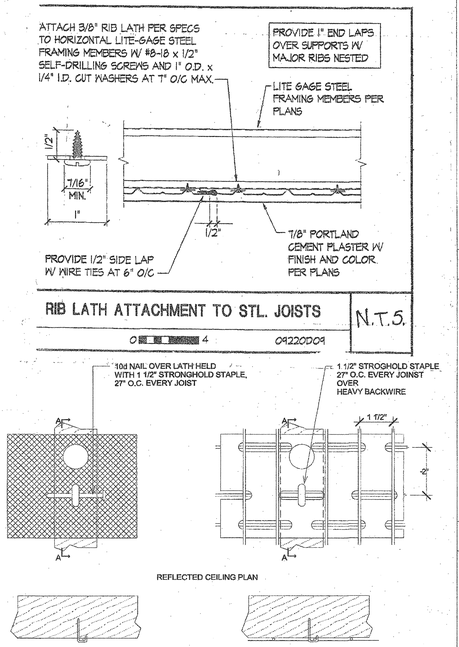
DRAWN BY
rMc/SM

CHECKED BY
JA/RT

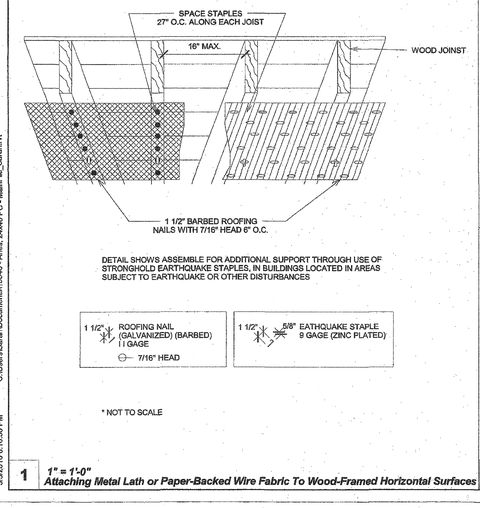
DATE
2016/03/02

SHEET NO.
S3.1
SHEET OF SHEETS

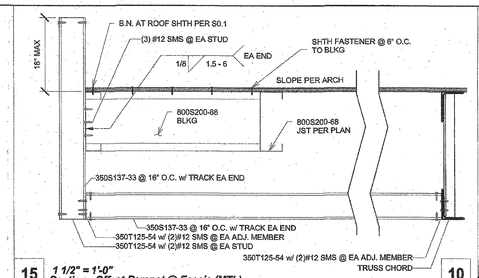
Proprietary Property of Class Leasing



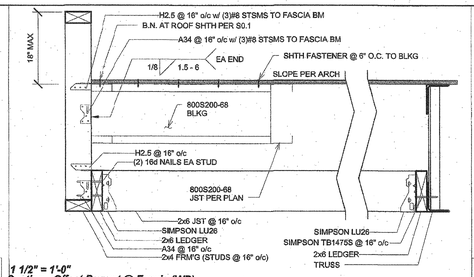
3 *1" = 1'-0"*
Att Metal Lath or Paper-Backed Wire Fabric To Framed Horizontal Surfaces



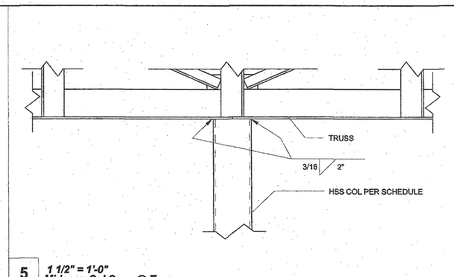
1 *1" = 1'-0"*
Attaching Metal Lath or Paper-Backed Wire Fabric To Wood-Framed Horizontal Surfaces



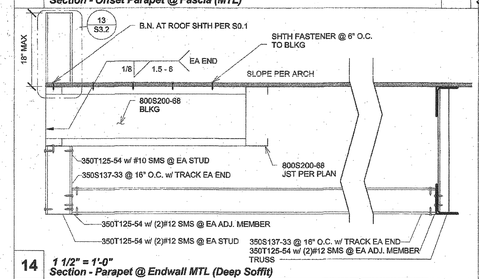
15 *1 1/2" = 1'-0"*
Section - Offset Parapet @ Fascia (MTL)



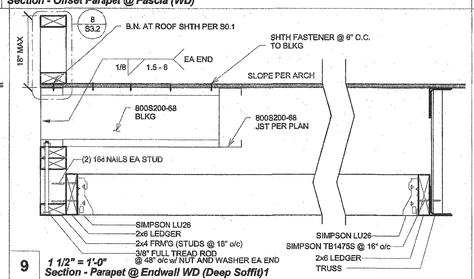
10 *1 1/2" = 1'-0"*
Section - Offset Parapet @ Fascia (WD)



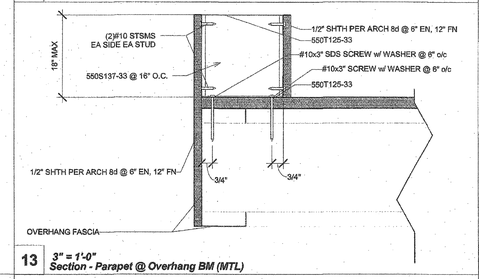
5 *1 1/2" = 1'-0"*
Midspan Col Conn @ Truss



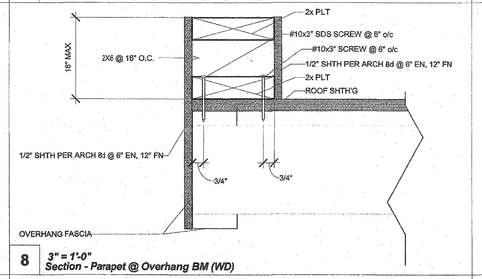
14 *1 1/2" = 1'-0"*
Section - Parapet @ Endwall MTL (Deep Soffit)



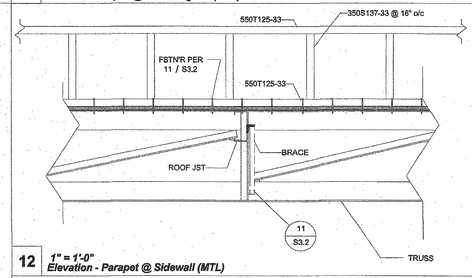
9 *1 1/2" = 1'-0"*
Section - Parapet @ Endwall WD (Deep Soffit)1



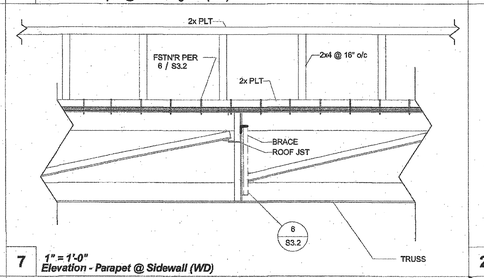
13 *3" = 1'-0"*
Section - Parapet @ Overhang BM (MTL)



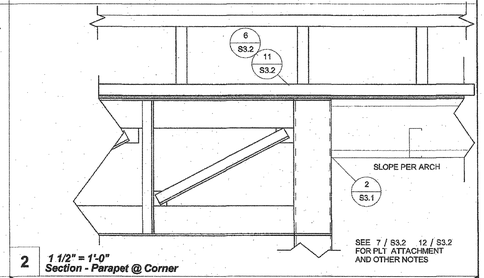
8 *3" = 1'-0"*
Section - Parapet @ Overhang BM (WD)



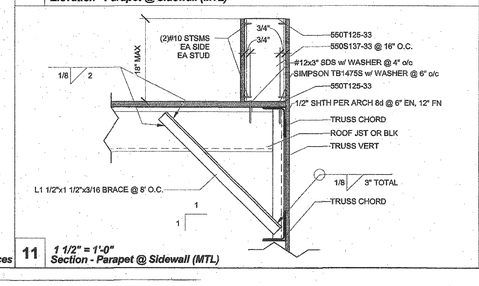
12 *1" = 1'-0"*
Elevation - Parapet @ Sidewall (MTL)



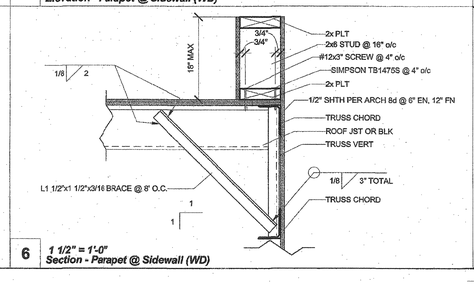
7 *1" = 1'-0"*
Elevation - Parapet @ Sidewall (WD)



2 *1 1/2" = 1'-0"*
Section - Parapet @ Corner



11 *1 1/2" = 1'-0"*
Section - Parapet @ Sidewall (MTL)



6 *1 1/2" = 1'-0"*
Section - Parapet @ Sidewall (WD)

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC
FLS
SS
DATE APR 2 8 2017

FILE NUMBER: 19-29

3/3/2016 8:16:38 PM C:\Users\Sarah\Documents\15046 - Aries, 24x40 PC - MattiFlw_Sarah.rvt

R&S TAVARES ASSOCIATES
DESIGN ✦ CONSULTING ✦ PROJECT MGT
11777 Bernardo Plaza Dr. Suite 102
San Diego, CA 92128 858.44.3344
www.rstavares.com

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER MANNY D. FRANCISCO No. 46888 STRUCTURAL STATE OF CALIFORNIA
03/02/2016

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL

PROVIDE DSA ID DOCUMENT LOCATION IS REQUIRED
A DSA PROJECT INVOLVEMENT IS REQUIRED

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-114654
AC FLS SS
DATE MAR 0 8 2016

PROJECT TITLE

24' x 40'
EXPANDABLE TO
48' x 40'

LICENSED ARCHITECT JACK P. SHIVELY III No. C-33467 RENEWAL DATE 08/31/17 STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 115748
ACS FLS SS
DATE JAN 2 6 2017
REVISED

Revision Schedule

#	Description	Date

SHEET TITLE

ROOF DETAILS (SOFFIT/PARAPET)

PROJECT NUMBER 15046

DRAWN BY rMc/SM

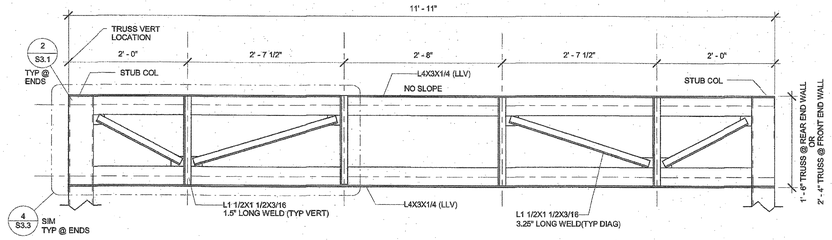
CHECKED BY JA/RT

DATE 2016/03/02

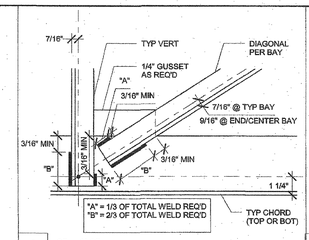
SHEET NO. S3.2

SHEET OF SHEETS

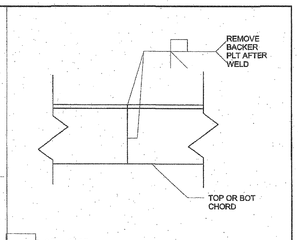
Proprietary Property of Class Leasing
Proprietary Property of Class Leasing



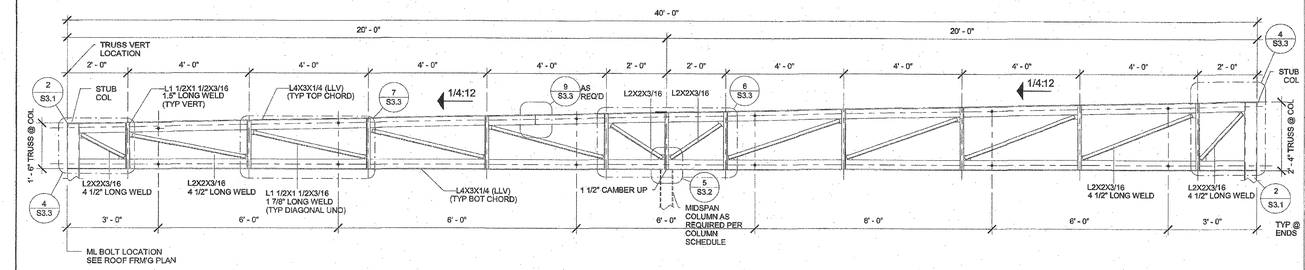
3 **1" = 1'-0"** ***End Wall Truss***



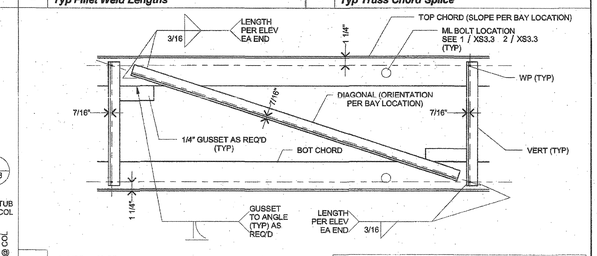
8 **3" = 1'-0"** ***Typ Fillet Weld Lengths***



9 **3" = 1'-0"** ***Typ Truss Chord Splice***

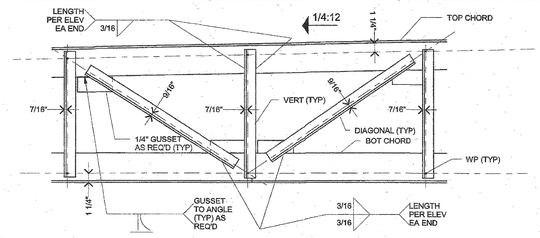


2 **1/2" = 1'-0"** ***Mono Truss***



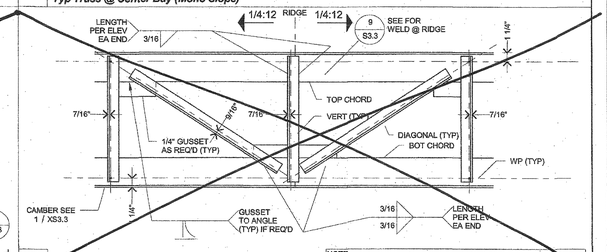
7 **1 1/2" = 1'-0"** ***Typ Truss Bay***

NOTE: SEE 8/S3.3 FOR ALL FILLET WELD LENGTH DISTRIBUTION



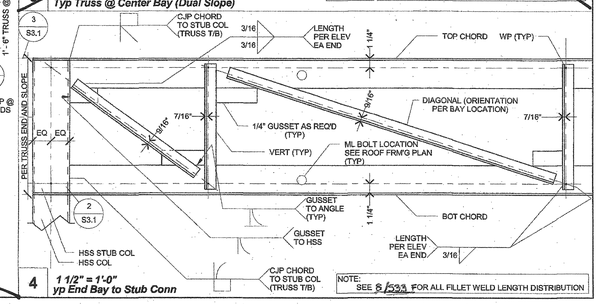
6 **1 1/2" = 1'-0"** ***Typ Truss @ Center Bay (Mono Slope)***

NOTE: SEE 8/S3.3 FOR ALL FILLET WELD LENGTH DISTRIBUTION



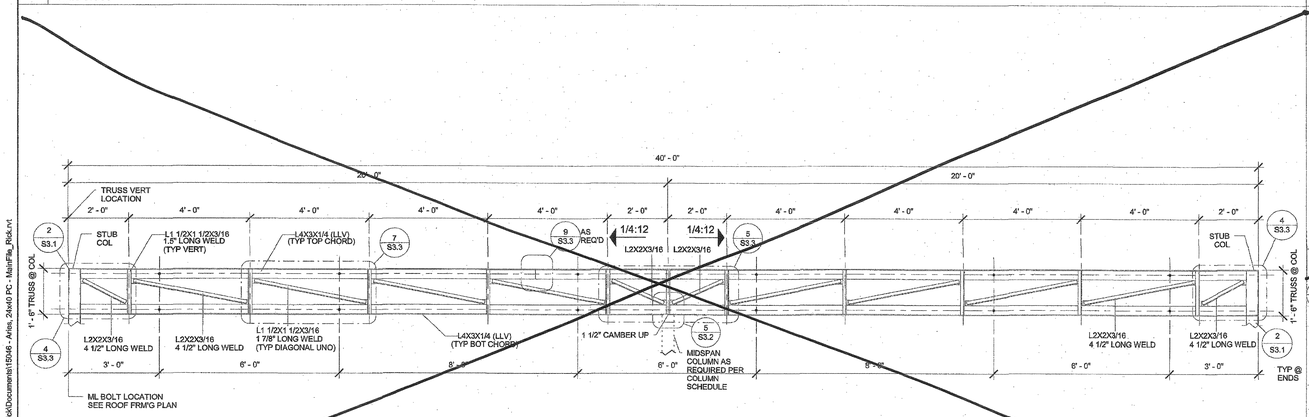
5 **1 1/2" = 1'-0"** ***Typ Truss @ Center Bay (Dual Slope)***

NOTE: SEE 8/S3.3 FOR ALL FILLET WELD LENGTH DISTRIBUTION



4 **1 1/2" = 1'-0"** ***yp End Bay to Stub Conn***

NOTE: SEE 8/S3.3 FOR ALL FILLET WELD LENGTH DISTRIBUTION



1 **1/2" = 1'-0"** ***Dual Truss***

3/16/2016 3:36:54 PM C:\Users\Rick\Documents\15046 - Ariel, 24x40 PC - MainFile_Rick.rvt

R&S TAVARES ASSOCIATES
DESIGN ✦ CONSULTING ✦ PROJECT MGT
11777 Bernardo Plaza Dr, Suite 105
San Diego, CA 92128 858.444.3044
www.rstavares.com

PROFESSIONAL STAMP



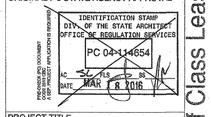
03/02/2016

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL

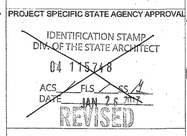


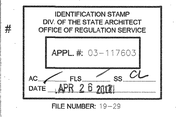
PROJECT TITLE

24' x 40'
EXPANDABLE TO
48' x 40'



PROJECT SPECIFIC STATE AGENCY APPROVAL





SHEET TITLE
ROOF PERIMETER TRUSS

PROJECT NUMBER
15046

DRAWN BY
rMc/SM

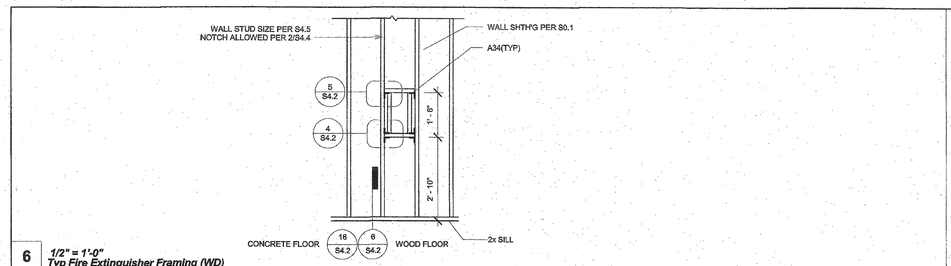
CHECKED BY
JA/RT

DATE
2016/03/02

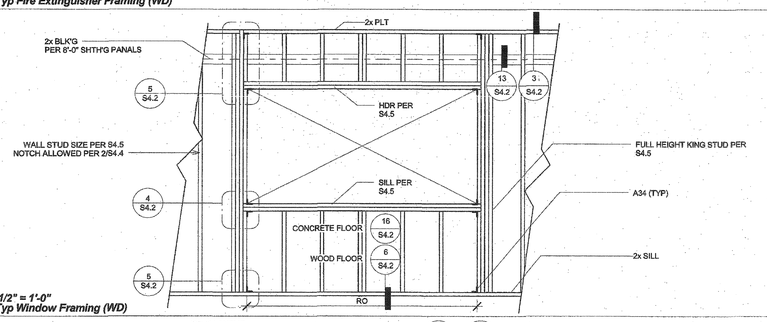
SHEET NO.
S3.3

SHEET OF SHEETS

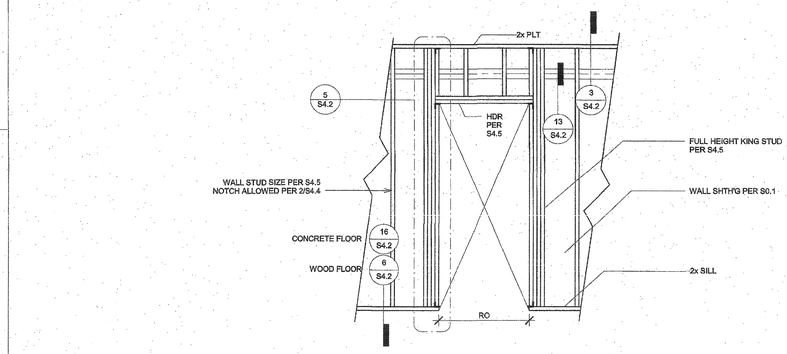
Proprietary Property of Class Leasing
Proprietary Property of Class Leasing
Proprietary Property of Class Leasing



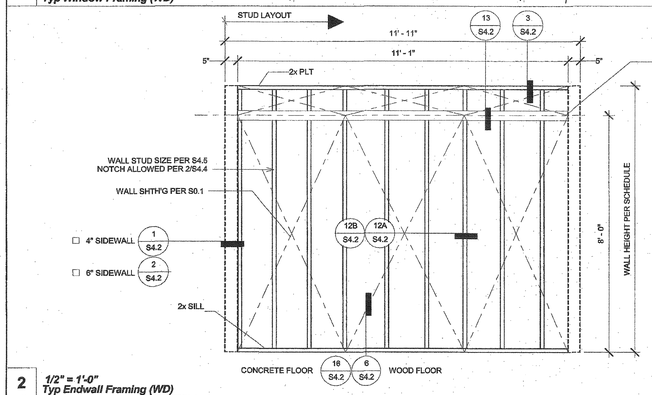
6 *1/2" = 1'-0"*
Typ Fire Extinguisher Framing (WD)



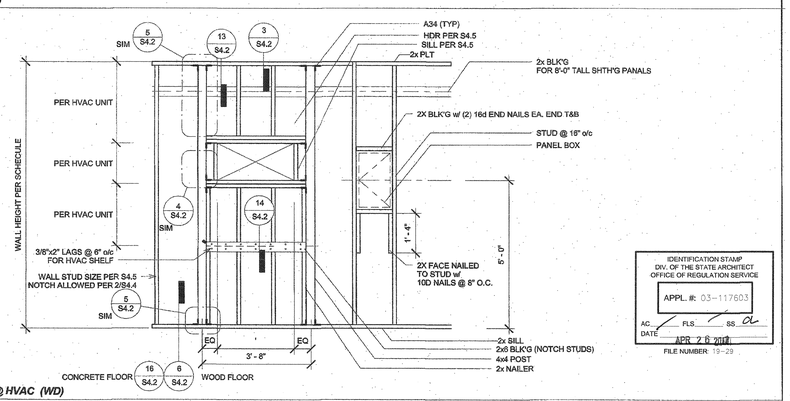
4 *1/2" = 1'-0"*
Typ Window Framing (WD)



5 *1/2" = 1'-0"*
Typ Door Framing (WD)

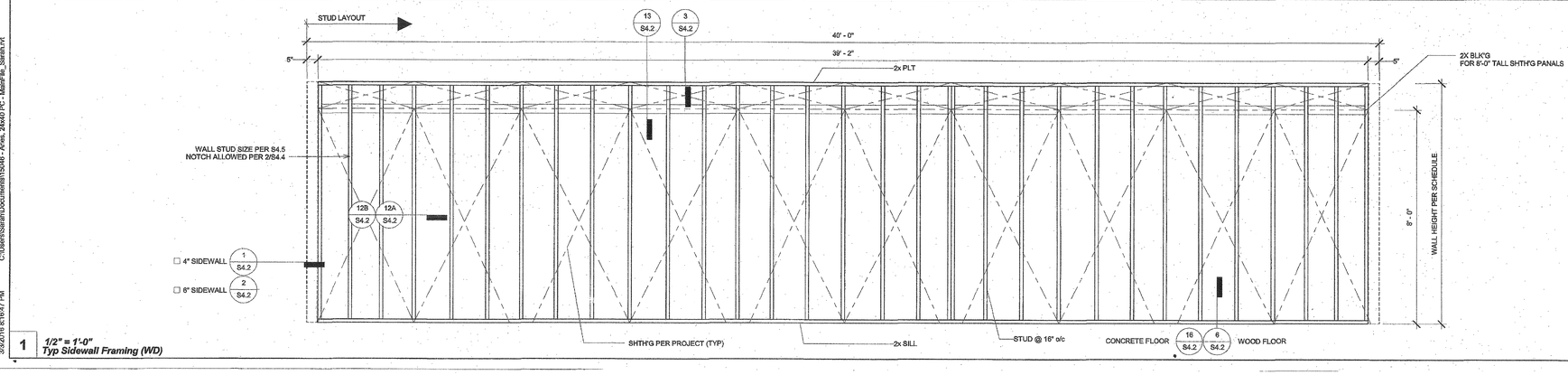


2 *1/2" = 1'-0"*
Typ Endwall Framing (WD)



3 *1/2" = 1'-0"*
Typ Endwall Framing @ HVAC (WD)

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
APPL. #: 03-117603
AC. FLS SS
DATE APR 2 6 2017
FILE NUMBER: 19-29



1 *1/2" = 1'-0"*
Typ Sidewall Framing (WD)

C:\Users\Sarah\Documents\15046 - Aries, 24x40 PC - MainFile_Sarah.rvt
3/3/2016 8:16:47 PM

R&S TAVARES ASSOCIATES
DESIGN ✦ CONSULTING ✦ PROJECT MGT
11777 Bernardo Plaza Dr. Suite 105
San Diego, CA 92128 858.444.3244
www.rstavares.com

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER
JIMMY D. FRANKS
No. 35560
STRUCTURAL
STATE OF CALIFORNIA

03/02/2016

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-114654
AC. FLS SS
DATE MAR 1 8 2016
PROJECT SPECIFIC DOCUMENT SUBJECT TO CHANGE PER USER PROJECT REVIEW AND REQUIREMENTS

PROJECT TITLE

24' x 40'
EXPANDABLE TO
48' x 40'

LICENSED ARCHITECT
JACK F. SURVELY III
No. C-33467
RENEWAL DATE 01/31/17
STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 115748
ACS FLS SS
DATE JAN 2 5 2017
REVISED

Revision Schedule

#	Description	Date

SHEET TITLE

WD WALL
FRAMING
ELEVATIONS

PROJECT NUMBER
15046

DRAWN BY
rMc/SM

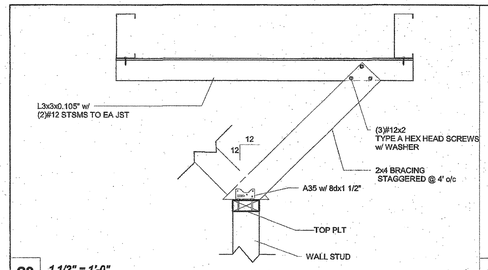
CHECKED BY
JA/RT

DATE
2016/03/02

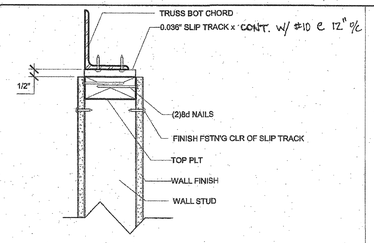
SHEET NO.
S4.1

SHEET OF SHEETS

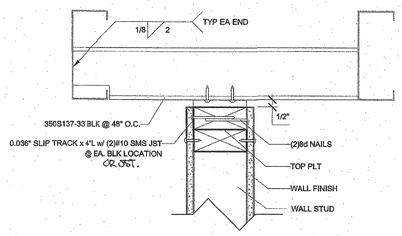
Proprietary Property of Class Leasing
Proprietary Property of Class Leasing



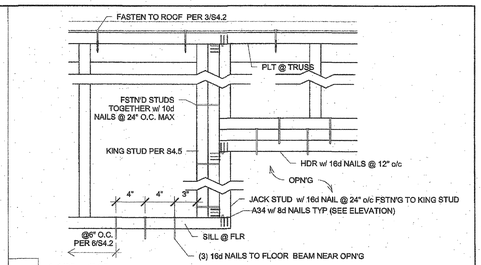
20 *1 1/2" = 1'-0"*
Sections - Interior Partition w/ Brace to Blk'g (WD)



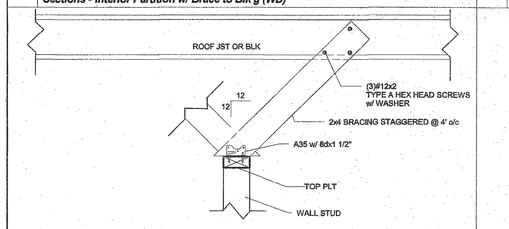
15 *3" = 1'-0"*
Section - Interior Wall Top Plate @ Truss (ML)



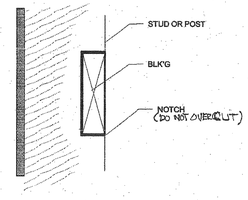
10 *3" = 1'-0"*
Sections - Interior Partition @ Blk'g (WD)



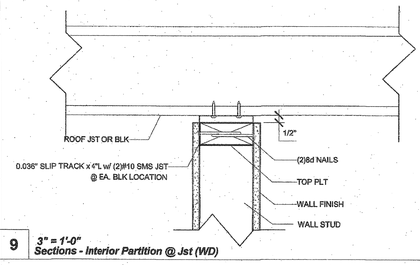
5 *1 1/2" = 1'-0"*
Elevation - Window/Door Hdr and Sill



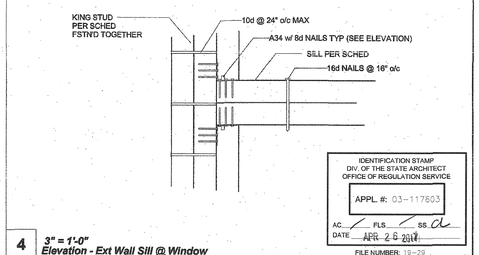
19 *1 1/2" = 1'-0"*
Sections - Interior Partition w/ Brace (WD)



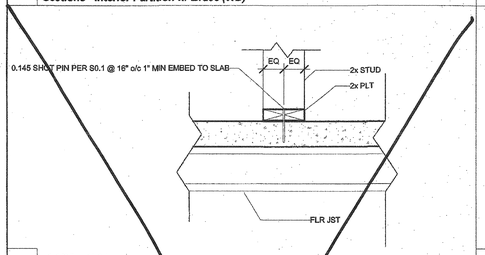
14 *3" = 1'-0"*
Notch Stud @ Blk'g



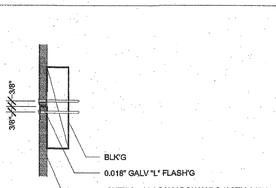
9 *3" = 1'-0"*
Sections - Interior Partition @ Jst (WD)



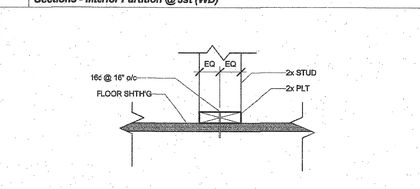
4 *3" = 1'-0"*
Elevation - Ext Wall Sill @ Window



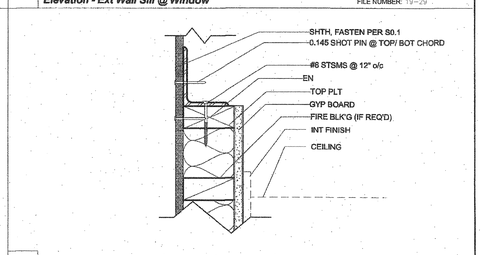
18 *1 1/2" = 1'-0"*
Typ Partition Sill Connection (CONC)



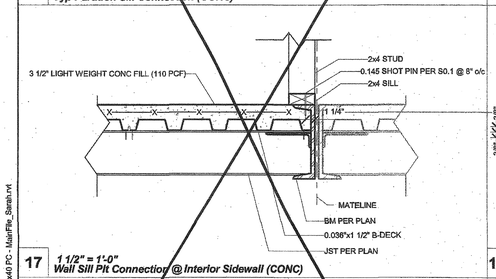
13 *3" = 1'-0"*
Shth'g @ Blk'g



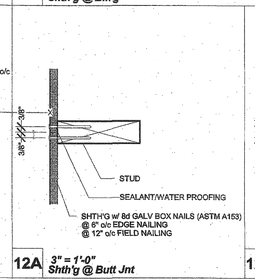
8 *1 1/2" = 1'-0"*
Typ Partition Sill Connection (WD)



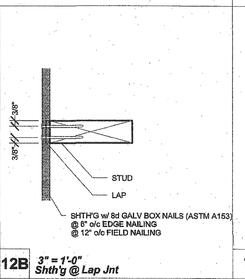
3 *3" = 1'-0"*
Section - Exterior Wall Top Plate @ Truss (WD)



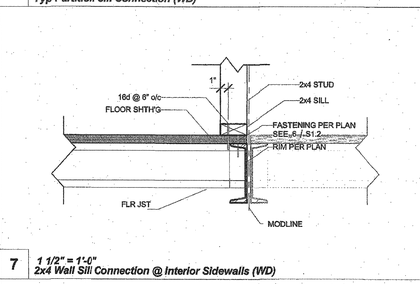
17 *1 1/2" = 1'-0"*
Wall Sill Plt Connection @ Interior Sidewall (CONC)



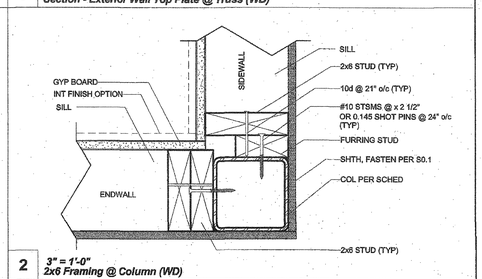
12A *3" = 1'-0"*
Shth'g @ Butt Jnt



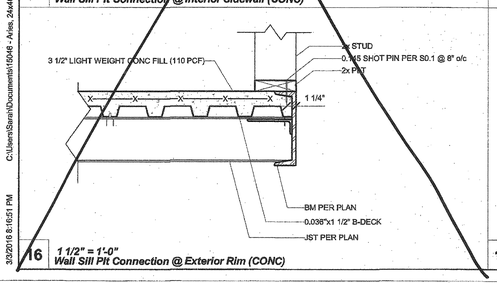
12B *3" = 1'-0"*
Shth'g @ Lap Jnt



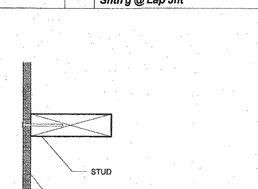
7 *1 1/2" = 1'-0"*
2x4 Wall Sill Connection @ Interior Sidewalls (WD)



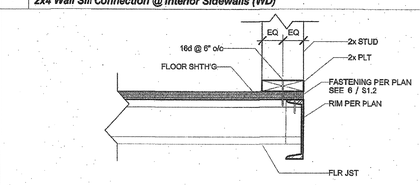
2 *3" = 1'-0"*
2x6 Framing @ Column (WD)



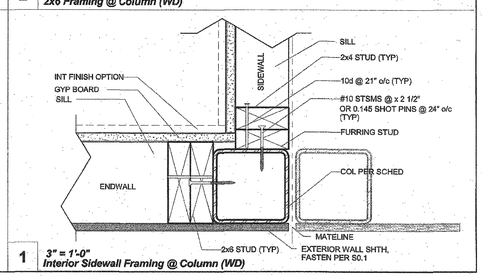
16 *1 1/2" = 1'-0"*
Wall Sill Plt Connection @ Exterior Rim (CONC)



11 *3" = 1'-0"*
Shth'g @ Stud Conn



6 *1 1/2" = 1'-0"*
Wall Sill Connection @ Exterior Rim (WD)



1 *3" = 1'-0"*
Interior Sidewall Framing @ Column (WD)

3/2/2016 8:10:51 PM C:\Users\Sarah\Documents\15046 - Arlen, 24x40 PC - MainFile_Sarah.rvt

R&S TAVARES ASSOCIATES
DESIGN ◆ CONSULTING ◆ PROJECT MGT
11777 BERNARDO PLAZA CT. SUITE 108
SAN DIEGO, CA 92128 858.443.3644
www.rstavares.com

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER MANNY D. PRASAD No. 26580 STRUCTURAL STATE OF CALIFORNIA

03/02/2016

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-114654
AC. FLS. SS.
DATE MAR 8 2016

PROJECT TITLE

24' x 40'
EXPANDABLE TO
48' x 40'

LICENSED ARCHITECT JACK N. SHIVELY III No. C-33467 01/31 RENEWAL DATE STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 115748
ACS FLS SS
DATE JAN 26 2017
REVISED

Revision Schedule

#	Description	Date

SHEET TITLE

WALL DETAILS
(WOOD FRAMING)

PROJECT NUMBER
15046

DRAWN BY
rMc/SM

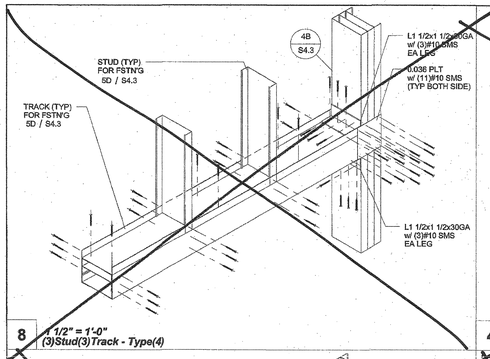
CHECKED BY
JA/RT

DATE
2016/03/02

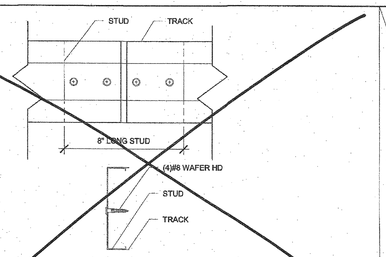
SHEET NO.
S4.2
SHEET OF SHEETS

Proprietary Property of Class Leasing

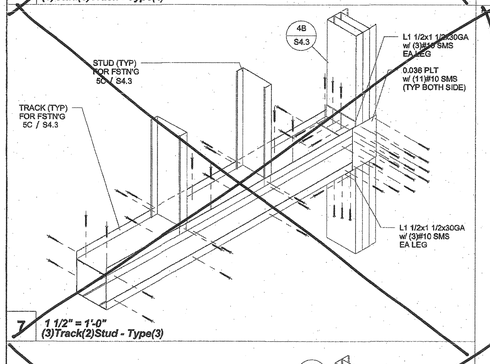
Proprietary Property of Class Leasing



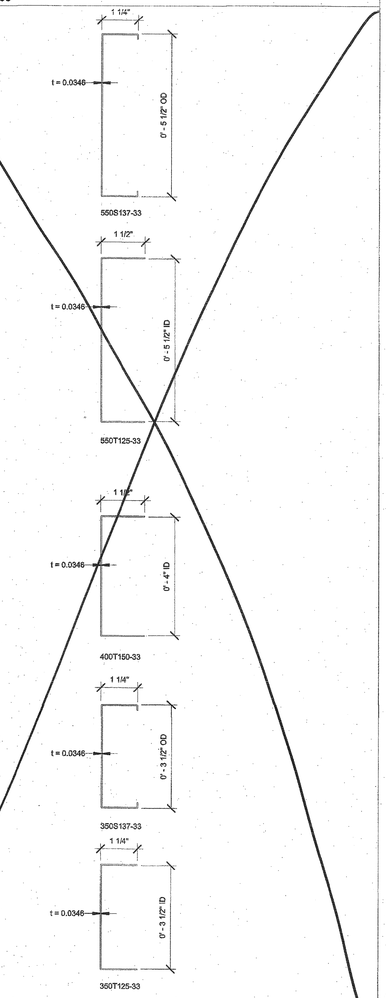
8 **1 1/2" = 1'-0"**
(3)Stud(3)Track - Type(4)



4 **3" = 1'-0"**
Track Splice

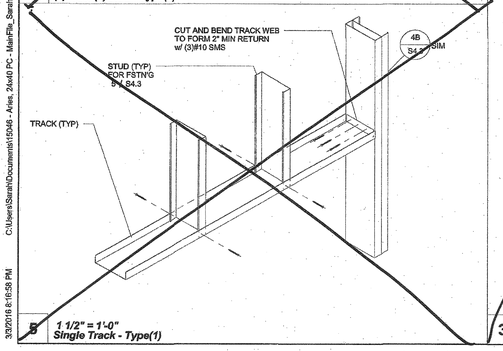


7 **1 1/2" = 1'-0"**
(3)Track(2)Stud - Type(3)

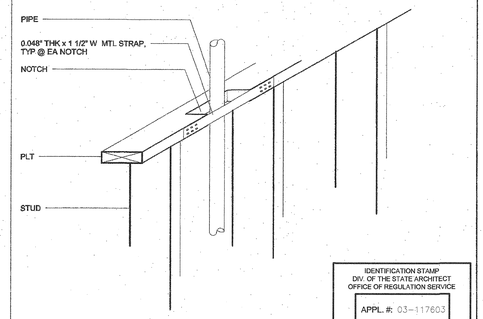


3 **6" = 1'-0"**
STUD AND TRACK

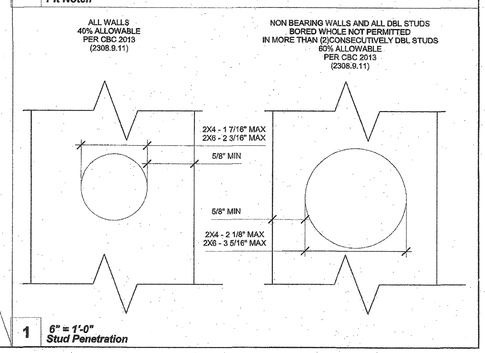
6 **1 1/2" = 1'-0"**
(2)Track(1)Stud - Type(2)



5 **1 1/2" = 1'-0"**
Single Track - Type(1)

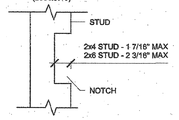


2 **1 1/2" = 1'-0"**
Pit Notch

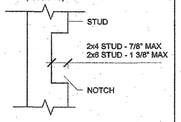


1 **6" = 1'-0"**
Stud Penetration

PARTITION WALLS
40% ALLOWABLE
PER CBC 2013
(2308.9.10)



INTERIOR BEARING WALLS AND EXTERIOR WALLS
25% ALLOWABLE
PER CBC 2013
(2308.9.10)



ALL WALLS
40% ALLOWABLE
PER CBC 2013
(2308.9.11)

NON BEARING WALLS AND ALL DBL STUDS
BORED WHOLE NOT PERMITTED
IN MORE THAN (2)CONSECUTIVELY DBL STUDS
60% ALLOWABLE
PER CBC 2013
(2308.9.11)

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC. FLS SS
DATE JAN 2 6 2016
FILE NUMBER 19-29

R&S TAVARES ASSOCIATES
DESIGN ✦ CONSULTING ✦ PROJECT MGT.
11777 Bernardo Plaza Dr, Suite 105
San Diego, CA 92128 858.444.8344
www.rstavares.com

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER
MANNY D. FRANCO
No. 26580
STRUCTURAL
STATE OF CALIFORNIA

03/02/2016

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-114654
AC. FLS SS
DATE MAR 1 8 2016

PROJECT TITLE

24' x 40'
EXPANDABLE TO
48' x 40'

LICENSED ARCHITECT
JOHN K SHAVELY III
No. C-33467
06/30/17
RENEWAL DATE
STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 115748
ACS FLS SS
DATE JAN 2 6 2016
REVISED

Revision Schedule

#	Description	Date

SHEET TITLE
TYP FRAMING

PROJECT NUMBER
15046

DRAWN BY
rMc/SM

CHECKED BY
JA/RT

DATE
2016/03/02

SHEET NO.
S4.4

SHEET OF SHEETS

3/2/2016 6:16:58 PM C:\Users\Sarah\Documents\15046 - Aries, 24x40 PC - MainFile_Sarah.rvt

Proprietary Property of Class Leasing
Proprietary Property of Class Leasing
Proprietary Property of Class Leasing

2x4 Interior Wall Opening Schedule

COL HEIGHT	OPN'G SIZE	HDR			SILL			FULL HEIGHT KING STUD		
		Lumber	Number	Type	Lumber	Number	Type	Lumber	Number	Type
9FT	3070	HF	1	#2	-	-	-	HF	2	#2
		DF	1	#2	-	-	-	DF	2	#2
	4070	HF	1	#2	-	-	-	HF	2	#2
		DF	1	#2	-	-	-	DF	2	#2
	6040	HF	2	#2	DF	2	#2	HF	2	#2
		DF	2	#2	DF	2	#2	DF	2	#2
	8040	HF	3	#2	HF	3	#2	HF	2	#2
		DF	3	#2	DF	3	#2	DF	2	#2
10FT	3070	HF	1	#2	-	-	-	HF	2	#2
		DF	1	#2	-	-	-	DF	2	#2
	4070	HF	1	#2	-	-	-	HF	2	#2
		DF	1	#2	-	-	-	DF	2	#2
	6040	HF	2	#2	HF	2	#2	HF	2	#2
		DF	2	#2	DF	2	#2	DF	2	#2
	8040	HF	3	#2	HF	3	#2	HF	2	#2
		DF	3	#2	DF	3	#2	DF	2	#2

2x4 Interior Wall Framing Schedule

COL HEIGHT	Typical Location				4ft From Building Corner			
	Lumber	Number	Type	Spacing	Lumber	Number	Type	Spacing
9	HF	1	#2	16" O.C.	-	-	-	-
	DF	1	#2	16" O.C.	-	-	-	-
10	HF	1	#2	16" O.C.	-	-	-	-
	DF	1	#2	16" O.C.	-	-	-	-

2x6 Exterior Wall Opening Schedule (SHTH'G FINISH)

COL HEIGHT	OPN'G SIZE	HDR			SILL			FULL HEIGHT KING STUD		
		Lumber	Number	Type	Lumber	Number	Type	Lumber	Number	Type
9FT	3070	HF	1	#2	HF	1	#2	HF	1	#2
		DF	1	#2	DF	1	#2	DF	1	#2
	4070	HF	1	#2	HF	1	#2	HF	1	#2
		DF	1	#2	DF	1	#2	DF	1	#2
	6040	HF	1	#2	HF	1	#2	HF	1	#2
		DF	1	#2	DF	1	#2	DF	1	#2
	8040	HF	1	#2	HF	1	#2	HF	2	#2
		DF	1	#2	DF	1	#2	DF	2	#2
10FT	3070	HF	1	#2	HF	1	#2	HF	1	#2
		DF	1	#2	DF	1	#2	DF	1	#2
	4070	HF	1	#2	HF	1	#2	HF	1	#2
		DF	1	#2	DF	1	#2	DF	1	#2
	6040	HF	1	#2	HF	1	#2	HF	2	#2
		DF	1	#2	DF	1	#2	DF	2	#2
	8040	HF	1	#2	HF	1	#2	HF	2	#2
		DF	1	#2	DF	1	#2	DF	2	#2

2x6 Exterior Wall Framing Schedule (SHTH'G FINISH)

COL HEIGHT	Typical Location				4ft From Building Corner			
	Lumber	Number	Type	Spacing	lumber	Number	Type	Spacing
9	HF	1	#2	16" O.C.	HF	1	#2	16" O.C.
	DF	1	#2	16" O.C.	DF	1	#2	16" O.C.
10	HF	1	#2	16" O.C.	HF	1	#2	16" O.C.
	DF	1	#2	16" O.C.	DF	1	#2	16" O.C.

2x6 Exterior Wall Opening Schedule (PLASTER FINISH)

COL HEIGHT	OPN'G SIZE	HDR			SILL			FULL HEIGHT KING STUD		
		Lumber	Number	Type	Lumber	Number	Type	Lumber	Number	Type
9FT	3070	HF	1	#2	HF	1	#2	HF	1	#2
		DF	1	#2	DF	1	#2	DF	1	#2
	4070	HF	1	#2	HF	1	#2	HF	1	#2
		DF	1	#2	DF	1	#2	DF	1	#2
	6040	HF	1	#2	HF	1	#2	HF	2	#2
		DF	1	#2	DF	1	#2	DF	1	#2
	8040	HF	1	#2	HF	1	#2	HF	2	#2
		DF	1	#2	DF	1	#2	DF	2	#2
10FT	3070	HF	1	#2	HF	1	#2	HF	2	#2
		DF	1	#2	DF	1	#2	DF	1	#2
	4070	HF	1	#2	HF	1	#2	HF	2	#2
		DF	1	#2	DF	1	#2	DF	1	#2
	6040	HF	1	#2	HF	1	#2	HF	2	#2
		DF	1	#2	DF	1	#2	DF	2	#2
	8040	HF	1	#2	HF	1	#2	HF	2	#2
		DF	1	#2	DF	1	#2	DF	2	#2

2x6 Exterior Wall Framing Schedule (PLASTER FINISH)

COL HEIGHT	Typical Location				4ft From Building Corner			
	Lumber	Number	Type	Spacing	Lumber	Number	Type	Spacing
9	HF	1	#2	16" O.C.	HF	1	#2	16" O.C.
	DF	1	#2	16" O.C.	DF	1	#2	16" O.C.
10	HF	1	#2	16" O.C.	HF	1	#2	16" O.C.
	DF	1	#2	16" O.C.	DF	1	#2	16" O.C.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC. FLS. SS. CL
DATE APR 26 2017
FILE NUMBER 19-29

□ 350 Interior Wall Opening Schedule --Studs = 350S137-33 --Track = 350T125-33

Col Ht	Opn'g Size	HDR		SILL		FULL HEIGHT KING STUD		
		Type	REF. SA.4	Type	REF. SA.4	Type	Num.	Size
9'- 0"	3070	1	5	N/A	N/A	Stud	(2)	350S137-33
	4070	1	5	N/A	N/A	Stud	(2)	350S137-33
	6040	2	6	2	6	Stud	(3)	350S137-33
	8040	3	6	3	6	Stud	(3)	350S137-33
10'- 0"	3070	1	5	N/A	N/A	Stud	(2)	350S137-33
	4070	2	5	N/A	N/A	Stud	(2)	350S137-33
	6040	2	6	2	6	Stud	(3)	350S137-33
	8040	4	6	4	6	Stud	(4)	350S137-33

□ 350 Interior Wall Framing Schedule

Column Height	Typ Wall Framing				4' From Corner Stud			
	Size	Number	Type	Spacing	Lumber	Number	Type	Spacing
9'- 0"	350S137-33	(1)	Stud	16" o/c	-	-	-	-
10'- 0"	350S137-33	(1)	Stud	16" o/c	-	-	-	-

□ 550 Exterior Wall Opening Schedule (SHTH'G FINSIH) --Studs = 550S137-33 --Track = 550T125-33

Col Ht	Opn'g Size	HDR		SILL		FULL HEIGHT KING STUD		
		Type	REF. SA.4	Type	REF. SA.4	Type	Num.	Size
9'- 0"	3070	1	5	N/A	N/A	Stud	(2)	550S137-33
	4070	1	5	N/A	N/A	Stud	(2)	550S137-33
	6040	2	6	2	6	Stud	(3)	550S137-33
	8040	3	6	3	6	Stud	(3)	550S137-33
10'- 0"	3070	1	5	N/A	N/A	Stud	(2)	550S137-33
	4070	2	5	N/A	N/A	Stud	(2)	550S137-33
	6040	2	6	2	6	Stud	(3)	550S137-33
	8040	4	6	4	6	Stud	(4)	550S137-33

□ 550 Exterior Wall Framing Schedule (SHTH'G FINISH)

Column Height	Typ Wall Framing				4' From Corner Stud			
	Size	Number	Type	Spacing	Lumber	Number	Type	Spacing
9'- 0"	550S137-33	(1)	Stud	16" o/c	550S137-33	(1)	Stud	16" o/c
10'- 0"	550S137-33	(1)	Stud	16" o/c	550S137-33	(1)	Stud	16" o/c

□ 550 Exterior Wall Opening Schedule (PLASTER FINSIH) --Stud = 550S137-33 --Track = 550T125-33

Col Ht	Opn'g Size	HDR		SILL		FULL HEIGHT KING STUD		
		Type	REF. SA.4	Type	REF. SA.4	Type	Num.	Size
9'- 0"	3070	1	5	N/A	N/A	Stud	(2)	550S137-33
	4070	1	5	N/A	N/A	Stud	(2)	550S137-33
	6040	2	6	2	6	Stud	(3)	550S137-33
	8040	3	6	3	6	Stud	(3)	550S137-33
10'- 0"	3070	1	5	N/A	N/A	Stud	(2)	550S137-33
	4070	2	5	N/A	N/A	Stud	(2)	550S137-33
	6040	2	6	2	6	Stud	(3)	550S137-33
	8040	4	6	4	6	Stud	(4)	550S137-33

□ 550 Exterior Wall Framing Schedule (PLASTER FINISH)

Column Height	Typ Wall Framing				4' From Corner Stud			
	Size	Number	Type	Spacing	Lumber	Number	Type	Spacing
9'- 0"	550S137-33	(1)	Stud	16" o/c	550S137-33	(1)	Stud	16" o/c
10'- 0"	550S137-33	(1)	Stud	16" o/c	550S137-33	(1)	Stud	16" o/c

C:\Users\Sarah\Documents\15046 - Arleo, 24x40 PC - MainFile_Sarah.rvt
3/3/2016 8:17:00 PM

R&S TAVARES ASSOCIATES
DESIGN & CONSULTING + PROJECT MGT
11777 Bernardo Plaza Ct. Suite 108
San Diego, CA 92128 858.444.3344
www.rstavares.com

PROFESSIONAL STAMP

REGISTERED PROFESSIONAL ENGINEER
TAMANY D. FRANCIS
No. C-49467
STRUCTURAL
STATE OF CALIFORNIA
03/02/2016

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLIENT

CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL

PRESCRIPTIVE SFD DOCUMENT
& SSRP PROJECT PV SYSTEM IS REQUIRED

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-114654
AC. FLS. SS.
DATE MAR 1 8 2016

PROJECT TITLE

24' x 40'
EXPANDABLE TO
48' x 40'

LICENSED ARCHITECT
JACK F. SHIVELY III
No. C-39457
RENEWAL DATE
STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 115748
ACS FLS SS
DATE JAN 2 6 2017
REVISED

Revision Schedule

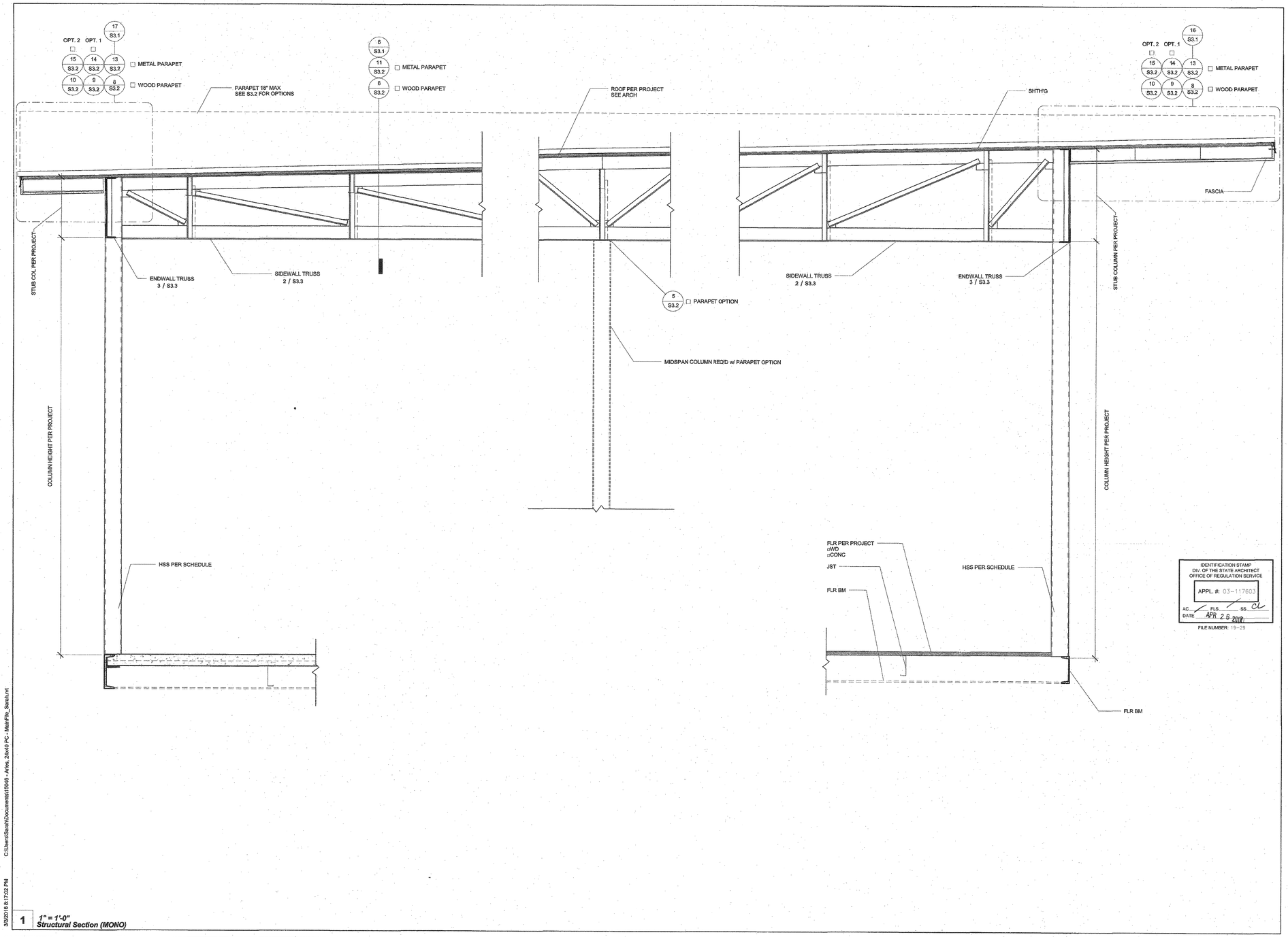
#	Description	Date

SHEET TITLE

FRAMING SCHEDULES

PROJECT NUMBER: 15046
DRAWN BY: rMc/SM
CHECKED BY: JA/RT
DATE: 2016/03/02
SHEET NO.: S4.5
SHEET OF SHEETS

Proprietary Property of Class Leasing
Proprietary Property of Class Leasing



IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC FLS SS
DATE APR 26 2016
FILE NUMBER: 19-29

1 1" = 1'-0"
Structural Section (MONO)

C:\Users\Sarah\Documents\15046 - Aries, 24x40 PC - MainFile_Sarah.rvt
3/3/2016 8:17:02 PM

R&S TAVARES ASSOCIATES
DESIGN • CONSULTING • PROJECT MGT
11777 Bernardo Plaza Ct. Suite 105
San Diego, CA 92128 858.444.3344
www.rstavares.com

PROFESSIONAL STAMP
REGISTERED PROFESSIONAL ENGINEER
MANNY D. FRANK
No. 35580
STRUCTURAL
STATE OF CALIFORNIA
03/02/2016

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLIENT
CLASS LEASING LLC
1221 Harley Knox Boulevard
Perris, CA 92571

ORIGINAL PC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-114654
AC FLS SS
DATE MAR 18 2016

PROJECT TITLE
24' x 40'
EXPANDABLE TO
48' x 40'
LICENSED ARCHITECT
JACK F. SHIVELY III
No. C-33467
03/31/17
RENEWAL DATE
STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 115748
ACS FLS SS
DATE JAN 25 2017
REVISED

Revision Schedule

#	Description	Date

SHEET TITLE
LONG. SECTION - (MONO)

PROJECT NUMBER
15046

DRAWN BY
rMc/SM

CHECKED BY
JA/RT

DATE
2016/03/02

SHEET NO.
S5.0
SHEET OF SHEETS

Proprietary Property of Class Leasing
Proprietary Property of Class Leasing
Proprietary Property of Class Leasing

PARTIAL LIST OF APPLICABLE CODES AS OF JULY 1, 2014

2013 ADMINISTRATIVE CODE, PART 1, TITLE 24 C.C.R. *
2013 CALIFORNIA BUILDING CODE (CBC), PART 2, TITLE 24 C.C.R.
(2012 INTERNATIONAL BUILDING CODE VOLUMES 1-2 AND 2013 CALIFORNIA AMENDMENTS)
2013 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 C.C.R.
(2011 NATIONAL ELECTRICAL CODE AND 2013 CALIFORNIA AMENDMENTS)
2013 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TILTLE 24 C.C.R.
(2012 UNIFORM MECHANICAL CODE AND 2013 CALIFORNIA AMENDMENTS)
2013 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 C.C.R.
(2012 UNIFORM PLUMBING CODE AND 2013 CALIFORNIA AMENDMENTS)
2013 CALIFORNIA ENERGY CODE (CEC), PART 6, TITLE 24 C.C.R
2013 CALIFORNIA FIRE CODE, PART 9, TITLE 24 C.C.R.
(2012 INTERNATIONAL FIRE CODE AND 2013 CALIFORNIA AMENDMENTS)
2013 CALIFORNIA GREEN BUILDING STANDARDS CODE, PART 11, TITLE 24 C.C.R.
2013 CALIFORNIA REFERENCED STANDARDS, PART 12, TITLE 24 C.C.R
TITLE 19 C.C.R., PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS.
2007 ASME A17.1 (W/ A17.1A/CSA B44A-08 ADDENDA) SAFETY CODE FOR ELEVATORS AND ESCALATORS

*CALIFORNIA ADMINISTRATIVE CODE, PART1, CHAPTER 10, ADMINISTRATIVE REGULATIONS FOR THE CALIFORNIA ENERGY COMMISSION (CEC)

GENERAL NOTES

CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATION SHALL BE MADE BY AN ADDENDUM OR CONSTRUCTION CHANGE DOCUMENT(CCD) BY DSA AS REQUIRED BY SECTION 4-338 PART1, TITLE 24, CCR

A PROJECT INSPECTOR EMPLOYED BY THE DISTRICT(OWNER) AND APPROVED BY DSA SHALL PROVIDE CONTINUOUS INSPECTION OF THE WORK. DUTIES OF INSPECTOR ARE DEFINED IN SECTION 4-342, PART 1 TITLE 24, CCR

COMPLETE ACCESS IS A DIVISION OF INTEGRATED STAIR SYSTEMS INC. WITH CORPORATE OFFICES LOCATED IN 1345 RYAN RD, BUCKLEY, WA 98321, (360) 829-4220

DESIGN LOADS

LIVE LOAD:	100 PSF (4.8 kPa)
HANDRAIL IMPACT:	200 LBS (0.9 kN)
HANDRAIL DIST. LOAD:	50 PLF (0.7 kN/m)
SESIMIC:	Ss= 1.875g, S1= 0.675, R= 1.25, SITE CLASS D
LATERAL RESISTING SYST:	OTHER STRUCTURES SIMILAR TO BUILDINGS
WIND:	130 MPH, 3 SEC GUST EXPOSURE "C", Kzt= 1.0
SEIS IMPORTANCE FACTOR:	Ie= 1.25, Iw= 1.0
SNOW LOAD:	0 PSF (0 kPa)
SOIL ALLOWABLE BEARING:	1,000 PSF (4.8 kPa)

MATERIALS

SQUARE STEEL TUBE	ASTM A513 GR. C	Fy= 33 KSI (345 MPa)
RAMP OVER HAVY POST	ASTM A500 B	Fy= 46 KSI

*ALL STEEL TO BE COATED WITH GALVANIZED RUST INHIBITING COATING

WOOD FOUNDATION SHALL BE OF FOUNDATION GRADE REDWOOD OR PRESERVATIVE PRESSURE TREATED HEM-FIR #2 AND IS ALLOWED TO REST DIRECTLY ON SOIL OR PAVEMENT.

WELDS

WELDING SHALL BE IN ACCORDANCE WITH AWS D.1.1-10 USING E70XX ELECTRODES FOR STEEL
AND AWS D1.2 AND A5.10 FOR ALUMINUM, USING ALMIGWELD ER4043

BOLTS, SCREWS AND NAILS

STEEL TO STEEL CONNECTIONS: ASTM A307 CARBON STEEL BOLTS SHALL BE GRADE 5 ZINC PLATED, HOT DIPPED GALVANIZED TO ASTM A153 OR ELECTROGALVANIZED TO ASTM B633. FASTENER SHALL BE LUBRICATED TO ELIMINATE GALLING. ALL STEEL MEMBERS IN CONTACT WITH ALUMINUM SHALL BE ZINC COATED TO ELIMINATE GALVANIC REACTION.

STEEL TO STEEL & WOOD CONNECTIONS: ANSI/ASME STEEL LAG SCREWS, STEEL STANDARD WOOD SCREWS, WOOD TO WOOD CONNECTION: ASTM STANDARD COMMOM STEEL NAIL.

ITW RED HEAD CONCRETE WEDGE ANCHORS SHALL BE INSTALLED PER RECOMMENDATION SHOWN IN ESR-2427

HANDRAIL NOTES:

1) MANEUVERING CLEARANCE ON EXTERIOR PULL SIDE OF DOOR SHALL BE 24" (610MM) MINIMUM WITH 60" (1524MM) MINIMUM LANDING IN FRONT OF DOOR.

2) HANDRAILS SHALL BE CONTINUOUS ALONG BOTH SIDES. HANDRAILS SHALL BE PARALLEL WITH THE SURFACE AND PROJECT 12" (301MM) ON TOP OF RISER AND 12" (301MM) PLUS 1 TREAD AT BOTTOM RISER.AT RAMPS WHERE HANDRAIL ARE NOT CONTINUOUS BETWEEN RUNS THE HANDRAIL SHALL EXTEND HORIZONTALLY ABOVE THE LANDING 12" (301MM) MINIMUM BEYOND TOP AND BOTTOM RAMPS

3) TOP OF HANDRAILS SHALL BE MOUNTED BETWEEN 34" (864MM) AND 38" (965MM) ABOVE THE WALKING SURFACE, ONE CONSISTENT HEIGHT, BEIGINNING TO END.

4) CLEARANCE BETWEEN RAIL AND WALL SHALL BE A MINIMUM OF 1-1/2" (38MM).

5) GUARDS ARE TO BE DESIGNED FOR A CONCENTRATED LOAD OF 200 LBF (0.9 kN) APPLIED @ ANY POINT AND ANY DIRECTION ALONG THE RAIL OR A UNIFORM LOAD OF 50 PLF (0.7 kN/m) APPLIED HORIZONTALLY @ GUARD HEIGHT.

6) BALUSTERS ARE INDEPENDENTLY DESIGNED FOR A CONCENTRATED LOAD OF 200 LBF (0.9 kN) APPLIED TO ONE SQUARE FOOT OF AREA.

7) HANDRAILS SHALL HAVE A CIRCULAR CROSS SECTION WITH AN OUTSIDE DIAMETER OF 1-1/4" (31.75MM) MINIMUM AND NOT GREATER THAN 2" (51MM) MAXIMUM.

8) GRIPPING SURFACE SHALL BE UNINTERRUPTED BY POSTS OR OTHER CONSTRUCTION ELEMENTS OR OBSTRUCTIONS.

9) HANDRAILS SHALL NOT ROTATE IN THEIR FITTINGS.

10) ENDS OF HANDRAILS SHALL RETURN SMOOTHLY TO FLOOR, WALL OR POST.

1 **1 1/2" = 1'-0"**
Notes

RAMP NOTES

1) RAMPS SHALL CONFORM TO CBC 2013 TITLE 24 PART 2, CHAPTER 11B, 11B-405

2) RAMP SHALL HAVE A RUNNING SLOPE NOT STEEPER THAN 1:12 (8% SLOPE) FOR A MAXIMUM RISE OF 30" (762MM)

3) THE MAXIMUM VERTICAL RISE OF RAMP RUN SHALL BE 30" (762MM) MAXIMUM

4) RAMPS SHALL HAVE LANDING AT BOTTOM AND TOP OF EACH RAMP RUN

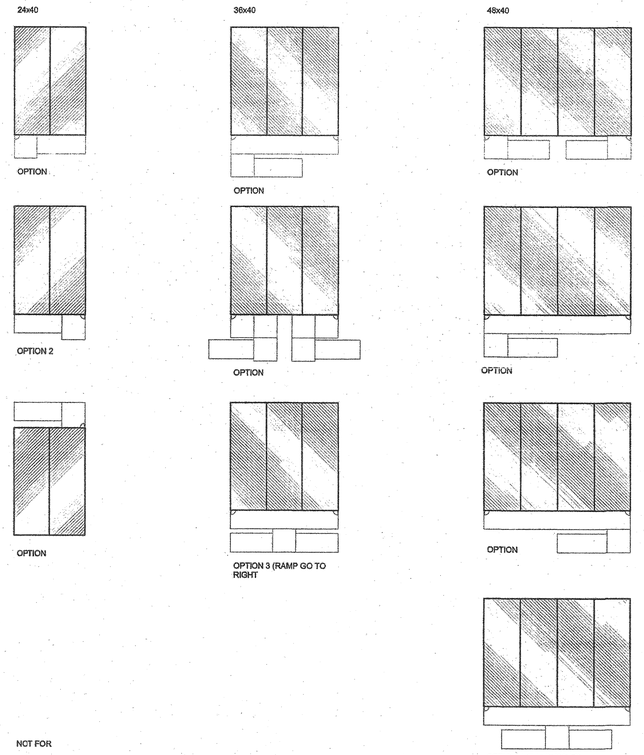
5) THE SLOPE ON LANDINGS SHALL NOT BE STEEPER THAN ONE UNIT VERTICAL IN 48 UNITS HORIZONTAL (2% SLOPE) IN ANY DIRECTION

6) LANDING SHALL HAVE A WIDTH AT LEAST AS WIDE AS THE WIDES RAMP RUN LEADING TO THE LANDING AND A MINIMUM LENGTH OF 60" IN THE DIRECTION OF TRAVEL

7) CHANGES IN DIRECTION OF TRAVEL SHALL HAVE A LANDING 60" WIDE BY 72" LONG (1524MM x 1829MM) MINIMUM, WITH WITH THE LENGTH BEING IN THE DIRCTION OF DOWNWARD TRAVEL.

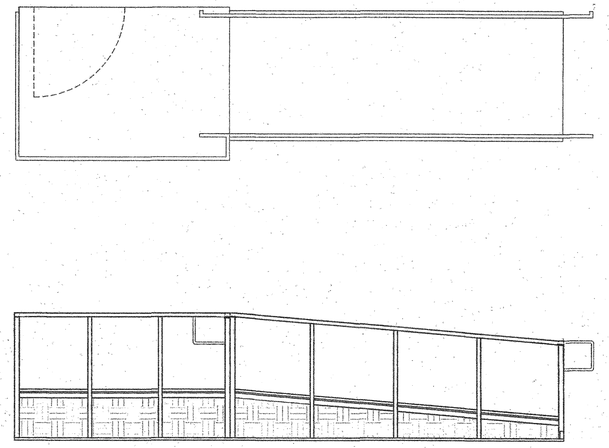
8) MANEUVERING CLEARANCE ON LANDING ADJACENT TO DOORWAYS SHALL BE NO LESS THAN 42" WITH DOOR IN ANY POSITION AND SHALL NOT BE REDUCED BY MORE THAN 3" WHEN DOOR IS FULLY OPENED

9) WALKING SURFACE SAHLL BE ROUGHED OR SHALL BE OF SLIP RESISTANT DIAMOND PLATE ALUMINUM.



2 **Ramps Schedule**

NOT FOR



3 **1/2" = 1'-0"**
Standard Ramp

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC FLS SS
DATE APR 26 2016

FILE NUMBER: 19-29

R&S TAVARES ASSOCIATES
DESIGN CONSULTING PROJECT MA
11777 Bernardo Plaza Ct. Suite 105
San Diego, CA 92128 858.444.3344
www.rstavares.com

PROJECT SPECIFIC STATE AGENCY

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLASS LEASING LLC
1221 Harley Knox Boulevard

STAMP
LICENSED ARCHITECT JOHN E. SHIVELY III No. C-26467 01/31/17 RENEWAL DATE STATE OF CALIFORNIA
REGISTERED PROFESSIONAL ENGINEER MANNY R. CRUZ No. C-53380 Structural STATE OF CALIFORNIA
07/27/2016

PROJECT TITLE
RAMPS PC
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 115748
ACS FLS SS
DATE JAN 25 2017

REVISED

ORIGINAL TO STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-114854
AC FLS SS
DATE OCT 25 2016
PROPRIETARY DOCUMENT SUBMITTED FOR A DSA PROJECT APPLICATION IS REQUIRED

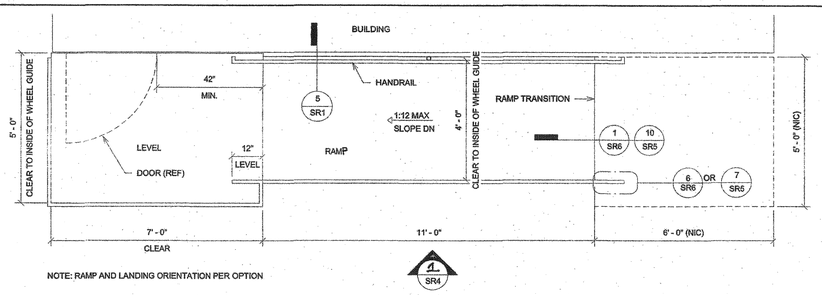
Revision Schedule

#	Description	Date
1	Revision 1	10.24.2016

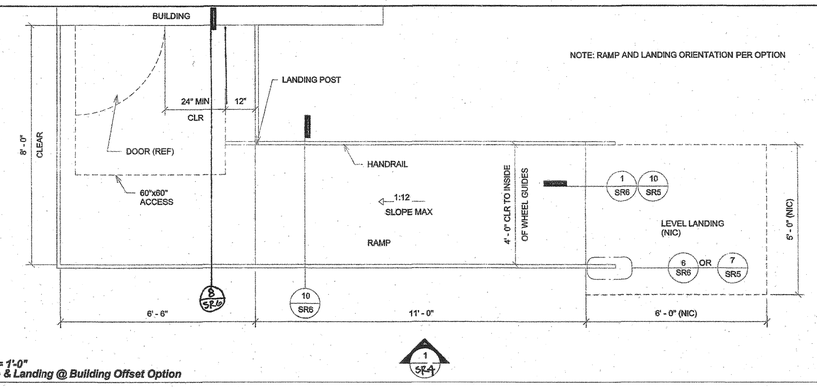
SHEET TITLE
Module Plan and Notes

PROJECT NUMBER 15046
DRAWN BY SM
CHECKED BY rMc
DATE 07/27/2016
SHEET NO. SR0
SHEET OF

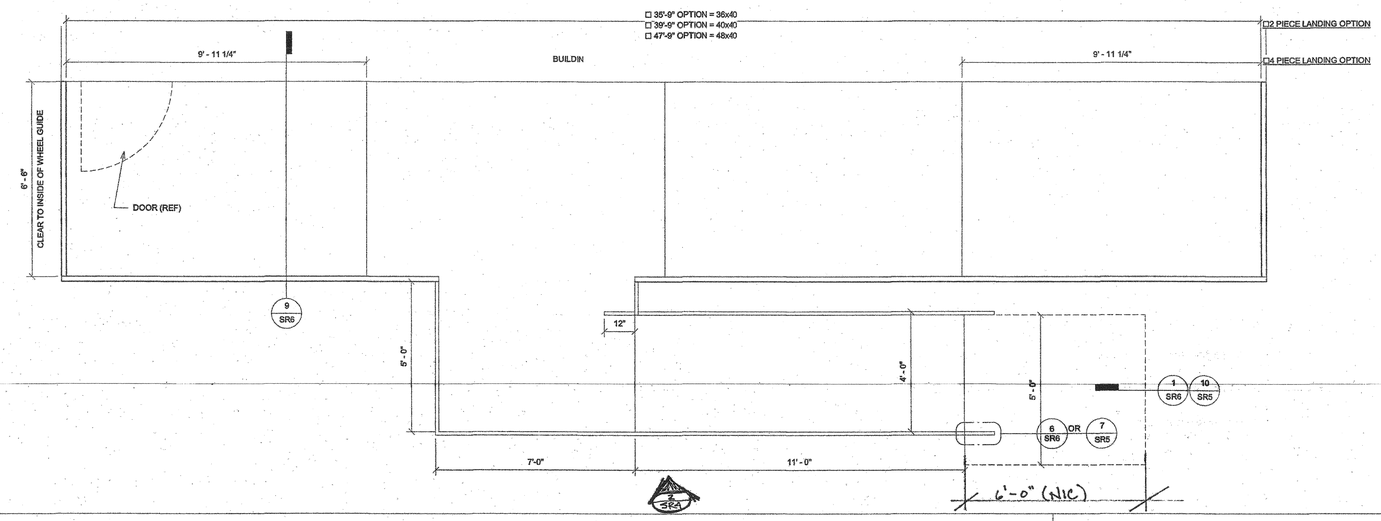
10/24/2016 4:11:16 PM C:\Users\Sarah\Documents\RSTP\15060 - Arlen, Ramps and Stairs PC_Sarah.rvt



1 1/2" = 1'-0"
Ramp & Landing @ Building



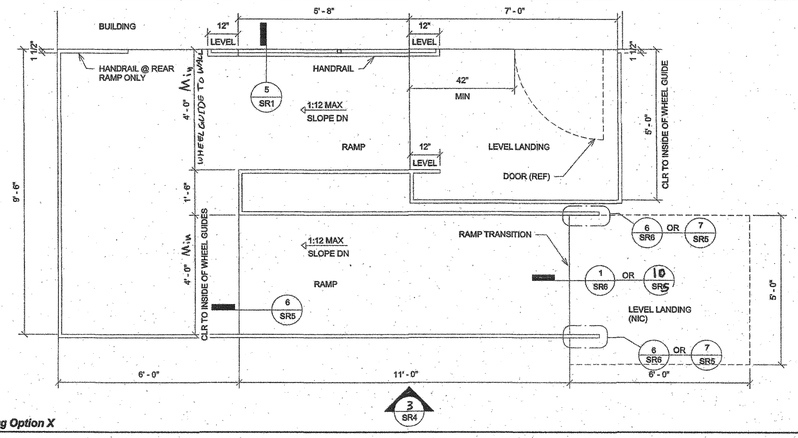
2 1/2" = 1'-0"
Ramp & Landing @ Building Offset Option



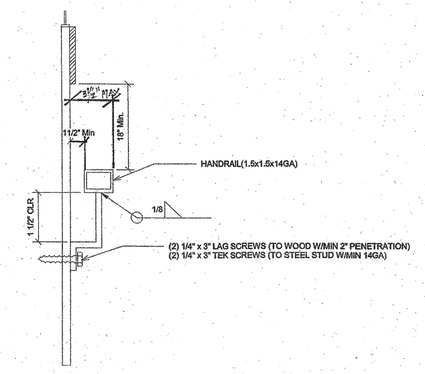
3 1/2" = 1'-0"
Platform Landing Plan

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
ACS FLS SS OL
DATE APR 28 2017

FILE NUMBER: 19-29



4 1/2" = 1'-0"
Ramp & Landing @ Building Option X



5 3" = 1'-0"
Handrail

10/24/2016 4:11:16 PM C:\Users\Sarah\Documents\RST\#15060 - Arden, Ramps and Stairs PC_Sarah.rvt

R&S TAVARES ASSOCIATES
DESIGN CONSULTING PROJECT MC
11777 Bernardo Plaza Ct. Suite 105
San Diego, CA 92128 858.444.3344
www.rstavares.com

PROJECT TITLE
RAMPS PC
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 115748
ACS FLS SS
DATE JAN 26 2017

REVISED
PER FINAL PC TIME FAMILY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
APPL. #: PC 04-114654
ACS FLS SS OL
DATE OCT 26 2016
CHECK PCD DOCUMENT FOR ANY ADDITIONAL REVISIONS NOT REFLECTED

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©!

CLASS LEASING LLC
1221 Harley Knox Boulevard

STAMP
LICENSED ARCHITECT
JAMES P. SHIVELY
No. C-33467
RENEWAL DATE 08/31/18
STATE OF CALIFORNIA
REGISTERED PROFESSIONAL ENGINEER
MANNY P. RODRIGUEZ
No. P-33380
STRUCTURAL
STATE OF CALIFORNIA

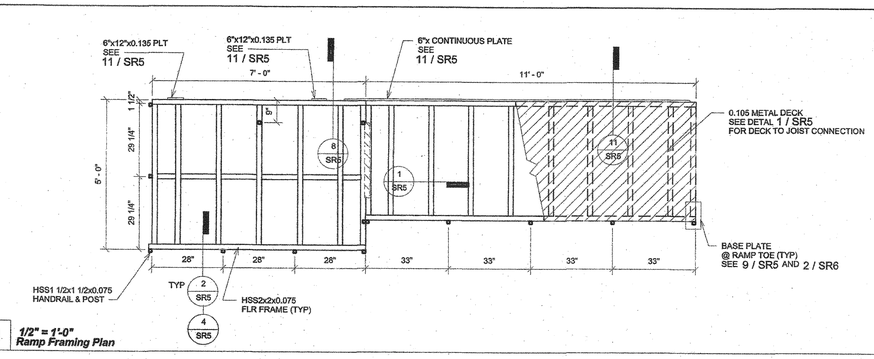
07/27/2016

Revision Schedule

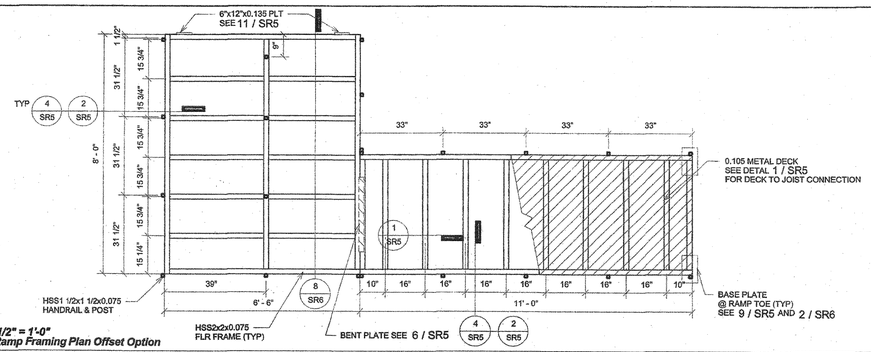
#	Description	Date
1	Revision 1	10.24.2016

SHEET TITLE
Ramp Landing

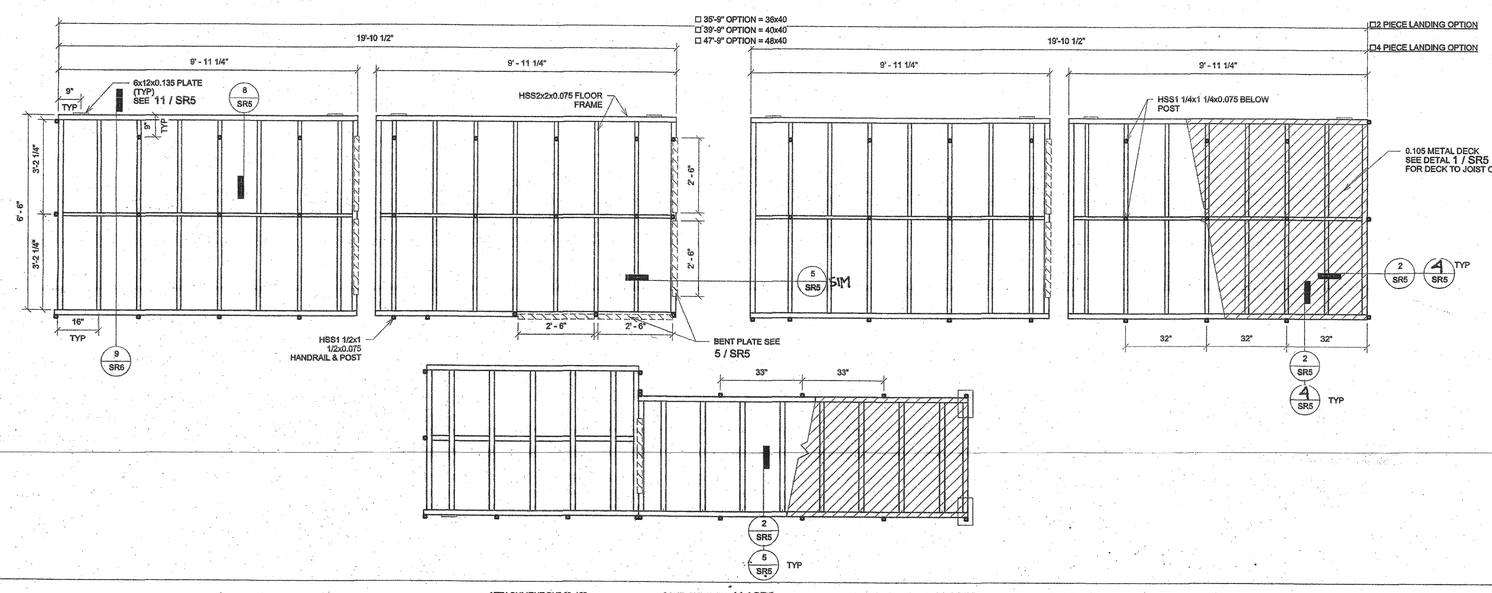
PROJECT NUMBER 15046
DRAWN BY SM
CHECKED BY rMc
DATE 07/27/2016
SHEET NO. SR1
SHEET OF



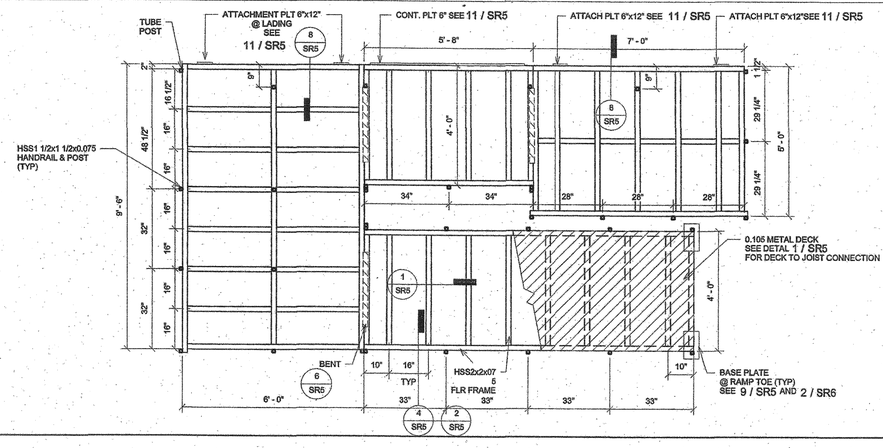
1 **1/2" = 1'-0"**
Ramp Framing Plan



2 **1/2" = 1'-0"**
Ramp Framing Plan Offset Option



3 **1/2" = 1'-0"**
Platform Landing Frame



4 **1/2" = 1'-0"**
Landing Frame Option X

10/24/2016 4:11:16 PM C:\Users\Sarah\Documents\RST#15046 - Atlas, Ramps and Stairs PC_Sarah.rvt

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC FLS SS CL
DATE APR 26 2017
FILE NUMBER: 19-29

R&S TAVARES ASSOCIATES
DESIGN CONSULTING PROJECT MA
11777 Bernardo Plaza Ct. Suite 105
San Diego, CA 92128 858.444.3344
www.rstavares.com

PROJECT SPECIAL STATE REVIEW

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLASS LEASING LLC
1221 Harley Knox Boulevard

STAMP
LICENSED ARCHITECT SHIVETTE No. C-33467 04.30.17 RENEWAL STATE OF CALIFORNIA
REGISTERED PROFESSIONAL ENGINEER MANNY MICHAEL No. 53380 STRUCTURAL STATE OF CALIFORNIA
07/27/2016

PROJECT TITLE
RAMPS PC

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 118748
AC FLS SS
DATE JAN 26 2017
REVISED

ORIGINAL & STATE REVIEW VERSION

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC-04-114654
AC FLS SS
DATE OCT 25 2016

BUILDING OFFICIAL MAY REQUIRE ADDITIONAL COPIES OF APPROVED DOCUMENTS

Revision Schedule

#	Description	Date
1	Revision 1	10.24.2016

SHEET TITLE
Landing Frame

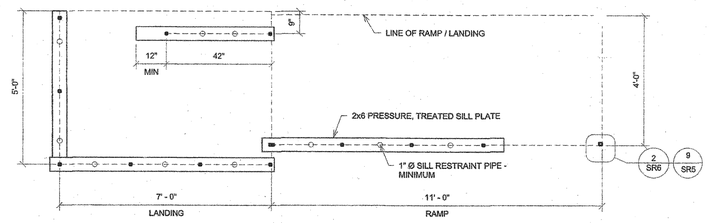
PROJECT NUMBER
15046

DRAWN BY
SM

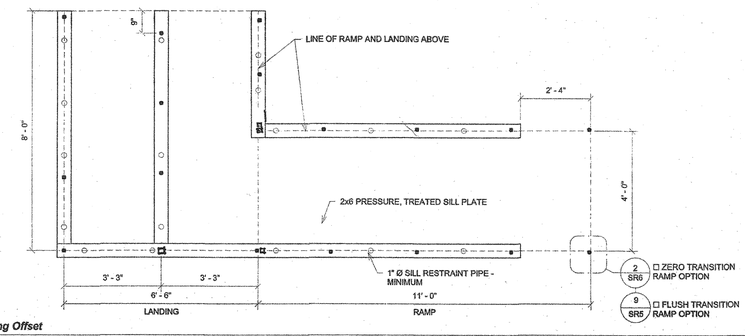
CHECKED BY
BR/rMc

DATE
07/27/2016

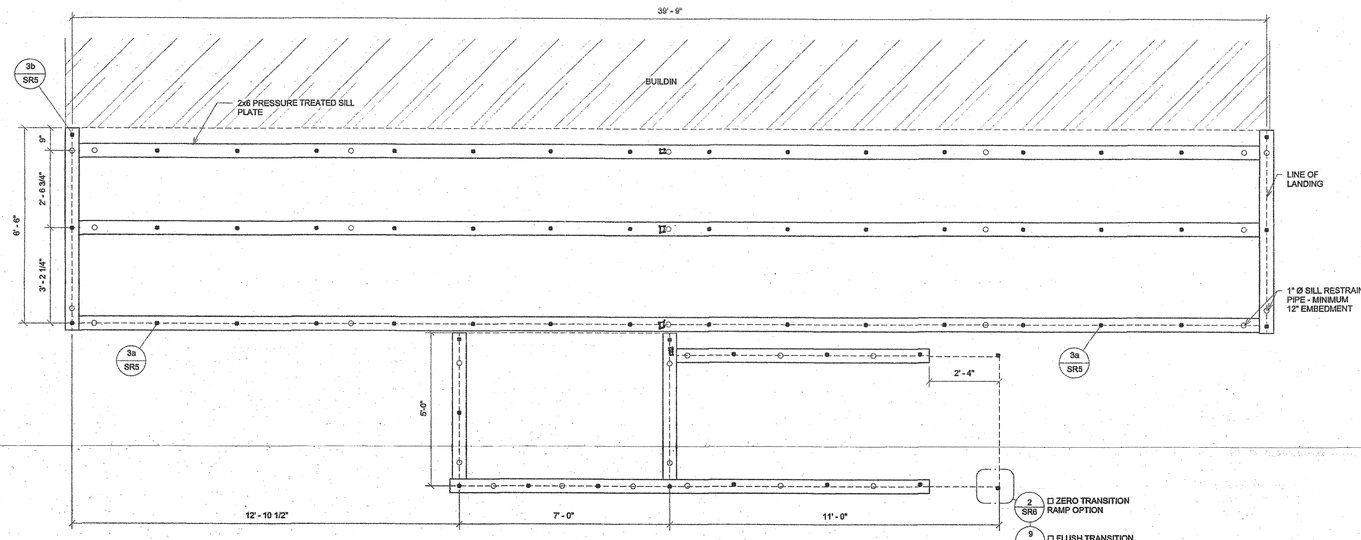
SHEET NO.
SR2
4
SHEET OF



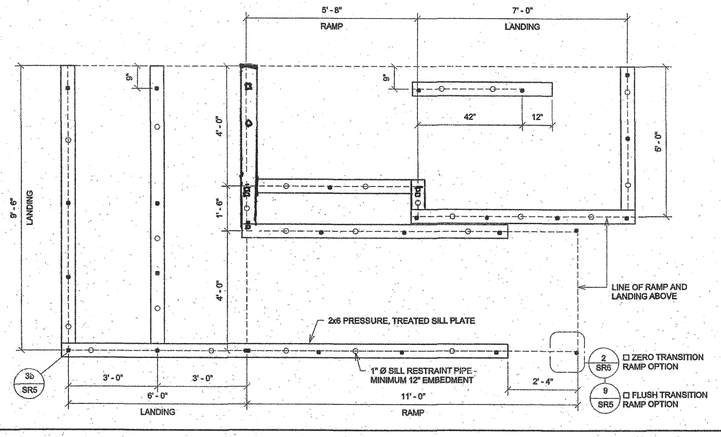
1 1/2" = 1'-0"
Sill Plan For Ramp & Landing



2 1/2" = 1'-0"
Sill Plan For Ramp & Landing Offset



3 1/2" = 1'-0"
Platform Sill Plan For Ramp & Landing



4 1/2" = 1'-0"
Sill Plan For Ramp & Landing Switchback

* "RESTRAINING PIPES / RODS SPECS"
ONE INCH DIAMETER STANDARD WEIGHT (1.315" ACTUAL 0.0) NOT DIPPED GALVANIZED PIPES OR ONE INCH DIAMETER SOLID STEEL RODS SPACED AT NOT MORE THAN 10'-0" o/c.
ONE PIPE / ROD SHALL BE LOCATED A MAXIMUM OF TWO FEET FROM EACH CORNERIN BOTH DIRECTIONS AND MINIMUM OF TWO PIPES / RODS PER DISCONTINUOUS FOUNDATION STRIP.
PIPES SHOULD PENETRATE INTO SOIL AND/OR PAVING A MIN. OF 12" MEASURED VERTICALLY.
PER DSA IR 16-1.13

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC FLS SS CL
DATE APR 2 5 2017
FILE NUMBER: 19-29

R&S TAVARES ASSOCIATES
DESIGN CONSULTING PROJECT MG
11777 BERNARDO PLAZA CT. SUITE 105
SAN DIEGO, CA 92128 858.444.3344
WWW.RSTAVARES.COM

PROJECT SPECIFIC STATE AGENCY

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLASS LEASING LLC
1221 Harley Knox
Boulevard

STATE OF CALIFORNIA
LICENSED ARCHITECT
MARK SAWEEN III
No. C-33497
04 31 12
RENEWAL DATE

REGISTERED PROFESSIONAL ENGINEER
MANNY D. FRISCH
No. S-3380
STATE OF CALIFORNIA

07/27/2016

PROJECT TITLE
RAMPS PC
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 115748
ACS FLS SS
DATE JAN 2 6 2017

REVISED

ORIGINAL PC STATE AGENCY APPROVAL

PRE-CHECK-IN-PC DOCUMENT
CODE 2013 CBC
A SEP PROJECT APPLICATION IS REQUIRED

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-114654
AC FLS SS
DATE OCT 2 5 2016

Revision Schedule

#	Description	Date
1	Revision 1	10.24.2016

SHEET TITLE
Foundation Plan

PROJECT NUMBER
15046

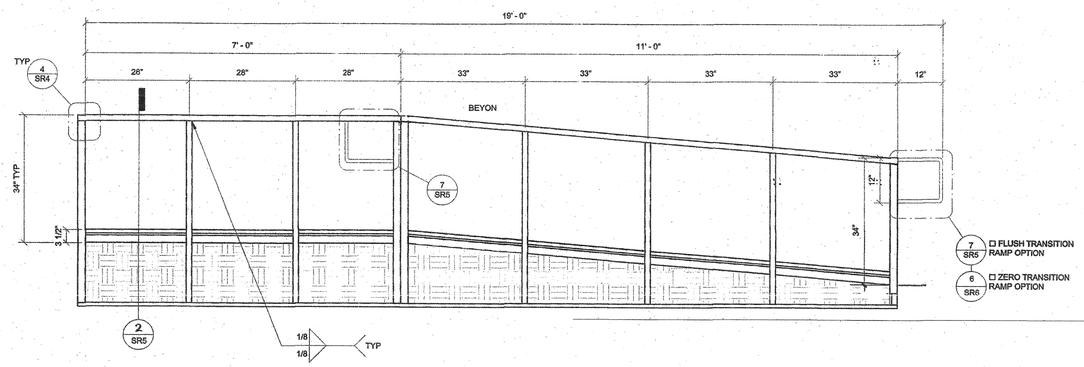
DRAWN BY
SM

CHECKED BY
rMc

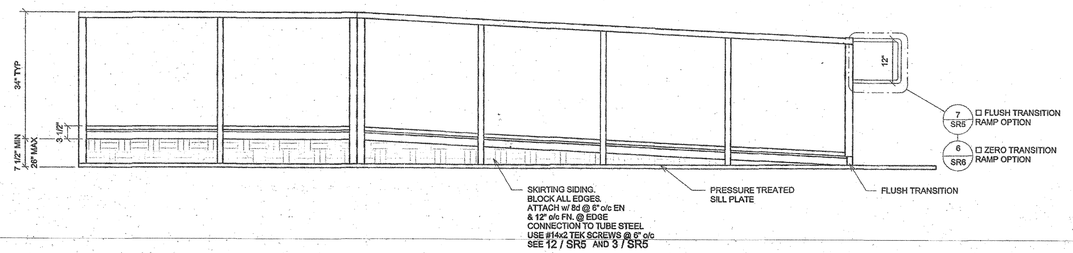
DATE
07/27/2016

SHEET NO.
SR3
SHEET OF

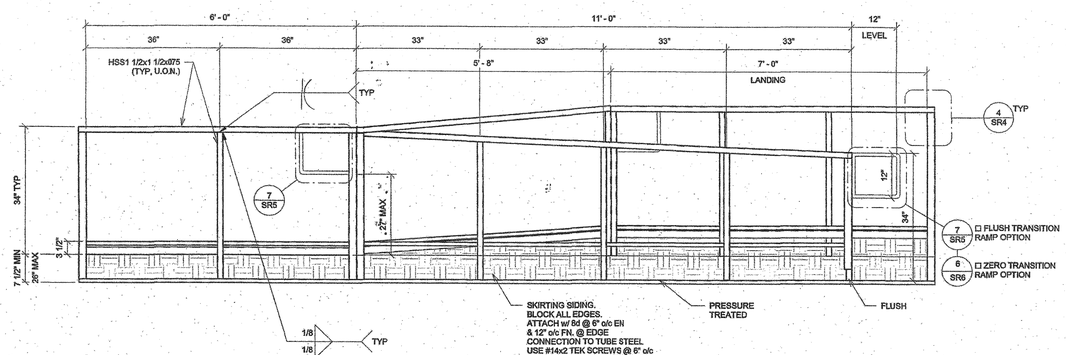
10/24/2016 4:11:16 PM C:\Users\Sarah\Documents\RST\#15060 - Aries, Ramps and Stairs PC_Sarah.rvt



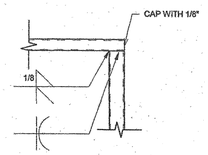
1 3/4" = 1'-0"
Ramp & Landing Elevation



2 3/4" = 1'-0"
Ramp & Landing Elevation Option X Copy 1



3 3/4" = 1'-0"
Ramp & Landing Elevation Option X



4 1 1/2" = 1'-0"
Ramp & Landing Elevation Option X1 - Callout 1

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC FLS SS
DATE APR 2 5 2017
FILE NUMBER: 19-29

R&S TAVARES ASSOCIATES
DESIGN CONSULTING PROJECT MG
11777 BERNARDO PLAZA CT. SUITE 105
SAN DIEGO, CA 92128 858.444.3344
WWW.RSTAVARES.COM

PROJECT SPECIFIC STATE AGENCY

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLASS LEASING LLC
1221 Harley Knox
Boulevard

STAMP
LICENSED ARCHITECT
JACK B. SHIVELY III
No. C-33467
04/31/17
RENEWAL DATE
STATE OF CALIFORNIA
REGISTERED PROFESSIONAL ENGINEER
MANNY M. SEVILLA
No. C-53380
CIVIL
STATE OF CALIFORNIA
07/27/2016

PROJECT TITLE
RAMPS PC
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 115748
ACS FLS SS
DATE JAN 2 6 2017

REVISED

ORIGINAL PC STATE AGENCY APPROVAL

PRECHECK (PC) DOCUMENT
CODE 9113 CDC
A DSP PROJECT APPLICATION IS REQUIRED
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-114654
AC FLS SS
DATE OCT 2 5 2016

Revision Schedule

#	Description	Date
1	Revision 1	10.24.2016

SHEET TITLE
Ramp Elevation

PROJECT NUMBER
15046

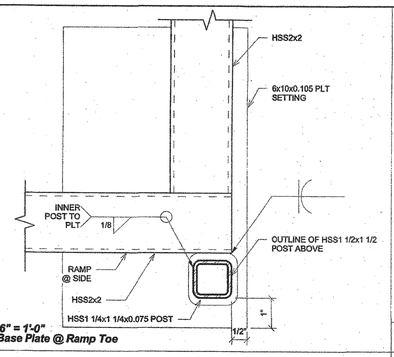
DRAWN BY
SM

CHECKED BY
rMc

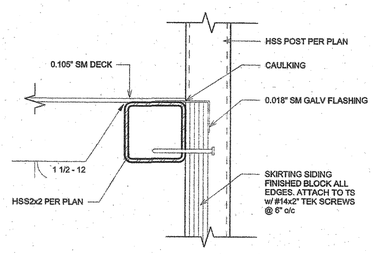
DATE
07/27/2016

SHEET NO.
SR4
SHEET OF

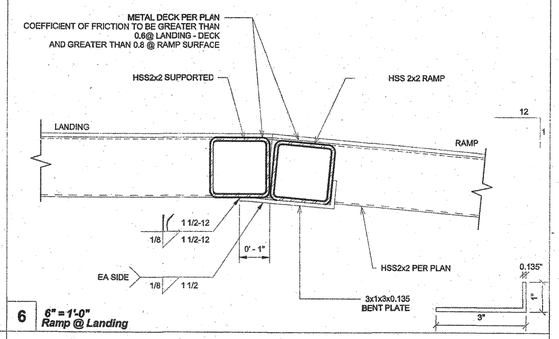
10/24/2016 4:11:17 PM C:\Users\Sarah\Documents\RST#15060 - Aries, Ramps and Stairs PC_Sarah.rvt



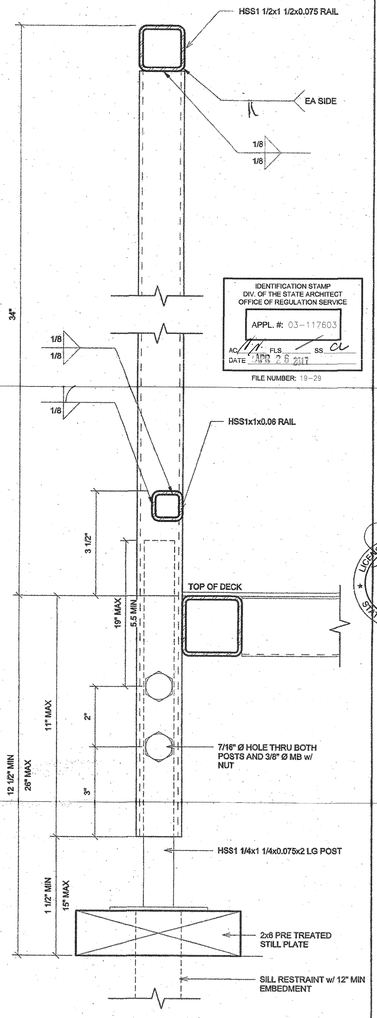
9 6" = 1'-0"
Base Plate @ Ramp Toe



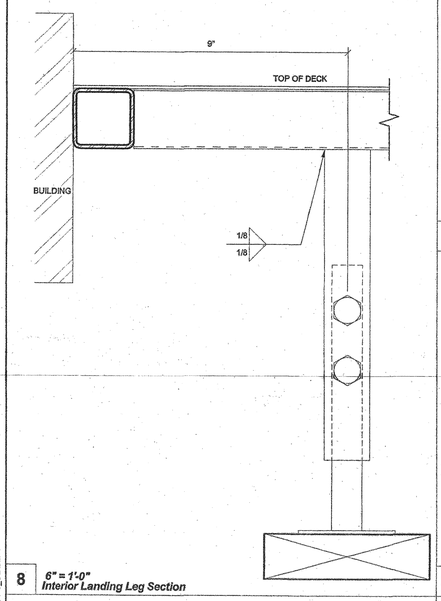
12 6" = 1'-0"
Skirt Flashing



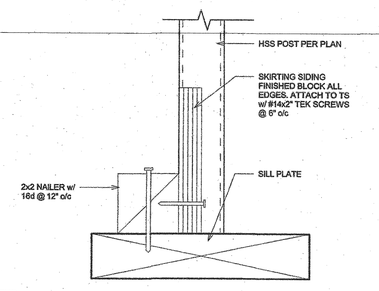
6 6" = 1'-0"
Ramp @ Landing



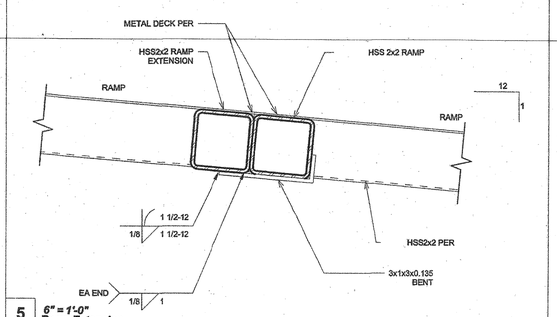
2 6" = 1'-0"
Adjustable Leg



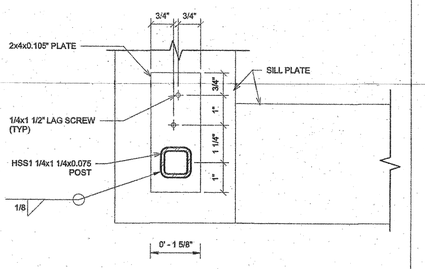
8 6" = 1'-0"
Interior Landing Leg Section



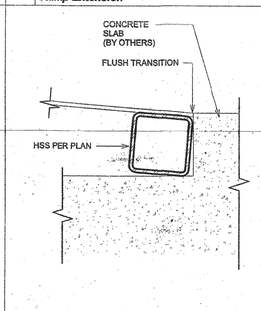
3 6" = 1'-0"
Skirt Flashing @ Sill Plate



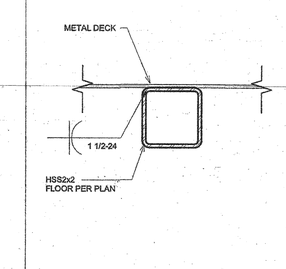
5 6" = 1'-0"
Ramp Extension



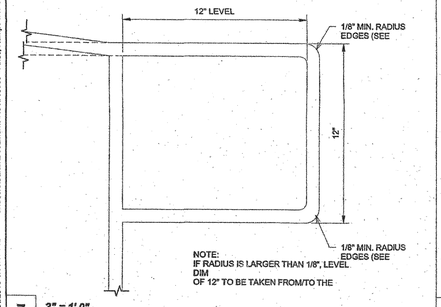
3b 6" = 1'-0"
Adjustable Leg Base Plate



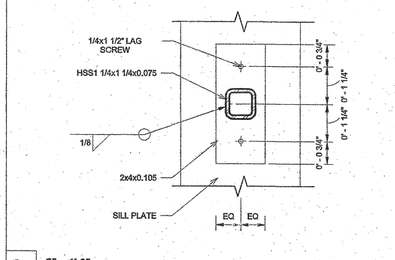
10 6" = 1'-0"
Flush Transition @ Bottom of Ramp



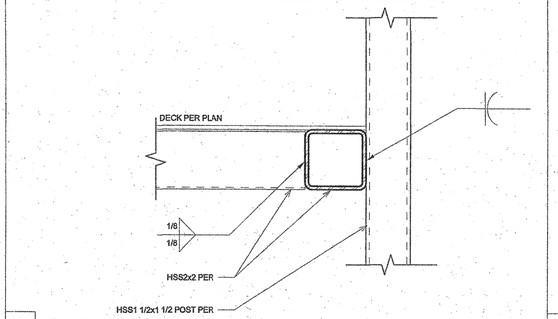
1 6" = 1'-0"
Deck to Frame



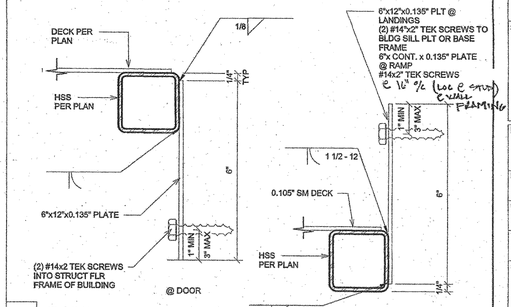
7 3" = 1'-0"
Extend Handrail @ Top or Bott. Ends



3a 6" = 1'-0"
Adjustable Leg Plate



4 6" = 1'-0"
Guardrail post Attachment



11 6" = 1'-0"
Section @ Plate

C:\Users\Sarah\Documents\RST#16060 - Arles, Ramps and Stairs PC_Sarah.rvt
10/24/2016 4:11:17 PM

R&S TAVARES ASSOCIATES
DESIGN CONSULTING PROJECT MA
11777 Bernardo Plaza Ct. Suite 105
San Diego, CA 92128 858.444.3344
www.rstavares.com

PROJECT SPECIFIC STATE APPROVAL

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
APPL. #: 03-117603
AC FLS SS
DATE JAN 26 2017
FILE NUMBER: 19-29

CLASS LEASING LLC
1221 Harley Knox Boulevard

STAMP

LEGARDA ARCHITECTS
RONALD SHIVELY III
No. C-33467
RENEWAL DATE
STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER
MANNY PUNO
No. E-33380
CIVIL
STATE OF CALIFORNIA

07/27/2016

PROJECT TITLE
RAMPS PC
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 115718
ACS FLS SS
DATE JAN 26 2017

REVISED

ORIGINAL PC STATE APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-114654
AC FLS SS
DATE OCT 25 2016

PRE-CHECK (PC) DOCUMENT
CODE CYCLE AND ANY APPLICATIONS IN PROGRESS

Revision Schedule

#	Description	Date
1	Revision 1	10.24.2016

SHEET TITLE
Ramp Details

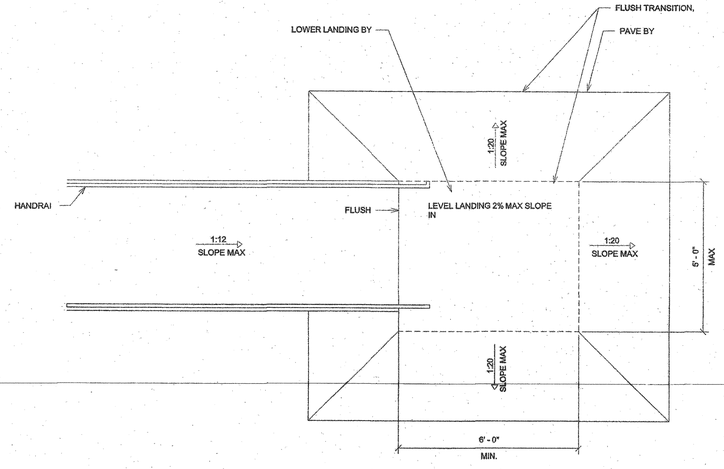
PROJECT NUMBER
15046

DRAWN BY
SM

CHECKED BY
rMc

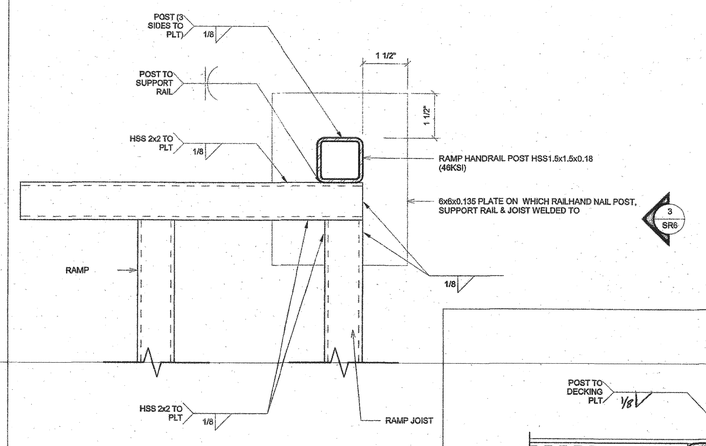
DATE
07/27/2016

SHEET NO.
SR5
SHEET OF



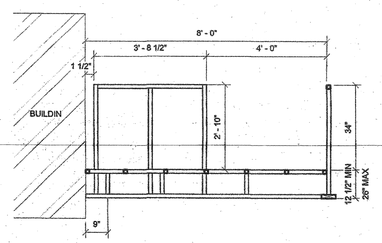
NOTE:
1. 1:20 TRANSITION OFF OF LOWER LANDING REQUIRES NO HANDRAIL.
2. TRANSITIONS EXCEEDING 1:20 BUT NOT EXCEED 1:12 REQUIRE REMOVAL OF 12" HANDRAIL EXTENSION AND ADDITIONAL HANDRAILING BY DISTRICT. (THIS CONDITION REQUIRES A SITE SPECIFIC DETAIL PROVIDED BY ARCHITECT TO DEMOSTRATE ACCESSIBLE RAMP)

7 1/2" = 1'-0"
Ramp Transition

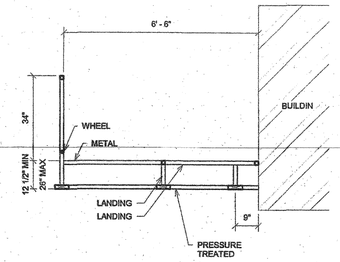


2 6" = 1'-0"
Base Plt @ Ramp Toe For Zero Transition

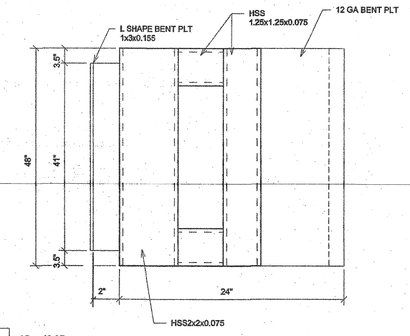
3 6" = 1'-0"
Base Plt @ Ramp Toe Low Zero Side View



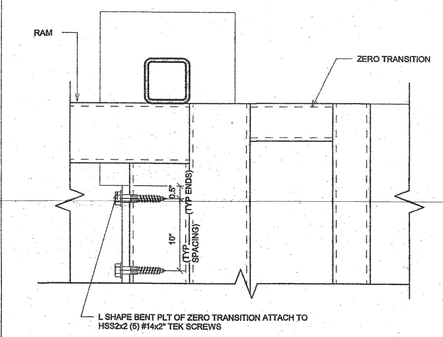
8 1/2" = 1'-0"
Section @ Landing



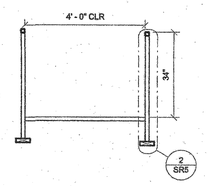
9 1/2" = 1'-0"
Section @ Landing Copy 1



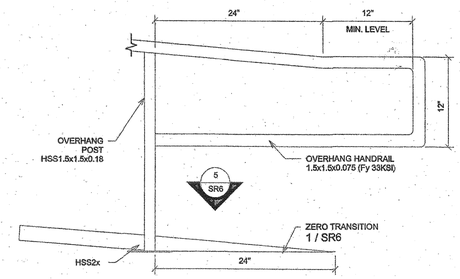
4 6" = 1'-0"
Top View Ramp Zero Transition



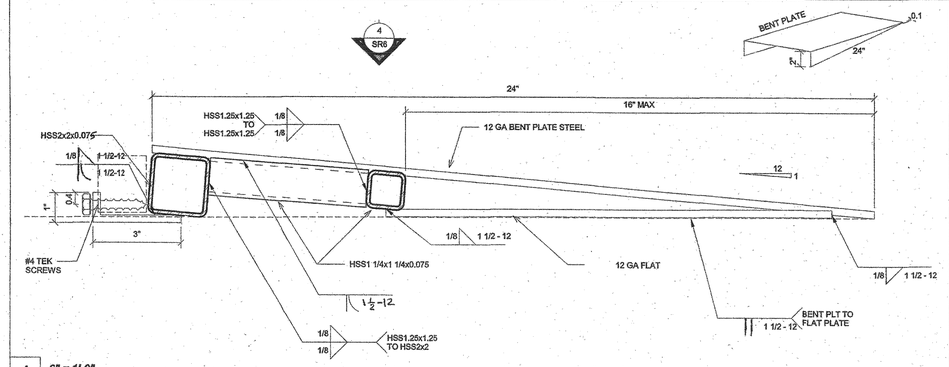
5 6" = 1'-0"
Zero Transition Ramp Connection



10 1/2" = 1'-0"
Section @ Ramp



6 1 1/2" = 1'-0"
Extend Handrail @ Bottom End For Zero Transition Ramp



1 6" = 1'-0"
Zero Transition Ramp

C:\Users\Sarah\Documents\RST#15060 - Artex, Ramps and Stairs PC_Sarah.rvt
10/24/2016 4:11:17 PM

R&S TAVARES ASSOCIATES
DESIGN CONSULTING PROJECT MG
11777 Bernardo Plaza Ct. Suite 105
San Diego, CA 92128 858.444.3344
www.rstavares.com

PROJECT PRE-FIRE STATE APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC ACS FLS SS CL
DATE APR 26 2016
FILE NUMBER: 19-29

THE PLANS, IDEAS & DESIGNS SHOWN ON THESE DRAWINGS ARE THE PROPERTY OF R&S TAVARES ASSOCIATES, INC. DEVISED SOLELY FOR THIS CONTRACT. THESE PLANS SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE FOR WHICH THEY WERE NOT INTENDED WITHOUT THE EXPRESS WRITTEN CONSENT OF R&S TAVARES ASSOCIATES, INC. ©

CLASS LEASING LLC
1221 Harley Knox Boulevard

STAMP

LICENSED ARCHITECT MICHAEL SHIVELY No. C-33467 RENEWAL DATE 08/31/2017 STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER MANNY R. ORTEGA No. 53381 STRUCTURAL STATE OF CALIFORNIA

07/27/2016

PROJECT TITLE
RAMPS PC

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
04 115748
ACS FLS SS
DATE JAN 26 2016

REVISED

GENERAL STATE APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-114654
AC SS FLS SS CL
DATE OCT 26 2015

FOR CERTAIN NON-STRUCTURAL COMPONENTS, A DSA-PA PROJECT APPLICATION IS REQUIRED

Revision Schedule

#	Description	Date
1	Revision 1	10.24.2016

SHEET TITLE
Ramp Details

PROJECT NUMBER 15046
DRAWN BY SM
CHECKED BY rMc
DATE 07/27/2016
SHEET NO. SR6
SHEET OF

MODULAR TOILET BUILDINGS - 12' X 40'
(MODELS ~~'A'~~, ~~'B'~~, 'C' ~~AND~~ ~~'D'~~)
~~AND OPTIONAL WORKROOM 12' X 40'~~
~~(MODEL 'E')~~

PC 04-112137

BY

SILVER CREEK INDUSTRIES, INC.

