BAKER ARCHITECTURE+DESIGN

505 CENTRAL AVE NW, SUITE E ALBUQUERQUE, NM 87102 P: 505.254.4697 www.bakerAD.com

ADDENDUM #02

DATE: June 5, 2020
PROJECT: Lavaland Elementary School – Phase I Campus Reconstruction (RFP#20-037-RRR)
FROM: Baker Architecture + Design
TO: All Prospective Offerors

Addenda Summary:

NOTICE TO BIDDERS:
This Addendum #2 forms a part of the Contract Documents and modifies the original Bidding Documents dated May 1, 2020. All other provisions of the Contract Documents shall remain unchanged. This addendum is hereby made a part of the Contract Documents to the same extent as those provisions contained in the original documents and all itemized listing thereof. Where provisions of the following supplementary data differ from those of the original Contract Documents, this Addendum shall govern and take precedence.
.
Acknowledge receipt of this Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of (**5)** pages of misc. information and (**89**) attachments. Attachments as listed below.

A. Questions:

1) "*In the spec book page 00500-3 article 4, the contract sum has two bid lots that are not on the bid form. We just want to make sure that those bid lots do not exist?''*

Response: Correct, Bid Lot 1 (HVAC warranty/maintenance) and Bid Lot 2 (PV System) do not exist, please disregard.

2) "Please verify that KONE will in fact be an acceptable manufacturer and bidder on this project. Currently Thyssen-Krupp appears to be the only acceptable manufacturer listed in the specifications that were provided"

Response: The list of approved manufacturers has been updated to include ThyssenKrupp, KONE, Schlindler and Otis, see updated specifications section 14 2400 (attached).

3) *"Spec. section 04 1100 2.10.B. requires mortar for unit masonry to comply with ASTM C270. - ASTM C270 calls for type S mortar compressive strength at 28 days to be 1800 PSI. - Sheet S001 C. Masonry. 2) All mortar shall be type S with a strength of 3000 psi at 30 days, please clarify''*

Response: Submitter to comply with Sheet S001, 3000 PSI at 28 days. Specification section 04 1100 (attached) will be updated to match.

4) "*Please refer to Sheet S-101f. - On Line 0.8, North of Line U.1, refer to section detail 2/S-402 – what is CMU TOW AFF here? On Line 6.2, between Lines U.1 and R, refer to section detail 12/S--401 - what is CMU TOW AFF here? Please advise"*

Response: See structural addenda (attached)

5) "*Sheet S-101a at Line C and Line 10, calls out "site wall, see architectural". - Sheet AS-102 indicates a Mech. Yard and adjoining Dumpster Enclosure – referring to A1/AS-502. - A1/AS-502 does not appear to show details as to the construction of the walls, other than they have stucco coating. Please clarify.''*

Response: See revised sheet AS-502 (attached) for updated detail

6) "*Can you please clarify if the synthetic turf is to be supplied and installed by contractor or owner?''*

Response: Correct, synthetic turf to be supplied and installed by owner.

7) "*Please provide a scope for the subsurface retention center''*

Response: The scope of the subsurface retention system is to completely install the system as detailed on the plans; there are no portions of the retention system that are to be installed outside of the general building contract.

8) "*Please provide a spec for Asphalt.''*

Response: The asphalt pavement shall be constructed per the detail on sheet C-105 and based upon the New Mexico Chapter American Public Works Association specifications (NMAPWA) as referenced on General Note #1, Sheet C-001. The asphalt pavements specifications are listed under Section Numbers 116 (Asphalt Concrete) and 336 (Asphalt Concrete Pavement).

9) "*Please provide a spec for the sports striping."*

Response: Sports striping info is included in Resilient Athletic Flooring Spec 09 6566 see section 2.2.D.

10) "*Please provide specifications for the following"*

- *Tackable wall coverings*
- *Stainless steel corner guards*
- *Privacy Curtains*
- *Projection Screens*

Response: Tackable wall coverings - see 09 7260 (attached), Stainless Steel Corner Guards – see revised A-603 (attached) for product info, Privacy Curtain – see revised A-603 for product info, Projection Screens – Only one in project and it is provided by owner GC to install, see A1/A-309.

11) "*In room 101, linear ceiling features are shown, please provide additional information."*

Response: The only linear ceiling feature in room 101 is a light fixture above, see EL-101C for more information.

12) "*Fire Plan calls for 20 Fire Extinguishers, but only 18 shown on First and second Floor Plans. Please advise on which is the correct number of Fire Extinguishers and Fire Extinguisher Cabinets"*

Response: There should be 20 fire extinguisher cabinets in the GC scope (fire extinguishers are provided by owner), see revised sheets Fire 2b and A-101c (attached) for location of one additional fire extinguisher cabinet.

13) "*Please advise on the correct mirror sizes. Mirrors on plans marked as 24x36, but mirrors in specs 18x30."*

Response: Mirror size should be 18x30 per spec, see revised sheet A-209 (attached) reflecting correct size.

14) "*Kimberly Clark Soap Dispenser #91180 has been discontinued, what comparable product would you like to use as a substitute?"*

Response: See revised specification section 10 2813 for substituted product.

15) "*Kimberly Clark Paper Towel Dispenser #09076 has been discontinued. Comparable product can be found using the brand of paper towel that will be used. Please advise on comparable product to substitute with or brand of paper towel that will be used to find the comparable product"*

Response: See revised specification section 10 2813 for substituted product.

16) "*Specification 23 0700 Table 230700-1-Ductwork Insulation calls out for 1.5" acoustical liner in return air and supply air serving the fan coils. VRF Fan Coil Detail #9 on sheet M-501 calls out for 1" liner. Please clarify. 1.5" acoustical liner is not typical and will be a significant cost increase to the owner"*

Response: Where acoustical lining is required, in addition to sound performance, acoustical lining needs to meet minimum R-5 value for thermal performance.

17) "*In Section 10 14 00 Signage, Part 2 Products 2.3 PANEL SIGNS What are the dimensions for each style of panel signs?"*

Response: Dimension of sign will depend on content and text of each sign but in general shall be sized to adhere to all ADA requirements.

18) "*The coiling grills at the reception and the coiling door at the dishwash drop-off are not included in the door schedule. There is a spec for the coiling grills but no sizes. There is no spec for the coiling door. Please provide sizes for all coiling doors/grills and please provide a specification for the coiling door"*

Response: See revised specification section 08 3300 (attached) for updated product info for coiling door and revised sheets A-202, A-203 and A-208 (attached) for updated size information.

19) "*Please confirm if the items in the Hardware Scheduled labeled "by access control integrator" will be supplied and installed by APS."*

Response: Correct, hardware labeled "by access control integrator" will be the responsibility of APS

20) "*Please provide specification for the chain link fence and what is the elevation for."*

Response: The only chain link fence component of the project is to alter the existing chain link fence around new FDC location, see AS-102, elevation will match existing fence.

21) "*Sheet A-504- details A1, A2, A3, C1, and C2- Note 1- Is the GC responsible for this design?"*

Response: GC is <u>NOT</u> responsible for this design, see revised sheet A-504 (attached) for updated note.

22) "*Section 07 2600 Vapor Retarders are indicated at 1.1, A. Sheet vapor retarders for installation at roofs. None are shown on plan details. If Vapor Retarders are to be part of the Roofing Assemblies, will revised details be provided"*

Response: Vapor Retarders will <u>NOT</u> be required, please disregard all reference to such.

23) "*07 5110 Built-Up Asphalt Roofing, 1.7 Warranty, B Roofer's Guarantee. Period for Roofers Guarantee is called for four (4) years. This exceeds the Manufacturers' required Two (2) year Installers commitment. Manufacturer's Warranty requirements provide the Owner is to report timely, all leaks after the two-year period to the Manufacturer for resolution. Is the intent of the requirement for the Roofing to provide a Roof Maintenance Agreement for two year post the Manufacturer's two-year commitment?"*

Response: The intent is a (2) year warranty, see revised specification section 07 5110 (attached) for revision.

24) "*Per IBC Code section 1603.1.4 wind uplift pressures are to be provided on the construction documents. Will the uplift pressures be added to the Construction Documents?"*

Response: The wind uplift minus the dead weight of the roofing and Tectum panels is 16 psf.

25) *"07 6000 Metal Coping, 2.2 Parapet Coping, B. 1. Indicates Coping to be retained by Anchor Chair. Previous APS Installation required Coping Retention by Face side Cleat and anterior Mechanical Fastening. Also note Called product at 3.6, A. is not currently available from IMETCO. Will the Chair Mounted Coping be acceptable to APS*?"

Response: Correct, face side cleat and anterior mechanical fastening will be required <u>NOT</u> chair anchor see revised 07 6000 for corrected information.

26) *"A full roof system NDL warranty that includes the roof assembly and associated parapet coping or edge metal can only be provided by the roof manufacture if the coping and edge metal is provided by the BUR roofing system manufacturer. Will you approve metal coping and edge metal that is provided by the selected roofing manufacturer in lieu of the specified IMETCO metal if it meets all design requirements and is ANSI SPRI ES-1 code compliant"*

Response: Specified coping shall remain per the contract documents with the understanding that this will NOT be included in the built-up roof warranty.

27) "Do you know if the Contract Documents and Permit application have been submitted to the Certified Flood Plain Manager (CFM) for sign-off?"

Response: This is not required due to the fact the site does not fall within a flood plain.

28) "Will the general contractor be required to provide the pedestal that the ADA button is mounted to?"

Response: No, APS will provide pedestal but general contractor will be responsible for installation as well as for providing the power and conduit (ET-101a) for card reader and aiphone (provided and installed by others).

B. Approved Product Substitutions:

The Contractor shall bear full responsibility to prove to the Engineer and Architect that the furnished equipment is equivalent to or better than the specified item. Failure to provide such proof will result in rejection of the shop drawing submittal by the Engineer and/or Architect. Prior written or verbal approval by the Engineer or Architect of equipment by other manufacturers will not relieve the Contractor of responsibility to provide equivalence. Any prior approval given is intended only to provide preliminary agreement that the alternate manufacturer may make equipment that complies with the specification requirements and not that all equipment manufactured by them is acceptable.

It is the responsibility of the supplier to ensure that the substituted products per this and all previous addendums meet or exceed the specified performance criteria and the design intent of the Bid Documents. Prior approval of a manufacturer does not imply an approval of all products by the manufacturer.
The following is list of prior approvals; this list does not relieve the contractor of their responsibility to comply with the intent of the contract documents.

*(*The following prior approvals are those currently approved through the date of this addendum's issuance, not including those already approved in previous addenda.)*

1) Standing Seam Panel 07 6100
   Paragraph 2.3.B.1
   Product: Una-Clad
   Firestone Building Products
   200 4th Avenue
   Nashville, TN 37201

2) Resilient Athletic Flooring 09 6566
   Paragraph 2.1.B
   Product: 8mm Advance NG
   Mondo
   1100 East Hector St. Suite 160
   Conshohocken, PA 19428

3) Metal Toilet Compartments 10 2113
   Paragraph 2.1.A
   Product: Type H/B Headrail Braced Stainless Steel
   All American Metal Corp (AAMCO)
   PO Box 108
   Freeport, NY

4) Gym Protection Accessories 11 6600
Paragraph 2.1.B
Product: #230
ADP Lemco Inc.
13702 S 200 W
Draper, UT 84020

5) Folding Backboards 11 6623
Paragraph 2.1.B
Products: 1355, 1370, 810, 150 Winch, 110 Safety Strap, 64 Backboard, 25 Goal, 125EL Height Adjuster, 105 Cushion Edge Pad
ADP Lemco Inc.
13702 S 200 W
Draper, UT 84020

*Please note that prior approvals that fall under other trades will be included in their respective addenda attached within this document.

D. Revised Architectural Drawings (Attached – 15 pages):

Sheet: FIRE 2b – Additional Fire Extinguisher location
Sheet: AS-502 – CMU Wall Section
Sheet: A-101b – Updated privacy curtain reference in Fine Arts
Sheet: A-101c – Additional Fire Extinguisher location
Sheet: A-106b – Updated privacy curtain reference in Fine Arts
Sheet: A-201a – Graffiti coating note
Sheet: A-201b – Graffiti coating note
Sheet: A-201c – Graffiti coating note
Sheet: A-202 – Sizing information on overhead security doors
Sheet: A-203 – Sizing information on overhead security doors
Sheet: A-204 – Updated privacy curtain reference in Fine Arts
Sheet: A-208 – Sizing information on overhead security doors
Sheet: A-209 – Updated mirror size information
Sheet: A-504 – Updated general notes to details
Sheet: A-507 – Updated privacy curtain attachment detail
Sheet: A-603 – Updated product information

E. Project Manual Updates (Attached - 50 pages):

Section 04 1100 Unit Masonry
Section 07 5100 Built-up Asphalt Roofing Over Insulation
Section 07 6000 Metal Coping
Section 08 3300 Overhead Coiling Doors
Section 09 7260 Tackable Wall Covering
Section 10 2813 Toilet Accessories
Section 14 2400 Hydraulic Elevator

F. Structural Addenda: (Attached - 1 page)

G. Civil Addenda: (Attached - 2 pages)

H. MEP Addenda: (Attached - 21 pages)

06.05.2020

Tomas Sanchez, RA
Project Architect
Baker Architecture + Design

PROJECT INFORMATION

PROJECT ADDRESS: 501 57TH STREET NW
ALBUQUERQUE, NM 87105

PROJECT DESCRIPTION: PHASE 1 OF CAMPUS RECONSTRUCTION, CONSISTING OF: A NEW BUILDING OF APPROXIMATELY 28,753 SF OF FLOOR AREA (PARTLY ONE-STORY AND PARTLY TWO-STORY TO HOUSE ADMINISTRATION, GYMNASIUM, LIBRARY, CAFETERIA, KITCHEN, ART/MUSIC CLASSROOM, ANCILLARY SUPPORT SPACES, AND RELATED SITE WORK AT LAVALAND ELEMENTARY SCHOOL IN ALBUQUERQUE, NEW MEXICO. PROJECT SCOPE ALSO INCLUDES THE DEMOLITION OF EXISTING CAFETERIA, LIBRARY, GYM, ADMINISTRATION/CLASSROOM WING, AND RELATED SITE DEMOLITION.

BUILDING CODE COMPLIANCE

COMPLIES WITH 2015 INTERNATIONAL BUILDING CODE
2009 N.M. COMMERCIAL BUILDING CODE

OCCUPANCY GROUP: E

TYPE OF CONSTRUCTION: II-B, SPRINKLERED

ALLOWABLE HEIGHT: 3 STORIES (WITH AUTOMATIC SPRINKER SYSTEM)

PROPOSED HEIGHT: 2 STORIES, 31' - 2" TOTAL

ALLOWABLE BUILDING AREA: 43,500 SF (MULTISTORY WITH AUTOMATIC SPRINKLER SYSTEM)

PROPOSED BUILDING AREA: 28,753 SF GROSS NEW BUILDING
19,897 SF FIRST FLOOR
8,856 SF SECOND FLOOR

PER TABLE 1004.1.2

AREA	CLASSIFICATION	S.F.	OCC. LOAD FACTOR	NO. OCCUPANTS
BUSINESS	E	9,875	100	98.75
CONFERENCE	E	328	15	21.87
NURSE	E	722	100	7.22
CAFETERIA	A-2	2,298	15	153.20
PLATFORM	A-2	501	15	33.40
KITCHEN	E	2,057	200	10.29
STACKS	E	3,362	100	33.62
READING	E	408	50	8.16
GYM	A-4	2,218	50	44.36
CLASSROOM	E	2,153	20	107.65
STORAGE + ACCESSORY	E	1,396	300	4.65
MECHANICAL	E	1,274	300	4.24
LOBBY	E	436	15	29.07
LOUNGE	E	753	15	50.20

TOTAL OCCUPANCY LOAD = 606.68 ~ **607 OCCUPANTS**

FIRE PROTECTION REQUIREMENTS PER TABLE 903.2.2 GROUP E

THIS BUILDING WILL BE PROVIDED WITH AN AUTOMATIC SPRINKLER SYSTEM THROUGHOUT
SPRINKLER SYSTEM PLANS SHALL BE SUBMITTED FOR SEPERATE PERMIT. SYSTEM SHALL BE MONITORED.

1. SHOP DRAWINGS WILL BE SUBMITTED TO THE FIRE MARSHAL'S OFFICE FOR REVIEW AND APPROVAL OF ANY INSTALLATION OR MODIFICATION TO THE FIRE SPRINKLER SYSTEM, FIRE ALARM SYSTEM, KITCHEN SUPPRESSION SYSTEM, OR ANY OTHER FIRE RELATED SYSTEM.
2. THE FIRE SPRINKLER SYSTEM WILL BE SUPERVISED WHEN REQUIRED BY THE 2009 INTERNATIONAL FIRE CODE.

FIRE EXTINGUISHERS: FOR ORDINARY (MODERATE) HAZARD AT LEAST ONE 4A60BC 10 LB EXTINGUISHER FOR EACH 1,500 SF. THE MINIMUM TRAVEL DISTANCE TO AN EXTINGUISHER IS 75 FEET.

28,753 / 1500 = 19.16 ~ 20 EXTINGUISHERS [20 PROVIDED]

ELEVATOR SHAFT RATING: 8" CMU, GROUTED SOLID MEETS RATING REQUIREMENT PER TABLE 721.2.1(1).

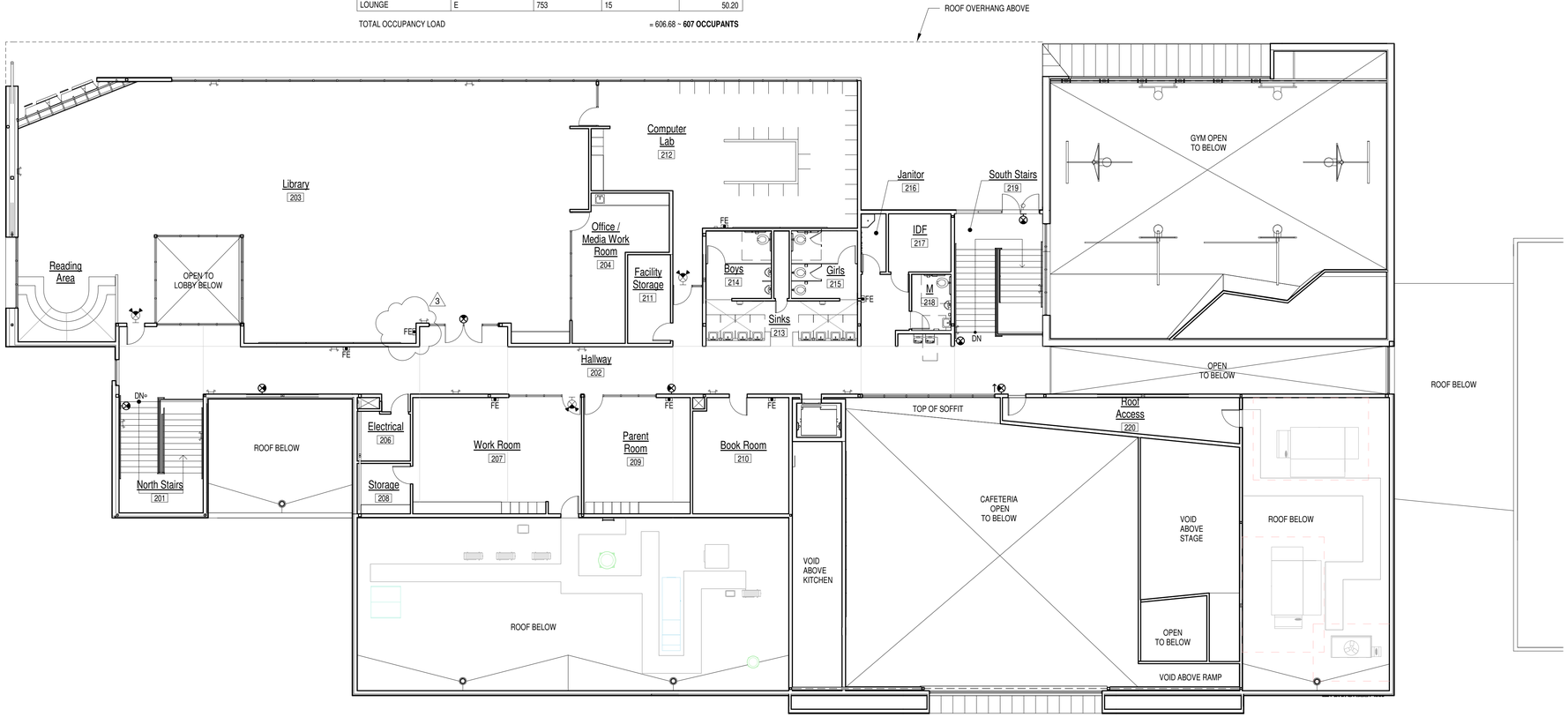
EXIT REQUIREMENTS PER TABLE 1005.1

EXIT WIDTH REQUIRED = 607 x 0.2 = 121.4"
EXIT WIDTH PROVIDED = 432"

EXIT STAIRWAY (SOUTH) WIDTH REQUIRED = 70 x 0.3 = 21"
EXIT WIDTH PROVIDED = 74"

EXIT STAIRWAY (NORTH) WIDTH REQUIRED = 65 x 0.3 = 19.5"
EXIT WIDTH PROVIDED = 74"

NOTE: ALL ACCESSIBLE DOORS SHALL NOT REQUIRE TIGHT GRASPING, PINCHING, OR TWISTING OF THE WRIST TO OPERATE. MAXIMUM OPERATING FORCE FOR ALL DOORS SHALL BE 5 LBS. PANIC HARDWARE SHALL REQUIRE NO MORE THAN 15 LBS. OF PRESSURE TO RELEASE DOOR LATCH. DOOR HARDWARE SHALL BE MOUNTED A MINIMUM OF 34" AND A MAXIMUM OF 48" AFF.



A1 SECOND FLOOR FIRE PLAN

SCALE: 3/32" = 1'-0"

FIRE LEGEND

- EXISTING WALL
- (N) WALL PER WALL OR PARTITION TYPES
- FE SEMI-RECESSED FIRE EXTINGUISHER LOCATION, PAINT TO MATCH ADJACENT WALL
- EMERGENCY LIGHT
- EXIT SIGN
- DIRECTIONAL EXIT SIGN
- WALL-MOUNTED EXIT SIGN

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CONSULTANTS

LAVALAND ELEMENTARY SCHOOL
Phase 1 Campus Reconstruction

OWNER:

ALBUQUERQUE PUBLIC SCHOOLS
915 OAK STREET SE
ALBUQUERQUE, NM 87106

MARK	DATE	DESCRIPTION
3	6/05/20	Addenda 2

B_AD PROJECT # 1701
FILE: LAVALAND_100CD.RVT
DATE: 05/01/20
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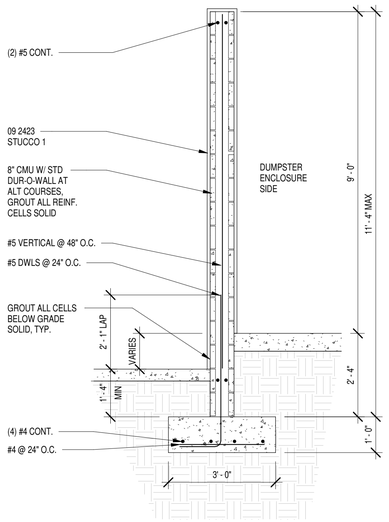
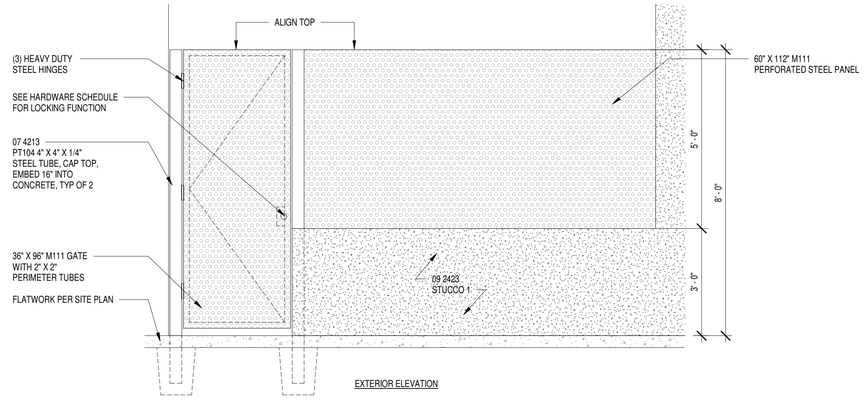
SECOND FLOOR FIRE PLAN

FIRE 2b



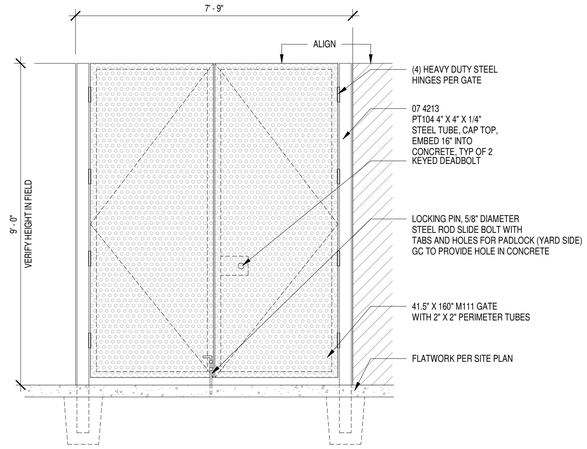
C1 CMU WALL SECTION

SCALE: 1/2" = 1'-0"



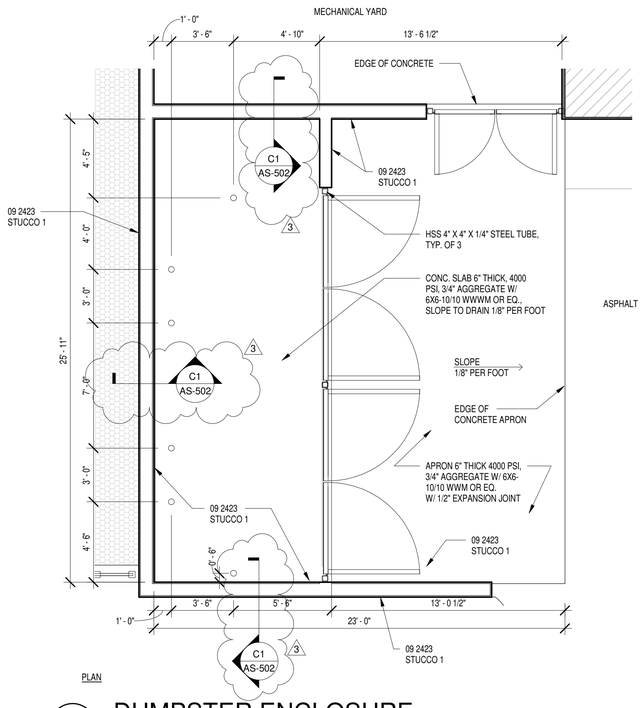
B2 LOUNGE PATIO GATE

SCALE: 1/2" = 1'-0"



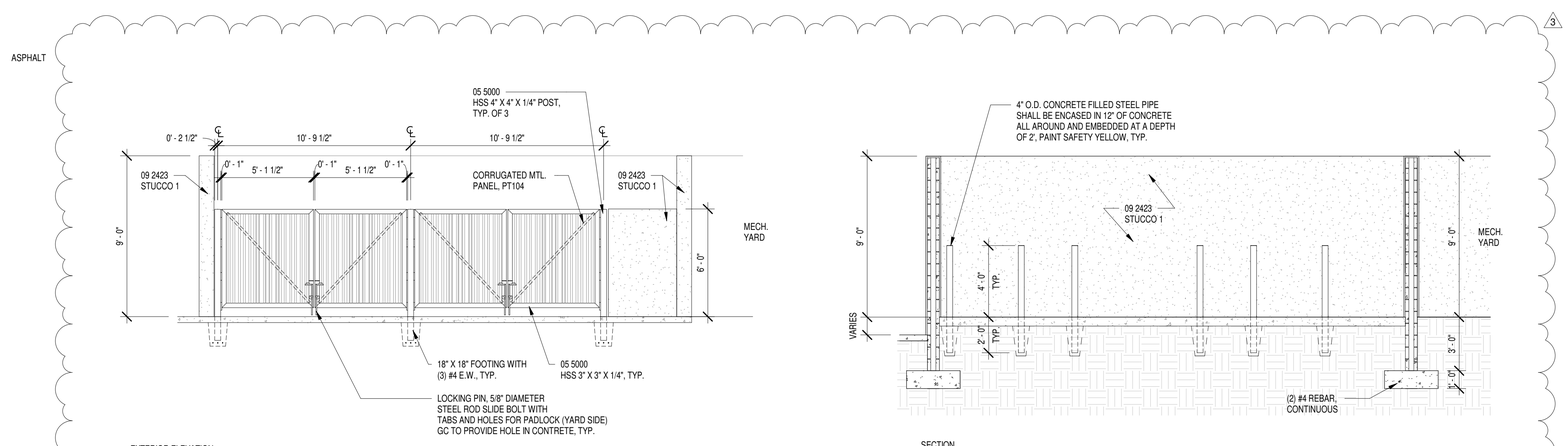
B4 MECHANICAL YARD GATE

SCALE: 1/2" = 1'-0"



A1 DUMPSTER ENCLOSURE

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



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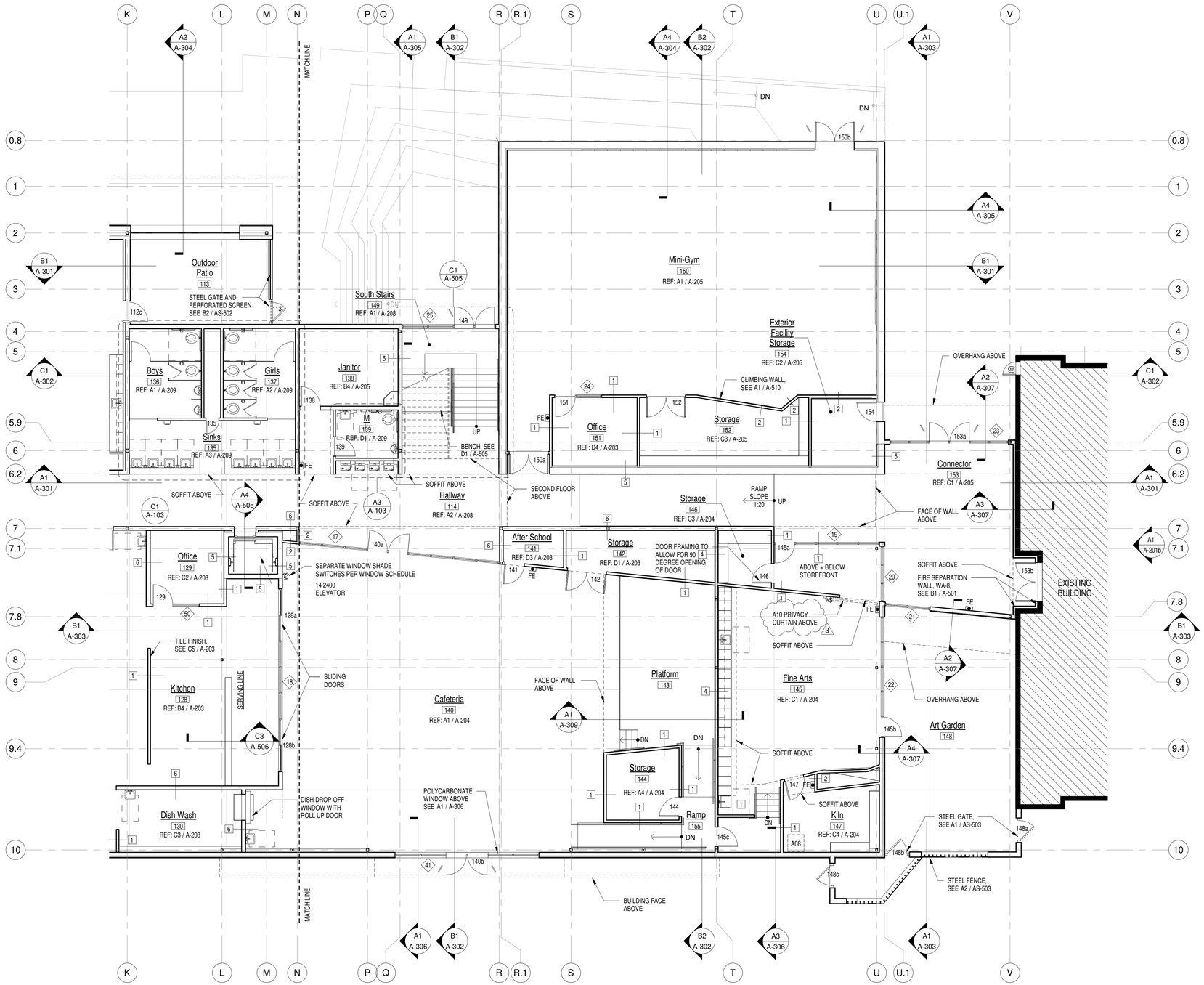
SITE DETAILS

AS-502

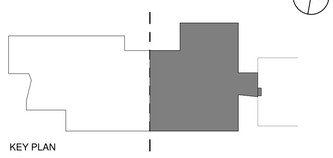


A1 FIRST FLOOR PLAN - SOUTH END

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

WALL LEGEND

- EXISTING WALL
- (N) WALL PER WALL OR PARTITION TYPES
- FE — SEMI-RECESSED FIRE EXTINGUISHER LOCATION
- W$ — MOTORIZED WINDOW SHADE SWITCH LOCATION



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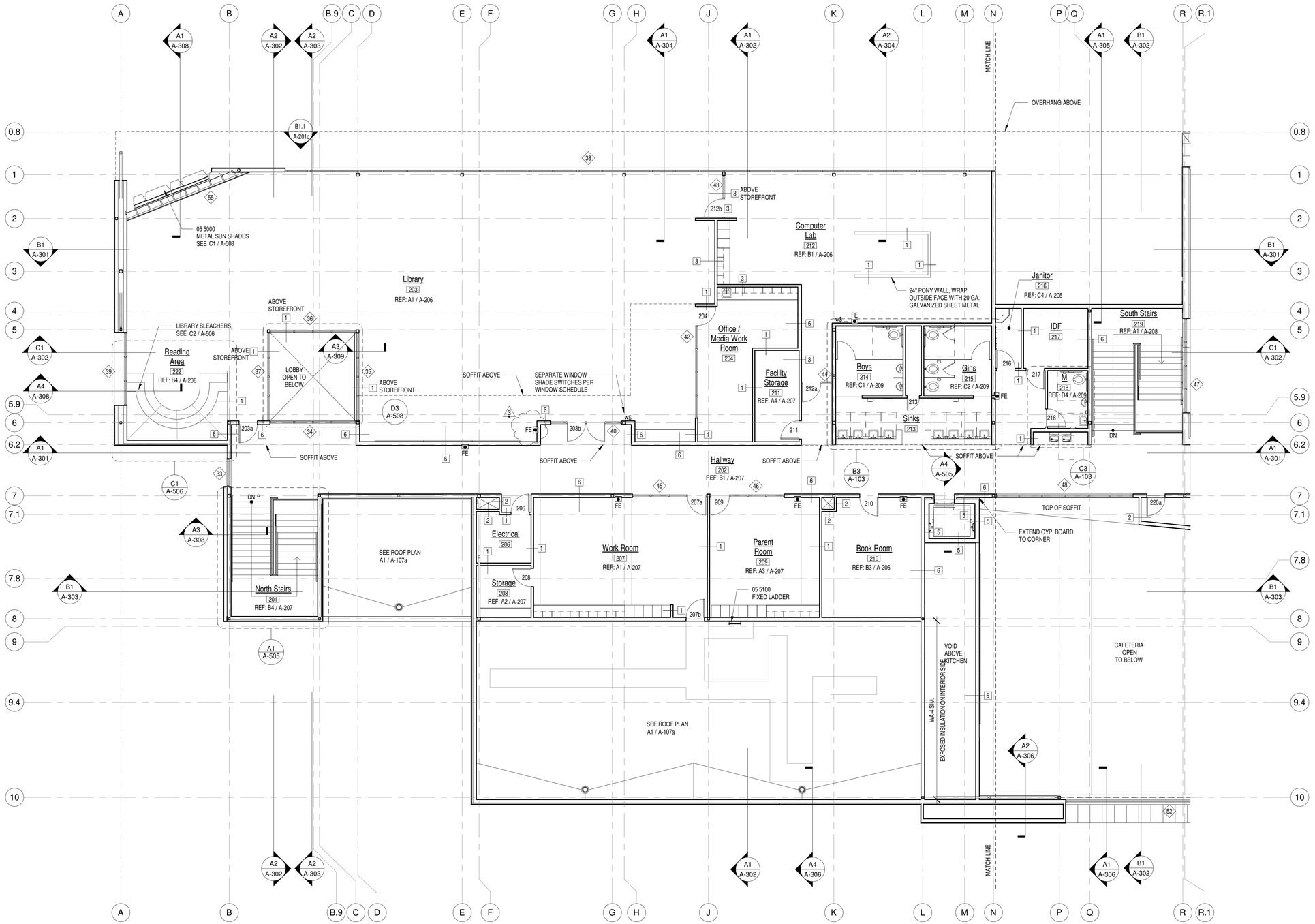
FIRST FLOOR PLAN - SOUTH END

A-101b

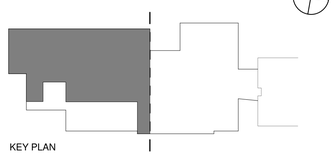


A1 SECOND FLOOR PLAN - NORTH END

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

WALL LEGEND

- EXISTING WALL
- (N) WALL PER WALL OR PARTITION TYPES
- FE — SEMI-RECESSED FIRE EXTINGUISHER LOCATION
- w$ — MOTORIZED WINDOW SHADE SWITCH LOCATION



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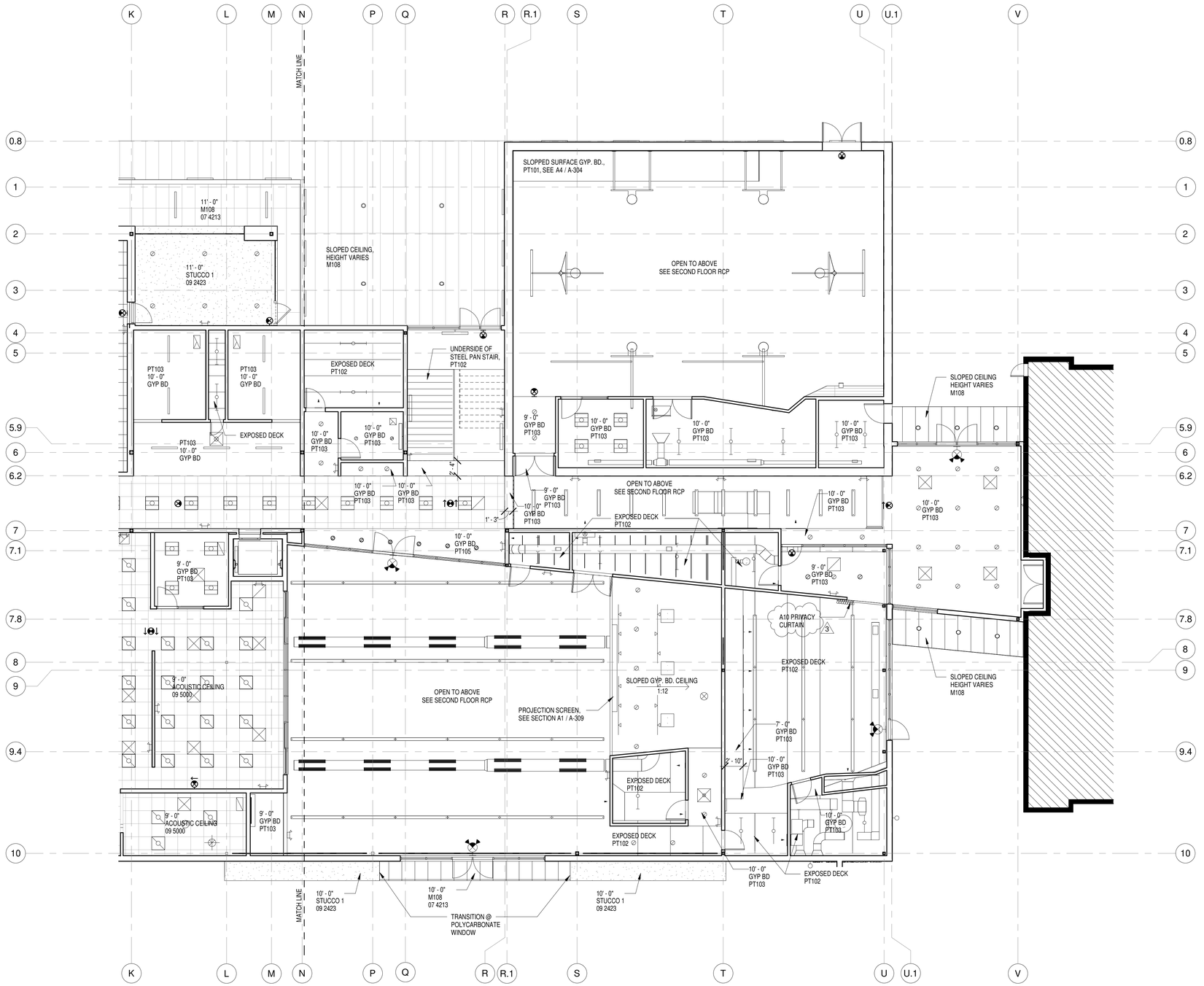
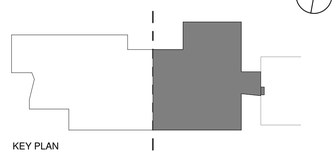
SECOND FLOOR PLAN - NORTH END

A-101c



A1 FIRST FLOOR REFLECTED CEILING PLAN - SOUTH END

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



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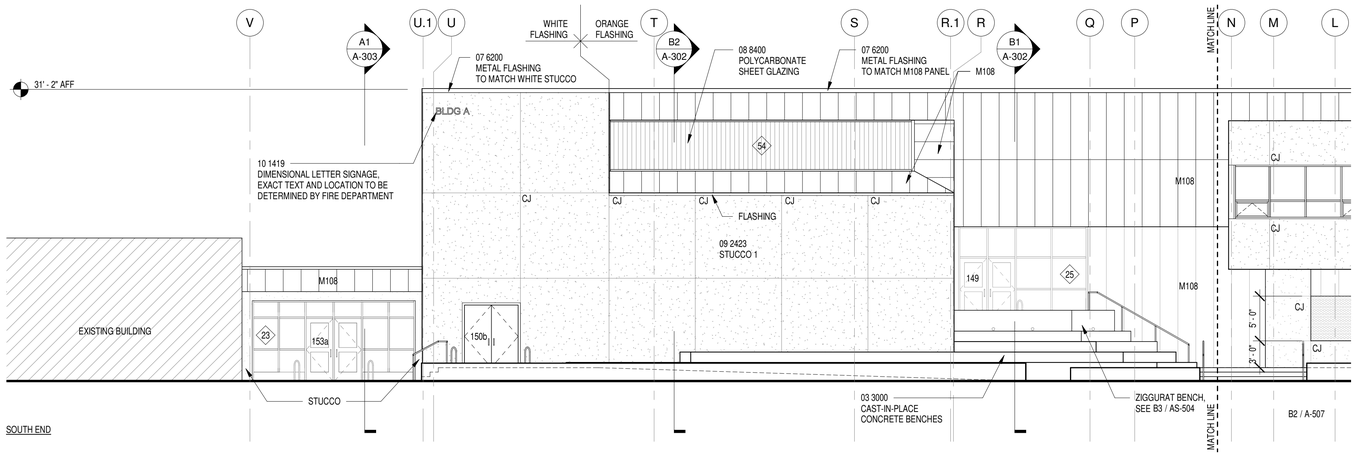
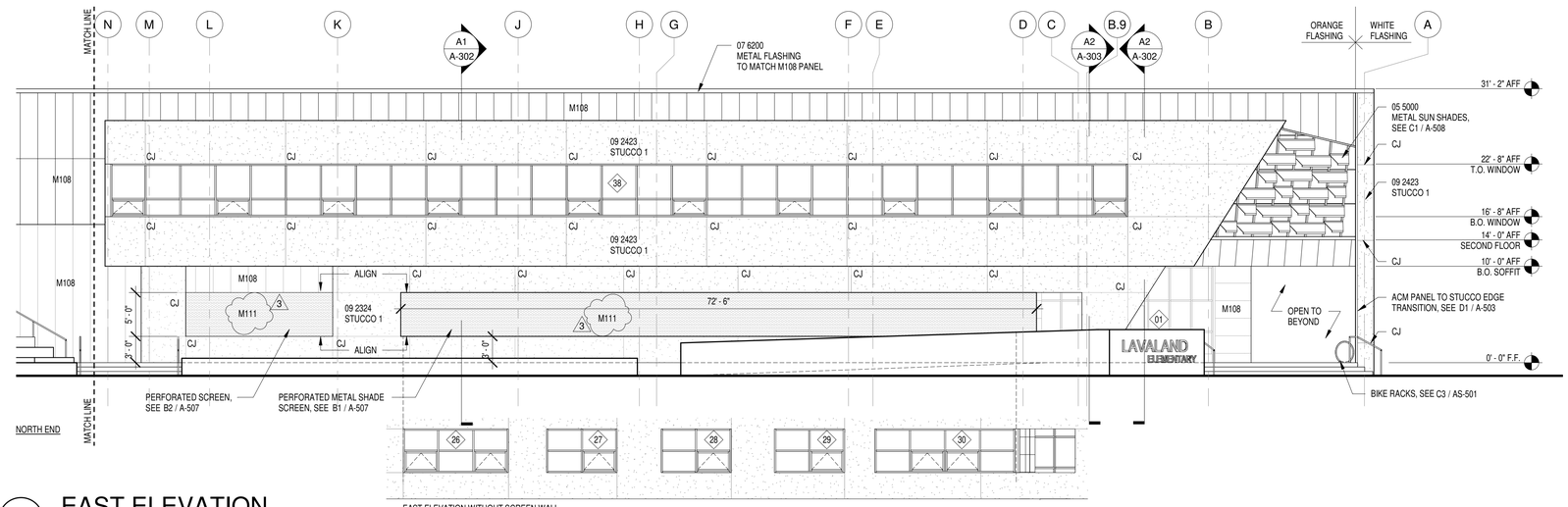
FIRST FLOOR REFLECTED CEILING PLAN - SOUTH END

A-106b



SOUTH END

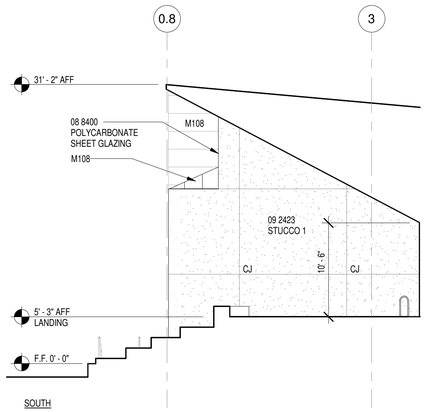


NORTH END

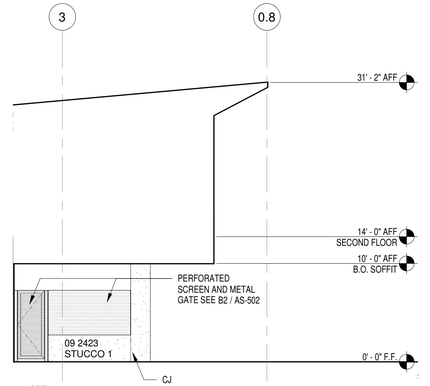
EAST ELEVATION WITHOUT SCREEN WALL

B1 EAST ELEVATION

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



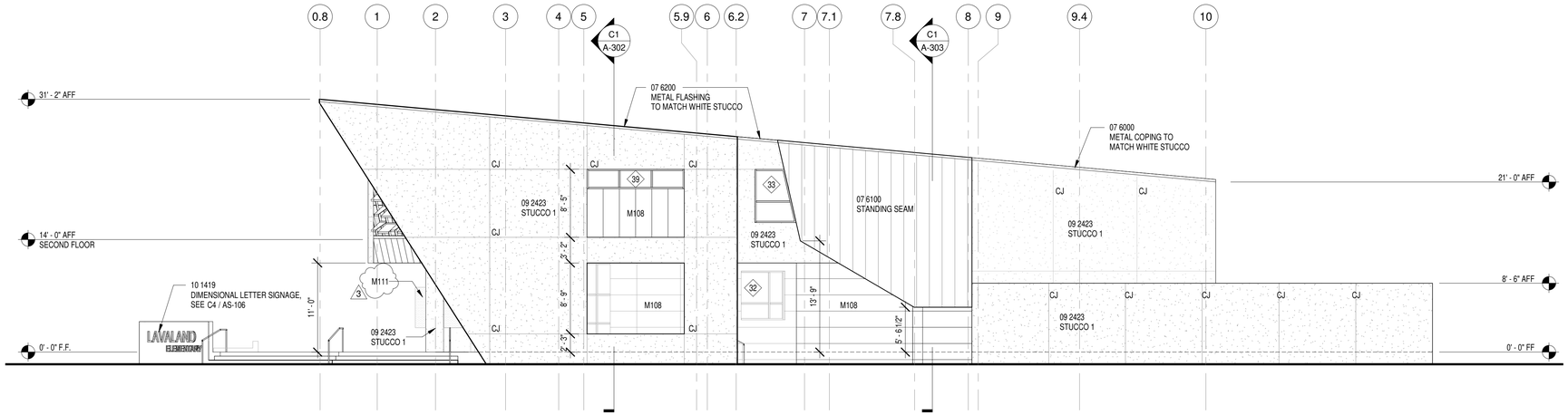
SOUTH



NORTH

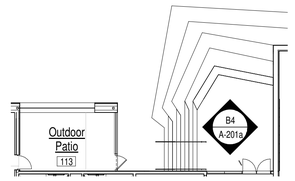
B4 OUTDOOR LEARNING ELEVATIONS

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



A1 NORTH ELEVATION

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



A4 OUTDOOR LEARNING

SCALE: 1/16" = 1'-0"

GENERAL NOTE: 09 9623 GRAFITTI-RESISTANT COATING SHALL BE APPLIED ON ALL CONCRETE AND STUCCO SURFACES UP TO 10' HIGH.

