Dzilth-Na-O-Dith-Hle
Student Dormitories

PRICING SET

NOVEMBER 10TH, 2020

GENERAL

G-000	COVER SHEET
G-001	BUILDING CODE ANALYSIS
G-010	ACCESSIBILITY GUIDELINES

CIVIL

*FOR CIVIL SEE DZILTH-NA-O-DITH-HLE COMMUNITY SCHOOL + SITE PACKAGE

LANDSCAPE

*FOR LANDSCAPE SEE DZILTH-NA-O-DITH-HLE COMMUNITY SCHOOL + SITE PACKAGE

STRUCTURAL

ISSUED OCTOBER 5, 2020
INCLUDED HERE FOR REFERENCE
(REVISIONS TO DATE ARE CLOUDED)

S-001	GENERAL STRUCTURAL NOTES
S-002	STRUCTURAL QUALITY ASSURANCE INSPECTIONS
S-101	FOUNDATION PLAN
S-111	ROOF FRAMING PLAN
S-301	FOUNDATION SECTIONS
S-305	FRAMING SECTIONS
S-306	FRAMING SECTIONS
S-505	FRAMING DETAILS
S-601	BRACED FRAME ELEVATIONS & DETAILS

ARCHITECTURAL

A-101	FLOOR PLAN
A-111	DIMENSION PLAN
A-120	REFLECTED CEILING PLANS
A-131	ROOF PLAN
A-141	ROOF DETAILS
A-142	ROOF DETAILS
A-143	ROOF DETAILS
A-201	BUILDING ELEVATIONS
A-301	BUILDING SECTIONS
A-302	BUILDING SECTIONS
A-311	WALL SECTIONS
A-312	WALL SECTIONS
A-313	WALL SECTIONS
A-401	ENLARGED PLANS AND ELEVATIONS
A-402	ENLARGED PLANS AND ELEVATIONS
A-403	ENLARGED PLANS AND ELEVATIONS
A-501	PARTITION SCHEDULE
A-601	DOOR-WINDOW SCHEDULE

INTERIORS

ID-101	FINISH LEGEND
ID-102	FLOOR FINISH PLAN

PLUMBING

P-001	PLUMBING LEGEND
PL-101	WASTE & VENT FLOOR PLAN
PL-131	PLUMBING ROOF PLAN
PP-101	PRESSURE PIPING FLOOR PLAN
P-401	ENLARGED PLUMBING PLANS
P-402	ENLARGED PLUMBING PLANS
P-501	PLUMBING DETAILS
P-502	PLUMBING DETAILS
P-701	PLUMBING SCHEDULES
P-702	PLUMBING SCHEDULES

FIRE PROTECTION

FX001	FIRE PROTECTION LEGEND
FX-101	FIRE PROTECTION FLOOR PLAN
FX-131	FIRE PROTECTION ROOF PLAN
FX501	FIRE PROTECTION DETAILS

MECHANICAL

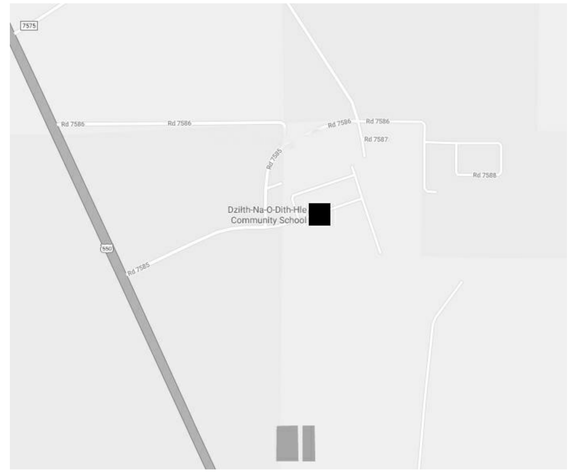
M-001	MECHANICAL LEGEND
MH-101	HVAC FLOOR PLAN
MH-131	MECHANICAL ROOF PLAN
MP-101	MECHANICAL PIPING FLOOR PLAN
M-401	ENLARGED MECHANICAL PLANS
M-402	ENLARGED MECHANICAL PLANS
M-501	MECHANICAL DETAILS
M-502	MECHANICAL DETAILS
M-503	MECHANICAL DETAILS
M-601	MECHANICAL DIAGRAMS
M-602	MECHANICAL DIAGRAMS
MI001	MECHANICAL CONTROLS LEGEND
MI601	MECHANICAL CONTROLS DIAGRAM
MI602	MECHANICAL CONTROLS DIAGRAM
MI603	MECHANICAL CONTROLS DIAGRAM
M-701	MECHANICAL SCHEDULES
M-702	MECHANICAL SCHEDULES

ELECTRICAL

E-001	ELECTRICAL LEGEND
E-002	ADA MOUNTING DETAIL
ES-101	ELECTRICAL SITE PLAN
EL-101	LIGHTING FLOOR PLAN
EP-101	POWER FLOOR PLAN
EP-141	ELECTRICAL ROOF PLAN
EP-101	POWER FLOOR PLAN
LP-141	LIGHTNING PROTECTION ROOF PLAN
FA-101	FIRE ALARM FLOOR PLAN
E-401	ENLARGED PLANS
E-501	ELECTRICAL DETAIL SHEET
E-502	LIGHTNING PROTECTION DETAILS
E-601	ELECTRICAL DIAGRAMS
E-602	GROUNDING DIAGRAM
E-603	ELECTRICAL FIRE RISER DIAGRAM
E-701	ELECTRICAL SCHEDULES
E-702	ELECTRICAL PANEL SCHEDULES

TECHNOLOGY

T-101	TECHNOLOGY PLAN



VICINITY MAP

35 Road 7585 #5003 - Bloomfield, NM 87413

BIM MODEL REQUIREMENTS

BIM MODEL SUBMITTAL & COORDINATION REQUIREMENTS

All requirements noted in individual specification sections for submittal of coordination drawings and shop drawings shall be strictly followed. Item or Equipment fabrications and installations that occur prior to the approval of these drawings shall be subject to removal and replacement at no additional cost to the owner.

In addition to the required drawings noted above, contractor shall prepare BIM (Building Information Model) for the systems noted below. The intent of this BIM model is to determine conflicts and coordinate solutions that will resolve final system installation. The contractor may use the overall BIM model to generate the coordination drawings and vice-versa.

1. HVAC
2. Plumbing
3. Electrical
4. Fire Protection
5. Special Systems
6. Structural

OWNER

Dzilth-Na-O-Dith-Hle Community School
35 Road 7585 #5003
Bloomfield, NM 87413
p_505.960.8563

CONSULTANTS

CIVIL
Bohannon Huston
7500 Jefferson St NE,
Albuquerque, NM 87109
p_505.823.1000

STRUCTURAL
Walla Engineering Ltd
6501 Americas Pkwy NE Ste. 302
Albuquerque, NM 87110
p_505.243.9287

M/E/P/FP
Bridgers and Paxton
4600-C Montgomery Blvd. NE
Albuquerque, New Mexico 87109
p_505.883.4111

INTERIORS
Studio M
6501 Americas Pkwy NE Ste. 301
Albuquerque, NM 87110
p_505.243.9287

SITE
Groundwork Studio
6501 Americas Pkwy NE Ste. 350
Albuquerque, NM 87110
p_505.212.9126

FOOD SERVICE
Standard Kitchen Supply
2405 Candelaria Rd. NE,
Albuquerque, NM 87107
p_505.341.1054

AV & TECHNOLOGY
Network Cabling, INC
3100 La Plata HWY.
Farmington, NM 87401
p_505.598.5054

fbt | architects

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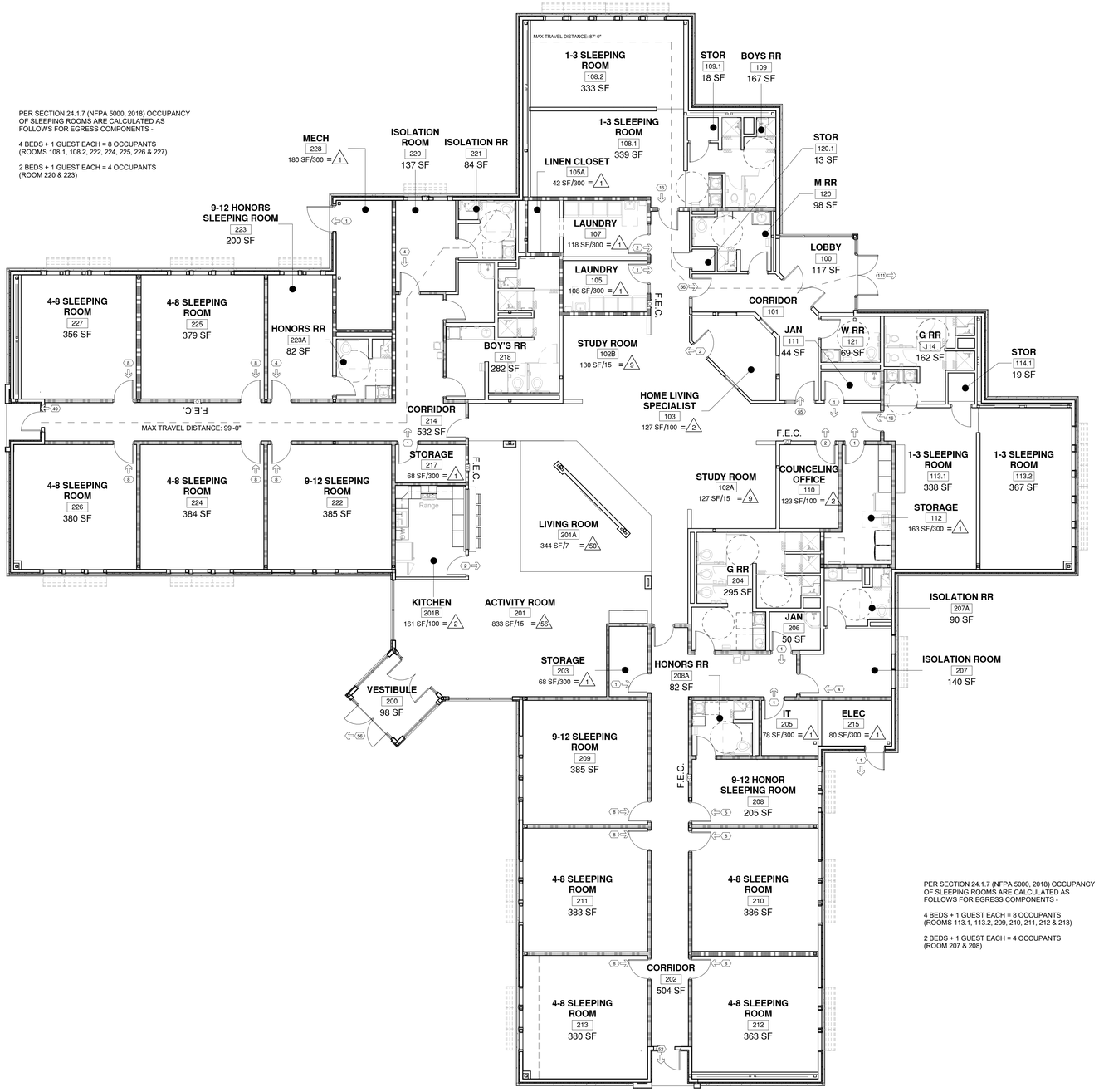
FAX: 505.884.5390
WEB: www.fbtarch.com

ARCHITECT SET NO.



CODE ANALYSIS

REFERENCES

BUILDING / LIFE SAFETY -	NFPA 5000, (CURRENT EDITION).
MECHANICAL -	UNIFORM MECHANICAL CODE (CURRENT EDITION), 2018 Ed.
PLUMBING -	UNIFORM PLUMBING CODE (CURRENT EDITION), 2018 Ed.
ACCESSIBILITY -	AMERICANS WITH DISABILITIES ACT (ADA), 2004 Ed ARCHITECTURAL BARRIERS ACT ACCESSIBILITY GUIDELINES (ABAAG), 2018 Ed.
FIRE PROTECTION -	NATIONAL FIRE PROTECTION ASSOCIATION (NFPA 13), 2018 Ed

ADDRESS

35 ROAD 7585
BLOOMFIELD, NM 87413

OCCUPANCY CLASSIFICATION NFPA 5000 CHAPTER 6 , 2018 Ed

RESIDENTIAL - DORMITORY SECTION 6.1.8.1.4

CONSTRUCTION TYPE NFPA 5000 7.2.3, 2018 Ed

NEW CONSTRUCTION: TYPE II (000), FULLY SPRINKLERED

ALLOWABLE BUILDING HEIGHT AND AREA NFPA 5000 TABLE 7.4.1, 2018 Ed

NUMBER OF STORIES:	ALLOWABLE -	5
	ACTUAL -	1
BUILDING HEIGHT:	ALLOWABLE -	75'-0"
	ACTUAL -	29'-0"
GROSS BUILDING AREA:	ALLOWABLE -	16,000
	ACTUAL -	**13,889**

FIRE RATED CONSTRUCTION NFPA 5000 TABLE 7.2.1.1, 2018 Ed

TYPE II (000) CONSTRUCTION:

EXTERIOR BEARING WALLS -	0	FLOOR/CEILING ASSEMBLIES -	0
INTERIOR BEARING WALLS -	0	ROOF/CEILING ASSEMBLIES -	0
COLUMNS -	0	INTERIOR NON BEARING WALLS -	0
BEAMS, GIRDERS, TRUSSES & ARCHES -	0	EXTERIOR NON BEARING WALLS -	0

**HEAVY TIMBER STRUCTURAL ELEMENTS ARE PERMITTED (7.2.3.2.10)

EXTERIOR WALLS NFPA 5000 TABLE 7.3.2.1, 2018 Ed

FIREE RESISTANCE RATING - 0

MEANS OF ESCAPE NFPA 5000 TABLE 24.2.1.2, 2018 Ed

SECONDARY MEANS OF ESCAPE IS NOT REQUIRED (SPRINKLERED) (22.2.2.1.2 (2))

COMMON PATH OF TRAVEL NFPA 5000 24.2.5.4, 2018 Ed

50 FT. MAXIMUM EDUCATIONAL OCCUPANCY (SPRINKLERED)
- ROOMS NOT INCLUDED WHEN DETERMINING LENTHG (24.2.5.5)

DEAD-END CORRIDORS NFPA 5000 24.2.5.7, 2018 Ed

50 FT. MAXIMUM EDUCATIONAL OCCUPANCY (SPRINKLERED)

TRAVEL DISTANCE TO EXITS NFPA 5000 24.2.6.3, 2018 Ed

200 FT. MAXIMUM EDUCATIONAL OCCUPANCY (SPRINKLERED)

HAZERDOUS AREA PROTECTION NFPA 5000 24.3.2.3, 2018 Ed

• BOILER & HEATER ROOMS -	1 HOUR SEPARATION + FIRE SPRINKLERS
• GUEST LAUNDRY ROOMS -	SMOKE PARTITIONS + FIRE SPRINKLERS
• STORAGE ROOMS -	SMOKE PARTITIONS + FIRE SPRINKLERS

EXTINGUISHMENT REQUIREMENTS NFPA 5000 24.3.5.2, 2018 Ed

EQUIPPED THROUGHOUT WITH AN ELECTRICALLY SUPERVISED AUTOMATIC SPRINKLER SYSTEM

COORIDOR FIRE RESISTANCE RATING NFPA 5000 24.3.6, 2018 Ed

1/2 HOUR (SPRINKLERED) (24.3.6.2)
DOORS MINIMUM 20 MIN. RATED (24.3.6.3)

SUBDIVISION OF BUILDING SPACES NFPA 5000 24.3.7, 2018 Ed

ALL DORM ROOMS SEPARATED BY 1/2 HOUR FIRE BARRIER WALL

FIRE EXTINGUISHERS (FE) NFPA 5000 24.3.5.9, 2018 Ed

RESIDENTIAL OCCUPANCY

MINIMUM RATED EXTINGUISHER:	4-A
MAXIMUM FLOOR AREA PER UNIT OF A:	3,000 SF
MAXIMUM ALLOWABLE DISTANCE BETWEEN:	75 LF
NUMBER REQUIRED:	5
NUMBER PROVIDED:	8

UNIFORM PLUMBING CODE, TABLE 422.1, 2018 Ed TABLE R-2 DORMITORIES
MINIMUM PLUMBING FACILITIES - UPC TABLE 422.1

Dormitories - School
GSF / 200 = TOTAL NUMBER OF OCCUPANTS - 13,889 / 200 = 70

	MALE OCC. LOAD 70 / 2 = 35				FEMALE OCC. LOAD 70 / 2 = 35			DRINKING FOUNTAIN
	FACTOR	REQUIRED	PROVIDED		FACTOR	REQUIRED	PROVIDED	1 PER 150
UR	1:25	1	1					
WC	1:10	4	6	WC	1:8	5	7	
LAV	1:12	2	6	LAV	1:12 +1:15 over 12	3	6	1 REQ.
SH	1:8	5	7	LAV	1:8	5	7	4 PROV.

Dormitories - Staff
Assuming a maximum of 8 Staff

	MALE OCC. LOAD 8 / 2 = 4				FEMALE OCC. LOAD 8 / 2 = 4			ADULT SHOWER
	FACTOR	REQUIRED	PROVIDED		FACTOR	REQUIRED	PROVIDED	1 PER 8
UR	1:50	1	1					
WC	1-15	1	1	WC	1-15	1	1	1 REQ.
LAV	1:40	1	1	LAV	1:40	1	1	0 PROV.

CODE SYMBOL LEGEND

- 1/2 HOUR FIRE PARTITION
- # — AREA OCCUPANT LOAD
- F.E.C. — SEMI RECESSED FIRE EXTINGUISHER CABINET
- EXIT TRAVEL DISTANCE
- # — EXIT OCCUPANT LOAD (ARROW INDICATES DIRECTION TO EXIT)

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FAX: 505.884.5390
WEB: www.fbtarch.com

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p_505.823.100

STRUCTURAL
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Albuquerque, NM 87110
p_505.243.9287

M/E/P/FP
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Albuquerque, New Mexico 87109
p_505.883.4111 f_505.888.1436

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Albuquerque, NM 87110
p_505.243.9287

SITE
Groundwork Studio
6501 Americas Pkwy NE Ste. 350
Albuquerque, NM 87110
p_505.212.9126

FOOD SERVICE
Standard Kitchen Supply
2405 Candelaria Rd. NE,
Albuquerque, NM 87107
p_505.341.1054

ENVELOPE AND ROOF CONSULTANT
Armstrong Group INC.
2415 Princeton Ave, NE Suite E
Albuquerque, NM 87107
p_505.235.7596

ARCHITECT

Dzilth-Na-O-Dith-Hle - New Dormitory Building

PRICING SET

35 Road 7585, Bloomfield, NM 87413

NOVEMBER 10, 2020

MARK	DATE	DESCRIPTION

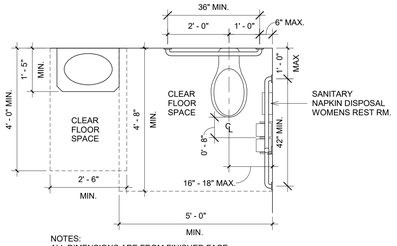
ISSUE:	
DATE:	
PROJECT NO:	751
CAD DWG FILE:	
DRAWN BY:	JFA
CHECKED BY:	JTT

SHEET TITLE

BUILDING CODE ANALYSIS

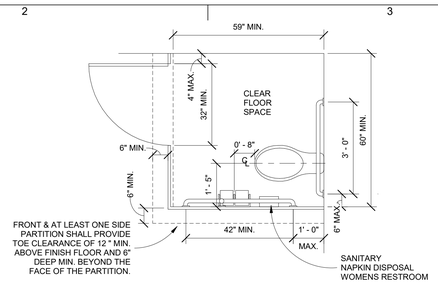
G-001

A1 CODE FLOOR PLAN
1/8" = 1'-0"



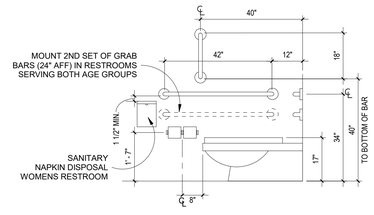
NOTES:
ALL DIMENSIONS ARE FROM FINISHED FACE
AGE GROUP - 9+

E1 ACCESSIBLE RESTROOM - 9-ADULT
1/2" = 1'-0"



NOTES:
ALL DIMENSIONS ARE FROM FINISHED FACE
AGE GROUP - 9+

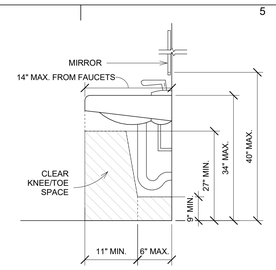
E2 ACCESSIBLE STALL - 9-ADULT
1/2" = 1'-0"



FLOOR OR WALL MOUNTED WATER CLOSET

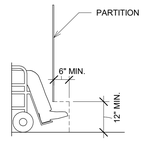
NOTES:
ALL DIMENSIONS ARE FROM FINISHED FACE
AGE GROUP - 9+

E3 W.C. ELEVATION - 9-ADULT
1/2" = 1'-0"



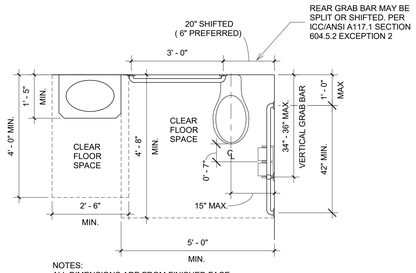
NOTES:
ALL DIMENSIONS ARE FROM FINISHED FACE.
AGE GROUP - 12+

E4 ACCESSIBLE SINK - 12-ADULT
1/2" = 1'-0"



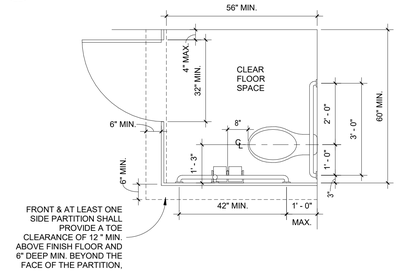
NOTES:
ALL DIMENSIONS ARE FROM FINISHED FACE
AGE GROUPS - 5+

E5 ACCESSIBLE STALL - 5-ADULT
1/2" = 1'-0"



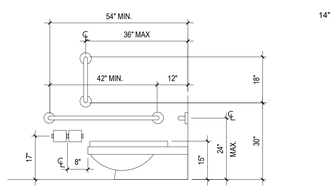
NOTES:
ALL DIMENSIONS ARE FROM FINISHED FACE
AGE GROUP - 5-8

D1 ACCESSIBLE RESTROOM - 5-8
1/2" = 1'-0"



NOTES:
ALL DIMENSIONS ARE FROM FINISHED FACE
AGE GROUP - 5-8

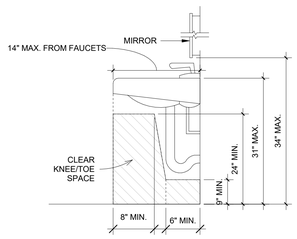
D2 ACCESSIBLE STALL - 5-8
1/2" = 1'-0"



FLOOR OR WALL MOUNTED WATER CLOSET

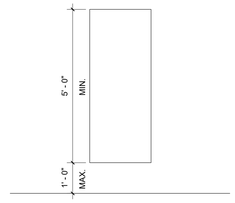
NOTES:
ALL DIMENSIONS ARE FROM FINISHED FACE
AGE GROUP 5-8

D3 W.C. ELEVATION - 5-8
1/2" = 1'-0"



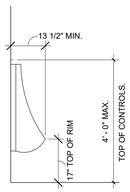
NOTES:
ALL DIMENSIONS ARE FROM FINISHED FACE.
AGE GROUP - 5-12

D4 ACCESSIBLE SINK - 5-12
1/2" = 1'-0"



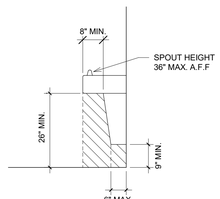
NOTES:
ALL DIMENSIONS ARE FROM FINISHED FACE
AGE GROUP - 5+

D5 FULL MIRROR - 5-ADULT
1/2" = 1'-0"



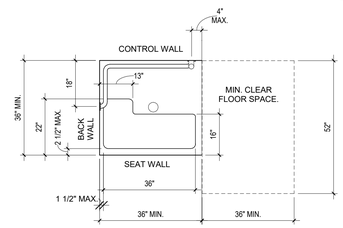
NOTES:
ALL DIMENSIONS ARE FROM FINISHED FACE
AGE GROUP - 12+

C1 ACCESSIBLE URINAL - 12-ADULT
1/2" = 1'-0"



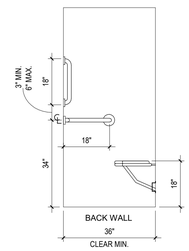
NOTES:
ALL DIMENSIONS ARE FROM FINISHED FACE
SPOUT AND CONTROLS SHALL BE LOCATED AT FRONT.
CONTROLS SHALL BE PUSH BAR, ELECTRONIC TYPE & HAND OPERABLE
AGE GROUPS - 12+

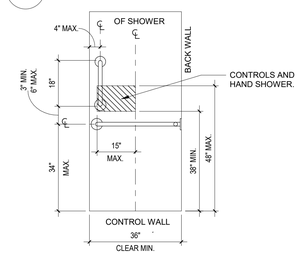
C2 DRINKING FOUNTAIN - 12-ADULT
1/2" = 1'-0"



NOTES:
ALL DIMENSIONS ARE FROM FINSIHED FACE
STANDARD TRANSFER TYPE SHOWER COMPARTMENT
AGE GROUPS - 5+

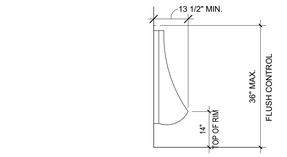
C3 TRANSFER SHOWER - 5-ADULT
1/2" = 1'-0"





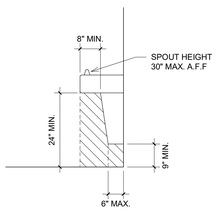
NOTES:
ALL DIMENSIONS ARE FROM FINSIHED FACE
STANDARD TRANSFER TYPE SHOWER COMPARTMENT
AGE GROUPS - 12+

C4 TRANSFER SHOWER ELEV. - 12-ADULT
1/2" = 1'-0"



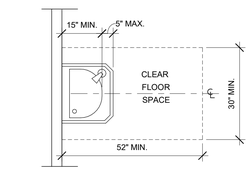
NOTES:
ALL DIMENSIONS ARE FROM FINISHED FACE
AGE GROUP - 5-12

B1 ACCESSIBLE URINAL - 5-12
1/2" = 1'-0"



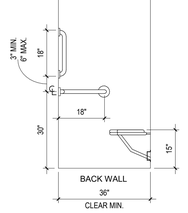
NOTES:
ALL DIMENSIONS ARE FROM FINISHED FACE
SPOUT AND CONTROLS SHALL BE LOCATED AT FRONT.
CONTROLS SHALL BE PUSH BAR, ELECTRONIC TYPE & HAND OPERABLE
AGE GROUPS - 5-12

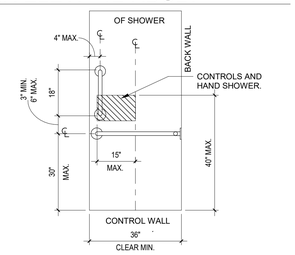
B2 DRINKING FOUNTAIN - 5-12
1/2" = 1'-0"



NOTES:
ALL DIMENSIONS ARE FROM FINISHED FACE
AGE GROUPS - 5+

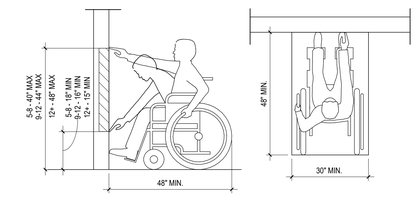
B3 DRINKING FOUNTAIN - 5-ADULT
1/2" = 1'-0"





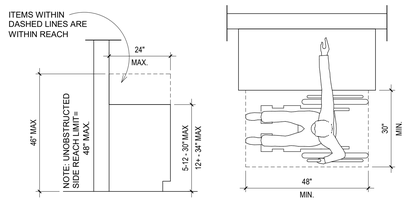
NOTES:
ALL DIMENSIONS ARE FROM FINSIHED FACE
STANDARD TRANSFER TYPE SHOWER COMPARTMENT
AGE GROUPS - 5-12

B4 TRANSFER SHOWER ELEV. - 5-12
1/2" = 1'-0"



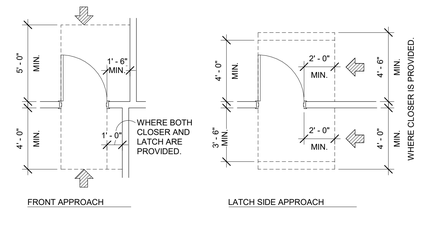
NOTES:
ALL DIMENSIONS ARE FROM FINISHED FACE
AGE GROUPS - 5+ (MAX AND MIN DIMS NOTED PER AGE GROUP)

A1 FORWARD REACH - 5-ADULT
1/2" = 1'-0"



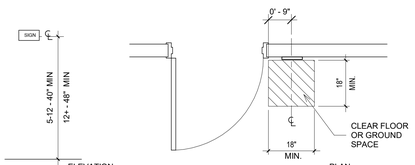
NOTES:
ALL DIMENSIONS ARE FROM FINISHED FACE
AGE GROUPS - 5+ (MAX AND MIN DIMS NOTED PER AGE GROUP)

A2 OBSTRUCTED SIDE REACH - 5-ADULT
1/2" = 1'-0"



NOTES:
ALL DIMENSIONS ARE FROM FINISHED FACE
ARROW INDICATES DIRECTION OF APPROACH

A3 DOOR MINIMUM CLEARANCES
1/4" = 1'-0"



A5 SIGNAGE MOUNTING HEIGHT/ LOCATION
1/2" = 1'-0"

GENERAL NOTES

ALL FIXTURES AND ACCESSORIES SHALL COMPLY WITH ADA, ANSI, UFAS, AND LOCAL AND STATE BUILDING CODE REQUIREMENTS. ALL HEIGHTS, DIMENSIONS AND CLEARANCES FOR PLUMBING FIXTURES, CASEWORK, COUNTERTOPS, ACCESSORIES, SIGNAGE, ACCESSIBLE ROUTES, ETC. SHALL BE STRICTLY HELD TO ADA, ANSI, AND LOCAL AND STATE REQUIREMENTS. IN THE EVENT OF CONFLICTING REQUIREMENTS, THE MOST RESTRICTIVE REQUIREMENTS SHALL APPLY.

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ARCHITECT

Dzilth-Na-O-Dith-Hle - New Dormitory Building

PRICING SET

35 Road 7585, Bloomfield, NM 87413

NOVEMBER 10, 2020

MARK	DATE	DESCRIPTION

ISSUE:	
DATE:	
PROJECT NO:	751
CAD DWG FILE:	
DRAWN BY:	Author
CHECKED BY:	Checker

SHEET TITLE

ACCESSIBILITY GUIDELINES

G-010

GENERAL STRUCTURAL NOTES

1. CODES AND MANUALS:
   NFPA 5000, 2018 EDITION.
   MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES, ASCE 7-10,
   AISC MANUAL OF STEEL CONSTRUCTION, 9TH EDITION
   SJI STANDARD SPECIFICATIONS, LOAD TABLES AND WEIGHT TABLES FOR STEEL JOISTS AND JOIST GIRDERS
   SDI DIAPHRAGM DESIGN MANUAL, 2ND EDITION
   AISI COLD FORMED STEEL MANUAL, CURRENT EDITION
   ACI BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE, ACI 318
   AWS D1.1 AND D1.3

2. DESIGN CRITERIA:
   A. VERTICAL:
      LIVE LOAD
      ROOF (SNOW) 25 PSF + DRIFTS
      PENTHOUSE 100 PSF

      Is (IMPORTANCE FACTOR FOR SNOW) 1.1
      * LOAD HAS NOT BEEN REDUCED
   B. HORIZONTAL LOADS:
      (1) WIND*
      PROCEDURE PER SECTION 1609

      P = WIND PRESSURE x λ Iw

      WIND SPEED V3s=115 MPH
      WIND PRESSURE : END ZONE 21.0 PSF
      INTERIOR ZONE 13.9 PSF
      HEIGHT & EXPOSURE ADJUSTMENT COEFFICIENT FROM FIGURE 6-2 IN ASCE
      IMPORTANCE FACTOR Iw = 1.15
      HORIZONTAL WIND LOAD:

	END	INTERIOR
0-15'	25.4 PSF	16.8 PSF
15'-20'	27.1 PSF	17.9 PSF
20'-25'	28.4 PSF	18.7 PSF

      (2) SEISMIC* V = Sds Ie W/.R
      SPECTRAL ACCELERATIONS Ss=0.147
      S1=0.057
      SITE CLASS D
      IMPORTANCE FACTOR Ie = 1.25
      DESIGN SPECTRAL RESPONSE Sds = 0.157
      ONE SECOND PERIOD RESPONSE ACCEL. Sd1 = 0.091
      RESPONSE MODIFICATION COEFFICIENT R = 3.25
      SEISMIC DESIGN CATEGORY B
      SEISMIC FORCE V = 0.06 X W

      * ALLOWABLE 1/3 STRESS INCREASE FOR SEISMIC LOADING
   C. ALLOWABLE SOIL BEARING PRESSURE = 2500 PSF

3. GENERAL:
   A. THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND LAYOUT OF BOTH SITE AND BUILDING ELEMENTS. COORDINATE FIELD INFORMATION WITH ARCHITECTURAL PRIOR TO ANY CONSTRUCTION ACTIVITY .
   B. SHOP DRAWINGS, IN HARD COPY FORM, SHALL BE FURNISHED AND REVIEWED BEFORE ANY FABRICATION OR ERECTION IS STARTED.
   C. THE CONTRACTOR SHALL REVIEW AND APPROVE SHOP DRAWINGS PRIOR TO SUBMITTAL TO THE ARCHITECT FOR REVIEW. POORLY EXECUTED SHOP DRAWINGS WILL BE REJECTED AND REQUIRE RESUBMITTAL.
   D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SAFE AND ADEQUATE SHORING FOR ALL PARTS OF THE STRUCTURE DURING CONSTRUCTION.
   E. TEMPORARY PROVISIONS SHALL BE MADE FOR STRUCTURAL STABILITY DURING CONSTRUCTION. THE STRUCTURE SHOWN ON THE DRAWINGS HAS BEEN DESIGNED FOR STABILITY UNDER FINAL CONFIGURATION.
   F. THE CONTRACTOR SHALL COORDINATE AND VERIFY ALL OPENINGS IN FLOORS, ROOF, WALLS AND BEAMS WITH THE INDIVIDUAL TRADES.
   G. NOTCHING OR CUTTING ANY STRUCTURAL MEMBER IN THE FIELD IS PROHIBITED.
   H. THE CONTRACTOR SHALL VERIFY THE SIZE AND LOCATION OF FOUNDATIONS UNDER MECHANICAL AND ELECTRICAL EQUIPMENT AS REQUIRED. NO CONCRETE PADS SHALL BE LOCATED ON ROOF UNLESS SHOWN ON STRUCTURAL DRAWINGS.
   I. REMOVAL OF FORMS SHALL BE IN ACCORDANCE WITH ACI 347. WHERE CONCRETE MUST SUPPORT SUPERIMPOSED LOADS PRIOR TO ATTAINING THE SPECIFIED DESIGN STRENGTH, RESHORE CONCRETE IN ACCORDANCE WITH ACI 347. RESHORING SHALL NOT BE REMOVED SOONER THAN 28 DAYS FROM THE DATE OF POUR OR UNTIL CONCRETE HAS ATTAINED THE SPECIFIED DESIGN STRENGTH.

4. MATERIALS:
   A. CAST-IN-PLACE CONCRETE:
      (1) ALL CONCRETE SHALL CONFORM TO THE SPECIFICATIONS FOR STRUCTURAL CONCRETE, ACI 301-10.
      (2) ALL EXPOSED EDGES OF CONCRETE SHALL HAVE A 3/4" CHAMFER UNLESS NOTED OTHERWISE.
      (3) NORMALWEIGHT CONCRETE:
         A. F'C = 4000 PSI @ 28 DAYS (AIR ENTRAINED) - ALL EXPOSED EXTERIOR CONCRETE FLAT WORK. (I.E. SLABS, EQUIPMENT PADS, ETC.).
         B. F'C = 3000 PSI @ 28 DAYS - ALL INTERIOR CONCRETE (AIR ENTRAINED) IE. , FOOTINGS, PEDESTALS, STEM WALLS, ETC.)
         C. F'C = 4000 PSI @ 28 DAYS - ALL INTERIOR SLABS ON GRADE.
         D. F'C = 4000 PSI @ 28 DAYS (AIR ENTRAINED) - ALL WALLS.
      (4) THE CONTRACTOR SHALL NOT CAST FOUNDATIONS, STEM WALLS OR RETAINING WALLS AGAINST EXCAVATED VERTICAL SIDE SURFACES WITHOUT PRIOR WRITTEN APPROVAL FROM ARCHITECT AND STRUCTURAL ENGINEER.
      (5) FLYASH ADDITIVES MAY NOT EXCEED 20% OF THE CEMENTITIOUS MATERIAL.
      (6) THE MAXIMUM WATER TO CEMENTITIOUS MATERIAL RATIO, BY WEIGHT, MAY NOT EXCEED 50%.
      (7) THE OWNER'S SPECIAL INSPECTOR SHALL MONITOR SAMPLING & TESTING PERFORMED BY THE CONTRACTOR'S TESTING AGENCY.
      (8) MAXIMUM SLUMP FOR CONCRETE MIX DESIGN IS 4".
   B. REINFORCING STEEL:
      (1) ALL REINFORCING STEEL SHALL BE FABRICATED AND PLACED IN ACCORDANCE WITH THE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318) AND THE STANDARD MANUAL (ACI 315-99).
      (2) ALL REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60 EXCEPT STIRRUPS, TIES AND FIELD-BENT BARS WHICH SHALL CONFORM TO ASTM A615 GRADE 40.
      (3) ALL SLABS SHALL BE REINFORCED AS SHOWN ON THE DRAWINGS.
      (4) WHERE LAPPED SPLICES IN REINFORCING OCCUR, THE MINIMUM LAP SHALL BE MADE AS FOLLOWS UNLESS NOTED OTHERWISE ON DRAWINGS:
         A. VERTICAL REINFORCING:30 BAR DIA. (18" MINIMUM)
         B. HORIZONTAL REINFORCING:30 BAR DIA. (18" MINIMUM)
      (5) ALL HORIZONTAL REINFORCING IN FOOTINGS, BEAMS, AND WALLS SHALL BE CONTINUOUS AROUND CORNERS OR HAVE CORNER BARS OF THE SAME SIZE AND SPACING AS THE HORIZONTAL BARS AND LAP A MINIMUM OF 30 BAR DIAMETERS, (18 INCHES MINIMUM).
      (6) CONCRETE COVER FOR REINFORCING SHALL BE AS FOLLOWS UNLESS OTHERWISE NOTED:
         A. CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH...3"
         B. CONCRETE EXPOSED TO EARTH OR WEATHER:
            1. BARS LARGER THAN NO. 5.....2"
            2. BARS NO. 5 OR SMALLER.....1 1/2"
      (7) FORM TIES SHALL BE EITHER OF THE THREADED OR SNAP-OFF TYPE SO THAT NO METAL WILL BE LEFT WITHIN 1 INCH OF THE SURFACE OF THE WALL.
      (8) BAR SUPPORTS AND SPACERS FOR REINFORCING SHALL BE PROVIDED IN ACCORDANCE WITH ACI 315-99. CHAIRS WITH 22 GA. SAND PLATES OR PRECAST BLOCKS SHALL BE PROVIDED FOR ALL REINFORCING OF CONCRETE IN CONTACT WITH GRADE. REINFORCING SHALL BE SECURELY TIED TO SUPPORTS.
      (9) REINFORCING SHALL NOT BE TACK WELDED OR WELDED IN ANY MANNER UNLESS SPECIFICALLY DETAILED ON THE STRUCTURAL PLANS. IF DRAWINGS SHOW REBAR TO BE WELDED, USE ASTM A706 REBAR.

   C. STRUCTURAL AND MISCELLANEOUS STEEL:
      (1) ALL STRUCTURAL STEEL SHALL BE DETAILED AND FABRICATED IN ACCORDANCE WITH THE AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".
      (2) ALL W-SHAPED MEMBERS SHALL CONFORM TO ASTM A992 (Fy=50KSI). ALL CHANNELS, ANGLES, & PLATES SHALL BE ASTM A36 (Fy=36KSI). ALL PIPE STEEL SHALL BE ASTM A501 (Fy=36KSI).
      (3) ALL COLD FORMED STRUCTURAL TUBING SHALL CONFORM TO ASTM A500 GRADE B. FY = 46 KSI.
      (4) BOLTS SHALL CONFORM TO ASTM A325 TENSION CONTROL BOLTS UNLESS NOTED OTHERWISE, WITH SIZES AS SHOWN ON THE DRAWINGS. WHERE CLEARANCE WITHIN A CONNECTION DOES NOT PERMIT THE USE OF TENSION CONTROL BOLTS, STANDARD A325 BOLTS SHALL BE USED AND INSPECTED IN ACCORDANCE WITH THE AISC "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS".
      (5) ALL BOLTS SHALL BE TIGHTENED SO AS TO SHEAR THE SPLINE OFF THE BOLT.
      (6) ANCHOR BOLTS EMBEDDED IN CONCRETE SHALL BE ASTM A307 BOLTS OR A36 THREADED BARS. PROVIDE FLAT WASHERS BETWEEN ALL NUTS AND BASEPLATES.
      (7) ALL WELDING SHALL BE DONE IN ACCORDANCE WITH THE LATEST STANDARDS OF THE AWS STRUCTURAL WELDING CODE.
      (8) ALL BOLT HOLES THAT ARE REQUIRED TO BE FIELD DRILLED SHALL BE DRILLED WITH A MAG DRILL. FLAME CUTTING OF HOLES OR ENLARGING OF UNFAIR HOLES WILL NOT BE ALLOWED.
      (9) HEADED CONCRETE ANCHORS AND SHEAR CONNECTORS SHALL BE TYPE B, IN CONFORMANCE WITH AWS D1.1 "STRUCTURAL WELDING CODE-STEEL". STRUCTURAL STEEL TO RECEIVE SHEAR CONNECTIONS SHALL BE FREE OF PAINT. WELDING PRE QUALIFICATION REQUIRED.

   D. STEEL JOISTS:
      (1) STEEL JOISTS SHALL BE MANUFACTURED BY A MEMBER OF SJI.
      (2) STEEL JOISTS SHALL BE DESIGNED, FABRICATED AND ERECTED IN ACCORDANCE WITH THE 2002 STEEL JOIST INSTITUTE SPECIFICATIONS.
      (3) NO CONSTRUCTION LOADS OF ANY KIND SHALL BE PLACED ON UNBRIDGED JOISTS.
      (4) WHERE COLUMNS ARE NOT FRAMED IN AT LEAST TWO DIRECTIONS WITH STRUCTURAL STEEL MEMBERS, JOISTS AT OR CLOSEST TO COLUMN LINES SHALL BE FIELD BOLTED TO ADD LATERAL STABILITY DURING CONSTRUCTION.
      (5) PROVIDE BRIDGING IN ACCORDANCE WITH THE 42ND EDITION OF SJI STANDARD SPECIFICATIONS.

   E. STEEL DECK:
      (1) ALL STEEL DECK SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH STEEL DECK INSTITUTE SPECIFICATIONS.
      (2) SEE PLAN FOR STEEL DECK GAGE, FINISH AND CONNECTIONS.
      (3) PROVIDE A MINIMUM OF 1 1/2" BEARING FOR ALL STEEL DECKS.
      (4) ALL SPLICES AND LAPS SHALL BE A MINIMUM OF 2" AND SHALL BE AT SUPPORTS.
      (5) DECKING SHALL BE CONTINUOUS OVER TWO OR MORE SPANS UNLESS NOTED OTHERWISE ON THE PLANS.
      (6) POWER DRIVEN FASTENERS SHALL HAVE A MIN. 0.177 INCH SHAFT DIAMETER AND BE EQUIVALENT TO HILTI ENP DECK FASTENERS.
      (7) CONDUIT PARALLEL TO FLOOR DECK IN CONCRETE TOPPING IS PROHIBITED.

   F. LIGHTGAGE STRUCTURAL STEEL FRAMING (20 GAGE OR HEAVIER):
      (1) ALL LIGHTGAGE METAL FRAMING SHALL CONFORM TO AISI "SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS", 2007.
      (2) WALLS TO BE PROVIDED WITH MANUFACTURER'S STANDARD BRIDGING: (EITHER WELDED 2 1/2" X 18 GA. STUD OR CLIPPED COLD-ROLLED CHANNEL 1 1/2" X 16 GA.). PROVIDE BRIDGING AT 4'-0" O.C. MAXIMUM.
      (3) PROVIDE ALL MISCELLANEOUS ACCESSORIES AND FOLLOW ERECTION PROCEDURES AS PER MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
      (4) LIGHTGAGE STEEL FRAMING SHALL MEET THE MINIMUM PROPERTIES AS SHOWN IN THE STEEL STUD SCHEDULE.
      (5) ALL TRACK SHALL BE DEEP LEG (1 1/2" FLANGE), 18 GA. MINIMUM. TRACK SHALL BE ANCHORED TO SLAB WITH 1/2" DIA. X 3 1/2" EMBED EXPANSION SLEEVE OR EPOXY ANCHORS AT 4'-0" O.C. UNLESS SHOWN OTHERWISE ON PLANS.

5. POST INSTALLED ANCHORS

   POST-INSTALLED ANCHORS SHALL ONLY BE USED WHERE SPECIFIED ON THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER-OF-RECORD PRIOR TO INSTALLING POST-INSTALLED ANCHORS IN PLACE OF MISSING OR MISPLACED CAST-IN-PLACE ANCHORS. CARE SHALL BE TAKEN IN PLACING POST-INSTALLED ANCHORS TO AVOID CONFLICTS WITH EXISTING REBAR. HOLES SHALL BE DRILLED AND CLEANED IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS. SUBSTITUTION REQUESTS FOR PRODUCTS OTHER THAN THOSE SPECIFIED BELOW SHALL BE SUBMITTED BY THE CONTRACTOR TO THE ENGINEER-OF-RECORD ALONG WITH CALCULATIONS THAT ARE PREPARED & SEALED BY A REGISTERED PROFESSIONAL ENGINEER. THE CALCULATIONS SHALL DEMONSTRATE THAT THE SUBSTITUTED PRODUCT IS CAPABLE OF ACHIEVING THE PERTINENT EQUIVALENT PERFORMANCE VALUES (MINIMUM) OF THE SPECIFIED PRODUCT USING THE APPROPRIATE DESIGN PROCEDURE AND/OR STANDARD(S) AS REQUIRED BY THE BUILDING CODE. PROVIDE CONTINUOUS SPECIAL INSPECTION FOR ALL ADHESIVES AND MECHANICAL ANCHORS PER THE PRODUCT'S APPLICABLE ICC-ES EVALUATION REPORT (ICC-ES-ESR). CONTACT MANUFACTURER'S REPRESENTATIVE FOR THE INITIAL TRAINING AND INSTALLATION OF ANCHORS AND FOR PRODUCT RELATED QUESTIONS AND AVAILABILITY. CALL SIMPSON STRONG-TIE AT (800) 999-5099 OR HILTI AT (866) 445-8827.

   A. CONCRETE ANCHORS:
      1. MECHANICAL ANCHORS SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ACI 3552 AND ICC-ES ACI93 FOR CRACKED AND UNCRACKED CONCRETE RECOGNITION. PRE-APPROVED MECHANICAL ANCHORS INCLUDE:
         a. SIMPSON STRONG-TIE "TITEN HD" (ICC-ES ESR-2713)
         b. SIMPSON STRONG-TIE "STRONG-BOLT" (ICC-ES ESR-1771) OR HILTI "KWIK BOLT TZ" (ICC-ES ESR-1917)
      2. ADHESIVE ANCHORS SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ICC-ES AC308 FOR CRACKED AND UNCRACKED CONCRETE RECOGNITION. PRE-APPROVED ADHESIVE ANCHORS INCLUDE:
         a. SIMPSON STRONG-TIE "SET-XP" (ICC-ES ESR-2508) OR HILTI "HIT-RE 500-SD" (ICC-ES ESR-2322)

   B. MASONRY ANCHORS:
      1. ANCHORAGE TO SOLID-GROUTED CONCRETE MASONRY:
         a. MECHANICAL ANCHORS SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ICC-ES AC01 OR ACI06. PRE-APPROVED MECHANICAL ANCHORS INCLUDE:
            1.SIMPSON STRONG-TIE "TITEN-HD" (ICC-ES ESR-1056) OR HILTI "HUS-H" (ICC-ES ESR-2369)
            2. SIMPSON STRONG-TIE "WEDGE-ALL" (ICC-ES ESR-1396) OR HILTI "KWIK BOLT 3" (ICC-ES ESR-1385)
         b. ADHESIVE ANCHORS SHALL HAVE BEEN TESTED AND QUALIFIED FOR USE IN ACCORDANCE WITH ICC-ES AC58. PRE-APPROVED ADHESIVE ANCHORS INCLUDE:
            1.SIMPSON STRONG-TIE "SET" (ICC-ES ESR-1772) OR HILTI "HIT-HY 150" (ICC-ES ESR-2678
            2.SIMPSON STRONG-TIE "ACRYLIC-TIE" (ICC-ES ESR-5791_ OR HILTI "HIT-HY 200 MAX" (ICC-ES ESR-1967)

6. QUALITY ASSURANCE TESTS AND INSPECTIONS ARE REQUIRED FOR THE FOLLOWING ITEMS:
   A. CONCRETE:
      (1) DURING THE TAKING ON TEST SPECIMENS.
      (2) DURING THE PLACEMENT OF ALL REINFORCED CONCRETE.
   B. BOLTS IN CONCRETE:
      (1) DURING THE PLACEMENT OF CONCRETE AROUND BOLTS.
   C. REINFORCING STEEL (PERIODIC):
      (1) DURING THE PLACEMENT OF REINFORCING STEEL FOR ALL CONCRETE REQUIRED TO HAVE SPECIAL INSPECTION NOTED ABOVE.
   D. WELDING:
      (1) VISUAL INSPECTION OF ALL FIELD WELDS.
      (2) NON-DESTRUCTIVE TESTING OF ALL COMPLETE PENETRATION WELDS.
   E. HIGH STRENGTH BOLTING:
      (1) VERIFICATION OF SNUG TIGHT BOLT INSTALLATION FOR A325N BOLTS.
      (2) VERIFICATION OF SLIP CRITICAL (SC) BOLTS AT ALL BRACED FRAMES.
   F. EXPANSION AND EPOXY BOLTS:
      (1) DURING THE PLACEMENT OF ALL EXPANSION AND EPOXY BOLTS, FOR VISUAL VERIFICATION OF HOLE DIAMETER AND DEPTH AND PLACEMENT OF BOLT AND/OR EPOXY.
   G. DUTIES AND RESPONSIBILITIES OF THE QUALITY ASSURANCE INSPECTOR:
      (1) THE QUALITY ASSURANCE INSPECTOR SHALL OBSERVE THE WORK ASSIGNED TO BE CERTAIN IT CONFORMS WITH THE APPROVED DESIGN DRAWINGS AND SPECIFICATION.
      (2) THE QUALITY ASSURANCE INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, AND TO THE ENGINEER OF RECORD.
   H. QUALITY ASSURANCE INSPECTOR IS TO BE HIRED BY OWNER, NOT CONTRACTOR.

GENERAL FOUNDATION NOTES

1. GENERAL:
   A. A SUBSURFACE SOIL INVESTIGATION HAS BEEN MADE BY WESTERN TECHNOLOGIES. A REPORT OF THAT INVESTIGATION DATED MAY 18, 2020 IS AVAILABLE FOR VIEWING AT THE OFFICE OF THE ARCHITECT. SOILS INFORMATION PROVIDED ON THIS SHEET IS ONLY A SUMMARY OF THAT REPORT.
   B. ADDITIONAL INFORMATION CONCERNING SPECIFIC SOIL CONDITIONS TO BE ENCOUNTERED IS AVAILABLE IN THE SOILS REPORT AND SHOULD BE REVIEWED.

2. FIELD OBSERVATION AND TESTS:
   A. THE OWNER WILL EMPLOY THE SERVICES OF A REGISTERED, LICENSED GEOTECHNICAL ENGINEER TO OBSERVE ALL CONTROLLED EARTHWORK AND SHALL PROVIDE CONTINUOUS ON-SITE OBSERVATION BY EXPERIENCED PERSONNEL DURING CONSTRUCTION OF CONTROLLED EARTHWORK. THE CONTRACTOR SHALL NOTIFY THE GEOTECHNICAL ENGINEER AT LEAST TWO WORKING DAYS IN ADVANCE OF ANY FIELD OPERATIONS OF THE CONTROLLED EARTHWORK .
   B. TESTS OF MATERIALS SHALL BE MADE AT THE FOLLOWING RATES:
      (1) ONE FIELD DENSITY TEST PER EACH 250 SQUARE YARDS OF COMPACTED SUBGRADE PRIOR TO PLACING STRUCTURAL FILL WITH A MINIMUM OF 3 TESTS.
      (2) ONE FIELD DENSITY TEST PER EACH 150 CUBIC YARDS OF STRUCTURAL FILL PLACED OR EACH HORIZONTAL LAYER OF STRUCTURAL FILL, WHICHEVER IS GREATER.
      (3) ONE MOISTURE-DENSITY CURVE FOR EACH TYPE OF MATERIAL USED, AS INDICATED BY SIEVE ANALYSIS AND PLASTICITY INDEX.
      (4) FOUNDATION EXCAVATIONS SHALL BE OBSERVED BY A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF REINFORCING AND CONCRETE.
   C. THE GEOTECHNICAL ENGINEER SHALL SUBMIT THE RESULTS OF ALL REQUIRED TESTS.

3. CLEARING AND GRUBBING:
   A. REMOVE ALL BRUSH, RUBBISH, GRASS, AND GRASS ROOTS FROM THE CONSTRUCTION AREA.
   B REMOVE STUMPS, MATTED ROOTS AND ROOTS LARGER THAN 2 INCHES IN DIAMETER WITHIN 12 INCHES OF THE SURFACE OF AREAS ON WHICH FILL AND/OR FOOTINGS ARE TO BE CONSTRUCTED
   C REMOVE ALL TOPSOIL FROM THE CONSTRUCTION AREA. THIS MATERIAL SHALL NOT BE USED AS FILL MATERIAL, BUT MAY BE STOCKPILED AND LATER USED IN THE TOP 6 INCHES OF FILL OUTSIDE THE BUILDING PAD.

4. SITE, SUBFLOOR AND BEARING SURFACE PREPARATION:
   A. A REPRESENTATIVE OF THE GEOTECHNICAL ENGINEER SHALL BE PRESENT TO CONFIRM COMPLETE EXCAVATION OF ANY UNCONTROLLED FILL OR SOFT AREAS.
   B. BUILDING PADS SHOULD BE OVEREXCAVIATED TO ALLOW THE PLACEMENT OF A MINIMUM 30 INCHES OF NON-EXPANSIVE STRUCTURAL FILL BENEATH FOUNDATIONS. THE OVER-EXCAVATION SHALL NOT EXTEND LATERALLY BEYOND THE EDGE OF THE FOUNDATIONS.
   C. ON-SITE SOILS ARE GENERALLY SUITABLE FOR USE AS STRUCTURAL FILL MATERIAL, SEE SOIL INVESTIGATION REPORT FOR RECOMMENDATIONS.
   D. SCARIFY ALL EXPOSED SUBGRADE SOILS TO A DEPTH OF 8 INCHES, MOISTEN TO 0 TO 4% ABOVE OPTIMUM MOISTURE CONTENT AND COMPACT TO THE DENSITY SPECIFIED HEREINAFTER PRIOR TO PLACEMENT OF STRUCTURAL FILL.
   E. PLACE ALL STRUCTURAL FILL IN APPROXIMATELY HORIZONTAL LAYERS NOT GREATER THAN EIGHT (8) INCHES IN THICKNESS, MOISTEN TO OPTIMUM MOISTURE CONTENT (PLUS/MINUS 3%) AND COMPACT TO DENSITY SPECIFIED HEREINAFTER.
5. STRUCTURAL FILL REQUIREMENTS:
   A. GRADATION (ASTM C136):

SIEVE SIZE	PERCENT PASSING BY WEIGHT
3/4"	70-100
4"	85-100
6"	100
NO. 4	50-100
NO. 200	30 (MAX)

   B. MAXIMUM EXPANSIVE POTENTIAL = 1.5%.
   C. MATERIAL LARGER THAN 4 INCHES SHALL NOT BE PLACED IN THE STRUCTURAL FILL.
   D. NO BRUSH, SOD, FROZEN MATERIAL OR OTHER UNSUITABLE MATERIAL SHALL BE PLACED IN THE STRUCTURAL FILL. MATERIAL SHALL BE PLACED IN SUCH A MANNER AS TO RESULT IN A UNIFORMLY COMPACTED FILL.
   E. PLACE ALL STRUCTURAL FILL IN APPROXIMATELY HORIZONTAL LAYERS NOT GREATER THAN TEN (10) INCHES IN THICKNESS, MOISTEN TO OPTIMUM MOISTURE CONTENT (PLUS/MINUS 3%) AND COMPACT TO DENSITY SPECIFIED HEREINAFTER.
6. COMPACTION REQUIREMENTS:
   A. STRUCTURAL FILL MATERIALS SHALL BE COMPACTED TO THE FOLLOWING PERCENTAGES OF THE ASTM D1557 MAXIMUM DRY DENSITY AT OPTIMUM MOISTURE CONTENT (PLUS/MINUS 3%).

MATERIAL	MINIMUM PERCENT COMPACTION
STRUCTURAL FILL IN THE BUILDING AREA	95
SUBBASE FOR SLAB SUPPORT	93 TO 97
SUBGRADE BELOW STRUCTURAL FILL	93 TO 97
MISCELLANEOUS BACKFILL	90

LIGHTGAGE SCHEDULE

DEPTH	GAGE	AREA IN	Ix IN4	Sx IN3	Fy KSI
C 4"	20	0.275	0.692	0.346	33
C 4"	18	0.357	0.892	0.446	33
C 6"	18	0.447	2.316	0.772	33
C 8"	18	0.537	4.634	1.159	33
T 4"	20	0.225	0.549	0.346	33
T 4"	18	0.315	0.811	0.390	33
T 6"	18	0.405	2.072	0.673	33
T 8"	18	0.496	4.144	1.015	33

"C" INDICATES STUD, 1 5/8" FLANGES
"T" INDICATES DEEP LEG TRACK, 1 1/2" FLANGES

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ENGINEER

Dzilth-Na-O-Dith-Hle - New Dormitory Building

Construction Documents

35 Road 7585, Bloomfield, NM 87413

OCTOBER 5, 2020

MARK	DATE	DESCRIPTION
	30 OCT 2020	DIMENSION CLARIFICATIONS

ISSUE:	
DATE:	
PROJECT NO:	751
CAD DWG FILE:	
DRAWN BY:	KV
CHECKED BY:	MJW

SHEET TITLE

GENERAL STRUCTURAL NOTES

S-001

School Information

11/9/2020 4:58:00 PM

SCHEDULE OF STRUCTURAL QUALITY ASSURANCE INSPECTIONS

1. QUALITY ASSURANCE INSPECTIONS / TESTING - "QUALITY ASSURANCE INSPECTION" SHALL NOT RELIEVE THE OWNER OR THEIR AGENT FROM REQUESTING THE JURISDICTION BUILDING DEPARTMENT INSPECTIONS REQUIRED BY SECTION 40 OF THE NFPA-5000.
2. REPORTING FOR QUALITY ASSURANCE INSPECTION - QUALITY ASSURANCE INSPECTION AND TESTING REPORTS SHALL BE COMPLETED AND DISTRIBUTED AT THE COMPLETION OF EACH TASK. IF A TASK IS TO TAKE LONGER THAN (3) DAYS, PROVIDE REPORTS FOR EACH DAY. PROVIDE COPIES OF REPORTS TO: CONTRACTOR, OWNER, ARCHITECT AND STRUCTURAL ENGINEER OF RECORD. QUALITY ASSURANCE INSPECTOR TO KEEP A NON-COMPLIANCE LIST DOCUMENTING ITEMS INSPECTED NOT MEETING APPROVED CONSTRUCTION DOCUMENTS AND WHEN / HOW RESOLVED.
3. SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING CONSTRUCTION DOCUMENTS FOR ADDITIONAL NON-STRUCTURAL QUALITY ASSURANCE INSPECTION ITEMS.

IN ACCORDANCE WITH NFPA 5000 CHAPTER 40, THE FOLLOWING TYPES OF WORK REQUIRE QUALITY ASSURANCE INSPECTIONS AND TESTING:

QUALITY ASSURANCE INSPECTION AND VERIFICATION OF SOILS

SPECIAL INSPECTION REQUIRED Y/N	VERIFICATION AND INSPECTION TASK	CONTINUOUS DURING TASK LISTED	PERIODICALLY DURING TASK LISTED	NFPA-5000
Y	1. VERIFY MATERIALS BELOW FOOTINGS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	-----	X	40.3.5.2
Y	2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	-----	X	40.3.5.1
Y	3. PERFORM CLASSIFICATION AND TESTING OF CONTROLLED FILL MATERIALS.	-----	X	40.3.5.2
Y	4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESS DURING PLACEMENT AND COMPACTION OF CONTROLLED FILL.	X	-----	40.3.5.2
Y	5. PRIOR TO PLACEMENT OF CONTROLLED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	-----	X	40.3.5.1

QUALITY ASSURANCE INSPECTION AND VERIFICATION OF CONCRETE CONSTRUCTION

SPECIAL INSPECTION REQUIRED Y/N	VERIFICATION AND INSPECTION	FREQUENCY OF INSPECTION: CONTINUOUS DURING TASK LISTED	FREQUENCY OF INSPECTION: PERIODICALLY DURING TASK LISTED	REFERENCE FOR CRITERIA: NFPA-5000	REFERENCE FOR CRITERIA: REFERENCED STANDARD
Y	1. INSPECT REINFORCEMENT AND VERIFY PLACEMENT.	-----	X	40.3.7	ACI 318: CH. 20, 25.2, 25.3, 26.6.1-26.6.3
N	2. REINFORCING BAR WELDING: a. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A706,	-----	X	40.3.7	AWS D1.4 ACI 318: 26.6.4
N	b. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM $\frac{5}{16}$", AND	-----	X		
N	c. INSPECT ALL OTHER WELDS.	X			
Y	3. INSPECT ANCHORS CAST IN CONCRETE.	-----	X	40.3.7	ACI 318: 17.8.2
Y	4. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS. a. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS.	X		-----	ACI 318: 17.8.2.4
	b. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.a.		X		ACI 318: 17.8.2
Y	5. VERIFYING USE OF REQUIRED DESIGN MIX.	-----	X	40.3.7	ACI 318: CH. 19, 26.4.3, 26.4.4
Y	6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TEST, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	-----	40.3.7	ASTM C172 ASTM C31 ACI 318: 26.4, 26.12
Y	7. INSPECT CONCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	-----	40.3.7	ACI 318: 26.5
Y	8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	-----	X	40.3.7	ACI 318: 26.5.3 -26.5.5
N	9. INSPECT ERECTION OF PRECAST CONCRETE MEMBERS.	-----	X	-----	ACI 318: 26.8
N	10. VERIFY IN-SITU CONCRETE STRENGTH PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	-----	X	40.3.7	ACI 318: 26.11.2
Y	11. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	-----	X	40.3.7	ACI 318: 26.11.1.2(b)

QUALITY ASSURANCE INSPECTION AND VERIFICATION OF STEEL CONSTRUCTION

SPECIAL INSPECTION REQUIRED Y/N	VERIFICATION AND INSPECTION	FREQUENCY OF INSPECTION: CONTINUOUS DURING TASK LISTED	FREQUENCY OF INSPECTION: PERIODICALLY DURING TASK LISTED	REFERENCE FOR CRITERIA: NFPA-5000 SECTION 40.3.10	REFERENCE FOR CRITERIA: REFERENCED STANDARD
	1. MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS AND WASHERS:				
Y	a. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	-----	X	-----	APPLICABLE ASTM MATERIAL SPECIFICATIONS; AISC 360 SECTION A3.3
Y	b. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.	-----	X	-----	-----
	2. INSPECTION OF HIGH-STRENGTH BOLTING:				
Y	a. SNUG-TIGHT JOINTS	-----	X	-----	AISC 360, SECTION M2.5
Y	b. PRETENSIONED AND SLIP CRITICAL JOINTS USING TURN-OF-NUT WITH MATCHMARKING, TWIST-OFF BOLT OR DIRECT TENSION INDICATOR METHODS OF INSTALLATION	-----	X		
Y	c. PRETENSIONED AND SLIP CRITICAL JOINTS USING TURN-OF-NUT WITHOUT MATCHMARKING OR CALIBRATED WRENCH METHODS OF INSTALLATION	X	-----		
	3. MATERIAL VERIFICATION OF STRUCTURAL STEEL AND COLD-FORMED STEEL DECK:				
Y	a. FOR STRUCTURAL STEEL, IDENTIFICATION MARKINGS TO CONFORM TO AISC 360	-----	X		AISC 360 SECTION M5.5
Y	b. FOR OTHER STEEL, IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS	-----	X		APPLICABLE ASTM MATERIAL STANDARDS
Y	c. MANUFACTURERS CERTIFIED TEST REPORTS	-----	X		
	4. MATERIAL VERIFICATION OF WELD FILLER MATERIALS:				
Y	a. IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATION IN THE APPROVED CONSTRUCTION DOCUMENTS.	-----	-----	-----	AISC 360, SECTION A3.5
Y	b. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.	-----	-----	-----	-----
	5. INSPECTION OF WELDING: a. STRUCTURAL STEEL :				
Y	1) COMPLETE AND PARTIAL PENETRATION GROOVE WELDS.	X	-----	-----	AWS D1.1
N	2) MULTIPASS FILLET WELDS.	X	-----		
N	3) SINGLE-PASS FILLET WELDS > 5/16"	X	-----		
Y	4) PLUG & SLOT WELDS	X	-----		
Y	5) SINGLE-PASS FILLET WELDS < 5/16"	-----	X		
N	6) ROOF DECK WELDS.	-----	X	-----	AWS D1.3
N	b. REINFORCING STEEL:	-----	-----	-----	AWS D1.4 ACI 318 3.5.2
N	1) VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A 706.	-----	X		
N	2) REINFORCING STEEL-RESISTING FLEXURAL AND AXIAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES, AND BOUNDARY ELEMENTS OF SPECIAL REINFORCED CONCRETE SHEAR WALLS AND SHEAR REINFORCEMENT.	X	-----		
Y	3) SHEAR REINFORCEMENT.	X	-----		
Y	4) OTHER REINFORCING STEEL.	-----	X		
	6. INSPECTION OF STEEL FRAME JOINT DETAIL FOR COMPLI-ANCE WITH APPROVED CONSTRUCTION DOCUMENTS:				
N	a. DETAILS SUCH AS BRACING AND STIFFENING.	-----	X	-----	-----
Y	b. MEMBER LOCATIONS.	-----	X		
Y	c. APPLICATION OF JOINT DETAILS AT EACH CONNECTION.	-----	X		

QUALITY ASSURANCE INSPECTION AND VERIFICATION OF STEEL DECK CONSTRUCTION

SPECIAL INSPECTION REQUIRED Y/N	VERIFICATION AND INSPECTION TASK	FREQUENCY OF INSPECTION: CONTINUOUS DURING TASK LISTED	FREQUENCY OF INSPECTION: PERIODICALLY DURING TASK LISTED	REFERENCE FOR CRITERIA: NFPA-5000 SECTION 40.3.10
Y	VERIFY DECK MATERIALS AND MILL CERTIFICATIONS	-----	X	SDI-QA/QC
Y	VERIFY FIELD WELDING OF DECK	-----	X	AWS D1.3, SDI C, SDI NC, SDI RD
Y	VERIFY MECHANICAL FASTENERS	-----		SDI C, SDI NC, SDI RD
Y	VERIFY STEEL DECK INSTALLATION IN ACCORDANCE WITH CONSTRUCTION DOCUMENTS			SDI C, SDI NC, SDI RD

REQUIRED QUALITY ASSURANCE INSPECTION OF OPEN-WEB STEEL JOISTS AND JOIST GIRDERS

SPECIAL INSPECTION REQUIRED Y/N	VERIFICATION AND INSPECTION TASK	FREQUENCY OF INSPECTION: CONTINUOUS DURING TASK LISTED	FREQUENCY OF INSPECTION: PERIODICALLY DURING TASK LISTED	REFERENCE FOR CRITERIA: NFPA-5000 TABLE
	1. INSTALLATION OF OPEN-WEB STEEL JOISTS AND JOIST GIRDERS.			
Y	a. END CONNECTIONS - WELDED OR BOLTED.	-----	X	40.3.10
	b. BRIDGING - HORIZONTAL OR DIAGONAL.	-----		40.3.10
Y	1. VISUALLY INSPECT ALL FIELD WELDS OF A MINIMUM OF 5 PERCENT OF THE JOISTS, RANDOMLY SELECTED.	-----	X	40.3.10

QUALITY ASSURANCE INSPECTION OF SEISMIC FORCE RESISTING SYSTEMS (REQUIRED WHEN SDC = C, D, E OR F) AND DESIGNATED SEISMIC SYSTEMS (REQUIRED WHEN SDC=D,E OR F)

SPECIAL INSPECTION REQUIRED Y/N	VERIFICATION AND INSPECTION TASK	FREQUENCY OF INSPECTION: CONTINUOUS DURING TASK LISTED	FREQUENCY OF INSPECTION: PERIODICALLY DURING TASK LISTED	REFERENCE FOR CRITERIA: NFPA-5000 SECTION
	1. STRUCTURAL STEEL:			
Y	a. STRUCTURAL WELDING REQUIRED BY AISC 341	X	-----	44.2.2
	2. STRUCTURAL WOOD:			
Y	a. FIELD GLUING OPERATIONS OF ELEMENTS IN THE SEISMIC-FORCE-RESISTING SYSTEM.	X	-----	40.3.11
Y	b. NAILING, BOLTING, ANCHORING, AND OTHER FASTENING OF COMPONENTS WITHIN THE SEISMIC-FORCE-RESISTING SYSTEM, INCLUDING WOOD SHEAR WALLS, WOOD DIAPHRAGMS, DRAG STRUTS, BRACES, AND HOLD DOWNS.	-----	X	40.3.11
	3. COLD - FORMED STEEL FRAMING:			
Y	a. WELDING OF ELEMENTS IN SEISMIC-FORCE RESISTANCE	-----	X	44.8.1
Y	b. SCREW ATTACHMENTS, BOLTING, ANCHORING, AND OTHER FASTENING OF COMPONENTS WITHIN THE SEISMIC-FORCE-RESISTING SYSTEM.	-----	X	44.8.1
Y	4. ANCHORAGE.	-----	X	41.4

QUALITY ASSURANCE INSPECTION AND VERIFICATION OF COLD FORMED METAL FRAMING

SPECIAL INSPECTION REQUIRED Y/N	VERIFICATION AND INSPECTION TASK	FREQUENCY OF INSPECTION: CONTINUOUS DURING TASK LISTED	FREQUENCY OF INSPECTION: PERIODICALLY DURING TASK LISTED	REFERENCE FOR CRITERIA: AISI 240 SECTION
Y	1. SEATING OF STUDS IN TRACK.	-----	X	-----
Y	2. WELDING OF ELEMENTS.	-----	X	D6.6
Y	3. SCREW ATTACHMENTS, BOLTING, ANCHORING, AND OTHER FASTENING OF COMPONENTS.	-----	X	D6.7
Y	4. STEEL STUD BRIDGING SPACING AND END ATTACHMENT.	-----	X	D6.5
Y	5. WELDED CONNECTIONS ARE TOUCHED UP WITH PAINT.	-----	X	D6.6
Y	6. VERIFY STRUCTURAL STUD SIZE, DEPTH, AND GAGE.	-----	X	D6.5

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ENGINEER

Dzilth-Na-O-Dith-Hle - New Dormitory Building

Construction Documents

35 Road 7585, Bloomfield, NM 87413

OCTOBER 5, 2020

MARK	DATE	DESCRIPTION

ISSUE:	
DATE:	
PROJECT NO:	751
CAD DWG FILE:	
DRAWN BY:	KV
CHECKED BY:	MJW

SHEET TITLE

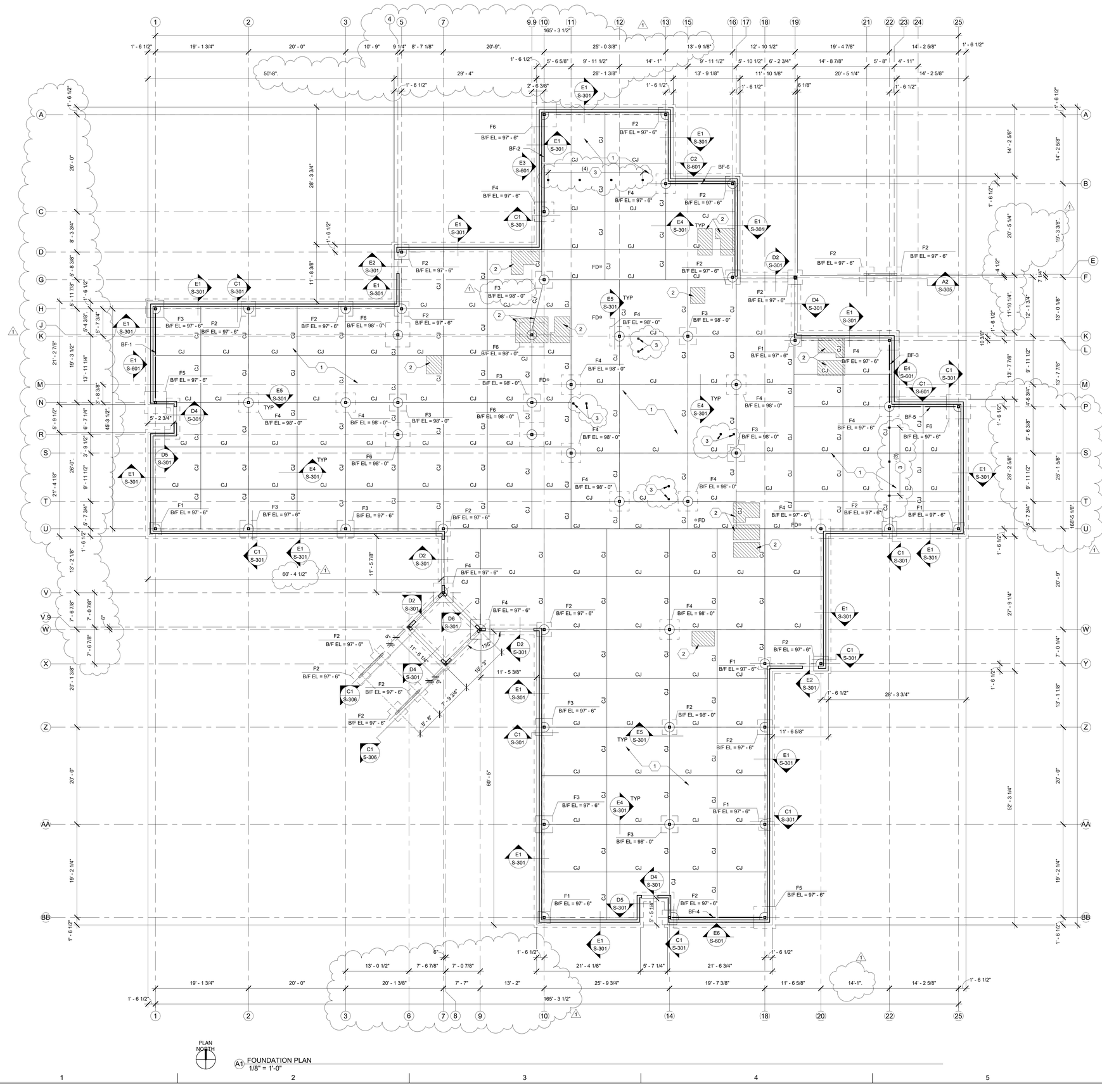
STRUCTURAL QUALITY ASSURANCE INSPECTIONS

S-002

School Information

11/9/2020 4:58:00 PM

Dzilth-Na-O-Dith-Hle - New Dormitory Building



GENERAL NOTES

A. ALL PERIMETER DIMENSIONS ARE TO FACE OF CONCRETE STEMWALL UNLESS NOTED OTHERWISE.

B. CJ INDICATES CONCRETE SLAB CONTROL JOINT, SEE DETAIL E4/S-301.

C. B/F EL = ###'-#" INDICATES BOTTOM OF FOOTING ELEVATION.

D. BF-# INDICATES BRACED FRAME LOCATION, SEE SHEET S-601 FOR BRACED FRAME ELEVATIONS AND DETAILS.

F. FD ⊗ INDICATES FLOOR DRAIN, SEE ARCHITECTURAL AND PLUMBING FOR LOCATION. SLOPE TOP OF SLAB TO DRAIN.

KEYED NOTES

1 5" THICK CONCRETE SLAB W/ #4 @ 18" OC (CENTERED IN SLAB) OVER 4" AGGREGATE BASE COURSE OVER VAPOR BARRIER PER ARCH OVER COMPACTED SUBGRADE. FINISH FLOOR EL = 100'-0" - MSLE - SEE CIVIL.

2 RECESS TOP OF SLAB 2", SEE ARCHITECTURAL FOR EXTENTS. MAINTAIN MINIMUM 5" THICK SLAB PER C2/S-301.

3 HSS3x3x1/4 PARTITION WALL POSTS @ 8'-0" OC MAX. AND AT EACH END OF WALL. COORDINATE WALL LOCATION WITH ARCHITECTURAL. SEE C4/S-301 FOR POST ATTACHMENT.

ISOLATED FOOTING SCHEDULE

Mark	Length	Width	DEPTH	REINFORCING
F1	2' - 6"	2' - 6"	1' - 0"	(4) #4 EACH WAY
F2	3' - 0"	3' - 0"	1' - 0"	(4) #4 EACH WAY
F3	3' - 6"	3' - 6"	1' - 0"	(5) #4 EACH WAY
F4	4' - 0"	4' - 0"	1' - 0"	(6) #4 EACH WAY
F5	4' - 6"	4' - 6"	1' - 0"	(6) #5 EACH WAY
F6	5' - 0"	5' - 0"	1' - 0"	(5) #5 EACH WAY

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OCTOBER 5, 2020

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1	30 OCT 2020	DIMENSION CLARIFICATIONS

ISSUE:	
DATE:	
PROJECT NO:	751
CAD DWG FILE:	
DRAWN BY:	KV
CHECKED BY:	MJW

SHEET TITLE

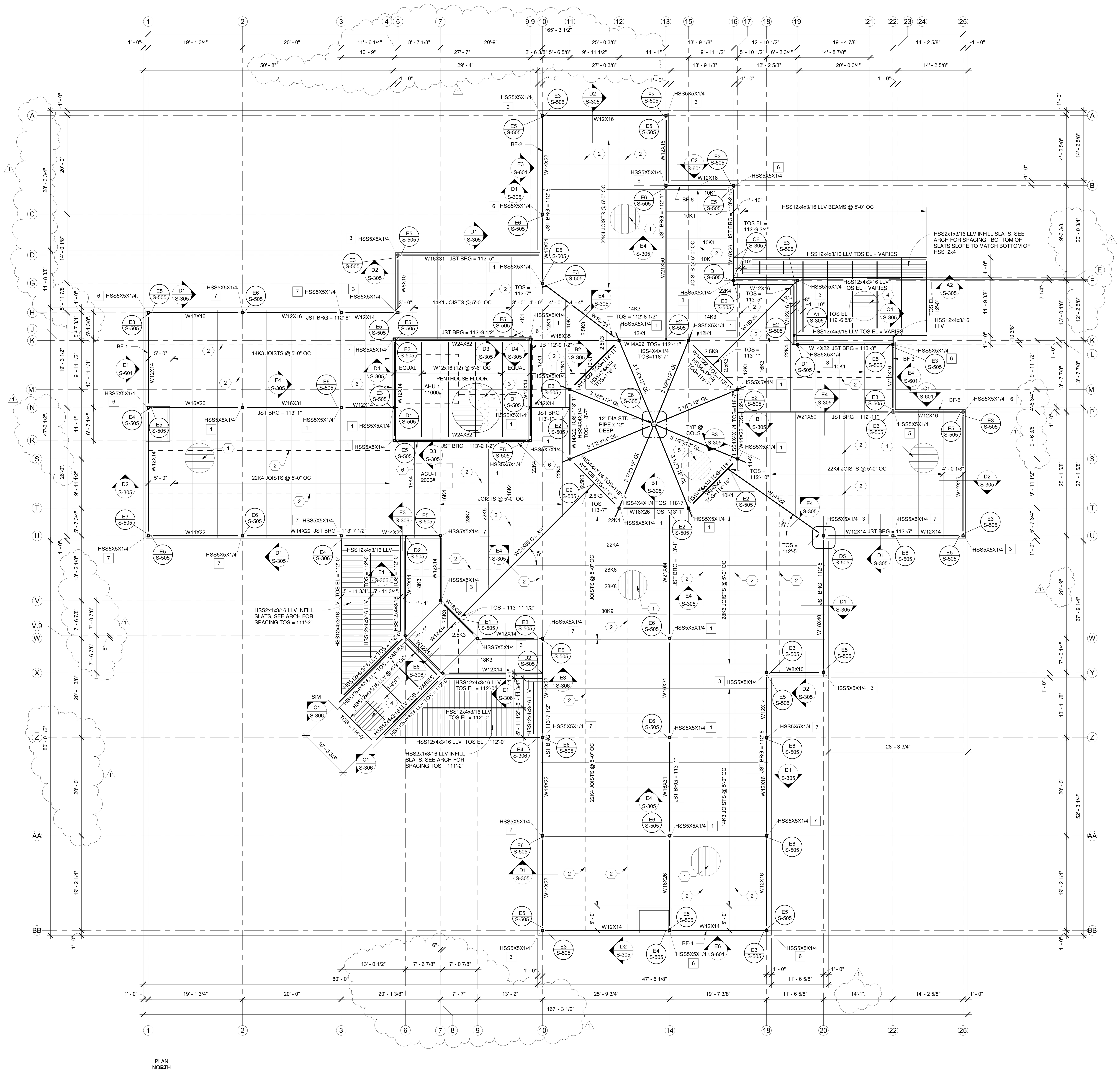
FOUNDATION PLAN

S-101

11/9/2020 4:58:01 PM

School Information

Dzilth-Na-O-Dith-Hle - New Dormitory Building



PLAN NORTH

A1 ROOF FRAMING PLAN
1/8" = 1'-0"

GENERAL NOTES

A. PROVIDE JOIST BRIDGING PER LATEST SJI REQUIREMENTS.

B. DESIGN JOISTS FOR 10 PSF NET UPLIFT TYPICAL UNLESS NOTED OTHERWISE.

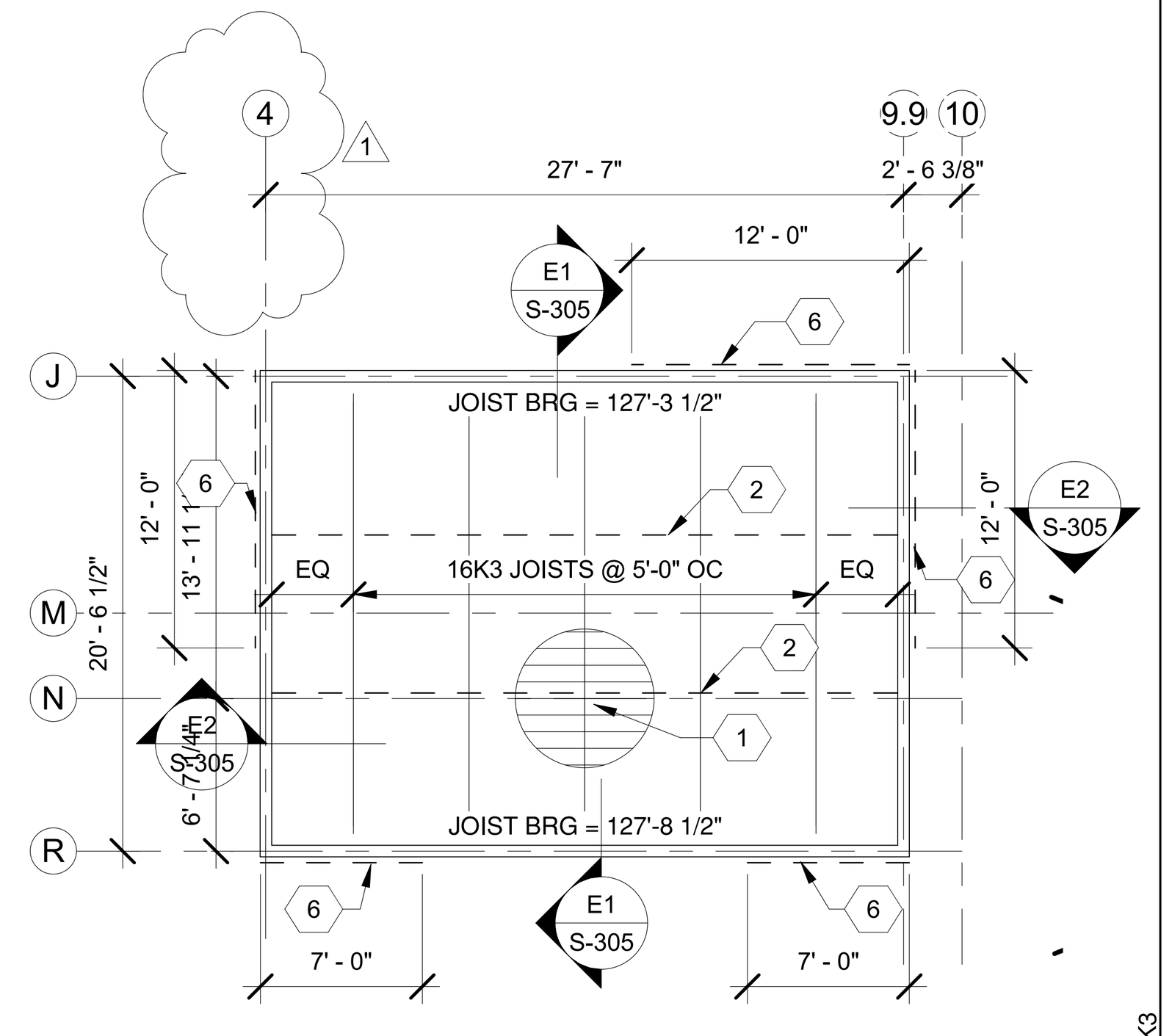
C. FRAME AROUND ROOF DECK OPENINGS PER DETAIL B3/S-505 UNO.

D. SEE C1/S-505 FOR LIGHTGAGE STEEL LINTEL SCHEDULE AND DETAILS AT ALL EXTERIOR OPENINGS AND INTERIOR BEARING WALLS.

E. DIMENSIONS ARE TO EXTERIOR FACE OF STUD WALL.

F. # INDICATES BASE PLATE TYPE PER A1/S-301.

G. BF-# INDICATES BRACED FRAME LOCATION, SEE SHEET S-601 FOR BRACED FRAME ELEVATIONS AND DETAILS.



C6 PENTHOUSE ROOF FRAMING PLAN
1/8" = 1'-0"

KEYED NOTES

1 1 1/2" TYPE "B", 20 GA PAINTED METAL DECK WITH NESTABLE SIDELAPS. ATTACH DECK TO SUPPORTS PERPENDICULAR TO RIBS WITH (5) 5/8" DIA PUDDLE WELDS PER 36" WIDE SHEET AND TO SUPPORTS PARALLEL TO RIBS WITH 5/8" DIA PUDDLE WELDS @ 12" OC ATTACH SIDELAPS WITH #10 TEK SCREWS @ 12" OC.

2 L1x1x7/64 HORIZONTAL BRIDGING EQUALLY SPACED AS SHOWN WELD TO TOP AND BOTTOM CHORDS OF JOISTS.

3 3" CONCRETE SLAB W/ 6x6-W2.1xW2.1 WWF OVER 2" TYPE 'VL' 20 GA GALVANIZED COMPOSITE DECK (5" TOTAL THICKNESS) - 2 SPAN MIN ATTACH DECK W/ (4) 5/8" DIA PUDDLE WELDS PER 36" WIDE SHEET TO EACH SUPPORT AND TO SUPPORTS PARALLEL TO RIBS W/ #10 TEK SCREWS @ 12" OC. FINISH FLOOR ELEVATION 114'-6" UNLESS NOTED OTHERWISE. MSLE = SEE CIVIL. SAWCUT 1/8" WIDE x 1" DEEP JOINTS AT 12'-0" OC MAX EACH WAY.

4 3" TYPE "N", 20 GA PAINTED METAL DECK WITH NESTABLE SIDELAPS. ATTACH DECK TO SUPPORTS PERPENDICULAR TO RIBS WITH (4) 5/8" DIA PUDDLE WELDS PER 24" WIDE SHEET AND TO SUPPORTS PARALLEL TO RIBS WITH 5/8" DIA PUDDLE WELDS @ 12" OC ATTACH SIDELAPS WITH #10 TEK SCREWS @ 12" OC.

5 3" TYPE "N", 18 GA PAINTED METAL DECK WITH NESTABLE SIDELAPS. ATTACH DECK TO SUPPORTS PERPENDICULAR TO RIBS WITH #8 x 1 1/2" WOOD SCREWS AND WASHERS @ 8" OC PER 24" WIDE SHEET AND TO SUPPORTS PARALLEL TO RIBS WITH #8 x 1 1/2" WOOD SCREWS AND WASHERS @ 8" OC ATTACH SIDELAPS WITH #10 TEK SCREWS @ 12" OC.

6 BRACED WALL LOCATION WITH 4"x14 GA X-STRAP EXTERIOR FACE OF WALL, SEE PENTHOUSE ROOF FRAMING PLAN FOR EXTENT OF BRACING. SEE A1/S-505 FOR DETAILS.