195 EAST MORGAN, PERRIS, CALIFORNIA 92571
PHONE : (951) 943-5393 FAX : (951) 943-2211

CLASS LEASING LLC- STOCKPILE 125 Stockpile Options ~~A-2~~/C-2

FROM STOCKPILE TO SITE SPECIFIC RELOCATION PACKAGE

Job # 10642 SN- 10292-10305, 10336
(15) 12x40 TOILET BUILDINGS

DOWNEY S.D.
STAUFFER M.S.
(x1)12X40 TOILET BLDG.
S/N : 10302

GENERAL NOTES

1. FIRE ALARM IS NOT PART OF THIS APPROVAL
2. ALLOWABLE AREA IS BASED ON 10' SET BACK FROM IMAGINARY ASSUMED LINE PER 2010 CBC 705.3
3. THIS PC IS DESIGNED STRUCTURALLY TO SUPPORT THE WEIGHT OF A FIRE SPRINKLER SYSTEM.
4. PC IS DESIGNED AS A SINGLE STORY MODULAR BUILDING
5. FOR SOILS TYPES / DESIGN BEARING STRENGTH, SEE SHEET S-0.1 STRUCTURAL SPECIFICATIONS
6. ALL WORK SHALL CONFORM TO TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR)
7. THIS PC IS NOT APPROVED FOR "A" OCCUPANCY USES
8. EXTERIOR WALL OPENINGS TO COMPLY W/ 705.8, 2010 CBC.
9. EXTERIOR PROJECTIONS ARE TO BE FIRE PROTECTED WHERE REQUIRED BY SECTIONS 705.2 & 1406.

The automatic fire sprinkler system for this PC has been designed for light hazard occupancies

APPLICABLE STANDARDS

NFPA 13	AUTOMATIC SPRINKLER SYSTEMS	2010 EDITION
NFPA 72	NAT. FIRE ALARM CODE (CALIF. AMENDED) (NOTE: SEE UL STANDARD 1971 FOR "VISUAL DEVICES")	2010 EDITION

APPLICABLE CODES (AS OF JANUARY 1, 2011)

LIST OF 2010 CALIFORNIA CODE OF REGULATIONS
2010 BUILDING ADMINISTRATIVE CODE (CAC), PART 1, TITLE 24 C.C.R.
2010 CALIFORNIA BUILDING CODE (CBC), VOLUMES 1 & 2, PART 2, TITLE 24 C.C.R.
(2009 INTERNATIONAL BUILDING CODE VOLUMES 1-3 AND 2010 CALIFORNIA AMENDMENTS)
2010 CALIFORNIA ELECTRICAL CODE (CEC), PART 3, TITLE 24 C.C.R.
(2008 NATIONAL ELECTRICAL CODE AND 2010 CALIFORNIA AMENDMENTS)
2010 CALIFORNIA MECHANICAL CODE (CMC), PART 4, TITLE 24 C.C.R.
(2009 IAPMO UNIFORM MECHANICAL CODE AND 2010 CALIFORNIA AMENDMENTS)
2010 CALIFORNIA PLUMBING CODE (CPC), PART 5, TITLE 24 C.C.R.
(2009 IAPMO UNIFORM PLUMBING CODE AND 2010 CALIFORNIA AMENDMENTS)
2010 CALIFORNIA ENERGY CODE, PART 6, TITLE 24 C.C.R.
(2008 EDITION CALIFORNIA ENERGY COMMISSION BUILDING ENERGY EFFICENCY STANDARDS)
2010 CALIFORNIA FIRE CODE, PART 9, TITLE 24 C.C.R.
(2009 INTERNATIONAL FIRE CODE AND 2010 CALIFORNIA AMENDMENTS)
2010 CALIFORNIA GREEN CODE, PART 11, TITLE 24 C.C.R.
2010 CALIFORNIA REFERENCED STANDARDS CODE, PART 12, TITLE 24 C.C.R.

BUILDING DATA

NUMBER OF STORIES:	1 - STORY
OCCUPANCY:	E: 12' x 40' BLDG
TYPE OF CONSTRUCTION:	VB
FLOOR LIVE LOAD:	☐ 50 PSF ☒ 50+15 PSF PARTITION LOAD ☐ 100 PSF ☐ 150 PSF
ROOF LIVE LOAD:	20 PSF
FLOOR DEAD LOAD:	☒ WOOD FLOOR - 8 PSF ☐ CONC FLOOR - 33 PSF
ROOF DEAD LOAD:	17 PSF (INCLUDING SPRINKLER LOAD)
RAMP LIVE LOAD:	100 PSF
BUILDING AREA:	12'x40' BLDG - 480 SF (WITHOUT OVERHANGS) 12'x40' BLDG - 470 SF (WITH OVERHANGS)
ALLOWABLE AREA: 9500 SF	
FOUNDATION:	☒ WOOD ☐ CONCRETE
CEC CLIMATE ZONES:	1- 16

WIND DESIGN DATA SECTION 1609.A.1.4

1. BASIC WIND SPEED, 3 SEC GUST (MPH) :			100 / Kzt = 1.0
2. WIND IMPORTANCE FACTOR :			1
3. WIND EXPOSURE :			"C"
4. APPLICABLE INTERNAL PRESSURE COEFFICIENT :			± 0.18
5. COMPONENTS AND CLADDING :			
ZONE 1 =	21.8	ZONE 4 =	21.3
ZONE 2 =	36.6	ZONE 5 =	26.3
ZONE 3 =	55.1		

EARTHQUAKE DESIGN DATA SECTION 1603.A.1.5

1. SEISMIC IMPORTANCE FACTOR :			1
2. MAPPED SPECTRAL RESPONSE :			
S_s = 1.5 (FOR BASE SHEAR)		S_1 = 0.954	
3. SITE CLASS			D
4. SPECTRAL RESPONSE COEFFICIENTS :			
S_{DS} = 1		S_{D1} = 0.95	
5. SEISMIC DESIGN CATEGORY :			E
6. BASIC SEISMIC-FORCE-RESISTING-SYSTEM :			OMF / SHEARWALL
7. DESIGN BASE SHEAR (kips) :			

CONC FLOOR	PLY FLOOR	LL<100	LL=150	
X		X		16.72
	X	X		12.27
X			X	22.06
	X		X	17.61

8. SEISMIC RESPONSE COEFFICIENT, Cs :	0.371
9. RESPONSE MODIFICATION FACTOR, R :	3.5
10. ANALYSIS PROCEDURE USED :	EQUIVALENT LATERAL FORCE

NOTE
FOR NEW CONSTRUCTION STOCKPILE BUILDINGS:
SITE SPECIFIC APPROVAL CAN NOT BE CERTIFIED BEFORE THE HERE IN STOCKPILE (04-113891) IS CERTIFIED

SERIAL #	MODEL	ROOF SLOPE	OTHER INFO
~~10292~~	~~C-2 ADULT HT.~~	~~DUAL~~	~~OPTION B~~
~~10293~~	~~C-2 ADULT HT.~~	~~MONO~~	
~~10294~~	~~C-2 ADULT HT.~~	~~DUAL~~	
~~10295~~	~~C-2 ADULT HT.~~	~~DUAL~~	
~~10296~~	~~A-2 ADULT HT.~~	~~DUAL~~	
~~10297~~	~~C-2 ADULT HT.~~	~~DUAL~~	
~~10298~~	~~C-2 ADULT HT.~~	~~DUAL~~	
~~10299~~	~~C-2 ADULT HT.~~	~~DUAL~~	
~~10300~~	~~A-2 ADULT HT.~~	~~DUAL~~	
~~10301~~	~~C-2 ADULT HT.~~	~~DUAL~~	
10302	C-2 ADULT HT.	DUAL	
~~10303~~	~~C-2 ADULT HT.~~	~~DUAL~~	
~~10304~~	~~C-2 ADULT HT.~~	~~DUAL~~	
~~10305~~	~~C-2 ADULT HT.~~	~~DUAL~~	
~~10336~~	~~C-2 ADULT HT.~~	~~DUAL~~	

PARTIAL LIST OF APPLICABLE CODES AS OF January 1, 2014*
2013 California Administrative Code, Part 1, Title 24 C.C.R.*
2013 California Building Code (CBC), Part 2, Title 24 C.C.R.
(2012 International Building Code Volumes 1-2 and 2013 California Amendments)
2013 California Electrical Code (CEC), Part 3, Title 24 C.C.R.
(2011 National Electrical Code and 2013 California Amendments)
2013 California Mechanical Code (CMC) Part 4, Title 24 C.C.R.
(2012) Uniform Mechanical Code and 2013 California Amendments)
2013 California Plumbing Code (CPC), Part 5, Title 24 C.C.R.
(2012) Uniform Plumbing Code and 2013 California Amendments)
2013 California Energy Code (CEC), Part 6, Title 24 C.C.R.*
2013 California Fire Code, Part 9, Title 24 C.C.R.
(2012 International Fire Code and 2013 California Amendments)
2013 California Green Building Standards Code, Part 11, Title 24 C.C.R.
2013 California Referenced Standards, Part 12, Title 24 C.C.R.
Title 19 C.C.R., Public Safety, State Fire Marshal Regulations.
2007 ASME A17.1(w/A17.1a/CSA B44a-08 addenda) Safety Code For Elevators And Escalators

FOR ACCESS ONLY

PARTIAL LIST OF APPLICABLE STANDARDS

NFPA 13	Automatic Sprinkler Systems	2013 Edition
NFPA 14	Standpipe Systems	2013 Edition
NFPA 17	Dry Chemical Extinguishing Systems	2013 Edition
NFPA 17a	Wet Chemical Systems	2013 Edition
NFPA 20	Stationary Pumps	2013 Edition
NFPA 22	Water tanks for Private Fire Protection	2013 Edition
NFPA 24	Private Fire Mains	2013 Edition
NFPA 72	National Fire Alarm Code	2013 Edition
NFPA 80	Fire doors and Other Opening Protectives	2013 Edition
NFPA 92	Standard for Smoke Control Systems	2012 Edition
NFPA 253	Critical Radiant Flux of Floor Covering Systems	2006 Edition
NFPA 2001	Clean Agent Fire Extinguishing Systems	2012 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
UL 521	Heat Detectors for Fire Protective Signaling Systems	1999 Edition

Reference code section for NFPA Standards- 2013 CBC (SFM) Chapter 35. See Chapter 35 for State of California amendments to NFPA Standards.

*All parts of the 2013 California Building Code become effective January 1, 2014 except the effective date for the use of the 2013 Building Energy Efficiency Standards (Title 24, Part 1, Chapter 10 and Part 6, and affected provisions in Part 11 [Cal. Green Building Standards Code]) is July 1, 2014 and the effective date for California Administrative Code, Part 1, Title 24 is February 28, 2013.

SHEET INDEX

SHT NO.	ARCHITECTURAL
A-0	COVER SHEET
~~A-0A~~	~~T & I FORMS~~
~~A-0B~~	~~T & I FORMS~~
~~A-0.0~~	~~BUILDING OPTIONS SCHEDULE~~
A-0.1	SYMBOLS LEGEND, ABBREVIATION, AND ADA SIGNAGE
A-0.2	SCHEDULES
~~A-0.5~~	~~INSULATION VALUES~~
~~A-0.5A~~	~~TITLE 24 - PART 6 - ENERGY CALCS - ZONE 14~~
~~A-0.5B~~	~~TITLE 24 - PART 6 - ENERGY CALCS - ZONE 15~~
~~A-0.5C~~	~~TITLE 24 - PART 6 - ENERGY CALCS - ZONE 16~~
~~A-0.5D~~	~~TITLE 24 - PART 6 - LIGHTING CALCS - RESTROOMS~~
~~A-0.9~~	~~TITLE 24 - PART 6 - COMPLIANCE VALUES~~
~~A-1.01~~	~~FLOOR PLAN - "MODEL A-1" OR "MODEL A-2"~~
~~A-1.02~~	~~FLOOR PLAN - "MODEL B-1" OR "MODEL B-2"~~
A-1.03	FLOOR PLAN - "MODEL C-2"
~~A-1.04~~	~~FLOOR PLAN - "MODEL D-1" OR "MODEL E"~~
~~A-2.01~~	~~REFLECTED CEILING PLAN - "MODEL A-1" OR "MODEL A-2"~~
~~A-2.02~~	~~REFLECTED CEILING PLAN - "MODEL B-1" OR "MODEL B-2"~~
A-2.03	REFLECTED CEILING PLAN - "MODEL [illegible]" OR "MODEL C-2"
~~A-2.04~~	~~REFLECTED CEILING PLAN - "MODEL D-1" OR "MODEL E"~~
A-2.20	CEILING DETAILS - T-GRID
~~A-2.21~~	~~CEILING DETAILS - HARD LID~~
A-3.01	ROOF PLAN - 0.018" METAL DECK- MONO ~~OR DUAL~~ SLOPE
~~A-3.11~~	~~ROOF PLAN - 0.030" METAL DECK- MONO OR DUAL SLOPE~~
~~A-3.21~~	~~ROOF PLAN - BUILT UP ROOF - MONO OR DUAL SLOPE~~
~~A-3.41~~	~~ROOF PLAN - TPO ROOF - MONO OR DUAL SLOPE~~
A-3.50	ROOF DETAILS - 0.018" STANDING SEAM ROOF DECK
~~A-3.60~~	~~ROOF DETAILS - 0.030" STANDING SEAM ROOF DECK~~
~~A-3.61~~	~~ROOF DETAILS - 0.030" STANDING SEAM ROOF DECK~~
~~A-3.70~~	~~ROOF DETAILS - BUILT UP ROOF~~
~~A-3.80~~	~~ROOF DETAILS - TPO ROOF~~
~~A-4.01~~	~~EXTERIOR ELEVATIONS - "MODEL A-1" - MONO OR DUAL SLOPE~~
~~A-4.02~~	~~EXTERIOR ELEVATIONS - "MODEL A-2" - MONO OR DUAL SLOPE~~
~~A-4.03~~	~~EXTERIOR ELEVATIONS - "MODEL B-1" - MONO OR DUAL SLOPE~~
~~A-4.04~~	~~EXTERIOR ELEVATIONS - "MODEL B-2" - MONO OR DUAL SLOPE~~
~~A-4.05~~	~~EXTERIOR ELEVATIONS - "MODEL C-1" - MONO OR DUAL SLOPE~~
A-4.06	EXTERIOR ELEVATIONS - "MODEL C-2" - MONO ~~OR DUAL~~ SLOPE
~~A-4.07~~	~~EXTERIOR ELEVATIONS - "MODEL D-1" - MONO OR DUAL SLOPE~~
~~A-4.08~~	~~EXTERIOR ELEVATIONS - "MODEL E" - MONO OR DUAL SLOPE~~
A-5.01	CROSS SECTION - MONO SLOPE 0.18 OR BUILT UP ROOF
~~A-5.02~~	~~CROSS SECTION - DUAL SLOPE .018 OR BUILT UP ROOF~~
~~A-5.03~~	~~CROSS SECTION - MONO SLOPE - 0.030" ROOF DECK~~
~~A-5.04~~	~~CROSS SECTION - DUAL SLOPE - 0.030" ROOF DECK~~
A-5.05	CROSS SECTION
A-5.50	ARCHITECTURAL DETAILS - WOOD STUD - WOOD SIDING
~~A-5.51~~	~~ARCHITECTURAL DETAILS - WOOD STUD - PLASTER~~
~~A-5.52~~	~~ARCHITECTURAL DETAILS - WOOD STUD - 1 HOUR RATED~~
~~A-5.53~~	~~ARCHITECTURAL DETAILS - WOOD STUD - PLASTER - 1 HOUR RATED~~
~~A-5.60~~	~~ARCHITECTURAL DETAILS - STEEL STUD - WOOD SIDING~~
~~A-5.61~~	~~ARCHITECTURAL DETAILS - STEEL STUD - PLASTER~~
~~A-5.62~~	~~ARCHITECTURAL DETAILS - STEEL STUD - 1 HOUR RATED~~
~~A-5.63~~	~~ARCHITECTURAL DETAILS - STEEL STUD - PLASTER - 1 HOUR RATED~~
~~A-5.64~~	~~ARCHITECTURAL DETAILS - 1 HOUR RATED OPTIONS~~
A-5.70	ARCHITECTURAL DETAILS - FLOOR
~~A-5.80~~	~~ARCHITECTURAL DETAILS - MISCELLANEOUS/OPTIONS~~
A-5.81	ARCHITECTURAL DETAILS - MISCELLANEOUS
~~A-6.01~~	~~INTERIOR ELEVATIONS - WALL MOUNTED~~
A-6.02	INTERIOR ELEVATIONS - FLOOR MOUNTED

SHT NO.	FOUNDATION
~~F-0.01~~	~~WOOD FOUNDATION PLAN - 12' x 40' (50 PSF)~~
F-0.02	WOOD FOUNDATION PLAN - 12' x 40' (50+15 PSF)
~~F-0.03~~	~~WOOD FOUNDATION PLAN - 12' x 40' (100 PSF)~~
~~F-0.04~~	~~WOOD FOUNDATION PLAN - 12' x 40' (150 PSF)~~
F-0.50	FOUNDATION DETAILS - WOOD
~~F-1.01~~	~~CONCRETE FOUNDATION PLAN - ABOVE GRADE - WOOD FLOOR~~
~~F-1.11~~	~~CONCRETE FOUNDATION PLAN - ABOVE GRADE - CONCRETE FLOOR~~
~~F-1.50~~	~~CONCRETE FOUNDATION DETAILS - ABOVE GRADE~~
~~F-2.01~~	~~CONCRETE FOUNDATION PLAN - BELOW GRADE - WOOD FLOOR~~
~~F-2.11~~	~~CONCRETE FOUNDATION PLAN - BELOW GRADE - CONCRETE FLOOR~~
~~F-2.50~~	~~CONCRETE FOUNDATION DETAILS - BELOW GRADE~~
~~F-2.51~~	~~FOUNDATION DETAILS - CONCRETE~~

SHT NO.	STRUCTURAL
S-0.1	STRUCTURAL SPECIFICATIONS
S-1.01	FLOOR FRAMING PLAN - WOOD FLOOR
~~S-1.11~~	~~FLOOR FRAMING PLAN - CONCRETE FLOOR~~
S-1.50	FLOOR FRAMING DETAILS - WOOD FLOOR
~~S-1.60~~	~~FLOOR FRAMING DETAILS - CONCRETE FLOOR~~
S-2.01	ROOF FRAMING PLAN - 0.018", BUILT UP, OR TPO ROOF - MONO SLOPE
~~S-2.02~~	~~ROOF FRAMING PLAN - 0.030" - MONO SLOPE~~
~~S-2.11~~	~~ROOF FRAMING PLAN - 0.018", BUILT UP, OR TPO ROOF - DUAL SLOPE~~
~~S-2.12~~	~~ROOF FRAMING PLAN - 0.030" - DUAL SLOPE~~
S-2.50	ROOF FRAMING DETAILS - MONO SLOPE
~~S-2.51~~	~~ROOF FRAMING DETAILS - DUAL SLOPE~~
S-2.60	ROOF FRAMING DETAILS
S-3.01	BUILTING SECTION - MONO SLOPE ROOF
~~S-3.02~~	~~BUILDING SECTION - DUAL SLOPE ROOF~~
~~S-3.03~~	~~BUILDING SECTION - 0.030" - MONO SLOPE ROOF~~
~~S-3.04~~	~~BUILDING SECTION - 0.030" - DUAL SLOPE ROOF~~
S-5.00	WALL FRAMING ELEVATIONS - WOOD STUDS
S-5.10	WALL FRAMING DETAILS - WOOD STUDS
S-5.11	WALL FRAMING DETAILS - WOOD STUDS
~~S-5.20~~	~~WALL FRAMING ELEVATIONS - STEEL STUDS~~
~~S-5.30~~	~~WALL FRAMING DETAILS - STEEL STUDS~~
~~S-5.31~~	~~WALL FRAMING DETAILS - STEEL STUDS~~

SHT NO.	PLUMBING
~~P-1.01A~~	~~PLUMBING PLAN AND ISOMETRICS - ADULT "MODEL A-1" OR "MODEL A-2"~~
~~P-1.01E~~	~~PLUMBING PLAN AND ISOMETRICS - ELEM. "MODEL A-1" OR "MODEL A-2"~~
~~P-1.02A~~	~~PLUMBING PLAN AND ISOMETRICS - ADULT "MODEL B-1" OR "MODEL B-2"~~
~~P-1.02E~~	~~PLUMBING PLAN AND ISOMETRICS - ELEM. "MODEL B-1" OR "MODEL B-2"~~
P-1.03A	PLUMBING PLAN AND ISOMETRICS - ADULT "MODEL [illegible]" OR "MODEL C-2"
~~P-1.03E~~	~~PLUMBING PLAN AND ISOMETRICS - ELEM. "MODEL C-1" OR "MODEL C-2"~~
~~P-1.04A~~	~~PLUMBING PLAN AND ISOMETRICS - ADULT "MODEL D-1"~~
~~P-1.04E~~	~~PLUMBING PLAN AND ISOMETRICS - ELEM. "MODEL D-1"~~
P-2.01	PLUMBING DETAILS AND SCHEDULE

SHT NO.	MECHANICAL
~~M-0.1~~	~~MECHANICAL NOTES, SCHEDULES, AND DETAILS~~
~~M-1.01~~	~~MECHANICAL PLAN - WALL MOUNT "MODEL E"~~
~~M-2.01~~	~~MECHANICAL PLAN - ROOF MOUNT "MODEL E"~~

SHT NO.	ELECTRICAL
~~E-1.01~~	~~ELECTRICAL PLAN AND SCHEDULE - "MODEL A-1" OR "MODEL A-2"~~
~~E-1.02~~	~~ELECTRICAL PLAN AND SCHEDULE - "MODEL B-1" OR "MODEL B-2"~~
E-1.03	ELECTRICAL PLAN AND SCHEDULE - "MODEL [illegible]" OR "MODEL C-2"
~~E-1.04~~	~~ELECTRICAL PLAN AND SCHEDULE - "MODEL D-1" OR "MODEL E"~~

SHT NO.	RAMP
~~R-1.01~~	~~STANDARD RAMP PLAN~~
~~R-1.02~~	~~OFFSET RAMP PLAN~~
R-1.03	RAMP LANDING
~~R-1.04~~	~~STANDARD LANDING WITH STEPS~~
~~R-1.05~~	~~SWITCHBACK RAMP PLAN~~
R-2.01	RAMP DETAILS
~~R-3.01~~	~~STANDARD CONCRETE RAMP AND DETAILS~~

SHT NO.	RELOCATABLE SHEETS
~~REL-101~~	~~BUILDING RELOCATION DETAILS~~

SHT NO.	FIRE SPRINKLER PLANS
~~FS-1~~	~~12x40 TOILET PC~~
~~FS-2~~	~~12x40 TOILET PC~~

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC N.N. FLS [illegible] SS CL
DATE APR 26 2017
FILE NUMBER: 19-29

THESE DRAWINGS AND ALL MATERIAL CONTAINED HEREIN ARE THE PROPERTY OF SILVERCREEK INDUSTRIES, INC (SCI Inc) AND SHALL NOT BE REPRODUCED, COPIED OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY AND SHALL NOT BE USED IN WHOLE OR IN PART TO ASSIST IN THE MAKING OF OR FOR THE PURPOSE OF FURNISHING ANY INFORMATION FOR THE MAKING OF DRAWINGS, PRINTS, APPARATUS OR PARTS THEREOF WITHOUT THE FULL KNOWLEDGE AND WRITTEN CONSENT OF SCI Inc.
ALL PATENTABLE MATERIAL CONTAINED HEREIN AND ORIGINATING WITH SCI Inc SHALL BE THE PROPERTY OF SCI Inc

SILVER CREEK INDUSTRIES, INC.
"BUILDING FOR THE NEXT GENERATION"
SILVER CREEK
195 EAST MORGAN PERRIS, CALIFORNIA 92571
PHONE: 951-943-5393 FAX: 951-943-2211

PROJECT NAME: CLASS LEASING

SHEET TITLE: COVER SHEET

TAVARES ASSOCIATES
CHAD CONRAD No. C-28854 REN. 10-31-2013 STATE OF CALIFORNIA
12/23/2011

ARCHITECT OF RECORD SUBMISSION DATE
REGISTERED ARCHITECT ROBERT A. MICKEAD C10322 11-23-15 STATE OF CALIFORNIA
IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES 04 113891 AC FLS SS DATE NOV 26 2014
FLS: JARED ATAYAN
SS: SUSAN TUONG

PROJECT SPECIFIC STATE AGENCY APPROVAL
ACS: B. LATIMER
IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES
FLS: T. burke
SS: D. WANG
04 113891
DATE AUG 28 2014

ORIGINAL PC STATE AGENCY APPROVAL
PRE-CHECK (PC) DOCUMENT CODE: 2010 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED
IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES
PC 04-112137
DATE DEC 29 2011
FLS: JARED ATAYAN

REVISIONS
SS: P. ROONEY

SILVER CREEK INDUSTRIES
12' x 40' PC

PROJECT NO:	STOCKPILE 125 (15) 12x40 TOILET BUILDINGS	
SCALE:	AS NOTED	
DATE:	6-17-11	11-19-14
P.C. SHEET NUMBER	A-0	STKP 125

SCANNED

REFLECTED CEILING NOTES

METAL SUSPENSION FOR LAY-IN PANEL CEILING:

A. 12GA. (MIN.) HANGER WIRES MAY BE USED FOR UP TO THE INCLUDING 4'-0" X 4'-0" GRID SPACING, ALONG MAIN RUNNER. SPLICES WILL NOT BE PERMITTED IN ANY HANGER WIRES UNLESS SPECIFICALLY APPROVED BY DSA.

B. PROVIDE 12GA. HANGER WIRES WITHIN 8" OF THE ENDS OF ALL MAIN & CROSS RUNNERS OR AT 1/4 OF THE LENGTH OF THE END TEE, WHICHEVER IS LESS AT THE PERIMETER OF THE CEILING AREA.

C. PROVIDE TRAPEZE OR OTHER SUPPLEMENTARY SUPPORT MEMBERS AT OBSTRUCTIONS TO MAINTAIN HANGER SPACING. PROVIDE ADDITIONAL HANGERS, STRUTS OR BRACES AS REQUIRED AT THE CEILING BREAKS, SOFFITS OR DISCONTINUOUS AREAS. HANGER WIRES THAT ARE MORE THAN 1 IN 6 PLUMB ARE TO HAVE COUNTER SLOPING WIRES.

D. CEILING GRID MEMBERS MAY BE ATTACHED TO NOT MORE THAN 2 ADJACENT WALLS. CEILING GRID MEMBERS SHOULD BE AT LEAST 3/4" CLEAR OF OTHER WALLS. IF WALLS RUN DIAGONALLY TO CEILING GRID SYS. RUNNERS, THE MAIN AND CROSS RUNNERS SHOULD BE FREE & A MIN. OF 3/4" CLEAR OF WALL.

E. AT THE PERIMETER OF THE CEILING AREA WHERE MAIN OR CROSS RUNNERS ARE NOT CONNECTED TO THE ADJACENT WALL, PROVIDE INTERCONNECTION BETWEEN THE RUNNERS AT THE FREE END TO PREVENT LATERAL SPREADING. A METAL STRUT OR A 16GA. WIRE WITH A POSITIVE MECHANICAL CONNECTION TO THE RUNNERS MAY BE USED. WHERE THE PERPENDICULAR DISTANCE FROM THE WALL TO THE FIRST PARALLEL RUNNERS IS 8" OR LESS, THIS INTERLOCK IS NOT REQ'D.

F. PROVIDE BRACING ASSEMBLY CONSISTING OF A COMPRESSION STRUT (COMPRESSION STRUTS SHALL BE ADEQUATE TO RESIST THE VERTICAL COMPONENT INDUCED BY THE BRACING WIRES, AND SHALL NOT BE MORE THAN 1 (HORIZONTAL) IN 6 (VERTICAL) OUT OF PLUMB) AND (4) 12GA. SPLAYED WIRES ORIENTED 90° FROM EA. OTHER AT THE FOLLOWING SPACING.
(A). PLACE BRACING ASSEMBLIES AT A SPACING NOT MORE THAN 12'-0" X 12'-0" ON CENTER.
(B). PROVIDE BRACING ASSEMBLIES AT LOCATIONS NOT MORE THAN 1/2 THE ABOVE SPACING FROM EA. PERIMETER WALL OR AT THE EDGE OF VERTICAL CEILING OFFSETS. THE SLOPE OF THESE WIRES SHALL NOT EXCEED 45° FROM THE PLANE OF THE CEILING AND SHOULD BE TAUT WITHOUT CAUSING THE CEILING TO LIFT. SPLICES IN BRACING WIRES ARE NOT PERMITTED WITHOUT SPECIAL DSA APPROVAL.

G. FASTEN #12 HANGER WIRES WITH NOT LESS THAN THREE (3) TIGHT TURNS IN 3 INCHES. HANGER WIRE LOOPS SHALL BE TIGHTLY WRAPPED AND SHARPLY BENT TO PREVENT ANY VERTICAL MOVEMENT OR ROTATION OF THE MEMBER WITHIN THE LOOPS (SEE ASTM E580, SECTION 5.2.7.2). FASTEN SPLAY WIRES WITH 4 TIGHT TURNS. HANGER OR BRACING WIRE ANCHORS TO THE STRUCTURE SHOULD BE INSTALLED IN SUCH A MANNER THAT THE DIRECTION OF THE ANCHOR ALIGNS AS CLOSELY AS POSSIBLE WITH THE DIRECTION OF THE WIRE.

H. SEPARATE ALL CEILING HANGING AND BRACING WIRES AT LEAST 6" FROM ALL UNBRACED DUCTS, PIPES, CONDUITS, ETC.
HANGER WIRES SHALL NOT ATTACH TO OR BEND AROUND INTERFERING MATERIAL OR EQUIPMENT. PROVIDE TRAPEZE OR OTHER SUPPLEMENTARY SUPPORT MEMBERS AT OBSTRUCTIONS TO TYPICAL HANGER SPACING. SEE FIGURE 3A, DETAIL F OF DSA IR 25-2.10. PROVIDE ADDITIONAL HANGERS, STRUTS OR BRACES AS REQUIRED AT ALL CEILING BREAKS, SOFFITS, OR DISCONTINUOUS AREAS.

I. CEILING PANELS SHALL NOT SUPPORT ANY LIGHT FIXTURES, AIR TERMINALS OR DEVICES.
ATTACH ALL LIGHT FIXTURES CEILING MOUNTED AIR TERMINALS AND ALL OTHER DEVICES TO THE CEILING GRID RUNNERS TO RESIST A HORIZONTAL FORCE EQUAL TO THE WEIGHT OF THE FIXTURES. SCREWS OR APPROVED FASTENERS ARE REQUIRED. MINIMUM OF TWO ATTACHMENTS ARE REQUIRED AT EACH LIGHT FIXTURE PER ASTM E580 SECTION 5.3.1.
RECESSED OR DROP-IN LIGHT FIXTURES, GRILLES, MECHANICAL TERMINALS, AND FLEXIBLE SPRINKLER HOSE FITTINGS OR OTHER SERVICES BE SUPPORTED DIRECTLY ON RUNNERS CLASSIFIED AS ASTM HEAVY DUTY, BUT THEY MUST ALSO HAVE A MINIMUM OF TWO (2) #12 GAGE SLACK SAFETY WIRES ATTACHED TO THE FIXTURE AT DIAGONAL CORNERS AND ANCHORED TO THE STRUCTURE ABOVE.

J. ALL FLUSH OR RECESSED LIGHT FIXTURES, MECHANICAL TERMINALS, AND FLEXIBLE SPRINKLER HOSE FITTINGS OR OTHER SERVICES WEIGHING 56 LBS. OR MORE MUST BE INDEPENDENTLY SUPPORTED BY NOT LESS THAN FOUR (4) TAUT #12 GAGE WIRES ATTACHED TO THE HOUSING AND TO THE STRUCTURE ABOVE. THE FOUR (4) TAUT #12 GAGE WIRES, INCLUDING THEIR ATTACHMENT TO THE STRUCTURE ABOVE, MUST BE CAPABLE OF SUPPORTING FOUR (4) TIMES THE WEIGHT OF THE UNIT.
ALL 4 ft. x 4 ft. LIGHT FIXTURES MUST HAVE SLACK SAFETY WIRES AT EACH CORNER.
SURFACE-MOUNTED FIXTURES SHALL BE ATTACHED TO THE MAIN RUNNER WITH AT LEAST TWO POSITIVE CLAMPING DEVICES MADE OF MATERIAL WITH A MINIMUM #14 GAGE. ROTATIONAL SPRING CATCHES DO NOT COMPLY. A #12 GAGE SUSPENSION WIRE SHALL BE ATTACHED TO EACH CLAMPING DEVICE TO THE STRUCTURE ABOVE. PROVIDE ADDITIONAL SUPPORTS WHEN LIGHT FIXTURES ARE 8 ft. OR LONGER. MAXIMUM SPACING BETWEEN SUPPORTS SHALL NOT EXCEED 8 FEET.
SUPPORT PENDANT-MOUNTED LIGHT FIXTURES DIRECTLY FROM THE STRUCTURE ABOVE WITH HANGER WIRES OR CABLES PASSING THROUGH EACH PENDANT HANGER AND CAPABLE OF SUPPORTING TWO (2) TIMES THE WEIGHT OF THE FIXTURE. A BRACING ASSEMBLY, PER FIGURE 1, IS REQUIRED WHERE THE PENDANT HANGER PENETRATES THE CEILING. SPECIAL DETAILS ARE REQUIRED TO ATTACH THE PENDANT HANGER TO THE BRACING ASSEMBLY TO TRANSMIT HORIZONTAL FORCE. IF THE PENDANT MOUNTED LIGHT FIXTURE IS DIRECTLY AND INDEPENDENTLY BRACED BELOW THE CEILING, I.E. AIRCRAFT CABLES TO WALLS, THEN BRACE ASSEMBLY IS NOT REQUIRED ABOVE THE CEILING. SEE IR 16-9 FOR ADDITIONAL REQUIREMENT FOR PENDENT MOUNTED FIXTURES.
ALL LIGHT-WEIGHT MISCELLANEOUS DEVISES, SUCH AS STROBE LIGHTS, SPEAKERS, ETC., SHALL BE ATTACHED TO THE CEILING GRID PER SECTION 7.1 OF DSA IR 25-2.10. IN ADDITION, DEVICES WEIGHING MORE THAN 10 LBS SHALL HAVE A #12 SLACK SAFETY WIRE ANCHORED TO THE STRUCTURE ABOVE. DEVICES WEIGHTING MORE THEN 20 LBS SHALL BE SUPPORTED FROM THE STRUCTURE ABOVE PER SECTION 7.3 OF DSA IR 25-2.10.
PENETRATIONS THROUGH THE CEILING FOR SPRINKLER HEADS AND OTHER SIMILAR DEVICES THAT ARE NOT INTEGRALLY TIED TO THE CEILING SYSTEM IN THE LATERAL DIRECTION SHALL HAVE A TWO (2) INCH OVERSIZED RING, SLEEVE OR ADAPTER THROUGH THE CEILING TILE TO ALLOW FREE MOVEMENT OF ONE (1) INCH IN ALL HORIZONTAL DIRECTIONS. ALTERNATIVELY, PER ASTM E580 SECTION 5.2.8.8, A FLEXIBLE SPRINKLER HOSE FITTING THAT CAN ACCOMMODATE 1 INCH OF CEILING MOVEMENT SHALL BE PERMITTED TO BE USED IN LIEU OF THE OVERSIZED RING, SLEEVE OR ADAPTER.

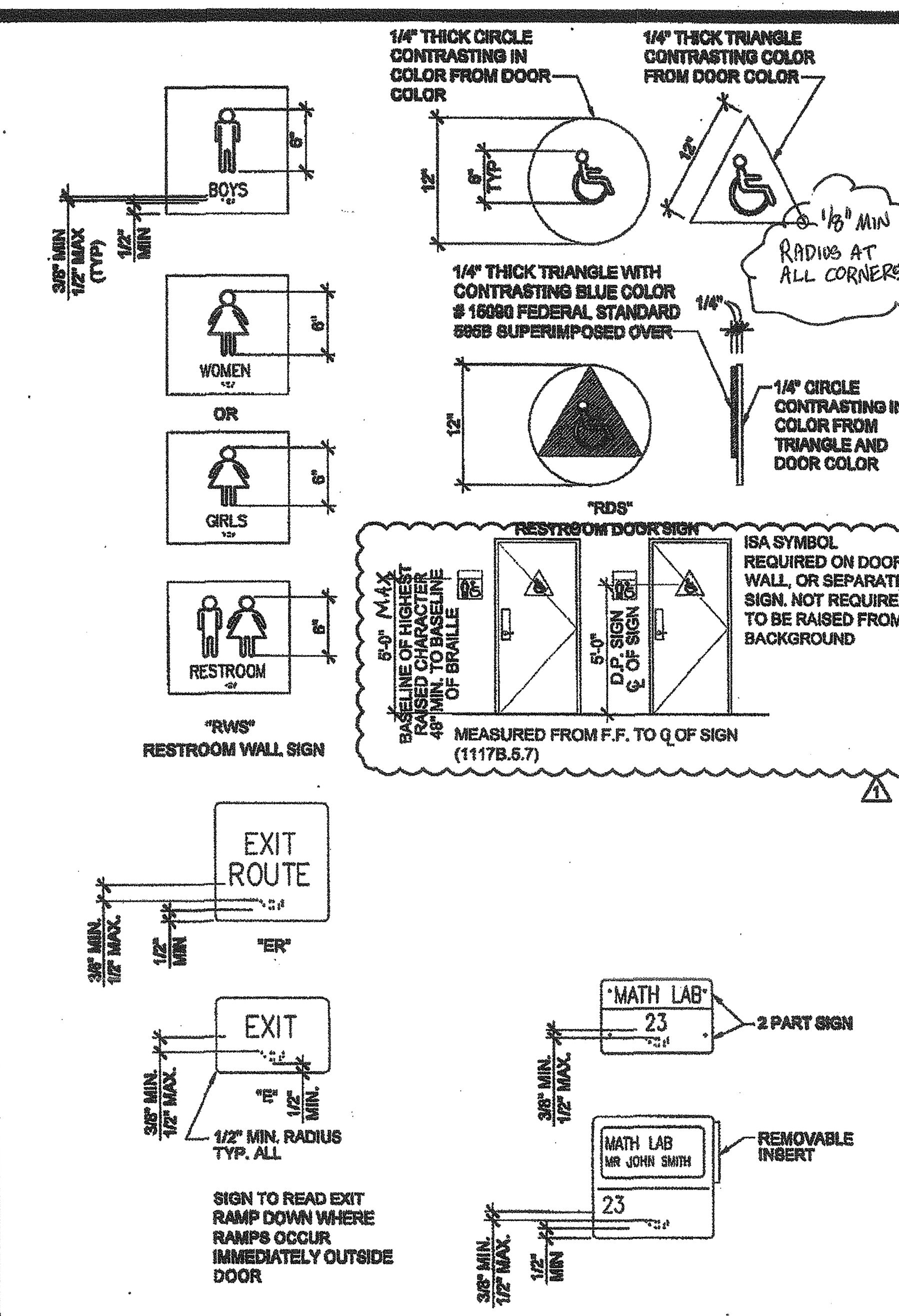
K. CLASSIFICATION OF CEILING GRID:
CLASSIFICATION OF CEILING GRID SHALL BE "HEAVY DUTY"
MAIN RUNNER: 7301
4' CROSS TEE: XL7341
2' CROSS TEE: XL7328
2" WALL ANGLE: 7810
ARMSTRONG PER ASTM C635 AND C636.
PERIMETER SUPPORTING CLOSURE ANGLE SHALL BE NOT LESS THAN 2". ACOUSTICAL PANELS SHALL BE 5/8" MINIMUM THICK, MINERAL FIBERBOARD OR VINYL FACED FIBERGLASS LAY-IN PANELS SQUARE EDGE AND CBC CLASS C FLAME-SPREAD 76-200; SMOKE-DEVELOPED 0-450.

L. FOR CEILING AREAS EXCEEDING 2500 SQUARE FEET, A SEISMIC SEPARATION JOINT SHALL BE PROVIDED IN ACCORDANCE WITH DSA IR 25-2.10 SECTION 8, FIGURE 7, DETAIL A TO DIVIDE THE CEILING INTO AREAS NOT EXCEEDING 2500 SQUARE FEET. ALTERNATIVELY, COMPLY WITH ASTM E580-08 SECTION 5.2.9. SEE 20/A-2.20

2. **NOTE FOR FIRE BLK CONSTRUCTION: SECTION 717**
PER CBC SECTION 717.2.1. FIRE BLOCKS MAY BE OF GYPSUM BOARD, CEMENT FIBER BOARD, BATTS OR MINERAL OR GLASS FIBER, OR OTHER APPROVED MATERIALS INSTALLED IN SUCH A MANNER AS TO BE SECURELY RETAINED IN PLACE. LOOSE-FILL INSULATION MATERIAL SHALL NOT BE USED AS A FIRE BLOCK UNLESS SPECIFICALLY TESTED IN THE FORM AND MANNER INTENDED FOR USE TO DEMONSTRATE ITS ABILITY TO REMAIN IN PLACE AND TO RETARD THE SPREAD OF FIRE AND HOT GASES. (SECTION 717.2.1). FLAME SPREAD - 25 SMOKE DEVELOPMENT - 50 MAX
FIRE BLOCKING IS NOT REQUIRED WITHIN CONCEALED SPACES CONSTRUCTED OF NON-COMBUSTIBLE MATERIALS

3. DUCTWORK SHALL BE RIGIDLY ATTACHED TO BUILDING AND SHALL NOT BE CLOSER THAN 6" TO HANGER WIRES

4. HANGER WIRES MORE THAN 1-IN-6 OUT OF PLUMB SHALL HAVE COUNTER SLOPING WIRES



SIGNAGE TEMPLATES

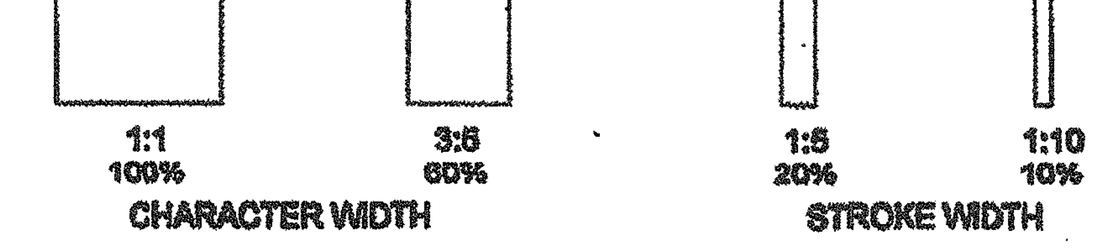
COORDINATE WITH NOTES 1 THROUGH 5 ON THIS SHEET.

TACTILE EXIT SIGNS

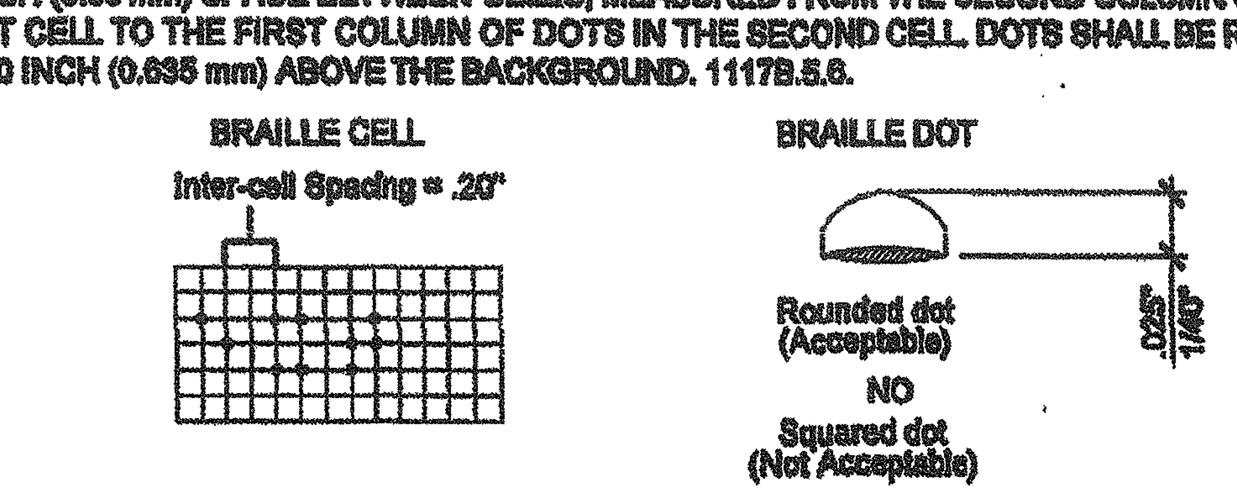
1. CHARACTER TYPE: CHARACTERS ON SIGNS SHALL BE RAISED 1/32 INCH (0.794 mm) MINIMUM AND SHALL BE SANS SERIF UPPERCASE CHARACTERS ACCOMPANIED BY CONTRACTED GRADE 2 BRAILLE (SEE NOTE 5 BELOW).
2. CHARACTER SIZE: RAISED CHARACTERS SHALL BE A MINIMUM OF 5/8 INCH (15.9 mm) AND A MAXIMUM OF 2 INCHES (51 mm) HIGH.
3. FINISH AND CONTRAST: CONTRAST BETWEEN CHARACTERS, SYMBOLS AND THEIR BACKGROUND MUST BE 70% MINIMUM AND HAVE A NON-GLARE FINISH. 1117B.5.2
4. PROPORTIONS: CHARACTERS ON SIGNS SHALL HAVE A WIDTH-TO HEIGHT RATIO OF BETWEEN 3:5 AND 1:1 AND A STROKE WIDTH-TO-HEIGHT RATIO OF BETWEEN 1:5 AND 1:10. 1117B.5.3

   ALL LETTERS MEASURED MUST BE UPPERCASE. AFTER CHOOSING A TYPESTYLE TO TEST, BEGIN BY PRINTING THE LETTERS I, X, AND O AT 1 INCH HIGH. PLACE THE TEMPLATES 1:1 SQUARE OVER THE X OR O, WHICHEVER IS NARROWER. IF THE CHARACTER IS NOT WIDER THAN 1 INCH, NOR NARROWER THAN THE 3:5 RECTANGLE, THE PROPORTIONS ARE CORRECT. USE THE 1:5 RECTANGLE TO DETERMINE IF THE STROKE OF THE I IS TOO BROAD, AND THE 1:10 RECTANGLE TO SEE IF ITS IS TOO NARROW. IF ALL THE TESTS ARE PASSED, THE TYPESTYLE IS COMPLIANT WITH PROPORTION CODE.

   TEMPLATE FOR CHECKING CHARACTER AND STROKE WIDTH TO HEIGHT PROPORTIONS:



5. BRAILLE: CONTRACTED CALIFORNIA GRADE 2 BRAILLE SHALL BE USED WHEREVER BRAILLE IS REQUIRED IN OTHER PORTIONS OF THESE STANDARDS. DOTS SHALL BE 1/10 INCH (2.54 mm) ON CENTERS IN EACH CELL WITH 2/10 INCH (5.08 mm) SPACE BETWEEN CELLS, MEASURED FROM THE SECOND COLUMN OF DOTS IN THE FIRST CELL TO THE FIRST COLUMN OF DOTS IN THE SECOND CELL. DOTS SHALL BE RAISED A MINIMUM OF 1/40 INCH (0.635 mm) ABOVE THE BACKGROUND. 1117B.5.6.

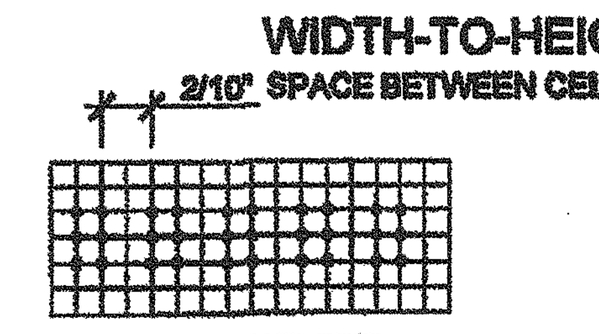


REQUIRED ROUNDED OR DOMED CALIFORNIA BRAILLED DOTS, EACH DISTINCT AND SEPARATE. DOTS WITH STRAIGHT SIDES AND FLAT TOPS ARE NOT READABLE FOR MANY BRAILLE USERS.

EXAMPLE OF HOW TO DEMONSTRATE FONT TO BE USED

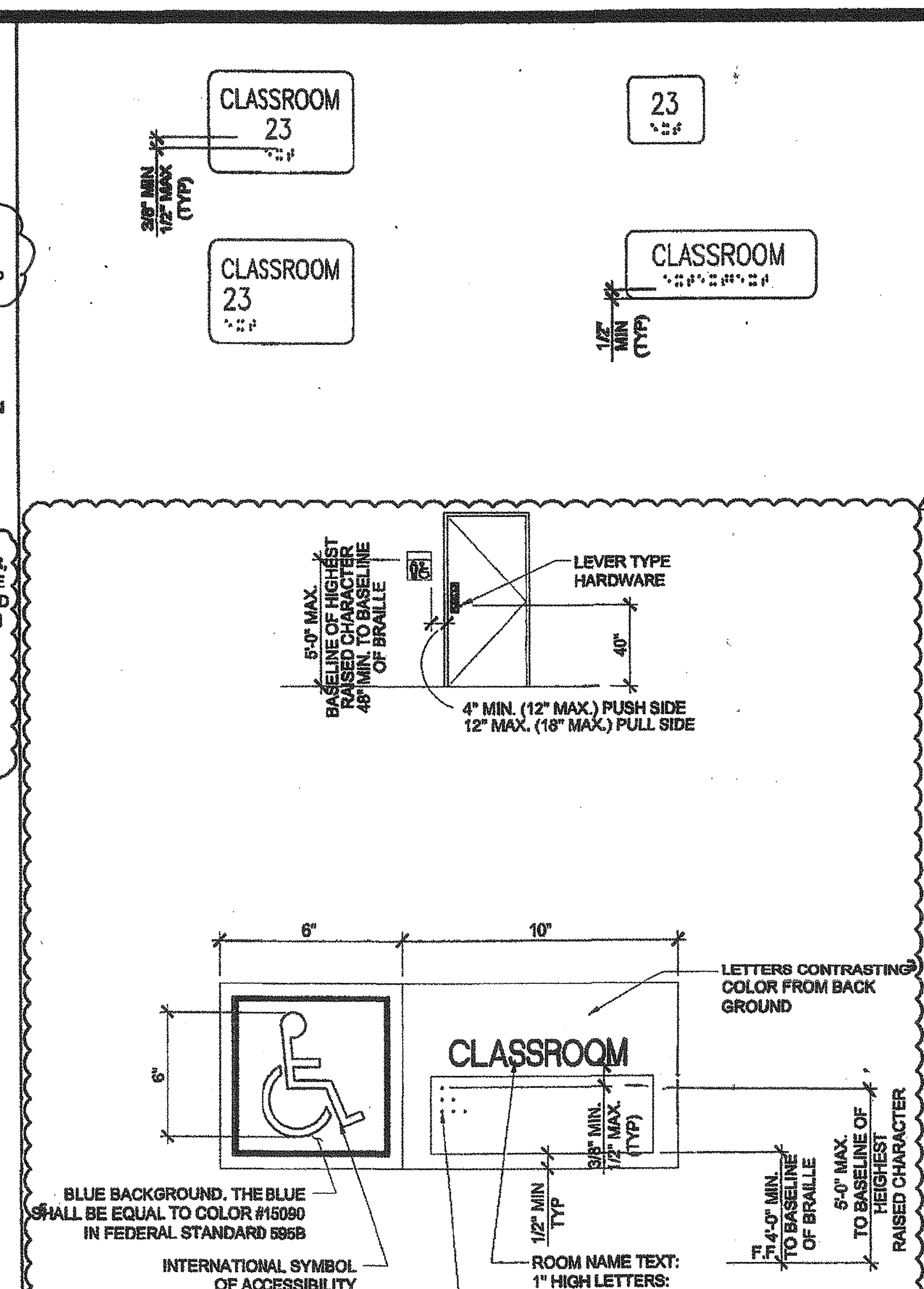


WIDTH-TO-HEIGHT PROPORTIONS TEMPLATE



CALIFORNIA CONTRACTED GRADE 2 BRAILLE SHALL BE USED WHEREVER BRAILLE IS REQUIRED. INDIVIDUAL BRAILLE DOTS SHALL BE DISTINCT AND SEPARATE. EACH DOT SHALL BE ROUNDED OR DOMED IN LIEU OF SQUARE SIDED AND FLAT TOPPED.

BRAILLE SPACING TEMPLATE PER TITLE 24



NOTE:
PROVIDE ONE SIGN WHERE INDICATED ON PLANS. LOCATE SIGN MAX. 12" AWAY FROM THE DOOR STRIKE SIDE.

NOTE:
SIGN MATERIAL TO BE 1/8" THK. E.S. PLASTIC, W/ 1.32" RAISED BORDER, GRAPHICS AND LETTERS. PROVIDE MECHANICAL MOUNTING W/ VANDAL RESISTANT FASTENERS. CBC SECTION 1117B.5.

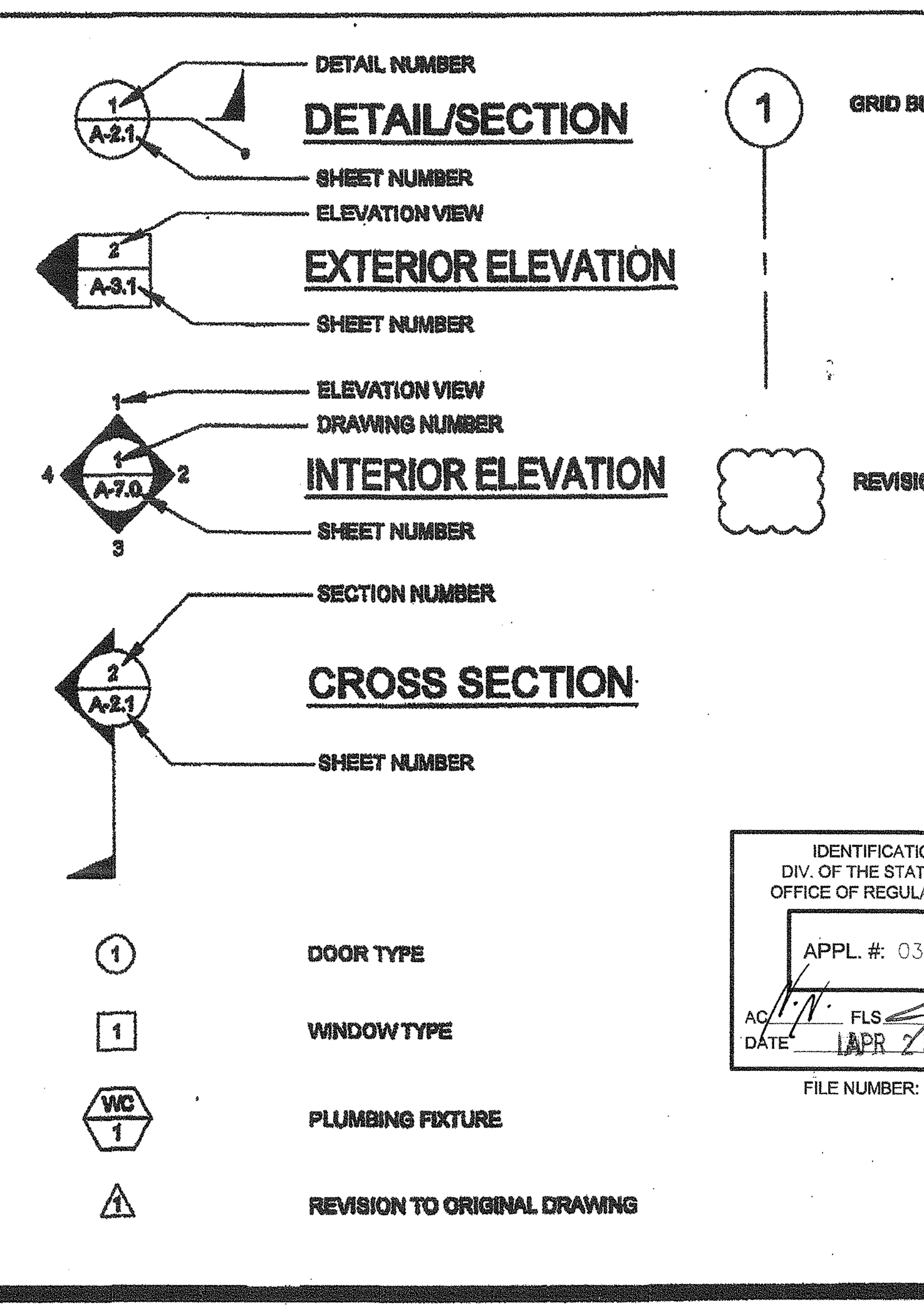
(A) ACCESSIBLE ROOM SIGNAGE (BY DISTRICT)

FOR SITE SPECIFIC LOCATIONS ARCHITECT TO PROVIDE BUILDING / ROOM IDENTIFICATION SIGNS. DETAILS AND LOCATIONS OF SIGNAGE TO BE INDICATED.

COORDINATE WITH NOTES 1 THROUGH 5 ON THIS SHEET.

THIS DETAIL FOR REFERENCE ONLY

SYMBOLS LEGEND



IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC N.N. FLS SS CL
DATE APR 26 2017
FILE NUMBER: 19-29

ABBREVIATIONS

AB	ANCHOR BOLT
ABS	ABSOLUTE
ABV	ABOVE
ACC	ACCESS
ADDL	ADDITIONAL
ADJ	ADJACENT
AFF	ABOVE FINISH FLOOR
AFG	ABOVE FINISH GRADE
AGC	ABOVE GRADE CONCRETE
ALT	ALTERNATE
AOR	ARCHITECT OF RECORD
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL / ARCHITECT
BD	BOARD
BGC	BELOW GRADE CONCRETE
BLDG	BUILDING
BLK	BLOCK
BLKG	BLOCKING
BM	BEAM
BOT	BOTTOM
BTWN	BETWEEN
BU	BUILT UP
CAB	CABINET
CBC	CALIFORNIA BUILDING CODE
CI	CAST IRON
CJ	CONTROL JOINT
CJP	COMPLETE JOINT PENETRATION
℄	CENTER LINE
CLG	CEILING
CO	CLEAN OUT
COL	COLUMN
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
CPT	CARPET
CSK	COUNTERSINK
CTR	CENTER
DBL	DOUBLE
DET	DETAIL
DF	DOUGLAS FIR
DIA OR Ø	DIAMETER
DIAG	DIAGONAL
DIM	DIMENSION
DSA	DIVISION OF THE STATE ARCHITECT
DWG	DRAWING
(E)	EXISTING
EA	EACH
EJ	EXPANSION JOINT
ELEV	ELEVATION
EN	END NAIL
EQ	EQUAL
EQUIP	EQUIPMENT
EW	EACH WAY
EXT	EXTERIOR

FA	FIRE ALARM
FCO	FLOOR CLEAN OUT
FF	FINISH FLOOR
FG	FINISH GRADE
FIN	FINISH
FLR	FLOOR
FN	FIELD NAILING
FND	FOUNDATION
FOC	FACE OF CONCRETE
FOS	FACE OF STUD
FTG	FOOTING
FOF	FACE OF FINISH
GA	GAUGE
GALV	GALVANIZE
GC	GENERAL CONTRACTOR
GR	GRADE
GYP	GYPSUM
GYP BD	GYPSUM BOARD
HB	HOSE BIBB
HD	HEAVY DUTY
HDR	HEADER
HDW	HARDWARE
HF	HEM FIR
HORIZ	HORIZONTAL
HT	HEIGHT
HVAC	HEATING, VENTILATING, AND AIR CONDITIONING
INCL	INCLUDED
INFO	INFORMATION
INT	INTERIOR
J-BOX	JUNCTION BOX
JST	JOIST
JT	JOINT
KO	KNOCK OUT
LAB	LABORATORY
LAM	LAMINATED
LAV	LAVATORY
LB	POUNDS
LT	LIGHT
LT WT	LIGHT WEIGHT
LVR	LOUVER
MAX	MAXIMUM
MB	MACHINE BOLT
MED	MEDIUM
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MOD	MODULE
MTL	METAL
(N)	NEW
N	NORTH
NIC	NOT IN CONTRACT (NOT IN SILVER CREEK'S SCOPE OF WORK
NL	NAIL
NO	NUMBER
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OH	OPPOSITE HAND
OPNG	OPENING
OPP	OPPOSITE

P̲ OR PL	PLATE
PC	PRE-CHECKED
PLAS	PLASTER
PLYWD	PLYWOOD
PNL	PANEL
PNT	PAINT
POC	POINT OF CONNECTION
POT	PATH OF TRAVEL
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PRESSURE TREATED
RAG	RETURN AIR GRILLE
RD	ROOF DRAIN
REF	REFERENCE
REG	REGISTER
REINF	REINFORCE
REQ'D	REQUIRED
REV	REVISION
RF	ROOF
RM	ROOM
RO	ROUGH OPENING
ROH	ROOF OVERHANG
SCHED	SCHEDULE
SEC	SECTION
SHT	SHEET
SHTG	SHEATHING
SIM	SIMILAR
SPEC	SPECIFICATION
SQ	SQUARE
SST	STAINLESS STEEL
STD	STANDARD
STIFF	STIFFENER
STL	STEEL
STS	SELF-TAPPING SCREW
STSMS	SELF-TAPPING SHEET METAL SCREW
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
TEL	TELEPHONE
THK	THICK
TOC	TOP OF COLUMN
TOS	TOP OF STEEL
TS	TUBE STEEL
TV	TELEVISION
TYP	TYPICAL
UBC	UNIFORM BUILDING CODE
UON	UNLESS OTHERWISE NOTED
UR	URINAL
VERT	VERTICAL
VCT	VINYL COMPOSITION TILE
W/	WITH
WC	WATER CLOSET
WCO	WALL CLEAN OUT
WD	WOOD
WH	WATER HEATER
WIC	WOODWORK INSTITUTE OF CALIFORNIA
WND	WINDOW
W/O	WITHOUT
WP	WATER PROOF

SPECIFICATIONS

DIVISION 5 - METALS
05720 RAILINGS AND HANDRAILS:
ALL WELDED JOINTS AND SURFACES SHALL BE GROUND SMOOTH, NO SHARP OR ABRASIVE CORNERS EDGES OR SURFACES. WALL SURFACES ADJACENT TO HANDRAIL SHALL BE SMOOTH.

DIVISION 8 - DOORS
08710 DOOR HARDWARE:
- IF THE DOOR HAS A CLOSER, THEN THE SWEEP PERIOD OF THE CLOSER SHALL BE ADJUSTED SO THAT FROM AN OPEN POSITION OF 70 DEGREES, THE DOOR WILL TAKE AT LEAST 3 SECONDS TO MOVE TO A POINT 3" FROM THE LATCH, MEASURED TO THE LANDING SIDE OF THE DOOR. 1133B.2.5.1.
  ALL HARDWARE SHALL MEET THE REQUIREMENTS OF CBC SECTIONS 1133B.2.1, 1133B.2.5.2 AND 1008.1.9
- THRESHOLDS SHALL COMPLY WITH CBC SECTIONS 1008.1 AND 1133B.2.4.7.
- FLOOR STOPS SHALL NOT BE LOCATED IN THE PATH OF TRAVEL AND 4" MAXIMUM FROM WALLS POLICY 99-08

08712 EXIT DEVICES: (WHERE APPLICABLE)
MAXIMUM EFFORT TO OPERATE DOORS SHALL NOT EXCEED 5 LB (22.2 N) FOR EXTERIOR AND INTERIOR DOORS, SUCH PULL OR PUSH EFFORT BEING APPLIED AT RIGHT ANGLES TO HINGED DOORS AND AT THE CENTER PLANE OF SLIDING OR FOLDING DOORS. COMPENSATING DEVICES OR AUTOMATIC DOOR OPERATORS MAY BE UTILIZED TO MEET THE ABOVE STANDARDS. WHEN FIRE DOORS ARE REQUIRED, 5LBS MAX OR THE MAXIMUM EFFORT TO OPERATE THE DOOR MAY BE INCREASED TO THE MAXIMUM ALLOWABLE BY THE APPROPRIATE ADMINISTRATIVE AUTHORITY, NOT TO EXCEED 15 LBF (66.72 N) PER CBC SECTIONS 1008.1.3 AND 1133B.2.5 / ADAAG 4.13.11
HAND-ACTIVATED DOOR OPENING HARDWARE, HANDLES, PULLS, LATCHES, LOCKS, AND OTHER OPERATING DEVICES ON ACCESSIBLE DOORS SHALL HAVE A SHAPE THAT IS EASY TO GRASP WITH ONE HAND AND DOES NOT REQUIRE TIGHT GRASPING, TIGHT PINCHING, OR TWISTING OF THE WRIST TO OPERATE. MOUNTING HEIGHT OF LATCHING HARDWARE SHALL BE CENTERED BETWEEN 34 INCHES MIN AND 48 INCHES MAX ABOVE THE FLOOR PER CBC SECTION 1008.1.9.2. LATCHING AND LOCKING DOORS THAT ARE HAND-ACTIVATED AND WHICH ARE IN A PATH OF TRAVEL SHALL BE OPERABLE WITH A SINGLE EFFORT BY LEVER-TYPE HARDWARE, PANIC BARS, PUSH-PULL ACTIVATING BARS OR OTHER HARDWARE DESIGNED TO PROVIDE PASSAGE. LOCKED EXIT DOOR SHALL OPERATE AS ABOVE IN EGRESS DIRECTION PER CBC SECTION 1008.1.2

PANIC HARDWARE SHALL NOT BE PROVIDED WITH "NIGHT LATCH" FUNCTION FOR ANY ACCESSIBLE DOORS OR GATES UNLESS THE FOLLOWING CONDITIONS ARE MET PER DSA INTERPRETATION 10-08 DSA/AC. SUCH CONDITIONS MUST BE CLEARLYDEMONSTRATED AND INDICATED IN THE SPECIFICATIONS:
- SUCH HARDWARE HAS A 'DOGGING' FEATURE.
- IT IS DOGGED DURING THE TIME THE FACILITY IS OPEN.
- SUCH 'DOGGING' OPERATION IS PERFORMED ONLY BY EMPLOYEES AS THEIR JOB FUNCTION (NON-PUBLIC USE).

DIVISION 9 - FINISHES
09650 RESILIENT FLOORING:
RESILIENT FLOORING DEMONSTRATING A COEFFICIENT OF FRICTION OF AT LEAST 0.6 PER ASTM D2047, WILL BE ACCEPTED AS MEETING THE INTENT OF SLIP RESISTANCE.
09680 CARPETING:
CARPET SHALL HAVE A LEVEL LOOP, TEXTURED LOOP, LEVEL-CUT, OR LEVEL-CUT/UNCUT PILE TEXTURE AND MAXIMUM PILE HEIGHT OF 1/2" PER CBC SECTION 1124B.3.
CARPET EDGES SHALL COMPLY WITH CBC 1124B.2.

DIVISION 10 - SPECIALTIES
10165 TOILET COMPARTMENTS: CBC SECTION 1115B.3.1.4.4 AND 1115B.3.1.4.5
TOILET STALLS FOR DISABLED PERSONS SHALL HAVE SLIDE BOLT DOOR LATCH, U-SHAPE OR WIRE PULLS BOTH SIDES OF THE DOOR AND SELF-CLOSING HINGES. DOORS HARDWARE SHALL BE MOUNTED AT 34" MIN TO 48" MAX ABOVE FINISHED FLOOR. DOORS AT FRONT ENTRY STALLS SHALL HAVE 32" MINIMUM CLEAR WIDTH WHEN THE DOOR IS OPEN 90°. DOORS AT SIDE ENTRY STALLS SHALL HAVE 34" MINIMUM CLEAR WIDTH WHEN THE DOOR IS OPEN 90°.
10800 TOILET ACCESSORIES:
TOILET ACCESSORIES REQUIRED TO BE ACCESSIBLE SHALL BE MOUNTED AT HEIGHTS ACCORDING TO CBC SECTION 1115B.4. THE GRAB BAR CAN NOT PROJECT MORE THAN 3" INTO THE 48" MINIMUM CLEAR SPACE IN FRONT OF THE WATER CLOSET 1115B.4.1 (3). TOILET PAPER AND FEMININE NAPKIN DISPENSERS LOCATED ON THE GRAB BAR SIDE OF AN ACCESSIBLE TOILET ROOM OR STALL SHOULD NOT PROJECT MORE THAN THE GRAB BAR. THE ACCESSORY SHALL NOT BE LOCATED CLOSER THAN 1 1/2" CLEAR OF THE TANGENT POINT OF THE GRAB BAR. ACCESSORIES SURFACE MOUNTED ABOVE GRAB BAR WILL RESTRICT USABILITY.

DIVISION 15 - MECHANICAL
15400 PLUMBING FIXTURES:
ACCESSIBLE PLUMBING FIXTURES SHALL COMPLY WITH ALL OF THE REQUIREMENTS OF CBC SECTION 1115B. HEIGHTS AND LOCATION OF ALL FIXTURES SHALL BE ACCORDING TO CBC TABLE 1115B-1. FIXTURE CONTROLS SHALL COMPLY WITH CBC SECTION 1115B.

THESE DRAWINGS AND ALL MATERIAL CONTAINED HEREIN ARE THE PROPERTY OF SILVERCREEK INDUSTRIES, INC (SCI Inc) AND SHALL NOT BE REPRODUCED, COPIED OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY AND SHALL NOT BE USED IN WHOLE OR IN PART TO ASSIST IN THE MAKING OF OR FOR THE PURPOSE OF FURNISHING ANY INFORMATION FOR THE MAKING OF DRAWINGS, PRINTS, APPARATUS OR PARTS THEREOF WITHOUT THE FULL KNOWLEDGE AND WRITTEN CONSENT OF SCI Inc.
ALL PATENTABLE MATERIAL CONTAINED HEREIN AND ORIGINATING WITH SCI Inc SHALL BE THE PROPERTY OF SCI Inc

SILVER CREEK INDUSTRIES, INC.
"BUILDING FOR THE NEXT GENERATION"
SILVER CREEK
195 EAST MORGAN PERRIS, CALIFORNIA 92571
PHONE: 951-943-5393 FAX: 951-943-2211

PROJECT NAME:
CLASS LEASING

SHEET TITLE:
SYMBOLS LEGEND, ABBREVIATIONS & ADA SIGNAGE

TAVARES ASSOCIATES

12/23/2011

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES 04 113891

ARCHITECT OF RECORD
IDENTIFICATION STAMP / SUBMISSION DATE
DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES
04 113551
REGISTERED ARCHITECT ROBERT A. McQUEAD C10332 STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES
04 113624
DATE MAY 15 2014

ORIGINAL PC STATE AGENCY APPROVAL
PRE-CHECK (PC) DOCUMENT CODE: 2010 CBC
SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED
IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES
PC 04-112137
DATE DEC 9 2011

REVISIONS

1	PER PROJECT SPECIFIC REQUIREMENTS 03-13-2014 SIGNAGE
2	
3	
4	
5	
6	
7	
8	

SILVER CREEK INDUSTRIES
12' x 40' PC

PROJECT NO:	
DRAWN BY:	
SCALE:	AS NOTED
DATE:	6-17-11

P.C. SHEET NUMBER
A-0.1
STKP 125

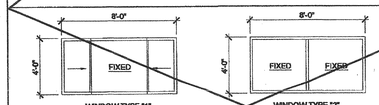
WINDOW SCHEDULE

WINDOW NO.	QTY.	TYPE	WIDTH	HEIGHT	FUNCTION	FRAME MATERIAL	GLASS MATERIAL	WALL THICKNESS	NOTES
A		1	8'-0"	4'-0"	XOX	ANOD	DP		
B		2	8'-0"	4'-0"	FIXED	FRW	FRG		45 MINUTE ASSEMBLY

WINDOW FINISH

ANOD: CLEAR ANODIZED ALUMINUM FRAME
BRONZ: BRONZE ANODIZED ALUMINUM FRAME
PAINT: PAINTED FRAME
WF: 16GA WELDED FRAME
FRW: FIRE RATED WINDOW
FRAME: MIN 0.045" THICK WELDED FRAME
FRG: FIRE RATED GLAZING: 1/4" WIRED GLASS, LABELED TO MEET THE REQUIREMENTS FOR A 3/4 HOUR FIRE WINDOW ASSEMBLY PER CBC SECTION/TABLE 715.5
DP: 3/16" MINIMUM DUAL PANE TEMPERED GLASS OF SOLAR GRAY - 3/16" ENERGYSHIELD WITH A LIGHT TRANSMISSION FACTOR OF 49%, ALL OPERABLE SASH SHALL HAVE SCREENS.

WINDOW TYPE



INTERNATIONAL WINDOW 6220 - 3/4" INSULATING GLASS UNIT PERFORMANCE
U-VALUE: 0.54
SHGC: 0.30

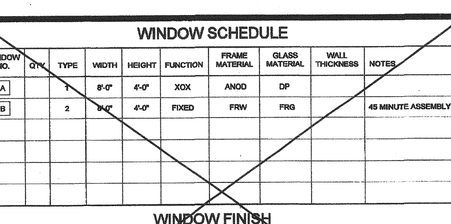
DOOR SCHEDULE

DOOR NO	WIDTH	HEIGHT	DOOR TYPE	QTY	DOOR MAT/FIN	FRAME MAT/FIN	HARDWARE SET	WALL THICKNESS	NOTES
1	3'-0"	7'-0"	A	2	HM	KD	HW - 1	4 7/8"	
2	3'-0"	7'-0"	A	2	HM	KD	HW - 2	4 7/8"	NO CLOSER REQUIRED
3	2'-0"	7'-0"	B		HM	KD	HW - 3	4 1/8"	
4	3'-0"	7'-0"	C		HM	KD	HW - 4	5 1/4"	

DOOR MATERIAL AND FINISH ABBREVIATIONS

HM: 18GA HOLLOW METAL
WF: 16GA WELDED FRAME
AL: ALUMINUM
SST: STAINLESS STEEL
KD: KNOCK DOWN FRAME
SCL: SOLID CORE WOOD LEGACY
HC: HOLLOW CORE WOOD
PT: PAINTED

DOOR TYPES & NOTES



1. DOOR HANDLE FOR LOCKSETS AND PANIC HARDWARE TO BE CENTERED AT 40" AFF. HARDWARE TO BE OPENED FROM THE INSIDE WITHOUT ANY SPECIAL KNOWLEDGE OR EFFORT. LEVERS TO RETURN TO WITHIN 1/2" OF DOOR.
2. ALL DOORS SHALL BE 1 3/4" THICK U.N.O.
3. CLOSER SHALL BE SET FOR MAXIMUM OPENING PRESSURE OF 5 LBS AT EXTERIOR AND INTERIOR DOORS.
4. PANIC HARDWARE IS REQUIRED TO BE INSTALLED WHEN THE CONFIGURATION OF ANY ROOM PROVIDES AN OCCUPANT LOAD OF 50 OR GREATER. CBC 1008.1.10
5. ALL HARDWARE SHALL COMPLY WITH SILVER CREEK'S SPECIFICATIONS ON THIS SHEET AND CBC SECTIONS 1133B.2 AND 1008
6. DOOR CLOSER SHALL BE ADJUSTED TO SO THAT FROM AN OPEN POSITION OF 70°, THE DOOR WILL TAKE AT LEAST 3 SECONDS TO MOVE TO A POINT 3" FROM THE LATCH, MEASURED TO THE LANDING SIDE OF THE DOOR 1133 B.2.5.1
7. PANIC AND FIRE EXIT HARDWARE. WHERE PANIC AND FIRE EXIT HARDWARE IS INSTALLED, IT SHALL COMPLY WITH THE FOLLOWING:
   - THE ACTUATING PORTION OF THE RELEASING DEVICE SHALL EXTEND AT LEAST ONE-HALF OF THE DOOR LEAF WIDTH.
   - THE MAXIMUM UNLATCHING FORCE SHALL NOT EXCEED 8LBS PER 1117B.6.4.
   APPROVED BY AUTHORITY W JURISDICTION, PANIC HARDWARE SHALL COMPLY WITH CBC SECTION 1008.1.10
8. THE FIRE PROTECTION FOR EXTERIOR WALL IS DETERMINED BASED UPON THE FIRE SEPARATION DISTANCE IN WHICH THE WALL IS LOCATED. SEE CBC TABLE 705.8 OR TABLE 602

FINISH SCHEDULE

ROOM NAME	FLOORING		WALL FINISH				CEILING		NOTES
	FLOOR	BASE	FRONT	LEFT	REAR	RIGHT	CEILING	CEILING HT	
GIRLS 101	SV	SC	FRP	FRP	FRP	FRP	GBP	8'-0"	
BOYS 102	SV	SC	FRP	FRP	FRP	FRP	GBP	8'-0"	
STAFF 103	SV	SC	FRP	FRP	FRP	FRP	GBP	8'-0"	
STAFF 104	SV	SC	FRP	FRP	FRP	FRP	GBP	8'-0"	
~~WORK ROOM 105~~	~~CARP~~	~~4" TS~~	~~TACK~~	~~TACK~~	~~TACK~~	~~TACK~~	~~CP~~	~~8'-0"~~	
PLUMBING CHASE	---	---	---	---	---	---	---	---	

FLOOR, WALL, CEILING MATERIALS

FLOORING
CARP: CARPET PER STATE OF CALIFORNIA SPECIFICATIONS COMPLYING WITH GROUP 1; TYPE "A" OR TYPE "B"; CLASS 2; DENSITY 4600; DIRECT GLUE DOWN
SV: SHEET VINYL FLOORING
VCT: VINYL COMPOSITION TILE

BASE
4" TS: 4" TOP SET BASE
6" TS: 6" TOP SET BASE
SC: 6" SELF-COVE BASE

WALLS
TACK: 1/2" VINYL TACKBOARD CLASS 1 OVER ½" GYPSUM BOARD BACKING
FRP: 1/8" FIBER REINFORCED PANEL OVER ½" WATER RESISTANT GYPSUM BOARD
GYP: 1/2" GYPSUM BOARD; TAPE; TEXTURE; PAINTED FINISH
PLY: 1/2" PLYWOOD FINISH
NF: NO FINISH

CEILING
CP: ACOUSTICAL LAY IN GRID CEILING PANELS (SEE SPECIFICATION NOTES ON REFLECTED CEILING PLAN)
HC: 5/8" GYPSUM BOARD; TAPE; TEXTURE; PAINTED FINISH (HARD LID CEILING)
GBBP: 1/2" GYPSUM BOARD WASHABLE PANELS (PAINTED)

FINISH NOTES

1. ALL FINISHES SHALL COMPLY WITH CBC, CFC AND TITLE 19 CCR.
2. PREPARATION FOR SUB-FLOOR TO ACCEPT FINISH FLOORING IS BY FLOORING CONTRACTOR. PLYWOOD SUB-FLOOR IS 2.4.1. PLYWOOD. OUTER PLYWOOD IS PLUGGED AND TOUCH SANDED. ANY DEFORMITIES DUE TO STANDARD CONSTRUCTION PRACTICES SHALL BE FILLED AND SANDED BY FLOORING CONTRACTOR. THE JOINT AT THE MODLINE SHALL NOT BE LARGER THAN 1/8" AND SHALL BE FILLED AND SANDED BY FLOORING CONTRACTOR.
3. RESILIENT FLOORING DEMONSTRATING A COEFFICIENT OF FRICTION OF AT LEAST 0.6 PER ASTM D2047, WILL BE ACCEPTED AS MEETING THE INTENT OF SLIP RESISTANCE.
4. CARPET SHALL HAVE A LEVEL LOOP, TEXTURED LOOP, LEVEL CUT, OR LEVEL CUT / UNCUT PILE TEXTURE AND MAXIMUM PILE HEIGHT OF 1/2" PER CBC SECTION 1124B.3. CARPET EDGED SHALL COMPLY WITH CBC SECTION 1124B.2.

DOOR HARDWARE

BOYS & GIRLS RESTROOM - EXTERIOR DOOR HW-1

LOCKSET	SCHLAGE ND70PDRHO626 (cylindrical)	Finish 26D	or equal
BUTTS	HAGER BB1191 4 ½" x 4 ½" NRP	Finish 26D	or equal
CLOSER	FALCON DEL 689	Finish 689	or equal
WEATHER STRIP	HAGER 891SAV 3684	Finish Alum	or equal
THRESHOLD	HAGER 413SA 36	Finish Alum	or equal
DOOR BOTTOM	HAGER 783SAV 3SN	Finish Alum	or equal
LOUVER	ANEMO 24 x 12	Finish Bronze	or equal

STAFF RESTROOM - EXTERIOR DOOR HW-2

LOCKSET	SCHLAGE ND85PDRHO626 (cylindrical)	Finish 26D	or equal
BUTTS	HAGER BB1191 4 ½" x 4 ½" NRP	Finish 26D	or equal
WEATHER STRIP	HAGER 891SAV 3684	Finish Alum	or equal
THRESHOLD	HAGER 413SA 36	Finish Alum	or equal
DOOR BOTTOM	HAGER 783SAV 3SN	Finish Alum	or equal
LOUVER	ANEMO 24 x 12	Finish Bronze	or equal

~~**CHASE EXTERIOR DOOR - EXTERIOR DOOR HW-3**~~

LOCKSET	SCHLAGE ND70PDRHO626 (cylindrical)	Finish 26D	or equal
BUTTS	HAGER BB1191 4 ½" x 4 ½" NRP	Finish 26D	or equal
THRESHOLD	HAGER 413SA 36	Finish Alum	or equal
DOOR BOTTOM	HAGER 783SAV 3SN	Finish Alum	or equal

~~**WORKROOM - EXTERIOR DOOR HW-4**~~

LOCKSET	SCHLAGE ND70PDRHO626 (cylindrical)	Finish 26D	or equal
BUTTS	HAGER BB1191 4 ½" x 4 ½" NRP	Finish 26D	or equal
CLOSER	NORTON 8301 STD	Finish 689	or equal
WEATHER STRIP	HAGER 891SAV 3684	Finish Alum	or equal
THRESHOLD	HAGER 413SA 36	Finish Alum	or equal
DOOR BOTTOM	HAGER 783SAV 3SN	Finish Alum	or equal

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
04 112891
AC DSA SS
DATE NOV 29 2011

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC DSA SS
DATE JAN 20 2012

FILE NUMBER: 19-29

INSULATION SPECIFICATIONS

MOISTURE PROTECTION INSULATION:

DESCRIPTION OF WORK: THE FURNISHING AND INSTALLING OF ALL INSULATION FOR ALL CEILING, FLOOR AREAS, AND EXTERIOR WALLS. (CLASS 1 = 0-25 FLAME SPREAD) SMOKE DEVELOPMENT DENSITY LESS THAN 450.

MATERIAL: INSULATING MATERIAL FOR WALLS, CEILINGS, AND FLOORS SHALL BE FIBERGLASS BATTS (UNFACED) AND SHALL COMPLY WITH CBC 719.2~719.3. INSULATION SHALL BE AS MANUFACTURED BY OWENS-CORNING FIBERGLASS CORPORATION, JOHNS-MANVILLE, CERTAINTIES, OR EQUAL.

R-30 ROOF
R-13 FLOOR
R-13 SIDE WALL

THESE DRAWINGS AND ALL MATERIAL CONTAINED HEREIN ARE THE PROPERTY OF SILVERCREEK INDUSTRIES, INC (SCI Inc) AND SHALL NOT BE REPRODUCED, COPIED OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY AND SHALL NOT BE USED IN WHOLE OR IN PART TO ASSIST IN THE MAKING OF OR FOR THE PURPOSE OF FURNISHING ANY INFORMATION FOR THE MAKING OF DRAWINGS, PRINTS, APPARATUS OR PARTS THEREOF WITHOUT THE FULL KNOWLEDGE AND WRITTEN CONSENT OF SCI Inc.
ALL PATENTABLE MATERIAL CONTAINED HEREIN AND ORIGINATING WITH SCI Inc SHALL BE THE PROPERTY OF SCI Inc

SILVER CREEK INDUSTRIES, INC.
"BUILDING FOR THE NEXT GENERATION"
SILVER CREEK
195 EAST MORGAN PERRIS, CALIFORNIA 92571
PHONE: 951-943-5393 FAX: 951-943-2211

PROJECT NAME:
CLASS LEASING

SHEET TITLE:
SCHEDULES

TAVARES ASSOCIATES
ARCHITECTURE & PLANNING
Lic. C-32054
EXP: 10-31-2013

12/23/2011

ARCHITECT OF RECORD SUBMISSION DATE:
REGISTERED ARCHITECT
GREGORY A. TAVARES
C10322
2-26-10
STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
04 112891
AC DSA SS
DATE AUG 28 2012

ORIGINAL PC STATE AGENCY APPROVAL
PRE-CHECK (PC) DOCUMENT
A SEPARATE PROJECT APPLICATION AND CONSTRUCTION SHALL BE REQUIRED
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-112137
AC DSA SS
DATE DEC 29 2011

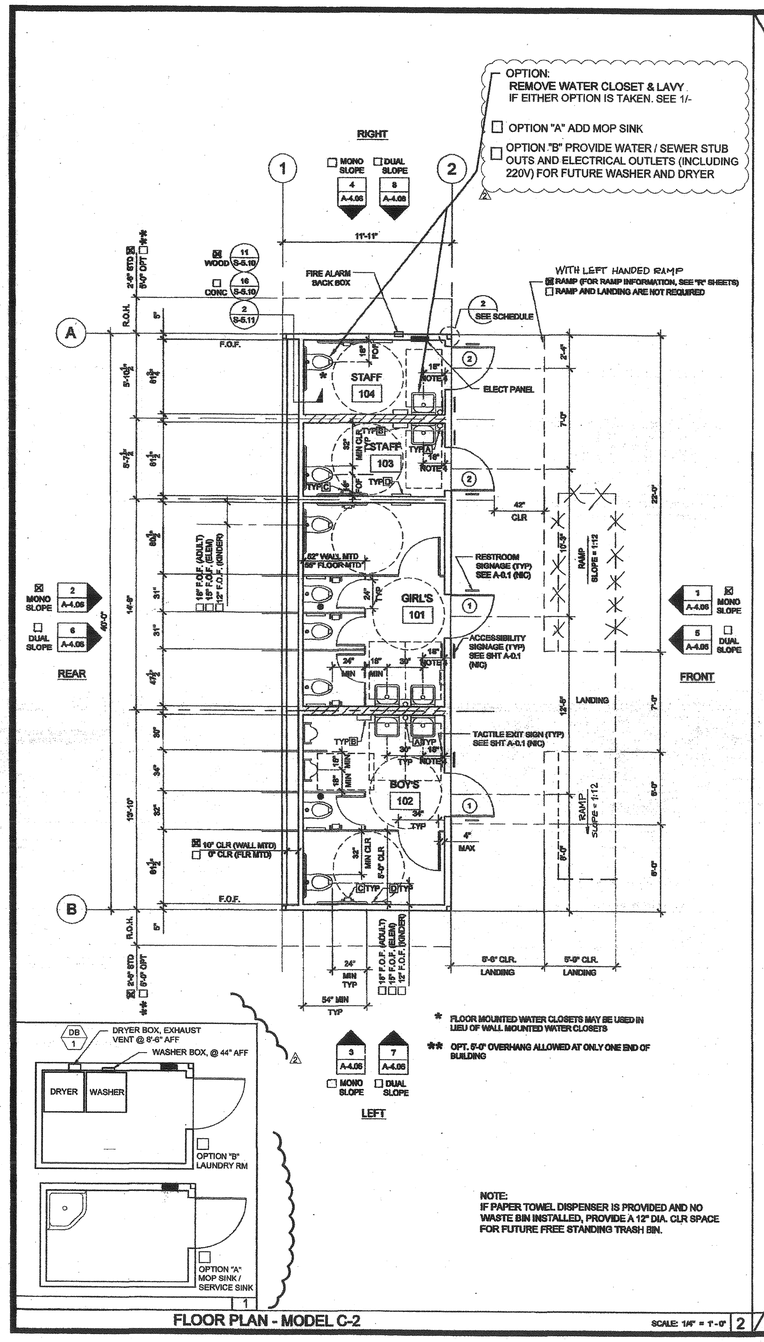
REVISIONS
1
2
3
4
5
6
7
8

SILVER CREEK INDUSTRIES
12' x 40' PC

PROJECT NO:	
DRAWN BY:	
SCALE:	AS NOTED
DATE:	6-17-11

P.C. SHEET NUMBER
A-0.2

STKP 125



FLOOR PLAN - MODEL C-2 SCALE: 1/4" = 1'-0" 2

FLOOR PLAN - MODEL C-1 SCALE: 1/4" = 1'-0" 1

NOTES

1. PLACE (2) PERMANENT METAL IDENTIFICATION LABELS ON EACH MODULE:

   (1) LABEL AT REAR EXTERIOR AND (1) LABEL ABOVE CEILING LINE AT INTERIOR FRAME. LABELS WILL BE MECHANICALLY FASTENED AND SHOW THE DSA APPLICATION NUMBER, MANUFACTURERS NAME AND SERIAL NUMBER, DESIGN LIVE LOAD FOR ROOF AND FLOOR FRAMING, WIND SPEED, EXPOSURE CATEGORY, AND Ice = 1.0 2019 CBC
2. FLOOR MOUNTED TOILET FIXTURES MUST BE USED FOR KINDERGARTEN RESTROOM BUILDINGS.
3. ALL FIXTURE HEIGHTS TO BE VERIFIED PRIOR TO CONSTRUCTION.
4. REQUIRED LOCATION OF LAVATORY TO BE 19" MIN. FROM FACE OF FINISH OF WALL WHEN ACCESSORIES (PAPER TOWEL DISPENSORS, ELECTRIC HAND DRYERS, ETC.) HAVING A 4" PROJECTION ARE TO BE INSTALLED, SO AS NOT TO ENCROACH INTO THE 30" x 48" CLEAR SPACE.
5. IF BUILDING IS TO BE RELOCATED, SEE RELOCATION DETAILS ON SHEETS REL-101

DETAIL SCHEDULE

FINISH:	SHEET #:
☒ SIDING OVER WOOD STUDS	A-5.50
☐ PLASTER OVER 1/2" OSB OR 1/2" CDX PLY WITH WOOD STUDS	A-5.51
☐ SIDING OVER STEEL STUDS	A-5.60
☐ PLASTER OVER 1/2" OSB OR 1/2" CDX PLY WITH STEEL STUDS	A-5.61

FIRE RATED DETAIL SCHEDULE

FIRE PROTECTION:	SHEET #:
☐ 1 HOUR - SIDING OVER WOOD STUDS	A-5.52
☐ 1 HOUR - PLASTER OVER 1/2" OSB OR 1/2" CDX PLY WITH WOOD STUDS	A-5.53
☐ 1 HOUR - SIDING OVER STEEL STUDS	A-5.62
☐ 1 HOUR - PLASTER OVER 1/2" OSB OR 1/2" CDX PLY WITH STEEL STUDS	A-5.63

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
DATE: LAFR 25 2017
FILE NUMBER: 19-29

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
04 113851
DATE: NOV 20 2019

WALL LEGEND

- NOMINAL 4" WALL STUD ☒
- NOMINAL 6" WALL STUD ☐
- NOMINAL 8" WALL STUD ☐

SYMBOLS LEGEND

- 60" CIRCLE CLEAR SPACE
- 30"x48" CLEAR SPACE

TOILET ACCESSORIES

- A SOAP DISPENSER: LIQUID SOAP DISPENSER 4" MAX PROJECTION
- B PAPER TOWEL DISPENSER/TRASH BIN COMBO SURFACE MTD. 4" MAX. PROJECTION-CANNOT ENCROACH INTO 30"x48" CLEAR SPACE OF FIXTURE
- C TOILET PAPER HOLDER: SINGLE ROLL SEMI-RECESSED OR 3" MAX PROJECTION
- D TOILET SEAT DISPENSER: SURFACE MOUNTED

ACCESSORY NOTE:
TOILET ACCESSORIES (NIC) SEE SHEET P-2.01 FOR ACCESSIBLE ELEVATION & DIMENSIONS.

THESE DRAWINGS AND ALL MATERIAL CONTAINED HEREIN ARE THE PROPERTY OF SILVERCREEK INDUSTRIES, INC (SCI Inc) AND SHALL NOT BE REPRODUCED, COPIED OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY AND SHALL NOT BE USED IN WHOLE OR IN PART TO ASSIST IN THE MAKING OF OR FOR THE PURPOSE OF FURNISHING ANY INFORMATION FOR THE MAKING OF DRAWINGS, PRINTS, APPARATUS OR PARTS THEREOF WITHOUT THE FULL KNOWLEDGE AND WRITTEN CONSENT OF SCI Inc.
ALL PATENTABLE MATERIAL CONTAINED HEREIN AND ORIGINATING WITH SCI Inc SHALL BE THE PROPERTY OF SCI Inc

SILVER CREEK INDUSTRIES, INC.
"BUILDING FOR THE NEXT GENERATION"
SILVER CREEK
195 EAST MORGAN PERRIS, CALIFORNIA 92571
PHONE: 951-943-5393 FAX: 951-943-2211

PROJECT NAME:

CLASS LEASING

SHEET TITLE:

FLOOR PLAN
~~12'x40' MODEL C-1~~
12'x40' - MODEL C-2

TAVARES ASSOCIATES
LICENSED STRUCTURAL ENGINEER
No. S-2833
EXPIRES: 12-31-2013
STATE OF CALIFORNIA
12/23/2011

ARCHITECT OF RECORD SUBMISSION DATE:
REGISTERED ARCHITECT
GREGORY A. MAY
C10322
11-19-14
STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
04 113851
DATE: MAR 27 2015

ORIGINAL PC STATE AGENCY APPROVAL
PRINCIPAL (PC) DOCUMENT
A SEPARATE PROJECT APPLICATION & PROCESSING IS REQUIRED FOR EACH BUILDING
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-112137
DATE: DEC 29 2014

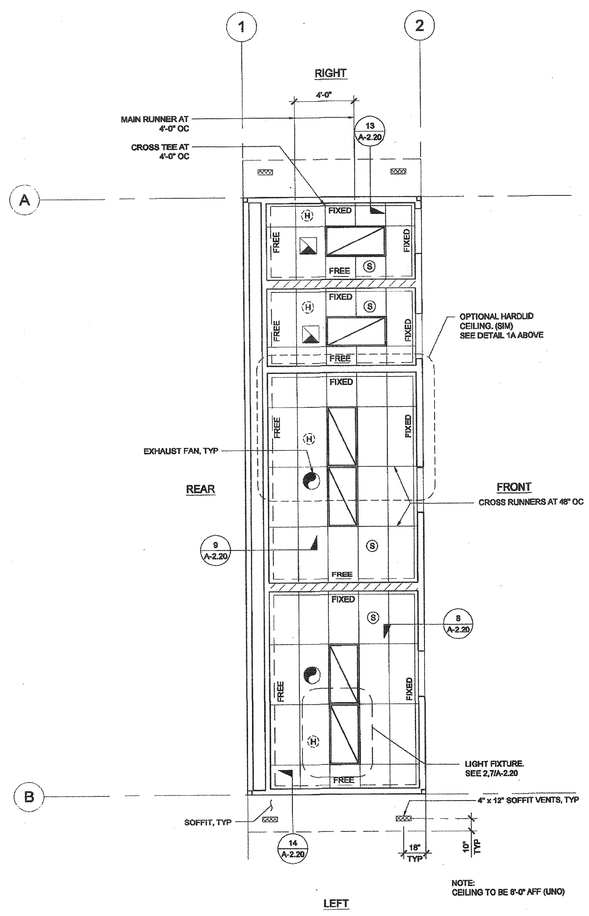
REVISIONS
1. ~~LAUNDRY ROOM OPTION DETAIL~~
2. ADDED OPTIONS "A" & "B" 12/11/04
3.
4.
5.
6.
7.