3

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LAVALAND ELEMENTARY SCHOOL Phase 1 Campus Reconstruction

OWNER:

ALBUQUERQUE PUBLIC SCHOOLS
915 OAK STREET SE
ALBUQUERQUE, NM 87106

MARK	DATE	DESCRIPTION
3	6/05/20	Addenda 2

B_AD PROJECT #	1701
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DATE:	05/01/20
DRAWN BY:	CW / TS / NZ / RP
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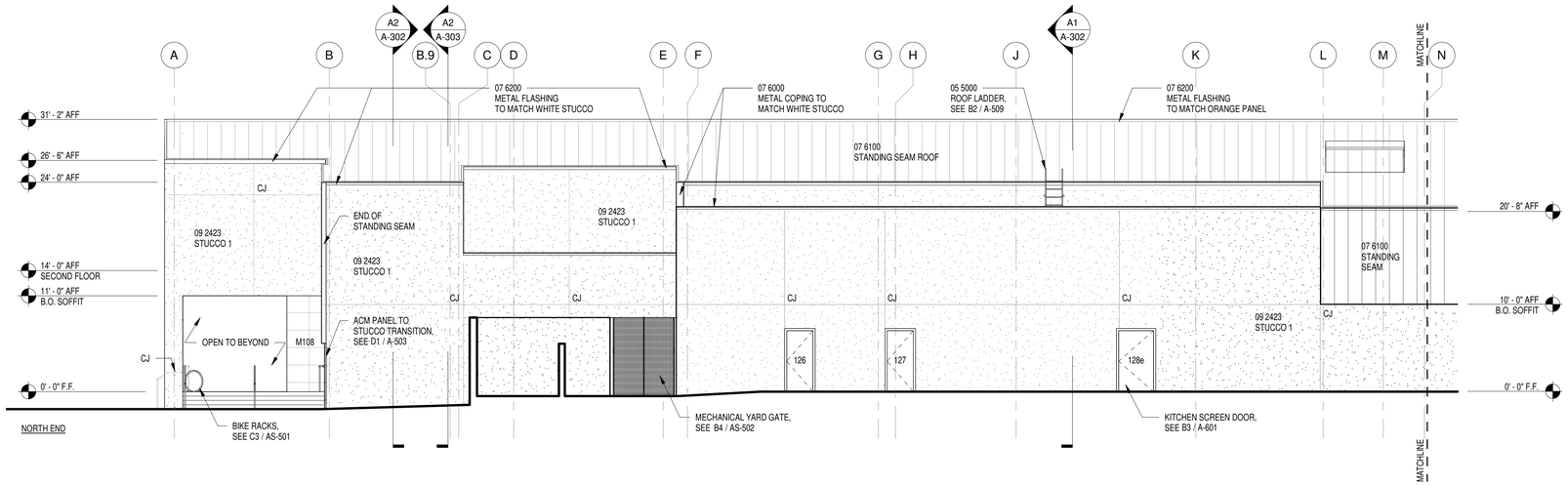
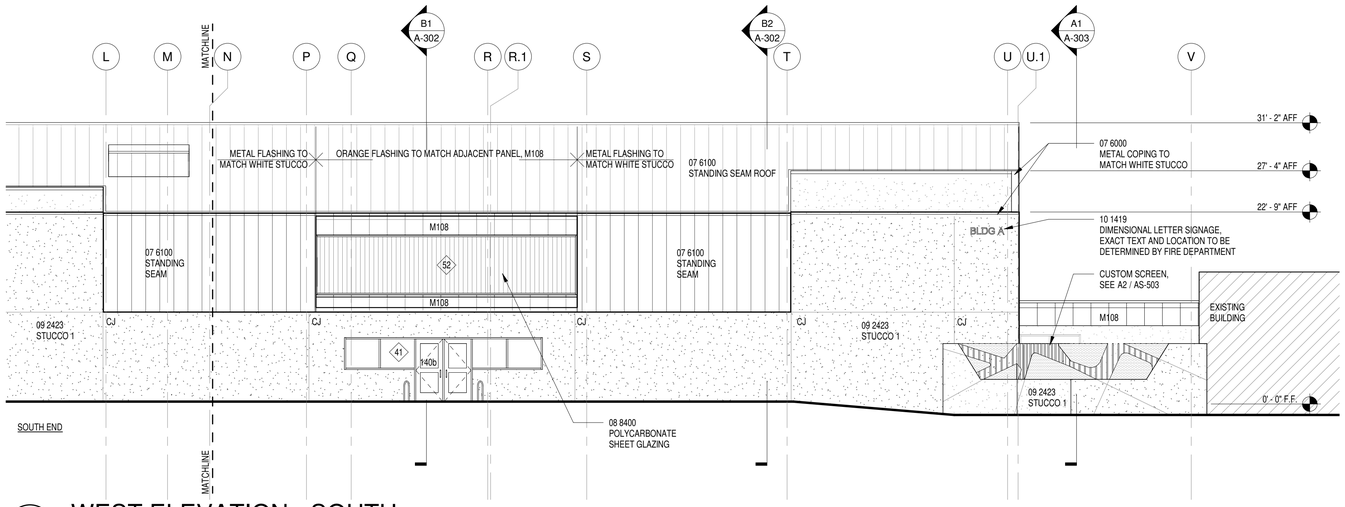
EXTERIOR ELEVATIONS

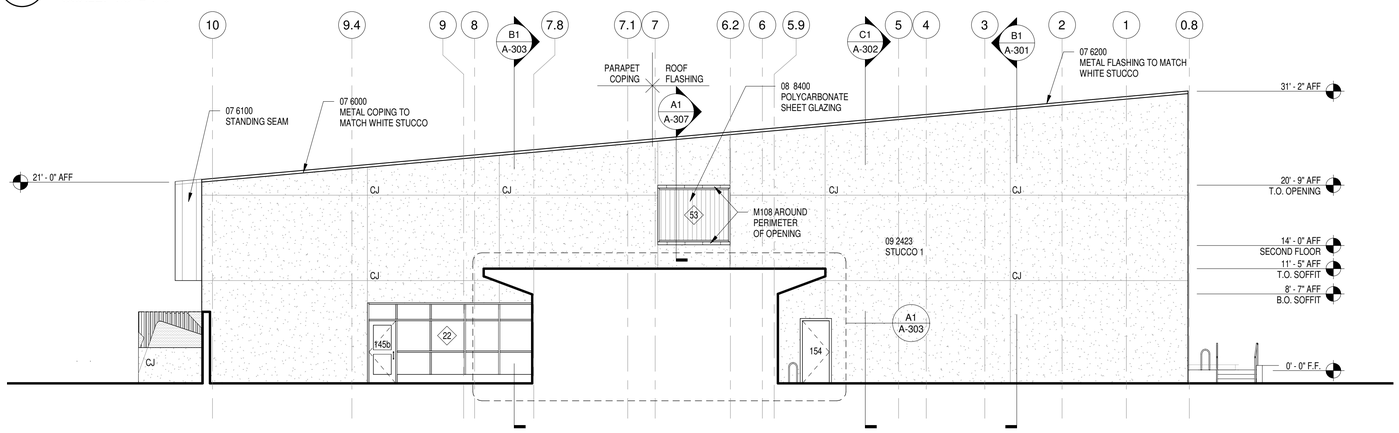
A-201a





B1 WEST ELEVATION - SOUTH

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



A1 SOUTH ELEVATION

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

GENERAL NOTE: 09 9623 GRAFITTI-RESISTANT COATING SHALL BE APPLIED ON ALL CONCRETE AND STUCCO SURFACES UP TO 10' HIGH.

3

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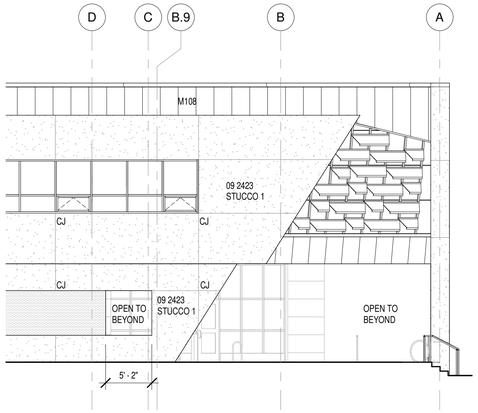
EXTERIOR ELEVATIONS

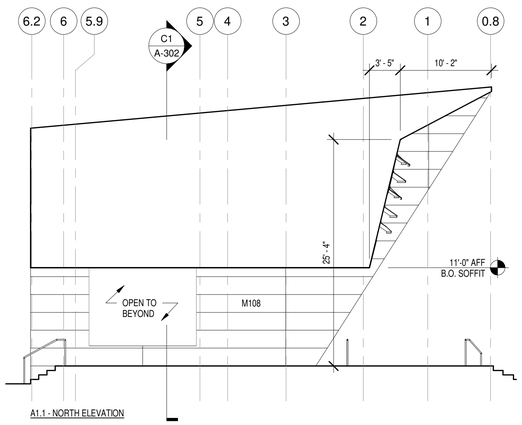
A-201b



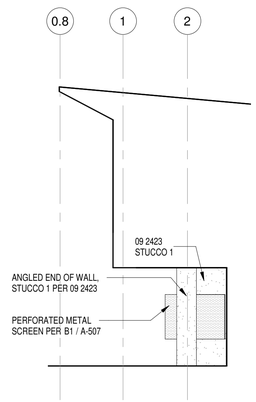
B1.1 - WEST ELEVATION

GENERAL NOTE: 09 9623 GRAFITTI-RESISTANT COATING SHALL BE APPLIED ON ALL CONCRETE AND STUCCO SURFACES UP TO 10' HIGH.

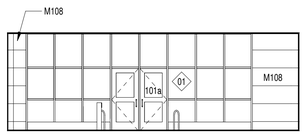
3



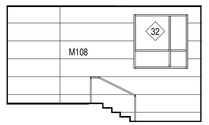
A1.1 - NORTH ELEVATION



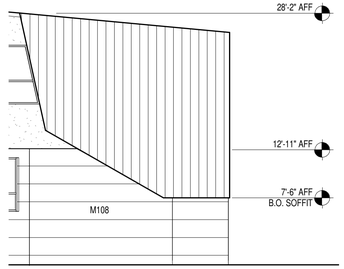
A1.2 - SOUTH ELEVATION



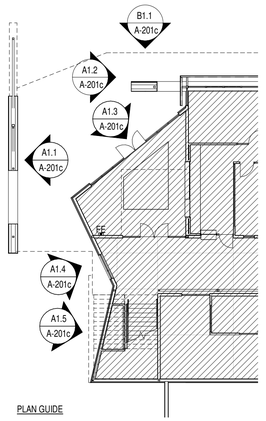
A1.3 - SOUTH ELEVATION



A1.4 - SOUTH ELEVATION



A1.5 - SOUTH ELEVATION



PLAN GUIDE

A1 COVEREND ENTRY ELEVATIONS

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

A3 COVERED ENTRY

SCALE: 1/16" = 1'-0"

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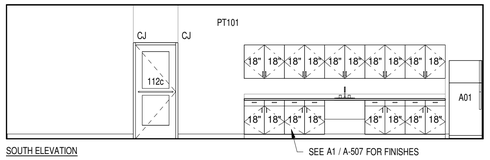
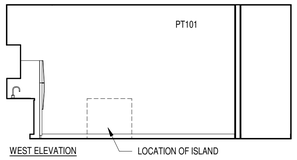
EXTERIOR ELEVATIONS

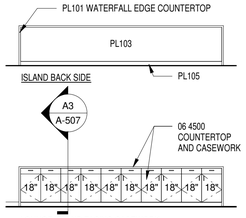
A-201c



SOUTH ELEVATION

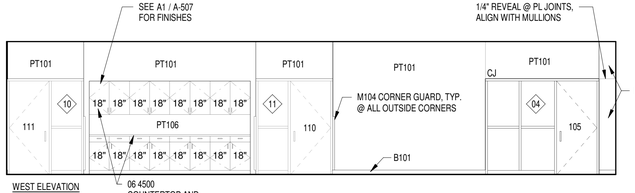


WEST ELEVATION

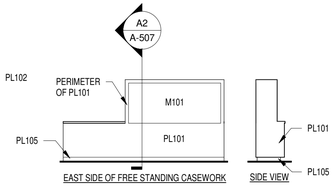


ISLAND BACK SIDE

LOUNGE ISLAND FACING CASEWORK

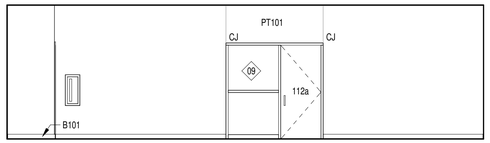


WEST ELEVATION

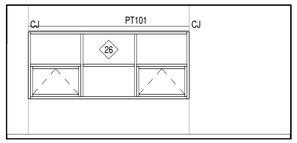


EAST SIDE OF FREE STANDING CASEWORK

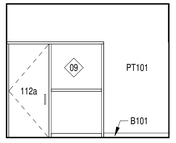
SIDE VIEW



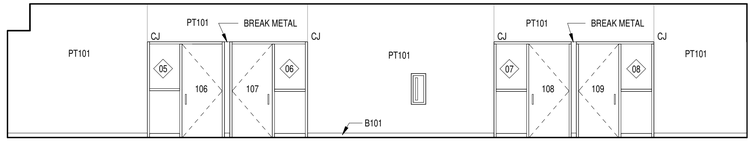
NORTH ELEVATION



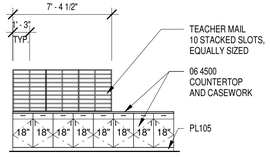
EAST ELEVATION



SOUTH ELEVATION



EAST ELEVATION



WEST SIDE OF FREE STANDING CASEWORK

C1 LOUNGE

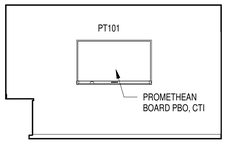
SCALE: 3/16" = 1'-0"

C2 ADMINISTRATION HALLWAY

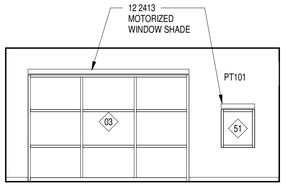
SCALE: 3/16" = 1'-0"

C3 MAIL ISLAND

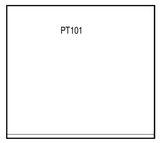
SCALE: 3/16" = 1'-0"



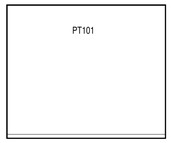
SOUTH ELEVATION



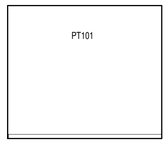
WEST ELEVATION



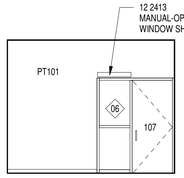
SOUTH ELEVATION



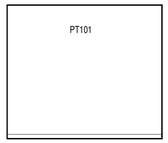
WEST ELEVATION



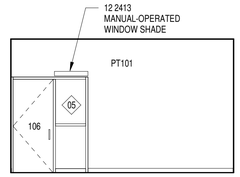
SOUTH ELEVATION



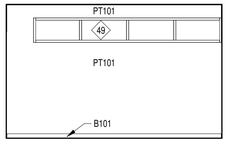
WEST ELEVATION



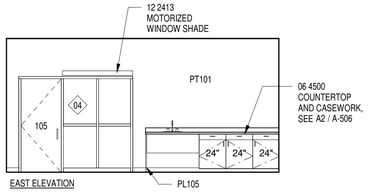
SOUTH ELEVATION



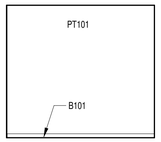
WEST ELEVATION



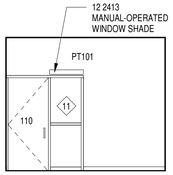
NORTH ELEVATION



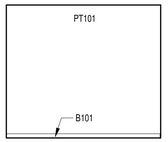
EAST ELEVATION



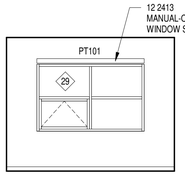
NORTH ELEVATION



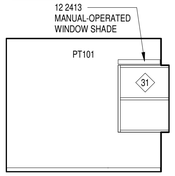
EAST ELEVATION



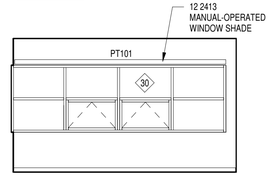
NORTH ELEVATION



EAST ELEVATION



NORTH ELEVATION



EAST ELEVATION

B1 CONFERENCE

SCALE: 3/16" = 1'-0"

B2 TYP. WEST OFFICE

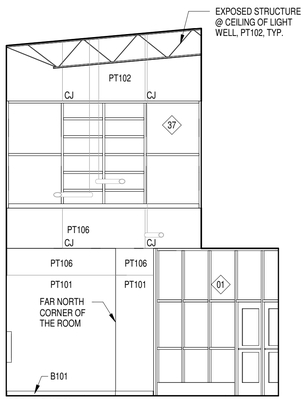
SCALE: 3/16" = 1'-0"

B3 TYP. EAST OFFICE

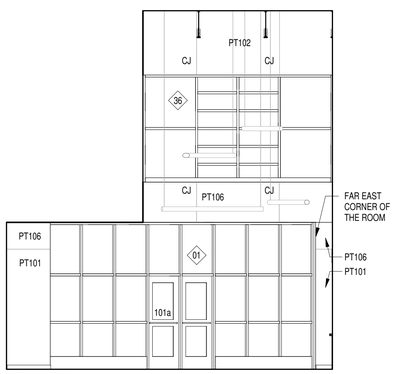
SCALE: 3/16" = 1'-0"

B4 PRINCIPAL'S OFFICE

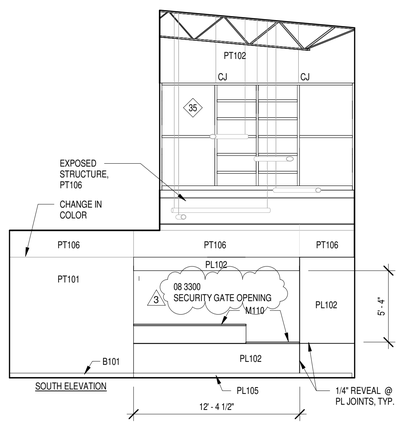
SCALE: 3/16" = 1'-0"



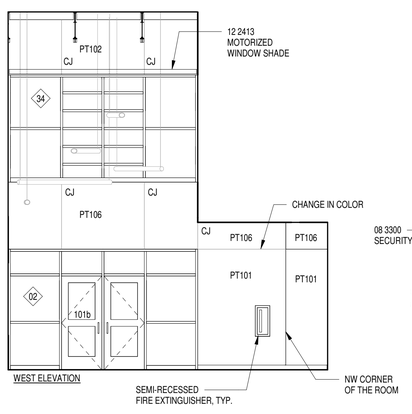
NORTH ELEVATION



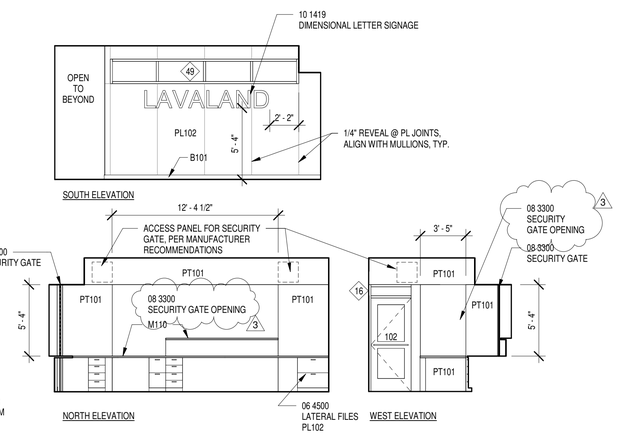
EAST ELEVATION



SOUTH ELEVATION



WEST ELEVATION



SOUTH ELEVATION

NORTH ELEVATION

WEST ELEVATION

A1 LOBBY

SCALE: 3/16" = 1'-0"

A4 RECEPTION

SCALE: 3/16" = 1'-0"

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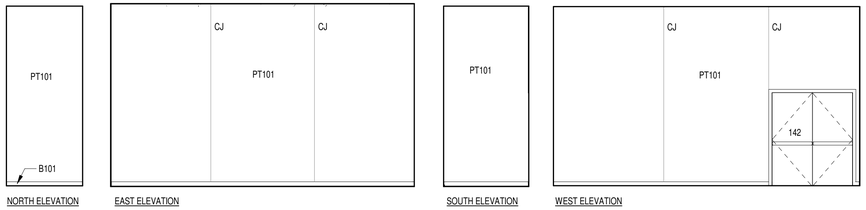
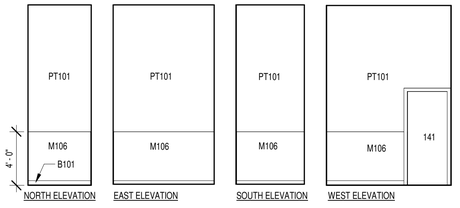
INTERIOR ELEVATIONS

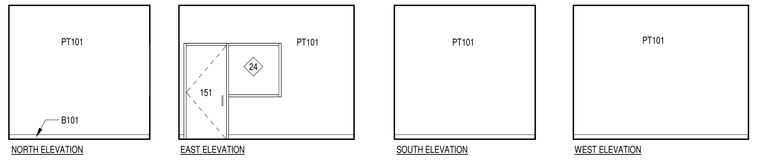
A-202



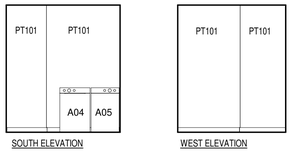
D1 CAFETERIA STORAGE
SCALE: 3/16" = 1'-0"

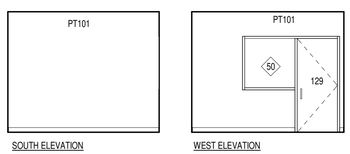


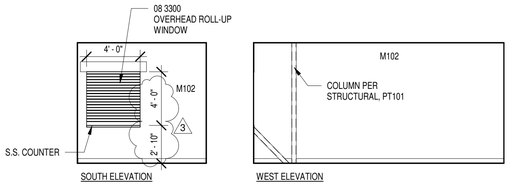
D3 AFTER SCHOOL
SCALE: 3/16" = 1'-0"

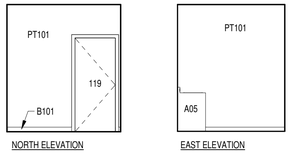


D4 GYM OFFICE
SCALE: 3/16" = 1'-0"

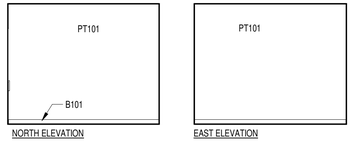




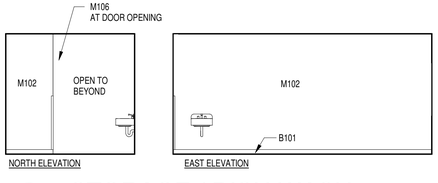




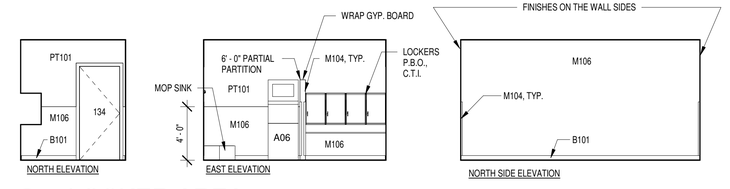
C1 HEALTH CENTER STORAGE
SCALE: 3/16" = 1'-0"



C2 KITCHEN OFFICE
SCALE: 3/16" = 1'-0"

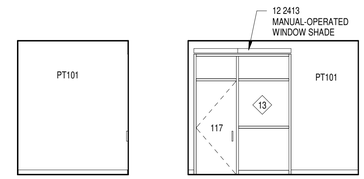


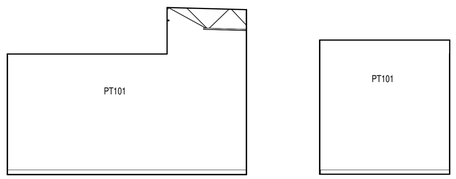
C3 STORAGE / DISH WASH
SCALE: 3/16" = 1'-0"

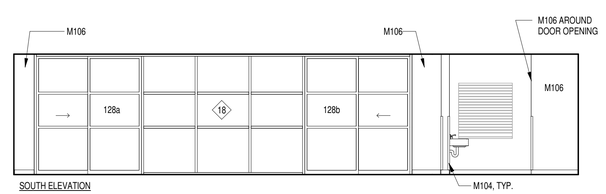


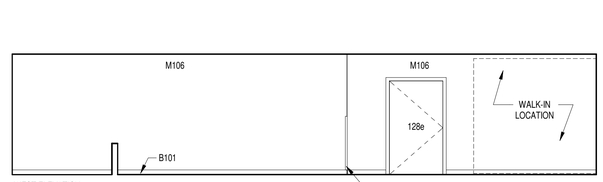
C4 LOCKER AREA
SCALE: 3/16" = 1'-0"

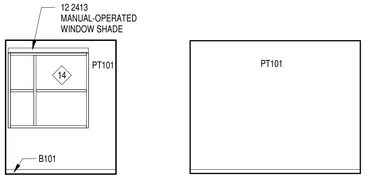
C5 KITCHEN PARTITION
SCALE: 3/16" = 1'-0"

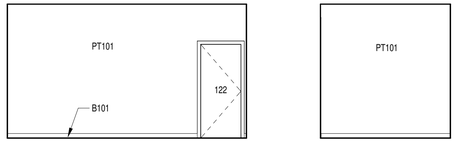


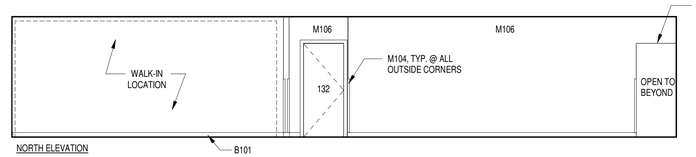


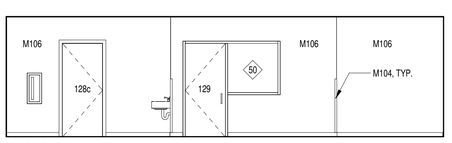








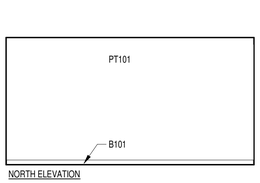


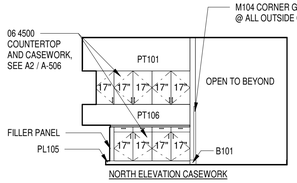


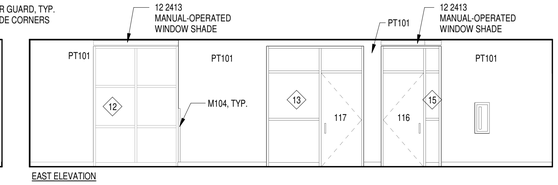
B1 NURSE OFFICE
SCALE: 3/16" = 1'-0"

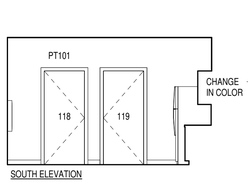
B3 RECYCLE
SCALE: 3/16" = 1'-0"

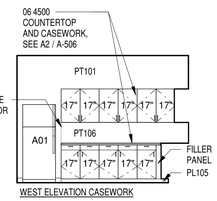
B4 KITCHEN
SCALE: 3/16" = 1'-0"

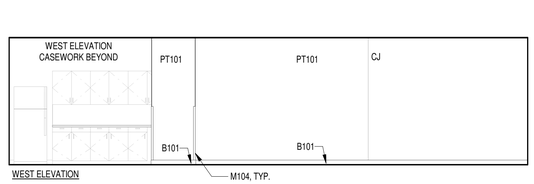












A1 HEALTH CENTER
SCALE: 3/16" = 1'-0"

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Reconstruction

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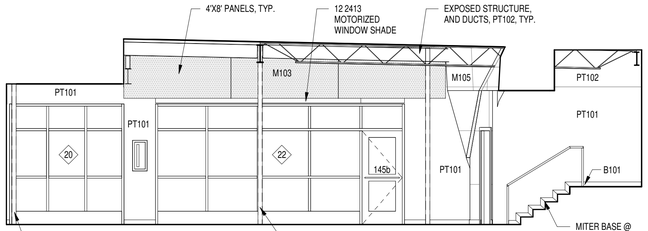
915 OAK STREET SE
ALBUQUERQUE, NM 87106

MARK	DATE	DESCRIPTION
3	6/05/20	Addenda 2

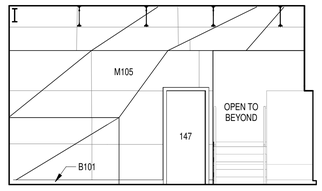
B_AD PROJECT #	1701
FILE:	LAVALAND_100CD.RVT
DATE:	05/01/20
DRAWN BY:	CW / TS / NZ / RP
CHECKED BY:	MRB

INTERIOR ELEVATIONS

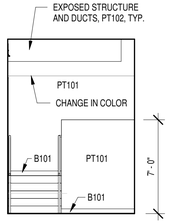
A-203



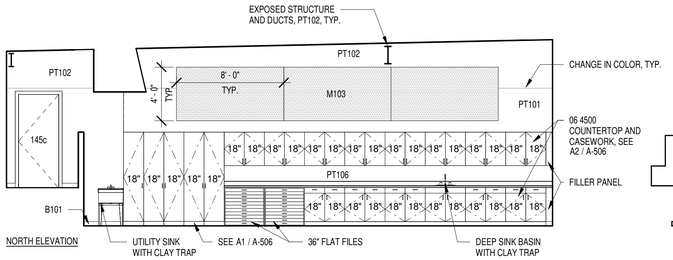
SOUTH ELEVATION



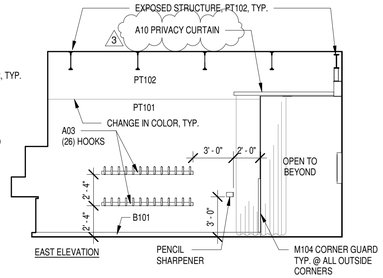
WEST ELEVATION



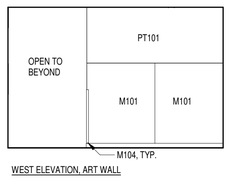
WEST ELEVATION BEYOND



NORTH ELEVATION



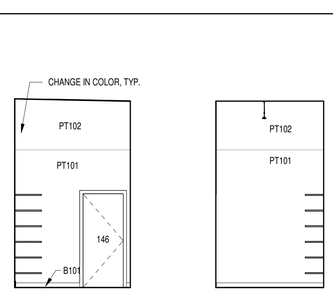
EAST ELEVATION



WEST ELEVATION, ART WALL

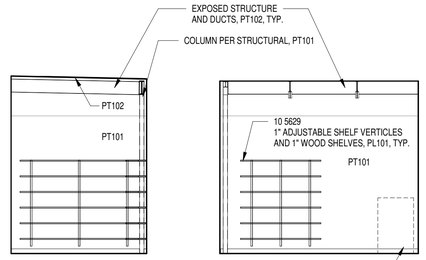
C1 FINE ARTS

SCALE: 3/16" = 1'-0"

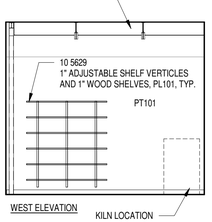


SOUTH ELEVATION

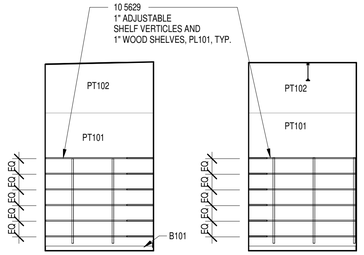
WEST ELEVATION



SOUTH ELEVATION

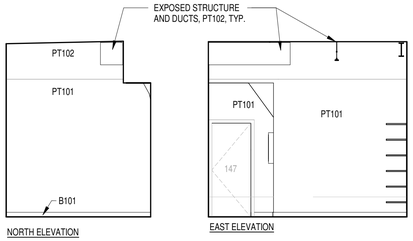


WEST ELEVATION



NORTH ELEVATION

EAST ELEVATION



NORTH ELEVATION

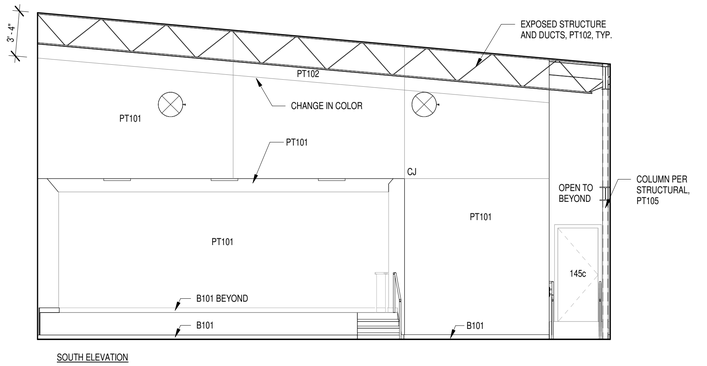
EAST ELEVATION

C3 FINE ARTS STORAGE

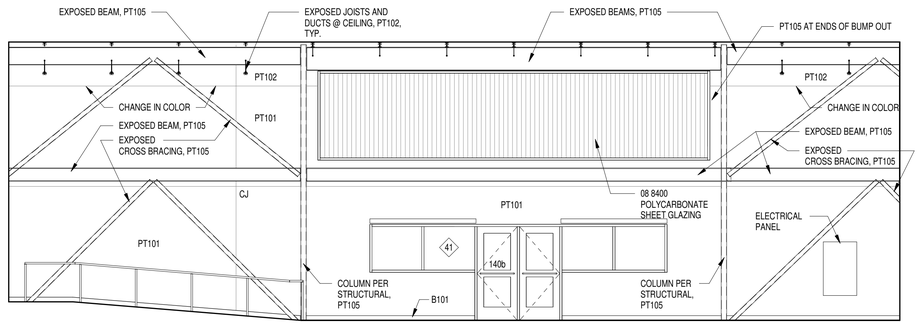
SCALE: 3/16" = 1'-0"

C4 KILN

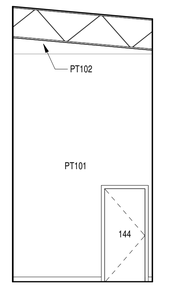
SCALE: 3/16" = 1'-0"



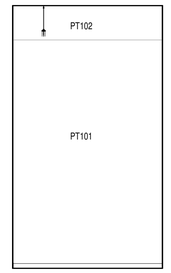
SOUTH ELEVATION



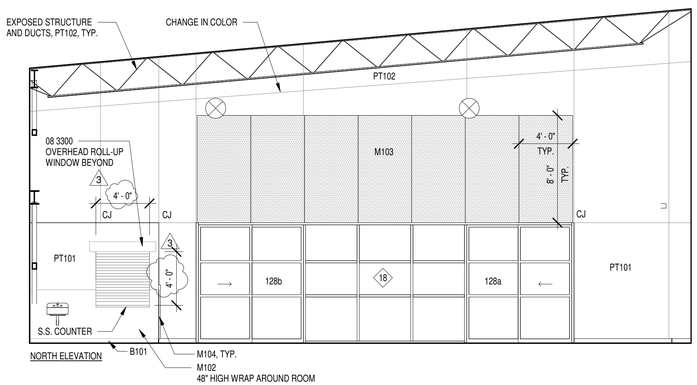
WEST ELEVATION



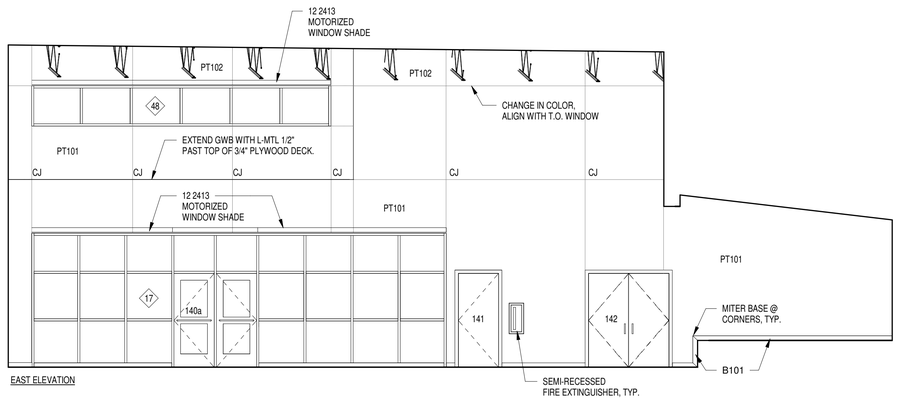
SOUTH ELEVATION



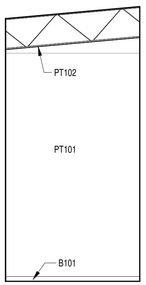
WEST ELEVATION



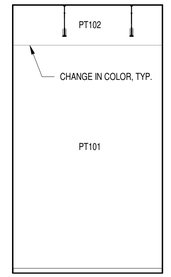
NORTH ELEVATION



EAST ELEVATION



NORTH ELEVATION



EAST ELEVATION

A1 CAFETERIA

SCALE: 3/16" = 1'-0"

A4 STAGE STORAGE

SCALE: 3/16" = 1'-0"

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LAVALAND
ELEMENTARY
SCHOOL
Phase 1
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Reconstruction

OWNER:

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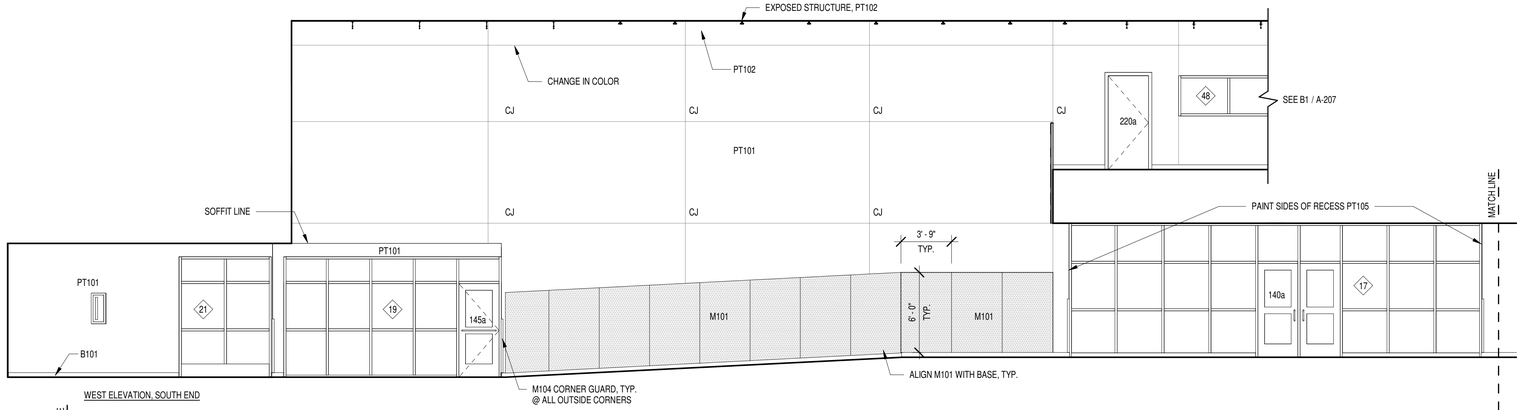
915 OAK STREET SE
ALBUQUERQUE, NM 87106