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Studio M
6501 Americas Pkwy NE Ste. 301
Albuquerque, NM 87110
p_505.243.9287

SITE
Groundwork Studio
6501 Americas Pkwy NE Ste. 350
Albuquerque, NM 87110
p_505.212.9126

FOOD SERVICE
Standard Kitchen Supply
2405 Candelaria Rd. NE,
Albuquerque, NM 87107
p_505.341.1054

ENGINEER

Dzilth-Na-O-Dith-Hle - New Dormitory Building

Construction Documents

35 Road 7585, Bloomfield, NM 87413

OCTOBER 5, 2020

MARK	DATE	DESCRIPTION
1	30 OCT 2020	DIMENSION CLARIFICATIONS

ISSUE:	
DATE:	
PROJECT NO:	751
CAD DWG FILE:	
DRAWN BY:	KV
CHECKED BY:	MJW

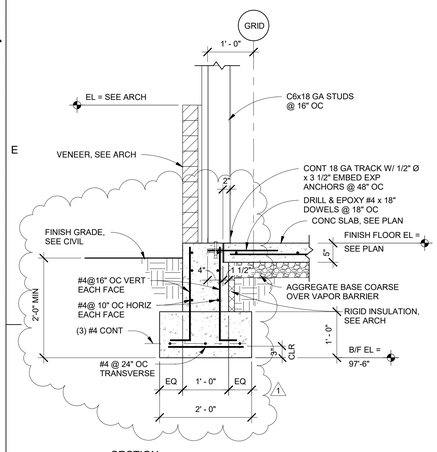
SHEET TITLE

ROOF FRAMING PLAN

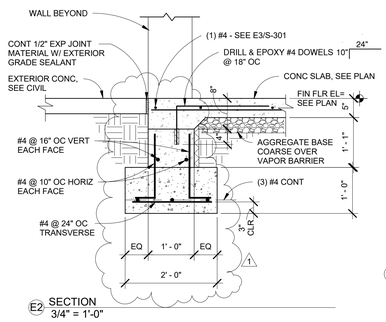
S-111

School Information

11/9/2020 4:58:02 PM



E1 SECTION
3/4" = 1'-0"



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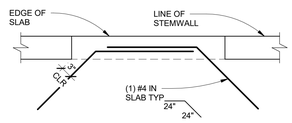

E3 TYP SLAB REINF AT DOOR OPENINGS
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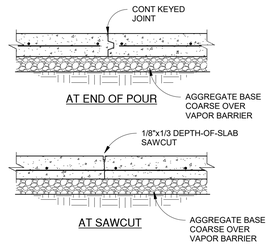
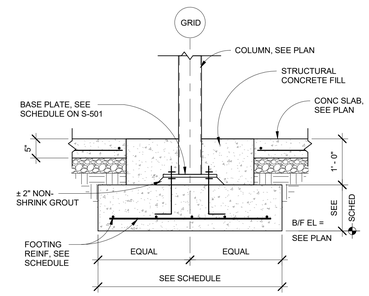


E4 TYP SLAB CONTROL JOINTS
3/4" = 1'-0"



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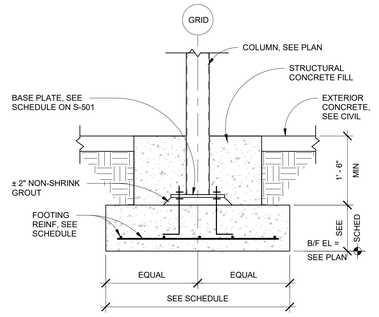

E6 TYPICAL EXTERIOR COLUMN
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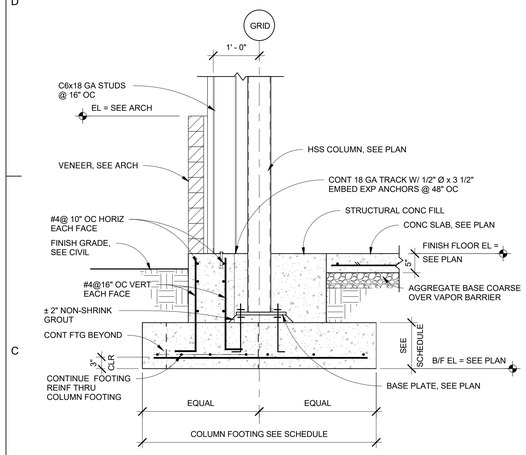
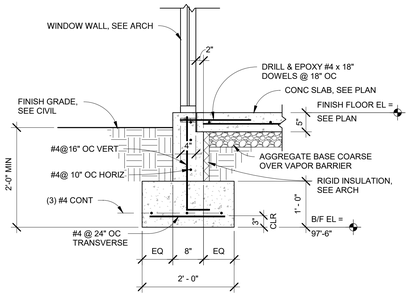


C1 SECTION
3/4" = 1'-0"



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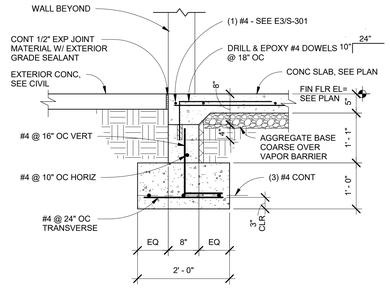

D4 SECTION
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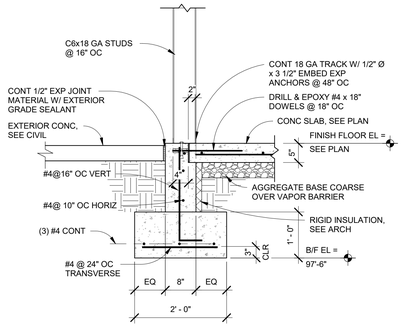
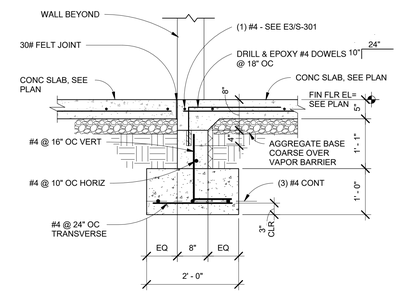
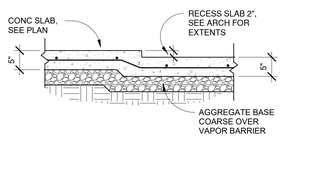


D5 SECTION
3/4" = 1'-0"



D6 SECTION
3/4" = 1'-0"



C2 RECESS SLAB
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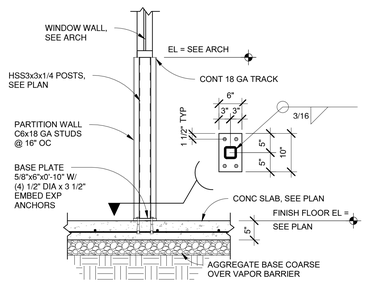
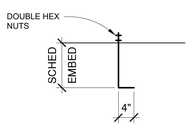
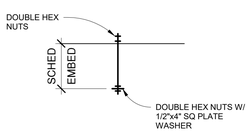


C4 SECTION
3/4" = 1'-0"

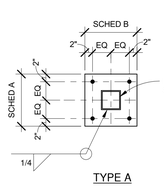
#	BASE PLATE SCHEDULE			
MARK	TYPE	SIZE "T"x"A"x"B"	A307 ANCHOR BOLTS	ANCHOR BOLT TYPE
1	A	3/4"x13"x1'-1"	(4)- 3/4"Ø x9" EMBED	1
2	B	3/4"x11"x1'-1"	(4)- 3/4"Ø x9" EMBED ALL THREADS	2
3	C	3/4"x13"x1'-1"	(4)- 3/4"Ø x9" EMBED	1
4	A	3/4"x13"x1'-1"	(4)- 3/4"Ø x 9" EMBED ALL THREADS	2
5	D	3/4"x13"x1'-1"	(4)- 3/4"Ø x9" EMBED ALL THREADS	2
6	E	3/4"x12"x1'-0"	(4)- 3/4"Ø x9" EMBED ALL THREADS	2
7	F	3/4"x11"x1'-1"	(4)- 3/4"Ø x9" EMBED	1



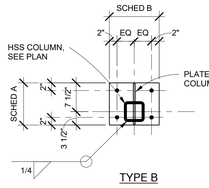
TYPE 1 ANCHOR BOLT



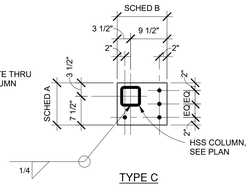
TYPE 2 ANCHOR BOLT



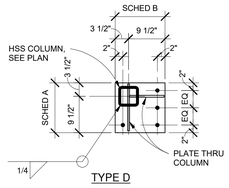
TYPE A



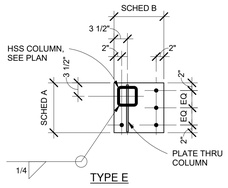
TYPE B



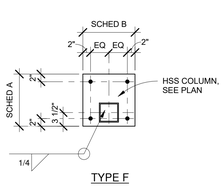
TYPE C



TYPE D



TYPE E



TYPE F

A1 BASE PLATE SCHEDULE
3/4" = 1'-0"

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FOR UPDATES

fbt | architects
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FAX: 505.884.5390
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Albuquerque, NM 87109
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STRUCTURAL
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Albuquerque, NM 87110
p_505.243.9287

M/E/P/FP
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Albuquerque, New Mexico 87109
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ENGINEER

Dzilth-Na-O-Dith-Hle - New Dormitory Building

Construction Documents

35 Road 7585, Bloomfield, NM 87413

OCTOBER 5, 2020

MARK	DATE	DESCRIPTION
1	30 OCT 2020	DIMENSION CLARIFICATIONS

ISSUE:	
DATE:	
PROJECT NO:	751
CAD DWG FILE:	
DRAWN BY:	KV
CHECKED BY:	MJW

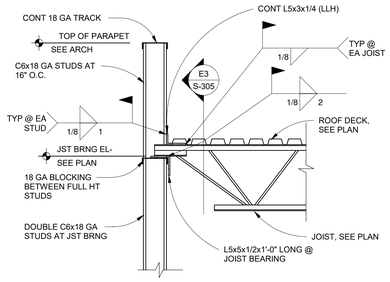
SHEET TITLE

FOUNDATION SECTIONS

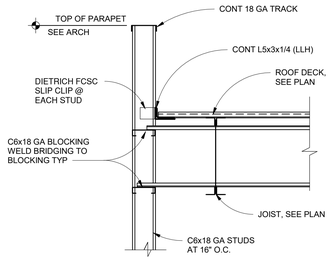
S-301

School Information

11/9/2020 4:58:04 PM



E1 SECTION
3/4" = 1'-0"



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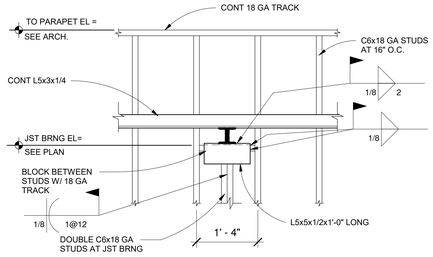

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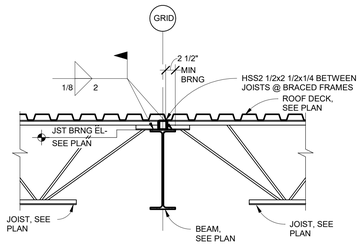
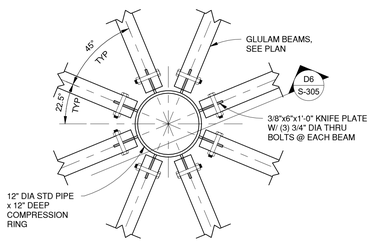
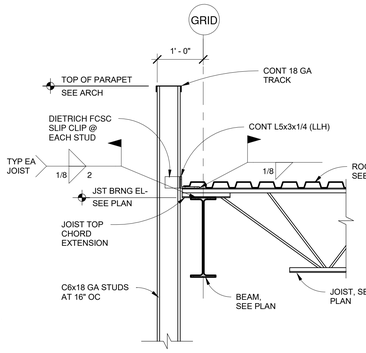
3/4" = 1'-0"



E4 SECTION
3/4" = 1'-0"



E6 DETAIL
1" = 1'-0"



D1 SECTION
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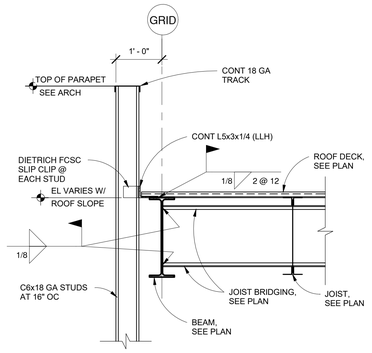

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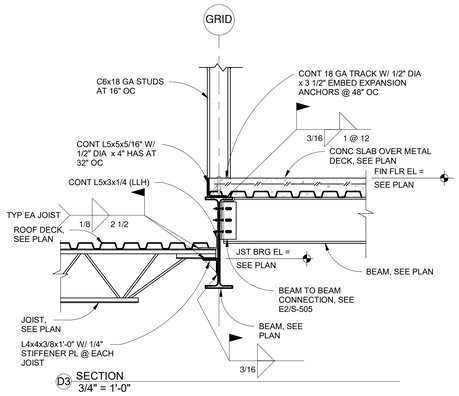
3/4" = 1'-0"



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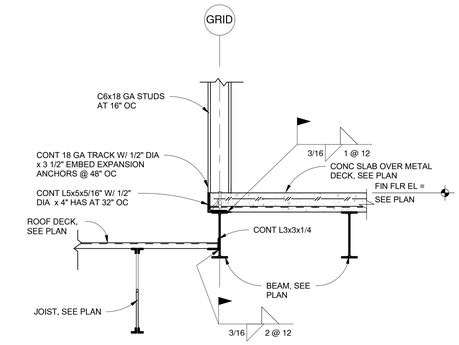

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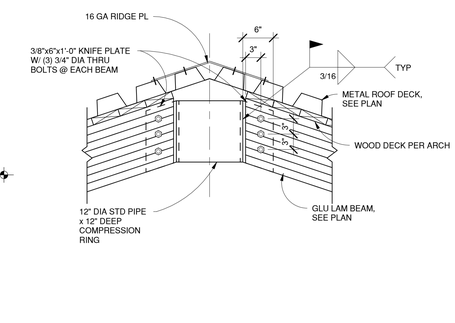

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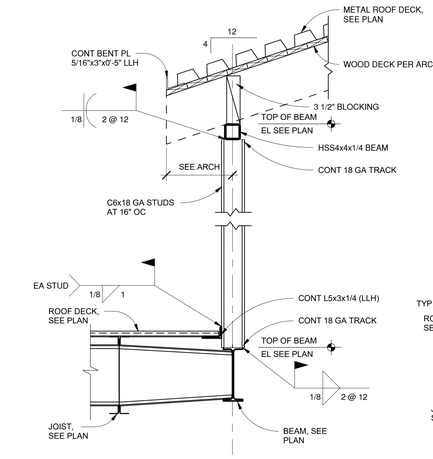

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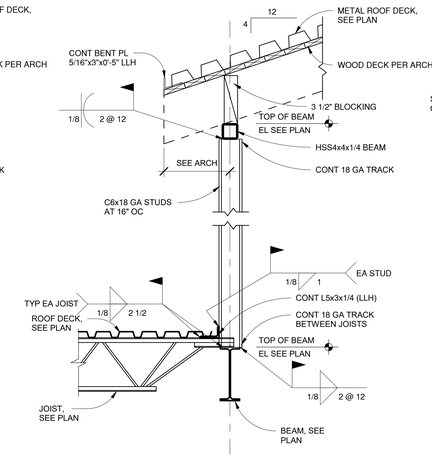

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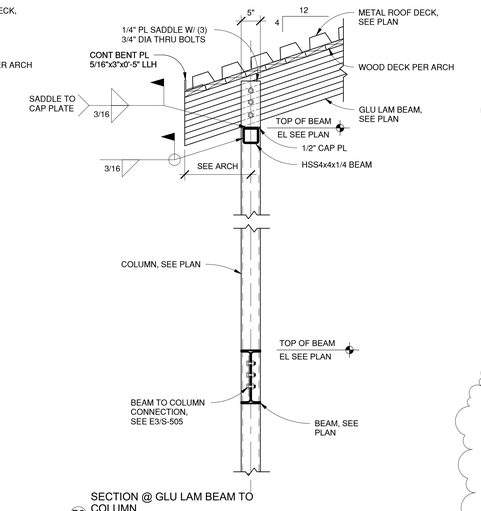

SECTION @ GLU LAM BEAM TO COLUMN
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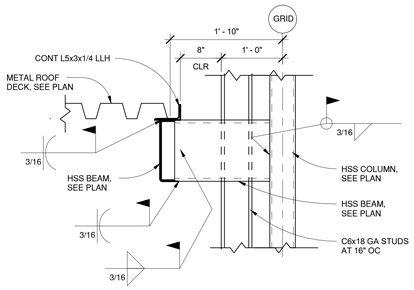

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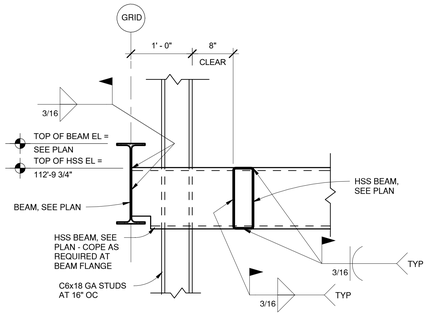

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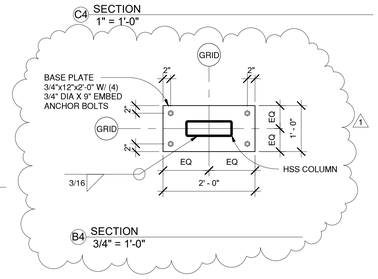

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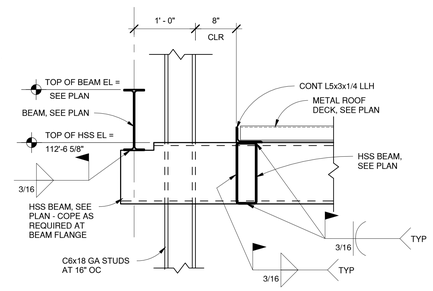

A1 SECTION
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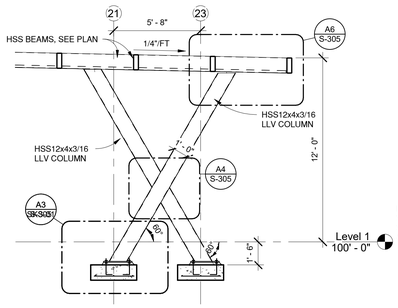

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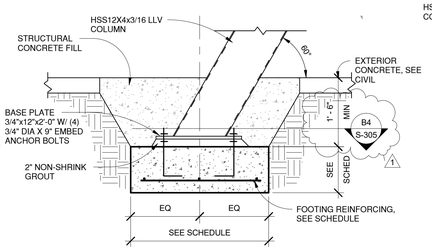

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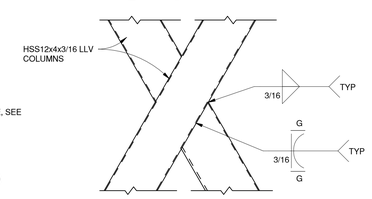

A4 SECTION
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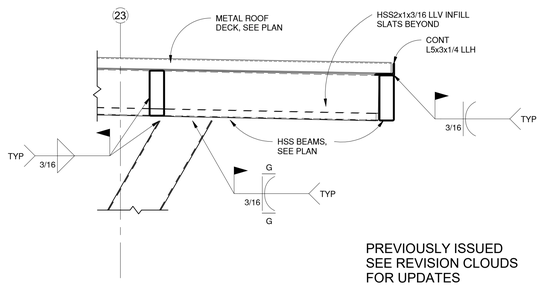

A6 SECTION
3/4" = 1'-0"

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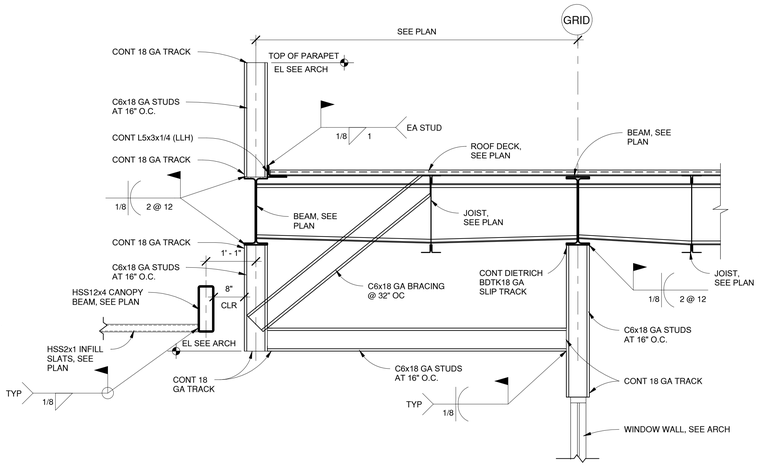
CHECKED BY:	MJW

SHEET TITLE

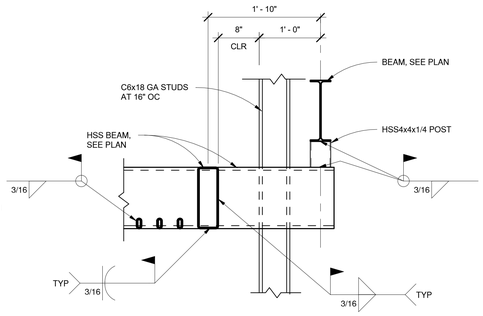
FRAMING SECTIONS

S-305

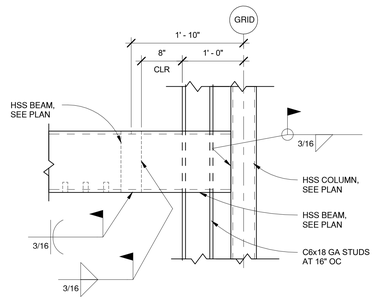
School Information



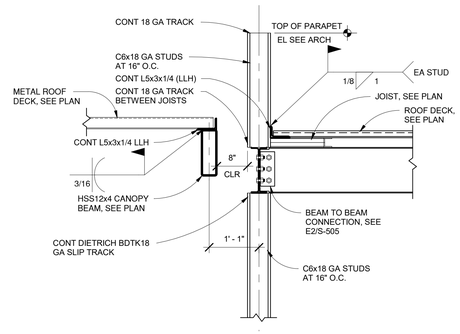
E1 SECTION
3/4" = 1'-0"



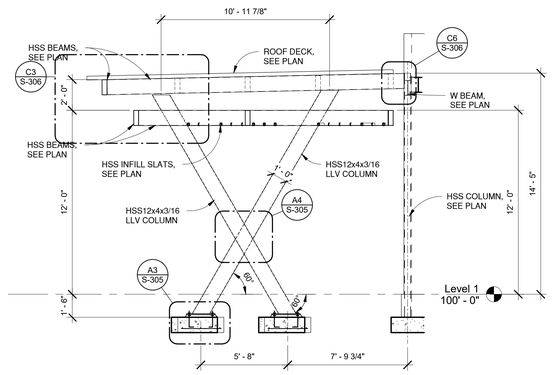
E3 SECTION
1" = 1'-0"



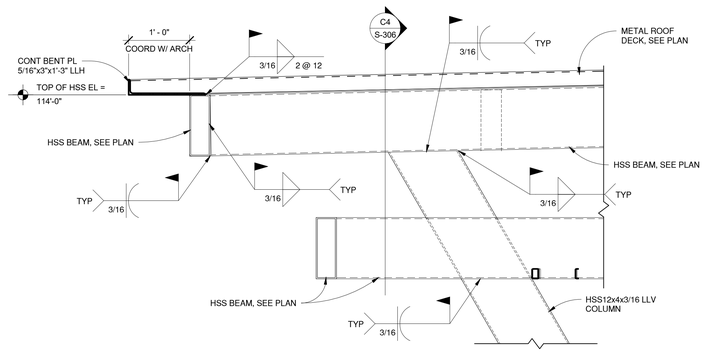
E4 SECTION
1" = 1'-0"



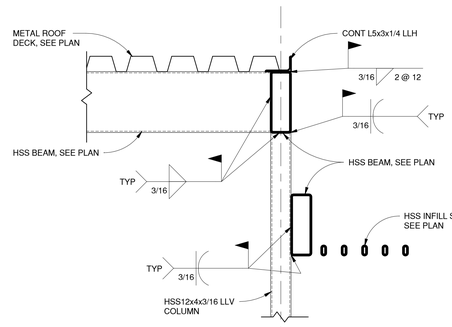
E6 SECTION
3/4" = 1'-0"



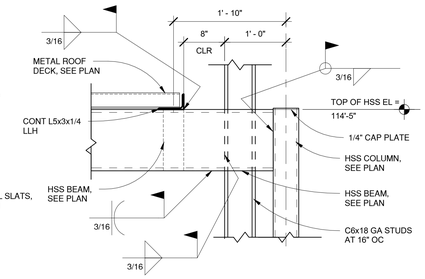
C1 SECTION
1/4" = 1'-0"



C3 SECTION
1" = 1'-0"



C4 SECTION
1" = 1'-0"



C6 SECTION
1" = 1'-0"

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ENGINEER

Dzilth-Na-O-Dith-Hle - New Dormitory Building

Construction Documents

35 Road 7585, Bloomfield, NM 87413

OCTOBER 5, 2020

MARK	DATE	DESCRIPTION

ISSUE:	
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DRAWN BY:	KV
CHECKED BY:	MJW

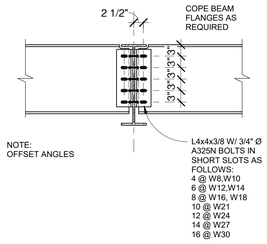
SHEET TITLE

FRAMING SECTIONS

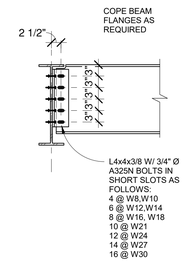
S-306

School Information

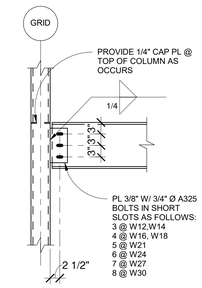
11/9/2020 4:58:06 PM



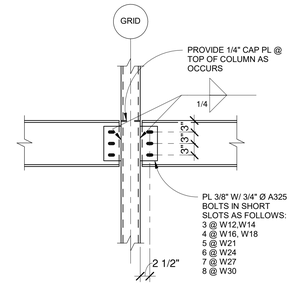
E1 BEAM TO BEAM ANGLE CONNECTION
3/4" = 1'-0"



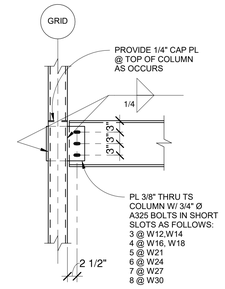
E2 BEAM TO BEAM CONN - ONE SIDED
3/4" = 1'-0"



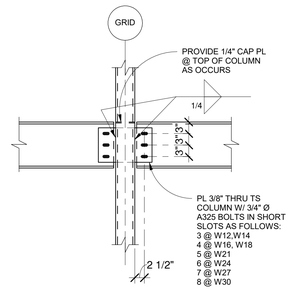
E3 BEAM TO HSS COLUMN CONN W - SHEAR TAB - 2 SIDED
3/4" = 1'-0"



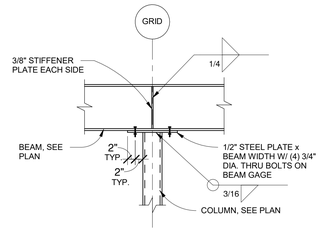
E4 BEAM TO HSS COLUMN W - SHEAR TAB
3/4" = 1'-0"



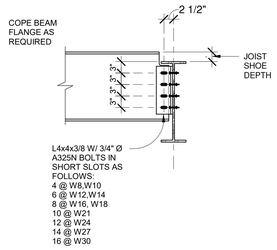
E5 BEAM TO HSS COLUMN CONN W - THRU PLATE
3/4" = 1'-0"



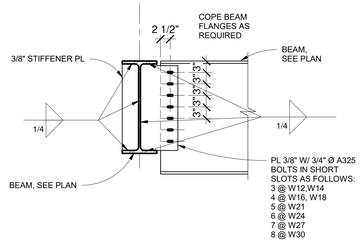
E6 BEAMS TO HSS COLUMN W - THRU PLATE
3/4" = 1'-0"



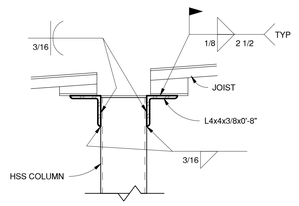
D1 BEAM OVER TOP OF COLUMN CONNECTION
3/4" = 1'-0"



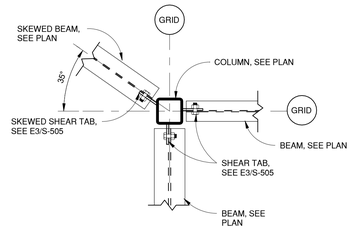
D2 BEAM TO BEAM CONNECTION
3/4" = 1'-0"



D3 SKEWED BEAM TO BEAM CONNECTION
3/4" = 1'-0"



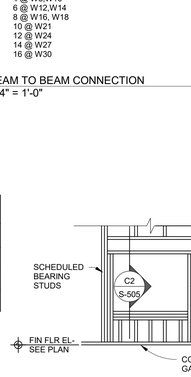
D4 JOIST BEARING COLUMN
1 1/2" = 1'-0"

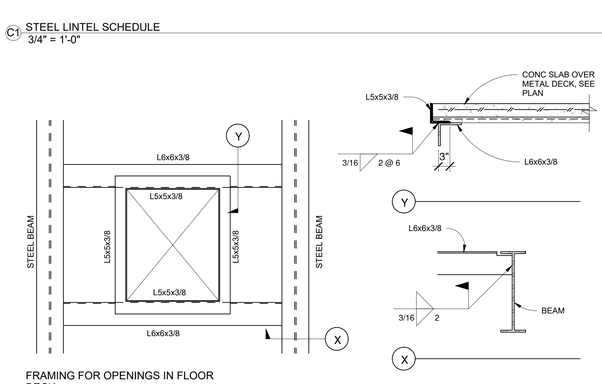


D5 MULTIPLE BEAMS TO COLUMN CONNECTION
1" = 1'-0"

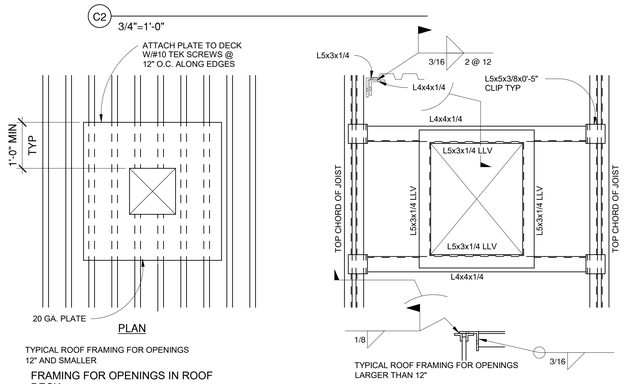
STEEL LINTEL SCHEDULE				
OPENING WIDTH	SIZE	NO. BEARING STUDS	NO. FULL HEIGHT STUDS	WINDOW SILL STUDS
0'-0" TO 4'-0"	2-C6x18 GA.	1	1	18 GA. TRACK
4'-1" TO 6'-4"	3-C6x18 GA.	1	2	18 GA. TRACK 1-C6x18 GA
6'-5" TO 12'-4"	TS6x6x3/16	2	2	18 GA. TRACK 1-C6x18 GA

C1 STEEL LINTEL SCHEDULE
3/4" = 1'-0"

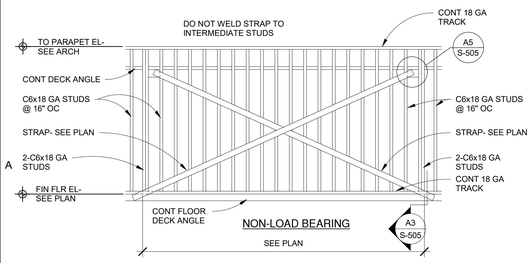




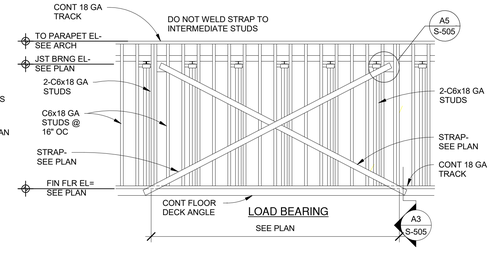
B1 FRAMING FOR OPENINGS IN FLOOR DECK
3/4" = 1'-0"



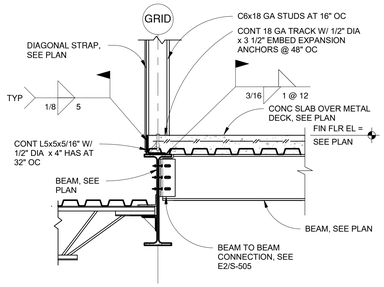
B3 FRAMING FOR OPENINGS IN ROOF DECK
3/4" = 1'-0"



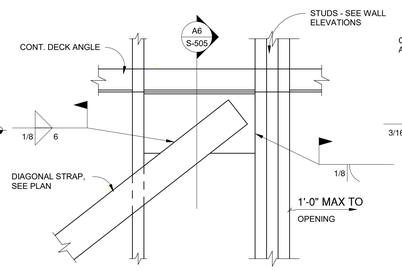
A1 STRAPPED WALL ELEVATIONS
3/4" = 1'-0"

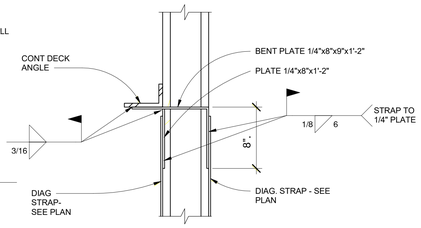


A3 STRAPPED WALL DETAIL AT BASE
3/4" = 1'-0"



A5 STRAPPED WALL WALL DETAIL AT TOP
3/4" = 1'-0"





A6 STRAPPED WALL SECTION AT TOP
3/4" = 1'-0"

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ENGINEER

Dzilth-Na-O-Dith-Hle - New Dormitory Building

Construction Documents

35 Road 7585, Bloomfield, NM 87413

OCTOBER 5, 2020

MARK	DATE	DESCRIPTION

ISSUE:	
DATE:	
PROJECT NO:	751
CAD DWG FILE:	
DRAWN BY:	KV
CHECKED BY:	MJW

SHEET TITLE

FRAMING DETAILS

S-505

School Information

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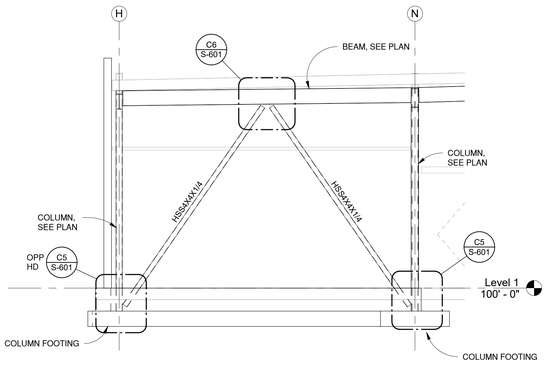
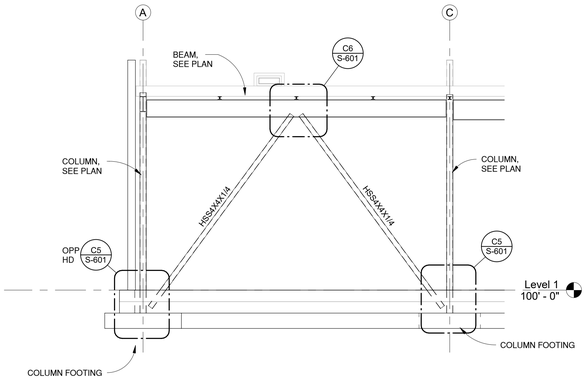
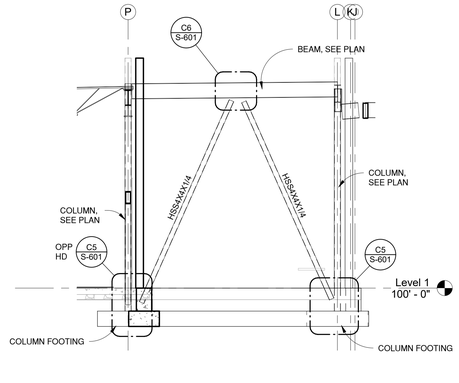


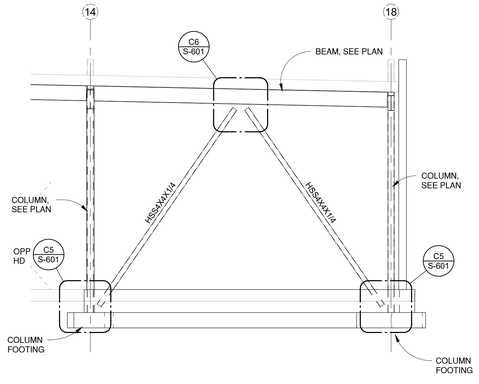
E1 BRACED FRAME 1
1/4" = 1'-0"



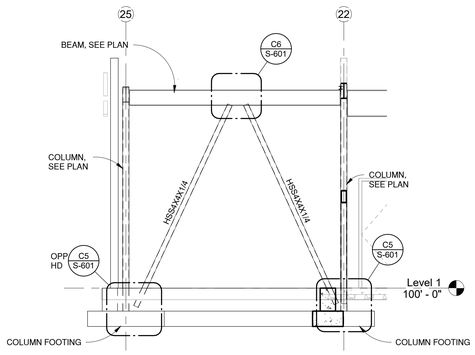
E3 BRACED FRAME 2
1/4" = 1'-0"



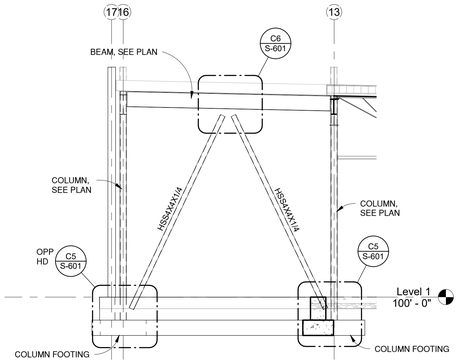
E4 BRACED FRAME 3
1/4" = 1'-0"



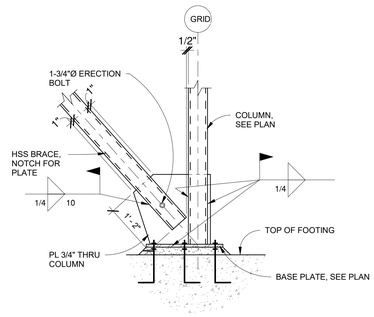
E6 BRACED FRAME 4
1/4" = 1'-0"



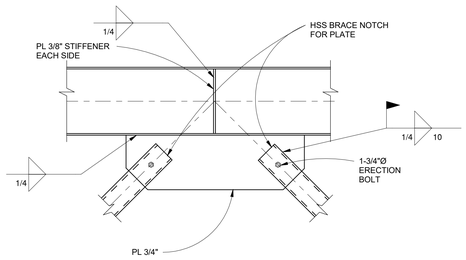
C1 BRACED FRAME 5
1/4" = 1'-0"



C2 BRACED FRAME 6
1/4" = 1'-0"



C5 BRACED FRAME DETAIL
3/4" = 1'-0"



C6 BRACED FRAME DETAIL
3/4" = 1'-0"

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CHECKED BY:	MJW

SHEET TITLE

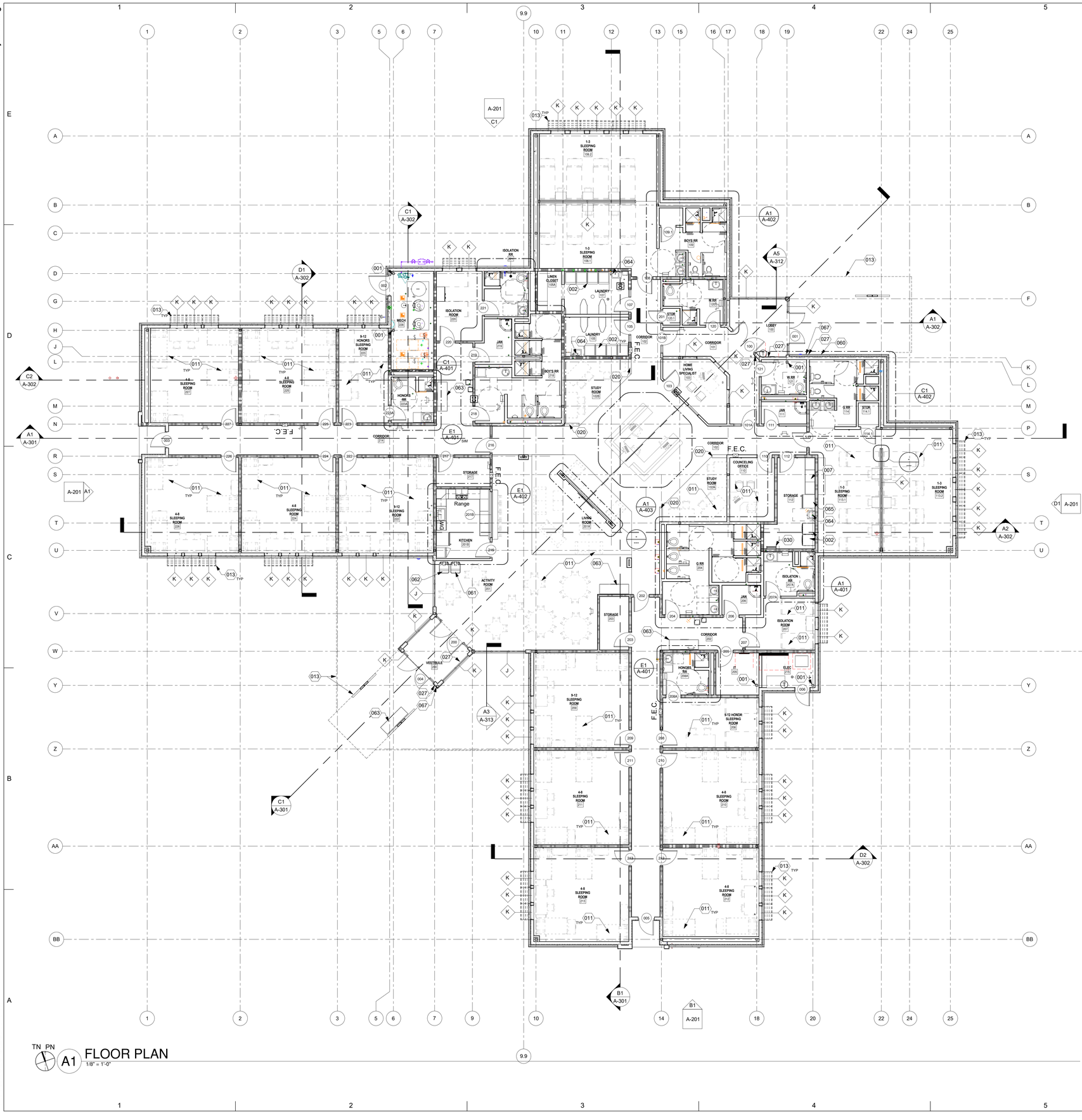
BRACED FRAME ELEVATIONS & DETAILS

S-601

School Information

11/9/2020 4:58:07 PM

Dzilth-Na-O-Dith-Hle - New Dormitory Building



TN PN

A1 FLOOR PLAN
1/8" = 1'-0"

GENERAL NOTES

A. CONTRACTOR SHALL PERFORM DAILY CLEANUP WHEN FINISH GRADE WORK IS BEING PERFORMED.

B. SEE ENLARGED PLANS FOR CLASSROOM LAYOUTS, CASEWORK, ETC.

C. SEE ROOM MATERIALS LEGEND ON ID SHEETS FOR FLOOR/ BASE,WALL AND CEILING MATERIAL INFORMATION.

D. PROVIDE WOOD BLOCKING IN ALL WALLS FOR SUPPORT OF PARTITIONS, SIGNAGE, ACCESSORIES, AND OTHER WALL SUPPORTED ITEMS AS REQUIRED.

E. SEE ANSI GUIDELINES FOR INFORMATION REGARDING ACCESSIBILITY REQUIREMENTS.

F. PROVIDE SEALANT AT INTERSECTIONS OF ALL DISSIMILAR MATERIALS.

G. COORDINATE ALL PLUMBING FIXTURES WITH THE PLUMBING DRAWINGS. IN CASE OF ANY DISCREPANCY, NOTIFY ARCHITECT AND ENGINEER PRIOR TO ROUGH-IN OF INSTALLATION.

H. PROVIDE WATER RESISTANT GYPSUM BOARD AT ALL WET LOCATIONS.

I. FURNISH AND INSTALL 5/8" ABUSE RESISTANT GYP. BOARD TO 8'-0" AFF AT ALL CORRIDOR AND VESTIBULE WALL LOCATIONS.

SYMBOL LEGEND

XX — DOOR TYPE (FOR INFORMATION SEE SHEET A-601)

Ref / Ref 1 A101 1 / Ref — BUILDING ELEVATION

1Ref / 1Ref A101 1Ref / 1Ref — INTERIOR ELEVATION

1 A101 SIM — BUILDING/ WALL SECTION

X — STRUCTURAL GRID

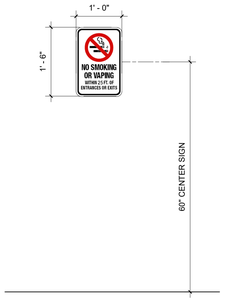
X — WINDOW TYPE (FOR INFORMATION SEE SHEET A-603)

X — PARTITION TYPE (FOR INFORMATION SEE SHEET A-501)

F.E.C — FIRE EXTINGUISHER

KEYED NOTES

001 EXPOSED STEEL COLUMN, PAINT. SEE STRUCTURAL.
002 AIR DISTRIBUTION SYSTEM ENCLOSED IN PLASTIC LAMINATE CASEWORK. SEE ENLARGED PLANS AND ELEVATIONS. SEE MECHANICAL.
007 CASEWORK, UPPER AND LOWER CABINETS WHERE SHOWN. SEE ENLARGED PLANS AND ELEVATIONS. PROVIDE SOLID BLOCKING IN WALL AS REQUIRED.
011 DASHED FURNISHINGS NOT IN CONTRACT.
013 DASHED LINE INDICATES CANOPY / SUNSHADE ABOVE. SEE BUILDING AND WALL SECTIONS.
020 54" HIGH WALL, 6" STEEL STUDS AT 16" OC WITH 5/8" TYPE GYP BOARD ON ALL EXPOSED SIDES, TAPE TEXTURE AND PAINT. 1-1/4" HARDWOOD CAP, SAND FOUR SIDES AND RADIUS ALL EXPOSED EDGES 1/4". FINISH AND WOOD SPECIES TO MATCH WOOD CEILING. SEE RCP FOR INFORMATION.
027 POWER ACTUATED DOOR OPENER SWITCH BUTTON. COORDINATE WIRING RUN THROUGH DOOR FRAME. SEE HARDWARE SCHEDULE AND COORDINATE ELECTRICAL REQUIREMENTS WITH ELECTRICAL DRAWINGS. INSTALL PNEUMATIC CONTROL BOX FOR DOOR OPERATOR ABOVE CEILING. MOUNT SWITCH PER ANSI STANDARDS.
030 ROOF ACCESS LADDER AND HATCH. SEE ROOF DETAILS A-141.
060 WALL MOUNTED SIGNAGE TO READ - NO SMOKING/VAPING WITHIN 25 FEET.
061 RECYCLE PLASTIC BIN. OWNER PROVIDED. OWNER PROVIDED.
062 RECYCLE PAPER BIN. OWNER PROVIDED. OWNER PROVIDED.
063 RECYCLE/TRASH COMBO CONTAINER. OWNER PROVIDED.
064 WALL MOUNTED SINK. SEE PLUMBING.
065 OWNER FURNISHED REFRIGERATOR. SEE PLUMBING AND ELECTRICAL FOR ROUGH IN REQUIREMENTS.
067 VIDEO DOOR PHONE. SEE ELECTRICAL AND TECHNOLOGY DRAWINGS.



A5 NO SMOKING SIGN
3/4" = 1'-0"

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ARCHITECT

Dzilth-Na-O-Dith-Hle - New Dormitory Building

PRICING SET

35 Road 7585, Bloomfield, NM 87413

NOVEMBER 10, 2020

MARK	DATE	DESCRIPTION

ISSUE:	
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PROJECT NO:	751
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SHEET TITLE

FLOOR PLAN

A-101

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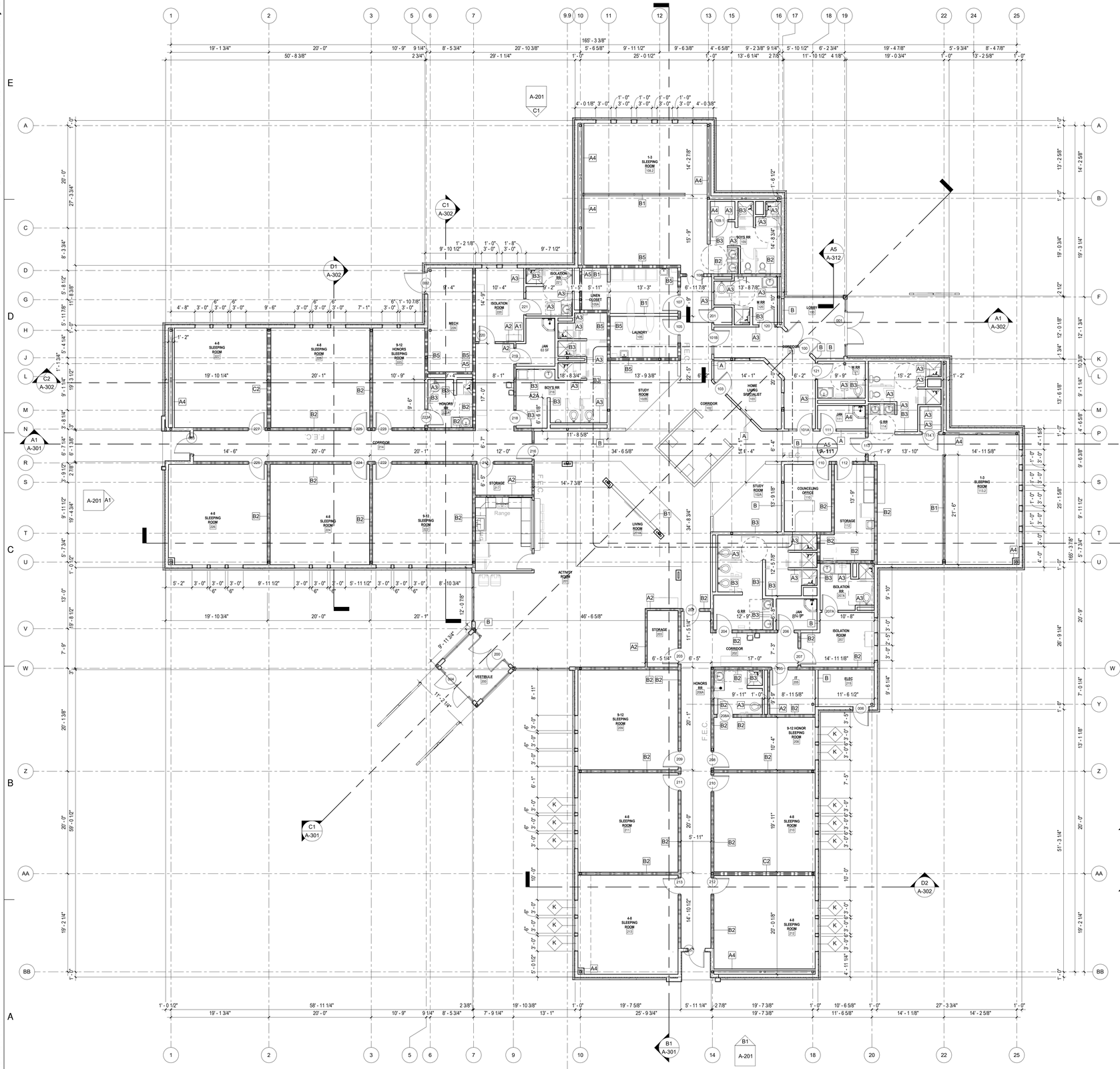
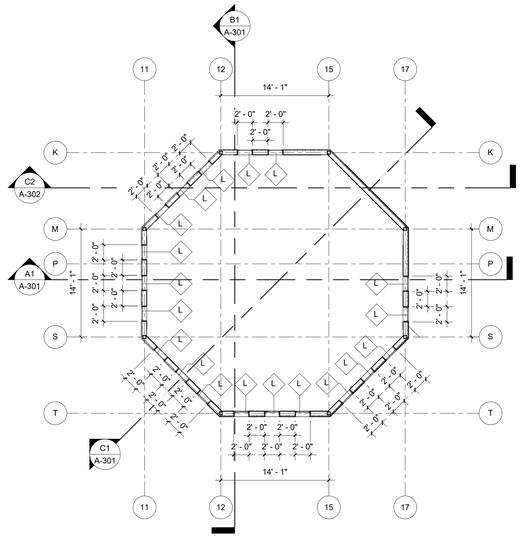
Dzilth-Na-O-Dith-Hle Community School

Dzilth-Na-O-Dith-Hle - New Dormitory Building



TN PN

A1 DIMENSION PLAN
1/8" = 1'-0"



A5 DIMENSION PLAN - CLERESTORY
1/8" = 1'-0"

GENERAL NOTES

A. ALL DIMENSIONS ARE TO FACE OF STEEL STUDS OR MASONRY, UNLESS NOTED OTHERWISE.

B. REFER TO ENLARGED PLAN FOR ADDITIONAL DIMENSIONS & DETAILED SPACE LAYOUTS.

C. SEE SITE PLAN FOR BUILDING LOCATION LAYOUT.

D. SEE PARTITION DETAILS SHEET A-501 FOR PARTITION INFORMATION.

E. SEE ANSI GUIDELINES FOR INFORMATION REGARDING ACCESSIBILITY REQUIREMENTS.

F. SEE FLOOR PLANS, REFLECTED CEILING PLANS, AND ID SHEETS FOR FLOOR, WALL AND CEILING INFORMATION.

H. COLUMN GRIDS "I" AND "O" ARE NOT USED.

I. FURNISH AND INSTALL 5/8" FIBERROCK VHI TYPE "X" GYP. BOARD TO 8'-0" F.F AT ALL HALLWAY AND VESTIBULE WALL LOCATIONS.

SYMBOL LEGEND

XX — DOOR TYPE (FOR INFORMATION SEE SHEET A-601)

Ref / 1 / A101 — BUILDING ELEVATION

1Ref / A101 — INTERIOR ELEVATION

SIM / 1 / A101 — BUILDING/ WALL SECTION

X — STRUCTURAL GRID

X — WINDOW TYPE (FOR INFORMATION SEE SHEET A-603)

X — PARTITION TYPE (FOR INFORMATION SEE SHEET A-501)

F.E.C — FIRE EXTINGUISHER

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DIMENSION PLAN

A-111

School Information

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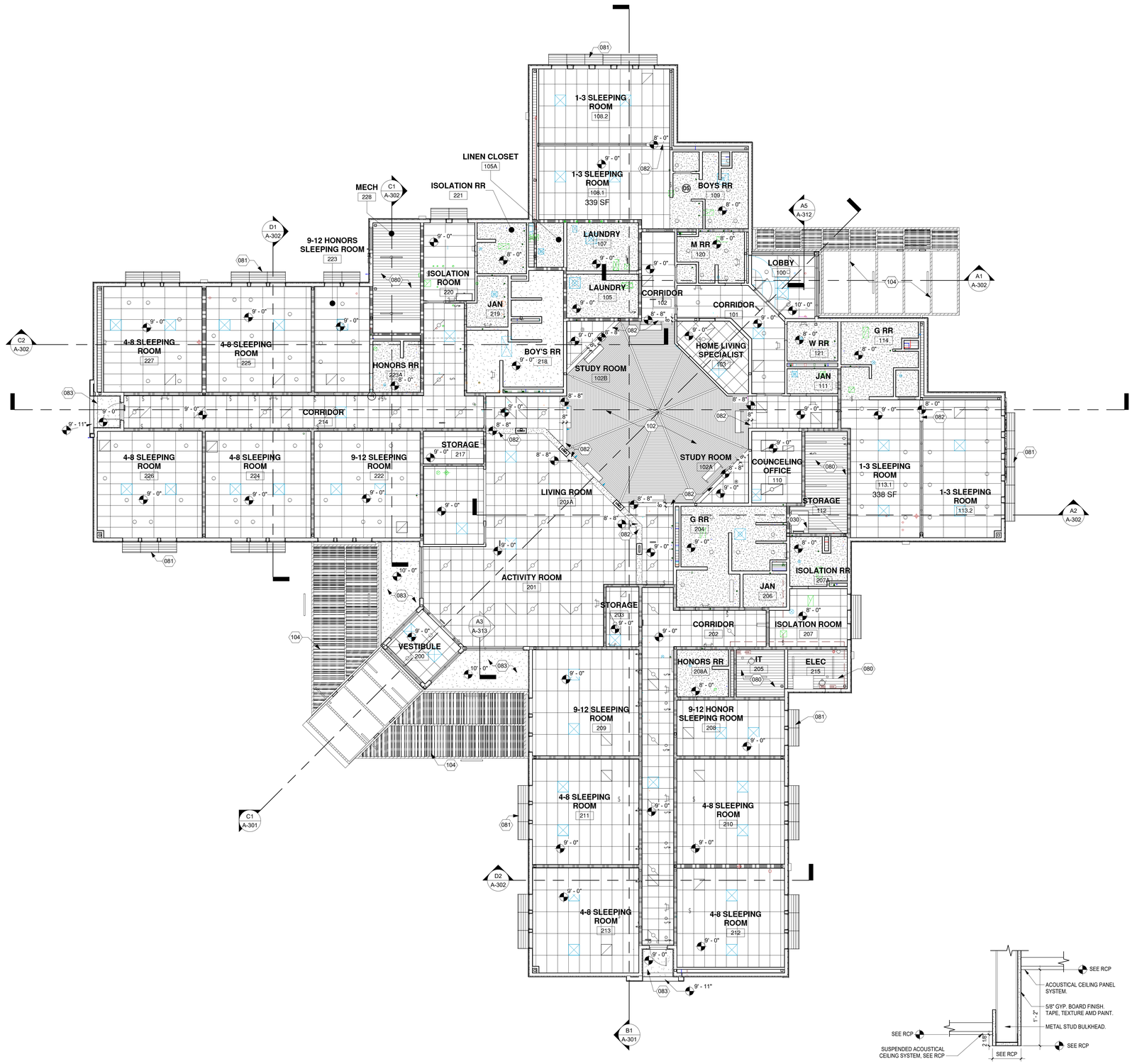
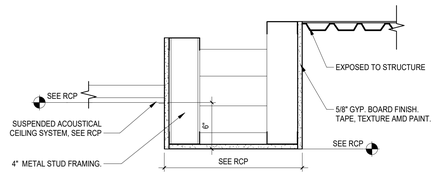


TN PN

A1 REFLECTED CEILING PLAN
1/8" = 1'-0"

A4 BULKHEAD DETAIL
1 1/2" = 1'-0"



A5 SOFFIT DETAIL
1 1/2" = 1'-0"

GENERAL NOTES

A. ALL CEILING ELEVATIONS ARE ABOVE FINISH FLOOR UNLESS NOTED OTHERWISE.

B. CONTROL DRYWALL TEXTURE OVER SPRAY AT ALL LOCATIONS OF EXPOSED CEILING. ENSURE NO OVER SPRAY ON STRUCTURE AND/OR BATT INSULATION.

C. CONTRACTOR SHALL COORDINATE WITH MECHANICAL, ELECTRICAL, AND FIRE PROTECTION WORK TO ACCOMPLISH CEILING HEIGHTS. NOTIFY ARCHITECTS OF ANY CONFLICTS PRIOR TO INSTALLATION.

D. EXACT LOCATION OF SPRINKLER HEADS AND ALL SPECIAL SYSTEMS EQUIPMENT SHALL BE COORDINATED WITH ARCHITECT PRIOR TO SYSTEM INSTALLATION. SPRINKLER HEADS SHALL BE INSTALLED IN CENTER OF CEILING TILE.

E. SEE ID SHEETS FOR WALL ACCENT PAINT COLORS.

F. ALL PAINT COLORS TO BE SELECTED BY ARCHITECT UNLESS NOTED OTHERWISE.

G. COORDINATE LOCATIONS OF CEILING ACCESS PANELS WITH MECHANICAL AND PLUMBING.

H. ALL DIMENSIONS ARE TO FACE OF FINISH.

REFLECTED CEILING LEGEND

- 1 / A101 SIM — BUILDING /WALL SECTION
- SPOT ELEVATION
- GYPSUM BOARD CEILING, TAPE, TEXTURE AND PAINT.
- EXPOSED TONGUE AND GROOVE WOOD DECKING AND GLULAM BEAMS.
- 2' X 2' ACOUSTIC. LAY-IN CEILING TILE.
- 2' X 4' ACOUSTIC. LAY-IN CEILING TILE.
- SUPPLY AIR DIFFUSER. SEE MECHANICAL.
- RETURN AIR DIFFUSER. SEE MECHANICAL.
- LIGHT FIXTURES.. NOT ALL TYPES SHOWN IN THIS LEGEND. SEE ELECTRICAL FOR COMPLETE FIXTURE SCHEDULE

NOTE: REFER ALSO TO ELECTRICAL AND MECHANICAL DRAWINGS FOR REFLECTED CEILING PLAN ITEMS NOT SHOWN OR NOTED ON ARCHITECTURAL REFLECTED CEILING PLANS

KEYED NOTES

030 ROOF ACCESS LADDER AND HATCH. SEE ROOF DETAILS A-141.
080 EXPOSED TO STRUCTURE, PAINT ALL STRUCTURAL ELEMENTS INCLUDING DECK AND, ELECTRICAL MECHANICAL AND FIRE PROTECTION ITEMS, COLOR TO BE SELECTED BY ARCHITECT.
081 PREFINISHED ALUMINUM SUNSHADE. SEE BUILDING AND WALL SECTIONS.
082 GYP BOARD BULKHEAD. PAINT.
083 STUCCO SOFFIT.
102 EXPOSED TONGUE AND GROOVE WOOD DECKING AND GLULAM BEAMS. STAINED. COLOR TO BE SELECTED BY ARCHITECT. SEE WALL SECTIONS AND DETAILS.
104 EXTERIOR CANOPY. PAINT ALL EXPOSED STEEL. SEE BUILDING AND WALL SECTIONS. SEE STRUCTURAL.

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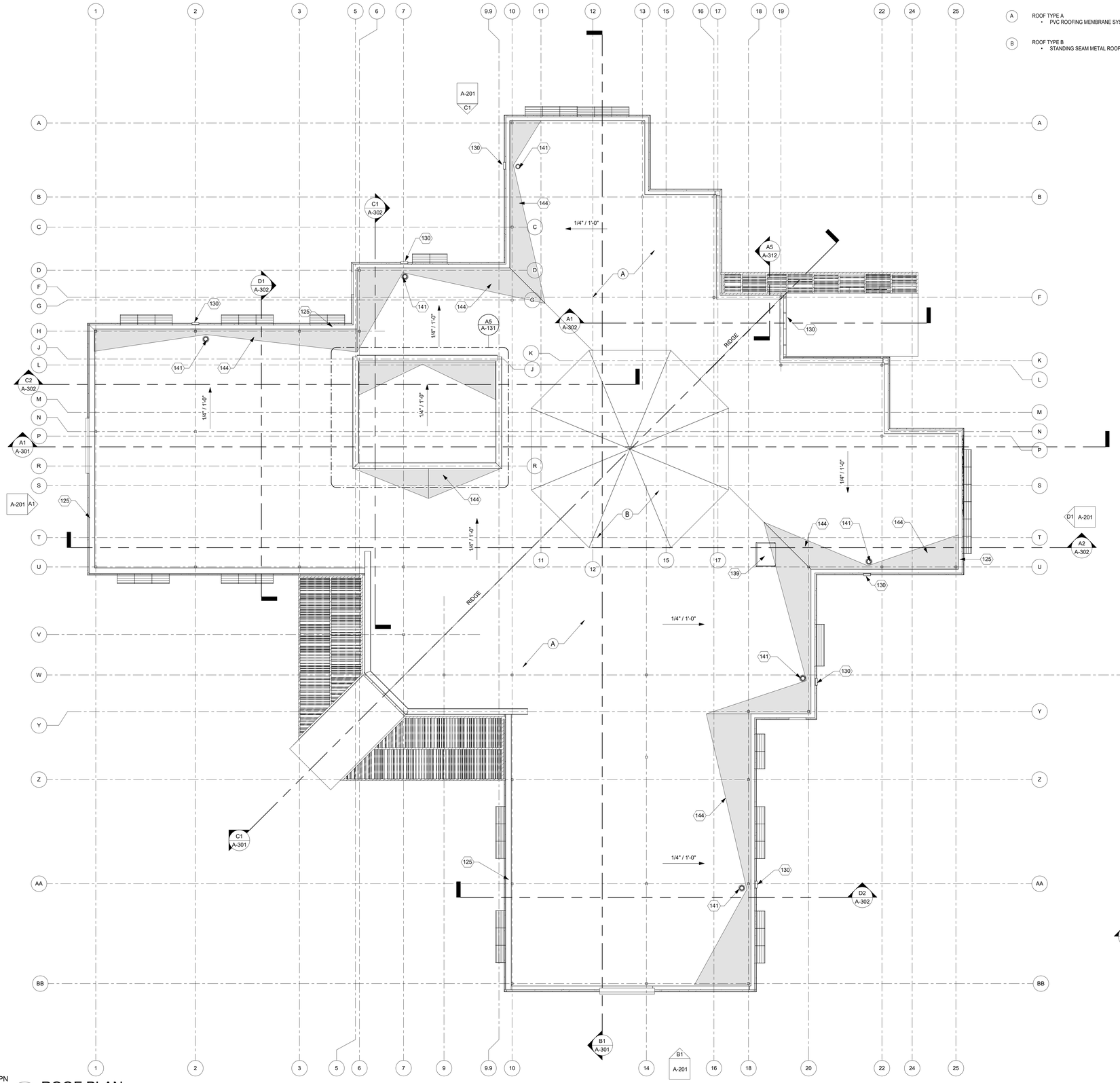
REFLECTED CEILING PLANS

A-120



ROOF COMPOSITION LEGEND

A ROOF TYPE A
- PVC ROOFING MEMBRANE SYSTEM

B ROOF TYPE B
- STANDING SEAM METAL ROOFING

GENERAL NOTES

A. THE ROOFING SYSTEM SHALL BE INSTALLED PER MANUFACTURER'S REQUIREMENTS FOR A 20 YEAR WARRANTY. INSTALL PER MOST STRINGENT REQUIREMENT BETWEEN PLANS, SPECIFICATIONS, MANUFACTURER'S REQUIREMENTS, AND IN ACCORDANCE WITH THE NRCA ROOFING & WATERPROOFING MANUAL, CURRENT EDITION.

B. ROOFING AND FLASHING SYSTEM REQUIRED TO CONFORM TO ES-1 WIND DESIGN STANDARD FOR EDGE SYSTEMS USED WITH LOW SLOPE ROOFING SYSTEMS.

C. FABRICATE AND INSTALL ALL METAL FLASHING AND ACCESSORIES PER RECOMMENDATIONS OF SMACNA ARCHITECTURAL SHEET METAL MANUAL CURRENT EDITION, AND NRCA ROOFING AND WATERPROOFING MANUAL CURRENT EDITION.

D. PROVIDE SHOP DRAWINGS FOR ALL ROOF ACCESSORIES, SHEET METAL, TAPERED INSULATION LAYOUT, ETC

E. PROVIDE CRICKETS ON THE UPHILL SIDE OF ALL EQUIPMENT, OPENINGS, CURBS, ETC. GREATER THAN 12" IN WIDTH.

F. SLOPE ALL CRICKETS 1/4" MINIMUM GREATER THAN THE SLOPE OF THE DECK, WITH A MINIMUM 3 TO 1 LENGTH TO WIDTH RATIO. MAINTAIN POSITIVE DRAINAGE UNLESS NOTED OTHERWISE.

G. PRE-DRILL ALL METAL FLASHING / COUNTER FLASHING MATERIAL PRIOR TO INSTALLING FASTENERS.

H. ALL PLUMBING VENTS MUST MAINTAIN AN 18" MINIMUM DISTANCE ABOVE ROOF. TYPICAL.

I. PROVIDE A MINIMUM 12" HIGH VERTICAL DISTANCE BETWEEN TOP OF ROOFING FIELD MEMBRANES AND TERMINATION OF ALL FLASHINGS / COUNTER FLASHINGS AND FLASHING MEMBRANES. SEE DETAILS AND ROOFING MANUFACTURERS REQUIREMENTS.

J. PRIME AND PAINT ALL EXPOSED FERROUS METAL UNLESS OTHERWISE NOTED.

K. PROVIDE PRE-MANUFACTURED STANDS, MIRO INDUSTRIES, OR APPROVED EQUIVALENT, FOR ALL ROOFTOP PIPING AND CONDUITS ACROSS ROOF. DO NOT EXCEED MAXIMUM LOAD WEIGHT. INSTALL PER MANUFACTURES REQUIREMENTS. PIPES 1-1/2" AND SMALLER SHALL BE SUPPORTED AT 8'-0" O.C. MAX. AND PIPES 2" AND LARGER SHALL BE SUPPORTED AT 10'-0" O.C. MAX. SEE ROOF DETAILS A-141/A142.

L. LOCATIONS OF ROOF TOP EQUIPMENT, DUCTWORK, ROOF PENETRATIONS, FLASHINGS, CURBS, ETC. THAT ARE INDICATED ON THE ROOF PLAN DRAWINGS NEED TO BE COORDINATED IN THE FIELD.

M. IMMEDIATELY NOTIFY ARCHITECT OF ANY CONFLICT BETWEEN ROOFING MANUFACTURERS RECOMMENDATION FOR ANY GIVEN CONDITION AND ARCHITECT'S DETAILS.

N. SLOPE DIRECTION INDICATED BY ARROW ON ROOF PLAN. MAINTAIN DRAINAGE AND SLOPES LISTED.

O. EXTEND GAS LINES, CONDUITS, VENTS ETC. PENETRATING THRU ROOF PER DETAILS ON SHEETS A-141/A-142. SLEEVE WIRE AND CABLE PENETRATIONS THRU ROOF WITH GOOSE NECK PIPE OR CONDUIT.

P. FURNISH AND INSTALL TREATED 1/2" OR THICKNESS AS DETAILED CDX PLYWOOD ON INSIDE FACE OF ALL PARAPETS.

Q. FURNISH AND INSTALL TREATED WOOD BLOCKING AT ROOF MEMBRANE TERMINATION FASTENING LOCATIONS.

R. FURNISH AND INSTALL INSULATION AT ALL MECHANICAL CURBS IF NOT PROVIDED BY MANUFACTURER.

S. TURN FLASHING 90 DEGREES VERTICALLY INTO FASCIA WITH MITERED CORNER AT ALL EXPOSED FLASHING CORNERS.

T. PRIOR TO INSTALLATION OF INTERIOR DRYWALL FINISH CONTRACTOR SHALL TEST ROOF DRAINS FOR LEAKS AS FOLLOWS:
a. FIRST FILL DRAIN BOWL ONLY TO CHECK PLUMBING SEAL.
b. THEN PLUG ROOF DRAIN AND FLOOD AREA OF ROOF AROUND DRAIN WITH 2" OF WATER
c. TEST ROOF DRAIN CONNECTION TO VERTICAL AND HORIZONTAL PLUMBING LEADERS. SEAL ALL LEAK AREAS
d. CHECK ROOFING SECUREMENT TO DRAIN
e. INSTALL RUBBERIZED BOOT AROUND CONNECTIONS OF ROOF DRAIN TO VERTICAL LEADER. CLAMP TIGHTLY TO PROVIDE SUPPORT AND WEATHER TIGHT SEAL.

U. THE ROOFING CONTRACTOR SHALL PROVIDE FASTENERS AS REQUIRED FOR CORROSIVE AGENTS ADDED TO TREATED WOOD NAILERS AND AS RECOMMENDED BY THE ROOFING MANUFACTURER REQUIRED FOR THE WARRANTY.

V. FURNISH AND INSTALL MANUFACTURERS WALK PAD. INSTALL AT THE FOLLOWING LOCATIONS : (1) AT ALL POINTS OF ROOF LANDING AT ACCESS LADDERS, DOORWAYS, HATCHES ETC. (2) ALONG DIRECT PATH TO ROOF TOP UNITS FROM POINTS OF LANDING. (3) TWO ROW WIDTH AROUND ROOF TOP UNITS. DO NOT COVER WELDED TPO SEAMS WITH WALK PAD. PROVIDE FOR A GAP OVER SEAM SPACED AS RECOMMENDED BY MANUFACTURER BUT NOT LESS THAN 8". MAXIMUM LENGTH OF ANY SINGLE RUN OF WALK PAD TO BE NO MORE THAN 10'-0". PROVIDE 3" GAP BETWEEN ROWS OF WALK PADS FOR POSITIVE DRAINAGE.

W. COORDINATE ALL ROOF PENETRATIONS BETWEEN ARCHITECTURAL, PLUMBING, AND MECHANICAL WORK. NOTIFY ARCHITECT OF ANY CONFLICTS PRIOR TO PERFORMING WORK.

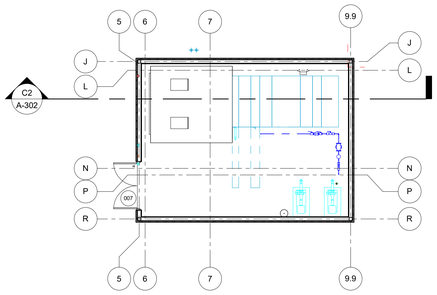
X. PAINT ALL EXPOSED DUCTS, ELECTRICAL CONDUITS, GAS LINES ETC. RUNNING VERTICAL ON WALLS AND HORIZONTALLY ON ROOF. COORDINATE WITH MECHANICAL, ELECTRICAL AND PLUMBING. PAINT COLOR TO BE SELECTED BY ARCHITECT.

Y. FURNISH AND INSTALL PRECAST CONCRETE SPLASHBLOCK AT TERMINATION OF ALL DOWNSPOUTS AND OR SCUPPER OVERFLOWS THAT DO NOT TERMINATE INTO CATCHBASINS. PROVIDE AT BOTH 'AT GRADE' TERMINATIONS, AND ON DOWNSPOUTS & SCUPPERS THAT TERMINATE ONTO A LOWER ROOF.

Z. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND LAYOUT OF BOTH THE SITE AND BUILDING ELEMENTS. COORDINATE FIELD INFORMATION WITH THE ARCHITECT PRIOR TO ANY CONSTRUCTION ACTIVITY.

KEYED NOTES

125	22 GA. METAL COPING CAP. SEE ROOF DETAILS A-141.
130	OVERFLOW SCUPPER. SEE ROOF DETAILS.
139	PREMANUFACTURED ROOF ACCESS LADDER AND HATCH. COORDINATE ROOF PENETRATIONS WITH STRUCTURAL. SEE DETAIL C1/A-141.
141	ROOF DRAIN AND OVERFLOW DRAIN. SEE ROOF DETAILS A1/A-141. SEE PLUMBING DRAWINGS.
144	TAPERED INSULATION ROOF CRICKET. ALL CRICKETS MUST PROVIDE POSITIVE SLOPE AND DRAINAGE WITH A MINIMUM THREE TO ONE LENGTH TO WIDTH RATIO. WATER TEST TO INSURE POSITIVE DRAINAGE. THERE IS TO BE NO STANDING WATER IN CRICKET VALLEYS. REFER TO GENERAL NOTES FOR ADDITIONAL REQUIREMENTS.



TN PN

A1 ROOF PLAN
1/8" = 1'-0"

A5 PENTHOUSE - FLOOR PLAN
1/8" = 1'-0"

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ROOF PLAN

A-131

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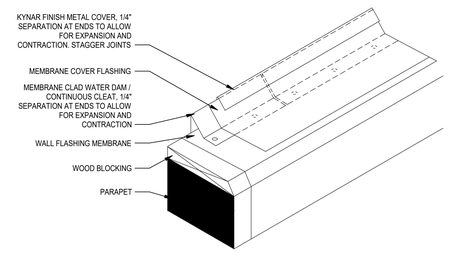
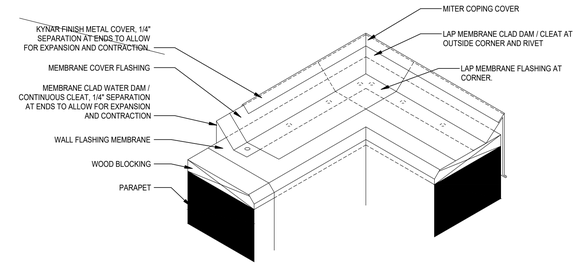
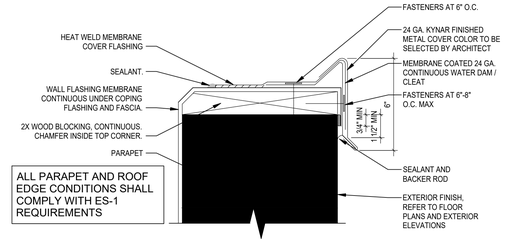
Dzilth-Na-O-Dith-Hle Community School



E1 COPING CAP BUTT JOINT
1 1/2" = 1'-0"

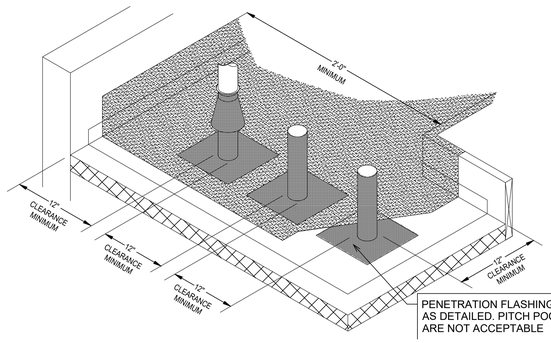


E2 COPING CAP CORNER JOINT
1 1/2" = 1'-0"



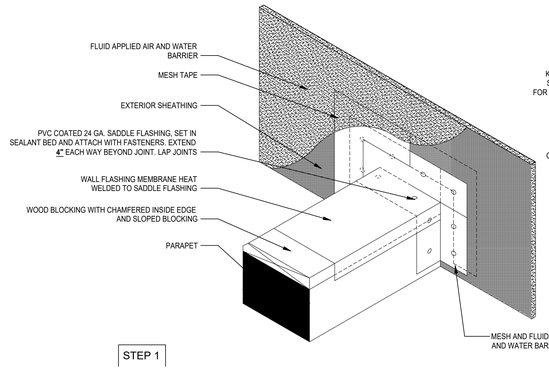
ALL PARAPET AND ROOF EDGE CONDITIONS SHALL COMPLY WITH ES-1 REQUIREMENTS

E4 PARAPET DETAIL
3" = 1'-0"



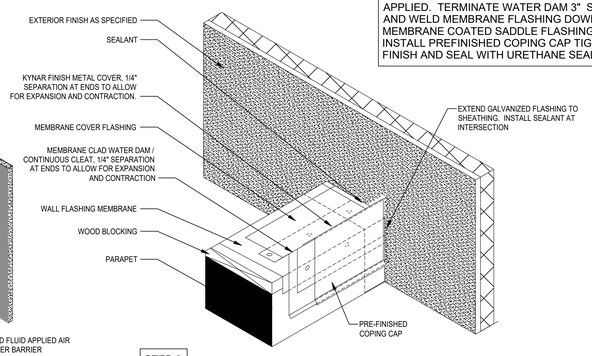
PENETRATION FLASHING, TYP. AS DETAILED. PITCH POCKETS ARE NOT ACCEPTABLE

C1 PENETRATION SPACING
1" = 1'-0"



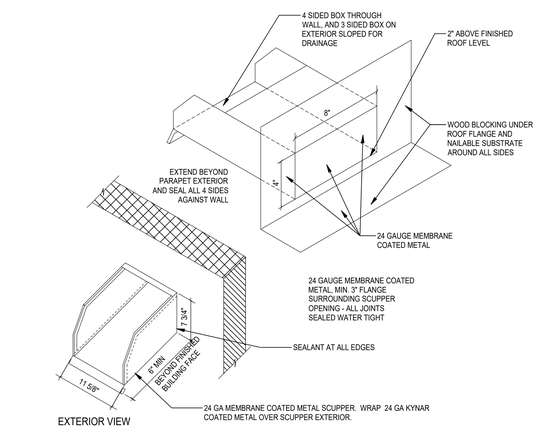
STEP 1

INSTALL WATER DAM AND MEMBRANE FLASHING BEFORE EXTERIOR FINISH IS APPLIED. TERMINATE WATER DAM 3" SHORT AND WELD MEMBRANE FLASHING DOWN TO MEMBRANE COATED SADDLE FLASHING. INSTALL PREFINISHED COPING CAP TIGHT TO FINISH AND SEAL WITH URETHANE SEALANT.



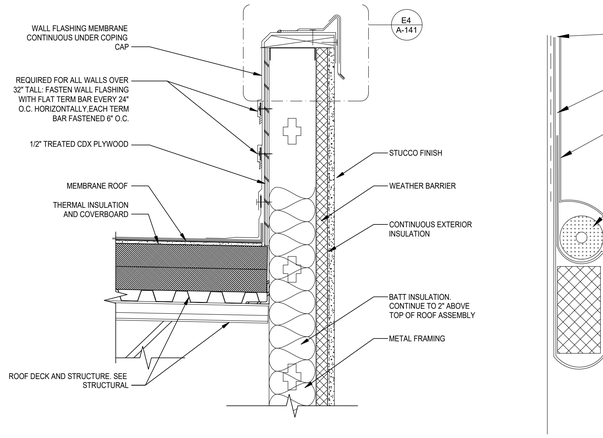
STEP 2

C3 COPING CAP WALL ABUTEMENT
1 1/2" = 1'-0"

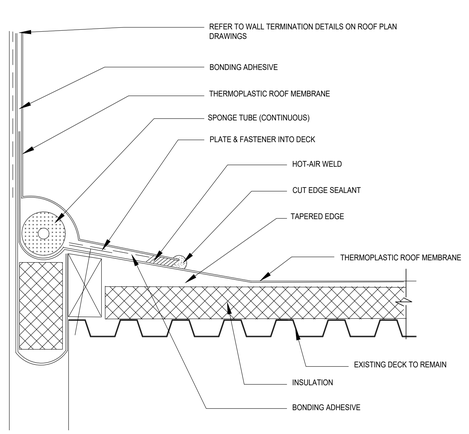


EXTERIOR VIEW

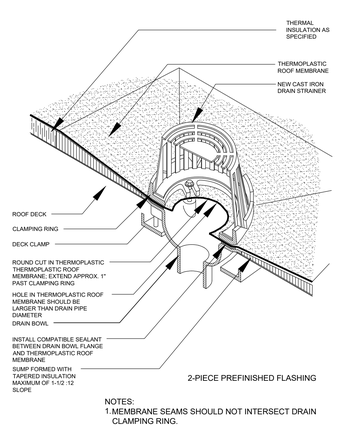
B1 SCUPPER DETAIL
1" = 1'-0"



B2 STEEL STUD PARAPET
1 1/2" = 1'-0"



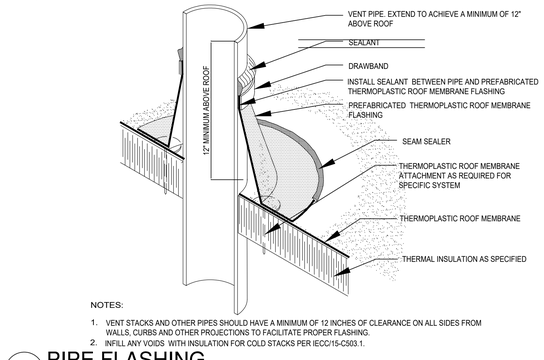
B4 EXPANSION JOINT
N.T.S.



2-PIECE PREFINISHED FLASHING

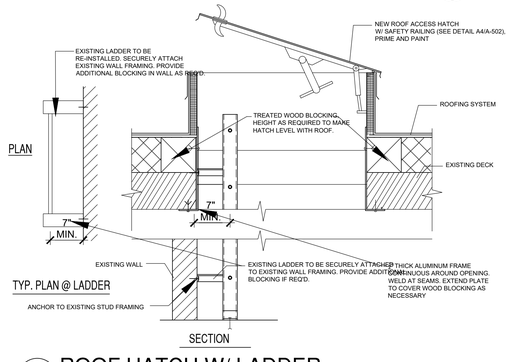
NOTES:
1.MEMBRANE SEAMS SHOULD NOT INTERSECT DRAIN CLAMPING RING.

B5 PRIMARY ROOF DRAIN
N.T.S.

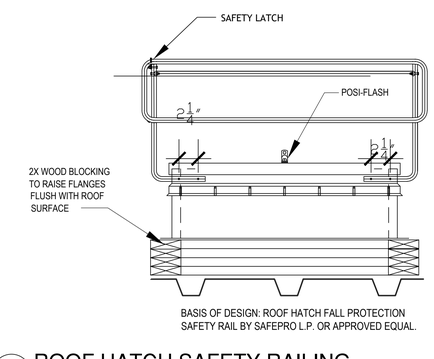


NOTES:
1. VENT STACKS AND OTHER PIPES SHOULD HAVE A MINIMUM OF 12 INCHES OF CLEARANCE ON ALL SIDES FROM WALLS, CURBS AND OTHER PROJECTIONS TO FACILITATE PROPER FLASHING.
2. INFILL ANY VOIDS WITH INSULATION FOR COLD STACKS PER IECC/15-C503.1.

A1 PIPE FLASHING
N.T.S.

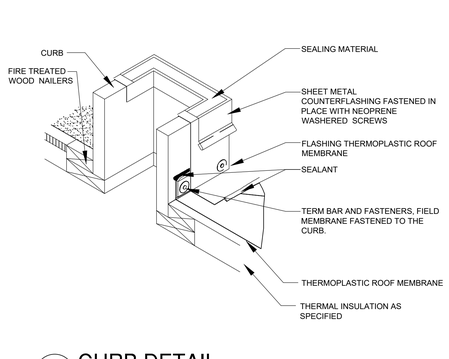


A3 ROOF HATCH W/ LADDER
N.T.S.



BASIS OF DESIGN: ROOF HATCH FALL PROTECTION SAFETY RAIL BY SAFEPRO L.P. OR APPROVED EQUAL.

A4 ROOF HATCH SAFETY RAILING
N.T.S.



A5 CURB DETAIL
N.T.S.

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NOT FOR CONSTRUCTION

ARCHITECT

Dzilth-Na-O-Dith-Hle - New Dormitory Building

PRICING SET

35 Road 7585, Bloomfield, NM 87413

NOVEMBER 2ND, 2020

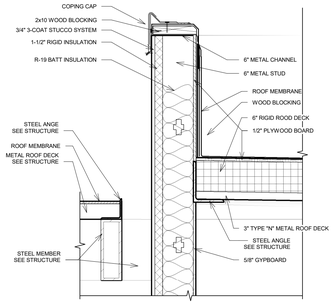
MARK	DATE	DESCRIPTION

ISSUE:	
DATE:	
PROJECT NO:	
CAD DWG FILE:	
DRAWN BY:	FBT
CHECKED BY:	JT

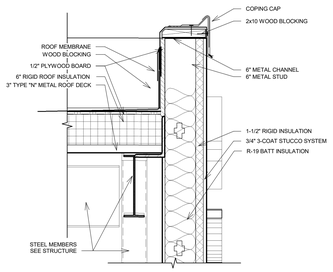
SHEET TITLE

ROOF DETAILS

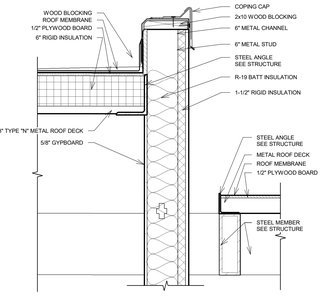
A-141



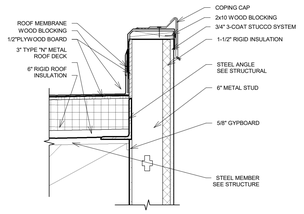
D1 COMMONS PARAPET DETAIL
1" = 1'-0"



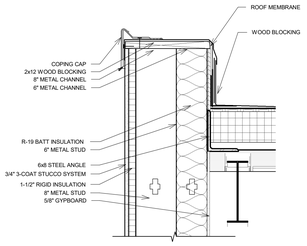
D2 TYP. WALL PARAPET DETAIL
1" = 1'-0"



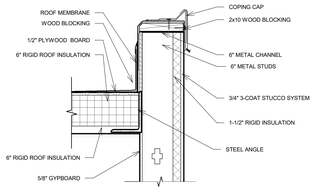
D3 VISITOR ENTRANCE PARAPET
1" = 1'-0"



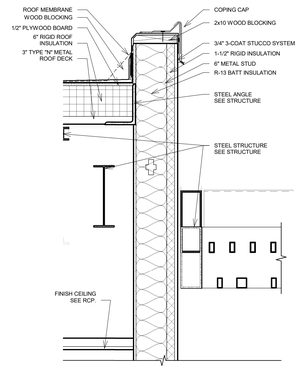
D4 PENTHOUSE PARAPET DETAIL - JOIST
1" = 1'-0"



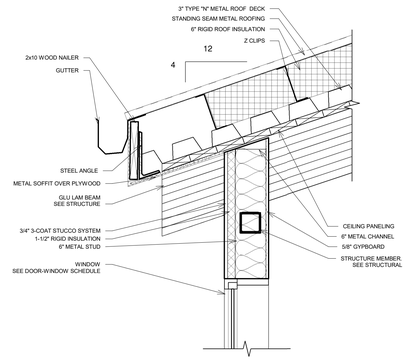
C1 POPOUT WALL PARAPET DETAIL
1" = 1'-0"



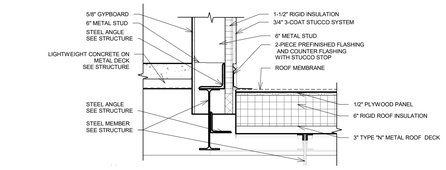
C2 PENTHOUSE PARAPET
1" = 1'-0"



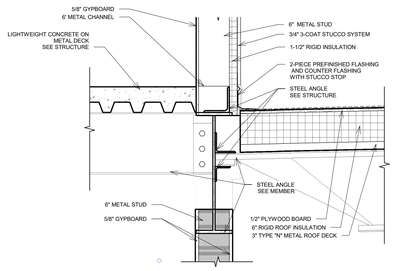
C3 VEST. CANOPY DETAIL
1" = 1'-0"



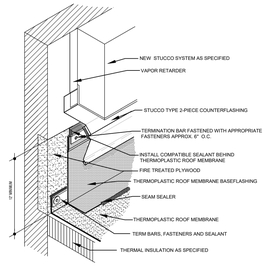
C4 HOGAN ROOF DETAIL
1" = 1'-0"



B1 PENTHOUSE/ROOF DETAIL
1" = 1'-0"



B2 PENTHOUSE/ROOF DETAIL-CORRIDOR
1" = 1'-0"



HIGH WALL FLASHING DETAIL @ STUCCO
B4 N.T.S.

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ARCHITECT

Dzilth-Na-O-Dith-Hle - New Dormitory Building

PRICING SET

35 Road 7585, Bloomfield, NM 87413

NOVEMBER 10, 2020

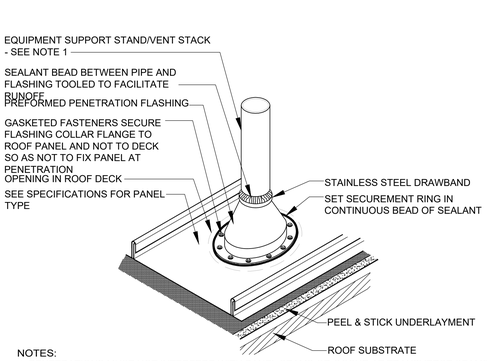
MARK	DATE	DESCRIPTION

ISSUE:	
DATE:	
PROJECT NO:	751
CAD DWG FILE:	
DRAWN BY:	Author
CHECKED BY:	Checker

SHEET TITLE

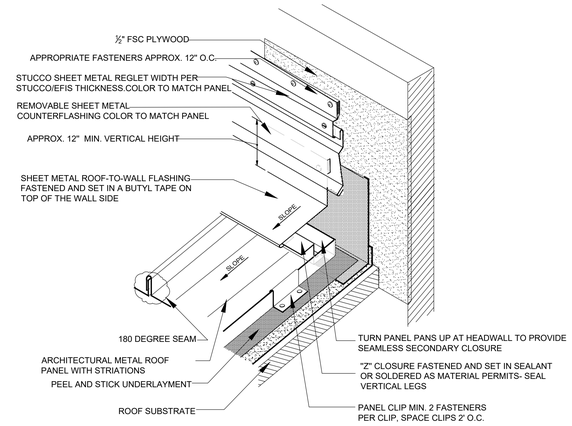
ROOF DETAILS

A-142

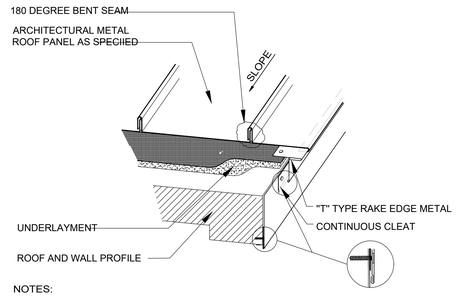


NOTES:
1. PENETRATIONS MUST NOT INTERFERE WITH PANEL SEAMS OR OCCUR AT TRANSVERSE SEAMS.
2. CUT HOLE IN ROOF DECK TO ALLOW FOR MOVEMENT.
3. VENT STACKS AND OTHER PIPES SHOULD HAVE A MINIMUM OF 12 INCHES [300 mm] OF CLEARANCE ON ALL SIDES FROM WALLS, CURBS, AND OTHER PROJECTIONS TO FACILITATE PROPER FLASHING.
4. FOR HOT PIPES, SPECIFIC HIGH-TEMPERATURE BOOTS SHOULD BE USED.

B1 PIPE PENETRATION DETAIL
N.T.S.

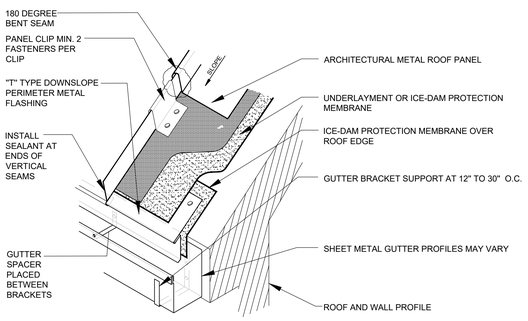


B2 RIDGE TO WALL DETAIL
N.T.S.

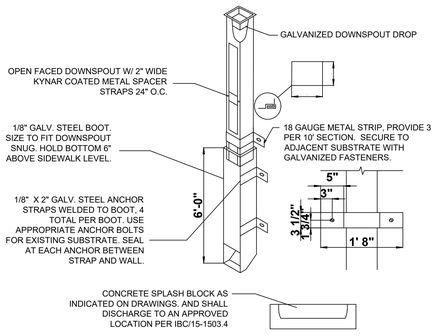


NOTES:
1. SPECIFIC FASTENING REQUIREMENTS ARE NOT INDICATED, AS THEY VARY FROM SYSTEM TO SYSTEM DEPENDING UPON PANEL MANUFACTURER'S REQUIREMENTS, WIND ZONE AND BUILDING CODE.
2. ALL CLIPS AND CLEATS NEED TO BE SET IN SEALANT AND STRIPPED OFF WITH PEEL & STICK MEMBRANE.

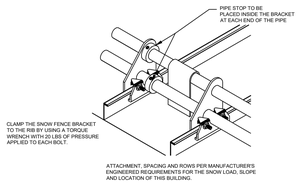
B4 RAKE DETAIL
N.T.S.



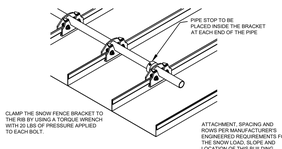
A1 GUTTER DETAIL
N.T.S.



A2 DOWNSPOUT DETAIL @ GUTTER OUTLET
N.T.S.



A4 FIRST ROW SNOW GUARD DETAIL
N.T.S.



A5 FIELD SNOW GUARD DETAIL
N.T.S.

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NOT FOR CONSTRUCTION
ARCHITECT

Dzilth-Na-O-Dith-Hle - New Dormitory Building

PRICING SET

35 Road 7585, Bloomfield, NM 87413

NOVEMBER 2ND, 2020

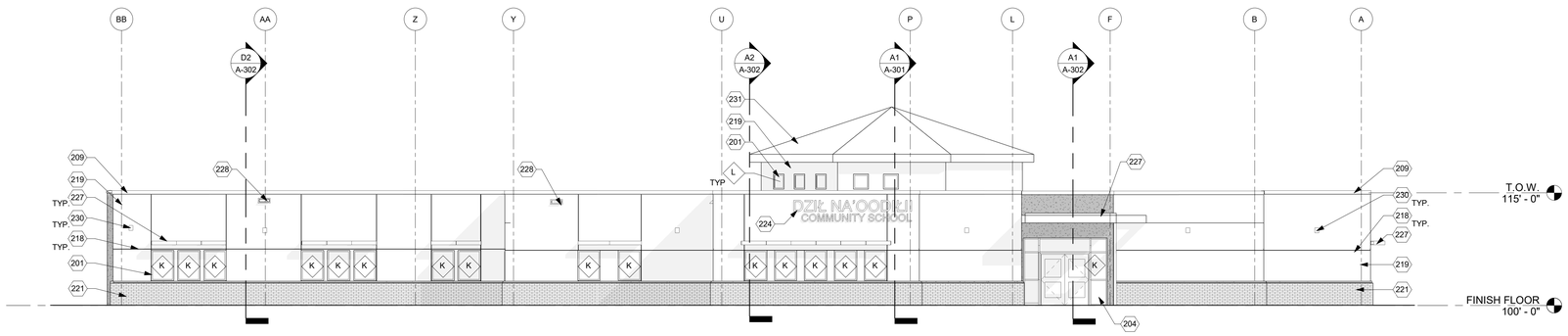
MARK	DATE	DESCRIPTION

ISSUE:	
DATE:	
PROJECT NO:	
CAD DWG FILE:	
DRAWN BY:	Author
CHECKED BY:	Checker

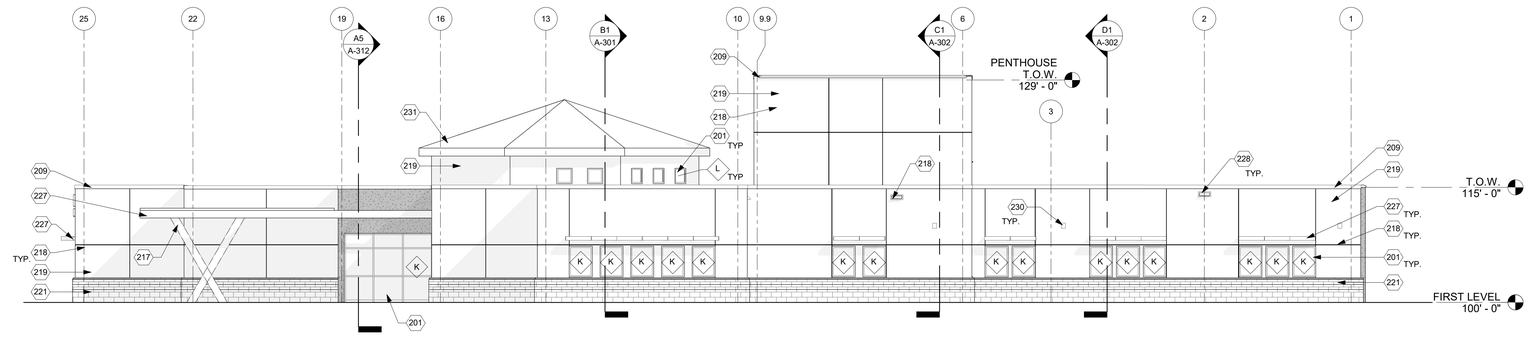
SHEET TITLE

ROOF DETAILS

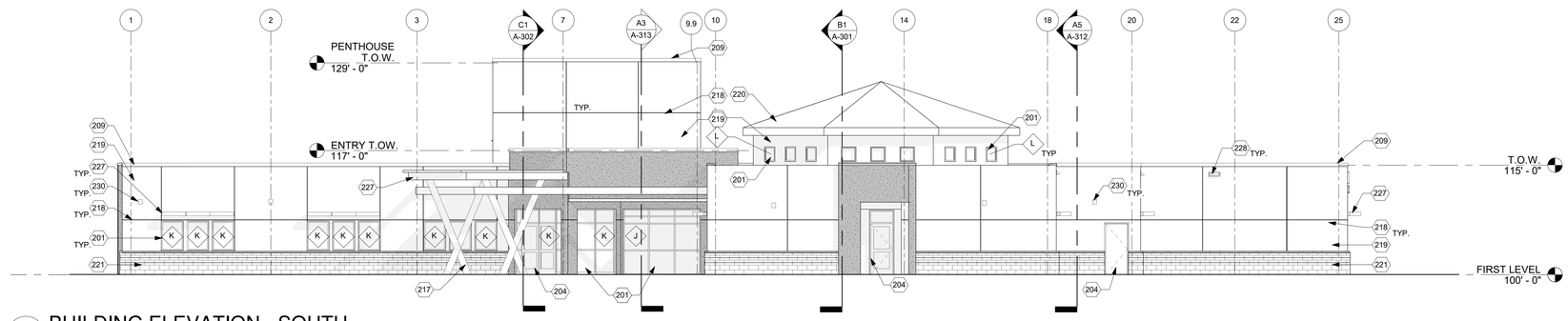
A-143



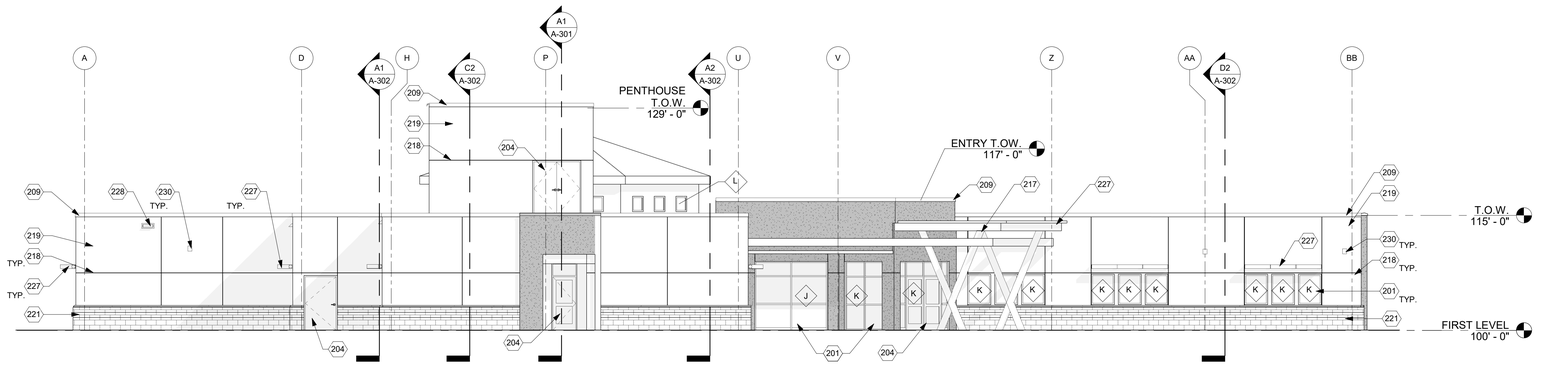
D1 BUILDING ELEVATION - EAST
1/8" = 1'-0"



C1 BUILDING ELEVATION - NORTH
1/8" = 1'-0"



B1 BUILDING ELEVATION - SOUTH
1/8" = 1'-0"



A1 BUILDING ELEVATION - WEST
1/8" = 1'-0"

GENERAL NOTES

A. CIVIL ELEVATIONS OF 6754.50 (SHOWN IN SCHOOL BUILDING & SITE PACKAGE) = 100' - 0" ON ARCHITECTURAL SHEETS. BEARING HEIGHTS ARE SHOWN FOR REFERENCE TO 100'-0" AND NOT INVIDUAL HEIGHTS ABOVE FINISHED FLOORS. COORDINATED WITH FLOOR PLAN DRAWINGS AND STRUCTURAL.

B. ANY EXPOSED PENETRATIONS, FLASHINGS, VENTS, MECHANICAL EQUIPTMENT, UTILITY LINES, ETC. SHALL BE PAINTED TO COLOR AS SELECTED BY THE ARCHITECT. DO NOT PAINT PRE FINISHED ITEMS.

C. FURNISH AND INSTALL SEALANT AT INTERSECTION OF ALL DISSIMILAR MATERIALS.

D. MASONRY JOINTS IN MASONRY WALL SHALL BE COORDINATED WITH STRUCTURAL REQUIREMENTS.

E. REFER TO CIVIL DRAWINGS IN SCHOOL BUILDING + SITE PACKAGE FOR ALL GRADING INFORMATION AROUND THE BUILDING.

EXTERIOR FINISH LEGEND

3 COAT STUCCO SYSTEM WITH ANTI-GRAFFITI COATING. FIELD COLOR, COLOR TO BE SELECTED BY ARCHITECT.

3 COAT STUCCO SYSTEM WITH ANTI-GRAFFITI COATING. ACCENT COLOR, COLOR TO BE SELECTED BY ARCHITECT.

3'-0" HIGH MASONRY VENEER WITH ANTI-GRAFFITI COATING. FIELD COLOR, COLOR TO BE SELECTED BY ARCHITECT.

NOTE: ANTI-GRAFFITI COATING SHALL BE PRICED SEPARATELY FOR OWNER REVIEW AS FOLLOWING:
ALTERNATE #1A - COATING APPLIED TO MASONRY VENEER
ALTERNATE #1B - COATING APPLIED TO STUCCO

KEYED NOTES

201	ALUMINUM STOREFRONT / WINDOW ASSEMBLY. SEE WINDOW & FRAME ELEVATIONS.
204	DOOR AND FRAME. SEE FLOOR PLAN AND DOOR SCHEDULE.
209	METAL COPING CAP. SEE ROOF DETAILS A-141/A-142.
217	STEEL STRUCTURE. SEE STRUCTURAL.
218	STUCCO CONTROL JOINT.
219	STUCCO FINISH SYSTEM. SEE EXTERIOR FINISH LEGEND, BUILDING AND WALL SECTIONS. COLORS TO BE SELECTED BY ARCHITECT.
220	HATCH INDICATES TRANSLUCENT PANEL.
221	MASONRY VENEER SYSTEM. SEE WALL SECTIONS AND DETAILS.
224	24" CAST ALUMINUM LETTERS. PROVIDE BACKING IN WALL. FINAL LETTERING TO BE CONFIRMED BY ARCHITECT.
227	EXTERIOR CANOPY / SUNSHADE. SEE WALL SECTIONS AND DETAILS.
228	OVERFLOW SCUPPER. SEE ROOF PLAN AND DETAILS, A-131, A-141 & A-142.
230	WALL MOUNTED LIGHT FIXTURE. SEE ELECTRICAL. COORDINATE FINAL LOCATION WITH ARCHITECT IN FIELD PRIOR TO ROUGH-IN.
231	STANDING SEAM METAL ROOFING. SEE ROOF PLAN AND DETAILS.