SILVER CREEK INDUSTRIES 12' x 40' PC C-2

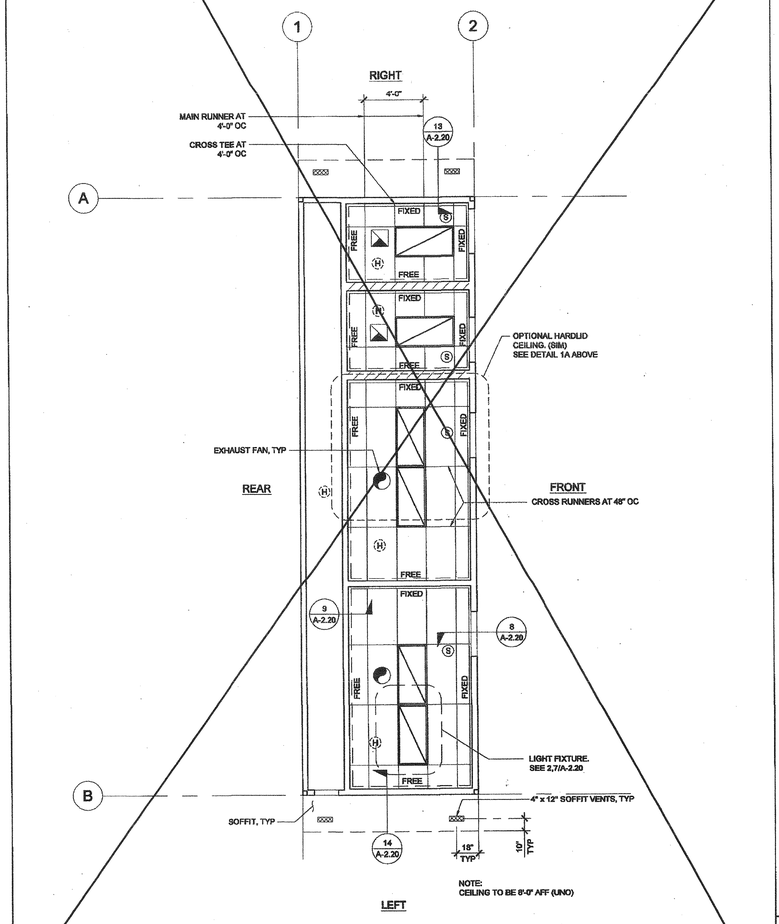
PROJECT NO:
DRAWN BY:
SCALE: AS NOTED
DATE: ~~6-17-11~~ 11-19-14

P.C. SHEET NUMBER
A-1.03

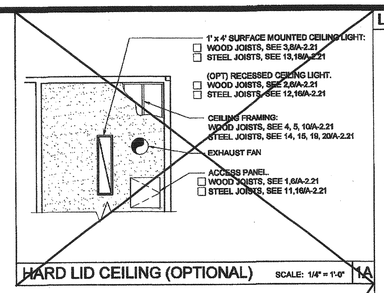
STKP 125



REFLECTED CEILING PLAN - MODEL C-2 SCALE: 1/4" = 1'-0" 2



REFLECTED CEILING PLAN - MODEL C-1 SCALE: 1/4" = 1'-0" 1



HARD LID CEILING (OPTIONAL) SCALE: 1/4" = 1'-0" 1A

LEGEND

- T-BAR CEILING
- FIELD INSTALLED PANEL AT MODULE LINE
- 2' x 4' RECESSED LIGHT FIXTURE
- "OPTIONAL" 1' x 4' RECESSED LIGHT FIXTURE
- SPLAY WIRE
- (S) CEILING MOUNTED SMOKE DETECTOR
- (H) ATTIC MOUNTED HEAT DETECTOR
- CEILING EXHAUST FAN
- CEILING EXHAUST FAN

NOTE:
FOR ALL REFLECTED CEILING NOTES
SEE SHEET A-0.1

T-BAR SCHEDULE

ARMSTRONG PART NUMBERS PA-041

MAIN RUNNER: 7301
4' CROSS TEE: XL7341
2' CROSS TEE: XL7328

STANDARD 7/8" WALL ANGLE WITH BERC-2 CLIP (ICC #ESR-1308) 2" WALL ANGLE: 7810 (OPTIONAL)

THESE DRAWINGS AND ALL MATERIAL CONTAINED HEREIN ARE THE PROPERTY OF SILVERCREEK INDUSTRIES, INC (SCI Inc) AND SHALL NOT BE REPRODUCED, COPIED OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY AND SHALL NOT BE USED IN WHOLE OR IN PART TO ASSIST IN THE MAKING OF OR FOR THE PURPOSE OF FURNISHING ANY INFORMATION FOR THE MAKING OF DRAWINGS, PRINTS, APPARATUS OR PARTS THEREOF WITHOUT THE FULL KNOWLEDGE AND WRITTEN CONSENT OF SCI Inc.
ALL PATENTABLE MATERIAL CONTAINED HEREIN AND ORIGINATING WITH SCI Inc SHALL BE THE PROPERTY OF SCI Inc

SILVER CREEK INDUSTRIES, INC.
"BUILDING FOR THE NEXT GENERATION"
SILVER CREEK
195 EAST MORGAN PERRIS, CALIFORNIA 92571
PHONE: 951-943-5393 FAX: 951-943-2211

PROJECT NAME:

CLASS LEASING

SHEET TITLE:

REFLECTED CEILING PLAN
12'x40' MODEL ~~C-1 OR~~ C-2

RS TAVARES ASSOCIATES
STRUCTURAL ENGINEERING CONSULTANTS
No. C-28384
RDC 10-31-2013
STATE OF CALIFORNIA

12/23/2011

ARCHITECT OF RECORD SUBMISSION DATE

REGISTERED ARCHITECT
ROBERT A. MCLEAD
C10322
STATE OF CALIFORNIA

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
04 11 2891
AC FLS SS
DATE NOV 14 2012

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC FLS SS
DATE APR 26 2012

FILE NUMBER: 19-29

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
04 11 2891
AC FLS SS
DATE AUG 28 2013

ORIGINAL PC STATE AGENCY APPROVAL

PRE-CHECK (PC) DOCUMENT
CODE: 2010 CBC
A SEPARATE BUILDING APPLICATION FOR CONSTRUCTION IS REQUIRED

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-112137
AC FLS SS
DATE DEC 9 8 2011

REVISIONS

1	
2	
3	
4	
5	
6	
7	
8	

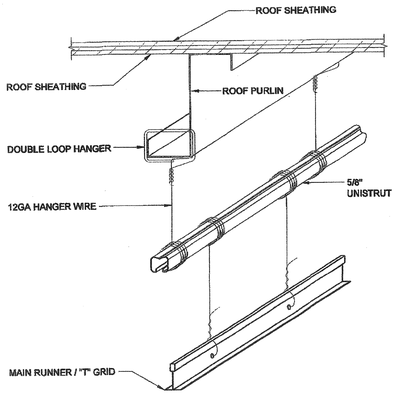
SILVER CREEK INDUSTRIES
12' x 40' PC

PROJECT NO:	
DRAWN BY:	
SCALE:	AS NOTED
DATE:	6-17-11

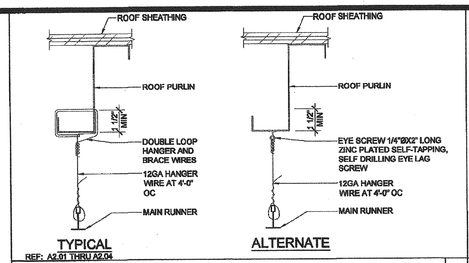
P.C. SHEET NUMBER

A-2.03

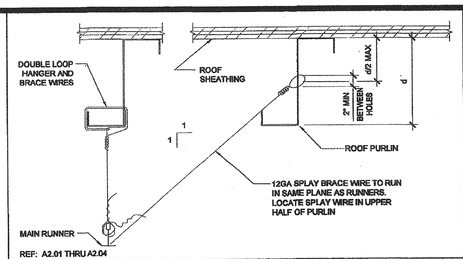
STKP 125



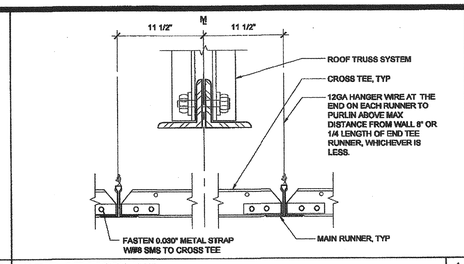
TRAPEZE DETAIL — SCALE : NTS — 17



HANGER WIRE DETAIL — SCALE : 3"=1'-0" — 11

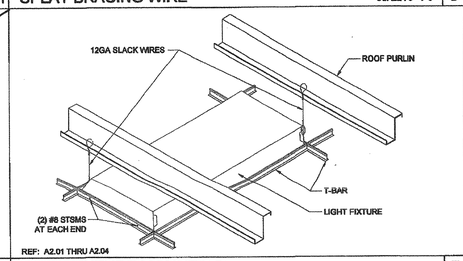


SPLAY BRACING WIRE — SCALE : 3"=1'-0" — 6

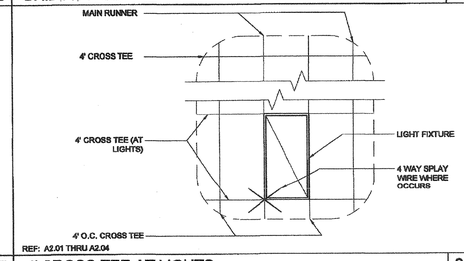


GRID AT MODLINE — SCALE : 3"=1'-0" — 1

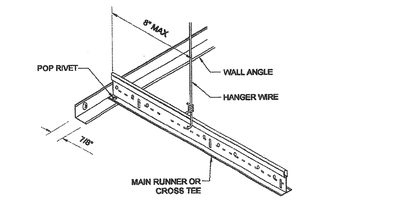
HVAC REGISTER MOUNTING — SCALE : NTS — 12



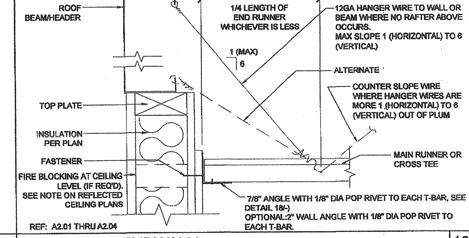
LIGHT FIXTURE MOUNTING — SCALE : NTS — 7



4' CROSS TEE AT LIGHTS — SCALE : 3/8"=1'-0" — 2



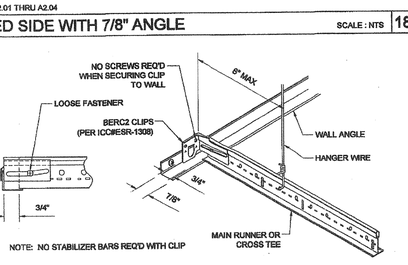
FIXED SIDE WITH 7/8" ANGLE — SCALE : NTS — 18



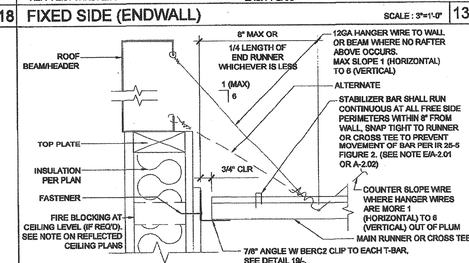
FIXED SIDE (ENDWALL) — SCALE : 3"=1'-0" — 13

FIXED SIDE (SIDEWALL) — SCALE : 3"=1'-0" — 8

COMPRESSION STRUT — SCALE : 3"=1'-0" — 4

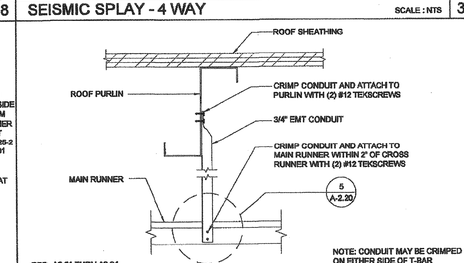


FREE SIDE WITH 7/8" ANGLE — SCALE : NTS — 19

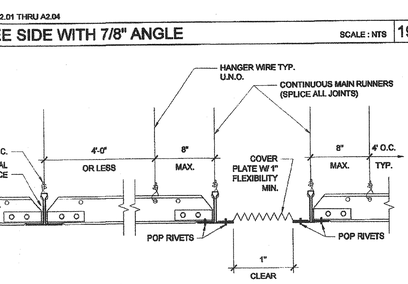


FREE SIDE (ENDWALL) — SCALE : 3"=1'-0" — 14

FREE SIDE (SIDEWALL) — SCALE : 3"=1'-0" — 9

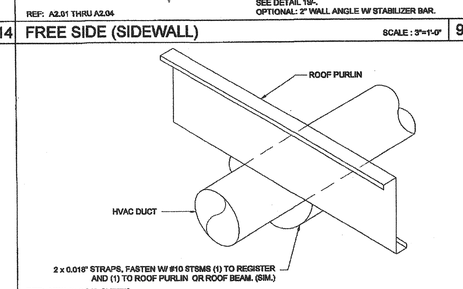


COMPRESSION STRUT — SCALE : 3"=1'-0" — 5



GRID SEISMIC SEPARATION JOINT — SCALE : 3"=1'-0" — 20

NOT USED — 15



HVAC DUCTWORK MOUNTING — SCALE: NTS — 10

THESE DRAWINGS AND ALL MATERIAL CONTAINED HEREIN ARE THE PROPERTY OF SILVERCREEK INDUSTRIES, INC (SCI Inc) AND SHALL NOT BE REPRODUCED, COPIED OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY AND SHALL NOT BE USED IN WHOLE OR IN PART TO ASSIST IN THE MAKING OF OR FOR THE PURPOSE OF FURNISHING ANY INFORMATION FOR THE MAKING OF DRAWINGS, PRINTS, APPARATUS OR PARTS THEREOF WITHOUT THE FULL KNOWLEDGE AND WRITTEN CONSENT OF SCI Inc.
ALL PATENTABLE MATERIAL CONTAINED HEREIN AND ORIGINATING WITH SCI Inc SHALL BE THE PROPERTY OF SCI Inc

SILVER CREEK INDUSTRIES, INC.
"BUILDING FOR THE NEXT GENERATION"
SILVER CREEK
195 EAST MORGAN PERRIS, CALIFORNIA 92571
PHONE: 951-943-5393 FAX: 951-943-2211

PROJECT NAME:

CLASS LEASING

SHEET TITLE:

CEILING DETAILS T-GRID

TAVARES ASSOCIATES
STRUCTURAL ENGINEERING CONSULTANTS
Rancho Cucamonga, CA 91730
Palm Desert, CA 92211
Bakersfield, CA 93307
www.tavaresassociates.com



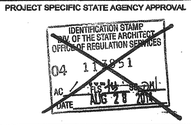
12/23/2011

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES
04 11 2691
AC RS 12 35 21
DATE NOV 20 2014

ARCHITECT OF RECORD SUBMISSION DATE:

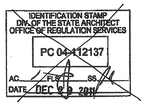


PROJECT SPECIFIC STATE AGENCY APPROVAL



ORIGINAL PC STATE AGENCY APPROVAL

PRECHECK (PC) DOCUMENT CCR§ 2910 (b) (2) (C) NOT FOR CONSTRUCTION OR RECORDING



REVISIONS

1	
2	
3	
4	
5	
6	
7	
8	
9	

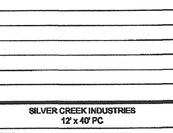
SILVER CREEK INDUSTRIES
12' x 40' PC

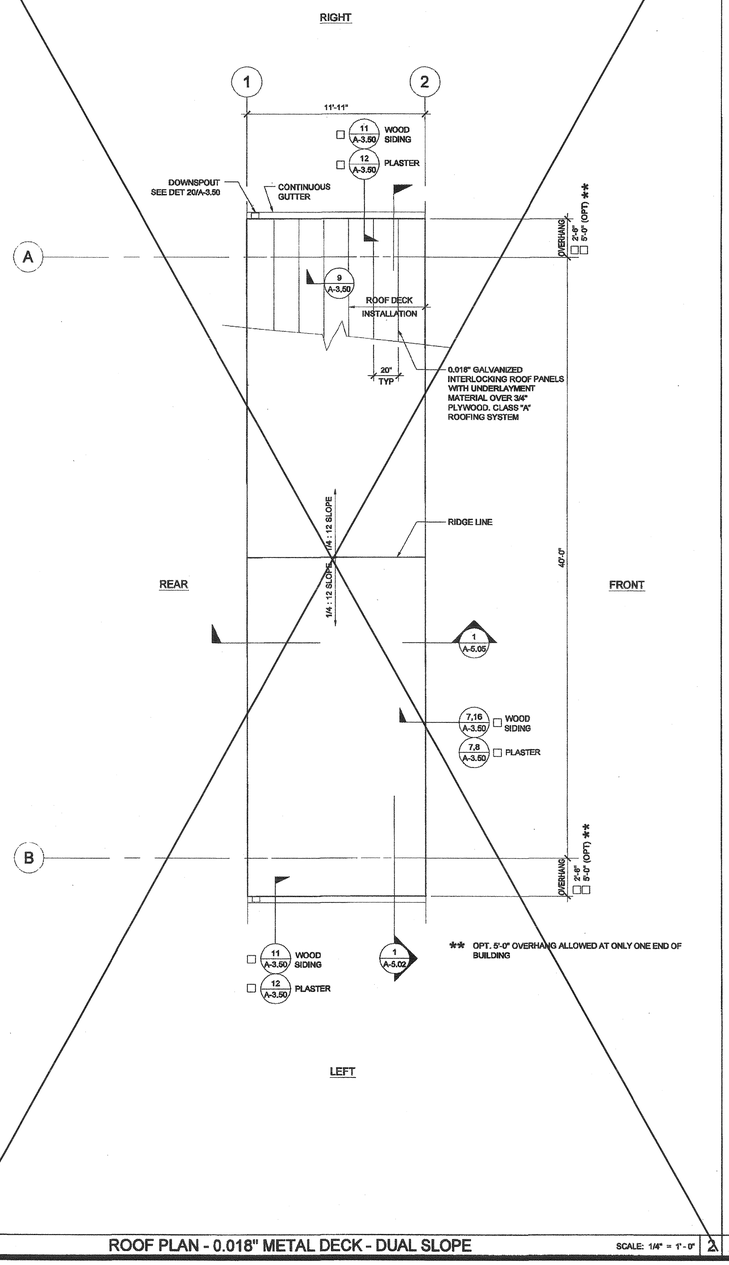
PROJECT NO:	
DRAWN BY:	
SCALE:	AS NOTED
DATE:	6-17-11

P.C. SHEET NUMBER

A-2.20

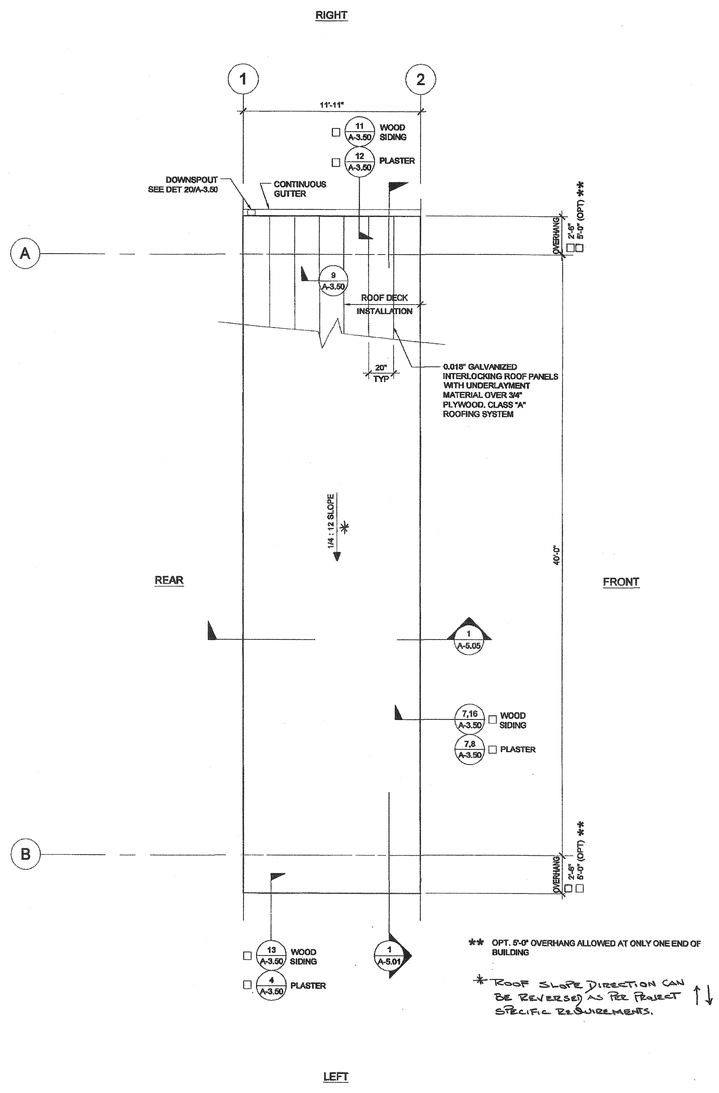
STKP 125





ROOF PLAN - 0.018" METAL DECK - DUAL SLOPE

SCALE: 1/4" = 1'-0" | 2



ROOF PLAN - 0.018" METAL DECK - MONO SLOPE

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

NOTES

1. GROUP E OCCUPANCIES - BUILDINGS SHALL HAVE ROOF COVERINGS AS SPECIFIED IN CBC TABLE 1505.1 - CLASS A.
2. LOCATIONS OF DRAFTSTOP AND/OR FULL HEIGHT PARTITIONS AS REQUIRED PER CBC-717.4.3 SHALL BE SHOWN ON PROJECT SPECIFIC PLANS.

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC. FLS SS
DATE APR 2 8 2012
FILE NUMBER: 19-29

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
04 113691
AC. RS SS 00
DATE NOV 2 8 2014

THESE DRAWINGS AND ALL MATERIAL CONTAINED HEREIN ARE THE PROPERTY OF SILVERCREEK INDUSTRIES, INC (SCI Inc) AND SHALL NOT BE REPRODUCED, COPIED OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY AND SHALL NOT BE USED IN WHOLE OR IN PART TO ASSIST IN THE MAKING OF OR FOR THE PURPOSE OF FURNISHING ANY INFORMATION FOR THE MAKING OF DRAWINGS, PRINTS, APPARATUS OR PARTS THEREOF WITHOUT THE FULL KNOWLEDGE AND WRITTEN CONSENT OF SCI Inc.
ALL PATENTABLE MATERIAL CONTAINED HEREIN AND ORIGINATING WITH SCI Inc SHALL BE THE PROPERTY OF SCI Inc

SILVER CREEK INDUSTRIES, INC.
"BUILDING FOR THE NEXT GENERATION"
SILVER CREEK
195 EAST MORGAN PERRIS, CALIFORNIA 92571
PHONE: 951-943-5393 FAX: 951-943-2211

PROJECT NAME:

CLASS LEASING

SHEET TITLE:

ROOF PLAN
12'x40' - 0.018" METAL DECK
MONO ~~OR DUAL~~ SLOPE

TAVARES ASSOCIATES
DESIGN & CONSTRUCTION MANAGEMENT PROJECT MGT
951 E. Cooley Dr. Suite 101 Colton, CA 92324 Tel: (909) 783-0044
Fax: (909) 783-0044
23824 Santa Fe St., Suite A Torrance, CA 90505 Tel: (310) 325-2222
www.tavaresassociates.com
No. C-28394
REN: 10-31-2013
LICENSED ARCHITECT ROBERT A. TAVARES GRAD. CERTIFIED STATE OF CALIFORNIA

12/23/2011

ARCHITECT OF RECORD SUBMISSION DATE:

REGISTERED ARCHITECT ROBERT A. TAVARES C10322 11-26-14 STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
04 113691
AC. RS SS 00
DATE NOV 2 8 2014

ORIGINAL PC STATE AGENCY APPROVAL

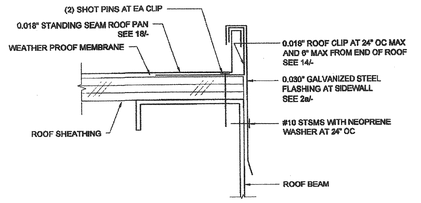
PRE-CHECK (PC) DOCUMENT CODE §4910(b)
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-112137
AC. FLS SS
DATE DEC 2 9 2011

REVISIONS

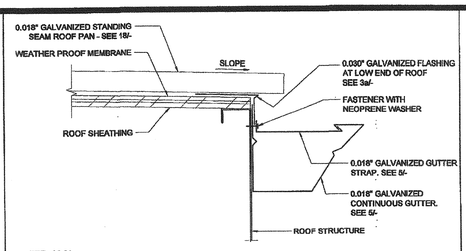
1	
2	
3	
4	
5	
6	
7	
8	

SILVER CREEK INDUSTRIES	12' x 40' PC
PROJECT NO:	
DRAWN BY:	
SCALE:	AS NOTED
DATE:	6-17-11 11-19-14
P.C. SHEET NUMBER	STKP 125
A-3.01	



REF: A3.01

ROOF FLASHING AT SIDEWALL — SCALE : 6"=1'-0" — 16



REF: A3.01

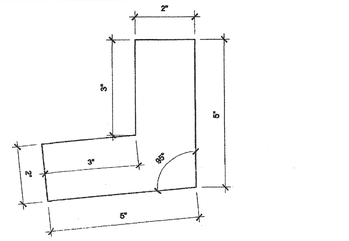
GUTTER AT ROOF FASCIA BEAM — SCALE : 3"=1'-0" — 11

NOT USED — 6

NOT USED — 1a

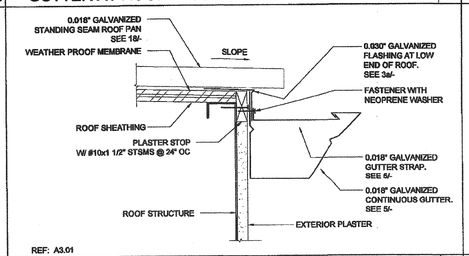
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC FLS SS
DATE: APR 26 2012
FILE NUMBER: 19-29

NOT USED — 1b



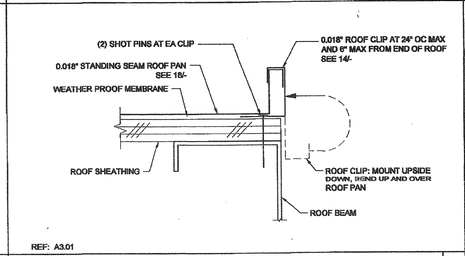
REF: A3.50

DOWNSPOUT ATTACHMENT — SCALE : 6"=1'-0" — 17



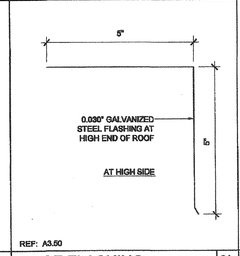
REF: A3.01

GUTTER AT ROOF FASCIA BEAM — SCALE : 3"=1'-0" — 12



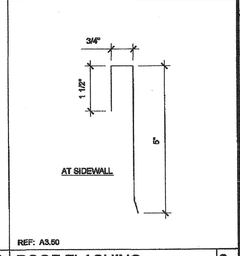
REF: A3.01

STARTER ROOF PAN CONNECTION — SCALE : 6"=1'-0" — 7



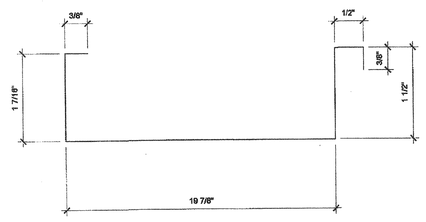
REF: A3.50

ROOF FLASHING — SCALE : 6"=1'-0" — 2b



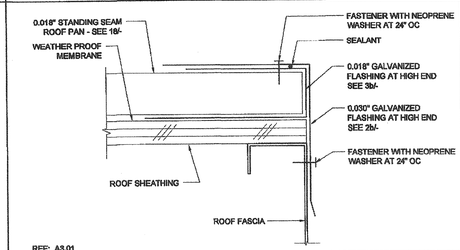
REF: A3.50

ROOF FLASHING — SCALE : 6"=1'-0" — 2a



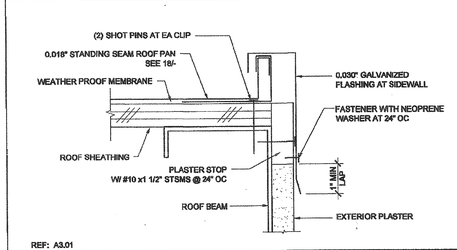
REF: A3.50

ROOF DECK PROFILE — SCALE : 6"=1'-0" — 18



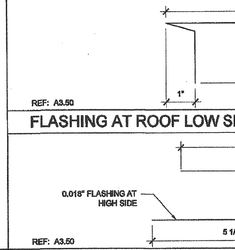
REF: A3.01

ROOF FLASHING AT HIGH SIDE — SCALE : 6"=1'-0" — 13



REF: A3.01

ROOF FLASHING AT SIDEWALL — SCALE : 6"=1'-0" — 8



REF: A3.50

FLASHING AT ROOF LOW SIDE(S) — SCALE : 6"=1'-0" — 3a

REF: A3.50

FLASHING AT ROOF HIGH SIDE — SCALE : 6"=1'-0" — 3b

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
04 117603
AC FLS SS
DATE: MAR 28 2012

NOT USED — 19

REF: A3.50

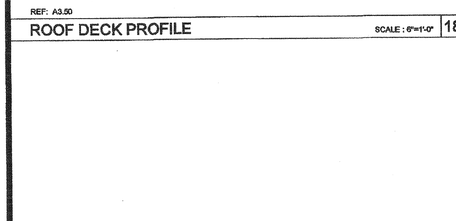
ROOF CLIP — SCALE : 1'-0"=1'-0" — 14

REF: A3.01

ROOF STANDING SEAM — SCALE : NTS — 9

REF: A3.01

ROOF FLASHING AT HIGH SIDE — SCALE : 6"=1'-0" — 4

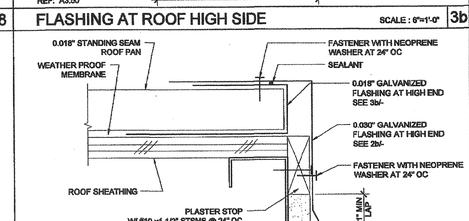


REF: A3.01

DOWNSPOUT ATTACHMENT — SCALE : 3"=1'-0" — 20

NOT USED — 15

NOT USED — 10



REF: A3.50

0.018" GUTTER AND GUTTER STRAP — SCALE : 3"=1'-0" — 5

THESE DRAWINGS AND ALL MATERIAL CONTAINED HEREIN ARE THE PROPERTY OF SILVERCREEK INDUSTRIES, INC (SCI Inc) AND SHALL NOT BE REPRODUCED, COPIED OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY AND SHALL NOT BE USED IN WHOLE OR IN PART TO ASSIST IN THE MAKING OF OR FOR THE PURPOSE OF FURNISHING ANY INFORMATION FOR THE MAKING OF DRAWINGS, PRINTS, APPARATUS OR PARTS THEREOF WITHOUT THE FULL KNOWLEDGE AND WRITTEN CONSENT OF SCI Inc.
ALL PATENTABLE MATERIAL CONTAINED HEREIN AND ORIGINATING WITH SCI Inc SHALL BE THE PROPERTY OF SCI Inc

SILVER CREEK INDUSTRIES, INC.
"BUILDING FOR THE NEXT GENERATION"
SILVER CREEK
195 EAST MORGAN PERRIS, CALIFORNIA 92571
PHONE: 951-943-5393 FAX: 951-943-2211

PROJECT NAME:

CLASS LEASING

SHEET TITLE:

ROOF DETAILS
0.018" STANDING SEAM ROOF DECK

TAVARES ASSOCIATES
STRUCTURAL ENGINEERING CONSULTANTS
Rk. C 22556
REN: 08-31-2013
12/23/2011

ARCHITECT OF RECORD
SUBMISSION LIMITED TO:
ROBERT A. PRADO
No. C 10322
REN: 2-28-15
STATE OF CALIFORNIA

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
04 117091
AC FLS SS
DATE: MAR 27 2012

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
04 117091
AC FLS SS
DATE: MAR 28 2012

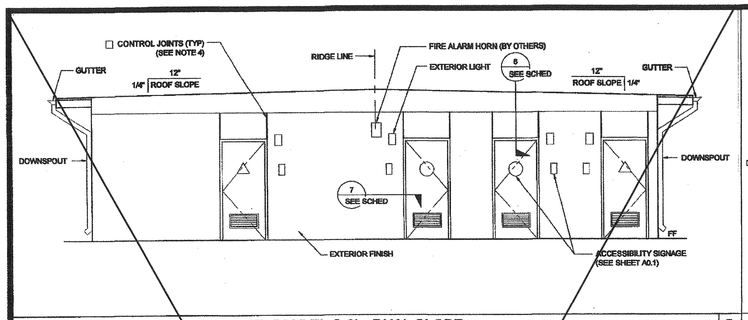
ORIGINAL PC STATE AGENCY APPROVAL

PRE-CHECK (PC) DOCUMENT CCR2, §4105 (3)(C)
A SEPARATE PERMIT APPLICATION FOR CONSTRUCTION IS REQUIRED

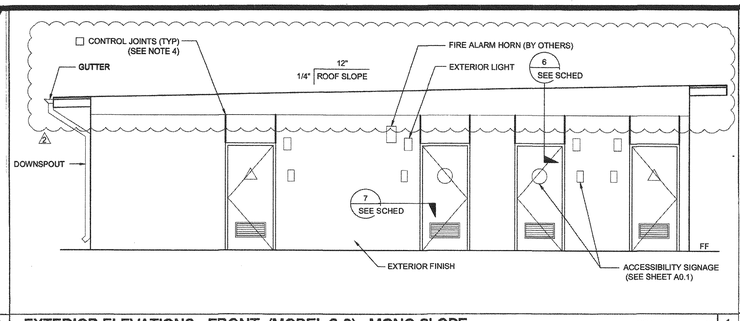
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-112137
AC FLS SS
DATE: DEC 09 2011

REVISIONS

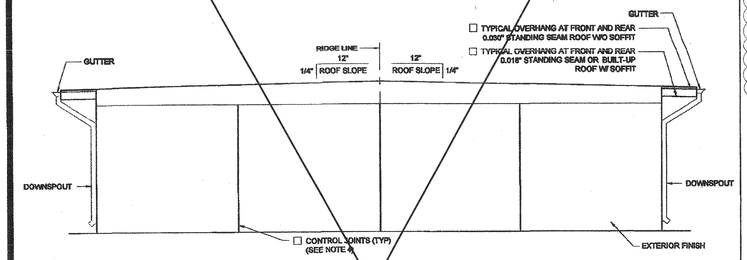
PROJECT NO:	
DRAWN BY:	
SCALE:	AS NOTED
DATE:	6-17-11
P.C. SHEET NUMBER	A-3.50
	STKP 125



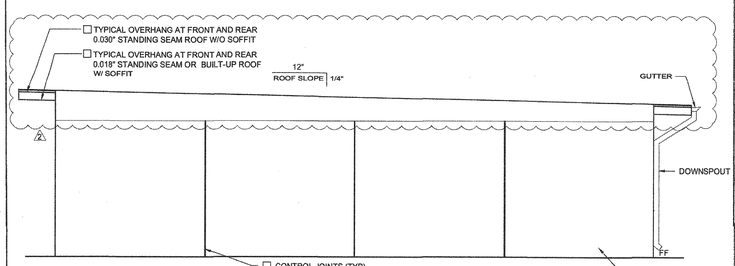
EXTERIOR ELEVATIONS - FRONT (MODEL C-2) - DUAL SLOPE — SCALE: 1/4" = 1'-0" | 5



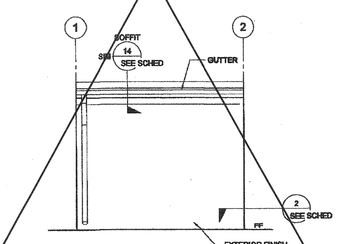
EXTERIOR ELEVATIONS - FRONT (MODEL C-2) - MONO SLOPE — SCALE: 1/4" = 1'-0" | 1



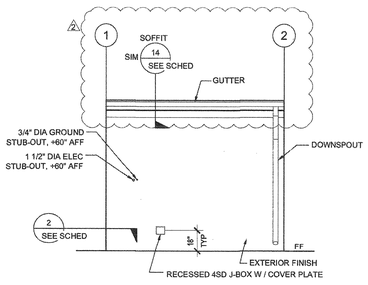
EXTERIOR ELEVATIONS - REAR (MODEL C-2) - DUAL SLOPE — SCALE: 1/4" = 1'-0" | 6



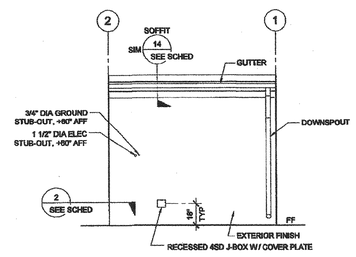
EXTERIOR ELEVATIONS - REAR (MODEL C-2) - MONO SLOPE — SCALE: 1/4" = 1'-0" | 2



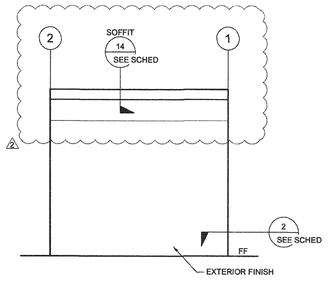
EXTERIOR ELEVATIONS - LEFT (MODEL C-2) - DUAL SLOPE — SCALE: 1/4" = 1'-0" | 7



EXTERIOR ELEVATIONS - LEFT (MODEL C-2) - MONO SLOPE — SCALE: 1/4" = 1'-0" | 3



EXTERIOR ELEVATIONS - RIGHT (MODEL C-2) - DUAL SLOPE — SCALE: 1/4" = 1'-0" | 8



EXTERIOR ELEVATIONS - RIGHT (MODEL C-2) - MONO SLOPE — SCALE: 1/4" = 1'-0" | 4

NOTES (EXTERIOR ELEVATION)

1. PROVIDE PROTECTION RAIL AROUND H/AC UNIT(S) IF LOCATED IN A PEDESTRIAN WAY IF THE HEIGHT FROM GRADE TO BOTTOM OF UNIT EXCEEDS 27" (MIC). REFERENCE TO DET. # 2/A5.01 FOR WOOD STUDS, # 17/A5.01 FOR STEEL STUDS
2. RAMP (WHERE OCCURS), NOT SHOWN FOR CLARITY.
3. WALL BEYOND HANDRAIL SHALL NOT HAVE ANY SHARP OR ABRASIVE SURFACE ADJACENT TO HANDRAILS. (GRIND SMOOTH ALL METAL RAILING CONNECTIONS - SMOOTH SURFACE TO EXTEND 8" ABOVE HANDRAIL)
4. FOR PLASTER ONLY, PROVIDE CONTROL JOINT AT EACH MODLINE, ON END WALLS, 10'-0" OC AT SIDE WALLS, AND / OR ABOVE AND BELOW OPENINGS. WHERE FIRE RATED WALLS ARE REQUIRED, MATERIALS AND METHODS OF CONSTRUCTION USED TO PROTECT JOINTS WILL COMPLY WITH CBC SECTION 703.2 AND 705.
5. HANDRAIL IS NOT ALLOWED AT PLASTER OPTION WHERE RAMP IS AGAINST THE WALL. SEE DETAIL 1/R-2.01 FOR SIMILAR APPLICATION
6. EXTERIOR PROJECTIONS ARE TO BE FIRE PROTECTED UNLESS COMPLIED W/ SECTION 704 AND 1406, 2010 CBC

DETAIL SCHEDULE

EXTERIOR FINISH:	SHEET #:
☐ SIDING OVER WOOD STUDS	A-5.50
☐ PLASTER OVER 1/2" OSB OR 1/2" CDX PLY WITH WOOD STUDS	A-5.51
☐ SIDING OVER STEEL STUDS	A-5.60
☐ PLASTER OVER 1/2" OSB OR 1/2" CDX PLY WITH STEEL STUDS	A-5.61

FIRE RATED DETAIL SCHEDULE

FIRE PROTECTION:	SHEET #:
☐ 1 HOUR - SIDING OVER WOOD STUDS	A-5.52
☐ 1 HOUR - PLASTER OVER 1/2" OSB OR 1/2" CDX PLY WITH WOOD STUDS	A-5.53
☐ 1 HOUR - SIDING OVER STEEL STUDS	A-5.62
☐ 1 HOUR - PLASTER OVER 1/2" OSB OR 1/2" CDX PLY WITH STEEL STUDS	A-5.63

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC FLS SS CL
DATE APR 28 2017

FILE NUMBER: 18-29

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
04 113891
AC FLS SS
DATE NOV 20 2014

THESE DRAWINGS AND ALL MATERIAL CONTAINED HEREIN ARE THE PROPERTY OF SILVERCREEK INDUSTRIES, INC (SCI Inc) AND SHALL NOT BE REPRODUCED, COPIED OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY AND SHALL NOT BE USED IN WHOLE OR IN PART TO ASSIST IN THE MAKING OF OR FOR THE PURPOSE OF FURNISHING ANY INFORMATION FOR THE MAKING OF DRAWINGS, PRINTS, APPARATUS OR PARTS THEREOF WITHOUT THE FULL KNOWLEDGE AND WRITTEN CONSENT OF SCI Inc.
ALL PATENTABLE MATERIAL CONTAINED HEREIN AND ORIGINATING WITH SCI Inc SHALL BE THE PROPERTY OF SCI Inc

SILVER CREEK INDUSTRIES, INC.
"BUILDING FOR THE NEXT GENERATION"
SILVER CREEK
195 EAST MORGAN PERRIS, CALIFORNIA 92571
PHONE: 951-943-5393 FAX: 951-943-2211

PROJECT NAME:

CLASS LEASING

SHEET TITLE:

EXTERIOR ELEVATION
12' X 40' - MODEL C-2
MONO ~~/ DUAL~~ SLOPE

STAVARES ASSOCIATES
Lic. C-39264
REN: 11-31-2013

12/23/2011

ARCHITECT OF RECORD SUBMISSION DATE:

REGISTERED ARCHITECT
GARRETT A. STAVARES
No. C10322
11-13-13
STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
04 113891
AC FLS SS
DATE AUG 28 2014

ORIGINAL PC STATE AGENCY APPROVAL

PRE-CHECK (PC) DOCUMENT
CCR Title 24 Part 1, Section 4-317 (b)
A SEPARATE PROJECT APPLICATION IS REQUIRED

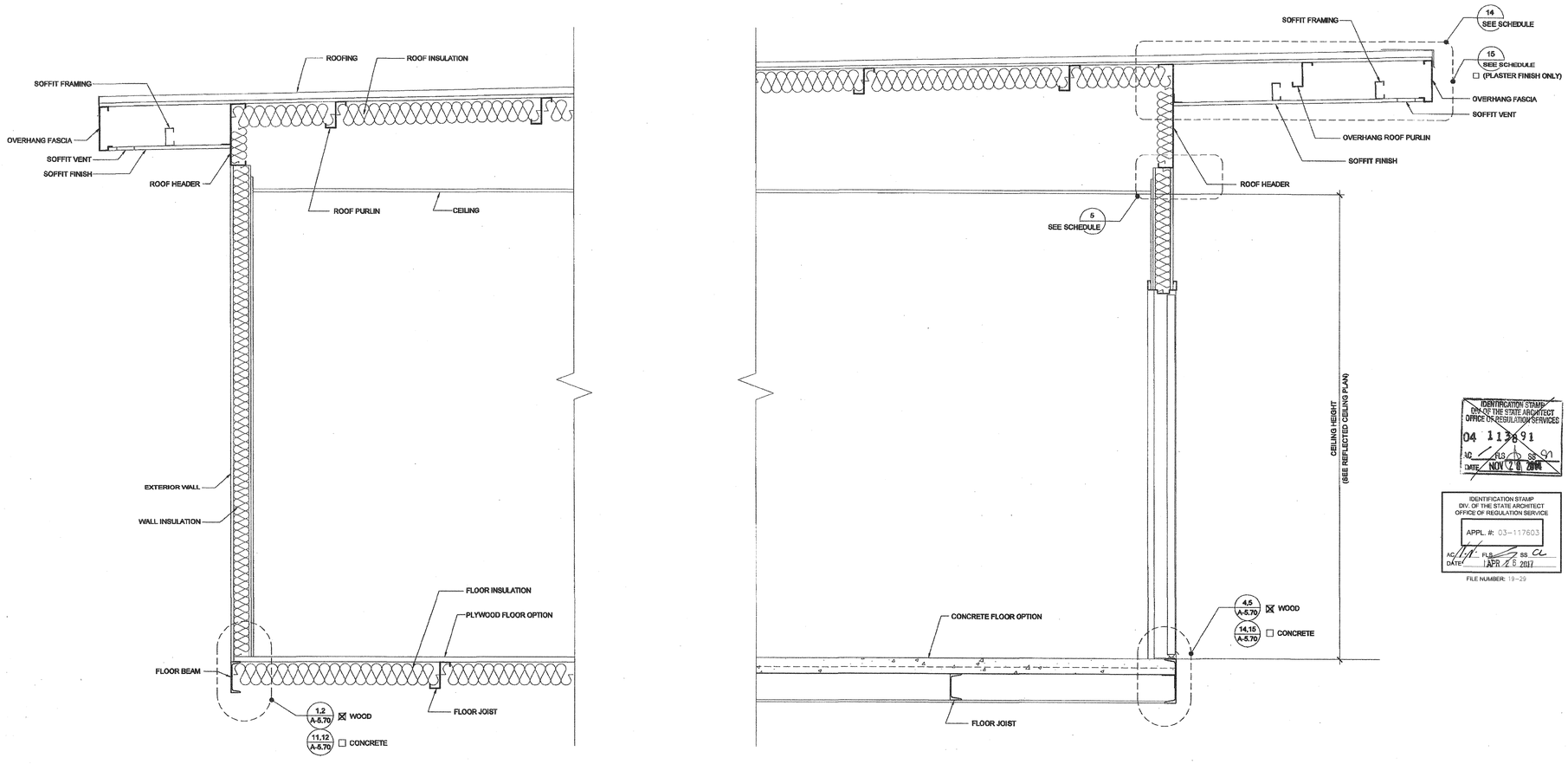
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-112137
AC FLS SS
DATE DEC 18 2014

REVISIONS

1. ⚠
2. ⚠ STOCK PILE REVISIONS / ADDED SINGLE STORY OPT
3. ⚠
4. ⚠
5. ⚠
6. ⚠
7. ⚠
8. ⚠

SILVER CREEK INDUSTRIES 12' x 40' PC	
PROJECT NO:	
DRAWN BY:	
SCALE:	AS NOTED
DATE:	8-17-11 — 11-19-14
P.C. SHEET NUMBER	STKP 125

A-4.06



BUILDING SECTION

SCALE: 1" = 1'-0" | 1

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
04 113891
AC FLS SS
DATE NOV 2 8 2014

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC FLS SS
DATE APR 2 8 2017
FILE NUMBER: 19-29

THESE DRAWINGS AND ALL MATERIAL CONTAINED HEREIN ARE THE PROPERTY OF SILVERCREEK INDUSTRIES, INC (SCI Inc) AND SHALL NOT BE REPRODUCED, COPIED OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY AND SHALL NOT BE USED IN WHOLE OR IN PART TO ASSIST IN THE MAKING OF OR FOR THE PURPOSE OF FURNISHING ANY INFORMATION FOR THE MAKING OF DRAWINGS, PRINTS, APPARATUS OR PARTS THEREOF WITHOUT THE FULL KNOWLEDGE AND WRITTEN CONSENT OF SCI Inc.
ALL PATENTABLE MATERIAL CONTAINED HEREIN AND ORIGINATING WITH SCI Inc SHALL BE THE PROPERTY OF SCI Inc

SILVER CREEK INDUSTRIES, INC.
"BUILDING FOR THE NEXT GENERATION"
SILVER CREEK
195 EAST MORGAN PERRIS, CALIFORNIA 92571
PHONE: 951-943-5393 FAX: 951-943-2211

PROJECT NAME:

CLASS LEASING

SHEET TITLE:

CROSS SECTION
MONO SLOPE
.018 OR BUILT UP ROOF

TAVARES ASSOCIATES
DESIGN • CONSULTING • PROJECT MGT
9819 Sunset Garden Rd, Suite 103
Elk Grove, CA 95757 (916) 683-2000
Mailing Address: P.O. Box 2
Elk Grove, CA 95757 (916) 683-2000
Web Address: www.tavares.com
LICENSED ARCHITECT
CHAD CONRAD
No. C-28384
REN: 10-31-2013
STATE OF CALIFORNIA

12/23/2011

ARCHITECT OF RECORD
REGISTERED ARCHITECT
ROBERT A. MCCLEAN
C10322
12-23-15
STATE OF CALIFORNIA

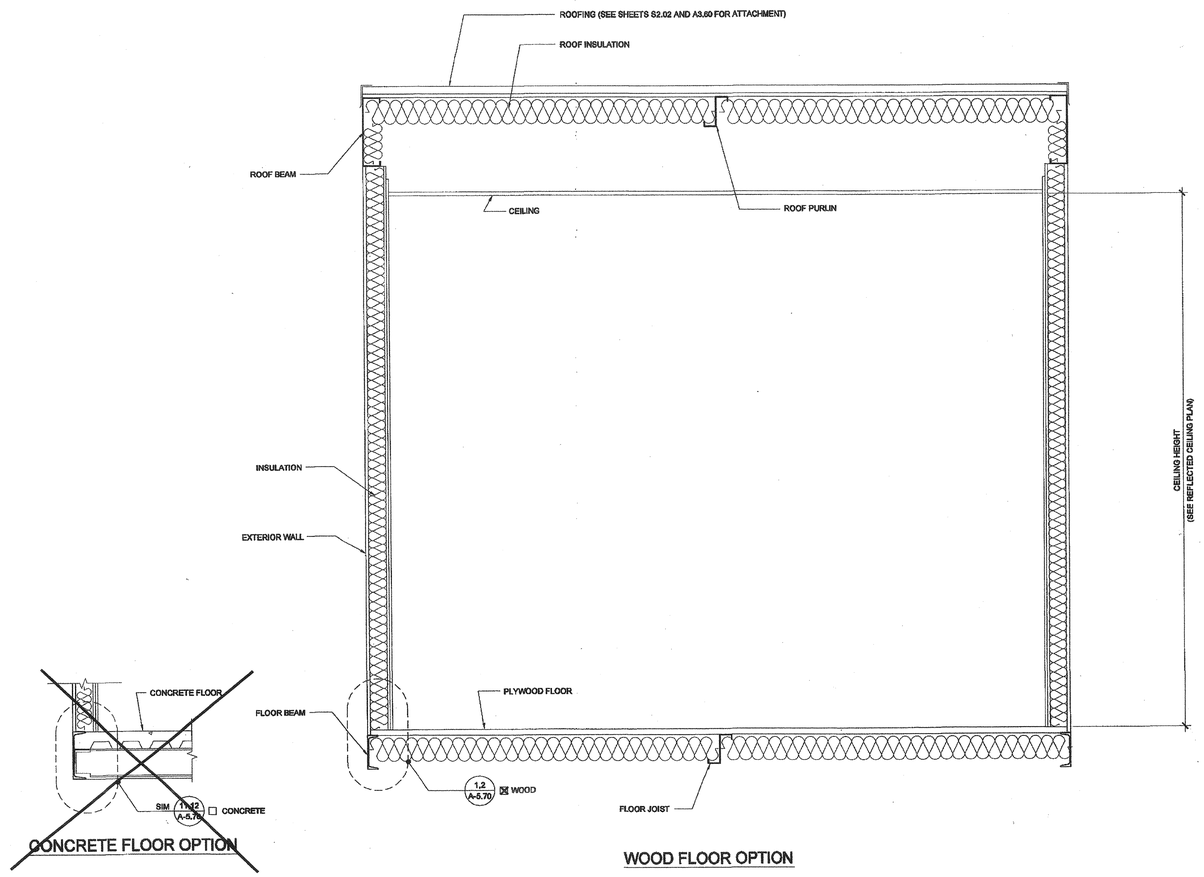
PROJECT SPECIFIC STATE AGENCY APPROVAL
04 113891
AC
DATE

ORIGINAL PC STATE AGENCY APPROVAL
PRE-CHECK (PC) DOCUMENT
CODE: 2010 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-112137
AC FLS SS
DATE DEC 2 9 2011

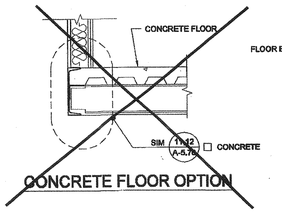
REVISIONS
1
2
3
4
5
6
7
8

SILVER CREEK INDUSTRIES
12' x 40' PC

PROJECT NO:	
DRAWN BY:	
SCALE:	AS NOTED
DATE:	6-17-11 11-19-14
P.C. SHEET NUMBER	STKP 125
A-5.01	



WOOD FLOOR OPTION



CONCRETE FLOOR OPTION

BUILDING SECTION

SCALE: 1" = 1'-0" | 1

THESE DRAWINGS AND ALL MATERIAL CONTAINED HEREIN ARE THE PROPERTY OF SILVERCREEK INDUSTRIES, INC (SCI Inc) AND SHALL NOT BE REPRODUCED, COPIED OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY AND SHALL NOT BE USED IN WHOLE OR IN PART TO ASSIST IN THE MAKING OF OR FOR THE PURPOSE OF FURNISHING ANY INFORMATION FOR THE MAKING OF DRAWINGS, PRINTS, APPARATUS OR PARTS THEREOF WITHOUT THE FULL KNOWLEDGE AND WRITTEN CONSENT OF SCI Inc.
ALL PATENTABLE MATERIAL CONTAINED HEREIN AND ORIGINATING WITH SCI Inc SHALL BE THE PROPERTY OF SCI Inc

SILVER CREEK INDUSTRIES, INC.
"BUILDING FOR THE NEXT GENERATION"
SILVER CREEK
195 EAST MORGAN PERRIS, CALIFORNIA 92571
PHONE: 951-943-5393 FAX: 951-943-2211

PROJECT NAME:

CLASS LEASING

SHEET TITLE:

CROSS SECTION

STAVARES ASSOCIATES
12/23/2011

ARCHITECT OF RECORD SUBMISSION

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
04 113691
AC FLS SS
DATE NOV 2 0 2014

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC FLS SS CL
DATE APR 2 0 2014
FILE NUMBER: 19-29

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
04 113691
AC FLS SS
DATE AUG 2 8 2014

ORIGINAL PC STATE AGENCY APPROVAL

PRE-CHECK (PC) DOCUMENT
CODE: 2010-CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-112137
AC FLS SS
DATE DEC 2 9 2011

REVISIONS

1	
2	
3	
4	
5	
6	
7	
8	

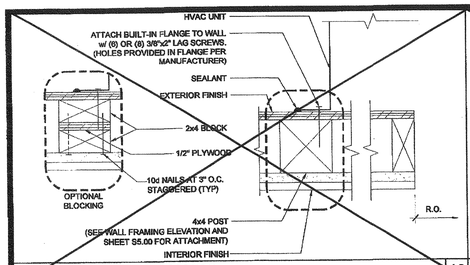
SILVER CREEK INDUSTRIES
12' x 40' PC

PROJECT NO:	
DRAWN BY:	
SCALE:	AS NOTED
DATE:	6-17-11

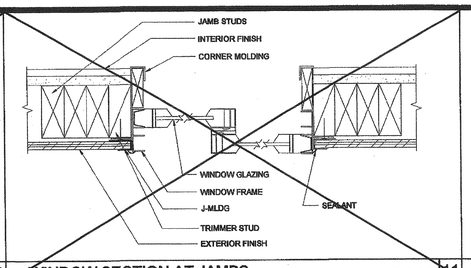
P.C. SHEET NUMBER

A-5.05

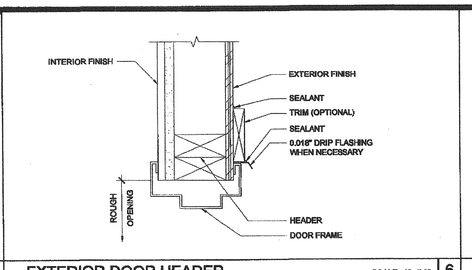
STKP 125



HVAC MOUNT AT JAMBS SCALE : 3"=1'-0" 16

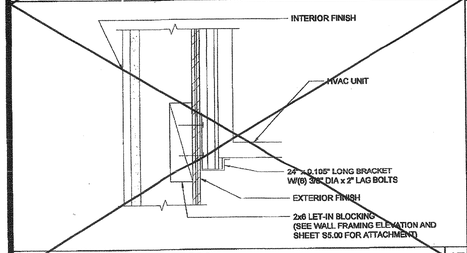


WINDOW SECTION AT JAMBS SCALE : 3"=1'-0" 11

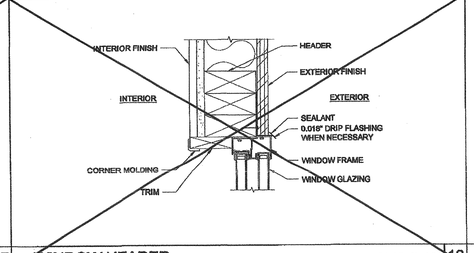


EXTERIOR DOOR HEADER SCALE : 3"=1'-0" 6

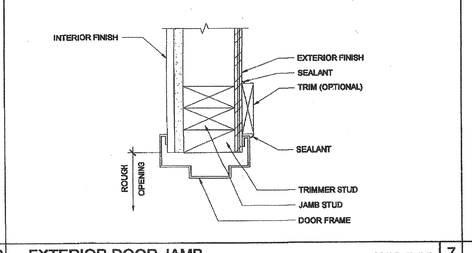
NOT USED 1



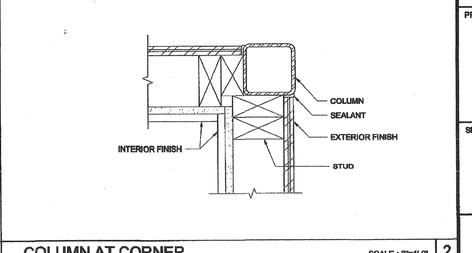
HVAC UNIT AT BOTTOM SCALE : 3"=1'-0" 17



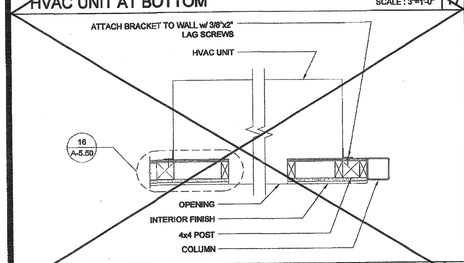
WINDOW HEADER SCALE : 3"=1'-0" 12



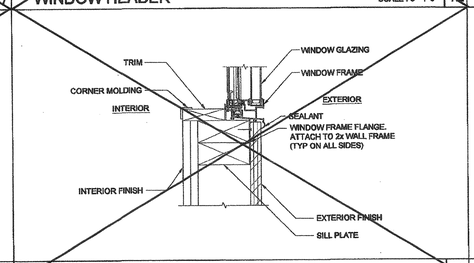
EXTERIOR DOOR JAMB SCALE : 3"=1'-0" 7



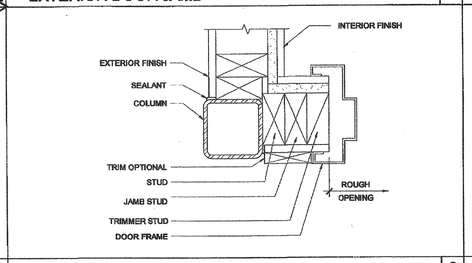
COLUMN AT CORNER SCALE : 3"=1'-0" 2



HVAC UNIT (PLAN) SCALE : 1"=1'-0" 18



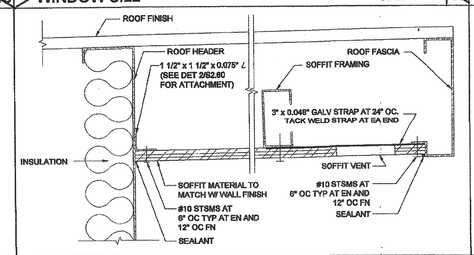
WINDOW SILL SCALE : 3"=1'-0" 13



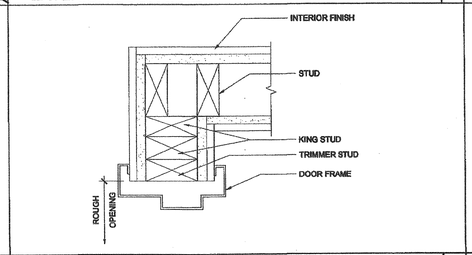
EXTERIOR DOOR JAMB SCALE : 3"=1'-0" 8

NOT USED 3

NOT USED 19



SOFFIT AT ROOF HEADER WITH VENT SCALE : 3" = 1'-0" 14

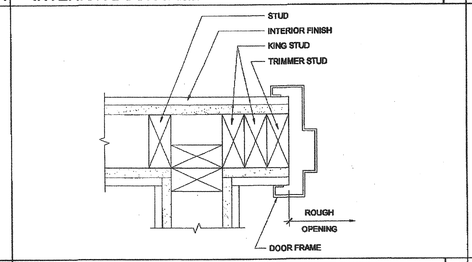


INTERIOR DOOR JAMB SCALE : 3"=1'-0" 9

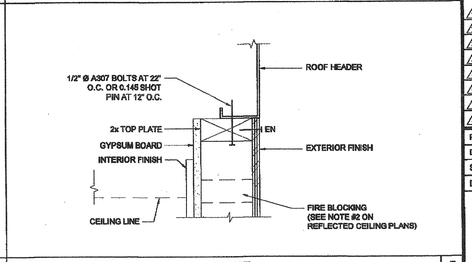
NOT USED 4

NOT USED 20

NOT USED 15



INTERIOR DOOR JAMBS SCALE : 3"=1'-0" 10



TOP PLATE AT ROOF HEADER SCALE : 3" = 1'-0" 5

THESE DRAWINGS AND ALL MATERIAL CONTAINED HEREIN ARE THE PROPERTY OF SILVERCREEK INDUSTRIES, INC (SCI Inc) AND SHALL NOT BE REPRODUCED, COPIED OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY AND SHALL NOT BE USED IN WHOLE OR IN PART TO ASSIST IN THE MAKING OF OR FOR THE PURPOSE OF FURNISHING ANY INFORMATION FOR THE MAKING OF DRAWINGS, PRINTS, APPARATUS OR PARTS THEREOF WITHOUT THE FULL KNOWLEDGE AND WRITTEN CONSENT OF SCI Inc.
ALL PATENTABLE MATERIAL CONTAINED HEREIN AND ORIGINATING WITH SCI Inc SHALL BE THE PROPERTY OF SCI Inc

SILVER CREEK INDUSTRIES, INC.
"BUILDING FOR THE NEXT GENERATION"
SILVER CREEK
195 EAST MORGAN PERRIS, CALIFORNIA 92571
PHONE: 951-943-5393 FAX: 951-943-2211

PROJECT NAME:

CLASS LEASING

SHEET TITLE:

ARCHITECTURAL DETAILS
WOOD STUD - WOOD SIDING

TAVARES ASSOCIATES
GREG CONRAD
No. C-38394
REN 10-31-2015

SUBMISSION DATE

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC FLR SS CL
DATE APR 28 2014
FILE NUMBER: 19-29

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
04 117891
AC FLR SS
DATE NOV 26 2014

ARCHITECT OF RECORD

REGISTERED ARCHITECT
ROBERT A. MORIOKA
C10322
12-31-14
STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
04 117891
AC FLR SS
DATE AUG 28 2014

ORIGINAL PC STATE AGENCY APPROVAL

PRE-CHECK PC'D DOCUMENT CCR2, 2007 CBC
A SEPARATE PROJECT APPLICATION IS REQUIRED FOR FIELD REVISIONS

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-112137
AC FLR SS
DATE DEC 6 2011

REVISIONS

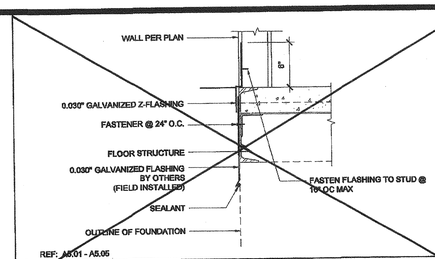
1	(2-2-10) REVISIONS TO THE PC
2	
3	
4	
5	
6	
7	
8	

PROJECT NO:	12' x 40' PC
DRAWN BY:	C. MORIOKA
SCALE:	AS NOTED
DATE:	12-16-08

P.C. SHEET NUMBER

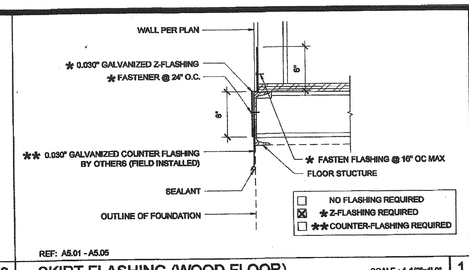
A-5.50

STKP 125

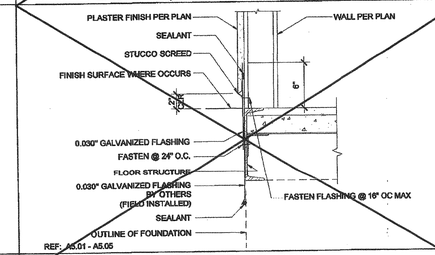


16 SKIRT FLASHING (CONCRETE FLOOR) SCALE : 1 1/2"=1'-0"

11 NOT USED

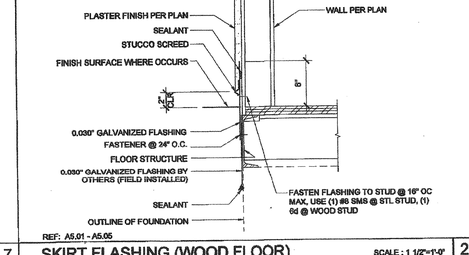


6 SKIRT FLASHING (WOOD FLOOR) SCALE : 1 1/2"=1'-0" 1



17 SKIRT FLASHING (CONCRETE FLOOR) SCALE : 1 1/2"=1'-0"

12 NOT USED



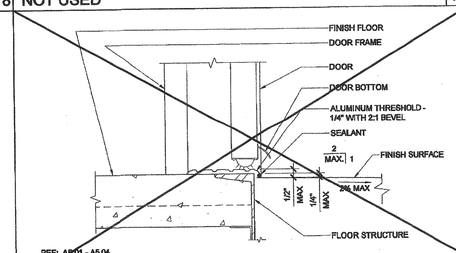
7 SKIRT FLASHING (WOOD FLOOR) SCALE : 1 1/2"=1'-0" 2

18 NOT USED

13 NOT USED

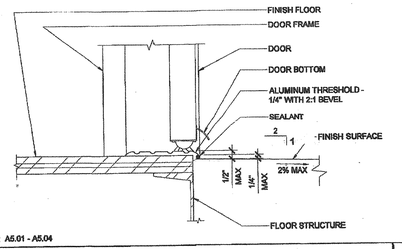
8 NOT USED

3

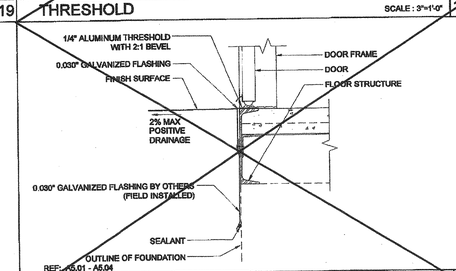


19 THRESHOLD SCALE : 3"=1'-0"

14 NOT USED

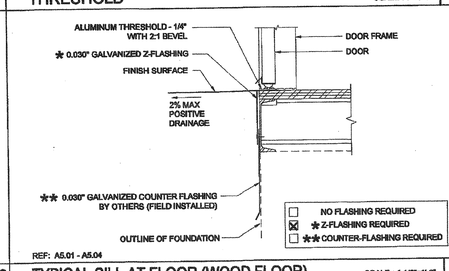


9 THRESHOLD SCALE : 3"=1'-0" 4



20 TYPICAL SILL AT FLOOR (CONCRETE FLOOR) SCALE : 1 1/2"=1'-0"

15 NOT USED



10 TYPICAL SILL AT FLOOR (WOOD FLOOR) SCALE : 1 1/2"=1'-0" 5

THESE DRAWINGS AND ALL MATERIAL CONTAINED HEREIN ARE THE PROPERTY OF SILVERCREEK INDUSTRIES, INC (SCI Inc) AND SHALL NOT BE REPRODUCED, COPIED OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY AND SHALL NOT BE USED IN WHOLE OR IN PART TO ASSIST IN THE MAKING OF OR FOR THE PURPOSE OF FURNISHING ANY INFORMATION FOR THE MAKING OF DRAWINGS, PRINTS, APPARATUS OR PARTS THEREOF WITHOUT THE FULL KNOWLEDGE AND WRITTEN CONSENT OF SCI Inc.
ALL PATENTABLE MATERIAL CONTAINED HEREIN AND ORIGINATING WITH SCI Inc SHALL BE THE PROPERTY OF SCI Inc

SILVER CREEK INDUSTRIES, INC.
"BUILDING FOR THE NEXT GENERATION"
SILVER CREEK
195 EAST MORGAN PERRIS, CALIFORNIA 92571
PHONE: 951-943-5393 FAX: 951-943-2211

PROJECT NAME:

CLASS LEASING

SHEET TITLE:

ARCHITECTURAL DETAILS
FLOOR

STAVARES & ASSOCIATES
No. C-28894
REN: 02-31-2013

12/23/2011

ARCHITECT OF RECORD SUBMISSION
REGISTERED ARCHITECT
C10322
STATE OF CALIFORNIA

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC FLS SS
DATE APR 26 2017
FILE NUMBER: 19-29

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
04 11 8691
AC FLS SS
DATE NOV 26 2014

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
04 11 8651
AC FLS SS
DATE AUG 28 2013

ORIGINAL PC STATE AGENCY APPROVAL

PRE-CHECK (PC) DOCUMENT (DOE 2.2/3.0/3D) A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-112137
AC FLS SS
DATE DEC 09 2011

REVISIONS

1	
2	
3	
4	
5	
6	
7	
8	

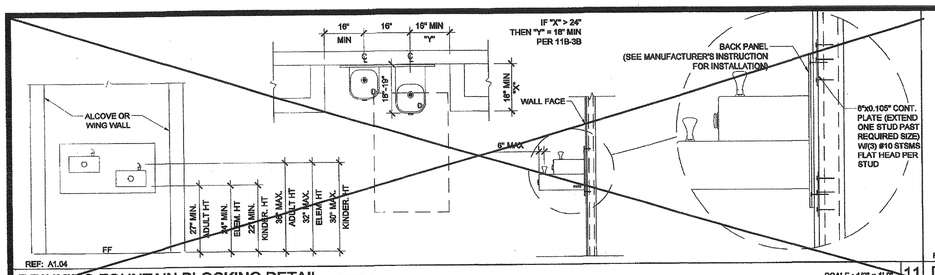
SILVER CREEK INDUSTRIES
12' x 40' PC

PROJECT NO:	
DRAWN BY:	
SCALE:	AS NOTED
DATE:	6-17-11

P.C. SHEET NUMBER

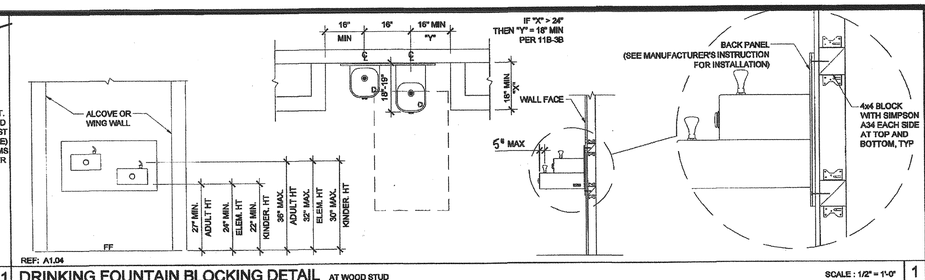
A-5.70

STKP 125



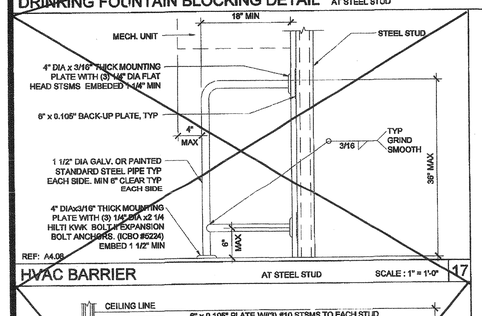
DRINKING FOUNTAIN BLOCKING DETAIL AT STEEL STUD

SCALE : 1/2" = 1'-0" 11



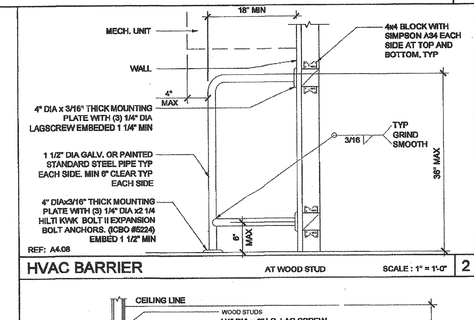
DRINKING FOUNTAIN BLOCKING DETAIL AT WOOD STUD

SCALE : 1/2" = 1'-0" 1



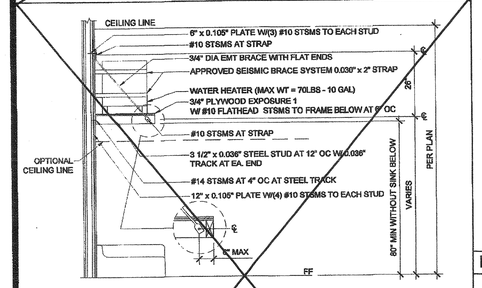
HVAC BARRIER AT STEEL STUD

SCALE : 1" = 1'-0" 17



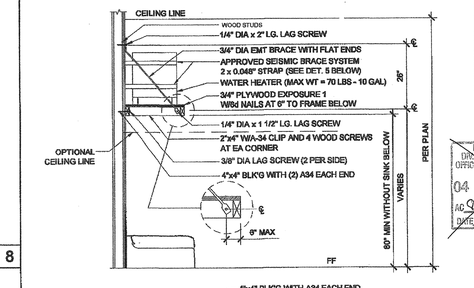
HVAC BARRIER AT WOOD STUD

SCALE : 1" = 1'-0" 2



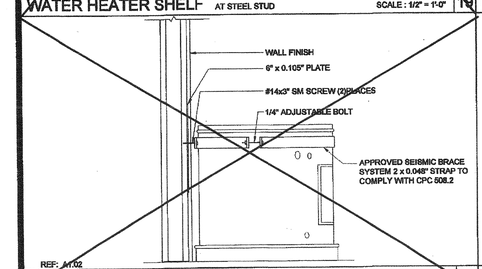
WATER HEATER SHELF AT STEEL STUD

SCALE : 1/2" = 1'-0" 19



WATER HEATER SHELF AT WOOD STUD

SCALE : 1/2" = 1'-0" 4



WATER HEATER BRACING AT STEEL STUD

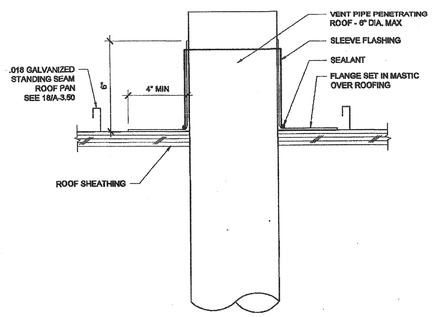
SCALE : 1 1/2" = 1'-0" 20

NOT USED

13

NOT USED

14

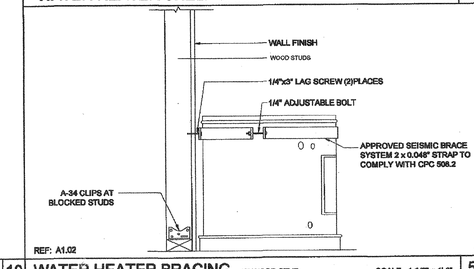


PIPE PENETRATION THROUGH ROOF

SCALE : 3"=1'-0" 10

NOT USED

15



WATER HEATER BRACING AT WOOD STUD

SCALE : 1 1/2" = 1'-0" 5

THESE DRAWINGS AND ALL MATERIAL CONTAINED HEREIN ARE THE PROPERTY OF SILVERCREEK INDUSTRIES, INC (SCI Inc) AND SHALL NOT BE REPRODUCED, COPIED OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY AND SHALL NOT BE USED IN WHOLE OR IN PART TO ASSIST IN THE MAKING OF OR FOR THE PURPOSE OF FURNISHING ANY INFORMATION FOR THE MAKING OF DRAWINGS, PRINTS, APPARATUS OR PARTS THEREOF WITHOUT THE FULL KNOWLEDGE AND WRITTEN CONSENT OF SCI Inc.
ALL PATENTABLE MATERIAL CONTAINED HEREIN AND ORIGINATING WITH SCI Inc SHALL BE THE PROPERTY OF SCI Inc

SILVER CREEK INDUSTRIES, INC.
"BUILDING FOR THE NEXT GENERATION"
SILVER CREEK
195 EAST MORGAN PERRIS, CALIFORNIA 92571
PHONE: 951-943-5393 FAX: 951-943-2211

PROJECT NAME:

CLASS LEASING

SHEET TITLE:

ARCHITECTURAL DETAILS MISCELLANEOUS

TAVARES ASSOCIATES
LICENSED ARCHITECT
No. C-28554
RENEWAL: 10-31-2013
STATE OF CALIFORNIA

12/23/2011

ARCHITECT OF RECORD SUBMISSION APPROVED ARCHITECT
ROBERT A. MAYNARD
No. C10322
STATE OF CALIFORNIA

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
04 11 3091
AC FLS SS
DATE NOV 2 0 2011

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
04 11 3651
AC FLS SS
DATE AUG 2 8 2013

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
APPL #: 03-117603
AC FLS SS
DATE APR 2 5 2014
FILE NUMBER: 19-29

ORIGINAL PC STATE AGENCY APPROVAL

PRE-CHECK (PC) DOCUMENT
CCR 2/3/CBC
A SEPARATE PERMIT APPLICATION
IS REQUIRED FOR THIS WORK

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-112137
AC FLS
DATE DEC 0 9 2011

REVISIONS

1	
2	
3	
4	
5	
6	
7	
8	

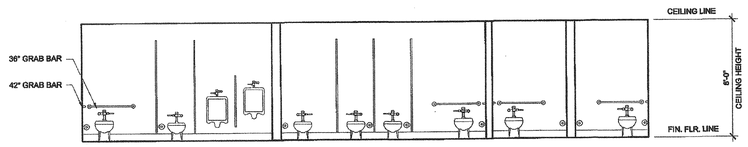
SILVER CREEK INDUSTRIES
12' x 40' PC

PROJECT NO:	
DRAWN BY:	
SCALE:	AS NOTED
DATE:	6-17-11

P.C. SHEET NUMBER

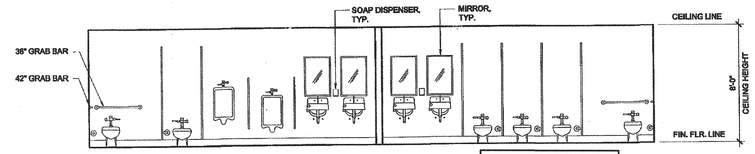
A-5.81

STKP 125



NOTE:
SEE SHEET P-2.01 FOR ACCESSIBLE DIMENSIONING REQUIREMENTS.

PLUMBING FIXTURE ELEVATION - OPTION C-2 SCALE: 1/4" = 1'-0" | 5

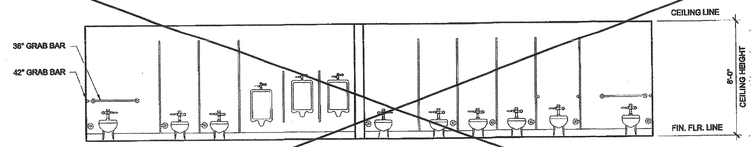


IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC
DATE JAN 20 2012

FILE NUMBER: 19-29

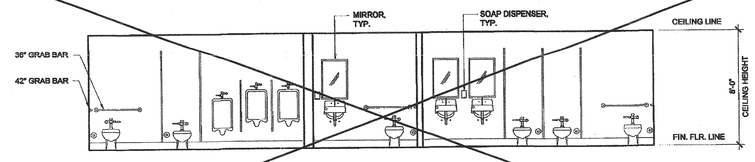
NOTE:
SEE SHEET P-2.01 FOR ACCESSIBLE DIMENSIONING REQUIREMENTS.

PLUMBING FIXTURE ELEVATION - OPTION A-1 AND A-2 SCALE: 1/4" = 1'-0" | 1



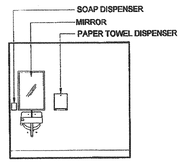
NOTE:
SEE SHEET P-2.01 FOR ACCESSIBLE DIMENSIONING REQUIREMENTS.

PLUMBING FIXTURE ELEVATION - OPTION D-1 SCALE: 1/4" = 1'-0" | 6

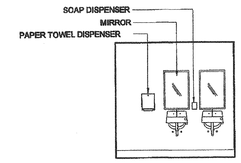


NOTE:
SEE SHEET P-2.01 FOR ACCESSIBLE DIMENSIONING REQUIREMENTS.

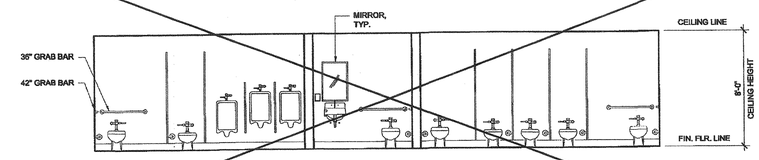
PLUMBING FIXTURE ELEVATION - OPTION B-1 SCALE: 1/4" = 1'-0" | 2



FIXTURE ELEVATION (TYP) - OPTION C-1 & C-2 SCALE: 1/4" = 1'-0" | 9

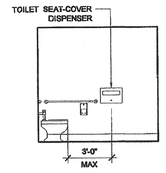


FIXTURE ELEVATION (TYP)-OPTION B-1, B-2, C-2 & D-1 SCALE: 1/4" = 1'-0" | 7



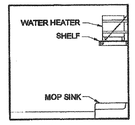
NOTE:
SEE SHEET P-2.01 FOR ACCESSIBLE DIMENSIONING REQUIREMENTS.

PLUMBING FIXTURE ELEVATION - OPTION B-2 SCALE: 1/4" = 1'-0" | 3



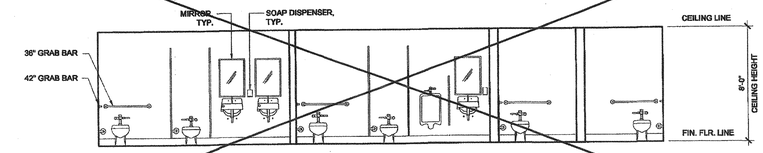
NOTE:
SEE SHEET P-2.01 FOR ACCESSIBLE DIMENSIONING REQUIREMENTS.

TOILET SEAT COVER DISPENSER ELEVATION SCALE: 1/4" = 1'-0" | 10



NOTE:
SEE SHEET A-6.81 FOR SHELF DETAILS.

MOP SINK AND W/H ELEVATION-OPTION B-1 & B-2 SCALE: 1/4" = 1'-0" | 8



NOTE:
SEE SHEET P-2.01 FOR ACCESSIBLE DIMENSIONING REQUIREMENTS.

PLUMBING FIXTURE ELEVATION - OPTION C-1 SCALE: 1/4" = 1'-0" | 4

THESE DRAWINGS AND ALL MATERIAL CONTAINED HEREIN ARE THE PROPERTY OF SILVERCREEK INDUSTRIES, INC (SCI Inc) AND SHALL NOT BE REPRODUCED, COPIED OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY AND SHALL NOT BE USED IN WHOLE OR IN PART TO ASSIST IN THE MAKING OF OR FOR THE PURPOSE OF FURNISHING ANY INFORMATION FOR THE MAKING OF DRAWINGS, PRINTS, APPARATUS OR PARTS THEREOF WITHOUT THE FULL KNOWLEDGE AND WRITTEN CONSENT OF SCI Inc.
ALL PATENTABLE MATERIAL CONTAINED HEREIN AND ORIGINATING WITH SCI Inc SHALL BE THE PROPERTY OF SCI Inc

SILVER CREEK INDUSTRIES, INC.
"BUILDING FOR THE NEXT GENERATION"
SILVER CREEK
195 EAST MORGAN PERRIS, CALIFORNIA 92571
PHONE: 951-943-5393 FAX: 951-943-2211

PROJECT NAME:

CLASS LEASING

SHEET TITLE:

INTERIOR ELEVATIONS FLOOR MOUNTED

STAVARES ASSOCIATES
ARCHITECTURE & CONSTRUCTION MANAGEMENT
321 S. SANTA FE AVE. SALINAS, CA 93901 TEL: (831) 424-1054
2250 E. BIDWELL ST., SUITE 110 FOLSOM, CA 95630 (916) 983-9100
www.stavares.com

LICENSED ARCHITECT
ROBERT A. STAVARES
No. C-26324
REN: 10-31-2013
STATE OF CALIFORNIA

12/23/2011

ARCHITECT OF RECORD SUBMISSION DATE

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
04 11 28 91
AC RS SS
DATE NOV 20 2014

REGISTERED ARCHITECT
ROBERT A. STAVARES
C10322
12-26-13
STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
04 11 28 91
AC RS SS
DATE AUG 07 2014

ORIGINAL PC STATE AGENCY APPROVAL

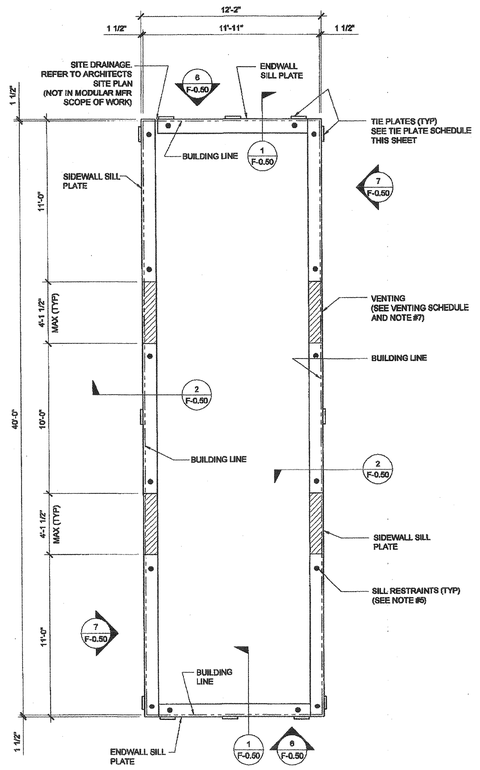
"PRE-CHECK (PC) DOCUMENT" A REVIEW OF THIS DOCUMENT FOR CONSTRUCTION IS REQUIRED

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-112137
AC RS SS
DATE DEC 29 2011

REVISIONS

1	
2	
3	
4	
5	
6	
7	
8	

SILVER CREEK INDUSTRIES 12' x 40' PC	
PROJECT NO:	
DRAWN BY:	
SCALE:	AS NOTED
DATE:	6-17-11
P.C. SHEET NUMBER	A-6.02
	STKP 125



IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC FLS SS
DATE APR 26 2007

FILE NUMBER: 19-29

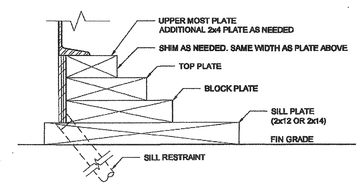
INCLUDES PLANTES FOR FUTURE CONCRETE FOUNDATION ATTACHMENT SEE 20/S150

WOOD FOUNDATION PLATE SCHEDULE

50 + 15 PSF

	END WALL	SIDE WALL	
PLATES			
ADDITIONAL (AS NEEDED)	2x4	2x4	
TOP	2x6	2x6	
BLOCK	2x8 SEE NOTE #10	2x8	
SILL	2x12 SEE NOTE #10	2x12	

FOUNDATION PLATE DESCRIPTION



NOTES

1. BUILDINGS OVER 2160 SF, MUST BE INSTALLED ON A PERMANENT CONCRETE FOUNDATION PER IR 16-1 ITEM 5.
2. FOUNDATION PLAN HAS A 1/4" ADDED AT EACH MODULE LINE AND DOES NOT MATCH THE FLOOR PLAN. ADDITIONAL LENGTH ADDED FOR GROWTH THAT IS EXPERIENCED WHEN SETTING MULTIPLE MODULAR FLOORS.
3. FOUNDATION VENTS THAT OCCUR UNDER RAMP LANDINGS, PROVIDE AN EQUAL AREA OF SCREENED VENT IN LANDING SKIRT.
4. WOOD SILL (FOOTING) PLATES SHALL BE PRESSURE TREATED HEM-FIR AND MAY BEAR DIRECTLY ON SOIL OR PAVED SURFACE. GRASS OR TURF SHALL BE CLEARED TO BARE SOIL UNDER THE ENTIRE AREA OF THE BUILDING BY OTHERS. THE WOOD SILL FOOTING PLATE MAY SUPPORT CONTINUOUS BLOCKING AND SHEATHING SKIRT WHICH NEED NOT BE TREATED.
5. SILL RESTRAINT:
   THE FOUNDATION SHALL BE DESIGNED TO PREVENT SLIDING ON THE SUPPORTING SURFACE BY ATTACHING THE WOOD FOUNDATION PLATES FOR THE BUILDING, RAMPS AND STAIRS TO THE GROUND WITH RESTRAINING DEVICES. AN ACCEPTABLE DESIGN WOULD INCORPORATE ONE-INCH DIAMETER STANDARD WEIGHT (1.315" ACTUAL O.D.) HOT DIPPED GALVANIZED PIPES OR ONE-INCH DIAMETER SOLID STEEL RODS SPACED AT NOT MORE THAN 10'-0" O.C. ONE PIPE / ROD SHALL BE LOCATED A MAXIMUM OF TWO FEET FROM EACH CORNER IN BOTH DIRECTIONS AND A MINIMUM OF TWO PIPES / RODS PER DISCONTINUOUS FOUNDATIONS STRIP. PIPES SHOULD PENETRATE INTO SOIL, CONCRETE, AND/OR PAVING A MINIMUM OF 12" MEASURED VERTICALLY. ALTERNATE OR EQUIVALENT DESIGNS, WHEN PROVIDED WITH STRUCTURAL CALCULATIONS AND DETAILS, WILL BE SUBMITTED TO DSA FOR REVIEW AND APPROVAL.
6. STACKED WOOD MEMBERS FOR FOUNDATIONS AND PRESSURE TREATED LUMBER SHALL BE NAILED WITH HOT DIPPED GALVANIZED PER ASTM A-153
7. VENTILATION OPENINGS SHALL BE COVERED FOR EITHER HEIGHT AND WIDTH WITH CORROSION - RESISTANT WIRE MESH, WITH A CLEAR "THROUGH" DIMENSION NOT EXCEEDING 1/8" ACTING AS A VERMIN BARRIER.
8. VENTING CALCULATION REQUIREMENTS FOR MULTIPLE BUILDING SETS MUST BE CALCULATED WITH OVERALL SQUARE FOOTAGE INCLUDING SEPARATION.
9. FOR FOUNDATION ANCHORAGE ON CONCRETE PAD, SEE DETAIL 15/FO.50.
10. IF OPTIONAL ENDWALL VENTS ARE APPLIED, SILL PLATE AND BLOCK PLATE MUST BE CONTINUOUS. VENT OPENINGS SHALL BE BROKEN ABOVE THE BLOCK PLATE
11. FOR FOUNDATION SPLICE - SEE 5/F-0.50
12. CRAWLSPACE VAPOR RETARDERS (OPTIONAL):
    THE OPTIONAL TOTAL AREA OF VENTILATION OPENINGS IS PERMITTED TO BE REDUCED TO 1/1500 FACTOR WITH AN APPROVED VAPOR RETARDER MATERIAL PER CBC SECTION 1203.3.3(2).
    MATERIALS:
    GROUND SURFACE COVERED WITH AN APPROVED VAPOR RETARDER MATERIAL; MUST HAVE A PERM RATING OF ONE OR LESS; SHOULD BE CONTINUOUS; POLYETHELYNE FILM (≥ 6 MIL); POOL LINER (PUNCTURE RESISTANT); AND POLYETHELYNE FILM WITH RAT SLAB.
    INSTALLATION RECOMMENDATIONS:
    OVERLAP JOINTS BY 6 INCHES; TAPE OR SEAL ALL JOINTS; ATTACH VAPOR RETARDER OVER SILL PLATE PER 10/FO.50; SEAL TO ALL PIERS AND OTHER PENETRATIONS.
13. ENDWALL VENTS (IF REQ'D) SHALL BE LOCATED A MIN OF 24" FROM BUILDING CORNERS. MAXIMUM ONE ENDWALL VENT PER 12'-0" MODULE
14. CONCRETE FLOOR LOAD IS INCLUDED IN THE CONCRETE FOUNDATION OPTION FOR FOUNDATION & ANCHORAGE DESIGN, I.E. THERE IS NO CONCRETE FLOOR FOR WOOD FOUNDATION OPTION. THERE IS CONCRETE FLOOR FOR CONCRETE FOUNDATION OPTION
15. HIGHER THAN 18" PARAPET COMBINATION REQUIRES A 2 X 14" OR 2 X 16" SILL PLATE @ EXTERIOR OF BUILDING
16. 150 PSF FLOOR LIVE LOAD OPTION CANNOT BE USED WITH THE STUCCO WALL OR PARAPET OPTIONS
17. VENTS AT MODLINE FOUNDATIONS. THE MINIMUM CRITERIA REQUIREMENT AS FOLLOWS:
    A. VENTS HAVE A MINIMUM OF 2 SILL /BLOCKING PLATES BENEATH.
    B. VENTS ARE A MAXIMUM OF 6" LONG x 3" MIN. HIGH.
    C. VENTS ARE SPACED A MINIMUM OF 24" APART (EDGE TO EDGE) AND 24" MIN. FROM CORNERS.

NAILING SCHEDULE

BUILDING SIZE	(2) 16d BOX NAILS PLATE TO PLATE ATTACHMENT BELOW UPPER MOST PLATE
12' x 40'	8" OC AT ENDWALL - 1 / F-0.50 20" OC AT SIDEWALL - 2 / F-0.50

VENTING SCHEDULE

BUILDING SIZE	BUILDING AREA	REQUIRED VENTING	SIDE VENTING	TOTAL VENTING SUPPLIED
12' x 40'	480 SF	3.2 SF (1/150)	4.125" x 3" = (4) 1.03 SF/EA	4.12 SF SEE NOTE #8

TIE PLATE SCHEDULE (14 / F-0.50)

BUILDING SIZE	SIDE WALL TIE PLATES	END WALL TIE PLATES	TOTAL NUMBER OF TIE PLATES
12' x 40'	3	3	12

THESE DRAWINGS AND ALL MATERIAL CONTAINED HEREIN ARE THE PROPERTY OF SILVERCREEK INDUSTRIES, INC (SCI Inc) AND SHALL NOT BE REPRODUCED, COPIED OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY AND SHALL NOT BE USED IN WHOLE OR IN PART TO ASSIST IN THE MAKING OF OR FOR THE PURPOSE OF FURNISHING ANY INFORMATION FOR THE MAKING OF DRAWINGS, PRINTS, APPARATUS OR PARTS THEREOF WITHOUT THE FULL KNOWLEDGE AND WRITTEN CONSENT OF SCI Inc.
ALL PATENTABLE MATERIAL CONTAINED HEREIN AND ORIGINATING WITH SCI Inc SHALL BE THE PROPERTY OF SCI Inc

SILVER CREEK INDUSTRIES, INC.
"BUILDING FOR THE NEXT GENERATION"
SILVER CREEK
195 EAST MORGAN PERRIS, CALIFORNIA 92571
PHONE: 951-943-5393 FAX: 951-943-2211

PROJECT NAME:

CLASS LEASING

SHEET TITLE:

WOOD FOUNDATION PLAN
12x40
(50 + 15 PSF)

STAVARES & ASSOCIATES
LICENSED CIVIL ENGINEERING & LAND SURVEYING FIRM
5961 E. Kentucky Avenue, Ste. Suite 200, San Bernardino, CA 92407 (909) 454-0434
22232 Washington Ave., Suite A, Murrieta, CA 92562 (951) 461-0434
www.stavares.com

LICENSED LAND SURVEYOR — GOOD STAVARES — No. C 28554 — REN: 09-30-2013 — STATE OF CALIFORNIA

12/23/2011

ARCHITECT OF RECORD SUBMISSION

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES 04 113851 AC FLS SS DATE MAY 22 2014

ROBERT A. ARCHULETA — No. C10322 — REN: 8-31-14 — REGISTERED ARCHITECT — STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES 04 113851 AC FLS SS DATE APR 28 2014

ORIGINAL PC STATE AGENCY APPROVAL

PRE-CHECK (PC) DOCUMENT CODE 2010 CBC A SEPARATE PERMIT IS REQUIRED FOR CONSTRUCTION IF REQUIRED

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES PC 04 112137 AC FLS SS DATE DEC 21 2011

REVISIONS

1	ADDED NOTE
2	
3	
4	
5	
6	
7	
8	

SILVER CREEK INDUSTRIES
12' x 40' PC

PROJECT NO:	
DRAWN BY:	
SCALE:	AS NOTED
DATE:	6-17-11

P.C. SHEET NUMBER

F-0.02

STKP 125

FOR REFERENCE

FOUNDATION PLAN — SCALE: 1/4" = 1'-0" — 1

NOT USED 16

NOT USED 17

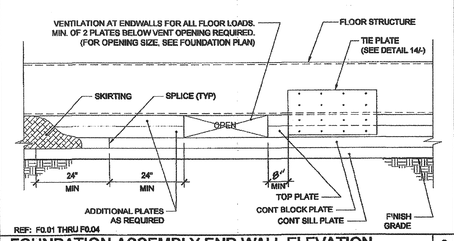
NOT USED 18

NOT USED 19

NOT USED 20

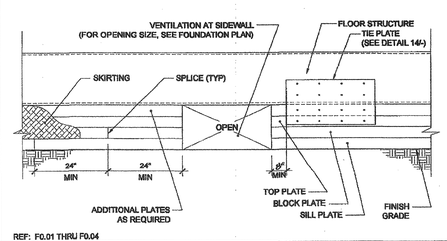
NOT USED 11

NOT USED 12



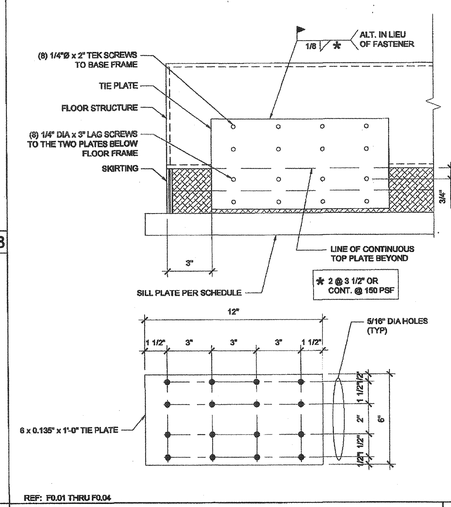
REF: F0.01 THRU F0.04

FOUNDATION ASSEMBLY END WALL ELEVATION SCALE : 1 1/2"=1'-0" 6



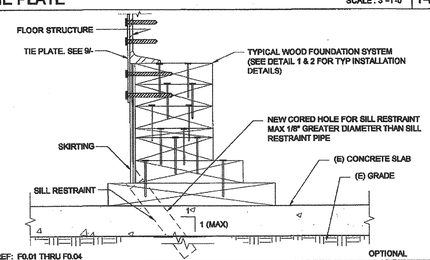
REF: F0.01 THRU F0.04

FOUNDATION ASSEMBLY SIDEWALL ELEVATION SCALE : 1 1/2"=1'-0" 7



REF: F0.01 THRU F0.04

TIE PLATE SCALE : 3"=1'-0" 14

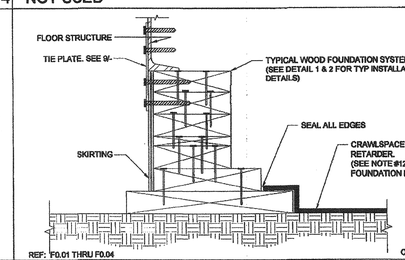


REF: F0.01 THRU F0.04 OPTIONAL

FOUNDATION ANCHORAGE AT CONCRETE PAD SCALE : 3"=1'-0" 15

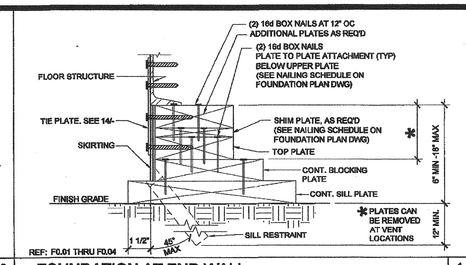
NOT USED 8

NOT USED 9



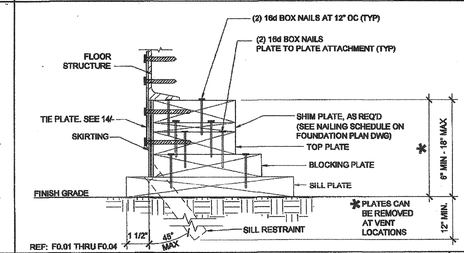
REF: F0.01 THRU F0.04 OPTIONAL

CRAWLSPACE VAPOR RETARDER SCALE : 3"=1'-0" 10



REF: F0.01 THRU F0.04

FOUNDATION AT END WALL SCALE : 3"=1'-0" 1

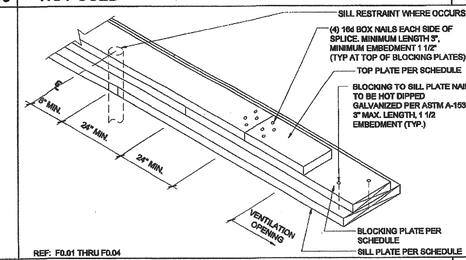


REF: F0.01 THRU F0.04

FOUNDATION AT SIDE WALL SCALE : 3"=1'-0" 2

NOT USED 3

NOT USED 4



REF: F0.01 THRU F0.04

FOUNDATION SPLICE SCALE : NTS 5

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC FLS SS
DATE APR 2 0 2012
FILE NUMBER: 19-29

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
04 117691
AC FLS SS
DATE NOV 0 1 2011

THESE DRAWINGS AND ALL MATERIAL CONTAINED HEREIN ARE THE PROPERTY OF SILVERCREEK INDUSTRIES, INC (SCI Inc) AND SHALL NOT BE REPRODUCED, COPIED OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY AND SHALL NOT BE USED IN WHOLE OR IN PART TO ASSIST IN THE MAKING OF OR FOR THE PURPOSE OF FURNISHING ANY INFORMATION FOR THE MAKING OF DRAWINGS, PRINTS, APPARATUS OR PARTS THEREOF WITHOUT THE FULL KNOWLEDGE AND WRITTEN CONSENT OF SCI Inc.
ALL PATENTABLE MATERIAL CONTAINED HEREIN AND ORIGINATING WITH SCI Inc SHALL BE THE PROPERTY OF SCI Inc

SILVER CREEK INDUSTRIES, INC.
"BUILDING FOR THE NEXT GENERATION"
SILVER CREEK
195 EAST MORGAN PERRIS, CALIFORNIA 92571
PHONE: 951-943-5393 FAX: 951-943-2211

PROJECT NAME:

CLASS LEASING

SHEET TITLE:

FOUNDATION DETAILS WOOD

STAVARES & ASSOCIATES
DESIGN & ENGINEERING PROJECT MGT
9841 Monroe Street, Rancho Cucamonga, CA 91730
Phone 909.476.3554 Fax 909.476.3554
12/23/2011

ARCHITECT OF RECORD SUBMISSION DATE

REGISTERED ARCHITECT ROBERT A. MORALES C10322 6-30-13 STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
04 117691
AC FLS SS
DATE AUG 2 8 2012

ORIGINAL PC STATE AGENCY APPROVAL

PRE-CHECK (PC) DOCUMENT CODE 2010 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-112137
AC FLS SS
DATE DEC 0 9 2010

REVISIONS

1	
2	
3	
4	
5	
6	
7	
8	

SILVER CREEK INDUSTRIES
12' x 40' PC

PROJECT NO:	
DRAWN BY:	
SCALE:	AS NOTED
DATE:	8-17-11

P.C. SHEET NUMBER

F-0.50

STKP 125

FOR REFERENCE

STRUCTURAL SPECIFICATIONS

FOUNDATIONS:

GEOTECHNICAL INVESTIGATIONS SHALL BE CONDUCTED IN ACCORDANCE WITH SECTIONS 1803A.3 THROUGH 1803A.6, EXCEPTION, GEOTECHNICAL REPORTS ARE NOT REQUIRED FOR ONE-STORY, WOOD-FRAME AND LIGHT-STEEL-FRAME BUILDINGS OF TYPE II OR TYPE V CONSTRUCTION AND 4,000 SQUARE FEET OR LESS IN FLOOR AREA, NOT LOCATED WITHIN EARTHQUAKE FAULT ZONES OR SEISMIC HAZARD ZONES AS SHOWN IN THE MOST RECENTLY PUBLISHED MAPS FROM THE CALIFORNIA GEOLOGICAL SURVEY (CGS). ALLOWABLE FOUNDATION AND LATERAL SOIL PRESSURE VALUES MAY BE DETERMINED FROM TABLE 1806A.2 PER CBC SECTION 1803A.2

CONCRETE

PROVIDE NECESSARY SHIMS ON FOOTINGS NOT LEVEL WITHIN THE 1/2" ALLOWABLE TOLERANCE. THE DISTRICT SHALL PROVIDE CLEAR AND UNOBSTRUCTED ACCESS TO THE SITE. THE DISTRICT IS RESPONSIBLE FOR ALL SURVEYING, STAKING THE BUILDING CORNERS, SETTING THE FINISH FLOOR ELEVATION, RIGGING, CRANING, EXCAVATION, SPOIL REMOVAL, AND BACKFILL.

THE FOUNDATION AND THE METHOD OF FASTENING THE UNITS SHALL BE AS SHOWN ON DRAWINGS WHERE APPLICABLE. HIGH STRENGTH GROUT SHALL BE EMBECO 885 NON-SHRINK, METALLIC AGGREGATE GROUT OR A DSA APPROVED EQUAL.

THE DESIGN OF CONRETE FOUNDATIONS WILL BE AS FOLLOWS:

1. FURNISH AND INSTALL ALL CONCRETE WORK AS SHOWN ON THE DRAWINGS AND AS SPECIFIED.
2. EXCEPT AS MODIFIED BY THE REQUIREMENTS SPECIFIED HEREIN AND / OR THE DETAILS ON THE DRAWINGS, ALL WORK INCLUDED IN THIS SECTION SHALL CONFORM TO THE APPLICABLE PROVISIONS OF CODES AND STANDARDS.
   a) ALL WORK AND MATERIALS SHALL CONFORM TO TITLE 24, CALIFORNIA CODE OF REGULATIONS, AND CHAPTER 19.
   b) AMERICAN CONCRETE INSTITUTE (ACI): BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE, ACI318-05.
   c) SOCIETY FOR TESTING AND MATERIALS (ASTM): THE SPECIFICATIONS AND STANDARDS HEREINAFTER REFERENCED TO SHALL BE OF THE LATEST EDITION.
3. CONCRETE FOUNDATION TESTS AND INSPECTIONS SHALL BE THE RESPONSIBILITY OF THE ARCHITECT AND OR INSPECTOR.
4. DESIGN MIXES SHALL BE AS SPECIFIED IN TITLE 24. CONCRETE STRENGTH AT 28 DAYS SHALL BE AS FOLLOWS: (UNLESS REQUIRED OTHERWISE PER ACI 318-08 TABLE 4.3.1).
   CONCRETE COMPRESSIVE STRENGTH f'C= 3500 PSI
   WATER-CEMENT RATIO SHALL NOT EXCEED 0.60 BY WEIGHT
   PORTLAND CEMENT TYPE I
   NORMAL WEIGHT
5. FORMS SHALL BE SUBSTANTIAL, PLUMB, LEVEL, SQUARE, TRUE TO LINE, WATER TIGHT AND ACCURATE TO THE DIMENSIONS REQUIRED.
6. THE ARCHITECT SHALL APPROVE LOCATION OF:
   a) OPENINGS FOR MECHANICAL AND ELECTRICAL: PROVIDE FOR OPENINGS IN THE CONCRETE WITH THE TRADE(S) INVOLVED AND INSTALL SLEEVES AS MAY BE REQUIRED.
   b) OPENINGS FOR VENT WELLS FOR UNDER FLOOR VENTILATION: PROVIDE FOR ALL OPENINGS IN THE CONCRETE WITH THE TRADE(S) INVOLVED. INSTALL ALL SLEEVES AS MAY BE REQUIRED.
7. VARIANCE IN CONCRETE SLAB SURFACE SHALL BE NO MORE THAN 1/16" IN 10 FEET
8. ALL CEMENT SHALL BE TYPE 1 OR 11 PER ASTM C-150. (UNLESS REQUIRED OTHERWISE PER CBC 1802A.2.3
9. WATER CONTENT SHALL NOT EXCEED 7 1/4 GALLONS PER SACK OF CEMENT (UNLESS REQUIRED OTHERWISE PER ACI 318-08 TABLE 4.3.1)
10. AGGREGATE SHALL BE 3/4" TO 1 1/2" MAXIMUM SIZE BUT NOT MORE THAN 3/4" OF MINIMUM CLEAR BAR SPACING
11. ANCHOR BOLTS, DOWELS, REINFORCING STEEL, AND EMBEDDED ITEMS ARE TO BE SECURELY TIED IN PLACE BEFORE CONCRETE IS POURED.
12. REFER TO ARCHITECTURAL, ELECTRICAL, AND MECHANICAL PLANS FOR SLEEVES, INSERTS CURBS, DEPRESSED AREAS, AND ETC.
13. CONCRETE MIX REQUIRED: CONTRACTOR SHALL SUBMIT CONCRETE MIX DESIGN FOR FOOTINGS TO PROFESSIONAL OF RECORD FOR APPROVAL PRIOR TO POURING CONCRETE.