MARK	DATE	DESCRIPTION
3	6/05/20	Addenda 2

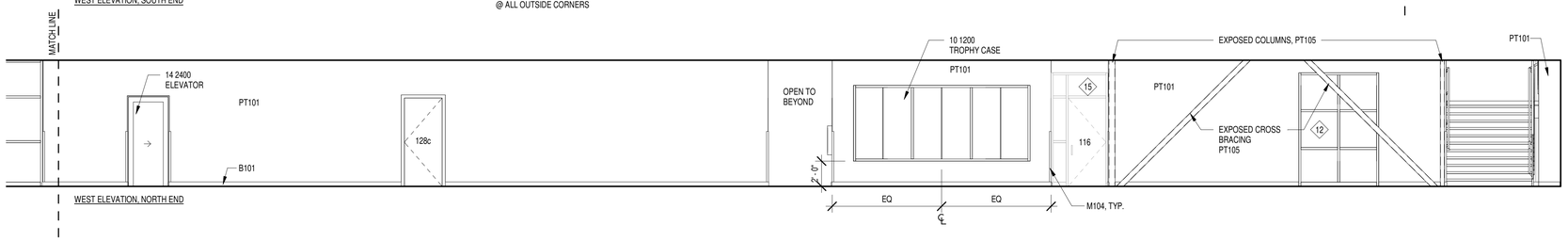
B_AD PROJECT #	1701
FILE:	LAVALAND_100CD.RVT
DATE:	05/01/20
DRAWN BY:	CW / TS / NZ / RP
CHECKED BY:	MRB

INTERIOR ELEVATIONS

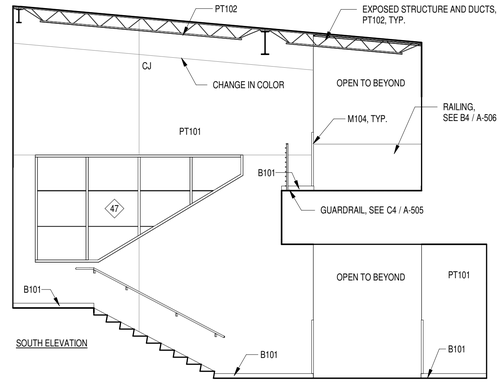
A-204



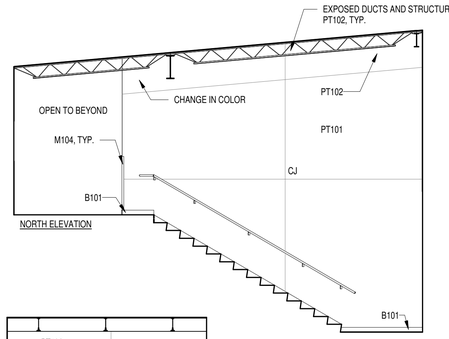
WEST ELEVATION, SOUTH END



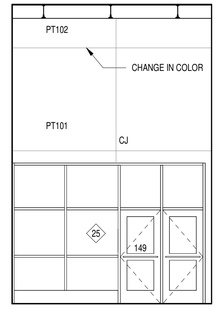
WEST ELEVATION, NORTH END



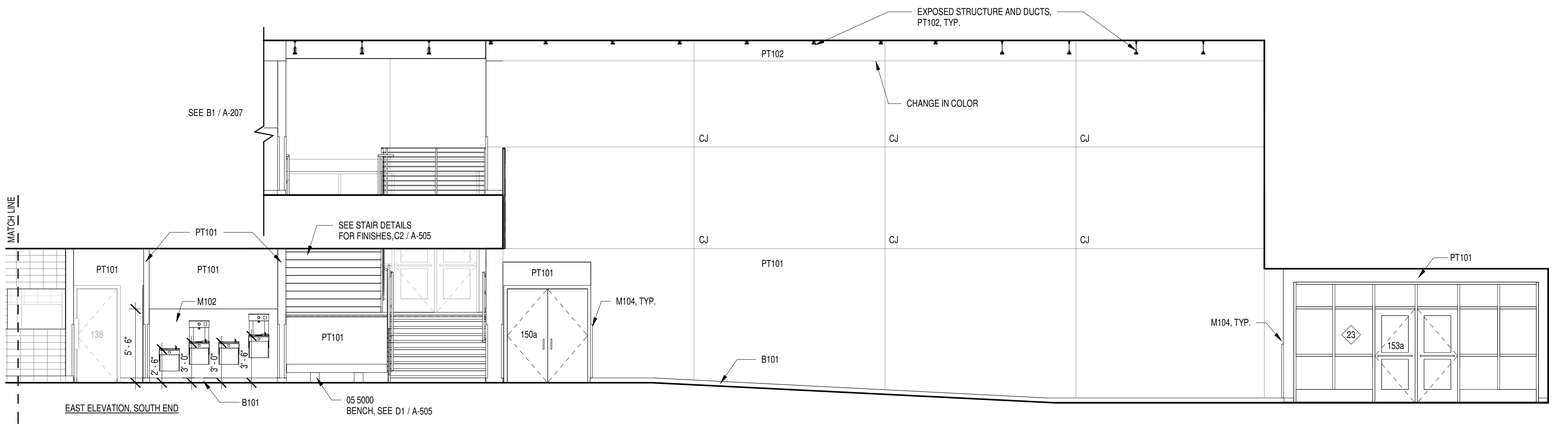
SOUTH ELEVATION



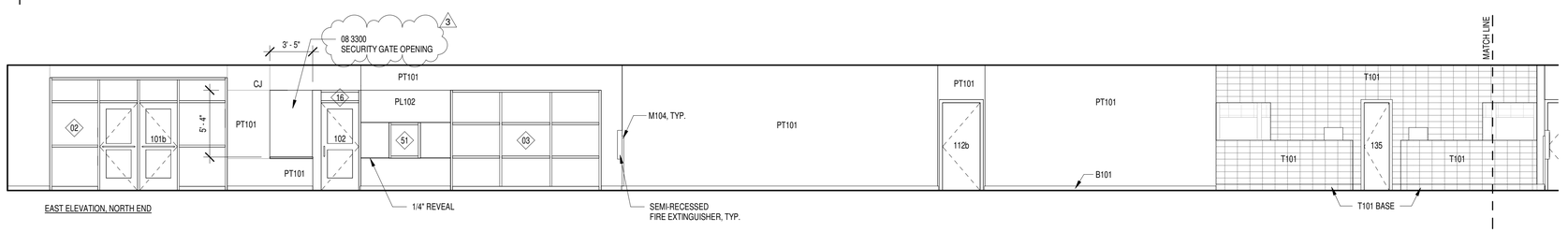
NORTH ELEVATION



WEST ELEVATION



EAST ELEVATION, SOUTH END



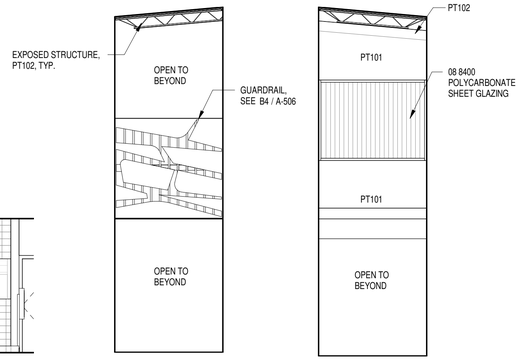
EAST ELEVATION, NORTH END

A2 FIRST FLOOR HALLWAY

SCALE: 3/16" = 1'-0"

B1 SOUTH STAIRS

SCALE: 3/16" = 1'-0"



NORTH ELEVATION

SOUTH ELEVATION

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LAVALAND ELEMENTARY SCHOOL Phase 1 Campus Reconstruction

OWNER:

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ALBUQUERQUE, NM 87106

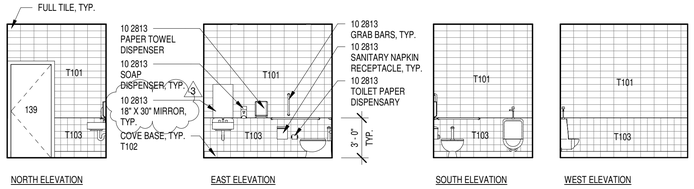
MARK	DATE	DESCRIPTION
3	6/05/20	Addenda 2

B_AD PROJECT #	1701
FILE:	LAVALAND_100CD.RVT
DATE:	05/01/20
DRAWN BY:	CW / TS / NZ / RP
CHECKED BY:	MRB

INTERIOR ELEVATIONS

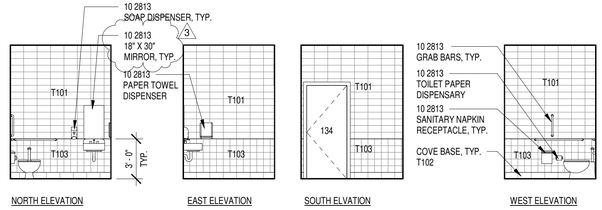
A-208

NOTE: SEE B1 / A - 504 FOR STANDARD MOUNTING HEIGHTS



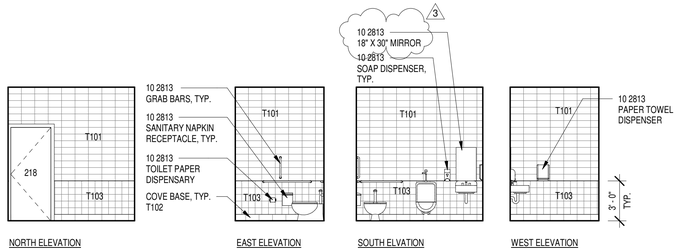
D1 FACULTY

SCALE: 3/16" = 1'-0"



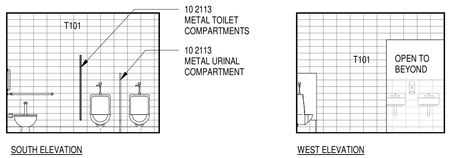
D3 KITCHEN RESTROOM

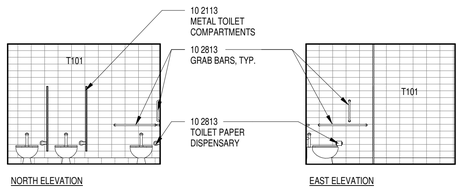
SCALE: 3/16" = 1'-0"

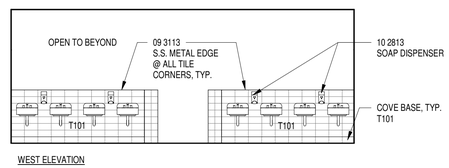


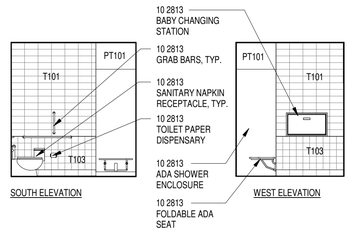
D4 SECOND FLOOR FACULTY R.R.

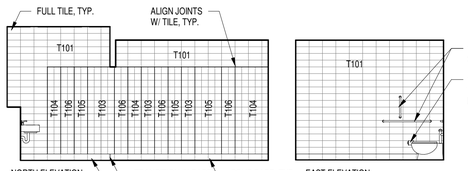
SCALE: 3/16" = 1'-0"





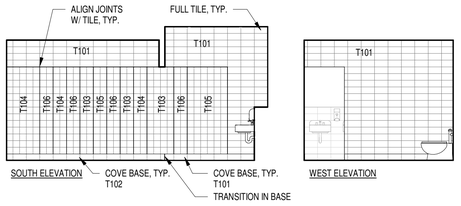






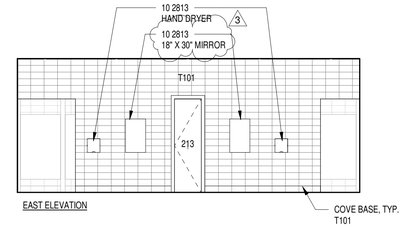
C1 SECOND FLOOR BOYS

SCALE: 3/16" = 1'-0"



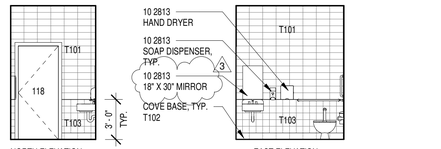
C2 SECOND FLOOR GIRLS

SCALE: 3/16" = 1'-0"



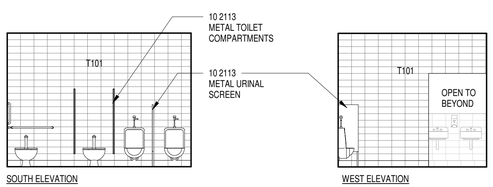
C3 SECOND FLOOR LAVATORY AREA

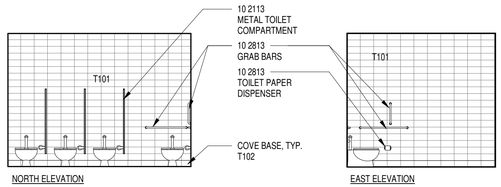
SCALE: 3/16" = 1'-0"

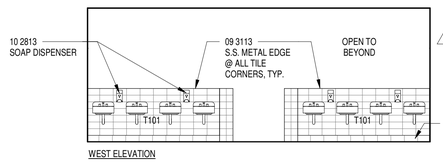


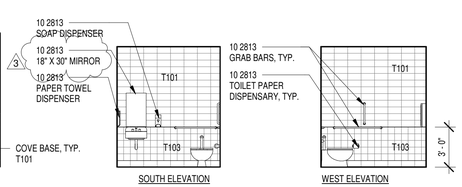
C4 NURSE

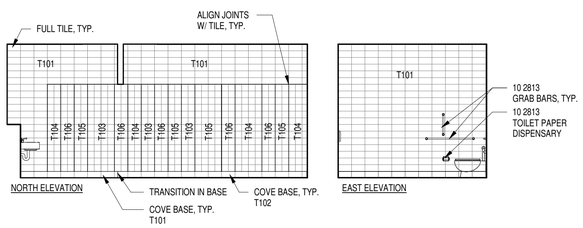
SCALE: 3/16" = 1'-0"





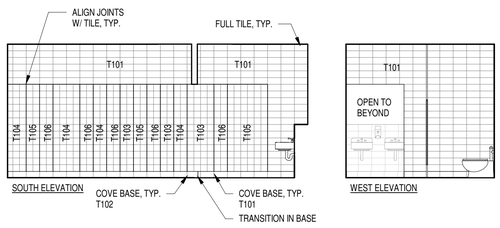






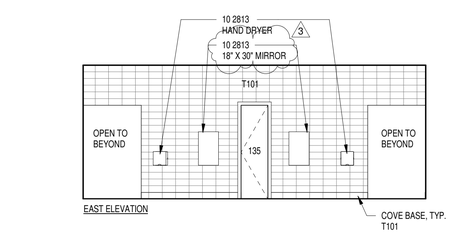
A1 FIRST FLOOR BOYS

SCALE: 3/16" = 1'-0"



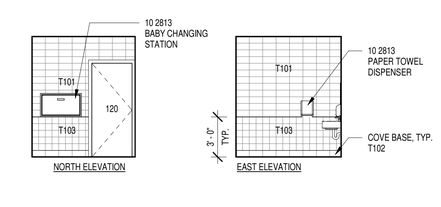
A2 FIRST FLOOR GIRLS

SCALE: 3/16" = 1'-0"



A3 FIRST FLOOR LAVATORY AREA

SCALE: 3/16" = 1'-0"



A4 FACULTY, TYP.

SCALE: 3/16" = 1'-0"

baker AD
505 CENTRAL AVE NW, SUITE E
ALBUQUERQUE, NM 87102
T 505.254.4697 F 505.254.4697
www.bakerAD.com

CONSULTANTS

LAVALAND ELEMENTARY SCHOOL
Phase 1
Campus Reconstruction

OWNER:

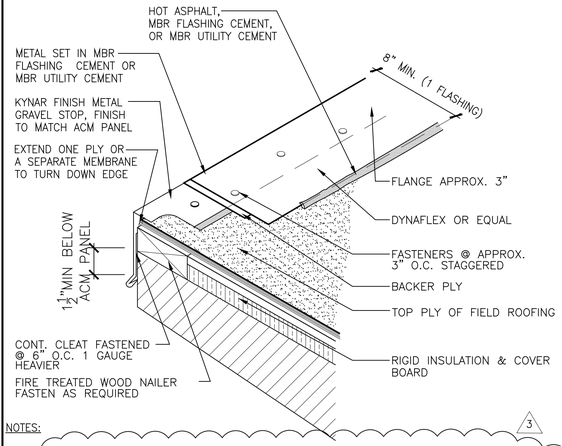
ALBUQUERQUE PUBLIC SCHOOLS
915 OAK STREET SE
ALBUQUERQUE, NM 87106

MARK	DATE	DESCRIPTION
3	6/05/20	Addenda 2

B_AD PROJECT #	1701
FILE:	LAVALAND_100CD.RVT
DATE:	05/01/20
DRAWN BY:	CW / TS / NZ / RP
CHECKED BY:	MRB

RESTROOM ELEVATIONS

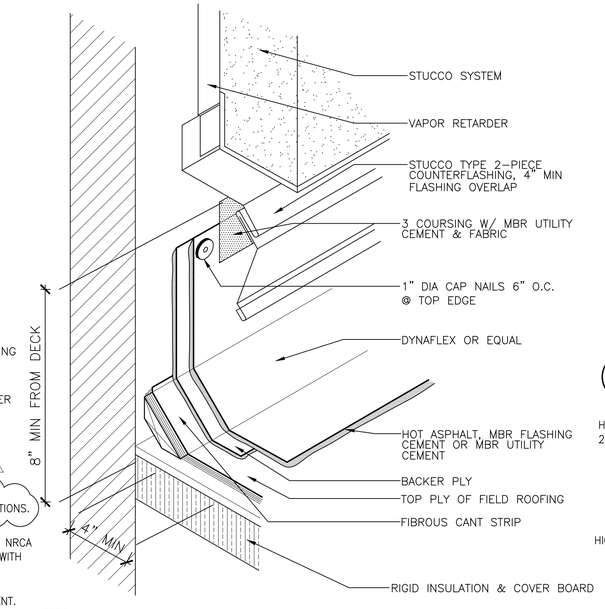
A-209



NOTES:

1. ANY CARPENTRY, METAL WORK, OR MASONRY CONSTRUCTION SHOULD BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH LOCAL CODE REQUIREMENTS AND/OR PROJECT SPECIFICATIONS.
2. SHOP FABRICATED GRAVEL STOP SHOULD BE INSTALLED IN ACCORDANCE WITH SMACNA AND/OR NRCA GUIDELINES. LAPS SHALL UTILIZE EITHER APPROVED SPLICE PLATES OR 4" MINIMUM OVERLAPS WITH APPROVED SEALANT.
3. USE ASPHALT PRIMER ON GRAVEL STOP FLANGES WHEN USING MBR UTILITY CEMENT. USE PERMAFLASH PRIMER, OR EQUAL, ON GRAVEL STOP FLANGES WHEN USING MBR FLASHING CEMENT.

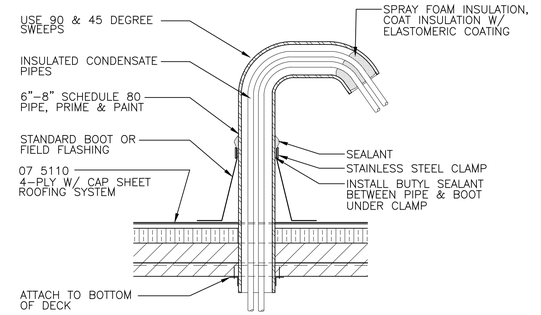
C1 SHALLOW SLOPE EDGE FLASHING
SCALE: 3" = 1'-0"



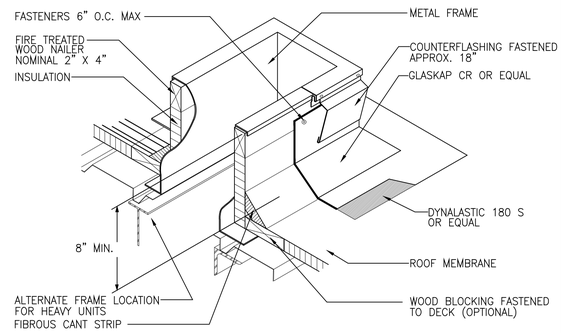
NOTES:

1. ANY CARPENTRY, METAL WORK, OR MASONRY CONSTRUCTION SHOULD BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH LOCAL CODE REQUIREMENTS AND/OR PROJECT SPECIFICATIONS.
2. VERTICAL JOINTS ARE TO BE OVERLAPPED 4" MINIMUM FOR ALL APPLICATIONS. 3 COURSING WITH MBR UTILITY CEMENT AND FABRIC OR EQUAL IS REQUIRED ON ALL VERTICAL FLASHING LAPS AND INSIDE/OUTSIDE CORNERS EXTENDING PAST LEADING EDGE OF CANT STRIP.
3. ALL ASPHALT IS TO BE REMOVED FROM PARAPET, IF THERE IS ANY RESIDUE REMAINING

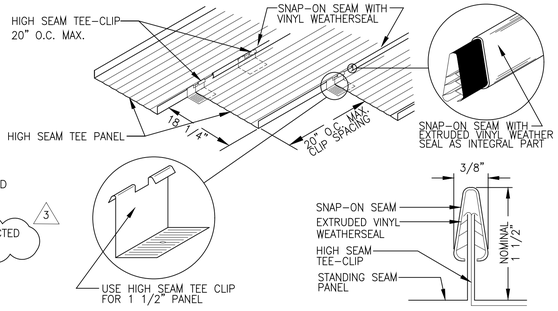
C2 2-PART STUCCO FLASHING @ BUR
SCALE: 3" = 1'-0"



D3 MULTIPLE CONDENSATE PIPE FLASHING
SCALE: 3" = 1'-0"

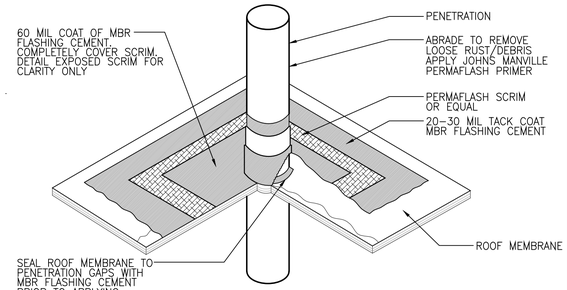


D4 PRE-FABRICATED CURB @ BUR
SCALE: 1" = 1'-0"

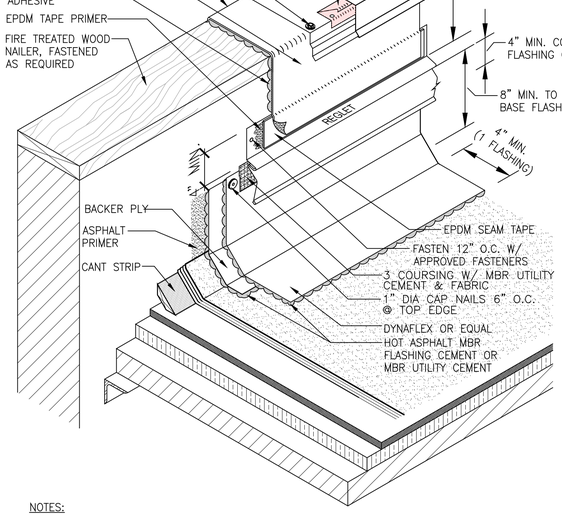


STANDING SEAM SECTION

C3 HIGH SEAM TEE PANEL-STANDING SEAM
SCALE: 3" = 1'-0"



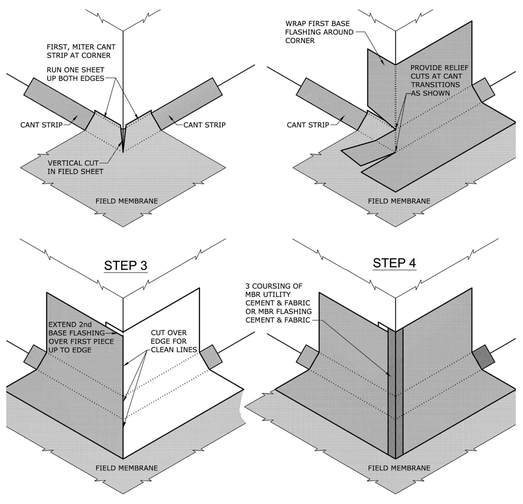
C4 VENT PIPING @ BUR
SCALE: 1" = 1'-0"



NOTES:

1. SHOP FABRICATED COPINGS SHOULD BE INSTALLED IN ACCORDANCE WITH SMACNA GUIDELINES.
2. ANY CARPENTRY, METAL WORK, OR MASONRY CONSTRUCTION SHOULD BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH LOCAL CODE REQUIREMENTS AND/OR PROJECT SPECIFICATIONS.
3. VERTICAL JOINTS ARE TO BE OVERLAPPED 4" MINIMUM FOR ALL APPLICATIONS. 3 COURSING WITH MBR UTILITY CEMENT AND FABRIC IS REQUIRED ON ALL VERTICAL FLASHING LAPS AND INSIDE/OUTSIDE CORNERS EXTENDING PAST LEADING EDGE OF CANT STRIP.
7. PLEASE SEE BITUMINOUS FLASHING SPECIFICATIONS FOR A FULL DESCRIPTION OF INSTALLATION INSTRUCTIONS AND REQUIREMENTS WHICH ARE CONSIDERED A PART OF THIS DETAIL.

A1 HIGH PARAPET FLASHING
SCALE: 3" = 1'-0"



NOTES:

1. ANY CARPENTRY, METAL WORK, OR MASONRY CONSTRUCTION SHOULD BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH LOCAL CODE REQUIREMENTS AND/OR PROJECT SPECIFICATIONS.
2. VERTICAL JOINTS ARE TO BE OVERLAPPED 4" MINIMUM FOR ALL APPLICATIONS. 3 COURSING WITH MBR UTILITY CEMENT AND FABRIC OR EQUAL IS REQUIRED ON ALL VERTICAL FLASHING LAPS AND INSIDE/OUTSIDE CORNERS EXTENDING PAST LEADING EDGE OF CANT STRIP.

A2 BUR OUTSIDE CORNER BASE FLASHING
SCALE: N.T.S.

NOTES:

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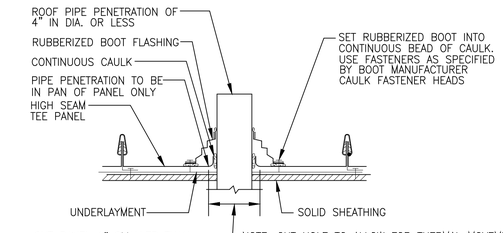
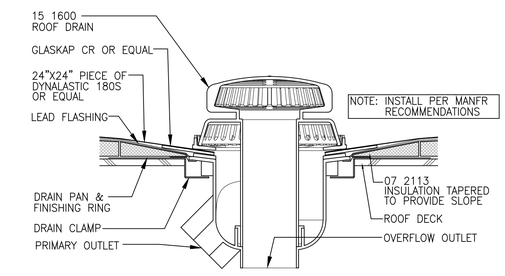
2. VERTICAL JOINTS ARE TO BE OVERLAPPED 4" MINIMUM FOR ALL APPLICATIONS. 3 COURSING WITH MBR UTILITY CEMENT AND FABRIC OR EQUAL IS REQUIRED ON ALL VERTICAL FLASHING LAPS AND INSIDE/OUTSIDE CORNERS EXTENDING PAST LEADING EDGE OF CANT STRIP.

A3 BUR INSIDE CORNER BASE FLASHING
SCALE: N.T.S.



B4 STANDING SEAM VENT PIPE DETAIL
SCALE: 1 1/2" = 1'-0"



A4 ROOF DRAIN
SCALE: 1 1/2" = 1'-0"

Baker A+d
505 CENTRAL AVE NW
ALBUQUERQUE, NM 87104
505.254.4697
www.bakerAD.com

CONSULTANTS

LAVALAND ELEMENTARY
PHASE I CAMPUS RECONSTRUCTION

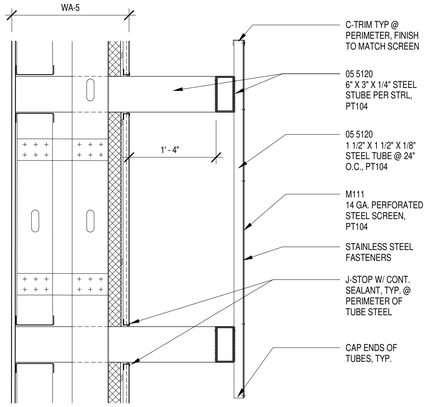
OWNER
ALBUQUERQUE PUBLIC SCHOOLS
915 OAK STREET SE
ALBUQUERQUE, NM 87106

MARK	DATE	DESCRIPTION
3	6/05/20	ADDENDA 2

B_AD PROJECT #	1701
DATE:	05/01/2020
DRAWN BY:	TS
CHECKED BY:	MRB

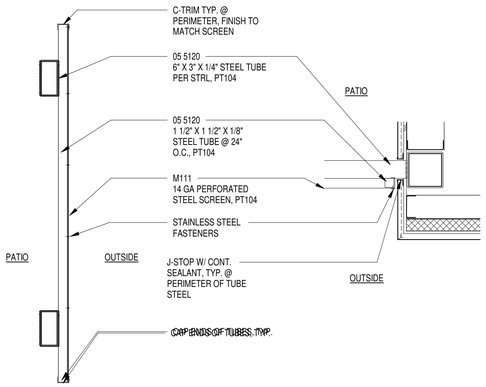
DETAILS

A-504



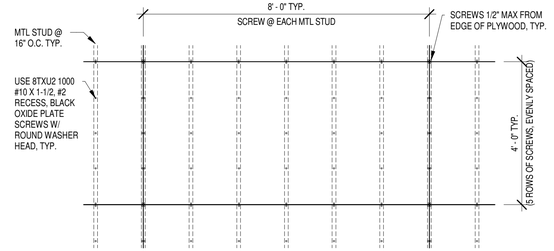
B1 SCREEN DETAILS 2

SCALE: 1" = 1'-0"



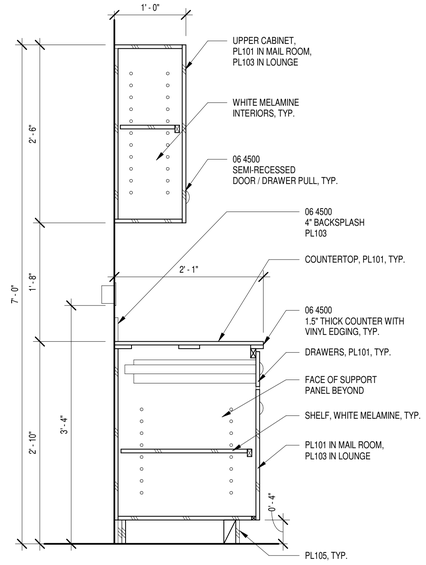
B2 SCREEN DETAILS

SCALE: 1" = 1'-0"



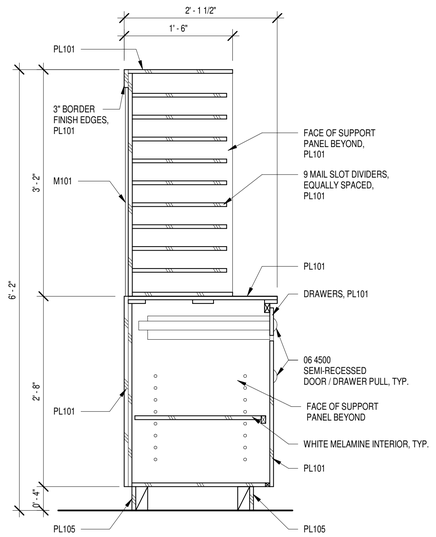
B3 PLYWOOD SCREW PATTERN

SCALE: 1/2" = 1'-0"



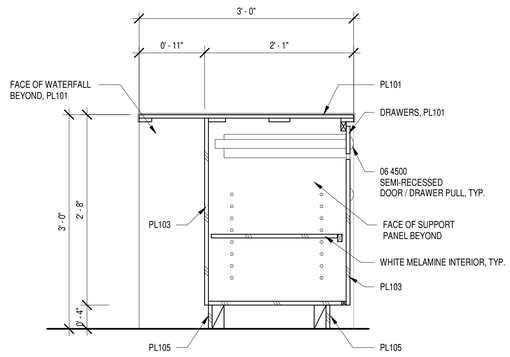
A1 CASEWORK @ LOUNGE AND MAIL

SCALE: 1" = 1'-0"



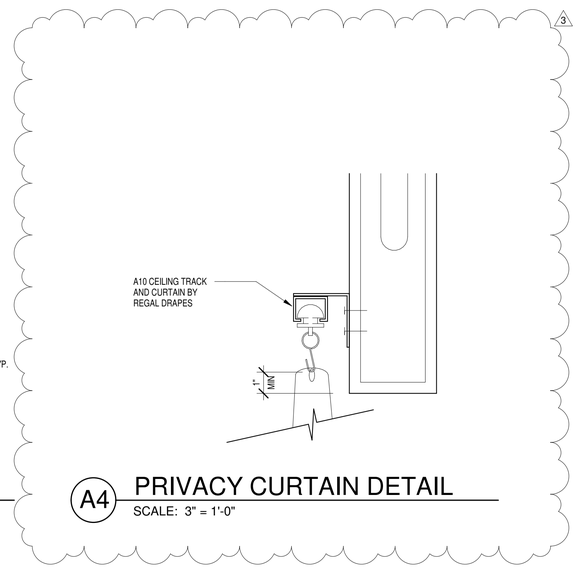
A2 MAIL ISLAND CASEWORK

SCALE: 1" = 1'-0"



A3 LOUNGE ISLAND

SCALE: 1" = 1'-0"



A4 PRIVACY CURTAIN DETAIL

SCALE: 3" = 1'-0"

505 CENTRAL AVE NW, SUITE E
ALBUQUERQUE, NM 87102
T 505.254.4697 F 505.254.4697
www.bakerAD.com

CONSULTANTS

LAVALAND ELEMENTARY SCHOOL
Phase 1 Campus Reconstruction

OWNER:

ALBUQUERQUE PUBLIC SCHOOLS
915 OAK STREET SE
ALBUQUERQUE, NM 87106

MARK	DATE	DESCRIPTION
3	6/05/20	Addenda 2

B_AD PROJECT #	1701
FILE:	LAVALAND_100CD.RVT
DATE:	05/01/20
DRAWN BY:	CW / TS / NZ / RP
CHECKED BY:	MRB

DETAILS

A-507

FINISH SELECTIONS

REF. #	DESCRIPTION	PRODUCT INFORMATION	SHEEN	VENDOR	PHONE/WEBSITE	COMMENTS
	PAINT					
PT101	OFF WHITE WALLS, ETC.	DEW339, "BONE CHINA"	SEE SHEEN NOTES BELOW	DUNN EDWARDS	(888) 337.2468 / WWW.DUNNEDWARDS.COM	SPEC SECTION 09 9100 / SEE SHEEN NOTES BELOW, TYP.
PT102	EXPOSED STRUCTURE, MISC. DECK AND DUCTS, EXTERIOR STEEL, GYM STRIPING	DE6371, "BLACK JACK"	SEE SHEEN NOTES BELOW	DUNN EDWARDS	(888) 337.2468 / WWW.DUNNEDWARDS.COM	SPEC SECTION 09 9100
PT103	CEILINGS	DEW380, "WHITE"	SEE SHEEN NOTES BELOW	DUNN EDWARDS	(888) 337.2468 / WWW.DUNNEDWARDS.COM	SPEC SECTION 09 9100
PT104	WHITE TO MATCH STUCCO	COLOR MATCH	SEE SHEEN NOTES BELOW			SPEC SECTION 09 9100
PT105	ORANGE TO MATCH ACM PANELS	COLOR MATCH	SEE SHEEN NOTES BELOW			SPEC SECTION 09 9100
PT106	ACCENT COLOR - BLUE	DE5829, "FROZEN WAVE"	SEE SHEEN NOTES BELOW	DUNN EDWARDS	(888) 337.2468 / WWW.DUNNEDWARDS.COM	SPEC SECTION 09 9100
PT107	GRAY OUTDOOR PLANTERS	MATCH CONCRETE STONE	SEE SHEEN NOTES BELOW			SPEC SECTION 09 9100
	STUCCO					
STUCCO 1	SCRATCH & BROWN W/ POWERFLEX FINISH	94330 STO "WHITE"		CHAPARREL MATERIALS	(800) 221.2397 / WWW.STOCORP.COM	SPEC SECTION 09 2423
	STAINS					
ST101	DOOR STAIN	QUICK 15 GLOSS VARNISH QT, OR EQUAL		DUNN EDWARDS	(888) 337.2468 / WWW.DUNNEDWARDS.COM	
ST102	MISC, FOR ANY EXPOSED PLYWOOD	OIL BASED CLEAR COAT		DUNN EDWARDS	(888) 337.2468 / WWW.DUNNEDWARDS.COM	
	PLASTIC LAMINATE					
PL101	COUNTERTOPS AND DRAWERS	4830K-18 "SATIN STAINLESS"		WILSONART	(800) 433.3222 / WWW.WILSONART.COM	SPEC SECTION 09 6800
PL102	WALNUT WOOD AT RECEPTION	7947K-18 "RIO"				
PL103	BASE DOORS AND UPPERS	4996-38 "HIGH RISE"				
PL104	NOT USED					
PL105	BLACK TOE KICKS	1595-60 "BLACK"				
	TILE					
T101	CERAMIC TILE, WALLS, TOILET ROOMS, 6" X 12"	16900 "ACCENT WHITE"; 15THIRTY GREYS		MOSA TILE	(212) 729.6332 / WWW.MOSA.COM	STACK BOND, HORIZONTAL, SEAL ALL GROUT JOINTS, TYP.
T102	PORCELAIN TILE, FLOOR AND BASE, 12" X 24", W/ COVE BASE	227 V "DARK COOL GREY" ; GREYS		MOSA TILE	(212) 729.6332 / WWW.MOSA.COM	STACK BOND, HORIZONTAL, SEAL ALL GROUT JOINTS, TYP.
T103	ORANGE CERAMIC TILE, WALL ACCENT, 6" X 6"	17940 "FLAME ORANGE"; MOSA COLORS		MOSA TILE	(212) 729.6332 / WWW.MOSA.COM	STACK BOND, HORIZONTAL, SEAL ALL GROUT JOINTS, TYP.
T104	RED CERAMIC TILE, WALL ACCENT, 6" X 6"	17980 "PAPRIKA"; MOSA COLORS		MOSA TILE	(212) 729.6332 / WWW.MOSA.COM	STACK BOND, HORIZONTAL, SEAL ALL GROUT JOINTS, TYP.
T105	YELLOW CERAMIC TILE, WALL ACCENT, 6" X 6"	17950 "SPECTRA YELLOW"; MOSA COLORS		MOSA TILE	(212) 729.6332 / WWW.MOSA.COM	GRID, SEAL ALL GROUT JOINTS, TYP.
T106	BLUE CERAMIC TILE, WALL ACCENT, 6" X 6"	17990 "BLUE CURACAO"; MOSA COLORS		MOSA TILE	(212) 729.6332 / WWW.MOSA.COM	STACK BOND, HORIZONTAL, SEAL ALL GROUT JOINTS, TYP.
						STACK BOND, HORIZONTAL, SEAL ALL GROUT JOINTS, TYP.
	CARPET					
CPT101	BLACK WALK-OFF TILE	609009 "MOUSE GREY"; SUPER FLOR		INTERFACE	WWW.INTERFACE.COM	SPEC SECTION 09 6800
CPT102	RED WALK-OFF TILE	609164 "PACIFIC SUNSET"; SUPER FLOR		INTERFACE	WWW.INTERFACE.COM	SPEC SECTION 09 6800
CPT103	ADMINISTRATION + LIBRARY CARPET TILE - 24" X 24"	9368 "SHALE"; THE STANDARD		INTERFACE	WWW.INTERFACE.COM	SPEC SECTION 09 6800
	FLOORING					
F101	POLISHED CONCRETE	LEVEL D GRIND WITH SEALER				SPEC SECTION 03 3543
F102	GYM FLOORING	TARAFLEX SPORT M PLUS / 6381 "MAPLE DESIGN" W/ TARAFLEX 'BLACK' GAME LINE PAINT		GERFLOR	(303) 513.8004 / REP: RISE PACACHA / WWW.GERFLORUSA.COM	SPEC SECTION 09 6566
	BASEBOARD					
B101	RESILIENT BASE, TYPICAL	40 "BLACK" B		JOHNSONITE	(440) 543.8916 / WWW.JOHNSONITE.COM	
	MISCELLANEOUS					
M101	TACKABLE WALL COVERING	TAC. WALL, 04 - "STONE"		WALLTALKERS	(800) 820.9255 / WWW.WALLTALKERS.COM	SPEC SECTION 09 7260
M102	STAINLESS STEEL	18 GAGE STAINLESS STEEL SHEETS ADHERED TO GYP. BD. WITH CONSTRUCTION ADHESIVE				
M103	ACOUSTIC PANEL, FABRIC WRAPPED	FR701 2100, 538 "SILVER PAPIER"		QUIET TECHNOLOGY SYSTEMS	(505) 254.9000 / WWW.QTECHSYS.COM	SPEC SECTION 09 8400
M104	S.S. CORNER GUARD	2" X 2" X 48" U.N.O., INSTALL ABOVE BASE BOARD, @ ALL OUTSIDE CORNERS IN CIRCULATION AREAS		WALLGUARD OR EQUAL 3	WWW.WALLGUARD.COM 3	16 GA. SATIN FINISH, 90 DEGREE SHARP CORNER. EXPOSED EDGED SHALL BE GROUND SMOOTH OR CLEAR SILICONE MUST BE APPLIED TO ENSURE SMOOTH TRANSITION TO WALL 3
M105	PLYWOOD WITH CLEAR SEALER	19/32" AC GRADE, SANDED 1 SIDE, PINE				USE 8TXU2 1000 #10 X 1-1/2, #2 RECESS, BLACK OXIDE PLATE SCREWS W/ ROUND WASHER HEAD SEAL W/ ST102, SEE DETAIL B3 / A-507 FOR SCREW PATTERN
M106	FRP	STANDARD FRP, P430N MEDIUM GREY W/ TRIM ACCESSORIES		MARLITE	(330) 343.6621 / WWW.MARLITE.COM	SPEC SECTION 09 7720
M107	TECTUM SURFACE MOUNTED PANELS	1", COLOR: NATURAL, PAINTED PER RCP		QUIET TECHNOLOGY SYSTEMS	(505) 254.9000 / WWW.QTECHSYS.COM	SPEC SECTION 09 8400
M108	ORANGE ACM PANELS	2' X 16' COMPOSITE METAL PANEL, MRT PRISMATIC MAGMA		ALPOLIC MATERIALS	(800) 442.7270 / WWW.ALPOLIC-AMERICAS.COM	SPEC SECTION 07 4213
M109	NOT USED					
M110	QUARTZ COUNTERTOP	"EQUINOX", 4 CM EDGE		VIATERA BY LG HAUSYS	(877) 842.8372 / WWW.LGVIATERAUSA.COM	
M111	PERFORATED STEEL	ROUND, CARBN STEEL, COLD ROLLED, 16 GAUGE, 3/16" ROUND ON 1/4" STAGGERED CENTERS, 51% OPEN		MCNICHOLS	(877) 324.3945 / WWW.MCNICHOLS.COM	

NOTE: DESCRIPTIONS ARE NOT EXHAUSTIVE AND ARE INTENDED AS GENERAL LOCATIONS. REFER TO ELEVATIONS FOR SPECIFIC LOCATIONS IN CASE OF DISCREPANCIES. ELEVATIONS SHALL OVERRIDE DESCRIPTIONS.
SHEEN NOTES: USE SATIN ON INTERIOR WALLS. USE FLAT ON CEILINGS AND EXPOSED STRUCTURE AND SYSTEMS. USE SEMIGLOSS ON STEEL ELEMENTS SUCH AS HM DOOR FRAMES AND COLUMNS.
NOTE: ALL HM FRAMES TO BE PAINTED TO MATCH ADJACENT WALL COLOR.

