

*PERSPECTIVE VIEW SHOWN FOR ILLUSTRATIVE PURPOSES ONLY

CONCORD TOWNSHIP FIRE STATION #2

DESIGN DEVELOPMENT

CONCORD TOWNSHIP FIRE DEPARTMENT

10154 PROUTY RD **CONCORD TWP, OH 44077**

LEMAY ERICKSON WILLCOX ARCHITECTS

11250 ROGER BACON DRIVE SUITE 16 RESTON, VIRGINIA 20190 703-956-5600

PROJECT DESIGN TEAM				LOCATION PLAN
CIVIL ENGINEER AECOM 1300 EAST 9TH ST., SUITE 500 CLEVELAND, OH 44114 TEL.: 216-622-2300 FAX: 216-622-2301 CONTACT: GREG CIFRA E-MAIL: GREG.CIFRA@AECOM.COM	LANDSCAPE ARCHITECT AECOM 1300 EAST 9TH ST., SUITE 500 CLEVELAND, OH 44114 TEL.: 216-622-2300 FAX: 216-622-2301 CONTACT: MATT BUSA E-MAIL: MATT.BUSA@AECOM.COM	STRUCTURAL ENGINEER AECOM 1300 EAST 9TH ST., SUITE 500 CLEVELAND, OH 44114 TEL.: 216-622-2300 FAX: 216-622-2301 CONTACT: GREG THEIN E-MAIL: GREG.THEIN@AECOM.COM	MECHANICAL ELECTRICAL PLUMBING ENGINEER AECOM 1300 EAST 9TH ST., SUITE 500 CLEVELAND, OH 44114 TEL.: 216-622-2300 FAX: 216-622-2301 CONTACT: SAM MERROW E-MAIL: SAMUEL.MERROW@AECOM.COM	Brian Dr.
ELECTRICAL ENGINEER AECOM 1300 EAST 9TH ST., SUITE 500 CLEVELAND, OH 44114 TEL.: 216-622-2300 FAX: 216-622-2301 CONTACT: MIKE KROSKY E-MAIL: MIKE.KROSKY@AECOM.COM	FIRE PROTECTION AECOM 1300 EAST 9TH ST., SUITE 500 CLEVELAND, OH 44114 TEL.: 216-622-2300 FAX: 216-622-2301 CONTACT: DAN KASCAK E-MAIL: DANIEL.KASCAK@AECOM.COM	TELECOM / SECURITY AECOM 1300 EAST 9TH ST., SUITE 500 CLEVELAND, OH 44114 TEL.: 216-622-2300 FAX: 216-622-2301 CONTACT: BRIAN WALKER E-MAIL: BRIAN.J.WALKER@AECOM.COM		SITE A Table Report The paines ville, OH 44077 A Table Report The paines ville, OH 44077 The paines ville, OH

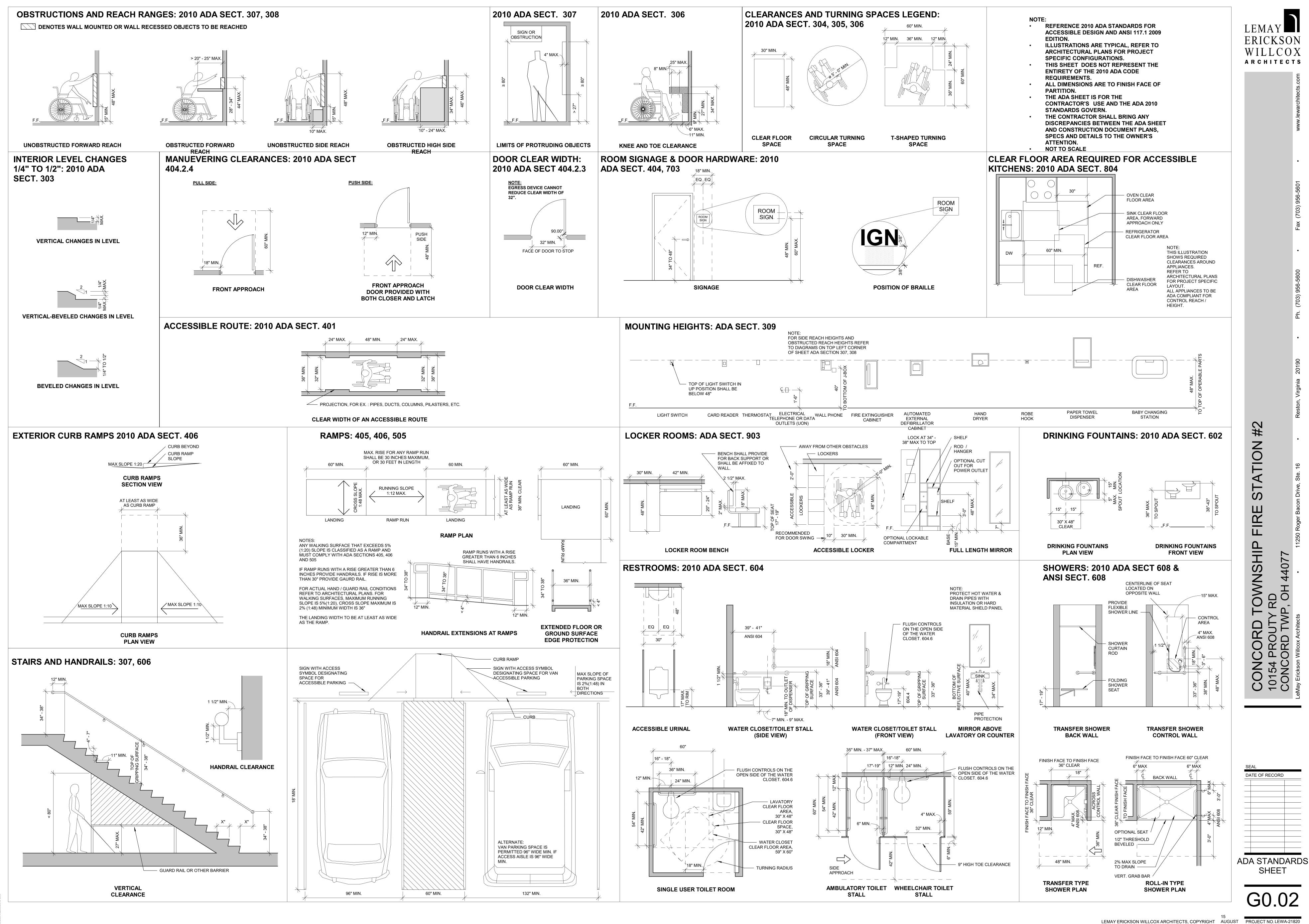
GENERAL G0.01 COVER SHEET ADA STANDARDS SHEET G0.02 STANDARDS SHEET CODE REVIEW EGRESS PLAN C0.01 TOPOGRAPHIC & BOUNDARY SURVEY C1.01 DEMO SITE PLAN C2.01 SITE PLAN C3.01 GRADING PLAN C4.01 UTILITY PLAN SITE DETAILS C5.01 PLANTING & SEEDING PLAN ARCHITECTURAL DOOR SCHEDULE - DETAILS DOOR DETAILS WALL TYPES FINISH SCHEDULE A0.05 UL DETAILS ARCHITECTURAL SITE PLAN FIRST AND MEZZANINE FLOOR PLANS REFLECTED CEILING PLANS **ROOF PLAN** BUILDING ELEVATIONS BUILDING SECTIONS WALL SECTIONS **ENLARGED PLANS** STORM SHELTER APPARATUS BAY ELEVATIONS STRUCTURAL GENERAL NOTES FOUNDATION PLAN ROOF AND MEZZANINE PLAN FOUNDATION PLAN FRAMING SECTIONS S3.03 FOUNDATION DETAILS MASONRY DETAILS S3.05 STEEL DETAILS GENERAL INFO - HVAC FIRST FLOOR - HVAC DUCTWORK PLAN FIRST FLOOR - HVAC PIPING PLAN MEZZANINE MECHANICAL PLAN MECHANICAL ROOF PLAN MECHANICAL DETAILS MECHANICAL DETAILS MECHANICAL DETAILS MECHANICAL SCHEDULES PLUMBING GENERAL NOTES AND SCHEDULES UNDERSLAB PLUMBING PLAN FIRST FLOOR - PLUMBING PLAN MEZZANINE PLUMBING PLAN PLUMBING ROOF PLAN PLUMBING DETAILS ELECTRICAL ELECTRICAL SITE PLAN FIRST FLOOR TECHNOLOGY & SECURITY PLAN GENERAL INFO - FIRE PROTECTION FP1.01 FIRST FLOOR - FIRE PROTECTION PLAN

DATE OF RECORD

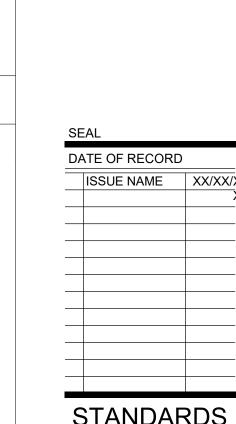
COVER SHEET

WILLCOX

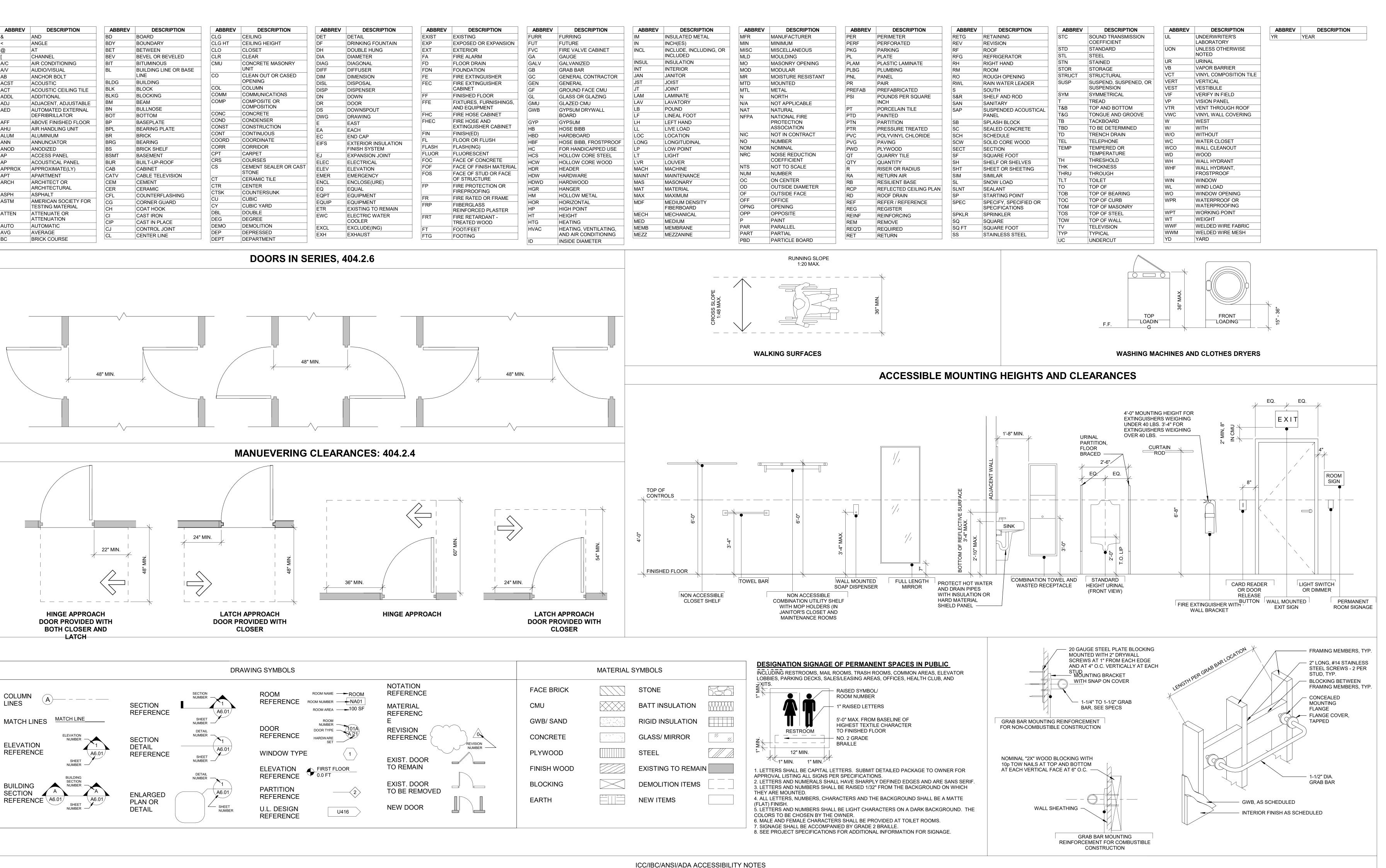
ARCHITECTS



LEMAY ERICKSON WILLCOX ARCHITECTS, COPYRIGHT AUGUST PROJECT NO. LEWA-21820







REFERENCE ICC 2015 IBC & ANSI 117.1 2009 EDITION FOR SECTION NUMBERS AND AS THE BASE FOR NOTES AND DIAGRAMS. THE GENERAL CONTRACTOR SHALL ENGAGE AN OUTSIDE INSPECTING CONSULTANT WHO SPECIALIZES IN ACCESSIBILITY. THIS CONSULTANT SHALL REVIEW THE DOCUMENTS AND PERIODICALLY INSPECT THE FIELD CONDITIONS UNDER CONSTRUCTION FOR ACCESSIBILITY COMPLIANCE. REPORTS OF EACH REVIEW AND INSPECTION SHOULD BE PRODUCED SHOWING THE DISCREPENCIES AS ACTION ITEMS FOR THE TEAM MEMBERS, PROPOSED SOLUTIONS, AND COMPLETED RESOLUTIONS. THE REPORT SHALL BE DELIVERED IN A TIMELY MANNER TO THE OWNER, DESIGN TEAM AND CONSTRUCTION

PRIMARY ENTRANCES TO BUILDINGS AND FACILITIES SHALL BE MADE ACCESSIBLE. EVERY REQUIRED ENTRANCE OR PASSAGE DOORWAY SHALL BE OF A SIZE AS TO PERMIT THE INSTALLATION OF A DOOR NOT

REQUIRE TWISTING OF THE WRIST TO OPERATE THE HARDWARE.