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ARCHITECT

Dzilth-Na-O-Dith-Hle - New Dormitory Building

PRICING SET

35 Road 7585, Bloomfield, NM 87413

NOVEMBER 10, 2020

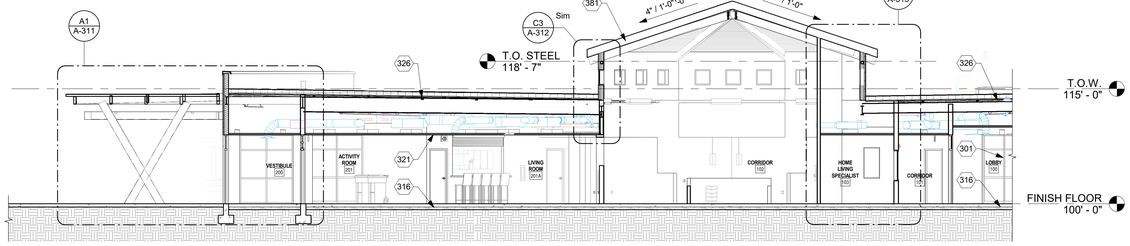
MARK	DATE	DESCRIPTION

ISSUE:	
DATE:	
PROJECT NO:	751
CAD DWG FILE:	
DRAWN BY:	Author
CHECKED BY:	Checker

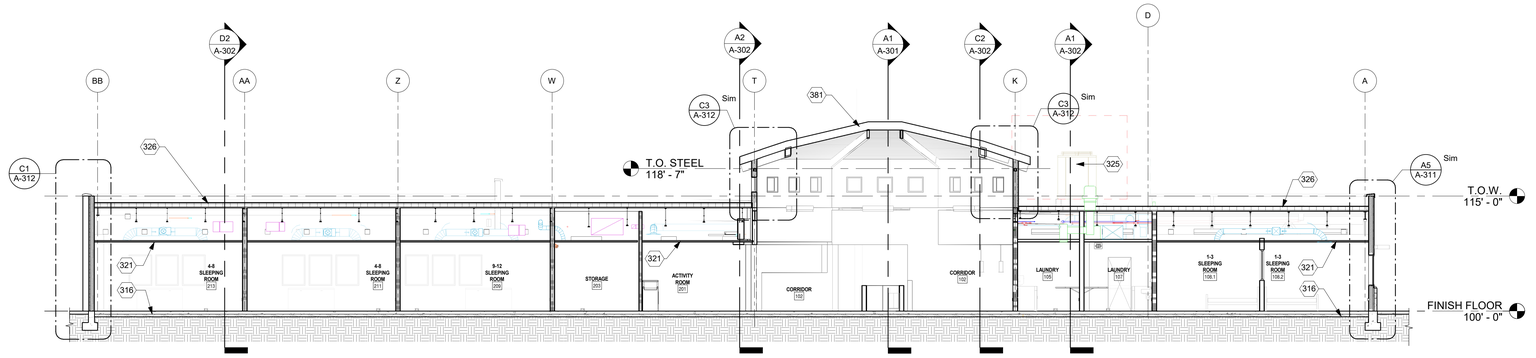
SHEET TITLE

BUILDING ELEVATIONS

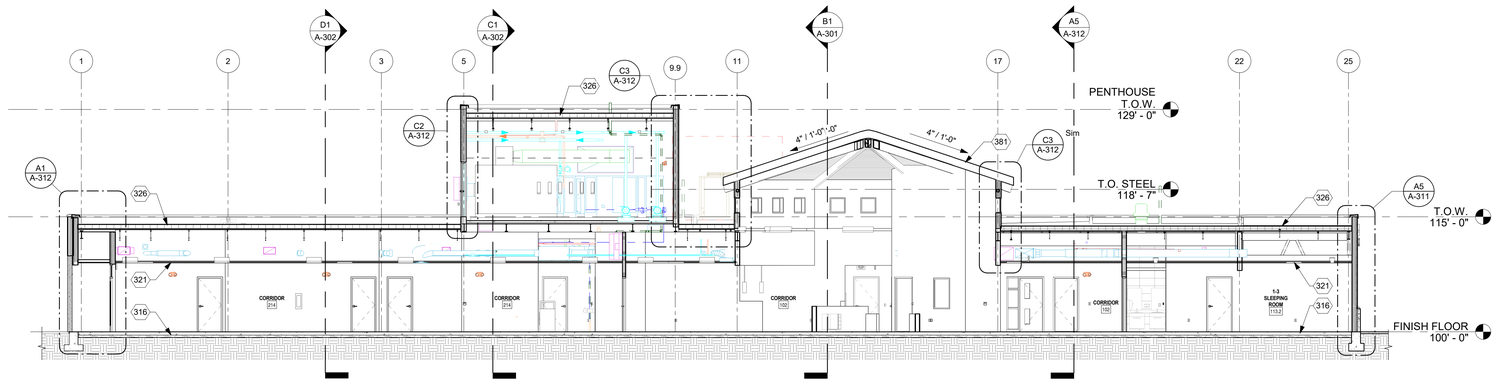
A-201



C1 BUILDING SECTION - COMMONS
1/8" = 1'-0"



B1 BUILDING SECTION - SOUTH WING
1/8" = 1'-0"



A1 BUILDING SECTION - NORTH WING
1/8" = 1'-0"

GENERAL NOTES

A. CIVIL ELEVATIONS OF 6754.50 (SHOWN IN SCHOOL BUILDING & SITE PACKAGE) = 100' - 0" ON ARCHITECTURAL SHEETS. BEARING HEIGHTS ARE SHOWN FOR REFERENCE TO 100'-0" AND NOT INVIDUAL HEIGHTS ABOVE FINISHED FLOORS. COORDINATED WITH FLOOR PLAN DRAWINGS AND STRUCTURAL.

B. ANY EXPOSED PENETRATIONS, FLASHINGS, VENTS, MECHANICAL EQUIPTMENT, UTILITY LINES, ETC. SHALL BE PAINTED TO COLOR AS SELECTED BY THE ARCHITECT. DO NOT PAINT PRE FINISHED ITEMS.

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D. MASONRY JOINTS IN MASONRY WALL SHALL BE COORDINATED WITH STRUCTURAL REQUIREMENTS.

E. REFER TO CIVIL DRAWINGS IN SCHOOL BUILDING + SITE PACKAGE FOR ALL GRADING INFORMATION AROUND THE BUILDING.

KEYED NOTES

301	ALUMINUM STOREFRONT SYSTEM. SEE WINDOW FRAME ELEVATIONS.
316	CONCRETE SLAB ON GRADE OVER VAPOR BARRIER AND 4" AGGREGATE BASE COURSE ON PREPARED SUBGRADE. SEE STRUCTURAL AND GEOTECHNICAL REPORT.
321	FINISH CEILING. SEE RCP.
325	EXPOSED MECHANICAL EQUIPMENT OR DUCTWORK. PAINT ALL EXPOSED ELEMENTS, COLOR TO BE SELECTED BY ARCHITECT. DO NOT PAINT PREFINISHED ELEMENTS.
326	MEMBRANE ROOFING SYSTEM. SEE ROOF PLAN AND DETAILS.
381	STANDING SEAM METAL ROOFING SYSTEM. SEE ROOF PLAN AND DETAILS.

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ARCHITECT

Dzilth-Na-O-Dith-Hle - New Dormitory Building

PRICING SET

35 Road 7585, Bloomfield, NM 87413

NOVEMBER 10, 2020

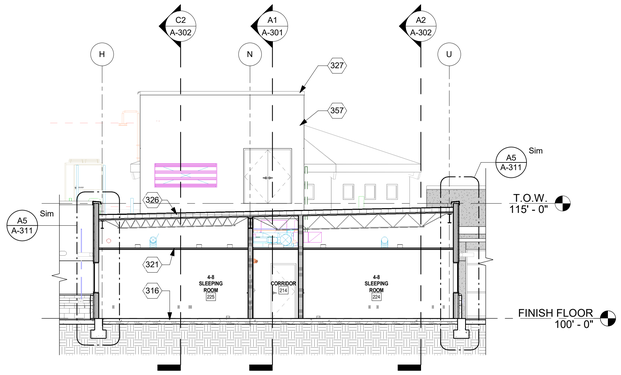
MARK	DATE	DESCRIPTION

ISSUE:	
DATE:	
PROJECT NO:	751
CAD DWG FILE:	
DRAWN BY:	Author
CHECKED BY:	Checker

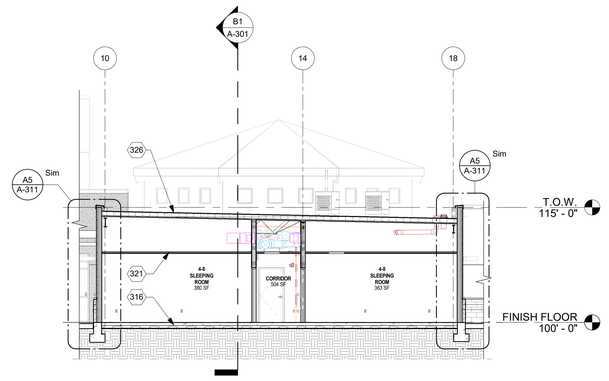
SHEET TITLE

BUILDING SECTIONS

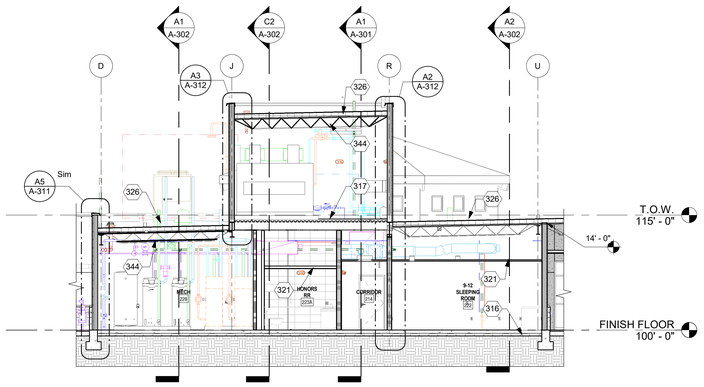
A-301



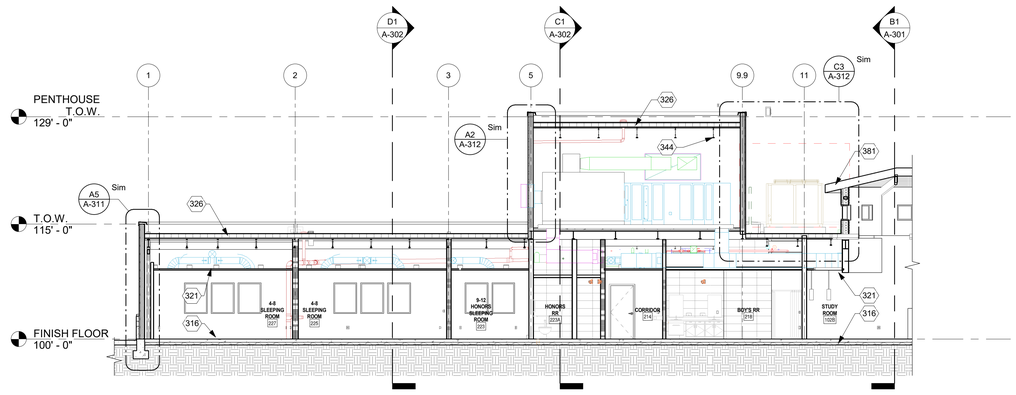
D1 SECTION - 4-8 SLEEPING ROOM - BOYS WING
1/8" = 1'-0"



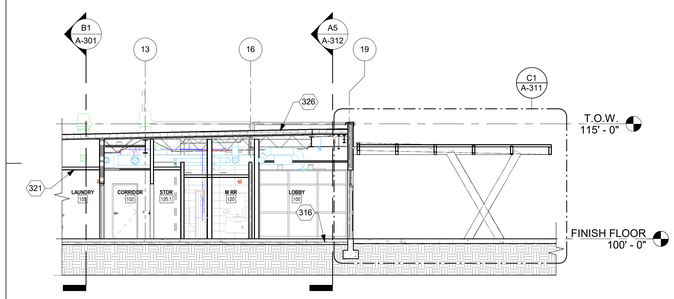
D2 SECTION - 4-8 SLEEPING ROOM - GIRLS WING
1/8" = 1'-0"



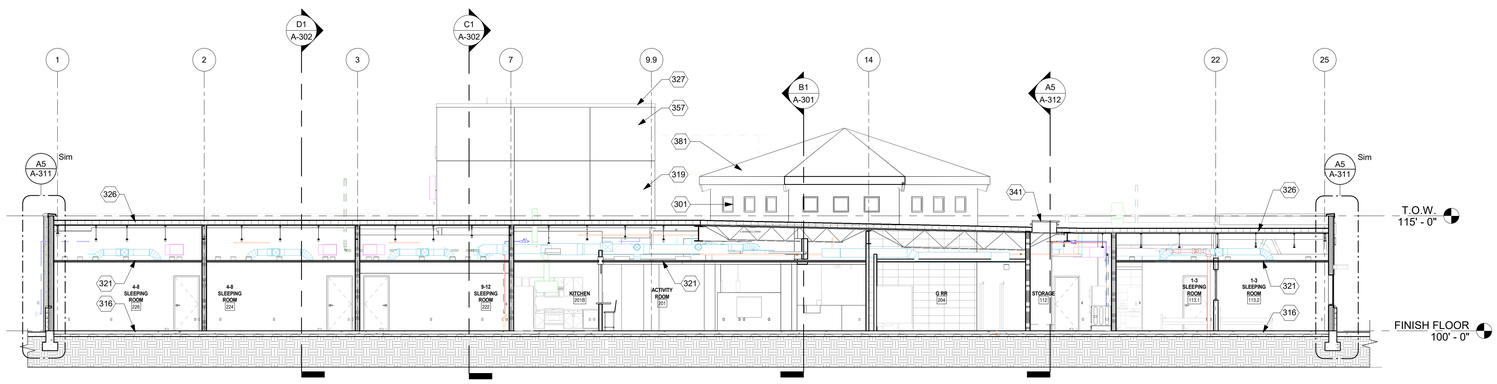
C1 SECTION - PENTHOUSE - BOYS WING
1/8" = 1'-0"



C2 SECTION - PENTHOUSE - GIRLS WING
1/8" = 1'-0"



A1 SECTION - LOBBY ENTRANCE
1/8" = 1'-0"



A2 SECTION - SLEEPING ROOMS - ACTIVITY ROOM
1/8" = 1'-0"

GENERAL NOTES

A. CIVIL ELEVATIONS OF 6754.50 (SHOWN IN SCHOOL BUILDING & SITE PACKAGE) = 100' - 0" ON ARCHITECTURAL SHEETS. BEARING HEIGHTS ARE SHOWN FOR REFERENCE TO 100'-0" AND NOT INVIDUAL HEIGHTS ABOVE FINISHED FLOORS. COORDINATED WITH FLOOR PLAN DRAWINGS AND STRUCTURAL.

B. ANY EXPOSED PENETRATIONS, FLASHINGS, VENTS, MECHANICAL EQUIPTMENT, UTILITY LINES, ETC. SHALL BE PAINTED TO COLOR AS SELECTED BY THE ARCHITECT. DO NOT PAINT PRE FINISHED ITEMS.

C. FURNISH AND INSTALL SEALANT AT INTERSECTION OF ALL DISSIMILAR MATERIALS.

D. MASONRY JOINTS IN MASONRY WALL SHALL BE COORDINATED WITH STRUCTURAL REQUIREMENTS.

E. REFER TO CIVIL DRAWINGS IN SCHOOL BUILDING + SITE PACKAGE FOR ALL GRADING INFORMATION AROUND THE BUILDING.

KEYED NOTES

301	ALUMINUM STOREFRONT SYSTEM. SEE WINDOW FRAME ELEVATIONS.
316	CONCRETE SLAB ON GRADE OVER VAPOR BARRIER AND 4" AGGREGATE BASE COURSE ON PREPARED SUBGRADE. SEE STRUCTURAL AND GEOTECHNICAL REPORT.
317	CONCRETE SLAB OVER METAL DECK. SEE STRUCTURAL.
318	CONCRETE STEM WALL AND FOOTING. SEE STRUCTURAL.
319	DOOR AND FRAME. SEE FLOOR PLAN AND DOOR SCHEDULE.
321	FINISH CEILING. SEE RCP.
326	MEMBRANE ROOFING SYSTEM. SEE ROOF PLAN AND DETAILS.
327	PREFINISHED METAL COPING CAP. SEE ROOF DETAILS A-141/A-142.
341	ROOF ACCESS LADDER AND HATCH. SEE ROOF DETAILS.
344	STEEL STRUCTURE. SEE STRUCTURAL. PAINT ALL EXPOSED SECTIONS, INCLUDING STRUCTURAL DECK. COLOR TO BE SELECTED BY ARCHITECT.
345	STEEL STUD PARTITION. SEE PARTITION SCHEDULE.
357	3 COAT STUCCO SYSTEM.
381	STANDING SEAM METAL ROOFING SYSTEM. SEE ROOF PLAN AND DETAILS.

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ARCHITECT

Dzilth-Na-O-Dith-Hle - New Dormitory Building

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NOVEMBER 10, 2020

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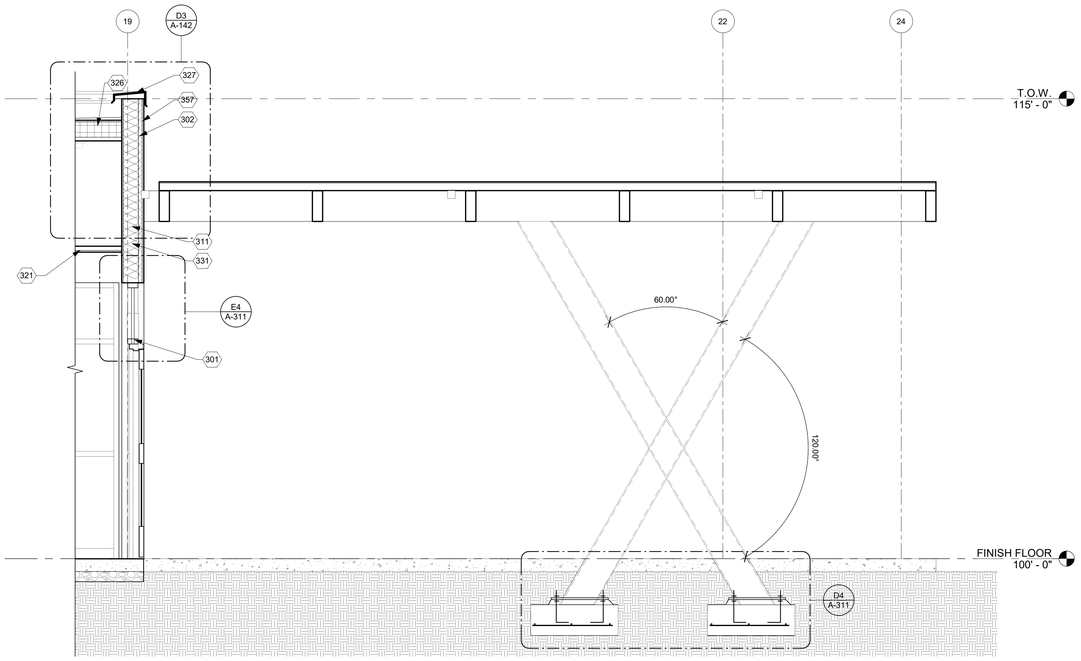
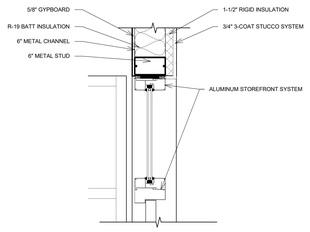
SHEET TITLE

BUILDING SECTIONS

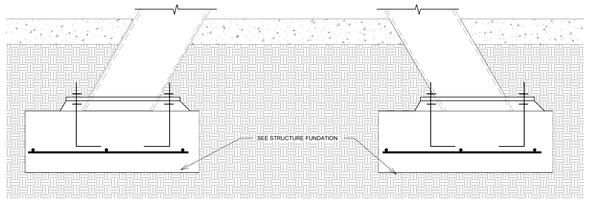
A-302



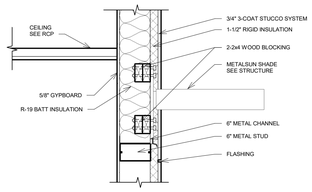
C1 WALL SECTION - VISITOR - VESTIBULE
1/2" = 1'-0"



E4 STORE FRONT CONNECTION TYP.
1" = 1'-0"



D4 CANOPY FOUNDATION
1" = 1'-0"



C4 SUNSHADE CONNECTION DETAIL
1" = 1'-0"

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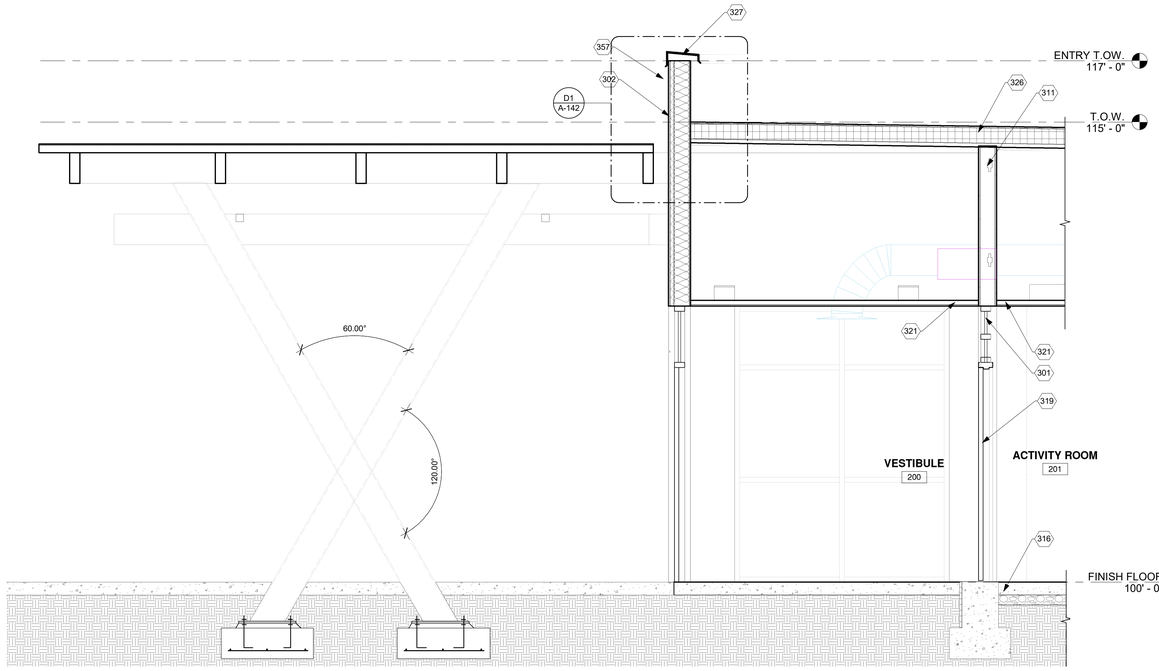
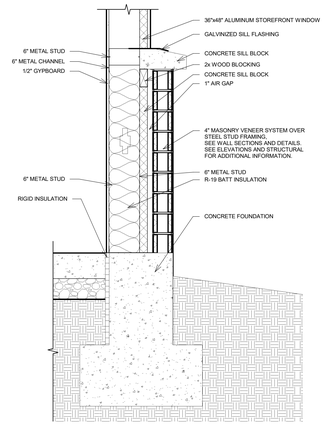
E. REFER TO CIVIL DRAWINGS IN SCHOOL BUILDING + SITE PACKAGE FOR ALL GRADING INFORMATION AROUND THE BUILDING.

KEYED NOTES

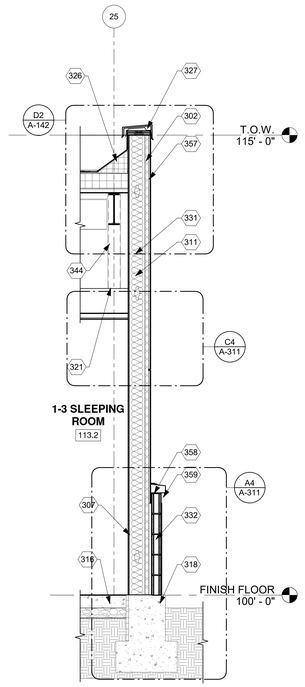
301	ALUMINUM STOREFRONT SYSTEM. SEE WINDOW FRAME ELEVATIONS.
302	1-1/2" CONTINUOUS RIGID INSULATION.
303	1/2" EXPANSION JOINT MATERIAL WITH JOINT SEALANT.
307	5/8" TYPE 'X' GYPSUM BOARD. TAPE, TEXTURE.
311	6" METAL FRAMING. FOR EXTERIOR WALLS SEE STRUCTURAL.
316	CONCRETE SLAB ON GRADE OVER VAPOR BARRIER AND 4" AGGREGATE BASE COURSE ON PREPARED SUBGRADE. SEE STRUCTURAL AND GEOTECHNICAL REPORT.
318	CONCRETE STEM WALL AND FOOTING. SEE STRUCTURAL.
319	DOOR AND FRAME. SEE FLOOR PLAN AND DOOR SCHEDULE.
321	FINISH CEILING. SEE RCP.
326	MEMBRANE ROOFING SYSTEM. SEE ROOF PLAN AND DETAILS.
327	PREFINISHED METAL COPING CAP. SEE ROOF DETAILS A-141/A-142.
331	R-13 BATT INSULATION.
332	4" MASONRY VENEER SYSTEM OVER STEEL STUD FRAMING, SEE WALL SECTIONS. SEE ELEVATIONS AND STRUCTURAL FOR ADDITIONAL INFORMATION.
344	STEEL STRUCTURE. SEE STRUCTURAL. PAINT ALL EXPOSED SECTIONS, INCLUDING STRUCTURAL DECK. COLOR TO BE SELECTED BY ARCHITECT.
357	3 COAT STUCCO SYSTEM.
358	PRE-FINISHED SHEET METAL SILL FLASHING.
359	VENEER CAP SILL.



A1 WALL SECTION - COMMONS - VESTIBULE
1/2" = 1'-0"



A4 VENNER WALL DETAIL TYP.
1" = 1'-0"



A5 WALL SECTION TYP.
1/2" = 1'-0"

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ARCHITECT

Dzilth-Na-O-Dith-Hle - New Dormitory Building

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35 Road 7585, Bloomfield, NM 87413

NOVEMBER 10, 2020

MARK	DATE	DESCRIPTION

ISSUE:	
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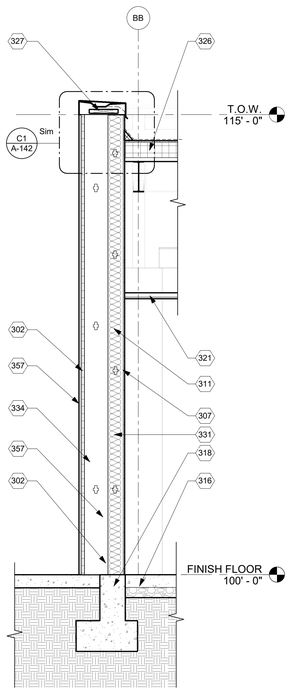
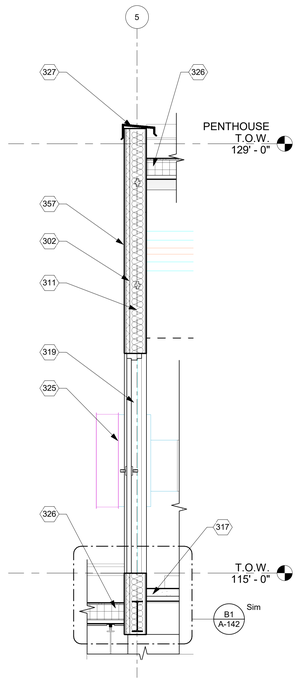
SHEET TITLE

WALL SECTIONS

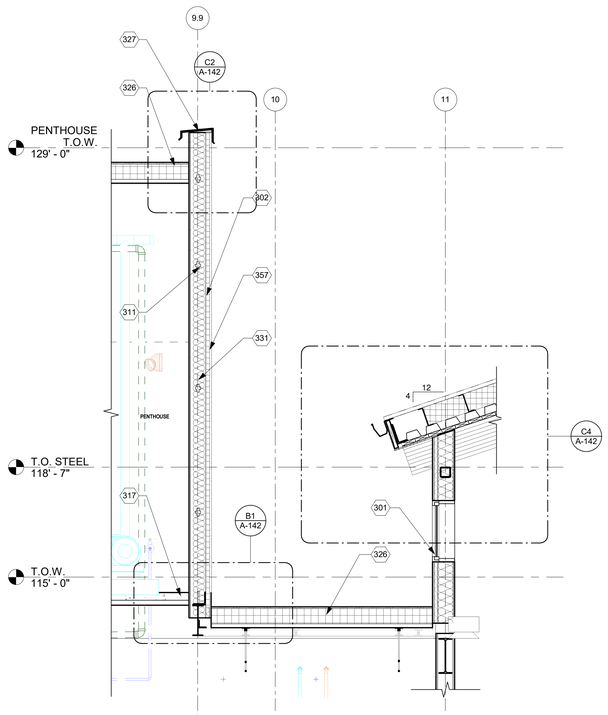
A-311



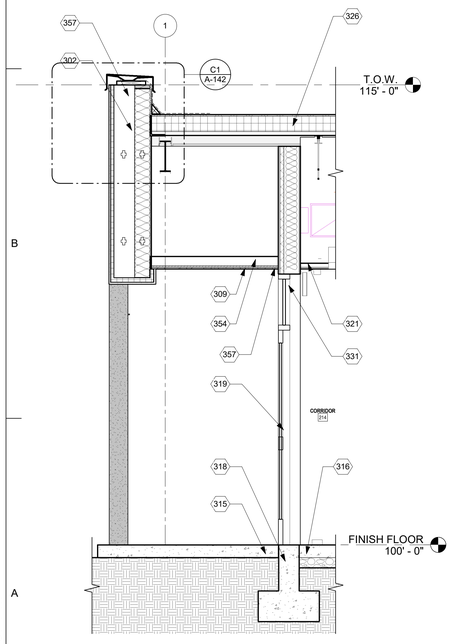
C1 WALL SECTION - STUCCO BUMP-OUT
1/2" = 1'-0"



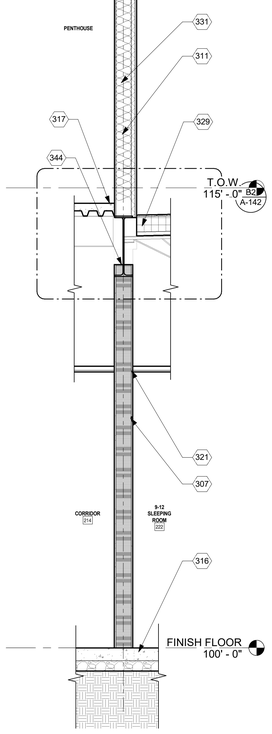
C2 WALL SECTION - PENTHOUSE ENTRANCE
1/2" = 1'-0"



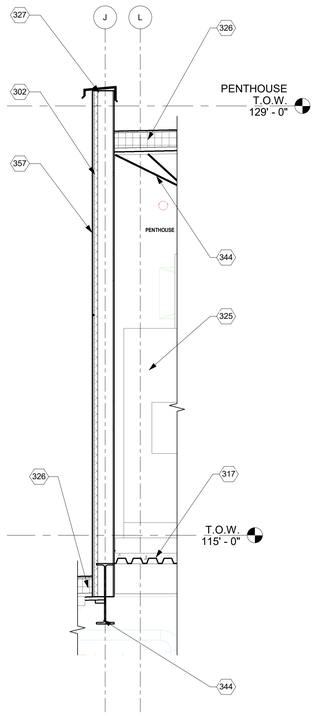
C3 WALL SECTION - PENTHOUSE @ HOGAN
1/2" = 1'-0"



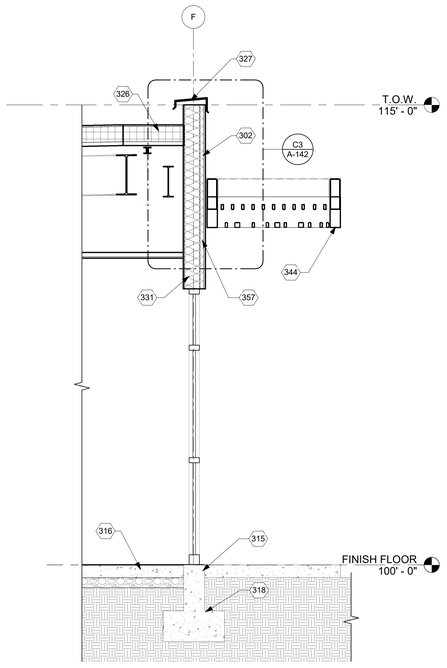
A1 WALL SECTION - CORRIDOR EXIT
1/2" = 1'-0"



A2 PENTHOUSE @ SLEEPING ROOM
1/2" = 1'-0"



A3 WALL SECTION - PENTHOUSE
1/2" = 1'-0"



A5 VEST. CANOPY WALL SECTION
1/2" = 1'-0"

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KEYED NOTES

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302	1-1/2" CONTINUOUS RIGID INSULATION.
307	5/8" TYPE 'X' GYPSUM BOARD. TAPE, TEXTURE.
309	5/8" CDX PLYWOOD.
311	6" METAL FRAMING. FOR EXTERIOR WALLS SEE STRUCTURAL.
315	CONCRETE SIDEWALK OR MOWSTRIP. SEE SITE PLAN.
316	CONCRETE SLAB ON GRADE OVER VAPOR BARRIER AND 4" AGGREGATE BASE COURSE ON PREPARED SUBGRADE. SEE STRUCTURAL AND GEOTECHNICAL REPORT.
317	CONCRETE SLAB OVER METAL DECK. SEE STRUCTURAL.
318	CONCRETE STEM WALL AND FOOTING. SEE STRUCTURAL.
319	DOOR AND FRAME. SEE FLOOR PLAN AND DOOR SCHEDULE.
321	FINISH CEILING. SEE RCP.
325	EXPOSED MECHANICAL EQUIPMENT OR DUCTWORK. PAINT ALL EXPOSED ELEMENTS, COLOR TO BE SELECTED BY ARCHITECT. DO NOT PAINT PREFINISHED ELEMENTS.
326	MEMBRANE ROOFING SYSTEM. SEE ROOF PLAN AND DETAILS.
327	PREFINISHED METAL COPING CAP. SEE ROOF DETAILS A-141/A-142.
329	MEMBRANE ROOFING SYSTEM OVER COVER BOARD AND R-30 RIGID INSULATION. SEE ROOF DETAILS.
331	R-13 BATT INSULATION.
334	8" METAL FRAMING. FOR EXTERIOR WALLS SEE STRUCTURAL.
344	STEEL STRUCTURE. SEE STRUCTURAL. PAINT ALL EXPOSED SECTIONS, INCLUDING STRUCTURAL DECK. COLOR TO BE SELECTED BY ARCHITECT.
354	3 5/8" METAL STUD.
357	3 COAT STUCCO SYSTEM.

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WALL SECTIONS

A-312

GENERAL NOTES

A. CIVIL ELEVATIONS OF 6754.50 (SHOWN IN SCHOOL BUILDING & SITE PACKAGE) = 100' - 0" ON ARCHITECTURAL SHEETS. BEARING HEIGHTS ARE SHOWN FOR REFERENCE TO 100'-0" AND NOT INVIDUAL HEIGHTS ABOVE FINISHED FLOORS. COORDINATED WITH FLOOR PLAN DRAWINGS AND STRUCTURAL.

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KEYED NOTES

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303	1/2" EXPANSION JOINT MATERIAL WITH JOINT SEALANT.
307	5/8" TYPE 'X' GYPSUM BOARD. TAPE, TEXTURE.
309	5/8" CDX PLYWOOD.
311	6" METAL FRAMING. FOR EXTERIOR WALLS SEE STRUCTURAL.
315	CONCRETE SIDEWALK OR MOWSTRIP. SEE SITE PLAN.
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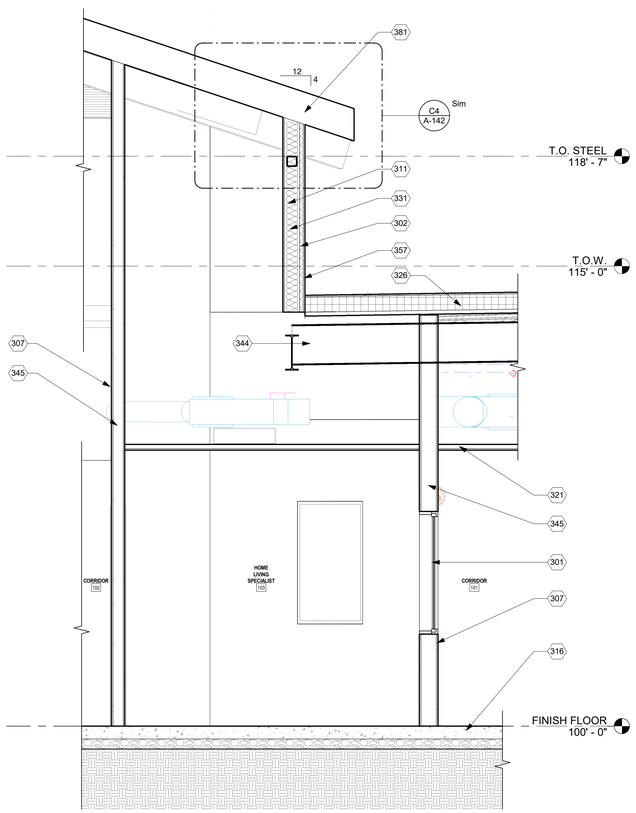
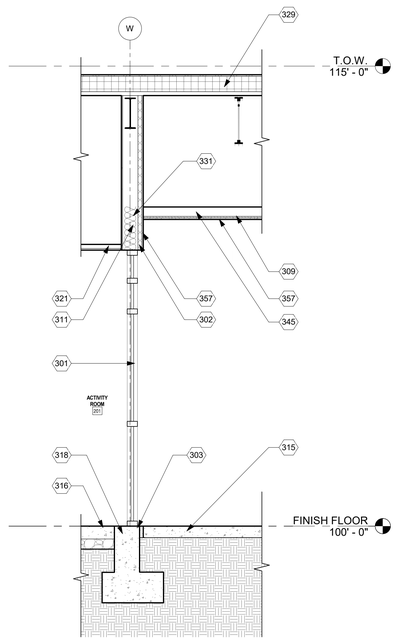
329	MEMBRANE ROOFING SYSTEM OVER COVER BOARD AND R-30 RIGID INSULATION. SEE ROOF DETAILS.
331	R-13 BATT INSULATION.
344	STEEL STRUCTURE. SEE STRUCTURAL. PAINT ALL EXPOSED SECTIONS, INCLUDING STRUCTURAL DECK. COLOR TO BE SELECTED BY ARCHITECT.
345	STEEL STUD PARTITION. SEE PARTITION SCHEDULE.
357	3 COAT STUCCO SYSTEM.
381	STANDING SEAM METAL ROOFING SYSTEM. SEE ROOF PLAN AND DETAILS.



A1 WALL SECTION - HOGAN / HOME LIVING
1/2" = 1'-0"



A3 WALL SECTION - ENTRY STOREFRONT
1/2" = 1'-0"

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ARCHITECT

Dzilth-Na-O-Dith-Hle - New Dormitory Building

PRICING SET

35 Road 7585, Bloomfield, NM 87413

NOVEMBER 10, 2020

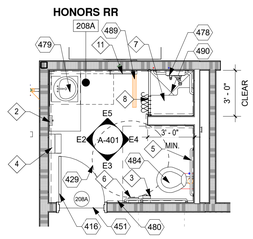
MARK	DATE	DESCRIPTION

ISSUE:	
DATE:	
PROJECT NO:	751
CAD DWG FILE:	
DRAWN BY:	Author
CHECKED BY:	Checker

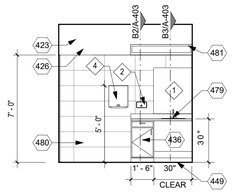
SHEET TITLE

WALL SECTIONS

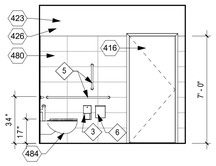
A-313



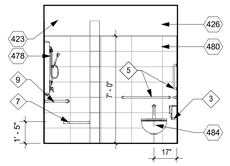
E1 HONORS RR
1/4" = 1'-0"
ADULT RR (AGE 12+)
ROOMS 208A & 232A



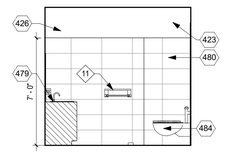
E2 HONORS RR LAVATORY
1/4" = 1'-0"



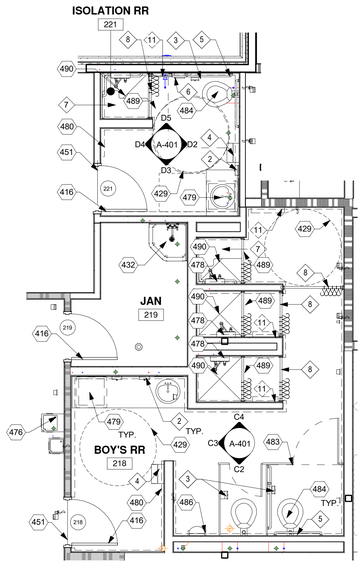
E3 HONORS RR SIDE
1/4" = 1'-0"



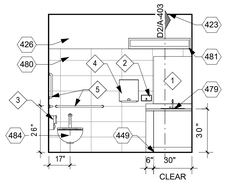
E4 HONORS RR FIXTURE
1/4" = 1'-0"



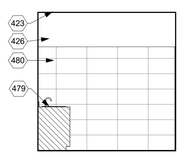
E5 HONORS RR END
1/4" = 1'-0"



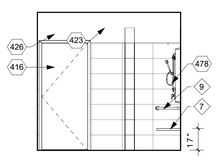
C1 BOYS RR - ISOLATION RR
1/4" = 1'-0"
CHILDREN RR (AGES 9-12)
ROOMS 221 & 218



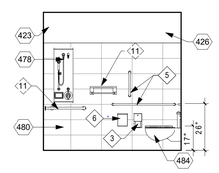
D2 ISO RR - FIXTURE
1/4" = 1'-0"



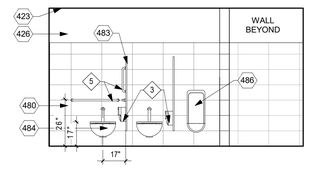
D3 ISO RR - SIDE
1/4" = 1'-0"



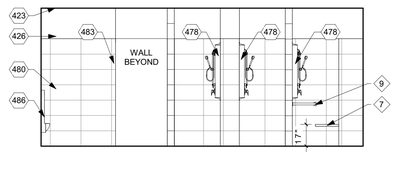
D4 ISO RR - ENTRANCE
1/4" = 1'-0"



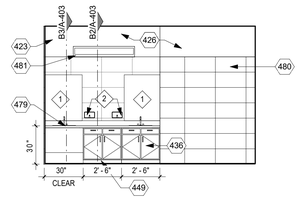
D5 ISO RR - END
1/4" = 1'-0"



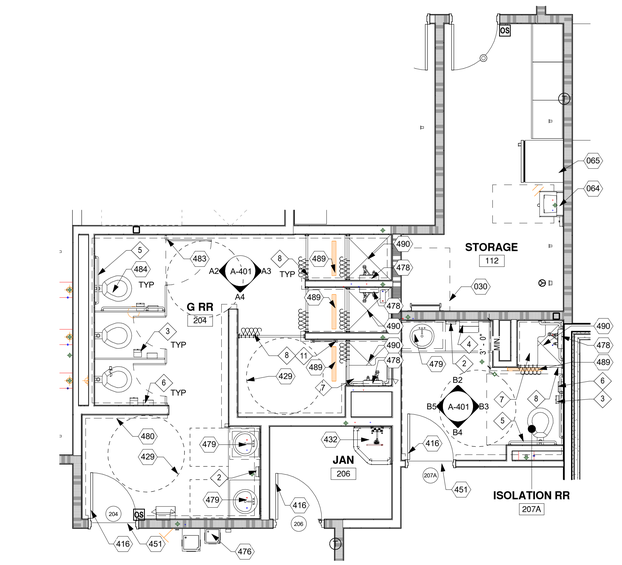
C2 BOYS RR - FIXTURE
1/4" = 1'-0"



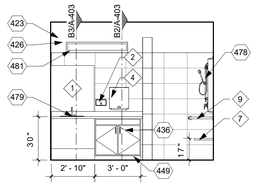
C3 BOYS RR - SIDE
1/4" = 1'-0"



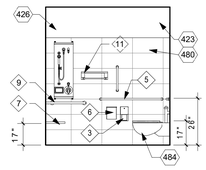
C4 BOYS RR - SHOWERS
1/4" = 1'-0"



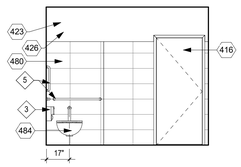
A1 GIRLS RR - ISOLATION RR
1/4" = 1'-0"
CHILDREN RR (AGES 9-12)
ROOMS 204 & 207A



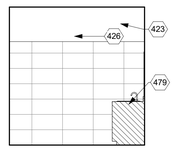
B2 ISOLATION - FIXTURE
1/4" = 1'-0"



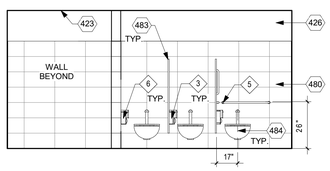
B3 ISO - END WALL
1/4" = 1'-0"



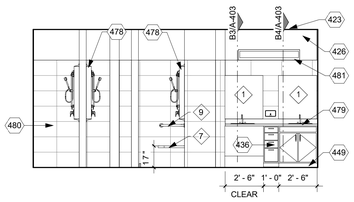
B4 ISO - ENTRANCE
1/4" = 1'-0"



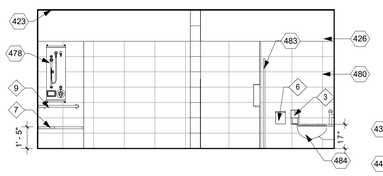
B5 ISOLATION - SIDE
1/4" = 1'-0"



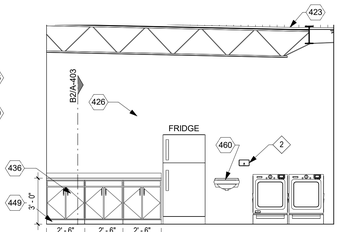
A2 GIRLS RR - FIXTURE
1/4" = 1'-0"



A3 GIRLS RR - SHOWERS
1/4" = 1'-0"



A4 GIRLS RR - SIDE
1/4" = 1'-0"



A6 STORAGE
1/4" = 1'-0"

GENERAL NOTES

A. CONTRACTOR SHALL PERFORM DAILY CLEANUP WHEN FINISH TRADE WORK IS BEING PERFORMED.

B. PROVIDE WOOD BLOCKING IN ALL WALLS FOR SUPPORT OF PARTITIONS, SIGNAGE, ACCESSORIES, AND OTHER WALL SUPPORTED ITEMS AS REQUIRED.

C. PROVIDE SEALANT AT INTERSECTIONS OF ALL DISSIMILAR MATERIALS.

D. COORDINATE ALL PLUMBING FIXTURES WITH THE PLUMBING DRAWINGS. IN CASE OF ANY DISCREPANCY, NOTIFY ARCHITECT AND ENGINEER PRIOR TO ROUGH-IN OF INSTALLATION.

E. PROVIDE WATER RESISTANT GYPSUM BOARD AT ALL WET LOCATIONS.

F. ALL DIMENSIONS ARE TO FACE OF STUD UNLESS NOTED OTHERWISE.

G. ALL FIXTURES AND ACCESSORIES SHALL COMPLY WITH ADA, ANSI, AND LOCAL AND STATE BUILDING CODE REQUIREMENTS. ALL HEIGHTS, DIMENSIONS AND CLEARANCES FOR PLUMBING FIXTURES, CASEWORK, COUNTERTOPS, ACCESSORIES, SIGNAGE, ACCESSIBLE ROUTES, ECT. SHALL BE STRICTLY HELD TO ADA, ANSI, AND LOCAL AND STATE REQUIREMENTS. IN THE EVENT OF CONFLICTING REQUIREMENTS, THE MOST RESTRICTIVE SHALL APPLY. REFER TO ACCESSIBILITY GUIDELINES SHEET.

TOILET ACCESSORY LEGEND

MARK	ACCESSORIES
1	30" X 36" (UNLESS OTHERWISE NOTED) MIRROR.
2	LIQUID SOAP DISPENSER, MOUNT 5" ABOVE SINK. CONTRACTOR FURNISHED, CONTRACTOR INSTALLED.
3	TOILET PAPER DISPENSER. CONTRACTOR FURNISHED, CONTRACTOR INSTALLED.
4	MANUAL PAPER TOWEL DISPENSER. CONTRACTOR FURNISHED, CONTRACTOR INSTALLED.
5	GRAB BAR 1-1/2" DIA. (SEE ACCESSIBILITY GUIDELINES FOR MOUNTING HEIGHT). INSTALL DUAL HEIGHT GRAB BARS IN AGES 9-12+ ACCESSIBLE RESTROOMS.
6	SANITARY NAPKIN DISPOSAL. MOUNT 28" A.F.F.
7	FOLDING SHOWER SEAT. MOUNT TOP OF SEAT AT 15" HIGH IN CHILD SHOWER AND 17" IN ADULT SHOWER.
8	SHOWER CURTAIN ROD AND SHOWER CURTAIN.
9	ADA SHOWER GRAB BAR 1-1/2" DIA. (SEE ACCESSIBILITY GUIDELINES FOR MOUNTING HEIGHT).
11	24" TOWEL SHELF AND BAR. MOUNT TOP OF SHELF AT 44" A.F.F. UNLESS NOTED OTHERWISE.

KEYED NOTES

030 ROOF ACCESS LADDER AND HATCH. SEE ROOF DETAILS A-141.
064 WALL MOUNTED SINK. SEE PLUMBING.
065 OWNER FURNISHED REFRIGERATOR. SEE PLUMBING AND ELECTRICAL FOR ROUGH IN REQUIREMENTS.
416 DOOR AND FRAME. SEE FLOOR PLAN AND DOOR SCHEDULE.
423 FINISH CEILING. SEE RCP.
426 GYPSUM BOARD FINISH. TAPE, TEXTURE, AND PAINT.
429 5'-0" ADA WHEEL CHAIR TURNING SPACE.
432 MOP SINK AND MOP RACK. SEE PLUMBING.
436 PLASTIC LAMINATE CASEWORK.
449 VINYL WALL BASE. SEE FINISH SCHEDULE ID-100.
451 TRANSITION STRIP. SEE ID FINISH LEGEND. ID-100
460 WALL MOUNTED LAVATORY.
476 ELECTRIC WATER COOLER. SEE PLUMBING.
478 SHOWER FIXTURE. SEE PLUMBING.
479 ACCESSIBLE SINK IN SOLID SURFACE COUNTERTOP. SEE PLUMBING.
480 WALL TILE. DASHED LINE ON FLOOR PLAN INDICATES EXTENT OF WALL TILE. SEE ELEVATIONS FOR TILE HEIGHT AND ID SHEETS FOR PATTERN.
481 WALL MOUNTED LIGHT FIXTURE. SEE ELECTRICAL.
483 TOILET PARTITION.
484 WATER CLOSET. SEE PLUMBING.
486 WALL MOUNTED URINAL. SEE PLUMBING.
489 27" LONG TRENCH DRAIN. CENTER IN SHOWER OPENING FOR BARRIER FREE ACCESS.
490 INSTALL SHOWER FLOOR TILE OVER 2" MORTAR BED IN RECESSED SLAB. SLOPE SHOWER FLOOR TO DRAIN.

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ARCHITECT

Dzilth-Na-O-Dith-Hle - New Dormitory Building

PRICING SET

35 Road 7585, Bloomfield, NM 87413

NOVEMBER 10, 2020

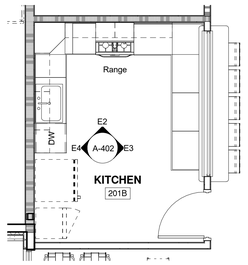
MARK	DATE	DESCRIPTION

ISSUE:	
DATE:	
PROJECT NO:	751
CAD DWG FILE:	
DRAWN BY:	Author
CHECKED BY:	Checker

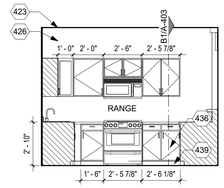
SHEET TITLE

ENLARGED PLANS AND ELEVATIONS

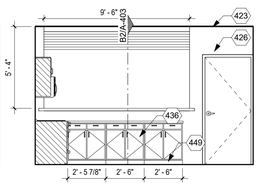
A-401



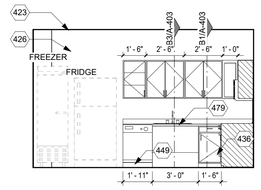
E1 KITCHENETTE PLAN
1/4" = 1'-0"



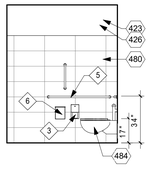
E2 KITCHEN - STOVE
1/4" = 1'-0"



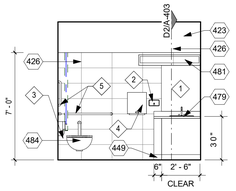
E3 KITCHEN - BAR
1/4" = 1'-0"



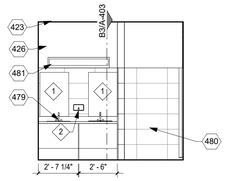
E4 KITCHEN - SINK
1/4" = 1'-0"



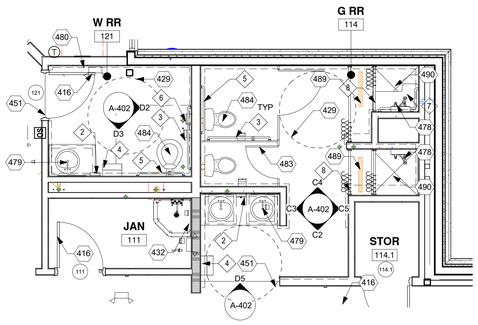
D2 W RR - SIDE
1/4" = 1'-0"



D3 W RR - FIXTURE
1/4" = 1'-0"

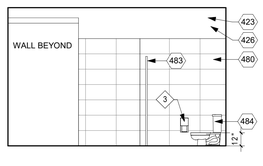


D5 G RR - LAV
1/4" = 1'-0"

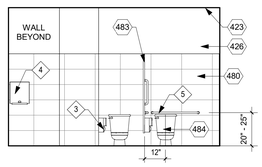


C1 GIRLS RR - WOMENS RR
1/4" = 1'-0"

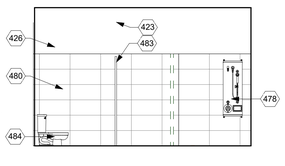
ADULT RR (AGE 12+)
ROOM W RR 121
CHILD RR (AGE 5-8)
ROOM G RR 114



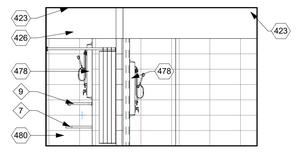
C2 G RR - ENTRANCE
1/4" = 1'-0"



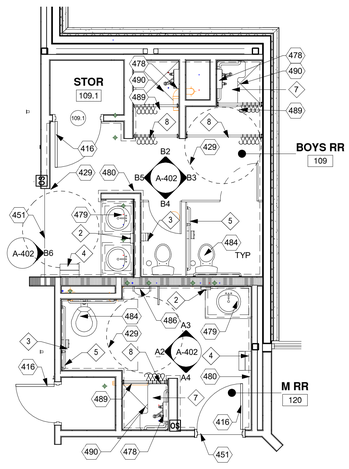
C3 G RR - FIXTURE
1/4" = 1'-0"



C4 G RR - SIDE
1/4" = 1'-0"

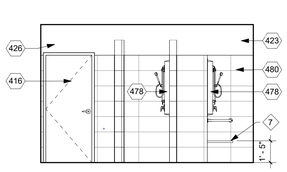


C5 G RR - LAVATORY
1/4" = 1'-0"

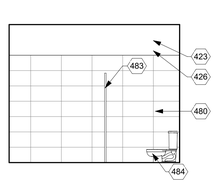


A1 KG RR - MENS RR
1/4" = 1'-0"

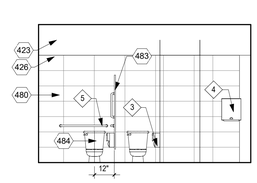
ADULT RR (AGE 12+)
ROOM M RR 120
CHILD RR (AGE 5-8)
ROOM BOYS RR 109



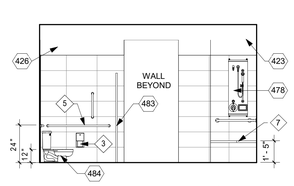
B2 B RR - SHOWERS
1/4" = 1'-0"



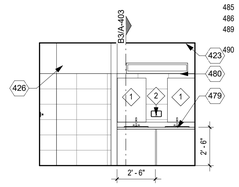
B3 B RR - SIDE
1/4" = 1'-0"



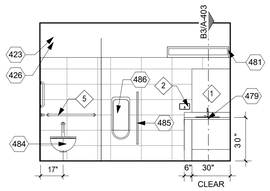
B4 B RR - FIXTURE
1/4" = 1'-0"



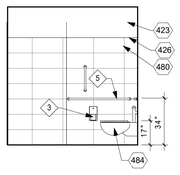
B5 B RR - ENTRANCE
1/4" = 1'-0"



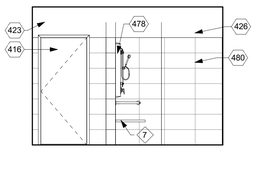
B6 B RR - LAV
1/4" = 1'-0"



A3 M RR - SIDE
1/4" = 1'-0"



A2 M RR - LAV
1/4" = 1'-0"



A4 M RR - ENTRANCE
1/4" = 1'-0"

GENERAL NOTES

A. CONTRACTOR SHALL PERFORM DAILY CLEANUP WHEN FINISH TRADE WORK IS BEING PERFORMED.

B. PROVIDE WOOD BLOCKING IN ALL WALLS FOR SUPPORT OF PARTITIONS, SIGNAGE, ACCESSORIES, AND OTHER WALL SUPPORTED ITEMS AS REQUIRED.

C. PROVIDE SEALANT AT INTERSECTIONS OF ALL DISSIMILAR MATERIALS.

D. COORDINATE ALL PLUMBING FIXTURES WITH THE PLUMBING DRAWINGS. IN CASE OF ANY DISCREPANCY, NOTIFY ARCHITECT AND ENGINEER PRIOR TO ROUGH-IN OF INSTALLATION.

E. PROVIDE WATER RESISTANT GYPSUM BOARD AT ALL WET LOCATIONS.

F. ALL DIMENSIONS ARE TO FACE OF STUD UNLESS NOTED OTHERWISE.

G. ALL FIXTURES AND ACCESSORIES SHALL COMPLY WITH ADA, ANSI, AND LOCAL AND STATE BUILDING CODE REQUIREMENTS. ALL HEIGHTS, DIMENSIONS AND CLEARANCES FOR PLUMBING FIXTURES, CASEWORK, COUNTERTOPS, ACCESSORIES, SIGNAGE, ACCESSIBLE ROUTES, ECT. SHALL BE STRICTLY HELD TO ADA, ANSI, AND LOCAL AND STATE REQUIREMENTS. IN THE EVENT OF CONFLICTING REQUIREMENTS, THE MOST RESTRICTIVE SHALL APPLY. REFER TO ACCESSIBILITY GUIDELINES SHEET.

TOILET ACCESSORY LEGEND

MARK	ACCESSORIES
1	30" X 36" (UNLESS OTHERWISE NOTED) MIRROR.
2	LIQUID SOAP DISPENSER, MOUNT 5" ABOVE SINK. CONTRACTOR FURNISHED, CONTRACTOR INSTALLED.
3	TOILET PAPER DISPENSER. CONTRACTOR FURNISHED, CONTRACTOR INSTALLED.
4	MANUAL PAPER TOWEL DISPENSER. CONTRACTOR FURNISHED, CONTRACTOR INSTALLED.
5	GRAB BAR 1-1/2" DIA. (SEE ACCESSIBILITY GUIDELINES FOR MOUNTING HEIGHT). INSTALL DUAL HEIGHT GRAB BARS IN AGES 9-12+ ACCESSIBLE RESTROOMS.
6	SANITARY NAPKIN DISPOSAL. MOUNT 28" A.F.F.
7	FOLDING SHOWER SEAT. MOUNT TOP OF SEAT AT 15" HIGH IN CHILD SHOWER AND 17" IN ADULT SHOWER.
8	SHOWER CURTAIN ROD AND SHOWER CURTAIN.
9	ADA SHOWER GRAB BAR 1-1/2" DIA. (SEE ACCESSIBILITY GUIDELINES FOR MOUNTING HEIGHT).
11	24" TOWEL SHELF AND BAR. MOUNT TOP OF SHELF AT 44" A.F.F. UNLESS NOTED OTHERWISE.

KEYED NOTES

416	DOOR AND FRAME. SEE FLOOR PLAN AND DOOR SCHEDULE.
423	FINISH CEILING. SEE RCP.
426	GYPSUM BOARD FINISH. TAPE, TEXTURE, AND PAINT.
429	5'-0" ADA WHEEL CHAIR TURNING SPACE.
432	MOP SINK AND MOP RACK. SEE PLUMBING.
436	PLASTIC LAMINATE CASEWORK.
439	PLASTIC LAMINATE SILL COUNTER.
449	VINYL WALL BASE. SEE FINISH SCHEDULE ID-100.
451	TRANSITION STRIP. SEE ID FINISH LEGEND. ID-100
478	SHOWER FIXTURE. SEE PLUMBING.
479	ACCESSIBLE SINK IN SOLID SURFACE COUNTERTOP. SEE PLUMBING.
480	WALL TILE. DASHED LINE ON FLOOR PLAN INDICATES EXTENT OF WALL TILE. SEE ELEVATIONS FOR TILE HEIGHT AND ID SHEETS FOR PATTERN.
481	WALL MOUNTED LIGHT FIXTURE. SEE ELECTRICAL.
483	TOILET PARTITION.
484	WATER CLOSET. SEE PLUMBING.
485	URINAL PARTITION.
486	WALL MOUNTED URINAL. SEE PLUMBING.
489	27" LONG TRENCH DRAIN. CENTER IN SHOWER OPENING FOR BARRIER FREE ACCESS.
490	INSTALL SHOWER FLOOR TILE OVER 2" MORTAR BED IN RECESSED SLAB. SLOPE SHOWER FLOOR TO DRAIN.

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ARCHITECT

Dzilth-Na-O-Dith-Hle - New Dormitory Building

PRICING SET

35 Road 7585, Bloomfield, NM 87413

NOVEMBER 10, 2020

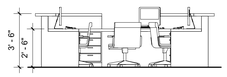
MARK	DATE	DESCRIPTION

ISSUE:	
DATE:	
PROJECT NO:	751
CAD DWG FILE:	
DRAWN BY:	Author
CHECKED BY:	Checker

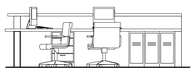
SHEET TITLE

ENLARGED PLANS AND ELEVATIONS

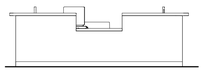
A-402



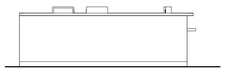
D1 RECEPTION DESK - BACK
1/4" = 1'-0"



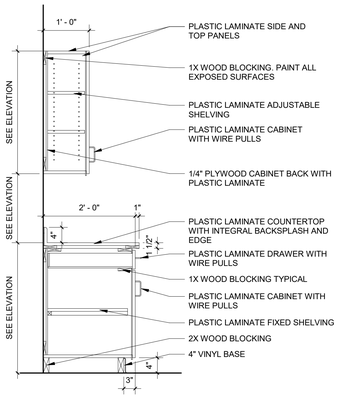
D2 RECEPTION DESK - SECTION
1/4" = 1'-0"



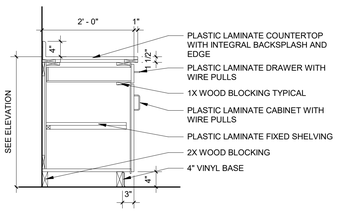
D4 RECEPTION DESK - FRONT
1/4" = 1'-0"



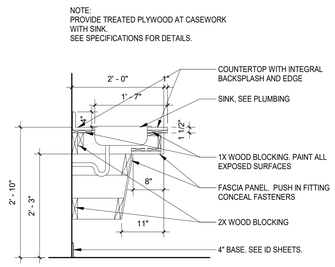
D5 RECEPTION DESK - SIDE
1/4" = 1'-0"



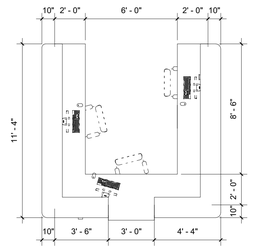
B1 UPPER AND LOWER CASEWORK
3/4" = 1'-0"



B2 LOWER CASEWORK DETAIL
3/4" = 1'-0"



B3 IN COUNTER SINK
3/4" = 1'-0"



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ARCHITECT

Dzilth-Na-O-Dith-Hle - New Dormitory Building

PRICING SET

35 Road 7585, Bloomfield, NM 87413

NOVEMBER 10, 2020

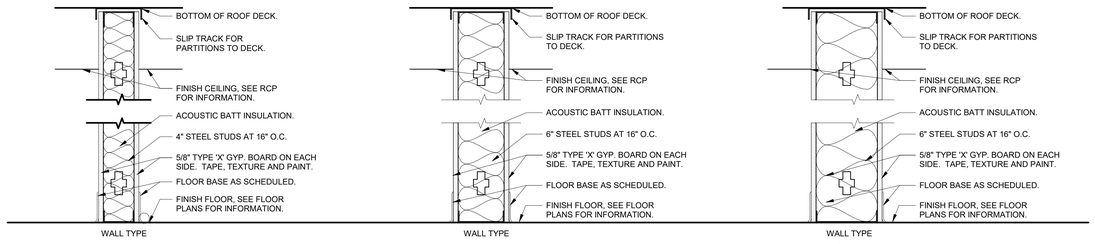
MARK	DATE	DESCRIPTION

ISSUE:	
DATE:	
PROJECT NO:	751
CAD DWG FILE:	
DRAWN BY:	Author
CHECKED BY:	Checker

SHEET TITLE

ENLARGED PLANS AND ELEVATIONS

A-403



A	WALL TYPE AS SHOWN IN DETAIL ABOVE
A1	AS SHOWN IN DETAIL ABOVE WITH THE FOLLOWING EXCEPTIONS: • EXTEND ASSEMBLY TO 6" ABOVE FINISH CEILING
A2	AS SHOWN IN DETAIL ABOVE WITH THE FOLLOWING EXCEPTIONS: • 30 MINUTE FIRE BARRIER WALL (UL U407) • ACOUSTICAL PARTITION - STC RATING 45 • PROTECT ALL OPENINGS, SEAL ALL PENETRATIONS & JOINTS TO MAINTAIN RATING
A2A	AS SHOWN IN DETAIL ABOVE WITH THE FOLLOWING EXCEPTIONS: • 30 MINUTE FIRE BARRIER WALL (UL U407) • ACOUSTICAL PARTITION - STC RATING 45 • PROTECT ALL OPENINGS, SEAL ALL PENETRATIONS & JOINTS TO MAINTAIN RATING • 5/8" TYPE 'X' CEMENTITIOUS BACKER BOARD AT WALL TILE. SEE INTERIOR ELEVATIONS AND FINISH SCHEDULE FOR HEIGHT AND EXTENT.
A3	AS SHOWN IN DETAIL ABOVE WITH THE FOLLOWING EXCEPTIONS: • 5/8" TYPE 'X' CEMENTITIOUS BACKER BOARD AT WALL TILE. SEE INTERIOR ELEVATIONS AND FINISH SCHEDULE FOR HEIGHT AND EXTENT. • 5/8" TYPE 'X' WATER RESISTANT GYPSUM BOARD ABOVE WALL TILE. TAPE, TEXTURE, PAINT.
A4	AS SHOWN IN DETAIL ABOVE WITH THE FOLLOWING EXCEPTIONS: • 5/8" TYPE 'X' GYPSUM BOARD ON EXPOSED SIDE TAPE, TEXTURE, PAINT. • EXTEND STUDS & GYPSUM BOARD TO 6" ABOVE FINISH CEILING.
A5	AS SHOWN IN DETAIL ABOVE WITH THE FOLLOWING EXCEPTIONS: (SLEEPING ROOM TO ADJACENT OCCUPIED SPACE) • 1 HOUR FIRE BARRIER WALL (UL U419) • ACOUSTICAL PARTITION - STC RATING 45 • PROTECT ALL OPENINGS, SEAL ALL PENETRATIONS & JOINTS TO MAINTAIN RATING
A6	AS SHOWN IN DETAIL ABOVE WITH THE FOLLOWING EXCEPTIONS: (TYPICAL SLEEPING ROOM TO ADJACENT RESTROOM) • 1 HOUR FIRE BARRIER WALL (UL U419) • 5/8" TYPE "X" CEMENTITIOUS BACKER BOAR AT WALL TILE. SEE INTERIOR ELEVATIONS AND FINISH SCHEDULE FOR HEIGHT AND EXTENT. • 5/8" TYPE "X" WATER RESISTANT GYPSUM BOARD ABOVE WALL TILE, TAPE, TEXTURE AND PAINT. • PROTECT ALL OPENINGS, SEAL ALL PENETRATIONS & JOINTS TO MAINTAIN RATING

B	WALL TYPE AS SHOWN IN DETAIL ABOVE
B1	AS SHOWN IN DETAIL ABOVE WITH THE FOLLOWING EXCEPTIONS: • EXTEND ASSEMBLY TO 6" ABOVE FINISH CEILING
B2	AS SHOWN IN DETAIL ABOVE WITH THE FOLLOWING EXCEPTIONS: • 30 MINUTE FIRE BARRIER WALL (UL U407) • ACOUSTICAL PARTITION - STC RATING 45 • PROTECT ALL OPENINGS, SEAL ALL PENETRATIONS & JOINTS TO MAINTAIN RATING
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C	WALL TYPE AS SHOWN IN DETAIL ABOVE
C1	AS SHOWN IN DETAIL ABOVE WITH THE FOLLOWING EXCEPTIONS: • EXTEND ASSEMBLY TO 6" ABOVE FINISH CEILING
C2	AS SHOWN IN DETAIL ABOVE WITH THE FOLLOWING EXCEPTIONS: • 30 MINUTE FIRE BARRIER WALL (UL U407) • ACOUSTICAL PARTITION - STC RATING 45 • PROTECT ALL OPENINGS, SEAL ALL PENETRATIONS & JOINTS TO MAINTAIN RATING
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NOTE: NOT ALL PARTITION TYPES ARE USED IN THIS PROJECT

ACOUSTICAL PARTITION NOTES

A. BACK TO BACK OUTLETS WILL NOT BE ALLOWED.

B. FURNISH AND INSTALL ACOUSTIC SEALANT AT FLOOR TO PARTITION CONNECTIONS.

C. FURNISH AND INSTALL ACOUSTIC SEALANT AT ALL PENETRATIONS FOR UTILITIES, HVAC, SPRINKLERS, CONDUITS, ETC. AS THEY PENETRATE STC RATED PARTITIONS. SUPPORT PENETRATIONS ON EACH SIDE OF PARTITION TO AVOID MECHANICAL CONTACT WITH STUDS OR GYPSUM BOARD.

D. SPACES BETWEEN ITEMS PENETRATING STC RATED PARTITIONS AND THE PARTITION ITSELF SHALL BE SEALED USING ACOUSTIC SEALANT AND BACKER MATERIAL (GLASS FIBER INSULATION OR ROCK WOOL).

GENERAL NOTES

A. FURNISH AND INSTALL SEALANT AT INTERSECTION OF ALL DISSIMILAR MATERIALS.

B. FURNISH AND INSTALL WOOD BLOCKING IN ALL WALLS FOR SUPPORT OF TOILET PARTITIONS, SIGNAGE, ACCESSORIES OR OTHER WALL SUPPORTED ITEMS AS REQUIRED.

C. FURNISH AND INSTALL WATER RESISTANT GYPSUM BOARD IN KITCHEN, RESTROOMS, CUSTODIAL ROOMS AND ALL WET AREAS.

D. SEE FLOOR PLANS FOR EXTENT OF RATED ASSEMBLIES.

E. SEE BUILDING AND WALL SECTIONS FOR ADDITIONAL INFORMATION OF INTERIOR WALLS THAT EXTEND ABOVE THE ROOF PLANE AND EXTERIOR WALLS. COORDINATE WITH STRUCTURAL.

F. SEE REFLECTED CEILING PLAN FOR ALL CEILING INFORMATION.

G. AT ALL LOCATIONS OF EXPOSED CEILING STRUCTURE ALL CMU WALLS SHALL BE PAINTED TO ROOF DECK AND ALL STEEL STUD WALLS SHALL BE TAPED, TEXTURED AND PAINTED TO UNDERSIDE OF ROOF DECK. CONTROL ALL PAINT AND TEXTURE OVERSPRAY AT THESE LOCATIONS, OVERSPRAY ON EXPOSED ROOF DECK WILL NOT BE ACCEPTED.

H. SEE STRUCTURAL DRAWINGS FOR LOCATIONS AND DETAIL OF LOAD BEARING STEEL STUDS OR CMU WALLS.

I. PARTITION GAUGE SHALL COMPLY WITH DEFLECTION AND LOADING CRITERIA INDICATED IN THE SPECIFICATIONS.

J. FURNISH AND INSTALL WALL TILE ON 5/8" TYPE X CEMENTITIOUS BACKER BOARD TO HEIGHT INDICATED ON INTERIOR ELEVATIONS IN ALL RESTROOMS AT ALL DRINKING FOUNTAINS.

K. SEE FLOOR PLANS AND ID SHEETS FOR INTERIOR FINISH INFORMATION.

L. NO RIGID INSULATION SHALL BE EXPOSED INSIDE THE BUILDING ENVELOPE. COVER ALL INSULATION WITH GYPSUM BOARD. TAPE BED AND SEAL ALL GAPS AT DECK WITH FIRE/SMOKE SEALANT.

M. FURNISH AND INSTALL SLIP TYPE HEAD JOINTS AT ALL STEEL STUD PARTITIONS THAT EXTEND TO DECK.

N. FURNISH AND INSTALL FIRE STOP TRACKS AT ALL FIRE RATED STEEL STUD PARTITIONS.

O. PARTITIONS THAT HAVE MULTIPLE LAYERS OF GYP BOARD SHALL BE CONTINUOUS ALONG WALL SURFACE. STAGGERED OR STEPPED WALL SURFACES WILL NOT BE ACCEPTED.

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Dzilth-Na-O-Dith-Hle - New Dormitory Building

PRICING SET

35 Road 7585, Bloomfield, NM 87413

NOVEMBER 10, 2020

MARK	DATE	DESCRIPTION

ISSUE:	
DATE:	
PROJECT NO:	751
CAD DWG FILE:	
DRAWN BY:	Author
CHECKED BY:	Checker

SHEET TITLE

PARTITION SCHEDULE

A-501

Dzilth-Na-O-Dith-Hle - New Dormitory Building

Dzilth-Na-O-Dith-Hle Community School

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Door & Frame Schedule

DOOR NUMBER	DOOR SIZE WIDTH	DOOR SIZE HEIGHT	DOOR TYPE	FACING/FINISH	FRAME TYPE	GLAZING	FIRE RATING	DETAIL REFERENCE HEAD	DETAIL REFERENCE JAMB	DETAIL REFERENCE SILL	SIGNAGE	REMARKS
001	6' - 4"	6' - 10"	1 PAIR	ALUM	F	1" ISG		C3/A-611	B3/A-611	C2/A-611	EXIT	ACCESS CONTROL / ADA ACTUATOR /
002	4' - 0"	7' - 0"	2	HM/P	D	-	-	A3/A-611	A4/A-611	-	MECHANICAL	
003	3' - 0"	7' - 0"	1	ALUM	B	1" ISG	-	COORDINATE	-	-	EXIT	ACCESS CONTROL
004	3' - 1"	7' - 0"	1 PAIR	ALUM	G	1" ISG	-	C3/A-611	B3/A-611	C2/A-611	EXIT	
005	3' - 0"	7' - 0"	1	ALUM	B	1" ISG	-	COORDINATE	-	-	EXIT	ACCESS CONTROL
006	3' - 0"	7' - 0"	2	HM/P	D	-	-	COORDINATE	-	-	ELECTRICAL	
007	6' - 0"	7' - 0"	2 PAIR	HM/P	E	-	-				PENTHOUSE	
100	6' - 4"	7' - 0"	1 PAIR	ALUM	A	1/4" SG	-	A2/A-611	B2/A-611	-	-	
101A	3' - 0"	7' - 0"	3	W/SV	C	1/4" SG	-	A1/A-611	A1/A-611	-		BUZZER CONTROL
101B	3' - 0"	7' - 0"	3	W/SV	C	1/4" SG	-	A1/A-611	A1/A-611	-		BUZZER CONTROL
103	3' - 0"	7' - 0"	3	W/SV	D	1/4" SG	-	A1/A-611	A1/A-611	-	HOME LIVING SPECIALIST	
105	3' - 0"	7' - 0"	3	W/SV	C	1/4" SG	-	A1/A-611	A1/A-611		BOYS LAUNDRY	CHEMICAL USE ROOM: CLOSER REQUIRED
107	3' - 0"	7' - 0"	3	W/SV	C	1/4" SG	-	A1/A-611	A1/A-611		GIRLS LAUNDRY	CHEMICAL USE ROOM: CLOSER REQUIRED
108	3' - 0"	7' - 0"	3	W/SV	C	1/4" SG	20 MIN	A1/A-611	A1/A-611	-	SLEEPING ROOM	
109.1	3' - 0"	7' - 0"	3	W/SV	D			A1/A-611	A1/A-611			
110	3' - 0"	7' - 0"	3	W/SV	D	1/4" FG	-	A1/A-611	A1/A-611	-	COUNSELOR	
111	3' - 0"	7' - 0"	4	W/SV	D	-	-	A1/A-611	A1/A-611		JANITOR	CHEMICAL USE ROOM: CLOSER REQUIRED
112	3' - 0"	7' - 0"	4	W/SV	D	-	-	A1/A-611	A1/A-611	-	STORAGE	CHEMICAL USE ROOM: CLOSER REQUIRED
113	3' - 0"	7' - 0"	3	W/SV	D	1/4" FG	20 MIN	A1/A-611	A1/A-611	-	SLEEPING ROOM	
114.1	3' - 0"	7' - 0"	3	W/SV	D			A1/A-611	A1/A-611		STORAGE	
120	3' - 0"	7' - 0"	4	W/SV	D	-	-	A1/A-611	A1/A-611		MENS RESTROOM	
121	3' - 0"	7' - 0"	4	W/SV	D	-	-	A1/A-611	A1/A-611		WOMENS RESTROOM	
200	6' - 4"	7' - 0"	1 PAIR	ALUM	G	1/4" SG	-	A2/A-611	B2/A-611	C2/A-611	-	ACCESS CONTROL / ADA ACTUATOR / REMOVABLE CENTER MULLION
201	2' - 6"	7' - 0"	3	W/SV	D	-		A1/A-611	A1/A-611			CHEMICAL USE ROOM: CLOSER REQUIRED
201B	9' - 6"	5' - 4"	-	-	-	-			-	-	-	KITCHEN: COILING GRILLE DOOR
202	3' - 0"	7' - 0"	3	W/SV	D	1/4" FG	20 MIN	A1/A-611	A1/A-611	-	GIRLS DORMITORY	ACCESS CONTROL
203	3' - 0"	7' - 0"	4	W/SV	D	-	-	A1/A-611	A1/A-611	-	STORAGE	
204	3' - 0"	7' - 0"	4	W/SV	D	-	-	A1/A-611	A1/A-611	-	GIRLS RESTROOM	
205	3' - 0"	7' - 0"	4	W/SV	D	-	20 MIN	A1/A-611	A1/A-611	-	IT	ACCESS CONTROL
206	3' - 0"	7' - 0"	4	W/SV	D	-	-	A1/A-611	A1/A-611	-	JANITOR	CHEMICAL USE ROOM: CLOSER REQUIRED
207	3' - 0"	7' - 0"	3	W/SV	D	1/4" FG	20 MIN	A1/A-611	A1/A-611	-	ISOLATION	
207A	3' - 0"	7' - 0"	4	W/SV	D	-	-	A1/A-611	A1/A-611	-	RESTROOM	
208	3' - 0"	7' - 0"	3	W/SV	D	1/4" FG	20 MIN	A1/A-611	A1/A-611	-	HONORS SLEEPING ROOM	
208A	3' - 0"	7' - 0"	4	W/SV	D	-	-	A1/A-611	A1/A-611	-	RESTROOM	
209	3' - 0"	7' - 0"	3	W/SV	D	1/4" FG	20 MIN	A1/A-611	A1/A-611	-	SLEEPING ROOM	
210	3' - 0"	7' - 0"	3	W/SV	D	1/4" FG	20 MIN	A1/A-611	A1/A-611	-	SLEEPING ROOM	
211	3' - 0"	7' - 0"	3	W/SV	D	1/4" FG	20 MIN	A1/A-611	A1/A-611	-	SLEEPING ROOM	
212	3' - 0"	7' - 0"	3	W/SV	D	1/4" FG	20 MIN	A1/A-611	A1/A-611	-	SLEEPING ROOM	
213	3' - 0"	7' - 0"	3	W/SV	D	1/4" FG	20 MIN	A1/A-611	A1/A-611	-	SLEEPING ROOM	
215	3' - 0"	7' - 0"	3	W/SV	D			A1/A-611	A1/A-611		KITCHEN	
216	3' - 0"	7' - 0"	3	W/SV	D	1/4" FG	20 MIN	A1/A-611	A1/A-611	-	BOYS DORMITORY	ACCESS CONTROL
217	3' - 0"	7' - 0"	4	W/SV	D	-	20 MIN	A1/A-611	A1/A-611	-	STORAGE	
218	3' - 0"	7' - 0"	4	W/SV	D	-	-	A1/A-611	A1/A-611	-	BOYS RESTROOM	
219	3' - 0"	7' - 0"	4	W/SV	D	-	-	A1/A-611	A1/A-611	-	JANITOR	CHEMICAL USE ROOM: CLOSER REQUIRED
220	3' - 0"	7' - 0"	3	W/SV	D	1/4" FG	20 MIN	A1/A-611	A1/A-611	-	ISOLATION	
221	3' - 0"	7' - 0"	4	W/SV	D	-	-	A1/A-611	A1/A-611	-	RESTROOM	
222	3' - 0"	7' - 0"	3	W/SV	D	1/4" FG	20 MIN	A1/A-611	A1/A-611	-	SLEEPING ROOM	
223	3' - 0"	7' - 0"	3	W/SV	D	1/4" FG	20 MIN	A1/A-611	A1/A-611	-	HONORS SLEEPING ROOM	
223A	3' - 0"	7' - 0"	4	W/SV	D	-	-	A1/A-611	A1/A-611	-	RESTROOM	
224	3' - 0"	7' - 0"	3	W/SV	D	1/4" FG	20 MIN	A1/A-611	A1/A-611	-	SLEEPING ROOM	
225	3' - 0"	7' - 0"	3	W/SV	D	1/4" FG	20 MIN	A1/A-611	A1/A-611	-	SLEEPING ROOM	
226	3' - 0"	7' - 0"	3	W/SV	D	1/4" FG	20 MIN	A1/A-611	A1/A-611	-	SLEEPING ROOM	
227	3' - 0"	7' - 0"	3	W/SV	D	1/4" FG	20 MIN	A1/A-611	A1/A-611	-	SLEEPING ROOM	

WINDOW SHADE LEGEND

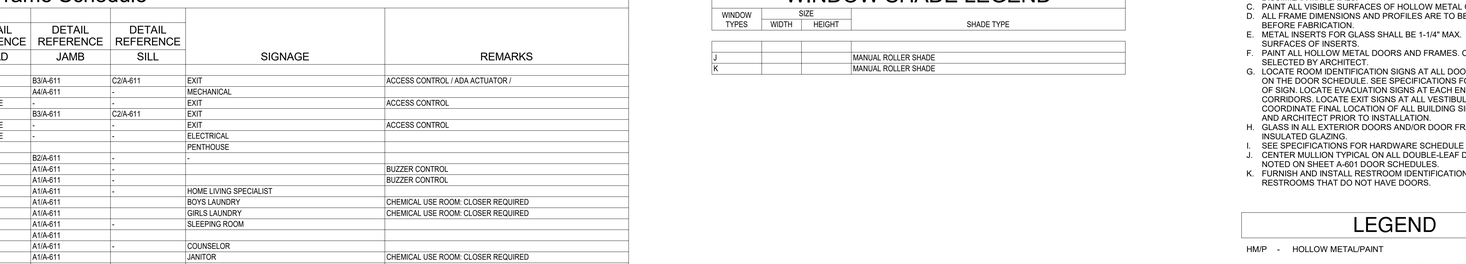
WINDOW TYPES	SIZE WIDTH	SIZE HEIGHT	SHADE TYPE
J			MANUAL ROLLER SHADE
K			MANUAL ROLLER SHADE

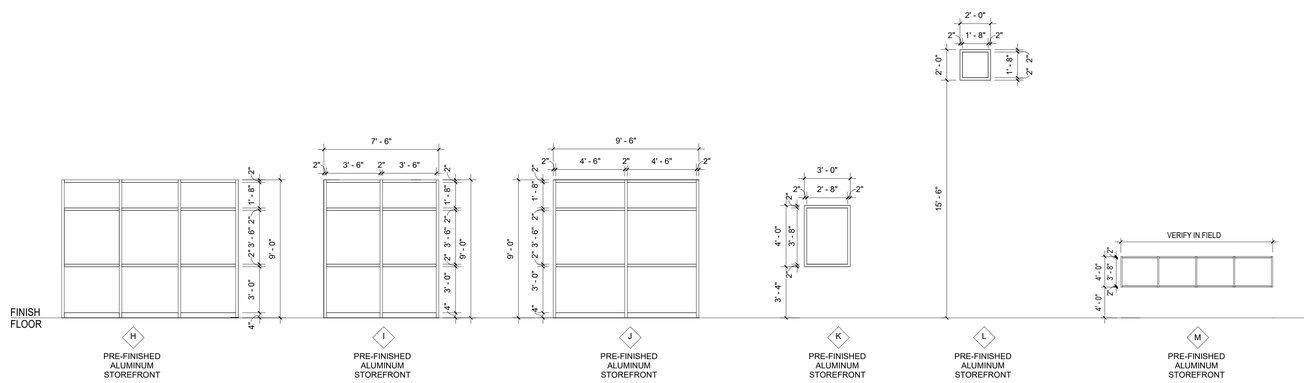
GENERAL NOTES

A. GROUT ALL HOLLOW METAL DOOR FRAMES SOLID.
B. FINISH AND INSTALL PAINTABLE SEALANT AT INTERSECTION OF ALL DISSIMILAR MATERIALS.
C. PAINT ALL VISIBLE SURFACES OF HOLLOW METAL GLASS STOPS.
D. ALL FRAME DIMENSIONS AND PROFILES ARE TO BE FIELD VERIFIED BEFORE FABRICATION.
E. METAL INSERTS FOR GLASS SHALL BE 1-1/4" MAX. PAINT ALL VISIBLE SURFACES OF INSERTS.
F. PAINT ALL HOLLOW METAL DOORS AND FRAMES. COLOR TO BE SELECTED BY ARCHITECT.
G. LOCATE ROOM IDENTIFICATION SIGNS AT ALL DOORS AS INDICATED ON THE DOOR SCHEDULE. SEE SPECIFICATIONS FOR SIZE AND TYPE OF SIGN. LOCATE EVACUATION SIGNS AT EACH END OF ALL CORRIDORS. LOCATE EXIT SIGNS AT ALL VESTIBULE DOORS. COORDINATE FINAL LOCATION OF ALL BUILDING SINGS WITH OWNER AND ARCHITECT PRIOR TO INSTALLATION.
H. GLASS IN ALL EXTERIOR DOORS AND/OR DOOR FRAMES SHALL BE 1" INSULATED GLAZING.
I. SEE SPECIFICATIONS FOR HARDWARE SCHEDULE AND INFORMATION.
J. CENTER MULLION TYPICAL ON ALL DOUBLE-LEAF DOORS UNLESS NOTED ON SHEET A-601 DOOR SCHEDULES.
K. FURNISH AND INSTALL RESTROOM IDENTIFICATION SIGNS AT ALL RESTROOMS THAT DO NOT HAVE DOORS.

