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ADDENDUM 02

Pre-Bid Revision for Contractors' Incorporation into:



Roseville Joint Union High School District
West Park High School, Phase 2 – Increment 1
DSA Application Number: 02-118062

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DLR Group Project No: 75-19101-00

NOTICE TO BIDDERS:
The following revisions are being made to the Bidding Documents to the above referenced project:

Pre-Bid Requests for Information

The following pre-bid requests for information were received. The responses are incorporated into this Addendum via the answer directly below the RFI.

RFI 1..... In areas of exposed SFRM, is the intent to "box" the beams and provide corner beads and skipped troweled finish per specification section 078100, 3.3, P.3.a? Also is the finish required at all electrical rooms and work rooms as well.

Answer..... *Correct, per 078100_3.3_P.3a finish to smooth out texture, eliminate surface markings, and square off edges within 10 feet of finished floor or adjacent grade. This applies to all locations exposed to view per specifications.*

RFI 2. Specification section 220500 Common Work Results for HVAC and 220500 Common Work Results for Plumbing state a one-year guarantee from date of acceptance. Please clarify the warranty period is two years.

Answer *REVISED specification sections 22 05 00 and 22 05 00 for two-year guarantee. See attached.*

RFI 3. Provide information on locations where the High Density SFRM material is required.

Answer *Per Specification 078100_2.2_B.2; high density SFRM designated for exterior use and at locations indicated on CP4.1 and CP4.3.*

RFI 4..... There appears to be a glitch in spec section 096723 for West Park High School, Phase II, bidding 7/14/2020. The current spec section is listing Stonshield SLT with Dex O Tex as an or equal. RP Coatings just finished installing 16,000 sf of Dex O Tex Terracolor in the phase that is underway. Stonshield SLT is not an equivalent to ¼" Terracolor. SLT is a 1/8" "color-coated sand granule floor." These floors do not last in school restrooms—the color wears off the sand granules, leaving a "dirt pathway" through the doorways and "dirt footpads" in front of the sinks and urinals. Was this specification an oversight?

Answer..... *Revised Basis of Design to Dex O Tex Terracolor in specifications and finish plans See attached revised spec section and sheets.*

RFI 5..... Preconstruction durations for Inc 2 and Phase 2 state 3-6 month time frame, please confirm duration proposer is to base preconstruction services.

Answer .....5 months shall be used.

RFI 6..... Inc 2 and phase 3 scored services summary appear to calculate on average TBR, please confirm this is intended to convey average of evaluated price on price proposal forms

Answer .....Replace Page 15 of 18 (RFP scoring sheet) in its entirety. See revised attached RFP scoring sheet.

RFI 7..... Main Office Staff lines 3-7 list various preconstruction roles that are identified to be included as OH&P. Please confirm this is to be priced as general conditions, as part of our preconstruction cost.

Answer .....Cost associated with Preconstruction services as identified in Exhibit H shall be included under First Line Item (Preconstruction Services) in the price proposal forms. For phase 2 Inc. II and Phase 3.

RFI 8..... Per details 5A and 5B on sheet A2.1, the all gender restrooms on level 2 & 3 of Buildings F and S show 86" high toilet partitions. This is not a typical standard size of Scranton's Hiny Hiders as requested by spec section 10 21 13 2.2A. Please confirm whether the whole system will be 86" or if the system will go completely floor to ceiling (Scranton's Aria partitions). The concern for floor to ceiling would be a potential impact to fire protection and mechanical systems.

(Similar RFI) Plan page A2.1 Detail 5a-h are showing the gender-neutral restrooms. The partitions that are called out in spec section 102113 2.2 a do not match what is shown in this location. Based on past projects this should be Scranton's Aria partitions system. Can we confirm the correct partitions system for these areas, and update the spec for these additional units? Also, can we please have door styles, panel, and trim styles identified if these areas are to Aria per the link below:

Answer..... MODIFIED TP toilet partitions to 'TP-1' Hiny Hiders for use in the 1st floor Boys & Girls Restrooms. ADDED 'TP-2' Scranton Aria partitions for use in the 2nd & 3rd floor All-Gender Restrooms. Aria partition height, door, trim and panel styles, color and texture provided in attached revised specifications. Revised partition height does not impact lighting, fire protection and mechanical systems. See attached sheets A2.1 & A2.2.

RFI 9..... In the Financing section on page 6 of the RFP it states that the "District contemplates..." that the finance fee for the post construction periods "will not exceed four (4%) percent" of the TBR. Does this mean that this fee cannot exceed 4%?

*Answer .....The District contemplates that **the portion of the Project financed** and paid during each post-construction period will not exceed four (4%) percent of the Total Base Rent for the applicable Increment or Phase.*

RFI 10. ..... Exhibit C: 'Allowable General Condition Costs' - This matrix defines where to allocate noted costs within the proposal cost structure. It is very common now to utilize shared services for a good portion of the listed 'Main Office Staff' on various projects and has been deemed much more efficient than allocating site specific staff. Please confirm if Item Numbers 2 through 10' can be utilized as LLB GC's if working at the direction of the project team.

Answer .....Items 2 through 10 shall remain Overhead and Profit.

RFI 11. ..... Section 4.4.2.4.1 Construction Contingency notes that Construction Contingency may NOT be used for "lack of coordination". Please provide reference to an industry standard that can be used as a guideline on what the expectations will be used to ensure all responding parties understand District position on the matter?

Answer .....Examples of "lack of coordination" are, but not limited to, as follows: piping relocation to align with casework, drilling through water lines installed by the contractor, placing grade rings/manhole covers at an elevation in variance with the contract documents, placing walls at variance with the contract documents and, or, causing ADA non-compliance, placing plumbing vents within 10'-0" of an outside air intake.

RFI 12. ..... Please confirm construction contingency is not intended to cover added scope of work by design and/or the district and should only be used the used prescribed and clarified here in.

Answer .....Use of contingencies shall be per contract documents.

RFI 13. ..... Floor Flatness - Specification Section 03 30 00/ 3.3/ B / 3 (pg. 13) refers to the slab tolerances. It appears that the slab-on-grade tolerance is calling out for a 1/8" in 10" which is a FF of 60 or a "super flat". The concrete-over-metal-deck tolerance is not given and refers to Section 05 30 00 for minimum tolerance requirements. It also states that elevated slabs are to comply with architectural requirements but gives no other information. Please confirm if the elevated deck is to be a 1/4 " in 10' tolerance OR provide the Architectural Requirements.

Answer..... The concrete over metal deck tolerances are noted in Spec Section 05 30 00, Section 2.1.K. Additional information provided on Detail 11/S5.3. There are no "elevated slabs" on this project as the intent of this note is for solid concrete slabs (with no metal deck)

RFI 14. ..... Spec 07 62 00-2.4.B.2 Reglets calls for stainless steel, Drawing detail 53/A10.3 calls for 22 GA Galv Masonry Reglet. Confirm that all misc. flashings are to be provided in the material type noted on the architectural plan details.

Answer..... Confirmed, acceptable to use 22 ga. galvanized masonry reglet, primed and painted at detail 53/A10.3. Acceptable to use 22 ga. galvanized sheet metal flashing, primed and painted

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RFI 15. ..... Spec Section For Mockups 01 43 39 Refers to an integrated exterior free-standing building mockup assembly to be constructed as indicated on drawings, maintained undisturbed until final acceptance of the work and properly disposed of. Please provide a drawing to define the extent.

Answer..... Provide In-Place mockups for all required mockups, coordinate location and extent with the Architect and Owner, refer to attached ASK-001 for proposed location.

RFI 16. ..... Ideapaint is in the drawing, i.e. Sheet A13.S2.1, but not listed in the painting specifications. Please provide specification

Answer..... Specification section 09 9737 DRY ERASE COATING has been added.

RFI 17. ..... Article 6 Subcontractors includes a reference to Subguard insurance seemingly as a Direct cost (in this section) and even notes that if the premiums for Subguard are included in the TBR that the Entity shall refund any savings in the premium. Article 15.07.6 includes Subguard Insurance as allowable costs but defines Subguard as Overhead and Profit. Please clarify if Subguard Insurance should be carried as a Direct Cost where premium savings would be returned to District OR if Subguard Insurance is included in OH&P and any premium savings do not return to the District.

Answer .....Section 6.07 and Article 15.07.6 of Exhibit D shall remain as written.

RFI 18. ..... Given the delivery method selected by district and definitions of General Conditions provided in Exhibit C please confirm that Exhibit G is provided for reference and thus there is no requirement to populate this document and provide as part of our price proposal submission.

Answer .....Exhibit G shall be completed and submitted Post-Award and overall costs must match amount identified in fee proposal form.

RFI 19. ..... Please refer to spec section 013100. Section 1.6C3 states that the contractor shall perform three-dimensional component conflict analysis as part of preparation of coordination drawings.

a. Please confirm which coordination drawings are to be developed from the BIM file (i.e. reflected ceiling plans, deck inserts, deck penetrations, etc.)
b. Which Level of Development (LOD) shall the BIM file be coordinated to? Refer to https://bimforum.org/lod/ for LOD definitions.
c. Will the Architect of Record be present in the weekly BIM coordination meetings for design coordination and input? Please note these are meetings that happen outside of the typical Progress Meetings noted in section 1.9.

Answer .....LOD 350 Parts necessary for coordination of the element with nearby or attached elements are modeled. Architect will periodically attend online BIM coordination meetings as required for design coordination and input.

RFI 20. ..... On Detail 7/M4.02, Note #1 indicates a 5'-0" plenum for units 2,000 cfm and smaller, and 10'-0" plenum for units larger than 2,000 cfm. This plenum is required downstream of the VAV. Note #2 of that same detail indicates a minimum of 5'-0" before the first branch takeoff on the plenum for units 2,000 cfm and smaller, and 10'-0" before the first branch takeoff on the plenum for units larger than 2,000 cfm. It appears there are several locations where the first branch takeoff shown on the plan drawings do not follow these requirements downstream of VAVs. Also, there are several VAVs that do not have discharge plenums shown to conform to these notes. Please confirm where Notes #1 and #2 shall be applied to the duct design for Buildings F and S.

Answer .....REVISED detail 7/M4.02 to note for general duct lining per plans on supply ducting.

RFI 21. ..... Spec section 016000-2.1.B.4 (Product Requirements) notes where specifications name a product, or refer to a product indicated on Drawings, and include a list of manufacturers, to provide the specified or indicated product or a comparable product by one of the other named manufacturers. It further notes to comply with requirements in "Comparable Products" Article for consideration of an unnamed product by one of the other named manufacturers. This specification language is confusing as it notes to comply with the "Comparable Products" Article for consideration of an unnamed product by one of the named manufacturers. Also, please confirm the list of products by the named manufacturers in the specifications have been reviewed by the design team, are considered approvable by the design team, and are not considered a substitution? Or is the intent of this specification to note the first named and/or scheduled products are the only products the design team has reviewed for conformance to the contract documents, and all others are subject to the approval at the sole discretion of the district and design team?

Answer .....The basis of design shall be considered the specified product, If the basis of design is not noted, the first named product shall be considered the specified product applicable to any and all work/ specification sections. All others shall be deemed a substitution.

RFI 22. ..... Detail 1/M5.01, Heating Hot Water Diagram, has keynote #8 identified at several locations. Keynote #8 for this detail notes "Union, point of connection to plumbing pipe." Note #8 is indicated at many locations where there is no point of connection to the plumbing system, but there is a union. Please provide a call-out for the points of connection to plumbing, separate from indicating unions.

Answer .....REVISED note 8 to read "PIPE UNION." Unions are not related to plumbing points of connections. Unions are to be provided to allow ease of disconnection for the user.

RFI 23. ..... Drawing M0.2, Sheet Note #11 for the Air Conditioning Unit Schedule, states to "Paint unit to match mechanical screen wall. See architectural drawings for painting criteria." In talking with the listed manufacturer (York/JCI), the factory can provide custom colors (other than their standard unit color) for the AC units, but it is done at a premium in both cost and production lead time of the unit. Please confirm the high school district wants the AC units to have a custom paint color.

Answer .....A custom paint color shall be provided during the submittal process to match the roof mechanical screen wall metal panel color. According to our conversations with York, no premium paint is required. Custom color to match the screen wall does not impact price and if provided during at time of submittal, will not impact the production lead time.

RFI 24. ..... Building S has three (3) laboratory exhaust fans tagged LEF-S-1/2/3. These are scheduled on Drawing M0.4 – Fume Hood Exhaust Fan Schedule. Keyed Note #29 on plan Drawing M1.S.1 notes fume hood exhaust duct shall be 316 Stainless Steel with all welded joints. We have the following questions related to lab exhaust ductwork:

a. Please confirm welded stainless steel duct with welded seams and welded joints with a pressure rating good for a minimum of 1" above the design operating pressure per SMACNA is acceptable.
b. Please confirm this Keyed Note applies to all fume hood ductwork, and the lab exhaust fan stack whether or not the Keyed Note is specifically called out on the upper floor drawings.
c. Does the fume hood exhaust ductwork for the fume hood located in Prep Room S107 need to be stainless steel per Keyed Note #29 as well? Note: Keyed Note #29 is not called out for this ductwork.
d. Does the Back Draft Damper shown on Detail 4/M4.01 at the LEF need to be stainless steel as well?
e. Are manual volume dampers required in the fume hood exhaust ductwork? If so, do they need to be stainless steel as well?
f. Drawing M1.S.1 shows both 7" and 8" callouts for the fume hood exhaust ductwork. Detail 11/M4.03 indicates 11" duct at the fume hood. Confirm all duct sizing for each fume exhaust system.

Answer .....a. Acceptable
b. Keyed note applies to all fume hood ductwork on all three floors. Exhaust fan stack does not need to be stainless steel from the factory.
c. Yes, all fume hood ductwork shall be stainless steel.
d. The backdraft damper does not need to be SS.
e. Manual volume dampers are not required in the fume hood exhaust ductwork.
f. Sheets have been revised to show 7" ø ducting to the point of connection at all fume hood. Fume hood cutsheet should be referenced for transitioning duct size to the fume hood exhaust connection.

RFI 25. ..... Detail 3/M6.02, Fume Hood Controls, shows a switch tagged SW-1 located at the fume hood, powered by the electrical contractor directly to the Lab Exhaust Fan, with a current sensor interlocked to a VAV box controller in the lab space. Sheet Note #12 on Drawing E3.S1.1 notes to provide 120V power connection to fume hood. This sheet note is called out at two (2) of the three (3) fume hoods. We have the following questions regarding fume hoods, and fume hood controls:

a. No power connection is indicated for the fume hood located in Prep Room S107. Please confirm this fume hood does not require a power connection. If it does require power, please provide the necessary power circuiting.
b. Detail 3/M6.02 outlines a controls condition and wiring that is not indicated on the electrical drawings. Please provide electrical drawings which indicate the intent outlined on the Fume Hood Control drawing or provide a revised control design that matches what is shown on the electrical drawings.

Answer .....REVISED detail 1/M6.02. See detail 1/M6.02. Electrical to respond to electrical power questions.

RFI 26. ..... On Drawing M3.S.3 there is a differential pressure sensor shown around column lines S6 and south of SB. This is indicated by Keyed Note #10 noting "Provide heating hot water differential pressure sensor. "This is the only location shown for a differential pressure sensor on the heating hot water system. Please confirm the location is correct and there are no other "backup" or secondary DP sensors required for the heating hot water system. If a backup DP sensor is required, please provide location on drawings.

Answer .....REVISED 2/M6.03 to call out locations of primary differential pressure sensor on sheet M3.S.3 and the backup required at the boiler plant.

RFI 27. ..... In reviewing the duct layout and design, as well as the AC unit and potential pressure relationships between the first, second and third floors it appears there may be some difficulty maintaining static pressure at the first and second floors. Please review the air distribution design and confirm it works as shown.

Answer .....We have reviewed the system and taken appropriate step to allow the system to be balanced during construction.

RFI 28. ..... On the Variable Frequency Drive schedule shown on drawing M0.2, the following clarifications are requested: a. VFD's identified as "VFD-S1" thru "VFD-S3" are shown as serving lab exhaust fans LEF-F-1 thru LEF-F-3. However, lab exhaust fans do not exist in Building F. Confirm the VFD's located in Bldg. S, shall serve lab exhaust fans "LEF-S-1" thru "LEF-S-3". b. Does Note #4 apply to VFD-S1 thru VFD-S3?

Answer .....REVISED VFD schedule on sheet M0.2. VFD-S1 thru VFD-S3 serves LEF-S-1 through LEF-S-3.

RFI 29. ..... Detail 1/M5.01, Heating Hot Water Diagram, shows only a single pressure relief line and single boiler drain line from the boiler. Confirm these are the only piping connections/lines required, or provide a detail based on the basis of design boiler which includes all necessary drain lines including boiler condensate/neutralizer system and flue condensate.

Answer .....ADDED note 5 on detail 1/M5.01. A drain is required off of sloped flue piping.

RFI 30. ..... Water hammer arresters "WHA" are shown in several locations on the plumbing drawings. Spec section 221116-3.1B.5 calls for air chambers at all water branches for single fixtures. Are both WHA's and air chambers required?

Answer .....Only water hammer arresters are required.

RFI 31. ..... Plumbing drawings P2.F.1 and P2.S.1 each show 1-1/2" condensate drain line sizing for the AC units at the roof. The mechanical schedule indicates AC-F-1 and AC-S-1 come with 1-1/4" condensate connections. Confirm size of condensate drains for AC units.

Answer .....Condensate line sizing is size per the 2019 CPC, table 814.3. Contractor shall coordinate final provided submitted equipment unit condensate connections with connecting pipe sizes and transition where required

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RFI 32. ..... Detail 12/P4.01 calls out for a "sampling tank with 4" inlet and outlet fittings and outlet PH probe assembly". Please provide specifications for sampling tank and probe assembly.

Answer .....Described on the plans, specifications are minimal, specifications listed on manufacturer's cutsheet.

RFI 33. ..... Reference drawing E3.F1.1: sheet note #14 indicates to provide 120V power to motorized roll-down door. We anticipate control wiring, a control switch, safety sensors and other devices may be required to provide a complete operable system. Provide an installation detail for all electrical work needed at this door (typical of roll-down doors on project).

Answer..... Control stations, limit switches, obstruction detection devices, etc. provided per specification section 083613_2.2 by door manufacturer and installer.

RFI 34. ..... Is there a cost associated with the utilization of the web-based project software Newforma by the architect for the general contractor, such as licenses, etc.?
Answer..... No costs are incurred by the GC if they use the Architect's Newforma website.

RFI 35. ..... Please clarify if the construction schedule is required to be cost loaded per specification section 13200 Construction Progress Documentation.
Answer .....Construction schedule is not required to be cost loaded.

RFI 36. ..... Please clarify if the four (4) each web cameras for the duration of the project per specification section 13233 Photographic Documentation is to be included in the project cost by the general contractor.
Answer .....Yes, confirmed.

RFI 37. ..... Please clarify if the Post Construction Acoustic Testing per specification 17590 is to be included by the general contractor or if the district includes this scope of work with the design team.
Answer..... Costs are to be borne by the contractor and a report provided per 17590 Paragraph 3.3 A.

RFI 38. ..... Please clarify the density requirements for the EPS II foam at the benches/seats adjacent the precast stairs per detail D/S6.4.
Answer .....Refer to Sheet S1.1 under "Expanded/Extruded Polystyrene Fill" notes.

RFI 39. ..... Please provide drawings for the mockup that will be required for the aluminum storefront and curtain walls per specification section 014339
Answer..... Provide In-Place mockups for all required mockups, coordinate location and extent with the Architect and Owner, refer to attached ASK-001 for proposed location.

RFI 40. ..... In regard to the storefront windows please advise the ration and requirement of field test per specification section 084113 and sheet A9.2.
Answer..... Field testing is defined in specification section 084113_3.3 including requirements and percentage to be tested.

RFI 41. ..... Please clarify if the glass for Opening #14 requires low e coating glass per specification section 084113 and sheet A9.2.
Answer..... Glazing requirements are defined in specification section 088000. Opening #14 is to receive Low-E coating per specifications, provide Type 7 at rated section of glazing.

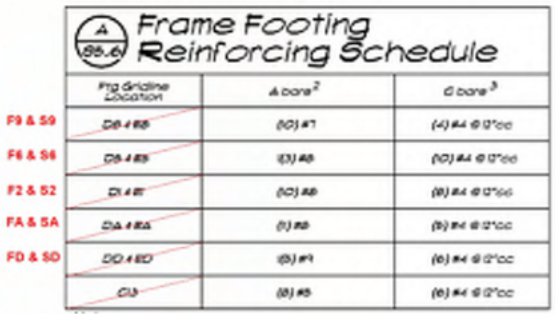
RFI 42. ..... The storefront opening 4 if the lower portion only mark FG on glass will receive fire rated frames and fire rated glass. Does the upper level and return adjacent windows remain unrated? See sheet A9.2 and specification section 084113.

(Similar RFI) Window type 14 on second floor of both Foothill and Sierra building call out "FG-1 HR Rating" on window schedule. Floor plan for both buildings do no show rated wall at these locations. Please confirm rating requirement for type 14 window. If rated please also confirm rated window is only required at second floor as window schedule only call out lower portion to be rated.
Answer..... Only storefront frame type 14A (lower portion of type 14) is required to be fire rated frames & glass

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RFI 43. ..... Please clarify on sheet A9.2 which window openings shall receive curtain wall versus storefront system. Detail on A9.10 shows all storefront system.
Answer..... Spec 08 41 13 (2.1)(B) Show basis of design as EFCO 955 Series Thermal (storefront) for all exterior frames except the (FG) fire resistive frames which are TGP Fireframes (curtainwall).

RFI 44. ..... Detail A/S5.6: Frame Footing Reinforcing Schedule: This schedule seems to be incorrect. This schedule appears to be for Buildings D & E. It appears that the Engineer has the wrong schedule for this job. Does the schedule apply, but we need gridlines based on building F and S or does the schedule not apply?



A/S5.6 Frame Footing Reinforcing Schedule

Frg Grid line Location	A bars[2]	C bars[3]
F9 & S9		
F6 & S6		
F2 & S2		
FA & SA		
FD & SD		

Answer .....The schedule does apply, and grid lines references have been updated to coordinate with Gridlines at Buildings F&S.

RFI 45. ..... Please clarify the construction of the Marker Wall in the Small Group Room F117 on sheet A1.1F1.1.

Answer..... Marker walls are a finish paint applied to the wall surface with reveal between marker wall and adjacent wall paint.

RFI 46. ..... Can you please provide the architectural, structural, mechanical and electrical Revit models for the two 3-story buildings?

Answer .....Revit model 2019 for architectural, MEP, FP and structural was distributed on July 2nd to all parties that submitted a signed AIA C106 form to DLR.

RFI 47. ..... Please attach substitution request form for specification section 27 51 13

Answer..... Refer to specification section 012500 Substitution Procedures for requirements and limitations and section 012500a Substitution Request Form.

RFI 48. ..... Please clarify if elevation 10/A12.4 is to be included in both the Sierra and Foothill buildings. Detail 10/A12.4 only calls out N-Elevation F200A.

Answer..... Detail 10/A12.4 applies to Rooms F200A, F300, S200A & S300., See attached A12.4

RFI 49. ..... Electrical - Existing EHDP1 is being refed from the new MSB2. What is to be done with the existing feeders for EHDP1 fed from the Exist MSB1? Are they to be removed? If so, what is the length?

Answer .....The existing feeders are to be abandoned in place. Remove them back from MSB1 to the nearest pullbox/vault and label the existing Main breaker at MSB1 as SPARE.

RFI 50. ..... Please clarify the detail 31/A10.4 called out on elevation 3/A12.5 at the acoustical wall panels. This detail is for metal reveals.

Answer..... 31/A10.4 calls out aluminum reveal and is installed in the outermost gypsum board layer of an acoustical wall.

RFI 51. ..... Please clarify the routing to be included in the bid for the utility power off site per sheet E1.2. Note number 2 on sheet E1.2 directs "exact routing of conduits to be determined by Roseville Electric." This scope of work will be dramatically different in price depending on the routing.

Answer .....See Roseville Electric Commitment Drawings Attachment. The routing on Sheet E1.2 was updated to show a more accurate routing location. Route the conduit under the pavement where possible as shown on E1.2 in addendum 2. Also see added trench detail on Sheet E8.4 in Addendum 2. Assume that the distance of utility conduit will be 1400' for bid purposes. See 4/A8.4 of the attached sheet for Utility Joint Trench Detail

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RFI 52. ..... Please clarify the flooring finish to be applied to the exterior balconies such as Balcony F217 on sheet A13.F2.1.

Answer..... Exterior balconies to receive flooring finish per specification section 07 18 00 Traffic Coatings, typical all locations.

RFI 53. ..... Soils Report - Updated dated geotechnical report dated September 27, 2019, page 2 under Conclusions and Recommendations state that the Phase 2 building pads have been previously rough graded but have not yet been lime treated. Please clarify if in Phase 1 the pads where constructed with at least 1-1/2 feet of non-expansive fill per the report or will be lime treated as part of Phase 1 or will lime treatment be required as part of Phase 2

Answer .....The pads should be lime treated. The site was not selectively graded, and potentially expansive soil may be within the building pad.

RFI 54. ..... Soils Report - The reports do not indicate any special backfill requirements for trenches or footing backfill within previously lime treated soil. If any excavation occurs within lime treated soil, is it acceptable to backfill with native disturbed lime treated soil or does the backfill need to be a non-expansive fill, base rock, CDF, or concrete slurry to the depth of the lime treated section to maintain the integrity of the treated subgrade?

Answer .....Backfill with lime-treated soils is acceptable.

RFI 55. ..... Section 2.2 A states AWWA C900 DR-14 PVC pipe shall be used for pipes that can be pressurized by fire apparatus. Please confirm that fire water service that services the fire sprinkler system for the buildings shall use AWWA C900 DR-14 PVC pipe and the fire water service lines that service fire hydrants and domestic water can be AWWA C900 DR-18 PVC pipe.

Answer .....Pipe between the FDC and building is pressurized by fire dept equipment and thus the thicker DR-14 pipe. All other fire water piping is DR-18 as it is not pressurized by fire department equipment. Domestic water can also be DR-18.

C1.1 - Existing Improvements Survey Note state the existing improvements shown do not reflect a survey of the as-built conditions. Is the Owner going to provide a topography survey of the existing conditions prior to construction to verify the accuracy between the as-built conditions and the plan information? The contractor would then review the documents and verify if there are any needed changes due to potential quantity changes.

Answer .....Survey has not been conducted at this time as Phase 1 remains under construction at time of bidding. A survey will be limited to determining the elevations at hardscape interfaces and plan grading design revised if needed. Grading of accessible/ADA connections is what will be reviewed, changes to quantities is not anticipated. Utilities and pads will not be surveyed.

RFI 56. ..... C1.1 - The campus road to the east shows a small area of asphalt demolition for access to the Phase 2 Increment #2 Student Parking Lot. Should this be deleted from Phase 2 Increment #1?

Answer .....Plans revised to not show this.

RFI 57. ..... C3.1 - What is the edge condition for the asphalt paving – header board or just the asphalt chamfer edge?
Answer .....Utilize the Headerboard Detail on sheet C6.1. General note added to sheet.

RFI 58. ..... C3.1 - Legend indicates Vertical Curb, Mountable Curb, and Curb & Gutter; however, these do not appear on the plans. Please clarify of any of these are required and identify the locations on the plans.
Answer .....These are all pertinent for Increment 2, not a part of Increment 1.

RFI 59. ..... C4.1 - Legend states precast, pre-sloped H-20 rated trench drain (NDS PVC drain with ductile iron heelproof grate. Please provide a model number for the NDS trench drain as they do not make one that is precast and PVC and they have various models that are close to the description but all items. In addition, please provide a cross section detail.
Answer .....Plan revised to indicate the same Sigma Maxi100 trench drain with ductile slotted ADA heel proof grate that was acceptable and used with Phase 1. No detail will be provided.

RFI 60. ..... L1.1 - There is a new set of stairs that is 72 inches wide, connected to the existing stair wall, and references detail E/L1.3. Please provide separate detail of this set of stairs since the detail referenced is for 12" wide treads and include connection requirements to the existing stair wall
Answer .....Contractor shall refer to detail as sim. Installation with 72" wide tread per plans. Grade per Civil drawings. Provide drill and epoxied dowels to match all horizontal reinforcing terminating at the existing concrete walls. Provide minimum 4" effective embed and full lap between dowel and horizontal reinforcing. Stairs shall align with existing stairs as shown on the drawings.

RFI 61. ..... L1.3 - Detail B Concrete Wall shows a Concrete Wall Elevation above the detail. Not all wall details provide reference to this Wall Elevation. For visual consistency, are all walls to receive the skate notch as shown on the Wall Elevation? If not applied to all walls please provide a graphic to highlight where this should be applied.
Answer .....Yes, all walls are to receive the skate notch as shown on the wall elevation.

RFI 62. ..... L1.3 - Detail C Concrete Wall with Guardrail shows the 1" square recess on one side at the top of the wall. Should this be also included on both sides to be consistent with all the other walls?
Answer .....Yes, 1" sq. recess should be installed on both sides of wall for consistency throughout the site.

RFI 63. ..... L1.3 - Details B, C, and D the thicken edges of concrete shows at least 14" W and 6" H. Please confirm that this is the design intent as it will add to more concrete volume and there are no specific notes or details regarding thicken edges.
Answer .....Thickened edges shall be poured where railings are to be installed and where edge of paving is adjacent to planting areas.

RFI 64. ..... L1.3 - Please provide a detail for any required thicken edges that may be required along the face of the buildings as suggested in the Architectural building sections and if any thicken edges are required along landscape planting edges.
Answer .....Thickened edge along planting areas shall be 10" wide x 10" deep. Reinf. shall be kept 3" clr. from edge of paving. Thickened edge at building per Architectural and Structural.

RFI 65. ..... A10.4 - Detail 36 references to add 1" compressible fill around the brace frame. Please provide the required product to be used for the compressible fill. xx
Answer..... Use Styrofoam as compressible fill material around brace frame to block out, then fill back with sealant. Mineral wool is also an acceptable material

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RFI 66. ..... Please confirm that the elevated slabs are designed to utilize scissor lifts for installation of overhead construction elements including but not limited to mechanical, electrical, plumbing, fire sprinkler, low-voltage, ceilings, fire proofing, stud framing, etc.

Answer .....Elevated slabs are not specifically designed for means and methods of construction, including lifts on deck. They are designed for the final conditions shown on the design drawings. It is impossible to know exactly which lift the Contractor intends to use and what loading that would impart on the deck, so the deck was not designed for unknown loading. Although the decks likely have sufficient strength for lifts, it is outside the SEOR scope to evaluate temporary conditions on the deck during construction.

RFI 67. ..... C5.1 - Line 10 under the Temporary Utilities breakdown indicates that water service for construction shall be a Direct Cost of Work whereas line 5 states that Electrical Power Monthly Charges are to be Paid by District. Section 4.3 of the Site Lease states that "Lessee shall pay, directly to the appropriate supplier, the cost of all temporary heat, telephone, refuse disposal and other utilities and services supplied to the Site for the purpose of contracting the Improvements. Phase 2 (Inc 1) sheet C5.1 indicates water for the new construction connecting to points of connection from the previous phase. Please confirm that water and all other temporary utility service used for construction shall be paid for by the District.

Answer .....District shall pay direct costs of utilities consumed as billed directly from the local Utility company

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RFI 68. E1.2, E7.1 - Phase 2 (Inc 1) sheet E1.2 shows routing of electrical power from the existing Roseville Electric 4-way junction box along the existing road to the location of the new Electrical Yard. Note 2 refers to the power one-line diagram on sheet E7.1 for number of empty conduits for utility power. Note 2 also states that exact routings to be determined by Roseville Electric. Please advise on the following:

a. Confirm that this conduit is to be installed under this Phase 2 (Inc 1) contract.
b. Please advise if Roseville Electric Commitment Drawings are available for confirmation of routing and pull box locations.
c. Please confirm that the District is in agreement that the existing road will be saw cut, trenched and patched back for installation of this electrical infrastructure.

Answer.....a. The conduit shall be installed under the Phase 2 Inc 1 contract.
b. The Roseville Electric Commitment Drawings will be available after Addendum 2.
c. The existing road/parking lot will be saw cut, trenched, and patched back up for this installation.

RFI 69. ..... Article 3.4 of the Facilities Lease Agreements calls for an allowance of 45 weather days to be included in Phase II - Increment 1 schedule, 30 weather days to be included in Phase II - Increment 2 and 30 weather days to be included in Phase III. Further review of the RFP and specifications does not readily indicate if these weather days are to be tracked as Calendar Days or Workdays. Please advise how these should be tracked in the schedule.

Answer .....Weather days shall be tracked as calendar days

RFI 70. ..... L1.1, L1.3, C4.1 - Drawings L1.1 & L1.3 indicate to reference Civil Engineer Drawings for trench drains/details. Drawing C4.1 (Storm Drain Plan) indicates Note D7 at trench drain locations, however, does not indicate where trench drains are to be provided, size, make/model, etc.

a. Please provide or clarify drawing indicating all exterior trench drain locations.
b. Please provide size/make/model of exterior trench drains.

Answer .....a. Trench drain for Inc 1 is shown on all plan sheets at northwest corner of Building Foothill, and on Grading Plan where rim elevations are indicated along the wall. "TD" has been added to grading plan.
b. Plan revised to indicate the same Sigma Maxi100 trench drain with ductile slotted ADA heel proof grate that was acceptable and used with Phase 1

RFI 71. ..... 1/S6.1 - Stair 1 partial plan 1/S6.1 calls to provide blockouts for handrail posts on the east side of the stair tower SOG. However, the Arch drawings do not show any handrail posts at this location. Please confirm there are no handrail posts at this location per the Architectural drawings.

Answer .....Confirmed. No handrail posts are provided at this location. Note has been removed from 1/S6.1

RFI 72. ..... C3.1, L1.1, AS2.1, 10/S1.6 - At the Exterior Electrical Enclosure, Drawings C3.1, L1.1 & Detail 6/AS2.1 do not indicate the paving/finish to be provided inside the enclosure. Detail 23/AS2.1 shows 'Slab on Grade' and refers to Detail 10/S1.6, which appears to indicate an 8" SOG w/ #5's @ 12" CC EW inside the enclosure. Please confirm an 8" SOG w/ #5's shall be provided within the Electrical Enclosure or clarify finish.

Answer .....Confirmed, the slab on grade at the electrical enclosure is detailed on 10/S1.6. Note that the slab edge must turn down and bear on the footing below to reduce surcharge loading to the CMU screen wall. C3.1 shows the finish concrete slab grades within the enclosure.

RFI 73. ..... C3.1, AS2.1, S1.6, S2.F1.1 - Details for the electrical enclosure are not coordinated between Civil, Architectural, and Structural drawings.

A. Detail 45 on AS2.1 indicates the grade at the back wall to be 104'-2.5". C3.1 identifies the grade at the same location to be between 101.8' and 101.4'. Please confirm which grade elevation is correct.

B. Detail 10 on S1.6 indicates top of top of footing is to be 6" below adjacent grade. Assuming C3.1 is correct this would put the top of the southwest footing at 103.71' and the top of the northeast footing at 100.9' (difference of 2.81 feet). S2.F1.1 shows 2 steps between these footings. Detail 5 on S1.2 indicates using 16" steps at CMU walls. This would indicate there should be a difference of 2.67 feet. Please confirm what the TOF elevations should be.

C. S2.F1.1 says to apply detail 11/S1.6 to the wing wall on the east side and calls this a low screen/retaining wall. Detail 11/S1.6 calls for a max height of 4' above the adjacent paving. Detail 44/AS2.1 says to use 10/S1.6 for the same wall. Detail 45 on AS2.1 indicates that this wing wall is the same height as the rest of the enclosure (which matches detail 10/S1.6 at 8' tall above adjacent paving). Please confirm height of wing wall.

Answer .....A. Civil grading is correct.

B. Detail 10 does not indicate that the top of footing shall be 6" exactly below adjacent grade, it indicated 6" minimum. Contractor shall coordinate final footing elevation based on top of wall elevations and CMU coursing to land full height CMU at the base and maintain at least 6" of soil over the top of the footing

C Wing wall to be aligned with top of electrical enclosure wall,(8'). See updated structural detail reference

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RFI 74. ..... A/S1.7 - Footing Schedule A/S1.7 calls for a Mark "A" spread footing with a size of 3' width and 1'-6" depth. However, this footing is not shown in the foundation plan. Please confirm there are no Mark "A" footings.

Answer .....Confirmed. No Mark 'A' footings are included in this project.

RFI 75. ..... Investigation of the current jobsite conditions indicated that Turner is currently utilizing the area established for future buildings F, S, J and V for material storage and temporary construction trailers/offices. Please confirm that the Turner and all affiliated subcontractors' offices, containers and material storage will be cleared from these areas in time for mobilization and construction of the Phase 2 (Increment 1) construction services. Please also advise what temporary utility infrastructure set up for the Turner construction trailers will remain for the Phase 2 work.

Answer .....Site will be de-mobilized including removal of all equipment, material, storage containers, etc. not requested to remain. Temporary electrical service will remain along with existing temporary electrical panel/gear. This will be the responsibility of the selected Entity to remove in its entirety at the completion of the work.

RFI 76. ..... Per specification 01 31 00 1.6.C.4, the architect will furnish one set of digital data files, we assume this to mean BIM Files. Per the RFP, page 5, BIM (LOD 300) will include Architectural, Structural, and Mechanical. (1) Please confirm that Mechanical includes HVAC, PLBG & Fire Protection. (2) Please confirm Electrical is also included.

Answer..... Confirmed, Revit model will be version 2019 and will include Arch, Structural, Mechanical, Plumbing, Electrical and Fire protection.

RFI 77. ..... Per specification 01 31 00 1.6.C.4.b and RFP page 5, the drawings will be available in Revit 2015. As Revit 2015 is unsupported, and Autodesk limits support to the previous 3 years, please confirm the model files will be provided in Revit 2020 or newer.

Answer..... Revit model will be provided in version 2019.

RFI 78. ..... The cover letter for the updated geotechnical and geohazard report states that the Phase 2 building pads were rough graded as part of Phase 1 construction. It is also indicated that mitigation of expansive soils was not performed during Phase 1. The cover letter also states that the limits of the building pad rough grading (performed under Phase 1) was done based on a previous version of the design. Please provide as-built building pad rough grading limits in order to better understand the amount of building pad preparation is needed for Phase 2.

Answer .....The limits of the previously designed mass graded pads are shown on C1.1 and C3.1 with grey dashed linework, this is the best available information. Contractor to make own determination of limits of pad.

RFI 79. ..... Civil - Review of the existing conditions for the Phase 2 - Increment 1 building area indicates that several inches of rock and aggregate base has been placed for material storage and laydown. Preparation of the Phase 2 - Increment 1 building pad requires mitigation of expansive soils which will also require removal and potential off-haul of this "temporary" rock base. Review of the Phase 2 - Increment 1 drawings does not appear to indicate how this rock should be addressed. Pease advise how much aggregate base and/or crushed rock should be figured to be removed and off-hauled.

Answer .....Erosion control rock may be mixed with onsite soil and used as engineered fill in parking lot or roadway areas. Reuse of the rock at the new material storage/laydown area is also an option for the contractor. Contractor to make his own determination of volume to eventually remove and off haul.

RFI 80. ..... Specification section 01 32 00 1.10 includes language that the project schedule is to be both cost and resource loaded. Article 12 of the Facilities Lease calls for submission of a detailed schedule of values to be used for the District's internal cost tracking. In addition, the monthly payments for the project are defined in the lease payment schedule independent of the project CPM schedule. It appears that the District's intent is to develop a means of verifying cash flow for the life of the project rather than utilizing the schedule as a billing tool. Please confirm that cost loading of the schedule is not required and therefore also removing the requirement for a scheduling consultant (01 32 00 - 1.7B).

Answer .....A cost-loaded nor resource loaded schedule will be required. A detailed schedule of values will remain a requirement. If the Contractor has insufficient qualified resources to maintain the schedule, a scheduling consultant is recommended

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RFI 81. ..... Specification 04 43 13 Anchored Masonry Veneer section 1.2 A 1 implies that there is CMU veneer applied over a concrete backup. No locations were identified on the plan where this occurs. Please confirm where/whether this applies to this project.

Answer..... Confirmed, there is no CMU veneer over concrete backup.

RFI 82. ..... Specification 04 4313 Anchored Masonry Veneer section 2.1 C refers to the drawings for CMU module size and color, which is identified on the exterior elevation legend. What texture is intended for the veneer? Precision face?

Answer..... Provide CMU veneer with "Precision" face texture.

RFI 83. ..... 8/S1.6 - Specification 04 4313 Anchored Masonry Veneer section 3.3 E calls for a minimum of lintel bearing of 8" at jambs. Detail 8/S1.6 note 2 calls for a minimum bearing of 6" at jambs. Please confirm what the minimum bearing distance should be.

Answer .....Specification is correct. Detail has been updated.

RFI 84. ..... 54/A10.2 - Exterior Elevations identify vertical and horizontal control joints in the anchored masonry veneer and general note 6 refers to 54/A10.2 as a similar detail.

a. Horizontal CJs are close to, but not at lintels, should CJs be at lintels?

b. Detail 54/A10.2 condition labeled control joint is labeled as vertical only. Does this mean the horizontal control joint should be considered the sealant joint shown?

c. There is a note referring to structural drawings for grout requirements in control joint voids. Structural drawings do not have any details for masonry joints. Please provide referenced requirements for grout at horizontal and vertical joints.

Answer

a.... CJs have been relocated to align with lintels, See attached A5.F.1 & A5.F. 2(applicable to both Bldgs F & S)

b.... Correct, use 54B/10.2 for Horizontal Control Joint

c.... There are no horizontal CMU veneer control joints only lintels see A5.x Elevations & A8.x Stair Sections for locations and various detail references. For vertical CMU veneer control joints see detail 54/A10.2.

RFI 85. ..... 7/S1.6 - Detail 7/ S1.6 shows a CMU veneer wrapping a steel column. A reference to this detail was not found on the floor plans. Please confirm whether this detail applies to this project and if so, where it is located.

Answer .....Detail is not used, and drawings have been updated to indicate so.

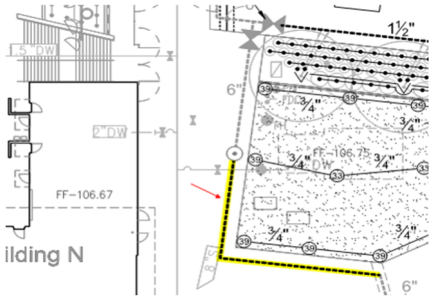
RFI 86. ..... C1.3, L1.3 - Per the Grading plan C3.1, there is roughly a 2' difference between the upper walkway/landscape area and the lower walkway/landscape area at the north and east sides of the project. Detail B/L1.3 indicates that the concrete wall separating these two areas projects 18" above the upper area. This would make the 15" wide top of wall surface roughly 42" above the lower surface. Only the walls in the northwest corner are shown to have guardrails on the walls. Please confirm that that guardrails will not be required on any other walls.

Answer .....Confirmed. Wall located northeast of Building F 'Foothill' is the only wall with a guardrail due to adjacent paving. All other walls have planting areas adjacent to them.

RFI 87. ..... 36/A10.4 - Detail 36/A10.4 shows a concrete bench at the brace frames on the southeast classroom at floors 2 and 3. This detail refers to the structural drawings for details not shown. Structural floor plans seem to indicate a similar bench with section cuts H/S3.2 and F/S3.3. through the benches. Neither of these details show the bench. Please confirm which detail to use for reinforcing and other information not shown for these benches.

Answer..... Similar structural detail for cast in place concrete seating can be found D/S6.4. The concrete construction would be the same.

RFI 88. ..... Drawing L2.1 shows a dark black dotted line in the southwest corner of the plan (adjacent to Building N), which appears to be a 6" irrigation main. The section shown dark black (not 'grayed out') appears to be in an area that may already be installed from Phase I. Please confirm we are to provide a 6" irrigation main where a dark black line is shown in the southeast corner of Drawing L2.1



Answer .....CONFIRMED, the portion of mainline indicated is existing and is not a part of Phase 2.

RFI 89. ..... Detail 21/A8.13 references Building C. Please confirm this detail applies to Buildings F & S.
Answer..... CONFIRMED, 21/A8.13 detail applies to Buildings F & S with modification

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RFI 90. ..... Detail 43/A4.10 shows topping slab, however no topping slab is indicated in the structural drawings; please verify there is no topping slab at exterior balconies and that the waterproofing membrane and protection board as indicated in detail 43/A4.10 is not required.
Answer..... Balconies are sloped and do not have depressions, topping slab, waterproofing membrane, and protection board are not required per detail 43/A4.10

RFI 91. ..... Sheet note 22 01 on A0.F1.1 refers to detail 43/A10.4 for floor drains. This detail shows epoxy flooring over a mortar bed over a waterproof membrane. The floor drains referenced are in classrooms with rubber flooring not epoxy. The epoxy floors in restrooms are not indicated to be over a mortar bed. Please confirm that no mortar bed or waterproof membrane will be required at floor drain locations.
Answer..... Confirmed, no mortar bed or waterproof membrane to be required at floor drains with note 22 01.

RFI 92. ..... A0.F1.2, A0F1.3, A0.S1.2, A0.S1.3, C,K,L/S3.2, C,N/S3.3 - The Architectural slab plans A0.F1.2, A0F1.3, A0.S1.2, and A0.S1.3 show slab depressions at the balconies, all gender restrooms, and custodial rooms. However, Structural sections C,K,L/S3.2 and C,N/S3.3 show these areas to be sloped, not depressed. Please confirm there are no slab depressions at the balconies, all gender restrooms, and custodial rooms per the Structural.
Answer .....Balconies are sloped and do not have depressions. restrooms and custodial rooms are depressed. and will have sloped mortar and tile fill.

RFI 93. ..... For Room # S126, please clarify if the room has RRU or RDU signage
Answer..... ADDED RDU signage to S120 & S127.

RFI 94. ..... C3.1 - Sheet C3.1 legend shows medium duty and heavy duty AC Paving. Both items on the legend have the same shade of color. Please distinguish the area of asphalt concrete with a different color or texture.
Answer .....There is a difference in the shading, but there is no medium duty AC with Increment 1 so none of that shade is shown in plan.

RFI 95. ..... Drawing E0.1, the telecommunications symbols, the half-filled split triangle (2nd symbol) is in conflict with itself. It first says the outlet gets 3 data cables, and then it says 2. Which is correct? Also, 271500-7, 1.5 B says the standard telecommunications outlet has 2 cables.
Answer .....Two cables are the standard for above counter/+42" data outlets.

RFI 96. ..... On E0.1 – for the combination speaker/clock symbol, does this device require a Category 6 cable(s), and if so, how many cables, and what color. Drawing E7.4 Detail 1 says the combo needs a Category 6 cable but says the quantity of cables is as required.
Answer .....The speaker requires a category 6 cable per Section 275113. Color to be determined.

RFI 97. ..... Drawing E7.3, the Campus Copper Riser Diagram – shows riser rated cable from the MDF to IDF F100, and from IDF F100 to IDF F209 as OSP rated. I believe these are reversed.
Answer .....The fiber from the 1st floor IDF to the 2nd floor IDF does not need to be OSP rated.

RFI 98. ..... 271500 1.5 A 2 c – says each installed Category 6 and 6A cable gets 2 patch cords. This is a lot of patch cords, and at a considerable cost. The campus uses VoIP meaning typically only one cable per outlet is used, the second is a spare or for futures. Please confirm that we are to supply 2 patch cords for every station cable installed
Answer Confirmed, provide per specification

RFI 99. ..... 271500 2.3 A – are the security patch panels "angled" to match the data patch panels (2.4 A)?
Answer .....Yes, match the data patch panels

RFI 100. ..... 271323 1.5 A 2 – calls for a 24-strand single mode OSP fiber backbone cable. Drawing E7.3 Detail 2 shows both a 24-strand multi mode and a 24-strand single mode OSP backbone cable. Which is correct?
Answer .....24 strand SMF and 24 strand MMF OM4 shall be provided.

RFI 101. ..... 271323 2.2 D – a quantity of fiber patch cords is not stated.
Answer .....Provide duplex patch cords for each pair of fibers installed

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RFI 102. ..... 271323 2.8 A – 16 hours of fiber backbone cabling instruction and training seems excessive for two new classroom buildings.
Answer .....Change the requirement to 2 hours

RFI 103. ..... Drawing E3.F1.2 Classroom F203 – the quantity and the placement of the WAP's doesn't look correct.
Answer .....Move the third WAP in F203 to F201 and the fourth WAP to Room F200. Add one WAP in F200A. See updated Sheet E3.F1.2.

RFI 104. ..... Drawing E7.4 Detail 2 Campus Cable TV Riser Diagram – is the .625" hardline coax backbone cable required? Also, I do not see a television jack symbol shown on any of the drawings. Is the RG-6 coax cable needed?
Answer The campus cable TV is not required, delete 2/E7.4. See updated Sheet E7.4.

RFI xx ..... 273000 3.02 C – states that the 2-way communications system needs to be in conduit. Please confirm this system needs its own conduit pathway and cannot be shared with any other systems.
Answer .....The two way com system does require its own pathway

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RFI 105. ..... 273000 Two-Way Communications – does not call for any training. Is training required?
Answer .....Provide 4 hour of training.

RFI 106. ..... 275126 Assistive Listening System and the Signal Plans – I only see one Portable Assistive Listening System required on drawing E4F1.1 in the Small Group Room. Please confirm that they are not required in each classroom (as stated in 275126 2.2) or all classrooms, conference and meeting rooms (275126 2.3).

Answer .....A fixed ALS transmitter and receivers are required in each classroom and the four collaboration rooms. Sheet notes have that requirement.

RFI 107. Vapor-Emission Treatment/Concrete Slab: All the attached partial specifications for the Rubber Flooring/096519, Resinous Flooring/096723 and Tile Carpeting/096813, call out moisture testing for the slab where these floor finishes are to be installed. The cost for these tests can be carried in the bid, what is not clear is the cost for any sort of vapor emission system should this be required.

a.....Obviously, the moisture test results will not be known prior to the bid. If the moisture tests come in over the allowable for each specific flooring, what is the remediation and how will this cost be addressed?

b.....We are not finding any specification for a vapor emission system that would be applied after slabs poured, such as Koester VAP 1 (or similar) should the moisture results come in over the allowable.

c.....Section 096813/Tile Carpeting, Part 3-Execution, 3.2, A., states "For concrete dosed with Moxieshield 1800 admixture to receive adhered flooring systems..." This is the only reference found in regard to some sort of vapor emission product, but this material is not called out or listed in Section 033000/Cast-In-Place Concrete, unclear if to be included in bid.

d.....Without knowing the moisture test results prior to the bid, here's a few options:

1) ....Provide dollar allowance for all bidders to carry in their bid for a vapor emission system. If not required, credit back the allowance.

2) ....If vapor emission system required after the contract, this cost would be handled as a change order, based on the specification and total square footage.

Answer..... Remediation, if any, will be determined after test results, during construction. Costs, if any, would be negotiated on the recommended remedy and cost per square foot.

RFI 108. ..... E4.F1.2 - Keynote 6 calls for a soundbar above displays but is listed by wall mount speakers for open areas with projectors.

Answer .....The soundbar is required at locations noted

RFI 109. ..... E4.F1.2 - Open Area – AV scope - Keynote 3 calls for rough in only for projector, projection screen, and AV devices.

Answer .....The note is in error. The note should read "Provide a 130" diagonal powered projection screen with low voltage control switch and a low voltage connection to the projector. Refer to addendum 01, 9/E7.5 one-line diagram for collaboration space".
This note change also applies to Note 3 on E4.F1.3, E4.S1.2, and E4.S1.3. See updated sheets.

RFI 110. ..... E8.5-8 - Will Projector wall mount be owner furnished with the owner furnished projector?

Answer..... Wall mounted short throw projector will be owner furnished contractor installed.

RFI 111. ..... E4.F1.2 - Open Area – Projection screen scope - Keynote 3 calls for rough in only for projector, projection screen, and AV devices.

Answer .....The note is in error. The note should read "Provide a 130" diagonal powered projection screen with low voltage control switch and a low voltage connection to the projector. Refer to addendum 01, 9/E7.5 one-line diagram for collaboration space".
This note change also applies to Note 3 on E4.F1.3, E4.S1.2, and E4.S1.3. See updated sheets.

RFI 112. ..... Sheet C4.1 Storm and Sewer plan call for trench drain at the west of building F. Construction note D7 states to connect to the existing 18" SD. The only info. regarding this material is found on C4.1. Is there a formal spec for this item or are we to base cost from C4.1 information only?

Answer .....This is a field fit item, using pipe materials.

RFI 113. ..... Paragraph 2.10 A1 Exterior Speakers. The DSA Back check drawings do not show any exterior speakers. Will speakers be required? If yes, please provide model numbers and required tap settings.

Answer .....Exterior speakers were added in Addendum 01.

RFI 114. ..... Paragraph 2.1 C3 Clock/Speakers call for Atlas Sound Model 840-812A. Please confirm that this is what has been installed as part of Phase 1.

Answer .....In Phase 1, the following was installed and should be matched: Sapling SMA 3000 Series Master clock (V5), SALG Series Wireless 2.4GHz Round clock (V5.8), Lowell LUH-15TI paging speaker flush mounted in a Lowell LUH-BOX.

RFI 115. ..... Paragraph 2.1 C5 calls for Cat 6 cable. Typical CareHawk installations utilize Cat 5e cable.
a. Will Cat 6 be required?

Answer .....Category 5e is acceptable for the CareHawk.

RFI 116. ..... The riser diagram shows the new switching cards connecting to the existing CH1000 Central Controller. There are no spare switching card ports on that panel. The system will need a CH1000C Client Expansion System in order to add the necessary switching cards.

Answer .....Provide the CH1000C as required for the new building.

RFI 117. Given the projects Construction & District Contingencies, is the 2% Rebar and Steel/Misc Iron allowance noted via General Note #8 on sheet S1.1 still required to be carried in our proposal?

Answer .....Delete Note #8. No Allowance shall be carried.

RFI 118. Sheet C0.1 General Note #17 requires the contractor to pay all fees for taps, tie-in connections, and meters for site utility elements. These costs are not known or listed. Please confirm these costs will be reimbursable.

Answer .....District shall reimburse the Entity for specific construction permits as identified in Section 4.02 Exhibit D.

RFI 119. Specification 01 3233 via paragraph 1.2.A.6 requires construction webcam. Deeper in the specification, paragraph 1.8 requires 4 fixed location cameras. Because the webcam locations are not shown on the plans including complementary power and/or LV interconnection and sources, can an allowance be established so all proposers are congruent until this system and location of appurtenances can be mutually designed and agreed upon?

Answer .....No allowance shall be established. Webcams may be placed on existing buildings and utilize District infrastructure. This may require temporary supports and wiring, depending on placement. IP addresses will be provided for Entity's use.

RFI 120. Sheet A4.10 parapet details show exterior rigid insulation running to the top of the parapet at the CMU Veneer finish, detail 22. Details 24 & 25 show rigid insulation applied only to the roof line level. Is the intent to run the rigid insulation just to the roof line level at the Thin Brick Veneer & Fiber Cement Siding finishes?

Answer..... Rigid insulation is part of the wall assembly, details 24 & 25 to be modified to show rigid insulation running to the top of the parapet.

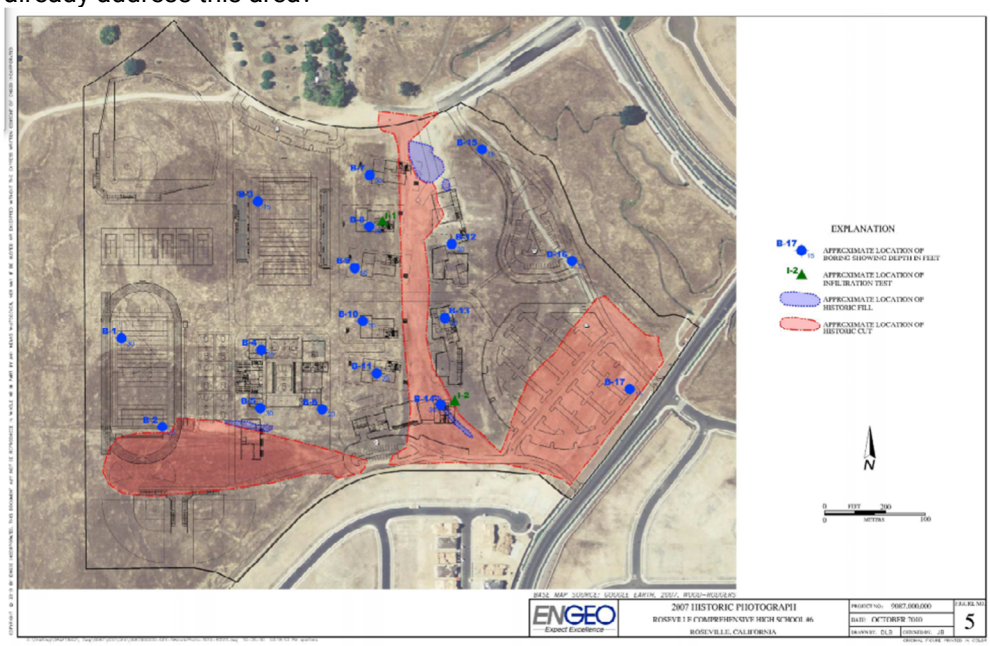
RFI 121. ..... The soils report states that the upper 18" of building pad to be non-expansive material and provides the option to lime treat. It does not give a recommendation of percent of lime or pounds per SF. Please provide the required dosage rate so we can attain accurate pricing.

Answer .....We recommend 4 percent lime by dry weight, as stated in out lime treatment recommendations letter, dated June 13, 2018.

RFI 122. ..... Is there more information available regarding existing grades? Is there an available TOPO detailing grades the current project has left the site? This is necessary to determine earthwork quantities and the amount of import/export

Answer .....No survey of areas mass graded with Phase 1 shall be conducted. The pad outlines and grades based on phase 1 are shown and represent the best available information. Contractor to make his own determination of grading quantities.

RFI 123. ..... See attached exhibit. Near the location of the future access road and electrical enclosure, there is an area noted as "historical fill" in a purple fill color. From an Earthwork perspective, what is the requirement, if any, for grading/reconditioning this subject area, or did the previous project already address this area?



Answer These areas were addressed during the previous grading of the site.

RFI 124. ..... Plumbing Fixture Schedule on Sheet P0.1 calls out fixture S-2 as an Integral Sink by Architectural. Please confirm these are epoxy sinks integral with the epoxy countertops.

Answer .....Refer to specification section 12 35 53, 2.5 for epoxy resin countertops and epoxy resin sinks.

RFI 125. ..... Spec 07 1113 Bituminous Damproofing and 07 1326 Self-Adhering Sheet Waterproofing both exist in the project manual. Please clarify where these materials belong. Details 21, 42, and 51 on A8.13 inconsistently call out both materials at the elevator pits. Detail 21 states damproofing at buildings D & E only and Self Adhering Sheet-Applied Waterproofing at building C only. Dets 42 and 51 also make mixed mention to buildings C, D, & E; which appear leftover from a previous project.

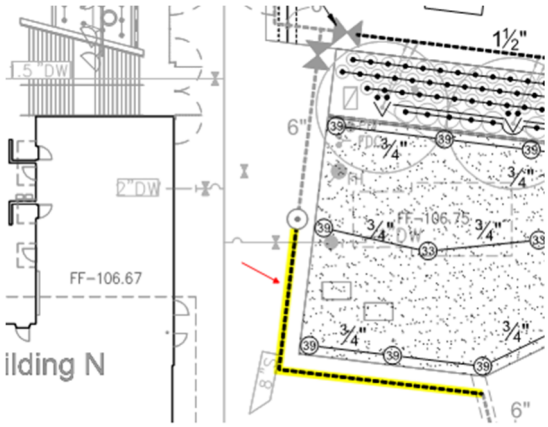
Answer .....Provide Bituminous Damproofing per specification section 07 1113 at elevator pits in Buildings F and S. Delete specification section 07 1326 Self-Adhering Sheet Waterproofing.

RFI 126. ..... Sheet A8.6 in sections 4 & 5 show a subsurface perf pipe drain at the base of the elevator pit and provides a reference to see civil & plumbing drawings. The civil and plumbing drawings do not show this perf drainpipe. Please clarify if it is required and where/what utility it connects to.

Answer..... REMOVED Subsurface perforated pipe drain at elevator pits. See revised attached sheet A8.6.

RFI 127. ..... CP3.1, 22-25/A10.1, A0.F1.1 through A0.S1.3 -Slab plans A0.F1.1 through A0.S1.3 show the locations of the curbs on each floor in both buildings. Sheet CP3.1 shows the different interior wall types with concrete curb bases and details 22 through 25 on A10.1 show the different concrete curb sizes at the exterior wall bases. The following wall types are indicated to have concrete curbs per the wall type sheet and details, but they are not shown on the slab plans. Please confirm whether these walls are to have concrete curb bases:

F4a - Second & Third Floors GL F6/FB
F6a - Second & Third Floors GL F7.5/FA-FB
F8a - Second & Third Floors GL F6/FA-FB
G6c - First Floor GL F5/FA-FB
R6d.1 - First Floor GL F3, Between GL F4-F5, GL F6/FB-FC
R8d.1 - First Floor GL F5/FA-FB
S6.1c - Second & Third Floors GL F7.5/FA-FB
W1.8r - Second & Third Floors GL F1/FA-FB, GL F9/FB, GL F7.5-F9/FB
W3.6 - Second & Third Floors GL F3/FA, GL F4/FA, GL F5/FA
W3.6f - Second & Third Floors GL F4-F5/FD
W3.10f - Second & Third Floors GL F5-F6/FD
W3Ax.6 - Second & Third Floors GL F9/FA.1, GL F9/FA.8



Answer..... Required curbs are shown on the A0 Slab Plans. Exterior wall curbs are wider to align with the exterior face of exterior sheathing as shown in A10.1 details. In general, exterior walls require curbs on the first floor and the second & third floors at the exterior balconies. Interior walls require curbs at wet areas I.e. restrooms, boiler room, custodial room walls.

RFI 128. ..... 12/S5.3, 3/S5.4 - Per detail 3/S5.4, the concrete curb on the AHU deck on the roof is 12" wide and 6" to 24" tall. It also has #3 bars @ 16" cc. Per detail 12/S5.3, the curb height is less than 6" if it has reinforcing of #3 bars @ 18" cc. Please clarify the curb height on the AHU deck.

Answer .....The curb height will not be less than 6" and will be detailed per 3/S5.4. Contractor to coordinate required curb height based on roof cricketing and the requirements shown on 56/A4.10

RFI 129. ..... Per detail 2/A7.1, please indicate the elevation and placement of window treatments, WT-1, on the second and third floor as referenced in A13.F2.1 and A13.F3.1.

Answer..... WT-1 to be installed per 56/A3.12 at gyp soffit on second floor. Similar at Fiber cement soffit on third floor.

RFI 130. ..... 51/A8.11 - Precast stair detail 51/A8.11 shows foam fill under the precast stair treads. Please confirm the foam fill can be deleted as it is not required for precast support and leave it as a void, which was done on Phase 1.

Answer..... REMOVED foam fill as was done in Phase 1. See revised attached sheet A8.11

RFI 131. ..... 43,51/A8.11, S6.4 - Per details on S6.4, the Student Collaboration Stair FS3 on the 2nd and 3rd floors are to be precast concrete with precast tread and riser. Architectural details 43 and 51 on A8.11 calls for precast tread and risers with cast in place stairs. Please confirm the stairs are to precast, not cast in place, per the Structural.

Answer .....Stairs are entirely precast, not cast in place.

RFI 132. ..... L3.1 - South of Building S on Drawing L3.1, there are three (3) trees designated as 'ACE', however 'ACE' is not shown in the Plant Legend. Please clarify the Botanical Name, Common Name and Size for tree type 'ACE'.
Answer .....ACE = Acer rubrum | Red Maple | 24" box

RFI 133. ..... Section 09 95 19 - The Norament Satura (RF1 as per plans) comes in two different tile styles, and the Norplan Sentica (RF2 & RF3 as per plans) comes in sheet or tiles. It does not specify on the plans which models they are. I have included a link to the Norament & Norplan webpages below. In the Technical drop down menus, it shows the different versions each one come in. Each version has a model number. Please verify the style/model # that is being spec'd out for RF1, RF2 & RF3?
https://www.nora.com/united-states/en/products/norament-satura
https://www.nora.com/united-states/en/products/noraplan-sentica
Answer..... Provide standard tile style (not nTx) and RF2&RF3 as tiles per requirements indicated in specifications. To further clarify 'RF1' to be "Article 1880" and 'RF2'&'RF3' to be "Article 2701".

RFI 134. ..... A5F.1 & A5.S.1 - Are the channel letters illuminated? Usually pan channels are illuminated, but the specs don't say anything about illumination.
Answer..... Channel Letters are not illuminated.

RFI 135. ..... Confirm window type 16 are fire rated along with doors. Doors are listed as 45 min on door schedule, but FG is noted as 1 hour glass on window schedule. Please confirm rating requirement.
Answer..... Rating requirements for this opening are 45 min doors and 1 hr glazing

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RFI 136. ..... Doors for frame type 14 window frame are listed as 45 min on door schedule but the window schedule call this our as 1 hour. Please confirm door rating and glass rating requirement.
Answer..... Rating requirements for this frame type 14A are 45 min doors and 1 hr glazing

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RFI 137. ..... 03 30 00 - Per the Cast-In-Place Concrete spec section 03 30 00, slabs on grade shall comply with FF & FL as specified by Architect, or at a minimum shall be sufficiently even to contact a 10' long straightedge with a tolerance of 1/8". Please confirm whether this minimum tolerance applies and please provide the Specified Overall Value for Flatness (SOFF) and Minimum Local Value for Flatness (MLFF).
Answer .....This tolerance does apply unless Architect specifies an alternate requirement. SOFF = 60 and MLFF=36.

RFI 138. ..... L1.1 - Sheet L1.1 references detail C/L1.4 for dual traffic barrier gate at northeast entrance road. Detail C/L1.4 shows an ornamental pedestrian gate. Please confirm the correct corresponding detail is to be E/L1.4
Answer ..... Confirmed – Detail should be E / L1.4

RFI 139. ..... L 1.4 - Detail E/L1.4 calls for a dual traffic barrier/gate but this item is not called out for in the specs. Please provide specs for dual traffic barrier/gate.
Answer .....All materials are shown in detail for construction. Traffic barrier gates shall be constructed to match Phase I gates.

RFI 140. ..... The lease agreements do not mention a waiver of consequential damages. Please provide a mutual waiver of consequential damages between the District and the contractor.
Answer .....The terms of the lease stand.

RFI 141. ..... Facilities Lease 5.3.3 – Requires Contractor to comply with all laws and pay all taxes. Please clarify this is limited to laws and taxes in effect as of the date of execution of the contract documents.
Exhibit D 4.03 – Please clarify that we are only responsible for complying with laws in effect as of the date of execution of the agreement.
Exhibit D 15.01 – Provides a finite list of the only circumstances under which Contractor may claim a change order or extra work. Please confirm Change of Law will be included in this list.
Answer ..... Contractor must comply with all laws prior to and after execution of the agreement. See 15.01b in response to part two of the question.

RFI 142. ..... Site Lease, 4.4.2 - The Lessor, the Architect, the Construction Manager, and any other Consultants of the Lessor, and each of their officers, officials, directors, trustees, agents, employees, and volunteers (hereinafter collective "Additional Insureds") shall be named as Additional Insureds.
Exhibit E, I - Additional Insured Endorsements and Waivers of Subrogation in favor of the District, the Architect, the Construction Manager, and any other District Consultants, and each of their officers, officials, directors, trustees, agents, employees and volunteers.
Our insurers (and the insurers of our Subcontractors) prefer not to include the Architect, officers, directors, trustees, employees, consultants, or undefined "agents" as Additional Insureds. If we are unable to strike these entities from the Additional Insured provision, please consider adding language similar to standard A201 11.1.4 that limits such Additional Insured status to on-going operations only.
Answer .....Insurance requirements as noted in documents will remain as is.

RFI 143. ..... L1.1, L1.3 - There is a new set of stairs with a 72" deep tread, connected to the existing stair wall, and references detail E/L1.3. Please provide separate detail of this set of stairs since the detail referenced is for 12" wide treads and include connection requirements to the existing stair wall.
Answer Contractor shall refer to detail as sim. installation with 72" wide tread per plans. Grade per Civil drawings. Provide drill and epoxied dowels to match all horizontal reinforcing terminating at the existing concrete walls. Provide minimum 4" effective embed and full lap between dowel and horizontal reinforcing. Stairs shall align with existing stairs as shown on the drawings.

RFI 144. ..... A8.11, S6.04 - Detail 15 references detail F/S6.04, which is not in the plan set. Please confirm this should indicate detail F/S6.4 in lieu of S6.04.
Answer..... Confirmed sheet reference should be S6.4. F/S6.4 shows framed platform, coordinated on detail 15/A8.11

RFI 145. ..... 33 11 00 - Section 2.2 A states AWWA C900 DR-14 PVC pipe shall be used for pipes that can be pressurized by fire apparatus. Please confirm that fire water service that services the fire sprinkler system for the buildings shall use AWWA C900 DR-14 PVC pipe and the fire water service lines that service fire hydrants and domestic water can be AWWA C900 DR-18 PVC pipe.
Answer .....Pipe between the FDC and building is pressurized by fire dept equipment and thus the thicker DR-14 pipe. All other fire water piping is DR-18 as it is not pressurized by fire department equipment. Domestic water can also be DR-18.

RFI 146. ..... C1.1 - The campus road to the east shows a small area of asphalt demolition for access to the Phase 2 Increment #2 Student Parking Lot. Should this be deleted from Phase 2 Increment #1?
Answer .....Yes. There is no work for parking lot improvements with Inc. 1.

RFI 147. ..... C1.1 - Existing Improvements Survey Note state the existing improvements shown do not reflect a survey of the as-built conditions. Is the Owner going to provide a topography survey of the existing conditions prior to construction to verify the accuracy between the as-built conditions and the plan information? The contractor would then review the documents and verify if there are any needed changes due to potential quantity changes.
Answer .....Survey has not been conducted at this time as Phase 1 remains under construction at time of bidding. A survey will be limited to determining the elevations at hardscape interfaces and plan grading design revised if needed. Grading of accessible/ADA connections is what will be reviewed, changes to quantities is not anticipated. Utilities and pads will not be surveyed.

RFI 148. ..... Please confirm that Public Contracting Code 7105 applies to this project.
Answer .....Refer to Section VI of Exhibit E

RFI 149. ..... C7.1 - Note 2 under NPDES states that Contractor will "complete the SWPPP". Please confirm that the SWPPP is complete as shown on C7.1 and C7.2.
Answer .....C7.1 and C7.2 are merely Erosion Control Plans to be used by the QSD as a basis for preparing the SWPPP.

RFI 150. ..... C4.1 - SSMH #1 depicts an 8" sewer line downstream, however the invert details for the manhole note a 6" line both in and out. Similarly, the downstream existing SSMH (note S1) also notes both lines in / out as 6". Please clarify the pipe size for the downstream +/- 48 LF of pipe.
Answer .....Revised, all new pipe is 6" diameter.

RFI 151. ..... C5.1 - Just northeast of Building S there is a +/- 80 LF run of DW pipe. The tag on the pipe says 4" but the note underneath the pipe says 6". Please clarify the correct pipe size.
Answer .....Revised so all labels show 4".

RFI 152. ..... C5.1 - For the 2 EA fire hydrants on the east side of the project, one shows a 6" lateral and the other shows an 8" lateral pipe. Is this correct, or should they both be the same size pipe?
Answer .....Revised to both be 6".

RFI 153. ..... L1.1 - Concrete paving (pedestrian and vehicular) are shown on this sheet along with the required expansion joint / scoring layout. The concrete specifications provided mention both sawn joints and tooled joints between each expansion joint. Which is required?
Answer .....Tooled joint (Score joint). All jointing shall match existing Phase I where abutting existing paving

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RFI 154. ..... C 3.1 - Legend for Pedestrian Concrete indicates reinforcing with 10 x 10 WWF. Please confirm this is welded wire mesh and provide a gauge thickness for the mesh.
Answer .....10x10 is the typical gauge callout for welded wire fabric.

RFI 155. ..... L1.3 - Detail A shows a Cold Joint CJ with a dowel. Expansion Joint EJ does not show any dowels, please confirm this is correct or provide a detail with dowels at EJ if required.
Answer..... Dowels are only required at cold joint (CJ) locations as shown on the details. No dowels at expansion joints (EJ) are required unless shown/required at locations where new construction will be adjacent to existing construction (i.e. new concrete stairs installed at existing wall).

RFI 156. ..... S5.6 - Detail 12 Cantilevered Partial Height Wall with a maximum wall height of 4' that have anchor bolts drilled through the concrete curb, slab, and metal deck for attachment. Sheet CP3.1 Wall Types do not show any partial height walls. Can you please identify where these partial walls are located and confirm this is the required detail?
Answer .....Partial height walls are not included; therefore, the detail is not required.

RFI 157. ..... C4.1 - This sheet shows only two AD and Legend states to see plumbing plans. Plumbing plans indicate other area drains at the exterior of the building. Please confirm the area drains shown on the civil plans are for reference only.
Legend states LSCB Landscape Catch Basin and states 6" ABS drain with dome grate. Catch basins are not made with ABS. Please clarify if the intent is to have a plastic dome grate and please provide a model number.
At the Rainwater Leader service are there any cleanouts required or just a connection to the pipe stubout from the plumbing plans? If cleanouts are required, please provide detail with model number.
Answer .....Unclear what question is regarding area drains. Area drains are necessary where shown and graded on civil plans. Spec and piping to serve them is per plumbing plans. LSCBs are plastic with plastic dome grate. Contractor to provide LSCB and grade materials for review. If plumbing plan shows no cleanout at the connection, then no cleanout is required. Civil plan only provides a stub 5' from the building.

RFI 158. ..... C5.1 - East of Building F the plan shows a 8" FW line going to a fire hydrant. Typically, these service lines to the fire hydrants are 6" since the all fire hydrants are manufactured with 6" inlets. Please confirm this run should be 6
Answer .....Pipe size revised to be 6" lead for both.

RFI 159. ..... CP 8.1 - Please clarify the parking and drive signage shown on sheet CP8.1 is not to be included in Phase 2 Inc 1 pricing.
Answer..... Confirmed, parking and drive signage are not applicable to Increment 1

RFI 160. ..... Please issue a specification for the foam Balco expansion joint called for in detail 31(A, B, & C)/A10.2.
Answer..... No specification section necessary, provide Balco "BCSW" or approved equal.

RFI 161. ..... Is there a maximum weight limitation allowed on the elevated slab on metal decks in regard to lifts, booms, material stocking, etc.?
Answer .....Means and methods of construction, including temporary loading during construction, is outside the scope of the SEOR. Per the Design Criteria on Sheet S1.1, the elevated slab on metal decks have been designed for a uniformly distributed live load of 80-100 psf; therefore, loading within these limits are acceptable to the structure. Evaluation of point loads from lifts, booms, or heavy material stocking is outside SEOR scope.

RFI 162. T/CP3.1 & 09 30 13 - Reference T-Tile Wall Types on Sheet CP3.1 and Specification Section 09 30 13. At locations where cement board substrate is specified for tile wall applications please confirm if the specified substrate, i.e. cement board, will have to meet
ANSI A108 contract requirements. It is our understanding that a cement board substrate will not meet the ANSI A108 requirements.
Answer..... Tile substrate to meet requirements as stated in specification section 092116_2.5 Tile Backing Panels

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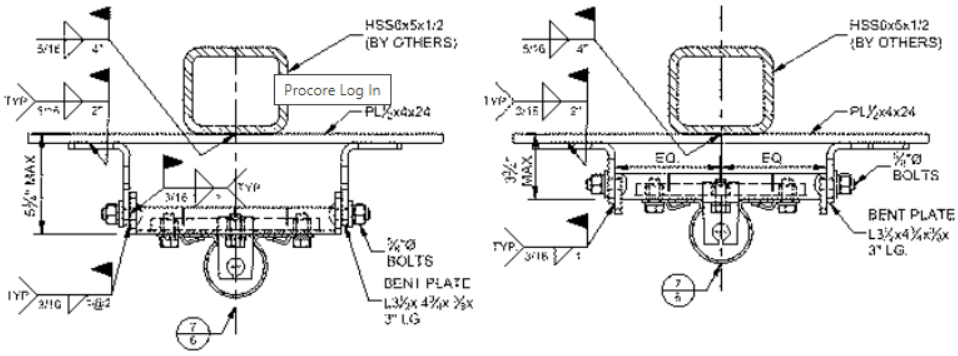
RFI 163. ..... 08 12 16 - On sheet A9.3 Interior aluminum frames (elev. 30-35) have referenced details (sheet A9.11 and A9.12) that are exterior storefront details and glass designation for exterior storefront glass. There are aluminum KD details on sheet A9.13 but they don't seem to be noted on any of the elevations. Spec section 081216 call for the interior frames to be KD aluminum frames by RACO. Please clarify where these apply and what the correct glass type is for the interior aluminum frames.
Answer..... Interior aluminum frames should be as specified in 08 41 13 - 2.1.B.1 storefront w/ non-thermal glazing, refer to door and frame schedule on A9.1 for details.

RFI 164. ..... Spec section 27 51 13 Communications, Paging & Intercom:

a. ...Are there any speakers with volume controls?
b. ...Will there be any new AP1-B Display Admin Console's?
c. ...Paragraph 2.10 A1 Exterior Speakers. The DSA back check drawings do not show any exterior speakers. Will speakers be required? If yes, please provide model numbers and require tap settings.
d. ...Paragraph 2.1 C3 Clock / Speakers call for Atlas Sound Model 840-812A. Please confirm this is what has been installed as part of Phase 1.
e. ...Paragraph 2.1 C5 calls for Category 6 cable. Typical Carehawk installations utilize Category 5 cable. Will Category 6 be required.
f. ....Paragraph 2.7 A Room Call Buttons. We did not see any shown on the drawings. Are room call buttons required?
g. ...The existing CH1000 is full. A CH1000C Client will need to be added. We recommend that a load test be performed for each existing SS16 and/or SS32 switching card to determine if the system has been overload

Answer .....a: ..All interior speakers shall have volume control.
b: ...Provide one additional.
c: ...Exterior speakers will be required.
d: ...In Phase 1, the following was installed and should be matched: Sapling SMA 3000 Series .....Master clock (V5), SALG Series Wireless 2.4GHz Round clock (V5.8), Lowell LUH-15TI .....paging speaker flush mounted in a Lowell LUH-BOX.
e:....Category 5e is acceptable for the Carehawk.
f: ....All classrooms require call buttons.
g: ...Yes, perform a load test to determine overloading of the existing system.

RFI 165. ..... Confirm that 24"x4"x1/2" plates welded to Rail Supports for ea. elevator at Pit, between Levels 1&2, Levels 3&4 and at Roof both sides of elevator is required. Total 8 plates per elevator.



Answer .....Plate requirements are per the elevator shop drawings and shall be confirmed with the elevator provider.

RFI 166. ..... 26/A4.10 - ACM fascia panels at the roof parapet per details 12/A4.10 and 26/A4.10 are drawn in section at the top as a coping cap and refer to a SSTL Metal Coping. Please confirm the typ balcony detail 55/A10.4 is the correct ACM profile and no additional SSTL Metal Coping is required in addition to the ACM.

Answer..... Metal Panel System to cope over the parapets. No additional SSTL metal coping is required

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RFI 167. ..... Detail 22/A4.10 calls for a SS Metal Coping cap at the roof parapet at CMU Veneer. Detail 23/A4.10 calls for a GSM Coping at CMU Veneer parapet. These two details are adjacent to each other at the stair roof parapets. Confirm the coping cap in both details are to be furnished in pre-finished aluminum similar to all parapet caps per specification section 07 71 00-2.2A.3

(Similar RFI) Details 24, 25, 26/A4.10 are calling out "SSTL (stainless steel?) Metal Coping", detail 22/A4.10 is calling out "S.S." (stainless steel?), detail 23/A4.10 is calling out "GSM Coping". please clarify material at all coping locations. If different materials, please indicate clearly for each coping.

Answer..... Confirmed, coping cap in both details will be prefinished aluminum per specification section 07 71 00-2.2A.3
Modified SSTL coping to be GSM coping, only metal panel system parapets use metal panel coping. See attached revised sheet.

RFI 168. ..... T/CP3.1, A2.1, A2.2, 09 67 23 - Per detail T on page CP3.1 and specification section 09 67 23 3.1 B. 1, there is to be a 6" high integral cove base where there is epoxy flooring. After reviewing the restroom interior elevations on pages A2.1 and 2.2, they call for 4" epoxy base. Please clarify if the base height is to be 4 inches or 6 inches.

Answer..... Provide 4" epoxy base per interior restroom elevations on A2.1 and A2.2.

RFI 169. ..... Provide a storefront schedule. There are specific storefront keynote designations on the floor plans but no corresponding schedule to identify the locations to the elevations on sheets A9.2 and A9.3

Answer..... Within the storefront key designation the upper number is the storefront opening number, the bottom number is the storefront frame type found on A9.2 or A9.3

RFI 170. ..... 12/A812, 42.A8.12 - At the storefront openings in the rated exterior stair walls in the north wall in sections 7/A8.1, 2/A8.2 and 1/A8.2 at stair FS1 (SS1 identical) refer you to details 12/A8.12 and 42/A8.12 for the 2nd and 3rd floor window heads. These details note sealant all around, fire rated at fire rated system. Are these storefront openings in the stairwell exterior rated assembly rated storefront?

(Similar RFI) There are numerous type 10 and 11 windows in Stair 1 in both Foothill and Sierra buildings that are located in a 1 hour rated wall. Window schedule does not call these out to be rated window. Please confirm rating requirement for these window types

Answer..... Storefront openings using frame types 10 & 11 are non-rated openings

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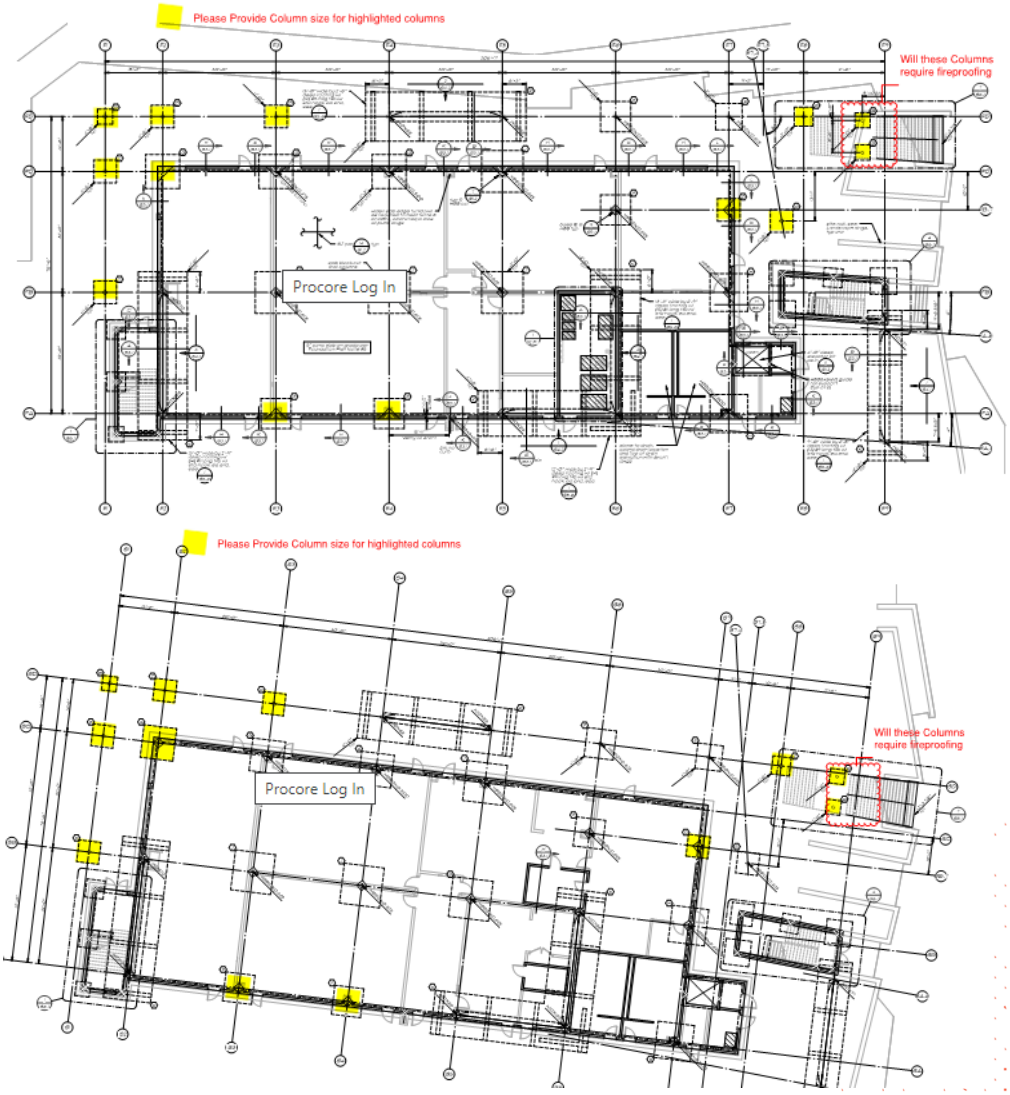
RFI 171. ..... C1.1 - Provide detail for the extent of the demolition of the existing phase 1 fencing. Civil demolition plans note to be removed refer to landscape per keynote 5 on C1.1. No keynote or detail exists on the landscape sheets to clarify requirements of removal. Are all the post footings to be removed entirely as well? If the footings are to be removed, please provide detail of existing footing.

Answer .....Footings need to be removed; no detail is needed. Contractor to provide own estimation of footing removal effort, footings constructed with phase 1 are mostly similar to proposed phase 2 footings.

RFI 172. ..... E/L1.3 - Exterior site concrete stair typ detail E/L1.3 refers to note 5 for a cast in place abrasive metal strip at treads. Please provide make and model no for cast in place metal strip. Note observed on site walk that existing concrete stairs onsite and directly adjacent to match line at south perimeter of phase 2 the stairs do not contain CIP abrasive metal strips at treads.

Answer .....Abrasive metal nosing is required at all exterior concrete stair treads, typical including at Stair 4 for Buildings S and F. Product to be Balco, model H-10, mill finish aluminum, color black.

RFI 173. ..... S2.F1.1, S2.S1.1 - Steel Columns are missing size callouts. Please provide the sizes for Columns outlined in plans below.



Answer .....Per callout at C/3, building columns are HSS10x0.375 unless noted otherwise. Callouts are not missing; they are covered by the typical note. Note that some columns are also specified on partial plans.

RFI 174. ..... A3.F1.1-A3.S3.1 - Please provide a confirmed mounting detail as described in General Note 13 on the above referenced sheets for “no cost pocket”. Confirm required continuous horizontal backing will occur.

Answer .....Updated General Note 13. Confirmed, continuous horizontal backing is required along the length of the roller shades..

RFI 175. ..... 56/A3.12 - Please provide a location where detail 56/ A3.12 occurs

Answer..... This detail occurs at the Open Areas above and below the Collaboration Stairs. The detail reference was added to Keynote 11 19 for detail 10/A12.4. In addition, detail 56/A3.12 is mislabeled and the title was corrected

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RFI 176. ..... A12.F1.1 – A13.S3.1 - Please confirm at F307, S307 that the shades are to be installed at the recessed soffit adjacent to the window system, +14 FT AFF. Please provide a mounting detail at these locations.

Answer..... Confirmed. Shades at F307 and S307 will be recessed in soffit adjacent to the window system @ 14'-0" AFF. Detail will be similar to 55/A3.12.

RFI 177. ..... There are discrepancies between the access control drawings and the door hardware. Please confirm what is to take precedence between hardware schedule and signal drawings on items below and update drawings:

a. ...Group 18 - No note for access control supplier to provide access control hardware, but signal drawings call for it.

b. ...Group 20 - No electrified hardware called out. Signal drawings call for access control.

c. ...Group 61 - These doors call for electronic closures to be tied into the fire alarm system. Fire alarm drawings do not show any wiring to these doors. Additionally, at other locations electronic closures are to be tied into fire alarm system, fire alarm drawings show fire alarm to mag holds, not closures. Confirm fire alarm to tie in and update drawings.

d. ...Group 71 - Power drawings call out 120 power for electronic closer. Hardware schedule calls out closers tied to fire alarm. Signal drawings call out closer to be tied to a time release. Please clarify if a power supply will be required.

e. ...Group 73 - F215, F315, S215, S315 signal drawings call for access control, other doors in group do not. All appear to be single serve restrooms. No electrified hardware is called out in this group.

f. ....Group 74 - At fire riser room alarm contact is called for only. Confirm if this is required to have electrified hardware and access control hardware. Typical for F and S buildings.

Answer

a. ..Yes, provide access control coordination. Electric latch and transfer hinge included in hardware group.

b. ...Yes, provide access control coordination. Electric latch and transfer hinge included in hardware group.

c. ...The Group 61 doors shall be tied into the fire alarm system. The mag holds will be removed from the fire alarm drawings. Tie into the electronic closers instead. See updated fire alarm sheets on Addendum 2.

d. ...Yes, provide a power supply with dual signal inputs for fire alarm and access control.

e. ..Yes, provide access control only at doors indicated on signal plans, coordinate with hardware supplied.

f. ....No access control at fire riser room.

RFI 178. ..... In hardware spec, spec calls for power supplies to be provided by access control contractor. Please provide power supply model #

Answer..... Provide a Von Duprin PS914 120V-24V power supply. The option boards to select are: 900-4RL for access control, and 900-FA for fire alarm control.

RFI 179. ..... Access Control spec 28 16 00-1.3-A-4 calls for "Card Readers required at each exterior, interior door, and elevator lobby. Signal drawings do not require access control at all interior doors. Please confirm if drawings should supersede this spec requirement.

Answer .....The drawings supersede this spec requirement.

RFI 180. ..... A9.1, 08 36 13 - Sheet A9.1 shows Door Type H with all Glass Panels. However, Section 08 36 13, Paragraph 2.1.B. 11 & 12 notes both glass and solid panels. Please confirm if solid panels are required and provide updated elevation showing which panels are required to be solid.

Answer..... Door type H is a tempered glass panel roll up door found in Rooms F104 & S104. There are no solid panel roll up doors in this project

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RFI 181. ..... 08 36 13 - Paragraph 2.1.B.11. notes a Solarban 70XL glass that is not listed as a glass option from the basis of design. Please confirm if the Solarban 70XL glass is required.
Answer..... Provide glass as specified.

RFI 182. ..... 08 36 13 - Paragraph 2.1.B.8. notes manual operation, but 2.2.A. calls for electric operation. Please confirm which is required.
Answer..... Sectional garage doors to have electric operation per specification section 08 36 13 – 2.2.A. See attached revised spec.

RFI 183. ..... 08 36 13 - Paragraph 1.8.A. requires a 10 year warranty on the finish to prevent against rust through. However, the panel material is extruded aluminum with a clear anodized finish. Please clarify the warranty requirements for the overhead doors.
Answer..... Strike out subparagraph 083613_1.8_A.1; provide manufacturer's standard finish warranty.

RFI 184. ..... 08 36 13 - Paragraph 1.6.A. calls for overhead doors to withstand the positive and negative wind loads as calculated in accordance with applicable building codes. Structural drawings note wind design criteria at Vult=115 mph and VASD=89 mph, which exceeds the designs of full view glass doors. We more often see a 20 PSF wind load requirement. Please confirm the wind load requirements for the overhead sectional doors.
Answer..... A door rated for a 20 PSF allowable wind load would be adequate for this project.

RFI 185. ..... Attachment P -: Social Distancing Protocol, requires a site specific COVID-19 Supervisor be on site at all times who is responsible for adopting and implementing the State's COVID-19 construction industry guidelines for ensuring safety during the COVID-19 crisis. This supervisor position and responsibilities include a worksite specific COVID-19 plan, training for employees and contract workers, temperature and symptom screening, cleaning and disinfecting, and levels of PPE requirements for the jobsite. Where should this position be allocated in the Exhibit C - Allowable General Conditions?
Answer .....The intent is not to have a person dedicated for this role but filled by someone as chosen by the Entity and performed along with other duties included under the General Conditions. For example, the Superintendent.

RFI 186. ..... RFP and Exhibit H - Preconstruction services on page 3 of the RFP describe services that,"...may include some or all of the services described in Section IV (1)..." and is not consistent with the Exhibit H Preconstruction Services of the Facilities Lease. Exhibit H requires estimates as needed and does not describe the frequency of preconstruction meetings. RFP Section IV (1) describes estimates at each design phase, and bi-weekly meetings with the design team and District. Please clarify, including the intent of bi-weekly meetings being twice a week, or once every two weeks?
Answer .....Estimates shall be provided per Exhibit H. Preconstruction meetings shall be every two weeks.

RFI 187. ..... 4/A12.7 - Please advise what the tag WC-1 refers to.
Answer .....ADDED "WC-1" to interior finish legend at A12 & A13 sheet series; ADDED material callouts to interior finish plans A13 series

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RFI 188. ..... A12.7 - Please provide attachment details and sections for the feature walls.
Answer .....The feature walls are furred 4" metal stud walls attached to the exterior 10" metal stud wall and backing.

RFI 189. ..... Finish Carpentry additional provisions item 5.1.a - Please advise if there are display cases and FRL wall panels in the project.
Answer..... The referenced spec section does not exist. There are no display cases or FRL wall panels in the project.

RFI 190. ..... Finish Carpentry additional provisions item 5.1.d - Please advise if there are Plam soffits in the project.
Answer..... The referenced spec section does not exist. There are no Plam soffits in the project.

RFI 191. ..... Finish Carpentry additional provisions item 5.1.h - Please advise if there are stainless steel counters over millwork in the project
Answer..... The referenced spec section does not exist. There are no stainless steel counters over millwork in the project.

RFI 192. ..... A2.2 - Please confirm cabinets are PL2 and counters are PL4 in Kitchenettes S118 and S119
Answer..... Confirmed, both upper and lower cabinets are PL-2, and the counters are PL-4 in both Kitchenettes, S118 and S119. Material callouts added to interior elevations

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RFI 193. ..... 9/A12.1 - Please provide product info for accessory labeled DR
Answer..... Refer to specification section 12 35 53_2.6_B for Pegboard drying rack.

RFI 194. ..... 10 21 13 - Please provide color and pattern details for toilet partitions.
Answer..... See revised specification section 10 21 13 Toilet Partitions for information on color, texture and pattern.

RFI 195. ..... Opening F117B is a wood door in a hollow metal frame. The two elevations next to it are type 30 calling out to be aluminum storefront. Please confirm the elevations are to be aluminum storefront.
Answer..... CONFIRMED, frame type 30 is a storefront frame

RFI 196. ..... F200C, F300, S200C, S300 are scheduled to be ALD/ALF elevation type 16. However, head and jamb details call out for Hollow metal. Please confirm Door and Frame Types and Details.
Answer..... Confirmed, these doors are rated AL. Updated detail references to show storefront. See attached revised sheets.

RFI 197. ..... Door Hardware - F201, F202A, F203, F204, F205, F206, F207, F301, F302A, F303, F304, F305, F306, F307, S117, S201, S202A, S203, S204, S205, S206, S207, S301, S302A, S303, S304, S305, S306, S307 are interior openings. They are scheduled as ALD/ALF with details for Interior aluminum frames. However, the Frame Type elevations have details called out for Aluminum storefront frames. Please advise if these openings are Interior Aluminum or Storefront. If they are interior aluminum, please advise the details to be used.
Answer..... Use details in door schedule and requirements per specification section 081216 Aluminum Frames for the doors listed. Strike out details marked on frame elevations.

RFI 198. ..... Specification 07 46 46 2.2A-C calls for Hardie Lap not less than 0.312" (5/16"). Hardie Lap is a specific product and is available only in 5/16" thickness yet detail W3/CP3.3 conflicts and calls for 5/8". Phase 1 product is Hardie Artisan 5/8" thickness. Please advise which product is to be used.
Answer..... Provide Hardie Artisan 5/8" thickness as basis of design, see attached revised specification section.

RFI 199. ..... A6.F/S.1 - Please provide finish call out for inside face of wing walls at East end of buildings F & S
Answer..... *Sheet A1.F2.1 identifies this wall as a W3Ax.6, W3A/CP3.3 (W3Ax shows the construction of this wall) basically a 6" metal stud wall w/ fiber cement soffit panels to match the soffit above w/metal panel system on the eastern elevation face.*

RFI 200. ..... 35, 46/A10.2 - 0 Please advise if flashing cover pieces at corners are required. These were not required in phase 1.
Answer..... *Flashing cover pieces at corners of details 35, 46/A10.2 are not required. See revised details on attached sheets.*

RFI 201. ..... 14, 15/A10.2 - Please confirm that the J-mold at the siding head of wall condition is to be modified (flipped) to conceal fasteners and glued in place. This was required in phase 1.
Answer..... *Confirmed. J mold at the siding head of wall condition is to be flipped to conceal fasteners and glued in place*

RFI 202. ..... CP2.1, A1.F1.1, A1.F2.1, A1.F3.1, A1.S1.1, A1.S2.1, A1.S3.1 - Referencing the floor plans and code plan and study, there is a difference of 11 fire extinguishers between both plans in the locations attached. Please confirm if the missing FECs are needed. Reference Exhibit 2.
Answer..... *Missing FECs are required in all eleven locations as shown on the floor plans, of all three floors, both buildings typical.*

RFI 203. ..... 10, 28 00, A2.1, A2.2 - Per Specification 10 28 00- 3.3 K states toilet seat cover dispensers are at faculty and staff toilet rooms only however, general note 5 on sheet A2.1 calls for seat cover dispensers at each stall. Please confirm if the Bobrick B-221 toilet seat cover dispensers are needed in each stall or just in faculty and staff restrooms.
Answer..... *Provide seat cover dispensers (SCD) at each stall per general note 5 and per plans/elevations on A2.1 and A2.2. Strike out reference to location in specification section 102800_3.3_K.*

RFI 204. ..... A2.2 - Per detail 5 on sheet A2.2, it calls out for an accessory [SM] on the northern wall. After reviewing the sheet notes and legends, please confirm accessory [SM] is not needed.
Answer..... *REMOVED [SM] accessory and callout, See attached sheet A2.2*

RFI 205. ..... 10 21 13 - Per specification 10 21 13-2.2 D. 3, door, panel and pilaster of the toilet partitions shall have two colors at locations indicated on the drawings however the drawings call out all toilet partitions as TP (TYP.). Please clarify which two colors are desired and at which locations they will be.
Answer..... *REVISED specification section. Toilet partitions will have single color. See attached revised spec section.*

RFI 206. ..... 09 51 23 - Reference specification section 09 51 23. The specifications call out an CAC of 35-39 for ACT-1. The Armstrong 3251 PB has N/A listed for the CAC. We would suggest going to a high NRC Ultima type board or a mineral base product (slightly lower NRC). See attached Armstrong Ultima data page and USG data page of materials that would have the same look smooth look as the Ultima but because they are mineral base products meet the CAC criteria but with a lower NRC. USG has their Mars # 88139 mineral product that is very close to the specification criteria for both the NRC CAC and Plant base binder. Reference Exhibit 3.
Answer..... *Revise 'ACT-1' Basis of Design to Armstrong Ultima High NRC 1942 to meet CAC requirements.*

RFI 207. ..... .F3.1, A3.S3.1 - Reference sheets A3.F3.1 and A3.S3.1. At fiber cement soffit panel areas where the metal stud framing runs perpendicular to the Hardie soffit panels the minimum spacing for fasteners will be 16". At areas where the metal stud framing runs parallel to the Hardie soffit panels there is a lack of sufficient attachment points for the 12" x 144" panels. Please advise if it will be acceptable to install 3/4" fire treated plywood in lieu of the currently specified DensGlass Sheathing at all fiber cement panel soffit areas. If acceptable, then please provide attachment details and specifications.

Answer..... Proposed method of attachment may be used in these conditions

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RFI 208. ..... 05 51 13 - This is to replace Turner RFI No. 9 - Spec 055113 1.6 A.1 calls for AISC certified fabricator. This requirement will limit bidding for steel and misc. iron trade partners who meet both the requirement and have locality to support project. Please confirm AISC requirement can be removed?

Answer..... Remove AISC requirements from the Quality Assurance specification section 055113_1.6_A.1

RFI 209. ..... E1.2, Note #2, E7.1 - Drawing E1.2 Site Electrical shows a new power feed being supplied from Bob Doyle Drive north across campus and now existing concrete and asphalt surfaces. General Note #2 refers to E7.1 Note 1 which confirms 2 - 4" conduits for this future primary feed. Roseville Power does not typically allow direct boring for this scope of work but this method would save the remove/replace of existing infrastructure if it were to be allowed. Sheet E1.2 Note #2 also refers to Roseville Electric for final conduit pathway.

Questions:

a. ...Has the District confirmed if direct boring could be utilized for this installation?

b. ...Please provide Roseville Power routing for accurate bidding.

c. ...If direct boring cannot be utilized what requirements are there for the repair work to existing infrastructure? Demolition

Answer

a. ...There is to be no direct boring.

b. ...The Roseville Electric Commitment Drawings will be provided as an attachment. Assume a length of 1400' for the utility conduit. See updated Sheet E1.2. Conduit shall be routed under pavement where possible, not sidewalk or landscape. Also see added trench Detail 4 on Sheet E8.4 as part of Addendum 2.

c. ...The existing road/parking lot will be saw cut, trenched, and patched back up for this installation. See added detail 4/E8.4.

RFI 210. ..... C1.1 - Plan C1.1 makes no mention of trenching through existing pavement and/or curb sections

Answer .....Demolition Plan does not include trenching as that is a utility installation operation and is covered on storm/sewer and water plan sheets only.

RFI 211. ..... 10 22 26 - Paragraph 2.3.A.1. notes Markerboard option, but none of the elevations show a marker board surface on the operable partition. Please confirm if marker boards are required and provide elevations indicating their locations

Answer..... Operable partitions do not require a marker board surface. Provide finishes as indicated on the interior elevations.

RFI 212. ..... 9/A9.13, 13/A9.13 - Details U and P/A9.13 and 13/A9.13 are details for a folding glass operable partition. We do not see this shown on the drawings and there is no spec for a folding glass partition. Please clarify where the folding glass partition occurs.

Answer..... No folding glass operable partition on this increment. Details listed do not apply.

RFI 213. ..... 14/A12.3, 5/A12.4 - Detail 14/A12.3, 5/A12.4, notes ATP? finish for the operable partition. Please clarify the finish required.
Answer..... Finish information for ATP on operable partitions was provided in Addendum 01- ATP-8, sheets A12.x.

RFI 214. ..... 09 21 16, A3.10 - Reference specification section 09 21 16. Specification states that suspended ceiling hangers are not allowed to be attached to steel deck tabs and to steel roof decks and cast in place hanger inserts must be extended through forms. Confirm that installation methods can follow details shown on sheet A3.10.
Answer..... A3.10 details may be used as detailed for attachments

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RFI 215. 1/E8.4 - Sheet E8.4 Detail 1 notes a joint trench detail and is referenced for the primary power feeds from E1.2. Please confirm that signal ducts are not to be included with the power feeds unless they are specifically identified elsewhere.
Answer .....Signal ducts are not to be included with the power feeds.

RFI 216. ..... RFI 21 response (addendum 1) refers to RFI 14 however RFI 14 states "not used"
Answer..... RFI 21 (repeat of RFI 14) from Addendum 01 is answered in this Addendum.

RFI 217. ..... RFI 28 response (addendum 1) refers to RFI 10 however RFI 10 states "not used"
Answer..... RFI 28 (repeat of RFI 10) from Addendum 01 is answered in this Addendum.

RFI 218. ..... RFI 60 response (addendum, 1) states "no FRP on this project", please confirm this was meant to state " no FRL on this project"
Answer..... Confirmed, project scope includes FRP. Response to read, "No FRL on this project'

RFI 219. ..... Please confirm all interior tile substrate shall be provided to a 1/8" in 10' and 1/16" in 12" tolerance per TCNA recommendations for large format tile.
Answer..... Refer to Spec section 09 3013 Ceramic Tiling, 3.1, 3.3.A for compliance with TCNA and ANSI requirements for interior tile substrate.

RFI 220. ..... Finish Floor Plans call for CT-1,2,3 while Interior Elevations call for CT-11,12,13. Please clarify
Answer..... DELETE the "CT" tags on all Finish Floor Plans, in group and individual restrooms, refer to the interior elevations for ceramic wall tile finish, pattern and locations.

RFI 221. ..... Please provide detail as how to finish vertical outside corner conditions at interior tile assembly
Answer..... Added detail 54/A10.3 showing edge of tile conditions. See attached sheet A10.3

RFI 222. ..... Please clarify if epoxy grout will be required at interior tile, if so, what location.
Answer..... No epoxy grout required per specification 093013.

RFI 223. ..... Please confirm that wallboard joints shall be taped and finished using a thinned cementitious tile adhesive
Answer..... Confirmed.

RFI 224. ..... Please confirm that where full bricks are called out, field conditions will govern, and all vertical courses will need to be cut down to equal length to provide full brick appearance
Answer .....Confirmed, field conditions will govern. Changes per field conditions should be noted in the shop drawings. Vertical joints will be carried though the entire height of brick finish.

RFI 225. ..... Confirm that actual texture of thin brick should be smooth not wire cut as 042613-4 2.2A 4 calls for both

Answer .....Confirmed, Thin Brick should be smooth finish to match phase 1

RFI 226. ..... Please confirm that plaster substrates will be provided as a lath, scratch and brown coat to ¼" in 10' tolerances

Answer .....Confirmed.

RFI 227. ..... A) Section II of the RFP says Preconstruction Services may include some or all of the services generally described in Section IV(1), including but not limited to design/constructability and coordination review, value engineering, detailed cost estimating, and the general development of the TBR. Looking at Section IV(1), please clarify the district's expectations w/ regard to Constructability Reports, Value Engineering Reports, and Detailed [Cost] Estimates, so these services may be fairly evaluated.

a. One Constructability Report is required for Inc #2 and Phase 3. At what design milestone is this Report to be completed for Phase 2 Inc #2 and Phase 3 (e.g. 100% CD/DSA Submittal; 100 % DD, 50% CD, 75% CD, 100% CD/DSA Submittal)

b. Value engineering analysis may be requested. Is this service required? If so, at what design milestone(s) do value engineering reports apply for Phase 2 Inc #2 and Phase 3 (e.g. 100% CD/DSA Submittal; 100% DD, 50% CD, 75% CD, 100% CD/DSA Submittal)

c. Detailed [cost] estimates are required at each design phase milestone. Accordingly, at what design milestone(s) do detailed [cost] estimates apply for Phase 2 Inc #2 and Phase 3 (e.g. 100% CD/DSA Submittal; 100% DD, 50% CD, 75% CD, 100% CD/DSA Submittal)

d. What are the finish dates of Phase 3 design phase milestones within the five (5) month "Design" activity on Attachment O (e.g. schematic, 100% DD, 50% CD, 75% CD, 100% CD/DSA Submittal)?

Answer .....Refer to Exhibit H for preconstruction services requirements. Refer to attachment O preliminary master schedule for schedule.

RFI 228. ..... Addendum 1 noted substitutions will not be considered during bid phase for Phase 2 Increment 1. Should proposal pricing be based on future proposed substitutions or per documents?

Answer ..... All work, equipment, material, etc., without limitation, shall be bid/priced using the specified item that is the basis of design within the bid documents. If basis of design is not noted, the number one listed manufacture/product shall be used. Post- award; if a substitution is submitted and accepted, the savings between the item noted in the bid documents, as described above, and the substituted item shall be returned in full to the District. The savings shall be determined using the quote provided to the contractor prior to bid for the specified item compared to the cost of the substituted item. If no quote was obtained for the specified item, retail cost of the specified item shall be used to determine the savings to be returned to the District.

A. PROJECT MANUAL - ATTACHMENTS

1. **Section 00 01 10 TABLE OF CONTENTS (DIVISIONS 00-14)**
   - *A. ADDED Specification Section 09 97 37 Dry Erase Coating under Division 09 – Finishes*
   - *B. DELETED Specification Section 07 13 26 Self-Adhering Sheet Waterproofing under Division 07 – Thermal and Moisture Protection*

2. **Section 05 51 13 METAL PAN STAIRS**
   - *A. DELETE subparagraph 055113_1.6_A.1 to eliminate the requirement for an AISC-certified firm.*

3. **Section 07 13 26 SELF-ADHERING SHEET WATERPROOFING**
   - *A. DELETE section in its entirety.*

4. **Section 07 46 46 FIBER-CEMENT SIDING**
   - *A. REVISED Specification 07 46 46 Fiber-Cement Siding*

5. **Section 08 36 13 SECTONAL DOORS (GARAGE DOORS)**
   - *A. REVISED door operation to be electric.*

6. **Section 09 51 23 ACOUSTICAL TILE CEILINGS**
   - *A. REVISED Basis of Design for 'ACT-1' to "Armstrong Ultima High NRC Tegular Fine Texture Lay-in Tile, 1942 (Basis-of-Design) at subparagraph 095123_2.4_A.1.a.*
   - *B. REVISE 'ACT-1' panel thickness to 7/8" at subparagraph 095123_2.4_A.1.c.*

7. **Section 09 67 23 RESINOUS FLOORING**
   - *A. REVISED Specification 09 67 23 Resinous Flooring*

8. **Section 09 97 37 DRY ERASE COATING**
   - *A. ADD Specification 09 97 37 Dry Erase Coating*

9. **Section 10 28 00 WASHROOM ACCESSORIES**
   - *A. DELETE "(Faculty and Staff Toilet Rooms only)" from subparagraph 102800_3.3_K.*

10. **Section 10 21 13 TOILET AND SHOWER COMPARTMENTS**
    - *A. ADDED Paragraph 1.3*
    - *B. REVISED Paragraph 1.4. Removed reference to shower compartments.*
    - *C. REVISED Paragraph 2.2 for clarification on location of various toilet compartments. Provided color information.*
    - *D. ADDED Paragraph 2.3 for Hiny Hiders toilet compartment system*
    - *E. REVISED Paragraph 2.4 for hardware*
    - *F. REVISED Paragraph 3.2.*

11. **Section 11 30 13 RESIDENTIAL APPLIANCES**
    - *A. ADDED Section for Icemaker*

12. **Section 00 01 10 TABLE OF CONTENTS (DIVISIONS 21-33)**
    - *A. ADD Specification Section 22 08 00 Plumbing Cx Specification under Division 22 – Plumbing*

13. **Section 22 05 00 COMMON WORK RESULTS FOR PLUMBING**
    - *A. REVISED guarantee from 1 year to 2-years.*

14. **Section 22 08 00 PLUMBING Cx SPECIFICATION**
    - *A. ADDED new specification section 22 08 00.*

15. Section 22 11 16 DOMESTIC WATER PIPING SPECIFICATION
- *A. REVISED Paragraph 3.1 B – Note 5 revised*

16. Section 23 05 00 COMMON WORK RESULTS FOR HVAC
- *A. REVISED guarantee from 1 year to 2-years*

17. Section 23 07 13 DUCT INSULATION SPECIFICATION
- *A. REVISED Paragraph 2.1 A & C*
- *B. REMOVED Paragraph 2.2 & 2.3*
- *C. REVISED Paragraph 3.1 A & B*

18. Section 23 08 00 MECHANICAL Cx SPECIFICATION
- *A. REVISED guarantee from 1 year to 2-years.*

19. Section 23 09 23 DIRECT DIGITAL CONTROLS SPECIFICATION
- *A. REVISED – Specification 23 09 23 AC Unit Sequence of Operation*

20. Section 23 33 13 DAMPERS SPECIFICATION
- *A. ADDED – Paragraph 2.1 F #8, #9 & #10*

21. Section 23 33 53 DUCT LINER SPECIFICATION
- *A. REVISED – Paragraph 2.2 A, #3*
- *B. REVISED – Paragraph 2.2 B*

B. DRAWINGS - ATTACHMENTS

As summarized in pre-bid items indicated on this addendum, the following sheets are attached:

1. **Sheet C1.1 - EXISTING SITE & DEMOLITION PLAN**
   - *A. Revise plan to eliminate showing some of the Inc 2 parking lot work.*

2. **Sheet C2.1- HORIZONTAL CONTROL PLAN**
   - *A. Revise plan to eliminate showing some of the Inc 2 parking lot work.*

3. **Sheet C3.1 - GRADING PLAN**
   - *A. Revise plan to eliminate showing some of the Inc 2 parking lot work.*
   - *B. Add "TD" labels at trench drain rim locations.*
   - *C. Add headerboard reference.*

4. **Sheet C4.1- STORM DRAIN & SANITARY SEWER PLAN**
   - *A. Revise plan to eliminate showing some of the Inc 2 parking lot work.*
   - *B. Revise sewer pipe callouts at SSMH #1 and EX SSMH to show all 6" pipe.*
   - *C. Revise trench drain spec in legend.*

5. **Sheet C5.1 - WATER PLAN**
   - *A. Revise plan to eliminate showing some of the Inc 2 parking lot work.*
   - *B. Revise domestic water boat label to match the 4" size shown on other labels.*
   - *C. Revise fire hydrant lead to be 6".*

6. **Sheet C7.2 - EROSION CONTROL PLAN**
   - *A. Revise plan to eliminate showing some of the Inc 2 parking lot work.*

7. **Sheet L1.1A - LAYOUT PLAN**
   - *A. Revised grades at ramp walls for even wall heights to match Phase 1.*

8. **Sheet A2.1 ENLARGED FLOOR PLANS & RESTROOM ELEVATIONS**
   - *A. MODIFIED toilet partition tag TP to read TP-1 for Hiny Hiders partitions (used on 1st floor Boys & Girls Restrooms)*
   - *B. ADDED toilet partition tag TP-2 for Scranton Aria (used on 2nd & 3rd floor All Gender Restrooms)*
   - *C. UPDATED all toilet partition tags to the correct toilet partition type, See attached A2.2*

9. **Sheet A2.2 ENLARGED FLOOR PLANS & RESTROOM ELEVATIONS**
   - *A. MODIFIED toilet partition tag TP to read TP-1 for Hiny Hiders partitions (used on 1st floor Boys & Girls Restrooms)*
   - *B. ADDED toilet partition tag TP-2 for Scranton Aria (used on 2nd & 3rd floor All Gender Restrooms)*
   - *C. REMOVED SD object from 5/A2.2, See attached A2.2*
   - *D. ADDED plastic laminate material callouts to Kitchenette elevations*

10. **Sheet A3.F1.1 REFLECTED CLG PLAN – BLDG F – 1st FLOOR**
    - *A. MODIFIED General Note 13 to include wall-mounted roller shades*

11. **Sheet A3.F2.1 REFLECTED CLG PLAN – BLDG F – 2nd FLOOR**
    - *A. MODIFIED General Note 13 to include wall-mounted roller shades*

12. Sheet A3.F3.1 REFLECTED CLG PLAN – BLDG F – 3RD FLOOR
- *A. MODIFIED ceiling height over F300 Open Area to be 10'-0".*
- *B. MODIFIED ceiling height over the restroom entrance to be 9'-6".*
- *C. REMOVED cable trays from F309 Electrical Room and F326 Custodial*
- *D. MODIFIED General Note 13 to include wall-mounted roller shades*

13. Sheet A3.S1.1 REFLECTED CLG PLAN – BLDG S – 1st FLOOR
- *A. MODIFIED General Note 13 to include wall-mounted roller shades*

14. Sheet A3.S2.1 REFLECTED CLG PLAN – BLDG S – 2nd FLOOR
- *A. MODIFIED General Note 13 to include wall-mounted roller shades*

15. Sheet A3.S3.1 REFLECTED CLG PLAN – BLDG S – 3RD FLOOR
- *A. MODIFIED ceiling height over S300 Open Area to be 10'-0".*
- *B. MODIFIED ceiling height over the restroom entrance to be 9'-6".*
- *C. REMOVED cable trays from S309 Electrical Room and S326 Custodial*
- *D. MODIFIED General Note 13 to include wall-mounted roller shades*

16. Sheet A3.12 CEILING DETAILS
- *A. MODIFIED name of detail 55/A3.12*

17. Sheet A4.10 ROOF DETAILS
- *A. MODIFIED SSTL coping to be GSM coping 11/A4.10, 22/A4.10, 24/A4.10 & 25/A4.10*
- *B. MODIFIED 26/A4.10, 12/A4.10 coping to be metal panel system coping*
- *C. MODIFIED 24/A4.10 & 25/A4.10 rigid insulation to terminate at top of parapet*

18. Sheet A5.F.1 EXT ELEVS – BLDG F
- *A. MODIFIED location of control joints, moved to head of window at stair tower, 1/A5.F.1 & 2/A5.F.1*
- *B. MODIFIED horizontal control joints CJ labels to be LINTELs*

19. Sheet A5.F.2 EXT ELEVS – BLDG F
- *A. MODIFIED location of control joints, moved to head of window at stair tower, 32/A5.F.2*
- *B. MODIFIED horizontal control joint CJ labels to be LINTELs*

20. Sheet A5.S.1 EXT ELEVS – BLDG S
- *A. MODIFIED location of control joints identical to Building F –This sheet not issued*

21. Sheet A5.S.2 EXT ELEVS – BLDG S
- *A. MODIFIED location of control joints identical to Building F –This sheet not issued*

22. Sheet A8.6 VERT CIRCULATION
- *A. DELETE subsurface wall drain at base of elevator pit on drawings 4 & 5*
- *B. DELETE keynote 33 41C from drawings 4 & 5 and Keynote legend*

23. Sheet A8.10 STAIR DETAILS
- *A. MODIFIED stair nosing to Balco H-10, details 22, 32, 51 & 52*

24. Sheet A8.11 STAIR DETAILS
- *A. MODIFIED detail 15/A8.11 title to PLATFORM SECTION*
- *B. MODIFIED detail reference to F/S6.4*
- *C. CLARIFIED 15/A8.11 platform is not precast concrete, but metal stud framed*
- *D. MODIFIED detail 51/A8.11 to remove foam fill under stair treads.*

25. Sheet A8.12 STAIR DETAILS
- *A. MODIFIED stair nosing to Balco H-10, detail 55*

26. Sheet A8.13 ELEVATOR DETAILS
- *A. REMOVED 21/A8.13's references to Building C*

27. Sheet A9.2 STOREFRONT ELEVS
- *A. MODIFIED detail references for frame type16*

28. Sheet A9.3 STOREFRONT ELEVS
- *A. MODIFIED frame type 34's height to 10'-0" for 2nd floor Rooms F207 & S207 and 9'-6" for 3rd floor Rooms F307 & S307*

29. Sheet A9.11 DOOR/WINDOW FRAME DETAILS
- *A. ADDED detail 52/A9.11*

30. Sheet A10.2 GENERAL BUILDING DETAILS
- *A. MODIFIED detail 54/A10.2 to remove reference to horizontal sealant joint.*

31. Sheet A10.3 GENERAL BUILDING DETAILS
- *B. ADDED detail 54/A10.3 tile edge condition.*

32. Sheet A12.1 INT. ELEVATIONS – BLDG F
- *A. MODIFIED equipment & item tags to keynote tags*
- *B. REVISE the Interior Finish Legend for 'EB-1' to "EPOXY BASE – MFR: DEX-O-TEX" "NAME: TERRACOLOR – NUMBER: LIMESTONE 112"*
- *C. ADDED material finish WC-1 to Interior Finish Legend*

33. Sheet A12.2 INT. ELEVATIONS – BLDG F
- *A. REVISE the Interior Finish Legend for 'EB-1' to "EPOXY BASE – MFR: DEX-O-TEX" "NAME: TERRACOLOR – NUMBER: LIMESTONE 112"*
- *B. ADDED material finish WC-1 to Interior Finish Legend*

34. Sheet A12.3 INT. ELEVATIONS – BLDGS F & S
- *A. REVISE the Interior Finish Legend for 'EB-1' to "EPOXY BASE – MFR: DEX-O-TEX" "NAME: TERRACOLOR – NUMBER: LIMESTONE 112"*
- *B. ADDED material finish WC-1 to Interior Finish Legend*

35. Sheet A12.4 INT. ELEVATIONS – BLDGS F & S
- *A. MODIFIED detail title to N-ELEVATION F200A, F300, S200A, S300*
- *B. ADDED detail reference 56/A3.12 to Keynote 11 19*
- *C. REVISE the Interior Finish Legend for 'EB-1' to "EPOXY BASE – MFR: DEX-O-TEX" "NAME: TERRACOLOR – NUMBER: LIMESTONE 112"*
- *D. ADDED material finish WC-1 to Interior Finish Legend*

36. Sheet A12.5 INT. ELEVATIONS – BLDG S

A. MODIFIED equipment & item tags to keynote tags
B. REVISE the Interior Finish Legend for 'EB-1' to "EPOXY BASE – MFR: DEX-O-TEX" "NAME: TERRACOLOR – NUMBER: LIMESTONE 112"
C. ADDED material finish WC-1 to Interior Finish Legend

37. Sheet A12.6 INT. ELEVATIONS – BLDG S

A. REVISE the Interior Finish Legend for 'EB-1' to "EPOXY BASE – MFR: DEX-O-TEX" "NAME: TERRACOLOR – NUMBER: LIMESTONE 112"
B. ADDED material finish WC-1 to Interior Finish Legend

38. Sheet A12.7 INT. ELEVATIONS – BLDGS F & S – FEATURE WALLS

A. REVISE the Interior Finish Legend for 'EB-1' to "EPOXY BASE – MFR: DEX-O-TEX" "NAME: TERRACOLOR – NUMBER: LIMESTONE 112"
B. ADDED material finish WC-1 to Interior Finish Legend

39. Sheet A13.F1.1 FINISH FLR PLANS & SCHEDULES - BLDG F – 1ST FLOOR

A. DELETE the "CT" finish tags in 'GIRLS' F112 and 'BOYS' F113. Refer to the restroom interior elevations for ceramic wall tile types and locations.
B. REVISE the Interior Finish Legend for 'EP-1' to "EPOXY – MFR: DEX-O-TEX" "NAME: TERRACOLOR, LIMESTONE 112"
C. REVISE the Interior Finish Legend for 'EB-1' to "EPOXY BASE – MFR: DEX-O-TEX" "NAME: TERRACOLOR – NUMBER: LIMESTONE 112"
D. ADDED material finish WC-1 to Interior Finish Legend

40. Sheet A13.F2.1 FINISH FLR PLANS & SCHEDULES - BLDG F – 2nd FLOOR

A. DELETE the "CT" finish tags in 'STAFF RR' F215 and 'ALL GENDER RR' F228. Refer to the restroom interior elevations for ceramic wall tile types and locations.
B. REVISE the Interior Finish Legend for 'EP-1' to "EPOXY – MFR: DEX-O-TEX" "NAME: TERRACOLOR, LIMESTONE 112"
C. REVISE the Interior Finish Legend for 'EB-1' to "EPOXY BASE – MFR: DEX-O-TEX" "NAME: TERRACOLOR – NUMBER: LIMESTONE 112"
D. ADDED material finish WC-1 to Interior Finish Legend
E. ADDED finish material tag to platform under Student Collaboration Stair FS3-02

41. Sheet A13.F3.1 FINISH FLR PLANS & SCHEDULES - BLDG F – 3rd FLOOR

A. DELETE the "CT" finish tags in 'STAFF RR' F315 and 'ALL GENDER RR' F328. Refer to the restroom interior elevations for ceramic wall tile types and locations.
B. REVISE the Interior Finish Legend for 'EP-1' to "EPOXY – MFR: DEX-O-TEX" "NAME: TERRACOLOR, LIMESTONE 112"
C. REVISE the Interior Finish Legend for 'EB-1' to "EPOXY BASE – MFR: DEX-O-TEX" "NAME: TERRACOLOR – NUMBER: LIMESTONE 112"
D. ADDED material finish WC-1 to Interior Finish Legend

42. Sheet A13.S1.1 FINISH FLR PLANS & SCHEDULES - BLDG S – 1ST FLOOR

A. DELETE the "CT" finish tags in 'GIRLS' S112 and 'BOYS' S113. Refer to the restroom interior elevations for ceramic wall tile types and locations.
B. REVISE the Interior Finish Legend for 'EP-1' to "EPOXY – MFR: DEX-O-TEX" "NAME: TERRACOLOR, LIMESTONE 112"
C. REVISE the Interior Finish Legend for 'EB-1' to "EPOXY BASE – MFR: DEX-O-TEX" "NAME: TERRACOLOR – NUMBER: LIMESTONE 112"
D. ADDED material finish WC-1 to Interior Finish Legend

43. Sheet A13.S2.1 FINISH FLR PLANS & SCHEDULES - BLDG S – 2nd FLOOR

A. DELETE the "CT" finish tags in 'STAFF RR' S215 and 'ALL GENDER RR' S228. Refer to the restroom interior elevations for ceramic wall tile types and locations.
B. REVISE the Interior Finish Legend for 'EP-1' to "EPOXY – MFR: DEX-O-TEX" "NAME: TERRACOLOR, LIMESTONE 112"
C. REVISE the Interior Finish Legend for 'EB-1' to "EPOXY BASE – MFR: DEX-O-TEX" "NAME: TERRACOLOR – NUMBER: LIMESTONE 112"
D. ADDED material finish WC-1 to Interior Finish Legend
E. ADDED finish material tag to platform under Student Collaboration Stair SS3-02

44. Sheet A13.S3.1 FINISH FLR PLANS & SCHEDULES - BLDG S – 3rd FLOOR

A. DELETE the "CT" finish tags in 'STAFF RR' S315 and 'ALL GENDER RR' S328. Refer to the restroom interior elevations for ceramic wall tile types and locations.
B. REVISE the Interior Finish Legend for 'EP-1' to "EPOXY – MFR: DEX-O-TEX" "NAME: TERRACOLOR, LIMESTONE 112"
C. REVISE the Interior Finish Legend for 'EB-1' to "EPOXY BASE – MFR: DEX-O-TEX" "NAME: TERRACOLOR – NUMBER: LIMESTONE 112"
D. ADDED material finish WC-1 to Interior Finish Legend

45. Sheet A14.S.1 SIGNAGE PLAN & SCHEDULE – BLDG S

A. ADDED RDU signage to S120, S127 & schedule

46. Sheet S1.6 TYPICAL DETAILS

A. DELETE detail 7
B. REVISE minimum bearing at Detail 8 for consistency with Specifications
C. REVISE maximum height for screen wall at Detail 11 for coordination with Architecture drawings. Foundation size updated to match Detail 10 due to taller wall.

47. Sheet S2.F1.1 FOUNDATION PLAN – BLDG F

A. REVISE screen wall adjacent to electrical enclosure to coordinate with Architecture drawings

48. Sheet S3.2 SECTIONS - BLDGS F&S

A. REVISE Section K to indicate depressed slab, not sloped slab, to coordinate with Architects design intent

49. Sheet S5.6 DETAILS

A. REVISE Schedule A to reflect the current gridlines that are appropriate for Buildings F & S

50. Sheet S6.1 STAIR FRAMING PLANS – BLDGS F&S

A. DELETE callout for blockout for hand rails at Partial Plan 1

51. Sheet M0.2 MECHANICAL SCHEDULES
- *A. REVISED MODEL NUMBER FOR VARIABLE FREQUENCY DRIVE SCHEDULE*
- *B. REVISED SERVICE MARK FOR UNITS VFD-S1, VFD-S2 & VFD-S3*
- *C. ADDED note 4 in Air Cooled Condensing Unit Schedule.*

52. Sheet M0.3 MECHANICAL SCHEDULES
- *A. REVISED selection for VAV-S1-7*

53. Sheet M1.F.1 BLDG F FIRST FLOOR - MECHANICAL
- *A. 1/M1.F.1 – ADDED manual volume dampers on constant volume boxes.*
- *B. 2/M1.F.1 – REVISED return ducting sizes*

54. Sheet M1.F.2 BLDG F SECOND FLOOR - MECHANICAL
- *A. 1/M1.F.2 – REVISED return ducting sizes*

55. Sheet M1.F.3 BLDG F THIRD FLOOR - MECHANICAL
- *A. 1/M1.F.3 – REVISED return ducting sizes*
- *B. 1/M1.F.3 – REVISED manual volume damper locations.*
- *C. 1/M1.F.3 – REVISED return ducting in CLASSROOM F307*
- *D. 1/M1.F.3 – REMOVED duct lagging. Large supply/return plenums are now covered with a soffit.*
- *E. 1/M1.F.3 - REVISED keynotes and sound trap size*

56. Sheet M1.S.1 BLDG S FIRST FLOOR - MECHANICAL
- *A. 1/M1.S.1 - REVISED exhaust duct size for fume hood serving PREP S107 to be 7"ø.*
- *B. 1/M1.S.1 – ADDED manual volume dampers on constant volume boxes.*
- *C. 1/M1.S.1 – REVISED keynotes on plan*
- *D. 1/M1.S.1 – REVISED ducting/VAV box serving PREP S107*

57. Sheet M1.S.2 BLDG S SECOND FLOOR - MECHANICAL
- *A. 1/M1.S.2 – REVISED return ducting sizes*

58. Sheet M1.S.3 BLDG S THIRD FLOOR - MECHANICAL
- *A. 1/M1.S.3 – REVISED return ducting sizes*
- *B. 1/M1.S.3 – REVISED manual volume damper locations.*
- *C. 1/M1.S.3 – REVISED return ducting in CLASSROOM S307*
- *D. 1/M1.S.3 – REMOVED duct lagging. Large supply/return plenums are now covered with a soffit.*
- *D. 1/M1.S.3 - REVISED keynotes and sound trap size*

59. Sheet M2.F.1 BLDG F ROOF - MECHANICAL
- *A. 1/M2.F.1 – REVISED duct drop sizes*

60. Sheet M2.S.1 BLDG S ROOF - MECHANICAL
- *A. 1/M2.S.1 – REVISED duct drop sizes*

61. Sheet M3.F.1 BLDG F FIRST FLOOR - HYDRONIC
- *A. 2/M3.F.1 – REVISED plan to remove the exhaust shown on this view to clarify drawings. Boiler room exhaust fan is still shown on M1.F.1.*

62. Sheet M4.01 DETAILS - MECHANICAL
- *A. 4/M4.01 - REVISED backdraft damper info*

63. Sheet M4.02 DETAILS - MECHANICAL
- *A. 7/M4.02 - REVISED lining notes*

64. Sheet M4.03 DETAILS - MECHANICAL
- *A. 11/M4.03 - REVISED exhaust duct connection information*

65. Sheet M5.01 HOT WATER PIPING DIAGRAM & DETAILS - MECHANICAL
- *A. 1/M5.01 - REVISED Keynote 8*
- *B. 1/M5.01 – ADDED note 1*
- *C. 1M/5.01 – ADDED keynote 21 to clarify plumbing connections.*
- *D. 1/M5.01 – REVISED detail*

66. Sheet M6.02 CONTROLS - MECHANICAL
- *A. 1/M6.02 – REVISED electrical connections to show VFD*
- *B. 1/M6.02 – REVISED Sequence of operation*

67. Sheet M6.03 CONTROLS - MECHANICAL
- *A. 1/M6.03 – REVISED power for primary pumps to accurately show ECM*
- *B. 1/M6.03 – REVISED notes on differential pressure sensor.*
- *C. 4/M6.03 – REVISED note for where monitoring is applicable (bottom of detail).*

68. Sheet P0.1 SYMBOLS, NOTES, AND SCHEDULES
- *A. PLUMBING FIXTURE AND EQUIPMENT SCHEDULE – ADDED hub drain, HD-1.*

69. Sheet P1.F.1 BLDG F FIRST FLOOR
- *A. 1/P1.F.1 – ADDED HD-1 hub drain and keyed note indicating below-counter icemaker tie-in.*
- *B. 3/P1.F.1 – REVISED locations of floor sinks in Boiler Room F111 to accommodate mechanical equipment and housekeeping pads.*

70. Sheet P1.S.1 BLDG S FIRST FLOOR
- *A. 1/P1.S.1 – ADDED HD-1 hub drain and keyed note indicating below-counter icemaker tie-in.*

71. SHEET E1.2 ELECTRICAL SITE PLAN
- *A. SUBSTITUTE sheet in set with attachment E1.2 to Addendum #2 dated July 8, 2020.*
- *B. Updated location and length of Roseville Electric conduit run.*

72. SHEET E3.F1.2 POWER PLAN – FOOTHILL BUILDING – SECOND FLOOR
- *A. SUBSTITUTE sheet in set with attachment E3.F1.2 to Addendum #2 dated July 8, 2020.*
- *B. Updated quantity and locations of WAPs*

73. SHEET E4.F1.2 SIGNAL PLAN – FOOTHILL BUILDING – SECOND FLOOR
- *A. SUBSTITUTE sheet in set with attachment E4.F1.2 to Addendum #2 dated July 8, 2020.*
- *B. Changed Sheet Note #3.*

74. SHEET E4.F1.3 SIGNAL PLAN – FOOTHILL BUILDING – THIRD FLOOR
- *A. SUBSTITUTE sheet in set with attachment E4.F1.3 to Addendum #2 dated July 8, 2020.*
- *B. Changed Sheet Note #3.*

75. SHEET E4.S1.2 SIGNAL PLAN – SIERRA BUILDING – SECOND FLOOR
- *A. SUBSTITUTE sheet in set with attachment E4.S1.2 to Addendum #2 dated July 8, 2020.*
- *B. Changed Sheet Note #3.*

76. SHEET E4.S1.3 SIGNAL PLAN – SIERRA BUILDING – THIRD FLOOR
- *A. SUBSTITUTE sheet in set with attachment E4.S1.3 to Addendum #2 dated July 8, 2020.*
- *B. Changed Sheet Note #3.*

77. SHEET E5.2 FIRE ALARM RISE DIAGRAM
- *A. SUBSTITUTE sheet in set with attachment E5.2 to Addendum #2 dated July 8, 2020.*
- *B. Updated Riser for new control relays.*

78. SHEET E5.F1.2 FIRE ALARM PLAN – FOOTHILL BUILDING – SECOND FLOOR
- *A. SUBSTITUTE sheet in set with attachment E5.F1.2 to Addendum #2 dated July 8, 2020.*
- *B. Removed magnetic door holds.*
- *C. Added control relay.*

79. SHEET E5.F1.3 FIRE ALARM PLAN – FOOTHILL BUILDING – THIRD FLOOR
- *A. SUBSTITUTE sheet in set with attachment E5.F1.3 to Addendum #2 dated July 8, 2020.*
- *B. Removed magnetic door holds.*
- *C. Added control relay.*

80. SHEET E5.S1.2 FIRE ALARM PLAN – SIERRA BUILDING – SECOND FLOOR
- *A. SUBSTITUTE sheet in set with attachment E5.S1.2 to Addendum #2 dated July 8, 2020.*
- *B. Removed magnetic door holds.*
- *C. Added control relay.*

81. SHEET E5.S1.3 FIRE ALARM PLAN – SIERRA BUILDING – THIRD FLOOR
- *A. SUBSTITUTE sheet in set with attachment E5.S1.3 to Addendum #2 dated July 8, 2020.*
- *B. Removed magnetic door holds.*
- *C. Added control relay.*

82. SHEET E6.1 ENLARGED ROOM PLANS
- *A. SUBSTITUTE sheet in set with attachment E6.1 to Addendum #2 dated July 8, 2020.*
- *B. Updated cable trays to fit inside rooms and not conflict with walls.*

83. SHEET E7.3 RISER DIAGRAMS
- *A. SUBSTITUTE sheet in set with attachment E7.3 to Addendum #2 dated July 8, 2020.*
- *B. Corrected IDF names in Details 1 and 2.*
- *C. Corrected OSP ratings in Details 1 and 2.*

84. SHEET E7.4 RISER DIAGRAMS
- *A. SUBSTITUTE sheet in set with attachment E7.4 to Addendum #2 dated July 8, 2020.*
- *B. Deleted Detail 2.*

85. SHEET E8.4 DETAILS
- *A. SUBSTITUTE sheet in set with attachment E8.4 to Addendum #2 dated July 8, 2020.*
- *B. Added Detail 4.*

C. OTHER ATTACHMENTS

1. RFP Scoring Sheet
- *A. REPLACE page 15 or 18 of RFP in its entirety.*

****End of ADDENDUM 02****

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SECTION 07 46 46 - FIBER-CEMENT SIDING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes fiber-cement siding and soffit.

B. Related Requirements:

1. Section 012500 “Substitution Procedure”.
2. Section 054000 “Cold-Formed Metal Framing”.
3. Section 055000 “Metal Fabrications”.
4. Section 072100 “Thermal Insulation”.
5. Section 072500 "Weather Barriers".
6. Section 072713 “Modified Bituminous Sheet Air Barriers”
7. Section 076200 “Sheet Metal Flashing and Trim”.
8. Section 079200 “Joint Sealants”.

1.3 COORDINATION

A. Coordinate siding installation with flashings and other adjoining construction to ensure proper sequencing.

1.4 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1.5 ACTION SUBMITTALS

A. Product Data: For each type of product. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.

B. Samples for Initial Selection: For fiber-cement siding including related accessories.

C. Samples for Verification: For each type, color, texture, and pattern required.

1. 12-inch- (300-mm-) long-by-actual-width Sample of siding.
2. 24-inch- (600-mm-) wide-by-36-inch- (900-mm-) high Sample panel of siding assembled on plywood backing.
3. 12-inch- (300-mm-) long-by-actual-width Sample of soffit.
4. 12-inch- (300-mm-) long-by-actual-width Samples of trim and accessories.

1.6 INFORMATIONAL SUBMITTALS

A. Product Certificates: For each type of fiber-cement siding.

B. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for fiber-cement siding.

C. Research/Evaluation Reports: For each type of fiber-cement siding required, from ICC-ES.

D. Sample Warranty: For special warranty.

1.7 CLOSEOUT SUBMITTALS

A. Maintenance Data: For each type of product, including related accessories, to include in maintenance manuals.

1.8 MAINTENANCE MATERIAL SUBMITTALS

A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.

1. Furnish full lengths of fiber-cement siding including related accessories, in a quantity equal to 2 percent of amount installed.

1.9 QUALITY ASSURANCE

A. Mockups: Build mockups to verify selections made under Sample submittals and to demonstrate aesthetic effects and to set quality standards for fabrication and installation.

1. Build mockup of typical wall area as shown on Drawings.
2. Build mockups for fiber-cement siding including accessories.
   a. Size: 48 inches (1200 mm) long by 60 inches (1800 mm) high.
   b. Include outside corner on one end of mockup and inside corner on other end.

3. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing. (See also Section 014000 “Quality Requirements”)
4. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.
5. Combine this Siding section with Soffit Panels to illustrate corner coordination.

1.10 DELIVERY, STORAGE, AND HANDLING

A. Deliver and store packaged materials in original containers with labels intact until time of use.

B. Store materials on elevated platforms, under cover, and in a dry location.

1.11 WARRANTY

A. Special Warranty: Manufacturer agrees to repair or replace products that fail in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:
   a. Structural failures including cracking and deforming.
   b. Deterioration of materials beyond normal weathering.

2. Warranty Period: 15 years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Acceptable Siding Manufacturer: James Hardie Building Products, Inc., which is located at: 26300 La Alameda Suite 400 ; Mission Viejo, CA 92691; Toll Free Tel: 866-274-3464; Tel: 949-367-4980; Fax: 949-367-4981; Email: request info (info@jameshardie.com); Web: www.jameshardiecommercial.com.

B. Acceptable Coating Finish Manufacturer: Woodtone, which is located at: 8007 Aitken Rd.; Chilliwack, BC; Canada V2R 4H10; Toll Free Tel: 800-663-9844; Fax: 604-792-3976; Email: request info (info@woodtone.com); Web: www.woodtone.com

C. Acceptable Trim Manufacturer:

1. EasyTrim Reveals Inc. Subject to compliance with specified requirements. www.easytrimreveals.com: Phone 1.877.973.8746 Fax 1.403.265.6162
2. Tamlyn Trim: www.tamlyn.com; Phone: 1.800-334-1676; Fax: 1.281-499-8948

2.2 FIBER-CEMENT SIDING (FCP-1) ADD 1

A. General: ~~HardiePlank~~ Artisan ADD 2 Lap Siding; ASTM C 1186, Type A, Grade II, fiber-cement board, noncombustible when tested according to ASTM E 136; with a flame-spread index of 25 or less when tested according to ASTM E 84.

1. Type: 8-1/4 inches (184 mm) with 7 inches (152 mm) exposure.
2. Finish: Cedarmill Texture. Color: Smoky Alder ADD 1 with Rustic Series finish by Woodtone.

B. Labeling: Provide fiber-cement siding that is tested and labeled according to ASTM C 1186 by a qualified testing agency acceptable to authorities having jurisdiction.

C. Nominal Thickness: Not less than ~~0.312~~ 0.625 ADD 2 inch, refer to details.

D. Warncock Hersey Product Listing.

E. CAL-FIRE, Fire Engineering Division Building Materials Listing – Wildland Urban Interface (WUI) Listed Product.

F. California DSA PA-019 (ICC-ES evaluation reports ESR-2290, ESR-1844, and ESR-2273 CBC)

2.3 FIBER-CEMENT SOFFIT (FCP-2) ADD 1

A. General: HardieSoffit Panels; ASTM C 1186, Type A, Grade II, fiber-cement board, noncombustible when tested according to ASTM E 136; with a flame-spread index of 25 or less when tested according to ASTM E 84.

1. Type: 12 inches wide.
2. Finish: Cedarmill Texture. Color: Summer Wheat ADD 1 with Rustic Series finish by Woodtone.
3. Installation and Pattern: Refer to details.

B. Nominal Thickness: Not less than 1/4 inch, refer to details.

C. Labeling: Provide fiber-cement siding that is tested and labeled according to ASTM C 1186 by a qualified testing agency acceptable to authorities having jurisdiction.

D. Warncock Hersey Product Listing.

E. CAL-FIRE, Fire Engineering Division Building Materials Listing – Wildland Urban Interface (WUI) Listed Product.

F. California DSA PA-019 (ICC-ES evaluation reports ESR-2290, ESR-1844, and ESR-2273 CBC)

2.4 ACCESSORIES

A. Siding Accessories, General: Provide EasyTrim starter strips, EasyTrim edge trim, outside and inside corner caps, Sill and Header Trim, stainless steel bug screen and other items as indicated on drawings and as recommended by siding manufacturer for building configuration.

1. Provide accessories color as noted on Drawings.

B. Decorative Accessories: Provide the following fiber-cement decorative accessories as indicated on Drawings and not part of the EasyTrim package:

1. Corner posts.
2. Door and window casings.
3. Fasciae.
4. Moldings and trim.

C. Flashing: Provide flashing complying with Section 076200 "Sheet Metal Flashing and Trim" at window and door heads and where indicated.

D. Fasteners:

1. For fastening to wood, use siding nails of sufficient length to penetrate a minimum of 1 inch (25 mm) into substrate.
2. For fastening to metal, use ribbed bugle-head screws of sufficient length to penetrate a minimum of 1/4 inch (6 mm), or three screw-threads, into substrate.
3. For fastening fiber cement, use hot-dip galvanized fasteners.

E. Insulation: Refer to details on drawings.

1. 2” Rigid continuous thermal insulation.
2. 2 layers of building paper.
3. 5/8” exterior gypsum sheathing on metal stud.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates for compliance with requirements for installation tolerances and other conditions affecting performance of fiber-cement siding and related accessories.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Clean substrates of projections and substances detrimental to application.

3.3 INSTALLATION

A. General: Comply with manufacturer's written installation instructions applicable to products and applications indicated unless more stringent requirements apply.

1. Do not install damaged components.
2. Install fasteners no more than 24 inches (600 mm) o.c.

B. Install joint sealants as specified in Section 079200 "Joint Sealants" and to produce a weathertight installation.

C. Install exterior gypsum sheathing as specified in section 092116 “Gypsum Board Assemblies”

3.4 ADJUSTING AND CLEANING

A. Remove damaged, improperly installed, or otherwise defective materials and replace with new materials complying with specified requirements.

B. Clean finished surfaces according to manufacturer's written instructions and maintain in a clean condition during construction.

END OF SECTION 07 46 46

SECTION 083613 SECTIONAL DOORS (GARAGE DOORS)

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SECTION INCLUDES

A. Sectional overhead doors of the following types:

~~1. Full-vision aluminum doors.~~
~~2. Electric door operators.~~

1.3 RELATED SECTIONS

A. Section 057500 - Metal Fabrications: Steel channel opening frame.

B. Section 087100 - Door Hardware: Lock cylinders.

C. Division 26 Sections: Electrical service and connections for powered operators.

1.4 REFERENCES

A. ASTM A 653/A 653M - Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.

B. ASTM A 924/A 924M - Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process.

C. ASTM B 209/209M - Specification for Aluminum and Aluminum-Alloy Sheet and Plate.

D. ASTM B 221/221M - Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.

1.5 SUBMITTALS

A. Submit under provisions of General and Special Conditions.

B. Product Data : Manufacturer's data sheets on each product to be used, including:

~~1. Preparation instructions and recommendations.~~

~~2. Storage and handling requirements and recommendations.~~
~~3. Installation methods.~~
~~4. Operation and maintenance data.~~

~~5. Nameplate data and ratings for motors.~~

C. Shop Drawings: Include opening dimensions and required tolerances, connection details, anchorage spacing, hardware locations, and installation details.

D. Selection Samples: For each finish specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.

E. Verification Samples: For each finish specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, color, and patterns.

1.6 WIND PERFORMANCE REQUIREMENTS

A. Design doors to withstand positive and negative wind loads as calculated in accordance with applicable building code.

1.7 QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in manufacturing the types of doors specified in this section, with not less than ten years of documented experience.

B. Installer Qualifications: Company specializing in installing the types of products specified in this section, with minimum of five years of documented experience, and approved by the door manufacturer.

1.8 WARRANTY

A. Finish Warranty: Provide manufacturer's standard finish warranty against rust through.

~~1. Warranty period: 10 years.~~ ADD2

PART 2 - PRODUCTS

2.1 FULL-VISION ALUMINUM DOORS - EXTERIOR

a. A. Basis-of-Design: Subject to compliance with requirements, provide Overhead Door 521 Series, or approved equal.
b. B. Door Construction:
c. 1. Panel Thickness: 1-3/4 inch.
d. 2. Material: Extruded 6061-T1 aluminum. Polyurethane-filled stiles and rails.
e. 3. Finish: Clear anodized.
f. 4. Weatherseals: Bottom, flexible PVC; flexible jamb and header seals. Jamb seals to close off gap between door and wall finish ADD2

g. 5. Springs: 10,000 cycle.
h. 6. Track: 2-inch.
i. 7. Mounting: Angle.
~~j.~~ 8. Operation: Electric motor operation ADD 2
k. 9. Hardware: Galvanized steel hinges and fixtures. Ball bearing rollers with hardened steel races.
l. 10. Lock: Galvanized steel, interior-mounted.
m. 11. Glazing: 1/2-inch insulated glazing unit, Solarban 70XL argon filled.
n. 12. Solid Panels: 3/8-inch EPS insulated metal panel.

2.2 ELECTRIC DOOR OPERATORS

A. General: Provide electric door operator provided by door manufacturer for door with operational life specified complete with electric motor and factory pre-wired motor controls, starter, gear-reduction unit, clutch, remote-control stations, control devices, integral gearing for locking door, and accessories required for proper operation. Comply with California Electrical Code (CEC).

~~1. Solenoid-operated brake.~~

B. Disconnect Device: Provide hand-operated disconnect or mechanism for emergency manual operation while disconnecting motor, without affecting timing of limit switch. Mount disconnect and operator so they are accessible from floor level. Include interlock device to automatically prevent motor from operating when emergency operator is engaged.

C. Design operator so motor may be removed without disturbing limit switch adjustment and without affecting emergency auxiliary operator.

D. Provide control equipment complying with NEMA ICS1, NEMA ICS 2, and NEMA ICS 6, with CEC Class 2 control circuit, maximum 24-V, AC or DC.

E. Electric Motors: Provide high-starting torque, reversible, continuous-duty, Class A insulated, electric motor, complying with NEMA MG 1, with overload protection, sized to start, accelerate, and operate door in either direction, from any position, at not less than 2/3 fps (0.2 m/s) and not more than 1 fps (.03m/s), without exceeding nameplate ratings or considering service factor.

~~1. Type: Mechanical.~~
~~2. Type: Solid State.~~

~~3. Type: Jackshaft.~~
~~4. Type: Trolley.~~
~~5. HP:~~

a. 1 hp (746 W).

~~6. Power Characteristics:~~

a. 3 phase.

7. Service Factor:

a. NEMA 4 watertight.

8. Coordinate wiring requirements and electrical characteristics of motors with building electrical system.

F. Remote Control Station: Provide momentary contact, 3-button control station with push - button controls labeled "Open", "Close" and "Stop".

G. Remote Control Station: Provide continuous contact, 3-button control station with push - button controls labeled "Open", "Close" and "Stop".

H. Provide interior units, fully guarded, surface mounted, heavy-duty type, with general-purpose NEMA ICS 6 enclosure in one of the following types:

1. Enclosure Type: Type 1.
2. Enclosure Type: Type 4.
3. Enclosure Type: Type 12.

I. Obstruction Detection Device: Provide each motorized door with indicated external automatic safety sensor able to protect full width of door opening. Activation of sensor immediately stops and reverses downward door travel.

1. Sensor Edge: Provide each motorized door with an automatic safety sensing edge, located within astragal or weather stripping mounted to bottom bar. Contact with sensor immediately stops and reverses downward door travel. Connect to control circuit using manufacturer's standard take-up reel or self-coiling cord. Sensing edge shall be operated by:

a. Electric.

2. Photo-electric control: Provide each motorized door with a photo-electric device that will stop and reverse the downward door travel if the light beam is broken or blocked. Device shall be:

a. NEMA Type 1.

J. Limit Switches: Provide adjustable switches, interlocked with motor controls and set to automatically stop door at fully opened and fully closed positions.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine wall and overhead areas, including opening framing and blocking, with installer present, for compliance with requirements for installation tolerances, clearances, and other conditions affecting performance of Work in this Section.

~~1. Proceed with installation only after unsatisfactory conditions have been corrected.~~

B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

A. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

A. Install overhead doors and track in accordance with approved shop drawings and the manufacturer's printed instructions.

3.4 PROTECTION

A. Protect installed products until completion of project.

B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION 08 36 13

SECTION 09 67 23 - RESINOUS FLOORING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes: High-Performance Resinous Coating Systems.

B. Related Sections:
1. Section 033000 “Cast-In-Place Concrete”.
2. Section 079200 “Joint Sealants” for sealants installed at joints in resinous flooring systems.

1.3 SUBMITTALS

A. Product Data: For each type of product indicated. Include manufacturer's technical data, application instructions, and recommendations for each resinous flooring component required. Include certification indicating compliance of materials with requirements.

B. Samples for Verification: For each resinous flooring system required, 6 inches square, in specified color and texture, applied to a rigid backing by Installer for this Project.

C. Product Schedule: For resinous flooring.

D. Warranty: Manufacturer shall furnish a single, written warranty covering both material and workmanship for a period of one (1) full year from date of installation.

E. Maintenance Data: Resinous flooring maintenance data to be included in maintenance manuals.

1.4 QUALITY ASSURANCE

A. Single Source Responsibility:
1. Specialize in manufacture of coatings with a minimum of 10 years successful experience.
2. Able to demonstrate successful performance on comparable projects.

B. Installer Qualifications:
1. Experienced in application of specified coatings for a minimum of 5 years on projects similar in size and complexity to this Work.

C. Source Limitations: Obtain primary resinous flooring materials, including primers, resins, hardening agents, aggregates, grouting coats, topcoats and secondary materials from a single manufacturer.

D. ISO 9002: All materials, including primers, resins, curing agents, finish coats; aggregates and sealants are manufactured and tested under an ISO 9002 registered quality system.

E. Preinstallation Conference: Conduct conference at Project site reviewing the following:
1. Environmental requirements.
2. Protection of surfaces not scheduled to be coated.
3. Surface preparation.
4. Application and repair procedures.

5. Field quality control.
6. Cleaning.
7. Protection of flooring systems.
8. One-year inspection.
9. Coordination of other work.

1.5 DELIVERY, STORAGE, AND HANDLING

A. All materials used shall be factory pre-weighed and pre-packaged in single, easy to manage batches to eliminate on site mixing errors. No on site weighing or volumetric measurements allowed.

B. Material shall be stored in a dry, enclosed area protected from exposure to moisture. Temperature of storage area shall be maintained between 55 deg F and 85 deg F.

1.6 PROJECT CONDITIONS

A. Concrete substrate shall be properly cured for a minimum of 30 days. A vapor barrier must be present for concrete sub floors on or below grade. Otherwise, an osmotic pressure resistant grout must be installed prior to the resinous flooring.

B. Utilities, including electric, water, heat (air temperature between 60 and 85 deg F) and finished lighting to be supplied by General Contractor.

C. Job area to be free of other trades during, and for a period of 24 hours, after floor installation.

PART 2 - PRODUCTS

A. Manufacturer:
1. Dex-O-Tex 3000 E. Harcourt St. Rancho Dominguez, CA 90221 (310) 886-9100. (Basis-of-color)

B. Substitutions: Refer to Division 01 Section "Substitution Procedures."

C. Basis-of-Design Product (EP-1/EB-1): Dex-o-Tex; Terracolor, 3000 E. Harcourt St. Rancho Dominguez, CA 90221 (310) 886-9100

2.2 RESINOUS FLOORING

A. Resinous Flooring: Abrasion-, impact- and chemical-resistant, industrial-aggregate-filled, resin-based, monolithic floor surfacing designed to produce a seamless floor and integral cove base.

B. System Characteristics:
1. Colors: Terracolor: Refer to Drawings.
2. Wearing Surface: Textured for slip resistance.
3. Overall System Thickness: 1/4 inch nominal.

C. Vapor Control System: Recommended by resinous flooring manufacturer, engineered to prevent debonding resulting from vapor emissions up to 10 lbs. when tested in accordance with ASTM F 1869, or alkalinity levels up to 14.
1. Basis-of-Design: Subject to compliance with requirements, provide Dex-O-Tex Vapor Control Primer 200, or approved equal.

D. Antifracture Membrane and Sealant: Recommended by resinous flooring manufacturer, for compatible for use with vapor control system and resinous floor system.

1. Basis-of-Design: Subject to compliance with requirements, provide Dex-O-Tex Cheminert SC Membrane, or approved equal.

E. Underlayment: Recommended by resinous flooring manufacturer, troweled polyacrylate resin composition. Provide only in areas where drainage slope is indicated on drawings.
1. Basis-of-Design: Subject to compliance with requirements, provide Dex-O-Tex A-81 Underlayment, or approved equal.

F. Antimicrobial/Antibacterial Treatment:
1. Basis-of-Design: Subject to compliance with requirements, provide Dex-O-Tex Dexcide, or approved equal.

G. Body Coats:
1. Resin: Epoxy.
2. Formulation Description: High solids.
3. Type: Pigmented.
4. Application Method: Troweled.
a. Color: As selected by Architect from manufacturer’s full range of colors.
b. Number of Coats: One.
5. Aggregates: Manufacturer's standard.

H. Topcoat: Sealing or finish coats.
1. Resin: Epoxy.
2. Type: Clear.
3. Finish: Gloss.
4. Number of Coats: Two.
5. Thickness of Coats: 8 mils.

I. System Physical Properties: Provide resinous flooring system with the following minimum physical property requirements when tested according to test methods indicated:
1. Compressive Strength: 10,000 psi per ASTM C 579.
2. Tensile Strength: 1,400 psi per ASTM C 307.
3. Flexural Modulus of Elasticity: 4,000 psi per ASTM C 580.
4. Water Absorption: <0.2% per ASTM D570.
5. Impact Resistance: >160 in./lbs. per ASTM D 2794.
6. Abrasion Resistance: 0.04 gm maximum weight loss per ASTM D 4060.
7. Flammability: Self-extinguishing per ASTM D 635.
8. Hardness: 80 to 85, Shore D per ASTM D 2240.
9. Bond Strength: >400 psi, 100 percent concrete failure per ASTM D 7234.

J. System Chemical Resistance: Provide a detailed chemical resistance chart based on testing of systems by immersion in chemicals for a minimum 72 hours

2.3 ACCESSORIES

A. Patching and Fill Material: Resinous product of or approved by resinous flooring manufacturer and recommended by manufacturer for application indicated.

PART 3 - EXECUTION

3.1 PREPARATION

A. General: Prepare and clean substrates according to resinous flooring manufacturer's written instructions for substrate indicated. Provide clean, dry substrate for resinous flooring

application.

B. Concrete Substrates: Provide sound concrete surfaces free of laitance, glaze, efflorescence, curing compounds, form-release agents, dust, dirt, grease, oil, and other contaminants incompatible with resinous flooring.
   1. Roughen concrete substrates as follows:
      a. Shot-blast surfaces with an apparatus that abrades the concrete surface, contains the dispensed shot within the apparatus, and recirculates the shot by vacuum pickup.
      b. Comply with ASTM C 811 requirements unless manufacturer's written instructions are more stringent.
   2. Repair damaged and deteriorated concrete according to resinous flooring manufacturer's written instructions.
   3. Verify that concrete substrates are dry and moisture-vapor emissions are within acceptable levels according to manufacturer's written instructions.
      a. Perform anhydrous calcium chloride test, ASTM F 1869. Proceed with application of resinous flooring only after substrates have maximum moisture-vapor-emission rate of 3 lb of water/1000 sq. ft. of slab area in 24 hours.
   4. Alkalinity and Adhesion Testing: Verify that concrete substrates have pH within acceptable range. Perform tests recommended by manufacturer. Proceed with application only after substrates pass testing.

C. Resinous Materials: Mix components and prepare materials according to resinous flooring manufacturer's written instructions.

D. Use patching and fill material to fill holes and depressions in substrates according to manufacturer's written instructions.

E. Treat control joints and other nonmoving substrate cracks to prevent cracks from reflecting through resinous flooring according to manufacturer's written instructions.

3.2 APPLICATION

A. General: Apply components of resinous flooring system according to manufacturer's written instructions to produce a uniform, monolithic wearing surface of thickness indicated.
   1. Coordinate application of components to provide optimum adhesion of resinous flooring system to substrate, and optimum intercoat adhesion.
   2. Cure resinous flooring components according to manufacturer's written instructions. Prevent contamination during application and curing processes.
   3. At substrate expansion and isolation joints, comply with resinous flooring manufacturer's written instructions.

B. Integral Cove Base: Apply cove base mix to wall surfaces before applying flooring. Apply according to manufacturer's written instructions and details including those for taping, mixing, priming, troweling, sanding, and topcoating of cove base. Round internal and external corners.
   1. Integral Cove Base: 6 inches high.

C. Apply troweled or screeded body coats in thickness indicated for flooring system. Hand or power trowel and grout to fill voids. When cured, remove trowel marks and roughness using method recommended by manufacturer.

D. Apply topcoats in number indicated for flooring system and at spreading rates recommended in writing by manufacturer.

3.3 PROTECTION

A. Protect resinous flooring from damage and wear during the remainder of construction period. Use protective methods and materials, including temporary covering, recommended in writing by resinous flooring manufacturer.

END OF SECTION 09 67 23

SECTION 097201 - CLEAR FINISH ANTI-MICROBIAL/ANTI-BACTERIAL EPOXY MOSAIC COMPOSITION FLOORING

Dex-O-Tex Cheminert Terracolor with Clearseal Finish, 10-lb Vapor Control and Dexcide

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

A. Work of this Section, as shown or specified, shall be in accordance with the requirements of the Contract Documents.

1.2 WORK INCLUDED

A. Work of this Section includes all labor, materials, equipment and services necessary to complete the slope for drainage underlayment, 10-lb vapor control primer, Antimicrobial/antibacterial epoxy mosaic composition flooring and integral base as scheduled on the drawings and/or specified herein. *If specifically called out in this section or in the finish schedule* it includes lathe and/or fill on wood substrates or where ceramic tile has been removed and waterproof membrane at areas that are not slab on grade.

B. NOTE: Fill, slope for drainage, and lathe/fill on wood substrates is exclusively in this scope and not to be performed by other contractors. Waterproof membrane is required on all substrates except slab on grade.

C. (Note to Specifier: Indicate in this specification and the finish schedule where the project requires (if any) waterproof membrane, wood substrate preparation, fill material for slope for drainage or fill material where ceramic tile floors are removed. In the absence of this clarification bidders will not include this work in their scope and will require a change order if it becomes necessary.)