1704A.4.3. WAIVER OF BATCH PLAN INSPECTION.

A. WHEN BATCH PLANT INSPECTION IS WAIVED, THE FOLLOWING REQUIREMENTS SHALL APPLY:

1. QUALIFIED TECHNICIAN OF THE TESTING LABORATORY SHALL CHECK THE FIRST BATCHING AT THE START OF DAY.
2. LICENSED WEIGHMASTER TO POSITIVELY IDENTIFY MATERIALS AS TO QUANTITY AND CERTIFY TO EACH LOAD BY A TICKET.
3. BATCH TICKETS, INCLUDING ACTUAL MATERIAL QUANTITIES AND WEIGHTS SHALL ACCOMPANY THE LOAD AND SHALL BE TRANSMITTED TO THE INSPECTOR OF RECORD BY A TRUCK DRIVER WITH LOAD IDENTIFIED THEREON. THE LOAD SHALL NOT BE PLACED WITHOUT A BATCH TICKET IDENTIFYING THE MIX. THE INSPECTOR WILL KEEP A DAILY RECORD OF PLACEMENTS, IDENTIFYING EACH TRUCK, IT'S LOAD, TIME OF RECEIPT AND APPROXIMATE LOCATION OF DEPOSIT IN THE STRUCTURE AND WILL TRANSMIT A COPY OF THE DAILY RECORD TO THE ENFORCEMENT AGENCY.
4. AT THE END OF THE PROJECT, THE WEIGHMASTER SHALL FURNISH AN AFFIDAVIT TO THE ENFORCEMENT AGENCY CERTIFYING THAT ALL CONCRETE FURNISHED CONFORMS IN EVERY PARTICULAR TO PROPORTIONS ESTABLISH BY MIX DESIGNS.

REINFORCING STEEL:

1. MATERIAL: ALL REINFORCING STEEL SHALL BE BILLET STEEL PER ASTM A-615 GRADE 40. EXCEPT #3 ANCHOR REINFORCEMENT SHALL BE GRADE 60.
2. SPLICES: ALL SPLICES SHALL BE LAPPED A MINIMUM 48" #5 BARS AND 30" #4 BARS UNLESS OTHERWISE DETAILED.
3. REINFORCING FABRICATION AND PLACEMENT: FABRICATION AND PLACING OF REINFORCING SHALL CONFORM TO THE "CODE OF STANDARD PRACTICE AND SPECIFICATIONS FOR PLACING REINFORCEMENT OF THE CONCRETE REINFORCING STEEL INSTITUTE".
4. MINIMUM COVERAGE: ALL REINFORCING SHALL HAVE THE FOLLOWING MINIMUM COVERAGE WITH CONCRETE:

LOCATION	AMOUNT
FORMED EARTH	2"
CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH	3"
WALL-EXPOSED FACE	
#5 OR SMALLER	2"
#6 OR LARGER	2"
WALL-UNEXPOSED FACE	3/4"

STRUCTURAL STEEL:

1. ALL STRUCTURAL STEEL OTHER THAN TUBE AND PIPE COLUMNS SHALL CONFORM TO ASTM A-36.
2. TUBE COLUMNS SHALL CONFORM TO ASTM A500 GRADE B
3. PIPE COLUMNS SHALL CONFORM TO ASTM A501 OR ASTM A53, TYPE E OR S, GRADE B.

STEEL FRAME BUILDING/STEEL FRAME CONSTRUCTION SHALL MEET THE MINIMUM DESIGN REQUIREMENTS OF STUD SPACING, ETC. PER LATEST EDITION OF 2010 CALIFORNIA BUILDING CODE. ALL WORK AND MATERIALS SHALL CONFORM TO THE "SPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" AND "CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES," AMERICAN INSTITUTE OF STEEL CONSTRUCTION: TITLE 24, CCR, AND UNIFORM BUILDING CODE. STRUCTURAL STEEL SHALL BE MADE EITHER THE OPEN-HEARTH OR ELECTRIC FURNACE PROCESS ONLY AND SHALL CONFORM TO THE "SPECIFICATION FOR STRUCTURAL STEEL" ASTM DESIGNATION A36, CURRENT EDITION.

ROOF FRAMING, FLOOR FRAMING, AND WALL FRAMING SHALL BE PER MANUFACTURER'S PC PLANS AND PER APPLICABLE CODES.

ALL STRUCTURAL MEMBERS BELOW THE SUB-FLOOR, IE, GIRDERS, JOISTS, HEADERS, BLOCKING, SHALL BE STEEL. MINIMUM JOIST SPACING SHALL BE PER PLAN.

ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE AISC STANDARD SPECIFICATIONS, THE APPLICABLE REGULATORY AGENCY AND THE AMERICAN IRON AND STEEL INSTITUTE SPECIFICATIONS FOR DESIGN OR LIGHT GAUGE STEEL STRUCTURAL MEMBERS. WELDING: SHALL COMPLY WITH THE PERTINENT PROVISIONS OF THE APPLICABLE REGULATORY AGENCY. ALL WELDING SHALL BE DONE BY OPERATORS WHO ARE QUALIFIED AS PRESCRIBED IN THE "QUALIFICATION PROCEDURE" OF THE AMERICAN WELDING SOCIETY TO PERFORM THE TYPE OF WORK REQUIRED.

STEEL SHALL BE COATED WITH ONE SHOP COAT OF MANUFACTURER'S STANDARD CHASSIS PAINT OR EQUAL.

BOLTS:

ALL COMMON BOLTS AND ANCHOR BOLTS SHALL CONFORM TO ASTM A-307.

STRUCTURAL WELDING: SPECIAL INSPECTOR REQUIRED

GENERAL: DURING THE WELDING OF ANY MEMBER OR CONNECTION THAT IS DESIGNED TO RESIST LOADS AND FORCES REQUIRED BY THIS CODE.

ALL WELDS USED IN PRIMARY MEMBERS AND CONNECTIONS IN THE LATERAL FORCE-RESISTING SYSTEMS SHALL BE MADE WITH A FILLER METAL THAT HAS A MINIMUM CHARPY V-NOTCH TOUGHNESS OF 20 FT/LBS AT MINUS 20 DEGREES F AS DETERMINED BY AWS CLASSIFICATION OR MANUFACTURER CERTIFICATION.

ALL STRUCTURAL WELDING SHALL BE BY "ELECTRIC ARC PROCESS" PER AWS STANDARD CODE FOR ARC AND GAS WELDING IN BUILDING CONSTRUCTION. ALL LIGHT GAUGE STEEL (SHEET STEEL) SHALL BE WELDED PER AWS D1.3. ALL REINFORCING STEEL SHALL BE WELDED WITH LOW HYDROGEN RODS PER AWS D1.4, OR REINFORCING STEEL SHALL CONFORM TO ASTM A-706. ALL SHOP WELDED MUST BE PERFORMED BY "APPROVED" WELDERS IN A SHOP OF A LICENSED FABRICATOR. ALL FIELD WELDING SHALL BE PERFORMED BY "APPROVED" WELDERS. ELECTRODES SHALL BE E70XX FOR STRUCTURAL STEEL AND REBAR AND SHALL BE E60XX FOR LIGHT GAUGE STEEL.

THE SPECIAL INSPECTOR NEED NOT BE CONTINUOSLY PRESENT DURING WELDING OF THE FOLLOWING ITEMS, PROVIDED THE MATERIALS, WELDING PROCEDURES AND QUALIFICATION OF WELDERS ARE VERIFIED PRIOR TO THE START OF WORK: PERIODIC INSPECTIONS ARE MADE OF WORK IN PROGRESS, AND A VISUAL INSPECTION OF ALL WELDS IS MADE PRIOR TO SHIPMENT OF SHOP WELDING.

a) FLOOR AND ROOF DECK WELDING.
b) WELDED STUDS WHEN USED FOR STRUCTURAL DIAPHRAGM OR COMPOSITE SYSTEMS.
c) WELDED SHEET STEEL FOR COLD-FRAMED STEEL FRAMING MEMBERS SUCH AS STUDS AND JOISTS WHICH ARE NOT PART OF AN ORDINARY MOMENT FRAME.
d) SINGLE PASS FILLET WELDS NOT EXCEEDING 5/16".

MATERIAL SHALL BE IDENTIFIED BY MARKING OR STAMPING THE I.D. NUMBER ON STRUCTURAL STEEL COMPONENTS BY LICENSED FABRICATION SHOP.

ALL BUTT, BEVEL, GROOVE, VEE, U AND J WELDS SHALL BE PREQUALIFIED COMPLETE PENETRATION WELDS.

FILLER MATERIAL FOR WELDING: SHIELDED METAL-ARC: AWS A5.1 OR 15.5 E70XX ELECTRODES.

HOLES IN STRUCTURAL STEEL SHALL NOT BE PERMITTED UNLESS SPECIFICALLY DETAILED ON THE STRUCTURAL DRAWINGS.

STRUCTURAL STEEL SHALL BE THOROUGHLY CLEANED BY SCRAPING OR WIRE BRUSHING AND SHOP PRIMED.

ALL STEEL WORK, INCLUDING WELD AND CONNECTIONS EXCEPT WHERE ENTIRELY ENCASED IN CONCRETE SHALL BE GIVEN ON COAT OF ACCEPTABLE METAL PROTECTION WELL WORKED INTO JOINTS AND OPEN SPACES.

COLD-FORMED STEEL FRAMING:

STRUCTURAL LIGHT GAUGE STEEL FRAMING AND ACCESSORIES SHALL BE FABRICATED IN ACCORDANCE WITH ASTM A-1011/A GRADE AS LISTED BELOW, SEE PLAN FOR MINIMUM YIELD.

MATERIAL THICKNESS 0.120" OR LESS: ASTM A-1011/A GRADE 33 (UNO)
MATERIAL THICKNESS 0.135" : ASTM A-1011/A GRADE 40

DESIGNATION THICKNESS (INCHES)	MINIMUM DELIVERED THICKNESS (INCHES)
0.018	0.017
0.030	0.028
0.036	0.034
0.048	0.046
0.060	0.057
0.075	0.071
0.105	0.100
0.120	0.114
0.135	0.128

ALL WELDING SHALL BE IN CONFORMANCE WITH AWS D1.3, "STRUCTURAL WELDING CODE - SHEET STEEL". QUALIFICATION OF WELDERS SHALL BE IN ACCORDANCE WITH AWS D1.1. CHAPTER 5, PART C, "WELDER QUALIFICATIONS".

BOLTS, SCREWS, ETC. EXPOSED TO THE EXTERIOR SHALL BE GALVANIZED

MACHINE BOLTS USED SHALL CONFORM TO SPECIFICATIONS OF ASTM STANDARD A-307.

NTD:
(b) CJP GROOVE WELD NDT
ULTRASONIC TESTING SHALL BE PERFORMED ON 100 PERCENT OF CJP GROOVE WELDS IN MATERIALS 5/16 in. (8mm) THICK OR GREATER. ULTRASONIC TESTING IN MATERIALS LESS THAN 5/16 in. (8 mm) THICK IS NOT REQUIRED. MAGNETIC PARTICLE TESTING SHALL BE PERFORMED ON 25 PERCENT OF ALL BEAM-TO-COLUMN CJP GROOVE WELDS.

WOOD:

FRAMING: ALL FRAMING LUMBER SHALL BE GRADE MARKED BY AN APPROVED GRADING AGENCY AND SHALL BE OF THE FOLLOWING MINIMUM GRADES OR BETTER, PER WCLB RULES #16.
PLATES AND BLOCKING - STANDARD GRADE OR BETTER
STUDS AND HEADER = DF #2 OR BETTER

SHEATHING:

AMERICAN PLYWOOD ASSOCIATION PS 1-95. EACH SHEET SHALL BE GRADE MARKED BY THE AMERICAN PLYWOOD ASSOCIATION, AND SHALL CONFORM TO THE REQUIREMENTS OF STANDARD GRADE GROUP 1 OR BETTER GRADE STAMPED AND IDENTIFIED UNDER THE PROCEDURES AND QUALIFICATIONS SET FORTH BY PS 1-95.

1. PLYWOOD SUB FLOOR: 1 1/8" T&G UNBLOCKED PLYWOOD. PROVIDE SEAMLESS WOVEN POLYFLEX BOTTOM BOARD FOR MOISTURE PROTECTION
2. OPTIONAL PLYWOOD ROOF DECK: APA RATED 3/4" T&G OSB OR EQUIVALENT RATED SHEATHING WITH APPROVAL FROM DSA
3. EXTERIOR WALL SIDING:
   i. STANDARD: 5/8" DURATEMP OR 5/8" SMART PANEL
   ii. OPTIONAL: 5/8" MDO
   iii. OPTIONAL: 1/2" OSB OR CDX PLYWOOD FOR PLASTER/STUCCO FINISH
4. EXTERIOR WALL SIDING ATTACHMENT:
   FASTENERS USED FOR THE ATTACHMENT OF EXTERIOR WALL COVERINGS SHALL BE HOT-DIPPED GALVANIZED, MECHANICALLY DEPOSITED ZINC-COATED, STAINLESS STEEL, SILICON BRONZE OR COPPER PER CBC SECTION 2304.9.1.1

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC ___ PLS ___ SS CL
DATE 1207 29 2011

FILE NUMBER: 19-29

TREATED WOOD:

ALL WOOD INCLUDING WOOD SHEATHING IN CONTACT WITH CONCRETE OR MASONRY AND LOCATED WITHIN 8" OF GROUND LEVEL SHALL BE "PRESSURE TREATED" BY AND "APPROVED PROCESS" OR SHALL BE "FOUNDATION GRADE" MATERIAL. (CBC SECTION 2304.11.2.2).
1. ALL ROUGH LUMBER SHALL BE DF #2 OR BETTER.
2. FASTEN WOOD BESIDES USING SCREWS.
   ALL POWER DRIVEN FASTENERS SHALL BE HILTI FASTENERS ICC# ESR-1663, AND RAMSET POWER DRIVEN FASTENERS (ICC# ESR-1799), OR SIMPSON POWER DRIVEN FASTENERS ICC #ESR-2138, OR OTHER EQUIVALENT PRODUCTS WITH ICC REPORTS AND APPROVED BY DSA.

CONTINUOUS INSPECTION:

INSPECTOR TO PROVIDE CONTINUOUS FIELD INSPECTION.

IN-PLANT INSPECTOR SHALL PROVIDE CONTINUOUS INSPECTION IN-PLANT

METALS, STRUCTURAL, AND MISC. STEEL:

CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIAL, AND SERVICES REQUIRED FOR STRUCTURES AND MISCELLANEOUS STEEL AS SPECIFIED AND INDICATED IN THE DRAWINGS.

MATERIALS: ALL STRUCTURAL STEEL TESTING SHALL COMPLY WITH TITLE 24, SECTION 2212A.1.

STEEL SHAPES: ALL STRUCTURAL STEEL SHAPES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-36, OPEN HEARTH OR ELECTRIC FURNACE ONLY.

STEEL TUBES: ALL STRUCTURAL TUBES SHALL CONFORM TO REQUIREMENTS OF ASTM A-500 GRADE B (fy=46KSI) OR ASTM A53, TYPICAL.

STEEL SHEETS: STEEL SHEETS FOR LIGHT GAUGE STEEL SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-1011/A, GRADE 40 U.O.N. SHEET METAL GRAVEL STOPS AND FLASHINGS SHALL BE MINIMUM 0.030 THICKNESS AND SHALL BE GALVANIZED.

ERECTION:
ALL STRUCTURAL STEEL SHALL BE ERECTED TRUE, STRAIGHT, PLUMB AND TO ITS DESIGNED LOCATION. TEMPORARY BRACING OR SHORING SHALL BE INSTALLED WHEREVER NECESSARY TO TAKE CARE OF LOADS TO WHICH THE STRUCTURE MAY BE SUBJECTED, INCLUDING ERECTION EQUIPMENT AND THE OPERATION OF SAME. CONNECTIONS SHALL BE ADEQUATE TO WITHSTAND STRESSES TO WHICH THEY ARE NORMALLY SUBJECTED. CONNECTIONS SHALL BE STEEL, EXCEPT AS OTHERWISE NOTED. FIELD CONNECTIONS SHALL BE BOLTED OR WELDED AS SHOWN ON THE DRAWINGS.

SHOP PAINT:

* EXPOSED STEEL COATED WITH ONE SHOP COAT OF PRIMER.
* NON-EXPOSED STEEL COATED WITH ON SHOP COAT OF PRIMER.
* ALL SURFACES THOROUGHLY CLEANED BY EFFECTIVE MEANS PRIOR TO APPLICATION OF SHOP COATS.

POWER DRIVEN FASTENERS FOR SILL PLATE, WOOD NAILERS TO STEEL COLUMNS, AND SHEET METAL TO STRUCTURAL STEEL:

ALL POWER DRIVEN FASTENERS SHALL BE HILTI FASTENERS ICC# ESR-1663, OR RAMSET POWER DRIVEN FASTENERS (ICC# ESR-1799), OR SIMPSON POWER DRIVEN FASTENERS ICC #ESR-2138, OR OTHER EQUIVALENT PRODUCTS WITH ICC REPORTS AND APPROVED BY DSA.

WOOD ROUGH CARPENTRY:

THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS AND STEPS NECESSARY TO PROTECT ALL COMPLETED, SEMI-COMPLETED, AND TEMPORARY WORK FROM COMMENCEMENT OF PROJECT TO COMPLETE. SEMI-COMPLETION OF SAME ANY PORTION OF THE WORK DAMAGED OR DISFIGURED SHALL BE SATISFACTORILY REPAIRED OR REPLACED AND THE WORK AS A WHOLE LEFT WITHOUT BLEMISH AT FINAL ACCEPTANCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING ALL NECESSARY MEASUREMENTS AT THE BUILDING, THE ACCURATE FITTING OF ALL WORK AND PROPER ACCOMMODATION OF OTHER TRADES.

DESCRIPTION OF WORK:
THIS SECTION INCLUDES FURNISHING OF ALL LABOR, MATERIAL, TOOLS, EQUIPMENT, TRANSPORTATION, AND FACILITIES TO COMPLETE ROUGH CARPENTRY AS INDICATED IN THE DRAWINGS AND AS SPECIFIED HEREIN.

ROOF FRAMING:
PLYWOOD SHEATHING APA, PSI-95 RATED SHEATHING, CD EXPOSURE 1 P.U. = 48/24 (5 PLY) T&G EDGES

WORKMANSHIP:
ALL WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE BEST PRACTICE, SHALL BE ACCURATE AS TO MEASUREMENT AND SHALL BE CAREFULLY DONE. PLYWOOD SHEATHING SUBFLOOR SHALL PROVIDE A SMOOTH UNIFORM SURFACE CAPABLE PROPERLY ACCEPTING A CARPET FINISH.

ROOF DIAPHRAGM:
3/4" T&G OSB OR APA RATED SHEATHING - STRUCTURE 1 EXPOSURE 1
SPAN RATING 48/24 MIN.
FASTEN TO SHEET METAL SUPPORTS W/ #10 x 1 1/4" LG. SELF DRILLING SELF-TAPPING PHILLIPS FLAT-HEAD ZINC COATED TEK® SCREWS OR 0.145 PACFAST PREFERRED FASTENERS (ICC ESR-2061) ISSUED SEPTEMBER 1 2010 AT 4" OC AT BOUNDARIES, 6" OC AT EDGES, AND 12" OC FIELD NAILS. MIN. 3/8" EDGE DISTANCE FOR FASTENERS TO PLYWOOD EDGE PER CBC SECTION 2306.2. // NOTE: 0.145 PNEUMATIC FASTENER OPTION IS NOT ALLOWED ON PARAPET APPLICATIONS (PARAPET HEIGHT) HIGHER THAN 24". SEE AT STRUCTURAL STEEL APPLICATIONS - IE. (TEK SSES)

FLOOR DIAPHRAGM:
1 1/8" PLYWOOD - STURD-I-FLOOR
EXTERIOR - TONGUE AND GROOVE EDGES
SPAN RATING: 48"
FASTEN TO SHEET METAL SUPPORTS W/ #10 - 24 x 1 3/4 LG. SELF-DRILLING, SELF-TAPPING PHILLIPS FLAT-HEAD ZINC COATED TEK® SCREWS OR 0.145 PACFAST PREFERRED FASTENERS (ICC ESR-2061) ISSUED SEPTEMBER 1 2010 AT 6" OC AT BOUNDARIES, AT 6" OC AT EDGES, AND 12" OC AT INTERMEDIATE SUPPORTS. MIN. 3/8" EDGE DISTANCE FOR FASTENERS TO PLYWOOD EDGE PER CBC SECTION 2306.2. NOTE: 0.145 PNEUMATIC FASTENER OPTION (PACFAST PREFERRED FASTNES) IS NOT ALLOWED FOR APPLICATIONS AT STRUCTURAL STEEL IE. FLOOR CHANNELS
CONCRETE FLOOR DATA: LIGHTWEIGHT CONCRETE FLOOR
STRENGTH: 3500 PSI or 4000 PSI
TYPE: I OR II
DENSITY: 110 PCF - MAX

DIMENSION LUMBER ATTACHMENT TO STEEL FRAMING:
2 x STUDS AT CORNER STEEL COLUMNS (NAILING STUD)
USE: #10 - 24 x 2 1/2" LG. SELF-DRILLING SELF-TAPPING PHILLIPS FLAT-HEAD WITH WASHER ZINC COATED TEK SCREWS AT 24" O.C.

REFERENCE STANDARDS NOTES:

INTENT OF DRAWINGS AND SPECIFICATIONS IS TO CONSTRUCT THE BUILDING IN ACCORDANCE WITH THE STATE OF CALIFORNIA, CALIFORNIA CODE OF REGULATIONS, PART 1, 2, 3, 4, 5, 8, 9, AND 12, SUB-CHAPTER 1. CALIFORNIA BUILDING CODE, 2010 EDITION, MANUAL OF STEEL CONSTRUCTION, (AISC) 13TH EDITION, AMERICAN WELDING SOCIETY, STRUCTURAL WELDING CODE, AWS D1.1, AMERICAN INSTITUTE OF TIMBER CONSTRUCTION STANDARD, (AITC) 109 ARCHITECTURAL SHEET METAL MANUAL, AIA FILE NO. 12-L (SMACNA) LATEST EDITION UNLESS OTHERWISE NOTED.

WORKMANSHIP:

WORKMANSHIP AND MATERIALS SHALL BE SUCH THAT BUILDING WILL BE WEATHERTIGHT AND WATERTIGHT.

INSPECTIONS:

A PROJECT INSPECTOR EMPLOYED BY THE DISTRICT (OWNER) AND APPROVED BY THE DIVISION OF THE STATE ARCHITECT SHALL PROVIDE CONTINUOUS INSPECTION OF THE WORK THE DUTIES OF THE INSPECTOR ARE DEFINED IN SECTION 4-342, PART 1, TITLE 24, CCR.

CHANGES:

CHANGES TO THE APPROVED DRAWINGS AND SPECIFICATIONS SHALL BE MADE BY AN ADDENDA OR A CHANGE ORDER APPROVED BY THE DIVISION OF THE STATE ARCHITECT AS REQUIRED BY SECTION 4-338, PART 1, TITLE 24, CCR.

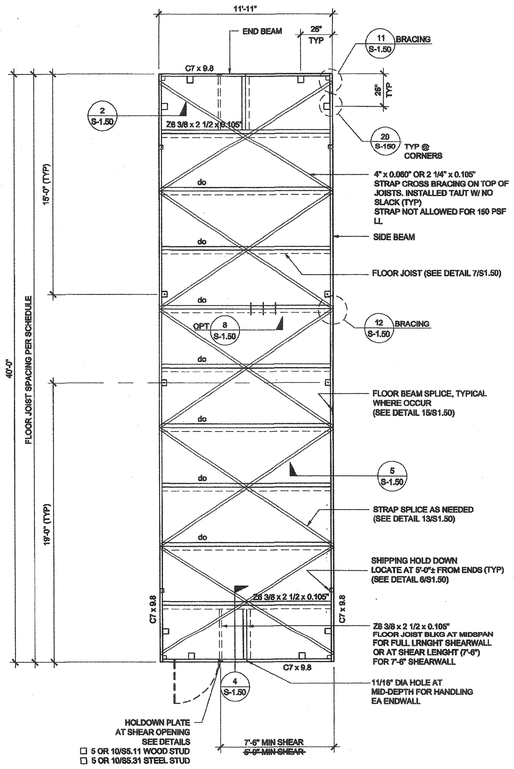
NAILING NOTES:
1. ALL NAILS SHALL BE COMMON UNLESS OTHERWISE NOTED
2. MACHINE APPLIED 16d FASTENERS SHALL HAVE AN EMBEDMENT OF NOT LESS THAN 1 1/2" INTO THE SECOND MEMBER, AND SHALL BE NOT LESS THAN 3" IN OVERALL LENGTH. THE ABOVE NAILS SHALL ALSO BE ACCEPTABLE FOR HAND NAILING, PROVIDED THE REQUIRED EMBEDMENT IS MAINTAINED.

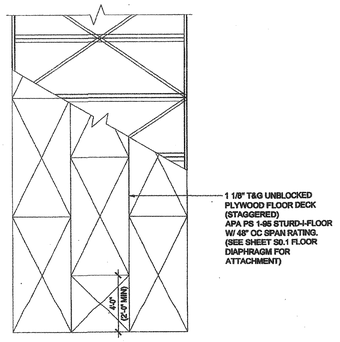
CONNECTION AND FASTENERS:
ALL CONNECTIONS AND FASTENERS AS STATED ON THESE DRAWINGS CAN BE SUBSTITUTED BY AN EQUIVALENT PRODUCT WITH ICC REPORTS AND APPROVAL BY DSA.

CONNECTION OF LAG SCREWS:
AS REQUIRED PER ANSI / AF&PA NDS-2005, LAG SCREWS MUST BE INSTALLED INTO A PRE-DRILLED PILOT HOLE WITH A STANDARD WASHER AND TURNED WITH A WRENCH. DO NOT DRIVE IN WITH A HAMMER. OVER-TORQUING CAN SIGNIFICANTLY REDUCE THE LATERAL RESISTANCE OF THE LAG SCREW AND SHOULD BE AVOIDED.

FASTENING SCHEDULE CBC - TABLE 2304.9.1

CONNECTION	FASTENING [a,m]	LOCATION
1. JOIST TO SILL OR GIRDER	3 - 8d COMMON 3 - 3" x 0.131" NAILS	TOENAIL
2. BRIDGING TO JOIST	2 - 8d COMMON (2 1/2" x .131") 2 - 3" x 0.31" NAILS	TOENAIL EACH END
3. 1" x 6" SUBFLOOR OR LESS TO EACH JOIST	2 - 8d COMMON (2 1/2" x .131")	FACE NAIL
4. WIDER THAN 1" x 6" SUBFLOOR TO EACH JOIST	3 - 8d COMMON (2 1/2" x .131")	FACE NAIL
5. 2" SUBFLOOR TO JOIST OR GIRDER	2 - 16d COMMON	BLIND AND FACE NAIL
6. SOLE PLATE TO JOIST OR BLOCKING SOLE PLATE TO JOIST OR BLKING AT BRACED WALL PANEL	16d(3 1/2" x .135") AT 16" O.C. 3"x0.131" NAILS AT 8" O.C. 3 - 16d(3 1/2" x .135") AT 16" O.C. 4 - 3"x0.131" NAILS AT 16" O.C.	TYPICAL FACE NAIL BRACED WALL PANELS
7. TOP PLATE TO STUD	2 - 16d COMMON (3 1/2" x 0.162") 3 - 3"x0.031" NAILS	END NAIL
8. STUD TO SOLE PLATE	4 - 8d COMMON (2 1/2"x0.131") 4 - 3"x0.131" NAILS 2 - 16d COMMON (3 1/2"x0.162") 3 - 3"x0.131" NAILS	TOENAIL END NAIL
9. DOUBLE STUDS	16d (3 1/2"x0.135") AT 24" O.C. 3"x0.131" NAILS AT 12" O.C.	FACE NAIL
10. DOUBLE TOP PLATES DOUBLE TOP PLATES	16d (3 1/2"x0.135") AT 24" O.C. 3"x0.131" NAILS AT 12" O.C. 8 - 16d COMMON (3 1/2"x0.162") 12 - 3"x0.131" NAILS	TYPICAL FACE NAIL LAP SPLICE
11. BLOCKING BETWEEN JOISTS OR RAFTERS TO TOP PLATE	3 - 8d COMMON (2 1/2"x0.131") 3 - 3"x0.131" NAILS	TOENAIL
12. RIM JOIST TO TOP PLATE	8d (2 1/2"x0.131") AT 6" O.C. 3"x0.131" NAIL AT 6" O.C.	TOENAIL
13. TOP PLATES, LAPS, AND INTERSECTIONS	2 - 16d COMMON (3 1/2"x0.162") 3 - 3"x0.131" NAILS	FACE NAIL
14. CONTINUOUS HEADER, TWO PIECES	16d COMMON (3 1/2"x0.162")	16" OC ALONG EDGE
15. CEILING JOISTS TO PLATE	3 - 8d COMMON (2 1/2"x0.131") 3 - 3"x0.131" NAILS	TOENAIL
16. CONTINUOUS HEADER TO STUD	4 - 8d COMMON (2 1/2"x0.131")	TOENAIL
17. CEILING JOISTS, LAPS OVER PARTITIONS (SEE SECTION 2308.10.4.1, TABLE 2308.10.4.1)	3 - 16d COMMON (3 1/2"x0.162") MIN TABLE 2308.10.4.1 4 - 3"x0.131" NAILS	FACE NAIL
18. CEILING JOISTS TO PARALLEL RAFTERS (SEE SECTION 2308.10.4.1, TABLE 2308.10.4.1)	3 - 16d COMMON (3 1/2"x0.162") MIN TABLE 2308.10.4.1 4 - 3"x0.131" NAILS	FACE NAIL
19. RAFTER TO PLATE (SEE SECTION 2308.10.1, TABLE 2308.10.1	3 - 8d COMMON (2 1/2"x0.131") 3 - 3"x0.131" NAILS	FACE NAIL
20. 1" DIAGONAL BRACE TO EACH STUD AND PLATE	2 - 8d COMMON (2 1/2"x0.131") 2 - 3"x0.131" NAILS	FACE NAIL
21. 1" x 8" SHEATHING TO EACH BEARING	3 - 8d COMMON (2 1/2"x0.131")	FACE NAIL
22. WIDER THAN 1" x 8" SHEATHING TO EACH BEARING	3 - 8d COMMON (2 1/2"x0.131")	FACE NAIL
23. BUILT-UP CORNER STUDS	16d COMMON (3 1/2"x0.162") 3"x0.131" NAILS	24" O.C. 16" O.C.
24. BUILT-UP GIRDER AND BEAMS 2 - 20d COMMON (6" x0.192") 3 - 3"x0.131" NAILS	20d COMMON (4"x0.192")32" O.C. 3"x0.131" NAIL AT 24" O.C	FACE NAIL AT TOP AND BOTTOM STAGGERED ON OPPOSITE SIDES FACE NAIL AT ENDS AND AT EACH SPLICE
25. 2" PLANKS	16d COMMON (3 1/2"x0.162")	AT EACH BEARING
26. COLLAR TIE TO RAFTER	3 - 10d COMMON (3"x0.148") 4 - 3"x0.131" NAILS	FACE NAIL
27. JACK RAFTER TO HIP 2 - 16d COMMON (3 1/2"x0.162") 3 - 3"x0.131" NAILS	3 - 16d COMMON (3"x0.148") 4 - 3"x0.131" NAILS	TOE NAIL FACE NAIL
28. ROOF RAFTERS TO 2-BY RIDGE BEAM 2 - 16d COMMON (3 1/2"x0.162") 3 - 3"x0.131" NAILS	2 - 16d COMMON (3 1/2"x0.162") 3 - 3"x0.131" NAILS	TOE NAIL FACE NAIL
29. JOIST TO BAND JOIST	3 - 16d COMMON (3 1/2"x0.162") 4 - 3"x0.131" NAILS	FACE NAIL
30. LEDGER STRIP	3 - 16d COMMON (3 1/2"x0.162") 4 - 3"x0.131" NAILS	FACE NAIL AT EACH JOIST
31. WOOD STRUCTURAL PANELS AND PARTICLEBOARD [b] SUBFLOOR, ROOF AND WALL SHEATHING (TO FRAMING) SINGLE FLOOR (COMBINATION SUBFLOOR-UNDERLAYMENT TO FRAMING)	1/2" AND LESS 19/32" TO 3/4" 7/8" TO 1" 1 1/8" TO 1 1/4" 3/4" AND LESS 7/8" TO 1" 1 1/8" TO 1





INCLUDES PLATES
FOR FUTURE CONCRETE
FOUNDATION ATTACHMENT
SEE 20/S150
(SIM@MID SPAN LOCATIONS)

FLOOR FRAMING PLAN

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

FLOOR JOIST TABLE

	LIVE LOAD PSF	JOIST SPACING
☐	50	48"
☐	50 + 15	32"
☐	100	24"
☐	150	16"

THESE DRAWINGS AND ALL MATERIAL CONTAINED HEREIN ARE THE PROPERTY OF SILVERCREEK INDUSTRIES, INC (SCI Inc) AND SHALL NOT BE REPRODUCED, COPIED OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY AND SHALL NOT BE USED IN WHOLE OR IN PART TO ASSIST IN THE MAKING OF OR FOR THE PURPOSE OF FURNISHING ANY INFORMATION FOR THE MAKING OF DRAWINGS, PRINTS, APPARATUS OR PARTS THEREOF WITHOUT THE FULL KNOWLEDGE AND WRITTEN CONSENT OF SCI Inc.
ALL PATENTABLE MATERIAL CONTAINED HEREIN AND ORIGINATING WITH SCI Inc SHALL BE THE PROPERTY OF SCI Inc

SILVER CREEK INDUSTRIES, INC.
"BUILDING FOR THE NEXT GENERATION"
SILVER CREEK
195 EAST MORGAN PERRIS, CALIFORNIA 92571
PHONE: 951-943-5393 FAX: 951-943-2211

PROJECT NAME:

CLASS LEASING

SHEET TITLE:

FLOOR FRAMING PLAN
WOOD FLOOR

TAVARES ENGINEERING
No. C-28554
REN: 06-30-2013
STATE OF CALIFORNIA
12/23/2011

ARCHITECT OF RECORD SUBMISSION DATE
REGISTERED ARCHITECT
ROBERT A. MADDEN
No. C10322
6-25-12
STATE OF CALIFORNIA

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
04 11291
AC. RJS SS
DATE NOV 20 2012

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC. RJS SS
DATE APR 26 2011

FILE NUMBER: 19-29

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
04 11291
AC. RJS SS
DATE NOV 28 2012

ORIGINAL PC STATE AGENCY APPROVAL

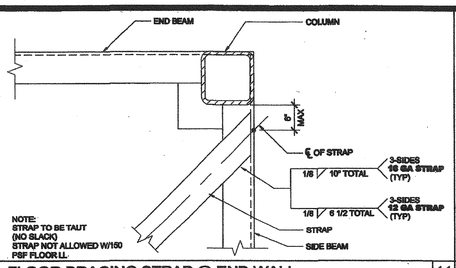
PRE-CHECK (PC) DOCUMENT
CODE EDITIONS
AGENCIES/PROJECT APPLICABLE
CONSTRUCTION CLASSIFICATION

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04 11291
AC. RJS SS
DATE DEC 28 2012

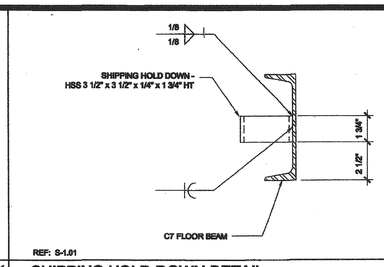
REVISIONS

1	ADDED NOTE
2	
3	
4	
5	
6	
7	
8	

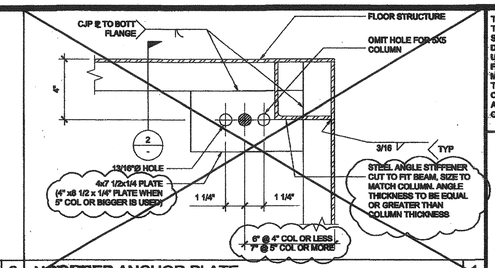
SILVER CREEK INDUSTRIES	12' x 40' PC
PROJECT NO:	
DRAWN BY:	
SCALE:	AS NOTED
DATE:	6-17-11
P.C. SHEET NUMBER	S-1.01
	STKP 125



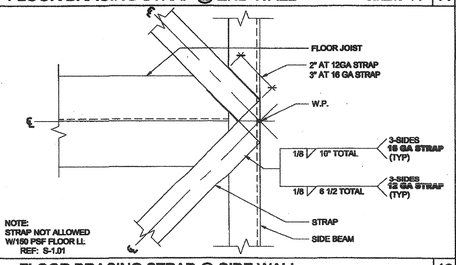
16 FLOOR BRACING STRAP @ END WALL SCALE : 3"=1'-0"



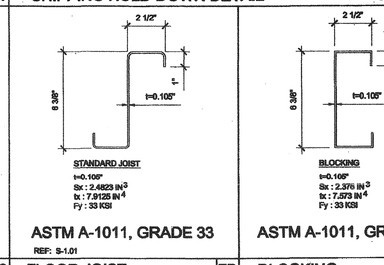
11 SHIPPING HOLD DOWN DETAIL SCALE : 3"=1'-0"



NOT USED SCALE : 3"=1'-0" 1



17 FLOOR BRACING STRAP @ SIDE WALL SCALE : 3"=1'-0"

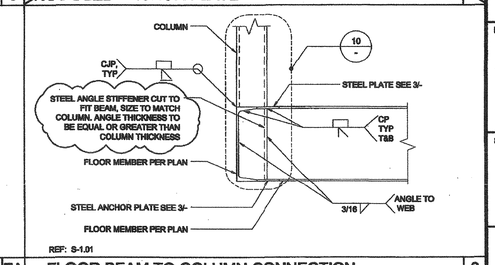


12 FLOOR JOIST SCALE : 3" = 1'-0"

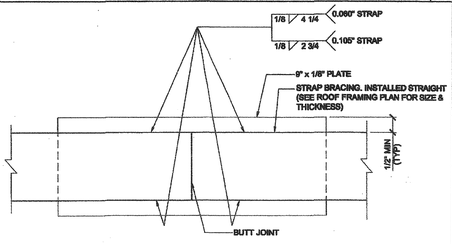
7B BLOCKING SCALE : 3" = 1'-0"

ASTM A-1011, GRADE 33

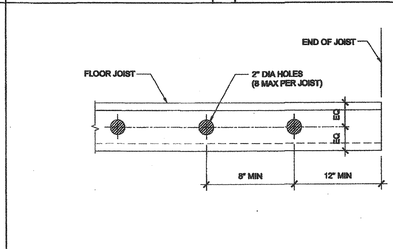
ASTM A-1011, GRADE 33



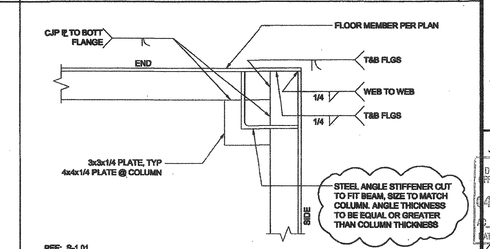
7A FLOOR BEAM TO COLUMN CONNECTION SCALE : 1 1/2" = 1'-0" 2



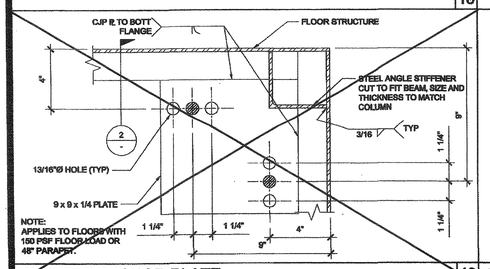
18 STRAP SPLICE DETAIL SCALE : 6" = 1'-0"



13 FLOOR JOIST HOLES (OPTIONAL) SCALE : 1/8" = 1'-0"

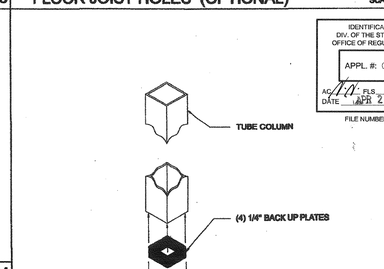


8 ANCHOR PLATE SCALE : 3" = 1'-0" 3

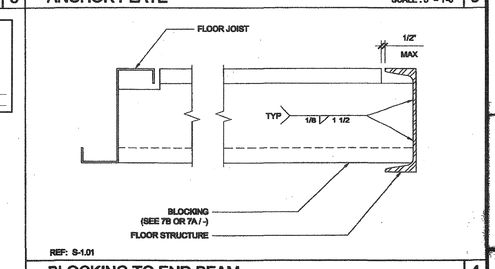


19 CORNER ANCHOR PLATE SCALE : 3" = 1'-0"

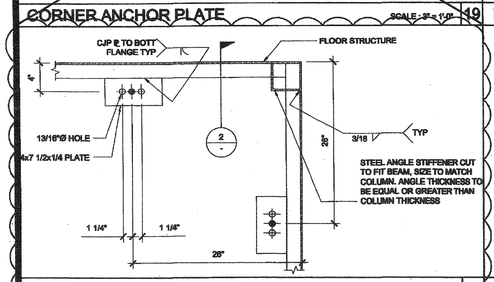
14 NOT USED



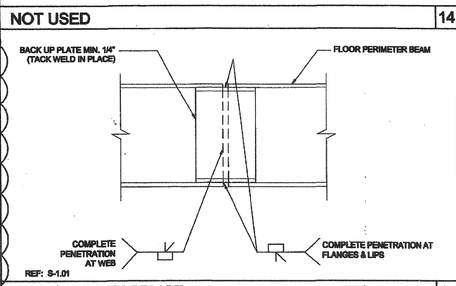
10 COLUMN CONNECTION AT FLOOR SCALE : NTS



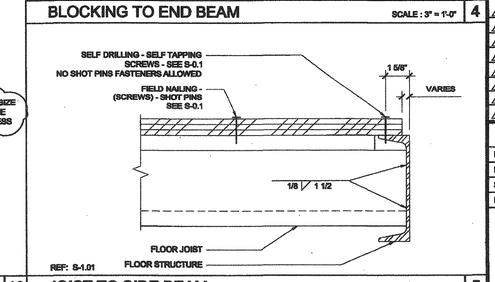
4 BLOCKING TO END BEAM SCALE : 3" = 1'-0"



20 CORNER ANCHOR PLATE SCALE : 3" = 1'-0"



15 FLOOR BEAM SPLICE SCALE : 3" = 1'-0"



5 JOIST TO SIDE BEAM SCALE : 3" = 1'-0"

THESE DRAWINGS AND ALL MATERIAL CONTAINED HEREIN ARE THE PROPERTY OF SILVERCREEK INDUSTRIES, INC (SCI Inc) AND SHALL NOT BE REPRODUCED, COPIED OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY AND SHALL NOT BE USED IN WHOLE OR IN PART TO ASSIST IN THE MAKING OF OR FOR THE PURPOSE OF FURNISHING ANY INFORMATION FOR THE MAKING OF DRAWINGS, PRINTS, APPARATUS OR PARTS THEREOF WITHOUT THE FULL KNOWLEDGE AND WRITTEN CONSENT OF SCI Inc.
ALL PATENTABLE MATERIAL CONTAINED HEREIN AND ORIGINATING WITH SCI Inc SHALL BE THE PROPERTY OF SCI Inc

SILVER CREEK INDUSTRIES, INC.
"BUILDING FOR THE NEXT GENERATION"
SILVER CREEK
195 EAST MORGAN PERRIS, CALIFORNIA 92571
PHONE: 951-943-5393 FAX: 951-943-2211

PROJECT NAME:

CLASS LEASING

SHEET TITLE:

FLOOR FRAMING DETAILS
WOOD FLOOR

TAVARES ASSOCIATES

SEP 18 2012

ARCHITECT OF RECORD SUBMISSION DATE

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES
04 112891
AC
DATE 8-28-12

REGISTERED ARCHITECT ROBERT A. MCFARLAND C10322 6-28-16 STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES
04 112891
AC
DATE AUG 28 2012

ORIGINAL PCI STATE AGENCY APPROVAL

PRECONSTRUCTION DOCUMENT NOT FOR CONSTRUCTION OR INTERIM PURPOSES

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES
PC 04-112137
AC
DATE 8-6-2012

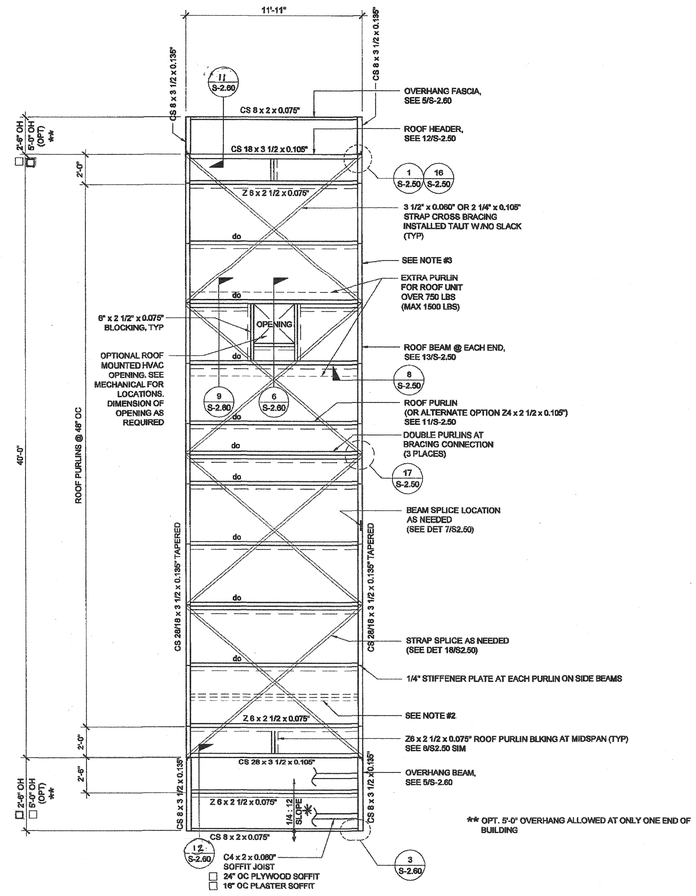
REVISED

REVISIONS

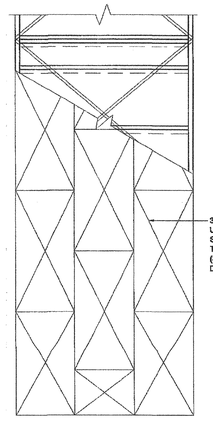
1	
2	
3	
4	
5	
6	
7	
8	

SILVER CREEK INDUSTRIES
12' x 40' PC

PROJECT NO:	
DRAWN BY:	ZARAGOZA
SCALE:	AS NOTED
DATE:	12-12-12
P.C. SHEET NUMBER	S-1.50
	STKP 125



** OPT. 5'-0" OVERHANG ALLOWED AT ONLY ONE END OF BUILDING



* VERIFY ROOF SLOPE/DIRECTION PER ROOF PLAN & APPLICABLE ELEVATION PER PROJECT SPECIFIC

NOTES

1. FOR WALL MOUNTED HVAC UNIT, PROVIDE OPENING THROUGH REAR ROOF HEADER WHERE IT OCCURS. SEE FLOOR PLAN FOR HVAC LOCATION. SEE 5.15 / S-2.50 OR 5.15 / /S-2.51 FOR DETAILS.
2. OPTIONAL PURLIN FOR FIRE SPRINKLER LINE AS NEEDED. LOCATION OF FIRE SPRINKLER PURLIN TO BE DETERMINED BY SITE STIFFENER PLATE OR ANGLE BRACE REQUIRED AT THIS LOCATION. FOR FIRE SPRINKLER LINE SIDE BEAM PENETRATION, SEE 14 / S2.50 OR 14 / S2.51 DETAILS
3. FOR OPTIONAL SIDE BEAM OPENING SEE 10, 15/S-2.50 OR 10, 15/S-2.51 FOR DETAILS.

ROOF FRAME SCHEDULE AT MODLINES

☒ STANDARD TRUSS
"A" SEE DETAIL 7 / S-2.90
"B" SEE DETAIL 8 / S-2.90

☐ ALTERNATE OPTION - TAPERED ROOF BEAM
"A" SEE DETAIL 9 / S-2.50
"B" SEE DETAIL 8 / S-2.50

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC FLS SS
DATE APR 25 2011

FILE NUMBER: 19-29

THESE DRAWINGS AND ALL MATERIAL CONTAINED HEREIN ARE THE PROPERTY OF SILVERCREEK INDUSTRIES, INC (SCI Inc) AND SHALL NOT BE REPRODUCED, COPIED OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY AND SHALL NOT BE USED IN WHOLE OR IN PART TO ASSIST IN THE MAKING OF OR FOR THE PURPOSE OF FURNISHING ANY INFORMATION FOR THE MAKING OF DRAWINGS, PRINTS, APPARATUS OR PARTS THEREOF WITHOUT THE FULL KNOWLEDGE AND WRITTEN CONSENT OF SCI Inc.
ALL PATENTABLE MATERIAL CONTAINED HEREIN AND ORIGINATING WITH SCI Inc SHALL BE THE PROPERTY OF SCI Inc

SILVER CREEK INDUSTRIES, INC.
"BUILDING FOR THE NEXT GENERATION"
SILVER CREEK
195 EAST MORGAN PERRIS, CALIFORNIA 92571
PHONE: 951-943-3393 FAX: 951-943-2211

PROJECT NAME:

CLASS LEASING

SHEET TITLE:

ROOF FRAMING PLAN
0.018", B.U.R., OR TPO
MONO SLOPE

TAVARES ASSOCIATES
STRUCTURAL ENGINEERING
Exp. 12-31-2013
12/23/2011

ARCHITECT OF RECORD
SUPERVISING ARCHITECT / PROJECT ARCHITECT
C10322
12-23-15
STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION
DIV OF THE ARCHITECT
OFFICE
CT
DSA
04 113891
AC
SS 97
DATE NOV 26 2014

ORIGINAL PC STATE AGENCY APPROVAL
PRE-CHECKED PC DOCUMENT
DSA 2012 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC OL 112137
AC FLS SS
DATE DEC 29 2011

REVISIONS

1	
2	STOCK PILE REVISIONS ~ ADDED ROOF SLOPE NOTE
3	
4	
5	
6	
7	
8	

SILVER CREEK INDUSTRIES
12' x 40' PC

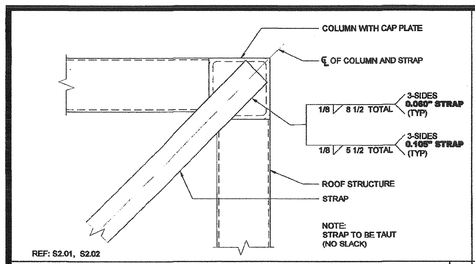
PROJECT NO:	
DRAWN BY:	
SCALE:	AS NOTED
DATE:	6-17-11 11-19-14

P.C. SHEET NUMBER
S-2.01

STKP 125

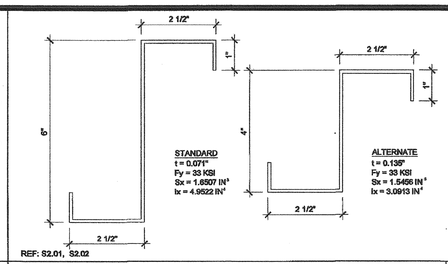
ROOF FRAMING PLAN

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



REF: S2.01, S2.02

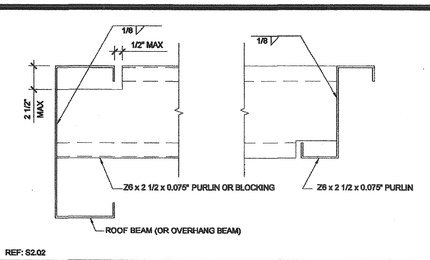
SCALE : 3"=1'-0" | 16



REF: S2.01, S2.02

ROOF PURLIN

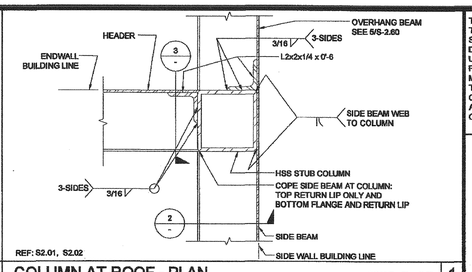
SCALE : 6"=1'-0" | 11



REF: S2.02

PURLIN CONNECTION DETAIL

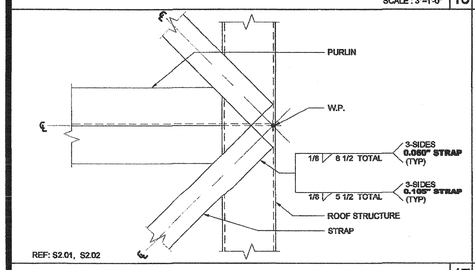
SCALE : 3" = 1'-0" | 6



REF: S2.01, S2.02

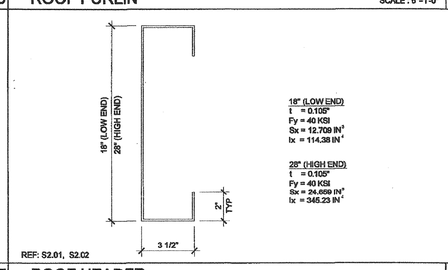
COLUMN AT ROOF - PLAN

SCALE : 3" = 1'-0" | 1



REF: S2.01, S2.02

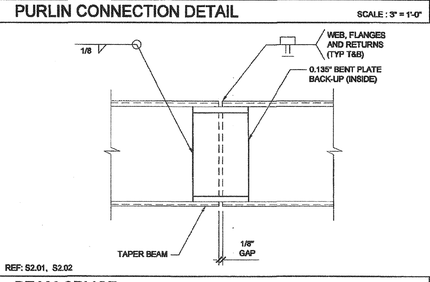
SCALE : 3"=1'-0" | 17



REF: S2.01, S2.02

ROOF HEADER

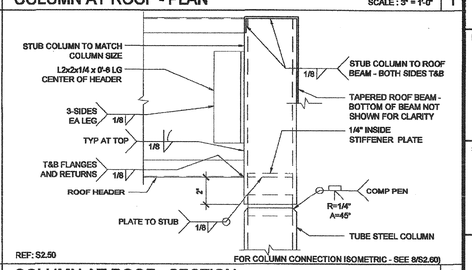
SCALE : NTS | 12



REF: S2.01, S2.02

BEAM SPLICE

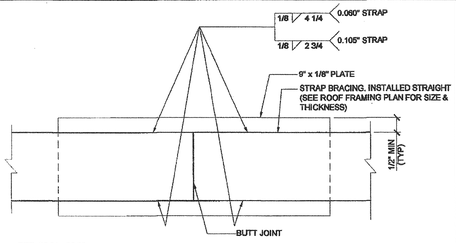
SCALE: 3" = 1'-0" | 7



REF: S2.50

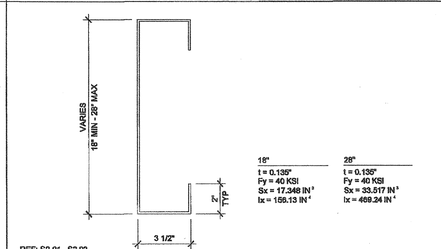
COLUMN AT ROOF - SECTION

SCALE : 3" = 1'-0" | 2



REF: S2.01, S2.02

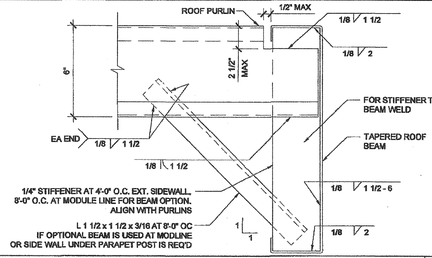
SCALE : 3"=1'-0" | 18



REF: S2.01, S2.02

SIDE BEAM

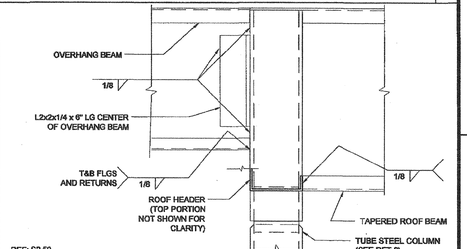
SCALE : NTS | 13



REF: S2.01, S2.02

PURLIN TO ROOF BEAM @ STIFFENER

SCALE : 3"=1'-0" | 8

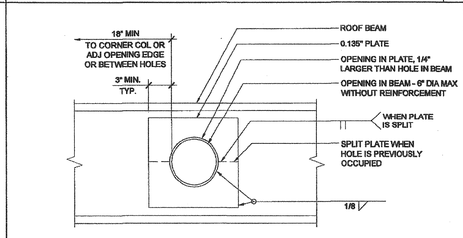


REF: S2.50

COLUMN AT ROOF OVERHANG

SCALE : 3" = 1'-0" | 3

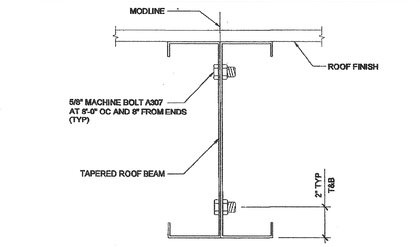
	19



REF: S2.01, S2.02

SIDEWALL BEAM PENETRATION

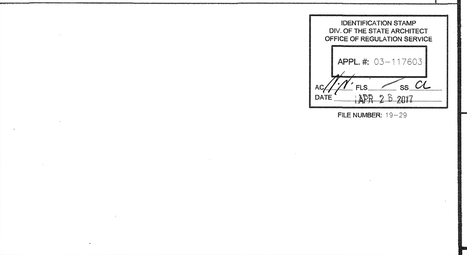
SCALE : 1 1/2"=1'-0" | 14



MODULE CONNECTION AT ROOF (OPTION)

SCALE : 3"=1'-0" | 9

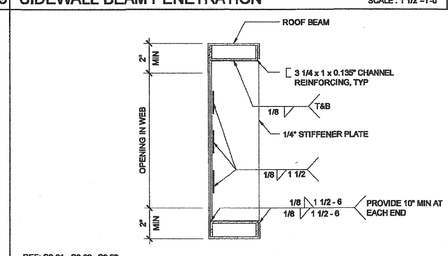
	4



FILE NUMBER: 19-29

NOT USED

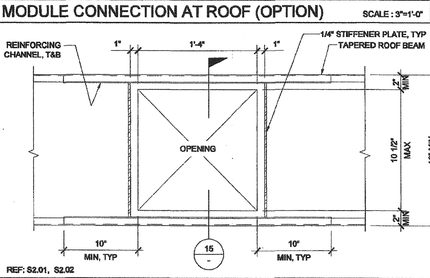
	20



REF: S2.01, S2.02, S2.50

WEB OPENING AT ROOF BEAM (OPTION)

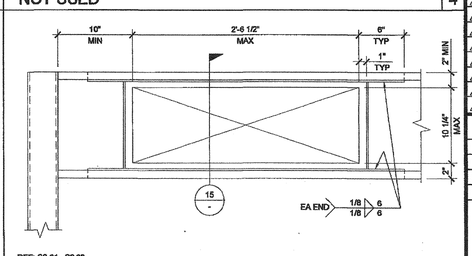
SCALE : 3" = 1'-0" | 15



REF: S2.01, S2.02

OPENING AT ROOF BEAM (OPTION)

SCALE : 1 1/2" = 1'-0" | 10



REF: S2.01, S2.02

OPENING AT HEADER

SCALE : 1 1/2"=1'-0" | 5

THESE DRAWINGS AND ALL MATERIAL CONTAINED HEREIN ARE THE PROPERTY OF SILVERCREEK INDUSTRIES, INC (SCI Inc) AND SHALL NOT BE REPRODUCED, COPIED OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY AND SHALL NOT BE USED IN WHOLE OR IN PART TO ASSIST IN THE MAKING OF OR FOR THE PURPOSE OF FURNISHING ANY INFORMATION FOR THE MAKING OF DRAWINGS, PRINTS, APPARATUS OR PARTS THEREOF WITHOUT THE FULL KNOWLEDGE AND WRITTEN CONSENT OF SCI Inc.
ALL PATENTABLE MATERIAL CONTAINED HEREIN AND ORIGINATING WITH SCI Inc SHALL BE THE PROPERTY OF SCI Inc

SILVER CREEK INDUSTRIES, INC.
"BUILDING FOR THE NEXT GENERATION"
SILVER CREEK
195 EAST MORGAN PERRIS, CALIFORNIA 92571
PHONE: 951-943-5393 FAX: 951-943-2211

PROJECT NAME:

CLASS LEASING

SHEET TITLE:

ROOF FRAMING DETAILS MONO SLOPE

TAVARES ASSOCIATES
STRUCTURAL ENGINEERS
Mission Viejo, CA 92691 Phone: (949) 859-8202
Richmond, VA 23227 Phone: (804) 266-8182
www.tavaresassociates.com
REGISTERED PROFESSIONAL ENGINEER
No. C-31354
REN: 12-31-2013
STATE OF CALIFORNIA

12/23/2011

ARCHITECT OF RECORD SUBMISSION DATE

REGISTERED ARCHITECT
ROBERT A. MILLER
C10322
STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
04 113891
AC FLS SS
DATE NOV 2 0 2014

ORIGINAL PC STATE AGENCY APPROVAL
PRE-CHECK (PC) DOCUMENT
NOT FOR CONSTRUCTION
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-112137
AC FLS SS
DATE DEC 9 2011

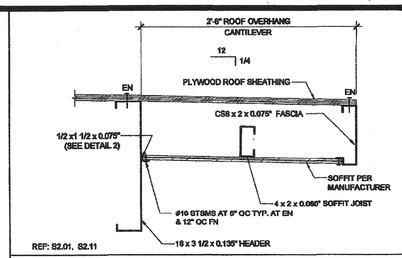
REVISIONS

1	
2	
3	
4	
5	
6	
7	
8	

SILVER CREEK INDUSTRIES
12' x 40' PC

PROJECT NO:	
DRAWN BY:	
SCALE:	AS NOTED
DATE:	6-17-11 11-19-14
P.C. SHEET NUMBER	STKP 125

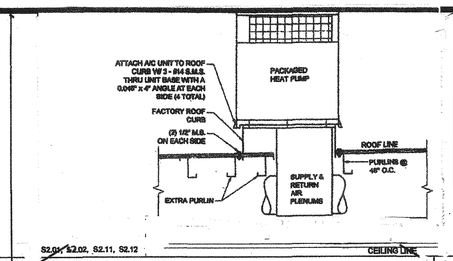
S-2.50



REF: S2.01, S2.11

REAR OVERHANG SECTION

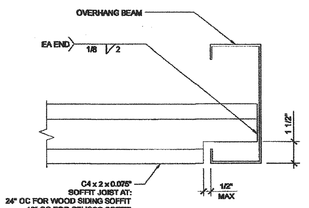
SCALE : 1 1/2" = 1'-0" | 11



S2.01, S2.02, S2.11, S2.12

HVAC CURB ATTACHMENT

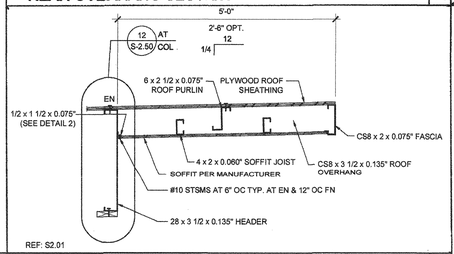
SCALE : 3/4" = 1'-0" | 6



REF: S3.01

SOFFIT JOIST TO OVERHANG BEAM

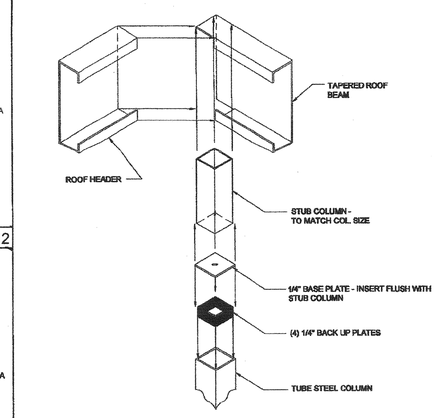
SCALE : 3"=1'-0" | 1



REF: S2.01

FRONT OVERHANG SECTION - MONO SLOPE

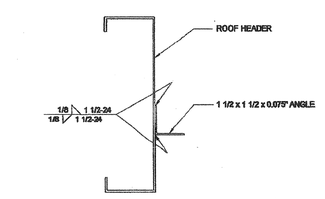
SCALE: 3/4" = 1'-0" | 12



REF: S2.50, S2.51

COLUMN CONNECTION AT ROOF

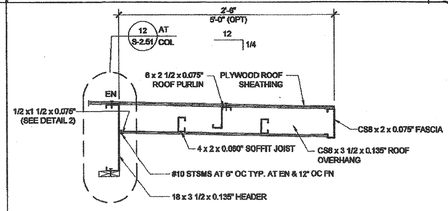
SCALE : NTS | 8



REF: S3.01

SOFFIT ANGLE TO HEADER CONNECTION

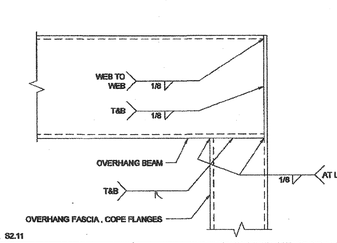
SCALE : 3"=1'-0" | 2



REF: S2.11

FRONT OVERHANG SECTION - DUAL SLOPE

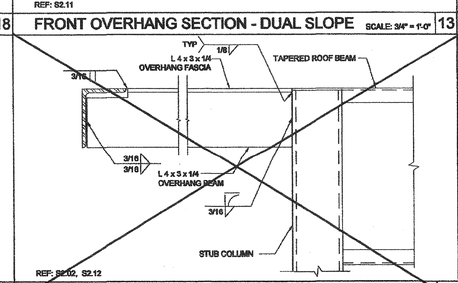
SCALE: 3/4" = 1'-0" | 13



REF: S2.01, S2.11

OVERHANG FASCIA TO BEAM CONNECTION

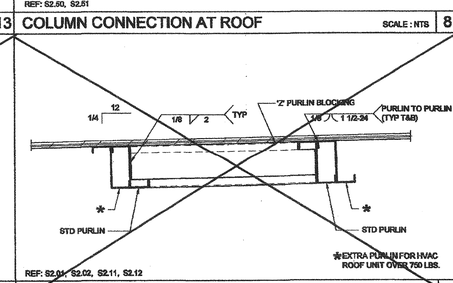
SCALE : 6"=1'-0" | 3



REF: S2.02, S2.12

5'-0" ROOF OVERHANG AT 0.030" ROOF

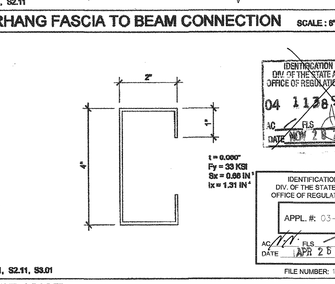
SCALE : 3"=1'-0" | 14



REF: S2.01, S2.02, S2.11, S2.12

DOUBLE PURLINS AT HVAC

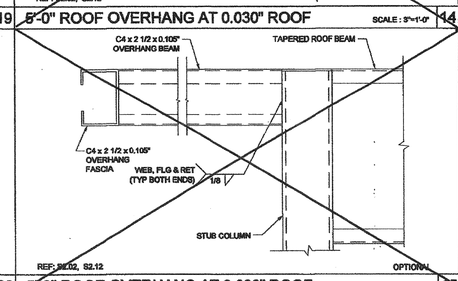
SCALE: 1 1/2" = 1'-0" | 9



REF: S2.01, S2.11, S3.01

SOFFIT JOIST

SCALE : 6"=1'-0" | 4

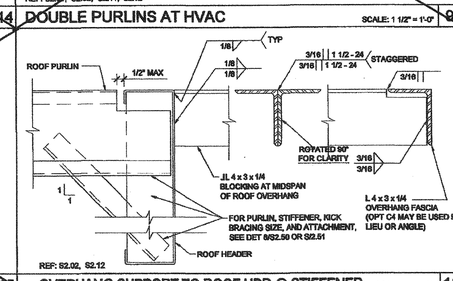


REF: S2.02, S2.12

OPTIONAL

5'-0" ROOF OVERHANG AT 0.030" ROOF

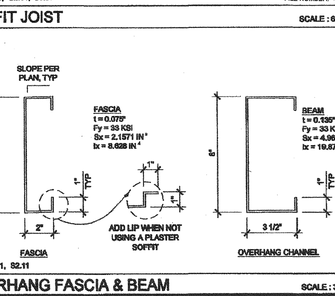
SCALE : 3" = 1'-0" | 15



REF: S2.02, S2.12

OVERHANG SUPPORT TO ROOF HDR @ STIFFENER

SCALE : 3"=1'-0" | 10



REF: S2.01, S2.11

OVERHANG FASCIA & BEAM

SCALE : 3"=1'-0" | 5

THESE DRAWINGS AND ALL MATERIAL CONTAINED HEREIN ARE THE PROPERTY OF SILVERCREEK INDUSTRIES, INC (SCI Inc) AND SHALL NOT BE REPRODUCED, COPIED OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY AND SHALL NOT BE USED IN WHOLE OR IN PART TO ASSIST IN THE MAKING OF OR FOR THE PURPOSE OF FURNISHING ANY INFORMATION FOR THE MAKING OF DRAWINGS, PRINTS, APPARATUS OR PARTS THEREOF WITHOUT THE FULL KNOWLEDGE AND WRITTEN CONSENT OF SCI Inc.
ALL PATENTABLE MATERIAL CONTAINED HEREIN AND ORIGINATING WITH SCI Inc SHALL BE THE PROPERTY OF SCI Inc

SILVER CREEK INDUSTRIES, INC.

"BUILDING FOR THE NEXT GENERATION"

SILVER CREEK

195 EAST MORGAN PERRIS, CALIFORNIA 92571
PHONE: 951-943-3393 FAX: 951-943-2211

PROJECT NAME:

CLASS LEASING

SHEET TITLE:

ROOF FRAMING DETAILS

TAVARES & ASSOCIATES
STRUCTURAL ENGINEERS

12/23/2011

ARCHITECT OF RECORD SUBMISSION

REGISTERED ARCHITECT ROBERT A. MCNITT C10322 STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES
04 113851
AC FLS SS
DATE AUG 28 2014

ORIGINAL PC STATE AGENCY APPROVAL

PRE-CHECK (PC) DOCUMENT CODE: 2013 CBC
A BRANCH PERMIT APPLICATION FOR CONSTRUCTION IS REQUIRED

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES
PC 04-112137
AC FLS SS
DATE DEC 30 2016

FILE NUMBER: 19-29

REVISIONS

1	
2	
3	
4	
5	
6	
7	
8	

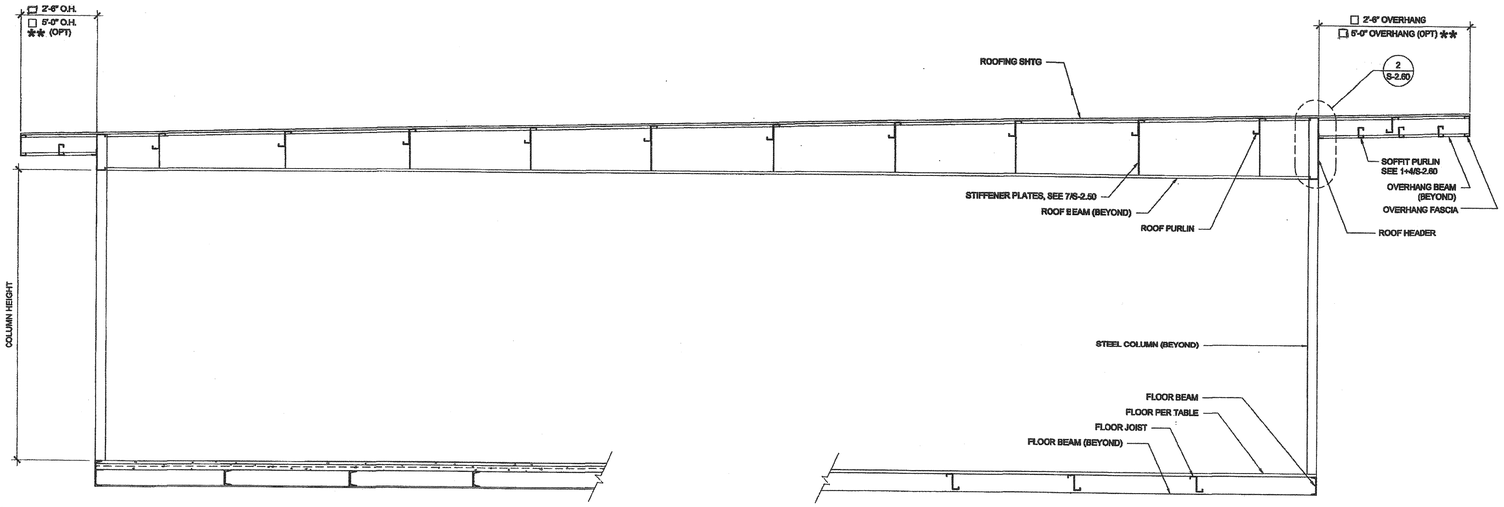
SILVER CREEK INDUSTRIES
12' x 40' PC

PROJECT NO:	
DRAWN BY:	
SCALE:	AS NOTED
DATE:	6-17-11 |1-19-14

P.C. SHEET NUMBER

S-2.60

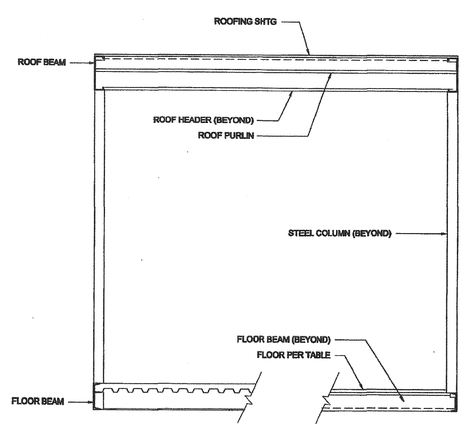
STKP 125



** OPT. 5'-0" OVERHANG ALLOWED AT ONLY ONE END OF BUILDING

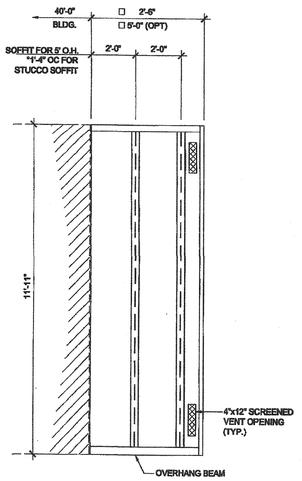
BUILDING SECTION

SCALE: 1/2" = 1'-0" | 1



BUILDING SECTION

SCALE: 1/2" = 1'-0" | 3



ENCL. SOFFIT PLAN-OPT.

SCALE: 3/8" = 1'-0" | 2

NOTES

1. ALL INFORMATION SUCH AS DETAILS, SECTIONS, CONNECTIONS, AND MATERIAL ATTACHMENT SHALL BE REFERENCED FROM OTHER SHEETS WITHIN THIS SET WHERE IT APPLIES.
2. * HSS 3 1/2" x 3 1/2"x5/16" COLUMN AT CAN BE SUBSTITUTED IN LIEU OF HSS 4" x 4" x 1/4" AT STANDARD WALL WITH METAL ROOF OPTION IF NEEDED

FLOOR CONSTRUCTION

- ☒ WOOD FLOOR
- ☐ CONCRETE FLOOR

HSS COLUMN SCHEDULE

COL HT	STANDARD WALL W/ METAL ROOF	STANDARD WALL W/ BUILT UP	PLASTER WALL W/ METAL ROOF OR B.U.
☒ 9'-0"	☐ 4 x 4 x 1/4 * 1	☐ 4 x 4 x 5/16	☒ 4 x 4 x 5/16
☐ 9'-6"	☐ 4 x 4 x 1/4	☐ 4 x 4 x 3/8	☐ 4 x 4 x 3/8
☐ 10'-0"	☐ 4 x 4 x 1/4	☐ 4 x 4 x 3/8	☐ 4 x 4 x 3/8
☐ 10'-6"	☐ 4 x 4 x 3/8	☐ 4 x 4 x 1/2	☐ 4 x 4 x 1/2

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC FLS SS
DATE APR 26 2017

FILE NUMBER: 19-29

THESE DRAWINGS AND ALL MATERIAL CONTAINED HEREIN ARE THE PROPERTY OF SILVERCREEK INDUSTRIES, INC (SCI Inc) AND SHALL NOT BE REPRODUCED, COPIED OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY AND SHALL NOT BE USED IN WHOLE OR IN PART TO ASSIST IN THE MAKING OF OR FOR THE PURPOSE OF FURNISHING ANY INFORMATION FOR THE MAKING OF DRAWINGS, PRINTS, APPARATUS OR PARTS THEREOF WITHOUT THE FULL KNOWLEDGE AND WRITTEN CONSENT OF SCI Inc.
ALL PATENTABLE MATERIAL CONTAINED HEREIN AND ORIGINATING WITH SCI Inc SHALL BE THE PROPERTY OF SCI Inc

SILVER CREEK INDUSTRIES, INC.
"BUILDING FOR THE NEXT GENERATION"
SILVER CREEK
195 EAST MORGAN PERRIS, CALIFORNIA 92571
PHONE: 951-943-3393 FAX: 951-943-2211

PROJECT NAME:

CLASS LEASING

SHEET TITLE:

BUILDING SECTIONS MONO SLOPE

TAVARES ASSOCIATES

SEP 19 2012

ARCHITECT OF RECORD SUBMISSION DATE

REGISTERED ARCHITECT ROBERT A. MCMILLAN C10322 6-30-16 STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL

DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES
04 113891
AC FLS SS
DATE JUN 26 2013

ORIGINAL PC STATE AGENCY APPROVAL

PRE-CHECK (PC) DOCUMENT FOR SUBMITTAL A SEPARATE PERMIT APPLICATION FOR CONSTRUCTION IS REQUIRED

DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES
PC 04-112137
AC FLS SS
DATE JAN 07 2013

REVISED

REVISIONS

1. PC REVISION 07/24/2012
2.
3.
4.
5.
6.
7.
8.

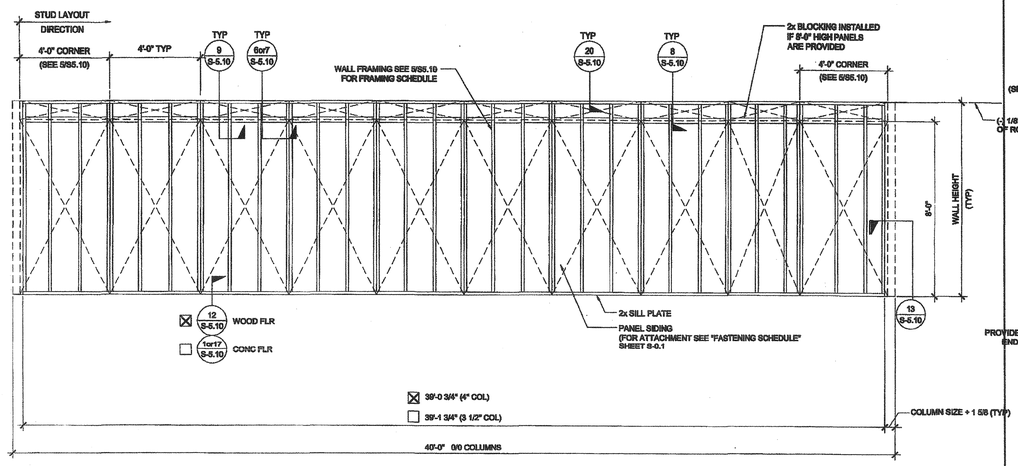
SILVER CREEK INDUSTRIES
12'x 40' PC

PROJECT NO:	
DRAWN BY:	
SCALE:	AS NOTED
DATE:	6-17-11 11-19-14

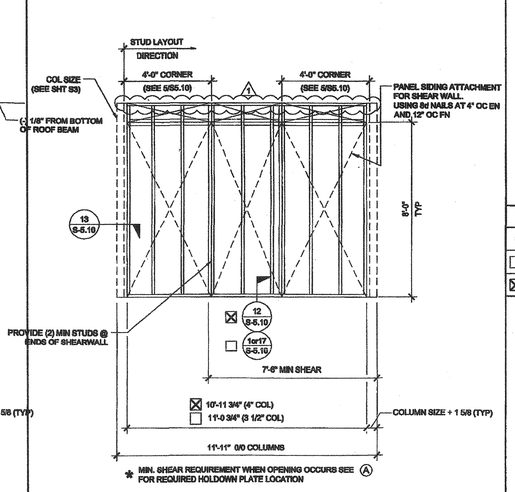
P.C. SHEET NUMBER

S-3.01

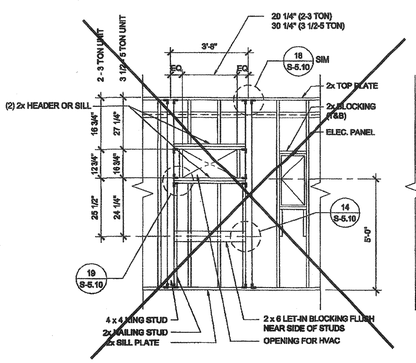
STKP 125



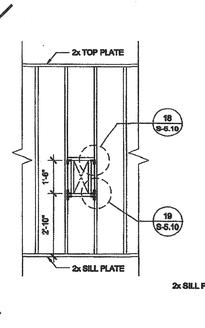
TYPICAL SIDE WALL



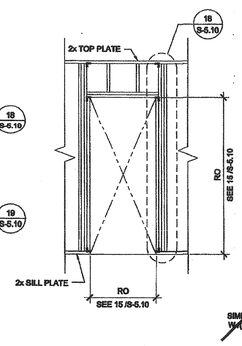
TYPICAL END WALL



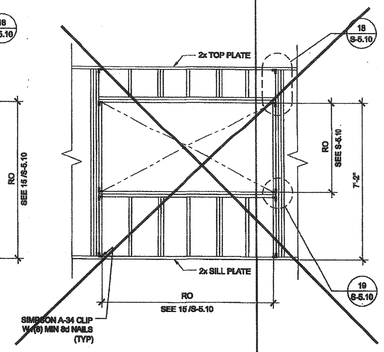
~~TYPICAL HVAC~~



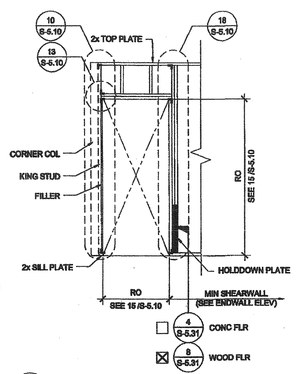
FIRE EXTINGUISHER CABINET BLOCKOUT



TYPICAL DOOR AT SIDEWALL



~~TYPICAL WINDOW~~



(A) TYPICAL DOOR OPENING AT END SHEARWALL

FRAMING ELEVATIONS

SCALE: 3/8" = 1'-0" | 1

NOTES

WALL HEIGHT SCHEDULE

COLUMN HEIGHT	☒ 9'-0"	☐ 9'-5"	☐ 10'-0"	☐ 10'-5"
☐ CONCRETE FLOOR	8'-11 7/8"	9'-5 7/8"	9'-11 7/8"	10'-5 7/8"
☒ WOOD FLOOR	8'-10 3/4"	9'-4 3/4"	9'-10 3/4"	10'-4 3/4"

THESE DRAWINGS AND ALL MATERIAL CONTAINED HEREIN ARE THE PROPERTY OF SILVERCREEK INDUSTRIES, INC (SCI Inc) AND SHALL NOT BE REPRODUCED, COPIED OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY AND SHALL NOT BE USED IN WHOLE OR IN PART TO ASSIST IN THE MAKING OF OR FOR THE PURPOSE OF FURNISHING ANY INFORMATION FOR THE MAKING OF DRAWINGS, PRINTS, APPARATUS OR PARTS THEREOF WITHOUT THE FULL KNOWLEDGE AND WRITTEN CONSENT OF SCI Inc.
ALL PATENTABLE MATERIAL CONTAINED HEREIN AND ORIGINATING WITH SCI Inc SHALL BE THE PROPERTY OF SCI Inc

SILVER CREEK INDUSTRIES, INC.
"BUILDING FOR THE NEXT GENERATION"
SILVER CREEK
195 EAST MORGAN PERRIS, CALIFORNIA 92571
PHONE: 951-943-3393 FAX: 951-943-2211

PROJECT NAME:

CLASS LEASING

SHEET TITLE:

FRAMING ELEVATIONS WOOD STUDS

TAVARES ASSOCIATES
STRUCTURAL ENGINEERING FIRM
Rancho Santa Margarita, CA 92688
Tel: (949) 888-1818 Fax: (949) 888-1814
Temecula, CA 92591 Tel: (951) 296-1818
Monterey, CA 93940 Tel: (831) 920-1818
www.tavaresinc.com
JEFFREY B. TAVARES
33368
EXP. 3-31-2014
STRUCTURAL

SEP 19 2012

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
04 11 9891
AC. DSA FLS. SS.
DATE NOV 26 2014

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
FLS. SS. CL
DATE APR 26 2017
FILE NUMBER: 19-29

ARCHITECT OF RECORD AT TIME OF SUBMISSION
ROBERT A. RAMOS
C10322
STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
04 11 9891
AC. DSA FLS. SS.
DATE AUG 28 2017

ORIGINAL PC STATE AGENCY APPROVAL
PRE-CHECK (PC) DOCUMENT CCR, Title 24
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-112137
AC. FLS. SS.
DATE JAN 09 2018
REVISED

REVISIONS
1 PC REVISION 07/24/2014
2
3
4
5
6
7
8

SILVER CREEK INDUSTRIES
12' x 40' PC

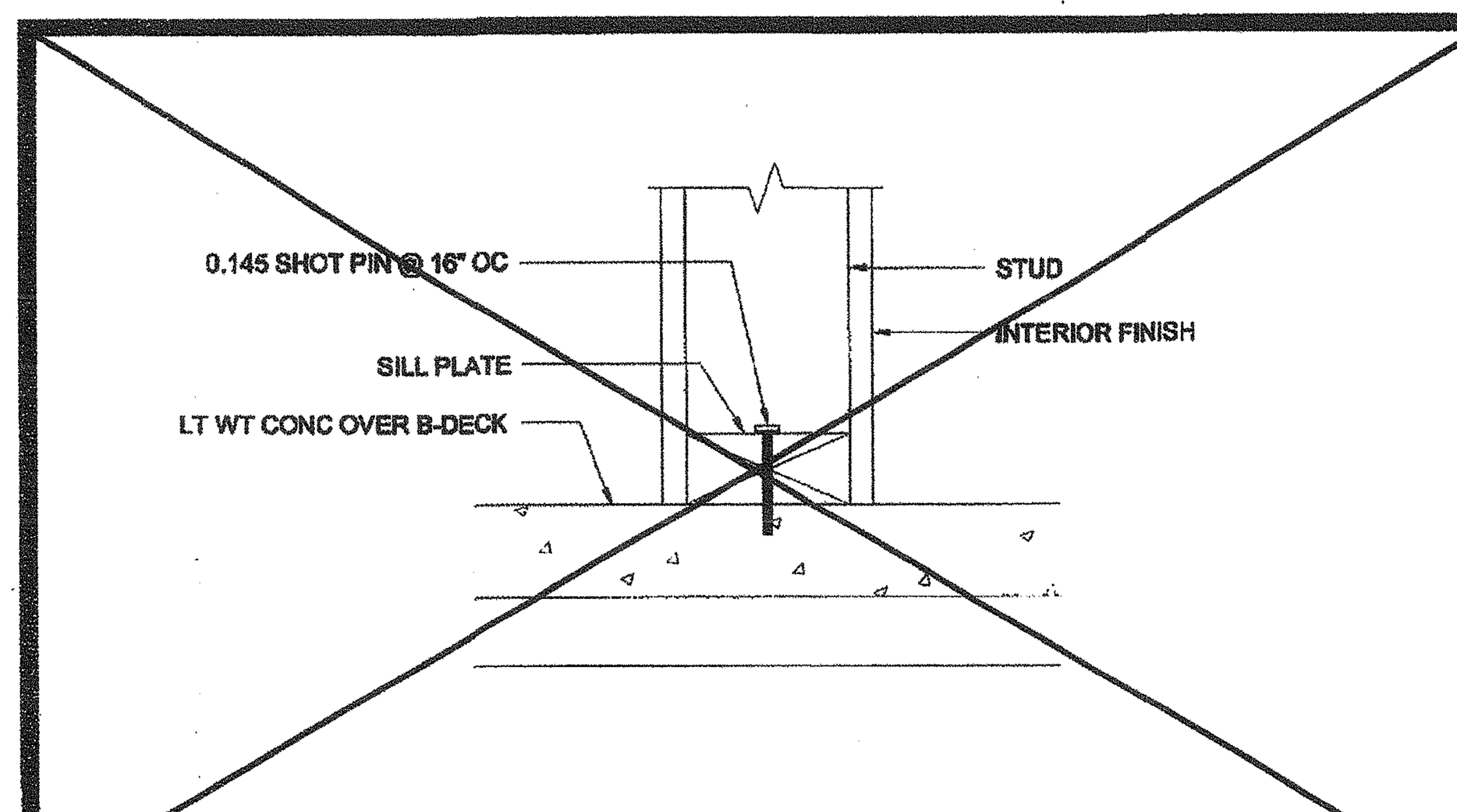
PROJECT NO:	
DRAWN BY:	
SCALE:	AS NOTED
DATE:	6-17-11
P.C. SHEET NUMBER	S-5.00
	STKP 125

THESE DRAWINGS AND ALL MATERIAL CONTAINED HEREIN ARE THE PROPERTY OF SILVERCREEK INDUSTRIES, INC (SCI Inc) AND SHALL NOT BE REPRODUCED, COPIED OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY AND SHALL NOT BE USED IN WHOLE OR IN PART TO ASSIST IN THE MAKING OF OR FOR THE PURPOSE OF FURNISHING ANY INFORMATION FOR THE MAKING OF DRAWINGS, PRINTS, APPARATUS OR PARTS THEREOF WITHOUT THE FULL KNOWLEDGE AND WRITTEN CONSENT OF SCI Inc.
ALL PATENTABLE MATERIAL CONTAINED HEREIN AND ORIGINATING WITH SCI Inc SHALL BE THE PROPERTY OF SCI Inc

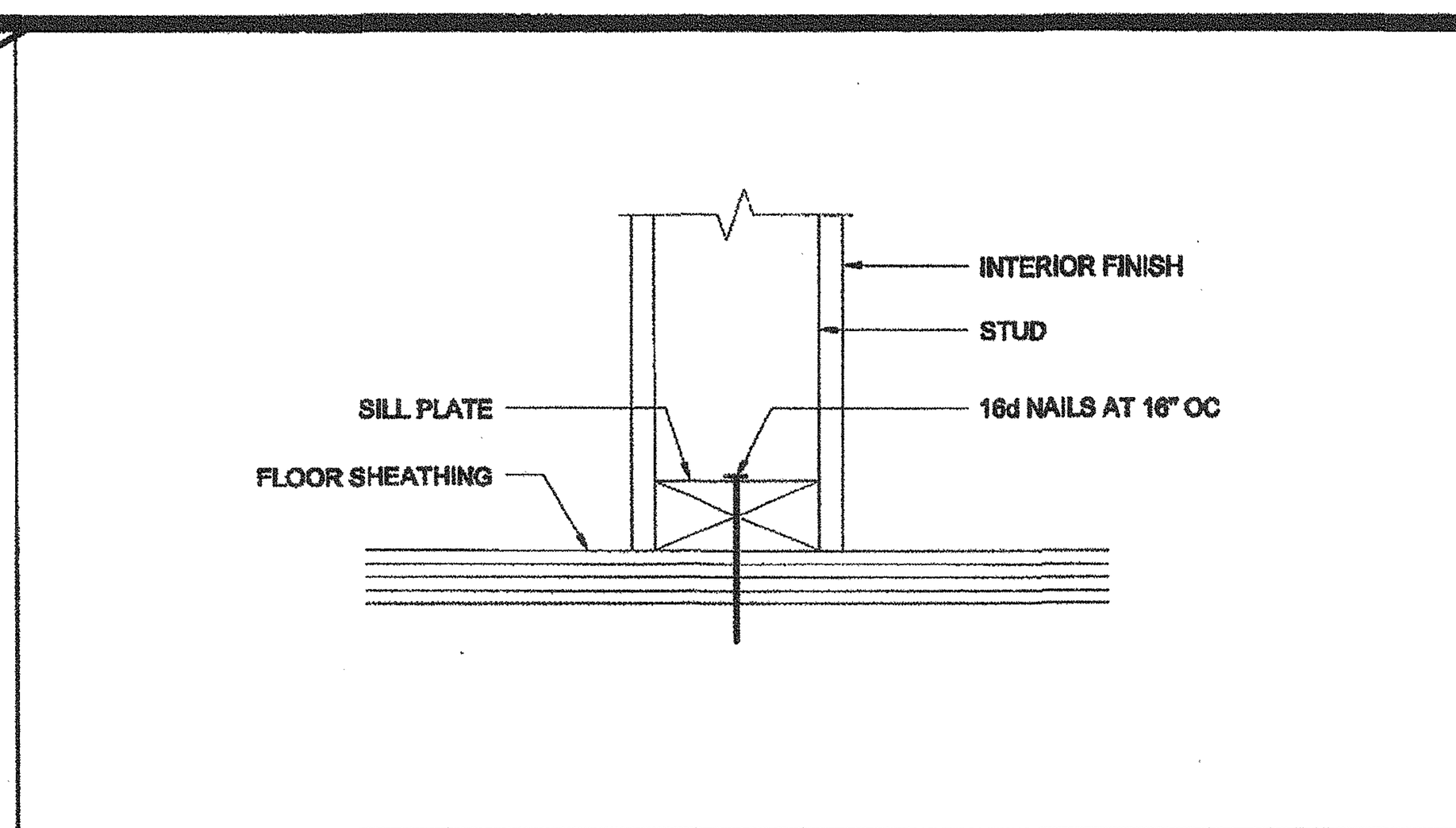
SILVER CREEK INDUSTRIES, INC.
"BUILDING FOR THE NEXT GENERATION"
SILVER CREEK
195 EAST MORGAN PERRIS, CALIFORNIA 92571
PHONE: 951-943-5393 FAX: 951-943-2211

PROJECT NAME:
CLASS LEASING

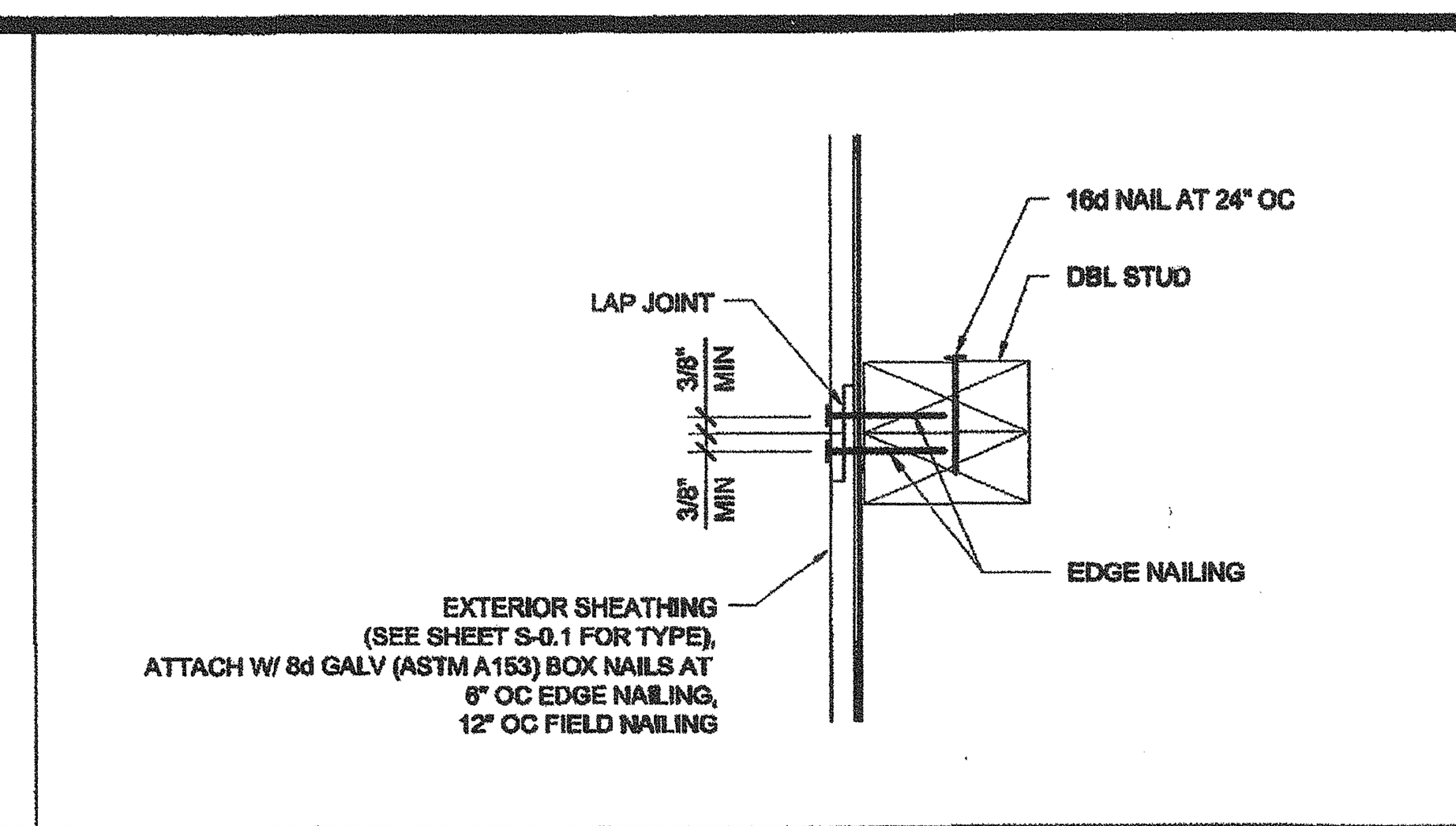
SHEET TITLE:
WALL FRAMING DETAILS
WOOD STUDS



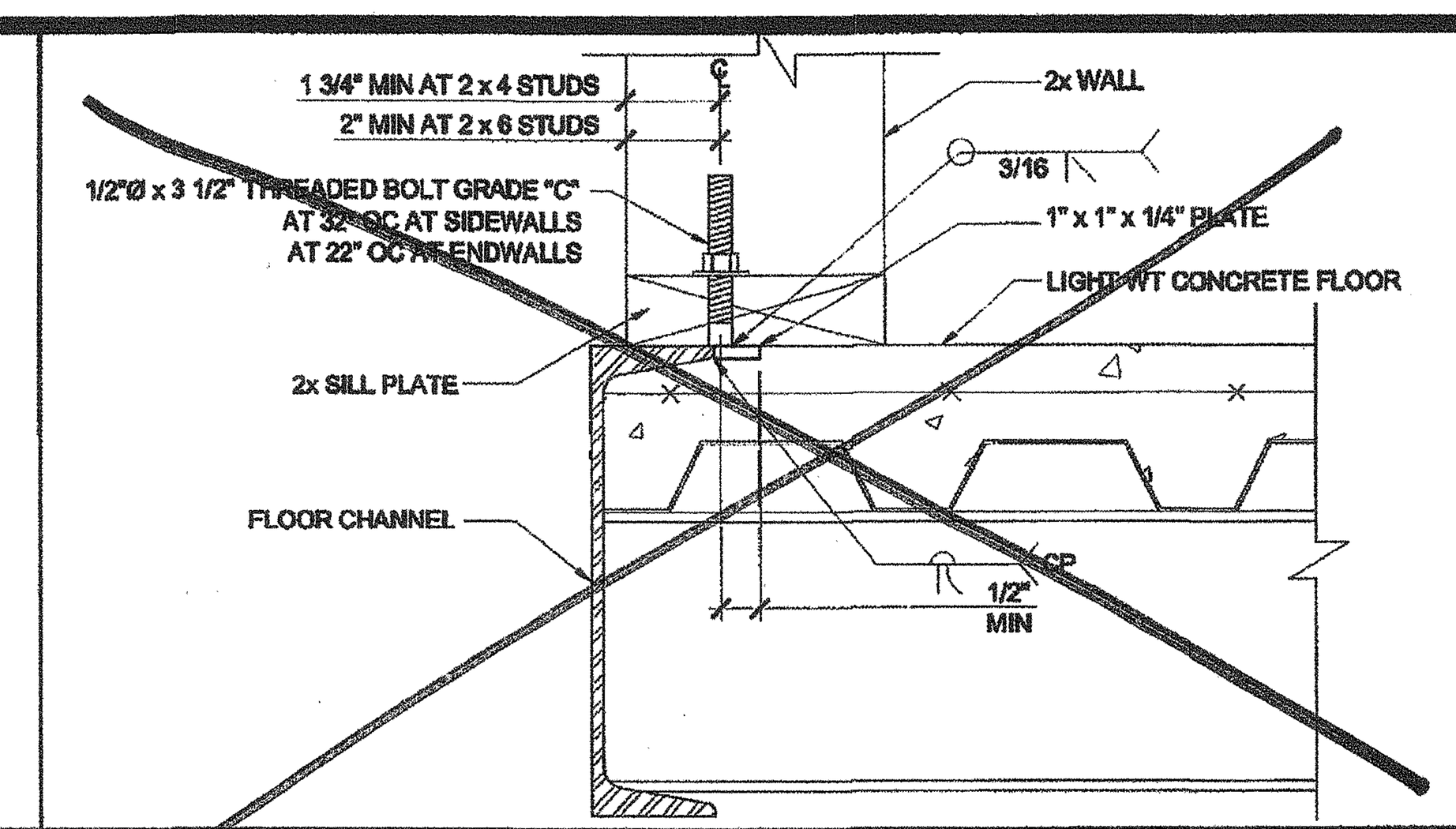
PARTITION CONNECTION AT CONC FLOOR — SCALE : 3"=1'-0" — 16



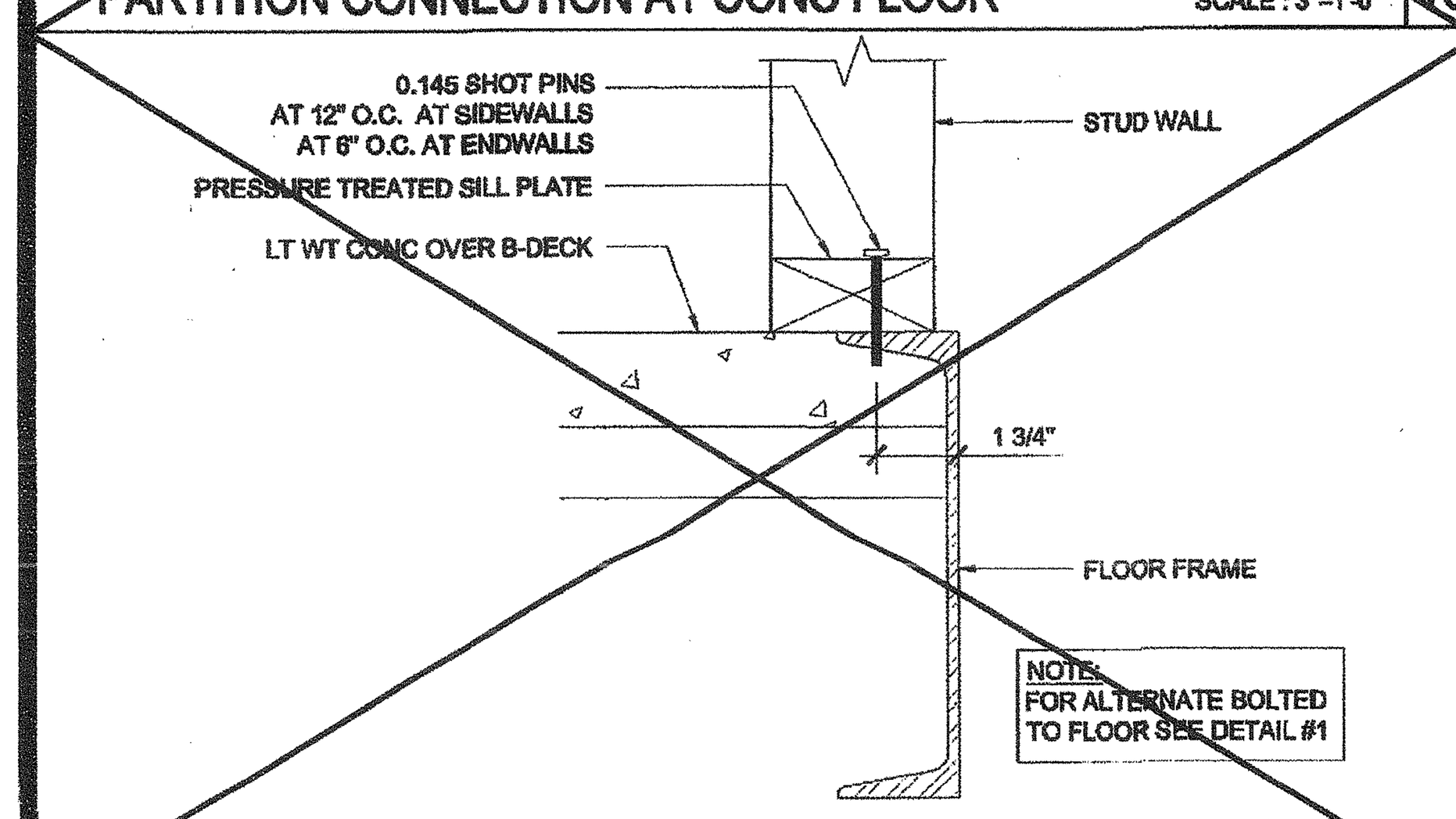
PARTITION CONNECTION AT WOOD FLOOR — SCALE : 3"=1'-0" — 11