EQUIPMENT/APPLIANCE SCHEDULE

REF. #	QTY.	DESCRIPTION	PRODUCT INFO	FINISH	MISC.	PROVIDED BY / INSTALLED BY	COMMENTS
A01	4	FRIDGE / FREEZER COMBO W/ ICE MAKER	GE 20 CU. FT. MODEL #GTH20JBBWW	WHITE	34" WIDE, ENERGY STAR	CONTRACTOR / CONTRACTOR	
A02	3	PENCIL SHARPENER	X-ACTO KS	CHROME	WALL MOUNTED	CONTRACTOR / CONTRACTOR	MOUNTED TO 4" X 8" X 3/4" BOARD, SURFACE MOUNTED TO WALL BLOCKING, PT101
A03	52	HANGSAFE HOOKS	VIBRANT RACK	"IVORY" COLOR		CONTRACTOR / CONTRACTOR	SEE INTERIOR ELEVATIONS FOR QUANTITY
A04	1	WASHER	GE 3.9 DOE CU. FT. MODEL # GTWN4250DWS	WHITE	OR EQUAL	CONTRACTOR / CONTRACTOR	
A05	1	DRYER	GE 7.0 CU. FT. CAPACITY TY MODEL #GTDP490EDWS	WHITE	OR EQUAL	CONTRACTOR / CONTRACTOR	
A06	1	STACKED WASHER AND DRYER	GE 3.8 DOE CU. FT. WASHER / 5.9 CU. FT. ELECTRIC DRYER MODEL #GUV27ESSMWW	WHITE	OR EQUAL	CONTRACTOR / CONTRACTOR	
A07		CLIMBING HOLDS	METOLIUS	VARIETY	SCREW-ON CLIMBING HOLDS, OR EQUAL	CONTRACTOR / CONTRACTOR	COORDINATE EXACT QUANTITY AND LOCATION W/ OWNER
A08	1	KILN	SKUTT,KM-1227-3 ELECTRIC KILN			CONTRACTOR / CONTRACTOR	COORDINATE WITH APS STANDARDS / PROVIDE ENV.ROVENT AND ENV ROL NK ACCESSORIES
A09	3	TOP ROPE BELAY BAR	COMBO AUTO BELAY MOUNTING BRACKET		OR EQUAL	CONTRACTOR / CONTRACTOR	INSTALL PER MANUFACTURER'S INSTRUCTIONS 3
A10	1	ART ROOM PRIVACY CURTAIN	RIPPLE FOLD DRAPES BY REGAL DRAPES (REGALDRAPES.COM)	DORNICK CHARCOAL	OR EQUAL	CONTRACTOR / CONTRACTOR	INSTALL PER MANUFACTURER'S INSTRUCTIONS, CURTAIN ROD 8'W, 10'-9"H; HARDWARD TO BE DARK BRONZE FINISH OR PAINT TO MATCH PT102

505 CENTRAL AVE NW, SUITE E
ALBUQUERQUE, NM 87102
T 505.254.4697 F 505.254.4697
www.bakerAD.com

CONSULTANTS

LAVALAND ELEMENTARY SCHOOL
Phase 1
Campus Reconstruction

OWNER:

ALBUQUERQUE PUBLIC SCHOOLS
915 OAK STREET SE
ALBUQUERQUE, NM 87106

MARK	DATE	DESCRIPTION
3	6/05/20	Addenda 2

B_AD PROJECT #	1701
FILE:	LAVALAND_100CD.RVT
DATE:	05/01/20
DRAWN BY:	CW / TS / NZ / RP
CHECKED BY:	MRB

FINISH SCHEDULE

A-603

SECTION 04 1100

UNIT MASONRY ASSEMBLIES

PART 1 - GENERAL

1.1. SUMMARY

A. This Section includes unit masonry assemblies consisting of the following:

1. Concrete masonry units.

B. See Division 7 Section "Sheet Metal Flashing and Trim" for furnishing manufactured reglets installed in masonry joints for metal flashing.

1.2. SUBMITTALS

A. Product Data: For each masonry unit, accessory, and other manufactured product indicated.

B. Shop Drawings: For masonry reinforcing bars; comply with ACI 315, "Details and Detailing of Concrete Reinforcement." Show elevations of reinforced walls.

C. Samples: Showing the full range of colors and textures available for exposed masonry units and colored mortars.

D. Material Test Reports: For each type of masonry unit, mortar, and grout required.

E. Material Certificates: For each type of masonry unit required.

1.3. QUALITY ASSURANCE

A. Preconstruction Testing Service: Engage a qualified independent testing agency to perform preconstruction testing on each type of unit required per test method indicated.
1. Concrete Masonry Units: ASTM C 140.
2. Mortar: For properties per ASTM C 270.
3. Grout: For compressive strength per ASTM C 1019.

B. Mockups: Build sample panels for each type of exposed unit masonry assembly to verify selections made under sample Submittals and to demonstrate aesthetic effects.

1. Build mockups in sizes approximately 48 inches long by 48 inches high by full thickness.

1.4. PROJECT CONDITIONS

A. Cold-Weather Requirements: Do not build on frozen substrates. Remove and replace unit masonry damaged by frost or by freezing conditions. Comply with cold-weather construction requirements in ACI 530.1/ASCE 6/TMS 602.

B. Hot-Weather Requirements: When ambient temperature exceeds 100 deg F (38 deg C), or 90 deg F (32 deg C) with a wind velocity greater than 8 mph (13 km/h), do not spread mortar

beds more than 48 inches (1200 mm) ahead of masonry. Set masonry units within one minute of spreading mortar.

PART 2 - PRODUCTS

2.1. MANUFACTURERS

A. In other Part 2 articles where subparagraph titles below introduce lists, the following requirements apply for product selection:
   1. Products: Subject to compliance with requirements, provide one of the products specified.

2.2. COLORS AND TEXTURES

A. Exposed Masonry Units:

1. 8X8X16 Standard – Gray

2.3. MASONRY UNITS

A. Concrete Masonry Units: ASTM C 90.

   1. Unit Compressive Strength: 1900psi minimum, average net-area compressive strength.
   2. Weight Classification: Medium weight.
   3. Type: I, moisture-controlled units.
   4. Special Shapes: Provide for lintels, corners, jambs, sash, control joints, headers, bonding, and other special conditions.

2.4. MORTAR AND GROUT MATERIALS

A. Portland Cement: ASTM C 150, Type I or II, except Type III may be used for cold-weather construction.

B. Hydrated Lime: ASTM C 207, Type S.

C. Mortar Cement: ASTM C 1329.

   1. Products:

      a. Blue Circle Cement; Magnolia Superbond Mortar Cement.
      b. Lafarge Corporation; Lafarge Mortar Cement

D. Masonry Cement: ASTM C 91.

E. Pigmented Mortar: Colored cement or cement-lime formulation as required to produce the color to match block.

   1. Colored Mortar Cement:

      a. Products:

1) Blue Circle Cement; Magnolia Superbond Mortar Cement.

2. Colored Portland Cement-Lime Mix:

a. Products:

1) Blue Circle Cement; Eaglebond.
2) Glen-Gery Corporation; Color Mortar Blend.
3) Holnam, Inc.; Rainbow Mortamix Custom Color Cement/Lime.
4) Lafarge Corporation; Centurion Colorbond PL.
5) Lehigh Portland Cement Co.; Lehigh Custom Color Portland/Lime.
6) Riverton Corporation (The); Riverton Portland Cement Lime Custom Color.

3. Colored Masonry Cement:

a. Products:

1) Blue Circle Cement; Magnolia Masonry Cement.
2) Essroc Materials, Inc.; Brixment-in-Color.
3) Holnam, Inc.; Rainbow Mortamix Custom Color Masonry Cement.
4) Lafarge Corporation; Centurion Colorbond.
5) Lehigh Portland Cement Co.; Lehigh Custom Color Masonry Cement.
6) National Cement Company, Inc.; Coosa Masonry Cement.
7) Riverton Corporation (The); Flamingo Color Masonry Cement.
8) Southdown, Inc.; Richcolor Masonry Cement.

F. Aggregate for Mortar: ASTM C 144; except for joints less than 1/4 inch (6.5 mm) thick, use aggregate graded with 100 percent passing the No. 16 (1.18-mm) sieve.

1. Colored-Mortar Aggregates: Natural-colored sand or ground marble, granite, or other sound stone; of color necessary to produce required mortar color.

G. Aggregate for Grout: ASTM C 404.

H. Mortar Pigments: Natural and synthetic iron oxides and chromium oxides, compounded for use in mortar mixes. Use only pigments with a record of satisfactory performance in masonry mortar.

1. Products:

a. Davis Colors; True Tone Mortar Colors.
b. Lafarge Corporation; Centurion Pigments.
c. Solomon Grind-Chem Services, Inc.; SGS Mortar Colors.

I. Cold-Weather Admixture: Nonchloride, noncorrosive, accelerating admixture complying with ASTM C 494, Type C, and recommended by the manufacturer for use in masonry mortar of composition indicated.

1. Products:

a. Euclid Chemical Co.; Accelguard 80.

b. Grace, W. R. & Co., Construction Products Division; Morseled.
c. Sonneborn, Div. of ChemRex, Inc.; Trimix-NCA.

J. Water: Potable.

2.5. REINFORCING

A. Uncoated Steel Reinforcing Bars: ASTM A 615; Grade 60 .

B. Masonry Joint Reinforcement: ASTM A 951; mill galvanized, carbon-steel wire for interior walls and hot-dip galvanized, carbon-steel wire for exterior walls.

1. Wire Size for Side Rods: W1.7 or 0.148-inch diameter.
2. Wire Size for Cross Rods: W1.7 or 0.148-inch diameter.
3. Single-Wythe Masonry: Use either truss type with single pair of side rods and cross rods spaced not more than 16 inches (407 mm) o.c.

2.6. EMBEDDED FLASHING MATERIALS

A. Metal Flashing and Accessories: Fabricated to complying with requirements specified in Division 7 Section "Sheet Metal Flashing and Trim."

2.7. MISCELLANEOUS MASONRY ACCESSORIES

A. Preformed Control-Joint Gaskets: Designed to fit standard sash block and to maintain lateral stability in masonry wall.

2.8. INSULATION

A. Extruded-Polystyrene Board Insulation: ASTM C 578, Type [IV] [X].

2.9. MASONRY CLEANERS

A. Job-Mixed Detergent Solution: Solution of 1/2-cup (0.14-L) dry measure tetrasodium polyphosphate and 1/2-cup (0.14-L) dry measure laundry detergent dissolved in 1 gal. (4 L) of water.

B. Proprietary Acidic Cleaner: Manufacturer's standard-strength cleaner designed for removing mortar/grout stains, efflorescence, and other new construction stains from new masonry without discoloring or damaging masonry surfaces. Use product approved for intended use by cleaner manufacturer and manufacturer of masonry units being cleaned.

2.10. MORTAR AND GROUT MIXES

A. General: Do not use admixtures, unless otherwise indicated. Do not use calcium chloride in mortar or grout.

B. Mortar for Unit Masonry: All mortar shall be type S with a strength of 3000 psi at 28 days.

C. Pigmented Mortar: Select and proportion pigments with other ingredients to produce color required. Limit pigments to the following percentages of cement content by weight:

1. For portland cement-lime mortar, not more than 10 percent.
2. For masonry cement mortar, not more than 5 percent.

D. Grout for Unit Masonry: Comply with ASTM C 476.

1. Use grout of type indicated or, if not otherwise indicated, of type (fine or coarse) that will comply with Table 5 of ACI 530.1/ASCE 6/TMS 602 for dimensions of grout spaces and pour height.
2. Provide grout with a slump of 8 to 11 inches (200 to 280 mm) as measured according to ASTM C 143.

PART 3 - EXECUTION

3.1. INSTALLATION, GENERAL

A. Cut masonry units with motor-driven saws. Allow units cut with water-cooled saws to dry before placing, unless wetting of units is specified. Install cut units with cut surfaces and, where possible, cut edges concealed.

B. Select and arrange units for exposed unit masonry to produce a uniform blend of colors and textures.

C. Comply with tolerances in ACI 530.1/ASCE 6/TMS 602 and the following:

1. For conspicuous vertical lines, such as external corners, door jambs, reveals, and expansion and control joints, do not vary from plumb by more than 1/4 inch in 20 feet (6 mm in 6 m), nor 1/2 inch (12 mm) maximum.
2. For conspicuous horizontal lines, such as exposed lintels, sills, parapets, and reveals, do not vary from level by more than 1/4 inch in 20 feet (6 mm in 6 m), nor 1/2 inch (12 mm) maximum.

3.2. LAYING MASONRY WALLS

A. Lay out walls in advance for accurate spacing of surface bond patterns with uniform joint thicknesses and for accurate location of openings, movement-type joints, returns, and offsets. Avoid using less-than-half-size units, particularly at corners, jambs, and, where possible, at other locations.

B. Bond Pattern for Exposed Masonry: Lay exposed masonry in bond pattern indicated; do not use units with less than nominal 4-inch (100-mm) horizontal face dimensions at corners or jambs.

C. Built-in Work: As construction progresses, build in items specified under this and other Sections of the Specifications. Fill in solidly with masonry around built-in items.

D. Fill cores in hollow concrete masonry units with grout 24 inches (600 mm) under bearing plates, beams, lintels, posts, and similar items, unless otherwise indicated.

3.3. MORTAR BEDDING AND JOINTING

A. Lay hollow masonry units as follows:

1. With full mortar coverage on horizontal and vertical face shells.
2. Bed webs in mortar in starting course on footings and in all courses of piers, columns, and pilasters, and where adjacent to cells or cavities to be filled with grout.
3. For starting course on footings where cells are not grouted, spread out full mortar bed, including areas under cells.

B. Tool exposed joints slightly concave when thumbprint hard, using a jointer larger than the joint thickness, unless otherwise indicated.

3.4. CAVITIES

A. Keep cavities clean of mortar droppings and other materials during construction.

3.5. MASONRY JOINT REINFORCEMENT

A. Provide continuous masonry joint reinforcement as indicated. Install with a minimum cover of 5/8 inch (16 mm) on exterior side of walls, 1/2 inch (13 mm) elsewhere. Lap reinforcement a minimum of 6 inches (150 mm).

B. Provide continuity at corners and wall intersections by using prefabricated "L" and "T" sections.

3.6. LINTELS

A. Provide masonry lintels where shown.

3.7. REINFORCED UNIT MASONRY INSTALLATION

A. Temporary Formwork and Shores: Construct formwork and shores to support reinforced masonry elements during construction.

1. Do not remove forms and shores until reinforced masonry members have hardened sufficiently to carry their own weight and other temporary loads that may be placed on them during construction.

B. Placing Reinforcement: Comply with requirements in ACI 530.1/ASCE 6/TMS 602.

C. Grouting: Do not place grout until entire height of masonry to be grouted has attained sufficient strength to resist grout pressure.

1. Comply with requirements in Section 2104.6 of the Uniform Building Code for cleanouts and for grout placement, including minimum grout space and maximum pour height.

3.8. FIELD QUALITY CONTROL

A. Owner will engage a qualified independent testing agency to perform field quality-control testing indicated below.

1. Testing Frequency: Tests and Evaluations listed in these subparagraphs will be performed during construction for each 5000 sq. ft. (465 sq. m) of wall area or portion thereof.
2. Mortar: Properties will be tested per ASTM C 780.

3. Grout: Sampled and tested for compressive strength per ASTM C 1019.
4. Concrete Masonry Unit Tests: For each type of concrete masonry unit indicated, units will be tested according to ASTM C 140.

3.9. PARGING

A. Parge predampened masonry walls, where indicated, with Type S or Type N mortar applied in 2 uniform coats to a total thickness of 3/4 inch (19 mm) with a steel-trowel finish. Form a wash at top of parging and a cove at bottom. Damp-cure parging for at least 24 hours.

3.10. CLEANING

A. Clean unit masonry by dry brushing to remove mortar fins and smears before tooling joints, as work progresses.

B. After mortar is thoroughly set and cured, clean exposed masonry as follows:

1. Test cleaning methods on sample wall panel; leave one-half of panel uncleaned for comparison purposes.
2. Protect adjacent surfaces from contact with cleaner.
3. Wet wall surfaces with water before applying cleaners; remove cleaners promptly by rinsing the surfaces thoroughly with clear water.
4. Clean masonry with a proprietary acidic cleaner applied according to manufacturer's written instructions.
5. Clean concrete masonry by cleaning method indicated in NCMA TEK 8-2 applicable to type of stain on exposed surfaces.

3.11. MASONRY WASTE DISPOSAL

A. Masonry Waste Disposal:
Remove excess, clean masonry waste, and other masonry waste, and legally dispose of off Owner's property.

SECTION 07 5110

BUILT-UP ASPHALT ROOFING OVER INSULATION

PART 1 - GENERAL

1.1. RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions, general project requirements and Division 1 Specifications Sections, apply to this Section.

1.2. SCOPE OF WORK

A. Provide a complete roof system of insulation; hot mopped felts, cap sheet, flashings, sealants, and accessories.

1.3. BIDDER'S REPRESENTATION

A. A large part of the value of this work is contained in the bidder's and the bidder's proposed manufacturer's capacity to provide long-term responsibility for the satisfactory performance of the roof. A 20-year, no dollar limit warranty is required. To that end, the following requirements are essential provisions of this specification:
   1. By offering a bid for this work, the bidder certifies that he has visited the site and determined that all the conditions of the surrounding and underlying work are consistent with his proposed manufacturer's requirements for the specified warranty. In the event that the bidder discovers any condition of the surrounding and underlying work that would prevent him or his manufacturer from providing the specified warranty, he shall report it to the design professional not less than ten (10) days before the bid opening.
   2. By offering a bid for this work, the bidder certifies that he has examined the Contact Documents and has found all the details and requirements of the scope of work are complete and consistent with his proposed manufacturer's requirements for the specified warranty. In the event that the bidder discovers any detail or requirement in the Contract Documents that would prevent him or his manufacturer from providing the specified warranty, he shall report it to the design professional not less than ten (10) days before the bid opening.
   3. By offering a bid for this work, the bidder certifies that he can, within ten (10) calendar days of a notice of award from the Owner, provide a surety bond for the performance of the work, a surety bond for payment of labor and materials, and a specimen warranty certificate from the manufacturer whose system he proposes to use on the project.

1.4. QUALIFICATIONS

A. Manufacturer Qualifications
   1. The manufacturer of the roof system shall be the actual manufacturer of the roofing and insulation component materials, and shall have not less than fifteen (15) years of experience in the production of the specified system.
   2. The contractor shall include a certification from the manufacturer, on the manufacturer's letterhead, that the proposed membrane and insulation materials will be produced by the

manufacturer of record.

B. Installer Qualifications
   1. The installer of the built-up roofing shall have been engaged in the business of installing built-up roofing for not less than five (5) years and shall be experienced in the layout and application of this material. The crew shall be composed of experienced and skilled workers in this work

1.5. SUBMITTALS

A. Shop Drawings: Submit in accordance with Conditions of Contract and Division 1 Specification Sections, indicating roof size, membrane attachment layout, location, and type of penetrations, perimeter and penetration details, roof insulation make-up and layout.

B. Product Data Submittals: Include manufacturer's technical product data, including UL product listing for each type of insulation, deck, fasteners and roofing product required.

C. Fire Resistance: Provide roofing system, insulation, and component materials that have been tested for application and slopes indicated and are listed by Underwriters Laboratories, Inc. (UL) for Class A external fire exposure over decks specified herein.

D. Wind Uplift: Provide rigid insulation, mechanically fastened roofing system, and component materials suitable for the structural deck and that have been tested as a complete system for application and slopes indicated. Provide a complete outfit of submittals ready for review. Allow sufficient time for review of the submittal. Provide fastening for uplift resistance to meet the applicable Building Code but in no case less than ninety (90) psf.

1.6. INSPECTIONS

A. During the roofing system installation, the Contractor shall take five (5) digital photos daily of the work in progress. The photos shall be forwarded to the Design Profession and the Owner's Representative on a daily basis with a brief caption of the roofing area being installed and the products being used.

B. After the roofing system installation is complete, the manufacturer shall inspect the work and inform (by written report) the design professional, contractor, and the installer of defective/incomplete work to be remodeled. Those areas indicated shall be corrected to the full satisfaction of the design professional, Owner, and manufacturer. The manufacturer shall submit written acceptance of the project to the design professional to issuance of the weathertightness warranty.

C. Inspections shall be performed at each transition of roof detail encountered for each phase of roofing for the duration of the project. An experienced, full-time employee of the manufacturer, with experience in similar inspections over the past two years, must conduct each inspection.

D. As part of the District's initiative to ensure field quality control, a **Simulated Rain Test** shall be conducted as follows:
   1. After completion of the four ply-membrane installation and prior to the installation of the cap sheet membrane, a water test shall be coordinated and conducted by the Contractor in the presence of the Design Professional and the Owner's representative. The Contractor

shall give the Design Professional and the Owner's representative a minimum of 48 hours' notice prior to conducting the water test. The Design Professional shall be responsible for documenting the water test results.

2. Prior to the water test, the Contractor shall ensure that the roof area(s) to be tested have been cleaned of debris and all roof drains are sufficiently plugged.
3. The Contractor shall provide and/or arrange for all necessary equipment, supplies, water, etc. as needed to perform these tests. This may include a water truck with a fire hose, if necessary.
4. At the direction of the Owner's Representative, apply simulated rain over all roof areas for at least 15 minutes per area, or as otherwise directed.
5. In addition to the simulated rain test, direct water at all walls, windows, units, penetrations, etc. that occur adjacent to, or within each roof area, using a continuous, unforced hose stream.
6. Plug all roof drains and scuppers in each drainage area and allow each drain/scupper sump to be filled to a depth of 3-4 inches. Allow water to stand for a minimum of 2 hours. The Contractor shall maintain photo documentation of the sump locations that the water level has maintained a constant level for the time period required. These photos shall be provided to the Owner's Representative upon request.
7. Upon completion of the water test but before the end of each day, unplug drains/scuppers and ensure the water flows freely without restriction. There will be no overnight testing.
8. Perform any necessary corrections to defects noted (including the insuring of positive drainage around all curbs, roof openings, and crickets to roof drains or scuppers) during or after the water test. Additional testing shall be performed as necessary to further define sources of any noted leakage. All defects and/or corrections shall be made prior to the installation of the cap sheet membrane and the Owner's representative shall be informed when the corrections are complete.

1.7. WARRANTY

A. Manufacturer's Warranty: Provide roofing manufacturer's total system leak-tight 20-year "No Dollar Limit Warranty," including insulation. Provide all details necessary to qualify for manufacturer's 20-year "No Dollar Limit Warranty."

B. Roofer's Guarantee: Provide written guarantee from the Contractor stating that the Contractor will respond within twenty four (24) hours and repair within five (5) business days, any leaks or defects in the roofing assembly for four (2) years at no cost to the Owner.

1.8. ENVIRONMENTAL REQUIREMENTS

A. Install roofing materials only when surfaces area clean, dry, smooth, and free of snow or ice.

B. Do not apply roofing membrane during inclement weather or when ambient conditions will not allow proper application. Consult manufacturer's technical specifications on cold weather application.

C. If during the course of the project, the rooftop mechanical equipment (heating and/or cooling) must be taken out of service to accomplish the work, the General Contractor shall provide temporary portable heating and/or cooling systems to maintain the building's interior environment equal to the building's own heating and/or cooling system.

PART 2 - PRODUCTS

2.1. MANUFACTURER

A. Provide a four ply felt with a one-ply mineral surfaced fiberglass cap sheet built-up roofing system. This is a minimum performance specification. Other manufacturer's systems may qualify, as determined by the design professional.

2.2. ROOF INSULATION PRODUCTS

A. A. Perlite Board Roof Insulation: Rigid, noncombustible, perlite/fiber boards of thickness indicated and complying with ASTM C 728; manufacturer's standard sizes.

B. Wood Fiber Roof Insulation: High density wood fiber board tested in accordance with ASTM C 208 where permitted by code and system requirements.

C. Polyisocyanurate Foam Roof Insulation: Insulation shall be a close cell, polyisocyanurate foam core with factory-laminated facers conforming to ASTM specification C 1289-01, Type II, Class 1. Foam core shall have a rated flame spread of 25 or less according to ASTM E 84. Insulation shall have minimum compressive strength of 20 psi (Grade 2) according to ASTM C 1289-01. Insulation shall be supplied in 4'x4' boards for adhered applications and 4'x8' boards for mechanically attached applications.

D. Perlite cant strip complying with ASTM C-728.

E. Tapered edge strips, non-flammable perlite taper strips complying with ASTM C 209.

F. Mechanical Fasteners: Provide fasteners and plates listed in the approved report as part of the total assembly proposed. Fasteners shall be installed in patterns as required for the specified rigid insulation by the manufacturer to produce the required wind uplift resistance

2.3. ROOF SYSTEM

A. Approved Manufacturers
   1. Johns Manville Roofing Systems Group, Specification 5GIC
   2. GAF Material Corporation, Specification I-O-5-M-/P6

B. Roofing Felts
   1. Ply Sheets: Four plies of asphalt-impregnated glass fiber mat complying with ASTM D 2178, Type VI.
   2. Felt Envelopes: Non-perforated, asphalt-saturated organic roof felt complying with ASTM D 226, Type I.
   3. Mineral surfaced fiberglass cap sheet complying with ASTM D 3909.
      a. GlasKap by Johns Manville (GlasKap CR for LEED projects).
      b. GAF Glas Mineral Cap Sheet by GAF (EnergyCap for LEED projects).

C. Roofing Bitumens
   1. Low fuming/low odor asphalt bitumen complying with ASTM D 312. Asphalt shall be domestically manufactured in the United States and as approved by the roofing system manufacturer.
      a. Approved Products

1) Trulo Max by Owens Corning Trumbull
2) No Smell Asphalt by Continental Materials
3) No Smell Asphalt by United Asphalt
4) Hot Stuff Asphalt's "Lite Packs"

b. Interply Moppings- Type III, IV
c. Glaze Coat- Type III
d. Flashings- Type III or IV, as recommend by manufacturer

2. Contractor shall provide and maintain a fume recovery system acceptable to the Owner for the duration of the project to control fumes/odors associated with bitumen kettles.

D. Flashings
1. Base Flashing Materials: Two plies of material base ply shall be SBS polymer modified bitumen reinforced with a polyester and/or glass fiber mat. (Top ply shall be the highly reflective fiberglass reinforced mineral cap sheet if LEED project).
a. Dynalastic 180S and Glaskap by Johns Manville Roofing Systems Group
b. Rubberoid Mop Smooth and GAF Glas Mineral Cap by GAF Material Corp.
2. Strip Flashing Materials: One ply of granule-surfaced SBS polymer modified bitumen sheet reinforced with a polyester and/or glass fiber mat:
a. Dynalastic 180S by Johns Manville Roofing Systems Group.
b. Ruberoid Mop Smooth by GAF Material Corporation.

E. Walkways
1. Granule-surfaced modified asphalt boards:
a. DynaTred by Johns Manville Roofing Systems Group
b. 2-layer SBS mopped together. Consult GAF Material Corporation

F. Asphalt Roof Cement
1. To comply with ASTM D 4586, asphalt roof cement (asbestos free) or roofing membrane manufacturer supplied SBS modified asphalt roof cement (asbestos free), as required.

G. Related Materials
1. Lead flashing for roof drains shall be 27"x27" and be a minimum four (4) pound lead.
2. Pipe or vent jackets shall be a minimum three (3) pound lead with cap designed for use on flat roof construction.
3. Perma-Flash is an acceptable alternative to lead pipe jackets. Perma-Flash system requires 1 coat of TopGuard Base Coat and 2 coats of TopGuard 4000 to final product.
4. MajorSeal Liquid Flashing by GAF Material Corporation.
5. Wood nailers: Shall be FRTW only on any roofing surfaces.
6. Flashing securement devices shall be of adequate design to achieve substantial completion and positive drainage.
a. Anchor bars for flashing securement to concrete or masonry substrates shall be 1/8" x 1" flat aluminum bar with 8" hole spacing by OMG, or approved equal.

PART 3 - EXECUTION

3.1. INSPECTION

A. The Contractor shall be responsible for suitable substrate to accept the roofing system.

B. Installer of roofing system shall examine substrate and conditions under which roofing work

is to be performed and shall notify the Architect and Owner representative immediately of unsatisfactory conditions. Do not proceed with roofing work until unsatisfactory conditions have been corrected in manner acceptable to installer and manufacturer.

C. Before roofing work may begin, the design professional shall conduct a pre-roofing coordination meeting. It shall be attended by the Owner's representative, PSFA representative (as required), the General Contractor, the roofing contractor, the roofing manufacturer's rep, (local sales rep is acceptable), and all other subcontractors who have any components of their work on or penetrating the roof. The participants shall:

D. As much as possible by visual inspection and by the cutting of core samples, verify that surfaces and site conditions are ready to receive work.
   1. Examine roof deck to determine that it is sufficiently rigid to support roofers and their mechanical equipment and that deflection will not strain or rupture roof components or deform deck.
   2. Verify roof deck is clean and smooth, free of depressions, waves, or projections, properly sloped to insure drainage. Examine substrate to determine that surface is in a suitable condition for roofing work.
   3. Verify roof openings, curbs, pipes, sleeves, ducts, and vents through roof are solidly set, and cant strips, wood nailing strips, and reglets are in place. Verify that all curbs and penetrations have been laid out and installed with adequate vertical and horizontal clearance as required by the manufacturer to provide the specified warranty.
   4. The condition of the surface to receive roof insulation shall be firm, clean, smooth, and dry. Do not start roof application until defects have been corrected.

3.2. INSTALLATION

A. General: Comply with manufacturer's written instruction for installation of the roof system.

B. All flashings shall be installed concurrently with the roofing membrane as the job progresses. No temporary flashings shall be allowed without the prior written approval of the Owner's Representative. If any water is allowed to enter under the newly completed or existing roofing due to incomplete flashings, seams and or night seals, the affected area shall be removed and replaced at the Applicator's expense.

C. Phased Construction & Completion Requirements:
   1. Phased construction will not be permitted on this project. However, if, due to a foreseeable weather event, phased construction is required, the Contractor shall request (in writing) the approval of phased construction from the Design Professional, roofing manufacturer, and the Owner's Representative.

3.3. WOOD NAILER LOCATION AND INSTALLATION

A. Nailers are to be installed as per detail drawings.

B. Discard units of material with defects that might impair quality of work and units that are too small to use in fabricating work with minimum joints or optimum joint arrangement.

C. Set nailers to required levels and lines with members plumb and true.

D. All perimeter nailers shall be of uniform height within a given roof section.

E. Nailers shall be installed with ¼” gap between ends of adjoining pieces.

F. Nailers shall be fastened in accordance with the following schedule:
   1. Fasteners in 6" or wider (nominal) lumber shall be installed in two (2) rows, staggered one-third of nailer width. Listed spacings indicate distance between fasteners in adjacent rows.
   2. Two (2) fasteners shall be installed within 6" of each nailer end.
   3. Corner fastener spacing shall extend 8’ from all outside building corners.
   4. Where two or more nailers are installed, each nailer shall be fastened independently.
   5. Over all deck types, the bottom nailer shall be fastened using the specified fasteners and 5/8” washers. Countersink washers and fasteners level with top of wood using spade bit or similar method. Fasten subsequent nailers, where specified, using the specified screws without washers.
   6. When nailers are stacked, stagger the layer ends no less than 24”.
   7. Nailer Attachment Schedule (unless noted otherwise on the drawings):

Attachment Substrate	Perimeter Fastener Spacing (max)	Corner Fastener Spacing (max)
Structural Concrete	12” O.C.	6” O.C.
CMU (fastener into solid material)	12” O.C.	6” O.C.
Steel Deck	12” O.C.	6” O.C.
Wood	12” O.C.	6” O.C.

3.4. INSULATION INSTALLATION

A. Installing Insulation: Install only as much insulation as can be covered with the roofing membrane and completed before the end of the day's work or before the onset of inclement weather.

B. Fit Insulation: Neatly fit insulation to all penetrations, projections, and nailers. Insulation should be loosely fitted, with gaps greater than one quarter inch (1/4") being filled with acceptable insulation. Under no circumstances should the membrane be left unsupported over a space greater than one quarter inch (1/4"). Tapered or feathered insulation should be installed around roof drains so as to provide proper slope for drainage.

C. Two-Layer Installation: Where overall insulation thickness is two (2) inches or greater, install required thickness in two layers with joints of second layer staggered from joints of the first layer a minimum of twelve (12) inches each direction.

D. Attach Insulation: Insulation must be attached using Fasteners and Insulation Plates. Refer to the Technical Information for attachment patterns and rates for specific insulation types and thickness. In a multi-layer insulation assembly, the type and thickness of the top layer of insulation determine fastening pattern. Insulation fasteners shall penetrate the top of the flutes and shall not extend into the building interior. Roofing contractor is liable for replacing fasteners that extend beyond the bottom of the flutes.

E. Stagger Insulation Joints: When installing multiple layers of insulation, all joints between layers should be staggered.

3.5. MEMBRANE FLASHING INSTALLATION

A. Asphalt Bitumen Heating: Heat and apply bitumen in accordance with equiviscous temperature method ("EVT Method") as recommended by NRCA. Do not raise temperature above minimum normal fluid-holding temperature necessary to attain EVT (plus 25°F at point of application) more than one hour prior to time of application. Discard bitumen that has been held at temperature, exceeding finished blowing temperature (FBT) for a period exceeding 3 hours.

B. Contractor shall provide and maintain a fume recovery system acceptable to the Owner for the duration of the project to control fumes/odors associated with bitumen kettles.

C. Quality Control: Contractor's asphalt kettle shall be equipped with an accurate built-in thermometer. Contractor shall also have available at the site and additional portable thermometer for checking temperature of asphalt at the point of application and for use as a check on the kettle thermometer.

D. Bitumen Mopping Weights: For interplay mopping, and for other mappings except as otherwise indicated, apply bitumen at the rate of 25 pounds of asphalt (plus or minus 25 percent on a total-job average basis) per roof square (100 sq. ft.) between plies.

E. Substrate Joint Penetrations: Do not allow bitumen to penetrate substrate joints and enter building or damage insulation, vapor retarders, or other construction. Where mopping is applied directly to a substrate, tape joints or, in the case of steep asphalt, hold mopping back 2 inches from both sides of each joint.

F. Cutoffs: At end of each day's roofing installation, protect exposed edge of incomplete work, including ply sheets and insulation. Provide temporary covering of 2 plies of No. 15 roofing felt set in full moppings of hot bitumen; remove at beginning of next day's work. Glaze-coat areas of completed organic ply sheets before end of each day's work.

G. Roofing Membrane Installation: Apply a piece 9” wide, then over that, one 18" wide, then over that, one 27" wide. Over these 3 partial sheets install a full width 36" piece. The following felts are to be applied full width, overlapping the preceding felts by 27-1/2” so that at least 4 plies of felt cover the substrate at all locations. Install each felt so that it is firmly and uniformly set, without voids, into the hot bitumen (within ± 25°F of the EVT) applied just before the felt at a nominal rate of 23 lbs. per square, over the entire surface. Installation over porous substrates such as roof insulation may require up to 33 lbs. of hot bitumen per square.

H. Surfacing: Prior to application of the fiberglass reinforced mineral surfaced cap sheet, cut the cap sheet into handleable lengths (12' - 18'). Lay the material out on the roof and allow it to relax and flatten. To accommodate a full width sheet, apply a mopping of hot asphalt, approximately 20°F above the EVT, at a nominal rate of 25 lbs. per square. (The higher temperature of asphalt maximizes the bonding of the cap sheet to the ply felts.) Then flop the cap sheet into the hot asphalt. On subsequent courses, the cap sheet is positioned upside down, directly over the sheet in the preceding course such that the side lap area of the preceding sheet is exposed. Care should be taken to maintain 2" side laps and 6" end laps. Asphalt is applied in the same manner as before, making sure to also cover the 2" exposed side lap. Asphalt may also be applied to the exposed "upside down" cap sheet, prior to "flopping" it into the hot asphalt. The cap sheet must be firmly and uniformly set, without

voids, into the hot asphalt with all edges and laps well sealed.

I. Care shall be taken not to track bitumen onto the finished exposed membrane. Full adhesion shall be achieved and all edges shall be well sealed. Leading and trailing edges of T-laps in both plies shall be hand rolled to prevent formation of voids. Asphalt shall bleed out one quarter inch (1/4”) to one half inch (1/2”) at laps. #11 color match granules shall be broadcast into asphalt bleed out while hot so that the finished appearance is uniform and neat.

J. Set-On Accessories: Where small roof accessories are set on built-up roofing membrane, set metal flanges in a bed of roofing cement and seal penetration of membrane with bead of roofing cement to prevent flow of bitumen from membrane.

K. Composition Flashing and Stripping: Install composition flashing at cant strips and other sloping and vertical surfaces, at roof edges and at penetrations through roof.

L. Application of Base Flashing: The roofing membrane must extend to the top of the cant. The completed base flashing shall extend not less than 8” or more than 24” above the level of the roof, and shall extend onto the roof membrane a minimum of 4".
   1. Starting just below the point on the parapet where the base flashing will terminate, mop the parapet and the surface on the roofing felts on the cant with hot Type Ill or Type IV asphalt. Immediately place the backer felt into the hot bitumen, smoothing the felt to set it firmly into the bitumen. The bottom edge of the backer felt should terminate at the bottom edge (base) of the cant. Do not extend the backer felt onto the horizontal membrane surface. Laps in the backer felt should be a minimum of 2".
   2. All flashings shall be installed in 39" long pieces, cut from the end of the roll. Starting just above the top edge of the backer felt, mop the wall, the surface of the backer felt and out onto the roof membrane with hot Type Ill or IV asphalt. Holding the upper corners of the flashing, position "its lower horizontal edge on the roof membrane (minimum 4" from base of the cant) and lay it into place over the cant strip and up the wall. The sheet should be "worked-in' to ensure that it is firmly and uniformly bonded. In cool or cold weather, the back of the flashing sheet should also be mopped with the hot bitumen, and shorter lengths of flashing should be used. Laps in the flashing should be minimum of 3" and be well sealed.
   3. Mechanically fasten the base flashing on 6" centers along its top edge. Fasteners must have a 1" minimum diameter integral cap, or be driven through 1" minimum diameter rigid metal discs.
   4. All inside and outside corners and vertical laps shall be three-coursed with asphalt roof cement and reinforcing fabric, with #11 color matched granules broadcast and pressed into the cement while wet.

M. Roof Drains: Fill clamping ring base with a heavy coating of roofing cement. Extend built-up roofing membrane into clamping ring or, where not feasible, provide two-plies of glass-fiberreinforced flashing mopped with Type Ill asphalt and extended into clamping ring. Extend flashings onto built-up asphalt roofing system 6 inches and 10 inches, respectively. Before pacing clamping ring, set 2 plies of glass-fiber fabric in roofing cement and coat with roofing cement. Extend each fabric into clamping ring and for distances of 14 inches and 16 inches, respectively, onto built-up roofing.

N. Installation of Roof Accessories: Miscellaneous sheet metal accessory items, including insulation vents and other devices, and major items of roof accessories (if any) to be coordinated with built-up roofing system work, are specified in other sections of these

specifications.

3.6. PROTECTION

A. Protect building surfaces against damage from roofing work. Where traffic must continue over finished roof membrane, protect surfaces.

3.7. TEMPORARY CLOSURE

A. Temporary closures to ensure that moisture does not damage any completed section the new roofing system are the responsibility of the roofing contractor. Completion of flashing, terminations, and temporary closures should be complete as required to provide a watertight condition. Any material contaminated by a temporary closure must be cut out and discarded prior to resumption of installation.

3.8. CLEANUP

A. Remove bituminous markings from finished surfaces.

B. In areas where finished surfaces are soiled by work of this Section, consult manufacturer of surfaces for cleaning advice and conform to their instructions.

C. Remove excess materials, trash, debris, equipment, and parts from the Work.

D. Repair or replace defaced or disfigured finishes caused by work of this Section.

SECTION 07 6000

METAL COPING

PART 1 - GENERAL

1.1. SECTION INCLUDES

A. Provide all labor, equipment and materials to fabricate and install the following.
   1. Coping cap at parapets.

1.2. RELATED SECTIONS

A. Drawing and general provisions of the Contract including General Supplementary Conditions and Division 1 Specification Sections apply to this section.

B. Related Work:
   1. Section 06 1000 – Rough Carpentry.
   2. Section 07 5110 – Built-Up Asphalt Roofing Over Insulation.
   3. Section 07 4213 – Metal Wall Panels.
   4. Section 07 9000 – Joint Sealants.

1.3. REFERENCES

A. American Society for Testing and Materials (ASTM)
   1. 1. A653-00 Standard Specification for Steel Sheet, Zinc-Coated (galvanized) or Zinc-Iron Alloy-Coated (galvannealed)by the Hot-Dip process.
   2. 2. A792-99 Standard Specification for Steel Sheet, 55% Aluminum-Zinc Alloy Coated by the Hot Dip process.
   3. 3. B209-00 Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate.
   4. 4. B221-00 Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles and Tubes.
   5. 5. D692-00 Standard Specification for Coarse Aggregate for Bituminous Paving Mixtures.

B. Sheet Metal and Air Conditioning Contractors National Association (SMACNA)
   1. 1. 1993 Edition Architectural Sheet Metal, 5th Edition

C. National Roofing Contractor Association (NRCA)
   1. Roofing Manual: Membrane Roof Systems – 2011
   2. Waterproofing Manual, 2005 Edition

D. Single Ply Roofing Institute (SPRI)
   1. 2011 Edition Wind Design for Use with Low Slope Roofing

1.4. SUBMITTALS

A. Submit under provisions of Section 01 3300 – Submittal Procedures.

B. Product Data

1. Provide manufacturer's specification data sheets for each product in accordance with Section 01 3000.
2. Metal material characteristics and installation recommendations.
3. Submit color chart prior to material ordering and/or fabrication so that equivalent colors to those specified can be approved.

C. Provide approval letters from metal manufacturer for use of their metal within this particular roofing system type.

D. Submit two (2) samples, illustrating typical coping for material and finish.

E. Shop Drawings
1. For manufactured and shop fabricated coping.
2. Shop drawings: Indicate material profile, jointing pattern, jointing details, fastening methods, flashing, terminations and installation details.
3. Indicate type, gauge and finish of metal.

F. Certification
1. Submit roof manufacturer's certification that metal fasteners furnished are acceptable to roof manufacturer.
2. Submit roof manufacturer's certification that metal furnished is acceptable to roofing manufacturer as a component of roofing system and is eligible for roof manufacturer's system warranty.

1.5. ALTERNATE MANUFACTURERS

A. Contractor must submit any product not specified in a minimum of ten (10) days before the bid date to Architect in order for product to be considered for approval. The Architect will notify Contractor, in writing, of decision to accept or reject request.
1. Tests shall have been made for identical systems within the ranges of specified performance criteria.
2. A written statement from the manufacturer stating they will provide the building owner with a daily site inspection for a minimum of one (1) hour per day by an experienced, full-time employee of the company.
3. Proof that the manufacturer has been in business for a minimum number of years equal to the warranty period required for the project.

1.6. QUALITY ASSURANCE

A. Engage an experienced roofing contractor specializing in sheet metal flashing work with a minimum of five (5) years experience.

B. Successful contractor is required to maintain a full-time supervisor/foreman who is on the job site at all times during installation of the new roof perimeter flashing. Foreman must have a minimum of five (5) years experience with the installation of similar system to that specified.

C. Successful contractor must obtain all components of roof system from a single manufacturer, including any roll good materials, if required. Any secondary products that are required, which cannot be supplied by the specified manufacturer, must be recommended and approved in writing by the primary manufacturer prior to bidding.

D. If required, fabricator/installer shall submit work experience and evidence of adequate financial responsibility. The owner's representative reserves the right to inspect fabrication facilities in determining qualifications.

1.7. DELIVERY, STORAGE AND HANDLING

A. Deliver materials in manufacturer's original, unopened containers or packages with labels intact and legible.

B. Stack pre-formed and pre-finished material to prevent twisting, bending, or abrasion and to provide ventilation. Slope metal sheets to ensure drainage.

C. Prevent contact with materials which may cause discoloration or staining.

1.8. JOB CONDITIONS

A. Determine that work of other trades will not hamper or conflict with necessary fabrication and storage requirements for pre-formed coping system.

1.9. DESIGN AND PERFORMANCE CRITERIA

A. Thermal expansion and contraction:
   1. Completed metal coping system shall be capable of withstanding expansion and contraction of components caused by changes in temperature without buckling, producing excess stress on structure, anchors or fasteners, or reducing performance ability.