1.3 RELATED WORK

A. Concrete - Section 03300.

B. (Note to Specifier: Concrete should be either water cured or cured using sodium silicate curing compounds only. Other types of curing compounds are generally not acceptable. Concrete should be cured for a minimum of 28 days.)

C. Floor drains - Division 15.

D. (Note to Specifier: Floor drains, clean-outs, etc. should be of the "floor-flange" type as manufactured for use with composition floors by most major drain manufacturers.)

1.4 SUBMITTALS

A. General: Submit the following in accordance with Conditions of Contract and Division 1 Specification Sections.

B. Product Data: Submit manufacturer's technical data, application instructions and general recommendations for the epoxy mosaic composition flooring specified herein.

C. Submit written letter from Manufacturer offering joint applicator/manufacturer labor/material warranty for this specific project and with this particular subcontractor-installer. CONTACT RICHARD V. SWAN & ASSOCIATES FOR DEX O TEX APPLICATORS AND OTHER INFORMATION: 650 992 7100.

D. Reference jobs: Provide names and contact information for at least 3 projects similar to this project and using the specified system or the proposed equivalent system that are over 5 years old and were installed by this Installing Contracting Company with the crew who will install this project. Reference installations must be within 25 miles of this project.

E. Submit Manufacturer’s technical data for vapor control system. System must be manufactured by the manufacturer of the epoxy mosaic composition flooring product (NO EXCEPTIONS) and be engineered to prevent debonding resulting from vapor emissions up to 10 lbs when tested in accordance with ASTM F-1869 or Alkalinity levels up to 14.

F. Submit Manufacturer’s technical data for semirigid polymeric joint/crack striping and antifracture material that that is to be used in conjunction with vapor control system. Rigid or fiberglass-reinforced materials are not acceptable.

G. Submit Base Manufacturer’s EPA licensing documentation and permitting for Antimicrobial/Antibacterial System as well as base manufacturer’s documentation showing the Antimicrobial/Antibacterial has long-term service life in the cured epoxy is not simply an “in-can preservative” and is effective against bacteria, microbes, fungi and mildew.

H. Samples for initial selection purposes in form of manufacturer's color charts showing full range of colors and finishes available.

1. Submit 2-1/2" x 4" samples of color chips from color chart selection designated by the Architect.
2. Submit finish texture samples for the owner’s review and approval. Owner to sign the reverse side of one pair of submitted samples—one is retained by the Architect, the other is returned to installer. Minimum slip coefficient of 0.60 is required for the finish.

I. Material certificates signed by manufacturer certifying that the epoxy mosaic composition flooring complies with requirements specified herein.

J. Maintenance Instructions: Submit manufacturer's written instructions for recommended maintenance practices.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: Engage an experienced contracting company who has specialized in installing the specified resinous flooring system required for this Project and who offers reference projects as per part 1.04d of this specification and who offers a joint labor and material warranty with manufacturer of primary materials. CONTACT RICHARD V. SWAN & ASSOCIATES FOR DEX O TEX APPLICATORS AND OTHER INFORMATION: 650 992 7100.

Installers who have submitted and obtained approval for alternate equivalents to the basis of design product in accordance with item 1.05C of this section shall have installed the approved alternate for over 5 years and shall provide references and manufacturer's joint warranty letter in compliance with items 1.04 C and D.

B. Single-Source Responsibility: Obtain epoxy mosaic composition flooring materials, including underlayments, vapor dissipation systems, primers, resins, hardening agents, colored aggregates and finish or sealing coats, from a single manufacturer—NO EXCEPTIONS.

C. Qualified Materials: Request for material approvals for any products other than the specified products must be submitted to the architect two weeks prior to the bid, including complete application specification, physical characteristics, and chemical resistance data. Any request after this date will not be accepted. Failure of performance requires immediate removal and replacement of unapproved substituted material with those originally specified at no cost to the owner, architect, construction manager, or general contractor.

D. Manufacturer: Manufacturer shall have a minimum 10 years experience producing the products submitted as equivalents to the basis of design and its accessories listed in part 2.01.

1.6 DELIVERY, STORAGE AND HANDLING

A. Deliver materials in original packages and containers with seals unbroken and bearing manufacturer's labels containing brand name and directions for storage and mixing with other components.

B. Store materials to comply with manufacturer's directions to prevent deterioration from moisture, heat, cold, direct sunlight, or other detrimental effects.

1.7 PROJECT CONDITIONS

A. Environmental Conditions: NOTICE: Comply with epoxy mosaic composition flooring manufacturer's directions for maintenance of ambient and substrate temperature, moisture, humidity, ventilation, and other conditions required to execute and protect Work. Defects in the epoxy flooring work resulting from the General Contractor's failure to comply with manufacturer's directions and these specifications may result in corrective measures or replacement of the flooring at the GENERAL CONTRACTOR'S EXPENSE!

B. Lighting: Permanent lighting will be in place and working before and during installing resinous flooring.

C. General Contractor is responsible for controlling odors, fumes, dust or other environmental and ventilation requirements associated with the installation of the flooring.

D. HVAC is to be fully functioning before, during and 7 days after the installation of the epoxy mosaic composition flooring.

E. SUBSTRATE temperature (NOT air temperature) is to be raised to a minimum of 60*F before installation begins and is to be maintained at a minimum of 60*F during and 7 days after installation—NO EXCEPTIONS! If necessary, heating must remain in operation overnight, on weekends and holidays.

F. NO installation of resinous flooring may take place when temperatures fall—or are anticipated to fall within 5 degrees of the dew point.

G. The resinous flooring is NOT TO BE EXPOSED to moisture, spills or cleaning for 7 days after installation. White stains or other defects in the flooring resulting from failure to observe this restriction shall be cause for removal and replacement of the floor at the General Contractor's expense.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Basis of Design: Troweled ¼" Antimicrobial/Antibacterial epoxy mosaic composition flooring shall be Dex-O-Tex Cheminert Terracolor with Cheminert Clearseal finish and EPA-Licensed Dexcide Antimicrobial/Antibacterial System as manufactured by Crossfield Products Corp.; Rancho Dominguez, California and Roselle Park, New Jersey. Only clear silica aggregate troweled floors with mosaic highlights shall be acceptable. Colored quartz, limestone varieties, dolomite and other aggregates with moh hardness less than 7 are not acceptable. Broadcast or "quartz floors" (including "ceramic" floors) or any other form of color-coated sand aggregates will not be accepted.

1. Alternate products meeting the requirements of this specification may be accepted per section 1.05C.

B. Vapor Control System shall be Dex O Tex Vapor Control Primer 200 as manufactured by Crossfield Products Corp.; Rancho Dominguez, California and Roselle Park, New Jersey. The requirement to furnish vapor control primer shall not be waived under any circumstances.

C. Antifracture membrane and sealant complementing Vapor Control System for striping cracks and joints shall be Dex O Tex Cheminert SC Membrane as manufactured by Crossfield Products Corp.; Rancho Dominguez, California and Roselle Park, New Jersey.

D. Underlayment (if required in the finish schedule) to create slope for drainage shall be Dex O Tex A-81 Underlayment as manufactured by Crossfield Products Corp.; Rancho Dominguez, California and Roselle Park, New Jersey.

1. Fills over ½" deep may use Dex O Tex Contex Underlayment as an alternate.

E. Nonslip aggregate shall be Dex O Tex Synthetic Aggregate as manufactured by Crossfield Products Corp.; Rancho Dominguez, California and Roselle Park, New Jersey.

F. Topcoat shall be Dex O Tex Decorfloor as manufactured by Crossfield Products Corp.; Rancho Dominguez, California and Roselle Park, New Jersey.

G. Antimicrobial/Antibacterial shall be Dex O Tex Dexcide as manufactured by Crossfield Products Corp.; Rancho

Dominguez, California and Roselle Park, New Jersey. This system has long-term service life in the cured epoxy, is not simply an "in-can preservative" and is effective against bacteria, microbes, fungi and mildew.

H. Waterproofing membrane (if specifically shown on the plans and finish schedule) shall be Dex O Tex Cheminert SC

Membrane semi-rigid urethane modified epoxy @ 40 mils as manufactured by Crossfield Products Corp, Rancho Dominguez, California and Roselle Park, New Jersey.

2.2 PROPERTIES

A. Colors: As indicated, or if not otherwise indicated, as selected by Architect from manufacturer's standard colors.

B. Physical Properties:

C. Provide flooring system that meet or exceed the listed minimum physical property requirements when tested according to the referenced standard test method in parentheses.

EPOXY MOSAIC COMPOSITION FLOORING:	
Thickness	1/4"
Compressive Strength (ASTM C 579):	10,000 psi.
Tensile Strength (ASTM C 307):	1400 psi.
Flexural Strength (ASTM C 580):	4,000 psi.
Surface Hardness (ASTM D-2240):	Durometer "D" 80-85
Aggregate Hardness (Moh scale):	7 (minimum)
Abrasion Resistance (ASTM D4060):	0.04 gr. loss
Indentation (MIL-D-3134):	>1.0 %
Impact Resistance (Gardner Impact Test 160 lbs):	No chipping, cracking, or delamination
and not more than	0.014" indentation
Adhesion (A.C.I. Comm. No. 503.1):	>400 psi (100% failure in concrete)
Electrical Conductivity (NFPA 56A):	Di-electric
Flammability (ASTM E-648/NFPA 253/FTMS 372 NBSIR 75-950 Critical Radiant Heat Flux):	Greater than 1.03 watts/cm^2
Flammability (ASTM D635):	Self Extinguishing
Optical Smoke Density (ASTM E662)	$D_s(1.5) \leq 0.00, D_s(4.0) \leq 0.89$

FLEXIBILIZED URETHANE EPOXY ANTIFRACTURE/SEALANT/WATERPROOF MEMBRANE:

Tensile Strength (ASTM D 638):	1,500 psi
Tensile Elongation (ASTM D 412)	120% elongation to break
Tear Strength (ASTM D 638):	120 lb./in.
Hardness (ASTM D2240, shore D):	35-40
Compressive (ASTM ASTM D695):	4,000 psi
Water Absorption (ASTM D570):	<0.2%
Flammability (ASTM D635):	Self-extinguishing over concrete
Microbial Resistance (ASTM G21)	Passes

VAPOR CONTROL PRIMER:

Provide negative side vapor emissions system that meets or exceeds the listed minimum physical property requirements when tested according to the referenced standard test method.

Adhesion ASTM D4541	>650 psi (100% failure in concrete, with Moisture Vapor Emission Rate at 10 lbs/1000 sf/24 hours per ASTM F1869 or rh of 84% per ASTM F2170)
Compressive Strength ASTM D695	12,000 psi
Tensile Strength ASTM D638	4200 psi
Tensile Elongation ASTM D638	2.7%
Permeability Rating ASTM E96	Dry <0.18….Wet <0.80
Microbial Resistance ASTM G21	Passes
Alkali Resistance ASTM D1308	Resistant

TROWELED POLYACRYLATE RESIN COMPOSITION UNDERLAYMENT:

A. Compressive Strength ASTM C109 ……..……4140 psi
B. Tensile Strength ASTM C307 .....800 psi
C. Flexural Strength ASTM C580.....1,200 psi
D. Weight ……130 pounds/ft³
E. Hardness ASTM D2240, Shore D.....70-75
F. Adhesion ASTM D4541 ..... >400 psi (100% failure in concrete)
G. Indention MIL-D-3134, Para 4.7.4.2.1 .....2.26% (Steadily Applied Load, 2,000 lbs. On 1" steel ram imposed for 30 min.)
H. Water Absorption MIL-D-3134.....3.14%
I. Flammability ……..….Non-combustible
J. Impact Resistance (Gardner Impact Tester):…… No chipping, cracking, or delamination more than 0.014".

PART 3 - EXECUTION

3.1 INSPECTION

A. Examine the areas and conditions where the epoxy mosaic composition flooring is to be installed and notify the Architect of conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected by the Contractor in a manner acceptable to the Architect.

B. Test for moisture vapor transmission per ASTM F1869. If emissions exceed 10 lbs notify Architect for instructions to install Vapor Control Primer 100 vapor control system. Testing is not required for installations over new concrete at least 10 days old.

C. Permanent lighting and HVAC are to be installed and operating at the time of installation of the Epoxy Mosaic Floor. CONFIRM THAT the General Contractor will maintain the substrate temperature (NOT the air temperature) 24 hours a day at a minimum 60*F during and 7 days after installation of the epoxy flooring.

D. General Contractor to provide dust control and ventilate area where flooring is being installed.

E. General Contractor to Restrict traffic from area where flooring is being installed or is curing

F. General Contractor to prevent exposure to moisture, spills or cleaning for 7 days after installation of the epoxy flooring is complete.

3.2 PREPARATION

A. Substrate: Perform preparation and cleaning procedures according to flooring manufacturer's instructions for particular substrate conditions involved, and as specified. Provide clean, dry, and neutral substrate for flooring application.

B. Concrete Surfaces: Shot-blast, acid etch or power scarify as required to obtain optimum bond of flooring to concrete. Remove sufficient material to provide a sound surface free of laitance, glaze, efflorescence, and any bond-inhibiting curing compounds or form release agents. Remove grease, oil, and other penetrating contaminates. Repair damaged and deteriorated concrete to acceptable condition. Leave surface free of dust, dirt, laitance, and efflorescence. Rout out all cracks and joints over 1/16” wide to ¼” wide by 3/8” deep for striping 6” wide with antifracture/joint sealant material.

C. Materials: Mix resin hardener and aggregate when required, and prepare materials according to flooring system manufacturer's instructions.

3.3 APPLICATION

A. General: Apply each component of the vapor control primer and epoxy mosaic composition flooring system according to manufacturer's directions to produce a uniform monolithic flooring surface of thickness indicated.

B. Bond Coat: Apply vapor control primer over prepared substrate at manufacturer's recommended spreading rate. Stripe all cracks and joints 6" wide with manufacturer's antifracture joint sealer.

C. Underlayment for fill and/or slope for drainage: Install underlayment for fill and to create slope for drainage as required by the Owner and specifically shown on the plans or finish schedule.

D. If specifically shown on plans or finish schedule, install waterproofing membrane over the underlayment before installing the epoxy flooring (waterproofing used only on wood substrates, in upper floors and over occupied space).

E. Body Coat: Over primer, trowel apply epoxy mortar mix at nominal 1/4-inch thickness; hand or power trowel. Allow to cure before proceeding.

F. Grout Coats: Apply two coats of grout. Sand and inspect the surface for consistency.

G. Finish or Sealing Coats: After grout coats have cured sufficiently, apply finish coats of type recommended by flooring manufacturer to produce finish matching approved sample and in number of coats and spreading rates recommended by manufacturer.

1. Final finish coat shall be in color and skid retardant profile as approved by the Architect.
2. Finished floor shall be 1/4" thick, uniform in color and free of trowel marks.

H. Cove Base: Apply cove base mix to wall surfaces at locations shown to form cove base height of 4 inches unless otherwise indicated. Follow manufacturer's instructions and details including taping, mixing, priming, troweling, sanding, and top-coating of cove base. Finish the top of the cove base directly against the bottom of ceramic tile finishes with NO metal strips…add a 1.5" tall additional tapered finish to the top of the cove base where FRP or metal wall panels occur…or radius the top of the cove base where paint finishes are used.

3.4 CURING, PROTECTION AND CLEANING

A. Cure epoxy mosaic composition flooring materials according to manufacturer's directions, taking care to prevent contamination during application stages and before completing curing process. Close application area for a minimum of 24 hours. Note full chemical/stain resistance of epoxies is not achieved for 7 days. Protect from moisture, cleaning and spills for 7 days.

B. General Contractor to maintain substrate temperature at a minimum of 60*F 24 hours per day for 7 days after installation of the epoxy floor.

C. Protect finished floor with rosin paper. Additionally, use masonite, if rolling load traffic exists.

D. D. Clean with manufacturer recommended cleaner.

END OF SECTION 097201

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DIV. OF CROSSFIELD	Rancho Dominguez, CA 90221	Roselle Park, NJ 07204
PRODUCTS CORP.	Tel: (310) 886-9100	Tel: (908) 245-2800
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SECTION 09 97 37 – DRY ERASE COATING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes: This Section specifies field-applied dry erase coatings including surface preparation and primer.

B. Related Sections:

1. Section 092116 “Gypsum Board Assemblies ” gypsum board substrate.
2. Section 101100 “Visual Display Units” whiteboard and chalkboard substrates.

1.3 SUBMITTALS

A. Product Data: For each type of product indicated. Include manufacturer's technical data, preparation instructions, storage and handling requirements, installation methods, and recommendations.

B. Maintenance Instructions: Provide precautions against cleaning materials and methods that may be detrimental to finish and performance.

C. Samples: Submit verification sample of specified color on manufacturer’s standard sample card.

1.4 QUALITY ASSURANCE

A. Manufacturer Qualifications: Minimum 3 years manufacturing dry erase coatings.

B. Mock-ups: Prepare mock-ups for Architect's review and to establish requirements for substrate finish and final coating application, texture and color.

1. Install dry erase coatings mock-up in area designated by Architect.
2. Correct areas, modify method of application/installation, or adjust finish texture as directed by Architect to comply with specified requirements.
3. Maintain mock-ups accessible to serve as a standard of quality for this Section.

    a. Accepted mock-ups may remain in place.
4. DELIVERY, STORAGE, AND HANDLING

C. Deliver materials in original factory wrappings and containers, clearly labeled with manufacturer, product name, and fire hazard classification

D. Store materials in original undamaged packages and containers inside a well - ventilated area protected from weather, moisture, soiling, extreme temperatures, and humidity. Store at temperatures above 40 degrees F. Do not allow product to freeze.

1.5 PROJECT CONDITIONS

A. Maintain ambient temperature not less than 50 deg F minimum and 85 deg F maximum 72 hours prior to beginning of installation.

1. Do not install dry erase coatings unless substrate temperature is above 60 degrees F.
2. Do not install dry erase coatings until the space is enclosed and weatherproof.
3. Do not install dry erase coatings until temperature is stabilized and permanent lighting is in place.

B. WARRANTY

1. Warranty: Manufacturer’s 10 year limited material warranty.

PART 2 - PRODUCTS

A. Manufacturer:

1. IdeaPaint, 40 Broad Street, 1st Floor, Boston, MA 02109, telephone 617-714-1050, fax 617-714-1080, website www.ideapaint.com.

B. Substitutions: Refer to Division 01 Section "Substitution Procedures."

C. DRY ERASE COATING

D. Dry Erase Coating: CREATE by IdeaPaint, providing a surface suitable for use of dry erase markers.

1. Color: Manufacturer’s standard color as follows:

a. Color: White.

2. Fire Rating (ASTM E84): Class A, flame spread index 10, smoke developed index 20.
3. VOC (EPA Method 24): 18 g/L Part A and B mixed, 1.4 g/L Part A only, 97 g/L Part B only.
4. Solids: 98 percent Part A, 40 percent Part B.
5. Density: 12.18 lbs/gal Part A, 8.14 lbs/gal Part B.
6. Opacity/Hiding Power (ASTM D2805): 98.3 percent.
7. Sag Resistance (ASTM D4400 Method 6.5.6): 4.8.
8. Flow and Leveling (ASTM D2801): 6.
9. Crack Resistance (ASTM D522): 29 percent.
10. Finish/Gloss (ASTM D523) on Dry Wall Board.

a. 20 degrees: 22.4.
b. 60 degrees: 66.0.
c. 85 degrees: 66.8.

11. Scrub Resistance (ASTM D2486): Greater than 11,100 cycles.
12. Stain Removal/Washability (ASTM D3450): 94.9 percent.
13. Flashpoint (ASTM D92 Open Cup): Greater than 200 degrees F Part A, greater than 200 degrees F Part B.
14. QUV (following 500 hours of exposure, samples prepared on Kilz primed drywall) Control panel: L = 96.74, a = -1.02, b = 2.14. Test panel: L = 96.27, a = -1.44, b = 4.04. Delta E = 2.00
15. Chemistry Type: A non isocyanate based coating.

E. Magnetic Primer: IdeaPaint Magnetic Primer:

1. Color: Light Gray
2. Finish: Flat
3. VOC (EPA Method 24):<10 g/L
4. Shelf-Life: 24 months
5. Non-Volatile Matter (ASTM D2369): 74%
6. Solids (ASTM D2369): 25%
7. Pigment/Titanium Dioxide (ASTM D2369): 18%
8. Density (ASTM D1475): 18.86 lbs/gal
9. Surface Drying Time: 30-45 minutes
10. Hard Drying Time: 3 hours to topcoat
11. Viscosity: 95 +/- 10 Ku
12. Flashpoint (ASTM D92 Open Cup): > 200°F
13. Fire Rating (ASTM E84): Class A – Flame Spread 5, Smoke Development 10
14. Roller Covers: Provided by manufacturer. No substitutions.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas and conditions in which dry erase coatings will be installed.

1. Complete finishing operations, including painting, before beginning installation of dry erase coatings.
2. Wall surfaces to receive dry erase coatings shall be dry and free from dirt, grease, loose paint, and scale.
3. Do not proceed with installations until unsatisfactory conditions have been corrected.

B. SURFACE PREPARATION

C. Remove hardware, accessories, plates and similar items to allow dry erase coatings to be installed.

D. Repair damaged areas by filling voids with spackle. Sand smooth repaired or textured surfaces. Scuff glossy and non-porous surfaces using medium grit sandpaper. Paint product is a high gloss coating; imperfections and visible seams will telegraph.
   1. Plaster Surface: Remove surface chalk. In new work use moisture meter to determine moisture content. Do not begin installation when moisture content of the surface to be painted is greater than 5 percent.

E. Gypsum Board Surface: Provide Level 4 finish per ASTM C840 and GA-214. Recess nails and screws. Repair irregular tape joints, sand and remove dust.

F. Previously Painted Surface: To have opaque White or Black applied, remove loose paint or scale. Sand surface of enamel or gloss paint. Remove dust with tack cloth or denatured alcohol prior to priming.

G. Prime: Follow manufacturer's application, dry time, and recoat instructions prior to proceeding.

   1. Metal pigments will settle to bottom – hand stir thoroughly for 3-5 minutes prior to application to ensure smooth, even consistency. You know your paint is ready when the color is a consistent gray
   2. Changing color of the surface: Prime surface until the color of the existing surface does not show through.
   3. Covering stained surface: Prime surface until undesired marks and stains do not show through.

H. Clean: Wipe surface with a clean, damp cloth to remove dust and environmental debris. Allow surface to completely dry.

I. Ventilate area thoroughly to aid in curing process and to dissipate mild odor. Allow a high percentage of outside air into current ventilation.

3.2 APPLICATION

A. Comply with manufacturers printed installation instructions. Mix components in strict accordance with manufacturer's instructions. Pot life is 1 hour maximum.

B. Comply with manufacturer's Magnetic Primer installation instructions printed on the can label or found at ideapaint.com/help

C. Magnetic Primer requires 3 heavy, wet-on-wet coats. It is important to apply the appropriate amount of primer for the desired coverage area – achieving wet mils of 5-6 mils, and avoiding sags and roller marks as you go. There is no need to sand before applying your top coat.

   1. Wait 3 hours
   2. Apply 1 coat of recommended premium acrylic primer to hide the color.
   3. Allow 24 hours before applying IdeaPaint White, in accordance with Manufacturer's instructions.

D. Apply dry erase coating with specified roller only. Comply with the following:

1. Apply heavy single coat only, using 2 layer method as described. Do not recoat or touch up applied coating once 10 minute return time has passed.
2. Divide your entire planned surface into areas up to 50 square feet.
3. Use a 4 inch foam roller to cut in all edges and light switches within the current area.
4. Using the included 9 inch roller, from one end of the current area to the other, apply in sections up to 4 feet wide by the full height of the surface.
5. Be sure to overlap the edges of each section and use a backrolling technique as you go to even out the application.
6. Watch for roller marks, drip marks, debris and missed spots, re-roll as needed.
7. Every 50 square feet or 3-5 minutes, return to the first section of the area you have just finished and apply the second layer using the same method detailed above. This helps to build up a thick and effective IdeaPaint surface.
8. Do not wait more than 10 minutes to perform the second layer over the first.
9. Remove masking tape within 1 hour of painting.

E. Dry erase coating may be applied directly onto clean, dry, smooth surfaces which are:

1. A finished drywall surface
2. A latex-based topcoat

F. Coating shall cure for a minimum of 4 days after application before use.

G. Application Rate: 5 mils wet film thickness as measured with a wet film gauge; maximum 50 square feet per quart or 200 square feet per gallon.

3.3 CLEANING AND MAINTENANCE

A. Regular erasing and cleaning should be done with a standard dry erase eraser or a dry microfiber towel. For more thorough cleaning, a damp microfiber towel may be used or IdeaPaint Cleaner. If damaged, the original surface shall be deglossed by sanding surface and priming before recoating.

3.4 PROTECTION

A. Protect installed product and finished surfaces from damage during construction.

END OF SECTION 09 97 37

SECTION 10 21 13 - PLASTIC TOILET AND SHOWER COMPARTMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Solid-plastic toilet compartments configured as toilet enclosures and urinal screens.

B. Related Requirements:

1. Section 10 28 00 "Washroom Accessories" for toilet tissue dispensers, grab bars, purse shelves, and similar accessories mounted on toilet compartments.

1.3 REFERENCES

A. National Fire Protection Association (NFPA):
1. NFPA 286 - Standard Methods of Fire Tests for Evaluating Contribution of Wall and Ceiling Interior Finish to Room Fire Growth.

B. ASTM International (ASTM):
1. ASTM A 666 - Standard Specification for Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip.
2. ASTM B 221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes.
3. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials. ADD 2

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for toilet ~~and shower~~ ADD2 compartments and urinal screens ADD 2.

B. Shop Drawings: For toilet ~~and shower~~ compartments and urinal screens. ~~ADD2~~

1. Include plans, elevations, sections, details, and attachment details.
2. Show locations of cutouts for compartment-mounted accessories.
3. Show locations of centerlines of toilet fixtures.

4. Show locations of floor drains.
5. Indicate field measurements in shop drawings.

C. Samples for Selection: For each type of toilet compartment material indicated.

1. Include Samples of hardware and accessories involving material and color selection.

1.5 INFORMATIONAL SUBMITTALS

A. Product Certificates: For each type of compartment.

1.6 CLOSEOUT SUBMITTALS

A. Maintenance Data: For toilet compartments to include in maintenance manuals.

1.7 PROJECT CONDITIONS

A. Field Measurements: Verify actual locations of toilet fixtures, walls, columns, ceilings, and other construction contiguous with toilet compartments by field measurements before fabrication.

1.8 WARRANTY

A. Provide manufacturer's standard 25 year warranty on materials.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Fire Growth Contribution: Complying with acceptance criteria of local code and authorities having jurisdiction when tested according to NFPA 286.

B. Regulatory Requirements: Comply with applicable provisions in CBC Chapter 11B for toilet compartments designated as accessible.

1. Wheelchair accessible compartment shall comply with Section 11B-604.8.1.
2. Door and door hardware for accessible compartments shall be self-closing and shall comply with CBC Section 11B-404.
3. A door pull complying with CBC Section 11B-404.2.7 shall be placed on both sides of the door near the latch.
4. Toe clearance for at least one side portion of a wheelchair accessible compartment shall comply with CBC Section and Figure 11B-604.8.1.4. It shall be 9 inches high minimum above the finish floor and 6 inches deep minimum beyond the compartment side face of the partition, exclusive of partition support members. It shall be 12 inches high minimum above the finish floor for children's use. Partition components at toe clearance shall be

smooth without sharp edges or abrasive surfaces. Toe clearance at the side partition is not required in a compartment greater than 66 inches wide.

2.2 SOLID-PLASTIC TOILET COMPARTMENTS

A. Basis-of-Design Product:
   1. Subject to compliance with requirements, provide Scranton Products Hiny Hiders, or approved equal at first floor Boys and Girls Restrooms. ADD 2

B. Toilet-Enclosure Style: Overhead braced.

C. Urinal-Screen Style: Wall hung.

D. Door, Panel, and Pilaster Construction: Solid, high-density polyethylene (HDPE) panel material, not less than 1 inch thick, seamless, with eased edges, and with homogenous color and pattern throughout thickness of material.

   1. Continuous Hinges: Configure doors and pilasters to receive continuous hinges.
   2. Heat-Sink Strip: Manufacturer's standard continuous, extruded-aluminum strip fastened to exposed bottom edges of solid-plastic components to hinder malicious combustion.
   ~~3.~~ Color and Pattern: Traditional; Paisley. Texture: Orange Peel. ADD 2

E. Pilaster Shoes: Manufacturer's standard design; stainless steel.

F. Brackets (Fittings):

   1. Full-Height (Continuous) Type: Manufacturer's standard design; extruded aluminum.

2.3 TOILET COMPARTMENT SYSTEM

A. Basis-of-Design Product:
   1. Subject to compliance with requirements, provide Scranton Products Aria Toilet Partitions, or approved equal at second and third floor All-gender restrooms.

B. Style: Floor mounted overhead braced toilet compartments.

C. System Construction:
   1. System Specified Height: 88” inches maximum above finished floor to top of partition. Mounted 4” above finished floor to bottom of partition.

D. Doors: Same as partition.

E. Dividing Panels: Two panels stacked and secured with 3 dowels ensuring proper alignment totaling the system specified height

F. Trim: Application to hide seam gap between dividing panels.

G. Pilasters: System specified height, shoeless system secured with 3/4 inch (19 mm) long stainless steel tamper resistant Torx head screws and angled wall brackets.

H. Transom Panel: Height required to accommodate specified system height with ship lap on one edge. Mounted with four mending plates using 3/4 inch (19 mm) long stainless steel tamper resistant Torx head screws.

I. Wall Brackets: Continuous, heavy-duty aluminum. Mounts to pilasters, panels and walls with 3/4 inch (19 mm) long stainless steel tamper resistant Torx head screws.

J. System Design: Solid, high-density polyethylene (HDPE) panel material, not less than 1 inch thick, seamless, with eased edges, and with homogenous color and pattern throughout thickness of material.
1. Door Design: Traditional Series; Model 1000.
2. Side Panel Design: Plain (standard).
3. Color: Traditional; Paisley. Texture: Orange Peel.
4. Trim Design:
   a. Standard radius edged, 5 inches (127 mm) wide, where occurs on full height partitions.
   b. Trim Color: P-1, see paint finish schedule on drawings. ADD 2

2.4 HARDWARE AND ACCESSORIES

A. Hardware and Accessories: Manufacturer's heavy-duty operating hardware and accessories.
1. Hinges: Manufacturer's minimum 14-gauge stainless-steel continuous hinge. 0.09 inch thick 304-2b stainless-steel pin in 0.25 inch (5.94 mm) diameter. Closing degree is minus 5 degrees. Hinge is designed to come to a full close on its own weight. ADD 2
2. Latch and Housing: Manufacturer's heavy-duty extruded aluminum unit. Latch housing bright dip anodized finish; slide bolt and button black anodized finish.
3. Occupancy Indicator Latch and Housing: Satin stainless-steel showing green and red occupancy indicators for All-gender restrooms ADD 2
4. Door Strike and Keeper: Continuous extruded aluminum strike, secured with tamper-resistant bolts; bright dip anodized finish.
5. Coat Hook: Manufacturer's heavy-duty combination cast-stainless-steel hook and rubber-tipped bumper, sized to prevent in-swinging door from hitting compartment-mounted accessories. Mount with through-bolts.
6. Door Bumper: Manufacturer's heavy-duty rubber-tipped cast-stainless-steel bumper at out-swinging doors. Mount with through-bolts.
7. Door Pull: Manufacturer's heavy-duty cast-stainless-steel pull at out-swinging doors that complies with regulatory requirements for accessibility. Provide units on both sides of doors at compartments designated as accessible. Mount with through-bolts.

B. Overhead Bracing: Manufacturer's standard continuous, extruded-aluminum head rail with antigrip profile and in manufacturer's standard finish.

1. Provide shower hook accommodation at shower compartment head rail.

C. Anchorages and Fasteners: Manufacturer's standard exposed fasteners of stainless steel, finished to match the items they are securing, with theft-resistant-type heads. Provide sex-type bolts for through-bolt applications. For concealed anchors, use stainless-steel, hot-dip galvanized-steel, or other rust-resistant, protective-coated steel compatible with related materials.

2.5 MATERIALS

A. Aluminum Castings: ASTM B26/B26M.

B. Aluminum Extrusions: ASTM B221.

C. Stainless-Steel Sheet: ASTM A666, Type 304, stretcher-leveled standard of flatness.

D. Stainless-Steel Castings: ASTM A743/A743M.

2.6 FABRICATION

A. Fabrication, General: Fabricate toilet compartment components to sizes indicated. Coordinate requirements and provide cutouts for through-partition toilet accessories where required for attachment of toilet accessories.

B. Overhead-Braced Units: Provide manufacturer's standard corrosion-resistant supports, leveling mechanism, and anchors at pilasters to suit floor conditions. Provide shoes at pilasters to conceal supports and leveling mechanism.

C. Door Size and Swings: Unless otherwise indicated, provide 24-inch- wide, in-swinging doors for standard toilet compartments and 36-inch- wide, out-swinging doors with a minimum 32-inch- wide, clear opening for compartments designated as accessible.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas and conditions, with Installer present, for compliance with requirements for fastening, support, alignment, operating clearances, and other conditions affecting performance of the Work.

1. Confirm location and adequacy of blocking and supports required for installation.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. General: Comply with manufacturer's written installation instructions. Install units rigid, straight, level, and plumb. Secure units in position with manufacturer's recommended anchoring devices.

1. Maximum Clearances:

a. Pilasters and Panels: 1/2 inch.
b. Panels and Walls: 1 inch.

2. Full-Height (Continuous) Brackets: Secure panels to walls and to pilasters with full-height brackets.

   a. Locate bracket fasteners so holes for wall anchors occur in masonry or tile joints.
   b. Align brackets at pilasters with brackets at walls.

3. Clearance at vertical edges of doors shall be uniform top to bottom.

B. No evidence of cutting, drilling, and/or patching shall be visible on the finished work.

C. Finished surfaces shall be cleaned after installation and be left free of imperfections. ADD 2

D. Overhead-Braced Units: Secure pilasters to floor and level, plumb, and tighten. Set pilasters with anchors penetrating not less than 1-3/4 inches into structural floor unless otherwise indicated in manufacturer's written instructions. Secure continuous head rail to each pilaster with no fewer than two fasteners. Hang doors to align tops of doors with tops of panels, and adjust so tops of doors are parallel with overhead brace when doors are in closed position.

E. Urinal Screens: Attach with anchoring devices to suit supporting structure. Set units level and plumb, rigid, and secured to resist lateral impact.

3.3 ADJUSTING

A. Hardware Adjustment: Adjust and lubricate hardware according to hardware manufacturer's written instructions for proper operation. Set hinges on in-swinging doors to hold doors open approximately 30 degrees from closed position when unlatched. Set hinges on out-swinging doors to return doors to fully closed position.

END OF SECTION 10 21 13

SECTION 11 30 13 - RESIDENTIAL APPLIANCES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Cooking appliances.
2. Refrigeration appliances.
3. Cleaning appliances.

1.3 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include installation details, material descriptions, dimensions of individual components, and finishes for each appliance.
2. Include rated capacities, operating characteristics, electrical characteristics, and furnished accessories.

B. Product Schedule: For appliances. Use same designations indicated on Drawings.

1.5 INFORMATIONAL SUBMITTALS

A. Qualification Data: For manufacturer.

B. Product Certificates: For each type of appliance.

C. Sample Warranties: For manufacturers' special warranties.

1.6 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For each residential appliance to include in operation and maintenance manuals.

1.7 WARRANTY

A. Special Warranties: Manufacturer agrees to repair or replace residential appliances or components that fail in materials or workmanship within specified warranty period.

B. Clothes Washer: Limited warranty, including parts and labor for first year and parts thereafter, for on-site service on the product.

1. Warranty Period: Two years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Electrical Appliances: Listed and labeled as defined in California Electrical Code, by a qualified testing agency, and marked for intended location and application.

B. Accessibility: Where residential appliances are indicated to comply with accessibility requirements, comply with applicable provisions in CBC Chapter 11B, the DOJ's 2010 ADA Standards for Accessible Design, and ICC A117.1.

2.2 RANGES

A. Electric Range: Freestanding range with one oven(s) and complying with AHAM ER-1.

1. Basis-of-Design: Subject to compliance with requirements, provide Whirlpool Model WEE750H0HZ, or approved equal.

2. Type: Freestanding, slide-in, ADA compliant.
3. Dimensions:

a. Width: 29-7/8 inches.
b. Depth: 28-5/8 inches.
c. Height: 36 inches

4. Electric Burner Elements: Five.

a. Radiant Type.
b. Controls: Digital panel controls, located on front of range top.

5. Oven Features:

a. Capacity: 6.4 cu.ft.
b. Oven Door: Counterbalanced, removable, with observation window and full-width handle.
c. Electric Power Rating:

1) Oven: 3600w.
2) Broiler: Manufacturer's standard.

d. Controls: Digital panel controls and timer display, located on front of range top.

6. Anti-Tip Device: Manufacturer's standard.
7. Electric Power Supply: 120/240 V, 60 Hz, 1 phase.
8. Appliance Finish:

a. Color: Fingerprint resistant stainless steel.

2.3 RANGE HOOD

A. Under-the-cabinet range hood

1. Basis-of-Design: Subject to compliance with requirements, provide Whirlpool Model UXT5230BDS, or approved equal.

A. Type: Under-the-cabinet range hood.
1. Dimensions:

a. Width: 29-15/16 inches.
b. Depth: 18-5/8 inches.
c. Height: 4-15/16 inches.

2. Features

a. Axial blower with horizontal or vertical duct direction.
b. Standard odor removing and dish-washer safe filter.
c. Standard halogen task lights

3. Appliance Finish:

a. Color: Stainless steel

2.4 ICEMAKERS ADD 2

A. Icemaker
1. Basis-of-Design: Subject to compliance with requirements, provide Summit Ice Maker model BIM44GADA, or approved equal.
2. Type: Undercounter.
3. Dimensions:
a. Width: 14-1/2 inches.
b. Depth: 25-1/2 inches.
c. Height: 32-3/8 inches.
4. Ice Capacity:
a. Production: 50 lb per day.
b. Storage: 25 lb.
5. Features:
a. Self-cleaning cycle.
b. Defrost drain with pump.
6. Appliance Color/Finish: Stainless steel.

2.5 REFRIGERATOR/FREEZERS

A. Refrigerator/Freezer: Two-door refrigerator/freezer with freezer on top and complying with AHAM HRF-1.

1. Basis-of-Design: Subject to compliance with requirements, provide Whirlpool Model WRT549SZDM, or approved equal.
2. Combination refrigerator/ Freezer shall comply with CBC 11B 804.6.6
3. Type: Freestanding.
4. Dimensions:

    a. Width: 29-1/2 inches.
    b. Depth: 34-1/2 inches.
    c. Height: 65-7/8 inches.

5. Storage Capacity:

    a. Refrigeration Compartment Volume: 14.08 cu. ft..
    b. Freezer Volume: 5.15 cu. ft.
    c. Total Volume: 19 cu. ft.
    d. Shelf Area: Three adjustable glass shelves.

6. Refrigerator Features:

    a. Interior light in refrigeration compartment.
    b. Compartment Storage: Humidity-controlled vegetable crispers .
    c. Door Storage: Gallon- milk-container storage and clear, adjustable door bins.
    d. Temperature-controlled meat/deli bin.
    e. Egg/utility container.

7. Freezer Features: One freezer compartment(s).

    a. Automatic defrost.
    b. Automatic icemaker and storage bin.

8. Front Panel(s): Stainless Steel.

2.6 DISHWASHERS

A. Dishwasher: Complying with AHAM DW-1.

1. Basis-of-Design: Subject to compliance with requirements, provide Bosch 800 Series PureDry SGX68U55UC, or approved equal.
2. Type: Built-in undercounter.
3. Dimensions:

    a. Width: 23-9/16 inches.
    b. Depth: 22-9/16 inches.
    c. Height: 32-1/16 inches.

4. Capacity:

    a. International Place Settings of China: 15

5. Sound Level: Maximum 44 dB
6. Tub and Door Liner: Stainless steel with sealed detergent and automatic rinsing-aid dispensers.
7. Rack System: Nylon-coated sliding dish racks, with removable silverware basket.
8. Controls: Touch-pad controls with six wash cycles and heated/ hi-temperature dry cycle option, fully visible (front).
9. Features:

    a. Cycle memory.
    b. Cup shelves.
    c. Culinary rack.
    d. Hot-water booster heater for wash water .
    e. Delay-wash option.
    f. Digital display option.
    g. Pedestal: Manufacturer's standard height laundry pedestal with storage drawer, matching appliance finish.

10. ENERGY STAR: Provide appliances that qualify for the EPA/DOE ENERGY STAR product-labeling program.
11. Front Panel: Stainless steel.

2.7 CLOTHES WASHERS AND DRYERS

A. Clothes Washer:

1. Basis-of-Design: Subject to compliance with requirements, provide Whirlpool Model WFW6620HC, or approved equal.
2. Type: Freestanding, front-loading unit.
3. Dimensions:

    a. Width: 27 inches.
    b. Depth: 31-9/16 inches.
    c. Height: 38-5/8 inches.

4. Drum: Perforated stainless steel.

    a. Capacity: 4.5 cu. ft..

5. Controls: Touch-pad controls for water-fill levels, wash/rinse water temperatures, and variable-speed and fabric selectors.

    a. Wash Cycles: 37
    b. Wash Temperatures: Three settings.

6. Electrical Power: As indicated on Drawings.
7. Motor: Manufacturer's standard with built-in overload protector.

8. Features:

    a. Automatic load balancing.
    b. Six-point suspension.
    c. Unbalanced-load compensator.
    d. Inlet Hoses: Minimum length 60 inches.
    e. Drain Hoses: Minimum length 48 inches.
    f. Self-leveling legs.
    g. Automatic dispenser for detergent.
    h. End-of-cycle signal.
    i. Electronic temperature control.
    j. Steam clean and sanitize options
    k. Pedestal: Manufacturer's standard height laundry pedestal with storage drawer, matching appliance finish.

9. ENERGY STAR: Provide appliances that qualify for the EPA/DOE ENERGY STAR product-labeling program.
10. Appliance Finish: Enamel.

    a. Color: Chrome shadow

B. Clothes Dryer:

1. Basis-of-Design: Subject to compliance with requirements, provide Whirlpool Model WED6620HC, or approved equal.
2. Type: Freestanding, frontloading, electric unit with steam cycles.
3. Dimensions:

    a. Width: 27 inches.
    b. Depth: 31 inches.
    c. Height: 38-1/8 inches.

4. Drum: Perforated stainless steel.

    a. Capacity: 7.4 cu. ft..

5. Controls: Touch-pad controls for drying cycle, temperatures, and fabric selectors.
6. Electric-Dryer Power: As indicated on Drawings.
7. Features:

    a. Removable lint filter.
    b. Electronic temperature and moisture-level-sensor controls.
    c. Intuitive controls
    d. Self-leveling legs.
    e. Quad baffles
    f. Reversible door with window.
    g. Wrinkle shield plus option with steam.

8. ENERGY STAR: Provide appliances that qualify for the EPA/DOE ENERGY STAR product-labeling program.
9. Appliance Finish:

a. Color: Chrome Shadow

2.8 GENERAL FINISH REQUIREMENTS

A. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.

B. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances, power connections, and other conditions affecting installation and performance of residential appliances.

B. Examine roughing-in for piping systems to verify actual locations of piping connections before appliance installation.

C. Examine walls, ceilings, and roofs for suitable conditions where appliances will be installed.

D. Prepare written report, endorsed by Installer, listing conditions detrimental to performance of the Work.

E. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. Install appliances according to manufacturer's written instructions.

B. Freestanding Equipment: Place units in final locations after finishes have been completed in each area. Verify that clearances are adequate to properly operate equipment.

3.3 FIELD QUALITY CONTROL

A. Perform the following tests and inspections:

1. Perform visual, mechanical, and electrical inspection and testing for each appliance according to manufacturers' written recommendations. Certify compliance with each manufacturer's appliance-performance parameters.
2. Leak Test: After installation, test for leaks. Repair leaks and retest until no leaks exist.
3. Operational Test: After installation, start units to confirm proper operation.
4. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and components.

B. An appliance will be considered defective if it does not pass tests and inspections.

C. Prepare test and inspection reports.

3.4 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain residential appliances.

END OF SECTION 113013

SECTION 22 05 00 – COMMON WORK RESULTS FOR PLUMBING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. The requirements of the GENERAL CONDITIONS, SUPPLEMENTARY CONDITIONS, SPECIAL CONDITIONS and DIVISION 01 GENERAL REQUIREMENTS, apply to the work of this section.

B. This section applies to all Division 22 Plumbing Sections.

1.2 SUMMARY

A. This section includes all plumbing (equipment, fixtures, pipe and fittings, specialties) inside the building(s) and outside the building(s) to the point of connection to site plumbing systems.

B. Provide complete plumbing systems including:

1. Service connections to existing on-site utilities, and stubs for future connection to equipment provided under the work of this Section or other Sections of the Specifications.
2. All piping systems for conduction of cold water, heated water, soil, waste, fuel gas, and other fluids or gases as shown or specified for plumbing work.
3. All valves, piping supports, piping penetration auxiliaries, piping protective coverings, piping, and other piping accessories as shown or specified for plumbing work.
4. All plumbing equipment and auxiliary items as specified herein or shown on the drawings.
5. All low voltage wiring for automatic fixtures as required.

1.3 RELATED SECTIONS

A. Division 23 - HVAC

B. Division 26 - Electrical Work

1.4 DRAWINGS AND SPECIFICATIONS

A. For purposes of clearness and legibility, drawings are essentially diagrammatic and, although size and location of equipment are drawn to scale wherever possible, the Contractor shall make use of all data in all the contract documents and shall verify this information at building site.

B. Information presented on Drawings and in the Specifications is based upon latest data available during their preparation. The Drawings and Specifications are for the assistance and guidance of the Contractor and exact locations, distances, levels, etc. will be governed by the structures and the site the contractor shall accept same with this understanding.

C. The drawings indicate required size and points of termination of pipes, and suggest proper routes to conform to structure, avoid obstructions and preserve clearances. However, it is not intended that drawings indicate all necessary offsets, and it shall be the work of the Contractor to make the installation in such a manner as to conform to structure, avoid obstruction, preserve headroom and keep openings and passageways clear.

1.5 DELIVERY, STORAGE AND HANDLING

A. Contractor shall be responsible for delivery, storage, protection and placing of all equipment and materials.

B. Equipment stored and installed at the job site shall be protected from dust, water or other damage. Cover all equipment stored exposed to weather.

1.6 STRUCTURAL REQUIREMENTS

A. Structural members shall not be cut or modified in any manner without specific instructions from the structural engineer.

1.7 CODES AND SAFETY ORDERS

A. All work and materials shall be in full accordance with the latest rules and regulations of the State Fire Marshall; the Safety Orders of the Division of Industrial Safety; the I.S.O. codes; latest edition of California Code of Regulations, Title 24, Part 6; the 2016 California Plumbing Code, Title 24, Part 5; the 2016 California Mechanical Code, Title 24, Part 4; the 2016 California Building Code, Title 24, Part 2, 2016 NFPA Codes, and other applicable laws and regulations. Nothing in the Drawings or Specifications shall be construed to permit work not conforming to these codes. Drawings and Specifications take precedence when work and materials called for exceed Code requirements.

1.8 INSTALLATION

A. Manufacturer's Instructions:

1. When specifications require that installation comply with manufacturer's printed instructions, obtain and distribute copies of such instructions to parties involved in the installation.
2. Perform work in accordance with manufacturer's instructions. Do not omit any preparatory step or installation procedure unless specifically modified or exempted by specifications.
3. Handle, install, connect, clean, condition and adjust products in strict accordance with such instructions and in conformity with specified requirements.
4. Should job conditions or specified requirements conflict with manufacturer's instructions, consult with the Engineer for further instructions.
5. Do not proceed with work without clear understanding.

1.9 PERMITS AND FEES

A. Obtain all permits and pay all required fees for permits and/or utility services. Inspections required during the course of construction shall be arranged as required. On completion of the work furnish the owners representative with certificates of inspection.

B. Include in bid all costs for gas service including meter, regulators and service line installed by a gas utility company or a gas utility company approved contractor.

1.10 SITE CONDITIONS

A. Assume all responsibility for damage to adjoining properties; and restore property to its original condition, should damage occur as a result of the work of this section. Contractor shall thoroughly familiarize himself with all site conditions. Should utilities not shown on the drawings be found during excavations, promptly notify the Architect for instructions as to further action. Failure to do so will make the Contractor liable for any and all damage thereto arising from his operations subsequent to discovery of such utilities not shown on plans.

1.11 SUBMITTALS

A. General

1. A submittal schedule shall be issued by the contractor within 15 days of award of the contract. This schedule shall allow for timely review and approval as required by the contract documents.
2. These requirements apply only to substitutions, submittals, and shop drawings.
3. The contractor shall review all submittals prior to submission to the Architect. Submittals not reviewed by the contractor will be returned to the contractor and will not be reviewed.
4. Any deviations from specified requirements shall be clearly indicated in submittals.
5. Any errors in or omissions from submittals and any consequences of these are the responsibility of the Contractor.
6. Partial or incomplete submittals may be rejected as not complying with requirements; the Contractor shall be liable for any resultant consequences.
7. Delayed submittals may be rejected as not complying with requirements. Whether accepted or rejected, delayed submittals will not be considered justification for extension of contract time or similar relief.
8. Submittals not required or permitted by the Specifications but made at the option of the Contractor, will be returned without review unless accompanied with written valid justification.
9. Submittal items improperly included with those of another category (such as a proposed substitution included with shop drawing submittal) are not valid and will be returned without review.
10. Within 35 calendar days after award of the contract, and before fabrications and installation of any material or ordering of any materials, submit for approval six (6) copies of complete submittal data on specified and proposed substituted equipment and materials. Submittals shall list all materials proposed identified with drawing symbols and specific data on equipment such as arrangements, performance curves, sizes, capacity, motor locations, and other pertinent data. Check all submittals for conformance

to the requirements of the Construction Documents before forwarding to the architect for each item. No consideration will be given to substitutions submitted past 35-day limit. The contractor shall be responsible for all quantities and errors and omissions of submittals. Furnish samples when requested.

11. Equipment and materials specified as part of the specifications and drawings are listed by two manufacturers names. The first named manufacturer is the basis of design. The second named manufacturer has been determined to be an equivalent in quality or utility. The second named has not been specifically determined to conform to the first named in size, layout, electrical power, voltage, or impacts to building structure. The contractor is bound by all requirements for substitutes, as described below, for all second named manufacturers and equivalent equipment or products.
12. Each reviewed submittal will be marked to indicate review and directions as stated below.
13. Acceptance of a submittal does not relieve the Contractor of responsibility for omissions from the submittal or errors in the submittal.

B. Review

1. Submittals will be reviewed for general acceptability, not necessarily including all details. The engineers review is for general conformance with the design concept of the project and the information given in the contract documents. The contractor is solely responsible for confirming and correlating all quantities and dimensions; selecting fabrication processes and techniques of construction; coordinating the work with that of other trades and performing all work in a safe and satisfactory manner. Corrections of comments made on this submittal during this review do not relieve contractor from compliance with the requirements of the contract documents or with its responsibilities listed herein.

    a. Proposed substitutes will be judged not only for the acceptability of the items themselves, but also how they will be used under the conditions of the particular project.
    b. Proposed substitutions will be judged also for compliance with qualifications and conditions stipulated in paragraph 1.12.

2. Each reviewed submittal will be marked to indicate review and directions as stated below.

    a. Acceptance of a substitute does not waive the specified requirements.
    b. Once a substitution is accepted, no revision or re-submittal may be made except for pressing and valid reason and after receipts of approval to do so.

C. Review Directions

1. The notation "No Exceptions Taken" indicates that no further submittal on the particular matter is required and that the Contractor may proceed with normally ensuing action. The notation may be applied to submittals on substitutions, shop drawings, record data, or operation and maintenance data. The submittal has only been reviewed for general conformance with the design concept of the Contract Documents. The contractor is responsible for the dimensions to be confirmed and correlated at the job site; information that pertains solely to the fabrication process or to the means and methods of construction; coordination of the work of all trades; and performing all work in a safe and

satisfactory manner. This notation does not modify the contractor's duty to comply with the contract documents.

2. The notation "Make Corrections Noted" indicates that no further submittal on the particular matter is required, but the Contractor shall make all changes or corrections noted (but no others) before proceeding with normally ensuing action. The notation may be applied to submittals on substitutions or shop drawings (but usually not record data or operation and maintenance data).
3. The notation "Amend and Resubmit" indicates that the submittal is not accepted and must be revised, resubmitted, and reviewed again. In the case of submittal on substitutions and shop drawings so noted, the Contractor shall not proceed with any normally ensuing action until the resubmittal is reviewed. The notation may be applied to submittals on substitutions, shop drawings, record data, or operation and maintenance data.
4. The notation "Rejected - See Remarks" indicates that the submittal is not accepted and that resubmittal on the same subject matter is not allowed and will not be considered. The notation will be applied normally only to submittals on substitutions (usually not on shop drawings, record data, or operation and maintenance data).
5. The notation "Returned Without Review" indicates that the submittal or item has not been considered officially because it is either not proper, valid, required, or permitted by the Specifications and has no status or effect.

1.12 SHOP DRAWINGS

A. The contractor is responsible for providing all shop drawings as described below so that the design professional has the opportunity to determine if the contractor understands the contract documents. It is not the purpose of shop drawings to assure that the contractor is meeting the requirements of the contract documents. Review and approval of a submittal neither extends nor alters any contractual obligation.

B. Accompany all substituted equipment with shop drawings showing revised ductwork and/or piping layouts in order to ascertain that substituted equipment does not adversely affect layout or work of others. Shop Drawings: The following conditions apply to shop drawings:

1. Shop drawings are not and do not become Contract Documents.
2. Processed shop drawing submittals and any instructions or requirements noted thereon are a part of the work, but they may not be used as a means of increasing the scope of the work.
3. If deviations, discrepancies, or conflicts between shop drawing submittals and the Contract Documents are discovered either prior to or after the submittals are processed, the Contract Document requirements shall govern.

1.13 SUBSTITUTIONS

A. Whenever any equipment, material, or process is indicated or specified by patent of proprietary name and/or name of Manufacturer, in the Specifications and/or on the Drawings, it is understood that such specification is used to facilitate the description of the material and/or process and deemed to be followed by the words "or equal" unless noted "no substitute".

B. Substitute equipment and materials shall be equal in all respects including quality, arrangement, utility, physical size, capacity, and performance to those specified. Approval of substitute

material will not relieve the contractor from complying with the requirement of the Drawings and Specifications. The contractor shall be responsible and at his own expense, for any changes caused by proposed substitutions which affect other parts of his own work or the work of other contractors.

C. The submittal of a proposed substitution shall clearly establish the following:

1. The item can be transported into and installed in the intended space and in the manner shown.
2. Required connections (electrical, piping, and other) can be properly made and adjoining work can be properly accomplished.
3. The proposed substitute is similar to and of substance equal to that specified, is suited to the same use as that specified, and will perform the functions required by the design.

D.

1. Motors for proposed substitute equipment will have the same minimum differential between motor brake horsepower and motor nameplate horsepower as the specified equipment.
2. All performance requirements shall be at least equal to the specified product or equipment including noise levels, cooling capacity, heating capacity, air flow quantity, etc.

E. By submitting a proposed substitution, the Contractor agrees to the following:

1. He will assume full responsibility for any and all modifications and necessary alterations arising from the use of the substitute item or material including all cost incurred by all other trades.
2. He will assume full responsibility for any delay in the construction schedule resulting from the use of the substitution.
3. He will prove harmless and indemnify the Owner and the Owner's design consultants from real or alleged damages that may result from the installation, use, or performance of a substitute material or product.

F. The following conditions apply to substitutions:

1. Submittals of substitutions are not and do not become part of the Contract Documents.
2. Contractor shall not order, fabricate, use, or install any substitute product or procedure unless he has received acceptance of the substitute from the Engineer.
3. Should the Contractor install any substitute product in violation of the above he shall remove it and install the specified product at his own expense.
4. The Contractor shall provide a letter stating that all the above items shall apply to all substituted products and equipment.
5. Any submittal for substituted equipment or product that does not clearly show that the substituted item is equal shall be marked rejected and no further submittal shall be allowed on the substituted item. Provide in submittal format documentation that the proposed item is exactly as specified in the contract documents.

1.14 GUARANTEE

A. Guarantee all work for 2-years ADD 2 from date of acceptance, against all defects in material, equipment and workmanship including repair of damage to any part of the premises resulting from leaks or other defects in material, equipment and workmanship. Guarantee shall be on form supplied by the owner's representative.

1.15 RECORD DRAWINGS

A. Indicate on reproducible drawings the actual location of all ductwork, piping and equipment as the work progresses. Dimension locations of underground service mains and branches. Deliver the drawings to the architect at the completion of the job.

PART 2 - PRODUCTS

2.1 GENERAL REQUIREMENTS

A. Shop drawings:

1. Make all drawings to an appropriate scale, large enough to show all pertinent aspects of the item and the method of its connection into the work.
2. Make each drawing sheet in a reproducible form such as AutoCAD or PDF.

B. Grouping: Combine submittals in logical groupings; for example, submit Shop Drawings grouped by Sections of the Specifications, arranged in the specified sequence.

C. Shop Drawings: Electronic format (PDF).

D. Content:

1. Shop drawings may be:

a. Drawings or diagrams prepared by the Contractor, a supplier, a manufacturer, or other.
b. Provide data or descriptions.
c. Manufacturer’s printed brochures, descriptions, charts, instructions, or data sheets.

E. Timing: Submit all shop drawings prior to installation of any items included in submittal.

2.2 CORROSION PROOFING

A. Corrosion Proofing / U.V. Protection: Products which will be installed outdoors, exposed to the weather, exposed to moisture, or other potentially damaging conditions shall be constructed to resist the effects of such exposure.

B. Exterior casings shall have lapped or gasketed joints effectively sealed to prevent intrusion of moisture or other injurious substances.

C. Casings, ducts, pipes, or product items shall be constructed of materials which are fully resistant to harmful substances they may normally contact, or (if ferrous) shall be galvanized after fabrication, or shall be fully protected from such substances by paint or other coating in appropriate thickness or number of coats.

D. All bolts, nuts, screws, and washers shall be galvanized unless specified to be plated or unprotected.

E. Any exposed plastic pipe must have a U.V. inhibitor.

2.3 MATERIAL AND EQUIPMENT

A. All material and equipment shall be new, of the type, capacity and quality specified and free from defects. All materials and equipment shall be of the same brand or manufacturer throughout for each class of material or equipment wherever possible.

2.4 ACCESS BOXES

A. For below grade valves and piping devices

1. Christy Concrete Products Company, Brooks, with galvanized steel checker plate recessed traffic lid flush with rim of box. Lids for boxes located in areas subject to vehicular traffic shall be constructed to withstand H20 live loading as defined by the American Association of State Highway Officials (16,000 pound maximum individual wheel load). Service identification shall be conspicuously welded on lid before galvanizing. For gas service, drill twelve 3/8" diameter vent holes through lid before galvanizing. Provide manufacturer's box extensions to bring box bottom three inches below bottom of valve and box top flush with finish grade.
2. Box sizes (non traffic)

Type Valve	Valve Size	Box No.
Water	2 1/2" and smaller	B-9
Water	3" and 4"	B-16
Water	5" and 6"	B-30
Water	8"	1 B-36

2.5 ACCESS DOORS

A. Unless specified otherwise by the Architect, provide access doors of the following type:

1. Concealed hinges, prime coated with rust-inhibitive paint, style of door to suit wall, ceiling, floor or roof construction and fire rating.

a. Milcor Type M

b. Milcor Type UFR, fire resistive type Underwriters Laboratory Class B, 1-1/2 hour rating meets UBC, IBCO and BOCA codes for two hour rated walls self latching with key lock, Elmdor/Stonman Type FR or equal.

2. Minimum size; 14" by 14" for access to valves, water hammer arrestors etc. and 18" x 18" for items that need access not achievable within arms-length or too large to fit through a 14" x 14" panel. **Provide a shop drawing showing all access panel locations and sizes for approval prior to ordering or installation of any panels.**

3. Wall and ceiling access doors: Furnish as required for access to ducts, damper operators, duct mounted access panels, etc.; coordinate size and location to obtain access.

4. See architectural drawings for further requirements.

2.6 IDENTIFICATION

A. Equipment: Black Phenolic Plates engraved with ½" high white letters. The equipment shall be identified by the mechanical equipment schedule tag numbers shown on the plans (ie. GWH-1, CP-1, IWH-1). Coordinate identification numbers with electrical contractor to ensure that the disconnect switches and other electrical/plumbing equipment has consistent identification numbers.

2.7 MISCELLANEOUS EQUIPMENT AND MATERIALS

A. Furnish and install miscellaneous equipment and materials required for the systems described whether or not specifically shown or specified.

PART 3 - EXECUTION

3.1 ACCESSIBILITY

A. Do not install any equipment, valve, control, motor, filter, or any other device requiring maintenance or service in an inaccessible location or position. Install access doors as specified herein to render all such equipment serviceable whether specifically shown on the plans or not. Maintain code clearance to all equipment. Coordinate location of doors with lights, etc., and locate symmetrically with same.

3.2 PREPARATION

A. Observations: Check all project drawings and specifications; report any discrepancies before proceeding with the work and in time to avoid unnecessary rework.

B. Investigation: Examine the areas, conditions, and status of other work contiguous or connecting to the work to be performed; ensure that the time of installation is coordinated with other work.

C. Interruptions of Service: Portions of this work may involve connection to existing work, facilities, or utilities ties and may require interrupting shutdowns of same. Carefully plan, coordinate and execute such work so that any interruptions will be kept to a minimum in time

and occurrence. Submit request for shutdowns and make shutdowns only after receiving written approval from the Owner.

D. Other: Correct any unsatisfactory conditions that may impede proper execution of the work. Ensure that all arrangements, personnel, materials, and tools are appropriate and adequate before proceeding.

3.3 INSTALLATION

A. General:

1. Material and equipment incorporated in the work shall be used or applied only for the purpose intended or specified.
2. Install piping and ductwork and all equipment that requires access with minimum vertical and horizontal clearances required by OSHA for service.
3. Do not proceed with work without clear understanding of the scope.

B. Manufacturer's Instructions:

1. When specifications require that installation comply with manufacturer's printed instructions, obtain and distribute copies of such instructions to parties involved in the installation.
2. Perform work in accordance with manufacturer's instructions. Do not omit any preparatory step or installation procedure unless specifically modified or exempted by specifications.
3. Handle, install, connect, clean, condition and adjust products in strict accordance with such instructions and in conformity with specified requirements.
4. Should job conditions or specified requirements conflict with manufacturer's instructions, consult with the Engineer for further instructions.
5. Do not proceed with work without clear understanding of the scope.

3.4 LOCATION OF EQUIPMENT AND PIPING

A. Where job conditions do not permit the installation of piping, etc. in the location shown, it shall be brought to the engineer's attention immediately before fabrication of piping, etc. and the relocation required shall be determined in a joint conference.

B. The contractor will be held responsible for the relocating of any items installed without first obtaining the architect’s or engineer’s approval. Remove and relocate such items at the contractors expense as so directed by the architect or engineer.

C. Where piping is left exposed within a room, run in vertical or horizontal planes. Maintain uniform spacing between parallel lines and/or adjacent wall, floor or ceiling surfaces.

D. Horizontal runs of plumbing suspended from ceilings shall provide for maximum clearance.

E. Make minor changes in locations of equipment and piping, etc. from locations shown including minor offsets when directed by the engineer, at no additional cost to the owner.

3.5 CARE AND CLEANING

A. Clean and adjust all equipment at completion of installation to provide operating conditions satisfactory to the engineer. Remove broken, damaged or defective parts; repair or replace as directed by engineer. Remove surface material and debris resulting from this work when directed.

3.6 EQUIPMENT AND CONTROL IDENTIFICATION

A. Identify all equipment with permanently attached plates.

B. Identify all controls and controllers except thermostats in finished areas.

3.7 FLASHINGS

A. Furnish and install a waterproof flashing for each pipe penetration through roof or wall. Provide counter flashing as detailed. Where details are not specifically delineated, submit details for review.

3.8 PAINTING

A. Painting is included under the Painting and Finishing Section. It shall be the responsibility of the Contractor to properly protect all equipment and controls during painting operations and the Contractor shall repair and/or replace any item damaged due to painting that was not properly protected.

3.9 ACCESS DOORS

A. Provide access doors to all concealed equipment, valves, controls, etc. Locate doors where shown or to be coordinated and symmetrically located with lights, diffusers, etc. Access doors furnished by the mechanical contractor shall be installed by the general contractor.

3.10 OPERATION AND MAINTENANCE DATA

A. General: Record data and operation and maintenance data are complementary. Submittal items which may be required under both categories may be included only under one submittal if a statement to that effect is included in the other submittal.

B.

C. Quality Assurance

1. Preparation of data shall be done by personnel

a. Trained and experienced in maintenance and operation of described products.
b. Familiar with requirements of this Section.
c. Skilled as technical writer to the extent required to communicate essential data.

d. Skilled as draftsman competent to prepare required drawings.

D. Form of Submittals

1. Prepare data in form of an instructional manual for use by Owner's personnel.

a. Identify each volume with the title, "OPERATING AND MAINTENANCE INSTRUCTION". List:

1) Title of Project

2. Format

a. Electronic submittal (PDF).
b. Include: Manufacturer's printed data.

3. Drawings

a. Provide PDF plans.

E. Content of Manual

1. Table of contents for each volume, arranged in systematic order.

a. Contractor, name of responsible principal, address and telephone number.
b. A list of each product required to be included.
c. List, with each product, name, address and telephone number of:

1) Subcontractor or installer.
2) Maintenance contractor, as appropriate.
3) Identify area of responsibility of each.
4) Local source of supply for parts and replacement.
5) Identify each product by product name and other identifying symbols as set forth in Contract Documents.

2. Product Data

a. Include only those sheets which are pertinent to the specific product.
b. Annotate each sheet to:

1) Clearly identify specific product or part installed.
2) Clearly identify data applicable to installation.
3) Delete references to inapplicable information.

3. Drawings

a. Supplement product data with drawings as necessary to clearly illustrate.

1) Relations of component parts of equipment and systems.
2) Control and flow diagrams.

b. Coordinate drawings with information in Project Record Documents to assure correct illustration of completed installation.
c. Do not use Project Record Documents as maintenance drawings.

4. Factory Authorized Start-Up Report.

a. Provide a factory start-up report for each piece of equipment. Contractor start-up reports, unless contractor is a factory authorized representative will not be allowed.

5. Copy of each warranty, bond and service contract issued.

a. Provide information sheet for Owner's personnel, give:

1) Proper procedures in event of failure.
2) Instances which might affect validity of warranties or bonds.

F. Manual for Equipment and Systems

1. Submit three copies of complete manual in final form.

a. Content, for each unit of equipment and system, as appropriate.

1) Description of unit and component parts.
2) Function, normal operating characteristics, and limiting conditions.
3) Performance curves, engineering data and tests.
4) Complete nomenclature and commercial number of replaceable parts.
5) Operating procedures
6) Start-up, break-in, routing and normal operating instructions.
7) Regulation, control, stopping, shut-down and emergency instructions.
8) Summer and winter operating instructions.
9) Special operating instructions.
10) Maintenance Procedures
11) Routing operations
12) Guide to "trouble-shooting".
13) Disassembly, repair and reassembly.
14) Alignment, adjusting and checking
15) Servicing and lubrication schedule.
16) List of lubricants required.
17) Manufacturer's printed operating and maintenance instructions.
18) Description of sequence of operation by control manufacturer.
19) Original manufacturer's parts list, illustrations, assembly drawings and diagrams required for maintenance.
20) Predicted life of parts subject to wear.
21) Items recommended to be stocked as spare parts.
22) As-installed control diagrams by controls manufacturer.
23) Each contractor's coordination drawings.
24) As-installed color-coded piping diagrams.
25) Charts of valve tag numbers, with location and function of each valve.
26) List of original manufacturer's spare parts, manufacturer's current prices, and recommended quantities to be maintained in storage.
27) Other data as required under pertinent sections of specifications.

28) Content, for each electric and electronic system, as appropriate.
29) Description of system and component parts.
30) Function, normal operating characteristics, and limiting conditions.
31) Performance curves, engineering data and tests.
32) Complete nomenclature and commercial number of replaceable parts.
33) Circuit directories of panel boards.
34) Electrical service.
35) Controls.
36) Communications
37) As-installed color-coded wiring diagrams.
38) Operating procedures:

a) Routing and normal operating instructions.
b) Sequences required
c) Special operating instructions
d) Maintenance procedures
e) Routine operations
f) Guide to "trouble-shooting".
g) Disassembly, repair and reassembly.
h) Adjustment and checking.
i) Manufacturer's printed operating and maintenance instructions.
j) List of original manufacturer's spare parts, manufacturer's current prices, and recommended quantities to be maintained in storage.
k) Other data as required under pertinent sections of specifications.
l) Additional requirements for operating and maintenance data: Respective sections of Specifications.

G. Submittal Schedule

1. Refer to Architectural Specifications for submittal requirements.

H. Instruction of Owner's Personnel

1. Prior to final inspection or acceptance, fully instruct Owner's designated operating and maintenance personnel in operation, adjustment and maintenance of products, equipment and systems.
2. Operating and maintenance manual shall constitute the basis of instruction.

a. Review contents of manual with personnel in full detail to explain all aspects of operations and maintenance.

3.11 RECORD DATA

A. Compilation

1. Record and collect information concurrently with construction progress and date all entries; make drawing entries within 24 hours after occurrence of change or installation requiring recording. Any concealed work covered before recording data shall be uncovered as directed or as necessary to obtain data.

a. Record information on hard copy of drawings.

2. Locate any concealed work adequately to allow future access with reasonable ease and accuracy.

a. Identify the plan location of all stub outs, pipe lines, etc., which are buried or concealed in the structure, whether installed where shown on the contract drawings or in a different location; show actual field dimensions from column lines, wall lines, or other permanent reference lines or points.
b. In many cases on the contract drawings, the arrangement of conduits, pipes, ducts, and similar items is shown schematically rather than as a precise scaled layout. Identify the actual location of these with horizontal and vertical dimensions. If such lines are exposed or readily accessible, omit dimensional identification.
c. When any work is installed of size, dimension, slope, or location different from that shown on the contract drawings, note the deviation on the Project Record set. If the variations are substantial or cannot be shown clearly on the record drawings, make a new drawing and attach to the Record set.

3. On other documents

a. Where installed equipment differs from that specified (e.g., by accepted substitution or change order) note in the specifications and include complete data on same.

3.12 OPERATION AND MAINTENANCE DATA

A. Preparations: Prior to data collection and compilation, prepare and submit in duplicate an outline of the proposed organization and content.

B. Compilation: Prepare and collect data concurrently with construction progress. Compile per submitted outline.

C. See Section 22 01 00 Operation and Maintenance of Plumbing.

END OF SECTION 22 05 00

SECTION 22 08 00- COMMISSIONING OF PLUMBING SYSTEMS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Volume 1 Contracting Requirements. The General Conditions, Supplementary Conditions, and Division 1 General requirements are fully applicable to this Section, as if repeated herein.

1.2 RELATED WORK SPECIFIED ELSEWHERE

A. See 01 91 13 general commissioning specifications

B. See equipment to be commissioned in table 1.9.A (01 91 13).

1.3 REFERENCES

A. USGBC:

1. LEED – NC 4.0: EA Prerequisite 1, Fundamental Commissioning.
2. LEED – NC 4.0: Credit 3, Enhanced Commissioning.

B. ASHRAE

1. ASHRAE Commissioning Guideline 0-2013

1.4 DESCRIPION OF WORK

A. Work includes the completion and documentation of formal commissioning procedures by the General Contractor and Trade Contractors.

1. Commissioning (Cx) is defined as the process of verifying and documenting the installation and performance of selected building systems to meet the specified design criteria and contract documents, thereby satisfying the design intent and the Owner’s requirements and operational needs.
2. The Design Professionals, General Contractor, and Trade Contractors provide the quality control for the design, installation, startup, and checkout of the systems. The commissioning process provides review and qualitative functional testing in order to formally observe and document that the quality control efforts are successfully completed.
3. Refer to Section 019100 General Commissioning Requirements for summary description of the general commissioning process and requirements.
4. The Trade Contractors, the factory authorized service representatives, and/or the independent testing agency shall be responsible for participation in the commissioning process as outlined in this specification and Section 019113 General Commissioning

Requirements, and as directed by the General Contractor's Commissioning Coordinator (CxC) as overseen by the Commissioning Authority (CxA).

B. Additional responsibilities of the Trade Contractor during commissioning are:

1. Prior to any construction activity, provide approved submittals, shop drawings, systems drawings, and detailed sequences of operation for each piece of equipment and system to be controlled. Electronic files are acceptable.

1.5 DOCUMENTATION

A. The Trade Contractors have specific responsibilities for assisting in the development of test procedures and test forms, and in performing and documenting commissioning tests, as directed by the CxC and as overseen by the CxA.

B. The Trade Contractors shall provide, wherever the Contract Documents require, systems checks and testing, test reports, factory test data and reports, checklists, operational verifications and demonstration, etc., whether specified or not in the commissioning sections.

C. The CxC shall identify responsible personnel for specific commissioning tasks.

1.6 TEST EQUIPMENT

A. The Trade Contractor shall provide all test equipment to execute Pre-Functional and Functional Performance Tests.

B. The test equipment shall be of industrial quality and suitable for testing and calibration with accuracy within the tolerance necessary to demonstrate system performance per the Contract Documents.

C. Equipment shall be certified to an accuracy of 10% of the smallest tolerance to be measured. For example, if a flowmeter is required to be +/- 5 gpm, the calibration device may have an accuracy of +/- 0.5 gpm.

D. The test equipment shall be calibrated and certified per the equipment manufacturer's recommended calibration interval or within one year if not otherwise specified. The calibration tags shall be affixed to the testing equipment or certificates readily available.

PART 2 - EXECUTION

2.1 TESTING REQUIREMENTS

A. The Trade Contractor shall execute all Functional Performance Tests (FPTs) per the approved test procedures on the FPT forms in the Final Cx Plan. All testing results shall be documented on the FPT forms. FPTs shall be witnessed by the CxA per the Cx Plan.

B. All tests shall be coordinated and scheduled with the CMR's CxC. Provide a minimum of 10 days notice prior to conducting each system test.

C. Certify through the SRCs that the plumbing systems, controls and instrumentation, equipment and assemblies, Fire Extinguishing systems, and Irrigation systems have been installed, calibrated, tested, started and are operating per the Contract Documents. Approval of the completed SRCs by the CxA is required prior to conducting the FPTs.

END OF SECTION 22 08 00

SECTION 22 11 16 – DOMESTIC WATER PIPING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. The requirements of the GENERAL CONDITIONS, SUPPLEMENTARY CONDITIONS, SPECIAL CONDITIONS and DIVISION 1 GENERAL REQUIREMENTS, apply to the work of this section.

B. Section 22 11 00, Facility Water Distribution applies to this section.

1.2 SUMMARY

A. This section includes all plumbing (equipment, fixtures, pipe and fittings, specialties) inside the building(s) and outside the building(s) to the point of connection to site plumbing systems.

B. Provide complete plumbing systems including:

1. Service connections to existing on-site utilities, and stubs for future connection to equipment provided under the work of this Section or other Sections of the Specifications.
2. All piping systems for conduction of cold water, heated water, soil, waste, fuel gas, and other fluids or gases as shown or specified for plumbing work.
3. All valves, piping supports, piping penetration auxiliaries, piping protective coverings, piping, and other piping accessories as shown or specified for plumbing work.
4. All plumbing equipment and auxiliary items as specified herein or shown on the drawings.

1.3 Related Sections

A. Section 22 05 00 - Plumbing

B. Section 22 07 00 - Insulation

C. Section 23 00 00 - Heating, Ventilating, & Air Conditioning

1.4 QUALITY ASSURANCE

A. All plumbing fixtures and equipment shall comply with California Code of Regulations, Title 24, Part 6, latest edition.

1.5 REFERENCES

A. Pipes and Tubes

1. Hard Copper Tube: ASTM B88, Types K, L and M, water tube, drawn temper.
2. Soft Copper Tube: ASTM B88, Types K and L, water tube, annealed temper.

B. Fittings

1. Wrought-Copper, Solder-Joint Pressure Fittings: ANSI B16.22.
2. Cast-Copper-Alloy, Solder-Joint Pressure Fittings: ASME B16.18, ASTM B584.
3. Cast-Copper-Alloy, Threaded -Joint Pressure Fittings: ANSI/ASME B16.15, ASTM B584.
4. Bronze Flanges: ASME B16.24, Classes 150 and 300.
5. Copper Unions: ASME B16.18, cast-copper-alloy body, hexagonal stock, with ball-and-socket joint, metal-to-metal seating surfaces, and solder-joint, threaded, or solder-joint and threaded ends. Threads complying with ASME B1.20.1.

C. Joining Materials

1. Solder Filler Metal: ASTM B32, alloys to suit system requirements.
2. Brazing Filler Metals: AWS A5.8, alloys to suit system requirements.

1.6 STRUCTURAL REQUIREMENTS

A. Structural members shall not be cut or modified in any manner without specific instructions from the structural engineer **and approval from DSA**. Where possible, offset vents and pipes rising in walls, concealed above ceilings, below plates and rise through roof. Where this is not possible, install vents and pipes through plates as detailed on structural drawings.

1.7 SUBMITTALS

A. Submit a general statement of materials and methods along with manufacturer’s technical data and installation instructions for all equipment, fixtures, pipe and fittings, and plumbing specialties to be installed.

B. Record Drawings: Per specification section 22 05 00 requirements.

C. Operation and Maintenance Manuals: Per specification section 22 01 00 requirements.

PART 2 - PRODUCTS

2.1 general

A. Adapters: Wrought copper male adapters shall be used wherever it is necessary to connect copper tubing to a valve or "tee" having threaded connections.

2.2 PIPE, FITTING, AND JOINING MATERIALS

A. Copper Water Pipe

1. Pipe: Above grade, Type M, L, or K hard drawn copper tubing per ASTM B-88, plain ends.
2. Fittings: Solder type, wrought copper per ANSI Standard B16.22 or cast red bronze per ANSI Standard B16.18. Do not use T-drill.
3. Unions: Solder type, cast red bronze.
4. Joining Materials/Methods
   a. Canfield, Silvabrite or equal lead-free solder with a non-corrosive water-based flux.

   b. 15% silver brazing alloy, water-based silver brazing flux. Silver content must be clearly identified on the brazing rod.

5. Connections
   c. Copper to dissimilar metals: dielectric connector.
   d. Copper to threaded connections: cast brass adapters.

2.3 PIPE AND FITTING APPLICATIONS

A. Inside Building (to 5'-0" outside building line).

1. Water Piping: Above grade, Type L drawn temper, joining methods, soldered connections, below grade, Type K drawn temper copper tubing, joining methods, brazed connections.
2. Plastic pipe and fittings shall not be used inside of buildings.

B. Outside Building (from 5'-0" outside building line)

1. Domestic Water
   e. 1 ½” and smaller, Schedule 40 PVC, solvent welded, pipe and Schedule 80 fittings.
   f. 2" & 2 ½”, Schedule 80 PVC, solvent welded, pipe and Schedule 80 fittings.
   g. 3" and larger, Johns Mansville, C-900, Blue Brut, PVC pipe and fittings, Class 200, installed in strict accordance with manufacturer’s published instructions.

PART 3 - EXECUTION

3.1 PIPING

A. Provide trenching and backfill for buried piping and install with the following minimum cover unless shown otherwise, cover is from top of pipe to finish grade.

1. Water - 30" minimum

B. Water piping

1. On buried lines larger than 2 ½” size, install concrete thrust blocks between pipe and undisturbed soil of trench wall at each change in direction (tees and ells) for lateral support.

2. Where laid in same trench with sewer line, install on trench shelf at least 12" above top of sewer pipe.
3. Where subject to freezing conditions water pipe shall be buried at least 30 inches deep or deeper to protect the water from freezing.
4. Run water piping generally level. No piping shall be installed to cause an unusual noise from the flow of water under normal conditions.
5. Water Hammer Arrestor: Provide where shown on the plumbing drawings. Provide Sioux Chief or equal manufacturer. ADD 2
6. Adapters: Wrought copper male adapters shall be used wherever it is necessary to connect copper tubing to a valve or tee having threaded connections.
7. Install Bare Metal Pipe Isolators: Stoneman "Trisolator", Superstrut "Cush-a-strip", Unistrut on all hot and cold domestic water piping.

3.2 FIELD QUALITY CONTROL

A. Water Sterilization

1. After installation and before installing valves or making final connections, flush or purge piping systems clean of foreign substances; use water to flush piping conducting liquids and compressed air to clear piping conducting gases.
2. After completing cold and heated water systems, disinfect in accordance with current requirements of U.S. Public Health Department. Use 50 parts per million of chlorine with 8 hour retention and flush to leave a residual no greater than supply source. Submit written certification of disinfecting completion by independent laboratory. After sterilization take at lease one (1) water sample per floor and have analyzed for "E-coli" to submit test results.

3.3 Piping Testing: Testing Criteria

System	Medium	Pressure	Duration
Water	Water	150 psig	4 hours

END OF SECTION 22 11 16

SECTION 23 01 00 – COMMON WORK RESULTS FOR HVAC

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. The requirements of the GENERAL CONDITIONS, SUPPLEMENTARY CONDITIONS, SPECIAL CONDITIONS and DIVISION 1 GENERAL REQUIREMENTS, apply to the work of this section.

B. This section applies to all Division 23 Mechanical Sections.

1.2 SUMMARY

A. Furnish and install all mechanical work shown on the drawings, specified herein, and as required for a complete and functional installation.

B. This section includes materials and methods applicable to the work described in all Division 23 ADD 2 Mechanical Sections. Specific work requirements of individual Mechanical Sections take precedence if in conflict with requirements of this Section.

1.3 RELATED SECTIONS

A. Division 3 - Concrete Work

B. Division 26 - Electrical Work

C. Division 22 - Plumbing

1.4 DRAWINGS AND SPECIFICATIONS

A. For purposes of clearness and legibility, drawings are essentially diagrammatic and, although size and location of equipment are drawn to scale wherever possible, the Contractor shall make use of all data in all the contract documents and shall verify this information at building site.

B. Information presented on Drawings and in the Specifications is based upon latest data available during their preparation. The Drawings and Specifications are for the assistance and guidance of the Contractor and exact locations, distances, levels, etc. will be governed by the structures and the site the contractor shall accept same with this understanding.

C. The drawings indicate required size and points of termination of pipes, and suggest proper routes to conform to structure, avoid obstructions and preserve clearances. However, it is not intended that drawings indicate all necessary offsets, and it shall be the work of the Contractor to make the installation in such a manner as to conform to structure, avoid obstruction, preserve headroom and keep openings and passageways clear.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Contractor shall be responsible for delivery, storage, protection and placing of all equipment and materials.

B. Equipment stored and installed at the job site shall be protected from dust, water or other damage. Cover all equipment stored exposed to weather.

1.6 STRUCTURAL REQUIREMENTS

A. Structural members shall not be cut or modified in any manner without specific instructions from the structural engineer.

1.7 SEISMIC RESISTANCE

A. See Section 23 05 48.

1.8 CODES AND SAFETY ORDERS

A. All work and materials shall be in full accordance with the latest rules and regulations of the State Fire Marshall; the Safety Orders of the Division of Industrial Safety; the I.S.O. codes; the 2016 California Plumbing Code, Title 24, Part 5; the 2016 California Mechanical Code, 2016 Title 24, Part 4; the 2016 California Building Code, Title 24, Part 2, 2016 NFPA Codes, and other applicable laws and regulations. Nothing in the Drawings or Specifications shall be construed to permit work not conforming to these codes. Drawings and Specifications take precedence when work and materials called for exceed Code requirements.

1.9 INSTALLATION

A. Manufacturer's Instructions:

1. When specifications require that installation comply with manufacturer's printed instructions, obtain and distribute copies of such instructions to parties involved in the installation.
2. Perform work in accordance with manufacturer's instructions. Do not omit any preparatory step or installation procedure unless specifically modified or exempted by specifications.
3. Handle, install, connect, clean, condition and adjust products in strict accordance with such instructions and in conformity with specified requirements.
4. Should job conditions or specified requirements conflict with manufacturer's instructions, consult with the Engineer for further instructions.
5. Do not proceed with work without clear understanding.

1.10 PERMITS AND FEES

A. Obtain all permits and pay all required fees for permits and/or utility services. Inspections required during the course of construction shall be arranged as required. On completion of the work furnish the owners representative with certificates of inspection.

B. Include in bid all costs for gas service including meter, regulators and service line installed by a gas utility company or a gas utility company approved contractor.

1.11 SITE CONDITIONS

A. Assume all responsibility for damage to adjoining properties; and restore property to its original condition, should damage occur as a result of the work of this section. Contractor shall thoroughly familiarize himself with all site conditions. Should utilities not shown on the drawings be found during excavations, promptly notify the Architect for instructions as to further action. Failure to do so will make the Contractor liable for any and all damage thereto arising from his operations subsequent to discovery of such utilities not shown on plans.

1.12 SUBMITTALS

A. General

1. A submittal schedule shall be issued by the contractor within 15 days of award of the contract. This schedule shall allow for timely review and approval as required by the contract documents.
2. These requirements apply only to substitutions, submittals, and shop drawings.
3. The contractor shall review all submittals prior to submission to the Architect. Submittals not reviewed by the contractor will be returned to the contractor and will not be reviewed.
4. Any deviations from specified requirements shall be clearly indicated in submittals.
5. Any errors in or omissions from submittals and any consequences of these are the responsibility of the Contractor.
6. Partial or incomplete submittals may be rejected as not complying with requirements; the Contractor shall be liable for any resultant consequences.
7. Delayed submittals may be rejected as not complying with requirements. Whether accepted or rejected, delayed submittals will not be considered justification for extension of contract time or similar relief.
8. Submittals not required or permitted by the Specifications but made at the option of the Contractor, will be returned without review unless accompanied with written valid justification.
9. Submittal items improperly included with those of another category (such as a proposed substitution included with shop drawing submittal) are not valid and will be returned without review.
10. Within 35 calendar days after award of the contract, and before fabrications and installation of any material or ordering of any materials, submit for approval six (6) copies of complete submittal data on specified and proposed substituted equipment and materials. Submittals shall list all materials proposed identified with drawing symbols and specific data on equipment such as arrangements, performance curves, sizes, capacity, motor locations, and other pertinent data. Check all submittals for conformance

to the requirements of the Construction Documents before forwarding to the architect for each item. No consideration will be given to substitutions submitted past 35-day limit. The contractor shall be responsible for all quantities and errors and omissions of submittals. Furnish samples when requested.

11. Equipment and materials specified as part of the specifications and drawings are listed by two manufacturers names. The first named manufacturer is the basis of design. The second named manufacturer has been determined to be an equivalent in quality or utility. The second named has not been specifically determined to conform to the first named in size, layout, electrical power, voltage, or impacts to building structure. The contractor is bound by all requirements for substitutes, as described below, for all second named manufacturers and equivalent equipment or products.
12. Each reviewed submittal will be marked to indicate review and directions as stated below.
13. Acceptance of a submittal does not relieve the Contractor of responsibility for omissions from the submittal or errors in the submittal.

1.13 Review

A. Submittals will be reviewed for general acceptability, not necessarily including all details. The engineers review is for general conformance with the design concept of the project and the information given in the contract documents. The contractor is solely responsible for confirming and correlating all quantities and dimensions; selecting fabrication processes and techniques of construction; coordinating the work with that of other trades and performing all work in a safe and satisfactory manner. Corrections of comments made on this submittal during this review do not relieve contractor from compliance with the requirements of the contract documents or with its responsibilities listed herein.

1. Proposed substitutes will be judged not only for the acceptability of the items themselves, but also how they will be used under the conditions of the particular project.
2. Proposed substitutions will be judged also for compliance with qualifications and conditions stipulated in paragraph 1.12.

B. Each reviewed submittal will be marked to indicate review and directions as stated below.

1. Acceptance of a substitute does not waive the specified requirements.
2. Once a substitution is accepted, no revision or resubmittal may be made except for pressing and valid reason and after receipts of approval to do so.

1.14 Review Directions

A. The notation "No Exceptions Taken" indicates that no further submittal on the particular matter is required and that the Contractor may proceed with normally ensuing action. The notation may be applied to submittals on substitutions, shop drawings, record data, or operation and maintenance data. The submittal has only been reviewed for general conformance with the design concept of the Contract Documents. The contractor is responsible for the dimensions to be confirmed and correlated at the job site; information that pertains solely to the fabrication process or to the means and methods of construction; coordination of the work of all trades; and performing all work in a safe and satisfactory manner. This notation does not modify the contractor's duty to comply with the contract documents.

B. The notation "Make Corrections Noted" indicates that no further submittal on the particular matter is required, but the Contractor shall make all changes or corrections noted (but no others) before proceeding with normally ensuing action. The notation may be applied to submittals on substitutions or shop drawings (but usually not record data or operation and maintenance data).

C. The notation "Amend and Resubmit" indicates that the submittal is not accepted and must be revised, resubmitted, and reviewed again. In the case of submittal on substitutions and shop drawings so noted, the Contractor shall not proceed with any normally ensuing action until the resubmittal is reviewed. The notation may be applied to submittals on substitutions, shop drawings, record data, or operation and maintenance data.

D. The notation "Rejected - See Remarks" indicates that the submittal is not accepted and that resubmittal on the same subject matter is not allowed and will not be considered. The notation will be applied normally only to submittals on substitutions (usually not on shop drawings, record data, or operation and maintenance data).

E. The notation "Returned Without Review" indicates that the submittal or item has not been considered officially because it is either not proper, valid, required, or permitted by the Specifications and has no status or effect.

1.15 SHOP DRAWINGS

A. The contractor is responsible for providing all shop drawings as described below so that the design professional has the opportunity to determine if the contractor understands the contract documents. It is not the purpose of shop drawings to assure that the contractor is meeting the requirements of the contract documents. Review and approval of a submittal neither extends nor alters any contractual obligation.

B. Accompany all substituted equipment with shop drawings showing revised ductwork and/or piping layouts in order to ascertain that substituted equipment does not adversely affect layout or work of others. Shop Drawings: The following conditions apply to shop drawings:

1. Shop drawings are not and do not become Contract Documents.
2. Processed shop drawing submittals and any instructions or requirements noted thereon are a part of the work, but they may not be used as a means of increasing the scope of the work.
3. If deviations, discrepancies, or conflicts between shop drawing submittals and the Contract Documents are discovered either prior to or after the submittals are processed, the Contract Document requirements shall govern.

1.16 SUBSTITUTIONS

A. Whenever any equipment, material, or process is indicated or specified by patent of proprietary name and/or name of Manufacturer, in the Specifications and/or on the Drawings, it is understood that such specification is used to facilitate the description of the material and/or process and deemed to be followed by the words "or equal" unless noted "no substitute".

B. Substitute equipment and materials shall be equal in all respects including quality, arrangement, utility, physical size, capacity, and performance to those specified. Approval of substitute

material will not relieve the contractor from complying with the requirement of the Drawings and Specifications. The contractor shall be responsible and at his own expense, for any changes caused by proposed substitutions which affect other parts of his own work or the work of other contractors.

C. The submittal of a proposed substitution shall clearly establish the following:

1. The item can be transported into and installed in the intended space and in the manner shown.
2. Required connections (electrical, piping, and other) can be properly made and adjoining work can be properly accomplished.
3. The proposed substitute is similar to and of substance equal to that specified, is suited to the same use as that specified, and will perform the functions required by the design.
4. Motors for proposed substitute equipment will have the same minimum differential between motor brake horsepower and motor nameplate horsepower as the specified equipment.
5. All performance requirements shall be at least equal to the specified product or equipment including noise levels, cooling capacity, heating capacity, air flow quantity, etc.

D. By submitting a proposed substitution, the Contractor agrees to the following:

1. He will assume full responsibility for any and all modifications and necessary alterations arising from the use of the substitute item or material including all cost incurred by all other trades.
2. He will assume full responsibility for any delay in the construction schedule resulting from the use of the substitution.
3. He will prove harmless and indemnify the Owner and the Owner's design consultants from real or alleged damages that may result from the installation, use, or performance of a substitute material or product.

E. The following conditions apply to substitutions:

1. Submittals of substitutions are not and do not become part of the Contract Documents.
2. Contractor shall not order, fabricate, use, or install any substitute product or procedure unless he has received acceptance of the substitute from the Engineer.
3. Should the Contractor install any substitute product in violation of the above he shall remove it and install the specified product at his own expense.
4. The Contractor shall provide a letter stating that all the above items shall apply to all substituted products and equipment.
5. Any submittal for substituted equipment or product that does not clearly show that the substituted item is equal shall be marked rejected and no further submittal shall be allowed on the substituted item. Provide in submittal format documentation that the proposed item is exactly as specified in the contract documents.

1.17 GUARANTEE

A. Guarantee all work for 2-year ADD 2 from date of acceptance, against all defects in material, equipment and workmanship including repair of damage to any part of the premises resulting

from leaks or other defects in material, equipment and workmanship. Guarantee shall be on form supplied by the owner's representative.

1.18 RECORD DRAWINGS

A. Indicate on reproducible drawings the actual location of all ductwork, piping and equipment as the work progresses. Dimension locations of underground service mains and branches. Deliver the drawings to the architect at the completion of the job.

PART 2 - PRODUCTS

2.1 GENERAL REQUIREMENTS

A. Shop drawings:

1. Make all drawings to an appropriate scale, large enough to show all pertinent aspects of the item and the method of its connection into the work.
2. Make each drawing sheet in a reproducible form such as AutoCAD or PDF.

B. Grouping: Combine submittals in logical groupings; for example, submit Shop Drawings grouped by Sections of the Specifications, arranged in the specified sequence.

C. Shop Drawings: Electronic format (PDF).

D. Content:

1. Shop drawings may be:

a. Drawings or diagrams prepared by the Contractor, a supplier, a manufacturer, or other.
b. Typewritten data or descriptions.
c. Manufacturer’s printed brochures, descriptions, charts, instructions, or data sheets.

E. Timing: Submit all shop drawings prior to installation of any items included in submittal.

2.2 CORROSION PROOFING

A. Corrosion Proofing / U.V. Protection: Products which will be installed outdoors, exposed to the weather, exposed to moisture, or other potentially damaging conditions shall be constructed to resist the effects of such exposure.

B. Exterior casings shall have lapped or gasketed joints effectively sealed to prevent intrusion of moisture or other injurious substances.

C. Casings, ducts, pipes, or product items shall be constructed of materials which are fully resistant to harmful substances they may normally contact, or (if ferrous) shall be galvanized after fabrication, or shall be fully protected from such substances by paint or other coating in appropriate thickness or number of coats.

D. All bolts, nuts, screws, and washers shall be galvanized unless specified to be plated or unprotected.

E. Any exposed plastic pipe must have a U.V. inhibitor.

2.3 MATERIAL AND EQUIPMENT

A. All material and equipment shall be new, of the type, capacity and quality specified and free from defects. All materials and equipment shall be of the same brand or manufacturer throughout for each class of material or equipment wherever possible.

2.4 FILTERS

A. A complete set of filters shall be supplied for use during the construction period. A complete set of new filters shall be installed before testing and balancing.

2.5 ACCESS BOXES

A. For below grade valves and piping devices

1. Christy Concrete Products Company, Brooks, with galvanized steel checker plate recessed traffic lid flush with rim of box. Lids for boxes located in areas subject to vehicular traffic shall be constructed to withstand H20 live loading as defined by the American Association of State Highway Officials (16,000 pound maximum individual wheel load). Service identification shall be conspicuously welded on lid before galvanizing. For gas service, drill twelve 3/8" diameter vent holes through lid before galvanizing. Provide manufacturer's box extensions to bring box bottom three inches below bottom of valve and box top flush with finish grade.
2. Box sizes (non traffic) ADD 2

Type Valve	Valve Size	Box No.
Gas	1 1/2" and smaller	B-24
Gas	2" and 2 1/2"	B-36
Gas	3" and 4"	B-40
Gas	5" and 6"	B-48
Gas	8"	B-52

2.6 ACCESS DOORS

A. Unless specified otherwise by the Architect, provide access doors of the following type:

1. Concealed hinges, prime coated with rust-inhibitive paint, style of door to suit wall, ceiling, floor or roof construction and fire rating.

    a. Milcor Type M
    b. Milcor Type UFR, fire resistive type Underwriters Laboratory Class B, 1-1/2 hour rating meets UBC, IBCO and BOCA codes for two hour rated walls self latching with key lock, Elmdor/Stonman Type FR or equal.

2. Minimum size; 18" by 18".
3. Wall and ceiling access doors: Furnish as required for access to ducts, damper operators, duct mounted access panels, etc.; coordinate size and location to obtain access.
4. See Architectural drawings for further requirements.

2.7 MISCELLANEOUS EQUIPMENT AND MATERIALS

A. Furnish and install miscellaneous equipment and materials required for the systems described whether or not specifically shown.

PART 3 - EXECUTION

3.1 PREPARATION

A. General:

1. Do not install any equipment, valve, control, motor, filter, or any other device requiring maintenance or service in an inaccessible location or position. Install access doors as specified herein to render all such equipment serviceable whether specifically shown on the plans or not. Maintain code clearance to all equipment. Coordinate location of doors with lights, etc., and locate symmetrically with same.

B. Observations: Check all project drawings and specifications; report any discrepancies before

C. Investigation: Examine the areas, conditions, and status of other work contiguous or connecting to the work to be performed; ensure that the time of installation is coordinated with other work.

D. Interruptions of Service: Portions of this work may involve connection to existing work, facilities, or utilities ties and may require interrupting shutdowns of same. Carefully plan, coordinate and execute such work so that any interruptions will be kept to a minimum in time and occurrence. Submit request for shutdowns and make shutdowns only after receiving written approval from the Owner.

E. Other: Correct any unsatisfactory conditions that may impede proper execution of the work. Ensure that all arrangements, personnel, materials, and tools are appropriate and adequate before proceeding.

3.2 INSTALLATION

A. General:

1. Material and equipment incorporated in the work shall be used or applied only for the purpose intended or specified.
2. Install piping and ductwork and all equipment that requires access with minimum vertical and horizontal clearances required by OSHA for service.
3. All mechanical systems such as ductwork, pipes and all other equipment shall have 2 inches minimum clearance.
4. Do not proceed with work without clear understanding.

3.3 Manufacturer's Instructions

A. When specifications require that installation comply with manufacturer's printed instructions, obtain and distribute copies of such instructions to parties involved in the installation.

B. Perform work in accordance with manufacturer's instructions. Do not omit any preparatory step or installation procedure unless specifically modified or exempted by specifications.

C. Handle, install, connect, clean, condition and adjust products in strict accordance with such instructions and in conformity with specified requirements.

D. Should job conditions or specified requirements conflict with manufacturer's instructions, consult with the Engineer for further instructions.

E. Do not proceed with work without clear understanding.

3.4 Protection

A. Contractor shall conform to all Federal, State, and local ordinances related to the protection of the public and Contractor’s personnel and the flow of traffic/ Provide protection for persons and property throughout the progress of the work.

B. Existing work damaged by the contractor in the execution of this Contract shall be restored to former condition by the contractor to the satisfaction of the Owner without an increase in the Contract Sum and without an extension of the Contract Time.

3.5 Disposition of Materials

A. All materials and equipment not scheduled to be salvaged, including debris and all rejected salvaged materials, shall become the property of the Contractor and shall be disposed of off site in a legal manner. Location of dump and length of hall shall be the contractor’s responsibility.

3.6 LOCATION OF EQUIPMENT, PIPING AND DUCT WORK

A. Where job conditions do not permit the installation of piping, ductwork, etc. in the location shown, it shall be brought to the engineer's attention immediately before fabrication of ductwork, piping, etc. and the relocation required shall be determined in a joint conference.

B. The contractor will be held responsible for the relocating of any items installed without first obtaining the architect’s or engineer’s approval. Remove and relocate such items at The contractors expense as so directed by the architect or engineer.

C. Where piping or ducting is left exposed within a room, run in vertical or horizontal planes. Maintain uniform spacing between parallel lines and/or adjacent wall, floor or ceiling surfaces.

D. Horizontal runs of plumbing and/or electrical conduit suspended from ceilings shall provide for maximum clearance.

E. Make minor changes in locations of equipment, piping, ducts, etc. from locations shown including minor offsets when directed by the engineer, at no additional cost to the owner.

3.7 CARE AND CLEANING

A. Clean and adjust all equipment at completion of installation to provide operating conditions satisfactory to the engineer. Remove broken, damaged or defective parts; repair or replace as directed by engineer. Remove surface material and debris resulting from this work when directed.

3.8 FLASHINGS

A. Furnish and install a waterproof flashing for each pipe, duct, or other penetration through roof or wall. Counter flashing as detailed, except in metal roofs flashing for pipes through roof shall be furnished by the roofing contractor. Where details are not specifically delineated, submit details for review.

3.9 PAINTING

A. Painting is included under the Painting and Finishing Section. It shall be the responsibility of the Mechanical Contractor to properly protect all equipment and controls during painting operations and the Mechanical Contractor shall repair and/or replace any item damaged due to painting that was not properly protected.

3.10 ACCESS DOORS

A. Provide access doors to all concealed equipment, valves, controls, etc. Locate doors where shown or to be coordinated and symmetrically located with lights, diffusers, etc. Access doors furnished by the mechanical contractor shall be installed by the general contractor.

3.11 ELECTRICAL REQUIREMENTS

A. Provide working space around electrical equipment in compliance with the applicable Code and all Safety Orders.

B. Coordinate the Mechanical Work with the Electrical Work to comply with the above. Furnish and set in place all motors and duct or pipe installed controls.

C. Location of all new switches shall be verified with the architect or architect before roughing-in. Furnish necessary control diagrams and instruction for the proper installation of the controls.

D. Assume responsibility for the proper supervision and testing of the controls for sequence of operation.

E. Motors and control equipment shall conform to the Standards of the National Electrical Manufacturers Association.

F. All equipment electrical characteristics shall be as noted on the drawings, or as specified. Verify before ordering any equipment.

G. Before permitting operation of any equipment which is furnished, installed or modified under this contract, review all wiring connections that pertain to mechanical equipment or work, and verify that these connections are correct.

H. Ascertain that the over-load protection devices installed are of the correct type, rating and setting to properly protect this equipment.

3.12 Instruction of Owner's Personnel

A. Prior to final inspection or acceptance, fully instruct Owner's designated operating and maintenance personnel in operation, adjustment and maintenance of products, equipment and systems.

B. Operating and maintenance manual shall constitute the basis of instruction.

1. Review contents of manual with personnel in full detail to explain all aspects of operations and maintenance.

3.13 RECORD DATA

A. Compilation

1. Record and collect information concurrently with construction progress and date all entries; make drawing entries within 24 hours after occurrence of change or installation requiring recording. Any concealed work covered before recording data shall be uncovered as directed or as necessary to obtain data.
2. Record information on drawing prints using an erasable colored pencil (not ink or indelible pencil); describe clearly by note or graphic line as appropriate.

B. Locate any concealed work adequately to allow future access with reasonable ease and accuracy.

1. Identify the plan location of all stub outs, pipe lines, etc., which are buried or concealed in the structure, whether installed where shown on the contract drawings or in a different location; show actual field dimensions from column lines, wall lines, or other permanent reference lines or points.
2. In many cases on the contract drawings, the arrangement of conduits, pipes, ducts, and similar items is shown schematically rather than as a precise scaled layout. Identify the actual location of these with horizontal and vertical dimensions. If such lines are exposed or readily accessible, omit dimensional identification.
3. When any work is installed of size, dimension, slope, or location different from that shown on the contract drawings, note the deviation on the Project Record set. If the variations are substantial or cannot be shown clearly on the record drawings, make a new drawing and attach to the Record set.

C. On other documents

1. Where changes occur in specifications, clearly indicate same in ink, colored pencil, or rubber stamp.
2. Where installed equipment differs from that specified (e.g., by accepted substitution or change order) note in the specifications and include complete data on same.

END OF SECTION 23 05 00

SECTION 23 07 13 – DUCT INSULATION

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

A. See Section 23 07 00

B. A continuous, intact vapor barrier is critical for ducts.

C. All insulation material shall have a mold, humidity, and erosion resistant face that has met the requirements of CMC Table 1701.

D. Insulation applied to the exterior surface of ducts located in buildings shall have a flame spread of no more than 25 and a smoke developed rating of not more than 50.

E. Insulate all above grade ductwork unless otherwise shown on the drawings or specified in Section 23 31 16 METAL DUCT.

PART 2 - PRODUCTS

2.1 ID-1 FLEXIBLE BLANKET/VAPOR BARRIER FACED

A. Glass fiber reinforced Kraft/aluminum foil faced flexible blanket of 1.5 PCF nominal density resin bonded fibrous glass, have an installed thermal conductivity k factor of 0.24 ADD 2 at 75° F.; suitable for direct application and service on cold and dual temperature ductwork.

B. Supply FSK jacket with a permeance of 0.02 or less

C. Fiberglass insulation ~~ED-100~~ with all service facing, Certainteed Type 150 ~~Universal~~ with Type IV facing, Johns ~~Schuller~~ Manville Microlite with FSK~~L~~ facing. ADD 2

~~2.2 ID-2 FLEXIBLE BLANKET/VAPOR BARRIER FACED~~

~~A. Glass fiber reinforced Kraft/aluminum foil faced flexible blanket of 1.5 PCF nominal density resin bonded fibrous glass, have a installed thermal conductivity k factor of 0.25 at 75° F.; suitable for direct application and service on cold and dual temperature ductwork.~~

~~B. Supply FSK jacket with a permeance of 0.02 or less~~

~~C. Schuler Manville Microlite, Owens Corning, Certainteed.~~

1.2 ~~ID-3 DUCT LAGGING~~ ADD 2

~~A. Acoustical duct lagging shall be 2 lb. psf vinyl noise barrier with reinforced foil facing on one side bonded to a 1" thick acoustical fiberglass quilted with a non-porous scrim facing.~~

1. Products

~~a. Model B-20 LAG/QFA-3 sound seal products.~~
~~b. Quilted fiberglass shall be nominal thickness of 1" and have a 2 lb/cu. ft. density~~
~~c. Sound transmission class of 32~~
~~d. Accessories for installation shall be foil lag tape, stick pins, welding pins and banding.~~

PART 3 - EXECUTION

3.1 APPLICATIONS

A. Supply Air Ducts indoors/concealed

1. Use System ID-1 (Flexible Blanket / Vapor Barrier Faced)

a. 2" thickness for all sizes (installed R-Value = 6.3 minimum) ADD 2
b. Applies to all cross sections (I.E. rectangular, circular, etc.)

B. Return Air Ducts indoors/concealed

1. Use System ID-1 (Flexible Blanket / Vapor Barrier Faced

a. 1 ½" thickness for all sizes (installed R-Value = 4.7 minimum) ADD 2
b. Applies to all cross sections (I.E. rectangular, circular, etc.)

C. Do not externally insulate the following unless otherwise shown on the drawings or specified:

1. Lined ductwork (indoors).
2. Ducts constructed of fibrous glass (flexible or rigid).
3. Above grade ducts conducting exhaust air or ventilating air (not heated or cooled and used for fresh air supply) unless otherwise noted.
4. Exposed ducts located in conditioned space.

3.2 INSTALLATION FLEXIBLE BLANKET/VAPOR BARRIER FACED

A. Install on supply and return ductwork so that condensation will not occur.

B. Wrap around ducts, butt all joints. Secure with 3" (minimum) width tape at 18" (maximum) intervals along the duct; tape may be of the same material as the insulation facing with a pressure sensitive adhesive on one side or may be Hardcast DT490-C mineral impregnated woven synthetic fiber using Hardcast FTA-20 roller. In addition, on rectangular and cross section ducts, secure to the flat bottoms more than 18" wide with SticKlip fasteners only with 1 ½" diameter washers at 16" centers both ways; one centered longitudinal row is sufficient for ducts up to 36" flat bottom width.

C. Seal all seams and joints with 3" (minimum) width tape centered along the edge of the lap;tape shall be as specified above.

D. Seal all fastener penetrations with 3" x 3" (minimum) tape centered over the washer; tape shall be as specified above.

E. Where strap type duct supports penetrate the insulation, slit the insulation and facing, fit around the straps, and seal with tape as specified above; tape shall be of size to suit the situation and be applied in the number of layers necessary to obtain complete sealing.

F. For low temperature air ductwork, insulate the straps a minimum of 4 inches from any point of contact with the duct.

G. At trapeze or similar type duct supports, insert a 12" wide strip of Armaflex insulation, ½" thick between duct bottom and the supporting member across and 6" beyond both ends of the bearing surface. Lap ducts insulation over this insert and seal the same as other lapped seams.

H. Insulate all flexible duct connectors to the same thickness as adjacent duct insulation.

I. Continue insulation on terminal unit inlets to cover the entire inlet collar.

J. Insulate over all duct access doors with the same thickness as adjacent duct insulation. Provide removable insulation piece with an outer label on the insulation identifying the type of door.

K. Outdoors, provide additional seal over all joints and fastener or other penetrations by covering same 2" beyond tape sealing (above) with two (2) coats of Fosters 30-65 or Childers CP-34 vapor barrier coating reinforced with Fosters Mast a Fab or Childers Chil Glas #10 reinforced mesh. Vapor barrier coating shall have a permeance of 0.03 perms or lass at 45 mils as tested by ASTM E96, procedure A.

L. Finish all outdoor ductwork insulation by applying two (2) 1/8" thick coats of Foster 46-50 or Childers CP-10/11 weather barrier mastic reinforced with Fosters Mast a Fab or Childers Chil Glas #10 reinforced mesh. Vapor barrier coating shall have a permeance of 0.03 perms or lass at 45 mils as tested by ASTM E96, procedure A. Lap all joints 2".

3.3 INSTALLATION: FLEXIBLE BLANKET/COATED LINER:

A. Apply a 1/16" thick coat of Foster 85-62 JacTac 3-M Company Scotch Grip #38, Childers-125-1, adhesive or duct butter on all end or edges of cuts, rips, etc., before or while installing.

B. Secure to the ductwork with welded or SticKlip, fasteners with 1 ½" diameter washers with cupped or beveled heads. Set at 16 (maximum) on centers both ways; provide a row of pins within 1" of all edges and joints, and one row of pins (minimum) on each flat duct or plenum face. In addition secure the entire perimeter of all edges at seams or joints with a 4" minimum width application of the above specified adhesive. The upstream edge of all duct liner shall have a sheet metal closure to protect against erosion.

C. Fasteners shall compress the liner no more than 1/8”.

D. Clip off protruding ends of fastener pins in plenums.

E. In walk-in plenums, finish the interior face of liner with two (2) coats of Foster 30-36 Sealfas or Childers CP-50AMV1 lagging adhesive. All seams in insulation shall be sealed with fiberglass mesh embedded between coats of lagging adhesive.

3.4 INSTALLATION: FIBERGLASS DUCT BOARD / VAPOR BARRIER:

A. Board shall be secured to the ductwork with mechanical fasteners within 3” of edges of board, 12” on center.

B. All joints shall be closed with a vapor barrier mastic reinforced with 3” glass scrim tape. For outdoor systems, the standard facing shall be over-coated with a suitable weather barrier mastic reinforced fabric.

C. Corner angles shall be installed on all external corners of rigid duct insulation.

END OF SECTION 23 07 13

SECTION 23 08 00 - COMMISSIONING OF MECHANICAL SYSTEMS

PART 1 - GENERAL

1.1 INCLUSION OF OTHER CONTRACT DOCUMENTS

A. Volume1 Contracting Requirements, The General Conditions, Supplementary Conditions and Division 1 General requirements are fully applicable to this Section, as if repeated herein.

1.2 RELATED WORK SPECIFIED ELSEWHERE

A. See 01 91 13 general commissioning specifications

B. See equipment to be commissioned in table 1.9.A (01 91 13).

1.3 REFRENCES

A. USGBC:

1. LEED – NC 4.0: EA Prerequisite 1, Fundamental Commissioning
2. LEED – NC 4.0: Credit 3, Enhanced Commissioning

B. ASHRAE

1. ASHRAE Commissioning Guideline 0-2013

1.4 DESCRIPTION OF WORK

A. Work includes the completion and documentation of formal commissioning procedures by the General Contractor and Trade Contractors. Commissioning (Cx) is defined as the process of verifying and documenting the installation and performance of selected building systems to meet the specified design criteria, thereby satisfying the design intent and the Owner’s operational needs. Refer to Section 01 91 13, Commissioning General Requirements for detailed description of the commissioning process.

B. The Contractor, Installation Contractors, factory authorized representative, and/or independent testing agency shall be responsible for participation in the commissioning process as outlined in this specification, above listed specification sections, and Section 01 91 13 Commissioning General Requirements, and as directed by the Commissioning Coordinator (CxC) as overseen by the Commissioning Authority (CxA).

C. Additional responsibilities of the Installation Contractor during commissioning are:

1. Prior to any construction activity, provide approved submittal drawings and a detailed sequence of operation for each piece of equipment and system. The system

sequence of operation shall fully describe their equipment components and functionality.

2. For HVAC controls, provide complete control points list in MS Excel or other pre-approved format. Points list shall include point name, point description, display units (i.e. degrees F, percent, psi), panel identification, point type (AI, AO, BI, BO, virtual/software), field device controlled (through network, dry contact, actuator limit switch or other specific equipment), BMS application or energy management function associated with point, and associated alarm points and parameters. The BMS Installation Contractor shall make all points available for continuous trending.
3. In accordance with the approved Cx Plan, assist the Contractor with the execution of the Functional Performance Testing of all equipment and systems connected to the control system.
4. Provide a list of test meters and sensors to be used for calibration purposes. The list shall include test meter and sensor accuracy for comparison to the BMS sensor accuracy requirements specified in contract documents.
5. The CxC and Installation Contractors shall set up the appropriate trends and provide trend data into a usable electronic format, such as a text, CSV or Excel format. The CxA shall analyze and review the trend data.

PART 2 - PRODUCTS

2.1 DOCUMENTATION

A. The Installation Contractor has specific responsibilities for assisting in the development of test procedures and test forms, and in performing and documenting commissioning tests, as directed by the CxC and as overseen by the CxA.

B. The Installation Contractor shall provide, wherever the Project Documents require, systems checks and testing, test reports, checklists, operational verifications and demonstration, or other similar language, written testing procedures and documentation of tests, whether specified or not in the commissioning sections.

C. The CxC shall identify personnel responsible for specific commissioning tasks.

2.2 TEST EQUIPMENT

A. The Installation Contractor shall provide all test equipment, whether specified or not, to execute Pre-Functional and Functional Performance Tests.

B. The test equipment shall be provided in sufficient quantities to execute testing in an expedient fashion.

C. The test equipment shall be of industrial quality and suitable for testing and calibrated with accuracy within the tolerance necessary to demonstrate system performance.

D. Equipment shall be certified to an accuracy of 10% of the smallest tolerance to be measured. For example, if a flow meter is required to be +/- 5 gpm, the calibration device must have an accuracy of +/- 0.5 gpm.

E. The test equipment shall have calibration certification per equipment manufacturer's interval level or within one year if not otherwise specified and shall be submitted to the CxA.

F. TAB Contractor shall conduct testing per Section 01 91 33, Testing and balancing prior to HVAC Functional Performance Testing.

PART 3 - EXECUTION

3.1 TESTING REQUIREMENTS

A. The GC and Trade Sub-Contractors shall perform Functional Performance Tests (FPTs) for 100% of all equipment in the scope of commissioning per the approved test procedures on the FPT forms in the Final Cx Plan. All testing results shall be documented on the FPT forms. At the discretion of the CxA and per the approved Cx Plan, the CxA may witness a percentage (sample) of the functional tests for selected, multiple identical pieces of non-life-safety or non-critical equipment.

B. All tests shall be coordinated and scheduled with the CMR's CxC. Provide a minimum of 10 day notice prior to conducting each system test.

C. Follow the commissioning process and testing requirements outlined in Section 019100, General Commissioning Requirements. Ensure the following are completed prior to the start of the FPTs:

1. Certify through the System Readiness Checklist (SRC) forms that the HVAC systems, controls and instrumentation, equipment and assemblies have been installed, calibrated, started and are operating per the Contract Documents. Approval of the completed SRC forms by the CxA is required prior to conducting the FPTs.
2. TAB Contractor shall conduct and complete all testing, reporting, field inspection and verification work, and discrepancies and corrective work prior to HVAC system FPT.
3. All pipe system cleaning, flushing, and pressure testing, duct leakage testing and duct cleaning per the Contract Documents is completed and applicable plans and reports are provided to the CxA.
4. BAS Controls Trade Contractor shall complete the BAS pre-functional checks and tests, including sensor calibration, actuator testing, and point-to-point checks, prior to FPTs of the HVAC systems.
5. The BAS control system graphics, programming for the sequence of operations and associated setpoints and alarms shall be loaded and the HVAC system operation and controls checked out prior to starting functional testing.

    a. Prior to conducting the FPTs, place the systems and controls into the operating modes to be tested (e.g., normal occupied mode, normal startup and shutdown modes, unoccupied modes including after-hours override and night setback operation, emergency power, etc.).
    b. Check all control system safety cutouts, alarms, and interlocks with smoke control and fire-life safety during each mode of operation prior to functional testing.
    c. The final blank FPT forms will be available to the BAS Installation Contractor prior to witnessing of the FPTs by the CxA.

3.2 FUNCTIONAL PERFORMANCE TESTS – TREND ANALYSIS

A. The CxA will prepare a trend analysis test plan, as part of the FPTs in the Final Cx Plan, that include BAS trending to verify integrated system operation and performance, to be conducted after FPTs for the HVAC control sequences and operating modes are completed and any issues and deficiencies are corrected.

B. The CxA will provide the BAS Trade Contractor with a list of trend log definitions (including the points and trend interval) based on the performance period FPTs included in the Commissioning Plan.

C. The BAS Trade Contractor shall set up the trend log definitions. Trend data shall be provided by the BAS Trade Contractor to the CxA in an electronic format, either a text file, CSV file or Excel file, with related system parameters grouped together.

The functional performance period trending will commence within one week of completing the FPTs for the HVAC control sequences and operating modes and run for a minimum of 14 days. If performance issues are encountered, the issues shall be corrected by the BAS Trade Contractor and the functional performance period trending shall be restarted

END OF SECTION 23 08 00

SECTION 23 09 23 TEMPERATURE CONTROL SYSTEM

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Furnish all labor, materials, equipment, and service necessary for a complete and operating Alerton Envision for BACtalk Native BACnet based Temperature Control System based upon the ANSI/ASHRAE™ Standard 135–2008, BACnet. Roseville Joint Unified High School District has standardized on Alerton Compass for BACtalk. Contact Bill Carmody at L&H Airco at 1-916-677-1000.

B. Provide one (1) hard copy of all Operation & Maintenance manuals. The manuals shall also include all final controls diagrams.

C. Provide all necessary hardware and software to meet the specified functional requirements.

D. Prepare individual hardware layouts, interconnection drawings and control loop configuration data from project design data.

E. Implement the detailed design for all system input/output points, distributed control and system data bases, graphic displays, logs, and management reports based on control descriptions, logic drawings, configuration data, and bid documents.

F. Provide and install all controllers, panels, and all interconnecting data communication network cables and all interconnecting cables between all operator terminals and peripheral devices (such as printers, etc.) called for in this section.

G. Provide as-built documentation, software, and all Direct Digital Control (DDC) control logic and all associated support documentation on approved media which accurately represents the final system.

H. Supply all equipment and accessories in accordance with the requirements of all applicable national, state and local codes.

I. Scheduled equipment performance is minimum capacity required.

J. Scheduled electrical capacity shall be considered as maximum available.

K. Unless noted otherwise, all conduit and wiring associated with the temperature control system, regardless of voltage, is included as part of this Section. Obtain power for temperature control devices from the nearest available adequate source.

L. Control system shall incorporate a California Energy Commission listed and approved fault detection and diagnostic (FDD) economizer controls and Title 24 requirements for HVAC operation with space CO2 sensors if shown on the plans.

M. All new system programming and graphics shall be installed on the RJUHSD Alerton Server.

1.2 REFERENCES

A. CCR - California Code of Regulations, Title 24, Part 3, Basic Electrical Requirements, State Building Standards Electrical Code.

B. CEC - California Electrical Code

C. NEMA - National Electrical Manufacturer's Association

D. NFPA - 70 National Electrical Code (NEC)

E. UL - Underwriters Laboratories, Inc

F. 1.3 SUBMITTALS

A. Submit eight copies of shop drawings of the entire control system. Provide point to point wiring diagrams and engineered drawings, complete list of equipment and materials including manufacturer's catalog cuts, and installation instructions. Provide a recommended spare parts list.

B. Provide complete wiring and schematic diagrams, software descriptions, calculations, and any other details required to demonstrate that the system has been coordinated and will properly function as a system. Indicate terminal identification for all control wiring on the shop drawings.

C. Provide a complete written Sequence of Operations with the submittal package after the sequence of operation has been reviewed with the Owner & Engineer. ADD 2.

D. Provide the following minimum system documentation:

E. System configuration diagrams in simplified block format.

F. Input / Output point and alarm point summary listing.

G. Electrical drawings showing all system internal and external connection points, terminal block layouts and terminal identification.

H. As part of Maintenance and Operating Data, provide manufacturer’s instructions and drawings for installation, maintenance and operation of all materials.

I. Overall system operation and maintenance instructions, including preventive maintenance and troubleshooting instructions.

J. Upon completion of the work provide a complete set of 'record' drawings including manufacturer's descriptive literature, operating instructions, and maintenance and repair data all in accordance with the requirements of Section 23 05 00.

K. Provide one CD ROM to the Owner with all Control System As-Built AutoCAD Drawings.

1.4 MANUFACTURER QUALITY ASSURANCE

G. A. Acceptable Control System Manufacturer is Alerton Controls to Match Existing Roseville Joint Union High School District Sites. Alerton Compass for BACtalk is the District standard. **No Exceptions.**

1. All new VLC Controllers will communicate with a new Alerton ACM Global Controller and be programmed per the sequence of operations as shown on the drawings.

2. All Graphic Screens and Alarms for this project will be setup to be monitored and controlled from the (E) Alerton Compass Server Computer located at the district Maintenance office.

B. All BACnet application specific controllers submitted for use on this project must be certified as complaint with BACnet through the BACnet Manufacturers' Association (BMA) BACnet Testing Lab and must have a "BTL Mark". The temperature control system must be developed using existing proven equipment and must be readily available from inventory of the controls manufacturer or vendor at the time of bid.

C. Native BACnet System Manufacturer must have at a minimum 500 operating projects utilizing the proposed native BACnet System. Provide 10 references of similar projects (include project name, contact, phone number, location, consultant, value of contract, and a brief description of the control system and how it operates) and submit 45 days prior to bid for review process.

1. D. All controllers used on project must be of regular manufacturer and be readily available from inventory of the BACnet System Manufacturer.
2.
3. E. Provide standard components, of regular manufacture for this application for all materials and equipment. All systems and components shall have been thoroughly tested and proven in actual use.
4.
5. F. Operator workstation (existing). All controllers shall be native BACnet devices. No 3rd party gateways shall be used for communication to controllers installed under this section.
6.
7. G. Provide all necessary BACnet-compliant hardware and software to meet the system's functional specifications. Provide Protocol Implementation Conformance Statement (PICS) for Windows-based control software and every controller in the system.
8.
9. H. All BACnet based peer-to-peer controllers, central system controllers and local user displays shall be UL listed under Standard UL 916, category PAZX.

H. I. All electronic equipment shall conform to the requirements of FCC Regulation, Part 15, Governing Radio Frequency Electromagnetic Interference and be so labeled.

1.5 EMS SYSTEM CONTRACTOR QUALITY ASSURANCE

A. Responsibility: All work described in this section shall be engineered, installed, wired, circuit tested calibrated and programmed by regularly employed control system engineers and electricians and technicians of the authorized temperature control system factory representa-

tive or branch office of the listed approved manufacturer. System Engineering, Programming and Installation shall not be subcontracted. The supplier of the Alerton BACnet Temperature Control and Energy Management System shall be responsible for inspection and Quality Assurance (QA) for all materials and workmanship furnished by him. Contractor must have a valid C-10 and C-20 license to bid this project.

B. Component Testing and Availability: Maximum reliability shall be achieved through extensive use of high-quality, pre-tested components. The manufacturer prior to shipment shall individually test each and every controller, sensor, and all other DDC components. EMS System Contractor or Manufacturer must certify that any DDC part can be replaced within 5 working days.

C. Unacceptable Bids: Bids by wholesalers, parts distributors, contractors or franchised dealers or any firm whose principal business is not that of installing automatic temperature control systems shall not be acceptable.

D. Experience: Energy Management System Contractor (EMSC) shall have been in business and licensed by the State of California for a minimum of five continuous years prior to this project bid. EMSC must have been a factory authorized representative for a minimum of five years of the contractors proposed manufacturer's products and systems.

E. EMSC must have performed, from an office not more than 20 miles from project site at least 25 projects, each of which included the installation of not less than 250 hardware I/O points, using the contractors proposed manufacturer's products and systems. Five of the 25 projects must have included the installation of not less than 1,500 hardware I/O points using the contractors proposed manufacturer's products and systems.

F. EMSC shall have on staff a full time Mechanical Engineer that is a licensed Professional Engineer by the State of California, having not less than four years experience with the contractors proposed manufacturer's products and systems.

G. EMSC shall have on staff a full time Applications Engineer and Control System Programmer, having not less than three years experience with the contractors proposed manufacturer's products and systems.

H. EMSC shall have on staff a minimum of three full time control technicians, Senior control technician shall have not less than three years experience, junior technicians shall have not less than one years experience with the contractors proposed manufacturer's products and systems.

I. EMSC shall have a full time service department with service available 24 hours a day, seven days a week. Service department will have been established for a minimum of five years and be staffed with factory trained and authorized service technicians capable of servicing all aspects of the control systems depicted on these plans.

J. Service department shall have on staff a full time control system telephone support technician available during normal business hours dedicated to taking customer support calls and having the ability to call the project site and perform on-line diagnostics.

1.6 DEVICE ALLOWANCE

I. Contractor shall include within their bid an allowance of Seven Thousand Five Hundred Dollars ($7,500) for interface devices. This allowance shall not be used for items called out or required by the bid documents. It shall be utilized for additional equipment not specified. These devices shall be selected by the district and procured by the controls contractor utilizing the allowance. Devices shall be transmitted directly to the District who shall take ownership.

PART 2 – PRODUCTS

2.1 OPERATOR'S WORKSTATION (Existing at District Office)

A. General structure of workstation interaction shall be a standard client/server relationship. Server shall be used to archive data and store system database. Clients shall access server for all archived data. Each client shall include flexibility to access graphics from server or local drive. Server shall support a minimum of 50 clients simultaneously.

N. Workstation/Server Hardware (Existing)

1. Server Hardware existing at District Office.

M. Software

1. Alerton BACtalk Compass Software is existing at the District Office.

2. At the conclusion of project, contractor shall leave with owner a CD ROM that includes the complete software operation system and project graphics, setpoints, system parameters, etc. This backup shall allow the owner to completely restore the system in the case of a computer malfunction.

2.2 WEB INTERFACE (Existing)

A. Web Client

1. EMCS supplier shall provide an HTML5-based browser access to the AWS as part of standard installation. User must be able to access all displays of real-time data that are part of the AWS using a standard web browser. Web browser shall tie into the network through owner-supplied Ethernet network connection. The web client shall support a minimum of 200 users with a single license.

2. Browser shall be standard version of Microsoft Internet Explorer v10.0 or later, Firefox v19.0 or later, Chrome v24.0 or later, and Safari v7.1.1 or later. No special vendor-supplied software shall be needed on computers running browser. Data shall be displayed in real-time and update automatically without user interaction.

3. Web pages shall be automatically generated using HTML5 from the data display files that reside on the AWS. Any system that requires use of an HTML editor for generation of web pages shall not be considered.

4. Access through web client or thick client shall utilize the same hierarchical security scheme as the AWS. User shall be asked to log on once the client makes connection to the AWS. Once the user logs on, any and all changes that are made shall be tracked by the AWS. The user shall be able to change only those items he or she has authority to change. A user activity report shall show any and all activity of the users who have logged on to the system, regardless of whether those changes were made

using a web client, thick client or through the AWS.

5. Shall provide User Session Management including the ability to view all connected user sessions to the web client, see how long they have been active/inactive for each unique session, and force log-out for any or all sessions.

6. Shall provide menu-style navigation access to primary features, i.e. alarm history, DataViewer, Search scheduled points and Zones, System Activity, User Session Management, and Top Display

7. Web client shall, at a minimum, support the following tablets:

    a. Android platform:

        1. Google Nexus

        2. Samsung Galaxy Note

    b. Apple platform

        1. Ipad

        2. Apple Ipad Mini

2.3 BUILDING CONTROLLER ACM

A. General Requirements

1. BACnet Conformance

    a. Building Controller shall be approved by the BTL as meeting the BACnet Building Controller requirements.

    b. Please refer to section 22.2, BACnet Functional Groups, in the BACnet standard, for a complete list of the services that must be directly supported to provide each of the functional groups listed above. All proprietary services, if used in the system, shall be thoroughly documented and provided as part of the submittal data. All necessary tools shall be supplied for working with proprietary information.

2. Building controller shall be of scalable design such that the number of trunks and protocols may be selected to fit the specific requirements of a given project.

3. The controller shall be capable of panel-mounted on DIN rail and/or mounting screws.

4. The controller shall be capable of providing global control strategies for the system based on information from any objects in the system, regardless if the object is directly monitored by the building controller module or by another controller.

5. The controller shall be capable of running up to six (6) independent control strategies simultaneously. The modification of one control strategy does not interrupt the function or runtime others.

6. The software program implementing the DDC strategies shall be completely flexible and user-definable. All software tools necessary for programming shall be provided as part of project software. Any systems utilizing factory pre-programmed global strategies that cannot be modified by field personnel on-site, using a wide area network (WAN) or downloaded through remote communications are not acceptable. Changing global strategies using firmware changes is also unacceptable.

7. Programming shall be object-oriented using control function blocks and support DDC functions. All flowcharts shall be generated and automatically downloaded to controller. Programming tool shall be supplied and be resident on workstation. The same tool shall be used for all controllers.

8. The programming tool shall provide means to graphically view inputs and outputs to each program block in real-time as program is executing. This function may be performed using the operator's workstation or field computer.

9. Controller shall have 6,000 Analog Values and 6,000 Binary Values.

10. Controller IP configuration can be done via a direct USB connect with an operator's workstation or field computer.

11. Controller shall have at a minimum a Quad Core 996Ghz processor to ensure fast processing speeds.

12. Global control algorithms and automated control functions shall execute using a 64-bit processor.

13. Controller shall have a minimum of 1 GB of DDR3 SDRAM on a 533Mhz bus to ensure high speed data recording, large data storage capacity and reliability.

14. Controller shall support two (2) on-board EIA-485 ports capable of supporting various EIA-485 protocols including, but not limited to BACnet MS/TP and Modbus.

    a. Ports are capable of supporting various EIA-485 protocols including, but not limited to BACnet MS/TP and Modbus.

15. Controller shall support two (2) ports—each of gigabit speed—Ethernet (10/100/1000) ports.

    a. Ports are capable of supporting various Ethernet protocols including, but not limited to BACnet IP, FOX, and Modbus.

16. All ports shall be capable of having protocol(s) assigned to utilize the port's physical connection.

17. The controller shall have at a minimum four (4) onboard inputs, two (2) universal inputs and two (2) binary inputs.

18. Schedules

    a. Building controller modules shall provide normal seven-day scheduling, holiday scheduling and event scheduling.

    b. Each building controller shall support a minimum of 380 BACnet Schedule Ob-

jects and 380 BACnet Calendar Objects.

19. Logging Capabilities

    a. Each building controller shall log as minimum 2,000 objects at 15-minute intervals. Any object in the system (real or calculated) may be logged. Sample time interval shall be adjustable at the operator's workstation.

    b. Logs may be viewed both on-site or off-site using WAN or remote communication.

    c. Building controller shall periodically upload trended data to networked operator's workstation for long-term archiving if desired.

    d. Archived data stored in database format shall be available for use in third-party spreadsheet or database programs.

20. Alarm Generation

    a. Alarms may be generated within the system for any object change of value or state (either real or calculated). This includes things such as analog object value changes, binary object state changes, and various controller communication failures.

    b. Each alarm may be dialed out as noted elsewhere.

    c. Alarm log shall be provided for alarm viewing. Log may be viewed on-site at the operator's terminal or off-site using remote communications.

    d. Controller must be able to handle up to 2,000 alarm setups stored as BACnet event enrollment objects, with system destination and actions individually configurable.

21. Demand Limiting

    a. Demand limiting of energy shall be a built-in, user-configurable function. Each controller module shall support shedding of up to 1,200 loads using a minimum of two types of shed programs.

    b. Load shedding programs in building controller modules shall operate as defined in section 2.1.J of this specification.

22. Tenant Activity Logging

    a. Tenant Activity logging shall be supported by a building controller module. Each independent module shall support a minimum of 380 zones.

    b. Tenant Activity logging shall function as defined in section 2.1.K of this specification.

B. BACnet MS/TP

    1. BACnet MS/TP LAN must be software-configurable from 9.6 to 115.4Kbps

a. Each BACnet MS/TP LAN shall support 64 BACnet devices at a minimum.

b. All proprietary object types, if used in the system, shall be thoroughly documented and provided as part of the submittal data. All necessary tools shall be supplied for working with proprietary information.

C. BACnet IP

1. The building controller shall comply with Annex J of the BACnet specification for IP connections. This device shall use Ethernet to connect to the IP internetwork, while using the same Ethernet LAN for non-IP communications to other BACnet devices on the local area network (LAN).

2. Must support interoperability on WANs and campus area networks (CANs), and function as a BACnet Broadcast Management Device (BBMD).

3. Each controller shall support at a minimum 128 BBMD entries.

4. BBMD management architecture shall support 3,000 subnets at a minimum.

5. Shall support BACnet Network Address Translation.

6. All proprietary object types, if used in the system, shall be thoroughly documented and provided as part of the submittal data. All necessary tools shall be supplied for working with proprietary information.

D. Expansion Ports

1. Controller shall support two (2) expansion ports.

a. Combining the two on-board EIA-458 ports with fully loaded expansion ports, the controller shall support six (6) EIA-485 trunks simultaneously.

2. Expansion cards that mate to the expansion ports shall include:

a. Dual port EIA-485 card.

b. LON network card.

E. Power Supply

1. Input for power shall accept between 17 and 30VAC, 47 and 63Hz.

2. Optional rechargeable battery for shutdown of controller including storage of all data in flash memory.

3. On-board capacitor will ensure continuous operation of real-time clocks for minimum of 14 days.

G. Controller shall be in compliance with the following:

1. UL 916 for open energy management

2. FCC Class B

3. ROHS

4. IEC 60703

5. C-Tick Listed

H. Controller shall operate in the following environmental conditions:

1. -4 to 149 °F (-20 to 65 °C) without optional battery, or 32 to 122 °F (0 to 50 °C) with optional battery.

2. 0 to 95% relative humidity (RH), non-condensing.

2.4 VISUAL LOGIC CONTROLLERS (VLC)

A. Provide one or more native BACnet application controllers for each air handler and or Fan coil unit. All controllers shall interface to building controller via MS/TP LAN using BACnet protocol. No gateways shall be used. Controllers shall include input, output and self-contained logic program as needed for complete control of units. Controllers shall be fully programmable using graphical programming blocks. Programming tool shall be resident on operator workstation and be the same tool as used for the building controller. No auxiliary or non-BACnet controllers shall be used.

B. BACnet Conformance

1. Application controllers shall as a minimum support MS/TP BACnet LAN types. They shall communicate directly via this BACnet LAN at 9.6, 19.2, 38.4 and 76.8 Kbps, as native BACnet devices. Application controllers shall be of BACnet conformance class 3 and support all BACnet services necessary such as Files Functional Group, Reinitialize Functional Group and Device Communications Functional Group.

2. Please refer to section 22.2, BACnet Functional Groups, in the BACnet standard, for a complete list of the services that must be directly supported to provide each of the functional groups listed above. All proprietary services, if used in the system, shall be thoroughly documented and provided as part of the submittal data. All necessary tools shall be supplied for working with proprietary information.

3. Standard BACnet object types supported shall include as a minimum—Analog Input, Analog Output, Analog Value, Binary Input, Binary Output, Binary Value, Device, File, and Program object types. All proprietary object types, if used in the system, shall be thoroughly documented and provided as part of the submittal data. All necessary tools shall be supplied for working with proprietary information.

C. Application controllers shall include universal inputs with 10-bit resolution that accept 3K and 10K thermistors, 0–10VDC, 0–5 VDC, 4–20 mA and dry contact signals. Any input on a controller may be either analog or digital with a minimum of 3 inputs that accept pulses. Controller shall also include support and modifiable programming for interface to intelligent room sensor with digital display. Controller shall include binary and analog outputs on board. Analog outputs shall be switch selectable as either 0–10VDC or 0–20mA. Software shall include scaling features for analog outputs. Application controller shall include 24VDC voltage supply for use as power supply to external sensors.

D. All program sequences shall be stored on board application controller in EEPROM. No bat-

teries shall be needed to retain logic program. All program sequences shall be executed by controller 10 times per second and capable of multiple PID loops for control of multiple devices. All calculations shall be completed using floating-point math and system shall support display of all information in floating-point nomenclature at operator's terminal. Programming of application controller shall be completely modifiable in the field over installed BACnet LANs or remotely via modem interface. Operator shall program logic sequences by graphically moving function blocks on screen and tying blocks together on screen. Application controller shall be programmed using programming tools as described in operator's terminal section.

E. Application controller shall include support for intelligent room sensor. Display on intelligent room sensor shall be programmable at application controller and include an operating mode and a field service mode. All button functions and display data shall be programmable to show specific controller data in each mode based on which button is pressed on the sensor. See sequence of operation for specific display requirements at intelligent room sensor.

2.5 APPLICATION SPECIFIC VLC CONTROLLERS (HP'S, AC'S, FC'S)

A. Provide 10% additional I/O spares.

B. Provide one native BACnet application controller for each piece of unitary mechanical equipment that adequately covers all objects listed in object list for unit. All controllers shall interface to building controller via MS/TP LAN using BACnet protocol. No gateways shall be used. Controllers shall include input, output and self-contained logic program as needed for complete control of unit.

C. BACnet Conformance

1. Application controllers shall as a minimum support MS/TP BACnet LAN types. They shall communicate directly via this BACnet LAN at 9.6, 19.2, 38.4 and 76.8 Kbps, as native BACnet devices. Application controllers shall be of BACnet conformance class 3 and support all BACnet services necessary such as Files Functional Group, Reinitialize Functional Group and Device Communications Functional Group.

2. Please refer to section 22.2, BACnet Functional Groups in the BACnet standard for a complete list of the services that must be directly supported to provide each of the functional groups listed above. All proprietary services, if used in the system, shall be thoroughly documented and provided as part of the submittal data. All necessary tools shall be supplied for working with proprietary information.

3. Standard BACnet object types supported shall include as a minimum–Analog Input, Analog Output, Analog Value, Binary Input, Binary Output, Binary Value, Device, File and Program Object Types. All proprietary object types, if used in the system, shall be thoroughly documented and provided as part of the submittal data. All necessary tools shall be supplied for working with proprietary information.

D. Application controllers shall include universal inputs with 10-bit resolution that can accept 3K and 10K thermistors, 0–5 VDC, 4–20 mA, dry contact signals and a minimum of 3 pulse inputs. Any input on controller may be either analog or digital. Controller shall also include support and modifiable programming for interface to intelligent room sensor. Controller shall include binary outputs on board with analog outputs as needed.

E. All program sequences shall be stored on board controller in EEPROM. No batteries shall

be needed to retain logic program. All program sequences shall be executed by controller 10 times per second and shall be capable of multiple PID loops for control of multiple devices. Programming of application controller shall be completely modifiable in the field over installed BACnet LANs or remotely via modem interface. Operator shall program logic sequences by graphically moving function blocks on screen and tying blocks together on screen. Application controller shall be programmed using same programming tools as building controller and as described in operator workstation section. All programming tools shall be provided and installed as part of system.

F. Application controller shall include support for intelligent room sensor. Display on room sensor shall be programmable at controller and include an operating mode and a field service mode. All button functions and display data shall be programmable to show specific controller data in each mode based on which button is pressed on the sensor. See sequence of operation for specific display requirements at intelligent room sensor.

2.6 SENSORS AND MISCELLANEOUS DEVICES

A. Temperature Sensors

1. All temperature sensors to be solid state electronic, factory-calibrated to within 0.5°F, totally interchangeable with housing appropriate for application. Wall sensors to be installed as indicated on drawings. Mount 48 inches about finished floor. Duct sensors to be installed such that the sensing element is in the main air stream. Immersion sensors to be installed in wells provided by control contractor, but installed by mechanical contractor. Immersion wells shall be filled with thermal compound before installation of immersion sensors. Outside air sensors shall be installed away from exhaust or relief vents, not in an outside air intake and in a location that is in the shade most of the day.

B. Intelligent Room Sensor with LCD Readout – Microset 4 (If shown on drawings)

1. Sensor shall contain a backlit LCD digital display and user function keys along with temperature sensor. Controller shall function as room control unit, and shall allow occupant to raise and lower setpoint, and activate terminal unit for override use—all within limits as programmed by building operator. Sensor shall also allow service technician access to hidden functions as described in sequence of operation.

2. The Intelligent Room Sensor shall simultaneously display room setpoint, room temperature, outside temperature, and fan status (if applicable) at each controller. This unit shall be programmable, allowing site developers the flexibility to configure the display to match their application. The site developer should be able to program the unit to display time-of-day, room humidity and outdoor humidity. Unit must have the capability to show temperatures in Fahrenheit or Centigrade.

3. Override time may be set and viewed in half-hour increments. Override time count down shall be automatic, but may be reset to zero by occupant from the sensor. Time remaining shall be displayed. Display shall show the word “OFF” in unoccupied mode unless a function button is pressed.

4. See sequence of operation for specific operation of LCD displays and function keys in field service mode and in normal occupant mode. Provide intelligent room sensors as specified in point list.

5. Field service mode shall be customizable to fit different applications. If intelligent room sensor is connected to VAV controller, VAV box shall be balanced and all air flow parameters shall be viewed and set from the intelligent room sensor with no computer or other field service tool needed.

6. MS4-THC shall incorporate CO2 gas sensing in conjunction with space temperature and humidity sensing.

C. Microtouch Wall Sensor (If shown on drawings)

1. Standard wall sensor shall use solid-state sensor identical to intelligent room sensor and shall be packaged in aesthetically pleasing enclosure. Sensor shall provide override function, warmer/cooler lever for set point adjustment and port for plug-in of Field Service Tool for field adjustments. Override time shall be stored in controller and be adjustable on a zone-by-zone basis. Adjustment range for warmer/cooler lever shall also be stored in EEPROM on controller. All programmable variables shall be available to Field Service Tool through wall sensor port.

D. Blank Stainless Steel Wall Sensor (If shown on drawings)

1. Blank stainless steel room sensor shall use solid-state sensor identical to intelligent room sensor.

PART 3 – EXECUTION

3.1 GENERAL

A. All electric wiring and all installation work including piping of control systems and internal wiring of panelboards for temperature control and indicating systems shall be done by an authorized representative of the controls manufacturer whose primary business is the installation and maintenance of temperature control and indicating systems. Wiring shall conform to National Electric Code.

B. Identify each item of control equipment with stamped tape firmly attached to equipment and each panel with nameplate of 1/16 inch laminated plastic with black background and white letters 1/4 inch high.

C. Control system shall be connected to the existing systems. All control adjustments shall be accessible without use of ladder.

D. Thermostats on outside walls shall be mounted on 1 inch rigid fiberglass insulating base.

E. All thermostat bulbs in water lines shall be installed in separable wells packed with heat-conductive compound.

3.2 DRAWINGS

A. Drawings are diagrammatic only, provide all material and labor required to make the system operate to the complete satisfaction of the Architect at no additional cost to the Owner.

B. Submit to the Architect for approval seven copies of shop drawings of the entire control system before starting work.

C. Upon completion of the work, provide diagrams of the control systems including a detailed description of the operation of the system and each component and post in the mechanical room, or as directed in a permanent frame with 1/8 inch clear plastic cover.

D. There shall be no power wiring in excess of 40 VAC peak voltages run in conduit with communications trunk wiring. In cases where power or signal wiring is run in conduit with trunk wiring, all communication trunk wiring and power wiring shall be run using separate twisted shielded pairs (24 awg) with the shields grounded in accordance with the manufacturers wiring practices.

3.2 INSTALLATION

1. All temperature control and control interlock wiring shall be installed in plenum rated cable or EMT conduit per local code unless otherwise noted on the plans.

2. Wiring shall conform to the California Electrical Code.

3. The installation and supervision of this project shall be carried out by factory-trained personnel who are employed by the Contractor and licensed for this type of work.

4. Install in accordance with manufacturer's instructions.

5. Provide all miscellaneous devices, hardware, software, interconnections installation and programming required to insure a complete operating system in accordance with the sequences of operation and point schedules.

6. All wiring of any nature in connection with the Direct Digital Control and Temperature Control System, regardless of voltage, including temperature control wiring, interlocking branch circuits from power panels, line voltage to EMS devices and low voltage wiring unless shown or specified in Division 26 documents shall be included in this section.

7. Division 26 shall provide power wiring to equipment and signal conduit for LAN Wiring between buildings.

8. Division 26 shall provide underground race way conduits between buildings with a pull string for the Controls contractor to install direct burial communication cable between buildings.

3.3 OPERATOR INSTRUCTION (Training)

A. During system commissioning and at such time acceptable performance of the control system hardware and software has been established; provide on-site operator instruction to the Owner’s operating personnel. Operator instruction during normal working hours shall be performed by a competent representative familiar with systems hardware, software and accessories.

B. At a time mutually agreed upon during system commissioning, as stated above, provide 16 hours of instruction to the Owner’s designated personnel on the operation of the EMS and Temperature Control Systems and describe its intended use with respect to the programmed functions specified. Training shall be provided at the factory authorized Alerton Training center in Rocklin, CA. Operator orientation of the EMS shall include, but not be limited to,

the overall operation of the program, equipment functions (both individually and as part of the total integrated system), commands, systems generation, advisories, and appropriate operator intervention required in responding to the system's operation.

J.

SYSTEM SEQUENCE OF OPERATIONS AND GENERAL REQUIREMENTS

A. ALL SYSTEM TEMPERATURES, SETPOINTS, POSITIONS, ENABLE COMMANDS, FAN SPEEDS, SCHEDULES, TRENDS, ALARMS AND STATUS SHALL BE ACCESSIBLE FROM THE DISTRICTS VIRTUAL ALERTON COMPASS SERVER LOCATED AT THE MAINTENANCE OFFICE VIA REMOTE DESKTOP OR STANDARD WEB BROWERS.

1. Points that are required to be displayed and/or controlled from the Alerton Compass Graphical interface;
2. Supply Fan enabled
3. Supply Fan run status
4. Supply Fan speed (If ECM or VFD is provided)
5. Occupied heating and cooling set points
6. Unoccupied heating and cooling set points
7. Occupied schedules
8. Unoccupied schedules
9. Holiday and special events schedules
10. After hour override and trend duration
11. Space temperature
12. Space CO2 level
13. Economizer positioning for free cooling and demand ventilation
14. Economizer enabled and lockout temperature set points
15. Stages of heat active
16. Stages of cooling active
17. Supply air temperature
18. Economizer Fault detection and diagnostics indication
19. Morning warm-up enabled on space temperature set point
20. Morning Purge enabled on space temperature set point
21. Global Outside air temperature
22. Low duct static safety open or tripped.
23. Low ambient temperature protection

B. UNIVERSAL CONTROL STRATEGIES REQUIRED ON MOST SYSTEMS:

1. LOW AMBIENT TEMPERATURE SAFETIES WILL BE ALLOWED TO AUTO RESET 3 TIMES AND THEN BE LOCKED IN ALARM MODE BY THE DDC WITH CRITICAL ALARM SENT TO THE OPERATORS WORK STATION.
2. DURING LOW AMBIENT OUTSIDE AIR CONDITIONS ALL HOT WATER COIL VALVES ON AIR HANDLERS WILL BE OPENED 30% (ADJ.)
3. THE STAGGER START OF AIR HANDLERS WILL BE LIMITED TO AIR HANDLERS ONLY AND NOT INCLUDE VAV BOXES

4. GRAPHICAL CHARTS OF VAV BOXES WILL IDENTIFY THE VAV BOX WITH VAV BOX NUMERICAL NUMBER AND THE ROOM OR MULTIPLE ROOM **NUMBERS THE VAV BOX SERVES.**

1.

C. SEQUENCE OF OPERATIONS ADD 2

K. (AC UNITS WITH HOT WATER COILS) AH-F-1 & AH-S-1

AIR HANDLER CONTROL (AC-F1 AND AC-S1)

1. UNITS ARE VAV AIR HANDLERS WITH ECONOMIZER, DX COOLING, HEATING HOT WATER COIL AND A HEAT RECOVERY PLATE EXCHANGER WITH BYPASS DAMPERS. EACH OUTSIDE AIR INTAKE DAMPER SHALL HAVE AN AIRFLOW MEASURING STATION. BOTH THE SUPPLY FAN AND EXHAUST FAN SHALL BE PROVIDED FROM THE FACTORY WITH AIR FLOW MEASURING STATIONS.

2. DURING PERIODS OF OCCUPANCY (ANY VAV ZONE ACTIVE), THE VLC CONTROLLER WILL ENABLE SUPPLY & EXHAUST FANS, OPEN ECONOMIZER DAMPERS TO MINIMUM POSITION, AND MODULATE THE HOT WATER VALVE OR ENABLE COOLING TO MAINTAIN SUPPLY AIR SETPOINT. OSA AIR DAMPER WILL BE MODULATED TO PROVIDE MINIMUM OSA BASED ON THE OSA AIRFLOW MEASUREMENT STATION. OUTSIDE AIR DAMPER WILL BE COMMANDED CLOSED WHEN UNIT IS OFF.

3. AN AUTOMATIC RESET LOW TEMPERATURE LIMIT SAFETY WILL BE INTERLOCKED TO SHUT-DOWN THE AC UNIT SUPPLY AND EXHAUST FAN OPERATION AND DISPLAY A LOCAL ALARM CONDITION WHENEVER THE DUCT TEMPERATURE AFTER THE HEATING COIL FALLS BELOW 45°F (ADJ.). THE HOT WATER VALVE SHALL OPEN TO THE LOW TEMPERATURE SAFETY SETTING (ADJ.). THE LOW TEMPERATURE SAFETY SHALL RESET A MAXIMUM OF 3 TIMES BEFORE REQUIRING A RESET FROM AN OPERATOR ON THE BMS SYSTEM. MANUALLY RESET HIGH & LOW DUCT STATIC PRESSURE SWITCHES WILL SHUT DOWN THE AC UNIT SUPPLY AND EXHAUST FANS WHEN A CRITICAL DUCT PRESSURE SETPOINT IS REACHED (1.0” W.C. ABOVE THE SYSTEM PRESSURE AND BELOW THE MAXIMUM DUCT STATIC AS LISTED BY SMACNA). A DUCT SMOKE DETECTOR WILL SHUT DOWN THE AC UNIT SUPPLY AND EXHAUST FANS AND SEND AN ALARM WHEN PRODUCTS OF COMBUSTION ARE DETECTED.

4. SUPPLY AIR DUCT STATIC PRESSURE CONTROL:
THE CONTROLLER WILL MEASURE DUCT STATIC PRESSURE AND MODULATE THE SUPPLY FAN
SPEED TO MAINTAIN THE DUCT STATIC PRESSURE SETPOINT. THE SUPPLY FAN SPEED WILL NOT DROP BELOW 35% (ADJ.).

5. THE DUCT STATIC PRESSURE SETPOINT WILL BE RESET BASED ON MAINTAINING HIGHEST NEED MORE AIR SIGNAL BELOW 15%. IF ANY VAV BOX IS ABOVE 15% (ADJ.) NEED MORE AIR SIGNAL (DETERMINED BY EACH VAV CONTROLLER) THE DUCT STATIC PRESSURE SETPOINT WILL BE RESET HIGHER BY 0.10" WC (ADJ.). IF ALL BOXES ARE BELOW 7.5% (ADJ.) NEED MORE AIR SIGNAL THE DUCT STATIC SETPOINT WILL BE RESET LOWER BY 0.05" WC (ADJ.). THE DUCT STATIC PRESSURE SETPOINT WILL BE CONTROLLED BETWEEN 0.3" AND 1.0" WC (ADJ.) AND WILL BE EVALUATED AND RESET AS NEEDED EVERY 8 MINUTES (ADJ.).

6. EXHAUST FAN CONTROL:
   THE EXHAUST FAN SPEED SHALL BE CONTROLLED BASED ON AN OFFSET FROM THE INCOMING OSA CFM. THE BALANCER SHALL DETERMINE A CFM OFFSET (ADJ.) FROM THE AMOUNT OF OUTSIDE AIR TO ALLOW FOR GENERAL EXHAUST IN THE SPACE. ONCE THE OSA AIRFLOW (CFM) EXCEEDS THE EXHAUST OFFSET VALVE (CFM) AS DETERMINED BY THE BALANCER FOR 5-MINUTES (ADJ.) THE EXHAUST FAN SHALL BE STARTED AND CONTROLLED BASED ON THE CFM VALVE OF OUTSIDE AIRFLOW LESS THE EXHAUST CFM OFFSET. SPACE PRESSURE SHALL ALSO BE MONITORED AND EXHAUST FAN SPEED SHALL BE INCREASED IF SPACE STATIC PRESSURE EXCEEDS 0.05 (ADJ). THE EXHAUST FAN VFD SPEED SHALL NOT DROP BELOW 20% (ADJ.). ONCE THE OSA AIRFLOW IS LESS THE EXHAUST CFM OFFSET FOR 5-MIN THE EXHAUST FAN SHALL BE DISABLED.

7. SUPPLY AIR TEMPERATURE RESET:
   THE AC WILL COMMUNICATE WITH ALL VAV'S AND RESET THE SUPPLY AIR SETPOINT BASED ON VAV BOX COOLING DEMAND SIGNAL. IF ANY VAV BOX IS ABOVE 90% (ADJ.) COOLING SIGNAL THE SUPPLY AIR SETPOINT WILL BE RESET LOWER BY 1°F (ADJ.) IF ANY VAV BOX IS BELOW 70% (ADJ.) COOLING SIGNAL THE SUPPLY AIR SETPOINT WILL BE RESET HIGHER BY 0.5°F. THE SUPPLY AIR SETPOINT WILL BE CONTROLLED BETWEEN 55°F AND 70°F (ADJ.) AND WILL BE EVALUATED AND RESET AS NEEDED EVERY 8 MINUTES (ADJ.).

8. COOLING CONTROL:
   ON A CALL FOR COOLING, VLC CONTROLLER WILL MODULATE ECONOMIZER DAMPERS TO OPERATE AS FIRST STAGE OF COOLING AND MAINTAIN THE SUPPLY AIR SETPOINT BASED ON VAV ZONE DEMAND AS LONG AS OUTSIDE AIR IS BELOW THE RETURN AIR TEMPERATURE AND THE ECONOMIZER OUTSIDE AIR LOCKOUT TEMPERATURE SET AT 75°F.

9. ON AN ADDITIONAL CALL FOR COOLING, THE VLC CONTROLLER WILL ENABLE DX COOLING IF THE OSA TEMPERATURE IS ABOVE THE COOLING LOCKOUT TEMPERATURE OF 60 DEGREES (ADJ.) AND THE ECONOMIZER

HAS BEEN OPEN GREATER THAN 95% FOR 5-MINUTES OR THE ECONOMIZER HAS BEEN LOCKOUT.

10. HEATING CONTROL:
THE BMS WILL MODULATE THE UNIT'S HOT WATER COIL TO MAINTAIN THE HEATING SUPPLY AIR SETPOINT, AS LONG AS THE UNIT IS ACTIVE, THE OUTSIDE AIR IS BELOW 65°F (ADJ.) AND THE UNIT'S COOLING STAGES ARE NOT ACTIVE. THE HEATING SUPPLY AIR SETPOINT SHALL BE 5°F BELOW THE CURRENT COOLING SUPPLY AIR SETPOINT.

11. HEAT RECOVERY PLATE EXCHANGER CONTROL:
HEAT RECOVER BY-PASS DAMPERS SHALL OPERATE AS 2-POSITION (FULL OPEN / FULL CLOSED).

12. COOLING RECOVERY:
THE HEAT RECOVERY PLATE EXCHANGER SHALL BE ENABLED TO RECOVER COOLING WHENEVER THE UNIT IS ENABLED, THE AIR HANDLER IS NOT IN HEATING AND THE OSA IS 5°F ABOVE THE RETURN AIR TEMPERATURE. THE VLC CONTROLLER WILL CLOSE THE HEAT RECOVERY BYPASS DAMPERS (BOTH EXHAUST AND OSA). THE HEAT EXCHANGER BYPASS DAMPERS SHALL BE OPENED ONCE THE OSA REACHES 2 °F ABOVE THE RETURN AIR TEMPERATURE OR WHEN THE MEASURED EXHAUST AIR FLOW IS GREATER THAN OR EQUAL TO 50% (ADJ.) OF EXHAUST AIR DESIGN FLOW.

13. HEAT RECOVERY:
THE HEAT RECOVERY PLATE EXCHANGER SHALL BE THE FIRST STAGE OF HEATING WHENEVER THE UNIT IS ENABLED, THE UNITS COOLING STAGES ARE NOT ACTIVE AND THE OSA IS LESS THAN 50°F (ADJ). THE VLC CONTROLLER WILL CLOSE THE HEAT RECOVERY BYPASS DAMPERS (BOTH EXHAUST AND OSA). THE HEAT EXCHANGER BYPASS DAMPERS SHALL BE OPENED ONCE THE OSA IS GREATER THAN 50°F (ADJ) OR WHEN THE MEASURED EXHAUST AIR FLOW IS GREATER THAN OR EQUAL TO 50% (ADJ.) OF EXHAUST AIR DESIGN FLOW.

1.

2. FAN COIL UNITS:

3.

1. SPLIT SYSTEM FAN COILS SHALL OPERATE ON THEIR OWN FACTORY CONTROLS AND SPACE TEMPERTURE SENSOR. A SEPARATE STAINLESS STEEL FACEPLATE ADD 2 SENSOR SHALL BE INSTALLED IN THE SPACE SERVED BY THE FAN COIL AND WIRED TO THE NEAREST ALERTON CONTROLLER AND PROGRAMMED TO SEND AN ALARM IF THE SPACE TEMPERATURE RISES ABOVE 80 DEGREES (Adj.)

4.