LESS THAN 3 FEET IN WIDTH AND NOT LESS THAN 6 FEET 8 INCHES IN HEIGHT. DOORS SHALL BE CAPABLE OF OPENING AT LEAST 90 DEGREES AND SHALL BE SO MOUNTED THAT THE CLEAR WIDTH OF THE DOORWAY IS NOT LESS THAN 32 3/4 INCHES. LATCHING AND LOCKING DOORS THAT ARE HAND ACTIVATED AND WHICH ARE IN A PATH OF TRAVEL, SHALL BE OPERABLE WITH A SINGLE EFFORT BY LEVER TYPE HARDWARE, PANIC BARS, PUSH-PULL ACTIVATING BARS, OR OTHER HARDWARE. THIS HARDWARE SHOULD BE DESIGNED TO PROVIDE PASSAGE WITHOUT REQUIRING THE ABILITY TO TIGHTLY GRASP, PINCH, OR

HAND ACTIVATED DOOR OPENING HARDWARE SHALL BE CENTERED BETWEEN 34 INCHES AND 48 INSCHES ABOVE THE FLOOR. THE FLOOR OR LANDING ON EACH SIDE OF AN ENTRANCE OR PASSAGE DOOR SHALL BE LEVEL (LESS THAN 2% SLOPE) AND CLEAR. THE LEVEL AND CLEAR AREA SHALL HAVE A LENGTH IN THE DIRECTION OF DOOR SWING OF AT LEAST 60" AND THE LENGTH OPPOSITE THE DIRECTION OF DOOR SWING OF 46" AS MEASURED AT RIGHT ANGLES TO THE PLANE OF THE DOOR IN

THE WIDTH OF THE LEVEL (LESS THAN 2% SLOPE) AND CLEAR AREA ON THE SIDE TO WHICH THE DOOR SWINGS SHALL EXTEND 24" PAST THE STRIKE EDGE OF THE DOOR FOR A LATCH APPROACH, 42" FOR A HINGE APPROACH AND 18" FOR A FRONT APPROACH. PROVIDE 12" ADDITIONAL SPACE IF DOOR IS EQUIPPED WITH BOTH A LATCH AND A CLOSER.

GRAB BARS SHALL BE: - NON-ROTATING HAVING 1/8" MINIMUM EDGE RADIUS; - NOT PROJECTING MORE THAN 3" INTO REQUIRED CLEAR SPACE; - SHALL BE NON-RUSTING NON-SLIP WITH 1 1/4" TO 2" OUTSIDE DIAMETER WITH 1 1/2" CLEARANCE FROM WALL MOUNTED. WALL REINFORCEMENT FOR GRAB BARS SHALL BE INSTALLED IN COMPLIANCE WITH ALL APPLICABLE CODES, INCLUDEING

ICC/ANSI A117.1 2009. THE TOP OF FIRE ALARM INITIATING DEVICES (BOXES) SHALL BE LOCATED 48 INCHES ABOVE THE LEVEL OF THE FLOOR, WORKING PLATFORM, GROUND SURFACE, OR SIDEWALK.

TOPS OF LIGHT SWITCHES, ENVIRONMENTAL CONTROLS, LOCKS & ELECTRICAL OUTLETS SHALL BE MOUNTED NO HIGHER THAN 48" AFF AND NO LOWER THAN 15" AFF. ALL CONTROLS IN ACCESSIBLE SPACES MUST MEET CLEAR FLOOR REQUIREMENTS. CONTROLS MUST ALSO BE MOUNTED AT A HEIGHT OF 36 INCHES TO 48 INCHES AFF WITH A FORWARD REACH OF 9 INCHES MAXIMUM.

ACCESSIBLE WASHERS AND DRYERS (WHERE CALLED FOR) SHALL COMPLY WITH ACCESSIBLE REACH REQUIREMENTS AS DEFINED IN SECTION 611 IN ICC/ANSI A117.1 2009 DOOR PULLS AND HANDLES SHALL BE MOUNTED WITHIN THE REACH DISTANCES DEFINED IN ICC/ANSI A117.1 2009. REFRIGERATOR/FREEZERS SHALL COMPLY WITH 804.6.6 IN ICC/ANSI A117.1 2009.

FLOOR CLEARANCES AT EACH KITCHEN APPLIANCE SHALL COMPLY WITH 804 IN ICC/ANSI A117.1 2009.

CABINETS. DRAWERS AND SHELF STORAGE AREA SHALL: - HAVE DOOR PULLS MOUNTED AS CLOSE TO BOTTOM OF THE UPPER CABINETS AS POSSIBLE; - HAVE DOOR PULLS MOUNTED AS CLOSE TO THE TOP OF BASE CABINETS AS POSSIBLE; HAVE DRAWER PULLS MOUNTED AS CLOSE TO TOP OF THE DRAWER AS POSSIBLE.

THE FLOOR OR LANDING SHALL BE NO MORE THAN 1/2 INCH LOWER THAN THE THRESHOLD OF THE DOORWAY. CHANGE IN SURFACES WITH A SLOPE OF 5 PERCENT GRADIENT OR GREATER, INCLUDING RAMPS, SHALL BE SLIP-RESISTANT (BROOM HAVE CONTROLS ON FRONT. RANGE HOOD CONTROLS (WHERE A RANGE HOOD IS CALLED FOR) SHOULD BE REMOTE LOCATED TO THE WALL ON ONE SIDE

> WATER SUPPLY AND DRAIN PIPES UNDER LAVATORIES AND SINKS SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. THERE SHALL BE NO SHARP ABRASIVE SURFACES UNDER LAVATORIES AND SINKS. ROUGH-IN PLUMBING SHALL BE LOCATED, INSULATED OR GUARDED TO PROVIDE CLEAR OPEN KNEE SPACE.

DISHWASHERS SHALL HAVE RACK SPACE ACCESSIBLE FROM FRONT OF MACHINE FOR LOADING AND UNLOADING.

PROVIDE AT LEAST ONE ACCESSIBLE LAVATORY. FAUCET CONTROLS AND OPERATING MECHANISMS SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING. PINCHING. OR TWISTING OF THE WRIST. THE FORCE REQUIRED TO ACTIVATE CONTROLS SHALL BE NO GREATER THAN 5 LBS, LEVER OPERATED, PUSH TYPE AND ELECTRONICALLY CONTROLLED MECHANISMS ARE EXAMPLES OF

SEE CIVIL, LANDSCAPE ARCHITECT AND/OR ARCHITECTURAL DRAWINGS FOR ACCESSIBLE BUILDING ENTRANCE ON ACCESSIBLE ROUTE.

WALKS AND SIDEWALKS SUBJECT TO THESE REGULATIONS SHALL HAVE A CONTINUOUS COMMON SURFACE. NOT INTERRUPTED BY STEPS OR BY ABRUPT CHANGES IN LEVEL EXCEEDING 1/2 INCH, AND SHALL BE A MINIMUM OF 48 INCHES IN SURFACE CROSS SLOPES SHALL NOT EXCEED 2% (1/4 INCH PER FOOT).

STAIRS THE MAXIMUM SLOPE OF A RAMP THAT SERVES AN EXIT WAY, PROVIDES ACCESS OR IS IN THE PATH OF TRAVEL SHALL BE 8% MAX (1 FOOT RISE IN 12 FEET OF HORIZONTAL RUN). ACCESS RAMP RUNS WITH A RISE GREATER THAN 6" BUT NOT TO EXCEED THE 1:12 (8%) SLOPE, ARE REQUIRED TO HAVE HANDRAII S

HANDRAILS SHALL BE PLACED ON EACH SIDE OF EACH RAMP, SHALL BE CONTINUOUS THE FULL LENGTH OF THE RAMP, SHALL BE 34 INCHES TO 38 INCHES ABOVE THE RAMP SURFACE, SHALL EXTEND A MINIMUM OF 1 FOOT BEYOND THE TOP AND BOTTOM OF THE RAMP, AND THE ENDS SHALL BE RETURNED.

HANDRAILS PROJECTING FROM A WALL SHALL HAVE A SPACE OF NOT LESS THAN 1 1/2 INCHES BETWEEN THE WALL AND THE ALL STAIRS TO HAVE HANDRAILS. HANDRAILS SHALL BE 38" MAXIMUM ABOVE NOSING, SHALL EXTEND 12" HORIZONTALLY BEYOND TOP RISER AND ONE TREAD HORIZONTALLY BEYOND THE BOTTOM RISER.

HANDRAIL ENDS SHALL BE RETURNED OR SHALL TERMINATE IN NEWEL POSTS OR SAFETY TERMINALS. NOSING SHALL NOT PROJECT MORE THAN 1 1/2 INCHES PAST THE FACE OF THE RISER BELOW. RISERS SHALL BE SUFFICIENTLY SOLID TO PREVENT THE PASSAGE OF OBJECTS LARGER THAN 1/4 INCH.

LEVEL BETWEEN 1/4 INCH AND 1/2 INCH SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 1:2. FLOOR SURFACES SHALL BE CONSTRUCTED OF SLIP-RESISTANT MATERIALS TO MEET LOCAL CODE.

OF THE RANGE IN LINE WITH THE COUNTER BACKSPLASH OUTLETS.

ACCEPTABLE DESIGNS. SELF-CLOSING VALVES ARE ALLOWED IF THE FAUCET REMAINS OPEN FOR AT LEAST 10 SECONDS.

SEE CIVIL, LANDSCAPE ARCHITECT AND/OR ARCHITECTURAL DRAWINGS FOR ACCESSIBLE, PUBLIC AND COMMON USE AREAS.

CODE INFORMATION rated floor/ceiling or roof/ceiling assembly above, and shall be securely attached thereto." I. Applicable Codes A. 2012 IBC Also per VCC 708.4: "The supporting construction shall be B. 2012 VCC protected to afford the required fire-resistance rating of the wall C. ICC/ANSI A117.1-2009 supported, except for walls separating tenant spaces in covered D. 28 CODE OF FEDERAL REGULATIONS (CFR) PART 35.15 AS DETAILED IN THE DEPARTMENT OF JUSTICE TITLE II and open mall buildings, walls separating dwelling units, walls ADA REGULATIONS AND THE 2010 ADA STANDARDS OF ACCESSIBLE DESIGN separating sleeping units and corridor walls, in buildings of Type IIB, IIIB and VB construction." II. Building Information: 3. Exterior Walls per Separation Distance VCC Table 602 A. V-B Construction (Per VCC 602.5) Greater than 30 feet 0 hr. 0 hr. B. Fully Sprinklered (Per VCC 901.2) 1 hr. 1 hr. Less than 5 feet C. Full Perimeter Frontage (Per VCC 506.2) 4. Maximum Area of Exterior Wall Openings Based on Fire Separation Distance and Degree of Opening D. Use Group: Mixed Non-separated S-1, S-2, B, R-2 (Per VCC 508.3) Protection per VCC Table 705.8 III. Code Compliance Summary: 3 to less than 5 feet, Unprotected, Sprinklered (UP,S) A. Building Height & Area Allowable Area / Stories / Height per VCC Table 503 Accessory Storage room separation (>100sf) EXIT CAPACITY: 32/.15=266 —— 9,000 sf / 1-story / 40 ft. (S-1 most restrictive height) 6. VCC Table 716.5 Doors in 1/2 hour rated corridor walls must be 20 min. rated doors. Glass in 20 min. 13,500 sf / 2-story / 40 ft. doors is not limited per VCC Table 716.5. 9,000 sf / 2-story / 40 ft. C. Occupant Load (VCC Table 1004.1.2) R-2: 7,000 sf / 2-story / 40 ft. (R-2 most restrictive area) Use Group 1769 sq. ft. (gross)/ 100 = 17.69 1275 sq. ft. (gross)/ 200 = 6.38 Use Group 2. Modifications 2976 sq. ft. (gross)/ 300 = 9.92 Use Group a. Automatic Sprinkler Increase 3488 sq. ft. (gross)/ 300 = 11.63 Height (VCC-504.2): add 20 ft. and add 1-story Area (VCC-506.3): 200% increase b. Frontage Increase AMP/ Exercise Room (Use Group B) 297 sq. ft. / 50 = 5.94 Area (VCC-506.2): 75% increase -- Exercise Rooms STORAGE c. VCC-506.1, Equation 5-1 Occupant Grand Total 51.55 $26,250 \text{ sf} = \{7000 + [7000 \times .75] + [7000 \times 2.00]\}$ 3. Allowable: RESERVE Height: 2-story, 60 ft. Area per story: 26,250 sf Proposed: Height: 1-Story, 29 ft. 9,736 sf - First Floor 1,473 sf-Mezzanine 11,209 sf - Total LOCKERS B. Fire Resistance Ratings: Required Proposed Building Elements per VCC Table 601 **Exterior Load Bearing Walls** Interior Load Bearing Walls 0 hr. 0 hr. 0 hr. Structural Frame 0 hr. Floor Construction 0 hr. 0 hr. **Roof Construction** 0 hr. 0 hr. 2. Corridors with Sprinker System per VCC-T 1018.1 APPARATUS A, B, E, F, M, S, U 0 hr. 0 hr. .5 hr. .5 hr. MEZZANIŅI DECON SHOWER ELECTRICAL G. Sprinkler System NFPA 13 D. Plumbing Fixtures as Required per VCC Table 2902.1 2. VCC 903 Centrally Monitored 1. Per VCC 2902.1.1, occupancy shall be viewed at 50% male and 50% female. TRAVEL DISTANCE TO H. Fire Alarm System GROUND FLOOR: 79'-0" 2. Per IPC 419.2 "In each bathroom or toilet room, urinals shall not be substituted for more than 67 percent 1. Per VCC 907.2.1, Exception 1: "Manual fire alarm boxes are not required where the building is + 48'-6" TO EXIT = of the required water closest in aseembly and education occupancies. Urinals shall not be substituted for throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 TOTAL 127'-6" -OUTDOOR more than 50 percent of the required water cloests in all other occupancies. STORAGE occupant notification appliances will activate throughout the notification zones upon sprinkler 3. Occupant loads for plumbing fixture calculations have been calculated in accordance with VCC Table waterflow. 1004.1.2 and VCC 2902 EXIT CAPACITY: 32/.15=266 -Use Group · Toilets (M): 11.8 x 1:25 = 0.47 11.8 x 1:25 = 0.47 Toilets (F): · Lavatories (M): 11.8 x 1:40 = 0.30 11.8 x 1:40 = 0.30 Lavatories (F): Use Group · Toilets (M): 3.2 x 1:10 = 0.32 3.2 x 1:10 = 0.32 Toilets (F): 3.2 x 1:10 = 0.32 Lavatories (M): 3.2 x 1:10 = 0.32 Lavatories (F): 6.4 x 1:8= 0.40 Showers: Use Group EXIT CAPACITY: 68/.15=532 —— $0.0 \times 1:100 = 0.00$ · Toilets (M): · Toilets (F): 0.0 x 1:100 = 0.00 · Lavatories (M): 0.0 x 1:100 = 0.00 0.0 x 1:100 = 0.00 · Lavatories (F): Use Group · Toilets (M): 5.8 x 1:100 = 0.06 5.8 x 1:100 = 0.06 · Toilets (F): 5.8 x 1:100 = 0.06 Lavatories (M): 5.8 x 1:100 = 0.06 Lavatories (F): Totals - Required / Provided: EXIT CAPACITY: 32/.15=266 Toilets (M): 2 Provided Toilets (F): 2 Provided 1 Required / 0 Provided Urinals (M): 0 Required / Toilets (Unisex) 0 Required / 0 Provided 2 Provided Lavatories (M): 1 Required / Lavatories (F): 2 Provided 1 Required / 2 Provided Showers (M): 1 Required / 2 Provided Showers (F): 1 Required / 1 Provided **Drinking Fountains:** 1 Required / , - X / - X Service Sink: 1 Required / 1 Provided E. Means of Egress Notes: See Code Plan for additional exit /egress information.