1.10. WARRANTIES

A. Owner shall receive one (1) warranty covering all of the following criteria.
   1. Pre-finished metal material shall require a written 20-year, non prorated warranty covering fade, chalking and film integrity. The material shall not show a color change greater than 5NBS color units per ASTM D-2244 or chalking excess of 8 units per ASTM D-659. If either occurs, material shall be replaced per warranty, at no cost to the Owner.
   2. Applicator shall furnish a manufacturer's warranty covering watertightness of the coping system for the period of thirty (30) years from the date of Substantial Completion.
   3. Changes: Changes or alterations in the coping system without prior written consent from the manufacturer shall render the system unacceptable for warranty(ies).
   4. Warranty shall commence on date of substantial completion or final payment whichever is agreed by contract.
   5. The Contractor shall provide the owner with a notarized written warranty assuring that all sheet metal work including caulking and fasteners to be watertight and secure for a period of three years from the date of final acceptance of the building. Warranty shall include all materials and workmanship required to repair any leaks that develop and make good any damage to other equipment caused by such leaks or the repairs thereof.
   6. Installing contractor shall be responsible for the installation of the coping system in general accordance with the membrane manufacturer's recommendations.
   7. Installing contractor shall certify that the coping system has been installed per the manufacturer's printed details and specifications.
   8. One manufacturer shall provide a single warranty for all accessory metal for flashings,

metal edges and copings, along with the warranty for metal roof areas, membrane roof areas and any transitions between two different material types.

PART 2 - PRODUCT

2.1. PRODUCT MANUFACTURER

A. IMETCO
4648 S. Old Peachtree Rd.
Norcross, GA 30071
Phone: (800) 646-3826
Fax: (770) 908-2264

2.2. PARAPET COPING

A. ES-C Metal Coping System: Metal coping cap with Coping Retention by Face side Cleat and anterior Mechanical Fastening and concealed, hemmed splice plate at splices for capping parapet wall. The system shall be watertight and not require exposed fasteners.

B. Product Characteristics:
1. Coping shall expand and contract while mechanically locked in place.
2. Coping sections shall be 10’0” in length.
3. Coping front side and rear side shall be 3”nominal respectively.

C. Splice Plate: 6” wide, concealed and hemmed to drain moisture.

D. Butyl Tape and one part polyurethane sealant must be applied to splice plate per manufacturer’s recommendation and details.

E. Cover Plate: 6” wide.

F. Corners, endcaps, transitions, etc., shall be fabricated by the product manufacturer.

2.3. MATERIALS

A. General
1. Whenever a particular trade name and /or manufacturer’s name is specified herein, it shall be regarded as being indicative of the minimum standard of quality required. A bidder who proposes to quote on the basis of an alternate material and/or system will only be considered if the proposed alternate is submitted on time and is documented as being equivalent or superior in quality to the specified system in accordance with article 1.5. Additionally, all manufacturer and contractor/fabricator guidelines and performance criteria must be met as specified in articles 1.4, 1.5, 1.6 and 1.9.
2. Product names for the coping system and waterproofing materials used in this section shall be based on performance characteristics of Sun Metal products, Albuquerque, New Mexico, and shall form the basis of the contract documents. Any proposed alternate systems must meet or exceed the following listed characteristics and be submitted for approval ten (10) days prior to bid opening. Additionally, all performance requirements listed in Design and Performance Criteria (article 1.9) and Warranties (article 1.10) must be met and submitted as well as all items listed in the Alternate Manufacturers (article

1.5).

B. Materials
   1. Base material:
      a. Zinc-coated steel, ASTM A653, coating designation G-90, in thickness of 0.0299 nom./22 gauge; 36" to 48" by coil length, chemically treated, commercial or lock-forming quality.
      b. Minimum gauge of steel or thickness of Aluminum to be specified in accordance with Architectural Sheet Metal Manual, Sheet Metal and Air Conditioning Contractor's National Association, Inc. recommendations.

C. Finish on surfaces:
   1. Exposed surfaces for coated coping:
      a. Steel Finishes: fluorocarbon finish. Epoxy primer baked both sides. 1 mils thickness as approved by finish coat manufacturer. Weathering finish as referred by National Coil Coaters Association (NCCA).

Property	Test Method	Fluorocarbon*
Pencil	ASTM D-3363	HB-H
Hardness	NCAA II-2	
Bend	ASTM D-4145	O-T
		NCAA II-19
Cross Hatch Adhesion	ASTM D-3359	no loss of adhesion
Gloss (60□ angle)	ASTM D-523	25+/-5%
Reverse Impact	ASTM D-2794	no cracking or loss of adhesion
Nominal Thickness	ASTM D-1005	
primer		0.2 mils
topcoat		0.8 mils
TOTAL		1.0 mils

*Subject to minimum quantity requirements.

      b. Color shall be "Solar White".
   2. Exposed and unexposed surfaces for mill finish flashing, fascia and coping cap, shall be as shipped from the mill.

2.4. RELATED MATERIALS

A. Metal Primer: Zinc chromate type.

B. EPDM Lap Cement: ASTM D-3019

C. Sealant: Specified in Section 07900 or on drawings.

D. Underlayment: ASTM D-4637

E. EPDM Bonding Cement: ASTM D-4586

F. Slip Sheet: Rosin sized building paper.

G. Fasteners:
   1. Corrosion resistant screw fastener as recommended by metal manufacturer. Finish exposed fasteners same as flashing material.
   2. Fastening shall conform to Factory Mutual I-90 requirements or as stated on section details, whichever is more stringent.

PART 3 - EXECUTION

3.1. PROTECTION

A. Dissimilar metals shall not be allowed to come in contact with each other. Isolate any dissimilar metals, masonry or concrete, from metals using bituminous paint, tape or slip sheet. Use gasketed fasteners where required to prevent corrosive actions.

3.2. GENERAL

A. Coping shall be secured to wood nailers with an anchor chair 12” wide, 3’4” on center.

B. Fastening of metal to walls and wood blocking shall comply with SMACNA Architectural Sheet Metal Manual, Factory Mutual I-60 wind uplift specifications and/or manufacturer’s recommendations, whichever is the highest standard.

C. All accessories or other items essential to the completeness of sheet metal installation, whether specifically indicated or not, shall be provided and of the same material as item to which applied.

D. Allow sufficient clearances for expansion and contraction of linear metal components. Secure metal using fasteners as required by the system. No exposed face fastening shall be accepted.

3.3. INSPECTION

A. Verify nailing strips are solidly set.

B. It shall be the responsibility of the installer to thoroughly check shop drawings to insure their conformance with overall building dimensions and to resolve any conflicts between flashing and sheet metal and that of other trades or components prior to fabrication. Fabrication shall not begin until all field conditions have been verified.

C. Beginning of installation means acceptance of existing conditions.

D. Field measure site conditions prior to fabricating work.

E. Coping system installation shall not disrupt other trades. Verify that substrate is dry, clean and free of foreign matter.

F. Manufacturer shall provide site inspections during coping installation by a certified employee of the manufacturer.

3.4. MANUFACTURED SHEET METAL

A. Installing Contractor shall be responsible for determining if the coping system is in general

conformance with metal and roof manufacturer's recommendations.

B. Furnish and install manufactured coping cap systems in strict accordance with manufacturer's printed instructions.

C. Provide all factory-fabricated accessories including, but not limited to, coping transitions, miters, joint covers, etc.

3.5. SHOP FABRICATED SHEET METAL

A. Installing Contractor shall be responsible for determining if the sheet metal systems are in general conformance with metal and roof manufacturer's recommendations.

B. Metal work shall be shop fabricated to configurations and forms in accordance with recognized sheet metal practices.

C. Hem exposed edges.

D. Angle bottom edges of exposed vertical surfaces to form drip.

E. All corners for sheet metal shall be lapped with adjoining pieces fastened and set in sealant.

F. Joints for coping cap shall be formed with a 1/4" opening between sections. The opening shall be backed by an internal drainage plate formed to the profile of fascia piece.

G. Install sheet metal to comply with Architectural Sheet Metal manual and Air Conditioning Contractor's National Associations, Inc.

3.6. FLASHING MEMBRANE INSTALLATION

1. Install miters first.
2. Position base flashing of the Built-Up and/or Modified roofing membrane over the wall edge covering nailers completely, fastening eight (8) inches on center. Install membrane and cap sheet with proper material and procedure according to manufacturer's recommendations.

SECTION 08 3300

OVERHEAD COILING DOORS

PART 1 - GENERAL

1.1. SECTION INCLUDES

A. Upcoiling Security Grilles, power operated at Reception locations and manual push-up rolling doors at Dish Wash Station.

1.2. RELATED SECTIONS

A. Section 05 5000 – Metal Fabrications: Support framing and framed opening.

B. Section 06 1000 – Rough Carpentry: Jamb and head trim.

C. Section 08 7100 – Door Hardware: Product Requirements for cylinder core and keys.

D. Division 26 - Raceway and Boxes: Conduit from electric circuit to grille operator and from grille operator to control station; Wiring Connections: Power to disconnect.

1.3. REFERENCES

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

B. ASTM A 666 - Standard Specification for Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar.

C. ASTM A 924 - Standard Specification for General Requirements for Steel Sheet, Metallic-Coated by the Hot-Dip Process.

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

E. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum).

F. NEMA ICS 2 - Industrial Control and Systems: Controllers, Contactors, and Overload Relays, Rated Not More Than 2000 Volts AC or 750 Volts DC.

G. NEMA MG 1 - Motors and Generators.

1.4. SUBMITTALS

A. Submit under provisions of Section 01 3300 – Submittal Procedures.

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.

C. Shop Drawings: Include detailed plans, elevations, details of framing members, required clearances, anchors, and accessories. Include relationship with adjacent materials.

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

E. Verification Samples: For each finish product specified, two samples, representing actual product, color, and patterns.

F. Manufacturer's Certificates: Certify products meet or exceed specified requirements.

1.5. QUALITY ASSURANCE

A. Manufacturer Qualifications: Company specializing in performing Work of this section with a minimum of five years experience in the fabrication and installation of security closures.

B. Installer Qualifications: Company specializing in performing Work of this section with minimum three years and approved by manufacturer.

C. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.

1. Install in areas designated by Architect.
2. Do not proceed with remaining work until workmanship and installation is approved by Architect.
3. Refinish mock-up area as required to produce acceptable work.

1.6. DELIVERY, STORAGE, AND HANDLING

A. Store products in manufacturer's unopened packaging until ready for installation.

B. Protect materials from exposure to moisture. Do not deliver until after wet work is complete and dry.

C. Store materials in a dry, warm, ventilated weathertight location.

1.7. COORDINATION

A. Coordinate Work with other operations and installation of adjacent finish materials to avoid damage to installed materials.

PART 2 - PRODUCTS

2.1. MANUFACTURERS

A. Acceptable Manufacturer: Overhead Door Corp., 2501 S. State Hwy. 121, Suite 200, Lewisville, TX 75067. ASD. Tel. Toll Free: (800) 275-3290. Phone: (469) 549-7100. Fax: (972) 906-1499. Web Site: www.overheaddoor.com. E-mail: info@overheaddoor.com.

B. Requests for substitutions will be considered in accordance with provisions of Section 01 6300 – Product Substitution Procedures.

2.2. POWER OPERATED UPCOILING SECURITY GRILLES

A. Overhead Coiling Metal Grilles: Overhead Door Corporation Model 671 with an Automatic Release for power operated doors.

1. Curtain: Horizontal 5/16 inch (7.8 mm) diameter rods with network of vertically interlocking links to form a pattern. Bottom bar extruded aluminum tubular shape.
   a. Material: Galvanized Steel.
   b. Vertical Rod Spacing: 2 inches (51 mm) on center.
   c. Pattern: Straight lattice; horizontal spacing 9 inches (228 mm) on center.
2. Finish: Galvanized Steel: Rust inhibitive primer.
3. Bottom Bar:Double angle steel bottom bar.
4. Guides: Extruded aluminum shapes with retainer grooves and continuous silicone treated wool-pile strips or PVC inserts to reduce noise and assist operation.
5. Brackets: Minimum 3/16 inch (4.8 mm) steel to support barrel, counterbalance and hood as applicable.
6. Counterbalance: Helical torsion spring type housed in a steel tube or pipe barrel, supporting the curtain with maximum deflection of 0.03 inches per foot of span. Counterbalance adjustable by means of an adjusting tension wheel.
7. Hood: Galvanized steel, 24 gauge (6 mm).
8. Electric Motor with Emergency Egress: Provide code compliant emergency egress operator system with self-locking mechanism that automatically unlocks, automatically releases, and opens grille fully to permit passage if power is not available. Provide UL listed electric operator, size as recommended by manufacturer to move door in either direction at not less than 2/3 foot nor more than 1 foot per second.
9. Mounting: Mounting Left Hand or Right Hand.
10. Release: Push/Pull Emergency Release Button, Flush mount.
11. Entrapment Protection:
    a. 2 wire electric sensing edge
    b. Photo cell operation.
12. Control accessories: Control Panel is to be supplied at same voltage as operator selected.

B. Locations and Sizes: Reception Desk (2). See Architectural Plans for size of openings.

2.3. MANUAL OPERATED UPCOILING COILING DOORS

A. Overhead Coiling Doors with manual operation shall meet the following criteria:
1. Aluminum Extrusions: ASTMB221, 6063-T5 or T6 alloy or temper.
2. Curtain: Horizontal Slats: Extruded aluminum interlocking curved slats. Slat width shall be 2.32 inches (59 mm) high. Slats are perforated with 3/16 square holes 5/8 o.c. horizontal and 7/16 o.c. diagonal.
3. Bottom Bar:Double-walled extruded aluminum with polypropylene felt weather-stripping on bottom to seal for light and sound.
4. Hood and Fascia: 18 gauge (.040) thickness preformed sheet aluminum.
5. Guides: Extruded aluminum 2-3/8 inch (59mm) by 1-1/8 inch (29mm) fitted with two rows of polypropylene felt weather stripping for quiet operation and to cushion both sides of curtain.
6. Counterbalance: Helical torsion spring assembly set in roll formed galvanized steel pipe

of recommended size by manufacturer to support curtain with a maximum deflection of . 03 inch (.8mm) per foot (305mm) of curtain width.
7. Bracket Plates:Minimum 3/16 inch (5mm) thick die cast aluminum to support counterbalance assembly, curtain and hood.
8. Operation: Manual push-up.
9. Lock: Located on bottom bar; slide locks on secured side of curtain.
10. Finish-Exposed Aluminum Parts: Clear anodized.

B. Location and Sizes: Dish Wash Station (1). See Architectural Plans for size of opening.

PART 3 - EXECUTION

3.1. EXAMINATION

A. Verify opening sizes, tolerances and conditions are acceptable.

B. Examine conditions of substrates, supports, and other conditions under which this work is to be performed.

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

3.2. PREPARATION

A. Clean surfaces thoroughly prior to installation.

B. 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 in accordance with manufacturer's instructions.

B. Use anchorage devices to securely fasten assembly to wall construction and building framing without distortion or stress.

C. Securely and rigidly brace components suspended from structure. Secure guides to structural members only.

D. Fit and align assembly including hardware; level and plumb, to provide smooth operation.

E. Coordinate installation of electrical service with Division 26. Complete wiring from disconnect to unit components.

F. Coordinate installation of sealants and backing materials at frame perimeter as specified in Section 07 9000 – Joint Sealants.

G. Install perimeter trim and closures.

3.4. ADJUSTING

A. Test security grilles for proper operation and adjust as necessary to provide proper operation without binding or distortion.

B. Adjust hardware and operating assemblies for smooth and noiseless operation.

3.5. CLEANING

A. Clean curtain and components using non-abrasive materials and methods recommended by manufacturer.

B. Remove labels and visible markings.

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

3.6. PROTECTION

A. Protect installed products until completion of project.

END OF SECTION

SECTION 09 7260

TACKABLE WALL COVERING

PART 1 - GENERAL

1.1. SUMMARY

A. Section Includes:
   1. Resilient cork/linoleum tackable wall covering.
   2. Accessories.

1.2. SUBMITTALS

A. Comply with Division 01 33 00.

B. Product data indicating compliance with specified requirements.

C. Installation Instructions.

D. Samples: 7 inch (18 centimeter) by 9 inch (23 centimeter) samples of each type of tackable wallcovering material required.

1.3. QUALITY ASSURANCE

A. Surface Burning Characteristics Classification: Provide materials that meet classification ratings: ASTM E84 (Flame Spread and Smoke Developed) II/B

B. Single Source Responsibility: Obtain tackable wallcovering system components from a single source.

C. Deliver materials in original factory packaging, labeled with manufacturer, brand name, size, color, and lot number.

D. Store materials in original, undamaged packaging inside a well-ventilated area protected from weather, moisture, soiling, and extreme temperatures. Maintain room temperature within the storage area at not less than 68 degrees Fahrenheit (20 degrees Celsius) during the period materials are stored.

E. Mock-ups: Prepare mock-ups for architect's review and to establish requirements for seaming and finish trim.
   1. Correct areas, modify method of application/installation, or adjust finish texture as directed by architect to comply with specified requirements.
   2. Maintain mock-ups accessible to serve as a standard of quality.
   3. Install sample panel of each type of wallcovering specified.
   4. Install panels in areas designated by architect.

1.4. PROJECT CONDITIONS

A. Maintain ambient temperature within the building at not less than 68 degrees Fahrenheit (20 degrees Celsius) for a minimum of seventy-two hours prior to beginning of installation.

B. Do not install tackable wall covering until the space is enclosed and weatherproof.

C. Do not install tackable wall covering until temperature is stabilized and permanent lighting is in place.

1.5. MAINTENANCE

A. Maintenance Instructions: Include precautions against cleaning materials and methods that may be detrimental to finishes and performance.

1.6. WARRANTY

A. Submit manufacturer's limited five-year written warranty against manufacturing defects.

PART 2 - PRODUCTS

2.1. PRODUCTS

A. Walltalkers® tac•wall: Uni-color resilient homogeneous tackable linoleumsurface consisting of linseed oil, granulated cork, rosin binders, and drypigments calendered onto natural burlap backing. Color shall extend through thickness of material. Color: 62 Pewter.

B. Or Equal.

2.2. ACCESSORIES

A. Adhesive: Solvent-free, SBR type linoleum adhesive (L-910) or polyvinyl acetate dispersion type (contact adhesive) when used in a press.

B. Color matched caulk:

PART 3 - EXECUTION

3.1. EXAMINATION

A. Examine areas and conditions in which tackable wall coverings will be installed.
   1. Complete finishing operations, including painting, before beginning installation of tackable wallcovering materials.
   2. Wall surfaces to receive wall covering materials shall be dry and free from dirt, grease, loose paint, and scale.
   3. Notify the contractor and architect in writing of any conditions detrimental to the proper and timely completion of the installation.
   4. Beginning of installation means acceptance of surface conditions.

3.2. PREPARATION

A. Surface Preparation: Remove hardware, accessories, plates, and similar items to allow

tackable wall covering to be installed.

1. Plaster surface: Remove surface chalk. In new work, use moisture meter to determine moisture content. Do not begin installation when moisture content is greater than five percent.
2. Gypsum board surface: Recess nails and screws. Repair irregular tape joints, sand and remove dust.
3. Painted surface: Remove loose paint or scale. Sand surface of enamel or gloss paint and wipe clean with damp cloth.
4. Ensure wall surfaces scheduled to receive tackable wall covering are properly sealed with a quality primer specified for use under flexible vinyl wall coverings.

3.3. APPLICATION

A. Comply with manufacturer's printed installation instructions.

B. Cut sheets to size including a few inches of overage. Allow sheets to lay flat for at least twenty-four hours prior to the application. Mark roll direction and sequence on the backside of each sheet. Hang sheets in sequence as cut from the roll, do not reverse sheets.

C. Permanent HVAC system should be set to 68 degrees Fahrenheit (20 degrees Celsius) for at least seventy-two hours prior to, during, and after the installation.

D. Back roll each sheet prior to the installation to release curl memory.

E. For seamed applications, using a seam and strip cutter remove the factory edge of one sheet. Using the same tool, overlap and trace cut the mating edge of the second sheet. Repeat this step for as many sheets as required for the job.

F. Scribe, cut, and fit material to butt tightly to adjacent surfaces, built-in casework, and permanent fixtures and pipes.

G. Apply adhesive with a 1/16 inch square notch trowel to the area to receiving the sheet (apply enough for one sheet at a time).

H. Work from top to bottom then side to side. Roll sheet firmly into adhesive for positive contact and to remove air bubbles.

I. Remove adhesive residue immediately after each panel is hung with a mild soap/water solution and a soft cloth/sponge.

J. Joints to be butted.

3.4. CLEANING

A. Clean wall covering using a sponge with a neutral pH cleaning solution. Do not use abrasive cleaners. Rinse thoroughly with water and let dry before using.

B. It is important to remove adhesive while wet.

3.5. PROTECTION

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

END OF SECTION

SECTION 10 2813

TOILET ACCESSORIES

PART 1 - GENERAL

1.1. SUMMARY

A. Toilet accessories.

1.2. RELATED SECTIONS:

A. Section 06 1000 - Rough Carpentry.

B. Section 09 2116 - Gypsum Board.

C. Section 09 3113 - Tile.

1.3. SUBMITTALS

A. Comply with Section 01 3300 – Submittal Procedures.

B. Product Data: Manufacturer's specifications and technical data including the following.
   1. Detailed specification of construction and fabrication.
   2. Manufacturer's installation instructions.
   3. Certified test reports indicating compliance with performance requirements specified herein.

C. Shop Drawings: Indicate dimensions, description of materials and finishes, general construction, specific modifications, component connections, anchorage methods, hardware and installation procedures.

D. Samples: If requested by Architect.
   1. 1 sample of each item and model specified.
   2. 1 sample of finish for stainless steel, chrome plated, and aluminum accessories.

E. Quality Control Submittals:
   1. Statement of qualifications.

F. Contract Closeout Submittals: Comply with Section 01 7800.
   1. Operating and maintenance manuals.
   2. Special warranties.

1.4. QUALITY ASSURANCE

A. Manufacturer's Qualifications: Not less than 5 years experience in the actual production of specified products.

B. Regulatory Requirements: Comply with provisions of the Americans with Disabilities Act, ANSI 117.1.

1.5. DELIVERY, STORAGE, AND HANDLING

A. Comply with Section 01 6000 – Product Requirements.

B. Packing and Shipping: Deliver products in original unopened packaging with legible manufacturer's identification.

C. Storage and Protection: Comply with manufacturer's recommendations.
   1. Protect from elements and damage.

1.6. SPECIAL WARRANTY

A. Special Warranty:
   1. Provide guarantee from Contractor, manufacturer, and installer for installed products for a period of 15 years from date of Substantial Completion against conditions indicated below. When notified in writing from Owner, promptly correct said deficiencies at no cost to Owner.
      a. Deterioration of silver coating on mirrors.
      b. Peeling, flaking or discoloration of chrome plating.

PART 2 - PRODUCTS

2.1. MANUFACTURERS

A. Subject to compliance with requirements, provide products from one of the following manufacturer:
   1. Bobrick Washroom Equipment, Inc.
   2. Kimberly-Clark
   3. American Specialties, Inc.
   4. Bradley Corporation.
   5. A and J Washroom Accessories
   6. American Standard Luxury Division

B. Substitutions per 01 6300 – Product Substitution Procedures.

2.2. MANUFACTURED UNITS

A. See Toilet Accessories Schedule below for list of specified items.

2.3. KEYING

A. Key accessories alike.

PART 3 - EXECUTION

3.1. EXAMINATION

A. Verification of Conditions: Examine areas and conditions under which Work is to be performed and identify conditions detrimental to proper or timely completion.
   1. Do not proceed until unsatisfactory conditions have been corrected.

3.2. INSTALLATION

A. Comply with manufacturer's recommendations and written installation instructions.

B. Install accessories in locations indicated with anchor devices of types specified or required for given substrates.

C. Fasten securely, true, plumb, and level.

D. Drill holes to correct size and at locations that are concealed by accessory.

E. Install recessed accessories into wall openings with wood screws through cabinet side into wood blocking or studs, or sheet metal screws into metal backing or studs.

F. Install surface mounted accessories to metal or wood backing using proper type screws.

3.3. SPECIAL CLEANING

A. Just prior to Date of Substantial Completion, clean and polish exposed surfaces.

3.4. ADJUSTING

A. After completion of installation adjust accessories for proper operation.

3.5. SCHEDULE

A. Grab Bar
1. Manufacturer: Franklin Brass
2. Model Number: 5736, 5724 and 5718
3. Length of Bar: 36”, 42” and 18”
4. Mounting: concealed
5. Finish: Stainless Steel
6. Bar Type: 1 1/4" Dia.
7. Miscellaneous: ADA

B. Soap Dispenser
1. Manufacturer: GoJo
2. Model: Bag in Box Hygiene Series 800ml
3. Model #9033-12
4. Mounting: Surface
5. Finish: Black

C. Hand Dryer
1. Manufacturer: Dyson
2. Model: Airblade V
3. Mounting: Surface mount
4. Finish: Nickel

D. Paper Towel Dispenser
1. Manufacturer: Georgia Pacific
2. Model Number: GP Pro Series 54338

3. Mounting: Surface
4. Finish: Polycarbonate Smoke
5. Miscellaneous: ADA Compliant

E. Toilet Paper Holder
1. Manufacturer: Kimberly Clark
2. Model Number: 9507 KC Professional JRT
3. Mounting: Surface
4. Finish: Polycarbonate Smoke
5. Miscellaneous: Jumbo Roll Capacity

F. Feminine Hygiene Trash Receptacle
1. Manufacturer: Frost
2. Model Number: 622
3. Mounting: Surface
4. Finish: Stainless Steel

G. Waste Receptacle
1. Size: 18 Gallon
2. Mounting: Free standing
3. Finish: Stainless Steel

H. Mirrors
1. Manufacturer: Bobrick
2. Model Number: B-165 1830
3. Height: 30"
4. Length of Bar: NA
5. Width: 18"
6. Depth: 1/2"
7. Construction: Type-430 Stainless Steel
8. Gauge: NA
9. Mounting: Surface
10. Finish: Bright Polish Finish
11. Mirror: No. 1 quality, 1/4" select float glass
12. Miscellaneous: NA

I. Diaper Changing Table
1. Manufacturer: Bradley
2. Model Number: 962 Series
3. Capacity: Not less than 250 lbs (113.4 kg) per ASTM F 2285
4. Size: 37.5” x 21.625”
5. Mounting: Recessed
6. Mounting Height: Meet ADA requirements per manufacturer's recommendations
7. Material and Finish: Stainless steel exterior, brushed finish with molded high-density polyethylene body and full-length steel hinge pin
8. Operation: Concealed pneumatic gas shock
9. Accessories: Integral liner dispenser and bag hook

J. Mop Holder
   1. Manufacturer: Bradley
   2. Model Number: 9955 5-Holders
   3. Length of Bar: 48”
   4. Construction: Stainless Steel

K. ADA Shower Enclosure
   1. Manufacturer: Aquatic
   2. Model Number: 1363BFC2P
   3. Height Interior: 75 1/4"
   4. Width Interior: 36"
   5. Depth Interior: 36"
   6. Construction: Gelkoat
   7. Finish: White
   8. Options:
      a. Fixture Wall
      b. ADA Fold down seat
      c. ADA Grab bars Stainless Steel
      d. Shower curtain and rod
      e. Soap Dish

SECTION 14 2400

HYDRAULIC ELEVATOR

PART 1 - GENERAL

1.1. SUMMARY

A. Section includes: Hydraulic passenger elevators as shown and specified. Elevator work includes:
   1. Standard pre-engineered hydraulic passenger elevators.
   2. Elevator car enclosures, hoistway entrances and signal equipment.
   3. Jack(s).
   4. Operation and control systems.
   5. Accessibility provisions for physically disabled persons.
   6. Equipment, machines, controls, systems and devices as required for safely operating the specified elevators at their rated speed and capacity.
   7. Materials and accessories as required to complete the elevator installation.

B. Related Sections:
   1. Division 3 Concrete: Installing inserts, sleeves and anchors in concrete.
   2. Division 4 Masonry: Installing inserts, sleeves and anchors in masonry.
   3. Division 5 Metals:
      a. Providing hoist beams, pit ladders, steel framing, auxiliary support steel and divider beams for supporting guide-rail brackets.
      b. Providing steel angle sill supports and grouting hoistway entrance sills and frames.
   4. Division 9 Finishes: Providing elevator car finish flooring and field painting unfinished and shop primed ferrous materials.
   5. Division 22 Plumbing:
      a. Sump pit and oil interceptor.
      b. Division 23: Heating and Ventilation:
      c. Heating and ventilating hoistways.
   6. Division 16 Sections:
      a. Providing electrical service to elevators. (note: fused disconnect switch to be provided as part of elevator manufacture product, see section 2.11 Miscella neous elevator components for further details.)
      b. Emergency power supply, transfer switch and auxiliary contacts.
      c. Heat and smoke sensing devices.
      d. Convenience outlets and illumination in hoistway and pit.

C. Work Not Included: General contractor shall provide the following in accordance with the requirements of the Model Building Code and ANSI A17.1 Code. For specific rules, refer to ANSI A17.1, Section 300 for hydraulic elevators. State or local requirements must be used if more stringent.
   1. Elevator hoist beam to be provided at top of elevator shaft. Beam must be able to accommodate proper loads and clearances for elevator installation and operation.
   2. Supply in ample time for installation by other trades, inserts, anchors, bearing plates, brackets, supports and bracing including all setting templates and diagrams for placement.

3. Hatch walls require a minimum two hours of fire rating. Hoistway should be clear and plumb with variations not to exceed 1/2" at any point.
4. Elevator hoistways shall have barricades, as required.
5. Install bevel guards at 75° on all recesses, projections or setbacks over 2" (4" for A17.1 2000 areas) except for loading or unloading.
6. Provide rail bracket supports at pit, each floor and roof. For guide rail bracket supports, provide divider beams between hoistway at each floor and roof.
7. Pit floor shall be level and free of debris. Reinforce dry pit to sustain normal vertical forces from rails and buffers.
8. Where pit access is by means of the lowest hoistway entrance, a vertical ladder of non-combustible material extending 42" minimum, (48" minimum for A17.1-2000 areas) shall be provided at the same height, above sill of access door or handgrips.
9. All wire and conduit should run remote fromthe hoistways.
10. When heat, smoke or combustion sensing devices are required, connect to elevator control cabinet terminals. Contacts on the sensors should be sided for 12 volt D.C.
11. Install and furnish finished flooring in elevator cab.
12. Finished floors and entrance walls are not to be constructed until after sills and door frames are in place. Consult elevator contractor for rough opening size. The general contractor shall supply the drywall framing so that the wall fire resistance rating is maintained, when drywall construction is used.
13. Where sheet rock or drywall construction is used for front walls, it shall be of sufficient strength to maintain the doors in true lateral alignment. Drywall contractor to coordinate with elevator contractor.
14. Before erection of rough walls and doors; erect hoistway sills, headers, and frames. After rough walls are finished; erect fascias and toe guards. Set sill level and slightly above finished floor at landings.
15. To maintain legal fire rating (masonry construction), door frames are to be anchored to walls and properly grouted in place.
16. The elevator wall shall interface with the hoistway entrance assembly and be in strict compliance with the elevator contractor's requirements.
17. General Contractor shall fill and grout around entrances, as required.
18. All walls and sill supports must be plumb where openings occur.
19. Locate a light fixture (200 lx / 19 fc) and convenience outlet in pit with switch located adjacent to the access door.
20. Provide telephone line, light fixture (200 lx / 19 fc), and convenience outlet in the hoistway at the landing where the elevator controller is located. Typically this will be at the landing above the 1st floor. Final location must be coordinated with elevator contractor.
21. As indicated by elevator contractor, provide a light outlet for each elevator, in center of hoistway.
22. For signal systems and power operated door: provide ground and branch wiring circuits.
23. For car light and fan: provide a feeder and branch wiring circuits to elevator control cabinet.
24. Controller landing wall thickness must be a minimum of 8 inches thick. This is due to the controller being mounted on the second floor landing in the door frame on the return side of the door. For center opening doors, the controller is located on the right hand frame (from inside the elevator cab looking out). These requirements must be coordinated between the general contractor and the elevator contractor.
25. Cutting, patching and recesses to accommodate hall button boxes, signal fixtures, etc.

1.2. SUBMITTALS

A. Product data: When requested, the elevator contractor will provide standard cab, entrance and signal fixture data to describe product for approval.

B. Shop drawings:
   1. Show equipment arrangement in the pit and hoistway. Provide plans, elevations, sections and details of assembly, erection, anchorage, and equipment location.
   2. Indicate elevator system capacities, sizes, performances, safety features, finishes and other pertinent information.
   3. Show floors served, travel distances, maximum loads imposed on the building structure at points of support and all similar considerations of the elevator work.
   4. Indicate electrical power requirements and branch circuit protection device recommendations.

C. Powder Coat Paint selection: Submit manufacturer's standard selection charts for exposed finishes and materials.

D. Plastic laminate selection: Submit manufacturer's standard selection charts for exposed finishes and materials.

E. Metal Finishes: Upon request, standard metal samples provided.

F. Operation and maintenance data. Include the following:
   1. Owners Manual and Wiring Diagrams.
   2. Parts list, with recommended parts inventory.

1.3. QUALITY ASSURANCE

A. Manufacturer Qualifications: An approved manufacturer with minimum fifteen years experience in manufacturing, installing, and servicing elevators of the type required for the project.
   1. Must be the manufacturer of the power unit, controller, signal fixtures, door operators cab, entrances, and all other major parts of the elevator operating equipment.
      a. The major parts of the elevator equipment shall be manufactured in the United States, and not be an assembled system.
   2. The manufacturer shall have a documented, on-going quality assurance program.
   3. ISO-9001:2000 Manufacturer Certified
   4. ISO-14001:2004 Environmental Management System Certified

B. Installer Qualifications: The manufacturer or an authorized agent of the manufacturer with not less than fifteen years of satisfactory experience installing elevators equal in character and performance to the project elevators.

C. Regulatory Requirements:
   1. ASME/ANSI A17.1 Safety Code for Elevators and Escalators, latest edition or as required by the local building code.
   2. Building Code: National.
   3. NFPA 70 National Electrical Code.
   4. NFPA 80 Fire Doors and Windows.
   5. Americans with Disabilities Act Accessibility Guidelines (ADAAG).
   6. CAN/CSA C22.1 Canadian Electrical Code.
   7. CAN/CSA B44 Safety Code for Elevators and Escalators.

D. Fire-rated Entrance Assemblies: Opening protective assemblies including frames, hardware, and operation shall comply with ASTM E2074, CAN4-S104 (ULC-S104), UL10(B), and NFPA 80. Provide entrance assembly units bearing Class B or 1 1/2 hour label by a Nationally Recognized Testing Laboratory (2 hour label in Canada).

E. Inspection and testing: Elevator Installer shall obtain and pay for all required inspections, tests, permits and fees for elevator installation.
   1. Arrange for inspections and make required tests.
   2. Deliver to the Owner upon completion and acceptance of elevator work.

1.4. DELIVERY, STORAGE AND HANDLING

A. Manufacturing will deliver elevator materials, components and equipment and the contractor is responsible to provide secure and safe storage on job site.

1.5. PROJECT CONDITIONS

A. Prohibited Use: Elevators shall not be used for temporary service or for any other purpose during the construction period before Substantial Completion and acceptance by the purchaser unless agreed upon by Elevator Contractor and General Contractor with signed temporary agreement.

1.6. WARRANTY

A. Warranty: Submit elevator manufacturer's standard written warranty agreeing to repair, restore or replace defects in elevator work materials and workmanship not due to ordinary wear and tear or improper use or care for 12 months from date of Substantial Completion.

1.7. MAINTENANCE

A. Furnish maintenance and call back service for a period of 3 months for each elevator from date of Substantial Completionduring normal working hours, excluding callbacks. Service shall consist of periodic examination of the equipment, adjustment, lubrication, cleaning, supplies and parts to keep the elevators in proper operation.
   1. Manufacturer shall have a service office and full time service personnel within a 100 mile radius of the project site.

PART 2 - PRODUCTS

2.1. MANUFACTURERS

A. Manufacturer:

   1. ThyssenKrupp Elevator

   2. KONE Elevator

   3. Schlindler Elevator

   4. Otis Elevator

2.2. MATERIALS, GENERAL

A. Colors, patterns, and finishes: As selected by the Architect from manufacturer's standard colors, patterns, and finish charts.

B. Steel:
   1. Shapes and bars: Carbon.
   2. Sheet: Cold-rolled steel sheet, commercial quality, Class 1, matte finish.
   3. Finish: Factory-applied baked enamel for structural parts, powder coat for architectural parts. Color selection must be based on elevator manufacture’s standard selections.

C. Plastic laminate: Decorative high-pressure type, complying with NEMA LD3, Type GP-50 General Purpose Grade, nominal 0.050" thickness. Laminate selection must be based on elevator manufacture’s standard selections.

D. Finished Floor: By others.

2.3. HOISTWAY EQUIPMENT

A. Platform: Fabricated frame of formed or structural steel shapes, gusseted and rigidly welded with a wood subfloor. Underside of the platform shall be fireproofed. The car platform shall be designed and fabricated to support one-piece loads weighing up to 25% of the rated capacity.

B. Sling: Steel stiles affixed to a steel crosshead and bolstered with bracing members to remove strain from the car enclosure.

C. Guide Rails: Steel, omega shaped, fastened to the building structure with steel brackets.

D. Guide Shoes: Slide guides shall be mounted on top and bottom of the car.

E. Buffers: Provide substantial buffers in the elevator pit. Mount buffers on a steel template that is fastened to the pit floor. Provide extensions if required by project conditions.

F. Jack: Jack unit shall be of sufficient size to lift the gross load the height specified. Factory test jack to insure adequate strength and freedom from leakage. Brittle material, such as gray cast iron, is prohibited in the jack construction. Provide the following jack type: Twin post holeless. Two jacks piped together, mounted one on each side of the car. Each jack section will be guided from within the casing or the plunger assembly used to house the section. Each plunger shall have a high pressure sealing system which will not allow for seal movement or displacement during the course of operation. Each Jack Assembly shall have a check valve built into the assembly to allow for automatically re-syncing the two plunger sections by moving the jack to its fully contracted position. The jack shall be designed to be mounted on the pit floor or in a recess in the pit floor. Each jack section shall have a bleeder valve to discharge any air trapped in the section.

G. Automatic Self-Leveling: Provide each elevator car with a self-leveling feature to automatically bring the car to the landings and correct for overtravel or undertravel. Self-leveling shall, within its zone, be automatic and independent of the operating device.

The car shall be maintained approximately level with the landing irrespective of its load.

H. Wiring, Piping, and Oil: Provide all necessary hoistway wiring in accordance with the National Electrical Code. All necessary code compliant pipe and fittings shall be provided to connect the power unit to the jack unit.Provide proper grade readily biodegradable oil as specified by the manufacturer of the power unit (see Power Unit section 2.04.G for further details).

I. Pit moisture/water sensor located approximately 1 foot above the pit floor to be provided. Once activated, elevator will perform “flooded pit operation”, which will run the car up to the designated floor, cycle the doors and shut down and trip the circuit breaker shunt to remove 3 phase power from all equipment, including pit equipment.

J. Motorized oil line shut-off valve shall be provided that can be remotely operated from the controller landing service panel. Also a means for manual operation at the valve in the pit is required.

2.4. POWER UNIT

A. Power Unit (Oil Pumping and Control Mechanism): A self-contained unit located in the elevator pit consisting of the following items:
   1. NEMA 4/Sealed Oil reservoir with tank cover including vapor removing tank breather
   2. An oil hydraulic pump.
   3. An electric motor.
   4. Electronic oil control valve with the following components built into single housing; high pressure relief valve, check valve, automatic unloading up start valve, lowering and leveling valve, and electro-magnetic controlling solenoids.

B. Pump: Positive displacement type pump specifically manufactured for oil-hydraulic elevator ser vice. Pump shall be designed for steady discharge with minimum pulsation to give smooth and quiet operation. Output of pump shall not vary more than 10 percent between no load and full load on the elevator car.

C. Motor: Standard manufacture motor specifically designed for oil-hydraulic elevator service. Duty rating – motors shall be capable of 80 starts per hour with a 30% motor run time during each start.

D. Oil Control Unit: The following components shall be built into a single housing. Welded manifolds with separate valves to accomplish each function are not acceptable. Adjustments shall be accessible and be made without removing the assembly from the oil line.
   1. Relief valve shall be adjustable and be capable of bypassing the total oil flow without increasing back pressure more than 10 percent above that required to barely open the valve.
   2. Up start and stop valve shall be adjustable and designed to bypass oil flow during start and stop of motor pump assembly. Valve shall close slowly, gradually diverting oil to or from the jack unit, ensuring smooth up starts and up stops.
   3. Check valve shall be designed to close quietly without permitting any perceptible reverse flow.
   4. Lowering valve and leveling valve shall be adjustable for down start speed, lowering speed, leveling speed and stopping speed to ensure smooth "down" starts and stops. The leveling valve shall be designed to level the car to the floor in the direction the car is

traveling after slowdown is initiated.
5. Provided with constant speed regulation in both up and down direction. Feature to compensate for load changes, oil temperature, and viscosity changes.

E. Solid State Starting: Provide an electronic starter featuring adjustable starting currents.

F. A secondary hydraulic power source (powered by 110VAC single phase) must be provided. This is required to be able to raise (reposition) the elevator in the event of a system component failure (i.e. pump motor, starter, etc.)

G. Oil Type: Readily biodegradablethat is USDA certified bio-based product, ultra-low toxicity, readily biodegradable, energy efficient, high performing fluid made from canola oil with antioxidant, anticorrosive, antifoaming, and metal-passivating additives. Especially formulated for operating in environmentally sensitive areas. USDA certified bio-based product, 95% bio-based content, per ASTM D6866.

2.5. HOISTWAY ENTRANCES

A. Doors and Frames: Provide complete hollow metal type hoistway entrances at each hoistway openingbolted\knock down construction.
1. Manufacturer's standard entrance design consisting of hangers, doors, hanger supports, hanger covers, fascia plates, sight guards, and necessary hardware.
2. Main landing door& frame finish: Stainless steel panels, no. 4 brushed finish.
3. Typical door & frame finish: Stainless steel panels with no. 4 brushed finish.

B. Integrated Control System: the elevator controller to be mounted to hoistway entrance above 1st landing. The entrance at this level, shall be designed to accommodate the control system and provide a means of access to critical electrical components and troubleshooting features. See section 2.09 Control System for additional requirements.

C. At the controller landing, the hoistway entrance frame shall have space to accommodate and provide a lockable means of access (group 2 security) to a 3 phase circuit breaker. See section 2.11 MiscellaneousElevator Components for further details.

D. Interlocks: Equip each hoistway entrance with an approved type interlock tested as required by code. Provide door restriction devices as required by code.

E. Door Hanger and Tracks: Provide sheave type two point suspension hangers and tracks for each hoistway horizontal sliding door.
1. Sheaves: Polyurethane tires with ball bearings properly sealed to retain grease.
2. Hangers: Provide an adjustable device beneath the track to limit the up-thrust of the doors during operation.
3. Tracks: Drawn steel shapes, smooth surface and shaped to conform to the hanger sheaves.

F. Hoistway Sills: Extruded metal, with groove(s) in top surface. Provide mill finish on aluminum.

2.6. CAR ENCLOSURE

A. Car Enclosure:

1. Walls: Cab type TKLP, durable wood core finished on both sides with high pressure plastic laminate.
2. Canopy: Cold-rolled steel with hinged exit.
3. Ceiling: Fluorescent lighting above a lay-in grid with translucent panels and powder coat finish.
4. Cab Fronts,Return,Transom, Soffit and Strike: Provide panels faced with brushed stainless steel.
5. Doors: Horizontal sliding car doors reinforced with steel for panel rigidity. Hang doors on sheave type hangers with polyurethane tires that roll on a polished steel track and are guided at the bottom by non-metallic sliding guides.
   a. Door Finish: Stainless steel panels: No. 4 brushed finish.
   b. Cab Sills: Extruded aluminum, mill finish.
6. Handrail:Provide 1.5" diameter cylindrical metal on side andrear walls. Handrail shall have a stainless steel, no. 4 brushed finish.
7. Ventilation: Manufacturer’s standard exhaust fan, mounted on the car top.

B. Car Top Inspection: Provide a car top inspection station with an “Auto-Inspection” switch, an "emergency stop" switch, and constant pressure "up and down" direction and safety buttons to make the normal operating devices inoperative. The station will give the inspector complete control of the elevator. The car top inspection station shall be mounted in the door operator assembly.