5. EXHAUST FANS: SEE EQUIPMENT SCHEDULE ON CONTROL DRAWINGS FOR EXHAUST FAN INTERLOCK REQUIREMENTS.

6. HOT WATER HEATING SYSTEM:

1. THERE WILL BE TWO HEATING PLANTS ON THE CAMPUS. ONE IN THE C BLDG AND ONE IN THE E BLDG. BOTH HEATING SYSTEM WILL OPERATE IS THE FOLLOWING SIMILAIR MANNER. BOTH HEATING SYSTEMS ARE PRIMARY SECONDARY HEATING SYSTEMS WITH 2 BOILERS EACH, TWO PRIMARY PUMPS AND TWO SECONDARY PUMPS. THE HEATING SYSTEM WILL BE ENABLED WHENEVER THERE IS A CALL FOR HEAT DURING MORNIN WARM-UP AND OCCUPIED PERIODS. THE OWNER SHALL HAVE THE CAPABILITY TO LOCK OUT THE HEATING PLANTS DURING THE WARM DAYS OF SPRING AND SUMMER.
2. WHEN THERE IS A CALL FOR HEATING AND THE OUTSIDE AIR TEMPERATURE IS BELOW THE HEATING LOCKOUT TEMPERATURE 68 DEGREES (ADJ.) THE LEAD BOILER SHALL BE ENERGIZED AND THE ASSOCIATED PRIMARY PUMP SHALL BE ENERGIZED. THE BOILER WILL OPERATE ON IT OWN CONTROLS. IF THE LEAD BOILER CANNOT MAINTIAN THE HOT WATER LOOP SUPPLY TEMPERATURE OF 180 DEGREES THE LAG BOILER WILL BE ENERGIZED THE ACCOCIATED PRIMARY PUMP WILL BE ENABLED. THE LEAD SECONDARY HOT WATER PUMP (SHWP) VFD SHALL MODULATE THE SPEED OF THE SHWP TO MAINTIAN A DIFFERENTIAL PRESSURE SETTING THAT WILL BE ESTABLISHED AT THE TIME OF SYSTEM WATER BALANCE TO ENSURE HOT WATER CAN BE SUPPLIED TO THE FURTHEST COIL HYDAULICALLY FROM THE HOT WATER HEATING PLANT. SEE THE CONTROL SHEET FOR REQUIRED SENSORS AND CONTROL DEVICES.
3. STAGING BOILERS:
   a. WHEN THE MAXIMUM FLOW RATE OF THE LEAD THE BOILER IS DETECTED AT THE FLOW METER AND THE SYSTEM RETURN WATER IS MORE THAN 20 DEGRESS COLDER THAN THE SUPLY HOT WATER THE NEXT BOILER IN LINE WILL BE ENABLED 90 SECONDS AFTER THE ISOLATION VALVE IS OPENED.
   b. WHEN THE LEAD DISTRIBUTION HOT WATER PUMP VFD FAILS AS DETECED BY AND ALARM CONDITION THE LAG DISTRIBUTION PUMP VFD WILL BE ENABLED AND CONTROL TO THE SYSTEM DIFFERENTIAL PRESSURE SET POINT. AN ALARM OF THE VFD FAILURE SHALL BE SENT TO THE HOST SERVER AND E-MAILED OR PAGED AS DIRECTED BY THE OWNER.

4. BOILER RESET:

   a. 180° F - 32° F AMBIENT
   b. 160° F - 45° F AMBIENT
   c. 130° F - 60° F AMBIENT
   d. All of these are adjustable set points.
5. HOT WATER LOOP PRESSURE MONITORING:

   a. PROVIDE A HOT WATER PRESSURE TRANSDUCER ON THE SUCTION SIDE OF THE HOT WATER PUMP.

7. LIGHTING SYSTEM INTEGRATION

1. THE ALERTON CONTROL SYSTEM WILL INTERROGATE THE LIGHTING CONTROL SYSTEM FOR OCCUPANCY SENSOR INFORMATION AND WHEN A ROOM IS UNOCCUPIED DURING OCCUPIED PERIODS THE VAV BOX DAMPER WILL CLOSE TO A MINIMUM CFM SETTING INITIAL SETTING OF 300 CFM ADJ.) FOR BOTH HEATING AND COOLING MODES. WHEN THE LIGHTING CONTROL SYSTEM SIGNALS THE SPACE IS AGAIN OCCUPIED, THE VAV BOX WILL ASSUME NORMAL OPERATION.
2. THE LIGHTING CONTROL SYSTEM PROVIDER WILL COORDINATE WITH THE CONTROLS CONTRACTOR TO PROVIDE THE OCCUPANCY INFORMATION FOR EACH CLASSROOM IN AN EASILY ACCESSIBLE FORMAT.

8. ADDITIONAL CONTROL REQUIREMENTS AND SEQUENCE OF OPERATIONS SHOWN ON THE PLANS. **ADD 02**

L. END OF SECTION 23 09 23

SECTION 23 33 13 – DAMPERS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. The requirements of the GENERAL CONDITIONS, SUPPLEMENTARY CONDITIONS, and DIVISION 1, GENERAL REQUIREMENTS, apply to the work in this section.

B. Section 23 05 00, General Mechanical Requirements applies to this section.

1.2 quality assurance

A. All HVAC equipment shall comply with California Code of Regulations, Title-24, Part 6, latest edition.

B. Comply with UL 1/81 and UL 181A for ducts and closures.

PART 2 - PRODUCTS

2.1 DAMPERS

A. All dampers for us in low temperature air below 50° F duct shall have non-conducting composite damper shafts with shaft bearings and air seats.

B. Manual Dampers:

1. Round Ductwork 16” and smaller (low pressure):

    a. Butterfly type, volume dampers.
    b. Provide locking mechanism shall be provided on either the quadrants or end bearings. Ventlock or equal. Damper blade shall be a minimum of 22 gauge, but not less than two gauges more than the duct gauge.
    c. All duct penetrations shall be gasketed to prevent air leakage.
    d. Provide stand-offs as required for specified insulation thickness (see section 23 07 13.
    e. Continuous 3/8” min rod shall be provided.
    f. In locations where ducts are exposed use Ventlok #688 damper regulator for low pressure applications.

2. Round Ductwork 18” and larger (low pressure):

    a. Manual Dampers: Opposed blade type, 6” maximum blade width, Vent Products model 5303 or equal.

3. Rectangular Ductwork 12” high and smaller (low pressure):

a. Rectangular volume dampers shall be Air Balance #111 or equal.

4. Rectangular Ductwork larger than 12" high (low pressure):

a. Rectangular volume dampers shall be Air Balance #AC-2 or equal.

5. Stainless Steel Ductwork:

a. All materials used for dampers shall be stainless steel.

C. Splitter Dampers and Accessories:

1. Construct dampers of galvanized sheet metal one gauge heavier than that of the upstream duct, length equal to 1.5 times the branch duct width (12" minimum). Pivot or hinge at downstream edge.
2. Provide trim as specified above for volume dampers.

D. Control Dampers:

1. Ruskin CD-50, or equal, and shall be low leakage damper, with published leakage data certified under the AMCA certified ratings program showing leakage through a 48" x 48" damper at 4 in. w.g. pressure difference to be less than 6.2 cfm per sq. ft. Same published leakage data shall also include leakage information for all available damper sizes at pressure differences from 1 in. w.g. through 12 in. w.g. Low leakage dampers shall meet the following minimum construction standards: Frames shall be 5" x 1" x .125" minimum 6063T5 extruded aluminum hat channel with hat mounting flanges on both sides of the frame. Each corner shall be reinforced with two die formed internal braces and machine staked for maximum rigidity. Blades shall be airfoil type extruded aluminum (maximum 6" depth) with integral structural reinforcing tube running full length of each blade. Blade edge seals shall be extruded vinyl double edge design with inflatable pocket which enables air pressure from either direction to assist in blade-to-blade seal off. Blade seals shall be locked in extruded blade slots without use of cement, yet shall be easily replaceable in field. Bearings shall be non-corrosive two piece molded synthetic. Axles shall be square or hexagonal, round are not acceptable, to provide positive locking connection to blades and linkage. Linkage shall be concealed in frame. Damper manufacturer's literature shall include performance data developed from testing in accordance with AMCA Standard 500 in an AMCA APPROVED LABORATORY showing pressure drop for all sizes of dampers required at all anticipated air flow rates.
2. Controls/Actuators shall be Belimo and will be furnished and mounted by others.

E. Fire Dampers:

1. Ruskin, Phillips, Air Balance or equal with State Fire Marshal approved, blade out of air stream.
2. Fire dampers shall be constructed and tested in accordance with the proposed UL Safety Standard 555, which includes testing to close under dynamic airflow conditions and UL labeled as a dynamic rate fire dampers (static rated dampers are not allowed). Each fire damper shall have a 12-hour fire protection rating, 165° F or 212° F fusible link, and shall include a UL Label in accordance with established UL Labeling procedures. Damper manufacturer's literature submitted for approval prior to installation shall include comprehensive performance data developed from testing in accordance with the proposed

UL555 Standard and shall illustrate maximum allowed CFM at 8" static pressure, for in-duct mounting and maximum allowed CFM at 4" static pressure for un-ducted, in-wall mounting. Fire dampers shall be equipped for vertical installation. Fire dampers shall be installed in wall openings using steel sleeves, angles, other materials, and practices required to provide an installation equivalent to that used by the manufacturer when dampers were tested at UL. Installation shall be in accordance with the damper manufacturer's instructions.

F. Smoke/Fire Dampers:

1. General:

   a. Provide Ruskin Model FSD60 or equal with State Fire Marshal approval for all applications other than in Stainless Steel Ductwork.
   b. Provide Ruskin Model FSD36 or equal with State Fire Marshal approval for all applications in Stainless Steel Ductwork.
   c. The maximum pressure drop at design flow of the smoke fire damper shall not exceed 0.3 inches w.g.

2. The combination fire smoke dampers shall meet or exceed the following specifications. The frame shall be a minimum of 16 gauge (1.52) galvanized steel formed into a structural hat channel shape with tabbed corners for reinforcement. Bearings shall be stainless steel sleeve turning in an extruded hole in the frame. The blades shall be airfoil shaped double skin construction with 14 (1.90) gauge equivalent thickness. Blade edge seals shall be silicone rubber and galvanized steel mechanically locked in blade edge, adhesive or clip fastened seals are not acceptable, and shall withstand 450° F. Jamb seals shall be stainless steel flexible metal compression type. Blade action must be opposed.
3. Each combination fire smoke damper shall be 12-hour fire rated under UL Standard 555, and shall further be classified by Underwriters Laboratories as a Leakage Rated Damper for use in smoke control systems under the latest version of UL555S, and bear a UL label attesting to same. Damper manufacturer shall have tested and qualified with UL, a complete range of damper sizes covering all dampers required by this specification. Testing and UL qualifying a single damper size is not acceptable. The leakage rating under UL555S shall be no higher than leakage class 1 (4 cfm/ft. at 1" w.g. and 8 cfm/ft. at 4" w.g.)
4. As part of the UL qualification, dampers shall have demonstrated a capacity to operate (to open and close) under HVAC system operating conditions, with pressures of at least 4" w.g. in the closed position and 3000 fpm air velocity in the open position.
5. In addition to the leakage ratings already specified herein, the combination fire smoke dampers and their actuators shall be qualified under UL555S to an elevated temperature of 350°F. Appropriate electric actuators shall be installed by the damper manufacturer at time of damper fabrication. Damper and actuator shall be supplied as a single entity which meets all applicable UL555 and UL555S qualifications for both dampers and actuators. Manufacturer shall provide factory assembled sleeve of 16" minimum length, contractor to verify requirement. Factory supplied caulked sleeve shall be 20 gauge to dampers through 84" wide and 18 gauge above 84" wide. Damper and actuator assembly shall be factory cycled 10 times to assure operation.

   a. Coordinate damper actuator voltages with Fire Alarm Contractor.

6. Each combination fire/smoke damper shall be equipped with a controlled 7 to 15 second heat actuated release devise. The electric EFL (electric fuse link) shall close and lock the fire/smoke damper during test, smoke detection, power failure or fire conditions through the actuator closure springs. To prevent duct and HVAC component damage, the damper shall at all times be connected to the actuator for controlled closure in not less than 7 seconds and no more than 15 seconds. Instantaneous damper closure is unacceptable. Damper shall be automatic remote resettable after test, smoke detection or power failure conditions. After exposure to high temperature or fire, the damper must be inspected prior to reset to ensure proper operation. Release temperature shall be 165°F, 212°, 285°F.
7. Actuator: Provide Belimo FN120 or NF24 spring return damper actuator. Coordinate with fire alarm contractor for correct voltage.
8. Provide Ruskin Remote Test Panel MCP including all wiring and accessories for a complete system. Locate the Test Panel adjacent to the fire/smoke damper (outside the duct) above ceiling or where no ceiling is located. ADD 2
9. Contractor shall coordinate all wiring requirements with the manufacturer. ADD 2
10. The mechanical contractor shall coordinate the installation of the Test Panel electrical wiring to the fire/smoke damper with electrical contractor. ADD 2

PART 3 - EXECUTION

3.1 DAMPERS

A. Install duct accessories according to applicable portions of details of construction as shown in SMACNA standards.

B. Install volume-control dampers in lined duct with methods to avoid damage to liner and to avoid erosion of duct liner.

C. Ductwork shall comply with Chapter 6 C.M.C.

1. Where ducts penetrate fire separations in the building, provide fire dampers or smoke/fire dampers as specified, shown and required by code.

D. Balancing Dampers

1. Provide balancing dampers (same as volume dampers specified in this section) where shown on drawings and any other locations required to achieve proper system air balance. In general, balancing dampers are required at all zone supply air ducts from supply air plenums, equipment, and in ducts to supply and return air grilles. All dampers shall be placed as shown. Minimum of seven duct diameters prior to the diffuser or register.
2. Damper operators shall be installed in either to side or bottom of ductwork.

E. Splitter Dampers and Balancing Dampers

1. Provide splitter damper at each divided flow fitting in rectangular ductwork when shown on drawings. Mount damper operator on spacer beyond face of insulation where shown on drawings.
2. Damper operators shall be installed in either to side or bottom of ductwork.

END OF SECTION 23 33 13

SECTION 23 33 53 – DUCT LINER

PART 1 - GENERAL

1.1 See 23 05 00

PART 2 - PRODUCTS

2.1 EQUIPMENT

A. Miscellaneous equipment not specified herein shall be furnished as scheduled on the drawings.

B. C.C.R. - Title 24 Energy Standards, Requirements: All insulation values shall meet current requirements of the C.C.R. Energy Standards.

2.2 DUCT WORK

A. Rectangular Duct, Flexible Blanket Liner: Flexible blanket made from strong, glass fibers bonded with a dark impregnated thermosetting resin as manufactured by Johns Manville or equal.

1. Air stream surface shall be protected with a smooth surface coating for minimum resistance to airflow, Permacote or equal, UL 723 compliant.
2. Flame spread not over 25, Smoke Developed not over 50.
3. The duct liner shall be suitable for direct application and service as a thermal/acoustical liner for hot or cold round ductwork at air velocities up to 6,000 fpm.

a. 1” thickness

1) Liner shall have a minimum R-value of 4.2 and Conductance of 0.24 ADD 2 at 75oF in accordance with ASTM C518
2) Noise: Liner shall have a minimum NRC of 0.70 when tested in accordance with ASTM C423-90 and ASTM E795

b. 1 ½" thickness

1) Liner shall have a minimum R-value of 6.3 and Conductance of 0.16 at 75o F in accordance with ASTM C518
2) Noise: Liner shall have a minimum NRC of 0.85 ADD 2 when tested in accordance with ASTM C423-90 and ASTM E795

c. 2” thickness

1) Liner shall have a minimum R-value of 8.0 and Conductance of 0.13 at 75o F in accordance with ASTM C518

2) Noise: Liner shall have a minimum NRC of 0.95 ADD 2 when tested in accordance with ASTM C423-90 and ASTM E795

d. The duct liner shall be suitable for direct application and service as a thermal/acoustical liner for hot or cold rectangular ductwork and plenums at air velocities up to 6,000 fpm.

B. Round Duct, ~~Spiracoustic, and~~ ADD 2 Spiracoustic Plus, Coated Liner as manufactured by Johns Manville or equal.

1. Air stream surface shall be protected with a smooth surface coating for minimum resistance to airflow, Permacote or equal, UL 723 compliant.
2. Flame spread not over 25, Smoke Developed not over 50.
3. The duct liner shall be suitable for direct application and service as a thermal/acoustical liner for hot or cold round ductwork at air velocities up to 6,000 fpm.
4. 1" Thickness

a. Liner shall have a minimum R-value of 4.3 and Conductance of 0.23 at 75degree F in accordance with ASTM C518.
b. Noise: Liner shall have a minimum of NRC 0.75 when tested in accordance with ASTM C423 or equal. ADD 2
c. Duct diameters from 8" – 16", Spiracoustic Plus VSD Round Liner Board or equal. ADD 2
d. Duct diameters from 18" – 30", Spiracoustic Plus SD Round Liner Board or equal. ADD 2

~~1) Duct diameters from 32" or greater diameter, Spiracoustic Plus LD Round Liner Board. Noise: Liner shall have a minimum NRC of 0.75 when tested in accordance with ASTM C 423.or equal.~~ ADD 2

5. 1 ½" thickness ADD 2

a. Liner shall have a minimum R-value of 6.4 and Conductance of 0.16 at 75o F in accordance with ASTM C518.
b. Noise: Liner shall have a minimum NRC of 0.85 when tested in accordance with ASTM C 423.

1) Duct diameters from 14" – 20", , Spiracoustic Plus VSD Round Liner Board, or equal:
2) Duct diameters from 22" – 38", Spiracoustic Plus SD Round Liner Board:
3) Duct diameters from 40" or greater diameter, Spiracoustic Plus LD Round Liner Board:

6. 2" Thickness ADD 2

a. Liner shall have a minimum R-value of 8.74 and Conductance of 0.23 at 75o F in accordance with ASTM C518.
b. Noise: Liner shall have a minimum NRC of .95 when tested in accordance with ASTM C 423.

1) Duct diameters from 18" – 24", Spiracoustic Plus VSD Round Liner Board, or equal:
2) Duct diameters from 36" – 58", Spiracoustic Plus SD Round Liner Board:
3) Duct diameters from 54" or greater diameter, Spiracoustic Plus LD Round Liner Board:

PART 3 - EXECUTION

3.1 DUCT LINER

A. Install volume-control dampers in lined duct with methods to avoid damage to liner and to avoid erosion of duct liner.

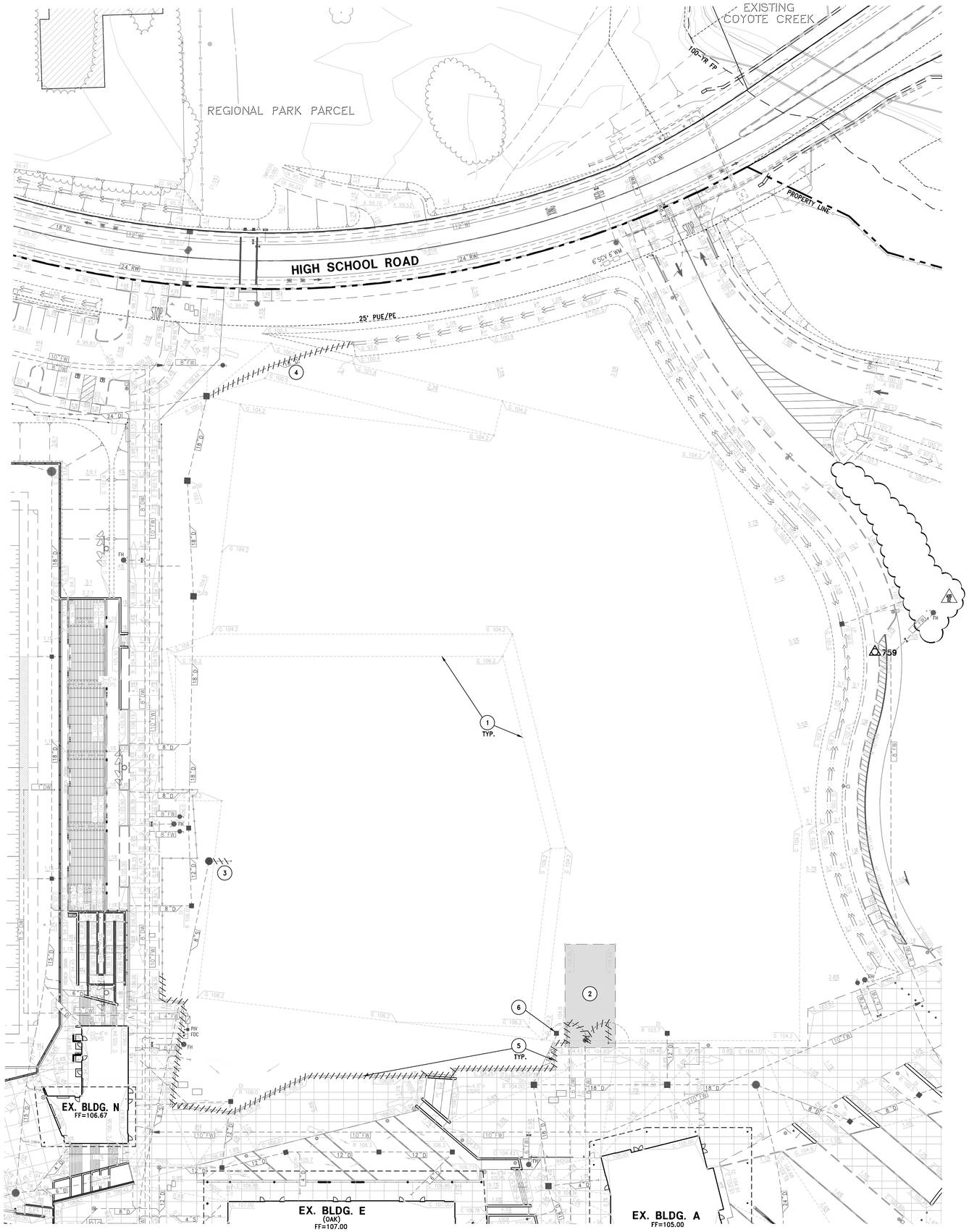
B. Duct Liner

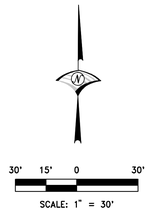
1. Applications

a. Rectangular Supply Ducts Exposed to Weather: Flexible Blanket/Coated Liner, 2" thickness.
b. Rectangular Ductwork Exposed in Space or Concealed Above Ceiling: Flexible Blanket/Coated Liner, 1" thickness.
c. Round Ductwork Exposed in Space or Concealed Above Ceiling: Flexible Blanket/Coated Liner, 1" thickness.
d. Round Ductwork Exposed to the Weather: Flexible Blanket/Coated Liner, 2" thickness.

2. Install duct liner in all plenums, exposed ducts and ducts for a distance of 10' on each side of all fans, where specified here and at other locations indicated on drawings.
3. On rectangular duct secure duct and plenum liner with cement stic-klips at 12" o.c. both ways to duct with Mircale adhesive, then cement the lining in place with 50% covering of Fosters #81-99 Safetee Duct-Fas adhesive. Apply a brush coat of adhesive to edges of insulation where abutted together inside ductwork. Do not leave any raw edges of liner uncoated.
4. On round spiral duct install in accordance with the current Johns Manville Spiracoustic Round Liner System Installation Guide. Apply a brush coat of adhesive to edges of insulation where abutted together inside ductwork. Do not leave any raw edges of liner uncoated.
5. Duct sizes shown on lined duct shall be clear inside insulation.

END OF SECTION





LEGEND

101.9 ×	SPOT ELEVATION
	CURB & GUTTER
	EDGE OF HARDSCAPE
	WOOD FENCE
	WALL
	SIGN, AS INDICATED
12" D	STORM DRAIN LINE
SDMH	STORM DRAIN MANHOLE
DI	DRAIN INLET
6" S	SANITARY SEWER LINE
SSMH	SANITARY SEWER MANHOLE
12" W	WATER LINE
4" RW	RECYCLED WATER LINE
	WATER GATE VALVE
	WATER BLOW-OFF VALVE
	WATER AIR RELEASE VALVE
FH	FIRE HYDRANT
WM	WATER METER
RP	REDUCED PRESSURE BACKFLOW PREVENTOR
DCV	DOUBLE CHECK VALVE
ATS	ANODE TEST STATION
IRR	IRRIGATION VALVE BOX
G G G	GAS LINE
T T T	TELECOM LINE
	TELECOM VAULT
TV	TV RISER
E E E	ELECTRIC LINE
EL EL	ELECTRIC VAULT, BOX, OR PANEL
EL	ELECTRIC MANHOLE
	SITE LIGHT
	SAWCUT LINE
	AREA OF HARDSCAPE REMOVAL.
	LINEAL DEMOLITION ITEM AS SHOWN AND/OR NOTED IN PLAN.

GENERAL NOTES

1. THE UNDERGROUND UTILITIES SHOWN OFF-SITE HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND ARE ALSO BASED ON EXISTING DRAWINGS PROVIDED TO WOOD RODGERS. WOOD RODGERS, INC. MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES COMPRISE ALL SUCH UTILITIES IN THE AREA EITHER IN SERVICE OR ABANDONED OR THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. WOOD RODGERS, INC. HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES. CONTRACTOR IS RESPONSIBLE FOR LOCATING UTILITIES AND SHALL NOTIFY THE OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES.
2. SAWCUT SHALL BE PROVIDED WHERE SHOWN TO ENSURE A CLEAN EDGE TO PAVE TO. DO NOT OVERCUT AT ANGLE POINTS.
3. ALL SAWCUT LOCATIONS SHOWN AT WALKS IS SHOWN TO MINIMUM REMOVAL LIMITS ONLY WHICH ARE SOLELY BASED ON GEOMETRY. ALL SIDEWALKS SHALL BE REMOVED TO THE NEAREST JOINT.
4. SEE LANDSCAPE PLANS FOR ANY TREE REMOVALS NEEDED FOR THE PHASE 2 WORK.

DEMOLITION NOTES

1. DASHED LINES REFLECT MASS GRADING CONDUCTED AS PART OF PHASE 1. CONTRACTOR TO REVIEW LATEST GEOTECH REPORT UPDATE (REFERENCED ON SHEET C0.1) FOR RECOMMENDATIONS FOR PREPARATION OF BUILDING PADS.
2. EXISTING ASPHALT AREA SERVES AS A TEMPORARY HAMMERHEAD FOR FIRE LANE TURNAROUND FOR PHASE 1, AND MUST REMAIN IN PLACE FOR AS LONG AS POSSIBLE UNTIL THE PROPOSED FIRE LANE IS READY TO BE CONSTRUCTED.
3. EXISTING SEWER SERVICE TO BE REMOVED AND RECONSTRUCTED. (SEE STORM DRAIN AND SANITARY SEWER PLAN.)
4. EXISTING STORM DRAIN LINE TO BE REMOVED AND RECONSTRUCTED. (SEE STORM DRAIN AND SANITARY SEWER PLAN.)
5. TEMPORARY FENCING AND GATES TO BE REMOVED. (SEE LANDSCAPE PLANS)
6. EXISTING DRAIN INLET TO BE REMOVED AND PIPE EXTENDED. (SEE STORM DRAIN AND SANITARY SEWER PLAN.)

EXISTING IMPROVEMENTS SURVEY NOTE

EXISTING IMPROVMENTS SHOWN BOTH WITHIN THE CAMPUS AND FOR HIGH SCHOOL ROAD ARE BASED ON THE PREVIOUS APPROVED PHASE 1 DESIGN INFORMATION AND DO NOT REFLECT A SURVEY OF AS-BUILT CONDITIONS. MANY OF THE IMPROVEMENTS SHOWN ARE NOT YET CONSTRUCTED AT THE TIME OF PREPARATION OF THESE PLANS. THEREFORE PRIOR TO BEGINNING ANY WORK ON PHASE 2 (INCLUDING ROUGH GRADE OR UNDERGROUND), THE PHASE 2 CONTRACTOR SHALL FIELD SURVEY ALL HARDSCAPE SURFACES THAT THE PHASE 2 IMPROVEMENTS SHALL BE CONNECTING TO, AS WELL AS ALL INVERTS OF SEWER AND DRAIN, AND SHALL NOTIFY DESIGN ENGINEER OF ANY DISCREPANCIES PRIOR TO PROCEEDING WITH ANY WORK.

BENCHMARK & CONTROL

CITY BENCHMARK 73 (ROSEVILLE) ELEV. 94.953

3½" BRASS DISC STAMPED LS6046, DEC. 1995, EAST SIDE OF FIDDYMENT ROAD ON THE TOP OF CURB @ THAT DOUBLE D.I.'S @ KASEBERG CREEK ARCH CULVERT.

CONTROL POINTS (INDICATED BY △):

MANY OF THESE EXISTING CONTROL POINTS WERE SET PRIOR TO CONSTRUTION OF PHASE 1. AS WOOD RODGERS, INC. WAS NOT THE CONSTRUCTION SURVEYOR AND DID NOT SET NEW LOCAL CONTROL WITHIN THE CAMPUS DURING THE COURSE OF CONSTRUCTION, CONTRACTOR TO COORDINATE WITH PHASE 1 CONSTRUCTION SURVEYOR TO OBTAIN NEW CONTROL POINTS SET LOCALLY BY THAT SURVEYOR.

PNT 759:	N: 2048880.594 E: 6741421.338 ELEV: 106.66	SET 5/8" R/B W/PUNCH
PNT 771:	N: 2047681.939 E: 6740101.648 ELEV: 105.59	SET 5/8" R/B W/PUNCH
PNT 773:	N: 2048793.906 E: 6740498.880 ELEV: 106.57	SET 5/8" R/B W/PUNCH
PNT 774:	N: 2048630.162 E: 6740082.119 ELEV: 105.07	SET 5/8" R/B W/PUNCH
PNT 775:	N: 2049427.234 E: 6740215.949 ELEV: 102.19	SET 5/8" R/B W/PUNCH

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REGISTERED PROFESSIONAL ENGINEER
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EXISTING SITE & DEMOLITION PLAN
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

2401 High School Road, Roseville, California 95747

Roseville Joint Union High School District

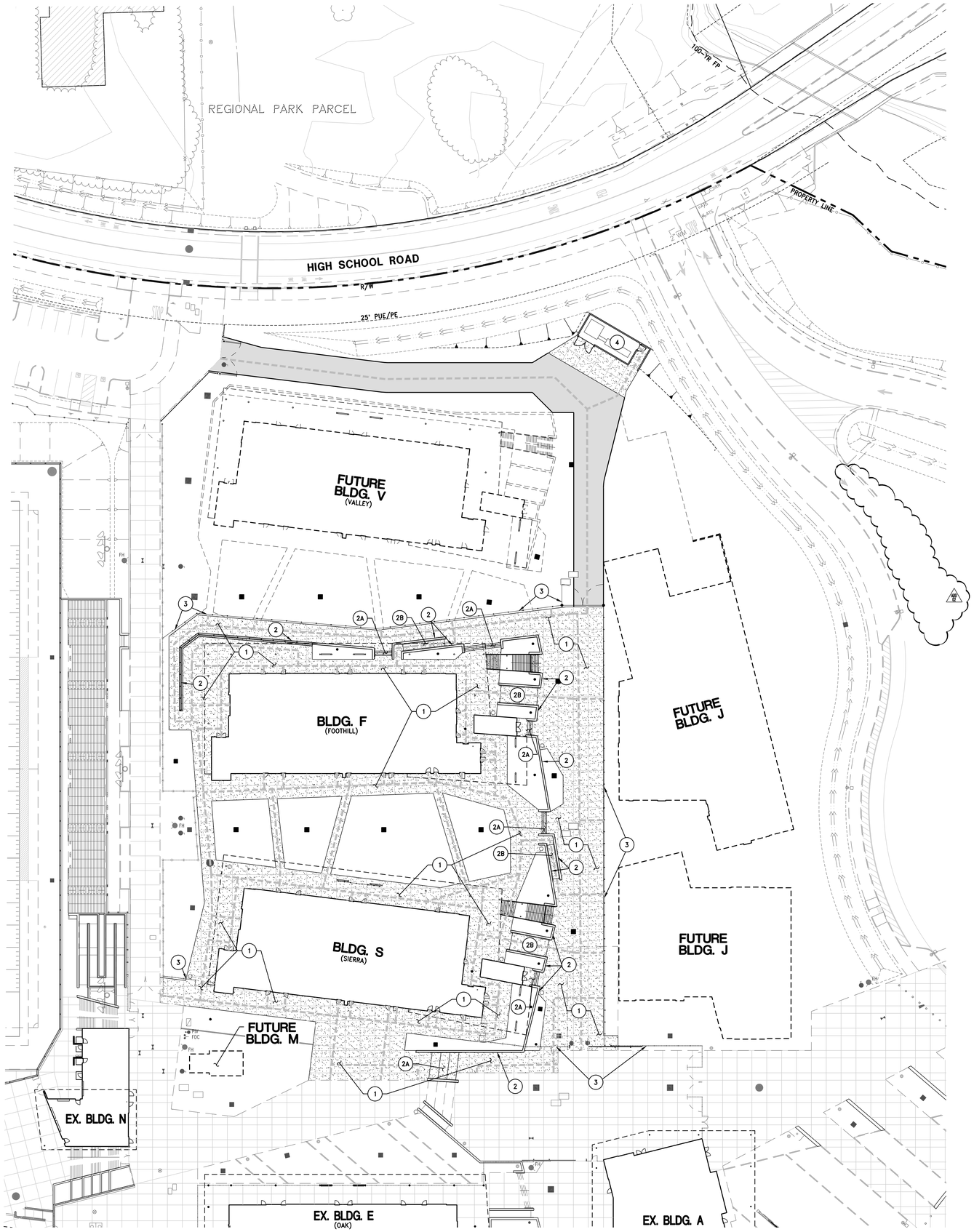
ADDENDUM 2
07.08.2020

Revisions
2020-07-01 ADD1 Addendum 1
2020-07-07 ADD2 Addendum 2

PROJECT #75-19101-00
DSA APPL. #02-118062
DSA FILE #31-H3

C1.1

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30' 15' 0 30'

SCALE: 1" = 30'

LEGEND

- VERTICAL CURB (SEE DETAIL ON SHEET C6.1)
- MOUNTABLE CURB (SEE DETAIL ON SHEET C6.1)
- CURB & GUTTER (SEE DETAIL ON SHEET C6.1)
- LANDSCAPE OR AREA DRAIN (SEE STORM DRAIN PLAN)
- DROP INLET (SEE STORM DRAIN PLAN)
- DRAINAGE SWALE
- SITE LIGHT (SEE ELECTRICAL PLANS)
- ELECTICAL VAULT (SEE ELECTRICAL PLANS)
- TRASH AND RECYCLE BINS (SEE LANDSCAPE PLANS)
- R1-1 CALTRANS STANDARD SIGN (R1-1="STOP")
- STOP CALTRANS STANDARD "STOP" PAVEMENT MARKING
- CALTRANS TYPE I (10'-0") ARROW
- CALTRANS TYPE IV ARROW
- CALTRANS TYPE VII ARROW
- EDGE OF PAVEMENT (SEE HEADERBOARD DETAIL ON SHEET C6.1)
- AREA OF ASPHALT CONCRETE (SEE GRADING PLAN)
- AREA OF CONCRETE (SEE GRADING PLAN)
- PARKING SPACE STRIPING (SEE DETAIL ON SHEET C6.1)
- COMPACT SPACE STRIPING (SEE DETAIL ON SHEET C6.1)
- ACCESSIBLE PARKING SPACE STRIPING (SEE DETAIL ON SHEET C6.1)
- WHEEL STOP (4' LONG) (SEE DETAIL ON SHEET C6.1)
- AREA OF DETECTABLE WARNING (SEE ACCESSIBILITY NOTE 4G ON SHEET C0.1) WARNING STRIP SHALL BE 3' DEEP x LENGTH SHOWN. WHERE INSTALLED AT A CURB RAMP OR LANDING, STRIP SHALL BE FULL WIDTH OF RAMP OR LANDING.
- H ACCESSIBILITY SIGNAGE "H" – INDICATES STANDARD ACCESSIBLE SPACE SIGNAGE
- H-V "H-V" – INDICATES VAN ACCESSIBLE SPACE SIGNAGE
- H-E "H-E" – INDICATES ACCESSIBLE PARKING ENTRANCE SIGNAGE (SEE SHEET C6.1 FOR ALL DETAILS)
- INDICATES ADA ACCESSIBLE PATH OF TRAVEL THE ACCESSIBLE PATH OF TRAVEL AS INDICATED ON PLAN IS A BARRIER-FREE ACCESS ROUTE WITHOUT ANY ABRUPT LEVEL CHANGES EXCEEDING 1/2" IF BEVELED AT 1:2 MAX SLOPE, OR VERTICAL LEVEL CHANGES NOT EXCEEDING 1/4" MAX AND AT LEAST 48" IN WIDTH. SURFACE IS STABLE, FIRM, AND SLIP RESISTANT. CROSS SLOPE DOES NOT EXCEED 2% AND SLOPE IN THE DIRECTION OF TRAVEL IS LESS THAN 5%, UNLESS OTHERWISE INDICATED. ACCESSIBLE ROUTE OF TRAVEL SHALL BE MAINTAINED FREE OF OVERHANGING OBSTRUCTIONS TO 80" MINIMUM AND PROTRUDING OBJECTS GREATER THAN 4" PROJECTION FROM WALL AND ABOVE 27" AND LESS THAN 80". ARCHITECT SHALL VERIFY THAT THERE ARE NO BARRIERS IN THE ROUTE OF TRAVEL. (SEE ALSO ACCESSIBILITY NOTES ON SHEET C0.1)

GENERAL NOTES

1. ALL DIMENSIONS SHOWN ARE TO THE BOTTOM FACE OF CURB OR FACE OF WALL.
2. THE HORIZONTAL CONTROL PLAN IS INTENDED TO BE COORDINATED WITH THE PROJECT'S ARCHITECTURAL AND ANDSCAPE SITE PLANS.
3. SEE ARCHITECTURAL PLANS FOR ALL BUILDING DETAILS AND DIMENSIONS.
4. ANY CENTERLINES SHOWN ARE CONSTRUCTION LINES ONLY AND DO NOT REPRESENT STRIPING.

CONSTRUCTION NOTES

1. SEE LANDSCAPE PLANS FOR ALL DIMENSIONS AND DETAILS FOR ENHANCED CONCRETE PLAZAS, PATIOS, WALKS, AND PLANTERS.
2. WALL OR SEATWALL (SEE LANDSCAPE PLANS FOR DETAILS.)
2A. STAIRS (SEE GRADING PLAN FOR GRADING AND SEE LANDSCAPE PLAN FOR ALL DETAILS.)
2B. RAMP (SEE GRADING PLAN FOR GRADING AND SEE LANDSCAPE PLAN FOR ALL DETAILS.)
3. FENCE AND GATES (SEE LANDSCAPE PLANS FOR DETAILS.)
4. ELECTRICAL ENCLOSURE (SEE ARCHITECTURAL AND ELECTRICAL PLANS FOR ALL DETAILS.)

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HORIZONTAL CONTROL PLAN
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)
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Roseville Joint Union High School District

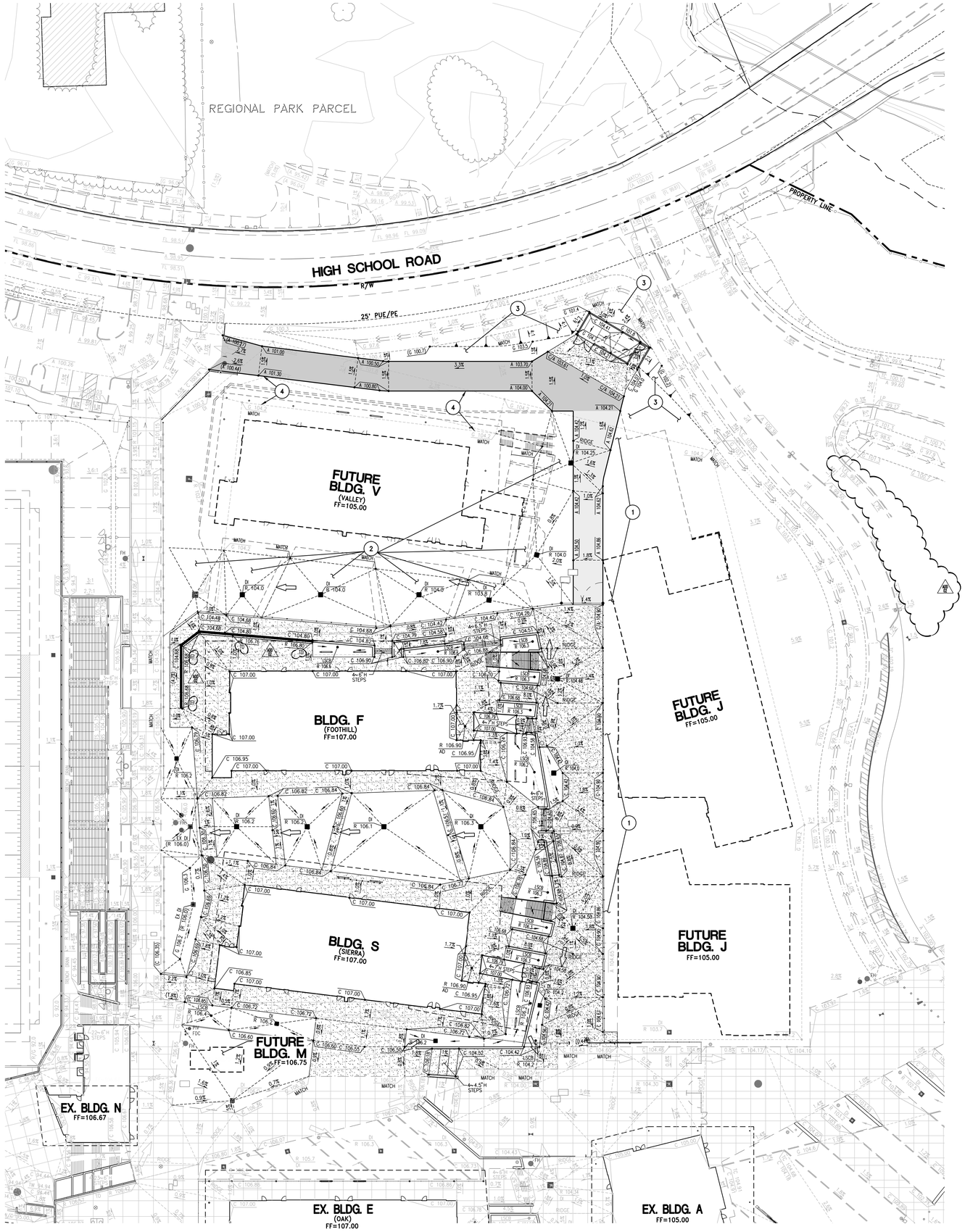
ADDENDUM 2
07.08.2020

Revisions
2020-07-01 ADD1 Addendum 1
2020-07-07 ADD2 Addendum 2

PROJECT #75-19101-00
DSA APPL. #02-118062
DSA FILE #31-H3

C2.1

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30' 15' 0 30'

SCALE: 1" = 30'

LEGEND

- VERTICAL CURB (SEE DETAIL ON SHEET C6.2)
- MOUNTABLE CURB (SEE DETAIL ON SHEET C6.2)
- CURB & GUTTER (SEE DETAIL ON SHEET C6.2)
- DI — DROP INLET (SEE STORM DRAIN & SANITARY SEWER PLAN, SHEET C4.1)
- SDMH W/ GRATE — STORM DRAIN MANHOLE W/ GRATE (SEE STORM DRAIN & SANITARY SEWER PLAN, SHEET C4.1)
- AD • LSCB — AREA DRAIN OR LANDSCAPE CATCH BASIN (SEE STORM DRAIN & SANITARY SEWER PLAN, SHEET C4.1)
- (X 91.23) — EXISTING GRADE ELEVATION ("X" CORRESPONDS TO VARIOUS SURFACE FEATURES OR MATERIALS NOTED BELOW)
- A 91.50 — PROPOSED ASPHALT ELEVATION
- TC 91.50 — PROPOSED TOP BACK-OF-CURB ELEVATION
- FL 91.50 — PROPOSED FLOWLINE ELEVATION
- L 91.50 — PROPOSED LIP ELEVATION
- C 91.50 — PROPOSED CONCRETE ELEVATION
- G 91.50 — PROPOSED GROUND ELEVATION
- R 91.50 — PROPOSED RIM ELEVATION
- RIDGE — RIDGE OR GRADE BREAK LINE
- 4.6% — SLOPE AND DIRECTION OF FLOW
- DRAINAGE SWALE
- WATER QUALITY SWALE
- OVERLAND RELEASE DIRECTION
- AREA OF ASPHALT CONCRETE
  - LIGHT DUTY (TI=5.0) – 3" AC OVER 7" AB OVER SUBGRADE COMPACTED PER GEOTECH REPORT.
  - MEDIUM DUTY (TI=6.0) – 3" AC OVER 10" AB OVER SUBGRADE COMPACTED PER GEOTECH REPORT.
  - HEAVY DUTY (TI=7.0) – 3.5" AC OVER 12" AB OVER SUBGRADE COMPACTED PER GEOTECH REPORT.
- AREA OF CONCRETE
  - PEDESTRIAN AREAS – 4" PCC (REINF W/ 10x10 WWF) OVER 6" AB OVER SUBGRADE COMPACTED PER GEOTECH REPORT.
  - VEHICULAR AREAS – 6" PCC (REINF) OVER 6" AB OVER SUBGRADE COMPACTED PER GEOTECH REPORT. (SEE DETAIL ON SHEET C6.1 FOR REINF AND EDGE THICKENING)

GENERAL NOTES

1. WHERE PLANS DO NOT INDICATE A "TC" ELEVATION, THE TC ELEVATION SHALL BE 6" ABOVE THE FINISH SURFACE ELEVATION SHOWN UNLESS INDICATED OTHERWISE.
2. CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL LANDSCAPED AREAS ARE CONSTRUCTED AS SHOWN TO PROVIDE DRAINAGE AND OVERLAND RELEASE.
3. PROVIDE ALL ACCENT PAVING AND HARDSCAPE, INCLUDING COLORING AND SCORE IN ACCORDANCE WITH DETAILS BY THE ARCHITECT OR LANDSCAPE ARCHITECT. ALL SHALL MEET ADA/CBC REQUIREMENTS FOR ACCESSIBILITY.
4. PROVIDE DOWELING, CONCRETE THICKENING, AND OTHER SUCH DETAILING AT ALL INTERFACES BETWEEN WALKS/HARDSCAPE AND CURBING OR LANDSCAPE IN ACCORDANCE WITH THE DETAILS BY THE ARCHITECT AND/OR LANDSCAPE ARCHITECT.
5. SEE LANDSCAPE PLANS FOR ALL TOP OF WALL ELEVATIONS, WHETHER RETAINING WALL OR SEATWALL. SEE LANDSCAPE AND STRUCTURAL PLANS FOR ALL RETAINING WALL DETAILS.
6. USE HEADERBOARD DETAIL ON SHEET C6.1 FOR ALL EDGE OF ASPHALT CONDITIONS.

CONSTRUCTION NOTES

1. TRANSITION GRADE DOWN AT 10:1 MAX. (NOT SHOWN) FROM EDGE OF HARDSCAPE TO DAYLIGHT TO EXISTING MASS GRADED SURFACE.
2. PROVIDE TRANSITIONAL GRADING FROM EXISTING PHASE 1 SUPER PAD (ELEV 104.2) TO INLETS APPROX. AS SHOWN.
3. REGRADE AREA TO TRANSITION TO TOP OF PHASE 1 SWALE SLOPE AS SHOWN.
4. REGRADE AREA BETWEEN EXISTING PAD AND NEW ASPHALT FINISH GRADE TO PROVIDE A SMOOTH TRANSITION AND POSITIVE DRAINAGE.

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REGISTERED PROFESSIONAL ENGINEER — STEVEN J. TOMICH — No. 29 — 9-30-20 — CIVIL — STATE OF CALIFORNIA

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GRADING PLAN
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

2401 High School Road, Roseville, California 95747

Roseville Joint Union High School District

ADDENDUM 2
07.08.2020

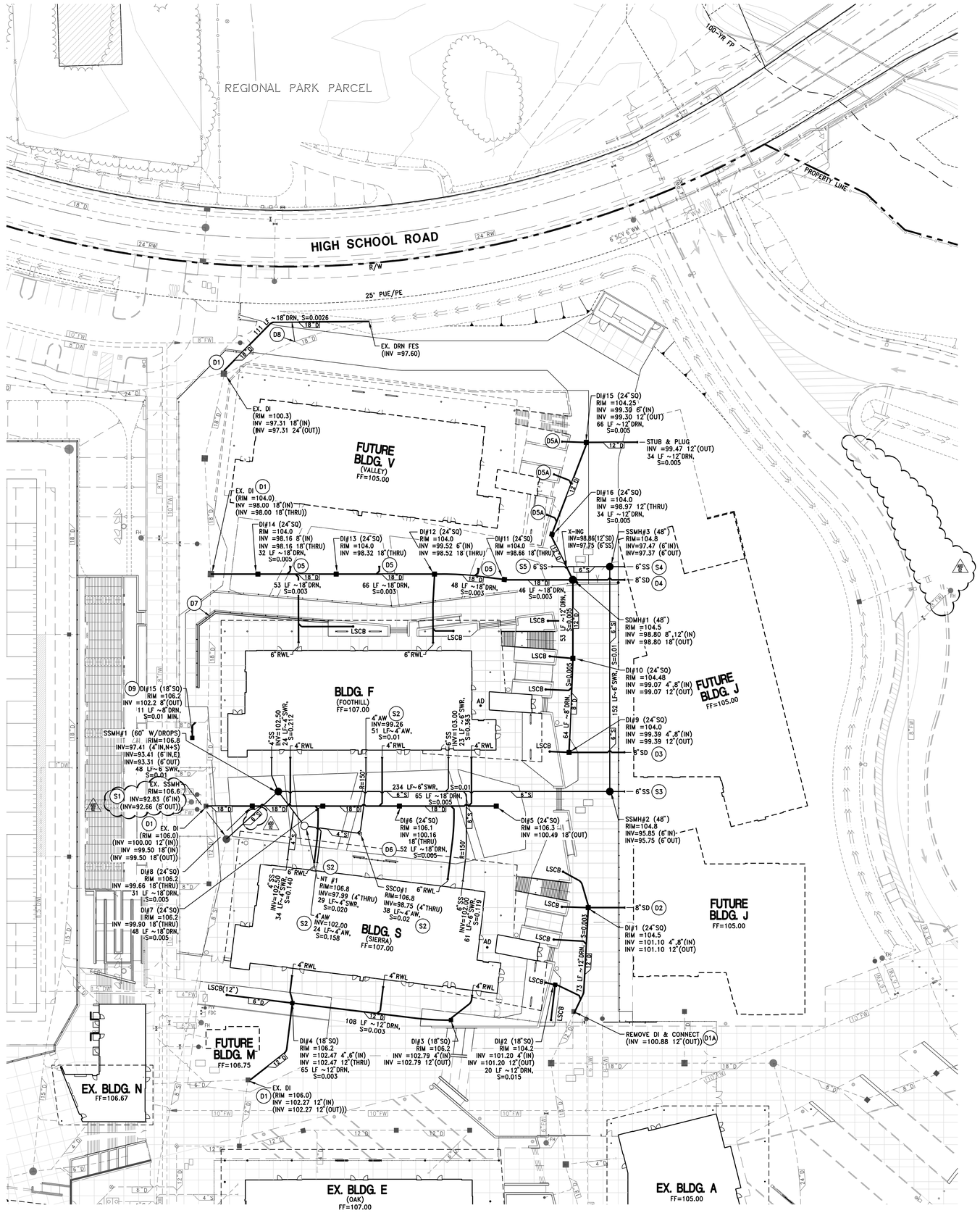
Revisions
2020-07-01 ADD1 Addendum 1
2020-07-07 ADD2 Addendum 2

PROJECT #75-19101-00
DSA APPL. #02-118062
DSA FILE #31-H3

C3.1

ATTACHMENT NO. C2 TO ADDENDUM #3 DATED 03-21-18

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SCALE: 1" = 30'

LEGEND

12" D	STORM DRAIN LINE
■ DI#1 (XX"SQ.)	DROP INLET (SIZE) (SEE DETAIL ON SHEET C6.1)
	TRENCH DRAIN (6" WIDE) PRECAST, PRE-SLOPED H-20 RATED TRENCH DRAIN (SIGMA MAXI100 WITH DUCTILE IRON SLOTTED HEELPROOF & ADA GRATE (300 psi), OR APPROVED EQUAL. CONTRACTOR TO PROVIDE SHOP DRAWINGS FOR REVIEW AND APPROVAL BY ENGINEER AND LANDSCAPE ARCH.).
• AD	AREA DRAIN (SEE PLUMBING PLANS FOR PIPE CONNECTION, DETAILS, & SPECS)
• LSCB	LANDSCAPE CATCH BASIN (INSTALL 6" ABS DRAIN (UNLESS NOTED OTHERWISE) W/ DOMED GRATE FOR PLANTER DRAINAGE. INSTALL 6" DRAIN PIPE (UNLESS NOTED OTHERWISE), AT 2% MIN.)
● SDMH#1(XX")	STORM DRAIN MANHOLE (SIZE) (SEE DETAIL ON SHEET C6.1)
○ SDCO#1	STORM DRAIN CLEANOUT (SEE DETAIL ON SHEET C6.1)
X"RWL	RAINWATER LEADER SERVICE PROVIDE DRAIN PIPE, SIZED AS NOTED, AT 2% MIN. TO RAINWATER LEADER POC SHOWN. (SEE PLUMBING PLANS FOR CONNECTION.)
X"DS	DOWNSPOUT SERVICE PROVIDE DRAIN PIPE, SIZED AS NOTED, AT 2% MIN. TO DOWNSPOUT POC SHOWN. (SEE ARCHITECTURAL PLANS FOR CONNECTION.)
6"S	SANITARY SEWER LINE
● SDMH#1(XX")	SANITARY SEWER MANHOLE (SIZE) (SEE DETAIL ON SHEET C6.1)
⊘ SSCO#1	SANITARY SEWER CLEANOUT (SEE DETAIL ON SHEET C6.1)
○ NT #1	NEUTRALIZATION TANK SEE PLUMBING PLANS FOR ALL SIZING, SPECS, DETAILS, AND VENTING PERTAINING TO TANK.

GENERAL NOTES

1. REFER TO PLUMBING PLANS FOR CONNECTIONS TO THE BUILDING.
2. ALL BUILDING SERVICES TO BE STUBBED TO 5' FROM BUILDING AS SHOWN & CAPPED FOR FUTURE CONNECTION BY PLUMBING CONTRACTOR.
3. CONTRACTOR TO VERIFY LOCATION AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO COMMENCEMENT OF WORK AND SHALL NOTIFY ARCHITECT AND ENGINEER OF ANY DISCREPANCIES PRIOR TO CONTINUING WORK.
4. ALL ON-SITE STORM DRAIN INLETS, EXISTING OR PROPOSED, SHALL HAVE A PERMANENT STORM DRAIN MESSAGE IN THE FORM OF A CONCRETE STAMP OR EXPOSED PLACARD INDICATING "NO DUMPING – FLOWS TO CREEK".
5. ALL INLETS SHOWN IN HARDSCAPE AREAS THAT ARE A PART OF THE ACCESSIBLE PATH OF TRAVEL SHALL HAVE 1/2" MAXIMUM OPENINGS AND THAT ARE HEEL PROOF. SEE ALSO DETAIL ON SHEET C6.1.
6. SEE SHEET C0.1 FOR ADDITIONAL NOTES.
7. PRIOR TO BEGINNING ANY WORK, CONTRACTOR TO REVIEW CIVIL POC LOCATIONS SHOWN AND COMPARE AGAINST PLUMBING AND ARCHITECTURAL DRAWINGS TO CONFIRM THAT ALL LOCATIONS MATCH, AND SHALL NOTIFY OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES PRIOR TO CONTINUING WITH WORK.

CONSTRUCTION NOTES

STORM DRAIN NOTES:

(D1) CONNECT TO EXISTING DI WITH NEW PIPE AS SHOWN. AS NOTED ON C1.1, CONTRACTOR TO CONFIRM INVERT ELEVATION AS A FIRST ORDER OF WORK AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONTINUING WITH ANY WORK.

(D1A) CONTRACTOR TO REMOVE INLET AND CONNECT WITH NEW PIPE AS SHOWN. AS NOTED ON C1.1, CONTRACTOR TO CONFIRM INVERT ELEVATION AS A FIRST ORDER OF WORK AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONTINUING WITH ANY WORK.

(D2) CONTRACTOR TO INSTALL DRAIN SERVICE (25 LF ~ 8" SWR, S=0.005) TO SERVE FUTURE BLDG. J AND PLUG END FOR FUTURE CONNECTION. INV AT STUB =101.23

(D3) CONTRACTOR TO INSTALL DRAIN SERVICE (37 LF ~ 8" SWR, S=0.005) TO SERVE FUTURE BLDG. J AND PLUG END FOR FUTURE CONNECTION. INV AT STUB =99.59

(D4) CONTRACTOR TO INSTALL DRAIN SERVICE (35 LF ~ 8" SWR, S=0.005) TO SERVE FUTURE BLDG. J AND PLUG END FOR FUTURE CONNECTION. INV AT STUB =98.98

(D5) CONTRACTOR TO INSTALL 18"x6" SERVICE WYE TO SERVE FUTURE BLDG. V AND PLUG END FOR FUTURE CONNECTION.

(D5A) CONTRACTOR TO INSTALL 6" SERVICE AT S=0.02 AS SHOWN TO SERVE FUTURE BLDG. V AND PLUG END FOR FUTURE CONNECTION.

(D6) CONSTRUCT SITE RAINWATER LEADER, STUBBED AS SHOWN. BUILDING RAINWATER LEADER PASSES OVER BRACE FRAME FOOTING, SEE STRUCTURAL AND PLUMBING PLANS.

(D7) CONTRACTOR TO MAKE VERTICAL CONNECTION AS NEEDED TO EXISTING 18" DRAIN LINE TO SERVE NEW TRENCH DRAIN. NOTE: NO CONNECTION IS PROPOSED AT THE 6"RWL CROSSING TO THE EAST. 6"RWL TO CROSS BELOW TRENCH DRAIN.

(D8) EXISTING 18" DRAIN LINE TO BE REMOVED AND RECONSTRUCTED AS SHOWN, CONNECTING TO EXISTING DRAIN INLET AND FLARED END SECTION. USE CLASS V RCP DUE TO LIMITED COVER.

(D9) MAKE CONNECTION TO EXISTING 8" DRAIN LINE WITH WYE APPROX. AS SHOWN.

SANITARY SEWER NOTES

(S1) EXISTING SANITARY SEWER LINE INTO MANHOLE TO BE REMOVED AND NEW LINE CONNECTED AS SHOWN. CONTRACTOR TO PLUG PIPE AT MANHOLE AS NECESSARY TO ENSURE A PERMANENT WATERTIGHT CONDITION. AS NOTED ON C1.1, CONTRACTOR TO CONFIRM INVERT ELEVATION AS A FIRST ORDER OF WORK AND NOTIFY ENGINEER OF ANY DISCREPANCIES PRIOR TO CONTINUING WITH ANY WORK. DUE TO PROXIMITY OF THE BUILDING FOOTING, THE NEW UPSTREAM PIPE TRENCH SHALL BE BACKFILLED WITH CLSM BACKFILL TO BOTTOM OF FOOTING ELEVATION. PORTION OF TRENCH TO BACKFILLED SHALL EXTEND AWAY FROM FOOTING EDGE A MINIMUM OF 10".

(S2) SEE PLUMBING PLANS FOR MATERIALS SPECIFICATIONS FOR NEUTRALIZATION TANK AND ALL ACID WASTE SEWER MATERIALS BETWEEN BUILDING POC AND NEUTRALIZATION TANK.

(S3) CONTRACTOR TO INSTALL SEWER SERVICE (10 LF ~ 6" SWR, S=0.02) TO SERVE FUTURE BLDG. J AND PLUG END FOR FUTURE CONNECTION. INV AT STUB =96.05

(S4) CONTRACTOR TO INSTALL SEWER SERVICE (10 LF ~ 6" SWR, S=0.02) TO SERVE FUTURE BLDG. J AND PLUG END FOR FUTURE CONNECTION. INV AT STUB =97.67

(S5) CONTRACTOR TO INSTALL SEWER SERVICE (39 LF ~ 6" SWR, S=0.01) TO SERVE FUTURE BLDG. V AND PLUG END FOR FUTURE CONNECTION. INV AT STUB 97.86

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STORM DRAIN & SANITARY SEWER PLAN
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

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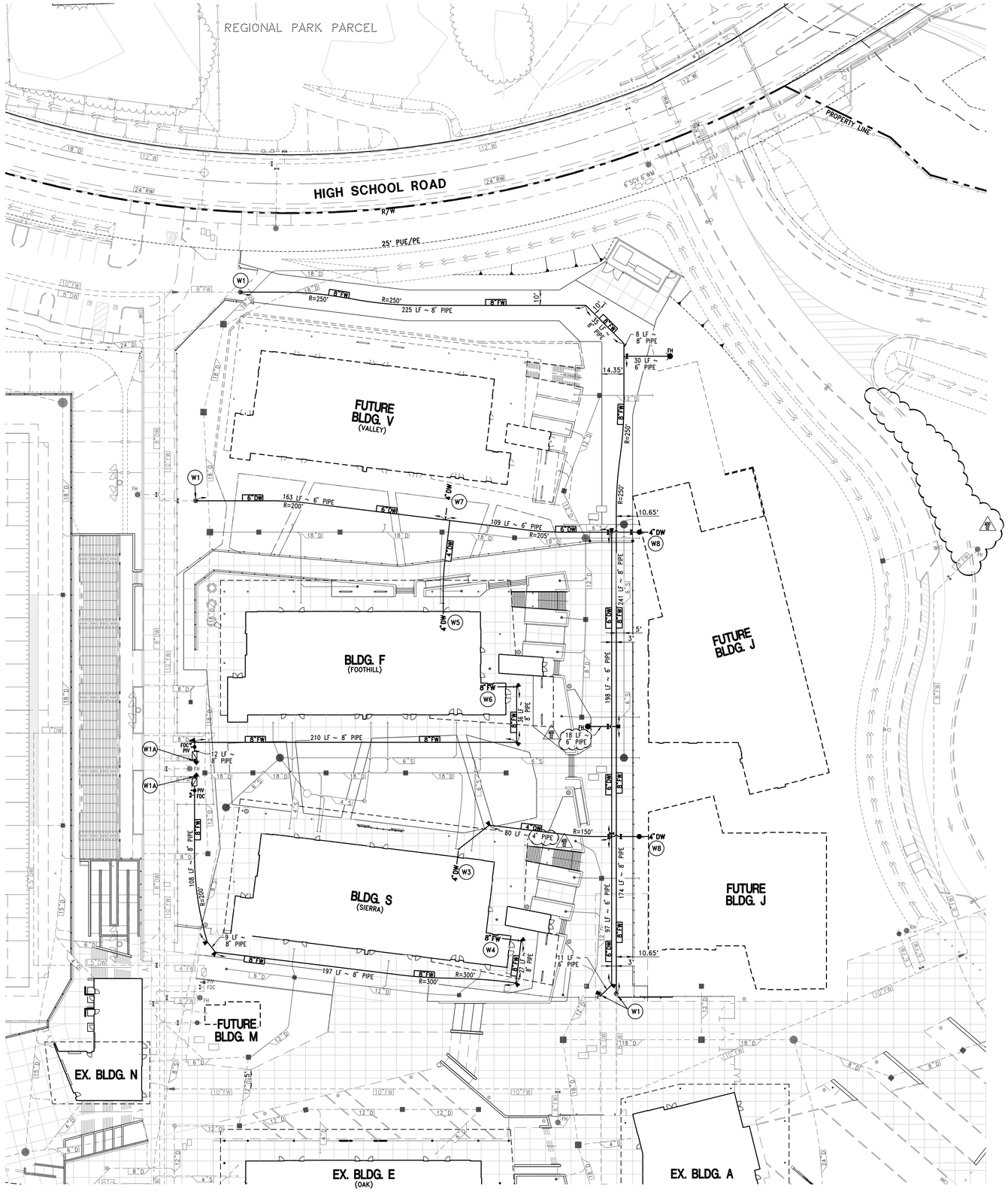
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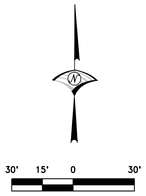
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DSA APPL. #02-118062
DSA FILE #31-H3

C4.1

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LEGEND

- 2" DW — DOMESTIC WATER LINE
- 6" FW — FIRE WATER LINE
- REDUCER
- THRUST BLOCK
- GATE VALVE (PER CITY OF ROSEVILLE STD. DWG. W-16)
- PIV FDC — FIRE DEPARTMENT CONNECTION APPARATUS (PER DETAIL ON SHT C6.2)
- FH — FIRE HYDRANT WITH GATE VALVE (PER CITY OF ROSEVILLE STD. DWG. W-13)

GENERAL NOTES

1. SEE THE STORM DRAIN AND SANITARY SEWER PLAN FOR ALL STORM DRAIN AND SANITARY SEWER SYSTEM INFORMATION.
2. ALL DOMESTIC WATER PIPES SHALL BE INSTALLED WITH 30" MINIMUM COVER. ALL FIRE WATER PIPES SHALL BE INSTALLED WITH 36" MINIMUM COVER. WHERE CONFLICTS WITH OTHER UTILITIES OCCUR, WATER PIPING SHALL BE FIELD FIT TO CROSS UNDER OTHER UTILITIES.
3. THRUST BLOCKS SHALL BE INSTALLED AT ALL ON-SITE WATER PIPE ELBOWS, TEES, ETC. PER DETAIL ON SHEET C6.1. MECHANICAL JOINTS MAY BE USED AS AN ALTERNATIVE. PUBLIC WATER SERVICES SHALL USE MECHANICAL JOINTS ONLY.
4. NOT USED.
5. NOT USED.
6. NO CROSS-CONNECTIONS BETWEEN DOMESTIC (OR LANDSCAPE) WATER AND FIRE WATER SHALL BE ALLOWED.
7. CONTRACTOR TO VERIFY LOCATION OF EX. SERVICES PRIOR TO COMMENCEMENT OF WORK AND TO NOTIFY ENGINEER OF ANY DISCREPANCIES.
8. ALL BUILDING SERVICES TO BE STUBBED TO 5' FROM BUILDING AS SHOWN AND CAPPED FOR FUTURE CONNECTION BY PLUMBING CONTRACTOR.
9. UNLESS NOTED OTHERWISE, ALL PRIVATE FIREWATER PIPES THAT CAN BE PRESSURIZED BY FIRE DEPARTMENT APPARATUS SHALL BE DR14.
10. ALL BUILDING FIRE SERVICES TO BE PROVIDED AND INSTALLED PER NFPA 24.
11. PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL COORDINATE THE ADDITIONAL PIPE FROM THE POC TO THE FIRE RISER WITH THE ARCHITECTURAL, MEP, AND STRUCTURAL PLANS AS NECESSARY TO VERIFY EXACT RISER LOCATION AND IDENTIFY ANY POSSIBLE OBSTRUCTIONS SUCH AS FOOTINGS, PAD, ETC. THE RISER SHALL BE INSTALLED TO TERMINATE 6 TO 24" ABOVE FINISH FLOOR, AND SHALL MAINTAIN 12" INCHES MINIMUM CLEARANCE TO ANY ADJACENT WALL. UNDERGROUND CONTRACTOR TO ALSO PROVIDE 1" CONDUIT SLEEVE TO BUILDING FOR ELECTRONIC MONITORING OF PIV AND/OR DCV.
12. ALL FIRE HYDRANTS, PIV'S AND FDC'S SHALL BE LOCATED SO AS NOT TO BE BLOCKED BY LANDSCAPING, PARKING STALLS, LOADING ZONES, ETC.
13. PROVIDE CONDUIT SLEEVING AS REQUIRED PER THE ELECTRICAL SITE PLAN AND LANDSCAPE IRRIGATION PLAN PRIOR TO CONSTRUCTION OF HARDSCAPE OR PARKING AREAS.
14. SOME IRRIGATION MAINS CANNOT BE ROUTED THRU SLEEVING AND MUST BE INSTALLED PRIOR TO CONSTRUCTION OF HARDSCAPE. SEE LANDSCAPE PLANS.
15. WATER LINE CONSTRUCTION, INCLUDING FH LEADS, OFTEN NECESSITATES DIPPING THE WATER LINE BELOW OTHER UTILITIES. ALL WATERLINE DIPS ARE TO BE FIELD DETERMINED BY THE CONTRACTOR AND INCLUDED AS PART OF THE BASE BID. AT CROSSINGS, WATER PIPE MUST CROSS 12" CLEAR ABOVE OR BELOW THE SEWER OR DRAIN PIPE AND SHALL HAVE NO JOINTS WITHIN 8' HORIZONTAL OF THE CROSSING.
16. SEE SHEET C0.1 FOR ADDITIONAL NOTES.
17. SEE SHEET C6.2 FOR TRENCH AND BACKFILL DETAIL.
18. PRIOR TO BEGINNING ANY WORK, CONTRACTOR TO REVIEW CIVIL POC LOCATIONS SHOWN AND COMPARE AGAINST PLUMBING AND ARCHITECTURAL DRAWINGS TO CONFIRM THAT ALL LOCATIONS MATCH, AND SHALL NOTIFY OWNER'S REPRESENTATIVE OF ANY DISCREPANCIES PRIOR TO CONTINUING WITH WORK.

CONSTRUCTION NOTES

- (W1) REMOVE BLOW-OFF AND CONNECT NEW PIPING AS SHOWN.
- (W1A) REMOVE BLOW-OFF AND INSTALL ELBOW AS NEEDED TO CONSTRUCT FIRE SPRINKLER SERVICE LINE WITH APPURTENANCES AS SHOWN.
- (W2) NOT USED.
- (W3) 4" DOMESTIC SERVICE (BLDG S) INSTALL 25 LF ~ 4" PIPE (FROM ELBOW TO BLDG POC)
- (W4) 8" FIRE WATER SERVICE (BLDG S) INSTALL 2 LF ~ 8" PIPE (FROM ELBOW TO BLDG POC)
- (W5) 4" DOMESTIC SERVICE (BLDG F) INSTALL 54 LF ~ 4" PIPE (FROM TEE TO BLDG POC)
- (W6) 8" FIRE WATER SERVICE (BLDG F) INSTALL 2 LF ~ 8" PIPE (FROM TEE TO BLDG POC)
- (W7) 4" DOMESTIC SERVICE (FUTURE BLDG V) CONSTRUCT TEE WITH BLIND FLANGE FOR FUTURE CONNECTION.
- (W8) 4" DOMESTIC SERVICE (FUTURE BLDG J) INSTALL 18 LF ~ 4" PIPE (FROM TEE OR CROSS TO BLDG POC) INSTALL STUB WITH GATE VALVE AND BO AS SHOWN FOR FUTURE CONNECTION.

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5.14.2020

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WATER PLAN
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

2401 High School Road, Roseville, California 95747

Roseville Joint Union High School District

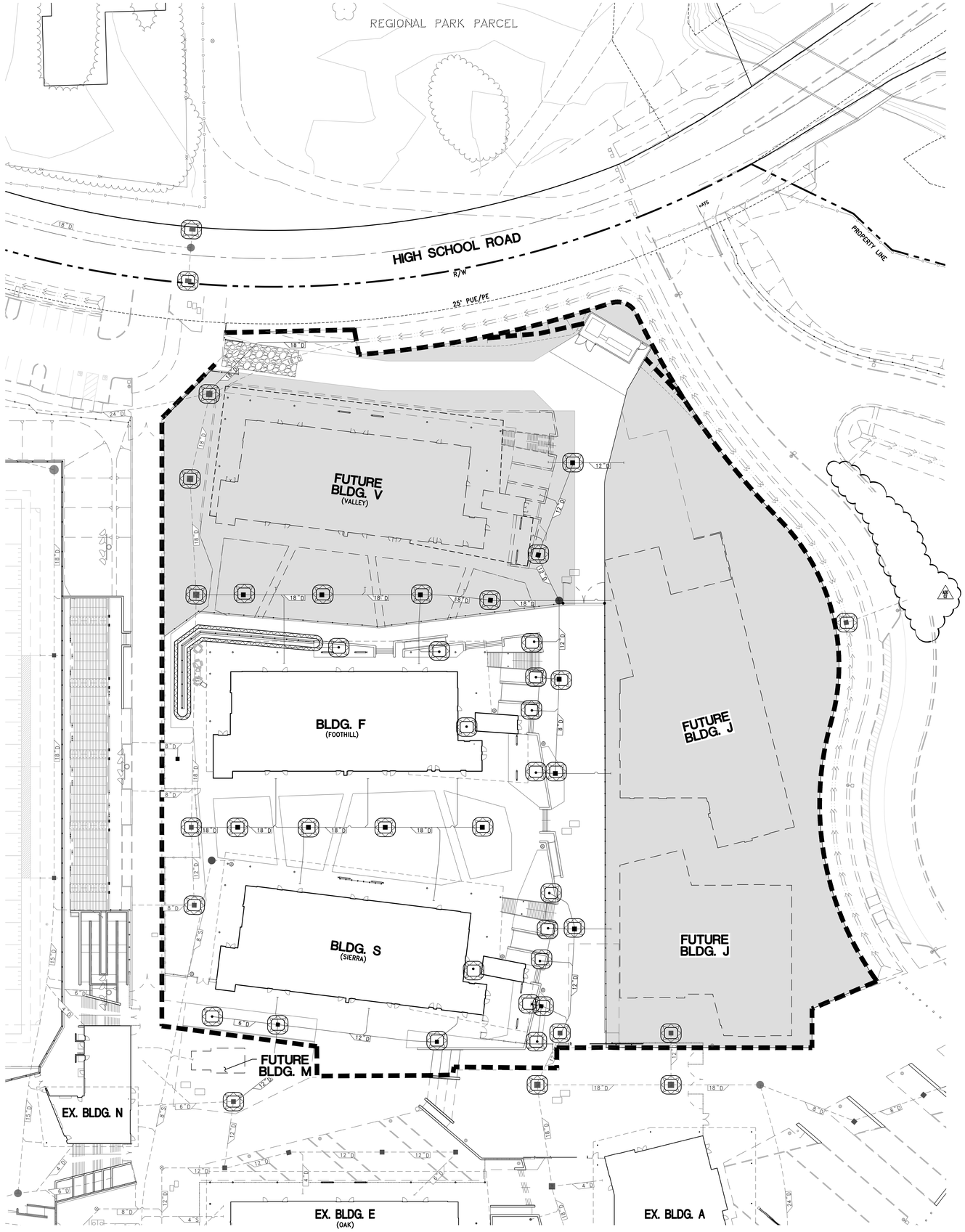
ADDENDUM 2
07.08.2020

Revisions
2020-07-01 ADD1 Addendum 1
2020-07-07 ADD2 Addendum 2

PROJECT #75-19101-00
DSA APPL. #02-118062
DSA FILE #31-H3

C5.1

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30' 15' 0 30'

SCALE: 1" = 30'

LEGEND

- FIBER ROLL (SEE DETAIL ON SHEET C7.1)
- INLET PROTECTION GRAVEL BAG INLET PROTECTION WITH INLET FILTER BAG (SEE DETAILS ON SHEET C7.1)
- TRENCH DRAIN PROTECTION GRAVEL BAG PROTECTION (SEE DETAIL ON SHEET C7.1)
- STABILIZED CONSTRUCTION ENTRANCE (SEE DETAIL ON SHEET C7.1)
- AREA OF HYDROSEED & MULCH

GENERAL NOTES

1. AT SWALES, PROVIDE FIBER ROLL AT 25' ON CENTER APPROXIMATELY AS SHOWN.

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EROSION & SEDIMENT CONTROL PLAN
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

2401 High School Road, Roseville, California 95747

Roseville Joint Union High School District

ADDENDUM 2
07.08.2020

Revisions
2020-07-01 ADD1 Addendum 1
2020-07-07 ADD2 Addendum 2

PROJECT #75-19101-00
DSA APPL. #02-118062
DSA FILE #31-H3

C7.2

ATTACHMENT NO. C5 TO ADDENDUM #3 DATED 03-21-18

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Construction/Layout Legend

Symbol	Description	Symbol	Description
A / L-1	Indicates Detail Number / Indicated Sheet Number		46" Square Table with Attached Chairs (4). Refer to project specifications for manufacturer, model number and additional information.
AL	Align		
PA	Planting Area		46" Square Table with Attached Chairs (3). ADA Accessible. Refer to project specifications for manufacturer, model number and additional information.
T	Turf (sodded)		
EJ	Expansion Joint		
	Cold Joint		Trash Receptacle Refer to project specifications for manufacturer, model number and additional information.
	Score Joint		
TOW	Top of Wall		Leaning Rail. See Specifications.
	Site lighting fixtures per Electrical Engineers plans.		8' cantilever fire gate. See specifications.
	Trench drain. Refer to Civil Engineer's plan.		6' or 8' black ornamental fence. See specifications.

Gate Schedule

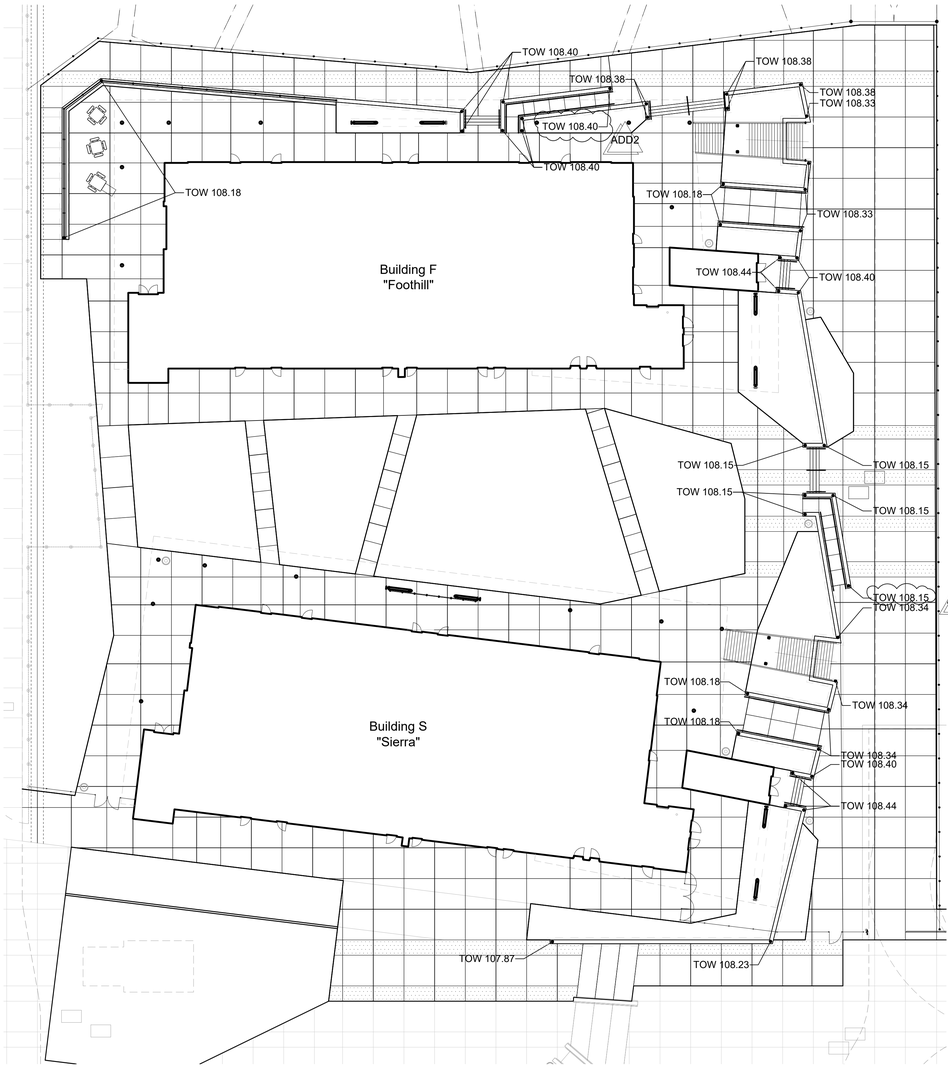
Gate	Chain Link	Ornamental Tube Steel	Notes
G1		24' x 8' HT Sliding Fire	See Detail A, Sheet L1.4
G2		4' x 8' HT Swing	See Detail C, Sheet L1.4
G3		4' x 6' HT Double Swing	See Detail D, Sheet L1.4
G4		4' x 8' HT Double Swing	See Detail D, Sheet L1.4
G5	28' x 8' HT Double Swing Fire		See Detail F, Sheet L1.3
G6	3' x 8' HT Swing		See Detail H, Sheet L1.3
G7	10' x 8' HT Double Swing		See Detail I, Sheet L1.3
*	Gates with self closing hinges. Swing direction per Layout plans. Install per manufacturer's specifications.		

Construction Notes

1. All work is to be performed by a licensed contractor(s) and experienced workers. Contractor is to verify the locations of existing underground utilities and structures prior to performing any excavation. Contractor shall repair any damage to utilities caused by their work at no additional cost to owner.
2. The Contractor shall verify locations of all underground utility systems prior to beginning any phase of construction that may cause damage to existing structures. Call U.S.A. to locate existing utilities at 811. The Contractor shall be responsible for the repair/replacement of damaged utilities, to the satisfaction of the Owner or governing agency and at no extra cost to the Owner or increase in bid amount.
3. Contractor shall conform to all local codes.
4. Contractor shall obtain and pay for all permits necessary to complete work.
5. Contractor shall notify Landscape Architect of any discrepancies between field conditions and plans prior to proceeding with work. The written dimension shall supersede the drawn dimension. All field adjustments must be approved by the Landscape Architect prior to installation.
6. All dimensions are to face of curb, back of wall, face of wall, center line of columns, face of columns, edge of paving, or face of building, unless otherwise noted. All dimensions are at 45° or 90° unless noted otherwise.
7. Install all walls and true and plumb.
8. Utility sleeving shall be coordinated with concrete work.
9. All materials and finishes shall be as per drawings, details and specifications. Some materials may require a several week order lead time. Contractor is responsible for determining any and all ordering delays, and providing required materials at the project site in a timely manner. No unapproved substitutions will be allowed. Contact the Landscape Architect immediately if a specified material is not available.
10. All concrete paving is to match as closely as possible to existing concrete color, score alignment and abutting elevations.
11. Refer to specifications and details for additional information.
12. Concrete walls:

Paving Legend

Symbol	Description
P1	Standard grey concrete. Refer to Civil Plans for additional information.
P2	Colored concrete. Refer to project specifications for color/finishing information.



Wall Grading Plan
1" = 20'-0" Plan

0' 20' 40' 60'
Scale 1"=20'-0"

24116

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LICENSED LANDSCAPE ARCHITECT
GREGORY P. HAUSER
No. 3367
Signature
6-30-20
Renewal Date
05-18-2020
Date
STATE OF CALIFORNIA

The HLA Group
Landscape Architects
& Planners, Inc.
301 University Avenue, Suite 110
Sacramento, California 95825
916.447.7400
www.hlagroup.com

LAYOUT PLAN (INC. 1)
WEST PARK HIGH SCHOOL, PHASE 2
2401 High School Road, Roseville, California 95747
Roseville Joint Union High School District

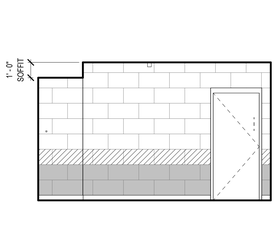
ADDENDUM 2
07.08.2020

Revisions
2020-07-01 ADD1 Addendum 1
2020-07-07 ADD2 Addendum 2

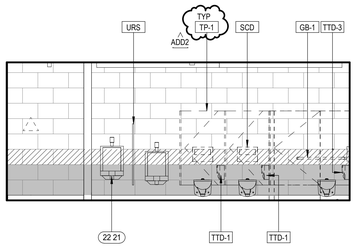
PROJECT #75-19101-00
DSA APPL #02-118062
DSA FILE #31-H3

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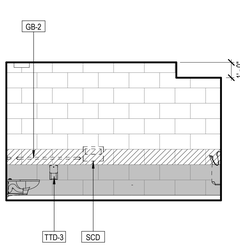
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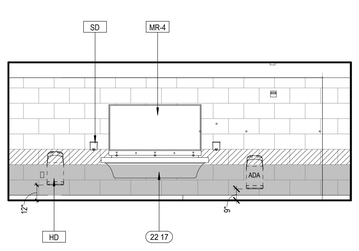
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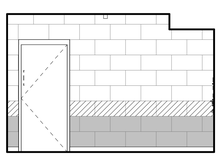
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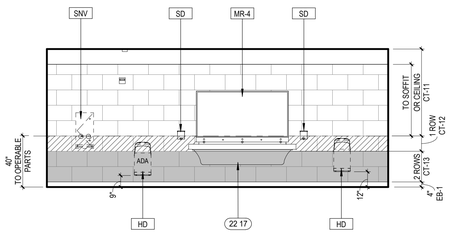
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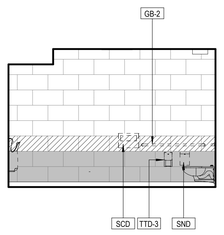
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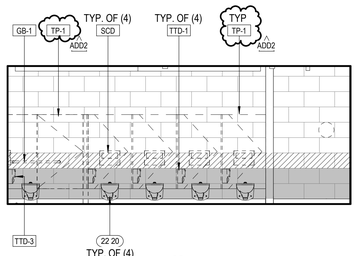
4G



4A



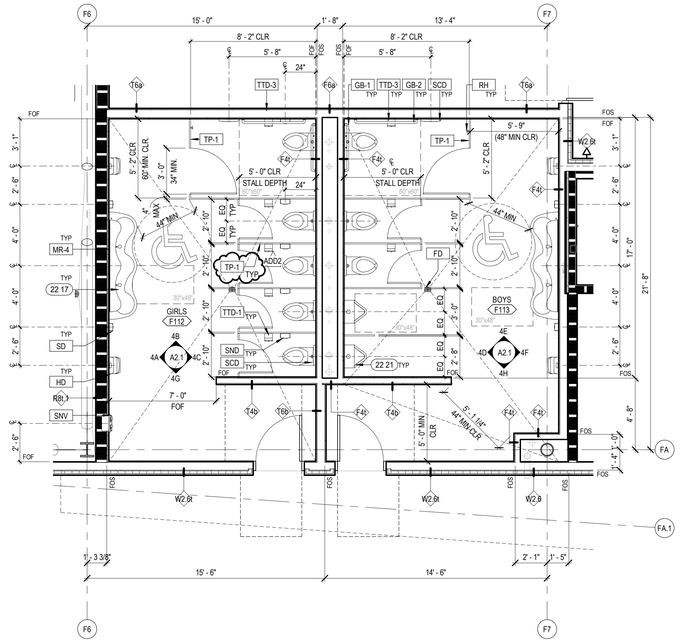
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4C

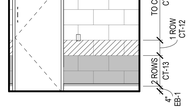
INTERIOR ELEVATIONS - GIRLS F112 & BOYS F113, GIRLS S113 & BOYS S112

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

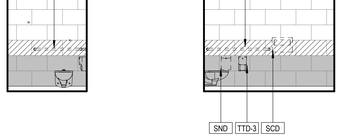


1 A2.1 ENLARGED PLAN - GIRLS F112 & BOYS F113, GIRLS S112 & BOYS S113

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



5J

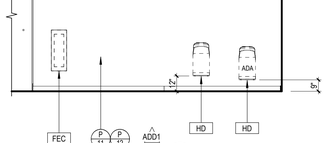


5D

5E

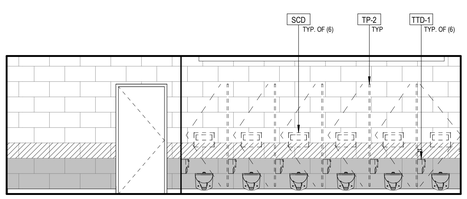


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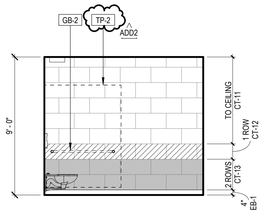


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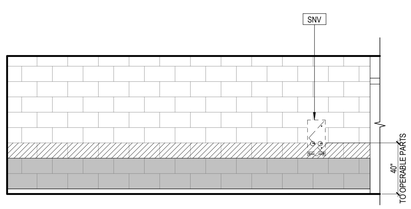
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5A



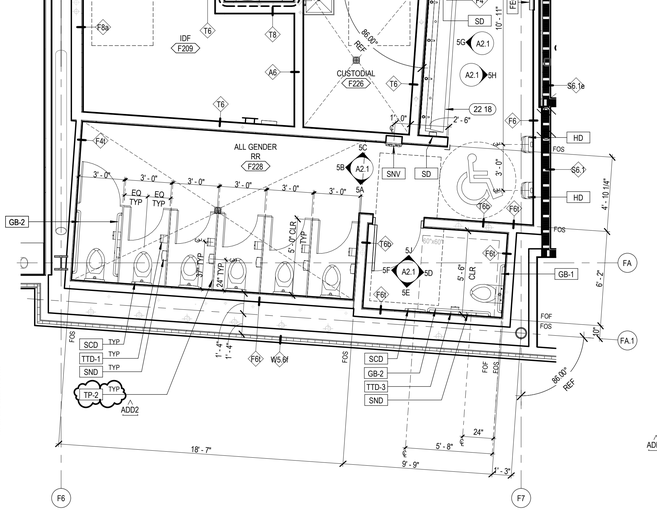
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5C

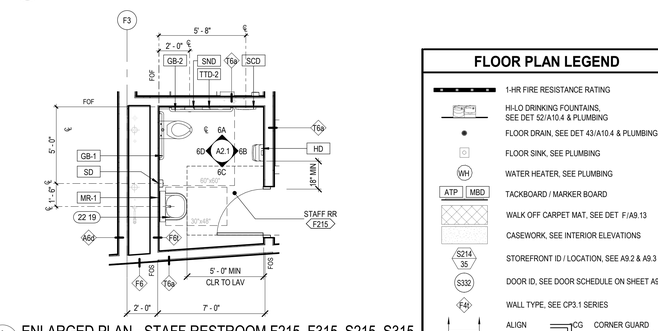
INTERIOR ELEVATIONS - ALL GENDER F228, F328, S228 & S328

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



2 A2.1 ENLARGED PLAN - ALL GENDER F228, F328, S228 & S328

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

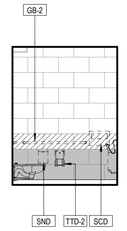


3 A2.1 ENLARGED PLAN - STAFF RESTROOM F215, F315, S215, S315

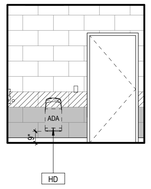
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INTERIOR ELEVATIONS - STAFF RESTROOM F215, F315, S215, S315

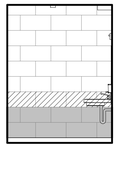
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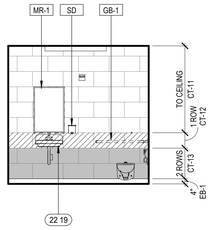
6A



6B



6C



6D

KEYNOTES

22 07	MOP SINK, SEE DET 51/A10.4 AND P DWGS ADD1
22 11	HI-LO DRINKING FOUNTAIN W/ BOTTLE FILLER, SEE P DWGS
22 17	LAVATORY, MULTI-BASIN. SEE DET 51/CP7.1 FOR CLEARANCES. SEE P DWGS
22 18	LAVATORY, TRENCH BASIN. SEE DET 51/CP7.1 FOR CLEARANCES. SEE P DWGS
22 19	LAVATORY. SEE DET 51/CP7.1 FOR CLEARANCES. SEE P DWGS
22 20	WATER CLOSET. SEE P DWGS
22 21	URINAL. SEE P DWGS
26 10	ELECTRICAL PANEL, SEE E DWGS
26 11	ELECTRICAL TRANSFORMER, SEE E DWGS

GENERAL NOTES

1. GC TO CAREFULLY COORDINATE ROUGH-IN REQUIREMENTS AND CONTACT ARCHITECT SHOULD ANY DISCREPANCIES OCCUR.
2. FOR INT FINISHES SEE FINISH PLAN & SCHEDULE, AND INT ELEVS.
3. PROVIDE BACKING AS REQD FOR PROPER MOUNTING OF FIXTURES, TOILET PARTITIONS AND ACCESSORIES ON WALL.
4. PROVIDE FLUSH VALVES IN ACCESSIBLE COMPARTMENTS WITH CONTROLS ON "WIDE" SIDE OF WATER CLOSET FIXTURE.
5. PROVIDE TOILET PAPER DISPENSER AND TOILET SEAT COVER DISPENSER AT EACH STALL.
6. PROVIDE SANITARY NAPKIN DISPOSAL AT EACH STALL ONLY FOR WOMENS/ GIRLS/ UNISEX RESTROOMS.
7. SEE PLUMB FIXTURE SCHEDULE FOR PLUMBING FIXTURES.
8. SEE SHEET CP3.1 FOR WALL TYPES.
9. PROVIDE 1/16"/ FT MIN TO 1/4"/FT MAX SLOPE TO FLOOR DRAIN.
10. SEE SLAB PLAN A0.w FOR FLOOR DEPRESSION, CURB & FLOOR DRAIN LOCATIONS.
11. CALLOUTS ON PLANS INDICATE TYPICAL ITEMS. PROVIDE ALL ITEMS SHOWN FOR A COMPLETE INSTALLATION.
12. PROVIDE INSULATION OR OTHER WRAP AT ALL EXPOSED PIPES AND OTHER ELEMENTS UNDER LAVATORIES SO THAT THERE ARE NO SHARP OR ABRASIVE SURFACES.
13. ALL ACCESSIBLE CLEARANCES ARE MEASURED TO FACE OF FINISH OR OBSTRUCTION.
14. SEE CALIFORNIA SPECIFIC CBC MOUNTING HEIGHTS ON SHEET CP7.1 FOR ACCESSIBLE ACCESSORY MOUNTING HEIGHTS.
15. PLUMBING FIXTURES TO HAVE SOLID BLOCKING AS REQUIRED BY CODE, SEE DET 13/S1.5
16. ALL RR FIXTURES & ACCESSORY MOUNTING HEIGHTS AND LOCATIONS TO USE ADULT DIMENSIONS, SEE 25/CP7.1 & 56/CP7.1
17. PROVIDE CEMENTITIOUS TILE BACKER BD. AT ALL TILED WALLS.
18. PROVIDE 5/8" MOISTURE RESISTANT GYPSUM BOARD AT RESTROOM WALLS NOT RECEIVING TILE. PAINT P-1, U.O.N.
19. FLUSH VALVE TO BE LOCATED AT WIDE SIDE OF STALL/SPACE.
20. TILE DETAILS, SEE A10.4
21. FOR FLOOR DRAIN, SEE A10.4
22. INSTALL (1) COAT HOOK AT EACH STALL, SINGLE OCCUPANCY RESTROOM. CENTER ON THE BACK OF DOOR. 40" A.F.F.
23. FOR ADD. INFO. ON ACC. RR /STALL, SEE &
24. SEE A13 SERIES - FIN PLANS, FOR FIN. LEGEND AND SPECS.
25. SEE A1 SERIES - FLR. PLANS, FOR TYP. FI53/CP7.1GE54/CP7.1S.
26. SEE A3 SERIES - REFLECTED CEILING PLANS, FOR CEILING HEIGHTS AND INFORMATION.
27. FOR TYPICAL TILE PATTERN SEE DET 6D/A2.1
28. FINISH TAG SYMBOL = XX / F INDICATES FINISH

SEE A13 SERIES FINISH PLAN DRAWINGS FOR ADD. INFO.

RR ACCESSORIES SCHEDULE

KEY	COMMENTS	MANUF	MODEL
	SHOWER CURTAIN	BOBRICK	204-3
	SF MTD (SURFACE MOUNTED); RCS (RECESSED)		
GB-1	36" GRAB BAR	BOBRICK	B-6806-36
GB-2	48" GRAB BAR	BOBRICK	B-6806-48
HD	HAND DRYER	GAMCO	DR-5120
MR-1	24" X 36" MIRROR	BOBRICK	B-290 Series
MR-4	72" X 36" MIRROR	BOBRICK	B-290 Series
MR-5	9'-0" X 36" MIRROR	BOBRICK	B-290 Series
RH	ROBE HOOK	BOBRICK	B-2116
S	SOAP DISH	BOBRICK	B-4380
SCD	SEAT COVER DISP (SF MTD)	BOBRICK	B-221
SD	SOAP DISPENSER - OFCI	KIMBERLY CLARK	92145
SND	SANITARY NAPKIN DISPOSAL (SF MTD) - OFCI	KIMBERLY CLARK	TBD
SNV	SANITARY NAPKIN VENDOR (SF MTD) - OFCI	KIMBERLY CLARK	TBD
TD-1	PAPER TOWEL DISPENSER (SF MTD) - OFCI	KIMBERLY CLARK	43823
TD-2	PAPER TOWEL DISPENSER (SF MTD)	BOBRICK	B-2621
TP-1	TOILET PARTITION	HINY HIDERS	
TP-2	TOILET PARTITION	SCRANTON	ARIA
TTD-1	TOILET TISSUE DISP (SF MTD) - OFCI	KIMBERLY CLARK	09601
TTD-2	TOILET TISSUE DISP (RCS)	BOBRICK	B-3888
TTD-3	TOILET TISSUE DISP (SF MTD)	BOBRICK	B-2888
URS	URINAL SCREEN	HINY HIDERS	

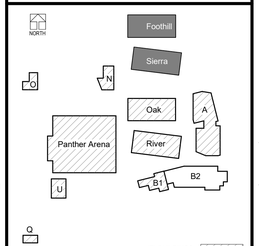
CERAMIC TILE SCHEDULE

CT 11	CERAMIC TILE - MFR: DALTILE NAME: FABRIQUE 12"X24", P685 BLANC LINEN
CT 12	CERAMIC TILE - MFR: DALTILE NAME: FABRIQUE 12"X24", P690 GRIS LINEN
CT 13	CERAMIC TILE - MFR: DALTILE NAME: FABRIQUE 12"X24", P689 NOIR LINEN

FLOOR PLAN LEGEND

- 1-HR FIRE RESISTANCE RATING
- HI-LO DRINKING FOUNTAINS, SEE DET 52/A10.4 & PLUMBING
- FLOOR DRAIN, SEE DET 43/A10.4 & PLUMBING
- FLOOR SINK, SEE PLUMBING
- WH — WATER HEATER, SEE PLUMBING
- ATP MBD — TACKBOARD / MARKER BOARD
- WALK OFF CARPET MAT, SEE DET F/A9.13
- CASEWORK, SEE INTERIOR ELEVATIONS
- S214 / 35 — STOREFRONT ID / LOCATION, SEE A9.2 & A9.3
- S332 — DOOR ID, SEE DOOR SCHEDULE ON SHEET A9.1
- F4a — WALL TYPE, SEE CP3.1 SERIES
- ALIGN — CG CORNER GUARD SEE DET 33/A10.04

KEY PLAN



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LICENSED ARCHITECT
MARK V COVINGTON
No. C-27366
03/31/2021
RENEWAL DATE
STATE OF CALIFORNIA

ENLARGED FLOOR PLANS & RESTROOM ELEVS
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

2401 High School Road, Roseville, California 95747

Roseville Joint Union High School District

ADDENDUM 2
07.08.2020
Revisions

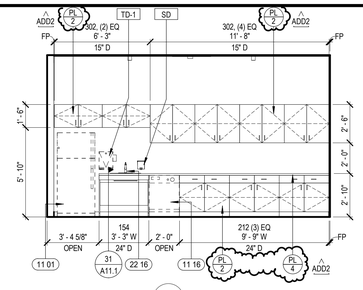
2020-07-01 ADD1 Addendum 1
2020-07-08 ADD2 Addendum 2

PROJECT #75-19101-00
DSA APPL. #02-118062
DSA FILE #31-H3

A2.1

ADD2 2020-07-08
ADD1 2020-07-01

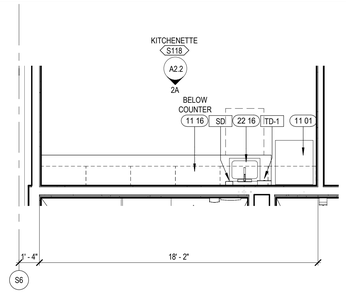
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2A

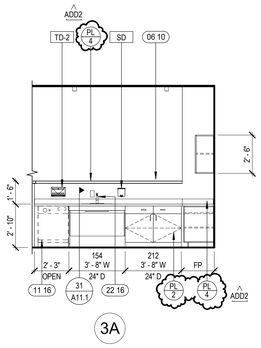
INTERIOR ELEVATIONS - KITCHENETTE S118

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

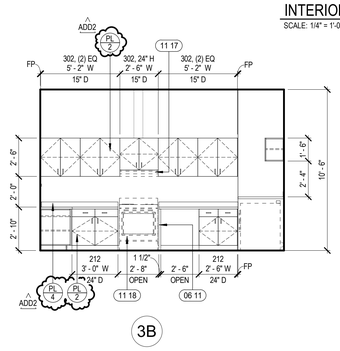


2 A2.2 ENLARGED PLAN - FIRST FLOOR - KITCHENETTE S118

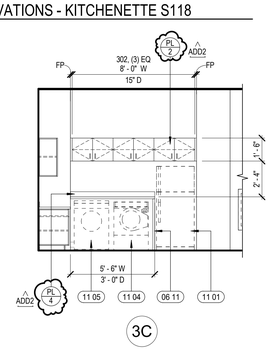
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3A



3B



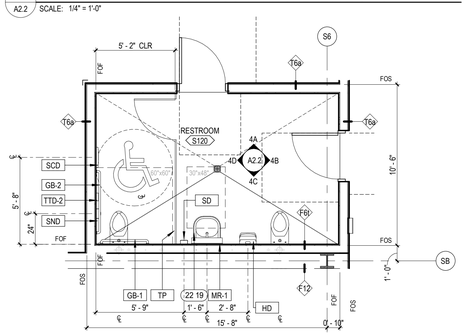
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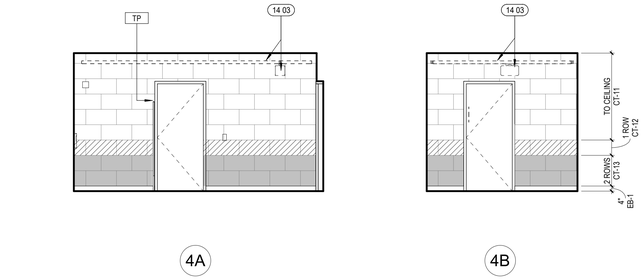
INTERIOR ELEVATIONS - KITCHENETTE S119

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

3 A2.2 ENLARGED PLAN - FIRST FLOOR - KITCHENETTE S119

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





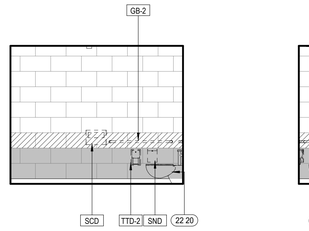
4A 4B 4C 4D

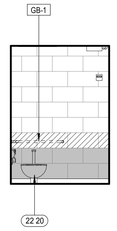
INTERIOR ELEVATIONS - RESTROOM S120

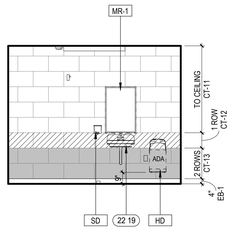
SCALE: 1/4" = 1'-0"

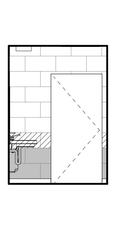
4 A2.2 ENLARGED PLAN - FIRST FLOOR - RESTROOM S120

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







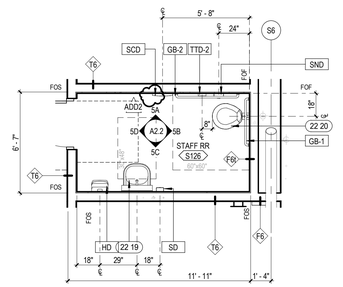


INTERIOR ELEVATIONS - STAFF RESTROOM S126

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

5 A2.2 ENLARGED PLAN - FIRST FLOOR - STAFF RESTROOM S126

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



FLOOR PLAN LEGEND

- 1-HR FIRE RESISTANCE RATING
- HI-LO DRINKING FOUNTAINS, SEE DET 52/A10.4 & PLUMBING
- FLOOR DRAIN, SEE DET 43/A10.4 & PLUMBING
- FLOOR SINK, SEE PLUMBING
- WH — WATER HEATER, SEE PLUMBING
- ATP / MBD — TACKBOARD / MARKER BOARD
- WALK OFF CARPET MAT, SEE DET F/A9.13
- CASEWORK, SEE INTERIOR ELEVATIONS
- S214 / 35 — STOREFRONT ID / LOCATION, SEE A9.2 & A9.3
- S332 — DOOR ID, SEE DOOR SCHEDULE ON SHEET A9.1
- F4i — WALL TYPE, SEE CP3.1 SERIES
- ALIGN — CG — CORNER GUARD SEE DET 33/A10.04

KEYNOTES

06 01	PLASTIC LAMINATE CASEWORK
06 10	PLASTIC LAMINATE COUNTERTOP O/ PONY WALL. 1" OVERHANG ON SIDES. TYP.
06 11	VERTICAL SUPPORT, SAME WIDTH AS COUNTERTOP. ALIGN WITH COUNTERTOP EDGE. PROVIDE PLASTIC LAMINATE FINISH ON BOTH SIDES TO MATCH COUNTERTOP.
11 01	RESIDENTIAL REFRIGERATOR, SEE P AND E DWGS
11 04	CLOTHES WASHER, FRONT LOADING. SEE P & E DWGS
11 05	CLOTHES DRYER, ELECTRIC FRONT LOADING. SEE P & E DWGS
11 16	ADA HEIGHT DISHWASHER, SEE P & E DWGS
11 17	RANGE HOOD. SEE M AND E SHEETS
11 18	DROP IN ELECTRIC RANGE & OVEN, SEE E SDWGS
14 03	OVERHEAD/CEILING LIFT AND TRACK, MOUNTED @ 8'-6" AFF
22 16	KITCHEN SINK. SEE P SHEETS
22 19	LAVATORY. SEE DET 51/CP7.1 FOR CLEARANCES. SEE P DWGS
22 20	WATER CLOSET. SEE P DWGS

GENERAL NOTES

1. GC TO CAREFULLY COORDINATE ROUGH-IN REQUIREMENTS AND CONTACT ARCHITECT SHOULD ANY DISCREPANCIES OCCUR.
2. FOR INT FINISHES SEE FINISH PLAN & SCHEDULE, AND INT ELEVS.
3. PROVIDE BACKING AS REQD FOR PROPER MOUNTING OF FIXTURES, TOILET PARTITIONS AND ACCESSORIES ON WALL.
4. PROVIDE FLUSH VALVES IN ACCESSIBLE COMPARTMENTS WITH CONTROLS ON "WIDE" SIDE OF WATER CLOSET FIXTURE.
5. PROVIDE TOILET PAPER DISPENSER AND TOILET SEAT COVER DISPENSER AT EACH STALL.
6. PROVIDE SANITARY NAPKIN DISPOSAL AT EACH STALL ONLY FOR WOMENS/ GIRLS/ UNISEX RESTROOMS.
7. SEE PLUMB FIXTURE SCHEDULE FOR PLUMBING FIXTURES.
8. SEE SHEET CP3.1 FOR WALL TYPES.
9. PROVIDE 1/16"/ FT MIN TO 1/4"/FT MAX SLOPE TO FLOOR DRAIN.
10. SEE SLAB PLAN A0.xx FOR FLOOR DEPRESSION, CURB & FLOOR DRAIN LOCATIONS.
11. CALLOUTS ON PLANS INDICATE TYPICAL ITEMS, PROVIDE ALL ITEMS SHOWN FOR A COMPLETE INSTALLATION.
12. PROVIDE INSULATION OR OTHER WRAP AT ALL EXPOSED PIPES AND OTHER ELEMENTS UNDER LAVATORIES SO THAT THERE ARE NO SHARP OR ABRASIVE SURFACES.
13. ALL ACCESSIBLE CLEARANCES ARE MEASURED TO FACE OF FINISH OR OBSTRUCTION.
14. SEE CALIFORNIA SPECIFIC CBC MOUNTING HEIGHTS ON SHEET CP7.1 FOR ACCESSIBLE ACCESSORY MOUNTING HEIGHTS.
15. PLUMBING FIXTURES TO HAVE SOLID BLOCKING AS REQUIRED BY CODE. SEE DET 13/S1.5.
16. ALL RR FIXTURES & ACCESSORY MOUNTING HEIGHTS AND LOCATIONS TO USE ADULT DIMENSIONS, SEE 25/CP7.1 & 56/CP7.1
17. PROVIDE CEMENTITIOUS TILE BACKER BD. AT ALL TILED WALLS.
18. PROVIDE 5/8" MOISTURE RESISTANT GYPSUM BOARD AT RESTROOM WALLS NOT RECEIVING TILE. PAINT P-1, U.O.N.
19. FLUSH VALVE TO BE LOCATED AT WIDE SIDE OF STALLS/SPACE.
20. TILE DETAILS, SEE A10.4
21. FOR FLOOR DRAIN, SEE A10.4
22. INSTALL (1) COAT HOOK AT EACH STALL, SINGLE OCCUPANCY RESTROOM, CENTER ON THE BACK OF DOOR. 40" A.F.F.
23. FOR ADD. INFO. ON ACC. RR /STALL, SEE &
24. SEE A13 SERIES - FIN PLANS, FOR FIN. LEGEND AND SPECS.
25. SEE A1 SERIES - FLR. PLANS, FOR TYP. FI33/CP7.1GE54/CP7.1S.
26. SEE A3 SERIES - REFLECTED CEILING PLANS, FOR CEILING HEIGHTS AND INFORMATION.
27. FOR TYPICAL TILE PATTERN SEE DET 6D/A2.1
28. FINISH TAG SYMBOL = XX / # INDICATES FINISH

SEE A13 SERIES FINISH PLAN DRAWINGS FOR ADD. INFO.

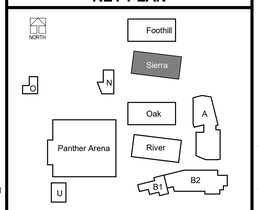
~~RR ACCESSORIES SCHEDULE~~

KEY	COMMENTS	MANUF	MODEL
	SHOWER CURTAIN	BOBRICK	204-3
	SF MTD (SURFACE MOUNTED); RCS (RECESSED)		
GB-1	36" GRAB BAR	BOBRICK	B-6806-36
GB-2	48" GRAB BAR	BOBRICK	B-6806-48
HD	HAND DRYER	GAMCO	DR-5120
MR-1	24" X 36" MIRROR	BOBRICK	B-290 Series
MR-4	72" X 36" MIRROR	BOBRICK	B-290 Series
MR-5	9'-0" X 36" MIRROR	BOBRICK	B-290 Series
RH	ROBE HOOK	BOBRICK	B-2116
S	SOAP DISH	BOBRICK	B-4380
SCD	SEAT COVER DISP (SF MTD)	BOBRICK	B-221
SD	SOAP DISPENSER - OFCI	KIMBERLY CLARK	92145
SND	SANITARY NAPKIN DISPOSAL (SF MTD) - OFCI	KIMBERLY CLARK	TBD
SNV	SANITARY NAPKIN VENDOR (SF MTD) - OFCI	KIMBERLY CLARK	TBD
TD-1	PAPER TOWEL DISPENSER (SF MTD) - OFCI	KIMBERLY CLARK	43823
TD-2	PAPER TOWEL DISPENSER (SF MTD)	BOBRICK	B-2621
TP-1	TOILET PARTITION	HINY HIDERS	
TP-2	TOILET PARTITION	SCRANTON	ARIA
TTD-1	TOILET TISSUE DISP (SF MTD) - OFCI	KIMBERLY CLARK	09601
TTD-2	TOILET TISSUE DISP (RCS)	BOBRICK	B-3888
TTD-3	TOILET TISSUE DISP (SF MTD)	BOBRICK	B-2888
URS	URINAL SCREEN	HINY HIDERS	

CERAMIC TILE SCHEDULE

- CT 11 — CERAMIC TILE - MFR: DALTILE NAME: FABRIQUE 12"X24", P685 BLANC LINEN
- CT 12 — CERAMIC TILE - MFR: DALTILE NAME: FABRIQUE 12"X24", P690 GRIS LINEN
- CT 13 — CERAMIC TILE - MFR: DALTILE NAME: FABRIQUE 12"X24", P689 NOIR LINEN

KEY PLAN



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DLR Group
Architecture Engineering Planning Interiors

LICENSED ARCHITECT
MARK V. COVINGTON
No. C-27366
03/31/2021
STATE OF CALIFORNIA

ENLARGED FLOOR PLANS & RESTROOM ELEVS
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

2401 High School Road, Roseville, California 95747
Roseville Joint Union High School District

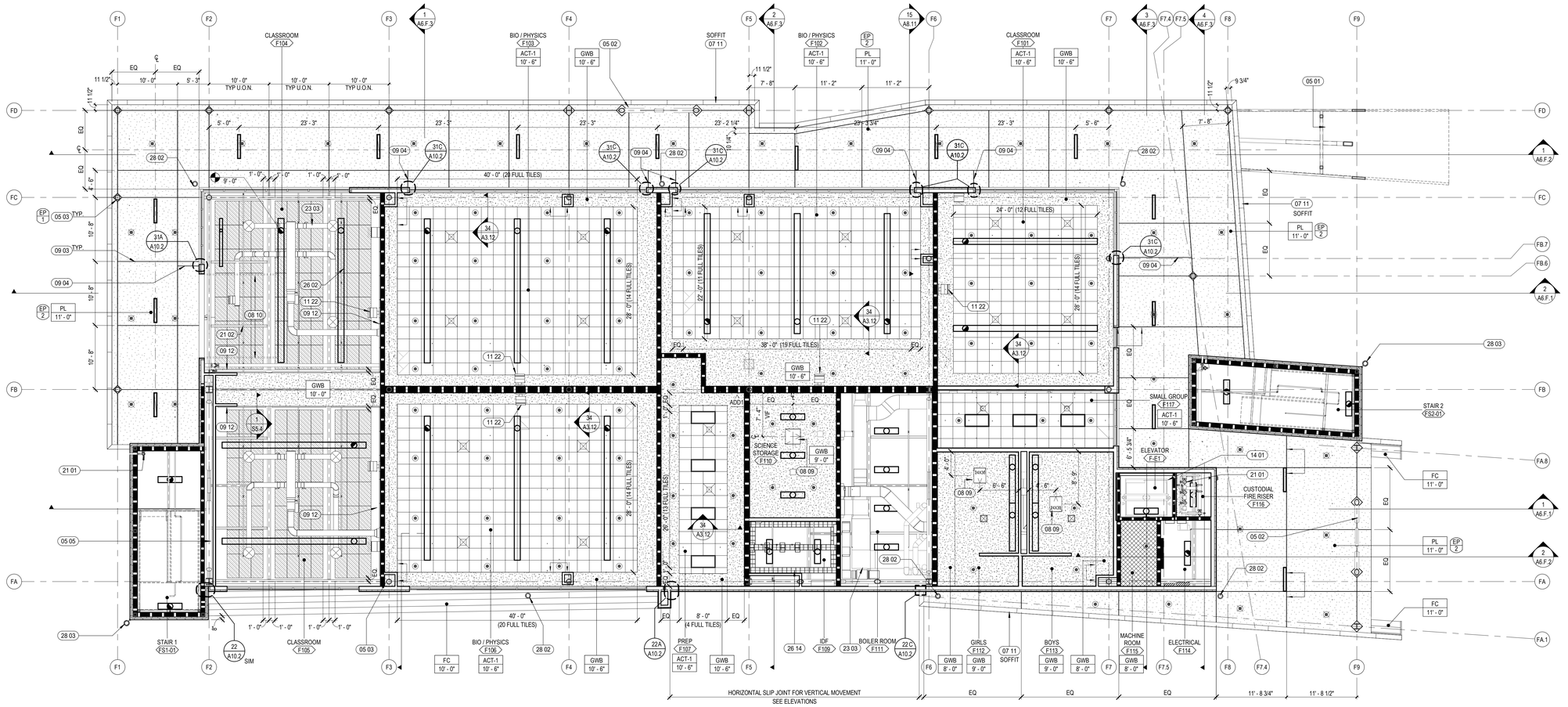
ADDENDUM 2
07.08.2020
Revisions
2020-07-08 ADD2 Addendum 2

PROJECT #75-19101-00
DSA APPL. #02-118062
DSA FILE #31-H3

A2.2

ADD2 2020-07-08

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NORTH

REFLECTED CEILING PLAN - BUILDING FOOTHILL - FIRST FLOOR

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

ADD1 2020-07-01

BIM 360://75-19101-00 Roseville JUHSD - West Park Phase 2/75-19101-00_AR_2019.rvt
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KEYNOTES

05 01	STRUCTURAL STEEL FRAMING, SEE STRUCTURAL
05 02	STRUCTURAL STEEL FRAMING, ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AESS)
05 03	STRUCTURAL STEEL COLUMN, SEE STRUCTURAL
05 05	STRUCTURAL STEEL BRACE FRAME, SEE STRUCTURAL
07 11	FORMED METAL WALL PANEL SYSTEM, RAINSCREEN SYSTEM
08 09	CLNG. ACCESS PANEL, 30" x 30" UNO (20" X 30" MIN SIZE), SEE DET. 42/A3.12
08 10	SECTIONAL DOOR GUIDE RAIL
09 03	PLASTER ACCESSORIES: CONTROL JOINT
09 04	PLASTER ACCESSORIES: EXPANSION JOINT
09 12	FABRIC WRAPPED PANEL
11 22	OFCI WALL-MOUNTED SHORT THROW PROJECTOR. SEE DET. 44/A3.12. SEE E3.X AND E4.X SERIES FOR POWER AND AV INFRASTRUCTURE
14 01	HYDRAULIC ELEVATOR, SEE A0.0 FOR DEF. SUBMITTAL INFO.
21 01	FIRE RISER, SEE FS DWGS
21 02	FIRE PROTECTION EQUIPMENT, SEE FS DWGS
23 03	MECHANICAL DUCT, SEE M DWGS
26 02	INTERIOR LIGHTING, SEE E DWGS
26 14	ELECTRICAL RACEWAY, SEE E DWGS
28 02	SOFFIT MOUNTED SECURITY CAMERA, SEE E DWGS
28 03	WALL MOUNTED SECURITY CAMERA @ 12'-0" AFF

GENERAL NOTES

1. LIGHT FIXTURE DIMENSIONS ARE TO CENTERLINE OF FIXTURE OR GROUP OF FIXTURES, U.N.O.
2. CENTER CEILING GRIDS IN PERIMETER/ ROOM, TYP. U.N.O
3. ROOMS WITH SINGLE LIGHT FIXTURES SHALL BE CENTERED TO THE ROOM, TYP. U.N.O.
4. CENTER SPRINKLER HEADS, SMOKE & CO-DETECTORS, MOTION & DAYLIGHT SENSORS, MECH. GRILLES, AND SIM. DEVICES IN CLNG. TILE AND ALIGN W/ LIGHT FIXTURES, U.N.O., RE: 46/A3.12.
5. PAINT GYP. BD. CLNGS. & SOFFITS P1, U.N.O. PAINT FINISH TO BE SAME AT FACE AND UNDERSIDE OF SOFFITS. REFER TO FINISH PLAN FOR COLOR SELECTIONS.
6. PAINT EXPOSED CEILINGS, DUCTWORK AND EQUIPMENT.
7. ALL EXT. PLASTER SOFFITS SHALL BE PAINTED.
8. AT ALL CLNG. TRANSITIONS AT ROOM PERIMETER OR AT CLNG. MATERIAL CHANGES BETN. GYP. BD AND ACT, PROVIDE SHADOW MOLD, SEE 34 & 35/ A3.12
9. ELECTRICAL DEVICES SHOWN FOR LOCATION IN RELATION TO LIGHT FIXTURES AND MECHANICAL DIFFUSERS IN SELECT AREAS. FOR FIXTURE INFORMATION, SEE ELECTRICAL DWGS.
10. PROVIDE ACCESS PANELS IN ENCLOSED AREAS ABOVE GYP. BD. CEILINGS, TYP. COORD. FINAL LOCATIONS WITH ARCHITECT. WHERE POSSIBLE ALIGN W/ LIGHT FIXTURES AND OTHER CLNG. DEVICES. PROVIDE 30" MIN. HEAD CLEARANCE PER CBC 1209.2
11. CONTRACTOR TO NOTIFY ARCHITECT WHERE ACCESS PANEL LOCATIONS DO NOT HAVE A CODE-REQUIRED 30" HEAD CLEARANCE AT LOCATIONS IDENTIFIED IN PLAN.
12. ILLUMINATED EXIT SIGNS AT ALL EXIT DOORS, SEE ELECTRICAL.
13. ALL EXT. WINDOWS TO HAVE WALL-MTD ROLLER SHADES IN MFR. PROVIDED SHADE POCKET WHERE CEILING IS HIGHER THAN T.O. WINDOW AND RECESSED ROLLER SHADES WHERE CEILING ALIGNS WITH T.O. WINDOW. ADD2
14. REFER TO ELEC. DWGS. FOR FIXTURE TYPES, PROVIDE BACKING AT AL LOCATIONS WHERE WALL BRACING IS REQD.

EXTERIOR RCP FINISH LEGEND

EP 1	EXT. PAINT - MFR: DUNN EDWARDS, COLOR: DARK PEWTER, NO: DE5314
EP 2	EXTERIOR PAINT- MFR: DUNN EDWARDS COLOR: WOODED ACRE, NO: DE6130
EP 3	EXTERIOR PAINT - MFR: DUNN EDWARDS COLOR: BLACK LEAD, NO. DE6322 TYP FOR SILL FLASHING ADJACENT THIN BRICK VENEER
EP 4	EXTERIOR PAINT - MFR: DUNN EDWARDS COLOR: STOCKHORSE, NO. DE6126 TYP FOR SILL FLASHING ADJACENT FIBER CEMENT SIDING

CEILING TYPES LEGEND

FOR ADD. CLNG. TYPES AND FINISH SPEC INFO. REFER TO A13 SHEETS

- EXPOSED CLNG: PAINT ALL EXPOSED COMPONENTS INCL. BUT NOT LIMITED TO STRUCT. FRAMING, MEP ITEMS (DUCTS, CONDUITS, PIPES, HANGARS, ETC.), SPRAY ON FIRE PROOFING, U.N.O.
- PL — PLASTER CEILING
- GWB CEILING
- RATED 1 HR GWB CEILING
- ACT-1 — 2' x 2' ACOUSTIC CEILING TILE
- 2' x 4' ACOUSTICAL CEILING PANEL, PAINTED
- FC — 1/4" x 12" FIBER CEMENT SOFFIT PANELS

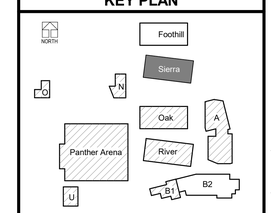
FIXTURE LEGEND

FOR ADD. INFO. SEE ELECTRICAL & SPECIFICATIONS

FIXTURE / DESCRIPTION

- DIFFUSER (SUPPLY)
- DIFFUSER (RETURN)
- RECESSED FIXTURES
- PENDANT FIXTURES
- SURFACE MOUNT FIXTURES
- *NOTE ALL PENDANT FIXTURES AT CLASSROOMS TO BE 8' - 4" AFF TO B.O. OF FIXTURE U.O.N.
- LIGHTING ON EMERGENCY SYSTEM
- WALL MOUNT FIXTURES
- CLNG. ACCESS PANEL.
- SECURITY CAMERAS
- ROOF HATCH
- PENDANT FIRE SPRINKLER. SEE FIRE PROTECTION DRAWINGS.
- EXIT SIGN, CEILING OR WALL MOUNT DIRECTIONAL ARROW AS INDICATED

KEY PLAN



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LICENSED ARCHITECT
MARK V COVINGTON
No. C-27567
03/31/2021
RENEWAL DATE
STATE OF CALIFORNIA

REFLECTED CLG PLAN - BLDG F - 1ST FLOOR
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

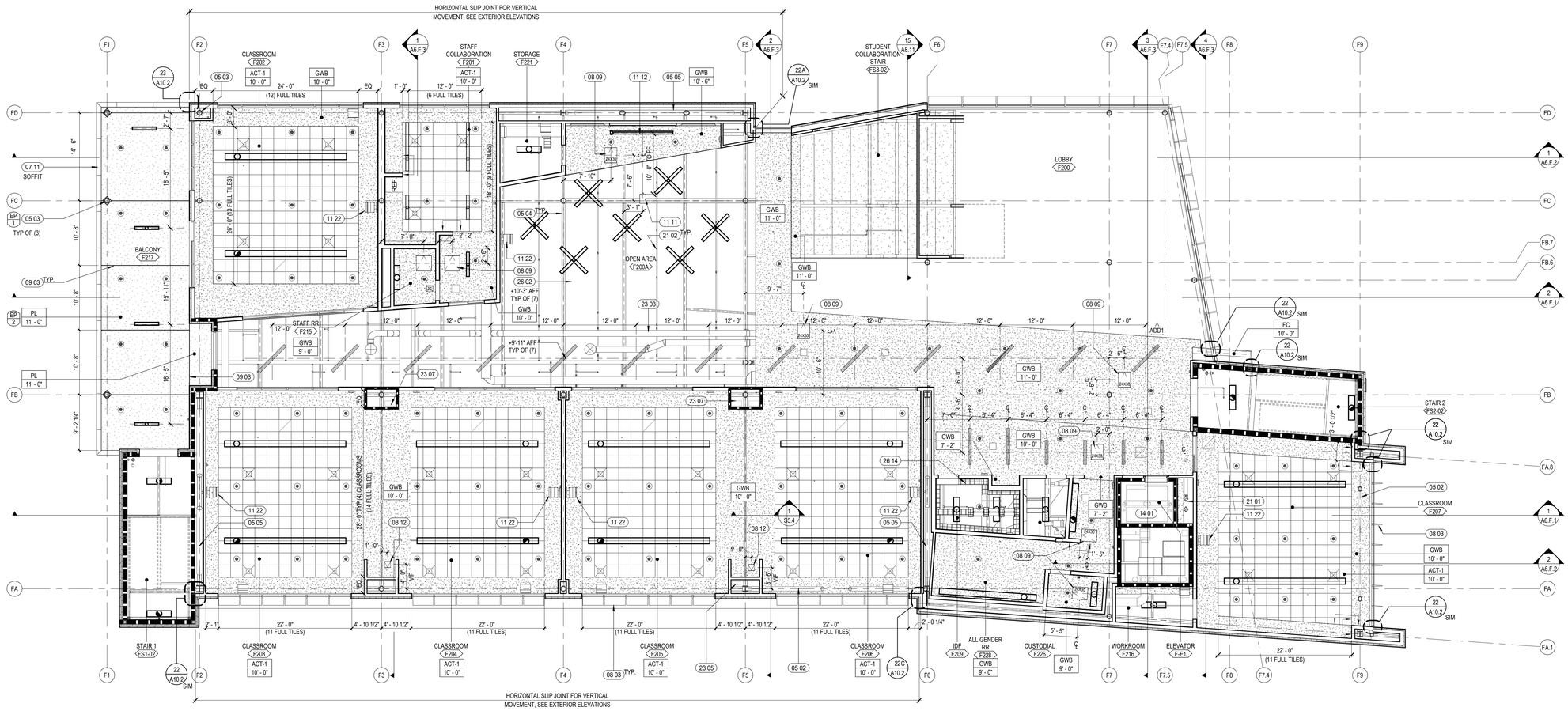
2401 High School Road, Roseville, California 95747

Roseville Joint Union High School District

ADDENDUM 2
07.08.2020
Revisions
2020-07-01 ADD1 Addendum 1

PROJECT #75-19101-00
DSA APPL. #02-118062
DSA FILE #31-H3

A3.F1.1



NORTH

REFLECTED CEILING PLAN - BUILDING FOOTHILL - SECOND FLOOR

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

ADD1 2020-07-01

BIM 360://75-19101-00 Roseville JUHSD - West Park Phase 2/75-19101-00_AR_2019.rvt
7/8/2020 4:34:33 PM

KEYNOTES

05 02	STRUCTURAL STEEL FRAMING, ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AESS)
05 03	STRUCTURAL STEEL COLUMN, SEE STRUCTURAL
05 04	STRUCTURAL STEEL BEAM, SEE STRUCTURAL
05 05	STRUCTURAL STEEL BRACE FRAME, SEE STRUCTURAL
07 11	FORMED METAL WALL PANEL SYSTEM, RAINSCREEN SYSTEM
08 03	ALUMINUM FRAMED STOREFRONT. INTEGRAL SHADE FIN MULLION. SEE 51/A9.10
08 09	CLNG. ACCESS PANEL, 30" x 30" UNO (20" X 30" MIN SIZE), SEE DET. 42/A3.12
08 12	12" x 12" OPERABLE PARTITON MOTOR ACCESS. CONTRACTOR TO COORDINATE EXACT LOCATION IN FIELD WITH OPERABLE PARTION HARDWARE
09 03	PLASTER ACCESSORIES: CONTROL JOINT
11 11	OFCI CLNG. MOUNTED PROJECTOR. PROVIDE BACKING. SEE E3.X AND E4.X SERIES FOR POWER AND AV INFRASTRUCTURE
11 12	CLNG. MOUNTED PROJECTOR SCREEN. SEE E3.X AND E4.X SERIES FOR POWER AND AV INFRASTRUCTURE
11 22	OFCI WALL-MOUNTED SHORT THROW PROJECTOR. SEE DET. 44/A3.12. SEE E3.X AND E4.X SERIES FOR POWER AND AV INFRASTRUCTURE
14 01	HYDRAULIC ELEVATOR, SEE A0.0 FOR DEF. SUBMITTAL INFO.
21 01	FIRE RISER, SEE FS DWGS
21 02	FIRE PROTECTION EQUIPMENT, SEE FS DWGS
23 03	MECHANICAL DUCT, SEE M DWGS
23 05	ROOF TOP MECHANICAL UNIT, SEE M DWGS
23 07	MECHANICAL DUCT THROUGH SHAFT, SEE M DWGS
26 02	INTERIOR LIGHTING, SEE E DWGS
26 14	ELECTRICAL RACEWAY, SEE E DWGS

GENERAL NOTES

1. LIGHT FIXTURE DIMENSIONS ARE TO CENTERLINE OF FIXTURE OR GROUP OF FIXTURES, U.N.O.
2. CENTER CEILING GRIDS IN PERIMETER/ ROOM, TYP. U.N.O
3. ROOMS WITH SINGLE LIGHT FIXTURES SHALL BE CENTERED TO THE ROOM, TYP. U.N.O.
4. CENTER SPRINKLER HEADS, SMOKE & CO-DETECTORS, MOTION & DAYLIGHT SENSORS, MECH. GRILLES, AND SIM. DEVICES IN CLNG. TILE AND ALIGN W/ LIGHT FIXTURES, U.N.O., RE: 46/A3.12.
5. PAINT GYP. BD. CLNGS. & SOFFITS P1, U.N.O. PAINT FINISH TO BE SAME AT FACE AND UNDERSIDE OF SOFFITS. REFER TO FINISH PLAN FOR COLOR SELECTIONS.
6. PAINT EXPOSED CEILINGS, DUCTWORK AND EQUIPMENT.
7. ALL EXT. PLASTER SOFFITS SHALL BE PAINTED.
8. AT ALL CLNG. TRANSITIONS AT ROOM PERIMETER OR AT CLNG. MATERIAL CHANGES BETN. GYP. BD AND ACT, PROVIDE SHADOW MOLD, SEE 34 & 35/ A3.12
9. ELECTRICAL DEVICES SHOWN FOR LOCATION IN RELATION TO LIGHT FIXTURES AND MECHANICAL DIFFUSERS IN SELECT AREAS. FOR FIXTURE INFORMATION, SEE ELECTRICAL DWGS.
10. PROVIDE ACCESS PANELS IN ENCLOSED AREAS ABOVE GYP. BD. CEILINGS, TYP. COORD. FINAL LOCATIONS WITH ARCHITECT. WHERE POSSIBLE ALIGN W/ LIGHT FIXTURES AND OTHER CLNG. DEVICES. PROVIDE 30" MIN. HEAD CLEARANCE PER CBC 1209.2
11. CONTRACTOR TO NOTIFY ARCHITECT WHERE ACCESS PANEL LOCATIONS DO NOT HAVE A CODE-REQUIRED 30" HEAD CLEARANCE AT LOCATIONS IDENTIFIED IN PLAN.
12. ILLUMINATED EXIT SIGNS AT ALL EXIT DOORS, SEE ELECTRICAL.
13. ALL EXT. WINDOWS TO HAVE WALL-MTD ROLLER SHADES IN MFR. PROVIDED SHADE POCKET WHERE CEILING IS HIGHER THAN T.O. WINDOW AND RECESSED ROLLER SHADES WHERE CEILING ALIGNS WITH T.O. WINDOW. ^ADD2
14. REFER TO ELEC. DWGS. FOR FIXTURE TYPES, PROVIDE BACKING AT ALL LOCATIONS WHERE WALL BRACING IS REQD.

EXTERIOR RCP FINISH LEGEND

EP 1	EXT. PAINT - MFR: DUNN EDWARDS, COLOR: DARK PEWTER, NO: DE6314
EP 2	EXTERIOR PAINT- MFR: DUNN EDWARDS COLOR: WOODED ACRE, NO: DE6130
EP 3	EXTERIOR PAINT - MFR: DUNN EDWARDS COLOR: BLACK LEAD, NO: DE6322 TYP FOR SILL FLASHING ADJACENT THIN BRICK VENEER
EP 4	EXTERIOR PAINT - MFR: DUNN EDWARDS COLOR: STOCKHORSE, NO. DE6126 TYP FOR SILL FLASHING ADJACENT FIBER CEMENT SIDING

CEILING TYPES LEGEND

FOR ADD. CLNG. TYPES AND FINISH SPEC INFO. REFER TO A13 SHEETS

- EXPOSED CLNG: PAINT ALL EXPOSED COMPONENTS INCL. BUT NOT LIMITED TO STRUCT. FRAMING, MEP ITEMS (DUCTS, CONDUITS, PIPES, HANGARS, ETC.), SPRAY ON FIRE PROOFING, U.N.O.
- PL PLASTER CEILING
- GWB CEILING
- RATED 1 HR GWB CEILING
- ACT-1 2' x 2' ACOUSTIC CEILING TILE
- 2' x 4' ACOUSTICAL CEILING PANEL, PAINTED
- FC 1/4" x 12" FIBER CEMENT SOFFIT PANELS

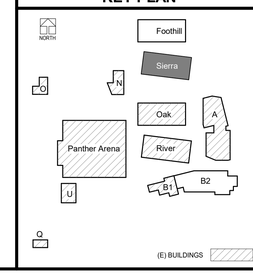
FIXTURE LEGEND

FOR ADD. INFO. SEE ELECTRICAL & SPECIFICATIONS

FIXTURE / DESCRIPTION

- DIFFUSER (SUPPLY)
- DIFFUSER (RETURN)
- RECESSED FIXTURES
- PENDANT FIXTURES
- SURFACE MOUNT FIXTURES
- *NOTE ALL PENDANT FIXTURES AT CLASSROOMS TO BE 8' - 4" AFF TO B.O. OF FIXTURE U.O.N.
- LIGHTING ON EMERGENCY SYSTEM
- WALL MOUNT FIXTURES
- CLNG. ACCESS PANEL.
- SECURITY CAMERAS
- ROOF HATCH
- PENDANT FIRE SPRINKLER. SEE FIRE PROTECTION DRAWINGS.
- EXIT SIGN, CEILING OR WALL MOUNT DIRECTIONAL ARROW AS INDICATED

KEY PLAN



DLR Group
Architecture Engineering Planning Interiors

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LICENSED ARCHITECT
MARK V COVINGTON
03/31/2021
STATE OF CALIFORNIA

REFLECTED CLG PLAN - BLDG F - 2ND FLOOR
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

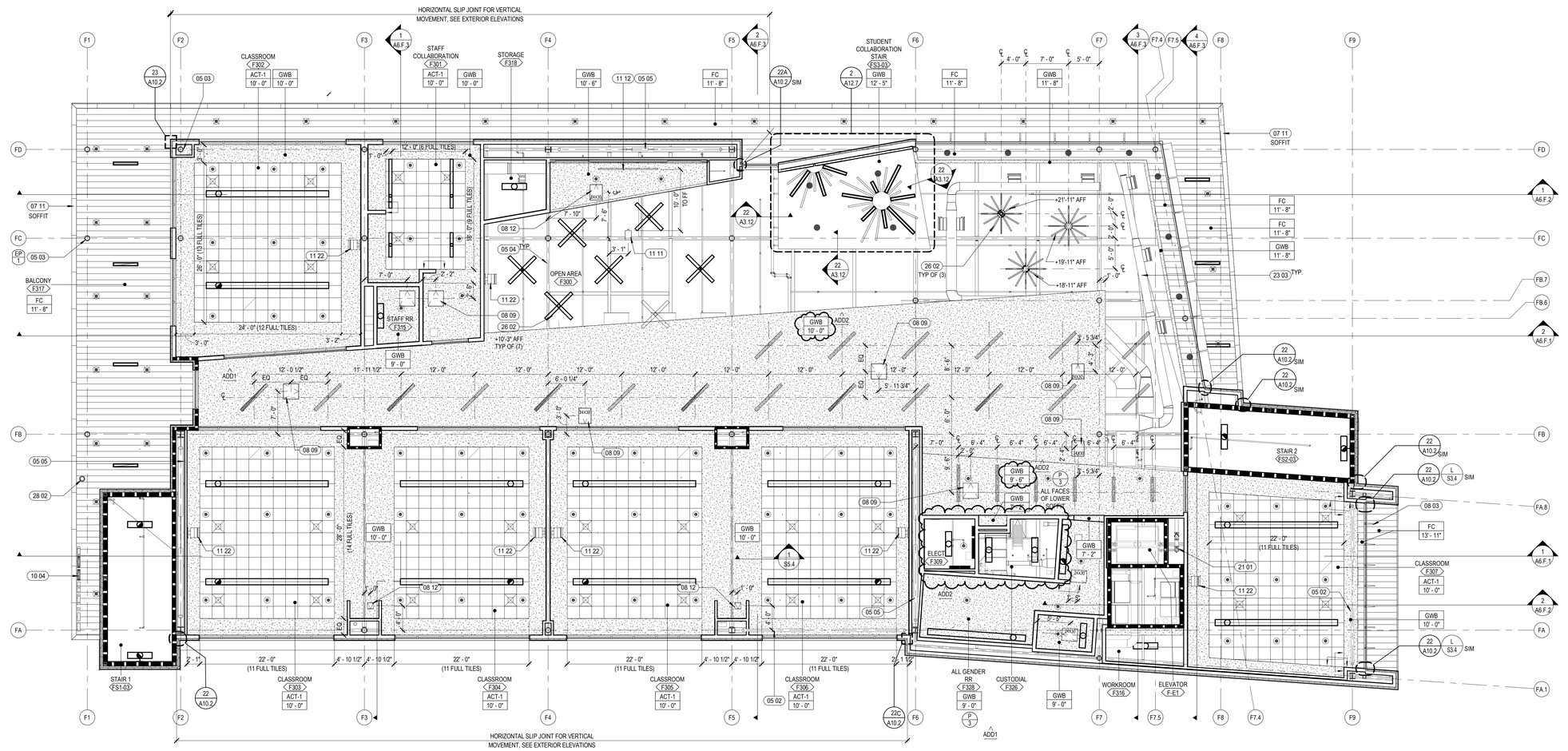
2401 High School Road, Roseville, California 95747

Roseville Joint Union High School District

ADDENDUM 2
07.08.2020
Revisions
2020-07-01 ADD1 Addendum 1

PROJECT #75-19101-00
DSA APPL. #02-118062
DSA FILE #31-H3

A3.F2.1



NORTH

REFLECTED CEILING PLAN - BUILDING FOOTHILL - THIRD FLOOR

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

ADD2 2020-07-08
ADD1 2020-07-01

BIM 360://75-19101-00 Roseville JUHSD - West Park Phase 2/75-19101-00_AR_2019.rvt
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KEYNOTES

05 02	STRUCTURAL STEEL FRAMING, ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AESS)
05 03	STRUCTURAL STEEL COLUMN. SEE STRUCTURAL
05 04	STRUCTURAL STEEL BEAM. SEE STRUCTURAL
05 05	STRUCTURAL STEEL BRACE FRAME. SEE STRUCTURAL
07 11	FORMED METAL WALL PANEL SYSTEM, RAINSCREEN SYSTEM
08 03	ALUMINUM FRAMED STOREFRONT: INTEGRAL SHADE FIN MULLION. SEE 51/A9.10
08 09	CLNG. ACCESS PANEL, 30" x 30" UNO (20" X 30" MIN SIZE), SEE DET. 42/A3.12
08 12	10" x 12" OPERABLE PARTITON MOTOR ACCESS. CONTRACTOR TO COORDINATE EXACT LOCATION IN FIELD WITH OPERABLE PARTION HARDWARE
10 04	SIGNAGE, SEE A14 SERIES SHEETS
11 11	OFCI CLNG. MOUNTED PROJECTOR. PROVIDE BACKING. SEE E3.X AND E4.X SERIES FOR POWER AND AV INFRASTRUCTURE
11 12	CLNG. MOUNTED PROJECTOR SCREEN. SEE E3.X AND E4.X SERIES FOR POWER AND AV INFRASTRUCTURE
11 22	OFCI WALL-MOUNTED SHORT THROW PROJECTOR. SEE DET. 44/A3.12. SEE E3.X AND E4.X SERIES FOR POWER AND AV INFRASTRUCTURE
21 01	FIRE RISER, SEE FS DWGS
23 03	MECHANICAL DUCT, SEE M DWGS
26 02	INTERIOR LIGHTING, SEE E DWGS
28 02	SOFFIT MOUNTED SECURITY CAMERA, SEE E DWGS

GENERAL NOTES

1. LIGHT FIXTURE DIMENSIONS ARE TO CENTERLINE OF FIXTURE OR GROUP OF FIXTURES, U.N.O.
2. CENTER CEILING GRIDS IN PERIMETER/ ROOM, TYP. U.N.O
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14. REFER TO ELEC. DWGS. FOR FIXTURE TYPES, PROVIDE BACKING AT ALL LOCATIONS WHERE WALL BRACING IS REQD.

EXTERIOR RCP FINISH LEGEND

EP 1	EXT. PAINT - MFR: DUNN EDWARDS, COLOR: DARK PEWTER, NO: DE6314
EP 2	EXTERIOR PAINT- MFR: DUNN EDWARDS COLOR: WOODED ACRE, NO: DE6130
EP 3	EXTERIOR PAINT - MFR: DUNN EDWARDS COLOR: BLACK LEAD, NO. DE6322 TYP FOR SILL FLASHING ADJACENT THIN BRICK VENEER
EP 4	EXTERIOR PAINT - MFR: DUNN EDWARDS COLOR: STOCKHORSE, NO. DE6126 TYP FOR SILL FLASHING ADJACENT FIBER CEMENT SIDING

CEILING TYPES LEGEND

FOR ADD. CLNG. TYPES AND FINISH SPEC INFO. REFER TO A13 SHEETS

- EXPOSED CLNG: PAINT ALL EXPOSED COMPONENTS INCL. BUT NOT LIMITED TO STRUCT. FRAMING, MEP ITEMS (DUCTS, CONDUITS, PIPES, HANGARS, ETC.), SPRAY ON FIRE PROOFING, U.N.O.
- PL PLASTER CEILING
- GWB CEILING
- RATED 1 HR GWB CEILING
- ACT-1 2' x 2' ACOUSTIC CEILING TILE
- 2' x 4' ACOUSTICAL CEILING PANEL, PAINTED
- FC 1/4" x 12" FIBER CEMENT SOFFIT PANELS

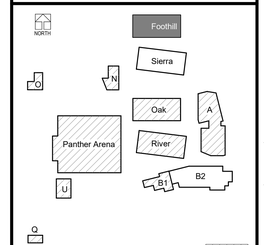
FIXTURE LEGEND

FOR ADD. INFO. SEE ELECTRICAL & SPECIFICATIONS

FIXTURE / DESCRIPTION

- DIFFUSER (SUPPLY)
- DIFFUSER (RETURN)
- RECESSED FIXTURES
- PENDANT FIXTURES
- SURFACE MOUNT FIXTURES
- *NOTE ALL PENDANT FIXTURES AT CLASSROOMS TO BE 8' - 4" AFF TO B.O. OF FIXTURE U.O.N.
- LIGHTING ON EMERGENCY SYSTEM
- WALL MOUNT FIXTURES
- CLNG. ACCESS PANEL.
- SECURITY CAMERAS
- ROOF HATCH
- PENDANT FIRE SPRINKLER. SEE FIRE PROTECTION DRAWINGS.
- EXIT SIGN, CEILING OR WALL MOUNT DIRECTIONAL ARROW AS INDICATED

KEY PLAN



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DLR Group
Architecture Engineering Planning Interiors

LICENSED ARCHITECT
MARK V COVINGTON
03/31/2021
STATE OF CALIFORNIA

REFLECTED CLG PLAN - BLDG F - 3RD FLOOR
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

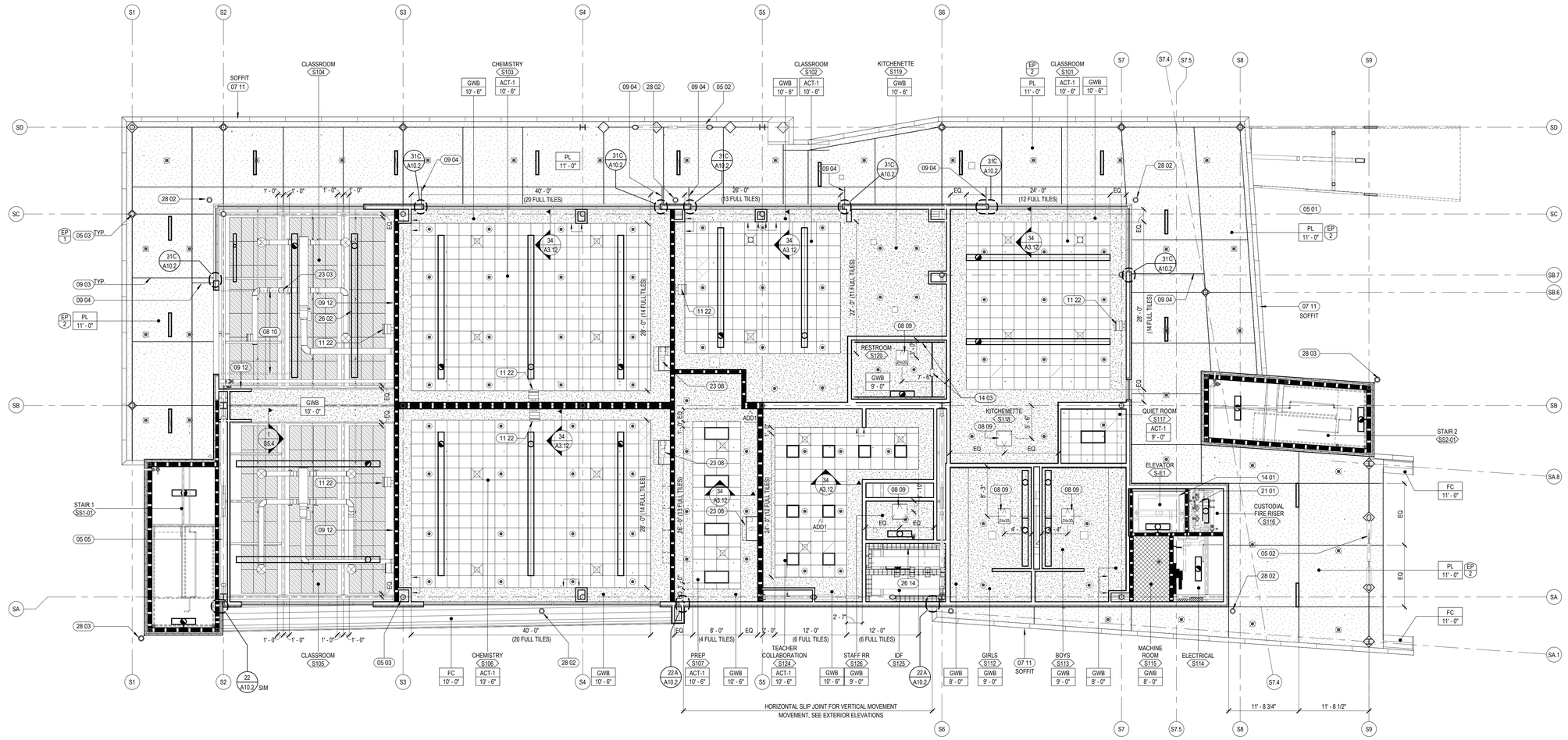
2401 High School Road, Roseville, California 95747

Roseville Joint Union High School District

ADDENDUM 2
07.08.2020
Revisions
2020-07-01 ADD1 Addendum 1
2020-07-08 ADD2 Addendum 2

PROJECT #75-19101-00
DSA APPL. #02-118062
DSA FILE #31-H3

A3.F3.1



NORTH

REFLECTED CEILING PLAN - BUILDING SIERRA - FIRST FLOOR

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

BUILDING SIERRA EXTERIOR SOFFIT IS SIMILAR TO BUILDING FOOTHILL U.N.O. ON THIS SHEET.
SEE SHEET A3.F1.1 PLASTER SOFFIT CONTROL JOINT LOCATION.

KEYNOTES

05 02	STRUCTURAL STEEL FRAMING, ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AESS)
05 03	STRUCTURAL STEEL COLUMN, SEE STRUCTURAL
05 05	STRUCTURAL STEEL BRACE FRAME, SEE STRUCTURAL
07 11	FORMED METAL WALL PANEL SYSTEM, RAINSCREEN SYSTEM
08 09	CLNG. ACCESS PANEL, 30" x 30" UNO (20" X 30" MIN SIZE), SEE DET. 42/A3.12
08 10	SECTIONAL DOOR GUIDE RAIL
09 03	PLASTER ACCESSORIES: CONTROL JOINT
09 04	PLASTER ACCESSORIES: EXPANSION JOINT
09 12	FABRIC WRAPPED PANEL
11 22	OFCI WALL-MOUNTED SHORT THROW PROJECTOR. SEE DET. 44/A3.12. SEE E3.X AND E4.X SERIES FOR POWER AND AV INFRASTRUCTURE
14 01	HYDRAULIC ELEVATOR, SEE A0.0 FOR DEF. SUBMITTAL INFO.
14 03	OVERHEAD/CEILING LIFT AND TRACK, MOUNTED @ 8'-6" AFF
21 01	FIRE RISER, SEE FS DWGS
23 03	MECHANICAL DUCT, SEE M DWGS
23 08	FUME HOOD: 3 SIDES ENCLOSED TO CEILING, ALIGN WITH SOFFIT, SEE M DWGS
26 02	INTERIOR LIGHTING, SEE E DWGS
26 14	ELECTRICAL RACEWAY, SEE E DWGS
28 02	SOFFIT MOUNTED SECURITY CAMERA, SEE E DWGS
28 03	WALL MOUNTED SECURITY CAMERA @ 12'-0" AFF

GENERAL NOTES

1. LIGHT FIXTURE DIMENSIONS ARE TO CENTERLINE OF FIXTURE OR GROUP OF FIXTURES, U.N.O.
2. CENTER CEILING GRIDS IN PERIMETER/ ROOM, TYP. U.N.O
3. ROOMS WITH SINGLE LIGHT FIXTURES SHALL BE CENTERED TO THE ROOM, TYP. U.N.O.
4. CENTER SPRINKLER HEADS, SMOKE & CO-DETECTORS, MOTION & DAYLIGHT SENSORS, MECH. GRILLES, AND SIM. DEVICES IN CLNG. TILE AND ALIGN W/ LIGHT FIXTURES, U.N.O., RE: 46/A3.12.
5. PAINT GYP. BD. CLNGS. & SOFFITS P1, U.N.O. PAINT FINISH TO BE SAME AT FACE AND UNDERSIDE OF SOFFITS. REFER TO FINISH PLAN FOR COLOR SELECTIONS.
6. PAINT EXPOSED CEILINGS, DUCTWORK AND EQUIPMENT.
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14. REFER TO ELEC. DWGS. FOR FIXTURE TYPES. PROVIDE BACKING AT ALL LOCATIONS WHERE WALL BRACING IS REQD.

EXTERIOR RCP FINISH LEGEND

EP 1	EXT. PAINT - MFR: DUNN EDWARDS, COLOR: DARK PEWTER, NO: DE6314
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EP 4	EXTERIOR PAINT - MFR: DUNN EDWARDS COLOR: STOCKHORSE, NO. DE6126 TYP FOR SILL FLASHING ADJACENT FIBER CEMENT SIDING

CEILING TYPES LEGEND

FOR ADD. CLNG. TYPES AND FINISH SPEC INFO. REFER TO A13 SHEETS

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- PL: PLASTER CEILING
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- RATED 1 HR GWB CEILING
- ACT-1: 2' x 2' ACOUSTIC CEILING TILE
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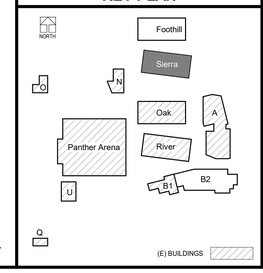
FIXTURE LEGEND

FOR ADD. INFO. SEE ELECTRICAL & SPECIFICATIONS

FIXTURE / DESCRIPTION

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KEY PLAN



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LICENSED ARCHITECT
MARK V COVINGTON
03/31/2021
RENEWAL DATE
STATE OF CALIFORNIA

REFLECTED CLG PLAN - BLDG S - 1ST FLOOR
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

2401 High School Road, Roseville, California 95747

Roseville Joint Union High School District

ADDENDUM 2
07.08.2020
Revisions

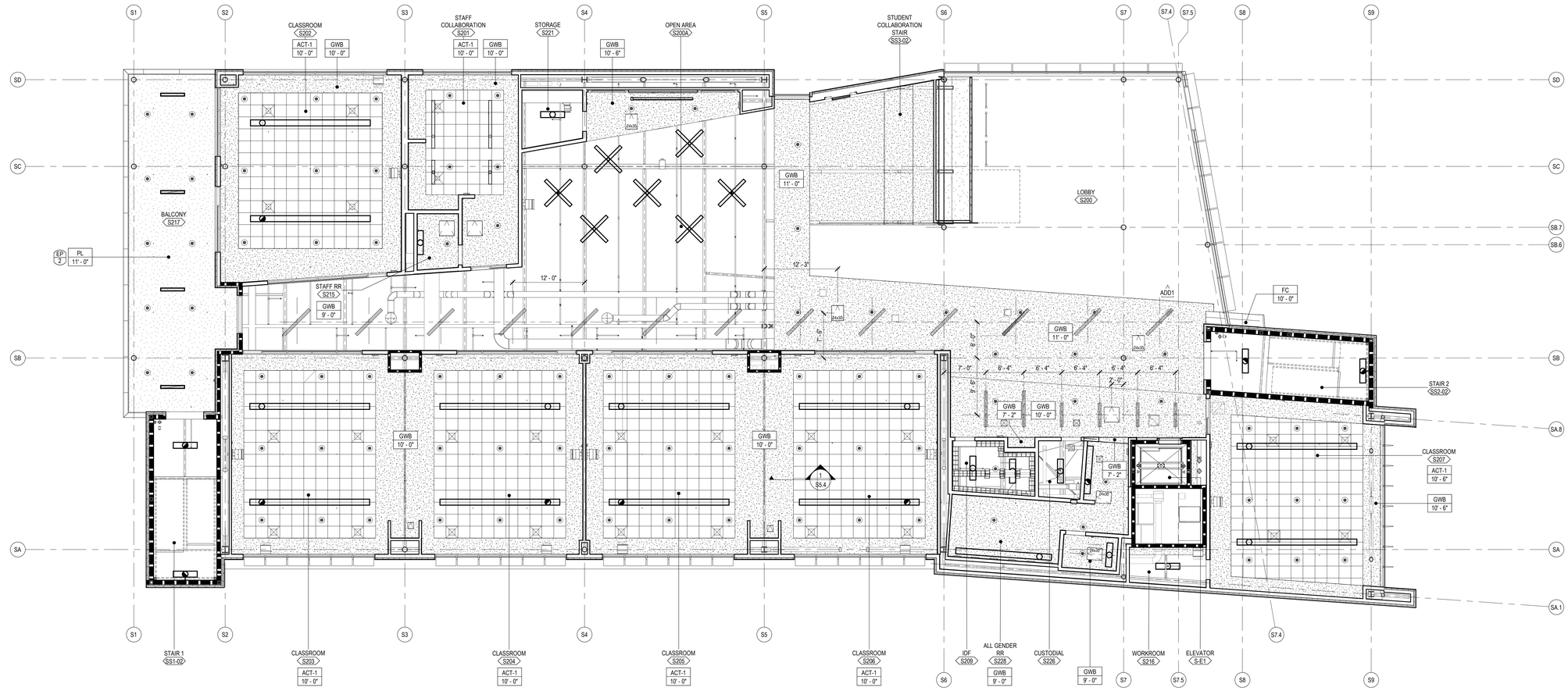
2020-07-01 ADD1 Addendum 1

PROJECT #75-19101-00
DSA APPL. #02-118062
DSA FILE #31-H3

A3.S1.1

ADD1 2020-07-01

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ADD1 2020-07-01

BIM 360://75-19101-00 Roseville JUHSD - West Park Phase 2/75-19101-00_AR_2019.rvt
7/8/2020 4:39:04 PM

NORTH

REFLECTED CEILING PLAN - BUILDING SIERRA - SECOND FLOOR

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

BUILDING SIERRA 2nd FLOOR IS IDENTICAL TO BUILDING FOOTHILL U.N.O. ON THIS PLAN.
SEE SHEET A3.F2.1 FOR INFORMATION NOT SHOWN

KEYNOTES

BUILDING SIERRA 2nd FLOOR IS IDENTICAL TO
BUILDING FOOTHILL U.N.O. ON THIS PLAN.
SEE SHEET A3.F2.1 FOR INFORMATION NOT SHOWN

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EXTERIOR RCP FINISH LEGEND

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- EP 4 — EXTERIOR PAINT - MFR: DUNN EDWARDS COLOR: STOCKHORSE, NO. DE6126 TYP FOR SILL FLASHING ADJACENT FIBER CEMENT SIDING

CEILING TYPES LEGEND

FOR ADD. CLNG. TYPES AND FINISH SPEC INFO. REFER TO A13 SHEETS

- EXPOSED CLNG: PAINT ALL EXPOSED COMPONENTS INCL. BUT NOT LIMITED TO STRUCT. FRAMING, MEP ITEMS (DUCTS, CONDUITS, PIPES, HANGARS, ETC.), SPRAY ON FIRE PROOFING, U.N.O.
- PL — PLASTER CEILING
- GWB CEILING
- RATED 1 HR GWB CEILING
- ACT-1 — 2' x 2' ACOUSTIC CEILING TILE
- 2' x 4' ACOUSTICAL CEILING PANEL, PAINTED
- FC — 1/4" x 12" FIBER CEMENT SOFFIT PANELS

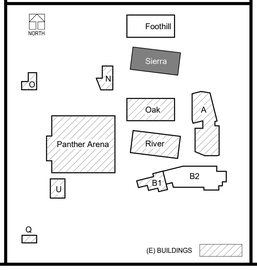
FIXTURE LEGEND

FOR ADD. INFO. SEE ELECTRICAL & SPECIFICATIONS

FIXTURE / DESCRIPTION

- DIFFUSER (SUPPLY)
- DIFFUSER (RETURN)
- RECESSED FIXTURES
- PENDANT FIXTURES
- SURFACE MOUNT FIXTURES
- *NOTE ALL PENDANT FIXTURES AT CLASSROOMS TO BE 8' - 4" AFF TO B.O. OF FIXTURE U.O.N.
- LIGHTING ON EMERGENCY SYSTEM
- WALL MOUNT FIXTURES
- CLNG. ACCESS PANEL.
- SECURITY CAMERAS
- ROOF HATCH
- PENDANT FIRE SPRINKLER. SEE FIRE PROTECTION DRAWINGS.
- EXIT SIGN, CEILING OR WALL MOUNT DIRECTIONAL ARROW AS INDICATED

KEY PLAN



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LICENSED ARCHITECT
MARK V COVINGTON
03/31/2021
RENEWAL DATE
STATE OF CALIFORNIA

REFLECTED CLG PLAN - BLDG S - 2ND FLOOR
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

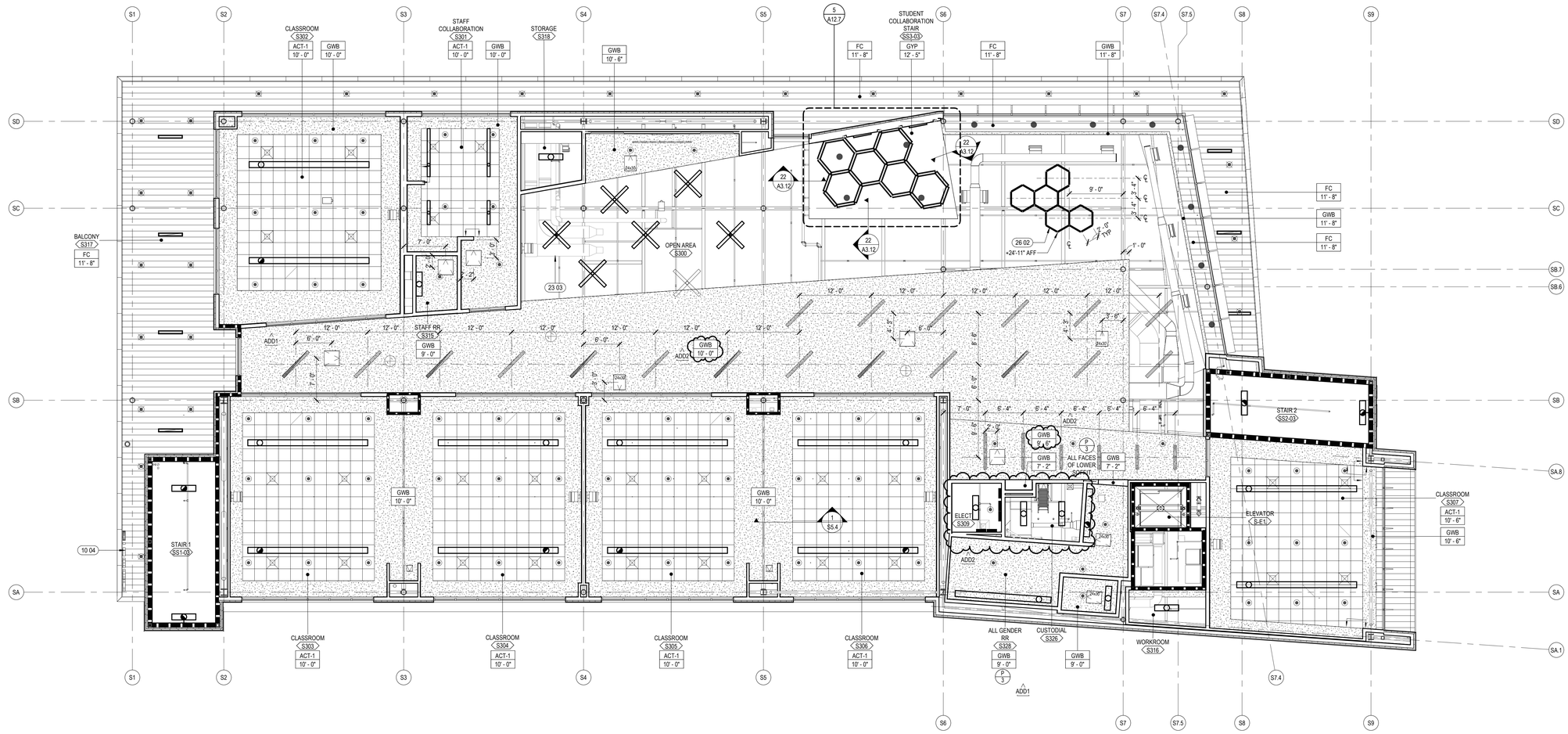
2401 High School Road, Roseville, California 95747

Roseville Joint Union High School District

ADDENDUM 2
07.08.2020
Revisions
2020-07-01 ADD1 Addendum 1

PROJECT #75-19101-00
DSA APPL. #02-118062
DSA FILE #31-H3

A3.S2.1



ADD2 2020-07-08
ADD1 2020-07-01

BIM 360://75-19101-00 Roseville JUHSD - West Park Phase 2/75-19101-00_AR_2019.rvt
7/8/2020 4:35:17 PM

NORTH

REFLECTED CEILING PLAN - BUILDING SIERRA - THIRD FLOOR

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

BUILDING SIERRA 3rd FLOOR IS IDENTICAL TO BUILDING FOOTHILL U.N.O. ON THIS PLAN.
SEE SHEET A3.F3.1 FOR INFORMATION NOT SHOWN

KEYNOTES

10 04 SIGNAGE, SEE A14 SERIES SHEETS
23 03 MECHANICAL DUCT, SEE M DWGS
26 02 INTERIOR LIGHTING, SEE E DWGS

GENERAL NOTES

1. LIGHT FIXTURE DIMENSIONS ARE TO CENTERLINE OF FIXTURE OR GROUP OF FIXTURES, U.N.O.
2. CENTER CEILING GRIDS IN PERIMETER/ ROOM, TYP. U.N.O
3. ROOMS WITH SINGLE LIGHT FIXTURES SHALL BE CENTERED TO THE ROOM, TYP. U.N.O.
4. CENTER SPRINKLER HEADS, SMOKE & CO-DETECTORS, MOTION & DAYLIGHT SENSORS, MECH. GRILLES, AND SIM. DEVICES IN CLNG. TILE AND ALIGN W/ LIGHT FIXTURES, U.N.O., RE: 46/A3.12.
5. PAINT GYP. BD. CLNGS. & SOFFITS P1, U.N.O. PAINT FINISH TO BE SAME AT FACE AND UNDERSIDE OF SOFFITS. REFER TO FINISH PLAN FOR COLOR SELECTIONS.
6. PAINT EXPOSED CEILINGS, DUCTWORK AND EQUIPMENT.
7. ALL EXT. PLASTER SOFFITS SHALL BE PAINTED.
8. AT ALL CLNG. TRANSITIONS AT ROOM PERIMETER OR AT CLNG. MATERIAL CHANGES BETN. GYP. BD AND ACT, PROVIDE SHADOW MOLD, SEE 34 & 35/ A3.12
9. ELECTRICAL DEVICES SHOWN FOR LOCATION IN RELATION TO LIGHT FIXTURES AND MECHANICAL DIFFUSERS IN SELECT AREAS. FOR FIXTURE INFORMATION, SEE ELECTRICAL DWGS.
10. PROVIDE ACCESS PANELS IN ENCLOSED AREAS ABOVE GYP. BD. CEILINGS, TYP. COORD. FINAL LOCATIONS WITH ARCHITECT. WHERE POSSIBLE ALIGN W/ LIGHT FIXTURES AND OTHER CLNG. DEVICES. PROVIDE 30" MIN. HEAD CLEARANCE PER CBC 1209.2
11. CONTRACTOR TO NOTIFY ARCHITECT WHERE ACCESS PANEL LOCATIONS DO NOT HAVE A CODE-REQUIRED 30" HEAD CLEARANCE AT LOCATIONS IDENTIFIED IN PLAN.
12. ILLUMINATED EXIT SIGNS AT ALL EXIT DOORS, SEE ELECTRICAL.
13. ALL EXT. WINDOWS TO HAVE WALL-MTD ROLLER SHADES IN MFR. PROVIDED SHADE POCKET WHERE CEILING IS HIGHER THAN T.O. WINDOW AND RECESSED ROLLER SHADES WHERE CEILING ALIGNS WITH T.O. WINDOW. (ADD2)
14. REFER TO ELEC. DWGS. FOR FIXTURE TYPES. PROVIDE BACKING AT ALL LOCATIONS WHERE WALL BRACING IS REQD.