Per VCC 708.4: "Fire partitions shall extend from the top of the foundation or floor/ceiling assembly below to the underside of the floor or roof sheathing, slab or deck above or to the fire-resistance-

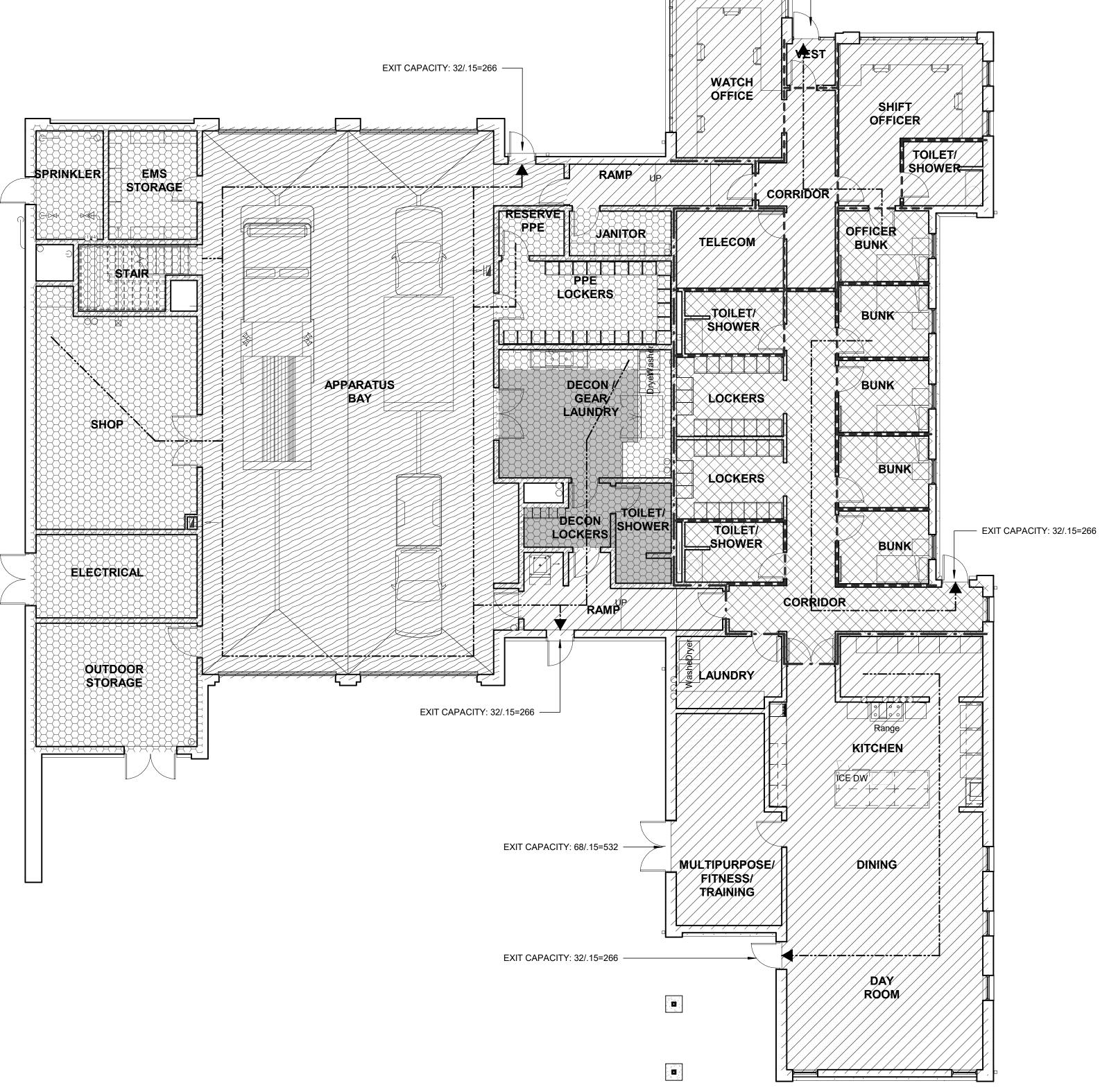
2. Per VCC Table 1016.2, Exit Access Travel Distance shall not exceed 250'.

All others

Required 100 ft 125 ft 75 ft

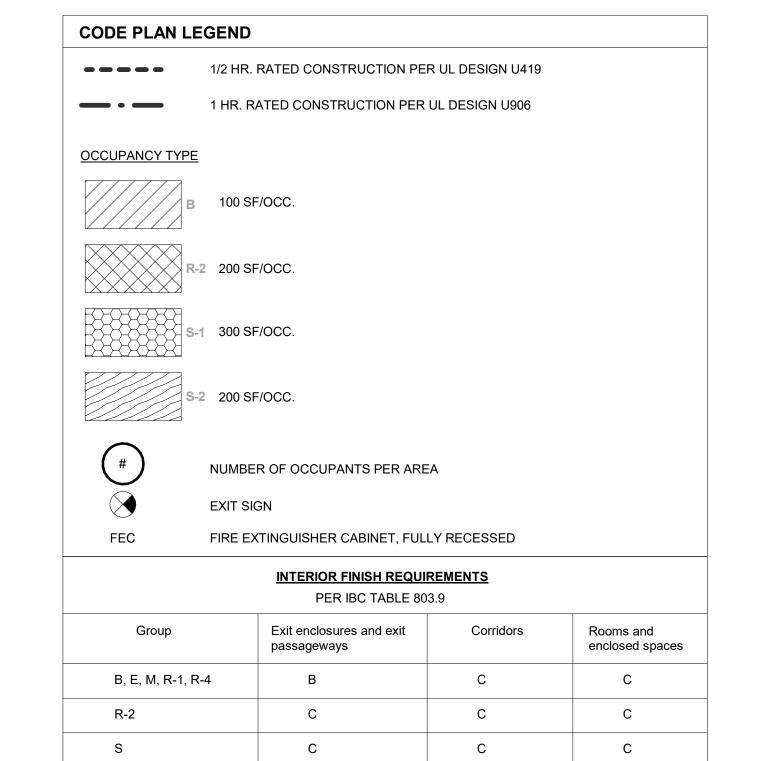
F. Maximum Common Path of Egress Travel

Per VCC Table 1014.3





1 FIRST FLOOR CODE PLAN



CLASS A: FLAME SPREAD 0-25; SMOKE DEVELOPED 0-450. CLASS B: FLAME SPREAD 26-75; SMOKE DEVELOPED 0-450. CLASS C: FLAME SPREAD 76-200; SMOKE DEVELOPED 0-450.

EXIT CAPACITY: 32/.15=266

CODE REVIEW **EGRESS PLAN**

DATE OF RECORD

TOPOGRAPHIC

& BOUNDARY SURVEY

TOPOGRAPHIC & BOUNDARY SURVEY

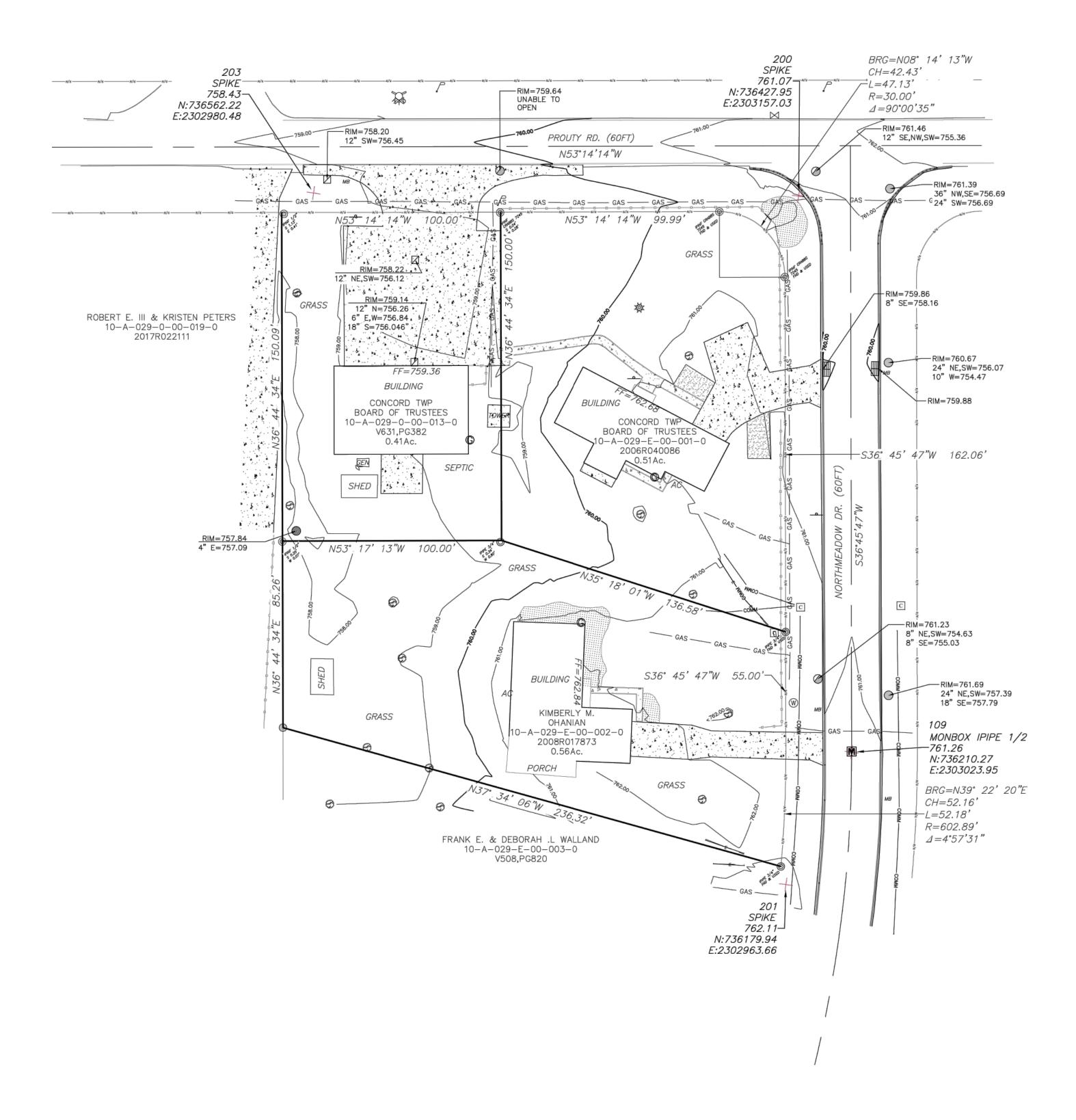
PREPARED FOR

AECOM

SITUATED IN THE TOWNSHIP OF CONCORD, COUNTY OF LAKE AND STATE OF OHIO KNOWN AS BEING PART OF BRIGHTWOOD COMMUNITY SUBDIVISION No.2 GRID NORTH USING ODOT VRS AND CORS NETWORK (NAD83 (CORS 2011), OHIO NORTH 3401

BASIS OF BEARINGS:

AS SURVEYED IN DECEMBER OF 2018



LEGEND

(IN FEET)1 inch = 30 ft.

ROUND CATCH BASIN SQUARE CATCH BASIN CURB INLET STORM MANHOLE CLEAN OUT SANITARY MANHOLE AIR CONDITIONER MAIL BOX

SIGNAL POLE FLAG POLE LIGHT POLE YARD LIGHT ELECTRIC MANHOLE ELECTRIC BOX СОММ ВОХ UTILITY POLE

GUY WIRE HYDRANT WATER VALVE WATER METER GAS VALVE GAS METER SIGN DECIDUOUS TREE

CONIFEROUS TREE *BOLLARD/POST* IRON PIN FND. (IPINF) 🔘 IRON PIPE FND (IPIPE) ◎

SANITARY TELECOMM ______COUN______COUN

SURVEYOR'S CERTIFICATION

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE OAC CHAPTER 4733-37 AS SURVEYED BY LANDMARK PROFESSIONAL GROUP.