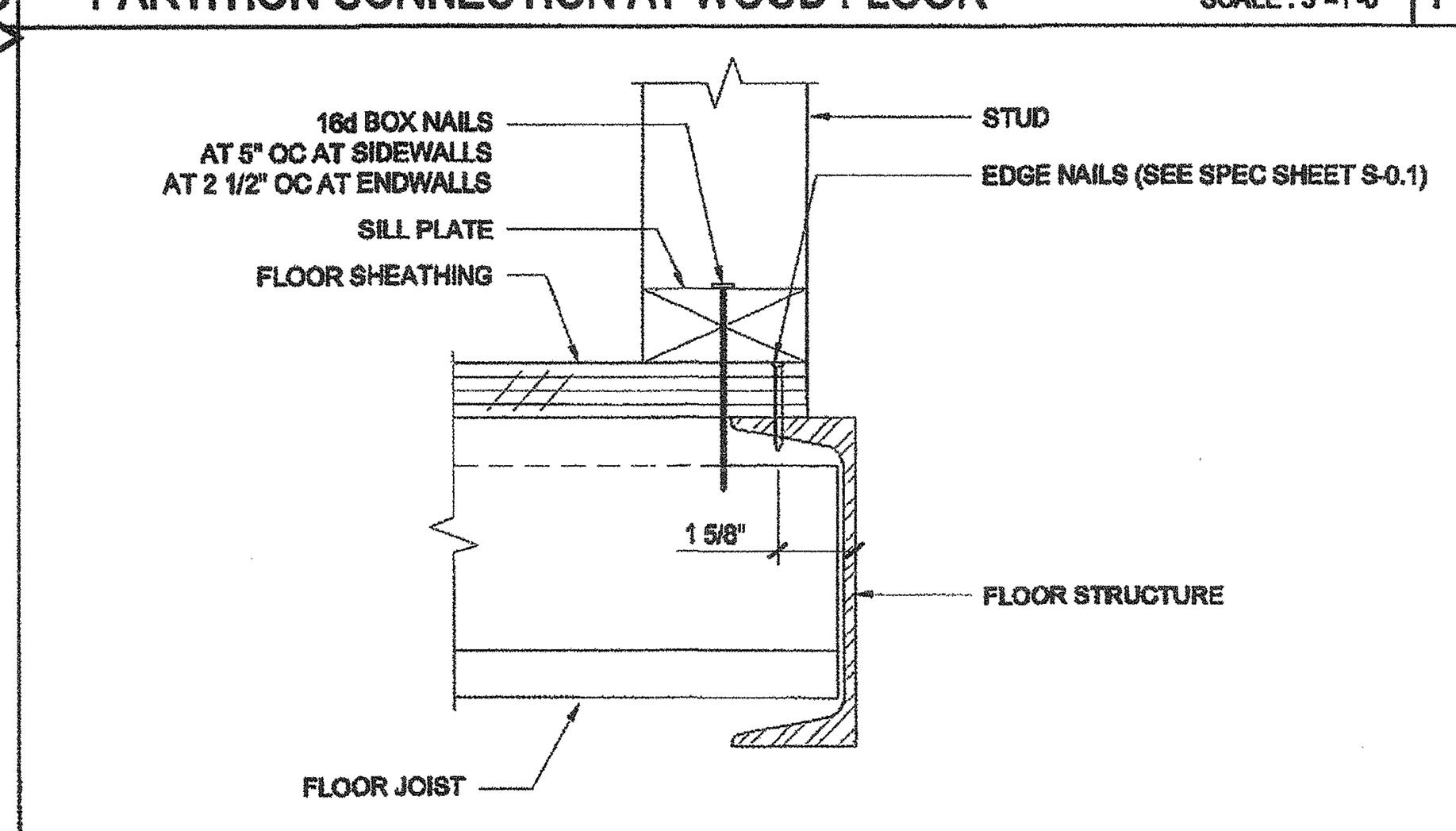
VERTICAL SHEATHING LAP JOINT — SCALE : 3"=1'-0" — 6



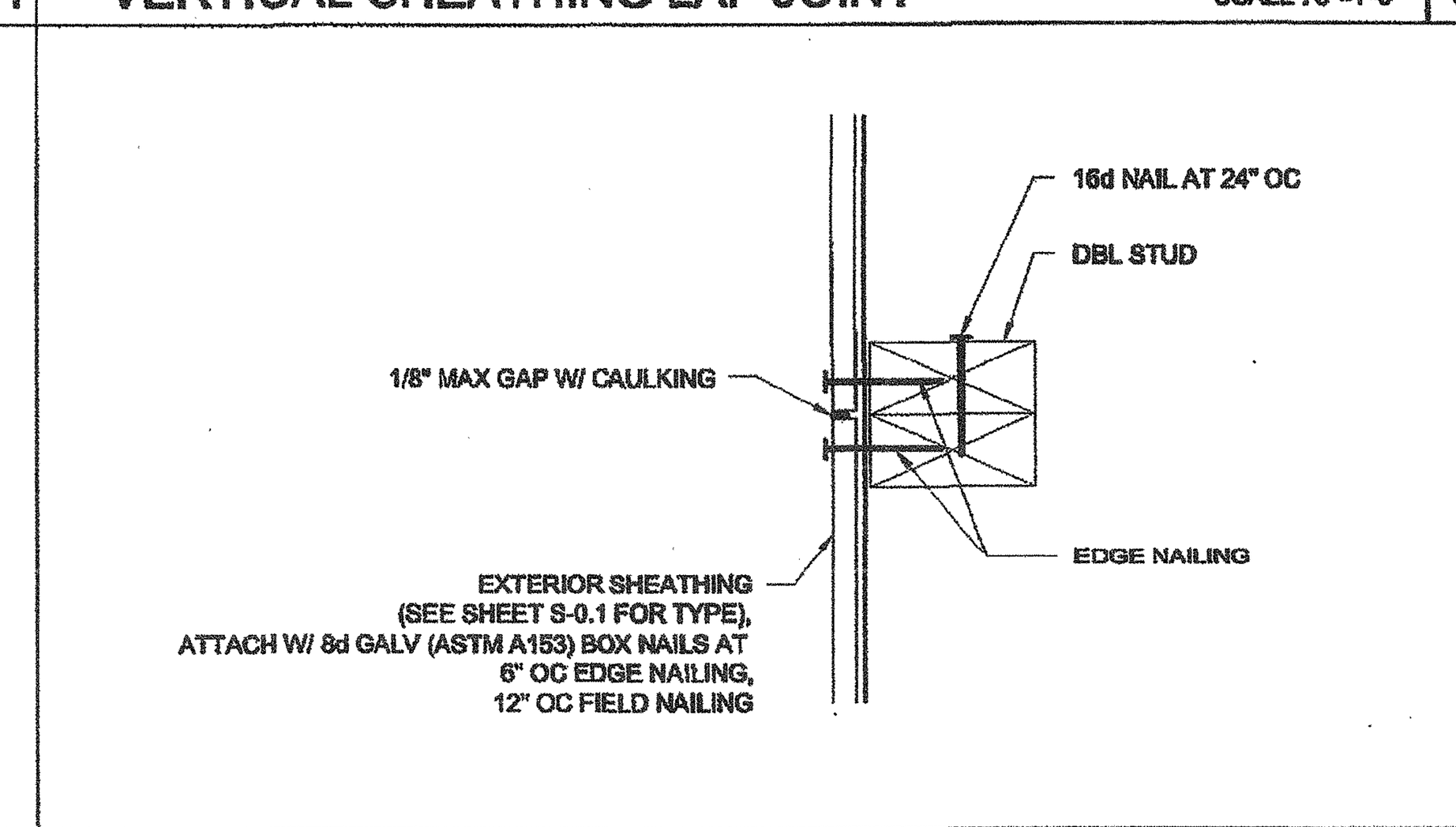
OPTIONAL BOLTED WALL TO FLOOR — SCALE : NTS — 1



WALL SILL AT CONCRETE FLOOR — SCALE : 3"=1'-0" — 17



WALL SILL AT WOOD FLOOR — SCALE : 3"=1'-0" — 12

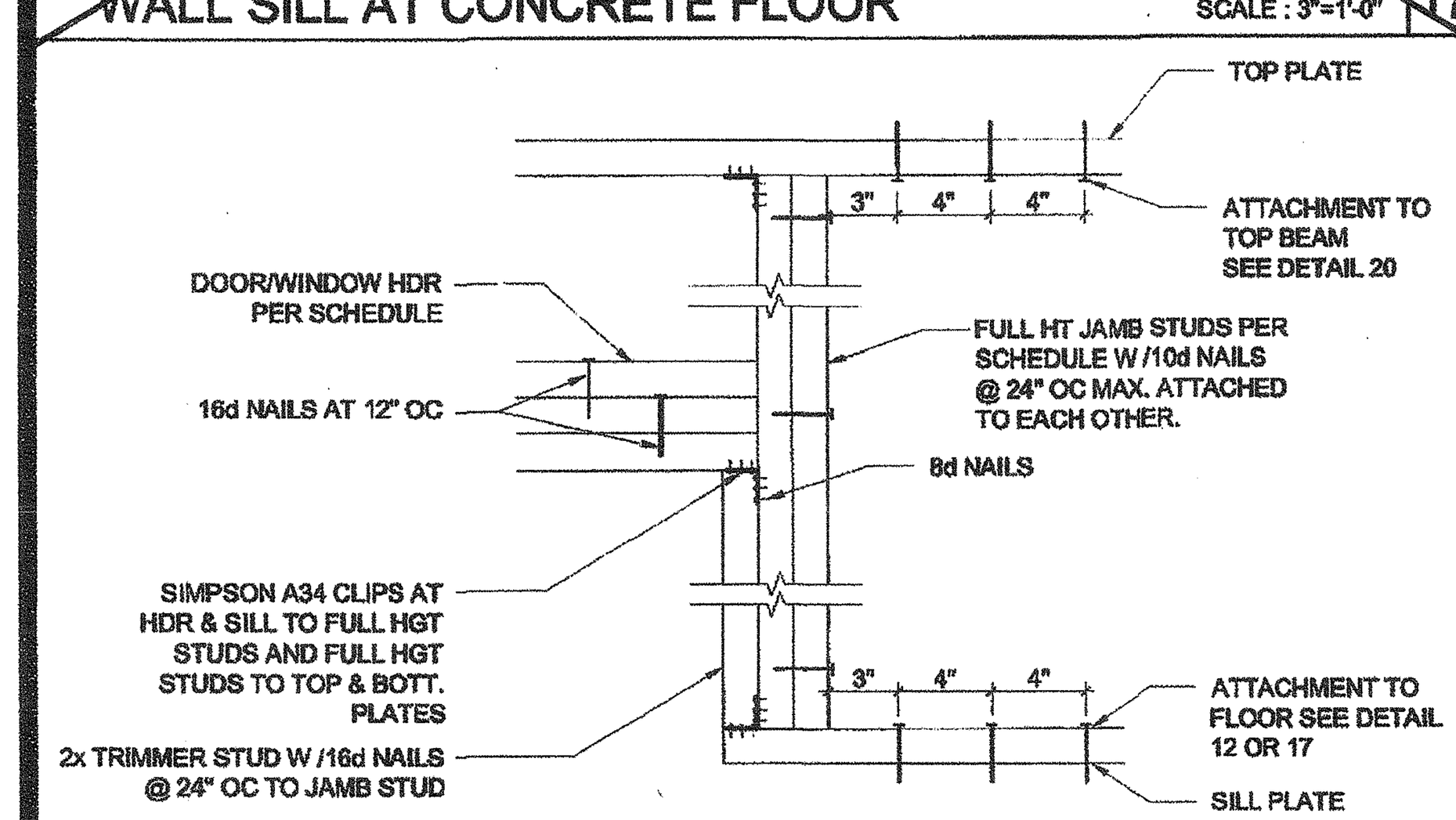


VERTICAL SHEATHING BUTT JOINT — SCALE : 3"=1'-0" — 7

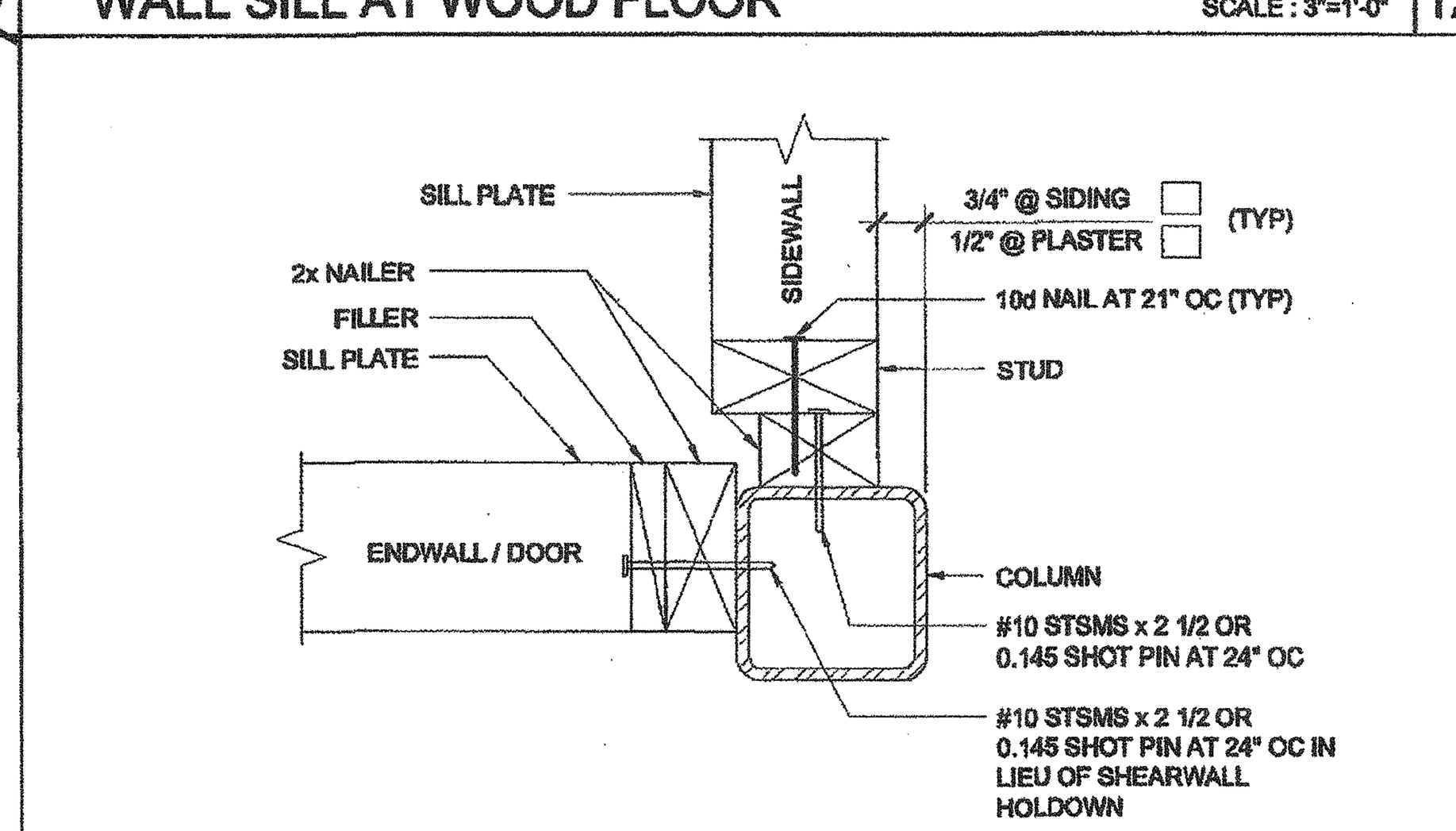
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC N.N. FLS SS CL
DATE APR 26 2017
FILE NUMBER: 19-29

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
04 113891
AC FLS SS
DATE NOV 20 2014

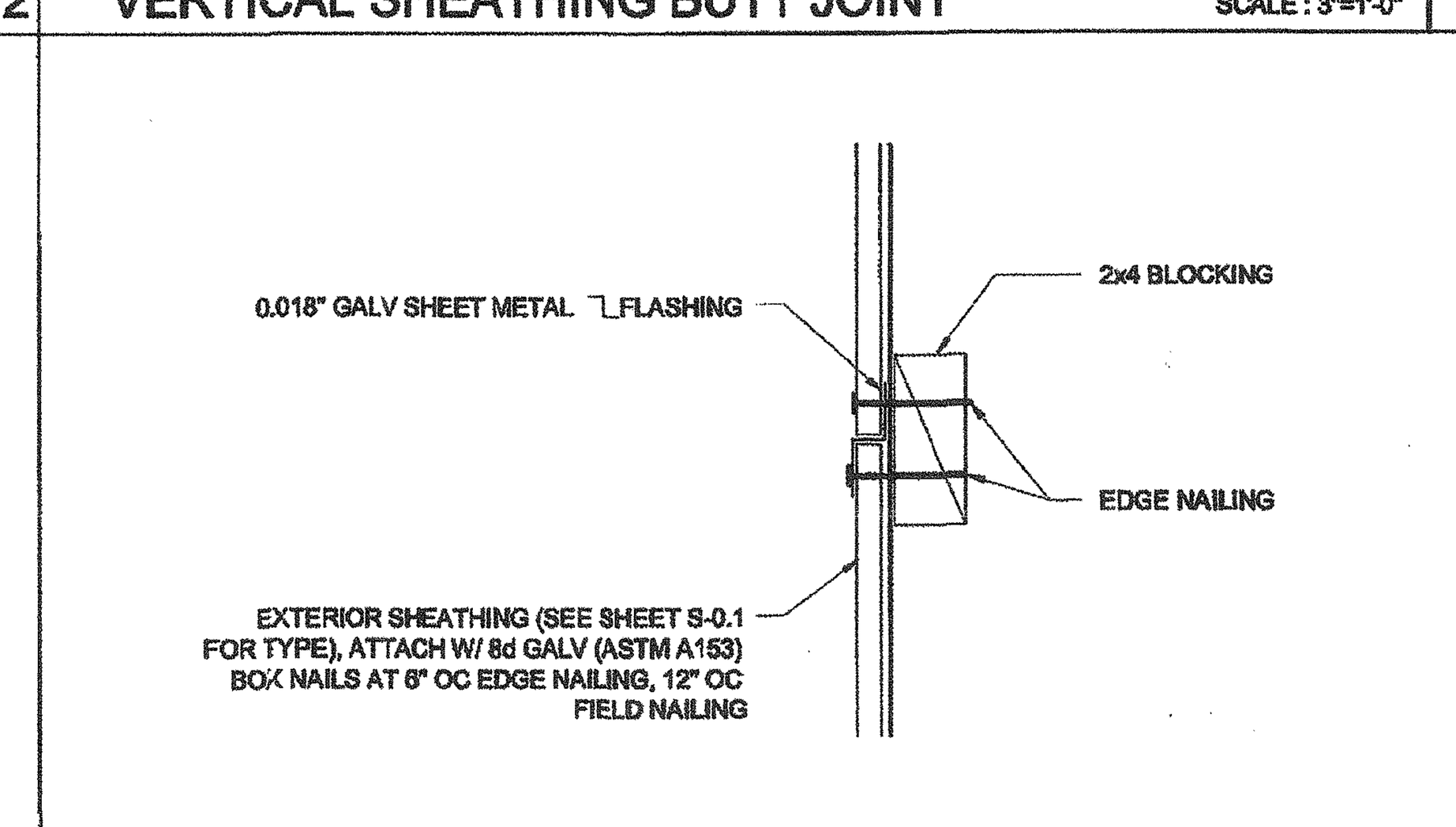
NOT USED — 2



DOOR/WINDOW HEADER AND JAMB — SCALE : 1 1/2"=1'-0" — 18



COLUMN AT ENDWALL — SCALE : 3"=1'-0" — 13

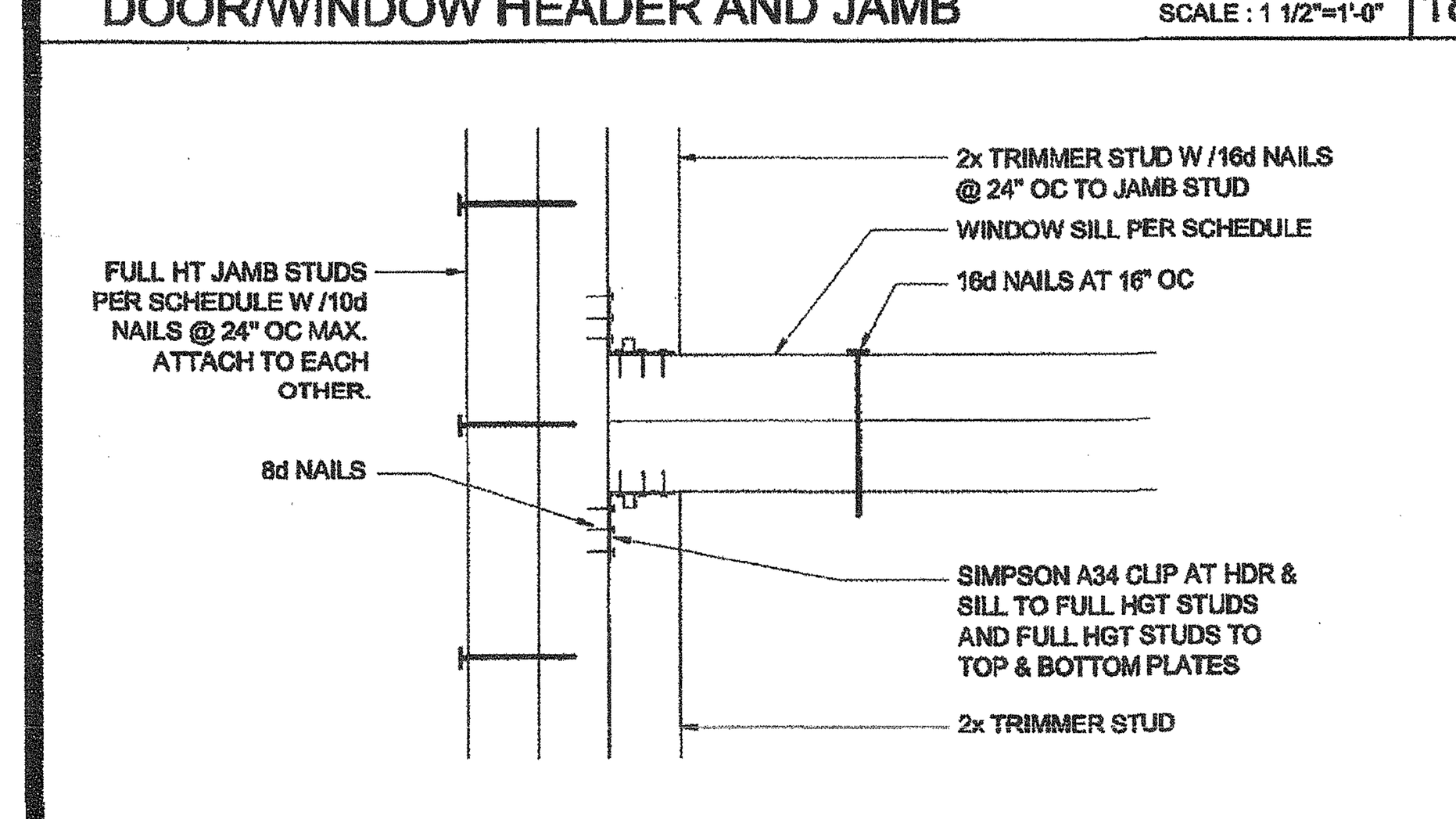


HORIZONTAL SHEATHING JOINT — SCALE : 3"=1'-0" — 8

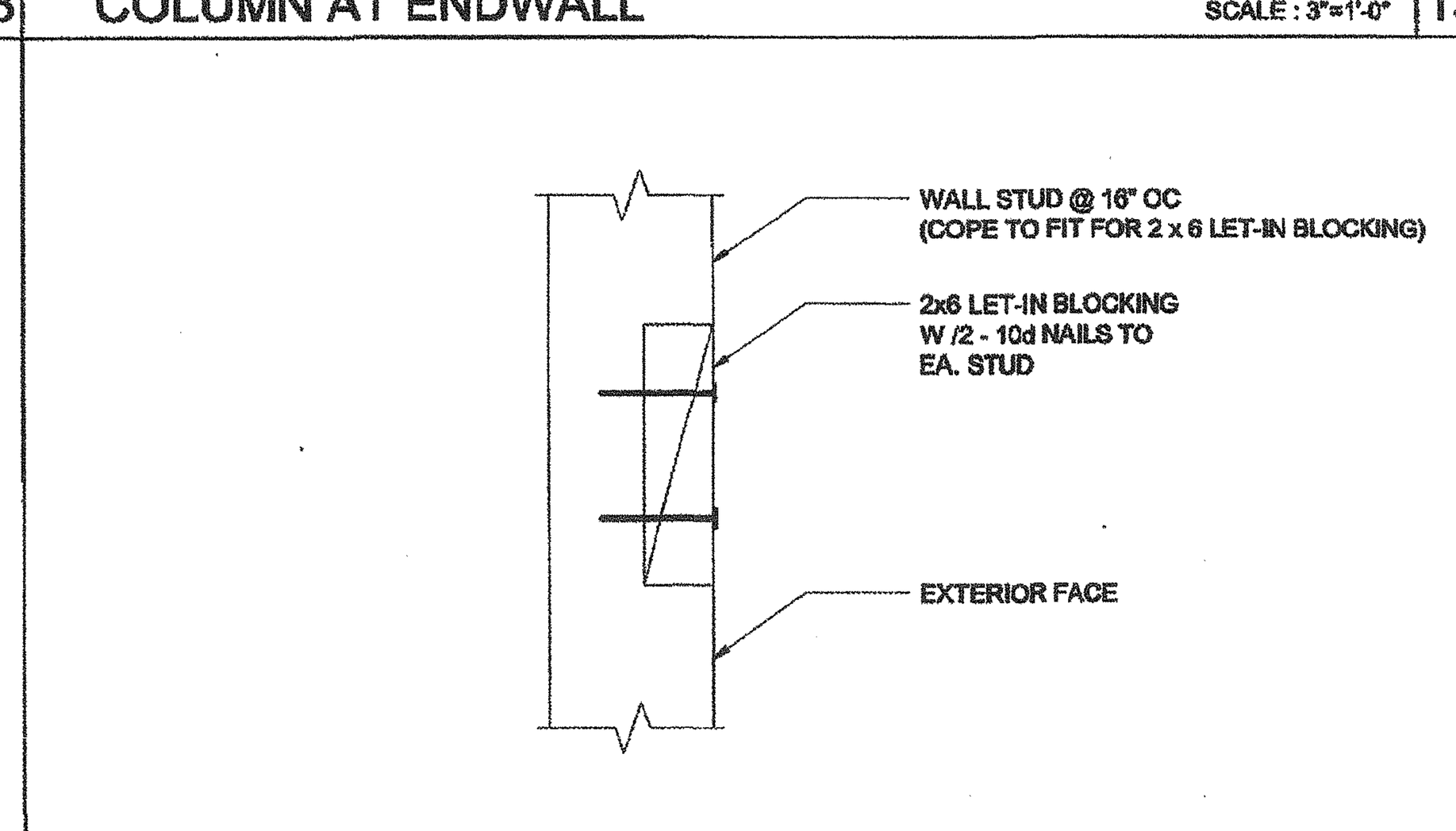
COLUMN HEIGHT	OPENING SIZE	EXT FINISH	HEADER NUMBER **	HEADER SIZE **	HEADER LUMBER	HEADER TYPE	SILL NUMBER **	SILL SIZE **	SILL LUMBER	SILL TYPE	FULL HEIGHT KING STUD NUMBER **	FULL HEIGHT KING STUD SIZE **	FULL HEIGHT KING STUD LUMBER	FULL HEIGHT KING STUD TYPE
LESS THAN 9'-6"	3070	NO PLASTER	(1)	2X4	HF	#2		N/A			(2)	2X4	HF	#2
		NO PLASTER (OPT)	(1)	2X4	DF	#2		N/A			(1)	2X4	DF	#2
		W/ PLASTER	(1)	2X4	HF	#2		N/A			(3)	2X4	HF	#2
		W/ PLASTER (OPT)	(1)	2X4	DF	#2		N/A			(2)	2X4	DF	#2
	4070	NO PLASTER	(1)	2X4	HF	#2		N/A			(2)	2X4	HF	#2
		NO PLASTER (OPT)	(1)	2X4	DF	#2		N/A			(1)	2X4	DF	#2
		W/ PLASTER	(1)	2X4	HF	#2		N/A			(3)	2X4	HF	#2
		W/ PLASTER (OPT)	(1)	2X4	DF	#2		N/A			(2)	2X4	DF	#2
	6040	NO PLASTER	(1)	2X4	HF	#2	(1)	2X4	HF	#2	(2)	2X4	HF	#2
		NO PLASTER (OPT)	(1)	2X4	DF	#2	(1)	2X4	DF	#2	(2)	2X4	DF	#2
		W/ PLASTER	(2)	2X4	HF	#2	(2)	2X4	HF	#2	(4)	2X4	HF	#2
		W/ PLASTER (OPT)	(1)	2X4	DF	#2	(2)	2X4	DF	#2	(3)	2X4	DF	#2
	8040	NO PLASTER	(2)	2X4	HF	#2	(2)	2X4	HF	#2	(3)	2X4	HF	#2
		NO PLASTER (OPT)	(2)	2X4	DF	#2	(2)	2X4	DF	#2	(2)	2X4	DF	#2
		W/ PLASTER	(3)	2X4	HF	#2	(3)	2X4	HF	#2	(5)	2X4	HF	#2
		W/ PLASTER (OPT)	(3)	2X4	DF	#2	(3)	2X4	DF	#2	(4)	2X4	DF	#2
9'-6" TO 10'-6"	3070	NO PLASTER	(1)	2X4	HF	#2		N/A			(2)	2X4	HF	#2
		NO PLASTER (OPT)	(1)	2X4	DF	#2		N/A			(2)	2X4	DF	#2
		W/ PLASTER	(1)	2X4	HF	#2		N/A			(4)	2X4	HF	#2
		W/ PLASTER (OPT)	(1)	2X4	DF	#2		N/A			(3)	2X4	DF	#2
	4070	NO PLASTER	(1)	2X4	HF	#2		N/A			(2)	2X4	HF	#2
		NO PLASTER (OPT)	(1)	2X4	DF	#2		N/A			(2)	2X4	DF	#2
		W/ PLASTER	(1)	2X4	HF	#2		N/A			(4)	2X4	HF	#2
		W/ PLASTER (OPT)	(1)	2X4	DF	#2		N/A			(3)	2X4	DF	#2
	6040	NO PLASTER	(1)	2X4	HF	#2	(2)	2X4	HF	#2	(3)	2X4	HF	#2
		NO PLASTER (OPT)	(1)	2X4	DF	#2	(1)	2X4	DF	#2	(2)	2X4	DF	#2
		W/ PLASTER	(2)	2X4	HF	#2	(2)	2X4	HF	#2	(5)	2X4	HF	#2
		W/ PLASTER (OPT)	(2)	2X4	DF	#2	(2)	2X4	DF	#2	(4)	2X4	DF	#2
	8040	NO PLASTER	(2)	2X4	HF	#2	(3)	2X4	HF	#2	(3)	2X4	HF	#2
		NO PLASTER (OPT)	(2)	2X4	DF	#2	(3)	2X4	DF	#2	(3)	2X4	DF	#2
		W/ PLASTER	(4)	2X4	HF	#2	(4)	2X4	HF	#2	(6)	2X4	HF	#2
		W/ PLASTER (OPT)	(3)	2X4	DF	#2	(3)	2X4	DF	#2	(5)	2X4	DF	#2

**2x6 AND 2x8 STUD OPTIONS MAY BE SUBSTITUTED IN LIEU OF 2x4 - NUMBER OF STUDS DO NOT CHANGE AND SHALL REMAIN THE SAME AS SHOWN ON SCHEDULE. SEE DETAILS 2 OR 10/-

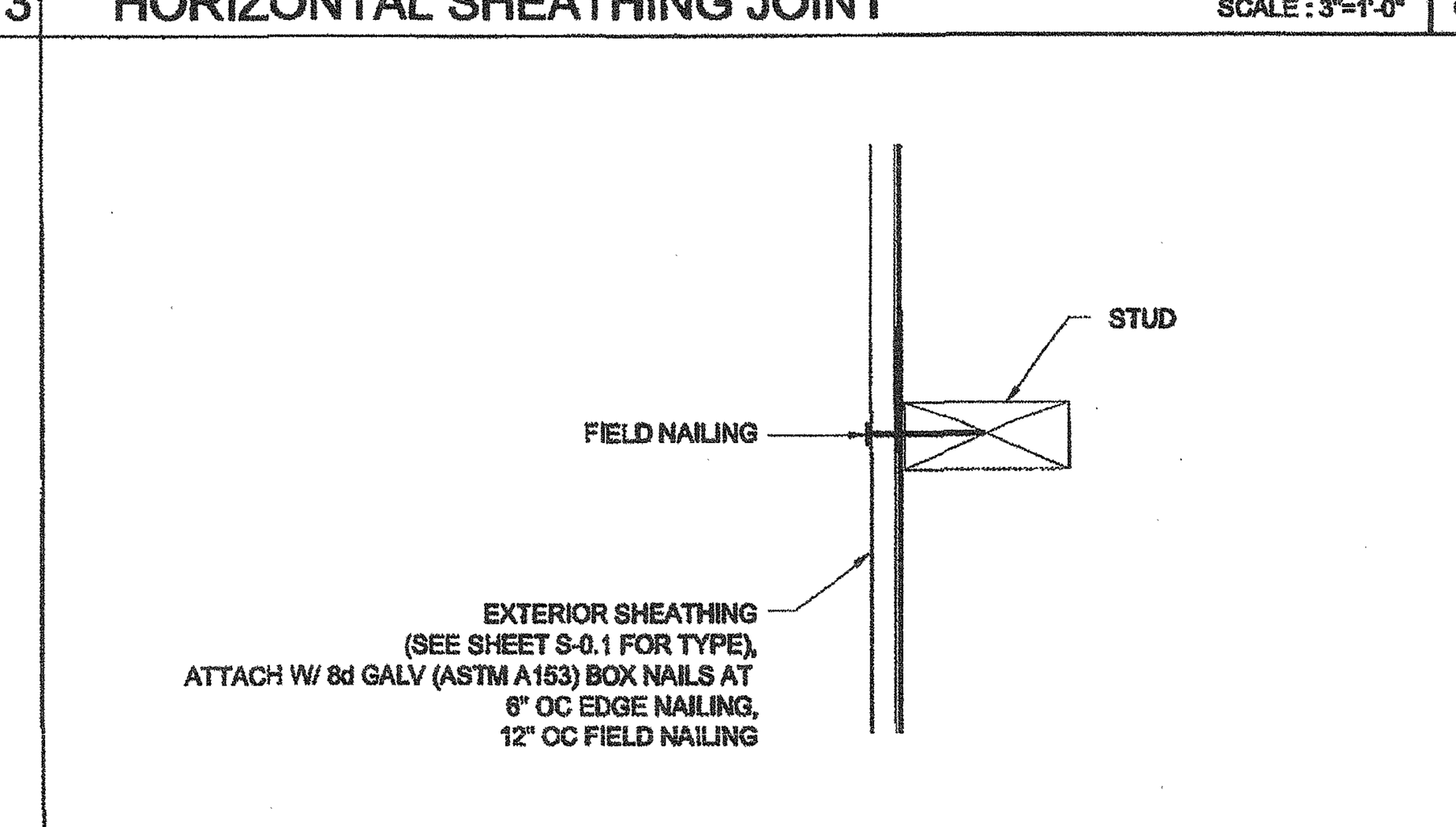
OPENING STUDS SCHEDULE - 100 MPH — 4



WINDOW SILL AND JAMB — SCALE : 3"=1'-0" — 19



LET-IN BLOCK ATTACHMENT — SCALE : 3"=1'-0" — 14

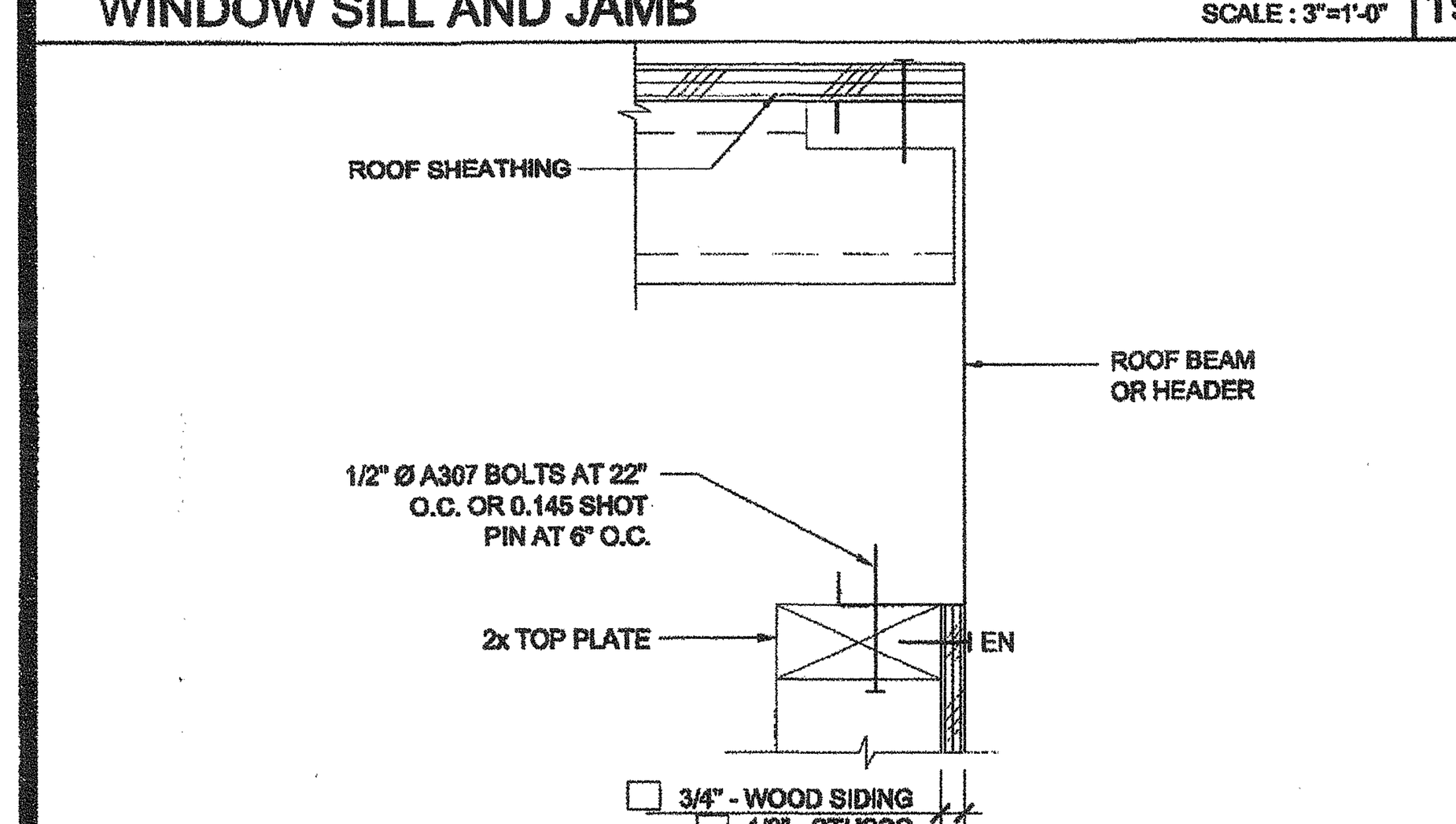


SECTION AT SHEATHING TO STUD ATTACHMENT — SCALE : 3"=1'-0" — 9

COLUMN HEIGHT	EXT FINISH	WOOD WALL FRAMING NUMBER **	SIZE **	LUMBER	TYPE	OC	4' CORNER OF WOOD WALL FRAMING (ZONE 5) NUMBER **	SIZE **	LUMBER	TYPE	OC
LESS THAN 9'-6"	NO PLASTER	(1)	2X4	HF	#2	16" OC	(1)	2X4	HF	#2	16" OC
	NO PLASTER (OPT)	(1)	2X4	DF	#2	16" OC	(1)	2X4	DF	#2	16" OC
	W/ PLASTER	(1)	2X4	HF	#2	16" OC	(1)	2X4	HF	#2	12" OC
	W/ PLASTER (OPT)	(1)	2X4	DF	#2	16" OC	(1)	2X4	DF	#2	16" OC
9'-6" TO 10'-6"	NO PLASTER	(1)	2X4	HF	#2	16" OC	(1)	2X4	HF	#2	16" OC
	NO PLASTER (OPT)	(1)	2X4	DF	#2	16" OC	(1)	2X4	DF	#2	12" OC
	W/ PLASTER	(1)	2X4	HF	#2	12" OC	(2)	2X4	HF	#2	16" OC
	W/ PLASTER (OPT)	(1)	2X4	DF	#2	16" OC	(1)	2X4	DF	#2	12" OC

**2x6 AND 2x8 STUD OPTIONS MAY BE SUBSTITUTED IN LIEU OF 2x4 - NUMBER OF STUDS DO NOT CHANGE AND SHALL REMAIN THE SAME AS SHOWN ON SCHEDULE. SEE DETAILS 2 OR 10/-

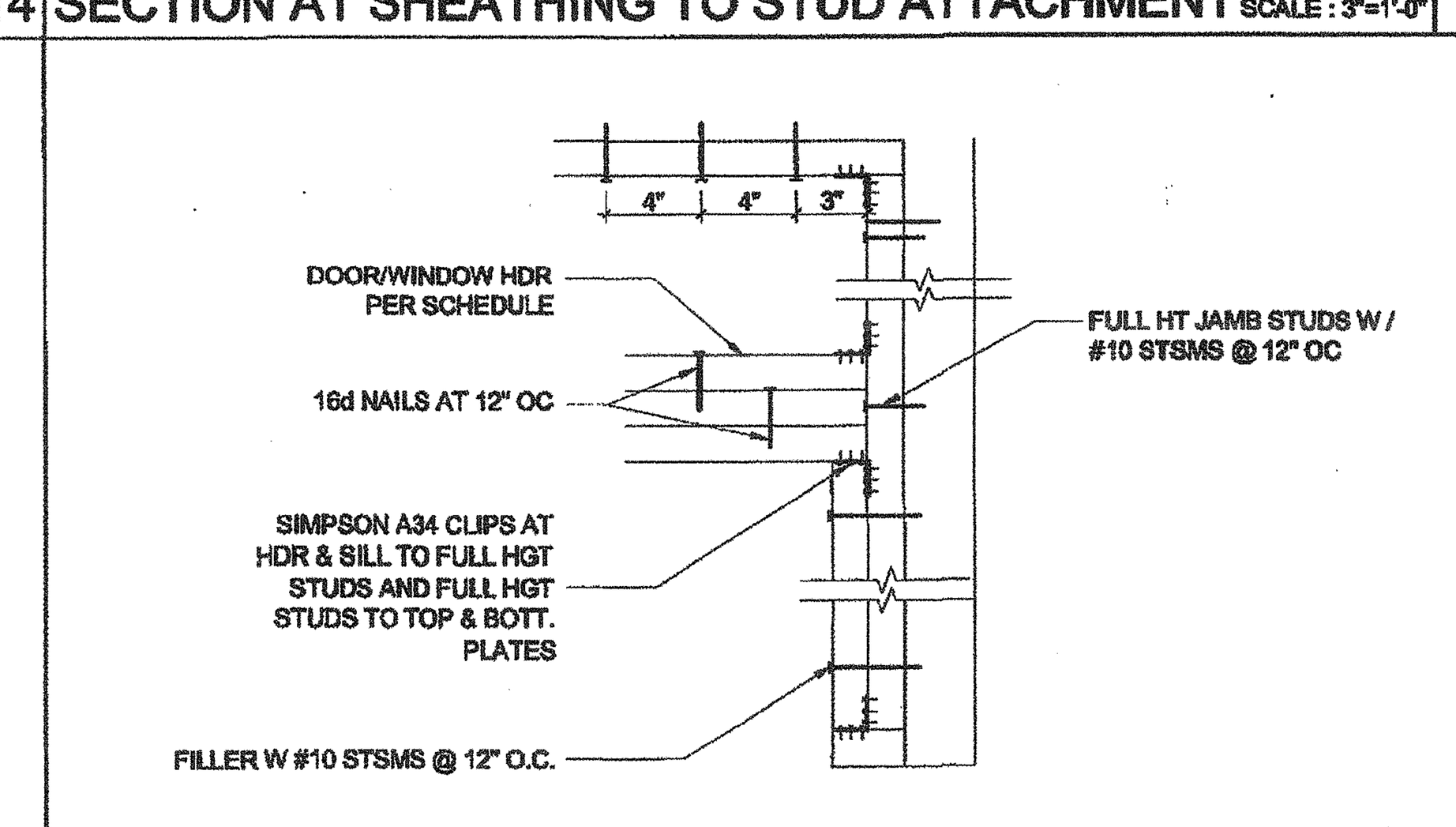
WALL FRAMING SCHEDULE - 100 MPH — 5



TOP PLATE AT ROOF BEAM — SCALE : 3" = 1'-0" — 20

DOOR	WINDOW	STANDARD		WELDED FRAME	
2070		26"	85"	28 1/4"	86 1/4"
3070		38"	85"	40 1/4"	86 1/4"
4070		50"	85"	52 1/4"	86 1/4"
6070		74"	85"	76 1/4"	86 1/4"
	4040	47 3/4"	47 5/8"	52 1/4"	52 1/4"
	6040	71 3/4"	47 5/8"	76 1/4"	52 1/4"
	8040	95 3/4"	47 5/8"	100 1/4"	52 1/4"
	6020	71 3/4"	23 5/8"	76 1/4"	28 1/4"
	8020	95 3/4"	23 5/8"	100 1/4"	28 1/4"

ROUGH OPENING SCHEDULE — 15



DOOR/WINDOW HEADER @ COLUMN — SCALE : 1 1/2"=1'-0" — 10

TAVARES ASSOCIATES
DESIGN • CONSULTING • PROJECT MGT
LICENSED ARCHITECT CHAD CONRAD No. C-28264 REN: 10-31-2013 STATE OF CALIFORNIA
12/23/2011

ARCHITECT OF RECORD SUBMISSION DATE
REGISTERED ARCHITECT ROBERT A. McQUEEN C10322 STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
04 113851
AC FLS SS
DATE AUG 28 2014

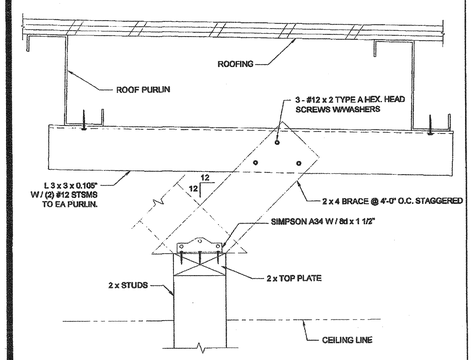
ORIGINAL PC STATE AGENCY APPROVAL
PRE-CHECK (PC) DOCUMENT
CODE: 2010 CBC
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-112137
AC FLS SS
DATE DEC 29 2011

REVISIONS
1
2
3
4
5
6
7
8

SILVER CREEK INDUSTRIES
12' x 40' PC

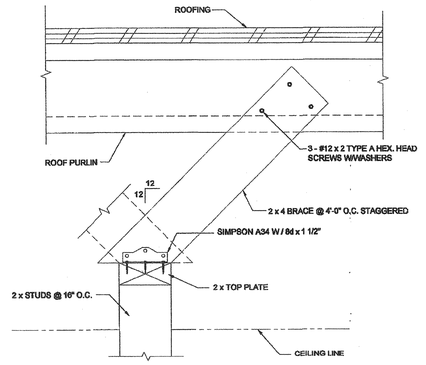
PROJECT NO:
DRAWN BY:
SCALE: AS NOTED
DATE: 6-17-11

P.C. SHEET NUMBER
S-5.10
STKP 125



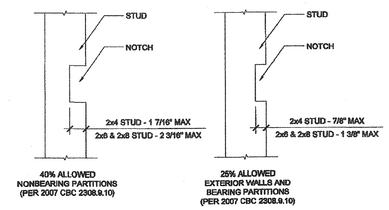
INTERIOR PARTITION

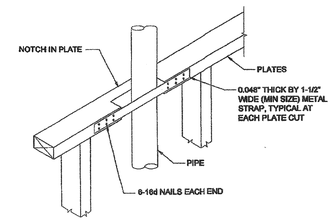
SCALE : 3" = 1'-0" | 14



INTERIOR PARTITION

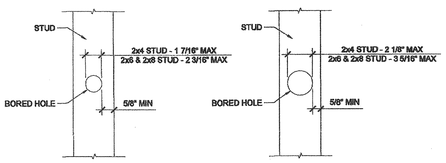
SCALE : 3" = 1'-0" | 12





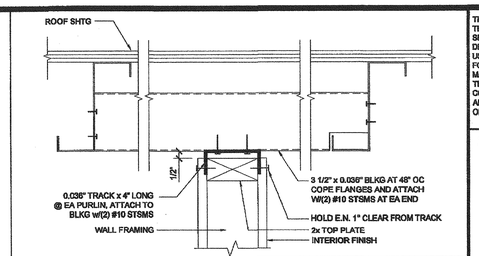
CUTTING AND NOTCHING

SCALE : 1 1/2" = 1'-0" | 7



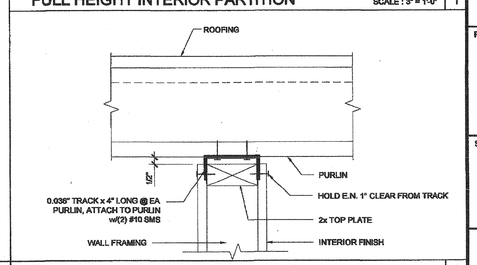
BORED HOLES

SCALE : 1 1/2" = 1'-0" | 8



FULL HEIGHT INTERIOR PARTITION

SCALE : 3" = 1'-0" | 1



FULL HEIGHT INTERIOR PARTITION

SCALE : 3" = 1'-0" | 2

COLUMN HEIGHT	OPENING SIZE	EXT FINISH	HEADER				SILL				FULL HEIGHT KING STUD			
			NUMBER **	SIZE **	LUMBER	TYPE	NUMBER **	SIZE **	LUMBER	TYPE	NUMBER **	SIZE **	LUMBER	TYPE
LESS THAN 9'-6"	3070	NO PLASTER	(1)	2X8	HF	#2		N/A			(1)	2X8	HF	#2
		NO PLASTER (OPT)	(1)	2X8	DF	#2		N/A			(1)	2X8	DF	#2
		W/ PLASTER	(1)	2X8	HF	#2		N/A			(1)	2X8	HF	#2
		W/ PLASTER (OPT)	(1)	2X8	DF	#2		N/A			(1)	2X8	DF	#2
	4070	NO PLASTER	(1)	2X8	HF	#2		N/A			(1)	2X8	HF	#2
		NO PLASTER (OPT)	(1)	2X8	DF	#2		N/A			(1)	2X8	DF	#2
		W/ PLASTER	(1)	2X8	HF	#2		N/A			(1)	2X8	HF	#2
		W/ PLASTER (OPT)	(1)	2X8	DF	#2		N/A			(1)	2X8	DF	#2
	6040	NO PLASTER	(1)	2X8	HF	#2	(1)	2X8	HF	#2	(2)	2X8	HF	#2
		NO PLASTER (OPT)	(1)	2X8	DF	#2	(1)	2X8	DF	#2	(1)	2X8	DF	#2
		W/ PLASTER	(1)	2X8	HF	#2	(1)	2X8	HF	#2	(2)	2X8	HF	#2
		W/ PLASTER (OPT)	(1)	2X8	DF	#2	(1)	2X8	DF	#2	(1)	2X8	DF	#2
	8040	NO PLASTER	(1)	2X8	HF	#2	(1)	2X8	HF	#2	(2)	2X8	HF	#2
		NO PLASTER (OPT)	(1)	2X8	DF	#2	(1)	2X8	DF	#2	(2)	2X8	DF	#2
		W/ PLASTER	(1)	2X8	HF	#2	(1)	2X8	HF	#2	(2)	2X8	HF	#2
		W/ PLASTER (OPT)	(1)	2X8	DF	#2	(1)	2X8	DF	#2	(2)	2X8	DF	#2

COLUMN HEIGHT	OPENING SIZE	EXT FINISH	HEADER				SILL				FULL HEIGHT KING STUD			
			NUMBER **	SIZE **	LUMBER	TYPE	NUMBER **	SIZE **	LUMBER	TYPE	NUMBER **	SIZE **	LUMBER	TYPE
9'-6" TO 10'-6"	3070	NO PLASTER	(1)	2X8	HF	#2		N/A			(1)	2X8	HF	#2
		NO PLASTER (OPT)	(1)	2X8	DF	#2		N/A			(1)	2X8	DF	#2
		W/ PLASTER	(1)	2X8	HF	#2		N/A			(1)	2X8	HF	#2
		W/ PLASTER (OPT)	(1)	2X8	DF	#2		N/A			(1)	2X8	DF	#2
	4070	NO PLASTER	(1)	2X8	HF	#2		N/A			(1)	2X8	HF	#2
		NO PLASTER (OPT)	(1)	2X8	DF	#2		N/A			(1)	2X8	DF	#2
		W/ PLASTER	(1)	2X8	HF	#2		N/A			(1)	2X8	HF	#2
		W/ PLASTER (OPT)	(1)	2X8	DF	#2		N/A			(1)	2X8	DF	#2
	6040	NO PLASTER	(1)	2X8	HF	#2	(1)	2X8	HF	#2	(2)	2X8	HF	#2
		NO PLASTER (OPT)	(1)	2X8	DF	#2	(1)	2X8	DF	#2	(2)	2X8	DF	#2
		W/ PLASTER	(1)	2X8	HF	#2	(1)	2X8	HF	#2	(2)	2X8	HF	#2
		W/ PLASTER (OPT)	(1)	2X8	DF	#2	(1)	2X8	DF	#2	(2)	2X8	DF	#2
	8040	NO PLASTER	(1)	2X8	HF	#2	(1)	2X8	HF	#2	(2)	2X8	HF	#2
		NO PLASTER (OPT)	(1)	2X8	DF	#2	(1)	2X8	DF	#2	(2)	2X8	DF	#2
		W/ PLASTER	(1)	2X8	HF	#2	(1)	2X8	HF	#2	(2)	2X8	HF	#2
		W/ PLASTER (OPT)	(1)	2X8	DF	#2	(1)	2X8	DF	#2	(2)	2X8	DF	#2

** 2x6 AND 2x8 STUD OPTIONS MAY BE SUBSTITUTED IN LIEU OF 2x4 - NUMBER OF STUDS DO NOT CHANGE AND SHALL REMAIN THE SAME AS SHOWN ON SCHEDULE. SEE DETAILS 2 OR 10/-

2x6 OPENING STUDS SCHEDULE

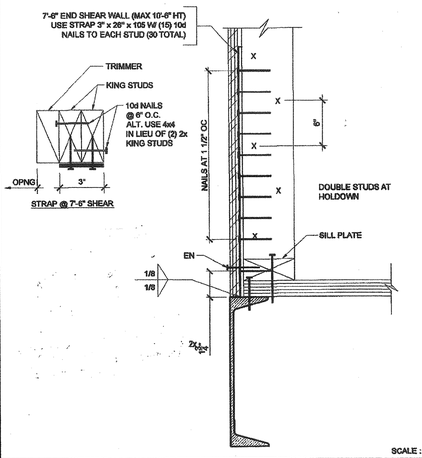
19

COLUMN HEIGHT	EXT FINISH	WOOD WALL FRAMING					4" CORNER OF WOOD WALL FRAMING (ZONE 5)				
		NUMBER **	SIZE **	LUMBER	TYPE	OC	NUMBER **	SIZE **	LUMBER	TYPE	OC
LESS THAN 9'-6"	NO PLASTER	(1)	2X6	HF	#2	24" OC	(1)	2X6	HF	#2	24" OC
	NO PLASTER (OPT)	(1)	2X6	DF	#2	24" OC	(1)	2X6	DF	#2	24" OC
	W/ PLASTER	(1)	2X6	HF	#2	24" OC	(1)	2X6	HF	#2	24" OC
	W/ PLASTER (OPT)	(1)	2X6	DF	#2	24" OC	(1)	2X6	DF	#2	24" OC
9'-6" TO 10'-6"	NO PLASTER	(1)	2X6	HF	#2	24" OC	(1)	2X6	HF	#2	24" OC
	NO PLASTER (OPT)	(1)	2X6	DF	#2	24" OC	(1)	2X6	DF	#2	24" OC
	W/ PLASTER	(1)	2X6	HF	#2	24" OC	(1)	2X6	HF	#2	24" OC
	W/ PLASTER (OPT)	(1)	2X6	DF	#2	24" OC	(1)	2X6	DF	#2	24" OC

** 2x6 AND 2x8 STUD OPTIONS MAY BE SUBSTITUTED IN LIEU OF 2x4 - NUMBER OF STUDS DO NOT CHANGE AND SHALL REMAIN THE SAME AS SHOWN ON SCHEDULE. SEE DETAILS 2 OR 10/-

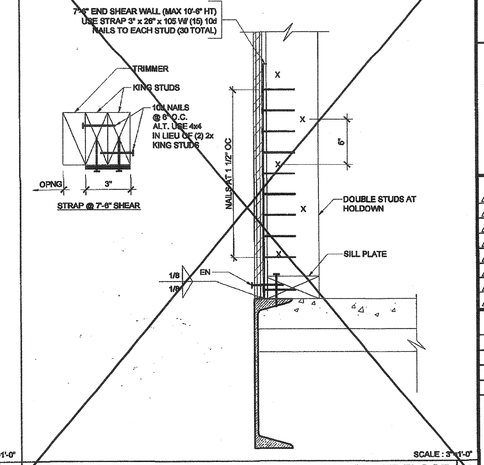
2x6 WALL FRAMING SCHEDULE

20



ALT. HOLD DOWN AT ENDWALL OPENING - WOOD FLOOR

SCALE : 3"=1'-0" | 10



ALT. HOLD DOWN AT ENDWALL OPENING - CONCRETE FLOOR

SCALE : 3"=1'-0" | 5

THESE DRAWINGS AND ALL MATERIAL CONTAINED HEREIN ARE THE PROPERTY OF SILVERCREEK INDUSTRIES, INC (SCI Inc) AND SHALL NOT BE REPRODUCED, COPIED OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY AND SHALL NOT BE USED IN WHOLE OR IN PART TO ASSIST IN THE MAKING OF OR FOR THE PURPOSE OF FURNISHING ANY INFORMATION FOR THE MAKING OF DRAWINGS, PRINTS, APPARATUS OR PARTS THEREOF WITHOUT THE FULL KNOWLEDGE AND WRITTEN CONSENT OF SCI Inc.
ALL PATENTABLE MATERIAL CONTAINED HEREIN AND ORIGINATING WITH SCI Inc SHALL BE THE PROPERTY OF SCI Inc

SILVER CREEK INDUSTRIES, INC.
"BUILDING FOR THE NEXT GENERATION"
SILVER CREEK
195 EAST MORGAN PERRIS, CALIFORNIA 92571
PHONE: 951-943-5393 FAX: 951-943-2211

PROJECT NAME:

CLASS LEASING

SHEET TITLE:

WALL FRAMING DETAILS WOOD STUDS

STAVARES & ASSOCIATES
CIVIL STRUCTURAL
Rn. C-33384
REN: 06-30-2013

12/23/2011

ARCHITECT OF RECORD SUBMISSION DATE:

REGISTERED ARCHITECT
ROBERT A. MCVEIGH
C10322
Rn.: 12-31-13
STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
04 111891
AC. FLS. SS.
DATE: AUG 28 2014

ORIGINAL PC STATE AGENCY APPROVAL

PRE-CHECK PC DOCUMENT
CCSC 2010 CBC
A SEPARATE PROJECT APPLICATION IS REQUIRED FOR PERMIT

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-112137
AC. FLS. SS.
DATE: DEC 19 2013

REVISIONS

1
2
3
4
5
6
7
8

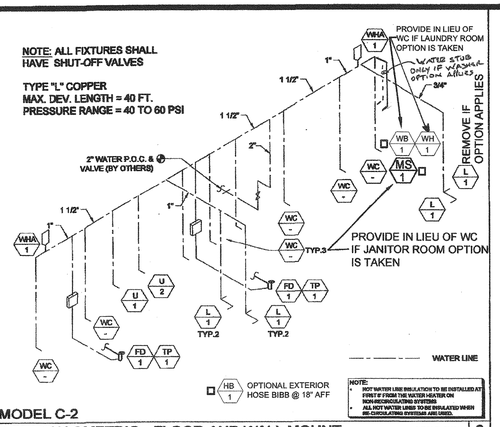
SILVER CREEK INDUSTRIES
12' x 40' PC

PROJECT NO:
DRAWN BY:
SCALE: AS NOTED
DATE: 5-17-11

P.C. SHEET NUMBER

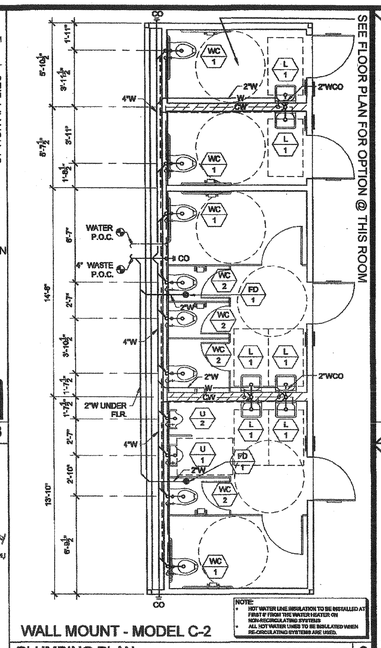
S-5.11

STKP 125



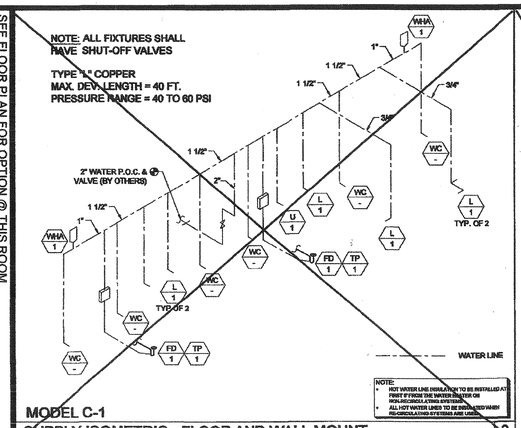
MODEL C-2

SUPPLY ISOMETRIC - FLOOR AND WALL MOUNT SCALE: N.T.S. 8



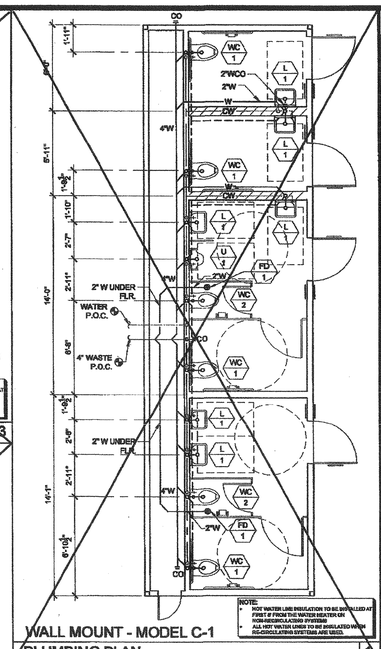
WALL MOUNT - MODEL C-2

PLUMBING PLAN SCALE: 1/4" = 1-0" 6



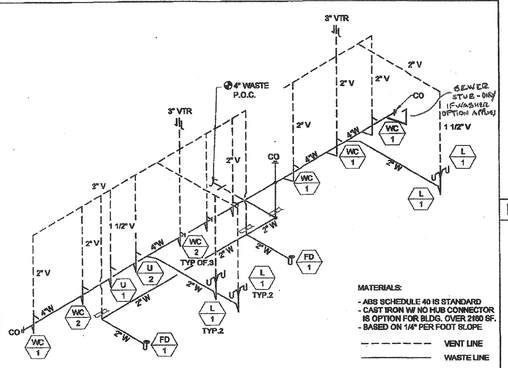
MODEL C-1

SUPPLY ISOMETRIC - FLOOR AND WALL MOUNT SCALE: N.T.S. 3



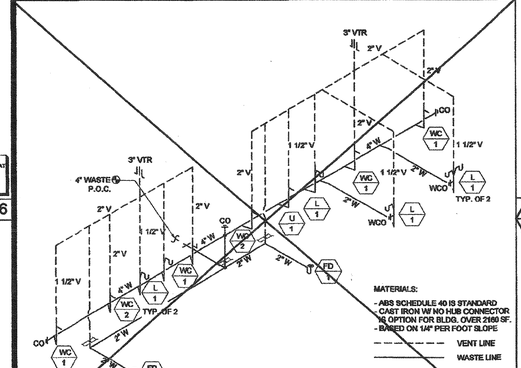
WALL MOUNT - MODEL C-1

PLUMBING PLAN SCALE: 1/4" = 1-0" 1



MODEL C-2

WASTE AND VENTING ISOMETRIC - WALL MOUNT SCALE: N.T.S. 9

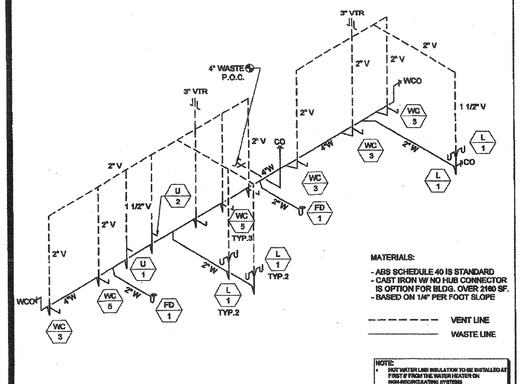


MODEL C-1

WASTE AND VENTING ISOMETRIC - WALL MOUNT SCALE: N.T.S. 4

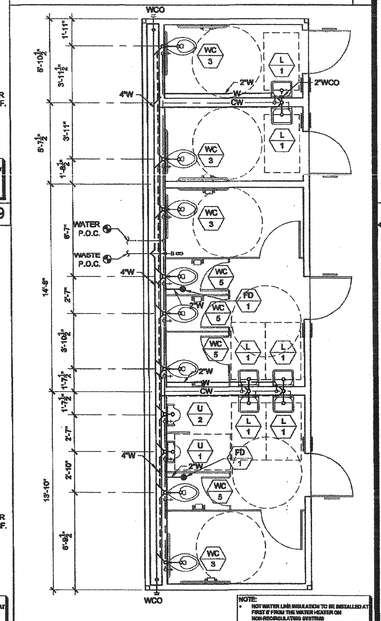
FLOOR MOUNT - MODEL C-1

PLUMBING PLAN SCALE: 1/4" = 1-0" 2



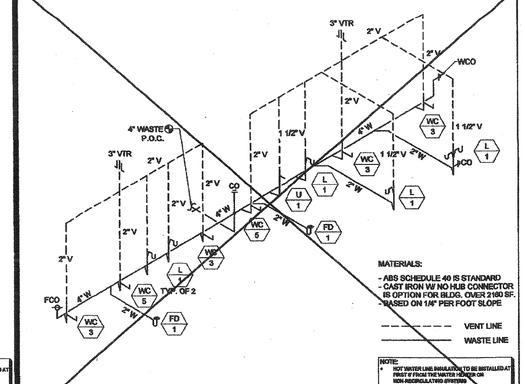
MODEL C-2

WASTE AND VENTING ISOMETRIC - FLOOR MOUNT SCALE: N.T.S. 10



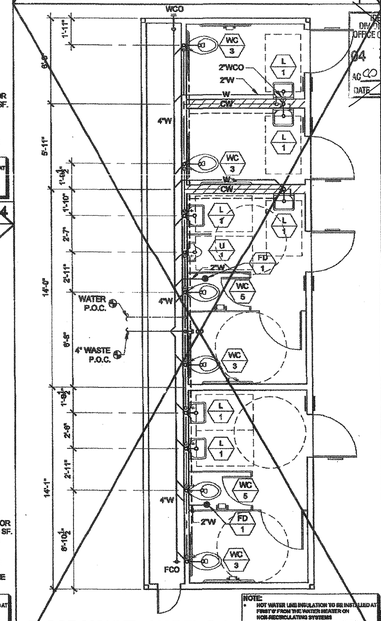
FLOOR MOUNT - MODEL C-2

PLUMBING PLAN SCALE: 1/4" = 1-0" 7



MODEL C-1

WASTE AND VENTING ISOMETRIC - FLOOR MOUNT SCALE: N.T.S. 5



FLOOR MOUNT - MODEL C-1

PLUMBING PLAN SCALE: 1/4" = 1-0" 2

THESE DRAWINGS AND ALL MATERIAL CONTAINED HEREIN ARE THE PROPERTY OF SILVERCREEK INDUSTRIES, INC (SCI Inc) AND SHALL NOT BE REPRODUCED, COPIED OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY AND SHALL NOT BE USED IN WHOLE OR IN PART TO ASSIST IN THE MAKING OF OR FOR THE PURPOSE OF FURNISHING ANY INFORMATION FOR THE MAKING OF DRAWINGS, PRINTS, APPARATUS OR PARTS THEREOF WITHOUT THE FULL KNOWLEDGE AND WRITTEN CONSENT OF SCI Inc.
ALL PATENTABLE MATERIAL CONTAINED HEREIN AND ORIGINATING WITH SCI Inc SHALL BE THE PROPERTY OF SCI Inc

SILVER CREEK INDUSTRIES, INC.
"BUILDING FOR THE NEXT GENERATION"
SILVER CREEK
195 EAST MORGAN PERRIS, CALIFORNIA 92571
PHONE: 951-943-5393 FAX: 951-943-2211

PROJECT NAME:

CLASS LEASING

SHEET TITLE:

PLUMBING PLAN AND ISOMETRICS MODEL ~~C-1~~ OR C-2 "ADULT"

TAVARES ASSOCIATES

12/23/2011

ARCHITECT OF RECORD SUBMISSION DATE:

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES
04 13891
AC PLS SS
DATE NOV 20 2013

REGISTERED ARCHITECT GARY A. MOORE C10322 12-25-15 STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES
04 11 3851
AC PLS SS CM
DATE AUG 28 2014

ORIGINAL PC STATE AGENCY APPROVAL

PRE-CHECK (PC) DOCUMENT FOR A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES
PC 04-112137
AC PLS SS
DATE DEC 27 2016

REVISIONS

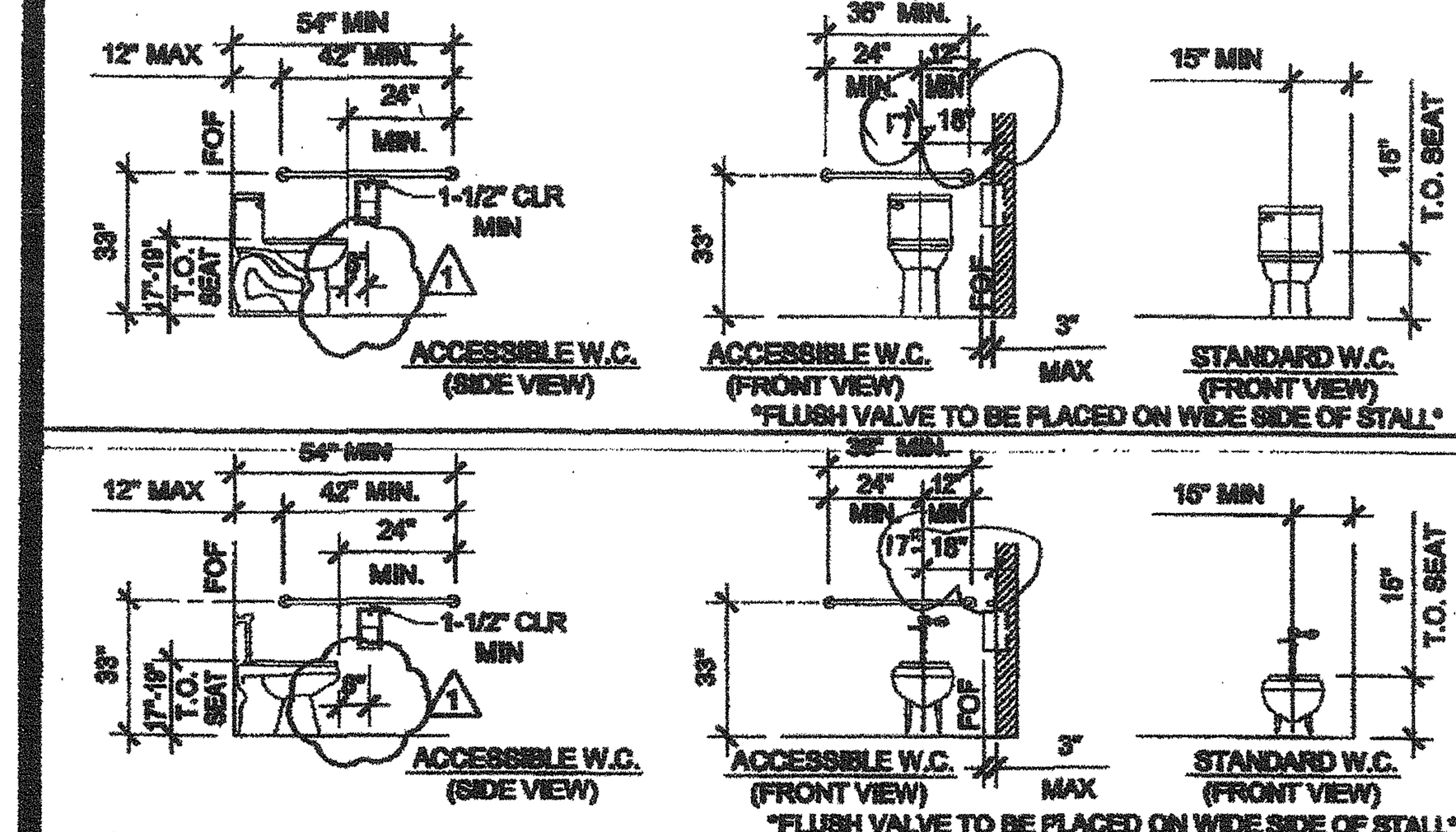
IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICE
APPL #: 03-117603
AC PLS SS CL
DATE APR 26 2017

FILE NUMBER: 19-29

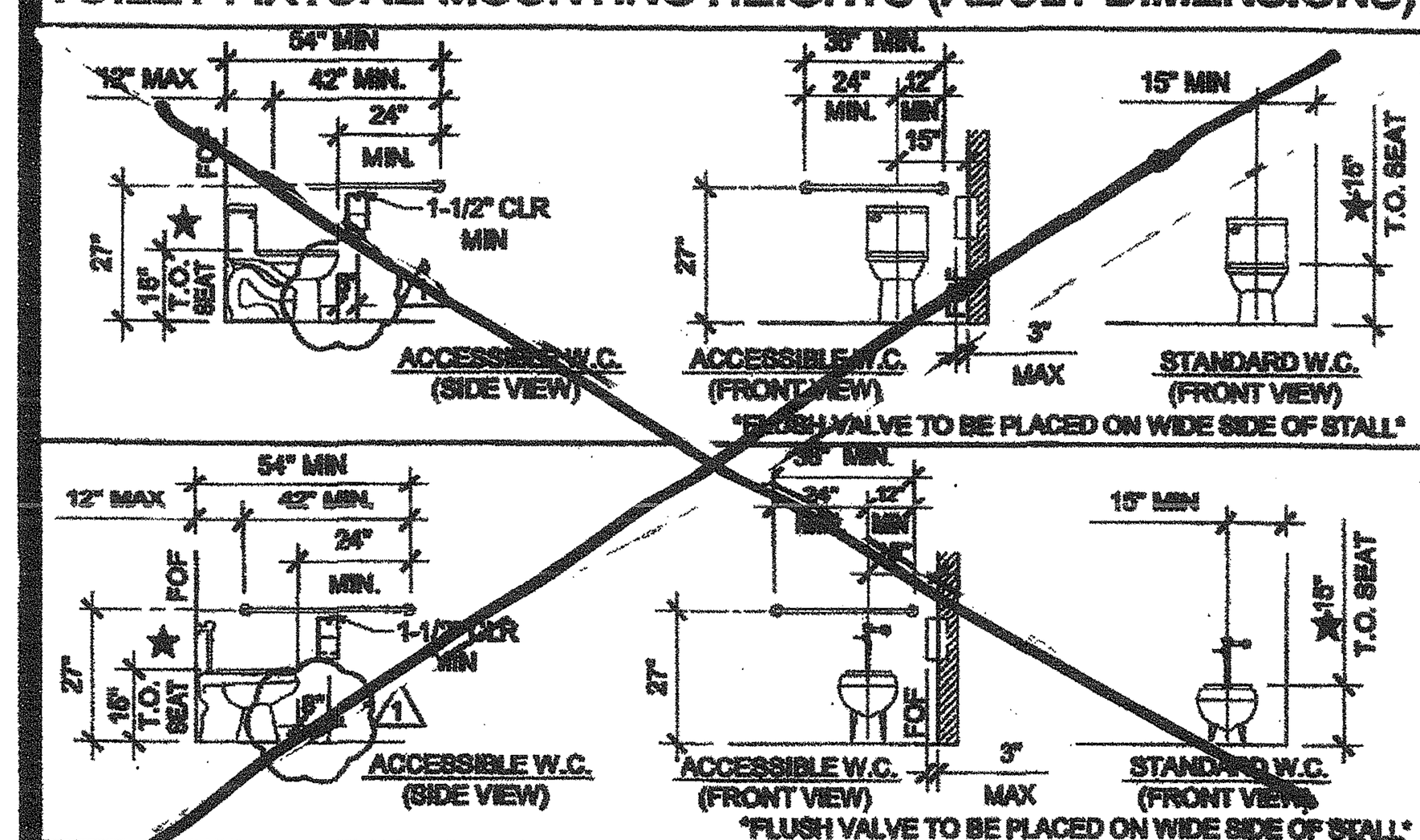
SILVER CREEK INDUSTRIES
12' x 40' PC

PROJECT NO:	
DRAWN BY:	
SCALE:	AS NOTED
DATE:	6-17-11 11-19-14
P.C. SHEET NUMBER	STKP 125

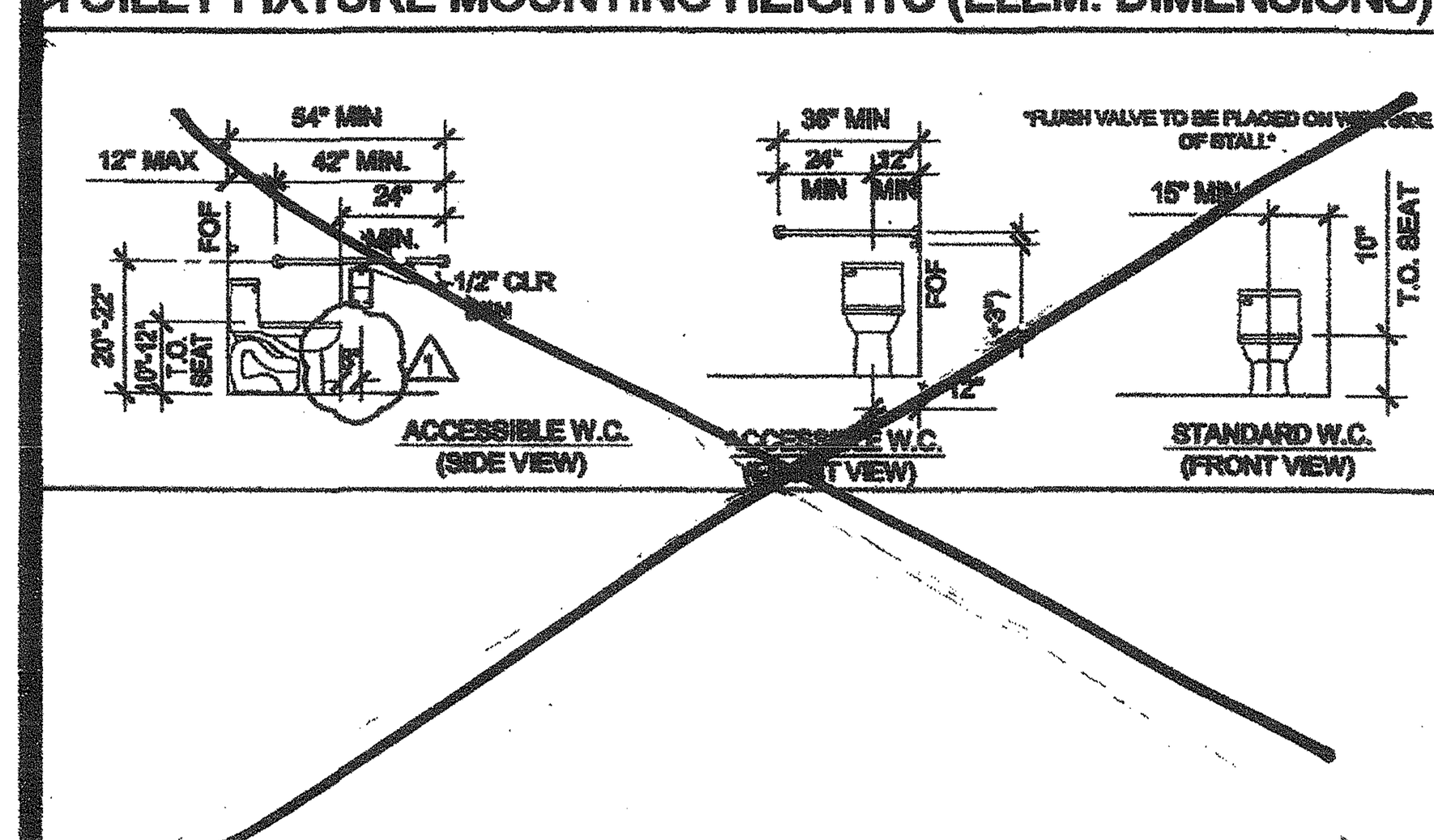
P-1.03A



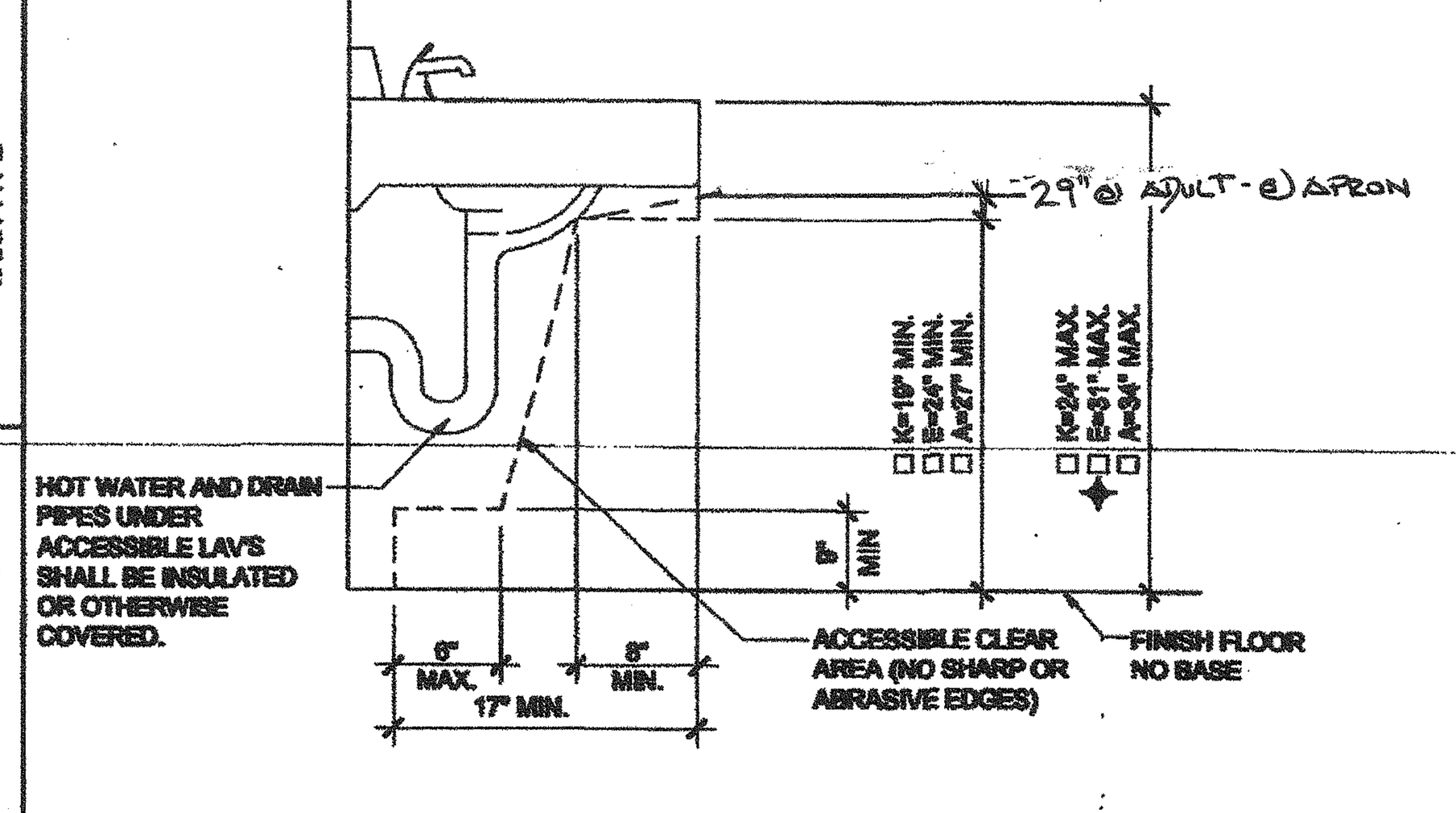
TOILET FIXTURE MOUNTING HEIGHTS (ADULT DIMENSIONS) 11



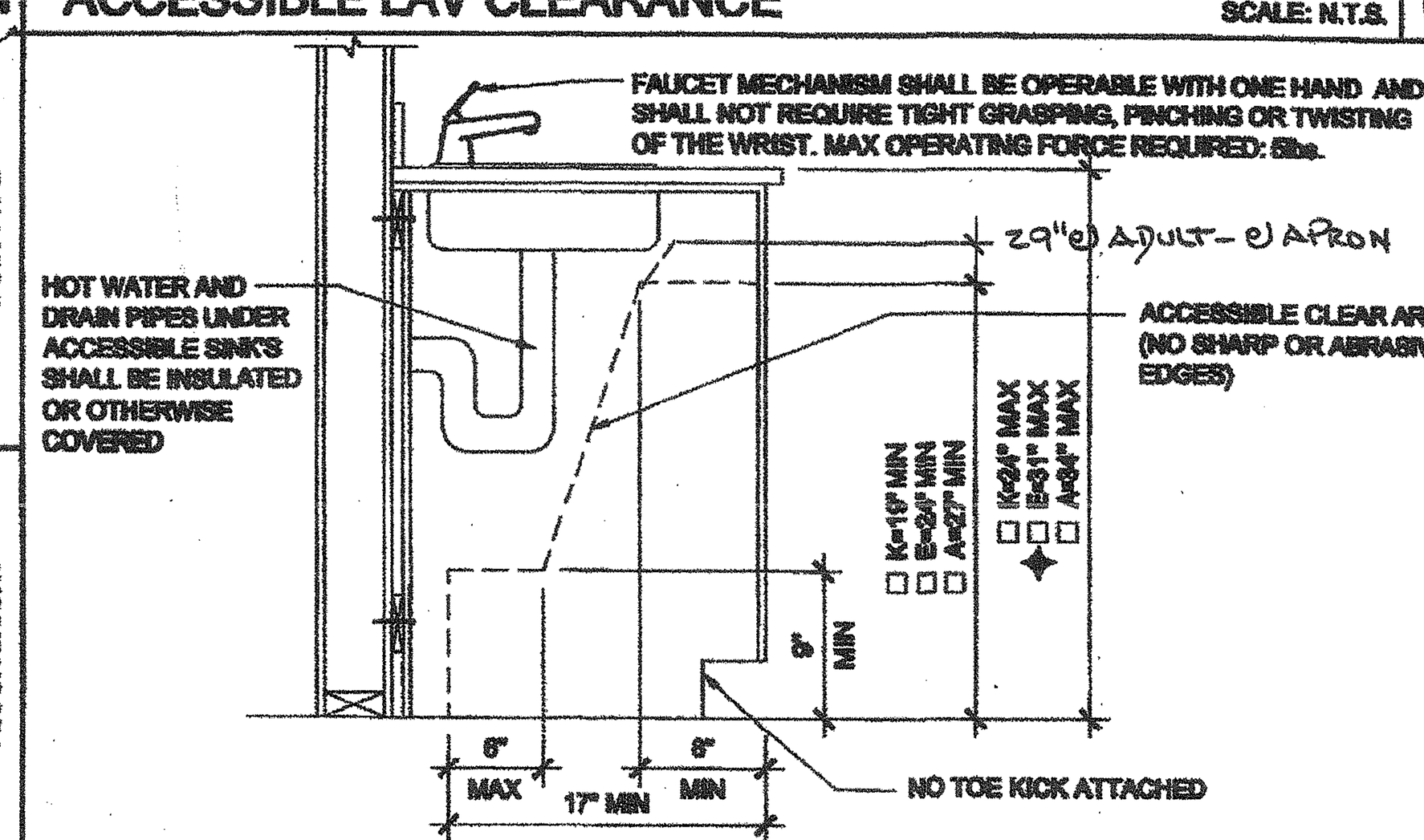
TOILET FIXTURE MOUNTING HEIGHTS (ELEM. DIMENSIONS) 12



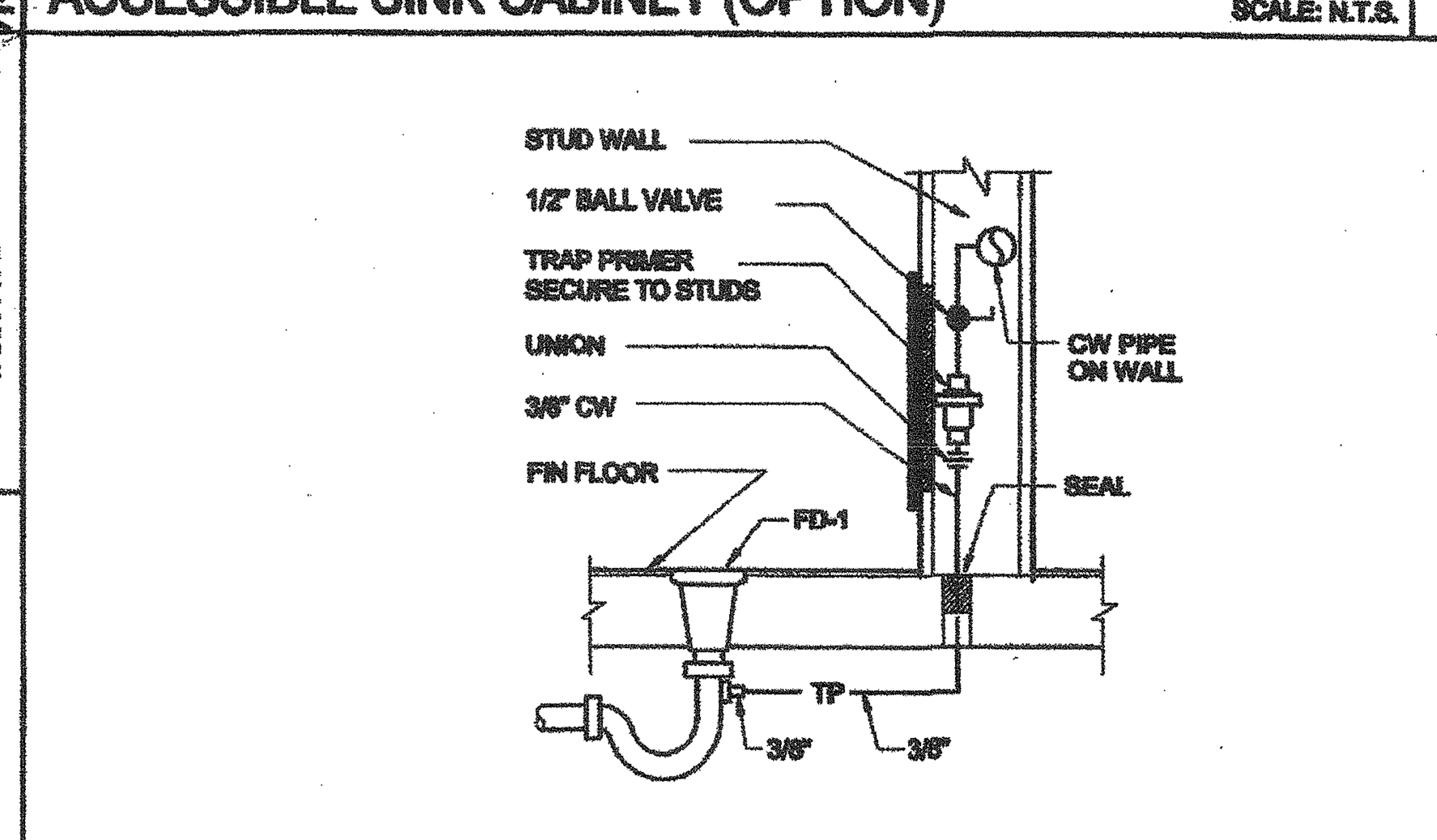
TOILET FIXTURE MOUNTING HEIGHTS (KINDER. DIMS) 13



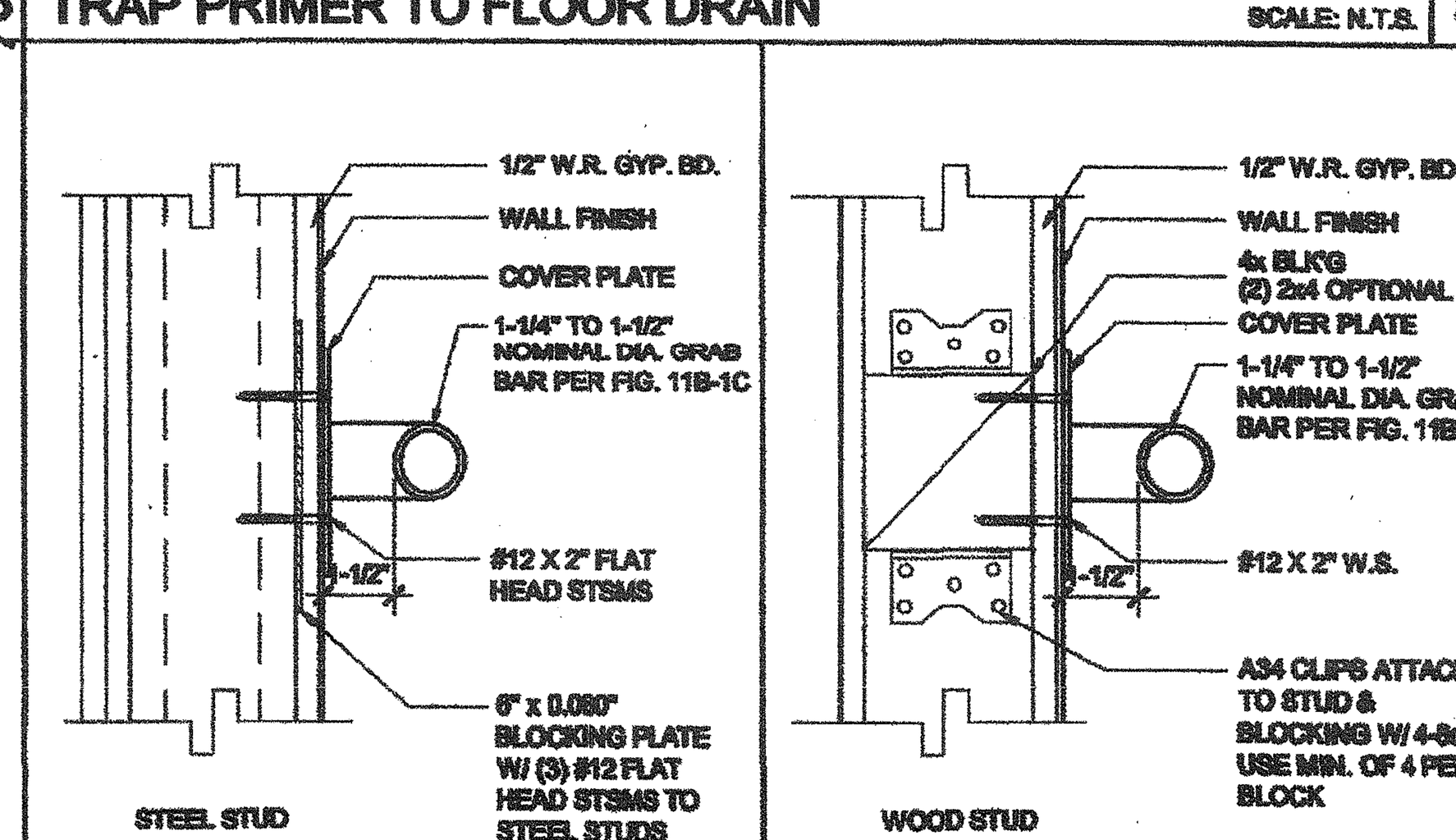
ACCESSIBLE LAV CLEARANCE — SCALE: N.T.S. 6



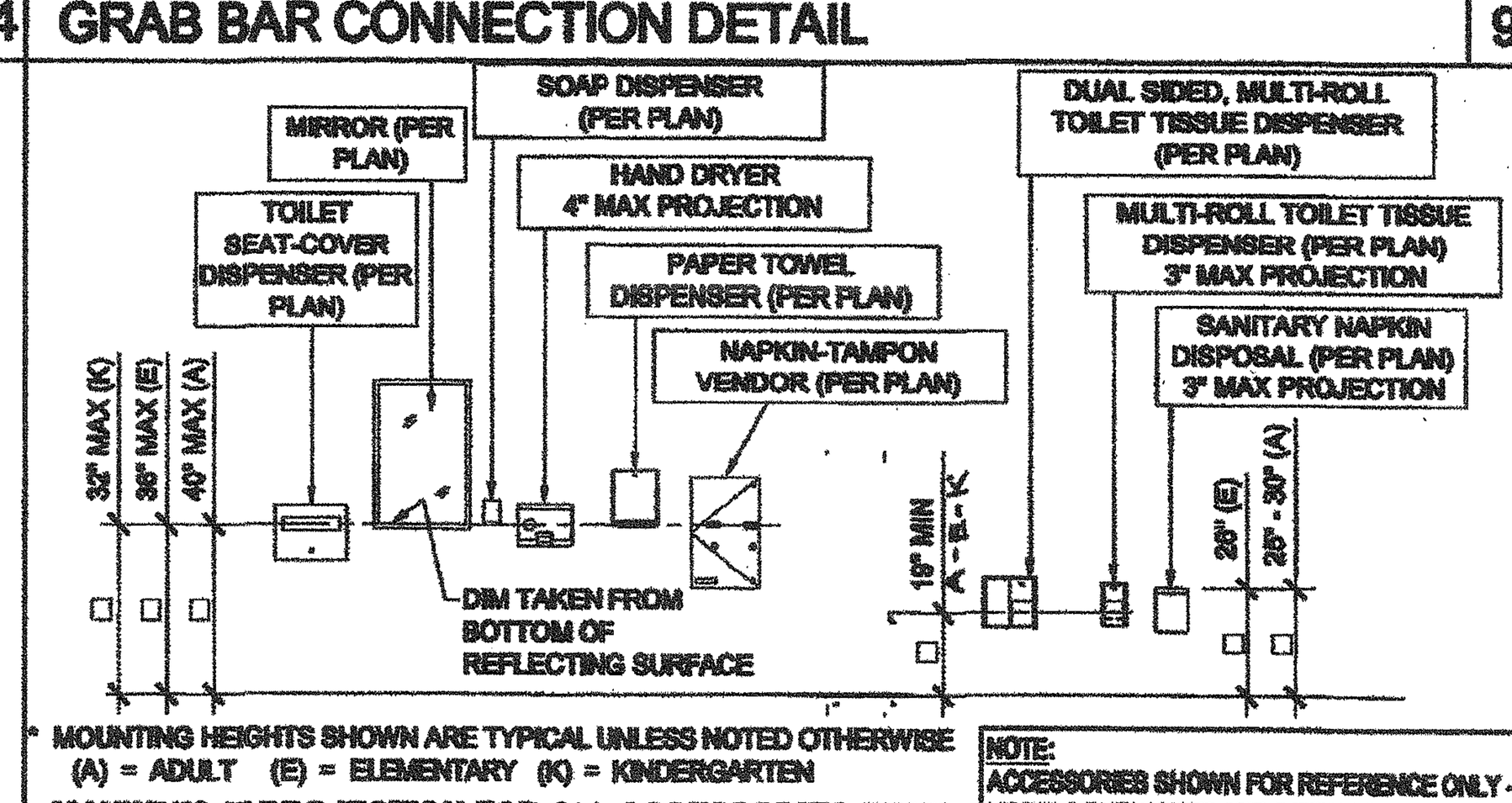
ACCESSIBLE SINK CABINET (OPTION) — SCALE: N.T.S. 7



TRAP PRIMER TO FLOOR DRAIN — SCALE: N.T.S. 8



GRAB BAR CONNECTION DETAIL 14 / 9



* MOUNTING HEIGHTS SHOWN ARE TYPICAL UNLESS NOTED OTHERWISE (A) = ADULT (E) = ELEMENTARY (K) = KINDERGARTEN
MAXIMUM 4" PROJECTION FOR ALL ACCESSORIES (UNO)

NOTE: ACCESSORIES SHOWN FOR REFERENCE ONLY - MODELS FURNISHED AND INSTALLED BY DISTRICT

15 TOILET ACCESSORIES MOUNTING HEIGHTS 10

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC N.A. FLS [illegible] SS CL
DATE APR 26 2017
FILE NUMBER: 19-29

THE DIVISION OF THE STATE ARCHITECT, OFFICE OF REGULATION SERVICES RECOMMENDS THE FOLLOWING DIMENSIONS AS ADEQUATELY SERVING THE NEEDS OF CHILDREN IN PROJECTS UNDER OUR JURISDICTION. THESE RECOMMENDATIONS ARE BASED ON THE FEDERAL "RECOMMENDATIONS FOR ACCESSIBILITY FOR CHILDREN IN ELEMENTARY SCHOOL" AND OTHER RECOGNIZED PUBLICATIONS ON ACCESS FOR CHILDREN.