EXTERIOR RCP FINISH LEGEND

EP 1 EXT. PAINT - MFR: DUNN EDWARDS, COLOR: DARK PEWTER, NO: DE6314
EP 2 EXTERIOR PAINT- MFR: DUNN EDWARDS COLOR: WOODED ACRE, NO: DE6130
EP 3 EXTERIOR PAINT - MFR: DUNN EDWARDS COLOR: BLACK LEAD, NO. DE6322 TYP FOR SILL FLASHING ADJACENT THIN BRICK VENEER
EP 4 EXTERIOR PAINT - MFR: DUNN EDWARDS COLOR: STOCKHORSE, NO. DE6126 TYP FOR SILL FLASHING ADJACENT FIBER CEMENT SIDING

CEILING TYPES LEGEND

FOR ADD. CLNG. TYPES AND FINISH SPEC INFO. REFER TO A13 SHEETS

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- PL PLASTER CEILING
- GWB CEILING
- RATED 1 HR GWB CEILING
- ACT-1 2' x 2' ACOUSTIC CEILING TILE
- 2' x 4' ACOUSTICAL CEILING PANEL, PAINTED
- FC 1/4" x 12" FIBER CEMENT SOFFIT PANELS

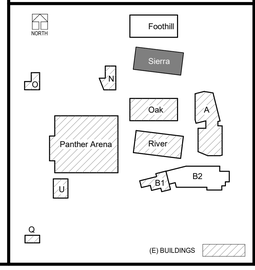
FIXTURE LEGEND

FOR ADD. INFO. SEE ELECTRICAL & SPECIFICATIONS

FIXTURE / DESCRIPTION

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- RECESSED FIXTURES
- PENDANT FIXTURES
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KEY PLAN



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No. C-27366
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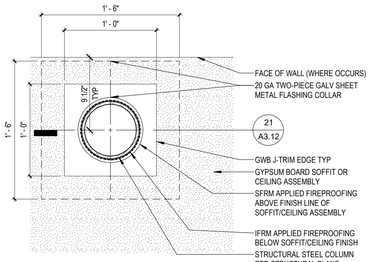
Roseville Joint Union High School District

ADDENDUM 2
07.08.2020
Revisions

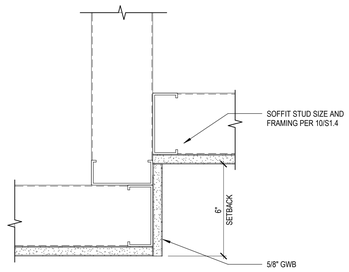
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2020-07-08 ADD2 Addendum 2

PROJECT #75-19101-00
DSA APPL. #02-118062
DSA FILE #31-H3

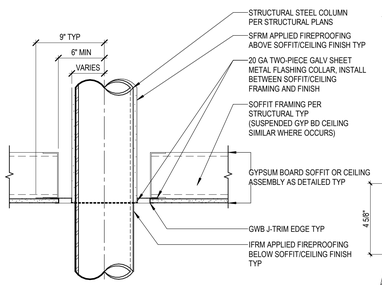
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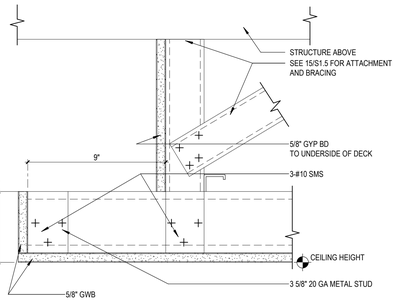
11 A3.12 GWB SOFFIT AT IFRM COLUMN (RCP)
SCALE: 1 1/2" = 1'-0"



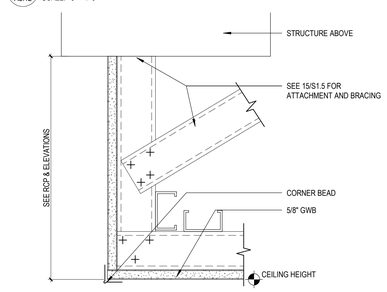
14 A3.12 GYP BD SOFFIT (PLAN)
SCALE: 3" = 1'-0"



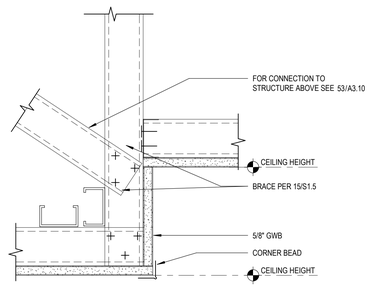
21 A3.12 GWB SOFFIT AT IFRM COLUMN (SECTION)
SCALE: 1 1/2" = 1'-0"



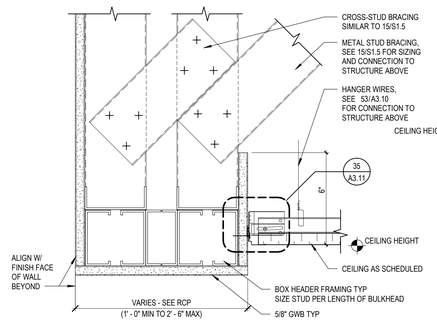
22 A3.12 GYP BD SOFFIT @ STUDENT COLLAB. STAIR
SCALE: 3" = 1'-0"



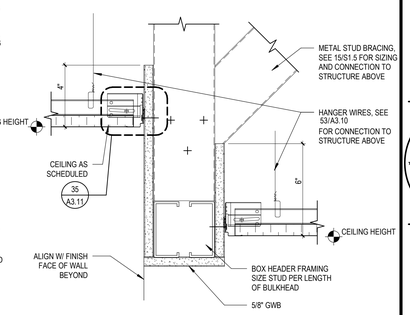
23 A3.12 GYP BD SOFFIT (SECTION)
SCALE: 3" = 1'-0"



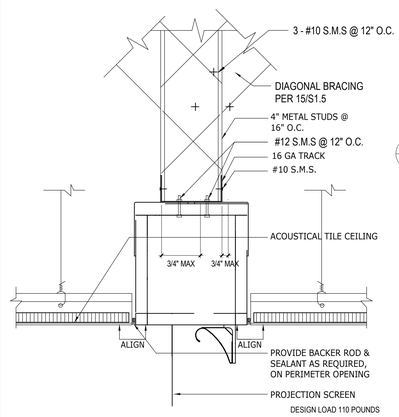
24 A3.12 LOW GYP BD TO HIGH GYP BD
SCALE: 3" = 1'-0"



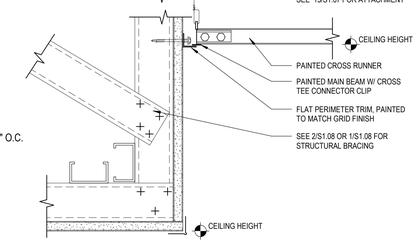
25 A3.12 WIDE BULKHEAD DETAIL
SCALE: 3" = 1'-0"



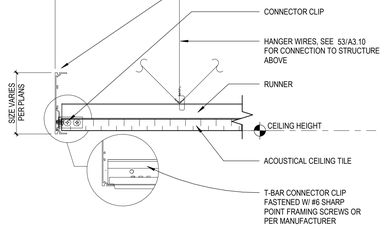
26 A3.12 BULKHEAD DETAIL
SCALE: 3" = 1'-0"



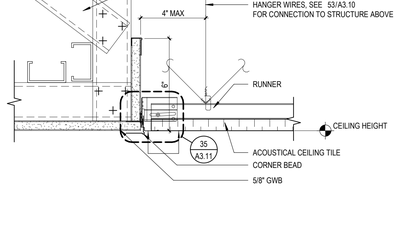
45 A3.12 RECESSED PROJECTION SCREEN IN ACT
SCALE: 3" = 1'-0"



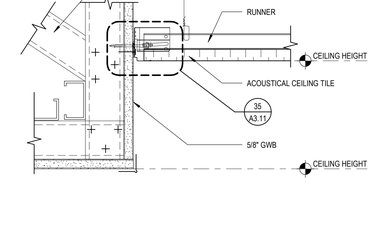
32 A3.12 FLOATING GRID @ GYP BD SOFFIT
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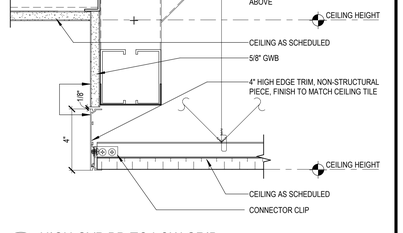
33 A3.12 FLOATING GRID
SCALE: 3" = 1'-0"



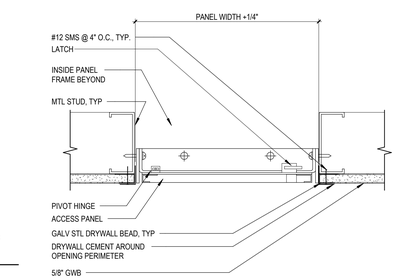
34 A3.12 FLUSH GYP BD TO SUSPENDED GRID
SCALE: 3" = 1'-0"



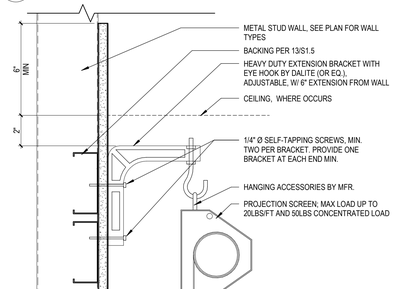
35 A3.12 LOW GYP BD TO HIGH GRID
SCALE: 3" = 1'-0"

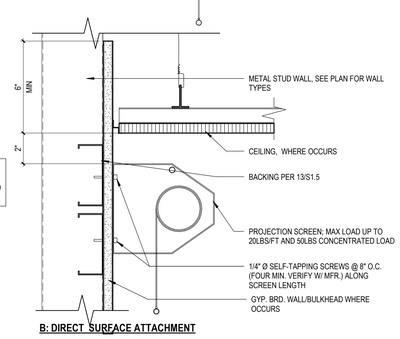


36 A3.12 HIGH GYP BD TO LOW GRID
SCALE: 3" = 1'-0"

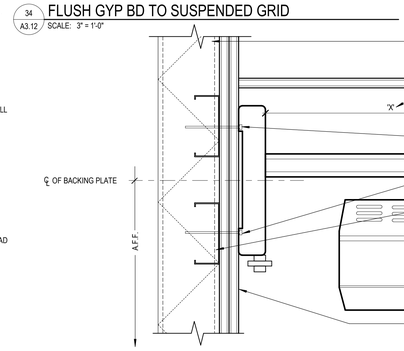


42 A3.12 CEILING ACCESS PANEL @ GYP BD
SCALE: 3" = 1'-0"

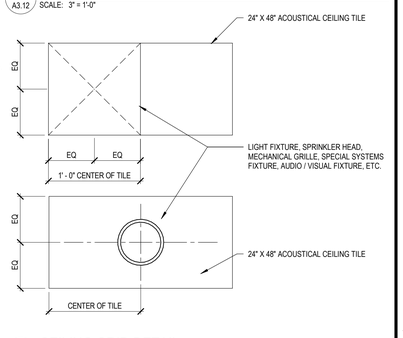




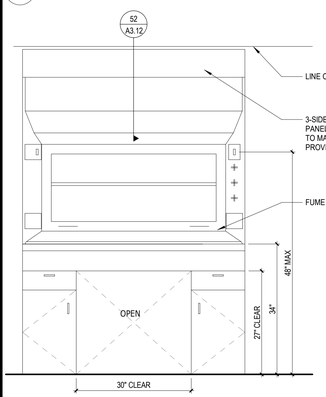
53 A3.12 FLOATING GRID
SCALE: 3" = 1'-0"



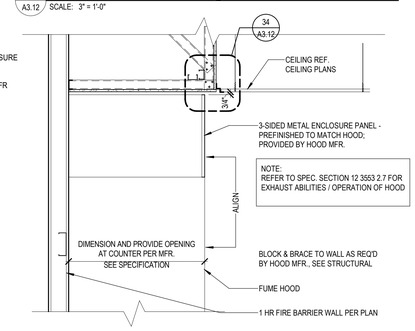
44 A3.12 SURFACE MOUNT SHORT THROW PROJECTOR
SCALE: 3" = 1'-0"



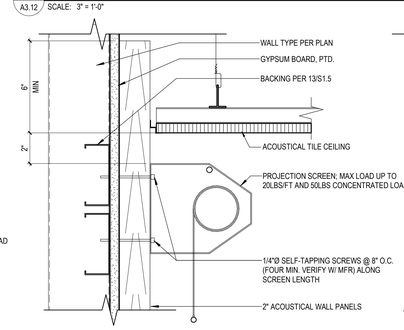
46 A3.12 CEILING GRID DETAIL
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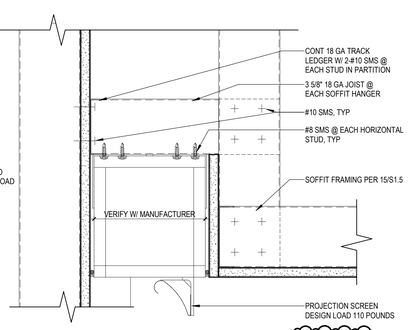
51 A3.12 FUME HOOD & COUNTER ELEVATION
SCALE: 3/4" = 1'-0"



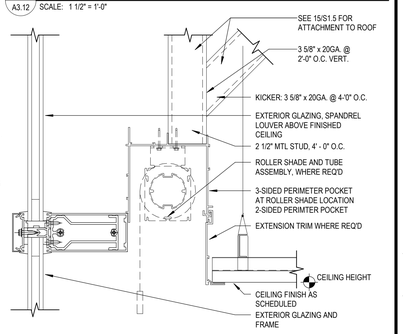
52 A3.12 FUME HOOD ENCLOSURE
SCALE: 3/4" = 1'-0"



54 A3.12 SURFACE MOUNT PROJECTION SCREEN
SCALE: 3" = 1'-0"



55 A3.12 RECESSED PROJECTION SCREEN IN GYP SOFFIT
SCALE: 3" = 1'-0"
ADD2



56 A3.12 ELECTRIC SHADE POCKET @ STOREFRONT
SCALE: 3" = 1'-0"

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LICENSED ARCHITECT
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No. C-27366
03/31/2021
RENEWAL DATE
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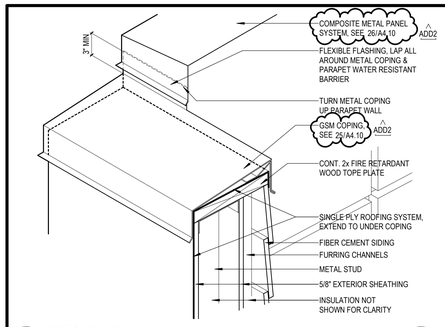
CEILING DETAILS
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)
2401 High School Road, Roseville, California 95747
Roseville Joint Union High School District

ADDENDUM 2
07.08.2020
Revisions
2020-07-08 ADD2 Addendum 2

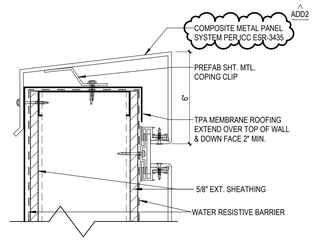
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DSA APPL. #02-118062
DSA FILE #31-H3

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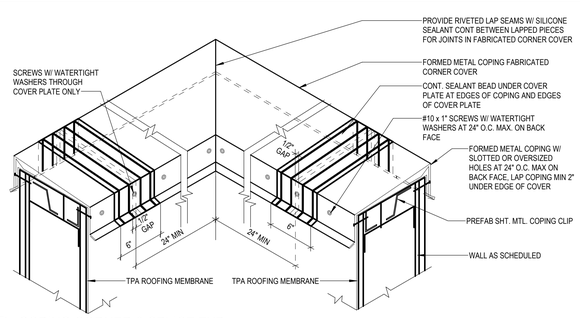
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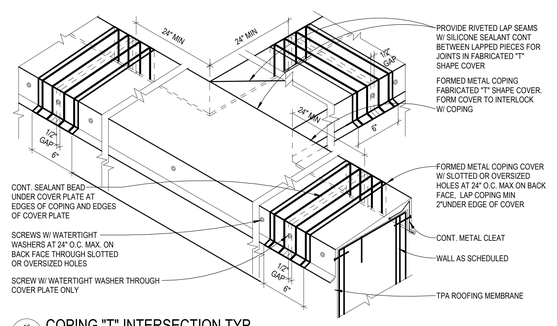
11 A4.10 COPING TO METAL PANEL CAP
SCALE: 1 1/2" = 1'-0"



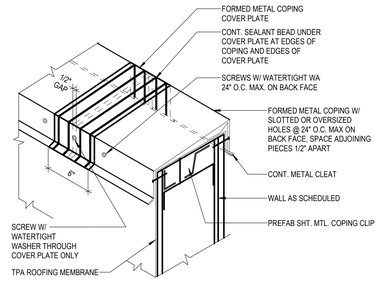
12 A4.10 METAL PANEL PARAPET CAP
SCALE: 3" = 1'-0"



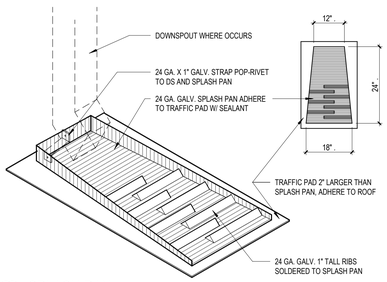
13 A4.10 COPING CORNER & SPLICE TYP.
SCALE: 1 1/2" = 1'-0"



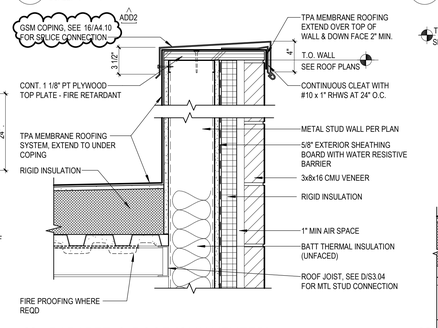
15 A4.10 COPING "T" INTERSECTION TYP.
SCALE: 1 1/2" = 1'-0"



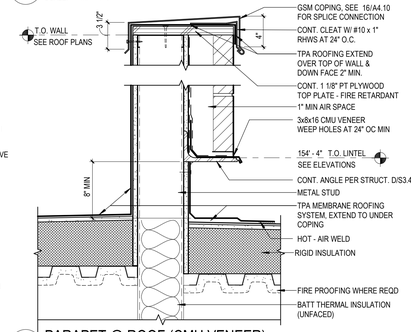
16 A4.10 COPING DETAIL
SCALE: 1 1/2" = 1'-0"



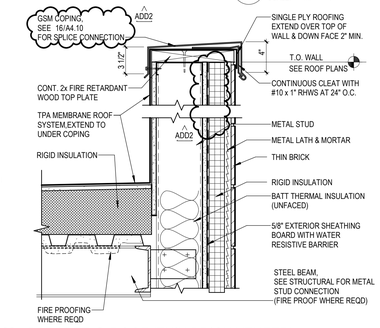
21 A4.10 SPLASH PAN
SCALE: 1" = 1'-0"



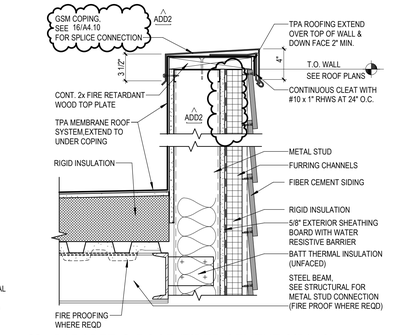
22 A4.10 PARAPET @ ROOF (CMU VENEER)
SCALE: 1 1/2" = 1'-0"



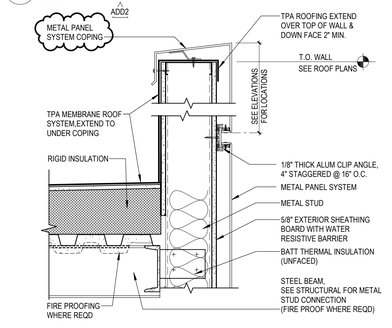
23 A4.10 PARAPET @ ROOF (CMU VENEER)
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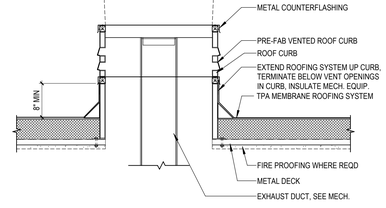
24 A4.10 PARAPET @ ROOF (THIN BRICK VENEER)
SCALE: 1 1/2" = 1'-0"



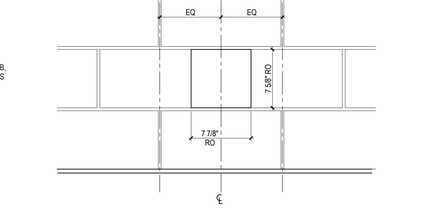
25 A4.10 PARAPET @ ROOF (FIBER CEMENT SIDING)
SCALE: 1 1/2" = 1'-0"



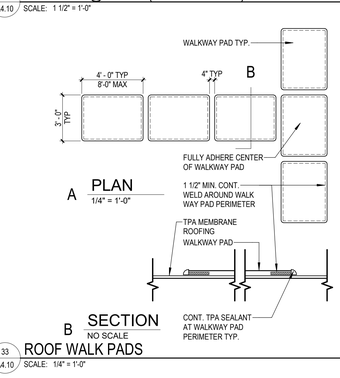
26 A4.10 PARAPET @ ROOF (METAL PANEL CAP)
SCALE: 1 1/2" = 1'-0"



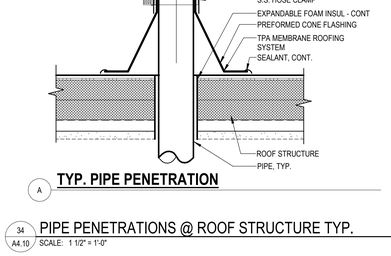
31 A4.10 OVERFLOW DOWNSPOUT AT THIN BRICK
SCALE: 3" = 1'-0"



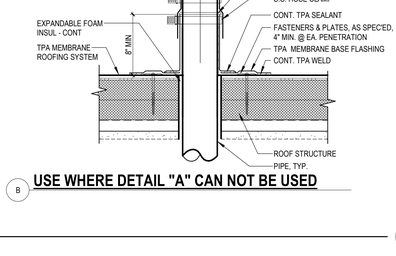
32 A4.10 OVERFLOW DOWNSPOUT AT LAP SIDING
SCALE: 3" = 1'-0"

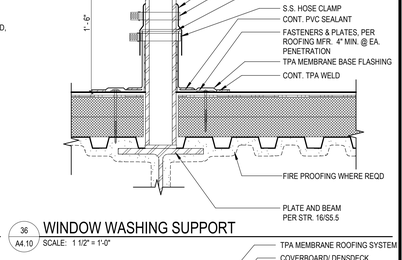


33 A4.10 ROOF WALK PADS
SCALE: 1/4" = 1'-0"

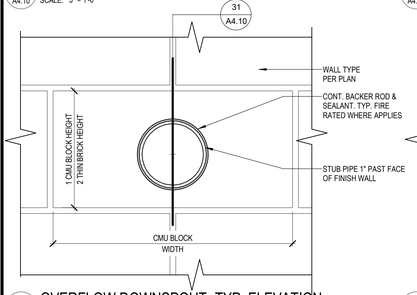


34 A4.10 PIPE PENETRATIONS @ ROOF STRUCTURE TYP.
SCALE: 1 1/2" = 1'-0"

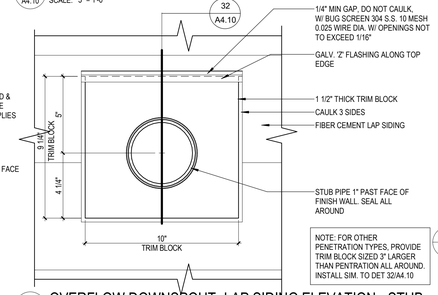




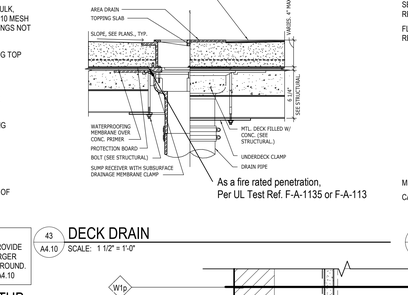
36 A4.10 WINDOW WASHING SUPPORT
SCALE: 1 1/2" = 1'-0"



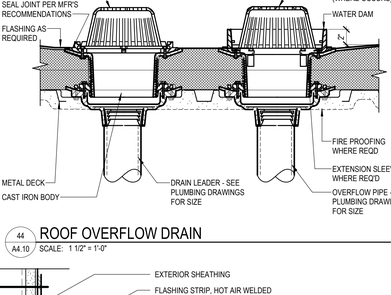
41 A4.10 OVERFLOW DOWNSPOUT- TYP. ELEVATION
SCALE: 3" = 1'-0"



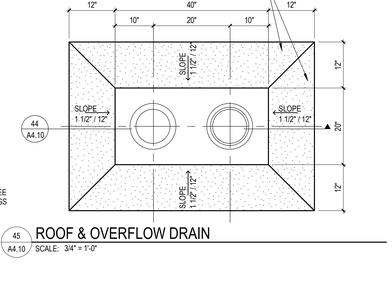
42 A4.10 OVERFLOW DOWNSPOUT- LAP SIDING ELEVATION - STUB
SCALE: 3" = 1'-0"



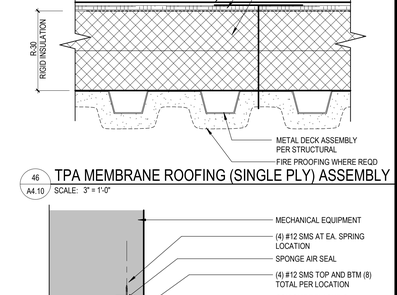
43 A4.10 DECK DRAIN
SCALE: 1 1/2" = 1'-0"



44 A4.10 ROOF OVERFLOW DRAIN
SCALE: 1 1/2" = 1'-0"



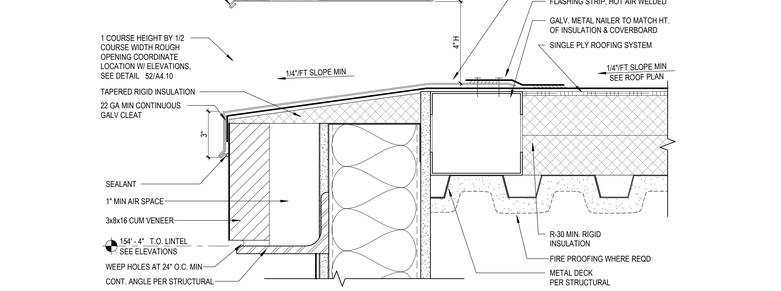
45 A4.10 ROOF & OVERFLOW DRAIN
SCALE: 3/4" = 1'-0"



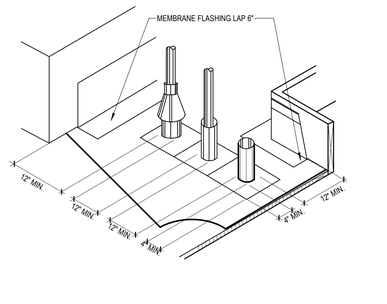
46 A4.10 TPA MEMBRANE ROOFING (SINGLE PLY) ASSEMBLY
SCALE: 3" = 1'-0"

51 A4.10 EXHAUST FAN CURB/SHAFT
SCALE: 3/4" = 1'-0"

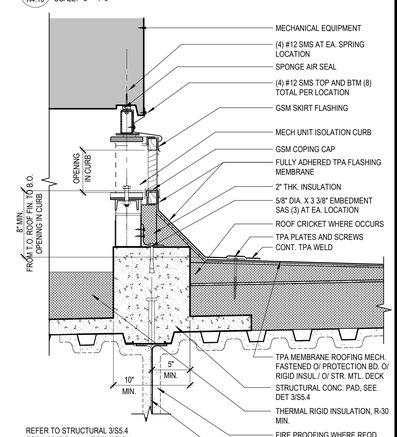
52 A4.10 SCUPPER ELEVATION
SCALE: 1 1/2" = 1'-0"



53 A4.10 THRU WALL SCUPPER
SCALE: 3" = 1'-0"



54 A4.10 TYP. PIPE SPACING AT SINGLE PLY ROOFING
SCALE: 1" = 1'-0"



56 A4.10 MECHANICAL CONCRETE CURB
SCALE: 1 1/2" = 1'-0"

ADD2 2020-07-08

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7/7/2020 10:41:04 PM

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LICENSED ARCHITECT
MARK V. COVINGTON
No. C-27366
03/31/2021
RENEWAL
STATE OF CALIFORNIA

ROOF DETAILS
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

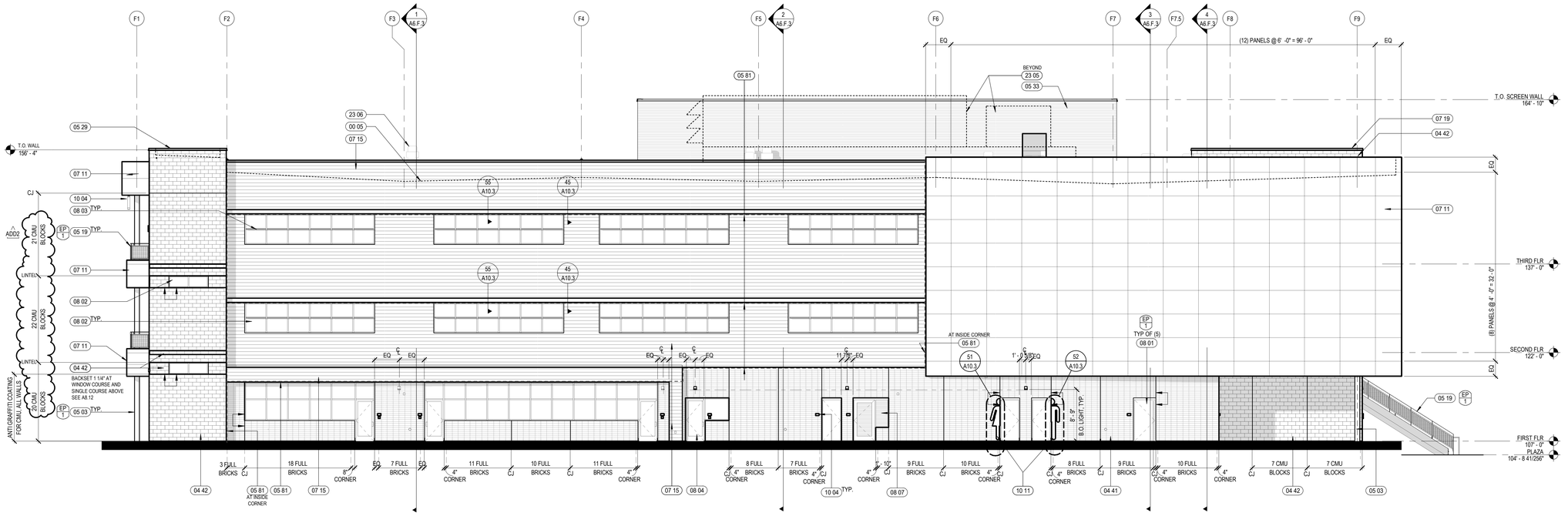
2401 High School Road, Roseville, California 95747

Roseville Joint Union High School District

ADDENDUM 2
07.08.2020
Revisions
2020-07-08 ADD2 Addendum 2

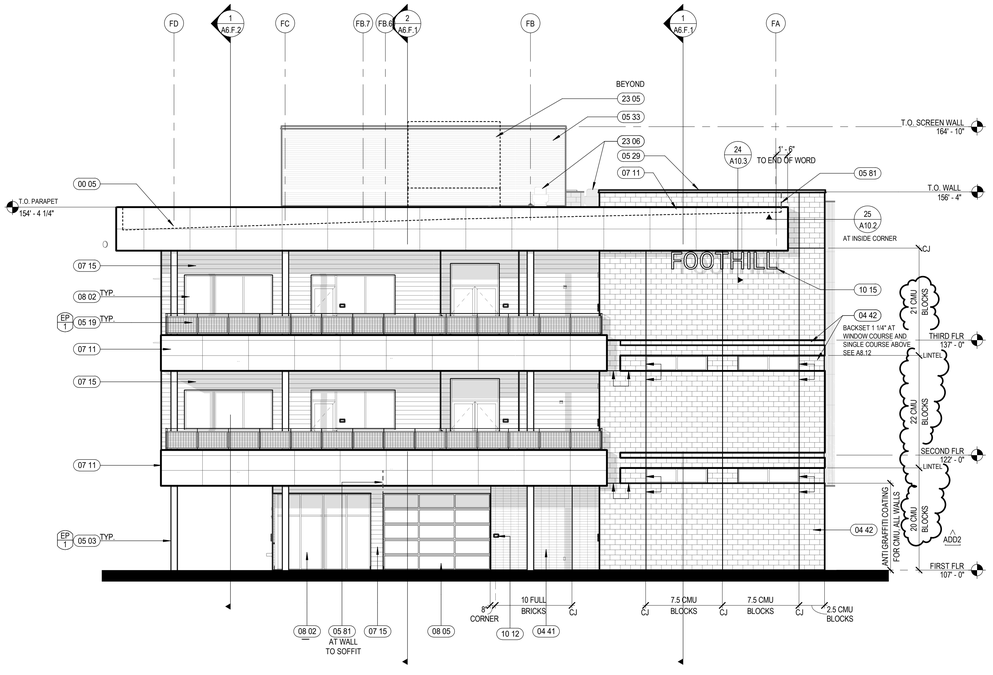
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DSA APPL. #02-118062
DSA FILE #31-H3

A4.10



1 / A5.F.1 BUILDING FOOTHILL - SOUTH ELEVATION

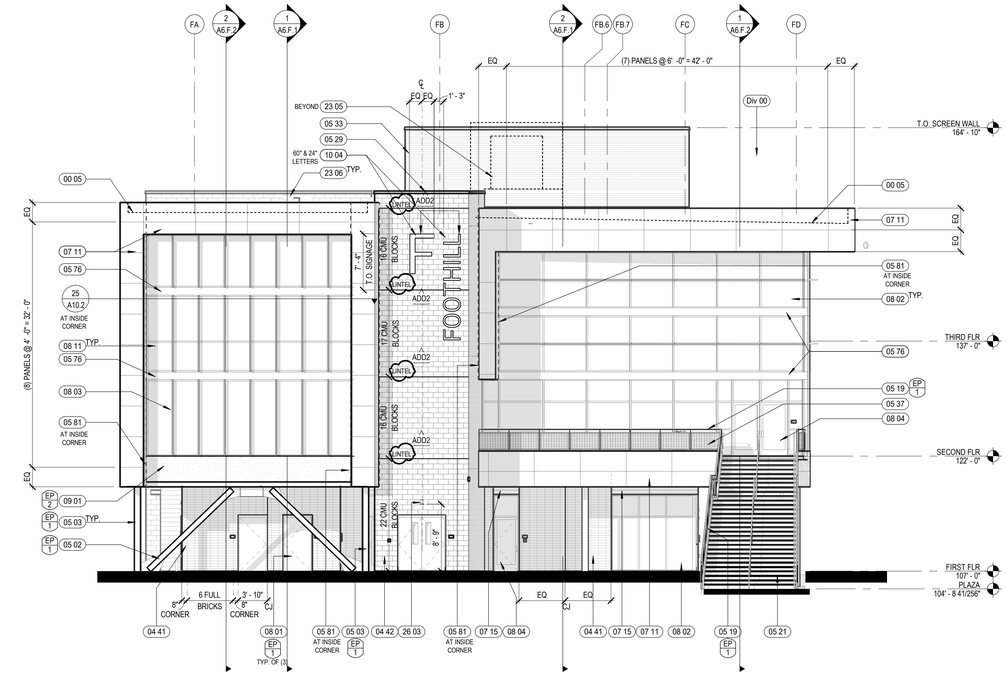
SCALE: 1/8" = 1'-0"



ADD2 2020-07-08

2 / A5.F.1 BUILDING FOOTHILL - WEST ELEVATION

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



3 / A5.F.1 BUILDING FOOTHILL - EAST ELEVATION

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

KEYNOTES

00 05 LINE OF ROOF BEYOND SHOWN DASHED
04 41 ADHERED THIN BRICK MASONRY VENEER ASSEMBLY, SEE DET W2/CP3.3. SEE GEN. NOTE #5 ON EXT. ELEVATIONS.
04 42 ANCHORED CMU MASONRY VENEER ASSEMBLY, SEE DET W1/CP3.3
05 02 STRUCTURAL STEEL FRAMING, ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AESS)
05 03 STRUCTURAL STEEL COLUMN, SEE STRUCTURAL
05 19 STEEL GUARDRAIL, PRIMED AND PAINTED (GALV. AT EXTERIOR) W/ SS FRAME AND MESH INSERT, SEE DET 55/A10.4
05 21 CONC FILLED METAL PAN STAIRS, SEE SHEET A8.10
05 29 GSM COPING CAP, PAINTED
05 33 METAL WALL PANEL SIDING O/ STRUCTURAL STL. FRAMING, 20 GA. BOX RIB, PREFINISHED, SEE EXT ELEVS FOR COLOR
05 37 STAINLESS STEEL WIRE MESH AND FRAME
05 76 ALUMINUM CLADDING/BREAK METAL O/ STRUCTURAL BEAM
05 81 SLIP JOINT FRAMING, SEE A10.2 & STRUCTURAL FOR EXT. AND INT. METAL STUD DETAILS
07 11 FORMED METAL WALL PANEL SYSTEM, RAINSCREEN SYSTEM
07 15 FIBER CEMENT SIDING SYSTEM, LAP SIDING
07 19 GSM COPING, PAINTED TO MATCH ADJACENT SURFACE
08 01 HOLLOW METAL DOOR AND FRAME, PRIMED & PAINTED. SEE DOOR SCHEDULE
08 02 ALUMINUM FRAMED STOREFRONT, SEE A9.2 & A9.3
08 03 ALUMINUM FRAMED STOREFRONT: INTEGRAL SHADE FIN MULLION. SEE 51/A9.10
08 04 ALUMINUM FRAMED STOREFRONT: DOOR
08 05 GLAZED, INSULATED SECTIONAL DOOR, SEE DET 56/A9.12
08 07 IN-WALL LOUVER, SEE M DWGS
08 11 ALUMINUM FRAMED CURTAINWALL, SEE A9.2 & A9.3
09 01 CEMENT PLASTER SYSTEM
10 04 SIGNAGE, SEE A14 SERIES SHEETS
10 11 SIGNAGE, RESTROOM FIGURES. SEE A14 SERIES SHEETS
10 12 NOT USED
10 15 27" TALL CLEAR ANODIZED ALUMINUM CHANNEL LETTERS, FONT: ROBOTO, ATTACHED TO UNDERSIDE OF SOFFIT
23 05 ROOF TOP MECHANICAL UNIT, SEE M DWGS
23 06 ROOF TOP EXHAUST FAN, SEE M DWGS
26 03 EXTERIOR LIGHTING, SEE E DWGS
Div 00 General

LEGEND

- FIBER CEMENT LAP SIDING — COLOR: SMOKEY ALDER
- ANCHORED CMU VENEER — SIZE: 3" x 8" x 16", RUNNING BOND — COLOR: BEIGE
- ADHERED THIN-BRICK VENEER — SIZE: 11 5/8" x 3 5/8", STACKED PATTERN — COLOR: MANGANESE IRONSPOT
- FORMED METAL WALL PANEL RAINSCREEN SYSTEM
- MECHANICAL SCREEN W/ GALVANIZED AND PAINTED HSS STRUCTURAL FRAME AND GALVANIZED FORMED METAL PANEL, RIBBED PROFILE, PRE-FINISHED
- EP 1 — EXTERIOR PAINT - MFR: DUNN EDWARDS — COLOR: DARK PEWTER, NO: DE6314
- EP 2 — EXTERIOR PAINT- MFR: DUNN EDWARDS — COLOR: WOODED ACRE, NO: DE6130
- EP 3 — EXTERIOR PAINT - MFR: DUNN EDWARDS — COLOR: BLACK LEAD, NO. DE6322 — SEE GENERAL NOTE 1
- EP 4 — EXTERIOR PAINT - MFR: DUNN EDWARDS — COLOR: STOCKHORSE, NO. DE6126 — SEE GENERAL NOTE 2

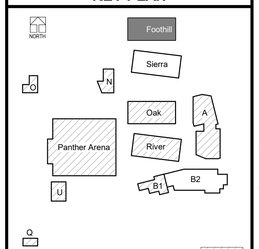
GENERAL NOTES

1. ALL SILL FLASHING AT ADHERED BRICK VENEER TO BE PAINTED "EP/3", TYP U.N.O.
2. ALL SILL FLASHING AT FIBER CEMENT LAP SIDING TO BE PAINTED "EP/4", TYP U.N.O.
3. REFER TO FINISH SPECIFICATIONS FOR ADDITIONAL INFO.
4. REFER TO STRUCTURAL FOR ADDITIONAL INFORMATION ON VERTICAL AND HORIZONTAL EXPANSION JOINTS.
5. THIN-BRICK VENEER LAYOUT: CONTROL JOINTS IN BRICK SHOULD BE CARRIED THROUGH IN PLASTER BASE. GC TO COORDINATE BRICK LAYOUT PRIOR TO APPLYING PLASTER. FULL BRICKS PREFERRED; AVOID CUTS IN BRICKS SMALLER THAN 8". PROVIDE 'L' CORNER PIECES AT ALL JAMB CONDITIONS. CONTROL JOINT LAYOUT PROVIDED AS A GUIDELINE. EXACT LOCATIONS TO BE DETERMINED IN SHOP DRAWINGS TO MINIMIZE CUTS.
6. SEE 54/A10.2 FOR CMU JOINT DETAILS. (ADHERED CMU SIMILAR).
7. PROVIDE ANTI GRAFFITI COATING FOR ENTIRE FIRST FLOOR EXTERIOR FINISHES TO UNDERSIDE OF SECOND FLOOR SOFFIT.

SLIP JOINT FRAMING NOTES

A. SLIP JOINT FRAMING NOTES APPLY TO BUILDINGS F & S.
B. SLIP JOINTS ARE INTENDED TO SEPARATE SLAB SUPPORTED FRAMING AND FRAMING HUNG FROM THE STRUCTURE.
C. JOINTS NOTED ON THE ELEVATIONS ARE TYPICAL FOR THAT SITUATION/ CONDITION. NOT ALL LOCATIONS MAY BE IDENTIFIED ON ELEVATIONS. THE CONTRACTOR SHALL PROCEED WITH THE INTENT OF SLIP JOINTS NOTED IN NOTE "B" AND NOTIFY THE ARCHITECT OF CONFLICTS IN FIELD OR ANY CONDITION WHERE THE USE OF A SLIP JOINT IS UNCLEAR, VIA RFI.
D. SLIP JOINTS ARE INTENDED TO CONTINUE THROUGH THE WALL ASSEMBLY AND INTERIOR WALL FINISH.
E. FOR TYPICAL CONDITIONS, SEE DETAILS 22, 23 & 31 ON SHEET A10.2 FOR TYPICAL CONDITIONS

KEY PLAN



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DLR Group
Architecture Engineering Planning Interiors

LICENSED ARCHITECT
MARK V. COVINGTON
No. C-27366
03/31/2021
STATE OF CALIFORNIA

EXT ELEVS - BLDG F
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

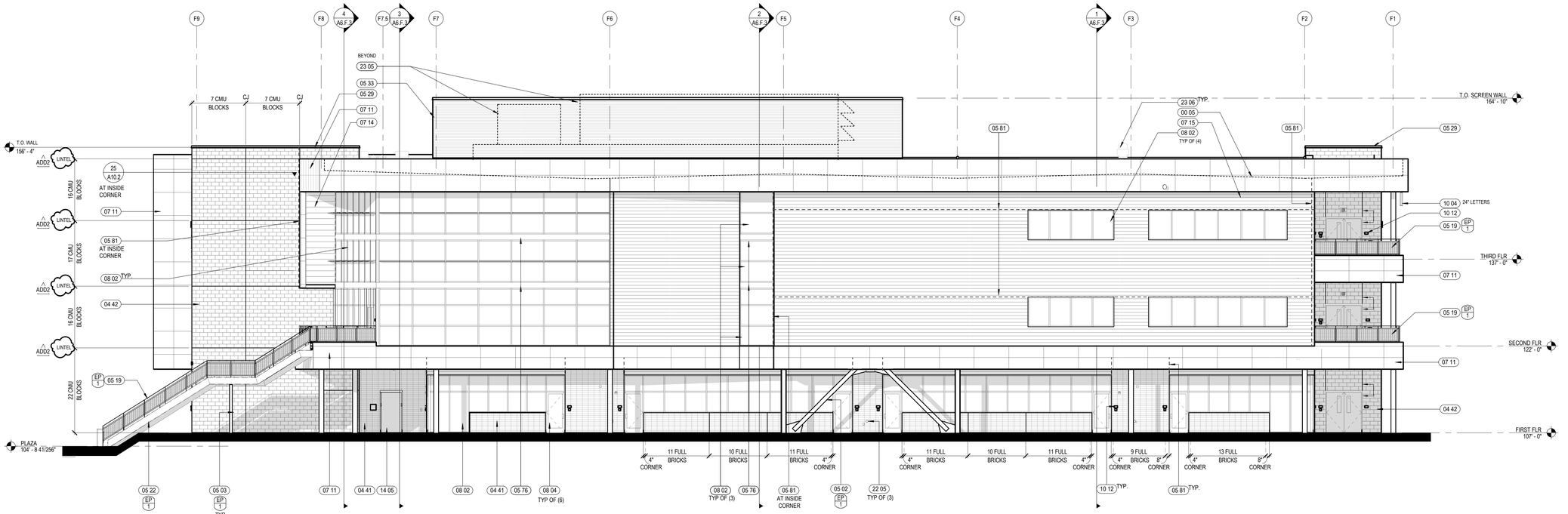
2401 High School Road, Roseville, California 95747
Roseville Joint Union High School District

ADDENDUM 2
07.08.2020
Revisions
2020-07-08 ADD2 Addendum 2

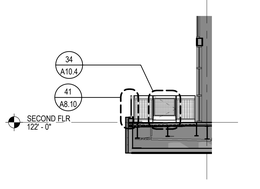
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DSA APPL. #02-118062
DSA FILE #31-H3

A5.F.1

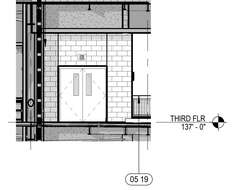
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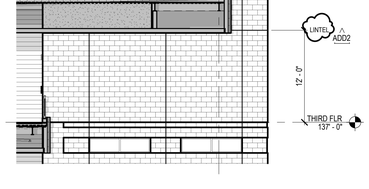
1 / A5.F.2 BUILDING FOOTHILL - NORTH ELEVATION
SCALE: 1/8" = 1'-0"



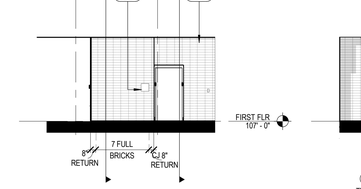
21 / A5.F.2 BLDGS F EAST BALCONY GATE
SCALE: 1/8" = 1'-0"



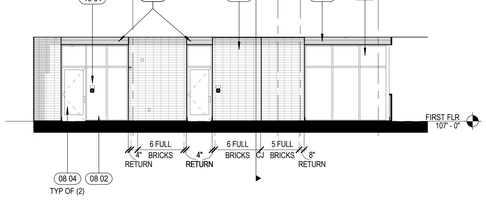
22 / A5.F.2 BLDG F FS1 STAIRS NORTH ELEV
SCALE: 1/8" = 1'-0"



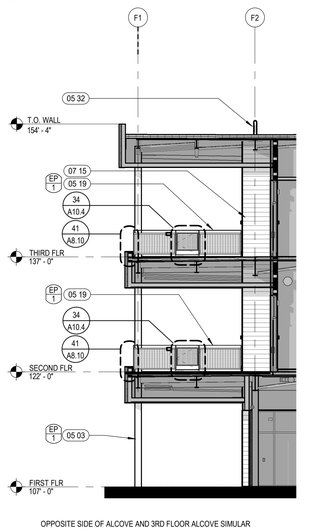
23 / A5.F.2 BLDG F FS1 STAIRS WEST ELEVATION
SCALE: 1/8" = 1'-0"



25 / A5.F.2 BUILDING FOOTHILL - ELEVATOR WALL
SCALE: 1/8" = 1'-0"

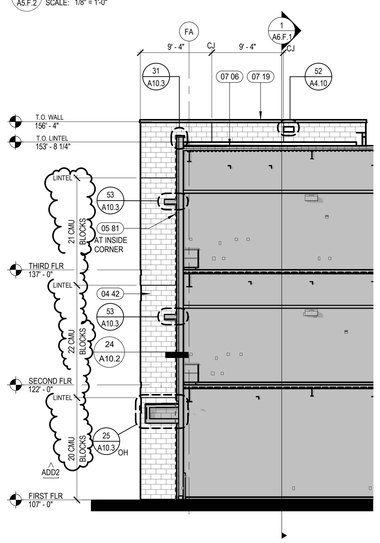


26 / A5.F.2 BUILDING FOOTHILL - PARTIAL EAST ELEVATION
SCALE: 1/8" = 1'-0"

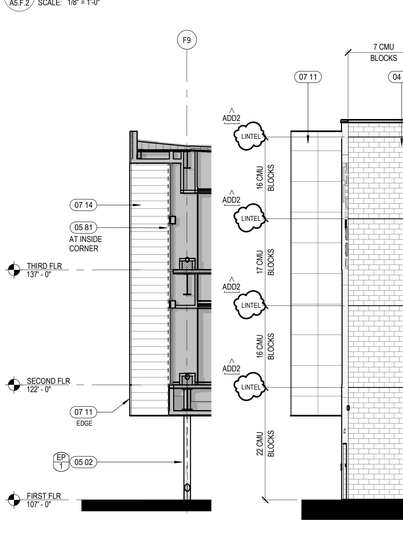


OPPOSITE SIDE OF ALCOVE AND 3RD FLOOR ALCOVE SIMULAR

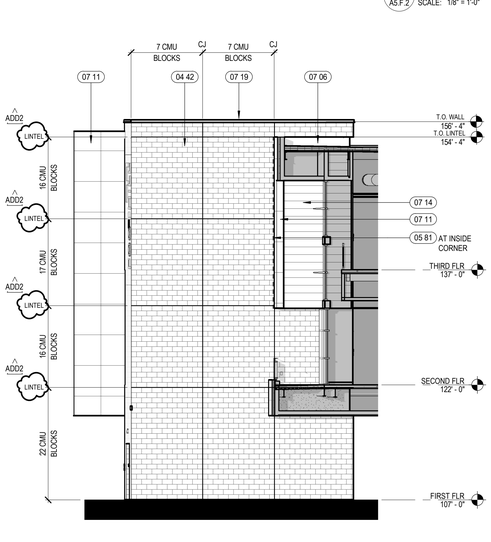
31 / A5.F.2 BUILDING FOOTHILL WEST BALCONY & ALCOVE
SCALE: 1/8" = 1'-0"



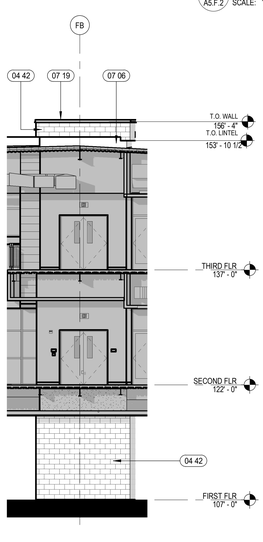
32 / A5.F.2 BUILDING FOOTHILL FS1 STAIRS EAST ELEVATION
SCALE: 1/8" = 1'-0"



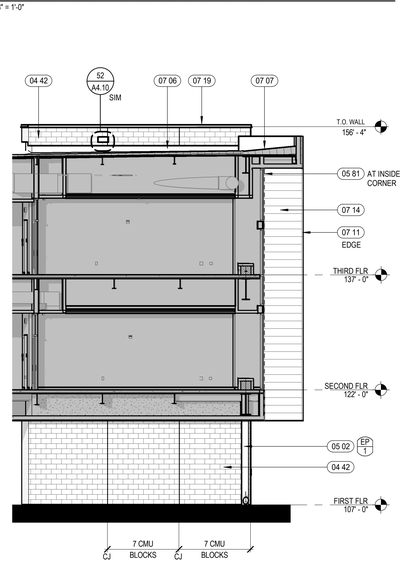
33 / A5.F.2 BUILDING FOOTHILL AT F209 & F309
SCALE: 1/8" = 1'-0"



34 / A5.F.2 BUILDING FOOTHILL - FS2 STAIRS NORTH ELEVATION
SCALE: 1/8" = 1'-0"



BUILDING FOOTHILL FS2 STAIRS WEST ELEV
35 / A5.F.2 SCALE: 1/8" = 1'-0"



36 / A5.F.2 BUILDING FOOTHILL - FS2 STAIRS SOUTH ELEVATION
SCALE: 1/8" = 1'-0"

KEYNOTES

00 05 LINE OF ROOF BEYOND SHOWN DASHED
04 41 ADHERED THIN BRICK MASONRY VENEER ASSEMBLY, SEE DET W2/CP3.3. SEE GEN. NOTE #5 ON EXT. ELEVATIONS.
04 42 ANCHORED CMU MASONRY VENEER ASSEMBLY, SEE DET W1/CP3.3
05 02 STRUCTURAL STEEL FRAMING, ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AESS)
05 03 STRUCTURAL STEEL COLUMN, SEE STRUCTURAL
05 19 STEEL GUARDRAIL, PRIMED AND PAINTED (GALV. AT EXTERIOR) W/ SS FRAME AND MESH INSERT, SEE DET S5/A10.4
05 22 STEEL CHANNEL STRINGER BY STAIR MFR, PRIMED & PAINTED.
05 29 GSM COPING CAP, PAINTED
05 32 ROOF TOP SAFETY TIE BACK
05 33 METAL WALL PANEL SIDING O/ STRUCTURAL STL. FRAMING, 20 GA. BOX RIB, PREFINISHED, SEE EXT ELEVS FOR COLOR
05 76 ALUMINUM CLADDING/BREAK METAL O/ STRUCTURAL BEAM
05 81 SLIP JOINT FRAMING, SEE A10.2 & STRUCTURAL FOR EXT. AND INT. METAL STUD DETAILS
07 06 SINGLE PLY ROOFING SYSTEM
07 07 SHAPED FOAM CRICKET
07 11 FORMED METAL WALL PANEL SYSTEM, RAINSCREEN SYSTEM
07 14 FIBER CEMENT SIDING SYSTEM: SOFFIT PANELS
07 15 FIBER CEMENT SIDING SYSTEM, LAP SIDING
07 19 GSM COPING, PAINTED TO MATCH ADJACENT SURFACE
08 02 ALUMINUM FRAMED STOREFRONT, SEE A9.2 & A9.3
08 04 ALUMINUM FRAMED STOREFRONT: DOOR
10 04 SIGNAGE, SEE A14 SERIES SHEETS
10 12 NOT USED
14 05 ELEVATOR DOOR PER MANUFACTURER
22 05 OVERFLOW DRAIN CLEAN OUT. ROUTE TO EXTERIOR WALL, SEE P DWGS
23 05 ROOF TOP MECHANICAL UNIT, SEE M DWGS
23 06 ROOF TOP EXHAUST FAN, SEE M DWGS

LEGEND

- FIBER CEMENT LAP SIDING — COLOR: SMOKEY ALDER
- ANCHORED CMU VENEER — SIZE: 3" x 8" x 16", RUNNING BOND — COLOR: BEIGE
- ADHERED THIN-BRICK VENEER — SIZE: 11 5/8" x 3 5/8", STACKED PATTERN — COLOR: MANGANESE IRONSPOT
- FORMED METAL WALL PANEL — RAINSCREEN SYSTEM
- MECHANICAL SCREEN W/ GALVANIZED AND PAINTED HSS STRUCTURAL FRAME AND GALVANIZED FORMED METAL PANEL, RIBBED PROFILE, PRE-FINISHED
- EP 1 EXTERIOR PAINT - MFR: DUNN EDWARDS — COLOR: DARK PEWTER, NO: DE6314
- EP 2 EXTERIOR PAINT- MFR: DUNN EDWARDS — COLOR: WOODED ACRE, NO: DE6130
- EP 3 EXTERIOR PAINT - MFR: DUNN EDWARDS — COLOR: BLACK LEAD, NO: DE6322 — SEE GENERAL NOTE 1
- EP 4 EXTERIOR PAINT - MFR: DUNN EDWARDS — COLOR: STOCKHORSE, NO: DE6126 — SEE GENERAL NOTE 2

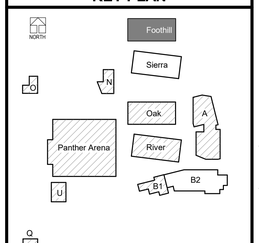
GENERAL NOTES

1. ALL SILL FLASHING AT ADHERED BRICK VENEER TO BE PAINTED "EP3", TYP U.N.O.
2. ALL SILL FLASHING AT FIBER CEMENT LAP SIDING TO BE PAINTED "EP4", TYP U.N.O.
3. REFER TO FINISH SPECIFICATIONS FOR ADDITIONAL INFO.
4. REFER TO STRUCTURAL FOR ADDITIONAL INFORMATION ON VERTICAL AND HORIZONTAL EXPANSION JOINTS.
5. THIN-BRICK VENEER LAYOUT: CONTROL JOINTS IN BRICK SHOULD BE CARRIED THROUGH IN PLASTER BASE. GC TO COORDINATE BRICK LAYOUT PRIOR TO APPLYING PLASTER. FULL BRICKS PREFERRED. AVOID CUTS IN BRICKS SMALLER THAN 8". PROVIDE 'L' CORNER PIECES AT ALL JAMB CONDITIONS. CONTROL JOINT LAYOUT PROVIDED AS A GUIDELINE. EXACT LOCATIONS TO BE DETERMINED IN SHOP DRAWINGS TO MINIMIZE CUTS.
6. SEE 54/A10.2 FOR CMU JOINT DETAILS. (ADHERED CMU SIMILAR).
7. PROVIDE ANTI GRAFFITI COATING FOR ENTIRE FIRST FLOOR EXTERIOR FINISHES TO UNDERSIDE OF SECOND FLOOR SOFFIT.

SLIP JOINT FRAMING NOTES

A. SLIP JOINT FRAMING NOTES APPLY TO BUILDINGS F & S.
B. SLIP JOINTS ARE INTENDED TO SEPARATE SLAB SUPPORTED FRAMING AND FRAMING HUNG FROM THE STRUCTURE.
C. JOINTS NOTED ON THE ELEVATIONS ARE TYPICAL FOR THAT SITUATION CONDITION. NOT ALL LOCATIONS MAY BE IDENTIFIED ON ELEVATIONS. THE CONTRACTOR SHALL PROCEED WITH THE INTENT OF SLIP JOINTS NOTED IN NOTE "B" AND NOTIFY THE ARCHITECT OF CONFLICTS IN FIELD OR ANY CONDITION WHERE THE USE OF A SLIP JOINT IS UNCLEAR, VIA RFI.
D. SLIP JOINTS ARE INTENDED TO CONTINUE THROUGH THE WALL ASSEMBLY AND INTERIOR WALL FINISH.
E. FOR TYPICAL CONDITIONS, SEE DETAILS 22, 23 & 31 ON SHEET A10.2 FOR TYPICAL CONDITIONS

KEY PLAN



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03/31/2021
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EXT ELEVS - BLDG F
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)
2401 High School Road, Roseville, California 95747
Roseville Joint Union High School District

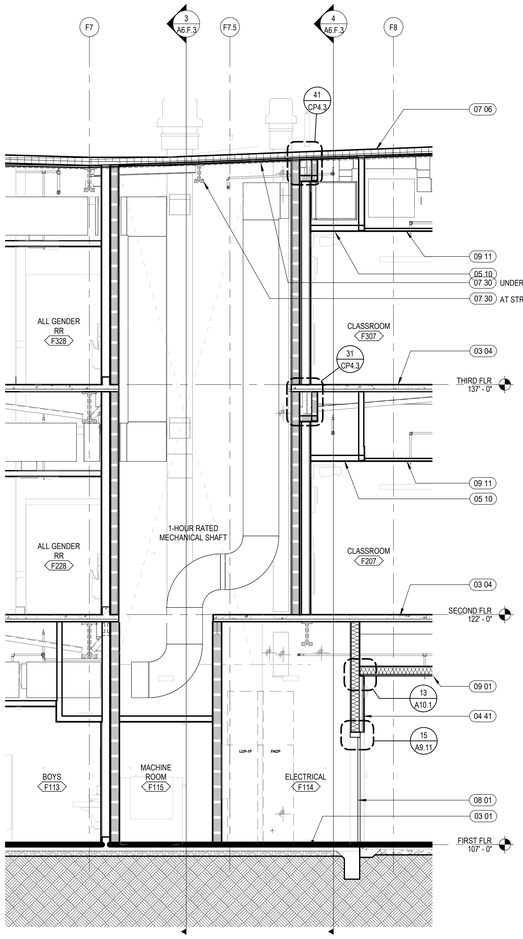
ADDENDUM 2
07.08.2020
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DSA APPL. #02-118062
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A5.F.2

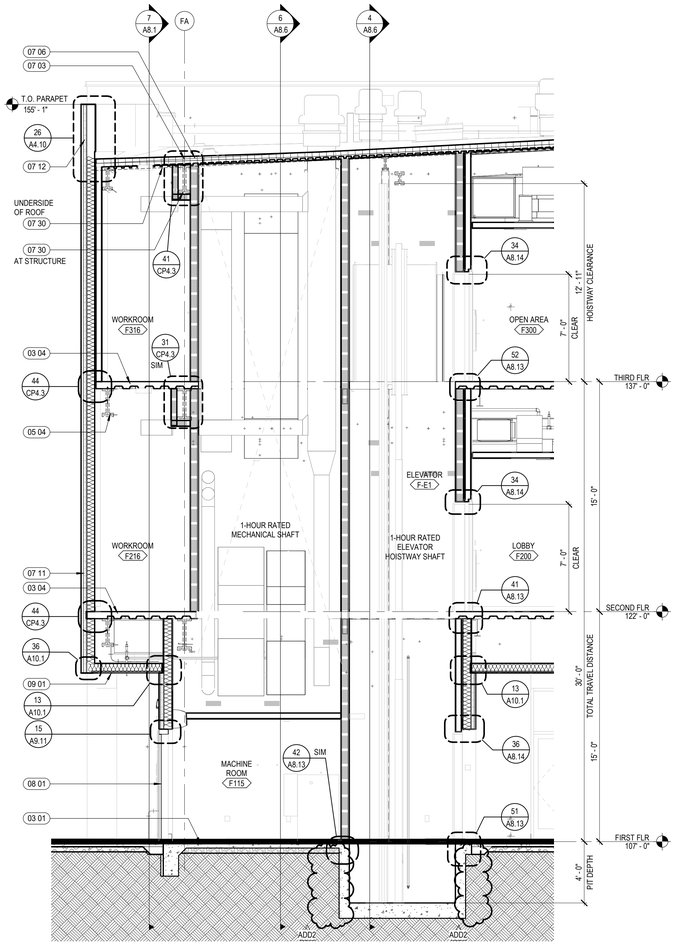
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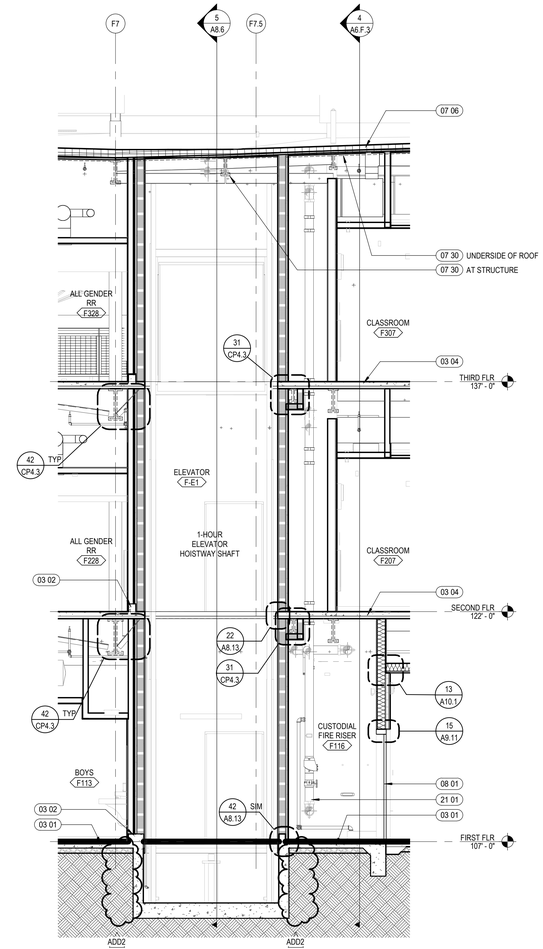
6 A8.6 SECTION MECHANICAL SHAFT - BUILDING FOOTHILL

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



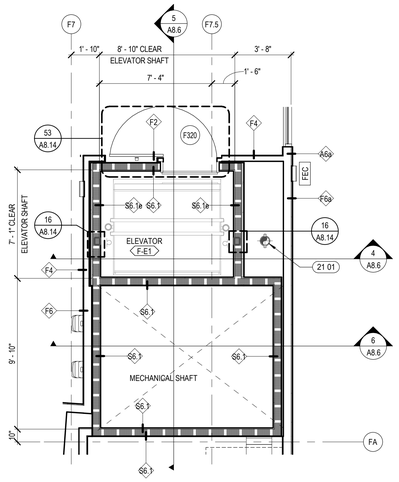
5 A8.6 SECTION - BUILDING FOOTHILL - ELEVATOR

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



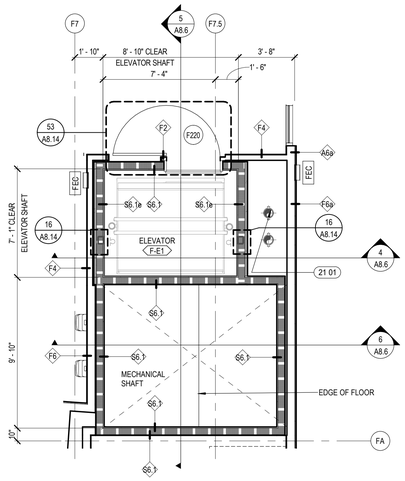
4 A8.6 SECTION - BUILDING FOOTHILL - ELEVATOR

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



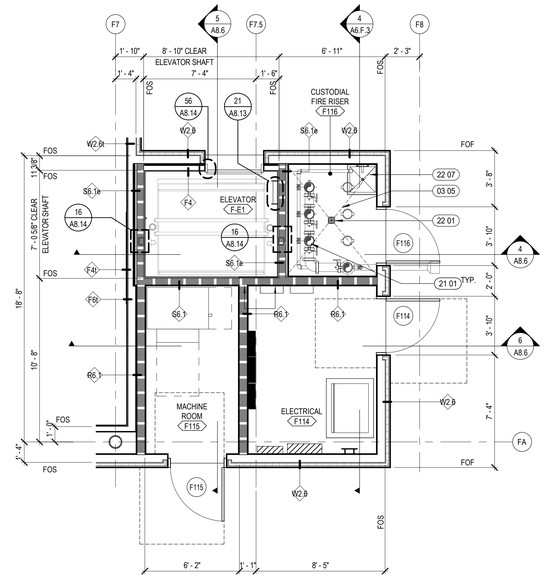
3 A8.6 ENLARGED PLAN - BUILDINGS FOOTHILLL & SIERRA - ELEVATOR - THIRD FLOOR

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



2 A8.6 ENLARGED PLAN - BUILDINGS FOOTHILL & SIERRA - ELEVATOR - SECOND FLOOR

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



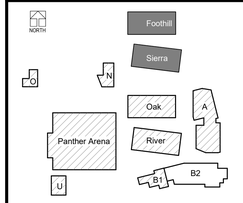
1 A8.6 ENLARGED PLAN - BUILDINGS FOOTHILL & SIERRA - ELEVATOR - FIRST FLOOR

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

KEYNOTES

03 01	CONC. SLAB ON GRADE, SEE STRUCTURAL
03 02	CONC. CURB, SEE STRUCTURAL. COORDINATE WIDTH WITH WALL TYPES PER PLANS
03 04	CONC. SLAB OVER METAL DECKING, SEE STRUCTURAL
03 05	CONC. SLAB SLOPED TO DRAIN
04 41	ADHERED THIN BRICK MASONRY VENEER ASSEMBLY, SEE DET W2/CP3.3. SEE GEN. NOTE #5 ON EXT. ELEVATIONS.
05 04	STRUCTURAL STEEL BEAM, SEE STRUCTURAL
05 10	METAL STUD CEILING JOIST
07 03	THERMAL INSULATION: RIGID, R-30 MIN AT ROOF
07 06	SINGLE PLY ROOFING SYSTEM
07 11	FORMED METAL WALL PANEL SYSTEM, RAINSCREEN SYSTEM
07 12	FORMED METAL WALL PANEL O/PARAPET, SEE DET 26/A4.10
07 30	APPLIED FIREPROOFING
08 01	HOLLOW METAL DOOR AND FRAME, PRIMED & PAINTED. SEE DOOR SCHEDULE
09 01	CEMENT PLASTER SYSTEM
09 11	ACOUSTICAL CEILING: SUSPENDED
21 01	FIRE RISER, SEE FS DWGS
22 01	FLOOR DRAIN, SEE DET 4/A10.4
22 07	MOP SINK, SEE DET 5/A10.4 AND P DWGS

KEY PLAN



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VERT CIRCULATION
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

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Roseville Joint Union High School District

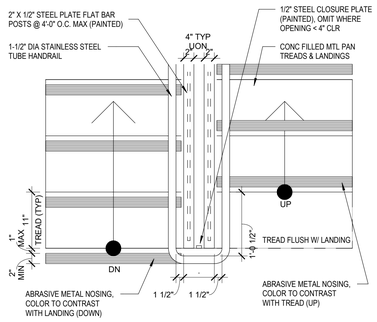
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A8.6

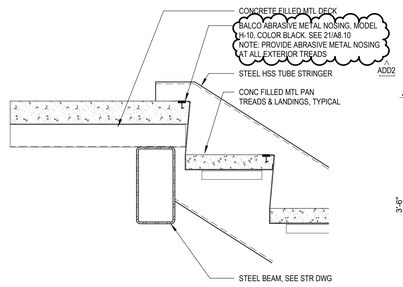
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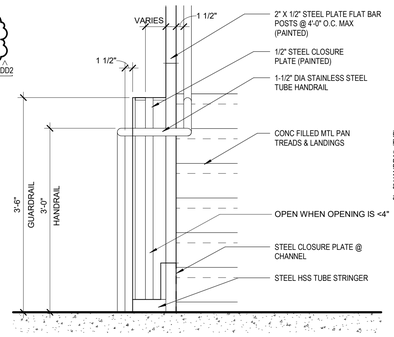


NOTE: PROVIDE ABRASIVE METAL NOSING AT EACH TREAD FOR EXTERIOR STAIRS AND TOP AND BOTTOM TREADS FOR INTERIOR STAIRS, TYP.

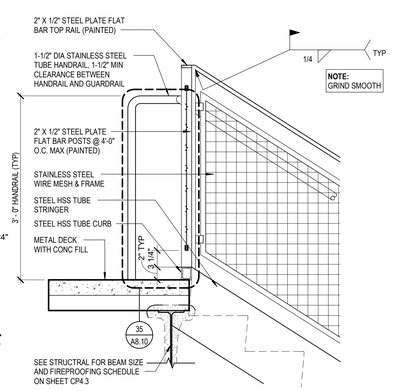
21 A8.10 HANDRAIL/GUARDRAIL CONTINUOUS
SCALE: 1" = 1'-0"



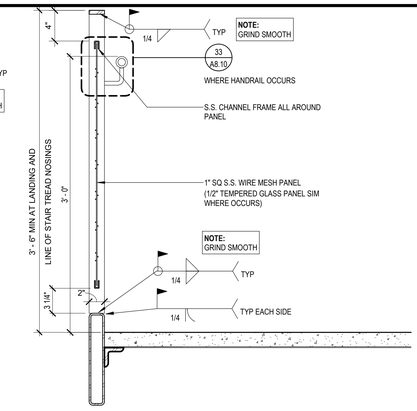
22 A8.10 STEEL PAN STAIR RISER TO FLOOR
SCALE: 1 1/2" = 1'-0"



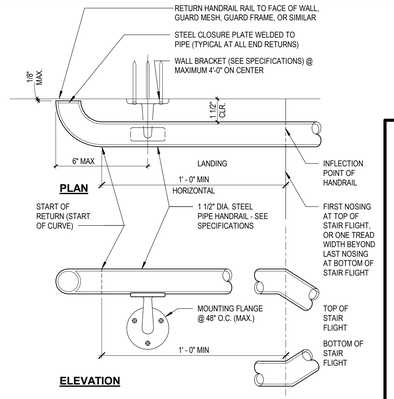
23 A8.10 END RAILING
SCALE: 1" = 1'-0"



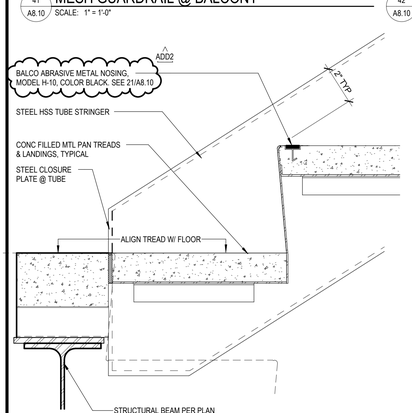
24 A8.10 GUARDRAIL @ TOP LANDING
SCALE: 1" = 1'-0"



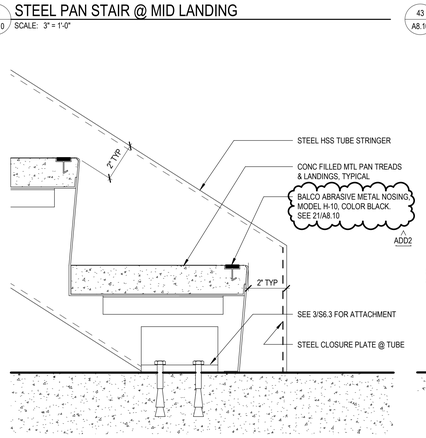
25a A8.10 MESH GUARDRAIL DETAIL
SCALE: 1 1/2" = 1'-0"



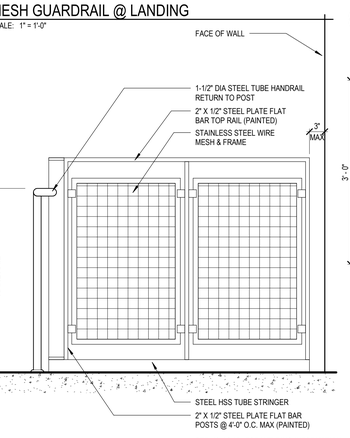
26 A8.10 WALL MOUNTED STAIR HANDRAIL (PLAN & ELEV)
SCALE: 3" = 1'-0"



31 A8.10 S.S WIREMESH PANEL
SCALE: 3" = 1'-0"

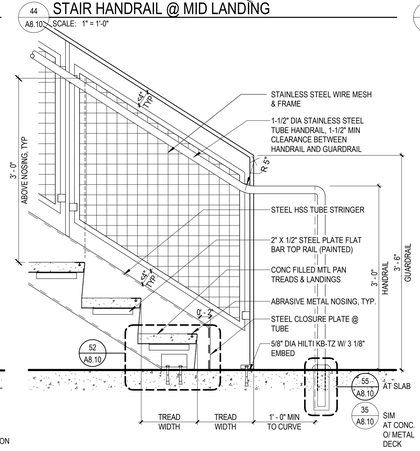


32 A8.10 CONCRETE FILL STEEL PAN LANDING
SCALE: 3" = 1'-0"

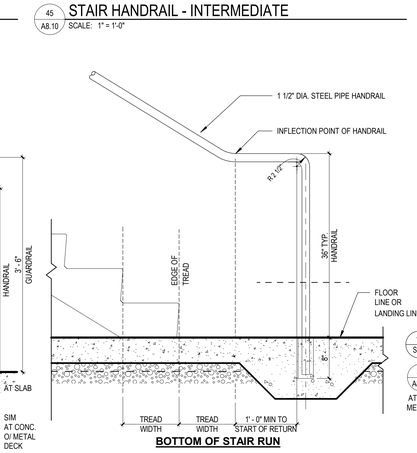


NOTE: GRIND SMOOTH ALL WELDS

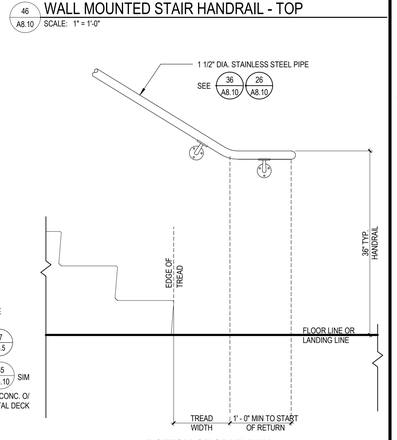
33 A8.10 GUARDRAIL POST MOUNTED HANDRAIL - SECTION
SCALE: 3" = 1'-0"



34 A8.10 STAIR INSIDE HANDRAIL @ FLOOR
SCALE: 1" = 1'-0"



35 A8.10 STAIR HANDRAIL - TOP
SCALE: 1" = 1'-0"



36 A8.10 WALL MOUNTED STAIR HANDRAIL (SECTION)
SCALE: 3" = 1'-0"

41 A8.10 MESH GUARDRAIL @ BALCONY
SCALE: 1" = 1'-0"

42 A8.10 STEEL PAN STAIR @ MID LANDING
SCALE: 3" = 1'-0"

NOTE: GRIND SMOOTH ALL WELDS

43 A8.10 MESH GUARDRAIL @ LANDING
SCALE: 1" = 1'-0"

44 A8.10 STAIR HANDRAIL @ MID LANDING
SCALE: 1" = 1'-0"

45 A8.10 STAIR HANDRAIL - INTERMEDIATE
SCALE: 1" = 1'-0"

46 A8.10 WALL MOUNTED STAIR HANDRAIL - TOP
SCALE: 1" = 1'-0"

51 A8.10 STEEL PAN STAIR DN @ FLOOR SLAB
SCALE: 3" = 1'-0"

52 A8.10 CONCRETE STAIR @ BOTTOM
SCALE: 3" = 1'-0"

53 A8.10 MESH GUARDRAIL @ TOP LANDING
SCALE: 1" = 1'-0"

54 A8.10 MESH PANEL STAIR & RAILING @ BOTTOM
SCALE: 1" = 1'-0"

55 A8.10 STAIR HANDRAIL - BOTTOM
SCALE: 1" = 1'-0"

56 A8.10 WALL MOUNTED STAIR HANDRAIL - BOTTOM
SCALE: 1" = 1'-0"

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STAIR DETAILS
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

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Roseville Joint Union High School District

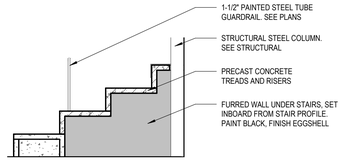
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DSA FILE #31-H3

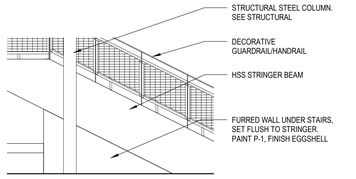
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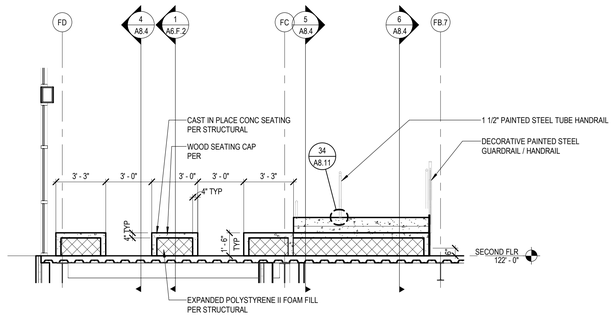
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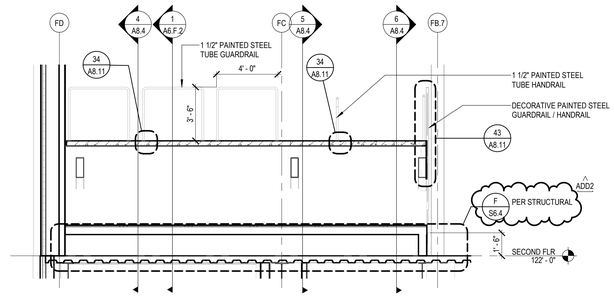
11 A8.11 WALL UNDER PRECAST STAIRS - NORTH
SCALE: 1/4" = 1'-0"



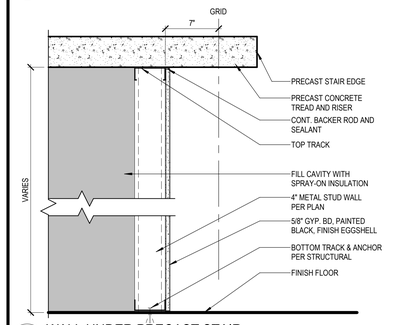
12 A8.11 WALL UNDER STRINGER BEAM - SOUTH
SCALE: 1/4" = 1'-0"



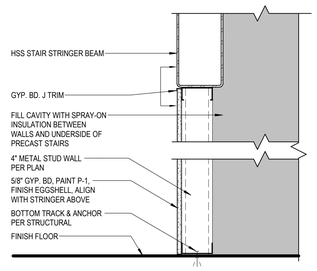
13 A8.11 ADA SEATING SECTION
SCALE: 1/4" = 1'-0"



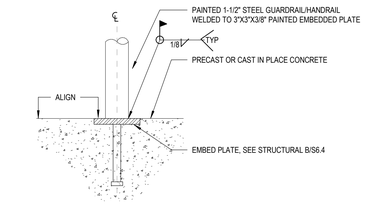
15 A8.11 PLATFORM SECTION ADD2
SCALE: 1/4" = 1'-0"



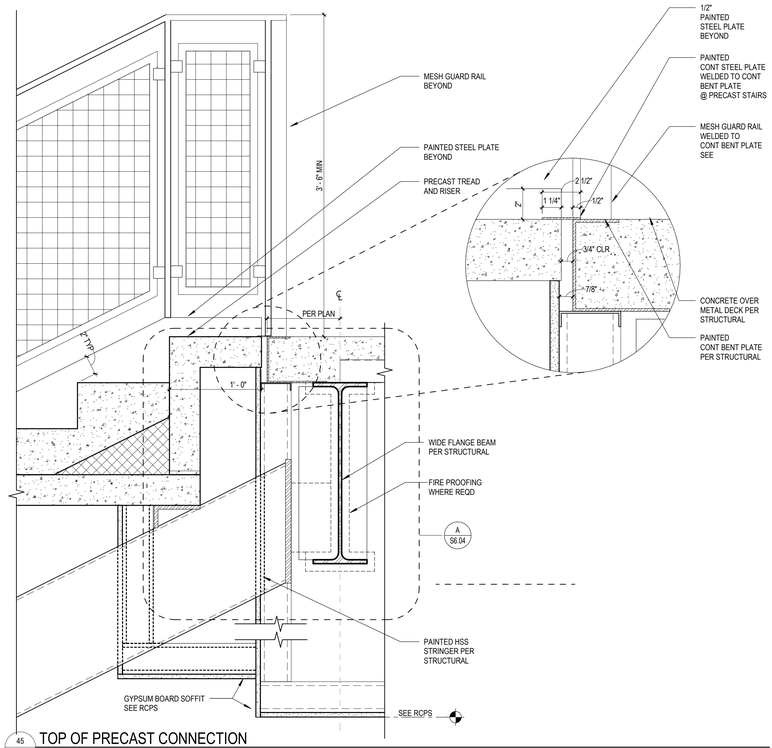
21 A8.11 WALL UNDER PRECAST STAIR
SCALE: 1 1/2" = 1'-0"



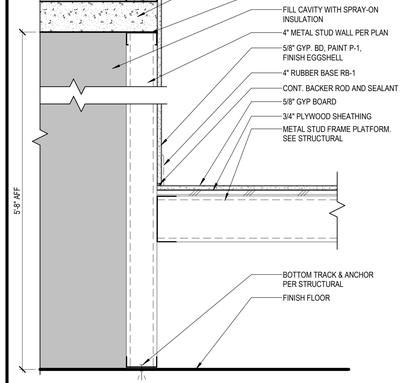
22 A8.11 WALL UNDER STRINGER BEAM
SCALE: 1 1/2" = 1'-0"



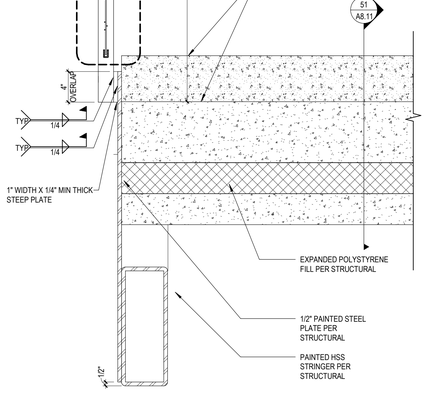
34 A8.11 GUARDRAIL/ HANDRAIL CONNECTION
SCALE: 3" = 1'-0"



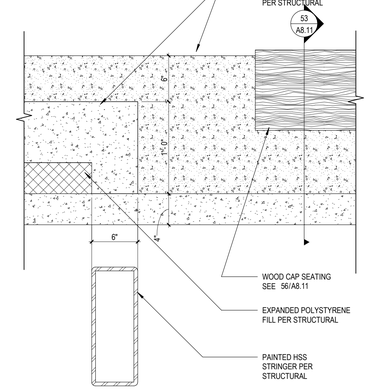
45 A8.11 TOP OF PRECAST CONNECTION
SCALE: 1 1/2" = 1'-0"



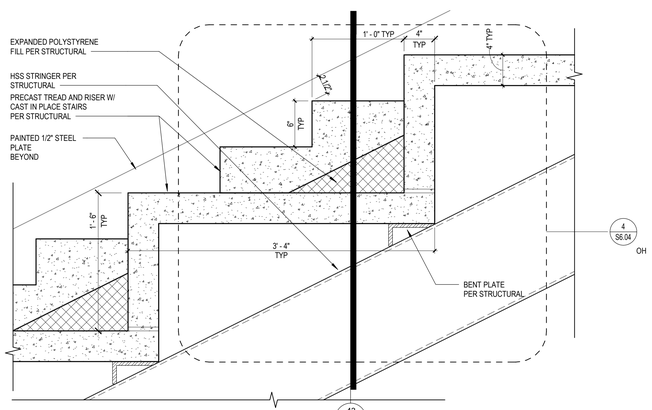
41 A8.11 WALL UNDER PRECAST TREAD
SCALE: 1 1/2" = 1'-0"



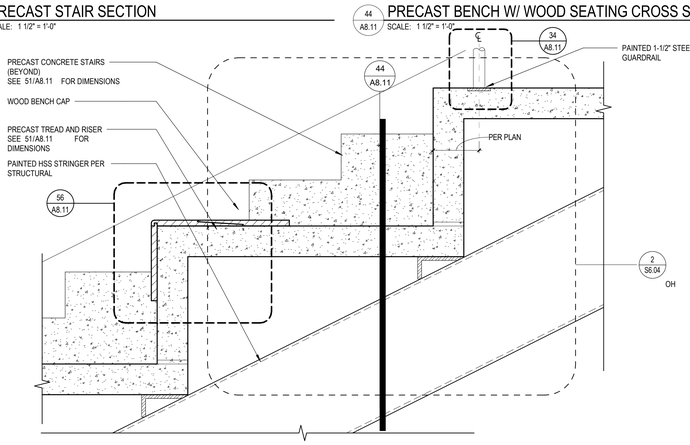
43 A8.11 PRECAST STAIR SECTION
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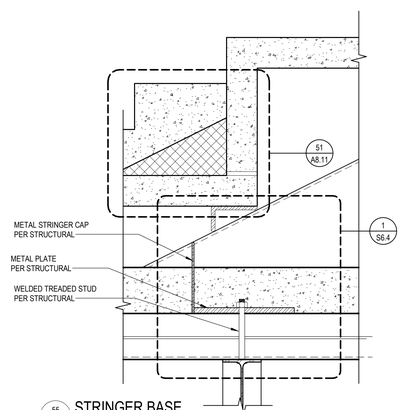
53 A8.11 PRECAST STAIR BENCH W/ WOOD CAP SEATING
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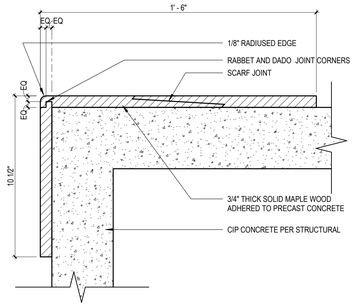
51 A8.11 PRECAST STAIR
SCALE: 1 1/2" = 1'-0"



44 A8.11 PRECAST BENCH W/ WOOD SEATING CROSS SECTION
SCALE: 1 1/2" = 1'-0"



55 A8.11 STRINGER BASE
SCALE: 1 1/2" = 1'-0"



56 A8.11 WOOD CAP SEATING1
SCALE: 3" = 1'-0"

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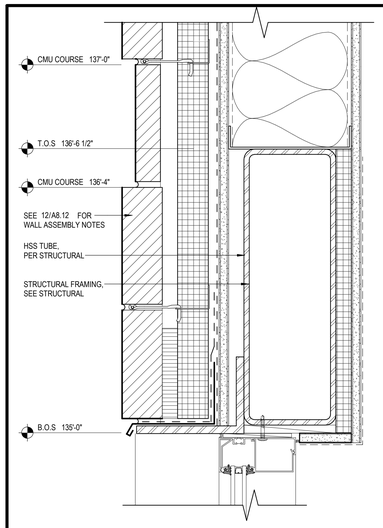
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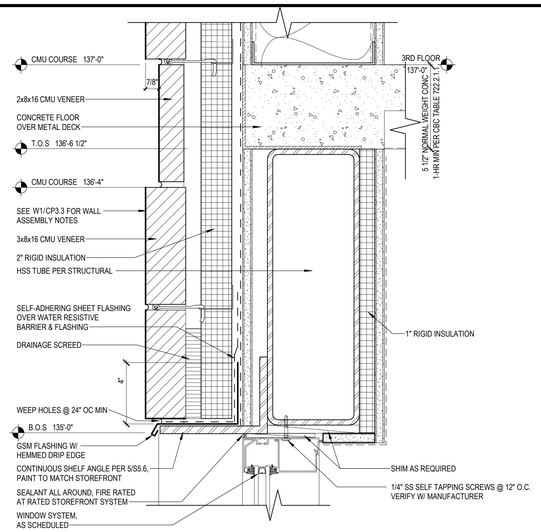
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Revisions
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PROJECT #75-19101-00
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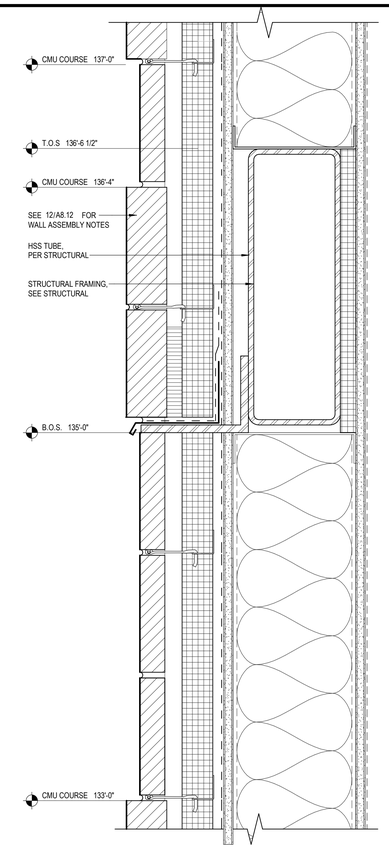
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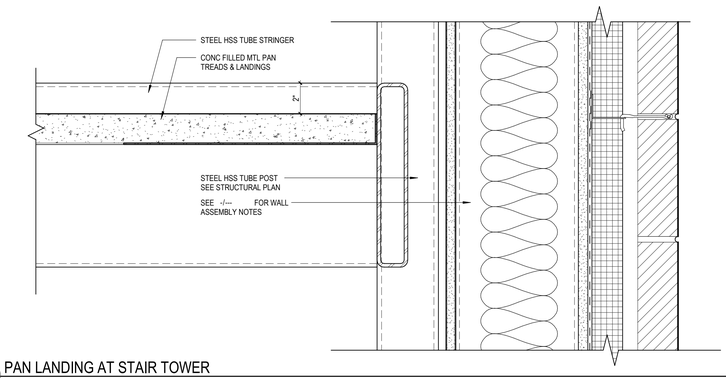
11 A8.12 CMU SHELF ANGLE @ SF HEAD - 3RD FLOOR
SCALE: 3" = 1'-0"



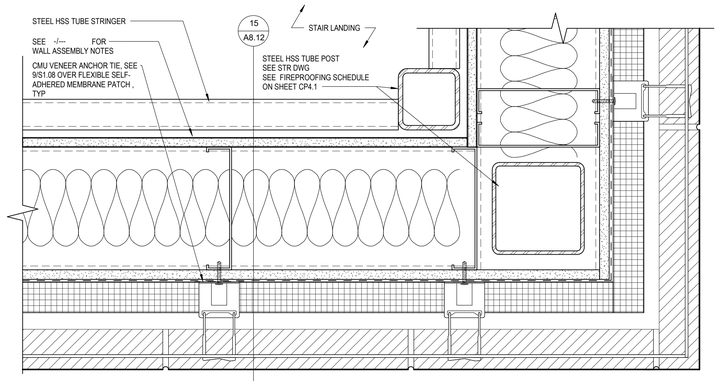
12 A8.12 CMU SHELF ANGLE @ SF HEAD - 3RD FLOOR
SCALE: 3" = 1'-0"



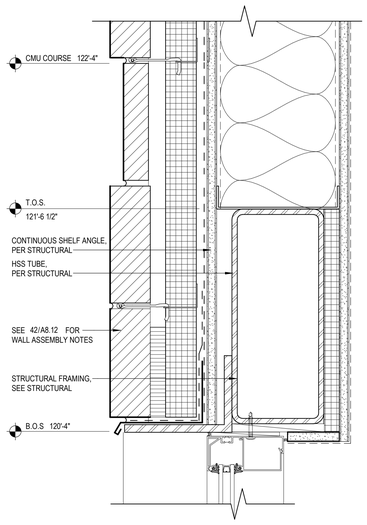
24 A8.12 CMU SHELF ANGLE @ SF HEAD - 3RD FLOOR
SCALE: 3" = 1'-0"



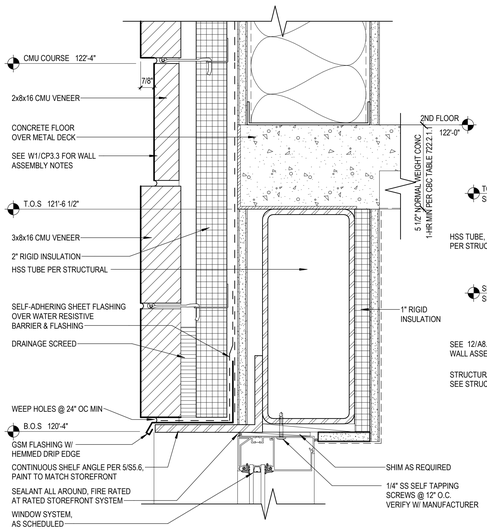
15 A8.12 PAN LANDING AT STAIR TOWER
SCALE: 3" = 1'-0"



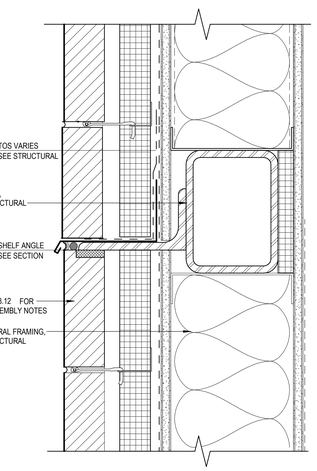
25 A8.12 PAN LANDING CORNER AT STAIR TOWER
SCALE: 3" = 1'-0"



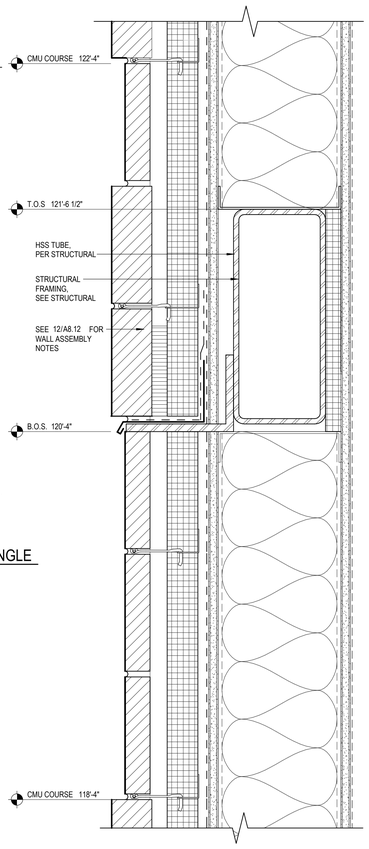
41 A8.12 CMU SHELF ANGLE @ SF HEAD - 2ND FLOOR
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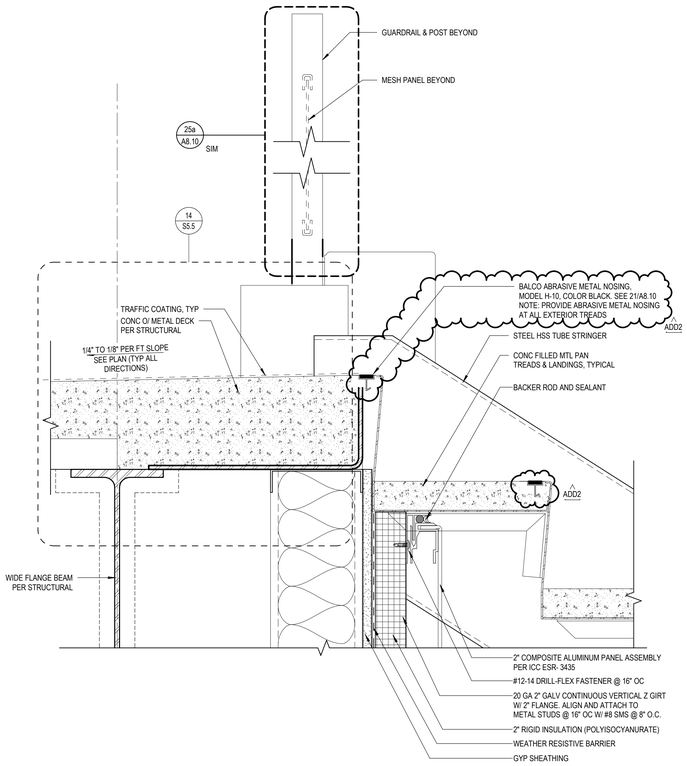
42 A8.12 CMU SHELF ANGLE @ SF HEAD - 2ND FLOOR
SCALE: 3" = 1'-0"



43 A8.12 STAIR TOWER @ FLUSH CMU SHELF ANGLE
SCALE: 3" = 1'-0"



54 A8.12 CMU SHELF ANGLE @ SF HEAD - 2ND FLOOR
SCALE: 3" = 1'-0"



55 A8.12 STAIR TO FLOOR
SCALE: 3" = 1'-0"

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03/31/2021
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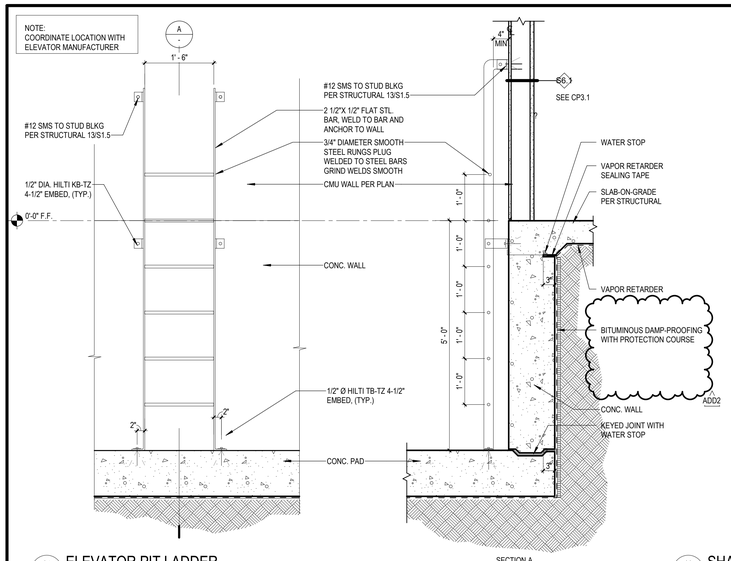
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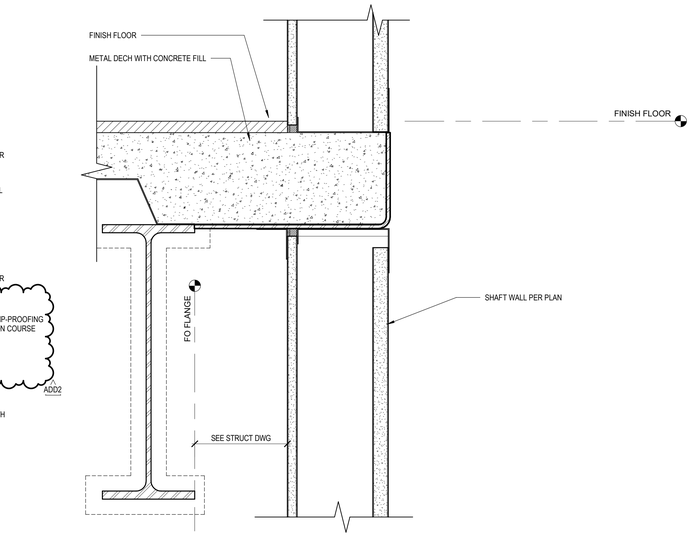
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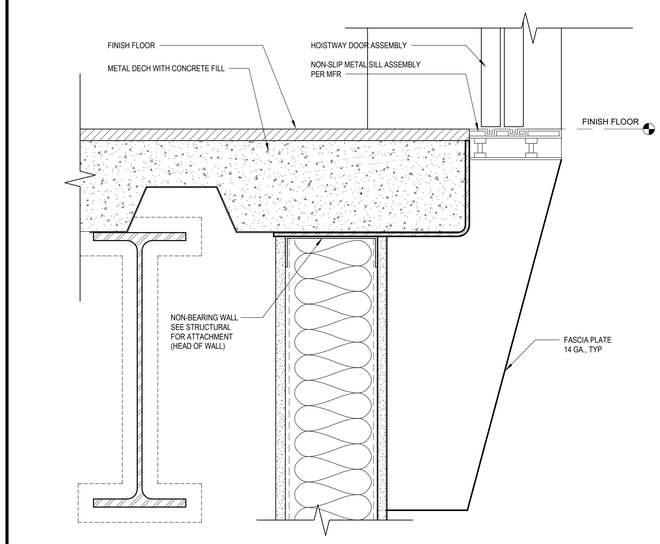
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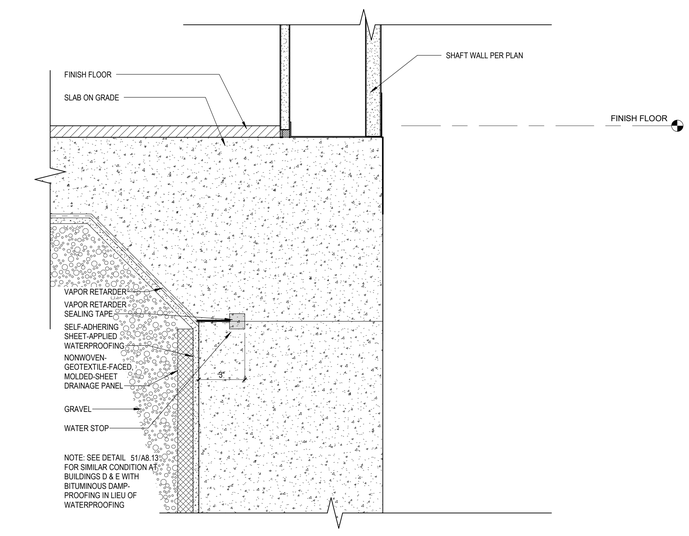
21 A8.13 **ELEVATOR PIT LADDER**
SCALE: 3/4" = 1'-0"



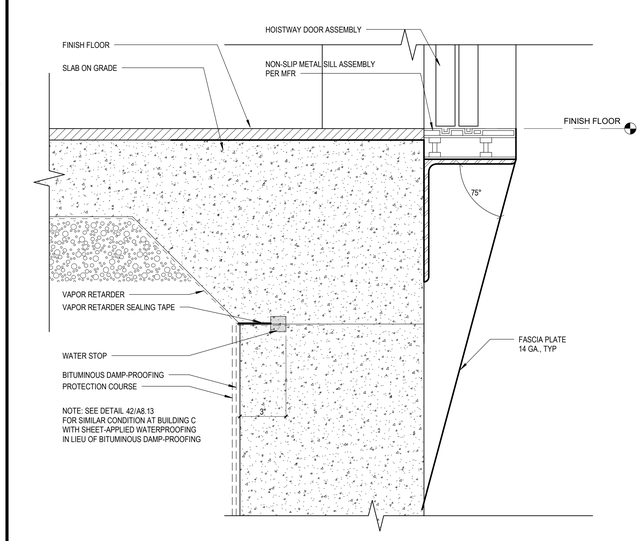
22 A8.13 **SHAFTWALL TO FLOOR CONNECTION**
SCALE: 3" = 1'-0"



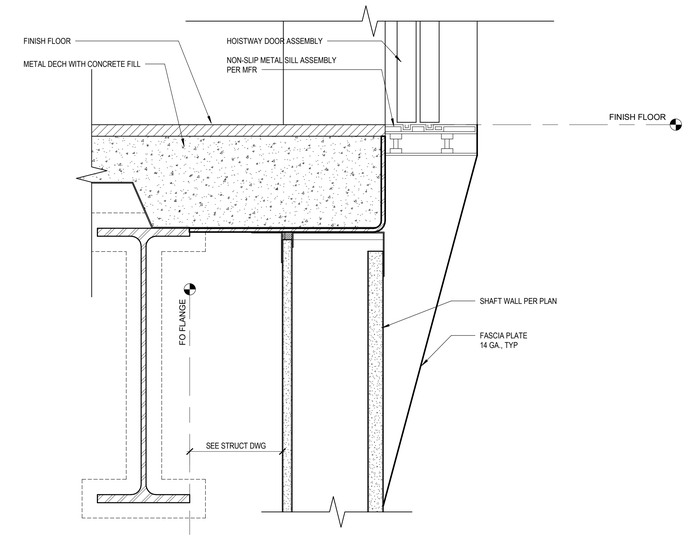
41 A8.13 **ELEVATOR SILL AT EXTERIOR WALL**
SCALE: 3" = 1'-0"



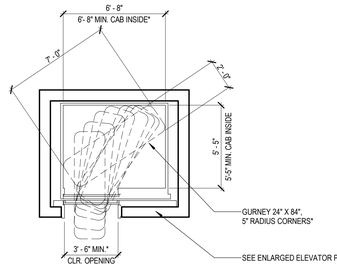
42 A8.13 **SHAFTWALL TO SOG CONNECTION**
SCALE: 3" = 1'-0"



51 A8.13 **ELEVATOR SILL AT GRADE**
SCALE: 3" = 1'-0"

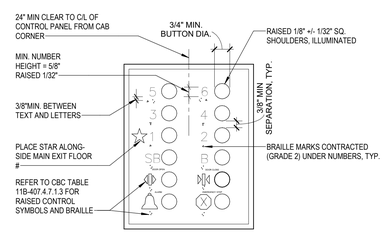


52 A8.13 **ELEVATOR SILL AT COMPOSITE DECK FLOOR**
SCALE: 3" = 1'-0"

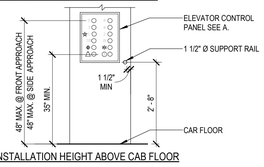


***MINIMUM DIMENSIONS PER CBC 3002.4.1a**

14 A8.13 **SIDE ENTRANCE ELEVATOR CAB CLEARANCE FOR GURNEY**
SCALE: 1/4" = 1'-0"

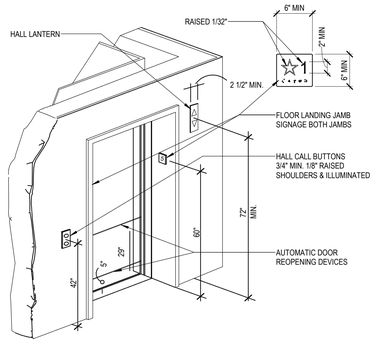


A. ELEVATOR CONTROL PANEL DETAIL N.T.S.

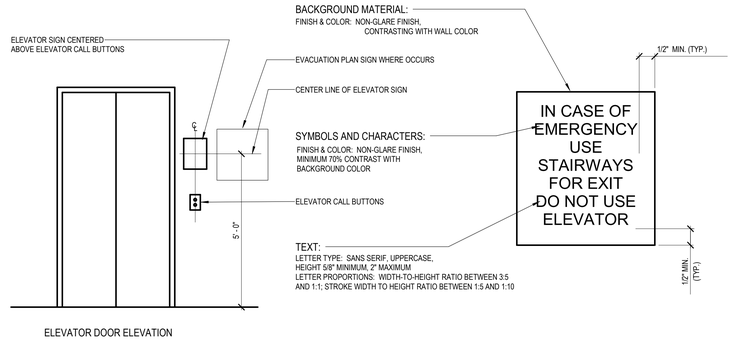


B. MAX INSTALLATION HEIGHT ABOVE CAB FLOOR

34 A8.13 **ACCESSIBLE ELEV. CONTROL PANEL**
NO SCALE



44 A8.13 **ACCESSIBLE ELEVATOR ENTRANCE**
NO SCALE



ELEVATOR DOOR ELEVATION

54 A8.13 **ELEVATOR SIGN**
NO SCALE

NOTE:
THIS DETAIL ILLUSTRATES THE CRITERIA FOR ELEVATOR SIGNS; SEE SIGNAGE SCHEDULE AND SPECIFICATIONS FOR SPECIFIC SIGNAGE INFORMATION. PROVIDE SIGNS WITH DIMENSIONS AS REQUIRED TO ACCOMMODATE THE REQUIRED INFORMATION AND TEXT SIZES INDICATED.

ELEVATOR NOTES

HALL SIGNALS: A VISUAL AND AUDIBLE SIGNAL SHALL BE PROVIDED AT EACH HOISTWAY ENTRANCE TO INDICATE WHICH CAR IS ANSWERING A CALL AND THE CAR'S DIRECTION OF TRAVEL. WHERE IN-CAR SIGNALS ARE PROVIDED, THEY SHALL BE VISIBLE FROM THE FLOOR AREA ADJACENT TO THE HALL CALL BUTTONS. (11B-407.2.2.1)

VISIBLE SIGNALS: VISIBLE SIGNAL FIXTURES SHALL BE CENTERED AT 72 INCHES MINIMUM ABOVE THE FINISHED FLOOR OR GROUND. THE VISIBLE SIGNAL ELEMENTS SHALL BE A MINIMUM OF 2 1/2" HIGH BY 2 1/2" WIDE. SIGNALS SHALL BE VISIBLE FROM THE FLOOR AREA ADJACENT TO THE HALL CALL BUTTON. (11B-407.2.2.2)

AUDIBLE SIGNALS: AUDIBLE SIGNALS SHALL SOUND ONCE FOR THE UP DIRECTION AND TWICE FOR THE DOWN DIRECTION, OR SHALL HAVE VERBAL ANNUNCIATORS THAT INDICATE THE DIRECTION OF ELEVATOR CAR TRAVEL. AUDIBLE SIGNALS SHALL HAVE A FREQUENCY OF 1500 Hz MAXIMUM. VERBAL ANNUNCIATORS SHALL HAVE A FREQUENCY OF 300 Hz MINIMUM AND 3000 Hz MAXIMUM. THE AUDIBLE SIGNAL AND VERBAL ANNUNCIATOR SHALL BE 10 dB MINIMUM ABOVE AMBIENT, BUT SHALL NOT EXCEED 80 dB, MEASURED AT THE HALL CALL BUTTON (11B-407.2.2.3)

ELEVATOR DOORS: ELEVATOR HOISTWAY AND CAR DOORS SHALL OPEN AND CLOSE AUTOMATICALLY. (11B-407.3.2)

REOPENING DEVICE: ELEVATOR DOORS SHALL BE PROVIDED WITH A REOPENING DEVICE THAT SHALL STOP AND REOPEN A CAR DOOR AND HOISTWAY DOOR AUTOMATICALLY IF THE DOOR BECOMES OBSTRUCED BY AN OBJECT OR PERSON. SUCH REOPENING DEVICE SHALL COMPLY WITH THE FOLLOWING: (11B-407.3.3)

1. THE DEVICE SHALL BE ACTIVATED BY SENSING AN OBSTRUCTION PASSING THROUGH THE OPENING AT 5" NOMINAL AND 29" NOMINAL ABOVE THE FINISH FLOOR.
2. THE DEVICE SHALL NOT REQUIRE PHYSICAL CONTACT TO BE ACTIVATED, ALTHOUGH CONTACT IS PERMITTED TO OCCUR BEFORE THE DOOR REVERSES.
3. DOOR REOPENING DEVICES SHALL REMAIN EFFECTIVE FOR 20 SECONDS MINIMUM. (AFTER SUCH AN INTERVAL, THE DOORS MAY CLOSE IN ACCORDANCE WITH THE REQUIREMENTS OF ASME A17.1.)

DOOR AND SIGNAL TIMING: THE MINIMUM ACCEPTABLE TIME FROM NOTIFICATION THAT A CAR IS ANSWERING A CALL UNTIL THE DOORS OF THAT CAR START TO CLOSE SHALL BE CALCULATED FROM THE FOLLOWING EQUATION: (11B-407.3.4)

T = D ÷ (1.5 FT/S) = 5 SECONDS MINIMUM

T = TOTAL TIME IN SECONDS
D = DISTANCE (FT) FROM POINT 5 FT IN FRONT OF FARTHEST CALL BUTTON TO HOISTWAY DOOR CENTERLINE

DOOR DELAY: ELEVATOR DOORS SHALL REMAIN FULLY OPEN IN RESPONSE TO A CAR CALL FOR 5 SECONDS MINIMUM. (11B-407.3.5)

PLATFORM TO HOISTWAY CLEARANCE: THE CLEARANCE BETWEEN TEH CAR PLATFORM SILL AND THE EDGE OF ANY HOISTWAY LANDING SHALL BE 1 1/4" MAXIMUM. (11B-407.4.3)

LEVELING: EACH CAR SHALL BE EQUIPPED WITH A SELF-LEVELING FEATURE THAT WILL AUTOMATICALLY BRING AND MAINTAIN THE CAR AT FLOOR LANDINGS WITHIN A TOLERANCE OF ±1/2" UNDER RATED LOADING TO ZERO LOADING CONDITIONS. (11B-407.4.4)

ILLUMINATION: THE LEVEL OF ILLUMINATION AT THE CAR CONTROLS, PLATFORM, CAR THRESHOLD, AND CAR LANDING SILL SHALL NOT BE LESS THAN 5 FOOT CANDLES (54 LUX) MINIMUM. (11B-407.4.5)

ELEVATOR CAR CONTROLS: CONTROLS SHALL BE LOCATED WITHIN ONE OF THE REACH RANGES SPECIFIED IN SECTION 11B-308, TYPICALLY 15" MINIMUM TO 48" MAXIMUM ABOVE FINISH FLOOR. (11B-407.4.6.1)

BUTTONS (GENERAL): CAR CONTROL BUTTONS SHALL COMPLY WITH THE FOLLOWING: (11B-407.4.6.2)

1. BUTTONS SHALL HAVE SQUARE SHOULDERS, BE 3/4" MINIMUM IN THEIR SMALLEST DIMENSION, AND BE RAISED 1/8" ± 1/32" ABOVE THE SURROUNDING SURFACE.
2. BUTTONS SHALL BE ARRANGED WITH NUMBERS IN ASCENDING ORDER. WHEN TWO OR MORE COLUMNS OF BUTTONS ARE PROVIDED THEY SHALL READ FROM LEFT TO RIGHT.
3. CAR CONTROL BUTTONS SHALL BE ILLUMINATED.
4. CAR CONTROL BUTTONS SHALL BE ACTIVATED BY A MECHANICAL MOTION THAT IS DETECTABLE.

KEYPADS: WHERE PROVIDED, CAR CONTROL KEYPADS SHALL BE IN A STANDARD TELEPHONE KEYPAD ARRANGEMENT. (11B-407.4.6.3) KEYPADS SHALL BE IDENTIFIED BY VISUAL CHARACTERS CHARACTERS CENTERED ON THE CORRESPONDING KEYPAD BUTTON. THE NUMBER FIVE KEY SHALL HAVE A SINGLE RAISED DOT 0.118" TO 0.120" IN BASE DIAMETER AND OTHERWISE COMPLYING WITH REQUIREMENTS FOR CALIFORNIA BRAILLE. (11B-407.4.7.2)

EMERGENCY CONROLS: EMERGENCY CONTROL BUTTONS SHALL HAVE THEIR CENTERLINES 35" MINIMUM AFF AND SHALL BE GROUPED AT THE BOTTOM OF THE PANEL. (11B-407.4.6.4)

CAR CONTROL BUTTONS: CAR CONTROL BUTTONS SHALL COMPLY WITH THE FOLLOWING: (11B-407.4.7.1)

1. CONTROL BUTTONS SHALL BE IDENTIFIED BY RAISED CHARACTERS OR SYMBOLS, WHITE ON A BLACK BACKGROUND, COMPLYING WITH REQUIREMENTS FOR TACTILE CHARACTERS, AND SHALL BE ACCOMPANYINED BY CALIFORNIA COMPLIANT BRAILLE.
2. RAISED CHARACTERS OR SYMBOLS AND BRAILLE DESIGNATIONS SHALL BE PLACED IMMEDIATELY TO THE LEFT OF THE CONTROL BUTTON TO WHICH THE DESIGNATIONS APPLY.
3. THE CONTROL BUTTON FOR THE EMERGENCY STOP, ALARM, DOOR OPEN, DOOR CLOSE, MAIN ENTRY FLOOR, AND PHONE, SHALL BE IDENTIFIED WITH RAISED SYMBOLS AND BRAILLE AS PROVIDED IN TABLE 11B-407.4.7.1.3 AND DETAIL 46/CP9.2.
4. BUTTONS WITH FLOOR DESIGNATIONS SHALL BE PROVIDE WITH VISIBLE INDICATORS TO SHOW THAT A CALL HAS BEEN REGISTERED. THE VISIBLE INDICATION SHALL EXTINGUISH WHEN THE CAR ARRIVES AT THE DESIGNATED FLOOR.
5. A MINIMUM CLEAR SPACE OF 3/8" OR OTHER SUITABLE MEANS OF SEPARATION SHALL BE PROVIDED BEWEEN ROWS OF CONTROL BUTTONS.

CAR POSITION INDICATORS: AUDIBLE AND VISIBLE CAR POSITION INDICATORS SHALL BE PROVIDED IN ELEVATOR CARS. (11B-407.4.8)

VISIBLE INDICATORS: VISIBLE INDICATORS IN ELEVATOR CARS SHALL COMPLY WITH THE FOLLOWING: (11B-407.4.8.1)

1. CHARACTERS SHALL BE 1/2" HIGH MINIMUM.
2. VISIBLE INDICATORS SHALL BE LOCATED ABOVE THE CAR CONTROL PANEL OR ABOVE THE DOOR.
3. AS THE CAR PASSES A FLOOR AND WHEN A CAR STOPS AT A FLOOR SERVED BY THE ELEVATOR, THE CORRESPONDING CHARACTER SHALL ILLUMINATE.

AUDIBLE INDICATORS: AUDIBLE INDICATORS IN ELEVATOR CARS SHALL COMPLY WITH TEH FOLLOWING: (11B-407.4.8.2)

1. THE AUDIBLE SIGNAL SHALL BE AN AUTOMATIC VERBAL ANNUNCIATOR WHICH ANNOUNCES THE FLOOR AT WHICH THE CAR IS ABOUT TO STOP. IF THE ELEVATOR HAS A RATED SPEED OF 200 FPM OR LESS, THEN A NON-VERBAL AUDIBLE SIGNAL WHITH A FREQUENCE OF 1500 Hz MAXIMUM WHICH SOUNDS AS THE CAR PASSES OR IS ABOUT TO STOP AT A FLOOR SERVED BY THE ELEVATOR SHALL BE PERMITTED.
2. THE VERBAL ANNUNCIATOR SHALL BE 10 dB MINIMUM ABOVE AMBIENT, BUT SHALL NOT EXCEED 80 dB, MEASURED AT THE ANNUNCIATOR.
3. THE VERBAL ANNUNCIATOR SHALL HAVE A FREQUENCY OF 300 Hz MINIMUM TO 3000 Hz MAXIMUM.

EMERGENCY TWO-WAY COMMUNICATION SYSTEMS: THE EMERGENCY TELEPHONE HANDSET CORD SHALL BE A MIN OF 29" IN LENGTH. (11B-708.3) IT SHALL BE IDENTIFIED BY A RAISED TELEPHONE SYMBOL, WHITE ON A BLACK BACKGROUNDL, AND BRAILLE COMPLYING WITH SECTION 11B-216.2, 11B-703.2, 11B-703.3) LOCATED ADJACENT TO THE DEVICE. EMERGENCY TWO-WAY COMMUNICATION SYSTEMS BETWEEN THE ELEVATOR AND A POINT OUTSIDE THE HOISTWAY SHALL COMPLY WITH ASME A17.1. (11B-407.4.9)

SUPPORT RAIL: SUPPORT RAILS SHALL BE PROVIDED ON AT LEAST ONE WALL OF THE CAR, 31" MINIMUM TO 33" MAXIMUM AFF OF THE CAR, WITH ENDS 6" MAXIMUM FROM ADJACENT CAR WALLS. CLEARANCE BETWEEN SUPPORT RAILS AND ADJACENT SURFACES SHALL BE 1 1/2" MINIMUM. SUPPORT RAILS SHALL BE SMOOTH AND ANY SURFACE ADJACENT TO THEM SHALL BE FREE OF SHARP OR ABRASIVE ELEMENTS. SUPPORT RAILS SHALL BE CAPABLE OF SUPPORTING A VERTICAL OR HORIZONTAL FORCE OF 250 POUNDS AT ANY POINT ON THE RAIL, FASTENER, MOUNTING DEVICE, OR SUPPORTING STRUCTURE.

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03/31/2021
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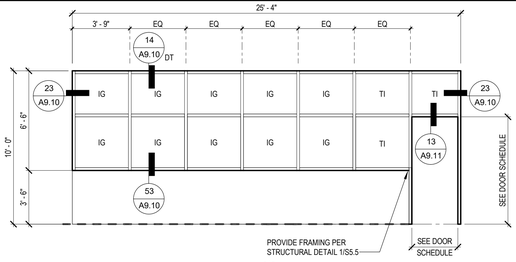
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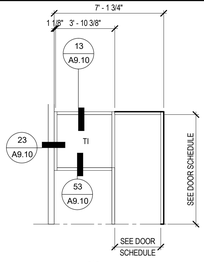
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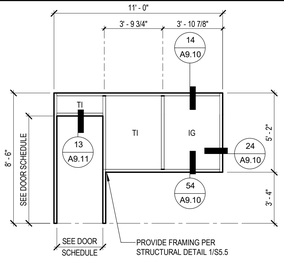
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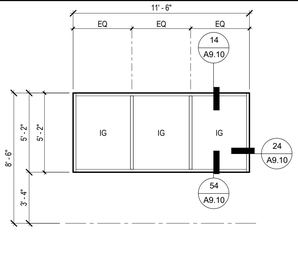
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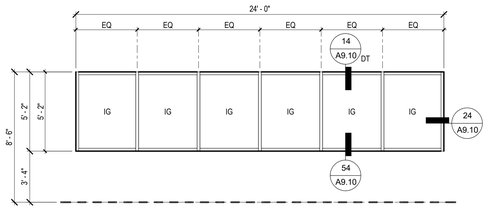
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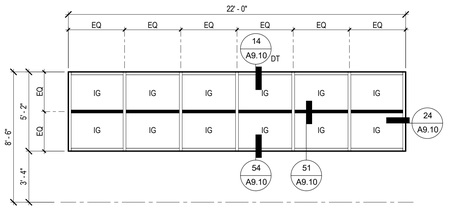
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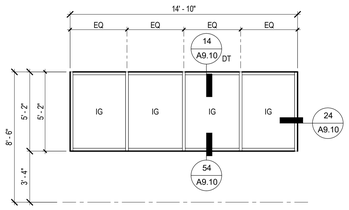
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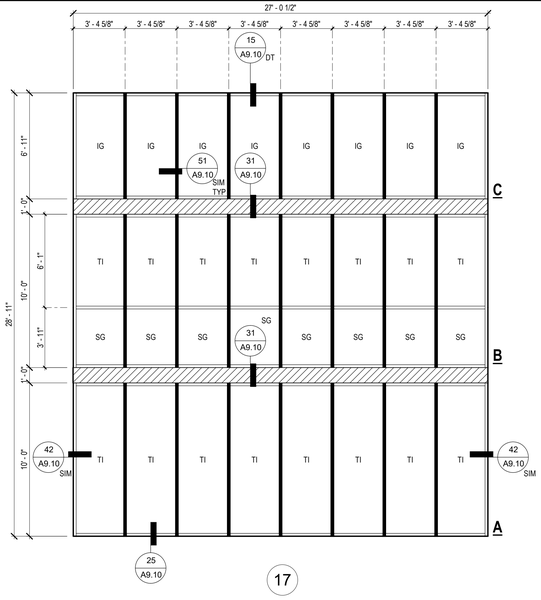
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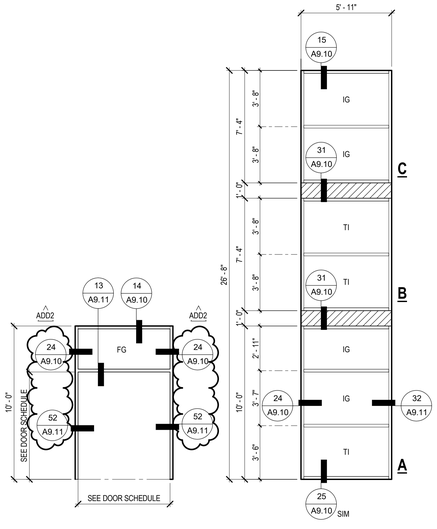
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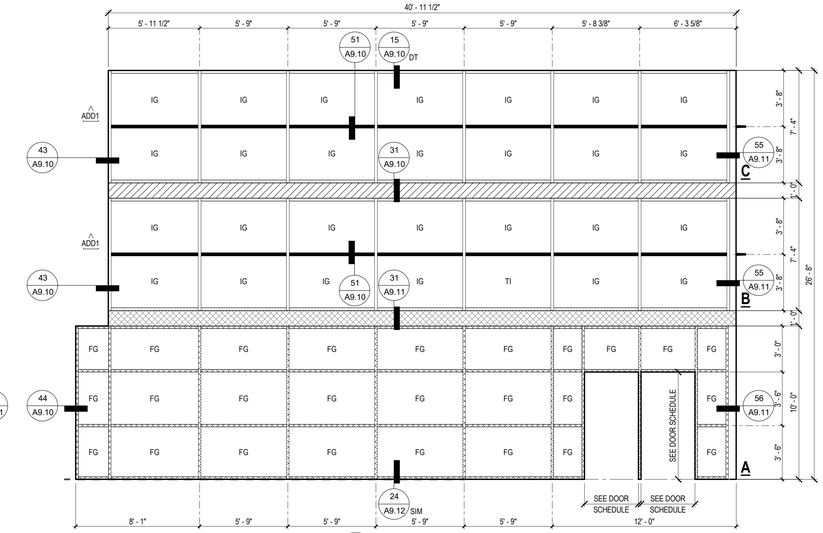
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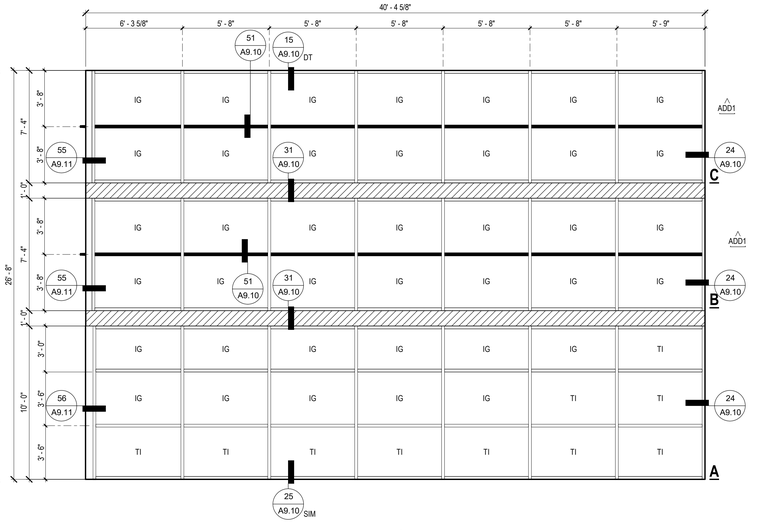
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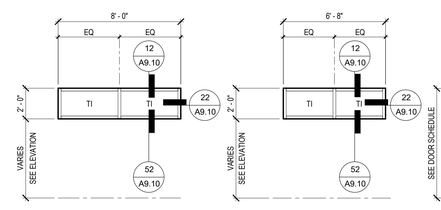
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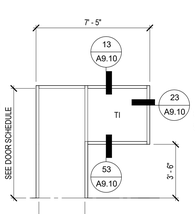


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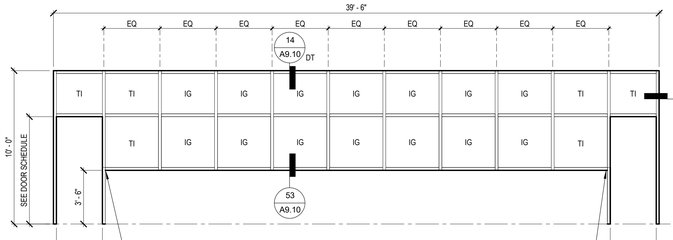


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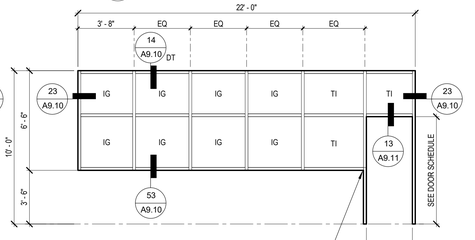
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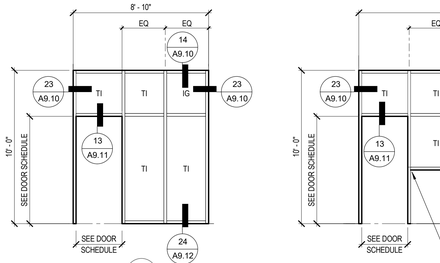
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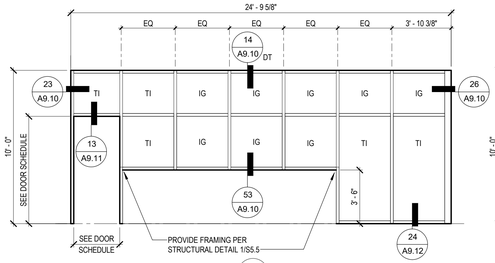
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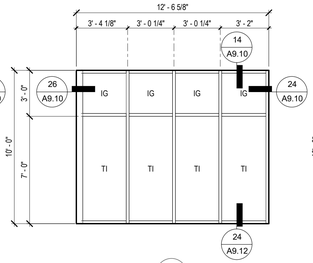
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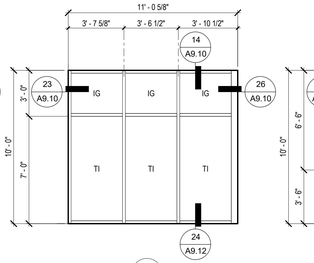
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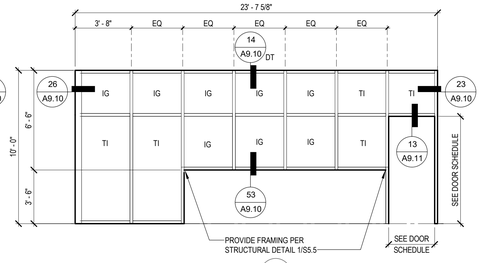
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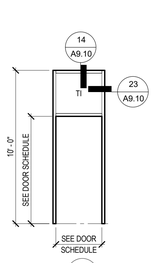
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ADD2 2020-07-08
ADD1 2020-07-01

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KEYNOTES

GENERAL NOTES

A. INSTALL EXTERIOR FRAMES WITH 1/4" SHIM AND JOINT SEALANT AROUND PERIMETER OF FRAME.
B. MASONRY LINTELS AND STEEL LINTELS ARE INDICATED ON STRUCTURAL DRAWINGS.
C. GLASS TYPES FOR DOORS ARE INDICATED IN NOTES COLUMNS OF DOOR AND FRAME SCHEDULE OR IN SPECIFICATIONS. GLASS TYPES FOR FRAMES ARE INDICATED ON FRAME ELEVATIONS OR IN SPECIFICATIONS.
D. EXTERIOR WINDOW FRAME TYPES ARE INDICATED ON FLOOR PLAN WITH HEXAGON SYMBOL.
E. OVERHEAD COILING DOORS, GRILLES AND SECTIONAL DOORS WIDTH AND HEIGHT DIMENSIONS INDICATED IN DOOR AND FRAME SCHEDULE REPRESENT FURNISHED OPENING SIZE. CONTRACTOR TO COORDINATE EXACT SIZE OF DOOR WITH MANUFACTURER.
F. FRAME MANUFACTURER SHALL COORDINATE LOCATIONS OF CONCEALED CONDUIT AND J-BOXES REQUIRED FOR SECURITY SYSTEM HARDWARE PRIOR TO MANUFACTURING OF HOLLOW METAL FRAMES AND COORDINATE WITH SECURITY HARDWARE AND DEVICES.
G. PROVIDE HEAD RECEIVERS AT ALUMINUM STOREFRONTS AND CURTAINWALLS AS REQUIRED FOR FRAME AND STRUCTURAL DEFLECTION.
H. SEE SPECIFICATIONS 087100 HARDWARE FOR HARDWARE SET NOTED IN DOOR SCHEDULE.

PANEL TYPE LEGEND

TI	TYPE 1: TEMPERED INSULATED CLEAR GLASS
IG	TYPE 2: CLEAR INSULATED GLASS
SG	TYPE 3: SPANDREL GLASS
FG	TYPE 4: CLEAR FIRE RATED GLASS
CG	TYPE 5: CLEAR GLASS
TG	TYPE 6: TEMPERED CLEAR GLASS

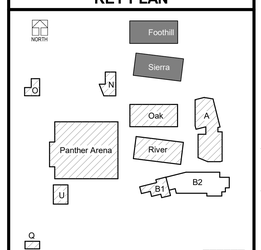
SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION

FRAME HEAD SPECIAL CONDITION
DT DEFLECTION TRACK REQUIRED

MULLION LEGEND

- TYPICAL MULLION, SEE SPECIFICATIONS
- SPECIALTY MULLION, SEE SPECIFICATIONS
- INTERMEDIATE STRUCTURE - BRAKE METAL
- INTERMEDIATE STRUCTURE - RATED WIND BEAM
- FIRE-RATED MULLION, SEE SPECIFICATIONS

KEY PLAN



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LICENSED ARCHITECT
MARK V COVINGTON
No. 27586
03/31/2021
STATE OF CALIFORNIA

STOREFRONT ELEVS
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)
2401 High School Road, Roseville, California 95747
Roseville Joint Union High School District

ADDENDUM 2
07.08.2020
Revisions
2020-07-01 ADD1 Addendum 1
2020-07-08 ADD2 Addendum 2

PROJECT #75-19101-00
DSA APPL. #02-118062
DSA FILE #31-H3

A9.2

KEYNOTES

GENERAL NOTES

A. INSTALL EXTERIOR FRAMES WITH 1/4" SHIM AND JOINT SEALANT AROUND PERIMETER OF FRAME.
B. MASONRY LINTELS AND STEEL LINTELS ARE INDICATED ON STRUCTURAL DRAWINGS.
C. GLASS TYPES FOR DOORS ARE INDICATED IN NOTES COLUMNS OF DOOR AND FRAME SCHEDULE OR IN SPECIFICATIONS. GLASS TYPES FOR FRAMES ARE INDICATED ON FRAME ELEVATIONS OR IN SPECIFICATIONS.
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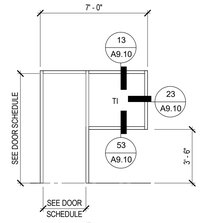
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IG	TYPE 2: CLEAR INSULATED GLASS
SG	TYPE 3: SPANDREL GLASS
FG	TYPE 4: CLEAR FIRE RATED GLASS
CG	TYPE 5: CLEAR GLASS
TG	TYPE 6: TEMPERED CLEAR GLASS

SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION

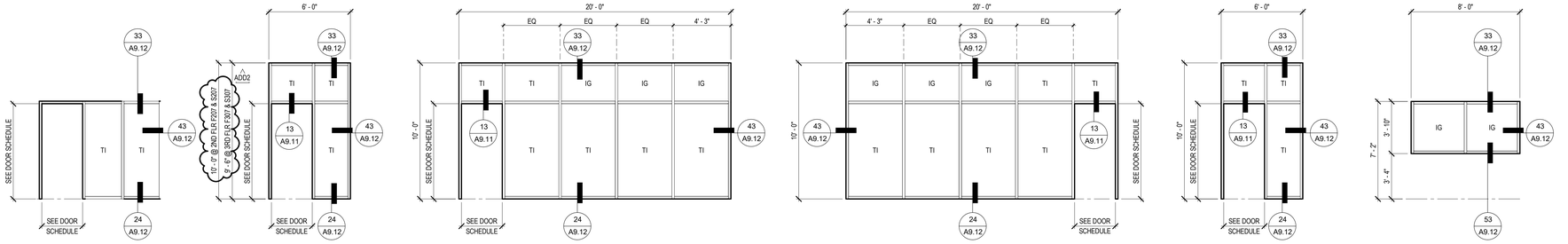
FRAME HEAD SPECIAL CONDITION
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MULLION LEGEND

- TYPICAL MULLION, SEE SPECIFICATIONS
- SPECIALTY MULLION, SEE SPECIFICATIONS
- INTERMEDIATE STRUCTURE - BRAKE METAL
- INTERMEDIATE STRUCTURE - RATED WIND BEAM
- FIRE-RATED MULLION, SEE SPECIFICATIONS

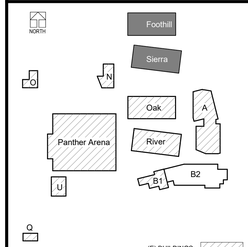


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35 34 33 32 31 30

KEY PLAN



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LICENSED ARCHITECT
MARK V COVINGTON
03/31/2021
RENEWAL DATE
STATE OF CALIFORNIA

STOREFRONT ELEVS
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

2401 High School Road, Roseville, California 95747

Roseville Joint Union High School District

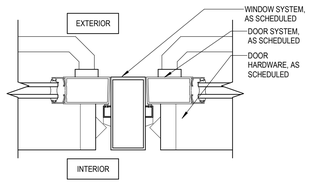
ADDENDUM 2
07.08.2020
Revisions
2020-07-08 ADD2 Addendum 2

PROJECT #75-19101-00
DSA APPL. #02-118062
DSA FILE #31-H3

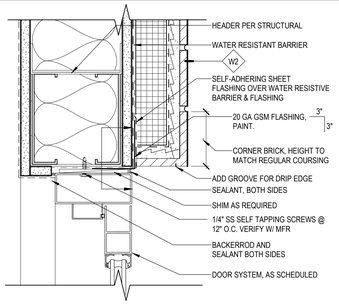
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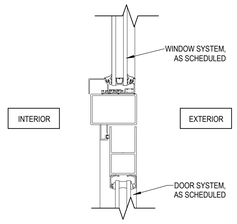
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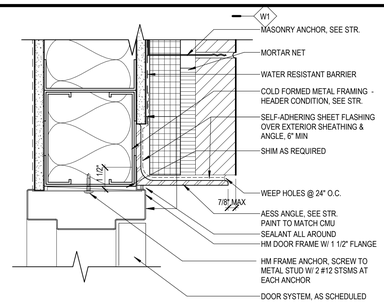
11 A9.11 S.F. DOOR JAMB AT CENTER MULLION
SCALE: 3" = 1'-0"



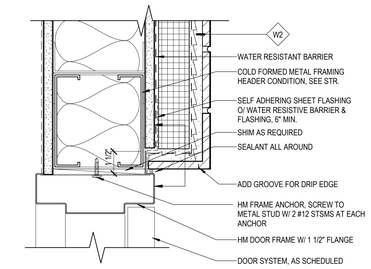
12 A9.11 DR_SF_HEAD AT THIN BRICK VENEER
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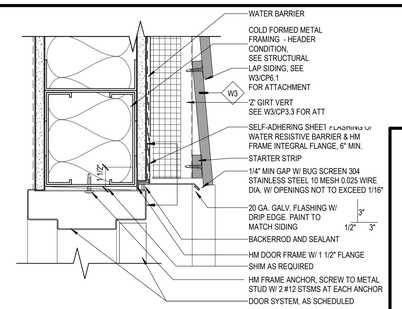
13 A9.11 S.F. DOOR HEAD AT S.F.
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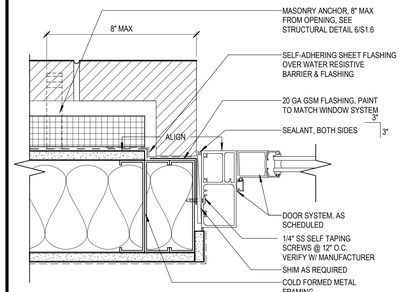
14 A9.11 DR_HM_HEAD AT CMU VENEER
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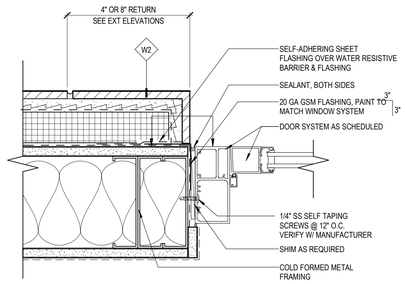
15 A9.11 DR_HM_HEAD AT THIN BRICK VENEER
SCALE: 3" = 1'-0"



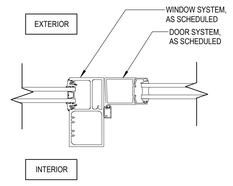
16 A9.11 DR_HM_HEAD AT LAP SIDING
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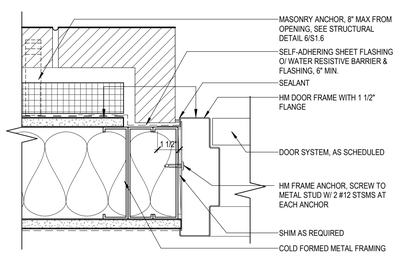
21 A9.11 DR_SF_JAMB AT CMU VENEER
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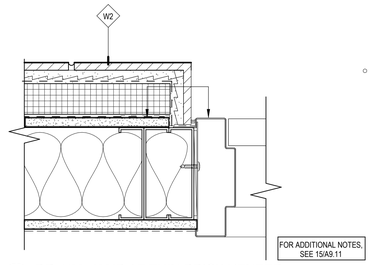
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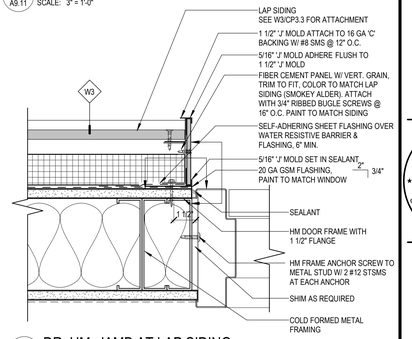
23 A9.11 S.F. DOOR JAMB AT S.F.
SCALE: 3" = 1'-0"



24 A9.11 DR_HM_JAMB AT CMU VENEER
SCALE: 3" = 1'-0"



25 A9.11 DR_HM_JAMB AT THIN BRICK VENEER
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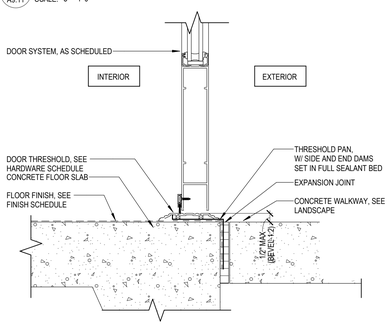
26 A9.11 DR_HM_JAMB AT LAP SIDING
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31 A9.11 S.F. SILL AT RATED INTERMEDIATE HSS SUPPORT
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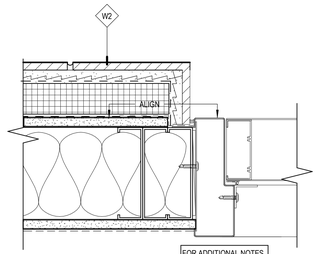
32 A9.11 S.F. JAMB AT LAP SIDING CORNER
SCALE: 3" = 1'-0"

33 A9.11 S.F. DOOR JAMB AT S.F.
SCALE: 3" = 1'-0"

34 A9.11 LOUVER_HM_HEAD AT THIN BRICK VENEER
SCALE: 3" = 1'-0"



43 A9.11 S.F. DOOR THRESHOLD
SCALE: 3" = 1'-0"



44 A9.11 LOUVER_HM_JAMB AT THIN BRICK VENEER
SCALE: 3" = 1'-0"

52 A9.11 DR_SF_JAMB AT LAP SIDING
SCALE: 3" = 1'-0"

53 A9.11 EDGE OF FLOOR CONDITION AT S.F. (SECTION)

54 A9.11 S.F. SILL AT THIN BRICK VENEER
SCALE: 3" = 1'-0"

55 A9.11 S.F. JAMB AT SKEW CORNER
SCALE: 3" = 1'-0"

56 A9.11 S.F. JAMB SKEW CORNER AT RATED S.F.
SCALE: 3" = 1'-0"

ADD2 2020-07-08

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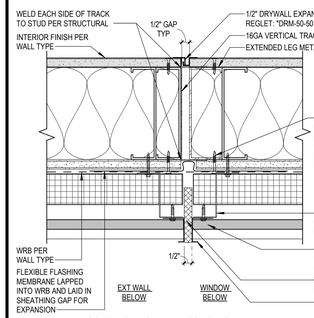
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MARK V COVINGTON
No. C-27366
03/31/2021
STATE OF CALIFORNIA

DOOR/WINDOW FRAME DETAILS
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)
2401 High School Road, Roseville, California 95747
Roseville Joint Union High School District

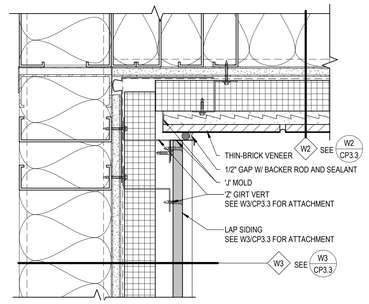
ADDENDUM 2
07.08.2020
Revisions
2020-07-08 ADD2 Addendum 2

PROJECT #75-19101-00
DSA APPL. #02-118062
DSA FILE #31-H3

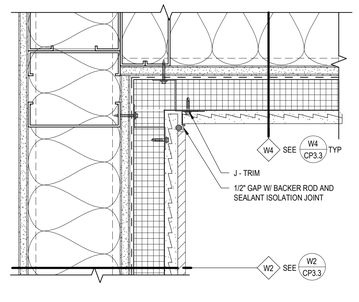
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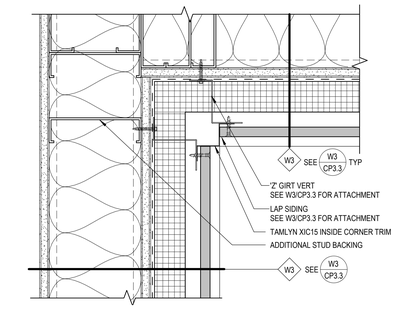
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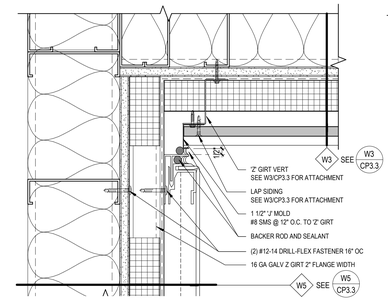
A. LAP SIDING TO THIN BRICK



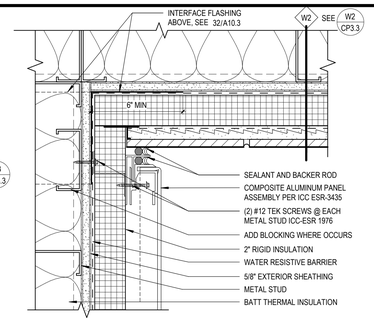
13 A10.2 PLASTER / THIN-BRICK INSIDE CORNER (PLAN)
SCALE: 3" = 1'-0"



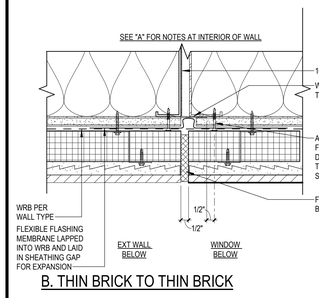
14 A10.2 LAP SIDING INSIDE CORNER (PLAN)
SCALE: 3" = 1'-0"



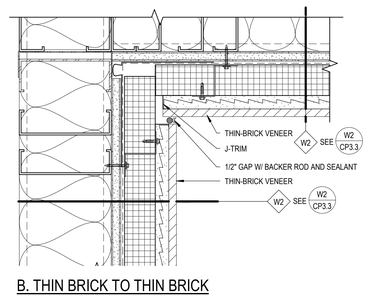
15 A10.2 LAP SIDING TO METAL PANEL INSIDE CORNER (PLAN)
SCALE: 3" = 1'-0"



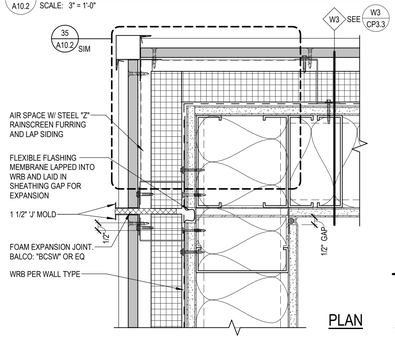
16 A10.2 METAL PANEL FASCIA AT THIN BRICK (PLAN)
SCALE: 3" = 1'-0"



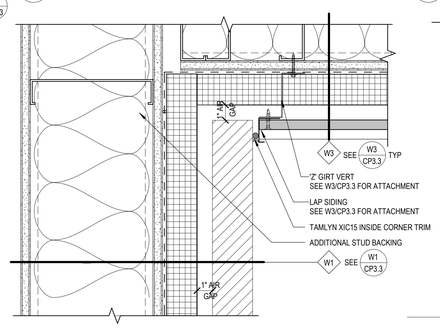
B. THIN BRICK TO THIN BRICK



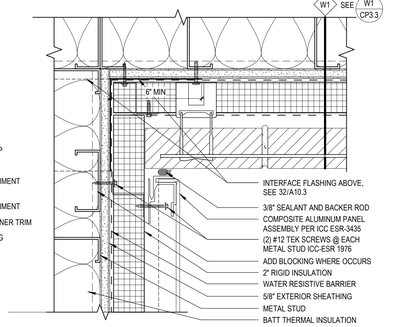
B. THIN BRICK TO THIN BRICK



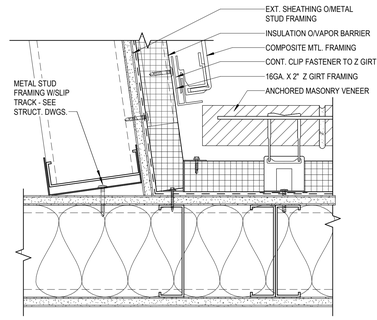
PLAN



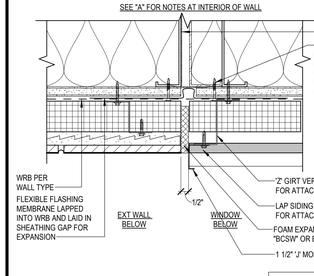
24 A10.2 LAP SIDING TO CMU VENEER INSIDE CORNER (PLAN)
SCALE: 3" = 1'-0"



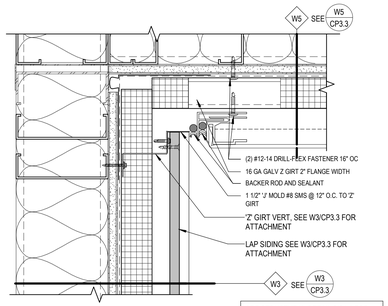
25 A10.2 METAL PANEL FASCIA AT CMU VENEER (PLAN)
SCALE: 3" = 1'-0"



26 A10.2 CMU / MTL. COMPOSITE TRANSITION (PLAN)
SCALE: 3" = 1'-0"

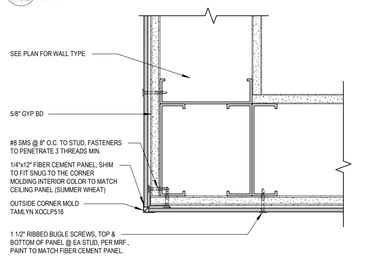


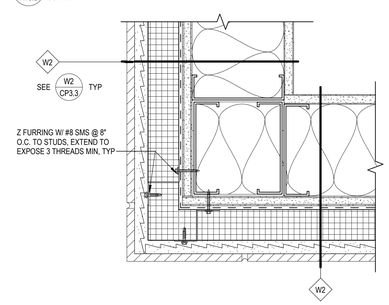
SEE STRUCTURAL DETAIL 6/S1.3 FOR ADDITIONAL INFORMATION NOT SHOWN



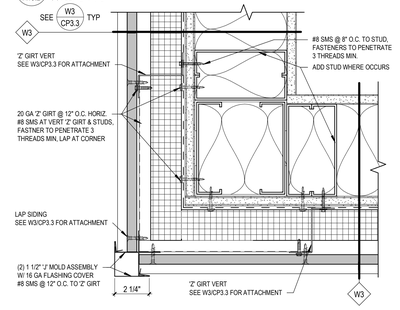
SEE STRUCTURAL DETAIL 6/S1.5 FOR ADDITIONAL INFORMATION NOT SHOWN AT SIM. CONDITION

23 A10.2 VERT. WALL JT. AT OUTSIDE CORNER. LAP SIDING
SCALE: 3" = 1'-0"

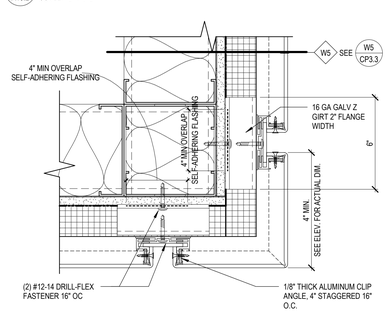




24 A10.2 LAP SIDING TO CMU VENEER INSIDE CORNER (PLAN)
SCALE: 3" = 1'-0"

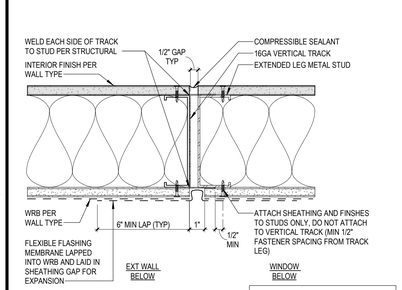


25 A10.2 METAL PANEL FASCIA AT CMU VENEER (PLAN)
SCALE: 3" = 1'-0"



26 A10.2 CMU / MTL. COMPOSITE TRANSITION (PLAN)
SCALE: 3" = 1'-0"

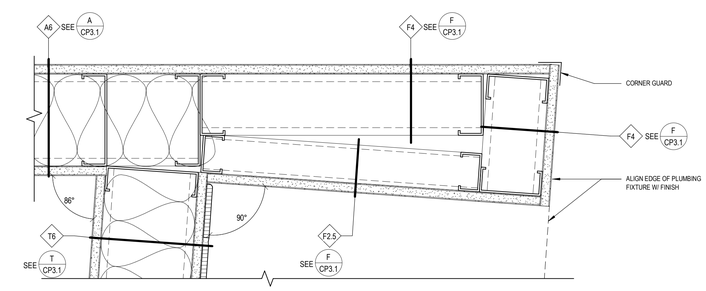
C. LAP SIDING TO THIN BRICK (PLAN)



ADD2 2020-07-08

SEE STRUCTURAL DETAIL 6/S1.3 FOR ADDITIONAL INFORMATION NOT SHOWN

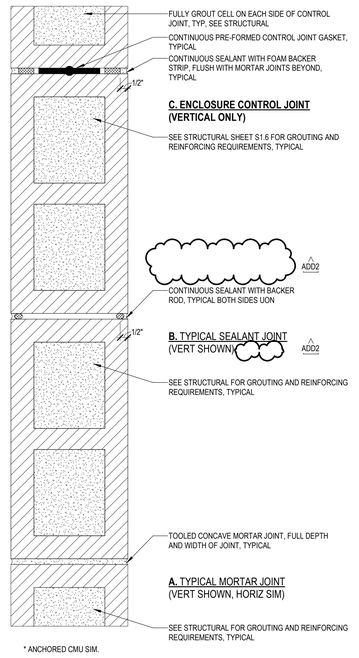
C. LAP SIDING TO METAL PANEL (PLAN)



22 A10.2 VERTICAL WALL JOINT AT INSIDE CORNER (PLAN)
SCALE: 3" = 1'-0"

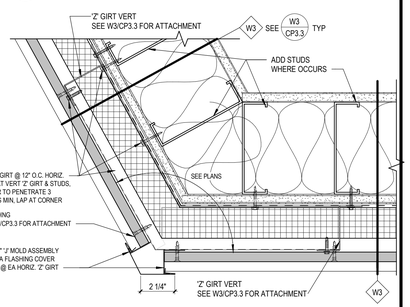
33 A10.2 FIBER CEMENT SIDING OUTSIDE CORNER (PLAN)
SCALE: 3" = 1'-0"

34 A10.2 THIN-BRICK OUTSIDE CORNER (PLAN)
SCALE: 3" = 1'-0"



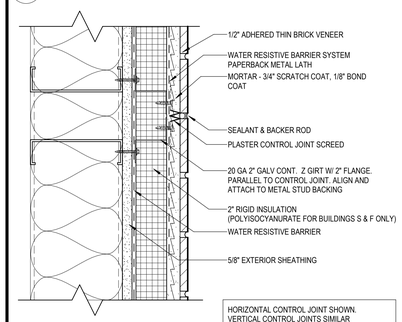
* ANCHORED CMU SIM.