LEGEND

HM/P - HOLLOW METAL/PAINT
ALUM - ALUMINUM SYSTEM FINISH TO BE SELECTED BY ARCHITECT
W/SV - WOOD SOLID CORE / STAIN & VARNISH
1" ISG - 1" INSULATED SAFETY GLASS
1/4" SG - 1/4" SAFETY GLASS
1/4" FG - 1/4" FIRE GLASS
SS - STAINLESS STEEL
SGG - SCHOOL GUARD GLASS





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DOOR-WINDOW SCHEDULE

A-601

ROOM FINISH LEGEND			DZ - DORMATORY & SCHOOL
CARPET TILES - 12" X 24"			
	CPT1	MANUFACTURER:	SHAW CONTRACT FLOORING
		STYLE/ COLLECTION:	THINK/ MINDFUL PLAY
		COLOR:	TBD
NOTE:		INSTALLATION METHOD:	(CONFIRM @ TIME OF INSTALL.)
CARPET TILES - 18" X 36"			
	CPT2	MANUFACTURER:	SHAW CONTRACT FLOORING
		STYLE/ COLLECTION:	ENCLAVE / SHIFTING FIELDS
		COLOR:	TBD
NOTE:		INSTALLATION METHOD:	(CONFIRM @ TIME OF INSTALL.)
WALK-OFF MODULAR TILE - 24" X 24" - 10'-0" IN THE DIRECTION OF TRAVEL			
	CPT3	MANUFACTURER:	INTERFACE COMMERCIAL
		STYLE:	SUPER FLOR
		COLOR:	TBD
NOTE:		INSTALLATION METHOD:	$\frac{1}{4}$ TURNED INSTALLATION
VINYL COMPOSITION TILE 12" X 12"			
BASE BID		MANUFACTURER:	ARMSTRONG COMMERICAL TILE
		STYLE/ COLLECTION:	PREMIUM EXCELON/ CROWN TEXTURE
FIELD 40%	VCT1	COLOR:	TBD
FIELD 30%	VCT2	COLOR:	TBD
ACCENT 10%	VCT3	COLOR:	TBD
ACCENT 10%	VCT4	COLOR:	TBD
ACCENT 10%	VCT5	COLOR:	TBD
LUXURY VINYL TILE - 12" X 24"			
ADD ALT. #1		MANUFACTURER:	MANNINGTON COMMERICAL
		STYLE/ COLLECTION:	STRIDE & GROOVE/ COLOR ANCHOR
FIELD 40%	LVT1	COLOR:	TBD
FIELD 30%	LVT2	COLOR:	TBD
ACCENT 10%	LVT3	COLOR:	TBD
ACCENT 10%	LVT4	COLOR:	TBD
ACCENT 10%	LVT5	COLOR:	TBD
PORCELAIN FLOOR TILE - 24" X 24"			
RESTROOMS		MANUFACTURER:	DALTILE
	FT1	SERIES:	TBD
		COLOR:	TBD
NOTE:		INSTALLATION METHOD:	RUNNING BOND
PORCELAIN WALL TILE BASE - 12" X 24" (CUT IN FIELD FOR 6" APPLICATION			
	PWB	MANUFACTURER:	DALTILE
		SERIES:	
		COLOR:	
NOTE:		EPOXY FLOOR GROUT: MFG: LATICRETE - COLOR: TBD	
PORCELAIN STONE TILE - 6" X 6" (PTG) & WALL BASE (PTGB)			
KITCHEN		MANUFACTURER:	DALTILE
	PTG/ PTGB	SERIES:	SURETREAD
		COLOR:	TBD
NOTE:		EPOXY FLOOR GROUT: MFG: LATICRETE - COLOR: TBD	
SPORTS FLOORING - MULTI-USE GYM			
		MANUFACTURER:	TARKETT SPORTS FLOORING
	SPF	SERIES:	OMNISPORTS - CLASS 2
		COLOR:	TBD
SEALED CONCRETE			
		MANUFACTURER:	REFER TO PROJECT SPECIFICATION MANUAL
4" VINYL WALL COVE BASE			
	VB1	MANUFACTURER:	JOHNSONITE
		COLOR:	TBD

WOOD ATHLETIC FLOORING			
		MANUFACTURER:	AACER SPORTS FLOORING
		SERIES:	AACER CRUSH II
		WOOD SPECIES:	TBD
FLOOR TRANSITION			
		MANUFACTURER:	SCHLUTER SYSTEMS
LVT/ CARPET		SERIES:	CONTRACTOR TO PROVIDE
LVT/ PORCELAIN TILE		FINISH:	SATIN ANODIZED ALUMINUM
WALLS			
WALL TILE - GLAZED TILE - 8" X 24"			
		MANUFACTURER:	DALTILE
		COLLECTION:	COLOR WHEEL - LINEAR
FIELD 50%	WT 1	COLOR:	TBD
ACCENT 30%	WT 2	COLOR:	TBD
ACCENT 10%	WT 3	COLOR:	TBD
ACCENT 10%	WT 3	COLOR:	TBD
NOTE:		WALL GROUT: MFG: LATICRETE - COLOR: TBD	
CORNER BEAD - EDGE PROTECTION AT 90 DEGREE OUTSIDE CORNER			
		MANUFACTURER:	SCHLUTER SYSTEMS
		SERIES:	ED/RO 100E
		FINISH:	SATIN ANODIZED ALUMINUM
		SIZE:	$\frac{3}{8}$" X 10'-0" CUT TO LENGTH
PAINT			
		MANUFACTURER:	DUNN EDWARDS
FIELD	PT1	COLOR:	
HMDF	PT2	COLOR:	
ACCENT	PT3	COLOR:	
ACCENT	PT4	COLOR:	
ACCENT	PT5	COLOR:	
FRP PANEL			
JANITOR		MANUFACTURER:	MARLITE PANEL SYSTEMS
	FRP1	FINISH:	PEBBLED SURFACE
		COLOR :	# P100 WHITE
PLASTIC LAMINATE			
		MANUFACTURER:	TBD
	PL1	COLOR:	TBD
LOCATION:		HORIZONTAL/ UPPER CASEWORK IN BREAKROOM	
		MANUFACTURER:	TBD
	PL2	COLOR:	TBD
LOCATION:		LOWER CASEWORK IN BREAKROOM	
		MANUFACTURER:	TBD
	PL3	COLOR:	TBD
		MANUFACTURER:	TBD
	PL4	COLOR:	TBD

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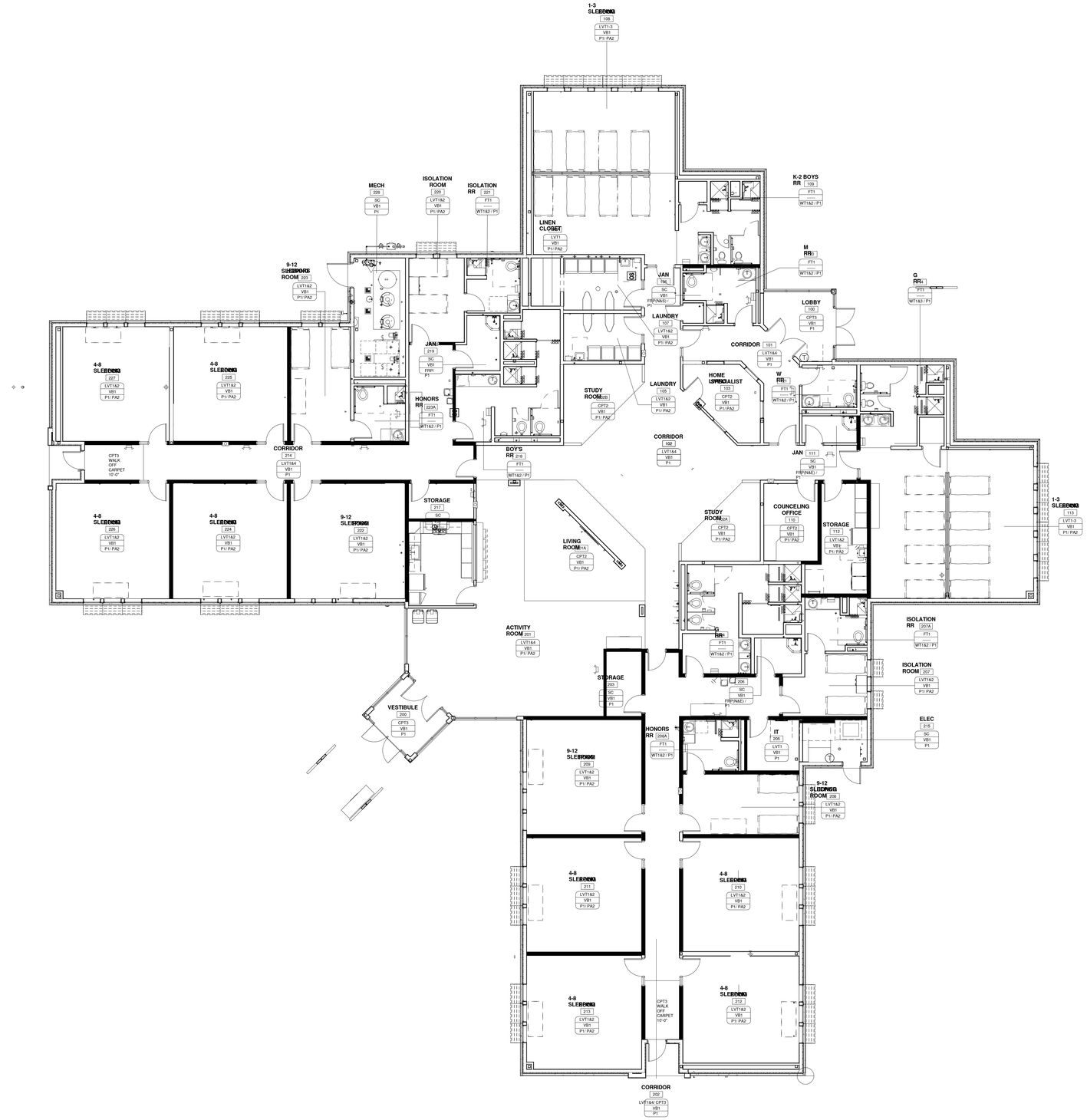
INTERIOR FINISH LEGEND

ID-101



A1 INTERIOR FINISH PLAN
1/8" = 1'-0"

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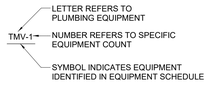
INTERIOR FINISH PLANS

ID-102

PLUMBING SYMBOL LEGEND

PLUMBING FIXTURE & EQUIPMENT SYMBOL



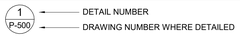
P1	WATER CLOSETS
P2	URINALS
P3	LAVATORIES
P4	SINKS
P5	SERVICE SINKS
P6	WATER COOLERS/DRINKING FOUNTAINS
P7	SHOWERS/BATHTUBS
P8	WATER HAMMERS/SHOCK ABSORBERS
P9	HOSE BIBBS
P10	HYDRANTS
P11	SUPPLY BOXES
P12	WASHER BOXES
P13	EYEWASH/EYEWASH SHOWERS
P14	CLINIC SINKS
P15	TRAP PRIMER
FD1	FLOOR DRAINS
FS1	FLOOR SINKS
RD1	ROOF DRAINS
ORD1	OVERFLOW DRAINS
DSN1	DOWNSPOUT NOZZLES
AD1	AREA DRAINS
DD1	DECK DRAINS

TMV-1	THERMOSTATIC MIXING VALVE
DWH-1	DOMESTIC WATER HEATER
EWH-1	ELECTRIC WATER HEATER
IWH-1	INSTANTANEOUS WATER HEATER
RCP-1	RECIRCULATION PUMP
EXP-1	EXPANSION TANK
RPZ-1	REDUCED PRESSURE ZONE BACKFLOW
BFP-1	DOUBLE CHECK BACKFLOW
GI-1	GREASE INTERCEPTOR
OI-1	OIL INTERCEPTOR
OS-1	OIL/SAND INTERCEPTOR
AN-1	ACID NEUTRALIZER
LI-1	LINT INTERCEPTOR
GM-1	GAS METER
REG-1	REGULATOR
PRV-1	PRESSURE REDUCING VALVE

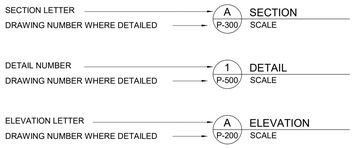
NOTE: NOT ALL FIXTURE & EQUIPMENT SYMBOLS APPLY TO THIS PROJECT

SECTION SYMBOL

DETAIL SYMBOL



SECTION, ELEVATION, AND DETAIL TITLES



PIPING SYMBOLS

SYMBOL	ABBREVIATION	DESCRIPTION
AV	AV	ACID VENT
AW	AW	ACID WASTE
CA	CA	COMPRESSED AIR
CD	CD	CONDENSATE DRAIN
DCW	DCW	DOMESTIC COLD WATER
DHW	DHW	DOMESTIC HOT WATER
DHWR	DHWR	DOMESTIC HOT WATER RETURN
DHW 140ºF	DHW 140ºF	140° DOMESTIC HOT WATER
DHWR 140ºF	DHWR 140ºF	140° DOMESTIC HOT WATER RETURN
ROS	ROS	REVERSE OSMOSIS SUPPLY
ROR	ROR	REVERSE OSMOSIS RETURN
MU	MU	MAKE-UP WATER
NPW	NPW	NON-POTABLE WATER
V	V	VENT
DIS	DIS	DEIONIZED WATER SUPPLY
DIR	DIR	DEIONIZED WATER RETURN
SAN	SAN	SANITARY SEWER
GW	GW	GREASE WASTE
GV	GV	GREASE VENT
RD	RD	STORM/ROOF DRAIN
ORD	ORD	OVERFLOW ROOF DRAIN
LPG	LPG	LIQUEFIED PETROLEUM GAS
G	G	NATURAL GAS-LOW PRESSURE
NGM	NGM	NATURAL GAS-MEDIUM PRESSURE
NGH	NGH	NATURAL GAS-HIGH PRESSURE
IRR	IRR	IRRIGATION
SCW	SCW	SOFT COLD WATER
SHW	SHW	SOFT HOT WATER
TWR (_ _ _)	TWR	TEMPERED WATER RETURN (TEMP °F)
TW (_ _ _)	TW	TEMPERED WATER (TEMP °F)
PD	PD	PUMPED DISCHARGE LINE
ICW	ICW	INDUSTRIAL COLD WATER
IHW	IHW	INDUSTRIAL HOT WATER
IHWR	IHWR	INDUSTRIAL HOT WATER RETURN
INW	INW	INDUSTRIAL WASTE
IA	IA	INSTRUMENT COMPRESSED AIR
IW	IW	INDIRECT WASTE
LA	LA	LAB COMPRESSED AIR

SITE UTILITY SYMBOLS

DESCRIPTION	NEW	EXISTING
SANITARY SEWER	S	EX. S
COLD WATER SUPPLY	W	EX. W
FIRE PROTECTION	F	EX. F
NATURAL GAS	G	EX. G
STORM DRAIN	SD	EX. SD
IRRIGATION	IRR	EX. IRR
VALVE WITH VALVE BOX		
FIRE HYDRANT	F.H.	F.H.(E)
FIRE DEPARTMENT INLET CONNECTION	F.D.C.	F.D.C.
CONSTRUCTION		
THRUST BLOCK		
CLEANOUT	SAS C.O.	SAS C.O.(E)
POWER POLE	PP	PP
FENCING		
LIGHT POLE	LP	LP
WATER METER	WM	WM
NATURAL GAS METER	GM	GM
GATE VALVE		
VALVE IN RISER		
POST INDICATOR VALVE	PIV	PIV
REDUCED PRESSURE BACKFLOW PREVENTER		
SANITARY MANHOLE	SAS M.H.	SAS M.H.(E)
SLOPE AND LINEAL FOOTAGE	255' OF 6" @ 0.15%SLOPE	

VALVE SYMBOLS

SYMBOL	DESCRIPTION
	GATE VALVE
	GLOBE VALVE
S	SOLENOID VALVE
	OS&Y VALVE
	BUTTERFLY VALVE
OR OR	BALL VALVE
OR	CHECK VALVE
OR	PLUG VALVE
	BALANCING VALVE/CIRCUIT SETTER DEVICE
	PRESSURE REDUCING VALVE
	REGULATING/SUSTAINING VALVE
	2-WAY CONTROL VALVE
	3-WAY MODULATING CONTROL VALVE
	FUEL GAS PRESSURE REGULATOR
	PRESSURE RELIEF VALVE
	TEMPERATURE AND PRESSURE RELIEF VALVE
	DRAIN VALVE
	VALVE IN VERTICAL
	FLOW SWITCH
	DIAPHRAGM (PROCESS SYSTEMS)
	REDUCED PRESSURE BACKFLOW PREVENTER (RPZ)
	ATMOSPHERIC VACUUM BREAKER
	PRESSURE STYLE VACUUM BREAKER

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
ANT	ACID NEUTRALIZING TANK
AVTR	ACID RESISTANT VENT THROUGH ROOF
B.C.	BALANCING COCK
BOP	BOTTOM OF PIPE
BTU	BRITISH THERMAL UNIT
BTUH	BTU PER HOUR
CWB	CLOTHES WASHER BOX
CFH	CUBIC FEET PER HOUR
CO	CLEANOUT
COTG	CLEANOUT TO GRADE
CP	CIRCULATION PUMP
CWV	COMBINATION WASTE AND VENT
DCO	DOUBLE CLEANOUT
DCOTG	DOUBLE CLEANOUT TO GRADE
DF	DRINKING FOUNTAIN
DN	DOWN
DS	DOWNSPOUT
DSN	DOWNSPOUT NOZZLE
EL	ELEVATION
EWH	ELECTRIC WATER HEATER
EWC	ELECTRIC WATER COOLER
EEW	EMERGENCY EYEWASH
ES	EMERGENCY SHOWER
ESEW	EMERGENCY SHOWER EYE WASH
°F	DEGREES FAHRENHEIT
FCO	FLOOR CLEANOUT
FFE	FINISHED FLOOR ELEVATION
FT	FEET
FOS	FUEL OIL SUPPLY
FOR	FUEL OIL RETURN
FOV	FUEL OIL VENT
FV	FLUSH VALVE
GD	GUTTER DRAIN
GI	GREASE INTERCEPTOR
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GWH	GAS WATER HEATER
HB	HOSE BIBB
HD	HEAD
HP	HORSEPOWER
IN	INCHES
INV	INVERT
kW	KILOWATT
MBh	1,000 BTUH
MV	MIXING VALVE
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
No. #	NUMBER
N.C.	NORMALLY CLOSED
N.O.	NORMALLY OPEN
OS&Y	OUTSIDE SCREW AND YOKE
PH	PHASE
Ph	POWERS OF HARDNESS
PSIG	POUNDS PER SQUARE INCH GAUGE
SP	STATIC PRESSURE
TD	TRENCH DRAIN
TYP	TYPICAL
YB	YARD BOX
YH	YARD HYDRANT
WCO	WALL CLEANOUT
WC	WATER CLOSET

NOTE: NOT ALL ABBREVIATIONS OR SYMBOLS APPLY TO THIS PROJECT

SCHEMATIC SYMBOLS

SYMBOL	ABBREVIATION	DESCRIPTION
XX		KEYED NOTE
		POINT OF CONNECTION TO EXISTING
XXXXX		EXISTING PIPE TO BE REMOVED
		NEW PIPING
		EXISTING PIPING TO REMAIN
		NEW PIPE CONNECTION TO EXISTING PIPING
		SLOPE OF PIPE
		DIRECTION OF FLOW
		DROP IN PIPE
		RISE IN PIPE
		TOP CONNECTION, 45° OR 90°
		BOTTOM CONNECTION, 45° OR 90°
		CAPPED OUTLET
		SIDE CONNECTION
		UNION
		FLANGED UNION
		ORIFICE UNION
		REDUCER OR INCREASER
		ECCENTRIC REDUCER
		PIPE GUIDE
		FLEXIBLE CONNECTION
		UNIVERSAL TEMPERATURE-PRESSURE FITTING (PETE'S PLUG)
		STRAINER WITH BLOWDOWN VALVE & HOSE BIBB
		THERMOMETER
		PRESSURE GAUGE AND GAUGE COCK
		AQUASTAT
OR		WATER HAMMER ARRESTOR
		TEST PLUG (PRESS/TEMP)
		PENETRATION
	MAV	MANUAL AIR VENT (MAV)
A	AAV	AUTOMATIC AIR VENT (AAV)
	FS/FD/AD	FLOOR SINK , FLOOR DRAIN , AREA DRAIN
	FCO/COTG	FLOOR CLEANOUT/CLEANOUT TO GRADE
	DCOTG	TWO WAY OR DOUBLE CLEANOUT TO GRADE
	RD/OD/DD	ROOF DRAIN/OVERFLOW DRAIN/DECK DRAIN
	TP	TRAP PRIMER WITH ACCESS PANEL
	VTR	VENT THROUGH ROOF
	AG	AIR GAP FITTING
	(WH) (HB)	WALL HYDRANT, HOSE BIBB
	WCO	WALL CLEANOUT

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ARCHITECT

Dzilth-Na-O-Dith-Hle - New Dormitory Building

PRICING SET

35 Road 7585, Bloomfield, NM 87413

NOVEMBER 10, 2020

MARK	DATE	DESCRIPTION

ISSUE:	
DATE:	
PROJECT NO:	751
CAD DWG FILE:	
DRAWN BY:	AJM/SNB
CHECKED BY:	IM

SHEET TITLE

PLUMBING LEGEND

P-001

Dzilth-Na-O-Dith-Hle - New Dormitory Building
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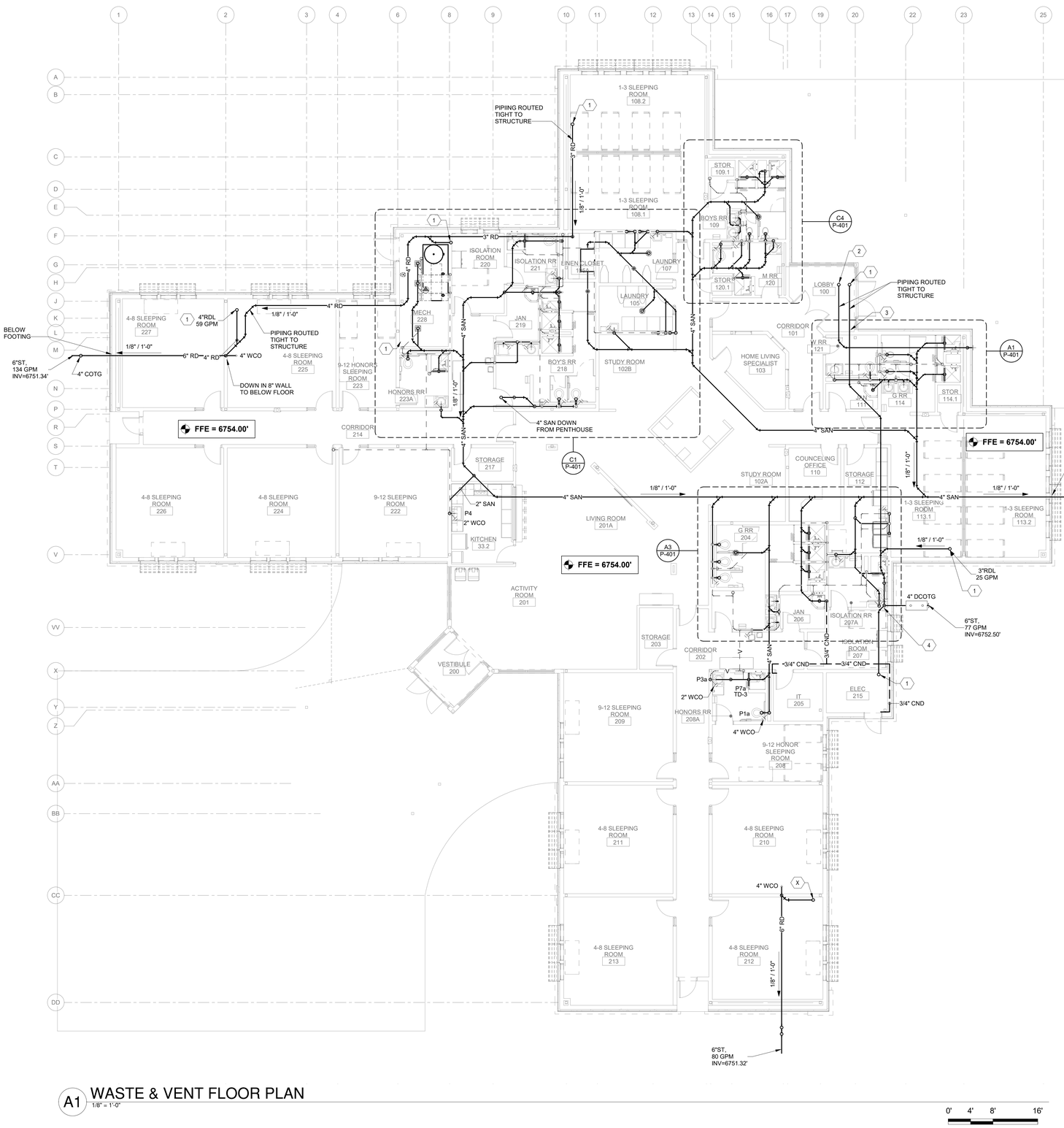

A1 WASTE & VENT FLOOR PLAN
1/8" = 1'-0"

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. PLUMBING FLOOR AND ROOF PENETRATIONS ARE SUBJECT TO CHANGE. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR FINAL PLUMBING AND EQUIPMENT LOCATIONS.
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. REFER TO DRAWING P-701 FOR PLUMBING ROUGH IN REQUIREMENTS.
K. ALL STORM, SANITARY AND WASTE PIPING IS BELOW THIS SLAB UNLESS OTHERWISE NOTED.

KEYNOTES

1. ROOF DRAIN LEADER DOWN FROM ABOVE.
2. OVERFLOW ROOF DRAIN LEADER DOWN FROM ABOVE.
3. OFFSET BELOW WIDE FLANGE BEAM.
4. 6" ROOF DRAIN LEADER DOWN IN CHASES, PROVIDE WALL CLEANOUT AT BASE, THEN THROUGH STEM WALL (PIPING ON TOP OF FOOTING TO MAINTAIN HIGHER EXITING INVERT). COORDINATE WITH OTHER TRADES.

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ARCHITECT

Dzilth-Na-O-Dith-Hle - New Dormitory Building

PRICING SET

35 Road 7585, Bloomfield, NM 87413

NOVEMBER 10, 2020

MARK	DATE	DESCRIPTION

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DATE:	
PROJECT NO:	751
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SHEET TITLE

WASTE & VENT FLOOR PLAN

PL-101

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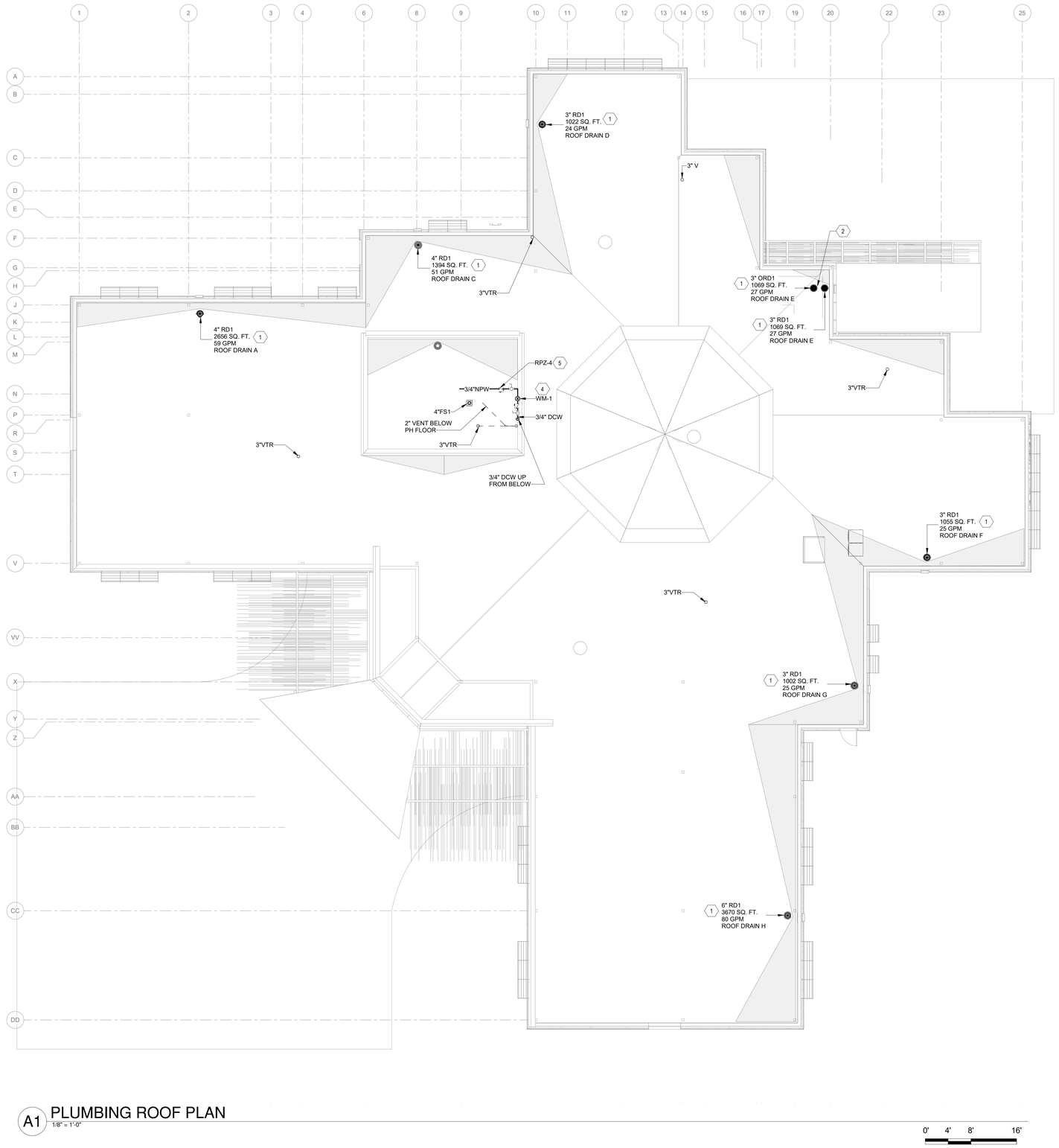

A1 PLUMBING ROOF PLAN
1/8" = 1'-0"

0' 4' 8' 16'

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. PLUMBING FLOOR AND ROOF PENETRATIONS ARE SUBJECT TO CHANGE. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR FINAL PLUMBING AND EQUIPMENT LOCATIONS.
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. REFER TO DRAWING P-701 FOR PLUMBING ROUGH IN REQUIREMENTS.
K. ALL STORM, SANITARY AND WASTE PIPING IS BELOW THIS SLAB UNLESS OTHERWISE NOTED.

KEYNOTES

1. COORDINATE ROOF DRAIN LOCATION WITH ARCHITECTURAL ROOF PLANS AND STRUCTURAL PLANS.
2. PRIMARY AND OVERFLOW LEADERS DOWN TO BELOW.
3. ROUTE ROOF DRAINS TIGHT TO STRUCTURE.
4. WATER METER FOR MAKE-UP MEASUREMENT, COORDINATE WITH CONTROLS.
5. REDUCED PRESSURE ZONE BACKFLOW PREVENTER SERVING AHU.

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ARCHITECT

Dzilth-Na-O-Dith-Hle - New Dormitory Building

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NOVEMBER 10, 2020

MARK	DATE	DESCRIPTION

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SHEET TITLE

PLUMBING ROOF PLAN

PL-131

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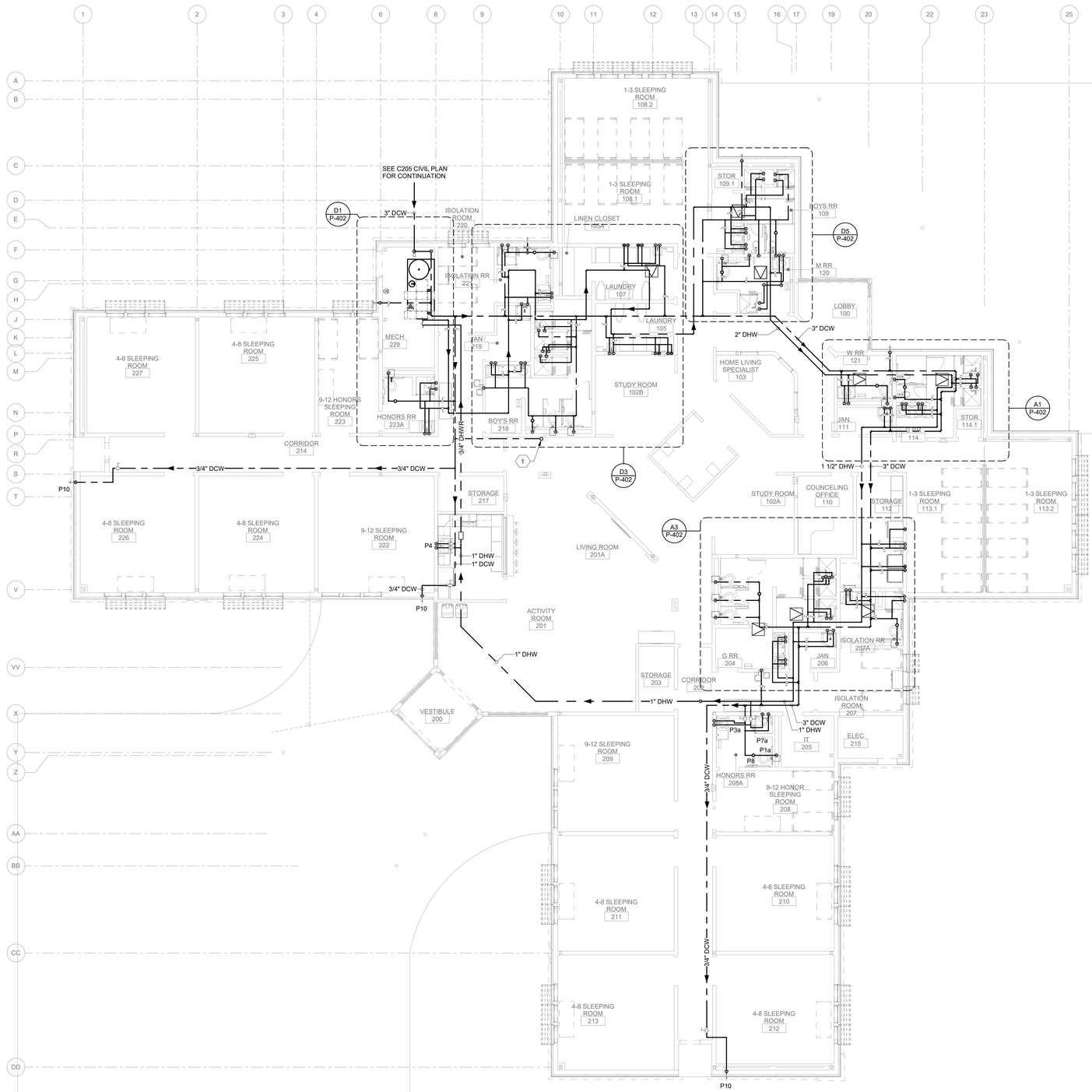

A1 PRESSURE PIPING FLOOR PLAN
1/8" = 1'-0"

0' 4' 8' 16'

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.
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I. ALL P-TRAPS TO FLOOR SINKS AND FLOOR DRAINS SHALL BE SUPPLIED WITH A TRAP SEAL GUARD.
J. REFER TO DRAWING P-701 FOR PLUMBING ROUGH IN REQUIREMENTS.
K. REFER TO DRAWING P-702 FOR PLUMBING EQUIPMENT SCHEDULES.
L. DUE TO THE SMALL SCALE OF THE DRAWINGS IT IS IMPOSSIBLE TO SHOW ALL VALVES AND APPURTENANCES ON THE PLANS. THE PLUMBING CONTRACTOR SHALL PROVIDE A FULL PORT LINE-SIZED ISOLATION BALL VALVE ON EACH DOMESTIC HOT AND COLD WATER LINE TO A PLUMBING FIXTURE WHETHER SHOWN OR NOT.
M. THE DOMESTIC HOT WATER SYSTEM AS INSTALLED SHALL NOT HAVE ANY DEAD LEGS IN EXCESS OF 1.5 X THE DIAMETER OF THE PIPE IN QUESTION.

KEYNOTES

1. 3/4" DOMESTIC COLD WATER UP TO RPZ SERVING AHU AND WATER METER IN PENTHOUSE.

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ARCHITECT

Dzilth-Na-O-Dith-Hle - New Dormitory Building

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NOVEMBER 10, 2020

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SHEET TITLE

PRESSURE PIPING FLOOR PLAN

PP-101

Dzilth-Na-O-Dith-Hle - New Dormitory Building
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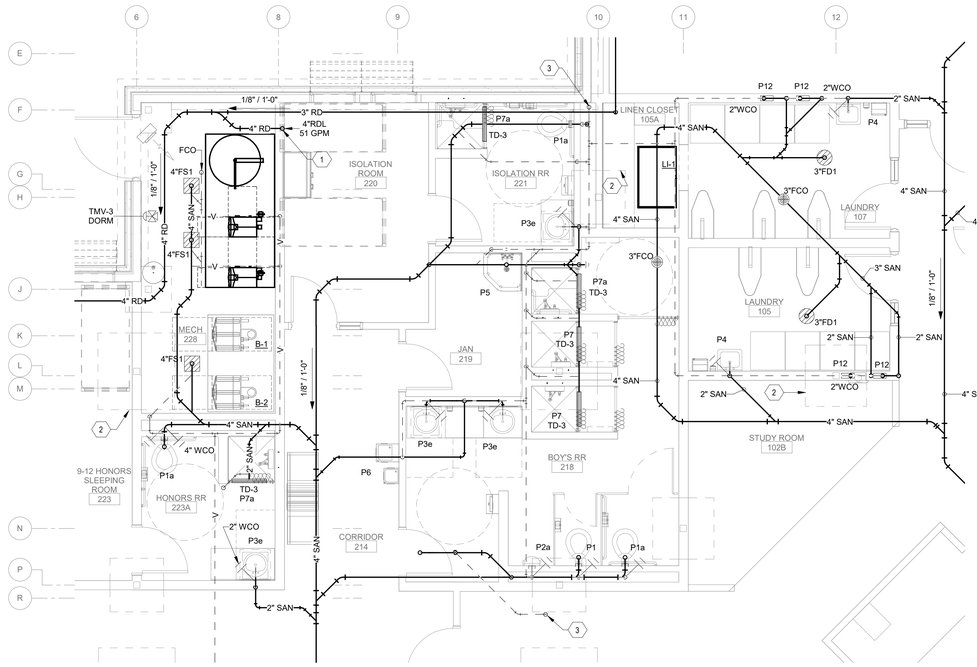
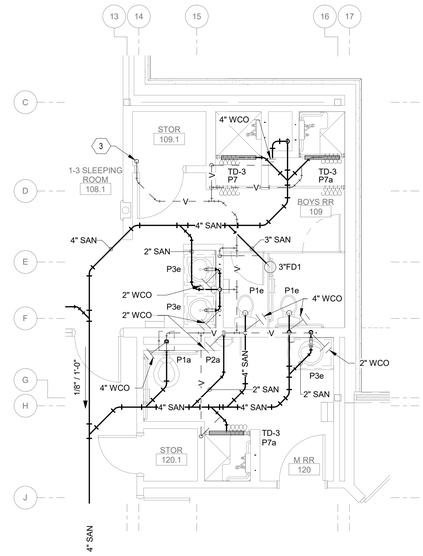


C1 ENLARGED WASTE & VENT PLAN - MECH ROOM/LAUNDRY
1/4" = 1'-0"



C4 ENLARGED WASTE & VENT PLAN - BOYS RR 109
1/4" = 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.
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E. COORDINATE ALL PLUMBING PIPING WITH ALL OTHER TRADES AND PROVIDE NECESSARY OFFSETS TO AVOID CONFLICTS AND TO MAINTAIN REQUIRED EQUIPMENT ACCESS AND SERVICEABILITY.
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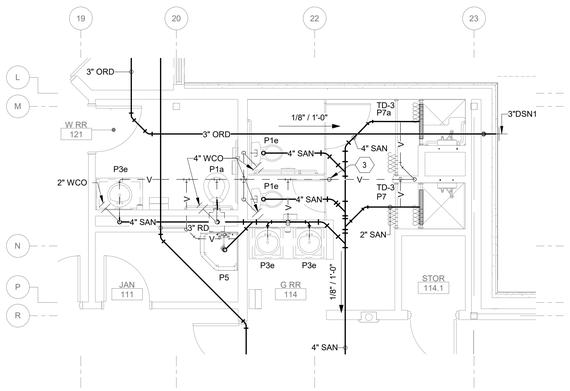
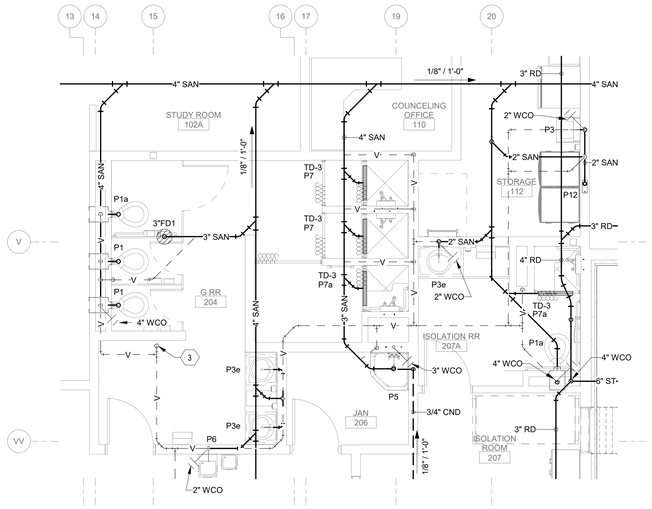
L. DUE TO THE SMALL SCALE OF THE DRAWINGS IT IS IMPOSSIBLE TO SHOW ALL VALVES AND APPURTENANCES ON THE PLANS. THE PLUMBING CONTRACTOR SHALL PROVIDE A FULL PORT LINE-SIZED ISOLATION BALL VALVE ON EACH DOMESTIC HOT AND COLD WATER LINE TO A PLUMBING FIXTURE WHETHER SHOWN OR NOT.
M. THE DOMESTIC HOT WATER SYSTEM AS INSTALLED SHALL NOT HAVE ANY DEAD LEGS IN EXCESS OF 1.5 X THE DIAMETER OF THE PIPE IN QUESTION.
N. ALL 4" AND LARGER HORIZONTAL SANITARY LINES SHALL SLOPE 1/8" / FT. ALL HORIZONTAL SANITARY LINES LESS THAN 4" SHALL SLOPE 1/4" / FT.

KEYNOTES

1. 4" ROOF DRAIN DROP FROM ABOVE. REFER TO DRAWING P-701 FOR ROOF DRAIN FIXTURE.
2. STRUCTURAL FOOTING, TYPICAL.
3. VENT UP THROUGH ROOF. REFER TO DRAWING PL-131 FOR CONTINUATION.



A1 ENLARGED WASTE & VENT PLAN - GIRLS RR 114
1/4" = 1'-0"



A3 ENLARGED WASTE & VENT PLAN - GIRLS RR 204 / STORAGE
1/4" = 1'-0"

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ARCHITECT

Dzilth-Na-O-Dith-Hle - New Dormitory Building

PRICING SET

35 Road 7585, Bloomfield, NM 87413

NOVEMBER 10, 2020

MARK	DATE	DESCRIPTION

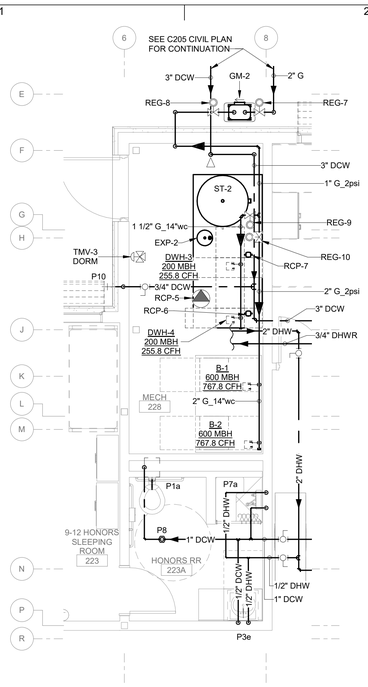
ISSUE:	
DATE:	
PROJECT NO:	751
CAD DWG FILE:	
DRAWN BY:	AJM/SNB
CHECKED BY:	IM

SHEET TITLE

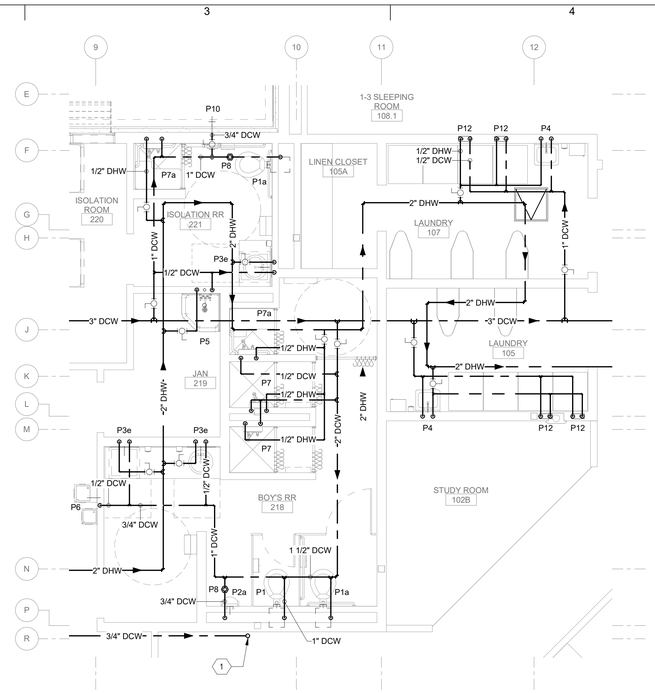
ENLARGED PLUMBING PLANS

P-401

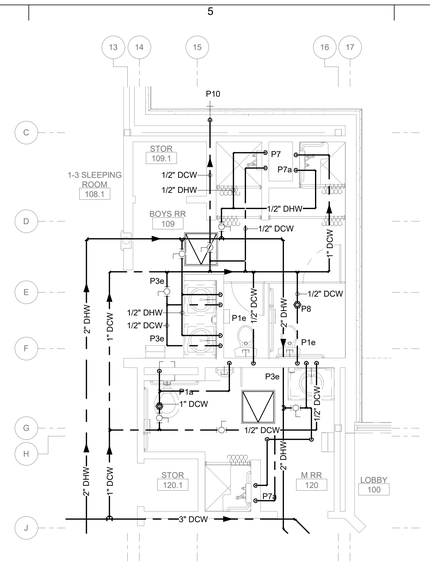
Bridgers & Paxton Project No: 6226 11/9/2020 5:12:26 PM D:\Revit 2019\Projects\6226_DCS Dorm_MEP_SNBurford.rvt



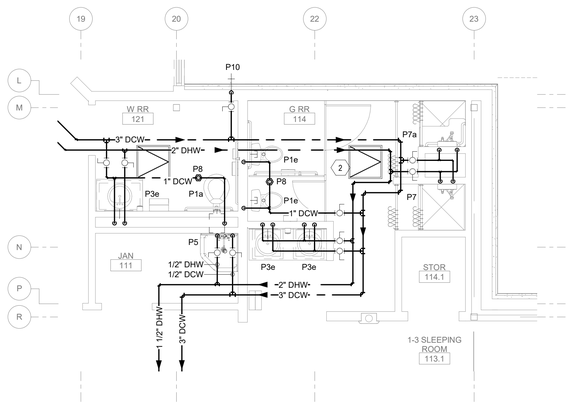
D1 ENLARGED PRESSURE PIPING PLAN - MECH ROOM
1/4" = 1'-0"



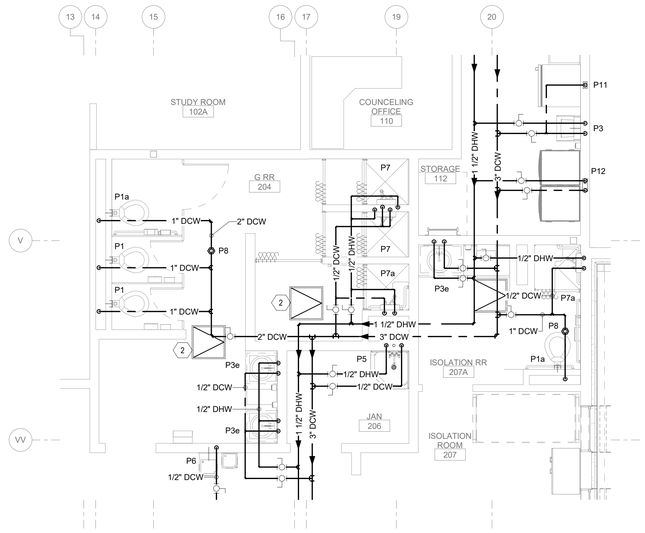
D3 ENLARGED PRESSURE PIPING PLAN - BOYS RR / LAUNDRY
1/4" = 1'-0"



D5 ENLARGED PRESSURE PIPING PLAN - BOYS RR 109
1/4" = 1'-0"



A1 ENLARGED PRESSURE PIPING PLAN - GIRLS RR 114
1/4" = 1'-0"



A3 ENLARGED PRESSURE PIPING PLAN - GIRLS RR 204 / STOR.
1/4" = 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 INACCESSIBLE 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. PLUMBING FLOOR AND ROOF PENETRATIONS ARE SUBJECT TO CHANGE. COORDINATE WITH ARCHITECTURAL DRAWINGS FOR FINAL PLUMBING AND EQUIPMENT LOCATIONS.
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. REFER TO DRAWING P-701 FOR PLUMBING ROUGH IN REQUIREMENTS.
K. REFER TO DRAWING P-702 FOR PLUMBING EQUIPMENT SCHEDULES.
L. DUE TO THE SMALL SCALE OF THE DRAWINGS IT IS IMPOSSIBLE TO SHOW ALL VALVES AND APPURTENANCES ON THE PLANS. THE PLUMBING CONTRACTOR SHALL PROVIDE A FULL PORT LINE-SIZED ISOLATION BALL VALVE ON EACH DOMESTIC HOT AND COLD WATER LINE TO A PLUMBING FIXTURE WHETHER SHOWN OR NOT.
M. THE DOMESTIC HOT WATER SYSTEM AS INSTALLED SHALL NOT HAVE ANY DEAD LEGS IN EXCESS OF 1.5 X THE DIAMETER OF THE PIPE IN QUESTION.
N. ALL 4" AND LARGER HORIZONTAL SANITARY LINES SHALL SLOPE 1/8" / FT. ALL HORIZONTAL SANITARY LINES LESS THAN 4" SHALL SLOPE 1/4" / FT.

KEYNOTES

1. 3/4" DOMESTIC COLD WATER UP TO RPZ SERVING AHU AND WATER METER IN PENTHOUSE.
2. 24"X24"ACCESS PANEL, TYPICAL, COORDINATE LOCATION WITH ARCHITECT.

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ARCHITECT

Dzilth-Na-O-Dith-Hle - New Dormitory Building

PRICING SET

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NOVEMBER 10, 2020

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CHECKED BY:	IM

SHEET TITLE

ENLARGED PLUMBING PLANS

P-402

Dzilth-Na-O-Dith-Hle - New Dormitory Building
Bridgers & Paxton Project No: 8226
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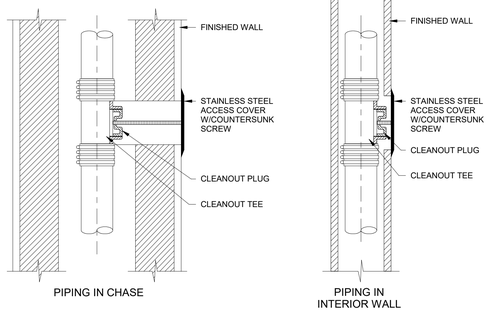
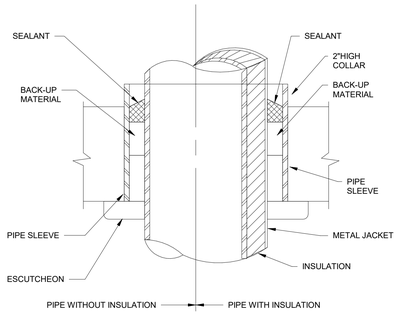


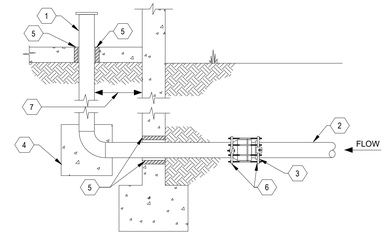
D2 WALL CLEANOUT DETAIL

SCALE: NOT TO SCALE



D3 PIPE SLEEVE THRU FLOOR

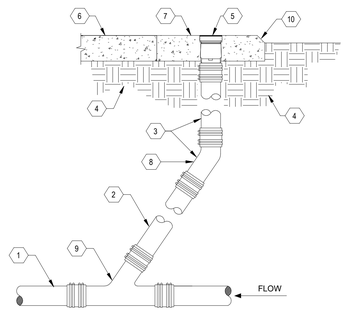
SCALE: NOT TO SCALE



1. AMES IN-BUILDING RISER. STAINLESS STEEL TYPE 304. SEE PLANS FOR SIZE AND SERVICE
2. DUCTILE 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 IBC IF REQUIRED BY AHJ
5. PIPE SLEEVE, SEE SPECIFICATIONS
6. MEGALUG PIPE RESTRAINT HARNESS
7. VERTICAL SECTION OF RISER LOCATED AS CLOSE AS POSSIBLE TO WALL

D5 WATER ENTRY THRU FOOTING DETAIL

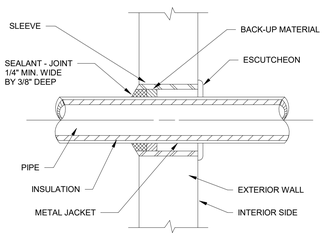
SCALE: NOT TO SCALE



1. SERVICE LINE, SEE SPECIFICATIONS FOR PIPE MATERIALS.
2. SAME SIZE AS SERVICE LINE, THRU 4" PIPE, MAXIMUM 4" SIZE REQUIRED.
3. CAST IRON SOIL PIPE RISER AND FITTINGS.
4. COMPACTED EARTH, SEE SPECIFICATIONS.
5. CLEANOUT WITH HEAVY DUTY SCORIATED SECURED TOP .
6. FINISH HARDSCAPE. SEE SITE PLAN DRAWINGS FOR ELEVATION.
7. 18"X18"X4" THICK CONCRETE COLLAR.
8. 1/8TH BEND.
9. WYE FITTING.
10. 2" CHAMFER ON ALL COLLARS IN EARTH.

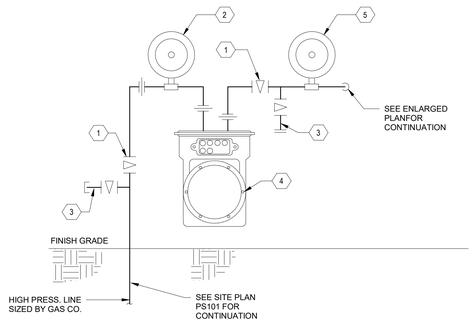
C2 CLEANOUT TO GRADE DETAIL

SCALE: NOT TO SCALE



C3 PIPE SLEEVE FOR INSULATED PIPE THRU WALL - ABOVE GRADE

SCALE: NOT TO SCALE

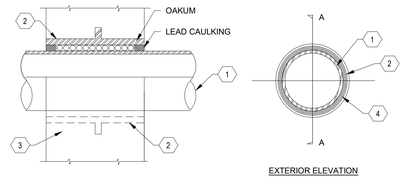


NOTE:
COORDINATE INSTALLATION WITH LOCAL GAS UTILITY OFFICIALS AND CONFORM TO THEIR REQUIREMENTS. ANY VARIATION FOR METERING REQUIREMENTS SHALL BE AT THE GAS COMPANY'S DIRECTION. SEE NATURAL GAS CALCULATION ON P-702 FOR BUILDING LOAD.

1. PLUG VALVE
2. REGULATOR TO REDUCE INCOMING HIGH PRESSURE TO 20 PSI
3. TEST TEE
4. METER (SEE SITE PLAN FOR SIZE)
5. REGULATOR TO REDUCE INCOMING HIGH PRESSURE TO 2 PSI

C4 GAS METER/REGULATOR DETAIL

1/4" = 1'-0"

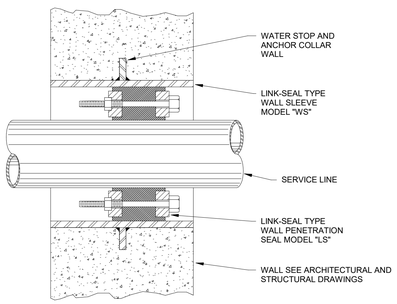


1. FOR PIPE MATERIAL, SEE SPECIFICATIONS.
2. PIPE SLEEVE, SEE SPECIFICATIONS FOR MATERIALS, LENGTH OF SLEEVE AS REQUIRED.
3. SEE STRUCTURAL DRAWINGS FOR CONSTRUCTION OF WALL.

PIPE SIZE	MIN. PIPE SLEEVE (ID)
1/2"	1 1/4"
3/4" - 1"	1 1/2"
1 1/4"	2"
1 1/2"	2 1/2"
2" - 2 1/2"	4"
3" - 4"	6"
6"	10"

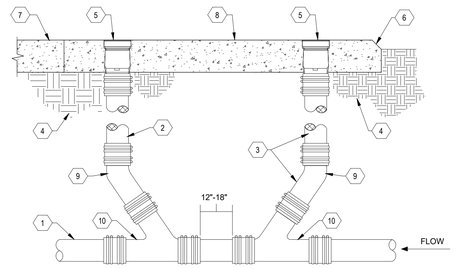
A2 EXTERIOR WALL PENETRATION DETAIL

SCALE: NOT TO SCALE



A3 WATERPROOF WALL PENETRATION DETAIL

SCALE: NOT TO SCALE



1. SERVICE LINE, SEE SPECIFICATIONS FOR PIPE MATERIALS.
2. SAME SIZE AS SERVICE LINE, THRU 4" PIPE, MAXIMUM 4" SIZE REQUIRED.
3. CAST IRON SOIL PIPE RISER AND FITTINGS.
4. COMPACTED EARTH, SEE SPECIFICATIONS.
5. CLEANOUT WITH HEAVY DUTY SCORIATED SECURED TOP
6. 2" CHAMFER ON ALL COLLARS IN EARTH.
7. FINISH HARDSCAPE. SEE SITE PLAN DRAWINGS FOR ELEVATION.
8. 4" THICK CONCRETE PAD.
9. 1/8TH BEND.
10. WYE FITTING.

A5 DOUBLE CLEANOUT TO GRADE - WYE DETAIL

SCALE: NOT TO SCALE

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ARCHITECT

Dzilth-Na-O-Dith-Hle - New Dormitory Building

PRICING SET

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MARK	DATE	DESCRIPTION

ISSUE:	
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PROJECT NO:	751
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SHEET TITLE

PLUMBING DETAILS

P-501

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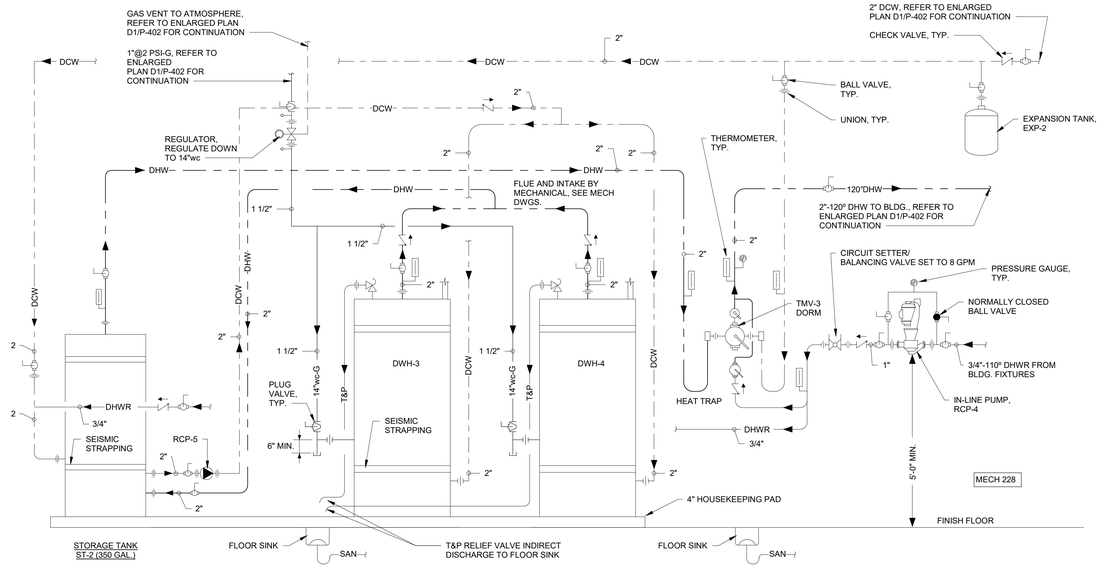
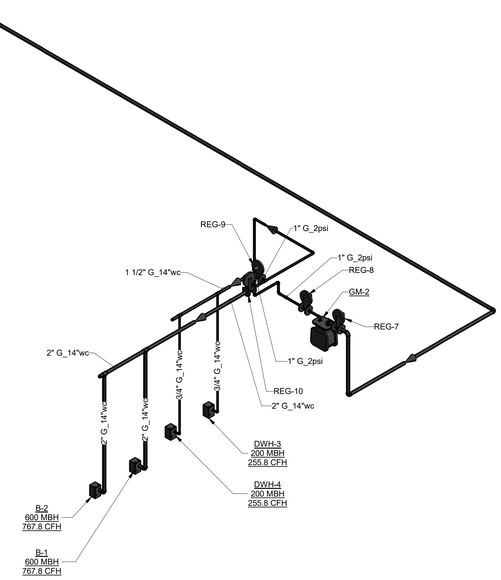


NOTE: INSTALL THERMOSTATIC MIXING ASSEMBLY IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATION, PROVIDE AND INSTALL SEISMIC STRAPPING IN ACCORDANCE WITH 2015 UPC SECTION 507.2 AND 507.3.
INSTALL GAS VENT IN ACCORDANCE TO MANUFACTURERS RECOMMENDATION FOR THE GAS REGULATOR SUPPLIED, PROVIDE POSITIVE LOCK-UP GAS REGULATOR

D2 2 DHW WITH STORAGE AND MIXING VALVE DETAIL

SCALE: NOT TO SCALE



A3 NATURAL GAS ISOMETRIC

SCALE: NOT TO SCALE

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SHEET TITLE

PLUMBING DETAILS

P-502

Bridgers & Paxton Project No: 8226 11/9/2020 5:12:40 PM D:\Revit 2019\Projects\8226_DCS Dorm_MEP_SNBurford.rvt

PLUMBING FIXTURE SCHEDULE

REFER TO DIVISION 22 4000 FOR ADDITIONAL INFORMATION

SYMBOL	FIXTURE: TYPE	FIXTURE: MANUFACTURER	FIXTURE: MODEL	TRIM/FAUCET: MANUFACTURER	TRIM/FAUCET: MODEL	TRIM/FAUCET: FLOW RATE	REMARKS:
P1	WATER CLOSET - WALL MTD. - FLUSH VALVE MANUAL - WATERSENSE	AMERICAN STANDARD	3351.101	SLOAN	ROYAL 111-1.28	1.28 GPF	EXPOSED, CHROME PLATED, LOW FLOW. SEAT: HEAVY DUTY, OPEN FRONT LESS COVER, SOLID PLASTIC, WHITE, MFG: CHURCH 9500SSC OR EQUAL
P1a	WATER CLOSET (BARRIER FREE) - WALL MTD. - FLUSH VALVE MANUAL - WATERSENSE	AMERICAN STANDARD	3461.001 "MADERA"	SLOAN	ROYAL 111-1.28	1.28 GPF	MANUAL, EXPOSED, CHROME PLATED, LOW FLOW. SEAT: HEAVY DUTY, OPEN FRONT LESS COVER, SOLID PLASTIC, WHITE, MFG: CHURCH 9500SSC OR EQUAL
P1e	WATER CLOSET - FLOOR MTD. - FLUSH TANK	AMERICAN STANDARD	2315.228	-	-	1.28 GPF	CHROME LEVER TRIP, LOW FLOW. SEAT: #5001G.055 BABY DEVORO SEAT OPEN FRONT, LESS COVER
P2a	URINAL (BARRIER FREE) - WALL MTD. - FLUSH VALVE MANUAL - WATERSENSE	AMERICAN STANDARD	6590.001 "WASHBROOK"	SLOAN	ROYAL 186-0.5	0.125 GPF	MANUAL, EXPOSED, CHROME PLATED, LOW FLOW, WHITE VITREOUS CHINA, 3/4" TOP SPUD.
P3	LAVATORY - WALL MOUNT - MANUAL	AMERICAN STANDARD	0355.012	CHICAGO FAUCETS	802-VE39VPABCP	0.35 GPM	DECK MOUNT, CHROME, LEVER HANDLES, VANDAL PROOF, 4" CENTERS. PROVIDE ANGLE STOPS, FLEXIBLE RISERS, ADJUSTABLE P-TRAP. AERATOR: CHICAGO FAUCET E39VPJKABCP. MIXING VALVE: WATTS MODEL LFUSG-B UNDER SINK.
P3a	LAVATORY (BARRIER FREE) - WALL MOUNT - MANUAL	AMERICAN STANDARD	0355.012	CHICAGO FAUCETS	802-VE39VPABCP	0.35 GPM	DECK MOUNT, CHROME, LEVER HANDLES, VANDAL PROOF, 4" CENTERS. PROVIDE ANGLE STOPS, FLEXIBLE RISERS, ADJUSTABLE P-TRAP. AERATOR: CHICAGO FAUCET E39VPJKABCP. MIXING VALVE: WATTS MODEL LFUSG-B UNDER SINK.
P3e	LAVATORY (BARRIER FREE) COUNTER TOP - ROUND - MANUAL	AMERICAN STANDARD	0491.019	CHICAGO FAUCETS	802-VE39VPABCP	0.35 GPM	DECK MOUNT, CHROME, LEVER HANDLES, VANDAL PROOF, 4" CENTERS. PROVIDE ANGLE STOPS, FLEXIBLE RISERS, ADJUSTABLE P-TRAP. AERATOR: CHICAGO FAUCET E39VPJKABCP. MIXING VALVE: WATTS MODEL LFUSG-B UNDER SINK.
P4	SINK	ELKAY	LRAD191865	CHICAGO FAUCETS	895-317GN2AE72ABCP	0.5 GPM	DOUBLE COMPARTMENT, 22" X 19-1/2" X 6"DEEP, 3-HOLE, 18 GA. TYPE 304 STAINLESS STEEL FAUCET: 8"CENTERS, CONVERTIBLE RIGID/SWING SPOUT, POLISHED CHROME, LAMINAR FLOW CONTROL, ANTIMICROBIAL METAL WRIST BLADE HANDLES. AREATOR: ELKAY E72JKABCP
P5	SERVICE SINK	FIAT PRODUCTS	TSB3012	CHICAGO FAUCETS	897-CCP	8 GPM	WALL MOUNTED SERVICE FAUCET 42" ABOVE FLOOR, CHROME PLATED WITH VACUUM BREAKER, INTEGRAL STOPS, ADJUSTABLE WALL BRACE, PAIL HOOK AND 3/4" HOSE THREAD ON SPOUT. PROVIDE: INTEGRAL STAINLESS STEEL STRAINER DRAIN, 3" CAST IRON P-TRAP, HOSE AND BRACKET, 30" LONG FLEXIBLE HEAVY DUTY 5/8" RUBBER HOSE, MFG: FIAT No. 832 AA. MOP BRACKET, 24" LONG x 3" WIDE, STAINLESS STEEL WITH THREE RUBBER GRIPS. MFG: FIAT No. 889 CC.
P6	DRINKING FOUNTAIN W/BOTTLE FILLER (BARRIER FREE)	HALSEY TAYLOR	HTHB-HRFSEBP-I	-	-	8 GPH	WALL HUNG, ADA COMPLIANT, HYDRO-BOOST BOTTLE FILLING STATION WITH TWO FACE MOUNTED FOUNTAINS, ONE PIECE, STAINLESS STEEL, BRUSHED SATIN FINISHED, SENSOR ACTIVATED BOTTLE FILLING STATION, AUTOMATIC 20 SECOND SHUT OFF TIMER, INTERFACE GRAPHICS.
P7	SHOWER	BUILT-UP ENCLOSURE PER ARCHITECT'S SPECIFICATIONS, SHOWER TRIM AS SPECIFIED	-	DELTA	8375EP15	1.5 GPM	NON-ADA
P7a	SHOWER (BARRIER FREE)	BUILT-UP ENCLOSURE PER ARCHITECT'S SPECIFICATIONS, SHOWER TRIM AS SPECIFIED	-	DELTA	8342EP15	1.5 GPM	ADA WITH GRAB BARS
P8	WATER HAMMER ARRESTOR	PRECISION PLUMBING PRODUCTS	-	-	-	-	0 TO 200 PSIG MAX. OPERATING PRESSURE, 1-11 FIXTURE UNITS
P10	WALL HYDRANT	ZURN	Z1320-EZ	-	-	-	FREEZE-PROOF, INTEGRAL VACUUM BREAKER, WITH LOOSE-KEY, LOCKABLE DOOR, 3/4" INLET AND 3/4" GARDEN HOSE OUTLET
P11	SUPPLY BOX	GUY GRAY	MIB1AB	-	-	-	VALVE: COMPRESSION ANGLE VALVE 1/2" FIP INLETx1/4" OUTLET
P12	WASHER ROUGH-IN BOX	IPS MODEL	W4700HA	-	-	-	CENTER DRAIN, BRASS 1/4 TURN VALVES WITH WATER HAMMER ARRESTERS, FRAME ACCOMMODATES UP TO 1" DRYWALL, BOTTOM OUTLET

PLUMBING ROUGH-IN SCHEDULE

REFER TO DIVISION 22 4000 FOR ADDITIONAL INFORMATION

SYMBOL	FIXTURE	ROUGH-IN SIZE: CW	ROUGH-IN SIZE: HW	ROUGH-IN SIZE: SAN / WASTE	VENT	TRAP	REMARKS:
P1	WATER CLOSET - WALL MTD. - FLUSH VALVE MANUAL - WATERSENSE	1"	-	4"	2"	INTEGRAL	ELONGATED BOWL, VITREOUS CHINA, 1-1/2" TOP SPUD. NOTE: REFER TO ARCHITECTURAL FOR MOUNTING HEIGHTS.
P1a	WATER CLOSET (BARRIER FREE) - WALL MTD. - FLUSH VALVE MANUAL - WATERSENSE	1"	-	4"	2"	INTEGRAL	ELONGATED BOWL, VITREOUS CHINA, 1-1/2" TOP SPUD. NOTE: REFER TO ARCHITECTURAL FOR MOUNTING HEIGHTS.
P1e	WATER CLOSET - FLOOR MTD. - FLUSH TANK	1/2"	-	4"	2"	INTEGRAL	ROUND FRONT BOWL, VITREOUS CHINA, FLUSH TANK. FLOOR TO RIM HEIGHT: 10-1/4"
P2a	URINAL (BARRIER FREE) - WALL MTD. - FLUSH VALVE MANUAL - WATERSENSE	3/4"	-	2"	2"	INTEGRAL	NOTE: REFER TO ARCHITECTURAL FOR MOUNTING HEIGHTS.
P3	LAVATORY - WALL MOUNT - MANUAL	1/2"	1/2"	2"	2"	1-1/4" X 1-1/2"	SUPPLIES: 1/2" SWEAT WHEEL HANDLE ANGLE STOPS WITH 3/8" O.D. FLEXIBLE RISERS, CHROME PLATED FINISH. TRAP: 1-1/4" IN X 1-1/2" OUT, 17 GA, CHROME PLATED, ADJUSTABLE, CLEANOUT PLUG, SEMI-CAST P-TRAP. MFG: MCGUIRE NO. 8902. MTD HEIGHT: SEE ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHT. NOTE: INSULATE SUPPLY AND WASTE PIPING PER SPECIFICATIONS & FIXTURE CARRIER REQUIREMENTS. COORDINATE COLOR REQUIREMENTS WITH ARCHITECT.
P3a	LAVATORY (BARRIER FREE) - WALL MOUNT - MANUAL	1/2"	1/2"	2"	2"	1-1/4" X 1-1/2"	THREE HOLE, WHITE VITREOUS CHINA, 21-1/4" X 18-1/8", 4" CENTERS. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHT.
P3e	LAVATORY (BARRIER FREE) COUNTER TOP - ROUND - MANUAL	1/2"	1/2"	2"	1-1/2"	1-1/4" X 1-1/2"	COUNTER TOP, THREE HOLE, VITREOUS CHINA, ROUND, 19-1/8" x 7-3/8"DEEP
P4	SINK	1/2"	1/2"	2"	2"	1-1/4" X 1-1/2"	SUPPLIES: 1/2" X 3/8"WHEEL HANDLE ANGLE STOPS WITH 3/8"O.D. FLEX RISERS DRAIN: BASKET STRAINER, ELKAY NO. LK-35 TRAP: 1-1/2" 17 GA. POLISHED CHROME TUBULAR P-TRAP INSULATE P-TRAP AND SUPPLIES WITH RIGID INSULATION, PROVIDE CONTINOUS WASTE FITTING. MIXING VALVE: WATTS MODEL LFUSG-B UNDER SINK.
P5	SERVICE SINK	1/2"	1/2"	3"	2"	3"	FLOOR MOUNTED, TERRAZZO, 36"x36"x12" DEEP, 3" DRAIN. PROVIDE: 3" CAST IRON P-TRAP.
P6	DRINKING FOUNTAIN W/BOTTLE FILLER (BARRIER FREE)	1/2"	-	2"	2"	1-1/4" X 1-1/2"	PROVIDE OPTIONAL ACCESS PANEL. SUPPLIES: 1/2" X 3/8" WHEEL ANGLE STOPS WITH 3/8" O.D. FLEX RISERS. TRAP: 1-1/4" 17 GA. POLISHED CHROME TUBULAR P-TRAP. CARRIER: CONCEALED BY ZURN, WADE, JOSAM, OR SMITH. MTD HEIGHT: SEE ARCHITECTURAL DRAWINGS.
P7	SHOWER	1/2"	1/2"	2"	2"	2"	PROVIDE: PAN LINER SHALL BE FURNISHED BY PLUMBING CONTRACTOR. 2" SHOWER DRAIN (SEE DRAIN SCHEDULE), 2" CAST IRON P-TRAP.
P7a	SHOWER (BARRIER FREE)	1/2"	1/2"	2"	2"	2"	PROVIDE: PAN LINER SHALL BE FURNISHED BY PLUMBING CONTRACTOR. 2" SHOWER DRAIN (SEE DRAIN SCHEDULE), 2" CAST IRON P-TRAP.
P8	WATER HAMMER ARRESTOR	1/2"	-	-	-	-	IN-LINE, PISTON TYPE, TYPE "L" COPPER BARREL WITH CAP ATTACHED WITH 95-5 SOLDER, LOW LEAD BRASS, EPDM "O" RINGS
P10	WALL HYDRANT	3/4"	-	-	-	-	FREEZE-PROOF, VERIFY WALL THICKNESS BEFORE ORDERING.
P11	SUPPLY BOX	1/2"	-	-	-	-	SPACE SAVER DESIGNED FOR ICEMAKER HOOK-UP. ROUGH OPENING: 10"Wx8-3/4"Hx3-1/2"D.
P12	WASHER ROUGH-IN BOX	1/2"	1/2"	2"	2"	2"	BOX DIMENSIONS 8 1/4" X 6 1/8" X 3 3/4", FRAME DIMENSIONS 10 3/16" X 8 13/16".

FLOOR/ROOF DRAIN SCHEDULE

REFER TO DIVISION 22 4000 FOR ADDITIONAL INFORMATION

SYMBOL	MANUFACTURER	MODEL	VENT	REMARKS:
FD1	ZURN	Z-415-B-VP-Z1000.	2"	7" DIAMETER, ROUND TYPE "B" STRAINER. POLISHED BRONZE, CAST IRON BODY WITH BOTTOM OUTLET, COMBINATION INVERTABLE MEMBRANE CLAMP, DEEP SEAL P-TRAP, VANDAL-PROOF SECURED TOP. DIAMETER OF OUTLET AS SHOWN ON DRAWINGS. PROVIDE WITH SURE SEAL IN-LINE TRAP SEAL. SIZE AND TYPE TO FIT DRAIN.
FS1	ZURN	Z-1900	2"	CAST IRON BODY WITH WHITE ACID RESISTING ENAMEL BODY INTERIOR, SLOTTED 3/4 LOOSE SET GRATE. ALUMINUM ANTI-SPASH DOME STRAINER, (DEEP SEAL P-TRAP MFG: ZURN Z1000). DIAMETER OF OUTLET AS SHOWN ON DRAWINGS. PROVIDE WITH SURE SEAL IN-LINE TRAP SEAL. SIZE AND TYPE TO FIT DRAIN.
TD-3	ACO DRAIN USA	143150	2"	LINEAR SHOWER CHANNEL AND GRATE SYSTEM, STAINLESS STEEL GRADE 304, GRATE SHALL BE SQUARE DESIGN. SHOWER CHANNELS SHALL BE 2.75" WIDE AND 27.0" LENGTH. OUTLET SPIGOT DIAMETER 2.0". WATERPROOFNG AND PLUMBING CONNECTION THE SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.
RD1	ZURN	Z100	-	NO-HUB OUTLETS, SIZE AS INDICATED ON PLANS
ORD1	ZURN	Z100	-	NO-HUB OUTLETS, SIZE AS INDICATED ON PLANS
DSN1	JAY R. SMITH	1771		WALL MOUNT, CAST BRONZE AND FLANGE, MACHINED NOZZLE, NICKEL BRONZE, SET SCREW. SIZE AS INDICATED ON PLANS.

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ARCHITECT

Dzilth-Na-O-Dith-Hle - New Dormitory Building

PRICING SET

35 Road 7585, Bloomfield, NM 87413

NOVEMBER 10, 2020

MARK	DATE	DESCRIPTION

ISSUE:	
DATE:	
PROJECT NO:	751
CAD DWG FILE:	
DRAWN BY:	AJM/SNB
CHECKED BY:	IM

SHEET TITLE

PLUMBING SCHEDULES

P-701

Bridgers & Paxton Project No: 8226 11/9/2020 5:12:42 PM D:\Revit 2019\Projects\8226_DCS Dorm_MEP_SNBurford.rvt

WATER HEATER SCHEDULE

SYMBOL	MANUFACTURER	MODEL NO.	LOCATION	SERVICE	TYPE	SET POINT (DEGREES)	FUEL	EFFICIENCY	STORAGE VOLUME (GAL.)	INPUT (BTUH)	ELEVATION	OPERATION WEIGHT	ELECTRICAL				HOT WATER RECOVERY		REMARKS:
													V	PH	HZ	FLA	RATE (GPH)	Δ T °F	
DWH-3	LOCHINVAR	AWN200PM	MECH 228	DORM DHW	CONDENSING/ DIRECT VENT	140°F	NATURAL GAS	96%	1.8	199,900	5,463	196 LBS.	120	1	60	4.7	232	100	STAINLESS STEEL HEAT EXCHANGER, 5:1 TURN DOWN RATIO, PROVIDE CONDENSATE NEUTRALIZATION KIT, DISCHARGE FULL SIZE RELIEF VALVE TO FLOOR SINK, DIRECT VENT.
DWH-4	LOCHINVAR	AWN200PM	MECH 228	DORM DHW	CONDENSING/ DIRECT VENT	140°F	NATURAL GAS	96%	1.8	199,900	5,463	196 LBS.	120	1	60	4.7	232	100	STAINLESS STEEL HEAT EXCHANGER, 5:1 TURN DOWN RATIO, PROVIDE CONDENSATE NEUTRALIZATION KIT, DISCHARGE FULL SIZE RELIEF VALVE TO FLOOR SINK, DIRECT VENT.

HOT WATER GPH COUNT ASHRAE 2018 HVAC Applications - 50.20 - Table 10

DEMAND = APARTMENT

FIXTURE	# OF FIXTURES	GPH	TOTAL (# OF FIXTURES X GPH)
CLOTHES WASHER	5	40	200
LAVATORY	15	4	60
SERVICE SINK	3	20	60
SHOWER (# X GPM X MINS)	15	0	0
SINK	3	10	30
TOTAL GPH:			350

NATURAL GAS - WATER HEATER SIZING - ASHRAE 2015 HVAC Applications - Chapter 50.20 - APARTMENT

Apt. Probable Max Demand (PMD) x TOTAL GPH = Apt. Recovery Rate (GPH)			NOTE: showers calculated separate (Amount x GPM Per Shower Head x Minutes) = Shower Demand GPH				Apt. Recovery Rate + SHW (GPH)	EMERGENCY SHOWER DEMAND (GALS) 20 gpm x 15 mins = 300 gph x 50% ratio	*Apt. Recovery Rate + Shower GPH = TOTAL RECOVERY RATE (GPH)*	Storage Factor X TOTAL RECOVERY RATE		TOTAL RECOVERY RATE (GPH) x Δ T x (H2O/Eff) = btuh Recovery Rate (no elevation)				EQUIPMENT DERATED OVER 4000 FT.			***Recovery Rate (BTUH) + ELEVATION (BTUH) = TOTAL BTUH REQUIRED***
Apt. DEMAND	TOTAL GPH	*Apt. Recovery Rate (GPH)*	AMOUNT OF SHOWERS	GPM PER SHOWER HEAD	MINUTES	SHOWER DEMAND (GPH)				Apartment STORAGE FACTOR	*STORAGE (GALS.)*	*Δ T Rise (°F)*	H2O Weight (lb.)	Water Heater Efficiency (Eff)	Recovery Rate (BTUH)	*ELEV (FT.)*	DERATION (Elev/1000) x 0.04%	ELEVATION (BTUH)	
0.30	350	105	15	1.5	10	225	330	0	330	1.25	413	100	8.33	0.95	289,358	5,312	0.212	61,483	350,841

PLUMBING PUMP SCHEDULE

SYMBOL	MANUFACTURER	MODEL NO.	LOCATION	SERVICE	TYPE	CAPACITY		PUMP (RPM)	MOTOR (HP)	ELECTRICAL				REMARKS:
						GPM	TOTAL FT. HD.			V	PH	HZ	FLA	
RCP-5	BELL & GOSSETT	ecocirc XL N 20-35	MECH 137	DHW	IN-LINE	5	10	2650	1/12	120	1	60	1.4	LEAD FREE
RCP-6	LOCHINVAR	WA125	MECH 137	DHW	IN-LINE	5	8	-	1/6	120	1	60	2	RECIRCULATION PUMP BETWEEN WATER HEATER AND STORAGE TANK, REFER TO MANUFACTUER FOR ADDITIONAL PUMP INFORMATION.
RCP-7	LOCHINVAR	WA125	MECH 137	DHW	IN-LINE	5	8	-	1/6	120	1	60	2	RECIRCULATION PUMP BETWEEN WATER HEATER AND STORAGE TANK, REFER TO MANUFACTUER FOR ADDITIONAL PUMP INFORMATION.

THERMOSTATIC MIXING VALVE SCHEDULE

SYMBOL	MANUFACTURER	MODEL NO.	LOCATION	SERVICE	OUTLET TEMPERATURE	INLET PIPE SIZE	OUTLET PIPE SIZE	RETURN PIPE SIZE	SYSTEM FLOW & PRESSURE DROP	ELECTRICAL				REMARKS:
										V	PH	HZ	FLA	
TMV-3 DORM	LEONARD	PNV-125-LF-IF-RTS	MECH 228	DORM DHW	110	1-1/2"	1-1/2"	3/4"	31 GPM @ 4 PSI	120	1	60	2	LEAD FREE, DIGITAL MIXING VALVE, 6 FOOT POWER CORD UL LISTED

EXPANSION TANK SCHEDULE

SYMBOL	MANUFACTURER	MODEL NO.	SERVICE	DESIGN DEG °F	TANK VOLUME (GAL.)	TANK ACCEPTANCE (GAL.)	PSIG	WEIGHT (LBS.)	REMARKS:
EXP-2	LOCHINVAR	LTCPA5	DORM DHW	140	3.5	2.3	150	22	IN-LINE, COORDINATE LOCATION WITH MANUFACTUER RECOMENDATIONS AND WITH WATER HEATERS AND STORAGE TANK, 3/4" CONNECTION

WATER HEATER STORAGE TANK SCHEDULE

SYMBOL	MANUFACTURER	MODEL NO.	SERVICE	PSI	TANK VOLUME (GAL.)	TANK DIMENSIONS	REMARKS:
ST-2	LOCHINVAR	RGA0318	DORM DHW	150	318	40" DIAMETER X 80" HIGH	JACKED ASME, VERTICAL, 5 YEAR WARRANTY, 3" NPT, 2" OUTLET, 1-1/4" T&P CONNECTION.

LINT INTERCEPTOR SCHEDULE

SYMBOL	MANUFACTURER	MODEL NO.	LOCATION	SERVICE	TYPE	PDI RATING (GPM)	DIMENSIONS	REMARKS:
LI-1	JAY. R. SMITH	8910-100	LINEN CLOSET 105A	WASHING MACHINES	IN-LINE	100		

DOMESTIC HW BALANCING VALVES SCHEDULE

SYMBOL	MANUFACTURER	MODEL	BLDG	FLOOR	AREA SERVED	ASSOCIATED TMV	DESIGN FLOW (GPM)	CIRCUIT SOLVER CV			BALANCE VALVE SIZE (in)	PIPE AND OTHER COMPONENTS (in)	SET POINT TEMP (ºF)
								OPEN	CLOSED	SIZE (in)			
CS-1(DORM)	THERM-OMEGA-TECH	XXX											

PLUMBING MISC. EQUIPMENT SCHEDULE

SYMBOL	MANUFACTURER	MODEL NO.	LOCATION	SERVICE	PIPE SIZE	PSI	REMARKS:
GM-2	-	-	SITE	NAT GAS BLDG	-	HIGH	GAS METER PROVIDED BY UTILITY COMPANY. PROVIDE REGULATORS AND REGULATE INCOMING HIGH PRESSURE GAS DOWN TO 2 PSI. REFER TO NATURAL GAS SIZING CRITERIA ON DORM DRAWING P-702 FOR NEW CLASSROOM BUILDING CFH LOAD
REG-7	-	-	SITE	NAT GAS BLDG	-	HIGH	GAS REGULATOR PROVIDED BY UTILITY COMPANY. PROVIDE REGULATORS AND REGULATE INCOMING HIGH PRESSURE GAS DOWN TO 2 PSI. REFER TO NATURAL GAS SIZING CRITERIA ON DORM DRAWING P-702 FOR NEW CLASSROOM BUILDING CFH LOAD
REG-8	AMERICAN METER		SITE	NAT GAS BLDG	1"	2 PSI	2,047 CFH
REG-9	AMERICAN METER		MECH 228	DWHS NAT GAS	2"	14"wc	512 CFH
REG-10	AMERICAN METER		MECH 228	BOILERS NAT GAS	2"	14"wc	1,536 CFH

ROOF DRAIN CALCULATION

Instance Name	SYMBOL	***Rain Fall Rate Per Hr (INCHES)***	***SLOPE***	***Roof Sq. Ft.***	PARAPET/ VERTICAL WALL	*Parapet Or Vertical Wall Sq. Ft. divided by 2*	UPPER ROOF Sq. Ft.	**TOTAL ROOF Sq. Ft.**	**GPM**	**LEADER OUTLET SIZE (INCHES)**
ROOF DRAIN A	RD1	2	1/8" / 12"	2656	335	167.5	0	2823.5	59	4
ROOF DRAIN C	RD1	2	1/8" / 12"	1394	455	227.5	846	2467.5	51	4
ROOF DRAIN D	RD1	2	1/8" / 12"	1022	93	46.5	83	1151.5	24	3
ROOF DRAIN E	RD1	2	1/8" / 12"	1069	79	39.5	186	1294.5	27	3
ROOF DRAIN E	ORD1	2	1/8" / 12"	1069	79	39.5	186	1294.5	27	3
ROOF DRAIN F	RD1	2	1/8" / 12"	1055	70	35	91	1181	25	3
ROOF DRAIN G	RD1	2	1/8" / 12"	1002	56	28	175	1205	25	3
ROOF DRAIN H	RD1	2	1/8" / 12"	3670	55	27.5	139	3836.5	80	6

NATURAL GAS SIZING CRITERIA

TOTAL LENGTH = 43 FEET X 1.3 (FOR MISC. FITTINGS) = "TDL"
TOTAL DEVELOPED LENGTH (TDL) = 50 FEET

PIPING SIZED PER CHAPTER 4 OF THE 2015 INTERNATIONAL FUEL GAS CODE

GAS PRESSURE LEAVING REGULATOR = 2 psi (Note Equipment Regulators leaving at 14" wc)

NATURAL GAS DEMAND LOAD

SYMBOL	QUANTITY	INPUT BTU/H	ELEVATION	MBH	MBH PER CFH	CFH
DWH-3	1	199,900	5,463	200	0.781	256
DWH-4	1	199,900	5,463	200	0.781	256
B-1	1	600,000	5,463	600	0.781	768
B-2	1	600,000	5,463	600	0.781	768
Total DESIGN LOAD:		1,599,800		1,600		2,047

SANITARY PIPE SIZE (2015 UPC)

TOTAL DFU	*PIPE SIZE @ 1/8" SLOPE (INCH)*
196	6

DHW PIPE SIZE (UPC @ 4 FPS)

TOTAL DHWFU	*GPM*	*PIPE SIZE (INCH)*
55.53	32	1.5

ENTIRE DORMITORY FIXTURE UNITS (2015 UPC)

Note: SEE SEPARATE SANITARY EXITS, DOMESTIC COLD WATER ENTRY AND HOT WATER DEMAND SCHEDULE IF BUILDING REQUIRES SEPARATE DEMANDS

FIXTURE	QUANTITY	SANITARY DFU	SANITARY TOTAL DFU	DOMESTIC COLD WATER DCWFU	DOMESTIC COLD WATER TOTAL DCWFU	TOTAL WATER SUPPLY WSFU	TOTAL WATER SUPPLY TOTAL WSFU	DOMESTIC HOT WATER DHWFU	DOMESTIC HOT WATER TOTAL DHWFU
WATER CLOSET	11	4	44	5	55	5	55	0	0
WATER CLOSET - TANK TYPE	4	4	16	2.5	10	2.5	10	0	0
URINAL	2	2	4	4	8	4	8	0	0
LAVATORY	15	1	15	0.75	11.25	1	15	0.75	11.25
SINK	3	2	6	1.13	3.39	1.5	4.5	1.13	3.39
SERVICE SINK	3	3	9	2.25	6.75	3	9	1.13	3.39
DRINKING FOUNTAIN	2	1	1	0.5	1	0.5	1	0	0
SHOWER	15	0	0	1.5	22.5	2	30	1.5	22.5
WALL HYDRANT	7	0	0	0.5	3.5	0.75	5.25	0	0
SUPPLY BOX	1	0	0	0.5	0.5	0.5	0.5	0	0
WASHER ROUGH-IN BOX	5	3	15	3	15	4	20	3	15
FLOOR DRAIN (3" TRAP)	4	6	24	0	0	0	0	0	0
FLOOR SINK (4" TRAP)	4	8	32	0	0	0	0	0	0
TRENCH DRAN (2" TRAP)	15	2	30	0	0	0	0	0	0
Fixture Unit Totals:			196		136.89		158.25		55.53

ENTIRE DCW FLUSH VALVE DEMAND (UPC @ 5 FPS)

DCWFU	*DCWFU TO (GPM)*	*DCW PIPE SIZE (INCH)*	*WSFU TOTAL*	*WSFU TO (GPM)*	*ENTRY PIPE SIZE (INCH)*
126.89	77	2.5	148.25	81	2.5

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ARCHITECT

Dzilth-Na-O-Dith-Hle - New Dormitory Building

PRICING SET

35 Road 7585, Bloomfield, NM 87413

NOVEMBER 10, 2020

MARK	DATE	DESCRIPTION

ISSUE:	
DATE:	
PROJECT NO:	751
CAD DWG FILE:	
DRAWN BY:	AJM/SNB
CHECKED BY:	IM

SHEET TITLE

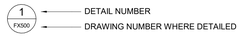
PLUMBING SCHEDULES

P-702

FIRE PROTECTION SYMBOL LEGEND

SECTION SYMBOL

DETAIL SYMBOL



SECTION, ELEVATION, AND DETAIL TITLES

SITE UTILITY SYMBOLS

DESCRIPTION	NEW	EXISTING
FIRE PROTECTION	F	EX. F
POST INDICATOR VALVE	PIV	PIV
REDUCED PRESSURE BACKFLOW PREVENTER		
FIRE HYDRANT	F.H.	F.H.(E)
FIRE DEPARTMENT INLET CONNECTION	F.D.C.	F.D.C.
VALVE WITH VALVE BOX		
CONSTRUCTION		
FENCING		

SCHEMATIC SYMBOLS

SYMBOL	ABBREVIATION	DESCRIPTION
XX		KEYED NOTE
		POINT OF CONNECTION TO EXISTING
XXXXX		EXISTING PIPE TO BE REMOVED
		NEW PIPING
		EXISTING PIPING TO REMAIN
		NEW PIPE CONNECTION TO EXISTING PIPING
		DIRECTION OF FLOW
		DROP IN PIPE
		RISE IN PIPE
		TOP CONNECTION, 45° OR 90° BOTTOM CONNECTION, 45° OR 90°
		CAPPED OUTLET
		SIDE CONNECTION
		UNION
		FLANGED UNION
		ORIFICE UNION
		REDUCER OR INCREASER
		ECCENTRIC REDUCER
		PIPE GUIDE
		FLEXIBLE CONNECTION
		UNIVERSAL TEMPERATURE-PRESSURE FITTING (PETE'S PLUG)
		STRAINER WITH BLOWDOWN VALVE & HOSE BIBB
		PRESSURE GAUGE AND GAUGE COCK
		TEST PLUG (PRESS/TEMP)
		PENETRATION
	MAV	MANUAL AIR VENT (MAV)
A	AAV	AUTOMATIC AIR VENT (AAV)
	FS/FD/AD	FLOOR SINK , FLOOR DRAIN , AREA DRAIN
		SLOPE OF PIPE
	AG	AIR GAP FITTING
	(WH) (HB)	WALL HYDRANT, HOSE BIBB
	TP	TRAP PRIMER WITH ACCESS PANEL
		WATER MOTOR GONG
		ALARM BELL
		FIRE HOSE CABINET
		FIRE HOSE VALVE CABINET
		CLEAN AGENT FIRE SUPPRESSION
		DISCHARGE NOZZLE
		AUDIO/VISUAL ALARM
C.P.		CONTROL PANEL

PIPING SYMBOLS

SYMBOL	ABBREVIATION	DESCRIPTION
CA	CA	COMPRESSED AIR
FP	FP	FIRE PROTECTION; WET PIPE
DFP	DFP	FIRE PROTECTION; DRY PIPE
SP	SP	STANDPIPE; WET
DSP	DSP	STANDPIPE; DRY
DP	DP	DRY PIPE/PRE-ACTION FIRE PROTECTION

FIRE PROTECTION-INTERIOR

SYMBOL	DESCRIPTION
●	PENDANT STYLE HEAD/DRY TYPE AS NOTED
○	UPRIGHT STYLE HEAD/DRY TYPE AS NOTED
◁	SIDEWALL STYLE HEAD/DRY TYPE AS NOTED

NOTE: NOT ALL ABBREVIATIONS OR SYMBOLS APPLY TO THIS PROJECT

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
ANT	ACID NEUTRALIZING TANK
BOP	BOTTOM OF PIPE
DN	DOWN
EL	ELEVATION
FFE	FINISHED FLOOR ELEVATION
FT	FEET
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HB	HOSE BIBB
HD	HEAD
HP	HORSEPOWER
IN	INCHES
INV	INVERT
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
No. #	NUMBER
N.C.	NORMALLY CLOSED
N.O.	NORMALLY OPEN
OS&Y	OUTSIDE SCREW AND YOKE
PH	PHASE
PSIG	POUNDS PER SQUARE INCH GAUGE
SP	STATIC PRESSURE
TD	TRENCH DRAIN
TYP	TYPICAL
YB	YARD BOX
YH	YARD HYDRANT

VALVE SYMBOLS

SYMBOL	ABBREVIATION	DESCRIPTION
FP		ROOF MANIFOLD
FDC	FDC	FIRE DEPARTMENT INLET CONNECTION
FDC (E)	(E)FDC	EXISTING FIRE DEPARTMENT INLET CONNECTION
FP	FP	WET PIPE FIRE RISER
FP DFP	DFP	DRY PIPE FIRE RISER
FP DP		DELUGE/PREACTION FIRE RISER
FP D		INSPECTOR'S TEST CONNECTION (HORIZONTAL)
FP D		INSPECTOR'S TEST CONNECTION (VERTICAL)
		STANDPIPE VALVE
		FLOW CONTROL VALVE
		FLOW SWITCH
		GATE VALVE
		GLOBE VALVE
		OS&Y VALVE
		BUTTERFLY VALVE
OR OR		BALL VALVE
OR		CHECK VALVE
		WATER PRESSURE REDUCING VALVE
		AUTO BALL DRIP VALVE
		PRESSURE RELIEF VALVE
		TEMPERATURE AND PRESSURE RELIEF VALVE
		DRAIN VALVE
		VALVE IN VERTICAL
		FLOW SWITCH
		DIAPHRAGM (PROCESS SYSTEMS)
		REDUCED PRESSURE BACKFLOW PREVENTER (RPBP)
		ATMOSPHERIC VACUUM BREAKER
		PRESSURE STYLE VACUUM BREAKER

FIRE FLOW DATA

TEST DATE:	04/28/2020
TEST LOCATION:	Residential at Main Entrance
WATER PRESSURE ZONE:	XX - XXXX
TEST ELEVATION:	5463' MSL
REQUESTED LOADING:	500 GPM
(IF MODELED BY THE MUNICIPALITY)	
PEAK STATIC PRESSURE:	56 PSI
RESIDUAL PRESSURE:	51 PSI
FLOWING GPM:	2860 GPM @ 20 psi
(IF NOT MODELED BY THE MUNICIPALITY)	

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ARCHITECT

Dzilth-Na-O-Dith-Hle - New Dormitory Building

PRICING SET

35 Road 7585, Bloomfield, NM 87413

NOVEMBER 10, 2020

MARK	DATE	DESCRIPTION

ISSUE:	
DATE:	
PROJECT NO:	751
CAD DWG FILE:	
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SHEET TITLE

FIRE PROTECTION LEGEND

FX001

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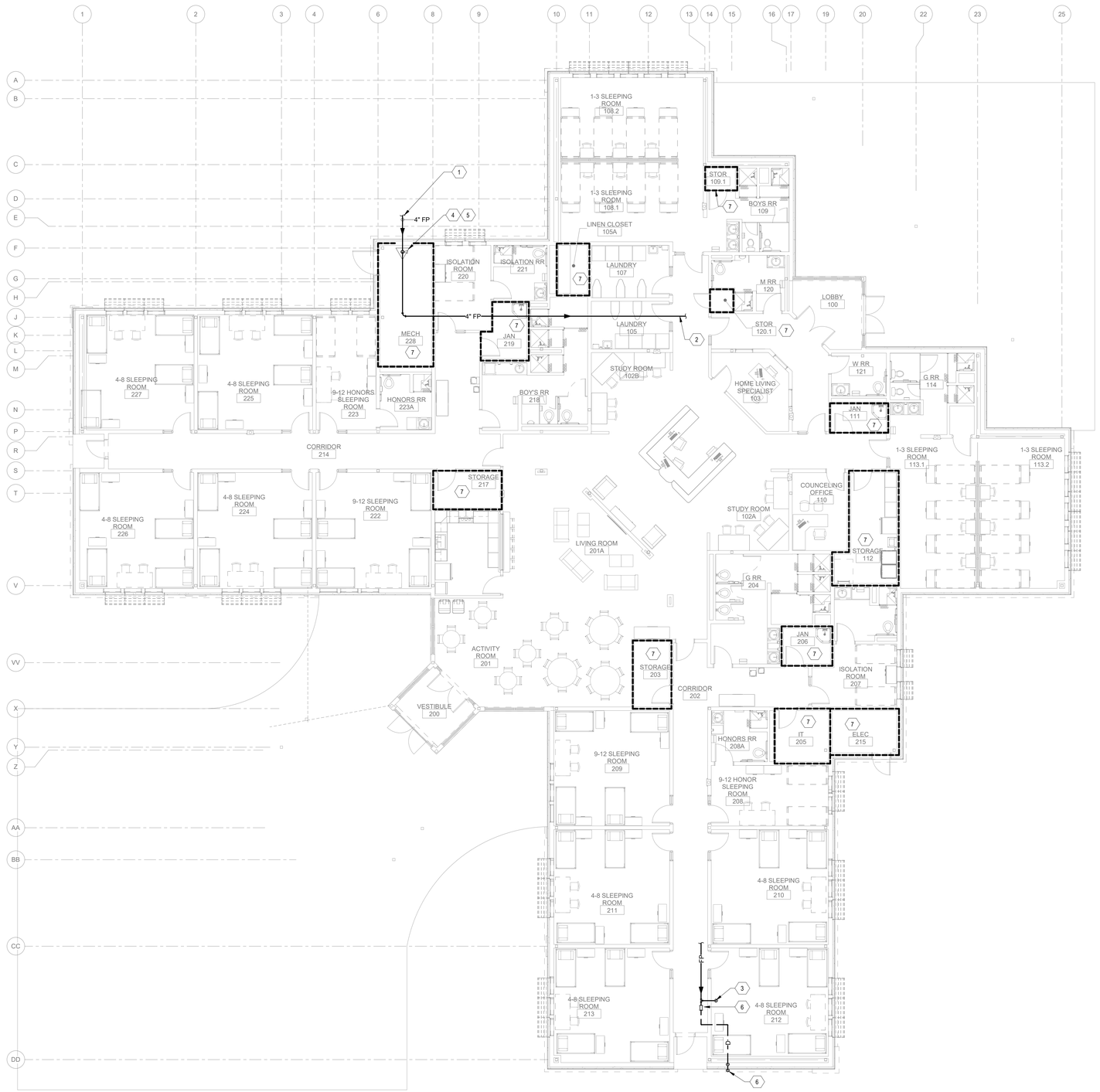

A1 FIRE PROTECTION FLOOR PLAN
1/8" = 1'-0"

0' 4' 8' 16'

GENERAL NOTES

A. THE CONTRACTOR SHALL COMPLY WITH NFPA-13 AND REQUIREMENTS OF THE AHJ.
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 WITH DESIGN DENSITY OF 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 SUPPLY AND INSTALL AN INSPECTORS TEST CONNECTION (ITC) FOR EACH SPRINKLER SYSTEM. RUN THROUGH EXTERIOR WALLS WHERE APPROVED BY ARCHITECT / ENGINEER.
H. THE ARCHITECT SHALL APPROVE THE AESTHETICS OF THE SPRINKLER HEADS AND EXPOSED PIPING LAYOUT.
I. PROVIDE PENDANT AND UPRIGHT SPRINKLERS IN ALL CONCEALED COMBUSTIBLE SPACES.
J. USE FLUSH CONCEALED HEADS IN ALL TOILET ROOMS. PROVIDE SPRINKLERS UNDER EXPOSED DUCT OR OBSTRUCTIONS 48" WIDE AND LARGER.
K. REFER TO CEILING TILE DETAIL D4/FX-501 FOR SPRINKLER HEAD LOCATIONS IN CEILING TILES.
L. PROVIDE SIDEWALL SPRINKLER HEADS AT TOP OF SKYLIGHTS.
M. REFER TO NFPA APPENDIX FOR ALL APPROPRIATE HAZARD CLASSIFICATION ASSIGNMENTS FOR BUILDING SPACES. MORE STRINGENT CLASSIFICATION SHALL APPLY.

KEYNOTES

1. REFER TO CIVIL DRAWING C105 FOR CONTINUATION OF SERVICES.
2. LOCATIONS AND SIZING BY FIRE PROTECTION CONTRACTOR. SYSTEM SHALL BE HYDRAULICALLY CALCULATED AND DESIGNED TO LATEST APPLICABLE NFPA & IBC. ALL ROOMS SHALL BE PROTECTED.
3. MOST REMOTE HEAD.
4. REFER TO FIRE RISER DETAIL A5/FX501 FOR ADDITIONAL INFORMATION.
5. REFER TO FIRE ENTRY DETAIL C4/FX501 FOR ADDITIONAL INFORMATION.
6. INSPECTOR'S TEST VALVE, TERMINATE IN ACCORDANCE WITH NFPA-13. REFER TO DETAIL C5/P-501.
7. PROVIDE ORDINARY HAZARD GROUP I COVERAGE AT DESIGN DENSITY 0.15 GPM / 1500 SQ. FT.

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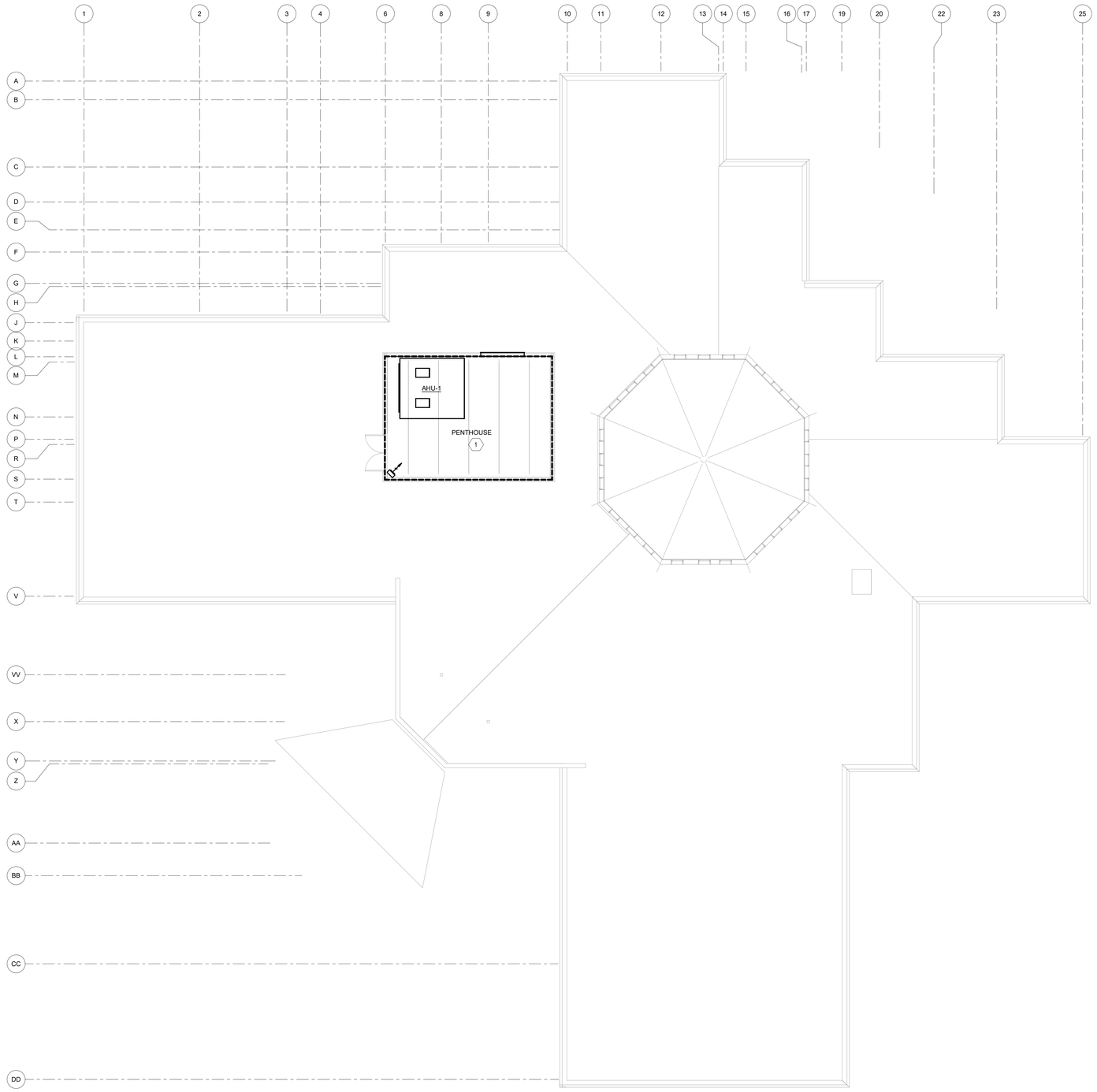
FIRE PROTECTION FLOOR PLAN

FX-101



A1 FIRE PROTECTION ROOF PLAN
1/8" = 1'-0"

0' 4' 8' 16'

GENERAL NOTES

A. THE CONTRACTOR SHALL COMPLY WITH NFPA-13 AND REQUIREMENTS OF THE AHJ.
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 WITH DESIGN DENSITY OF 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 SUPPLY AND INSTALL AN INSPECTORS TEST CONNECTION (ITC) FOR EACH SPRINKLER SYSTEM. RUN THROUGH EXTERIOR WALLS WHERE APPROVED BY ARCHITECT / ENGINEER.
H. THE ARCHITECT SHALL APPROVE THE AESTHETICS OF THE SPRINKLER HEADS AND EXPOSED PIPING LAYOUT.
I. PROVIDE PENDANT AND UPRIGHT SPRINKLERS IN ALL CONCEALED COMBUSTIBLE SPACES.
J. USE FLUSH CONCEALED HEADS IN ALL TOILET ROOMS. PROVIDE SPRINKLERS UNDER EXPOSED DUCT OR OBSTRUCTIONS 48" WIDE AND LARGER.
K. REFER TO CEILING TILE DETAIL D4/FX-501 FOR SPRINKLER HEAD LOCATIONS IN CEILING TILES.
L. PROVIDE SIDEWALL SPRINKLER HEADS AT TOP OF SKYLIGHTS.
M. REFER TO NFPA APPENDIX FOR ALL APPROPRIATE HAZARD CLASSIFICATION ASSIGNMENTS FOR BUILDING SPACES. MORE STRINGENT CLASSIFICATION SHALL APPLY.