ANDREW W. HICKIN, P.S. REGISTERED OHIO SURVEYOR No. 8604



PREPARED BY: LANDMARK PROFESSIONAL GROUP PO BOX 324
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P: 440-635-6026

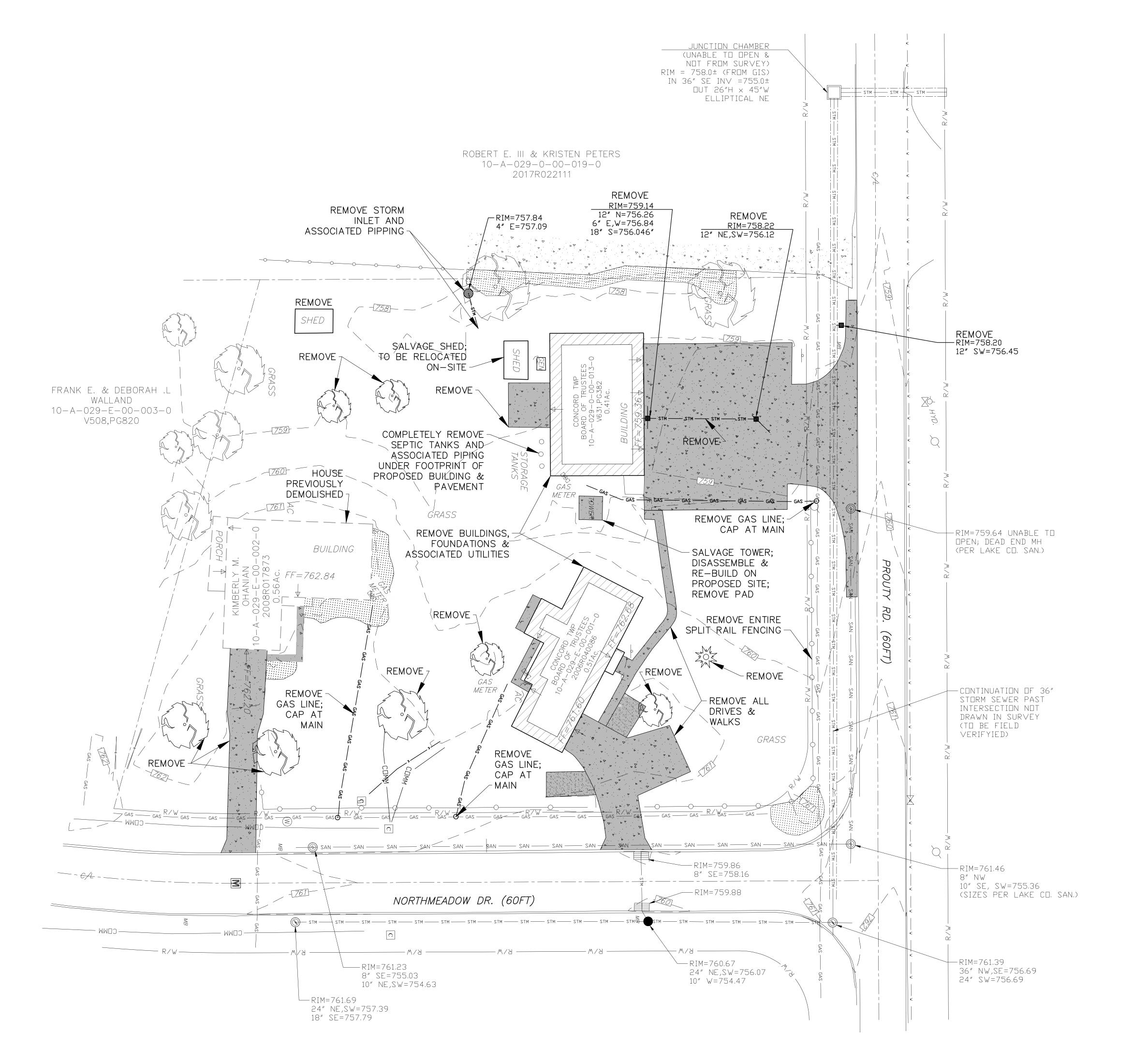
CONCORD FIRE STATION #2 10154 PROUTY RD.

REFERENCES:

LAKE COUNTY DEED RECORDS AS SHOWN LAKE COUNTY TAX MAPS LAKE SURVEY RECORDS

TOPOGRAPHIC &

BOUNDARY SURVEY

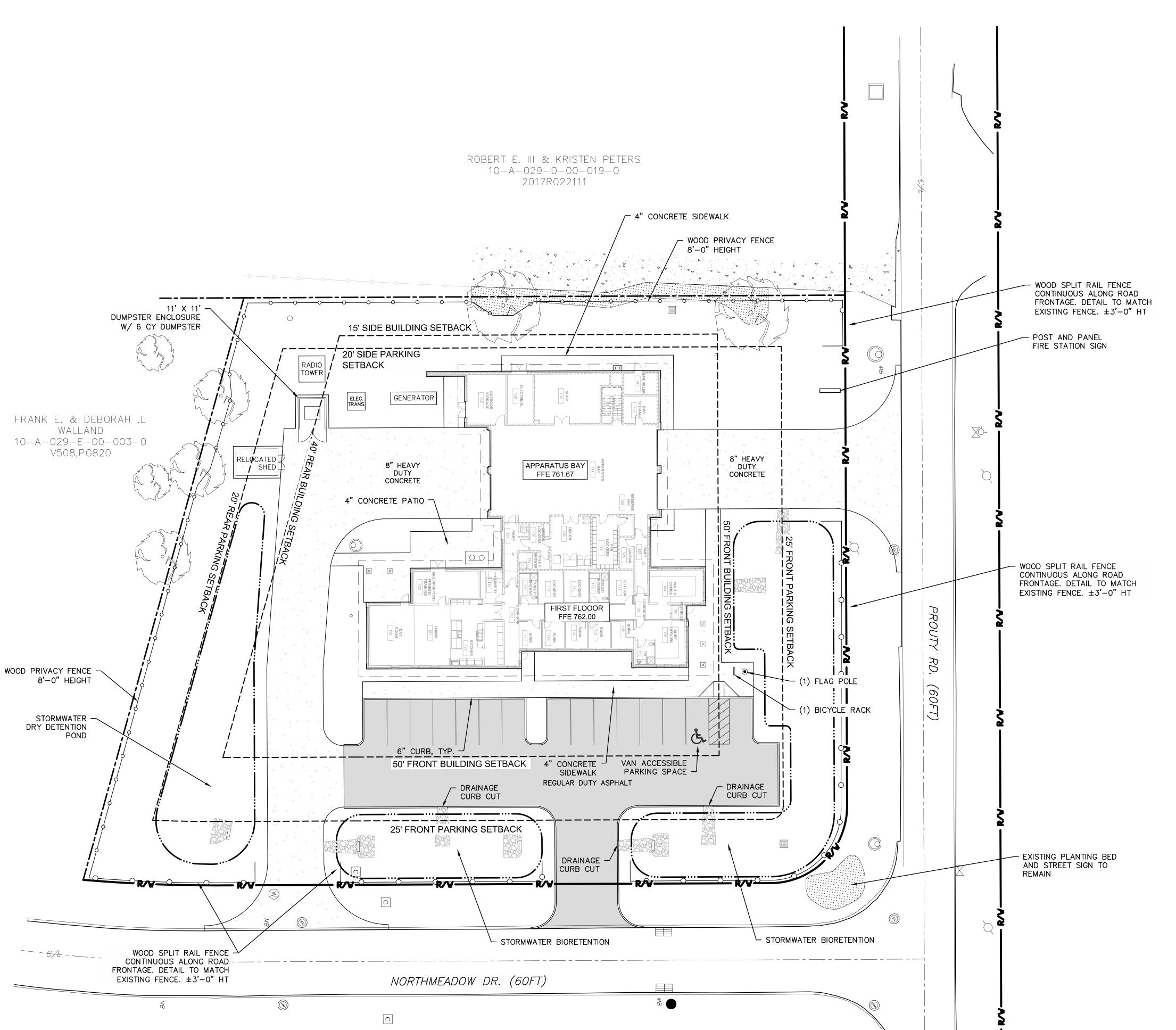




DEMO SITE PLAN

C1.01

PARKING COUNTS



ERICKSON

WILLCOX

ARCHITECTS

AECOM

SITE PLAN

SCALE: 1"= 20'

0 20 40
Feet

C2.01

BS BOTTOM OF STEP
TS TOP OF STEP
EOP EDGE OF PAVEMENT
TC TOP OF CURB
BC BOTTOM OF CURB

<u>NOTES</u>

1. ALL PROPOSED WALKWAYS SHALL MEET CURRENT ADA REQUIREMENTS. RUNNING SLOPES SHALL NOT EXCEED 5% AND CROSS SLOPES SHALL NOT EXCEED 2%.

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AECOM

2. ADA PARKING AREAS SHALL NOT EXCEED 2% IN ANY DIRECTION

3. PROVIDE POSITIVE DRAINAGE ON ALL PAVED AND LANDSCAPED SURFACES TO DIRECT WATER TO STORM DRAINAGE STRUCTURES. SLOPE ALL PAVED SURFACES AT 1.5% MINIMUM SLOPE.

4. PARKING LOT SHALL NOT EXCEED 4% SLOPES.

SCALE: 1"= 20'

0 20 40
Feet

GRADING

C3.01

SANITARY PEAK FLOW CALCS

"GREEN BOOK"

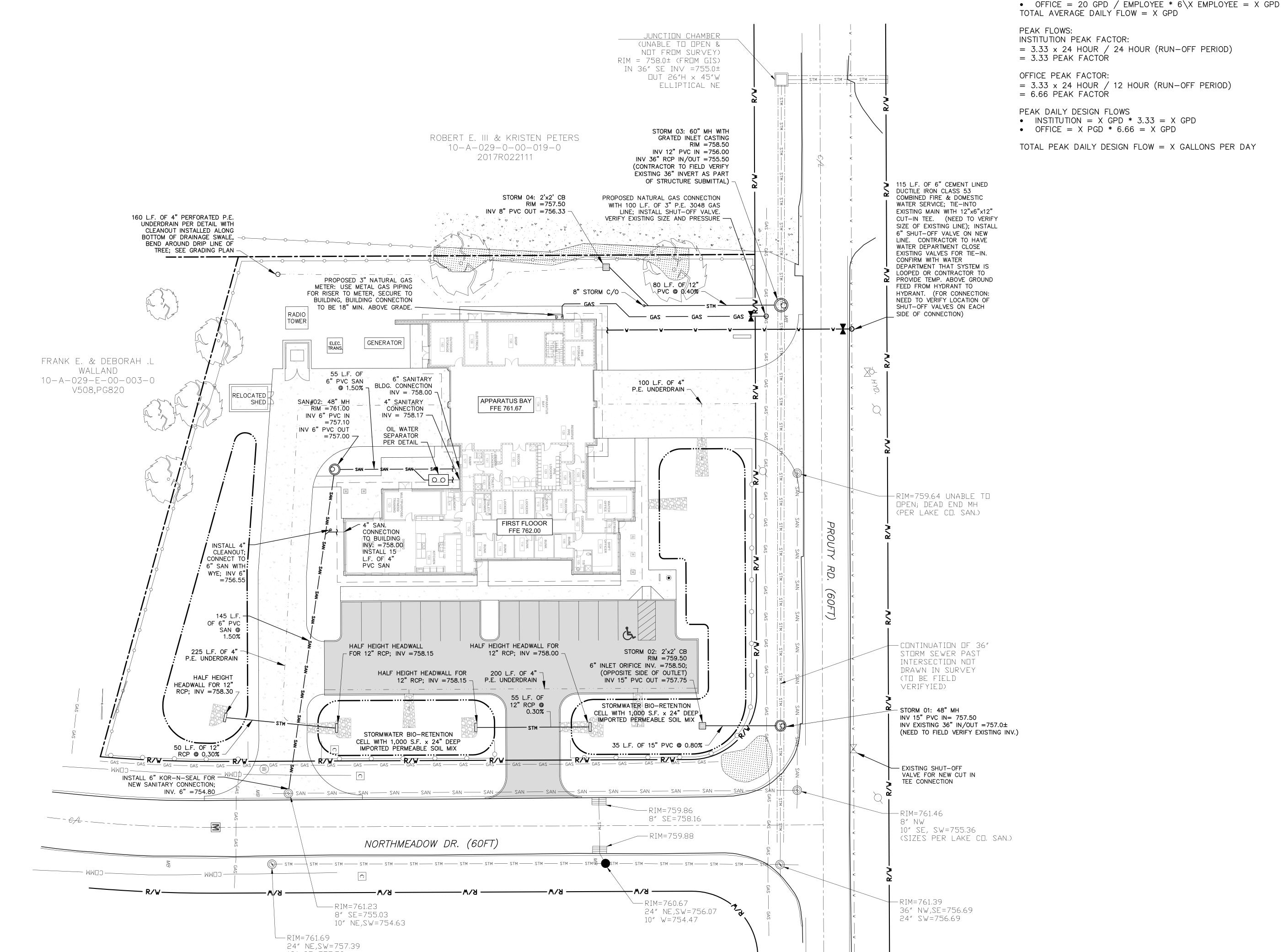
AVERAGE DAILY FLOW:

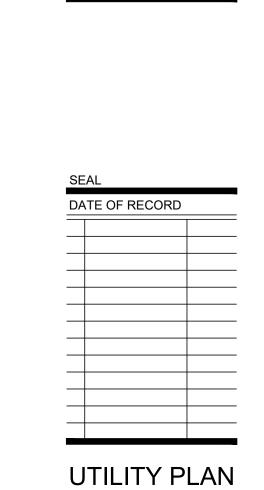
OCCUPANCY: 24 HOUR SHIFT = X (INSTITUTION)

DAILY OFFICE STAFF = X (OFFICE)

PER OHIO EPA SEWAGE: COLLECTION, TREATMENT & DISPOSAL

• INSTITUTION = 100 GPD / PERSON * X PERSON = X GPD.