35 A10.2 LAP SIDING OUTSIDE CORNER (PLAN)
SCALE: 3" = 1'-0"



36 A10.2 METAL COMPOSITE OUTSIDE CORNER (PLAN)
SCALE: 3" = 1'-0"

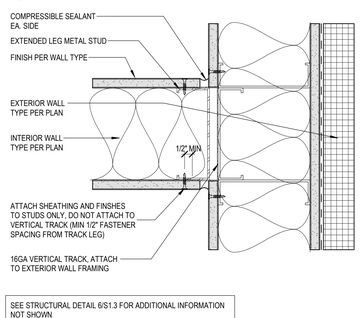
41 A10.2 VERTICAL WALL JOINT (PLAN)
SCALE: 3" = 1'-0"



HORIZONTAL CONTROL JOINT SHOWN. VERTICAL CONTROL JOINTS SIMILAR

51 A10.2 THIN BRICK HORIZ CONTROL JOINT (SECTION)
SCALE: 3" = 1'-0"

42 A10.2 ANGLED FURRED WALL-PLAN
SCALE: 3" = 1'-0"



SEE STRUCTURAL DETAIL 6/S1.3 FOR ADDITIONAL INFORMATION NOT SHOWN

52 A10.2 VERTICAL WALL JOINT @ EXT WALL (PLAN)
SCALE: 3" = 1'-0"

46 A10.2 LAP SIDING OUTSIDE CORNER MULTI ANGLE (PLAN)
SCALE: 3" = 1'-0"

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Architecture Engineering Planning Interiors

LICENSED ARCHITECT
MARK V. COVINGTON
No. C-27366
03/31/2021
STATE OF CALIFORNIA

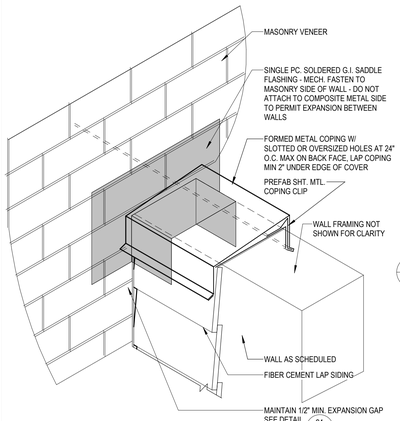
GENERAL BUILDING DETAILS
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)
2401 High School Road, Roseville, California 95747
Roseville Joint Union High School District

ADDENDUM 2
07.08.2020
Revisions
2020-07-08 ADD2 Addendum 2

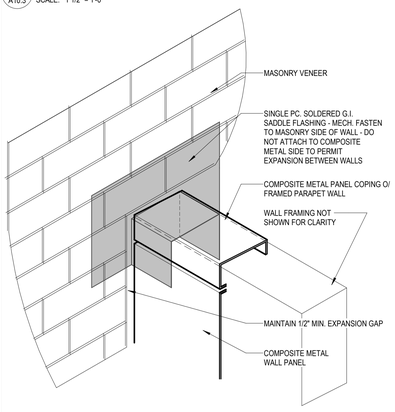
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DSA APPL. #02-118062
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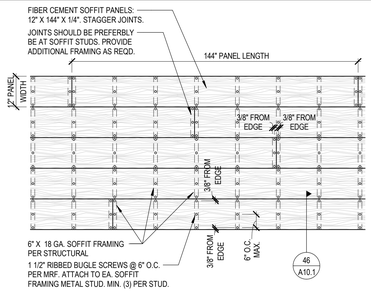
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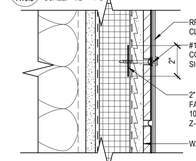


11 A10.3 FASCIA / WALL INTERFACE FLASHING
SCALE: 1 1/2" = 1'-0"

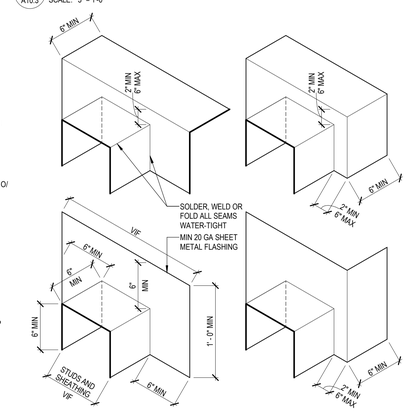




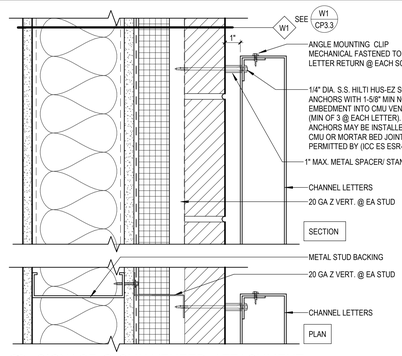
12 A10.3 FIBER CEMENT BOARD - JOINTS (CEILING PLAN)
SCALE: 1/2" = 1'-0"



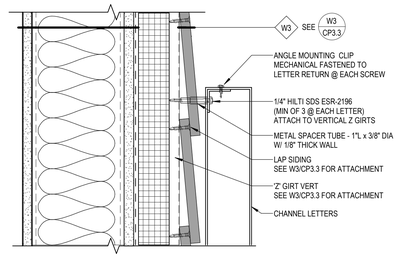
22 A10.3 SIGNAGE RR-XL MOUNTING (SECTION)
SCALE: 3" = 1'-0"

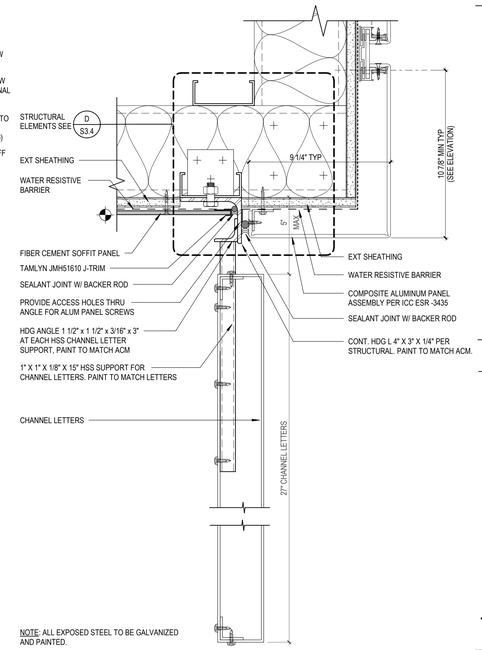


NOTES AND DIMENSIONS TYPICAL UNLESS NOTED OTHERWISE

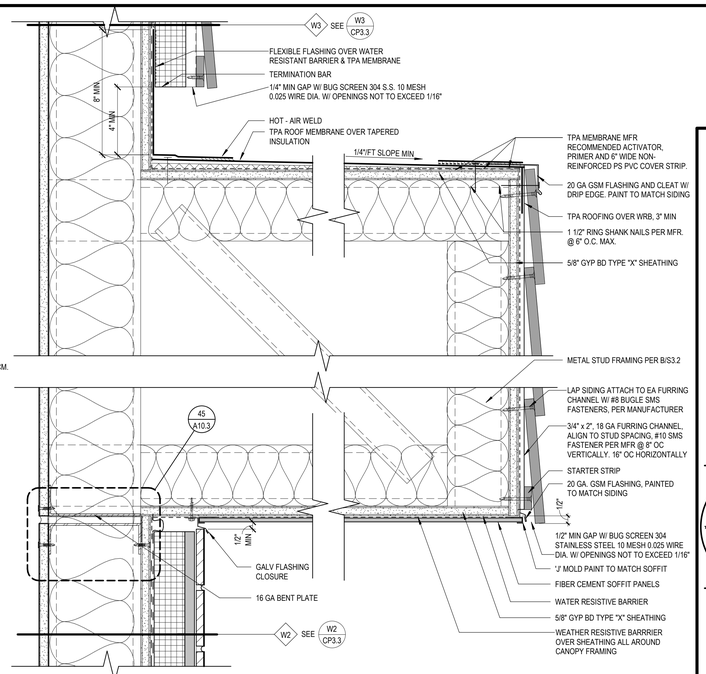


13 A10.3 SIGNAGE @ CMU VENEER ATTACHMENT
SCALE: 3" = 1'-0"

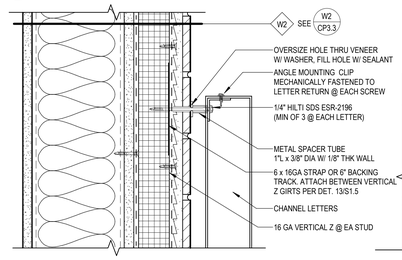




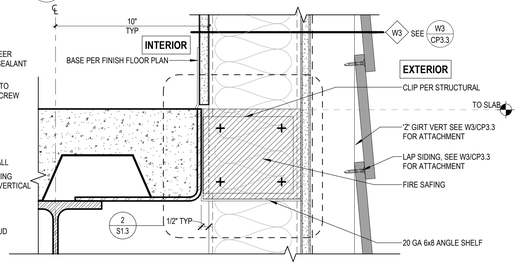
NOTE: ALL EXPOSED STEEL TO BE GALVANIZED AND PAINTED.



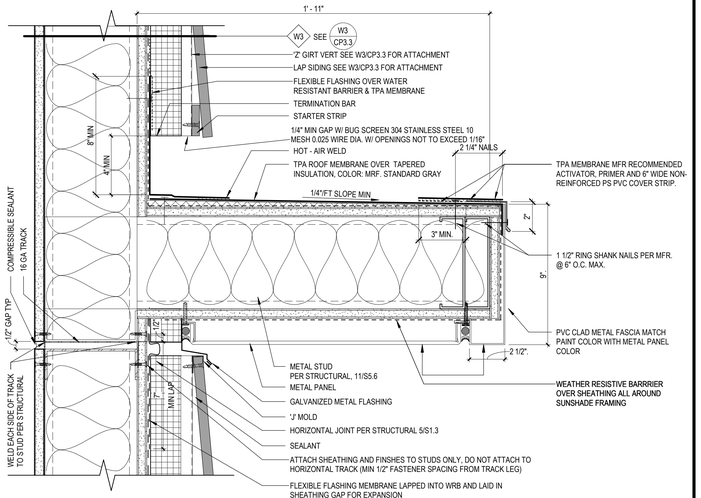
23 A10.3 SIGNAGE @ LAP SIDING ATTACHMENT (SECTION)
SCALE: 3" = 1'-0"



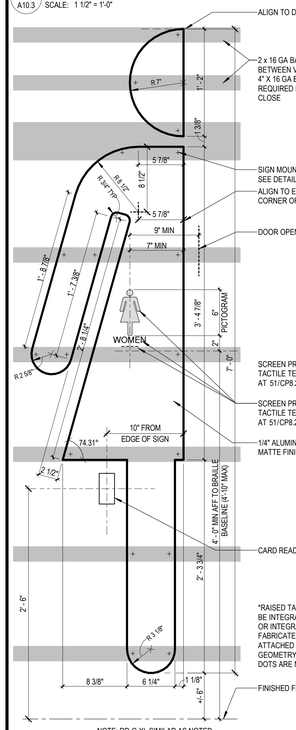
24 A10.3 SIGNAGE MOUNTING (SECTION)
SCALE: 3" = 1'-0"



25 A10.3 FIBER CEMENT CANOPY (SECTION)
SCALE: 3" = 1'-0"

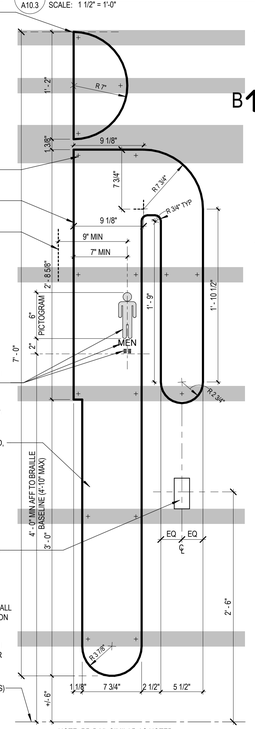


31 A10.3 FASCIA / WALL INTERFACE FLASHING
SCALE: 1 1/2" = 1'-0"



NOTE: RR-G-XL SIMILAR AS NOTED

51 A10.3 SIGNAGE RR-W-XL "RESTROOM FIGURE"
SCALE: 1 1/2" = 1'-0"

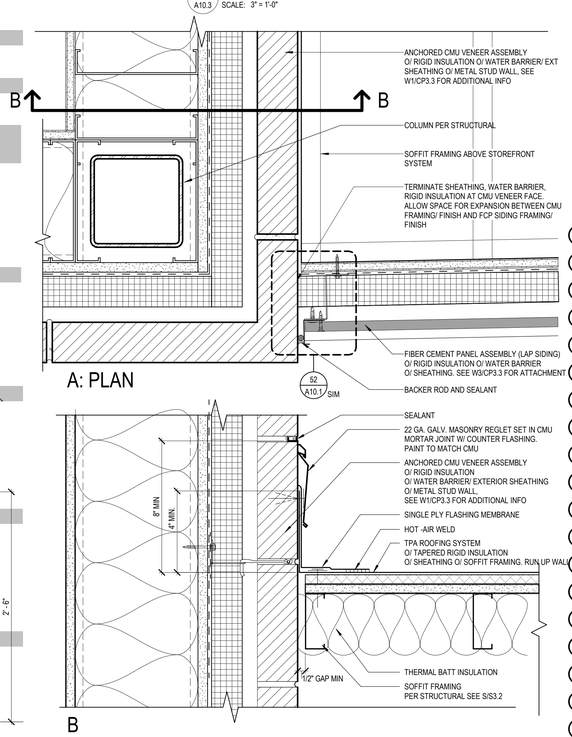


NOTE: RR-B-XL SIMILAR AS NOTED

52 A10.3 SIGNAGE RR-M-XL "RESTROOM FIGURE"
SCALE: 1 1/2" = 1'-0"

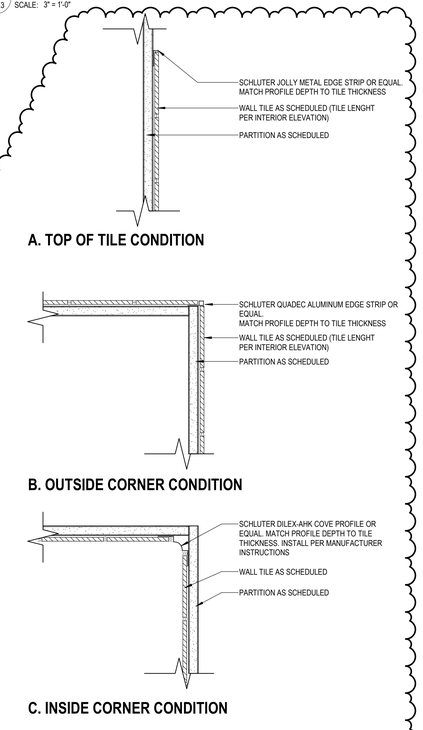
32 A10.3 FASCIA/WALL INTERFACE FLASHING
SCALE: 1 1/2" = 1'-0"

33 A10.3 SIGNAGE @ THIN BRICK ATTACHMENT (SECTION)
SCALE: 3" = 1'-0"



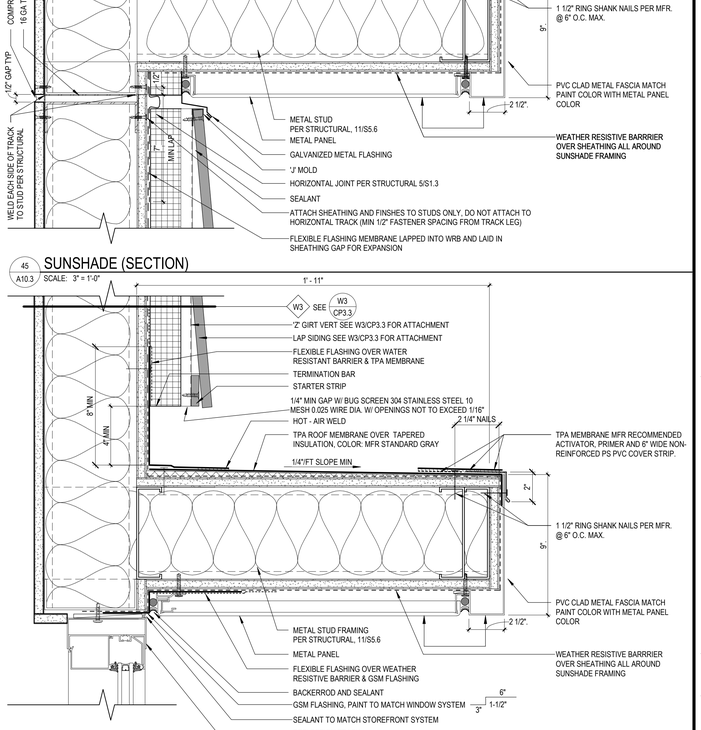
53 A10.3 STOREFRONT EYEBROW SOFFIT AT CMU VENEER
SCALE: 3" = 1'-0"

34 A10.3 LAP SIDING WALL AT FLOOR SLAB (SECTION)
SCALE: 3" = 1'-0"



54 A10.3 WALL TILE/EDGE PROTECTION DETAILS
SCALE: 3" = 1'-0"

45 A10.3 SUNSHADE (SECTION)
SCALE: 3" = 1'-0"



55 A10.3 SUNSHADE (SECTION)
SCALE: 3" = 1'-0"

ADD2 2020-07-08

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LICENSED ARCHITECT
MARK V COVINGTON
No. C-27366
03/31/2021
RENEWAL
STATE OF CALIFORNIA

GENERAL BUILDING DETAILS
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

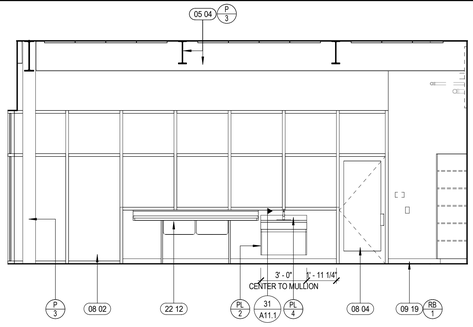
2401 High School Road, Roseville, California 95747

Roseville Joint Union High School District

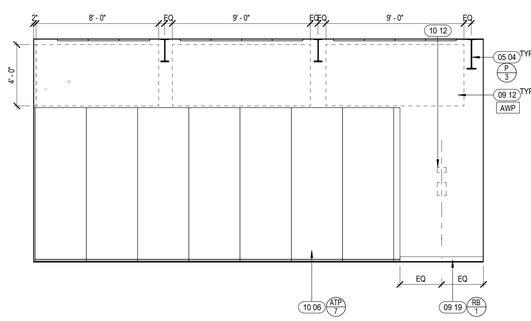
ADDENDUM 2
07.08.2020
Revisions
2020-07-08 ADD2 Addendum 2

PROJECT #75-19101-00
DSA APPL. #02-118062
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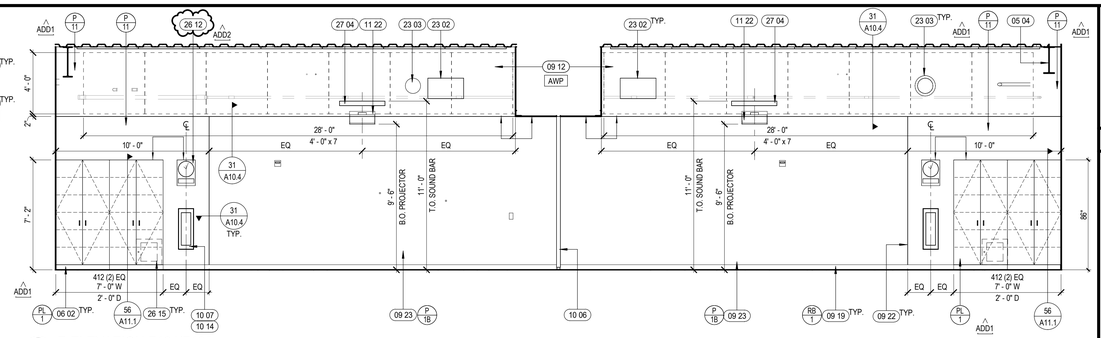
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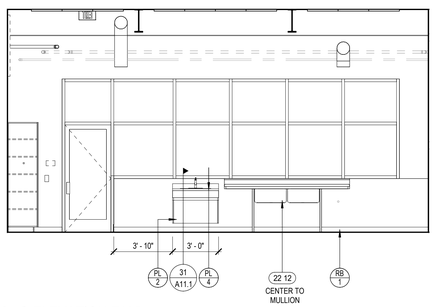
1 A12.1 N-ELEVATION F104
SCALE: 1/4" = 1'-0"



2 A12.1 S-ELEVATION F104
SCALE: 1/4" = 1'-0"

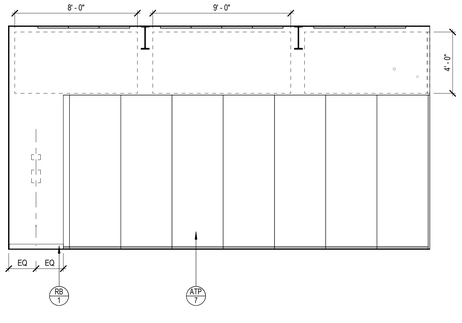


3 A12.1 E-ELEVATION F104/F105
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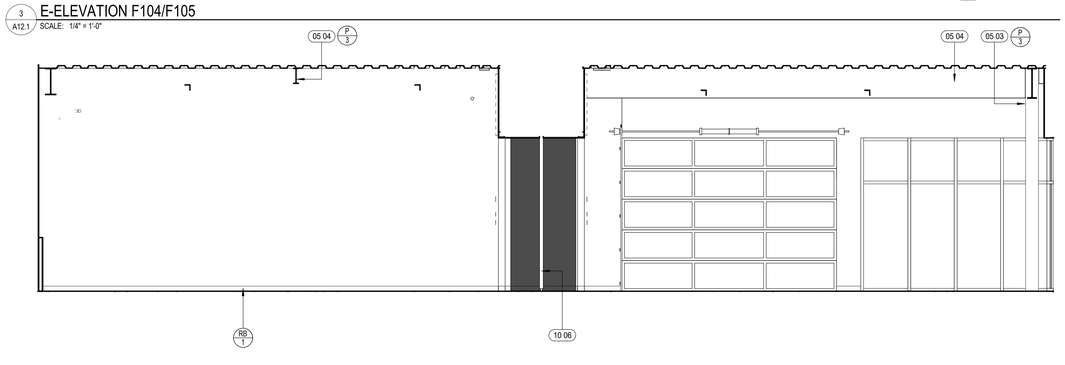
4 A12.1 S-ELEVATION F105
SCALE: 1/4" = 1'-0"

SEE 1/A12.2 FOR TYPICAL KEYNOTES

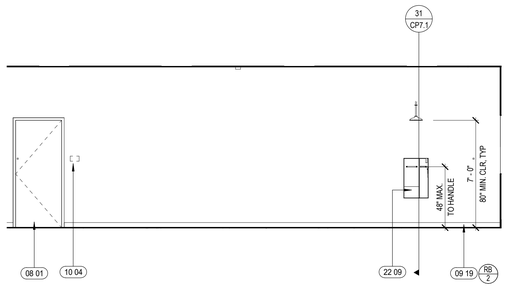


5 A12.1 N-ELEVATION F105
SCALE: 1/4" = 1'-0"

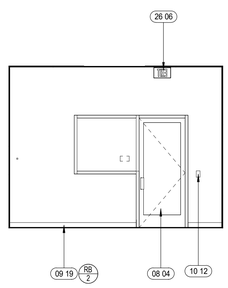
SEE 5/A12.1 FOR TYPICAL KEYNOTES



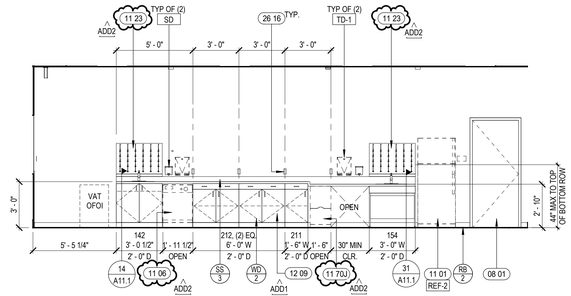
6 A12.1 W-ELEVATION F104/F105
SCALE: 1/4" = 1'-0"



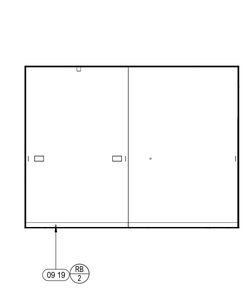
7 A12.1 E-ELEVATION F107
SCALE: 1/4" = 1'-0"



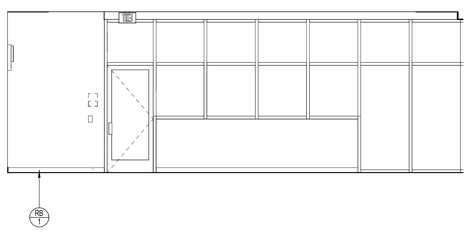
8 A12.1 N-ELEVATION F107
SCALE: 1/4" = 1'-0"



9 A12.1 W-ELEVATION F107
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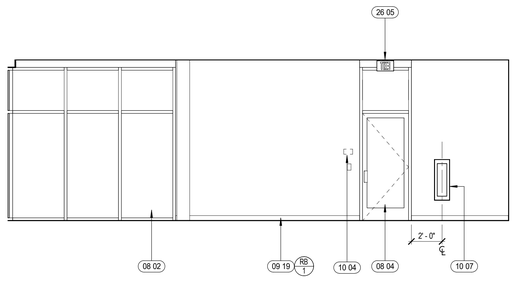


10 A12.1 S-ELEVATION F107
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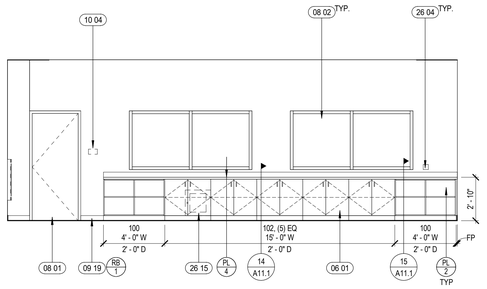


11 A12.1 N-ELEVATION F101
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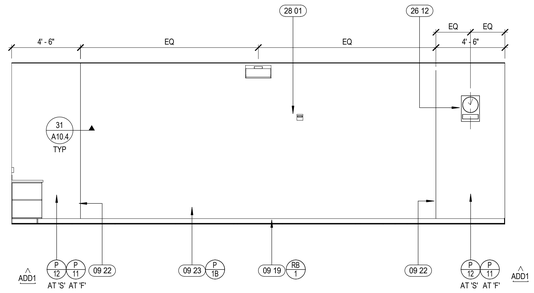
SEE 1/A12.2 FOR TYPICAL KEYNOTES



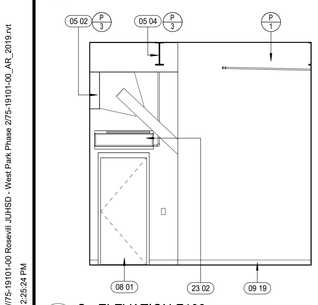
12 A12.1 E-ELEVATION F101
SCALE: 1/4" = 1'-0"



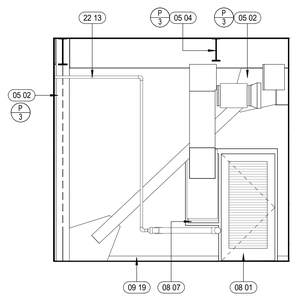
13 A12.1 S-ELEVATION F101
SCALE: 1/4" = 1'-0"



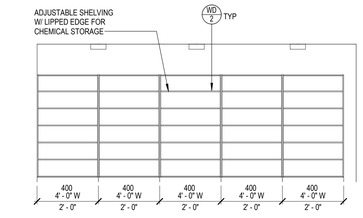
14 A12.1 W-ELEVATION F101
SCALE: 1/4" = 1'-0"



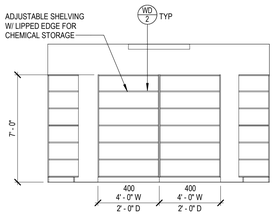
15 A12.1 S - ELEVATION F109
SCALE: 1/4" = 1'-0"



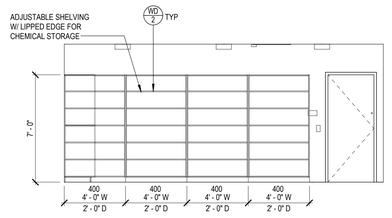
16 A12.1 S - ELEVATION F111
SCALE: 1/4" = 1'-0"



17 A12.1 F110 SCIENCE STORAGE - EAST
SCALE: 1/4" = 1'-0"



18 A12.1 F110 SCIENCE STORAGE - SOUTH
SCALE: 1/4" = 1'-0"



19 A12.1 F110 SCIENCE STORAGE - WEST
SCALE: 1/4" = 1'-0"

KEYNOTES

05 02	STRUCTURAL STEEL FRAMING, ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AESS)
05 03	STRUCTURAL STEEL COLUMN, SEE STRUCTURAL
05 04	STRUCTURAL STEEL BEAM, SEE STRUCTURAL
05 05	STRUCTURAL STEEL BRACE FRAME, SEE STRUCTURAL
06 01	PLASTIC LAMINATE CASEWORK
06 02	PLASTIC LAMINATE CASEWORK - TALL CABINETS
08 01	HOLLOW METAL DOOR AND FRAME, PRIMED & PAINTED. SEE DOOR SCHEDULE
08 02	ALUMINUM FRAMED STOREFRONT, SEE A9.2 & A9.3
08 04	ALUMINUM FRAMED STOREFRONT: DOOR
08 07	IN-WALL LOUVER, SEE M DWGS
09 12	FABRIC WRAPPED PANEL
09 19	RUBBER BASE
09 22	ALUMINUM REVEAL BETWEEN PAINT FINISHES
09 23	PROJECTABLE, MAGNETIC AND WRITABLE WALL PAINT
10 04	SIGNAGE, SEE A14 SERIES SHEETS
10 06	OPERABLE PARTITION, MOTORIZED. SEE DETAIL 16/A10.4
10 07	SEMI RECESSED FIRE EXTINGUISHER CABINET, REF. 26/A10.4 FOR RATED WALLS
10 12	NOT USED
10 14	PROVIDE HIGH HAZARD UL-RATED FIRE EXTINGUISHER 40A-80B:C AT THIS LOCATION
11 01	RESIDENTIAL REFRIGERATOR, SEE P AND E DWGS
11 06	UNDERCOUNTER RESIDENTIAL DISHWASHER, OFCI. SEE P DWGS
11 22	OFCI WALL-MOUNTED SHORT THROW PROJECTOR. SEE DET. 44/A3.12. SEE E3.X AND E4.X SERIES FOR POWER AND AV INFRASTRUCTURE
11 23	DRAIN RACK
11 70J	ICE MACHINE, SEE P & E DWGS
12 09	LABORATORY CASEWORK
22 09	EMERGENCY EYEWASH & SHOWER. SEE PLUMBING & SLAB PLANS FOR FLOOR DRAIN. SEE DET 56/CP2.03 AT RATED WALLS
22 12	SS DOUBLE SINK WITH DRAIN BOARDS. SEE P DWGS. CUT SS LEGS TO ADJUST HEIGHT TO FIT UNDER WINDOW
22 13	HYDRONIC PIPING, SEE P DWGS
23 02	MECHANICAL EQUIPMENT, SEE M DWGS
23 03	MECHANICAL DUCT, SEE M DWGS
26 04	ELECRICAL OUTLET, SEE E DWGS
26 05	WALL MOUNTED EXIT SIGN, SEE E DWGS
26 06	CEILING MOUNTED EXIT SIGN, SEE E DWGS
26 12	WALL MOUNTED CLOCK SPEAKER UNIT, SEE E DWGS
26 15	AV RACK, PLACE INSIDE CASEWORK, SEE E DWGS
26 16	ELECTRICAL POWER/ DATA OUTLET ABOVE BACKSPLASH, MAINTAIN ALIGNMENT ON WALL. SEE E DWGS.
27 04	WALL MOUNTED SOUND BAR, JBL PRO COMMERCIAL SOUNDBAR PSB-1, COLOR: BLACK
28 01	WALL MOUNTED FIRE ALARM DEVICE, SEE E DWGS

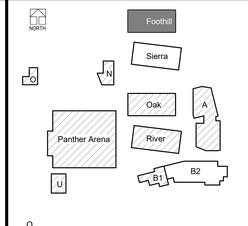
INTERIOR FINISH LEGEND

RB 1	RUBBER WALL BASE - MFR: ARMSTRONG NAME: 4" RUBBER BASE, 61 GRAPHITE GRAY
RB 2	RUBBER WALL BASE - MFR: ARMSTRONG NAME: 4" RUBBER BASE, 40 BLACK
EB 1	EPOXY BASE - MFR: DEX-O-TEX NAME: TERRACOLOR - NUMBER: LIMESTONE 112 ADD2
P 1	PAINT - MFR: SHERWIN WILLIAMS NAME: MODERNE WHITE, 6168
P 2	PAINT - MFR: SHERWIN WILLIAMS NAME: TIN LIZZIE, 9163
P 3	PAINT - MFR: SHERWIN WILLIAMS NAME: ARGOS, 7065
P 11	PAINT - MFR: DUNN EDWARDS NAME: DESERT SPICE, DE5202 (USED IN BLDG F) ADD1
P 12	PAINT - MFR: DUNN EDWARDS NAME: PURPLE POTION, DE5958 (USED IN BLDG S)
P 1B	MARKERBOARD PAINT- MFR: IDEAPAINT DRY ERASE COATING + MAGNETIC PRIMER
CT 11	CERAMIC TILE - MFR: DALTILE NAME: FABRIQUE 12"X24", P685 BLANC LINEN
CT 12	CERAMIC TILE - MFR: DALTILE NAME: FABRIQUE 12"X24", P690 GRIS LINEN
CT 13	CERAMIC TILE - MFR: DALTILE NAME: FABRIQUE 12"X24", P689 NOIR LINEN
PL 1	PLASTIC LAMINATE - MFR: FORMICA ADD1 NAME: GRAPHITE, 837-58
PL 2	PLASTIC LAMINATE - MFR: FORMICA NAME: PECAN WOODLINE, 5883-58
PL 4	PLASTIC LAMINATE - MFR: FORMICA NAME: GRAYSTONE, 464-58
WD 2	HARDWOOD CABINETRY - MFR: KEWAUNEE NAME: SIGNATURE SERIES SEASIDE MAPLE - STANDARD WOOD FINISH, 202
GR 1	GROUT - MFR: CUSTOM BUILDING PRODUCTS NAME: #543 DRIFTWOOD
FCP 2	FCP - MFR: JAMES HARDIE ADD1 NAME: HARDIESOFFIT PANELS - SUMMER WHEAT
SS 3	EPOXY COUNTER TOP - MFR: KEWAUNEE NAME: KEMRESIN, 1" THICK BLACK
ATP 7	FABRIC WRAPPED ACOUSTICAL / TACKABLE PANEL MFR: GUILFORD OF MAINE NAME: STUDIO 54 - GLAM, 2965-7040
ATP 8	FABRIC WRAPPED ACOUSTICAL / TACKABLE PANEL ADD1 MFR: HUFCOR NAME: REVELATIONS, DELIGHT, 48-10 STEEL
WT 1	SUN SHADE - MFR: MECHOSHADE NAME: THERMOVEIL 1500, 1519 SILVER BIRCH
WT 2	SUN SHADE - MFR: MECHOSHADE NAME: THERMOVEIL 1500 & CSIC BLACKOUT 0700, 1519 SILVER BIRCH & 0702 LIGHT GREY
WC 1	WALL COVERING - WOOD VENEER - MFR: KOROSEAL ADD2 NAME: ARBOR SERIES, AA9031 WALNUT AMERICAN QC

GENERAL NOTES

1. REFER TO A2 SHEET SERIES FOR RR ACCESSORIES SCHEDULE.
2. ALL FIRE EXTINGUISHER CABINETS TO BE INSTALLED AT 40" AFF TO OPERABLE PARTS. SEE DET 25/CP7.1
3. LOCATE FUME HOOD AT 48" MAX. AFF TO HIGHEST CONTROLS.
4. ALL GYPSUM BOARD CEILINGS AND SOFFITS TO BE P1, U.N.O..
5. REFER TO FLOOR PLANS FOR WALL TYPES AND ADDITIONAL INFORMATION.
6. ALL ACCENT/ PROJECTABLE WALL PAINT TO BE TERMINATED AT EITHER INSIDE CORNERS AND/ OR REVEALS.
7. SEE APPROPRIATE SHEETS FOR GEN. NOTES APPLYING TO ENLARGED FLOOR, POWER, REFLECTED CLNG. PLANS.
8. REFER TO A13 SERIES FINISH PLAN FOR FINISH INFORMATION.
9. ALL MILLWORK TO BE INSTALLED PRIOR TO CARPET, BUT AFTER PAINT AND TO BE MOUNTED TO SUBFLOOR.
10. PROVIDE FILLER PANELS BETWEEN WALL AND CABINETS, TYP. FILLER PANELS TO BE MINIMAL.
11. SEE A11.10 FOR CASEWORK DETAILS.
12. ALL WALLS TO BE PAINTED P-1, U.N.O. ADD1

KEY PLAN



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Architecture Engineering Planning Interiors
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LICENSED ARCHITECT
MARK V COVINGTON
No. C-27586
03/31/2021
RENEWAL DATE
STATE OF CALIFORNIA

INT. ELEVATIONS - BLDG. F
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

2401 High School Road, Roseville, California 95747
Roseville Joint Union High School District

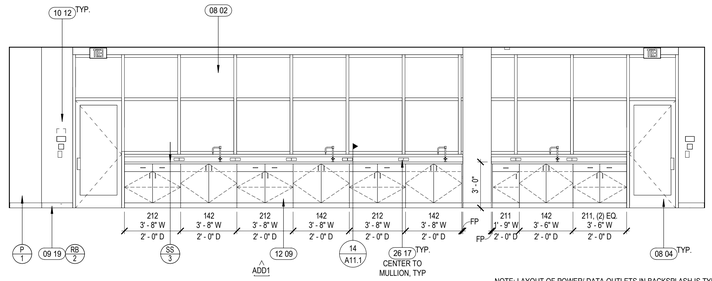
ADDENDUM 2
07.08.2020
Revisions
2020-07-01 ADD1 Addendum 1
2020-07-08 ADD2 Addendum 2

PROJECT #75-19101-00
DSA APPL. #02-118062
DSA FILE #31-H3

A12.1

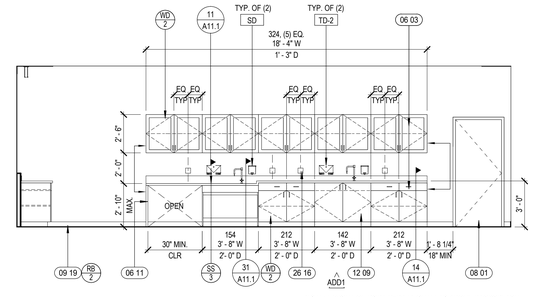
ADD2 2020-07-08
ADD1 2020-07-01

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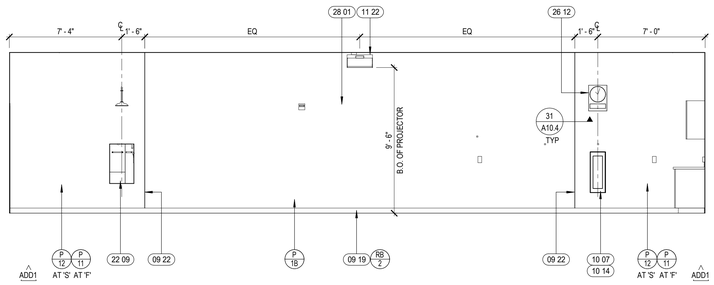
1 A12.2 **N-ELEVATION F103**
SCALE: 1/4" = 1'-0"

NOTE: LAYOUT OF POWER/ DATA OUTLETS IN BACKSPLASH IS TYP. FOR WINDOW WALLS OF CHEMISTRY & BIO PHYSICS LABS IN BLDGS. F & S

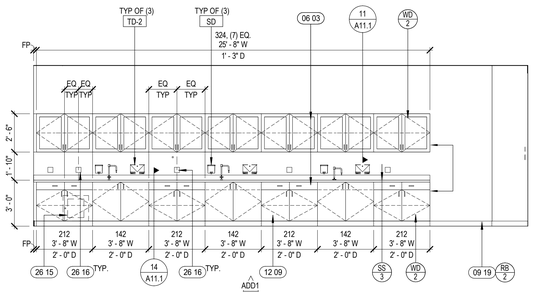


2 A12.2 **E-ELEVATION F103**
SCALE: 1/4" = 1'-0"

NOTE: LAYOUT OF POWER/ DATA OUTLETS ABOVE BACKSPLASH IS TYP. FOR CHEMISTRY & BIO PHYSICS LABS IN BLDGS. F & S

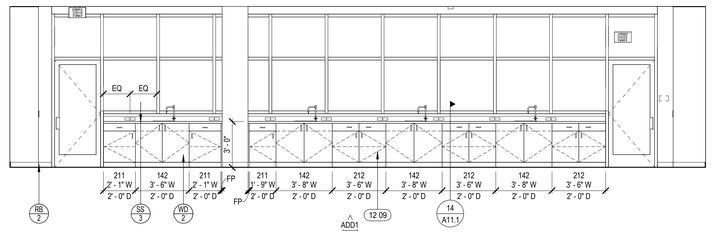


3 A12.2 **S-ELEVATION F103**
SCALE: 1/4" = 1'-0"



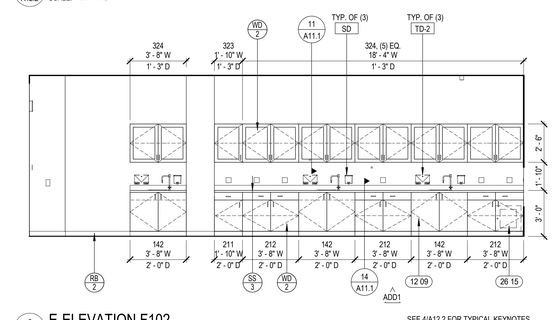
4 A12.2 **W-ELEVATION F103**
SCALE: 1/4" = 1'-0"

NOTE: LAYOUT OF POWER/ DATA OUTLETS ABOVE BACKSPLASH IS TYP. FOR CHEMISTRY & BIO PHYSICS LABS IN BLDGS. F & S



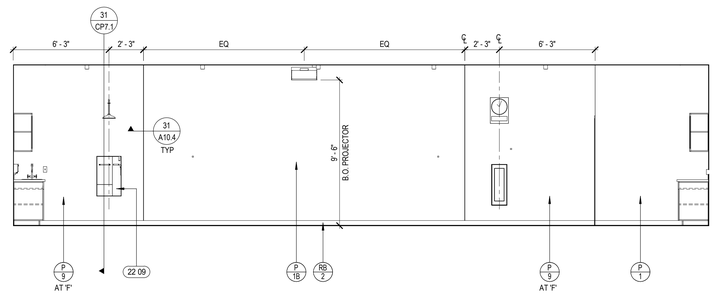
5 A12.2 **N-ELEVATION F102**
SCALE: 1/4" = 1'-0"

SEE 1/A12.2 FOR TYPICAL KEYNOTES



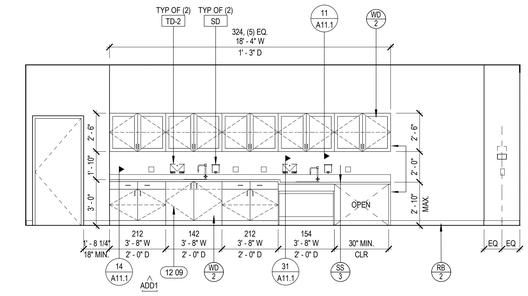
6 A12.2 **E-ELEVATION F102**
SCALE: 1/4" = 1'-0"

SEE 4/A12.2 FOR TYPICAL KEYNOTES



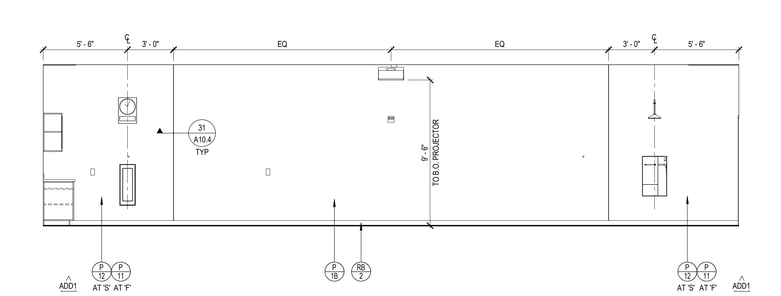
7 A12.2 **S-ELEVATION F102**
SCALE: 1/4" = 1'-0"

SEE 3/A12.2 FOR TYPICAL KEYNOTES



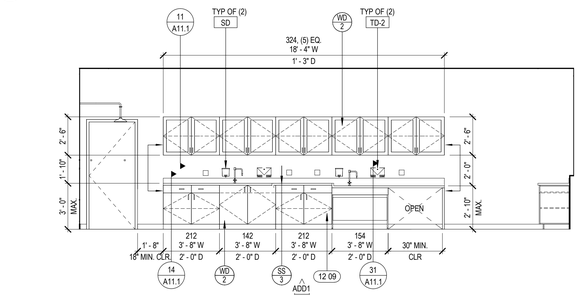
8 A12.2 **W-ELEVATION F102**
SCALE: 1/4" = 1'-0"

SEE 2/A12.2 FOR TYPICAL KEYNOTES



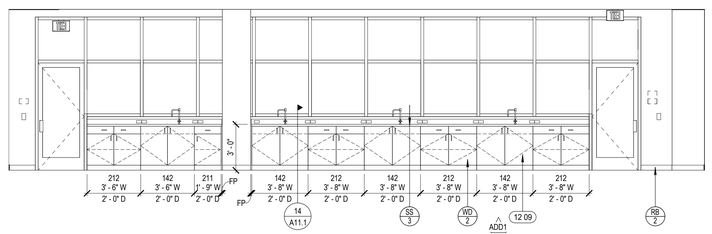
9 A12.2 **N-ELEVATION F106**
SCALE: 1/4" = 1'-0"

SEE 3/A12.2 FOR TYPICAL KEYNOTES



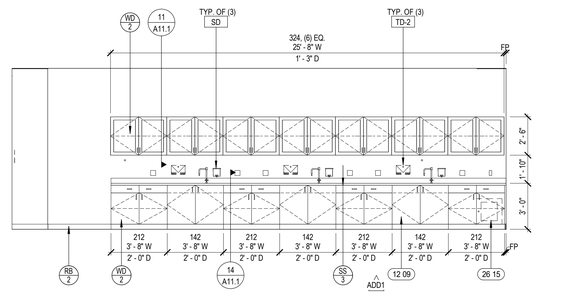
10 A12.2 **E-ELEVATION F106**
SCALE: 1/4" = 1'-0"

SEE 2/A12.2 FOR TYPICAL KEYNOTES



11 A12.2 **S-ELEVATION F106**
SCALE: 1/4" = 1'-0"

SEE 1/A12.2 FOR TYPICAL KEYNOTES



12 A12.2 **W-ELEVATION F106**
SCALE: 1/4" = 1'-0"

SEE 4/A12.2 FOR TYPICAL KEYNOTES

KEYNOTES

06 03 PLASTIC LAMINATE CASEWORK - UPPERS AND LOWERS
06 11 VERTICAL SUPPORT, SAME WIDTH AS COUNTERTOP. ALIGN WITH COUNTERTOP EDGE. PROVIDE PLASTIC LAMINATE FINISH ON BOTH SIDES TO MATCH COUNTERTOP.
08 01 HOLLOW METAL DOOR AND FRAME, PRIMED & PAINTED. SEE DOOR SCHEDULE
08 02 ALUMINUM FRAMED STOREFRONT, SEE A9.2 & A9.3
08 04 ALUMINUM FRAMED STOREFRONT: DOOR
09 19 RUBBER BASE
09 22 ALUMINUM REVEAL BETWEEN PAINT FINISHES
10 07 SEMI RECESSED FIRE EXTINGUISHER CABINET, REF. 26/A10.4 FOR RATED WALLS
10 12 NOT USED
10 14 PROVIDE HIGH HAZARD UL-RATED FIRE EXTINGUISHER 40A-80B:C AT THIS LOCATION
11 22 OFCI WALL-MOUNTED SHORT THROW PROJECTOR. SEE DET. 44/A3.12. SEE E3.X AND E4.X SERIES FOR POWER AND AV INFRASTRUCTURE
12 09 LABORATORY CASEWORK
22 09 EMERGENCY EYEWASH & SHOWER. SEE PLUMBING & SLAB PLANS FOR FLOOR DRAIN. SEE DET 56/CP2.03 AT RATED WALLS
26 12 WALL MOUNTED CLOCK SPEAKER UNIT, SEE E DWGS
26 15 AV RACK, PLACE INSIDE CASEWORK, SEE E DWGS
26 16 ELECTRICAL POWER/ DATA OUTLET ABOVE BACKSPLASH, MAINTAIN ALIGNMENT ON WALL. SEE E DWGS.
26 17 ELECTRICAL POWER/ DATA OUTLET, PLACE HORIZONTALLY IN BACKSPLASH UNDER WINDOW. SEE E DWGS.
28 01 WALL MOUNTED FIRE ALARM DEVICE, SEE E DWGS

GENERAL NOTES

1. REFER TO A2 SHEET SERIES FOR RR ACCESSORIES SCHEDULE.
2. ALL FIRE EXTINGUISHER CABINETS TO BE INSTALLED AT 40" AFF TO OPERABLE PARTS. SEE DET 25/CP7.1
3. LOCATE FUME HOOD AT 48" MAX. AFF TO HIGHEST CONTROLS.
4. ALL GYPSUM BOARD CEILINGS AND SOFFITS TO BE P1, U.N.O.
5. REFER TO FLOOR PLANS FOR WALL TYPES AND ADDITIONAL INFORMATION.
6. ALL ACCENT/ PROJECTABLE WALL PAINT TO BE TERMINATED AT EITHER INSIDE CORNERS AND/ OR REVEALS.
7. SEE APPROPRIATE SHEETS FOR GEN. NOTES APPLYING TO ENLARGED FLOOR, POWER, REFLECTED CLNG. PLANS.
8. REFER TO A13 SERIES FINISH PLAN FOR FINISH INFORMATION.
9. ALL MILLWORK TO BE INSTALLED PRIOR TO CARPET, BUT AFTER PAINT AND TO BE MOUNTED TO SUBFLOOR.
10. PROVIDE FILLER PANELS BETWEEN WALL AND CABINETS, TYP. FILLER PANELS TO BE MINIMAL.
11. SEE A11.10 FOR CASEWORK DETAILS.
12. ALL WALLS TO BE PAINTED P-1, U.N.O. ADD1

INTERIOR FINISH LEGEND

RB 1 — RUBBER WALL BASE - MFR: ARMSTRONG
NAME: 4" RUBBER BASE, 61 GRAPHITE GRAY

RB 2 — RUBBER WALL BASE - MFR: ARMSTRONG
NAME: 4" RUBBER BASE, 40 BLACK ADD2

EB 1 — EPOXY BASE - MFR: DEX-O-TEX
NAME: TERRACOLOR - NUMBER: LIMESTONE 112

P 1 — PAINT - MFR: SHERWIN WILLIAMS
NAME: MODERNE WHITE, 6168

P 2 — PAINT - MFR: SHERWIN WILLIAMS
NAME: TIN LIZZIE, 9163

P 3 — PAINT - MFR: SHERWIN WILLIAMS
NAME: ARGOS, 7065

P 11 — PAINT - MFR: DUNN EDWARDS ADD1
NAME: DESERT SPICE, DE5202 (USED IN BLDG F)

P 12 — PAINT - MFR: DUNN EDWARDS
NAME: PURPLE POTION, DE5958 (USED IN BLDG S)

P 1B — MARKERBOARD PAINT - MFR: IDEAPAINT
DRY ERASE COATING + MAGNETIC PRIMER

CT 11 — CERAMIC TILE - MFR: DALTILE
NAME: FABRIQUE 12"X24", P885 BLANC LINEN

CT 12 — CERAMIC TILE - MFR: DALTILE
NAME: FABRIQUE 12"X24", P890 GRIS LINEN

CT 13 — CERAMIC TILE - MFR: DALTILE
NAME: FABRIQUE 12"X24", P889 NOIR LINEN

PL 1 — PLASTIC LAMINATE - MFR: FORMICA ADD1
NAME: GRAPHITE, 837-58

PL 2 — PLASTIC LAMINATE - MFR: FORMICA
NAME: PECAN WOODLINE, 5883-58

PL 4 — PLASTIC LAMINATE - MFR: FORMICA
NAME: GRAYSTONE, 464-58

WD 2 — HARDWOOD CABINETRY - MFR: KEWAUNEE
NAME: SIGNATURE SERIES SEASIDE MAPLE - STANDARD WOOD FINISH, 202

GR 1 — GROUT - MFR: CUSTOM BUILDING PRODUCTS
NAME: #543 DRIFTWOOD

FCP 2 — FCP - MFR: JAMES HARDIE ADD1
NAME: HARDIESOFFIT PANELS - SUMMER WHEAT

SS 3 — EPOXY COUNTER TOP - MFR: KEWAUNEE
NAME: KEMRESIN, 1" THICK BLACK

ATP 7 — FABRIC WRAPPED ACOUSTICAL / TACKABLE PANEL
MFR: GUILFORD OF MAINE
NAME: STUDIO 54 - GLAM, 2966-7040

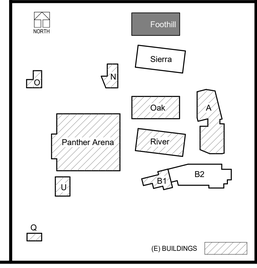
ATP 8 — FABRIC WRAPPED ACOUSTICAL / TACKABLE PANEL ADD1
MFR: HUFCOR
NAME: REVELATIONS, DELIGHT, 48-10 STEEL

WT 1 — SUN SHADE - MFR: MECHOSHADE
NAME: THERMOVEIL 1500, 1519 SILVER BIRCH

WT 2 — SUN SHADE - MFR: MECHOSHADE
NAME: THERMOVEIL 1500 & CLASSIC BLACKOUT 0700, 1519 SILVER BIRCH & 0702 LIGHT GREY ADD2

WC 1 — WALL COVERING - WOOD VENEER - MFR: KOROSEAL
NAME: ARBOR SERIES, AW031 WALNUT AMERICAN QC

KEY PLAN



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DLR Group
Architecture Engineering Planning Interiors

LICENSED ARCHITECT
MARK V COVINGTON
No. C-27566
03/31/2021
RENEWAL
STATE OF CALIFORNIA

INT. ELEVATIONS - BLDG. F
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

2401 High School Road, Roseville, California 95747

Roseville Joint Union High School District

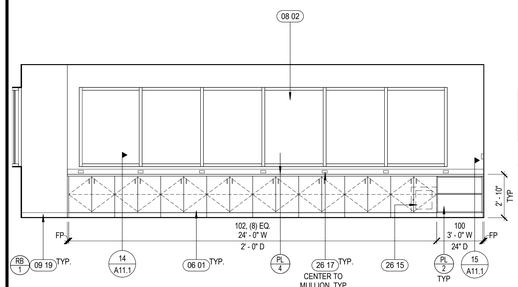
ADDENDUM 2
07.08.2020
Revisions
2020-07-01 ADD1 Addendum 1

PROJECT #75-19101-00
DSA APPL. #02-118062
DSA FILE #31-H3

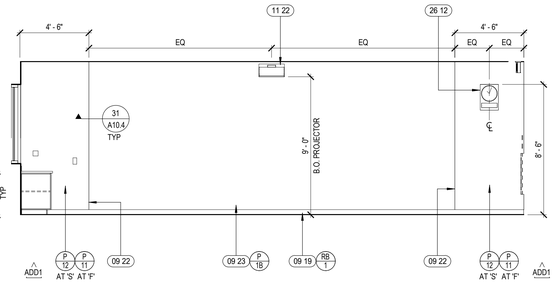
A12.2

ADD1 2020-07-01

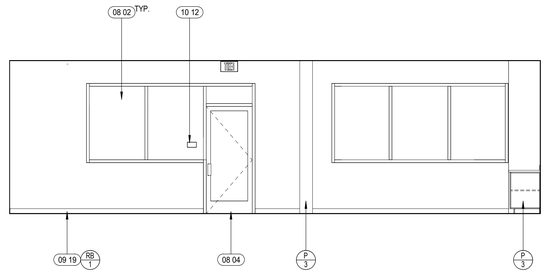
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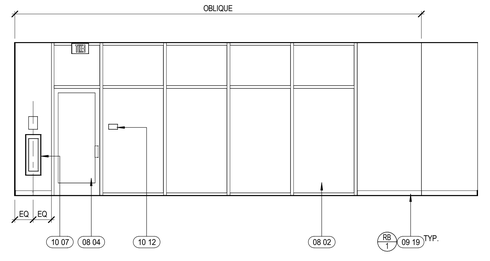
1 A12.3 N-ELEVATION F202/F302 & S202/S303
SCALE: 1/4" = 1'-0"



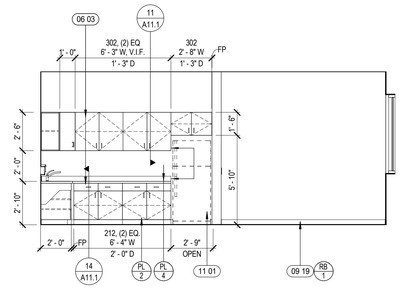
2 A12.3 E-ELEVATION F202/F302 & S202/S303
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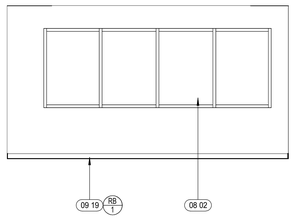
3 A12.3 W-ELEVATION F202/F302 & S202/S303
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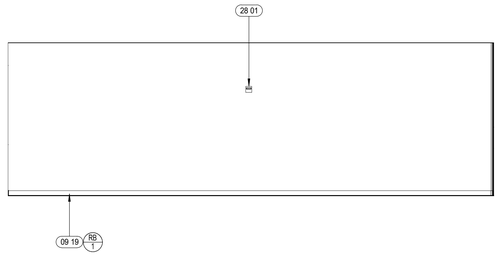
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SCALE: 1/4" = 1'-0"



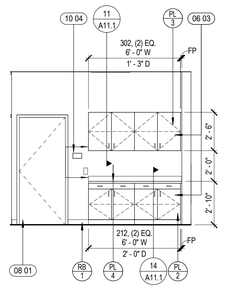
5 A12.3 W - ELEVATION F201/F301 & S201/S301
SCALE: 1/4" = 1'-0"



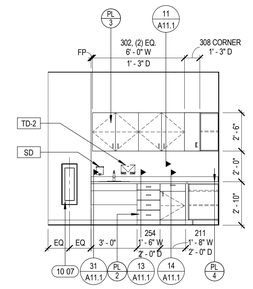
6 A12.3 N-ELEVATION F201/F301 & S201/S301
SCALE: 1/4" = 1'-0"



7 A12.3 E - ELEVATION F201/F301 & S201/S301
SCALE: 1/4" = 1'-0"



8 A12.3 W2 - ELEVATION F201/F301 & S201/S301
SCALE: 1/4" = 1'-0"

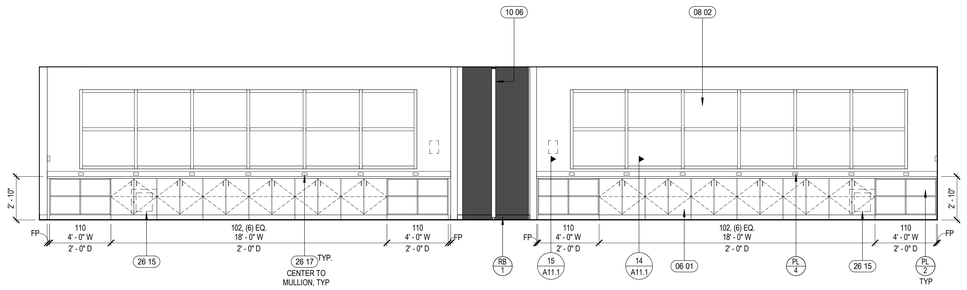


9 A12.3 S - ELEVATION F201/F301 & S201/S301
SCALE: 1/4" = 1'-0"

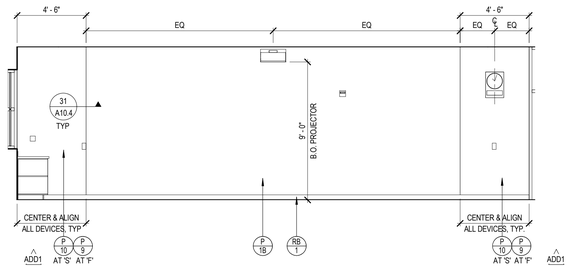
10 A12.3 N-ELEVATION F203/F303 & S203/S303
SCALE: 1/4" = 1'-0"

11 A12.3 E-ELEVATION F203/F303 & S203/S303
SCALE: 1/4" = 1'-0"

SEE 2/A12.3 FOR TYPICAL KEYNOTES

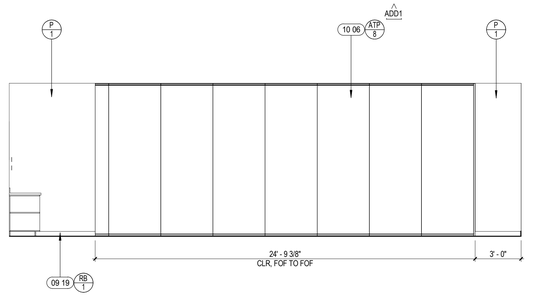


12 A12.3 S-ELEVATION F203/F303 & S203/S303
SCALE: 1/4" = 1'-0"



13 A12.3 W-ELEVATION F203/F303 & S203/S303
SCALE: 1/4" = 1'-0"

SEE 2/A12.3 FOR TYPICAL KEYNOTES



14 A12.3 W-ELEVATION F204/F304 & S204/S304
SCALE: 1/4" = 1'-0"

KEYNOTES

06 01	PLASTIC LAMINATE CASEWORK
06 03	PLASTIC LAMINATE CASEWORK - UPPERS AND LOWERS
08 01	HOLLOW METAL DOOR AND FRAME; PRIMED & PAINTED. SEE DOOR SCHEDULE
08 02	ALUMINUM FRAMED STOREFRONT, SEE A9.2 & A9.3
08 04	ALUMINUM FRAMED STOREFRONT: DOOR
09 19	RUBBER BASE
09 22	ALUMINUM REVEAL BETWEEN PAINT FINISHES
09 23	PROJECTABLE, MAGNETIC AND WRITABLE WALL PAINT
10 04	SIGNAGE, SEE A14 SERIES SHEETS
10 06	OPERABLE PARTITION, MOTORIZED. SEE DETAIL 16/A10.4
10 07	SEMI RECESSED FIRE EXTINGUISHER CABINET, REF. 26/A10.4 FOR RATED WALLS
10 12	NOT USED
11 01	RESIDENTIAL REFRIGERATOR, SEE P AND E DWGS
11 22	OFCI WALL-MOUNTED SHORT THROW PROJECTOR. SEE DET. 44/A3.12. SEE E3.X AND E4.X SERIES FOR POWER AND AV INFRASTRUCTURE
26 12	WALL MOUNTED CLOCK SPEAKER UNIT, SEE E DWGS
26 15	AV RACK, PLACE INSIDE CASEWORK, SEE E DWGS
26 17	ELECTRICAL POWER/ DATA OUTLET, PLACE HORIZONTALLY IN BACKSPLASH UNDER WINDOW. SEE E DWGS.
28 01	WALL MOUNTED FIRE ALARM DEVICE, SEE E DWGS

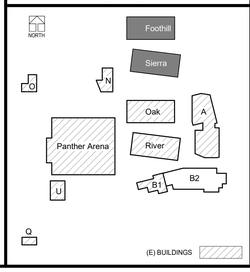
GENERAL NOTES

1. REFER TO A2 SHEET SERIES FOR RR ACCESSORIES SCHEDULE.
2. ALL FIRE EXTINGUISHER CABINETS TO BE INSTALLED AT 40" AFF TO OPERABLE PARTS. SEE DET 25/CP7.1
3. LOCATE FUME HOOD AT 48" MAX. AFF TO HIGHEST CONTROLS.
4. ALL GYPSUM BOARD CEILINGS AND SOFFITS TO BE P1, U.N.O.
5. REFER TO FLOOR PLANS FOR WALL TYPES AND ADDITIONAL INFORMATION.
6. ALL ACCENT/ PROJECTABLE WALL PAINT TO BE TERMINATED AT EITHER INSIDE CORNERS AND/ OR REVEALS.
7. SEE APPROPRIATE SHEETS FOR GEN. NOTES APPLYING TO ENLARGED FLOOR, POWER, REFLECTED CLNG. PLANS.
8. REFER TO A13 SERIES FINISH PLAN FOR FINISH INFORMATION.
9. ALL MILLWORK TO BE INSTALLED PRIOR TO CARPET, BUT AFTER PAINT AND TO BE MOUNTED TO SUBFLOOR.
10. PROVIDE FILLER PANELS BETWEEN WALL AND CABINETS, TYP. FILLER PANELS TO BE MINIMAL.
11. SEE A11.10 FOR CASEWORK DETAILS.
12. ALL WALLS TO BE PAINTED P-1, U.N.O. ADD1

INTERIOR FINISH LEGEND

RB 1	RUBBER WALL BASE - MFR: ARMSTRONG NAME: 4" RUBBER BASE, 61 GRAPHITE GRAY
RB 2	RUBBER WALL BASE - MFR: ARMSTRONG NAME: 4" RUBBER BASE, 40 BLACK ADD2
EB 1	EPOXY BASE - MFR: DEX-O-TEX NAME: TERRACOLOR - NUMBER: LIMESTONE 112
P 1	PAINT - MFR: SHERWIN WILLIAMS NAME: MODERNE WHITE, 6168
P 2	PAINT - MFR: SHERWIN WILLIAMS NAME: TIN LIZZIE, 9163
P 3	PAINT - MFR: SHERWIN WILLIAMS NAME: ARGOS, 7065
P 11	PAINT - MFR: DUNN EDWARDS NAME: DESERT SPICE, DE5202 (USED IN BLDG F) ADD1
P 12	PAINT - MFR: DUNN EDWARDS NAME: PURPLE POTION, DE5958 (USED IN BLDG S)
P 1B	MARKERBOARD PAINT- MFR: IDEAPAINT DRY ERASE COATING + MAGNETIC PRIMER
CT 11	CERAMIC TILE - MFR: DALTILE NAME: FABRIQUE 12"X24", P685 BLANC LINEN
CT 12	CERAMIC TILE - MFR: DALTILE NAME: FABRIQUE 12"X24", P690 GRIS LINEN
CT 13	CERAMIC TILE - MFR: DALTILE NAME: FABRIQUE 12"X24", P689 NOIR LINEN
PL 1	PLASTIC LAMINATE - MFR: FORMICA ADD1 NAME: GRAPHITE, 837-58
PL 2	PLASTIC LAMINATE - MFR: FORMICA NAME: PECAN WOODLINE, 5883-58
PL 4	PLASTIC LAMINATE - MFR: FORMICA NAME: GRAYSTONE, 464-58
WD 2	HARDWOOD CABINETRY - MFR: KEWAUNEE NAME: SIGNATURE SERIES SEASIDE MAPLE - STANDARD WOOD FINISH, 202
GR 1	GROUT - MFR: CUSTOM BUILDING PRODUCTS NAME: #543 DRIFTWOOD
FCP 2	FCP - MFR: JAMES HARDIE ADD1 NAME: HARDIESOFFIT PANELS - SUMMER WHEAT
SS 3	EPOXY COUNTER TOP - MFR: KEWAUNEE NAME: KEMRESIN, 1" THICK BLACK
ATP 7	FABRIC WRAPPED ACOUSTICAL / TACKABLE PANEL MFR: GUILFORD OF MAINE NAME: STUDIO 54 - GLAM, 2966-7040
ATP 8	FABRIC WRAPPED ACOUSTICAL / TACKABLE PANEL ADD1 MFR: HUFCOR NAME: REVELATIONS, DELIGHT, 48-10 STEEL
WT 1	SUN SHADE - MFR: MECHOSHADE NAME: THERMOVEIL 1500, 1519 SILVER BIRCH
WT 2	SUN SHADE - MFR: MECHOSHADE NAME: THERMOVEIL 1500 & CLASSIC BLACKOUT 0700, 1519 SILVER BIRCH & 0702 LIGHT GREY ADD2
WC 1	WALL COVERING - WOOD VENEER - MFR: KOROSEAL NAME: ARBOR SERIES, AA9031 WALNUT AMERICAN QC

KEY PLAN



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Architecture Engineering Planning Interiors
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LICENSED ARCHITECT
MARK V. COVINGTON
No. C-27566
03/31/2021
RENEWAL DATE
STATE OF CALIFORNIA

INT. ELEVATIONS - BLDGS. F & S
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

2401 High School Road, Roseville, California 95747

Roseville Joint Union High School District

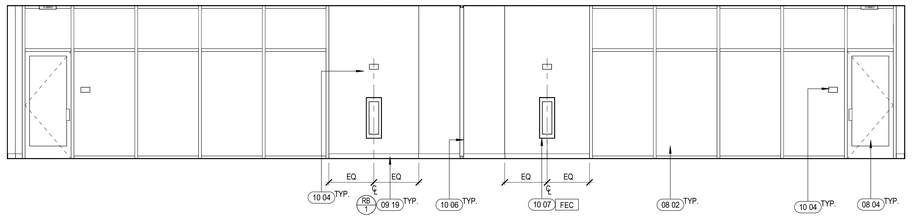
ADDENDUM 2
07.08.2020
Revisions
2020-07-01 ADD1 Addendum 1

PROJECT #75-19101-00
DSA APPL #02-118062
DSA FILE #31-H3

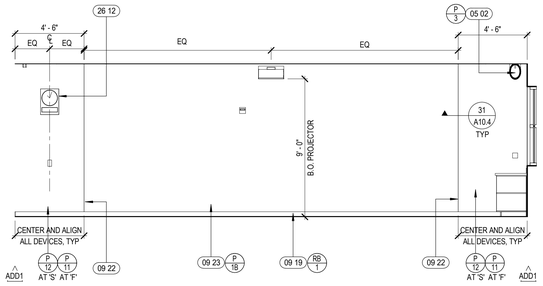
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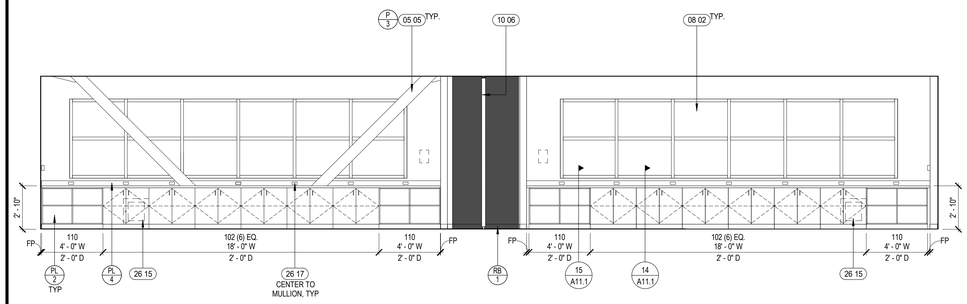
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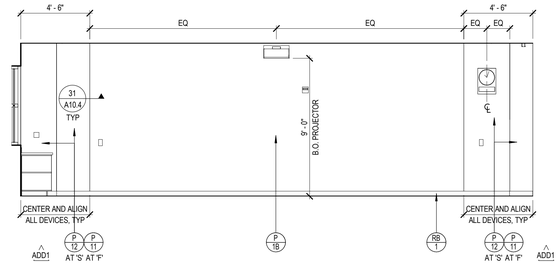
1 A12.4 N-ELEVATION F205/F305 & S205/S305
SCALE: 1/4" = 1'-0"



2 A12.4 E-ELEVATION F205/F305 & S205/S305
SCALE: 1/4" = 1'-0"

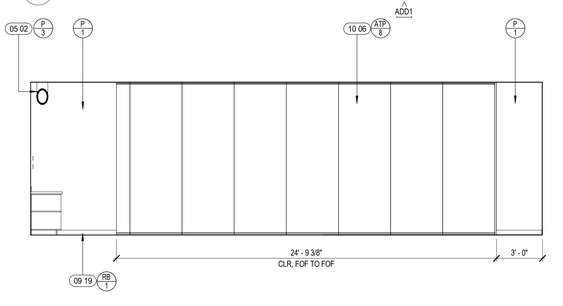


3 A12.4 S-ELEVATION F205/F305 & S205/S305
SCALE: 1/4" = 1'-0"

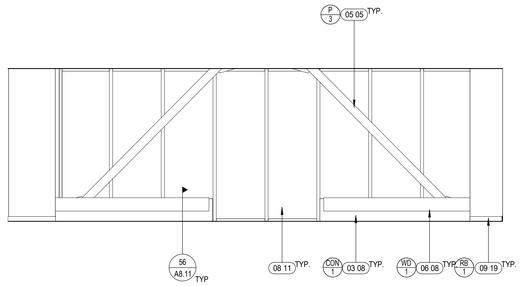


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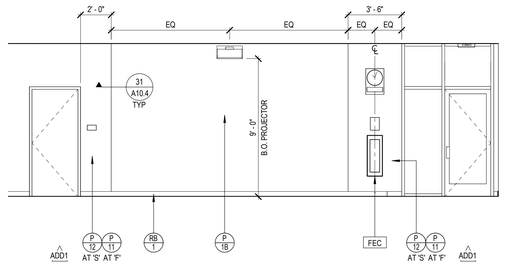
SEE 2/A12.4 FOR TYPICAL KEYNOTES



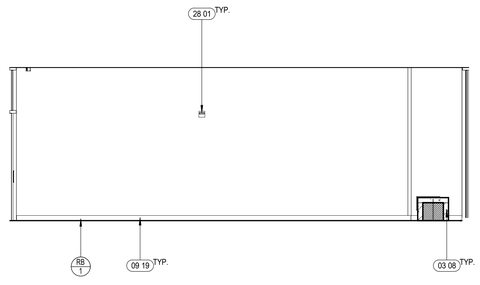
5 A12.4 W-ELEVATION F206/F306 & S206/S306
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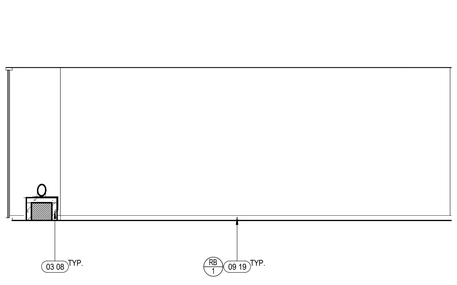
6 A12.4 E-ELEVATION F207/F307 & S207/S307
SCALE: 1/4" = 1'-0"



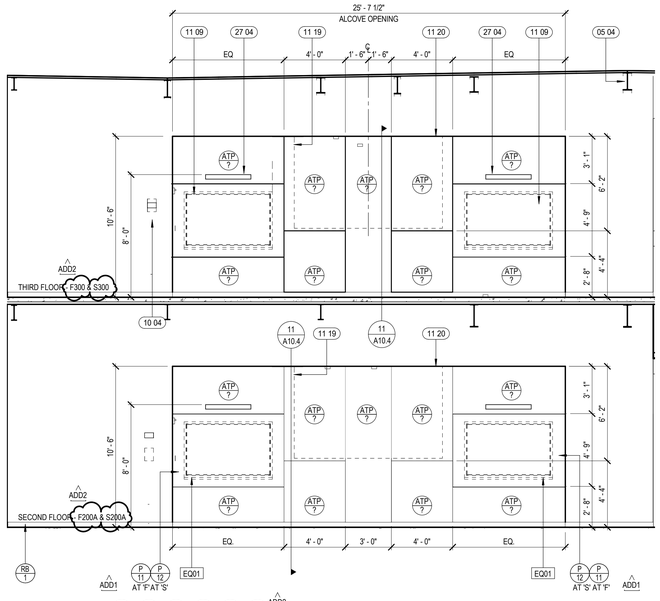
7 A12.4 W-ELEVATION F207/F307 & S207/S307
SCALE: 1/4" = 1'-0"



8 A12.4 N-ELEVATION F207/F307 & S207/S307
SCALE: 1/4" = 1'-0"

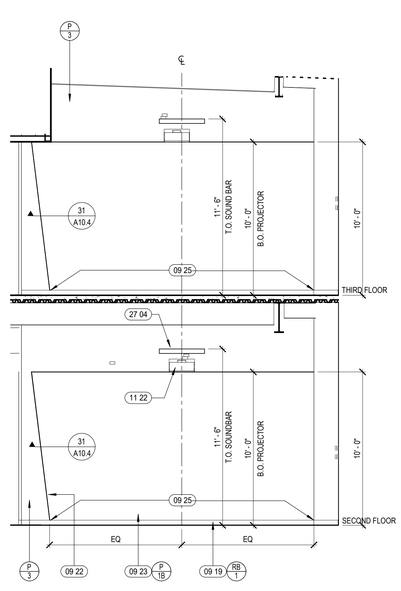


9 A12.4 S-ELEVATION F207/F307 & S207/S307
SCALE: 1/4" = 1'-0"



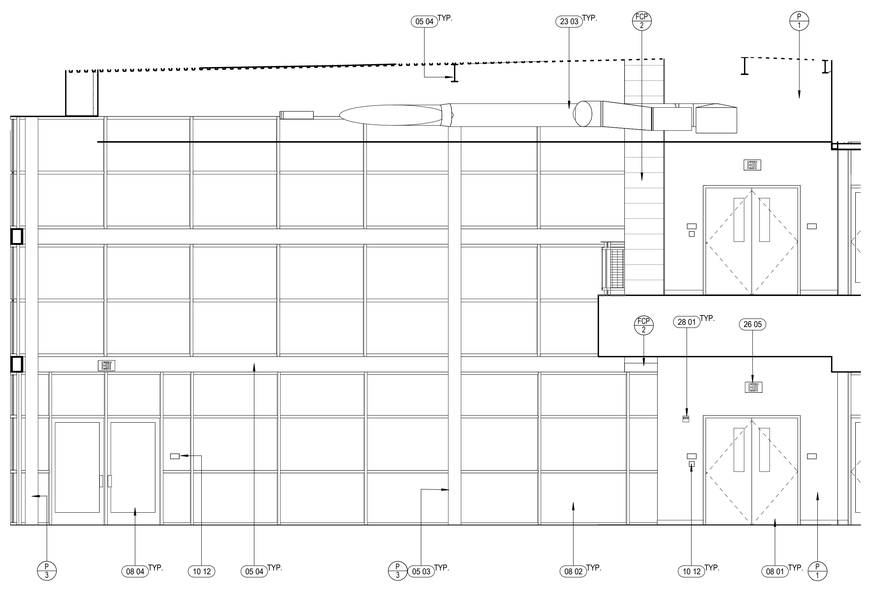
10 A12.4 N-ELEVATION F200A, F300, S200A, S300
SCALE: 1/4" = 1'-0"

KEY NOTES & TAGS ARE TYPICAL FOR BOTH FLOORS



11 A12.4 W-ELEVATION F200A
SCALE: 1/4" = 1'-0"

KEY NOTES & TAGS ARE TYPICAL FOR BOTH FLOORS



12 A12.4 E-ELEVATION F200
SCALE: 1/4" = 1'-0"

KEYNOTES

03 08	CAST IN PLACE CONC BENCH. PROVIDE CHAMFER AT HOR. & VERT. EXPOSED EDGES, U.N.O. SEE DET 36/A10.04
05 02	STRUCTURAL STEEL FRAMING, ARCHITECTURALLY EXPOSED STRUCTURAL STEEL (AESS)
05 03	STRUCTURAL STEEL COLUMN, SEE STRUCTURAL
05 04	STRUCTURAL STEEL BEAM, SEE STRUCTURAL
05 05	STRUCTURAL STEEL BRACE FRAME, SEE STRUCTURAL
06 08	SOLID MAPLE WOOD CAP O/ CONCRETE BENCH
08 01	HOLLOW METAL DOOR AND FRAME, PRIMED & PAINTED. SEE DOOR SCHEDULE
08 02	ALUMINUM FRAMED STOREFRONT, SEE A9.2 & A9.3
08 04	ALUMINUM FRAMED STOREFRONT: DOOR
08 11	ALUMINUM FRAMED CURTAINWALL, SEE A9.2 & A9.3
09 19	RUBBER BASE
09 22	ALUMINUM REVEAL BETWEEN PAINT FINISHES
09 23	PROJECTABLE, MAGNETIC AND WRITABLE WALL PAINT
09 25	FINISH PATTERN STARTING POINT TO ALIGN WITH FLOOR FINISH
10 04	SIGNAGE, SEE A14 SERIES SHEETS
10 06	OPERABLE PARTITION, MOTORIZED. SEE DETAIL 16/A10.4
10 07	SEMI RECESSED FIRE EXTINGUISHER CABINET, REF. 26/A10.4 FOR RATED WALLS
10 12	NOT USED ADD2
11 09	85" TV MONITOR, OFCI
11 19	RECESSED PROJECTION SCREEN AT SOFFIT ABOVE, SEE DET 56/A3.12
11 20	EDGE OF SOFFIT
11 22	OFCI WALL-MOUNTED SHORT THROW PROJECTOR. SEE DET. 44/A3.12. SEE E3.X AND E4.X SERIES FOR POWER AND AV INFRASTRUCTURE
23 03	MECHANICAL DUCT, SEE M DWGS
26 05	WALL MOUNTED EXIT SIGN, SEE E DWGS
26 12	WALL MOUNTED CLOCK SPEAKER UNIT, SEE E DWGS
26 15	AV RACK, PLACE INSIDE CASEWORK, SEE E DWGS
26 17	ELECTRICAL POWER/ DATA OUTLET, PLACE HORIZONTALLY IN BACKSPLASH UNDER WINDOW. SEE E DWGS.
27 04	WALL MOUNTED SOUND BAR, JBL PRO COMMERCIAL SOUNDBAR PSB-1, COLOR: BLACK
28 01	WALL MOUNTED FIRE ALARM DEVICE, SEE E DWGS

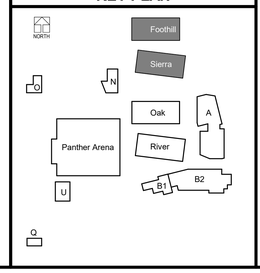
GENERAL NOTES

1. REFER TO A2 SHEET SERIES FOR RR ACCESSORIES SCHEDULE.
2. ALL FIRE EXTINGUISHER CABINETS TO BE INSTALLED AT 40" AFF TO OPERABLE PARTS. SEE DET 25/CP7.1
3. LOCATE FUME HOOD AT 48" MAX. AFF TO HIGHEST CONTROLS.
4. ALL GYPSUM BOARD CEILINGS AND SOFFITS TO BE P1, U.N.O.
5. REFER TO FLOOR PLANS FOR WALL TYPES AND ADDITIONAL INFORMATION.
6. ALL ACCENT/ PROJECTABLE WALL PAINT TO BE TERMINATED AT EITHER INSIDE CORNERS AND/ OR REVEALS.
7. SEE APPROPRIATE SHEETS FOR GEN. NOTES APPLYING TO ENLARGED FLOOR, POWER, REFLECTED CLNG. PLANS.
8. REFER TO A13 SERIES FINISH PLAN FOR FINISH INFORMATION.
9. ALL MILLWORK TO BE INSTALLED PRIOR TO CARPET, BUT AFTER PAINT AND TO BE MOUNTED TO SUBFLOOR.
10. PROVIDE FILLER PANELS BETWEEN WALL AND CABINETS, TYP. FILLER PANELS TO BE MINIMAL.
11. SEE A11.10 FOR CASEWORK DETAILS.
12. ALL WALLS TO BE PAINTED P-1, U.N.O. ADD1

INTERIOR FINISH LEGEND

RB 1	RUBBER WALL BASE - MFR: ARMSTRONG NAME: 4" RUBBER BASE, 61 GRAPHITE GRAY
RB 2	RUBBER WALL BASE - MFR: ARMSTRONG NAME: 4" RUBBER BASE, 40 BLACK ADD2
EB 1	EPOXY BASE - MFR: DEX-O-TEX NAME: TERRACOLOR - NUMBER: LIMESTONE 112
P 1	PAINT - MFR: SHERWIN WILLIAMS NAME: MODERNE WHITE, 6168
P 2	PAINT - MFR: SHERWIN WILLIAMS NAME: TIN LIZZIE, 9163
P 3	PAINT - MFR: SHERWIN WILLIAMS NAME: ARGOS, 7065
P 11	PAINT - MFR: DUNN EDWARDS ADD1 NAME: DESERT SPICE, DE5202 (USED IN BLDG F)
P 12	PAINT - MFR: DUNN EDWARDS NAME: PURPLE POTION, DE5958 (USED IN BLDG S)
P 18	MARKERBOARD PAINT - MFR: IDEAPAINT DRY ERASE COATING + MAGNETIC PRIMER
CT 11	CERAMIC TILE - MFR: DALTILE NAME: FABRIQUE 12"X24", P085 BLANC LINEN
CT 12	CERAMIC TILE - MFR: DALTILE NAME: FABRIQUE 12"X24", P090 GRIS LINEN
CT 13	CERAMIC TILE - MFR: DALTILE NAME: FABRIQUE 12"X24", P089 NOIR LINEN
PL 1	PLASTIC LAMINATE - MFR: FORMICA ADD1 NAME: GRAPHITE, 837-58
PL 2	PLASTIC LAMINATE - MFR: FORMICA NAME: PECAN WOODLINE, 5883-58
PL 4	PLASTIC LAMINATE - MFR: FORMICA NAME: GRAYSTONE, 464-58
WD 2	HARDWOOD CABINETRY - MFR: KEWAUNEE NAME: SIGNATURE SERIES SEASIDE MAPLE - STANDARD WOOD FINISH, 202
GR 1	GROUT - MFR: CUSTOM BUILDING PRODUCTS NAME: #543 DRIFTWOOD
FCP 2	FCP - MFR: JAMES HARDIE ADD1 NAME: HARDIESOFFIT PANELS - SUMMER WHEAT
SS 3	EPOXY COUNTER TOP - MFR: KEWAUNEE NAME: KEMRESIN, 1" THICK BLACK
ATP 7	FABRIC WRAPPED ACOUSTICAL / TACKABLE PANEL MFR: GUILFORD OF MAINE NAME: STUDIO 54 - GLAM, 2966-7040
ATP 8	FABRIC WRAPPED ACOUSTICAL / TACKABLE PANEL ADD1 MFR: HUFCOR NAME: REVELATIONS, DELIGHT, 48-10 STEEL
WT 1	SUN SHADE - MFR: MECHOSHADE NAME: THERMOVEIL 1500, 1519 SILVER BIRCH
WT 2	SUN SHADE - MFR: MECHOSHADE NAME: THERMOVEIL 1500 & CLASSIC BLACKOUT 0700, 1519 SILVER BIRCH & 0702 LIGHT GREY ADD2
WC 1	WALL COVERING - WOOD VENEER - MFR: KOROSEAL NAME: ARBOR SERIES, AA9031 WALNUT AMERICAN QC

KEY PLAN



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LICENSED ARCHITECT
MARK V. COVINGTON
No. C-27366
03/31/2021
STATE OF CALIFORNIA

INT. ELEVATIONS - BLDGS. F & S
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

2401 High School Road, Roseville, California 95747

Roseville Joint Union High School District

ADDENDUM 2
07.08.2020
Revisions

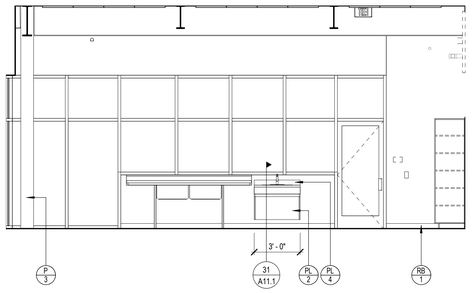
2020-07-01	ADD1	Addendum 1
2020-07-08	ADD2	Addendum 2

PROJECT #75-19101-00
DSA APPL. #02-118062
DSA FILE #31-H3

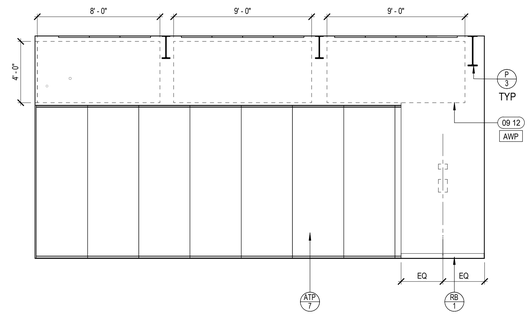
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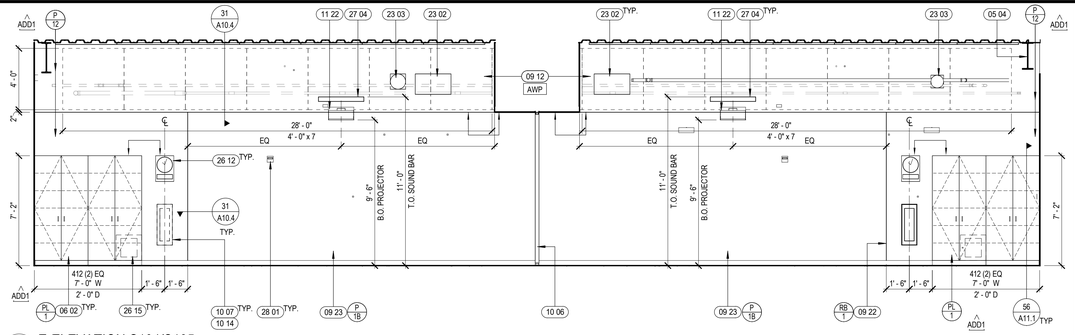
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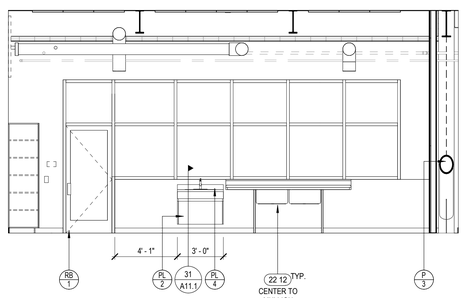
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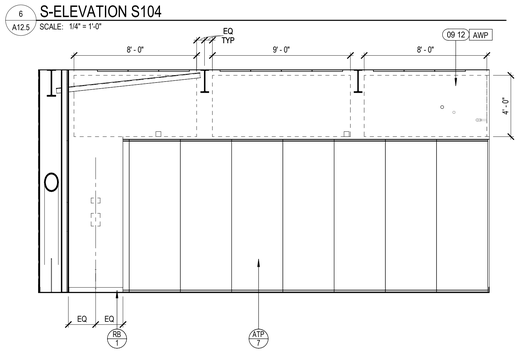
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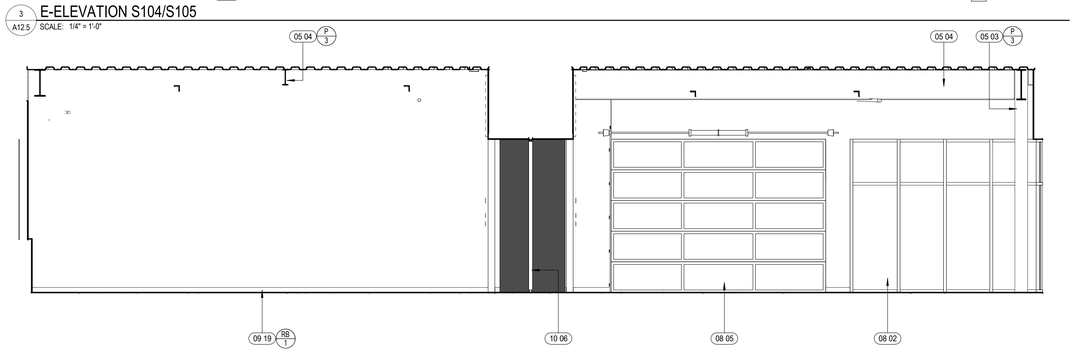
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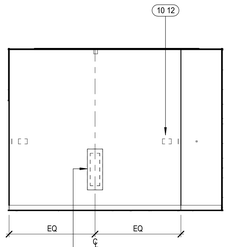
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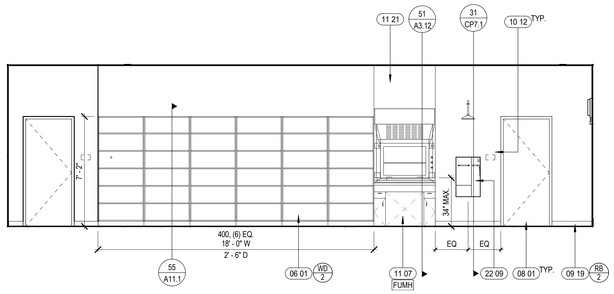
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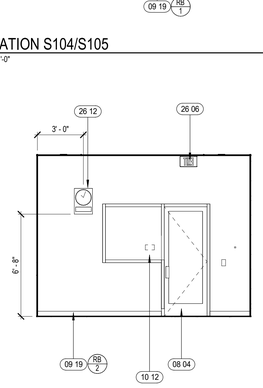
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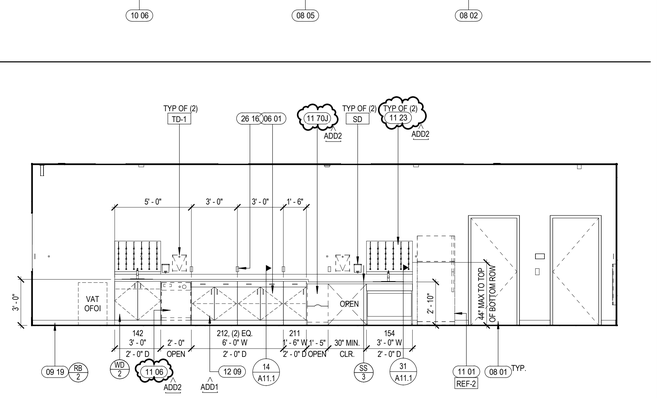
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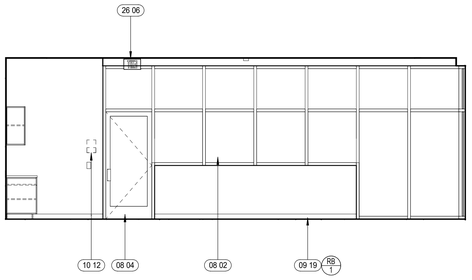
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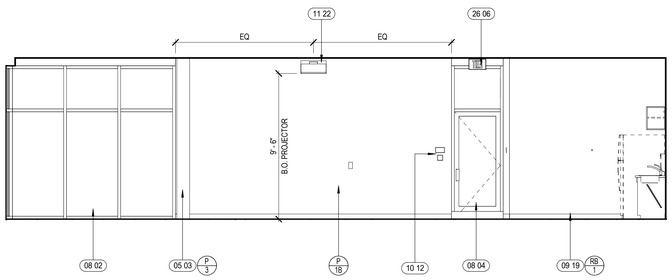
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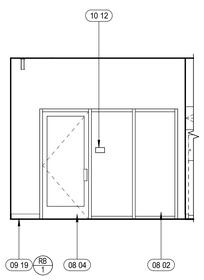
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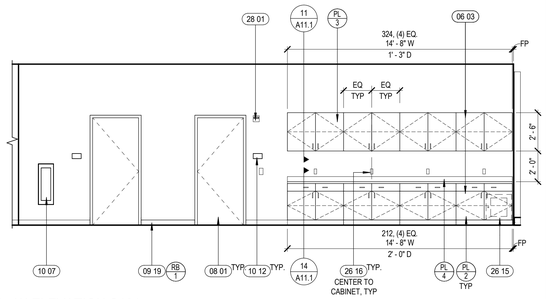
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SCALE: 1/4" = 1'-0"



12 A12.5 E-ELEVATION S101
SCALE: 1/4" = 1'-0"



13 A12.5 S-ELEVATION S101
SCALE: 1/4" = 1'-0"



14 A12.5 W-ELEVATION S101
SCALE: 1/4" = 1'-0"

KEYNOTES

05 03 STRUCTURAL STEEL COLUMN, SEE STRUCTURAL
05 04 STRUCTURAL STEEL BEAM, SEE STRUCTURAL
06 01 PLASTIC LAMINATE CASEWORK
06 02 PLASTIC LAMINATE CASEWORK - TALL CABINETS
06 03 PLASTIC LAMINATE CASEWORK - UPPERS AND LOWERS
08 01 HOLLOW METAL DOOR AND FRAME, PRIMED & PAINTED. SEE DOOR SCHEDULE
08 02 ALUMINUM FRAMED STOREFRONT, SEE A9.2 & A9.3
08 04 ALUMINUM FRAMED STOREFRONT: DOOR
08 05 GLAZED, INSULATED SECTIONAL DOOR, SEE DET 56/A9.12
09 12 FABRIC WRAPPED PANEL
09 19 RUBBER BASE
09 22 ALUMINUM REVEAL BETWEEN PAINT FINISHES
09 23 PROJECTABLE, MAGNETIC AND WRITABLE WALL PAINT
10 06 OPERABLE PARTITION, MOTORIZED. SEE DETAIL 16/A10.4
10 07 SEMI RECESSED FIRE EXTINGUISHER CABINET, REF. 26/A10.4 FOR RATED WALLS
10 12 NOT USED
10 14 PROVIDE HIGH HAZARD UL-RATED FIRE EXTINGUISHER 40A-80B:C AT THIS LOCATION
11 01 RESIDENTIAL REFRIGERATOR, SEE P AND E DWGS
11 06 UNDERCOUNTER RESIDENTIAL DISHWASHER, OFCI. SEE P DWGS
11 07 4'-0" WIDE FUME HOOD, SEE P & M DWGS
11 21 3-SIDED METAL ENCLOSURE PANEL BY MFR., PREFINISHED TO MATCH HOOD
11 22 OFCI WALL-MOUNTED SHORT THROW PROJECTOR. SEE DET. 44/A3.12. SEE E3.X AND E4.X SERIES FOR POWER AND AV INFRASTRUCTURE
11 23 DRAIN RACK
11 70J ICE MACHINE, SEE P & E DWGS
12 09 LABORATORY CASEWORK
22 09 EMERGENCY EYEWASH & SHOWER. SEE PLUMBING & SLAB PLANS FOR FLOOR DRAIN. SEE DET 56/CP2.03 AT RATED WALLS
22 12 SS DOUBLE SINK WITH DRAIN BOARDS. SEE P DWGS. CUT SS LEGS TO ADJUST HEIGHT TO FIT UNDER WINDOW
23 02 MECHANICAL EQUIPMENT, SEE M DWGS
23 03 MECHANICAL DUCT, SEE M DWGS
26 06 CEILING MOUNTED EXIT SIGN, SEE E DWGS
26 12 WALL MOUNTED CLOCK SPEAKER UNIT, SEE E DWGS
26 15 AV RACK, PLACE INSIDE CASEWORK, SEE E DWGS
26 16 ELECTRICAL POWER/ DATA OUTLET ABOVE BACKSPLASH, MAINTAIN ALIGNMENT ON WALL, SEE E DWGS.
27 04 WALL MOUNTED SOUND BAR, JBL PRO COMMERCIAL SOUNDBAR PSB-1, COLOR: BLACK
28 01 WALL MOUNTED FIRE ALARM DEVICE, SEE E DWGS

INTERIOR FINISH LEGEND

RB 1 — RUBBER WALL BASE - MFR: ARMSTRONG
NAME: 4" RUBBER BASE, 61 GRAPHITE GRAY

RB 2 — RUBBER WALL BASE - MFR: ARMSTRONG
NAME: 4" RUBBER BASE, 40 BLACK ADD2

EB 1 — EPOXY BASE - MFR: DEX-O-TEX
NAME: TERRACOLOR - NUMBER: LIMESTONE 112

P 1 — PAINT - MFR: SHERWIN WILLIAMS
NAME: MODERNE WHITE, 6168

P 2 — PAINT - MFR: SHERWIN WILLIAMS
NAME: TIN LIZZIE, 9163

P 3 — PAINT - MFR: SHERWIN WILLIAMS
NAME: ARGOS, 7065

P 11 — PAINT - MFR: DUNN EDWARDS ADD1
NAME: DESERT SPICE, DE5202 (USED IN BLDG F)

P 12 — PAINT - MFR: DUNN EDWARDS
NAME: PURPLE POTION, DE5958 (USED IN BLDG S)

P 18 — MARKERBOARD PAINT- MFR: IDEAPAINT
DRY ERASE COATING + MAGNETIC PRIMER

CT 11 — CERAMIC TILE - MFR: DALTILE
NAME: FABRIQUE 12"X24", P685 BLANC LINEN

CT 12 — CERAMIC TILE - MFR: DALTILE
NAME: FABRIQUE 12"X24", P690 GRIS LINEN

CT 13 — CERAMIC TILE - MFR: DALTILE
NAME: FABRIQUE 12"X24", P689 NOIR LINEN

PL 1 — PLASTIC LAMINATE - MFR: FORMICA ADD1
NAME: GRAPHITE, 837-58

PL 2 — PLASTIC LAMINATE - MFR: FORMICA
NAME: PECAN WOODLINE, 5883-58

PL 4 — PLASTIC LAMINATE - MFR: FORMICA
NAME: GRAYSTONE, 464-58

WD 2 — HARDWOOD CABINETRY - MFR: KEWAUNEE
NAME: SIGNATURE SERIES SEASIDE MAPLE - STANDARD WOOD FINISH, 202

GR 1 — GROUT - MFR: CUSTOM BUILDING PRODUCTS
NAME: #543 DRIFTWOOD

FCP 2 — FCP - MFR: JAMES HARDIE ADD1
NAME: HARDIESOFFIT PANELS - SUMMER WHEAT

SS 3 — EPOXY COUNTER TOP - MFR: KEWAUNEE
NAME: KEMRESIN, 1" THICK BLACK

ATP 7 — FABRIC WRAPPED ACOUSTICAL / TACKABLE PANEL
MFR: GUILFORD OF MAINE
NAME: STUDIO 54 - GLAM, 2966-7040

ATP 8 — FABRIC WRAPPED ACOUSTICAL / TACKABLE PANEL ADD1
MFR: HUFCOR
NAME: REVELATIONS, DELIGHT, 48-10 STEEL

WT 1 — SUN SHADE - MFR: MECHOSHADE
NAME: THERMOVEIL 1500, 1519 SILVER BIRCH

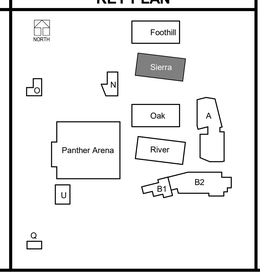
WT 2 — SUN SHADE - MFR: MECHOSHADE
NAME: THERMOVEIL 1500 & CLASSIC BLACKOUT 0700, 1519 SILVER BIRCH & 0702 LIGHT GREY ADD2

WC 1 — WALL COVERING - WOOD VENEER - MFR: KOROSEAL
NAME: ARBOR SERIES, AA9031 WALNUT AMERICAN QC

GENERAL NOTES

1. REFER TO A2 SHEET SERIES FOR RR ACCESSORIES SCHEDULE.
2. ALL FIRE EXTINGUISHER CABINETS TO BE INSTALLED AT 40" AFF TO OPERABLE PARTS. SEE DET 25/CP7.1
3. LOCATE FUME HOOD AT 48" MAX. AFF TO HIGHEST CONTROLS.
4. ALL GYPSUM BOARD CEILINGS AND SOFFITS TO BE P1, U.N.O.
5. REFER TO FLOOR PLANS FOR WALL TYPES AND ADDITIONAL INFORMATION.
6. ALL ACCENT/ PROJECTABLE WALL PAINT TO BE TERMINATED AT EITHER INSIDE CORNERS AND/ OR REVEALS.
7. SEE APPROPRIATE SHEETS FOR GEN. NOTES APPLYING TO ENLARGED FLOOR, POWER, REFLECTED CLNG. PLANS.
8. REFER TO A13 SERIES FINISH PLAN FOR FINISH INFORMATION.
9. ALL MILLWORK TO BE INSTALLED PRIOR TO CARPET, BUT AFTER PAINT AND TO BE MOUNTED TO SUBFLOOR.
10. PROVIDE FILLER PANELS BETWEEN WALL AND CABINETS, TYP. FILLER PANELS TO BE MINIMAL.
11. SEE A11.10 FOR CASEWORK DETAILS.
12. ALL WALLS TO BE PAINTED P-1, U.N.O. ADD1

KEY PLAN



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LICENSED ARCHITECT
MARK V COVINGTON
No. C-27586
03/31/2021
RENEWAL DATE
STATE OF CALIFORNIA

INT. ELEVATIONS - BLDG. S
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

2401 High School Road, Roseville, California 95747

Roseville Joint Union High School District

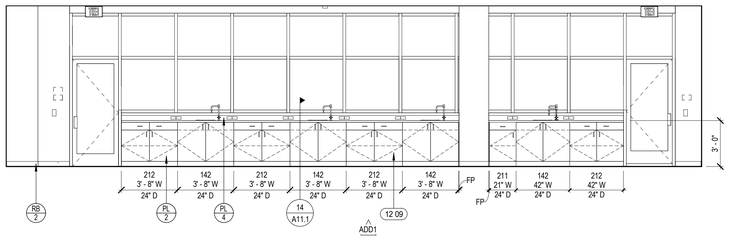
ADDENDUM 2
07.08.2020
Revisions
2020-07-01 ADD1 Addendum 1
2020-07-08 ADD2 Addendum 2

PROJECT #75-19101-00
DSA APPL #02-118062
DSA FILE #31-H3

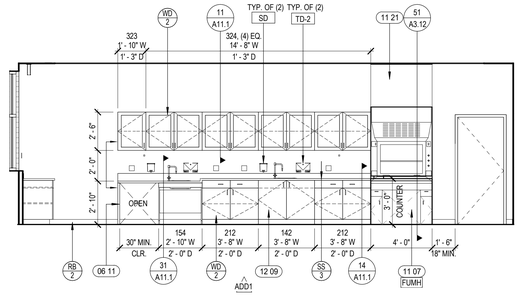
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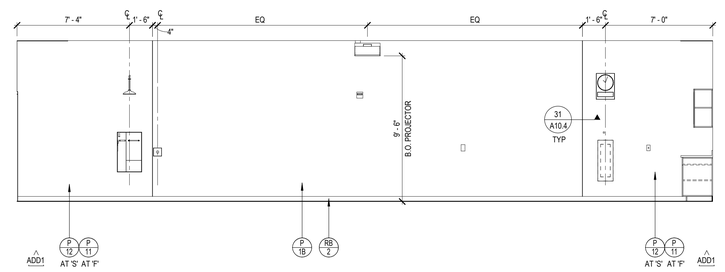
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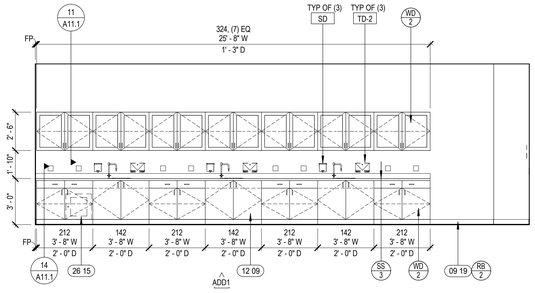
1 A12.6 **N-ELEVATION S103** SCALE: 1/4" = 1'-0" — SEE 11/A12.6 FOR TYPICAL KEYNOTES



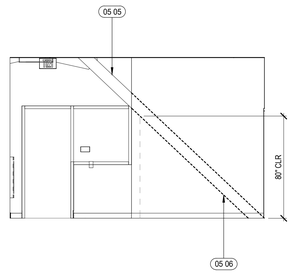
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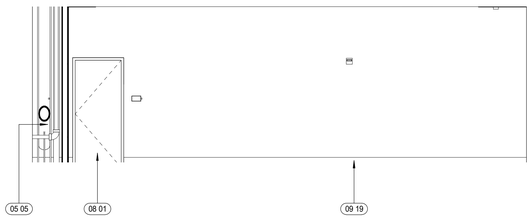
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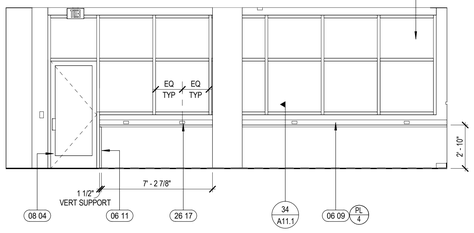
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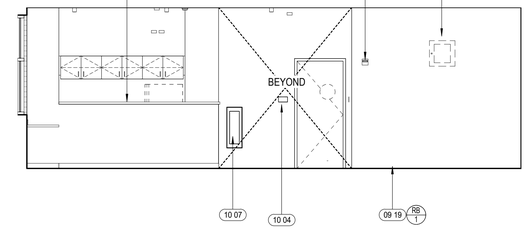
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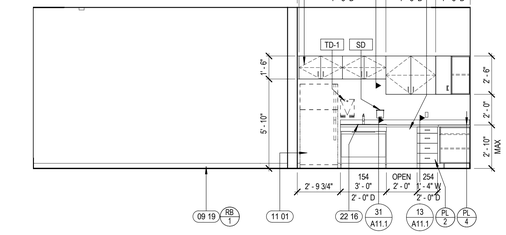
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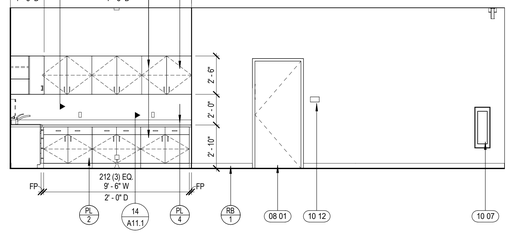
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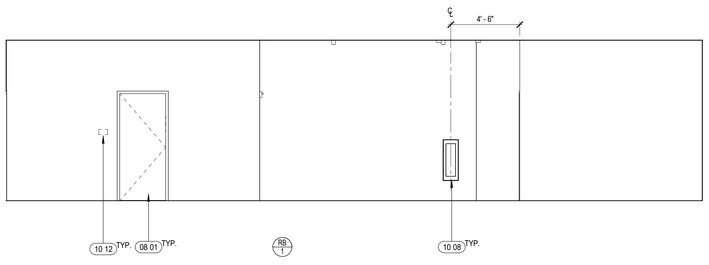
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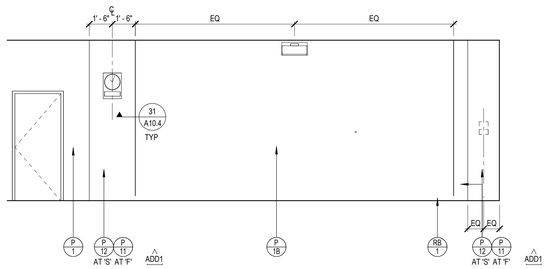
13 A12.6 **N-ELEVATION S124** SCALE: 1/4" = 1'-0"



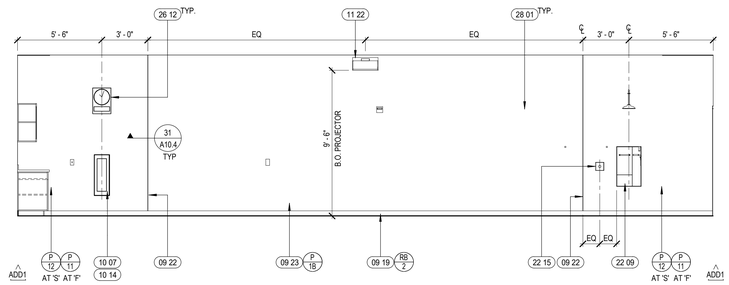
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7 A12.6 **S-ELEVATION S102** SCALE: 1/4" = 1'-0"

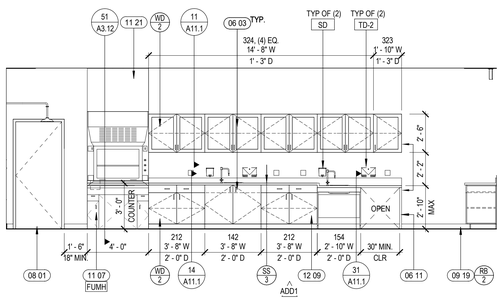


8 A12.6 **W-ELEVATION S102** SCALE: 1/4" = 1'-0" — SEE 9/A12.6 FOR TYPICAL KEYNOTES

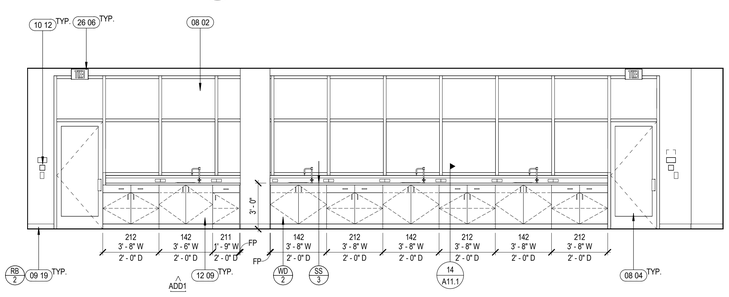


9 A12.6 **N-ELEVATION S106** SCALE: 1/4" = 1'-0"

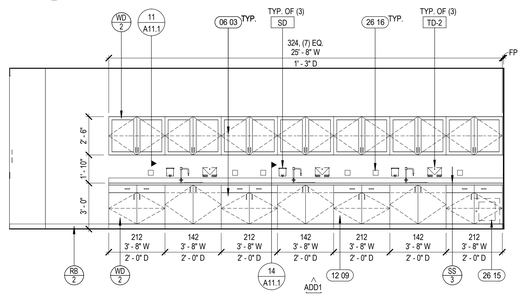
ADD1 2020-07-01



10 A12.6 **E-ELEVATION S106** SCALE: 1/4" = 1'-0"



11 A12.6 **S-ELEVATION S106** SCALE: 1/4" = 1'-0"



12 A12.6 **W-ELEVATION S106** SCALE: 1/4" = 1'-0"

KEYNOTES

05 05	STRUCTURAL STEEL BRACE FRAME, SEE STRUCTURAL
05 06	STRUCTURAL STEEL FRAMING BEYOND
06 03	PLASTIC LAMINATE CASEWORK - UPPERS AND LOWERS
06 09	PLASTIC LAMINATE COUNTERTOP
06 10	PLASTIC LAMINATE COUNTERTOP O/ PONY WALL. 1" OVERHANG ON SIDES, TYP.
06 11	VERTICAL SUPPORT, SAME WIDTH AS COUNTERTOP. ALIGN WITH COUNTERTOP EDGE. PROVIDE PLASTIC LAMINATE FINISH ON BOTH SIDES TO MATCH COUNTERTOP.
08 01	HOLLOW METAL DOOR AND FRAME, PRIMED & PAINTED. SEE DOOR SCHEDULE
08 02	ALUMINUM FRAMED STOREFRONT, SEE A9.2 & A9.3
08 04	ALUMINUM FRAMED STOREFRONT: DOOR
09 19	RUBBER BASE
09 22	ALUMINUM REVEAL BETWEEN PAINT FINISHES
09 23	PROJECTABLE, MAGNETIC AND WRITABLE WALL PAINT
10 04	SIGNAGE, SEE A14 SERIES SHEETS
10 07	SEMI RECESSED FIRE EXTINGUISHER CABINET, REF. 26/A10.4 FOR RATED WALLS
10 08	FIRE EXTINGUISHER ON WALL BRACKET
10 12	NOT USED
10 14	PROVIDE HIGH HAZARD UL-RATED FIRE EXTINGUISHER 40A-80B:C AT THIS LOCATION
11 01	RESIDENTIAL REFRIGERATOR, SEE P. AND E DWGS
11 07	4'-0" WIDE FUME HOOD, SEE P & M DWGS
11 16	ADA HEIGHT DISHWASHER, SEE P & E DWGS
11 21	3-SIDED METAL ENCLOSURE PANEL BY MFR., PREFINISHED TO MATCH HOOD
11 22	OFCI WALL-MOUNTED SHORT THROW PROJECTOR. SEE DET. 44/A3.12. SEE E3.X AND E4.X SERIES FOR POWER AND AV INFRASTRUCTURE
12 09	LABORATORY CASEWORK
22 09	EMERGENCY EYEWASH & SHOWER. SEE PLUMBING & SLAB PLANS FOR FLOOR DRAIN. SEE DET 56/CP2.03 AT RATED WALLS
22 15	MAIN GAS SHUT OFF, SEE P1.S1.1
22 16	KITCHEN SINK, SEE P SHEETS
26 06	CEILING MOUNTED EXIT SIGN, SEE E DWGS
26 12	WALL MOUNTED CLOCK SPEAKER UNIT, SEE E DWGS
26 15	AV RACK, PLACE INSIDE CASEWORK, SEE E DWGS
26 16	ELECTRICAL POWER/ DATA OUTLET ABOVE BACKSPLASH, MAINTAIN ALIGNMENT ON WALL. SEE E DWGS.
26 17	ELECTRICAL POWER/ DATA OUTLET, PLACE HORIZONTALLY IN BACKSPLASH UNDER WINDOW. SEE E DWGS.
28 01	WALL MOUNTED FIRE ALARM DEVICE, SEE E DWGS

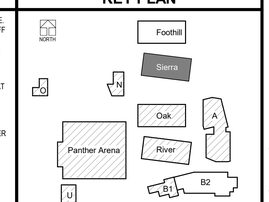
INTERIOR FINISH LEGEND

RB 1	RUBBER WALL BASE - MFR: ARMSTRONG NAME: 4" RUBBER BASE, 61 GRAPHITE GRAY
RB 2	RUBBER WALL BASE - MFR: ARMSTRONG NAME: 4" RUBBER BASE, 40 BLACK ADD2
EB 1	EPOXY BASE - MFR: DEX-O-TEX NAME: TERRACOLOR - NUMBER: LIMESTONE 112
P 1	PAINT - MFR: SHERWIN WILLIAMS NAME: MODERNE WHITE, 6168
P 2	PAINT - MFR: SHERWIN WILLIAMS NAME: TIN LIZZIE, 9163
P 3	PAINT - MFR: SHERWIN WILLIAMS NAME: ARGOS, 7065
P 11	PAINT - MFR: DUNN EDWARDS NAME: DESERT SPICE, DE5202 (USED IN BLDG F) ADD1
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P 1B	MARKERBOARD PAINT- MFR: IDEAPAINT DRY ERASE COATING + MAGNETIC PRIMER
CT 11	CERAMIC TILE - MFR: DALTILE NAME: FABRIQUE 12"X24", P685 BLANC LINEN
CT 12	CERAMIC TILE - MFR: DALTILE NAME: FABRIQUE 12"X24", P690 GRIS LINEN
CT 13	CERAMIC TILE - MFR: DALTILE NAME: FABRIQUE 12"X24", P689 NOIR LINEN
PL 1	PLASTIC LAMINATE - MFR: FORMICA NAME: GRAPHITE, 837-58 ADD1
PL 2	PLASTIC LAMINATE - MFR: FORMICA NAME: PECAN WOODLINE, 5883-58
PL 4	PLASTIC LAMINATE - MFR: FORMICA NAME: GRAYSTONE, 464-58
WD 2	HARDWOOD CABINETRY - MFR: KEWAUNEE NAME: SIGNATURE SERIES SEASIDE MAPLE - STANDARD WOOD FINISH, 202
GR 1	GROUT - MFR: CUSTOM BUILDING PRODUCTS NAME: #543 DRIFTWOOD
FCP 2	FCP - MFR: JAMES HARDIE NAME: HARDIESOFFIT PANELS - SUMMER WHEAT ADD1
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ATP 7	FABRIC WRAPPED ACOUSTICAL / TACKABLE PANEL MFR: GUILFORD OF MAINE NAME: STUDIO 54 - GLAM, 2966-7040
ATP 8	FABRIC WRAPPED ACOUSTICAL / TACKABLE PANEL MFR: HUFCOR NAME: REVELATIONS, DELIGHT, 48-10 STEEL ADD1
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WT 2	SUN SHADE - MFR: MECHOSHADE NAME: THERMOVEIL 1500 & CLASSIC BLACKOUT 0700, 1519 SILVER BIRCH & 0702 LIGHT GREY ADD2
WC 1	WALL COVERING - WOOD VENEER - MFR: KOROSEAL NAME: ARBOR SERIES, AW031 WALNUT AMERICAN QC ADD2

GENERAL NOTES

1. REFER TO A2 SHEET SERIES FOR RR ACCESSORIES SCHEDULE.
2. ALL FIRE EXTINGUISHER CABINETS TO BE INSTALLED AT 40" AFF TO OPERABLE PARTS. SEE DET 25/CP7.1
3. LOCATE FUME HOOD AT 48" MAX. AFF TO HIGHEST CONTROLS.
4. ALL GYPSUM BOARD CEILINGS AND SOFFITS TO BE P1, U.N.O..
5. REFER TO FLOOR PLANS FOR WALL TYPES AND ADDITIONAL INFORMATION.
6. ALL ACCENT/ PROJECTABLE WALL PAINT TO BE TERMINATED AT EITHER INSIDE CORNERS AND/ OR REVEALS.
7. SEE APPROPRIATE SHEETS FOR GEN. NOTES APPLYING TO ENLARGED FLOOR, POWER, REFLECTED CLNG. PLANS.
8. REFER TO A13 SERIES FINISH PLAN FOR FINISH INFORMATION.
9. ALL MILLWORK TO BE INSTALLED PRIOR TO CARPET, BUT AFTER PAINT AND TO BE MOUNTED TO SUBFLOOR.
10. PROVIDE FILLER PANELS BETWEEN WALL AND CABINETS, TYP. FILLER PANELS TO BE MINIMAL.
11. SEE A11.10 FOR CASEWORK DETAILS.
12. ALL WALLS TO BE PAINTED P-1, U.N.O. ADD1

KEY PLAN



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LICENSED ARCHITECT
MARK V COVINGTON
No. C-27566
03/31/2021
STATE OF CALIFORNIA

INT. ELEVATIONS - BLDG. S
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

2401 High School Road, Roseville, California 95747

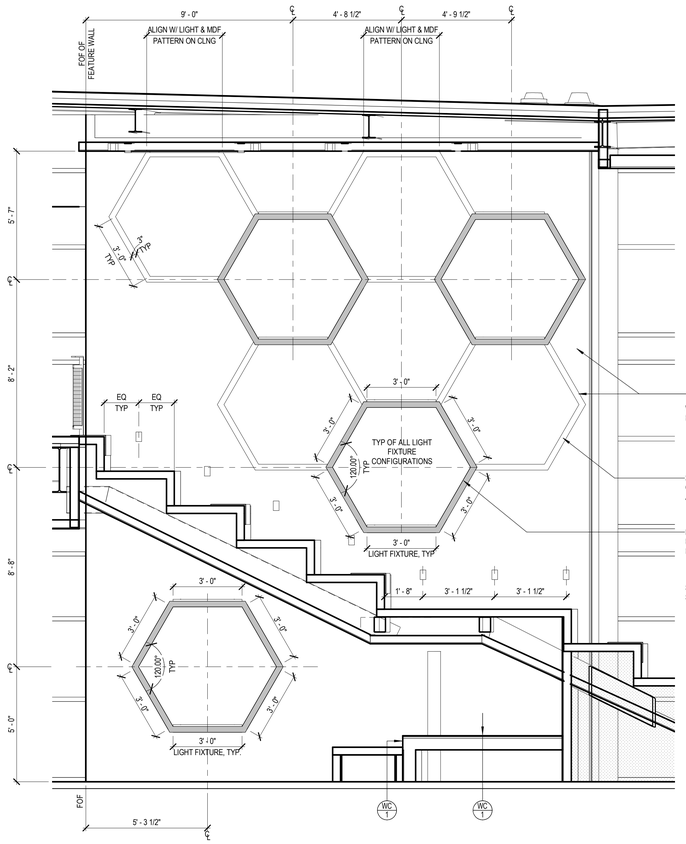
Roseville Joint Union High School District

ADDENDUM 2
07.08.2020
Revisions
2020-07-01 ADD1 Addendum 1

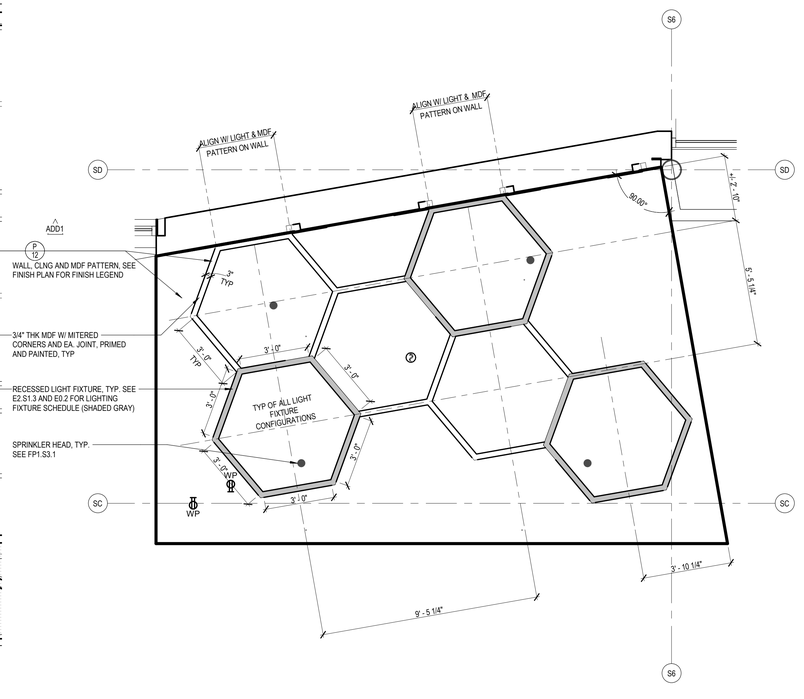
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DSA APPL. #02-118062
DSA FILE #31-H3

A12.6

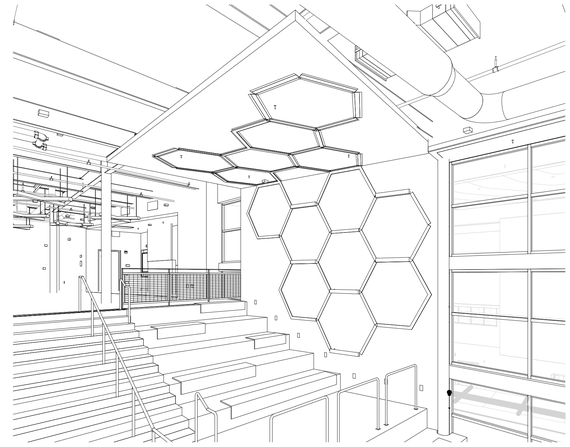
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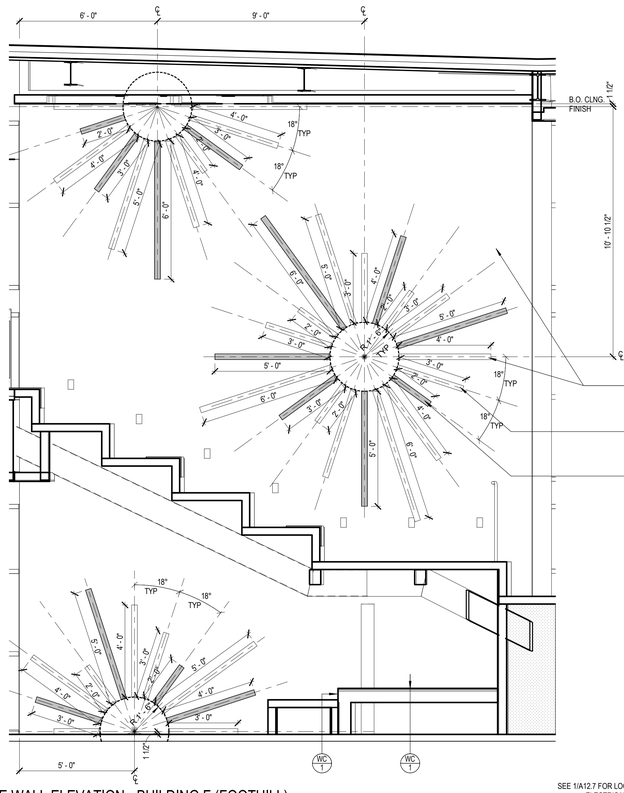
4 A12.7 FEATURE WALL ELEVATION - BUILDING S (SIERRA)
SCALE: 3/8" = 1'-0"



5 A12.7 FEATURE WALL CEILING - BUILDING S (SIERRA)
SCALE: 3/8" = 1'-0"

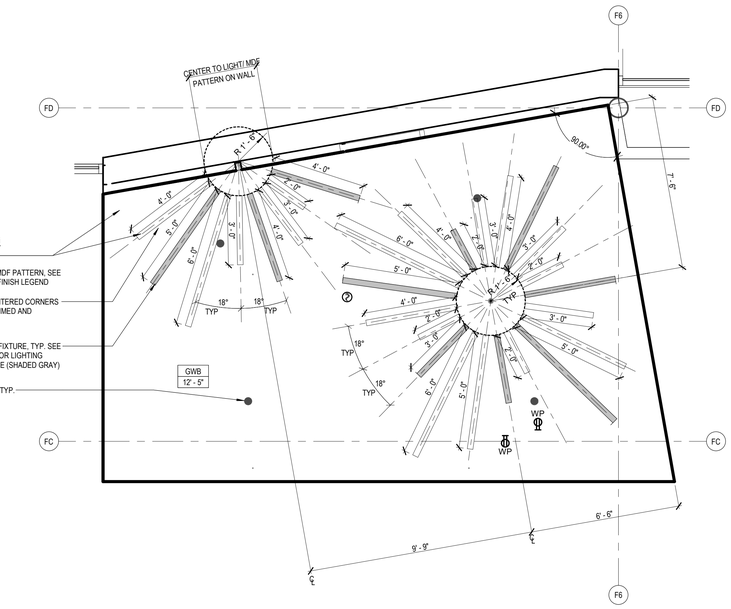


6 A12.7 FEATURE WALL PERSPECTIVE - BUILDING S (SIERRA)
SCALE:

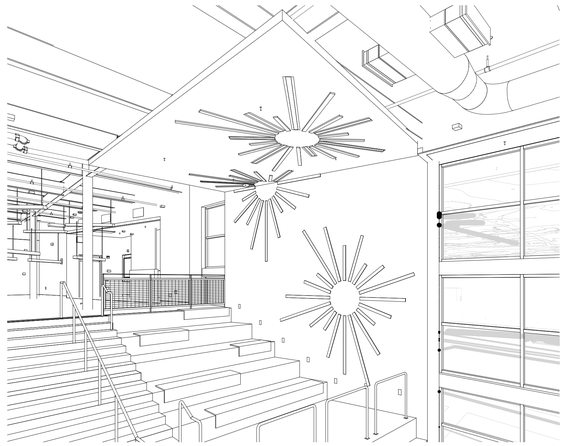


1 A12.7 FEATURE WALL ELEVATION - BUILDING F (FOOTHILL)
SCALE: 3/8" = 1'-0"

SEE 1/A12.7 FOR LOCATION OF ELECTRICAL OUTLETS



2 A12.7 FEATURE WALL CEILING - BUILDING F (FOOTHILL)
SCALE: 3/8" = 1'-0"



3 A12.7 FEATURE WALL PERSPECTIVE - BUILDING F (FOOTHILL)
SCALE:

KEYNOTES

GENERAL NOTES

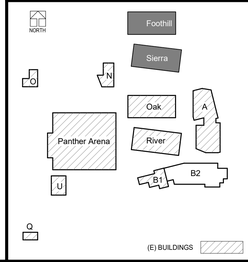
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INTERIOR FINISH LEGEND

RB 1	RUBBER WALL BASE - MFR: ARMSTRONG NAME: 4" RUBBER BASE, 61 GRAPHITE GRAY
RB 2	RUBBER WALL BASE - MFR: ARMSTRONG NAME: 4" RUBBER BASE, 40 BLACK
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P 2	PAINT - MFR: SHERWIN WILLIAMS NAME: TIN LIZZIE, 9163
P 3	PAINT - MFR: SHERWIN WILLIAMS NAME: ARGOS, 7065
P 11	PAINT - MFR: DUNN EDWARDS NAME: DESERT SPICE, DE5202 (USED IN BLDG F)
P 12	PAINT - MFR: DUNN EDWARDS NAME: PURPLE POTION, DE5958 (USED IN BLDG S)
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WC 1	WALL COVERING - WOOD VENEER - MFR: KOROSEAL NAME: ARBOR SERIES, AA9031 WALNUT AMERICAN QC

ADD1 ADD1 ADD1 ADD2

KEY PLAN



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LICENSED ARCHITECT
MARK V. COVINGTON
No. C-27566
03/31/2021
STATE OF CALIFORNIA

INT. ELEVATIONS - BLDGS. F & S - FEATURE WALLS
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

2401 High School Road, Roseville, California 95747

Roseville Joint Union High School District

ADDENDUM 2
07.08.2020

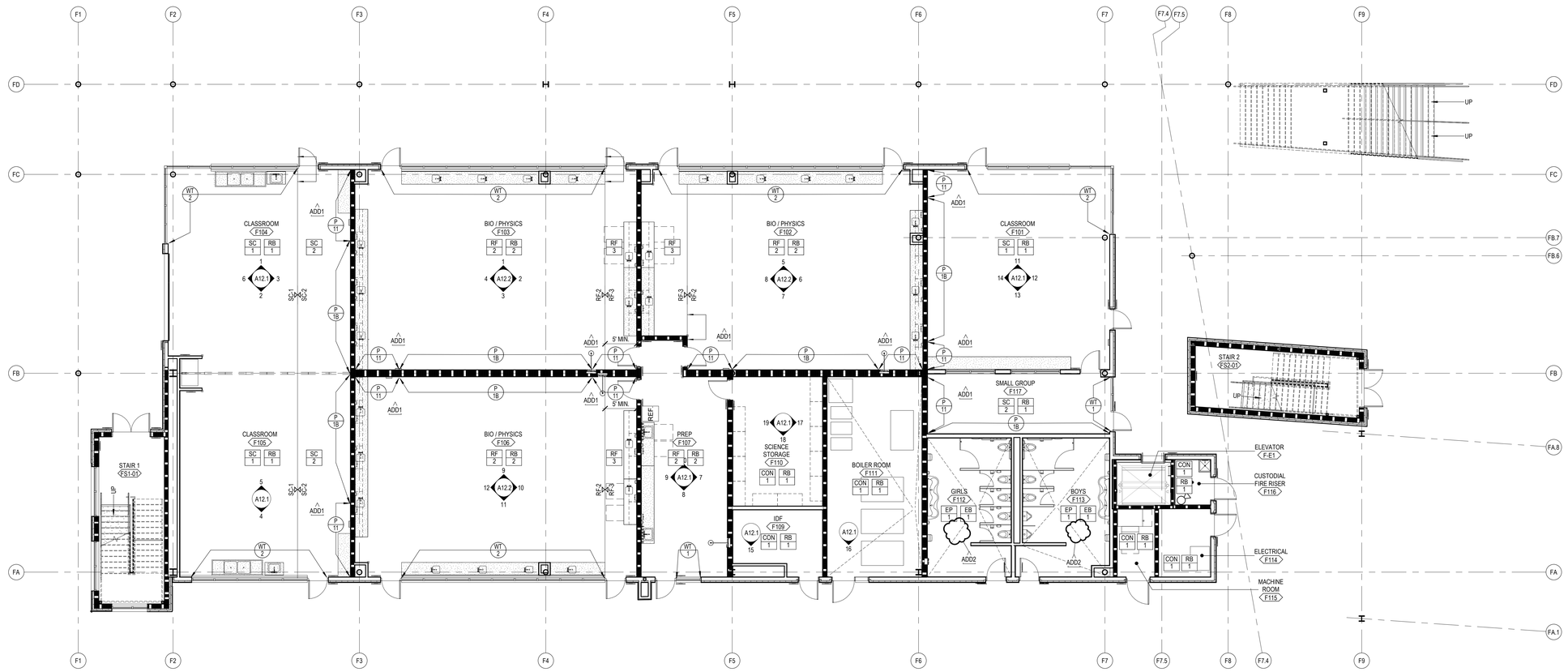
Revisions
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PROJECT #75-19101-00
DSA APPL. #02-118062
DSA FILE #31-H3

A12.7

ADD1 2020-07-01

BIM 360://75-19101-00 Rosevill JUHSD - West Park Phase 2/75-19101-00_AR_2019.rvt
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FINISH FLOOR PLAN - BLDG F - 1ST FLOOR

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

KEYNOTES

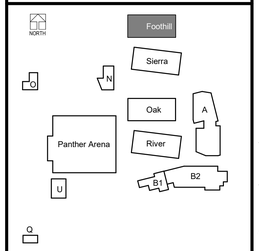
FINISH GENERAL NOTES

1. ALL AREAS TO RECEIVE 4" RUBBER BASE RB-X, U.N.O.
2. PROVIDE 4" FLUSH WOOD BASE WD-X AT ALL WOOD WALL PANELLING U.N.O.
3. ALL DOORS TO BE ASH, FLAT CUT W/ CLEAR STAIN. MATCH ARCHITECT SAMPLE.
4. PROVIDE MANUAL MECHOSHADES AT ALL PRIVATE OFFICES, CLASSROOMS, WORKROOMS, LABS AND ADMIN SPACES.
5. PROVIDE MOTORIZED BLACKOUT SHADES AT BLACK BOX PERFORMANCE ROOM #J113.
6. ALL SOFFITS TO BE PAINTED P-X, FLAT FINISH.
7. REFER TO FINISH SPECIFICATIONS FOR PAINT FINISH TYPES.