2.7. DOOR OPERATION

A. Door Operation: Provide a direct current motor driven heavy duty operator designed to operate the car and hoistway doors simultaneously. Door movements shall be electrically cushioned at both limits of travel and the door operating mechanism shall be arranged for manual operation in event of power failure. Doors shall automatically open when the car arrives at the landing and automatically close after an adjustable time interval or when the car is dispatched to another landing. Closed-loop, microprocessor controlled motor-driven linear door operator, with adjustable torque limits, also acceptable. AC controlled units with oil checks or other deviations are not acceptable.
   1. No Un-Necessary Door Operation: The car door shall open only if the car is stopping for a car or hall call, answering a car or hall call at the present position or selected as a dispatch car.
   2. Door Open Time Saver: If a car is stopping in response to a car call assignment only (no coincident hall call), the current door hold open time is changed to a shorter field programmable time when the electronic door protection device is activated.
   3. Double Door Operation: When a car stops at a landing with concurrent up and down hall calls, no car calls, and no other hall call assignments, the car door opens to answer the hall call in the direction of the car's current travel. If an onward car call is not registered before the door closes to within 6 inches of fully closed, the travel will reverse and the door will reopen to answer the other call.
   4. Nudging Operation: The doors shall remain open as long as the electronic detector senses the presence of a passenger or object in the door opening. If door closing is prevented for a field programmable time, a buzzer will sound. When the obstruction is removed, the door will begin to close at reduced speed. If the infra-red door protection system detects a person or object while closing on nudging, the doors will stop and resume closing only after the obstruction has been removed.
   5. Limited Door Reversal: If the doors are closing and the infra-red beam(s) is interrupted, the doors will reverse and reopen partially. After the obstruction is cleared, the doors will

begin to close.

6. Door Open Watchdog: If the doors are opening, but do not fully open after a field adjustable time, the doors will recycle closed then attempt to open six times to try and correct the fault.
7. Door Close Watchdog: If the doors are closing, but do not fully close after a field adjustable time, the doors will recycle open then attempt to close six times to try and correct the fault.
8. Door Close Assist: When the doors have failed to fully close and are in the recycle mode, the door drive motor shall have increased torque applied to possibly overcome mechanical resistance or differential air pressure and allow the door to close.

B. Door Protection Devices: Provide a door protection system using 150 or more microprocessor controlled infra-red light beams. The beams shall project across the car opening detecting the presence of a passenger or object. If door movement is obstructed, the doors shall immediately reopen.

2.8. CAR OPERATING STATION

A. Car Operating Station, General: The main car control in each car shall contain the devices required for specific operation mounted in an integral swing return panel requiring no applied faceplate.Swing return shall have a brushed stainless steel finish. The main car operating panel shall be mounted in the return and comply with handicap requirements. Pushbuttons that illuminate using long lasting LED’s shall be included for each floor served, and emergency buttons and switches shall be provided per code.Switches for car light and accessories shall be provided.

B. Emergency Communications System: Integral phone system provided.

C. Auxiliary Operating Panel: Not Required

D. Column Mounted Car Riding Lantern: A car riding lantern shall be installed in the elevator cab and located in the entrance. The lantern, when illuminated, will indicate the intended direction of travel. The lantern will illuminate and a signal will sound when the car arrives at a floor where it will stop. The lantern shall remain illuminated until the door(s) begin to close.

2.9. CONTROL SYSTEMS

A. Controller: Shall be integrated in a hoistway entrance jamb. Should be microprocessor based, software oriented and protected from environmental extremes and excessive vibrations in a NEMA 1 enclosure. Control of the elevator shall be automatic in operation by means of push buttons in the car numbered to correspond to floors served, for registering car stops, and by "up-down" push buttons at each intermediate landing and "call" push buttons at terminal landings.

B. Service Panel – to be located outside the hoistway in the controller entrance jamb and shall provide the following functionality/features:
1. Access to main control board and CPU
2. Main controller diagnostics
3. Main controller fuses
4. Universal Interface Tool (UIT)

5. Remote valve adjustment
6. Electronic motor starter adjustment and diagnostics
7. Operation of pit motorized shut-off valve with LED feedback to the state of the valve in the pit
8. Operation of auxiliary pump/motor (secondary hydraulic power source)
9. Operation of electrical assisted manual lowering
10. Provide male plug to supply 110VAC into the controller
11. Run/Stop button

C. Automatic Light and Fan shut down: The control system shall evaluate the system activity and automatically turn off the cab lighting and ventilation fan during periods of inactivity. The settings shall be field programmable.

D. Special Operation: Not Applicable

E. Emergency Power Operation: (Battery Lowering 10-DOC) When the loss of normal power is detected, a battery lowering feature is to be activated. The elevator will lower to a predetermined level and open the doors. After passengers have exited the car, the doors will close and the car will shutdown. When normal power becomes available, the elevator will automatically resume operation. The battery lowering feature is included in the elevator contract and does not utilize a building-supplied standby power source.

2.10. HALL STATIONS

A. Hall Stations, General: Buttons shall illuminate to indicate call has been registered at that floor for the indicated direction.
   1. Provide one pushbutton riser with faceplates having a brushed stainless steel finish.
   2. Phase 1 firefighter's service key switch, with instructions, shall be incorporated into the hall station at the designated level.

B. Floor Identification Pads: Provide door jamb pads at each floor. Jamb pads shall comply with Americans with Disabilities Act (ADA) requirements.

2.11. MISCELLANEOUS ELEVATOR COMPONENTS

A. Oil Hydraulic Silencer: Install multiple oil hydraulic silencers (muffler device) at the power unit location. The silencers shall contain pulsation absorbing material inserted in a blowout proof housing.

B. Lockable three phase circuit breaker with auxiliary contact with shunt trip capability to be provided. Circuit breaker to be located behind locked panel (Group 2 security access) at controller landing entrance jamb and should be sized according to the National Electrical Code.

C. Lockable single phase 110V circuit breaker for cab light and fan to be provided. Circuit breaker to be located behind locked panel (Group 2 security access) at controller landing entrance jamb should be sized according to the National Electrical Code.

PART 3 - EXECUTION

3.1. EXAMINATION

A. Before starting elevator installation, inspect hoistway, hoistway openings, pits and control space, as constructed and verify all critical dimensions, and examine supporting structures and all other conditions under which elevator work is to be installed. Do not proceed with elevator installation until unsatisfactory conditions have been corrected in a manner acceptable to the installer.

B. Installation constitutes acceptance of existing conditions and responsibility for satisfactory performance.

3.2. INSTALLATION

A. Install elevator systems components and coordinate installation of hoistway wall construction.
   1. Work shall be performed by competent elevator installation personnel in accordance with ASME A17.1, manufacturer's installation instructions and approved shop drawings.
   2. Comply with the National Electrical Code for electrical work required during installation.

B. Coordination: Coordinate elevator work with the work of other trades, for proper time and sequence to avoid construction delays. Use benchmarks, lines, and levels designated by the Contractor, to ensure dimensional coordination of the work.

C. Alignment: Coordinate installation of hoistway entrances with installation of elevator guide rails for accurate alignment of entrances with cars. Where possible, delay final adjustment of sills and doors until car is operable in shaft. Reduce clearances to minimum safe, workable dimensions at each landing.

D. Lubricate operating parts of system where recommended by manufacturer.

3.3. FIELD QUALITY CONTROL

A. Acceptance testing: Upon completion of the elevator installation and before permitting use of elevator, perform acceptance tests as required by A17.1 Code and local authorities having jurisdiction. Perform other tests, if any, as required by governing regulations or agencies.

B. Advise Owner, Contractor, Architect, and governing authorities in advance of dates and times tests are to be performed on the elevator.

3.4. ADJUSTING

A. Make necessary adjustments of operating devices and equipment to ensure elevator operates smoothly and accurately.

3.5. CLEANING

A. Before final acceptance, remove protection from finished surfaces and clean and polish surfaces in accordance with manufacturer's recommendations for type of material and finish provided. Stainless stall shall be cleaned with soap and water and dried with a non-abrasive surface; shall not be cleaned with bleached-based cleansers.

B. At completion of elevator work, remove tools, equipment, and surplus materials from site. Clean equipment rooms and hoistway. Remove trash and debris.

3.6. PROTECTION

A. At time of Substantial Completion of elevator work, or portion thereof, provide suitable protective coverings, barriers, devices, signs, or other such methods or procedures to protect elevator work from damage or deterioration. Maintain protective measures throughout remainder of construction period.

3.7. DEMONSTRATION

A. Instruct Owner's personnel in proper use, operations, and daily maintenance of elevators. Review emergency provisions, including emergency access and procedures to be followed at time of failure in operation and other building emergencies. Train Owner's personnel in normal procedures to be followed in checking for sources of operational failures or malfunctions.

B. Make a final check of each elevator operation, with Owner's personnel present, immediately before date of substantial completion. Determine that control systems and operating devices are functioning properly.

3.8. ELEVATOR SCHEDULE

A. Elevator Qty. 1
   1. Elevator Model: Endura 21A MRL Twinpost
   2. Rated Capacity: 2100 lbs.
   3. Rated Speed: 90 ft./min.
   4. Operation System: TAC32
   5. Travel: 14'-6"
   6. Landings: 2 total
   7. Openings:
      a. Front: 2
      b. Rear: 0
   8. Clear Car Inside: 5' - 8" wide x 4' - 3" deep
   9. Cab Height: 8'-0" nominal
   10. Hoistway Entrance Size: 3' - 0" wide x 7'-0" high
   11. Door Type: Single Speed
   12. Power Characteristics: TBD volts, 3 Phase, 60 Hz.
   13. Seismic Design Category: B
   14. Fixture& Button Style: Traditional Signal Fixtures

END OF SECTION

MacCornack Engineering LLC
CONSULTING STRUCTURAL ENGINEER

June 1, 2020

Mr. Tomas Sanchez, RA
Baker AD
505 Central Ave NW Ste. E
Albuquerque, NM 87102

Re: Addendum #2
Lavaland Elementary School Phase 1
501 57th St. NW
Albuquerque, New Mexico

Drawings

Sheet S-101f:

A. Grid 0.8 south of Grid U.1. The bearing plate at this location slopes with the top of plate elevation of +/- 130'- 1" at the centerline of the wall.
B. Grid 6.2 between Grids R.1 and U. Joist bearing elevation at this location is 125' – 6 ½".

If you have further questions, do not hesitate to call.

Respectfully Submitted
MacCornack Engineering LLC

Don MacCornack

Donald A. MacCornack, P.E.
Managing Member

1776 Montano Rd. NW Ste. 24, Los Ranchos de Albuquerque, NM 87107
Voice 505-881-0570 Fax 505-884-4773

HIGH MESA Consulting Group
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Lavaland Elementary School – Addendum #2 (Civil)

The following sheets have been updated as follows for Addendum #2:

- C-109: WATER LINE 'A' PLAN AND PROFILE STA 9+37 TO STA 12+71
  - UPDATED: 8" water (fire) line revised alignment and profile to match shifted connection point location in Cloudcroft Place requested by ABCWUA

Principals: Charles G. Cala, Jr., P.S. • Juan M. Cala • Joseph M. Solomon, Jr., P.S. • J. Graeme Means, P.E. • Joseph E. Gonzales

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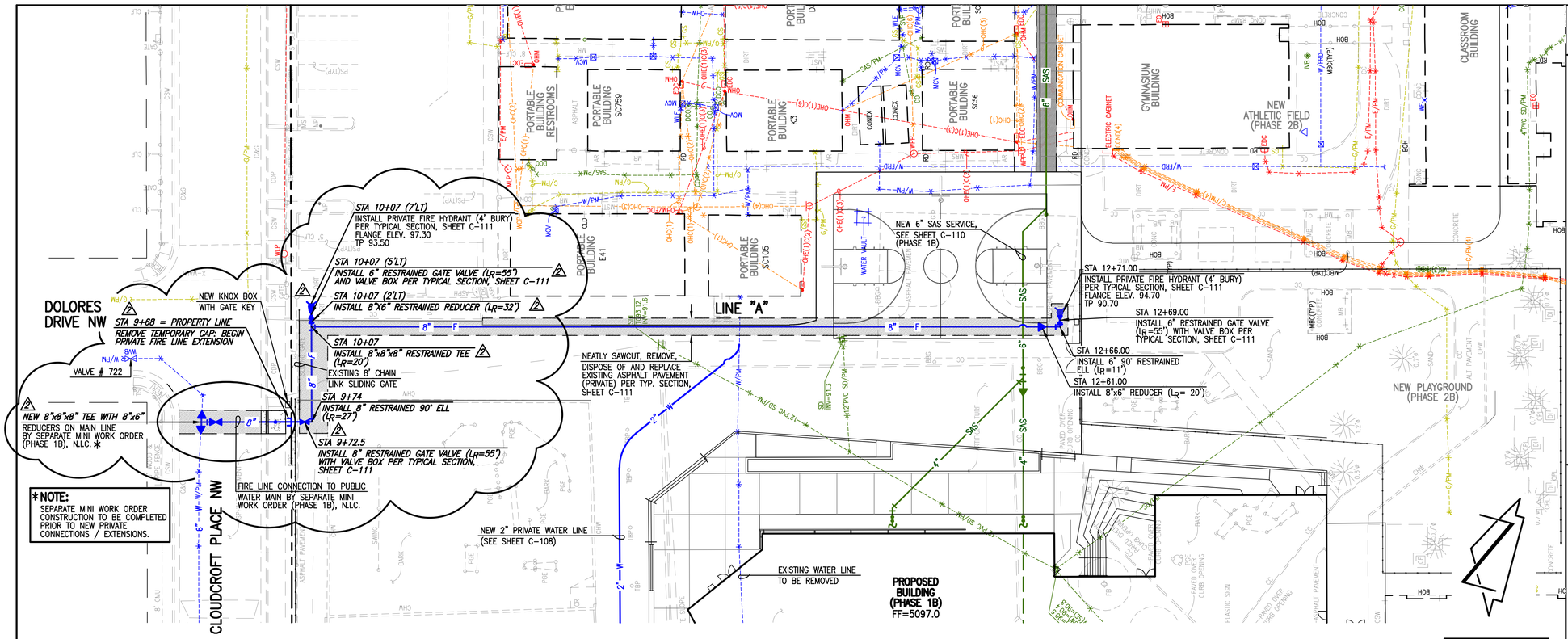

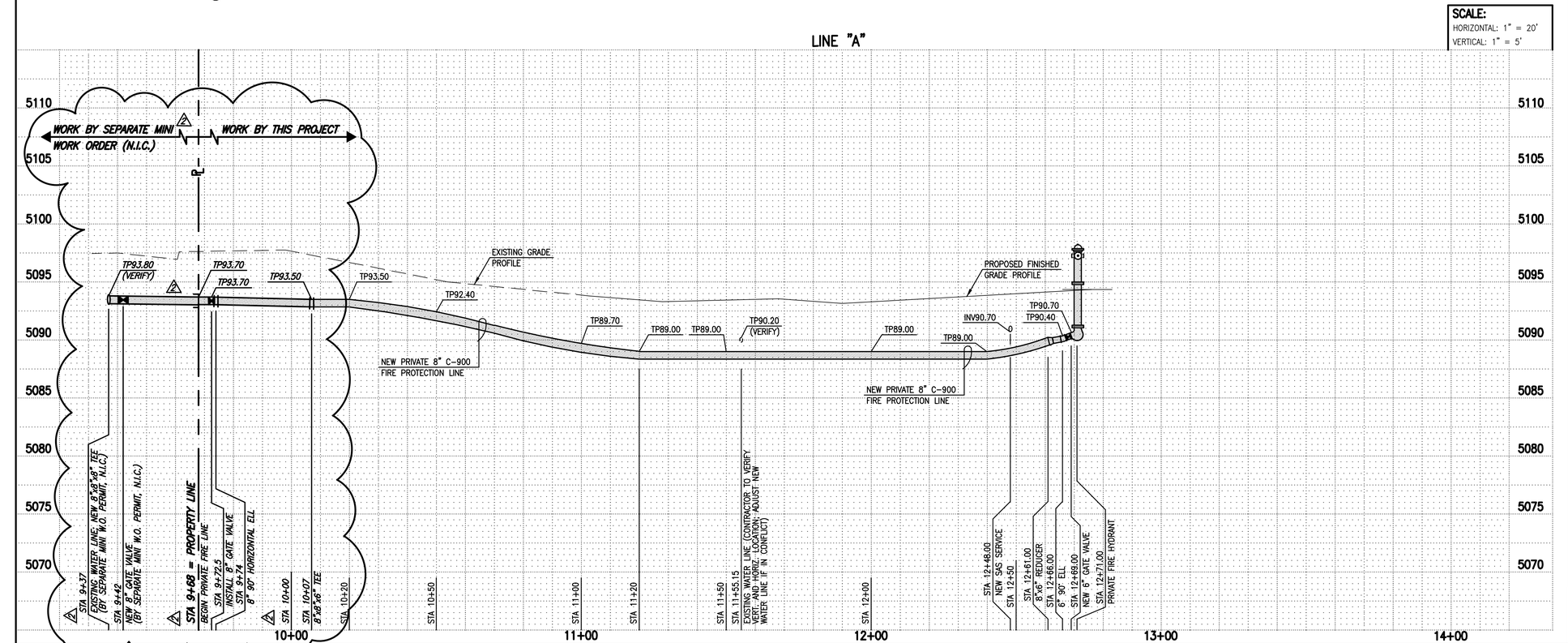

ELEVATIONS ARE IN NAVD 1988

WATER LINE CONSTRUCTION NOTES:

1. FOR ALL LINES 12" AND SMALLER, WATER MAIN SHALL BE PVC C-900 DR18 PIPE. DUCTILE IRON IS AN ACCEPTABLE PIPE MATERIAL IN LIEU OF PVC.
2. WATER LINE SHALL HAVE A MINIMUM COVER OF 3'-0" (FINISHED GRADE TO TOP OF PIPE). EXTRA DEPTH TRENCHING, IF REQUIRED, SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION, THEREFORE, NO SEPARATE PAYMENT WILL BE MADE.
3. IN ACCORDANCE WITH SECTION 801 OF THE "STANDARD SPECIFICATIONS", METALIZED DETECTABLE WARNING TAPE SHALL BE INSTALLED 18" ABOVE ALL PVC PIPE INSTALLED ON THIS PROJECT.
4. JOINT RESTRAINT SHALL BE CONSIDERED INCIDENTAL TO WATER LINE CONSTRUCTION THEREFORE NO SEPARATE PAYMENT WILL BE MADE.
5. JOINT RESTRAINT SHALL BE PROVIDED ON ALL JOINTS OF FIRE LINES.
6. FOR THE PURPOSES OF THIS PROJECT, ALL RESTRAINED JOINTS AND JOINT RESTRAINT SHALL BE MECHANICALLY RESTRAINED. JOINT RESTRAINT LENGTHS SPECIFIED HEREON ARE THE LENGTHS TO BE RESTRAINED EACH SIDE OF THE FITTING.
7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SELECTING APPROPRIATE MEANS AND METHODS TO EXCAVATE AND TRENCH AND INSTALL PIPE SO AS TO NOT EXCEED RIGHT-OF-WAY OR EASEMENT LIMITS, AND SO AS NOT TO INTERFERE WITH OTHER UTILITIES. THIS SHALL BE CONSIDERED INCIDENTAL TO TRENCHING, THEREFORE, NO SEPARATE PAYMENT WILL BE MADE.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING, SUPPORTING AND REPLACING, IF DAMAGED, ALL OTHER UTILITIES ENCOUNTERED DURING CONSTRUCTION. THIS SHALL BE CONSIDERED INCIDENTAL TO TRENCHING, THEREFORE, NO SEPARATE PAYMENT WILL BE MADE.
9. NEW WATER LINE INSTALLATIONS SHALL INCLUDE INSULATED 12 GAUGE COPPER TRACER WIRE INSTALLED CONTINUOUSLY ALONG THE PIPE WITH WATER-PROOF SPLICE BOXES AT JUNCTIONS AND TEES. TRACER WIRE SHALL BE ACCESSIBLE AT ALL VALVES AND SERVICES. TRACER WIRE INSTALLATION SHALL BE CONSIDERED INCIDENTAL TO TRENCHING, THEREFORE, NO SEPARATE PAYMENT WILL BE MADE.

2017.039.1

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J. GRAEME MEANS NEW MEXICO 13676 REGISTERED PROFESSIONAL ENGINEER
05/21/2020 06/04/2020
05/05/2020

LAVALAND ELEMENTARY SCHOOL
Phase 1 Campus Reconstruction

OWNER
ALBUQUERQUE PUBLIC SCHOOLS
915 OAK STREET SE
ALBUQUERQUE, NM 87106

MARK	DATE	DESCRIPTION
1	05/20	ADDENDUM #1
2	06/20	ADDENDUM #2

B_AD PROJECT #	1701
DATE:	05/04/2020
DRAWN BY:	J.Y.R./S.C.C.
CHECKED BY:	G.M.

WATER LINE "A" PLAN & PROFILE STA 9+37 TO STA 12+71

C-109

File Name: P:\data\2017\2017.039.1 Restored\2017.039.1\ENG\Rev 2\170391_C-109-R2.dwg - MODEL Plot Date: 6/4/20 Plot Time: 07:52

BRIDGERS & PAXTON
4600 C Montgomery Blvd. NE
Albuquerque, NM 87109
main 505.883.4111 www.bpce.com

June 04, 2020

Tomas Sanchez, RA
Baker AD
505 Central Ave. NW, Suite E
Albuquerque, NM 87102

SUBJECT: APS LAVALAND – ADDENDUM #2

Dear Mr. Sanchez:

Please include the following information in your addendum to the bidders. We have prepared this addendum on a separate sheet such that your office need not retype this addendum information.

Sincerely,

BRIDGERS & PAXTON
CONSULTING ENGINEERS, INC.

Oscar Urias, PE
Electrical Engineer

CLARIFICATIONS/QUESTIONS

1. *Specification 23 0700 Table 230700-1-Ductwork Insulation calls out for 1.5" acoustical liner in return air and supply air serving the fan coils. VRF Fan Coil Detail #9 on sheet M-501 calls out for 1" liner.*
   Please clarify. 1.5" acoustical liner is not typical and will be a significant cost increase to the owner.
   ***Answer*:** Where acoustical lining is required, in addition to sound performance, acoustical lining needs to meet minimum R-5 value for thermal performance

PRIOR APPROVALS

The following manufacturers have properly submitted their request to be allowed to bid substitute equipment and services for the referenced project. Based on information submitted, and our knowledge of and previous experience with the companies and products represented, we feel that the following are capable of providing products and services equivalent to those specified.

EQUIPMENT	**SUBSTITUTE**
ERV-1	MicroMetl Corporation
EF-1, 2,	CaptiveAire
IH-1	CaptiveAire
<u>Luminare Types</u>	
A1/A2	Axis Lighting/Pinnacle Lighting/A-Light
A2R	Columbia Lighting / Daybrite/Acuity
A3/A5	Axis Lighting/Pinnacle Lighting/A-Light
AK2	Columbia Lighting/LC Doane /Acuity
B	Columbia Lighting/Daybrite/Acuity
BTI	Columbia Lighting/HE Williams/Lux
C1/C1E	Lumenwerx/Pinnacle Lighting/Lumato
C6	Prescolite Lighting/ HE Williams/Acuity
CSW	Kenall/Eclipse Lighting/Acuity
D1N	Prescolite Lighting/HE Williams/Acuity
D1S	Axis Lighting/Ledalite/Acuity
D3N	Prescolite Lighting/HE Williams/Acuity
E/EB	Barron Lighting/Evenlite/EELP
EM	Compass Products/Evenlite/Acuity
F3	Hubbel Lighting/LSI Industries/Acuity
L3	Precise LED/Light Corp/Acuity
L4L/L4LH/L8L	Lumium Lighting/Pinnacle Ltg/A-Light
L2L-R/ /L4L-R/L6L-R/L8L-R	Lumium Lighting/Coronet Inc/A-Light
N3F	Lumenwerx/Pinnacle Lighting/Lumato
T1/T2	Altman Lighting or as specified

Luminaire schedule was revised/modified via addendum. Contractor is responsible for including all addenda items on the final lighting submittal. If basis of design for lighting package is not used, submit lighting calculation (photometrics) for typical space(s) using the proposed substitution product.

SPECIFICATIONS

1. Added Specification: 26 2413 Switchboards

DRAWINGS

PLUMBING

1. Sheet FX-101a:
    a. Add 6” fire department connection pipe (FDC) to fire riser room from site.

2. Sheet P-403:
    a. Add ½” DCW and ½” DHW to item 29.
    b. Revise kitchen equipment schedule.

3. Sheet FX-501:
    a. Add 6” fire department connection pipe (FDC) to fire riser room.
    b. Remove keyed note #8 from fire protection schematic.

4. Sheet PS-101:
    a. Add 6” fire department connection pipe (FDC) to fire riser room.

5. Sheet PL-101a:
    a. Revise sanitary sewer invert along grid line “L”.

ELECTRICAL

1. Sheet EP-101b (sheet not issued):
    a. Provide 2#12&1#12Gnd in ¾” conduit (dedicated circuit) and receptacle for A/V head-end equipment located in Storage-144. Panelboard source “P1A”. Use existing spare circuit breaker.

2. Sheet EP-101c (sheet not issued):
    a. There is structural brace frame that runs along the walls for Electrical Room 206. Provide unnistrut to mount panelboards in this electrical room.

3. Sheet E-401:
    a. Add mounting heights to receptacles.
    b. Add devices / circuits as shown.
    c. Revise panel schedule as shown
    d. Revise electrical kitchen equipment schedule as shown.
    e. Add general and keynotes as shown.

4. Sheet E-601 (sheet not issued):
    a. Revise conduit size and quantities to (2)3” conduits from distribution board “SWB1 MSB” to inverters (in lieu of (1)2-1/2”C). Revise conduit size and quantities to (2)3” conduits from inverters up to roof to each PV Array (in lieu of (1)2”C). Label conduits at stub-out locations with “Rooftop Solar.”

5. Sheet E-701:
    a. Revise Luminaire Schedule as shown.

6. Sheet E-702:
    a. Revise Luminaire Schedule as shown.

Attachments: FX-101a, FX-501, PS-101, PL-101a, P-403, E-401, E-701, E-702

SECTION 262413 - SWITCHBOARDS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes service and distribution switchboards rated 600 V and less.

B. Related Sections include the following:

1. Division 26, Section 26 0500, Common Work Results for Electrical for general and installation materials and methods.
2. Division 26, Section 26 0553, Identification for Electrical Systems for identification materials.
3. Division 26, Section 26 0573, Overcurrent Protective Device Coordination Study.

1.3 SUBMITTALS

A. Product Data: For each product and component specified.

B. Shop Drawings: For each switchboard. Show dimensioned plans and elevations, including required clearances and service space, component and device lists, and a single-line diagram showing main- and branch-bus current ratings and short-time and short-circuit ratings of switchboard. Include the following:

1. Bus configuration, current rating, voltage rating, and short circuit rating of overcurrent devices.
2. Schedule of features, characteristics, ratings, and factory settings of individual protective devices.
3. Wiring Diagrams: Details of wiring for power and control and differentiating between manufacturer-installed and field-installed wiring.
4. Nameplate Schedule.
5. Cable terminal sizes.

C. Qualification Data: For firms and persons specified in "Quality Assurance" Article.

D. Reports of Field Tests and Observations: Certified by testing agency.

E. Manufacturer field service report.

F. Certificates for field testing agency, signed by Contractor, certifying that agency complies with requirements specified in "Quality Assurance" Article below.

G. Maintenance Data: For switchboards to include in the maintenance manuals specified in Division 1. Include detailed manufacturer's written instructions on adjusting overcurrent protective devices.

1. Routine maintenance requirements.
2. Time current curves, including selectable range, for each type of overcurrent protective device.

1.4 QUALITY ASSURANCE

A. Testing Agency Qualifications: In addition to the requirements specified in Division 1 Section Quality Control, an independent testing agency shall meet OSHA criteria for accreditation of testing laboratories, Title 29, Part 1907, or shall be a full-member company of the InterNational Electrical Testing Association.

1. Testing Agency's Field Supervisor: Person currently certified by the InterNational Electrical Testing Association or National Institute for Certification in Engineering Technologies, to supervise on-site testing specified in Part 3.

B. Listing and Labeling: Provide switchboard assemblies specified in this Section that are listed and labeled.

1. The Terms "Listed" and "Labeled": As defined in the National Electrical Code, Article 100.

C. Comply with NFPA 70.

D. Comply with NEMA PB 2.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Deliver in shipping splits of lengths that can be moved past obstructions in delivery path.

B. Store so condensation will not occur on or in switchboards. Provide temporary heaters as required to avoid condensation.

C. Handle switchboards according to NEMA PB 2.1. Use only factory-installed lifting provisions.

1.6 PROJECT CONDITIONS

A. Verify dimensions by field measurements.

B. Determine suitable path for moving switchboard into place considering Project conditions.

C. Verify clearance requirements. Locate switchboard to meet installation tolerances.

D. Revise locations and elevations from those indicated as required to suit Project conditions.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide products by the following:

1. Eaton Corp.; Westinghouse & Cutler-Hammer Products.
2. General Electric Co.; Electrical Distribution and Control Division.
3. Siemens Energy & Automation, Inc.
4. Square D Co.

2.2 MANUFACTURED UNITS

A. Front- and Side-Accessible Switchboard: Fixed, individually mounted main device, panel-mounted branches, and sections rear aligned.

B. Ratings: Provide nominal system voltage, continuous main-bus amperage, and short-circuit current ratings as indicated on one-line.

C. Nominal System Voltage: Refer to drawings.

D. Main-Bus Continuous: Refer to drawings.

E. Service Entrance: Suitable for use as service entrance equipment and so labeled in accordance with UL requirements.

2.3 FABRICATION AND FEATURES

A. Enclosure: Steel; NEMA 250, Type 1.

B. Enclosure Finish for Indoor Units: Factory-applied finish in manufacture's standard gray finish over a rust-inhibiting primer on treated metal surface.

C. Barriers: Between adjacent switchboard sections.

D. Insulation and isolation for main and vertical buses of feeder sections.

E. Bus Transition and Incoming Line Pull Sections: Matched and aligned with basic switchboard.

F. Hinged Front Panels: Front Access - Allow access to breaker, metering, accessory, and blank compartments.

G. Buses and Connections: 3 phase, 4 wire, except as otherwise indicated. Features as follows:

1. Phase and Neutral-Bus Material: Hard-drawn copper of 98 percent conductivity with feeder circuit-breaker line connections. Use copper for feeder circuit-breaker line connections.
2. Load Terminals: Silver-plated copper bus extensions equipped with pressure connectors for outgoing circuit conductors.
3. Ground Bus: 1/4-by-2-inch minimum size, drawn-temper copper of 98 percent conductivity;

equipped with pressure connectors for feeder- and branch-circuit ground conductors. For busway feeders, extend insulated equipment grounding cable to busway ground connection and support cable at intervals in vertical run.

4. Contact Surfaces of Buses: Silver plated.
5. Main Phase Buses, Neutral Buses, and Equipment Ground Buses: Uniform capacity the entire length of the switchboard main and distribution sections. Provide for future extensions from both ends.
6. Isolation Barrier Access Provisions: Permit checking bus bolt tightness.
7. Neutral Buses: 100 percent of the ampacity of the phase buses, except as indicated, and equipped with approved pressure connectors for outgoing circuit neutral cables. Bus extensions for busway feeder neutral bus is braced.

H. Bus-Bar Insulation: Factory-applied, flame-retardant, 105 deg C minimum tape wrapping of individual bus bars or flame-retardant, spray-applied insulation of same temperature rating. Insulate bus joints.

2.4 OVERCURRENT PROTECTIVE DEVICES

A. Enclosed, Molded-Case Circuit Breaker: NEMA AB 1, handle lockable.

1. Characteristics: Frame size, trip rating, number of poles, and auxiliary devices as indicated and interrupting capacity rating to meet available fault current.
2. Application Listing: Appropriate for application, including lighting loads or heating, air-conditioning, and refrigerating equipment.
3. Circuit Breakers, 150 A – 350 A: Trip units interchangeable within frame size (unless indicated otherwise).
4. Circuit Breakers, 400 A and Larger: Field-adjustable short-time and continuous current settings.
5. Lugs: Mechanical lugs and power-distribution connectors for number, size, and material of conductors indicated.
6. Shunt Trip: Where indicated.

B. Enclosed, Insulated-Case Circuit Breaker: Fully rated, encased power circuit breaker.

1. Characteristics: Frame size, trip rating, number of poles, and auxiliary devices as indicated and interrupting capacity rating to meet available fault current.

2. Features: Include the following:

   a. Drawout circuit-breaker mounting.
   b. 2-step stored-energy closing.
   c. Microprocessor-based trip units with interchangeable rating plug and selectable I-squared-t response.
   d. LED trip indicators.
   e. Remote trip indication and control
   f. Shunt trip.

3. Control Voltage: 125 V, ac.
4. Lugs: Mechanical lugs and power-distribution connectors for number, size, and material of conductors indicated.

C. Future Devices: Where indicated, equip compartments with mounting brackets, supports, bus connections, and appurtenances designed for overcurrent protective device types and ampere ratings indicated.

2.5 OTHER CIRCUIT CONTROL AND PROTECTIVE DEVICES

A. Factory-installed and factory-tested devices of types listed below, with indicated ratings, settings, and features.

B. Transient Voltage Surge Suppressors: IEEE C62.41, selected to meet requirements for category indicated.

1. Exposure: Medium.

C. Impulse sparkover voltage coordinated with system circuit voltage.

D. Factory mounted with UL-recognized mounting device.

2.6 INSTRUMENTATION

A. Instrument Transformers: NEMA EI 21.1, IEEE C57.13, and the following:

1. Potential Transformers: Secondary voltage rating of 120 V and NEMA accuracy class of 0.3 with burdens of W, X, and Y.
2. Current Transformers: Ratios as indicated and accuracy class and burden suitable for connected relays, meters, and instruments.
3. Control Power Transformers: Dry type, mounted in separate compartments for units larger than 3 kV.
4. Current Transformers for Neutral and Ground-Fault Current Sensing: Ground/neutral sensor current transformers located as indicated. Connect secondaries to ground overcurrent relays to provide selective tripping of bus tie and main breaker. Coordinate with feeder breaker ground-fault protection.

B. Multifunction Digital Metering Monitor: UL listed or recognized microprocessor-based unit having data acquisition and control capability suitable for 3 or 4-wire systems and with the following features:

1. Inputs: Sensors or current transformers from 100/5 through 5000/5 ratings and potential up to 600V.
2. RMS: Current and voltage valves to be true RMS.
3. Switch selectable digital display of the following values with maximum accuracy tolerances as indicated:

    a. Phase Currents, Each Phase: Plus or minus 1 percent.
    b. Phase-to-Phase Voltages, 3 Phase: Plus or minus 1 percent.
    c. Phase-to-Neutral Voltages, 3 Phase: Plus or minus 1 percent.
    d. Megawatts: Plus or minus 2 percent.
    e. Megavars: Plus or minus 2 percent.
    f. Power Factor: Plus or minus 2 percent.
    g. Frequency: Plus or minus 0.5 percent.
    h. Megawatt Demand: Plus or minus 2 percent; demand interval programmable from 5 to 60 minutes. Peak demand for a programmable period of 1 to 40 days.
    i. Accumulated Energy, Megawatt Hours: Plus or minus 2 percent. Accumulated values unaffected by power outages up to 72 hours.

4. Mounting: Display and control unit flush or semi-flush mounted in instrument compartment door.
5. Output: RS485 output, daisy chain connected. All meter parameters to be available.
6. Battery: 10 year minimum life.
7. Meter shall be BACnet compliant capable of tying into building DDC for onsite and remote monitoring.

C. Ammeters, Voltmeters, and Power-Factor Meters: ANSI C39.1.

1. Meters: 4-inch diameter or 6 inches square, flush or semi-flush, with anti-parallax 250-degree scales and external zero adjustment.
2. Voltmeters: Cover an expanded scale range of nominal voltage plus 10 percent.

D. Instrument Switches: Rotary type with off position.

1. Voltmeter Switches: Permit reading all phase-to-phase voltages, and where a neutral is indicated, phase-to-neutral voltages.
2. Ammeter Switches: Permit reading current in each phase, and maintain current-transformer secondaries in a closed-circuit condition at all times.

E. Feeder Ammeters: 2-1/2-inch minimum size with 90 or 120-degree scale. Meter and transfer device with an off position, located on overcurrent device door for indicated feeder circuits only.

F. Watt-Hour Meters: Flush or semi-flush type, rated 5 A, 120 V, 3 phase, 3 wire, with 3 elements, 15-minute-indicating-demand register, and provision for testing and adding pulse initiation.

G. Recording Demand Meter: Useable as totalizing relay or indicating and recording maximum demand meter with 15-minute interval. Meter shall count and control a succession of pulses entering 2 channels. House in drawout, back-connected case arranged for semiflush mounting.

2.7 CONTROL POWER

A. Control Circuits: 120 V, supplied through secondary disconnect devices from control power transformer.

B. Control Power Fuses: Primary and secondary fuses for current-limiting and overload protection of transformer and fuses for protection of control circuits.

C. Control Wiring: Factory installed, complete with bundling, lacing, and protection. Provide flexible conductors for No. 8 AWG and smaller, for conductors across hinges, and for conductors for interconnections between shipping units.

2.8 ACCESSORY COMPONENTS AND FEATURES

A. Accessory Set: Include tools and miscellaneous items as required for overcurrent protective device test, inspection, maintenance, and operation.

B. Portable Test Set: Arranged to permit testing of all functions of solid-state trip devices without removal from switchboard. Include relay and meter test plugs suitable for testing switchboard meters and switchboard class relays.

C. Circuit-Breaker Removal Apparatus: Portable, floor-supported, roller-base, elevating carriage arranged for movement of breakers in and out of compartments for present and future breakers.

D. Spare-Fuse Cabinet: Suitably identified, wall-mounted, lockable, compartmented, steel box or cabinet. Arrange for wall mounting.

2.9 IDENTIFICATION

A. Nameplates and label products are specified in Division 26, Section 26 0553, Identification for Electrical Systems.

1. Compartment Nameplates: Engraved laminated-plastic or metal nameplate for each compartment, mounted with corrosion-resistant screws.

B. Mimic Bus: Continuously integrated mimic bus factory applied to front of switchboard. Arrange in single-line diagram format, using symbols and lettered designations consistent with approved final mimic-bus diagram. Coordinate mimic-bus segments with devices in switchboard sections to which applied. Produce a concise visual presentation of principal switchboard components and connections.

1. Medium: Painted graphics in approved color contrasting with equipment factory-finish background to represent bus and components, complete with lettered designations.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine elements and surfaces to receive switchboard for compliance with installation tolerances and other conditions affecting performance of switchboards.

1. Do not proceed with installation until unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. Install switchboards level and plumb as indicated, according to manufacturer's written instructions and NEMA PB 2.1.

B. Support switchboards on concrete housekeeping bases, 4-inch nominal thickness. Bases to be 4 inches larger in both directions than overall dimensions of supported unit.

C. Temporary Lifting Provisions: Remove temporary lifting eyes, channels, and brackets and temporary blocking of moving parts from switchboard units and components.

D. Anchor: Anchor switchboards in accordance with Manufacturer’s recommendations and to meet UBC Seismic Zone D requirements.

E. Operating Instructions: Frame and mount printed, basic operating instructions for switchboards, including control and key interlocking sequences and emergency procedures. Fabricate frame of finished wood or metal and cover instructions with clear acrylic plastic. Mount on the front of switchboards.

3.3 CONNECTIONS

A. Connect switchboards and components to wiring systems and to ground as indicated and instructed by manufacturer.

1. Tighten electrical connectors and terminals, including screws and bolts, according to manufacturer's published torque tightening values. Where manufacturer's torque values are not indicated, use those specified in UL 486A and UL 486B.

3.4 IDENTIFICATION

A. Identify field-installed wiring and components and provide warning signs as specified in Division 26, Section 26 0500, Common Work Results for Electrical.

B. Install compartment nameplates.

3.5 FIELD QUALITY CONTROL

A. Standards: Comply with applicable standards of the InterNational Electrical Testing Association (NETA), including standard ATS.

B. Prepare for acceptance tests as follows:

1. Make insulation-resistance tests of each switchboard bus, component, and connecting supply, feeder, and control circuits. Insulation resistance less than 100 megohms is not acceptable.
2. Make continuity tests of each circuit.

C. Manufacturer's Field Service: Provide services of a factory-authorized service representative to supervise pretesting and adjustment of switchboard components for a total of not less than five (5) working days.

D. Testing Agency: Owner will engage a qualified independent testing agency to perform specified acceptance testing.

E. Acceptance Testing: After installing switchboards and after electrical circuitry has been energized, demonstrate product capability and compliance with requirements.

1. Procedures: Perform each visual and mechanical inspection and electrical test stated in NETA ATS, Sections 7.1, 7.5 7.6, 7.9, 7.10, 7.11, and 7.14 as appropriate. Certify compliance with test parameters.
2. Correct malfunctioning units on-site, where possible, and retest to demonstrate compliance; otherwise, remove and replace with new units, and retest.

F. Infrared Scanning: After Substantial Completion, but not more than 2 months after Final Acceptance, perform an infrared scan of each switchboard. Remove fronts to make joints and connections accessible to a portable scanner.

1. Follow-up Infrared Scanning: Perform 1 additional follow-up infrared scan of each switchboard 11 months after date of Substantial Completion.
2. Instrument: Use an approved infrared scanning device designed to measure temperature or detect significant deviations from normal values. Provide calibration record for device used.
3. Record of Infrared Scanning: Prepare a certified report identifying switchboards checked and describing results of scanning. Include notation of deficiencies detected, remedial action taken and observations after remedial action.

3.6 ADJUSTING

A. Set field-adjustable switches and circuit-breaker trip ranges as indicated.

3.7 CLEANING

A. Upon completion of installation, inspect interior and exterior of switchboards. Remove paint splatters and other spots, dirt, and debris. Touch up scratches and mars of finish to match original finish.

3.8 DEMONSTRATION

A. Startup Services: Engage a factory-authorized service representative to demonstrate and train Owner's maintenance personnel as specified below:

1. To identify each switchboard location.

2. To instruct in function, operation, and maintenance of each component.
3. To instruct in each distinct procedure and schedule related to servicing and preventive maintenance.
4. Schedule training with at least seven (7) days advanced notice.

B. Training: Conduct a minimum of one full day of training, including both classroom and hands-on equipment training.

3.9 PROTECTION

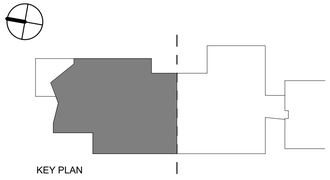
A. Temporary Heating: Apply temporary heat to maintain temperature according to manufacturer's written instructions.

END OF SECTION 262413

A1 FIRE PROTECTION FIRST FLOOR PLAN - NORTH END

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

0' 4' 8' 16'



GENERAL NOTES

A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING THEIR WORK IN COMPLIANCE WITH NFPA#13 STANDARDS AND ALL REQUIREMENTS OF THE AUTHORITY HAVING JURISDICTION.
B. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ARCHITECT/ENGINEER FOR APPROVAL PRIOR TO COMMENCING WORK.
C. ALL EQUIPMENT AND MATERIALS SHALL CONFORM TO NFPA STANDARDS AND BE UL LISTED.
D. SPRINKLER SYSTEMS SHALL BE DESIGNED FOR LIGHT HAZARD COVERAGE 0.10 GPM / 1500 SQ.FT. THROUGHOUT ENTIRE BUILDING UNLESS NOTED OTHERWISE.
E. MAXIMUM SPRINKLER HEAD COVERAGE SHALL BE 225 SQ.FT. PER HEAD IN LIGHT HAZARD AREAS.
F. THE CONTRACTOR SHALL COORDINATE THEIR WORK WITH THE MECHANICAL, PLUMBING, AND ELECTRICAL PRIOR TO FABRICATION AND DURING INSTALLATION.
G. THE CONTRACTOR SHALL PROVIDE AND INSTALL AN INSPECTORS TEST CONNECTION (ITC) FOR EACH SPRINKLER SYSTEM. RUN THROUGH EXTERIOR WALLS WHERE APPROVED BY ARCHITECT / ENGINEER.
H. USE FLUSH CONCEALED HEADS IN ALL TOILET ROOMS. PROVIDE SPRINKLERS UNDER EXPOSED DUCT OR OBSTRUCTIONS 48" WIDE AND LARGER.
I. REFER TO CEILING TILE DETAIL 6/FX-501 FOR SPRINKLER HEAD LOCATIONS IN CEILING TILES.
J. INSTALL FIRE SPRINKLER HEADS AND SUPPLY PIPING AS REQUIRED BY NEW PARTITIONING, GRILLES, DIFFUSERS, DUCTWORK, CEILING, ETC.
K. ADDITIONAL FIRE PROTECTION NOT REQUIRED IN HATCHED AREAS.

THE ARCHITECT SHALL APPROVE THE AESTHETICS OF THE SPRINKLER HEADS AND EXPOSED PIPING LAYOUT.