KEYNOTES

1. PROVIDE ORDINARY HAZARD GROUP I COVERAGE AT DESIGN DENSITY 0.15 GPM / 1500 SQ. FT.

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FIRE PROTECTION ROOF PLAN

FX-131

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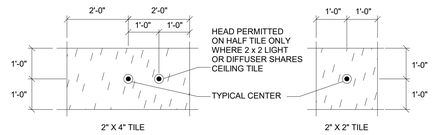
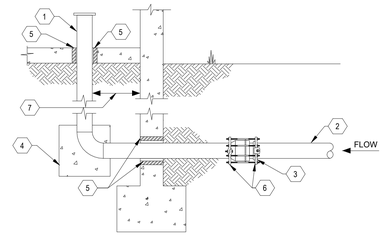
NOTE:
ON CEILING TILES THAT ARE LESS THAN FULL
HEAD SHALL BE CENTERED IN ALL DIRECTIONS



D5 FIRE SPRINKLER CEILING TILE DETAIL

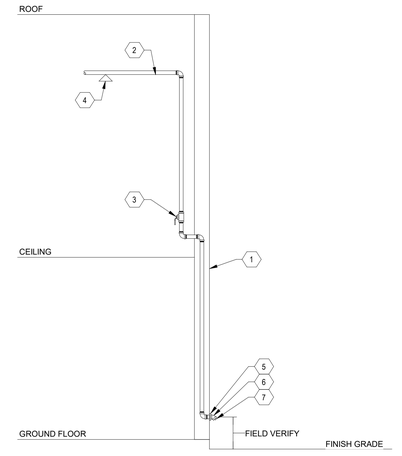
SCALE: NOT TO SCALE



1. AMES IN-BUILDING RISER. STAINLESS STEEL TYPE 304. SEE PLANS FOR SIZE AND SERVICE
2. DUCTILE 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 IBC IF REQUIRED BY AHJ
5. PIPE SLEEVE, SEE SPECIFICATIONS
6. MEGALUG PIPE RESTRAINT HARNESS
7. VERTICAL SECTION OF RISER LOCATED AS CLOSE AS POSSIBLE TO WALL

C4 WATER ENTRY THRU FOOTING DETAIL

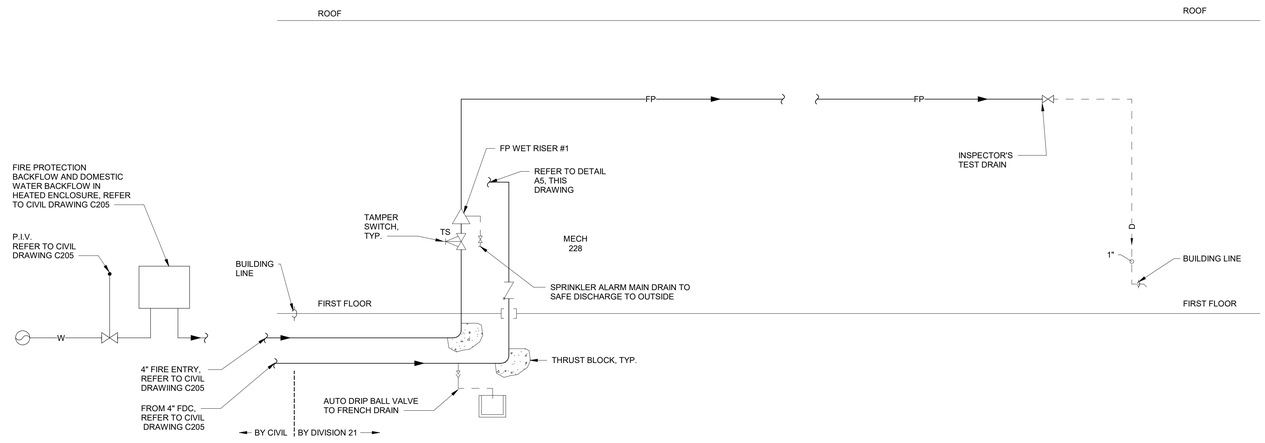
SCALE: NOT TO SCALE



1. EXTERIOR WALL
2. 1" SUPPLY FROM SPRINKLER SYSTEM ZONE
3. 1" TEST & DRAIN VALVE WITH SIGNAGE (NORMALLY CLOSED) AT 9'-0" AFF.
4. MOST REMOTE HEAD
5. 1" GALVANIZED WALL PLATE TO COVER EXISTING OPENING
6. 1" GALVANIZED 45 DEGREE ELBOW
7. SMOOTH BORE CORROSION RESISTANT OUTLET WITH FLOW EQUAL TO ONE SPRINKLER WITH SMALLEST ORIFICE

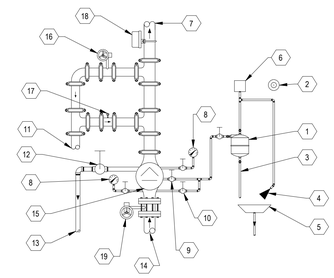
C5 INSPECTORS TEST DRAIN VALVE

SCALE: NOT TO SCALE



A1 FIRE PROTECTION DIAGRAM

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. FROM FIRE DEPT. CONNECTION
12. FULL SIZED MAIN DRAIN VALVE
13. TO EXTERIOR DISCHARGE
14. FROM FIRE PROTECTION MAIN SUPPLY LINE
15. ALARM CHECK VALVE
16. INDICATING BUTTERFLY VALVE, USED FOR FORWARD FLOW TEST (NORMALLY CLOSED)
17. WAFER CHECK VALVE
18. FLOW SWITCH
19. INDICATING BUTTERFLY VALVE

A5 SPRINKLER ALARM VALVE

SCALE: NOT TO SCALE

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FIRE PROTECTION DETAILS

FX501

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ABBREVIATIONS

ACU	AIR CONDITIONING UNIT
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
AL	ACOUSTIC LINING
BHP	BRAKE HORSEPOWER
BOD	BOTTOM OF DUCT
BOP	BOTTOM OF PIPE
BTU	BRITISH THERMAL UNIT
BTUH	BTU PER HOUR
CA	COMPRESSED AIR
CD	CONDENSATE DRAIN
CFM	CUBIC FEET PER MINUTE
CONT.	CONTINUATION
D	DRAIN
DX	DIRECT EXPANSION
ENT	ENTERING
EXH	EXHAUST
EMCS	ENERGY MANAGEMENT CONTROL SYSTEM
°F	DEGREES FAHRENHEIT
FB	FLAT BOTTOM
FCU	FAN COIL UNIT
FD	FLOOR DRAIN
F.G.	FILTER GAUGE
FLEX	FLEXIBLE
FPM	FEET PER MINUTE
FS	FLOOR SINK
FT	FLAT TOP
FT.	FEET
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HB	HOSE BIBB
HD	HAND DAMPER (VOLUME DAMPER)
HEPA	HIGH EFFICIENCY PARTICULATE AIR (FILTER)
IN	INCHES
KW	KILOWATT
KWH	KILOWATT HOUR
MA	MAIN AIR (CONTROLS)
MCC	MOTOR CONTROL CENTER
NA	NOT APPLICABLE
NIC	NOT IN CONTRACT
NO.	NUMBER (QUANTITY)
OA	OUTSIDE AIR
OBD	OPPOSED BLADE DAMPER
PRV	PRESSURE REDUCING VALVE
PSIG	POUNDS PER SQUARE INCH GAGE
QTY	QUANTITY
QUAD	QUADRANT
R.A.	RETURN AIR
Rh	RELATIVE HUMIDITY
RPM	REVOLUTIONS PER MINUTE
SCD	SMOKE CONTROL DAMPER
SP	STATIC PRESSURE (INCHES OF WATER)
SDVV	SINGLE DUCT VARIABLE VOLUME
ST	SOUND TRAP
TOPT	TOP OF PIPE TRAPEZE
TP	TOTAL PRESSURE (INCHES OF WATER)
TYP.	TYPICAL
V	VOLTS
VAC	VOLTS, ALTERNATING CURRENT
VAV	VARIABLE AIR VOLUME
VEL	VELOCITY
VTR	VENT THRU ROOF

MECHANICAL SYMBOL LEGEND

DUCTWORK SYMBOLS

- FLEXIBLE DUCT
- ACOUSTICAL DUCT LINING
- MANUAL BALANCING DAMPER (HD)
- FIRE DAMPER (FRD)
- SMOKE DAMPER (SMD)
- COMBINATION FIRE/SMOKE DAMPER (FSD)
- 1 HR. FIRE BARRIER
- 2HR. FIRE BARRIER
- SMOKE BARRIER
- 2HR. SMOKE BARRIER

(1 HR. FIRE BARRIER, 2HR. FIRE BARRIER, SMOKE BARRIER, 2HR. SMOKE BARRIER: VERIFY WITH ARCHITECTURAL DRAWINGS)

- CONNECT NEW DUCT TO EXISTING DUCT
- EXISTING DUCT TO BE REMOVED
- FLEXIBLE CONNECTION
- RISE IN DUCT
- VANED ELBOW (PROVIDE ALL SQUARE OR RECTANGULAR ELBOWS WITH VANES EXCEPT TRANSFER AIR SOUND ELBOW)
- SHORT RADIUS ELBOW (PROVIDE ALL SQUARE OR RECTANGULAR ELBOWS WITH VANES EXCEPT TRANSFER AIR SOUND ELBOW)
- STANDARD LONG RADIUS ELBOW
- SUPPLY DUCT
- RETURN DUCT
- EXHAUST DUCT
- STAMPED FACE CEILING DIFFUSERS
- PERFORATED FACE CEILING DIFFUSERS
- CEILING EXHAUST REGISTER
- CEILING RETURN AIR REGISTER OR GRILLE
- SIDEWALL EXHAUST OR RETURN AIR GRILLE OR REGISTER
- SIDEWALL SUPPLY REGISTER
- DUCT TRANSITION
- DUCT TRANSITION FROM RECTANGULAR TO ROUND
- 24"x12" / 24x12 — INDICATES A 24"x12" RECTANGULAR DUCT (WIDTH x DEPTH)
- 12"Ø / 12"Ø — INDICATES A 12" ROUND DUCT
- 24"/12" / 24x12Ø — INDICATES A 24"x12" FLAT OVAL DUCT (WIDTH x DEPTH)
- DUCT MOUNTED SMOKE DETECTOR (SD)
- DUCT MOUNTED STATIC PRESSURE PROBE
- ACCESS DOOR
- (T) ROOM THERMOSTAT/TEMP. TRANSMITTER LOCATION ONLY SEE CONTROL DRAWINGS FOR TYPE
- (H) ROOM HUMIDISTAT/HUMIDITY TRANSMITTER LOCATION ONLY SEE CONTROL DRAWINGS FOR TYPE
- (CO2) ROOM CARBON DIOXIDE TRANSMITTER LOCATION ONLY SEE CONTROL DRAWINGS FOR TYPE

VALVE SYMBOLS

- GATE VALVE
- GLOBE VALVE
- CHECK VALVE
- PLUG VALVE
- PRESSURE REDUCING VALVE
- 3-WAY MODULATING CONTROL VALVE
- 2-WAY CONTROL VALVE
- SAFETY VALVE OR PRESSURE RELIEF VALVE
- SOLENOID VALVE
- 3/4" BALL VALVE WITH ADAPTER TO 3/4" HOSE THREAD
- DIAPHRAGM VALVE
- BUTTERFLY VALVE
- BALL VALVE
- VALVE IN RISE
- WATER FLOW MEASURING DEVICE
- CIRCUIT SETTER

FITTING SYMBOLS

- ELBOW - DOWN
- ELBOW - UP
- PIPE RISE-DROP
- ELBOW - DROP TO TEE
- TEE - DROP FROM TEE
- END CAP
- FLEX CONNECTION
- PIPE REDUCER - CONCENTRIC
- PIPE REDUCER - ECCENTRIC
- PIPE STRAINER
- UNION - SCREWED
- AIR VENT - AUTOMATIC
- AIR VENT - MANUAL
- GAUGE - DIFFERENTIAL
- GAUGE - PRESSURE
- GAUGE - PRESSURE WITH COCK
- GAUGE - TEMPERATURE
- PIPE ANCHOR
- PIPE EXPANSION JOINT
- PIPE GUIDE
- SENSOR - FLOW
- SWITCH - FLOW
- SWITCH HUMIDITY
- SWITCH - PRESSURE
- SWITCH - TEMPERATURE
- TEMPERATURE - PRESSURE TEST FITTING
- THERMOMETER
- THERMOMETER WELL
- BASKET STRAINER
- STEAM TRAP INVERTED BUCKET
- METER - TOTALIZING BTU
- METER - TOTALIZING FLOW

PIPING SYMBOLS

MECHANICAL PIPING

HWS	HEATING WATER SUPPLY
HWR	HEATING WATER RETURN
CD	CONDENSATE DRAIN
V	VENT
MU	MAKE-UP WATER
RS	REFRIGERATION SUCTION
RL	REFRIGERATION LIQUID
R	REFRIGERATION
DOWN	DIRECTION PITCH
	DIRECTION OF FLOW
	EXISTING
	DEMO

NOTE: NOT ALL ABBREVIATIONS OR SYMBOLS APPLY TO THIS PROJECT

SECTION SYMBOL

SECTION LOCATION — A1 — DRAWING NUMBER WHERE DETAILED — M301

DETAIL SYMBOL

DETAIL LOCATION — X#/X### — DRAWING NUMBER WHERE DETAILED

SECTION AND DETAIL TITLES

SECTION LETTER LOCATION — A1 — SECTION / SCALE

DETAIL NUMBER LOCATION — A1 — DETAIL / SCALE

EQUIPMENT SYMBOLS

XX-## — LETTERS REFER TO THE EQUIPMENT TYPE; NUMBERS REFER TO SPECIFIC EQUIPMENT; SYMBOL INDICATES EQUIPMENT IDENTIFIED IN EQUIPMENT SCHEDULE

##x## — SIDEWALL GRILLE DIMENSION WHERE SHOWN ON PLANS

XX-# — SYMBOL INDICATES GRILLE OR DIFFUSER IDENTIFIED IN EQUIPMENT SCHEDULE

— CFM

GENERAL NOTES

A. ALL PIPING AND DUCTS IN FINISHED ROOMS OR SPACES SHALL BE CONCEALED IN FURRED CHASES OR SUSPENDED CEILINGS, UNLESS OTHERWISE NOTED.

B. PROVIDE ACCESS PANELS OR DOORS IN INACCESSIBLE CEILINGS AND/OR CHASES FOR ALL VALVES, TRAPS, DAMPERS, CLEANOUTS, COILS, FANS, CONTROLS, ETC. THEY SHALL BE FURNISHED UNDER DIVISION 23 AND INSTALLED UNDER THE ARCHITECTURAL SPECIFICATION. ACCESS DOOR RATING SHALL MATCH CLASSIFICATION OF WALL AND CEILING FIRE RATING.

C. WATER PIPE CONNECTIONS TO WATER COILS SHALL BE MADE SO THERE WILL BE COUNTER FLOW BETWEEN WATER AND AIR.

D. COORDINATE THE LOCATION OF ALL DIFFUSERS, GRILLES, REGISTERS, ACCESS DOORS, ETC., WITH THE ARCHITECTURAL REFLECTED CEILING PLAN(S).

E. ALL ROUND RUNOUTS AND DROPS TO DIFFUSERS SHALL BE THE SAME NOMINAL SIZE AS THE SCHEDULED DIFFUSER NECK SIZE.

F. THE FIRST FIGURE OF DUCT SIZE INDICATES DIMENSION OF FACE SHOWN OR INDICATED. ALL DUCT SIZES SHOWN ON DRAWINGS ARE NET INSIDE DIMENSIONS. PROVIDE ONE INCH ACOUSTICAL LINING (TYPE D3 INSULATION) IN LOW VELOCITY RECTANGULAR DUCTWORK FOR THE FIRST 10 DIAMETERS OF DUCTWORK CONNECTED TO DEVICE, OR AS INDICATED ON DRAWINGS, WHICHEVER IS GREATER. FOR THE REMAINDER OF THIS DUCTWORK PROVIDE AS INDICATED IN THE INSULATION SPECIFICATIONS.

G. PROVIDE 1/2" MANUAL AIR VENTS AT ALL HIGH POINTS OF CLOSED SYSTEM PIPING AND 1/2" MANUAL DRAIN VALVES WITH HOSE CONNECTION AT LOW POINTS AS REQUIRED TO PROVIDE COMPLETE SYSTEM DRAINAGE. WHERE DRAIN VALVES OCCUR ABOVE CEILING AREAS AND IN AREAS OUTSIDE MECHANICAL RANGE PROVIDE HOSE CONNECTION ON VALVE.

H. PROVIDE TURNING VANES IN ALL SQUARE ELBOWS, EXCEPT TRANSFER AIR SOUND ELBOWS.

I. REFER TO THE ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF ALL FIRE RATED AND/OR SMOKE RATED WALLS AND ASSEMBLIES. PROVIDE APPROVED FIRE DAMPERS IN ALL REQUIRED PENETRATIONS FOR DUCTWORK, GRILLES, REGISTERS AND DIFFUSERS. ALL PIPE AND DUCTWORK PENETRATIONS OF FIRE, SMOKE AND FULL HEIGHT WALLS SHALL BE CAULKED AIRTIGHT TO THE ADJACENT STRUCTURE BY MEANS OF U.L. APPROVED FIRE PROOF CAULKING MATERIAL.

J. CONTRACTOR SHALL COORDINATE ALL DUCTWORK, PIPING, PLUMBING AND FIRE PROTECTION PIPING WITH STRUCTURAL AND ELECTRICAL SYSTEMS AND SHALL PROVIDE NECESSARY OFFSETS TO AVOID CONFLICTS AND TO MAINTAIN EQUIPMENT ACCESS AND SERVICEABILITY.

K. CONTRACTOR SHALL FURNISH ALL NECESSARY STRUCTURES, INSERTS, SLEEVES, AND HANGING DEVICES FOR INSTALLATION OF MECHANICAL AND PLUMBING EQUIPMENT, DUCTWORK AND PIPING, ETC. CONTRACTOR SHALL COORDINATE WITH GENERAL CONTRACTOR AND ALL BUILDING TRADES TO AVOID CONFLICTS AND TO MAINTAIN EQUIPMENT ACCESS AND SERVICEABILITY.

L. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY MISCELLANEOUS ANGLES, CHANNELS, UNISTRUT, ETC., AS MAY BE REQUIRED TO ADEQUATELY SUPPORT THE MECHANICAL PIPING, DUCTWORK, AND EQUIPMENT IN A MANNER APPROVED BY THE ARCHITECT, WHICH WILL NOT OVERLOAD THE BUILDING STRUCTURAL SYSTEM.

M. CONTRACTOR SHALL PROVIDE RETURN AIR OR TRANSFER AIR OPENINGS IN FULL HEIGHT WALLS SIZED AT 350 FPM (UNLESS OTHERWISE SPECIFICALLY SHOWN ON THE DRAWINGS) TO CREATE AND/OR MAINTAIN A RETURN AIR PATH AS REQUIRED. FIRE DAMPERS AND/OR SMOKE DAMPERS SHALL BE PROVIDED IN SUCH OPENINGS WHERE REQUIRED BY NOTE "J".

N. SEAL ALL TRANSVERSE JOINTS, LONGITUDINAL SEAMS, DUCT WALL PENETRATIONS AND FITTING CONNECTIONS ON ALL DUCT SYSTEMS.

O. MECHANICAL ITEMS SUCH AS ROOF DRAINS, FLOOR DRAINS, PLUMBING FIXTURES, ETC. SHOWN ON THE ARCHITECTURAL DRAWINGS BUT NOT SHOWN ON THE MECHANICAL DRAWINGS SHALL BE INCLUDED IN THE PROJECT. THESE ITEMS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT FOR INCLUSION IN ADDENDUM.

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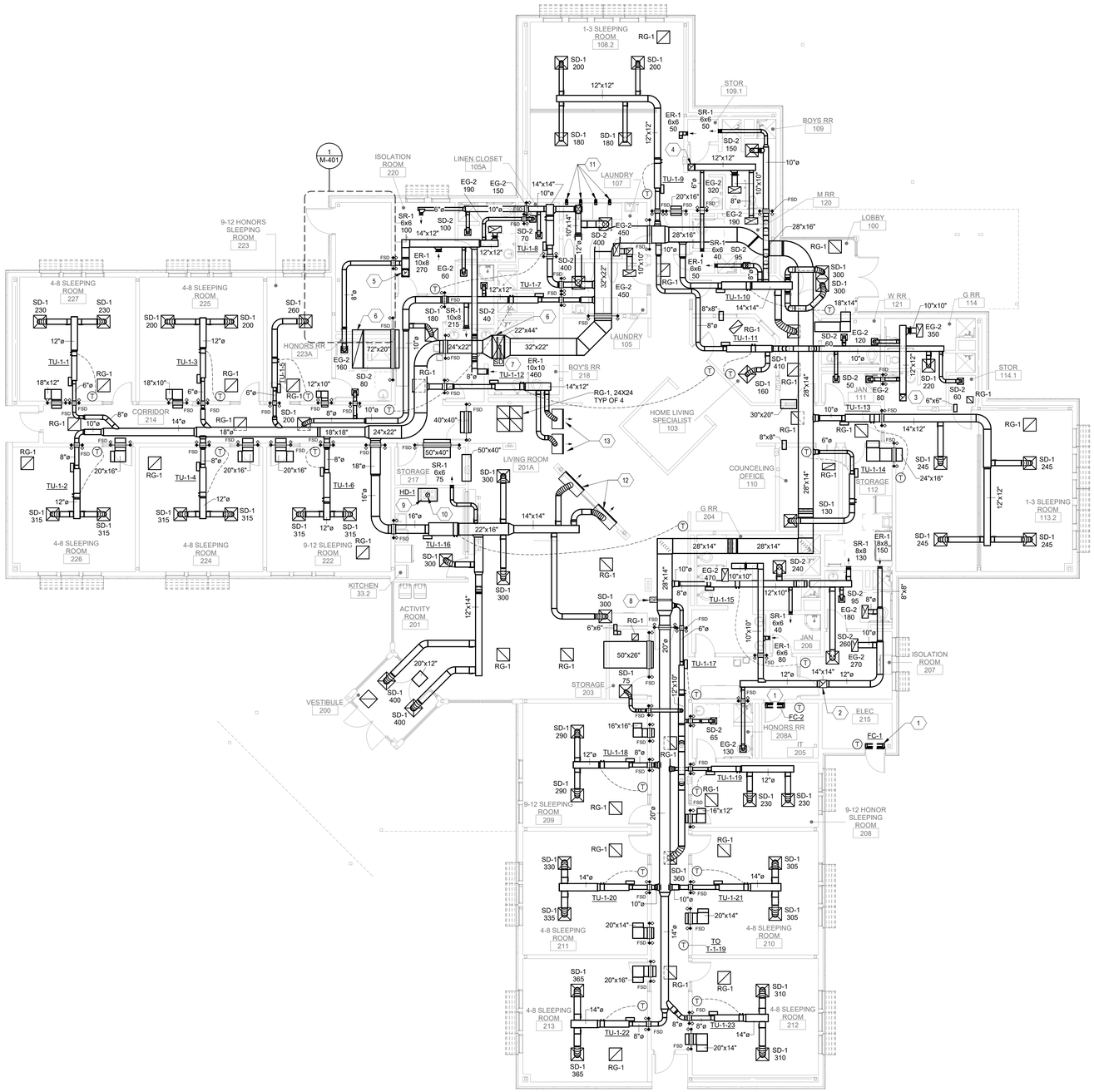
SHEET TITLE

MECHANICAL LEGEND

M-001

Bridgers & Paxton Project No: 8226 11/9/2020 6:53:50 PM D:\Revit 2019\Projects\8226_DCS Dorm_MEP_nwv62003zh.rvt



A1 HVAC FLOOR PLAN
1/8" = 1'-0"

0' 4' 8' 16'

GENERAL NOTES

A. ALL INTERIOR CONCEALED SUPPLY SHALL BE WRAPPED WITH 1.5" TYPE D-1. SEE SPECIFICATION 230700 FOR ADDITIONAL INSULATION INFORMATION.

B. ALL INTERIOR RETURN AIR DUCTWORK SHALL BE ACOUSTICALLY LINED WITH 1" TYPE D-3. SEE SPECIFICATION 230700 FOR ADDITIONAL INSULATION INFORMATION.

C. THE FIRST 10 FT (MINIMUM) AND EXHAUST DUCTWORK UPSTREAM OF EXHAUST FANS SHALL BE ACOUSTICALLY LINED WITH TYPE D-3. SEE SPECIFICATION 230700 FOR ADDITIONAL INSULATION INFORMATION

D. ALL BRANCH DUCTWORK TO SUPPLY DIFFUSERS SHALL BE SIZED TO MATCH NECK SIZE OF DIFFUSER AS INDICATED ON "GRILLE AND DIFFUSER" SCHEDULE ON SHEET M-702.

E. ALL BRANCH DUCTWORK TO SUPPLY DIFFUSERS AND EXHAUST GRILLES NOT FURNISHED WITH OPPOSED BLADE DAMPERS SHALL INCLUDE BALANCING DAMPER WITH LOCKING QUADRANT.

F. COORDINATE ALL DUCT AND PIPE ROUTING AND INSTALLATION WITH STRUCTURAL PLANS AND ARCHITECTURAL FLOOR PLANS.

G. THERMOSTATS SHALL BE MOUNTED AT 48" A.F.F. ALL THERMOSTATS IN STUDENT AREAS SHALL BE FURNISHED AND INSTALLED WITH METAL LOCKING COVERS.

H. ALL EXPOSED DUCTWORK AND GRILLES SHALL BE CLEANED, DEGREASED AND PREPPED FOR PAINTING. DUCTWORK SHALL BE PAINTED PER ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.

I. 24X24 CEILING ACCESS DOORS SHALL BE PROVIDED AT ALL BALANCING DAMPERS, FIRE DAMPERS AND DUCT MOUNTED SMOKE DETECTOR LOCATIONS ABOVE HARD CEILINGS.

J. SEE SHEETS M-501 TO M-504 FOR MECHANICAL DETAILS.

KEYNOTES

1. PROVIDE WALL MOUNTED SPLIT SYSTEM . DRAIN SIZED PER MANUFACTURER'S INSTRUCTIONS. COORDINATE CONDENSATE DRAIN WITH PLUMBING CONTRACTOR. PROVIDE PIPING AS SIZED ON PLAN. VERIFY EXACT PIPE SIZES REQUIRED WITH MANUFACTURER AND TRAP AND SLOPE REFRIGERANT LINES PER MANUFACTURER'S INSTRUCTIONS. CONTRACTOR TO COORDINATE SHORTEST CONCEALED ROUTING TO ASSOCIATED REMOTE CONDENSING UNIT. PROVIDE ALL VALVES AND ACCESSORIES FOR A COMPLETE AND OPERATIONAL SYSTEM. REFER TO DETAILS AND EQUIPMENT SCHEDULE FOR ADDITIONAL INFORMATION.
2. 14"X14" EXHAUST DUCT UP TO EF-4 ON THE ROOF.
3. 12"X12" EXHAUST DUCT UP TO EF-3 ON THE ROOF.
4. 12"X12" EXHAUST DUCT UP TO EF-4 ON THE ROOF.
5. 14"X14" EXHAUST DUCT UP TO EF-1 ON THE ROOF.
6. 44"X22" SUPPLY AND 72"X20" RETURN DUCT UP TO AHU-1 IN THE PENTHOUSE.
7. INSTALL SMOKE DETECTOR AND SAMPLING TUBES FURNISHED BY DIVISION 28 IN DUCTWORK. POWER AND WIRING BY DIVISION 26 AND DIVISION 28.
8. INSTALL STATIC PRESSURE SENSOR FOR SUPPLY FAN CONTROL IN DUCT AT APPROXIMATE LOCATION SHOWN.
9. STAINLESS STEEL RESIDENTIAL HOOD (HD-1) MOUNTED 30"-36" ABOVE COOK TOP. COORDINATE INSTALLATION WITH KITCHEN CABINETS AND DIV 26. INSTALL HOOD AND ASSOCIATED EXHAUST DUCT PER MANUFACTURES INSTRUCTIONS. WRAP THE FLUE PER MANUFACTURER'S REQUIREMENT. SEE MECHANICAL SCHEDULE M-702 FOR MORE INFO.
10. EXTEND 8" DIA FLUE UP TO THE ROOF. PROVIDE 12"X12" STAINLESS STEEL DUCT COVER. WRAP THE FLUE PER MANUFACTURER'S REQUIREMENT.
11. EXTEND 4" VENT UP THRU ROOF AND TERMINATE WITH GOOSENECK. PROVIDE DUCT THRU ROOF CURB. GOOSENECK DISCHARGE SHALL BE APPROX. 24" ABOVE FINISHED ROOF. DRYER VENT DUCTWORK MUST NOT HAVE ANY SCREWS OR OTHER FASTENERS PROJECTING INSIDE THE DUCTWORK. INSTALL PER CODE. COORDINATE EXACT MOUNTING HEIGHT REQUIRED WITH DRYER VENT OUTLET.
12. PROVIDE LINEAR DIFFUSER PRICE SCD-100, 300 CFM, 4 FEET, 4 SLOT, 10" DIA INLET, NC-22.
13. PROVIDE LINEAR DIFFUSER PRICE SCD-100, 400 CFM, 3 FEET, 4 SLOT, 8" DIA INLET, NC-35.

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PRICING SET

35 Road 7585, Bloomfield, NM 87413

NOVEMBER 10, 2020

MARK	DATE	DESCRIPTION

ISSUE:	
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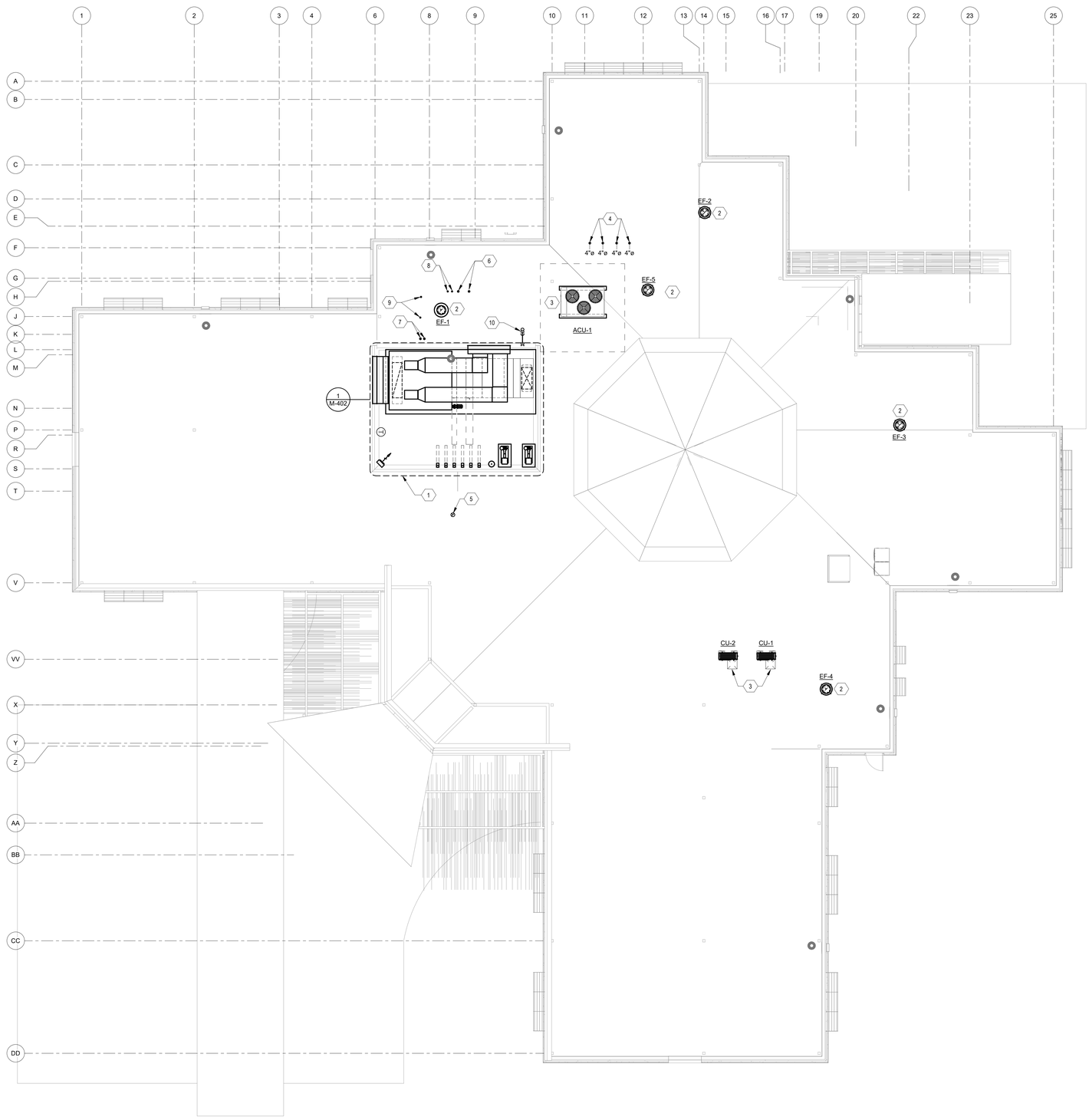
SHEET TITLE

HVAC FLOOR PLAN

MH-101



A1 MECHANICAL ROOF PLAN
1/8" = 1'-0"

0' 4' 8' 16'

GENERAL NOTES

A. COORDINATE ALL DUCT AND PIPE ROUTING AND INSTALLATION WITH STRUCTURAL PLANS AND ARCHITECTURAL FLOOR PLANS.

B. SEE SHEETS M-501 TO M-504 FOR MECHANICAL DETAILS.

C. ALL LOW VOLTAGE WIRING (LESS THAN 50 VOLTS) SHALL BE PROVIDED DIV. 23. ALL WIRING (GREATER THAN 50 VOLTS) SHALL BE PROVIDED BY DIV. 26 OR OTHER WHERE NOTED.

D. MAINTAIN MINIMUM 10 FT CLEARANCE BETWEEN PLUMBING VENTS, EXHAUST FANS AND OUTSIDE AIR INTAKES.

E. COORDINATE DUCT PENETRATIONS THROUGH ROOF WITH STRUCTURAL DRAWINGS.

F. COORDINATE INSTALLATION OF HVAC EQUIPMENT WITH ELECTRICAL AND PLUMBING DISCIPLINES.

G. MECH EQUIPMENT SHALL BE LABELED WITH 2" HIGH STENCIL LETTERS IN BLACK PAINT AND SHALL INCLUDE UNIT NUMBER AND AREA SERVED.

KEYNOTES

1. SEE SHEET M-401 FOR ADDITIONAL INFO.
2. INSTALL ROOF MOUNTED EXHAUST FAN ON 14" TALL ROOF CURB. PROVIDE BACKDRAFT DAMPER TRAY AND DAMPER INSIDE ROOF CURB. INSTALL EXHAUST FAN LEVEL. PROVIDE DUCT TRANSITION FROM OPENING TO DUCT SIZE SHOWN ON PLAN. TRANSITION DUCT IN CURB AND EXTEND DUCT DOWN THRU ROOF. COORDINATE WITH STRUCTURE. REFER TO DETAIL X/M-50X AND EQUIPMENT SCHEDULE FOR ADDITIONAL INFORMATION.
3. INSTALL AND ANCHOR CONDENSING UNIT ON TWO ROOF SKIDS WITH RAILS INSIDE ROOF CURB. PIPING ABOVE ROOF SHALL BE INDIVIDUALLY INSULATED WITH FIBERGLASS WRAP, TAPED AT 1FT INTERVALS AND ALUMINUM JACKETED. AT LOCATIONS WITH MULTIPLE CONDENSING UNITS, THE CONTRACTOR SHALL ORIENT THE FAN INLET AND DISCHARGE OF EACH UNIT SO THE HOT DISCHARGE AIR FROM ONE UNIT DOES NOT ENTER THE INLET OF ANOTHER UNIT.
4. 8" DIA DRYER VENT FROM FIRST FLOOR. TERMINATE WITH GOOSENECK. PROVIDE DUCT THRU ROOF CURB. GOOSENECK DISCHARGE SHALL BE APPROX. 24" ABOVE FINISHED ROOF. DRYER VENT DUCTWORK MUST NOT HAVE ANY SCREWS OR OTHER FASTENERS PROJECTING INSIDE THE DUCTWORK. INSTALL PER CODE. COORDINATE EXACT MOUNTING HEIGHT REQUIRED WITH DRYER VENT OUTLET.
5. 8" DIA FLUE FROM RESIDENTIAL HOOD. WRAP THE FLUE PER MANUFACTURER'S REQUIREMENT. FLASH DUCT AND ROOF PENETRATION PER ARCHITECTURAL DETAILS.
6. 4" DIA. FLUE FROM HOT WATER BOILERS IN MECH ROOM. INSTALL STAINLESS STEEL MATERIAL. OFFSET IN CEILING AND TERMINATE MINIMUM 3 FT ABOVE COMBUSTION AIR PIPE AND INTAKE OPENINGS WITHIN 10 FT.
7. 4" DIA CA FROM HOT WATER BOILERS IN MECH ROOM. INSTALL PER MANUFACTURER INSTRUCTIONS. TERMINATE WITH APPROVED TERMINATION.
8. 3" DIA. FLUE FROM WATER HEATERS IN MECH ROOM. INSTALL STAINLESS STEEL MATERIAL. TERMINATE FLUE MINIMUM 3 FT ABOVE COMBUSTION AIR PIPE AND INTAKE OPENINGS WITHIN 10 FT.
9. 3" DIA CA FROM WATER HEATERS IN MECH ROOM. INSTALL PER MANUFACTURER INSTRUCTIONS. OFFSET IN CEILING AND PROVIDE APPROVED TERMINATION.
10. AIR HANDLING UNIT S.O.A.P. STATION. REFER TO DETAIL 3/M-502 FOR ADDITIONAL INFO.

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MECHANICAL ROOF PLAN

MH-131

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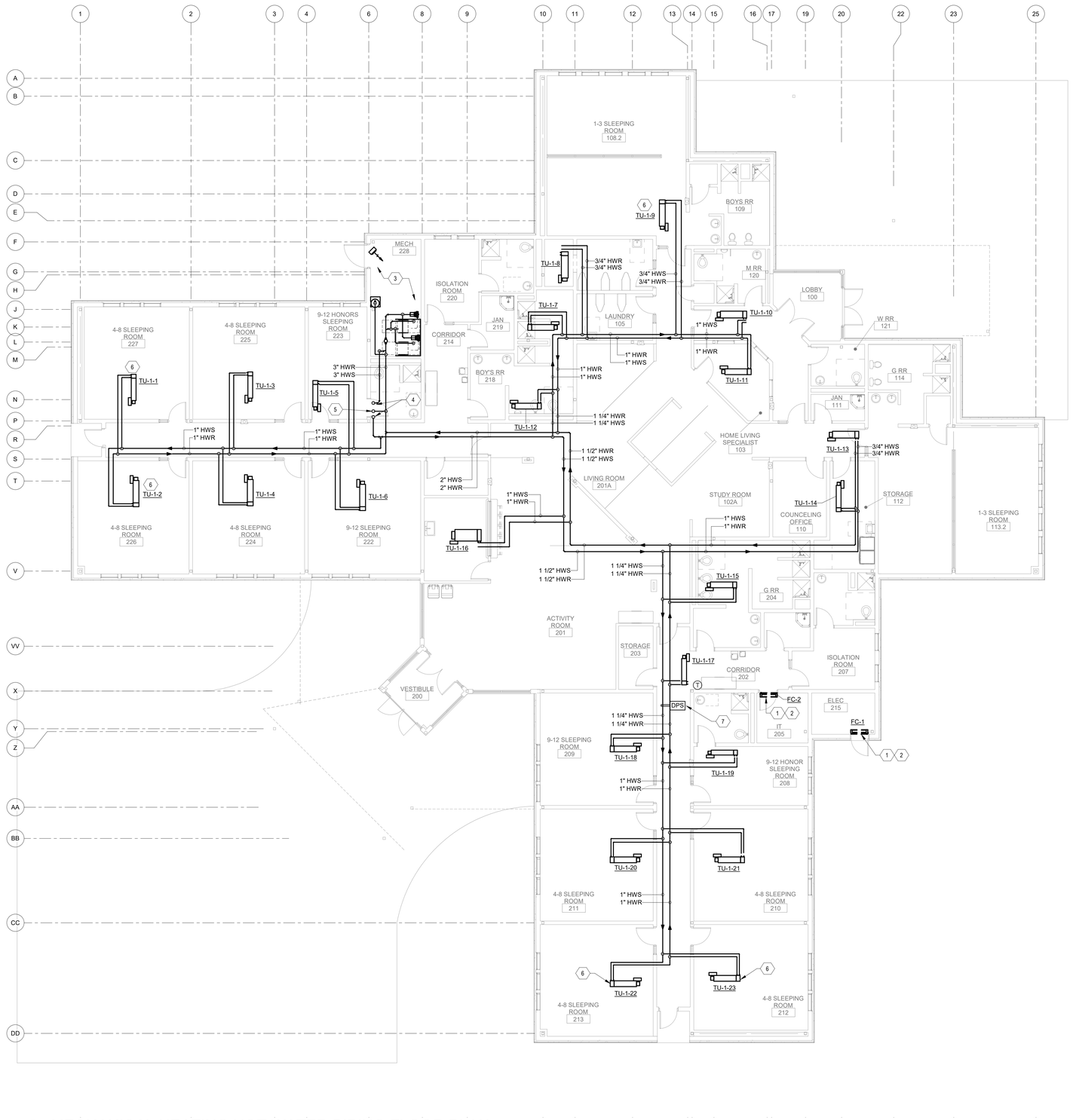

GENERAL NOTES

A. PROVIDE MANUAL AIR VENTS AT ALL HIGH POINTS IN HOT WATER SYSTEM.

B. PROVIDE DRAINS AT ALL LOW POINTS IN HOT WATER SYSTEM.

C. SEE PLUMBING SHEETS FOR CONDENSATE DRAIN PIPING.

D. PROVIDE 2-WAY CONTROL VALVE FOR HOT WATER REHEAT COIL AT TERMINAL UNITS UNLESS OTHERWISE NOTED. SEE TERMINAL UNIT SCHEDULE ON SHEET M-701 FOR GPM & BRANCH SIZES.

KEYNOTES

1. ROUTE REFRIGERANT SUCTION AND LIQUID LINES FROM FAN COIL UNIT UP TO CONDENSING UNIT ON THE ROOF. REFER TO SPLIT SYSTEM SCHEDULE ON SHEET M-702 FOR REFRIGERANT PIPE SIZES. REFER TO PLUMBING SHEETS FOR CONDENSATE DRAIN PIPING.
2. INDOOR FAN COIL UNIT FURNISHED WITH CONDENSATE PUMP. REFER TO PLUMBING SHEETS FOR ROUTING OF CONDENSATE PIPING.
3. SEE SHEET M-401 FOR ENLARGED MECHANICAL PLAN.
4. 3" HWS PIPE TO / FROM PENTHOUSE.
5. 2" HWR PIPE FROM PENTHOUSE.
6. PROVIDE 3-WAY CONTROL VALVE FOR HOT WATER REHEAT COIL AT TERMINAL UNIT. SEE TERMINAL EQUIPMENT SCHEDULE ON SHEET M-701 AND SINGLE DUCT VAV TERMINAL UNIT WITH REHEAT COIL (3-WAY VALVE) DETAIL 11/M-502 FOR PIPING CONFIGURATION.
7. DIFFERENTIAL PRESSURE SENSOR CONNECTED TO HWS & HWR PIPES. PUMP SPEED AND HOT WATER SYSTEM FLOW RATE SHALL BE CONTROLLED BASED ON SENSED DIFFERENTIAL PRESSURE AT THIS LOCATION.

A1 MECHANICAL HEATING HOT WATER PIPING FLOOR PLAN
1/8" = 1'-0"

0' 4' 8' 16'

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MECHANICAL PIPING FLOOR PLAN

MP-101

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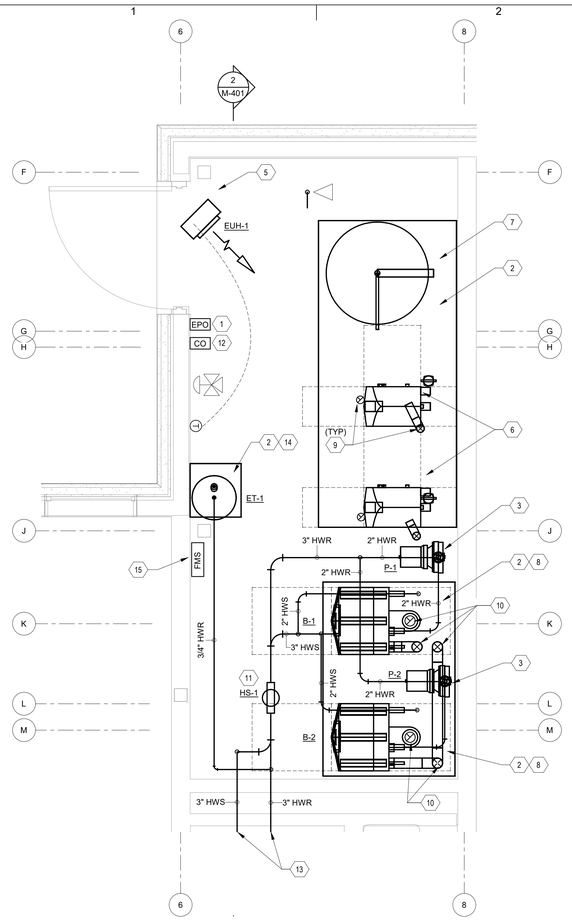
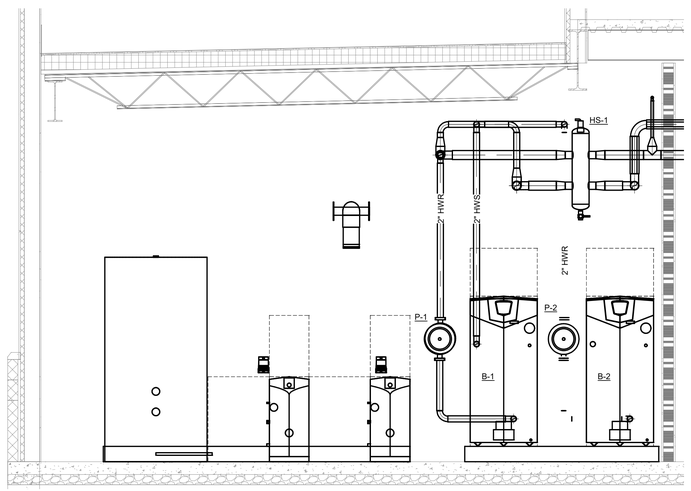
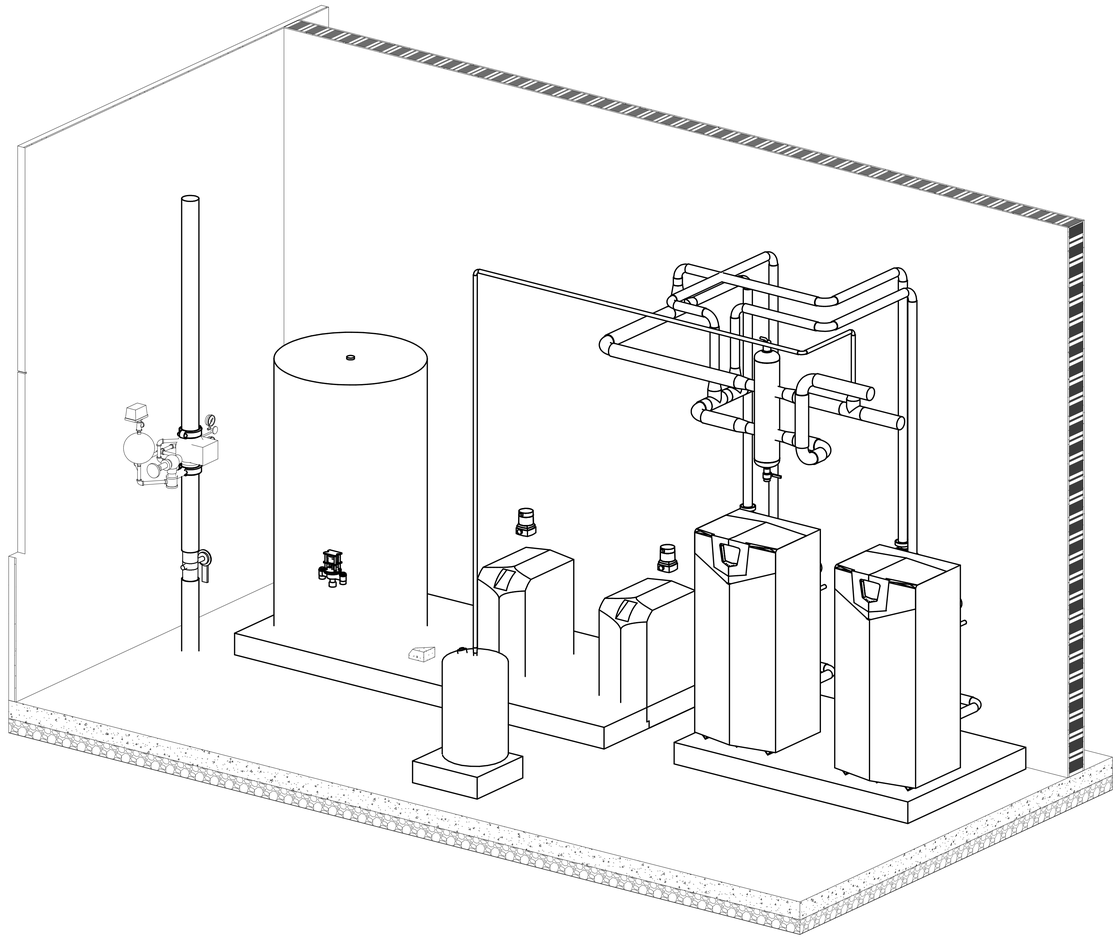


1 MECH ROOM ENLARGED PLAN
1/2" = 1'-0"



2 MECH RM SEC-1
1/2" = 1'-0"



KEYNOTES

1. EMERGENCY POWER OFF (EPO) SWITCH REQUIRED AT BOILER EXIST DOOR. COORDINATE WITH DIV. 26. THE EPO SWITCH SHALL DISCONNECT LINE VOLTAGE POWER TO BOILERS. SEE M-701 FOR BOILER INFORMATION.
2. PROVIDE 4" HOUSEKEEPING PAD BELOW EQUIPMENT.
3. PRIMARY HOT WATER PUMP (P-1 & P-2) INSTALLED IN VERTICAL SECTION OF HOT WATER RETURN PIPING.
4. CHEMICAL POT FEEDER PIPE ACROSS HWS & HWR PIPING OF SYSTEM. REFER TO SHEET M-601 & M-702.
5. MOUNT ELEC UNIT HEATER AT 8'-0" AFF. SET THERMOSTAT TO ENERGIZE HEATER AT 60F (ADJUSTABLE).
6. SEE PLUMBING DRAWINGS FOR DOMESTIC WATER HEATER INFO. COORDINATE VENTING AND PIPING INSTALLATION WITH OTHER TRADES.
7. SEE PLUMBING DRAWINGS FOR DOMESTIC WATER STORAGE TANK INFO.
8. PROVIDE DRAIN IN BOTTOM OF FLUE RISER. PIPE DRAIN TO ACID NEUTRALIZATION BOX AND THEN FLOOR DRAIN.
9. 3" DIA. FLUE AND COMBUSTION AIR DUCT FROM WATER HEATER UP TO THE ROOF. INSTALL PER MANUFACTURER INSTRUCTIONS.
10. 4" DIA. FLUE AND COMBUSTION AIR DUCT FROM BOILERS UP TO THE ROOF. INSTALL PER MANUFACTURER INSTRUCTIONS.
11. PROVIDE HYDRAULIC SEPARATOR AT THIS APPROX LOCATION. PROVIDE AUTOMATIC AIR VENT AT TOP OF SEPARATOR. SEE PIPING SCHEMATIC M-601.
12. CARBON MONOXIDE SENSOR WITH CO PPM LEVEL DISPLAY, ALARM BUZZER, ALARM CONTACTS, AND 4-20 mA OUTPUT. MOUNT SENSOR ON WALL APPROXIMATELY 48" AFF. CONNECT TO NEAREST DDC CONTROLLER. SENSOR SHALL PROVIDE CO LEVEL AND ALARM TO FMS SYSTEM. MACURCO MODEL CM-6 OR EQUAL.
13. 3" HWS & HWR PIPING TO / FROM BUILDING.
14. EXPANSION TANK INSTALLED AT LOWEST PRESSURE POINT IN SYSTEM. EXPANSION TANK SHALL BE RECHARGED WITH 15.2 PSIG AIR PRESSURE (ADJUSTABLE). CONNECT MAKEUP WATER PIPING AND EXPANSION PIPING TO HOT WATER SUPPLY AT THIS LOCATION. REFER TO HEATING WATER PIPING SCHEMATIC ON SHEET M-601. REFER TO PLUMBING SHEETS FOR MAKEUP WATER AND ASSOCIATED REDUCED PRESSURE BACKFLOW PREVENTER.
15. FMS (DDC CONTROLS) CONDUIT TO ENTER MECHANICAL ROOM THROUGH WALL AT THIS APPROXIMATE LOCATION.

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SHEET TITLE

ENLARGED MECHANICAL PLANS

M-401

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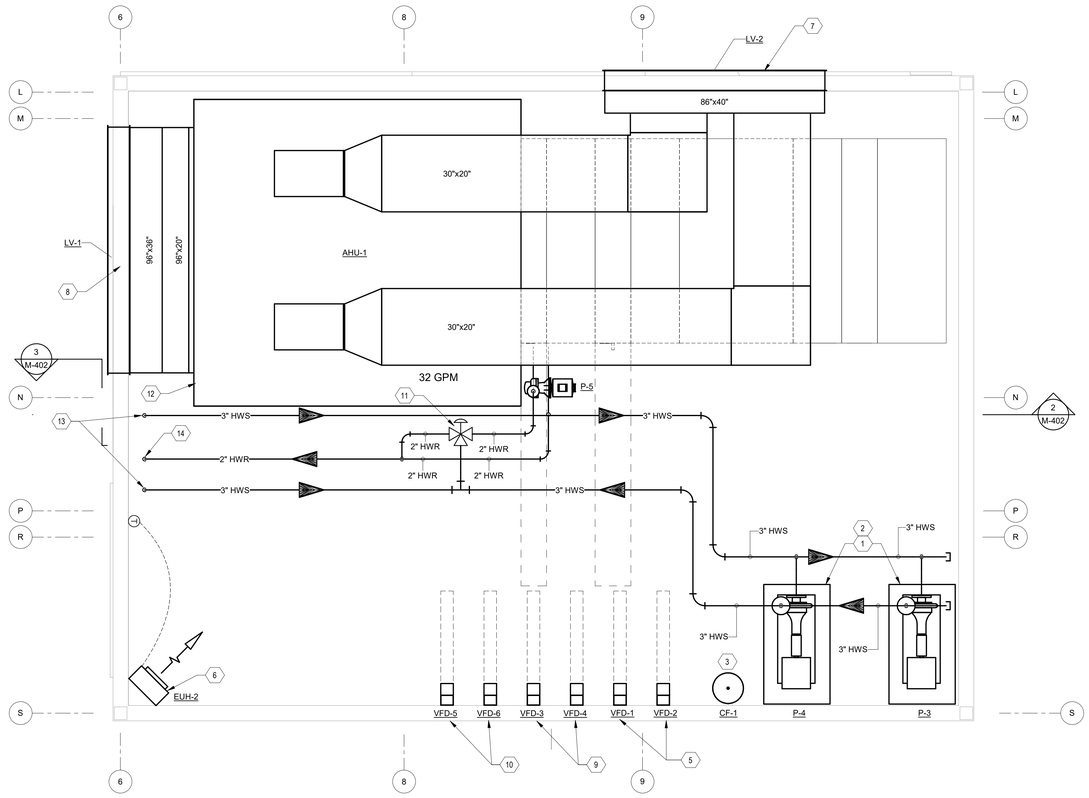
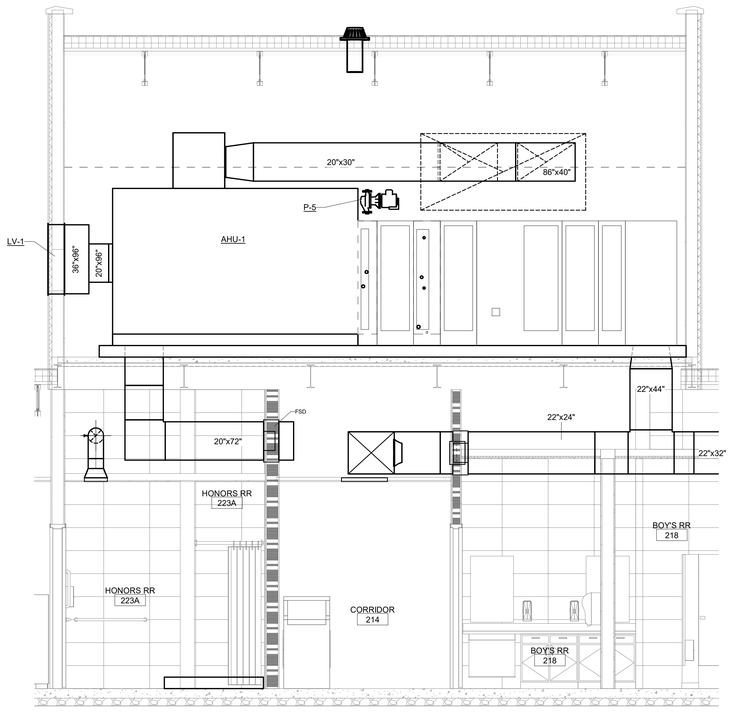
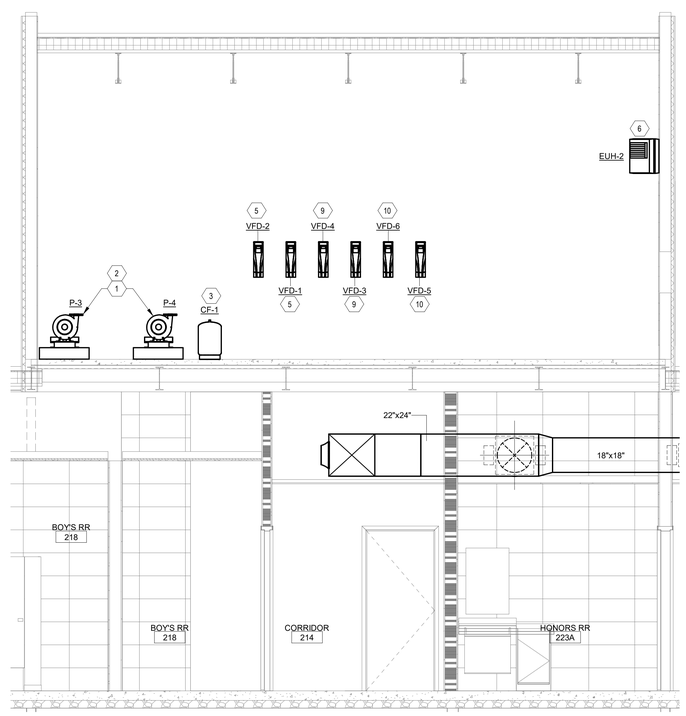


1 MECH PENTHOUSE - ENLARGED PLAN
1/2" = 1'-0"



2 MECH PENTHOUSE SEC-1
3/8" = 1'-0"



3 MECH PENTHOUSE SEC-2
3/8" = 1'-0"

KEYNOTES

1. PROVIDE 4" HOUSEKEEPING PAD BELOW EQUIPMENT.
2. ANCHOR SECONDARY HOT WATER PUMP TO HOUSEKEEPING PAD.
3. CHEMICAL POT FEEDER PIPE ACROSS HWS & HWR PIPING OF SYSTEM. SEE MECH SCHEDULE FOR ADDITIONAL INFO.
4. NOT USED.
5. VARIABLE FREQUENCY DRIVES FOR SECONDARY HW PUMPS (P-3 & P-4). REFER MECH SCHEDULE FOR ADDITIONAL INFO.
6. MOUNT ELEC UNIT HEATER AT 8'-0" AFF. SET THERMOSTAT TO ENERGIZE HEATER AT 60F (ADJUSTABLE).
7. 86"X40" RELIEF AIR LOUVER.
8. 96"X36" OSA LOUVER.
9. VARIABLE FREQUENCY DRIVES FOR AHU-1 SUPPLY FANS. REFER MECH SCHEDULE FOR ADDITIONAL INFO.
10. VARIABLE FREQUENCY DRIVES FOR AHU-1 EXHAUST FANS. REFER MECH SCHEDULE FOR ADDITIONAL INFO.
11. PROVIDE AND INSTALL 3-WAY HOT WATER CONTROL VALVE AND HOT WATER CIRCULATING PUMP AT AHU HEATING COIL PER DETAIL 9/M-503.
12. INDOOR CUSTOM AIR HANDLING UNIT ON 4" HOUSEKEEPING PAD IN PENTHOUSE. SEE SHEET M-602 AND MECH SCHEDULE M-701 FOR ADDITIONAL INFO.
13. 3" HWS PIPE TO / FROM FIRST FLOOR.
14. 2" HWR PIPE TO FIRST FLOOR.

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ENLARGED MECHANICAL PLANS

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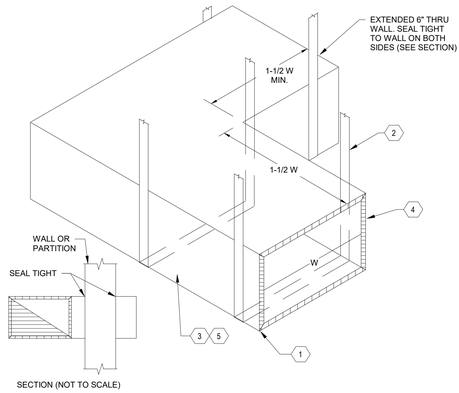
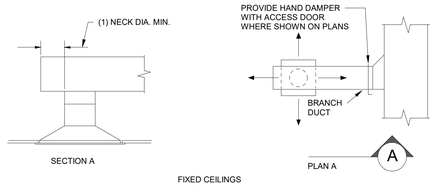


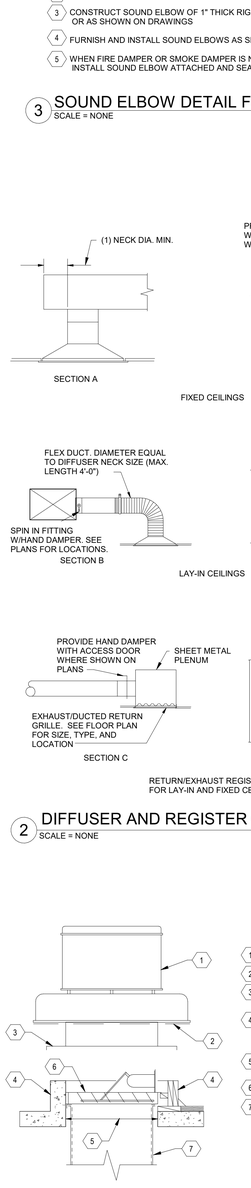
SECTION (NOT TO SCALE)

1. COORDINATE SOUND ELBOW INSTALLATION WITH STRUCTURE, LIGHTS, AND OTHER OBSTRUCTIONS
2. SUPPORT FROM STRUCTURE SIMILAR TO DUCTWORK
3. CONSTRUCT SOUND ELBOW OF 1" THICK RIGID ACOUSTIC INSULATION OR AS SHOWN ON DRAWINGS
4. FURNISH AND INSTALL SOUND ELBOWS AS SHOWN ON DRAWINGS
5. WHEN FIRE DAMPER OR SMOKE DAMPER IS NEEDED AT THE WALL, INSTALL SOUND ELBOW ATTACHED AND SEALED TO WALL.

3 SOUND ELBOW DETAIL FOR TRANSFER OPENINGS
SCALE = NONE



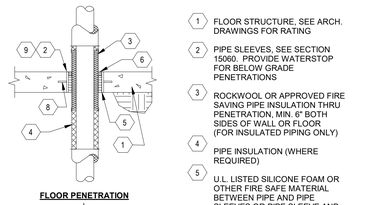
2 DIFFUSER AND REGISTER CONNECTION DETAIL
SCALE = NONE



1. POWER ROOF EXHAUSTER
2. BIRDSCREEN
3. INTEGRAL CURB CAP. SECURE AND CAULK TO CURB
4. FACTORY CURB SECURELY ANCHORED TO ROOF OR AS SHOWN ON ARCHITECTURAL DRAWINGS. FLASH AND COUNTERFLASH
5. ROOF OPENING - MIN. 1" LARGER THAN DUCT SIZE AS SHOWN ON PLANS
6. MOTORIZED DAMPER

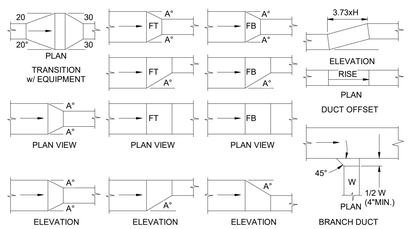
ACOUSTICALLY LINED DUCT UNLESS EXHAUSTING MOIST AIR

1 POWER ROOF EXHAUSTER DETAIL
SCALE = NONE



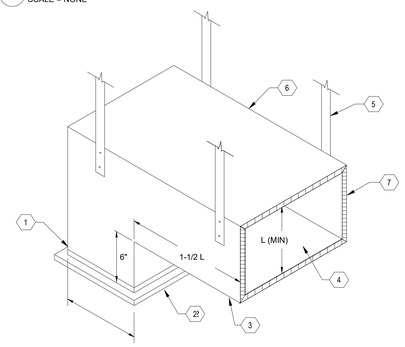
1. FLOOR STRUCTURE, SEE ARCH. DRAWINGS FOR RATING
2. PIPE SLEEVES, SEE SECTION 15060. PROVIDE WATERSTOP FOR BELOW GRADE PENETRATIONS
3. ROCKWOOL OR APPROVED FIRE SAVING PIPE INSULATION THRU PENETRATION, MIN. 6" BOTH SIDES OF WALL OR FLOOR (FOR INSULATED PIPING ONLY)
4. PIPE INSULATION (WHERE REQUIRED)
5. U.L. LISTED SILICONE FOAM OR OTHER FIRE SAFE MATERIAL BETWEEN PIPE AND PIPE SLEEVES OR PIPE SLEEVE AND ROCKWOOL INSULATION FOR INSULATED PIPING
6. IF SILICONE FOAM IS NOT USED AS FIRE SAFING MATERIAL, SEAL WATER-PROOF WITH SILICONE SEALANT
7. PARTITIONI OR WALL, SEE ARCH. DWGS FOR RATING
8. ANCHOR ONE PIPE DIAMETER LONG 90° APART
9. PIPE SLEEVES NOT REQUIRED IN GYP-BOARD WALLS

7 PIPE PENETRATION THRU FIRE RATED BARRIER
SCALE = NONE



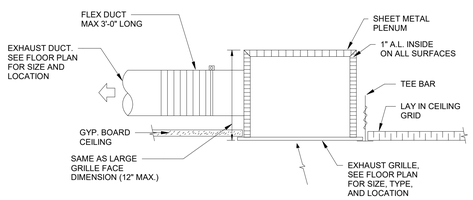
NOTES
1. ANGLE A=30 MAXIMUM WHEN AIR FLOWS IN DIRECTION OF ARROS. (SUPPLY AIR)
2. ANGLE A=15 WHEN AIR FLOWS IN OPPOSITE DIRECTION OF ARROS (R.A. OR EXHAUST)

6 LOW PRESSURE DUCT FITTING DETAIL
SCALE = NONE



1. SECURE SOUND ELBOW TO RETURN GRILLE.
2. RETURN AIR GRILLE IN CEILING. SEE PLANS AND SCHEDULE FOR SIZE AND TYPE.
3. COORDINATE SOUND ELBOW INSTALLATION WITH STRUCTURE, LIGHTS, AND OTHER OBSTRUCTIONS. POINT OPENING AWAY FROM EQUIPMENT.
4. MAINTAIN SAME FREE AREA AS GRILLE. (MINIMUM).
5. SUPPORT FROM STRUCTURE SIMILAR TO DUCTWORK.
6. CONSTRUCT SOUND ELBOW OF 1" THICK RIGID ACOUSTIC INSULATION.
7. FURNISH AND INSTALL SOUND ELBOWS FOR EACH RETURN GRILLE UNLESS NOTED OTHERWISE ON DRAWINGS.

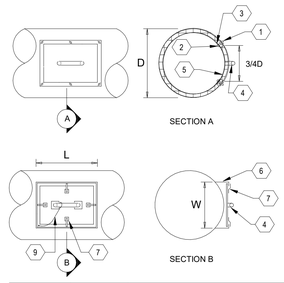
5 SOUND ELBOW DETAIL FOR RETURN GRILLE
SCALE = NONE



4 EXHAUST GRILLLE DETAIL
SCALE = NONE

1. OPENINGS IN FLOOR OR WALLS SHALL BE LARGER THAN THE DAMPER BY 1/8" FOR EACH LINEAR FOOT IN HEIGHT AND WIDTH OF THE DAMPER TO ALLOW FOR THERMAL EXPANSION, BUT THE OPENING SHALL NOT BE LESS THAN REQUIRED TO MAINTAIN A MINIMUM OF 1/4" CLEARANCE BETWEEN THE SLEEVE AND WALL ON ALL SIDES. IN INSTALLATIONS WHERE THE OPENING BETWEEN THE WALL AND SLEEVE REQUIRES FILLER MATERIAL (SEE NFPA 90A) THE FILLER MATERIAL SHALL BE OF FLEXIBLE CONSISTENCY TO ALLOW FOR EXPANSION OF THE FIRE DAMPER-ASSEMBLY.
2. THE FOLDED BLADE ASSEMBLY SHALL ALWAYS BE POSITIONED AT THE TOP WHEN THE DAMPER IS PLACED IN A WALL OPENING.
3. THE DAMPER SHALL BE POSITIONED IN THE OPENING SO THE HORIZONTAL CLEARANCE ALLOWED FOR EXPANSION IS EQUALLY DIVIDED AT BOTH SWIDES OF THE DAMPER.
4. THE DAMPER SHALL BE POSITIONED IN THE OPENING SO THAT NO PART OVERLAPS THE PLANE FORMED BY EITHER SIDE OF THE WALL OF THE FIRE RATED FLOOR ASSEMBLY.
5. THE DUCT SHALL NOT BE CONTINUOUS THROUGH THE WALL OPENING, BUT SHALL BE CONNECTED TO THE DAMPER (OR SLEEVE DEPENDING UPON THE STYLE OF DAMPER) ON EITHER SIDE OF THE WALL.
6. APPROVED RECTANGULAR DUCT BREAKAWAY CONNECTIONS ARE: PLAIN 'S' SLIP: HEMMED 'S' SLIP; DOUBLE 'S' SLIP; INSIDE SLIP JOINT; STANDING 'S'; STANDING 'S' ANGLE OR BAR REINFORCED; STANDING 'S' ALTERNATE; AND DRIVE SLIP JOINT FLANGED CONNECTION SYSTEMS MANUFACTURED BY DUCTMATE, NEXUS, WARD TDC (LOCK FORMER) AND TDF (ENGLE) MAY BE USED FOR BREAKAWAY CONNECTIONS WHERE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. APPROVED ROUND AND FLAT OVAL BREAKAWAY CONNECTIONS SHALL BE EITHER 4" WIDE DRAW BAND OR #10 SHEET METAL SCREWS, SPACED EQUALLY AROUND THE CIRCUMFERENCE OF THE DUCT IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. DO NOT BOLT, SCREW, RIVET, TACK WELD, ETC., DUCT CONNECTIONS TO THE DUCT-SLEEVE. SEAL DUCT CONNECTIONS WITH HARDCAST INC.,
7. DAMPER FRAME MAY BE OF DESIGN AND LENGTH AS TO FUNCTION AS THE SLEEVE IF SO TESTED AND LABELED BY UL. OTHERWISE, THE SLEEVE SHALL BE CONTINUOUS THROUGH THE WALL WITH ALL WELDED SEAMS AND SHALL EXTEND A MINIMUM DISTANCE BEYOND THE PLANES FORMED BY BOTH WALLS OR FLOOR ASSEMBLY. EQUAL TO THE WIDTH OF THE RETAINING ANGLES, BUT SHALL NOT BE GREATER THAN WALL WIDTH PLUS MOUNTING ANGLE DIMENSIONS PLUS 8".
8. THE SLEEVE GAUGE SHALL BE EQUAL TO OR HEAVIER THAN THE GAUGE OF THE DUCT AS DEFINED BY THE APPROPRIATE SMACNA DUCT CONSTRUCTION STANDARD. BUT THE SLEEVE SHALL BE NOT LESS THAN REQUIRED TO PROVIDE INSTALLATION EQUIVALENT TO THE DAMPER MANUFACTURER'S UL TEST AND INSTALLATION INSTRUCTIONS.
9. THE FIRE DAMPER SHALL BE BOLTED, SCREWED, RIVETED, OR TACK WELDED TO THE SLEEVE AND THE SPACING SHALL BE IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS.
10. THE SLEEVE-FIRE DAMPER ASSEMBLY SHALL BE THEN HELD IN PLACE IN THE WALL (OR FLOOR BY MOUNTING ANGLES, (MINIMUM OF 1-1/2" X 16 GAUGE, BUT NOT LESS THAN REQUIRED SLEEVE GAUGE AND MANUFACTURER'S INSTALLATION INSTRUCTIONS) ON BOTH SIDES OF WALL OR FLOOR ASSEMBLY. THESE MOUNTING ANGLES SHALL BE WELDED TO THE SLEEVE AT A SPACING IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. MOUNTING ANGLES SHALL OVERLAP THE WALL A MINIMUM OF ONE (1) INCH ON ALL SIDES AND SHALL NOT BE ATTACHED TO THE WALL.
11. WHEN MULTIPLE SECTIONS OF STEEL DAMPERS ARE JOINTED, THE CONNECTIONS SHALL BE ON BOTH SIDES OF DAMPER CURTAIN, AT A MAXIMUM DISTANCE OF 2" FROM ANY OF THE FOUR CORNERS AND A MAXIMUM SPACING OF 12" O.C. WITH A MINIMUM OF TWO CONNECTIONS IN EACH SIDE, TOP AND BOTTOM.
12. PROVIDE DUCT ACCESS DOORS AT ALL FIRE DAMPER LOCATIONS OF SUFFICIENT SIZE TO ALLOW EASY INSPECTION AND RESETTING OF DAMPER LINKAGES. PROVIDE CEILING ACCESS DOORS IN ALL GYP. BOARD, PLASTER, OF CONCEALED SPLINE CEILINGS TO SERVICE ALL REQUIRED DUCT ACCESS DOORS. PROVIDE ACCESS DOORS IN ALL WALLS OR FLOORS THAT BLOCK ACCESS TO DUCT DOOR PROVIDING ACCESS TO THE FIRE DAMPER. DUCT ACCESS FOR SMALL FIRE DAMPERS 6" SQUARE DIAMTER AND LESS, MAY BE PROVIDED BY MEANS OF REMOVABLE FLEXIBLE DUCT SUBJECT TO THE APPROVAL OF THE BUILDING CODE AUTHORITY HAVING JURISDICTION.
13. ALL FIRE DAMPERS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS AND IN ACCORDANCE WITH THE FOLLOWING: UL STANDARD 555 FIRE DAMPERS; UL STANDARD 555S SMOKE DAMPERS AND LABELED AS UL LEAKAGE CLASS 1; NFPA STANDARD 90A AND 90B; INTERNATIONAL BUILDING CODE, 2003 EDITION, AND THE INTERNATIONAL MECHANICAL CODE, 2003 EDITION.
13. COMBINATION FIRE AND SMOKE DAMPERS SHALL BE MULTIBLADE TYPE DAMPER CERTIFIED AND LABELED IN ACCORDANCE WITH UL 555 CLASSIFICATION AND UL 555S CLASSIFICATION AS LEAKAGE CLASS 15. DAMPER ASSEMBLY INSTALLATION SHALL BE PROVIDED IN ACCORDANCE WITH MANUFACTURER'S APPROVED INSTALLATION INSTRUCTIONS. DAMPERS SHALL BE FURNISHED BY THE MANUFACTURER WITH UL APPROVED DAMPER ACTUATOR AND FUSE LINK IN ACCORDANCE WITH SPECIFICATION SECTION 15800.
14. COMBINATION FIRE AND SMOKE DAMPERS SHALL BE MULTIBLADE TYPE DAMPER CERTIFIED AND LABELED IN ACCORDANCE WITH UL 555 CLASSIFICATION AND UL 555S CLASSIFICATION AS LEAKAGE CLASS 15. DAMPER ASSEMBLY INSTALLATION SHALL BE PROVIDED IN ACCORDANCE WITH MANUFACTURER'S APPROVED INSTALLATION INSTRUCTIONS. DAMPERS SHALL BE FURNISHED BY THE MANUFACTURER WITH UL APPROVED DAMPER ACTUATOR AND FUSE LINK IN ACCORDANCE WITH SPECIFICATION SECTION 15800.

9 FIRE DAMPER INSTALLATION NOTES
SCALE = NONE



1. BOLT AND WING NUT AT MAX. 3" O.C.
2. TACK WELD BOLT TO DUCT
3. PROVIDE GASKET BETWEEN DUCT AND ACCESS DOOR
4. HANDLE
5. INSULATE COVER AS REQUIRED BY DUCT INSULATION SPEC.
6. MIN. 20 GA FRAME WELDED TO DUCT
7. PRESSURE SENSITIVE LATCH FOR VACUUM RELEASE
8. RETAINER CHAIN
9. MIN. 22 GA GALV. STEEL FRAME
10. FRAME SECURED TO DUCT WITH 5/8" NOTCHED KNOCK-OVER EDGES ON ALL SIDES
11. CONTINUOUS HINGE
12. CAM LATCH
13. MIN. 22 GA DOOR

W X L	ROUND DUCT DIAMETER	FLAT OVAL DUCT	
		MAJOR AXIS WHEN MOUNTED ON MAJOR AXIS	MINOR AXIS WHEN MOUNTED ON MAJOR AXIS
8" X 12"	8" - 12"	8" - 16"	8" - 11"
12" X 12"	13" X 18"	17" - 24"	12" - 13"
14" X 20"	19" +	25" +	14" +

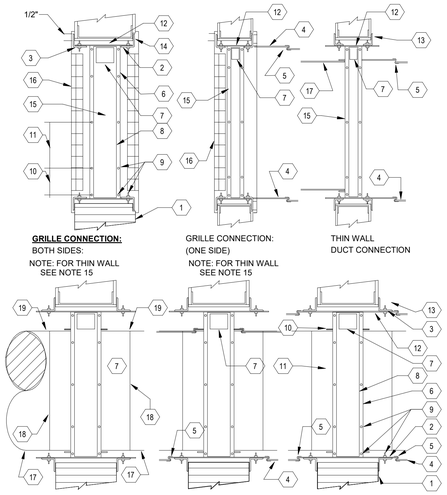
ROUND OR FLAT OVAL DUCT, 8" +

DUCT DIMENSION ON WHICH ACCESS DOOR IS PLACED	OUTSIDE FRAME W X L
6" - 8"	5" X 12"
9" - 12"	8" X 8"
13" - 15"	12" X 12"
16" - 33"	14" X 14"
34" - 66"	(2) 14" X 14"
67" +	(3) 14" X 14"

RECTANGULAR DUCTS

NOTE:
DUCT ACCESS DOORS SHALL BE PROVIDED AT EACH FIRE DAMPER, SMOKE DAMPER, DUCT MOUNTED EQUIPMENT, AND AS REQUIRED FOR DUCT CLEANING AND INSPECTION

8 DUCT ACCESS DOOR DETAIL
SCALE = NONE



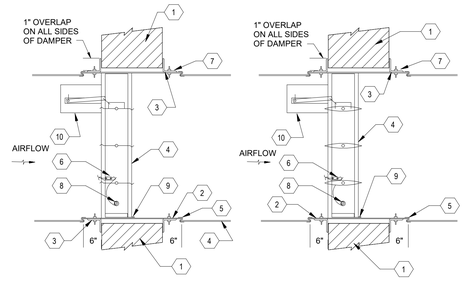
1. WALL (OR FLOOR)
2. SLEEVE - SEE INSTALLATION NOTES THIS SHEET
3. MOUNTING ANGLES CONTINUOUS AROUND SLEEVE WITH WELDED JOINTS
4. SQUARE OR RECTANGULAR DUCT
5. BREAKAWAY DUCT CONNECTION
6. FIRE DAMPER FRAME
7. FIRE DAMPER CURTAIN TYPE SQUARE OF RECTANGULAR
8. CURTAIN TRACT
9. BOLT, SCREW, RIVET, OR TACK WELDED CONNECTION
10. CORNER SPACING PER INSTALLATION INSTRUCTION
11. INTERMEDIATE SPACING PER INSTALLATION INSTRUCTION
12. 1/8" PER LINEAR FOOT BOTH DIMENSIONS, AND 1/4" MINIMUM
13. 1" MINIMUM OVERLAP OF STRUCTURAL OPENING
14. ALTERNATE MOUNTING ANGLE METHOD AS REQUIRED BY GRILLE
15. MAXIMUM WIDTH 1-7/8" RUSKIN MODEL IBDT OR APPROVED EQUAL

GRILLE OR REGISTER WITH A MIN. 1/2" OVERLAP. GRILLE OR REGISTER SHALL BE STEEL MINIMUM 26 GAGE FRAME THICKNESS AND SHALL NOT BE ATTACHED DIRECTLY TO WALL

16. ROUND OR OVAL DUCT
17. ROUND OR OVAL DUCT COLLAR FURNISHED WITH RECTANGULAR DAMPER ASSEMBLY

ROUND OR OVAL DUCT BREAKAWAY CONNECTION WITH EITHER DRAWBAND OR SHEET METAL SCREWS IN ACCORDANCE WITH MANUFACTURERS INSTALLATION INSTRUCTIONS.

11 FIRE DAMPER DETAIL - CURTAIN TYPE
SCALE = NONE



1. WALL OR FLOOR
2. SLEEVE - SEE INSTALLATION NOTES, THIS SHEET
3. MOUNTING ANGLES CONTINUOUS AROUND SLEEVE WITH MINIMUM 1" OVERLAP
4. SQUARE OR RECTANGULAR DAMPER FRAME FOR ROUND OR OVAL DUCTS, PROVIDE DUCT TRANSITION
5. BREAKAWAY DUCT CONNECTION - SEE INSTALLATION NOTES
6. FIRE DAMPER FUSIBLE LINK (NOT REQUIRED FOR COMBINATION FIRE/SMOKE DAMPERS OR SMOKE DAMPERS)
7. 1/4" MINIMUM EXPANSION CLEARANCE - SEE INSTALLATION NOTES
8. NEGATIVE SPRING (NOT REQUIRED FOR COMBINATION FIRE/SMOKE DAMPER OR SMOKE DAMPERS)
9. APPROVED CAULKING MATERIAL IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS
10. U.L. APPROVED DAMPER ACTUATOR ASSEMBLY WITH MOUNTING BRACKET, ELECTRIC FUSE LINK, AND OPERATING JACK SHAFT LINKAGE. DAMPER ACTUATOR SHALL BE MOUNTED ON DUCT OUTSIDE AIR STREAM

* FUSIBLE ROD IS NOT REQUIRED FOR SMOKE DAMPER APPLICATION

10 FIRE DAMPER, SMOKE DAMPER, AND COMBINATION FIRE SMOKE DAMPER DETAILS
SCALE = NONE

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ARCHITECT

Dzilth-Na-O-Dith-Hle - New Dormitory Building

PRICING SET

35 Road 7585, Bloomfield, NM 87413

NOVEMBER 10, 2020

MARK	DATE	DESCRIPTION

ISSUE:	
DATE:	
PROJECT NO:	751
CAD DWG FILE:	
DRAWN BY:	LMD
CHECKED BY:	IM

SHEET TITLE

MECHANICAL DETAILS

M-501

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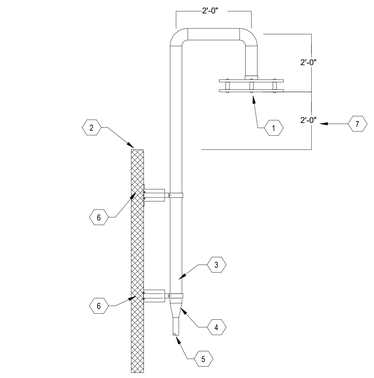
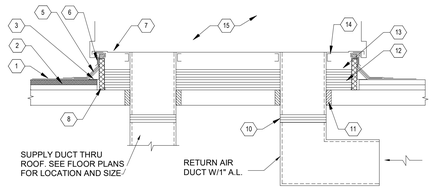


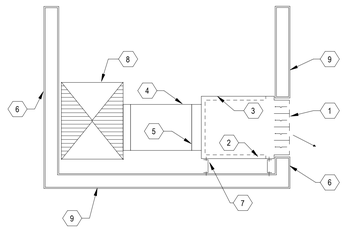
1. STATIC OUTSIDE AIR PROBE.
2. TOP OF WALL
3. 2" PIPE
4. 2"x1/2" REDUCER
5. 1/2" PIPE CONNECTED TO THE BUILDING STATIC PRESSURE REFERENCE PORTS. SEE CONTROLS.
6. UNI-STRUT & PIPE CLAMP. ANCHOR TO WALL.
7. S.O.A.P STATION TO BE LOCATED 2 FT ABOVE TOP OF WALL

3 S.O.A.P. DETAIL
SCALE = NONE



1. LIGHTWEIGHT PUMICE CONCRETE CRICKET
2. RIGID INSULATION, VERIFY THICKNESS
3. NEW FIBROUS CANT STRIP
4. REPLACE ROOFING BENEATH UNIT WITH LIKE MATERIAL
5. FLASHING
6. COUNTERFLASHING
7. SEAL STRIP
8. ROOF CURB FOR EQUIPMENT
9. EQUIPMENT SUPPORT CURB AS REQUIRED
10. FLEX DUCT CONNECTOR
11. SEAL SPACE BETWEEN DUCT AND ROOF OPENING WITH 3 LB DENSITY FIBERGLASS
12. 4 LAYERS OF 1/2" GYPBOARD BELOW UNIT ON ROOF DECK (CONTINUOUS)
13. INSTALL 4 LAYERS OF 1", 3 LB DENSITY FIBERGLASS DUCT BOARD BETWEEN UNIT AND GYPBOARD (CONTINUOUS)
14. INSTALL RUBBER GASKETS BETWEEN DUCT FLANGE AND UNIT
15. WHERE COMPRESSOR SECTION IS OUTSIDE OF CURB, A SIMILAR SOUND ATTENUATION ENCLOSURE BELOW COMPRESSORS SHALL BE PROVIDED. THE CONTRACTOR SHALL SUBMIT DRAWINGS FOR PROPOSED METHOD, FOR APPROVAL, PRIOR TO INSTALLATION

6 ROOF CURB DETAIL
SCALE = NONE

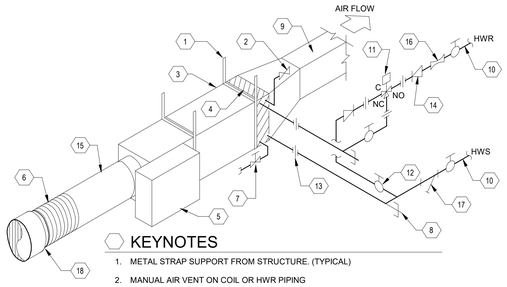


1. SLOT DIFFUSER, SEE PLANS FOR NUMBER OF SLOTS AND LENGTH
2. INTERNAL INSULATION
3. FACTORY PLENUM
4. BRANCH RUNOUT, SEE PLANS FOR SIZE
5. INLET SIZE, PER SCHEDULE
6. SOFFIT, SEE ARCH. DWGS. FOR CONSTRUCTION
7. PLENUM SUPPORT MOUNTED PLENUM AND ARCH. FRAMING
8. SUPPLY DUCT, SEE PLANS FOR SIZE
9. ARCHITECTURAL ENCLOSURE, SEE ARCH DWGS.

NOTE:

R.A. SLOTS SIMILAR, EXCEPT NO FLEX DUCT CONNECTION OR PLENUM REQUIRED

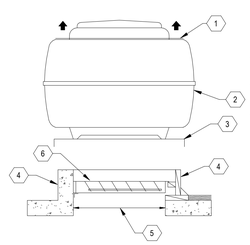
9 SIDEWALL LINEAR DIFFUSER DETAIL
SCALE = NONE



KEYNOTES

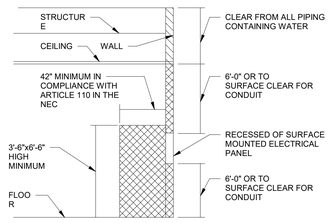
1. METAL STRAP SUPPORT FROM STRUCTURE. (TYPICAL)
2. MANUAL AIR VENT ON COIL OR HWR PIPING
3. FACTORY FABRICATED SOUND ATTENUATOR
4. HOT WATER COIL
5. CONTROLS ENCLOSURE
6. HIGH VELOCITY FLEXIBLE SUPPLY DUCT 12" MIN., 24" MAX.
7. DRAIN
8. TEMPERATURE-PRESSURE FITTING (TYP.)
9. LOW VELOCITY DUCTWORK TO DISTRIBUTION
10. REFER TO PLANS FOR PIPE SIZES
11. 3-WAY CONTROL VALVE
12. BALL VALVE (TYP)
13. UNION (TYP)
14. REDUCER (TYP)
15. HIGH VELOCITY RIGID SUPPLY DUCT, 3 FT. MINIMUM STRAIGHT RUN PRIOR TO TERMINAL UNIT CONNECTION. SEE SCHEDULE FOR VALVE AND DUCT SIZE
16. FLOW BALANCING VALVE, SEE SPEC. SECTION 15080
17. STRAINER
18. TRANSITION FROM 2" LARGER DUCT DIAMETER THAN VALVE CONNECTION

11 SINGLE DUCT VAV TERMINAL UNIT WITH REHEAT COIL (3-WAY)
SCALE = NONE

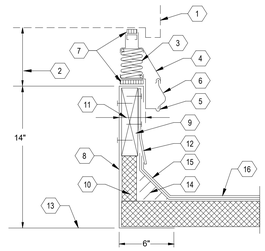


1. REMOVABLE BIRDSCREEN
2. TOP DISCHARGE POWER ROOF EXHAUSTER
3. INTETGRAL CURB CAP SECURE AND CAULK TO CURB
4. FACTORY CURB SECURELY ANCHORED TO ROOF OR AS SHOWN ON ARCHITECTURAL DRAWINGS. FLASH AND COUNTERFLASH
5. ROOF OPENING - MIN 1" LARGER THAN DUCT SIZE AS SHOWN ON PLANS
6. BACKDRAFT DAMPER

2 UP-BLAST POWER ROOF EXHAUSTER DETAIL
SCALE = NONE

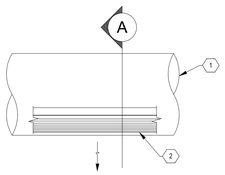


5 CLEARANCE REQUIREMENTS AT ELECTRICAL PANELS
SCALE = NONE



1. ROOFTOP UNIT, SEE EQUIPMENT 8 SCHEDULE. VERIFY UNIT BASE DIMENSIONS AND WEIGHT PRIOR TO FABRICATING MOUNTING CURB OR VIBRATION ISOLATOR BASE
2. SPRING VIBRATION ISOLATOR BASE, SEE EQUIPMENT SCHEDULE. ISOLATOR BASE SHALL MATCH ROOFTOP UNIT AND TO INCLUDE ITEMS LISTED IN KEYED NOTES 3, 4, 5, 6, AND 7 BELOW
3. STEEL SPRING ISOLATORS WITH RETAINERS
4. UPPER ALUMINUM SUPPORT MEMBER, CONTINUOUS
5. LOWER ALUMINUM MOUNTING MEMBER, CONTINUOUS
6. NEOPRENE WEATHER SEAL, CONTINUOUS
7. WEATHERPROOF SEAL, CONTINUOUS
8. 14 GA. GALV. STEEL ROOF MOUNTING FRAME CONTINUOUS AROUND PERIMETER OF ROOFTOP UNIT WITH MITERED CORNERS AND WELDED FOR WATERTIGHT SEAL
9. 2x6 NAILER STRIP, CONTINUOUS
10. 2" THICK RIGID INSULATION
11. 2-3/16", VERIFY TO SUIT VIBRATION BASE
12. 20 GA. GALV. STEEL COUNTERFLASH, CONTINUOUS
13. ROOF DECK, SEE ARCHITECTURAL AND STRUCTURAL FOR ROOF TYPE
14. FIBER CANT STRIP, BY OTHERS
15. FLASHING, BY OTHERS
16. ROOFING, SEE ARCHITECTURAL FOR TYPE

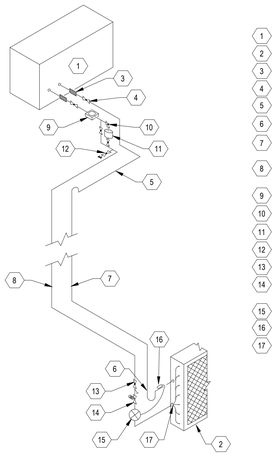
8 SPRING ISOLATED CURB DETAIL
SCALE = NONE



SECTION A

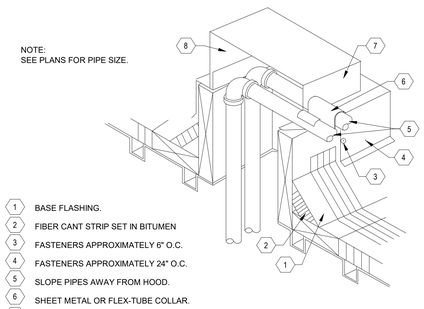
1. ROUND SUPPLY DUCT. SIZE PER PLAN.
2. PRICE MODEL SDS LINEAR SUPPLY DIFFUSER WITH FRAME TYPE 16 FOR MOUNTING DIRECTLY TO SPIRAL DUCT. MOUNT 45 DEGREES FROM CENTER, ANGLED DOWN. DIFFUSER SHALL BE BRUSHED METAL FINISH.
3. LOAD-RATED FASTENERS
4. THREADED ROD HANGER

1 EXPOSED DUCT SUPPORT WITH LINEAR DIFFUSERS
SCALE = NONE



1. ROOF MOUNTED CONDENSING UNIT
2. DIRECT EXPANSION (DX) COIL
3. FLEXIBLE CONNECTION
4. GLOBE VALVE
5. SWING JOINT
6. TRAP, 6" MIN. 12" MAX.
7. INSULATED SUCTION LINE, SEE FLOOR PLAN FOR SIZE
8. INSULATED LIQUID LINE, SEE FLOOR PLAN FOR SIZE
9. SIGHT GLASS
10. ANGLE VALVE
11. FILTER
12. LIQUID CHARGING VALVE
13. STRAINER
14. SOLENOID VALVE TO BE LOCATED AS CLOSE TO EXPANSION VALVE AS POSSIBLE
15. EXPANSION VALVE
16. REMOTE BULB
17. DISTRIBUTION NOZZLE

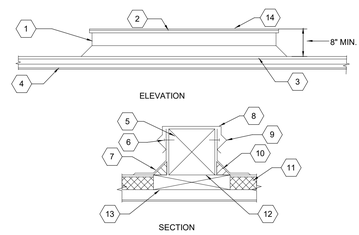
4 DX COIL PIPING SCHEMATIC
SCALE = NONE



NOTE:
SEE PLANS FOR PIPE SIZE.

1. BASE FLASHING.
2. FIBER CANT STRIP SET IN BITUMEN
3. FASTENERS APPROXIMATELY 6" O.C.
4. FASTENERS APPROXIMATELY 24" O.C.
5. SLOPE PIPES AWAY FROM HOOD.
6. SHEET METAL OR FLEX-TUBE COLLAR.
7. SHEET METAL HOOD.
8. INSULATE INSIDE OF METALWORK IN COLD CLIMATES.

7 PIPING THRU ROOF DETAIL
SCALE = NONE



1. LOCATE SKIDS FOR SECURE EQUIPMENT SUPPORT.
2. SKID SHALL SPAN TWO BEAMS MINIMUM.
3. INSTALL SKIDS PERPENDICULAR TO ROOF BEAMS.
4. ROOF. SEE ARCHITECTURAL DWGS.
5. 8"x8" TREATED REDWOOD SKID
6. FASTENERS AT 8" O.C.
7. BASE FLASHING
8. 20 GAUGE GALVANIZED SHEET METAL CAP
9. COUNTERFLASHING WITH FASTENERS 24" O.C.
10. FIBER CANT STRIP. SET IN BITUMEN
11. ROOF INSULATION. SEE ARCH. DWGS.
12. MOP SKID IN PLACE WITH HOT ASPHALT TAR OR AS DIRECTED BY ARCH.
13. BLOCKING. ANCHOR SECURELY TO ROOF DECK, SAME THICKNESS AS ROOF INSULATION.
14. SET SKIDS TO BE LEVEL WHEN INSTALLED ON SLOPING ROOF.

10 ROOF SKID DETAIL
SCALE = NONE

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ARCHITECT

Dzilth-Na-O-Dith-Hle - New Dormitory Building

PRICING SET

35 Road 7585, Bloomfield, NM 87413

NOVEMBER 10, 2020

MARK	DATE	DESCRIPTION

ISSUE:	
DATE:	
PROJECT NO:	751
CAD DWG FILE:	
DRAWN BY:	LMD
CHECKED BY:	IM

SHEET TITLE

MECHANICAL DETAILS

M-502

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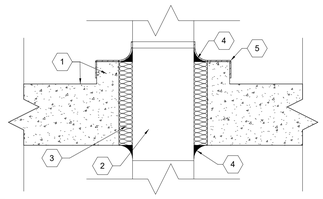
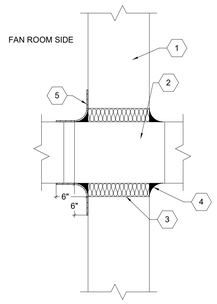
Bridgers & Paxton Project No. 8226



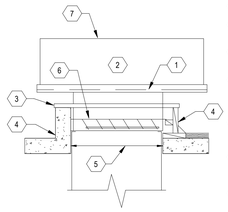
1. CONCRETE PENTHOUSE FLOOR AND 4" CONCRETE CURB AROUND DUCT PENETRATION.
2. DUCT - POSITIONED SUCH THAT THERE IS NO PHYSICAL CONTACT BETWEEN THE DUCT AND THE FLOOR. ENSURE GAP OF 1/2" TO 5/8" ON ALL SIDES.
3. FIBERGLASS OR MINERAL WOOL TYPE INSULATION.
4. NON-HARDENING RESILIENT CAULK - CONTINUOUS.
5. MASS LOADED VINYL SIMILAR TO KINETICS KNM 100RB WITH A SURFACE DENSITY OF NO LESS THAN 1.0 LB/SQ-FT. ADHERE TO THE DUCT AND ADJACENT CONCRETE WITH AN ADHESIVE RECOMMENDED BY THE VINYL MANUFACTURER.

4 PENTHOUSE FLOOR DUCT PENETRATION DETAIL
SCALE = NONE



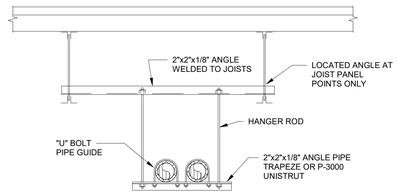
1. FAN ROOM WALL - REFER TO ARCHITECTURAL DRAWINGS FOR CONSTRUCTION TYPE.
2. DUCT POSITIONED SUCH THAT THERE IS NO PHYSICAL CONTACT BETWEEN THE DUCT AND THE WALL. ENSURE A GAP OF $1\frac{1}{2}$" TO $\frac{5}{8}$" ON ALL SIDES.
3. FIBERGLASS OR MINERAL WOOL TYPE INSULATION.
4. NON-HARDENING RESILIENT CAULK - CONTINUOUS.
5. MASS LOADED VINYL SIMILAR TO KINETICS KNM 100RB WITH A SURFACE DENSITY OF NO LESS THAN 1.0 LB/SQ-FT. ADHERE TO THE DUCT AND ADJACENT WALL WITH AN ADHESIVE RECOMMENDED BY THE VINYL MANUFACTURER.

3 FAN ROOM WALL PENETRATION DETAIL
SCALE = NONE



1. BIRDSCREEN
2. LOW PROFILE EXH./RELIEF VENTILATOR
3. INTEGRAL CURB CAP. SECURE AND CAULK TO ROOF CURB
4. FACTORY CURB SECURELY ANCHORED TO ROOF OR AS SHOWN ON ARCH. DRAWINGS. FLASH AND COUNTER FLASH.
5. ROOF OPENING - 1" LARGER THAN DUCT SIZE AS SHOWN ON PLANS
6. BACKDRAFT OR MOTORIZED DAMPER WHERE REQUIRED. SEE PLANS & EQUIP. SCHED.
7. INSTALL UNIT PER MANUFACTURER'S INSTRUCTIONS.