INTERIOR FINISH LEGEND

CON 1	CONCRETE-SEALED
SC 1	STAINED CONCRETE - MFR: SCOFIELD FORMULA ONE LIQUID DYE, G388 SOFT GRAY
SC 2	STAINED CONCRETE - MFR: SCOFIELD FORMULA ONE LIQUID DYE, 3055 STORM CLOUD
SC 3	STAINED CONCRETE - MFR: SCOFIELD FORMULA ONE LIQUID DYE, D510 BLACK
EP 1	EPOXY - MFR: DEX-O-TEX NAME: TERRACOLOR - LIMESTONE 115 (ADD2)
RF 1	RUBBER FLOORING - MFR: NORA SYSTEMS NAME: NORAMENT SATURA, 5112 - TITAN
RF 2	RUBBER FLOORING - MFR: NORA SYSTEMS NAME: NORAPLAN SENTICA / SNOW DAY, 6520
RF 3	RUBBER FLOORING - MFR: NORA SYSTEMS NAME: NORAPLAN SENTICA / ROAD TRIP, 6523
WM 1	FOOTGRILL / WALL OFF MAT - MFR: TANDUS NAME: ASSERTIVE ACTION WITH ETHOS MODULAR BACKING, 04837, COLOR: CHROMIUM 26201, SURFACE MOUNTED
RB 1	RUBBER WALL BASE - MFR: ARMSTRONG NAME: 4" RUBBER BASE, 61 GRAPHITE GRAY
RB 2	RUBBER WALL BASE - MFR: ARMSTRONG NAME: 4" RUBBER BASE, 40 BLACK (ADD2)
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P 1B	MARKERBOARD PAINT- MFR: IDEAPAINT DRY ERASE COATING + MAGNETIC PRIMER
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PL 4	PLASTIC LAMINATE - MFR: FORMICA NAME: GRAYSTONE, 464-58
WD 2	HARDWOOD CABINETRY - MFR: KEWAUNEE NAME: SIGNATURE SERIES SEASIDE MAPLE - STANDARD WOOD FINISH, 202
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WC 1	WALL COVERING - WOOD VENEER - MFR: KOROSEAL (ADD2) NAME: ARBOR SERIES, AA9031 WALNUT AMERICAN QC

KEY PLAN



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LICENSED ARCHITECT
MARK V COVINGTON
03/31/2021
STATE OF CALIFORNIA

FINISH FLR PLANS & SCHEDULES - BLDG F - 1ST FLOOR

WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

2401 High School Road, Roseville, California 95747

Roseville Joint Union High School District

ADDENDUM 2
07.08.2020
Revisions

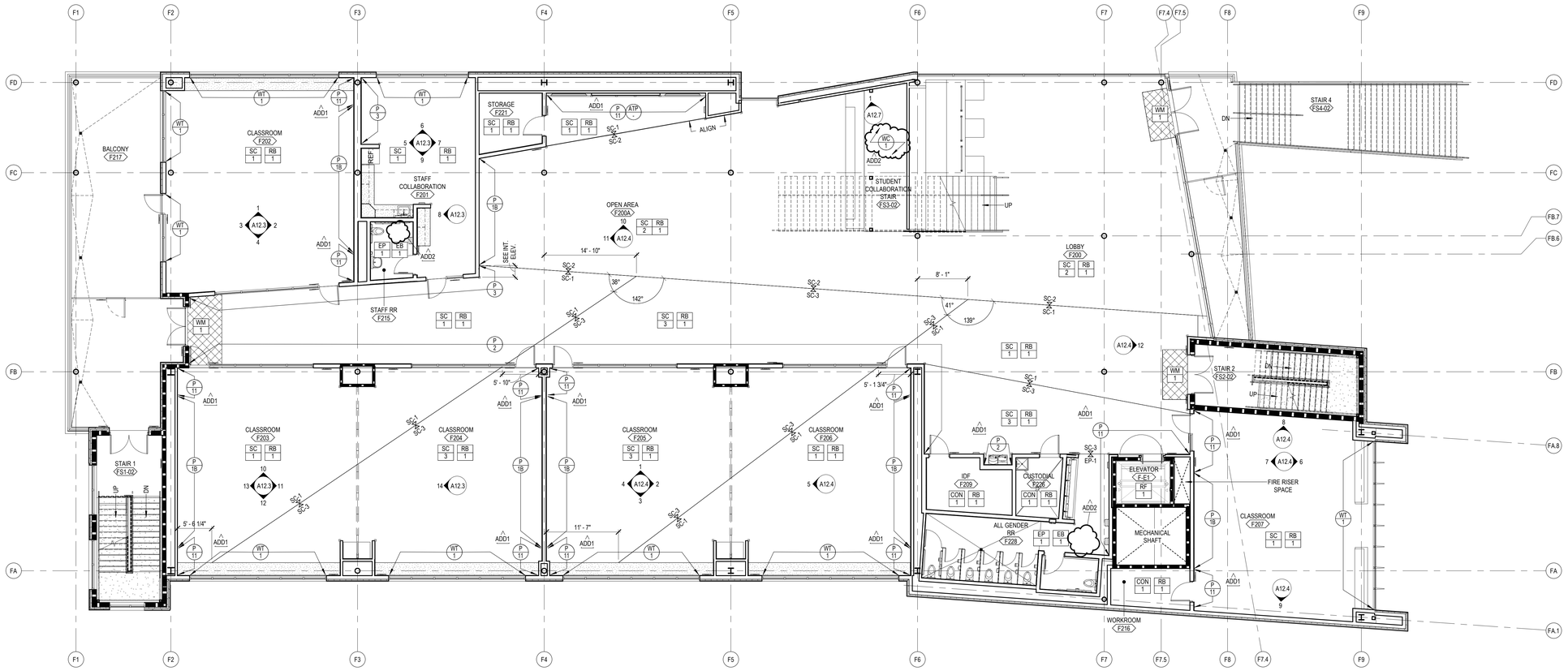
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2020-07-08	ADD2	Addendum 2

PROJECT #75-19101-00
DSA APPL. #02-118062
DSA FILE #31-H3

A13.F1.1

ADD2 2020-07-08
ADD1 2020-07-01

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FINISH FLOOR PLAN - BLDG F - 2ND FLOOR

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

ADD2 2020-07-08
ADD1 2020-07-01

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KEYNOTES

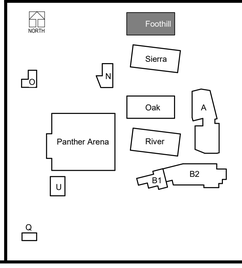
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SC 3	STAINED CONCRETE - MFR: SCOFIELD FORMULA ONE LIQUID DYE, 2510 BLACK
EP 1	EPOXY - MFR: DEX-O-TEX NAME: TERRACOLOR, LIMESTONE 112 (ADD2)
RF 1	RUBBER FLOORING - MFR: NORA SYSTEMS NAME: NORAMENT SATURA, 5112 - TITAN
RF 2	RUBBER FLOORING - MFR: NORA SYSTEMS NAME: NORAPLAN SENTICA / SNOW DAY, 6520
RF 3	RUBBER FLOORING - MFR: NORA SYSTEMS NAME: NORAPLAN SENTICA / ROAD TRIP, 6523
WM 1	FOOTGRILL / WALL OFF MAT - MFR: TANDUS NAME: ASSERTIVE ACTION WITH ETHOS MODULAR BACKING, 04837, COLOR: CHROMIUM 26201, SURFACE MOUNTED
RB 1	RUBBER WALL BASE - MFR: ARMSTRONG NAME: 4" RUBBER BASE, 61 GRAPHITE GRAY
RB 2	RUBBER WALL BASE - MFR: ARMSTRONG NAME: 4" RUBBER BASE, 40 BLACK (ADD2)
EB 1	EPOXY BASE - MFR: DEX-O-TEX NAME: TERRACOLOR - NUMBER, LIMESTONE 112
P 1	PAINT - MFR: SHERWIN WILLIAMS NAME: MODERNE WHITE, 6168
P 2	PAINT - MFR: SHERWIN WILLIAMS NAME: TIN LIZZIE, 9163
P 3	PAINT - MFR: SHERWIN WILLIAMS NAME: ARGOS, 7065
P 11	PAINT - MFR: DUNN EDWARDS NAME: DESERT SPICE, DE5202 (USED IN BLDG F) (ADD1)
P 12	PAINT - MFR: DUNN EDWARDS NAME: PURPLE POTION, DE5958 (USED IN BLDG S)
P IB	MARKERBOARD PAINT- MFR: IDEAPAINT DRY ERASE COATING + MAGNETIC PRIMER
CT 11	CERAMIC TILE - MFR: DALTILE NAME: FABRIQUE 12"X24", P685 BLANC LINEN
CT 12	CERAMIC TILE - MFR: DALTILE NAME: FABRIQUE 12"X24", P690 GRIS LINEN
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PL 4	PLASTIC LAMINATE - MFR: FORMICA NAME: GRAYSTONE, 464-58
WD 2	HARDWOOD CABINETRY - MFR: KEWAUNEE NAME: SIGNATURE SERIES SEASIDE MAPLE - STANDARD WOOD FINISH, 202
GR 1	GROUT - MFR: CUSTOM BUILDING PRODUCTS NAME: #543 DRIFTWOOD
FCP 2	FCP - MFR: JAMES HARDIE (ADD1) NAME: HARDIESOFFIT PANELS - SUMMER WHEAT
SS 3	EPOXY COUNTER TOP - MFR: KEWAUNEE NAME: KEMRESIN, 1" THICK BLACK
ATP 7	FABRIC WRAPPED ACOUSTICAL / TACKABLE PANEL MFR: GUILFORD OF MAINE NAME: STUDIO 54 - GLAM, 2966-7040
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LICENSED ARCHITECT
MARK V COVINGTON
03/31/2021
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FINISH FLR PLANS & SCHEDULES - BLDG F - 2ND FLOOR
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

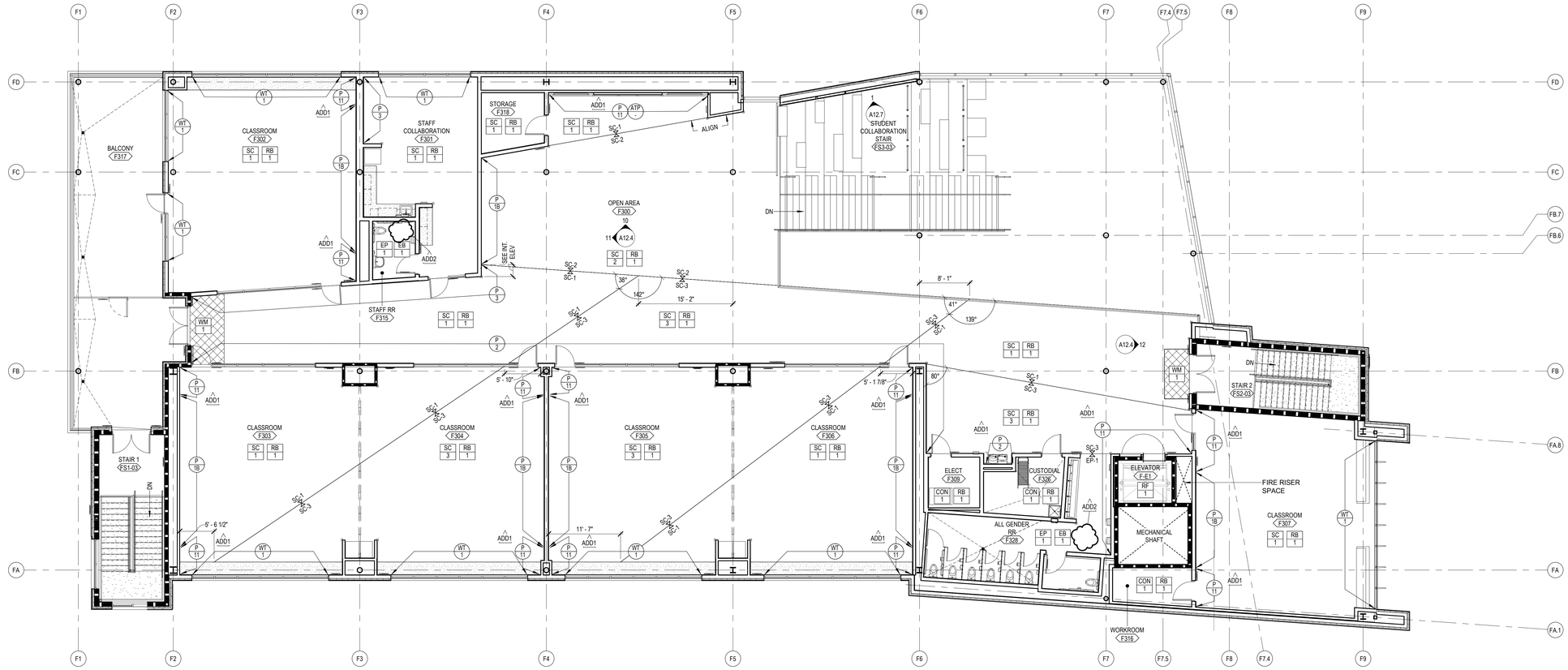
2401 High School Road, Roseville, California 95747

Roseville Joint Union High School District

ADDENDUM 2
07.08.2020
Revisions
2020-07-01 ADD1 Addendum 1
2020-07-08 ADD2 Addendum 2

PROJECT #75-19101-00
DSA APPL. #02-118062
DSA FILE #31-H3

A13.F2.1



FINISH FLOOR PLAN - BLDG F - 3RD FLOOR

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

ADD2 2020-07-08
ADD1 2020-07-01

BIM 360://75-19101-00 Roseville JUHSD - West Park Phase 2/75-19101-00_AR_2019.rvt
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KEYNOTES

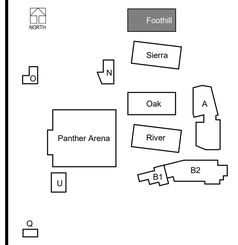
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LICENSED ARCHITECT
MARK V COVINGTON
03/31/2021
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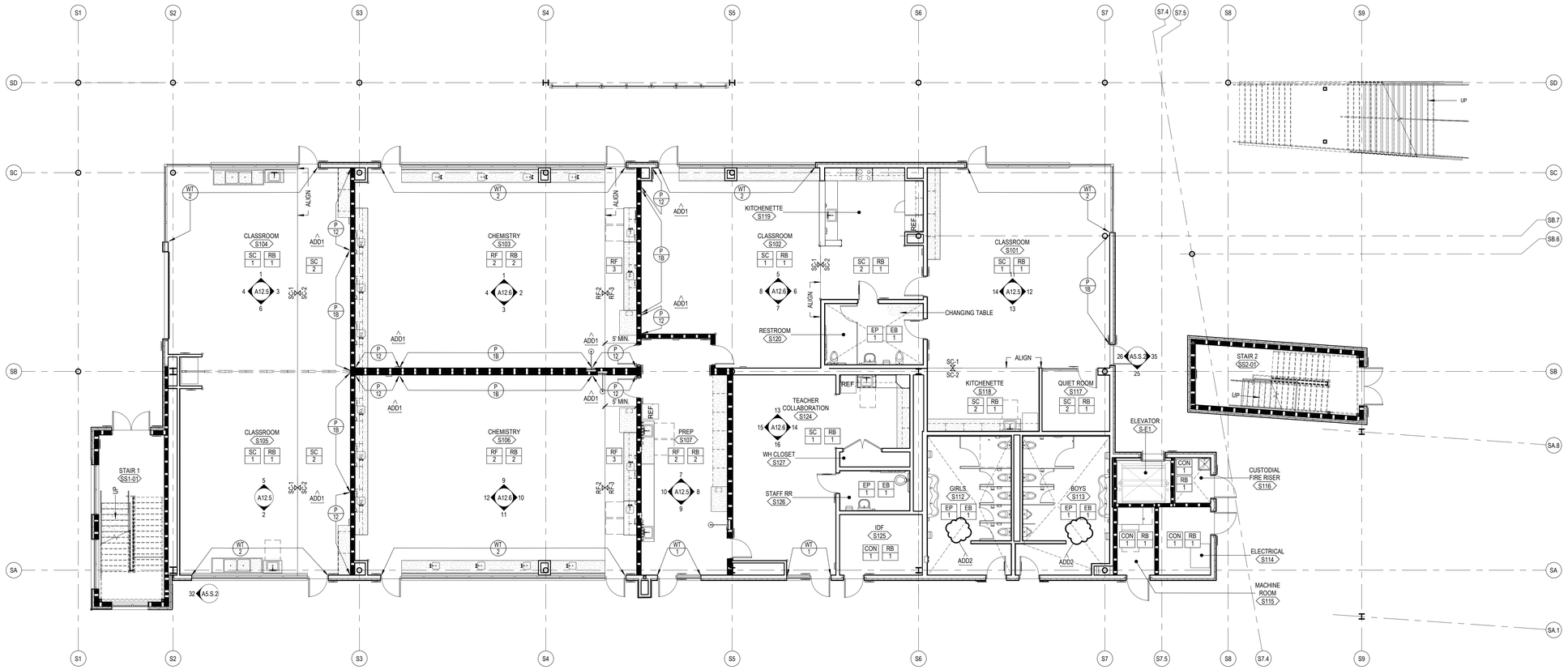
ADDENDUM 2
07.08.2020

Revisions

2020-07-01 ADD1 Addendum 1
2020-07-08 ADD2 Addendum 2

PROJECT #75-19101-00
DSA APPL #02-118062
DSA FILE #31-H3

A13.F3.1



FINISH FLOOR PLAN - BLDG S - 1ST FLOOR

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

KEYNOTES

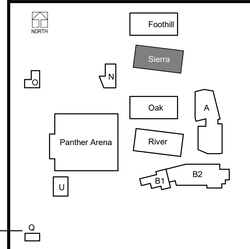
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KEY PLAN



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LICENSED ARCHITECT
MARK V COVINGTON
No. C-27586
03/31/2021
RENEWAL DATE
STATE OF CALIFORNIA

FINISH FLR PLANS & SCHEDULES - BLDG S - 1ST FLOOR
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

2401 High School Road, Roseville, California 95747
Roseville Joint Union High School District

ADDENDUM 2
07.08.2020
Revisions

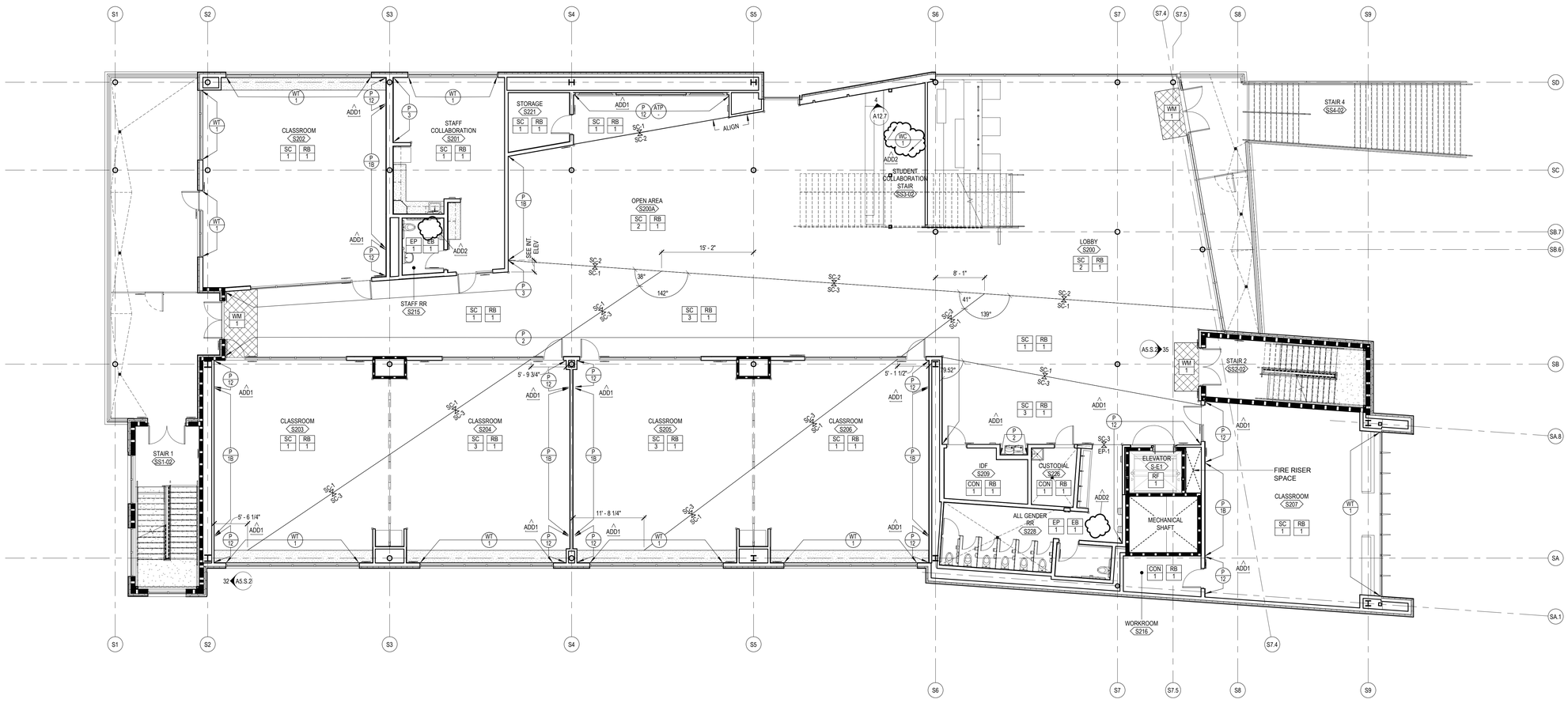
2020-07-01	ADD1	Addendum 1
2020-07-08	ADD2	Addendum 2

PROJECT #75-19101-00
DSA APPL. #02-118062
DSA FILE #31-H3

A13.S1.1

ADD2 2020-07-08
ADD1 2020-07-01

BIM 360://75-19101-00 Roseville JUHSD - West Park Phase 2/75-19101-00_AR_2019.rvt
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FINISH FLOOR PLAN - BLDG S - 2ND FLOOR

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

ADD2 2020-07-08
ADD1 2020-07-01

BIM 360://75-19101-00 Roseville JUHSD - West Park Phase 2/75-19101-00_AR_2019.rvt
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KEYNOTES

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A13.S2.1

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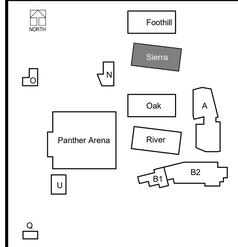
FINISH GENERAL NOTES

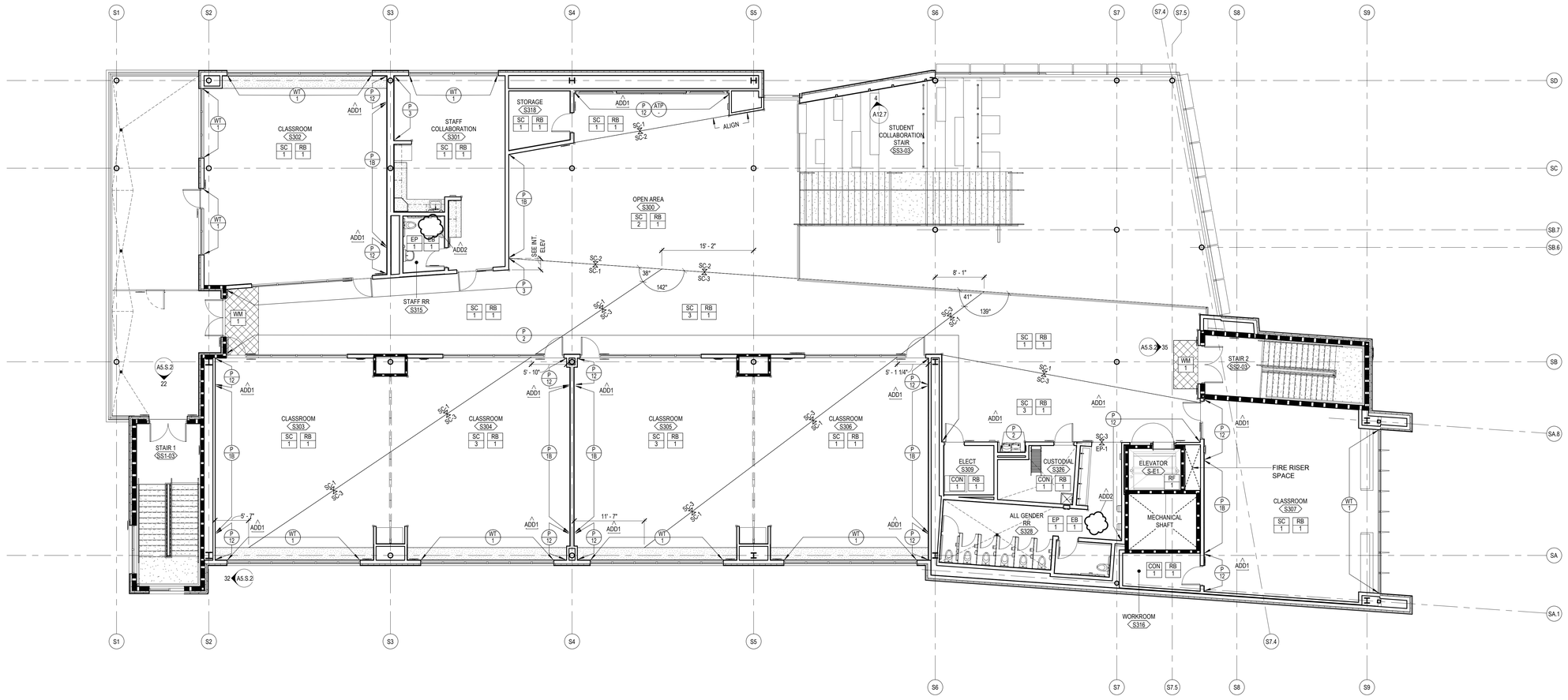
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- RB 1 — RUBBER WALL BASE - MFR: ARMSTRONG, NAME: 4" RUBBER BASE, 61 GRAPHITE GRAY
- RB 2 — RUBBER WALL BASE - MFR: ARMSTRONG, NAME: 4" RUBBER BASE, 40 BLACK
- EB 1 — EPOXY BASE - MFR: DEX-O-TEX, NAME: TERRACOLOR - NUMBER LIMESTONE 115 (ADD2)
- P 1 — PAINT - MFR: SHERWIN WILLIAMS, NAME: MODERNE WHITE, 6168
- P 2 — PAINT - MFR: SHERWIN WILLIAMS, NAME: TIN LIZZIE, 9163
- P 3 — PAINT - MFR: SHERWIN WILLIAMS, NAME: ARGOS, 7065
- P 11 — PAINT - MFR: DUNN EDWARDS, NAME: DESERT SPICE, DE5202 (USED IN BLDG F) (ADD1)
- P 12 — PAINT - MFR: DUNN EDWARDS, NAME: PURPLE POTION, DE5958 (USED IN BLDG S)
- P 1B — MARKERBOARD PAINT- MFR: IDEAPAINT, DRY ERASE COATING + MAGNETIC PRIMER
- CT 11 — CERAMIC TILE - MFR: DALTILE, NAME: FABRIQUE 12"X24", P685 BLANC LINEN
- CT 12 — CERAMIC TILE - MFR: DALTILE, NAME: FABRIQUE 12"X24", P690 GRIS LINEN
- CT 13 — CERAMIC TILE - MFR: DALTILE, NAME: FABRIQUE 12"X24", P689 NOIR LINEN
- PL 1 — PLASTIC LAMINATE - MFR: FORMICA, NAME: GRAPHITE, 837-58 (ADD1)
- PL 2 — PLASTIC LAMINATE - MFR: FORMICA, NAME: PECAN WOODLINE, 5883-58
- PL 4 — PLASTIC LAMINATE - MFR: FORMICA, NAME: GRAYSTONE, 464-58
- WD 2 — HARDWOOD CABINETRY - MFR: KEWAUNEE, NAME: SIGNATURE SERIES SEASIDE MAPLE - STANDARD WOOD FINISH, 202
- GR 1 — GROUT - MFR: CUSTOM BUILDING PRODUCTS, NAME: #543 DRIFTWOOD
- FCP 2 — FCP - MFR: JAMES HARDIE, NAME: HARDIESOFFIT PANELS - SUMMER WHEAT (ADD1)
- SS 3 — EPOXY COUNTER TOP - MFR: KEWAUNEE, NAME: KEMRESIN, 1" THICK BLACK
- ATP 7 — FABRIC WRAPPED ACOUSTICAL / TACKABLE PANEL, MFR: GUILFORD OF MAINE, NAME: STUDIO 54 - GLAM, 2966-7040
- ATP 8 — FABRIC WRAPPED ACOUSTICAL / TACKABLE PANEL, MFR: HUFCOR, NAME: REVELATIONS, DELIGHT, 48-10 STEEL (ADD1)
- WT 1 — SUN SHADE - MFR: MECHOSHADE, NAME: THERMOVEIL 1500, 1519 SILVER BIRCH
- WT 2 — SUN SHADE - MFR: MECHOSHADE, NAME: THERMOVEIL 1500 & CLASSIC BLACKOUT 0700, 1519 SILVER BIRCH & 0702 LIGHT GREY (ADD2)
- WC 1 — WALL COVERING - WOOD VENEER - MFR: KOROSEAL, NAME: ARBOR SERIES, AA9031 WALNUT AMERICAN QC (ADD2)

KEY PLAN





FINISH FLOOR PLAN - BLDG S - 3RD FLOOR

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

ADD2 2020-07-08
ADD1 2020-07-01

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DLR Group
Architecture Engineering Planning Interiors

LICENSED ARCHITECT
MARK V COVINGTON
No. C-27586
03/31/2021
RENEWAL DATE
STATE OF CALIFORNIA

FINISH FLOOR PLANS & SCHEDULES - BLDG S - 3RD FLOOR
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

2401 High School Road, Roseville, California 95747

Roseville Joint Union High School District

ADDENDUM 2
07.08.2020

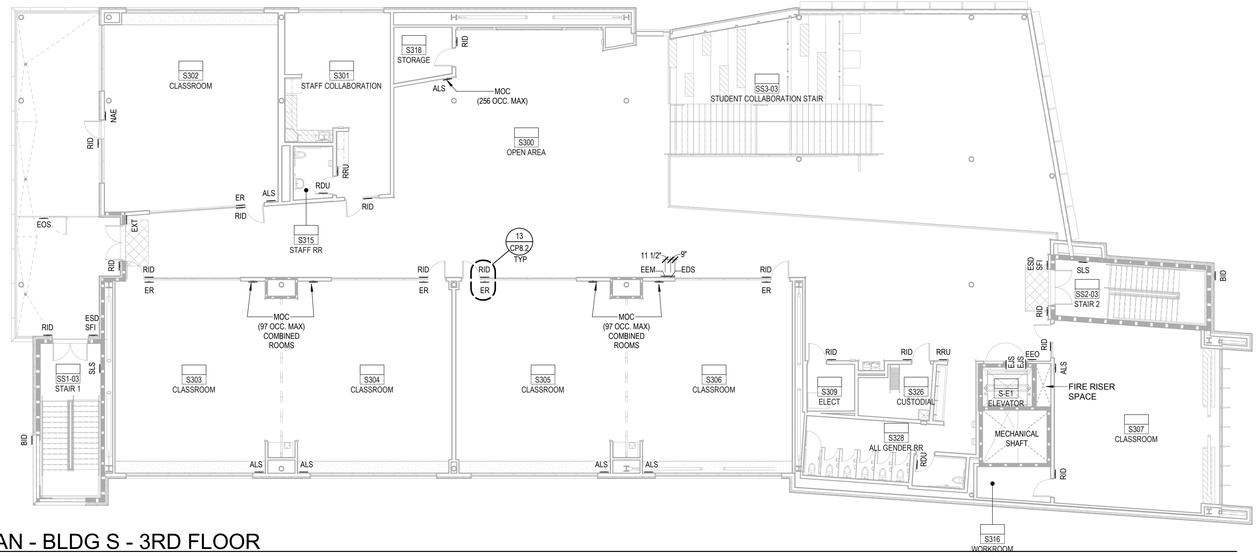
Revisions

2020-07-01 ADD1 Addendum 1
2020-07-08 ADD2 Addendum 2

PROJECT #75-19101-00
DSA APPL. #02-118062
DSA FILE #31-H3

A13.S3.1

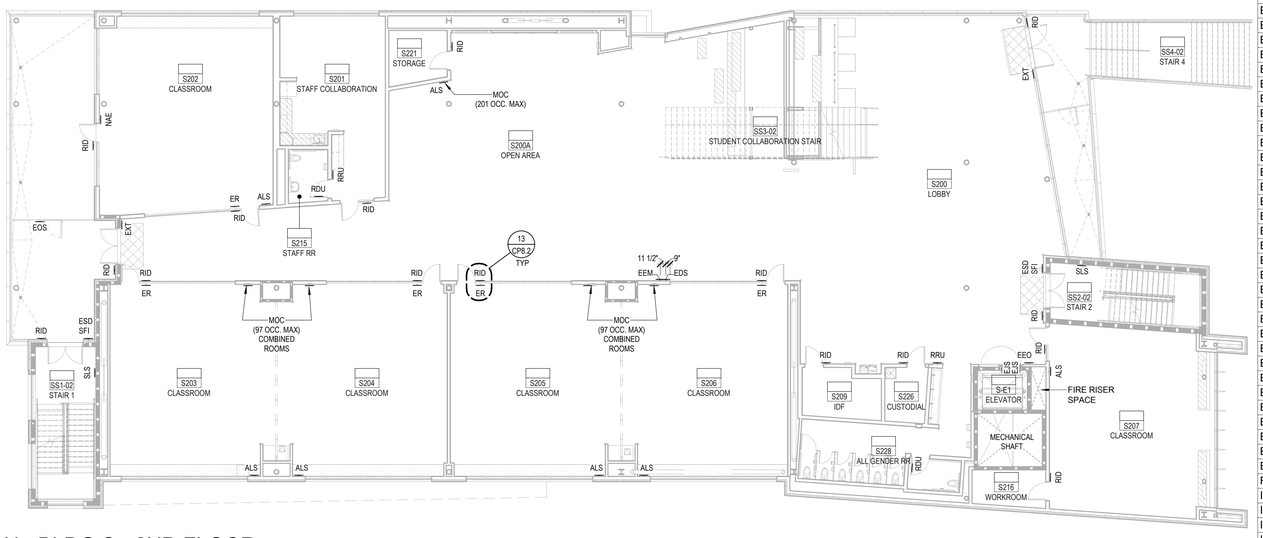
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7/8/2020 2:23:59 PM



NORTH

SIGNAGE PLAN - BLDG S - 3RD FLOOR

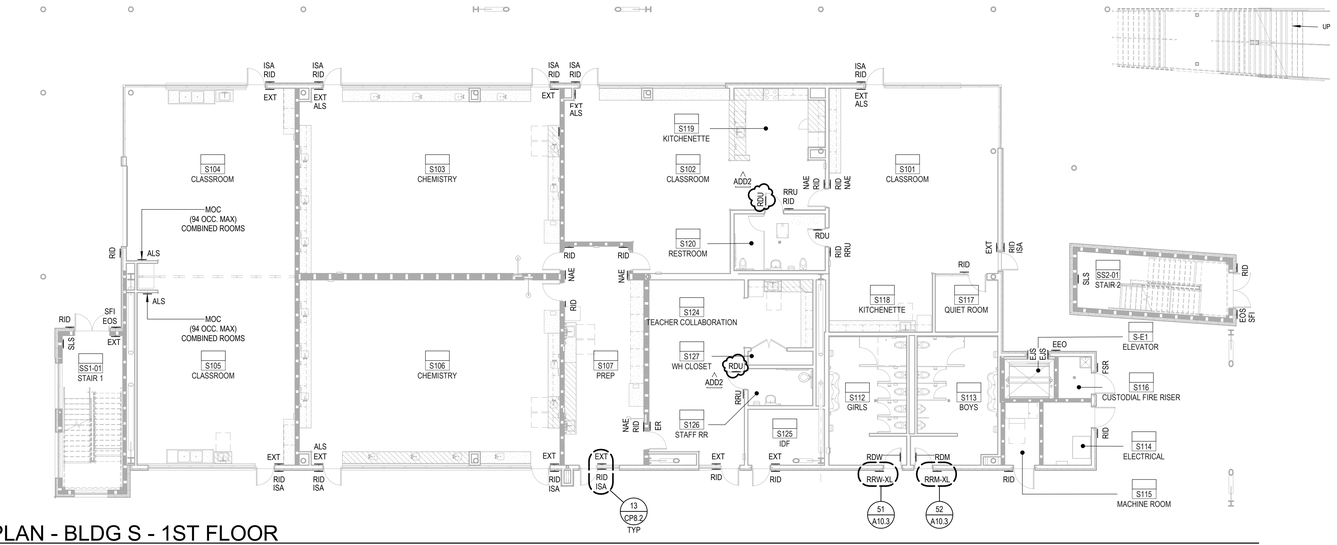
SCALE: 3/32" = 1'-0"



NORTH

SIGNAGE PLAN - BLDG S - 2ND FLOOR

SCALE: 3/32" = 1'-0"



NORTH

SIGNAGE PLAN - BLDG S - 1ST FLOOR

SCALE: 3/32" = 1'-0"

ADD2 2020-07-08

BIM 360://75-19101-00 Roseville Joint Union High School District - West Park Phase 2/75-19101-00_AR_2019.rvt
7/6/2020 10:23:22 AM

Signage Schedule - Bldg Sierra

Type	Room #	District Room #	Door #	Detail	Sign Comments
ALS	S303		NA	35/CP8.1	
ALS	S304		NA	35/CP8.1	
ALS	S305		NA	35/CP8.1	
ALS	S306		NA	35/CP8.1	
ALS	S302		NA	35/CP8.1	
ALS	S307		NA	35/CP8.1	
ALS	S203		NA	35/CP8.1	
ALS	S204		NA	35/CP8.1	
ALS	S205		NA	35/CP8.1	
ALS	S206		NA	35/CP8.1	
ALS	S202		NA	35/CP8.1	
ALS	S207		NA	35/CP8.1	
ALS	S104		NA	35/CP8.1	
ALS	S105		NA	35/CP8.1	
ALS	S103		NA	35/CP8.1	
ALS	S102		NA	35/CP8.1	
ALS	S106		NA	35/CP8.1	
ALS	S101		NA	35/CP8.1	
ALS	S200A		NA	35/CP8.1	
ALS	S300			35/CP8.1	
BID	NA		NA	24/A10.3	
BID	NA		NA	24/A10.3	
EDS	S200A		NA	53/CP8.2	
EDS	S300		NA	53/CP8.2	
EEM	S300		NA	36/CP8.2	
EEM	S200A		NA	36/CP8.2	
EEO	S-E1-03		S320	46/CP8.2	
EEO	S-E1-02		S220	46/CP8.2	
EEO	S-E1-01		NA	46/CP8.2	
EJS	S-E1-03		S320	53/CP8.2	
EJS	S-E1-03		S320	53/CP8.2	
EJS	S-E1-02		S220	53/CP8.2	
EJS	S-E1-02		S220	53/CP8.2	
EJS	S-E1-01		NA	53/CP8.2	
EJS	S-E1-01		NA	53/CP8.2	
EOS	SS102		SS102	55/CP8.2	
EOS			SG316	55/CP8.2	
EOS	SS1-01		SS101	55/CP8.2	
EOS			SG216	55/CP8.2	
ER	S303		S303	53/CP8.2	
ER	S304		S304	53/CP8.2	
ER	S305		S305	53/CP8.2	
ER	S306		S306	53/CP8.2	
ER	S302		S302A	53/CP8.2	
ER	S204		S204	53/CP8.2	
ER	S205		S205	53/CP8.2	
ER	S206		S206	53/CP8.2	
ER	S203		S203	53/CP8.2	
ER	S202		S202A	53/CP8.2	
ER	S107		S107B	53/CP8.2	
ESD	SS2-03		SS302	53/CP8.2	
ESD	SS1-03		SS301	53/CP8.2	
ESD	SS1-02		SS201	53/CP8.2	
ESD	SS2-02		SS202	53/CP8.2	
EXT	S300		S300	53/CP8.2	
EXT	S200		S200C	53/CP8.2	
EXT	S200		S200B	53/CP8.2	
EXT	S103		S103B	53/CP8.2	
EXT	S104		S104B	53/CP8.2	
EXT	SS1-01		SS101	53/CP8.2	
EXT	S101		S101A	53/CP8.2	
EXT	S101		S101B	53/CP8.2	
EXT	S103		S103A	53/CP8.2	
EXT	S102		S102A	53/CP8.2	
EXT	S105		S105	53/CP8.2	
EXT	S106		S106A	53/CP8.2	
EXT	S106		S106B	53/CP8.2	
EXT	S107		S107	53/CP8.2	
EXT	S125		S125	53/CP8.2	
EXT	S124		S124	53/CP8.2	
FSR	S116		S116	53/CP8.2	
ISA	S104		S104B	24/CP8.2	
ISA	S103		S103B	24/CP8.2	
ISA	S101		S101A	24/CP8.2	
ISA	S101		S101B	24/CP8.2	
ISA	S103		S103A	24/CP8.2	
ISA	S102		S102A	24/CP8.2	

Signage Schedule - Bldg Sierra

Type	Room #	District Room #	Door #	Detail	Sign Comments
ISA	S105		S105	24/CP8.2	
ISA	S106		S106A	24/CP8.2	
ISA	S106		S106B	24/CP8.2	
ISA	S107		S107	24/CP8.2	
MOC	S303		S303	53/CP8.1	
MOC	S300		NA	53/CP8.1	
MOC	S203		S203	53/CP8.1	
MOC	S200A		NA	53/CP8.1	
MOC	S105		S105	53/CP8.1	
MOC	S104		S104B	53/CP8.1	
MOC	S303		S303	53/CP8.1	
MOC	S303		S303	53/CP8.1	
MOC	S303		S303	53/CP8.1	
MOC	S203		S203	53/CP8.1	
MOC	S203		S203	53/CP8.1	
MOC	S203		S203	53/CP8.1	
NAE	S302		S302B	53/CP8.2	
NAE	S202		S202B	53/CP8.2	
NAE	S103		S103C	53/CP8.2	
NAE	S102		S102C	53/CP8.2	
NAE	S107		S107B	53/CP8.2	
NAE	S102		S102B	53/CP8.2	
NAE	S101		S102B	53/CP8.2	
RDM	S112		S112	51/CP8.2	
RDU	S328		S328	51/CP8.2	
RDU	S315		S315	51/CP8.2	
RDU	S228		S228	51/CP8.2	
RDU	S215		S215	51/CP8.2	
RDU	S101		S101C	51/CP8.2	
RDU	S126		S126	51/CP8.2	ADD2
RDU	S120		S120	51/CP8.2	
RDW	S112		S112	51/CP8.2	
RID	S303		S303	55/CP8.2	
RID	S304		S304	55/CP8.2	
RID	S305		S305	55/CP8.2	
RID	S306		S306	55/CP8.2	
RID	S309		S309	55/CP8.2	
RID	S326		S326	55/CP8.2	
RID	S307		S307	55/CP8.2	
RID	SS2-03		SS302	55/CP8.2	
RID	S316		S316	55/CP8.2	
RID	S318		S318	55/CP8.2	
RID	S301		S301	55/CP8.2	
RID	S302		S302A	55/CP8.2	
RID	S302		S302B	55/CP8.2	
RID	S300		S300	55/CP8.2	
RID	SS1-03		SS301	55/CP8.2	
RID	SS1-02		SS201	55/CP8.2	
RID	S200		S200C	55/CP8.2	
RID	S201		S201	55/CP8.2	
RID	S221		S221	55/CP8.2	
RID	S202		S202A	55/CP8.2	
RID	S203		S203	55/CP8.2	
RID	S204		S204	55/CP8.2	
RID	S205		S205	55/CP8.2	
RID	S206		S206	55/CP8.2	
RID	S209		S209	55/CP8.2	
RID	S226		S226	55/CP8.2	
RID	S207		S207	55/CP8.2	
RID	S216		S216	55/CP8.2	
RID	SS2-02		SS202	55/CP8.2	
RID	S202		S202B	55/CP8.2	
RID	S200		S200B	55/CP8.2	
RID	S104		S104B	55/CP8.2	
RID	S103		S103B	55/CP8.2	
RID	S103		S103A	55/CP8.2	
RID	S102		S102A	55/CP8.2	
RID	S101		S101B	55/CP8.2	
RID	S101		S101A	55/CP8.2	
RID	S117		S117B	55/CP8.2	
RID	S114		S114	55/CP8.2	
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RID	S125		S125	55/CP8.2	
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RID	S102		S102C	55/CP8.2	
RID	S106		S106C	55/CP8.2	
RID	SS1-01		SS101	55/CP8.2	
RID	S104		S104A	55/CP8.2	
RID	SS2-01		SS102	55/CP8.2	
RID	S120		S101C	55/CP8.2	
RID	S120		S120	55/CP8.2	
RID	S119		S102B	55/CP8.2	
RID	S102		S102B	55/CP8.2	
RID	S107		S107	55/CP8.2	
RRM-XL	S113		S113	52/A10.3	
RRU	S315		S315	51/CP8.2	
RRU	S328		NA	51/CP8.2	
RRU	S215		S215	51/CP8.2	
RRU	S228		NA	51/CP8.2	
RRU	S120		S120	51/CP8.2	
RRU	S101		S101C	51/CP8.2	
RRU	S126		S126	51/CP8.2	
RRW-XL	S112		S112	51/A10.3	
SFI	SS2-03		SS302	53/CP8.2	
SFI	SS1-03		SS301	53/CP8.2	
SFI	SS1-02		SS201	53/CP8.2	
SFI	SS2-02		SS202	53/CP8.2	
SFI	SS1-01		SS101	53/CP8.2	
SFI	SS2-01		SS102	53/CP8.2	
SLS	SS2-03		NA	53/CP8.2	
SLS	SS1-03		NA	53/CP8.2	
SLS	SS1-02		NA	53/CP8.2	
SLS	SS2-02		NA	53/CP8.2	
SLS	SS1-01		NA	53/CP8.2	
SLS	SS2-01		NA	53/CP8.2	

KEYNOTES

SIGNAGE LEGEND

ABS	ACCESSIBLE BUILDING ENTRANCE SIGN
ADS	ACCESSIBLE DIRECTIONAL SIGN
AER	ACCESSIBLE EXIT ROUTE SIGN & SYMBOL
AEX	ACCESSIBLE EXIT SIGN & SYMBOL
ALS	ASSIST LISTENING SYSTEM
AOR	AREA OF REFUGE
APES	ACCESSIBLE PARKING ENTRANCE SIGN
APS	ACCESSIBLE PARKING SIGN
ASD	ACCESSIBLE DIRECTIONS SITE SIGN
ASN	AISLE SEATING NOTICE
ASYM	ACCESSIBLE PARKING SYMBOL
AVP	ACCESSIBLE VAN PARKING
BID	BUILDING IDENTIFCATION SIGNAGE
C	COMPANION SEAT SIGN
DA	DESIGNATED AISLE SEAT SIGN
DS	DIRECTIONAL SIGNAGE
EDS	ELEVATOR DIRECTIONAL SIGN
EE	EMERGENCY EXIT SIGN SIGNAGE
EEM	EMERGENCY EVACUATION MAP
EEO	EMERGENCY ELEVATOR OPERATION SIGN
EJS	ELEVATOR JAMB SYMBOL SIGN
EOS	EXIT ONLY SIGNAGE
ER	EXIT ROUTE SIGNAGE
ERD	EXIT RAMP DOWN
ERU	EXIT RAMP UP
ESD	EXIT STAIR DOWN SIGNAGE
ESU	EXIT STAIR UP SIGNAGE
EXD	EXIT DIRECTIONAL SIGN
EXT	EXIT SIGNAGE
FDS	FLOOR DIRECTORY SIGN
FEX	FLOOR LEVEL EXIT
FSR	FIRE SPRINKLER RISER
GES	GAS EMERGENCY SHUT-OFF
IDS	INTERIOR DIRECTORY SIGNAGE
ISA	INTERNATIONAL SYMBOL OF ACCESSIBILITY
MOC	MAXIMUM OCCUPANCY SIGN - PER CBC 1004.3
NAE	NOT AN EXIT SIGNAGE
NOS	NO COMBUSTIBLE STORAGE
NPK	NO PARKING SIGNAGE
NSA	NO STORAGE ABOVE
NSS	NO SMOKING SIGNAGE
PFH	PUSH FOR HELP
RDA	RESTRICTED DINING AREA
RDM	RESTROOM DOOR SYMBOL - MEN
RDU	RESTROOM DOOR SYMBOL - ALL GENDER / UNISEX
RDW	RESTROOM DOOR SYMBOL - WOMEN
RID	ROOM IDENTIFICATION SIGNAGE
RO	RECYCLE ONLY
RR	RESTROOM SIGNAGE
RRB	RESTROOM - BOYS
RRG	RESTROOM - GIRLS
RRM	RESTROOM - MEN
RRM-XL	RESTROOM LARGE WALL SIGN - MEN
RRU	RESTROOM - ALL GENDER / UNISEX
RRW	RESTROOM - WOMEN
RRW-XL	RESTROOM LARGE WALL SIGN - WOMEN
SFI	TACTILE STAIR FLOOR INDICATOR
SLS	NON-TACTILE STAIR FLOOR INDICATOR
TO	TRASH ONLY

NOTES:
1. REFER TO SHEET CP8.1 & CP8.2 FOR SIGNAGE DETAILS
2. PROVIDE BACKING TO SIGNAGE AS REQUIRED
3. REFER TO CFC 605.3.1 FOR ELEC ROOM REQUIREMENTS & SIGNAGE
4. REFER TO CFC 509 1 FOR FIRE ALARM SPRINKLER RISER EQUIPMENT ROOM & SIGNAGE
5. REFER TO CFC 2703.5 & 2703.6 FOR HARZARDOUS MATERIALS IDENTIFICATION SIGNAGE REQUIREMENTS
6. ANY ROOM HAVING AN OCCUPANT LOAD OF 50 OR MORE PERSON, WHERE FIXED SEATS ARE NOT INSTALLED, AND WHICH ARE USED FOR ASSEMBLY, SHALL HAVE THE CAPACITY OF THE ROOM POSTED IN A CONSPICUOUS PLACE NEAR THE MAIN EXIT PER CCR TITLE 19, SECTION 3.30
7. FIRE WALLS, FIRE BARRIERS, FIRE PARTITIONS, SMOKE BARRIERS, AND SMOKE PARTITIONS, OR ANY OTHER WALL REQUIRED TO HAVE PROTECTED OPENINGS OR PENETRATIONS, SHALL FOLLOW PROVISIONS UNDER CBC 703.6
8. FOR SIGNAGE MOUNTING ON WALLS AND GLASS, SEE DET. 53/A8.2

KEY PLAN

DLR Group
Architecture Engineering Planning Interiors

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LICENSED ARCHITECT
MARK V COVINGTON
No. C-27366
03/31/2021
RENEWAL DATE
STATE OF CALIFORNIA

SIGNAGE PLAN & SCHEDULE - BLDG S
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

2401 High School Road, Roseville, California 95747

Roseville Joint Union High School District

ADDENDUM 2
07.08.2020
Revisions

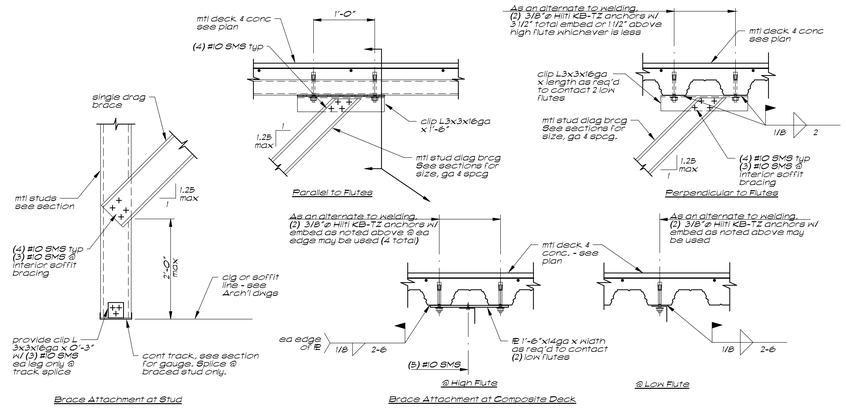
2020-07-08 ADD2 Addendum 2

PROJECT #75-19101-00
DSA APPL. #02-118062
DSA FILE #31-H3

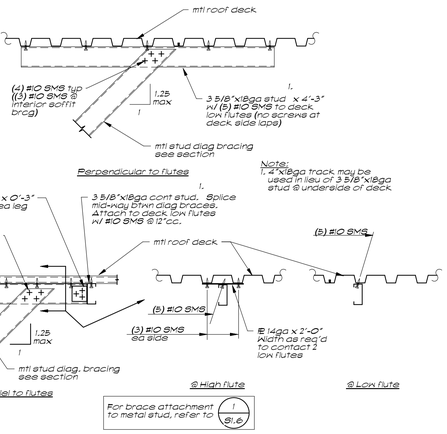
A14.S.1

TYPICAL DETAILS

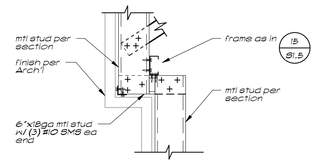
APPLICABLE TO ALL DRAWINGS UNLESS NOTED OR SHOWN OTHERWISE



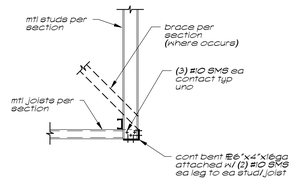
DETAIL 1/S1.6 — Metal stud bracing connections at conc over mtl deck — No Scale



DETAIL 2/S1.6 — Metal stud diag bracing connections @ bare metal roof deck conditions — No Scale



Detail 3/S1.6 — 1" = 1'-0"



Detail 4/S1.6 — 1/2" = 1'-0"

DETAIL 5/S1.6 — Metal Stud Infill @ Braced Frames — No Scale

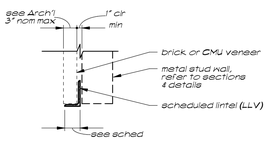
DETAIL 6/S1.6 — Typical veneer anchorage to metal studs — No Scale

DETAIL 7/S1.6 — Veneer anchorage to HSS column — No Scale

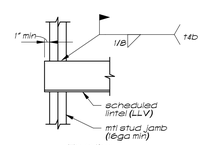
Steel Loose Lintels Supporting Brick Only	
Clear Opening	Minimum Angle Size
< 6'-0"	L6x6x1/4
6'-8"	L6x6x5/16
7'-4"	L6x6x5/16
8'-0"	L6x6x3/8

Notes:

1. Refer to Arch't dngs for size and location of openings.
2. Provide 8" of bearing at each jamb. ADD2
3. All lintels shall be not dipped galvanized after fabrication.
4. For masonry openings greater than 8'-0", refer to details on dngs.
5. Brick heights over openings greater than one half the lintel span shall be shored until mortar has set and cured.
6. Use for running bond only.
7. Max height of brick supported by a single lintel = 20'-0"

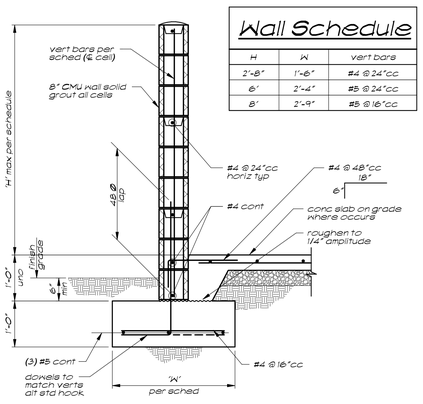


Typical Section

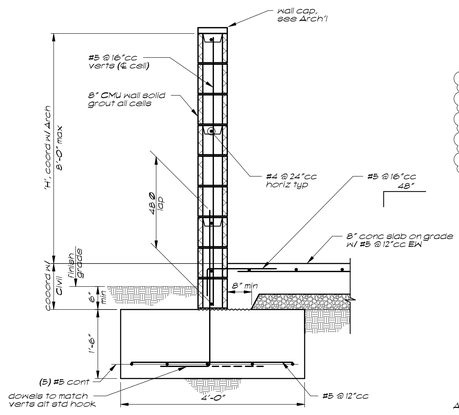


Elevation

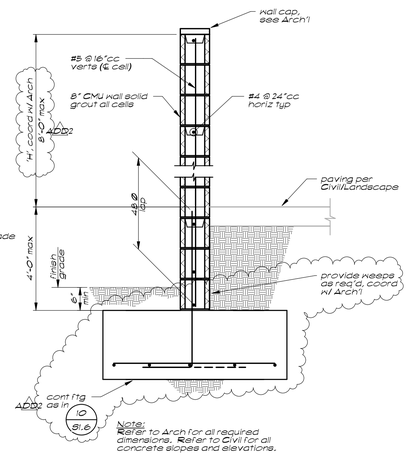
DETAIL 8/S1.6 — Typical Steel Loose Lintels Supporting Brick Only — No Scale



DETAIL 9/S1.6 — CMU Screen Wall — No Scale



DETAIL 10/S1.6 — Screen Wall @ Electrical Enclosure — No Scale



Detail 11/S1.6 — 3/4" = 1'-0"

Electrical Enclosure Copy 1

ADD2 2020-07-08

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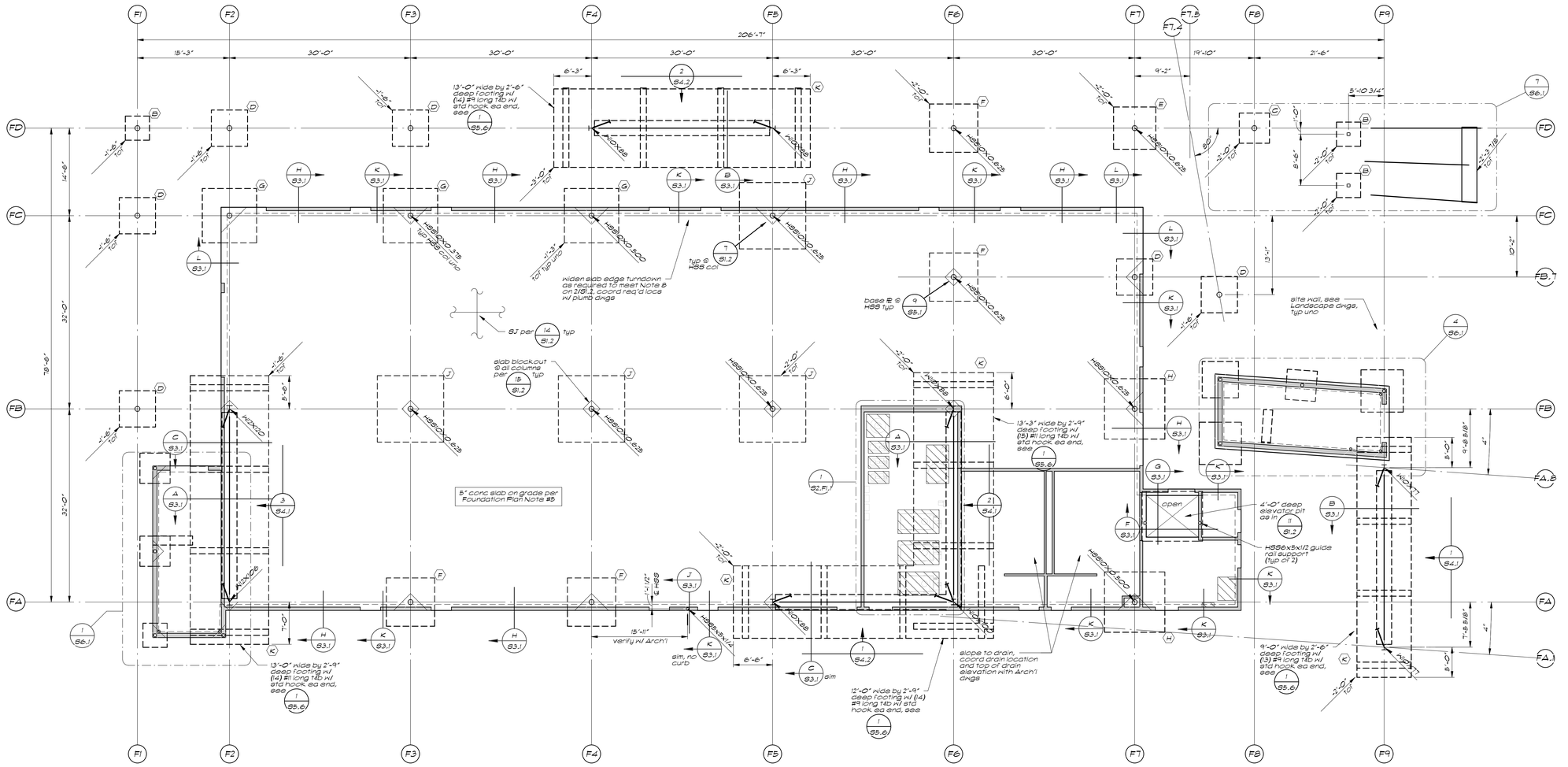
BUEHLER
600 Q STREET, SUITE 200
SACRAMENTO, CA 95811
916.442.0300

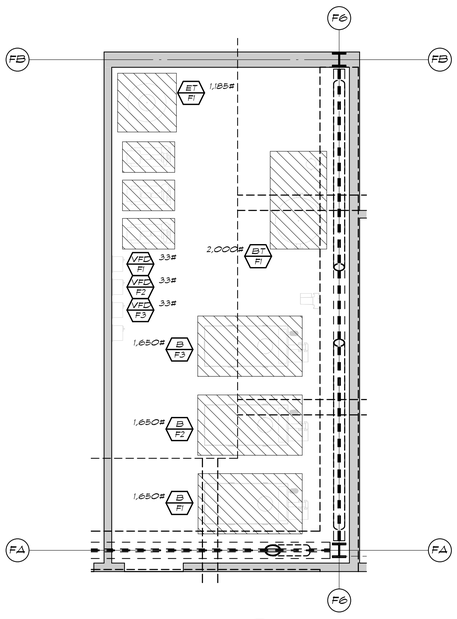
TYPICAL DETAILS
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)
2401 High School Road, Roseville, California 95747
Roseville Joint Union High School District

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DSA FILE #31-H3

S1.6





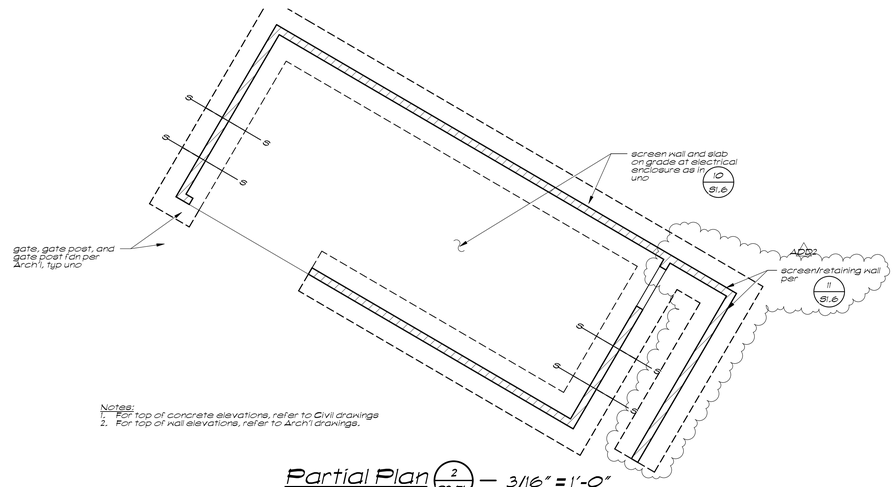
Partial Plan 1/S2.F1.1 — 1/4" = 1'-0"

Level 1 - Foundation Plan Bldg F - West Portion

Foundation Plan - Bldg Foothill — 1/8" = 1'-0"

Refer to Sheet S1.1 for Plan Notes

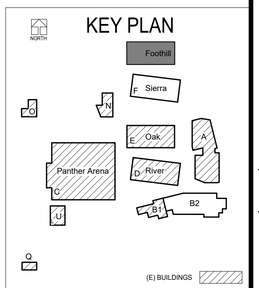
FF= +0'-0" (Ref Datum= +107.00)



Notes:
1. For top of concrete elevations, refer to Civil drawings
2. For top of wall elevations, refer to Arch't drawings.

Partial Plan 2/S2.F1.1 — 3/16" = 1'-0"

Level 1 - Foundation Plan Bldg F - Foothill Enclosure



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FOUNDATION PLAN - BLDG F
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

2401 High School Road, Roseville, California 95747

Roseville Joint Union High School District

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PROJECT #75-19101-00
DSA APPL. #02-118062
DSA FILE #31-H3

S2.F1.1

SECTIONS - BLDGS F & S

WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

2401 High School Road, Roseville, California 95747

Roseville Joint Union High School District

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PROJECT #PS-19101-00
DSA APPL #02-118082
DSA FILE #31-143

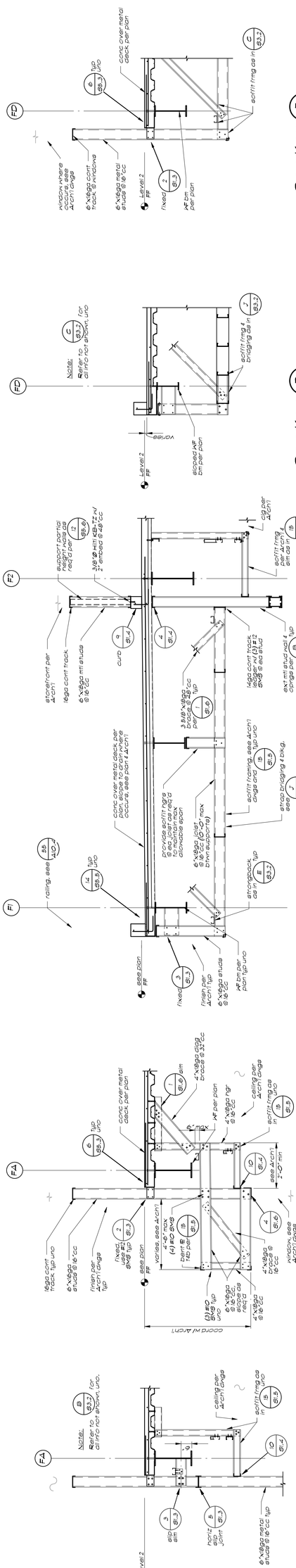
S3.2

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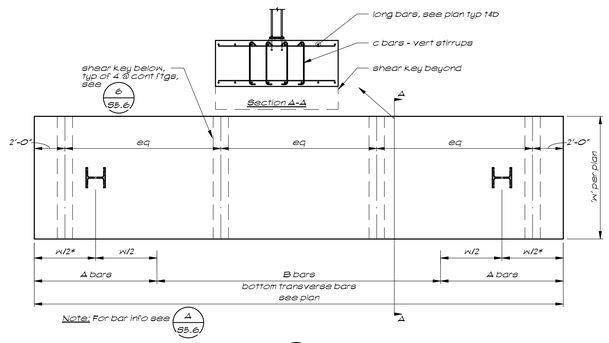
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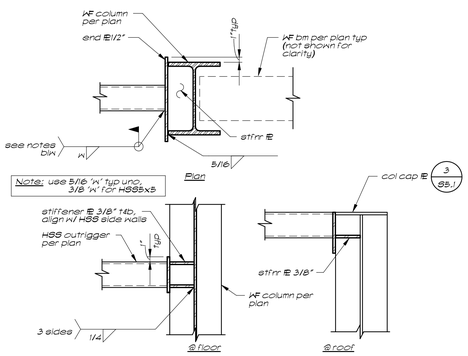
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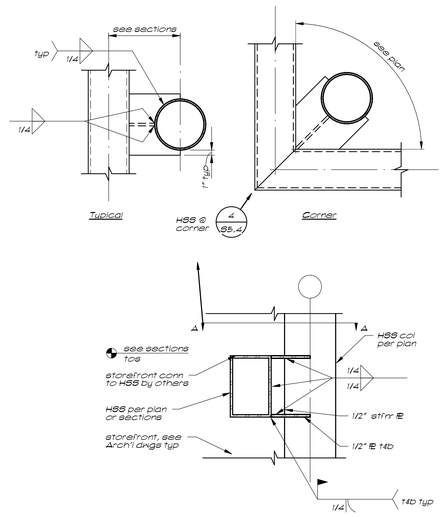
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DETAIL 1/S5.6 1/4" = 1'-0"



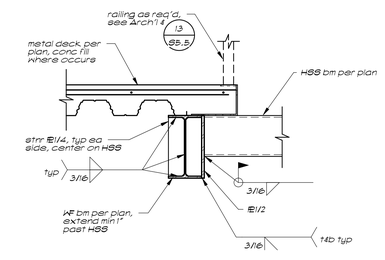
DETAIL 2/S5.6 1" = 1'-0"
HSS Outrigger to Column Web



DETAIL 3/S5.6 1" = 1'-0"

Ftg Gridline Location	A bars [2]	C bars [3]
F9 & S9	(10) #7	(4) #4 @ 12"cc
F6 & S6	(13) #8	(10) #4 @ 12"cc
F2 & S2	(10) #8	(8) #4 @ 12"cc
FA & SA	(11) #8	(5) #4 @ 12"cc
FD & SD	(15) #9	(6) #4 @ 12"cc
NOT USED		ADD2

Notes:
1. W/2* - Distance to outside of coulmn shall be the smaller of W/2 or distance from column to end of ftg.
2. Equally space A bars over distance shown.
3. Extent of C bar shall be 10'-0", centered on column. Stirrups may be hooked to any aligned top & bott long bars.
4. B bars shall be #5 @ 12"cc, typ
5. Top transverse bars shall be #5 @ 12"cc, typ.



DETAIL 4/S5.6 1" = 1'-0"

Notes:
1. Bent @ horizontal dimension will vary based on installed location of steel HSS beam and AISC allowable tolerances for steel construction. Field verify HSS bm location relative to metal stud frmg prior to fabrication and installation of bent @ shelf angle.
2. After verifying bm location, fabricate bent @ such that the installed dimension 'X' shall meet 3" ≤ 'X' ≤ 6 1/4".
3. Where dimensions permit, Gr. 50 angles may be used in lieu of bent @ so long as dimensional requirements are met and minimum 1/2" thickness is provided.

DETAIL 5/S5.6 1" = 1'-0"

DETAIL 6/S5.6 1" = 1'-0"

DETAIL 7/S5.6 1" = 1'-0"

Note: Contractor may use horizontal short slotted holes for these connections only. The short slotted holes shall be in the shear @ with hardened washers provided over the slots. Type 'N' bearing connections shall be used.

DETAIL 8/S5.6 1" = 1'-0"

DETAIL 9/S5.6 1" = 1'-0"

DETAIL 10/S5.6 1" = 1'-0"

DETAIL 11/S5.6 1" = 1'-0"

DETAIL Cantilevered Partial Height Wall 12/S5.6 No Scale

DETAIL 13/S5.6 1" = 1'-0"

DETAIL 14/S5.6 1" = 1'-0"

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DETAILS
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)
2401 High School Road, Roseville, California 95747
Roseville Joint Union High School District

ADDENDUM 2
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PROJECT #75-19101-00
DSA APPL #02-118062
DSA FILE #31-H3

S5.6

STAIR FRAMING PLANS - BLDGS F & S

WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

2401 High School Road, Roseville, California 95747

Roseville Joint Union High School District

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DSA APPL. #02-118082
DSA FILE #31-143

S6.1

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Sheet Notes:

1. Refer to Sheet S1.1 for Plan Notes and Schedules.
2. See S6.1 for Key Plan Sheets (S1.1 thru S6.1) for Plan Sheet Key Plans and coordinate stair dimensional and detailed information with architectural drawings.
3. Refer to Sheet A8.10 for all hand rail and guard rail details, including rails attached to metal stud walls and to sheet metal angles.



AIR CONDITIONING UNIT (DX COOLING/HOT WATER HEATING) SCHEDULE

MARK	MFR MODEL	TOTAL CFM	SUPPLY FANS						RELIEF FANS						DX COOLING COIL DATA (2 CIRCUITS)						HEATING COIL DATA (2 CIRCUITS)									ENERGY RECOVERY					UNIT ELECTRICAL TOTAL DATA			AHRI EER/ (IEER)	OUTSIDE AIR DESIGN/ (DCV MIN) (CFM)	BUILDING	PRE FITLERS			FINAL FITLERS			SPRING ISOLATORS (DEFLECTION SPRING "WINDOW")	APPROX. OPER. WT. (LBS)	MOUNTING DETAIL	CONTROL DETAIL	REMARKS
			QTY	CFM EA	TSP/ESP IN. W.G. EA	RPM EA	MOTOR KW EA. (OPER/ NOMINAL)	ELECTRICAL V/PH/HZ EA	QTY	CFM EA	TSP/(ESP) IN. W.G. EA	RPM EA	MOTOR KW EA. (OPER/ NOMINAL)	ELECTRICAL V/PH/HZ EA	MBH		EAT °F		LAT °F		EAT DB (°F)	LAT DB (°F) *	TOTAL MBH	FLOW (GPM)	EWT (°F)	LWT (°F)	WPD (FT)	ROW/ FPI	OUTSIDE AIR (CFM)	RETURN/ RELIEF AIR (CFM)	SUMMER CONDITIONS: (101°F DB/71°F WB)		WINTER CONDITIONS: (24°F DB)																
															SENS	TOTAL	DB	WB	DB	WB											SENSIBLE (MBH)	OSA PRE-COOLED (°F DB/WB)	SENSIBLE (MBH)	OSA PRE-WARMED (°F DB/WB)	FLA	MCA	MOP				QTY.	SIZE (IN.)	MERV	QTY.	SIZE (IN.)	MERV					
AC-F-1	YORK YCO-110x144	38,300	9	4,255	4.65/(2.50)	2,456	4.07/(6.0)	460/3/60	9	4,255	2.73/(1.90)	1910	2.24/(3.0)	460/3/60	1169	1459	81.0	65.0	53.4	52.1	55.0	90.0	1444	74	180	140	13.4	1/11	10,350	7,000	144	88/67	256	48/35	97.9	98.9	106.9	9.8/(16.4)	10,350/ (5,800)	BUILDING F	40 15	24x20x2 20x20x2	8	8 15	16x20x2 24x20x2	13	14 SPRING BOXES PER LONG SIDE	42,925 +3500 (CURB)	1/M4.01	4/M6.01	NOTES 1-13
AC-S-1	YORK YCO-110x144	38,300	9	4,255	4.65/(2.50)	2,456	4.07/(6.0)	460/3/60	9	4,255	2.73/(1.90)	1910	2.24/(3.0)	460/3/60	1169	1459	81.0	65.0	53.4	52.1	55.0	90.0	1444	74	180	140	13.4	1/11	10,350	7,000	144	88/67	256	48/35	97.9	98.9	106.9	9.8/(16.4)	10,350/ (5,800)	BUILDING S	40 15	24x20x2 20x20x2	8	8 15	16x20x2 24x20x2	13	14 SPRING BOXES PER LONG SIDE	42,925 +3500 (CURB)	1/M4.01	4/M6.01	NOTES 1-13

NOTES:
1. PROVIDE ECM SUPPLY AND RETURN FANS
2. PROVIDE 1-1/4" DRAIN CONNECTION. SEE PLUMBING PLANS FOR SIZE AND LOCATION.
3. ALL AIR CONDITIONING UNITS GREATER THAN 2000 CFM SHALL BE TIED INTO BUILDING SMOKE DETECTOR AND SHALL BE TIED INTO THE FIRE ALARM SYSTEM. SEE ELECTRICAL DRAWINGS.
4. PROVIDE SEPARATE 460V/3PH/60HZ POWER CONNECTION FOR ACCU, SEE ACCU CORRESPONDING SCHEDULE
5. PROVIDE SEPARATE 120V/1PH FOR LIGHTS AND CONTROLS (FLA = 20 AMPS)
6. RATINGS AT 101°F DB/71°F WB.
7. SEE AIR COOLED CONDENSING UNIT SCHEDULE FOR CONDENSING UNIT ON BACK OF AIR HANDLER SKID.
8. KEEP THE DIRECT EXPANSION COIL AIR PRESSURE DROP AT 0.5" OR LESS, KEEP THE HEATING COIL AIR PRESSURE DROP AT .15" OR LESS.
9. UNIT WEIGHT INCLUDES APPLICABLE CONDENSING UNIT SECTION AND 22" TALL, 3" DEFLECTION RSC SPRING VIBRATION CURB FROM MASON INDUSTRIES. OPA-0207. NO SUBSTITUTES WILL BE ACCEPTED.
10. PROVIDE UNIT WITH 2-WAY TEMPERATURE CONTROL VALVE ON HEATING HOT WATER COIL.
11. PAINT UNIT TO MATCH MECHANICAL SCREEN WALL. SEE ARCHITECTURAL DRAWINGS FOR PAINTING CRITERIA.
12. PROVIDE WITH MAGNEHELIC FILTER GAUGES ON OUTSIDE OF UNIT ACROSS THE FILTER SECTION.
* 13. THE HEATING LAT OF 90°F IS FOR MORNING WARM-UP MODE. AFTER MORNING WARM-UP IS COMPLETE, THE LAT IS TO BE 55°F-60°F TO THE VAV BOXES.

NATURAL GAS BOILER SCHEDULE

MARK	MANUFACTURER AND MODEL NUMBER	TYPE	LOCATION	INPUT CAPACITY (MBH)	OUTPUT CAPACITY (MBH)	MINIMUM EFFICIENCY (AFUE %)	ENTERING WATER (°F)	LEAVING WATER (°F)	FLOW RATE (GPM)	WATER △ P (FEET wc)	MAX PRESS. RATING (PSIG)	MAXIMUM NOX (PPM)	ELECTRICAL					APPROXIMATE EQUIPMENT DIMENSIONS (L"xW"xH")	APPROXIMATE OPERATING WEIGHT (POUNDS)	MOUNTING DETAIL	CONTROL DETAIL	REMARKS
													VOLTS	PHASE	BHP	AMPS	MOCP					
B-F1	PATTERSON-KELLY SC-2000	CONDENSING GAS BOILER	BLDG F FIRST FLOOR	2,000	1,920	96	140	180	96	9	160	9	208/240	1	57	< 15	15	66"x32"x69"	1,650	1/M4.02	2/M6.03	NOTES 1-5
B-F2	PATTERSON-KELLY SC-2000	CONDENSING GAS BOILER	BLDG F FIRST FLOOR	2,000	1,920	96	140	180	96	9	160	9	208/240	1	57	< 15	15	66"x32"x69"	1,650	1/M4.02	2/M6.03	NOTES 1-5
B-F3	PATTERSON-KELLY SC-2000	CONDENSING GAS BOILER	BLDG F FIRST FLOOR	2,000	1,920	96	140	180	96	9	160	9	208/240	1	57	< 15	15	66"x32"x69"	1,650	1/M4.02	2/M6.03	NOTES 1-5

NOTES:
1. PROVIDE DURAVENT OR EQUAL STAINLESS STEEL, DOUBLE WALL, POSITIVE PRESSURE EXHAUST AND INTAKE DUCTS.
2. PROVIDE EACH BOILER WITH A CONDENSATE NEUTRALIZER JJM MANUFACTURER JM-20 (2,000 MBH). BOILER MANUFACTURER TO PROVIDE WITH BOILER.
3. PROVIDE A 3/4" PVC DRAIN OFF BOTTOM OF EXHAUST ON EACH BOILER AND ROUTE TO FLOOR SINK.
4. CONTRACTOR SHALL PROVIDE AN ENGINEERED VENT CACULATION WITH THE SUBMITTALS. CONTRACTOR SHALL COORDINATE WITH BOILER MANUFACTURER.
5. 5:1 TURNDOWN RATIO.

AIR COOLED CONDENSING UNIT SCHEDULE

MARK	MANUFACTURER/ MODEL	COMPRESSORS			CONDENSER FAN		ELEC. SERVICE (V/PH/HZ)	MOCP	MCA	UNIT SERVED	APPROX. OPER. WT. (LBS)	CONTROL DETAIL	REMARKS
		NO	RLA EA	LRA EA	NO	FLA							
ACCU-F-1	YORK YLUA0130ZE46	4	54.5	310	6	4.0	460/3/60	300	256	AH-F1	INCLUDED WITH AH-F1 WEIGHT	4/M6.01	SEE NOTES 1-4
ACCU-S-1	YORK YLUA0130ZE46	4	54.5	310	6	4.0	460/3/60	300	256	AH-S1	INCLUDED WITH AH-S1 WEIGHT	4/M6.01	SEE NOTES 1-4

1. MOUNTED ON THE SAME SKID AS AIR HANDLING UNIT.
2. REFRIGERANT SHALL BE TYPE R410A
3. SEE AIR HANDLER SCHEDULE FOR AHRI EFFICIENCY INFORMATION

ADD2 4. ALL REFRIGERANT PIPING, APPURTENANCES, INSULATION AND REFRIGERANT FROM THE AC UNIT TO THE CONDENSING UNIT TO BE PROVIDED BY THE MANUFACTURER COMPLETE FROM THE FACTORY.

CHEMICAL FEEDER SCHEDULE

MARK	MANUFACTURER AND MODEL NO.	CAPACITY	LOCATION	SERVICE	WEIGHT LBS	MOUNTING DETAIL	REMARKS
CF-F1	GRISWOLD FB-12	12 GAL	BLDG F	HEATING HOT WATER	54	4/M4.02	SEE NOTES 1,2

NOTES:
1. PROVIDE VALVE PACKAGE, PEDISTAL, 25 MICRON FILTER BAGS.
2. PROVIDE STAINLESS STEEL TANK, FUNNEL PACKAGE, PEDESTAL AND STAINLESS STEEL BASKET.

EXPANSION TANK SCHEDULE

MARK	MANUFACTURER AND MODEL NO.	LOCATION	SERVICE	CAPACITY-GALLONS		DIAMETER (IN.)	HEIGHT (IN.)	APPROX. OPER. WT (FILLED) (LSB)	MOUNTING DETAIL	REMARKS
				ACCEPT	TANK					
ET-F1	WESSELS NLA400	BLDG F	HEATING HOT WATER	106	106	30	49"	1185	3/M4.02	SEE NOTES 1-4

NOTES:
1. PRE-CHARGED, STEEL EXPANSION TANK, WITH HEAVY DUTY BUTYL RUBBER BLADDER
2. PROVIDE NFT CONNECTIONS CHARGING VALVE
3. TANK SIZE SHALL BE ASME
4. WEIGHT SHOWN IS MAX OPERATING WEIGHT WITH FLUID

PUMP SCHEDULE

MARK	MANUFACTURER AND MODEL NUMBER	LOCATION	SYSTEM SERVICE	TYPE	PARAMETERS				ELECTRICAL				APPROXIMATE OPERATING WEIGHT (POUNDS)	MOUNTING DETAIL	CONTROL DETAIL	REMARKS
					FLOW (GPM)	HEAD (FT wc)	RPM	IMPELLER DIA. (IN.)	BHP	HP	VOLTS	PHASE				
PHWP-F1	BELL & GOSSETT ECOCIRC XL 40-275	BLDG F FIRST FLOOR	HHW - PRIMARY LOOP	INLINE CIRC PUMP	96	28	2786	-	1.25	2	208-230	1	50	12/M4.02	2/M6.03	SEE NOTES: 1
PHWP-F2	BELL & GOSSETT ECOCIRC XL 40-275	BLDG F FIRST FLOOR	HHW - PRIMARY LOOP	INLINE CIRC PUMP	96	28	2786	-	1.25	2	208-230	1	50	12/M4.02	2/M6.03	SEE NOTES: 1
PHWP-F3	BELL & GOSSETT ECOCIRC XL 40-275	BLDG F FIRST FLOOR	HHW - PRIMARY LOOP	INLINE CIRC PUMP	96	28	2786	-	1.25	2	208-230	1	50	12/M4.02	2/M6.03	SEE NOTES: 1
SCHWP-F1	BELL & GOSSETT e-1510 2BD	BLDG F FIRST FLOOR	HHW - SECOND. LOOP	BASE MOUNTED END SUCTION	133	70	1750	8.5	3.41	5	460	3	275	2/M4.02	2/M6.03	SEE NOTES: 1-4
SCHWP-F2	BELL & GOSSETT e-1510 2BD	BLDG F FIRST FLOOR	HHW - SECOND. LOOP	BASE MOUNTED END SUCTION	133	70	1750	8.5	3.41	5	460	3	275	2/M4.02	2/M6.03	SEE NOTES: 1-4
SCHWP-F3	BELL & GOSSETT e-1510 2BD	BLDG F FIRST FLOOR	HHW - SECOND. LOOP	BASE MOUNTED END SUCTION	133	70	750	8.5	3.41	5	460	3	275	2/M4.02	2/M6.03	SEE NOTES: 1-4

NOTES:
1. CAST IRON PUMP BODY, STAINLESS STEEL IMPELLER, AISI 420 STAINLESS STEEL SHAFT, PERMANENT MAGGNET ROTOR, CARBON SLEEVE BEARING, EPDM GASKET & F CLASS MOTOR
2. PROVIDE GROUT IN ENTIRE BASE OF PUMP. PROVIDE A NON-SHRINK EPOXY GROUT MATERIAL LEAVING NO VOIDS. GROUT SHALL MEET CURRENT VERSION OF ASTM C1107 AND ASTM C579. GROUT TO BE RATED AT NO LESS THAN 1000 PSI AFTER CURING.
3. MANUFACTURER SHALL ALIGN THE PUMP SHAFT IN THE FIELD.
4. PROVIDE WITH VFD PER VFD SCHEDULE. LOCATE IN BOILER ROOM PER PLANS

BUFFER TANK SCHEDULE

MARK	MANUFACTURER / MODEL #	LOCATION	SERVES	CAPACITY (GALLONS)	WEIGHT	MOUNTING DETAIL	REMARKS
BT-F1	CEMLINE V200SEB	BLDG F	HOT WATER	200	2,000	6/M4.02	SEE NOTES 1-3

NOTES:
1. PROVIDE NFT CONNECTIONS CHARGING VALVE
2. TANK SIZE SHALL BE ASME
3. WEIGHT SHOWN IS MAX OPERATING WEIGHT WITH FLUID

VARIABLE FREQUENCY DRIVE SCHEDULE

MARK	MANUFACTURER / MODEL #	HP	VOLTS/PH/HZ	BUILDING	LOCATION	SERVES	WEIGHT	MOUNTING DETAIL	REMARKS
VFD-F1	ABB, INC / ACH580	5	480/3/60	BLDG F	BOILER ROOM F111	SCHWP-F1	33	5/M4.02	SEE NOTES: 1-4
VFD-F2	ABB, INC / ACH580	5	480/3/60	BLDG F	BOILER ROOM F111	SCHWP-F2	33	5/M4.02	SEE NOTES: 1-4
VFD-F3	ABB, INC / ACH580	5	480/3/60	BLDG F	BOILER ROOM F111	SCHWP-F3	33	5/M4.02	SEE NOTES: 1-4
VFD-S1	ABB, INC / ACH580	3/4	480/3/60	BLDG S	STORAGE S318	LEF-S-1	33	5/M4.02	SEE NOTES: 1-4
VFD-S2	ABB, INC / ACH580	3/4	480/3/60	BLDG S	STORAGE S318	LEF-S-2	33	5/M4.02	SEE NOTES: 1-4
VFD-S3	ABB, INC / ACH580	3/4	480/3/60	BLDG S	STORAGE S318	LEF-S-3	33	5/M4.02	SEE NOTES: 1-4

ADD2 ADD2

NOTES:
1. SURFACE MOUNTED BY CONTRACTOR, SEE DETAIL 5/M4.02 .
2. COMPLETE WITH MANUAL BYPASS AND FUSED DISCONNECT
3. UL-1 RATED ENCLOSURE TYPE
4. A PASS THROUGH I/O SHALL OPEN VALVES IN THE SYSTEM IF VFD GOES INTO BYPASS MODE TO ALLEVIATE OVER PRESSURIZATION

ADD2 2020-07-08

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REGISTERED PROFESSIONAL ENGINEER
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Job No. 19.035

MECHANICAL SCHEDULES
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)
2401 High School road, Roseville, California 95747

ADDENDUM 2
07.08.2020
Revisions
2020-07-08 ADD2 Addendum 2

PROJECT ##75-19101-00

M0.2

VARIABLE VOLUME TERMINAL W/ REHEAT SCHEDULE

MARK	TITUS DESV INLET (IN.)	COOLING		HOT WATER COIL											DCV	BLDG FLOOR	AHU SERVED BY	APPROX. OPER. WT. (LBS)	REMARKS
		MAXIMUM CFM	MINIMUM CFM	CFM	MBH	EAT (°F)	EWT (°F)	LAT (°F)	APd ("W.C.)	GPM	LWT (°F)	WPd (FT)	ROWS/ FPI	CONN. TYPE					
VAV-F1-1	12"ø	1200	240	600	26.4	55	180	95	0.23	1.0	126	0.14	2 / 10	3-WAY	YES	BLDG F FLOOR 1	AH-F1	50	SEE NOTES: 1-7
VAV-F1-2	12"ø	1200	240	600	26.4	55	180	95	0.23	1.0	126	0.14	2 / 10	2-WAY	YES	BLDG F FLOOR 1	AH-F1	50	SEE NOTES: 1-7
VAV-F1-3	12"ø	1200	240	600	26.4	55	180	95	0.23	1.0	126	0.14	2 / 10	2-WAY	YES	BLDG F FLOOR 1	AH-F1	50	SEE NOTES: 1-7
VAV-F1-4	12"ø	1200	240	600	26.4	55	180	95	0.23	1.0	126	0.14	2 / 10	3-WAY	YES	BLDG F FLOOR 1	AH-F1	50	SEE NOTES: 1-7
VAV-F1-5	12"ø	1200	240	600	26.4	55	180	100	0.23	1.0	126	0.14	2 / 10	3-WAY	YES	BLDG F FLOOR 1	AH-F1	50	SEE NOTES: 1-7
VAV-F1-6	12"ø	1400	280	700	37.3	55	180	103	0.16	1.5	129	0.14	2 / 10	2-WAY	YES	BLDG F FLOOR 1	AH-F1	60	SEE NOTES: 1-7
VAV-F1-7	9"ø	800	160	400	20.1	55	180	100	0.20	1.0	139	0.12	2 / 10	2-WAY	NO	BLDG F FLOOR 1	AH-F1	40	SEE NOTES: 1-7
VAV-F1-8	12"ø	1500	300	750	35.1	55	180	97	0.34	1.5	132	0.24	2 / 10	2-WAY	NO	BLDG F FLOOR 1	AH-F1	50	SEE NOTES: 1-7
VAV-F1-9	8"ø	600	120	300	11.9	55	180	91	0.23	0.5	131	0.08	2 / 10	2-WAY	YES	BLDG F FLOOR 1	AH-F1	35	SEE NOTES: 1-7
VAV-F2-1	16"ø	2300	460	1150	54.6	55	180	99	0.37	2.5	135	0.36	2 / 10	2-WAY	YES	BLDG F FLOOR 2	AH-F1	65	SEE NOTES: 1-7
VAV-F2-2	16"ø	2195	440	1095	49.4	55	180	97	0.34	2.0	130	0.23	2 / 10	2-WAY	YES	BLDG F FLOOR 2	AH-F1	65	SEE NOTES: 1-7
VAV-F2-3	12"ø	1500	300	750	38.2	55	180	101	0.18	1.5	128	0.15	2 / 10	2-WAY	YES	BLDG F FLOOR 2	AH-F1	60	SEE NOTES: 1-7
VAV-F2-4	12"ø	1300	260	650	27.1	55	180	92	0.27	1.0	124	0.14	2 / 10	3-WAY	YES	BLDG F FLOOR 2	AH-F1	50	SEE NOTES: 1-7
VAV-F2-5	9"ø	870	175	435	20.7	55	180	98	0.23	1.0	137	0.12	2 / 10	2-WAY	NO	BLDG F FLOOR 2	AH-F1	40	SEE NOTES: 1-7
VAV-F2-6	12"ø	1300	260	650	27.1	55	180	92	0.27	1.0	124	0.14	2 / 10	3-WAY	YES	BLDG F FLOOR 2	AH-F1	50	SEE NOTES: 1-7
VAV-F2-7	12"ø	1300	260	650	27.1	55	180	92	0.27	1.0	124	0.14	2 / 10	2-WAY	YES	BLDG F FLOOR 2	AH-F1	50	SEE NOTES: 1-7
VAV-F2-8	12"ø	1300	260	650	27.1	55	180	92	0.27	1.0	124	0.14	2 / 10	2-WAY	YES	BLDG F FLOOR 2	AH-F1	50	SEE NOTES: 1-7
VAV-F2-9	12"ø	1300	260	650	27.1	55	180	92	0.27	1.0	124	0.14	2 / 10	2-WAY	YES	BLDG F FLOOR 2	AH-F1	50	SEE NOTES: 1-7
VAV-F2-10	8"ø	700	140	350	19.1	55	180	104	0.16	1.0	141	0.12	2 / 10	3-WAY	NO	BLDG F FLOOR 2	AH-F1	40	SEE NOTES: 1-7
VAV-F2-11	14"ø	2000	400	1000	47.7	55	180	99	0.29	2.0	131	0.23	2 / 10	2-WAY	YES	BLDG F FLOOR 2	AH-F1	65	SEE NOTES: 1-7
VAV-F3-1	16"ø	2300	460	1150	54.6	55	180	99	0.37	2.5	135	0.36	2 / 10	2-WAY	YES	BLDG F FLOOR 3	AH-F1	65	SEE NOTES: 1-7
VAV-F3-2	16"ø	2300	460	1150	54.6	55	180	99	0.37	2.5	135	0.36	2 / 10	2-WAY	YES	BLDG F FLOOR 3	AH-F1	65	SEE NOTES: 1-7
VAV-F3-3	16"ø	2200	440	1100	49.5	55	180	97	0.34	2.0	130	0.23	2 / 10	3-WAY	YES	BLDG F FLOOR 3	AH-F1	65	SEE NOTES: 1-7
VAV-F3-4	12"ø	1500	300	750	38.2	55	180	101	0.18	1.5	128	0.15	2 / 10	2-WAY	YES	BLDG F FLOOR 3	AH-F1	60	SEE NOTES: 1-7
VAV-F3-5	12"ø	1300	260	650	27.1	55	180	92	0.27	1.0	124	0.14	2 / 10	2-WAY	YES	BLDG F FLOOR 3	AH-F1	50	SEE NOTES: 1-7
VAV-F3-6	9"ø	870	175	435	20.7	55	180	98	0.23	1.0	137	0.12	2 / 10	2-WAY	NO	BLDG F FLOOR 3	AH-F1	40	SEE NOTES: 1-7
VAV-F3-7	12"ø	1300	260	650	27.1	55	180	92	0.27	1.0	124	0.14	2 / 10	3-WAY	YES	BLDG F FLOOR 3	AH-F1	50	SEE NOTES: 1-7
VAV-F3-8	12"ø	1300	260	650	27.1	55	180	92	0.27	1.0	124	0.14	2 / 10	2-WAY	YES	BLDG F FLOOR 3	AH-F1	50	SEE NOTES: 1-7
VAV-F3-9	12"ø	1300	260	650	27.1	55	180	92	0.27	1.0	124	0.14	2 / 10	2-WAY	YES	BLDG F FLOOR 3	AH-F1	50	SEE NOTES: 1-7
VAV-F3-10	12"ø	1300	260	650	27.1	55	180	92	0.27	1.0	124	0.14	2 / 10	2-WAY	YES	BLDG F FLOOR 3	AH-F1	50	SEE NOTES: 1-7
VAV-F3-11	8"ø	700	140	350	19.1	55	180	104	0.16	1.0	141	0.12	2 / 10	2-WAY	NO	BLDG F FLOOR 3	AH-F1	40	SEE NOTES: 1-7
VAV-F3-12	14"ø	2000	400	1000	47.7	55	180	99	0.29	2.0	131	0.23	2 / 10	3-WAY	YES	BLDG F FLOOR 3	AH-F1	65	SEE NOTES: 1-7

NOTES:
1. COORDINATE WITH CONTROLS CONTRACTOR TO PROVIDE 24V POWER. SEE CONTROL PANEL LOCATIONS ON PLANS FOR 120 TO 24VAC TRANSFORMERS.
2. DEMAND CONTROLLED VENTILATION WHERE NOTED IN SCHEDULE ABOVE.
3. PROVIDE FIELD FABRICATED 5' LINED PLENUM BOX. INSIDE DIMENSIONS OF LINED PLENUM BOX SHALL BE THE SAME SIZE AS DISCHARGE OF VAV TERMINAL.
4. WEIGHT INCLUDES DDC CONTROLS AND HOT WATER COIL (WHERE APPLICABLE) BUT NOT FABRICATED PLENUM BOX.
5. SEE M1 SERIES FOR DUCTWORK PLANS AND M3 SERIES FOR HEATING HOT WATER PIPING.
6. PROVIDE 90°F LEAVING AIR TEMPERATURE MINIMUM OUT OF HOT WATER COIL.
7. FOR MOUNTING DETAIL SEE 7/M4.02 . FOR CONTROLS , SEE DETAIL 3/M6.03 .

VARIABLE VOLUME TERMINAL W/ REHEAT SCHEDULE

MARK	TITUS DESV INLET (IN.)	COOLING		HOT WATER COIL											DCV	BLDG FLOOR	AHU SERVED BY	APPROX. OPER. WT. (LBS)	REMARKS
		MAXIMUM CFM	MINIMUM CFM	CFM	MBH	EAT (°F)	EWT (°F)	LAT (°F)	APd ("W.C.)	GPM	LWT (°F)	WPd (FT)	ROWS/ FPI	CONN. TYPE					
VAV-S1-1	12"ø	1200	240	600	26.4	55	180	95	0.23	1.0	126	0.14	2 / 10	3-WAY	YES	BLDG S FLOOR 1	AH-S1	60	SEE NOTES: 1-7
VAV-S1-2	12"ø	1200	240	600	26.4	55	180	95	0.23	1.0	126	0.14	2 / 10	2-WAY	YES	BLDG S FLOOR 1	AH-S1	50	SEE NOTES: 1-7
VAV-S1-3	12"ø	1200	240	600	26.4	55	180	95	0.23	1.0	126	0.14	2 / 10	2-WAY	YES	BLDG S FLOOR 1	AH-S1	50	SEE NOTES: 1-7
VAV-S1-4	12"ø	1200	240	600	26.4	55	180	95	0.23	1.0	126	0.14	2 / 10	3-WAY	YES	BLDG S FLOOR 1	AH-S1	50	SEE NOTES: 1-7
VAV-S1-5	10"ø	1000	200	500	24.9	55	180	100	0.17	1.0	129	0.13	2 / 10	3-WAY	YES	BLDG S FLOOR 1	AH-S1	50	SEE NOTES: 1-7
VAV-S1-6	12"ø	1400	280	700	37.3	55	180	103	0.16	1.5	129	0.14	2 / 10	2-WAY	YES	BLDG S FLOOR 1	AH-S1	60	SEE NOTES: 1-7
ADD2 VAV-S1-7	12"ø	1360	275	680	27.0	55	180	92	0.29	1.0	124	0.14	2 / 10	2-WAY	NO	BLDG S FLOOR 1	AH-S1	60	SEE NOTES: 1-7
VAV-S1-8	9"ø	900	180	450	24.0	55	180	103	0.14	1.0	131	0.13	2 / 10	2-WAY	YES	BLDG S FLOOR 1	AH-S1	50	SEE NOTES: 1-7
VAV-S1-9	12"ø	1500	300	750	38.2	55	180	101	0.18	1.5	128	0.15	2 / 10	2-WAY	NO	BLDG S FLOOR 1	AH-S1	60	SEE NOTES: 1-7
VAV-S1-10	4"ø	150	50	75	3.9	55	180	102	0.02	0.3	154	0.08	1 / 10	2-WAY	NO	BLDG S FLOOR 1	AH-S1	30	SEE NOTES: 1-7
VAV-S2-1	16"ø	2300	460	1150	54.6	55	180	99	0.37	2.5	135	0.36	2 / 10	3-WAY	YES	BLDG S FLOOR 2	AH-S1	65	SEE NOTES: 1-7
VAV-S2-2	16"ø	2195	440	1095	49.4	55	180	97	0.34	2.0	130	0.23	2 / 10	2-WAY	YES	BLDG S FLOOR 2	AH-S1	65	SEE NOTES: 1-7
VAV-S2-3	12"ø	1500	300	750	38.2	55	180	101	0.18	1.5	128	0.15	2 / 10	2-WAY	YES	BLDG S FLOOR 2	AH-S1	60	SEE NOTES: 1-7
VAV-S2-4	12"ø	1300	260	650	27.1	55	180	92	0.27	1.0	124	0.14	2 / 10	3-WAY	YES	BLDG S FLOOR 2	AH-S1	50	SEE NOTES: 1-7
VAV-S2-5	9"ø	870	175	435	20.7	55	180	98	0.23	1.0	137	0.12	2 / 10	2-WAY	NO	BLDG S FLOOR 2	AH-S1	40	SEE NOTES: 1-7
VAV-S2-6	12"ø	1300	260	650	27.1	55	180	92	0.27	1.0	124	0.14	2 / 10	3-WAY	YES	BLDG S FLOOR 2	AH-S1	50	SEE NOTES: 1-7
VAV-S2-7	12"ø	1300	260	650	27.1	55	180	92	0.27	1.0	124	0.14	2 / 10	2-WAY	YES	BLDG S FLOOR 2	AH-S1	50	SEE NOTES: 1-7
VAV-S2-8	12"ø	1300	260	650	27.1	55	180	92	0.27	1.0	124	0.14	2 / 10	2-WAY	YES	BLDG S FLOOR 2	AH-S1	50	SEE NOTES: 1-7
VAV-S2-9	12"ø	1300	260	650	27.1	55	180	92	0.27	1.0	124	0.14	2 / 10	2-WAY	YES	BLDG S FLOOR 2	AH-S1	50	SEE NOTES: 1-7
VAV-S2-10	8"ø	700	140	350	19.1	55	180	104	0.16	1.0	141	0.12	2 / 10	3-WAY	NO	BLDG S FLOOR 2	AH-S1	40	SEE NOTES: 1-7
VAV-S2-11	14"ø	2000	400	1000	47.7	55	180	99	0.29	2.0	131	0.23	2 / 10	2-WAY	YES	BLDG S FLOOR 2	AH-S1	65	SEE NOTES: 1-7
VAV-S3-1	16"ø	2300	460	1150	54.6	55	180	99	0.37	2.5	135	0.36	2 / 10	2-WAY	YES	BLDG S FLOOR 3	AH-S1	65	SEE NOTES: 1-7
VAV-S3-2	16"ø	2300	460	1150	54.6	55	180	99	0.37	2.5	135	0.36	2 / 10	3-WAY	YES	BLDG S FLOOR 3	AH-S1	65	SEE NOTES: 1-7
VAV-S3-3	16"ø	2195	440	1100	49.5	55	180	97	0.34	2.0	130	0.23	2 / 10	3-WAY	YES	BLDG S FLOOR 3	AH-S1	65	SEE NOTES: 1-7
VAV-S3-4	12"ø	1500	300	750	38.2	55	180	101	0.18	1.5	128	0.15	2 / 10	2-WAY	YES	BLDG S FLOOR 3	AH-S1	60	SEE NOTES: 1-7
VAV-S3-5	12"ø	1300	260	650	27.1	55	180	92	0.27	1.0	124	0.14	2 / 10	2-WAY	YES	BLDG S FLOOR 3	AH-S1	50	SEE NOTES: 1-7
VAV-S3-6	9"ø	940	175	470	20.7	55	180	98	0.23	1.0	137	0.12	2 / 10	2-WAY	NO	BLDG S FLOOR 3	AH-S1	40	SEE NOTES: 1-7
VAV-S3-7	12"ø	1300	260	650	27.1	55	180	92	0.27	1.0	124	0.14	2 / 10	3-WAY	YES	BLDG S FLOOR 3	AH-S1	50	SEE NOTES: 1-7
VAV-S3-8	12"ø	1300	260	650	27.1	55	180	92	0.27	1.0	124	0.14	2 / 10	2-WAY	YES	BLDG S FLOOR 3	AH-S1	50	SEE NOTES: 1-7
VAV-S3-9	12"ø	1300	260	650	27.1	55	180	92	0.27	1.0	124	0.14	2 / 10	2-WAY	YES	BLDG S FLOOR 3	AH-S1	50	SEE NOTES: 1-7
VAV-S3-10	12"ø	1300	260	650	27.1	55	180	92	0.27	1.0	124	0.14	2 / 10	2-WAY	YES	BLDG S FLOOR 3	AH-S1	50	SEE NOTES: 1-7
VAV-S3-11	8"ø	700	140	350	19.1	55	180	104	0.16	1.0	141	0.12	2 / 10	2-WAY	NO	BLDG S FLOOR 3	AH-S1	40	SEE NOTES: 1-7
VAV-S3-12	14"ø	2000	400	1000	47.7	55	180	99	0.29	2.0	131	0.23	2 / 10	3-WAY	YES	BLDG S FLOOR 3	AH-S1	65	SEE NOTES: 1-7

NOTES:
1. COORDINATE WITH CONTROLS CONTRACTOR TO PROVIDE 24V POWER. SEE CONTROL PANEL LOCATIONS ON PLANS FOR 120 TO 24VAC TRANSFORMERS.
2. DEMAND CONTROLLED VENTILATION WHERE NOTED IN SCHEDULE ABOVE.
3. PROVIDE FIELD FABRICATED 5' LINED PLENUM BOX. INSIDE DIMENSIONS OF LINED PLENUM BOX SHALL BE THE SAME SIZE AS DISCHARGE OF VAV TERMINAL.
4. WEIGHT INCLUDES DDC CONTROLS AND HOT WATER COIL (WHERE APPLICABLE) BUT NOT FABRICATED PLENUM BOX.
5. SEE M1 SERIES FOR DUCTWORK PLANS AND M3 SERIES FOR HEATING HOT WATER PIPING.
6. PROVIDE 90°F LEAVING AIR TEMPERATURE MINIMUM OUT OF HOT WATER COIL.
7. FOR MOUNTING DETAIL SEE 7/M4.02 . FOR CONTROLS , SEE DETAIL 3/M6.03 .

CONSTANT AIR VOLUME BOX SCHEDULE

MARK	TITUS DESV INLET (IN.)	CFM	SYSTEM	BUILDING	ROOM	AH SERVICE	APPROX. WEIGHT (LBS)	REMARKS
CAV-F1-2	12"ø	1200	RETURN AIR	BLDG F	BIO / PHYSICS F102	AH-F-1	50	SEE NOTES
CAV-F1-3	12"ø	1200	RETURN AIR	BLDG F	BIO / PHYSICS F103	AH-F-1	50	SEE NOTES
CAV-F1-6	14"ø	1400	RETURN AIR	BLDG F	BIO / PHYSICS F106	AH-F-1	60	SEE NOTES
CAV-S1-2	12"ø	1200	RETURN AIR	BLDG S	CLASSROOM S102	AH-S-1	50	SEE NOTES
CAV-S1-3	12"ø	1200	RETURN AIR	BLDG S	CHEMISTRY S103	AH-S-1	50	SEE NOTES
CAV-S1-6	14"ø	1400	RETURN AIR	BLDG S	CHEMISTRY S106	AH-S-1	60	SEE NOTES
CAV-S1-7	12"ø	875	RETURN AIR	BLDG S	PREP S107	AH-S-1	50	SEE NOTES

NOTES:
1. DAMPER TO CLOSE WHEN EMERGENCY EXHAUST SYSTEM IS ACTIVATED. SEE CONTROLS DIAGRAM 1/M6.03 .
2. FOR TYPICAL MOUNTING DETAIL SEE 7/M4.02 .

ADD2 2020-07-08

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REGISTERED PROFESSIONAL ENGINEER
SEAN R. TICHENOR
M31176
EXP. 12/31/21
MECHANICAL
STATE OF CALIFORNIA
7/8/20

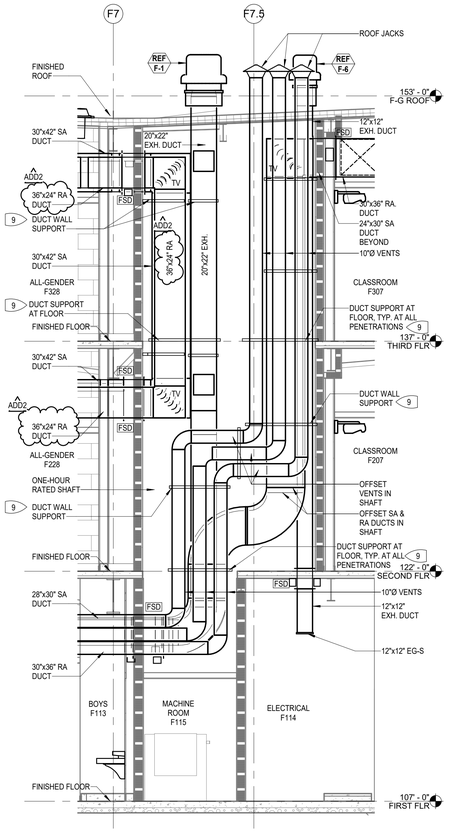
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MECHANICAL SCHEDULES
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)
2401 High School road, Roseville, California 95747

ADDENDUM 2
07.08.2020
Revisions
2020-07-08 ADD2 Addendum 2

PROJECT ##75-19101-00

M0.3



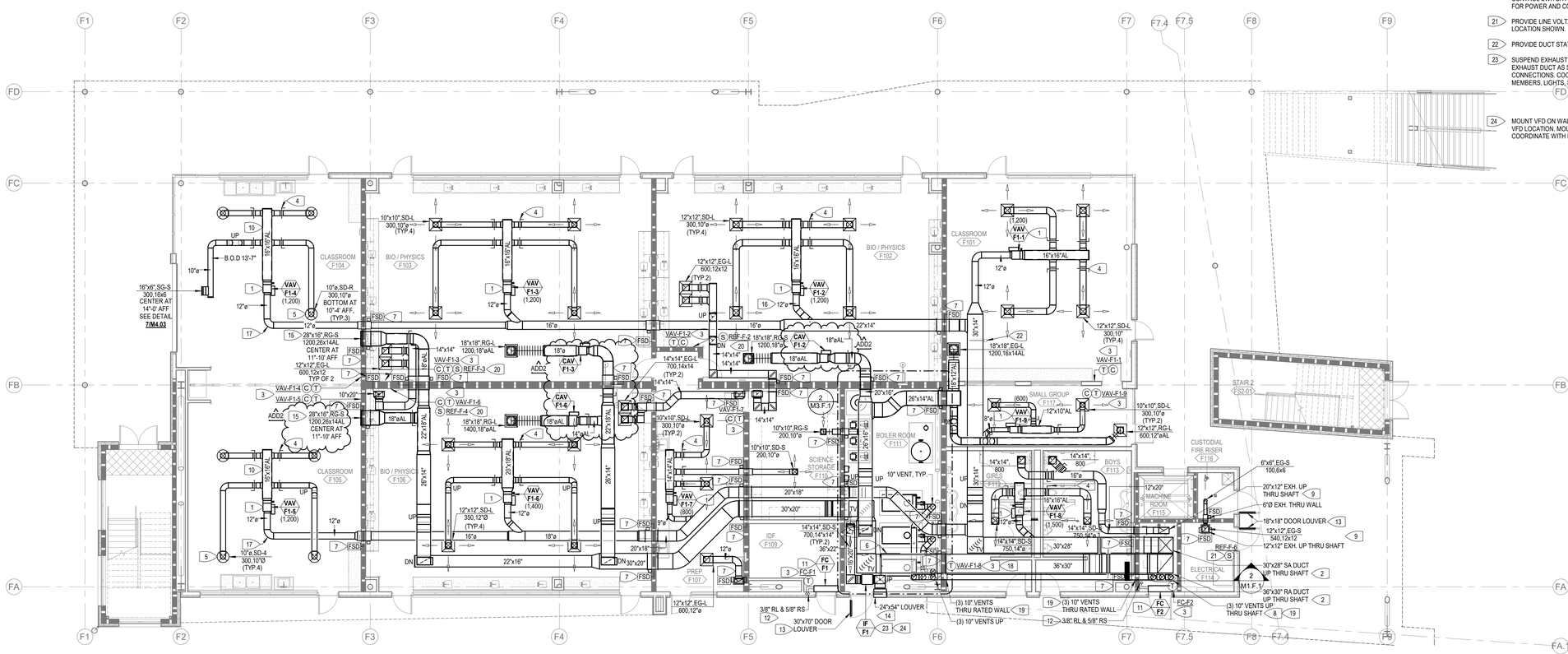
2 **SECTION AT BLDG. F MECHANICAL SHAFT**
1/4" = 1'-0"

SHEET NOTES:

1. PROVIDE TURNING VANES AT ALL RECTANGULAR DUCTWORK WITH 90
2. FLEXIBLE DUCT IS LIMITED TO 5'-0" IN LENGTH.
3. PROVIDE MANUAL VOLUME DAMPER AT EVERY BRANCH DUCT.
4. PROVIDE SHOE FITTING AT ALL RECTANGULAR TO RECTANGULAR DUCT BRANCHES.
5. PROVIDE CONICAL FITTING AT ALL ROUND TO RECTANGULAR DUCT BRANCHES.
6. FLEXIBLE DUCT TO DIFFUSERS OR GRILLES IN EXPOSED AREAS (NO CEILING) SHALL NOT BE USED.
7. CONTRACTOR SHALL PROVIDE DUCT SHOP DRAWINGS AND SEISMIC DUCT SUPPORT DRAWINGS AND CALCULATIONS.
8. ALL EXPOSED ROUND DUCT SHALL BE SPIRAL SEAM.

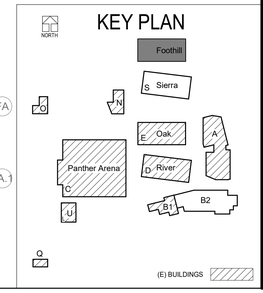
KEYED NOTES:

1. SECURE VAV BOX TIGHT TO STRUCTURAL FRAMING MEMBERS ABOVE AT LOCATION SHOWN. FIELD VERIFY FINAL UNIT LOCATION, SUPPLY PLENUM, HYDRONIC LINES AND ROUTING WITH STRUCTURAL FRAMING MEMBERS, SUPPORTS, LIGHTS, ETC. MAINTAIN MIN. 30" IN FRONT OF VAV CONTROLS AND CONTROL VALVE. SEE DETAIL **7/M4.02**, TYPICAL.
2. SUPPLY AND/OR RETURN AIR DROPS IN RATED SHAFT FROM ABOVE. OFFSET AND ROUTE TIGHT TO UNDERSIDE OF ROOF FRAMING MEMBERS. FIELD COORDINATE DUCT ROUTING WITH STRUCTURAL MEMBERS, PIPING, SUPORTS, LIGHT FIXTURES, ETC. SEE DETAILS **1/M4.03** & **2/M4.03** & **1/M4.05**, TYPICAL.
3. FURNISH AND INSTALL THERMOSTAT AND CO2 SENSOR ON WALL AT +48" TO TOP AT LOCATION SHOWN.
4. FURNISH AND INSTALL MANUAL VOLUME DAMPER IN EACH INDIVIDUAL BRANCH DUCT. BALANCE TO AIR VOLUME SHOWN, TYPICAL.
5. INSTALL ROUND CEILING DIFFUSERS AT CEILING OR OPEN SPACE AT LOCATION SHOWN. CONNECT TO DUCT WITH RIGID DUCTWORK. SEE DETAIL **6/M4.03**.
6. PROVIDE SEISMIC RESTRAINTS ON ALL DUCTWORK WHERE REQUIRED BY CODE. SEE DETAIL **1/M4.03**. CONTRACTOR SHALL PROVIDE ENGINEERED PLANS AS PART OF SUBMITTALS.
7. FURNISH AND INSTALL FIRE/SMOKE DAMPER AT ALL RATED ASSEMBLIES WHERE DUCT PENETATIONS OCCUR. FIRE/SMOKE DAMPERS SHALL BE INSTALLED AT AREA OR OCCUPANCY SEPARATION WALLS, FIRE RESISTIVE EXIT WALLS AND CORRIDORS (CEILINGS AND WALLS) SHAFT ENCLOSURES AND AREAS OF REFUGE. REFER TO ARCHITECUTRAL PLANS FOR RATED WALLS, RATED FLOOR/CEILING ASSEMBLIES AND RATED SHAFTS LOCATIONS. SEE DETAILS **2/M4.05**, **6/M4.05** AND **8/M4.05**, TYPICAL.
8. OFFSET AND (3) 10"Ø VENTS TO ABOVE IN RATED CHASE. PROVIDE DUCT SUPPORT EVERY 10'-0" AND AT EACH FLOOR LEVEL. SEE DETAILS **3/M4.03** AND **14/M4.03**,TYPICAL.
9. OFFSET AND ROUTE SUPPLY AIR OR RETURN AIR OR EXHAUST AIR DUCT DOWN RATED SHAFT. PROVIDE DUCT SUPPORT AT EACH FLOOR LEVEL, AT EACH TURN OF DIRECTION AND EVERY 10'-0" O.C. SEE DETAILS **3/M4.03**, **13/M4.03**, AND **14/M4.03**, TYPICAL.
10. ROUTE EXPOSED DUCT AS HIGH AS POSSIBLE. COORDINATE ROUTING WITH STRUCTURAL MEMBERS, SUPPORTS, LIGHTS, ETC. SEE DETAILS **2/M4.03** AND **4/M4.03**.
11. SECURE FAN COIL UNIT TO HIGH WALL FRAMING MEMBERS AT LOCATION SHOWN. FIELD VERIFY LOCATION WITH STRUCTURAL MEMBERS, ALL ELECTRICAL AND CONTROL WIRING, CONDUITS, ELECTRICAL AND CONTROL PANELS, ETC. SEE DETAIL **10/M4.02**.
12. ROUTE REFRIGERANT LINES UP TO FLOOR ABOVE AT LOCATION SHOWN. SEE DETAIL **7/M4.04**, TYPICAL.
13. PROVIDE DOOR LOUVER, SIZED PER PLANS, AT LOW DOOR. LOUVER SHALL BE WITHIN 12" OF FLOOR OF ENCLOSURE. REFER TO ARCHITECTURAL PLANS FOR LOUVER REQUIREMENTS.
14. PROVIDE WALL LOUVER AT EXTERIOR WALL. PROVIDE 12" DEEP PLENUM BEHIND LOUVER. CONNECT AND ROUTE 16"x16" DUCT TO UPPER LEVEL. REFER TO ARCHITECTURAL PLANS FOR LOUVER REQUIREMENTS.
15. MOUNT RETURN AIR GRILLE AT ONE-HOUR RATED HIGH WALL AT LOCATION SHOWN. COORDINATE WITH STRUCTURAL MEMBERS, SUPPORTS, ETC. PROVIDE FIRE/SMOKE DAMPER AT RATED WALL PENETRATION. REFER TO DETAIL **6/M4.05**.
16. MAXIMUM LENGTH OF BRANCH DUCT TO VAV BOX SHALL BE MAXIMUM 5'-0", TYPICAL.
17. ALL EXPOSED ROUND DUCT SHALL BE SPIRAL SEAM, TYPICAL.
18. PROVIDE WITH STAINLESS STEEL FACE PLATE. PROVIDED BY CONTROLS CONTRACTOR.
19. ROUTE (3) 10"Ø VENTS THRU RATED FLOOR OR WALL AT LOCATION SHOWN. REFER TO DETAIL **7/M4.05**, TYPICAL.
20. MOUNT EMERGENCY ROOF EXHAUST FAN SWITCH ON WALL AT +48" TO TOP CONTROL SWITCH AT LOCATION SHOWN. COORDINATE WITH ELECTRICAL PLANS FOR POWER AND CONTROL REQUIREMENTS.
21. PROVIDE LINE VOLTAGE THERMOSTAT ON WALL AT +48" TO TOP OF THERMOSTAT AT LOCATION SHOWN.
22. PROVIDE DUCT STATIC PRESSURE SENSOR IN DUCT. SEE **4/M6.01**.
23. SUSPEND EXHAUST FAN FROM STRUCTURAL FRAMING MEMBERS ABOVE. ROUTE EXHAUST DUCT AS SHOWN. CONNECT DUCTWORK TO FAN WITH FLEXIBLE CONNECTIONS. COORDINATE LOCATION AND DUCT ROUTING WITH STRUCTURAL MEMBERS, LIGHTS, SUPPORTS, ETC. SEE DETAIL **9/M4.02**.
24. MOUNT VFD ON WALL ADJACENT TO OTHER VFD'S. REFER TO SHEET 2/M3.F.1 FOR VFD LOCATION. MOUNT VFD ON WALL AT +48" TO TOP OF VFD AT LOCATION SHOWN. COORDINATE WITH ELECTRICAL PLANS FOR POWER AND CONTROL REQUIREMENTS.



1 **BLDG F FIRST FLOOR PLAN - MECHANICAL**
1/8" = 1'-0"

KEY PLAN



(E) BUILDINGS

ADD2 2020-07-08

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BLDG F FIRST FLOOR - MECHANICAL
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

2401 High School road, Roseville, California 95747

ADDENDUM 2
07.08.2020
Revisions
2020-07-08 ADD2 Addendum 2

PROJECT ##75-19101-00

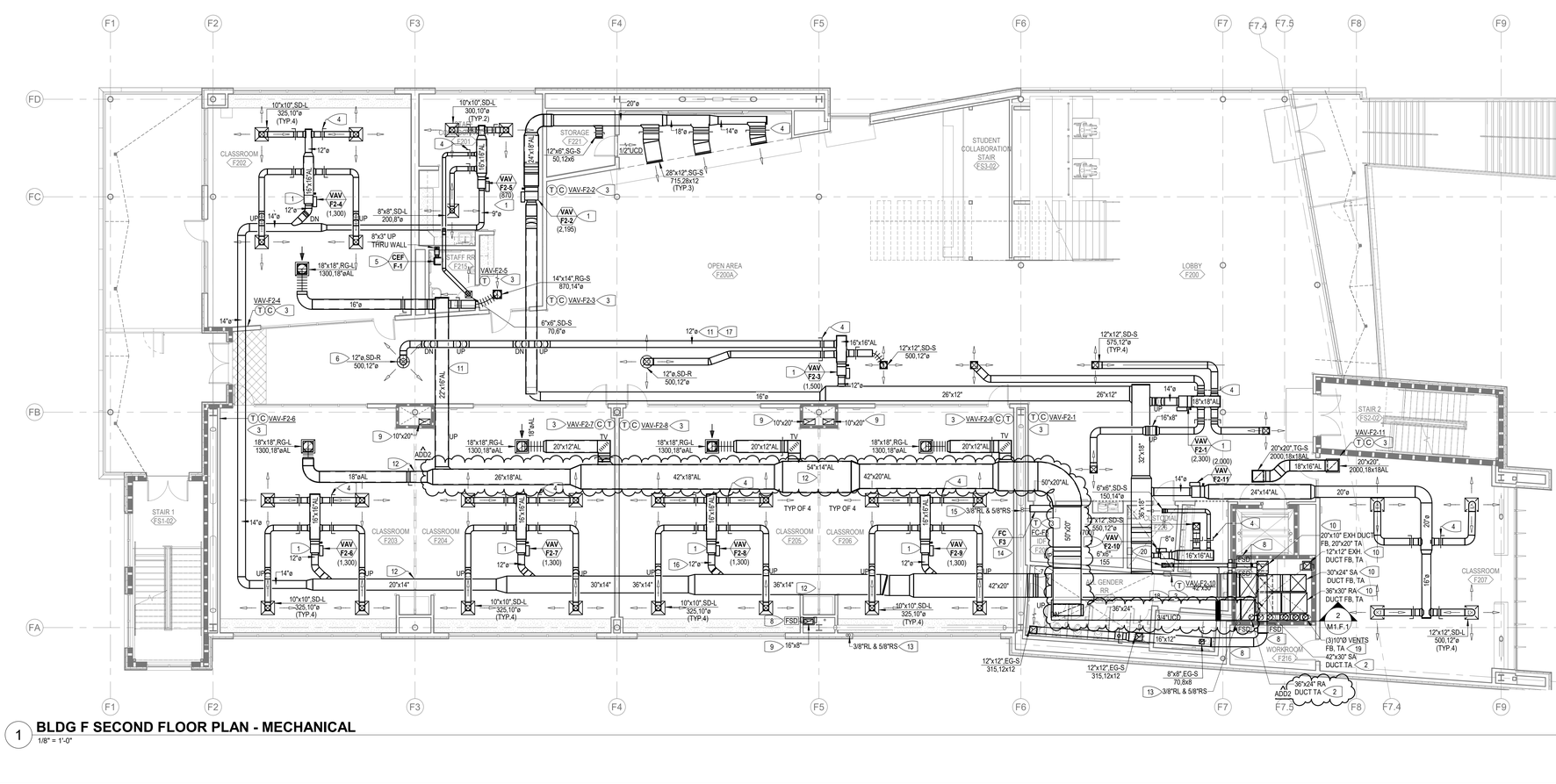
M1.F.1

SHEET NOTES:

1. PROVIDE TURNING VANES AT ALL RECTANGULAR DUCTWORK WITH 90
2. FLEXIBLE DUCT IS LIMITED TO 5'-0" IN LENGTH.
3. PROVIDE MANUAL VOLUME DAMPER AT EVERY BRANCH DUCT.
4. PROVIDE SHOE FITTING AT ALL RECTANGULAR TO RECTANGULAR DUCT BRANCHES.
5. PROVIDE CONICAL FITTING AT ALL ROUND TO RECTANGULAR DUCT BRANCHES.
6. FLEXIBLE DUCT TO DIFFUSERS OR GRILLES IN EXPOSED AREAS (NO CEILING) SHALL NOT BE USED.
7. CONTRACTOR SHALL PROVIDE DUCT SHOP DRAWINGS AND SEISMIC DUCT SUPPORT DRAWINGS AND CALCULATIONS.
8. ALL EXPOSED ROUND DUCT SHALL BE SPIRAL SEAM.

KEYED NOTES:

1. SECURE VAV BOX TIGHT TO STRUCTURAL FRAMING MEMBERS ABOVE AT LOCATION SHOWN. FIELD VERIFY FINAL UNIT LOCATION, SUPPLY PLENUM, HYDRONIC LINES AND ROUTING WITH STRUCTURAL FRAMING MEMBERS, SUPPORTS, LIGHTS, ETC. MAINTAIN MIN. 30" IN FRONT OF VAV CONTROLS AND CONTROL VALVE. SEE DETAIL **7/M4.02**, TYPICAL.
2. SUPPLY AND/OR RETURN AIR DROPS IN RATED SHAFT FROM ABOVE. OFFSET AND ROUTE TIGHT TO UNDERSIDE OF ROOF FRAMING MEMBERS. FIELD COORDINATE DUCT ROUTING WITH STRUCTURAL MEMBERS, PIPING, SUPORTS, LIGHT FIXTURES, ETC. SEE DETAILS **1/M4.03** & **2/M4.03** & **1/M4.05**, TYPICAL.
3. FURNISH AND INSTALL THERMOSTAT AND CO2 SENSOR ON WALL AT +48" TO TOP AT LOCATION SHOWN.
4. FURNISH AND INSTALL MANUAL VOLUME DAMPER IN EACH INDIVIDUAL BRANCH DUCT. BALANCE TO AIR VOLUME SHOWN, TYPICAL.
5. SECURE CEILING EXHAUST FAN TO STRUCTURAL FRAMING MEMBERS ABOVE. ROUTE EXHAUST DUCT UP THRU WALL AT LOCATION SHOW. SEE DETAIL **9/M4.02**.
6. INSTALL ROUND CEILING DIFFUSERS AT CEILING OR OPEN SPACE AT LOCATION SHOWN. CONNECT TO DUCT WITH RIGID DUCTWORK. SEE DETAIL **6/M4.03**.
7. PROVIDE SEISMIC RESTRAINTS ON ALL DUCTWORK WHERE REQUIRED BY CODE. SEE DETAIL **1/M4.03**. CONTRACTOR SHALL PROVIDE ENGINEERED PLANS AS PART OF SUBMITTALS.
8. FURNISH AND INSTALL FIRE/SMOKE DAMPER AT ALL RATED ASSEMBLIES WHERE DUCT PENETATIONS OCCUR. FIRE/SMOKE DAMPERS SHALL BE INSTALLED AT AREA OR OCCUPANCY SEPARATION WALLS, FIRE RESISTIVE EXIT WALLS AND CORRIDORS (CEILINGS AND WALLS) SHAFT ENCLOSURES AND AREAS OF REFUGE. REFER TO ARCHITECUTRAL PLANS FOR RATED WALLS, RATED FLOOR/CEILING ASSEMBLIES AND RATED SHAFTS LOCATIONS. SEE DETAILS **2/M4.05**, **6/M4.05** AND **8/M4.05**, TYPICAL.
9. EMERGENCY EXHAUST DUCT FROM BELOW TO ABOVE IN RATED CHASE. PROVIDE DUCT SUPPORT EVERY 10'-0" AND AT EACH FLOOR LEVEL. SEE DETAILS **3/M4.03** AND **14/M4.03**, TYPICAL.
10. OFFSET AND ROUTE SUPPLY AIR OR RETURN AIR OR EXHAUST AIR DUCT FROM BELOW, TO ABOVE IN RATED SHAFT. PROVIDE DUCT SUPPORT AT EACH FLOOR LEVEL, AT EACH TURN OF DIRECTION AND EVERY 10'-0" O.C. SEE DETAIL **3/M4.03**, **13/M4.03** AND **14/M4.03**, TYPICAL.
11. ROUTE EXPOSED DUCT AS HIGH AS POSSIBLE. COORDINATE ROUTING WITH STRUCTURAL MEMBERS, SUPPORTS, LIGHTS, ETC. SEE DETAILS **2/M4.03** AND **4/M4.03**.
12. COORDINATE DUCT ROUTING OVER FOLDING PARTITION DOORS PRIOR TO COMMENCING WORK IN THIS AREA. CONSULT WITH MEOR FOR ANY DESCREPANCIES. REFER TO ARCHITECTURAL PLANS FOR FOLDING PARTITION REQUIREMENTS.
13. REFRIGERANT LINES IN WALL FROM BELOW TO ABOVE. PROVIDE PIPE SUPPORT EVERY 10'-0" AND EACH TURN OF DIRECTION. SEE DETAIL **7/M4.04**, TYPICAL.
14. SECURE FAN COIL UNIT TO HIGH WALL FRAMING MEMBERS AT LOCATION SHOWN. FIELD VERIFY LOCATION WITH STRUCTURAL MEMBERS, ALL ELECTRICAL AND CONTROL WIRING, CONDUITS, ELECTRICAL AND CONTROL PANELS, ETC. SEE DETAIL **10/M4.02**.
15. ROUTE REFRIGERANT LINES UP THRU WALL TO FLOOR ABOVE AT LOCATION SHOWN. SEE DETAIL **7/M4.04**, TYPICAL.
16. MAXIMUM LENGTH OF BRANCH DUCT TO VAV BOX SHALL BE MAXIMUM 5'-0", TYPICAL.
17. ALL EXPOSED ROUND DUCT SHALL BE SPIRAL SEAM, TYPICAL.
18. PROVIDE WITH STAINLESS STEEL FACE PLATE. PROVIDED BY CONTROLS CONTRACTOR.
19. OFFSET AND (3) 10"Ø VENTS FROM BELOW TO ABOVE IN RATED CHASE. PROVIDE DUCT SUPPORT EVERY 10'-0" AND AT EACH FLOOR LEVEL. SEE DETAILS **3/M4.03** AND **14/M4.03**, TYPICAL.
20. CONTROL PANEL FOR VAV BOX TRANSFORMERS. PROVIDE A 120 V/1 CIRCUIT POWER. SEE ELECTRICAL PLANS.



1 **BLDG F SECOND FLOOR PLAN - MECHANICAL**
1/8" = 1'-0"

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BLDG F SECOND FLOOR - MECHANICAL
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)
2401 High School road, Roseville, California 95747

ADDENDUM 2
07.08.2020
Revisions
2020-07-08 ADD2 Addendum 2

PROJECT ##75-19101-00

M1.F.2

ADD2 2020-07-08

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SHEET NOTES:

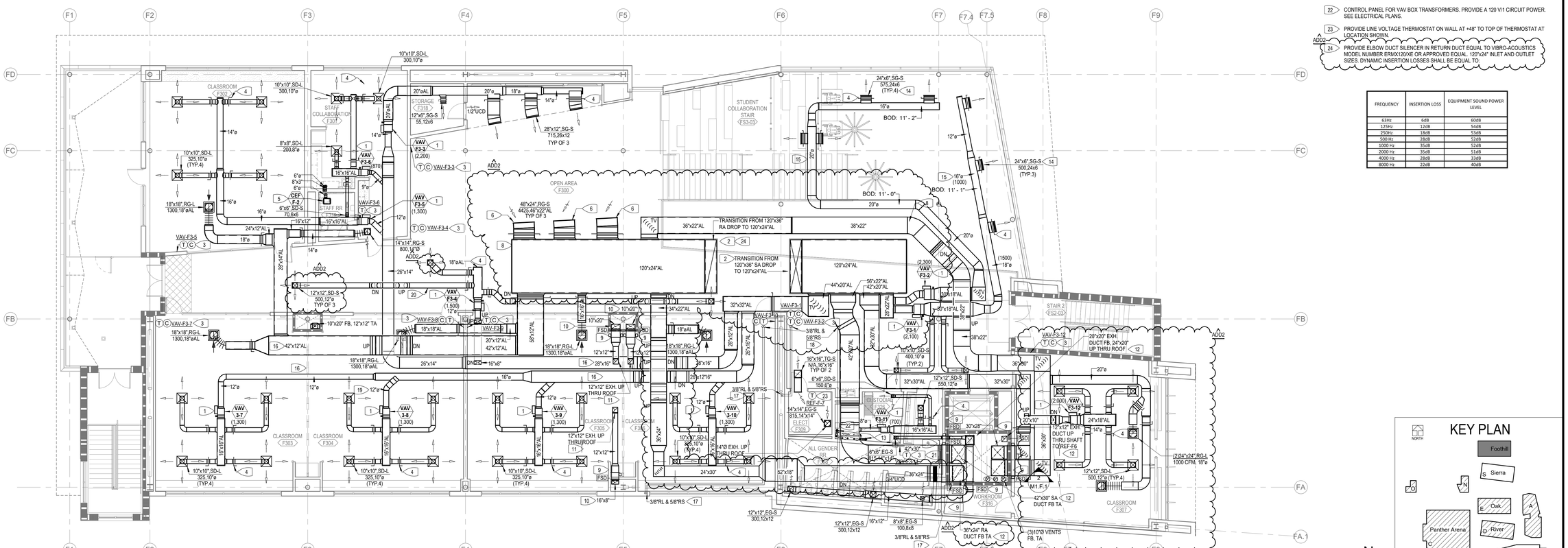
1. PROVIDE TURNING VANES AT ALL RECTANGULAR DUCTWORK WITH 90
2. FLEXIBLE DUCT IS LIMITED TO 5'-0" IN LENGTH.
3. PROVIDE MANUAL VOLUME DAMPER AT EVERY BRANCH DUCT.
4. PROVIDE SHOE FITTING AT ALL RECTANGULAR TO RECTANGULAR DUCT BRANCHES.
5. PROVIDE CONICAL FITTING AT ALL ROUND TO RECTANGULAR DUCT BRANCHES.
6. FLEXIBLE DUCT TO DIFFUSERS OR GRILLES IN EXPOSED AREAS (NO CEILING) SHALL NOT BE USED.
7. CONTRACTOR SHALL PROVIDE DUCT SHOP DRAWINGS AND SEISMIC DUCT SUPPORT DRAWINGS AND CALCULATIONS.
8. ALL EXPOSED ROUND DUCT SHALL BE SPIRAL SEAM.
9. PROVIDE MULTI-BLADE MANUAL VOLUME DAMPERS WHERE CLEARANCES ARE REQUIRED, TYPICAL.

ADD2

KEYED NOTES:

1. SECURE VAV BOX TIGHT TO STRUCTURAL FRAMING MEMBERS ABOVE AT LOCATION SHOWN. FIELD VERIFY FINAL UNIT LOCATION, SUPPLY PLENUM, HYDRONIC LINES AND ROUTING WITH STRUCTURAL FRAMING MEMBERS, SUPPORTS, LIGHTS, ETC. MAINTAIN MIN. 30" IN FRONT OF VAV CONTROLS AND CONTROL VALVE. SEE DETAIL **7/M4.02**, TYPICAL.
2. LINED SUPPLY AND/OR RETURN AIR DROPS FROM ABOVE. OFFSET AND ROUTE TIGHT TO UNDERSIDE OF ROOF FRAMING MEMBERS. FIELD COORDINATE DUCT ROUTING WITH STRUCTURAL MEMBERS, PIPING, SUPORTS, LIGHT FIXTURES, ETC. SEE DETAILS **1/M4.03** & **2/M4.03** & **5/M4.05**, TYPICAL.
3. FURNISH AND INSTALL THERMOSTAT AND CO2 SENSOR ON WALL AT +48" TO TOP AT LOCATION SHOWN, TYPICAL. ADD2
4. FURNISH AND INSTALL MANUAL VOLUME DAMPER IN EACH INDIVIDUAL BRANCH DUCT. BALANCE TO AIR VOLUME SHOWN, TYPICAL.
5. SECURE CEILING EXHAUST FAN TO STRUCTURAL FRAMING MEMBERS ABOVE. ROUTE EXHAUST DUCT UP THRU ROOF AT LOCATION SHOW. SEE DETAIL **9/M4.02**.
6. CENTER OF AIR TERMINAL AT 12'-2" AFF AT SOFFIT WALL.
7. NOT USED. ADD2
8. PROVIDE SEISMIC RESTRAINTS ON ALL DUCTWORK 6WHERE REQUIRED BY CODE. SEE DETAIL **1/M4.03**. CONTRACTOR SHALL PROVIDE ENGINEERED PLANS AS PART OF SUBMITTALS.
9. FURNISH AND INSTALL FIRE/SMOKE DAMPER AT ALL RATED ASSEMBLIES WHERE DUCT PENETATIONS OCCUR. FIRE/SMOKE DAMPERS SHALL BE INSTALLED AT AREA OR OCCUPANCY SEPARATION WALLS, FIRE RESISTIVE EXIT WALLS AND CORRIDORS (CEILINGS AND WALLS) SHAFT ENCLOSURES AND AREAS OF REFUGE. REFER TO ARCHITECUTRAL PLANS FOR RATED WALLS, RATED FLOOR/CEILING ASSEMBLIES AND RATED SHAFTS LOCATIONS. SEE DETAILS **2/M4.05**, **6/M4.05** AND **8/M4.05**, TYPICAL.
10. EMERGENCY EXHAUST DUCT FROM BELOW IN RATED CHASE. OFFSET AND ROUTE EXHAUST DUCT ABOVE FINISHED CEILING AS SHOWN. SEE DETAILS **2/M4.03** AND **3/M4.03**, TYPICAL.
11. ROUTE EMERGENCY EXHAUST DUCT UP THRU ROOF AT LOCATION SHOWN. CONNECT TO EXHAUST FAN ON ROOF. SEE DETAIL **3/M4.01**, TYPICAL.
12. OFFSET AND ROUTE SUPPLY AIR OR RETURN AIR OR EXHAUST AIR DUCT DOWN RATED SHAFT. PROVIDE DUCT SUPPORT AT EACH FLOOR LEVEL, AT EACH TURN OF DIRECTION AND EVERY 10'-0" O.C. SEE DETAILS **3/M4.03**, **13/M4.03** AND **14/M4.03**, TYPICAL.
13. ROUTE 3" COMBUSTION AIR AND VENTS AT GAS WATER HEATER, UP ALONG WALL AT LOCATION SHOWN. COMBINE VENTS BELOW ROOF LEVEL AND ROUTE CONCENTRIC VENT UP THRU ROOF. SEE DETAIL **6/M4.01**.
14. MOUNT SUPPLY REGISTER ON EXPOSED DUCT AT LOCATION SHOWN. SEE DETAIL **7/M4.03**, TYPICAL.
15. ROUTE EXPOSED DUCT AS HIGH AS POSSIBLE. COORDINATE ROUTING WITH STRUCTURAL MEMBERS, SUPPORTS, LIGHTS, ETC. SEE DETAILS **2/M4.03** AND **4/M4.03**.
16. COORDINATE DUCT ROUTING OVER FOLDING PARTITION DOORS PRIOR TO COMMENCING WORK IN THIS AREA. CONSULT WITH MEOR FOR ANY DESCREPANCIES. REFER TO ARCHITECTURAL PLANS FOR FOLDING PARTITION REQUIREMENTS.
17. REFRIGERANT LINES IN WALL FROM BELOW. OFFSET AND ROUTE ABOVE FINISHED CEILING AS SHOWN. PROVIDE PIPE SUPPORT EVERY 10'-0" AND EACH TURN OF DIRECTION. SEE DETAIL **10/M4.01**, TYPICAL.
18. ROUTE REFRIGERANT LINES UP THRU ROOF TO CONDENSING UNIT ON ROOF AT LOCATION SHOWN. SEE DETAIL **9/M4.01**, TYPICAL.
19. MAXIMUM LENGTH OF BRANCH DUCT TO VAV BOX SHALL BE MAXIMUM 5'-0", TYPICAL.
20. ALL EXPOSED ROUND DUCT SHALL BE SPIRAL SEAM, TYPICAL.
21. PROVIDE WITH STAINLESS STEEL FACE PLATE. PROVIDED BY CONTROLS CONTRACTOR.
22. CONTROL PANEL FOR VAV BOX TRANSFORMERS. PROVIDE A 120 V/1 CIRCUIT POWER. SEE ELECTRICAL PLANS.
23. PROVIDE LINE VOLTAGE THERMOSTAT ON WALL AT +48" TO TOP OF THERMOSTAT AT LOCATION SHOWN. ADD2
24. PROVIDE ELBOW DUCT SILENCER IN RETURN DUCT EQUAL TO VIBRO-ACOUSTICS MODEL NUMBER ERMX120XE OR APPROVED EQUAL. 120"x24" INLET AND OUTLET SIZES. DYNAMIC INSERTION LOSSES SHALL BE EQUAL TO:

FREQUENCY	INSERTION LOSS	EQUIPMENT SOUND POWER LEVEL
63Hz	6dB	60dB
125Hz	12dB	54dB
250Hz	18dB	53dB
500 Hz	28dB	52dB
1000 Hz	35dB	52dB
2000 Hz	35dB	51dB
4000 Hz	28dB	33dB
8000 Hz	22dB	40dB



1 **BLDG F THIRD FLOOR PLAN - MECHANICAL**
1/8" = 1'-0"

KEY PLAN

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DLR Group
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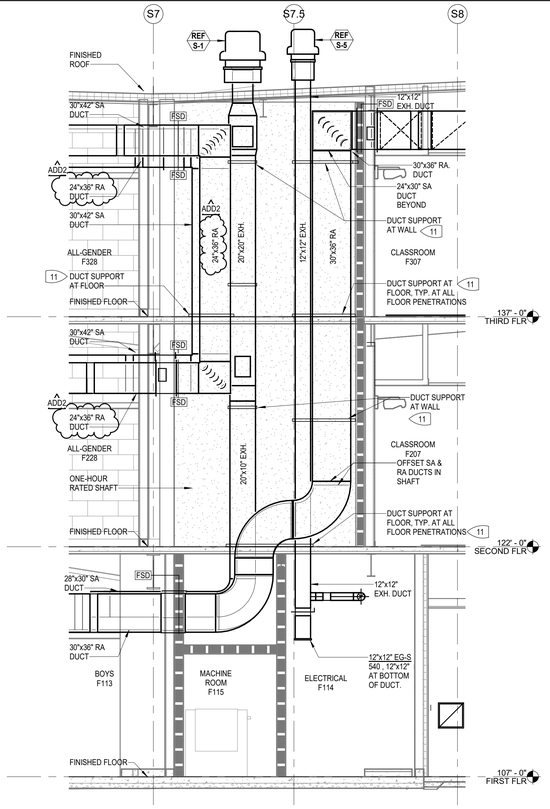
ADDENDUM 2
07.08.2020
Revisions
2020-07-08 ADD2 Addendum 2

PROJECT ##75-19101-00

M1.F.3

ADD2 2020-07-08

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2 SECTION AT BLDG. S MECHANICAL SHAFT

1/4" = 1'-0"

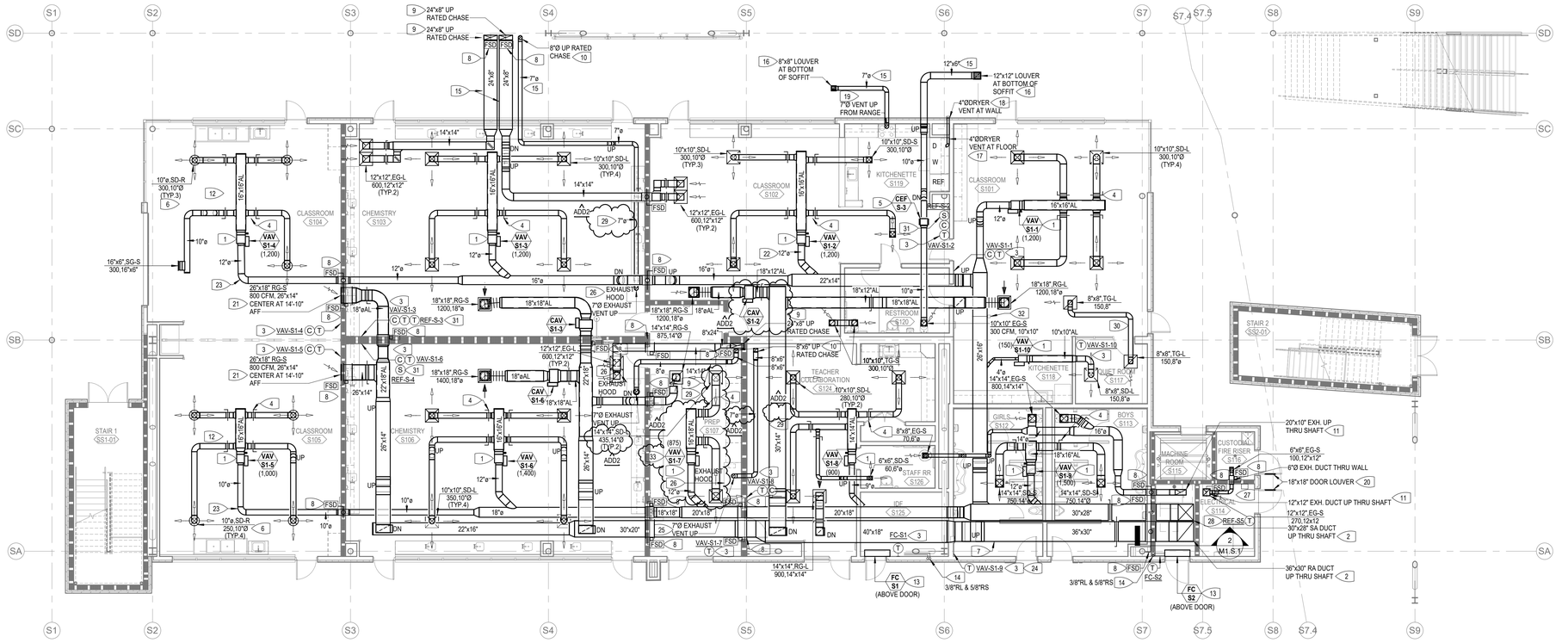
SHEET NOTES:

1. PROVIDE TURNING VANES AT ALL RECTANGULAR DUCTWORK WITH 90
2. FLEXIBLE DUCT IS LIMITED TO 5'-0" IN LENGTH.
3. PROVIDE MANUAL VOLUME DAMPER AT EVERY BRANCH DUCT.
4. PROVIDE SHOE FITTING AT ALL RECTANGULAR TO RECTANGULAR DUCT BRANCHES.
5. PROVIDE CONICAL FITTING AT ALL ROUND TO RECTANGULAR DUCT BRANCHES.
6. FLEXIBLE DUCT TO DIFFUSERS OR GRILLES IN EXPOSED AREAS (NO CEILING) SHALL NOT BE USED.
7. CONTRACTOR SHALL PROVIDE DUCT SHOP DRAWINGS AND SEISMIC DUCT SUPPORT DRAWINGS AND CALCULATIONS.
8. ALL EXPOSED ROUND DUCT SHALL BE SPIRAL SEAM.

KEYED NOTES:

1. SECURE VAV BOX TIGHT TO STRUCTURAL FRAMING MEMBERS ABOVE AT LOCATION SHOWN. FIELD VERIFY FINAL UNIT LOCATION, SUPPLY PLENUM, HYDRONIC LINES AND ROUTING WITH STRUCTURAL FRAMING MEMBERS, SUPPORTS, LIGHTS, ETC. MAINTAIN MIN. 30" IN FRONT OF VAV CONTROLS AND CONTROL VALVE. SEE DETAIL **7/M4.02**, TYPICAL.
2. SUPPLY AND/OR RETURN AIR DROPS IN RATED SHAFT FROM ABOVE. OFFSET AND ROUTE TIGHT TO UNDERSIDE OF ROOF FRAMING MEMBERS. FIELD COORDINATE DUCT ROUTING WITH STRUCTURAL MEMBERS, PIPING, SUPORTS, LIGHT FIXTURES, ETC. SEE DETAILS **1/M4.03** & **2/M4.03** & **1/M4.05**, TYPICAL.
3. FURNISH AND INSTALL THERMOSTAT AND CO2 SENSOR ON WALL AT +48" TO TOP AT LOCATION SHOWN.
4. FURNISH AND INSTALL MANUAL VOLUME DAMPER IN EACH INDIVIDUAL BRANCH DUCT. BALANCE TO AIR VOLUME SHOWN, TYPICAL.
5. SECURE CEILING EXHAUST FAN TO STRUCTURAL FRAMING MEMBERS ABOVE. ROUTE EXHAUST DUCT UP THRU ROOF AT LOCATION SHOW. SEE DETAIL **9/M4.02**.
6. INSTALL ROUND CEILING DIFFUSERS AT CEILING OR OPEN SPACE AT LOCATION SHOWN. CONNECT TO DUCT WITH RIGID DUCTWORK. SEE DETAIL **6/M4.03**.
7. PROVIDE SEISMIC RESTRAINTS ON ALL DUCTWORK WHERE REQUIRED BY CODE. SEE DETAIL **1/M4.03**. CONTRACTOR SHALL PROVIDE ENGINEERED PLANS AS PART OF SUBMITTALS.
8. FURNISH AND INSTALL FIRE/SMOKE DAMPER AT ALL RATED ASSEMBLIES WHERE DUCT PENETATIONS OCCUR. FIRE/SMOKE DAMPERS SHALL BE INSTALLED AT AREA OR OCCUPANCY SEPARATION WALLS, FIRE RESISTIVE EXIT WALLS AND CORRIDORS (CEILINGS AND WALLS) SHAFT ENCLOSURES AND AREAS OF REFUGE. REFER TO ARCHITECUTRAL PLANS FOR RATED WALLS, RATED FLOOR/CEILING ASSEMBLIES AND RATED SHAFTS LOCATIONS. SEE DETAILS **2/M4.05**, **6/M4.05** AND **8/M4.05**, TYPICAL.
9. OFFSET AND ROUTE EMERGENCY EXHAUST DUCT TO ABOVE IN RATED CHASE. PROVIDE DUCT SUPPORT EVERY 10'-0" AND AT EACH FLOOR LEVEL. SEE DETAIL **3/M4.03**, TYPICAL.
10. OFFSET AND ROUTE FUME HOOD EXHAUST DUCT TO ABOVE IN RATED CHASE. PROVIDE DUCT SUPPORT EVERY 10'-0" AND AT EACH FLOOR LEVEL. SEAL FLOOR/CEILING ASSEMBLY PENETRATION WITH FIRE CAULKING AROUND ENTIRE PERIMETER OF DUCT. SEE DETAIL **3/M4.03**, TYPICAL.
11. OFFSET AND ROUTE SUPPLY AIR OR RETURN AIR OR EXHAUST AIR DUCT DOWN RATED SHAFT. PROVIDE DUCT SUPPORT AT EACH FLOOR LEVEL, AT EACH TURN OF DIRECTION AND EVERY 10'-0" O.C. SEE DETAILS **3/M4.03**, **13/M4.03**, **14/M4.03** & **7/M4.05**, TYPICAL.
12. ROUTE EXPOSED DUCT AS HIGH AS POSSIBLE. COORDINATE ROUTING WITH STRUCTURAL MEMBERS, SUPPORTS, LIGHTS, ETC. SEE DETAILS **2/M4.03** AND **4/M4.03**.
13. SECURE FAN COIL UNIT TO HIGH WALL FRAMING MEMBERS AT LOCATION SHOWN. FIELD VERIFY LOCATION WITH STRUCTURAL MEMBERS, ALL ELECTRICAL AND CONTROL WIRING, CONDUITS, ELECTRICAL AND CONTROL PANELS, ETC. SEE DETAIL **10/M4.02**.
14. ROUTE REFRIGERANT LINES UP THRU WALL TO FLOOR ABOVE AT LOCATION SHOWN. SEE DETAIL **7/M4.04**, TYPICAL.
15. ROUTE DUCTWORK ABOVE FINISHED SOFFIT. COORDINATE WITH STRUCTURAL MEMBERS, LIGHTS, SUPPORTS, ETC. SEE DETAILS **2/M4.03** AND **4/M4.03**.
16. PROVIDE EXHAUST GRILLE AT UNDERSIDE OF SOFFIT AT LOCATION SHOWN. REFER TO ARCHITECTURAL PLANS FOR LOUVER REQUIREMENTS. SEAL SOFFIT PENETRATION WEATHER-TIGHT, TYPICAL.
17. CONNECT 4" VENT TO DRYER OUTLET WITH 4" STAINLESS STEEL WORM DRIVE CLAMP. OFFSET AND ROUTE VENT ALONG FLOOR TO LOW EXTERIOR WALL AS SHOWN.
18. PROVIDE EXHAUST WALL CAP AT EXTERIOR WALL. SEAL WALL PENETRATION WEATHER-TIGHT. SEE DETAIL **12/M4.03.**
19. CONNECT 7" VENT TO TOP OF RANGE HOOD WITH (4) #10 SHEET METAL SCREWS. OFFSET AND ROUTE VENT ABOVE SOFFIT AS SHOWN. TERMINATE AT LOUVER LOCATED AT UNDERSIDE OF SOFFIT. COORDINATE WITH STRUCTURAL MEMBERS, LIGHTS, SUPPORTS, ETC.
20. PROVIDE DOOR LOUVER, SIZED PER PLANS, AT LOW DOOR. REFER TO ARCHITECTURAL PLANS FOR LOUVER REQUIREMENTS.
21. MOUNT RETURN AIR GRILLE AT ONE-HOUR RATED HIGH WALL AT LOCATION SHOWN. COORDINATE WITH STRUCTURAL MEMBERS, SUPPORTS, ETC. PROVIDE FIRE/SMOKE DAMPER AT RATED WALL PENETRATION. REFER TO DETAIL **6/M4.05**.
22. MAXIMUM LENGTH OF BRANCH DUCT TO VAV BOX SHALL BE MAXIMUM 5'-0", TYPICAL.
23. ALL EXPOSED ROUND DUCT SHALL BE SPIRAL SEAM, TYPICAL.
24. PROVIDE WITH STAINLESS STEEL FACE PLATE. PROVIDED BY CONTROLS CONTRACTOR.
25. ROUTE FUME HOOD EXHAUST DUCT VENT THRU RATED WALL AT LOCATION SHOWN. REFER TO DETAIL **7/M4.05**, TYPICAL.
26. FUME HOOD. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR REQUIREMENTS.
27. CONTROL PANEL FOR VAV BOX TRANSFORMERS. PROVIDE A 120 V/1 CIRCUIT POWER. SEE ELECTRICAL PLANS.
28. PROVIDE LINE VOLTAGE THERMOSTAT ON WALL AT +48" TO TOP OF THERMOSTAT AT LOCATION SHOWN.
29. FUME HOOD EXHAUST DUCT SHALL BE 316 STAINLESS STEEL WITH ALL WELDED JOINTS. CONTRACTOR SHALL PROVIDE ENGINEERED SHOP DRAWINGS FOR APPROVAL DURING THE SUBMITTAL PROCESS.
30. PROVIDE FLEXIBLE DUCT.
31. MOUNT EMERGENCY ROOF EXHAUST FAN SWITCH ON WALL AT +48" TO TOP CONTROL SWITCH AT LOCATION SHOWN. COORDINATE WITH ELECTRICAL PLANS FOR POWER AND CONTROL REQUIREMENTS.
32. PROVIDE DUCT STATIC PRESSURE SENSOR IN DUCT. SEE **4/M6.01**
33. SUPPLY AIR SHOWN IS FOR STANDARD OPERATION WHEN FUME HOOD IS NOT IN OPERATION. WHEN FUME HOOD IS IN OPERATION, VAV SUPPLY BOX SERVING PREP S107 SHALL INCREASE AIRFLOW BY 485 CFM (TO MAXIMUM VALUE LISTED ON SHEET M0.3 - 680 CFM IN EACH SUPPLY TERMINAL)

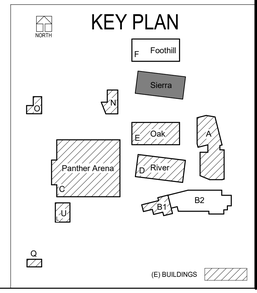
ADD2 2020-07-08



1 BLDG S FIRST FLOOR PLAN - MECHANICAL

1/8" = 1'-0"

KEY PLAN



N

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BLDG S FIRST FLOOR - MECHANICAL
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2401 High School road, Roseville, California 95747

ADDENDUM 2
07.08.2020
Revisions
2020-07-08 ADD2 Addendum 2

PROJECT ##75-19101-00

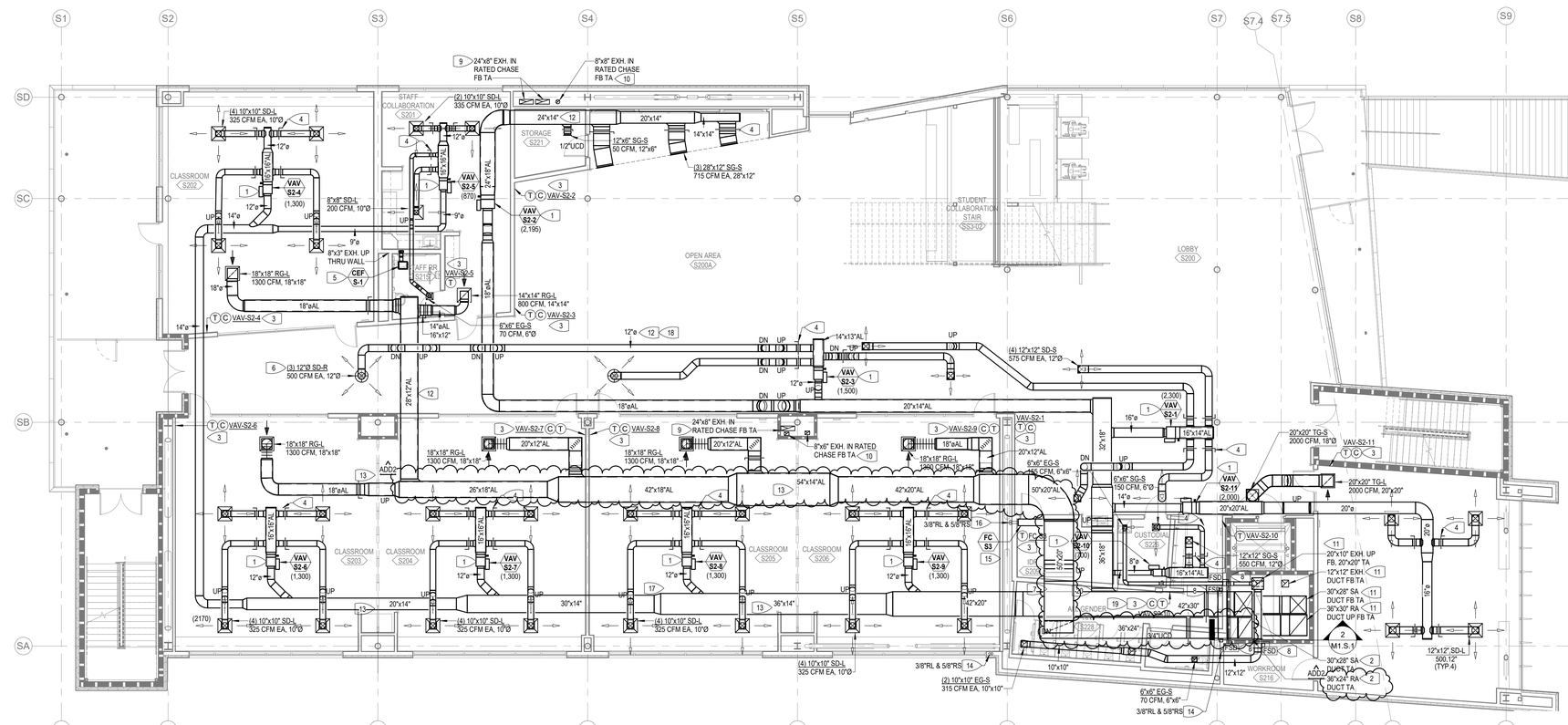
M1.S.1

SHEET NOTES:

1. PROVIDE TURNING VANES AT ALL RECTANGULAR DUCTWORK WITH 90
2. FLEXIBLE DUCT IS LIMITED TO 5'-0" IN LENGTH.
3. PROVIDE MANUAL VOLUME DAMPER AT EVERY BRANCH DUCT.
4. PROVIDE SHOE FITTING AT ALL RECTANGULAR TO RECTANGULAR DUCT BRANCHES.
5. PROVIDE CONICAL FITTING AT ALL ROUND TO RECTANGULAR DUCT BRANCHES.
6. FLEXIBLE DUCT TO DIFFUSERS OR GRILLES IN EXPOSED AREAS (NO CEILING) SHALL NOT BE USED.
7. CONTRACTOR SHALL PROVIDE DUCT SHOP DRAWINGS AND SEISMIC DUCT SUPPORT DRAWINGS AND CALCULATIONS.
8. ALL EXPOSED ROUND DUCT SHALL BE SPIRAL SEAM.

KEYED NOTES:

1. SECURE VAV BOX TIGHT TO STRUCTURAL FRAMING MEMBERS ABOVE AT LOCATION SHOWN. FIELD VERIFY FINAL UNIT LOCATION, SUPPLY PLENUM, HYDRONIC LINES AND ROUTING WITH STRUCTURAL FRAMING MEMBERS, SUPPORTS, LIGHTS, ETC. MAINTAIN MIN. 30" IN FRONT OF VAV CONTROLS AND CONTROL VALVE. SEE DETAIL **7/M4.02**, TYPICAL.
2. SUPPLY AND/OR RETURN AIR DROPS IN RATED SHAFT FROM ABOVE. OFFSET AND ROUTE TIGHT TO UNDERSIDE OF ROOF FRAMING MEMBERS. FIELD COORDINATE DUCT ROUTING WITH STRUCTURAL MEMBERS, PIPING, SUPORTS, LIGHT FIXTURES, ETC. SEE DETAILS **1/M4.03** & **2/M4.03** & **1/M4.05**, TYPICAL.
3. FURNISH AND INSTALL THERMOSTAT AND CO2 SENSOR ON WALL AT +48" TO TOP AT LOCATION SHOWN.
4. FURNISH AND INSTALL MANUAL VOLUME DAMPER IN EACH INDIVIDUAL BRANCH DUCT. BALANCE TO AIR VOLUME SHOWN, TYPICAL.
5. SECURE CEILING EXHAUST FAN TO STRUCTURAL FRAMING MEMBERS ABOVE. ROUTE EXHAUST DUCT UP THRU ROOF AT LOCATION SHOW. SEE DETAIL **9/M4.02**.
6. INSTALL ROUND CEILING DIFFUSERS AT CEILING OR OPEN SPACE AT LOCATION SHOWN. CONNECT TO DUCT WITH RIGID DUCTWORK. SEE DETAIL **6/M4.03**.
7. PROVIDE SEISMIC RESTRAINTS ON ALL DUCTWORK WHERE REQUIRED BY CODE. SEE DETAIL **1/M4.03**. CONTRACTOR SHALL PROVIDE ENGINEERED PLANS AS PART OF SUBMITTALS.
8. FURNISH AND INSTALL FIRE/SMOKE DAMPER AT ALL RATED ASSEMBLIES WHERE DUCT PENETATIONS OCCUR. FIRE/SMOKE DAMPERS SHALL BE INSTALLED AT AREA OR OCCUPANCY SEPARATION WALLS, FIRE RESISTIVE EXIT WALLS AND CORRIDORS (CEILINGS AND WALLS) SHAFT ENCLOSURES AND AREAS OF REFUGE. REFER TO ARCHITECUTRAL PLANS FOR RATED WALLS, RATED FLOOR/CEILING ASSEMBLIES AND RATED SHAFTS LOCATIONS. SEE DETAILS **2/M4.05**, **6/M4.05** AND **8/M4.05**, TYPICAL.
9. EMERGENCY EXHAUST DUCT FROM BELOW TO ABOVE IN RATED CHASE. PROVIDE DUCT SUPPORT EVERY 10'-0" AND AT EACH FLOOR LEVEL. SEE DETAIL **3/M4.03**, TYPICAL.
10. FUME HOOD EXHAUST DUCT FROM BELOW TO ABOVE IN RATED CHASE. PROVIDE DUCT SUPPORT EVERY 10'-0" AND AT EACH FLOOR LEVEL. SEE DETAIL **3/M4.03**, TYPICAL.
11. OFFSET AND ROUTE SUPPLY AIR OR RETURN AIR OR EXHAUST AIR DUCT DOWN RATED SHAFT. PROVIDE DUCT SUPPORT AT EACH FLOOR LEVEL, AT EACH TURN OF DIRECTION AND EVERY 10'-0" O.C. SEE DETAILS **3/M4.03**, **13/M4.03** AND **14/M4.03**, TYPICAL.
12. ROUTE EXPOSED DUCT AS HIGH AS POSSIBLE. COORDINATE ROUTING WITH STRUCTURAL MEMBERS, SUPPORTS, LIGHTS, ETC. SEE DETAILS **2/M4.03** AND **4/M4.03**.
13. COORDINATE DUCT ROUTING OVER FOLDING PARTITION DOORS PRIOR TO COMMENCING WORK IN THIS AREA. CONSULT WITH MEOR FOR ANY DESCREPANCIES. REFER TO ARCHITECTURAL PLANS FOR FOLDING PARTITION REQUIREMENTS.
14. REFRIGERANT LINES IN WALL FROM BELOW TO ABOVE. PROVIDE PIPE SUPPORT EVERY 10'-0" AND EACH TURN OF DIRECTION. SEE DETAIL **7/M4.04**, TYPICAL.
15. SECURE FAN COIL UNIT TO HIGH WALL FRAMING MEMBERS AT LOCATION SHOWN. FIELD VERIFY LOCATION WITH STRUCTURAL MEMBERS, ALL ELECTRICAL AND CONTROL WIRING, CONDUITS, ELECTRICAL AND CONTROL PANELS, ETC. SEE DETAIL **10/M4.02**.
16. ROUTE REFRIGERANT LINES UP THRU WALL TO FLOOR ABOVE AT LOCATION SHOWN. SEE DETAIL **7/M4.04**, TYPICAL.
17. MAXIMUM LENGTH OF BRANCH DUCT TO VAV BOX SHALL BE MAXIMUM 5'-0", TYPICAL.
18. ALL EXPOSED ROUND DUCT SHALL BE SPIRAL SEAM, TYPICAL.
19. PROVIDE WITH STAINLESS STEEL FACE PLATE. PROVIDED BY CONTROLS CONTRACTOR.
20. CONTROL PANEL FOR VAV BOX TRANSFORMERS. PROVIDE A 120 V/1 CIRCUIT POWER. SEE ELECTRICAL PLANS.



1 **BLDG S SECOND FLOOR PLAN - MECHANICAL**
1/8" = 1'-0"

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2401 High School road, Roseville, California 95747

ADDENDUM 2
07.08.2020
Revisions
2020-07-08 ADD2 Addendum 2

PROJECT ##75-19101-00

M1.S.2

ADD2 2020-07-08

KEY PLAN
NORTH
F Foothill
Sierra
N
E Oak
A
D River
Panther Arena
C
U
B1
B2

N

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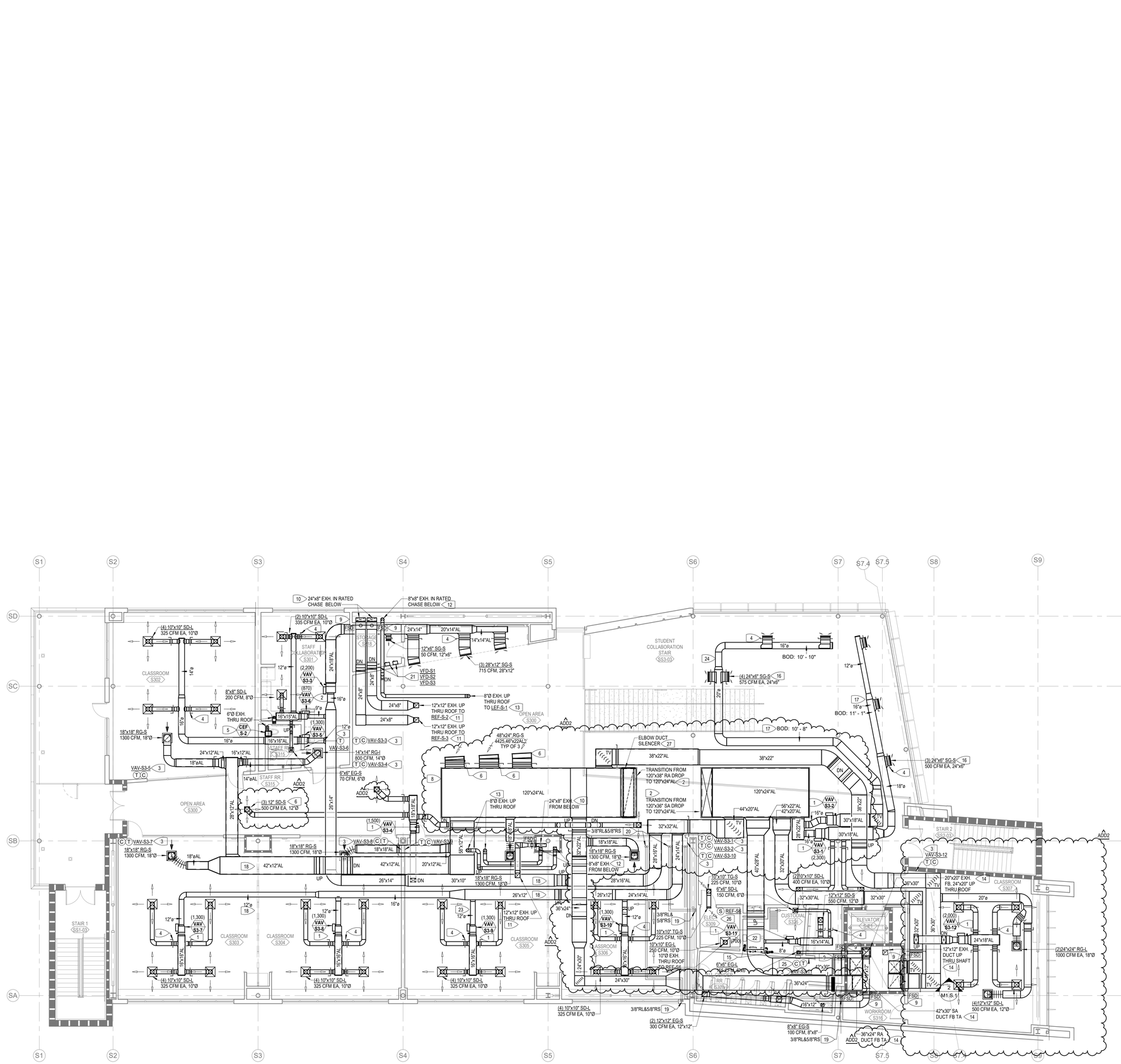
SHEET NOTES:

1. PROVIDE TURNING VANES AT ALL RECTANGULAR DUCTWORK WITH 90
2. FLEXIBLE DUCT IS LIMITED TO 5'-0" IN LENGTH.
3. PROVIDE MANUAL VOLUME DAMPER AT EVERY BRANCH DUCT.
4. PROVIDE SHOE FITTING AT ALL RECTANGULAR TO RECTANGULAR DUCT BRANCHES.
5. PROVIDE CONICAL FITTING AT ALL ROUND TO RECTANGULAR DUCT BRANCHES.
6. FLEXIBLE DUCT TO DIFFUSERS OR GRILLES IN EXPOSED AREAS (NO CEILING) SHALL NOT BE USED.
7. CONTRACTOR SHALL PROVIDE DUCT SHOP DRAWINGS AND SEISMIC DUCT SUPPORT DRAWINGS AND CALCULATIONS.
8. ALL EXPOSED ROUND DUCT SHALL BE SPIRAL SEAM.
9. PROVIDE MULTI-BLADE MANUAL VOLUME DAMPERS WHERE CLEARANCES ARE REQUIRED, TYPICAL.