DETAILS

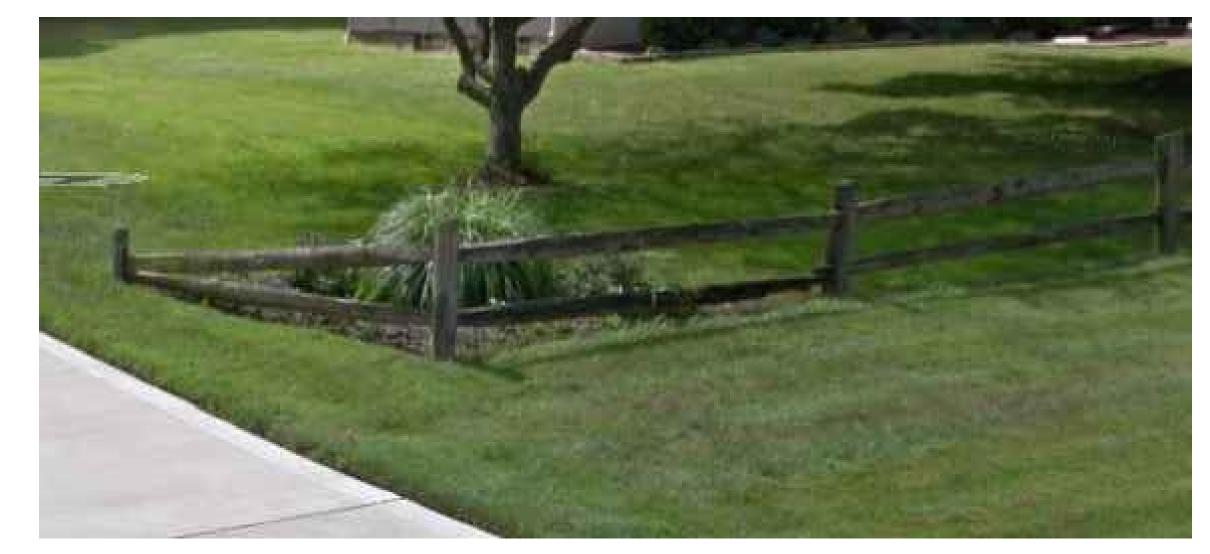


WOOD PRIVACY FENCE SCALE: NTS



PRODUCT: U BIKE RACK, STAINLESS STEEL, SURFACE MOUNT MANUFACTURER: CONCEPTUAL SITE FURNISHINGS

BICYCLE RACK



DESIGN INTENT: THE EXISTING FIRE STATION NO. 2 HAS WOOD SPLIT RAIL FENCING ALONG THE ROAD FRONTAGE. THIS FENCING IS TYPICAL THROUGHOUT THE NEIGHBORHOOD ALONG NORTH MEADOW DRIVE. THE DESIGN INTENT IS TO CONSTRUCT NEW SPLIT RAIL FENCING ALONG THE ROAD FRONTAGE TO MATCH THE EXISTING NEIGHBORHOOD STANDARD.

WOOD SPLIT RAIL FENCE SCALE: NTS



SCALE: NTS



POST AND PANEL SIGN



STORMWATER - DRY DETENTION POND AESTHETIC



DUMPSTER ENCLOSURE



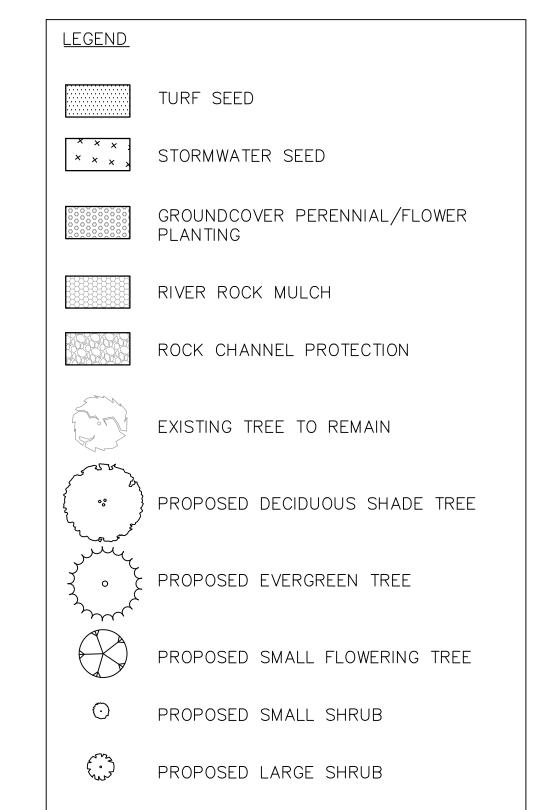
PRODUCT: #34 RIVER ROCK MULCH, 1"-3" SIZE INTENDED USE: BENEATH LARGE ROOF OVERHANGS AND BENEATH PRIVACY FENCE

RIVER ROCK MULCH SCALE: NTS



STORMWATER - BIORETENTION AESTHETIC SCALE: NTS





WARRANTY AND MAINTENANCE PERIOD.

PLANTING NOTES

ROBERT E. III & KRISTEN PETERS

10-A-029-0-00-019-0 2017R022111

APPARATUS BAY

FFE 761.67

FIRST FLOOOR

- 5' WIDE TURF STRIP -ALONG PARKING

FFE 762.00

EVERGREEN TREES —
ALONG PROPERTY LINE
TO SCREEN BUILDING FROM
ADJACENT RESIDENTIAL PROPERTY

GENERATOR

RIVER ROCK MULCH

PERENNIALS AND SMALL SHRUBS —
. _____ PERENNIALS AND SMALL SHRUBS —
. ____ IN STORMWATER BIORETENTION AREAS —
ALONG STREET FRONTAGE

NORTHMEADOW DR. (60FT)

NOTE: PLANTS WILL NOT

GROW BENEATH ROOF OVERHANG UNLESS IRRIGATION IS PROVIDED

RADIO TOWER

RELOCATED

~ × × × × × × / × × × × × × x J • × × × × × × J. · * * * * * * * * * * · × × × × × × × × × · · · ·

STORMWATER SEED MIX IN DRY DETENTION $_{ imes}$

POND ELEC. TRANS

- 5' WIDE TURF STRIP ALONG DRIVE

PROPOSED PRIVACY FENCE CONTINUOUS ALONG ADJACENT RESIDENTIAL PROPERTY LINES

FRANK E. & DEBORAH .L WALLAND 10-A-029-E-00-003-0

V508,PG820

SPLIT RAIL FENCE CONTINUOUS ALONG
ROAD FRONTAGE

EXISTING LARGE SHADE — TREES TO REMAIN, TYP.

EVERGREEN TREES — ALONG PROPERTY LINE TO SCREEN BUILDING FROM ADJACENT RESIDENTIAL PROPERTY

- DO NOT DISTURVE EXISTING LANDSCAPE BED

ROCK CHANNEL TROTECTION

AT EACH INLET,

AROUND EXISTING TREES.

ON ADJACENT PROPERTY. EXISTING BED EXTENDS ONTO FIRE STATION PROPERTY. ADJUST BED EDGE ON FIRE STATION PROPERTY TO FOLLOW FENCE LINE. MAINTAIN EXISTING GRAVEL MULCH

LAWN

5' WIDE TURF STRIP ALONG DRIVE

- SPLIT RAIL FENCE CONTINUOUS ALONG ROAD FRONTAGE

TO MEET FENCE.

- EXISTING PLANTING BED
AND STREET SIGN TO REMAIN

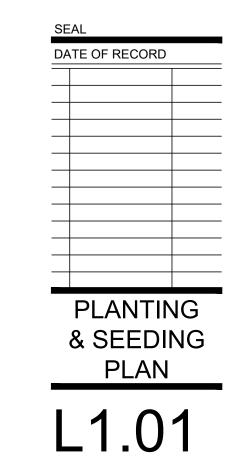
EXTEND EXISTING MULCH BED

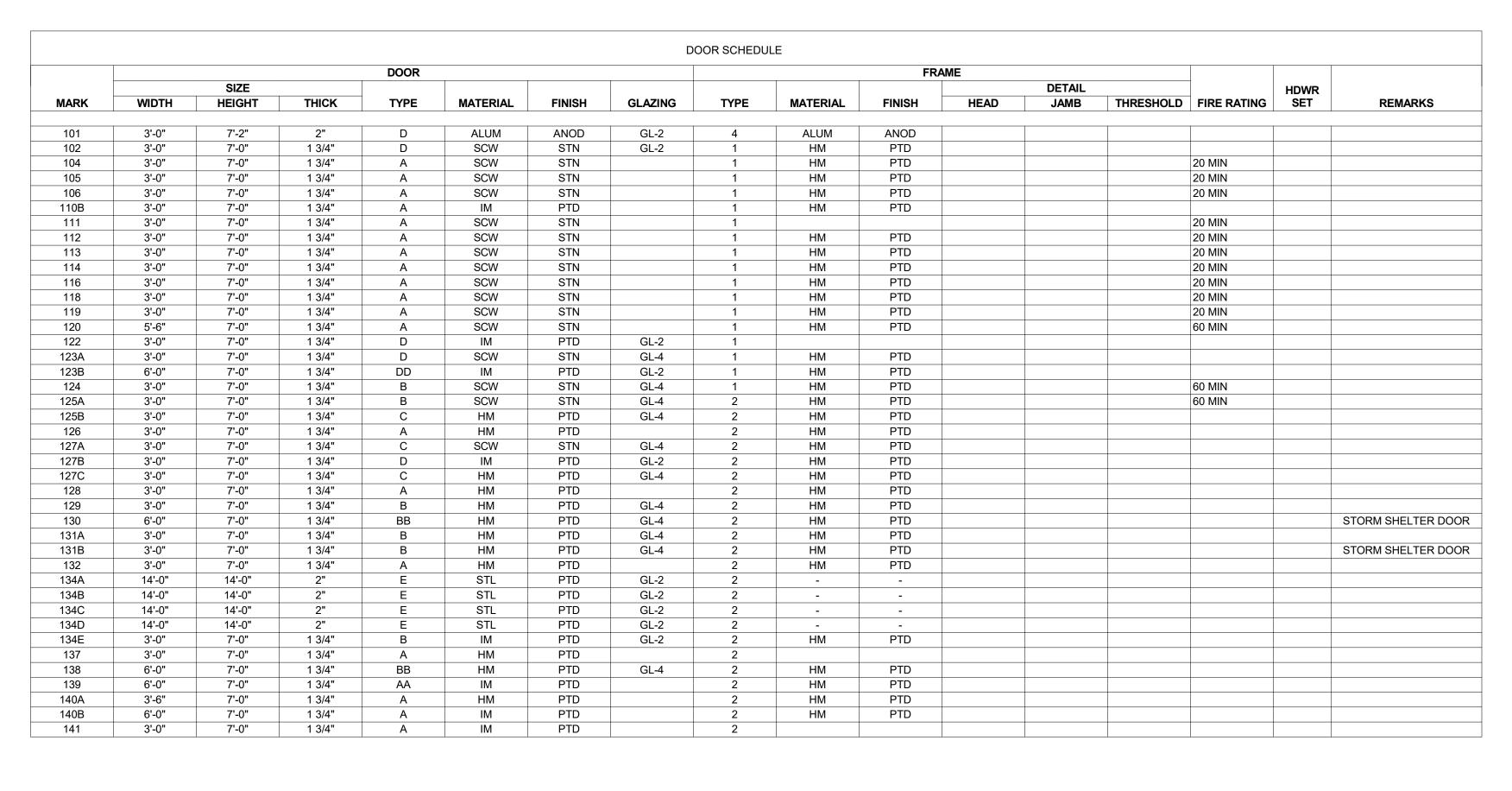
	PLANTING SCHEDULE	
QTY	PLANT TYPE	SIZE
13	DECIDUOUS SHADE TREE	2" CAL
11	EVERGREEN TREE	8' HT.
4	SMALL FLOWERING TREE	2" CAL
244	SMALL SHRUB	#3 CON
8	LARGE SHRUB	#5 CON
1019	GROUNDCOVER PERENNIAL/FLOWER	#1 CON

	SEEDING SCHEDULE
QTY	SEED TYPE
0.48 AC	TURF MIX
0.08 AC	STORMWATER MIX

	TURF SEED
*	STORMWATER SEED
	GROUNDCOVER PERENNIAL/FLOWER PLANTING
	RIVER ROCK MULCH
	ROCK CHANNEL PROTECTION
	EXISTING TREE TO REMAIN
.:	PROPOSED DECIDUOUS SHADE TREE
	PROPOSED EVERGREEN TREE
	PROPOSED SMALL FLOWERING TREE
\odot	PROPOSED SMALL SHRUB
(var	PROPOSED LARGE SHRUB

	MULCHING SCHEDULE
QTY	SEED TYPE
250 SF	RIVER ROCK MULCH, 4" DEPTH





WINDOW LEGEND		<u>D</u>	OOR LEGEND
CW	CURTAINWALL	ALUM.	ALUMINUM
SF	STOREFRONT	НМ	HOLLOW METAL
		IM	INSULATED METAL
		PTD.	PAINTED
GLAZING LEGEND		scw	SOLID CORE WOO
GL-1	1" INSULATED GLAZING UNIT	STL	STEFL
GL-2	1" INSULATED GLAZING UNIT (TEMPERED)	012	OTELL .
GL-3	1/4" GLAZING UNIT	STN.	STAINED
GL-4	1/4" GLAZING UNIT (TEMPERED)	T.	TEMPERED GLASS
NOTE: A	LL GLAZING IS GL-1 U.N.O.	ANOD.	ANODIZED

GENERAL NOTE: ELEVATIONS VIEWED FROM BUILDING EXTERIOR SIDE UNLESS NOTED OTHERWISE.

DOOR SCHEDULE NOTES:

1. PROVIDE PANIC HARDWARE IN ACCORDANCE WITH IBC 1008.1.9

2. "TEMP" IN SCHEDULE ABOVE DENOTES TEMPERED SAFETY GLAZING PER THE REQUIREMENTS OF IBC SECTION 2406.3

3. DOOR HARDWARE AND CLOSERS SHALL CONFORM TO ANSI 117.1 & ADA REQUIREMENTS AT ALL DOORS. THE OPENING FORCE FOR INTERIOR DOORS SHALL NOT EXCEED A 5 POUND FORCE AND SHALL SWING FULLY OPEN WHEN SUBJECTED TO A 15 POUND FORCE. THE DOOR LATCH SHALL RELEASE WHEN SUBJECTED TO A 15 POUND FORCE. COMPLY WITH IBC 1003.3.1.2 AND ANSI 117.1 404.2.7

4. FIRE DOORS MUST BE SELF-CLOSING AND LATCHING PER NFPA 80-99.

5. ENTRANCE DOORS SHALL BE READILY OPENABLE FROM THE EGRESS SIDE WITHOUT THE USE OF A KEY OR SPECIAL KNOWLEDGE OR DEVICE. MANUALLY OPERATED FLUSH BOLTS, DEAD BOLTS, OR SURFACE BOLTS ARE NOT PERMITTED.