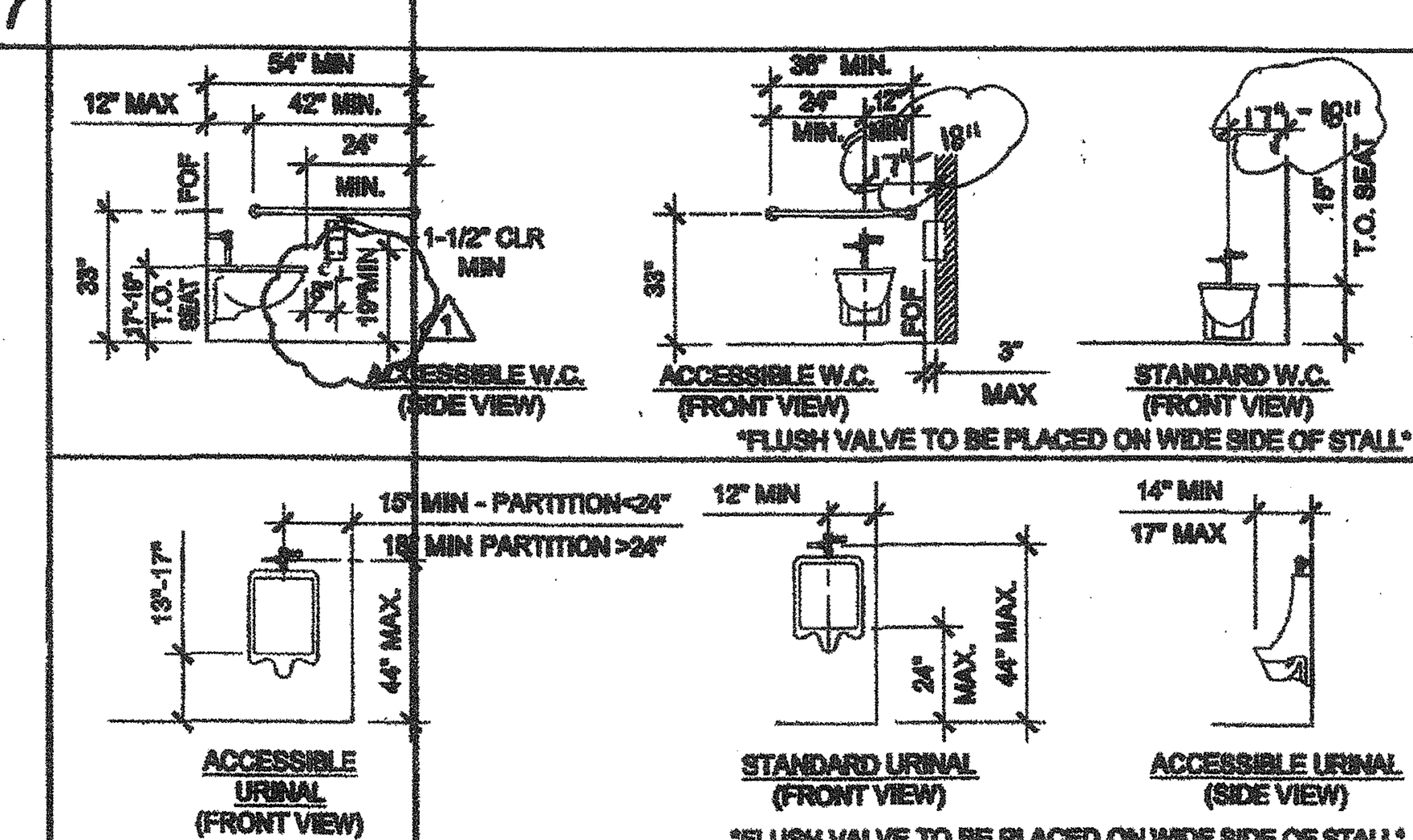
A = ADULT DIMENSIONS (AGE 12 AND OVER)
E = ELEMENTARY DIMENSIONS
K = KINDERGARTEN AND PRE-SCHOOL DIMENSIONS

★ DIMENSIONS OF 14" MINIMUM TO 16" MAXIMUM FOR AN ACCESSIBLE TOILET SEAT HEIGHT CAN BE USED FOR ELEMENTARY SCHOOL FACILITIES, WHERE SUCH TOILETS ARE USED SOLELY BY CHILDREN AGE 12 AND UNDER

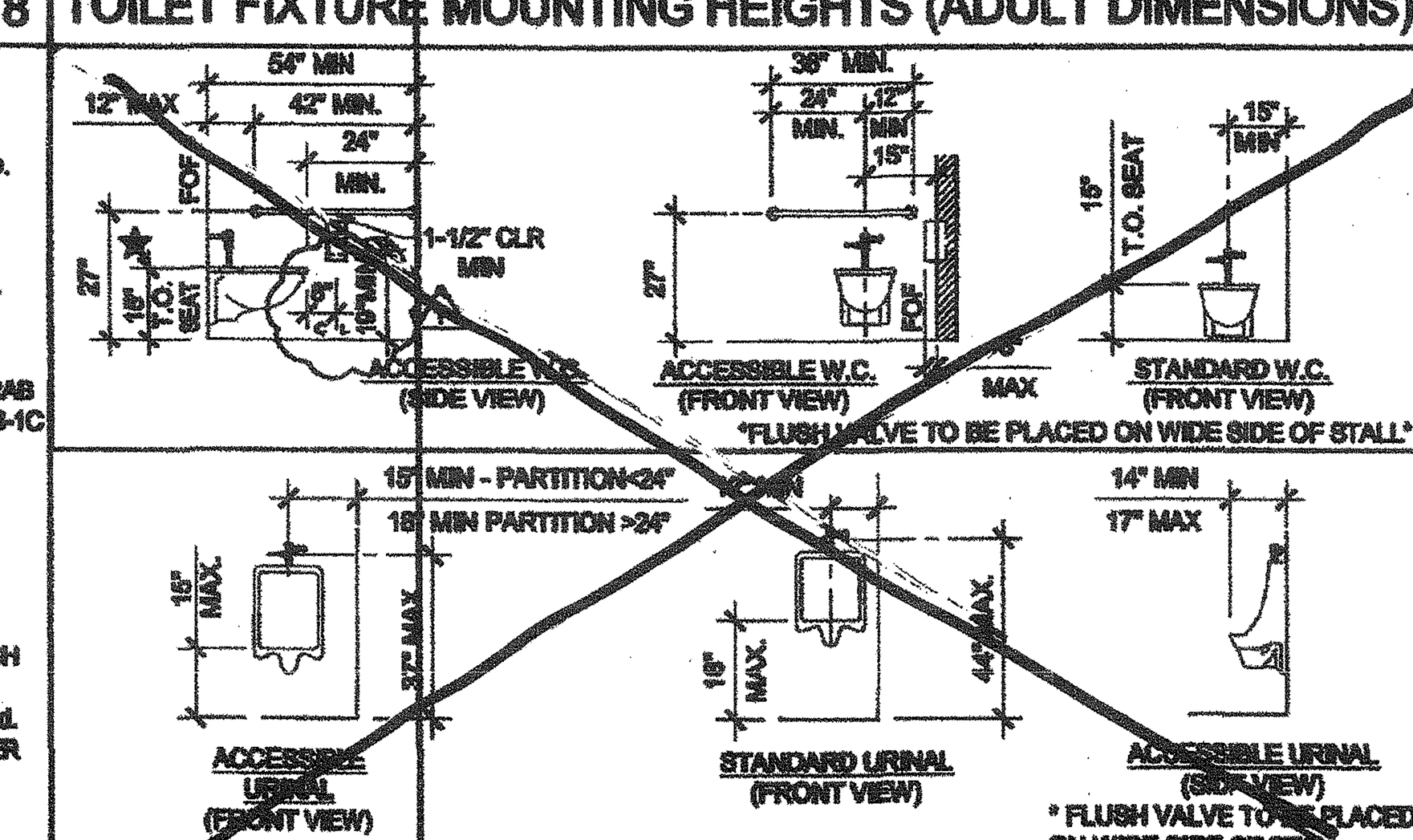
✦ DIMENSIONS OF 31" MAXIMUM TO THE RIM OR COUNTER SURFACE AT AN ACCESSIBLE LAVATORY, WHILE MAINTAINING A 24" MINIMUM FOR APRON AND KNEE CLEARANCE CAN BE USED FOR ACCESSIBLE LAVATORIES

ACCESSIBILITY DIMENSIONS	RECOMMENDED ACCESSIBLE HEIGHT (DIMS)		
	A (INCHES)	E (INCHES)	K (INCHES)
TOILET CENTERING FROM WALL	17–18	15	12
TOILET SEAT HEIGHT (DIM TO TOP OF SEAT)	17-19	★ 14"-16"	10-12
GRAB BAR HEIGHT (SIDE)	33	27	20-22
TOILET PAPER IN FRONT OF TOILET	7"-9" to CL	7"-9" TO CL	7"-9" TO CL
NAPKIN DISPOSAL IN FRONT OF TOILET	12 MAX.	12 MAX.	NA
MIRROR HEIGHT (TO BOTTOM OF GLASS)	40 MAX.	36 MAX.	32 MAX.
DISPENSER HEIGHT	40 MAX.	36 MAX.	32 MAX.
LAVATORY/SINK TOP HEIGHT	34 MAX.	✦ 31 MAX.	24 MAX.
LAVATORY/SINK KNEE CLEARANCE	27 MIN.	24 MIN.	19 MIN.
URINAL LIP HEIGHT	17 MAX	15 MAX	13 MIN.
URINAL FLUSH HANDLE HEIGHT	44 MAX.	37 MAX.	32 MAX.
DRINKING FOUNTAIN BUBBLER HEIGHT	36 MAX.	32 MAX.	30 MAX.
DRINKING FOUNTAIN KNEE CLEARANCE	27 MIN.	24 MIN.	22 MIN.
RAMP/STAIR HANDRAIL HEIGHT	34-38	27	22

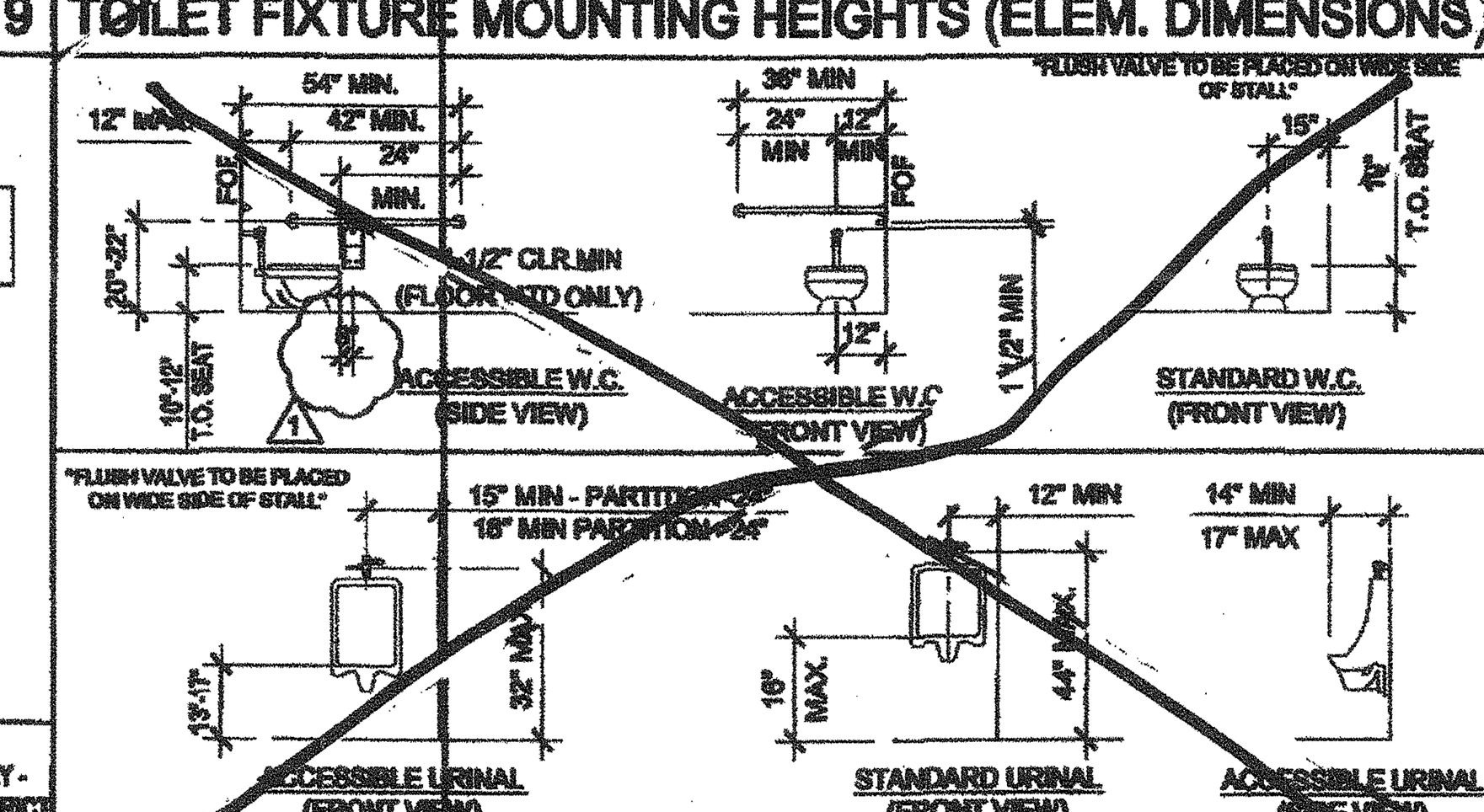
STANDARD DIMENSIONS	RECOMMENDED SUGGESTED HEIGHT (DIMS)		
	A (INCHES)	E (INCHES)	K (INCHES)
TOILET CENTERING FROM WALL/PARTITION	15 MIN	15 MIN	15 MIN
TOILET SEAT HEIGHT/DIM TO TOP OF SEAT	15	15	10
TOILET CLEARANCE/FRONT	24	24	24
URINAL LIP HEIGHT	24	18	16



TOILET FIXTURE MOUNTING HEIGHTS (ADULT DIMENSIONS) 3



TOILET FIXTURE MOUNTING HEIGHTS (ELEM. DIMENSIONS) 4



TOILET FIXTURE MOUNTING HEIGHTS (KINDER. DIMS) 5

PLUMBING FIXTURE SCHEDULE

SYMBOL	FIXTURE	COLD WATER	HOT WATER	WASTE	VENT	FIXTURE DESCRIPTION (AS CALLED OUT OR APPROVED EQUAL)
WC 1	[A, E] WATER CLOSET WALL MTD/FLUSH (ACCESSIBLE)	1"	-	3"	2"	STD: PROFLO STANDARD ADA PF1731 WALL ALT: AMERICAN STD ADA 2866.128 1.28 GPF, VITREOUS CHINA ELONGATED RIM, FLUSH VALVE TYPE, SIPHON JET; OLSONITE 10CC SOLID OPEN WHITE ELONGATED PLASTIC SEAT; SLOAN ROYAL #111-1.28 LOW CONSUMPTION FLUSHOMETER VALVE; JAY R SMITH #210-LY OR RY NO-HUB ADJUSTABLE FIXTURE SUPPORT CARRIER
WC 2	[A, E] WATER CLOSET WALL MTD/ FLUSH (NON-ACCESSIBLE)	1"	-	3"	2"	STD: PROFLO STANDARD ADA PF1731 WALL ALT: AMERICAN STD ADA 2866.128 1.28 GPF, VITREOUS CHINA ELONGATED RIM, FLUSH VALVE TYPE, SIPHON JET; OLSONITE 10CC SOLID OPEN WHITE ELONGATED PLASTIC SEAT; SLOAN ROYAL #111-1.28 LOW CONSUMPTION FLUSHOMETER VALVE; JAY R SMITH #210-LY OR RY NO-HUB ADJUSTABLE FIXTURE SUPPORT CARRIER
WC 3	[A] WATER CLOSET FLOOR MTD/FLUSH (ACCESSIBLE)	1"	-	3"	2"	STD: PROFLO ADA PF1723 ALT: AMERICAN STD ADA 3043.001 "MADERA" 1.28 GPF, 16 3/4" HIGH, VITREOUS CHINA ELONGATED RIM SIPHON JET, 10" ROUGH-IN; OLSONITE 10CC SOLID OPEN WHITE ELONGATED PLASTIC SEAT; SLOAN ROYAL #111-1.28 LOW CONSUMPTION FLUSHOMETER VALVE
WC 4	[E] WATER CLOSET FLOOR MTD/FLUSH (ACCESSIBLE)	1"	-	3"	2"	STD: PROFLO STANDARD PF1721 ALT: AMERICAN STANDARD 2234.001 MADERA 1.28 GPF 15" HIGH, VITREOUS CHINA ELONGATED RIM, SIPHON JET, 12" ROUGH-IN; OLSONITE 10CC SOLID OPEN WHITE ELONGATED PLASTIC SEAT; SLOAN ROYAL #111-1.28 LOW CONSUMPTION FLUSHOMETER VALVE
WC 5	[A, E] WATER CLOSET FLOOR MTD/FLUSH (NON-ACCESSIBLE)	1"	-	3"	2"	STD: PROFLO STANDARD PF1721 ALT: AMERICAN STANDARD 2234.001 MADERA 1.28 GPF 15" HIGH, VITREOUS CHINA ELONGATED RIM, SIPHON JET, 12" ROUGH-IN; OLSONITE 10CC SOLID OPEN WHITE ELONGATED PLASTIC SEAT; SLOAN ROYAL #111-1.28 LOW CONSUMPTION FLUSHOMETER VALVE
WC 6	[K] WATER CLOSET FLOOR MTD/FLUSH (ACCESSIBLE & NON-ACCESSIBLE)	1"	-	3"	2"	STD: PROFLO PF1700BB ALT: AMERICAN STANDARD BABY DEVORO 2282.010 VITREOUS CHINA ELONGATED RIM, 10" ROUGH-IN LOW CONSUMPTION CLOSET BOWL; OLSONITE 126CC SOLID OPEN WHITE ELONGATED PLASTIC SEAT; SLOAN ROYAL #111-1.28 LOW CONSUMPTION FLUSH VALVE
WC 7	[A] WATER CLOSET TANK TYPE (ACCESSIBLE)	1/2"	-	3"	2"	STD: PROFLO ADA PF9403 ALT: AMERICAN STANDARD ADA 2759.128 1.28 GPF, 17 HIGH, VITREOUS CHINA ELONGATED RIM, TANK TYPE; 12" ROUGH-IN; OLSONITE 10CC SOLID OPEN WHITE ELONGATED PLASTIC SEAT
WC 8	[E] WATER CLOSET TANK TYPE (ACCESSIBLE)	1/2"	-	3"	2"	STD: PROFLO STANDARD PF9401 ALT: AMERICAN STANDARD 2832.128, 16" HIGH, VITREOUS CHINA ELONGATED RIM, TANK TYPE; 12" ROUGH-IN; OLSONITE 10CC SOLID OPEN WHITE ELONGATED PLASTIC SEAT
WC 9	[A, E] WATER CLOSET TANK TYPE (NON-ACCESSIBLE)	1/2"	-	3"	2"	STD: PROFLO STANDARD PF9401 ALT: AMERICAN STANDARD 2832.128, 16" HIGH, VITREOUS CHINA ELONGATED RIM, TANK TYPE; 12" ROUGH-IN; OLSONITE 10CC SOLID OPEN WHITE ELONGATED PLASTIC SEAT
WC 10	[K] WATER CLOSET TANK TYPE (ACCESSIBLE & NON-ACCESSIBLE)	1/2"	-	3"	2"	STD: PROFLO PF1704BB ALT: AMERICAN STANDARD 2315.016 BABY DEVORO 10" HIGH, 10" ROUGH-IN, VITREOUS CHINA ELONGATED RIM, TANK TYPE; OLSONITE 10CC SOLID OPEN WHITE ELONGATED PLASTIC SEAT
LAV 1	LAVATORY (ACCESSIBLE)	1/2"	-	2"	1 1/2"	STD: AMERICAN STANDARD 0355.012 LUCERNE ALT: CRANE 1-412V "HARWICH" 20X18" VITREOUS CHINA; JAY R SMITH #722 CONCEALED HANGER; VALLEY #NL805IPS SINGLE HANDLE FAUCET (AMERICAN STANDARD 9141.011 TO BE USED @ KINDER APPLICATIONS ONLY)
UR 1	URINAL (ACCESSIBLE)	3/4"	-	2"	1 1/2"	STD: PROFLO PF 1805 ALT: AMERICAN STANDARD 6550.005 1.0 GPF, VITREOUS CHINA, WALL HUNG, SIPHON JET URINAL WITH INTEGRAL TRAP; SLOAN REGAL 186-0.5 LOW CONSUMPTION FLUSHOMETER VALVE
UR 2	URINAL (NON-ACCESSIBLE)	3/4"	-	2"	1 1/2"	STD: PROFLO PF 1805 ALT: AMERICAN STANDARD 6550.005 1.0 GPF, WASHOUT VITREOUS CHINA, WALL HUNG URINAL WITH INTEGRAL TRAP; SLOAN REGAL 186-0.5 LOW CONSUMPTION FLUSHOMETER VALVE
FD 1	FLOOR DRAIN	-	-	2"	1 1/2"	JAY R SMITH #2005YA-02-P050-NB. FLOOR DRAIN TAPPED FOR PRIMER. 5" NICKEL BRONZE STRAINER
TP 1	TRAP PRIMER	1/2"	-	-	-	PR-500 WITH 8"X12" LOCKABLE BOX, 1/2" BALL SHUT-OFF VALVE, AND PPP DU-U FRESH WATER DISTRIBUTION SYSTEM
WHA 1	WATER HAMMER ARRESTOR	1"	-	-	-	PPP SC-1000
GB 1	GRAB BAR	-	-	-	-	McKINNEY 9704-1-1/2 OC STAINLESS STEEL GRAB BAR - SATIN FINISH; 36" LONG ON BACK AND 42" ON SIDE
MR 1	MIRROR	-	-	-	-	SERIES 530 RETURNED MIRRORS STAINLESS STEEL - 18GA 18"X24" - "J" SHEET METAL MANUFACTURED OR APPROVED EQUAL
PAR 1	TOILET PARTITION	-	-	-	-	METAL POWDER COATED
SS 1	SERVICE SINK	1/2"	1/2"	2"	1 1/2"	KOHLER K-6714 "BANNON" 22"X18" CAST IRON, ACID RESISTANT SINK; K-8905-RP "KNOXFORD" FAUCET; K-8672 2" I.P.S. TRAP
MS 1	MOP SINK	1/2"	1/2"	2"	1 1/2"	KOHLER K-6710 "WHITBY" 28"X28" CAST IRON W/ CHICAGO FAUCET 956-R, 953 WALL HOOK, AND 2" K-9142 STRAINER
CS 1	CLASSROOM SINK (OPTION)	1/2"	1/2"	2"	1 1/2"	JUST CRA-1725-A-GR 17"x25" w/ 4 1/2" BOWL DEPTH, WITH CHICAGO FAUCET #350 AND BUBBLER JSB-10
WH 1	WATER HEATER (OPTION)	3/4"	3/4"	-	-	☐ A.O. SMITH #DEL-6 (6 GALLON) ☐ A.O. SMITH #DEL-10 (10 GALLON) (SEE SHEET A-4.32)
WH 2	INSTANT WATER HEATER (OPTION)	1/2"	1/2"	-	-	EEMAX #SP3012, 120V, 3.0KW, 25A
DF 1	DRINKING FOUNTAIN	1/2"	-	2"	1 1/2"	HALSEY-TAYLOR / BI-LEVEL HAC8FSBL-Q / COOLING TYPE
WB 1	WASHER BOX	1/2"	1/2"	2"	-	WASHER BOX
DB 1	DRYER BOX	-	-	-	-	IN-O-VATE TECHNOLOGIES, DRYER BOX MODEL 350, WITH LOUVERED DRYER VENT COVER
HB 1	HOSE BIBB	1/2"	-	-	-	ACORN #8151

* THE DSA HAS ALLOWED 1 1/2" MIN. CLR. TO ACCOMMODATE FLUSH VALVE AND TOILET TANKS AT "K" DIMENSIONS AS LONG AS THE SIDE GRAB BAR IS MOUNTED AT THE HEIGHT PRESCRIBED IN TABLE 1115B-1.
[A] = ADULT [E] = ELEMENTARY [K] = KINDERGARTEN

THESE DRAWINGS AND ALL MATERIAL CONTAINED HEREIN ARE THE PROPERTY OF SILVERCREEK INDUSTRIES, INC (SCI Inc) AND SHALL NOT BE REPRODUCED, COPIED OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY AND SHALL NOT BE USED IN WHOLE OR IN PART TO ASSIST IN THE MAKING OF OR FOR THE PURPOSE OF FURNISHING ANY INFORMATION FOR THE MAKING OF DRAWINGS, PRINTS, APPARATUS OR PARTS THEREOF WITHOUT THE FULL KNOWLEDGE AND WRITTEN CONSENT OF SCI Inc.
ALL PATENTABLE MATERIAL CONTAINED HEREIN AND ORIGINATING WITH SCI Inc SHALL BE THE PROPERTY OF SCI Inc

SILVER CREEK INDUSTRIES, INC.
"BUILDING FOR THE NEXT GENERATION"
SILVER CREEK
195 EAST MORGAN PERRIS, CALIFORNIA 92571
PHONE: 951-943-5393 FAX: 951-943-2211

PROJECT NAME:
CLASS LEASING

SHEET TITLE:
PLUMBING DETAILS AND SCHEDULE

TAVARES ASSOCIATES

SEP 19 2012

ARCHITECT OF RECORD
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
04 113891
DATE NOV 20 2014
REGISTERED ARCHITECT ROBERT A. McQUEAD C10322 STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
04 113851
DATE AUG 28 2014

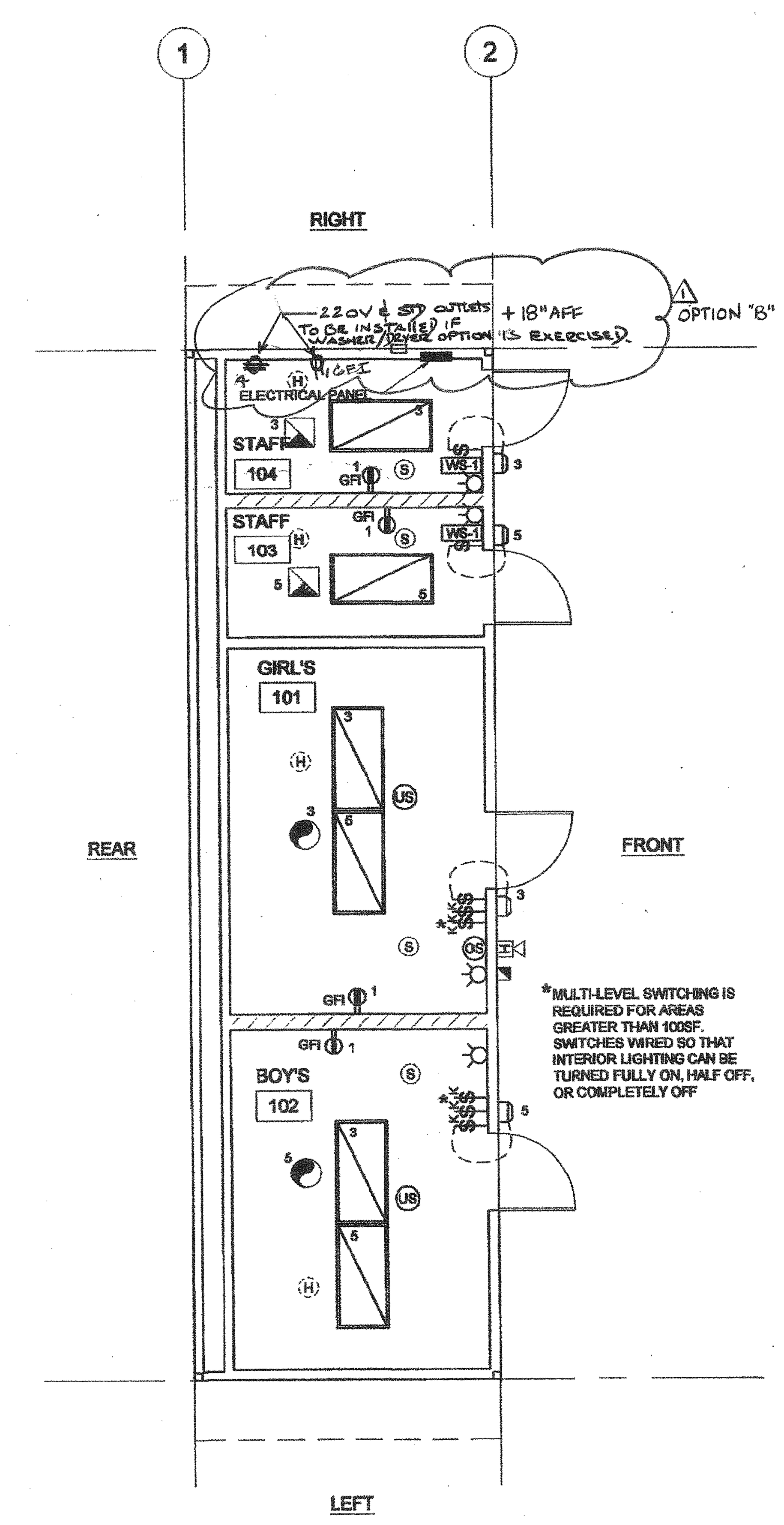
ORIGINAL PC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-112137
DATE JAN 9 2013
REVISED

REVISIONS
1 PC REVISION 12/13/2012
2 STOCK PILE REVISIONS - ADDED OPTION MODELS
3
4
5
6
7
8

SILVER CREEK INDUSTRIES
12' x 40' PC

PROJECT NO:
DRAWN BY: ZARAGOZA
SCALE: AS NOTED
DATE: 12-12-12 11-19-14
P.C. SHEET NUMBER: STKP 125
P-2.01

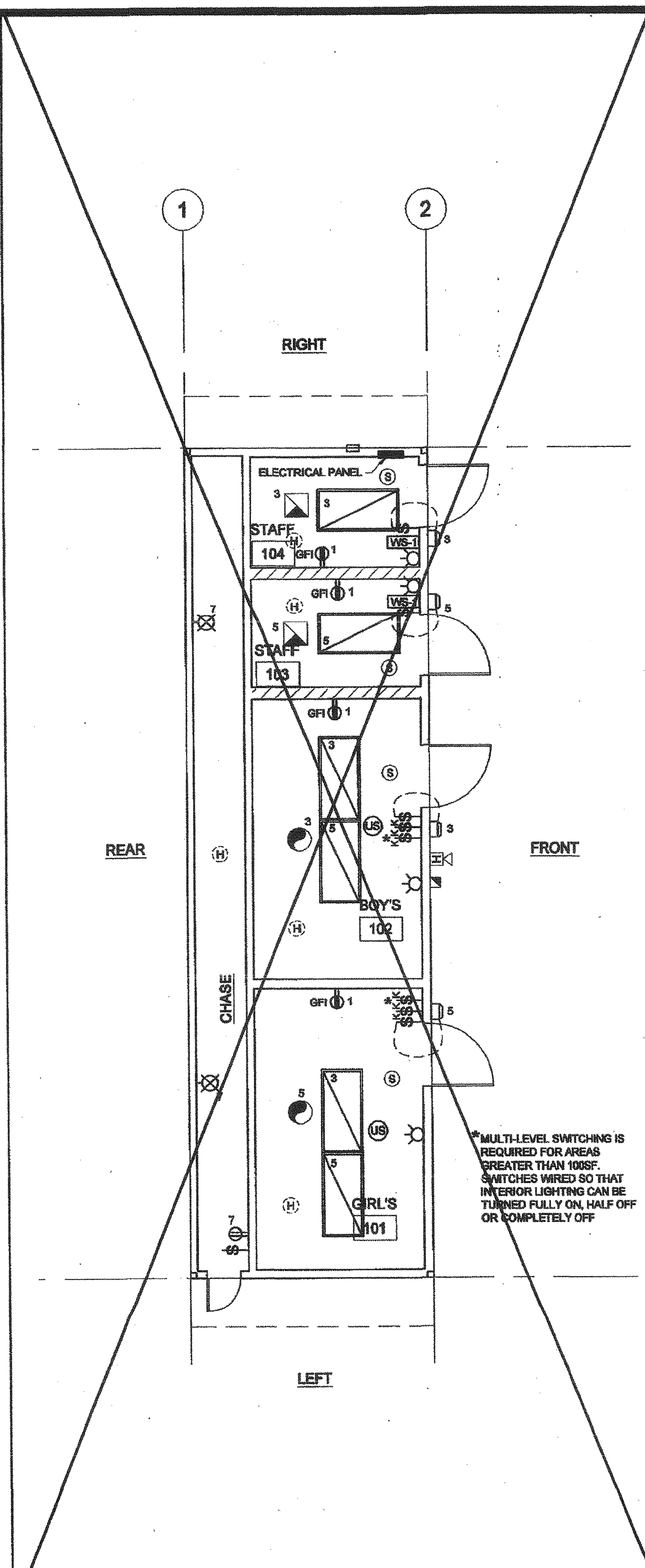
RIGHT



*MULTI-LEVEL SWITCHING IS REQUIRED FOR AREAS GREATER THAN 100SF. SWITCHES WIRED SO THAT INTERIOR LIGHTING CAN BE TURNED FULLY ON, HALF OFF, OR COMPLETELY OFF

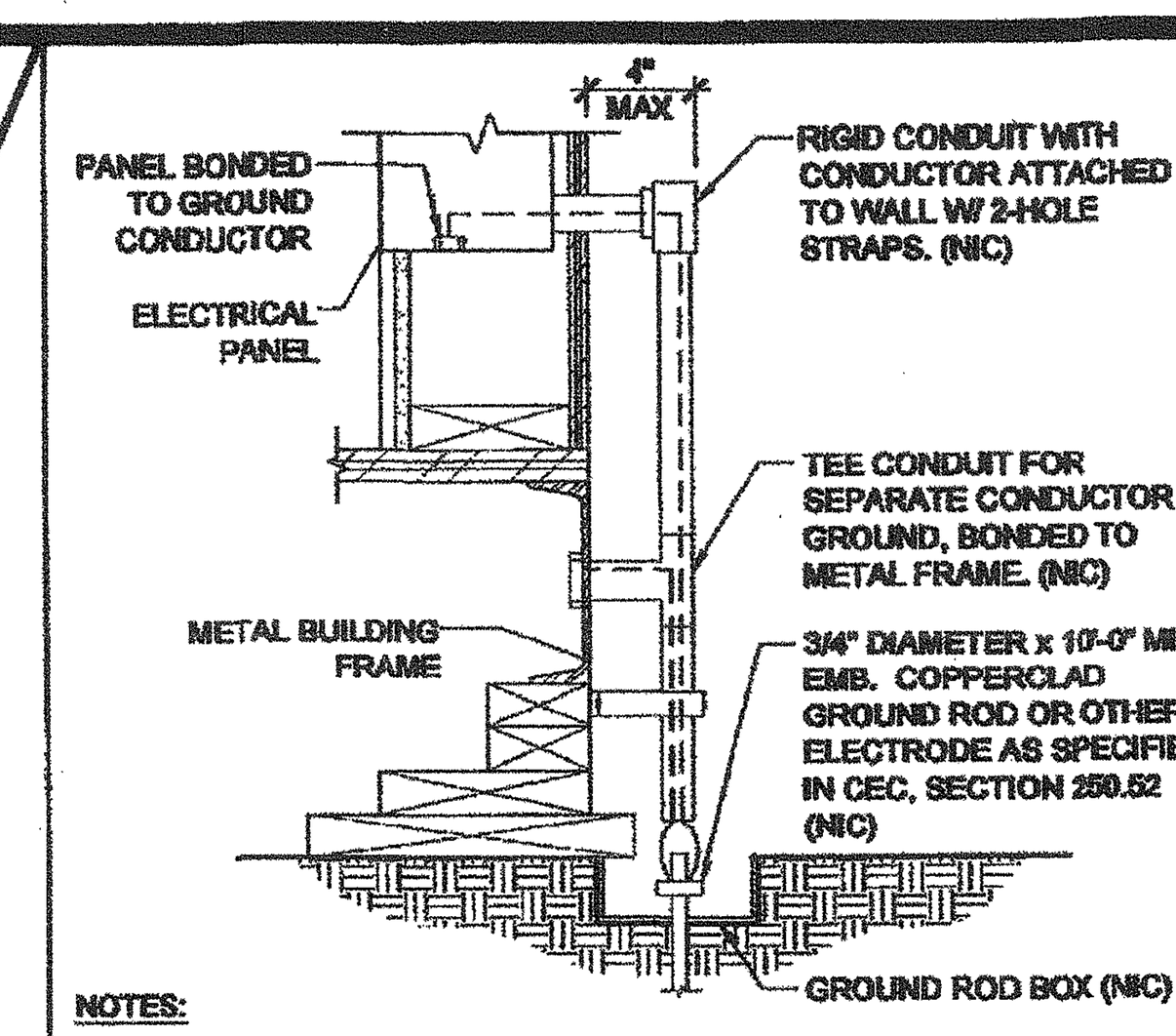
ELECTRICAL PLAN - MODEL C-2 SCALE: 1/4" = 1'-0" 5

RIGHT



*MULTI-LEVEL SWITCHING IS REQUIRED FOR AREAS GREATER THAN 100SF. SWITCHES WIRED SO THAT INTERIOR LIGHTING CAN BE TURNED FULLY ON, HALF OFF OR COMPLETELY OFF

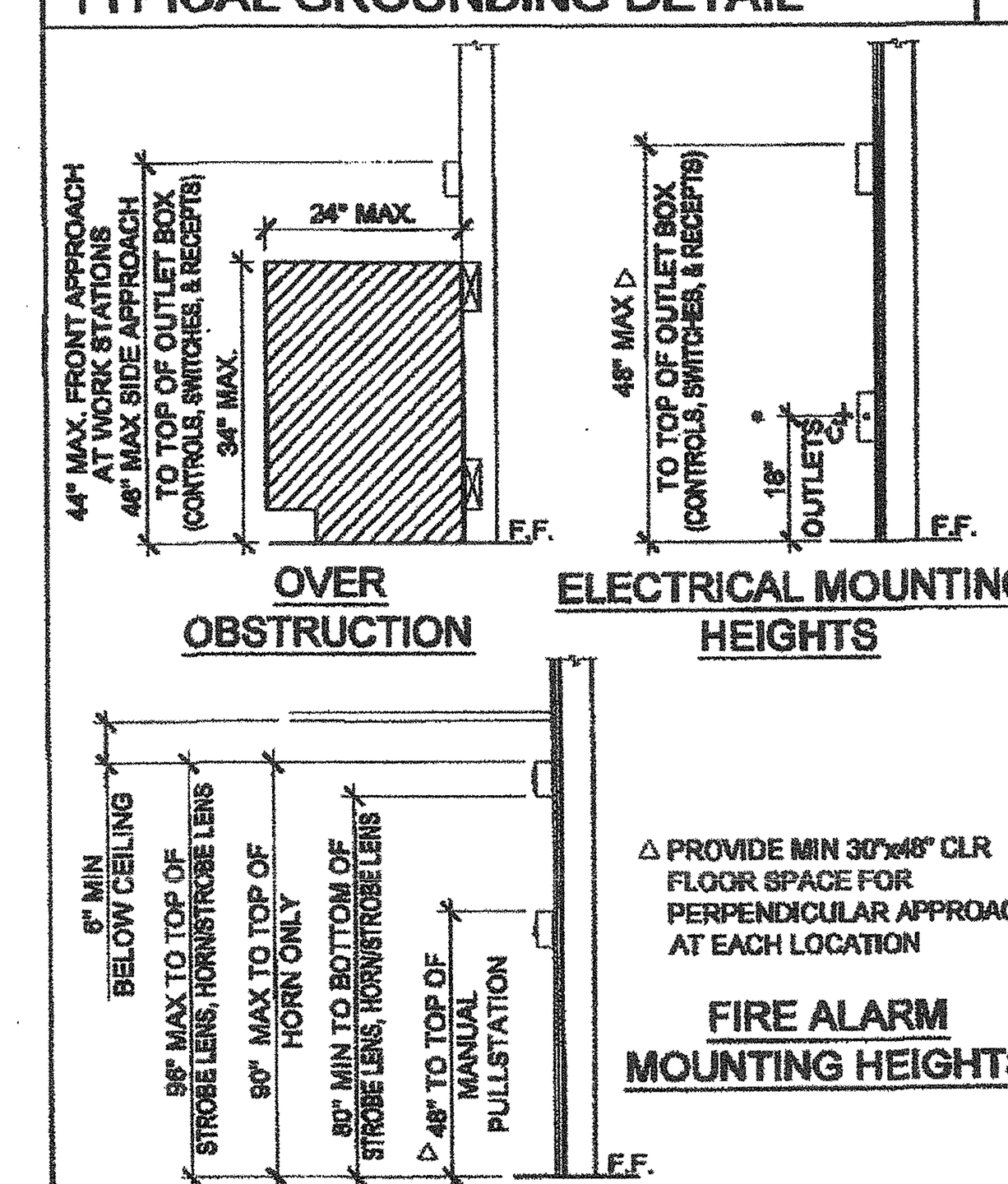
ELECTRICAL PLAN - MODEL C-1 SCALE: 1/4" = 1'-0" 4



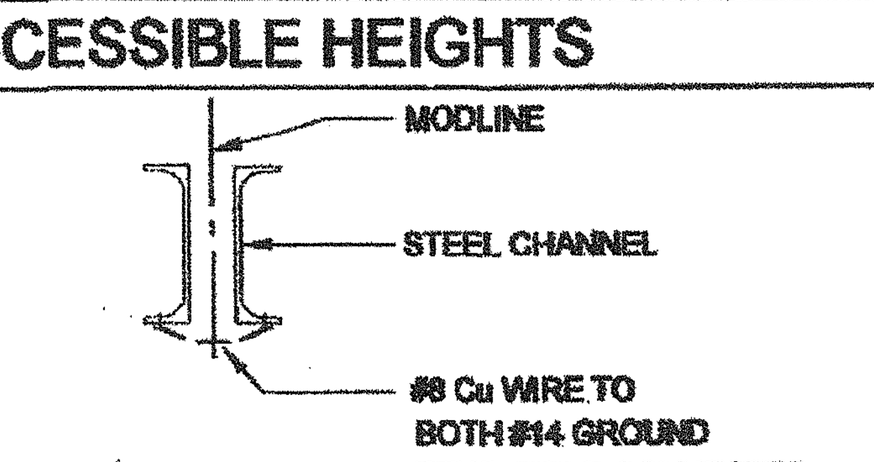
NOTES:

1. SIZE OF CONDUCTORS SHALL COMPLY WITH CEC TABLE 250.66
2. ELEC. TRADE SHALL CHECK AREA FOR EXISTING CONDUITS, SEWER, GAS & WATER PIPING BEFORE DRIVING GROUND RODS.
3. BOND SEPARATE CONDUCTORS FROM GROUND ROD TO ELEC'L. PANEL & TO METAL BUILDING FRAME (CEC 250.52) IN ADDITION TO THE DETAIL SHOWN ABOVE, BOND THE ELECTRICAL GROUND TO METAL UNDERGROUND WATER PIPE IN DIRECT CONTACT WITH THE EARTH FOR 10 FT. OR MORE, IF AVAILABLE (CEC 250.52)
4. ALL MODULES OF METAL FRAME BLDGS. SHALL BE ELECTRICALLY BONDED TOGETHER (BOLTING ONLY IS NOT ACCEPTABLE BONDING). BONDING SHALL INCLUDE METAL RAMP.
5. CHECK RESISTANT TO GROUND ROD, IF RESISTANCE EXCEEDS 25 OHMS, INSTALL ADDITIONAL GROUND RODS WITH CONDUCTORS AS SHOWN SEPARATED AT LEAST 6'-0" UNTIL RESISTANCE IS REDUCED TO 25 OHMS OR LESS (CEC 250.56).

TYPICAL GROUNDING DETAIL 1



ACCESSIBLE HEIGHTS 2



GROUND JUMPER AT MODLINE 3

GENERAL GROUNDING NOTES

EACH BUILDING SHALL BE SEPARATELY GROUNDED WITH A 3/4" RD. X 8' COPPERCLAD STEEL GROUND ROD, WHERE ROCK BOTTOM IS ENCOUNTERED, ROD SHALL BE DRIVEN AT AN ANGLE NOT TO EXCEED 45 DEGREE'S FROM THE VERTICAL OR SHALL BE BURIED IN A TRENCH THAT IS AT LEAST 30" DEEP (BY SITE ELECTRICAL).

TESTING: TEST FOR RESISTANCE TO GROUND, IF RESISTANCE EXCEEDS 25 OHMS. INSTALL ADDITIONAL GROUND RODS SEPARATED AT LEAST 6'-0" UNTIL RESISTANCE IS REDUCES TO 25 OHMS OR LESS. (BY SITE ELECTRICAL).

APPROVAL OF THIS PLAN DOES NOT CONSTITUTE APPROVAL OF THIS FIRE ALARM FOR ALL SITES. THE FIRE ALARM SYSTEM AND/OR COMPONENTS MAYBE REQUIRED TO BE CHANGED DUE TO SITE LOCATION EXISTING CONDITIONS OR INCOMPATIBLE COMPONENTS.

GROUND MG TEST SHALL BE DONE IN THE PRESENCE OF THE PROJECT INSPECTOR. ALL GROUNDING SHALL BE IN ACCORDANCE WITH CEC ARTICLE 250.

SCHOOL EQUIPMENT ANCHORAGE

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 2010 CBC, SECTIONS 1615A.1.12 THROUGH 1615A.1.22 AND ASCE 7-05 CHAPTER 6 AND 13.

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

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 A WALL.

FOR THOSE ELEMENTS THAT DO NOT REQUIRE DETAILS ON THE APPROVED DRAWINGS, THE INSTALLATION SHALL BE SUBJECT TO THE APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD 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 7-05 SECTION 13.3 AS DEFINED IN ASCE 7-05 SECTION 13.6.8, 13.6.7, 13.6.5.6 AND 2010 CBC SECTIONS 1615A.1.20, 1615A.1.21 AND 1615A.1.22.

THE BRACING AND ATTACHMENTS TO THE STRUCTURE SHALL BE DETAILED ON THE APPROVED DRAWINGS OR THEY SHALL COMPLY WITH ONE OF THE OSHPD PRE-APPROVALS (OPA #) AS MODIFIED TO SATISFY ANCHORAGE REQUIREMENTS OF ACI 318, APPENDIX D.

COPIES OF THE MANUAL SHALL BE AVAILABLE ON THE JOBSITE PRIOR TO THE START OF HANGING AN BRACING OF THE PIPE, DUCTWORK AND ELECTRICAL DISTRIBUTION SYSTEMS.

THE STRUCTURAL ENGINEER OF RECORD SHALL VERIFY THE ADEQUACY OF THE STRUCTURE TO SUPPORT THE HANGER AND BRACE LOADS.

FIRE ALARM NOTES

1. SMOKE AND HEAT DETECTOR SHALL BE CONNECTED TO FIRE ALARM SYSTEM BY OTHERS
2. PROVIDE DEDICATED FIRE ALARM 120 VOLT CIRCUIT CONNECTED TO LOCKED-ON BREAKER. THE CIRCUIT BREAKER SHALL BE LOCKED-ON WITH APPROVED LOCKING DEVICE, MARKED RED AND IDENTIFIED AS "FIRE ALARM CONTROL CIRCUIT". NFPA 72 4.4.1.4.2.2

CONDUIT FILL AND CONDUCTOR CAPACITY TABLE

(ALL CONDUCTORS SHALL BE TYPE THHN/THWN 75°C. COPPER)

WIRE SIZE	CAPACITY	WIRE TYPE	NO. OF CONDUCTOR PERMITTED 1/2" C	3/4" C	1" C	1 1/4" C
#12	20A	THHN	9	16	25	45
#10	30A	THHN	5	10	16	28
#8	45A	THHN	2	5	8	14
#6	65A	THHN	1	3	5	10
#4	85A	THHN	1	2	4	7

JUNCTION BOX SIZE TABLE

BOX	SIZE	CU. IN.	MAX NO. OF CONDUCTORS #12	#10	#8	#6
4SS	1 1/4" x 4" SQ	18.0	8	7	6	0
4S	1 1/2" x 4" SQ	21.0	9	8	7	0
4SD	2 1/8" x 4" SQ	30.3	13	12	10	6
4SX	2 7/8" x 4" SQ	43.5	23	21	17	10
5SD	2 1/8" x 4-11/16" SQ	42.0	18	16	14	6
5SX	3 7/8" x 4-11/16" SQ	86.0	38	34	28	17
664	4" x 6" SQ	144.0	64	57	48	28

* DEDUCT ONE CONDUCTOR FOR (1) OR MORE GROUNDING CONDUCTORS ENTERING THE BOX

LEGEND

- 2x4 CEILING LIGHT WITH (3) T-8 LAMPS, LAY-IN FLUORESCENT LIGHT FIXTURE WITH ELECTRONIC BALLAST ORACLE LIGHTING - MODEL 24.OT.332.2.T8A12.I.41K.C4 WATTAGE: 32W T8 (48"LG) OR EQUAL
- OPTIONAL 1x4 CEILING LIGHT WITH (1) T-8 LAMP, LAY-IN FLUORESCENT LIGHT FIXTURE WITH ELECTRONIC BALLAST
- ELECTRICAL PANEL AT +60" AFF TO CENTERLINE OF MAIN CIRCUIT BREAKER WITH 1 1/2" DIA POWER STUB OUT
- (US) CEILING MOUNTED ULTRASONIC OCCUPANCY SENSOR. WATTSTOPPER W-500A OR EQUAL. SENSOR TO BE CONNECTED TO LIGHT SWITCHES FOR MANUAL OVERRIDE.
- WS-1 WALL MOUNTED OCCUPANCY SENSOR. WATTSTOPPER PW-100 (SINGLE SWITCH) OR EQUAL. MOUNT SENSOR AT +44" AFF
- H WALL MOUNTED INTERIOR LIGHT FIXTURE AT +93" A.F.F. W/ 60W LIGHT BULB
- $ LIGHT SWITCH. MOUNT AT +44" AFF TO CENTERLINE OF DEVICE
- $K KEYED SWITCH AT +44" AFF TO CENTERLINE OF DEVICE
- DUPLEX (WALL MOUNTED) RECEPTACLE 15A - 125V - 3 WIRE. MOUNT AT +18" AFF U.O.N. TO CENTERLINE OF DEVICE
- GFI GROUND FAULT CIRCUIT INTERRUPTER RECEPTACLE AT +18" AFF U.O.N. WITHIN 6'-0" OF ALL SINKS
- EXTERIOR LIGHT FIXTURE. MOUNT AT +93" AFF
- 4SD J-BOX FOR FIRE ALARM PULLSTATION (DEVICE BY OTHERS). MOUNT AT +48" AFF TO TOP OF DEVICE WITH 3/4" CONDUIT TO FIRE ALARM STROBE WITH PULLSTRING
- 4SD J-BOX FOR FIRE ALARM STROBE (DEVICE BY OTHERS). MOUNT AT +80" AFF TO BOTTOM OF DEVICE WITH 3/4" CONDUIT TO EXTERIOR FIRE ALARM HORN WITH PULLSTRING
- H 4SD J-BOX FOR EXTERIOR FIRE ALARM HORN (DEVICE BY OTHERS). MOUNT AT +90" AFF TO TOP OF DEVICE WITH 3/4" CONDUIT TO FIRE ALARM BACKBOX WITH PULLSTRING
- RECESSED 4SD J-BOX W/ COVER PLATE FOR FUTURE FIRE ALARM SYSTEM BY OTHERS. MOUNT AT +18" AFF U.O.N. TO CENTERLINE OF BOX AND PROVIDE 1" CO STUB TO ATTIC SPACE WITH PULLSTRING
- (S) 4SD J-BOX IN ATTIC FOR CEILING MOUNTED SMOKE DETECTOR (DEVICE BY OTHERS). MAXIMUM 21'-0" FROM ANY POINT IN ROOM AND 30'-0" BETWEEN THEM. PROVIDE A 6'-0" CONDUIT FROM EACH J-BOX TO SMOKE DETECTOR LOCATION. PROVIDE 3/4" CONDUIT FROM J-BOX TO FIRE ALARM BACKBOX WITH PULLSTRING (ALARM NOTE #1)
- (H) 4SD J-BOX IN ATTIC FOR ATTIC MOUNTED HEAT DETECTOR (DEVICE BY OTHERS). MAXIMUM 35'-0" FROM ANY POINT IN ATTIC AND 50'-0" BETWEEN THEM. PROVIDE A 6'-0" CONDUIT FROM EACH J-BOX TO HEAT DETECTOR LOCATION. PROVIDE 3/4" CONDUIT FROM J-BOX TO FIRE ALARM BACKBOX WITH PULLSTRING (ALARM NOTE #1)
- 100 CFM CEILING MOUNTED EXHAUST FAN
- 300 CFM CEILING MOUNTED EXHAUST FAN

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES 04 113891 AC FLS SS DATE NOV 20 2014

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICE APPL. #: 03-117603 AC FLS SS DATE APR 26 2017 FILE NUMBER: 19-29

LIGHTING SCHEDULE

MODEL C-1

GIRLS 101 & BOYS 102: (1 LIGHT FIXTURE) = 32 SYSTEM WATTS (2) 32 SYSTEM WATTS X .80 = 51.2 / 112 S.F. ROOM = .46 LUMINAIRE WATTS/SF

STAFF 103 & STAFF 104: (1 LIGHT FIXTURE) = 32 SYSTEM WATTS (1) 32 SYSTEM WATTS X .80 = 25.6 / 44 S.F. ROOM = .58 LUMINAIRE WATTS/SF

MODEL C-2

GIRLS 101: (1 LIGHT FIXTURE) = 32 SYSTEM WATTS (2) 32 SYSTEM WATTS X .80 (REDUCTION) = 51.2 / 141 S.F. ROOM = .36 LUMINAIRE WATTS/SF

BOYS 102: (1 LIGHT FIXTURE) = 32 SYSTEM WATTS (2) 32 SYSTEM WATTS X .80 (REDUCTION) = 51.2 / 131 S.F. ROOM = .39 LUMINAIRE WATTS/SF

STAFF 103 & STAFF 104: (1 LIGHT FIXTURE) = 32 SYSTEM WATTS (1) 32 SYSTEM WATTS X .80 = 25.6 / 52 S.F. ROOM = .49 LUMINAIRE WATTS/SF

ELECTRICAL PANEL

VOLTS: 120/208 V | PANEL: "C" | FEED: REAR

MAIN: 100A | LOCATION: INTERIOR ACCESS | MOUNTING: FLUSH

LOAD	QTY	WATTS Aø	WATTS Bø	BREAKER Amps	BREAKER P	Circuit	A B	Circuit	BREAKER Amps	BREAKER P	WATTS Aø	WATTS Bø	QTY	LOAD
RECEPTACLES / GFI	4	720		20	1	1		2	20	1	2160		1	WASHING MACHINE (OPTIONAL)
INTERIOR/EXTERIOR LIGHTING/EXHAUST FAN	7		525	20	1	3		4	30	2		1620	1	DRYER (OPTIONAL)
INTERIOR/EXTERIOR LIGHTING/EXHAUST FAN	7	525		20	1	5		6			1620			
CHASE LIGHT / RECEPTACLE (OPT C-1)	3		300	20	1	7		8						
						9		10						
						11		12	20	1		40		ALARM
A = 1225 WATTS / PHASE		1225	1225									40		B = 1265 WATTS / PHASE
TOTAL = 2490 WATTS		10.38 AMPS		120/208 VOLTS							1 Ø			3 WIRE

THESE DRAWINGS AND ALL MATERIAL CONTAINED HEREIN ARE THE PROPERTY OF SILVERCREEK INDUSTRIES, INC (SCI Inc) AND SHALL NOT BE REPRODUCED, COPIED OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY AND SHALL NOT BE USED IN WHOLE OR IN PART TO ASSIST IN THE MAKING OF OR FOR THE PURPOSE OF FURNISHING ANY INFORMATION FOR THE MAKING OF DRAWINGS, PRINTS, APPARATUS OR PARTS THEREOF WITHOUT THE FULL KNOWLEDGE AND WRITTEN CONSENT OF SCI Inc.
ALL PATENTABLE MATERIAL CONTAINED HEREIN AND ORIGINATING WITH SCI Inc SHALL BE THE PROPERTY OF SCI Inc

SILVER CREEK INDUSTRIES, INC.
"BUILDING FOR THE NEXT GENERATION"
SILVER CREEK
195 EAST MORGAN PERRIS, CALIFORNIA 92571
PHONE: 951-943-5393 FAX: 951-943-2211

PROJECT NAME:

CLASS LEASING

SHEET TITLE:

ELECTRICAL PLAN AND SCHEDULE MODEL ~~C-1 OR~~ C-2

TAVARES ASSOCIATES

12/23/2011

ARCHITECT OF RECORD SUBMISSION DATE

C10322 12-28-14

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES 04 113851 AC FLS SS DATE AUG 28 2014

ORIGINAL PC STATE AGENCY APPROVAL

PRE-CHECK (PC) DOCUMENT CODE 2010 CBC A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED

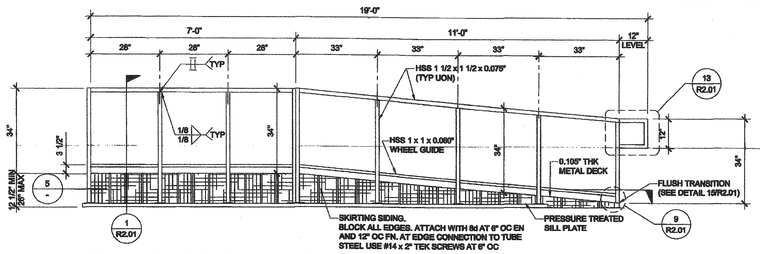
IDENTIFICATION STAMP DIV. OF THE STATE ARCHITECT OFFICE OF REGULATION SERVICES PC 04-112137 AC FLS DATE

REVISIONS

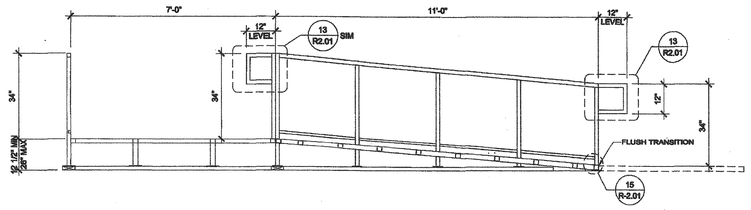
1 ADDED OPTIONS "A" + "B"

SILVER CREEK INDUSTRIES 12' x 40' PC

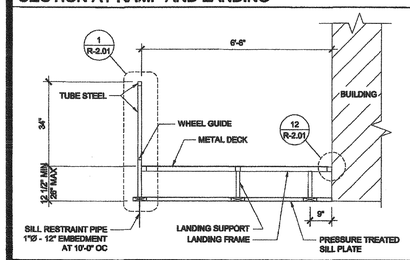
PROJECT NO:	
DRAWN BY:	
SCALE:	AS NOTED
DATE:	6-17-11 11-19-14
P.C. SHEET NUMBER	STKP 125
E-1.03	



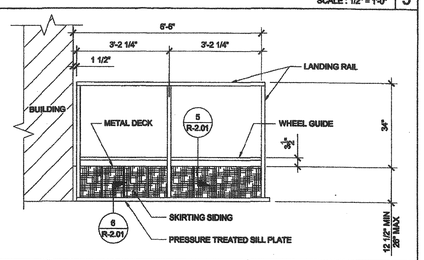
RAMP AND LANDING ELEVATION — SCALE : 1/2" = 1'-0" | 4



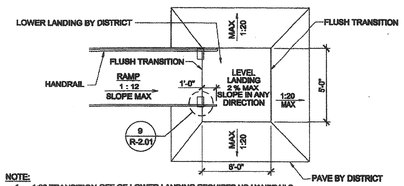
SECTION AT RAMP AND LANDING — SCALE : 1/2" = 1'-0" | 5



SECTION AT LANDING — SCALE : 1/2" = 1'-0" | 9

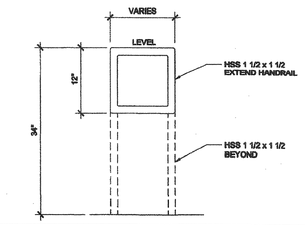


LANDING ELEVATION — SCALE : 1/2" = 1'-0" | 6

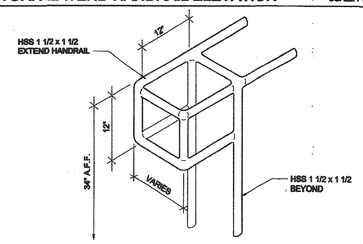


NOTE:
1. 1:20 TRANSITION OFF OF LOWER LANDING REQUIRES NO HANDRAILS.
2. TRANSITIONS EXCEEDING 1:20 BUT NOT TO EXCEED 1:12 REQUIRE REMOVAL OF 12" HANDRAIL EXTENSION AND ADDITIONAL HANDRAILING BY DISTRICT.
(THIS CONDITION REQUIRES A SITE SPECIFIC DETAIL PROVIDED BY ARCHITECT TO DEMONSTRATE ACCESSIBLE RAMP.)

RAMP TRANSITION — SCALE: NTS | 10

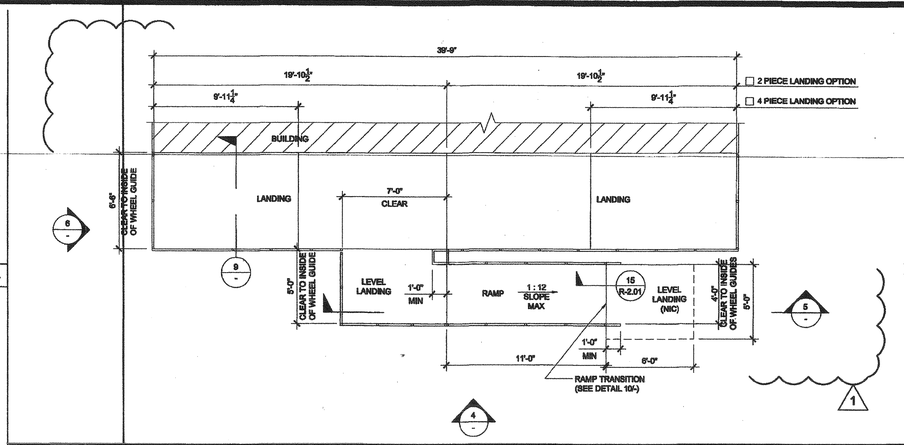


RETURN EXTEND HANDRAIL ELEVATION — SCALE : 1" = 1'-0" | 7

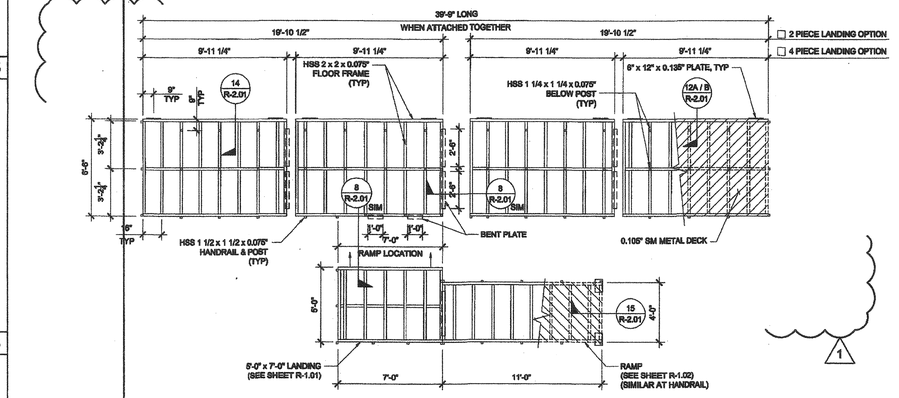


11

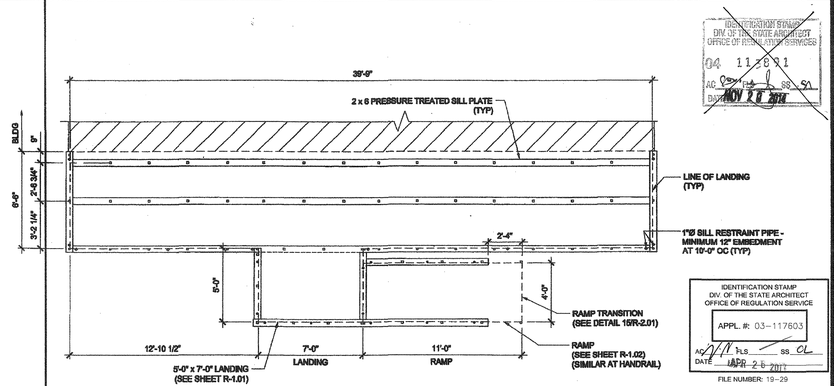
RETURN EXTEND HANDRAIL ISOMETRIC — SCALE : NTS | 8



LANDING PLAN — SCALE : 1/4" = 1'-0" | 1



LANDING FRAME — SCALE : 1/4" = 1'-0" | 2



IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICE
APPL. #: 03-117603
AC PLS SS CL
DATE APR 26 2013

FILE NUMBER: 19-29

SILL PLAN FOR RAMP AND LANDING — SCALE : 1/4" = 1'-0" | 3

THESE DRAWINGS AND ALL MATERIAL CONTAINED HEREIN ARE THE PROPERTY OF SILVERCREEK INDUSTRIES, INC (SCI Inc) AND SHALL NOT BE REPRODUCED, COPIED OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY AND SHALL NOT BE USED IN WHOLE OR IN PART TO ASSIST IN THE MAKING OF OR FOR THE PURPOSE OF FURNISHING ANY INFORMATION FOR THE MAKING OF DRAWINGS, PRINTS, APPARATUS OR PARTS THEREOF WITHOUT THE FULL KNOWLEDGE AND WRITTEN CONSENT OF SCI Inc.
ALL PATENTABLE MATERIAL CONTAINED HEREIN AND ORIGINATING WITH SCI Inc SHALL BE THE PROPERTY OF SCI Inc

SILVER CREEK INDUSTRIES, INC.
"BUILDING FOR THE NEXT GENERATION"
SILVER CREEK
195 EAST MORGAN PERRIS, CALIFORNIA 92571
PHONE: 951-943-3993 FAX: 951-943-2211

PROJECT NAME:

CLASS LEASING

SHEET TITLE:

RAMP LANDING

TAVARES ASSOCIATES
STRUCTURAL ENGINEERS & PROJECT MGMT
RICHARD G. TAVARES
S2360
EXP. 6-30-2014
SEP 19 2012

ARCHITECT OF RECORD
SUBMISSION DATE:

REGISTERED ARCHITECT
ROBERT A. MCCLAIN
C10322
STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
04 113 91
AC PLS SS CL
DATE AUG 29 2014

ORIGINAL PC STATE AGENCY APPROVAL

PRE-CHECK (PC) DOCUMENT
A SEPARATE PROJECT APPLICATION FOR CONSTRUCTION IS REQUIRED

IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-112137
AC PLS SS CL
DATE JAN 09 2013

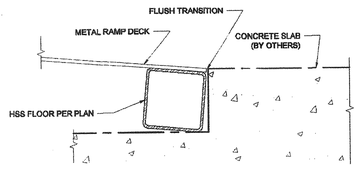
REVISED

REVISIONS

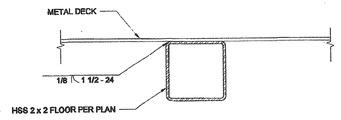
1	REVISED LANDING TO SHOW 4 PIECES 12/12/2012
2	
3	
4	
5	
6	
7	
8	

SILVER CREEK INDUSTRIES	
12' x 40' PC	
PROJECT NO:	
DRAWN BY:	ZARAGOZA
SCALE:	AS NOTED
DATE:	12-12-12
P.C. SHEET NUMBER	STKP 125

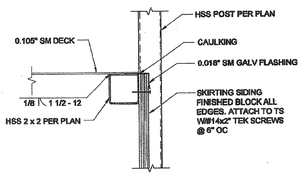
R-1.03



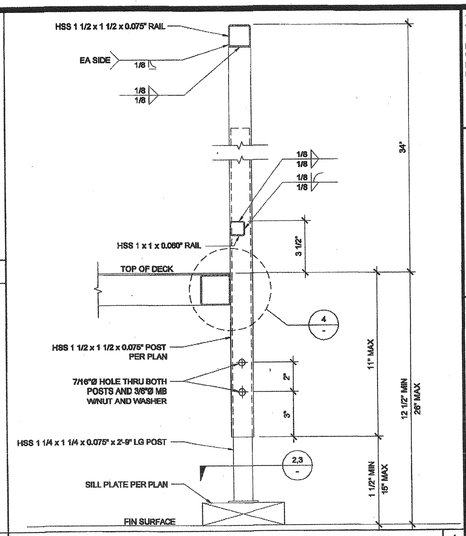
FLUSH TRANSITION AT BOTTOM OF RAMP SCALE : 6" = 1'-0" | 15



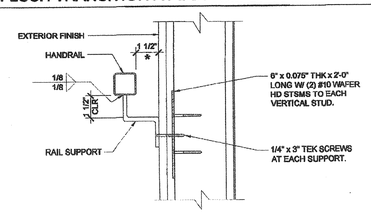
DECK TO FRAME SCALE : 6" = 1'-0" | 10



SKIRT FLASHING SCALE : 3" = 1'-0" | 5

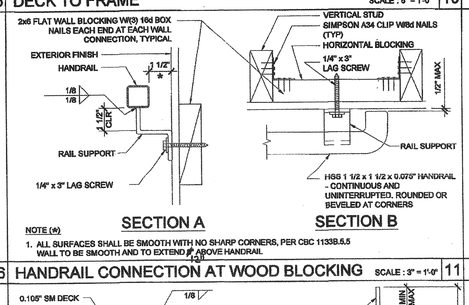


ADJUSTABLE LEG SCALE : 3" = 1'-0" | 1



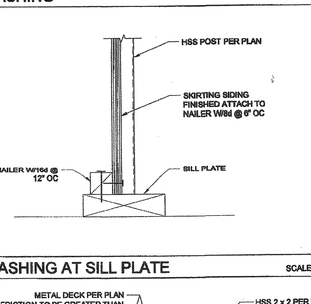
NOTE (a)
1. ALL SURFACES SHALL BE SMOOTH WITH NO SHARP CORNERS, PER CBC 1133B.5.5 WALL TO BE SMOOTH AND TO EXTEND 4" ABOVE HANDRAIL

HANDRAIL CONNECTION AT SHEETMETAL BLKG SCALE : 3" = 1'-0" | 16

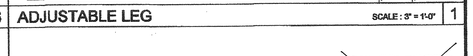


NOTE (a)
1. ALL SURFACES SHALL BE SMOOTH WITH NO SHARP CORNERS, PER CBC 1133B.5.5 WALL TO BE SMOOTH AND TO EXTEND 4" ABOVE HANDRAIL

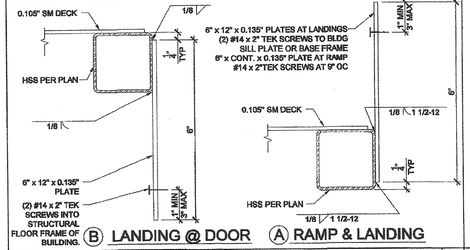
HANDRAIL CONNECTION AT WOOD BLOCKING SCALE : 3" = 1'-0" | 11



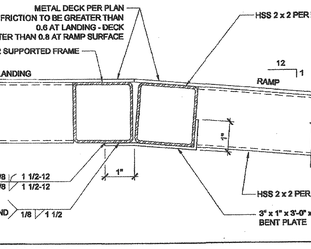
SKIRT FLASHING AT SILL PLATE SCALE : 3" = 1'-0" | 6



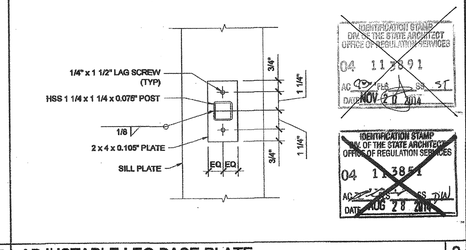
ADJUSTABLE LEG SCALE : 3" = 1'-0" | 1



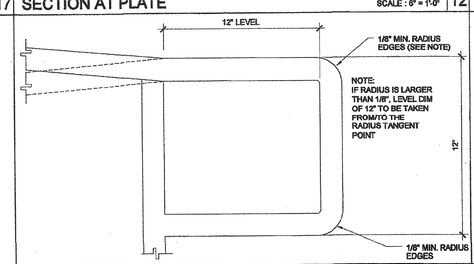
SECTION AT PLATE SCALE : 6" = 1'-0" | 12



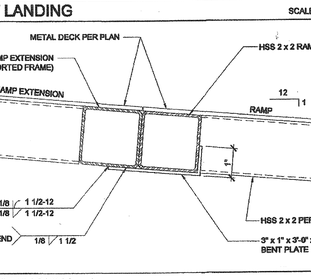
RAMP AT LANDING SCALE : 6" = 1'-0" | 7



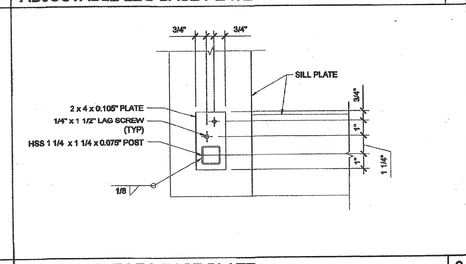
ADJUSTABLE LEG BASE PLATE SCALE : 3" = 1'-0" | 2



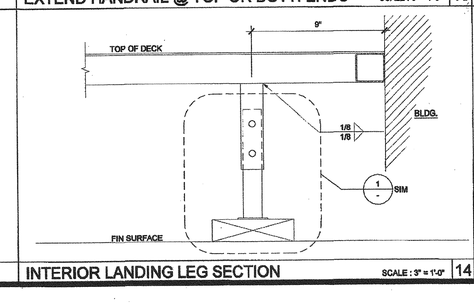
EXTEND HANDRAIL @ TOP OR BOTT. ENDS SCALE : 3" = 1'-0" | 13



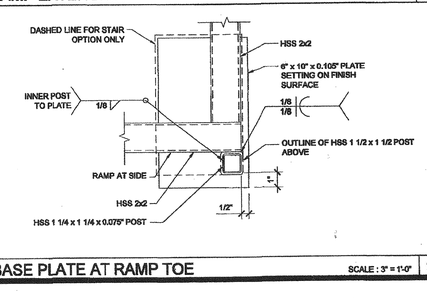
RAMP EXTENSION SCALE : 6" = 1'-0" | 8



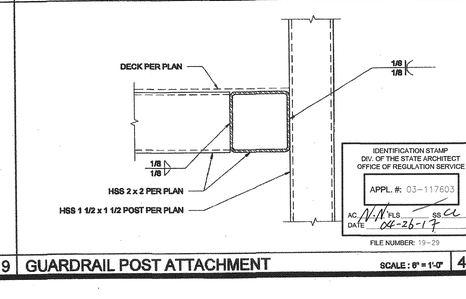
ADJUSTABLE LEG BASE PLATE SCALE : 3" = 1'-0" | 3



INTERIOR LANDING LEG SECTION SCALE : 3" = 1'-0" | 14



BASE PLATE AT RAMP TOE SCALE : 3" = 1'-0" | 9



GUARDRAIL POST ATTACHMENT SCALE : 6" = 1'-0" | 4

FILE NUMBER: 19-29

THESE DRAWINGS AND ALL MATERIAL CONTAINED HEREIN ARE THE PROPERTY OF SILVERCREEK INDUSTRIES, INC (SCI Inc) AND SHALL NOT BE REPRODUCED, COPIED OR OTHERWISE DISPOSED OF DIRECTLY OR INDIRECTLY AND SHALL NOT BE USED IN WHOLE OR IN PART TO ASSIST IN THE MAKING OF OR FOR THE PURPOSE OF FURNISHING ANY INFORMATION FOR THE MAKING OF DRAWINGS, PRINTS, APPARATUS OR PARTS THEREOF WITHOUT THE FULL KNOWLEDGE AND WRITTEN CONSENT OF SCI Inc.
ALL PATENTABLE MATERIAL CONTAINED HEREIN AND ORIGINATING WITH SCI Inc SHALL BE THE PROPERTY OF SCI Inc

SILVER CREEK INDUSTRIES, INC.
"BUILDING FOR THE NEXT GENERATION"
SILVER CREEK
195 EAST MORGAN PERRIS, CALIFORNIA 92571
PHONE: 951-943-5393 FAX: 951-943-2211

PROJECT NAME:

CLASS LEASING

SHEET TITLE:

RAMP DETAILS

TAVARES & ASSOCIATES
STRUCTURAL ENGINEERING CONSULTANTS
No. C-28384
REN: 10-31-2013
12/23/2011

ARCHITECT OF RECORD SUBMISSION
REGISTERED ARCHITECT
C10322
IL 26-15
STATE OF CALIFORNIA

PROJECT SPECIFIC STATE AGENCY APPROVAL
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
04 117891
AC. 19 PLS SS CL
DATE NOV 21 2014

ORIGINAL PC STATE AGENCY APPROVAL
PRE-CHECK (PC) DOCUMENT CODE 2010 CBC
A BUILDING PERMIT APPLICATION FOR CONSTRUCTION IS REQUIRED
IDENTIFICATION STAMP
DIV. OF THE STATE ARCHITECT
OFFICE OF REGULATION SERVICES
PC 04-112137
AC. 19 PLS SS CL
DATE DEC 20 2017

REVISIONS

1	
2	
3	
4	
5	
6	
7	
8	

SILVER CREEK INDUSTRIES 12' x 40' PC	
PROJECT NO:	
DRAWN BY:	
SCALE:	AS NOTED
DATE:	5-17-11
P.C. SHEET NUMBER	R-2.01
	STKP 125

TECHNICAL SPECIFICATIONS

RELOCATABLE BUILDINGS & PARKING LOT RENOVATION

AT

PACE ELEMENTARY SCHOOL

9625 Van Ruiten Street
Bellflower, California 90706

DOWNEY UNIFIED SCHOOL DISTRICT
11627 Brookshire Avenue
Downey, California 90241
(562) 904-3500

RNA Project No. 2024.02

JULY 1, 2024

DOCUMENT 00 0110 - TABLE OF CONTENTS

NUMBER TITLE

DIVISION 00 - PROCUREMENT AND CONTRACTING REQUIREMENTS
- 00 01 00 PROJECT TITLE PAGE
- 00 01 10 TABLE OF CONTENTS

DIVISION 01 - GENERAL REQUIREMENTS
- 01 04 50 CUTTING AND PATCHING
- 01 20 00 PROJECT MEETINGS
- 01 30 00 SUBMITTALS
- 01 40 50 TESTING AND INSPECTION
- 01 63 00 SUBSTITUTIONS
- 01 70 00 CONTRACT CLOSEOUT
- 01 74 00 WARRANTIES AND GUARANTEES
- 01 74 50 CLEANING
- 01 78 50 PROJECT RECORD DOCUMENTS

DIVISION 02 - EXISTING CONDITIONS
- 02 07 00 SELECTIVE DEMOLITION

DIVISION 03 – CONCRETE
- 03 10 00 CONCRETE FORMWORK
- 03 20 00 CONCRETE REINFORCEMENT
- 03 33 00 CAST-IN-PLACE CONCRETE

DIVISION 10 – SPECIALTIES
- 10 1400 SIGNAGE

DIVISION 22 – PLUMBING
- 22 05 00 COMMON WORK RESULTS FOR PLUMBING
- 22 05 03 EARTHWORK FOR PLUMBING SYSTEMS
- 22 11 00 PLUMBING PIPING
- 22 13 16 SANITARY WASTE AND VENT PIPING

DIVISION 26 – ELECTRICAL
- 26 00 00 GENERAL ELECTRICAL

DIVISION 27 – COMMUNICATIONS
- 27 10 00 STRUCTURED CABLING

DIVISION 32 – EXTERIOR IMPROVEMENTS
- 32 12 16 ASPHALT PAVING
- 32 13 13 SITE CONCRETE
- 32 31 13 CHAIN LINK FENCING AND GATES

DIVISION 33 –UTILITIES
- 33 30 00 SANITARY UTILITIES

END OF SECTION 00 01 10

SECTION 01 04 50 - CUTTING AND PATCHING

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. This Section specifies administrative and procedural requirements for cutting and patching.

PART 2 - PRODUCTS (Not applicable)

PART 3 - EXECUTION

3.1 SUBMITTALS

A. The word “cutting” as used in the Contract Documents includes, but is not limited to, cutting, drilling, chopping, and other similar operations and the word “patching” includes, but is not limited to, patching, rebuilding, reinforcing, repairing, refurbishing, restoring, replacing, or other similar operations.

B. Cutting and Patching Proposal: Contractor shall submit a proposal describing procedures well in advance of the time cutting and patching will be performed if the Contract Documents requires approval of these procedures before proceeding. Include the following information, as applicable, in the proposal:

1. Describe the extent of cutting and patching required. Denote how it will be performed and indicate why it cannot be avoided.
2. Describe anticipated results in terms of changes to existing construction. Include changes to structural elements and operating components as well as changes in the building’s appearance or other significant visual elements.
3. List products to be used and firms or entities that will perform this Work.
4. Indicate dates when cutting and patching will be performed.
5. Utilities: List utilities that cutting and patching operations will disturb or affect. List utilities to be relocated and those that will be temporarily out-of-service. Indicate how long service will be disrupted.
6. Where cutting and patching involves adding reinforcement to structural elements, submit details and engineering calculations showing integration of reinforcement with the original structure.
7. Review by Architect and/or DSA prior to proceeding with cutting and patching does not waive Architect right to later require complete removal and replacement of defective Work.

3.2 QUALITY ASSURANCE

A. Requirements for structural Work: Do not cut and patch structural elements in a manner that would change their load-carrying capacity or load-deflection ratio.

1. Obtain approval from Owner and/or Architect and the Division of the State Architect of the cutting and patching proposal before cutting and patching the following structural elements unless specifically detailed on the approved plans:

a. Foundation construction
b. Bearing and retaining walls
c. Structural concrete
d. Structural steel
e. Lintels

f. Timber and primary wood framing
g. Structural decking
h. Stair systems
i. Miscellaneous structural metals
j. Exterior curtain-wall construction
k. Equipment supports
l. Piping, ductwork, vessels, and equipment

B. Operational Limitations: Do not cut and patch operating elements or related components in a manner that would result in reducing their capacity to perform as intended. Do not cut and patch operating elements or related components in a manner that would result in increased maintenance or decreased operational life or safety.

1. Obtain review of the cutting and patching proposal before cutting and patching the following operating elements or safety related systems:

a. Primary operational systems and equipment
b. Air or smoke barriers
c. Water, moisture, or vapor barriers
d. Membranes and flashings
e. Fire protection systems
f. Noise and vibration control elements and systems
g. Control systems
h. Communication and/or data systems
i. Conveying systems
j. Electrical wiring systems

C. Visual Requirements: Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in the opinion of Architect, reduce the building's aesthetic qualities. Do not cut and patch construction in a manner that would result in visual evidence of cutting and patching. Remove and replace Work cut and patched in a visually unsatisfactory manner.

1. If possible, retain the original installer or fabricator to cut and patch the exposed Work listed below. If it is impossible to engage the original installer or fabricator, engage another recognized experienced and specialized firm.

a. Acoustical ceilings
b. Acoustical panels
c. HVAC enclosures, cabinets, or covers
d. Gypsum board

3.3 WARRANTY

A. Existing Warranties: Replace, patch, and repair material and surfaces cut or damaged by methods and with materials in such a manner as not to void any warranties required or existing.

3.4 INSPECTION

A. Examine surfaces to be cut and patched and conditions under which cutting and patching is to be performed before cutting. If unsafe or unsatisfactory conditions are encountered, take corrective action before proceeding.

1. Before proceeding, meet at the Project site with parties involved in cutting and patching, including mechanical and electrical trades. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.

3.5 PREPARATION

A. Temporary support: Provide adequate temporary support of existing improvements or Work to be cut.

B. Protection: Protect existing improvements and Work during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of existing improvements or Work that might be exposed during cutting and patching operations.

C. Avoid interference with operation of adjoining areas or interruption of free passage to adjoining areas.

3.6 PERFORMANCE

A. General: Employ skilled workmen to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time and complete without delay. Carefully remove existing Work to be salvaged and/or reinstalled. Protect and store for reuse into the Work. Verify compatibility and suitability of existing substrates before starting the Work.

B. Cutting: Cut existing construction using methods least likely to damage elements retained or adjoining Work. Where possible, review proposed procedures with the original installer; comply with the original installer's recommendations.

1. In general, where cutting, provide hand or small power tools designed for sawing or grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
2. To avoid marring existing finished surfaces, cut or drill from the exposed or finished side into concealed surfaces.
3. Cut through concrete and masonry using a cutting machine, such as a carborundum saw or a diamond-core drill. Saw cut reinforcing bars and paint ends with bituminous paint except where bonded into new concrete or masonry. Cut and remove concrete paving from control joint to control joint.
4. Comply with requirements of applicable Division 2 Sections where cutting and patching requires excavating, backfill, or re-compaction.
5. Sheet Metal: Remove back to joint, lap, or connection. Secure loose or unfastened ends or edges and seal watertight.
6. Plaster: Cut back to sound plaster on straight lines, and back bevel edges of remaining plaster. Trim existing lath and prepare for new lath.

C. Patching: Patch with durable seams that are as invisible as possible. Comply with required tolerances.

1. Where feasible, inspect and test patched areas to demonstrate integrity of the installation. Verify conditions of existing substrates prior to executing Work.
2. Restore exposed finishes of patched areas and extend finish restoration into retaining adjoining construction in a manner that will eliminate all evidence of patching and refinishing.
3. Concrete: Maintain cut edges in a moist condition for twenty four (24) hours prior to the placement of new concrete. In lieu of this an epoxy adhesive may be provided. Finish placed concrete to match existing unless noted otherwise. Concrete shall provide a compressive strength 3,000 psi where installed to repair and/or match existing improvements, unless noted otherwise.
4. Metal Fabrications: Items to remain exposed shall have their edges cut and ground smooth and rounded.

5. Lath and Plaster: Install new lath materials to match existing and fasten to supports at 6”centers. Provide a 6” lap where new lath to adjoins existing lath. Fasten new lath as required for new Work. Restore paper backings as required. Apply a bonding agent on cut edges of existing plaster. Apply three coat plaster of the type, thickness, finish, texture, and color to match existing.
6. Gypsum Wallboard: Fasten cut edges of wallboard. Install patches with at least two opposite edges centered on supports and secure at 6” centers. Tape and finish joints and fastener heads. Patching shall be non-apparent when painted and/or finished.
7. Painting: Prepare areas to be patched, patch and paint as specified under related sections of the Contract Documents.

3.7 CLEANING

A. Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar items. Thoroughly clean piping, conduit, and similar features before applying paint or other finishing materials. Restore damaged coverings to their original condition.

END OF SECTION 01 04 50

SECTION 01 20 00 - PROJECT MEETINGS

GENERAL

1.1 SECTION INCLUDES

A. This Section specifies administrative and procedural requirements for Project meetings, including but not limited to, the following:

1. Job start meeting.
2. Pre-installation conferences.
3. Progress meetings.
4. Meetings as required by the Owner and/or Owner's Representative.

1.2 RELATED SECTIONS

A. Section 01 30 00: Submittals

PART 2 - PRODUCTS (Not applicable)

PART 3 - EXECUTION

3.1 PRE-CONSTRUCTION CONFERENCE

A. The Pre-construction conference shall take place no more than 10 days after the Notice of Award in accordance with General Condition, Owner's Representative will schedule a job start meeting before starting the Work, at a time and date determined by Owner's Representative. Meeting shall be held at the Project site, or another location as determined by Owner's Representative. Meeting will be held to review responsibilities, procedures, and other administrative requirements contained within the Contract Documents.

B. Owner, Owner's Representative, Contractor, all major subcontractors and other interested parties shall attend the meeting. All participants at the meeting shall be familiar with the Project and authorized to conclude matters relating to the Work.

C. Agenda items shall include significant items which could affect progress of the Work, including, but not limited to the following:

1. Introduction and Identification of Owner's Representative, IOR, Owner's consultants, Contractor, Contractor's major subcontractors.
2. Construction schedule and updating frequency (establish schedule for progress meetings)
3. Critical work sequencing
4. Designation of responsible personnel: persons authorized to represent and sign documents for the Owner, Owner's Representative, Contractor, and major subcontractors, with examples of official signature of each. (list names, addresses and telephone numbers of those persons authorized to act for the Contractor in emergencies, include a 24 hour cell or phone number)
5. Modification Procedures and forms (i.e. RFI, Bulletins, etc.)
6. Contractor reports and frequency i.e. Daily site report, RFI log, Submittal log, Construction photograph log, etc.

7. Procedures and forms for processing Applications for Payment, including handling of retention, on site stored material payments, withholding payments, rejection of and/or modification of payment request, etc.
8. Owner supplied Contractor installed materials.
9. Testing and Inspections, Surveys and Layout.
10. Submittal schedules of Shop Drawings, Product Data, Material Lists, Samples. Etc.
11. Procedures and maintenance of project record documents.
12. Use of the Project site and/or premises: Contractor's use of premises including location of office, construction and storage areas, equipment deliveries, parking availability and parking areas, and routes for construction traffic.
13. Owners site usage, school schedules, etc.
14. Safety and first aid procedures including designation of Contractors safety officer. Review safety program.
15. Security procedures
16. Housekeeping, project site clean up procedures
17. Normal working hours

D. Owner's Representative shall prepare and issue meeting minutes to attendees and interested parties. Response and/or to meeting minutes due to Owner's Representative no later than two (2) calendar days after the meeting date.

3.2 PRE-INSTALLATION CONFERENCES

A. Contractor shall coordinate and conduct pre-installation conferences at the Project site as required by related Sections of the Contract Documents.

B. Contractors, manufacturers, and fabricators involved in or affected by the installation and its coordination or integration with other pre-ceding and/or subsequent installations of Work shall attend the meeting. The contractor shall advise IOR, and Architect of scheduled meeting dates in order to secure their attendance.

1. Contractor shall review the progress of construction activities and preparations for the particular activity under consideration at each pre-installation conference, including requirements for the following:

a. Contract Documents
b. Options
c. Related Construction Directives and Change Orders
d. Purchases
e. Deliveries
f. Shop Drawings, Product Data, and quality-control samples
g. Review of mockups
h. Possible conflicts
i. Compatibility problems
j. Time schedules
k. Weather limitations
l. Manufacturer's recommendations
m. Warranty requirements
n. Compatibility of materials
o. Acceptability of substrates
p. Temporary facilities, barricades, utilities, sanitary facilities, signs and other temporary facility requirements.

q. Space and access limitations
r. Governing regulations
s. Safety
t. Inspecting and testing requirements
u. Required performance results
v. Recording requirements
w. Protection

C. The contractor shall record significant discussions and directives received from each conference. The contractor shall, within three (3) calendar days after the meeting date, distribute the minutes of the meeting to all concerned parties, including but not limited to, Owner's Representative, IOR, and Architect.

3.3 PROGRESS MEETINGS

A. Progress meetings will be held at the Project site at regular weekly intervals, or as determined by the Owner's Representative and/or Owner.

B. In addition to representatives of Contractor, Owner, IOR, Architect, each Subcontractor, supplier, or other entity concerned with current progress or involved in planning, coordination, or performance of the Work shall, if requested by Owner's Representative, be represented at these meetings. All participants at the conference shall be familiar with the Project and authorized to conclude all matters relating to the Work.

C. Failure of the Contractor to be so represented at any progress meeting which is held at a mutually agreed time or for which a written notice is given, shall not relieve Contractor from abiding by any and all Owner, Owner's Representative determinations or directives issued at such meeting.

D. The Owner's Representative will review and correct or approve minutes of the previous progress meeting and will review other significant items affecting progress. Topics for discussion as appropriate to the status of the Project include but are not limited to:

1. Interface requirements
2. Construction Schedule
3. Sequence and coordination
4. Status of submittals / RFI's
5. Deliveries
6. Off-site fabrication
7. Access
8. Site utilization
9. Temporary Construction Facilities and Controls
10. Hours of work
11. Hazards and risks
12. Housekeeping
13. Quality and workmanship
14. Unforeseen conditions
15. Testing and Inspection
16. defective Work
17. Construction Directive
18. Request for Proposal
19. Change Order Proposals and Change Orders
20. Documentation of information for payment requests

21. Application for Payment
22. Other items as required or as brought forth.

E. No later than five (5) calendar days after each progress meeting, Owner's Representative will prepare and distribute minutes of the meeting to each present and absent party. Include a brief summary, in narrative form, of progress, decisions, directives, actions taken, and all other issues since the previous meeting and report.

3.4 ADDITIONAL MEETINGS

A. Owner's Representative, upon giving notice to the intended parties and without further obligation, may require additional meetings to discuss Work and/or Project related activities.

END OF SECTION 01 20 00

SECTION 01 30 00 - SUBMITTALS

GENERAL

1.1 SECTION INCLUDES

A. Procedures for submitting to the Architect/Engineer, schedules, shop drawings, product data, samples, material lists, manuals, warranties and certificates, etc., required by individual Specification Section and procedures for submitting finish hardware schedule and segregation of contract costs to the District.

B. Wherever possible, throughout the Contract Documents, the minimum acceptable quality of workmanship and materials has been defined by the name and catalog number of a manufacturer and by reference of recognized industry standards.

C. To ensure that specified products are furnished and installed in accordance with the design intent, procedures have been established for advance submittal of design data and for its review by the Architect.

1.2 RELATED SECTIONS

A. The General Conditions and Division 1 are part of this Section and the Contract for this Work and apply to this Section as if repeated fully herein.

1.3 PROCEDURES

A. Contractor shall secure and submit Shop drawings, manufacturer's catalogs, samples, warranties, operating and instruction manuals, etc. to the Architect/Engineer for review and approval.

B. After the Architect has date-stamped, signed and reviewed submittals, with corrections noted, if any, the Architect will transmit submittals to Contractor.

1.4 SUBMITTALS

A. Approval of Submittals: Contractor shall clearly identify any deviations from the Contract Drawings and Specifications on submittals. Prior approval of any deviation by the District Architect/Engineer or his representative is required. Any deviation without said prior approval, even though stamped approved, is not acceptable.

1. Approval stamp is for design and quality only. No deviations. No quantities.

B. Deliver submittals to the Owner’s Representative. Identify project name and address, telephone number of Contractor, subcontractor and supplier. Identify, as appropriate, pertinent drawing sheets, detail numbers and Specification Section numbers. Clearly identify any deviations from Contract Documents.

C. Make submittals in accordance with the approved Construction Schedule, and approved Shop Drawing Submission Schedule, in sequence that avoids delaying work and progress of other Contractors.

D. CONTRACTOR SHALL THOROUGHLY REVIEW SUBMITTALS PRIOR TO SUBMISSION TO THE ARCHITECT/ ENGINEER.

E. Timing of Submittals:

1. In accordance with General Conditions, the Contractor shall submit to the Owner's Representative those Shop Drawings, Product Data, diagrams, materials lists, Samples and other submittals required by the Contract Documents.
2. The Contractor shall submit within ten (10) Days of the Award of Contract, a itemized listing of required submittals with a scheduled date for each submittal. The schedule of submittals shall provide adequate time between submittals to allow for proper review without negative impact to the Construction Schedule.
3. Schedule of submittals shall be related to Work progress and shall be so organized as to allow sufficient time for transmitting, reviewing, corrections, resubmission, and re-reviewing.
4. Contractor shall coordinate submittal of related items and Owner's Representative reserves the right to withhold action on a submittal requiring coordination with other submittals until all related submittals are received by Owner's Representative.
5. The contractor shall revise, update and submit the submittal schedule to Owner's Representative on the first of each month, or as required by Owner's Representative.
6. The contractor shall allow in the Construction Schedule at least sixteen (16) days for Owner's Representative review following Owner's Representative receipt of submittal. For mechanical, plumbing, electrical, and other submittals requiring joint review with CMR, and/or others Contractor shall allow a minimum of eighteen (18) days following Owner's Representative receipt of submittal.
7. No adjustments to the Contract Time and/or Milestones will be authorized because of a failure to transmit submittals to Owner's Representative sufficiently in advance of the Work to permit review and processing.

F. In case of product substitution, Shop Drawing preparation shall not commence until such time Owner's Representative reviews said submittal relative to the General Conditions. Each submittal shall be accompanied by a letter of transmittal containing a complete itemized and numbered list of submitted materials. Separate letters of transmittal shall accompany each submittal from different subcontractors.

G. Resubmission: If requested, resubmit submittals in a timely manner. Resubmit as specified for initial submittal but identify as such. Indicate any changes which have been made other than those requested by the Architect.

1.5 SHOP DRAWINGS

A. Shop Drawings are original drawings prepared by Contractor, subcontractor, supplier, or distributor which illustrate some portion of work by showing fabrication, layout, setting, or erection details.

B. Draw shop drawings to an accurate scale that is large enough to indicate all pertinent features and methods.

C. Copies Required and Distribution: Unless otherwise indicated in individual specification sections, submit 6 sets of blueline prints.

1.6 PRODUCT DATA

A. Manufacturer's Standard Schematic Drawings:

1. Delete information which is not applicable to Project.

2. Supplement standard Drawings to provide additional information applicable to Project.

B. Manufacturer's catalog sheets, brochures, diagrams, schedules, performance charts, illustrations, and other standard descriptive data:

1. Clearly mark each copy to identify pertinent materials, products, or models.
2. Indicate dimensions and clearances required.
3. Indicate performance characteristics and capacities.
4. Indicate wiring diagrams and controls.

C. Copies Required and Distribution: Submit 3 copies.

1.7 SAMPLES

A. Samples:

1. Submit samples of sufficient size and quantity to clearly illustrate:

a. Functional characteristics of product or material, with integral parts and attachment devices.
b. Full range of colors, textures, and patterns.

2. Provide permanent identification for each sample.
3. Color and Pattern: Whenever a choice of color or pattern is available in a specified product, submit accurate color chips and pattern charts to the Architect/Engineer for review and selection.
4. Number Required: Submit 3 of each.

B. Field Samples: When specified, erect field samples and mock-ups at project site to illustrate materials, equipment, or workmanship and to establish standards by which completed work shall be judged.

C. After return of office samples or review of field samples, these items may be used in construction of project with approval of the Architect/Engineer.

1.8 MANUALS

A. Where Manuals are required to be submitted covering items included in Work, prepare Manuals in durable binders, approximately 8-1/2" by 11" in size, and provide following information:

1. Identification on, or readable through, front cover stating general nature of manual.
2. Neatly typewritten index at front of Manual, furnishing immediate information as to location in Manual of data or equipment involved.
3. Complete instructions regarding operation and maintenance of equipment involved.
4. Complete nomenclature of replaceable parts, their part numbers, current cost, and name and address of nearest vendor of parts.
5. Copy of all Guarantees and Warranties issued.
6. Copy of approved Shop Drawings with data concerning changes made during construction.

B. Extraneous Data: Where contents of Manuals include manufacturers' catalog pages, clearly indicate precise items included in this installation and delete, or otherwise clearly indicate, manufacturers' data which is not part of this installation.

C. Number of Copies Required: Deliver 6 copies to the Architect/Engineer for review, approval and distribution. The Architect/Engineer will return 3 copies to Contractor.

1.9 CERTIFICATES

A. Submit in triplicate, in accordance with requirements of each Specification Section.

1.10 COLOR SCHEDULES

A. The district shall review and approve color schedules prepared by the Architect/Engineer and distribute the approved schedules to Contractor.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION 01 30 00

SECTION 01 40 50 - TESTING AND INSPECTION

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Testing and inspection services to meet requirements of the California Building Code (CBC), Title 24, Parts 1 and 2, as indicated on the Drawings.

B. Tests of materials are required by a DSA certified testing AGENCY as set forth in Section 4-335 of the California Building Standards Administrative Code.

1.02 RELATED SECTIONS

Provisions of the General Conditions, Supplemental Conditions and Division 01 apply to this Specification. Specifications that are referenced or related may include:

A. Section 01 04 50: Cutting and Patching

B. Section 01 30 00: Submittals

C. Section 01 70 00: Contract Closeout

D. Section 01 74 00: Warranties and Guarantees

PART 2 – PRODUCTS (Not used)

PART 3 – EXECUTION

3.01 TESTS

A. OWNER will select and provide an independent DSA approved certified testing agency (AGENCY) to conduct tests, sampling, and testing of materials. AGENCY shall have DSA Laboratory Evaluation and Acceptance (LEA) Program acceptance. Selection of material to be tested shall be by the AGENCY and not by the CONTRACTOR. Lab to be approved by Architect of record/Structural Engineer (where applicable) DSA.

B. Any material shipped from the source of supply prior to having satisfactorily passed such testing and inspection, or prior to the receipt of notice from IOR such testing and inspection is not required, shall not be incorporated into the Work.

C. OWNER will select, and directly reimburse, the AGENCY for costs of all DSA required tests and inspections; however, the OWNER may be reimbursed by CONTRACTOR for such costs for re-testing of deficient Work.

D. The independent testing AGENCY is not authorized to release, revoke, alter, or enlarge requirements of the Contract Documents or approve or accept any portion of the Work.

E. The AGENCY shall not perform any duties of CONTRACTOR.

F. CONTRACTOR shall provide an insulated curing box with the capacity for twenty (20) concrete cylinders and will relocate said box and cylinders as rapidly as required in order to provide for progress of the Work.

3.02 TEST REPORTS

A. Test reports shall include all tests performed, regardless of whether such tests indicate the material is satisfactory or unsatisfactory. Samples taken but not tested shall also be reported. Records of special sampling operations, when and as required, shall also be reported. Reports shall indicate the material (or materials) was sampled and tested in accordance with requirements of CBC, Title 24, Parts 1 and 2, as indicated on the Drawings. Test reports shall indicate specified design strength and specifically state whether the material (or materials) tested comply with the specified requirements.

3.03 VERIFICATION OF TEST REPORTS

A. Each testing AGENCY shall submit to the Division of the State Architect, in duplicate, a verified report covering all tests required to be performed by that AGENCY during the progress of the Work. Such a report, covering all required tests, shall be furnished prior to Substantial Completion and/or, when construction on the Work is suspended, covering all tests up to the time of Work suspension.

3.04 INSPECTION BY OWNER

A. THE OWNER, and its representatives, shall have access, for purposes of inspection, always to all parts of the Work and to all shops wherein the Work is in preparation. THE CONTRACTOR shall, at all times, maintain proper facilities and provide safe access for such inspection.

B. THE OWNER, and its representatives, shall have the right to reject materials and/or workmanship deemed defective Work and to require correction. Defective workmanship shall be corrected in a satisfactory manner and defective materials shall be removed from the premises and legally disposed of without charge to the OWNER. If CONTRACTOR does not correct such defective Work within a reasonable time, fixed by written notice and in accordance with the terms and conditions of the Contract Documents, OWNER may correct such defective Work and proceed in accordance with related Articles of the Contract Documents.

C. CONTRACTOR is responsible for compliance to all applicable local, state, and federal regulations regarding codes, regulations, ordinances, restrictions, and requirements.

3.05 INSPECTOR OF RECORD

A. An Inspector of Record (IOR) shall be employed by OWNER, and approved by ARCHITECT, STRUCTURAL ENGINEER and DSA in accordance with requirements of Title 24 of the California Code of Regulations with their duties specifically defined therein. Additional DSA certified inspectors may be employed and assigned to the Work by OWNER in accordance with the requirements of California Building Standards Administrative Code with their duties as specifically defined in Section 4-333(b).

B. Inspection of Work shall not relieve CONTRACTOR from any obligation to fulfill all terms and conditions of the Contract Documents.

C. THE CONTRACTOR shall be responsible for scheduling times of inspection, tests, sample taking, and similar activities of the Work.

3.06 TESTS AND INSPECTIONS

The following tests and inspections do not limit inspection of the Work but are required by DSA, other agencies, or are required in related Sections of the Contract Documents.

1. Concrete - CBC, Chapter 19A:

   a. Materials:

      1) Test of Materials: 1705A.3, ACI 318-14 Sections 26.12 & 26.13
      2) Portland Cement Tests: ACI 318, ASTM C 150.
      3) Concrete Aggregate: 1903A.5, ACI 318 Section 26.4.1.2, ASTM C 33.
      4) Reinforcing Bars: 1910A.2, ACI 318-14 Section 26.6.1.2
      5) Mix Designs: Table 1705A.3 Item 5, 1910A.1
      6) Admixtures: 1903A.6 ACI 318 Section 26.4.2.2 (b) and Table 26.4.2.2 (b)

   b. Quality:

      1) Proportions of Concrete: 1910A.1
      2) Mixing and Placing: Table 1705A.3 Item 5, 1910A.1
      3) Concrete Testing: 1905A.1.16, ACI 318-14 Section 26.12

   c. Inspection:

      1) Project Site Inspection: 1905A.7, 1705A.3.5
      2) Batch Plant: 1705A.3.3
      3) Weigh-Master Inspection: 1705A.3.3.1
      4) Reinforcing Bar Welding Inspection: 1705A.3.1 1903A.4.

END OF SECTION 01 40 50

SECTION 01 63 00 - SUBSTITUTIONS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes: Procedures for submittal of requests for substitution for materials.

B. Related Documents: General Conditions and Division 1 are a part of this Section and the Contract for this Work and apply to this Section as if repeated fully herein.

1.2 GENERAL REQUIREMENTS

A. Submit a written request for proposed substitutions to the District's Representative according to the General Conditions.

B. Where materials or items of manufacturer are specified in groups and are made or furnished by one manufacturer, no substitution will be considered that is not made or furnished similarly by one manufacturer. Where the Contractor proposes to use a system of equipment other than that specified or detailed on the Drawings the substitution shall be proposed as a complete system.

1.3 REQUIREMENTS FOR SUBMITTING SUBSTITUTIONS:

A. Changes to approved drawings and specifications shall be made by Addenda or Construction Change Document (CCD) and approved by the Division of the State Architect as required by CCR, Title 24, Part 1, Section 4-338 (C), IR-A-6. Prior to fabrication and installation.

1. Construction Change Documents must be signed by all the following:

    a. Architect of Record
    b. Structural Engineer (where applicable)
    c. Designated Design Professional (where applicable)
    d. DSA

B. Submit a written request for each proposed substitution on form shown at the end of this Section. Provide data substantiating request as well as a "Certificate of Suitability" certifying that the proposed substitution is equal or better in all respects to that specified and that it will, in all respects perform the function for which it is intended. Include with request all required samples. Submit 3 copies of all written requests and data for proposed substitutions.

C. Submit complete information to the Owner's Representative so that a proper evaluation can be made. The burden of proof of equality of the substituted item shall be on the Contractor. Acceptance of such substitutions is entirely at the discretion of the Owner's Representative and District. All materials or items of manufacturer, which the Contractor proposes to substitute for those specified, must be accepted by the Owner's Representative before they may be ordered.

D. The Owner's Representative will issue to the Contractor a list setting forth those items for which substitutions are accepted. No substitution will be accepted for any materials or item of manufacture

called for in the Contract Documents which is not of equal quality and utility, and which does not possess equal design or color characteristics to those of the specified material or item.

E. If, in the opinion of the Owner's Representative or District, the proposed substitution is not equal or better in every respect to that so indicated or specified or was not submitted for acceptance in the manner outlined above, the Contractor shall furnish the specified materials.

F. It shall be the responsibility of the Contractor, in proposing a substitution for any item herein specified, to inform all other trades, vendors, and subcontractors of effects said substitution will have upon their construction activities or products. Failure to notify shall require that the Contractor make all payments arising from alterations in specified materials or methods necessary to complete the Work in an approved and acceptable manner.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 01 63 00

SUBSTITUTION REQUEST FORM

Re:

Project Name

Project Manual Section Number

Item

To:

Owner's Representative

From:

General Contractor

We hereby submit for your consideration the following product comparisons of the specified item and the proposed substitution:

A.	Comparison	Specified Item	Substitution
1.	Product Name/Model	_____	
2.	Manufacturer	_____	
	Address	_____	
	Phone Number	_____	
3.	Product Cost	_____	
	Installation/Labor Cost	_____	
4.	Delivery Time	_____	
	Installation Time	_____	
5.	Product Characteristics	_____	
		_____	
		_____	
		_____	
6.	Dimensions	_____	
	Effects	_____	
		_____	

7. Guarantee/Warranty _____

_____

8. ICC-ES No. _____

9. UL Rating _____

B. Substantiating Data:

Attach manufacturer's literature for both specified item and substitution.

C. Samples:

Provide samples for both specified item and substitution, if applicable.

D. Similar Projects

1. _____
Name Date

Address

2. _____
Name Date

Address

E. What Effect does this substitution have on applicable code requirements?

F. Change Data:

Attach complete information as to whether the proposed substitution:

1) Is equal in quality/service/ability to the Specified Item;
2) Will entail no changes in detail, construction, and scheduling of related work;
3) Will be acceptable in consideration of the required design and artistic effect;
4) Will provide no cost disadvantage to the District;
5) Will require no excessive or more expensive maintenance, including adequacy and availability of replacement parts; and
6) Will require no change of the construction schedule.

Submitted by:

_____
Signature Name
Title

_____
Firm Date

Address

Signature must be by persons having authority to legally bind his firm to the above terms. Failure to provide legally binding signature will result in retraction of approval.

* * * * * * *

For Use by Owner's Representative:

_____ Accepted _____ Not Accepted

Owner's Consultant:

By:

Date:

_____ Accepted _____ Not Accepted

School District:

By:

Date:

* * * * * * *

SECTION 01 70 00 - CONTRACT CLOSEOUT

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. This Section includes administrative and procedural requirements for Contract Closeout, including but not limited to, the following:

1. Inspections.

B. Closeout requirements for specific Work activities are included in the appropriate Sections in Divisions 01 through 16.

1.2 REQUIREMENTS FOR PREPARATORY TO FINAL INSPECTION

A. Remove temporary facilities from the Project site.

B. Thoroughly clean the Buildings and Project site.

C. All plumbing and mechanical equipment shall operate quietly and free from vibrations. Properly adjust, repair, balance, or replace equipment producing objectionable noise or vibration in the occupied areas of the buildings. Provide additional brackets, bracing, or other methods to prevent objectionable noise or vibration. All systems shall operate without humming, surging, or rapid cycling.

D. Properly mount all operation instructions for equipment and post as specified in their respective Sections.

E. Job Record specifications and prints “as built” shall be completed, signed, and submitted to the Owner’s Representative as specified in respective Specification Sections.

F. Submit to the Owner’s Representative the material and equipment maintenance instructions, as specified in the body of the Specification Sections.

G. Submit to the Owner’s Representative all warranties, guarantees, and bonds, as specified in the body of the Specification Sections.

H. When requested, submit certificates indicating payment of all debts and Claims arising from the Work.

I. Deliver all tools which are a permanent part of equipment installed in the Work to the Owner.

J. Deliver all keys, construction and permanent, properly identified, to the Owner.

PART 2 - PRODUCTS (Not applicable)

PART 3 - EXECUTION

3.1 SUBSTANTIAL COMPLETION

A. Inspection Procedures: On receipt of a request for a certificate of Substantial Completion, the Owner's Representative and/or Owner will either authorize commencement of inspection or advise Contractor of unfilled requirements. IOR, Owner's Representative, and/or Owner and Contractor will inspect the Work and Owner's Representative shall prepare a comprehensive punch list of items to be completed.

1. IOR will repeat inspection when requested by the Contractor and ensure the Work is complete.
2. Results of the completed inspection will form a partial basis of the requirements for Final Completion.

B. Re-inspection Procedures: IOR, Contractor and Owner's Representative will inspect the Work upon notice the Work, including final inspection list items from earlier inspections, has been completed, except for items whose completion is delayed under circumstances acceptable to Owner's Representative.

1. Upon completion of inspection, the OWNER'S REPRESENTATIVE will recommend Final Completion. If the Work is incomplete, OWNER'S REPRESENTATIVE will advise Contractor of Work that is incomplete or of obligations that have not been fulfilled but are required for Final Completion.
2. If necessary, re-inspection will be repeated, but may be assessed against Contractor if Owner is subject to additional professional service and or additional costs of inspection.

C. After all requirements preparatory to the final inspection have been completed as herein specified in the Specification Sections, the Contractor will notify the Owner's Representative and IOR to perform the final inspection.

END OF SECTION 01 70 00

SECTION 01 74 00 - WARRANTIES AND GUARANTEES

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. This Section includes administrative and procedural requirements for warranties required by the Contract Documents, including manufacturers and/or installer's standard warranties on products and special product warranties.

B. Refer to General Conditions for terms of the guarantee period for the Work.

1.2 RELATED SECTIONS

A. Section 01 0450: Cutting and Patching

B. Section 01 3000: Submittals

C. Section 01 7000: Contract Closeout

PART 2 - PRODUCTS (Not applicable)

PART 3 - EXECUTION

3.1 WARRANTY REQUIREMENTS

A. Disclaimers and Limitations: Manufacturer's disclaimers and limitations on product warranties shall not relieve Contractor of the warranty of the Work incorporating such materials, products, and/or equipment. Manufacturer's disclaimers and limitations on warranties do not relieve suppliers, manufacturers, installers, and Subcontractors of the requirement to countersign special warranties with Contractor.

B. Standard warranties are preprinted written warranties published by individual manufacturers for particular products and are specifically endorsed by the manufacturer to the Owner.

C. Special warranties are written warranties required by or incorporated in the Contract Documents, either to extend time limits provided by standard warranties or to provide greater rights for the Owner.

D. Related Damages and Losses: When correcting failed or defective warranted Work, remove and replace Work that has been damaged because of such failure or which must be removed and replaced to provide access for correction of warranted Work.

E. Reinstatement of Warranty: When Work covered by a warranty has failed and been corrected by replacement or rebuilding, reinstate the warranty by written endorsement with the reinstated warranty equal to the original warranty.

F. Replacement Cost: Upon determination the Work covered by a warranty has failed and/or is defective, replace or rebuild the Work to an acceptable condition complying with requirements of the Contract Documents. The contractor is responsible for the cost of replacing or rebuilding defective Work

regardless of whether Owner has benefited from use of the Work through a portion of its anticipated useful service life.

G. Owner Recourse: Expressed warranties made to Owner are in addition to implied warranties and shall not limit the duties, obligations, rights, and remedies otherwise available under the law. Expressed warranty periods shall not be interpreted as limitations on the time in which the Owner can enforce such other duties, obligations, rights, or remedies.

H. Rejection of Warranties: Owner reserves the right to reject warranties and to limit selection to products with warranties not in conflict with requirements of the Contract Documents.

I. Where the Contract Documents require a special warranty, or similar commitment on the Work or part of the Work, Owner reserves the right to refuse to accept the Work until Contractor presents evidence the entities required to countersign such commitments have done so.

3.2 SUBMITTALS

A. Submit written warranties to Owner's Representative prior to Final Completion of the Work. If the certificate of Substantial Completion designates a commencement date for warranties other than the date of Substantial Completion for the Work, submit written warranties as set forth in the certificate of Substantial Completion.

B. When a designated portion of the Work is partially used and/or occupied by Owner, submit properly executed warranties to OWNER'S REPRESENTATIVE within fifteen (15) days of the Partial Use or Occupancy of the designated portion of the Work.

C. When the Contract Documents require Contractor (s), or Contractor and a Subcontractor, installer, supplier or manufacturer to execute a special warranty, prepare a written document containing appropriate terms and identification, ready for execution by the required parties. Submit a draft to the Owner, through the Owner's Representative, for approval fifteen (15) days in advance prior to final execution.

D. Refer to Divisions 02 through 16 for specific content requirements and particular requirements for submitting special warranties.