KEYNOTES

1. RISER UP TO SECOND FLOOR.
2. PROVIDE FIRE PROTECTION BASED ON ORDINARY HAZARD GROUP 1 WITH DESIGN DENSITY OF 0.15 GPM / 1500 SQ FT.
3. FLOOR CONTROL ASSEMBLY. REFER TO DETAIL 2/FX-501.
4. 4" VALVE AND CAPPED FOR FUTURE EXPANSION.
5. PROVIDE SPRINKLER HEAD COVERAGE AT BOTTOM OF ELEVATOR SHAFT.
6. PROVIDE DRY PIPE SPRINKLER SYSTEM IN OVERHANG AREA.
7. PROVIDE VALVE CONTROL ASSEMBLY.
8. REFER TO DETAIL 3/FX501 FIRE PROTECTION SCHEMATIC FOR ADDITIONAL INFORMATION.

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LAVALAND ELEMENTARY SCHOOL
Phase 1 Campus Reconstruction

OWNER:

ALBUQUERQUE PUBLIC SCHOOLS
915 OAK STREET SE
ALBUQUERQUE, NM 87106

MARK	DATE	DESCRIPTION
2	05/28/20	Addendum 2

B_AD PROJECT #	2000.01
FILE:	LAVALAND_100CD.RVT
DATE:	05/01/2020
DRAWN BY:	JAW
CHECKED BY:	IM

FIRE PROTECTION FIRST FLOOR PLAN - NORTH END

FX-101a

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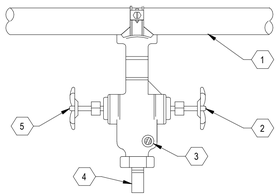
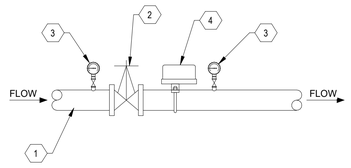


1. SPRINKLER MAIN (FOR SIZES, SEE FLOOR PLANS).
2. TEST VALVE.
3. SIGHT GLASS.
4. DISCHARGE DRAIN LINE, FOR SIZES AND CONTINUATION, SEE FLOOR PLANS.
5. DRAIN VALVE.

1 INSPECTORS TEST CONNECTION

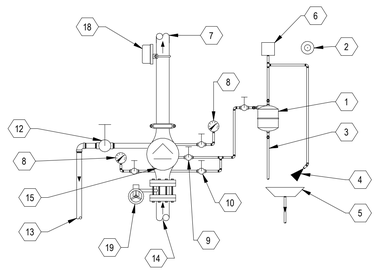
SCALE: NOT TO SCALE



1. MAIN LINE
2. INDICATING TYPE FLOOR CONTROL VALVE WITH SUPERVISORY SWITCH
3. PRESSURE GAUGE
4. FLOW SWITCH

2 FLOOR CONTROL ASSEMBLY

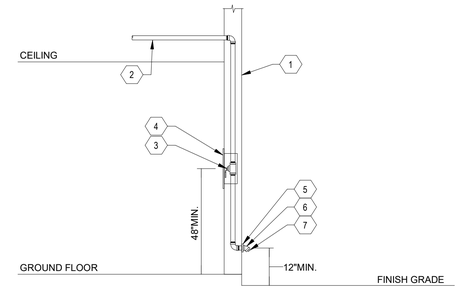
SCALE: NOT TO SCALE



1. RETARDING CHAMBER
2. ELECTRIC ALARM LOCATED 8'-0" AFG & ADJACENT TO SIAMESE FIRE DEPARTMENT INLET CONNECTION
3. AUTOMATIC DRIP
4. RESTRICTED VENT
5. DRIP CUP W/DRAIN LINE TO EXTERIOR DISCHARGE
6. ALARM SWITCH
7. TO SPRINKLER SYSTEM
8. WATER PRESSURE GAUGE
9. ALARM SHUT-OFF VALVE & CHECK VALVE (NORMALLY OPEN)
10. ALARM TEST VALVE (NORMALLY CLOSED)
11. NOT USED.
12. FULL SIZED MAIN DRAIN VALVE
13. TO EXTERIOR DISCHARGE
14. FROM FIRE PROTECTION MAIN SUPPLY LINE
15. ALARM CHECK VALVE
16. NOT USED.
17. NOT USED.
18. FLOW SWITCH
19. INDICATING BUTTERFLY VALVE

4 SPRINKLER ALARM VALVE

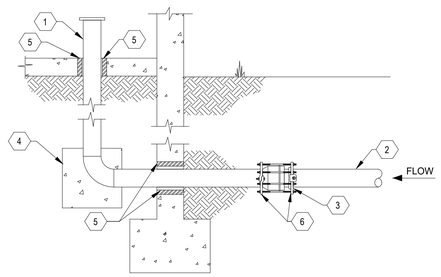
SCALE: NOT TO SCALE



1. EXTERIOR WALL
2. 1" SUPPLY FROM SPRINKLER SYSTEM ZONE
3. 1" TEST & DRAIN VALVE WITH SIGNAGE (NORMALLY CLOSED) ON WARM SIDE OF INSULATION
4. 14"X14" LOCKING ACCESS DOOR WITH "INSPECTORS TEST VALVE" SIGNAGE
5. 1" GALVANIZED WALL PLATE
6. 1" GALVANIZED 45 DEGREE ELBOW
7. SMOOTH BORE CORROSION RESISTANT OUTLET WITH FLOW EQUAL TO ONE SPRINKLER WITH SMALLEST ORIFICE

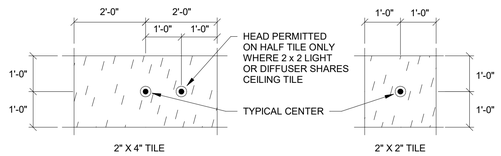
5 INSPECTORS TEST DRAIN

SCALE: NOT TO SCALE



1. AMES IN-BUILDING RISER. STAINLESS STEEL TYPE 304. SEE PLANS FOR SIZE AND SERVICE
2. DUCTILE, CAST-IRON, OR PVC WATER SERVICE.
3. MECHANICAL JOINT FROM SUPPLY PIPE TO STAINLESS STEEL, CONTINUE INTO BUILDING WITH STAINLESS STEEL.
4. CONCRETE THRUST BLOCK SIZED IN ACCORDANCE WITH UBC IF REQUIRED BY AHJ
5. PIPE SLEEVE, SEE SPECIFICATIONS
6. MEGALUG PIPE RESTRAINT HARNESS

NOTE:
ON CEILING TILES THAT ARE LESS THAN FULL HEAD SHALL BE CENTERED IN ALL DIRECTIONS

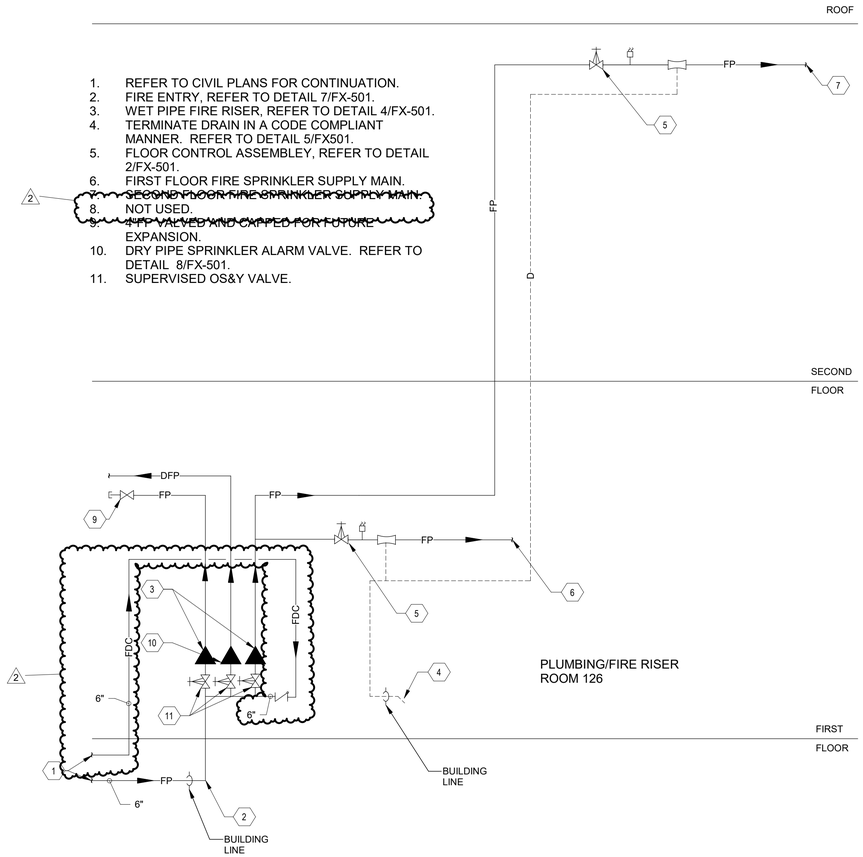


6 FIRE SPRINKLER CEILING TILE DETAIL

SCALE: NOT TO SCALE

7 WATER ENTRY THRU FOOTING DETAIL

SCALE: NOT TO SCALE

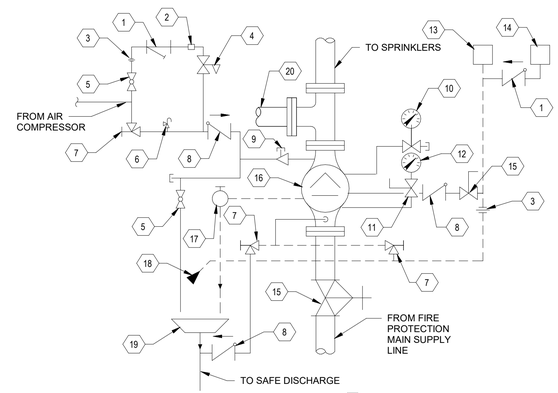


1. REFER TO CIVIL PLANS FOR CONTINUATION.
2. FIRE ENTRY, REFER TO DETAIL 7/FX-501.
3. WET PIPE FIRE RISER, REFER TO DETAIL 4/FX-501.
4. TERMINATE DRAIN IN A CODE COMPLIANT MANNER. REFER TO DETAIL 5/FX501.
5. FLOOR CONTROL ASSEMBLEY, REFER TO DETAIL 2/FX-501.
6. FIRST FLOOR FIRE SPRINKLER SUPPLY MAIN.
7. ~~SECOND FLOOR FIRE SPRINKLER SUPPLY MAIN.~~
8. NOT USED.
9. ~~4"FP VALVED AND CAPPED FOR FUTURE~~ EXPANSION.
10. DRY PIPE SPRINKLER ALARM VALVE. REFER TO DETAIL 8/FX-501.
11. SUPERVISED OS&Y VALVE.

PLUMBING/FIRE RISER
ROOM 126

3 FIRE PROTECTION SCHEMATIC

SCALE: NOT TO SCALE



1. STRAINER.
2. RESTRICTION.
3. UNION.
4. PRESSURE REGULATOR.
5. GLOBE VALVE.
6. PRESSURE RELIEF VALVE.
7. ANGLE VALVE.
8. CHECK VALVE.
9. REDUCING TEE WITH PLUG.
10. AIR PRESSURE GAUGE.
11. THREE WAY VALVE.
12. WATER PRESSURE GAUGE.
13. PRESSURE SWITCH.
14. WATER MOTOR ALARM.
15. O S & Y VALVE.
16. ALARM CHECK VALVE.
17. DRIP CHECK.
18. RESTRICTED ELBOW.
19. DRAIN CUP.
20. FROM SIAMESE INLET.

8 DRY SPRINKLER ALARM VALVE DETAIL

SCALE: NOT TO SCALE

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LAVALAND ELEMENTARY SCHOOL
Phase 1
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MARK	DATE	DESCRIPTION
2	05/28/20	Addendum 2

B_AD PROJECT #	2000.01
FILE:	LAVALAND_100CD.RVT
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CHECKED BY:	IM

FIRE PROTECTION DETAILS

FX-501

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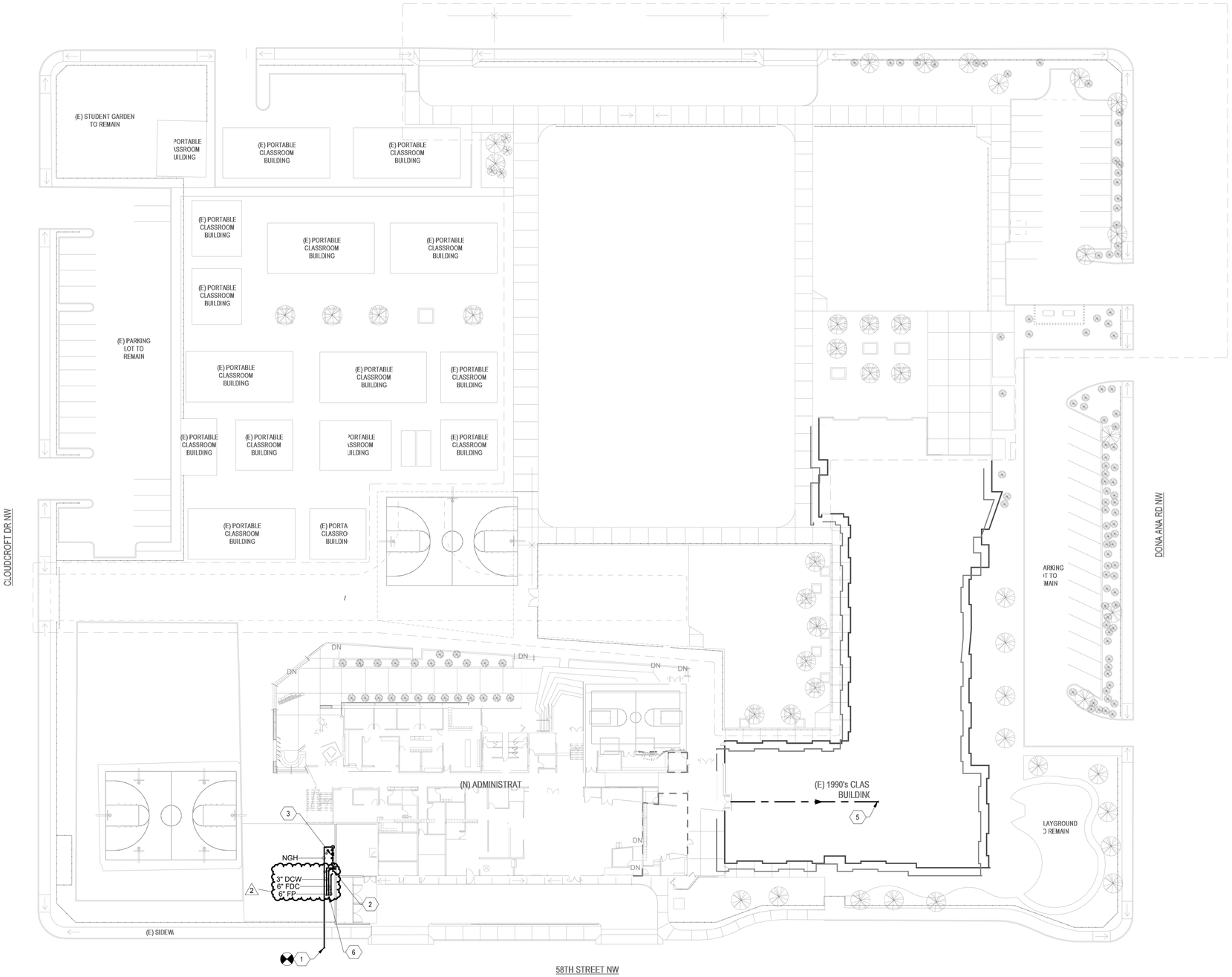

A1 PLUMBING SITE PLAN

SCALE: 1" = 30'-0"

0' 15' 30' 60'

GENERAL NOTES

A. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND TO ASSURE PROPER DEPTHS ARE ACHIEVED AS WELL AS COORDINATING WITH THE CITY UTILITY DEPARTMENT AS TO LOCATION AND SCHEDULING OF TIE-INS / CONNECTIONS PRIOR TO CONNECTING TO EXISTING UTILITIES.
B. MINIMUM TRENCH WIDTH SHALL BE 2 FEET.
C. LINES UNDERGROUND SHALL BE INSTALLED, INSPECTED AND APPROVED PRIOR TO BACKFILLING.
D. DRAWINGS MAY NOT SHOW ALL EXISTING UTILITIES.
E. EXISTING UTILITIES SHALL BE VERIFIED IN FIELD PRIOR TO INSTALLATION OF ANY NEW LINES.
F. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH THE SPECIFICATIONS OF THE LOCAL AUTHORITIES WITH REGARDS TO MATERIALS AND INSTALLATION OF THE WATER AND SEWER LINES.
G. CONTRACTOR SHALL REFER TO ARCHITECTURAL & PLUMBING PLANS AND SPECIFICATIONS FOR ACTUAL LOCATION OF ALL UTILITY ENTRANCES TO INCLUDE: SANITARY SEWER LATERALS, DOMESTIC AND FIRE PROTECTION WATER SERVICE, AND GAS SERVICE BEFORE COMMENCING ANY UTILITY WORK.
H. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF EXISTING SLOPED PAVING, RAMPS, SIDEWALKS AND BUILDING ENTRANCE LOCATIONS WITH LOCATION AND SIZE OF DOWNSPOUTS.
I. ALL SANITARY SEWER AND WATER LINES SHALL COMPLY WITH THE REQUIREMENTS AS SPECIFIED IN THE SITE WORK SPECIFICATIONS.
J. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS OF THE SITE.

KEYNOTES

1. COORDINATE WITH NEW MEXICO GAS COMPANY FOR NEW TO EXISTING CONNECTION ON 58TH ST.
2. 3" NATURAL GAS AT 2 PSI CAPPED FOR FUTURE EXPANSION.
3. METER / REGULATOR SIZED TO ACCOMODATE SITE LOAD CONSOLIDATION OF 6814 CFH AT 2 PSI.
4. NOT USED.
5. 3" DCW SIZED TO ACCOMODATE UTILITY METER CONSOLIDATION. CONNECT TO EXISITNG DCW PIPING IN THE MECHANICAL ROOM IN THE EXISTING BUILDING, INCLUDING EXISTING DWH, TO FACILITATE BACKFEED OF DOMESTIC WATER SYSTEM. CONFIRM FUNCTIONALITY OF EXISTING FIXTURES.
6. REFER TO CIVIL SITE UTILITY PLANS FOR CONTINUATION.

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LAVALAND ELEMENTARY SCHOOL Phase 1 Campus Reconstruction

OWNER:

ALBUQUERQUE PUBLIC SCHOOLS
915 OAK STREET SE
ALBUQUERQUE, NM 87106

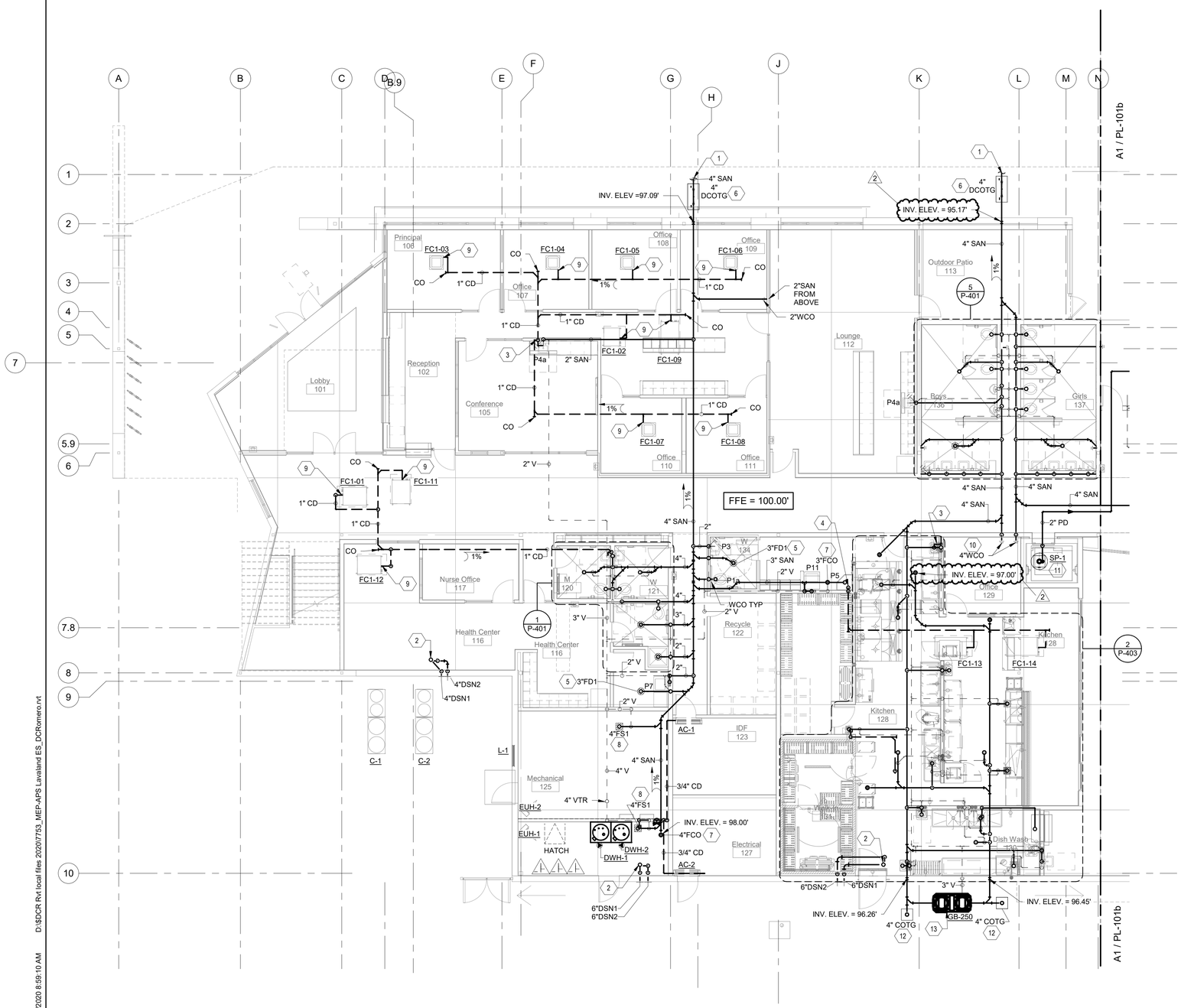
MARK	DATE	DESCRIPTION
2	05/28/20	Addendum 2

B_AD PROJECT #	2000.01
FILE:	LAVALAND_100CD.RVT
DATE:	05/01/2020
DRAWN BY:	JAW
CHECKED BY:	IM

PLUMBING SITE PLAN

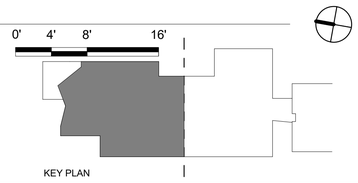
PS-101

Bridgers & Paxton Project No: 7753 5/26/2020 9:36:18 AM D:\$DCR Rvt local files 20207753_MEP-APS Lavaland ES_DCRomero.rvt



A1 WASTE & VENT FIRST FLOOR PLAN - NORTH END

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



GENERAL NOTES

A. REFER TO ARCHITECTURAL FLOOR PLANS FOR EXACT LOCATION AND HEIGHTS OF ALL PLUMBING FIXTURES BEFORE ROUGH-IN OR INSTALLATION OF PIPE. PLUMBING FIXTURES SHALL BE MOUNTED AT HEIGHTS SHOWN ON ARCHITECTURAL ELEVATION DRAWINGS.
B. ALL PIPING IN FINISHED ROOMS SHALL BE CONCEALED IN FURRED CHASES UNLESS OTHERWISE NOTED ON THIS DRAWING.
C. PROVIDE HINGED ACCESS DOORS FOR VALVES, WATER HAMMER ARRESTERS, ISOLATION BALL VALVES LOCATED IN NONACCESSIBLE CEILINGS AND CHASES. DOORS FURNISHED PER ARCHITECTURAL SPECIFICATIONS AND PURCHASED AND INSTALLED PER DIVISION 22. ACCESS DOOR RATING SHALL MATCH THE CLASSIFICATION OF WALLS AND CEILING FIRE RATING. COORDINATE COLOR AND TYPE OF ACCESS DOOR WITH ARCHITECTURAL PRIOR TO PERFORMING WORK.
D. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF ALL FIRE RATED AND OR SMOKE RATED WALLS AND ASSEMBLIES. PIPING PENETRATIONS OF FIRE AND SMOKE RATED WALLS AND LISTED ASSEMBLIES SHALL BE CAULKED AIRTIGHT TO THE ADJACENT STRUCTURE BY MEANS OF U.L. LISTED FIRE PROOF CAULKING MATERIAL.
E. COORDINATE ALL PLUMBING PIPING WITH ALL OTHER TRADES AND PROVIDE NECESSARY OFFSETS TO AVOID CONFLICTS AND TO MAINTAIN REQUIRED EQUIPMENT ACCESS AND SERVICEABILITY.
F. PIPING LOCATIONS HAVE BEEN SHOWN FOR CLARITY AND DO NOT NECESSARILY REFLECT THE EXACT LOCATION OF PIPE. COORDINATE ROUTING WITH ALL OTHER TRADES BEFORE INSTALLATION OR MAKEUP OF PIPE. PROVIDE COORDINATION DRAWINGS PER SPECIFICATIONS.
G. REFER TO DRAWING P-701 FOR PLUMBING ROUGH IN REQUIREMENTS.
H. ALL PLUMBING FIXTURES SHALL HAVE WALL CLEANOUTS.
I. ALL P-TRAPS TO FLOOR SINKS AND FLOOR DRAINS SHALL BE SUPPLIED WITH A TRAP SEAL GUARD.
J. ALL SANITARY PIPE IN KITCHEN TO BE CAST IRON. PROVIDE SANITARY PIPE DOWNSTREAM OF THE GREASE INTERCEPTOR PER SPECIFICATIONS.
K. ROUTE ALL WASTE PIPING AT A 1% SLOPE UNLESS OTHERWISE INDICATED.

KEYNOTES

1. FOR CONTINUATION REFER TO CIVIL DRAWINGS.
2. ROOF DRAIN AND OVERFLOW ROOF DRAIN DOWN FROM ABOVE.
3. DISCHARGE CONDENSATE DRAIN INTO P-TRAP OF SINK. REFER TO DETAIL 1/502.
4. INDIRECTLY DISCHARGE CONDENSATE DRAIN INTO JANITOR'S SINK 2 PIPE DIAMETERS ABOVE THE SINK RIM.
5. INSTALL FLOOR DRAIN IN ACCORDANCE WITH DETAIL 2/P-501.
6. INSTALL DOUBLE CLEANOUT TO GRADE IN ACCORDANCE WITH DETAIL 4/P-501.
7. INSTALL FLOOR CLEANOUT IN ACCORDANCE WITH DETAIL 5/P-503.
8. INSTALL FLOOR SINK IN ACCORANCE WITH DETAIL 3/P-503.
9. INSTALL FAN COIL UNIT DRAIN IN ACCORDANCE WITH DETAIL 1/P-503.
10. INSTALL WALL CLEANOUT IN ACCORDANCE WITH DETAIL 2/P-502.
11. INSTALL ELEVATOR SUMP PUMP IN ACCORDANCE WITH DETAIL 2/P-502.
12. INSTALL CLEANOUT TO GRADE IN ACCORDANCE WITH DETAIL 5/P-501.
13. INSTALL GREASE INTERCEPTOR IN ACCORDANCE WITH WITH DETAIL 4/P-502.

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Phase 1 Campus Reconstruction

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MARK	DATE	DESCRIPTION
2	05/28/20	Addendum 2

B_AD PROJECT # 2000.01
FILE: LAVALAND_100CD.RVT
DATE: 05/01/2020
DRAWN BY: JAW
CHECKED BY: IM

WASTE & VENT FIRST FLOOR PLAN - NORTH END

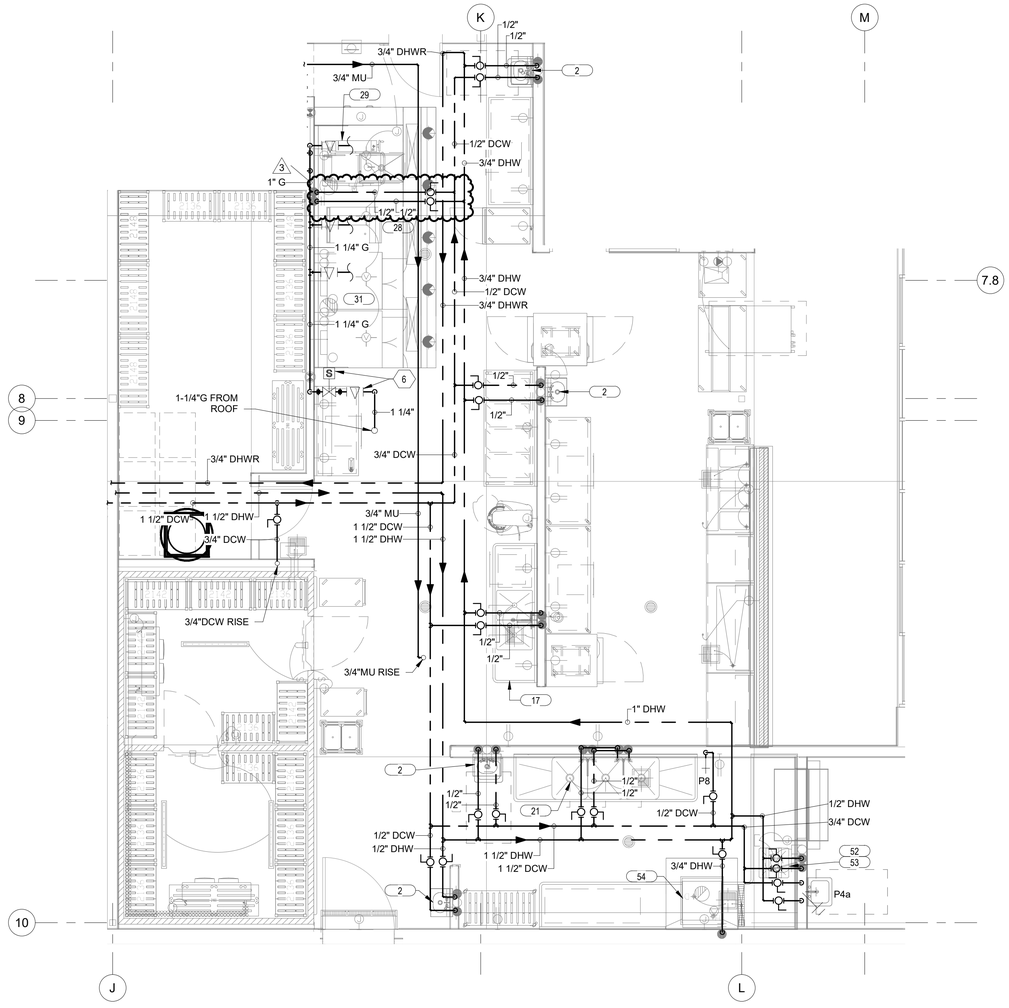
PL-101a

Bridgers & Paxton Project No. 7753 5/26/2020 8:59:10 AM D:\$DCR Rvt local files 20200753_MEP-APS Lavaland ES_DCRomero.rvt

KITCHEN FIXTURE SCHEDULE

ALL SELECTIONS ARE BASED ON 5312 FT. ABOVE SEA LEVEL.

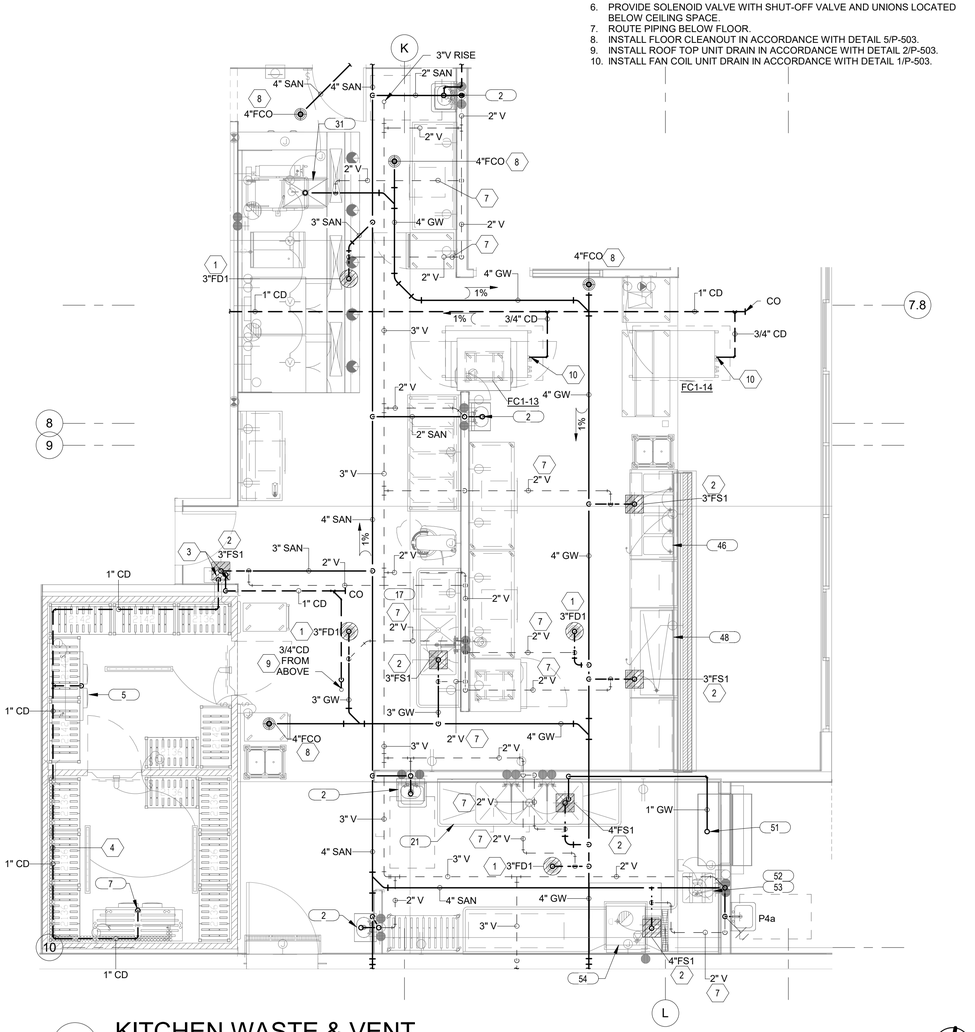
#	DESCRIPTION	INDIRECT WASTE	ROUGH-IN WASTE	ROUGH-IN CW	ROUGH-IN HW	TRAP	VENT	GAS	GAS INPUT MBTU/HR	REMARKS
2	HAND SINK	-	2"	1/2"	1/2"	1-1/4"X1-1/2"	2"	-	-	PROVIDE SUPPORT IN WALL. 1.5GPM FLOW RATE
5	COIL, COOLER	1"	-	-	-	-	-	-	-	
7	COIL,FREEZER	1"	-	-	-	-	-	-	-	DRAIN LINE WRAPPED WITH HEATER WIRE
17	SINK, PREP	2"	-	1/2"	1/2"	-	-	-	-	
21	SINK, THREE COMPARTMENT	2"	-	(2) 3/4"	(2) 3/4"	1-1/4"X1-1/2"	2"	-	-	ROUTE WASTE THROUGH GREASE INTERCEPTOR
28	RANGE, HOT TOP	-	-	-	-	-	-	-	64	1" N.P.T. NATURAL GAS
29	TILTING SKILLET, 15 GALLON	-	-	1/2"	1/2"	-	-	1/2"	65	1/2" N.P.T. NATURAL GAS
31	FLOOR TROUGH WITH GRATE	-	3"	-	-	-	-	-	-	ROUTE WASTE THROUGH GREASE INTERCEPTOR
32	OVEN, CONVECTION, DOUBLE	-	-	-	-	-	-	-	90	3/4" N.P.T. NATURAL GAS
46	COUNTER, HOT FOOD W / SNEEZEGUARD & WORK SHELF	1/2"	3"	-		-	-	-	-	
48	COUNTER, COLD FOOD W / SNEEZEGUARD	1"	-	-	-	-	-	-	-	
51	DISHTABLE, SOILED	1"	-	-	-	-	-	-	-	
52	DISPOSER, 2HP	-	2"	1/2"	-	-	-	-	-	
53	PRE-RINSE	-	-	1/2"	1/2"	-	-	-	-	
54	DISHMACHINE, TALL W / BOOSTER HEATER	2"	-	110 F	3/4"	-	-	-	-	47 GPH, VENT FAN CONTROL



1 KITCHEN PRESSURE PIPING

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

0' 2' 4' 8'



2 KITCHEN WASTE & VENT

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

0' 2' 4' 8'

GENERAL NOTES

A. REFER TO ARCHITECTURAL FLOOR PLANS FOR EXACT LOCATION AND HEIGHTS OF ALL PLUMBING FIXTURES BEFORE ROUGH-IN OR INSTALLATION OF PIPE. PLUMBING FIXTURES SHALL BE MOUNTED AT HEIGHTS SHOWN ON ARCHITECTURAL ELEVATION DRAWINGS.
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J. ALL SANITARY PIPE IN KITCHEN TO BE CAST IRON. PROVIDE SANITARY PIPE DOWNSTREAM OF THE GREASE INTERCEPTOR PER SPECIFICATIONS.
K. ROUTE VENTS BELOW SLAB TO SERVE FLOOR SINKS AND FLOOR DRAINS.
L. GWV = GREASE WASTE VENT. KEEP SEPARATE FROM ORIDNARY WASTE VENT.

KEYNOTES

1. INSTALL FLOOR DRAIN IN ACCORDANCE WITH DETAIL 2/P-501.
2. INSTALL FLOOR SINK IN ACCORDANCE WITH DETAIL 3/P-503.
3. CONDENSATE DRAIN INDIRECT DISCHARGE INTO FLOOR SINK 2 PIPE DIAMETERS ABOVE THE FLOOD RIM.
4. WRAP CONDENSATE DRAIN FROM FREEZER IN HEAT TRACE. 120V, 3 WATTS PER FOOT. COORDINATE WITH ELECTRICAL.
5. DOMESTIC COLD WATER UP TO MAKE-UP AIR UNIT.
6. PROVIDE SOLENOID VALVE WITH SHUT-OFF VALVE AND UNIONS LOCATED BELOW CEILING SPACE.
7. ROUTE PIPING BELOW FLOOR.
8. INSTALL FLOOR CLEANOUT IN ACCORDANCE WITH DETAIL 5/P-503.
9. INSTALL ROOF TOP UNIT DRAIN IN ACCORDANCE WITH DETAIL 2/P-503.
10. INSTALL FAN COIL UNIT DRAIN IN ACCORDANCE WITH DETAIL 1/P-503.

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LAVALAND ELEMENTARY SCHOOL
Phase 1
Campus Reconstruction

OWNER:

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915 OAK STREET SE
ALBUQUERQUE, NM 87106

MARK	DATE	DESCRIPTION
3	06/04/20	Addendum 3

B_AD PROJECT #	2000.01
FILE:	LAVALAND_100CD.RVT
DATE:	05/01/2020
DRAWN BY:	JAW
CHECKED BY:	IM

ENLARGED PLUMBING PLANS

P-403

Bridgers & Paxton Project No: 7753 6/1/2020 10:59:08 AM D:\BDCR Rvt local files 2020\7753_MEP-APS Lavaland ES_DCRomero.rvt

Branch Panel: K

Location: Kitchen 128
Supply From: TXK
Mounting: Recessed
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4
Spaces: 84

A.I.C. Rating: 14,000
Mains Type:
Mains Rating: 400 A

Notes:

CKT	Circuit Description	Notes	Trip	Poles	A	B	C	Poles	Trip	Notes	Circuit Description	CKT
1	KIT Room 128, 134, 129		20 A	1	720 VA 600 VA			1	20 A		KIT Tilting Skillet 37 Gallon, Kitchen 128	2
3	KIT Room 129, 128, 133		20 A	1		540 VA 0 VA		--	--		Shunt Trip	4
5	KIT Room 130, 132, 128		20 A	1			900 VA 960 VA	1	20 A		KIT Oven Convection Double, Kitchen 128	6
7	KIT Washer, Janitor 133		20 A	1	600 VA 0 VA			--	--		Shunt Trip	8
9	KIT Dryer, Janitor 133	1	30 A	2		2200 VA 960 VA		1	20 A		KIT Oven Convection Double, Kitchen 128	10
11	--		--	--			2200 VA 0 VA	--	--		Shunt Trip	12
13	KIT Air Screen 48", Kitchen 128	1	20 A	1	900 VA 960 VA			1	20 A		KIT Oven Convection Double, Kitchen 128	14
15	KIT Walk-in Cooler/Freezer, Room 128, 131	1	20 A	1		1000 VA 0 VA		--	--		Shunt Trip	16
17	KIT Coil Cooler, Walk-In 131	1	20 A	1			240 VA 960 VA	1	20 A		KIT Oven Convection Double, Kitchen 128	18
19	KIT Refrigeration System Cooler		20 A	3	937 VA 0 VA			--	--		Shunt Trip	20
21	--		--	--		937 VA 1440 VA		1	20 A		KIT Cabinet Hot Holding, Kitchen 128	22
23	--		--	--			937 VA 811 VA	2	30 A	1	KIT Cabinet Heated one Section Pass-Thr...	24
25	KIT Coil Freezer, Walk-In 131	1	20 A	3	1237 VA 811 VA			--	--		--	26
27	--		--	--		1237 VA 1152 VA		1	20 A		KIT Refrigerator Roll-in, Kitchen 128	28
29	--		--	--			1237 VA 960 VA	1	20 A		KIT Blender, Kitchen 128	30
31	KIT Mixer 40 Quart, Kitchen 128	1	20 A	2	967 VA 600 VA			1	20 A		KIT POS Register, Kitchen 128	32
33	--		--	--		967 VA 864 VA		1	20 A		KIT Milk Cooler Portable, Kitchen 128	34
35	KIT Hood Exhaust, Kitchen 128		20 A	1			1000 VA 1799 VA	2	30 A	1	KIT Counter Cold Food w/Sneezeguard,...	36
37	KIT Fire Suppression, Kitchen 128		20 A	1	1800 VA 1799 VA			--	--		--	38
39	KIT Dishmachine Tall w/Booster Heater,...	1	60 A	3		5764 VA 720 VA		1	20 A		KIT Counter Cold Food w/Sneezeguard,...	40
41	--		--	--			5764 VA 900 VA	1	20 A		KIT Kitchen 128	42
43	--		--	--	5764 VA 900 VA			1	20 A		KIT Kitchen 128	44
45	KIT Disposer 2 HP, Dish Wash 130	1	20 A	3		793 VA 200 VA		1	20 A	1	KIT Doorbell, Kitchen 128	46
47	--		--	--			793 VA 4000 VA	3	45 A	1	KIT Oven, Retherm, After School 141	48
49	--		--	--	793 VA 4000 VA			--	--		--	50
51	KIT Milk Cooler Portable, After School 141		20 A	1		864 VA 4000 VA		--	--		--	52
53	KIT After School 141		20 A	1			828 VA 0 VA	1	20 A		Spare	54
55	KIT REFRIGERATION SYSTEM, FREEZER		20 A	3	12000... 0 VA			1	20 A		Spare	56
57	--		--	--		12000... 0 VA		1	20 A		Spare	58
59	--		--	--			12000... 0 VA	1	20 A		Spare	60
61	KIT DIGITAL MENU DISPLAY, Kitchen 128	1	20 A	1	500 VA 0 VA			1	20 A		Spare	62
63	KIT HEAT TAPE Walk-In 131	1	20 A	1		360 VA 0 VA		1	20 A		Spare	64
65	Space		--	--			0 VA 0 VA	1	20 A		Spare	66
67	Space		--	--	0 VA 0 VA			1	20 A		Spare	68
69	Space		--	--		0 VA 0 VA		--	--		Space	70
71	Space		--	--			0 VA 0 VA	--	--		Space	72
73	Space		--	--	0 VA 0 VA			--	--		Space	74
75	Space		--	--		0 VA 0 VA		--	--		Space	76
77	Space		--	--			0 VA 0 VA	--	--		Space	78
79	Space		--	--	0 VA 0 VA			--	--		Space	80
81	Space		--	--		0 VA 0 VA		--	--		Space	82
83	Space		--	--			0 VA 0 VA	--	--		Space	84
			Total Load:		35888 VA	35998 VA	36289 VA					
			Total Amps:		299 A	300 A	303 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
NC	38811 VA	100.00%	38811 VA		
KIT	69364 VA	65.00%	45087 VA	**Total Conn. Load:**	108175 VA
				Total Est. Demand:	83898 VA
				Total Conn. Current:	300 A
				Total Est. Demand Current:	233 A

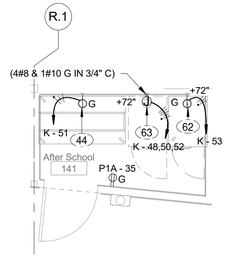
Notes:
PROVIDE CIRCUIT BREAKER WITH GROUND FAULT CIRCUIT INTERRUPTER PROTECTION (GFP)

ELECTRICAL KITCHEN EQUIPMENT SCHEDULE NOTES:

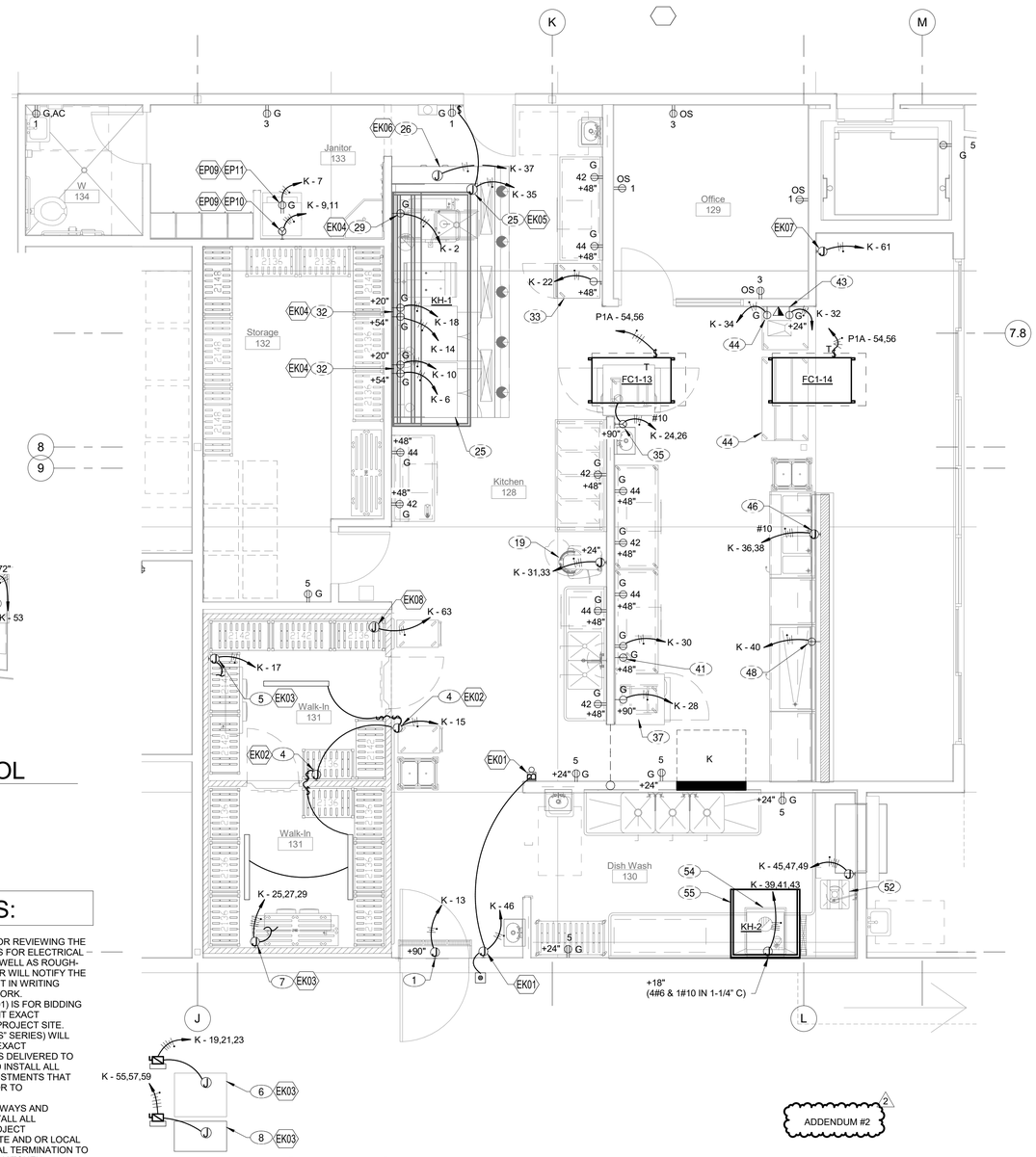
1. UNIT WILL BE HARD-WIRE CONNECTED WITH WATER-TIGHT FLEX CONDUIT. PROVIDE 6'-0" OF FLEX FOR MOVEMENT OF UNITS FOR CLEANING. CIRCUIT BREAKER IN PANEL WILL ACT AS UNIT DISCONNECTING MEANS.
2. UNIT WILL INCORPORATE A PLUG AND CORD. CONTRACTOR WILL MATCH NEMA CONFIGURATION OF RECEPTACLE WITH UNIT PLUG PER "FS" DRAWINGS OR MANUFACTURER'S RECOMMENDATIONS. COORDINATE PRIOR TO ORDERING RECEPTACLE DEVICE.