6. ALL EXTERIOR DOORS ARE TO HAVE INSULATED GLAZING.

7. DOORS SHALL COMPLY WITH IBC SECTION 1008.

8. EXTERIOR HM DOORS SHALL BE INSULATED UNLESS OTHERWISE NOTED.

PART OF THE HINGE SIDE OF THE FRAME IS 4" FROM PERPENDICULAR WALL.

10. UNLESS OTHERWISE NOTED, DOORS SHOULD BE PLACED SO THAT THE NEAREST

9. SEE SPECIFICATION SECTION 087100 FOR DOOR HARDWARE SETS.

2" SEE SCHED. 2" 2" SEE SCHED. 2" 2" SEE SCHED. 2" 2" 3'-0" 2" 2" 2" 3'-0" 2" 2" 2" 3'-0" 2" 2" 2" 3'-0" 2" 2" 3'-0" 2" 2" 3'-0" 2" 2" 3'-0" 2" 2" 3'-0" 2"

FRAME TYPES

1/4" = 1'-0"

SEE SCHEDULE

SE

DATE OF RECORD

ISSUE NAME | XX/XX/XX

DOOR SCHEDULE

- DETAILS

A0.01

PROJECT NO.LEWA-21820

SEE SCHEDULE

Fax (703) 956-5601 • www.lewarchitects.com

- Ph. (703) 956-5600

Reston, Virginia 20190

er Bacon Drive, Ste. 16

TATION

ONCORD TOWNSHIP I 154 PROUTY RD INCORD TWP, OH 44077

CHANNEL - CHANNEL

ANCHOR IN

- BLOCKING AS

BACKER ROD W/

METAL FRAME

- 8" CMU

—— GROUT-FILL HOLLOW METAL

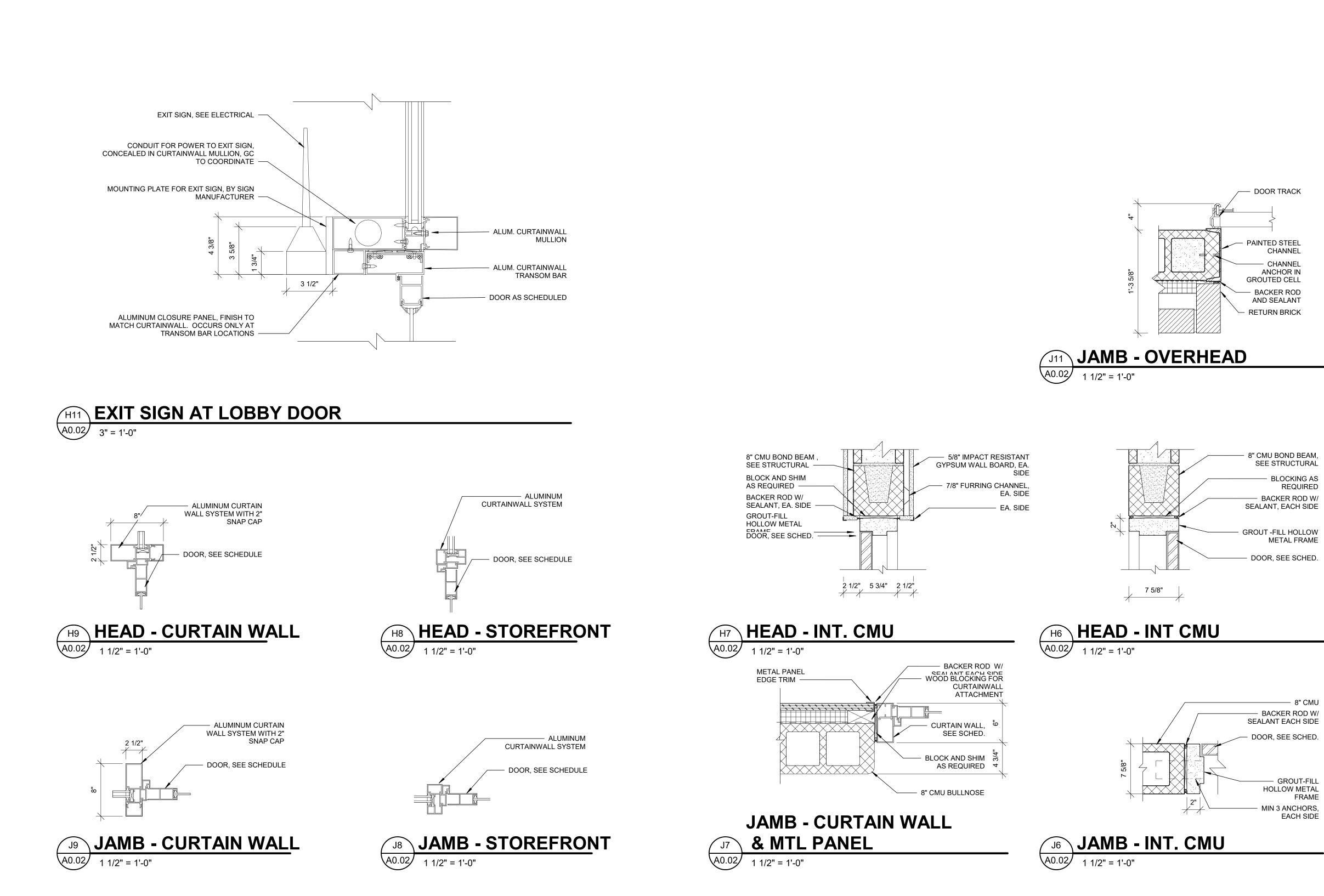
- MIN 3 ANCHORS, EACH SIDE STATION #2

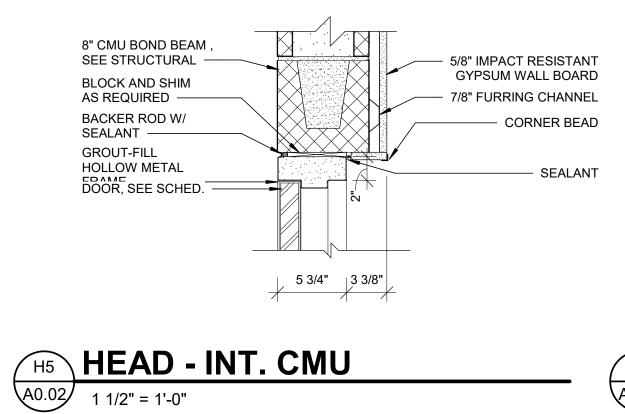
FIRE

OWNSHIP

CONCORD
10154 PROUT
CONCORD TW

REQUIRED





HOLLOW METAL

DOOR, SEE

SCHEDULE

HOLLOW METAL

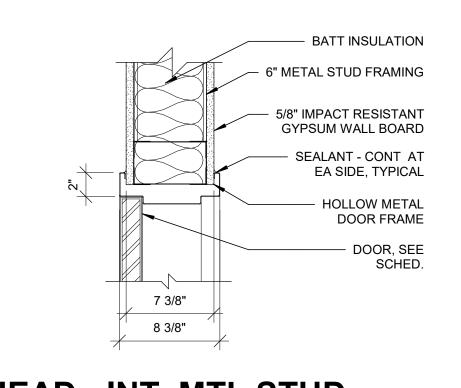
H10 DOOR - HM TRANSOM

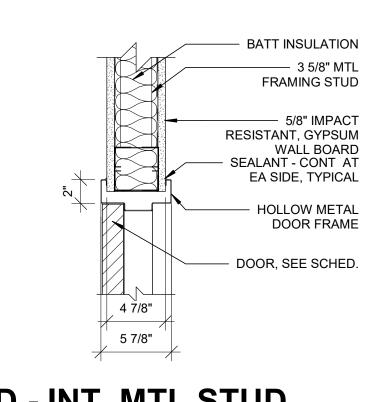
J₁₀ JAMB - HM SIDELIGHT

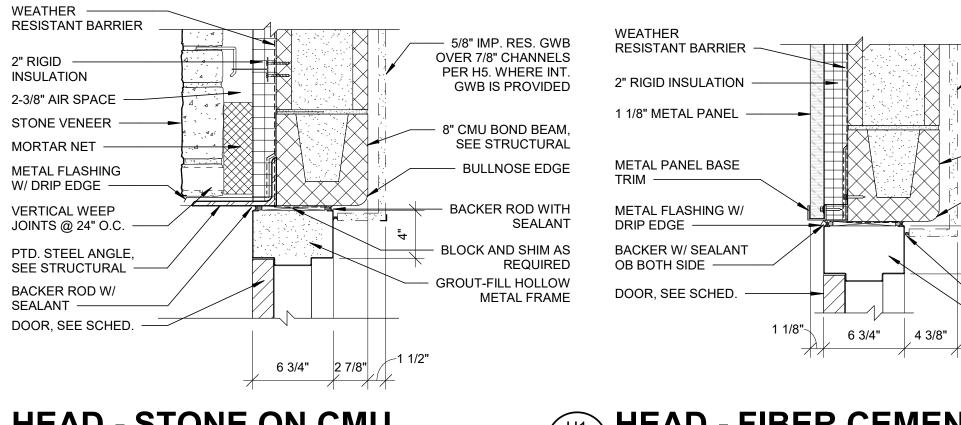
A0.02 1 1/2" = 1'-0"

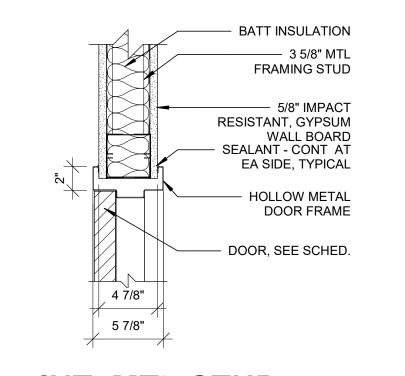
FRAME — DOOR, SEE

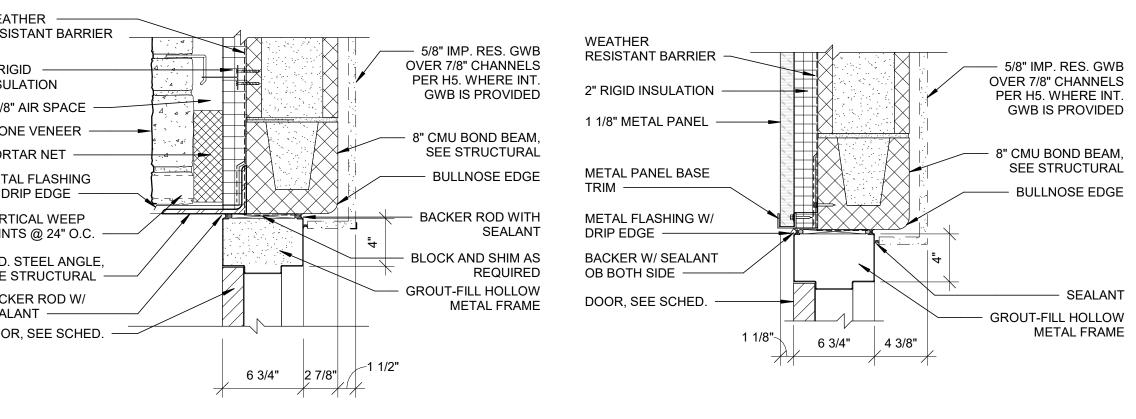
SCHEDULE









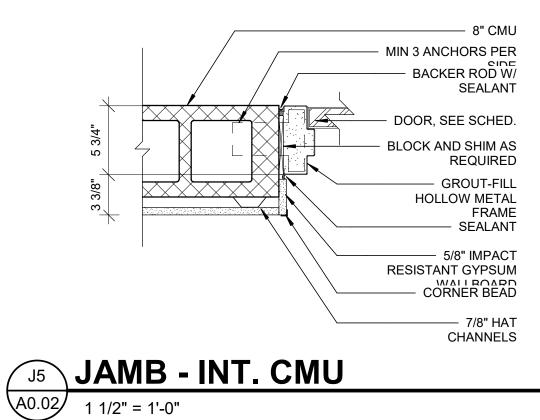


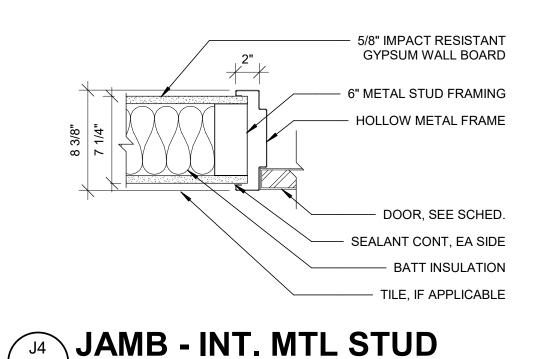




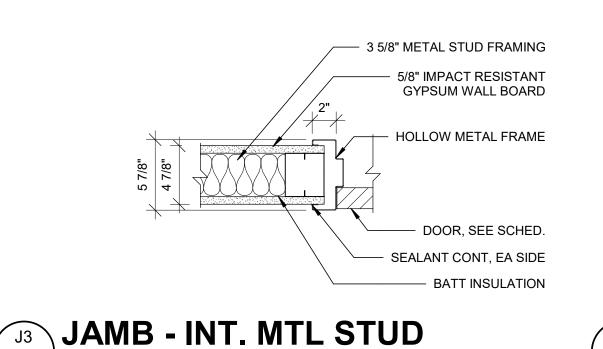
A0.02 1 1/2" = 1'-0"