KEYED NOTES:

1. SECURE VAV BOX TIGHT TO STRUCTURAL FRAMING MEMBERS ABOVE AT LOCATION SHOWN. FIELD VERIFY FINAL UNIT LOCATION, SUPPLY PLENUM, HYDRONIC LINES AND ROUTING WITH STRUCTURAL FRAMING MEMBERS, SUPPORTS, LIGHTS, ETC. MAINTAIN MIN. 30" IN FRONT OF VAV CONTROLS AND CONTROL VALVE. SEE DETAIL **7/M4.02**, TYPICAL.
2. LINED SUPPLY AND/OR RETURN AIR DROPS FROM ABOVE. OFFSET AND ROUTE TIGHT TO UNDERSIDE OF ROOF FRAMING MEMBERS. FIELD COORDINATE DUCT ROUTING WITH STRUCTURAL MEMBERS, PIPING, SUPORTS, LIGHT FIXTURES, ETC. SEE DETAILS **1/M4.03** & **2/M4.03** & **1/M4.05**, TYPICAL.
3. FURNISH AND INSTALL THERMOSTAT AND CO2 SENSOR ON WALL AT +48" TO TOP AT LOCATION SHOWN.
4. FURNISH AND INSTALL MANUAL VOLUME DAMPER IN EACH INDIVIDUAL BRANCH DUCT. BALANCE TO AIR VOLUME SHOWN, TYPICAL.
5. SECURE CEILING EXHAUST FAN TO STRUCTURAL FRAMING MEMBERS ABOVE. ROUTE EXHAUST DUCT UP THRU ROOF AT LOCATION SHOW. SEE DETAIL **9/M4.02**.
6. CENTER OF AIR TERMINAL AT 12'-0" AFF ON SOFFIT WALL.
7. NOT USED.
8. PROVIDE SEISMIC RESTRAINTS ON ALL DUCTWORK WHERE REQUIRED BY CODE. SEE DETAIL **1/M4.03**. CONTRACTOR SHALL PROVIDE ENGINEERED PLANS AS PART OF SUBMITTALS.
9. FURNISH AND INSTALL FIRE/SMOKE DAMPER AT ALL RATED ASSEMBLIES WHERE DUCT PENETATIONS OCCUR. FIRE/SMOKE DAMPERS SHALL BE INSTALLED AT AREA OR OCCUPANCY SEPARATION WALLS, FIRE RESISTIVE EXIT WALLS AND CORRIDORS (CEILINGS AND WALLS) SHAFT ENCLOSURES AND AREAS OF REFUGE. REFER TO ARCHITECUTRAL PLANS FOR RATED WALLS, RATED FLOOR/CEILING ASSEMBLIES AND RATED SHAFTS LOCATIONS. SEE DETAILS **2/M4.05**, **6/M4.05** AND **8/M4.05**, TYPICAL.
10. EMERGENCY EXHAUST DUCT FROM BELOW IN RATED CHASE. OFFSET AND ROUTE EXHAUST DUCT ABOVE FINISHED CEILING AS SHOWN. SEE DETAILS **2/M4.03** AND **3/M4.03**, TYPICAL.
11. ROUTE EMERGENCY EXHAUST DUCT UP THRU ROOF AT LOCATION SHOWN. CONNECT TO EXHAUST FAN ON ROOF. SEE DETAIL **3/M4.03**, TYPICAL.
12. FUME HOOD EXHAUST DUCT FROM BELOW IN RATED CHASE. OFFSET AND ROUTE FUME HOOD EXHAUST DUCT ABOVE FINISHED CEILING AS SHOWN. SEAL WALL PENETRATION WITH FIRE-CAULKING AROUND ENTIRE PERIMETER OF DUCT. SEE DETAILS **3/M4.01** & **4/M4.03**, TYPICAL.
13. ROUTE FUME HOOD EXHAUST DUCT UP THRU ROOF AT LOCATION SHOWN. CONNECT TO FUME HOOD EXHAUST FAN ON ROOF. SEE DETAIL **4/M4.01**, TYPICAL.
14. OFFSET AND ROUTE SUPPLY AIR OR RETURN AIR OR EXHAUST AIR DUCT DOWN RATED SHAFT. PROVIDE DUCT SUPPORT AT EACH FLOOR LEVEL, AT EACH TURN OF DIRECTION AND EVERY 10'-0" O.C. SEE DETAIL **3/M4.03**, **13/M4.03** AND **14/M4.03**, TYPICAL.
15. ROUTE 3" COMBUSTION AIR AND VENTS AT GAS WATER HEATER, UP ALONG WALL AT LOCATION SHOWN. COMBINE VENTS BELOW ROOF LEVEL AND ROUTE CONCENTRIC VENT UP THRU ROOF. SEE DETAIL **6/M4.01**.
16. MOUNT SUPPLY REGISTER ON EXPOSED DUCT AT LOCATION SHOWN. SEE DETAIL **7/M4.03**, TYPICAL.
17. ROUTE EXPOSED DUCT AS HIGH AS POSSIBLE. COORDINATE ROUTING WITH STRUCTURAL MEMBERS, SUPPORTS, LIGHTS, ETC. SEE DETAILS **2/M4.03** AND **4/M4.03**.
18. COORDINATE DUCT ROUTING OVER FOLDING PARTITION DOORS PRIOR TO COMMENCING WORK IN THIS AREA. CONSULT WITH MEOR FOR ANY DESCREPANCIES. REFER TO ARCHITECTURAL PLANS FOR FOLDING PARTITON REQUIREMENTS.
19. REFRIGERANT LINES IN WALL FROM BELOW. OFFSET AND ROUTE ABOVE FINISHED CEILING AS SHOWN. PROVIDE PIPE SUPPORT EVERY 10'-0" AND EACH TURN OF DIRECTION. SEE DETAIL **10/M4.01**, TYPICAL.
20. ROUTE REFRIGERANT LINES UP THRU ROOF TO CONDENSING UNIT ON ROOF AT LOCATION SHOWN. SEE DETAIL **9/M4.01**, TYPICAL.
21. MOUNT VFD ON WALL PER DETAIL **5/M4.02** COORDINATE WITH ELECTRICAL FOR POWER REQUIREMENTS. TYP. OF 3.
22. CONTROL PANEL FOR VAV BOX TRANSFORMERS. PROVIDE A 120 V/1 CIRCUIT POWER. SEE ELECTRICAL PLANS.
23. MAXIMUM LENGTH OF BRANCH DUCT TO VAV BOX SHALL BE MAXIMUM 5'-0", TYPICAL.
24. ALL EXPOSED ROUND DUCT SHALL BE SPIRAL SEAM, TYPICAL.
25. PROVIDE WITH STAINLESS STEEL FACE PLATE. PROVIDED BY CONTROLS CONTRACTOR.
26. PROVIDE LINE VOLTAGE THERMOSTAT ON WALL AT +48" TO TOP OF THERMOSTAT AT LOCATION SHOWN.
27. PROVIDE ELBOW DUCT SILENCER IN RETURN DUCT EQUAL TO VIBRO-ACOUSTICS MODEL NUMBER ERMX120XE OR APPROVED EQUAL. 120"x24" INLET AND OUTLET SIZES. DYNAMIC INSERTION LOSSES SHALL BE EQUAL TO:

FREQUENCY	INSERTION LOSS	EQUIPMENT SOUND POWER LEVEL
63Hz	6dB	60dB
125Hz	12dB	54dB
250Hz	18dB	53dB
500 Hz	28dB	52dB
1000 Hz	35dB	52dB
2000 Hz	35dB	51dB
4000 Hz	28dB	33dB
8000 Hz	22dB	40dB



1 **BLDG S THIRD FLOOR PLAN - MECHANICAL**
1/8" = 1'-0"

N

ADD2 2020-07-08

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Revisions
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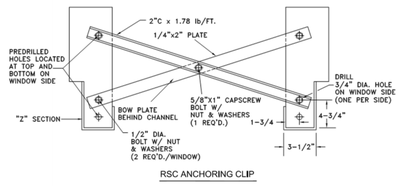
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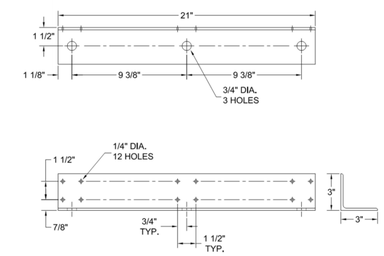
MASON INDUSTRIES, Inc.
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350 Rabro Drive, Hauppauge, NY 11788, Tel: 631/348-0282, Fax: 631/348-0279, Info@Mason-Ind.com
2101 W. Crescent Ave., Suite D, Anaheim, CA 92801, Tel: 714/535-2727, Fax: 714/535-5738, Info@MasonAnaheim.com

SEISMIC CROSS-BRACE ATTACHMENT TO 3" DEFLECTION RSC WINDOW

DATE 11/24/93 DRAWING NO. A-23414



MATERIAL: 3 x 3 x 3/16" STEEL ANGLE



DWN: GC CHKD: SCALE: NONE DWG: A-23414

4 CROSS BRACING TO DEFLECTION SPRING WINDOW
NONE

AC-F-1 & AC-S-1

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Manufacturers of Vibration Control Products
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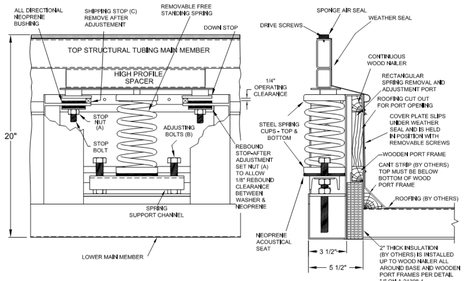
ADJUSTMENT INSTRUCTIONS & ASSEMBLY DRAWING TYPE RSC ROOFTOP SPRING CURBS

DATE: 12-14-04 DWG NO. A-21308-2H

ADJUSTMENT INSTRUCTIONS

1. After unit is rigged in position on curb, remove cover plates.
2. Turn two stop nuts (A) counterclockwise (CCW) 2 turns each to release rebound stop.
3. Draw vertical line on threads facing out. Turn each adjusting bolt (B) CCW one full turn alternately until 4 turns are made. Repeat at each spring location.
4. Turn each adjusting bolt (B) CCW one additional turn alternately until 2 turns are made. Repeat at each spring location.
5. Repeat step 4 at each spring location until shipping stops (C) can be removed. As soon as stops are removed, continue adjustment in other locations only.
6. Adjustment stop nuts (A) for minimum 1/8" clearance between all rebound stops and neoprene bushings.
7. Slide cover plate under weather seal per detail "J" on A-21398-1, replace screws and caulk around cover plate perimeter completing weather seal.

ASSEMBLY DRAWING AT SPRING LOCATIONS



INSIDE REAR VIEW OF SPRING WINDOW — SIDE ELEVATION

PAGE 3 OF 4

3 DEFLECTION SPRING WINDOW - AC-F-1 & AC-S-1
NONE

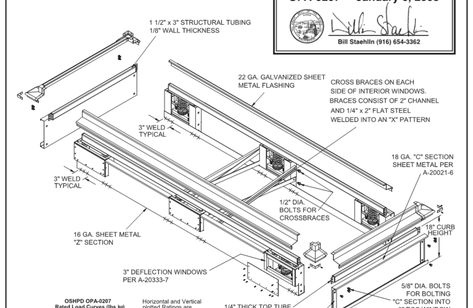
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3" RSC ROOF CURB

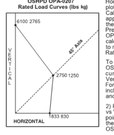
The Pre-Approval is for the capacity of the isolators only and calculations are required for the anchorage details of the curb to the structure.

The Engineer of record shall verify the adequacy of the supporting structure.

APPROVED
California Office of Statewide Health Planning and Development
FIXED EQUIPMENT ANCHORAGE
OPA-0207 January 6, 2003
Bill Staehlin (916) 654-3362



OSHPD OPA-0207 Rated Load Curves (lbs kg)



Horizontal and Vertical plotted Forces on mounting shall not exceed OSHPD approved values having the OSHPD Anchorage Preapproval Number OPA-0207. Testing and calculations were performed per ICC-ES AC-156. Ratings are for a single window.

To use approved OSHPD rated load curves: 1) Calculate Vertical and Horizontal Forces on mounting including translations and overturning.

2) Plot Horizontal Load vs Vertical Load. The anchor is adequate if the area below the OSHPD curve.

FORM S-842 04/2009 | DWN: | CHKD: | DATE: | DWG. No.

2 ROOFTOP SPRING CURB DETAIL - AC-F-1 & AC-S-1
NONE

SHEET NOTES:

1. PROVIDE TURNING VANES AT ALL RECTANGULAR DUCTWORK WITH 90.

KEYED NOTES:

1. SECURE AC UNIT TO STRUCTURE PER DETAILS **1/M4.01**, **2/M2.F.1**, **3/M2.F.1** AND **4/M2.F.1**. COORDINATE LOCATION AND FRAMING WITH STRUCTURAL DRAWINGS.
2. SECURE CONDENSING UNIT TO PRE-FAB CURB AT LOCATION SHOWN. SECURE PRE-FAB CURB TO ROOF FRAMING PER DETAIL **2/M4.01**. ROUTE REFRIGERANT LINES DOWN THRU ROOF INTO ATTIC SPACE PER DETAIL **9/M4.01**.
3. SECURE ROOF EXHAUST FAN TO ROOF FRAMING MEMBERS AS REQUIRED. FIELD VERIFY UNIT LOCATION AND DUCT DROP OPENING SIZES THROUGH ROOF WITH STRUCTURAL MEMBERS. MAINTAIN 10'-0" MINIMUM CLEARANCE TO ALL OUTSIDE AIR INTAKES. SEE DETAIL **3/M4.01** FOR MOUNTING, TYPICAL.
4. EXHAUST VENT THRU ROOF FROM BELOW. SEAL ROOF PENETRATION WEATHER-TIGHT. MAINTAIN 10'-0" MINIMUM CLEARANCE TO ALL OUTSIDE AIR INTAKES. SEE DETAIL **7/M4.01**. TYPICAL.
5. WATER HEATER CONCENTRIC VENT THRU ROOF FROM BELOW. SEAL ROOF PENETRATION WEATHER-TIGHT. MAINTAIN 10'-0" MINIMUM CLEARANCE TO ALL OUTSIDE AIR INTAKES. SEE DETAIL **6/M4.01**. TYPICAL.
6. LINED SUPPLY AND/OR RETURN AIR DROPS THRU ROOF. TRANSITION BETWEEN UNIT, CURB AND ROOF PENETATION TO SIZES SHOWN. FIELD COORDINATE DUCT ROUTING WITH STRUCTURAL MEMBERS, PIPING, SUPORTS, LIGHT FIXTURES, ETC. SEE DETAILS **1/M4.03** & **2/M4.03** & **1/M4.05**. TYPICAL.
7. FURNISH AND INSTALL DUCT SMOKE DETECTOR DEVICE IN SUPPLY DUCT PER 2019 CMC, CHAPTER 6, SECTION 608. CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR FOR FIRE ALARM HOOK-UP.
8. 3"ø HEATING HOT WATER PIPES UP THROUGH ROOF PER DETAIL **9/M4.01**. CONNECTION TO AIR HANDLER PER DETAIL **2/M5.01**.

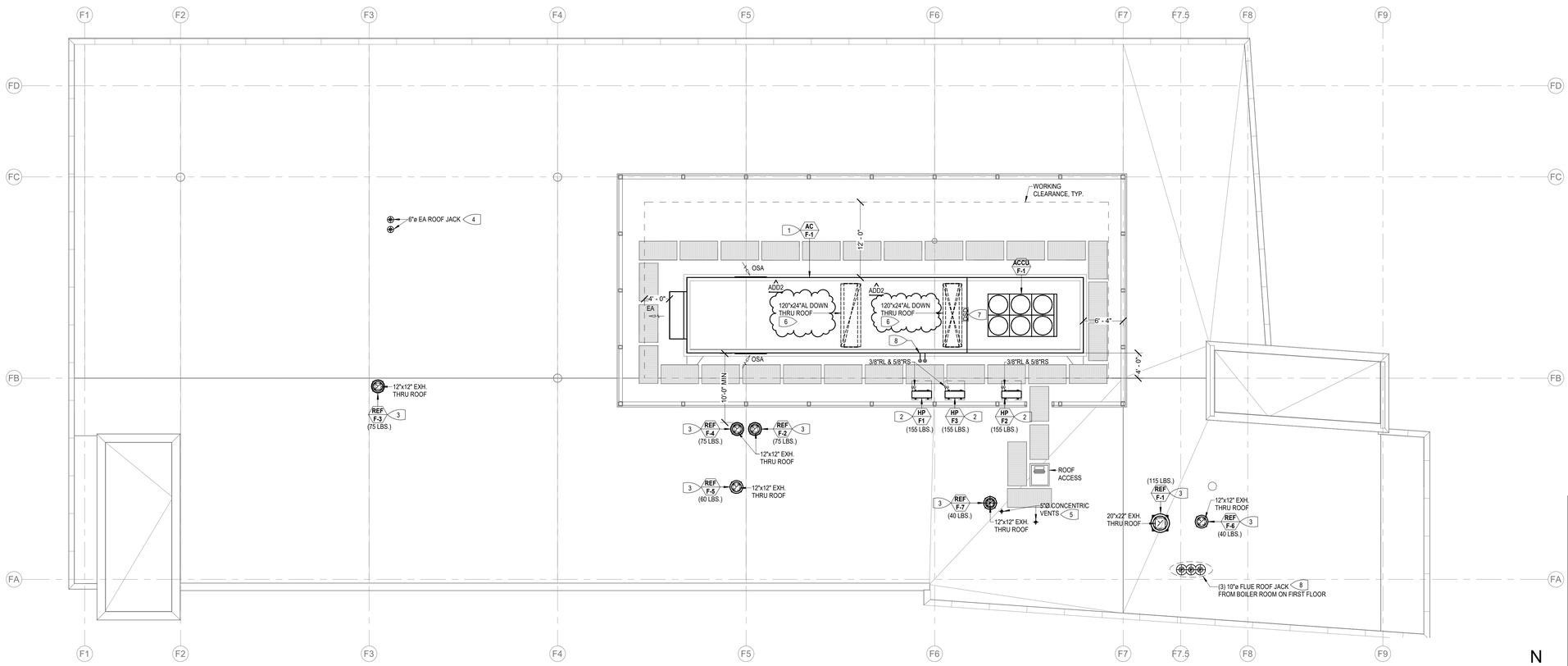
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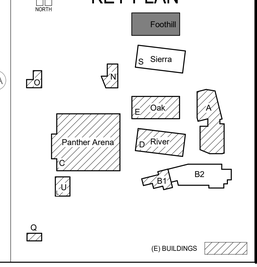
ADD2 2020-07-08



1 BLDG F ROOF - MECHANICAL
1/8" = 1'-0"

N

KEY PLAN



ADDENDUM 2
07.08.2020
Revisions
2020-07-08 ADD2 Addendum 2

PROJECT ##75-19101-00

M2.F.1

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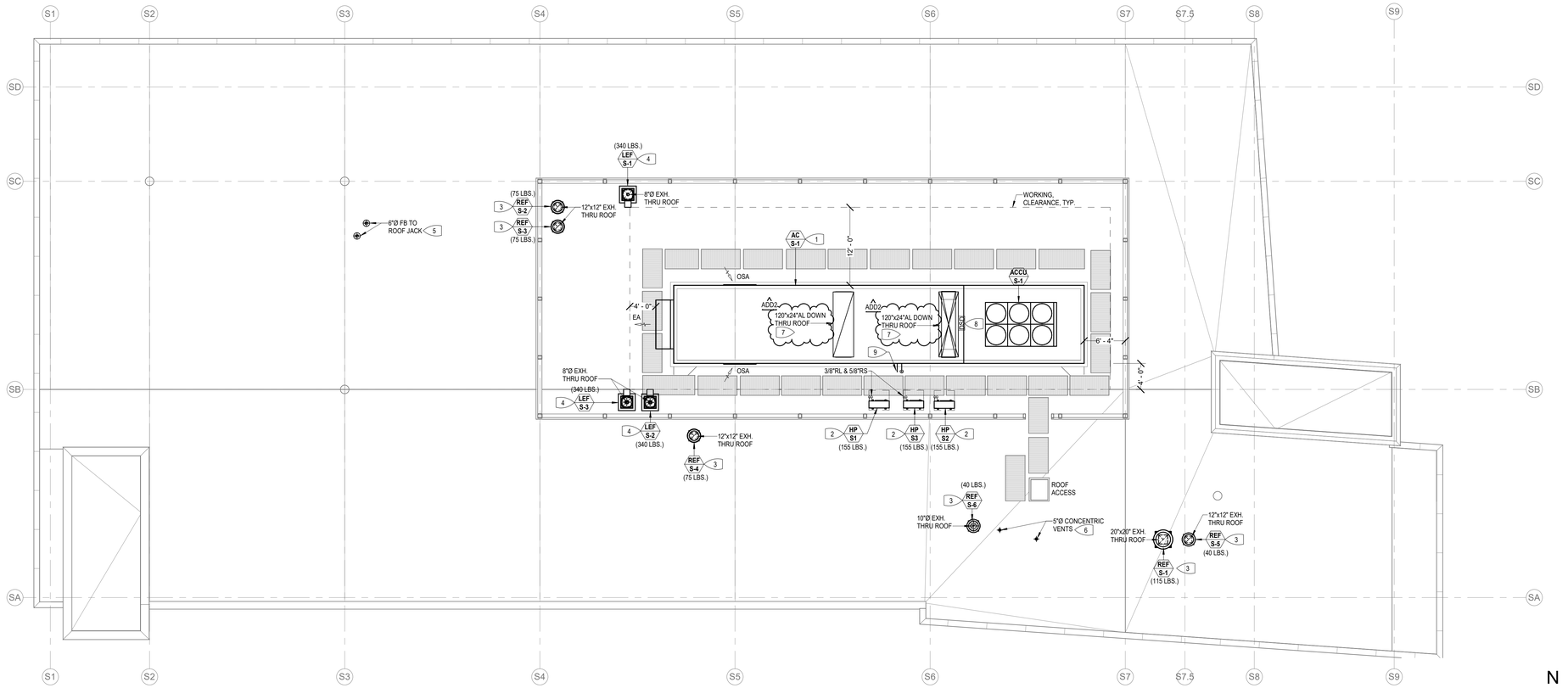
BLDG F ROOF - MECHANICAL
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)
2401 High School road, Roseville, California 95747

SHEET NOTES:

1. PROVIDE TURNING VANES AT ALL RECTANGULAR DUCTWORK WITH 90.

KEYED NOTES:

1. SECURE AC UNIT TO STRUCTURE PER DETAILS **1/M4.01**, **2/M2.F.1**, **3/M2.F.1** AND **4/M2.F.1**. COORDINATE LOCATION AND FRAMING WITH STRUCTURAL DRAWINGS.
2. SECURE CONDENSING UNIT TO PRE-FAB CURB AT LOCATION SHOWN. SECURE PRE-FAB CURB TO ROOF FRAMING PER DETAIL **2/M4.01**. ROUTE REFRIGERANT LINES DOWN THRU ROOF INTO ATTIC SPACE PER DETAIL **9/M4.01**.
3. SECURE ROOF EXHAUST FAN TO ROOF FRAMING MEMBERS AS REQUIRED. FIELD VERIFY UNIT LOCATION AND DUCT DROP OPENING SIZES THROUGH ROOF WITH STRUCTURAL MEMBERS. MAINTAIN 10'-0" MINIMUM CLEARANCE TO ALL OUTSIDE AIR INTAKES. SEE DETAIL **3/M4.01** FOR MOUNTING, TYPICAL.
4. SECURE FUME HOOD EXHAUST FAN TO ROOF FRAMING MEMBERS AS REQUIRED. FIELD VERIFY UNIT LOCATION AND DUCT DROP OPENING SIZES THROUGH ROOF WITH STRUCTURAL MEMBERS. MAINTAIN 10'-0" MINIMUM CLEARANCE TO ALL OUTSIDE AIR INTAKES. SEE DETAIL **4/M4.01** FOR MOUNTING, TYPICAL.
5. EXHAUST VENT THRU ROOF FROM BELOW. SEAL ROOF PENETRATION WEATHER-TIGHT. MAINTAIN 10'-0" MINIMUM CLEARANCE TO ALL OUTSIDE AIR INTAKES. SEE DETAIL **7/M4.01**, TYPICAL.
6. WATER HEATER CONCENTRIC VENT THRU ROOF FROM BELOW. SEAL ROOF PENETRATION WEATHER-TIGHT. MAINTAIN 10'-0" MINIMUM CLEARANCE TO ALL OUTSIDE AIR INTAKES. SEE DETAIL **6/M4.01**, TYPICAL.
7. LINED SUPPLY AND/OR RETURN AIR DROPS THRU ROOF. TRANSITION BETWEEN UNIT, CURB AND ROOF PENETATION TO SIZES SHOWN. FIELD COORDINATE DUCT ROUTING WITH STRUCTURAL MEMBERS, PIPING, SUPORTS, LIGHT FIXTURES, ETC. SEE DETAILS **1/M4.03** & **2/M4.03** & **1/M4.05**, TYPICAL.
8. FURNISH AND INSTALL DUCT SMOKE DETECTOR DEVICE IN SUPPLY DUCT PER 2019 CMC, CHAPTER 6, SECTION 608. CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR FOR FIRE ALARM HOOK-UP.
9. 3"ø HEATING HOT WATER PIPES UP THROUGH ROOF PER DETAIL **9/M4.01**. CONNECTION TO AIR HANDLER PER DETAIL **2/M9.01**.



1 **BLDG S ROOF - MECHANICAL**
1/8" = 1'-0"

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consulting mechanical and electrical engineers

BLDG S ROOF - MECHANICAL
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

2401 High School road, Roseville, California 95747

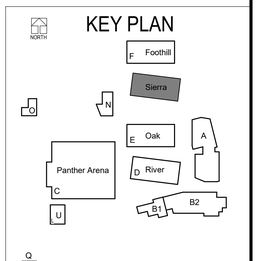
ADDENDUM 2
07.08.2020
Revisions

2020-07-08 ADD2 Addendum 2

PROJECT ##75-19101-00

M2.S.1

KEY PLAN



ADD2 2020-07-08

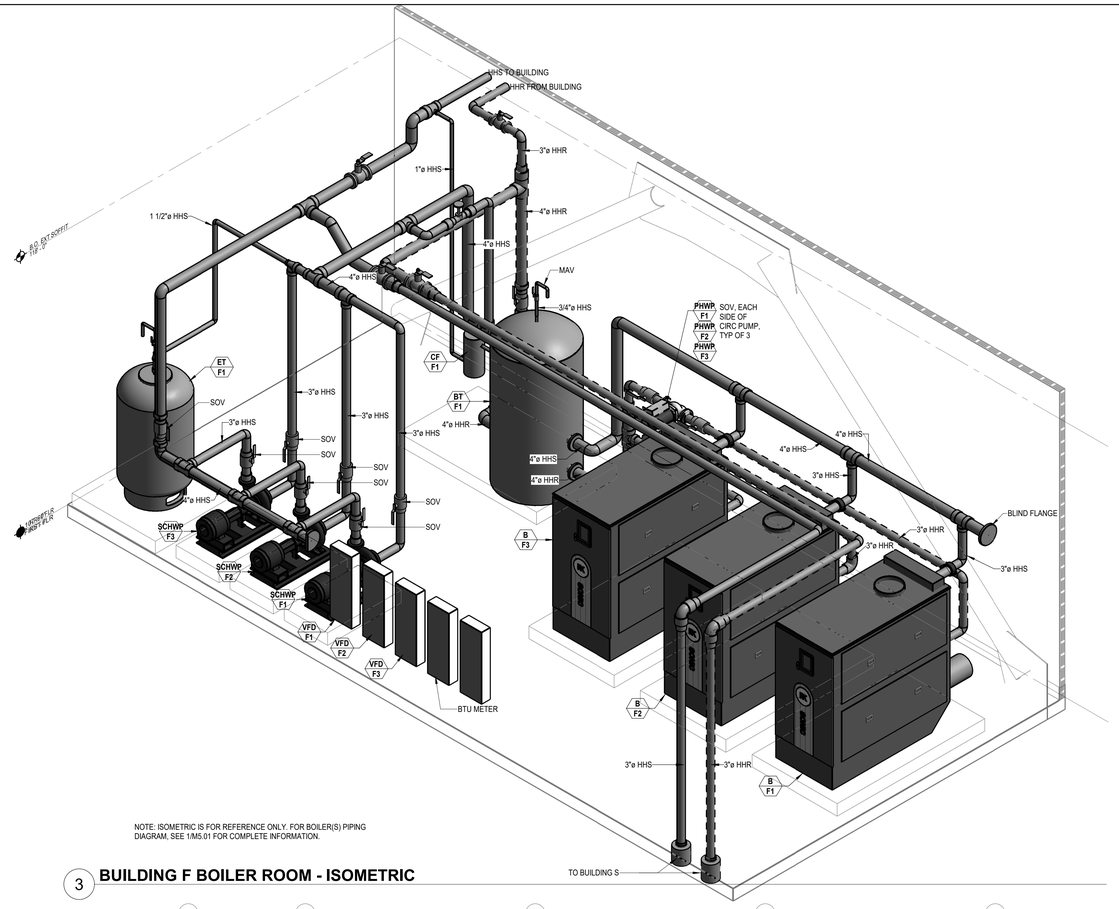
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SHEET NOTES:

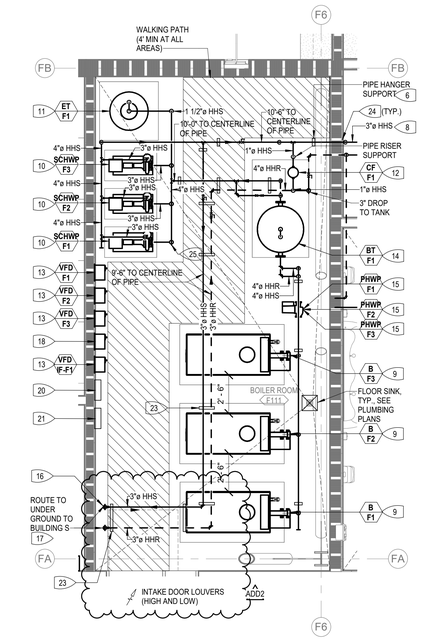
1. BRANCH PIPING TO SINGLE VAV REHEAT BOX SHALL BE 3/4"ø UNLESS NOTED OTHERWISE.
2. MAINTAIN 30" CLEAR IN FRONT OF EACH VAV CONTROL BOX.
3. CONTRACTOR SHALL PROVIDE ENGINEERED SHOP DRAWINGS WITH ALL HANGERS AND SEISMIC CONNECTION LOCATIONS.

KEYED NOTES:

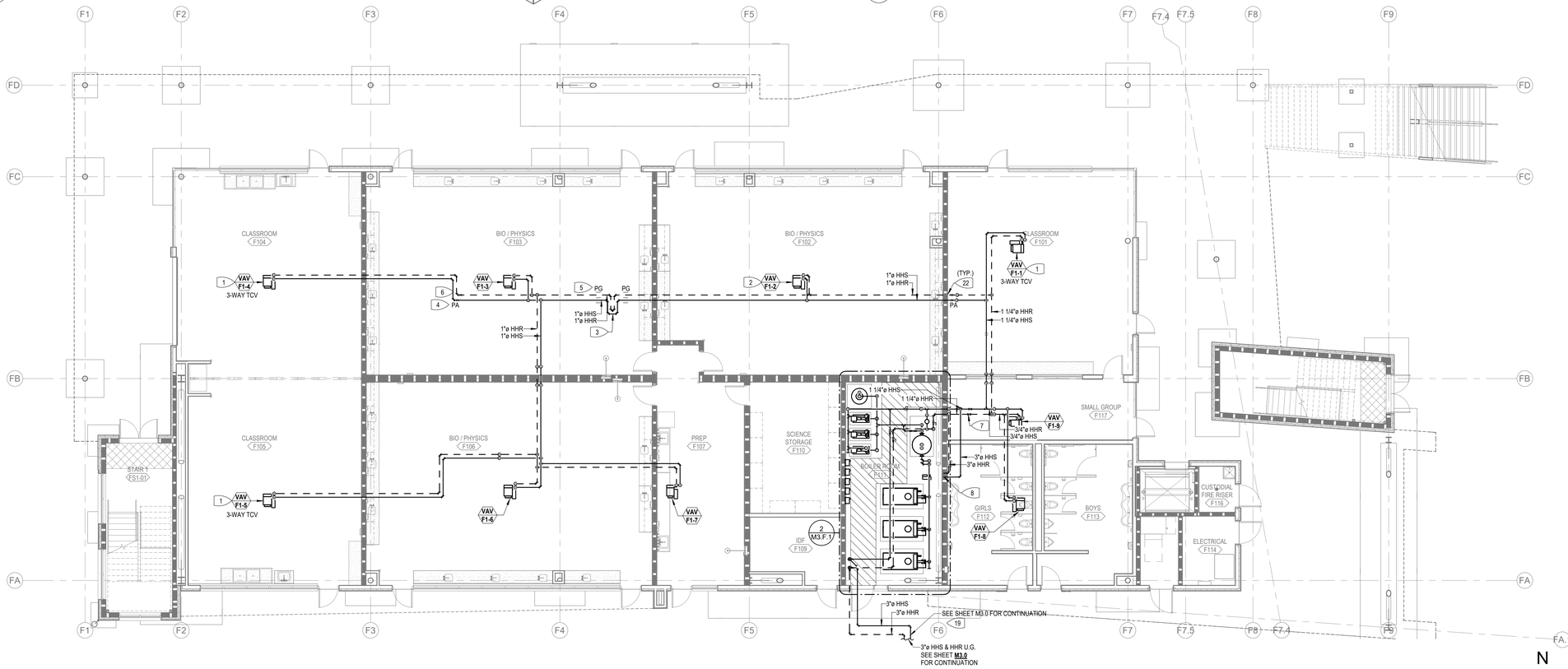
1. PROVIDE A **3-WAY** TEMPERATURE CONTROL VALVE PER COIL CONNECTION DETAIL **3/M5.01**. ALSO REFERENCE SCHEDULE ON SHEET **M0.03**.
2. PROVIDE A **2-WAY** TEMPERATURE CONTROL VALVE PER COIL CONNECTION DETAIL **4/M5.01**. TYPICAL AT VAV BOXES UNLESS NOTED FOR A 3-WAY VALVE. REFERENCE SCHEDULE ON SHEET **M0.03**.
3. HEATING HOT WATER THERMAL EXPANSION LOOP PER DETAIL **11/M4.04**. METRAFLEX OR EQUAL.
4. HORIZONTAL PIPE ANCHOR (PA), PROVIDE AT EACH END OF HEATING HOT WATER PIPE WITH THERMAL EXPANSION LOOP. SEE DETAIL **9/M4.04**. TYPICAL.
5. PIPE EXPANSION GUIDE (PG), PROVIDE AT BOTH ENDS OF THERMAL EXPANSION LOOP. SEE DETAIL **10/M4.04**. TYPICAL.
6. ROUTE ALL HYDRONIC PIPING ABOVE FINISHED CEILING IF PRESENT, UNLESS NOTED OTHERWISE. COORDINATE ROUTING WITH STRUCTURAL MEMBERS, MECHANICAL EQUIPMENT, DUCTWORK, LIGHTS, SUPPORTS, ETC. SUPPORT PIPING ABOVE CEILING PER DETAILS **10/M4.01** AND **1/M4.05**, TYPICAL.
7. PROVIDE ACCESSIBLE LINE SIZE ISOLATION BALL VALVES ABOVE CEILING.
8. 3"ø HEATING HOT WATER SUPPLY/RETURN LINES UP TO FLOOR ABOVE.
9. SECURE BOILER TO CONCRETE HOUSEKEEPING PAD PER DETAIL **1/M4.02**. TYPICAL OF 3.
10. SECURE SECONDARY PUMPS TO CONCRETE HOUSEKEEPING PAD PER DETAIL **2/M4.02**. TYPICAL OF 3.
11. SECURE EXPANSION TANK TO CONCRETE HOUSEKEEPING PAD PER DETAIL **3/M4.02**.
12. SECURE CHEMICAL FEEDER TO CONCRETE HOUSEKEEPING PAD PER DETAIL **4/M4.02**.
13. SECURE VFD ON WALL SERVING SECONDARY PUMPS PER DETAIL **5/M4.02**. TOP OF VFD TO BE 60" AFF, TYPICAL OF 3.
14. SECURE BUFFER TANK TO CONCRETE HOUSEKEEPING PAD PER DETAIL **6/M4.02**.
15. STACK INLINE PRIMARY PUMPS PIPE RISER PER DETAIL **12/M4.02**. PROVIDE SHUT-OFF VALVES ON BOTH SIDES OF PUMPS.
16. ROUTE PIPES AGAINST WALL PER DETAIL **7/M4.04**. TYPICAL.
17. ROUTE 3"ø HEATING HOT WATER SUPPLY/RETURN PIPES THROUGH SLAB AND UNDER FOOTING PER DEATIL **4/M4.04**.
18. BTU METER ON WALL EQUAL TO ONICON SYSTEM-10.
19. HEATING HOT WATER SUPPLY/RETURN TO OTHER BUILDINGS, SEE SHEET **M3.0** FOR CONTINUATION.
20. CONTROL PANEL FOR VAV BOX TRANSFORMERS. PROVIDE A 120V-1Ø CIRCUIT POWER. SEE ELECTRICAL PLANS.
21. PROVIDE ALERTON ACM CONTROL PANEL. PROVIDE 120V-1Ø POWER. SEE ELECTRICAL PLANS.
22. INSULATED PIPE THROUGH RATED WALL PER DETAIL **4/M4.05**.
23. TRAPEZE PIPE HANGER, TYP. SEE DETAIL **8/M4.04**.
24. PIPE THRU RATED WALL. SEE DETAIL **4/M4.05**.
25. PIPE DROP TO PUMP, TYPICAL OF 8.



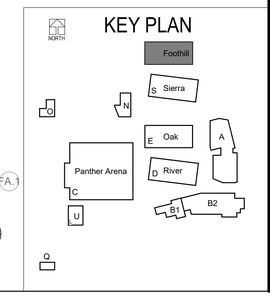
3 BUILDING F BOILER ROOM - ISOMETRIC



2 ENLARGED PLAN - BLDG F BOILER ROOM PIPING
1/4" = 1'-0"



1 BLDG F FIRST FLOOR PLAN - HYDRONIC
1/8" = 1'-0"



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BLDG F FIRST FLOOR - HYDRONIC
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2020-07-08 ADD2 Addendum 2

PROJECT ##75-19101-00

M3.F.1

ADD2 2020-07-08

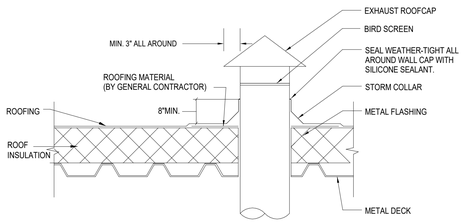
C:\Users\mroyher\Documents\19.056 Westpark HS PH 2 MECH-PLUMB_INC 1_2019_mroyher@peterseng.com.rvt
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11 NOT USED

NONE

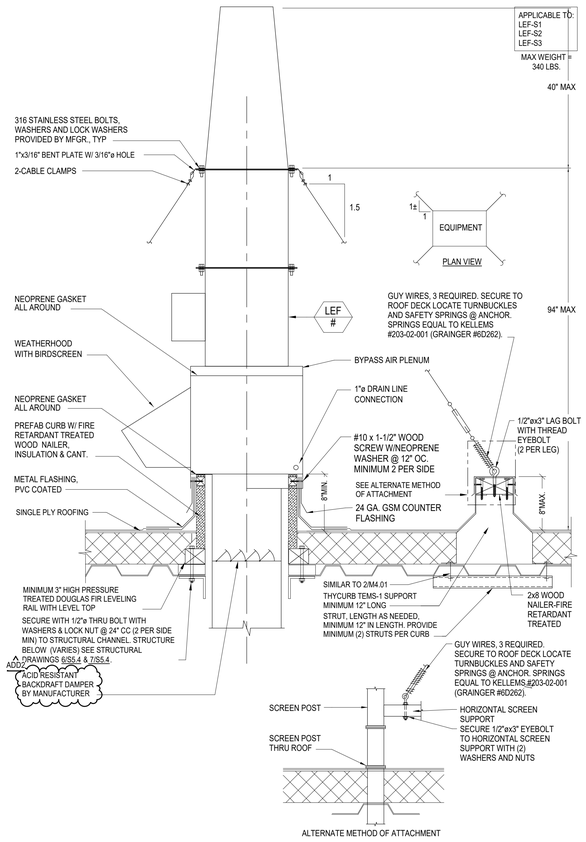
7 EXHAUST AIR ROOF CAP

NONE



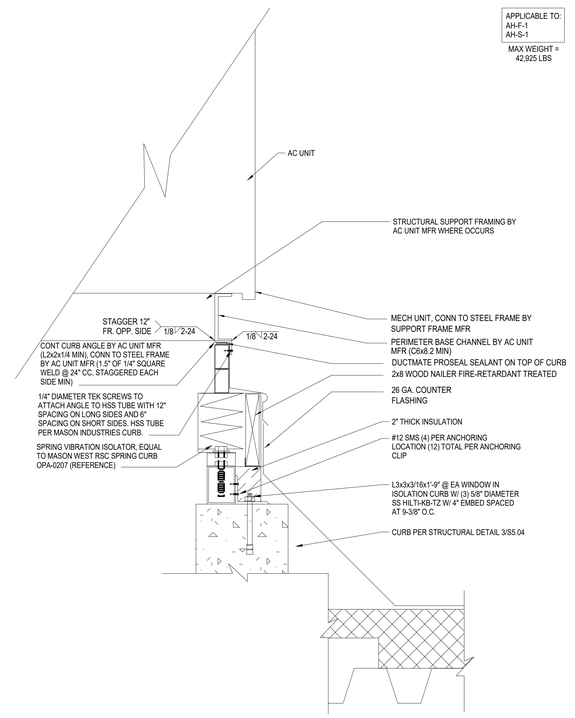
4 HOOD EXHAUST FAN INSTALLATION DETAIL

NONE



1 AH UNIT ON ISO SPRING RAIL

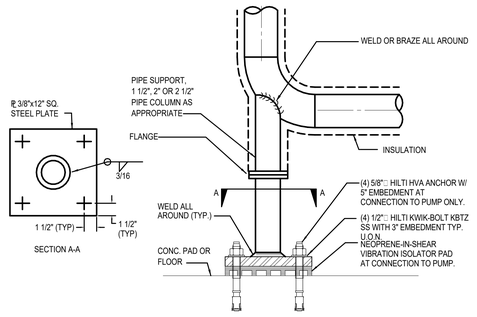
NONE



NOTE: SPRING QUANTITY PER LONG SIDE LISTED ON M0.02

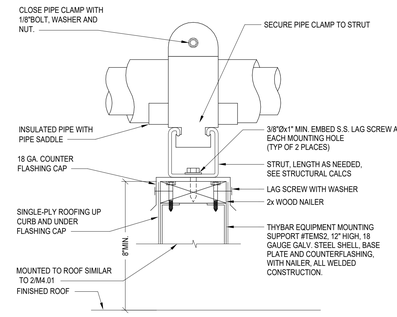
12 PIPE ON CONCRETE SUPPORT DETAIL

NONE



8 PIPE SUPPORT ON ROOF

NONE



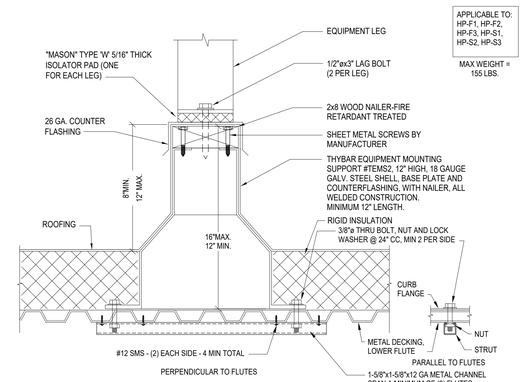
MAX PIPE WEIGHT = 5 LBS PER LINEAR FOOT
PIPE SUPPORTS AT EVERY 6'-0" O.C. AND EVERY CHANGE IN DIRECTION.

5 NOT USED-

NONE

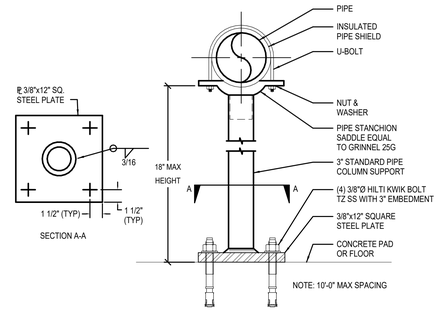
2 PREFAB CURB MOUNTING DETAIL

NONE



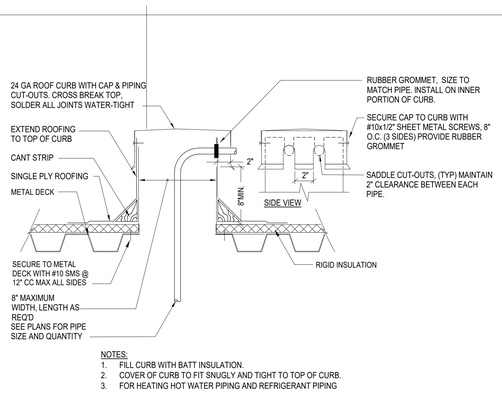
13 PIPE AT CONCRETE SUPPORT DETAIL

NONE



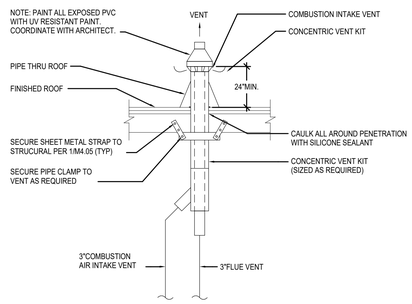
9 PIPE THRU ROOF DETAIL

NONE



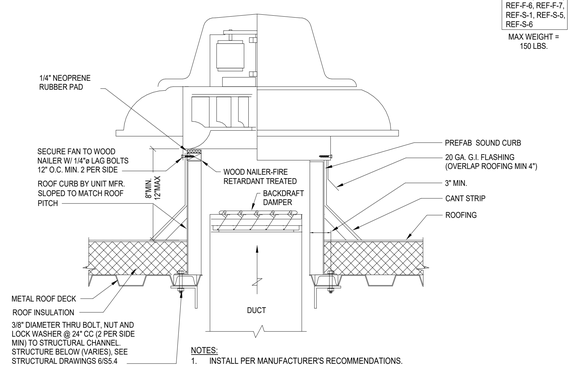
6 CONCENTRIC VENT THRU ROOF DETAIL

NONE



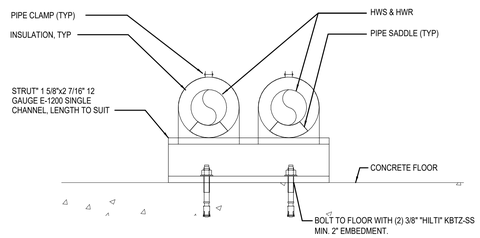
3 ROOF EXHAUST FAN INSTALLATION DETAIL

NONE



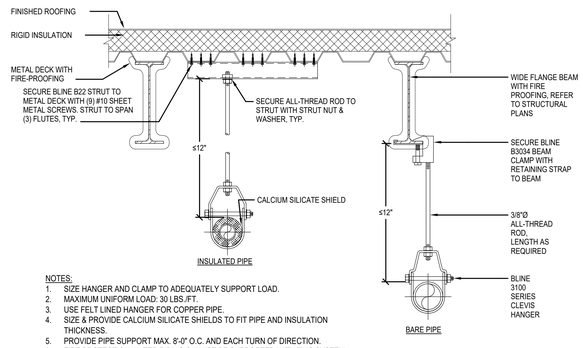
14 PIPE SUPPORT DETAIL

NONE



10 PIPE HANGER DETAIL

NONE



NOTES:
1. SIZE HANGER AND CLAMP TO ADEQUATELY SUPPORT LOAD.
2. MAXIMUM UNIFORM LOAD: 30 LBS./FT.
3. USE FELT LINED HANGER FOR COPPER PIPE.
4. SIZE & PROVIDE CALCIUM SILICATE SHIELDS TO FIT PIPE AND INSULATION THICKNESS.
5. PROVIDE PIPE SUPPORT MAX. 8'-0" O.C. AND EACH TURN OF DIRECTION.
6. FIRE PROTECTION WATER PIPING CANNOT BE SUPPORTED WITH THIS SYSTEM.

ADD2 2020-07-08

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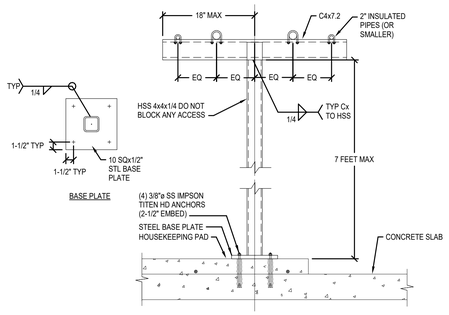
DETAILS - MECHANICAL
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

2401 High School road, Roseville, California 95747

ADDENDUM 2
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2020-07-08 ADD2 Addendum 2

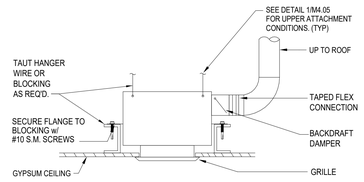
PROJECT ##75-19101-00

M4.01



13 PIPE STAND SUPPORT DETAIL

NONE

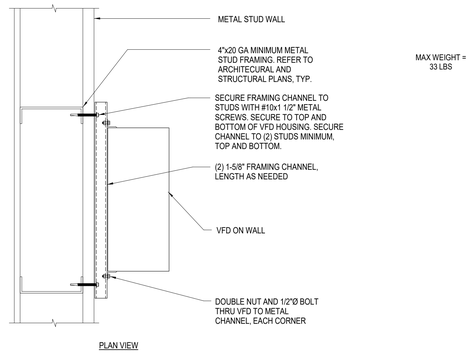


APPLICABLE TO:
CEF-F1, CEF-F2, CEF-S1, CEF-S2, CEF-S3

MAX WEIGHT = 10 LBS.

9 CEILING EXHAUST FAN DETAIL

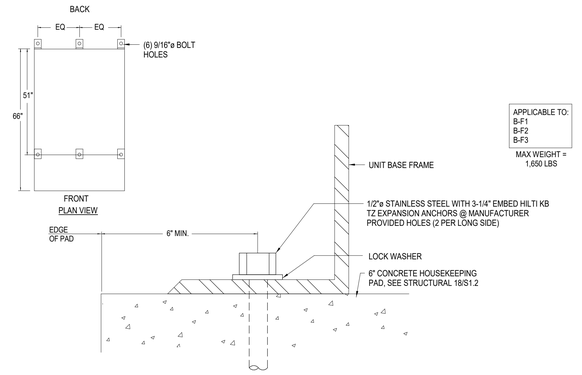
NONE



MAX WEIGHT = 33 LBS

5 VFD ON WALL MOUNTING DETAIL

NONE

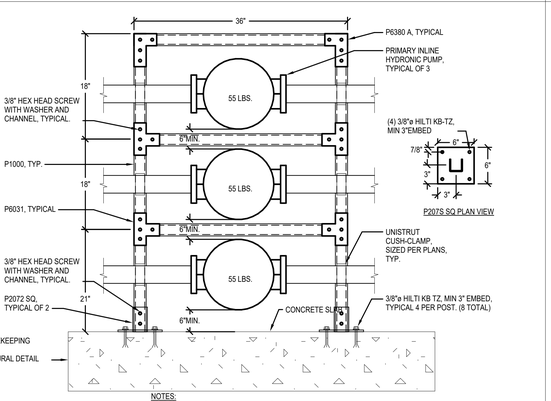


APPLICABLE TO:
B-F1
B-F2
B-F3

MAX WEIGHT = 1,650 LBS

1 BOILER MOUNTING DETAIL

NONE

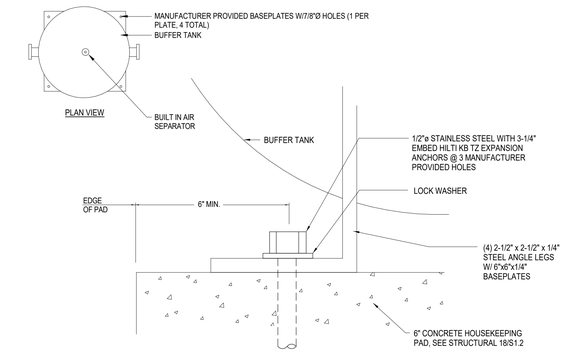


APPLICABLE TO:
FC-F1, FC-F2, FC-F3, FC-S1, FC-S2, FC-S3

MAX WEIGHT = 75 LBS.

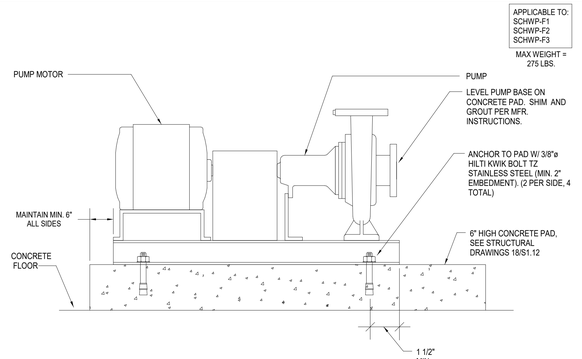
10 WALL MOUNTED FAN COIL UNIT

NONE



6 BUFFER TANK MOUNTING DETAIL

NONE

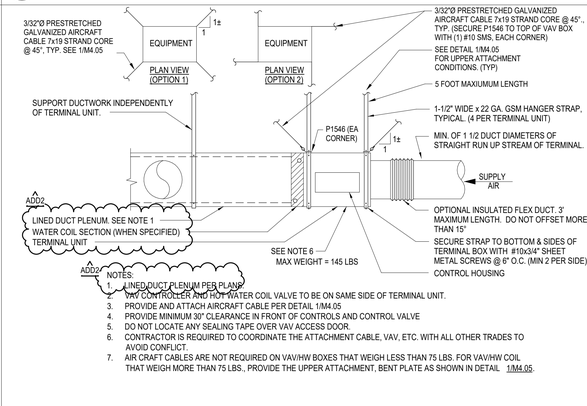


APPLICABLE TO:
SCHWP-F1
SCHWP-F2
SCHWP-F3

MAX WEIGHT = 275 LBS.

2 END SUCTION PUMP INSTALLATION DETAIL

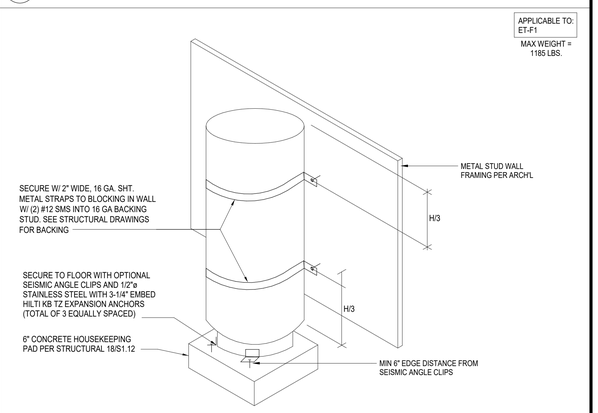
NONE



7 SINGLE DUCT VAV BOX INSTALLATION DETAIL

(CAV BOX SIMILAR)

NONE



APPLICABLE TO:
ET-F1

MAX WEIGHT = 1185 LBS.

3 EXPANSION TANK MOUNTING DETAIL

NONE



APPLICABLE TO:
PHWP-F1, PHWP-F2, PHWP-F3

MAX WEIGHT = 50 LBS.

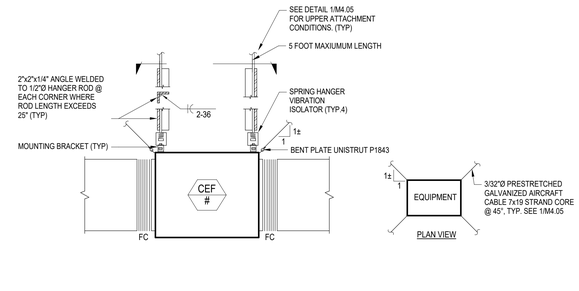
NOTES: REFFER TO DETAIL 12/M4.04 FOR SUPPORT AND INSTALLATION REQUIREMENTS.

11 INLINE PUMP DETAIL

NONE

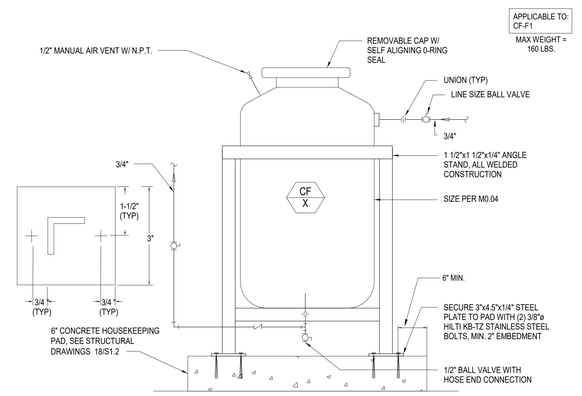
12 PRIMARY PUMP SUPPORT DETAIL

NONE



8 INLINE FAN INSTALLATION DETAIL

NONE



APPLICABLE TO:
CF-F1

MAX WEIGHT = 160 LBS.

4 CHEMICAL FEEDER MOUNTING DETAIL

NONE

ADD2 2020-07-08

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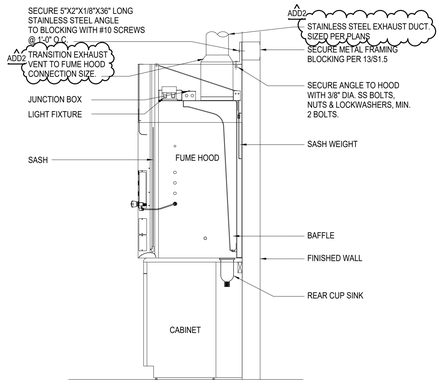
DETAILS - MECHANICAL
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

2401 High School road, Roseville, California 95747

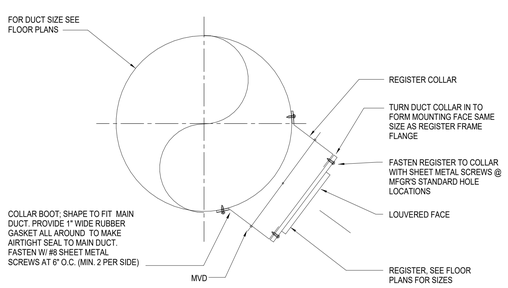
ADDENDUM 2
07.08.2020
Revisions
2020-07-08 ADD2 Addendum 2

PROJECT ##75-19101-00

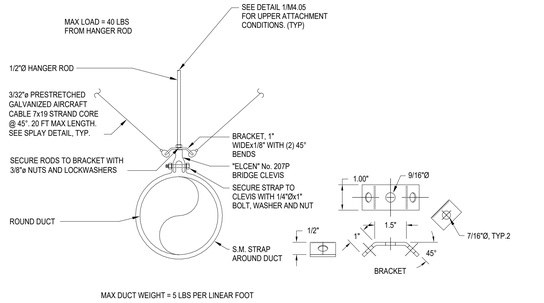
M4.02



11 FUME HOOD CONNECTION DETAIL
NONE

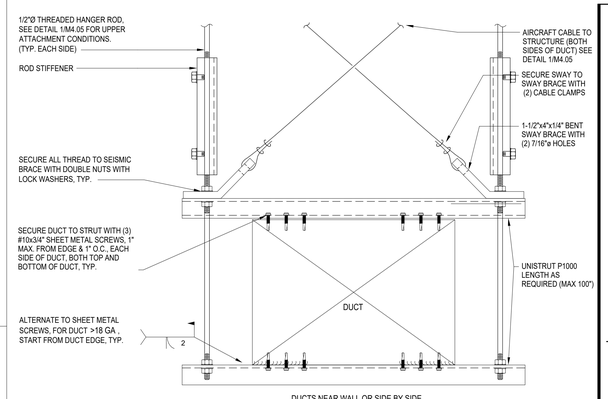


7 EXPOSED DUCT REGISTER DETAIL
NONE

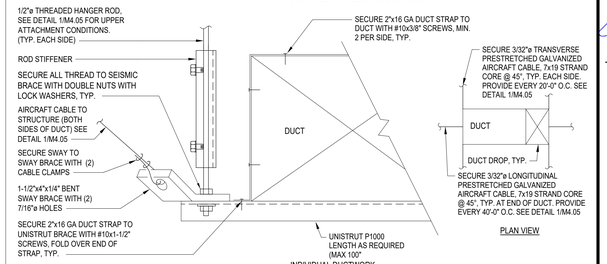


MAX DUCT WEIGHT = 5 LBS PER LINEAR FOOT

4 ROUND DUCT SUPPORT DETAIL
NONE



DUCTS NEAR WALL OR SIDE BY SIDE

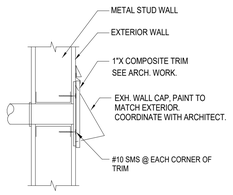


PLAN VIEW

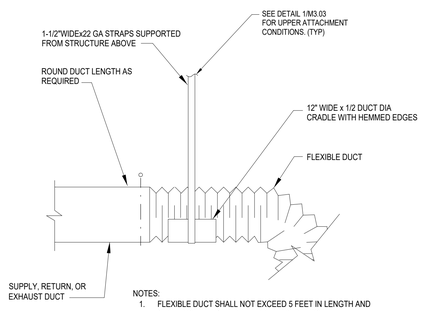
INDIVIDUAL DUCTWORK

NOTE:
1. PROVIDE SEISMIC SUPPORT ON ALL DUCTWORK GREATER THAN OR EQUAL TO 6 SQ. FT. IN AREA.
2. PROVIDE BOTH TRANSVERSE AND LONGITUDINAL BRACING. TRANSVERSE AT 20'-0" O.C., LONGITUDINAL AT 40'-0" O.C.
3. PROVIDE LONGITUDINAL AT EACH END IF OVER 40'-0" IN LENGTH.

1 RECTANGULAR DUCT SEISMIC SUPPORT DETAIL
NONE

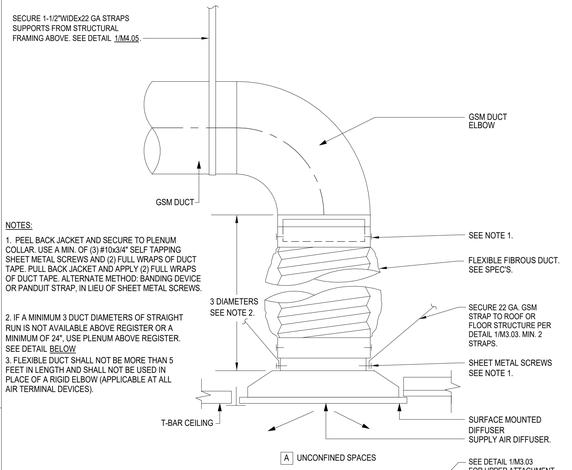


12 DRYER EXHAUST THROUGH WALL
NONE



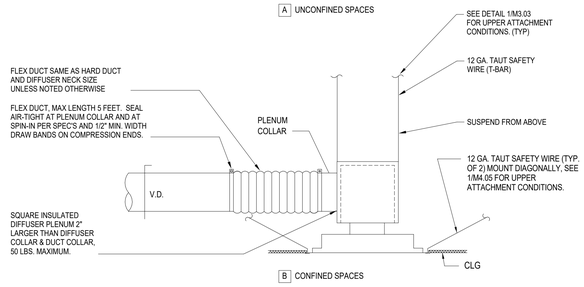
NOTES:
1. FLEXIBLE DUCT SHALL NOT EXCEED 5 FEET IN LENGTH AND SHALL NOT BE USED IN LIEU OF A RIGID ELBOW (APPLICABLE AT ALL AIR TERMINAL DEVICES)

8 FLEX DUCT SUPPORT DETAIL
NONE



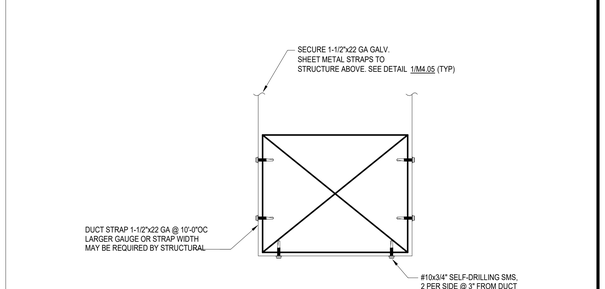
NOTES:
1. PEEL BACK JACKET AND SECURE TO PLENUM COLLAR. USE A MIN. OF (3) #10x3/4" SELF TAPPING SHEET METAL SCREWS AND (2) FULL WRAPS OF DUCT TAPE. PULL BACK JACKET AND APPLY (2) FULL WRAPS OF DUCT TAPE. ALTERNATE METHOD: BANDING DEVICE OR PANDUIT STRAP, IN LIEU OF SHEET METAL SCREWS.
2. IF A MINIMUM 3 DUCT DIAMETERS OF STRAIGHT RUN IS NOT AVAILABLE ABOVE REGISTER OR A MINIMUM OF 24", USE PLENUM ABOVE REGISTER. SEE DETAIL BELOW
3. FLEXIBLE DUCT SHALL NOT BE MORE THAN 5 FEET IN LENGTH AND SHALL NOT BE USED IN PLACE OF A RIGID ELBOW (APPLICABLE AT ALL AIR TERMINAL DEVICES).

A UNCONFINED SPACES



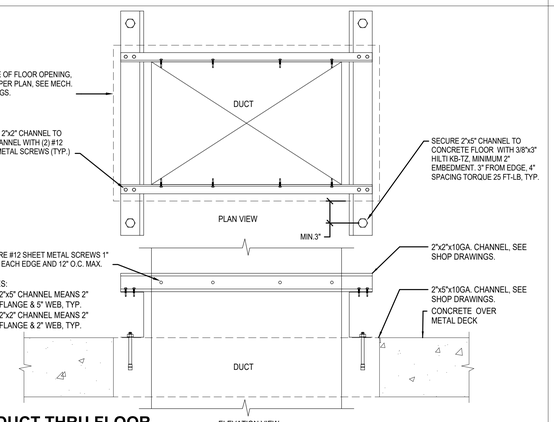
B CONFINED SPACES

5 DIFFUSER DETAIL
NONE



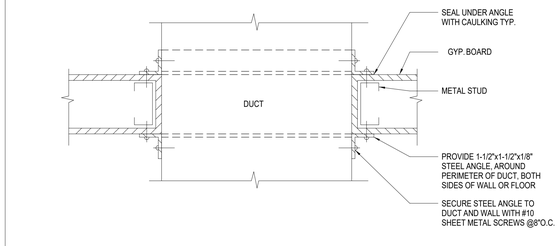
SEISMIC BRACING PER 1/M4.03

2 TYPICAL RECTANGULAR DUCT HANGING DETAIL
NONE



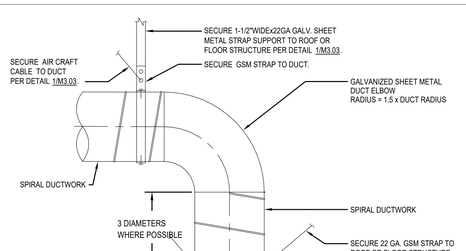
NOTES:
1. 2"x5" CHANNEL MEANS 2" FLANGE & 5" WEB, TYP.
2. 2"x2" CHANNEL MEANS 2" FLANGE & 2" WEB, TYP.

13 DUCT THRU FLOOR
NONE



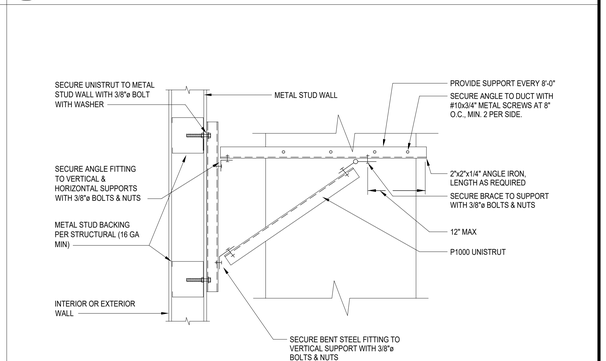
NOTES:
1. DUCTWORK THRU SHAFT SIMILAR.
2. SEE STRUCTURAL DETAILS FOR METAL STUD FRAMING AT WALL PENETRATIONS.

9 DUCT THRU INTERIOR WALLS (NON-RATED)
NONE

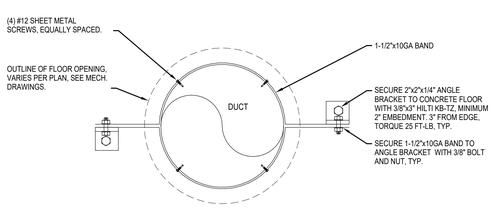


NOTES:
1. SECURE DIFFUSER AND SEISMIC STRAP TO SPIRAL DUCT. USE A MIN. OF (4) SHEET METAL SCREWS AND (2) FULL WRAPS OF DUCT TAPE.

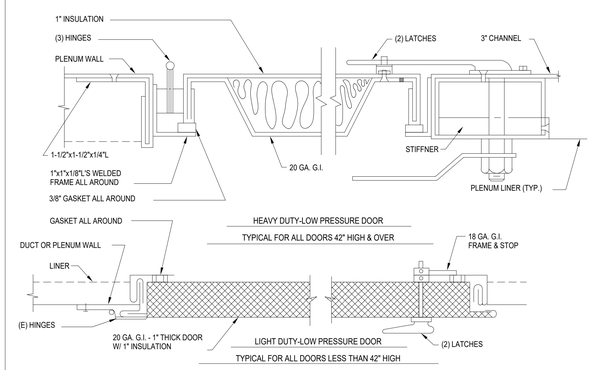
6 ROUND DIFFUSER SUPPORT DETAIL
NONE



3 DUCT ON WALL SUPPORT DETAIL
NONE



14 ROUND DUCT THRU FLOOR DETAIL
NONE



10 ACCESS DOOR DETAIL
NONE

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Job No. 19105

DETAILS - MECHANICAL
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)
2401 High School road, Roseville, California 95747

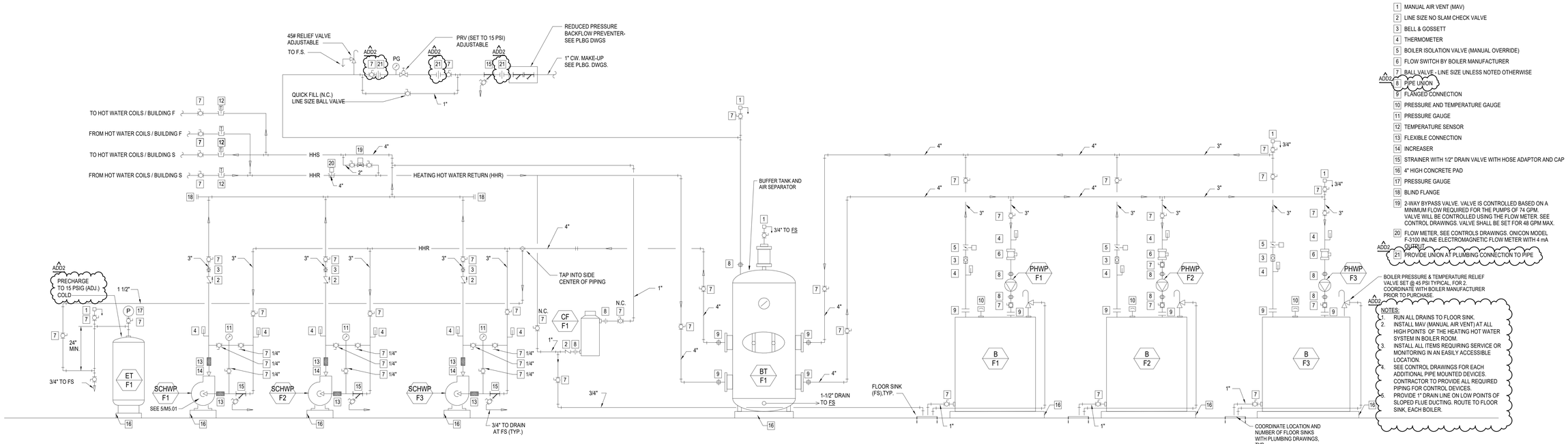
ADDENDUM 2
07.08.2020
Revisions
2020-07-08 ADD2 Addendum 2

PROJECT ##75-19101-00

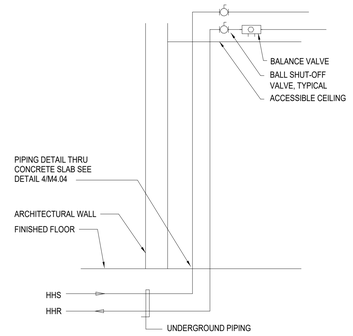
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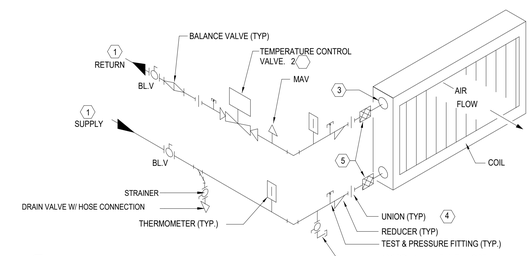
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1 HEATING HOT WATER DIAGRAM (BLDG F)
NONE

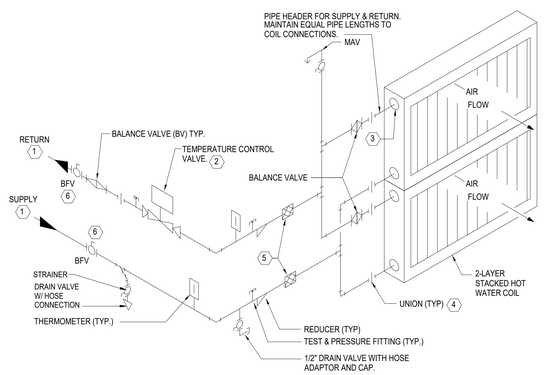


6 HYDRONIC PIPE RISER DIAGRAM (BLDG S)
NONE



1 FOR PIPE SIZES SEE FLOOR PLANS, OR TERMINAL UNIT SCHEDULE.
2 VERIFY PIPING ARRANGEMENT WITH ACCEPTED TEMPERATURE CONTROL VALVE FOR PROPER OPERATIONAL USE PRIOR TO INSTALLATION.
3 VERIFY ACTUAL INLET & OUTLET PIPING CONNECTION LOCATION AT COIL. WATER FLOW SHALL BE PIPED WITH THE SUPPLY WATER PIPING CONNECTED TO THE LEAVING AIR SIDE OF THE COIL (IN) AND THE LEAVING WATER PIPING CONNECTED TO THE ENTERING AIR SIDE OF THE COIL (OUT). (WATER FLOW PIPED COUNTER FLOW TO THE AIR FLOW).
4 INSTALL UNION FOR 2" & SMALLER. INSTALL FLANGES FOR OVER 2".
5 FLEXIBLE PIPE CONNECTION.

4 HHW COIL PIPING CONNECTION - VAV BOX (2-WAY)
NONE

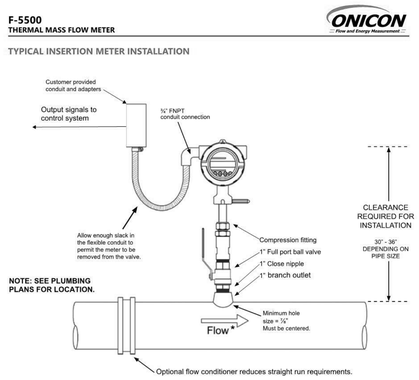


APPLICABLE TO:
AH-F-1
AH-S-1

1 FOR PIPE SIZES SEE FLOOR PLANS
2 VERIFY PIPING ARRANGEMENT WITH ACCEPTED TEMPERATURE CONTROL VALVE FOR PROPER OPERATIONAL USE PRIOR TO INSTALLATION.
3 VERIFY ACTUAL INLET & OUTLET PIPING CONNECTION LOCATION AT COIL. WATER FLOW SHALL BE PIPED WITH THE SUPPLY WATER PIPING CONNECTED TO THE LEAVING AIR SIDE OF THE COIL (IN) AND THE LEAVING WATER PIPING CONNECTED TO THE ENTERING AIR SIDE OF THE COIL (OUT). (WATER FLOW PIPED COUNTER FLOW TO THE AIR FLOW).
4 INSTALL UNION FOR 2" & SMALLER. INSTALL FLANGES FOR OVER 2".
5 FLEXIBLE PIPE CONNECTION.
6 BUTTERFLY VALVES (BFV) FOR 2-1/2" AND OVER, OTHERWISE USE FULL-PORT BALL VALVES. NOTE: VALVE KITS NOT ALLOWED.

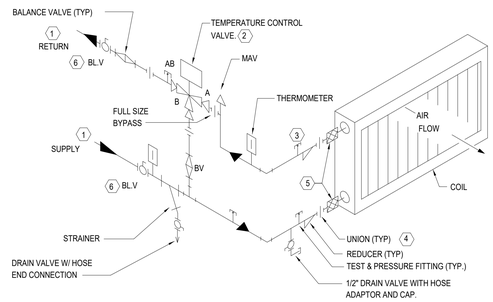
2 HHW 2-WAY VALVE - STACKED COIL PIPING CONNECTION
NONE

ADD2 2020-07-08



7 NATURAL GAS FLOW METER INSTALLATION
NONE

5 NOT USED
NONE



1 FOR PIPE SIZES SEE FLOOR PLANS.
2 VERIFY PIPING ARRANGEMENT WITH ACCEPTED TEMPERATURE CONTROL VALVE AND ACTUATOR PRIOR TO INSTALLATION. TCV SHALL BE NORMALLY OPEN WITH FLOW THRU THE COIL FOR HEATING APPLICATIONS. FOR LOCATIONS, SEE VARIABLE VOLUME BOX SCHEDULE ON M0.03.
3 VERIFY ACTUAL INLET & OUTLET PIPING CONNECTION LOCATION AT COIL. WATER FLOW SHALL BE PIPED WITH THE SUPPLY WATER PIPING CONNECTED TO THE LEAVING AIR SIDE OF THE COIL (IN) AND THE LEAVING WATER PIPING CONNECTED TO THE ENTERING AIR SIDE OF THE COIL (OUT). (WATER FLOW PIPED COUNTER FLOW TO THE AIR FLOW).
4 INSTALL UNION FOR 2" & SMALLER. INSTALL FLANGES FOR OVER 2".
5 FLEXIBLE PIPE CONNECTION.
6 BUTTERFLY VALVES (BFV) FOR 2 1/2" AND OVER.
NOTE: VALVE KITS NOT ALLOWED.

3 HHW COIL PIPING CONNECTION - VAV BOX (3-WAY)
NONE

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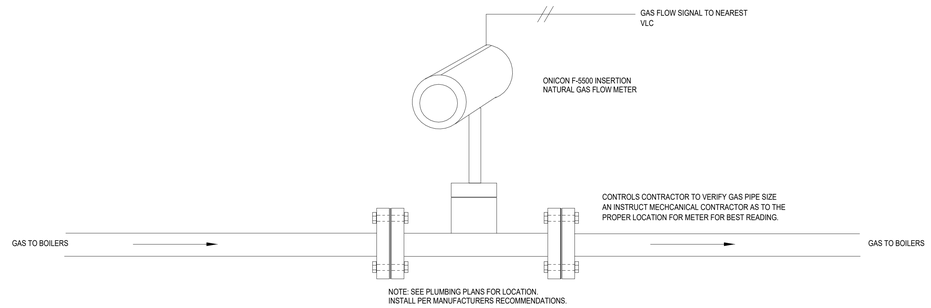
HOT WATER PIPING DIAGRAM & DETAILS - MECHANICAL
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)
2401 High School road, Roseville, California 95747

ADDENDUM 2
07.08.2020
Revisions
2020-07-08 ADD2 Addendum 2

PROJECT ##75-19101-00

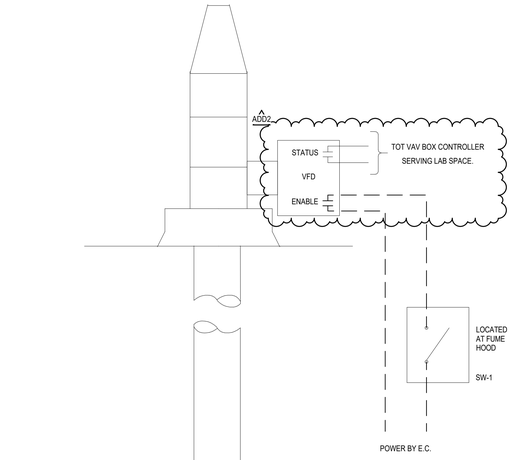
M5.01

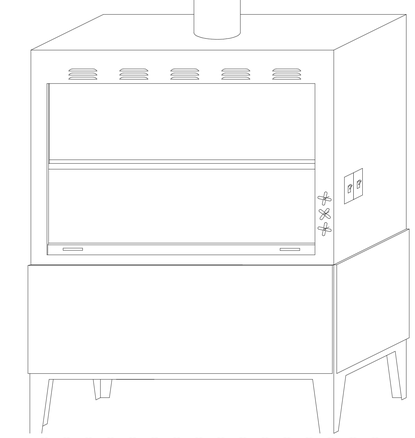
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2 NATURAL GAS FLOW METER DIAGRAM

NONE





ADD2

SEQUENCE OF OPERATION:
THE CONTROL SYSTEM SHALL MONITOR THE OPERATION OF THE FUME HOOD EXHAUST FANS.

LEF-S-1 & LEF-S-2 (SERVICE FOR CHEMISTRY S103 AND S106):
THE EMS SYSTEM WILL MONITOR THE MANUAL ACTIVATION OF THE FUME HOOD AND MODULATE THE CAV EXHAUST AIR VALVE (CAV-S1-3 / CAV-S1-6) DOWN 485 CFM FROM THE CFM LEVEL IT WAS EXHAUSTING BEFORE THE FUME HOOD FAN WAS ENERGIZED.

LEF-S-3 (SERVICE FOR PREP S107):
THE EMS SYSTEM WILL MONITOR THE MANUAL ACTIVATION FOT EH FUME HOOD AND MODULATE THE VAV BOX (VAV-S1-7) UP 485 CFM FROM THE CFM LEVEL IT WAS SUPPLYING BEFORE THE HUME HOOD FAN WAS ENERGIZED.

1 FUME HOOD CONTROLS

NONE

ADD2 2020-07-08

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CONTROLS - MECHANICAL
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

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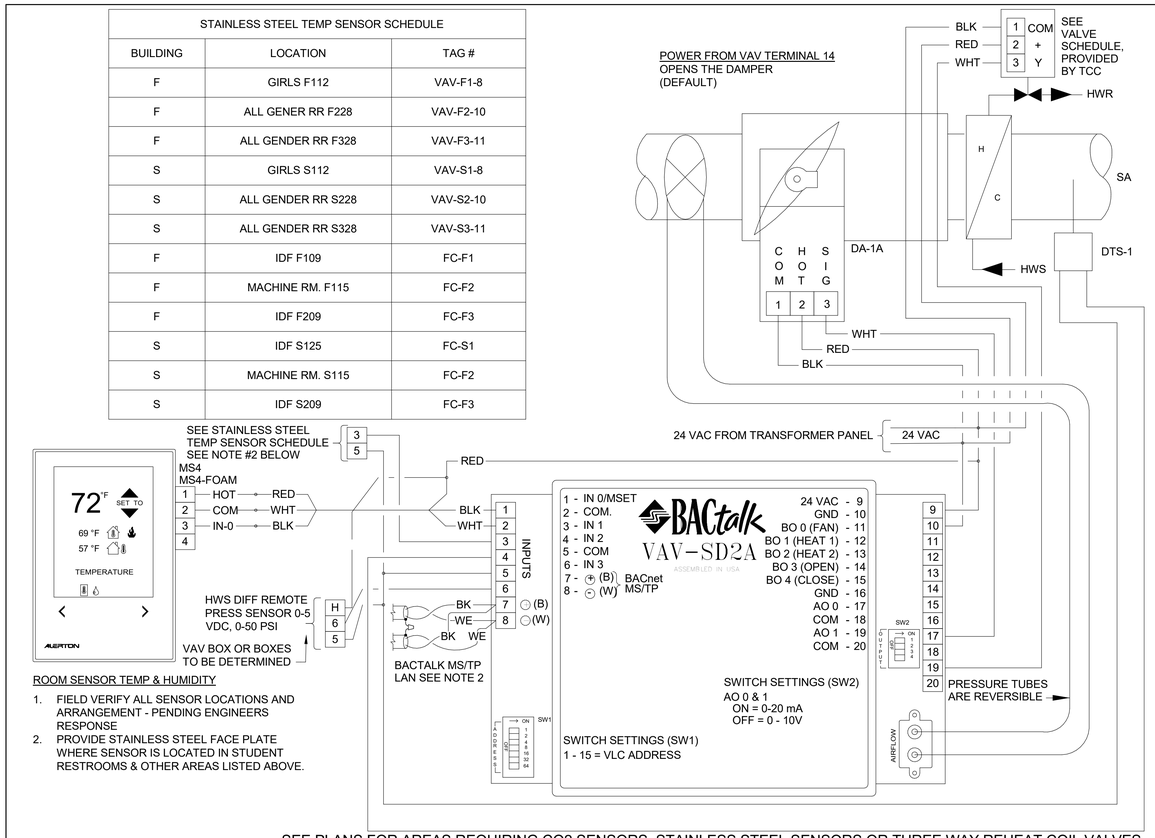
ADDENDUM 2
07.08.2020
Revisions

2020-07-08 ADD2 Addendum 2

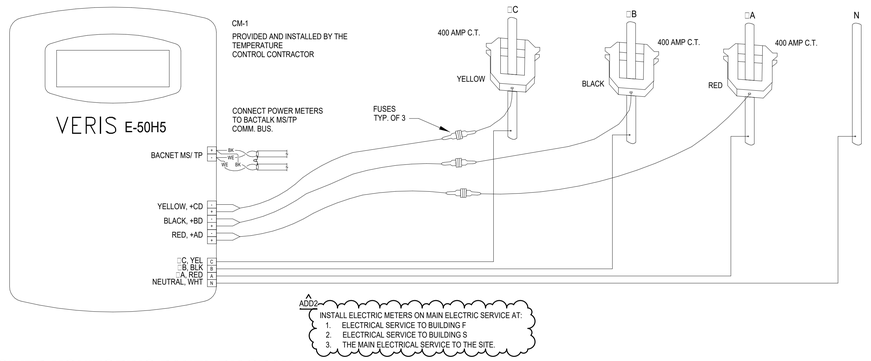
PROJECT ##75-19101-00

M6.02

STAINLESS STEEL TEMP SENSOR SCHEDULE		
BUILDING	LOCATION	TAG #
F	GIRLS F112	VAV-F1-8
F	ALL GENER RR F228	VAV-F2-10
F	ALL GENDER RR F328	VAV-F3-11
S	GIRLS S112	VAV-S1-8
S	ALL GENDER RR S228	VAV-S2-10
S	ALL GENDER RR S328	VAV-S3-11
F	IDF F109	FC-F1
F	MACHINE RM. F115	FC-F2
F	IDF F209	FC-F3
S	IDF S125	FC-S1
S	MACHINE RM. S115	FC-F2
S	IDF S209	FC-F3

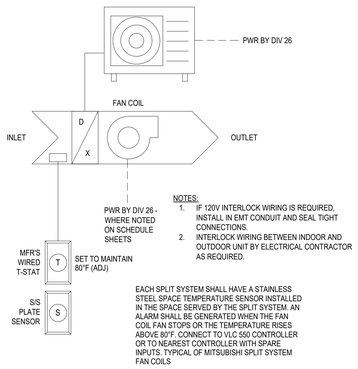


3 REHEAT VAV BOX NO CO2 (2-WAY VALVE)
NONE

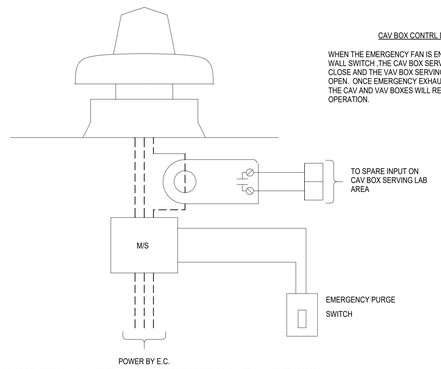


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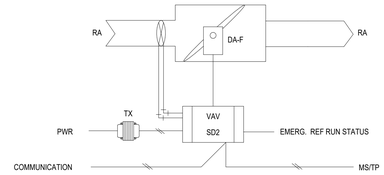
4 ELECTRICAL POWER MONITORING PANEL DIAGRAM
NONE



5 TYPICAL FAN COIL DIAGRAM
NONE

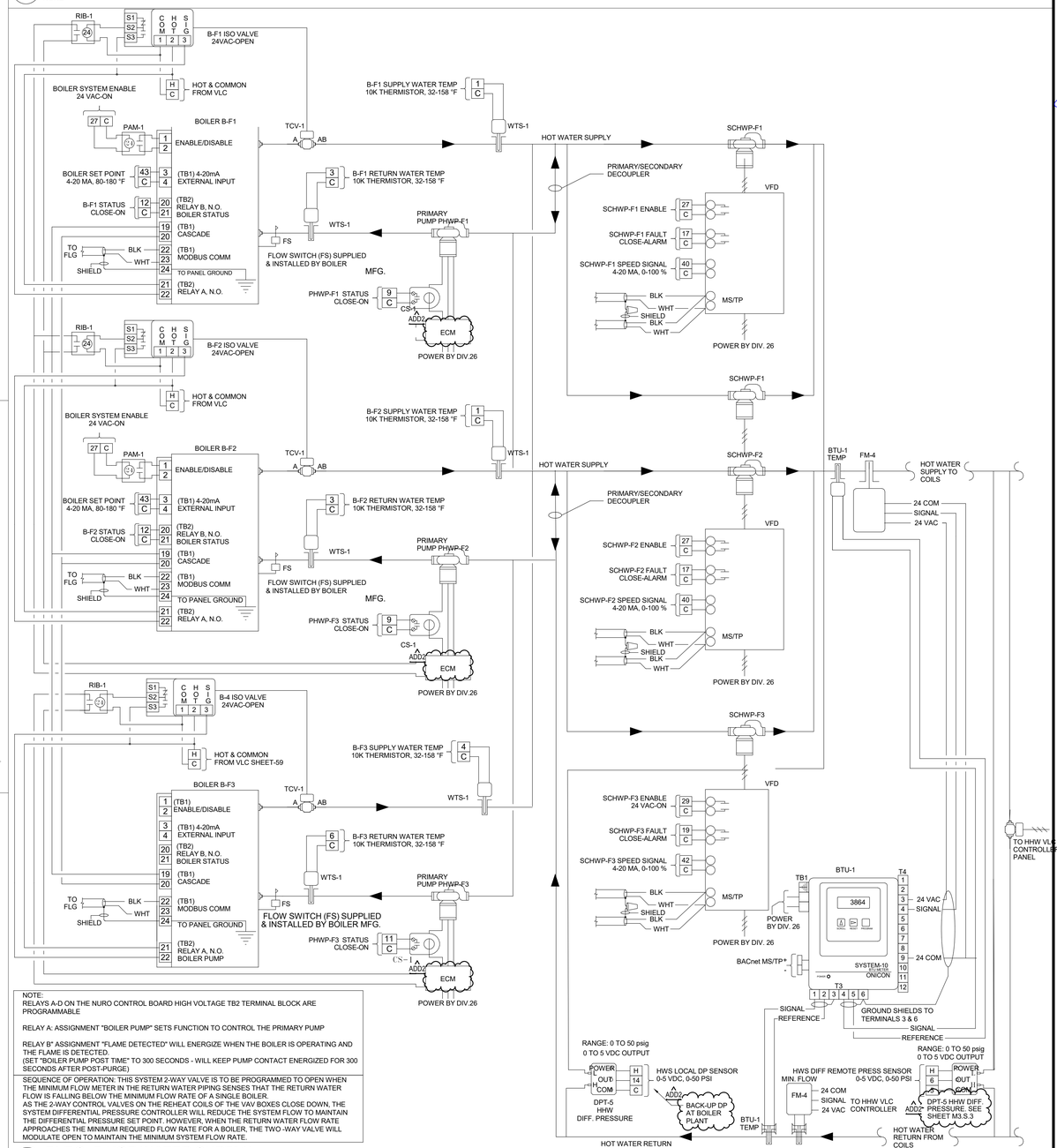


1 EMERGENCY EXHAUST FAN CONTROL DIAGRAM
NONE



INTERLOCK SCHEDULE

REF	VAV BOX	CAV BOX
REF-F-2	VAV-F1-2	CAV-F1-2
REF-F-3	VAV-F1-3	CAV-F1-3
REF-F-4	VAV-F1-6	CAV-F1-6
REF-S-2	VAV-S1-2	CAV-S1-2
REF-S-3	VAV-S1-3	CAV-S1-3
REF-S-4	VAV-S1-6	CAV-S1-6



NOTE:
RELAYS A-D ON THE NURO CONTROL BOARD HIGH VOLTAGE TB2 TERMINAL BLOCK ARE PROGRAMMABLE

RELAY A: ASSIGNMENT "BOILER PUMP" SETS FUNCTION TO CONTROL THE PRIMARY PUMP

RELAY B" ASSIGNMENT "FLAME DETECTED" WILL ENERGIZE WHEN THE BOILER IS OPERATING AND THE FLAME IS DETECTED.
(SET "BOILER PUMP POST TIME" TO 300 SECONDS - WILL KEEP PUMP CONTACT ENERGIZED FOR 300 SECONDS AFTER POST-PURGE)

SEQUENCE OF OPERATION: THIS SYSTEM 2-WAY VALVE IS TO BE PROGRAMMED TO OPEN WHEN THE MINIMUM FLOW METER IN THE RETURN WATER PIPING SENSES THAT THE RETURN WATER FLOW IS FALLING BELOW THE MINIMUM FLOW RATE OF A SINGLE BOILER.
AS THE 2-WAY CONTROL VALVES ON THE REHEAT COILS OF THE VAV BOXES CLOSE DOWN, THE SYSTEM DIFFERENTIAL PRESSURE CONTROLLER WILL REDUCE THE SYSTEM FLOW TO MAINTAIN THE DIFFERENTIAL PRESSURE SET POINT. HOWEVER, WHEN THE RETURN WATER FLOW RATE APPROACHES THE MINIMUM REQUIRED FLOW RATE FOR A BOILER, THE TWO -WAY VALVE WILL MODULATE OPEN TO MAINTAIN THE MINIMUM SYSTEM FLOW RATE.

2 BLDG. F HOT WATER SUPPLY
NONE

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7/8/20

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CONTROLS - MECHANICAL
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)
2401 High School road, Roseville, California 95747

ADDENDUM 2
07.08.2020
Revisions
2020-07-08 ADD2 Addendum 2

PROJECT ##75-19101-00

M6.03

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WATER AND WASTE SERVICE CALCULATIONS

JOB NAME:	West Park Phase 2 Bldg F	DATE:	11/4/2019
JOB NUMBER:	19.056	USER:	EBP

FIXTURE TYPE	NO.	WASTE		COLD WATER		HOT WATER		TOTAL WATER
		FU	TOTAL	FU	TOTAL	FU	TOTAL	FU
DRINKING FOUNTAIN	2	0.5	1	0.5	1	0	0	1
HOSE BIBB (PER BRANCH)	4	0	0	2.5	10	0	0	10
HOSE BIBB (ADDITIONAL)	6	0	0	1	6	0	0	6
LAVATORY	16	1	16	1	16	0.75	12	18.666667
JANITOR SINK	3	3	9	3	9	2.25	6.75	10.5
FLOOR DRAIN	7	2	14	0	0	0	0	0
FLOOR SINK RECEPTOR	4	3	12	0	0	0	0	0
SINK, 2" TRAP	6	3	18	1.5	9	1.5	9	12
URINAL, 1.0 GPF	2	2	4	4	8	0	0	8
WATER CLOSET, 1.28 TANK	24	4	96	5	120	0	0	120
IMB	3	0	0	1	3	0	0	3
LAB SINK	29	3	87	1.5	43.5	0	0	43.5
TOTAL FU			257.0		225.5		27.8	232.7

EQUIVALENT COLD WATER FLOW RATE (GPM):	72
ADDITIONAL DEMAND LOAD (GPM)	0
PRESSURE AVAILABLE AT MAIN (PSI):	45
PRESSURE BOOSTER PUMP	0
MINIMUM REQUIRED FIXTURE PRESSURE (PSI):	25.00
ELEVATION RISE (FT):	40
METER LOSS (PSI):	0
BACKFLOW PREVENTER LOSS (PSI):	0
ADDITIONAL LOSSES (PSI):	0
EQUIVALENT PIPE LENGTH FROM METER TO MOST REMOTE FIXTURE (FT):	200
FRICTION LOSS PRESSURE AVAILABLE (PSI):	2.64
MAXIMUM ALLOWABLE FRICTION LOSS (PSI/100 FT):	1.32
WATER FLOW VELOCITY (FPS):	3.37
CALCULATED FRICTION HEAD LOSS (PSI/100 FT):	0.78
MINIMUM REQUIRED 'WATER' PIPE SIZE (INCHES):	3
MINIMUM REQUIRED 'WASTE' PIPE SIZE (INCHES):	6

CALCULATIONS PER 2016 CPC APPENDIX A. INCLUDES ONLY ITEMS IN SCOPE OF WORK.

WATER AND WASTE SERVICE CALCULATIONS

JOB NAME:	West Park Phase 2 Bldg S	DATE:	11/4/2019
JOB NUMBER:	19.056	USER:	EBP

FIXTURE TYPE	NO.	WASTE		COLD WATER		HOT WATER		TOTAL WATER
		FU	TOTAL	FU	TOTAL	FU	TOTAL	FU
CLOTHES WASHER	1	3	3	4	4	3	3	4.6666667
DRINKING FOUNTAIN	2	0.5	1	0.5	1	0	0	1
HOSE BIBB (PER BRANCH)	6	0	0	2.5	15	0	0	15
HOSE BIBB (ADDITIONAL)	4	0	0	1	4	0	0	4
LAVATORY	16	1	16	1	16	0.75	12	18.666667
JANITOR SINK	3	3	9	3	9	2.25	6.75	10.5
FLOOR DRAIN	8	2	16	0	0	0	0	0
FLOOR SINK RECEPTOR	2	3	6	0	0	0	0	0
SINK, 2" TRAP	9	3	27	1.5	13.5	1.5	13.5	18
URINAL, 1.0 GPF	2	2	4	4	8	0	0	8
WATER CLOSET, 1.28 FV	27	4	108	5	135	0	0	135
IMB	6	0	0	1	6	0	0	6
LAB SINK	23	3	69	1.5	34.5	0	0	34.5
TOTAL FU			259.0		246.0		35.3	255.3

EQUIVALENT COLD WATER FLOW RATE (GPM):	102
ADDITIONAL DEMAND LOAD (GPM)	0
PRESSURE AVAILABLE AT MAIN (PSI):	45
PRESSURE BOOSTER PUMP	0
MINIMUM REQUIRED FIXTURE PRESSURE (PSI):	25.00
ELEVATION RISE (FT):	40
METER LOSS (PSI):	0
BACKFLOW PREVENTER LOSS (PSI):	0
ADDITIONAL LOSSES (PSI):	0
EQUIVALENT PIPE LENGTH FROM METER TO MOST REMOTE FIXTURE (FT):	200
FRICTION LOSS PRESSURE AVAILABLE (PSI):	2.64
MAXIMUM ALLOWABLE FRICTION LOSS (PSI/100 FT):	1.32
WATER FLOW VELOCITY (FPS):	2.74
CALCULATED FRICTION HEAD LOSS (PSI/100 FT):	0.38
MINIMUM REQUIRED 'WATER' PIPE SIZE (INCHES):	4
MINIMUM REQUIRED 'WASTE' PIPE SIZE (INCHES):	6

CALCULATIONS PER 2016 CPC APPENDIX A. INCLUDES ONLY ITEMS IN SCOPE OF WORK.

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 2013 CBC, SECTIONS 1616A.1.18 THROUGH 1616A.1.26 AND ASCE 7-10 CHAPTER 13, 26 AND 30.

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 OR HAS A CENTER OF MASS LOCATED 4 FEET OR MORE ABOVE THE ADJACENT FLOOR OR ROOF LEVEL THAT DIRECTLY SUPPORT THE COMPONENT ARE REQUIRED TO BE ANCHORED WITH TEMPORARY ATTACHMENTS.

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

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 DESIGN PROFESSIONAL IN GENERAL RESPONSIBLE CHARGE OR STRUCTURAL ENGINEER DELEGATED RESPONSIBILITY AND THE DSA DISTRICT STRUCTURAL ENGINEER. THE PROJECT INSPECTOR WILL VERIFY THAT ALL COMPONENTS AND EQUIPMENT HAVE BEEN ANCHORED IN ACCORDANCE WITH ABOVE REQUIREMENTS.

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEM BRACING NOTE

PIPING, DUCTWORK, AND ELECTRICAL DISTRIBUTION SYSTEMS SHALL BE BRACED TO COMPLY WITH THE FORCES AND DISPLACEMENTS PRESCRIBED IN ASCE 7-10 SECTION 13.3 AS DEFINED IN ASCE 7-10 SECTION 13.6.5.6, 13.6.7, 13.6.8, AND 2013 CBC, SECTIONS 1616A.1.24, 1616A.1.25 AND 1616A.1.26.

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

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

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

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

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PLUMBING LEGEND

SS	SANITARY SEWER (SS)		BALL VALVE
SV	SANITARY VENT (V)		CIRCUIT SETTER
CW	COLD WATER (CW)		CHECK VALVE
HW	HOT WATER (140° F) (HW)		BALANCING VALVE
HWR	HOT WATER RETURN (140° F) (HWR)		UNION
A	COMPRESSED AIR		BUTTERFLY VALVE
AV	ACID VENT (AV)		FLEXIBLE CONNECTION
AW	ACID WASTE (AW)		STRAINER & BLOW-OFF VALVE
CD	CONDENSATE DRAIN		THERMOMETER
D	DRAIN LINE		PRESSURE GAUGE
F	FIRE PROTECTION		PUMP
G	GAS (G)		SAFETY RELIEF VALVE
MG	GAS - MEDIUM PRESSURE		AUTOMATIC AIR VENT
HP	GAS - HIGH PRESSURE		
OF	RAIN WATER LEADER OVERFLOW (OF)		
RWL	RAIN WATER LEADER (RWL)		
SD	STORM DRAIN (SD)		
T	TEMPERED WATER (110° F) (TW)		
TR	TEMPERED WATER RETURN (110° F) (TWR)		
WSP	WET STAND PIPE (WSP)		
	SHUT OFF VALVE IN VALVE BOX		
	GAS PRESSURE REGULATOR		
	POINT OF CONNECTION		

ABC	ABOVE CEILING	GV	GATE VALVE
ADA	AMERICAN DISABILITIES ACT	GWH	GAS WATER HEATER
ADFR	ACCESS DOOR FIRE RATED	HW	HOT WATER
AFF	ABOVE FINISH FLOOR	HW,D/R	HOT WATER DROP/RISER
AFG	ABOVE FINISH GRADE	IE	INVERT ELEVATION
AVTR	ACID VENT THRU ROOF	MV	MIXING VALVE
BFF(G)	BELOW FINISH FLOOR (GRADE)	(N)	NEW
BV	BALL VALVE	NIPC	NOT IN PLUMBING CONTRACT
CD	CONDENSATE DRAIN	OF	OVER FLOW
CD,D	CONDENSATE DRAIN DROP	P&TRV	PRESSURE & TEMP RELIEF VALVE
CE	CIVIL ENGINEER	PC	PLUMBING CONTRACTOR
CI	CAST IRON	PRV	PRESSURE REGULATING VALVE
CO	CLEAN OUT	PSI	POUNDS PER SQUARE INCH
CW	COLD WATER	RD	ROOF DRAIN
CW,D/R	COLD WATER DROP/RISER	RWL	RAIN WATER LEADER
DSP	DRY STAND PIPE	RWL,D	RAIN WATER LEADER DROP
DSP,R	DRY STAND PIPE RISER	SMD	SEE MECHANICAL DRAWINGS
(E)	EXISTING	SAD	SEE ARCHITECTURAL DRAWINGS
EWH	ELECTRIC WATER HEATER	SPD	SEE PLUMBING DRAWING
FA	FROM ABOVE	SOC	SHUT OFF COCK
FB	FROM BELOW	SOV	SHUT OFF VALVE
FCO	FLOOR CLEANOUT	TP(C)	TRAP PRIMER (CONNECTION)
FFE	FINISHED FLOOR ELEVATION	TW	TEMPERED WATER
FHC	FIRE HOSE CABINET	TW,D/R	TEMPERED WATER DROP/RISER
FM	FLOOR MOUNT	TYP	TYPICAL
FSR	FIRE SPRINKLER RISER	UF	UNDER FLOOR
G	GAS	US	UNDER SLAB
G,R/D	GAS RISER/DROP	VB	VALVE BOX
GCO	GRADE CLEANOUT	V	VENT
GPR	GAS PRESSURE REGULATOR	V,R	VENT RISER
		VTR	VENT THRU ROOF
		WCO	WALL CLEANOUT
		SS	SANITARY SEWER
		SS,D	SANITARY SEWER DROP
		WHA	WATER HAMMER ARRESTOR
		WM	WALL MOUNT
		WSP	WET STAND PIPE
		WSP,R	WET STAND PIPE RISER

PLUMBING FIXTURE CONNECTION SCHEDULE

FIXTURE	SYMBOL	WASTE				COLD WATER		HOT WATER	
		BRANCH	OUTLET	VENT	TRAP	BRANCH	OUTLET	BRANCH	OUTLET
WATER CLOSET (FLUSH VALVE)	WC	4"	4"	2"	4"	1-1/2"	1"	——	——
LAVATORY (2)	L	2"	1-1/2"	1-1/2"	1-1/2"	1/2"	3/8"	1/2"	3/8"
SINK (2)	S	2"	1-1/2"	1-1/2"	1-1/2"	3/4"	1/2"	1/2"	1/2
URINAL	UR	2"	2"	2"	2"	1-1/2"	3/4"	——	——
FLOOR DRAIN (1)	FD	2"	2"	1 1/2"	2"	——	——	——	——
FLOOR SINK (1) (3)	FS	3"	3"	2"	3"	——	——	——	——
SERVICE SINK	MS	3"	3"	2"	3"	3/4"	1/2"	3/4"	1/2"
ELECTRIC WATER COOLER/DRINKING FOUNTAIN	DF	2"	1-1/2"	1-1/2"	1-1/2"	1/2"	3/8"	——	——
HOSE BIBB	HB	——	——	——	——	3/4"	3/4"	——	——
EMERGENCY SHOWER EYEWASH	EEW/ESH	2"	1-1/4"	1-1/2"	2"	1-1/4"	1-1/4"	——	——

NOTES:
(1) TRAP PRIMER CONNECTION ONLY WHERE NOTED ON PLANS.
(2) TEMPERED OR HOT WATER ONLY WHERE INDICATED ON PLANS.
(3) FLOOR SINKS SERVING FIRE SPRINKLER RISER ROOMS REQUIRE A 6" WASTE AND 3" VENT CONNECTION.

WATER HEATER SCHEDULE

MARK	MAKE/MODEL	CAPACITY	MBH	KW	V/Hz	RECOVERY	SIZE	OPERATING WEIGHT	LOCATION	REMARKS
GWH S1	INTELLIHOT IQ251	--	251	-	120/60	8.0 GPH @ 60°F RISE	26"H X 17.4"W X 14.9"D	90 lbs	S	3" VENT SCH 40 CPVC PIPE.
GWH S2	INTELLIHOT IQ251	--	251	-	120/60	8.0 GPH @ 60°F RISE	26"H X 17.4"W X 14.9"D	90 lbs	S	3" VENT SCH 40 CPVC PIPE.
GWH F1	INTELLIHOT IQ251	--	251	-	120/60	8.0 GPH @ 60°F RISE	26"H X 17.4"W X 14.9"D	90 lbs	F	3" VENT SCH 40 CPVC PIPE.
GWH F2	INTELLIHOT IQ251	--	251	-	120/60	8.0 GPH @ 60°F RISE	26"H X 17.4"W X 14.9"D	90 lbs	F	3" VENT SCH 40 CPVC PIPE.

NOTES:
1. INCLUDE A.O. SMITH CNS-6 CONDENSATE NEUTRALIZATION KIT AND AMTROL ST-12C EXPANSION TANK WITH EACH UNIT, INSTALLED PER DETAIL 3/P4.01 AND MANUFACTURER'S RECOMMENDATIONS.

PLUMBING GENERAL NOTES

1. PLANS ARE NOT FOR CONSTRUCTION UNTIL APPROVED BY THE AUTHORITY HAVING JURISDICTION. THE CONTRACTOR SHALL NOT ORDER ANY MATERIALS OR INSTALL ANY EQUIPMENT, PIPING, ETC. UNTIL PLANS ARE APPROVED BY THE AUTHORITY HAVING JURISDICTION.
2. ALL FIXTURES WHITE UNLESS OTHERWISE NOTED.
3. PROVIDE FLOW CONTROL DEVICES ON LAVS AND SINKS PER T-24, PART 5, CCR.
4. ALL FIXTURES SHALL BE PROVIDED WITH STOP VALVES. VALVES MAY BE IN SUPPLY PIPES OR INTEGRAL WITH SUPPLY FITTINGS.
5. CONTRACTOR SHALL COORDINATE ALL PLUMBING LINE LOCATIONS WITH OTHER TRADES.
6. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF FIXTURES AND MOUNTING HEIGHTS.
7. CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND PAY ALL COSTS INVOLVED.
8. INSULATE HOT & COLD WATER SUPPLY PIPES, STOPS, P-TRAP AND DRAIN LINE AT EACH ADA LAVATORY AND SINK WITH ANTI-MICROBIAL, SEAMLESS, VANDAL RESISTANT PROTECTIVE PIPE COVER "PROWRAP" OR EQUAL.
9. ALL PIPE PENETRATIONS THROUGH ROOF SHALL BE FLASHED SIMILAR TO VTRS.
10. ALL SANITARY SEWER VENT PIPE PENETRATIONS THROUGH ROOF SHALL TERMINATE AT A MINIMUM DISTANCE OF 10' FROM ANY FRESH AIR INTAKE.
11. MINIMUM LOCAL CONNECTION SIZES SHALL BE MADE IN ACCORDANCE WITH THE SCHEDULE OF CONNECTIONS.
12. ALL WATER PIPING SIZED IN ACCORDANCE WITH 2016 C.P.C.
13. GAS PIPING SIZED IN ACCORDANCE WITH TABLE 1216.2, 2016 C.P.C.
14. ALL WASTE, WATER, AND STORM DRAIN PIPING SHALL BE STUBBED OUTSIDE BUILDING TO CONNECTION POINT SHOWN. SEE CIVIL DRAWINGS FOR CONTINUATION. CONTRACTOR SHALL MAKE FINAL CONNECTIONS TO SITE PIPING.
15. COORDINATE ALL TRENCHING WITH CONTRACTOR.
16. ALL HOSE BIBBS SHALL BE 3/4" AND MOUNTED AT 12" ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED. ALL HOSE BIBBS SHALL HAVE A NON-REMOVABLE VACUUM BREAKER.
17. PROVIDE MATERIALS IN ACCORDANCE WITH 2016 CALIFORNIA PLUMBING CODE AND STATE CODE REGULATIONS.
18. SEISMIC SUPPORTS AND BRACING FOR ALL PIPING SHALL BE PROVIDED IN ACCORDANCE WITH CBC SECTION 1613A, ASCE7 SECTION 13.6.1 AND NFPA 13 STANDARDS FOR SUPPORT AND ANCHORAGE. METHODS AND MATERIALS PUBLISHED BY SMACNA AND APPROVED BY STATE AGENCIES SHALL BE USED.
19. THE WATER CLOSET CONTROLS (FLUSH HANDLE) MUST BE LOCATED ON THE CLEAR/ WIDE SIDE OF THE ACCESSIBLE WATER CLOSETS.
20. A SEPARATE FIRE PLAN CHECK SUBMITTAL AND FIRE PERMIT IS REQUIRED FOR WORK BEING CONDUCTED ON THE AUTOMATIC SPRINKLER SYSTEM. PLANS AND CALCULATIONS SHALL BE SUBMITTED TO THE LOCAL ADMINISTRATIVE AUTHORITY HAVING JURISDICTION (FIRE INSPECTOR/ PLAN CHECKER) FOR PLAN CHECK APPROVAL. A PERMIT SHALL BE ACQUIRED.
21. HAZARDOUS AND COMBUSTIBLE MATERIAL LINES (E.G. GAS LINES) GREATER THAN 1" IN DIAMETER AND NON-HAZARDOUS LINES (E.G. WATER LINES) GREATER THAN 3" IN DIAMETER REQUIRE SEISMIC BRACING PER 2016 CBC SECTION 1616A.1.26. ACCEPTABLE SEISMIC BRACING DETAILS INCLUDE THOSE SHOWN IN THE EATON/COOPER B-LINE OPM-0052-13 WITH 2016 REVISIONS. CONTRACTOR TO CONFIRM BRACING DETAILS WITH DESIGN TEAM.
22. ANY HORIZONTAL DRAINAGE PIPE SERVING SINKS OR URINALS SHALL BE PROVIDED WITH A CLEANOUT AT ITS UPPER TERMINAL PER CPC 2016 707.4. A CLEANOUT SHALL BE FURNISHED ABOVE THE FIXTURE CONNECTION FITTING SERVING EACH URINAL, REGARDLESS OF THE LOCATION OF THE URINAL IN THE BUILDING.

INTERCEPTORS

MARK	MAKE/MODEL	CAPACITY	REMARKS
SI 1	JAY R SMITH FIG. 8710	-	FLOOR MOUNT. PROVIDE ACID RESISTANT INTERIOR COATING.

CIRCULATION PUMP SCHEDULE

SYMBOL	MAKE	NUMBER	DESCRIPTION/TRIM	LOCATION	NOTES
CP 1	B & G	NBF-10S/LW	CIRCULATION PUMP, ALL BRONZE CONSTRUCTION, .52 WATTS, 115 VOLTS, 1 PHASE. 2 GPM, 8.8' HEAD. TC-1 TIMER KIT, AQ-3/4 AQUASTAT.	S, F	

FOOD WASTE DISPOSERS

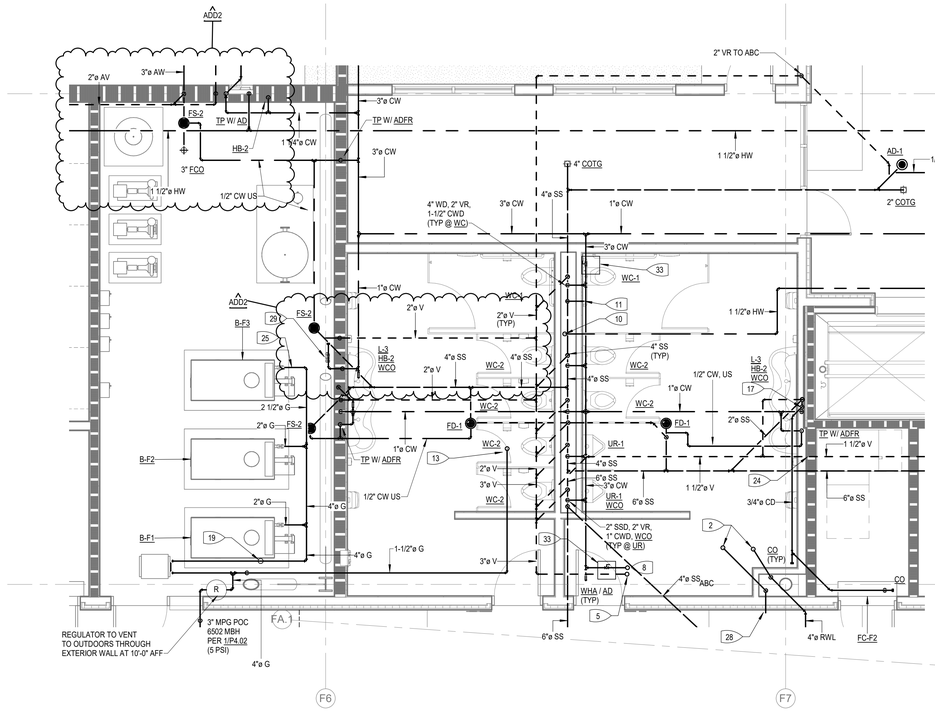
MARK	MAKE/MODEL	CAPACITY	REMARKS
DSP 1	IN-SINK -ERATOR	EVOLUTION COVER CONTROL PLUS	DISPOSER: CONTINUOUS FEED, 3/4 HP. MAGNETIC COVER START ACTIVATION. PROVIDE FULL 6 YEAR PARTS AND SERVICE WARRANTY.

EQUIPMENT SCHEDULE

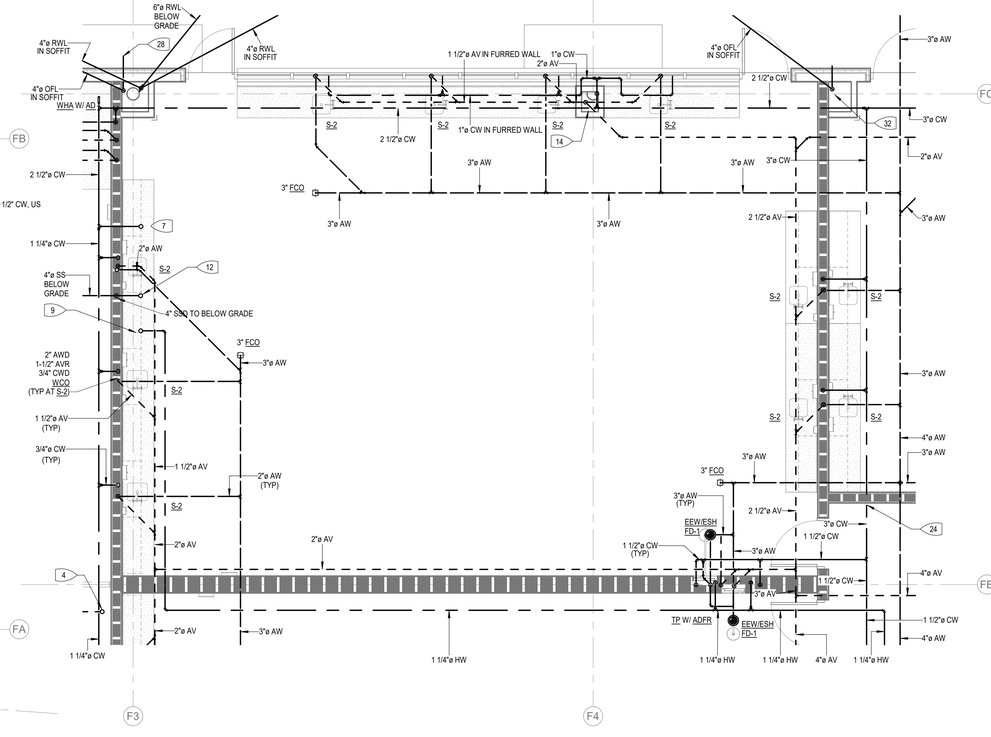
SYMBOL	MAKE	NUMBER	DESCRIPTION/TRIM	SUPPORT	NOTES
TMV 1	LEONARD	370-LF-REC-BV	THERMOSTATIC MIXING VALVE, INTEGRAL CHECK VALVES, RECESSED CABINET, INLET BALL VALVES, LEAD FREE, 0.5 GPM MIN. FLOW, LOCKING TEMP. REGULATORS, 3/4" INLETS, 3/4" OUTLET, SET AT A MAX. TEMP. OF 80° F.	WALL	-----
TMV 2	LEONARD	270-LF-BRKT -BV	THERMOSTATIC MIXING VALVE, INTEGRAL CHECK VALVES, MOUNTING BRACKET, INLET BALL VALVES, LEAD FREE, 0.25 GPM MIN. FLOW, LOCKING TEMP. REGULATORS, 1/2" INLETS, 1/2" OUTLET, SET AT A MAX. TEMP. OF 120° F.	WALL	-----

PLUMBING FIXTURE AND EQUIPMENT SCHEDULE

SYMBOL	MAKE	MODEL NUMBER	DESCRIPTION/TRIM	SUPPORT	MATERIAL
WC-1 ACCESSIBLE	KOHLER SLOAN VALVE	K-4325 ROYAL OPTIMA 111-1.28 ES-S	FLUSH VALVE WATER CLOSET, TOP SPUD W/ ELONGATED BOWL, LOW CONSUMPTION SENSOR FLUSH VALVE (1.28 GPF), PROVIDED WITH MANUAL OVERRIDE BUTTON. INCLUDE SLOAN EL-154 TRANSFORMER. KOHLER K-4731-C OPEN FRONT WHITE SEAT. PROVIDE SUPPLIES AND STOPS. COMMERCIAL CLOSET CARRIER. MOUNTING HEIGHT PER ARCHITECTURAL PLANS. FLUSH VALVE LEVER ON WIDE SIDE OF STALL.	CHAIR CARRIER WALL	VIT. CHINA
WC-2	KOHLER SLOAN VALVE	K-4325 ROYAL OPTIMA 111-1.28 ES-S	FLUSH VALVE WATER CLOSET, TOP SPUD W/ ELONGATED BOWL, LOW CONSUMPTION SENSOR FLUSH VALVE (1.28 GPF), PROVIDED WITH MANUAL OVERRIDE BUTTON. INCLUDE SLOAN EL-154 TRANSFORMER. KOHLER K-4731-C OPEN FRONT WHITE SEAT. PROVIDE SUPPLIES AND STOPS. COMMERCIAL CLOSET CARRIER. MOUNTING HEIGHT PER ARCHITECTURAL PLANS. FLUSH VALVE LEVER ON WIDE SIDE OF STALL.	CHAIR CARRIER WALL	VIT. CHINA
UR-1 ACCESSIBLE	KOHLER	4904-ET	ULTRA HIGH EFFICIENCY URINAL, 3/4" TOP SPUD URINAL, FURNISH: SLOAN 186-0.125 DPB ESS TMO, HARD-WIRED, LOW CONSUMPTION FLUSH VALVE (13 GPF), SLOAN EL-154 TRANSFORMER, SUPPLY AND STOP, COMMERCIAL CHAIR CARRIER AND WALL CLEANOUT. (RIM AT +17") ACCESSIBLE.	CHAIR CARRIER	VIT CHINA
MS-1	FIAT	TSB 100	24" x 24" x 12" HIGH TERRAZZO MOP SINK WITH INTEGRAL STAINLESS STEEL CAP (ALL SIDES), INTEGRAL FLOOR DRAIN. FURNISH: FIAT 830AA WALL MOUNTED H & CW FAUCET WITH VACUUM BREAKER, ADJ. WALL BRACE, SPOUT WITH HOSE THREAD, 830-AA HOSE & HOSE BRACKET, 1453-BB STRAINER, P-TRAP, SUPPLIES AND STOPS.	FLOOR	TERRAZZO
L-1	SLOAN	DSG-84000	EXPRESS LAVATORY SYSTEM, TROUGH WITH 4 FAUCETS, FURNISH: SLOAN FAUCETS MODEL EFX-200-BOX-BDT-CP-0.5GPM-MLM-IR-FCT, .5 GPM, HARD-WIRED, P-TRAPS, SUPPLIES AND STOPS, AND TMV-1. ACCESSIBLE.	COUNTER	---
L-2 ADA	KOHLER	2006	20-1/2"x18-1/4" LAV. WITH HOLES 8" ON CENTER. FURNISH: CHICAGO FAUCET MODEL 857-E2805-665PSHAB, .5 GPM, VANDAL RESISTANT, McGUIRE 155A GRID STRAINER, McGUIRE PW2150WC INSULATED P-TRAP, SUPPLIES AND STOPS, ZURN Z-1231 LAVATORY SUPPORT SYSTEM, AND TMV-2. ADA COMPLIANT.	CHAIR CARRIER	VIT CHINA
L-3	BRADLEY	MG-3/IR	EXPRESS LAVATORY SYSTEM, BOWL WITH 3 LAVATORIES, PEDESTAL W/ STEEL MOUNTING FRAME, INFRARED SENSOR, PROVIDED WITH P-TRAP, TAILPIECE, FLEXIBLE SUPPLY CONNECTORS AND TMV-1.	PEDESTAL	---
DF-1	ELKAY	LVRCTL8WSK	ELECTRIC REFRIGERATED BI-LEVEL WALL MOUNTED WATER COOLER, SS CABINET, NON-CORROSIVE SS COOLER TOP, PUSH-BUTTON ACTIVATION, DELIVER 8GPH OF 50° WATER @ 90°F AMBIENT AND 80°F INLET WATER, WITH STAINLESS STEEL STORAGE TANK, INCLUDE BOTTLE FILLING STATION, MLP200 BI-LEVEL IN-WALL CARRIER. 115V/5A.	WALL	STAINLESS STEEL
FD-1 AD-1	ZURN	Z-415B-P	FLOOR DRAIN FOR CONCRETE FLOOR (SEE PLAN FOR SIZE) WITH TRAP PRIMER CONNECTION, CAST IRON P-TRAP.	FLOOR	CAST IRON
TP	P.P.P.	MODEL P-1/P-2	TRAP PRIMER VALVE WITH UNION, BALL VALVE, DISTRIBUTION MANIFOLD, AND WALL ACCESS.	---	---
AD	ELMDOR	DW14X14 CL-SS	14" x 14" WALL ACCESS DOOR WITH CYLINDER LOCK.	WALL	STAINLESS STEEL
ADFR	ELMDOR	FR14X14 CL-SS	14" x 14" FIRE RATED WALL ACCESS DOOR WITH CYLINDER LOCK.	WALL	STAINLESS STEEL
WHA	ZURN	Z-1700 SERIES	HERMETICALLY SEALED WATER HAMMER ARRESTOR. SIZE AS RECOMMENDED BY MANUFACTURER.	---	STAINLESS STEEL
HB-1	ACORN	8160	RECESSED HOSE BOX, SINGLE TEMPERATURE, INTEGRAL VACUUM BREAKER. INCLUDE LOCKING DOOR AND FRAME. 18 GAUGE TYPE 304 STAINLESS STEEL BOX.	WALL	CAST BRONZE VALVE AND STOP BODY
HB-2	ACORN	8121CP-LF	HOSE BIBB WITH VACUUM BREAKER AND REMOVABLE HANDLE.	WALL	POLISHED CHROME
HB-3	ACORN	8121CR-LF	HOSE BIBB WITH VACUUM BREAKER AND REMOVABLE HANDLE. SECURED TO WALL OR PER 13/P4.03.	ROOF	POLISHED CHROME
RWL/OF	JAY R. SMITH (ZURN OR EQUAL)	1850-AD	ROOF AND OVERFLOW DRAINS WITH TOP SET ROOF DECK PLATE, AND HIGH ALUMINUM DOME STRAINER.	ROOF	CAST IRON
RR-1	JAY R. SMITH	3960	DECK MOUNTED CAST IRON ROOF RECEPTOR, 7-1/4" TOP DIAMETER, 2" DIAMETER DRAIN.	DECK	CAST IRON
IMB-1	WATER-TITE	AB9700CP	ICE MAKER CONNECTION BOX WITH FACTORY INSTALLED VALVE, MOUNT @ +12" ABOVE COUNTERTOP.	WALL	---
S-1	ELKAY	2C18X24-2-24X	86" x 29.8" x 12" DEEP, 16 GA., DOUBLE COMPARTMENT STAINLESS STEEL SINK WITH LEFT AND RIGHT DRAINBOARDS, GALVANIZED LEGS. FURNISH: TWO (2) CHICAGO 332-DJ18E1ABCP (1.5 GPM) POT FILLER FAUCETS, DOUBLE-JOINTED SWING SPOUT, P-TRAP, SUPPLIES AND STOPS. FIELD MODIFY LEGS TO LOWER SINK HEIGHT BY 5".	---	STAINLESS STEEL
S-2	CHICAGO	927-317XKCP	INTEGRAL SINK BY ARCHITECTURAL, FAUCET ONLY: SINGLE HOLE, COLD WATER ONLY, GOOSENECK SPOUT, LABORATORY NOZZLE, P-TRAP, SUPPLIES AND STOPS.	DECK MOUNTED	TRIM ONLY
S-3	ELKAY	LRADQ202260	19-1/2"x22"x6" SINK, WITH HOLES . FURNISH: CHICAGO FAUCET MODEL W4D-L9E35-317ABCP, SINGLE HOLE, HOT & COLD WATER, .5 GPM, McGUIRE 155A GRID STRAINER, McGUIRE PW2150WC INSULATED P-TRAP, TMV-1, DSP-1, SUPPLIES AND STOPS.	CABINET	STAINLESS STEEL
S-4	ELKAY	LRADQ3321	33"x21"x6-1/2" DEEP, 18 GA., DOUBLE COMPARTMENT SELF-RIMMING FULLY UNDERCOATED, STAINLESS STEEL SINK, PUNCHED WITH 3 FAUCET HOLES. FURNISH: CHICAGO 201-AE35-317ABCP (1.5 GPM) H & CW MIXING FAUCET, SWING SPOUT, LK-35L DRAIN, P-TRAP, TMV-1, SUPPLIES AND STOPS.	COUNTER	STAINLESS STEEL
S-5	ELKAY	LRADQ202260	19-1/2"x22"x6" SINK, WITH HOLES . FURNISH: CHICAGO FAUCET MODEL W4D-L9E35-317ABCP, SINGLE HOLE, HOT & COLD WATER, .5 GPM, McGUIRE 155A GRID STRAINER, McGUIRE PW2150WC INSULATED P-TRAP, TMV-1, SUPPLIES AND STOPS.	CABINET	STAINLESS STEEL
FS-1	ZURN	Z-1926-P- 3-C	FLOOR SINK WITH 3/4 GRATE, 16" SQUARE WITH DOME STRAINER, FURNISH: CAST IRON P-TRAP. SEE PLAN FOR SIZE. MOUNT FLUSH WITH FLOOR. (TRAP PRIMER CONNECTION ONLY WHERE SHOWN ON PLANS.)	FLOOR	CAST IRON
FS-2	ZURN	Z-1901-2-KC-2	12" X 12" X 8" DEEP, HALF GRATE, DOME STRAINER, ACID RESISTING EPOXY COATED INTERIOR WITH NICKEL BRONZE RIM. 2" WASTE CONNECTION.	FLOOR	CAST IRON
G-1	ZURN	Z-88200-AR-SK1 Z8001B-



3 **BUILDING F FIRST FLOOR CORE RESTROOM EXPANDED VIEW**
1/4" = 1'-0"



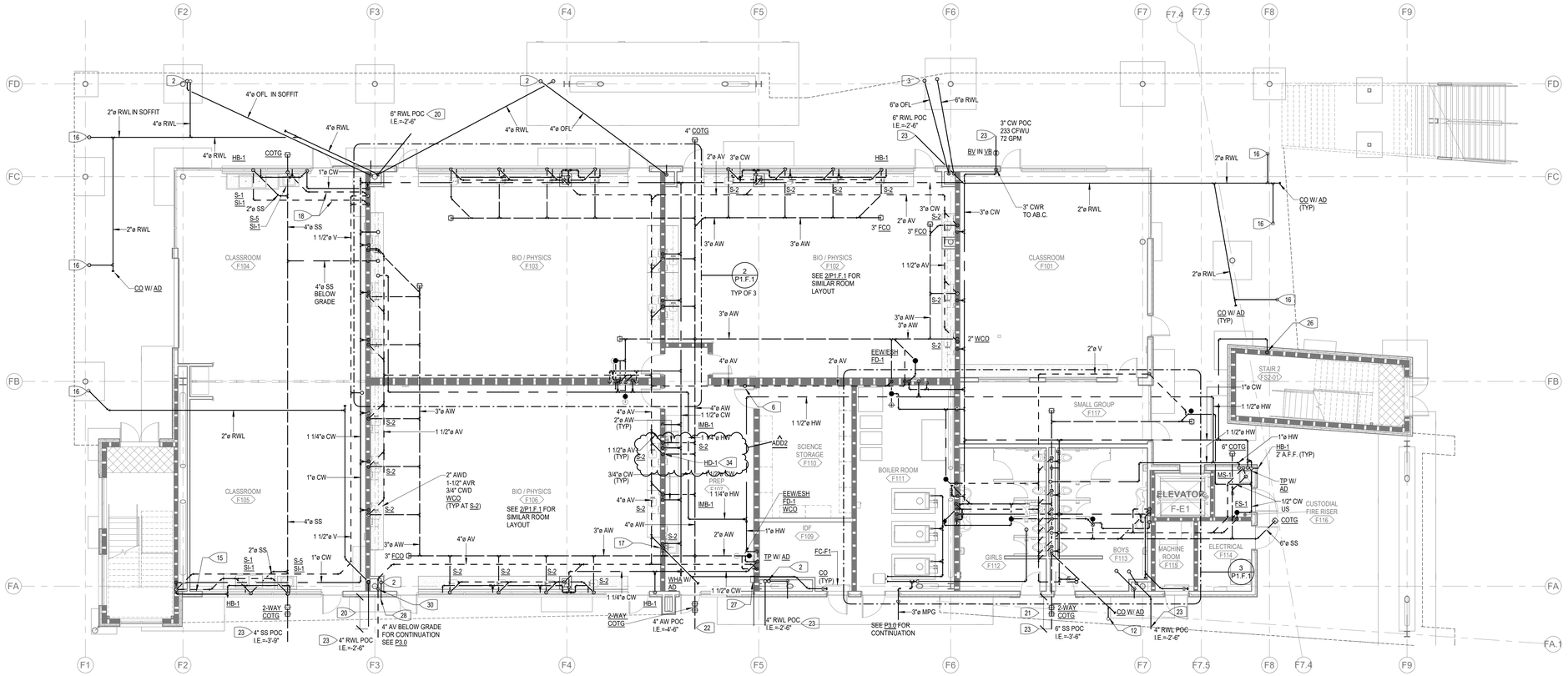
2 **BUILDING F BIO/PHYSICS CLASSROOM F103 EXPANDED VIEW**
1/4" = 1'-0"

SHEET NOTES

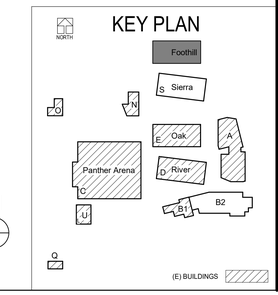
1. A WALL CLEANOUT SHALL BE PROVIDED ON EXTERIOR OF BUILDING AT 18" A.F.G. FOR ALL RAINWATER LEADERS BEFORE PIPING DROPS BELOW GRADE.
2. MAX LENGTH OF GAS PIPING IS 70' TO FURTHEST FIXTURE.
3. ALL ACID VENT AND WASTE PIPE SHALL BE SCHEDULE 80 CPVC ACID RESISTANT. SEE SPECIFICATIONS.

KEYED NOTES

1. NOT USED.
2. 4" RWL AND OFL DROPS FROM SECOND FLOOR. SEE **P1.F.2** FOR CONTINUATION.
3. 6" RWL AND OFL DROPS FROM SECOND FLOOR. SEE **P1.F.2** FOR CONTINUATION.
4. 2" VENT RISER TO SECOND FLOOR. SEE **P1.F.2** FOR CONTINUATION.
5. 3" VENT RISER TO SECOND FLOOR. SEE **P1.F.2** FOR CONTINUATION.
6. 4" ACID VENT RISER TO SECOND FLOOR. SEE **P1.F.2** FOR CONTINUATION.
7. 2-1/2" COLD WATER RISER TO SECOND FLOOR. SEE **P1.F.2** FOR CONTINUATION.
8. 3" COLD WATER RISER TO SECOND FLOOR. SEE **P1.F.2** FOR CONTINUATION.
9. 1-1/4" HOT WATER RISER TO SECOND FLOOR. SEE **P1.F.2** FOR CONTINUATION.
10. 1-1/2" HOT WATER DROP FROM SECOND FLOOR. SEE **P1.F.2** FOR CONTINUATION.
11. ROUTE COLD WATER BELOW GRADE TO 5'-0" OUTSIDE THE BUILDING.
12. 4" SANITARY SEWER DROP FROM SECOND FLOOR. SEE **P1.F.2** FOR CONTINUATION. PROVIDE CLEANOUT AND ACCESS DOOR AT POINT OF TRANSITION TO HORIZONTAL.
13. 1-1/2" GAS RISER TO SECOND FLOOR. SEE **P1.F.2** FOR CONTINUATION.
14. 1-1/2" CW AND 2" AV TO DROP IN CHASE BEFORE ROUTING IN FURRED WALL TO SINKS.
15. 1" CW AND 1-1/2" V TO ROUTE IN WALL BELOW WINDOWS TO SINKS.
16. 2" RWL FROM AD-1 ABOVE. ROUTE LATERALLY IN OVERHANG SOFFIT.
17. 3/4" CD TO ROUTE ABOVE CEILING BEFORE DROPPING IN WALL TO TAILPIECE CONNECTOR.
18. 1-1/2" V ROUTED UNDER SLAB. ISLAND VENTED PER **8/P4.02**. VENT SHALL RISE TO A POINT NOT LESS THAN 6" IN HEIGHT ABOVE THE FLOOD-LEVEL RIM OF THE PLUMBING FIXTURE IT SERVES BEFORE BEING CONNECTED TO ANY OTHER VENT.
19. PROVIDE A NATURAL GAS FLOW METER. SEE CONTROL DRAWING **2/M6.02** FOR CONNECTION TO ENERGY MANAGEMENT SYSTEM. METER REQUIRES STRAIGHT PIPE LENGTH OF 15 PIPE DIAMETERS UPSTREAM AND 5 DOWNSTREAM.
20. ROUTE RWL BELOW GRADE TO 5'-0" OUTSIDE THE BUILDING (TYP).
21. ROUTE SANITARY SEWER BELOW GRADE TO 5'-0" OUTSIDE THE BUILDING (TYP).
22. ROUTE ACID WASTE BELOW GRADE. CONTINUED PER **P3.0**.
23. SEE CIVIL PLANS FOR CONTINUATION (TYP).
24. PIPE THROUGH FIRE RATED WALL, SEE **10/P4.02** (TYP).
25. GAS CONNECTION TO EQUIPMENT PER **9/P4.02** (TYP).
26. 3/4" COLD WATER RISER TO SECOND FLOOR. SEE **P1.F.2** FOR CONTINUATION.
27. ORION NEUTRAGUARD III pH MONITOR SYSTEM OR EQUAL WITH SENSOR CABLE. ROUTE SENSOR CABLE IN 1" SCHEDULE 80 PVC CONDUIT FROM MONITOR SYSTEM TO NT-1 SAMPLE TANK. SEE **1/P3.0** FOR TANK LOCATION.
28. TERMINATE OF RWL THROUGH FACE OF WALL AT HEIGHT PER ARCHITECTURAL PLANS. (TYP)
29. PROVIDE 1" BACKFLOW PREVENTER AND STUB TO CONNECT TO BOILER COLD WATER INLET, REFER TO **1/M5.01**.
30. 4" AVR TO ABOVE CEILING.
31. NOT USED.
32. OVERFLOW PIPE DROP. SEE ARCHITECTURAL PLANS FOR FINAL HEIGHT OF PENETRATION TO EXTERIOR. PROVIDE ESCUTCHEON PLATE AT PENETRATION.
33. PROVIDE A LINE-SIZE ISOLATION BALL VALVE AND ACCESS PANEL IN CEILING.
34. ROUTE DRAIN LINE OF BELOW-COUNTER ICEMAKER TO HD-1.



1 **BLDG F FIRST FLOOR PLAN - PLUMBING**
1/8" = 1'-0"



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7/8/20

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BLDG F FIRST FLOOR - PLUMBING
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ADDENDUM 2
07.08.2020
Revisons
2020-07-08 ADD2 Addendum 2

PROJECT ##75-19101-00

P1.F.1

ADD2 2020-07-08

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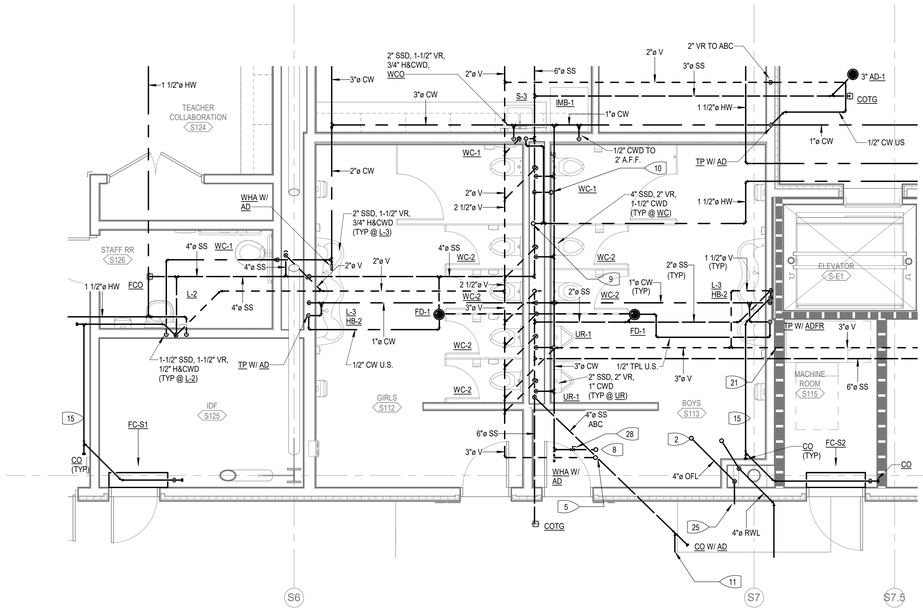
SHEET NOTES

1. A WALL CLEANOUT SHALL BE PROVIDED ON EXTERIOR OF BUILDING AT 18" A.F.G. FOR ALL RAINWATER LEADERS BEFORE PIPING DROPS BELOW GRADE.
2. MAX LENGTH OF GAS PIPING IS 200' TO FURTHEST FIXTURE.
3. ALL ACID VENT AND WASTE PIPE SHALL BE SCHEDULE 80 CPVC ACID RESISTANT. SEE SPECIFICATIONS.

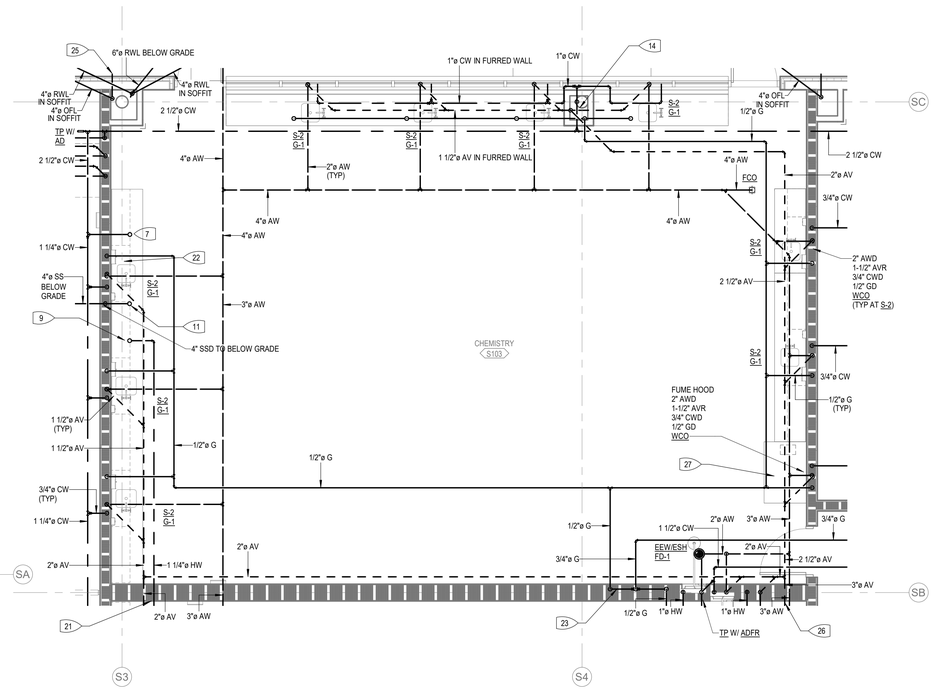
KEYED NOTES

1. NOT USED.
2. 4" RWL AND OFL DROPS FROM SECOND FLOOR. SEE **P1.S.2** FOR CONTINUATION.
3. 6" RWL AND OFL DROPS FROM SECOND FLOOR. SEE **P1.S.2** FOR CONTINUATION.
4. 2" VENT RISER TO SECOND FLOOR. SEE **P1.S.2** FOR CONTINUATION.
5. 3" VENT RISER TO SECOND FLOOR. SEE **P1.S.2** FOR CONTINUATION.
6. 4" ACID VENT RISER TO SECOND FLOOR. SEE **P1.S.2** FOR CONTINUATION.
7. 2-1/2" COLD WATER RISER TO SECOND FLOOR. SEE **P1.S.2** FOR CONTINUATION.
8. 3" COLD WATER RISER TO SECOND FLOOR. SEE **P1.S.2** FOR CONTINUATION.
9. 1-1/2" HOT WATER DROP FROM SECOND FLOOR. SEE **P1.S.2** FOR CONTINUATION.
10. ROUTE COLD WATER BELOW GRADE TO 5'-0" OUTSIDE THE BUILDING (TYP).
11. 4" SANITARY SEWER DROP FROM SECOND FLOOR. SEE **P1.S.2** FOR CONTINUATION. PROVIDE CLEANOUT AND ACCESS DOOR AT POINT OF TRANSITION TO HORIZONTAL.
12. 1-1/2" GAS RISER TO SECOND FLOOR. SEE **P1.S.2** FOR CONTINUATION.
13. 2" RWL DROP FROM AD-1 ON LEVEL ABOVE.ROUTE LATERALLY IN OVERHANG SOFFIT.
14. 1-1/2" CW, 1/2" G, AND 2" V TO DROP IN CHASE BEFORE ROUTING IN FURRED WALL TO SINKS.
15. 3/4" CD TO ROUTE ABOVE CEILING BEFORE DROPPING IN WALL TO TAILPIECE CONNECTOR.
16. 1-1/2" V ROUTED UNDER SLAB, ISLAND VENTED PER **8/P4.02**. VENT SHALL RISE TO A POINT NOT LESS THAN 6" IN HEIGHT ABOVE THE FLOOD-LEVEL RIM OF THE PLUMBING FIXTURE IT SERVES BEFORE BEING CONNECTED TO ANY OTHER VENT.
17. ROUTE RWL BELOW GRADE TO 5'-0" OUTSIDE THE BUILDING (TYP).
18. ROUTE SANITARY SEWER BELOW GRADE TO 5'-0" OUTSIDE THE BUILDING (TYP).
19. ROUTE ACID WASTE BELOW GRADE. CONTINUED PER **P3.0**.
20. SEE CIVIL PLANS FOR CONTINUATION (TYP).
21. INSULATED PIPE THROUGH FIRE RATED WALL, SEE **10/P4.02** (TYP).
22. REFER TO ARCHITECTURAL DRAWINGS FOR FINAL INSTALLATION LOCATION OF G-1.
23. PROVIDE FULL PORT QUARTER TURN BALL VALVE SUITABLE FOR NATURAL GAS INSTALLATION WITH IN-WALL FIRE RATED CONTROL BOX AT A HEIGHT OF 42" A.F.F. PROVIDE SIGNAGE ON CONTROL BOX DOOR STATING "GAS SHUT-OFF VALVE".
24. 3/4" COLD WATER RISER TO SECOND FLOOR. SEE **P1.S.2** FOR CONTINUATION.
25. OVERFLOW PIPE DROP. SEE ARCHITECTURAL PLANS FOR FINAL HEIGHT OF PENETRATION TO EXTERIOR. PROVIDE ESCUTCHEON PLATE AT PENETRATION.
26. UNINSULATED PIPE THROUGH FIRE RATED WALL. SEE DETAIL **5/P4.01** (TYP)
27. CONNECT ACID WASTE, ACID VENT, COLD WATER, AND GAS PIPES TO THE FUME HOOD.
28. PROVIDE A LINE SIZE ISOLATION BALL VALVE AND ACCESS PANEL IN CEILING.
29. ROUTE DRAIN LINE OF BELOW-COUNTER ICEMAKER TO HD-1

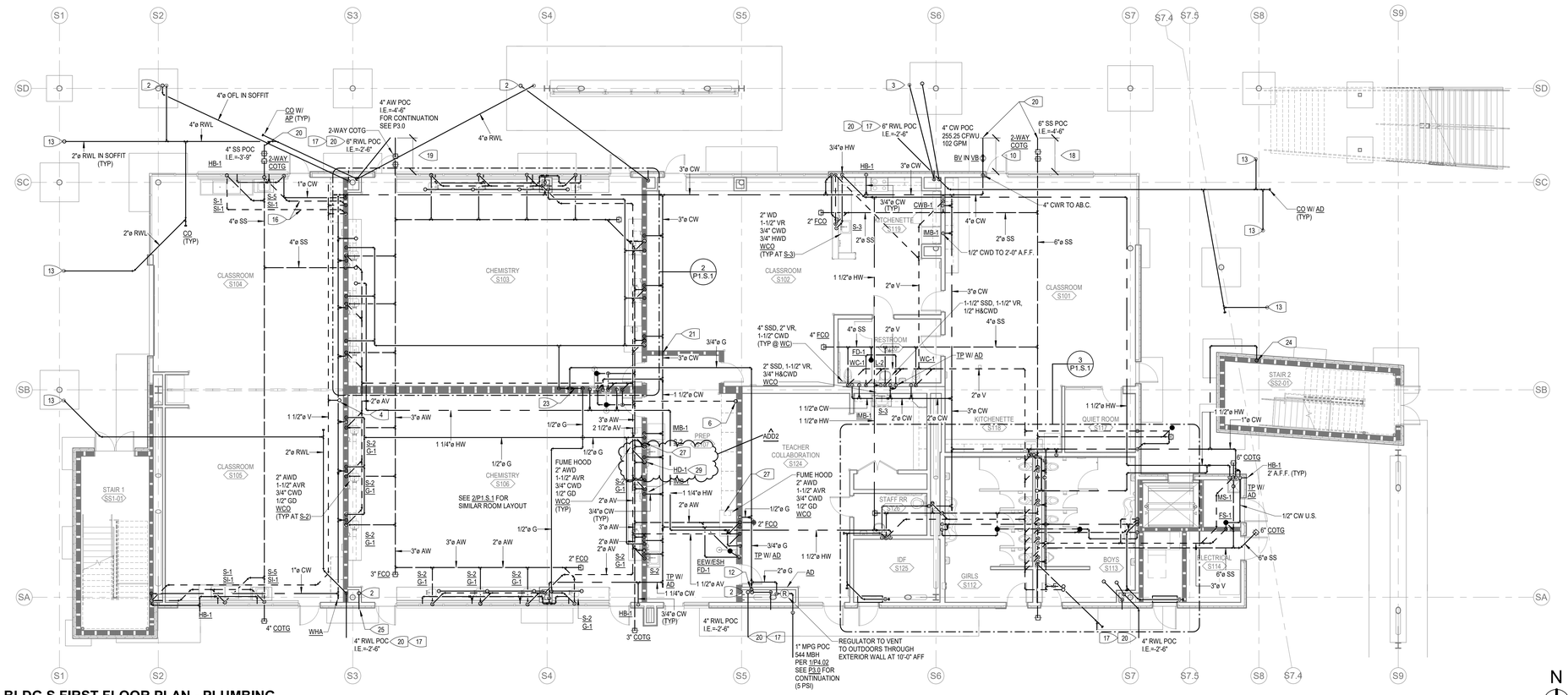
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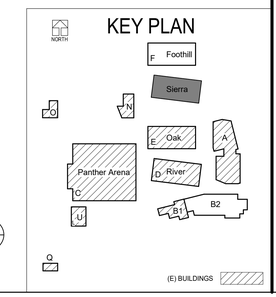
3 **BUILDING S FIRST FLOOR CORE RESTROOM EXPANDED VIEW**
1/4" = 1'-0"



2 **BUILDING S CHEMISTRY CLASSROOM EXPANDED VIEW**
1/4" = 1'-0"



1 **BLDG S FIRST FLOOR PLAN - PLUMBING**
1/8" = 1'-0"



(E) BUILDINGS

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ADDENDUM 2
07.08.2020
Revisions
2020-07-08 ADD2 Addendum 2

PROJECT ##75-19101-00

P1.S.1

ADD2 2020-07-08

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SYMBOLS LIST

SOME OF THESE SYMBOLS SHOWN MAY NOT BE USED ON THIS PROJECT

POWER DISTRIBUTION

- SWITCHGEAR, SWITCHBOARD, DISTRIBUTION BOARD, SUBSTATION OR MOTOR CONTROL CENTER, FLOOR MOUNTED. DOUBLE LINE INDECATES FRONT FACE OF GEAR.
- PANELBOARD, 277/480V, SURFACE MOUNTED ON WALL.
- PANELBOARD, 277/480V, FLUSH MOUNTED IN WALL.
- PANELBOARD, 120/208V, SURFACE MOUNTED ON WALL.
- PANELBOARD, 120/208V, FLUSH MOUNTED IN WALL.
- DRY-TYPE STEP-DOWN TRANSFORMER, FLOOR MOUNTED 480-120/208V 3Ø, UON. DOUBLE LINE INDICATES FRONT FACE OF TRANSFORMER.
- ELECTRIC MOTOR, NIEC. MAKE POWER CONNECTIONS ONLY AS NOTED ON PLANS.
- (F) INDOOR EXHAUST FAN MOTOR, SINGLE PHASE. MAKE POWER CONNECTIONS TO INCLUDE JUNCTION BOX MOUNTED MANUAL MOTOR STARTER AND DISCONNECT ADJACENT TO FAN WITH 2 #12 CONDUCTORS PLUS GROUND IN 1/2" FLEXIBLE CONDUIT BETWEEN STARTER AND MOTOR.
- (V) INDOOR FAN POWERED VAV BOX MOTOR, SINGLE PHASE, MOUNTED FROM STRUCTURE ABOVE, NIEC. MAKE POWER CONNECTIONS TO INCLUDE JUNCTION BOX MOUNTED MANUAL MOTOR STARTER AND DISCONNECT ADJACENT TO VAV BOX WITH 2 #12 CONDUCTORS PLUS GROUND IN 1/2" FLEXIBLE CONDUIT BETWEEN STARTER AND MOTOR.
- (D)$_2$ MOTOR OPERATED FIRE/SMOKE DAMPER 'FSD', NIEC. SYMBOL DENOTES INTERFACE FOR POWER CONNECTIONS. ALSO, INCLUDES LOCAL POWER DISCONNECT MEANS. ADJACENT NUMBER INDICATES QUANTITY OF ACTUATORS REQUIRING CONNECTION PER FSD, IF MORE THAN 1.
- COMBINATION EXHAUST FAN AND DOWNLIGHT FIXTURE, CEILING MOUNTED. FAN AND LIGHT SHALL BE CONTROLLED SEPARATELY.
- P PULLBOX OR HANDHOLE, SIZE AND TYPE AS NOTED ON PLANS.
- A AF SAFETY DISCONNECT SWITCH, 3 POLE, UON. ADJACENT NUMBER INDICATES FUSE SIZE WHEN APPLICABLE. LABELING CONVENTION AS FOLLOWS:

A: 30A, NON-FUSED	AF: 30A, FUSED
B: 60A, NON-FUSED	BF: 60A, FUSED
C: 100A, NON-FUSED	CF: 100A, FUSED
D: 200A, NON-FUSED	DF: 200A, FUSED
E: 400A, NON-FUSED	EF: 400A, FUSED
F: 600A, NON-FUSED	FF: 600A, FUSED
G: 800A, NON-FUSED	GF: 800A, FUSED

- MAGNETIC MOTOR STARTER. ADJACENT NUMBER INDICATES NEMA SIZE OF STARTER.
- COMBINATION MAGNETIC MOTOR STARTER WITH OVERCURRENT PROTECTION DISCONNECT. ADJACENT NUMBER INDICATES NEMA SIZE OF STARTER.
- PACKAGE MOTOR CONTROLLER OR STARTER FURNISHED AND INSTALLED UNDER ANOTHER DIVISION WITH EQUIPMENT CONTROLLED. PROVIDE SINGLE-POINT POWER SERVICE CONNECTION UNDER THIS DIVISION AS NOTED ON PLANS.
- VFD VARIABLE FREQUENCY DRIVE FURNISHED UNDER ANOTHER DIVISION. INSTALL VFD AND PROVIDE POWER SERVICE CONNECTION UNDER THIS DIVISION AS NOTED ON PLANS.
- VFD VARIABLE FREQUENCY DRIVE WITH INTEGRAL DISCONNECT FURNISHED UNDER ANOTHER DIVISION. INSTALL VDF AND PROVIDE POWER SERVICE CONNECTION UNDER THIS DIVISION AS NOTED ON PLANS.
- ECM ELECTRONICALLY COMMUTATED MOTOR CONTROLLER FURNISHED UNDER ANOTHER DIVISION. PROVIDE POWER SERVICE CONNECTION UNDER THIS DIVISION AS NOTED ON PLANS.
- ECM ELECTRONICALLY COMMUTATED MOTOR CONTROLLER WITH INTEGRAL CIRCUIT BREAKER FURNISHED UNDER ANOTHER DIVISION. PROVIDE POWER SERVICE CONNECTION UNDER THIS DIVISION AS NOTED ON PLANS.
- DRIVEN GROUND ROD.
- DRIVEN GROUND ROD IN GROUND WELL WITH COVER.
- ELECTRICAL VEHICLE CHARGING STATION, WALL MOUNTED.
- ELECTRICAL VEHICLE CHARGING STATION, PEDESTAL MOUNTED.
- CABLE TO BUS TERMINATION LUGS.
- GROUP MOUNTED MOLDED CASE CIRCUIT BREAKER.
- (G) GROUND FAULT RELAY INTEGRAL WITH CIRCUIT BREAKER.
- (EC) ELECTRICALLY OPERATED INTEGRAL.
- (ST) SHUNT-TRIP INTEGRAL WITH OVERCURRENT PROTECTION DEVICES.
- (K)$_1$ KIRK-KEY INTERLOCK INTEGRAL WITH OVERCURRENT PROTECTION DEVICES. ADJACENT NUMBER CORRESPONDS WITH DEVICE INTERLOCK.
- (M) PRIVATE METER, MOUNTED INTEGRAL WITH OVERCURRENT PROTECTION OR SEPARATE WITHIN SWITCHGEAR.
- (M) UTILITY METER, MOUNTED IN UTILITY METER SECTION OF SWITCHGEAR.
- (M) PRIVATE METER, MOUNTED IN SEPARATE ENCLOSURE FROM SWITCHGEAR.
- (GFP) GROUND FAULT RELAY WITH SHUNT TRIP.
- (GFA) GROUND FAULT ALARM, NO SHUNT TRIP.
- TRANSFORMER.
- CONNECTION TO GROUND.
- CURRENT TRANSFORMERS.
- NEUTRAL SERVICE DISCONNECT LINK.
- SPD SURGE PROTECTION DEVICE, 'SPD'.
- (C) CONTROL CONTACTOR.
- NORMALLY OPEN CONTACT.
- NORMALLY CLOSED CONTACT.
- DMU DIGITAL METERING UNIT.
- GND GROUND BUS.
- NEU NEUTRAL BUS.

DIGITAL LIGHTING CONTROLS

- D SINGLE ZONE DIMMER SWITCH WITH ON/OFF/DIM CAPABILITIES, WALL MOUNTED, +42" UON.
- S SINGLE ZONE SWITCH WITH ON/OFF CAPABILITIES, WALL MOUNTED, +42" UON.
- SC SCENE OR MULTI-ZONE CONTROLLER WITH ON/OFF/DIM CAPABILITIES ZONE, WALL MOUNTED, +42" UON.
- DS DAYLIGHT HARVESTING SENSOR, CEILING MOUNTED.
- M OCCUPANCY SENSOR, CEILING MOUNTED FOR AREA COVERAGE.
- PLC PLUG LOAD CONTROLLER, UL LISTED FOR CONTROLLING RECEPTACLES, 20A RATED.
- M LIGHTING CONTROL OCCUPANCY SENSOR WITH DUAL LEVEL SWITCHING, WALL MOUNTED, +42" UON.
- M LIGHTING CONTROL OCCUPANCY SENSOR WITH SINGLE LEVEL SWITCHING, WALL MOUNTED, +42" UON.
- PS PARTITION SENSER, TO INCLUDE INTERFACE DEVICE AS REQUIRED TO COMMUNICATE WITH THE LIGHTING CONTROL SYSTEM. SENSER SHALL DETERMINE WHEN PARTITION IS OPEN OR CLOSED SO THAT PARTITIONED ROOMS CAN BE CONTROLLED SEPERATELY OR AS A SINGLE SPACE.
- RMD REMOTE DIMMING MODULE. FOR ON/OFF AND DIMMING CONTROL OF LIGHTING ZONE(S), INSTALLED IN ACCESSIBLE CEILING SPACE U.O.N.

WIRING DEVICES

- JUNCTION BOX, WALL MOUNTED, +18" UON.
- JUNCTION BOX, MOUNTED IN FLUSH FLOOR BOX.
- J JUNCTION BOX, MOUNTED FLUSH IN CEILING.
- JUNCTION BOX, SURFACE OR PENDANT MOUNTED TO STRUCTURE IN ACCESSIBLE CEILING SPACE.
- JUNCTION BOX, MOUNTED ON CONDUIT STANCHION FLOOR PENETRATION, +12" UON.
- SINGLE-PLEX CONVENIENCE RECEPTACLE DEVICE, WALL MOUNTED, +18" UON.
- DUPLEX CONVENIENCE RECEPTACLE DEVICE, WALL MOUNTED, +18" UON. ADJACENT LETTERING DENOTED BELOW APPLY TO ALL RECEPTACLE DEVICES WHEN SHOWN ON DRAWINGS.
  - A: ARC FAULT CURRENT INTERRUPTER (AFCI)
  - G: GROUND FAULT CURRENT INTERRUPTER (GFCI)
  - IG: ISOLATED GROUND
  - U: INTEGRAL USB PORTS
  - WP: WEATHER-RESISTANT, GROUND FAULT CURRENT INTERRUPTER (GFCI) WITH WEATHERPROOF "IN USE" COVER
- DOUBLE DUPLEX CONVENIENCE RECEPTACLE DEVICE, WALL MOUNTED, +18" UON.
- DUPLEX CONVENIENCE RECEPTACLE DEVICE, WALL MOUNTED OVER COUNTER, 6" ABOVE BACK SPLASH UON, BUT NO HIGHER THAN ADA REQUIREMENTS.
- DUPLEX CONVENIENCE RECEPTACLE DEVICE, SPLIT-WIRED, WALL MOUNTED, +18" UON.
- DUPLEX CONVENIENCE RECEPTACLE DEVICE, ON EMERGENCY POWER, WALL MOUNTED, +18" UON.
- DUPLEX CONVENIENCE RECEPTACLE DEVICE, CONTROLLED PER T24, WALL MOUNTED, + 18" UON.
- DUPLEX CONVENIENCE RECEPTACLE DEVICE, HORIZONTALLY WALL MOUNTED, +18" UON.
- SPECIALTY OUTLET DEVICE, NEMA CONFIGURATION TYPE AS NOTED ON PLANS, WALL MOUNTED, +18" UON.
- DUPLEX CONVENIENCE RECEPTACLE DEVICE, MOUNTED IN FLUSH FLOOR BOX.
- DOUBLE DUPLEX CONVENIENCE RECEPTACLE DEVICE, MOUNTED IN FLUSH FLOOR BOX.
- DUPLEX CONVENIENCE RECEPTACLE DEVICE, MOUNTED IN FIRE-RATED POKE-THRU FLOOR FITTING.
- DOUBLE DUPLEX CONVENIENCE RECEPTACLE DEVICE, MOUNTED IN FIRE-RATED POKE-THRU FLOOR FITTING.
- DUPLEX CONVENIENCE RECEPTACLE DEVICE, MOUNTED FLUSH IN CEILING.
- DUPLEX CONVENIENCE RECEPTACLE DEVICE, MOUNTED FLUSH IN CEILING.
- COMBINATION POWER/TELECOMMUNICATION DEVICE, MOUNTED IN FLUSH FLOOR BOX. TYPE AS NOTED ON PLANS OR IN SPECIFICATIONS.
- DUPLEX CONVENIENCE RECEPTACLE DEVICE, MOUNTED ON CONDUIT STANCHION FLOOR PENETRATION, +12" UON.
- DUPLEX CONVENIENCE RECEPTACLE DEVICE, CORD OR REEL HUNG FROM STRUCTURE ABOVE. TYPE AS NOTED ON PLANS.
- S^T SINGLE-POLE, MANUAL DISCONNECT SWITCH WITH THERMAL OVERLOAD ELEMENT, MOUNTED ADJACENT TO MOTOR.
- S^{MS} SINGLE-POLE, FRACTIONAL HORESPOWER, MOTOR STARTER/DISCONNECT SWITCH, MOUNTED ADJACENT TO MOTOR.
- S^F SWITCH FURNISHED UNDER ANOTHER DIVISION, BUT INSTALLED AND WIRED UNDER THIS DIVISION, WALL MOUNTED, +42" UON.
- LINE-VOLTAGE THERMOSTAT, NIEC, WALL MOUNTED +48" UON. INSTALLED AND WIRED BY ELECTRICAL.
- CONTROL STATION, WALL MOUNTED, +42" UON.