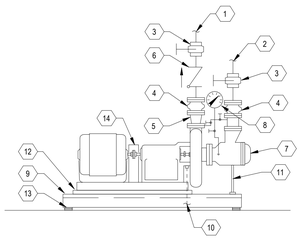
2 RELIEF VENTILATOR DETAIL
SCALE = NONE



NOTES:

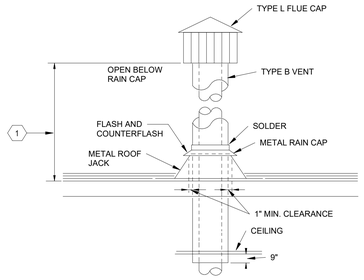
1. 5 PROVIDE SHEET METAL SLEEVE AROUND PIPE INSULATION AT ALL PIPE HANGERS. SEE SPECS. FOR INSULATION
2. "U" BOLTS SHALL BE USED AS GUIDES ONLY, NOT ANCHORS.
3. "U" BOLTS SHALL BE ON EVERY THIRD TRAPEZE (MIN.)
4. DO NOT TIGHTEN "U" BOLTS ON PIPING OR INSULATION, LEAVE LOOSE AS PIPE GUIDE.

1 PIPE HANGER DETAIL
SCALE = NONE



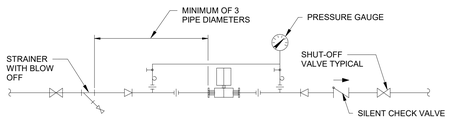
1. DISCHARGE PIPING
2. SUCTION PIPING
3. BUTTERFLY VALVE, 2-1/2" AND LARGER BALL VALVE, 2" AND SMALLER
4. FLEXIBLE COUPLING
5. INCREASER
6. SILENT CHECK VALVE
7. SUCTION DIFFUSER WITH STRAINER
8. COMPOUND PRESSURE GAUGE WITH GAUGE COCKS
9. 4" THICK CONCRETE PAD
10. 1/2" DRAIN LINE FROM MECHANICAL SEAL PUMPS WHICH HAVE A DRAIN FITTING AND ALL PUMPS WITH STUFFING BOXES TO NEAREST F.D.
11. ADJUSTABLE SUPPORT LEG
12. ANCHOR PUMP BASE TO CONCRETE PAD WITH HILTI OR REDHEAD ANCHORS. WHEN REQUIRED, THE MOTOR FOUNDATION SHOULD BE ELEVATED TO AVOID INTERFERENCE BETWEEN THE PUMP CASING AND THE CONCRETE BASE
13. 1" THICK RUBBER AND CORK PADS SIZED AT 50 LBS/SQ.IN. SEE EQUIPMENT SCHEDULE FOR VIBRATION ISOLATOR REQUIREMENTS.
14. FLEXIBLE COUPLING GUARD.

8 PUMP AND BASE DETAIL
SCALE = NONE

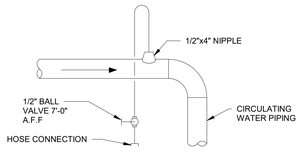


1. FLUE HEIGHT SHALL BE NO LESS THAN 3'-0" ABOVE THE HORIZONTAL ROOF PLANE. SHOULD ANY OBSTRUCTION WITHIN A 10 FOOT RADIUS OF THE FLUE PROJECT ABOVE THE HORIZONTAL ROOF PLANE, THE FLUE SHALL EXTEND TO 3'-0" ABOVE THE OBSTRUCTION. OBSTRUCTIONS INCLUDE BUT ARE NOT LIMITED TO ITEMS SUCH AS PARAPETS, WALLS, AIR INTAKES, AND ROOF SLOPES.

7 FLUE THRU ROOF DETAIL
SCALE = NONE

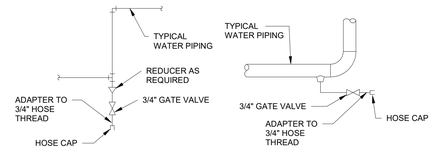


6 IN-LINE PUMP DETAIL
SCALE = NONE



VENT ALL HIGH POINTS IN PIPING SYSTEM

5 MANUAL AIR VENT DETAIL
SCALE = NONE



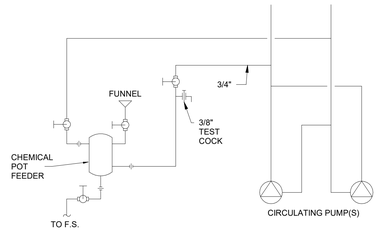
ELEVATION
THREADED PIPE

ELEVATION
WELDED PIPE

NOTES:

1. DRAIN ALL LOW POINTS OF PIPING
2. DRAIN ALL SCALE POCKETS AS SHOWN ON PLANS AND/OR PIPING DIAGRAMS

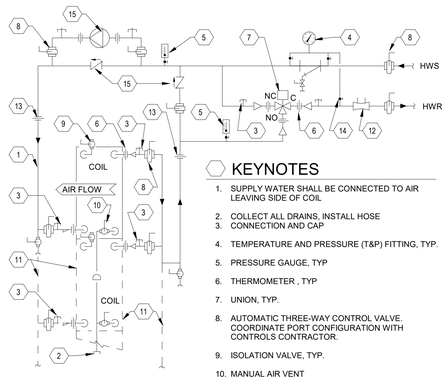
11 DRAIN VALVE DETAIL
SCALE = NONE



NOTE:

1. INSTALL TOP OF CHEMICAL POT FEEDER NOT MORE THAN 3'-0" ABOVE FLOOR.
2. MOUNT FEEDER(S) ON STEEL SUPPORT BRACKET ADJACENT TO PUMP(S).
3. REFER TO PIPING SCHEMATIC FOR EQUIPMENT NUMBER.

10 CHEMICAL POT FEEDER DETAIL
SCALE = NONE



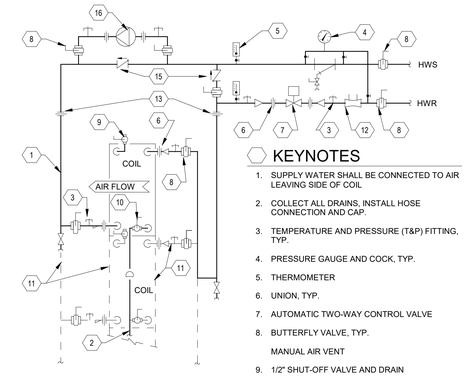
KEYNOTES

1. SUPPLY WATER SHALL BE CONNECTED TO AIR LEAVING SIDE OF COIL
2. COLLECT ALL DRAINS, INSTALL HOSE CONNECTION AND CAP
3. CONNECTION AND CAP
4. TEMPERATURE AND PRESSURE (T&P) FITTING, TYP.
5. PRESSURE GAUGE, TYP
6. THERMOMETER , TYP
7. UNION, TYP.
8. AUTOMATIC THREE-WAY CONTROL VALVE, COORDINATE PORT CONFIGURATION WITH CONTROLS CONTRACTOR.
9. ISOLATION VALVE, TYP.
10. MANUAL AIR VENT
11. 1/2" SHUT-OFF VALVE AND DRAIN
12. DASHED PIPING AND COILS INDICATE TYPICAL PIPING REQUIREMENTS FOR MULTIPLE COILS
13. **[FLOW BALANCE VALVE] [AUTOMATIC FLOW LIMITING VALVE].** SEE SPECIFICATIONS.
14. UNION OR FLANGE. INSTALL SO AS TO ALLOW REMOVAL OF COIL WITHOUT MAJOR REMOVAL OF PIPING.
15. GAUGE COCK, TYP.
16. PIPE DRAINAGE FOR FREEZE PROTECTION. SEE EQUIPMENT SCHEDULE FOR SIZE AND CONTROL DRAWINGS FOR SEQUENCE OF OPERATION.

NOTE:

- PROVIDE MANUAL AIR VENTS AT ALL HIGH POINTS IN SYSTEM. SEE MANUAL AIR VENT DETAIL
- SEE PLANS AND/OR PIPING SCHEMATIC FOR PIPE SIZES.
- T&P FITTINGS INSTALLED IN PIPING 2" AND SMALLER SHALL BE INSTALLED IN ELBOW OR IN THE BRANCH SIDE OF A 2" TEE.
- DRAIN VALVE AT ALL LOW POINTS OF PIPING. SEE DRAIN VALVE DETAIL

9 HOT WATER COIL PIPING SCHEMATIC (3-WAY)
SCALE = NONE



KEYNOTES

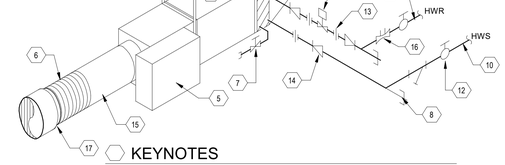
1. SUPPLY WATER SHALL BE CONNECTED TO AIR LEAVING SIDE OF COIL
2. COLLECT ALL DRAINS, INSTALL HOSE CONNECTION AND CAP.
3. TEMPERATURE AND PRESSURE (T&P) FITTING, TYP.
4. PRESSURE GAUGE AND COCK, TYP.
5. THERMOMETER
6. UNION, TYP.
7. AUTOMATIC TWO-WAY CONTROL VALVE
8. BUTTERFLY VALVE, TYP.

   MANUAL AIR VENT
9. 1/2" SHUT-OFF VALVE AND DRAIN
10. DASHED PIPING AND COILS INDICATE TYPICAL PIPING REQUIREMENTS FOR MULTIPLE COILS
11. **[FLOW BALANCE VALVE] [AUTOMATIC FLOW LIMITING VALVE].** SEE SPECIFICATIONS. NOT REQUIRED IF PRESSURE-INDEPENDENT CONTROL VALVE IS SPECIFIED.
12. UNION OR FLANGE. INSTALL SO AS TO ALLOW REMOVAL OF COIL WITHOUT MAJOR REMOVAL OF PIPING.
13. GAUGE COCK, TYP.
14. CHECK VALVE
15. IN-LINE PUMP FOR FREEZE PROTECTION. SEE EQUIPMENT SCHEDULE FOR SIZE AND CONTROL DRAWINGS FOR SEQUENCE OF OPERATION.

NOTES

- PROVIDE MANUAL AIR VENTS AT ALL HIGH POINTS IN SYSTEM. SEE MANUAL AIR VENT DETAIL
- SEE PLANS AND/OR PIPING SCHEMATIC FOR PIPE SIZES.
- T&P FITTINGS INSTALLED IN PIPING 2" AND SMALLER SHALL BE INSTALLED IN ELBOW OR IN THE BRANCH SIDE OF A 2" TEE.
- DRAIN VALVE AT ALL LOW POINTS OF PIPING. SEE DRAIN VALVE DETAIL

13 HOT WATER COIL PIPING SCHEMATIC (2-WAY)
SCALE = NONE



KEYNOTES

1. METAL STRAP SUPPORT FROM STRUCTURE (TYPICAL)
2. MANUAL AIR VENT ON COIL OR HWR PIPING
3. FACTORY FABRICATED SOUND ATTENUATOR
4. HOT WATER COIL
5. CONTROLS ENCLOSURE
6. HIGH VELOCITY FLEXIBLE SUPPLY DUCT 12" MIN., 24" MAX.
7. DRAIN
8. TEMPERATURE-PRESSURE FITTING (TYP.)
9. LOW VELOCITY DUCTWORK TO DISTRIBUTION
10. REFER TO PLANS FOR PIPE SIZES
11. 2-WAY CONTROL VALVE, NORMALLY CLOSED. FAIL TO COOL
12. BALL VALVE (TYP)
13. UNION (TYP)
14. REDUCER (TYP)
15. HIGH VELOCITY RIGID SUPPLY DUCT, 3 FT. MINIMUM STRAIGHT RUN PRIOR TO TERMINAL UNIT CONNECTION. SEE SCHEDULE FOR VALVE AND DUCT SIZES
16. FLOW BALANCING VALVE, OR FLOW LIMITING VALVE, SEE SPECIFICATIONS
17. TRANSITION FROM 2" LARGER DUCT DIAMETER THAN VALVE CONNECTION SIZE

12 SINGLE DUCT VAV TERMINAL UNIT WITH REHEAT COIL (2-WAY)
SCALE = NONE

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ARCHITECT

Dzilth-Na-O-Dith-Hle - New Dormitory Building

PRICING SET

35 Road 7585, Bloomfield, NM 87413

NOVEMBER 10, 2020

MARK	DATE	DESCRIPTION

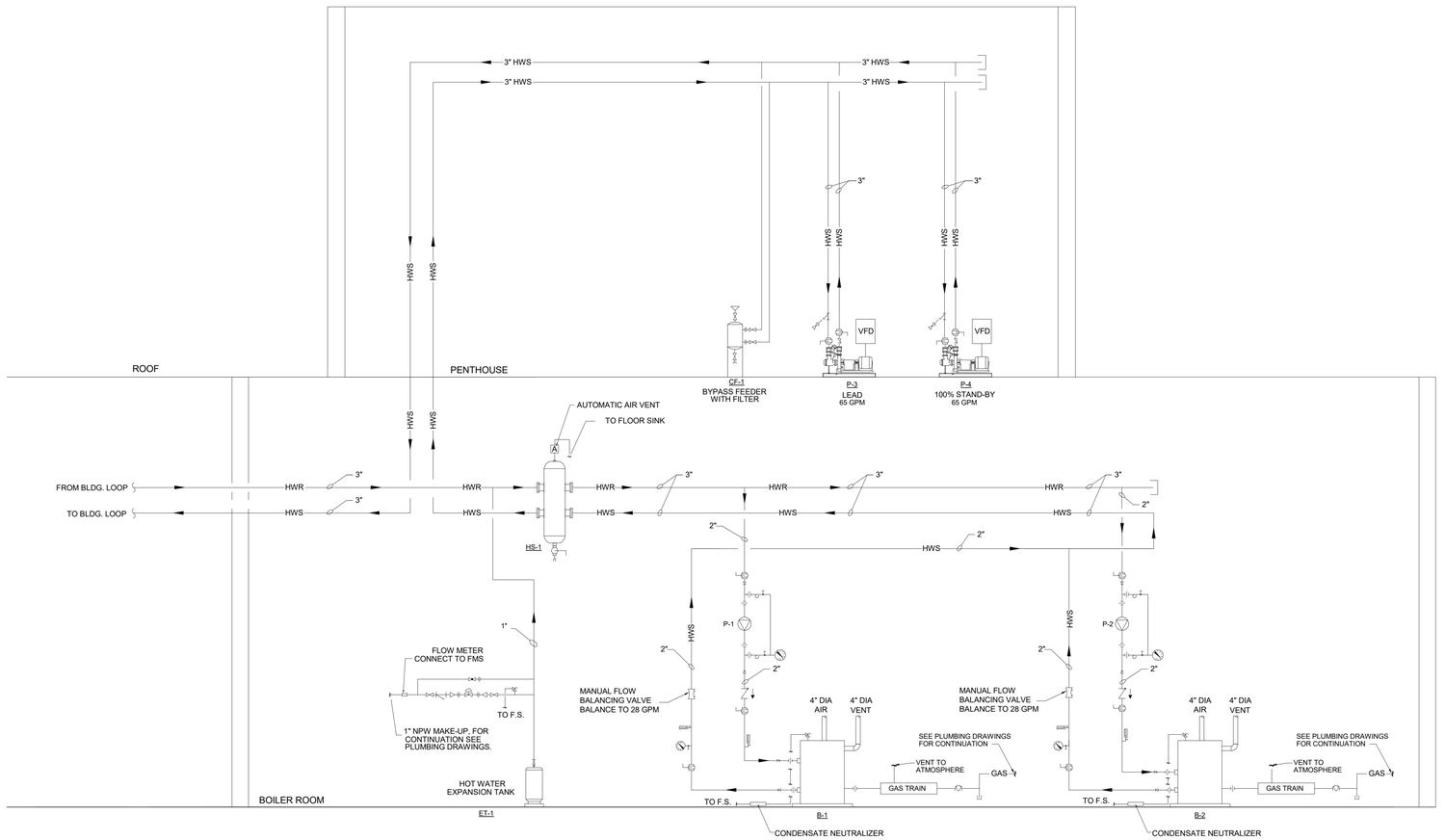
ISSUE:	
DATE:	
PROJECT NO:	751
CAD DWG FILE:	
DRAWN BY:	NZ
CHECKED BY:	IM

SHEET TITLE

MECHANICAL DETAILS

M-503

Bridgers & Paxton Project No: 8226 11/9/2020 7:09:40 PM D:\Revit 2019\Projects\8226_DCS Dorm_MEP_nav\2003zh.rvt



1 MECH PIPING DIAGRAM

NO SCALE

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Dzilth-Na-O-Dith-Hle - New Dormitory Building

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NOVEMBER 10, 2020

MARK	DATE	DESCRIPTION

ISSUE:	
DATE:	
PROJECT NO:	751
CAD DWG FILE:	
DRAWN BY:	NZ
CHECKED BY:	IM

SHEET TITLE

MECHANICAL DIAGRAMS

M-601

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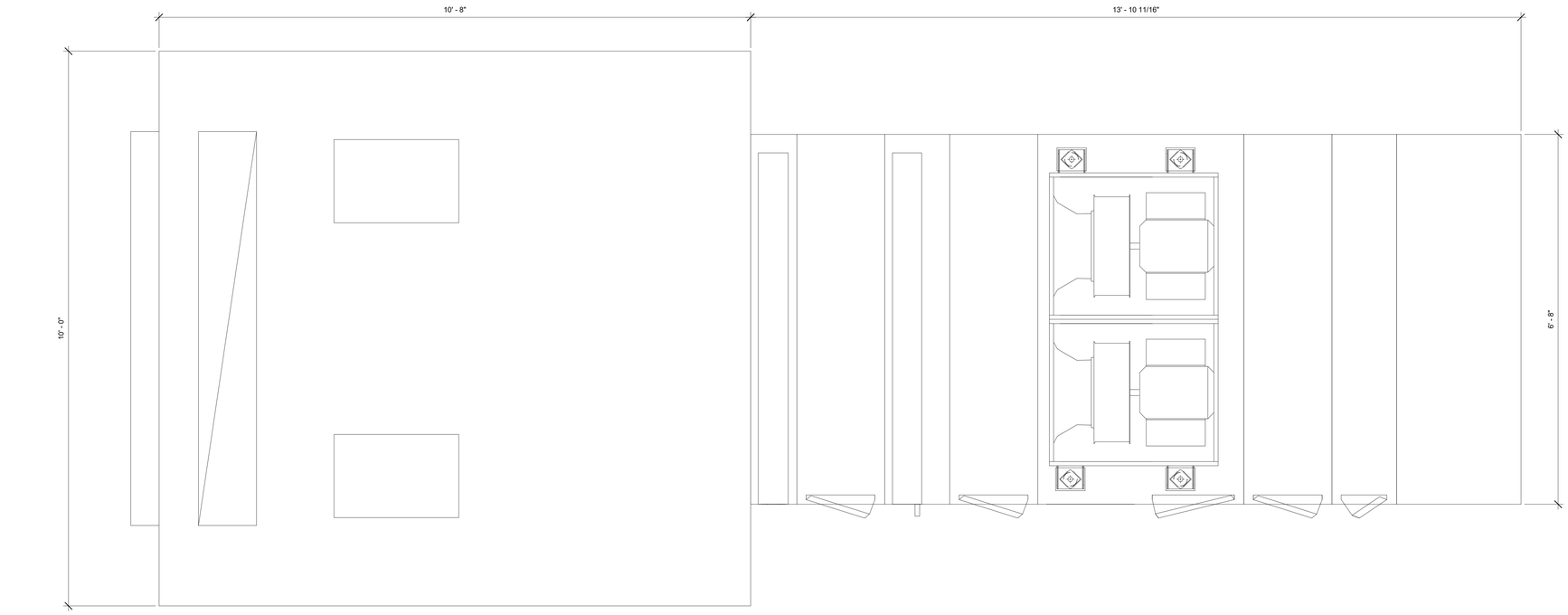
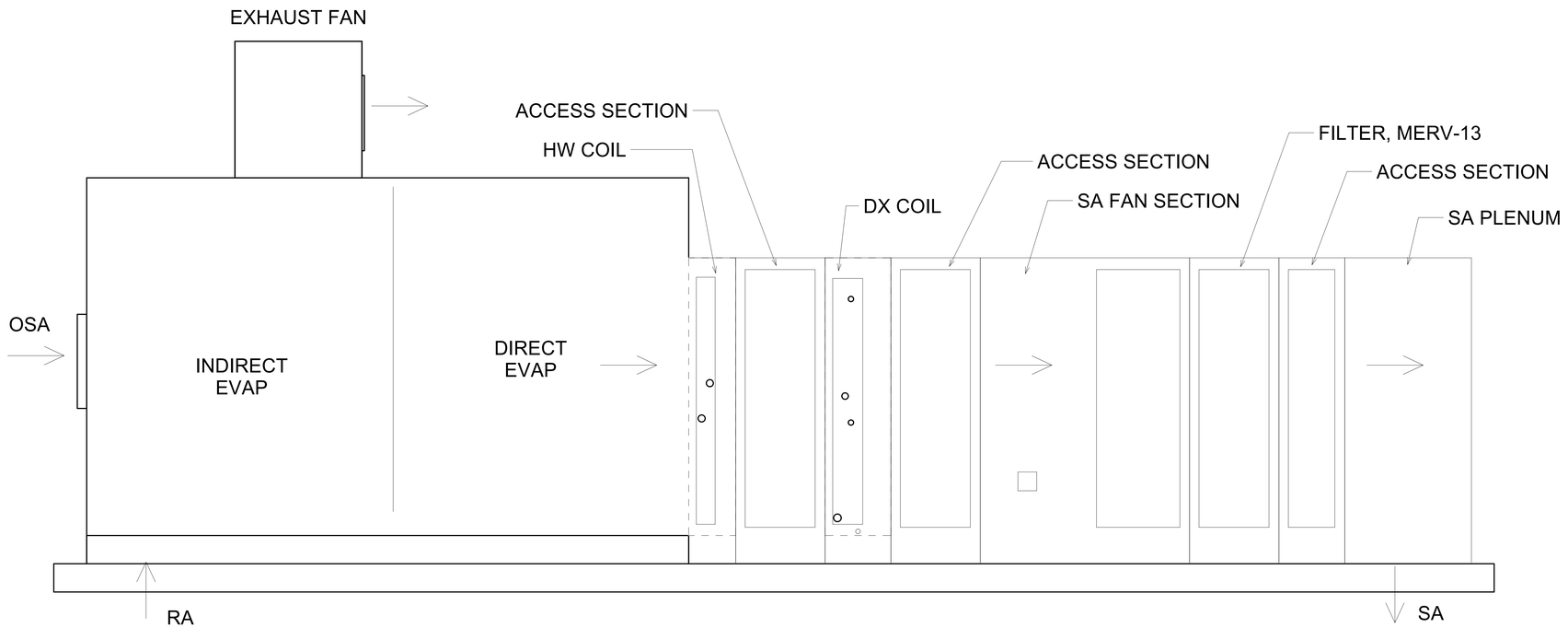


2 AHU-1 SECTIONS (TOP VIEW)
1" = 1'-0"



1 AHU-1 SECTIONS (SIDE VIEW)
1" = 1'-0"

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Dzilth-Na-O-Dith-Hle - New Dormitory Building

PRICING SET

35 Road 7585, Bloomfield, NM 87413

NOVEMBER 10, 2020

MARK	DATE	DESCRIPTION

ISSUE:	
DATE:	
PROJECT NO:	751
CAD DWG FILE:	
DRAWN BY:	NZ
CHECKED BY:	IM

SHEET TITLE

MECHANICAL DIAGRAMS

M-602

Dzilth-Na-O-Dith-Hle - New Dormitory Building
Bridgers & Paxton Project No: 8226
11/9/2020 6:54:05 PM
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INSTRUMENTATION SOCIETY OF AMERICA TABLE

	FIRST LETTER		SUCCEEDING LETTERS		
	MEASURING OR INITIATING VARIABLE	MODIFIER	READOUT OR PASSIVE FUNCTION	OUTPUT FUNCTION	MODIFIER
A	ANALYSIS		ALARM		
B	BURNER FLAME		USER CHOICE	USER CHOICE	USER CHOICE
C	CONDUCTIVITY			CONTROL (13)	
D	DENSITY	DIFFERENTIAL			
E	VOLTAGE		SENSOR PRIMARY ELEMENT		
F	FLOW RATE	RATIO FRACTION			
G	GAUGE		GLASS, VIEWING DEVICE		
H	HAND				HIGH
I	CURRENT		INDICATE		
J	POWER	SCAN			
K	TIME	TIME RATE OF CHANGE		CONTROL STATION	
L	LEVEL		LIGHT		LOW
M	MOTION	MOMENTARY			MIDDLE INTERMEDIATE
N	HUMIDITY		USER DEFINED	USER DEFINED	USER DEFINED
O	USER CHOICE		ORIFICE RESTRICTION		
P	PRESSURE, VACUUM		POINT (TEST) CONNECTION		
Q	QUANTITY	INTEGRATE, TOTALIZE			
R	RADIATION		RECORD		
S	SPEED, FREQUENCY	SAFETY		SWITCH	
T	TEMPERATURE			TRANSMIT	
U	MULTI-VARIABLE		MULTI-FUNCTION	MULTI-FUNCTION	MULTI-FUNCTION
V	VIBRATION, MECHANICAL ANALYSIS			VALVE, DAMPER LOUVER	
W	WEIGHT, FORCE		WELL		
X	UNCLASSIFIED	X-AXIS	UNCLASSIFIED	UNCLASSIFIED	UNCLASSIFIED
Y	EVENT, STATE OR PRESENCE	Y-AXIS		RELAY, COMPUTE CONVERT	
Z	POSITION DIMENSION	Z-AXIS		DRIVER, ACTUATOR UNCLASSIFIED FINAL CONTROL ELEMENT	

INSTRUMENTATION TYPE ABBREVIATION LIST

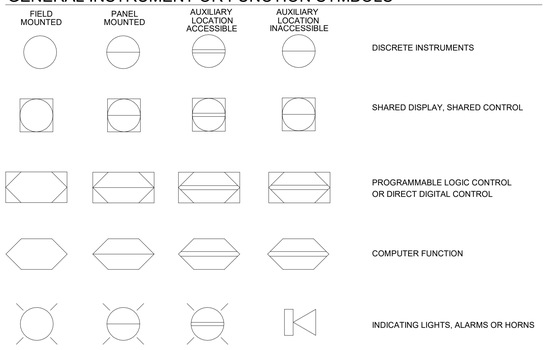
CODE	DESCRIPTION	CODE	DESCRIPTION	CODE	DESCRIPTION
AA	ANALYTICAL ALARM	LA	LEVEL ALARM	VA	VIBRATION ALARM
AE	ANALYTICAL ELEMENT	LC	LEVEL CONTROLLER (STAND ALONE)	VS	VIBRATION SWITCH
AET	ANALYTICAL ELEMENT TRANSMITTER	LCV	LEVEL CONTROL VALVE		
AI	ANALYTICAL INDICATOR	LE	LEVEL ELEMENT	XV	SOLENOID VALVE
AC	ANALYTICAL CONTROLLER	LIC	LEVEL INDICATING CONTROLLER		
AIC	ANALYTICAL INDICATING CONTROLLER	LIT	LEVEL INDICATING TRANSMITTER	YA	EQUIPMENT ALARM
AT	ANALYTICAL TRANSMITTER	LS	LEVEL SWITCH	YI	EQUIPMENT STATUS
AIT	ANALYTICAL INDICATING CONTROLLER	LT	LEVEL TRANSMITTER	YCD	SMOKE DAMPER
ACV	ANALYTICAL CONTROL VALVE	LY	LEVEL SIGNAL CONVERTER	YS	SMOKE DETECTOR
AY	ANALYTICAL SIGNAL CONVERTER				
		MV	MANUAL HAND VALVE	ZC	POSITION CONTROL
EI	VOLTAGE INDICATOR			ZI	POSITION INDICATOR
EA	VOLTAGE ALARM	NT	HUMIDITY TRANSMITTER	ZS	POSITION SWITCH
ES	VOLTAGE SWITCH (CONTROL RELAY)				
ESL	VOLTAGE SWITCH LOW (24 VAC OR LESS)	PA	PRESSURE ALARM		
ET	VOLTAGE TRANSMITTER	PCV	PRESSURE CONTROL VALVE	VA	VIBRATION ALARM
EY	VOLTAGE SIGNAL CONVERTER	PDI	PRESSURE DIFFERENTIAL INDICATOR	VS	VIBRATION SWITCH
		PDS	PRESSURE DIFFERENTIAL SWITCH		
FA	FLOW ALARM	PDT	PRESSURE DIFFERENTIAL TRANSMITTER		
FCV	FLOW CONTROL VALVE	PI	PRESSURE INDICATOR		
FE	FLOW ELEMENT	PIS	PRESSURE INDICATING SWITCH		
FET	FLOW ELEMENT/TRANSMITTER	PIT	PRESSURE INDICATING TRANSMITTER		
FI	FLOW INDICATOR	PS	PRESSURE SWITCH		
FIT	FLOW INDICATING TRANSMITTER	PT	PRESSURE TRANSMITTER		
FS	FLOW SWITCH	PY	PRESSURE SIGNAL CONVERTER		
FT	FLOW TRANSMITTER				
FY	FLOW SIGNAL CONVERTER	SC	SPEED CONTROL		
		SCM	SPEED CONTROL MANUAL		
HK	MANUAL VARIABLE CONTROL				
HS	HAND SWITCH	TA	TEMPERATURE ALARM		
HSI	HAND SWITCH INDICATOR	TC	TEMPERATURE CONTROLLER		
		TCV	TEMPERATURE CONTROL VALVE		
II	CURRENT INDICATOR	TE	TEMPERATURE ELEMENT		
IA	CURRENT ALARM	TET	TEMPERATURE ELEMENT TRANSMITTER		
IS	CURRENT SWITCH	TI	TEMPERATURE INDICATOR		
IT	CURRENT TRANSMITTER	TIT	TEMPERATURE INDICATING TRANSMITTER		
IY	CURRENT SIGNAL CONVERTER	TIC	TEMPERATURE INDICATING CONTROLLER		
		TS	TEMPERATURE SWITCH		
JIT	POWER INDICATING TRANSMITTER	TSL	FREEZE STAT		
JY	POWER SIGNAL CONVERTER	TT	TEMPERATURE TRANSMITTER		
KC	TIME CLOCK				

FMS SYSTEM OPERATING CONSTRAINTS

THE FMS CONTROL SYSTEM SHALL OPERATE WITHIN THE FOLLOWING SYSTEM CONSTRAINTS FOR CONTROL:

SUPPLY AIR DRYBULB TEMPERATURE	+/- 0.5°F OF SETPOINT WITH HUNTING OF < 5% OF THE CONTROL SIGNAL
MIXED AIR DRYBULB TEMPERATURE	+/- 0.5°F OF SETPOINT WITH HUNTING OF < 5% OF THE CONTROL SIGNAL
WATER TEMPERATURE	+/- 0.5°F OF SETPOINT WITH HUNTING OF < 5% OF THE CONTROL SIGNAL
DUCT STATIC PRESSURE	+/- 0.1" W.C. OF SETPOINT WITH HUNTING OF < 5% OF THE CONTROL SIGNAL
SUPPLY/ RETURN AIR VOLUME	+/- 2.5% OF SETPOINT WITH HUNTING OF < 5% OF THE CONTROL SIGNAL
OUTSIDE AIR/ RELIEF AIR VOLUME	+/- 2.5% OF SETPOINT WITH HUNTING OF < 5% OF THE CONTROL SIGNAL
BUILDING PRESSURE	+/- 0.01" W.C. OF SETPOINT WITH HUNTING OF < 5% OF THE CONTROL SIGNAL
ROOM TEMPERATURE	+/- 1.0°F OF SETPOINT WITH HUNTING OF < 5% OF THE CONTROL SIGNAL
ROOM AIR VOLUME	+/- 2.5% OF SETPOINT WITH HUNTING OF < 5% OF THE CONTROL SIGNAL
HUMIDITY LEVEL	+/- 2.5% R.H. OF SETPOINT WITH HUNTING OF < 5% OF THE CONTROL SIGNAL
WATER TEMPERATURE	+/- 1.0°F OF SETPOINT WITH HUNTING OF < 5% OF THE CONTROL SIGNAL
WATER DIFFERENTIAL PRESSURE	+/- 1.0 PSI OF SETPOINT WITH HUNTING OF < 5% OF THE CONTROL SIGNAL

GENERAL INSTRUMENT OR FUNCTION SYMBOLS



DUAL (MULTI) FUNCTION INSTRUMENT

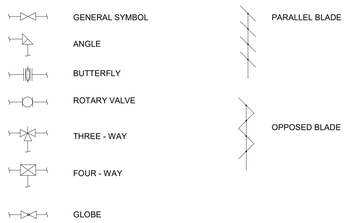
UNDEFINED INTERLOCK LOGIC

FLOW ARROW
XXX INDICATES AIR TYPE

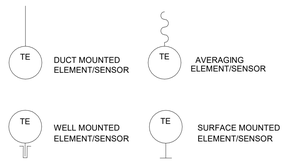
ZZZ
XXX
AAA-NNN

INSTRUMENT NAMING CONVENTION
XXX - FUNCTION ID
ZZZ - USER CHOICE
AAA - UNIT ASSOCIATION OR PROCESS CODE
NNN - DEVICE NUMBER

CONTROL VALVE BODY/ DAMPER SYMBOLS

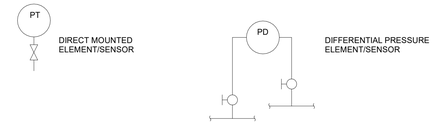


TEMPERATURE

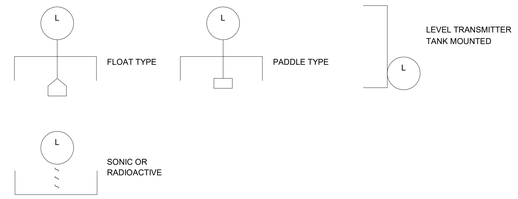


CURRENT

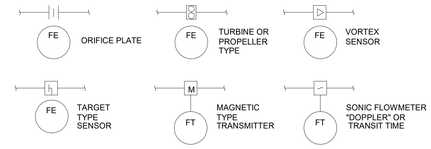
PRESSURE



LEVEL



FLOW



LADDER DIAGRAM SYMBOLS

HOA	HAND-OFF-AUTO SWITCH
OL	NORMALLY CLOSED OVERLOAD CONTACTS
	SWITCH
	FUSE
	CONTACT NORMALLY CLOSED
	CONTACT NORMALLY OPEN
C	COIL IN MOTOR STARTER
R	PILOT LIGHT (COLOR INDICATION)
EP	COIL IN MOTOR STARTER
XXXX XXXX	TRANSFORMER

ABBREVIATIONS

IA	INSTRUMENTATION AIR
DDC	DIRECT DIGITAL CONTROL
C	COMMON VALVE PORT
F.O	FAIL OPEN
F.C	FAIL CLOSED
SR	SPRING RANGE
TR	THROTTLING RANGE
PH	PREHEAT
HR	HEAT RECOVERY
CPA	CONTROL POINT ADJUSTMENT
SPDT	SINGLE POLE DOUBLE THROW
DPDT	DOUBLE THROW DOUBLE POLE
DA	DIRECT ACTING
RA	REVERSE ACTING

PROCESS CODES

TW	COOLING TOWER OR CONDENSER WATER
CHW	CHILLED WATER
SCHW	SECONDARY CHILLED WATER
HW	HOT WATER
SHW	SECONDARY HOT WATER
STM	STEAM

LINE LEGEND

	ELECTRICAL SIGNAL
//	PNEUMATIC SIGNAL
	INTERNAL SYSTEM LINK

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ARCHITECT

Dzilth-Na-O-Dith-Hle - New Dormitory Building

PRICING SET

35 Road 7585, Bloomfield, NM 87413

NOVEMBER 10, 2020

MARK	DATE	DESCRIPTION

ISSUE:	
DATE:	
PROJECT NO:	751
CAD DWG FILE:	
DRAWN BY:	NZ
CHECKED BY:	IM

SHEET TITLE

MECHANICAL CONTROLS LEGEND

MI001

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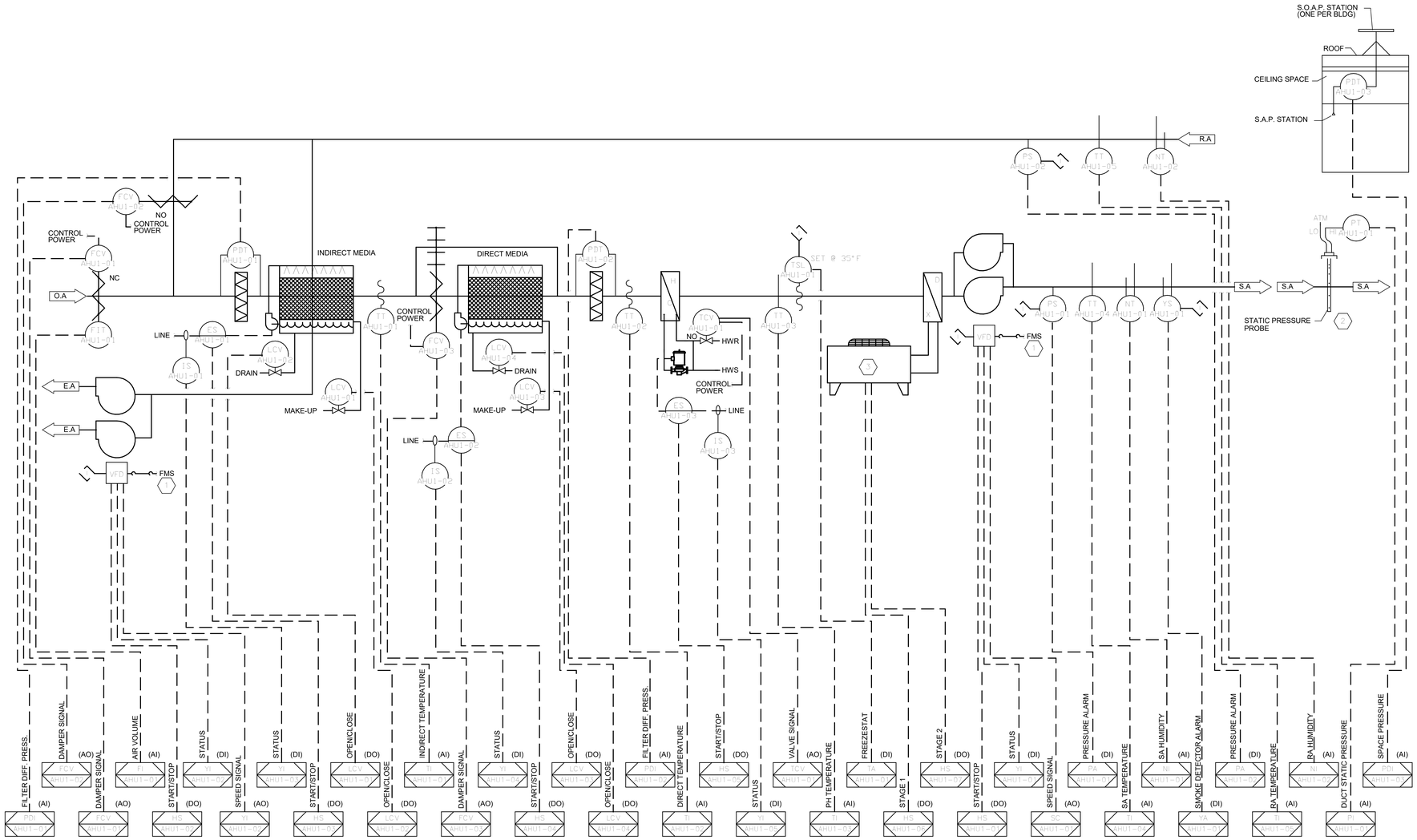

AIR HANDLING UNIT AHU-1 CONTROL DIAGRAM

KEYED NOTES

1. VFD'S SHALL BE CONNECTED TO THE FMS NETWORK THROUGH A DIRECT NETWORK CONNECTION AS WELL AS THROUGH THE HARDWIRED POINTS INDICATED. IT IS THE RESPONSIBILITY OF THE FMS CONTRACTOR TO COORDINATE AND ADAPT THE FMS NETWORK TO THE COMMUNICATIONS PROTOCOLS AVAILABLE FROM THE VFD MANUFACTURER. THE FOLLOWING POINTS SHALL BE INTEGRATED INTO THE FMS:
   - A. SPEED FEEDBACK
   - B. FREQUENCY OUTPUT
   - C. CURRENT
   - D. TORQUE
   - E. POWER
   - F. DC BUS VOLTAGE
   - G. OUTPUT VOLTAGE
   - H. KWH COUNTER
   - I. DRIVE TEMPERATURE
   - J. ALARMS
   - K. STATUSES
2. PROVIDE A MINIMUM OF ONE STATIC PRESSURE PROBE PER FLOOR FOR EACH AIR HANDLING UNIT. LOCATE THE STATIC PRESSURE PROBES ⅔ THE LENGTH OF THE MAIN DUCT RUNS.
3. PROVIDE FIELD INSTALLATION OF ALL SENSORS, SAFETIES, AND VALVES FURNISHED WITH THE CONDENSING UNIT IN ACCORDANCE WITH THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. PROVIDE AN FMS START/STOP POINT FOR EACH COOLING STAGE IN THE CONDENSING UNIT.

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MECHANICAL CONTROLS DIAGRAMS

MI601

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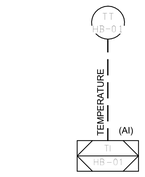
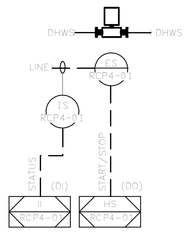


HOT BOX TEMPERATURE CONTROL DIAGRAM



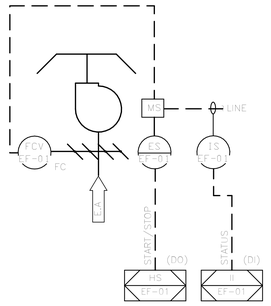
TYPICAL DOMESTIC HW PUMP CONTROL DIAGRAM

RCP-5)

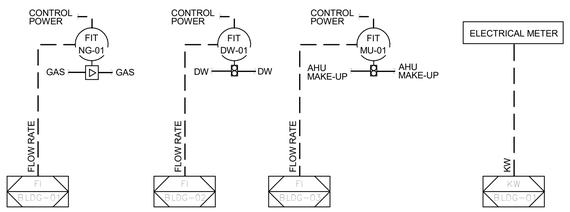
TYPICAL HOT WATER SYSTEM CONTROL DIAGRAM

KEYED NOTES

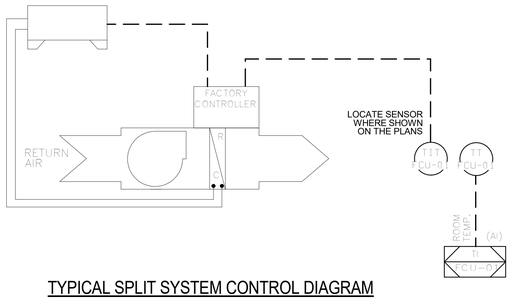
1. THE BOILER SYSTEM SHALL BE CONNECTED TO THE FMS NETWORK THROUGH A DIRECT MODBUS OR BACNET NETWORK CONNECTION AS INDICATED. THE FOLLOWING POINTS SHALL BE INTEGRATED INTO AND MONITORED BY THE FMS IF AVAILABLE FROM THE MANUFACTURER:
   - A. SYSTEM ENABLE/DISABLE COMMAND
   - B. OPERATING FIRING RATE
   - C. RUNTIME STATUS
   - D. SYSTEM ALARMS
   - E. PUMP ON/OFF COMMANDED STATUSES
   - F. BOILER OUTLET TEMPERATURE SETPOINT
   - G. BOILER OUTLET TEMPERATURE
   - H. BOILER INLET TEMPERATURE
   - I. SYSTEM HOT WATER SUPPLY SETPOINT COMMAND
   - J. SYSTEM HOT WATER SUPPLY TEMPERATURE
   - K. SYSTEM HOT WATER RETURN TEMPERATURE
2. VFD'S SHALL BE CONNECTED TO THE FMS NETWORK THROUGH A DIRECT NETWORK CONNECTION AS WELL AS THROUGH THE HARDWIRED POINTS INDICATED. IT IS THE RESPONSIBILITY OF THE FMS CONTRACTOR TO COORDINATE AND ADAPT THE FMS NETWORK TO THE COMMUNICATIONS PROTOCOLS AVAILABLE FROM THE VFD MANUFACTURER. THE FOLLOWING POINTS SHALL BE INTEGRATED INTO THE FMS:
   - A. SPEED FEEDBACK
   - B. FREQUENCY OUTPUT
   - C. CURRENT
   - D. TORQUE
   - E. POWER
   - F. DC BUS VOLTAGE
   - G. OUTPUT VOLTAGE
   - H. KWH COUNTER
   - I. DRIVE TEMPERATURE
   - J. ALARMS
   - K. STATUSES



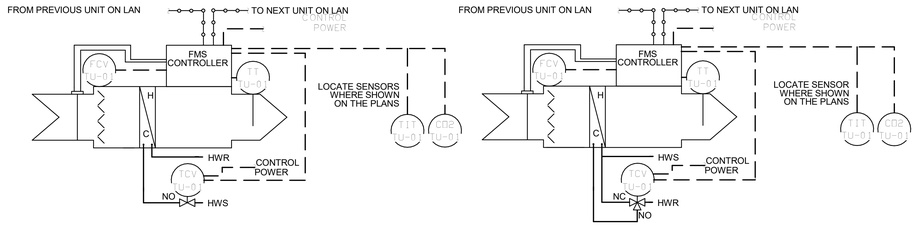
TYPICAL GENERAL EXHAUST FAN CONTROL DIAGRAM

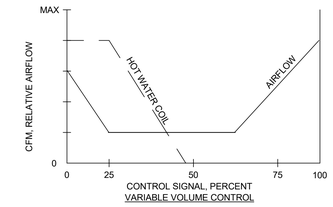


TYPICAL BUILDING METERING CONTROL DIAGRAM



TYPICAL SPLIT SYSTEM CONTROL DIAGRAM





THE TERMINAL UNIT SHALL PROVIDE THE FLOW CHARISTICS SHOWN ON THE GRAPH. EACH TERMINAL UNIT SHALL BE EQUIPPED WITH ITS OWN STAND ALONE CONTROLLER WHICH SHALL HAVE THE CAPABILITIES DESCRIBED IN THE SPECIFICATION. THE WIRING SHOWN IS PROVIDED AS A GENERAL DESCRIPTION AND IS NOT AS A DETAILED WIRING DIAGRAM WHICH VARIES WITH THE MANUFACTURER.

TYPICAL VAV TERMINAL UNIT WITH HW REHEAT CONTROL DIAGRAM

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MECHANICAL CONTROLS DIAGRAMS

MI602

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SEQUENCE OF OPERATION

General

Programming
The FMS shall be programmed according to the following sequence of operations including all energy reduction operations described in this sequence and in the project specifications.

System Status Display
The FMS shall provide operating status for all systems controlled by the FMS. The displays shall include all points indicated on the drawings and any others required to achieve the sequence of operations. The FMS shall be able to integrate system diagnostics into control action decisions. This shall also include the ability to designate individual units as being in maintenance mode to avoid generating alarms. All system control and status events shall be recorded, at the operator's selection, in the FMS event log to facilitate troubleshooting. All detected alarms or failures shall initiate an alarm within the FMS.

Power Failure Recovery
The FMS shall contain a power failure recovery mode (operator adjustable). The power failure recovery capability shall return the system to its last state (before the building lost power). Refer to power system recovery sequence for more details.

Occupancy Control
The FMS shall be setup with an occupancy schedule for different areas of the building. The owner shall be interviewed by the contractor at start-up to establish these schedules. Some areas of the building shall be setup to be continuously occupied.

Emergency Outdoor Air Override
The FMS shall have an emergency outdoor air override switch on the main graphic at the operator workstation which will allow the operator to shutdown the outside air intake dampers and relief dampers for all air handling units in the event that toxic odors are detected outside. When the outside air and relief dampers fully close, the return air damper shall fully open. The outside air intake dampers for all units shall remain closed until the operator resets the override

Air Handling Unit AHU-1

Minimum Outside Air Setpoint Control
The FMS shall monitor the CO2 level in the spaces throughout the building in locations indicated on the mechanical floor plans. The time based average for each CO2 sensor shall be calculated in an interval of 20 minutes (adjustable). The calculated value shall be used for control. In the event any of the CO2 levels rise above setpoint in accordance with ASHRAE 62.1 guidelines, the FMS shall first gradually increase the flowrate of the terminal unit to induce additional outside air into the space. If the terminal unit reaches its maximum airflow setpoint and the CO2 level is still not below setpoint, the FMS shall reset the minimum outside air volume setpoint for the associated unit to induce more outside air into the air handling unit. The minimum outside air volume setpoint shall be reset between the scheduled minimum and maximum setpoints. The FMS shall initiate an alarm if the concentration levels rise 20% (adjustable) above setpoint. The FMS shall trend all carbon dioxide levels measured.

Minimum Outside Air Control
The minimum outside air volume shall be controlled by the FMS through the outside air flow measuring damper which measures the outside air volume. The FMS shall not modulate the outside air damper below minimum outside air volume setpoint. If the air handling unit is stopped, the FMS shall close the damper. The FMS shall trend and log the outside air volume being brought in by the air handling unit. If the outside air volume falls below 85% of the setpoint for a period of 10 minutes, the FMS shall initiate an alarm.

Mixed Air Damper Interlocks
Control signals from the FMS system shall modulate the mixed air dampers. Upon initial start-up, the FMS system shall not begin modulation of the mixing dampers for five minutes (adjustable) to allow the control loops to stabilize.

Supply Air Temperature Setpoint Control
The FMS shall control the air handling unit to maintain an adjustable supply air temperature setpoint. The temperature setpoint shall be reset based on the demand of the terminal units served by it so that at least one terminal unit is 90% open and still maintaining the room temperature setpoint. The reset range shall be between 55°F and 85°F (adjustable) drybulb. The setpoint for the direct/indirect (DI) section of the air handling unit shall be 2°F (adjustable) less than the supply air temperature setpoint. Wet bulb temperatures shall be calculated using dry bulb temperature and relative humidity levels.

Supply Air Temperature Control - Cooling
If the system requires cooling to maintain the supply air temperature at setpoint, the FMS shall control the unit through the following four stages.

Stage 1: If the outside air temperature is less than the supply air temperature the FMS shall modulate the outside air and return air dampers to maintain the DI section supply temperature at setpoint. The direct and indirect cooling pumps shall be off.

Stage 2: If the DI section setpoint cannot be maintained at setpoint with Stage 1, the FMS shall start Stage 2. The FMS shall start the indirect cooling pump and modulate the outside air and return air dampers to maintain the DI section supply temperature at setpoint. As more cooling is required, the FMS shall increase the amount of outside air being brought into the unit. If the cooling demand decreases and the outside air temperature falls below the return air temperature such that Stage 1 can meet the demand, the FMS shall stop Stage 2. The FMS shall monitor the status of the indirect pump through a current switch installed on the motor. If a pump failure occurs, the FMS shall initiate an alarm and remove Stage 2 from the staging control sequence. Once the pump is fixed and the alarm condition is cleared, Stage 2 control shall be reinserted into the staging control sequence.

Stage 3: If the DI section setpoint cannot be maintained at setpoint with Stage 2, the FMS shall start Stage 3. If the outside air wetbulb temperature is less than the supply air temperature setpoint minus a 4°F (adjustable) offset, the FMS shall start the direct cooling pump. The FMS shall fully open the outside air dampers and close the return air dampers. If the cooling demand decreases such that Stage 2 can meet the demand, or if the return humidity level rises above 60% RH (adjustable), the FMS shall stop Stage 3. The FMS shall monitor the status of the direct pump through a current switch installed on the motor. If a pump failure occurs, the FMS shall initiate an alarm and remove Stage 3 from the staging control sequence. Once the pump is fixed and the alarm condition is cleared, Stage 3 control shall be reinserted into the staging control sequence. The indirect section shall continue to operate during Stage 3 operation.

Stage 4: If the DI section setpoint cannot be maintained at setpoint with Stage 3 or if the outside air wetbulb temperature is not within the range specified, the FMS shall start stage 4. The FMS shall stop the direct cooling pump. The indirect section shall continue to operate during Stage 4 operation. The FMS shall stage the condensing unit to maintain the supply air temperature at setpoint. As the cooling demand decreases and the condensing unit is staged off, the FMS shall return to Stage 3 if the conditions of Stage 3 can be reached. Once Stage 4 is started, it shall operate for a minimum of one hour (adjustable) before the system can switch back to Stage 3 to prevent short cycling of the system.

Supply Air Temperature Control - Heating
If the system requires healing to maintain the supply air temperature at setpoint, the FMS shall position the outside air and return air dampers to the minimum outside air setpoint. The FMS shall modulate the hot water coil valve to maintain the supply air temperature setpoint. The direct and indirect pumps shall be off and chilled water coil valve shall be closed.

Hot Water Coil Pump
The FMS shall operate the hot water coil pump anytime the outside air temperature is below 35°F (adjustable) when the unit is operating. The FMS shall monitor the status of the pump through a current switch installed on the motor. If a pump failure is detected, the FMS shall initiate an alarm.

Supply Air Static Setpoint Control
The FMS shall reset the static pressure setpoint using a trim and respond logic within the range of 0.5" w.g. to 1.5" w.g. When the fan is off, the setpoint shall be 1.0" w.g. Once the fan is started, the setpoint shall be trimmed by 0.04" w.g. every two minutes if there are two or fewer zone pressure requests. If there are more than two zone pressure requests, respond by increasing the setpoint by 0.06" w.g. A zone pressure request is generated when a VAV damper is greater than 95% open until it drops to 80% open. All setpoints shall be adjustable through the operator workstation.

Supply Fan Control
The supply fan VFD shall be started and stopped by the FMS system based on an occupancy schedule for the building programmed into the FMS. The fan shall operate continuously during occupied periods. If during unoccupied periods, any of the space temperatures rise above the unoccupied cooling setpoint or fall below the unoccupied heating setpoint, the air handling unit shall start and operate to raise the space temperature 2°F (adjustable) before stopping. If during unoccupied periods, any of the space occupancy switches are activated, the air handling unit shall start and operate for a period of two hours before stopping.

Supply Fan VFD Control
The VFD shall be modulated to maintain the supply duct static pressure at a set point. The ramp of the VFD shall be adjusted to restrict the rate of change of the VFD output to sixty seconds for a zero to one hundred percent control signal change.

Supply Fan Monitoring
The VFD operation shall be indicated to the FMS through a set of contacts in the VFD. If an alarm condition is detected, the FMS shall initiate an alarm.

Relief Fan VFD Control
The FMS shall modulate the relief fans to maintain the building differential pressure measured in the space and the outside air pressure at a positive space pressure of 0.05" w.c. (adjustable) anytime the air handling unit is operating. The ramp of the VFD shall be adjusted to restrict the rate of change of the VFD output to sixty seconds for a zero to one hundred percent control signal change.

Relief Fan Monitoring
The VFD operation shall be indicated to the FMS through a set of contacts in the VFD. If an alarm condition is detected, the FMS shall initiate an alarm.

Filter Monitoring
The differential pressure across the filter shall be monitored by the FMS through a differential pressure transmitter. If the differential pressure exceeds set point, the FMS shall initiate an alarm.

Freezestat
A freezestat set at 35°F located downstream of the hot water coil shall initiate an alarm at the FMS and stop the supply fan, start the hot water coil pump, and open the hot water valve if an alarm condition is detected.

Smoke Detectors
Smoke detectors located in the supply air and return air streams, shall stop the fans through the fire alarm system if an alarm condition is detected. When the fans are stopped, the FMS shall position the dampers to their normal state.

Duct Pressure Safety Switches
Safety switches installed in the supply and return air ducts for each unit shall alarm the FMS if the duct pressure is above the high alarm setpoint. The high alarm setpoint shall be 150% of the normal operating static of the system. If the FMS senses an alarm condition, the FMS shall stop the supply and return fans.

Sump Make-up and Dump Valves
The FMS shall open the make-up valves anytime the system is not winterized. FMS shall open the dump valves based on an operator adjustable time schedule programmed into the FMS to remove solids from the water. Anytime a dump valve is open, the FMS prevent the associated make-up valve from opening and the pumps from operating. The operator shall have the ability to remotely winterize the sump system through the operator workstation. When the system is place in a winterized mode, the FMS shall open the dump valve for a period of one hour, close the make-up valve. The system shall remain in the winterized mode until released by the operator.

Start/Stop Optimization and Morning Warm-Up
The FMS shall be programmed with a self-adjusting start/stop optimization sequence which shall provide the optimum start time for the unit in order to have the space temperature at the occupied setpoint when scheduled occupancy is to occur each day. If the spaces require heating to reach the occupied space temperature setpoints, the FMS shall operate the unit using a morning warm-up cycle. During the morning warm-up cycle, the unit shall operate with the outside air and relief air damper closed with the return air damper fully open. The FMS shall raise supply air temperature setpoint to the heating maximum temperature and operate the hot valve to maintain the supply air temperature at setpoint. Once the space temperature occupied setpoints are reached, the unit shall return to normal occupied control. During morning warm-up, the terminal units shall operate at their maximum airflow setpoints until their space temperature setpoints are reached. Terminal units which do not require heating or have reached their occupied setpoints, shall operate with their dampers closed.

Variable Air Volume Terminal Units w/ Hot Water Reheat

Each terminal unit shall modulate the supply air damper to maintain the space temperature conditions. If the zone requires cooling, the supply air damper shall be modulated between the minimum and maximum cooling air flows to maintain the space temperature at the cooling setpoint of 76 °F (adjustable) for occupied periods and 85°F (adjustable) during unoccupied periods. If the zone calls for heating, the supply air damper shall be modulated to a minimum and the heating valve shall be modulated open to maintain the space temperature at the heating setpoint of 72°F (adjustable) for occupied periods and 55°F for unoccupied periods. If additional heating is required when the valve is fully open, the supply air damper shall be modulated to meet the room temperature requirements. If during an unoccupied period the space occupancy switch is activated, the space shall return to the occupied setpoints for a period of two hours before switch back to the unoccupied state.

General Exhaust Fans

Exhaust Fan Control
Each fan shall operate based on the occupancy schedule in the FMS. The fan shall operate continuously during occupied periods.

Exhaust Fan Monitoring
The fan operation shall be indicated to the FMS through a current switch installed in the motor starter. If a fan failure is detected, the FMS shall stop the fan and initiate an alarm

Exhaust Fan Isolation Damper Control
Each exhaust fan damper shall be open anytime the fan is operating. If the fan is stopped, the damper shall close.

Typical Split System

Each unit shall be provided with a factory packaged control system which shall control the unit to maintain the space temperature at setpoint. The FMS shall monitor the space temperature through a separate space temperature sensor and shall initiate an alarm if the space temperature rises above the space high temperature alarm setpoint.

Domestic Hot Water Pump

Pump Control
Each pump shall operate based on the occupancy schedule in the FMS. The pump shall operate continuously during occupied periods.

Pump Monitoring
The pump operation shall be indicated to the FMS through a current switch installed in the motor starter. If a pump failure is detected, the FMS shall stop the pump and initiate an alarm.

Hot Water Plant Control

Boiler Plant Enable
The FMS shall enable the boiler plant through a user input from the operator workstation or anytime the building requires heat . The lead boiler shall operate whenever the boiler water plant is enabled.

Hot Water Temperature Control
The FMS control system shall reset the secondary hot water temperature setpoint based on the outside air temperature conditions. At an outside air temperature of 70 °F (adjustable), the hot water temperature setpoint shall be 140 °F (adjustable). At an outside air temperature of 40 °F (adjustable), the hot water temperature setpoint shall be 180 °F (adjustable). The FMS shall monitor and trend the temperatures and pressures of the system as indicated on the control diagrams.

Boiler Control
The boiler control system shall control individual stages of each boiler to maintain the secondary hot water supply temperature at setpoint based on the factory recommended staging configuration.

Boiler Rotation
Automatic rotation of the boilers sequence shall be allowed based on the manufacturer's standard rotation sequence. The boiler control panel shall start the associated boiler pump anytime the boiler is operating.

Boiler Failure Detection and Recovery
The FMS shall monitor the alarm and status conditions of each boiler through the BACnet network connection. Upon sensing a boiler failure, the FMS shall initiate an alarm. The next boiler in the sequence shall be enabled (if the boiler fails while running or trying to start). The failed boiler shall be disabled.

Primary Pump Failure Detection and Recovery
The FMS shall monitor the status of each primary pump through a current switch installed in the motor starter and the commanded status of the pump through the Modbus network connection. Upon sensing a primary pump failure, the FMS shall initiate an alarm.

Secondary Hot Water Differential Pressure Setpoint Control
The FMS shall reset the system differential pressure setpoint using a trim and respond logic within the range of 5 psig to 15 psig once the minimum hot water temperature setpoint is reached. Once the temperature setpoint is reached, the differential pressure setpoint for the controlling zone shall be trimmed by 0.1 psig every two minutes until a valve in the system is 50% open. When a valve in the system rises to 80% open, the differential pressure setpoint for the controlling zone shall be increased by 0.1 psig every two minutes. All setpoints shall be adjustable through the operator workstation for each differential pressure sensor.

Secondary Hot Water Pump Control
Each set of secondary hot water pumps shall operate in a lead/lag configuration. The lead pump shall operate anytime the hot water system is enabled. The FMS shall modulate the pumps to maintain the system differential pressure at setpoint as measured by differential pressure sensors. With just the lead pump operating, if the speed of the pump reaches 100%, the FMS shall start the lag pump and operate both pumps at the same speed to maintain the differential pressure setpoint. With both pumps operating, if the speed of the pumps falls below 40%, the FMS shall stop the lag pump and operate the lead pump to maintain the differential pressure setpoint.

Secondary Hot Water Pump Rotation
Manual or automatic rotation of the secondary pump sequence shall be allowed. Rotation time interval shall be 30 days (adjustable), and be through a time and date, operator intervention, or external communicated input. The application shall also provide a setting (operator selectable) to allow a forced rotation which shall cause the secondary pumps in the sequence to be immediately enabled /disabled to comply with the new sequence or a normal rotation which shall takes advantage of the load variations in the system to adjust the sequence of secondary pumps enabling and disabling.

Secondary Pump Failure Detection and Recovery
The FMS shall monitor the VFD status through a set of contacts in the VFD. Upon sensing a secondary pump failure, the FMS shall lockout that pump and immediately initiate the start of the next pump in the rotation sequence. When a pump is marked as having failed, the failed pump shall be taken out of the sequence. The next pump in the sequence shall be enabled (if the pump fails while running or trying to start). The failed pump shall be disabled.

Secondary Pump Failure Reset
When an individual pumps failure is reset at the operator workstation, the FMS shall re-insert that pump into the sequence of pumps. When a system failure reset is performed, all pumps that were marked as failed shall be re-inserted into the sequence. An operator configured setting shall determine whether the FMS shall enforce the sequence immediately or if normal plant changes (adds and subtracts) synchronize the plant with the new sequence. All failures shall be resettable through the FMS operator workstation.

Boiler System Shutdown Switch
Boiler shutdown switches shall be installed at the boiler room door and shall kill power to the boilers when activated. The FMS shall stop the secondary pumps when the switch is activated and initiate an alarm.

Make-Up Meter Monitoring
The FMS shall monitor the make-up flowrate for the system. If the flowrate exceeds the alarm level, the FMS shall initiate an alarm.

Building Metering

The FMS shall continuously monitor and trend the building electrical power, gas, domestic water, and AHU make-up water for the building.

Hot Box Temperature Monitoring

The FMS shall monitor the temperature inside the hot box. If the temperature falls below 35°F (adjustable), the FMS shall initiate an alarm.

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ARCHITECT

Dzilth-Na-O-Dith-Hle - New Dormitory Building

PRICING SET

35 Road 7585, Bloomfield, NM 87413

NOVEMBER 10, 2020

MARK	DATE	DESCRIPTION

ISSUE:	
DATE:	
PROJECT NO:	751
CAD DWG FILE:	
DRAWN BY:	NZ
CHECKED BY:	IM

SHEET TITLE

MECHANICAL CONTROLS DIAGRAMS

MI603

Dzilth-Na-O-Dith-Hle - New Dormitory Building

INDOOR VAV AIR HANDLING UNIT

SYMBOL	MANUFACTURER & MODEL NO.	TYPE	LOCATION	SUPPLY FAN SECTION									EXHAUST FAN SECTION							DIRECT EXPANSION COOLING COIL					
				TOTAL AIRFLOW (CFM)	FAN SIZE AND TYPE	FAN QTY.	PER FAN			MOTOR			TOTAL AIRFLOW (CFM)	FAN SIZE AND TYPE	FAN QTY	PER FAN		MOTOR			REFR. TYPE	MAX. FACE VEL. (FPM)	TOTAL CAPACITY (MBH)	SENSIBLE CAPACITY (MBH)	EAT (°F)	LAT (°F)	AIR MAX. PD (IN. WC)
							AIRFLOW (CFM)	EXT. SP. (IN. WC)	BHP	RPM	QTY	HP EACH	V/PH/H				AIRFLOW (CFM)	ESP. (IN. WC)	QTY	HP EACH	V/PH/HZ					DB/WB	DB/WB	
AHU-1	TRANE - CSAA025UA	PERFORMANCE CLIMATE CHANGER	MECH PENTHOUSE	12,000	DIRECT DRIVE PLENUM	2	6,000	2.5	6.6	2,300	2	7.5	460/3/60	12,000	DIRECT DRIVE PLENUM	2	6,000	0.5	2	5	460/3/60	410A	485	295	295	83.9/56.5	56.4/46.0	0.234

INDOOR VAV AIR HANDLING UNIT - CONTINUED

SYMBOL	MAIN HOT WATER HEATING COIL								INDIRECT/DIRECT EVAPORATIVE COOLING SECTION																	FILTER	MIN OUTSIDE AIR (CFM)	TOTAL OPERATING WEIGHT (LBS.)	OVERALL UNIT DIMENSIONS	NOTE
	TOTAL CAPACITY (MBH)	MAX. FACE VELOCITY (FPM)	LAT (°F)	GPM	WATER TEMP (°F)		MAX PRESSURE LOSS		INDIRECT							DIRECT													
					ENT.	LVG.	AIR (IN. WC)	WATER (FT. WC)	AIRFLOW RATE (CFM)	TOTAL CAPACITY (MBH)	EAT DB/WB (°F)	LAT DB/WB (°F)	STATIC PRESSURE DROP (IN H20)	COOLING EFFICIENCY (%)	PUMP				AIRFLOW RATE (CFM)	TOTAL CAPACITY (MBH)	EAT DB/WB (°F)	LAT DB/WB (°F)	STATIC PRESSURE DROP (IN H20)	COOLING EFFICIENCY (%)	COOLING MEDIA	PUMP						
															QTY	PER PUMP								QTY	PER PUMP					
																HP	GPM	V/PH/H							HP	GPM	VOLT/PH/H			
AHU-1	476	498	60	32	130	100	0.167	1.0	12,000	312.2	94/61	70.2/52.9	0.8	72	1	0.125	16	120/1/60	12,000	200.6	70.2/52.9	55/52.9	0.2	80%	12" CELDEK	1	0.125	16	120/1/60	MERV 13	4,100	11,000	294"(L)X120"(W)X111"(H)	FURNISH WITH NON-FUSED DISCONNECT, UNIT ON 6" CONCRETE HOUSEKEEPING PAD

INDOOR VAV AIR HANDLING UNIT - SOUND DATA

SYMBOL	DISCHARGE SOUND POWER BY OCTIVE BAND							
	63 Hz	125 Hz	250 Hz	500 Hz	1000 Hz	2000 Hz	4000 Hz	8000 Hz
AHU-1	80	81	85	91	77	79	73	66

CONDENSING UNIT SCHEDULE

SYMBOL	TRANE MODEL NO.	LOCATION	CORRESPONDING INDOOR UNIT	TON	NET TOTAL CAPACITY (MBH)	EER @ AHRI	AMBIENT DB (DEG F)	SATURATED SUCTION TEMP	ELECTRICAL DATA					COMPRESSORS						CONDENSERS (MICROCHANNEL)							WEIGHT (LBS.)	LENGTH/ WIDTH/ HEIGHT (IN)
									VOLT	PH	HZ	MCA	MOCP	COMPRESSOR TYPE	MANIFOLD COMPRESSOR SIZES	UNIT CAPACITY STEPS	REFR. TYPE	LIQUID LINE	SUCTION LINE	FAN QTY.	DIAMATER (IN)	AIR FLOW (CFM)	SIZE (IN)	FACE AREA (SF)	ROWS/FIN PER FT	REFR. STORAGE CAPACITY(LB)		
ACU-1	RAUJC2	ROOF	AHU-1	25.0	307	12.1 (COND ONLY)	100	45 (F)	460	3	60	52	70	SCROLL	13-13.5	100-42	R-410A	7/8"	2-1/8"	3	26	20,700	42X71	41.4	1/240	18.7	2,000	88-1/2"X57-5/8"X74-1/4"

NOTE - FURNISH WITH NON-FUSED DISCONNECT, LOW VOLTAGE MONITOR, FACTORY-INSTALLED DISCHARGE AND LIQUID LINE SERVICE VALVES, STANDARD AMBIENT OPERATING RANGE, HOT GAS BYPASS TO THE EVAPORATOR INLET, SUCTION SERVICE VALVE, PRESSURE GAUGES, RETURN AIR SENSOR, UNIT SPRING ISOLATORS, CORROSION PROTECTED CONDENSER COIL

HYDRONIC BOILER SCHEDULE

SYMBOL	GENERAL UNIT DATA								CONNECTION DATA				ELECTRICAL DATA				PHYSICAL DATA				NOTE
	MANUFACTURER & MODEL NO.	SERVICE	INPUT AT SEA LEVEL (MBH)	OUTPUT AT SITE (MBH)	EFF	LWT (°F)	FLOW (GPM)	TURN DOWN	HEX WATER VOLUME	NATURAL GAS CONN SIZE (IN)	GAS PRESSURE (IN. W.G.)	VENT SIZE (IN)	COMBUSTION AIR SIZE (IN)	VOLT	PHASE	HZ	AMP DRAW	LENGTH (IN)	WIDTH (IN)	HEIGHT (IN)	OPERATING WEIGHT (LBS)	
B-1	LOCHINVAR - FTXL 600 (N)	HOT WATER SYS	600	552	92%	130	28	7:1	12 GAL	1"	4" TO 14"	4"	4"	120	1	60	12	26-1/8"	22-5/8"	53-5/8"	560	HEATING SYS BOILER MOUNTED ON 4" CONCRETE HOUSEKEEPING PAD
B-2	LOCHINVAR - FTXL 600 (N)	HOT WATER SYS	600	552	92%	130	28	7:1	12 GAL	1"	4" TO 14"	4"	4"	120	1	60	12	26-1/8"	22-5/8"	53-5/8"	560	HEATING SYS BOILER MOUNTED ON 4" CONCRETE HOUSEKEEPING PAD

PUMPS

SYMBOL	BELL & GOSSETT MODEL NO.	LOCATION	SERVICE	TYPE	CAPACITY (GPM)	TOTAL HEAD (FT. WG)	PUMP RPM	MOTOR HP	ELECTRICAL DATA			OPERATING WEIGHT (LBS.)	NOTES
									VOLT	PHASE	HZ		
P-1	BG-E60-1X1X5.25	BOILER ROOM	PRIMARY PUMP	INLINE	28	15	1,800	1/3	115	1	60	55	-
P-2	BG-E60-1X1X5.25	BOILER ROOM	PRIMARY PUMP	INLINE	28	15	1,800	1/3	115	1	60	55	-
P-3	BG-E1531-1.25BC	MECH PENTHOUSE	SECONDARY PUMP	BASE MOUNTED CLOSE COUPLED	65	55	1,800	2.0	460	3	60	130	FURNISH WITH SUCTION DIFFUSER AND RATED MOTOR, ONE PUMP IS BACK UP
P-4	BG-E1531-1.25BC	MECH PENTHOUSE	SECONDARY PUMP	BASE MOUNTED CLOSE COUPLED	65	55	1,800	2.0	460	3	60	130	FURNISH WITH SUCTION DIFFUSER AND RATED MOTOR, ONE PUMP IS BACK UP
P-5	BG-E60-1.25X1.25X5.25	MECH PENTHOUSE	AHU-1 HW COIL	INLINE	32	20	1,800	1/2	115	1	60	60	-

VARIABLE FREQUENCY DRIVES

SYMBOL	MANUFACTURER & MODEL NO.	LOCATION	SERVICE	ELECTRICAL					NOTES
				VOLT	PHASE	HZ	MOTOR HP	MAX AMP	
VFD-1	ABB - ACH550-04A1-4	BOILER ROOM	HOT WATER PUMPS	460	3	60	2.0	4.1	FURNISH WITH BYPASS AND FUSED DISCONNECT
VFD-2	ABB - ACH550-04A1-4	BOILER ROOM	HOT WATER PUMPS	460	3	60	2.0	4.1	FURNISH WITH BYPASS AND FUSED DISCONNECT
VFD-3	ABB - ACH550-012A-4	MECH PENTHOUSE	AHU-1 SA FAN	460	3	60	7.5	11.9	FURNISH WITH BYPASS AND FUSED DISCONNECT
VFD-4	ABB - ACH550-012A-4	MECH PENTHOUSE	AHU-1 SA FAN	460	3	60	7.5	11.9	FURNISH WITH BYPASS AND FUSED DISCONNECT
VFD-5	ABB - ACH550-08A8-4	MECH PENTHOUSE	AHU-1 EX FAN	460	3	60	5.0	8.8	FURNISH WITH BYPASS AND FUSED DISCONNECT
VFD-6	ABB - ACH550-08A8-4	MECH PENTHOUSE	AHU-1 EX FAN	460	3	60	5.0	8.8	FURNISH WITH BYPASS AND FUSED DISCONNECT

ELECTRIC UNIT HEATER

SYMBOL	MANUFACTURER & MODEL NO.	LOCATION	AIRFLOW (CFM)	CONTROL VOLTAGE	HEATING (KW)	ELECTRICAL DATA							WEIGHT (LBS.)	NOTES
						MINIMUM FUSE SIZE	MAXIMUM AMP RATING	VOLT	PHASE	HZ	MOTOR HP	MOTOR RPM		
EUH-1	TRANE UHEC-072AACA	BOILER ROOM	700	24	7.5	50	36.1	208	1	60	1/50	1550	50	ELEC DISCONNECT, INSTALL WITH WALL MOUNTED BRACKET, TRANSFORMER – 24V CONTROL CIRCUIT
EUH-2	TRANE UHEC-072AACA	MECH PENTHOUSE	700	24	7.5	50	36.1	208	1	60	1/50	1550	50	ELEC DISCONNECT, INSTALL WITH WALL MOUNTED BRACKET, TRANSFORMER – 24V CONTROL CIRCUIT

SINGLE DUCT TERMINAL UNIT SCHEDULE (HW HEAT)

SYMBOL	GENERAL UNIT DATA			AIRFLOW DATA										PIPE SIZE (IN DIA)	CONTROL VALVE	NOTE
	MANUFACTURER	MODEL NO.	INLET CONNECTION SIZE (IN)	COOLING MAX. (CFM)	COOLING MIN. (CFM)	HEATING MEX. (CFM)	EAT (°F)	LAT (°F)	FLOW RATE (GPM)	EWT (°F)	LWT (°F)	CAPACITY (MBH)	NO. OF ROWS	WATER PRESSURE DROP (FT. HD.)			
TU-1-1	PRICE	SDVQ3-6	6	460	140	276	55	90	0.9	130	110	8665	2	10	3/4"	3-WAY	PROVIDE 120/24 VOLT (50VA) TRANSFORMER
TU-1-2	PRICE	SDVQ3-8	8	630	190	378	55	90	1.2	130	110	11620	2	10	3/4"	3-WAY	PROVIDE 120/24 VOLT (50VA) TRANSFORMER
TU-1-3	PRICE	SDVQ3-6	6	400	120	240	55	90	0.8	130	110	7487	2	10	3/4"	2-WAY	PROVIDE 120/24 VOLT (50VA) TRANSFORMER
TU-1-4	PRICE	SDVQ3-8	8	630	190	378	55	90	1.2	130	110	11620	2	10	3/4"	2-WAY	PROVIDE 120/24 VOLT (50VA) TRANSFORMER
TU-1-5	PRICE	SDVQ3-6	6	260	80	156	55	90	0.5	130	110	4872	2	10	3/4"	2-WAY	PROVIDE 120/24 VOLT (50VA) TRANSFORMER
TU-1-6	PRICE	SDVQ3-8	8	630	190	378	55	90	1.2	130	110	11620	2	10	3/4"	2-WAY	PROVIDE 120/24 VOLT (50VA) TRANSFORMER
TU-1-7	PRICE	SDVQ3-8	8	715	215	429	55	90	1.3	130	110	13197	2	10	3/4"	2-WAY	PROVIDE 120/24 VOLT (50VA) TRANSFORMER
TU-1-8	PRICE	SDVQ3-10	10	1070	400	700	55	90	2.2	130	110	21796	2	10	3/4"	2-WAY	PROVIDE 120/24 VOLT (50VA) TRANSFORMER
TU-1-9	PRICE	SDVQ3-8	8	760	230	456	55	90	1.4	130	110	14056	2	10	3/4"	3-WAY	PROVIDE 120/24 VOLT (50VA) TRANSFORMER
TU-1-10	PRICE	SDVQ3-10	10	1345	400	807	55	90	2.5	130	110	24717	2	10	3/4"	2-WAY	PROVIDE 120/24 VOLT (50VA) TRANSFORMER
TU-1-11	PRICE	SDVQ3-8	8	550	165	330	55	90	1	130	110	10082	2	10	3/4"	2-WAY	PROVIDE 120/24 VOLT (50VA) TRANSFORMER
TU-1-12	PRICE	SDVQ3-8	8	800	240	500	55	90	1.5	130	110	14874	2	10	3/4"	2-WAY	PROVIDE 120/24 VOLT (50VA) TRANSFORMER
TU-1-13	PRICE	SDVQ3-10	10	980	295	588	55	90	1.9	130	110	18309	2	10	3/4"	2-WAY	PROVIDE 120/24 VOLT (50VA) TRANSFORMER
TU-1-14	PRICE	SDVQ3-6	6	120	40	72	55	90	0.2	130	110	2256	2	10	3/4"	2-WAY	PROVIDE 120/24 VOLT (50VA) TRANSFORMER
TU-1-15	PRICE	SDVQ3-8	8	800	240	480	55	90	1.5	130	110	14874	2	10	3/4"	2-WAY	PROVIDE 120/24 VOLT (50VA) TRANSFORMER
TU-1-16	PRICE	SDVQ3-16	16	2670	900	1602	55	90	5.1	130	110	50275	2	10	1"	2-WAY	PROVIDE 120/24 VOLT (50VA) TRANSFORMER
TU-1-17	PRICE	SDVQ3-6	6	500	150	300	55	90	0.9	130	110	9184	2	10	3/4"	2-WAY	PROVIDE 120/24 VOLT (50VA) TRANSFORMER
TU-1-18	PRICE	SDVQ3-8	8	580	175	348	55	90	1.1	130	110	10821	2	10	3/4"	2-WAY	PROVIDE 120/24 VOLT (50VA) TRANSFORMER
TU-1-19	PRICE	SDVQ3-6	6	460	140	276	55	90	0.9	130	110	8665	2	10	3/4"	2-WAY	PROVIDE 120/24 VOLT (50VA) TRANSFORMER
TU-1-20	PRICE	SDVQ3-8	8	675	200	405	55	90	1.3	130	110	12378	2	10	3/4"	2-WAY	PROVIDE 120/24 VOLT (50VA) TRANSFORMER
TU-1-21	PRICE	SDVQ3-8	8	610	180	366	55	90	1.2	130	110	11461	2	10	3/4"	2-WAY	PROVIDE 120/24 VOLT (50VA) TRANSFORMER
TU-1-22	PRICE	SDVQ3-8	8	730	220	438	55	90	1.4	130	110	13617	2	10	3/4"	3-WAY	PROVIDE 120/24 VOLT (50VA) TRANSFORMER
TU-1-23	PRICE	SDVQ3-8	8	620	185	372	55	90	1.2	130	110	11540	2	10	3/4"	3-WAY	PROVIDE 120/24 VOLT (50VA) TRANSFORMER

NOTE:
ALL EQUIPMENT SELECTIONS ARE BASED AT AN ELEVATION OF 5,400 FEET ABOVE SEA LEVEL

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Dzilth-Na-O-Dith-Hle - New Dormitory Building

PRICING SET

35 Road 7585, Bloomfield, NM 87413

NOVEMBER 10, 2020

MARK	DATE	DESCRIPTION

ISSUE:	
DATE:	
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MECHANICAL SCHEDULES

M-701

Bridges & Paxton Project No: 8226 11/9/2020 7:14:24 PM D:\Revit 2019\Projects\8226_DCS Dorm_MEP_navd2003zh.rvt

Dzilth-Na-O-Dith-Hle - New Dormitory Building

LOUVERED PENTHOUSE VENTILATOR

SYMBOL	MANUFACTURER & MODEL NO.	LOCATION	AIRFLOW (CFM)	DIMENSIONS (INCH)	FACE AREA	FREE AREA	PRESSURE DROP (IN. WC)
LV-1	RUSKIN - ELF6350DMP	MECH PENTHOUSE	12,000	96X36	24 SF	61%	0.09
LV-2	RUSKIN - ELF811DD	MECH PENTHOUSE	12,000	86X42	25.08	57%	0.1

EXHAUST FANS

SYMBOL	GREENHECK MODEL NO.	AREA SERVED	TYPE	CFM	S.P. (IN. WC)	FAN RPM	BHP	MOTOR DATA					DAMPER	OPERATING WEIGHT (LBS.)	NOTES
								HP	VOLT	PHASE	HZ	FLA			
EF-1	GREENHECK - GB-131-4	ISOLATION 220, 221, LINEN CLOSET 105A, JAN 219, HONORS RR 223A, BOY'S RR 218	CENTRIFUGAL ROOF EXHAUST FAN	1,290	0.5	1,239	0.21	1/4	115	1	60	5.8	BACKDRAFT	60	ELEC DISCONNECT, 14" ROOF CURB
EF-2	GREENHECK - GB-091-4	RR 109, RR 120, STR-120.1	CENTRIFUGAL ROOF EXHAUST FAN	560	0.5	1,300	0.11	1/4	115	1	60	5.8	BACKDRAFT	60	ELEC DISCONNECT, 14" ROOF CURB
EF-3	GREENHECK - GB-091-4	W RR 121, G RR 114, JAN 111	CENTRIFUGAL ROOF EXHAUST FAN	550	0.5	1,293	0.11	1/4	115	1	60	5.8	BACKDRAFT	60	ELEC DISCONNECT, 14" ROOF CURB
EF-4	GREENHECK - GB-131-4	G RR 204, JAN 206, ISOLATION 207, HONORS RR 208A, STR 112, ISOLATION RR 207A	CENTRIFUGAL ROOF EXHAUST FAN	1,280	0.5	1,234	0.21	1/4	115	1	60	5.8	BACKDRAFT	60	ELEC DISCONNECT, 14" ROOF CURB
EF-5	GREENHECK - GB-101-4	LAUNDRY 105, 107	CENTRIFUGAL ROOF EXHAUST FAN	900	0.5	1,293	0.17	1/4	115	1	60	5.8	BACKDRAFT	60	ELEC DISCONNECT, 14" ROOF CURB

EXPANSION TANK

SYMBOL	MANUFACTURER & MODEL NO.	LOCATION	SERVICE	TANK VOLUME (GALLONS)	ACCEPTANCE VOLUME (GALLONS)	WEIGHT (LBS.)	NOTES
ET-1	AMTROL - AX40	MECH PENTHOUSE	HOT WATER SYS	21.7	11.3	300	CHARGE BLADDER TO 15 PSIG, 1" NPT CONNECTION

CHEMICAL FEED SYSTEM

SYMBOL	MANUFACTURER & MODEL NO.	LOCATION	RECEIVER NET CAPACITY (GAL)	TEMP RATING (F)	PIPE CONNECTIONS (IN)	NOTE
CF-1	GRISWOLD DB-12-SB-CS-Z-250	MECH PENTHOUSE	12	250	2 EA - 3/4"	FURNISH WITH 3/4" VALVE PACKAGE, FUNNEL PACKAGE WITH ISOLATION VALVE. ALL COMPONENTS RATED FOR 250°F WATER TEMPERATURE

SPLIT SYSTEM INDOOR UNITS

SYMBOL	MANUFACTURER	MODEL NO.	NOMINAL TON	AREA SERVED	AIR FLOW CFM	COOLING					HEATING			PIPING SIZE			ELEC		PHYSICAL DIMENSIONS				NOTES
						OUTSIDE TEMP	INDOOR DB TEMP	INDOOR WB TEMP	TOTAL BTUH	SENSIBLE BTUH	OUTSIDE TEMP	INDOOR DB TEMP	TOTAL BTUH	RS DIA	RL DIA	DRAIN DIA	V/PH/HZ	POWER CONSUMPTION	WEIGHT (LB)	WIDTH (IN)	LENGTH (IN)	HEIGHT (IN)	
FC-1	MITSUBISHI	PKA-A18HA4	1.5	ELEC 215	420	95	80	67	18,000	10,400	15	59	13,500	1/2"	1/4"	5/8"	208/1/60	FROM CU-1	29	36	10	12	FURNISH W/ WIRED 7-DAY PROG T'STAT,CONDENSATE PUMP - SAUERMANN MODEL SI3100, CONNECT TO CU-1, R-410A REFRIGERANT, ELEC DISCONNECT BY DIV 26
FC-2	MITSUBISHI	PKA-A18HA4	1.5	IT 205	420	95	80	67	18,000	10,400	15	59	13,500	1/2"	1/4"	5/8"	208/1/60	FROM CU-2	29	36	10	12	FURNISH W/ WIRED 7-DAY PROG T'STAT,CONDENSATE PUMP - SAUERMANN MODEL SI3100, CONNECT TO CU-2, R-410A REFRIGERANT, ELEC DISCONNECT BY DIV 26

SPLIT SYSTEM OUTDOOR UNITS

SYMBOL	MANUFACTURER	MODEL NO.	NOMINAL TON	COOLING		HEATING		ELEC			PHYSICAL DIMENSION				PIPE SIZES		NOTES
				OUTDOOR TEMP	TOTAL BTUH	OUTDOOR TEMP	TOTAL BTUH	V/PH/HZ	MCA	MOCP	WEIGHT (LB)	WIDTH (IN)	LENGTH (IN)	HIGHT (IN)	RS DIA	RL DIA	
CU-1	MITSUBISHI	PUZ-A18NHA4	1.5	95	18,000	15	13,500	208/1/60	13	20	95	12	32	24	1/2"	1/4"	FURNISH W/ LO AMBIENT KIT (HEATING TO 5°F AMBIENT) AND WIND BAFFLE, INTERLOCK W/ FC-1
CU-2	MITSUBISHI	PUZ-A18NHA4	1.5	95	18,000	15	13,500	208/1/60	13	20	95	12	32	4	1/2"	1/4"	FURNISH W/ LO AMBIENT KIT (HEATING TO 5°F AMBIENT) AND WIND BAFFLE, INTERLOCK W/ FC-2

HYDRAULIC SEPARATOR

SYMBOL	MANUFACTURER & MODEL NO.	LOCATION	SERVICE	MAX WATER FLOW (GPM)	DESIGN WATER FLOW (GPM)	WATER TEMP. (DEG F)	PIPE CONNECTION (IN)	WEIGHT (LBS)
HS-1	SPIROVENT QUAD VDX250	BOILER ROOM	HEATING WATER SYSTEM	90	65	140	3"	70

KITCHEN HOOD

SYMBOL	MANUFACTURER	MODEL NO.	LOCATION	FLUE	CFM @ 0.0"	CFM @ 0.1"	CFM @ 0.2"	CFM @ 0.3"	HOOD DIMENSION	ELEC INFO		NOTE
										V/PH/HZ	AMP	
HD-1	VENT-A-HOOD	EPH18 - PREMIER MAGIC LUNG WALL MOUNTED	KITCHEN	8" DIA	600	531	480	430	36"x24"x18"	115/1/60	4.0	STAINLESS STEEL FINISH, 12"X12" DUCT COVER

GRILLES AND DIFFUSERS

SYMBOL	MANUFACTURER & MODEL NO.	TYPE	FRAME STYLE	FACE DIMENSIONS (INCH)	NECK DIMENSIONS (INCH)	CFM RANGE	T.P. (IN. W.G.)	MAX NC	NOTES
SD-1	PRICE SCDA, TYPE 3	SUPPLY DIFFUSER	LAY-IN CEILING	12x12, 24x24	6	91-130	0.02-0.06	24	
	PRICE SCDA, TYPE 3	SUPPLY DIFFUSER	LAY-IN CEILING	12x12, 24x24	8	131-210	0.02-0.06	28	
	PRICE SCDA, TYPE 3	SUPPLY DIFFUSER	LAY-IN CEILING	24x24	10	211-330	0.03-0.06	30	
	PRICE SCDA, TYPE 3	SUPPLY DIFFUSER	LAY-IN CEILING	24x24	12	331-430	0.03-0.06	30	
	PRICE SCDA, TYPE 3	SUPPLY DIFFUSER	LAY-IN CEILING	24x24	14	431-530	0.04-0.06	30	
	PRICE SCDA, TYPE 3	SUPPLY DIFFUSER	LAY-IN CEILING	24x24	15	531-630	0.03-0.06	30	
SD-2	PRICE SCDA, TYPE 1	SUPPLY DIFFUSER	FIXED CEILING	12x12, 24x24	6	91-130	0.02-0.09	30	
	PRICE SCDA, TYPE 1	SUPPLY DIFFUSER	FIXED CEILING	12x12, 24x24	8	131-210	0.02-0.09	30	
	PRICE SCDA, TYPE 1	SUPPLY DIFFUSER	FIXED CEILING	24x24	10	211-330	0.02-0.08	30	
	PRICE SCDA, TYPE 1	SUPPLY DIFFUSER	FIXED CEILING	24x24	12	331-430	0.02-0.08	30	
	PRICE SCDA, TYPE 1	SUPPLY DIFFUSER	FIXED CEILING	24x24	14	431-530	0.03-0.08	30	
SR-1	PRICE 520	SIDEWALL SUPPLY	FLAT MARGIN	SEE PLAN	SEE PLANS	SEE PLANS	0.03-0.06	26	
RG-1	PRICE 80	RETURN GRILLE	LAY-IN CEILING	24x24, 24x12, 12x12	SEE PLANS	-	N/A	N/A	
RG-2	PRICE 80	RETURN GRILLE	FIXED CEILING	24x24, 24x12, 12x12	SEE PLANS	-	N/A	N/A	
RR-1	PRICE 530	RETURN GRILLE	SIDEWALL	SEE PLAN	SEE PLANS	-	N/A	N/A	
EG-1	PRICE 80	EXHAUST GRILLE	LAY-IN CEILING	24x24, 24x12, 12x12	SEE PLANS	SEE PLANS	0.01-0.08	25	
EG-2	PRICE 80	EXHAUST GRILLE	FIXED CEILING	24x24, 24x12, 12x12	SEE PLANS	SEE PLANS	0.01-0.08	25	
ER-1	PRICE 80	EXHAUST GRILLE	SIDEWALL	SEE PLAN	SEE PLANS	-	N/A	N/A	

NOTE:
ALL EQUIPMENT SELECTIONS ARE BASED AT AN ELEVATION OF 5,400 FEET ABOVE SEA LEVEL

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ARCHITECT

Dzilth-Na-O-Dith-Hle - New Dormitory Building

PRICING SET

35 Road 7585, Bloomfield, NM 87413

NOVEMBER 10, 2020

MARK	DATE	DESCRIPTION

ISSUE:	
DATE:	
PROJECT NO:	751
CAD DWG FILE:	
DRAWN BY:	LMD
CHECKED BY:	IM

SHEET TITLE

MECHANICAL SCHEDULES

M-702

Bridgers & Paxton Project No: 8226 11/9/2020 6:54:06 PM D:\Revit 2019\Projects\8226_DCS Dorm_MEP_nav\d2002sh.rvt

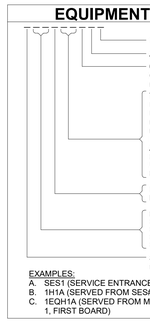
ELECTRICAL SYMBOL LEGEND (NOT ALL SYMBOLS APPLY TO THIS PROJECT)

UPDATED: 09/07/2016

ABBREVIATIONS

ABBREV.	DEFINITION
A	AMPS, AMPERE, AMPERAGE
AC	ABOVE COUNTER
A/C	ALTERNATING CURRENT
ADA	AMERICANS WITH DISABILITIES ACT
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AVAILABLE INTERRUPTING CURRENT
AL	ALUMINUM
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ATSC	AUTOMATIC TRANSFER SWITCH CONTROL
ATS	AUTOMATIC TRANSFER SWITCH
A/V	AUDIO/VISUAL
AWG	AMERICAN WIRE GAUGE
C	CONDUIT
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CKT	CIRCUIT
CL	CLOCK
CLF	CURRENT LIMITING FUSE
CO	CONDUIT ONLY
CU	COPPER
D	DIMMING
DC	DIRECT CURRENT
DL	DAY-LIGHTING
DIA	DIAMETER
E	EMERGENCY
EC	EMERGENCY, CRITICAL
EG	ENGINE GENERATOR
EL	EMERGENCY, LIFE SAFETY
EQ	EMERGENCY, EQUIPMENT
EX	EXISTING
FUT	FUTURE
FA	FIRE ALARM
FAA	FIRE ALARM ANNUNCIATOR
FACP	FIRE ALARM CONTROL PANEL
FATC	FIRE ALARM TERMINAL CABINET
FDR	FEEDER
FMS	FACILITY MANAGEMENT SYSTEM
GEN	GENERATOR
GFI	GROUND FAULT INTERRUPTER
G OR GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFEP	GROUND FAULT EQUIPMENT PROTECTION
GFP	GROUND FAULT PROTECTION
GND	GROUND.
HOA	HAND-OFF-AUTOMATIC.
HP	HORSEPOWER
IEEE	INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
IG	ISOLATED GROUND
KCMIL	THOUSAND CIRCULAR MILS
KV	KILOVOLT
KVA	KILOVOLT AMPS
KVAR	KILOVOLT AMPS REACTIVE
KW	KILOWATT
KWH	KILOWATT HOUR.
LSIG	LONG TIME, SHORT TIME, INSTANTANEOUS, AND GROUND FAULT PROTECTION
MAX	MAXIMUM
MCC	MOTOR CONTROL CENTER
MH	MANHOLE
MIN	MINIMUM
MM	MIXED MEDIA
MTS	MANUAL TRANSFER SWITCH
MVA	MEGAVOLT AMPS
N	NEW
N/A	NOT APPLICABLE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NEUT	NEUTRAL
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NL	NORMAL
NM	NEW MEXICO
NO	NORMALLY OPEN
O/H	OVERHEAD
P	POLE
PA	PUBLIC ADDRESS
PC	PHOTOCELL
PH	PHASE
PMCS	POWER MONITORING AND CONTROL SYSTEM
R	REMOVED/REMOVAL
RC	ROOM CONTROLLER
RSC	RIGID STEEL CONDUIT
SEC	SECURITY
SPD	SURGE PROTECTIVE DEVICE
SW	SWITCH
TEMP	TEMPORARY
TTB	TELEPHONE TERMINAL BOARD
TV	TELEVISION
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSER
TYP.	TYPICAL
UC	UNDER COUNTER
U/G	UNDERGROUND
UGE	UNDERGROUND ELECTRIC
UL	UNDERWRITERS' LABORATORIES
UON	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTABLE POWER SUPPLY
V	VOLTS, VOLTAGE
VFD	VARIABLE FREQUENCY DRIVE
W	WALL MOUNTED
WG	WEATHERPROOF AND GFCI
WP	WEATHERPROOF
XFER	TRANSFER
XFMR (TRANSF)	TRANSFORMER

EQUIPMENT NAMING CONVENTION



EXAMPLES:
A. SES1 (SERVICE ENTRANCE SECTION #1)
B. 1H1A (SERVED FROM SES#1, 480/277 NORMAL, LEVEL 1, FIRST BOARD)
C. 1EQH1A (SERVED FROM MAIN EMER SWBD #1, 480/277 EQUIP POWER, LEVEL 1, FIRST BOARD)

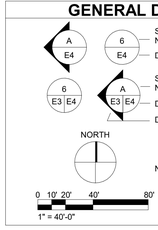
RACEWAY & CONDUCTORS

BRANCH CIRCUIT GENERAL INFORMATION:

BRANCH CIRCUITS FROM OVERCURRENT PROTECTION (20A) TO FURTHEST DEVICE SHALL NOT EXCEED 75 FEET FOR #12AWG COPPER AND 150 FEET FOR #10AWG COPPER; MEASURED ALONG CONDUCTORS ROUTING PATH. BRANCH CIRCUITS EXCEEDING 150 FEET WILL BE SIZED SO THAT VOLTAGE DROP DOES NOT EXCEED 5%.