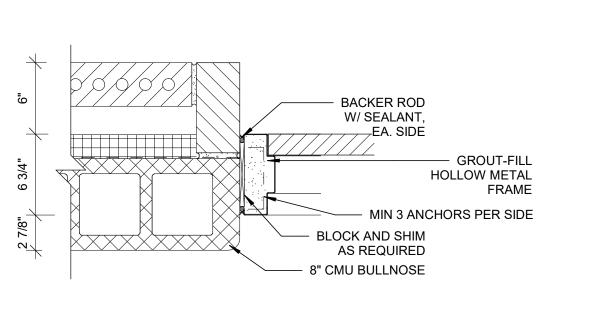


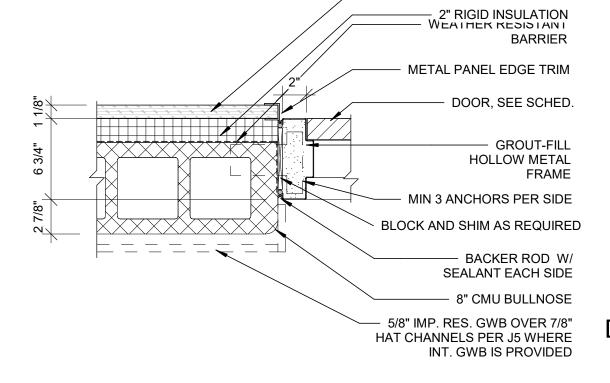


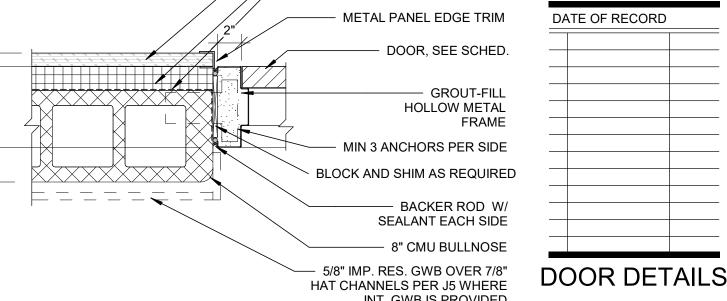


A0.02 1 1/2" = 1'-0"





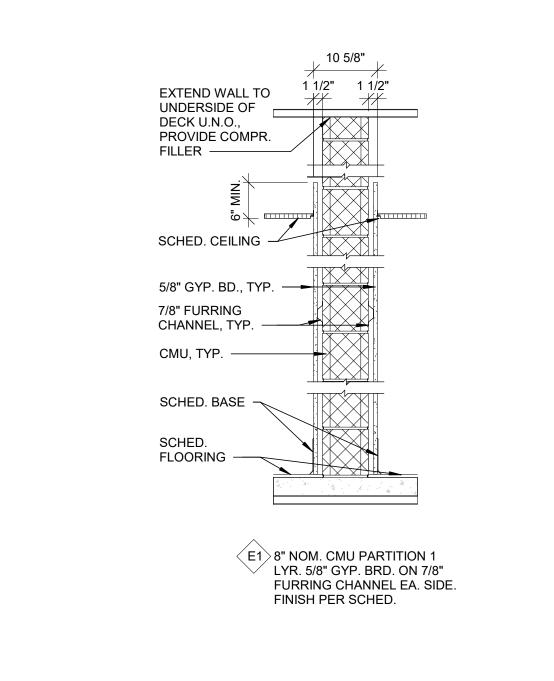






J1 JAMB - FIBER CEMENT ON CMU A0.02

INSULATED METAL PANEL



SLIPCONNECTIONS TYP., SEE STRUCT. EXTEND WALL TO UNDERSIDE OF — DECK U.N.O., PROVIDE COMPR. FILLER ---EXTEND TO BOT. GAUGE SLIP OF DECK OR TYPE WALL STRUCT. ABOVE -HEAD TRACK SCHEDULED CEILING — 5/8" GYP. BD., TYP. STL. STUDS @ 24" 3" SOUND INSULATION -SCHED. BASE SCHED. FLOORING -A1 3 5/8" STL. STUD PARTITION 1 LYR. 5/8" GYP. BRD. EA. SIDE

FINISH PER SCHED. A2 3 5/8" STL. STUD PARTITION 1 LYR. 5/8" GYP. BRD. EA. SIDE FINISH PER SCHED. UL NO. U419

ASSEMBLY A3 6" STL. STUD PARTITION 1 LYR. 5/8" GYP. BRD. EA. SIDE FINISH PER SCHED. 6" STL. STUD PARTITION 1 LYR. 5/8" GYP. BRD. EA. SIDE FINISH PER SCHED. UL NO. U419 ASSEMBLY

A5 8" STL. STUD PARTITION 1 LYR. 5/8" GYP. BRD. EA. SIDE FINISH

PER SCHED.

FILLER ---GAUGE SLIP EXTEND TO BOT. TYPE WALL OF DECK OR HEAD TRACK STRUCT. ABOVE SCHEDULED CEILING — 5/8" GYP. BD., TYP. STL. STUDS @ 24" 3" SOUND INSULATION -SCHED. BASE SCHED. FLOORING — B1 3 5/8" STL. STUD PARTITION 1 LYR. 5/8" GYP. BRD. FINISH PER SCHEDULE B2 2 1/2" STL. STUD PARTITION 1 LYR. 5/8" GYP. BRD. FINISH PER SCHEDULE

EXTEND WALL TO

UNDERSIDE OF -

PROVIDE COMPR.

DECK U.N.O.,

SLIP CONNECTIONS

TYP., SEE STRUCT.

SCHED. CEILING -CMU, TYP. -SCHED. BASE FIRE SEALANT EA. SCHED. SIDE AT C4 FLOORING C1 4" NOM. CMU PARTITION FINISH PER SCHED. C2 6" NOM. CMU PARTITION FINISH PER SCHED.

EXTEND WALL TO

PROVIDE COMPR.

DECK U.N.O.,

FILLER —

UNDERSIDE OF ___

C3>8" NOM. CMU ✓ PARTITION FINISH PER SCHED. C4>8" NOM. CMU

PARTITION FINISH PER

RATED, UL ASSEMBLY

SCHED. 1 HR. FIRE

SEALANT EA.

SIDE AT C4

D1 8" NOM. CMU PARTITION 1 LYR. 5/8" GYP. BRD. ON 7/8" FURRING CHANNEL ONE SIDE. FINISH PER SCHED. D2 8" NOM. CMU PARTITION 1 / LYR. 5/8" GYP. BRD. ON 7/8" FURRING CHANNEL ONE SIDE. FINISH PER SCHED. 1 HR. FIRE RATED, UL ASSEMBLY U906

EXTEND WALL TO

PROVIDE COMPR.

SCHED. CEILING -

5/8" GYP. BD., TYP.

7/8" FURRING

CMU, TYP.

SCHED.

FLOORING -

CHANNEL, TYP.

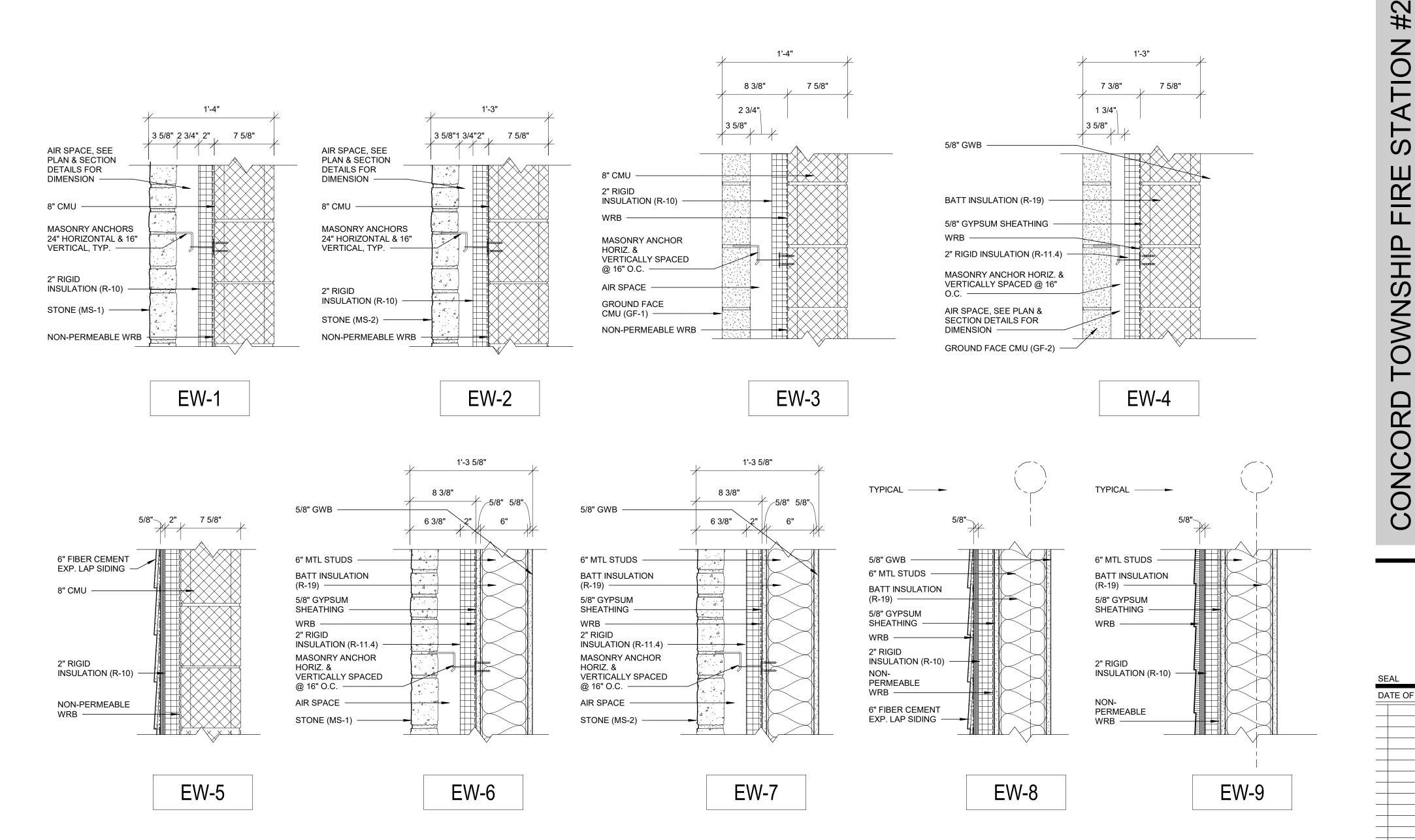
SCHED. BASE

DECK U.N.O.,

FILLER —

UNDERSIDE OF

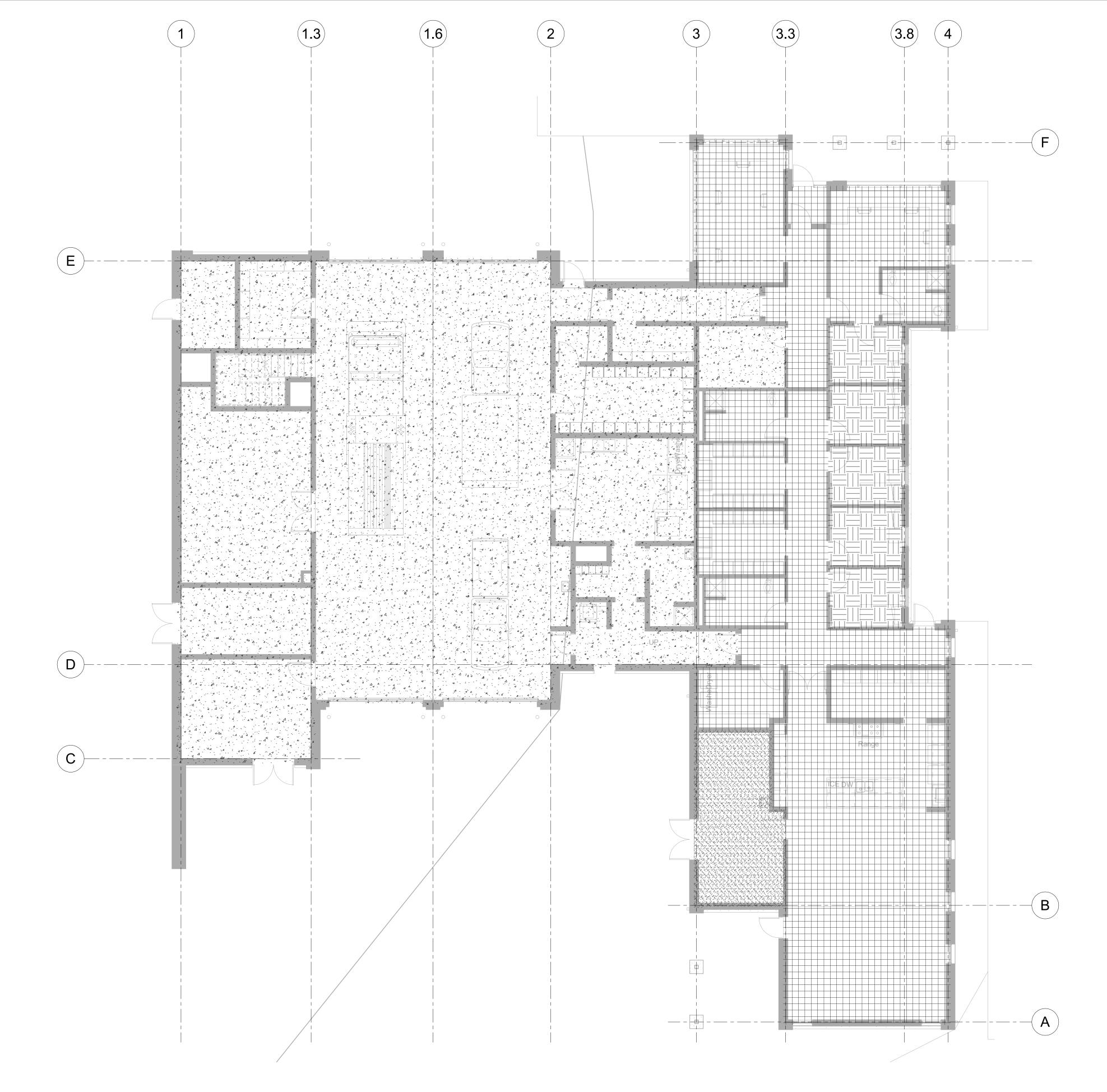
INTERIOR PARTITION TYPES A0.04 3/4" = 1'-0"



1 **EXTERIOR WALL TYPES**1 1/2" = 1'-0"