E. Form of Submittal: Prior to Final Completion of the Work, compile two copies of each required warranty properly executed by Contractor, or by Contractor and Subcontractor, installer, supplier, or manufacturer. Organize the warranty documents into an orderly sequence based on the Specifications.

F. Bind warranties and bonds in heavy-duty, commercial-quality, durable 3-ring, vinyl-covered loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8½ by 11" (115 by 280 mm) paper.

1. Provide heavy paper dividers with celluloid covered tabs for each separate warranty. Mark the tab to identify the item or installation. Provide a typed description of the product or installation, including the name of the product, and the name, address, and telephone number of the installer.
2. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project title and/or name, and name of Contractor.
3. When warranted Work requires operation and maintenance manuals, provide additional copies of each required warranty, as necessary, for inclusion in each required manual.

END OF SECTION 01 74 00

SECTION 01 74 50 - CLEANING

PART 1 - GENERAL

1.1 DESCRIPTION

A. The CONTRACTOR shall be solely responsible for the cleaning of the Project site.

B. Keep premises, and adjacent private and public properties free from accumulation of waste, debris and rubbish caused by the construction process.

C. At completion of Work, remove waste materials, rubbish, tools, equipment, machinery and surplus material, and clean all exposed surfaces. Remove remaining mock-ups and samples.

D. Leave Project clean and ready for occupancy.

1.2 RELATED SECTIONS

A. Section 01 7000: Contract Closeout

1.3 SAFETY

A. The CONTRACTOR shall be solely responsible for cleaning and safety.

B. Standards: Maintain Project in accord with Federal, State, Local safety regulations, ordinances, anti-pollution laws and insurance standards.

C. Hazard Control: Maintain Project in accord with Federal, State, Local safety regulations, ordinances, anti-pollution laws and insurance standards.

D. Conduct cleaning and disposal operations to comply with Federal, State, Local safety regulations, ordinances, and anti-pollution laws.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 DURING CONSTRUCTION

A. The CONTRACTOR is solely responsible for the cleaning of all public and private property.

B. Keep premises, and adjacent private and public properties free from accumulations of waste materials and rubbish. Remove debris and dirt from public property promptly; clean sidewalks and adjacent streets daily when soiled by work performed under this Contract.

C. As often as necessary, and/or as required, the CONTRACTOR shall clean site and dispose of waste materials, debris, and rubbish off the site in a legal manner. Remove all combustible materials in a legal manner.

D. Provide on-site containers for collection of waste materials, debris, and rubbish. Provide a collection can at each location used as an eating area. Pick-up and dispose of all garbage daily.

E. Remove waste materials, debris, and rubbish from site and legally dispose of at legal public or private dumping areas or recycling center off OWNER'S property.

F. Do not allow debris and combustible materials to accumulate in voids, cavities, and plenums created by wall partition, and ceiling construction. These areas must be thoroughly cleaned out before being sealed or closed off by installation of finish materials.

G. Do not allow debris to clog drains. Keep roof drains, scuppers, floor drains, and area drains clean and free of debris.

H. Vacuum clean interior areas when ready to be painted, installation of carpet, installation of floor tile, etc. Refer to Sections for other provisions on preparations of finish surfaces.

I. Handle materials in a controlled manner with as few handlings as possible; do not drop or throw materials from heights.

J. Schedule cleaning operations so that dust and other contaminants resulting from the cleaning process will not fall on newly finished surfaces.

K. Wet down materials and rubbish to lay dust and prevent it form blowing.

3.2 FINAL CLEANING

A. Complete cleaning operations before requesting inspection for a certificate of Substantial Completion.

B. Employ experienced workers, or professional cleaners, for all final cleaning.

C. Clean each surface or unit to the condition expected in a normal, commercial building cleaning and maintenance program. Comply with manufacturer's instructions.

D. Remove labels that are not permanent labels.

E. Clean transparent materials, including mirrors and glass in doors and windows. Remove misplaced glazing compounds and other substances. Replace chipped or broken mirrors, glass and other damaged transparent materials.

F. Clean exposed exterior and interior hard-surfaced finishes to a dust-free condition, free of stains, films, and similar foreign substances. Restore reflective surfaces to their original reflective condition. Leave concrete floors, walkways, and the like broom clean. Vacuum carpeted surfaces.

G. Wipe surfaces of mechanical and electrical equipment. Remove excess lubrication and other substances. Clean plumbing fixtures to a sanitary condition. Clean light fixtures and lamps.

H. Clean the site, including landscaped areas, of rubbish litter and other foreign substances.

1. Contaminated earth:

a. Final clean-up operation includes the removal and disposal of earth contaminated or unsuitable for support of plant life in planting areas, and filling of resulting excavations with suitable soil.

b. Contaminated areas include those used for disposal of waste concrete, mortar, plaster, masonry, and similar materials, areas in which washing out of concrete and plaster mixers or washing of tools and like cleaning operations have been performed, and areas that have been oiled, paved, or chemically treated.

2. Sweep paved areas broom clean; remove stains, spills and other foreign deposits.

3. Rake grounds that are neither paved nor planted, to a smooth even-textured surface.

I. The CONTRACTOR is to keep Project clean until it is occupied by OWNER.

END OF SECTION 01 7450

SECTION 01 78 50 - PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. This Section specifies administrative and procedural requirements governing Project Record Documents.

1.2 RELATED SECTIONS

A. Section 01 30 00: Submittals
B. Section 01 40 50: Testing and Inspection
C. Section 01 70 00: Contract Closeout
D. Section 01 70 00: Warranties and Guarantees

1.3 SUMMARY

A. Maintain one copy of the following in the CONTRACTOR'S field office at the site.

1. Contract Drawings, including DSA stamped set.
2. Complete Set of Specifications and Addenda.
3. Reviewed shop drawings.
4. Bulletins, change orders, field change authorization, request of information, and all other modifications to Contract.
5. Approved submittal.

B. File record documents apart from construction documents and maintain them in clean, dry, legible condition. Make record documents available for review by IOR, ARCHITECT, OWNER, and OWNER'S representatives during regular business hours. The CONTRACTOR will use all means necessary to protect "Project Record Documents" set from deterioration, loss or damage until completion of work.

C. Do not use record documents for construction purposes.

D. Record documents will be subject to a monthly review by the OWNER'S representatives prior to approval of each progress payment.

1.4 PAYMENTS

A. The OWNERS representative's approval of status of "Project record Documents" will be a prerequisite to the OWNER'S representative's approval of requests for progress payments and request for final payment

1. Progress Approvals: Prior to submitting each request for progress payments, secure the IOR approval of status of "Project Record Documents".

B. Final Payment: Prior to submitting request for final payment and final inspection, CONTRACTOR shall submit "Project Record Documents" set to the OWNER'S Representative and/or OWNER, with transmittal letter, in duplicate, containing date, Project title and number, CONTRACTOR'S name and address, title and number of each record document.

C. CONTRACTOR shall certify that the “Project Record Documents” are complete and accurately reflect all changes or modifications to the original Construction Documents.

D. Transmittal letters with signature of CONTRACTOR or its authorized representative shall be notarized by state authorized agent.

1.5 RECORDING

A. Promptly following Contract Award, CONTRACTOR shall secure from the OWNER’S Representative or OWNER one complete set of Specifications and Contract Drawings and clearly mark them as “Project Record Documents”.

B. CONTACTOR shall keep record documents current.

C. CONTACTOR shall be responsible for maintaining and recording changes on “Project Record Documents”.

D. Do not use “Project Record Documents” set for any other purpose except entry of new data and for review by the OWNERS’ representatives, IOR, ARCHITECT, and/or OWNER. Maintain separate job sets for subcontractors and workers’ daily use.

E. CONTRACTOR shall record entries and properly dimension deviations on the record drawing within 24 hours after receipt of information of work in affected area.

F. Making entries on “Project Record Documents”

1. Use erasable colored pencils, other than blue or colors not easily seen, not ink or indelible pencil.
2. Clearly describe change by note and by graphic line as required.
3. Date all entries.
4. Call attention to entry by a “cloud” around area or areas affected.
5. In the event of overlapping changes, different colors may be used for each entry.
6. RFI submissions shall be referenced on each affected sheet, Drawing and/or Shop Drawing.

1.6 RECORD DRAWINGS

A. Maintain a clean, undamaged set of blue or black line white prints of Drawings and Shop Drawings. Mark the set to show the actual installation where the installation varies substantially from the Work as originally shown. Mark which Drawing is most capable of showing conditions fully and accurately. Where Shop Drawings are used, record a cross-reference at the corresponding location on the Drawings. Provide detailed and accurate field dimensions for concealed elements that would be difficult to measure and record at a later date.

1. Utility location and depth below finished grade and/or above ceilings and attic spaces shall be fully dimensioned and indicated on record drawings. Dimensions shall be measured from building lines or permanent landmarks and shall be triangulated to those features.
2. Dimensions shall be taken to building lines or permanent landmarks.
3. Horizontal and vertical location of underground utilities are appurtenances referenced to permanent surface improvements. Cut-off points and points of connection of utilities.

4. Location of internal utilities and appurtenances concealed in construction referenced to visible and accessible features of structure.
5. Details not on original Contract Drawing.
6. Do not permanently conceal any work until required information has been recorded.

B. Prior to Final Completion of the Work, and review of the project record drawings by ARCHITECT, the CONTRACTOR shall prepare a final set of project record drawings using reproducible Mylar (5 mil.) and electronic CAD files on CD's of all Contract Drawing. Submit the final set of transparencies and CD's to OWNER'S Representative who will then forward the project record drawings to the ARCHITECT.

1. Incorporate transparencies and AUTO CAD files all changes noted on record set. This requirement applies to all disciplines. Work shall be performed by experienced, competent draftsmen. AUTO CAD work shall be performed in the same protocol as the files provided. Identify documents as "**RECORD DRAWINGS".**

1.7 RECORD SPECIFICATIONS

A. Maintain two complete copies of the Specifications, including Addenda. Include with the Specifications two copies of other written Contract Documents, such as Change Orders and/or Construction Directives issued during construction.

1. Mark these record documents to show substantial variations in actual Work performed in comparison with the text of the Specifications and modifications.
2. Give particular attention to substitutions and selection of options and information on concealed Work that cannot otherwise be readily discerned later by direct observation.
3. Note related to record document information with Product Data.
4. Prior to Final Completion of the Work, submit record Specifications to OWNER'S representative for ARCHITECT review, and for OWNER'S records.

1.8 RECORD PRODUCT DATA

A. Maintain two copies of each Product Data submittal. Note related Change Orders and Construction Directives and mark-up of record drawings and Specifications.

1. Mark these documents to illustrate significant variations in actual Work performed in comparison with information submitted. Include variations in products delivered to the Project site and from the manufacturer's installation instructions and recommendations.
2. Provide detailed and accurate information regarding concealed products and portions of Work that cannot otherwise be readily discerned later by direct observation. The CONTRACTOR should give particular attention to concealed areas of Work.
3. Prior to Final Completion of the Work, submit complete set of record Product Data to the OWNER'S Representative for the ARCHITECT'S review and for OWNER records.

1.9 RECORD SAMPLES

A. Immediately prior to Substantial Completion, CONTRACTOR shall meet with OWNER'S representative and/or OWNER, ARCHITECT at the Project site to determine which Samples are to be transmitted to OWNER for record purposes. Comply with OWNER'S representative for OWNER instructions regarding delivery to OWNER storage area.

1.10 MISCELLANEOUS RECORDS

A. Refer to other Specification sections for requirements of miscellaneous record keeping and submittals in connection with actual performance of the Work. Immediately prior to the date of Final Completion, complete and compile miscellaneous records and place in good order. Identify miscellaneous records properly and bind or file, ready for continued use and reference. Submit to OWNER'S representative for ARCHITECT review and for OWNER records.

1.11 SUBMITTALS

A. Deliver all "Project Record Documents" to OWNER'S representative at completion of Project as specified in Specification Sections.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

END OF SECTION 01 7850

SECTION 02 07 00 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Related Documents: Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specifications, apply to this section.

B. Related Sections:

1. 01 04 50 Cutting and Patching

C. Definitions: As follows:

1. Remove: Remove and legally dispose of items except those indicated to be reinstalled, salvaged, or to remain the district's property.
2. Remove and Salvage: Items indicated to be removed and salvaged remain the district's property. Remove, clean, and pack or crate items to protect against damage. Identify contents of containers and deliver them to District's designated storage area.
3. Salvage and Reuse In New Work: Remove items indicated; clean, service, and otherwise prepare them for reuse; store and protect against damage. Reinstall items in locations indicated.
4. Existing to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by the Architect, items may be removed to a suitable, protected storage location during selective demolition and then cleaned and reinstalled in their original locations.
5. Replace: Remove and legally dispose of existing item(s) indicated and install new like item(s) that conform(s) to project specifications.

D. Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain the district's property, demolished materials shall become the Contractor's property and shall be removed from the site with further disposition at the Contractor's option.

E. Record drawings at Project closeout according to Division 1 Section "Contract Closeout."

1. Identify and accurately locate capped utilities and other subsurface structural, electrical, or mechanical conditions.

F. Regulatory Requirements: Comply with local governing EPA notification regulations before starting selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction Comply with California Fire Code Article 87.

G. The district will occupy the building immediately adjacent to selective demolition area. Conduct selective demolition so that District's operations will not be disrupted. Provide not less than 72 hours' notice to District of activities that will affect District's operations.

H. District assumes no responsibility for actual condition of buildings to be selectively demolished.

I. Storage or sale of removed items or materials on-site will not be permitted.

PART 2 - PRODUCTS (Not applicable)

PART 3 - EXECUTION

3.1 GENERAL

A. Survey the condition of the building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of the structure or adjacent structures during selective demolition.

B. Perform surveys as the Work progresses to detect hazards resulting from selective demolition activities.

C. Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.

D. Utility Requirements: Locate, identify, shut off, disconnect, and seal or cap off indicated utility services serving building to be selectively demolished.

1. Where utility services are required to be removed, relocated, or abandoned, provide bypass connections to maintain continuity of service to other parts of the building before proceeding with selective demolition.

E. Drain, purge, or otherwise remove, collect, and dispose of chemicals, gases, explosives, acids, flammables, or other dangerous materials before proceeding with selective demolition operations.

F. Conduct demolition operations and remove debris to ensure minimum interference with roads, streets, walks, and other adjacent occupied and used facilities.

G. Conduct demolition operations to prevent injury to people and damage to adjacent buildings, facilities, and site improvements to remain. Ensure safe passage of people around selective demolition area.

1. Provide temporary weather protection, during interval between demolition and removal of existing construction, on exterior surfaces and new construction to ensure that no water leakage or damage occurs to structure or interior areas.
2. Protect walls, ceilings, floors, and other existing finish work that are to remain and are exposed during selective demolition operations.
3. Cover and protect furniture, furnishings, and equipment that have not been removed.

H. Provide and maintain interior and exterior shoring, bracing, or structural support to preserve stability and prevent movement, settlement, or collapse of building to be selectively demolished.

I. Use water mist, temporary enclosures, and other suitable methods to limit the spread of dust and dirt. Comply with governing environmental protection regulations.

J. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.

K. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to the condition existing before start of selective demolition.

L. Remove structural framing members and lower to ground by method suitable to avoid free fall.

M. Promptly patch and repair holes and damaged surfaces caused to adjacent construction by selective demolition operations.

N. Where repairs to existing surfaces are required, patch to produce surfaces suitable for new materials.

O. Restore exposed finishes of patched areas and extend finish restoration into adjoining construction to remain in a manner that eliminates evidence of patching and refinishing.

P. Patch and repair floor and wall surfaces in the new space where demolished walls or partitions extend one finished area into another. Provide a flush and even surface of uniform color and appearance.

Q. Patch, repair, or rehang existing ceilings as necessary to provide an even-plane surface of uniform appearance.

R. Disposal: Promptly dispose of demolished materials. Do not allow demolished materials to accumulate on-site.

1. Do not burn demolished materials.
2. Dispose of demolished materials at designated spoiled areas on District's property.
3. Transport demolished materials off District's property and legally dispose of them.

S. Sweep the building broom clean on completion of selective demolition operation.

T. Where performing contracted scope of work requires coring of existing concrete or CMU structures (including CMU Walls and concrete Floors), contractor shall obtain, and document means of verifying existence and location of embedded steel reinforcing materials within said concrete and CMU assemblies. Contractor shall locate reinforcement by means of non-invasive technology such as X-ray photography for the purposes of protecting said reinforcement in place and shall not damage any reinforcement materials (rebar, etc.) unless specifically detailed as such and approved by the authority having jurisdiction.

END OF SECTION 02 07 00

SECTION 03 10 00 - CONCRETE FORMWORK

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Formwork for cast-in-place concrete, with shoring, bracing, and anchorage.

B. Openings for other affected work.

C. Form accessories.

D. Stripping forms.

1.2 REFERENCES

A. CBC - California Building Code, (CCR) California Code of Regulations, Title 24, Part 2, Chapter 19A. Throughout this volume, any reference to the CBC means the 2022 edition of the California Building Code.

B. ACI 301 - Specifications for Structural Concrete for Buildings.

C. PS-1 - Construction and Industrial Plywood.

1.3 SYSTEM DESCRIPTION

A. Design, engineer, and construct formwork, shoring, and bracing to meet design and code requirements, so that resultant concrete conforms to required shapes, lines, and dimensions.

1.4 QUALITY ASSURANCE

A. Construct and erect concrete formwork in accordance with ACI 301.

1.5 REGULATORY REQUIREMENTS

A. Conform to CBC - California Building Code, (CCR) California Code of Regulations, Title 24, Part 2.

PART 2 - PRODUCTS

2.1 FORM MATERIALS

A. Plywood: PS-1, BB Plyform grade, Class I, Exterior classification.

B. Lumber: Douglas Fir species; construction grade; with grade stamp clearly visible.

C. Tubular Column: Round, of spirally wound laminated fiber; surface treated with release agent; of

2.2 FORMWORK ACCESSORIES

A. Form Ties: Snap-off metal of adjustable length; cone type; 1 inch break back dimension; free of defects that will leave holes no larger than one inch diameter in concrete surface.

B. Form Release Agent: Colorless material which will not stain concrete, absorb moisture, or impair natural

bonding or color characteristics of coating intended for use on concrete.

C. Fillets for Chamfered Corners: Wood strips type; 3/4 x 3/4 inch size; maximum possible lengths.

D. Dovetail Anchor Slots: Minimum 22 gage galvanized steel; foam filled; release tape sealed slots; bent tab anchors; securable to concrete formwork; manufactured by Heckmann Building Products Co., www.heckmannbuildingprods.com.

E. Flashing Reglets: 26 gage thick galvanized steel; longest possible lengths; release tape sealed slots; with alignment splines for joints; securable to concrete formwork; Type CO reglet manufactured by Fry Reglet www.fryreglet.com.

F. Nails, Spikes, Lag Bolts, Through Bolts, Anchorages: Sized as required; of strength and character to maintain formwork in place while placing concrete.

PART 3 - EXECUTION

3.1 INSPECTION

A. Verify lines, levels, and measurements before proceeding with formwork.

3.2 PREPARATION

A. Obtain Architect's approval for use of earth forms for footings.

B. Minimize form joints. Symmetrically align joints and make watertight to prevent leakage of mortar.

C. Arrange and assemble formwork to permit stripping, so that concrete is not damaged during its removal.

D. Arrange forms to allow stripping without removal of principal shores, where required to remain in place.

3.3 ERECTION

A. Erect formwork, shoring and bracing to achieve design requirements, in accordance with requirements of ACI 301.

B. Provide bracing to ensure stability of formwork. Strengthen formwork liable to be overstressed by construction loads.

C. Provide chamfer strips on external corners of walls**.**

D. Obtain approval before framing openings in structural members which are not indicated on Drawings.

E. Do not displace or damage vapor barrier placed by Section 033000.

F. Construct formwork to maintain tolerances in accordance with ACI 301.

3.4 APPLICATION OF FORM RELEASE AGENT

A. Apply form release agent on formwork in accordance with manufacturer's instructions. Apply prior to placing reinforcing steel, anchoring devices, and embedded items.

B. Do not apply form release agent where concrete surfaces are scheduled to receive applied coverings

which may be affected by agent. Soak contact surfaces of untreated forms with clean water. Keep surfaces wet prior to placing concrete.

3.5 INSERTS, EMBEDDED PARTS, AND OPENINGS

A. Provide formed openings where required for work embedded in or passing through concrete.

B. Coordinate work of other Sections in forming and setting openings, slots, recesses, chases, sleeves, bolts, anchors, and other inserts.

C. Install accessories in accordance with manufacturer's instructions, level and plumb. Ensure items are not disturbed during concrete placement.

3.6 FORM REMOVAL

A. Do not remove forms and bracing until concrete has sufficient strength to support its own weight and imposed loads.

B. Do not damage concrete surfaces during form removal.

C. Store reusable forms for exposed architectural concrete to prevent damage to contact surfaces.

3.7 CLEANING

A. Clean forms to remove foreign matter as erection proceeds.

B. Ensure that water and debris drain to exterior through clean-out ports.

3.8 EARTH FORMS

A. Construct wood edge strips at top sides of excavations as indicated on drawings.

B. Provide forms for footings and foundation walls wherever concrete cannot be placed against solid earth.

C. Remove loose dirt and debris from form area prior to concrete placement.

D. Concrete for foundations may be placed directly into neat excavations provided the foundation trench walls are stable as determined by the Architect (Structural Engineer) subject to the approval of the Division of the State Architect.

E. When earth formed foundations are used, the minimum formwork shown on the drawings is mandatory to insure clean excavations prior to and during concrete placement.

F. Provide 3-1/2 inch high starter wall for all concrete and masonry walls below grade.

END OF SECTION 03 10 00

SECTION 03 20 00 - CONCRETE REINFORCEMENT

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Reinforcing steel bars, welded steel wire fabric fabricated steel bar or rod mats for cast-in-place concrete.

B. Support chairs, bolsters, bar supports, and spacers, for supporting reinforcement.

1.2 REFERENCES

A. CBC - California Building Code, (CCR) California Code of Regulations, Title 24, Part 2, Chapter 19A (ACI 318-14).

B. ACI 301 - Specifications for Structural Concrete for Buildings.

C. ACI 315 (SP-66) - Details and Detailing of Concrete Reinforcement.

D. ACI 318-14 - Building Code Requirements for Reinforced Concrete.

E. ASTM A82 - Cold Drawn Steel Wire for Concrete Reinforcement.

F. ASTM A185 - Welded Steel Wire Fabric for Concrete Reinforcement.

G. ASTM A615 - Deformed and Plain Billet-Steel Bars for Concrete Reinforcement.

H. ASTM A706 - Standard Specification for Low Alloy Steel Deformed Bars for Concrete Reinforcement.

I. AWS D1.4 - Structural Welding Code Reinforcing Steel.

J. CRSI - Manual of Practice.

K. CRSI - Placing Reinforcing Bars.

1.3 QUALITY ASSURANCE

A. Perform concrete reinforcement work in accordance with CRSI Manual of Standard Practice.

B. Conform to ACI 301 and ACI 315 (SP-66).

C. Conform to CBC California Building Code, (CCR) California Code of Regulations, Title 24, Part 2.

1.4 CERTIFICATES

A. Submit mill test certificates of supplied concrete reinforcing, indicating physical and chemical analysis.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Reinforcing Steel: ASTM A615, Grade 60. Billet-steel deformed bars, uncoated finish.

B. Welded Reinforcement: ASTM A706, Grade 60, deformed bars, unfinished.

C. Welded Steel Wire Fabric: ASTM A185 plain type; coiled rolls; uncoated finish.

D. Steel Wire: ASTM A82, plain, cold drawn steel.

2.2 ACCESSORY MATERIALS

A. Tie Wire: Minimum 16 gage annealed type.

B. Chairs, Bolsters, Bar Supports, Spacers: Sized and shaped for strength and support of reinforcement during installation and placement of concrete including load bearing pad on bottom to prevent vapor barrier puncture.

2.3 FABRICATION

A. Fabricate in accordance with ACI 315 (SP-66), providing concrete cover specified in Section 033000.

B. Locate reinforcing splices not indicated on Drawings at points of minimum stress. Indicate location of splices on shop drawings.

C. Weld reinforcing bars in accordance with AWS D1.4.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Before placing concrete, clean reinforcement of foreign particles or coatings.

B. Place, support, and secure reinforcement against displacement. Do not deviate from alignment or measurement.

C. Mix fibrous reinforcement into concrete material according to Section 033000.

D. Do not displace or damage the vapor barrier required by Section 033000.

3.2 FIELD QUALITY CONTROL

A. Field inspection and testing will be performed under provisions of Section 014000 and as required by the Division of the State Architect and District Inspector.

.

END OF SECTION 03 20 00

SECTION 03 30 00 - CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Cast-in-place concrete foundation walls and footings.

B. Floors and slabs.

C. Control, expansion, and contraction joint devices associated with concrete work.

D. Curing and sealing compounds.

1.2 REFERENCES

A. CBC - California Building Code, (CCR) California Code of Regulations Title 24, Part 2, Chapter 19A

B. CBC - California Building Code, (CCR) California Code of Regulations, Title 24, Part 2, California State Accessibility Standards.

C. ADAAG - Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities.

D. ACI 301 - Specifications for Structural Concrete for Buildings.

E. ACI 302.1R - Guide for Concrete Floor and Slab Construction.

F. ASTM C33 - Concrete Aggregates.

G. ASTM C94 - Ready-Mixed Concrete.

H. ASTM C150 - Portland Cement.

I. ASTM C260 - Air-Entraining Admixtures for Concrete.

J. ASTM C289 - Potential Reactivity of Aggregate.

K. ASTM C309 - Liquid Membrane Forming Compound.

L. ASTM C330 - Lightweight Aggregates for Structural Concrete.

M. ASTM C494 - Standard Specifications for Chemical Admixtures for Concrete.

N. ASTM C567 - Unit Weight of Structural Lightweight Concrete.

O. ASTM C618- Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use as a Mineral Admixture for Concrete.

P. ASTM C932 - Surface - Applied Bonding Agents.

Q. ASTM C1315 - Liquid Membrane - Forming Compounds Having Special Properties for Curing and Sealing Concrete.

R. ASTM D226 - Asphalt Saturated Organic Felt used in Roofing and Waterproofing.

S. ASTM D1751 - Preformed Expansion Joint Filler for Concrete Paving and Structural Construction.

T. ASTM E96 – Standard Test Methods for Water Vapor Transmission of Materials.

U. ASTM E1643 - Installation of Water Vapor Retarders used in Contact with Earth or Granular Fill Under Concrete Slab.

V. ASTM E1155 - Determining Floor Flatness and Levelness Using the F-Number System.

W. ASTM E1745 - Standard Specifications for Plastic Water Vapor Retarders Used in Contact with Soil Or Granular Fill Under Concrete Slabs.

X. ASTM F1869 - Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride.

Y. National Ready Mix Concrete Association - Plant Certification Program.

Z. Stormwater Best Management Practice Handbook (BMP Handbook), Construction Edition, as published by the California Storm Water Quality Association

1.3 QUALITY ASSURANCE

A. Perform work in accordance with ACI 301.

B. Obtain materials from same source throughout the Work.

1.4 QUALIFICATIONS

A. Manufacturer: Manufacturer of ready-mix concrete products complying with ASTM C94 requirements for production facilities and equipment. Certified according to National Ready Mix Concrete Associates Plant Certification Program.

1.5 DESIGN MIX

A. Submit design mix for each class of concrete, prepared by a California Registered Civil Engineer, to Testing Laboratory and Architect for review.

1.6 REGULATORY REQUIREMENTS

A. Conform CBC - California Building Code, (CCR) California Code of Regulations, Title 24, Part 2.

B. Conform to CBC - California Building Code, (CCR) California Code of Regulations, Title 24, Part 2, and ADAAG for access requirements for individuals with disabilities.

1.7 SUBMITTALS

A. Submit product data and manufacturer's instructions under provisions of Section 016000.

1.8 ENVIRONMENTAL REQUIREMENTS

A. Provide concrete curing, finishing, and waste management techniques as defined in Section 4 of the Storm Water Best Management Practice Handbook, (BMP Handbook) Construction Edition.

PART 2 - PRODUCTS

2.1 FORMWORK

A. As specified in Section 031000.

2.2 REINFORCEMENT

A. Reinforcing steel as specified in Section 032000.

2.3 CONCRETE MATERIALS

A. Cement: ASTM C150, Type II/V Portland type; low alkali; grey color.

B. Fine and Coarse Aggregates Normal Weight Concrete: ASTM C33, non reactive when tested in accordance with ASTM C289 and Appendix X-1 of ASTM C33.

C. Water: Clean and not detrimental to concrete.

2.4 ADMIXTURES

A. Air Entrainment: ASTM C260.

B. Fly Ash: ASTM C618, Class F.

C. Water Reducing Admixture: ASTM C494, Type A.

D. Calcium chloride, or any other admixtures not allowable.

2.5 ACCESSORIES

A. Underlayment: ASTM D226, Type I (No. 15) asphalt saturated roofing felt.

B. Bonding Agent: ASTM C932; Weld-Crete as manufactured by Larsen Products Corp., www.larsenproducts.com.

C. Non-shrink Grout: Premixed compound consisting of non-metallic aggregate, cement, water reducing and plasticizing agents; capable of developing minimum compressive strength of 7000 psi in 28 days.

D. Joint Filler: ASTM D1751, 1/2 inch thick.

E. Sand Fill: Manufactured "crusher run" sand free of silt, clay, loam, friable or soluble materials or organic matters, all passing the No. 4 sieve and only 5 percent passing the No. 200 sieve.

F. Slip Resistant Aggregate: 95 percent minimum fused homogeneous aluminum oxide.

G. Substitutions: Under provisions of Section 01 63 00.

2.6 CONCRETE MIX

A. Mix concrete in accordance with ASTM C94 and CBC, California Building Code, (CCR) California Code of Regulations, Title 24, Part 2, Section 1905A.3.

B. All Concrete: Proportion normal-weight concrete mixture as follows:

1. Minimum Compressive Strength: 4,500 psi at 28 days or as noted on the plans.

2. Maximum Water-Cement Materials Ratio: 0.45

3. Aggregate Size: 1 inch maximum.

4. Slump Limit: 4 inch maximum.

5. Fly Ash: Maximum 15 percent by weight.

6. Air Content: 1.5 percent, plus or minus 0.5 percent.

PART 3 - EXECUTION

3.1 INSPECTION

A. Verify anchors, seats, plates, reinforcement, and other items to be cast into concrete are accurately placed, held securely, and will not cause difficulty in placing concrete.

3.2 PREPARATION

A. At locations where new concrete is dowelled to existing work, drill holes in existing concrete, insert steel dowels, and pack solid with non-shrink grout.

B. Place 2 inch thick sand fill over subgrade.

3.3 BASE

A. Place 2 inch thick sand fill base over vapor barrier.

B. Compact base materials in accordance with provisions of Section 025000.

C. Ensure vapor barrier is not damaged or disturbed during base installation.

3.4 PLACING CONCRETE

A. Notify Architect minimum 24 hours prior to commencement of concreting operations.

B. Place concrete in accordance with ACI 301.

C. Hot and Cold Weather Placement: ACI 301.

1. When average high and low temperature is expected to fall below 40 deg F for three successive days, maintain delivered concrete mixture temperature within the temperature range required by ACI 301.

2. Maintain concrete temperature below 90 deg F at time of placement. Chilled mixing water or chopped ice may be used to control temperature, provided water equivalent of ice is calculated to total amount of mixing water.

3. Fog-spray forms, steel reinforcement, and subgrade just before placing concrete in hot weather. Keep subgrade uniformly moist without standing water, soft spots, or dry areas.

D. Ensure reinforcement, inserts, embedded parts and formed joints are not disturbed during concrete placement.

E. Do not disturb or damage vapor barrier while placing concrete. Repair damage as required to maintain integrity of barrier.

F. Place concrete continuously between predetermined construction and control joints. Do not break or interrupt successive pours such that cold joints occur.

G. Excessive honeycomb or embedded debris in concrete is not acceptable.

3.5 JOINTS

A. Saw cut control joints at an optimum time after finishing. Use 3/16 inch thick blade, cutting 1/3 into depth of slab thickness.

B. Provide control joints at 15 feet on center unless otherwise indicated.

C. Separate slabs from vertical surfaces with joint filler. Extend joint filler from bottom of slab to within 1/4 inch of finished slab surface.

3.6 FINISHING OF FORMED SURFACES

A. Rough form finish:

1. Leave surfaces with the texture imparted by forms, except patch tie holes and defects.

2. Remove fins exceeding 1/4 inch in height.

3. Use for below grade foundation walls and concealed spaces.

B. Smooth form finish:

1. Coordinate as necessary to secure form construction using smooth, hard, uniform surfaces, with number of seams kept to a practical minimum and in a uniform and orderly pattern.

2. Patch tie holes and defects.

3. Remove fins completely.

4. Use for exposed finish surfaces to receive paint.

3.7 PATCHING

A. Notify Architect immediately upon removal of forms to determine areas that will require patching.

B. Surface defects shall include color and texture irregularities, stains, cracks, spalls, air bubbles, honeycombs, rock pockets, fins and other projections and discolorations in the surface that cannot be removed by cleaning.

C. Patch imperfections in accordance with ACI 301.

3.8 FIELD QUALITY CONTROL

A. Field inspection and testing will be performed under provisions of Section 014000 and as required by the Division of the State Architect and District Inspector.

B. Owner's Inspector will take cylinders and perform slump and air entrainment tests in accordance with ACI 301 and will arrange for pick-up by Testing Laboratory.

C. Samples for strength test of each class of concrete placed each day shall be taken not less than once a day, or not less than once for each 50 cubic yards of concrete, or not less than once for each 2,000 square feet or surface area for slabs or walls. Additional samples for seven-day compressive strength test shall be taken for each class of concrete at the beginning of the concrete work or whenever the mix or aggregate is changed – CBC 1905A.1.15.

D. Tests of cement and aggregates will be performed by Testing Laboratory to ensure conformance with requirements stated herein.

E. Maintain records of placed concrete items. Record date, location of pour, quantity, air temperature, and test samples taken.

3.9 PROTECTION

A. Protect finished work under provisions of Section 01 40 00.

B. Immediately after placement, protect concrete from premature drying, excessively hot or cold temperatures, and mechanical injury.

C. Maintain concrete with minimal moisture loss at relatively constant temperature for period necessary for hydration of cement and hardening of concrete.

END OF SECTION 03 30 00

SECTION 10 14 00 - SIGNAGE

PART1 GENERAL

1.01 SUMMARY

A. Section Includes:
1. Furnishing materials, labor, and equipment necessary for completion of signage as indicated on Drawings and as specified.
2. Types of signage include, but is not limited to following:
    a. Interior and exterior room signs and directional signs
    b. Geometric restrooms signs

1.02 REFERENCES

A. California Code of Regulations (CCR), Title 24, Part 2, California Building Code (CBC), Volumes 1 and 2, 2022 edition.
1. Chapter 11 B - Accessibility to Public Buildings, Public Accommodations, Commercial Buildings, and Public Housing.

1.03 QUALITY ASSURANCE

A. Uniformity of Manufacturer: For each separate type of sign required, obtain signs from one source from single manufacturer.

B. Accessibility:
1. Comply with CBC, Chapter 11 B.
2. Provide tactile exit signage complying with CBC Section 1013.

1.04 SUBMITTALS

A. Product Data: Manufacturer's technical data and installation instructions for each type of sign required.

B. Samples: Each sign form and material showing finishes,· colors, surface textures and qualities of Manufacturer and design of each sign component including graphics.
1. Full-size sample units, if requested by Architect.
2. Acceptable units may be installed as part of Work.

1.05 SYSTEM DESCRIPTION

A. Comply with most stringent requirements of 2022 CBC, Chapter 11 B for following:
1. Tactile character type and size.
2. Finish and contrast.
3. Raised and visual characters.
4. Visual character and line spacing heiqht and installation height.
5. Braille: California (Contracted) Grade 2 Braille shall be used wherever Braille is required.
6. Tactile sign installation height and location.
7. Parking lot entrance signs and accessible parking space identification signs.
8. Circulation path signs leading from public right of ways, public transportation, and parking lots.
9. Accessible building entrances shall be identified with ISA per CBC Section 118-216.6.
10. Each permanent room and space identified by sign shall have sign installed adjacent to door it identifies, with raised characters and Braille.

11. Tactile exit signs shall be· required per CBC Section 1013.4
12. Signs indicating provision of special equipment for hearing impaired (i.e. TTY phone, volume control phones, and Assistive Listening Systems.

PART 2 PRODUCTS

2.01 GENERAL

A. Letter Style: Helvetica Medium, unless indicated otherwise.
1. Uppercase Letters

2.02 PLASTIC SIGNS

A. Basis-of-Design: Design for interior plastic room _signs is based on Best Sign Systems standard HC 300 ADA System plaque signs and accessories as manufactured by Best Manufacturing Co., Montrose, CO.

B. Subject to compliance with specified requirements, comparable products may be submitted by alternate manufacturers in accordance with requirements for product substitutions specified in Section 01 6000 and following:
1. Submit items listed in "Submittals" Article and as specified in Section O 1 3300, for evaluation of proposed system.
2. Complete project shop drawings for similar project may be submitted for evaluation purposes, however shop drawings specific to this Project will be required from successful bidder.
3. Copy of manufacturer's finish and material warranty.

C. Material: Plaque stock of laminated phenolic and melamine. plastic (MP) for interior signs and fiberglass (FP) for exterior signs suited for graphic sandblast process.
1. Sign stock with face and core plies suited for integral raised profile of text and braille, in finishes and color combinations indicated or, if not indicated, as selected from manufacturer's standards.
2. NEMA rated self-extinguishing.
3. Thickness: 1 /4 inch.
4. Edges: Square cut.
5. Corners: As indicated on Drawings.

D. Finish and Contrast: Matte finish with color of characters and symbols contrasting with background by minimum of 70 percent, and have non-glare finish per CBC Sections 11 B-703.5.1, 11 B-703.6.2, and 11 B-703. 7.1
1. Colors as selected by Architect.

E. Raised (Tactile) and Visual Characters:
1. Provide raised characters minimum of 5/8 inch and maximum of 2 inches high, based on height of uppercase letter "I", complying with CBC Sections 11 B- 703.2 and 11 B-703.2.5
a. · Accompanied by California Contracted Grade 2 Braille complying with CBC Section 11 B-703.2.
2. Proportions: Characters shall be selected from fonts where width of uppercase letter "O" is 60 percent minimum and 110 percent maximum of height of uppercase letter "I" per CBC Sections 11 B-703.4 and 11 B-703.6
3. Format: Text shall be in horizontal Format per CBC Sections 11 B-703.2 and · 11 B-703.5
4. Stroke Thickness: Stroke thickness of uppercase letter "I" shall be 15 percent maximum of height of character per CBC Section 11 B-703.4 and 11 B-703.6
5. Raised Character and Line Spacing: Character spacing shall be measured between two closest points of adjacent raised characters within message, excluding word spaces.

a. Where characters have rectangular cross sections, spacing between individual raised characters shall be 1 /8 inch minimum and 4 times raised character stroke width maximum.
b. Where characters have other cross sections, spacing between individual raised characters shall be 1 /16 inch minimum and 4 times raised character stroke width maximum at base of cross sections, and 1 /8 inch minimum and 4 times raised character stroke width maximum at top of cross sections.
c. Characters shall be separated from raised borders and decorative elements 3/8 inch minimum.
d. Spacing between baselines of separate lines of raised message shall be 135 percent minimum and 170 percent maximum of raised character height per CBC Section 11 B-703.2

6. Visual Character and Line Spacing: Visual character spacing on sign shall be measured between two closest points of adjacent characters, excluding word spaces.
   a. Spacing between individual characters shall be 10 percent minimum and 35 percent maximum of character height.
   b. Spacing between the baselines of separate lines of characters within message shall be 135 percent minimum and 170 percent maximum of character height per CBC Section 11 B-703.5
7. Visual Character Height and Installation Height: Minimum character height shall comply with CBC Table 11 B-703.5.5
8. Viewing distance shall be measured as horizontal distance between character and obstruction preventing further approach towards sign.
9. Character height shall be-based on uppercase letter "I".
   a. Visual characters shall be installed at 40 inches minimum above finish floor or ground except for elevator car controls, floor-level exit siqns and emergency procedures information per CBC Section 11 B-703.5.
· 10. Visual Character Case and Style: Visual characters on sign shall be uppercase or lowercase or combination of both and conventional in form.
   a. Characters shall not be italic, oblique, script, highly decorative, or of other unusual forms per CBC Section 11 B-703.5 .
11. Visual Character Stroke Thickness: Stroke thickness of uppercase letter 111" shall be 10 percent maximum of height of character per CBC Section 11 B- 703.5
12. Provide pictograms, where required, complying with CBC Section 11 B-703.6.
13. Symbol of accessibility (ISA), shall comply with CBC Section 11 B-703.7.

F. Braille: California (Contracted) Grade 2 Braille shall be used wherever Braille is required, complying with CBC Sections 11 B-703.3 and 11 B-703.4
1. Dots shall be 0.100 inch on center in each cell with 0.300 inch· space between cells, measured from second column of dots in first cell to first column of dots in second cell.
2. Dots shall be raised minimum of 0.025 inch above background.
3. Braille dots shall be domed or rounded per CBC Sections 11 B-703.3 and 11 B- 703.3.1
4. Braille shall be positioned below corresponding text in horizontal format, flush left or centered.
5. Multi-lined text) Braille shall be placed below entire text.
6. Braille shall be separated 3/8 inch minimum and 1/2 inch maximum from other tactile characters, and 3/8 inch minimum from raised borders and decorative elements. per CBC Section 11 8-703. 3

G. Geometric Toilet Room Signs:
1. Comply with CBC Section 11 B-703.7.2.6
2. Fabricated of 1 /4 inch thick, non-glare material which shall contrast with restroom door (light to dark, or dark to light).
3. Boys/Mens Rooms: Triangular with equal sides, 12 inches. in length.
4. Girls/Women Rooms: Circle, 12 inch in diameter.

5. When restroom or other sanitary facility is accessible, ISA shall be placed in center of geometric sign.
6. Non-tactile text, such as "Staff Only", may be added to sign.
7. Signs shall be installed on door leading into restroom or other sanitary. facility, centered on door, and with center of sign 60 inches from finished floor.

PART 3 EXECUTION

3.01 INSTALLATION

A. . General: Locate sign units and accessories where shown, scheduled, or directed by Architect.
1. Use mounting methods shown or selected by Architect.
2. Comply with manufacturer's instructions, and CCR, Title 24, Part 2, CBC Chapter 11 B.

B. Install level, plumb, and at proper height with sign surfaces free from distortion or other defects in appearance.
1. Cooperate with other trades for installation to finish surfaces.
2. Repair or replace damaged units as directed by Architect.

D. Tactile Sign Installation Height and Location:
1. Tactile characters on signs shall be located minimum 48 inches above finish floor or ground surface, measured from baseline of lowest Braille cells and 60 inches maximum above finish floor or ground .surface, measured from baseline of highest line of raised characters.
2. Locate signs containing tactile characters so that clear floor space of 18 inches by 18 inches minimum, centered on tactile characters, is provided beyond arc of door swing between closed position and 45 degree open position per CBC Section and Figure 11 B-703.4.2.
a. Where tactile sign is provided at door, sign shall be located on wall alongside door at latch side.
b. When at double doors with one active leaf, sign shall be located on inactive leaf.
c. When at double doors with two active leafs, sign shall be located to right of right hand door.
d. Where there is no wall space at latch side of single door or at right side of double doors, signs shall be located on nearest adjacent wall.
e. Locate signs identifying permanent rooms and spaces at entrance to and outside of room or space.
f. Locate signs identifying exits at exit door when approached in direction of egress travel.

F. Plastic Signs: Mount sign with aluminum T-type bracket, finish to match adjacent surface or adhesive mount with adhesive recommended by sign manufacturer for application to substrate.
1. Locate signs so that person may approach within 3 inches of sign without encountering protruding objects or standing within swing of door per CBC Chapter 11 B.

3.02 CLEANING AND PROTECTION

A. At completion of installation, clean soiled sign surfaces in accordance with manufacturer's instructions.
1. Protect units from damage until acceptance by Owner.

END OF SECTION 10 1400

SECTION 22 0500 - COMMON WORK RESULTS FOR PLUMBING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Project Specification, apply to this and the other sections of Division 22.

B. This Division is an integrated whole comprising interrelated and interdependent Section and shall be considered in its entirety in determining requirements of the Work.

C. Refer to other sections of this Division for additional requirements or information regarding the subjects of this Section.

1.2 SECTION INCLUDES

A. This Section includes general administrative and procedural requirements for plumbing installations. The following administrative and procedural requirements are included in this Section to expand the requirements specified in Division 01:

1. Submittals.
2. Coordination drawings.
3. Record documents.
4. Maintenance manuals.
5. Rough-ins.
6. Mechanical installations.
7. Cutting and patching.

1.3 SUBMITTALS

A. General: Follow the procedures specified in Division 01.

B. Plumbing submittals shall include shop drawings, product data, and samples per requirements of each section of the specifications.

C. Plumbing Submittals and Product Data: Assemble “submittals” and “product data” into tabbed brochures according to main areas of work.

1. Assemble each brochure with tabbed separators for each Specification Section where products are noted to be submitted, with separate tabs for each product listed.
2. Temperature "control shop drawings" may be submitted separately after preparations for review.
3. For items such as valves, hangers, and accessories, indicate specific items and where they are to be used.
4. Contractor need only to submit for review those items specified to be submitted, unless requested by the Architect for special review.

D. All submittals shall be submitted in hard copy, electronic submittals are not acceptable.

E. Increase the number of plumbing related submittals including shop drawings, product data, and samples submitted to allow for required distribution by one additional copy, which will be retained by the Mechanical Consulting Engineer.

F. Submit for review, only the specific items required in this Section or other Sections of Division 22.

G. Additional submittals shall include, but not limited:

1. Equipment data record drawings.
2. Certification of completion of testing.
3. Certification of completion of operation instructions.
4. Operating instruction brochure.
5. Maintenance instruction brochures.
6. Equipment guarantees.
7. 1/4" = 1'-0" or larger scale layouts of "Equivalent" equipment or "Or Approved Equal" equipment.
8. Coordination Drawings, where requested or required.

H. Submittal materials will be reviewed for substantial conformity with the intent of the contract plans and specifications only. Such review does not indicate approval of dimensions, quantities, coordination with other trades, or work methods of the contractor, which are indicated thereon.

I. Additional copies may be required by individual sections of these specifications.

1.4 COORDINATION

A. The Contractor shall be totally responsible for coordinating the layout of all building elements to avoid conflict of the work of the structural, mechanical, electrical systems, and architectural features of the building.

B. The cost of any extra work of any kind caused by a conflict due to this lack of coordination shall be borne by the Contractor.

1.5 COORDINATION OF DRAWINGS

A. Prepare coordination drawings in accordance with requirements of Project Specification to a scale of 1/4" = 1'-0" or larger; detailing major elements, components, required clearances, and systems of plumbing equipment and materials in relationship with other systems, installations, and building components. Indicate locations where space is limited for installation and access and where sequencing and coordination of the installations are of importance to the efficient flow of the Work, including but not necessarily limited to the following:

1. Indicate the proposed locations of piping, fixtures, equipment, and materials. Include the following:

a. Clearances for servicing and maintaining equipment, including tube removal, filter removal, and space for equipment disassembly required for periodic maintenance.
b. Equipment for connections and support details.

2. Prepare reflected ceiling plans to coordinate and integrate installations with other systems and components, such as, ductwork, air outlets and inlets, light fixtures, communication systems components, sprinklers, and other ceiling-mounted items.

B. Submittal of "Or Equal" substitutions of equipment will not be reviewed unless accompanied by coordination drawings.

1.6 RECORD DOCUMENTS

A. Prepare record documents in accordance with the requirements of project specification. In addition to the requirements of project specification, indicate the following installed conditions:

1. Record drawings of all installed systems as specified in project specification including the locations and invert elevations of underground installations.

1.7 MAINTENANCE MANUALS

A. Prepare maintenance manuals in accordance with project specification and Division 22 Section "Supplementary Plumbing Requirements".

1.8 DELIVERY, STORAGE, AND HANDLING

A. Deliver products to the project properly identified with names, model numbers, types, grades, compliance labels, mill certification, and other information needed for identification.

1.9 EQUIVALENT EQUIPMENT

A. In these specification and drawings, whenever more than one (1) manufacturer's product is specified, the manufacturer specified on the drawings and the first named product in these specifications is the basis of design and the use of alternate-named manufacturer's product or substitutes may require modification in the design work and agency approvals. If such alternatives or substitutions are proposed by the Contractor, Contractor shall adhere to the following requirements.

1. Contractor shall clearly identify all proposed alternatives or substitutions in the submittal package.
2. The Contractor shall assume all costs required to make all necessary revisions and modifications of the contract documents resulting from the substitution or selection of an alternate manufacturer's product, including all professional fees and the cost of DSA approval.
3. The Contractor shall assume all costs required for any additional modification to building structure, electrical and all other related construction costs resulting from the substitution or selection of an alternate manufacturer's product.

B. These specifications and/or drawings, names and specifies certain equipment in detail which are the basis of design and are explained in paragraph 1.09-A above. It also names alternate equipment by manufacturer, which is not considered to be a "substitution".

C. Submit equivalent equipment to the Architect for review per the requirements of Division 01, and Section "Supplementary Plumbing Requirements."

D. Equipment of Manufacturers named in Division 22 will be considered equivalent to that specified in detail and/or named on the drawings if:

1. The proposed equipment is of equivalent quality, capacity.
2. Equipment is as fully equipped, fits the space allotted, and has physical configuration and weight identical to the equipment specified in detail.

E. A complete lay out of an equipment room or area must be submitted for equivalent equipment. Notice space limitations. Layouts to include plans and section views at a scale of not less than 1/4" = 1 ft.

F. The Architect shall determine the acceptability of "Equivalent Equipment."

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 ROUGH-IN

A. Verify final locations for rough-in with field measurements and with the requirements of the actual equipment to be connected.

3.2 MECHANICAL INSTALLATIONS

A. General: Sequence, coordinate, and integrate the various elements of plumbing systems, materials, and equipment. Comply with the following requirements:

1. Coordinate plumbing systems, equipment, and materials installation with other building components.
2. Verify all dimensions by field measurements.
3. Arrange for chases, slots, and openings in other building components during progress of construction, to allow for plumbing installations.
4. Coordinate the installation of required supporting devices and sleeves to be set in poured-in-place concrete and other structural components, as they are constructed.
5. Sequence, coordinate, and integrate installations of plumbing materials and equipment for efficient flow of the Work. Give particular attention to large equipment requiring positioning prior to closing in the building.
6. Where mounting heights are not detailed or dimensioned, install systems, materials, and equipment to provide the maximum headroom possible as required by California Building Code.
7. Coordinate connection of plumbing system with exterior underground and overhead utilities and services. Comply with requirements of governing regulations, franchised service companies, and controlling agencies. Provide required connection for each service.
8. Install systems, materials, and equipment to conform with approved submittal data, including coordination drawings, to greatest extent possible. Conform to arrangements indicated by the Contract Documents, recognizing that portions of the Work are shown only in diagrammatic form. Where coordination requirements conflict with individual system requirements, refer conflict to the Architect prior to commencement of installation.
9. Install systems, materials, and equipment level and plumb, parallel, and perpendicular to other building systems and components.
10. Install all plumbing equipment to facilitate servicing, maintenance, and repair or replacement of equipment components in full compliance with California Building Code and the equipment manufacturer's recommendations. If the drawings or the manufacturer does not provide a specific space requirement for servicing equipment, provide as a minimum, horizontal distance of 36" from face of equipment to opposite vertical surface.
11. Install access panels or doors for all equipment and components which require access for adjustment and maintenance, where units are concealed behind finished surfaces.
12. Install systems, materials, and equipment giving right-of-way priority to systems required to be installed at a specified slope.
13. Any equipment located above a ceiling that has any component, which is serviceable shall be installed within 12" from the top of the ceiling.

3.3 CUTTING AND PATCHING

A. General: Perform cutting and patching in accordance with project specification. In addition to the requirements specified in project specification, the following requirements apply:

1. Protection of Installed Work: During cutting and patching operations, protect adjacent installations.

B. Perform cutting, fitting, and patching of plumbing equipment and materials required to:

1. Uncover Work to provide for installation of ill-timed Work.
2. Remove and replace defective work.
3. Remove and replace Work not conforming to requirements of the Contract Documents.
4. Remove samples of installed Work as specified for testing.
5. Install equipment and materials in existing structures.
6. Upon written instructions from the Architect, uncover and restore Work to provide for Architect/Engineer observation of concealed Work.

C. Cut, remove, and legally dispose of selected plumbing equipment, components, and materials as indicated, including but not limited to removal of plumbing piping, gas lines, heating units, plumbing fixtures and trim, and other plumbing items made obsolete by the new Work.

D. Protect the structure, furnishings, finishes, and adjacent materials not indicated or scheduled to be removed.

E. Provide and maintain temporary partitions or dust barriers adequate to prevent the spread of dust and dirt to adjacent areas.

1. Patch existing finished surfaces and building components using experienced installers and new materials matching existing materials. For installer's qualifications refer to the materials and methods required for the surface and building components being patched.

END OF SECTION 22 05 00

SECTION 22 05 03 - EARTHWORK FOR PLUMBING SYSTEMS

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. This Section includes limited scope instructions for methods and materials applicable to excavation for underground utilities and services, including underground piping, under the building and from building to utility connection, tanks, basins, and equipment.

1.2 SUBMITTALS

A. Submit schedules in accordance with Conditions of Contract and Divisions 01 and 22 specification sections.

1. Indicate proposed methods and schedule of operations prior to commencement of work.
2. Include coordination for shut-off of utility services where required.
3. Maintain services to areas outside construction limits, where such service exists.
4. Coordinate sequencing with construction phasing and Owner occupancy specified in Division 01.

1.3 DEFINITIONS

A. Excavation consists of removal of material encountered to sub-grade elevations, indicated and subsequent disposal of materials removed.

B. Unauthorized excavation consists of removal of materials beyond indicated sub-grade, elevations or dimensions without specific direction of Architect. Unauthorized excavation, as well as remedial work directed by Architect, shall be at Contractor's, expense.

C. Sub-grade: The undisturbed earth or the compacted soil layer immediately below granular sub-base drainage fill, or topsoil materials.

D. Structure: Buildings, foundations, slabs, tanks, curbs, or other man made stationary features occurring above or below ground surface.

1.4 CODES AND ORDINANCES

A. Perform excavation work in compliance with applicable requirements of authorities, having jurisdiction.

1.5 PROJECT CONDITIONS

A. Conditions Affecting Excavations: The following project conditions apply:

1. Maintain and protect existing building services which transit the area affected by selective demolition.
2. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by excavation operations.

B. Site Information: Subsurface conditions were investigated during the design of the

C. Project. Reports of these investigations are available for information only data in the reports are not intended as representations or warranties of accuracy or continuity of conditions. The Owner will not be responsible for interpretations or conclusions, drawn from this information.

D. Existing Utilities: Locate existing underground utilities in excavation areas. If utilities are indicated to remain, support, and protect services during excavation operations.

E. Remove existing underground utilities indicated to be removed.

F. Should uncharted, or incorrectly charted, piping or other utilities be encountered during excavation, consult utility owner immediately for directions. Cooperate with Owner and utility companies in keeping respective services and facilities in operation. Repair damaged utilities to satisfaction of utility owner.

G. Use of Explosives: Use of explosives is not permitted.

1.6 SEQUENCE AND SCHEDULING

A. Coordinate the shut off and disconnection of utility services with Owner and Utility Company.

B. Provide minimum of 48-hour notice to Architect prior to utility interruption.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Select Bedding Sand: Dry riverbed sand free of any debris or organic matter.

B. Mastic Coatings: "Henry's" oil base roof mastic or approved equal.

C. Polyethylene sheeting not less than 8 mils thick.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas where earthwork is to occur. Determine extent of work and effect on existing conditions to remain. Advise Architect of any conditions that might create, extensive alteration beyond indicated scope.

B. Clearances: Take special notice and maintain the required horizontal and vertical depth clearances from structural footings for utility trenches running parallel to footings. Do not violate the area of the footing bearing prism. In the event of conflict (i.e., the utility cannot be relocated, or its depth changed), proceed as directed by the Architect. Lower structural footings to maintain proper clearances for underground utilities trenching without additional cost to Owner.

3.2 EXCAVATION

A. Slope sides of excavations to comply with local codes and ordinances. Shore and brace as required for stability of excavation.

B. Shoring and Bracing: Establish requirements for trench shoring and bracing to comply, with local codes and authorities. Maintain shoring and bracing in excavations, regardless of time-period excavations will be open.

1. Remove shoring/bracing when no longer required. Where sheeting is allowed to remain, cut top of sheeting at a height of 30 inches below finished grade elevation.

C. Install sediment and erosion control measures in accordance with local codes and ordinances.

3.3 DEWATERING

A. Dewatering: Prevent surface water and subsurface or ground water from flowing into excavations and from flooding project site and surrounding area.

1. Do not allow water to accumulate in excavations. Remove water to prevent softening of bearing materials. Provide and maintain dewatering system components necessary to convey water away from excavations.
2. Establish and maintain temporary drainage ditches and other diversions outside excavation limits to convey surface water to collecting or run-off areas. Do not use trench excavations as temporary drainage ditches.

3.4 MATERIAL STORAGE

A. Material Storage: Stockpile satisfactory excavated materials where directed, until required for backfill or fill. Place, grade, and shape stockpiles for proper drainage.

1. Locate and retain soil materials away from edge of excavations. Do not store within dripline of trees indicated to remain.
2. Remove and legally dispose of excess excavated materials and materials not acceptable for use as backfill or fill.

3.5 TRENCHING

A. Do all necessary trenching, excavation, shoring, and backfilling required for the proper laying of the pipelines.

B. Pipe Trench Dimensions: The following requirements are considered minimal unless otherwise indicated in order, to provide adequate pipe clearances and bedding.

C. Provide trenches wider than the specified minimum where required to properly install, the specific type of piping. In the event utility company regulations, code requirements, or the pipe manufacturer's recommendations differ from these, provisions, the most restrictive requirements shall take precedence.

1. Pipe Burial Depths:

Sewer & Drainage:	24"(a) + pipe O.D.(b) + 3" bed of sand
Gas:	30" + pipe O.D. + 4" bed of sand
Water (Domestic)	

PVC:	30" + pipe O.D. + 4" bed of sand
All other:	24" (30" at planters) + pipe O.D. + 4" bed of sand
Pre-insulated Piping	24" + jacket O.D. + 4" bed
Condenser Water (PVC)	30" + pipe O.D. + 4" bed

Notes:
a. Finish grade to top of pipe, typical.
b. O.D.: Outside dimension.

2. Trench Widths:

Sewer & Drainage:	12" + pipe O.D. for 4" to 18" diameter pipe
Gas:	8" + pipe O.D.
Water (Domestic)	8" + pipe O.D.
Water (Fire)	
Pre-insulated Pipe	8" + jacket O.D.
Condenser Water	8" + pipe O.D.

D. Where rock is encountered, carry excavation below required elevation and backfill with a layer of select bedding sand prior to installation of pipe. Provide a minimum of 6-inches of stone or gravel cushion between rock bearing surface and pipe.

E. Excavate trenches for piping and equipment with bottoms of trench to accurate, elevations for support of pipe and equipment on undisturbed soil.

F. Do not install copper piping or metal gas piping in a common trench with other, dissimilar metal piping or conduit; separate a minimum of 4 feet when running parallel, to such piping or conduit.

G. Separate multiple parallel lines of piping in a common trench a minimum of 12 inches, both horizontally and vertically, between individual pipes.

H. Install domestic water piping, running parallel in a common trench with sewer or drainage lines, on a solid shelf 12 inches above the sewer or drainage piping.

I. Do not run electrical power and communications conduit in a common trench with sewer, drainage, water, or gas piping.

J. Provide and install a bare 14-gauge copper "tracer" wire, continuous for entire length, for all underground non-metallic piping. Secure to piping at alternate joints, at each, fitting and at each valve. Locate "Tracer" wire along side pipe, but not under pipe.

K. Install thrust blocks in all pressurized lines. Install thrust blocks in accordance with pipe manufacturer’s recommendations.

3.6 EXCAVATION FOR UNDERGROUND CLARIFIERS AND STRUCTURES

A. Excavation for Underground Tanks, Basins, and Mechanical Structures: conform to elevations and dimensions shown within a tolerance of plus or minus 0.10 foot plus a sufficient distance to permit placing and removal of concrete formwork, installation of services, other construction, and for inspection.

1. Excavate, by hand, areas within dripline of large trees. Protect the root system from damage and dry-out. Maintain moist conditions for root system and cover exposed roots with burlap. Paint root cuts of 1 inch in diameter larger with emulsified asphalt tree paint.

2. Take care not to disturb bottom of excavation. Excavate by hand to final grade just before concrete reinforcement is placed.

3.7 BACKFILLING AND FILLING

A. Backfilling and Filling: Place soil materials in layers to required sub-grade elevations, for each area classification listed below, using materials specified in Part 2 of this, Section.

B. Bedding: Lay and bed pipe in compacted select dry river-bed bedding sand, thickness as specified herein and backfill with the same sand material to a height of one foot, above the top of pipe.

1. Sewer drain-lines except as hereinafter specified may be bedded in the native soil provided it is rock free and sandy. Dig out under bell portions of the piping for uniform bearing.
2. Under walks and pavements, use a combination of sub-base materials and excavated or borrowed materials.
3. Under building slabs, set piping on a 6-inch bed of dry river-bed sand and backfilled to 12" of finish grade with dry river-bed sand. Remainder of backfill to be approved backfill material.
4. Under piping and equipment, use sub-base materials where required over rock bearing surface and for correction of unauthorized excavation.
5. For piping less than 30 inches below surface of roadways, provide 4-inch-thick concrete base slab support. After installation and testing of piping, provide a
6. 4-inch, thick concrete encasement (sides and top) prior to backfilling and placement of roadway sub-base.
7. Other areas use excavated or borrowed materials.

C. Backfill excavations as promptly as work permits, but not until completion of the following:

1. Do not backfill until installation has been approved and as-built drawings are up to date.
2. Inspection, testing, approval, and locations of underground utilities have been recorded.
3. Removal of concrete formwork.
4. Removal of shoring and bracing, and backfilling of voids.
5. Removal of trash and debris.

D. Placement and Compaction: Place backfill and fill materials in layers of not more than 8 inches in loose depth for material compacted by heavy equipment, and not more, than 4 inches in loose depth for material compacted by hand-operated tampers.

E. Before compaction, moisten or aerate each layer as necessary to provide optimum, moisture content. Compact each layer to required percentage as specified in Division, 02. Do not place backfill or fill material on surfaces that are muddy, frozen, or contain, frost or ice.

F. Place, backfill and fill materials evenly adjacent to structures, piping, and equipment to required elevations. Prevent displacement of piping and equipment by carrying material uniformly around them to approximately same elevation in each lift.

G. Cold Weather Protection: Protect excavation bottoms against freezing when, atmospheric temperature is less than 35 deg. F.

H. Unauthorized excavation:

1. Under footings, foundation bases, or retaining walls, fill unauthorized excavation by extending indicated bottom elevation of footing or base to excavation bottom, without altering required top elevation. Lean concrete fill may be used to bring elevations to proper position, when acceptable to Architect.
2. In locations other than those above, backfill and compact unauthorized excavations as specified for authorized excavations of same classification, unless otherwise directed by Architect.

3.8 SUBSIDENCE

A. Subsidence: Where subsidence occurs at mechanical installation excavations during the period 12 months after Substantial Completion, remove surface treatment (i.e., pavement, lawn, or other finish), add backfill material, compact to specified conditions, and replace surface treatment. Restore appearance, quality, and condition of surface, or finish to match adjacent areas.

3.9 CORROSION PROTECTION

A. All below ground metallic fittings, valves, flanges, bolts, pipes (which are not factory coated with a bituminous material) shall be protected against corrosion as follows:

1. All metallic components as described above shall receive a heavy coating of "Henry's" oil base roof mastic.
2. After mastic coating is completed and inspected, wrap entire metallic component with a minimum of 8 mil polyethylene wrap overlapped 50% of the circumference and extended beyond ends of component as required for polyethylene to be secured to piping. The overlap seam shall be located to avoid backfill material from entering the encapsulated area. The ends and seam of the polyethylene material shall be secured to the piping and sealed with 3M Scotch/Wrap N. 50, 10 mil., 2" wide, printed, pipe wrap sealing tape.
3. The mastic coating shall be inspected and approved prior to the finish application of the polyethylene material, which shall also be inspected.

END OF SECTION 22 05 03

SECTION 22 11 00 - PLUMBING PIPING

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. This Section specifies piping materials and installation methods common to more than one section of Division 22 and includes joining materials, fire stop sealants, and basic piping installation instructions.

1.2 RELATED SECTIONS

A. The following sections contain requirements that relate to this section:

1. Division 22 Section "Common Work Results for Plumbing" applies to the work of this Section.
2. Piping materials and installation methods peculiar to individual systems are specified withintheir respective system specification sections of Division 02 and 22.
3. Valves are specified in a separate section and in individual piping system sections of Division 22.
4. Division 22 Section "Supports and Anchors."
5. Division 22 Section "Plumbing Identification."

1.3 SUBMITTALS

A. Refer to Division 01 and Division 22 Section "Common Work Results for Plumbing" for administrative and procedural requirements for submittals.

B. Product Data: Submit product data on fire stop sealants.

1.4 QUALITY ASSURANCE

A. Welding procedures and testing shall comply with ANSI Standard B31.1.0 - Standard Code for Pressure Piping, Power Piping, and The American Welding Society, Welding Handbook.

B. Soldering and brazing procedures shall conform to ANSI B9.1 Standard Safety Code for Mechanical Refrigeration.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Provide factory-applied plastic end caps on each length of pipe and tube, except for concrete, corrugated metal, hub-and-spigot, and clay pipe. Maintain end caps through shipping, storage, and handling to prevent pipe-end damage and prevent entrance of dirt, debris, and moisture.

B. Protect stored pipes and tubes. Elevate above grade and enclose with durable, waterproof wrapping. When stored inside, do not exceed structural capacity of the floor.

C. Protect flanges, fittings, and specialties from moisture and dirt by inside storage and enclosure, or by packaging with durable, waterproof wrapping.

PART 2 - PRODUCTS

2.1 PIPE AND FITTINGS

A. Refer to the individual piping system specification Sections in Division 22 for specifications on piping and fittings relative to that specific system.

B. Weld-O-Lets: Welding Weld-O-Lets of domestic manufacture may be used in lieu of tees where branch connection pipe size is two or more pipe sizes smaller than main header size.

2.2 JOINING MATERIALS

A. Welding Materials: Comply with Section II, Part C, ASME Boiler and Pressure Vessel Code for welding materials appropriate for the wall thickness and chemical analysis of the pipe being welded.

B. Brazing Materials: Comply with SFA-5.8, Section II, ASME Boiler and Pressure Vessel Code for brazing filler metal materials appropriate for the materials being joined.

C. Soldering Materials: Refer to individual piping system specifications for solder appropriate for each respective system.
   1. Soldering materials shall not contain lead.

D. Gaskets for Flanged Joints: Gasket material shall be full-faced for cast-iron flanges and raised-face for steel flanges. Select materials to suit the service of the piping system in which to be installed and which conform to their respective ANSI Standard (A21.11, B16.20, or B16.21). Provide materials that will not be detrimentally affected by the chemical and thermal conditions of the fluid being carried.

2.3 SLEEVES AND SEALS

A. Sleeves:

   1. Sheet-Metal Sleeves: 5" and Smaller, 20 gage galvanized sheet metal; 6" and Larger, 10 gage, galvanized sheet metal, round tube closed with welded longitudinal joint.
   2. Steel Sleeves: Schedule 40 galvanized, welded steel pipe, ASTM A53, Grade A.
   3. Galvanized steel telescoping type: Galvanized sheet metal per manufacturer’s standards.
   4. Polyethylene Sleeves: Manufacturer's standard product.

B. Mechanical Sleeve Seals: Modular mechanical type, consisting of interlocking synthetic rubber links shaped to continuously fill annular space between pipe and sleeve, connected with bolts and pressure plates which cause rubber sealing elements to expand when tightened, providing watertight seal and electrical insulation.

2.4 FIRESTOP SEALANT

A. Fire stopping material shall be asbestos-free and capable of maintaining an effective barrier against flame and gases in compliance with the following requirements:

   1. Flame Spread: 25 or less, ASTM E 84.
   2. Smoke Development: 50 or less, ASTM E 84.
   3. Combustibility: Noncombustible, ASTM E 136.

B. Material when installed shall have the same fire rating as the assembly in which it is being installed.

2.5 PIPING ISOLATION

A. Manufacturer's standard product for providing sound and electrolysis isolation.

PART 3 - EXECUTION

3.1 PREPARATION

A. Ream ends of pipes and tubes and remove burrs. Bevel plain ends of steel pipe.

B. Remove scale, slag, dirt, and debris for both inside and outside of piping and fittings before assembly.

3.2 INSTALLATIONS

A. General Locations and Arrangements: Drawings (plans, schematics, and diagrams) indicate the general location and arrangement of the piping systems. Location and arrangement of piping layout take into consideration pipe sizing and friction loss, expansion, pump sizing, and other design considerations. So far as practical, install piping as indicated. Refer to individual system specifications for requirements for coordination drawing submittals.

B. Conceal all pipe installations in walls, pipe chases, utility spaces, above ceilings, below grade or floors, unless indicated otherwise.

C. Install piping free of sags or bends and with ample space between piping to permit proper insulation applications.

D. Install exposed piping at right angles or parallel to building walls. Diagonal runs are not permitted, unless expressly indicated on the Drawings.

E. Install piping tight to slabs, beams, joists, columns, walls, and other permanent elements of the building. Provide space to permit insulation applications, with 1" clearance outside the insulation. Allow sufficient space above removable ceiling panels to allow for panel removal.

F. Locate groups of pipes parallel to each other, spaced to permit applying full insulation and servicing of valves.

G. Install drains at low points in mains, risers, and branch lines consisting of a tee fitting, 3/4" ball valve, and short 3/4" threaded nipple and cap.

H. Exterior Wall Penetrations: Seal pipe penetrations through exterior walls using sleeves and mechanical sleeve seals.

I. Coordinate to provide curb, minimum 4" above finish floor, for all pipe shafts or floor openings for multiple pipes.

J. Fire Barrier Penetrations: Where pipes pass through fire rated walls, partitions, ceilings, or floors, the fire rated integrity shall be maintained.

3.3 PIPE SUPPORTS AND HANGERS

A. All pipe Supports and Hangers shall be per requirements of Specification Section 220529 “Supports and Anchors.”

3.4 FITTINGS AND SPECIALTIES

A. Use fittings for all changes in direction and all branch connections.

B. Remake leaking joints using new materials.

C. Install Y-type strainers with blow-down valves on the supply side of each control valve, pressure reducing or regulating valve, solenoid valve, and elsewhere as indicated.

D. Install unions adjacent to each valve and at the final connection to each piece of equipment and plumbing fixture having 2" and smaller connections, and elsewhere as indicated.

E. Install Flanges in piping 2-1/2" and larger, where indicated, adjacent to each valve, and at the final connection to each piece of equipment.

F. Install dielectric unions to connect piping materials of dissimilar metals in dry piping systems (gas, compressed air, vacuum).

G. Install dielectric fittings to connect piping materials of dissimilar metals in wet piping systems (water, steam).

3.5 JOINTS

A. Steel Pipe Joints:

1. Pipe 2" and Smaller: Thread pipe with tapered pipe threads in accordance with ANSI B2.1. Cut threads full and clean using sharp dies. Ream threaded ends to remove burrs and restore full inside diameter. Apply pipe joint lubricant or sealant suitable for the service for which the pipe is intended on the male threads at each joint and tighten to leave not more then 3 threads exposed.
2. Pipe Larger than 2":

    a. Weld pipe joints (except for exterior water service pipe) in accordance with ASME Code for Pressure Piping, B31.
    b. Weld pipe joints of exterior water service pipe in accordance with AWWA C206.
    c. Install flanges on all valves, apparatus, and equipment. Weld pipe flanges to pipe ends in accordance with ASME B31.1.0 Code for Pressure Piping. Clean flange faces and install gaskets. Tighten bolts to torque specified by manufacturer of flange and flange bolts, to provide uniform compression of gaskets.

B. Non-ferrous Pipe Joints:

1. Brazed and Soldered Joints: For copper tube and fitting joints, braze joints in accordance withANSI B31.1.0 -Standard Code for Pressure Piping, Power Piping and ANSI B9.1 - Standard Safety Code for Mechanical Refrigeration.
2. Thoroughly clean tube surface and inside surface of the cup of the fittings, using every fine emery cloth, prior to making soldered or brazed joints. Wipe tube and fittings clean and apply flux. Flux shall not be used as the sole means for cleaning tube and fitting surfaces.
3. Mechanical Joints: Flared compression fittings may be used for refrigerant lines 3/4" and smaller.

C. Joints for other piping materials are specified within the respective piping systems sections.

3.6 INSTALLATION OF SLEEVES

A. Provide pipe sleeves for pipes to pass through walls, floor and roofs. Diameter of sleeve to be 1-inch larger than the outside diameter of pipe or pipe and covering of insulated pipe. Galvanized steel telescoping type sleeves or polyethylene may be used. Where seepage may occur, use steel pipe sleeves.

B. All pipe sleeves through floors other than floors on grade shall extend 2-inches above finished floor and shall be caulked with mineral wool. Provide collar where polyethylene sleeve is used.

C. Where required in existing construction, or where sleeves have been omitted, openings for pipe may be core drilled in floors and/or walls or partitions, providing prior acceptance of such core drilling is obtained from the Architect. Holes core drilled through floors above grade shall be provided with sleeves extending 2-inches above finish floor as hereinbefore specified.

D. Seal with resilient sealant: Dow Corning "Fire Stop" or approved equal.

3.7 INSTALLATION OF FIRE STOP SEALANT

A. Fire-stopping shall be provided at, but not limited to, duct, and piping penetrations through floor slabs and through time rated partitions or firewalls.

B. Install fire-stopping materials in accordance with the manufacturer's instructions and the following requirements.

1. Filling: Fire-stopping materials shall completely fill the void spaces.

C. Coordination: Coordinate the work with other trades. Firestopping materials at penetrations of insulated pipes and ducts shall be applied prior to insulation, unless the insulation meets the requirements specified for fire-stopping.

D. Surface Preparation: Surfaces to be in contact with firestopping materials shall be free of dirt, grease, oil, loose material, rust, or other substances that may affect proper fitting or the required fire resistance.

3.8 INSTALLATION OF PIPE ISOLATION

A. Provide sound and electrolysis isolation on all un-insulated, pipes, Semco "Trisolators" or Potter-Roemer "Prisolators."

3.9 INSTALLATION OF PIPE FLASHING

A. Pipe flashing assemblies, "Semco" Fig. 1100-4, as required, seal the joint between flashing and pipe with waterproofing compound. Install counter-flashing sleeve to cover a minimum of 3/4-inch to top of lead flashing, making the top joint permanently watertight.

3.10 TESTING OF PIPING

A. Provide notification of test at least three working days prior to tests on all or part of any piping system. Do not allow or cause any piping system to be insulated, covered, concealed, or enclosed until such systems have been tested and reviewed. Provide all necessary materials (including temporary isolation valves or caps), pumps, testing media and labor for testing.

Temporarily remove any device in piping system, which will not withstand test pressure specified, and reinstall same after successful testing. Test time begins to accrue after full test pressure is achieved.

B. Testing and inspection of all piping systems and associated equipment for leaks shall be accomplished after installation and cleaning and prior to placing into service. Flanges, threaded joints, and all welds shall be left unpainted and uninsulated until the piping systems have been approved.

C. A rigid visual inspection of each specific piping system shall be made prior to conducting tightness tests, to ascertain that all appurtenances and equipment are provided, properly connected, and supported, and in all respects ready for testing.

D. Equipment such as pumps, chillers, tanks, heat exchangers, flexible hose, safety valves and similar equipment shall not be subjected to the piping system test pressure. Equipment shall either be disconnected from the piping or be isolated by valves or blanks during testing and reinstalled after acceptance by the Owner.

E. Indicating pressure gauges mounted locally may be tested with the lines provided the test pressure does not exceed the scale range.

F. Orifice plates, rotometers, displacement meters and other line inserts shall either not be installed until completion of all testing or shall be removed prior to any tests and reinstalled after test has been accepted by the Owner.

G. The application of pressure to a system shall be under control, at all times so that in no case shall the test pressure be exceeded by more than 6 percent.

H. Gauges used for testing shall be tested for accuracy as directed or approved by the Owner, and then installed as close as possible to the low point of the piping system.

I. Do not apply test pressure until the piping system and its contents approach the same temperature.

J. While piping is under test, exercise care that excessive pressure does not occur due to increase in ambient temperature.

K. Control Valves:

1. Control valves which are installed with block and by-pass valve shall have the block valve closed, the by-pass valve opened, and a temporary pipe piece inserted in place of the control valve (or a test blank may be installed on each side of the control valve) until all flushing and testing of all lines of that system is completed and accepted by the Owner, after which they shall be reinstalled.
2. Control valves installed without block or by-pass valves shall be replaced by a pipe piece during flushing and testing of the system. After acceptance of the flushing, they shall be reinstalled.

L. Minimum piping test pressures shall be as noted in tabulation; or they shall be 150 percent of design pressure for the specific system being tested, whichever is higher.

SYSTEM	TEST MEDIUM	TESTING PRESSURE (PSIG)	DURATION (HOURS	ACCEPTABLE TOLERANCE
Soil, Water, Vent, & Storm Water	Water	Top of highest vent	4	No joint sweat
Water	Water	150	4	None. Except temperature change.
Fuel Gas	Air	60	4	None. Except temperature change.
Fire Sprinkler	Water	200	4	None. Except temperature change.

M. Conduct hydrostatic tests with water at a temperature below 100 degrees F.

1. Fill the system slowly with water and vent at highest points to expel the air before pressurizing.
2. Carefully examine all joints for leaks or defects.
3. Provide connections as required to accomplish the above.

N. Keep accurate test records of each line or system tested and provide copies of same to Owner after acceptance. Each test shall include:

1. Identification of piping system and test number.
2. Testing medium.
3. Test pressure.
4. Date of test acceptance.

3.11 ADJUSTMENTS

A. At the completion of the Work, completely adjust all valves and equipment for their proper use and rating.

END OF SECTION 22 11 00

SECTION 22 13 16 - SANITARY WASTE AND VENT PIPING

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. This Section includes building sanitary and storm drainage and vent piping systems, including drains and drainage specialties.

1.2 RELATED SECTIONS

A. The following sections contain requirements that relate to this section:

1. Division 22 Section "Plumbing Identification," for labeling and identification of drainage and vent piping.

1.3 DEFINITIONS

A. Building Drain: That part of the lowest piping of a drainage system which receives the discharge from soil, waste, and other drainage pipes inside the walls of the building and conveys it to the building sewer.

B. Building Sewer: That part of the piping within public or private premises which conveys sewage, rainwater, or other liquid wastes to a point of disposal.

C. Drainage System: Includes all the piping within public or private premises which conveys sewage, rainwater, or other liquid wastes to a point of disposal. It does not include the mains of public sewer systems or a private or public sewage treatment or disposal plant.

D. Vent System: A pipe or pipes installed to provide a flow of air to or from a drainage system, or to provide a circulation of air within such system to protect trap seals from siphonage and backpressure.

1.4 SUBMITTALS

A. Product data for the following products:

1. Drainage piping specialties.

1.5 QUALITY ASSURANCE

A. Regulatory Requirements: Comply with the provisions of the following:

1. California Plumbing Code (CPC): Current edition in use by authority having jurisdiction.

1.6 SEQUENCING AND SCHEDULING

A. Coordinate the installation of roof drains, flashing, and roof penetrations.

B. Coordinate flashing materials installation of roofing, waterproofing, and adjoining substrate work.

C. Coordinate the installation of drains in poured-in-place concrete slabs, to include proper drain elevations, installation of flashing, and slope of slab to drains.

D. Coordinate with installation of sanitary and storm sewer system as necessary to interface building drains with drainage piping system.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturer: Subject to compliance with requirements, provide drainage and vent systems from one of the following:

1. Drainage Piping Specialties, including backwater valves, expansion joints, drains, trap primers, and vandal-proof vent caps:
   a. J. R. Smith Mfg. Co.
   b. Josam Mfg. Co.
   c. Zurn Industries Inc; Hydromechanics Div.
   d. Tyler Pipe; Subs. of Tyler Corp.

2.2 ABOVE GROUND DRAINAGE AND VENT PIPE AND FITTINGS

A. General: Select from the following options:

1. Pipe Sizes Larger than 2": Cast-iron soil pipe. Conform to ASTM A74, for service weight, hub-and-spigot soil pipe and fittings, with clamps and compression gasket joints conforming to ASTM C564. Piping shall bear the CISPI stamp.
2. Pipe Sizes Larger than 2": Hub-less cast-iron soil pipe. Conform to CISPI Standard 301, Service weight, cast-iron soil pipe and fittings, with neoprene gaskets conforming to CISPI Standard 310. Piping shall bear the CISPI stamp.

2.3 UNDERGROUND BUILDING DRAIN PIPE AND FITTINGS

A. Pipe and fittings shall have heavy coating of coal tar varnish or 'asphaltum' on both inside and outside surfaces.

B. General: For pipe and fittings below grade and/or below finish-floor of floors on grade select from the following options:

1. Pipe Sizes 15" and Smaller: Cast-iron soil pipe. Conform to ASTM A74, for standard weight hub and spigot soil pipe and fittings, with clamps and neoprene gasket, conforming to ASTM C564. Piping shall bear the CISPI stamp.
2. Pipe Sizes 16" and Smaller: Hub-less cast-iron soil pipe, conform to CISPI Standard 301, service weight; with "Best" or "MG" cast iron joint connection couplings. Coupling body shall conform to ASTM A-48 or ASTM A-74 with neoprene gasket conforming to ASTM C-564. Piping shall bear the CISPI stamp.

2.4 DRAINAGE PIPE SPECIALTIES

A. Trap Primers (Products of Domestic Manufacture): Bronze body valve with automatic vacuum breaker, with ½-inch connections matching piping system. Complying with ASSE 1018 of domestic manufacture.

B. Expansion Joints: Cast-iron body with adjustable bronze sleeve, bronze bolts with wing nuts.

C. Cleanout Plugs: Cast-bronze or brass, threads complying with ANSI B2.1, countersunk head.

2.5 CLEANOUTS

A. Cleanouts on cast iron soil pipe, iron body with ABS plugs screwed into caulking ferrules. Cleanouts on steel pipe, ABS plugs. Cleanouts on vitrified clay pipe, vitrified clay pipe. Where cleanouts occur in finished interior surfaces, smooth polished chromium plated. Exposed parts of floor cleanouts in finished rooms, non-slip polished nickel bronze. Floor cleanouts adjustable type. Where cleanouts occur in carpeted floor areas, the cover shall be elevated so as to be flush with finished carpeted areas.

B. Floor Cleanouts (Products of Domestic Manufacture): Cast-iron body and frame, with cleanout plug and adjustable round top as follows:

1. Floor level type in rooms with concrete floor: Smith #4021, Josam 58330-2, or Zurn Z1420-25 with cast iron top.

C. Wall Cleanouts (Products of Domestic Manufacture): Cast-iron body adaptable to pipe with ABS plastic plug; stainless steel cover including screws.

1. Wall type for cast-iron pipes: Smith #4532, Josam 58790-4, or Zurn Z-1445-1.
2. Wall type for steel pipes: Smith #4472, Josam 58890-4, or Zurn 1460-8.

D. Flashing Flanges: Cast-iron watertight stack or wall sleeve with membrane flashing ring. Provide under-deck clamp and sleeve length as required.

E. Vent Flashing Sleeves: Cast-iron caulking type roof coupling for cast-iron stacks, cast-iron threaded type roof coupling for steel stacks.

F. Vandal-Proof Vent Caps (Products of Domestic Manufacture): Cast-iron body full size of vent pipe, with caulked base connection for cast-iron pipes, threaded base for steel pipes.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify all dimensions by field dimensions. Verify that all drainage and vent piping and specialties may be installed in accordance with pertinent codes and regulations, the original design, and the referenced standards.

B. Verify existing grades, inverts, utilities, obstacles, and topographical conditions prior to installations.

C. Examine rough-in requirements for plumbing fixtures and other equipment having drain connections to verify actual locations of piping connections prior to installation.

D. Examine walls, floors, roof, and plumbing chases for suitable conditions where piping and specialties are to be installed.

E. Do not proceed until unsatisfactory conditions have been corrected.

3.2 PREPARATION FOUNDATION FOR UNDERGROUND BUILDING DRAINS

A. Grade trench bottoms to provide a smooth, firm, and stable foundation, free from rock, throughout the length of the pipe.

B. Remove unstable, soft, and unsuitable materials at the surface upon which pipes are to be laid and backfill with clean sand or pea gravel to indicated invert elevation.

C. Shape bottom of trench to fit bottom of pipe for 90-degrees (bottom 1/4 of the circumference). Fill unevenness with tamped sand backfill. At each pipe joint dig bell holes to relieve the bell of the pipe of all loads, and to ensure continuous bearing of the pipe barrel on the foundation.

3.3 PIPE APPLICATIONS - ABOVE GROUND, WITHIN BUILDING

A. General: Select from following options:

1. Install hub-and spigot, service weight, cast-iron soil pipe with compression gasket joints for larger than 2 inches drainage and vent pipe. Piping shall bear the CISPI stamp.
2. Install Hub-less, service weight, cast-iron soil pipe and fittings for larger than 2-inch drainage and vent pipe. Piping shall bear the CISPI stamp.

3.4 PIPE APPLICATIONS - BELOW GROUND, WITHIN BUILDING

A. General: Select from the following options:

1. Install hub-and-spigot, heavy service weight, cast-iron, soil pipe and fittings with gasket joints for 15 inch and smaller drainage pipe. Piping shall bear the CISPI stamp.
2. Install hub-less, service weight, cast-iron soil pipe with Anaco Husky SD 4000 stainless steel couplings with neoprene gaskets. Piping shall bear the CISPI stamp.

3.5 PIPE AND TUBE JOINT CONSTRUCTION

A. Copper Tubing (Products of Domestic Manufacture): Solder joints in accordance with the procedures specified in AWS "Soldering Manual."

B. Cast-Iron Soil Pipe (Products of Domestic Manufacture): Make lead and oakum caulked joints, compression joints, and hub-less joints in accordance with the recommendations in the CISPI Cast Iron Soil Pipe and Fittings Handbook, Chapter IV.

C. Install couplings per manufacturer's recommendations.

3.6 INSTALLATION

A. General Locations and Arrangements: Drawings (plans, schematics, and diagrams) indicate the general location and arrangement of the piping systems. Location and arrangement of piping layout take, into account many design considerations. So far as practical, install piping as indicated.

B. Use fittings for all changes in direction and all branch connections.

C. Install exposed piping at right angles or parallel to building walls. Diagonal runs are not permitted, unless expressly indicated.

D. Install piping free of sags or bends and with ample space between piping to permit proper insulation applications.

E. Conceal all pipe installations in walls, pipe chases, utility spaces, above ceilings, below grade or floors, unless indicated to be exposed to view.

F. Install piping tight to slabs, beams, joists, columns, walls, and other permanent elements of the building. Allow sufficient space above removable ceiling panels to allow for panel removal.

G. Exterior Wall Penetrations: Seal pipe penetrations through exterior walls using sleeves and mechanical sleeve seals. Pipe sleeves smaller than 6-inch shall be steel; pipe sleeves 6 inches and larger shall be sheet metal.

H. Fire Barrier Penetrations: Where pipes pass through fire rated walls, partitions, ceilings, and floors, maintain the fire rated integrity.

I. Make changes in direction for drainage and vent piping using appropriate 45-degree wyes, half-wye, or long sweep quarter, sixth, eight, or sixteenth bends. Sanitary tees or short quarter bends may be used on vertical stacks of drainage lines where the change in direction of flow is from horizontal to vertical, except use long-turn tees where two fixtures are installed back to-back and have a common drain.

J. Straight tees, elbows, and crosses may be used on vent lines. No change in direction of flow greater than 90 degrees shall be made. Where different sizes of drainage pipes and fittings are connected, use proper size, standard increasers, and reducers. Reduction of the size of drainage piping in the direction of flow is prohibited.

K. Install underground building drains to conform with the plumbing code, and in accordance with the Cast Iron Soil Pipe Institute Engineering Manual. Lay underground building drains beginning at low point of systems, true to grades and alignment indicated with unbroken continuity of invert. Place bell ends of piping facing upstream. Install required gaskets in accordance with manufacturer's recommendations for use of lubricants, cements, and other special installation requirements. Maintain swab or drag in line and pull past each joint as it is completed.

L. Install building drain pitched down at minimum slope of 1/4 inch per foot (2 percent) for piping 3 inch and smaller, and 1/8 inch per foot (1 percent) for piping 4 inch and larger.

M. Extend building drain to connect to sewer piping, of size and in location indicated for service entrance to building. Sewer piping is specified in a separate section of Division 22.

N. Install sleeve and mechanical sleeve through foundation wall for watertight installation.

3.7 HANGERS AND SUPPORTS

A. General: Hangers, supports, and anchorage devices are specified in Division 22 Section "Plumbing Piping." Conform to the table below for maximum spacing of supports:

B. Install the following pipe attachments:

1. Adjustable steel clevis hangers for individual horizontal runs less than 20 feet in length.

C. Install hangers at the following intervals:

Pipe material	Max. Horizontal Spacing (Ft.)	Max. Vertical Spacing (Ft.)
Cast Iron Pipe	5	15
Copper Tubing 1-1/2” & Smaller	6	10
Copper Tubing 2” & Larger	10	10

3.8 INSTALLATION OF PIPE SPECIALTIES

A. Install backwater valves in sanitary building drain piping as indicated, and as required by the plumbing code. For interior installation, provide cleanout cover flush to floor centered over backwater valve cover and of adequate size to remove valve cover for service.

B. Install expansion joints on vertical risers as indicated, and as required by the plumbing code.

C. Above Ground Cleanouts: Install in above ground piping and building drain piping as indicated, and:

1. As required by plumbing code.
2. At each horizontal change in direction of piping greater than 135 degrees.
3. At maximum intervals of 50' for piping 3" and smaller and 100' for larger piping.
4. At base of each vertical soil or waste stack.

D. Cleanouts Covers: Install floor and wall cleanout covers for concealed piping.

E. Flashing Flanges: Install flashing flange and clamping device with each stack and cleanout passing through roof, secure over stack flashing in accordance with manufacturer's instructions.

3.9 INSTALLATION OF TRAP PRIMERS

A. Install trap primers with piping pitched towards drain trap, minimum of 1/8 inch per foot (1 percent). Adjust trap primer for proper flow. Provide trap primer for all floor drains and floor sinks. Multiple outlet primers are acceptable.

3.10 CONNECTIONS

A. Piping Runouts to Fixtures: Provide drainage and vent piping runouts to plumbing fixtures and drains, with approved trap, of sizes indicated; but in no case smaller than required by the plumbing code.

3.11 FIELD QUALITY CONTROL

A. Inspections:

1. Do not enclose, cover, or put into operation drainage and vent piping system until it has been inspected and approved by the authority having jurisdiction.
2. During the progress of the installation, notify the plumbing official having jurisdiction, at least 24 hours prior to the time such inspection must be made. Perform tests specified below in the presence of the plumbing official.

    a. Rough-In Inspection: Arrange for inspection of the piping system before concealed or closed-in after system is roughed-in, and prior to setting fixtures.
    b. Final Inspection: Arrange for a final inspection by the plumbing official to observe the tests specified below and to ensure compliance with the requirements of the plumbing code.

3. Re-inspections: Whenever the piping system fails to pass the test or inspection, make the required corrections, and arrange for re-inspection by the plumbing official.
4. Reports: Prepare inspection reports, signed by the plumbing official.

B. Piping System Test: Test drainage and vent system in accordance with the procedures of the authority having jurisdiction, or in the absence of a published procedure, as follows:

1. Test for leaks and defects all new drainage and vent piping systems and parts of existing systems, which have been altered, extended, or repaired. If testing is performed in segments, submit a separate report for each test, complete with a diagram of the portion of the system tested.
2. Leave uncovered and unconcealed all new, altered, extended, or replaced drainage and vent piping until it has been tested and approved. Expose all such work for testing, which has been covered or concealed before it has been tested and approved.
3. Rough Plumbing Test Procedure: Except for outside leaders and perforated or open jointed drain tile, test the piping of plumbing drainage and venting systems upon completion of the rough piping installation. Tightly close all openings in the piping system, and fill with water to the point of overflow, but not less than 10 feet head of water. Water level shall not drop during the period from 15 minutes before the inspection starts, through completion of the inspection. Inspect all joints for leaks.
4. Finished Plumbing Test Procedure: After the plumbing fixtures have been set and their traps filled with water, their connections shall be tested and proved gas and watertight. Plug the stack openings on the roof and building drain where it leaves the building and introduce air into the system equal to a pressure of 1" water column. Use a "U" tube or manometer inserted in the trap of a water closet to measure this pressure. Air pressure shall remain constant without the introduction of additional air throughout the period of inspection. Inspect all plumbing fixture connections for gas and water leaks.
5. Repair all leaks and defects using new materials and retest system or portion thereof until satisfactory results are obtained.
6. Prepare reports for all tests and required corrective action.

3.12 ADJUSTING AND CLEANING

A. Clean interior of piping system. Remove dirt and debris as work progresses.

B. Clean drain strainers, domes, and traps. Remove dirt and debris.

3.13 PROTECTION

A. Protect drains during remainder of construction period, to avoid clogging with dirt and debris, and to prevent damage from traffic and construction work.

B. Place plugs in ends of uncompleted piping at end of day or whenever work stops.

END OF SECTION 22 13 16

SECTION 32 12 16 - ASPHALT PAVING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes:

1. Hot-mix asphalt paving.
2. Aggregate base course for asphalt paving.
3. Patching of asphalt paving.
4. Asphalt speed bumps.

B. Related Sections include:

1. Section 02 41 19 “Selective Demolition” for sawcutting and removal of existing asphalt paving.
2. Section 31 20 00 “Earthwork” for preparation of subgrade below asphalt paving base course.
3. Section 31 23 33 “Utility Trenching and Backfill” for trenching and backfill for below-grade utility lines below asphalt paving.
4. Section 32 13 13 ”Site Concrete” for concrete paving and base course.
5. Section 32 17 13 “Wheelstops” for precast concrete wheelstops.
6. Section 32 17 23 “Pavement Markings” for paint striping and marking on asphalt paving.

1.3 REFERENCES

A. American Association of State Highway and Transportation Officials (AASHTO):

1. AASHTO M 29: Standard Specification for Fine Aggregate for Bituminous Paving Mixtures.
2. AASHTO M 301: Standard Specification for Joint Sealants, Hot-Poured, for Concrete and Asphalt Pavements.
3. AASHTO T 168: Standard Method for Test for Sampling Bituminous Paving Mixtures.

B. ASTM International:

1. ASTM D 692: Standard Specification for Coarse Aggregate for Bituminous Paving Mixtures.
2. ASTM D 979: Standard Practice for Sampling Bituminous Paving Mixtures.
3. ASTM D 1073: Standard Specification for Fine Aggregate for Asphalt Paving Mixtures.
4. ASTM D 1188: Standard Test Method for Bulk Specific Gravity and Density of Compacted Bituminous Mixtures Using Coated Samples.
5. ASTM D 1557: Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft^3).

6. ASTM D 2041: Standard Test Method for Theoretical Maximum Specific Gravity and Density of Bituminous Paving Mixtures.
7. ASTM D 2726: Standard Test Method for Bulk Specific Gravity and Density of Non-Absorptive Compacted Asphalt Mixtures.
8. ASTM D 2950: Standard Test Method for Density of Bituminous Concrete in Place by Nuclear Methods.
9. ASTM D 3549: Standard Test Method for Thickness or Height of Compacted Bituminous Paving Mixture Specimens.
10. ASTM D 6690: Standard Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt Pavements.

C. International Organization for Standardization (ISO):
   1. ISO 14021: Environmental Labels and Declarations – Self-Declared Environmental Claims (Type II Environmental Labeling).

D. Leadership in Energy & Environmental Design (LEED) Version 4 (v4), United States Green Building Council:
   1. LEED v4 BD+C: Schools.

E. State of California Department of Transportation (Caltrans):
   1. 2018 Standard Specifications.

F. Environmental Protection Agency (EPA).

G. Redwood Inspection Service (RIS).

1.4 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site, to review pertinent issues related to asphalt paving.
   1. Review methods and procedures related to asphalt paving including, but not limited to, the following:
      a. Proposed sources of paving materials, including capabilities and location of plant that will manufacture hot-mix asphalt.
      b. Review requirements for protection paving work, including restrictions of traffic during installation period and for remainder of construction period.
   2. Document proceedings, including corrective measures and actions required, and furnish copy of record to each participant.

1.5 ACTION SUBMITTALS

A. Product Data: For each type of product indicated.
   1. Include technical data and tested physical and performance properties.
   2. Job-Mix Designs: For each job mix proposed for the Work.

B. LEED v4 Submittals:

1. MR Credit: Building Product Disclosure and Optimization – Sourcing of Raw Materials:
    a. Product data or manufacturer's certificate indicating percentages by weight of postconsumer recycled content.
        i) Materials having postconsumer recycled content:
            a) Asphalt paving material (aggregate).
            b) Base course.
        ii) Include vendor invoices stating costs of products having recycled content.
    b. Documentation of locally sourced materials and products, as specified in "LEED v4 Requirements" Article.

1.6 INFORMATIONAL SUBMITTALS

A. Qualification Data: For manufacturer and testing agency.

B. Material Certificates: For each paving material, signed by manufacturer, and certifying that each material complies with specified requirements.

C. Material Test Reports: For each paving material, by a qualified testing agency.

1.7 QUALITY ASSURANCE

A. Manufacturer Qualifications: A firm experienced in manufacturing hot-mix asphalt paving materials, and with a record of successful in-service performance, as well as sufficient production capacity to produce required quantities.

B. Provide asphalt paving according to materials, workmanship, and other applicable requirements of the Caltrans Standard Specifications.

1.8 FIELD CONDITIONS

A. Environmental Limitations: Do not apply asphalt materials if subgrade is wet or excessively damp, if rain is imminent or expected before time required for adequate cure, or if the following conditions are not met:
    1. Prime and Tack Coats: Minimum surface temperature of 60 deg F (16 deg C).
    2. Asphalt Base Course:
        a. Less Than 2 Inches Thick: Minimum surface temperature of 60 deg F (16 deg C) and rising at time of placement
        b. 2 Inches to 3 Inches Thick: Minimum surface temperature of 50 deg F (10 deg C) and rising at time of placement.
    3. Asphalt Surface Course: Minimum surface temperature of 60 deg F (15 deg C) at time of placement.

PART 2 - PRODUCTS

2.1 LEED v4 REQUIREMENTS

A. Recycled Content: Provide products with recycled content as defined in ISO 14021 as indicated below:

1. Asphalt Paving: 15 percent postconsumer recycled content.
2. Base Course: 100 percent postconsumer recycled content.

B. Locally Sourced Materials and Products: Provide asphalt paving aggregate and base course materials that have been extracted, manufactured, and purchased within 100 miles of Project site.

2.2 PERFORMANCE REQUIREMENTS

A. Produce and install asphalt paving in accordance with applicable requirements of the State of California Department of Transportation (Caltrans), 2018 Standard Specifications, referred to herein as Caltrans Standard Specifications.

2.3 BASE COURSE AGGREGATE

A. Base Course Aggregate: Sound, angular crushed stone, gravel, or combination thereof conforming with requirements of Caltrans Standard Specifications Section 26 for Class 2 Aggregate Base.

1. Recycled Content: As specified in “LEED v4 Requirements” Article.

2.4 AGGREGATES FOR ASPHALT PAVING

A. General: Use materials and gradations that have performed satisfactorily in previous installations.

B. Coarse Aggregate: ASTM D 692, sound; angular crushed stone, or crushed gravel.

C. Fine Aggregate: ASTM D 1073 or AASHTO M 29, sharp-edged natural sand or sand prepared from stone, gravel, or combination thereof.

1. For hot-mix asphalt, limit natural sand to a maximum of 20 percent by weight of the total aggregate mass.

2.5 ASPHALT MATERIALS

A. Asphalt Binder: Conform to requirements of Caltrans Standard Specifications Section 92 for steam-refined asphalt; Viscosity Grade: PG 64-10.

B. Prime Coat: Liquid asphalt conforming with requirements of Caltrans Standard Specifications Section 93; Grade: SC-70 or SC-250.

C. Tack Coat: Emulsified asphalt conforming with requirements of Caltrans Standard Specifications Section 94; Grade: SS-1, SS-1h, CSS-1, or CSS-1h.

D. Water: Potable.

2.6 ACCESSORY MATERIALS

A. Joint Sealant: ASTM D 6690 or AASHTO M 301, hot-applied, single-component, polymer-modified bituminous sealant.

B. Herbicide: Commercial chemical for weed control, registered by the EPA, and not classified as "restricted use" for locations and conditions of application. Provide in granular, liquid, or wettable powder form.

2.7 MIXES

A. Hot-Mix Asphalt: Dense, hot-laid, hot-mix asphalt plant mixes designed according to Caltrans Standard Specifications Section 39 requirements for Type A asphalt concrete.

1. Provide mixes with a history of satisfactory performance in geographic area where Project is located.
2. Provide mixes complying with the following requirements for maximum aggregate sizes:
   a. Base Lift(s): 3/4-inch maximum size, medium graded.
   b. Surface Lift(s): 3/8-inch maximum size, medium graded.

B. Emulsified-Asphalt Slurry: Slurry mix consisting of emulsified asphalt, fine aggregate, and mineral fillers in conformance with Caltrans Specification Section 37 requirements for slurry seal.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify that subgrade is dry and in suitable condition to support paving and imposed loads.

B. Proceed with paving only after unsatisfactory conditions have been corrected.

3.2 PATCHING

A. Asphalt Pavement: Saw cut perimeter of patch and excavate existing pavement section to sound base. Cut excavation faces vertically. Remove excavated material. Recompact existing unbound-aggregate base course to form new subgrade. Excavate as follows, unless indicated otherwise:

1. At utility trenches, excavate continuous patch along path of trench.
2. At areas to be patched, excavate rectangular or trapezoidal patches, extending 12 inches into adjacent sound pavement.

B. Tack Coat: Apply uniformly to vertical surfaces abutting or projecting into new, hot-mix asphalt paving at a rate of 0.05 to 0.15 gal/sq yd.

1. Allow tack coat to cure undisturbed before applying hot-mix asphalt paving.
2. Avoid smearing or staining adjoining surfaces, appurtenances, and surroundings. Remove spillages and clean affected surfaces.

C. Patching: Fill excavated pavement areas with hot-mix asphalt base mix for full thickness of patch, and, while still hot, compact flush with adjacent surface.

3.3 REPAIRS

A. Leveling Course: Install and compact leveling course consisting of hot-mix asphalt surface course to level sags and fill depressions deeper than 1 inch in existing pavements.

1. Install leveling wedges in compacted lifts not exceeding 3 inches thick.

B. Crack and Joint Filling: Remove existing joint filler material from cracks or joints to a depth of 1/4 inch.

1. Clean cracks and joints in existing hot-mix asphalt pavement.
2. Use emulsified-asphalt slurry to seal cracks and joints less than 1/4 inch wide. Fill flush with surface of existing pavement and remove excess.
3. Use hot-applied joint sealant to seal cracks and joints more than 1/4 inch wide. Fill flush with surface of existing pavement and remove excess.

3.4 PREPARATION

A. Protection: Provide protective materials, procedures, and worker training to prevent asphalt materials from spilling, coating, or building up on curbs, driveway aprons, manholes, and other surfaces adjacent to the Work.

B. Immediately before placing asphalt materials, remove loose and deleterious material from substrate surfaces. Ensure that prepared subgrade is ready to receive base course and paving, and is free of mud, frost, snow, or ice.

C. Place and compact aggregate base course to thicknesses required for each section. Comply with requirements of Caltrans Standard Specification Section 26.

1. Placement Layers:
   a. Place base course 6 inches or less in compacted thickness in a single layer.
   b. Place base course that exceeds 6 inches in compacted thickness in layers of equal thickness, with no compacted layer more than 6 inches thick or less than 3 inches thick.
2. Shape base course to required elevations and grades.
3. Compact aggregate base course at optimum moisture content to 95 percent relative compaction according to ASTM D 1557.
4. Proof-roll prepared base course surface to check for unstable areas and verify need for additional compaction. Do not begin paving work until such conditions have been corrected are ready to receive paving.

D. Herbicide Treatment: Apply herbicide according to manufacturer's recommended rates and written application instructions. Apply to dry, prepared subgrade or surface of compacted aggregate base before applying paving materials. Exercise care to ensure herbicide is not applied to areas not receiving paving.

1. Mix herbicide with prime coat if formulated by manufacturer for that purpose.

E. Prime Coat: Apply uniformly over surface of compacted unbound-aggregate base course at a rate of 0.15 to 0.50 gal/sq yd. Apply enough material to penetrate and seal but not flood surface. Allow prime coat to cure.

1. If prime coat is not entirely absorbed within 24 hours after application, spread sand over surface to blot excess asphalt. Use enough sand to prevent pickup under traffic. Remove loose sand by sweeping before pavement is placed and after volatiles have evaporated.
2. Protect primed substrate from damage until ready to receive paving.

F. Tack Coat: Apply uniformly to horizontal surfaces of existing pavement and vertical surfaces of abutting curbs, gutters, construction joints, and existing pavements at a rate of 0.05 to 0.15 gal/sq yd.

1. Allow tack coat to cure undisturbed before applying hot-mix asphalt paving.
2. Avoid smearing or staining adjoining surfaces, appurtenances, and surroundings. Remove spillages and clean affected surfaces.

3.5 PLACING HOT-MIX ASPHALT

A. General: Place asphalt concrete paving in conformance with requirements of Caltrans Standard Specifications Section 39.

B. Machine place hot-mix asphalt on prepared surface, spread uniformly, and strike off. Place asphalt mix by hand to areas inaccessible to equipment in a manner that prevents segregation of mix. Place each course to required grade, cross section, and thickness when compacted.

C. Place hot-mix asphalt paving in maximum lift thicknesses of 3 inches.

D. Spread mix at minimum temperature of 250 deg F (121 deg C), or as otherwise required to maintain required minimum temperatures for breakdown rolling and compaction.

E. Begin applying mix along centerline of crown for crowned sections and on high side of one-way slopes, unless otherwise indicated.

F. Regulate paver machine speed to obtain smooth, continuous surface free of pulls and tears in asphalt-paving mat.

G. Place paving in consecutive strips not less than 10 feet wide unless infill edge strips of a lesser width are required.

1. After first strip has been placed and rolled, place succeeding strips and extend rolling to overlap previous strips. Overlap mix placement about 1 to 1-1/2 inches from strip to strip to ensure proper compaction of mix along longitudinal joints.
2. Complete a section of asphalt base lift before placing asphalt surface lift.

H. Promptly correct surface irregularities in paving course behind paver. Use suitable hand tools to remove excess material forming high spots. Fill depressions with hot-mix asphalt to prevent segregation of mix; use suitable hand tools to smooth surface.

I. Conforms between new and existing paving shall form smooth, pond-free transition.

3.6 JOINTS

A. Construct joints to ensure a continuous bond between adjoining paving sections. Construct joints free of depressions with same texture and smoothness as other sections of hot-mix asphalt course.

1. Clean contact surfaces and apply tack coat to joints.

2. Offset longitudinal joints, in successive courses, a minimum of 6 inches.
3. Offset transverse joints, in successive courses, a minimum of 24 inches.
4. Construct joints as described in Caltrans Specifications Section 39.
5. Compact joints as soon as hot-mix asphalt will bear roller weight without excessive displacement.
6. Compact asphalt at joints a density within 2 percent of specified course density.

3.7 COMPACTION

A. General: Compact hot-mix asphalt concrete paving in conformance with requirements of Caltrans Standard Specifications Section 39.

B. Begin compaction as soon as placed hot-mix paving will bear roller weight without excessive displacement. Compact hot-mix paving with hot, hand tampers or vibratory-plate compactors in areas inaccessible to rollers.