ELECTRICAL KITCHEN EQUIPMENT SCHEDULE

EQUIPMENT NUMBER	EQUIPMENT DESCRIPTION	VOLTAGE	PHASE	EQUIPMENT LOAD CHARATERISTICS AMPS	BRANCH CIRCUIT CONDUCTOR DESCRIPTION	CONDUIT SIZE	EQUIPMENT TERMINATION REQUIREMENTS	KEYED NOTES
1	AIR SCREEN, 48"	120	1	7.5 A	2#12 & 1#12 GND	3/4"	JUNCTION BOX	1
4	WALK-IN, COOLER/FREEZER	120	1	1.0 KW	2#12 & 1#12 GND	3/4"	JUNCTION BOX	1
5	COIL, COOLER	120	1	2.0 A	2#12 & 1#12 GND	3/4"	JUNCTION BOX	1
6	REFRIGERATION SYSTEM, COOLER	208	3	7.8 A	4#12 & 1#12 GND	3/4"	JUNCTION BOX	1
7	COIL, FREEZER	208	3	10.3 A	2#12 & 1#12 GND	3/4"	JUNCTION BOX	1
8	REFRIGERATION SYSTEM, FREEZER	208	3	10.3 A	4#12 & 1#12 GND	3/4"	JUNCTION BOX	1
19	MIXER, 40 QUART	208	1	9.3 A	2#12 & 1#12 GND	3/4"	JUNCTION BOX	1
25	HOOD, EXHAUST	120	1	1.0 KW	2#12 & 1#12 GND	3/4"	JUNCTION BOX	1
26	FIRE SUPPRESSION SYSTEM	120	1	15.0 A	2#12 & 1#12 GND	3/4"	JUNCTION BOX	1
29	TILTING SKILLET, 37 GALLON	120	1	5.0 A	2#12 & 1#12 GND	3/4"	RECEPTACLE	
32	OVEN, CONVECTION, DOUBLE	(2) 120	1	8.0 A EACH	2#12 & 1#12 GND	3/4"	RECEPTACLE	2
33	CABINET, HOT HOLDING	120	1	12.0 A	2#12 & 1#12 GND	3/4"	RECEPTACLE	2
35	CABINET, HEATER, ONE SECTION, PASS-THRU	120/208	3	7.8 A	4#12 & 1#12GND	3/4"	RECEPTACLE	2
37	REFRIGERATOR, ONE SECTION, ROLL-IN	120	1	9.6 A	2#12 & 1#12 GND	3/4"	RECEPTACLE	2
41	BLENDER	120	1	8.0 A	2#12 & 1#12 GND	3/4"	RECEPTACLE	2
43	POS REGISTER (FURNISHED BT OWNER)	120	1	5.0 A	2#12 & 1#12 GND	3/4"	RECEPTACLE	2
44	MILK COOLER, PORTABLE	120	1	7.2 A	2#12 & 1#12 GND	3/4"	RECEPTACLE	2
46	COUNTER, HOT FOOD W/ SNEEZEGUARD & WORL SHELF	208	1	17.3 A	2#10 & 1#10 GND	3/4"	JUNCTION BOX	1
48	COUNTER, COLD FOOD W/ SNEEZEGUARD	120	1	6.0 A	2#12 & 1#12 GND	3/4"	RECEPTACLE	2
52	DISPOSER, 2 HP	208	3	6.6 A	4#12 & 1#12 GND	3/4"	JUNCTION BOX	1
54	DISHMACHINE, TALL W/BOOSTER HEATER	208	3	48.0 A	4#6 & 1#10 GND	1-1/4"	JUNCTION BOX	1
55	EXHAUST HOOD, CONDENSATE				2#12 & 1#12 GND	3/4"	JUNCTION BOX	1
62	REFRIGERATOR, ONE SECTION	120	1	6.9 A	2#12 & 1#12 GND	3/4"	RECEPTACLE	2
63	OVEN, RETHERM (FURNISHED BY OWNER)	208	3	12 KW	4#8 & 1#10 GND	3/4"	JUNCTION BOX	1



2 ENLARGED AFTER SCHOOL
SCALE: 1/4" = 1'-0"



GENERAL NOTES:

A. CONTACTOR WILL BE RESPONSIBLE FOR REVIEWING THE KITCHEN EQUIPMENT SHOP DRAWINGS FOR ELECTRICAL CHARACTERISTIC DISCREPANCIES AS WELL AS ROUGH-INS, LOCATION AND SIZE. CONTRACTOR WILL NOTIFY THE ARCHITECT AND KITCHEN CONSULTANT IN WRITING PRIOR TO COMMENCEMENT OF ANY WORK.
B. INFORMATION PROVIDED HEREIN (E-401) IS FOR BIDDING PURPOSES AND DOES NOT REPRESENT EXACT INFORMATION AS DELIVERED TO THE PROJECT SITE. KITCHEN EQUIPMENT DOCUMENTS ("FS" SERIES) WILL GOVERN. CONTRACTOR WILL VERIFY EXACT REQUIREMENTS OF ALL EQUIPMENT AS DELIVERED TO PROJECT SITE AND WILL PROVIDE AND INSTALL ALL NECESSARY ATTACHMENTS AND ADJUSTMENTS THAT MAY BE REQUIRED. COORDINATE PRIOR TO COMMENCEMENT OF ANY WORK.
C. CONTRACTOR WILL EXTEND ALL RACEWAYS AND CONDUCTORS AND PROVIDE AND INSTALL ALL ELECTRICAL EQUIPMENT AS BY: 1) PROJECT SPECIFICATION, 2) NEC (NFPA-70): STATE AND OR LOCAL CODES. CONTRACTOR WILL MAKE FINAL TERMINATION TO KITCHEN EQUIPMENT AS DIRECTED BY KITCHEN EQUIPMENT SUPPLIER/INSTALLER AND LEAVE IN OPERABLE AND COMPLETE CONDITION.
D. REFER TO KITCHEN EQUIPMENT SPECIFICATIONS AND "FS" SHEET SERIES FOR ADDITIONAL EQUIPMENT CHARACTERISTICS AND INFORMATION FOR PROPER INSTALLATION OF KITCHEN AND ELECTRICAL EQUIPMENT AND ROUGH-IN.
E. COORDINATE WITH FIRE SUPPRESSION INSTALLER FOR ALL REQUIRED CONNECTIONS. PROVIDE AND INSTALL ALL ELECTRICAL EQUIPMENT, RACEWAY AND CONDUCTORS AS DIRECTED. COORDINATE ALL TERMINATION TO SHUNT TRIP CIRCUIT BREAKERS, FIRE ALARM PANEL AND HOOD PRIOR TO ROUGH-IN. LEAVE SUPPRESSION SYSTEM IN A COMPLETE AND OPERABLE CONDITION.
F. THROUGHOUT KITCHEN, ALL 15 AND 20 AMP, 120 VOLT RECEPTACLES, WHETHER OR NOT THE RECEPTACLE SERVES COUNTERTOP APPLIANCES, WILL BE 1 HP MOTOR RATED GFCI AND INSTALLED PER NEC 2014, ARTICLE 210.8B2. ALL DEVICES WILL BE MOUNTED SO EASY ACCESS TO DEVICE IS POSSIBLE. IF THEY ARE INSTALLED BEHIND LARGE EQUIPMENT, THEN BRANCH CIRCUIT WILL BE PROTECTED USING A GFCI TYPE OVERCURRENT PROTECTIVE DEIVE.
G. CONTRACTOR SHALL PROVIDE STAINLESS STEEL COVER PLATES FOR OUTLETS IN KITCHEN AND SERVING AREA.
H. WHEN EQUIPMENT IS HEAVY POWER USER AND REQUIRES A DIRECT CONNECTION USING FLEX OR WATER TIGHT, CONTRACTOR SHALL (WHEN PULLING WIRE) LEAVE FOUR TO SIX FEET OF EXTRA WIRE TO MAKE FINAL CONNECTION WITHOUT A BREAK.
I. AIR SCREEN REQUIRE WIRING THROUGH A DOOR ACTUATED MICRO SWITCH. LOCATED ON SCREEN DOOR.

1 ENLARGED KITCHEN PLAN
SCALE: 1/4" = 1'-0"

KEYNOTES

EK01 PROVIDE A TURN-KEY DOOR BELL SYSTEM INCLUDING OUTSIDE SWITCH, INDOOR CHIME/BUZZER, AND POWER SUPPLY. CONNECT BRANCH CIRCUIT TO POWER SUPPLY AND WIRE ALL COMPONENTS FOR A COMPLETE AND OPERATIONAL SYSTEM ACCORDING TO MANUFACTURER'S REQUIREMENTS.

EK02 COOLER/FREEZER LIGHTS, HEATER WIRES, ALARMS, PRESSURE RELIEF VENT AND DOORS WILL BE WIRED BY CONTRACTOR IN EACH UNIT. CONTRACTOR WILL EXTEND ELECTRICAL SERVICE AND TERMINATE PER KEC DIRECTION. REFER TO SHEET "FS" SERIES DRAWINGS FOR DIAGRAMS. LUMINAIRES AND SWITCH WILL BE FURNISHED BY KEC (KITCHEN EQUIPMENT CONSULTANT) AND INSTALLED BY CONTRACTOR.

EK03 WALK-IN COOLER AND FREEZER UNITS WILL BE CONNECTED PER KEC (KITCHEN EQUIPMENT CONSULTANT) AND MANUFACTURER'S RECOMMENDATIONS. REFER TO "FS" SERIES DRAWINGS FOR CONNECTION DIAGRAMS AND ADDITIONAL REQUIREMENTS. COORDINATE WITH KEC FOR LOCATION OF ALL EQUIPMENT PRIOR TO COMMENCEMENT OF ANY WORK. CONTRACTOR WILL EXTEND CONDUIT AND CONDUCTORS BETWEEN CONDENSING UNIT AND EVAPORATIVE COOLER AS DIRECTED BY KEC. COORDINATE ALL REQUIRED TERMINATIONS AND REQUIRED ELECTRICAL EQUIPMENT PRIOR TO COMMENCEMENT OF ANY WORK SO AS TO LEAVE UNITS COMPLETE AND OPERABLE.

EK04 THIS PIECE OF EQUIPMENT WILL AUTOMATICALLY SHUT OFF WHEN FIRE SUPPRESSION ACTIVATES. CIRCUIT BREAKER WILL BE SHUNT TRIP TYPE.

EK05 JUNCTION BOX FOR HOOD LIGHTS. MAKE ALL CONNECTIONS TO EXHAUST AND HOOD LUMINAIRES PER MANUFACTURER'S RECOMMENDATIONS. HOOD LUMINAIRES WILL BE PART OF HOOD PACKAGE. LOCATE SWITCH CONTROL PER ARCHITECT'S RECOMMENDATIONS.

EK06 JUNCTION BOX WILL BE FOR FIRE SUPPRESSION CONNECTION TO FIRE ALARM PANEL AND SHUNT TRIP CIRCUIT BREAKERS. KITCHEN EQUIPMENT UNDER HOOD WILL AUTOMATICALLY SHUT DOWN IN THE EVENT OF ANSUL ACTIVATION. ALL ELECTRICAL CIRCUIT BREAKERS WILL BE SHUNT TRIP TYPE AND CONNECTED TO SUPPRESSION AND FIRE ALARM SIGNAL. THE KEC WILL PROVIDE FIRE SUPPRESSION WITH HOOD AND HOOD SHOP DRAWINGS. THIS WILL ALSO INCLUDE DIAGRAMS AND TERMINATION REQUIREMENTS. REFER TO "FS" DRAWINGS. COORDINATE WITH KEC FOR REQUIREMENTS PRIOR TO COMMENCEMENT OF ANY WORK. POWER WILL ALSO SERVE CONTROL PANEL AT ITS FINAL INSTALLED LOCATION. COORDINATE GAS SOLENOID VALVE REQUIREMENTS WITH PLUMBING AND PROVIDE ADEQUATE TERMINATION TO FIRE ALARM SYSTEM.

EK07 DEVICE IS FOR DIGITAL MENU DISPLAY. PROVIDE POWER AND CONNECTIONS PER MANUFACTURER'S RECOMMENDATIONS. COORDINATE LOW VOLTAGE CONNECTIONS WITH DIGITAL SIGNAGE SYSTEM. COORDINATE OUTLET HEIGHT WITH FLAT PANEL MOUNT SYSTEM. PROVIDE STRUCTURAL BACKING.

EK08 DEVICE IS FOR HEAT TAPE SERVING WALK-IN FREEZER. PROVIDE POWER AND CONNECTION PER MANUFACTURE RECOMMENDATIONS. PROVIDE A GFP CIRCUIT BREAKER. REFER TO SHEET SERIES "P" FOR ADDITIONAL INFORMATION.

EP09 TWO UNITS ARE STACKED ONE ON TOP OF THE OTHER.

EP10 ELECTRIC DRYER. MOUNT DEVICE AT 30" A.F.F. PROVIDE 3#10 & 1#10 GND IN 3/4"C AND MATCH NEMA CONFIGURATION OF RECEPTACLE WITH UNIT PLUG.

EP11 LOAD WASHER. MOUNT DEVICE AT 48" A.F.F.

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LAVALAND ELEMENTARY SCHOOL
Phase 1
Campus Reconstruction

OWNER:
ALBUQUERQUE PUBLIC SCHOOLS
915 OAK STREET SE
ALBUQUERQUE, NM 87106

MARK	DATE	DESCRIPTION
2	05/28/20	Addendum 2

B_AD PROJECT # 2000.01
FILE: LAVALAND_100CD.RVT
DATE: 05/01/2020
DRAWN BY: Author
CHECKED BY: Checker

ENLARGED ELECTRICAL PLAN

E-401

Bridgers & Paxton Project No: 7753 5/28/2020 5:17:13 PM D:\Revit 2020\Projects\7753_MEP-APS Lavaland ES_SAJuarez@bpce.com.rvt

LUMINAIRE SCHEDULE NOTES:

1. MANUFACTURERS CATALOG NUMBERS REPRESENT MANUFACTURER SERIES. SHOP DRAWING SUBMITTALS WILL INCLUDE ALL PART NUMBERS REPRESENTING ALL ITEMS OF THIS LUMINAIRE SCHEDULE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ORDER LUMINAIRES TO INCLUDE ALL PARTS INDICATED ON SCHEDULE FOR EACH LUMINAIRE. SUBMITTAL WILL CALL OUT EACH PART CLEARLY.
2. LUMINAIRE REQUIRES MOUNTING COORDINATION WITH ARCHITECT PRIOR TO COMMENCEMENT OF ANY WORK. THIS LUMINAIRE MAY REQUIRE A HIGHER OR LOWER MOUTING FROM THAT PROVIDED ON THIS SCHEDULE OR NOTES ON PLAN DUE TO ARCHITECTURAL REQUIREMENTS OR CONSTRUCTION CONDITIONS.
3. ALL LUMINAIRE SHALL BE ENERGY STAR CERTIFIED OR DESIGNLIGHTS CONSORTIUM (DLC) CERTIFIED.

ELECTRICAL LUMINAIRE SCHEDULE PART 1

TYPE	DESCRIPTION	VOLTS	MOUNTING	LAMPS	BALLAST TYPE	EM. BAT. PK.	APPARENT LOAD	LENS	MANUFACTURER/MODEL
A1	EXTRUDED ALUMINUM 4" WIDE x 4'-0 LINEAR STATIC WHITE LED LUMINAIRE. PARTIALLY DIFFUSE LENS, WET RATED. INDIRECT / DIRECT ASYMMETRIC. COORDINATE FINISH COLOR WITH ARCHITECT AT SUBMITTAL OF LUMINAIRES.	277 0R 120 MULTI TAP (UNV.)	WALL SURFACE 14'-0" A.F.F. OR AS DIRECTED BY ARCHITECT	LED 4000K 6840 LUMENS 82 CRI (MIN)	0-10V DIMMABLE LED DRIVER	NONE	56 VA	WHITE ACRYLIC	PMC #P9060-DI-W-3500K-075-096-4-WOA-ASYM-FINISH-UNV
A2	EXTRUDED ALUMINUM 4" WIDE x 4'-0 LINEAR STATIC WHITE LED LUMINAIRE. PARTIALLY DIFFUSE LENS, WET RATED. INDIRECT / DIRECT SYMMETRIC. COORDINATE FINISH COLOR WITH ARCHITECT AT SUBMITTAL OF LUMINAIRES.	277 0R 120 MULTI TAP (UNV.)	WALL SURFACE 14'-0" A.F.F. OR AS DIRECTED BY ARCHITECT	LED 4000K 3784 LUMENS 82 CRI (MIN)	0-10V DIMMABLE LED DRIVER	NONE	39 VA	WHITE ACRYLIC	PMC #P9060-DI-W-3500K-064-064-4-WOA-FINISH-UNV
A2R	2' x 2' ARCHITECTURAL LED HIGH ENERGY EFFICIENT LUMINAIRE. WIDE DISTRIBUTION, RECESSED, LOW PROFILE.	277 0R 120 MULTI TAP (UNV.)	COORDINATE MOUNTING HARDWARE WITH CEILING TYPE	LED 4000K 4000 LUMENS 82 CRI (MIN)	0-10V DIMMABLE LED DRIVER	NONE	25 VA	WHITE ACRYLIC	METALUX #22CZ2-44HE-UNV-L835-CD1
A3	EXTRUDED ALUMINUM 4" WIDE x 4'-0 LINEAR STATIC WHITE LED LUMINAIRE. PARTIALLY DIFFUSE LENS, WET RATED. INDIRECT / DIRECT SYMMETRIC. COORDINATE FINISH COLOR WITH ARCHITECT AT SUBMITTAL OF LUMINAIRES.	277 0R 120 MULTI TAP (UNV.)	WALL SURFACE 14'-0" A.F.F. OR AS DIRECTED BY ARCHITECT	LED 4000K 7568 LUMENS 82 CRI (MIN)	0-10V DIMMABLE LED DRIVER	NONE	64 VA	WHITE ACRYLIC	PMC #P9060-DI-W-3500K-096-096-4-WOA-FINISH-UNV
A5	EXTRUDED ALUMINUM 4" WIDE x 4'-0 LINEAR STATIC WHITE LED LUMINAIRE. PARTIALLY DIFFUSE LENS, WET RATED. DOWN ONLY SYMMETRIC. COORDINATE FINISH COLOR WITH ARCHITECT AT SUBMITTAL OF LUMINAIRES.	277 0R 120 MULTI TAP (UNV.)	WALL SURFACE 14'-0" A.F.F. OR AS DIRECTED BY ARCHITECT	LED 4000K 3319 LUMENS 82 CRI (MIN)	0-10V DIMMABLE LED DRIVER	NONE	20 VA	WHITE ACRYLIC	PMC #ES44-D-W-35K-080-4'-D-FINISH-UNV
AK2	2' x 2' KITCHEN / FOOD-PREP LED LUMINAIRE. HIGH ENERGY EFFICIENCY, LOW-PROFILE, COLD ROLLED STEEL HOUSING. BAKED MATTE WHITE ENAMEL FINISH. VANDAL RESISTANT NSF-RATED	277 OR 120 MULTI-TAP (UNV.)	CEILING RECESSED (LAY-IN GRID)	LED 4000K 4300 LUMEN 82 CRI (MIN.)	0-10V DIMMABLE LED DRIVER	NONE	42 VA	INVERTED ACRYLIC PRISM	FAIL SAFE #ENW
B	4' GENERAL PURPOSE LED STRIP FIXTURE, DIE FORMED STEEL HOUSING, BAKED WHITE ENAMEL FINISH, WITH DIFFUSING LENS.	277 0R 120 MULTI TAP (UNV.)	WALL MOUNTED AT 8'-0" AFF OR ROD MOUNT SO BOTTOM OF FIXTURE IS AT 9'-0".	LED 4000K 4800 LUMENS 82 CRI (MIN)	0-10V DIMMABLE LED DRIVER	NONE	38 VA	POLYCARBONATE (HIGH ABUSE)	METALUX #4SNLED-LD5
BTI	2' x 4' HIGH IMPACT LED HIGH ENERGY EFFICIENT MULTI-PURPOSE GYMNASIUM LUMINAIRE. LOW PROFILE WITH WIDE DISTRIBUTION.	277 0R 120 MULTI TAP (UNV.)	SURFACE TO BOTTOM OF JOISTS	LED 4000K 18,323 LUMENS 82 CRI (MIN)	0-10V DIMMABLE LED DRIVER	NONE	137 VA	HIGH IMPACT POLYCARBONATE	METALUX #VHB
C1	EXTRUDED ALUMINUM 2.5" WIDE x 4'-0" RECESSED LINEAR STATIC WHITE LED LUMINAIRE. EXTRA DIFFUSE LENS, DAMP RATED. COORDINATE FINISH COLOR WITH ARCHITECT AT SUBMITTAL OF LUMINAIRES.	277 0R 120 MULTI TAP (UNV.)	RECESSED CEILING	LED 4000K 400 LUMENS PER FOOT 82 CRI (MIN)	0-10V DIMMABLE LED DRIVER	NONE	24 VA	OPAL ACRYLIC	ZUMTOBEL #SLOTLIGHT LED III
C1E	EXTRUDED ALUMINUM 2.5" WIDE x 4'-0" RECESSED LINEAR STATIC WHITE LED LUMINAIRE WITH EMERGENCY BATTERY PACK. EXTRA DIFFUSE LENS, DAMP RATED. COORDINATE FINISH COLOR WITH ARCHITECT AT SUBMITTAL OF LUMINAIRES.	277 0R 120 MULTI TAP (UNV.)	RECESSED CEILING	LED 4000K 400 LUMENS PER FOOT 82 CRI (MIN)	0-10V DIMMABLE LED DRIVER	INTEGRATED BATTERY PACK	24 VA	OPAL ACRYLIC	ZUMTOBEL #SLOTLIGHT LED III / WITH EM BATTERY PACK
C6	6" ROUND ARCHITECTURAL LED DOWN LIGHT. HIGH ENERGY EFFICIENT, WIDE DISTRIBUTION.	277 0R 120 MULTI TAP (UNV.)	RECESSED CEILING	LED 4000K 1400 LUMENS 82 CRI (MIN)	0-10V DIMMABLE LED DRIVER	NONE	15 VA	FROSTED GLASS LENS	HALO #HC6-DO10-HM6-12-835-61WD-H
CSW	15" DIAMETER SURFACE MOUNTED DAMP RATED DOWNLIGHT	277 0R 120 MULTI TAP (UNV.)	SURFACE	LED 4000K 2125 LUMENS 82 CRI (MIN)	0-10V DIMMABLE LED DRIVER	NONE	33 VA	PEARLESCENT POLYCARBONATE	FAILSAFE #TRO15
D1N	4" ROUND ARCHITECTURAL LED DOWN LIGHT. HIGH ENERGY EFFICIENT, WIDE DISTRIBUTION.	277 0R 120 MULTI TAP (UNV.)	RECESSED CEILING	LED 4000K 2781 LUMENS 82 CRI (MIN)	0-10V DIMMABLE LED DRIVER	NONE	45 VA	FROSTED GLASS LENS	HALO #HC4-30-D010-HM4-34-835-61-WD-H
D1S	WALL MOUNTED 4' LONG X 8.25"X 1.75", SQUARE HOUSING, INDIRECT 70/DIRECT 30, LED LUMINAIRE WITH GLASS REFLECTOR, AND COLD-ROLLED STEEL HOUSING. COORDINATE FINISH COLOR WITH ARCHITECT AT SUBMITTAL REVIEW. FLAT ENDS.	277 0R 120 MULTI TAP (UNV.)	WALL MOUNTED AT 8'-0" A.F.F.	LED 4000K 4646 LUMENS 82 CRI (MIN)	0-10V DIMMABLE LED DRIVER	NONE	46 VA	WAVESTREAM LENS	CORELLITE #DWI-WA-2L35-1D-UNV-SUWA-4'-XX
D3N	4" ROUND ARCHITECTURAL LED DOWN LIGHT. HIGH ENERGY EFFICIENT, WIDE DISTRIBUTION.	277 0R 120 MULTI TAP (UNV.)	RECESSED CEILING	LED 4000K 1776 LUMENS 82 CRI (MIN)	0-10V DIMMABLE LED DRIVER	NONE	30 VA	FROSTED GLASS LENS	HALO #HC4-20-DO10-HM4-12-835-61WD-H
E	LED EXIT SIGN, BLACK THERMOPLASTIC HOUSING WITH GREEN CHARACTERS (DIRECTIONAL ARROWS AS INDICATED ON LIGHTING PLANS). MEETS UL LISTINGS FOR THIS TYPE OF LUMINAIRE. WITH SELF-CONTAINED, SELF DIAGNOSING, EMERGENCY BATTERY PACK. MAINTENANCE FREE BATTERY	277 VOLTS	UNIVERSAL MOUNTING TO CEILING OR WALL SURFACE 8'-6" A.F.F. OR AS DIRECTED BY ARCHITECT	LED LAMPS 82 CRI (MIN)	N/A	NICKEL CADMIUM PER MFG.	4 VA	THERMOPLASTIC	ISOLITE #RL
EB	LED SINGLE FACED EXIT SIGN AND EMERGENCY LIGHT COMBO, BLACK THERMOPLASTIC HOUSING WITH GREEN CHARACTERS (DIRECTIONAL ARROWS AS INDICATED ON LIGHTING PLANS). MEETS UL LISTINGS FOR THIS TYPE OF LUMINAIRE. WITH SELF-CONTAINED, SELF DIAGNOSING, EMERGENCY BATTERY PACK. MAINTENANCE FREE BATTERY	277 OR 120 MULTI-TAP (UNV.)	UNIVERSAL MOUNTING TO CEILING OR WALL SURFACE 8'-6" A.F.F. OR AS DIRECTED BY ARCHITECT	LED LAMPS 82 CRI (MIN)	N/A	NICKEL CADMIUM PER MFG.	2 VA	THERMOPLASTIC SINGLE FACE	ISOLITE #RLP
EM	CONTEMPORARY, LOW PROFILE EMERGENCY BATTERY PACK FIXTURE WITH AN INJECTED MOLDED, HIGH IMPACT, UV STABILIZED THERMOPLASTIC HOUSING, 6 V LEAD CALCIUM BATTERY, ADA COMPLIANT, ADJUSTABLE LAMP SOCKETS, SHORT CIRCUIT AND BROWNOUT PROTECTION, SELF DIAGNOSING SYSTEM. MAINTENANCE FREE BATTERY	277 0R 120 MULTI TAP (UNV.)	WALL SURFACE 10'-0" A.F.F. OR AS DIRECTED BY ARCHITECT	(2) TWO 1.5W LED 82 CRI (MIN)	N/A	SEALED MAINTENANCE FREE BATTERY	2 VA	ACRYLIC FRESNAL LENS	SURE-LITES #LEM2SD
F3	ENERGY EFFICIENT, LOW MAINTENCE, LOW PROFILE WALL MOUNTED EXTERIOR LUMINAIRE. HIGH PERFORMANCE LED WITH SILOCONE SEALED OPTICAL CHAMBER AND TEMPERED GLASS LENS.	277 OR 120 MULTI-TAP (UNV)	REFER TO ARCHITECTURAL LOCATIONS FOR LOCATION OR MINIMUM 9'-0"	LED 4000K 2781 LUMEN 82 CRI (MIN)	0-10V DIMMABLE LED DRIVER	NONE	26 VA	TEMPERED GLASS	LUMARK #XTOR3B-W
L3	3' LONG X 4.3" WIDE X 0.72" DEPTH, THIN PROFILE UNDERCABINET, LED LUMINAIRE WITH EXTRUDED ALUMINUM HOUSING AND ELV DIMMING CONTROL. COORDINATE FINISH COLOR WITH ARCHITECT AT SUBMITTAL REVIEW. WHITE FINISH STANDARD. PROVIDE AND MOUNT POWER SUPPLY INTEGRATED IN FIXTURE.	277 0R 120 MULTI TAP (UNV.)	UNDERCABINET SURFACE MOUNTED	LED 4000K 300 LUMENS 82 CRI (MIN)	LED DRIVER ELV DIMMING	NONE	14 VA	WHITE LENS	HALO #HU30-BSC-36-XX

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LAVALAND ELEMENTARY SCHOOL
Phase 1
Campus Reconstruction

OWNER:

ALBUQUERQUE PUBLIC SCHOOLS
915 OAK STREET SE
ALBUQUERQUE, NM 87106

MARK	DATE	DESCRIPTION
2	05/28/20	Addendum 2

B_AD PROJECT #	2000.01
FILE:	LAVALAND_100CD.RVT
DATE:	05/01/2020
DRAWN BY:	SJ/MRB
CHECKED BY:	OU

LUMINAIRE SCHEDULE

E-701

Bridgers & Paxton Project No: 7753 5/28/2020 5:18:14 PM D:\Revit 2020\Projects\7753_MEP-APS Lavaland ES_SAJuarez@bpce.com.rvt

LUMINAIRE SCHEDULE NOTES:

1. MANUFACTURERS CATALOG NUMBERS REPRESENT MANUFACTURER SERIES. SHOP DRAWING SUBMITTALS WILL INCLUDE ALL PART NUMBERS REPRESENTING ALL ITEMS OF THIS LUMINAIRE SCHEDULE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ORDER LUMINAIRES TO INCLUDE ALL PARTS INDICATED ON SCHEDULE FOR EACH LUMINAIRE. SUBMITTAL WILL CALL OUT EACH PART CLEARLY.
2. LUMINAIRE REQUIRES MOUNTING COORDINATION WITH ARCHITECT PRIOR TO COMMENCEMENT OF ANY WORK. THIS LUMINAIRE MAY REQUIRE A HIGHER OR LOWER MOUTING FROM THAT PROVIDED ON THIS SCHEDULE OR NOTES ON PLAN DUE TO ARCHITECTURAL REQUIREMENTS OR CONSTRUCTION CONDITIONS.
3. ALL LUMINAIRE SHALL BE ENERGY STAR CERTIFIED OR DESIGNLIGHTS CONSORTIUM (DLC) CERTIFIED.

ELECTRICAL LUMINAIRE SCHEDULE PART 2

TYPE	DESCRIPTION	VOLTS	MOUNTING	LAMPS	BALLAST TYPE	EM. BAT. PK.	APPARENT LOAD	LENS	MANUFACTURER/MODEL
L3L-R	3' LONG X 3.3" DIA. DIRECT ALUMINUM ROUND TUBE HOUSING LED PENDANT LUMINAIRE WITH 0-10V DIMMING CAPABILITY. SUSPENDED WITH AIRCRAFT CABLE THAT IS FIELD ADJUSTABLE. COLOR TO BE ANODIZED ALUMINUM.	277 OR 120 MULTI-TAP (UNV)	PROVIDE ADJUSTABLE AIR CRAFT CABLE. SEE PLANS FOR MOUNTING HEIGHTS. REFER TO ARCHITECTURAL SECTIONS FOR ADDITIONAL INFORMATION.	LED 4000K 480 LUMENS PER FOOT	0-10V LED DRIVER	NONE	12 VA	WHITE ACRYLIC	NAL #EXL-SPM-D-40K-3-VLO-UNV-D2-SWMF-P5N2-SW-WH-8-NA
L4L	4' LONG X 3"W X 4"D DIRECT ALUMINUM SQUARE HOUSING LED PENDANT LUMINAIRE WITH 0-10V DIMMING CAPABILITY. SUSPENDED WITH AIRCRAFT CABLE THAT IS FIELD ADJUSTABLE. COLOR TO BE ANODIZED ALUMINUM.	277 OR 120 MULTI-TAP (UNV)	PROVIDE ADJUSTABLE AIR CRAFT CABLE. BOTTOM OF LUMINAIRE 9'-6" AFF UNLESS NOTED OTHERWISE. REFER TO ARCHITECTURAL SECTIONS FOR ADDITIONAL INFORMATION.	LED 4000K 775 LUMENS PER FOOT	0-10V LED DRIVER	NONE	28 VA	WHITE ACRYLIC	NEORAY #S123DP
L4L-H	4' LONG X 3"W X 4"D DIRECT ALUMINUM SQUARE HOUSING LED PENDANT LUMINAIRE WITH 0-10V DIMMING CAPABILITY. SUSPENDED WITH AIRCRAFT CABLE THAT IS FIELD ADJUSTABLE. COLOR TO BE ANODIZED ALUMINUM.	277 OR 120 MULTI-TAP (UNV)	PROVIDE ADJUSTABLE AIR CRAFT CABLE. BOTTOM OF LUMINAIRE 9'-6" AFF UNLESS NOTED OTHERWISE. REFER TO ARCHITECTURAL SECTIONS FOR ADDITIONAL INFORMATION.	LED 4000K 1027 LUMENS PER FOOT	0-10V LED DRIVER	NONE	36 VA	WHITE ACRYLIC	NEORAY #S123DP
L4L-R	4' LONG X 3.3" DIA. DIRECT ALUMINUM ROUND TUBE HOUSING LED PENDANT LUMINAIRE WITH 0-10V DIMMING CAPABILITY. SUSPENDED WITH AIRCRAFT CABLE THAT IS FIELD ADJUSTABLE. COLOR TO BE ANODIZED ALUMINUM.	277 OR 120 MULTI-TAP (UNV)	PROVIDE ADJUSTABLE AIR CRAFT CABLE. SEE PLANS FOR MOUNTING HEIGHTS. REFER TO ARCHITECTURAL SECTIONS FOR ADDITIONAL INFORMATION.	LED 4000K 480 LUMENS PER FOOT	0-10V LED DRIVER	NONE	16 VA	WHITE ACRYLIC	NAL #EXL-SPM-D-40K-4-VLO-UNV-D2-SWMF-P5N2-SW-WH-8-NA
L6L-R	6' LONG X 3.3" DIA. DIRECT ALUMINUM ROUND TUBE HOUSING LED PENDANT LUMINAIRE WITH 0-10V DIMMING CAPABILITY. SUSPENDED WITH AIRCRAFT CABLE THAT IS FIELD ADJUSTABLE. COLOR TO BE ANODIZED ALUMINUM.	277 OR 120 MULTI-TAP (UNV)	PROVIDE ADJUSTABLE AIR CRAFT CABLE. SEE PLANS FOR MOUNTING HEIGHTS. REFER TO ARCHITECTURAL SECTIONS FOR ADDITIONAL INFORMATION.	LED 4000K 480 LUMENS PER FOOT	0-10V LED DRIVER	NONE	24 VA	WHITE ACRYLIC	NAL #EXL-SPM-D-40K-6-VLO-UNV-D2-SWMF-P5N2-SW-WH-8-NA
L8L	8' LONG X 3"W X 4"D DIRECT ALUMINUM SQUARE HOUSING LED PENDANT LUMINAIRE WITH 0-10V DIMMING CAPABILITY. SUSPENDED WITH AIRCRAFT CABLE THAT IS FIELD ADJUSTABLE. COLOR TO BE ANODIZED ALUMINUM.	277 OR 120 MULTI-TAP (UNV)	PROVIDE ADJUSTABLE AIR CRAFT CABLE. BOTTOM OF LUMINAIRE 9'-6" AFF UNLESS NOTED OTHERWISE. REFER TO ARCHITECTURAL SECTIONS FOR ADDITIONAL INFORMATION.	LED 4000K 775 LUMENS PER FOOT	0-10V LED DRIVER	NONE	56 VA	WHITE ACRYLIC	NEORAY #S123DP
L8L-R	8' LONG X 3.3" DIA DIRECT ALUMINUM ROUND TUBE HOUSING LED PENDANT LUMINAIRE WITH 0-10V DIMMING CAPABILITY. SUSPENDED WITH AIRCRAFT CABLE THAT IS FIELD ADJUSTABLE. COLOR TO BE ANODIZED ALUMINUM.	277 OR 120 MULTI-TAP (UNV)	PROVIDE ADJUSTABLE AIR CRAFT CABLE. SEE PLANS FOR MOUNTING HEIGHTS. REFER TO ARCHITECTURAL SECTIONS FOR ADDITIONAL INFORMATION.	LED 4000K 480 LUMENS PER FOOT	0-10V LED DRIVER	NONE	32 VA	WHITE ACRYLIC	NAL #EXL-SPM-D-40K-8-VLO-UNV-D2-SWMF-P5N2-SW-WH-8-NA
N3F	EXTRUDED ALUMINUM 3" WIDE x 4'-0" RECESSED LINEAR STATIC WHITE LED LUMINAIRE. EXTRA DIFFUSE LENS, DAMP RATED. COORDINATE FINISH COLOR WITH ARCHITECT AT SUBMITTAL OF LUMINAIRES.	277 0R 120 MULTI TAP (UNV.)	RECESSED GYP. BOARD	LED 4000K 1165 LUMENS PER FOOT	LED DRIVER 0-10V DIMMING	NONE	40 VA	WHITE ACRYLIC	NEORAY #S123DR
T1	ADJUSTABLE BEAM LED TRACK FIXTURE. SLEEK, HIGH PERFORMANCE CYLINDRICAL SHAPE WITH THE DRIVER INTEGRATED INTO THE CYLINDRICAL DESIGN. STANDARD DIMMING (ALLOW FOR SMOOTH ILLUMINATION DOWN TO 10%). FIXTURE TRACK HEAD SHALL ALLOW FOR 360 DEGREE + HORIZONTAL ROTATION ADJUSTMENT AND 90 DEGREE VERTICAL AIMING. INTEGRAL ON/OFF SWITCH AND TRACK POLARITY INDICATOR. MANUAL ADJUSTABLE BEAM SHALL ALLOW FOR OPTION FROM A 13 DEGREE NARROW TO A 80 DEGREE WIDE FLOOD DISTRIBUTION (ADJUST TYPE "T1" LUMINAIRES TO MAX DEGREE WIDE FLOOD DITRIBUTION). PROVIDE 2" DIAMETER TEMPERED GLASS LENSES AND ACCESSORY HOLDER. PROVIDE AMBER, BLUE, CLEAR, GREEN, RED AND LIGHT BLUE EXTRA LENSES FOR EACH FIXTURE. NUMBER OF HEADS PER DRAWINGS. COORDINATE FINISH COLOR WITH ARCHITECT AT SUBMITTAL OF LUMINAIRE.	120	SURFACE MOUNTED TO TRACK (REFER TO SHEET E-604)	LED 4000K 20W PER HEAD	DMX	NONE	24 VA	TEMPERED GLASS	ETC #IRIDEON FPZ
T2	ADJUSTABLE BEAM LED TRACK FIXTURE. SLEEK, HIGH PERFORMANCE CYLINDRICAL SHAPE WITH THE DRIVER INTEGRATED INTO THE CYLINDRICAL DESIGN. STANDARD DIMMING (ALLOW FOR SMOOTH ILLUMINATION DOWN TO 10%). FIXTURE TRACK HEAD SHALL ALLOW FOR 360 DEGREE + HORIZONTAL ROTATION ADJUSTMENT AND 90 DEGREE VERTICAL AIMING. INTEGRAL ON/OFF SWITCH AND TRACK POLARITY INDICATOR. MANUAL ADJUSTABLE BEAM SHALL ALLOW FOR OPTION FROM A 13 DEGREE NARROW TO A 80 DEGREE WIDE FLOOD DISTRIBUTION (ADJUST TYPE "T2" LUMINAIRES TO MIN SPOT-NARROW DITRIBUTION). PROVIDE 2" DIAMETER TEMPERED GLASS LENSES AND ACCESSORY HOLDER. PROVIDE AMBER, BLUE, CLEAR, GREEN, RED AND LIGHT BLUE EXTRA LENSES FOR EACH FIXTURE. NUMBER OF HEADS PER DRAWINGS. COORDINATE FINISH COLOR WITH ARCHITECT AT SUBMITTAL OF LUMINAIRE.	120	SURFACE MOUNTED TO TRACK (REFER TO SHEET E-604)	LED 4000K 20W PER HEAD	DMX	NONE	24 VA	TEMPERED GLASS	ETC #IRIDEON FPZ

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Campus Reconstruction

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MARK	DATE	DESCRIPTION
2	05/28/20	Addendum 2

B_AD PROJECT # 2000.01
FILE: LAVALAND_100CD.RVT
DATE: 05/01/2020
DRAWN BY: SJ/MRB
CHECKED BY: OU

LUMINAIRE SCHEDULE

E-702