RACEWAYS

- CONDUIT RUN EXPOSED ON WALL OR CEILING.
- CONDUIT RUN CONCEALED IN SLAB, UNDER SLAB OR UNDERGROUND.
- CONDUIT RUN CONCEALED IN WALL OR ABOVE CEILING.
- CONDUIT HOMERUN, CONTINUOUS RUN TO PANEL OR EQUIPMENT CABINET. HOMERUN CAN OCCUR ON ANY OF THE ABOVE ROUTING CONDITIONS.
- CONDUIT TURNED UP, CAN OCCUR ON ANY OF THE ABOVE ROUTING CONDITIONS.
- CONDUIT TURNED DOWN, CAN OCCUR ON ANY OF THE ABOVE ROUTING CONDITIONS.
- CONDUIT CAPPED OR STUBBED WITH INSULATED BUSHINGS, CAN OCCUR ON ANY OF THE ABOVE ROUTING CONDITIONS.
- CONDUIT SLEEVE, WITH INSULATING BUSHINGS.
- FLEXIBLE METALLIC CONDUIT, EQUIPMENT CONNECTION.
- CROSSMARKS ON BRANCH CIRCUIT CONDUIT RUNS INDICATE THE QUANTITY OF CONDUCTORS AS FOLLOWS (GROUND CONDUCTORS ARE NOT NOTED, BUT SHOULD BE INCLUDED IN EVERY CONDUIT WITH POWER CONDUCTORS):
  1. NO CROSSMARKS INDICATES TWO #12 AWG CONDUCTORS, UON.
  2. THREE TO SIX CROSSMARKS INDICATES THE QUANTITY OF #12 AWG CONDUCTORS, UON.
  3. SEVEN OR MORE CROSSMARKS INDICATES THE QUANTITY OF #10 AWG CONDUCTORS, UON.
- TWO PIECE SURFACE RACEWAY; TYPE, DEVICE SPACING AND MOUNTING AS NOTED ON PLANS.
- CABLE TRAY, CABLE RUNWAY OR LADDER RACK SUSPENDED FROM STRUCTURE ABOVE. REFER TO PLANS FOR SIZE AND MOUNTING.

TELECOMMUNICATIONS

- TELECOMMUNICATION DEVICE, 3 DATA DROPS UON, WALL MOUNTED, +18" UON.
- TELECOMMUNICATION DEVICE, 3 DATA DROPS UON, 2 DATA DROPS UON, WALL MOUNTED +42" OR 6" ABOVE BACK SPLASH, UON, BUT NO HIGHER THAN ADA REQUIREMENTS.
- TELECOMMUNICATION DEVICE, 2 DATA DROPS UON, MOUNTED IN FLUSH FLOOR BOX.
- TELECOMMUNICATION DEVICE, 2 DATA DROPS UON, MOUNTED IN FIRE-RATED POKE-THRU FLOOR FITTING.
- TELECOMMUNICATION DEVICE, 2 DATA DROPS UON, MOUNTED ABOVE ACCESSIBLE CEILING IN SURFACE MOUNT BOX.
- COMBINATION POWER/TELECOMMUNICATION DEVICES, 2 DATA DROPS UON, MOUNTED IN FLUSH FLOOR BOX. TYPE AS NOTED ON PLANS OR IN SPECIFICATIONS.
- COMBINATION POWER/TELECOMMUNICATION DEVICES, MOUNTED IN FIRE-RATED POKE-THRU FLOOR FITTINGS. TYPE AS NOTED ON PLANS OR IN SPECIFICATIONS.
- WAP WIRELESS ACCESS POINT, 2 DATA DROPS UON, WALL MOUNTED, 8" BELOW FINISHED CEILING, UON.
- WAP WIRELESS ACCESS POINT, 2 DATA DROPS UON, CEILING MOUNTED.
- #D/#V QUANTITY OF DATA AND/OR VOICE TELECOMMUNICATIONS DEVICES.
- EL TELECOMMUNICATION DEVICE, WALL MOUNTED, +18" UON, FOR ELEVATOR USE IN ELEVATOR MACHINE/CONTROLLER ROOM.

LIGHTING

- LUMINAIRE, RECESSED IN CEILING.
- LUMINAIRE, SURFACE OR PENDANT MOUNTED.
- LUMINAIRE, WALL MOUNTED.
- STRIP LUMINAIRE, SURFACE OR PENDANT MOUNTED.
- STRIP LUMINAIRE, SURFACE MOUNTED IN ARCHITECTURAL CEILING COVE.
- STRIP LUMINAIRE, SURFACE MOUNTED VERTICALLY ON WALL OR IN COVE.
- ROUND DOWNLIGHT LUMINAIRE, RECESSED IN CEILING.
- SQUARE DOWNLIGHT LUMINAIRE, RECESSED IN CEILING.
- DOWNLIGHT/INDUSTRIAL LUMINAIRE, SURFACE OR PENDANT MOUNTED.
- ADJUSTABLE LUMINAIRE, RECESSED IN CEILING.
- ADJUSTABLE LUMINAIRE, SURFACE OR PENDANT MOUNTED.
- LINEAR, MULTI-HEAD, ADJUSTABLE ACCENT LUMINAIRES, RECESSED IN CEILING.
- SINGLE DIRECTIONAL, WALLWASH LUMINAIRE, RECESSED IN CEILING.
- SINGLE DIRECTIONAL, WALLWASH LUMINAIRE, SURFACE OR PENDANT MOUNTED.
- LINEAR WALLWASH LUMINAIRE, RECESSED IN CEILING.
- LINEAR WALLWASH LUMINAIRE, SURFACE OR PENDANT MOUNTED.
- SCONCE LUMINAIRE, WALL MOUNTED.
- DECORATIVE LUMINAIRE, PENDANT MOUNTED.
- LINEAR TRACK SYSTEM WITH PLUG-IN ADJUSTABLE LUMINAIRE HEADS. TRACK SHALL BE EITHER RECESSED, SURFACE OR PENDANT MOUNTED TO CEILING AS NOTED IN FIXTURE SCHEDULE. 'X' NEXT TO JUNCTION BOX REPRESENTS INTEGRAL CURRENT LIMITER TRIP RATING.
- EXIT SIGN LUMINAIRE, CEILING OR WALL MOUNTED WITH DIRECTIONAL ARROWS AS NOTED ON PLANS. WORD 'EXIT' TO BE LOCATED IN SHADED FACE(S).
- COMBO EXIT SIGN AND EGRESS LUMINAIRE, CEILING OR WALL MOUNTED WITH ARROWS AS NOTED ON PLANS OR IN LUMINAIRE SCHEDULE.
- EMERGENCY SELF-POWERED BATTERY PACK WITH LUMINAIRE HEADS AS NOTED ON PLANS OR IN FLUMINAIRE SCHEDULE.
- SHADING OF ANY LUMINAIRE INDICATES CRITICAL/STANDBY LIGHTING.
- HALF SHADING OF ANY LUMINAIRE INDICATES EMERGENCY/EGRESS LIGHTING.
- SINGLE-HEAD AREA LUMINAIRE WITH BRACKET ARM AND POLE, MOUNTED TO CONCRETE BASE.
- TWO-HEAD AREA LUMINAIRES WITH BRACKET ARMS AND POLE, MOUNTED TO CONCRETE BASE.
- SINGLE-HEAD AREA POST-TOP LUMINAIRE WITH POLE, MOUNTED TO CONCRETE BASE.
- AREA LUMINAIRE, SURFACE OR RECESSED MOUNTED TO WALL.
- LUMINAIRE BOLLARD, MOUNTED TO CONCRETE BASE.
- GROUNDWELL LUMINAIRE MOUNTED FLUSH IN FINISHED GRADE.
- FLOODLIGHT LUMINAIRE, STANCHION MOUNTED ABOVE GRADE.
- LINEAR SIGN-LIGHT LUMINAIRE, STANCHION MOUNTED ABOVE GRADE.
- STEPLIGHT LUMINAIRE, WALL MOUNTED.

LINE VOLTAGE LIGHTING CONTROL

- S SINGLE-POLE, SINGLE-THROW SWITCH, WALL MOUNTED, +42" UON.
- S^3 THREE-WAY SWITCH, WALL MOUNTED, +42" UON.
- S^4 FOUR-WAY SWITCH, WALL MOUNTED, +42" UON.
- S^K SINGLE-POLE, SINGLE-THROW SWITCH, KEY-OPERATED, WALL MOUNTED, +42" UON.
- S^P SINGLE-POLE, SINGLE-THROW SWITCH, WITH PILOT LIGHT, WALL MOUNTED, +42" UON.
- S^D WALLBOX DIMMER SWITCH, +42" UON. SIZED PER CONNECTED LOAD ON PLANS AND FURNISHED FOR LAMP SOURCE SERVED. PROVIDED FOR DERATING WHEN INSTALLED GANGED LOCATIONS.
- S^{TC} SINGLE-POLE, TIMER CONTROLLED SWITCH, WALL MOUNTED, +42" UON.
- S^{EP} SINGLE-POLE, SINGLE-THROW SWITCH, EXPLOSION PROOF, WALL MOUNTED, +42" UON.
- S^V LINE VOLTAGE SINGLE RELAY VACANCY SENSOR, WALL MOUNTED, +42" UON.
- S^{WP} SINGLE-POLE, SINGLE-THROW SWITCH WITH WEATHERPROOF COVER, WALL MOUNTED, +42" UON.
- OS OCCUPANCY SENSOR FOR AREA COVERAGE, CEILING MOUNTED.
- PC PHOTOELECTRIC CELL SENSOR, CEILING MOUNTED.
- ETD EGRESS LIGHTING TRANSFER DEVICE.

SECURITY

- (A) ALARM MONITORING CONTACT, MOUNTED AS NOTED ON PLANS.
- (EL) ELECTRIC MORTISE DOOR LOCK, NIEC, BUT WIRED UNDER THIS DIVISION.
- (ES) ELECTRIC DOOR STRIKE, NIEC, BUT WIRED UNDER THIS DIVISION.
- (ML) ELECTROMAGNETIC DOOR LOCK, NIEC, BUT WIRED UNDER THIS DIVISION.
- (EP) ELECTRIFIED PANIC HARDWARE, NIEC, BUT WIRED UNDER THIS DIVISION.
- (MP) MECHANICAL PANIC HARDWARE, NIEC, BUT WIRED UNDER THIS DIVISION.
- (RX) REQUEST-TO-EXIT SWITCH, NIEC, FURNISH WITH DOOR HARDWARE AND WIRED UNDER THIS DIVISION.
- (P) POWER TRANSFER HINGE, NIEC.
- (R) DOOR RELEASE MOTION SENSOR, WALL OR CEILING MOUNTED ABOVE DOOR, UON.
- (RK) REMOTE ELECTRIC LOCK RELEASE BUTTON, MOUNTED AS NOTED ON PLANS.
- (D) DURESS STATION, MOUNTED AS NOTED ON PLANS.
- (M) AREA MOTION SENSOR, CEILING MOUNTED, UON.
- (W) AREA MOTION SENSOR, WALL MOUNTED, +84" UON.
- (GB) GLASS BREAK DETECTOR, CEILING MOUNTED, UON.
- (CR) CARD READER CONTROLLER, WALL MOUNTED, +36" UON.
- (K) KEY PAD CONTROLLER, WALL MOUNTED, +42" UON.
- (PS) REMOTE MOUNTED POWER SUPPLY FOR LOW-VOLTAGE EQUIPMENT CONNECTIONS.
- FIXED POSITION CCTV CAMERA, MOUNTED AS NOTED ON PLANS.
- PAN/TILT/ZOOM (PTZ) CCTV CAMERA, MOUNTED AS NOTED ON PLANS.
- MON CCTV MONITOR.
- IACP INTRUSION ALARM CONTROL PANEL
- DACP DOOR ACCESS CONTROL PANEL

AUDIO/VISUAL

- LOUDSPEAKER, WALL MOUNTED, 12" BELOW CEILING OR +96" AFF, WHICHEVER IS LOWER. ADJACENT 25V, 70V, OR 100V INDICATES DISTRIBUTED SAME VOLTAGE SPEAKER.
- LOUDSPEAKER, CEILING MOUNTED IN FLUSH BACK BOX. ADJACENT 25V, 70V, OR 100V INDICATES DISTRIBUTED SAME VOLTAGE SPEAKER.
- S PROGRAM SPEAKER, WALL MOUNTED.
- S PROGRAM SPEAKER, CEILING OR STRUCTURE MOUNTED.
- AUDIO AND VIDEO INTERFACE PLATE, WALL MOUNTED, +18" UON
- AIP AUDIO INTERFACE PLATE, WALL-MOUNTED, +18" UON.
- AIP AUDIO AND VIDEO INTERFACE PLATE, MOUNTED IN FLUSH FLOOR BOX.
- AV AUDIO AND VIDEO CABLE DISPLAY PLATE, WALL MOUNTED, 4 11/16" BOX WITH 1 1/4" CONDUIT TO ACCESSIBLE CEILING. HEIGHT AS NOTED.
- AV AUDIO AND VIDEO CABLE AT PROJECTOR THROUGH SUPPORT, DIRECT CONNECT TO PROJECTOR.
- TD FLAT PANEL DISPLAY, WALL MOUNTED AFF AS NOTED.
- SD SIGNAGE DISPLAY, WALL MOUNTED AFF AS NOTED.
- PR PROJECTOR WITH PROJECTOR MOUNT, 1.5"-2" NPT COLUMN AND CEILING SUPPORT HARDWARE.
- AV AUDIO AND VIDEO CONTROL PANEL, FLUSH WALL MOUNTED AT 42" UON IN BACKBOX
- AV AUDIO AND VIDEO CONTROL PANEL, MOUNTED ON DESKTOP IN SURFACE BOX.
- PROJECTION SCREEN, SIZE AND TYPE AS NOTED.
- PS PROJECTION SCREEN 3 WAY POWER SWITCH, WALL MOUNTED, +42" UON.
- M MICROPHONE JACK, WALL MOUNTED, +18" UON.
- M MICROPHONE JACK, MOUNTED IN FLUSH FLOOR BOX.
- INDICATING CLOCK WITH CLOCK OUTLET, WALL MOUNTED, 12" BELOW CEILING OR + 96" AFF, WHICHEVER IS LOWER.
- COMBINATION LOUDSPEAKER/INDICATING CLOCK WITH CLOCK OUTLET, WALL MOUNTED IN COMBINATION BACK BOX, 12" BELOW CEILING OR +96" AFF, WHICHEVER IS LOWER.
- TELEVISION JACK, WALL MOUNTED +18" UON OR AS NOTED.
- TELEVISION JACK, MOUNTED IN FLUSH FLOOR BOX.
- ROOM SCHEDULING PANEL
- AVC AUDIO VIDEO WALL CABINET, SIZE AS INDICATED ON DRAWINGS

FIRE ALARM

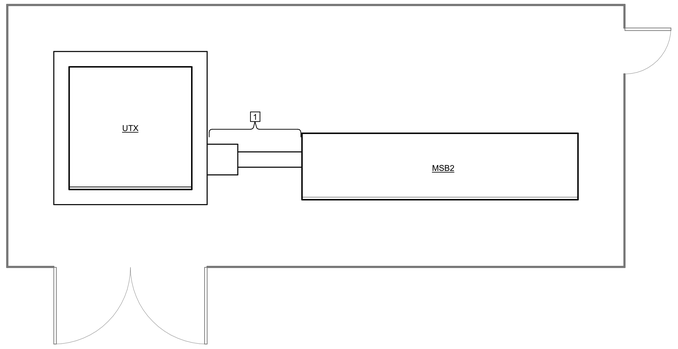
- SMOKE DETECTOR INITIATING DEVICE, CEILING MOUNTED IN FLUSH OR SURFACE JUNCTION BOX.
- SMOKE DETECTOR INITIATING DEVICE, WALL MOUNTED IN FLUSH JUNCTION BOX, MAXIMUM 6" BELOW CEILING.
- SMOKE DETECTOR INITIATING DEVICE, MOUNTED TO STRUCTURE ABOVE SUSPENDED CEILING IN SURFACE JUNCTION BOX OR SUSPENDED IN JUNCTION BOX IN FRONT OF RETURN AIR FIRE/SMOKE DAMPERS.
- SMOKE DETECTOR INITIATING DEVICE, DUCT-MOUNTED TYPE WITH SAMPLING TUBE, LOCATED AT SUPPLY AIR FANS 2000cfm AND LARGER.
- SMOKE DETECTOR INITIATING DEVICE, IN-DUCT MOUNTED TYPE AT DUCTED SUPPLY AIR FIRE/SMOKE DAMPERS.
- PROJECTED BEAM SMOKE DETECTOR INITIATING DEVICES TO INCLUDE TRANSMITTER, RECEIVER AND REMOTE INDICATOR STATION, WALL MOUNTED IN FLUSH JUNCTION BOX BELOW BEAM DETECTOR AT +42" AFF. BEAM DETECTORS ARE EITHER CEILING OR WALL MOUNTED 6" BELOW CEILING.
- HEAT DETECTOR INITIATING DEVICE, CEILING MOUNTED IN FLUSH OR SURFACE JUNCTION BOX.
- HEAT DETECTOR INITIATING DEVICE, WALL MOUNTED IN FLUSH JUNCTION BOX, MAXIMUM 6" BELOW CEILING.
- HEAT DETECTOR INITIATING DEVICE, MOUNTED TO STRUCTURE ABOVE SUSPENDED CEILING IN SURFACE JUNCTION BOX.
- F MANUAL PULL STATION INITIATING DEVICE, WALL MOUNTED AT +48" UON.
- SPRINKLER SYSTEM WATER FLOW SWITCH, NIEC. SYMBOL DENOTES INTERFACE FOR MONITORING CONNECTION FROM FIRE ALARM SYSTEM.
- SPRINKLER SYSTEM TAMPER SWITCH, NIEC. SYMBOL DENOTES INTERFACE FOR MONITORING CONNECTION FROM FIRE ALARM SYSTEM.
- SPRINKLER SYSTEM POST INDICATING VALVE 'PIV', NIEC. SYMBOL DENOTES INTERFACE FOR MONITORING CONNECTION FROM FIRE ALARM SYSTEM. INCLUDE A REMOTE MOUNTED ADDRESSABLE MONITORING MODULE AT PIV.
- SM REMOTE MOUNTED SINGLE INPUT, ADDRESSABLE, MONITORING MODULE FOR INITIATING CIRCUIT CONNECTION.
- DM REMOTE MOUNTED DUAL INPUT, ADDRESSABLE, MONITORING MODULE FOR INITIATING CIRCUIT CONNECTION.
- CR REMOTE MOUNTED PROGRAMMABLE CONTROL RELAY MODULE FOR ADDRESSABLE CONTROL.
- DPS DIFFERENTIAL PRESSURE SWITCH, NIEC. SYMBOLS DENOTES INTERFACE FOR MONITORING CONNECTION FROM FIRE ALARM SYSTEM TO ANNUNCIATE FAN OPERATION. INCLUDE A REMOTE MOUNTED ADDRESSABLE MONITORING MODULE AT EACH LOCATION.
- EOL END-OF-LINE RESISTOR.
- CT CURRENT TRANSFORMER FOR MONITORING AVAILABLE POWER.
- FRAP FIREMANS REMOTE ANNUNCIATOR PANEL FRAP, FLUSH WALL MOUNTED, +42" UON.
- MAGNETIC TYPE DOOR HOLD OPEN/RELEASE DEVICE, WALL MOUNTED, NIEC. SYMBOL DENOTES INTERFACE FOR POWER AND CONTROL CONNECTIONS FROM FIRE ALARM SYSTEM.
- DOOR HOLD OPEN/RELEASE DEVICE INTEGRATED IN DOOR HARDWARE CLOSURE EQUIPMENT, NIEC. SYMBOL DENOTES INTERFACE FOR POWER AND CONTROL CONNECTIONS FROM FIRE ALARM SYSTEM.
- AUDIBLE NOTIFICATION APPLIANCE, WALL MOUNTED, 6" BELOW CEILING OR +80" AFF, WHICHEVER IS LOWER.
- VISIBLE NOTIFICATION APPLIANCE, WALL MOUNTED, 6" BELOW CEILING OR +80" AFF, WHICHEVER IS LOWER. NUMBER ASSOCIATED WITH 'cd' REPRESENTS CANDELA RATING OF STROBE.
- AUDIBLE/VISIBLE NOTIFICATION APPLIANCE, WALL MOUNTED, 6" BELOW CEILING OR +80" AFF, WHICHEVER IS LOWER. NUMBER ASSOCIATED WITH 'cd' REPRESENTS CANDELA RATING OF STROBE.
- AUDIBLE NOTIFICATION APPLIANCE, CEILING MOUNTED IN FLUSH BACK BOX.
- VISIBLE NOTIFICATION APPLIANCE, CEILING MOUNTED IN FLUSH BACK BOX. NUMBER ASSOCIATED WITH 'cd' REPRESENTS CANDELA RATING OF STROBE.
- AUDIBLE/VISIBLE NOTIFICATION APPLIANCE, CEILING MOUNTED IN FLUSH BACK BOX. NUMBER ASSOCIATED WITH 'cd' REPRESENTS CANDELA RATING OF STROBE.
- FIRE ALARM BELL FOR SPRINKLER FLOW ANNUNCIATOR, NIEC, POWERED AND INSTALLED BY ELECTRICAL, WALL MOUNTED ON EXTERIOR OF BUILDING.
- BS 2 WAY COMMUNICATIONS BASE STATION.
- CS 2 WAY COMMUNICATIONS CALL STATION.

CONVENTIONS

- (1) NUMBERED NOTE, APPLIES TO ALL DRAWINGS.
- 1 NUMBERED SHEET NOTE, APPLIES TO DRAWING CONTAINING NOTES ONLY.
- (NAME) EQUIPMENT IDENTIFICATION TAG: ITEM FURNISHED AND INSTALLED UNDER ANOTHER SECTION AND WIRED UNDER THIS SECTION.
- 2004 FEEDER SIZE. REFER TO FEEDER SCHEDULE.
- 1 / E-801 DETAIL REFERENCE:
  - SHEET NUMBER
  - DETAIL DESIGNATION
- 2-F3 FIXTURE IDENTIFICATION TAG:
  - FIXTURE TYPE
  - QUANTITY

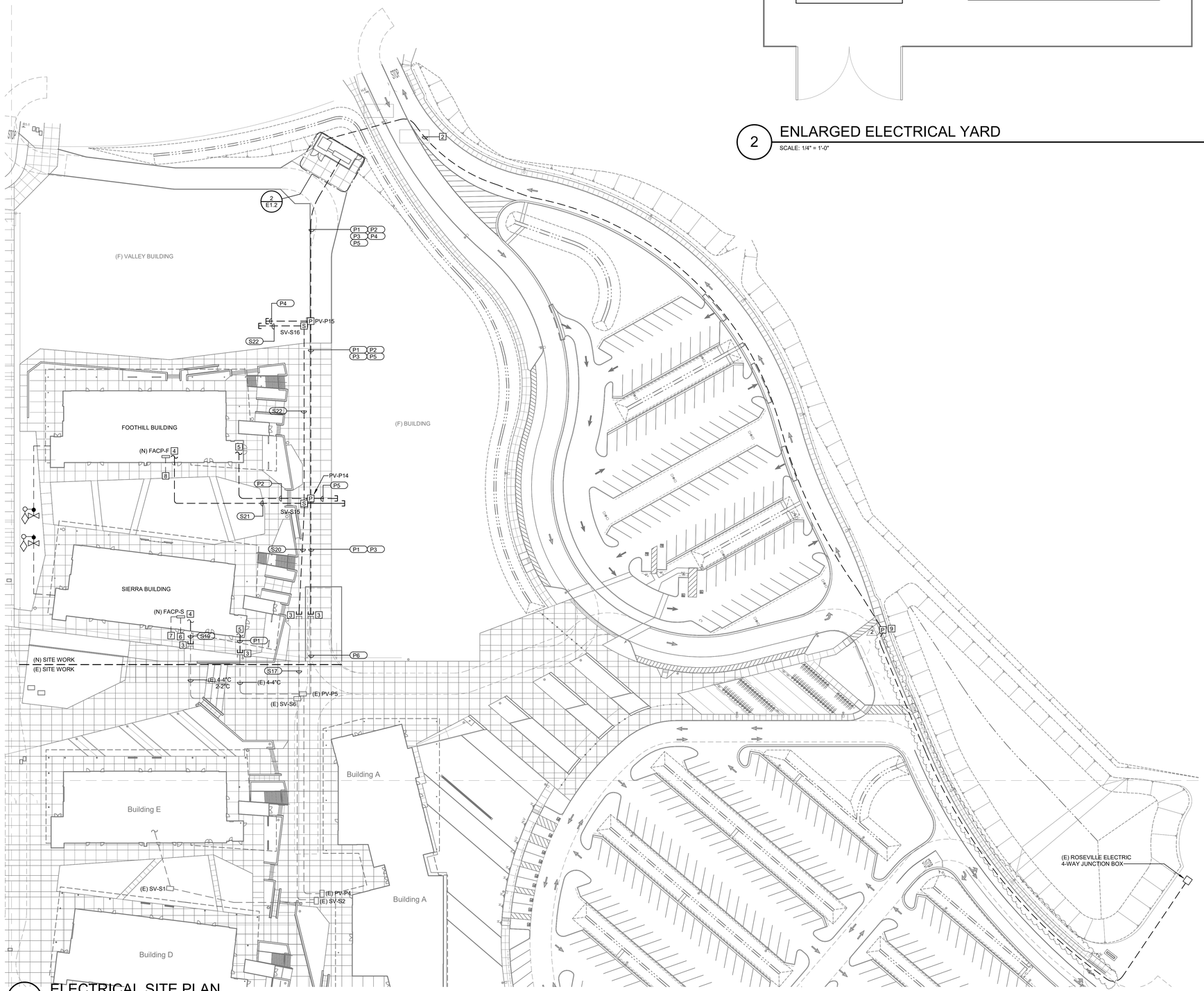
ABBREVIATIONS

A	AMPERES	LCP	LIGHTING CONTROL PANEL
AFI	ARC FAULT CIRCUIT INTERRUPTER	MBGB	MAIN BUILDING GROUND BUS
AF	AMPERE OVERCURRENT FRAME SIZE (WHEN APPLIED TO CIRCUIT BREAKERS) OR AMPERE FUSE SIZE (WHEN APPLIED TO FUSES)	MCB	MAIN CIRCUIT BREAKER
		MCC	MOTOR CONTROL CENTER
		MLO	MAIN LUGS ONLY
AFF	ABOVE FINISHED FLOOR	MT	EMPTY
AIC	ASYMMETRIC INTERRUPTING CURRENT	MTS	MANUAL TRANSFER SWITCH
AL	ALUMINUM	(N)	NEW
AT	AMPERE OVERCURRENT TRIP (WHEN APPLIED TO CIRCUIT BREAKERS)	NC	NORMALLY CLOSED
ATS	AUTOMATIC TRANSFER SWITCH	NF	NON-FUSED
BAS	BUILDING AUTOMATION SYSTEM	NIEC	NOT IN ELECTRICAL CONTRACT
BPS	BOLTED PRESSURE CONTACT SWITCH	NO	NORMALLY OPEN
C	CONDUIT	NTS	NOT TO SCALE
CCTV	CLOSED CIRCUIT TELEVISION	OC	ON CENTER
CEC	CALIFORNIA ELECTRICAL CODE	OFCI	OWNER FURNISHED CONTRACTOR INSTALLED
CL	CURRENT LIMITING CIRCUIT BREAKER OR FUSE	PDZ	PRIMARY DAYLIGHT ZONE
CP	CIRCULATION PUMP	PNL	PANEL
CT	CURRENT TRANSFORMER	PQM	POWER QUALITY METER
CU	COPPER	PT	POTENTIAL TRANSFORMER
DF	DRINKING FOUNTAIN	PVC	POLYVINYL CHLORIDE
(E)	EXISTING TO REMAIN	(R)	EXISTING TO BE REMOVED
EC	ELECTRICAL CONTRACTOR	(RR)	REMOVE AND RELOCATE
EF	EXHAUST FAN	SAD	SEE ARCHITECTURAL DRAWINGS
EP	EXPLOSION PROOF	TC	TIME CLOCK
EPO	EMERGENCY POWER OFF	TP	TWISTED-PAIR
EMT	ELECTRICAL METALLIC TUBING	SDZ	SECONDARY DAYLIGHT ZONE
EWH	ELECTRIC WATER HEATER	SPD	SURGE PROTECTION DEVICE
F	FUSED	TX	TRANSFORMER
(F)	FUTURE	TYP	TYPICAL
FACP	FIRE ALARM CONTROL PANEL	UON	UNLESS OTHERWISE NOTED
FFCP	FIREMAN'S FAN CONTROL PANEL	UPS	UNINTERRUPTIBLE POWER SUPPLY
FLA	FULL LOAD AMPERES	V	VOLTS
FMC	FLEXIBLE METAL CONDUIT	VA	VOLTS-AMPS
FSD	FIRE/SMOKE DAMPER	VFD	VARIABLE FREQUENCY DRIVE
FRAP	FIREMAN'S REMOTE ANNUNCIATOR PANEL	VM	VENDING MACHINE
		WAP	WIRELESS ACCESS POINT
G	GROUND	WP	WEATHERPROOF
GB	GROUND BUS	2SP	TWO SPEED
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	1Ø	1-PHASE
GND	GROUND	3Ø	3-PHASE
GRAP	GENERATOR REMOTE ANNUNCIATOR PANEL	1P	1-POLE
GRC	GALVANIZED RIGID CONDUIT	2P	2-POLE
HNC	HOME NETWORK CABINET	3P	3-POLE



2 ENLARGED ELECTRICAL YARD

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



1 ELECTRICAL SITE PLAN

SCALE: 1" = 40'-0"

GENERAL SHEET NOTES

A REFER TO CONDUIT SCHEDULE ON SHEET E0.30 FOR TAGGED CONDUIT AND WIRE SIZES.

B HANDHOLE LOCATIONS ARE DIAGRAMMATIC AND NOT DIMENSIONED. LOCATE HANDHOLES IN CLOSEST LANDSCAPED AREA WHEREVER POSSIBLE, COORDINATE WITH LANDSCAPE ARCHITECT. PROVIDE WITH STEEL TRAFFIC RATED LID IN ANY AREA SUBJECT TO VEHICULAR TRAFFIC. REFER TO DETAIL 3/E8.4 FOR SITE PULLBOX DETAIL.

C SITE LIGHTING HANDHOLES SHALL BE TYPE N-9 U.O.N., LID SHALL BE ENGRAVED "LIGHTING". SITE LIGHTING CONDUITS TO BE 1.0" MINIMUM, UON. CONDUCTORS TO BE #10 COPPER MINIMUM, UON.

D REFER TO JOINT TRENCH DETAIL 2/E8.4 FOR TRENCHES, AND GROUND ROD INSTALLATION DETAIL 4/E8.4 FOR GROUND ROD INSTALLATIONS.

E HANDHOLES FOR SIGNAL SYSTEMS SHALL BE N48 MINIMUM WHERE USED FOR CAMPUS LOW VOLTAGE DUCT BANK, N16 FOR INDIVIDUAL CONDUIT RUNS. LID SHALL BE ENGRAVED "SIGNAL". PROVIDE 1.25" C. MIN. U.O.N.

F HANDHOLES DEDICATED TO FIRE ALARM SHALL BE N16. LID SHALL BE ENGRAVED "FIRE ALARM". PROVIDE 1.25" C. MIN. U.O.N. WHERE ROUTED WITH THE CAMPUS LOW VOLTAGE DUCT BANK, FIRE ALARM MAY UTILIZE THE SIGNAL HANDHOLES/PULLBOXES.

G REFER TO IRRIGATION PLANS FOR CONDUIT REQUIREMENTS FOR IRRIGATION CONTROL WIRING. ELECTRICAL CONTRACTOR SHALL INSTALL ALL CONDUIT FOR IRRIGATION CONTROL.

H SITE PULL BOXES FOR 277/280V POWER SHALL BE SIZED BY CONTRACTOR, MINIMUM N48.

I REFER TO CIVIL SITE PLAN FOR NEW AND EXISTING PIPES/CONDUITS FOR FOREIGN SYSTEMS.

J FOR ALL UNDERGROUND WORK UNDER (E) PAVEMENT/CONCRETE, REPLACE PAVING AFTER CONDUITS HAVE BEEN INSTALLATED.

NUMBERED SHEET NOTES

1 PROVIDE BUS DUCT BETWEEN UTILITY TRANSFORMER AND MSB2. REFER TO POWER ONE LINE DIAGRAM FOR ADDITIONAL INFORMATION.

2 REFER TO POWER ONE LINE DIAGRAM ON SHEET E7.1 FOR # OF EMPTY CONDUITS FOR UTILITY POWER. EXACT ROUTING OF CONDUITS TO BE DETERMINED BY ROSEVILLE ELECTRIC. REFER TO DETAIL 1/E8.4 FOR TRENCH SPACING AND BACKFILL INFO.

3 EXTEND EXISTING STUBBED CONDUITS TO NEW LOCATION.

4 FEEDERS CONNECT AT IDF. SEE SHEET E6.1 FOR ADDITIONAL INFORMATION. INCOMING CONDUIT SHALL AVOID STRUCTURAL FOOTINGS.

5 FEEDERS CONINECT TO DISTRIBUTION BOARD IN ELECTRICAL ROOM. SEE SHEET E7.1 FOR ADDITIONAL INFORMATION.

6 TIE FACP -S TO (E)FACP-A ON BUILDING A.

7 OUT TO FACP-F IN BUILDING FOOTHILL

8 IN FROM FACP-S FROM BUILDING SIERRA

9 PROVIDE VAULTS FOR ROSEVILLE ELECTRIC CONDUIT RUN AS NEEDED. CONFIRM EXACT LOCATION, SIZE, AND QUANTITY WITH ROSEVILLE ELECTRIC.

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ELECTRICAL SITE PLAN
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

2401 High School Road, Roseville, California 95747

ADDENDUM 2
07.08.2020

Revisions		
07-01-2020	ADD1	Addendum1
07-08-2020	ADD2	Addendum 2

PROJECT #19-133
DSA APPL #02-118062
DSA FILE #31-H3

E1.2

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GENERAL SHEET NOTES

A REFER TO FINAL, OWNER APPROVED FURNITURE PLANS TO VERIFY DIMENSIONS FOR FLOORBOXES, FURNITURE FEED POINTS, WORKSTATION OUTLETS, ETC. PRIOR TO ROUGH-IN.

B REFER TO MECHANICAL AND PLUMBING PLANS FOR EQUIPMENT ELECTRICAL REQUIREMENTS, REFER TO FINAL APPROVED MECHANICAL AND PLUMBING SHOP DRAWINGS TO VERIFY CONNECTION REQUIREMENTS PRIOR ROUGH-IN.

C EXTERIOR WP RECEPTACLES SHALL BE PROVIDED WITH FLUSH, LOCKABLE WHILE IN USE COVERS.

D REFER TO SPECIFICATION SECTION 262726 FOR FLOORBOX AND POKE-THRU DEVICE REQUIREMENTS.

E WIRELESS ACCESS POINT (WAP) SHALL CONSIST OF DATA OUTLET INSTALLED ABOVE THE ACCESSIBLE CEILING WITH TWO CAT6A CABLES AND 20FT OF COILED SLACK FOR RELOCATION OF OUTLET. EQUIPMENT PROVIDED BY OWNER AND INSTALLED BY CONTRACTOR; VERIFY EXACT LOCATION WITH THE OWNER AND PROVIDE PATCH CORD, LENGTH AS REQUIRED.

F ALL WALL MOUNTED DATA OUTLETS SHALL BE 4-11/16" SQUARE BOX SINGLE GANG RING AND WITH 1-1/4" EMT TO ACCESSIBLE CEILING UON.

G REFER TO E4 SERIES DRAWINGS FOR CABLE TRAY CEILING CONDUIT SYSTEM LAYOUT.

H ROUTE ALL CABLE IN CONDUIT AND/OR J-HOOKS WHEN NOT IN CABLE TRAY.

I SUPPORT J-HOOKS WITH INDEPENDENT 12 GAUGE WIRE FROM STRUCTURE OR TO WALL STUDS ABOVE CEILING. ALL J-HOOKS SHALL BE SIZED FOR A MAXIMUM 40% FILL.

J ALL CABLE INSTALLED IN CEILING SHALL BE PLENUM RATED.

K ALL UNDERGROUND POWER AND COMMUNICATIONS CONDUIT SHOWN SHALL BE COORDINATED WITH STRUCTURAL DRAWINGS AND SHALL BE ROUTED TO AVOID GRADE BEAMS. REFER TO "S" SERIES STRUCTURAL FOUNDATION PLANS.

L ALL FLOOR BOXES SHALL HAVE POWER AND DATA CONDUIT. DATA CONDUIT SHALL BE TERMINATED AT ACCESSIBLE CEILING. ALL DATA CONDUIT SHALL BE A MINIMUM 1-1/4" CONDUIT UON. POWER CONDUIT SHALL BE SIZED AS REQUIRED.

M ALL CONDUIT AND RACEWAY PENETRATIONS THROUGH FIRE RATED WALLS AND OUTLETS/DEVICES INSTALLED IN RATED ASSEMBLIES SHALL MAINTAIN THE RATING OF THE ASSEMBLY PER SECTION 712 OF THE CBC. REFER TO DETAILS 9 & 10/E8.2 FOR RATED PENETRATION DETAILS. REFER TO ARCHITECTURAL PLANS FOR IDENTIFICATION OF FIRE RATED CONDITIONS.

N PROVIDE 120V POWER CONNECTION TO ALL FIRE SMOKE DAMPERS. REFER TO MECHANICAL PLANS FOR EXACT LOCATIONS. PROVIDE TOGGLE DISCONNECT SWITCH AT EACH UNIT.

NUMBERED SHEET NOTES

1 LOCKED CONVENIENCE RECEPTACLE.

2 POWER AND DATA IN CEILING FOR PROJECTOR AND POWERED SPEAKERS.

3 SINGLE 120V CONNECTION FOR GARBAGE DISPOSAL.

4 CIRCUITING FOR HUFCOR ELECTRICALLY OPERATED, CONTINUOUSLY HINGED, OPERABLE PARTITIONS. EXACT LOCATION OF ELECTRICAL EQUIPMENT TO BE DETERMINED BY CONTRACTOR.

5 PROVIDE 120V POWER CONNECTION TO ELEVATOR DOOR HOLD-OPEN AND DOOR LATCH.

6 PROVIDE POWER AND DATA TO MONITOR SCREEN AT +60" AFF.

7 ALL RECEPTACLES AND DATA OUTLETS MOUNTED BOTH BELOW A WINDOW AND ABOVE CASEWORK SHALL BE MOUNTED HORIZONTALLY.

8 LOCATE DUPLEX RECEPTACLE AND DATA OUTLET IN WALL FOR POWERED SPEAKER AND SHORT THROW PROJECTOR. REFER TO AV DRAWINSG FOR HEIGHTS/LOCATION. CONFIRM EXACT LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN.

9 PROVIDE 120V DEDICATED CONNECTION FOR HAND DRYERS.

10 PROVIDE 120V CONNECTION FOR PLUMBING FIXTURE TRANSFORMERS, FURNISHED BY OTHERS, COORDINATION EXACT LOCATION IN FIELD. ROUTE 14/2 MC CABLE AND LOW VOLTAGE CONNECTION AT EACH SENSOR, AND PROVIDE ROUGH-IN PER MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR EACH WC, UR, LAV. REFER TO PLUMBING PLANS AND COORDINATE WITH THE PLUMBING CONTRACTOR.

11 PROVIDE POWER FOR DRINKING FOUNTAINS.

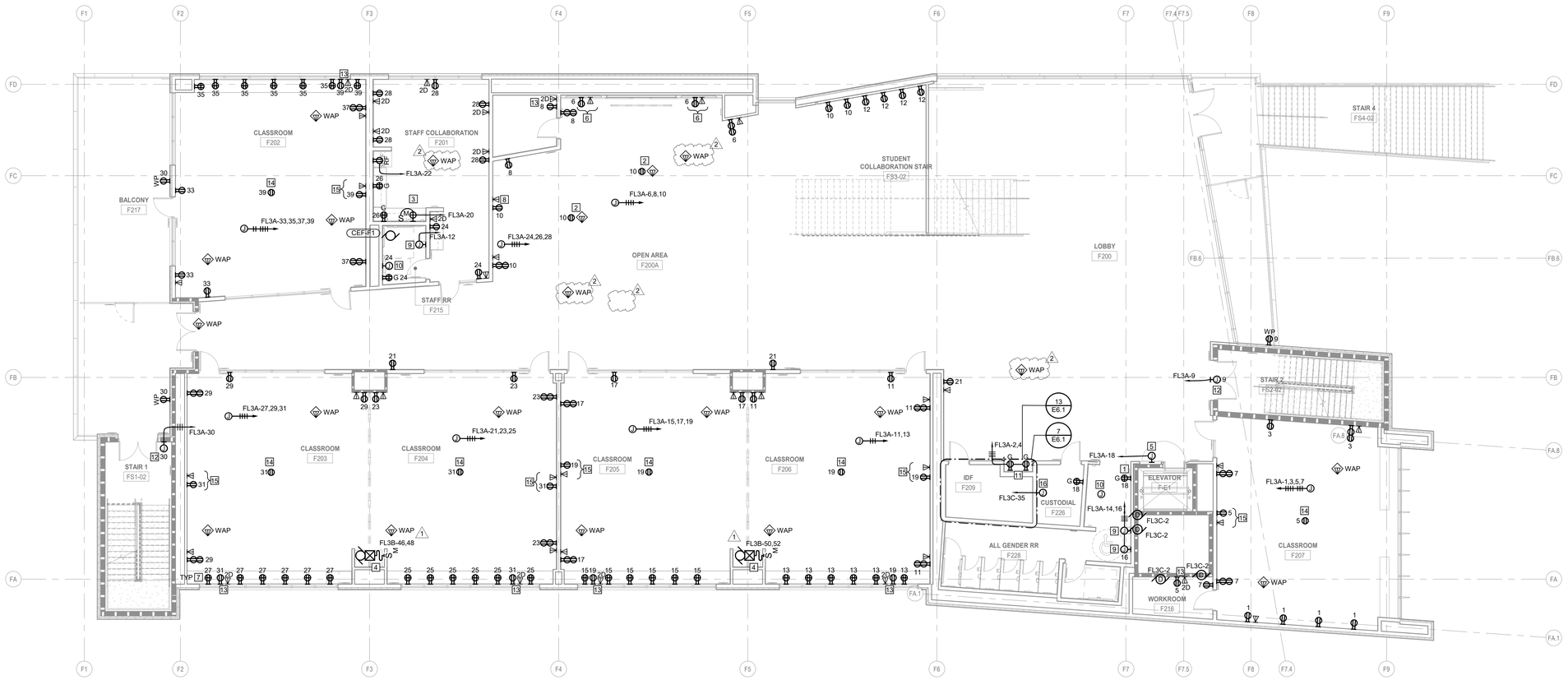
12 PROVIDE 120V POWER CONNECTION TO DOOR-OPEN.

13 LOCATE RECEPTACLE BEHIND AV CABINET. REFER TO E4 SHEETS AND ARCHITECTURAL SHEETS FOR EXACT LOCATION AND HEIGHTS.

14 PROVIDE POWER IN CEILING FOR POWERED SPEAKERS. REFER TO E4 SERIES DRAWINGS FOR EXACT LOCATION.

15 LOCATE DUPLEX RECEPTACLE AND DATA OUTLET IN WALL FOR SHORT THROW PROJECTOR. REFER TO AV DRAWINGS FOR HEIGHTS/LOCATION. CONFIRM EXACT LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN.

16 PROVIDE 120V POWER CONNECTION TO VAV CONTROL PANEL. REFER TO MECHANICAL DRAWINGS FOR EXACT LOCATION.



1 POWER PLAN - FOOTHILL BUILDING - SECOND FLOOR

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

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POWER PLAN - FOOTHILL BUILDING - SECOND FLOOR

WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

2401 High School Road, Roseville, California 95747

ADDENDUM 2
07.08.2020

Revisions		
07-01-2020	ADD1	Addendum1
07-08-2020	ADD2	Addendum 2

PROJECT #19-133
DSA APPL #02-118062
DSA FILE #31-H3

E3.F1.2

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NUMBERED SHEET NOTES

1. OFCI SHORT-THROW, WALL-MOUNT PROJECTOR. REFER TO 1/E7.5 FOR CONDUIT AND WIRING PLANS FOR PROJECTOR AV SYSTEM. REFER TO 44/A3.12 FOR PROJECTOR MOUNT DETAIL. REFER TO DETAILS 2 AND 8 ON SHEET E8.5 FOR MOUNTING HEIGHTS.
2. REFER TO 2/E7.5 FOR CONDUIT AND WIRING PLAN FOR FLAT PANEL DISPLAY AV SYSTEM. REFER TO 8/E8.3 FOR FLAT SCREEN DISPLAY MOUNTING.
3. PROVIDE A 130" DIAGONAL POWERED PROJECTION SCREEN WITH LOW VOLTAGE CONTROL SWITCH AND A LOW VOLTAGE CONNECTION TO THE PROJECTOR. REFER TO 1/E7.5, CONDUIT PLAN.REFER TO 6/E8.5, AND 7/E8.5.
4. POWERED CEILING SPEAKERS. CONNECT SPEAKERS TO EACH OTHER AND THE OUTPUT OF THE PROJECTOR. REFER TO 6/E8.2.
5. PROVIDE AN ATLAS SOUND 16U WALL MOUNT CABINET AT 24" AFF
6. PROVIDE A SOUND BAR ABOVE THE TV DISPLAY. USE SOUNDBAR MOUNTING BRACKETS TO THE BACK OF THE TV.
7. PROVIDE A SOUND BAR ABOVE THE PROJECTION DISPLAY. MOUNT TO WALL. REFER TO 11/E8.3 AND 2,8/E8.5.
8. PROVIDE A 3/4" CONDUIT AND RELAY CABLE CONNECTION FROM THE ACCESS CONTROL PANEL TO THE 4040SE SERIES DOOR CLOSER (REFER TO DOOR HARDWARE SCHEDULE) AND PROGRAM THE PANEL FOR PROGRAMMED DOOR RELEASE FROM DOOR HOLD OPEN AT OWNERS REQUIRED TIME/S.
9. PROVIDE A 10RU MIDDLE ATLANTIC EQUIPMENT RACK IN CASEWORK, NUMBER BRK10. PROVIDE CONDUIT BETWEEN THE RACK AND THE POWERED SPEAKERS & DISPLAY'. COORDINATE CABINET LOCATION WITH ARCHITECT. REFER TO DRAWING 1,2/E7.5 FOR CONDUIT AND CABLE REQUIREMENTS.
10. PROVIDE AN AUDIO MIXER (EXTRON, DMP 64). ALS FIXED TRANSMITTER, AND WIRELESS MICROPHONE RECEIVER WITH LAVELIER MICROPHONE.
11. PROVIDE AN IP2 WALL PLATE WITH 3.5MM AUDIO JACK WITH AUDIO CABLE TO AUDIO EQUIPMENT RACK. REFER TO REVISED DRAWING 1/E7.5 FOR CONDUIT AND CABLE REQUIREMENTS.
12. PROVIDE A 20.25"W X 20.5"H X 19"D, 10U WALL CABINET WITH A 1.25" CONDUIT TO ACCESSIBLE CEILING. MOUNT AT 80". USE ATLAS #312-15.
13. OFCI PROJECTOR. PROVIDE ALL SUPPORT HARDWARE. REFER TO 6/E8.5. REFER TO 1/E7.5 FOR CONDUIT AND WIRING PLANS FOR PROJECTOR AV SYSTEM.
14. REFER TO ADDENDUM 1, 9/E7.5. PROVIDETHE FOLLOWING COMPONENTS:
    a. ATLAS SOUND 16U
    WALL CABINET #316-15
    b. ATLAS SOUND POWER CONDITIONER #AP-C150
    c. EXTRON CROSSPOINT
    86 DTP MATRIX SWITCHER, #60-1382-22
    d. EXTRON 7 INCH TOUCH SCREEN WALL MOUNTED
    CONTROL PANEL MODEL TLP PRO 725M, (2G OUTLET BOX)
    e. EXTRON DTP TRANSMITTERS,
    MODEL DTP T HWP 232 D
    f. EXTRON DTP RECEIVERS, DTP R HWP 4K 231 D (TV DISPLAYS) AND
    DTP HDMI 4K 230 Rx (PROJECTORS)
    g. SOUNDBAR, PER SPECIFICATION 274116
    h. EXTRON DIGITAL
    TWISTED PAIR CABLE, XTP DTP 24

GENERAL SHEET NOTES

A. ALL WALL MOUNTED AV OUTLETS AT TV AND SIGNAGE DISPLAYS SHALL BE LOCATED BEHIND THE DISPLAY. REFER TO E3 SERIES SHEETS. AV CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR, FOR THE FINAL HEIGHT OF DISPLAY AND OUTLET BOX PRIOR TO ROUGH-IN.

B. ROUTE ALL AV CABLE IN CONDUIT BETWEEN DISPLAY AND INTERFACE PLATE AND CONTROL PANEL.

C. CONTROL PANEL SHALL HAVE A 2 GANG BOX WITH 1"C TO DISPLAY AND RS-232 CABLE.

D. PROVIDE A CLOCK/SPEAKER BACK BOX AT 96" AFF WITH 1"C TO ACCESSIBLE CEILING. PROVIDE PA SPEAKER AND WIRELESS CLOCK. CLOCK/SPEAKERS ARE TO BE INSTALLED VERTICALLY.

E. MOUNT WIRELESS CLOCKS AT 96".

F. ALL CABLE TRAY IN EXPOSED CEILING SHALL HAVE AN ANODIZED FINISH TO MATCH THE PAINTED CEILING COLOR. THE TRAY SHALL BE EQUIPPED WITH A LINER THAT MATCHES THE COLOR OF THE TRAY TO CONCEAL CABLE.

G. ALL EXPOSED CONDUIT SHALL BE TIGHT TO CEILING AND PAINTED TO MATCH CEILING.

H. REFER TO 1,2/E7.5 FOR TYPICAL WIRING AND CONDUIT REQUIREMENTS FOR DISPLAY AND PROJECTOR AV SYSTEMS.

I. ACCESS CONTROL REQUIRES 3/4"C TO EACH DEVICE AND A 1"C TO ACCESS CONTROL PANEL.

J. REFER TO 1/E7.6 AND 2/E7.6 FOR ACCESS CONTROL AND INTRUSION SINGLE LINE DRAWINGS.

K. ALL INTERIOR AND EXTERIOR DOORS SHALL BE FITTED WITH WIRED ACCESS READERS UNLESS OTHERWISE NOTED. PROVIDE CONNECTIONS TO ELECTRIC LOCKS AND REQUEST TO EXIT DEVICES ON DOOR HARDWARE.

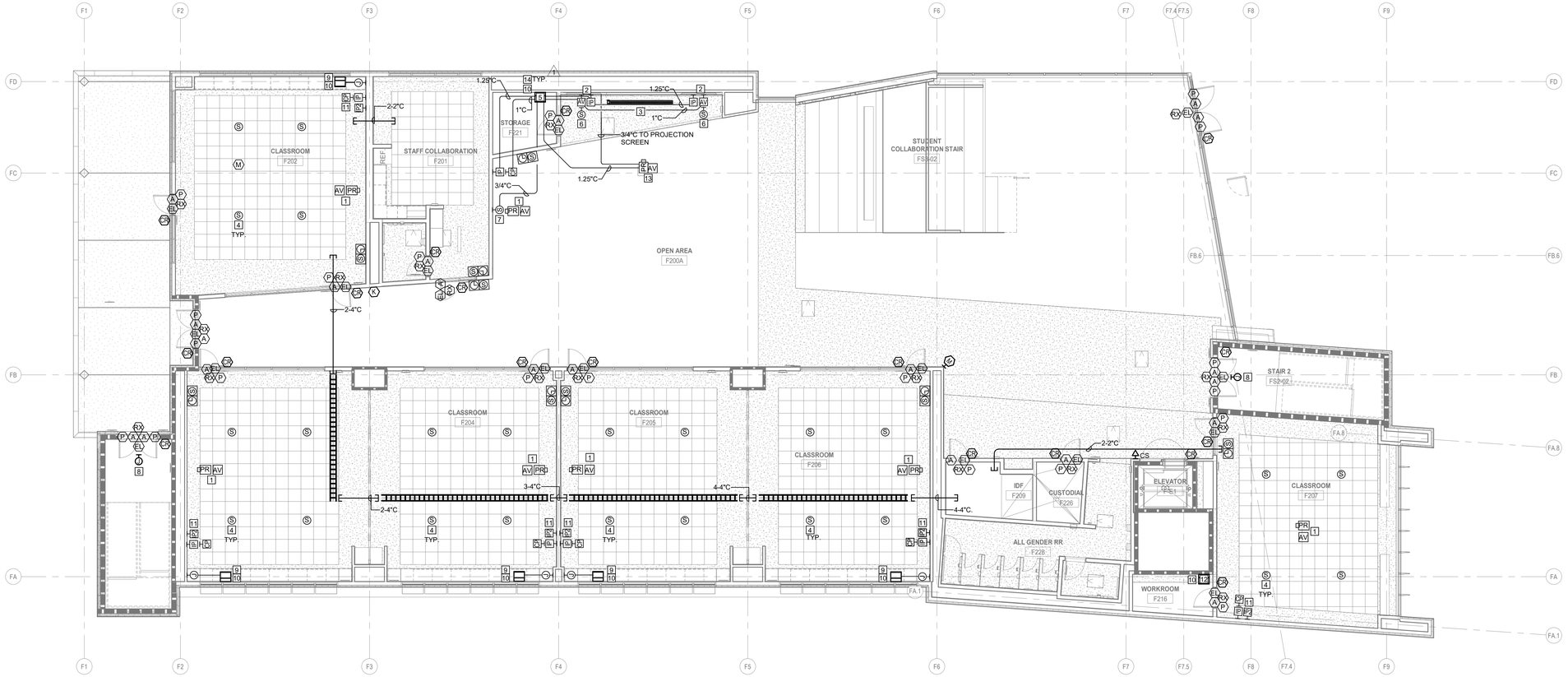
L. PROVIDE CONDUIT TO ACCESS CONTROL AND ALARM PANELS IN IDF ROOMS.

M. ALL CONDUIT AND RACEWAY PENETRATIONS THROUGH FIRE RATED WALLS AND OUTLETS/DEVICES INSTALLED IN RATED ASSEMBLIES SHALL MAINTAIN THE RATING OF THE ASSEMBLY PER SECTION 712 OF THE CBC. REFER TO DETAILS 9 & 10/E8.2 FOR RATED PENETRATION DETAILS. REFER TO ARCHITECTURAL PLANS FOR IDENTIFICATION OF FIRE RATED CONDITIONS.

N. PROVIDE AN ASSISTIVE LISTENING SYSTEM IN ACCORDANCE WITH 11B-219 AND TO COMPLY WITH 11B-706.

O. PROVIDE ASSISTIVE LISTENING SIGNAGE POSTED IN A PROMINENT PLACE IN EACH CLASSROOM AND COMPLYING WITH 11B-703.7.2.4 (11b-216.10)

P. THE BUILDING OCCUPANCY IS 825 PEOPLE. THE NUMBER OF RECEIVERS AT 4% OF THE OCCUPANCY FOR THE BUILDING IS 33 WITH 25% (9 DEVICES) HEARING AID COMPATABLE.



1 SIGNAL PLAN - FOOTHILL BUILDING - SECOND FLOOR

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

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STATE OF CALIFORNIA

SIGNAL PLAN - FOOTHILL BUILDING - SECOND FLOOR
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

2401 High School Road, Roseville, California 95747

ADDENDUM 2
07.08.2020

Revisions
07-01-2020 ADD1 Addendum1
07-08-2020 ADD2 Addendum 2

PROJECT #19-133
DSA APPL. #02-118062
DSA FILE #31-H3

E4.F1.2

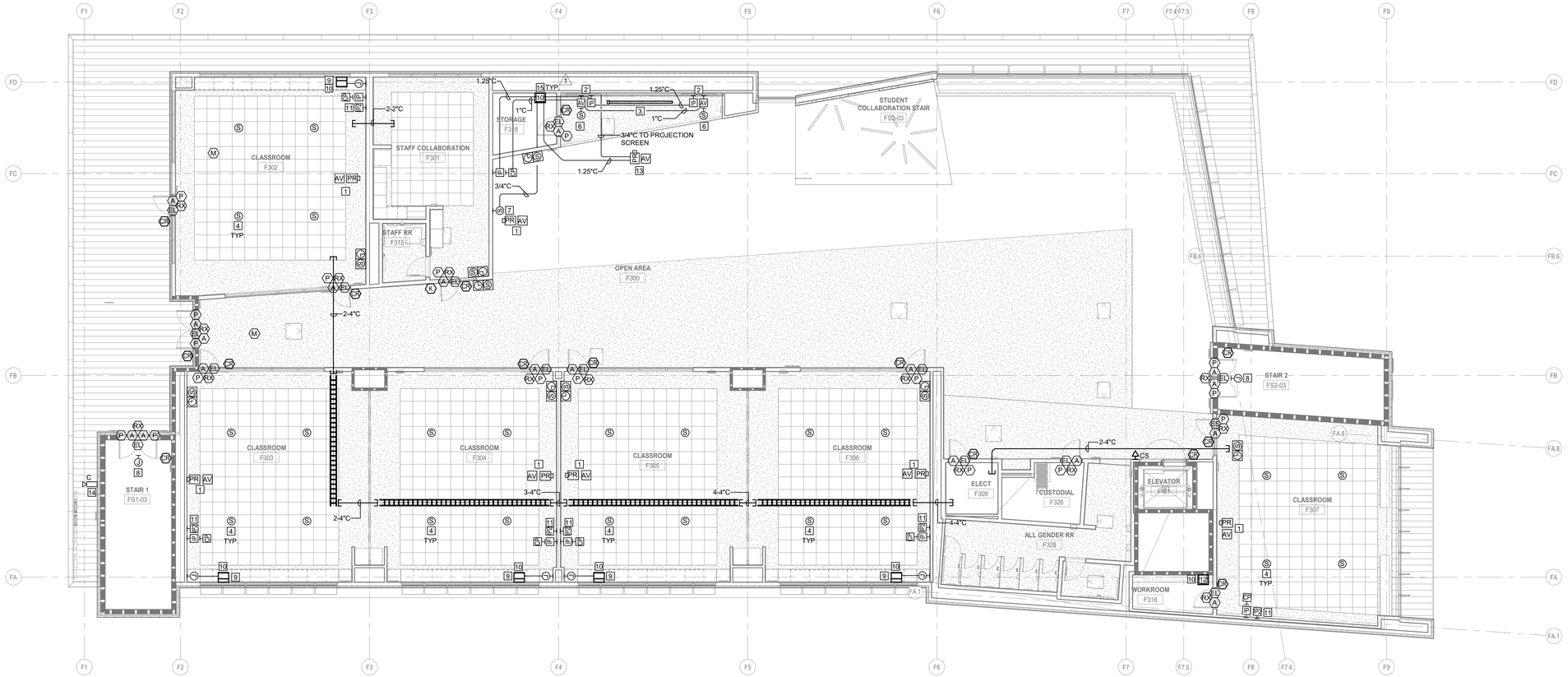
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NUMBERED SHEET NOTES

1. OFCI SHORT-THROW, WALL-MOUNT PROJECTOR. REFER TO 1/E7.5 FOR CONDUIT AND WIRING PLANS FOR PROJECTOR AV SYSTEM. REFER TO 44/A3.12 FOR PROJECTOR MOUNT DETAIL. REFER TO DETAILS 2 AND 8 ON SHEET E8.5 FOR MOUNTING HEIGHTS.
2. REFER TO 2/E7.5 FOR CONDUIT AND WIRING PLAN FOR FLAT PANEL DISPLAY AV SYSTEM. REFER TO 8/E8.3 FOR FLAT SCREEN DISPLAY MOUNTING.
3. PROVIDE A 130" DIAGONAL POWERED PROJECTION SCREEN WITH LOW VOLTAGE CONTROL SWITCH AND A LOW VOLTAGE CONNECTION TO THE PROJECTOR. REFER TO 1/E7.5, CONDUIT PLAN REFER TO 6/E8.5, AND 7/E8.5.
4. POWERED CEILING SPEAKERS. CONNECT SPEAKERS TO EACH OTHER AND THE OUTPUT OF THE PROJECTOR. REFER TO 6/E8.2.
5. PROVIDE AN ATLAS SOUND 16U WALL MOUNT CABINET AT 24" AFF
6. PROVIDE A SOUND BAR ABOVE THE TV DISPLAY. USE SOUNDBAR MOUNTING BRACKETS TO THE BACK OF THE TV.
7. PROVIDE A SOUND BAR ABOVE THE PROJECTION DISPLAY. MOUNT TO WALL.
8. PROVIDE A 3/4" CONDUIT AND RELAY CABLE CONNECTION FROM THE ACCESS CONTROL PANEL TO THE 4040SE SERIES DOOR CLOSER (REFER TO DOOR HARDWARE SCHEDULE) AND PROGRAM THE PANEL FOR PROGRAMMED DOOR RELEASE FROM DOOR HOLD OPEN AT OWNERS REQUIRED TIMEIS.
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12. PROVIDE A 20.25"W X 20.5"H X 19"D, 10U WALL CABINET WITH A 1.25" CONDUIT TO ACCESSIBLE CEILING. MOUNT AT 80". USE ATLAS #312-15.
13. OFCI PROJECTOR. PROVIDE ALL SUPPORT HARDWARE. REFER TO 6/E8.5. REFER TO 1/E7.5 FOR CONDUIT AND WIRING PLANS FOR PROJECTOR AV SYSTEM.
14. ALL CAMERAS SHOWN SHALL HAVE A 4" SQ BOX WITH 1"C TO ACCESSIBLE CEILING AND 1"C TO CAMERA MOUNT. PROVIDE APPROPRIATE WALL MOUNT AND CORNER MOUNTS AS REQUIRED.
15. REFER TO ADDENDUM 1, 9/E7.5. PROVIDETHE FOLLOWING COMPONENTS:
    a. ATLAS SOUND 16U
    WALL CABINET #316-15
    b. ATLAS SOUND POWER CONDITIONER #AP-C150
    c. EXTRON CROSSPOINT
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    DTP HDMI 4K 230 Rx (PROJECTORS)
    g. SOUNDBAR, PER SPECIFICATION 274116
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    TWISTED PAIR CABLE, XTP DTP 24

GENERAL SHEET NOTES

- A ALL WALL MOUNTED AV OUTLETS AT TV AND SIGNAGE DISPLAYS SHALL BE LOCATED BEHIND THE DISPLAY. REFER TO E3 SERIES SHEETS. AV CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR, FOR THE FINAL HEIGHT OF DISPLAY AND OUTLET BOX PRIOR TO ROUGH-IN.
- B ROUTE ALL AV CABLE IN CONDUIT BETWEEN DISPLAY AND INTERFACE PLATE AND CONTROL PANEL.
- C CONTROL PANEL SHALL HAVE A 2 GANG BOX WITH 1"C TO DISPLAY AND RS-232 CABLE.
- D PROVIDE A CLOCK/SPEAKER BACK BOX AT 96" AFF WITH 1"C TO ACCESSIBLE CEILING. PROVIDE PA SPEAKER AND WIRELESS CLOCK. CLOCK/SPEAKERS ARE TO BE INSTALLED VERTICALLY.
- E MOUNT WIRELESS CLOCKS AT 96".
- F ALL CABLE TRAY IN EXPOSED CEILING SHALL HAVE AN ANODIZED FINISH TO MATCH THE PAINTED CEILING COLOR. THE TRAY SHALL BE EQUIPPED WITH A LINER THAT MATCHES THE COLOR OF THE TRAY TO CONCEAL CABLE.
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- I ACCESS CONTROL REQUIRES 3/4"C TO EACH DEVICE AND A 1"C TO ACCESS CONTROL PANEL.
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- P THE BUILDING OCCUPANCY IS 825 PEOPLE. THE NUMBER OF RECEIVERS AT 4% OF THE OCCUPANCY FOR THE BUILDING IS 33 WITH 25% (9 DEVICES) HEARING AID COMPATABLE.



1 SIGNAL PLAN - FOOTHILL BUILDING - THIRD FLOOR

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

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REGISTERED PROFESSIONAL ENGINEER #20162 SCOTT WHEELER ELECTRICAL STATE OF CALIFORNIA

SIGNAL PLAN - FOOTHILL BUILDING - THIRD FLOOR

WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

2401 High School Road, Roseville, California 95747

ADDENDUM 2
07.08.2020

Revisions		
07-01-2020	ADD1	Addendum1
07-08-2020	ADD2	Addendum 2

PROJECT #19-133
DSA APPL. #02-118062
DSA FILE #31-H3

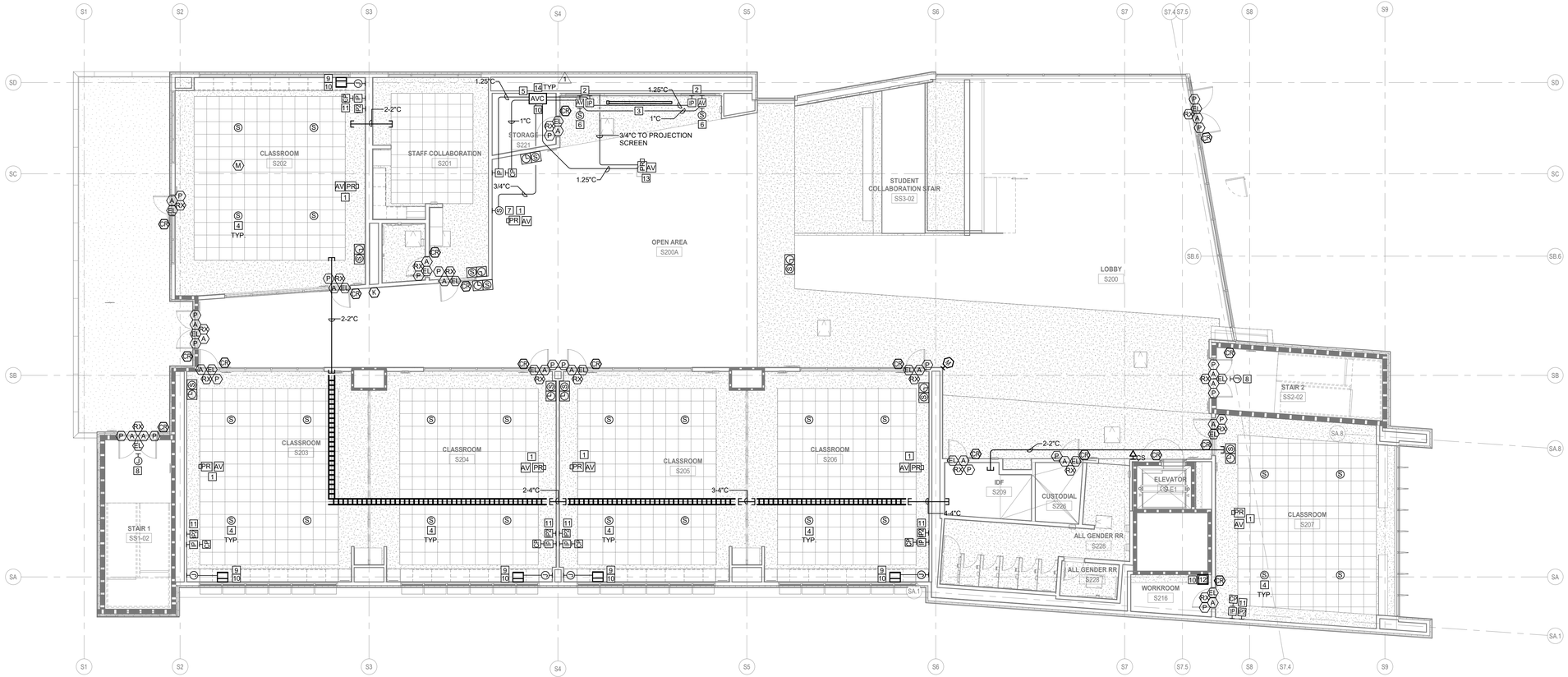
E4.F1.3

NUMBERED SHEET NOTES

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3. PROVIDE A 130" DIAGONAL POWERED PROJECTION SCREEN WITH LOW VOLTAGE CONTROL SWITCH AND A LOW VOLTAGE CONNECTION TO THE PROJECTOR. REFER TO 1/E7.5, CONDUIT PLAN,REFER TO 6/E8.5, AND 7/E8.5.
4. POWERED CEILING SPEAKERS. CONNECT SPEAKERS TO EACH OTHER AND THE OUTPUT OF THE PROJECTOR. REFER TO 2/E8.5.
5. PROVIDE AN ATLAS SOUND 16U WALL MOUNT CABINET AT 24" AFF
6. PROVIDE A SOUND BAR ABOVE THE TV DISPLAY. USE SOUNDBAR MOUNTING BRACKETS TO THE BACK OF THE TV.
7. PROVIDE A SOUND BAR ABOVE THE PROJECTION DISPLAY. MOUNT TO WALL
8. PROVIDE A 3/4" CONDUIT AND RELAY CABLE CONNECTION FROM THE ACCESS CONTROL PANEL TO THE 4040SE SERIES DOOR CLOSER (REFER TO DOOR HARDWARE SCHEDULE) AND PROGRAM THE PANEL FOR PROGRAMMED DOOR RELEASE FROM DOOR HOLD OPEN AT OWNERS REQUIRED TIME/S.
9. PROVIDE A 10RU MIDDLE ATLANTIC EQUIPMENT RACK IN CASEWORK, NUMBER BRK10. PROVIDE CONDUIT BETWEEN THE EQUIPMENT RACK AND THE POWERED SPEAKERS & DISPLAY. COORDINATE CABINET LOCATION WITH ARCHITECT. REVISED DRAWING 1,2/E7.5 FOR CONDUIT AND CABLE REQUIREMENTS.
10. PROVIDE AN AUDIO MIXER (EXTRON, DMP 64), ALS FIXED TRANSMITTER, AND WIRELESS MICROPHONE RECEIVER WITH LAVELIERE MICROPHONE.
11. PROVIDE AN IP2 WALL PLATE WITH 3.5MM AUDIO JACK WITH AUDIO CABLE TO AUDIO EQUIPMENT RACK. REFER TO REVISED DRAWING 1/E7.5 FOR CONDUIT AND CABLE REQUIREMENTS.
12. PROVIDE A 20.25"W X 20.5"H X 19"D, 10U WALL CABINET WITH A 1.25" CONDUIT TO ACCESSIBLE CEILING. MOUNT AT 80". USE ATLAS #312-15.
13. OFCI PROJECTOR. PROVIDE ALL SUPPORT HARDWARE. REFER TO 6/E8.5. REFER TO 1/E7.5 FOR CONDUIT AND WIRING PLANS FOR PROJECTOR AV SYSTEM.
14. REFER TO ADDENDUM 1, 9/E7.5. PROVIDETHE FOLLOWING COMPONENTS:
    a. ATLAS SOUND 16U
    WALL CABINET #316-15
    b. ATLAS SOUND POWER CONDITIONER #AP-C150
    c. EXTRON CROSSPOINT
    86 DTP MATRIX SWITCHER, #60-1382-22
    d. EXTRON 7 INCH TOUCH SCREEN WALL MOUNTED
    CONTROL PANEL MODEL TLP PRO 725M, (2G OUTLET BOX)
    e. EXTRON DTP TRANSMITTERS,
    MODEL DTP T HWP 232 D
    f. EXTRON DTP RECEIVERS, DTP R HWP 4K 231 D (TV DISPLAYS) AND
    DTP HDMI 4K 230 Rx (PROJECTORS)
    g. SOUNDBAR, PER SPECIFICATION 274116
    h. EXTRON DIGITAL
    TWISTED PAIR CABLE, XTP DTP 24

GENERAL SHEET NOTES

- A ALL WALL MOUNTED AV OUTLETS AT TV AND SIGNAGE DISPLAYS SHALL BE LOCATED BEHIND THE DISPLAY. REFER TO E3 SERIES SHEETS. AV CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR, FOR THE FINAL HEIGHT OF DISPLAY AND OUTLET BOX PRIOR TO ROUGH-IN.
- B ROUTE ALL AV CABLE IN CONDUIT BETWEEN DISPLAY AND INTERFACE PLATE AND CONTROL PANEL.
- C CONTROL PANEL SHALL HAVE A 2 GANG BOX WITH 1"C TO DISPLAY AND RS-232 CABLE.
- D PROVIDE A CLOCK/SPEAKER BACK BOX AT 96" AFF WITH 1"C TO ACCESSIBLE CEILING. PROVIDE PA SPEAKER AND WIRELESS CLOCK. CLOCK/SPEAKERS ARE TO BE INSTALLED VERTICALLY.
- E MOUNT WIRELESS CLOCKS AT 96".
- F ALL CABLE TRAY IN EXPOSED CEILING SHALL HAVE AN ANODIZED FINISH TO MATCH THE PAINTED CEILING COLOR. THE TRAY SHALL BE EQUIPPED WITH A LINER THAT MATCHES THE COLOR OF THE TRAY TO CONCEAL CABLE.
- G ALL EXPOSED CONDUIT SHALL BE TIGHT TO CEILING AND PAINTED TO MATCH CEILING.
- H REFER TO 1,2/E7.5 FOR TYPICAL WIRING AND CONDUIT REQUIREMENTS FOR DISPLAY AND PROJECTOR AV SYSTEMS.
- I ACCESS CONTROL REQUIRES 3/4"C TO EACH DEVICE AND A 1"C TO ACCESS CONTROL PANEL.
- J REFER TO 1/E7.6 AND 2/E7.6 FOR ACCESS CONTROL AND INTRUSION SINGLE LINE DRAWINGS.
- K ALL INTERIOR AND EXTERIOR DOORS SHALL BE FITTED WITH WIRED ACCESS READERS UNLESS OTHERWISE NOTED. PROVIDE CONNECTIONS TO ELECTRIC LOCKS AND REQUEST TO EXIT DEVICES ON DOOR HARDWARE.
- L PROVIDE CONDUIT TO ACCESS CONTROL AND ALARM PANELS IN IDF ROOMS.
- M ALL CONDUIT AND RACEWAY PENETRATIONS THROUGH FIRE RATED WALLS AND OUTLETS/DEVICES INSTALLED IN RATED ASSEMBLIES SHALL MAINTAIN THE RATING OF THE ASSEMBLY PER SECTION 712 OF THE CBC. REFER TO DETAILS 9 & 10/E8.2 FOR RATED PENETRATION DETAILS. REFER TO ARCH
- N PROVIDE AN ASSISTIVE LISTENING SYSTEM IN ACCORDANCE WITH 11B-219 AND TO COMPLY WITH 11B-706.
- O PROVIDE ASSISTIVE LISTENING SIGNAGE POSTED IN A PROMINENT PLACE IN EACH CLASSROOM AND COMPLYING WITH 11B-703.7.2.4 (11b-216.10)
- P THE BUILDING OCCUPANCY IS 825 PEOPLE. THE NUMBER OF RECEIVERS AT 4% OF THE OCCUPANCY FOR THE BUILDING IS 33 WITH 25% (9 DEVICES) HEARING AID COMPATABLE.



1 SIGNAL PLAN - SIERRA BUILDING - SECOND FLOOR

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

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REGISTERED PROFESSIONAL ENGINEER #E016281 ELECTRICAL SCOTT WHEELER STATE OF CALIFORNIA

SIGNAL PLAN - SIERRA BUILDING - SECOND FLOOR

WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

2401 High School Road, Roseville, California 95747

ADDENDUM 2
07.08.2020

Revisions		
07-01-2020	ADD1	Addendum1
07-08-2020	ADD2	Addendum 2

PROJECT #19-133
DSA APPL. #02-118062
DSA FILE #31-H3

E4.S1.2

7/8/2020 11:49:08 AM

NUMBERED SHEET NOTES

1. OFCI SHORT-THROW, WALL-MOUNT PROJECTOR. REFER TO 1/E7.5 FOR CONDUIT AND WIRING PLANS FOR PROJECTOR AV SYSTEM. REFER TO 44/A3.12 FOR PROJECTOR MOUNT DETAIL. REFER TO DETAILS 2 AND 8 ON SHEET E8.5 FOR MOUNTING HEIGHTS.
2. REFER TO 2/E7.5 FOR CONDUIT AND WIRING PLAN FOR FLAT PANEL DISPLAY AV SYSTEM. REFER TO 8/E8.3 FOR FLAT SCREEN DISPLAY MOUNTING.
3. PROVIDE A 130" DIAGONAL POWERED PROJECTION SCREEN WITH LOW VOLTAGE CONTROL SWITCH AND A LOW VOLTAGE CONNECTION TO THE PROJECTOR. REFER TO 1/E7.5, CONDUIT PLAN,REFER TO 6/E8.5, AND 7/E8.5.
4. POWERED CEILING SPEAKERS. CONNECT SPEAKERS TO EACH OTHER AND THE OUTPUT OF THE PROJECTOR. REFER TO 2/E8.5.
5. PROVIDE AN ATLAS SOUND 16U WALL MOUNT CABINET AT 24" AFF
6. PROVIDE A SOUND BAR ABOVE THE TV DISPLAY. USE SOUNDBAR MOUNTING BRACKETS TO THE BACK OF THE TV.
7. PROVIDE A SOUND BAR ABOVE THE PROJECTION DISPLAY. MOUNT TO WALL
8. PROVIDE A 3/4" CONDUIT AND RELAY CABLE CONNECTION FROM THE ACCESS CONTROL PANEL TO THE 4040SE SERIES DOOR CLOSER (REFER TO DOOR HARDWARE SCHEDULE) AND PROGRAM THE PANEL FOR PROGRAMMED DOOR RELEASE FROM DOOR HOLD OPEN AT OWNERS REQUIRED TIMES.
9. PROVIDE A 10RU MIDDLE ATLANTIC EQUIPMENT RACK IN CASEWORK, NUMBER BRK10. PROVIDE CONDUIT BETWEEN THE EQUIPMENT RACK AND THE POWERED SPEAKERS & DISPLAY. COORDINATE CABINET LOCATION WITH ARCHITECT. REVISED DRAWING 1./2/E7.5 FOR CONDUIT AND CABLE REQUIREMENTS.
10. PROVIDE AN AUDIO MIXER (EXTRON, DMP 64), ALS FIXED TRANSMITTER, AND WIRELESS MICROPHONE RECEIVER WITH LAVELIERE MICROPHONE.
11. PROVIDE AN IP2 WALL PLATE WITH 3.5MM AUDIO JACK WITH AUDIO CABLE TO AUDIO EQUIPMENT RACK. REFER TO REVISED DRAWING 1/E7.5 FOR CONDUIT AND CABLE REQUIREMENTS.
12. PROVIDE A 20.25"W X 20.5"H X 19"D, 10U WALL CABINET WITH A 1.25" CONDUIT TO ACCESSIBLE CEILING. MOUNT AT 90". USE ATLAS #312-15.
13. OFCI PROJECTOR. PROVIDE ALL SUPPORT HARDWARE. REFER TO 6/E8.5. REFER TO 1/E7.5 FOR CONDUIT AND WIRING PLANS FOR PROJECTOR AV SYSTEM.
14. ALL CAMERAS SHOWN SHALL HAVE A 4" SQ BOX WITH 1"C TO ACCESSIBLE CEILING AND 1"C TO CAMERA MOUNT. PROVIDE APPROPRIATE WALL MOUNT AND CORNER MOUNTS AS REQUIRED.
15. REFER TO ADDENDUM 1, 9/E7.5. PROVIDETHE FOLLOWING COMPONENTS:
    a. ATLAS SOUND 16U
    WALL CABINET #316-15
    b. ATLAS SOUND POWER CONDITIONER #AP-C150
    c. EXTRON CROSSPOINT
    86 DTP MATRIX SWITCHER, #60-1382-22
    d. EXTRON 7 INCH TOUCH SCREEN WALL MOUNTED
    CONTROL PANEL MODEL TLP PRO 725M, (2G OUTLET BOX)
    e. EXTRON DTP TRANSMITTERS,
    MODEL DTP T HWP 232 D
    f. EXTRON DTP RECEIVERS, DTP R HWP 4K 231 D (TV DISPLAYS) AND
    DTP HDMI 4K 230 Rx (PROJECTORS)
    g. SOUNDBAR, PER SPECIFICATION 274116
    h. EXTRON DIGITAL
    TWISTED PAIR CABLE, XTP DTP 24

GENERAL SHEET NOTES

A. ALL WALL MOUNTED AV OUTLETS AT TV AND SIGNAGE DISPLAYS SHALL BE LOCATED BEHIND THE DISPLAY. REFER TO E3 SERIES SHEETS. AV CONTRACTOR SHALL COORDINATE WITH THE ELECTRICAL CONTRACTOR, FOR THE FINAL HEIGHT OF DISPLAY AND OUTLET BOX PRIOR TO ROUGH-IN.

B. ROUTE ALL AV CABLE IN CONDUIT BETWEEN DISPLAY AND INTERFACE PLATE AND CONTROL PANEL.

C. CONTROL PANEL SHALL HAVE A 2 GANG BOX WITH 1"C TO DISPLAY AND RS-232 CABLE.

D. PROVIDE A CLOCK/SPEAKER BACK BOX AT 96" AFF WITH 1"C TO ACCESSIBLE CEILING. PROVIDE PA SPEAKER AND WIRELESS CLOCK. CLOCK/SPEAKERS ARE TO BE INSTALLED VERTICALLY.

E. MOUNT WIRELESS CLOCKS AT 96".

F. ALL CABLE TRAY IN EXPOSED CEILING SHALL HAVE AN ANODIZED FINISH TO MATCH THE PAINTED CEILING COLOR. THE TRAY SHALL BE EQUIPPED WITH A LINER THAT MATCHES THE COLOR OF THE TRAY TO CONCEAL CABLE.

G. ALL EXPOSED CONDUIT SHALL BE TIGHT TO CEILING AND PAINTED TO MATCH CEILING.

H. REFER TO 1./2/E7.5 FOR TYPICAL WIRING AND CONDUIT REQUIREMENTS FOR DISPLAY AND PROJECTOR AV SYSTEMS.

I. ACCESS CONTROL REQUIRES 3/4"C TO EACH DEVICE AND A 1"C TO ACCESS CONTROL PANEL.

J. REFER TO 1/E7.6 AND 2/E7.6 FOR ACCESS CONTROL AND INTRUSION SINGLE LINE DRAWINGS.

K. ALL INTERIOR AND EXTERIOR DOORS SHALL BE FITTED WITH WIRED ACCESS READERS UNLESS OTHERWISE NOTED. PROVIDE CONNECTIONS TO ELECTRIC LOCKS AND REQUEST TO EXIT DEVICES ON DOOR HARDWARE.

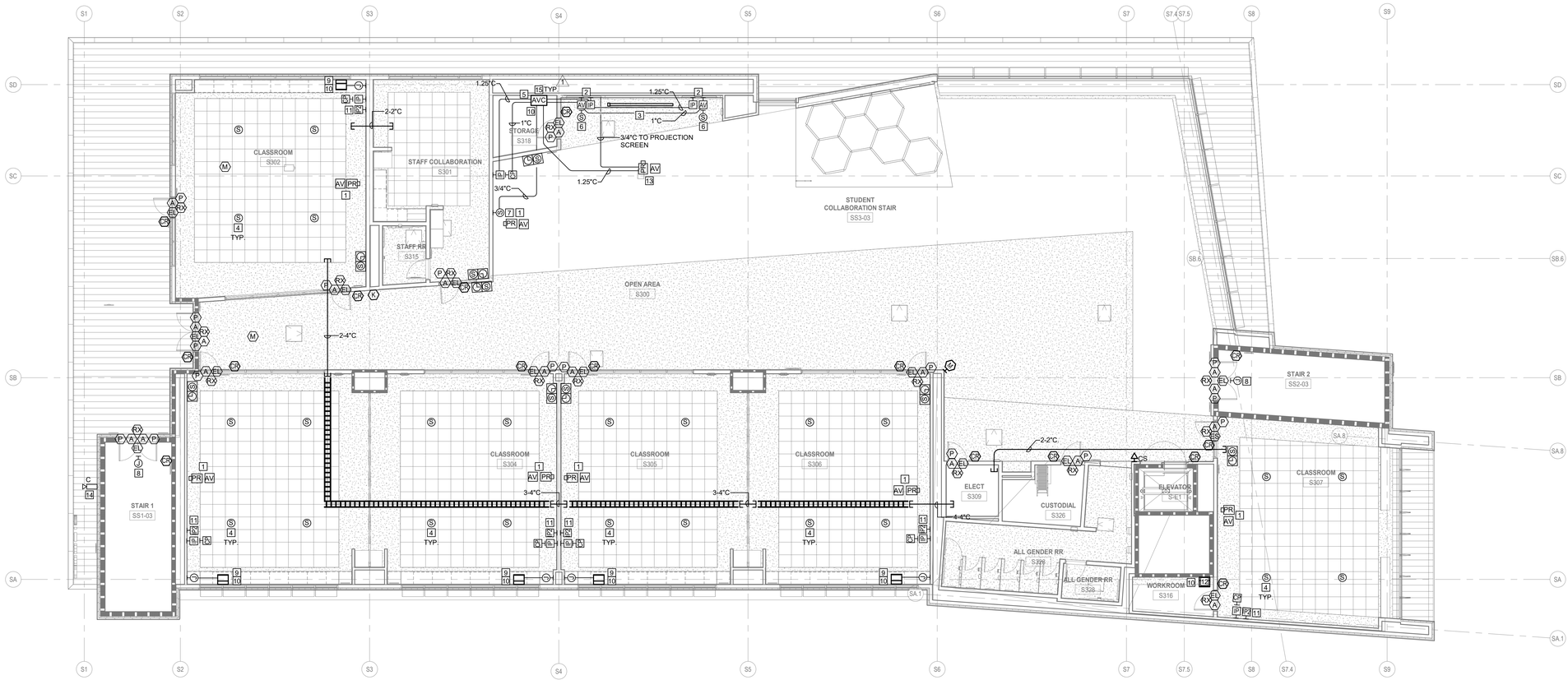
L. PROVIDE CONDUIT TO ACCESS CONTROL AND ALARM PANELS IN IDF ROOMS.

M. ALL CONDUIT AND RACEWAY PENETRATIONS THROUGH FIRE RATED WALLS AND OUTLETS/DEVICES INSTALLED IN RATED ASSEMBLIES SHALL MAINTAIN THE RATING OF THE ASSEMBLY PER SECTION 712 OF THE CBC. REFER TO DETAILS 9 & 10/E8.2 FOR RATED PENETRATION DETAILS. REFER TO ARCHITECTURAL PLANS FOR IDENTIFICATION OF FIRE RATED CONDITIONS.

N. PROVIDE AN ASSISTIVE LISTENING SYSTEM IN ACCORDANCE WITH 11B-219 AND TO COMPLY WITH 11B-706.

O. PROVIDE ASSISTIVE LISTENING SIGNAGE POSTED IN A PROMINENT PLACE IN EACH CLASSROOM AND COMPLYING WITH 11B-703.7.2.4 (11b-216.10)

P. THE BUILDING OCCUPANCY IS 825 PEOPLE. THE NUMBER OF RECEIVERS AT 4% OF THE OCCUPANCY FOR THE BUILDING IS 33 WITH 25% (9 DEVICES) HEARING AID COMPATABLE.



1 SIGNAL PLAN - SIERRA BUILDING - THIRD FLOOR

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

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REGISTERED PROFESSIONAL ENGINEER #29162 SCOTT WHEELER ELECTRICAL STATE OF CALIFORNIA

SIGNAL PLAN - SIERRA BUILDING - THIRD FLOOR

WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

2401 High School Road, Roseville, California 95747

ADDENDUM 2
07.08.2020

Revision		
07-01-2020	ADD1	Addendum1
07-08-2020	ADD2	Addendum 2

PROJECT #19-133
DSA APPL. #02-118062
DSA FILE #31-H3

E4.S1.3

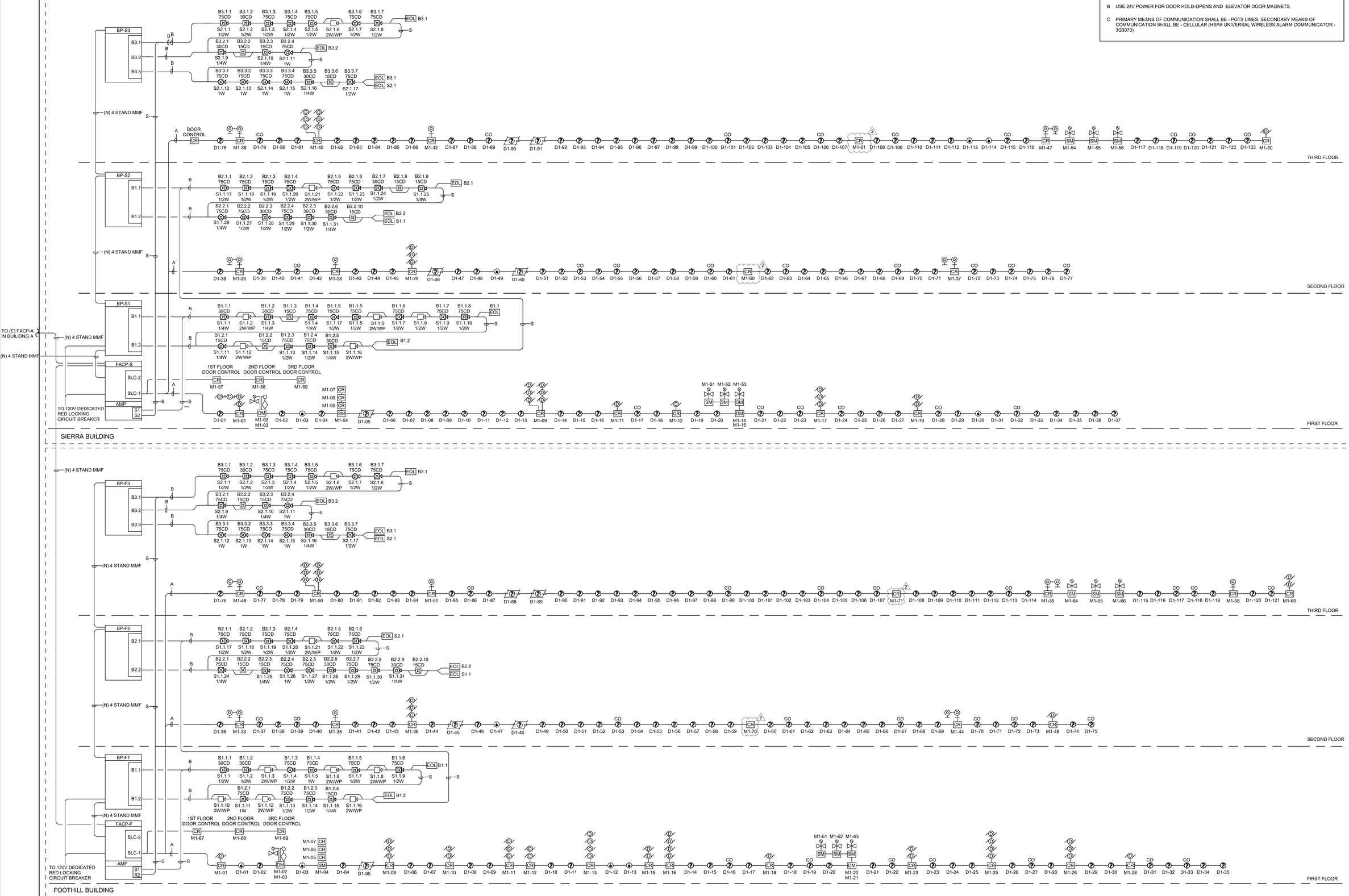
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GENERAL SHEET NOTES

A STANDPIPES WIILL BE MONITORED VIA A 'LOCK' (NFPA 14 2-13 SEC. 6.3.7.1) THUS NO ELECTRICAL MONITORING, VIA FIRE ALARM SYSTEM, REQUIRED AT THESE LOCATIONS.

B USE 24V POWER FOR DOOR HOLD-OPENS AND ELEVATOR DOOR MAGNETS.

C PRIMARY MEANS OF COMMUNICATION SHALL BE - POTS LINES. SECONDARY MEANS OF COMMUNICATION SHALL BE - CELLULAR (HSPA UNIVERSAL WIRELESS ALARM COMMUNICATOR - 3G3070)



1 FIRE ALARM SYSTEM RISER DIAGRAM

SCALE:NTS

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SCOTT WHEELER
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STATE OF CALIFORNIA

FIRE ALARM RISER DIAGRAM
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)
2401 High School Road, Roseville, California 95747

ADDENDUM 2
07.08.2020

Revisions		
07-01-2020	ADD1	Addendum1
07-08-2020	ADD2	Addendum 2

PROJECT #19-133
DSA APPL. #02-118062
DSA FILE #31-H3

E5.2

NUMBERED SHEET NOTES

1. CONTINUE SLC FROM LEVEL ONE.
2. OPEN CEILING , DEVICES SHOWN ON LEVEL 3 DRAWINGS - E5.F1.3.
3. DUCT SMOKE DETECTORS SHALL INITIATE HVAC SHUTDDOWN.
4. CONTRACTOR SHALL PROVIDE A CONTROL RELAY TO SHUT DOWN AREA FIRE SMOKE DAMPERS, USING AREA /COMPARTMENT SMOKE / HEAT DETECTORS.
5. CONTROL RELAY TO RELEASE DOORS IN EVENT OF GENERAL ALARM.

GENERAL SHEET NOTES

A MINIMUM SIZE CONDUIT PATHWAY SHALL BE 0.75" UNLESS NOTED OTHERWISE.

B FIRE ALARM SYSTEM INSTALLATION SHALL COMPLY WITH ALL REQUIREMENTS OF APPLICABLE CODES, STANDARDS AND STATE REGULATIONS.

C FIRE ALARM CIRCUITS AND CIRCUIT ROUTING ARE SHOWN SCHEMATICALLY FOR CLARITY ILLUSTRATING THE WIRING CONFIGURATION NECESSARY FOR PROPER CIRCUIT SUPERVISION.

D COORDINATE CEILING MOUNTED FIRE ALARM DEVICE LOCATIONS WITH WITH NEW LIGHT FIXTURES TO AVOID CONFLICTS.

E INSTALL FIRE ALARM CONDUCTORS IN CONDUIT OR METAL SURFACE RACEWAY WHEN IN EXPOSED SPACES. MINIMUM SIZE OF CONDUIT SHALL BE 0.75". UTILIZE WIREMOLD 700 SERIES SURFACE RACEWAY (IN LIEU OF CONDUIT) FOR AREA WHERE CONDUIT CANNOT BE INSTALLED CONCEALED. CABLE ABOVE ACCESSIBLE CEILING CAN BE INSTALLED FREE AIR WHEN USING APPLICABLE CABLE. SUPPORT ALL FREE AIR CABLE EVERY 48" WITH J-HOOKS.

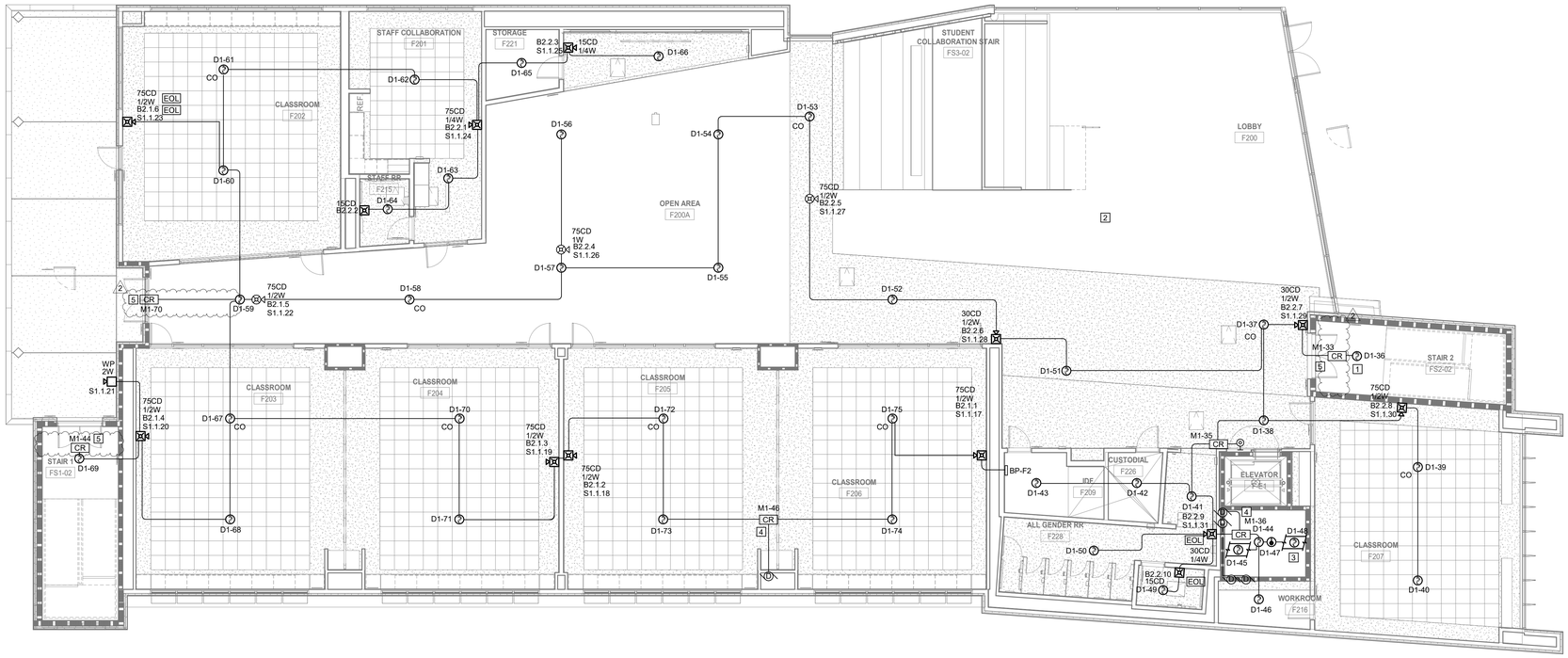
F REFER TO ONE LINE RISER DIAGRAM.

G REFER TO FA1.00 FOR SITE PATHWAY.

H CONTRACTOR SHALL PROVIDE DUCT DETECTORS WITH RELAYS FOR ANY AIR HANDLING UNITS (AHU) GREATER THAN 2000cfm, AND SMOKE FIRE DAMPERS NOT SHOWN ON PLANS.

I ELECTRICAL CONTRACTOR SHALL PROVIDE A 20A 120V DEDICATED CIRCUIT WITH RED LOCKING CIRCUIT BREAKER TO EACH NEW FIRE ALARM SYSTEM PANEL. FIRE ALARM PANELS IN THE SAME LOCATION MAY SHARE CIRCUIT.

J ALL SPEAKER STROBES SHALL BE MOUNTED IN 5" X 2 7/8" FOR FLUSH MOUNTED DEVICES AND FOR SURFACE MOUNTED DEVICES USE MANUFACTURES APPROVED BACK BOXES TO MATCH DEVICE.



1 FIRE ALARM PLAN - FOOTHILL BUILDING - SECOND FLOOR

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

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FIRE ALARM PLAN - FOOTHILL BUILDING - SECOND FLOOR

WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

2401 High School Road, Roseville, California 95747

ADDENDUM 2
07.08.2020

Revisions		
07-01-2020	ADD1	Addendum1
07-08-2020	ADD2	Addendum 2

PROJECT #19-133
DSA APPL #02-118062
DSA FILE #31-H3

E5.F1.2

7/8/2020 11:49:16 AM

NUMBERED SHEET NOTES

1. CONTRACTOR SHALL PROVIDE A CONTROL RELAY TO SHUT DOWN AREA FIRE SMOKE DAMPERS, USING AREA /COMPARTMENT SMOKE / HEAT DETECTORS.
2. DUCT SMOKE DETECTORS SHALL INITIATE HVAC SHUTDDOWN.
3. CONTROL RELAY TO RELEASE DOORS IN EVENT OF GENERAL ALARM.
4. INSTALL DUCT SMOKE DETECTOR TO ROOF TOP HVAC UNIT.
5. SLC TO CONTINUE FROM LEVEL 2.

GENERAL SHEET NOTES

A MINIMUM SIZE CONDUIT PATHWAY SHALL BE .75" UNLESS NOTED OTHERWISE.

B FIRE ALARM SYSTEM INSTALLATION SHALL COMPLY WITH ALL REQUIREMENTS OF APPLICABLE CODES, STANDARDS AND STATE REGULATIONS.

C FIRE ALARM CIRCUITS AND CIRCUIT ROUTING ARE SHOWN SCHEMATICALLY FOR CLARITY ILLUSTRATING THE WIRING CONFIGURATION NECESSARY FOR PROPER CIRCUIT SUPERVISION.

D COORDINATE CEILING MOUNTED FIRE ALARM DEVICE LOCATIONS WITH WITH NEW LIGHT FIXTURES TO AVOID CONFLICTS.

E INSTALL FIRE ALARM CONDUCTORS IN CONDUIT OR METAL SURFACE RACEWAY WHEN IN EXPOSED SPACES. MINIMUM SIZE OF CONDUIT SHALL BE 0.75". UTILIZE WIREMOLD 700 SERIES SURFACE RACEWAY (IN LIEU OF CONDUIT) FOR AREA WHERE CONDUIT CANNOT BE INSTALLED CONCEALED. CABLE ABOVE ACCESSIBLE CEILING CAN BE INSTALLED FREE AIR WHEN USING APPLICABLE CABLE. SUPPORT ALL FREE AIR CABLE EVERY 48" WITH J-HOOKS.

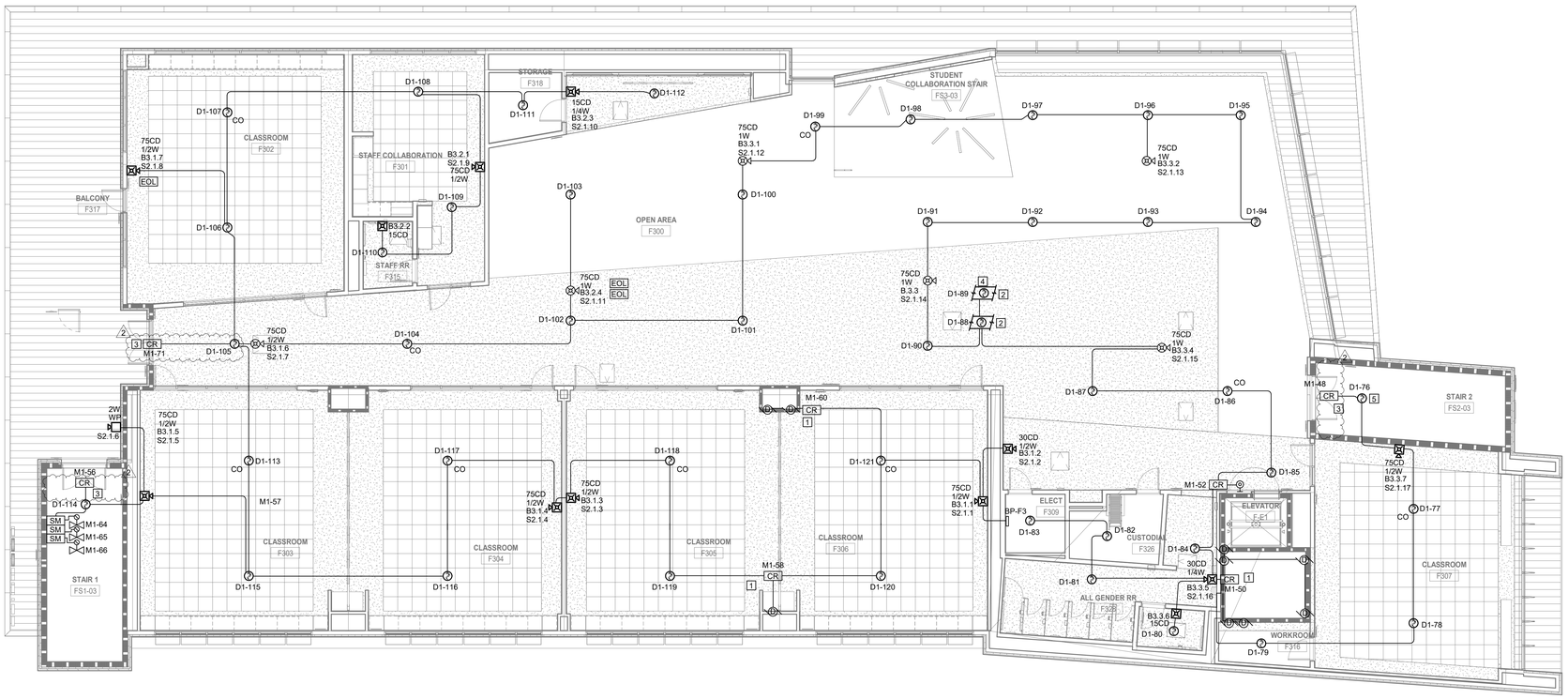
F REFER TO ONE LINE RISER DIAGRAM.

G REFER TO ONE LINE RISER DIAGRAM.

H CONTRACTOR SHALL PROVIDE DUCT DETECTORS WITH RELAYS FOR ANY AIR HANDLING UNITS (AHU) GREATER THAN 2000cfm, AND SMOKE FIRE DAMPERS NOT SHOWN ON PLANS.

I ELECTRICAL CONTRACTOR SHALL PROVIDE A 20A 120V DEDICATED CIRCUIT WITH RED LOCKING CIRCUIT BREAKER TO EACH NEW FIRE ALARM SYSTEM PANEL. FIRE ALARM PANELS IN THE SAME LOCATION MAY SHARE CIRCUIT.

J ALL SPEAKER STROBES SHALL BE MOUNTED IN 5" X 2 7/8" FOR FLUSH MOUNTED DEVICES AND FOR SURFACE MOUNTED DEVICES USE MANUFACTURES APPROVED BACK BOXES TO MATCH DEVICE.



1 FIRE ALARM PLAN - FOOTHILL BUILDING - THIRD FLOOR

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

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FIRE ALARM PLAN - FOOTHILL BUILDING - THIRD FLOOR

WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

2401 High School Road, Roseville, California 95747

ADDENDUM 2
07.08.2020

Revisions		
07-01-2020	ADD1	Addendum1
07-08-2020	ADD2	Addendum 2

PROJECT #19-133
DSA APPL #02-118062
DSA FILE #31-H3

E5.F1.3

7/8/2020 11:49:18 AM

NUMBERED SHEET NOTES

1. CONTINUE SLC FROM LEVEL ONE.
2. OPEN CEILING , DEVICES SHOWN ON LEVEL 3 DRAWINGS - E5.S1.3.
3. DUCT SMOKE DETECTORS SHALL INITIATE HVAC SHUTDDOWN.
4. CONTRACTOR SHALL PROVIDE A CONTROL RELAY TO SHUT DOWN AREA FIRE SMOKE DAMPERS, USING AREA /COMPARTMENT SMOKE / HEAT DETECTORS.
5. CONTROL RELAY TO RELEASE DOORS IN EVENT OF GENERAL ALARM.

GENERAL SHEET NOTES

A MINIMUM SIZE CONDUIT PATHWAY SHALL BE 0.75" UNLESS NOTED OTHERWISE.

B FIRE ALARM SYSTEM INSTALLATION SHALL COMPLY WITH ALL REQUIREMENTS OF APPLICABLE CODES, STANDARDS AND STATE REGULATIONS.

C FIRE ALARM CIRCUITS AND CIRCUIT ROUTING ARE SHOWN SCHEMATICALLY FOR CLARITY ILLUSTRATING THE WIRING CONFIGURATION NECESSARY FOR PROPER CIRCUIT SUPERVISION.

D COORDINATE CEILING MOUNTED FIRE ALARM DEVICE LOCATIONS WITH WITH NEW LIGHT FIXTURES TO AVOID CONFLICTS.

E INSTALL FIRE ALARM CONDUCTORS IN CONDUIT OR METAL SURFACE RACEWAY WHEN IN EXPOSED SPACES. MINIMUM SIZE OF CONDUIT SHALL BE 0.75". UTILIZE WIREMOLD 700 SERIES SURFACE RACEWAY (IN LIEU OF CONDUIT) FOR AREA WHERE CONDUIT CANNOT BE INSTALLED CONCEALED. CABLE ABOVE ACCESSIBLE CEILING CAN BE INSTALLED FREE AIR WHEN USING APPLICABLE CABLE. SUPPORT ALL FREE AIR CABLE EVERY 48" WITH J-HOOKS.

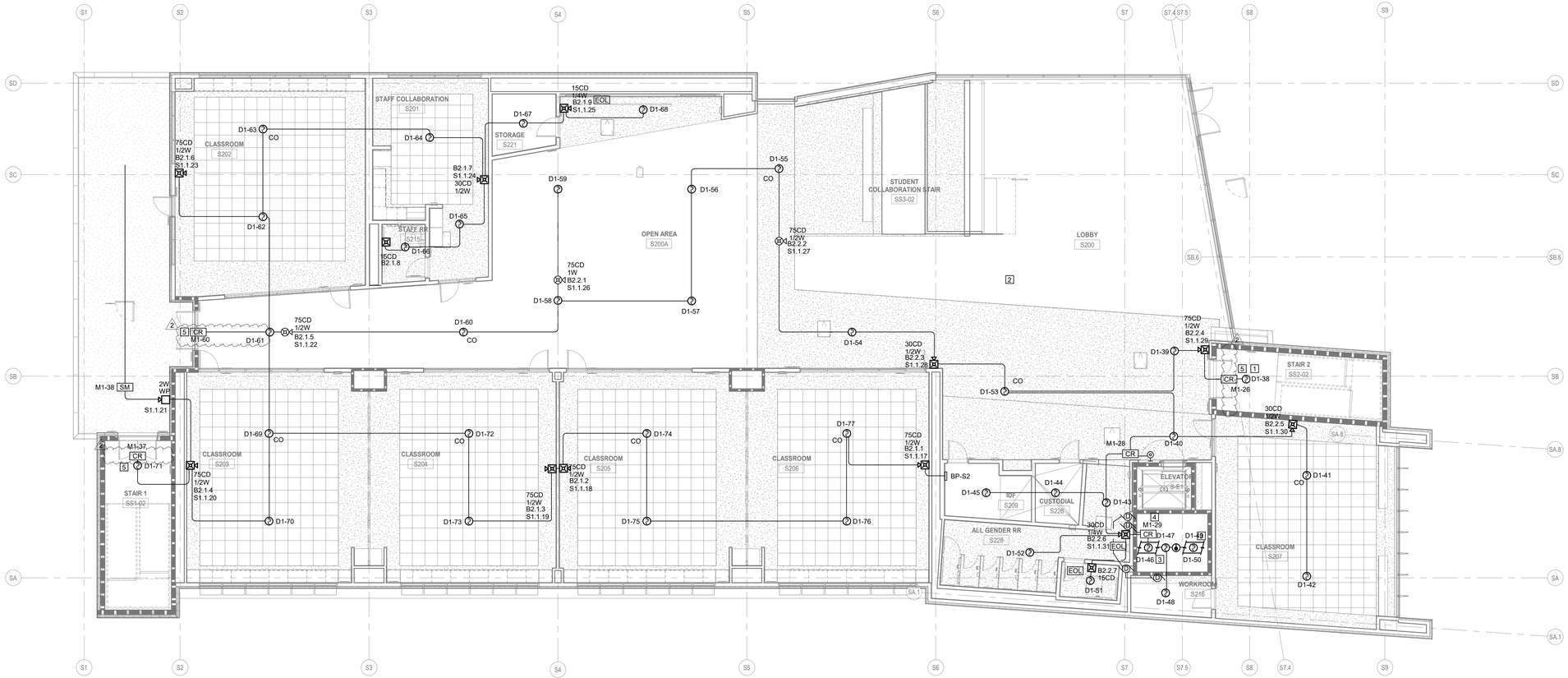
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G REFER TO FA1.00 FOR SITE PATHWAY.

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I ELECTRICAL CONTRACTOR SHALL PROVIDE A 20A 120V DEDICATED CIRCUIT WITH RED LOCKING CIRCUIT BREAKER TO EACH NEW FIRE ALARM SYSTEM PANEL. FIRE ALARM PANELS IN THE SAME LOCATION MAY SHARE CIRCUIT.

J ALL SPEAKER STROBES SHALL BE MOUNTED IN 5" X 2 7/8" FOR FLUSH MOUNTED DEVICES AND FOR SURFACE MOUNTED DEVICES USE MANUFACTURES APPROVED BACK BOXES TO MATCH DEVICE.



1 FIRE ALARM PLAN - SIERRA BUILDING - SECOND FLOOR

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

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FIRE ALARM PLAN - SIERRA BUILDING - SECOND FLOOR
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ADDENDUM 2
07.08.2020

Revisions		
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PROJECT #19-133
DSA APPL #02-118062
DSA FILE #31-H3

E5.S1.2

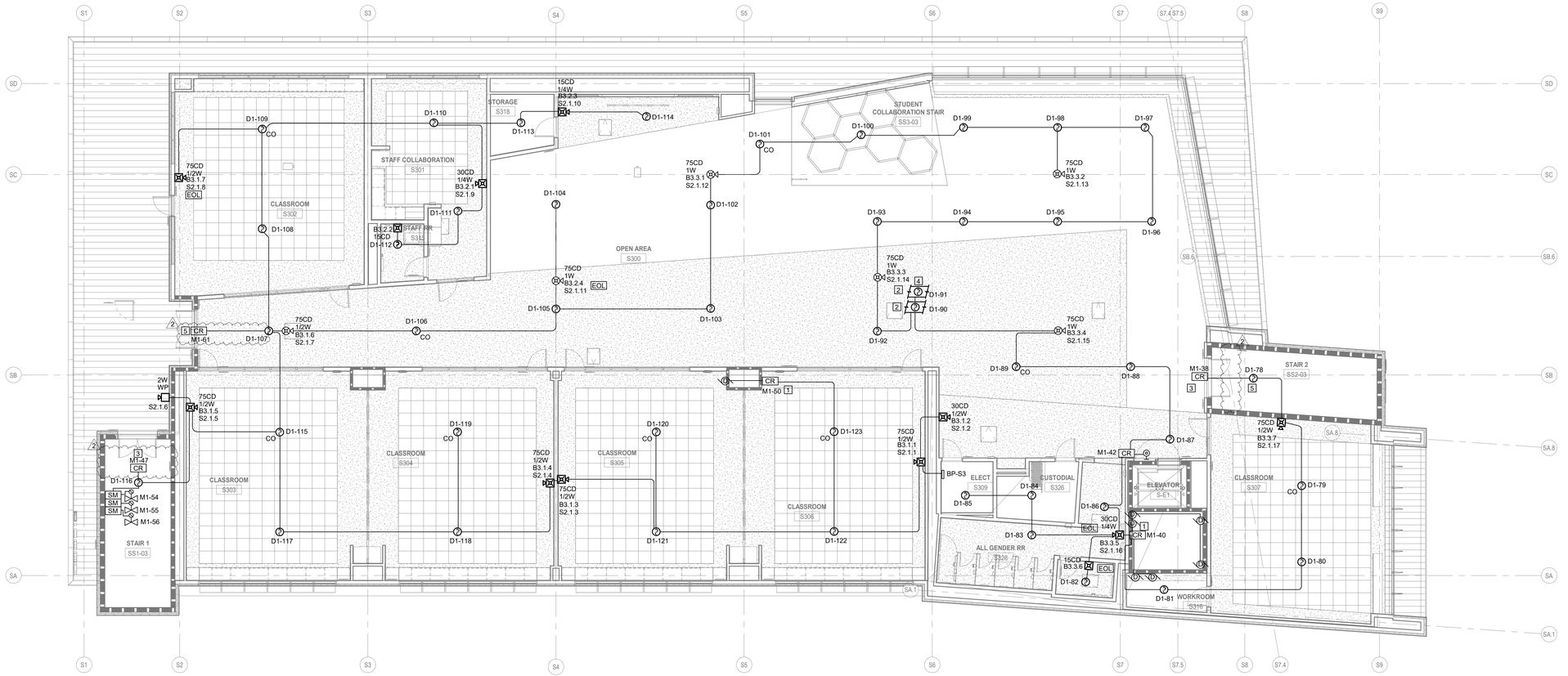
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NUMBERED SHEET NOTES

1. CONTRACTOR SHALL PROVIDE A CONTROL RELAY TO SHUT DOWN AREA FIRE SMOKE DAMPERS, USING AREA /COMPARTMENT SMOKE / HEAT DETECTORS.
2. DUCT SMOKE DETECTORS SHALL INITIATE HVAC SHUTDDOWN.
3. CONTROL RELAY TO RELEASE DOORS IN EVENT OF GENERAL ALARM.
4. INSTALL DUCT SMOKE DETECTOR TO ROOF TOP HVAC UNIT.
5. SLC TO CONTINUE FROM LEVEL 2.

GENERAL SHEET NOTES

- A MINIMUM SIZE CONDUIT PATHWAY SHALL BE .75" UNLESS NOTED OTHERWISE.
- B FIRE ALARM SYSTEM INSTALLATION SHALL COMPLY WITH ALL REQUIREMENTS OF APPLICABLE CODES, STANDARDS AND STATE REGULATIONS.
- C FIRE ALARM CIRCUITS AND CIRCUIT ROUTING ARE SHOWN SCHEMATICALLY FOR CLARITY ILLUSTRATING THE WIRING CONFIGURATION NECESSARY FOR PROPER CIRCUIT SUPERVISION.
- D COORDINATE CEILING MOUNTED FIRE ALARM DEVICE LOCATIONS WITH WITH NEW LIGHT FIXTURES TO AVOID CONFLICTS.
- E INSTALL FIRE ALARM CONDUCTORS IN CONDUIT OR METAL SURFACE RACEWAY WHEN IN EXPOSED SPACES. MINIMUM SIZE OF CONDUIT SHALL BE 0.75". UTILIZE WIREMOLD 700 SERIES SURFACE RACEWAY (IN LIEU OF CONDUIT) FOR AREA WHERE CONDUIT CANNOT BE INSTALLED CONCEALED. CABLE ABOVE ACCESSIBLE CEILING CAN BE INSTALLED FREE AIR WHEN USING APPLICABLE CABLE. SUPPORT ALL FREE AIR CABLE EVERY 48" WITH J-HOOKS.
- F REFER TO ONE LINE RISER DIAGRAM.
- G REFER TO ONE LINE RISER DIAGRAM.
- H CONTRACTOR SHALL PROVIDE DUCT DETECTORS WITH RELAYS FOR ANY AIR HANDLING UNITS (AHU) GREATER THAN 2000cfm, AND SMOKE FIRE DAMPERS NOT SHOWN ON PLANS.
- I ELECTRICAL CONTRACTOR SHALL PROVIDE A 20A 120V DEDICATED CIRCUIT WITH RED LOCKING CIRCUIT BREAKER TO EACH NEW FIRE ALARM SYSTEM PANEL. FIRE ALARM PANELS IN THE SAME LOCATION MAY SHARE CIRCUIT.
- J ALL SPEAKER STROBES SHALL BE MOUNTED IN 5" X 2 7/8" FOR FLUSH MOUNTED DEVICES AND FOR SURFACE MOUNTED DEVICES USE MANUFACTURES APPROVED BACK BOXES TO MATCH DEVICE.



1 FIRE ALARM PLAN - SIERRA BUILDING - THIRD FLOOR

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

7/8/2020 11:49:22 AM

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REGISTERED PROFESSIONAL ENGINEER #E21423 SCOTT WHEELER ELECTRICAL STATE OF CALIFORNIA

FIRE ALARM PLAN - SIERRA BUILDING - THIRD FLOOR

WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

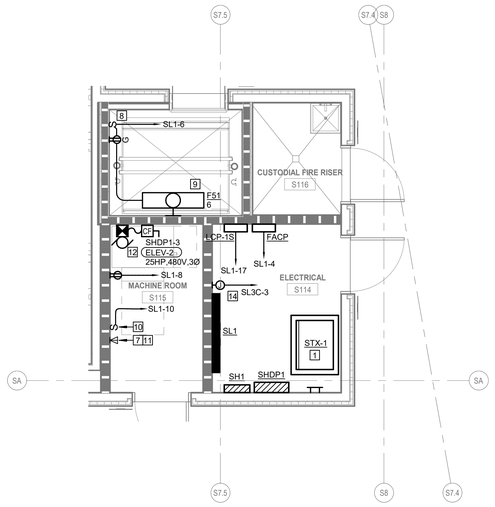
2401 High School Road, Roseville, California 95747

ADDENDUM 2
07.08.2020

Revision		
07-01-2020	ADD1	Addendum1
07-08-2020	ADD2	Addendum 2

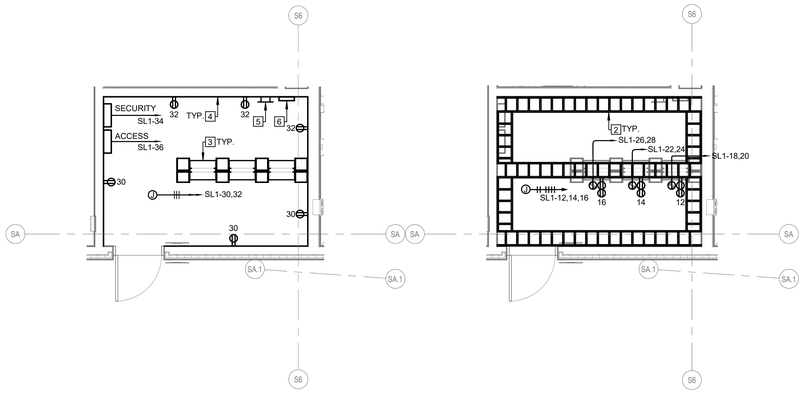
PROJECT #19-133
DSA APPL #02-118062
DSA FILE #31-H3

E5.S1.3



1 ENLARGED ELECTRICAL ROOM S114

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

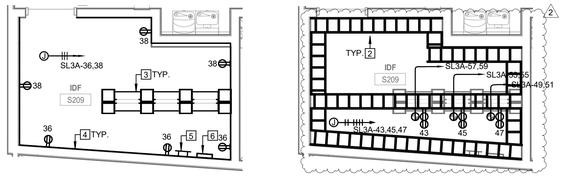


2 ENLARGED IDF S125

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

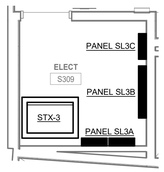
NUMBERED SHEET NOTES

1. PROVIDE A 4" HIGH CONCRETE HOUSEKEEPING PAD FOR EQUIPMENT. COORDINATE ACTUAL SIZES OF EQUIPMENT BASE WITH APPROVED SHOP DRAWINGS AND EXTEND PAD 4" IN ALL DIRECTIONS BEYOND THE OVERALL DIMENSION OF THE BASE (MINIMUM), OR AS INDICATED ON THE PLANS. REFER TO 2/E8.2.
2. PROVIDE 12" CABLE RUNWAY AROUND PERIMETER OF THE ROOM AT +7'-6". PROVIDE WITH 2" RAILS WITH 1" WIDE CROSS MEMBERS SPACED 9", B-LINE OR APPROVED EQUAL. SUPPORT ALL RUNWAY WITH 1/2" ATR FROM STRUCTURE ABOVE, END WALL "L" BRACKETS AND ELEVATION KITS ABOVE CABINETS. SEISMICALLY BRACE WITH LONGITUDINAL AND TRANSVERSE BRACING. BOND TO TELECOM ROOM BUS BAR WITH #6 CU. PROVIDE WITH MIN. 15" CORNER BRACKETS. REFER TO DETAILS 2,3,4,5,6,7/E8.3.
3. 19"x84" OPEN EQUIPMENT RACKS WITH 10"WX17"DX84"H DOUBLE SIDED VERTICAL WIRE MANAGERS ON BOTH SIDES OF EACH RACK. REFER TO 1/E8.3 AND OSHPD OPM-0261-13
4. PROVIDE PLYWOOD BACKBOARD, 4'W X 8'H X 0.75" COMMUNICATIONS GRADE AROUND PERIMETER OF THE IDF ROOM AT +3" A.F.F. TO 99"AFF AT TOP OF BOARD. A MINIMUM OF TWO COATS OF FIRE RETARDANT PAINT, COLOR TO MATCH WALL FINISH, SHALL BE APPLIED TO ALL SURFACES OF THE BOARD PRIOR TO INSTALLATION. REFER TO 9/E8.3.
5. PROVIDE TELECOMMUNICATIONS SYSTEM GROUND BUS BAR AT IDF/MDF ROOM. REFER TO GROUND RISER DIAGRAMS, SHEET E7.2.
6. PROVIDE A 50-PAIR BUILDING ENTRANCE PROTECTOR (BEP) WITH 50-PAIR IN AND 50-PAIR OUT. TERMINATE ENTRANCE OSP CABLE AT INPUT. TERMINATE RISER RATED POWER SUM CABLE FROM VOICE PATCH PANEL AT RACK TO OUTPUT OF THE PROTECTOR.
7. PROVIDE PHONE CONNECTION FOR ELEVATOR MACHINE ROOM.
8. LOCATE ELEVATOR PIT LIGHT SWITCH NEAR ACCESS DOOR PER ELEVATOR SHOP DRAWINGS.
9. ELEVATOR PIT LIGHT. PROVIDE METAL CAGE AROUND FIXTURE.
10. ELEVATOR CAB LIGHT AND VENTILATION DISCONNECTING MEANS CAPABLE OF BEING LOCKED IN THE OPEN POSITION.
11. ACCESS CONTROL RELAY CONNECTION TO ELEVATOR CONTROL PANEL. COORDINATE WITH ELEVATOR CONTRACTOR.
12. REFER TO POWER ONE-LINE DIAGRAM FOR FEEDER REQUIREMENTS.
13. REFER TO ANCHORAGE DETAILS ON SHEET E8.2 FOR ELECTRICAL AND TELECOM EQUIPMENT MOUNTING DETAILS. REFER TO STRUCTURAL CALCULATIONS FOR UNITS WEIGHING OVER 400 LBS.
14. PROVIDE 120V POWER TO VAV PANEL.



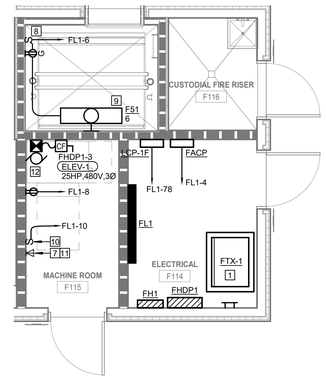
3 ENLARGED IDF S209

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



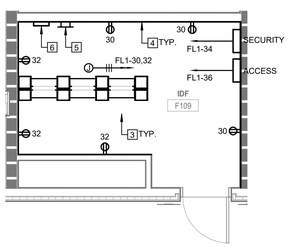
4 ENLARGED ELECTRICAL ROOM S309

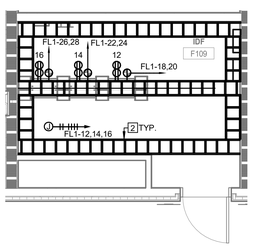
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5 ENLARGED ELECTRICAL ROOM F114

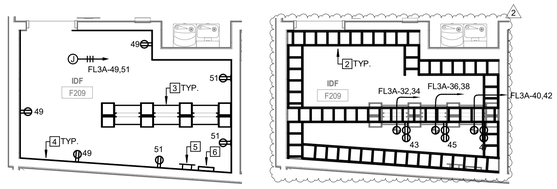
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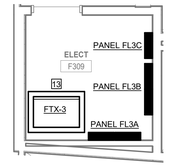
6 ENLARGED IDF F109

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



7 ENLARGED IDF F209

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



8 ENLARGED ELECTRICAL ROOM F309

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

ADD2 07-08-2020 Addendum 2
ADD1 07-01-2020 Addendum 1

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ENLARGED ROOM PLANS
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)

2401 High School Road, Roseville, California 95747

ADDENDUM 2
07.08.2020

Revisions		
07-01-2020	ADD1	Addendum1
07-08-2020	ADD2	Addendum 2

PROJECT #19-133
DSA APPL. #02-118062
DSA FILE #31-H3

E6.1

GENERAL SHEET NOTES

A. COPPER OUTSIDE PLANT (OSP) VOICE CABLING SHALL BE 24 AWG BROAD BAND CATEGORY 5E POWERSUM CABLE.

B. COPPER RISER CABLE VOICE CABLING SHALL BE 24 AWG CATEGORY 5E POWERSUM CABLE.

C. FIBER OPTIC OUTSIDE PLANT (OSP) DATA CABLING SHALL BE 50/125 MULTI-MODE 10XG (BACKWARDS COMPATIBLE TO ALL 1G SYSTEMS) AND 9/125 SINGLE-MODE. ROUTED IN MAXCELL 3" 3 CELL INNER DUCT. PROVIDE 3 EACH 3 CELL PACKS PER FIBER CONDUIT.

D. FIBER OPTIC RISER DATA CABLING SHALL BE 50/125 MULTI-MODE 10XG (BACKWARDS COMPATIBLE TO ALL 1G SYSTEMS) AND 9/125 SINGLE-MODE. ROUTED IN 1" INNERDUCT.

E. ALL OSP COPPER SHALL BE TERMINATED ON BUILDING ENTRANCE PROTECTORS (BEP)

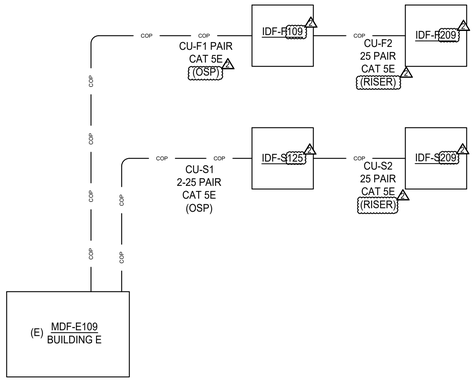
F. ALL COPPER AND FIBER CABLE SHALL BE LABELED IN EACH PULLBOX AND WHERE CABLE ENTERS THE IDF, WITH PLASTIC LABEL TIE WRAPPED TO CABLE JACKET. THE STANDARD LABELING CONVENTION WILL BE PROVIDED BY THE OWNERS REPRESENTATIVE.

G. ALL CABLES SHALL BE DRESSED NEATLY AND SECURED TO THE SIDE WALLS OF THE PULL BOX WHEN PASSING THROUGH BOXES.

H. PROVIDE A 10 FT. SERVICE LOOP FOR ALL FIBER IN EACH PULL BOX AND A 20 FT. SERVICE LOOP AT THE MDF AND IDF.

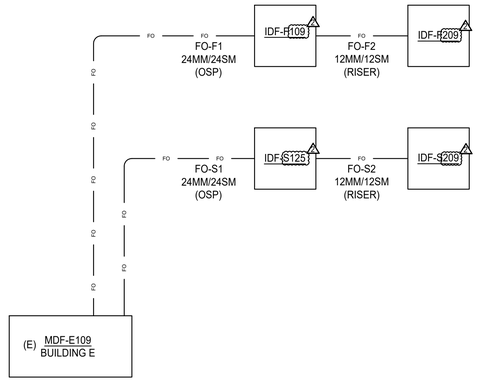
I. PROVIDE A 20 FT. FIBER SERVICE LOOP FOR ALL RISER FIBER.

J. INSTALL ALL UNDERGROUND FIBER INSIDE INNERDUCT. USE 3 EA. 3 CELL 3" MAXCELL INNERDUCT 9 CELLS) THROUGH EACH CONDUIT USED FOR FIBER, BETWEEN THE MDF ROOM IN BUILDING E AND NEW BUILDING IDF.



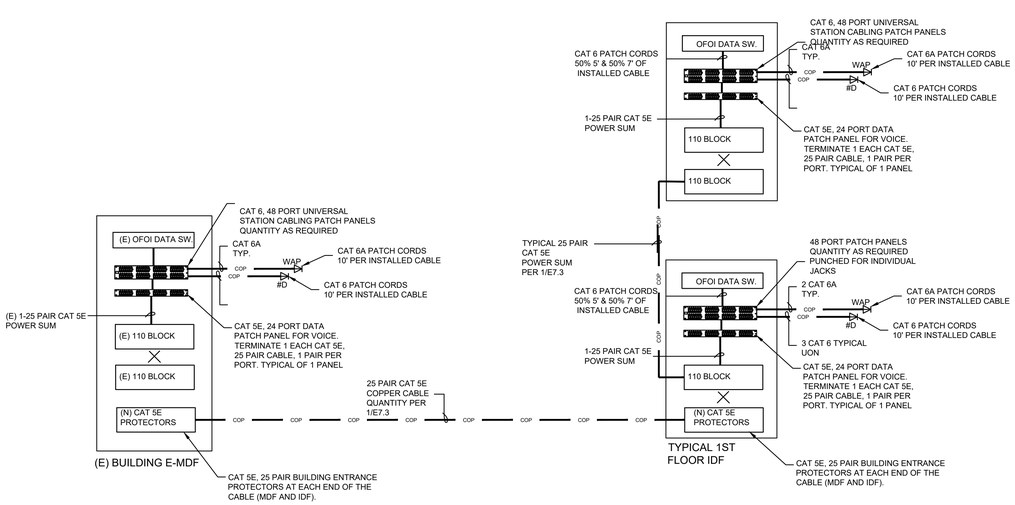
1 E7.3 CAMPUS COPPER RISER DIAGRAM

SCALE:NTS



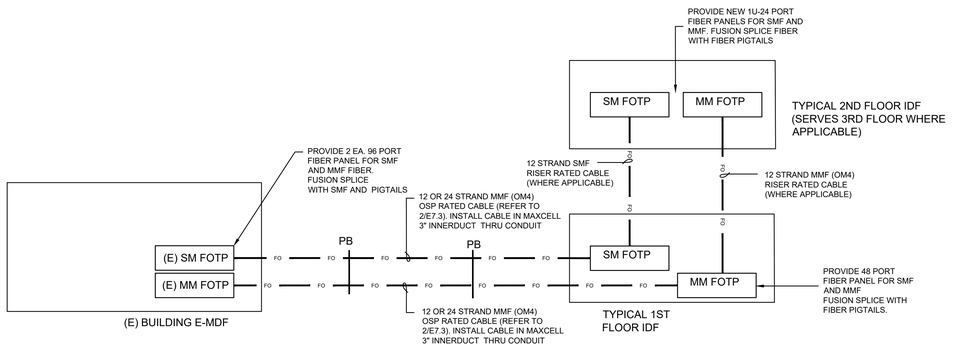
2 E7.3 CAMPUS FIBER RISER DIAGRAM

SCALE:NTS



3 E7.3 TYPICAL COPPER BUILDING RISER DIAGRAM

SCALE:NTS



4 E7.3 TYPICAL FIBER BUILDING RISER DIAGRAM

SCALE:NTS

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RISER DIAGRAMS
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)
2401 High School Road, Roseville, California 95747

ADDENDUM 1
07.01.2020

Revisions

07-01-2020	ADD1	Addendum 1
07-08-2020	ADD2	Addendum 2

PROJECT #19-133
DSA APPL. #02-118062
DSA FILE #31-H3

E7.3

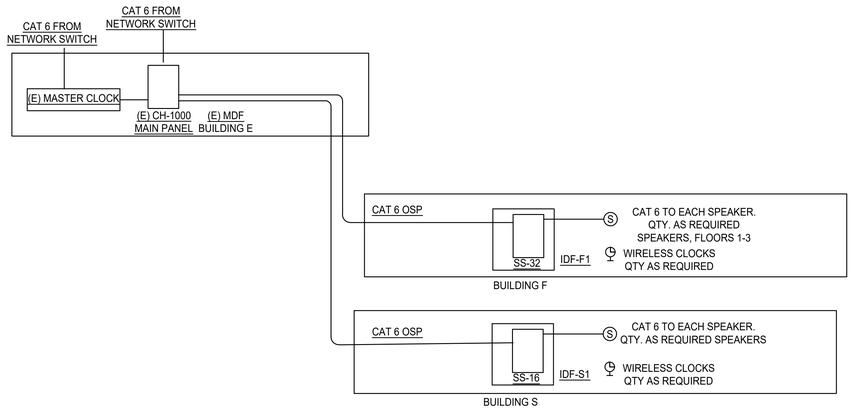
NUMBERED SHEET NOTES

[#]

1. INTERMEDIATE DISTRIBUTION FACILITY "IDF" TELECOM ROOM, SHALL SERVE AS TERMINATION POINT FOR ALL VERTICAL BACKBONE CABLING, AS WELL AS BE THE ORIGIN FOR ALL HORIZONTAL STATION CABLING.
2. ELECTRICAL ROOM. ROUTE RISER CONDUITS THROUGH ROOM.
3. DEEP TELECOM OUTLET BOX WITH SINGLE-GANG PLASTER RING.
4. CONDUIT FROM TELECOM OUTLET BOX TO STUB-OUT ABOVE ACCESSIBLE CEILING WITHIN 6" OF J-HOOK OR CABLE TRAY FOR ROUTING OF HORIZONTAL STATION CABLING. TERMINATE CONDUIT ENDS WITH INSULATED-THROAT CONNECTIONS.
5. FIRE-TREATED PLYWOOD BACKBOARDS, 4'W. X 8'H. X 3/4"TH., IN LENGTHS AS REQUIRED TO COVER TELECOMMUNICATION ROOM WALLS AS SHOWN ON DRAWINGS. INSTALL BACKBOARDS AT 2" AFF TO EXTEND TO 8'-2" AFF.
6. FIRE-TREATED PLYWOOD BACKBOARDS, 4'W. X 8'H. X 3/4"TH., IN LENGTHS AS REQUIRED TO COVER TELECOMMUNICATION ROOM WALLS AS SHOWN ON DRAWINGS. INSTALL BACKBOARDS AT 2" AFF TO EXTEND TO 8'-2" AFF.
7. HORIZONTALLY MOUNTED LADDER RACK WITHIN TELECOMMUNICATION ROOM FOR SUPPORT OF VERTICAL BACKBONE AND HORIZONTAL STATION CABLING. REFER TO TELECOMMUNICATION ROOM PLANS FOR LAYOUTS.
8. SERVICE ENTRANCE UTILITY OR INCOMING BUILDING INTER-CONNECTION CONDUITS ROUTED UNDERGROUND. REFER TO SITE PLAN DRAWINGS FOR LAYOUT AND TERMINATION'S.
9. CABLE BACKBONE RISER CONDUIT INTERTIE BETWEEN TELECOMMUNICATION RISER ROOMS, ROUTED UNDERGROUND.
10. CABLE BACKBONE RISER CONDUITS BETWEEN IDF ROOMS.
11. TELECOMMUNICATION SYSTEM GROUND CONDUCTOR CONDUIT ROUTED UNDERGROUND BETWEEN IDF AND MAIN ELECTRICAL ROOM.
12. COORDINATE LOCATION OF BUILDING MAIN GROUND BUS IN ELECTRICAL ROOM FOR TERMINATION OF CONDUIT.
13. TELECOMMUNICATION SYSTEM GROUND CONDUCTOR CONDUIT BETWEEN IDF ROOMS.
14. FURNISH AND INSTALL BASKET TYPE CABLE TRAY ABOVE ACCESSIBLE CEILING SPACES FOR ROUTING OF HORIZONTAL STATION CABLING THROUGHOUT FLOOR. REFER TO DRAWINGS FOR LAYOUTS.
15. FIRE-RATED WALL PENETRATION, EZ PATHWAY 33 SERIES BY STI, FOR HORIZONTAL STATION CABLE PENETRATION THROUGH RATED WALLS. QUANTITY PER E4 SERIES FLOOR PLANS
16. ROUTE CONDUIT FROM FIRE ALARM CONTROL PANEL TO IDF FOR REMOTE NOTIFICATION OF FIRE CONDITIONS.
17. ROUTE CONDUIT CONNECTION TO ELEVATOR MACHINE ROOM FOR TELEPHONE CABLE REQUIREMENTS TO ELEVATOR CABS.
18. PROVIDE CONDUIT SLEEVES FOR ROUTING OF 2ND FLOOR HORIZONTAL STATION CABLING TO 3RD FLOOR IDF.
19. PULL BOX. REFER TO SITE PLAN E1.10 FOR REQUIREMENTS, TYPICAL.

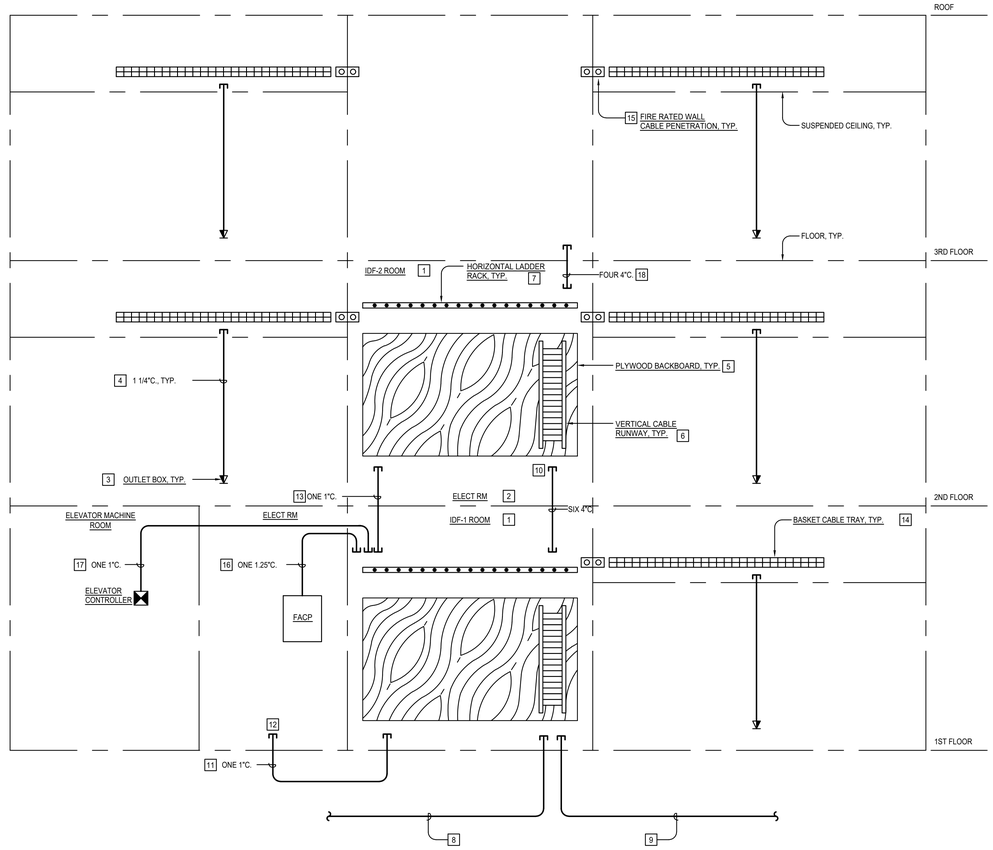
GENERAL SHEET NOTES

1. REFER TO CONDUIT WIRING SCHEDULE, E0.50, FOR CONDUIT REQUIREMENTS.



1 E7.4 CAMPUS PA AND CLOCK RISER DIAGRAM
SCALE: NTS

2 E7.4 NOT IN USE.
SCALE: NTS



3 E7.4 TELECOM/SIGNAL SYSTEM TYP BUILDING PATHWAY RISER DIAGRAM
SCALE:NTS

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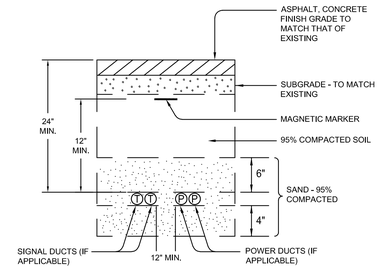
ADDENDUM 1
07.01.2020

Revisions

07-01-2020	ADD1	Addendum 1
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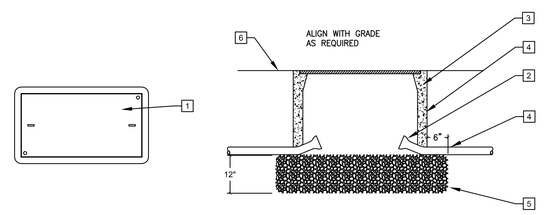
PROJECT #19-133
DSA APPL. #02-118062
DSA FILE #31-H3

E7.4



1 E8.4 JOINT TRENCH DETAIL

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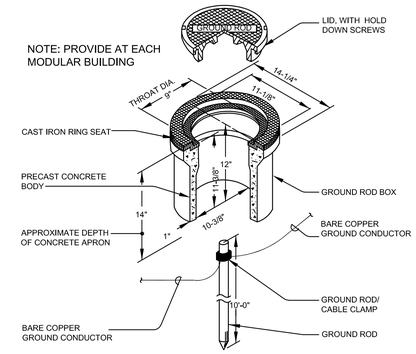


1. CONCRETE COVER (TO SUIT APPLICATION) WITH HOLD DOWN BOLTS. LABEL COVER AS REQUIRED.
2. BELL ENDS TYP.
3. PRE CAST REINFORCED CONCRETE BOX, SIZE PER PLANS
4. SEAL AROUND CONDUIT, BOX & JUNCTION OF EXTENSION(S) WITH MORTAR
5. CRUSHED ROCK
6. FINISHED GRADE

2 E8.4 SITE PULLBOX DETAIL

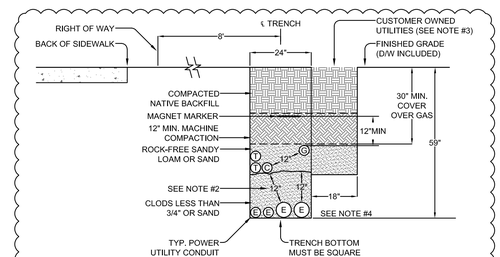
NTS

NOTE: PROVIDE AT EACH MODULAR BUILDING



3 E8.4 GROUND ROD INSTALLATION

NTS



NOTES:

1. IF NUMBER OF CONDUITS WOULD REQUIRE MORE ROOM TO MAINTAIN CLEARANCE, PROVIDE WIDER TRENCH.
2. 12" MINIMUM RADIAL CLEARANCE FROM ELECTRIC, GAS, AND COMMUNICATION UTILITY CONDUITS.
3. EXTRA TRENCH WIDTH NOT ALLOWED IN SUBDIVISIONS. CUSTOMER OWNED UTILITIES ARE NOT ALLOWED IN P.U.E. EXTRA TRENCH WIDTH FOR PRIVATE UTILITIES IS TYPICALLY RESTRICTED TO COMMERCIAL APPLICATIONS
4. UTILITY INSPECTOR MAY REQUIRE 6" OF STONE OR GRAVEL CUSHION BETWEEN THE BOTTOM OF THE TRENCH AND THE ELECTRICAL CONDUIT IF THE SOIL IS ROCKY.

4 E8.4 UTILITY JOINT TRENCH DETAIL

NTS

△2 08

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DETAILS
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)
2401 High School Road, Roseville, California 95747

ADDENDUM 2
07.08.2020

Revisions
07-01-2020 ADD1 Addendum 1
07-08-2020 ADD2 Addendum 2

PROJECT #19-133
DSA APPL. #02-118062
DSA FILE #31-H3

E8.4



LICENSED ARCHITECT
MARK V COVINGTON
No. C-27596
03/31/2021
RENEWAL DATE
STATE OF CALIFORNIA

1/A5.F.1 - BUILDING FOOTHILL - SOUTH ELEVATION

Attachment No. ASK-001
to ADD 02
Dated: 07/08/2020

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A5.F.1
75-15113-00

EXT ELEVS - BLDG F (BLDG S SIM.)
WEST PARK HIGH SCHOOL, PHASE 2 (INC. 1)
Roseville Joint Union High School District

	Skilled Labor certification	**Pass/Fail**
	Subcontractor Listing form	**Pass/Fail**
	DVBE "Good Faith Efforts" documentation (if goal is not met)	**Pass/Fail**
Scored Services	**Basis for Evaluation**	**Points**
Phase II (Inc 1) Price Proposal	More than 10% below average TBR: 75 points 8% to 10% below average: 68 points 6% to 7.9% below average: 61 points 4% to 5.9% below average: 54 points 2% to 3.9% below average: 47 points Average TBR to 1.9% below average: 40 points 0.1% to 2% above average: 33 points 2.1% to 3% above average: 26 points 3.1% to 4% above average: 19 points 4.1% to 5% above average: 12 points 5.1% to 6% above average: 5 points More than 6% higher than average TBR: 0 points	**75 Points**
Phase II (Inc 2) & Phase III combined costs Total Price From Phase II (Increment 2) and Phase III Price Proposals.	More than 10% below average: 25 points 8% to 10% below average: 23 points 6% to 7.9% below average: 21 points 4% to 5.9% below average: 19 points 2% to 3.9% below average: 17 points Average to 1.9% below average: 15 points 0.1% to 2% above average: 13 points 2.1% to 3% above average: 11 points 3.1% to 4% above average: 9 points 4.1% to 5% above average: 7 points More than 5.1% higher than average: 5 points	**25 Points**
Finance Rate (Phase II, Inc 1,2 & Phase III)	Finance rate will be ranked from lowest rate to highest. Lowest rate to up to .50% over the lowest rate: 5 points Lowest rate plus .51% to 1.0%: 4 points Lowest rate plus 1.01% to 1.5%: 3 points Lowest rate plus 1.51% to 2.0%: 2 points Lowest rate plus 2.01% to 2.5%: 1 points Lowest rate plus 2.51% or more: 0 points	**5 Points**

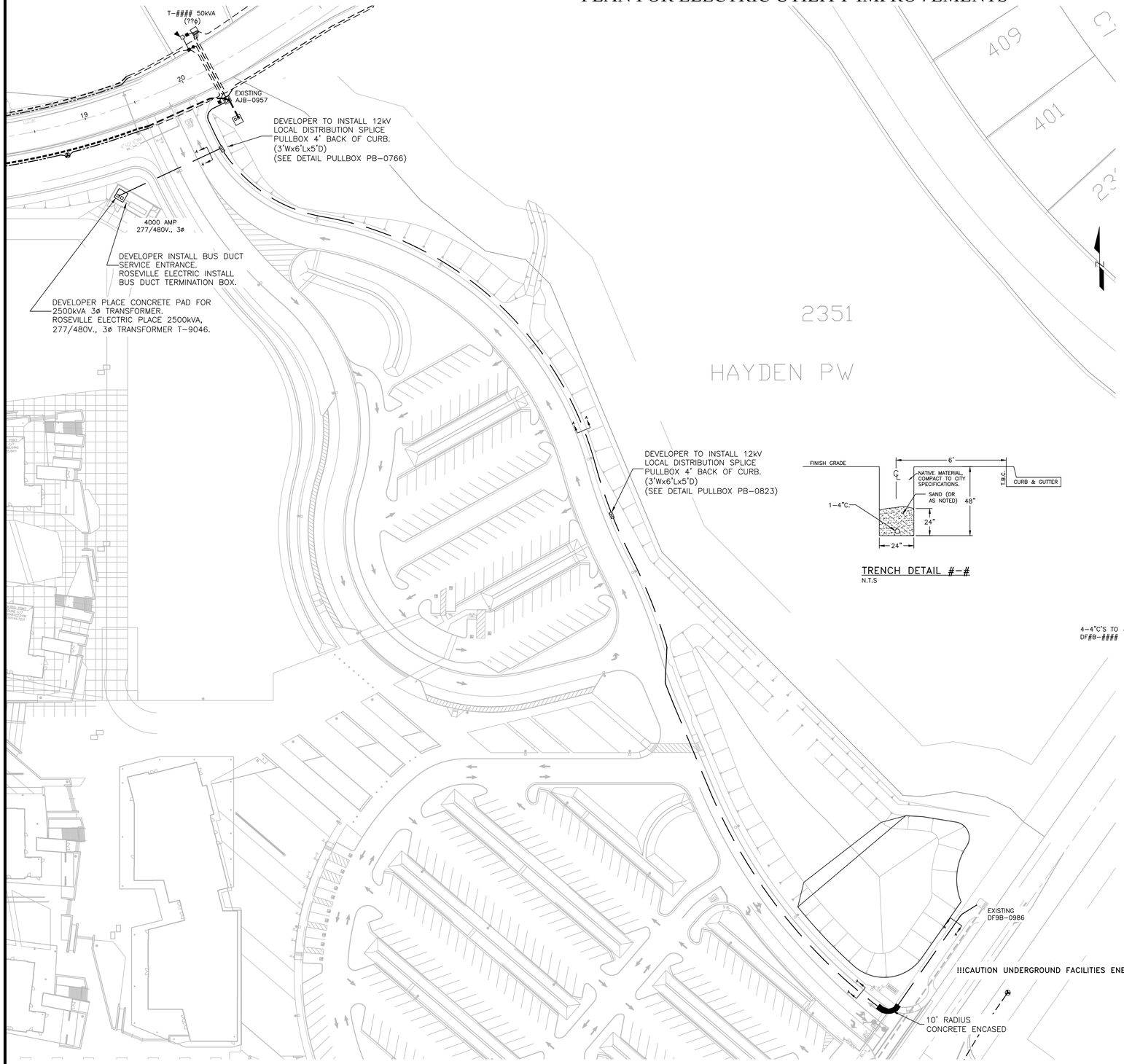
Maximum Price Proposal Points: 105 Points

VI. Selection Process

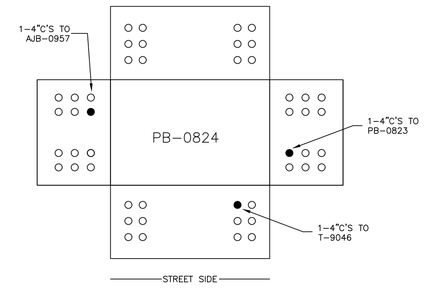
1. The purpose of this Request for Proposals is to enable the Roseville Joint Union High School District to select the firm offering the best value to the District for award of a lease-leaseback instrument under the provisions of Education Code section 17406.

WRSP F-72, Westpark High School
Phase 2

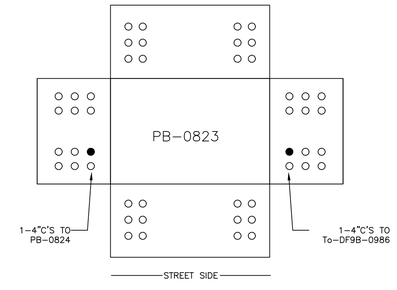
PLAN FOR ELECTRIC UTILITY IMPROVEMENTS



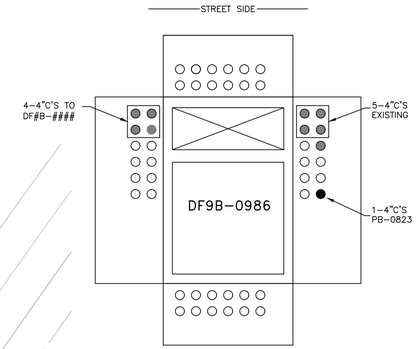
TRENCH DETAIL #-#
N.T.S



DETAIL PULL BOX PB-0824
STA. ##+##, Street Name N.T.S.



DETAIL PULL BOX PB-0823
STA. ##+##, Street Name N.T.S.



DETAIL PAD VAULT DF9B-0986
Bob Doyle Dr N.T.S.

VICINITY MAP
N.T.S

LEGEND:

- PADMOUNT 3ø TRANSFORMER 1500kVA AND ABOVE (115"X115")
- CONCRETE PAD VAULT
- 12kV DISTRIBUTION SPLICE PULL BOX (3'WX6'LX5'D)
- SEE CORRESPONDING TRENCH DETAIL
- 1-4"C W/3-#1/0 PRI. URD CABLE
- EXISTING CONDUIT (AS NOTED)
- CONCRETE ENCASE ⅜" AGGREGATE CONCRETE MIX, 3" ON ALL SIDES OF CONDUITS

NOTES:

1. "ROSEVILLE ELECTRIC'S SPECIFICATIONS FOR COMMERCIAL CONSTRUCTION" ARE A PART OF THESE CONSTRUCTION PLANS FOR THIS DESIGN AND SHALL BE ADHERED TO UNLESS OTHERWISE DIRECTED BY SPECIFIC COMMENTS OR DETAILS IN THESE PLANS.
2. A MINIMUM SEPARATION OF 5' WHEN PARALLELING AND BY AT LEAST 6" WHEN CROSSING IS REQUIRED BETWEEN ELECTRIC AND OTHER SUBSTRUCTURES (WATER,SEWER, STORM DRAIN, ETC). THE CROSSING SEPARATION MAY BE REDUCED TO 3" WHEN ELECTRIC CONDUITS ARE CONCRETE ENCASED AND APPROVED BY THE ELECTRIC DEPARTMENT INSPECTOR.
3. A MINIMUM OF 5' WHEN PARALLELING AND 12" WHEN CROSSING PG&E GAS TRANSMISSION LINES.
4. A MINIMUM 12" SEPARATION BETWEEN ELECTRIC, TELEPHONE, GAS AND CABLE T.V. IS REQUIRED. THIS SEPARATION MAY NOT BE REDUCED UNLESS SPECIFICALLY APPROVED IN EACH INSTANCE BY THE UTILITIES INVOLVED.
5. THE CONTRACTOR TO PAY SPECIAL ATTENTION TO CROSSINGS WITH WATER MAINS, SANITARY SEWER, DRAIN PIPES, AND ANY OTHER OBSTRUCTIONS. CONTRACTOR TO PROVIDE THE MINIMUM REQUIRED COVER FOR ALL UTILITIES WITH A SMOOTH TRANSITION OVER OR UNDER OBSTRUCTION AS DIRECTED AND APPROVED BY ALL UTILITIES INVOLVED. THE APPROACH AND DEPARTURE FOR AN OBSTRUCTION SHALL BEGIN AND END 100 LINEAL FEET AWAY FROM THE OBSTRUCTION.
6. TRENCH DETAILS SHOWN ON THESE PLANS ARE FOR ELECTRIC. IF OTHER UTILITIES REQUEST JOINT TRENCH OCCUPATION, THE TRENCH DIMENSIONS MAY BE MODIFIED. IT IS THE DEVELOPERS RESPONSIBILITY TO CO-ORDINATE SUCH REQUESTS TO THE SATISFACTION OF ALL THE UTILITIES INVOLVED.
7. CONTRACTOR SHALL INSURE THAT ALL TRENCHING AND INSTALLATION OF ELECTRIC FACILITIES CONFORMS TO CAL. O.S.H.A. AND THE STATE OF CALIFORNIA P.U.C. GENERAL ORDER NO. 128 REQUIREMENTS.
8. THE CITY OF ROSEVILLE IS A MEMBER OF THE UNDERGROUND SERVICE ALERT SYSTEM, CALL BEFORE YOU DIG!! U.S.A PHONE #800-642-2444. ROSEVILLE ELECTRIC DISPATCH PHONE #916-774-5620.

REV	BY	DATE	DESCRIPTION	APPR.

CITY OF ROSEVILLE CALIFORNIA
ROSEVILLE ELECTRIC

WRSP F-72, Westpark High School Phase 2
2401 High School Rd
TITLE

ENG. A. Kotz	APPR.	SCALE: 1"= 50 '
DR. A. Kotz		DATE: ##/##/##

MAXIMO NO. 190479
ACCOUNT NO. 6001-6587-84701-290001-01070
DRAWING NO. 000-0000
SHEET 1 OF 1