SYMBOL	DESCRIPTION
= GROUND = HOT/PHASE = NEUTRAL = SWITCH LEG	CONDUCTOR IDENTIFICATION SYMBOLS. REFER TO PLANS FOR COMBINATION USE. CONDUCTOR IDENTIFICATION MOSTLY USED IN HOMERUN LOCATION. BUT CAN ALSO BE USED IN BRANCH CIRCUITING WHERE APPLIED. GROUND CONDUCTORS WILL BE INSTALLED IN ALL RACEWAYS WHETHER SHOWN OR NOT.
LA-1	HOMERUN FROM EQUIPMENT LOCATION. THE CIRCUIT NUMBER ADJACENT TO HOMERUN INDICATES PANEL SOURCE AND INDIVIDUAL SINGLE POLE CIRCUIT BREAKER(S). CONDUCTOR IDENTIFICATION SYMBOL INDICATES NUMBER OF CONDUCTORS IN HOMERUN. MINIMUM #12 CONDUCTORS AND 3/4" RACEWAY PATH WILL BE PROVIDED IN HOMERUN UON. ALL HOMERUNS WILL INCLUDE GROUND CONDUCTOR.
LA-1,3 LA-5,7,9	HOMERUN FROM EQUIPMENT LOCATION. THE CIRCUIT NUMBER ADJACENT TO HOMERUN INDICATES PANEL SOURCE AND INDIVIDUAL SINGLE POLE CIRCUIT BREAKER(S). SYMBOL REPRESENTS A MULTI-BRANCH CIRCUIT. NUMBER OF CONDUCTORS IN HOMERUN WILL INCLUDE A SEPARATE NEUTRAL FOR EACH CIRCUIT PHASE CONDUCTOR. MINIMUM #12 CONDUCTORS AND 3/4" RACEWAY PATH WILL BE PROVIDED IN HOMERUN UON. ALL HOMERUNS WILL INCLUDE GROUND CONDUCTOR.
LA-1,3 LA-5,7,9	HOMERUN FROM EQUIPMENT LOCATION. THE CIRCUIT NUMBER ADJACENT TO HOMERUN INDICATES PANEL SOURCE AND INDIVIDUAL TWO OR THREE POLE CIRCUIT BREAKERS. CONDUCTOR IDENTIFICATION SYMBOL INDICATES NUMBER OF CONDUCTORS IN HOMERUN. MINIMUM #12 CONDUCTORS AND 3/4" RACEWAY PATH WILL BE PROVIDED IN HOMERUN UON. NEUTRAL MAY BE USED WHERE INDICATED ON PLAN. ALL HOMERUNS WILL INCLUDE GROUND CONDUCTOR.
	CONCEALED RACEWAY BETWEEN DEVICES AND OR EQUIPMENT IN WALLS OR IN CEILING SPACE
	UNDERGROUND RACEWAY BETWEEN DEVICES AND OR EQUIPMENT
	EXPOSED RACEWAY BETWEEN DEVICES AND OR EQUIPMENT ON WALLS OR CEILINGS
DOWN UP	CONDUIT TURNS
	CONDUIT STUBBED AND CAPPED
B	BUSWAY
G	GROUNDING CONDUCTOR
	CABLE TRAY - POWER AND TELECOMMUNICATIONS
T	TELECOMMUNICATIONS RACEWAY
D	DATA RACEWAY
V/D	VOICE/DATA COMBINATION RACEWAY
FA	FIRE ALARM RACEWAY

GENERAL DRAWING SYMBOLS



REFERENCE TAGS

SYMBOL	DEFINITION
	KEYED NOTE REFERENCE
VAV-9	MECHANICAL EQUIPMENT REFERENCE
+44"	DENOTES MOUNTING HEIGHT AFF
	KITCHEN EQUIPMENT REFERENCE
	MEDICAL EQUIPMENT REFERENCE

DEMOLITION

SYMBOL	DESCRIPTION	NOTES
	DASHED SYMBOL INDICATES EXISTING DEVICE OR EQUIPMENT TO BE REMOVED	REFER TO DEMOLITION PLANS FOR ADDITIONAL INFORMATION
R	REMOVE EXISTING RACEWAY IN ALL ACCESSIBLE AREAS. CAPPED AND ABANDONED IF IN UNACCESSIBLE AREA	
S	SOLID SYMBOL, LIGHTER IN COLOR INDICATES EXISTING DEVICE OR EQUIPMENT TO REMAIN	
EX	EXISTING CONDUIT TO BE REUSED	

DEVICES

DEVICE INDICATOR LETTER. "X" EQUALS DESIGNATION BELOW (TYPICAL FOR MOST RECEPTACLE TYPES):
BLANK FOR NORMAL POWER
G = GFCI RATED
IG = ISOLATED GROUND
T = TAMPERPROOF
WG = WEATHERPROOF AND GFCI
WP = WEATHERPROOF (IN-USE COVER)
CL = CLOCK
TV = TELEVISION

SYMBOL	DESCRIPTION	MOUNTING LOC.	MOUNTING HT.
X	IN FLOOR DUPLEX RECEPTACLE. CONFIGURATION AS INDICATED ON PLANS	FLOOR	VARIES
X	IN FLOOR DOUBLE DUPLEX (QUADPLEX) RECEPTACLE. CONFIGURATION AS INDICATED ON PLANS		
X	IN FLOOR EMERGENCY DUPLEX RECEPTACLE. CONFIGURATION AS INDICATED ON PLANS		
X	IN FLOOR EMERGENCY DOUBLE DUPLEX (QUADPLEX) RECEPTACLE. CONFIGURATION AS INDICATED ON PLANS		
X	COMBINATION DUPLEX RECEPTACLE AND COMMUNICATIONS FLOORBOX. DEVICE CONFIGURATION AS INDICATED ON PLANS.		
X	CEILING MOUNTED DUPLEX RECEPTACLE	CEILING	FLUSH
X	CEILING MOUNTED DOUBLE DUPLEX (QUADPLEX) RECEPTACLE		
X	CEILING MOUNTED EMERGENCY DUPLEX RECEPTACLE		
X	CEILING MOUNTED EMERGENCY DOUBLE DUPLEX (QUADPLEX) RECEPTACLE		
X	COMBINATION POWER/COMMUNICATION IN CEILING OUTLET. CONFIGURATION AS INDICATED ON PLANS		
X	SIMPLEX RECEPTACLE	WALL, UON	+18", UON
X	DUPLEX RECEPTACLE		
X	DOUBLE DUPLEX (QUADPLEX) RECEPTACLE		
X	EMERGENCY DUPLEX RECEPTACLE		
X	EMERGENCY DOUBLE DUPLEX (QUADPLEX) RECEPTACLE		
X	SPECIAL PURPOSE RECEPTACLE. NEMA CONFIGURATION AND AMPERAGE AS NOTED ON PLANS		
	MULTI-OUTLET ASSEMBLY (SURFACE MOUNTED RACEWAY)	VARIES SEE PLANS	VARIES SEE PLANS
	COMBINATION POWER/COMMUNICATION POLE. CONFIGURATION AS NOTED ON PLANS		
J	WALL MOUNTED CODE SIZE J-BOX	VARIES SEE PLANS	VARIES SEE PLANS
J	CODE SIZE JUNCTION BOX		
P	CODE SIZE PULLBOX (OR AS SIZED ON PLAN)		
•	PUSHBUTTON (EMERGENCY POWER OFF - EPO)		
PC	PHOTOCELL		
•	LIGHTNING PROTECTION AIR TERMINAL	ROOF	VARIES
T	THERMOSTAT	WALL	+44" UON
CB 30/3R	ENCLOSED CIRCUIT BREAKER. AMPERAGE/NEMA ENCLOSURE RATING, 3 POLE UON	VARIES	VARIES
30/1	NON-FUSED DISCONNECT SWITCH. AMPERAGE/NEMA ENCLOSURE RATING, 3 POLE UON		
30/3R	FUSED DISCONNECT SWITCH. AMPERAGE/NEMA ENCLOSURE RATING, 3 POLE UON		
0/1	MOTOR STARTER. STARTER SIZE INDICATED BY NUMBER/NEMA ENCLOSURE RATING, SINGLE SPEED UON		
1/30/3R	COMBINATION FUSIBLE DISCONNECT SWITCH AND MOTOR STARTER. NEMA STARTER SIZE/AMPERAGE/NEMA ENCLOSURE RATING, 3 POLE UON		
5	MOTOR. NUMBER INDICATES HORSEPOWER RATING FOR 1HP AND LARGER	N/A	N/A
F	MOTOR. "F" INDICATES FRACTIONAL HORSEPOWER		

EQUIPMENT

SYMBOL	DESCRIPTION
MSB	MAIN SWITCHBOARD. DASHED LINES INDICATE CLEARANCES.
DB	DISTRIBUTION BOARD OR PANEL. DASHED LINES INDICATE CLEARANCES.
H1A	FLUSH MOUNTED PANELBOARD. DASHED LINES INDICATE CLEARANCES.
L1A	SURFACE MOUNTED PANELBOARD. DASHED LINES INDICATE CLEARANCES.
MCC	MOTOR CONTROL CENTER. DASHED LINES INDICATE CLEARANCES.
T1A	DRY TYPE TRANSFORMER (15kVA OR ABOVE), WITH EQUIPMENT TAG (TAG INSIDE OR OUTSIDE, DEPENDING ON SIZE). IN MOST CASES, ACTUAL SIZE SHOWN ON PLANS (ELECTRICAL ROOMS).
T	DRY TYPE TRANSFORMER (LESS THAN 15kVA), WITH NO EQUIPMENT TAG. SIZE, TYPE AND LOCATION NOTED ON PLANS.
VFD	VARIABLE FREQUENCY DRIVE
UPS-A	UNINTERRUPTABLE POWER SUPPLY. DASHED LINES INDICATE CLEARANCES.
ATS-1	AUTOMATIC TRANSFER SWITCH. DASHED LINES INDICATE CLEARANCES.
G	GROUND BAR

LIGHTING

REFER TO LUMINAIRE SCHEDULE FOR ALL LUMINAIRE TYPES WHETHER WALL MOUNTED OR CEILING MOUNTED.

SYMBOL	DESCRIPTION	MOUNTING LOC.	MOUNTING HT.
	HATCHING INDICATES EMERGENCY LIGHTING. HATCH WILL BE MODIFIED FOR EACH LUMINAIRE TYPE. EMERGENCY LUMINAIRE DESIGNATED WITH "E" IN TYPE DESIGNATION.	VARIES	REFER TO LIGHTING SCHEDULE
3 A a	RECESSED MOUNTED LUMINAIRE. SMALL CASE "a" DENOTES SWITCHING, NUMBER "3" DENOTES BRANCH CIRCUITING. SYMBOL "A" DENOTES LUMINAIRE TYPE	CEILING	
	SURFACE MOUNTED LUMINAIRE. LUMINAIRE TYPE AS INDICATED ON PLANS		
	LINEAR DIRECT/INDIRECT LUMINAIRE. CABLE OR STEM MOUNTED		
	DOWN LIGHT LUMINAIRE; CEILING MOUNTED		
	WALL MOUNTED LUMINAIRES	WALL	
	TRACK MOUNTED LUMINAIRES	SURFACE	
	STRIP LUMINAIRE		
WALL CEILING	EXIT LUMINAIRE. SHADED SIDE INDICATES FACE SIDE. PROVIDE DIRECTIONAL ARROW(S) AS INDICATED ON PLANS	VARIES	
WALL CEILING	DOUBLE FACE EXIT LUMINAIRE. SHADED SIDE INDICATES FACE SIDE. PROVIDE DIRECTIONAL ARROW(S) AS INDICATED ON PLANS		
	EMERGENCY BATTERY PACK LUMINAIRE (BUG-EYE/FROG-EYE)		
	SINGLE HEAD, POLE MOUNTED LUMINAIRE	EXTERIOR	AS DETAILED
	DOUBLE HEAD, POLE MOUNTED LUMINAIRE		
$ X	DEVICE INDICATOR LETTER. "X" EQUALS DESIGNATION BELOW (TYPICAL FOR MOST SWITCH TYPES): a = SMALL CASE LETTER DENOTES SWITCHING CONTROL; 2 = DOUBLE POLE TOGGLE SWITCH; 3 = THREE-WAY TOGGLE SWITCH; 4 = FOUR-WAY TOGGLE SWITCH; P = PILOT LIGHT TOGGLE SWITCH; M = MOMENTARY CONTACT SWITCH; K = KEY OPERATED SWITCH; WP = WEATHERPROOF TOGGLE SWITCH; T = MANUAL MOTOR STARTER SWITCH WITH THERMAL OVERLOAD PROTECTION; D = DIMMER SWITCH; TW= TWIST TIMER SWITCH	WALL	+44" UON
OS	WALL MOUNTED OCCUPANCY SENSOR; TYPE AS INDICATED ON PLANS		
OS	CEILING MOUNTED OCCUPANCY SENSOR; TYPE AS INDICATED ON PLANS	CEILING	SURFACE
DL	DAY-LIGHTING SENSOR; TYPE AS INDICATED ON PLANS		
RC	ROOM CONTROLLER; TYPE AS INDICATED ON PLANS		

UTILITIES

SYMBOL	DESCRIPTION
•	DISTRIBUTION POLE FOR OVERHEAD ELECTRICAL OR COMMUNICATIONS AS INDICATED ON PLAN.
X X X	OVERHEAD UTILITY AND OR SYSTEM DISTRIBUTION. 3PH = THREE PHASE; 1PH = SINGLE PHASE; P = ELECTRICAL PRIMARY; S = ELECTRICAL SECONDARY; T = TELECOMMUNICATION; TV = TELEVISION; E = EMERGENCY POWER; ATSC = AUTOMATIC TRANSFER SWITCH CONTROL; N = NEW; EX = EXISTING
X X X	UNDERGROUND UTILITY AND OR SYSTEM DISTRIBUTION.
UT	UTILITY OR FACILITY TRANSFORMER
S	PAD MOUNTED SWITCH
CC	CONNECTION CABINET (UTILITY METER MOUNT)
PM	PRIMARY SITE METER ENCLOSURE
ME	METER ENCLOSURE. EITHER ON BUILDING OR ON UTILITY EQUIPMENT
CT	CT ENCLOSURE. EITHER ON BUILDING OR ON UTILITY EQUIPMENT
MH	MANHOLE - POWER OR COMMUNICATION AS INDICATED ON PLANS
HH	HAND HOLE - POWER OR COMMUNICATION AS INDICATED ON PLANS
EG	ENGINE GENERATOR
TP	TELECOMMUNICATION PEDESTAL
TVP	TELEVISION PEDESTAL

FIRE ALARM

SYMBOL	DESCRIPTION	MOUNTING LOC.	MOUNTING HT.
FACP	FIRE ALARM CONTROL PANEL	WALL	-
FATC	FIRE ALARM TERMINAL CABINET (EQUIPMENT NAMING CONVENTION PER PLANS)		
FAA	FIRE ALARM ANNUNCIATOR PANEL	WALL	+44"
F	PULL STATION		
F	FIREMAN'S TELEPHONE OUTLET		
F	HORN NOTIFICATION	WALL	+80" UON
S	SPEAKER NOTIFICATION		
C	CHIME NOTIFICATION		
	COMBINATION SPEAKER AND CHIME NOTIFICATION		
	SPEAKER/HORN WITH STROBE LIGHT		
	STROBE LIGHT ONLY		
B	BELL (GONG)		
P	PHOTOELECTRIC SMOKE DETECTOR	CEILING	SURFACE
I	IONIZATION SMOKE DETECTOR		
R/F	COMBINATION RATE OF RISE / FIXED TEMPERATURE		
F	FIXED TEMPERATURE; TEMPERATURE AS NOTED ON PLANS OR SPECIFICATIONS		
R	RATE OF RISE ONLY		
BT	BEAM TRANSMITTER	CEILING OR WALL	VARIES
BR	BEAM RECEIVER		
U	UNDER FLOOR SMOKE DETECTOR	UNDER FLOOR	SEE PLANS
	DUCT DETECTOR	AT DUCT	SEE PLANS
	FIRE/SMOKE DAMPER		
PS	PRESSURE SWITCH	PIPE	VARIES
TS	TAMPER SWITCH		
FS	FLOW SWITCH		
PIV	POST INDICATOR VALVE		
M	MAGNETIC DOOR HOLDER	VARIES	SEE PLANS
R	CONTROL RELAY		
MM	MONITOR MODULE		
	REMOTE ALARM INDICATING LIGHT		
R	ADDRESSABLE/SUPERVISED RELAY		

ONE-LINE DIAGRAM

SYMBOL	DESCRIPTION
300 / 400	CIRCUIT BREAKER; TRIP SETTING/FRAME SIZE OR NO. OF POLES. SETTINGS AND PROTECTION AS NOTED ON PLANS
300 / 400	DRAWOUT CIRCUIT BREAKER (TRIP SETTING / FRAME SIZE)
300 / 400	MEDIUM VOLTAGE DRAWOUT CIRCUIT BREAKER (TRIP SETTING / FRAME SIZE)
T1A 75kVA K-4 208Y/120V Δ 480V	TRANSFORMER. TRANSFORMER NAME, TRANSFORMER kVA RATING, PRIMARY VOLTAGE AND WIRING CONFIGURATION, SECONDARY VOLTAGE, K RATING (IF APPLICABLE)
3000/5	CURRENT TRANSFORMER, NUMBER "3000/5" DENOTES RATIO.
	POTENTIAL TRANSFORMER.
300A	DISCONNECT SWITCH. "300A" DENOTES AMPERAGE RATING
300A	FUSE. "300A" DENOTES AMPERAGE RATING
G	GROUND FAULT PROTECTION
ST	SHUNT TRIP OPERATOR
	GROUND CONNECTION
	TRANSFER SWITCH. SEE PLANS FOR TYPE OF SWITCH
	SURGE ARRESTOR
SPD	SURGE PROTECTIVE DEVICE
KW	KILOWATT METER
M	ELECTRONIC METER
K1	KIRK KEY INTERLOCK No.1
R1	RELAY No.1
AS	AMMETER SWITCH
A	AMMETER
VS	VOLTMETER SWITCH
V	VOLTMETER
	DELTA CONNECTED
	WYE CONNECTED
	GENERATOR
VFD	VFD CONNECTION
5	MOTOR CONNECTION
UPS	UPS

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ARCHITECT

Dzilth-Na-O-Dith-Hle - New Dormitory Building

PRICING SET

35 Road 7585, Bloomfield, NM 87413

NOVEMBER 10, 2020

MARK	DATE	DESCRIPTION

ISSUE:	
DATE:	
PROJECT NO:	751
CAD DWG FILE:	
DRAWN BY:	TLA
CHECKED BY:	JMM

SHEET TITLE

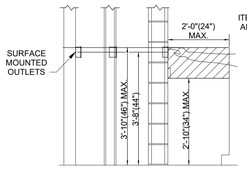
ELECTRICAL LEGEND

E-001

PLAN

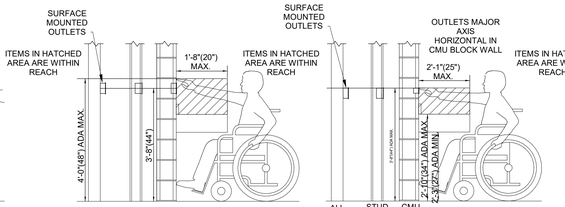
PLAN

PLAN



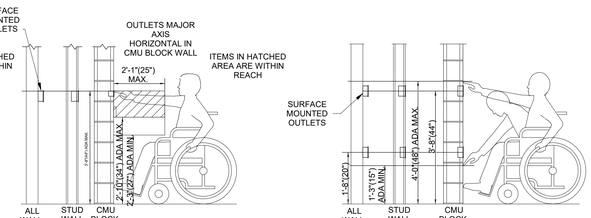
SECTION

OBSTRUCTED SIDE REACH



SECTION

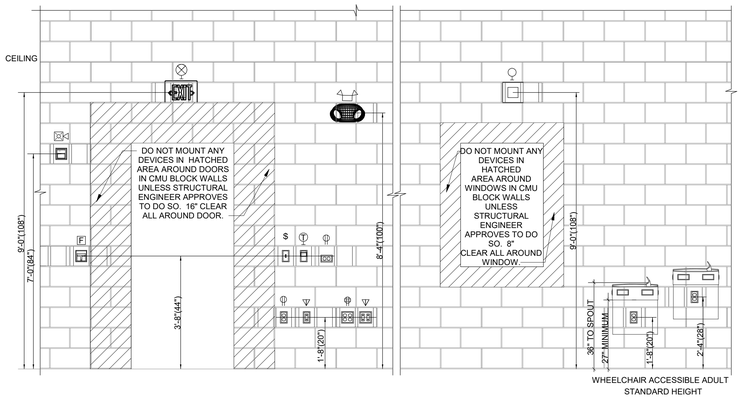
OBSTRUCTED FORWARD REACH



SECTION

SECTION

UNOBSTRUCTED FORWARD AND SIDE REACH



ELEVATION

DEVICE OUTLET MOUTING

1 DEVICE MOUNTING DETAILS

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

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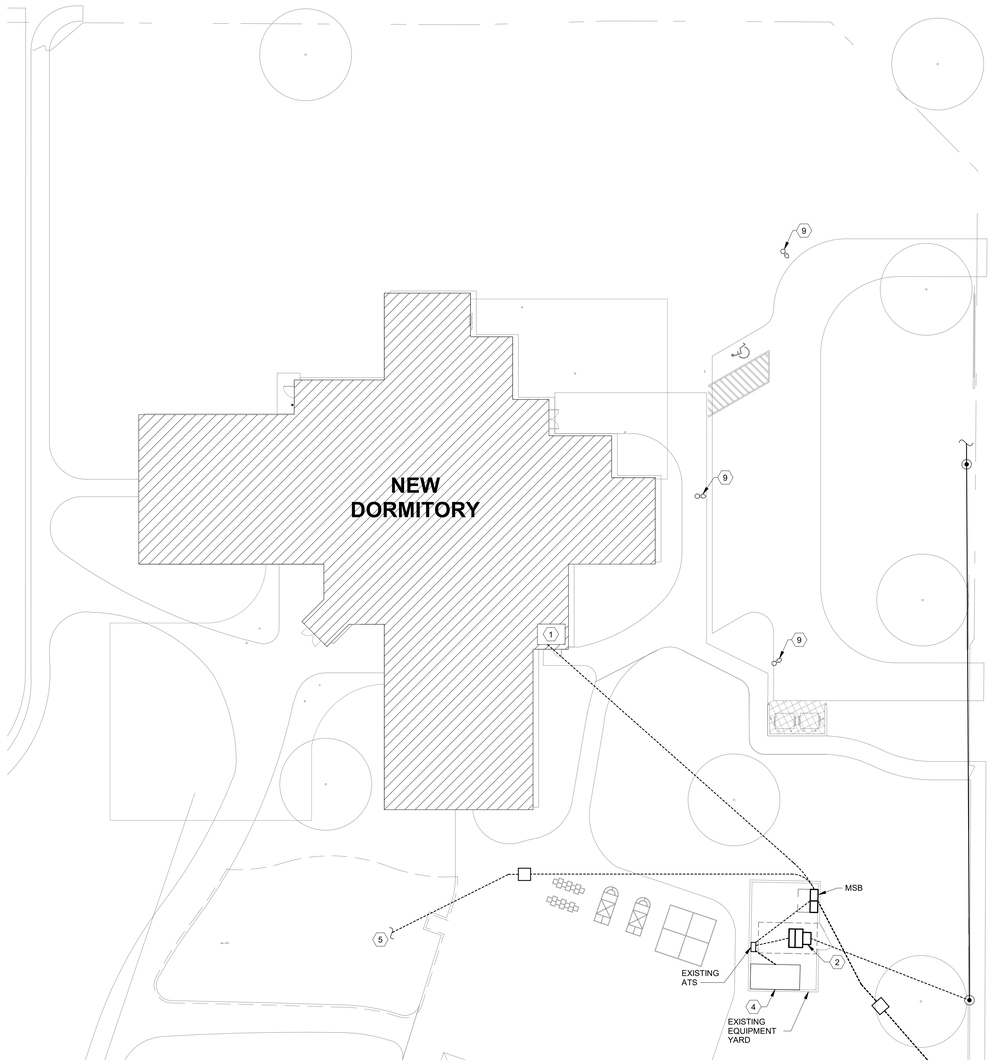
ADA MOUNTING DETAIL

E-002

Bridgers & Paxton Project No: 6226 11/9/2020 5:49:22 PM D:\Revit 2019\Projects\8226_DCS Dorm_MEP_AMHerrera\SSZMC.rvt



A1 ELECTRICAL SITE PLAN
SCALE: 1" = 20'-0"

0' 10' 20' 40'

GENERAL NOTES

A. SEE SHEET E-602 FOR FIRE ALARM RISER DIAGRAM AND ADDITIONAL INFORMATION.
B. REFER TO SHEET SERIES "C", "AS", "M", "T" AND "P" FOR OTHER UTILITIES WITHIN ROUTING PATH OF ELECTRICAL RACEWAYS.
C. REFER TO SHEET E-601 FOR ONE-LINE DIAGRAM AND ADDITIONAL ELECTRICAL DISTRIBUTION INFORMATION.
D. REFER TO SHEET SERIES "T" FOR TELECOMMUNICATION ROOMS, EQUIPMENT LAYOUTS AND EQUIPMENT SIZES.
E. ALL EXTERIOR BUILDING LUMINAIRES AND POLE MOUNTED SITE LUMINAIRES WILL BE ROUTED THROUGH A TIME CLOCK LOCATED IN THE ELECTRICAL ROOM WHERE PANEL CIRCUITING THOSE LUMINAIRES IS LOCATED. THE EXTERIOR BUILDING LUMINAIRES AND SITE LUMINAIRES MUST BE CONTROLLED SEPARATELY.
F. REFER TO SHEET E-701 FOR LUMINAIRE SCHEDULE.
G. SHOULD CONTRACTOR AT ANY TIME NOTICE THAT THE ACTUAL FIELD CONDITIONS DO NOT CORRESPOND TO THE INFORMATION GIVEN ON THE DRAWINGS, THEN IT WILL BE THEIR RESPONSIBILITY TO NOTIFY THE ARCHITECT FOR CLARIFICATION, PRIOR TO COMMENCING SUCH WORK.
H. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH ALL TRADES FOR THE EXACT LOCATION OF EQUIPMENT THAT REQUIRE ELECTRICAL CONNECTIONS.
I. FOR CIRCUITING FOR ALL LUMINAIRES ON SITE, REFER TO SHEET ES-101 ON THE SCHOOL PORTION.
J. COMPLY WITH NFPA 70, 2004 ED.

KEYNOTES

1. ELECTRICAL ROOM. REFER TO SHEETS EP-101 FOR ELECTRICAL EQUIPMENT LAYOUT.
2. UTILITY TRANSFORMER. REFER TO SHEET E-601 FOR ADDITIONAL INFORMATION.
3. MAIN ELECTRICAL DISTRIBUTION TO BE FED FROM EXISTING MAINTENANCE BUILDING.
4. EXISTING ENGINE GENERATOR. REFER TO SHEET E-601 FOR ADDITIONAL INFORMATION. COORDINATE ALL REQUIREMENTS WITH MANUFACTURER FOR A COMPLETE AND OPERATIONAL SYSTEM.
5. FOR POWER TO SCHOOL BUILDING, SEE SHEET ES-101 ON SCHOOL PORTION.
6. QUADPLEX IN 12" x 12" x 6" LOCKABLE AND HINGED COVERED PULL BOX ALL TO BE POWERED FRO THE UTILITY YARD AND LOCATED IN NEMA 3R SWITCHBOARD 'XXX'.
7. PROVIDE 12" x 12" x 6" LOCKABLE AND HINGED COVERED PULL BOX PER TECHNOLOGY.
8. ELECTRICAL ROOM IN SCHOOL BUILDING. REFER TO SHEETS EP-101A AND E-401 ON SCHOOL PORTION FOR ADDITIONAL INFORMATION.
9. SITE POLE FOR POLE MOUNTED LIGHTING. FOR OVERALL SITE LIGHTING LAYOUT AND ADDITIONAL INFORMATION REFER TO SHEET ES101 AND E-701 ON THE SCHOOL PORTION

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SHEET TITLE
ELECTRICAL SITE PLAN

ES-101

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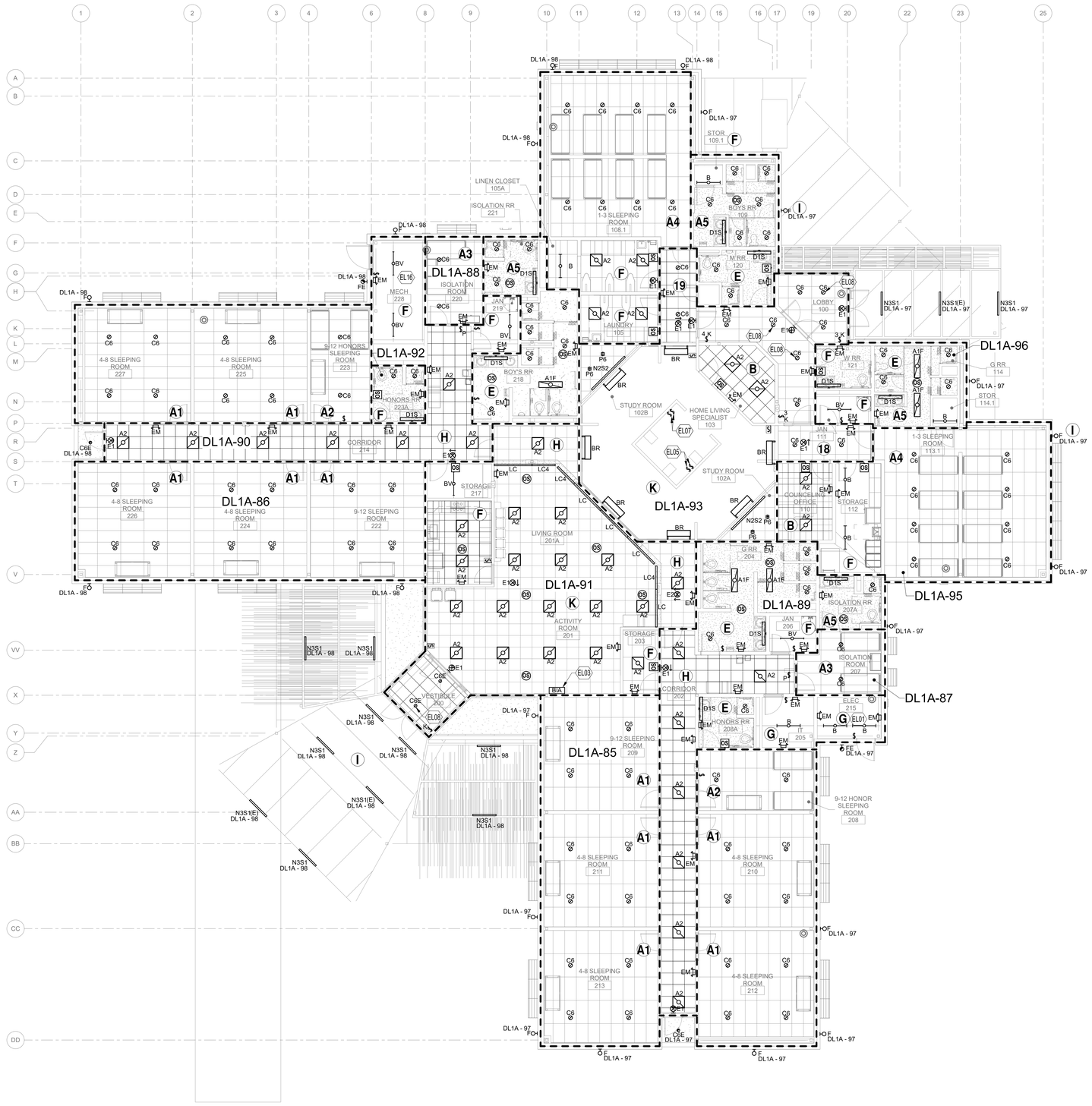

A1 LIGHTING FLOOR PLAN
1/8" = 1'-0"

0' 4' 8' 16'

GENERAL NOTES

A. ALL EXIT SIGNS ARE TYPE "E" (SINGLE FACE) "E2" (DOUBLE FACE) OR "EG" UNLESS OTHERWISE NOTED. ALL EXIT SIGNS WILL BE CONNECTED TO CIRCUIT SERVING THE ROOM THEY ARE LOCATED IN AND FROM NO OTHER CIRCUIT. AT ALL EXIT SIGNAGE LOCATIONS, AN ADDITIONAL HIGH ABUSE TYPE "EG" SIGN SHALL BE PROVIDED AT 12 INCHES ABOVE THE FINISHED FLOOR MEASURED TO THE BOTTOM OF THE SIGN.
B. FOR ELECTRICAL LUMINAIRE SCHEDULE, SEE SHEET E-701.
C. REFER TO SHEET SERIES "EP" FOR ELECTRICAL ROOMS AND ELECTRICAL EQUIPMENT LAYOUT.
D. FOR LUMINAIRE MOUNTING, REFER TO DETAILS A5 AND B5 ON SHEET E-501.
E. REFER TO SHEET SERIES "A" FOR ADDITIONAL CEILING GRID MOUNTING SUPPORT INFORMATION. ALL LUMINAIRES WILL BE SECURELY SUPPORTED SEPARATELY FROM CEILING GRIDS TO CEILING STRUCTURE.
F. FOR EXTERIOR LIGHTING ELEVATIONS, SEE ARCHITECTURAL SHEET SERIES AE200.
G. ALL CORRIDOR AND LOBBY LUMINAIRES WILL BE ROUTED THROUGH A RELAY PANEL LOCATED IN THE SAME ELECTRICAL ROOM AS THE PANEL SERVING THOSE LUMINAIRES.
H. ALL EXTERIOR BUILDING MOUNTED LUMINAIRES AND POLE MOUNTED SITE LUMINAIRES WILL BE ROUTED THROUGH A RELAY PANEL LOCATED IN THE SAME ELECTRICAL ROOM AS THE PANEL SERVING THOSE LUMINAIRES. THE EXTERIOR BUILDING MOUNTED LUMINAIRES AND POLE MOUNTED SITE LUMINAIRES MUST BE CONTROLLED SEPARATELY.
I. ALL LUMINAIRES IN DASHED AREA WILL BE CONNECTED TO CIRCUIT INDICATED UNLESS OTHERWISE NOTED. CONTROL IS INDICATED OR NOTED.
J. COVER PLATES OF ALL DEVICES WILL BE LABELED WITH CIRCUIT IT IS CONNECTED TO, SUCH DEVICES ARE, BUT NOT LIMITED TO, SWITCHES AND RECEPTACLES. REFER TO SPECIFICATION SECTION 260553 FOR ADDITIONAL INFORMATION.
K. COMPLY WITH NFPA 70, 2004 ED.

REFER TO SHEET E-701 FOR LIGHTING SEQUENCE OF OPERATION.
(A) INDICATES SEQUENCE IN EACH ROOM.

KEYNOTES

EL01 REFER TO SHEET SERIES "EP" FOR ELECTRICAL EQUIPMENT LAYOUT IN THIS ROOM. CONTRACTOR TO STEM MOUNT LIGHTING AND UTILIZE UNISTRUT SO THAT LOCATION IS CENTERED AND AWAY FROM OBSTRUCTION.
EL03 PROVIDE BATTERY INVERTER FOR ALL LUMINAIRES DESIGNATED "N3S1(E) EXTERIOR OF BUILDING. REFER TO SHEET E-701 FOR ADDITIONAL INFORMATION. LABEL BIA.
EL05 PROVIDE SWITCHES AT THIS LOCATION FOR EAST/WEST BEDROOM WING AT THIS LOCATION. MOUNT ABOVE COUNTER. LABEL EACH COVERPLATE WITH LIGHTING CONTROL SERVING: BEDROOM GRADES 4-12, BEDROOMS GRADES 1-3, CORRIDOR, ETC.
EL07 PROVIDE SWITCHES AT THIS LOCATION FOR NORTH/SOUTH BEDROOM WING AT THIS LOCATION. MOUNT ABOVE COUNTER. LABEL EACH COVERPLATE WITH LIGHTING CONTROL SERVING: BEDROOM GRADES 4-12, BEDROOMS GRADES 1-3, CORRIDOR, ETC.
EL08 PROVIDE A CONTINUOUS HOT TO THIS LUMINAIRE FOR NIGHT LIGHTING.
EL16 REFER TO SHEET SERIES "M" AND "P" FOR MECHANICAL AND PLUMBING EQUIPMENT, DUCTWORK, AND PIPING LAYOUT IN THIS ROOM. CONTRACTOR TO STEM MOUNT AND UTILIZE UNISTRUT NEAR OR UNDER DUCTWORK SO THAT LOCATION IS AWAY FROM OBSTRUCTION, IF NECESSARY.

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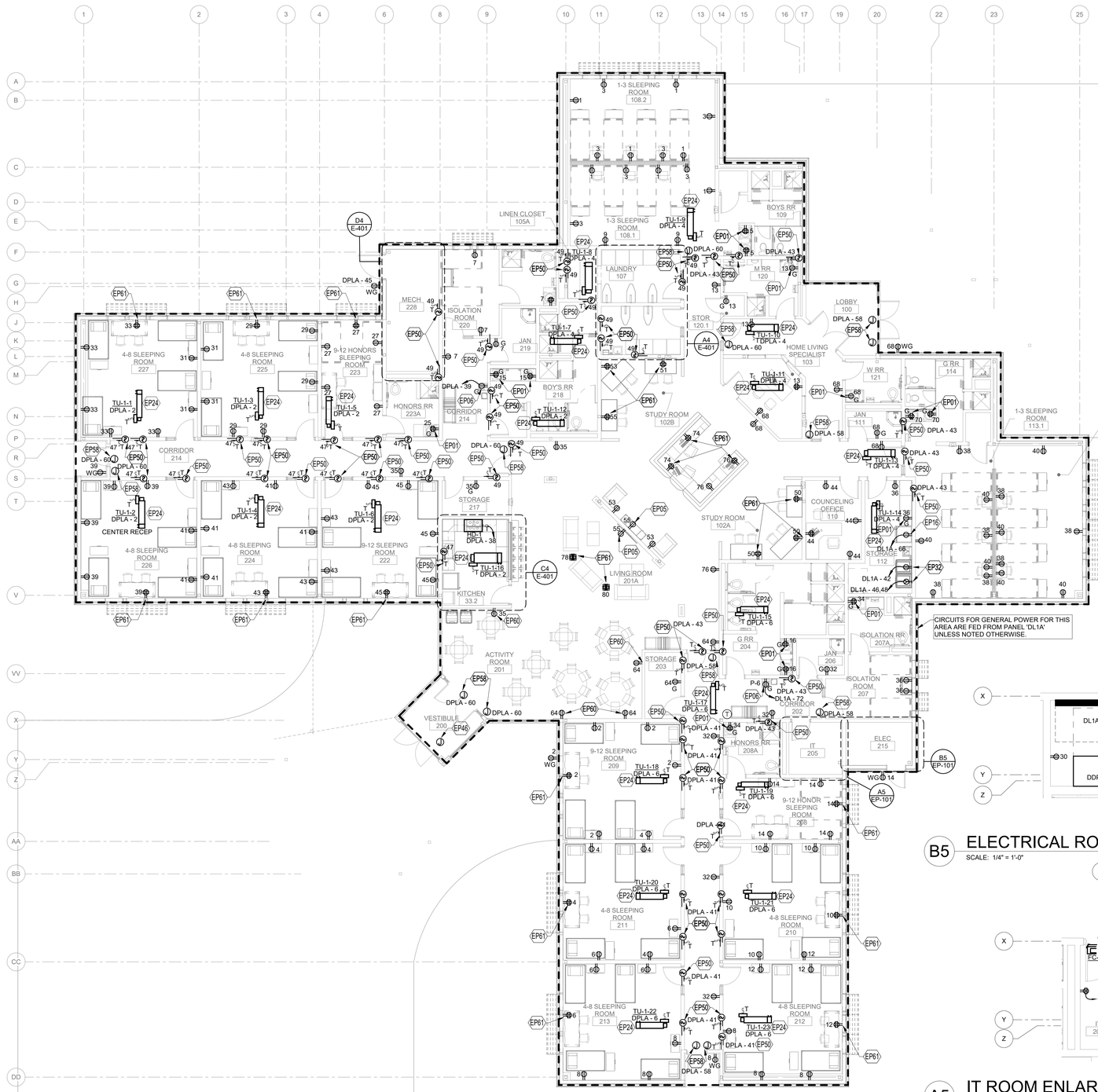
SHEET TITLE
LIGHTING FLOOR PLAN

EL-101

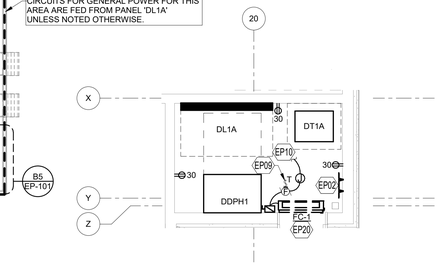
Bridgers & Paxton Project No: 8226 11/9/2020 5:49:45 PM D:\Revit 2019\Projects\8226_DCS Dorm_MEP_AMHerreraSSZMC.rvt

Dzilth-Na-O-Dith-Hle - New Dormitory Building



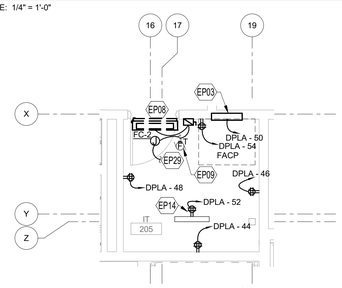
A1 POWER FLOOR PLAN

1/8" = 1'-0"



B5 ELECTRICAL ROOM ENLARGED PLAN- RM 215

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



A5 IT ROOM ENLARGED PLAN- RM 205

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

0' 4' 8' 16'

GENERAL NOTES

A. GFCI RECEPTACLES WILL BE INSTALLED AT ALL LOCATIONS AS REQUIRED BY THE LATEST VERSION OF NEC, STATE AND LOCAL CODES WHETHER INDICATED ON PLANS OR NOT. SOME LOCATIONS WILL BE WITHIN 6'-0" OF SINKS, EXTERIOR DOORS AND WET LOCATIONS. ALL EXTERIOR RECEPTACLE LOCATIONS WILL BE GFCI RATED AND WEATHERPROOF.
B. CONTROLS FOR ALL MECHANICAL EQUIPMENT WILL BE AS INDICATED IN 'M' SHEET SERIES. RACEWAY PATHS FOR CONTROLS AND WIRING AS INDICATED ON CONTROL DIAGRAMS. REFER ALSO TO SPECIFICATION SECTION 230549 FOR ADDITIONAL INFORMATION. CONTRACTOR WILL PROVIDE A 3/4" CONDUIT FOR CONTROL WIRING AS REQUIRED BY 'M' SHEET SERIES. CONTROL WILL BE BY LOCAL SWITCHES. PROVIDE PILOT LIGHT SWITCHES WHERE LOCAL SWITCHES ARE REQUIRED PER CONTROL DIAGRAMS.
C. COORDINATE ALL 120 VOLT POWER REQUIREMENTS AND LOCATIONS WITH THE CONTROLS / ACCESS / SECURITY CONTRACTORS IN THE FIELD. REFER TO SPECIFICATION 230549 FOR ADDITIONAL INFORMATION.
D. LOCATION OF EQUIPMENT AND OTHER DEVICES SHOWN ON PLANS ARE APPROXIMATE AND SHOULD BE FIELD VERIFIED.
E. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH ALL TRADES FOR EXACT LOCATION OF EQUIPMENT AND APPURTENANCES THAT REQUIRE ELECTRICAL CONNECTIONS AND REQUIRE ALIGNMENT OF DEVICES.
F. INSTALL ALL CONDUITS IN OPEN CEILING SPACE AS CLOSE TO STRUCTURE AS POSSIBLE.
G. ALL CIRCUITS FOR GENERAL POWER WITH-IN DASHED AREA WILL BE CONNECTED TO PANEL INDICATED UNLESS OTHERWISE NOTED.
H. COVER PLATES OF ALL DEVICES WILL BE LABELED WITH CIRCUIT IT IS CONNECTED TO, SUCH DEVICES ARE, BUT NOT LIMITED TO, SWITCHES AND RECEPTACLES. REFER TO SPECIFICATION SECTION 260553 FOR ADDITIONAL INFORMATION.
I. ALL THERMAL RATED SWITCHES SHALL BE RATED FOR 1HP MINIMUM.
J. COMPLY WITH NFPA 70, 2004 ED.

KEYNOTES

EP01 MOUNT DEVICE(S) 6" ABOVE COUNTER TOP BACK SPLASH, TABLE TOP OR SINK. RECEPTACLE WILL BE GFCI RATED IF DESIGNATED WITH A "G".
EP02 GROUNDING ELECTRODE GROUND BAR. REFER TO MAIN GROUNDING ELECTRODE BUS BAR DETAIL AS ON SHEET E-501 AND ELECTRICAL GROUNDING DIAGRAM ON SHEET E-602 FOR ADDITIONAL INFORMATION.
EP03 FIRE ALARM CONTROL PANEL (FACP) OR FIRE ALARM TERMINAL CABINET (FATC), REFER TO SHEET E-602 FOR ADDITIONAL INFORMATION. PROVIDE 120V POWER.
EP05 RECEPTACLE FOR WALL MOUNTED DISPLAY. MOUNT ADJACENT TO DATA/AV OUTLETS. COORDINATE WITH SHEET SERIES "T" FOR ADDITIONAL INFORMATION.
EP06 PROVIDE DEVICE FOR ELECTRIC WATER COOLER/BOTTLE FILLER. PROVIDE GFCI CIRCUIT BREAKER IN PANEL, NOT AT RECEPTACLE. MOUNT DEVICE SO IT IS CONCEALED BEHIND UNIT ALONG WITH CORD. COORDINATE WITH MANUFACTURER'S FOR ALL REQUIREMENTS PRIOR TO COMMENCEMENT OF ANY WORK.
EP08 REFER TO SHEET SERIES "M" AND TO SHEET E-701 FOR ADDITIONAL ELECTRICAL INFORMATION REQUIRED FOR CONNECTION OF SYSTEM EQUIPMENT.
EP09 CONDENSATE PUMP AS REQUIRED.
EP10 POWER FROM ROOF MOUNTED OUTDOOR UNIT ASSOCIATED WITH SPLIT SYSTEM. REFER TO SHEET EP-131 FOR ADDITIONAL INFORMATION.
EP14 DEVICES IN IT ROOM WILL BE SURGE-PROTECTED RECEPTACLES. ONE (1) 20A (120V) DUPLEX WILL BE MOUNTED TO TOP OF RACK.MOUNTED CABLE TRAY AT EACH RACK LOCATION UTILIZING UNISTRUT. VERIFY CONNECTOR TYPE AND LOCATION WITH SHEET SERIES "T".
EP16 MOUNT DEVICE 42" AFF BEHIND REFRIGERATOR. CONTRACTOR WILL MATCH NEMA CONFIGURATION OF RECEPTACLE WITH UNIT PLUG. COORDINATE PRIOR TO ORDERING RECEPTACLE DEVICE.
EP20 SPLIT SYSTEM INDOOR UNIT. PROVIDE A KNIFE BLADE DISCONNECT SWITCH ADJACENT TO UNIT. RACEWAY AND CONDUCTORS WILL BE EXTENDED TO ASSOCIATED ROOF UNIT FOR THIS SPLIT SYSTEM. UNIT WILL BE PACKAGED WITH CONTROLS. PROVIDE JUNCTION BOX FOR SEPARATION OF POWER TO CONDENSATE PUMP AND FC UNIT. REFER TO SHEET SERIES "M" FOR ADDITIONAL INFORMATION. REFER TO SHEET E-701 FOR ELECTRICAL CONNECTION AND OTHER INFORMATION.
EP24 FOR EACH UNIT, REFER TO SHEET SERIES "M-700" FOR MECHANICAL EQUIPMENT CHARACTERISTICS. REFER TO SHEET E-701 FOR ELECTRICAL CONNECTION AND OTHER INFORMATION.
EP29 EXTEND RACEWAY AND CONDUCTORS BETWEEN INDOOR AND EXTERIOR UNITS.
EP32 DEVICE FOR WASHER/DRYER. PROVIDE DEDICATED CIRCUIT. MOUNT DEVICE AT 42" AFF. PROVIDE 2#10 & 1#10 GND IN 3/4" CONDUIT FOR DRYER.
EP46 PROVIDE POWER FOR CONNECTION TO DOOR HARDWARE. 3/4" CONDUIT BETWEEN EACH JUNCTION BOX AND PERMANENT CONDUCTORS PER DOOR HARDWARE INSTALLER'S INSTRUCTIONS.
EP50 POWER FOR FIRE SMOKE DAMPERS AND SMOKE DAMPERS. REFER TO SHEET SERIES "FA" FOR FIRE ALARM CONNECTION INFORMATION. COORDINATE POWER LOCATION AND REQUIREMENTS WITH SHEET SERIES "M" PRIOR TO COMMENCEMENT OF ANY WORK.
EP58 PROVIDE JUNCTION BOX WITH POWER FOR TECHNOLOGIES SUCH AS ADA ACCESS, CARD ACCESS AND ANY OTHER SUCH SYSTEMS FOR DOORS INDICATED BY ARCHITECTS DOOR SCHEDULE. COORDINATE ALL TERMINATIONS WITH TECHNOLOGY AND HARDWARE PROVIDER OR INSTALLER PRIOR TO ROUGH-IN FOR COMPLETE INSTALLATION REQUIREMENTS.
EP60 DEVICES WILL BE A COMBINATION RECEPTACLE AND USB PORT. USB TYPE WILL BE USB 3.0.
EP61 DEVICES WILL BE A COMBINATION RECEPTACLE AND USB PORT. PROVIDE QUADPLEX OUTLET AND (2) USB 3.0 PORTS.

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POWER FLOOR PLAN

EP-101

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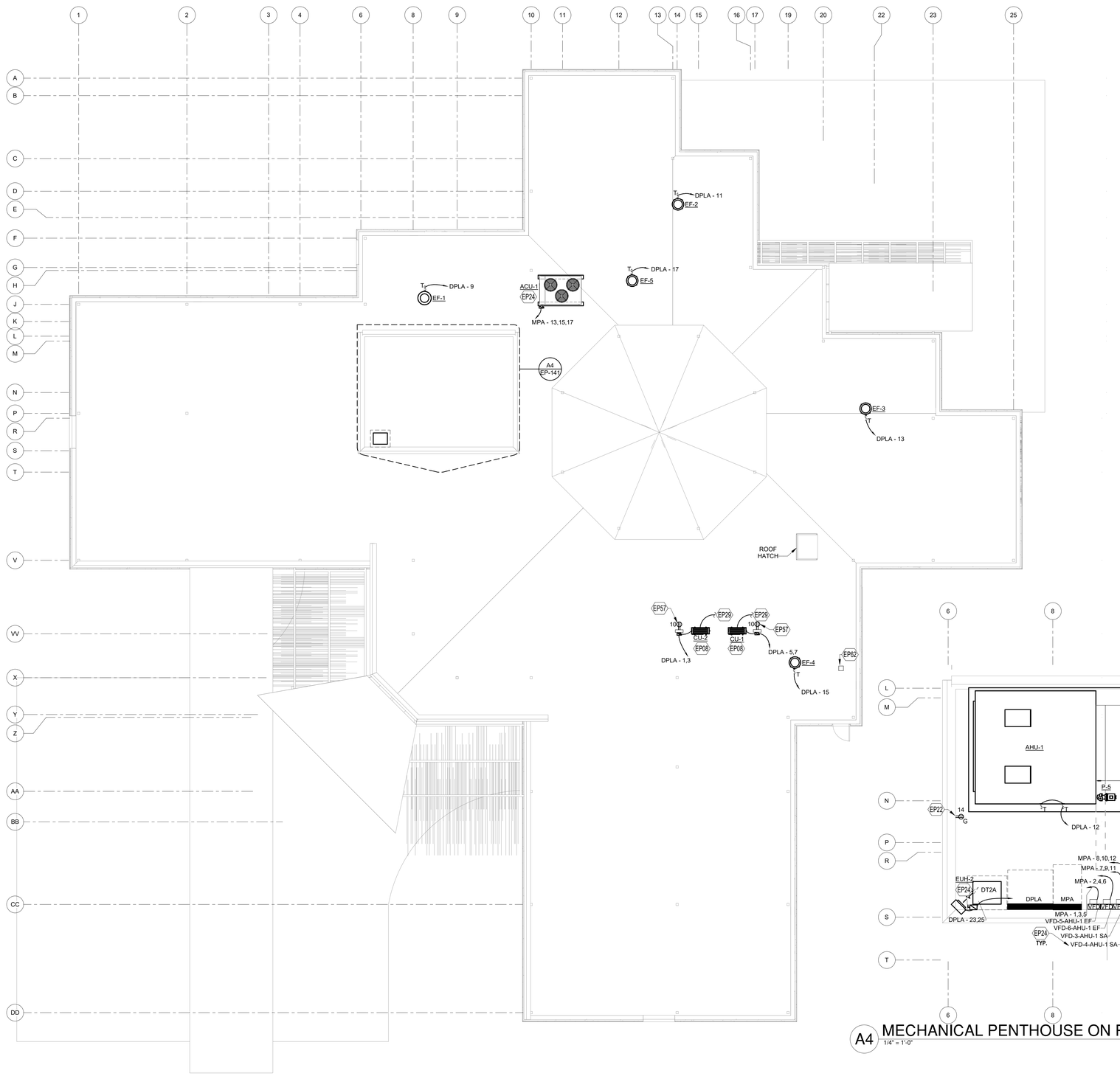
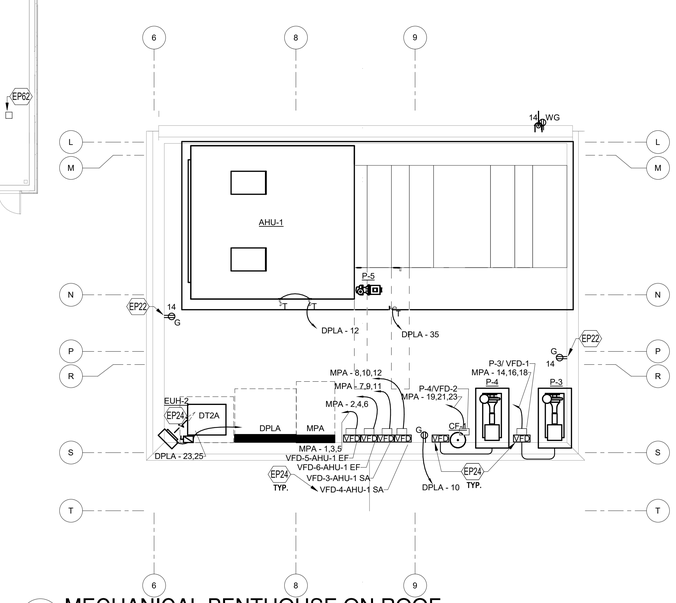


A1 ELECTRICAL ROOF PLAN - OVERALL
1/8" = 1'-0"



A4 MECHANICAL PENTHOUSE ON ROOF
1/4" = 1'-0"

0' 4' 8' 16'

GENERAL NOTES

A. GFCI RECEPTACLES WILL BE INSTALLED AT ALL LOCATIONS AS REQUIRED BY THE LATEST VERSION OF NEC, STATE AND LOCAL CODES WHETHER INDICATED ON PLANS OR NOT. SOME LOCATIONS WILL BE WITHIN 6'-0" OF SINKS, EXTERIOR DOORS AND WET LOCATIONS. ALL EXTERIOR RECEPTACLE LOCATIONS WILL BE GFCI RATED AND WEATHERPROOF.
B. CONTROLS FOR ALL MECHANICAL EQUIPMENT WILL BE AS INDICATED IN 'M' SHEET SERIES. RACEWAY PATHS FOR CONTROLS AND WIRING AS INDICATED ON CONTROL DIAGRAMS. REFER ALSO TO SPECIFICATION SECTION 230549 FOR ADDITIONAL INFORMATION. CONTRACTOR WILL PROVIDE A 3/4" CONDUIT FOR CONTROL WIRING AS REQUIRED BY 'M' SHEET SERIES. CONTROL WILL BE BY LOCAL SWITCHES. PROVIDE PILOT LIGHT SWITCHES WHERE LOCAL SWITCHES ARE REQUIRED PER CONTROL DIAGRAMS.
C. COORDINATE ALL 120 VOLT POWER REQUIREMENTS AND LOCATIONS WITH THE CONTROLS / ACCESS / SECURITY CONTRACTORS IN THE FIELD. REFER TO SPECIFICATION 230549 FOR ADDITIONAL INFORMATION.
D. LOCATION OF EQUIPMENT AND OTHER DEVICES SHOWN ON PLANS ARE APPROXIMATE AND SHOULD BE FIELD VERIFIED.
E. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH ALL TRADES FOR EXACT LOCATION OF EQUIPMENT AND APPURTENANCES THAT REQUIRE ELECTRICAL CONNECTIONS AND REQUIRE ALIGNMENT OF DEVICES.
F. INSTALL ALL CONDUITS IN OPEN CEILING SPACE AS CLOSE TO STRUCTURE AS POSSIBLE.
G. ALL CIRCUITS FOR GENERAL POWER WITH-IN DASHED AREA WILL BE CONNECTED TO PANEL INDICATED UNLESS OTHERWISE NOTED.
H. COVER PLATES OF ALL DEVICES WILL BE LABELED WITH CIRCUIT IT IS CONNECTED TO, SUCH DEVICES ARE, BUT NOT LIMITED TO, SWITCHES AND RECEPTACLES. REFER TO SPECIFICATION SECTION 260553 FOR ADDITIONAL INFORMATION.
I. ALL THERMAL RATED SWITCHES SHALL BE RATED FOR 1HP MINIMUM.
J. COMPLY WITH NFPA 70, 2004 ED.

KEYNOTES

EP08	REFER TO SHEET SERIES 'M' AND TO SHEET E-701 FOR ADDITIONAL ELECTRICAL INFORMATION REQUIRED FOR CONNECTION OF SYSTEM EQUIPMENT.
EP22	ROOF MOUNTED RECEPTACLE. PROVIDE 2#10 & 1#10 GROUND IN 3/4" CONDUIT. REFER TO DETAIL A3 ON SHEET E-501 FOR ADDITIONAL INFORMATION.
EP24	FOR EACH UNIT, REFER TO SHEET SERIES 'M-700" FOR MECHANICAL EQUIPMENT CHARACTERISTICS. REFER TO SHEET E-701 FOR ELECTRICAL CONNECTION AND OTHER INFORMATION.
EP29	EXTEND RACEWAY AND CONDUCTORS BETWEEN INDOOR AND EXTERIOR UNITS.
EP57	MOUNT RECEPTACLE TO BACK SIDE OF STRUT RACK PER NOTES.
EP62	PROVIDE 2" CONDUIT FROM 10"X10"X10 PULLBOX TO

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ELECTRICAL ROOF PLAN

EP-141

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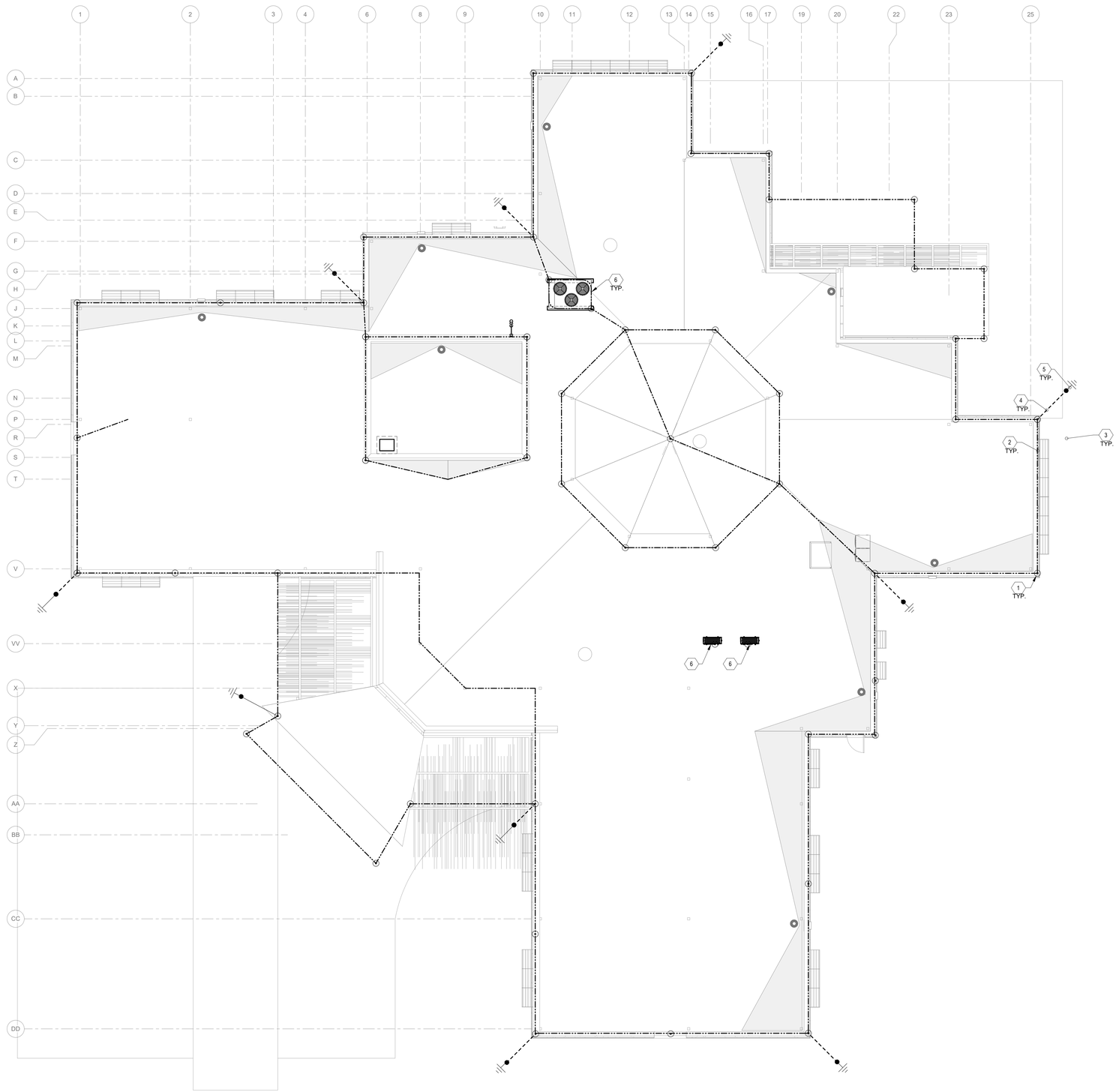

GENERAL NOTES

A. GFCI RECEPTACLES WILL BE INSTALLED AT ALL LOCATIONS AS REQUIRED BY THE LATEST VERSION OF NEC, STATE AND LOCAL CODES WHETHER INDICATED ON PLANS OR NOT. ALL EXTERIOR RECEPTACLE LOCATIONS WILL BE GFCI RATED AND WEATHERPROOF.
B. COORDINATE ALL 120 VOLT POWER REQUIREMENTS AND LOCATIONS WITH THE CONTROLS / ACCESS / SECURITY CONTRACTORS IN THE FIELD.
C. COVER PLATES OF ALL DEVICES WILL BE LABELED WITH CIRCUIT IT IS CONNECTED TO, SUCH DEVICES ARE, BUT NOT LIMITED TO, SWITCHES AND RECEPTACLES. REFER TO SPECIFICATION SECTION 260553 FOR ADDITIONAL INFORMATION.
D. CONTROLS FOR ALL MECHANICAL EQUIPMENT WILL BE AS INDICATED ON 'M' SHEET SERIES. RACEWAY PATHS FOR CONTROLS AND WIRING WILL BE INSTALLED AS INDICATED ON CONTROL DIAGRAMS. CONTRACTOR WILL PROVIDE A 3/4" CONDUIT MINIMUM FOR CONTROL WIRING AS REQUIRED BY 'M' SHEET SERIES. CONTROL WILL BE BY EITHER A FACILITY MANAGEMENT SYSTEM (FMS) OR LOCAL SWITCHES. PROVIDE PILOT LIGHT SWITCH WHERE LOCAL SWITCHES ARE REQUIRED PER CONTROL DIAGRAMS.E-701
E. REFER TO MECHANICAL EQUIPMENT SCHEDULE IN 'M' SHEET SERIES FOR ADDITIONAL INFORMATION.
F. REFER TO DETAIL XX ON SHEET E-501 FOR EQUIPMENT MOUNTING.
G. LIGHTNING PROTECTION SYSTEM IS DIAGRAMATICAL. CONTRACTOR SHALL INSTALL PER NFPA 780 AND SPECIFICATION 26 4113 TO ACHIEVE A MASTER LABEL.
H. REFER TO SHEET E-502 FOR LIGHTNING PROTECTION SYSTEM AND ADDITIONAL INFORMATION.

IT IS THE INTENT OF THESE DOCUMENTS TO SHOW A BASIC REPRESENTATION OF THE LIGHTNING PROTECTION SYSTEM. DEVICES INDICATED ON THESES DOCUMENTS ARE IN NO WAY IMPLIED TO BE COMPREHENSIVE OF THE FINAL DESIGN. IT IS THE RESPONSIBILITY OF THE LIGHTNING PROTECTION CONTRACTOR TO PROVIDE A DESIGN/BUILD LIGHTNING PROTECTION SYSTEM BASED UPON A THOROUGH REVIEW OF ALL CONTRACT DOCUMENTS. IT IS THE RESPONSIBILITY OF THE LIGHTNING PROTECTION CONTRACTOR TO ENSURE THAT THE LIGHTNING PROTECTION SYSTEM IS CODE COMPLIANT, MEETS THE REQUIREMENTS OF THE AHJ AND COMPREHENSIVELY COVERS AND INCLUDES ALL NECESSARY PARTS AND LABOR ASSOCIATED WITH OTHER TRADES AND SYSTEMS IMPACTING THE LIGHTNING PROTECTION SYSTEM. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ACHIEVE A MASTER LABEL FOR THE LIGHTNING PROTECTION SYSTEM. NO CHANGE ORDERS WILL BE APPROVED FOR THE BASE SCOPE OF WORK.

KEYNOTES

1. 24" TALL LIGHTNING ARRESTORS.
2. LIGHTNING CONDUCTOR EXPOSED AND MOUNTED TO TOP OR SIDE OF PARAPET.
3. LIGHTNING COUNTERPOISE UNDERGROUND NO MORE THAN 5'-0" FROM BUILDING AND 36" BELOW GRADE.
4. DOWN CONDUCTOR FROM ROOF TOP LIGHTNING ARRESTORS TO COUNTERPOISE AND GROUND RODS. ROUTING OF DOWN CONDUCTOR TO COUNTERPOISE WILL BE INTERIOR TO WALL STRUCTURE.
5. GROUND RODS.
6. ATTACH LIGHTNING PROTECTION TO MECHANICAL EQUIPMENT.

A1 LIGHTNING PROTECTION ROOF PLAN - OVERALL
SCALE: 1/8" = 1'-0"

0' 8' 16' 32'

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ARCHITECT

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PRICING SET

35 Road 7585, Bloomfield, NM 87413

NOVEMBER 10, 2020

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DATE:	
PROJECT NO:	751
CAD DWG FILE:	
DRAWN BY:	AMH
CHECKED BY:	JMM

SHEET TITLE

LIGHTNING PROTECTION ROOF PLAN - OVERALL

LP-141

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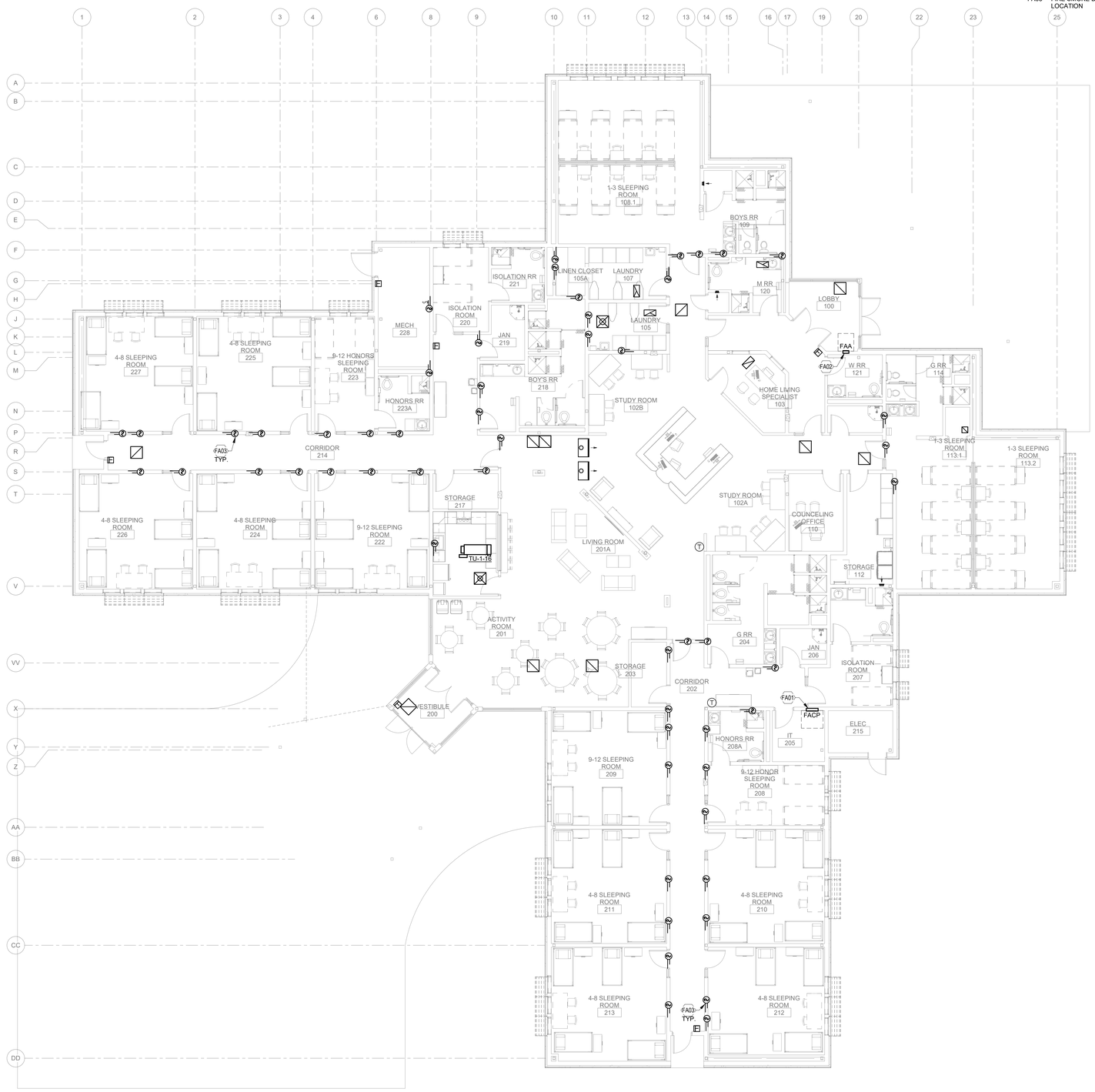

A1 FIRE ALARM FLOOR PLAN
1/8" = 1'-0"

0' 4' 8' 16'

KEYNOTES

FA01. FIRE ALARM CONTROL PANEL (FACP). REFER TO FIRE ALARM RISER DIAGRAM ON SHEET E-603 FOR ADDITIONAL INFORMATION.
FA02. FIRE ALARM ANNUNCIATOR (FAA). REFER TO FIRE ALARM RISER DIAGRAM ON SHEET E-603 FOR ADDITIONAL INFORMATION.
FA03 FIRE SMOKE DAMPER. REFER TO SHEET SERIES "M" FOR ACTUAL LOCATION

GENERAL NOTES

A. GROUP RESIDENTIAL-DORMITORY. REFER TO SHEET SERIES "G" FOR OCCUPANCY LOCATIONS AND ADDITIONAL INFORMATION.

1) CONTRACTOR WILL COORDINATE SIGNALING DEVICES AT EGRESS PATH OR DOORS WITH ARCHITECTURAL SHEET SERIES "G".
2) SIGNAL TYPE DETECTORS MAY BE OMITTED FROM NON-COMBUSTIBLE SPACES AND FROM CONCEALED COMBUSTIBLE SPACES PROVIDED WITH AN AUTOMATIC FIRE SPRINKLER SYSTEM.
3) PROVIDE DETECTION DEVICES IN ALL UNOCCUPIED SPACES INCLUDING ELECTRICAL ROOMS, MECHANICAL ROOMS, STORAGE ROOMS, JANITOR'S CLOSETS, ETC.
4) PROVIDE VOICE EVACUATION SPEAKER/STROBE NOTIFICATION DEVICES IN ALL OCCUPIED AREAS PER THE REQUIREMENTS OF THE NFPA, AND LOCAL CODES AND OCCUPANCY TYPE.
5) WALL MOUNTED AUDIBLE NOTIFICATION DEVICES SHALL HAVE THEIR TOPS MOUNTED AT 90" MINIMUM AND 100" MAXIMUM FROM FINISHED FLOOR AND NO CLOSER THEN 6" TO A HORIZONTAL STRUCTURE. CMU BLOCK WALL AND CELLS OF BLOCK WILL VARY THE DIMENSION HEIGHTS. COORDINATE PRIOR TO COMMENCEMENT OF ANY WORK.
6) PROVIDE DUCT DETECTORS IN ALL SUPPLY AND RETURN AIR DUCTS FOR HVAC UNITS 2000 CFM AND FOR ALL MECHANICAL DUCTS, UNITS, FIRE SMOKE DAMPERS AND OTHER EQUIPMENT REQUIRING FIRE ALARM SIGNAL AND NOTIFICATION. CONTRACTOR TO FIELD VERIFY THESE UNITS IN EACH BUILDING. REFER TO SHEET SERIES "M" FOR ALL MECHANICAL REQUIREMENTS AND EQUIPMENT LOCATIONS.
7) PROVIDE ADDRESSABLE DEVICES FOR FIRE/SMOKE DAMPERS. QUANTITY TO BE VERIFIED BY CONTRACTOR. COORDINATE SMOKE/FIRE DAMPER LOCATIONS IN FIELD WITH OWNER AND INTERCONNECT AS REQUIRED. VERIFY THAT THE EXISTING DAMPER MOTORS ARE ON A 120V CIRCUIT. PROVIDE ADDRESSABLE MODULES AS REQUIRED. REFER TO SPECIFICATIONS FOR ADDITIONAL PRICING INFORMATION.
8) HEAT DETECTORS MAY BE USED IN LIEU OF SMOKE DETECTORS IN THE FOLLOWING AREAS:
   a) MECHANICAL, ELECTRICAL AND STORAGE ROOMS.
   b) CLOSETS AND SMALL STORAGE ROOMS (100 SQUARE FEET IN AREA OR LESS), OR OTHER SMALL UNCONDITIONED SPACES.
9) FIRE ALARM SUPERVISION IS REQUIRED FOR ALL FIRE ALARM AND FIRE SPRINKLER FLOW ALARMS AND TAMPER SWITCHES PER NFPA 72 BY AN APPROVED SUPERVISING STATION IN ACCORDANCE WITH CBC CHAPTER 9.
10) WALL MOUNTED VISUAL NOTIFICATION DEVICES SHALL HAVE THEIR BOTTOMS MOUNTED AT 80" MINIMUM AND 96" MAXIMUM FROM FINISHED FLOOR. CMU BLOCK WALL AND CELLS OF BLOCK WILL VARY THE DIMENSION HEIGHTS. COORDINATE PRIOR TO COMMENCEMENT OF ANY WORK.

B. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE A CODE COMPLIANT, NICET LEVEL III DESIGN TO BE APPROVED BY THE STATE AND BIA FIRE MARSHAL. ADD DEVICES AS REQUIRED TO MEET ALL NATIONAL AND LOCAL CODE REQUIREMENTS. COORDINATE IN FIELD ALL INSTALLATIONS.

C. INFORMATION ON CONTRACT DOCUMENTS IS FOR GENERAL INFORMATION AND BID PURPOSES ONLY. PERFORM REQUIRED CALCULATIONS AND FIELD COORDINATION AND PROVIDE ADDITIONAL DEVICES AS REQUIRED.

D. ADDITIONAL MATERIALS AND LABOR REQUIRED TO SUPPORT CHANGES REQUESTED BY THE AUTHORITY HAVING JURISDICTION SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE OWNER. PROVIDE UNIT COST IN BID FOR INSTALL OF ALL SYSTEM DEVICES, WIRING, AND PLACEMENT ON WALLS AND CEILINGS.

E. ALL NEW NOTIFICATION AND SIGNALING DEVICES SHALL BE RECESSED INTO THE WALLS WHERE INDICATED TO BE REQUIRED ON PLAN OR CEILINGS. PROVIDE A RACEWAY PATH ABOVE THE ACCESSIBLE CEILING AS NECESSARY.

F. WHERE APPLICABLE DO NOT INSTALL SMOKE DETECTORS IN A DIRECT AIR FLOW OR CLOSER THAN 3 FEET FROM AN AIR SUPPLY DIFFUSER OR RETURN AIR OPENING.

G. INSTALLATION OF THE SYSTEMS SHALL NOT BE STARTED UNTIL DETAILED DESIGN DOCUMENTS AND SPECIFICATION, INCLUDING STATE AND BIA FIRE MARSHAL LISTING NUMBERS FOR EACH COMPONENT OF THE SYSTEM HAS BEEN APPROVED BY THE ENGINEER.

H. A STAMPED SET OF APPROVED FIRE ALARM DESIGN DOCUMENTS SHALL BE ON THE JOB SITE AND USED FOR INSTALLATION.

I. THE CONTRACTOR SHALL ADJUST/INSTALL ALL DEVICES TO MAXIMIZE PERFORMANCE AND TO MINIMIZE FALSE ALARMS.

J. ALL FIRE ALARM WIRING SHALL BE FPL OR FPLP (FIRE POWER LIMITED OR FIRE POWER LIMITED PLENUM) AS REQUIRED FOR APPLICATION. WIRING IN CONDUIT ABOVE GROUND MAY BE THHN OR THWN. ALL WIRING WILL BE IN RACEWAY PATH UNLESS INSTALL DICTATES THE NEED TO DO OTHERWISE.

K. SMOKE DETECTORS SHALL NOT BE ANY CLOSER THAN 1' FROM FIRE SPRINKLERS OR 3' FROM ANY SUPPLY DIFFUSER. IN AREA OF CONSTRUCTION OR POSSIBLE DAMAGE/CONTAMINATION ON NEWLY INSTALLED FIRE ALARM DEVICES SHALL BE COVERED UNTIL THAT AREA IS READY TO BE TURNED OVER TO THE OWNER.

L. ALL FIRE ALARM CIRCUITS SHALL BE IN CONDUIT, SURFACE RACEWAY OR OPEN RUN ABOVE CEILINGS, AND IN WALLS IN A NEAT AND PROTECTED MANNER AS INDICATED ON DESIGN DOCUMENTS.

M. FIRE ALARM PANEL, REMOTE ANNUNCIATOR, AND COMPONENTS SHALL BE SECURED TO MOUNTING SURFACES PER MANUFACTURER'S SPECIFICATIONS. NO SINGLE DEVICE SHALL EXCEED THE WEIGHT OF 20 LBS WITHOUT SPECIAL MOUNTING DETAILS.

N. A DEDICATED BRANCH CIRCUIT SHALL BE PROVIDED FOR FIRE ALARM EQUIPMENT. THIS CIRCUIT SHALL BE ENERGIZED FROM THE COMMON USE AREA PANEL AND SHALL HAVE NO OTHER OUTLETS. THE BREAKER SHALL HAVE A RED LOCKING DEVICE TO BLOCK THE HANDLE IN THE "ON" POSITION. THE CIRCUIT BREAKER SHALL BE LABELED "FIRE ALARM CIRCUIT CONTROL". CIRCUIT ID TO BE LABELED AT FIRE PANEL/EXTENDERS. PROVIDE SURGE PROTECTOR AT EACH FIRE ALARM PANEL OR POWER SUPPLY.

O. THE INSTALLING CONTRACTOR SHALL PROVIDE A RECORD OF COMPLETION PER NFPA 72, FIGURE 10.18.2.1.1. 22) CONTROL PANELS, REMOTE ANNUNCIATORS SHALL BE INSTALLED WITH THEIR BOTTOMS MOUNTED AT 48".

P. OWNER SHALL BE RESPONSIBLE FOR ESTABLISHING A FIRE SYSTEM MONITORING CONTRACT OR PROVISIONS.

Q. ENGINEER AND OWNER SHALL BE NOTIFIED A MINIMUM OF 48 HOURS PRIOR TO THE FINAL INSPECTION AND / OR TESTING.

R. UPON COMPLETION OF THE INSTALLATION OF THE SYSTEMS, A SATISFACTORY TEST OF THE ENTIRE SYSTEM SHALL BE MADE IN ACCORDANCE WITH THE SPECIFICATIONS.

S. COORDINATE WITH OWNER. FOR NEW FIBER OPTIC STRANDS NEEDED FOR CONNECTIONS TO NEW FIRE ALARM PANEL.

T. REFER TO SHEET E-603 FOR FIRE ALARM RISER DIAGRAM.

U. ALL STROBES IN CORRIDORS AND COMMON AREAS WILL FLASH AT THE SAME TIME.

V. WHERE A VOICE EVACUATION SYSTEM IS NECESSARY PER THE OCCUPANCY TYPE, ASSEMBLY OF OCCUPANCY TYPE, NICET LEVEL III OR HIGHER DESIGNER AND INSTALLER PROFESSIONAL, AND AS APPROVED BY THE STATE FIRE MARSHALL'S OFFICE, CONTRACTOR WILL REFER TO SPECIFICATION 283111 FOR VOICE EVACUATION SYSTEM REQUIREMENTS.

W. CONTRACTOR WILL VERIFY WITH ARCHITECTURAL REFLECTED CEILING PLANS FOR EACH SPACE CEILING TYPES OR HEIGHTS OR LACK THERE OF A CEILING. MOUNTING OF ANY DEVICE TO A CEILING OR STRUCTURE WILL BE COORDINATED PRIOR TO COMMENCEMENT OF ANY WORK.

X. COMPLY WITH NFPA 70, 2004 ED.

IT IS THE INTENT OF THESE DOCUMENTS TO SHOW A BASIC REPRESENTATION OF THE FIRE ALARM SYSTEM. DEVICES INDICATED ON THESE DOCUMENTS ARE IN NO WAY IMPLIED TO BE COMPREHENSIVE OF THE FINAL DESIGN. IT IS THE RESPONSIBILITY OF THE FIRE ALARM CONTRACTOR TO PROVIDE A DESIGN/BUILD FIRE ALARM SYSTEM BASED UPON A THOROUGH REVIEW OF ALL CONTRACT DOCUMENTS. IT IS THE RESPONSIBILITY OF THE FIRE ALARM CONTRACTOR TO ENSURE THAT THE FIRE ALARM SYSTEM IS CODE COMPLIANT, MEETS THE REQUIREMENTS OF THE AHJ AND COMPREHENSIVELY COVERS AND INCLUDES ALL NECESSARY PARTS AND LABOR ASSOCIATED WITH OTHER TRADES AND SYSTEMS IMPACTING THE FIRE ALARM SYSTEM. NO CHANGE ORDERS SHALL BE APPROVED FOR THE BASE SCOPE OF WORK.

ENTIRE FIRE ALARM SYSTEM WILL BE IN RACEWAYS; NO EXCEPTIONS!

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ARCHITECT

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DRAWN BY:	AMH
CHECKED BY:	JMM

SHEET TITLE

FIRE ALARM FLOOR PLAN

FA-101

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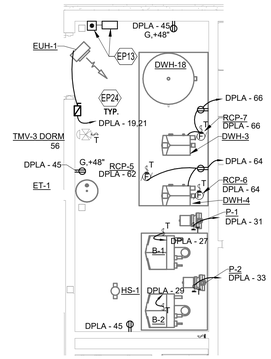
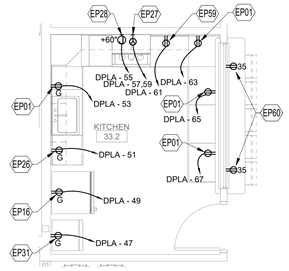


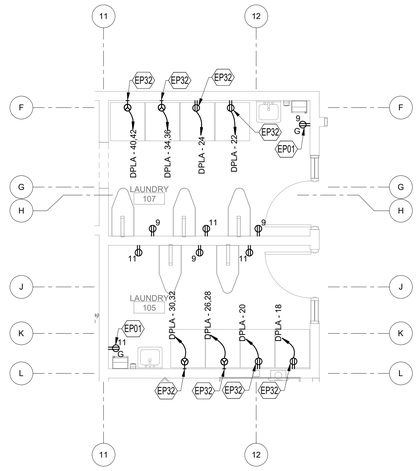
D4 MECHANICAL ROOM ENLARGED PLAN- RM 154

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



C4 KITCHEN ENLARGED PLAN

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



A4 LAUNDRY ROOM ENLARGED PLAN

1/4" = 1'-0"

GENERAL NOTES

A. GFCI RECEPTACLES WILL BE INSTALLED AT ALL LOCATIONS AS REQUIRED BY THE LATEST VERSION OF NEC, STATE AND LOCAL CODES WHETHER INDICATED ON PLANS OR NOT. SOME LOCATIONS WILL BE WITHIN 6'-0" OF SINKS, EXTERIOR DOORS AND WET LOCATIONS. ALL EXTERIOR RECEPTACLE LOCATIONS WILL BE GFCI RATED AND WEATHERPROOF.
B. CONTROLS FOR ALL MECHANICAL EQUIPMENT WILL BE AS INDICATED IN 'M' SHEET SERIES. RACEWAY PATHS FOR CONTROLS AND WIRING AS INDICATED ON CONTROL DIAGRAMS. REFER ALSO TO SPECIFICATION SECTION 230549 FOR ADDITIONAL INFORMATION. CONTRACTOR WILL PROVIDE A 3/4" CONDUIT FOR CONTROL WIRING AS REQUIRED BY 'M' SHEET SERIES. CONTROL WILL BE BY LOCAL SWITCHES. PROVIDE PILOT LIGHT SWITCHES WHERE LOCAL SWITCHES ARE REQUIRED PER CONTROL DIAGRAMS.
C. COORDINATE ALL 120 VOLT POWER REQUIREMENTS AND LOCATIONS WITH THE CONTROLS / ACCESS / SECURITY CONTRACTORS IN THE FIELD. REFER TO SPECIFICATION 230549 FOR ADDITIONAL INFORMATION.
D. LOCATION OF EQUIPMENT AND OTHER DEVICES SHOWN ON PLANS ARE APPROXIMATE AND SHOULD BE FIELD VERIFIED.
E. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH ALL TRADES FOR EXACT LOCATION OF EQUIPMENT AND APPURTENANCES THAT REQUIRE ELECTRICAL CONNECTIONS AND REQUIRE ALIGNMENT OF DEVICES.
F. INSTALL ALL CONDUITS IN OPEN CEILING SPACE AS CLOSE TO STRUCTURE AS POSSIBLE.
G. ALL CIRCUITS FOR GENERAL POWER WITH-IN DASHED AREA WILL BE CONNECTED TO PANEL INDICATED UNLESS OTHERWISE NOTED.
H. COVER PLATES OF ALL DEVICES WILL BE LABELED WITH CIRCUIT IT IS CONNECTED TO. SUCH DEVICES ARE, BUT NOT LIMITED TO, SWITCHES AND RECEPTACLES. REFER TO SPECIFICATION SECTION 260553 FOR ADDITIONAL INFORMATION.
I. ALL THERMAL RATED SWITCHES SHALL BE RATED FOR 1HP MINIMUM.
J. COMPLY WITH NFPA 70, 2004 ED.

KEYNOTES

EP01	MOUNT DEVICE(S) 6" ABOVE COUNTER TOP BACK SPLASH, TABLE TOP OR SINK. RECEPTACLE WILL BE GFCI RATED IF DESIGNATED WITH A "G".
EP13	EMERGENCY POWER OFF (EPO) RED MUSHROOM HEAD PUSH BUTTON FOR BOILER AND WATER HEATER SHUT OFF. TERMINATE CONDUCTORS TO EACH BOILER AND WATER HEATER PER MANUFACTURER'S DIRECTION. EACH BOILER AND WATER HEATER'S CIRCUIT WILL BE ROUTED THROUGH A CONTACTOR (8 POLE) WHICH WILL BE MOUNTED FOR EASY ACCESS TO THE CONTACTOR WITHOUT A LADDER. REFER TO DETAIL B4 ON SHEET E-501 FOR ADDITIONAL INFORMATION.
EP16	MOUNT DEVICE 42" AFF BEHIND REFRIGERATOR. CONTRACTOR WILL MATCH NEMA CONFIGURATION OF RECEPTACLE WITH UNIT PLUG. COORDINATE PRIOR TO ORDERING RECEPTACLE DEVICE.
EP24	FOR EACH UNIT, REFER TO SHEET SERIES "M-700" FOR MECHANICAL EQUIPMENT CHARACTERISTICS. REFER TO SHEET E-701 FOR ELECTRICAL CONNECTION AND OTHER INFORMATION.
EP26	DISHWASHER. INSTALL OUTLET WITHIN BASE CABINETRY AT ACCESSIBLE LOCATION. COORDINATE WITH EQUIPMENT INSTALLER.
EP27	ELECTRIC RANGE/STOVE. MOUNT DEVICE BEHIND UNIT. CONTRACTOR WILL MATCH NEMA CONFIGURATION OF RECEPTACLE WITH UNIT PLUG. COORDINATE PRIOR TO ORDERING RECEPTACLE DEVICE.
EP28	DEVICE TO SERVE RESIDENTIAL-TYPE EXHAUST HOOD (ABOVE COOKING RANGE). COORDINATE ROUGH-IN LOCATION AND REQUIREMENTS WITH EQUIPMENT INSTALLER AND CASEWORK INSTALLER.
EP31	MOUNT DEVICE BEHIND FREEZER. CONTRACTOR WILL MATCH NEMA CONFIGURATION OF RECEPTACLE WITH UNIT PLUG. COORDINATE PRIOR TO ORDERING RECEPTACLE DEVICE.
EP32	DEVICE FOR WASHER/DRYER. PROVIDE DEDICATED CIRCUIT. MOUNT DEVICE AT 42" AFF. PROVIDE 2#10 & 1#10 GND IN 3/4" CONDUIT FOR DRYER.
EP59	DEDICATED CIRCUIT FOR MICROWAVE.
EP60	DEVICES WILL BE A COMBINATION RECEPTACLE AND USB PORT. USB TYPE WILL BE USB 3.0.

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SHEET TITLE

ENLARGED PLANS

E-401

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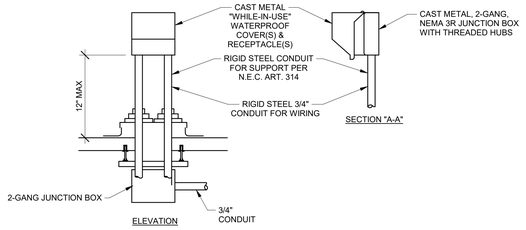
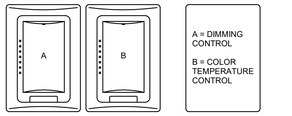


NOTE: REFER TO STRUCTURAL AND ARCHITECTURAL DRAWINGS FOR SECURELY ATTATCHING TO ROOF STRUCTURE AND FLASHING

D3 RECEPTACLE ROOF MOUNTING DETAIL

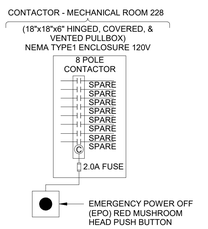
NO SCALE



REFER TO SHEET SERIES "EL" FOR ADDITIONAL INFORMATION

C3 2-DIMMER SWITCH DETAIL

NO SCALE

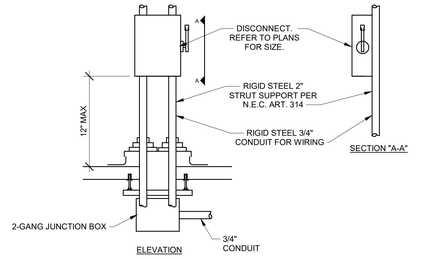


B4 EPO CONTACTOR DETAIL

SCALE: NOT TO SCALE

GENERAL NOTES

A. COMPLY WITH NFPA 70, 2004 ED.



NOTE: REFER TO STRUCTURAL AND ARCHITECTURAL DRAWINGS FOR SECURELY ATTATCHING TO ROOF STRUCTURE AND FLASHING

D5 UNISTRUT MOUNTED DISCONNECT DETAIL

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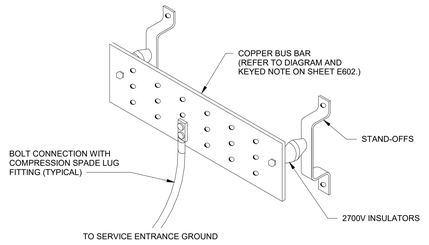

C5 MAIN GROUNDING ELECTRODE BUS BAR

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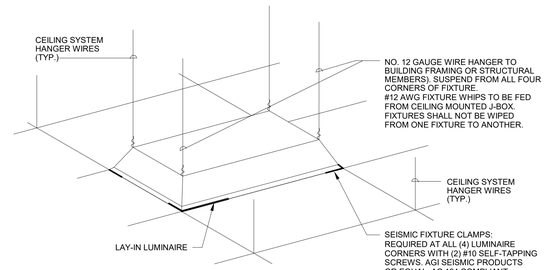
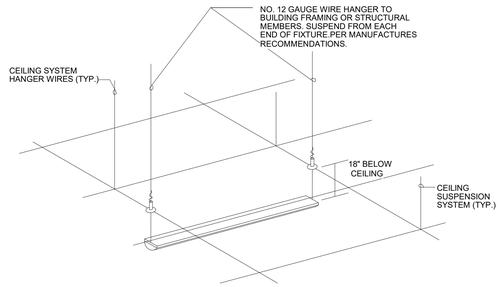


B5 LUMINAIRE SUPPORT DETAIL

SCALE: NOT TO SCALE



A5 LINEAR DIRECT-INDIRECT SUPPORT DETAIL

NO SCALE

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ARCHITECT

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DRAWN BY:	AMH
CHECKED BY:	JMM

SHEET TITLE

ELECTRICAL DETAIL SHEET

E-501

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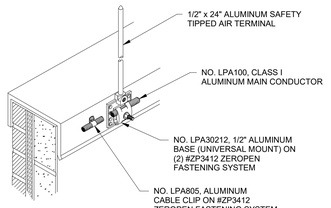
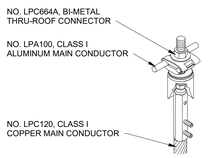


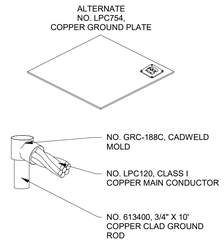
D5 AIR TERMINAL
NO SCALE

GENERAL NOTES

A. LOCATE AIR TERMINALS AS SHOWN. TAKE CARE TO INSURE THAT ALL POINTS ARE WITHIN 2'-0" OF OUTSIDE BUILDING EDGE, OUTSIDE CORNERS, RIDGE ENDS, AND THAT MAX SPACING DOES NOT EXTEND 20'-0" AND THAT MINIMUM PROJECTION ABOVE OBJECT PROTECTED IS 10". POINTS PROJECTING 24" MAY BE SPACED @ 25'-0" MAXIMUM.
B. MAINTAIN HORIZONTAL OR DOWNWARD COURSING OF MAIN CONDUCTOR. INSURE THAT ALL BENDS HAVE AT LEAST AN 8" RADIUS AND DO NOT EXCEED 90 DEGREES.
C. ATTACH ALL EXPOSED ROOF, DOWN LEAD AND BONDING CABLES AT 3'-0" ON CENTER MAXIMUM. VERIFY COMPATIBILITY OF ADHESIVE ON MEMBRANE ROOF APPLICATION PRIOR TO INSTALLATION.
D. GROUND ELECTRODES SHALL BE INSTALLED AS SHOWN, BUT IN NO INSTANCE SHALL THEY BE LESS THAN 1'-0" BELOW GRADE AND 2'-0" FROM THE FOUNDATION WALL. DRIVEN RODS SHALL PENETRATE THE EARTH AT LEAST 10'-0".
E. BOND TO WATER SERVICE AND OTHER PIPING SYSTEMS AS SHOWN AND AS REQUIRED BY CODE.
F. INTERCONNECT LIGHTNING PROTECTION GROUND TO ELECTRIC, TELEPHONE, AND OTHER BUILDING GROUND SYSTEMS AS SHOWN OR AS REQUIRED BY CODE.
G. SYSTEM SHALL BE INSTALLED AS SHOWN TO INSURE PROPER CODE COMPLIANCE AND SYSTEM CERTIFICATION. ANY MAJOR VARIANCE SHALL BE RESUBMITTED FOR APPROVAL.
H. "AS-BUILT" DRAWINGS SHALL BE SUBMITTED IN ACCORDANCE WITH CERTIFICATION PROCEDURES.
I. ALL MATERIALS ARE TO BE UNDERWRITER'S LABORATORIES APPROVED WITH "A" LABELS ON CONDUCTORS @ 10'-0" INTERVALS AND "B" LABELS ON ALL AIR TERMINALS.
J. COMPLETED INSTALLATION AS SHOWN SHALL BEAR U.L. MASTER LABEL "C" TO BE SECURED BY SYSTEM INSTALLER PER UL96A.
K. INSTALLATION SHALL COMPLY IN ALL RESPECTS TO L.P.I. CODE 175. INSTALLATION SHALL BE MADE UNDER THE SUPERVISION OF AN L.P.I. CERTIFIED MASTER INSTALLER.
L. REFER TO SPECIFICATION SECTIONS 264112 FOR ADDITIONAL INFORMATION AND APPROVED MANUFACTURERS. ALL MATERIALS SHOWN AND INTENDED FOR USE ARE BY:
VFC LIGHTNING PROTECTION
90 NORTH CUTLER DRIVE
NORTH SALT LAKE, UTAH 84054
PHONE: (801) 292-2956
FAX: (801) 292-4164
EMAIL: cad@vfcinc.com
INTERNET: www.vfcinc.com
M. COMPLY WITH NFPA 70, 2004 ED.



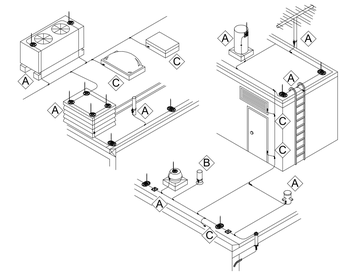
C4 THRU-ROOF CONNECTION
NO SCALE

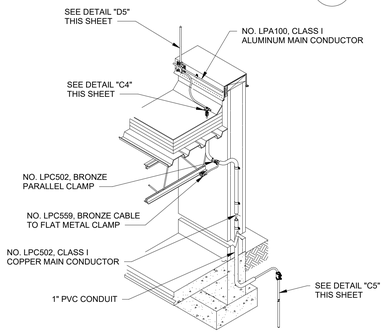


C5 CADWELD MOLD - GR
NO SCALE

GENERAL BONDING NOTES

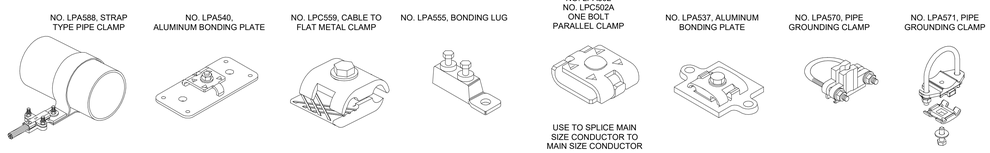
A. TYPICAL BODIES OF CONDUCTANCE AS NOTED BELOW. USE FULL SIZE CONDUCTOR AND APPROPRIATE FITTING SHOWN FOR CONNECTION.
B. (PLUMBING STACK) REQUIRES BONDING WITH MAIN SIZE CABLE ONLY IF WITHIN 6'-0" (1,828mm) OF LIGHTNING PROTECTION SYSTEM.
C. TYPICAL BODIES OF INDUCTANCE AS NOTED BELOW. USE SECONDARY SIZE (SMALLER) CONDUCTOR AND APPROPRIATE FITTING SHOWN FOR CONNECTION.
D. BONDING CONNECTIONS AND FITTINGS SHOWN ARE TYPICAL EXAMPLES. MAKE ALL CONNECTIONS REQUIRED TO MEET CODES AS NOTED BELOW. ADJUST FITTING TYPE AS REQUIRED TO SUIT FIELD CONDITIONS.



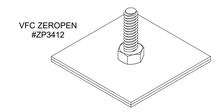


NOTE: INSTALLATION OF DOWNLEAD CABLE WILL VARY AT EACH LOCATION SHOWN ON SHEET "EP141". REFER TO ARCHITECTURAL WALL SECTIONS FOR ADDITIONAL INFORMATION FOR THE VARIOUS INSTALLATIONS. COORDINATE INSTALLATION PRIOR TO COMMENCEMENT OF ANY WORK.

B4 TYPICAL DOWNLEAD DETAIL
NO SCALE



A2 MISCELLANEOUS
NO SCALE



All fasteners to be VFC ZEROPEN #ZP3412 with appropriate loop supports. No support penetrations shall be made in any sheet metal flashing or roof top equipment. Sheet metal screws shall not be used. Appropriate adhesive supports and construction mastic may be used on Membrane roof surfaces only. Adhesive supports and construction mastic shall not be used on any sheet metal surfaces.

The contractor shall furnish 10 Year Adhesion Warranty on the VFC ZEROPEN fastener system.