C. Breakdown Rolling: Complete breakdown or initial rolling immediately after rolling joints and outside edge. Examine surface immediately after breakdown rolling for indicated crown, grade, and smoothness. Correct laydown and rolling operations to comply with requirements.

1. Complete initial rolling and breakdown compaction before mix temperature cools to minimum level specified in Caltrans Standard Specifications.

D. Intermediate Rolling: Begin intermediate rolling immediately after breakdown rolling while hot-mix asphalt is still hot enough per requirements of Caltrans Specifications Section 39.

1. Complete intermediate and finish compaction before mix temperature cools to minimum levels specified in Caltrans Standard Specifications.

E. Finish Rolling: Finish roll paved surfaces to remove roller marks while hot-mix asphalt is still warm.

F. Edge Shaping: While surface is being compacted and finished, trim edges of pavement to proper alignment. Bevel edges while asphalt is still hot; compact thoroughly.

G. Repairs: Remove paved areas that are defective or contaminated with foreign materials and replace with fresh, hot-mix asphalt. Compact by rolling to specified density and surface smoothness.

H. Protection: After final rolling, do not permit vehicular traffic on pavement until it has cooled and hardened.

I. Erect barricades to protect paving from traffic until mixture has cooled enough not to become marked.

3.8 INSTALLATION TOLERANCES

A. Pavement Thickness: Compact each course to produce the thickness indicated within the following tolerances:

1. Lower Lifts: Plus or minus 1/4 inch.
2. Top (surface) Lift: Plus 1/4 inch, no minus.

B. Pavement Surface Smoothness: Compact each course to produce a surface smoothness within the following tolerances as determined by using a 10-foot straightedge applied transversely or longitudinally to paved areas:

1. Base Lifts: 1/4 inch.
2. Surface Lift: 1/8 inch.
3. Crowned Surfaces: Test with crowned template centered and at right angle to crown. Maximum allowable variance from template is 1/4 inch.

C. Speed Bumps: Compact and form asphalt to produce the contour indicated and within a tolerance of plus or minus 1/8 inch of height indicated above pavement surface.

3.9 ASPHALT SPEED BUMPS

A. Construct hot-mix asphalt speed bumps over compacted pavement surfaces. Apply a tack coat unless pavement surface is still tacky and free from dust. Spread mix at a minimum temperature of 250 deg F.

1. Tack Coat Application: Apply uniformly to surfaces of existing pavement at a rate of 0.05 to 0.15 gal/sq yd.
2. Asphalt Mix: Same as pavement surface-course mix.

B. Place and compact hot-mix asphalt to cross section indicated, buy machine or by hand in wood or metal forms. Tamp hand-placed materials and screed to smooth finish. Remove forms after hot-mix asphalt has cooled.

3.10 FIELD QUALITY CONTROL

A. Testing Agency: Owner will engage a qualified independent testing and inspecting agency to perform field tests and inspections and to prepare test reports.

1. Testing agency will conduct and interpret tests and state in each report whether tested Work complies with or deviates from specified requirements.
2. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.

B. Thickness: In-place compacted thickness of hot-mix asphalt courses will be determined according to ASTM D 3549.

C. Surface Smoothness: Finished surface of each hot-mix asphalt course will be tested for compliance with smoothness tolerances.

D. Asphalt Speed Bumps: Finished height of asphalt speed bumps above pavement will be measured for compliance with tolerances.

E. In-Place Density: Testing Agency will take samples of uncompacted paving mixtures and compacted pavement according to ASTM D 979 or AASHTO T 168.

1. Reference maximum theoretical density will be determined by averaging results from four samples of hot-mix asphalt-paving mixture delivered daily to site, prepared according to ASTM D 2041, and compacted according to job-mix specifications.

2. In-place density of compacted pavement will be determined by testing core samples according to ASTM D 1188 or ASTM D 2726.
    a. One core sample will be taken for every 1000 sq yds or less of installed pavement, with no fewer than three cores taken.
    b. Field density of in-place compacted pavement may also be determined by nuclear method according to ASTM D 2950 and correlated with ASTM D 1188 or ASTM D 2726.

F. Drainage: After completion of paving work, all asphalt concrete paving shall be flooded with water, and any resulting ponds shall be ringed with chalk. Such areas shall be repaired as required to eliminate ponding by removing and replacing asphalt concrete to correct grades and slopes.

G. Replace and compact hot-mix asphalt where core tests were taken.

H. Remove and replace or install additional hot-mix asphalt where test results or measurements indicate that it does not comply with specified requirements.

3.11 WASTE HANDLING

A. Handle asphalt paving waste according to approved waste management plan required by Division 1 Section for construction waste management and disposal.

B. Do not allow excavated materials to accumulate on-site.

END OF SECTION 32 12 16

SECTION 32 13 13 - SITE CONCRETE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes the following site concrete items:
   1. Concrete paving.
      a. Decorative Treatments:
         i) Integral-color pigment.
         ii) Pigmented dry-shake hardener.
         iii) Stained concrete.
         iv) Stamped concrete.
         v) Abrasive-blast (sandblast) finish.
   2. Concrete curbs and gutters.
   3. Concrete ramps and steps.
      a. Cast-in safety tread nosings at concrete steps.
   4. Concrete for formed vertical surfaces.
      a. Decorative Treatments.
         i) Integral color pigment.
         ii) Form liner treatment.
         iii) Abrasive-blast (sandblast) finish.
   5. Concrete equipment pads.
   6. Concrete footings for site elements.
   7. Reinforcing for site concrete.
   8. Formwork for site concrete.
   9. Aggregate base course under concrete paving.
   10. Finish treatments for site concrete.
   11. Cast-in skateboard deterrents.

B. Related Sections include:
   1. Section 02 41 19 “Selective Demolition” for sawcutting and removal of existing concrete paving.
   2. Section 03 31 00 “Cast-in-Place Concrete” for structural concrete for general building applications.
   3. Section 31 20 00 “Earthwork” for grading and subgrade preparation for site concrete paving.

4. Section 31 23 26 “Controlled-Low-Strength Material” for low-strength cementitious material for use as backfill material in lieu of earth material.
5. Section 32 17 13 “Wheelstops” for precast concrete wheelstops.
6. Section 32 12 16 “Asphalt Paving” for asphalt paving and base course.
7. Section 32 17 23 “Pavement Markings” for painted striping and markings on paved surfaces and curbs.
8. Section 32 17 26 “Tactile Warning Surfaces” for prefabricated tactile warning surface panels cast into freshly poured site concrete paving substrates.

1.3 REFERENCES

A. American Association of State Highway and Transportation Officials (AASHTO):
1. AASHTO M 182: Specification for Burlap Cloth Made From Jute or Kenaf.

B. American Concrete Institute (ACI):
1. ACI 117: Specifications for Tolerances for Concrete Construction and Materials.
2. ACI 301: Specification for Structural Concrete.
3. ACI 305.1: Specification for Hot Weather Concreting.
4. ACI 306.1: Specification for Cold Weather Concreting.
5. ACI 308.1: Specification for Curing Concrete.
6. ACI 318: Building Code Requirements for Structural Concrete.
7. ACI SP-066: ACI Detailing Manual.

C. American Welding Society (AWS):
1. AWS D1.4: Structural Welding Code – Steel Reinforcing Bars.

D. APA - The Engineered Wood Association.
1. Concrete Forming Design/Construction Guide.

E. ASTM International:
1. ASTM A615: Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement.
2. ASTM A1064: Standard Specification for Carbon-Steel Wire and Welded Wire Reinforcement, Plain and Deformed, for Concrete.
3. ASTM C31: Standard Practice for Making and Curing Concrete Test Specimens in the Field.
4. ASTM C33: Standard Specification for Concrete Aggregates.
5. ASTM C39: Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens.
6. ASTM C94: Standard Specification for Ready-Mixed Concrete.
7. ASTM C143: Standard Test Method for Slump of Hydraulic Cement Concrete.
8. ASTM C144: Standard Specification for Aggregate for Masonry Mortar.
9. ASTM C150: Standard Specification for Portland Cement.

10. ASTM C171: Standard Specification for Sheet Materials for Curing Concrete.
11. ASTM C172: Standard Practice for Sampling Freshly Mixed Concrete.
12. ASTM C231: Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method.
13. ASTM C260: Standard Specification for Air-Entraining Admixtures for Concrete.
14. ASTM C309: Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete.
15. ASTM C311: Standard Test Methods for Sampling and Testing Fly Ash or Natural Pozzolans for Use in Portland-Cement Concrete.
16. ASTM C404: Standard Specification for Aggregates for Masonry Grout.
17. ASTM C494: Standard Specification for Chemical Admixtures for Concrete.
18. ASTM C618: Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete.
19. ASTM C881: Standard Specification for Epoxy-Resin-Base Bonding Systems for Concrete.
20. ASTM C920: Standard Specification for Elastomeric Joint Sealants.
21. ASTM C979: Standard Specification for Pigments in Integrally Colored Concrete.
22. ASTM C989: Standard Specification for Slag Cement for Use in Concrete and Mortars.
23. ASTM C1017: Standard Specification for Chemical Admixtures for Use in Producing Flowing Concrete.
24. ASTM C1059: Standard Specification for Latex Agents for Bonding Fresh to Hardened Concrete.
25. ASTM C1064: Standard Test Method for Temperature of Freshly Mixed Hydraulic-Cement Concrete.
26. ASTM C1077: Standard Practice for Agencies Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Testing Agency Evaluation.
27. ASTM C1116: Standard Specification for Fiber-Reinforced Concrete.
28. ASTM C1193: Standard Guide for Use of Joint Sealants.
29. ASTM C1315: Standard Specification for Liquid Membrane-Forming Compounds Having Special Properties for Curing and Sealing Concrete.
30. ASTM C1602: Standard Specification for Mixing Water used in the Production of Hydraulic Cement Concrete.
31. ASTM D1557: Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lb/ft^3).
32. ASTM D1751: Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types).
33. ASTM D4263: Standard Test Method for Indicating Moisture in Concrete by the Plastic Sheet Method.
34. ASTM E329: Standard Specification for Agencies Engaged in Construction Inspection, Testing, or Special Inspection.

F. Caltrans (State of California Department of Transportation):

1. Standard Specifications.

G. California Air Resources Board:

1. Suggested Control Measure for Architectural Coatings.

H. California Green Building Standards Code (CALGreen) – California Code of Regulations, Title 24, Part 11.

I. Concrete Reinforcing Steel Institute (CRSI):

1. Manual of Standard Practice.

J. Environmental Protection Agency (EPA).

K. European Standards (EN):

1. EN 15804: Sustainability of Construction Works – Environmental Product Declarations – Core Rules for the Product Category of Construction Products.

L. International Organization for Standardization (ISO):

1. ISO 14021: Environmental Labels and Declarations – Self-Declared Environmental Claims (Type II Environmental Labeling).
2. ISO 14025: Environmental Labels and Declarations – Type III Environmental Declarations – Principals and Procedures.
3. ISO 14040: Environmental Management – Life Cycle Assessment – Principals and Framework.
4. ISO 14044: Environmental Management – Life Cycle Assessment – Requirements and Guidelines.
5. ISO 21930: Sustainability in Building Construction – Environmental Declaration of Building Products.

M. Leadership in Energy & Environmental Design (LEED) Version 4 (v4), United States Green Building Council:

1. LEED v4 BD+C: New Construction and Major Renovations.
2. LEED v4 BD+C: Core and Shell Development.
3. LEED v4 BD+C: Schools.
4. LEED v4 BD+C: Retail.
5. LEED v4 BD+C: Data Centers.
6. LEED v4 BD+C: Warehouses and Distribution Centers.
7. LEED v4 BD+C: Hospitality.
8. LEED v4 BD+C: Healthcare.
9. LEED v4 BD+C: Homes and Multifamily Lowrise.
10. LEED v4 BD+C: Multifamily Midrise.

1.4 DEFINITIONS

A. Cementitious Materials: Portland cement alone or in combination with one or more of the following, subject to compliance with requirements:

1. Blended hydraulic cement.

2. Fly ash.
3. Slag cement and other pozzolans.
4. Silica fume.

B. Water/Cement Ratio (w/cm): The ratio by weight of water to cementitious materials.

C. Decorative Concrete: Concrete with one of the following decorative treatments:
1. Integral-color pigment.
2. Pigmented dry-shake hardener.
3. Concrete stain.
4. Exposed aggregate.
5. Stamped concrete.

1.5 COORDINATION

A. Coordinate placement and finishing of site concrete with installation of tactile warning surface cast-in-place panels as specified in Section 32 17 26 “Tactile Warning Surfaces.”

1.6 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.
1. Review methods and procedures related to site concrete, including, but not limited to, the following:
a. Concrete mix design.
b. Quality control of concrete materials and site concrete construction practices.
c. Cold- and hot-weather concreting procedures.
d. Concrete finishes and finishing.
e. Forms and form-removal limitations.
f. Shoring and reshoring procedures.
g. Joints and joint-filler strips.
h. Curing procedures.
i. Concrete protection.
2. Require representatives of each entity directly concerned with site concrete to attend, including the following:
a. Contractor’s superintendent.
b. Independent testing agency responsible for concrete design mixtures.
c. Ready-mix concrete manufacturer.
d. Site concrete Installer.
e. Decorative concrete system manufacturer’s representative.
3. Document proceedings, including corrective measures and actions required, and furnish copy of record to each participant.

1.7 ACTION SUBMITTALS

A. Product Data: For each type of manufactured material and product indicated, including the following:

1. Steel reinforcement.
2. Joint fillers.
3. Skateboard deterrents.
4. Safety tread nosings.
5. Concrete integral color pigment.
6. Concrete dry-shake hardener color.
7. Concrete stain.
8. Stamped concrete.
9. Chemical admixtures.
10. Sealants.

B. Design Mixtures: For each site concrete mixture. Each mixture design report shall be signed and sealed by the qualified professional engineer responsible for its preparation. For each concrete design mixture, include the following:

1. Mixture identification.
2. Minimum 28-day compressive strength.
3. Durability exposure class.
4. Maximum water/cement ratio.
5. Slump limit.
6. Air content.
7. Nominal maximum aggregate size.
8. Synthetic micro-fiber content.
9. Color pigment.
10. Indicate amounts of mixing water to be withheld for later addition at Project site, if permitted.
11. Intended placement method.
12. Submit alternate design mixtures when characteristics of materials, Project conditions, weather, test results, or other circumstances warrant adjustments.

C. Formwork Shop Drawings: Show formwork construction including form liner joints, rustications, construction and control joints, reveals, edge conditions, form joint sealant details, form-tie locations and patterns, inserts and embedments, and other items that affect visual appearance of cast-in-place site concrete.

D. Steel Reinforcing Shop Drawings: Comply with ACI SP-066.

1. Include placing drawings that detail fabrication, bending, and placement.
2. Include bar sizes, lengths, materials, grades, bar schedules, stirrup spacing, bent bar diagrams, bar arrangement, location of splices, lengths of lap splices, details of mechanical splice couplers, details of welding splices, tie spacing, hoop spacing, and supports for concrete reinforcement.

E. Samples for Initial Selection: Submit manufacturer's full range of available colors for selection by Architect, for items requiring color selection.
   1. Minimum Number of Colors for Selection:
      a. Integral Color Pigment: 24.
         i) Submit manufacturer's full range of colors, regardless of amount of pigment required proportionally to concrete mix.
      b. Pigmented Mineral Dry-Shake Hardener: 24.
      c. Concrete Stain: 8.
      d. Sealant: 45.

F. Samples for Verification:
   1. Sample of each type of form liner.
   2. Sample of exposed aggregate mix, 5 lbs.
   3. Sample of each concrete integral color pigment, on concrete material, 4 inches by 4 inches.
   4. Sample of each concrete dry-shake hardener color, on concrete material, 4 inches by 4 inches.
   5. Sample of each concrete stain color, on concrete material, 4 inches by 4 inches.

G. LEED v4 Submittals:
   1. MR Credit: Building Product Disclosure and Optimization - Environmental Product Declarations:
      a. Environmental Product Declaration (EPD), as specified in "LEED v4 Requirements" Article.
   2. MR Credit: Building Product Disclosure and Optimization – Sourcing of Raw Materials:
      a. Product data or manufacturer's certificate indicating percentages by weight of postconsumer and preconsumer recycled content.
         i) Products having recycled content:
            a) Site concrete.
            b) Steel reinforcing for site concrete.
            c) Base course aggregate.
         ii) Include vendor invoices stating costs of products having recycled content.
      b. Documentation of locally sourced materials and products, as specified in "LEED v4 Requirements" Article.

1.8 INFORMATIONAL SUBMITTALS

A. Qualification Data: For qualified ready-mix concrete manufacturer.

B. Material Test Reports: From a qualified testing agency indicating and interpreting test results for compliance of the following with requirements indicated, based on comprehensive testing of current materials:
   1. Portland cement.
   2. Fly ash.

3. Silica fume.
4. Concrete aggregates.
5. Steel reinforcing.

C. Material Certificates: From manufacturers, certifying that each of the following materials complies with requirements:
1. Cementitious materials.
2. Steel reinforcing and accessories.
3. Admixtures.
4. Applied finish materials.
5. Bonding agent or epoxy adhesive.
6. Joint fillers.

1.9 QUALITY ASSURANCE

A. Ready-Mix-Concrete Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C94 requirements for production facilities and equipment.

B. Installer Qualifications: An employer of workers trained and approved by manufacturer of decorative concrete paving systems.

C. Laboratory Testing Agency: Engage a qualified independent testing agency, qualified according to ASTM C1077 and ASTM E329 for testing indicated, to perform material evaluation tests and to design concrete mixtures.

D. Mockups: Build mockups to verify selections made under Sample submittals and to demonstrate aesthetic effects and set quality standards for typical joints, surface finishes, textures, tolerances, and standard of workmanship.
1. Build mockups of the following:
a. Full-thickness sections of concrete paving to demonstrate each type of joint, surface finish, texture, and color.
i) Where pouring concrete adjacent to existing concrete, add carbon black to concrete mixture in amount as required to match tint of existing concrete.
b. Each type of formed vertical concrete surface finish and color.
i) Include patching of form-tie holes.
ii) For each form liner texture, include one horizontal and one vertical form liner joint.
2. Build mockups in the location and of the size indicated or, if not indicated, as directed by Architect.
3. Notify Architect 5 working days in advance of dates and times when mockups will be constructed.
4. Obtain Architect’s approval of mockups before starting construction.

a. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless such deviations are specifically approved in writing by Architect.

5. Maintain approved mockups during construction in an undisturbed condition as a standard for judging the completed pavement.

6. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.10 DELIVERY, STORAGE, AND HANDLING

A. Steel Reinforcement: Deliver, store, and handle steel reinforcement to prevent bending and damage.

1. Store reinforcement to avoid contact with earth.

1.11 FIELD CONDITIONS

A. Traffic Control: Maintain access for vehicular and pedestrian traffic as required for other construction activities.

B. Cold-Weather Concrete Placement: Comply with ACI 301 and ACI 306.1 and as follows:

1. Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.

2. When average high and low temperature is expected to fall below 40 deg F for three successive days, maintain delivered concrete mixture temperature within the temperature range required by ACI 301.

3. Do not use frozen materials or materials containing ice and snow.

4. Do not place concrete in contact with surfaces less than 35 deg F, other than reinforcing steel.

5. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators unless otherwise specified and approved in mixture designs.

C. Hot-Weather Concrete Placement: Comply with ACI 301 and ACI 305.1, and as follows:

1. Maintain concrete temperature at time of discharge to not exceed 95 deg F.

2. Fog-spray forms, steel reinforcement, and subgrade just before placing concrete. Keep subgrade uniformly moist without standing water, soft spots, or dry areas.

PART 2 - PRODUCTS

2.1 CALGREEN REQUIREMENTS

A. General: Conform with all applicable requirements of the California Green Building Standards Code (CALGreen).

B. Concrete Curing Compounds and Sealers: Provide concrete curing compounds and sealers that comply with VOC limits in Table 1 of the California Air Resources Board (ARB) Architectural Coatings Suggested Control Measure, unless more stringent local limits apply.

2.2 LEED v4 REQUIREMENTS

A. Environmental Product Declaration: Provide site concrete with Environmental Product Declaration (EPD) which conforms to ISO 14025, ISO 14040, ISO 14044, and EN 15804 or ISO 21930, and has at least a cradle to grave scope.

1. EPD Type: *[Industry-wide (generic)] [Product-specific Type III]*.

B. Recycled Content: Provide products with recycled content as defined in ISO 14021 as indicated below:

1. Site Concrete: Sum of postconsumer recycled content plus one-half of preconsumer recycled content as measured by percentage of weight of product is not less than 35 percent of overall weight of product.
    a. Recycled aggregate must meet the following requirements:
        i) Use of recycled fine aggregates is not allowed.
        ii) Use of recycled coarse aggregates from salt contaminated concrete pavements is not allowed.
        iii) Recycled aggregate must be thoroughly cleaned and washed prior to use.
        iv) Recycled aggregate must contain no deleterious materials.
        v) Recycled aggregate must meet requirements of California Building Code and ASTM C 33.
        vi) Amount of recycled aggregate shall be limited to no more than 50 percent of total dry aggregate mass.
    b. Fly ash shall be supplied by an experienced producer, and comply with ASTM C618, Class F or N, and ASTM C311.
2. Base Course: 100 percent postconsumer recycled content.
3. Steel Reinforcement:
    a. Postconsumer: 89 percent.
    b. Preconsumer: 8 percent.

C. Locally Sourced Materials and Products: Provide site concrete aggregate and base course materials that have been extracted, manufactured, and purchased within 100 miles of Project site.

2.3 PERFORMANCE REQUIREMENTS

A. Concrete Formwork: Design, engineer, erect, shore, brace, and maintain formwork, shores, and reshores in accordance with ACI 301, to support vertical, lateral, static, and dynamic loads, and construction loads that might be applied, until structure can support such loads, so that resulting concrete conforms to the required shapes, lines, and dimensions.

1. Delegated Design: Engage a qualified professional engineer to design concrete formwork.
2. Design wood panel forms in accordance with APA's "Concrete forming Design/Construction Guide.":
3. Design formwork to limit deflection of form-facing material to 1/240 of center-to-center spacing of supports.

4. Formwork shall be capable of withstanding all loads imposed during construction, including weight of equipment, uncured concrete, and other pressures and loads occurring prior to curing of concrete.

2.4 BASE COURSE

A. Base Course Aggregate: Sound, angular crushed stone, crushed gravel, or crushed slag, stone, or slag screenings. Comply with Caltrans Standard Specification, Section 26 for Class 2 base, 3/4 inch maximum aggregate size and minimum R value of 78.

1. Recycled Content of Base Course Aggregate: As specified in "LEED v4 Requirements" Article.

2.5 FORMS

A. Formwork, General: Furnish formwork and formwork accessories according to ACI 301.

B. Form Materials for Surfaces Exposed to View: Plywood, metal, or other approved panel-type materials to provide full-depth, continuous, straight, true, smooth exposed concrete surfaces. Furnish in largest practical sizes to minimize number of joints.

1. Use flexible or curved forms for curves with a radius of 100 feet or less. Do not use notched or bent forms.

C. Chamfer Strips: Metal, rigid plastic, rubber strips, or dressed wood, 3/4 inch by 3/4 inch, unless indicated otherwise; in longest practicable lengths.

D. Form Ties: Factory-fabricated, removable or snap-off glass-fiber-reinforced plastic or metal form ties designed to resist lateral pressure of fresh concrete on forms and to prevent spalling of concrete on removal.

1. Furnish units that leave no metal closer than 1-1/2 inches to the plane of exposed concrete surface.
2. Furnish ties with tapered tie cone spreaders that, when removed, will leave holes 1 inch in diameter in concrete surface.
3. Wire ties are not acceptable.

2.6 STEEL REINFORCEMENT

A. Reinforcing Bars: ASTM A615, Grade 60; deformed.

B. Plain-Steel Welded-Wire Reinforcement: ASTM A1064, plain, fabricated from as-drawn steel wire into flat sheets.

C. Joint Dowel Bars: ASTM A615, Grade 60 plain-steel bars. Cut bars true to length with ends square and free of burrs.

1. Dowel Sleeve: Rigid polypropylene sleeve, 5/8-inch diameter by 9 inches long, with reusable base, designed for attachment to face of concrete form.
   a. Products: Subject to compliance with requirements, provide one of the following:
      i) Speed Dowel.

ii) Equal product in accordance with Division 1 requirements for product substitutions.

D. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars and welded-wire reinforcement in place.

1. Manufacture bar supports from steel wire, plastic, or precast concrete in accordance with CRSI's "Manual of Standard Practice," of greater compressive strength than concrete and as follows:

a. For concrete surfaces exposed to view, where legs of wire bar supports contact forms, use CRSI Class 1 plastic-protected steel wire, all-plastic bar supports, or CRSI Class 2 stainless-steel bar supports.

E. Recycled Content of Steel Reinforcement: As specified in "LEED v4 Requirements" Article.

2.7 CONCRETE MATERIALS

A. Source Limitations:

1. Obtain all concrete mixtures from a single ready-mixed concrete manufacturer for entire Project.
2. Obtain each type or class of cementitious material of the same brand from the same manufacturer's plant.
3. Obtain aggregate from single source.
4. Obtain each type of admixture from single source from single manufacturer.

B. Cementitious Materials:

1. Portland Cement: ASTM C150, Type I or II, gray.
2. Fly Ash: ASTM C618, Class F or N, and ASTM C311.
3. Slag Cement: ASTM C989, Grade 100 or 120.
4. Recycled Content: As specified in "LEED v4 Requirements" Article.

C. Normal-Weight Aggregates: ASTM C33, Class 4M coarse aggregate, uniformly graded.

1. Maximum Coarse-Aggregate Size: 1 inch, except as noted below.

a. Maximum Coarse-Aggregate Size for Base Slabs to Receive Seeded Exposed Aggregate Pavement Finishes: 3/4 inch.

b. Maximum Coarse-Aggregate Size for Slabs to Receive Stamped Concrete Finish: 3/4 inch.

2. Fine Aggregate: Free of materials with deleterious reactivity to alkali in cement.
3. Recycled Content: As specified in "LEED v4 Requirements" Article.

D. Water: Potable and complying with ASTM C94.

E. Air-Entraining Admixture: ASTM C260.

F. Chemical Admixtures: Where used, provide admixtures certified by manufacturer to be compatible with other admixtures and to contain not more than 0.1 percent water-soluble chloride ions by mass of cementitious material.

1. Water-Reducing Admixture: ASTM C494, Type A.
2. Retarding Admixture: ASTM C494, Type B.
3. Water-Reducing and Retarding Admixture: ASTM C494, Type D.
4. High-Range, Water-Reducing Admixture: ASTM C494, Type F.
5. High-Range, Water-Reducing and Retarding Admixture: ASTM C494, Type G.
6. Plasticizing and Retarding Admixture: ASTM C1017, Type II.

G. Color Pigment: ASTM C979, synthetic mineral-oxide pigments or colored water-reducing admixtures; color stable, nonfading, and resistant to lime and other alkalis.

1. Products: Subject to compliance with requirements, provide one of the following products or product by one of the following manufacturers:
   a. Bomanite Corporation; Integral Color.
   b. Davis Colors.
   c. Scofield, L.M. Company; CHROMIX Admixtures.
   d. Solomon Colors.
   e. Equal product in accordance with Division 1 requirements for product substitutions.
2. Color*[s]*: As selected by Architect from manufacturer's full range.For bidding purposes, assume *[two]* different colors in equal quantities for each color.

[or]

3. Color*[s]*:
   a. CP-1: *[Scofield CHROMIX Admixture #5130 "Spring Beige."]*
   b. CP-2: *[Scofield CHROMIX Admixture #C-21 "Adobe Tan."]*
4. Color*[s]*: As specified in Section 09 06 00 "Colors and Finishes."

H. Carbon Black: Tinting agent for darkening concrete mix as required to match tint of existing concrete.

1. Products: Subject to compliance with requirements, provide one of the following products or product by one of the following manufacturers:
   a. Concrete Chemicals; Liquiblack.
   b. Equal product in accordance with Division 1 requirements for product substitutions.

2.8 CAST-IN ACCESSORIES FOR SITE CONCRETE

A. Safety Tread Nosings for Concrete Steps: Extruded aluminum units, with abrasive filler strips consisting of aluminum oxide, silicon carbide, or a combination of both, in an epoxy-resin binder. Fabricate units in lengths necessary to accurately fit openings or conditions and length as required to terminate 2 inches from ends of steps.

1. Products: Subject to compliance with requirements, provide one of the following:
   a. American Safety Tread Company, Inc.; Type 9511.

b. Balco Inc.; R-315P.

c. Wooster Products, Inc.; Type 231BF.

2. Provide ribbed units, with abrasive filler strips projecting 1/16 inch above aluminum extrusion.

3. Dimension and Configuration: 3 inches wide, without lip.

4. Provide units meeting requirements of California Building Code (Title 24) and Americans with Disabilities Act for the visually impaired.

5. Color of Ribbed Filler Strips: *[Black]*.

6. Provide integral anchors at underside of safety tread nosings, for embedding units in concrete.

7. Apply clear lacquer to concealed surfaces of extruded units set into concrete.

B. Skateboard Deterrent: Manufacturer's cast-in projection for deterring skateboard activity on concrete surfaces.

1. Product: Subject to compliance with requirements, provide the following:

a. Skatestoppers; *[Celebreeze]*.

2. Material: White Tombasil (copper/nicket/zinc alloy).

a. Finish: Brushed satin finish.

3. Profile: Tapered fin with projecting nosing; inside profile to conform to profile of concrete edge.

a. Provide embedment flange with mechanical keyways for casting into concrete.

b. Inside Radius at Concrete Edge: 1/2 inch.

4. Dimensions: 10 inches long by 1/2 inch wide.

2.9 SURFACE COLORING MATERIALS

A. Pigmented Mineral Dry-Shake Hardener: Factory-packaged dry combination of portland cement, graded quartz aggregate, color pigments, and plasticizing admixture. Use color pigments that are finely ground, nonfading mineral oxides interground with cement.

1. Products: Subject to compliance with requirements, provide one of the following:

a. Bomanite Corporation; Color Hardener.

b. Scofield, L.M. Company; LITHOCHROME Color Hardener.

c. Equal product in accordance with Division 1 requirements for product substitutions.

2. Color*[s]*: For bidding purposes, assume *[two]* different colors in equal quantities for each color.

[or]

3. Color*[s]*:

a. DS-1: *[Scofield #A-59 "Beige Cream."]*

b. DS-2: *[Scofield #A-50 "Slate Gray."]*

4. Color*[s]*: As specified in Section 09 06 00 "Colors and Finishes."

B. Pigmented Powder Release Agent: Factory-packaged, dry combination of surface-conditioning and dispersing agents interground with color pigments that facilitates release of stamp mats. Use color pigments that are finely ground, nonfading mineral oxides interground with cement.

1. Products: Subject to compliance with requirements, provide one of the following:
   a. Bomanite Corporation; Release Agent.
   b. Scofield, L.M. Company; LITHOCHROME Antiquing Release.
   c. Equal product in accordance with Division 1 requirements for product substitutions.

2. Color*[s]*: As selected by Architect from manufacturer's full range.
   a. For bidding purposes, assume *[two]* different colors in equal quantities for each color.

[or]

3. Color*[s]*:
   a. PRA-1: *[Scofield #A-53, "Arizona Tan."]*
   b. PRA-2: *[Scofield #A-29 "Terra Cotta."]*

[or]

4. Color*[s]*: As specified in Section 09 06 00 "Colors and Finishes."

C. Liquid Release Agent: Manufacturer's standard clear, evaporating formulation that facilitates release of stamp mats and texture rollers.
   1. Products: Subject to compliance with requirements, provide one of the following:
      a. Bomanite Corporation; Liquid Release.
      b. Scofield, L.M. Company; LITHOTEX Liquid Release.
      c. Equal product in accordance with Division 1 requirements for product substitutions.

2.10 STAMPING DEVICES

A. Stamp Mats: Semirigid polyurethane mats with projecting textured and ridged underside capable of imprinting texture and joint patterns on plastic concrete.
   1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
      a. Bomanite Corporation.
         i) Pattern: *[Canyon Stone]*.
      b. Scofield, L.M. Company.
         i) Pattern: *[Canyon Stone]*.
      c. Manufacturer of equal products in accordance with Division 1 requirements for product substitutions.

2.11 STAIN MATERIALS

A. Concrete Stain: Penetrating/reactive stain with wetting agents and high-grade, UV-stable metallic salts that react with calcium hydroxide in cured concrete to produce permanent, variegated, or translucent color effects.
   1. Products: Subject to compliance with requirements, provide one of the following:
      a. Bomanite Corporation; Con-Color.
      b. Scofield, L.M. Company; LITHOCHROME Tintura Stain.

c. Equal product in accordance with Division 1 requirements for product substitutions.

2. Color*[s]*: As selected by Architect from manufacturer's full range.

a. For bidding purposes, assume *[two]* different colors in equal quantities for each color.

[or]

3. Color*[s]*:

a. CS-1: *[Scofield LITHOCHROME Tintura #6007, "Wheat Grain."]*

b. CS-2: *[Scofield LITHOCHROME Tintura #2047 "Autumn Honey."]*

[or]

4. Color*[s]*: As specified in Section 09 06 00 "Colors and Finishes."

2.12 CURING AND SEALING MATERIALS

A. Absorptive Cover: AASHTO M 182, Class 2, burlap cloth made from jute or kenaf, weighing approximately 9 oz/sq yd, dry.

B. Moisture-Retaining Cover: ASTM C171, polyethylene film burlap-polyethylene sheet.

1. Color:

a. Ambient Temperature Below 50 deg F: Black.

b. Ambient Temperature Between 50 deg F and 85 deg F: Any color.

c. Ambient Temperature Above 85 deg F: White.

C. Water: Potable or complying with ASTM C1602.

D. Evaporation Retarder: Waterborne, monomolecular film forming; manufactured for application to fresh concrete.

1. Products: Subject to compliance with requirements, provide one of the following:

a. BASF Construction Chemicals, LLC; MasterKure ER50.

b. Euclid Chemical Company; Eucobar.

c. Meadows, W.R., Inc.; Sealtight Evapre.

d. Sika Corporation, Inc.; SikaFilm.

e. Equal product in accordance with Division 1 requirements for product substitutions.

2. VOC Content: Complies with requirements specified in "CALGreen Requirements" Article.

E. Clear, Waterborne, Membrane-Forming Curing and Sealing Compound: Nondissipating; ASTM C309, Type 1, Class B; ASTM C1315, Type 1, Class A (nonyellowing).

1. Products: Subject to compliance with requirements, provide one of the following:

a. ChemMasters; Polyseal WB.

b. Euclid Chemical Company; Super Diamond Clear VOX.

c. Meadows, W.R., Inc.; Vocomp-25.

d. Equal product in accordance with Division 1 requirements for product substitutions.

2. VOC Content: Complies with requirements specified in "CALGreen Requirements" Article.

F. Sealer for Decorative Concrete: Clear sealer as recommended in writing by manufacturer of decorative concrete system.

1. VOC Content: Complies with requirements specified in "CALGreen Requirements" Article.

2.13 ACCESSORY MATERIALS

A. Herbicide: Commercial chemical for weed control, registered by the EPA, and not classified as "restricted use" for locations and conditions of application. Provide in granular, liquid, or wettable powder form.

B. Expansion- and Isolation-Joint-Filler Strips: ASTM D1751, asphalt-saturated cellulosic fiber, in preformed strips.

C. Slip-Resistive Aggregate Finish: Factory-graded, packaged, rustproof, nonglazing, abrasive aggregate of fused aluminum-oxide granules or crushed emery aggregate containing not less than 50 percent aluminum oxide and not less than 20 percent ferric oxide; unaffected by freezing, moisture, and cleaning materials.

D. Bonding Agent: ASTM C1059, Type II, non-redispersable, acrylic emulsion or styrene butadiene.

E. Epoxy Bonding Adhesive: ASTM C881, two-component epoxy resin capable of humid curing and bonding to damp surfaces; of class suitable for application temperature, of grade complying with requirements; Types I and II, non-load bearing, for bonding hardened or freshly mixed concrete to hardened concrete.

1. Products: Subject to compliance with requirements, provide one of the following:
    a. BASF Construction Chemicals, LLC; MaserEmaco ADH 1420.
    b. Dayton Superior Corporation; Sure Bond J58.
    c. Meadows, W.R., Inc.; Rezi-Weld 1000.
    d. Equal product in accordance with Division 1 requirements for product substitutions.

F. Chemical Surface Retarder: Water-soluble, liquid-set retarder with color dye, for horizontal concrete surface application, capable of temporarily delaying final hardening of concrete to a depth of 1/8 to 1/4 inch.

1. Products: Subject to compliance with requirements, provide one of the following
    a. Dayton Superior Corporation; Top-Cast.
    b. Euclid Chemical Company; Concrete Surface Retarder Formula S.
    c. Meadows, W.R., Inc.; TOP-STOP Concrete Surface Retarder.
    d. Sika Corporation; Rugasol-S.
    e. Equal product in accordance with Division 1 requirements for product substitutions.

G. Rock Salt: Sodium chloride crystals, kiln dried, coarse gradation with 100 percent passing 3/8-inch sieve and 85 percent retained on a No. 8 sieve.

H. Sealant: Joint sealant designed for use in horizontal pedestrian traffic bearing joints in exterior concrete construction.

1. Comply with ASTM C920 as follows:

a. Grade: NS or P (suitable for sloping surfaces up to 10 percent).
b. Use Related to Exposure: T (traffic).
c. Uses Related to Joint Substrates: M

2. Products: Subject to compliance with requirements, provide one of the following:
a. Pecora Corporation; DynaTred.
b. BASF Construction Chemicals, LLC; MasterSeal SL 2.
c. Tremco, Inc.; THC-901.
d. Equal product in accordance with Division 1 requirements for product substitutions.

3. Color*[s]*: Match color of adjacent paving, unless indicated otherwise.

[or]

4. Color*[s]*: As selected by Architect from manufacturer's full range. *[or insert manufacturer's color #('s) or designation(s) to suit project]*

[or]

5. Color*[s]*:
a. TS-1: *[Tremco THC-901, "Gray Stone."]*
b. TS-2: *[Tremco THC-901, "Sandalwood Beige 112."]*

2.14 FABRICATING REINFORCEMENT

A. Fabricate steel reinforcement according to CRSI's "Manual of Standard Practice."

2.15 CONCRETE MIXTURES

A. Prepare design mixtures for each type and strength of concrete, proportioned on the basis of laboratory trial mixture or field test data, or both, in accordance with ACI 301.
1. Use a qualified independent testing agency for preparing and reporting proposed concrete mixture designs, based on laboratory trial mixtures.
2. For decorative concrete treatments, obtain each color, type, and variety of concrete mixture from a single manufacturer with resources to provide concrete of consistent quality in appearance and physical properties.
3. When automatic machine placement is used, determine design mixtures and obtain laboratory test results that comply with or exceed requirements.

B. Proportion mixtures to provide normal-weight concrete with the following properties:
1. Compressive Strength (28 days): 3,000 psi.
2. Maximum Water-Cementitious Materials Ratio at Point of Placement: 0.55.
3. Slump Limit: 4 inches, plus or minus 1 inch.

C. Add air-entraining admixture at manufacturer's prescribed rate to result in normal-weight concrete at point of placement having an air content as follows:
1. Air Content: 2 percent plus or minus 1 percent.

D. Limit water-soluble, chloride-ion content in hardened concrete to 0.30 percent by weight of cement, except as noted below:

1. Where exposed to external sources of chlorides, including deicing chemicals, salts, saltwater or saltwater spray, and other external sources of chlorides, limit water-soluble, chloride-ion content to 0.15 percent.

E. Chemical Admixtures: use admixtures according to manufacturer's written instructions.

1. Use admixtures as required for placement and workability.

2. Use water-reducing and retarding admixture when required by high temperatures, low humidity, or other adverse placement conditions.

F. Synthetic Fiber: Uniformly disperse in concrete mix at manufacturer's recommended rate, but not less than 1.0 lb/cu yd.

G. Carbon Black: Where pouring concrete adjacent to existing concrete, add carbon black to concrete mixture in amount as required to match tint of existing concrete.

1. Obtain Architect's approval of mockup panel with tint to match existing concrete, as specified in Quality Assurance Article.

H. Color Pigment: Where indicated, add color pigment to concrete mixture according to manufacturer's written instructions and to result in hardened concrete color consistent with approved mockup.

2.16 CONCRETE MIXING

A. Ready-Mixed Concrete: Measure, batch, and mix concrete materials and concrete according to ASTM C94 *[and ASTM C1116]*. Furnish batch certificates for each batch discharged and used in the Work.

1. When air temperature is between 85 deg F and 90 deg F, reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when air temperature is above 90 deg F, reduce mixing and delivery time to 60 minutes.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine exposed subgrade surfaces for compliance with requirements for dimensional, grading, and elevation tolerances.

1. Refer to Section 31 20 00 "Earthwork" for preparation of subgrade.

B. Proceed with concrete placement only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. General: Immediately before placing base course and concrete materials, remove loose and deleterious material from substrate surfaces. Ensure that prepared subgrade is ready to receive base course and paving, and is free of mud, frost, snow, or ice.

B. Herbicide Treatment: Apply herbicide according to manufacturer's recommended rates and written application instructions. Apply to dry prepared subgrade or surface of base course.

C. Protect adjacent construction from discolorations and spillage during application of color hardeners, release agents, stains, curing compounds, and sealers.

3.3 PLACEMENT OF BASE COURSE

A. Place and compact aggregate base course to thicknesses required for each section. Comply with requirements of Caltrans Standard Specification Section 26.

1. Placement Layers:
   a. Place base course 6 inches or less in compacted thickness in a single layer.
   b. Place base course that exceeds 6 inches in compacted thickness in layers of equal thickness, with no compacted layer more than 6 inches thick or less than 3 inches thick.
2. Shape base course to required elevations and grades.
3. Compact aggregate base course at optimum moisture content to 95 percent relative compaction according to ASTM D1557.
4. Proof-roll prepared base course surface to check for unstable areas and verify need for additional compaction. Do not begin paving work until such conditions have been corrected are ready to receive paving.

B. Remove loose material from compacted base course surface immediately before placing concrete.

3.4 EDGE FORMS AND SCREED CONSTRUCTION – ON GRADE CONSTRUCTION

A. Set edge forms, bulkheads, and intermediate screed strips for slabs to achieve required elevations and slopes in finished concrete surfaces.

1. Provide and secure units to support screed strips.
2. Use strike-off templates or compacting-type screeds.

B. Check completed formwork and screeds for grade and alignment to following tolerances:

1. Top of Forms: Not more than 1/8 inch in 10 feet.
2. Vertical Face on Longitudinal Axis: Not more than 1/4 inch in 10 feet.

C. Clean forms after each use and coat with form release agent as required to ensure separation from concrete without damage.

3.5 FORMWORK CONSTRUCTION AT FORMED CONCRETE SURFACES

A. Construct, erect, brace, and maintain formwork according to ACI 301.

B. Construct formwork so concrete members and structures are of size, shape, alignment, elevation, and position indicated, straight and true to line and level within tolerance limits of ACI 117 and to comply with requirements for surface finishes for as-cast finishes as specified in Section 03 30 00 “Cast-In-Place Concrete.”

C. Limit concrete surface irregularities as follows:

1. Concrete Exposed to View: ACI 117, Class A, 1/8 inch.
2. Concealed Concrete: ACI 117, Class D, 1 inch.

D. Construct forms tight enough to prevent loss of concrete mortar.
   1. Minimize joints.
   2. At exposed concrete, symmetrically align joints in forms.

E. Construct removeable forms for easy removal without hammering or prying against concrete surfaces.
   1. Provide crush or wrecking plates where stripping may damage cast-concrete surfaces.
   2. Provide top forms for inclined surfaces steeper than 1.5 horizontal to 1 vertical.
   3. Install keyways, reglets, recesses, and other accessories, for easy removal.

F. Do not use rust-stained, steel, form-facing material.

G. Set edge forms, bulkheads, and intermediate screed strips to achieve required elevations and slopes in finished concrete surfaces.
   1. Provide and secure units to support screed strips.
   2. Use strike-off templates or compacting-type screeds.

H. Chamfer exterior corners and edges of permanently exposed concrete, unless indicated otherwise.

I. At construction joints, overlap forms onto previously placed concrete not less than 12 inches.

J. Form openings, chases, offsets, sinkages, keyways, reglets, blocking, screeds, and bulkheads required in the Work.
   1. Determine sizes and locations from trades providing such items.
   2. Obtain written approval of Architect prior to forming openings not indicated on Drawings.

K. Construction and Movement Joints:
   1. Construct joints true to line with faces perpendicular to surface plane of concrete.
   2. Install so strength and appearance of concrete are not impaired, at locations indicated or as approved by Architect.
   3. Place joints perpendicular to main reinforcement.
   4. Space vertical joints in walls as indicated.

L. Provide temporary ports or openings in formwork where required to facilitate cleaning and inspection.
   1. Locate ports and openings in bottom of vertical forms, in inconspicuous location, to allow flushing water to drain.
   2. Close temporary ports and openings with tight-fitting panels, flush with inside face of form, and neatly fitted, so joints will not be apparent in exposed concrete surfaces.

M. Clean forms and adjacent surfaces to receive concrete. Remove chips, wood, sawdust, dirt, and other debris just before placing concrete.

N. Retighten forms and bracing before placing concrete, as required, to prevent mortar leaks and maintain proper alignment.

O. Coat contact surfaces of forms with form-release agent, according to manufacturer's written instructions, before placing reinforcement.

P. At surfaces to receive seeded exposed aggregate finish, coat contact surfaces of forms with surface retarder, according to manufacturer's written instructions, before placing reinforcement.

Q. Place form liners accurately to provide finished surface texture indicated, and as required to achieve the appearance of an uninterrupted pattern across the entire area of concrete receiving form liner finish. Provide solid backing and attach securely to prevent deflection and maintain stability of liners during concreting. Prevent form liners from sagging and stretching in hot weather. Seal joints of form liners and form liner accessories to prevent mortar leaks.

1. Clean form liner panel prior to each use. Do not use damaged form liners.
2. Coat form liner with form-release agent immediately prior to concrete placement, to avoid accumulation of foreign material on surface of form liner.
    a. Protect reinforcing steel from form-release agent.

R. Coat contact surfaces of forms with form-release agent, according to manufacturer's written instructions, before placing reinforcement.

3.6 STEEL REINFORCEMENT INSTALLATION

A. Comply with CRSI's "Manual of Standard Practice" for fabricating, placing, and supporting reinforcement.

B. Accurately position, support, and secure reinforcement against displacement.

1. Locate and support reinforcement with bar supports to maintain minimum concrete cover.
2. Do not tack weld crossing reinforcing bars.

C. Preserve clearance between bars of not less than 1 inch, not less than one bar diameter, or not less than 1-1/3 times size of largest aggregate, whichever is greater.

D. Provide concrete coverage in accordance with ACI 301.

E. Set wire ties with ends directed into concrete, not toward exposed concrete surfaces.

F. Splices: Lap splices as indicated on Drawings.

1. Bars indicated to be continuous, and all vertical bars shall be lapped not less than 36 bar diameters at splices, or 24 inches, whichever is greater.
2. Stagger splices in accordance with ACI 301.
3. Mechanical Splice Couplers: Install in accordance with manufacturer's written instructions, where indicated on Drawings.
4. Weld reinforcing bars in accordance with AWS D1.4, where indicated on Drawings.

G. Install welded-wire reinforcement in longest practicable lengths.

1. Support welded-wire reinforcement in accordance with CRSI "Manual of Standard Practice."
    a. For reinforcement less than W4.0 or D4.0, continuous support spacing shall not exceed 12 inches.

2. Lap edges and ends of adjoining sheets at least one wire spacing plus 2 inches for plain wire and 8 inches for deformed wire.
3. Offset laps of adjoining sheet widths to prevent continuous laps in either direction.
4. Lace overlaps with wire.

3.7 JOINTS

A. General: Form construction, expansion, control, and isolation joints, and tool edges true to line with faces perpendicular to surface plane of concrete. Construct transverse joints at right angles to centerline, unless otherwise indicated.

1. When joining existing paving, place transverse joints to align with previously placed joints, unless otherwise indicated.

B. Construction Joints: Set construction joints at side and end terminations of paving and at locations where paving operations are stopped for more than 1/2 hour unless paving terminates at isolation joints.

1. Continue steel reinforcement across construction joints, unless otherwise indicated. Do not continue reinforcement through sides of paving strips, unless otherwise indicated.
2. Provide tie bars at sides of paving strips where indicated.

C. Expansion Joints at Paving: Form expansion joints, sectioning concrete paving into areas as indicated. If not indicated, provide expansion joints at a maximum spacing of 20 feet.

1. Install doweled joint assemblies where indicated, parallel to slab, and perpendicular to joint, using one of the following:
   a. Install dowel sleeve and dowel at slab mid-depth in accordance with manufacturer's written instructions.
   b. Install dowel bars and support assemblies. Lubricate or coat with asphalt one-half of dowel length to prevent concrete bonding to one side of joint.
2. Extend fiber expansion joint filler strip full width and depth of joint, with top edge of filler strip 1/2 inch below finished concrete surface.
3. Install joint-filler strips in one-piece lengths, or where joint is longer than maximum length of joint filler strip, lengths as long as practicable. Where more than one length is required, lace or clip sections together.
4. Do not extend reinforcing across expansion joints.
5. During concrete placement, protect top edge of joint filler with metal, plastic, or other temporary preformed cap. Remove protective cap after concrete has been placed on both sides of joint.

D. Control (Contraction) Joints in Paving: Form weakened-plane control joints, sectioning concrete paving into areas as indicated. If not indicated, provide control joints at a maximum spacing of 6 feet. Construct control joints to a depth equal to at least one-fourth of the concrete thickness, as follows:

1. Grooved Joints: Form control joints after initial floating by grooving and finishing each edge of joint with grooving tool to a 1/4 inch radius. Repeat grooving of control joints after applying surface finishes. Eliminate grooving-tool marks on concrete surfaces.

2. Sawed Joints: Form control joints with power saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut 1/8-inch-wide joints into concrete when cutting action will not tear, abrade, or otherwise damage surface and before developing random contraction cracks.
    a. Where sawed joint terminates at adjoining vertical surface, fully extend sawed joint to edge of paving and vertical surface.

E. Control Joints at Cast-In-Place Vertical Surfaces: Form weakened-plane control joints true to line with faces perpendicular to surface plane of cast-in-place concrete so strength and appearance of concrete are not impaired, at locations indicated or as approved by Architect.

F. Isolation Joints: Form isolation joints of preformed fiber joint filler strips abutting curbs, catch basins, manholes, inlets, structures, walks, or other fixed objects, and where indicated.
1. Extend fiber expansion joint filler strip full width and depth of joint, with top edge of filler strip 1/2 inch below finished concrete surface.
2. Furnish joint filler in one-piece lengths for full width being placed wherever possible. Where more than one length is required, lace or clip joint filler sections together.
3. During concrete placement, protect top edge of joint filler with metal, plastic, or other temporary preformed cap. Remove protective cap after concrete has been placed on both sides of joint.

3.8 CONCRETE PLACEMENT

A. Inspection: Before placing site concrete, inspect and complete formwork installation, steel reinforcement, and items to be embedded or cast in. Notify other trades to permit installation of their work.

B. Base Course Preparation:
1. Remove snow, ice, or frost from base course surface and steel reinforcement before placing concrete. Do not place concrete on frozen surfaces.
2. Moisten base course to provide a uniform dampened condition at time concrete is placed. Do not place concrete around manholes or other structures until they are at required finish elevation and alignment.

C. Comply with ACI 301 requirements for measuring, mixing, transporting, and placing concrete.

D. Do not add water to concrete during delivery or at Project site. Do not add water to fresh concrete after testing.

E. Use a bonding agent at locations where fresh concrete is placed against hardened or partially hardened concrete surfaces.

F. Concrete in Formwork: Deposit concrete continuously in one layer or in horizontal layers of such thickness not to exceed formwork design pressure, and such that no new concrete is placed on concrete that has hardened enough to cause seams or planes of weakness.
1. If a section cannot be placed continuously, provide construction joints as indicated.
2. Deposit concrete to avoid segregation.
3. Deposit concrete in horizontal layers of depth not to exceed formwork design pressures and in a manner to avoid inclined construction joints.

4. Consolidate placed concrete with mechanical vibrating equipment in accordance with ACI 301.
   a. Do not use vibrators to transport concrete inside forms.
   b. Insert and withdraw vibrators vertically at uniformly spaced locations to rapidly penetrate placed layer and at least 6 inches into preceding layer.
   c. Do not insert vibrators into lower layers of concrete that have begun to lose plasticity.
   d. At each insertion, limit duration of vibration to time necessary to consolidate concrete, and complete embedment of reinforcement and other embedded items without causing mixture constituents to segregate.
   e. Consolidate with care to prevent dislocating reinforcement, dowels, and joint devices.

G. Deposit and consolidate concrete for paving in a continuous operation, within limits of construction joints, until placement of a panel or section is complete. Do not push or drag concrete into place or use vibrators to move concrete into place.
   1. Do not place concrete paving slabs in a checkerboard manner.
   2. Consolidate concrete during placement operations, so concrete is thoroughly worked around reinforcement and other embedded items and into corners.
   3. Maintain reinforcement in position on chairs during concrete placement.
   4. Screed slab surfaces with a straightedge and strike off to correct elevations.
      a. Where concrete is being poured adjacent to existing concrete, strike off flush with existing concrete.
   5. Level concrete, cut high areas, and fill low areas.
   6. Slope surfaces uniformly to provide drainage patterns indicated.
   7. Commence initial floating using bull floats or darbies to form uniform and open-textured surface plane before excess moisture or bleed water appears on the surface. Do not further disturb concrete surfaces before beginning finishing operations or spreading surface treatments.
      a. At concrete to receive seeded exposed aggregate finish, finishing of surface elevation to allow for volume growth due to addition of the seeding aggregate, to achieve final elevations.
   8. When adjoining pavement lanes are placed in separate pours, do not operate equipment on concrete until pavement has attained 85 percent of its 28-day compressive strength.

3.9 INSTALLATION OF EMBEDDED ITEMS

A. Tactile Warning Surfaces: Form blockouts in concrete for installation of tactile warning surface panels specified in Section 32 17 26 “Tactile Warning Surfaces.” Screed surface of concrete where panels are to be installed to elevation, so that edges of installed panels will be flush with surrounding concrete paving. Refer to Section 32 17 26 “Tactile Warning Surfaces” for installation of tactile warning surface panels.

B. Skateboard Deterrents: Install skateboard deterrents in accordance with manufacturer’s written instructions, at locations indicated and spacings indicated.

C. Safety Tread Nosings at Steps: Install cast-in safety tread nosings at front edge of steps in accordance with manufacturer's written instructions. Safety tread nosings shall terminate 2 inches from ends of steps, and finish flush with top of adjacent concrete tread surface.

3.10 CONCRETE PAVING FINISH

A. General: Do not add water to concrete surfaces during finishing operations.

B. Float Finish: Begin the second floating operation when bleed-water sheen has disappeared and concrete surface has stiffened sufficiently to permit operations. Float surface with power-driven floats, or by hand floating if area is small or inaccessible to power units. Finish surfaces to true planes. Cut down high spots and fill low spots. Refloat surface immediately to uniform granular texture.

1. Surfaces With a Slope of 6 Percent or Less: Medium textured broom finish.
    a. Draw a soft-bristle broom across float-finished concrete surface perpendicular to line of traffic to provide a uniform, fine-line texture.
2. Surfaces With a Slope of Greater Than 6 Percent: Coarse textured broom finish.
    a. Draw a stiff bristle broom across float-finished concrete surface perpendicular to line of traffic to provide a uniform, striated texture, 1/16-inch deep.
3. Areas Being Patched Into Existing Concrete: Match finish texture of existing concrete.

C. Final Tooling: Tool edges of paving, gutters, curbs, joints, and other exposed edges formed in fresh concrete with an edging tool to a 1/4-inch radius. Repeat tooling of edges and joints after applying surface finishes. Eliminate tool marks on concrete surfaces.

D. Safety Grooves:

1. Form safety grooves at concrete steps and curb ramps as indicated, using a jointer while concrete is still fresh.
2. Cut uniform grooves to dimensions and spacing as indicated.
3. Strike grooves before and after brooming.

E. Apply sealant over joint fillers. Do not apply sealant before concrete staining, sandblasting, and sealing operations are complete.

1. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant, including dust, grease, water, surface dirt, and frost. Clean out joints immediately before installing joint sealants to comply with joint sealant manufacturer's written instructions.
    a. Remove laitance and form release agents from concrete.
2. Comply with joint sealant manufacturer's written installation instructions for products and applications indicated, unless more stringent requirements apply.
    a. Place sealants so they directly contact and fully wet joint substrates.
    b. Completely fill recesses in each joint configuration.
    c. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.
3. Tooling of Nonsag Sealants: Immediately after sealant application and before skinning or curing begins, tool sealants according to requirements specified below to form smooth,

uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion of sealant with sides of joint.

a. Remove excess sealant from surfaces adjacent to joints.

b. Use tooling agents that are approved in writing by sealant manufacturer and that do not discolor sealants or adjacent surfaces.

c. Provide concave joint configuration per Figure 5A in ASTM C1193, unless otherwise indicated.

3.11 CONCRETE CURBS AND GUTTERS

A. Construct concrete curbs, gutters, and sidewalks in conformance with requirements of Caltrans Standard Specifications Section 73.

B. Steel trowel surfaces to a hard, dense finish with corners, intersections, and terminations slightly rounded.

C. Provide expansion joints at 20 feet on center maximum.

1. Fill expansion joint with joint filler material, shaped to match cross-section of curb, with outer edge of filler material 1/2 inch below finished concrete surface.

2. Where joints occur in adjacent paving, joints in curb to align with joints in paving.

3.12 PIGMENTED MINERAL DRY-SHAKE HARDENER

A. Pigmented Mineral Dry-Shake Hardener Finish: After initial floating, apply dry-shake materials to paving surface according to manufacturer's written instructions and as follows:

1. Uniformly spread dry-shake hardener at a rate recommended in writing by manufacturer, and as required to match appearance of approved mockup panel.

2. Uniformly distribute approximately two-thirds of dry-shake hardener over concrete surface with mechanical spreader, allow to absorb moisture, and embed by power floating. Follow power floating with a second application of pigmented mineral dry-shake hardener, uniformly distributing remainder of material at right angles to first application to ensure uniform color, and embed hardener by final power floating.

B. After final power floating, apply finish as specified in "Concrete Paving Finish" Article.

C. At concrete paving to receive stamped finish, apply finish pattern as specified in "Concrete Stamping" Article.

3.13 DECORATIVE CONCRETE STAMPING

A. Mat Stamping: After floating and while concrete is plastic, apply mat-stamped finish in accordance with manufacturer's written instructions.

1. Pigmented Powder Release Agent: Uniformly distribute onto still-plastic concrete at rate recommended in writing by manufacturer.

[or]

2. Liquid Release Agent: Apply liquid release agent to the concrete surface and stamp mat. Uniformly mist surface of concrete at rate recommended in writing by manufacturer.

3. After application of release agent, accurately align and place stamp mats in sequence, as required to achieve the appearance of an uninterrupted pattern across the entire area of stamped concrete.
4. Uniformly load mats and press into concrete to produce required imprint pattern and depth of imprint on concrete surface. Gently remove stamp mats. hand stamp edges and surfaces unable to be imprinted by stamp mats.
5. Remove residual release agent according to manufacturer's written instructions, but not fewer than three days after stamping concrete. High-pressure wash surface and joint patterns, taking care not to damage stamped concrete. Control, collect, and legally dispose of runoff.

3.14 REMOVING AND REUSING FORMS

A. Remove forms without damage to concrete.

B. Clean and repair surfaces of forms to be reused in the Work.
1. Split, frayed, delaminated, or otherwise damaged form-facing material are unacceptable for exposed surfaces.
2. Apply new form-release agent.

C. When forms are reused, clean surfaces, remove fins and laitance, and tighten to close joints.
1. Align and secure joints to avoid offsets.
2. Do not use patched forms for exposed concrete surfaces.

3.15 FORMED SURFACE FINISHES

A. As-Cast Surface Finishes:
1. ACI 301 Surface Finish SF-1.0: As-cast concrete texture imparted by form-facing material.
a. Patch voids larger than 1-1/2 inches wide or 1/2 inch deep.
b. Remove projections larger than 1 inch.
c. Tie holes do not require patching.
d. Surface Tolerance: ACI 117 Class D.
e. Locations: Concrete surfaces not exposed to view.
2. ACI 301 Surface Finish SF-3.0: As-cast concrete texture imparted by form-facing material, arranged in an orderly and symmetrical manner with a minimum of seams.
a. Patch voids larger than 3/4 inch wide or 1/2 inch deep.
b. Remove projections larger than 1/8 inch.
c. Patch tie holes.
d. Surface Tolerance: ACI 117 Class A.
e. Location: Concrete surfaces *[exposed to view] [or] [to receive rubbed finish] [to receive abrasive-blast finish]*.

B. Rubbed Finish: Apply the following to as-cast concrete surface finishes where indicated:
1. Smooth-Rubbed Finish:

a. Perform no later than one day after form removal.

b. Moisten concrete surfaces and rub with carborundum brick or another abrasive until producing a uniform color and texture.

c. If sufficient cement paste cannot be drawn from the concrete by the rubbing process, use a grout made from the same cementitious materials used in the in-place concrete.

d. Maintain required patterns or variances as indicated on Drawings or to match field sample panels or mockups.

[or]

2. Grout-Cleaned Rubbed Finish:

a. Clean concrete surfaces after contiguous surfaces are completed and accessible.

b. Do not clean concrete surfaces as Work progresses.

c. Mix 1 part Portland cement to 1-1/2 parts find sand, complying with ASTM C144 or ASTM C404, by volume, with sufficient water to produce a mixture with the consistency of thick paint. Add white Portland cement in amounts determined by trial patches, so color of dry grout matches adjacent surfaces.

d. Wet concrete surfaces.

e. Scrub grout into voids and remove excess grout. When grout whitens, rub surface with clean burlap, and keep surface damp by fog spray for at least 36 hours.

f. Maintain required patterns or variances as indicated on Drawings or to match field sample panels or mockups.

C. Abrasive-Blast Finish: Apply the following to as-cast surface finishes where indicated:

1. Perform abrasive blasting after concrete has been allowed a minimum of 14 days to cure, and compressive strength of concrete exceeds 2000 psi.

2. Mask off adjacent areas not to receive abrasive-blast finish, as required to protect from overspray of abrasive blasting

3. Coordinate with formwork removal to ensure that surfaces to be abrasive blasted are treated at the same age.

4. Maintain required patterns or variances in depths of blast to match field sample panels and mockups.

5. Surface Continuity: Perform abrasive-blast finishing as continuous operation, maintaining continuity of finish on each surface or area of Work.

6. Abrasive Blasting:

a. Abrasive-blast corners and edges of patterns carefully, using backup boards to maintain uniform corner and edge lines.

b. Determine type of nozzle pressure and blasting techniques required to match field sample.

c. Depth of Cut: Use an abrasive grit of proper type and gradation to expose aggregate and surrounding matrix surfaces to match field sample, as follows:

i) Brush Texture: Remove cement matrix to dull surface sheen and expose face of fine aggregate, with no significant reveal.

[or]

ii) Light Texture: Expose fine aggregate with occasional exposure of coarse aggregate and uniform color, with maximum reveal of 1/16 inch.

[or]

iii) Light Medium Texture: Expose fine aggregate with occasional exposure of coarse aggregate and uniform color, with maximum reveal of 1/8 inch.

iv)

[or]

v) Medium Texture: Generally, expose coarse aggregate with slight reveal and with a maximum reveal of 1/4 inch.

[or]

vi) Heavy Texture: Expose and reveal coarse aggregate to a maximum projection of one-third its diameter, with reveal range of 1/4 to 1/2 inch.

D. Related Unformed Surfaces:

1. At tops of walls, horizontal offsets, and similar unformed surfaces adjacent to formed surfaces, strike off smooth and finish with a texture matching adjacent formed surfaces.
2. Continue final surface treatment of formed surfaces uniformly across adjacent unformed surfaces, unless otherwise indicated.

E. Form Liner Finish: Produce a textured surface free of pockets, streaks, and honeycombs, and of uniform appearance, color, and texture.

3.16 SPECIAL CONCRETE PAVING FINISHES

1. Curing and Sealing Compound: Apply nonyellowing curing and sealing compound uniformly to floors and slabs indicated in continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Repeat process 24 hours later and apply a second coat. Maintain continuity of coating and repair damage during curing period.

B. Slip-Resistive Aggregate Finish: Before final floating, spread slip-resistive aggregate on paving surface according to manufacturer's written instructions and as follows:

1. Uniformly spread at a rate of 25 lb/100 sq ft, dampened slip-resistive aggregate over pavement surface in two applications. Tamp aggregate flush with surface using a steel trowel, but do not force below surface.
2. Uniformly distribute approximately two-thirds of slip-resistive aggregate over paving surface with mechanical spreader, allow to absorb moisture, and embed by power floating. Follow power floating with second slip-resistive aggregate application, uniformly distributing remainder of material at right angles to first application to ensure uniform coverage, and embed by power floating.
3. Cure concrete with curing compound recommended by slip-resistive aggregate manufacturer. Apply curing compound immediately after final finishing.
4. After curing, lightly work surface with a steel-wire brush or abrasive stone and water to expose nonslip aggregate.

C. Rock-Salt Finish: After initial floating, uniformly spread rock salt over paving surface at a rate of 5 lb/100 sq ft.

1. Embed rock salt into plastic concrete with roller or magnesium float.
2. Cover paving surface with 1 mil thick polyethylene sheet and remove sheet when concrete has hardened and seven-day curing period has elapsed.
3. After seven-day curing period, saturate concrete with water and broom-sweep surface to dissolve remaining rock salt, thereby leaving pits and holes.

3.17 CONCRETE PROTECTION AND CURING

A. Protect freshly placed concrete from premature drying and excessive cold or hot temperatures.

1. Comply with ACI 301 and ACI 306.1 for cold-weather protection during curing.
2. Comply with ACI 301 and ACI 305.1 for hot-weather protection during curing.
3. Maintain moisture loss no more than 0.2 lb/sq ft x height, calculated in accordance with ACI 305.1, before and during finishing operations.
    a. If needed to limit moisture loss, apply evaporation retarder in accordance with manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete, but before float finishing.

B. Curing Formed Surfaces: Comply with ACI 308.1 as follows:

1. Cure formed concrete surfaces.
2. Cure concrete containing color pigments in accordance with color pigment manufacturer's written instructions.
3. If forms remain during curing period, moist cure after loosening forms.
4. If removing forms before end of curing period, continue curing for remainder of curing period, by one of the following methods:
    a. Non-Decorative Concrete:
        i) Continuous Fogging: Maintain standing water on concrete surface until final setting of concrete.
        ii) Continuous Sprinkling: Maintain concrete surface continuously wet.
        iii) Absorptive Cover: Pre-dampen absorptive material before application; apply additional water to absorptive material to maintain concrete surface continuously wet.
        iv) Water-Retention Sheeting Materials: Cover exposed concrete surfaces with sheeting material, taping, or lapping seams.
    b. Decorative Concrete: Use curing compound or other method in accordance with written recommendations of color pigment manufacturer.

C. Curing Unformed Surfaces: Comply with ACI 308.1 as follows:

1. Begin curing immediately after finishing concrete.
    a. Non-Decorative Concrete: Cure by one of the following methods:

i) Absorptive Cover: As soon as concrete has sufficient set to permit application without marring concrete surface, install prewetted absorptive cover over entire area of floor.

a) Lap edges and ends of absorptive cover not less than 12 inches.

b) Maintain absorptive cover water saturated, and in place, for duration of curing period, but not less than seven days.

ii) Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width, with sides and ends lapped at least 12 inches, and sealed by waterproof tape or adhesive.

a) Immediately repair any leaks or tears during curing period, using cover material and waterproof tape.

b) Cure for not less than seven days.

iii) Ponding or Continuous Sprinkling of Water: Maintain concrete surfaces continuously wet for not less than seven days, utilizing one, or a combination of, the following:

a) Water.

b) Continuous water-fog spray.

b. Decorative Concrete: Use curing compound or other method in accordance with written recommendations of color pigment, dry-shake hardener, or other decorative concrete system manufacturer.

3.18 PAVEMENT TOLERANCES

A. Comply with tolerances of ACI 117 and as follows:

1. Elevation: 1/4 inch.
2. Thickness: Plus 3/8 inch, minus 1/4 inch.
3. Surface: Gap below 10-foot long, unleveled straightedge not to exceed 1/4 inch.
4. Alignment of Tie-Bar End Relative to Line Perpendicular to Paving Edge: 1/2 inch per 12 inches of tie-bar.
5. Lateral Alignment and Spacing of Dowels: 1 inch.
6. Vertical Alignment of Dowels: 1/4 inch.
7. Alignment of Dowel-Bar End Relative to Line Perpendicular to Paving Edge: 1/4 inch per 12 inches of dowel.
8. Joint Spacing: 3 inches.
9. Control Joint Depth: Plus 1/4 inch, no minus.
10. Joint Width: Plus 1/8 inch, no minus.

3.19 FINISH TREATMENTS OF CURED CONCRETE

A. Abrasive-Blast Finish: Apply abrasive-blast finish at locations indicated. Abrasive-blasting to be applied uniformly across entire area indicated to receive each type of abrasive-blast finish. For each type of texture, match appearance of approved mockup panels. Apply the following to as-cast surface finishes where indicated:

1. Perform abrasive blasting after concrete has been allowed a minimum of 14 days to cure, and compressive strength of concrete exceeds 2000 psi.
2. Mask off adjacent areas not to receive abrasive-blast finish, as required to protect from overspray of abrasive blasting
3. Maintain required patterns or variances in depths of blast to match field sample panels and mockups.
4. Surface Continuity: Perform abrasive-blast finishing as continuous operation, maintaining continuity of finish on each surface or area of Work.
5. Abrasive Blasting:
    a. Maintain control of abrasive grit and concrete dust in area of abrasive blasting. Clean up and remove all abrasive grit, concrete dust, and debris at end of each day of abrasive blasting operations.
    b. Abrasive-blast corners and edges of patterns carefully, using backup boards to maintain uniform corner and edge lines.
    c. Determine type of nozzle pressure and blasting techniques required to match field sample or mockup.
    d. Depth of Cut: Use an abrasive grit of proper type and gradation to expose aggregate and surrounding matrix surfaces to match field sample, as follows:
        i) Brush Texture: Remove cement matrix to dull surface sheen and expose face of fine aggregate, with no significant reveal.

        [or]

        ii) Light Texture: Expose fine aggregate with occasional exposure of coarse aggregate and uniform color, with maximum reveal of 1/16 inch.

        [or]

        iii) Light Medium Texture: Expose fine aggregate with occasional exposure of coarse aggregate and uniform color, with maximum reveal of 1/8 inch.

        [or]

        iv) Medium Texture: Generally, expose coarse aggregate with slight reveal and with a maximum reveal of 1/4 inch.
    e. Sealing Compound: Apply nonyellowing sealing compound uniformly to slabs in continuous operation by power spray or roller in accordance with manufacturer's written instructions

B. Staining: Apply concrete stains in conformance with manufacturer's written instructions, and to match appearance of approved mockup panel.
    1. Allow concrete to cure a minimum of 14 days prior to staining.
    2. Prepare surfaces according to manufacturer's written instructions and as follows:
        a. Clean concrete thoroughly by scraping, applying solvents or stripping agents, sweeping and pressure washing, or scrubbing with a rotary floor machine and detergents recommended by stain manufacturer. Rinse until water is clear and allow surface to dry.
            i) Do not use acidic solutions to clean surfaces.

b. Test surfaces with droplets of water. If water beads and does not penetrate surface, or penetrates only in some areas, profile surfaces by method recommended by stain manufacturer. Retest and continue profiling surface until water droplets immediately darken and uniformly penetrate concrete surfaces.

3. Allow paving surface to dry before applying stain. Verify readiness of paving to receive stain according to ASTM D4263 by tightly taping 18-by-18-inch, 4-mil-thick polyethylene sheet to a representative area of paving surface. Apply stain only if no evidence of moisture has accumulated under sheet after 16 hours.

4. Apply concrete stain in conformance with manufacturer's written instructions, and to match appearance of approved mockup panel. Repeat application of stain as needed obtain color consistent with approved mockup.

5. Rinse until water is clear. Control, collect, and legally dispose of runoff.

6. Sealing Compound: Apply nonyellowing clear sealing compound over stained concrete surfaces in accordance with stain manufacturer's written instructions.

3.20 FIELD QUALITY CONTROL

A. Testing Agency: Owner will engage a qualified independent testing and inspecting agency to perform field tests and inspections and prepare test reports.

1. Notify Owner's testing agency at least 2 working days prior to date when observation and testing services are needed.

B. Inspections:

1. Formwork.
2. Steel reinforcement placement.
3. Steel reinforcement mechanical splice couplers.
4. Steel reinforcement welding.
5. Cast-in anchors.
6. Verification of use of required design mixture.
7. Batch plant inspection.
8. Concrete placement, including conveying and depositing.
9. Curing procedures and maintenance of curing temperature.

C. Concrete Tests: Testing of composite samples of fresh concrete obtained according to ASTM C172 will be performed according to the following requirements:

1. Testing Frequency: Provide at least one composite sample for each 50 cu yds or fraction thereof of each concrete mixture placed each day.

a. When frequency of testing will provide fewer than five compressive-strength tests for each concrete mixture, testing shall be conducted from at least five randomly selected batches or from each batch if fewer than five are used.

2. Slump: ASTM C143.

a. One test at point of placement for each composite sample, but not less than one test for each day's pour of each concrete mixture.

b. Perform additional tests when concrete consistency appears to change.

3. Air Content: ASTM C231, pressure method for normal-weight concrete.
    a. One test for each composite sample, but not less than one test for each day's pour of each concrete mixture.
4. Concrete Temperature: ASTM C1064.
    a. One test hourly when air temperature is 40 deg F and below and when 80 deg F and above, and one test for each composite sample.
5. Compression Test Specimens: ASTM C31.
    a. Cast and laboratory cure cylinder specimens for each composite sample as required by ACI 318.
6. Compressive-Strength Tests: ASTM C39; test in accordance with ACI 318.
    a. Strength of each concrete mixture will be satisfactory if meeting criteria as defined in ACI 318.

D. Concrete Batch Plant Tickets: Submit to Project Inspector, batch delivery tickets for each load of concrete delivered to site. Batch tickets shall include the following information:
1. Design mix number.
2. Signature or initials of concrete plant representative.
3. Time of batching.
4. Weight of cement, aggregates, water and admixtures in each batch with maximum aggregate size.
5. Total volume of concrete in each batch.
6. Design strength.
7. Aggregate size.
8. Air content.
9. Slump at time of batching.
10. Notation indicating equipment was checked for contamination prior to batching.

E. Test results shall be reported in writing to Architect, concrete manufacturer, and Contractor within 48 hours of testing. Reports of compressive-strength tests shall contain Project identification name and number, date of concrete placement, name of concrete testing and inspecting agency, location of concrete batch in Work, design compressive strength at 28 days, concrete mixture proportions and materials, compressive breaking strength, and type of break for both 7- and 28-day tests.

F. Nondestructive Testing: Impact hammer, sonoscope, or other nondestructive device may be permitted by Architect but will not be used as sole basis for approval or rejection of concrete.

G. Additional Tests: Testing and inspecting agency shall make additional tests of concrete when test results indicate that slump, air entrainment, compressive strengths, or other requirements have not been met, as directed by Architect.

H. Remove and replace site concrete that test reports and inspections indicate do not comply with specified requirements.

I. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.

3.21 REPAIRS AND PROTECTION

A. Remove and replace site concrete that is broken, damaged, or defective or that does not comply with requirements in this Section. Remove work in complete sections from joint to joint unless otherwise approved by Architect.

B. Drill test cores, where directed by Architect, when necessary to determine magnitude of cracks or defective areas. Fill drilled core holes in satisfactory paving areas with portland cement concrete bonded to paving with epoxy adhesive. Filled areas to match surrounding concrete in surface treatment and color.

C. Remove base rock and concrete spillage from all planting areas.

D. Clean exposed site concrete surfaces carefully. Brushing and cleaning, if used, to be preceded and followed with a thorough rinsing of clear water. Sandblasting not allowed for cleaning purposes.

E. Detailing of Stamped Concrete: Grind concrete “squeeze” left from tool placement. Color ground areas with slurry of color hardener mixed with water and bonding agent. Remove excess release agent with high-velocity blower.

F. Protect concrete from damage. Exclude traffic from paving for at least 14 days after placement. When construction traffic is permitted, maintain paving as clean as possible by removing surface stains and spillage of materials as they occur.

G. Maintain site concrete free of stains, discoloration, dirt, and other foreign material. Sweep concrete paving not more than 2 days before date scheduled for Substantial Completion inspections.

END OF SECTION 32 13 13

SECTION 32 31 13 - CHAIN LINK FENCING AND GATES

1.1 GENERAL

A. Drawings and general provisions of the Contract, including Bidding and Contract Requirements, General and Supplementary Conditions and Division 1 Specifications, apply to this section.

B. Section Includes:

1. Provide chain link fences and gates as completed units controlled by a single source including necessary erection accessories, fittings, and fastenings.

C. Submittals:

1. Product Data: Submit manufacturer's technical product data and installation instructions for metal fencing, fabric, gates and accessories.

2.1 PRODUCTS

A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products which may be incorporated into the Work include, but are not limited to the following:

1. Allied Tube and Conduit Corp.
2. American Fence Corp.
3. Anchor Fence, Inc.

B. Steel Fencing:

1. Fabric: No. 9 ga. (0.148") finished size steel wires, 2" mesh, with top and bottom selvages knuckled. Furnish one-piece fabric widths for fencing up to 12' high.

C. Framework: Standard weight, galvanized, welded or seamless steel pipe conforming to ASTM A53, with a minimum yield strength of 35,000 p.s.i. Paint to match vinyl coat fabric finish color; prime, etch, galvanized finish and paint, two finish coats minimum.

D. Framing and Accessories:

1. End, Corner and Pull Posts: Minimum sizes and weights as follows:

a. 12'-0" and less, 4.00" OD steel pipe, 9.10 lbs. per lin. ft.
b. Over 6' fabric height, 2.875" OD steel pipe, 5.79 lbs. per lin. ft.

2. Line Posts: Space 8' o.c. maximum, adjusted to meet corner conditions, of following minimum sizes and weights.

a. Up to 6' fabric height, 1.90" OD steel pipe, 2.70 lbs. per lin. ft.
b. 6' to 12' fabric height, 2.375" OD steel pipe, 3.65 lbs. per lin. ft.

3. Gate Posts: Furnish posts for supporting single gate leaf, or one leaf of a double

gate installation, for nominal gate widths as follows:

	Leaf Width	Gate Post	Lbs./lin. ft.
a.	Up to 6'	2.875" OD pipe	5.79
b.	Over 6' to 13'	4.000" OD pipe	9.11

4. Top Rail: Manufacturer's longest lengths, with expansion type couplings, approximately 6" long, for each joint. Provide means for attaching top rail securely to each gate corner, pull and end post.

   a. 1.66" OD pipe, 1.806 lbs. per ft.

5. Gates:

   a. Gates that are part of the accessible route shall meet all the requirements of an accessible door in compliance with CBC Section 11B-404.
   b. The lever of lever actuated latches or locks for accessible gate shall be curved with a return to within ½" of the gate surface to prevent catching on the clothing or persons. California Referenced Standards Code. T-24 Part 12, Section 12-10-202, Item (F)
   c. Swing doors and gate surfaces with 10" of the finish floor or ground shall have a smooth surface on the push side extending the full width of the door or gate. Parts creating horizontal or vertical joints in these surfaces shall be within 1/16" of the same plane as the other and be free of sharp or abrasive edges. Cavities created by added kick plates shall be capped. CBC Section 11B-404.2.10.

6. Swing Gates: Fabricate perimeter frames of minimum 1.90" OD pipe.

7. Gate Hardware: Provide hardware and accessories for each gate, galvanized per ASTM A 153, and in accordance with the following:

   a. Hinges: Size and material to suit gate size, non-lift-off type, offset to permit 180° gate opening. Provide 1-1/2 pair of hinges for each leaf over 6' nominal height.
   b. Panic Hardware: Von Duprin 99 Series with lever hardware matching District Standard.
   c. Latch: Interlocked double forked type or plunger-bar type to permit operation from either side of gate, with padlock eye as integral part of latch.

      1) Plunger bar handle shall be a minimum of 30" in the closed position and a maximum of 44" in the open position.

   d. Keeper: Provide keeper for vehicle gates, which automatically engages gate leaf and holds it in open position until manually released.
   e. Double Gates: Provide gate stops for double gates, consisting of mushroom type flush plate with anchors, set in concrete, and

designed to engage center drop rod or plunger bar. Include locking device and padlock eyes as integral part of latch, permitting both gate leaves to be locked with single padlock.

8. Wire Ties: For tying fabric to line posts, use wire ties spaced 12" o.c. For tying fabric to rails and braces, use wire ties spaced 24" o.c. For tying fabric to tension wire, use hog rings spaced 24" o.c.

   a. Manufacturer's standard procedure will be accepted if of equal strength and durability.

9. Concrete: Provide concrete consisting of portland cement, ASTM C 150, aggregates ASTM C 33, and clean water. Mix materials to obtain concrete with a minimum 28-day compressive strength of 3000 psi using at least 4 sacks of cement per cu. yd., 1" maximum size aggregate, maximum 4" slump, and 2% to 4% entrained air.

3.1 EXECUTION

A. Install fences to heights indicated on Drawings.

B. Space fence posts at equal intervals between terminal, angle, corner, and gate posts, and not more than 8 feet apart measured from center to center of posts. In curved fence sections having a radius of 50 feet or less, space posts not more than 5 feet - 6 inches apart. Install posts so that top of eye of post caps are level with top of fabric.

C. Install angle or corner posts at each change in direction of 15 degrees or more, at change of 5 percent or more in grade of fencing, and at the beginning and end of curved fence sections.

D. Install terminal posts at ends of runs of fencing. Install gateposts on both sides of driveway and pedestrian gates. For double-leaf gates, net opening between gate posts shall be gate size as indicated on Drawings, plus 3-1/2 inches; for single leaf gates, net opening shall be gate size plus 2-1/2 inches.

E. Where a fence is to be installed on a curb, construct footings with top of footing level with the lower finish grade. Align posts, set plumb and true before placing footings. Remove splattered concrete from exposed pipe surfaces while concrete is still soft. In bituminous surfaced areas, install seal coat on top of concrete footings.

F. Install fences with top rail. Top rail shall pass through eye tops and be secured at ends with rail-end fittings and bands.

G. gateposts, install at mid-height of fence and rigidly secured to posts with rail end fittings and bands. Provide horizontal brace rails, as specified, in panels of curved sections having a radius of 50 feet or less. Brace rails are not required in fencing 4 feet or less in height.

H. Install bottom tension wire a minimum of 3 inches from grade for fencing, and provide a turnbuckle for each 150 feet of wire or fractional part thereof. Turnbuckles are not required in runs of 25 feet or less. Install ends of tension wires to posts in a manner to

prevent slipping or loss of tension. Turn end of wire around post twisted at least 3 times around wire. At turnbuckles, wire through eye and twist end at least 3 times around wire. Cut tail of bottom wire flush.

I. Install fence fabric on outward facing side of posts, except for tennis courts. Install fence fabric with top edge projecting above top rail of fence.

J. Install bottom of fence fabric to clear finish grades, except on bituminous surface install 3/4 inch above such surface. Locally shape and trench ground surfaces where necessary to provide uniform top and bottom alignment of fence.

K. Tightly stretch fabric and at terminal, pull corner, angle, and gateposts, secure with tension bars extending full height of fence. Secure tension bars to posts with bolted tension bands spaced not more than 14 inches apart.

L. Bands and Ties: Install bands and ties in accordance with following schedule:

1.	11 bands on 12 feet fence	12 ties on 12 feet fence
2.	7 bands on 8 feet fence	7 ties on 8 feet fence
3.	6 bands on 6 feet fence	6 ties on 6 feet fence
4.	4 bands on 4 feet fence	4 ties on 4 feet fence

M. Fasten fabric to line posts with wire ties spaced not more than 12 inches apart. Where 6 gauge aluminum ties are furnished, hook the tie at both ends. Installation of hooked ties with links is not permitted.

N. Fasten fabric to top rails, mid-rails, brace rails, with wire ties spaced not more than 24 inches apart. Bend back ends of tie wires so as not to be a hazard. At bottom tension wire, install hog rings spaced not more than 24 inches apart. Where 2 fabrics are furnished, lap the fabrics one mesh at mid-rail and tie both fabrics with 9 gauge wire or 6 gauge aluminum ties to midrails.

O. Field welds shall be cleaned of flux and spatter, damaged galvanizing removed, burrs and projections ground off, properly prepared, then heavily coated with “Galviz” or "Galvabar," or equal. Install coating in accordance with written recommendations of manufacturer.

P. Fabrication of Gates:

1. Frames: Fabricate gate frames from steel pipe to match fence framework, with joints at corners miter cut and continuously welded to sides.
2. Fabric: Install fence fabric to side members with tension bars and tension bands as specified, spaced not more than 15 inches apart. Tension bars shall extend full height of gate. Install fence fabric to top and bottom members and to brace rail with wire ties as specified for top rails, spaced not more than 15 inches apart.
3. Latches: Weld gate latches and strikes to gate posts and frames. Welding shall be performed before gate frames are galvanized, or welds shall be finished as specified for field welds.
4. Hinges: Install and adjust hinges; burr or center punch threads of gate hinge bolts to prevent removal of nuts. Install 3 hinges on each post for swing gates more than 16 feet wide.

5. Grind welds flush and smooth. Hot-dip galvanize fabricated parts after welding, or finish weld as specified for field welds.

Q. Installation of Gates

1. Provide gates of the sizes indicated on Drawings. Allow clearance on gates of 1-1/2 inches at bottom and one inch at top. Construct gates installed in sloping areas to conform to the grade. Provide an opening in each gate for access to locking device or padlock. Knuckle ends of fabric cut for opening to eliminate hazards.
2. Sliding Gates and Swing Barricade Gates: Fabricate and install as indicated on Drawings.

R. Completion

1. Completed fencing shall form continuous units between points indicated with required parts, accessories, and fittings provided and installed. Clean exposed metal surfaces of cement, grout and other foreign substances.
2. Fill in holes left by removal of existing fence footings, except in areas where grading Work is indicated or specified, to existing grade with clean earth thoroughly compacted to at least same density as adjoining soil.

S. Protection

1. Protect the Work of this section until Substantial Completion.

T. Cleanup

1. Remove rubbish, debris and waste materials and legally dispose of off the Project site.

END OF SECTION 02 82 10

SECTION 33 30 00 - SANITARY UTILITIES

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Supply and installation of sanitary sewer system from building wall perimeter, unless noted otherwise, to site sanitary sewer point of connection as shown on Construction Documents.

B. Sewage bypass and pumping plan.

C. Spill prevention & emergency response plan.

D. Closed-circuit television inspection of sewer laterals.

E. Sewer Duplex Pump and Basin

F. Contractor shall furnish all labor, materials, services, testing, transportation and equipment necessary for the completion of all piping and including the demolition and removal of certain equipment, piping and appurtenances all as required and as indicated on drawings and specified herein. Work materials and equipment not indicated or specified which is necessary for the complete and proper operation of the work of this Section in accordance with the true intent and meaning of the contract documents shall be provided and incorporated at no additional cost to the Owner.

1.2 RELATED SECTIONS

A. Trenching Requirements: Conform to the requirements of Section 31 20 00 – Earthwork.

1.3 SUBMITTALS

A. Product Data:

1. Manufacturer’s Catalog data for materials. Include technical data for pipe, gaskets, joints, couplings, pumps, pump basin, pump controller and all pump accessories, cleanout yard box with lid, sand bedding, tracer wire and detectable warning tape.

B. Closeout Submittal: Submit three DVD’s of Closed-circuit television inspections performed. Include the following information:

1. Electronic Media Recordings: Visual and audio record of the entire length of pipe. For existing laterals identify problem areas, such as roots, cracks, fractures, broken pipe, and other unusual conditions found.

2. Digital Photographs of the pipe condition, connections, points of interest and defects found. Indicate distance of defects to a point of reference such as face of building or mainline.

3. Inspection Log: Provide written report including:

a. Date and time of inspection.

b. Name Project, Contractor, and operator name.

c. Location, material and size of pipe.

d. Description of defects found, if any.

C. Certificates:

1. Submit manufacturer's certified statement that the pipe has been manufactured and tested in accordance with the applicable requirements of the California Plumbing Code, ASTM, & The Standard Specifications for Public Works Construction.

1.4 LICENSES, PERMITS & FEES

A. The Contractor shall have a Class “C-34” or Engineering “A” Contractors license valid in the State of California.

1.5 DISPOSAL OF REMOVED MATERIALS INCLUDING ASBESTOS-CEMENT PIPE

A. All removed materials, except those indicated on the plans or described herein to remain the property of the Owner, shall become the property of the Contractor and shall be disposed in accordance with local, state, and federal laws. Should any of those materials be considered as hazardous the Contractor shall provide the Owners Inspector with paper custody trail documentation of the disposal.

B. Asbestos – Cement (A-C) Pipe Removal and Disposal: The plans for the project may indicate that existing asbestos-cement pipe is to be removed from the ground. Where so indicated the Contractor shall excavate with care, expose the pipeline and remove the A-C pipe to the nearest joint. Should the plans not call out the removal of the A-C pipe and A-C pipe is encountered, the Contractor shall obtain approval from the Inspector as to whether or not the A-C pipe is to be removed or can be left in place. Cutting of the pipe shall only be done if absolutely there is no other way to expose the length of pipe to the nearest joint that be separated and the Inspector approves the cutting of the pipe. Cutting of the pipe shall be done with a mechanical saw with a pressure water source to dampen the pipe and the dust from the cutting. To remove a coupling, the coupling may have to be broken in the trench. The pipe once removed from the trench may be broken for handling. The breaking shall be done within a plastic bagging or sheeting material to minimize the release of asbestos fibers into the atmosphere. Once removed and broken, if necessary, the A-C material shall be bagged and disposed of legally with the Inspector to be given a copy of all Contractor paperwork as to the legal disposal of the material. If the A-C pipe section(s) are removed intact the pipe can be removed by the Contractor from the project site and become the property and responsibility of the Contractor.

1.6 DRAWINGS

A. Because of the small scale drawings, it is not possible to indicate all offsets, fittings and accessories which may be required. The Contractor shall carefully investigate the conditions surrounding installation of his work, furnishing the necessary piping, fittings, traps, and other devices which may be required to complete the installation.

B. The general arrangement indicated on the drawings shall be followed as closely as possible. Coordinate with the Architectural, Structural, Mechanical and Electrical Drawings prior to installation of piping fixtures and equipment to verify adequate space available for installation of the work shown. In the event a field condition arises which makes it impossible to install the work as indicated, submit, in writing, the proposed departures to the Architect for his acceptance. Only when Architect's acceptance is given, in writing, shall Contractor proceed with installation of the work.

C. In case of a difference in the specifications or drawings, or between the specifications and the drawings or in the drawings, the Contractor shall figure the most expensive alternate and after award of contract, shall secure direction from the Architect.

1.7 EXAMINATION OF PREMISES

A. Before bidding on this work, Contractors shall make a careful examination of the premises and shall thoroughly familiarize themselves with the requirements of the contract. By the act of submitting a proposal for the work included in this contract, the Contractor shall be deemed to have made such study and examination, and that he is familiar with and accepts all conditions of the site.

1.8 PROTECTION

A. All work, equipment and materials shall be protected at all times. Contractor shall make good all damage caused either directly or indirectly by his own workmen. Contractor shall also protect his own work from damage. He shall close all pipe openings with caps or plugs during installation. He shall protect all his equipment and materials against dirt, water, chemical and mechanical injury. Upon completion, all work shall be thoroughly cleaned and delivered in a new condition.

B. Contractor shall be held responsible for all damage to equipment and materials until he has received written notice from the Architect or Engineer that his work has been accepted.

1.9 LOCATIONS

A. The locations of apparatus, piping and equipment indicated on the drawings are approximate. Piping and equipment shall be installed in such a manner as to avoid all obstruction, preserve headroom, and keep openings and passages clear. The locations of and mounting heights of all fixtures shall be coordinated with the architectural plans and room elevations.

B. Clearances and Openings: Contractor shall cooperate and coordinate his work with all other trades to avoid confliction and permit for a neat and orderly appearance of the entire installation. The Contractor shall, in advance of the work, furnish instructions to the General Contractor as to his requirements for equipment and material installation of any kind, whether or not specifically mentioned on drawings or in the specifications, and shall include recesses, chases in walls, and all required openings in the structure. Should furnishing this information be neglected, delayed or incorrect and additional cuttings are found to be required, the cost of the same shall be charged to this Contractor.

1.10 SUBSTITUTIONS

A. The Contractor assumes full responsibility that alternate manufacturers, items and procedures will meet the job requirements and is responsible for cost of redesign and of modifications to this and other parts of work caused by alternate items furnished under work in this Section. In view of these responsibilities, it is the purpose of these specifications to establish procedures which ensure that the Contractor has considered all the ramifications of proposed alternates before submitting them for review. Submittals which do not comply with the requirements of these specifications or which indicate proposed alternates were selected without proper regard to the requirements of the job, will not be approved. No more than one proposed alternate will be considered for each item.

B. This Contractor is responsible to provide sufficient information to allow the Engineer to analyze any proposed alternate. If inadequate information is provided, the proposal will not be approved and resubmittal will not be allowed.

C. The Architect or his authorized representative shall be the sole judge as to the quality and suitability of proposed alternate equipment, fixtures or materials and decisions of the Architect or that of his representative shall be final and conclusive.

1.11 RECORD DRAWINGS

A. Contractor shall provide and keep up-to-date a complete "as-built" record set of redline prints which shall show every change from the original drawings and the exact "as-built" locations and sizes of the work provided under this Section of the specifications. This set shall include locations, dimensions, depth of buried piping, cleanouts, manholes, sewer invert locations, plugged wyes, tees, etc. On completion of the work, the Contractor shall incorporate all as-built information on a set of reproducible tracings provided by the Architect and this set of reproducibles shall be delivered to the Architect.

1.12 QUALITY ASSURANCE

A. Comply with the following as a minimum requirement:

1. System Description: Grades and elevations are to be established with reference to the benchmarks referenced on the Plans.
2. The work provided herein shall conform to and be in accordance with the Contract Plans, General Conditions/Specifications and Special Provisions, as well as the Standard Specifications for Public Works Construction (“Green Book”), 2021 Edition, adopted by the Southern California Chapter, American Public Works Association; herein referred to as the “Standard Specifications”.
3. California Plumbing Code, CPC, 2022 Edition, Chapter 7.
4. California Administrative Code, Title 22, Section 64630(e)(2).
5. Underwriters Laboratories.
6. American Society of Testing Materials.

1.13 INSPECTION

A. Notice shall be given to the Owner’s Inspector at least 48 hours before starting construction.

B. Contractor shall not allow or cause any of his work to be covered up before it has been duly inspected, tested and approved by the Owner, Architect or any other authorized inspectors having legal jurisdiction over his work. Should he fail to observe the above, he shall uncover the work and, after it has been inspected, tested and approved, recover it at his own expense.

C. Inspection of the work shall not relieve the contractor of any obligations to complete the work as prescribed by the standard specifications. Any known defective work shall be corrected before testing or final inspection will be permitted. Unsuitable materials may be rejected even if these materials have been previously overlooked by the Inspector.

D. The Owner shall have the authority to suspend the work completely or in part for such time as it may deem necessary if the contractor fails to carry out instructions given by the Owner, or to perform any required provisions of the plans and specifications. The contractor shall immediately comply with a written order of the Owner to suspend the work completely or in part. The work shall be resumed when improper methods or defective work are corrected as ordered and approved in writing by the Owner.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Pipeline:

1. Project site sanitary sewer.

a. PVC Sewer Pipe, ASTM D-3034, SDR-35. The pipe will have a permanently installed reinforced rubber ring gasket in an integral bell joint. PVC Sewer Fittings SDR-35 shall be manufactured in accordance with ASTM Standards D-3034 and F-1336 or F-679. The PVC material shall have a minimum cell classification of 12454-B, 12454-C or 12364-C as defined in ASTM D-1784. Manufactured by J-M, Certainteed, Vinyl Tech, Diamond Plastics Corp, Pacific Western Plastics or approved equal.

b. Acrylonitrile-Butadiene-Styrene Schedule 40 plastic drainpipe and fittings meeting the requirements of ASTM D 2661 and D 3311. Provide ABS solvent cement for piping and joint connections and install in accordance with IAMPO Standards IS 5, 9, and UPC Section 718.

c. Vitrified Clay Pipe (VCP): VCP and fitting shall conform to ASTM C700, Extra Strength.

B. Cleanout Assemblies: Cleanout plug shall be line size.

1. See Construction Documents for details.

C. Manhole Brick Mortar, Grout, and Plaster: Conform to Standard Specifications for Public Works Construction, Section 202 - Masonry Materials.

D. Metal Covers, Frames and Accessories:

1. Conform to Section 206 – Miscellaneous Metal Items of the Standard Specifications for Public Works Construction.
2. Metal Covers and Frames: Vandal-resistant design.
3. Hot-dip galvanize all steel parts after fabrication and prior to assembly in accordance with Section 210 – Paint and Protective Coating of the Standard Specifications for Public Works Construction.

E. Bedding Materials: Conform to the requirements of Section 31 20 00 – Earthwork.

PART 3 - EXECUTION

3.1 PIPELINE INSTALLATION

A. Install pipeline in a practical alignment and uniform slope to the point of connection as indicated on the plans. Prior to trench excavation, verify size, material, depth, and location of the point of connection. Notify Civil Engineer if point of connection elevation is different then that shown on construction drawings as it may affect the design of the system.

B. No pipe shall be laid until the Geotechnical Project Manager inspects and approves the conditions of the bottom of the trench.

C. Pipe laying shall proceed “up grade” with the spigot section of the bell-and-spigot pipe pointing in the direction of the flow.

D. Each section of pipe shall be laid true to line and grade and in such a manner as to form an close concentric joint with the adjoining pipe and to prevent sudden offsets in the flow line.

E. Where invert elevations are indicated, run pipe at a uniform slope between inverts shown.

F. Join pipes and fittings as recommended by the manufacturer.

G. All sewer lines & cleanouts shall be staked by a licensed surveyor if slope of grade is less than 2% and a complete set of cut sheets shall be supplied to the Inspector. All construction staking shall be installed and verified for grade and alignment prior to the start of construction.

H. Refer to ASTM D 2321-00 “Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications” or Uni-Bell PVC Pipe Association UNI-PUB-6 “Installation Guide for PVC Solid-Wall Sewer Pipe” for installation information.

I. Pipe shall not be laid when the condition of the trench or the weather is unsuitable.

J. The interior of the sewer pipe shall be kept clean of dirt and debris at all times. When work is not in progress, open ends of pipe and fittings shall be plugged.

K. Where clearing after laying is difficult because of small pipe size, a suitable swab or squeegee shall be kept in the pipe and bulled forward past every joint immediately after joining has been completed.

3.2 CLEARANCES OF SANITARY PIPELINE

A. Buildings or Structures - 2 feet.

B. Parallel to Water Line:

1. Building sanitary drain, (that which starts from the building perimeter to existing site sewer) shall not be laid in a common trench with the water line unless the bottom of the water line shall be at least 12 inch above the top of the sewer pipeline.
2. In addition, the water pipe shall be placed on a solid shelf excavated on one side of the common trench with a minimum clear horizontal distance of 12 inch sewer or drain line.
3. Site sanitary sewer (receiving more than one building sanitary drain or acid pipeline) shall be separated from the water line in accordance with the requirements of the State of California, Human and Welfare Agency, Department of Health Services.

C. Crossing Water Line:

1. Building sanitary drain shall be installed a minimum of 12 inches below the potable water line

2. Site sanitary sewer shall be separated from the water main in accordance with the requirements of the State of California Administrative Code, Title 22, Section 64630(e)(2).

3.3 CLEANOUTS

A. In general, provide cleanouts at the upper terminal for each sanitary pipeline, at intervals not exceeding 100 feet in straight run and any fraction thereof and for each aggregate horizontal change in direction exceeding 135 degrees. See construction drawings for locations.

B. Install required cleanouts before horizontal pipelines are covered.

C. In concrete-paved areas, extend cleanouts flush with finish grade.

D. In unpaved and asphalt-paved areas, install cleanouts in yard boxes 4 inches below the yard box cover.

E. In traffic areas, install countersunk cleanout plugs where raised heads protrude.

3.4 PIPE REMOVAL

A. All existing underground sewer pipe and cleanouts, within the limits of new sewer pipe trenching shown on the plans, shall be removed from the site by the Contractor.

B. Sewer lines which are to remain as abandoned, but have had pipe cut and removed, shall be capped.

3.5 SEWAGE BYPASS AND PUMPING PLAN

A. The flow of sewage shall not be interrupted. Should the Contractor disrupt the operation of existing sanitary sewer facilities, or should disruption be necessary for performance of the work, the Contractor shall bypass the sewage flow around the work. Sewage shall be conveyed in closed conduits and disposed of in a sanitary sewer system. Sewage shall not be permitted to flow in trenches nor be covered by backfill.

B. Whenever sewage bypass and pumping is required the Contractor shall submit a working drawing detailing his proposed plan of sewage bypass and pumping to the Owner.

C. The plan shall indicate the locations and capacities of all pumps, sumps, suction and discharge lines. Equipment and piping shall be sized to handle the peak flow of the section of sewer line to be bypassed and pumped. Bypass piping, when crossing areas subject to traffic loads, shall be constructed in trenches with adequate cover and otherwise protected from damage due to traffic. Lay-flat hose or aluminum piping with an adequate casing and/or traffic plates may be allowed if so approved by the Engineer. Bypass pump suction and discharge lines that extend into manholes shall be rigid hose or hard pipe. Lay-flat hose will not be allowed to extend into manholes. The Contractor shall provide a backup bypass pumping system in case of malfunction. The backup bypass system shall provide 100 percent standby capability, and be in place and ready for immediate use. Each standby pump shall be a complete unit with its own suction and discharge piping. In addition to the backup system, the Contractor shall furnish and operate vacuum trucks when required to accomplish the work.

D. Prior to the full operation of the bypass system, the Contractor shall demonstrate, to the satisfaction of the Engineer and Inspector, that both the primary and backup bypass systems are fully functional and adequate, and shall certify the same, in writing, to the Engineer in a manner acceptable to the Engineer.

E. The Contractor shall provide one dedicated fuel tank for every single pump/generator, if fuel/generator driven pumps are used. The Contractor shall provide a fuel level indictor outside each fuel tank. The Contractor shall continuously (while in use) monitor the fuel level in the tanks and ensure that the fuel level does not drop below a level equivalent to two (2) hours of continuous bypass system operation. The Contractor shall take the necessary measures to ensure the fuel supply is protected against contamination.

This includes, but is not limited to, fuel line water traps, fuel line filters, and protecting fuel stores from precipitation.

F. The Contractor shall provide an emergency standby power generator, if electric power driven pumps are used.

G. The Contractor shall continuously (while in use) monitor the operation of the bypass system and all impacted facilities. The Contractor shall submit, as part of their bypass plan, their monitoring procedure and frequency and shall maintain a log of the monitoring in a manner acceptable to the Engineer and Inspector.

H. The Contractor shall continuously monitor the flow levels downstream and upstream of the bypass to detect any possible failure that may cause a sewage backup and/or spill, and shall include the means and methods of monitoring the flow in their Spill Response Plan.

I. The Contractor shall routinely inspect and maintain the bypass system, including the backup system. The Contractor shall submit as part of their bypass plans their maintenance procedures and frequency and shall maintain a log of all pertinent inspection, maintenance and repair records in a manner acceptable to the Engineer and Inspector.

J. All costs associated with sewer bypass requirements listed above shall be included in the Bid Item “Sewer Bypass System”. If such Bid Item is not included in the Bid Form, include all costs associated with sewer bypass in the cost of other related bid items of work.

3.6 SPILL PREVENTION & EMERGENCY RESPONSE PLAN

A. The Contractor shall prepare and submit a spill prevention and emergency response plan. The plan shall address implementation of measures to prevent sewage spills, procedures for spill control and containment, notifications, emergency response, cleanup, and spill and damage reporting.

B. The Contractor shall be in full charge and be responsible for the Jobsite, the construction work of this contract, and subject to the directions of the Engineer or the Inspector. The Contractor shall observe and comply with all Federal, State, and local laws, ordinances, codes, orders, and regulations which in any manner affect the conduct of the work, specifically as it relates to sewage spills. The Contractor shall be fully responsible for preventing sewage spillage, containing any sewage spillage, recovery and legal disposal of any spilled sewage, any and all fines, penalties, claims and liability arising from negligently causing a sewage spillage and any violation of any law, ordinance, code, order, or regulation as a result of the spillage.

C. The plan shall account for all storm drain systems and water courses within the vicinity of the work which could be affected by a sewage spill. Catch basins that could receive spilled sewage shall be identified. These catch basins shall be sealed prior to operating the bypass and pumping system. The Contractor shall remove all material used to seal the catch basins when the bypass and pumping system operations are complete.

D. The Contractor shall be fully responsible for containing any sewage spillage, preventing any sewage from reaching a watercourse, recovery and legal disposal of any spilled sewage, any fines or penalties associated with the sewage spill imposed upon by the Agency and/or the Contractor by jurisdictional regulatory agencies, and any other expenses or liabilities related to the sewage spill.

E. The Contractor shall exercise care not to damage existing public and campus improvements, interrupt existing services and/or facility operations that may cause a sewage spill. Any reasonably anticipated

utility and/or improvement damaged by the Contractor shall be immediately repaired at the Contractor's expense. If construction operations damage an existing utility or damage or interrupt an existing service resulting in a sewage spill, the Contractor shall immediately notify the Owner. Before the start of construction, the Contractor shall request and obtain from the Owner an emergency roster of designated Owner representatives with their respective phone numbers, pager numbers, and cellular phone numbers. The Contractor shall take all measures necessary to prevent further damage or service interruption to an impacted utility or service. The Contractor is responsible for any resulting sewage spill(s).

3.7 PROTECTION

A. Where new building sewers are to be connected into a sewer line which is in active use, the CONTRACTOR shall call for such protection as is necessary to prevent construction debris from being washed into the active sewers. Plugged inlets or other suitable protection shall be called for in the active manhole before beginning manhole modifications or tract sewer cleaning.

3.8 CLOSED-CIRCUIT TELEVISION INSPECTION

A. Coordinate with owners inspector time and date of inspection. Project Inspector shall be present during the CCTV inspection.

B. Clean laterals by hydraulic jet.

C. Perform internal closed-circuit television inspection of lateral from the building to the campus mainline. Record sewer in its entirety with no breaks or interruptions. Move camera at a speed no greater than 30 feet per minute, stopping for a minimum of ten seconds to record pipe connections, defects, and points of interest.

D. Maintain technical quality, sharp focus and distortion free picture. Pan, tilt, and rotate as necessary to best view and evaluate connections, defects and points of interest.

E. Closed-circuit Television Equipment: As a minimum equipment shall include:

1. Television camera specially designed for pipe inspections, and operative in 100 percent humidity conditions.

2. Camera and television monitor capable of producing minimum 470H-line resolution color video picture.

3. Camera capable to inspect laterals as small as three inches up to 70 feet from sewer mainline.

4. Camera lighting shall be suitable to allow clear picture of inner wall at least ten feet in front.

F. Defective Work:

1. New Laterals: Defective Work found shall be repaired at Contractor's expense. Perform a new closed-circuit television inspection at no cost to owner.

2. Existing Laterals:

a. If roots, sludge, or sediment material or other defect not related to the Work of this project impedes inspection, withdraw camera, restart inspection from opposite end and notify Owner of defects found.

3. If obstruction or stoppage was caused by Work related to this project, remove obstruction at no cost to Owner. Perform a new closed-circuit television inspection at Contractor's expense.

3.9 TESTING OF SEWER PIPE

A. After installation of sewer pipe, testing shall be performed. The piping of the sewer system shall be tested with water or air except that plastic pipe shall not be tested with air. Contractor to follow guidelines set forth by the California Plumbing Code section 712.0 Testing.

3.10 CLEANUP

A. Remove rubbish, debris, and waste materials and legally dispose of off the Project site.