IT IS THE INTENT OF THESE DOCUMENTS TO SHOW A BASIC REPRESENTATION OF THE LIGHTNING PROTECTION SYSTEM. DEVICES INDICATED ON THESE DOCUMENTS ARE IN NO WAY IMPLIED TO BE COMPREHENSIVE OF THE FINAL DESIGN. IT IS THE RESPONSIBILITY OF THE LIGHTNING PROTECTION CONTRACTOR TO PROVIDE A DESIGN/BUILD LIGHTNING PROTECTION SYSTEM BASED UPON A THOROUGH REVIEW OF ALL CONTRACT DOCUMENTS. IT IS THE RESPONSIBILITY OF THE LIGHTNING PROTECTION CONTRACTOR TO ENSURE THAT THE LIGHTNING PROTECTION SYSTEM IS CODE COMPLIANT, MEETS THE REQUIREMENTS OF THE AHJ AND COMPREHENSIVELY COVERS AND INCLUDES ALL NECESSARY PARTS AND LABOR ASSOCIATED WITH OTHER TRADES AND SYSTEMS IMPACTING THE LIGHTNING PROTECTION SYSTEM. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ACHIEVE A MASTER LABEL FOR THE LIGHTNING PROTECTION SYSTEM. NO CHANGE ORDERS SHALL BE APPROVED FOR THE BASE SCOPE OF WORK.

fbt | architects
MAIL: 6501 Americas Pkwy NE., Ste. 300, Albuquerque, NM 87110
PHO: 505.883.5200
FAX: 505.884.5390
WEB: www.fbtarch.com

CONSULTANT

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

ARCHITECT

Dzilth-Na-O-Dith-Hle - New Dormitory Building

PRICING SET

35 Road 7585, Bloomfield, NM 87413

NOVEMBER 10, 2020

MARK	DATE	DESCRIPTION

ISSUE:	
DATE:	
PROJECT NO:	751
CAD DWG FILE:	
DRAWN BY:	AMH
CHECKED BY:	JMM

SHEET TITLE

LIGHTNING PROTECTION DETAILS

E-502

Bridgers & Paxton Project No: 8226 11/9/2020 5:49:26 PM D:\Revit 2019\Projects\8226_DCS Dorm_MEP_AMherreraSSZMC.rvt

COPPER FEEDER SCHEDULE

NOTE: ALL CONDUCTORS ARE COPPER, TYPE THWN/THHN UNLESS OTHERWISE NOTED.

DESIGNATION	CONDUCTORS	GROUND	CONDUIT	NOTES
THREE PHASE THREE WIRE & GROUND FEEDER				
20Δ	3#12	12	3/4"	
25Δ	3#10	10	3/4"	
30Δ	3#10	10	3/4"	
35Δ	3#8	10	3/4"	
40Δ	3#8	10	3/4"	
45Δ	3#8	10	3/4"	
50Δ	3#8	10	3/4"	
60Δ	3#6	10	1"	
70Δ	3#4	8	1 1/4"	
80Δ	3#4	8	1 1/4"	
90Δ	3#2	8	1 1/4"	
100Δ	3#2	8	1 1/4"	
125Δ	3#1	6	1 1/2"	
150Δ	3#1/0	6	1 1/2"	
175Δ	3#2/0	6	2"	
200Δ	3#3/0	6	2"	
225Δ	3#4/0	4	2 1/2"	
250Δ	3-250 KCMIL	4	3"	
300Δ	3-350 KCMIL	4	3"	
350Δ	3-500 KCMIL	2	4"	
400Δ	3-600 KCMIL	2	4"	
450Δ	(2) 3#4/0	(2) 2	(2) 2 1/2"	
500Δ	(2) 3-250 KCMIL	(2) 2	(2) 3"	
600Δ	(2) 3-350 KCMIL	(2) 1	(2) 3"	
700Δ	(2) 3-500 KCMIL	(2) 1/0	(2) 4"	
800Δ	(2) 3-600 KCMIL	(2) 1/0	(2) 4"	
1000Δ	(3) 3-400 KCMIL	(3) 2/0	(3) 3"	
1200Δ	(3) 3-600 KCMIL	(3) 3/0	(3) 4"	
1600Δ	(4) 3-600 KCMIL	(4) 4/0	(4) 4"	
2000Δ	(5) 3-600 KCMIL	(5)250 KCMIL	(5) 4"	
2500Δ	(6) 3-600 KCMIL	(6)350 KCMIL	(6) 4"	
3000Δ	(8) 3-500 KCMIL	(8)400 KCMIL	(8) 4"	
4000Δ	(10) 3-600 KCMIL	(10)500 KCMIL	(10) 4"	
THREE PHASE FOUR WIRE & GROUND FEEDER				
20Y	4#12	12	3/4"	
25Y	4#10	10	3/4"	
30Y	4#10	10	3/4"	
35Y	4#8	10	3/4"	
40Y	4#8	10	3/4"	
45Y	4#8	10	3/4"	
50Y	4#8	10	3/4"	
60Y	4#6	10	1"	
70Y	4#4	8	1 1/4"	
80Y	4#4	8	1 1/4"	
90Y	4#2	8	1 1/4"	
100Y	4#2	8	1 1/4"	
125Y	4#1	6	1 1/2"	
150Y	4#1/0	6	2"	
175Y	4#2/0	6	2"	
200Y	4#3/0	6	2"	
225Y	4#4/0	4	2 1/2"	
250Y	4-250 KCMIL	4	3"	
300Y	4-350 KCMIL	4	3"	
350Y	4-500 KCMIL	2	4"	
400Y	4-600 KCMIL	2	4"	
450Y	(2) 4#4/0	(2) 2	(2) 2 1/2"	
500Y	(2) 4-250 KCMIL	(2) 2	(2) 3"	
600Y	(2) 4-350 KCMIL	(2) 1	(2) 3"	
700Y	(2) 4-500 KCMIL	(2) 1	(2) 4"	
800Y	(2) 4-600 KCMIL	(2) 1/0	(2) 4"	
1000Y	(3) 4-400 KCMIL	(3) 2/0	(3) 3"	
1200Y	(3) 4-600 KCMIL	(3) 3/0	(3) 4"	
1600Y	(4) 4-600 KCMIL	(4) 4/0	(4) 4"	
2000Y	(5) 4-600 KCMIL	(5) 250 KCMIL	(5) 4"	
2500Y	(6) 4-600 KCMIL	(6) 350 KCMIL	(6) 4"	
3000Y	(8) 4-500 KCMIL	(8) 400 KCMIL	(8) 4"	
4000Y	(10) 4-600 KCMIL	(10) 500 KCMIL	(10) 4"	
5000Y	(12) 4-600 KCMIL	(16) 700 KCMIL	(12) 4"	

EQUIPMENT BONDING JUMPER FOR SEPARATELY DERIVED SYSTEMS PER NEC 250.66 (PROVIDE CONDUCTOR GROUND BELOW INSTEAD OF FEEDER GROUND FOR

THREE PHASE, 4-WIRE SYSTEMS INDICATED ABOVE,UND			
20YS THRU 100YS	8		
125YS THRU 150YS	6		
175YS THRU 200YS	4		
225YS THRU 300YS	2		
350YS THRU 500YS	1/0		
600YS THRU 700YS	2/0		
800YS THRU 5000YS	3/0		
THREE PHASE FOUR WIRE 200% NEUTRAL & GROUND FEEDER			
100Y-E	3#2, 1#4/0 NEUTRAL	8	2"
150Y-E	3#2/0, 2#2/0 NEUT.	6	2"
225Y-E	3-250 KCMIL, 2-250 KCMIL NEUT.	4	2 1/2"
350Y-E	(2) 3#3/0, (2) 2#3/0 NEUT.	(2) 2	(2) 2 1/2"
400Y-E	(2) 3#4/0, (2) 2#4/0 NEUT.	(2) 2	(2) 2 1/2"
500Y-E	(2) 3-350 KCMIL, (2) 2-350KCMIL NEUT.	(2) 2	(2) 3"

C1 COPPER FEEDER SCHEDULE
NONE

ALUMINUM FEEDER SCHEDULE

NOTE: ALL CONDUCTORS ARE ALUMINUM, TYPE THWN/THHN UNLESS OTHERWISE NOTED.

DESIGNATION	CONDUCTORS	GROUNDING CONDUCTOR(S)	CONDUIT	NOTES
THREE PHASE THREE WIRE & GROUND FEEDER				
200Δ	3-250 KCMIL	2	2 1/2"	
225Δ	3-300 KCMIL	2	3"	
250Δ	3-350 KCMIL	2	3"	
300Δ	3-500 KCMIL	2	4"	
350Δ	(2) {3#4/0}	(2) 1	(2) 2 1/2"	
400Δ	(2) {3-250 KCMIL}	(2) 1	(2) 2 1/2"	
450Δ	(2) {3-300 KCMIL}	(2) 1/0	(2) 3"	
500Δ	(2) {3-350 KCMIL}	(2) 1/0	(2) 3"	
600Δ	(2) {3-500 KCMIL}	(2) 2/0	(2) 4"	
700Δ	(3) {3-350 KCMIL}	(3) 3/0	(3) 3"	
800Δ	(3) {3-400 KCMIL}	(3) 3/0	(3) 3"	
1000Δ	(3) {3-600 KCMIL}	(4) 4/0	(4) 4"	
1200Δ	(4) {3-500 KCMIL}	(4) 250	(4) 4"	
1600Δ	(5) {3-600 KCMIL}	(5) 350	(5) 4"	
2000Δ	(6) {3-600 KCMIL}	(6) 400	(6) 4"	
2500Δ	(8) {3-600 KCMIL}	(8) 600	(8) 4"	
3000Δ	(9) {3-600 KCMIL}	(9)600 KCMIL	(9) 4"	
4000Δ	(12) {3-600 KCMIL}	(12)600 KCMIL	(12) 4"	
THREE PHASE FOUR WIRE & GROUND FEEDER				
200Y	4-250 KCMIL	2	3"	
250Y	4-350 KCMIL	2	3"	
300Y	4-500 KCMIL	2	4"	
350Y	(2) {4#4/0}	(2) 1	(2) 2 1/2"	
400Y	(2) {4-250 KCMIL}	(2) 1	(2) 3"	
450Y	(2) {4-300 KCMIL}	(2) 1/0	(2) 3"	
500Y	(2) {4-350 KCMIL}	(2) 1/0	(2) 3"	
600Y	(2) {4-500 KCMIL}	(2) 2/0	(2) 4"	
700Y	(3) {4-350 KCMIL}	(3) 3/0	(3) 3"	
800Y	(3) {4-400 KCMIL}	(3) 3/0	(3) 4"	
1000Y	(4) {4-600 KCMIL}	(4) 4/0	(4) 4"	
1200Y	(4) {4-500 KCMIL}	(4) 250	(4) 4"	
1600Y	(5) {4-600 KCMIL}	(5) 350	(5) 4"	
2000Y	(6) {4-600 KCMIL}	(6) 400	(6) 4"	
2500Y	(8) {4-600 KCMIL}	(8)600 KCMIL	(8) 4"	
3000Y	(9) {4-600 KCMIL}	(9)600 KCMIL	(9) 4"	
4000Y	(12) {4-600 KCMIL}	(12)600 KCMIL	(12) 4"	
THREE PHASE FOUR WIRE 200% NEUTRAL & GROUND FEEDER				
100Y-E	3#1, 2#1 NEUTRAL	2	2"	
150Y-E	3#3/0, 2#3/0 NEUTRAL	2	2 1/2"	
225Y-E	3-300 KCMIL, 2-300 KCMIL NEUTRAL	2	3"	
350Y-E	(2) 3#4/0, (2) 2#4/0 NEUTRAL	(2) 1	(2) 2 1/2"	
400Y-E	(2) 3-250 KCMIL, (2) 2-250 KCMIL NEUTRAL	(2) 1	(2) 2 1/2"	
500Y-E	(2) 3-350 KCMIL, (2) 2-350 KCMIL NEUTRAL	(2) 1/0	(2) 3"	

C2 ALUMINUM FEEDER SCHEDULE
NONE

FAULT CURRENT CALCULATIONS

Source DESCRIPTION

Assumptions: 1) 600 Volt rated conductors/cables only.

Fault Point	Equipment	SES Size (Amps):	XFMR Size (kVA):	XFMR mounting:	Primary Voltage:	Secondary Voltage:	Phase	Xfmr FLA (Amps):	Xfmr Impedence (Ohms):	Xfmr Impedence adjusted value:	Let-Thru Short Circuit Current	Manual input Let-Thru Short Circuit Current
SF	MSB	1200	500	PAD	12470	480	3	601		5.75		**65000**

Value based on JMEZ available Fault

KNOWN FAULT INFORMATION						SECOND TRANSFORMER IN SYSTEM (DRY-TYPE)						FEEDER/BRANCH CIRCUIT CALCULATION									RESULT
Fault Point	Equipment	Source of Fault	Available Fault Current	Voltage:	PHASE:	XFMR Size (kVA):	Secondary Voltage:	Xfmr Impedence (Ohms):	Xfmr Impedence (user input):	"I" factor	"M" factor	Conductor Type	Conductor Size	3 single conductors?	Conduit Type	Number of sets	Length to fault	"C" value	"I" factor	"M" factor	Available Short Circuit Current at Fault:
F1	MSB	UT1	65000	480	3							C	600	Y	P	3	72	28033	0.201	0.833	**54141**
F2	DDPH1	MSB	54141	480	3							C	600	Y	P	1	142	28033	0.988	0.503	**27228**
F3	PRI-DT1A	DDPH1	27228	480	3							C	3/0	Y	S	1	30	12844	0.229	0.814	**22151**
F4	SEC-DT1A	PRI-DT1A	22151	480	3	112.5	208	1.07		1.75	0.363										**18578**
F5	DL1A	SEC-DT1A	18578	208	3							C	600	Y	S	1	30	22965	0.202	0.832	**15457**
F6	MPA	DDPH1	27228	480	3							C	4/0	Y	S	1	130	15082	0.846	0.542	**14751**
F7	PRI-DT2A	DDPH1	27228	480	3							C	3/0	Y	S	1	130	12844	0.993	0.502	**13660**
F8	SEC-DT2A	PRI-DT2A	13660	480	3	112.5	208	1.07		1.08	0.481										**15154**
F9	DPLA	SEC-DT2A	15154	208	3							C	600	Y	S	1	30	22965	0.165	0.859	**13012**

C3 FAULT CURRENT CALCULATION
1" = 1'-0"

VOLTAGE DROP CALCULATIONS

Project: Dzilth-Na-O-Dith-Hle CS
Project No: 8226
Estimator: Joseph Montano
Calc by: Tacy Austin
Date: 8-Jun-20

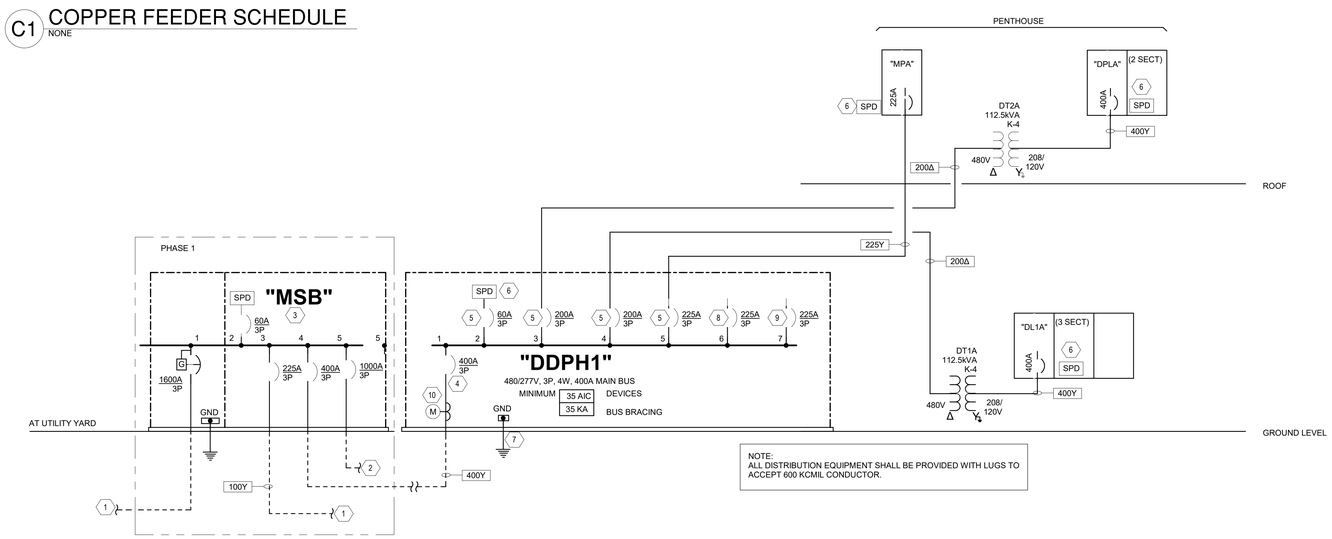
Maximum voltage drop for a Branch Circuit shall be less than 3% (NEC 210.19.A. FPN 4).
Maximum voltage drop for a Feeder shall be less than 3% (NEC 215.2. FPN 2).
Maximum combined voltage drop for a Feeder and Branch shall be less than 5%.

	start	end	% drop
	480	471.18	1.84%

Source: 2017 NEC

Run	Feeder or Branch Circuit Run:	Type of Circuit	Voltage	Phase	Conductor Material	Length (ft)	Size	Load Current (Amps)	Qty Parrallel Runs	Load on feeder	Resistance	Voltage Drop	End Voltage	% Voltage Drop Feeder	% Voltage Drop Branch
1	UT1 TO MSB	Feeder	480.0	3	C	72	600	1600	3	533	0.021	**1.42**	**478.58**	**0.30%**	
2	MSB TO DDPH1	Feeder	480.0	3	C	142	600	400	1	400	0.021	**2.11**	**477.89**	**0.44%**	
3	DDPH1 TO DT1A	Feeder	480.0	3	C	30	3/0	200	1	200	0.077	**0.80**	**479.20**	**0.17%**	
4	DT1A TO DL1A	Feeder	208.0	3	C	30	600	400	1	400	0.021	**0.44**	**207.56**	**0.21%**	
5	DDPH1 TO MPA	Feeder	480.0	3	C	130	4/0	225	1	225	0.061	**3.08**	**476.92**	**0.64%**	
6	DDPH1 TO DT2A	Feeder	480.0	3	C	130	3/0	200	1	200	0.077	**3.45**	**476.55**	**0.72%**	
7	DT2A TO DPLA	Feeder	208.0	3	C	30	600	400	1	400	0.021	**0.44**	**207.56**	**0.21%**	

C4 VOLTAGE DROP CALCULATION
1" = 1'-0"



C5 ELECTRICAL ONE-LINE DIAGRAM-DORMITORY
1/8" = 1'-0"

Electrical Service Calc.-DCS Dormitory - *Project #8226.*

Description of Load		Connected Load KVA	Demand % Multiplier	Demand Load KVA	Service % Multiplier	Service Load KVA	Notes
Lighting Interior		7	100%	7	125%	8	1,2,3
Lighting Exterior		1	100%	1	125%	1	3
Receptacle		86	First 10KVA @ 100% Remnder over 10KVA @ 50%	48	100%	48	
Largest Motor		43	125%	54	100%	54	
All other Motors		103	100%	103	100%	103	
Non-continuous loads		22	100%	22	100%	22	
Kitchen Equipment		7	**6 and more @ 65%**	4	100%	4	
Subtotal of loads KVA		268		238		240	
				Future Capacity	**25%**	60	
				Total Service load KVA		300	
				Voltage of Service (480-3PH)		0.831	
				Total Service Ampacity		361	

13,889	**Sq. Ft.**	**0.47** watts/sq.ft. for lighting loads	=	6,500 **VA**
13,889	**Sq. Ft.**	**0.05** watts/sq.ft. for exterior lighting load	=	700 **VA**
13,889	**Sq. Ft.**	**6.19** watts/sq.ft. for receptacle loads	=	86,000 **VA**
13,889	**Sq. Ft.**	**10.51** watts/sq.ft. for mechanical loads	=	146,000 **VA**
13,889	**Sq. Ft.**	**1.57** watts/sq.ft. for non-continuous loads	=	21,800 **VA**
13,889	**Sq. Ft.**	**0.47** watts/sq.ft. for kitchen loads	=	6,500 **VA**

NOTES

1. Meets required New Mexico State energy requirement. IECC required educational space watts/sq.ft. of 1.2.
2. Occupancy sensors were utilized through building for control to meet requirements of IECC.
3. A programmable system is also used for automatic control for energy savings.

C6 ELECTRICAL SERVICE CALCULATIONS
1" = 1'-0"

GENERAL NOTES

A. PANELBOARD AIC RATINGS ARE INDICATED ON THE PANEL SCHEDULES.
B. INFORMATION SHOWN IS DIAGRAMMATIC AND IS NOT INTENDED TO REPRESENT PHYSICAL ARRANGEMENTS, LOCATIONS, ROUTING OR CONNECTIONS. PHYSICAL LAYOUTS ARE TO BE PER FIELD CONDITIONS AND AS INDICATED ELSEWHERE IN THE ELECTRICAL PLANS.
C. REFERENCE THE SPECIFICATIONS FOR ADDITIONAL REQUIRMENTS REGARDING EQUIPMENT AND INSTALLATION. NOT ALL INFORMATION IS SHOWN ON THIS DIAGRAM.
D. ALL PANELS WILL HAVE DOOR-IN-DOOR, EACH DOOR KEY LOCKABLE, ACCESSIBLITY FOR EACH PANEL.
E. CONTRACTOR WILL MEASURE AND TORQUE ALL PANEL FEEDERS, MEASURE RESISTANCE TO GROUND AT SERVICE GROUND AND PROVIDE WRITTEN DOCUMENTATION OF TEST RESULTS. CONTRACTOR WILL COORDINATE TIME SO THAT SCHOOL REPRESENTATIVE IS PRESENT DURING TEST.
F. CONTRACTOR WILL LABEL ALL DISTRIBUTION EQUIPMENT PRIOR TO FINAL OBSERVATION WALK THROUGH.
G. REFER TO GROUNDING DIAGRAM ON SHEET E-602.
H. ALL ELECTRICAL EQUIPMENT DIRECTORIES WILL BE TYPED.
I. COMPLY WITH NFPA 70, 2004 ED.

KEYNOTES

1. REFER TO SHEET ES-601 FOR CONTINUATION OF ELECTRICAL DISTRIBUTION.
2. REFER TO SHEET E-601S FOR CONTINUATION OF ELECTRICAL DISTRIBUTION IN SCHOOL BUILDING.
3. REFER TO SHEET ES-601 FOR ADDITIONAL INFORMATION ON NEW MSB.
4. SOLID STATE, ELECTRONIC TRIP CIRCUIT BREAKER WITH LONGTIME, SHORT-TIME, INSTANTANEOUS FUNCTIONS. 100% RATED WITH ADJUSTABLE SETTINGS. PROVIDE WITH ENERGY REDUCTION MAINTENANCE SWITCH.
5. MOLDED CASE, THERMAL-MAGNETIC CIRCUIT BREAKERS WITH LOCKABLE CAPABILITIES.
6. SPD MOUNTED INTERNALLY TO SWITCHBOARD/PANELBOARD. REFERENCE SECTION 264313 FOR ADDITIONAL INFORMATION.
7. REFER TO SHEET E-602 FOR GROUNDING INFORMATION FOR THIS EQUIPMENT.
8. PROVIDE TWO (2) SPARE CIRCUIT BREAKERS; AS INDICATED.
9. PROVIDE TWO (2) SPACE ONLY FOR FUTURE CIRCUIT BREAKERS; SIZE AS INDICATED.
10. INTEGRAL POWER MONITOR IN ELECTRICAL GEAR. REFER TO SPECIFICATION 262413 FOR METERING INSTRUMENTATION REQUIREMENTS AND ADDITIONAL SWITCHBOARD INFORMATION

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PRICING SET

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NOVEMBER 10, 2020

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ISSUE:	
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SHEET TITLE
ELECTRICAL DIAGRAMS

E-601D

Bridgers & Paxton Project No: 8226 11/6/2020 5:49:29 PM D:\Revit 2019\Projects\8226_DCS Dorm_MEP_AMHerrera\SSZMC.rvt

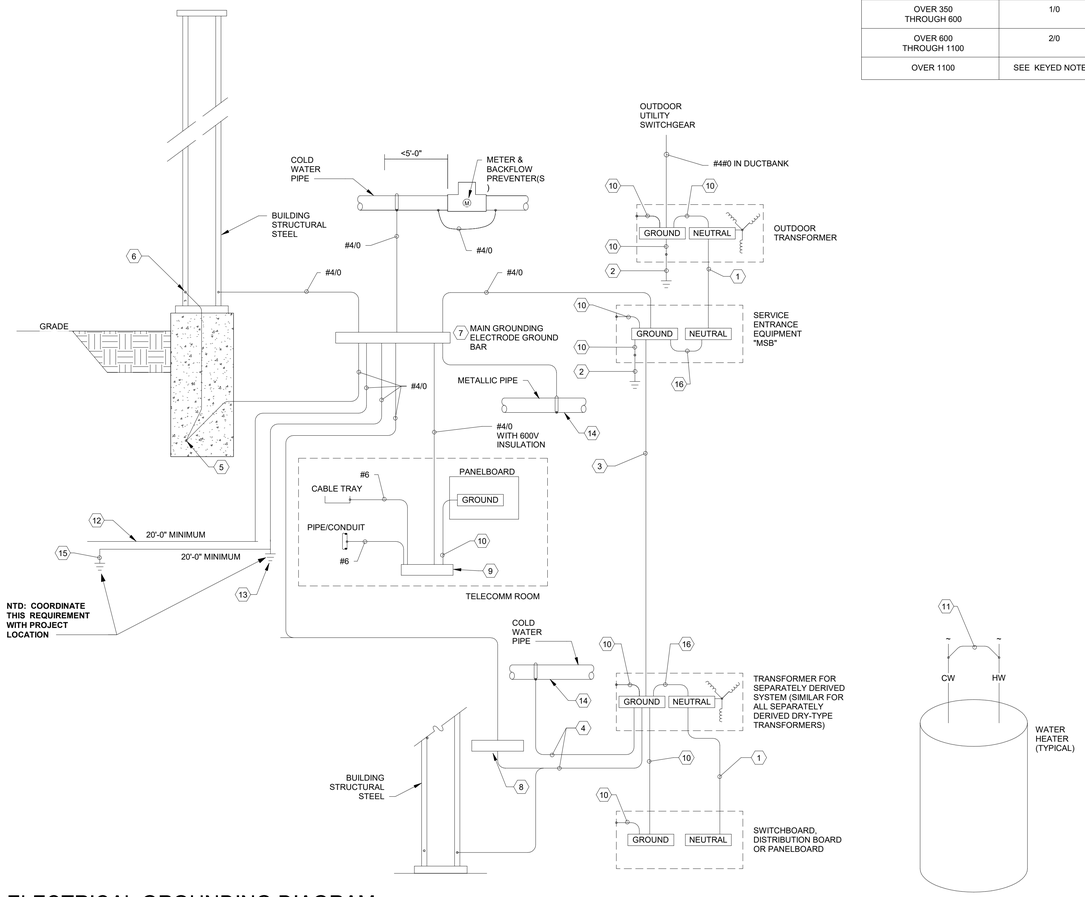
GENERAL NOTES

A. INSTALL GROUNDING CONNECTIONS TO BUILDING STRUCTURE AND WATER PIPES AT LOCATIONS THAT ARE VISIBLE AND ACCESSIBLE FOR INSPECTION, MAINTENANCE, AND TESTING.
B. INSTALL AN INSULATED THROAT GROUNDING BUSHING ON EACH METALLIC SERVICE ENTRANCE CONDUIT. BOND TO SERVICE ENTRANCE EQUIPMENT GROUND BUS USING NEC TABLE 250.102 (C)(1).
C. INSTALL AN INSULATED THROAT GROUNDING BUSHING ON EACH METALLIC FEEDER CONDUIT. BOND TO GROUND BUS USING CONDUCTOR THAT IS SIZED EQUAL TO EQUIPMENT GROUNDING CONDUCTOR.
D. BOND ELECTRICAL EQUIPMENT ENCLOSURES TO GROUND BAR USING SAME SIZE CONDUCTOR AS FEEDER EQUIPMENT GROUND CONDUCTOR OR FACTORY PROVIDED GREEN SCREW.
E. CLEAN COATED RE-BAR PRIOR TO PERFORMING ELECTRICAL CONNECTIONS.
F. COMPLY WITH NFPA 70, 2004 ED.

GROUNDING ELECTRODE CONDUCTOR SCHEDULE	
NOTE: ALL CONDUCTORS ARE COPPER.	
SIZE OF LARGEST UNGROUNDED SERVICE-ENTRANCE CONDUCTOR OR EQUIVALENT AREA FOR PARALLEL CONDUCTORS. (AWG OR KCMIL)	SIZE OF GROUNDING ELECTRODE CONDUCTOR (AWG)
<= #2	8
#1 OR 1/0	6
2/0 OR 3/0	4
OVER 3/0 THROUGH 350	2
OVER 350 THROUGH 600	1/0
OVER 600 THROUGH 1100	2/0
OVER 1100	SEE KEYED NOTE 16

KEYNOTES

1. REFER TO ONE-LINE DIAGRAM AND FEEDER SCHEDULE FOR GROUNDED CONDUCTOR SIZE.
2. CONNECT GROUNDING ELECTRODE CONDUCTOR TO GROUND ROD.
3. FOR EQUIPMENT GROUNDING CONDUCTOR SIZE REFER TO ONE-LINE DIAGRAM AND FEEDER SCHEDULE.
4. PROVIDE GROUNDING ELECTRODE CONDUCTOR SIZE BASED ON THE CONDUCTOR SIZE OF THE SECONDARY OF THE TRANSFORMER. SIZE PER NEC 250.66 AND PER SCHEDULE ON THIS SHEET.
5. PROVIDE A CONCRETE-ENCASED MAIN GROUNDING ELECTRODE IN THE BUILDING FOUNDATION AROUND THE ENTIRE PERIMETER OF THE BUILDING. LOCATE ELECTRODE IN THE BOTTOM ONE-THIRD OF THE FOUNDATION WITH AT LEAST 3 INCHES OF CONCRETE COVER. USE EITHER #4/0 BARE COPPER CABLE OR #6 OR LARGER STEEL REINFORCING BARS MADE ELECTRICALLY CONTINUOUS USING EXOTHERMICALLY WELDED #4/0 JUMPERS.
6. BOND EACH PERIMETER STRUCTURAL STEEL COLUMN TO THE CONCRETE-ENCASED MAIN GROUNDING ELECTRODE. USE EXOTHERMIC WELDS.
7. PROVIDE A 1/4" X 4" X 12" "MAIN GROUNDING ELECTRODE GROUND BAR" FOR SINGLE POINT GROUNDING. LOCATE AT AN ACCESSIBLE POINT NEAR THE SERVICE ENTRANCE EQUIPMENT. MAKE OTHER CONNECTIONS TO THE GROUND BAR USING TWO-HOLE COMPRESSION SPADE LUGS THAT MEET IEEE 837 REQUIREMENTS. LABEL EACH CONNECTION.
8. USE THE "MAIN GROUNDING ELECTRODE GROUND BAR" INSTEAD OF BUILDING STRUCTURAL STEEL IF THE FIRST OVER CURRENT DEVICE FOR THE SEPARATELY DERIVED SYSTEM IS WITHIN SAME ROOM OF THE "MAIN GROUNDING ELECTRODE GROUND BAR".
9. INSTALL A 1/4" X 4" COPPER "TELECOMMUNICATIONS GROUNDING BUSBAR" IN EACH TELECOMMUNICATIONS ROOM. CONNECT CABLES TO THE "TELECOMMUNICATIONS GROUNDING BUSBAR" USING COMPRESSION SPADE LUGS. LABEL CONDUCTORS PER ANSI-J-STD-607-A. LABEL EACH CONNECTION. SEE PLAN FOR BAR LENGTH AND LOCATIONS.
10. BONDING JUMPER SIZED PER GROUNDING ELECTRODE CONDUCTOR SCHEDULE THIS SHEET.
11. BOND HOT WATER PIPE TO COLD WATER PIPE AT EACH WATER HEATER WITH A #8 BARE COPPER CONDUCTOR.
12. PROVIDE A GROUND RING PER NEC 250.52 A.4.
13. PROVIDE A GROUND ROD PER NEC 250.52 A.5
14. BOND ALL METALLIC PIPING SYTEMS WITHIN STRUCTURE.
15. PROVIDE A GROUNDING ELECTRODE SYSTEM PER 2014 NMEC.
16. MAIN BONDING JUMPER AND/OR SYSTEM BONDING JUMPER SIZE BASED ON UNGROUNDED CONDUCTOR SIZE AND GROUNDING ELECTRODE CONDUCTOR SCHEDULE ON THIS SHEET UNLESS UNGROUNDED CONDUCTOR SIZE OR EQUIVALENT IS GREATER THAN 1100 KCMIL. IF GREATER THAN 1100 KCMIL (OR 1750 KCMIL FOR ALUMINUM) SIZE JUMPER PER NEC TABLE 250.102 (C)(1)
17. LIGHTNING PROTECTION COUNTERPOISE - #4/0 BARE COPPER.
18. BOND EACH CORNER STRUCTURAL STEEL AND PERIMETER STRUCTURAL STEEL AT NO MORE THAN 50 FOOT SPACING TO THE LIGHTNING PROTECTION COUNTERPOISE.
19. COVER THE EXTERIOR LIGHTNING PROTECTION DOWN CONDUCTOR WITH NON-CONDUCTIVE MATERIAL FROM THE FINAL GRADE TO 8' ABOVE FINISHED FLOOR.



1 ELECTRICAL GROUNDING DIAGRAM
1/8" = 1'-0"

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ISSUE:	
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SHEET TITLE

GROUNDING DIAGRAM

E-602

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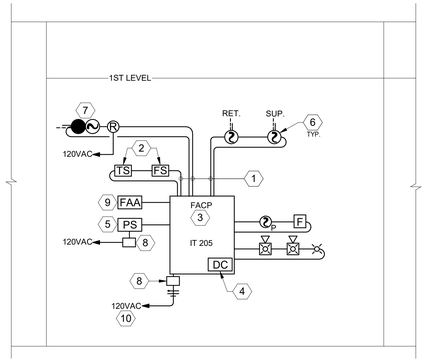

D4 FIRE ALARM RISER DIAGRAM
NO SCALE

GENERAL NOTES

A. FIRE ALARM DIAGRAM INDICATES GENERAL DIAGRAMMATIC CONNECTIONS ONLY. ALL CONNECTIONS AND INSTALLATION WILL BE PER FIRE ALARM SYSTEM MANUFACTURER'S SHOP DRAWINGS.
B. DEVICE QUANTITIES ARE NOT INDICATED ON THIS DRAWING. REFER TO "FA" SHEET SERIES FOR ADDITIONAL INFORMATION.
C. REFER TO SPECIFICATION SECTION 283111 FOR FIRE ALARM SYSTEM REQUIREMENTS.
D. FIRE ALARM WIRING AND CABLING SHALL BE IN CONFORMANCE WITH NEC AND TYPE SHALL BE AS RECOMMENDED BY FIRE ALARM SYSTEM MANUFACTURER.
E. SEAL ALL PENETRATIONS THROUGH WALLS, FLOOR, CEILINGS AND ROOF PER ARCHITECTURAL SPECIFIED REQUIREMENTS. SEAL WILL MATCH THE FIRE RATING OF EACH PENETRATION LOCATION.
F. COMPLY WITH NFPA 70, 2004 ED.

IT IS THE INTENT OF THESE DOCUMENTS TO SHOW A BASIC REPRESENTATION OF THE FIRE ALARM SYSTEM. DEVICES INDICATED ON THESE DOCUMENTS ARE IN NO WAY IMPLIED TO BE COMPREHENSIVE OF THE FINAL DESIGN. IT IS THE RESPONSIBILITY OF THE FIRE ALARM CONTRACTOR TO PROVIDE A DESIGN/BUILD FIRE ALARM SYSTEM BASED UPON A THOROUGH REVIEW OF ALL CONTRACT DOCUMENTS. IT IS THE RESPONSIBILITY OF THE FIRE ALARM CONTRACTOR TO ENSURE THAT THE FIRE ALARM SYSTEM IS CODE COMPLIANT, MEETS THE REQUIREMENTS OF THE AHJ AND COMPREHENSIVELY COVERS AND INCLUDES ALL NECESSARY PARTS AND LABOR ASSOCIATED WITH OTHER TRADES AND SYSTEMS IMPACTING THE FIRE ALARM SYSTEM. NO CHANGE ORDERS SHALL BE APPROVED FOR THE BASE SCOPE OF WORK.

ENTIRE FIRE ALARM SYSTEM WILL BE IN RACEWAYS; NO EXCEPTIONS!

KEYNOTES

1. MINIMUM 3/4" CONDUIT AND FIRE ALARM CABLING AS REQUIRED BY THE FIRE ALARM MANUFACTURER.
2. INDEPENDENTLY SUPERVISE EACH FLOW AND TAMPER SWITCH WITH AN ADDRESSABLE MODULE. REFER TO FIRE PROTECTION/ PLUMBING PLANS FOR EACH LOCATION.
3. FIRE ALARM CONTROL PANEL (FACP) WILL BE FACTORY MANUFACTURED, UL LABELED PANELS. THE FATC WILL ENCLOSE ALL TERMINATIONS FOR DEVICES ON THE FLOOR OR AREA IT SERVES. INTELLIGENT CARDS AS REQUIRED OR INDEPENDENT OPERATION. POWER SUPPLIES AND STANDBY BATTERIES WILL BE PROVIDED AT EACH LOCATION.
4. DIGITAL COMMUNICATOR. CONNECTS TO TELEPHONE TERMINAL BOARD FOR REMOTE COMMUNICATION TO FIRST RESPONDERS AND/OR OWNERS SECURITY REPRESENTATIVE.
5. WHERE POWER SUPPLIES (PS) ARE INSTALLED OUTSIDE OF FACP/FATC, CONTRACTOR WILL PROVIDE 120V/20A POWER CIRCUIT TO UNITS FROM NEAREST PANEL. CONTRACTOR TO COORDINATE THIS REQUIREMENT WITH FIRE ALARM INSTALLER AT TIME OF SUBMITTALS TO VERIFY NEED.
6. DUCT SMOKE DETECTOR. FURNISHED BY DIVISION 28, INSTALLED IN DUCT BY DIVISION 23, CONNECTED, WIRED AND TESTED BY DIVISION 28. REFERENCE MECHANICAL CONTROL DIAGRAMS FOR MECHANICAL INTERCONNECTIONS. PROVIDE DUCT DETECTORS IN NEW AND EXISTING UNITS WHERE 2000CFM AND ABOVE EXIST. INSTALL PER CODE.
7. FIRE SMOKE DAMPER. ROUTE 120VAC VIA FIRE ALARM ADDRESSABLE RELAY.
8. PROVIDE SURGE PROTECTION FOR CIRCUIT TO FIRE ALARM PANEL.
9. POST INDICTOR VALVE (PIV) AND HOT BOX. REFER TO SHEET ES-101 FOR ADDITIONAL INFORMATION. PROVIDE 3/4" CONDUIT FOR FA CONNECTION.
10. REFER TO SHEET SERIES "EP" FOR CIRCUITS SERVING THIS SYSTEM.

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SHEET TITLE

ELECTRICAL FIRE RISER DIAGRAM

E-603

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LIGHTING SEQUENCE OF OPERATTION

A1. BEDROOMS (GRADES 4-12):
1. ROOM LIGHTING WILL BE ENABLED AND DISABLED BY A SWITCH LOCATED AT THE CONTROL DESK.
2. SWITCH WILL CONTROL LIGHTING IN BEDROOMS ON AND OFF PER SCHEDULE OF THE DORM PERSONEL.
3. PROVIDE LIGHTING CONTACTOR IN ELECTRICAL ROOM FOR THE MULTIPLE CIRCUITS IN BEDROOMS.

A2. HONORS BEDROOM:
1. ROOM LIGHTING WILL BE ENABLED AND DISABLED BY A SINGLE PILOT LIGHT TOGGLE SWITCH ON THE OUTSIDE OF THE ROOM.

A3. ISOLATION BEDROOM:
1. ROOM LIGHTING WILL BE ENABLED AND DISABLED BY A SINGLE TOGGLE SWITCH IN THE ROOM.
2. SWITCH WILL CONTROL LIGHTING IN BEDROOMS ON AND OFF PER SCHEDULE OF THE DORM PERSONEL.
3. PROVIDE LIGHTING CONTACTOR IN ELECTRICAL ROOM FOR THE MULTIPLE CIRCUITS IN BEDROOMS.

A4. BEDROOMS (GRADES 1-3):
1. ROOM LIGHTING WILL BE ENABLED AND DISABLED BY A SWITCH LOCATED AT THE CONTROL DESK.
2. SWITCH WILL CONTROL LIGHTING IN BEDROOMS ON AND OFF PER SCHEDULE OF THE DORM PERSONEL.
3. PROVIDE LIGHTING CONTACTOR IN ELECTRICAL ROOM FOR THE MULTIPLE CIRCUITS IN BEDROOMS.

A5. RESTROOMS (GRADES 1-3):
1. UNOCCUPIED MODE:
   WHEN ROOM IS UNOCCUPIED, ALL LIGHTING IN ROOM SHALL BE DISABLED AND DE-ENERGIZED BY OCCUPANCY SENSOR(S) IN ROOM
2. OCCUPIED MODE
   a. LIGHTING IN ROOM WILL BE CONTROLLED WITH A KEYED SWITCH AS YOU ENTER ROOM AND WILL BE LEFT IN THE ON POSITION.
   b. LIGHTING CONTROL WILL BE DURING THE DAY WILL BE VIA OCCUPANCY SENSOR AND WILL TURN LIGHTING ON TO 100% DURING DAY USE.
   c. LIGHTING CONTROL AT NIGHT TIME. DURING SLEEPING HOURS, WILL BE VIA OCCUPANCY SENSOR AND WILL TURN ALL LIGHTING TO 50% DURING USE.
3. PROVIDE THE FOLLOWING WATTSTOPPER DLM SYSTEM DEVICES IN ROOM.
   a. ROOM CONTROLLER SERIES LMRC RATED FOR ROOM PROGRAMMING.
   b. PROVIDE A DUAL TECHNOLOGY CEILING MOUNTED OCCUPANCY SENSOR TO COVER ENTRY AND ODD SHAPED CORNERS IN ROOMS.

B. OFFICES, RECEPTION:
1. UNOCCUPIED MODE:
   WHEN ROOM IS UNOCCUPIED, ALL LIGHTING IN ROOM SHALL BE DISABLED AND DE-ENERGIZED BY VACANCY SENSOR(S) IN ROOM.
2. OCCUPIED MODE:
   a. LIGHTING CONTROL IN ROOM WILL BE ENABLED BY PUSH BUTTON SWITCHES AT ENTRY TO ROOM. NO LUMINAIRES WILL AUTOMATICALLY ENERGIZE.
   b. DURING OCCUPANCY A SINGLE DIMMING ON/OFF SWITCH WILL CONTROL ALL LUMINAIRES IN ROOM.
3. WHEN PERSONNEL LEAVE THE ROOM THEY CAN EITHER TURN LIGHTS OFF WITH SWITCH OR VACENCY SENSOR WILL BE PROGRAMMED TO TURN OFF ALL LUMINAIRES IN ROOM AUTOMATICALLY AFTER SET PERIOD OF TIME SET BY OWNER. AT A MINIMUM FACTORY SETTINGS WILL BE APPLIED IF NO OWNER INPUT IS PROVIDED AT TIME OF PROGRAMMING IN FIELD. SYSTEM WILL RESET TO UNOCCUPIED MODE.
4. PROVIDE THE FOLLOWING WATTSTOPPER DLM SYSTEM DEVICES IN ROOM.
   a. ROOM CONTROLLER SERVES LMRC RATED FOR PROGRAMMING CONTROL.
   b. DUAL TECHNOLOGY VACANCY SENSOR SERIES LMDC.
   c. SINGLE OUTLET ON/OFF DIMMING DIGITAL SWITCH SERIES LMDM.

C. FACULTY, LOUNGE/WORKROOM, GROUP STUDY, SEMINAR, RECEPTION COVE.
1. UNOCCUPIED MODE:
   WHEN ROOM IS UNOCCUPIED, ALL LIGHTING IN ROOM WILL BE DISABLED AND DE-ENERGIZED BY VACANCY SENSOR(S) IN ROOM.
2. OCCUPIED MODE:
   a. LIGHTING CONTROL IN ROOM WILL BE ENABLED BY PUSH BUTTOM SWITCHES AT ENTRY TO ROOM. NO LUMINAIRES WILL AUTOMATICALLY ENERGIZE.
   b. DURING OCCUPANCY, A SINGLE OUTLET, SENSOR/DIMMING/ON/OFF SWITCH WILL CONTROL ALL LUMINAIRES IN ROOM.
3. WHEN PERSONNEL LEAVE THE ROOM THEY CAN EITHER TURN LIGHTS OFF WITH SWITCH OR VACENCY SENSOR WILL BE PROGRAMMED TO TURN OFF ALL LUMINAIRES IN ROOM AUTOMATICALLY AFTER SET PERIOD OF TIME SET BY OWNER. AT A MINIMUM FACTORY SETTINGS WILL BE APPLIED IF NO OWNER INPUT IS PROVIDED AT TIME OF PROGRAMMING IN FIELD. SYSTEM WILL RESET TO UNOCCUPIED MODE.
4. PROVIDE THE FOLLOWING WATTSTOPPER SYSTEM DEVICES IN ROOM:
   a. SINGLE OUTLET ON/OFF/DIMMER/ VACANCY DIGITAL SWITCH SERIES LMDW.

E. RESTROOMS
1. OCCUPANCY SENSOR WILL AUTOMATICALLY TURN ON ALL LUMINAIRES AS PEOPLE ENTER ROOM.
2. LUMINAIRES CAN ALSO BE ENABLED BY SWITCH LOCATED AT ENTRY TO ROOM.
3. WHEN PERSONNEL LEAVE ROOM THEY CAN TURN LIGHTING OFF WITH SWITCH OR THE OCCUPANCY SENSOR(S) IN THE ROOM TIMES OUT. ALL LIGHTING IN ROOM WILL BE DISABLED AND DE-ENERGIZED.
4. PROVIDE THE FOLLOWING WATTSTOPPER SYSTEM DEVICES IN ROOM:
   A. DUAL TECHNOLOGY, LINE VOLTAGE OCCUPANCY SENSOR DT-355. LOCATED PER MANUFACTURES RECOMMENDATIONS. SHOWN ON PLAN FOR BID PURPOSES.
   B. SINGLE POLE TOGGLE SWITCH; LINE VOLTAGE RATED FOR LOAD.

F. STORAGE, JANITORS:
1. OCCUPANCY SENSOR WILL AUTOMATICALLY TURN ON ALL LUMINAIRES AS PEOPLE ENTER ROOM.
2. LUMINAIRES CAN ALSO BE ENABLED BY ON/OFF SWITCH
3. WHEN PERSONNEL LEAVE ROOM THEY CAN TURN LIGHTING OFF WITH SWITCH OR THE OCCUPANCY SENSOR(S) IN THE ROOM TIMES OUT. ALL LIGHTING IN ROOM WILL BE DISABLED AND DE-ENERGIZED.
4. PROVIDE THE FOLLOWING WATTSTOPPER SYSTEM DEVICES IN ROOM:
   A. COMBINATION SENSOR AND ON/OFF SWITCH SERIES PW.

G. ELECTRICAL, MDF/IDF, MECHANICAL, FIRE RISER:
1. ALL LUMINAIRES IN ROOM WILL BE ENGAGED BY SWITCH(ES). THESE LUMINAIRES WILL NOT AUTOMATICALLY ENERGIZE OR DE-ENERGIZE.
2. PROVIDE THE FOLLOWING FOR CONTROL:
   A. SINGLE POLE TOGGLE SWITCH

H. CORRIDORS FOR BEDROOM WINGS
1. CORRIDOR LIGHTING WILL BE ENABLED AND DISABLED BY A SWITCH LOCATED AT THE CONTROL DESK.
2. SWITCH WILL CONTROL LIGHTING IN BEDROOM WING CORRIDORS ON AND OFF PER SCHEDULE OF DORM PERSONNEL.
3. PROVIDE A CEILING MOUNTED OCCUPANCY SENSOR FOR AFTER HOUR USE ONLY. SENSORS WILL TURN ON LIGHTING TO 50% DURING SLEEPING HOURS SHOULD AN OCCUPANT ENTER THE CORRIDOR.

I. EXTERIOR BUILDING LIGHTING
1. ALL EXTERIOR BUILDING MOUNTED, PARKING AREA, WALKWAY LIGHTING WILL BE PROGRAMMED TO COME ON EITHER BY PHOTO CELL OR ASTRONOMICAL TIME SETTING.
2. ALL LIGHTING WILL COME ON AT OR 1/2 HOUR BEFORE DUSK AND OFF AT OR 1/2 HOUR AFTER DAWN
3. ALL TIME SETTINGS WILL BE COORDINATED WITH OWNER AT TIME OF PROGRAMMING IN FIELD.

K. LIVING ROOM AND STUDY ROOMS:
1. UNOCCUPIED MODE:
   WHEN ROOM IS UNOCCUPIED, ALL LIGHTING IN ROOM WILL BE DISABLED AND DE-ENERGIZED BY VACANCY SENSOR(S) IN ROOM.
2. OCCUPIED MODE FOR ROOM
   A. LIGHTING CONTROL IN ROOM WILL BE ENABLED BY PUSH BUTTOM SWITCHES IN ROOM. NO LUMINAIRES WILL AUTOMATICALLY ENERGIZE.
   B. DURING OCCUPANCY, A FOUR BUTTON SWITCH WITH DIMMING CAPABILITIES WILL CONTROL THE FOLLOWING:
      -TOP BUTTON WILL CONTROL LUMINAIRES IN LIVING ROOM ON/OFF OR DIMMING. LABEL BUTTON "A"
      -SECOND BUTTON WILL CONTROL LUMINAIRES IN MAIN STUDY ROOM ON/OFF OR DIMMING. LABEL BUTTON "B"
      -THIRD BUTTON WILL CONTROL LUMINAIRES IN STUDY 102A ON/OFF OR DIMMING. LABEL BUTTON "C"
      -BOTTOM BUTTON WILL CONTROL LUMINAIRES IN STUDY 102B ON/OFF OR DIMMING. LABEL BUTTON "D"
   C. CONTRACTOR WILL PROVIDE AN ENGRAVED PLACARD ADJACENT TO SWITCH. PLACARD WILL INDICATE THE FOLLOWING PER EACH BUTTON.
      A = LIVING ROOM
      B = MAIN STUDY
      C = STUDY 102A
      D = STUDY 102B
   D. CONTRACTOR WILL PROVIDE AN ENGRAVED PLACARD ADJACENT TO SWITCH. PLACARD WILL BE SAME SIZE AS STANDARD SWITCH COVER PLATE. PLACARD WILL INDICATE THE FOLLOWING PER EACH BUTTON:
      E = LIVING ROOM
      F = MAIN STUDY
      G = STUDY 102A
      H = STUDY 102B
4. WHEN PERSONNEL LEAVE, THE ROOM VACANCY SENSOR WILL BE PROGRAMMED TO TURN OFF ALL LUMINAIRES IN ROOM AUTOMATICALLY AFTER A SET TIME PERIOD. SET TIME WILL BE PER OWNER'S DESIRED TIME. A MINIMUM FACTORY SETTING WILL BE APPLIED IF NO OWNER INPUT IS PROVIDED AT TIME OF PROGRAMING IN FIELD. SYSTEM WILL RESET TO UNOCCUPIED MODE.
5. PROVIDE THE FOLLOWING WATT STOPPER DIM SYSTEM DEVICES IN ROOM:
   A. ROOM CONTROLLER SERIES LMRC RATED FOR VOLTAGE AND PROGRAMMED/CONTROL/POWER.
   B. DUAL TECHNOLOGY VACANCY SENSOR SENSES LMDC.
   C. FOUR BUTTON, SINGLE OUTLET DIGITAL WALL SWITCH SERIES LMSW.

ELECTRICAL CONNECTIONS FOR MECHANICAL EQUIPMENT SCHEDULE NOTES:
A. STARTER, CONTROL SYSTEM AND DISCONNECTING MEANS FOR UNIT WILL BE PROVIDED BY DIVISION 23. CONTRACTOR WILL HAVE ONE POINT OF ELECTRICAL CONNECTION. FOR VFD OR CONTROL EQUIPMENT INFORMATION, REFER TO SHEET SERIES M-700.
B. RACEWAY SYSTEM AND CONDUCTORS FOR CONTROLS WILL BE PROVIDED BY DIVISION 26 UNLESS SPECIFICALLY CALLED OUT TO BE PROVIDED BY OTHER SECTIONS OF THESE DOCUMENTS. REFER TO SHEET SERIES "M" FOR CONTROL DIAGRAMS AND ALSO REFER TO SPECIFICATION SECTION 230549.
C. SIZE FUSES PER MANUFACTURER'S RECOMMENDATIONS OR A MINIMUM OF 1.25% OF UNIT FLA.
D. STARTER, CONTROL SYSTEM FOR UNIT WILL BE PROVIDED BY DIVISION 23. CONTRACTOR WILL PROVIDE DISCONNECTING MEANS AND HAVE ONE POINT OF ELECTRICAL CONNECTION. FOR CONTROL EQUIPMENT INFORMATION, REFER TO SHEET SERIES M-700.
E. CONTRACTOR WILL HAVE DIV 28 PROVIDE DUCT DETECTORS FOR UNITS SUPPLY AND RETURN SECTIONS AS REQUIRED, INSTALLED BY DIVISION 23. WIRED AND CONNECTED BY DIVISION 26/28. CONTROL WIRING BY DIVISION 23.

ELECTRICAL CONNECTIONS FOR MECHANICAL EQUIPMENT SCHEDULE

EQUIPMENT NUMBER	EQUIPMENT DESCRIPTION	VOLTAGE	PHASE	BRANCH CIRCUIT CONDUCTOR DESCRIPTION	CONDUIT SIZE	MOTOR STARTER CHARACTERISTICS							DISCONNECT SWITCH CHARACTERISTICS					KEY NOTE
						STARTER TYPE	STARTER SIZE	OFF/AUTO OR HOA	PILOT LIGHT		EXTRA CONTACTS		VOLTS	FRAME AMPS	FUSE SIZE	SOLID NEUT. / GND LUG	NEMA RATING	
									RED	GREEN	NO	NC						
ACU-1	CONDENSING UNIT	480 V	3	3#8 & 1#10 GND	1								600 V					
CU-1	CONDENSING UNIT	208 V	1	3#10 & 1#10 GND	3/4"								250 V	30			3R/1	B,C,D
CU-2	CONDENSING UNIT	208 V	1	3#10 & 1#10 GND	3/4"								250 V	30			3R/1	B,C,D
EUH-1	ELECTRIC UNIT HEATER	208 V	1	3#8 & 1#10 GND	1								250 V				1	B,D
EUH-2	ELECTRIC UNIT HEATER	208 V	1	3#8 & 1#10 GND	1								250 V				1	B,D
P-3/ VFD-1	PUMP	480 V	3	4#12 & 1#12 GND	3/4"								600 V					A,B
P-4/ VFD-2	PUMP	480 V	3	4#12 & 1#12 GND	3/4"								600 V					A,B
VFD-3-AHU-1 SA	AIR HANDLING UNIT EXHAUST FAN	480 V	3	4#12 & 1#12 GND	3/4"								600 V					A,B,E
VFD-4-AHU-1 SA	AIR HANDLING UNIT EXHAUST FAN	480 V	3	4#12 & 1#12 GND	3/4"								600 V					A,B,E
VFD-5-AHU-1 EF	AIR HANDLING UNIT EXHAUST FAN	480 V	3	4#12 & 1#12 GND	3/4"								600 V					A,B,E
VFD-6-AHU-1 EF	AIR HANDLING UNIT EXHAUST FAN	480 V	3	4#12 & 1#12 GND	3/4"								600 V					A,B,E

BATTERY INVERTER SCHEDULE

INVERTER NAME	DESCRIPTION	VOLTAGE	MANUFACTURER / MODEL	NOTES
BIA	500VA BATTERY INVERTER	120V	LVS #CEPS-A-1000-120-XX EVENLITE #LM-1000-1P-B-X(X)-XX DUAL-LITE #DLS-1000-277-X-277-20-XX-X MYERS #1-EM-1-S-X-277-20-XX-XXX-XXX	1,2

LUMINAIRE SCHEDULE NOTES:
1. MANUFACTURER'S 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 MOUNTING FROM THAT PROVIDED ON THIS SCHEDULE OR NOTES ON PLAN DUE TO ARCHITECTURAL REQUIREMENTS OR CONSTRUCTION CONDITIONS.
3. ALL LUMINAIRES ON THIS LUMINAIRE SCHEDULE ARE APPROVED FOR BID ON THIS PROJECT. IF A LUMINAIRE IS SUBMITTED THAT IS NOT ON THIS SCHEDULE, IT WILL BE REJECTED.
4. SHOULD ANY LUMINAIRE BE NOT AVAILABLE AT TIME OF SUBMITTAL, CONTRACTOR WILL USE ONE OF THE OTHER LUMINAIRES INDICATED IN EACH TYPE FOR REPLACEMENT. NO OTHERS WILL BE ACCEPTED.

ELECTRICAL LUMINAIRE SCHEDULE

TYPE	DESCRIPTION	VOLTS	MOUNTING	LAMPS	BALLAST TYPE	EM. BAT. PK.	LENS	MANUFACTURER/MODEL	NOTES
A1F	1' x 4' ARCHITECTURAL LED HIGH ENERGY EFFICIENT LUMINAIRE. RECESSED, LOW PROFILE.	MULTI TAP (UNV.) (120V)	RECESSED GYP. BOARD	LED, 4000K, 40 MAX WATTS, 3900 MINIMUM DELIVERED LUMENS	LED DRIVER 0-10V DIMMING	NONE	WHITE ACRYLIC	DAY-BRITE #1-FXP-45L-840-4-DS-UNV-DIM-FMA14 LITHONIA #EPANL 1X4-4000LM-80CRI-40K-MIN10-ZT-MVOLT-DGA14 CREE #C- TR-B-FP14-40L-40K-WH METALUX #14FP4240C-DF-14W-U	1,3,4
A2	2' x 2' ARCHITECTURAL LED HIGH ENERGY EFFICIENT LUMINAIRE. RECESSED, LOW PROFILE.	MULTI TAP (UNV.) (120V)	RECESSED T-BAR	LED, 4000K, 34 MAX WATTS, 3400 MINIMUM DELIVERED LUMENS	LED DRIVER 0-10V DIMMING	NONE	WHITE ACRYLIC	DAY-BRITE #2-FXP-38L-840-2-DS-UNV-DIM LITHONIA #EPANL 2X2-3400LM-80CRI-40K-MIN10-ZT-MVOLT ELITE #22-FPL1-LED-3000L-DIM10-MVOLT-40K-85 METALUX #22FP3240C	1,3,4
B	4' GENERAL PURPOSE LED STRIP FIXTURE, DIE FORMED STEEL HOUSING, BAKED WHITE ENAMEL FINISH, WITH DIFFUSING LENS.	MULTI TAP (UNV.) (120V)	WALL MOUNTED AT 8'-0" AFF OR SURFACE MOUNTED TO CEILING OR STEM MOUNTED SO BOTTOM OF FIXTURE IS AT 10'-0".	LED, 4000K, 57 MAX WATTS, 4700 MINIMUM DELIVERED LUMENS	LED DRIVER	NONE	FROSTED ACRYLIC	DAY-BRITE #FSS-4-55L-840-UNV-DIM LITHONIA #ZL1N-L48-5000LM-FST-MVOLT-40K 90CRI-WH COLUMBIA #LCL4-40-ML-EDU METALUX #4SNLED-LD5-47SL-LW-UNV-L840-CD1-U	1,2,3,4
BR	4' LINEAR ROUND ADJUSTABLE LED. ARCHITECTUAL HIGH EFFIENCY COMPACT HOUSING	MULTI TAP (UNV.) (120V)	SURFACE WALL MOUNTED AS DIRECTED BY ARCHITECTURAL ELEVATIONS	LED, 4000K, 57 MAX WATTS, 4896 DELIVERED LUMENS	LED DRIVER 0-10V DIMMING	NONE	CLEAR ACRYLIC	PINNACLE# M-WHE-840VHO-4-WHXX-U-OLS-1 LUMENWERX#AXLWAD-APO-LED-80-1200-40-4'-UNV-D5-1-X-X-FINISH PRUDENTIAL # MW-LED40-HO-4'-XXX-SC-UNV-XXX-DM01 AMETRIX # ASYX-X-L4-X-U-F-L40-1-UNV-X-X CORELITE #CTW-F-5050-50L-840-1-D-UNV-STD-XX-WM-4	1,3,4
BV	4' EXTREME ENVIRONMENT LED HIGH ENERGY EFFICIENT LOW PROFILE ENCLOSED LUMINAIRE. INDOOR /OUTDOOR VANDAL RESISTANT.	MULTI TAP (UNV.) (120V)	WALL MOUNTED AT 8'-6" AFF OR SURFACE MOUNTED TO CEILING OR STEM MOUNTED SO BOTTOM OF FIXTURE IS AT 8'-2".	LED, 4000K, 39 MAX WATTS, 4300 MINIMUM DELIVERED LUMENS	LED DRIVER	NONE	POLYCARBONATE LENS	DAY-BRITE #DWPE-43L-840-4-UNV LITHONIA #FEM-L48-4000LM-IMAFL-MD-MVOLT-GZ10-35K-80CRI COLUMBIA #LXEM4-40LW-RFP-EDU METALUX #4VT2-LD4-4-DR-UNV-L840-CD1-WL-U	1,2,3,4
C6	6" ROUND ARCHITECTURAL LED DOWN LIGHT. WET LOCATION RATED. HIGH ENERGY EFFICIENT.	MULTI TAP (UNV.) (120V)	RECESSED CEILING	LED, 4000K, 20 MAX WATTS, 1400 MINIMUM DELIVERED LUMENS	LED DRIVER 0-10V DIMMING	NONE	FROSTED GLASS LENS	LIGHTOLIER# 6RN/P6R-DL-15-840-CD-Z10-U LDN6 35/15 LO6AR LSS MVOLT GZ10 WL LITHONIA #LDN6 40/15 LO6AR LSS MVOLT GZ10 WL PRESCOLITE #LF6SL-DM1-6LFSL-15L-40K8-SS-B24 HALO #HC6-15-D010-HM6-12-840-61WDH	1,3,4
C6E	6" ROUND ARCHITECTURAL LED DOWN LIGHT. WET LOCATION RATED. HIGH ENERGY EFFICIENT.	MULTI TAP (UNV.) (120V)	RECESSED CEILING	LED, 4000K, 20 MAX WATTS, 1400 MINIMUM DELIVERED LUMENS	LED DRIVER 0-10V DIMMING	INTEGRAL UL924 NiCAD BATTERY	FROSTED GLASS LENS	LIGHTOLIER# 6RNEM/P6R-DL-15-840-CD-Z10-U LDN6 35/15 LO6AR LSS MVOLT GZ10 WL PEACHTREE #6BLRD 18 40K-90-SH-RPG-DMLV1-WL-EML1-277 PRESCOLITE #LF6SL-DM1-EMR-6LFSL-15L-40K8-SS-B24 HALO #HC6-15-D010-IEM7-HM6-12-840-61WDH	1,3,4
D1S	WALL MOUNTED 4' LONG X 8.25"X 1.75", SQUARE HOUSING, INDIRECT 70/DIRECT 30. LED LUMINAIRE WITH METAL REFLECTOR, AND COLD-ROLLED STEEL HOUSING. COORDINATE FINISH COLOR WITH ARCHITECT AT SUBMITTAL REVIEW. FLAT ENDS.	MULTI TAP (UNV.) (120V)	WALL MOUNTED AT 7'-0" AFF	LED, 4000K, 61 MAX WATTS, 2200 DELIVERED LUMENS	LED DRIVER 0-10V DIMMING	NONE	SOFTSHINE LENS	CORELITE #DWI-WA-2-L40-1-D-UNV-SU-WA-4-STD-XX SOLERA #CURVE-48-30LED-3875-4000K-UNV-WM-MV-U/D-DM-XX VISA #CV1704-L40KH-MVOLT-CBA TECH LTG. #700BCSPAN-4-X-LED830-277-MOD4000K	1,3,4
E1	LED EXIT SIGN, EMERGENCY, DIE CAST ALUMINUM HOUSING WITH GREEN CHARACTERS, BLACK HOUSING AND BRUSHED ALUMINUM FACE (SINGLE FACE AND DIRECTIONAL ARROWS AS INDICATED ON LIGHTING PLANS). MEETS UL LISTINGS FOR THIS TYPE OF LUMINAIRE. WITH SELF-CONTAINED, NICKEL-CADMIUM EMERGENCY BATTERY PACK.	MULTI TAP (UNV.) (120V)	SURFACE CEILING OR WALL AT 8'-6"AFF UNLESS OTHERWISE NOTED ON LIGHTING PLANS.	GREEN LED, 3 MAX WATTS	LED DRIVER	NICKEL CADMIUM PER MFG.	BRUSHED ALUMINUM FACE	EVENLITE #CCDS-EM-G-1-AB LITHONIA #LE-S-1-G-ELN DUALLITE #SE-S-G-BNE SURE-LITES #CX7-1-G	1,2
E2	LED EXIT SIGN, EMERGENCY, DIE CAST ALUMINUM HOUSING WITH GREEN CHARACTERS, BLACK HOUSING AND BRUSHED ALUMINUM FACE (DOUBLE FACE AND DIRECTIONAL ARROWS AS INDICATED ON LIGHTING PLANS). MEETS UL LISTINGS FOR THIS TYPE OF LUMINAIRE. WITH SELF-CONTAINED, NICKEL-CADMIUM EMERGENCY BATTERY PACK.	MULTI TAP (UNV.) (120V)	SURFACE CEILING OR WALL AT 8'-6"AFF UNLESS OTHERWISE NOTED ON LIGHTING PLANS.	GREEN LED, 3 MAX WATTS	LED DRIVER	NICKEL CADMIUM PER MFG.	BRUSHED ALUMINUM FACE	EVENLITE #CCDS-EM-G-1-AB LITHONIA #LE-S-1-G-ELN DUALLITE #SE-D-G-BNE SURE-LITES #CX7-1-G	1,2,3,4
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.	MULTI TAP (UNV.) (120V)	SURFACE 8'-6" AFF UNLESS OTHERWISE NOTED ON LIGHTING PLANS.	(2) TWO LED, 4 MAX WATTS	LED DRIVER	NICKEL CADMIUM PER MFG.	ACRYLIC FRESNAL	SURELITE #LEM2 LITHONIA #ELM2-LED EVENLITE #TCL-2-W DUALLITE #EV-2	1,2,3,4
F	SLIM, LOW PROFILE, FULLY GASKETED DIE CAST ENCLOSURE, IP65 WET LOCATION RATED, HIGH IMPACT UV RESISTANT POLYCARBONATE LENS, FULL CUT OFF. INTEGRAL PHOTOCELL AND BATTERY BACKUP. COORDINATE FINISH COLOR WITH ARCHITECT AT SUBMITTAL OF LUMINAIRES.	MULTI TAP (UNV.) (120V)	EXTERIOR WALL SURFACE MOUNT AT 9'-0" AFF.	LED, 4000K, 30 MAX WATTS, 2900 MINIMUM DELIVERED LUMENS	LED DRIVER	NONE	IMPACT RESISTANT UV RESISTANT POLYCARBONATE	ECLIPSE LIGHTING #DK-E-M-30W-4K-EBU-XX LITHONIA# WDGE2 LED-P3-40K-90CRI-VF-MVOLT-SRM-XXX TRACELITE #WLZ2-4-4K-XX LUMARK #AXCS2A	1,2,3,4
FE	SLIM, LOW PROFILE, FULLY GASKETED DIE CAST ENCLOSURE, IP65 WET LOCATION RATED, HIGH IMPACT UV RESISTANT POLYCARBONATE LENS, FULL CUT OFF. INTEGRAL PHOTOCELL AND BATTERY BACKUP. COORDINATE FINISH COLOR WITH ARCHITECT AT SUBMITTAL OF LUMINAIRES.	MULTI TAP (UNV.) (120V)	EXTERIOR WALL SURFACE MOUNT AT 9'-0" AFF.	LED, 4000K, 30 MAX WATTS, 2900 MINIMUM DELIVERED LUMENS	LED DRIVER	INTEGRAL UL924 NICAD BATTERY	IMPACT RESISTANT UV RESISTANT POLYCARBONATE	ECLIPSE LIGHTING #DK-E-M-30W-4K-EBU-XX LITHONIA # WDGE2 LED-P3-40K-90CRI-MVOLT-SRM-E10WH-XXX TRACELITE #WLZ2-4-4K-XX LUMARK #AXCS2A-CBP	1,2,3,4
LC	6'-6" LENGTH CORNER LED STRIP LIGHT WITH ANGLED HOUSING TO BE INSTALLED IN LIGHT SOFFIT FOR GLOW AFFECT TO BE SEEN FROM CORRIDOR. REFER TO ELECTRICAL LIGHTING PLANS FOR ADDITIONAL INFORMATION. COORDINATE FINISH COLOR WITH ARCHITECT AT SUBMITTAL OF LUMINAIRES.	MULTI TAP (UNV.) 120V	MOUNT INSIDE OF LIGHT SOFFIT. REFER TO ARCHITECT'S LIGHT SHELF DETAILS D5 ON SHEET A-120 ON SCHOOL PORTION.	LED, 4000K, 3.5 MAX WATTS PER FOOT, 250 MINIMUM DELIVERED LUMENS PER FOOT	LED DRIVER 0-10V DIMMING TO 1%	NONE	FROSTED HIGH-IMPACT ACRYLIC (EXTRA DIFFUSE)	CORE#ALU-CN-78-CL-LSM-30-XX	1,3,4
LC4	4'-0" LENGTH CORNER LED STRIP LIGHT WITH ANGLED HOUSING TO BE INSTALLED IN LIGHT SOFFIT FOR GLOW AFFECT TO BE SEEN FROM CORRIDOR. REFER TO ELECTRICAL LIGHTING PLANS FOR ADDITIONAL INFORMATION. COORDINATE FINISH COLOR WITH ARCHITECT AT SUBMITTAL OF LUMINAIRES.	MULTI TAP (UNV.) 120V	MOUNT INSIDE OF LIGHT SOFFIT. REFER TO ARCHITECT'S LIGHT SHELF DETAILS D5 ON SHEET A-120 ON SCHOOL PORTION.	LED, 4000K, 3.5 MAX WATTS PER FOOT, 250 MINIMUM DELIVERED LUMENS PER FOOT	LED DRIVER 0-10V DIMMING TO 1%	NONE	FROSTED HIGH-IMPACT ACRYLIC (EXTRA DIFFUSE)		1,3,4
N2S2	EXTRUDED ALUMINUM 2" WIDE x 8' LEGNTH LINEAR STATIC WHITE LED LUMINAIRE. EXTRA DIFFUSE LENS, DAMP RATED. COORDINATE FINISH COLOR WITH ARCHITECT AT SUBMITTAL OF LUMINAIRES. LENGTH OF LUMINAIRES AS SHOWN ON EL101.	MULTI TAP (UNV.) (120V)	SURFACE CEILING	LED, 4000K, 400 MINIMUM DELIVERED LUMENS PER FOOT	LED DRIVER 0-10V DIMMING TO 1%	NONE	FROSTED HIGH-IMPACT ACRYLIC (EXTRA DIFFUSE)		1,3,4
N3S1	EXTRUDED ALUMINUM 3.5" WIDE x 4'-0" LENGTH SURFACE MOUNTED LINEAR STATIC WHITE LED LUMINAIRE. WET RATED. EXTRA DIFFUSE LENS. MUST MEET B.U.G. RATING B4 U2 G2 OR BETTER. COORDINATE FINISH COLOR WITH ARCHITECT AT SUBMITTAL OF LUMINAIRES.	MULTI TAP (UNV.) (120V)	SIDE SURFACE MOUNTED SO THAT BOTTOM OF LUMINAIRE IS FLUSH WITH BOTTOM OF BEAM.	LED, 4000K, 40 MAX WATTS, 3200 MINIMUM DELIVERED LUMENS.	LED DRIVER	NONE	FROSTED HIGH-IMPACT ACRYLIC (EXTRA DIFFUSE)	PINNACLE #EX3-WET-N-835HO-4'-IND-WAS-U-DD-1-XX	1,3,4
P6	6" PENDANT MOUNTED LED SQUARE HOUSING WITH DIFFUSE CLEAR REFLECTOR.	MULTI TAP (UNV.) (120V)	PENDANT STEM MTD. SEE LIGHTING PLANS FOR MOUNTING HEIGHTS.	LED, 4000K, 30 MAX WATTS, 1800 MINIMUM DELIVERED LUMENS	LED DRIVER 0-10V DIMMING TO 1%	NONE	IMPACT RESISTANT TEMPERED GLASS		1,2,3,4

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ARCHITECT

Dzilth-Na-O-Dith-Hle - New Dormitory Building

PRICING SET

35 Road 7585, Bloomfield, NM 87413

NOVEMBER 10, 2020

MARK	DATE	DESCRIPTION

ISSUE:	
DATE:	
PROJECT NO:	751
CAD DWG FILE:	
DRAWN BY:	AMH
CHECKED BY:	JMM

SHEET TITLE

ELECTRICAL SCHEDULES

E-701

D:\Revit 2019\Projects\8226_DCS Dorm_MEP_AMHerrera5$ZMC.rvt
11/9/2020 5:49:33 PM
Bridgers & Paxton Project No.: 8226

Branch Panel: MPA

Location: PENTHOUSE
Supply From: DDPH1
Mounting: Surface
Enclosure: Type 1

Volts: 480/277 Wye
Phases: 3
Wires: 4
Spaces: 42

A.I.C. Rating: 35,000
Mains Type: MCB
Mains Rating: 225 A
MCB Rating: 225 A

Notes:

CKT	Circuit Description	Notes	Trip	Poles	A		B		C		Poles	Trip	Notes	Circuit Description	CKT
1	EQP VFD-5-AHU-1 EF		20 A	3	2107...	2107...					3	20 A		EQP VFD-6-AHU-1 EF	2
3	--		--	--			2107...	2107...			--	--		--	4
5	--		--	--					2107...	2107...	--	--		--	6
7	EQP VFD-3-AHU-1 SA		20 A	3	3050...	3050...					3	20 A		EQP VFD-3-AHU-1 SA	8
9	--		--	--			3050...	3050...			--	--		--	10
11	--		--	--					3050...	3050...	--	--		--	12
13	EQP ACU-1		70 A	3	1152...	942 VA					3	20 A		EQP P-3/ VFD-1	14
15	--		--	--			1152...	942 VA			--	--		--	16
17	--		--	--					1152...	942 VA	--	--		--	18
19	EQP P-4/ VFD-2		20 A	3	942 VA	0 VA					3	20 A		SPARE	20
21	--		--	--			942 VA	0 VA			--	--		--	22
23	--		--	--					942 VA	0 VA	--	--		--	24
25	SPARE		20 A	3	0 VA	0 VA					3	20 A		SPARE	26
27	--		--	--			0 VA	0 VA			--	--		--	28
29	--		--	--					0 VA	0 VA	--	--		--	30
31	SPACE ONLY		--	--	0 VA	0 VA					--	--		SPACE ONLY	32
33	SPACE ONLY		--	--			0 VA	0 VA			--	--		SPACE ONLY	34
35	SPACE ONLY		--	--					0 VA	0 VA	--	--		SPACE ONLY	36
37	SPACE ONLY		--	--	0 VA	0 VA					--	--		SPACE ONLY	38
39	SPACE ONLY		--	--			0 VA	0 VA			--	--		SPACE ONLY	40
41	SPACE ONLY		--	--					0 VA	0 VA	--	--		SPACE ONLY	42
				Total Load:	23727 VA		23727 VA		23727 VA						
				Total Amps:	86 A		86 A		86 A						

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
MTR	71180 VA	100.00%	71180 VA		
				Total Conn. Load:	71180 VA
				Total Est. Demand:	71180 VA
				Total Conn. Current:	86 A
				Total Est. Demand Current:	86 A

Notes:

Branch Panel: DPLA

Location: PENTHOUSE
Supply From: DDPH1 VIA DT1A
Mounting: Surface
Enclosure: Type 1

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

A.I.C. Rating: 18,000
Mains Type: MCB
Mains Rating: 400 A
MCB Rating: 400 A

Notes:

CKT	Circuit Description	Notes	Trip	Poles	A		B		C		Poles	Trip	Notes	Circuit Description	CKT
1	EQP CU-2		20 A	2	1082...	400 VA					1	20 A		EQP TERMINAL UNITS	2
3	--		--	--			1082...	350 VA			1	20 A		EQP TERMINAL UNITS	4
5	EQP CU-1		20 A	2					1082...	400 VA	1	20 A		EQP TERMINAL UNITS	6
7	--		--	--	1082...	0 VA					1	20 A		CON EPO BUTTON MECH 228	8
9	EQP EF-1		20 A	1			696 VA	540 VA			1	20 A		REC ROOF GENERAL PURPOSE	10
11	EQP EF-2		20 A	1					696 VA	360 VA	1	20 A		EQP AHU-1 PUMP SWITCH	12
13	EQP EF-3		20 A	1	696 VA	540 VA					1	20 A		REC ROOF GEN PURPOSE	14
15	EQP EF-4		20 A	1			696 VA	0 VA			1	20 A		SPARE	16
17	EQP EF-5		20 A	1					696 VA	1500...	1	20 A		NC LAUNDRY 105- WASHER	18
19	EQP EUH-1 RM 228		50 A	2	3750...	1500...					1	20 A		NC LAUNDRY 105- WASHER	20
21	--		--	--			3750...	1500...			1	20 A		NC LAUNDRY 105- WASHER	22
23	EQP EUH-2 PENTHOUSE		50 A	2					3750...	1500...	1	20 A		NC LAUNDRY 105- WASHER	24
25	--		--	--	3750...	2500...					2	40 A		NC LAUNDRY 107- DRYER	26
27	EQP B-1		20 A	1			1440...	2500...			--	--		--	28
29	EQP B-2		20 A	1					1440...	2500...	2	40 A		NC LAUNDRY 107- DRYER	30
31	EQP P-1		20 A	1	276 VA	2500...					--	--		--	32
33	EQP P-2		20 A	1			276 VA	2500...			2	40 A		NC LAUNDRY 107- DRYER	34
35	EQP P-5		20 A	1					460 VA	2500...	--	--		--	36
37	LTG IN PENTHOUSE		20 A	1	132 VA	480 VA					1	20 A		EQP HD-1	38
39	CORRIDOR 214- EWC		20 A	1			600 VA	2500...			2	40 A		NC LAUNDRY 107- DRYER	40
41	NC CORR 202, 113.1- FSD		20 A	1					700 VA	2500...	--	--		--	42
43	NC 202- FSD		20 A	1	550 VA	360 VA					1	20 A		CONT 205- IT	44
45	REC MECH 228. EXT DOOR 002		20 A	1			720 VA	360 VA			1	20 A		CONT 205- IT	46
47	CONT 33.2- FREEZER		20 A	1					1000...	360 VA	1	20 A		CONT 205- IT	48
49	CONT 33.2- REFRIGERATOR		20 A	1	1000...	750 VA					1	20 A		CONT 205- IT FACP	50
51	NC 33.2- DISHWASHER		20 A	1			1500...	1000...			1	20 A		CONT 205- IT RACK	52
53	REC KITCHEN 33.2		20 A	1					180 VA	360 VA	1	20 A		CONT 205- IT	54
55	NC 33.2- EXHAUST HOOD		20 A	1	460 VA	240 VA					1	20 A		MTR TMV-3 DORM 228	56
57	NC 33.2- STOVE		50 A	2			1250...	350 VA			1	20 A		NC CARD READERS/ LR DEVICE	58
59	--		--	--					1250...	350 VA	1	20 A		NC CARD READERS/ LR DEVICE	60
61	NC 33.2- MICROWAVE		20 A	1	1500...	168 VA					1	20 A		MTR RCP-5 228	62
63	REC KITCHEN 33.2		20 A	1			500 VA	804 VA			1	20 A		MTR RCP-6, DWH-4 228	64
65	REC KITCHEN 33.2		20 A	1					500 VA	804 VA	1	20 A		MTR RCP-7, DWH-3 228	66
67	REC KITCHEN 33.2		20 A	1	500 VA	0 VA					1	20 A		SPARE	68
69	SPARE		20 A	2			0 VA	0 VA			2	20 A		SPARE	70
71	--		--	--					0 VA	0 VA	--	--		--	72
73	SPARE		20 A	1	0 VA	0 VA					1	20 A		SPARE	74
75	SPARE		20 A	1			0 VA	0 VA			1	20 A		SPARE	76
77	SPARE		20 A	1					0 VA	0 VA	1	20 A		SPARE	78
79	SPARE		20 A	1	0 VA	0 VA					1	20 A		SPARE	80
81	SPARE		20 A	1			0 VA	0 VA			1	20 A		SPARE	82
83	SPARE		20 A	1					0 VA	0 VA	1	20 A		SPARE	84
				Total Load:	24215 VA		24914 VA		24888 VA						
				Total Amps:	202 A		208 A		208 A						

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
NC	8710 VA	100.00%	8710 VA		
CON	5140 VA	125.00%	6425 VA	**Total Conn. Load:**	74016 VA
MTR	30826 VA	100.00%	30826 VA	**Total Est. Demand:**	65730 VA
REC	29208 VA	67.12%	19604 VA	**Total Conn. Current:**	205 A
LTG	132 VA	125.00%	165 VA	**Total Est. Demand Current:**	182 A

Notes:

Branch Panel: DL1A

Location: ELEC 215
Supply From: DDPH1 VIA DT1A
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4
Spaces: 126

A.I.C. Rating: 22,000
Mains Type: MCB
Mains Rating: 400 A
MCB Rating: 400 A

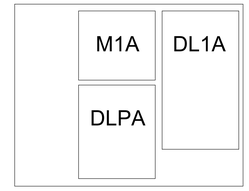
Notes:

CKT	Circuit Description	Notes	Trip	Poles	A		B		C		Poles	Trip	Notes	Circuit Description	CKT
1	REC 1-3 SLEEPING RM 108.1, 108.2		20 A	1	1260...	1260...					1	20 A		REC SLEEPING RM 209, EXT DOOR 004	2
3	REC 1-3 SLEEPING RM 108.1, 108.2		20 A	1			1260...	1080...			1	20 A		REC SLEEPING ROOM 209,211	4
5	NC K-2 BOYS RR 109		20 A	1					720 VA	1080...	1	20 A		REC SLEEPING ROOM 211,213	6
7	REC ROOM 219,220,214		20 A	1	1080...	1260...					1	20 A		REC SLEEPING RM 213, EXT DOOR...	8
9	REC LAUNDRY 105,107,108.1		20 A	1			1080...	1080...			1	20 A		REC SLEEPING ROOM 210	10
11	REC LAUNDRY 105,107		20 A	1					720 VA	900 VA	1	20 A		REC SLEEPING ROOM 210,212	12
13	REC M RR 120, 120.1,103, CORR 102		20 A	1	1080...	1260...					1	20 A		REC SLEEPING RM 208, EXT DOOR 006	14
15	NC BOY'S RR 218		20 A	1			720 VA	720 VA			1	20 A		NC HONORS RR 208A	16
17	SPARE		20 A	1					0 VA	0 VA	1	20 A		SPARE	18
19	SPARE		20 A	1	0 VA	0 VA					1	20 A		SPARE	20
21	SPARE		20 A	1			0 VA	0 VA			1	20 A		SPARE	22
23	SPARE		20 A	1					0 VA	0 VA	1	20 A		SPARE	24
25	REC HONORS RR 223A		20 A	1	360 VA	0 VA					1	20 A		SPARE	26
27	REC HONORS SLEEPING ROOM 223		20 A	1			1080...	0 VA			1	20 A		SPARE	28
29	REC SLEEPING ROOM 225		20 A	1					1080...	540 VA	1	20 A		REC ELEC 215	30
31	REC SLEEPING ROOM 225,227		20 A	1	720 VA	900 VA					1	20 A		REC CORRIDOR 174, ELEC 215, 206	32
33	REC SLEEPING ROOM 227		20 A	1			1080...	720 VA			1	20 A		REC ISOLATION RR 207A	34
35	REC CORR 214, 102, STOR 217, KITCH		20 A	1					1080...	720 VA	1	20 A		REC ROOM 112, 113.1,207	36
37	SPARE		20 A	1	0 VA	1260...					1	20 A		REC 1-3 SLEEPING ROOM 113.1,113.2	38
39	REC SLEEPING RM 226, EXT DOOR 003		20 A	1			1260...	1260...			1	20 A		REC 1-3 SLEEPING ROOM 113.1,113.2	40
41	REC SLEEPING ROOM 226,224		20 A	1					1080...	1500...	1	20 A		NC ROOM 159- WASHER	42
43	REC SLEEPING ROOM 224, 222		20 A	1	1080...	900 VA					1	20 A		REC COUNSELING OFFICE 110	44
45	REC SLEEPING ROOM 22		20 A	1			1080...	2500...			2	40 A		NC ROOM 159- DRYER	46
47	NC CORR 224,214- FSD		20 A	1					750 VA	2500...	--	--		--	48
49	NC- FSD		20 A	1	750 VA	1080...					1	20 A		REC STUDY ROOM 102A	50
51	REC CIRC DESK CORR 102, 102B		20 A	1			720 VA	0 VA			1	20 A		SPARE	52
53	REC CIRC DESK CORR 102, 201A, 102B		20 A	1					720 VA	0 VA	1	20 A		SPARE	54
55	REC STUDY ROOM 102B, 201A		20 A	1	720 VA	0 VA					1	20 A		SPARE	56
57	SPARE		20 A	1			0 VA	0 VA			1	20 A		SPARE	58
59	SPARE		20 A	1					0 VA	0 VA	1	20 A		SPARE	60
61	SPARE		20 A	1	0 VA	0 VA					1	20 A		SPARE	62
63	SPARE		20 A	1			0 VA	900 VA			1	20 A		REC STORAGE 203, 201	64
65	SPARE		20 A	1					0 VA	1800...	1	20 A		CONT STOR 112- REFRIGERATOR	66
67	SPARE		20 A	1	0 VA	1260...					1	20 A		REC 121,103,102,111, EXT DOOR 001	68
69	SPARE		20 A	1			0 VA	720 VA			1	20 A		NC G RR 114	70
71	SPARE		20 A	1					0 VA	720 VA	1	20 A		CONT CORR 202- EWC	72
73	SPARE		20 A	1	0 VA	720 VA					1	20 A		NC FRONT DESK	74
75	SPARE		20 A	1			0 VA	720 VA			1	20 A		REC FRONT DESK	76
77	SPARE		20 A	1					0 VA	360 VA	1	20 A		REC LIVING ROOM 201A, FLOOR	78
79	SPARE		20 A	1	0 VA	360 VA					1	20 A		REC LIVING ROOM 201A, FLOOR	80
81	SPARE		20 A	1			0 VA	0 VA			1	20 A		SPARE	82
83	SPARE		20 A	1					0 VA	0 VA	1	20 A		SPARE	84
85	LTG Rm 209, 211, 213		20 A	1	240 VA	240 VA					1	20 A		LTG Rm 222, 224, 226	86
87	LTG Rm 207, 208, 210, 212		20 A	1			240 VA	244 VA			1	20 A		LTG Rm 220, 223, 225, 227	88
89	LTG Rm 202, 204, 206, 207A, 215, 205,...		20 A	1					796 VA	385 VA	1	20 A		LTG Rm 214, 219, 228	90
91	LTG Rm 33.2, 200, 201, 201A, 203, 217		20 A	1	754 VA	366 VA					1	20 A		LTG Rm 218, 221, 223A	92
93	LTG Rm 201A, 102B, 103, 102A, 101, 100		20 A	1			1152...	356 VA			1	20 A		LTG Rm 105, 105A, 107, 108.1, 108.2	94
95	LTG Rm 110, 112, 113.1, 113.2		20 A	1					350 VA	609 VA	1	20 A		LTG Rm 109, 109.1, 111, 114, 120, 121	96
97	EXT BUILDING MOUNTED LIGHTING		20 A	1	560 VA	660 VA					1	20 A		EXT BUILDING MOUNTED LIGHTING	98
99	SPACE		--	--			0 VA	0 VA			--	--		SPACE	100
101	SPACE		--	--					0 VA	0 VA	--	--		SPACE	102
103	SPACE		--	--	0 VA	0 VA					--	--		SPACE	104
105	SPACE		--	--			0 VA	0 VA			--	--		SPACE	106
107	SPACE		--	--					0 VA	0 VA	--	--		SPACE	108
109	SPACE		--	--	0 VA	0 VA					--	--		SPACE	110
111	SPACE		--	--			0 VA	0 VA			--	--		SPACE	112
113	SPACE		--	--					0 VA	0 VA	--	--		SPACE	114
115	SPACE		--	--	0 VA	0 VA					--	--		SPACE	116
117	SPACE		--	--			0 VA	0 VA			--	--		SPACE	118
119	SPACE		--	--					0 VA	0 VA	--	--		SPACE	120
121	SPACE		--	--	0 VA	0 VA					--	--		SPACE	122
123	SPACE		--	--			0 VA	0 VA			--	--		SPACE	124
125	SPACE		--	--					0 VA	0 VA	--	--		SPACE	126
				Total Load:	20130 VA		19972 VA		18410 VA						
				Total Amps:	170 A		168 A		153 A						

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
NC	9060 VA	100.00%	9060 VA		
CON	2520 VA	125.00%	3150 VA	**Total Conn. Load:**	58512 VA
MTR	1500 VA	100.00%	1500 VA	**Total Est. Demand:**	46640 VA
REC	38480 VA	62.99%	24240 VA	**Total Conn. Current:**	162 A
LTG	6212 VA	125.00%	7765 VA	**Total Est. Demand Current:**	129 A
LTG-EXT	740 VA	125.00%	925 VA		

Notes:



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ARCHITECT

Dzilth-Na-O-Dith-Hle - New Dormitory Building

PRICING SET

35 Road 7585, Bloomfield, NM 87413

NOVEMBER 10, 2020

MARK	DATE	DESCRIPTION

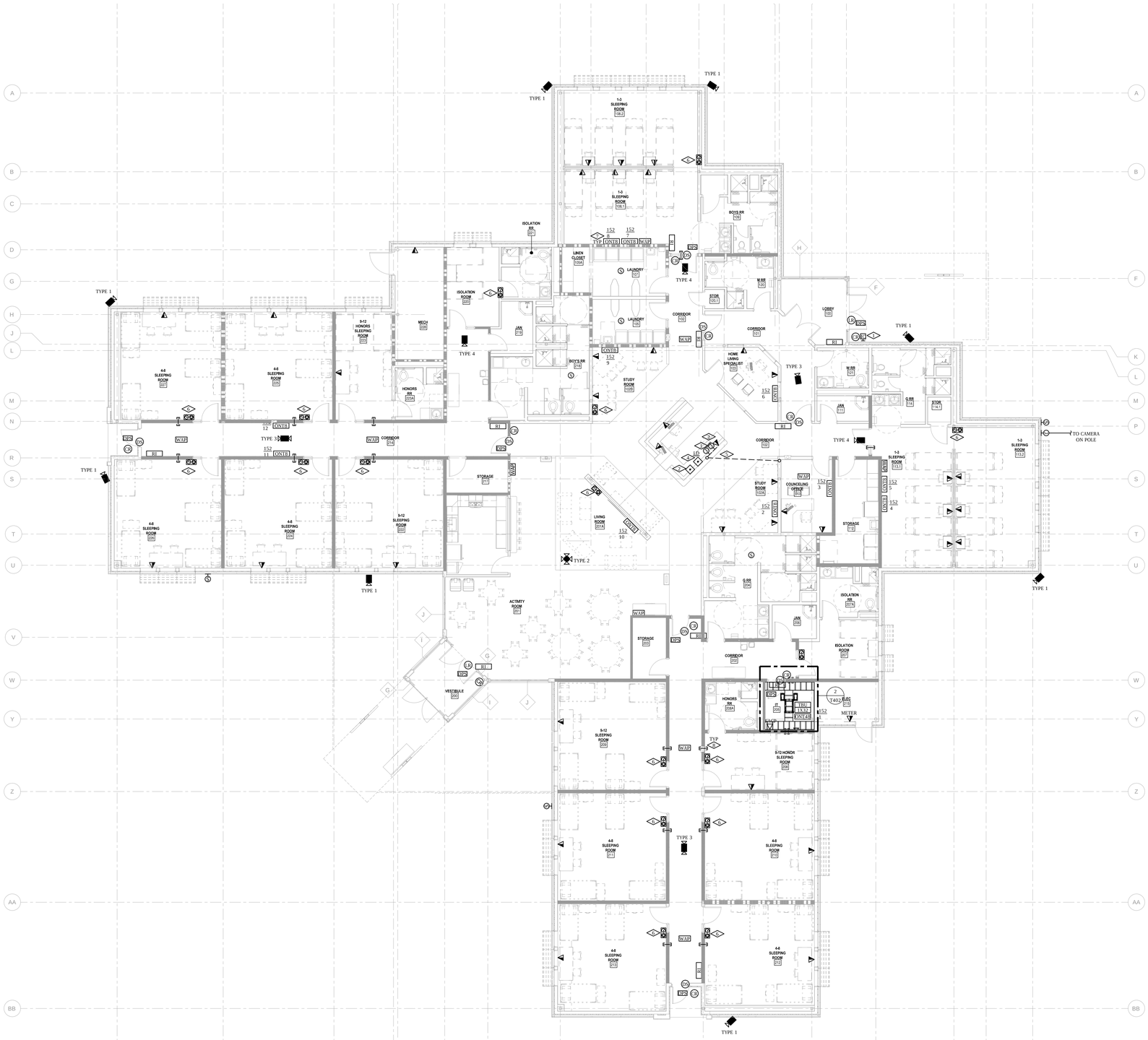
ISSUE:	
DATE:	
PROJECT NO:	751
CAD DWG FILE:	
DRAWN BY:	TLA
CHECKED BY:	JMM

SHEET TITLE

ELECTRICAL PANEL SCHEDULES

E-702

DZIŁTH-NA-O-DITH-HLE COMMUNITY SCHOOL



SYMBOL LEGEND

- TBU — INTERCOM TERMINAL UNIT
- AMP — 100W AMPLIFIER
- SPEAKER - CEILING MOUNT
- C — CALL BUTTON
- HORN
- COMBINATION CLOCK/SPEAKER

DATA
- WALL DATA DROP (2) CAT6
- FLOORDATA DROP (2) CAT6
- CEILING DATA DROP (2) CAT6
- ONT8 — 8PORT OPTICAL NETWORK TERMINAL
- ONT24 — 24 PORT OPTICAL NETWORK TERMINAL
- 1X32 — SPLITTER/POWER DISTRIBUTION UNIT
- IP CAMERA WITH SINGLE DATA CABLE
- WAP — WIRELESS ACCESS POINT
- CSVR — CAMERA SERVER

ACCESS CONTROL
- CR — CARD READER
- DPS — DOOR POSITION SENSOR
- LR — LATCH RETRACTION DEVICE
- DS — DOOR STRIKE
- PS — POWER SUPPLY
- RI — READER INTERFACE
- SMS — SMS POWER SUPPLY
- AC — ACCESS CONTROL CONTROLLER
- LD — LOCK DOWN PUSH BUTTON
- DOOR RELEASE BUTTON
- DOOR VIDEO/INTERCOM

SOUND SYSTEM
- LOUD SPEAKER-CEILING
- INPUT PLATE
- MICROPHONE INPUT

GENERAL NOTES

1. ALL PENETRATIONS THROUGH FIRE RATED ASSEMBLIES SHALL BE SEALED WITH FIRE STOPPING, IE. 3M BRAND CAULK, PUTTY, STRIP AND SHEET FORMS, DOW CORNING 3-6548 SILICONE RTV FOAM.
2. COORDINATE LOCATION OF WALL MOUNTED DEVICES WITH CABINETRY AND OTHER WALL OBSTRUCTIONS. COORDINATE CEILING MOUNTED DEVICES WITH CEILING OBSTRUCTIONS
3. PLENUM RATED CABLING MAY BE RUN EXPOSED ABOVE ACCESSIBLE CEILING SPACES AND WHERE CONCEALED IN WALLS UTILIZING J-HOOK PATHWAYS. ALL CABLING MUST BE IN MINIMUM 3/4" EMT CONDUIT WHERE IT IS NOT POSSIBLE TO CONCEAL IN WALLS OR CEILING SPACES.
4. ALL DEVICES ARE TO BE FLUSH MOUNTED AND WIRE AND CONDUIT TO BE CONCEALED INSIDE WALL SPACE.
5. COORDINATE WITH MECHANICAL CONTRACTOR FOR DDC REQUIREMENTS.
6. J-HOOK PATHWAYS ARE TO BE COORDINATED WITH MECHANICAL DUCTING, CONDUIT ROUTING AND EQUIPMENT. INSTALLATION OF J-HOOKS TO BE IN A WORKMAN-LIKE MANNER

KEYED NOTES

1. PROVIDE A VIDEO DOOR PHONE AT MAIN ENTRY DOOR. PROVIDE A DESKTOP RECEIVER WITH DOOR RELEASE. PROVIDE AIPHONE #JO-DV SURFACE MOUNT VANDAL RESISTANT VIDEO DOORBELL AND AIPHONE #JO-1FD DESK MONITOR. AIPHONE DOOR RELEASE IS TO UNLOCK EXTERIOR DOOR ONLY.
2. PROVIDE AND INSTALL NEW MOMENTARY PUSHBUTTON FOR DOOR RELEASE FROM CORRIDOR 101 INTO CORRIDOR 102. BOTH DOORS FROM 101 TO 102 ARE TO UNLOCK.
3. PROVIDE AND INSTALL NEW MOMENTARY PUSHBUTTON FOR DOOR RELEASE FROM RECEPTION 115 INTO HALL 537.
4. PROVIDE PUSH BUTTON ACCESS CONTROL LOCKDOWN BUTTON WITH TWIST TO RELEASE. UPON ACTIVATION, ALL ACCESS CONTROL DOORS ARE TO ENTER LOCKDOWN MODE AND DIGITAL CLOCKS TO READ LOCKDOWN ACTIVE.
5. ELECTRICAL CONTRACTOR TO PROVIDE 2"GRC CONDUIT UNDERGROUND TO RECEPTION DESK.
6. PROVIDE AND INSTALL NEW FLUSH MOUNT DIGITAL CLOCK/SPEAKER COMBINATION UNIT.
7. INSTALL OPTICAL NETWORK TERMINAL (ONT) ABOVE CEILING. PROVIDE PLENUM RATED BRACKET. SEE NETWORK DIAGRAM DETAIL.
8. ELECTRICAL CONTRACTOR TO PROVIDE 1"EMT SLEEVE AS SHOWN

A1 TECHNOLOGY-FLOOR PLAN
1/8" = 1'-0"

5/14/2020

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M/E/P
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505.598.5054 - WWW.NETWORKCABLINGINC.COM

Edward A. Mosher
Reg. No. 359439
EXPIRES 12-31-2021
11/10/2020
ARCHITECT

Dziłth-Na-O-Dith-Hle Community School

FOR CONSTRUCTION
35 Road 7585
Bloomfield, NM 87413

MAY 2020

MARK	DATE	DESCRIPTION
		ISSUED WITH PRICING SET - NOVEMBER 10, 2020

ISSUE:	100%CD
DATE:	11/10/2020
PROJECT NO:	
CAD DWG FILE:	
DRAWN BY:	JNM
CHECKED BY:	JNM

SHEET TITLE
TECHNOLOGY PLAN 'A'

T-101

School Information