A0.04

WALL TYPES



FIRST FLOOR FINISH PLAN

A0.05

1/8" = 1'-0"

	FINISH SCHEDULE												
ROOM			BASE TYPE/	NORTH		EAST		SOUTH		WEST			
NO.	NAME	FLOOR	FINISH	MAT. / FIN.	С	CEILING	REMARKS						
101	VESTIBULE	PT	PT	GWB	PTD-1	GWB	PTD-1	GWB	PTD-1	GWB	PTD-1	ACT	
102	CORRIDOR	PT	PT	GWB	PTD-1	GWB	PTD-1	GWB	PTD-1	GWB	PTD-1	ACT	
103	WATCH OFFICE	PT	PT	GWB	PTD-1	GWB	PTD-1	GWB	PTD-1	GWB	PTD-1	ACT	
104	SHIFT OFFICER	PT	PT	GWB	PTD-1	GWB	PTD-1	GWB	PTD-1	GWB	PTD-1	ACT	
105	TOILET/ SHOWER	PT	PT	GWB	PTD-1	GWB	PTD-1	GWB	PTD-1	GWB	PTD-1	GWB	
106	OFFICER BUNK	CPT	RB	GWB	PTD-1	GWB	PTD-1	GWB	PTD-1	GWB	PTD-1	ACT	
110	CORRIDOR	PT	PT	GWB	PTD-1	GWB	PTD-1	GWB	PTD-1	GWB	PTD-1	ACT	
111	TELECOM	CONC	RB	PWD	PTD-1	PWD	PTD-1	PWD	PTD-1	PWD	PTD-1	ACT	
112	BUNK	CPT	RB	GWB	PTD-1	GWB	PTD-1	GWB	PTD-1	GWB	PTD-1	ACT	
113	TOILET/ SHOWER	PT	PT	GWB	PTD-1	GWB	PTD-1	GWB	PTD-1	GWB	PTD-1	GWB	
114	BUNK	CPT	RB	GWB	PTD-1	GWB	PTD-1	GWB	PTD-1	GWB	PTD-1	ACT	
115	LOCKERS	PT	PT	GWB	PTD-1	GWB	PTD-1	GWB	PTD-1	GWB	PTD-1	ACT	
116	BUNK	CPT	RB	GWB	PTD-1	GWB	PTD-1	GWB	PTD-1	GWB	PTD-1	ACT	
117	LOCKERS	PT	PT	GWB	PTD-1	GWB	PTD-1	GWB	PTD-1	GWB	PTD-1	ACT	
118	BUNK	CPT	RB	GWB	PTD-1	GWB	PTD-1	GWB	PTD-1	GWB	PTD-1	ACT	
119	TOILET/ SHOWER	PT	PT	GWB	PTD-1	GWB	PTD-1	GWB	PTD-1	GWB	PTD-1	GWB	
120	KITCHEN	PT	PT	GWB	PTD-1	GWB	PTD-1	GWB	PTD-1	GWB	PTD-1	ACT	
121	DINING	PT	PT	GWB	PTD-1	GWB	PTD-1	GWB	PTD-1	GWB	PTD-1	ACT	
122	DAY ROOM	PT	PT	GWB	PTD-1	GWB	PTD-1	GWB	PTD-1	GWB	PTD-1	ACT	
123	MULTIPURPOSE/ FITNESS/ TRAINING	RAF		GWB	PTD-1	GWB	PTD-1	GWB	PTD-1	GWB	PTD-1	ACT	
124	LAUNDRY	PT	PT	GWB	PTD-1	GWB	PTD-1	GWB	PTD-1	GWB	PTD-1	ACT	
125	RAMP	CONC		CMU	PTD-1	CMU	PTD-1	CMU	PTD-1	CMU	PTD-1	ACT	
126	JANITOR	CONC		CMU	PTD-1	CMU	PTD-1	CMU	PTD-1	CMU	PTD-1	PTD. EXP. STRU.	
127	RAMP	CONC		CMU	PTD-1	CMU	PTD-1	CMU	PTD-1	CMU	PTD-1	ACT	
128	RESERVE PPE	CONC		CMU	PTD-1	CMU	PTD-1	CMU	PTD-1	CMU	PTD-1	PTD. EXP. STRU.	
129	PPE LOCKERS	CONC		CMU	PTD-1	CMU	PTD-1	CMU	PTD-1	CMU	PTD-1	PTD. EXP. STRU.	
	DECON / GEAR LAUNDRY	CONC		СМИ	PTD-1		PTD-1	CMU	PTD-1	CMU	PTD-1	PTD. EXP. STRU.	
131	DECON LOCKERS	CONC		CMU	PTD-1		PTD-1	CMU	PTD-1	CMU	PTD-1	PTD. EXP. STRU.	
132	TOILET/ SHOWER	CONC		CMU	PTD-1		PTD-1	CMU	PTD-1	CMU	PTD-1	GWB	
	APPARATUS BAY	CONC		СМИ	PTD-1		PTD-1	CMU	PTD-1	CMU	PTD-1	PTD. EXP. STRU.	
	STAIR	CONC		СМИ	PTD-1		PTD-1	CMU	PTD-1	CMU	PTD-1	PTD. EXP. STRU.	
137	EMS STORAGE	CONC		СМИ	PTD-1		PTD-1	CMU	PTD-1	CMU	PTD-1	PTD. EXP. STRU.	
	SHOP	CONC		СМИ	PTD-1		PTD-1	CMU	PTD-1	CMU	PTD-1	PTD. EXP. STRU.	
	ELECTRICAL	CONC		СМИ	PTD-1		PTD-1	CMU	PTD-1	CMU	PTD-1	PTD. EXP. STRU.	
	OUTDOOR STORAGE	CONC		СМИ	PTD-1		PTD-1	CMU	PTD-1	CMU	PTD-1	PTD. EXP. STRU.	
	SPRINKLER	CONC		СМИ	PTD-1		PTD-1	CMU	PTD-1	CMU	PTD-1	PTD. EXP. STRU.	
	MEZZANINE	CONC		CMU	PTD-1		PTD-1	CMU	PTD-1	CMU	PTD-1	PTD. EXP. STRU.	
202	JANITOR	CONC		CMU	PTD-1		PTD-1	CMU	PTD-1	CMU	PTD-1		
	RESERVE PPE	CONC		CMU	PTD-1		PTD-1	CMU	PTD-1	CMU	PTD-1		
	PPE LOCKERS	CONC		CMU	PTD-1		PTD-1	CMU	PTD-1	CMU	PTD-1		
	DECON / GEAR LAUNDRY	CONC		CMU	PTD-1		PTD-1	CMU	PTD-1	CMU	PTD-1		
	DECON LOCKERS	CONC		CMU	PTD-1		PTD-1	CMU	PTD-1	CMU	PTD-1	0.445	
_	TOILET/ SHOWER	CONC		CMU	PTD-1		PTD-1	CMU	PTD-1	CMU	PTD-1	GWB	
	JANITOR	CONC		CMU	PTD-1		PTD-1	CMU	PTD-1	CMU	PTD-1	PTD. EXP. STRU.	
	RESERVE PPE	CONC		CMU	PTD-1		PTD-1	CMU	PTD-1	CMU	PTD-1	PTD. EXP. STRU.	
	PPE LOCKERS	CONC		CMU	PTD-1		PTD-1	CMU	PTD-1	CMU	PTD-1	PTD. EXP. STRU.	
	DECON / GEAR LAUNDRY	CONC		CMU	PTD-1		PTD-1	CMU	PTD-1	CMU	PTD-1	PTD. EXP. STRU.	
	DECON LOCKERS	CONC		CMU	PTD-1		PTD-1	CMU	PTD-1	CMU	PTD-1	PTD. EXP. STRU.	
213	TOILET/ SHOWER	CONC		CMU	PTD-1	CMU	PTD-1	CMU	PTD-1	CMU	PTD-1	GWB	

FINISH PLAN LEGEND FURNITURE, NIC RESILIENT ATHLETIC FLOORING PORCELAIN TILE CARPET TILE RECESSED WALKOFF MAT SEALED CONCRETE VINYL COMPOSITE TILE

FINISH SCHEDULE NOTES:

MULLIONS.

ALL FLOOR FINISHES TO EXTEND UNDER MOVEABLE FURNITURE.
 ALL EXPOSED STRUCTURE TO BE PAINTED, U.N.O.
 WHERE WINDOW BLINDS OR SHADES ARE PROVIDED. INDIVIDUAL SECTIONS OF BLINDS OR SHADES TO BE BROKEN AT CURTAINWALL

4. SEE FINISH PLANS FOR FLOOR TILE PATTERNS

5. SEE INTERIOR ELEVATIONS FOR WALL TILE PATTERNS

6. SEE INTERIOR ELEVATIONS FOR WALL PAINT COLOR LOCATIONS7. WINDOW BLINDS SHALL BE PROVIDED AT ALL WINDOWS UNLESS

8. PROVIDE BLACKOUT SHADES IN LIEU OF WINDOW BLINDS.

9. RT-1 ON STAIRS AND MID-LANDINGS

CONCORD TOWNSHIP FI 10154 PROUTY RD

ERICKSON

WILLCOX

ARCHITECTS



A0.05

1. Steel Joists — Min. 6 in. wide with min. 1-5/8 in. legs containing folded back flanges and formed from min. No. 20 MSG galv. steel (0.0329 in. thick bare metal thickness). Joists to be cut 1/2 in. to 3/4 in. less than the clear span between the vertical legs of the joist track. Joists spaced a max. 16 in. O.C. At each end of the joist, the upper joist flange shall be secured to the joist track with one 1/2 in. long pan-head steel screw. Joists are used at each end of the horizontal barrier to terminate the assembly at the adjoining wall. These end joists shall be secured to the adjoining wall in the same manner as the joist track (Item 2).

2. Ceiling Joist Track — Used to support steel joists at both ends of ceiling membrane structure. Min. 6 in. deep with min. 1-1/4 in. legs and formed from min. No. 20 MSG galv. steel (0.0329 in. thick bare metal thickness). Joist track attached to wall structure with fasteners spaced not greater than 24 in. O.C. at both the top and bottom of the vertical leg.

3. Steel Strap — Min. 2 in. wide strap formed from min. No. 20 MSG galv. steel (0.0329 in. thick bare steel thickness). Secure perpendicular to the upper joist flange at the centerline of the span using one 1/2 in. long pan-head steel screw at each joist. Steel strap to overlap one fill joist bay at splice locations. As an alternate to the steel strap, joist track (Item 2) may be substituted and installed in the same manner as the steel straps for the 1 Hr. Raing. If a continues piece is not used, the abutted legs are installed on each side of the centerline of the span and overlap one full joist bay.

SYSTEM A - For 1 Hr. Rating

4. Gypsum Board* — Three layers of nom. 5/8 in. thick, 48 in. wide, gypsum board installed with long dimension perpendicular to the steel joists. Joints not need to be staggered in individual layers. Base layer secured to joists and joist track with 1-1/4 in. long Type S-12 steel screws spaced max. 16 in. O.C. Middle layer installed with end joints staggered a min. 32 in. from base layer. Middle layer tapered joints staggered a min. 12 in. from base layer tapered joints. Boards secured to the joists and joist track with 1-5/8 in. long Type S-12 steel screws spaced max. 16 in. O.C. Face layer installed with end joints staggered a min. 24 in. from middle layer. Face layer tapered joints staggered a min. 12 in. from middle layer tapered joints. Boards secured to the joists and joist track with 2-1/4 in. long Type S-12 steel screws spaced max. 12 in. O.C. Face layer end joints centered between joists, attached to the middle layer boards with 1-1/2 in. long Type G steel screws spaced 8 in. OC and located 1-1/2 in. from the end joint. UNITED STATES GYPSUM CO — Type ULIX

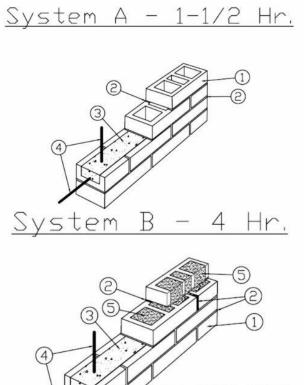
SYSTEM B - For 2 Hr. Rating 4. Gypsum Board* — Three layers of nom. 5/8 in. thick, 48 in. wide, gypsum board installed with long dimension perpendicular to the steel joists. Joints not need to be staggered in individual layers. Base layer secured to joists and joist track with 1-1/4 in. long Type S-12 steel screws spaced max. 16 in. O.C. Middle layer installed with end joints staggered a min. 32 in. from base layer. Middle layer tapered joints staggered a min. 12 in. from base layer tapered joints. Boards secured to the joists and joist track with 1-5/8 in. long Type S-12 steel screws spaced max. 16 in. O.C. Face layer installed with end joints staggered a min. 24 in. from middle layer. Face layer tapered joints staggered a min. 12 in. from middle layer tapered joints. Boards secured to the joists and joist track with 2-1/4 in. long Type S-12 steel screws spaced max. 12 in. O.C. Face layer end joints centered between joists, attached to the middle layer boards with 1-1/2 in. long Type G steel screws spaced 8 in. OC and located 1-1/2 in. from the end joint. UNITED STATES GYPSUM CO — Type ULIX

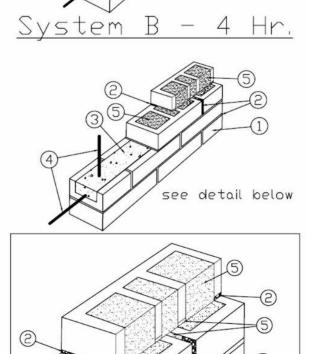
5. Gypsum Board* — (Required the 2 hour rating, not required for the 1 hour rating)-Two layers of nom. 5/8 in. thick, 24 in. wide by 48 in. long. Gypsum board panels are loosely laid perpendicular to the top side of the steel joist flanges. Base layer laid with narrow (2ft.) end joints centered over joists. Short end joints in adjacent rows are not staggered. Face layer laid with narrow (2ft.) end joints centered over joists with end joints in adjacent rows not being staggered. Narrow end joints between layers are staggered 16 in., with long end joints staggered 8 in. between layers. UNITED STATES GYPSUM CO — Type ULIX

6. Joint Tape and Compound — Not Shown — (Optional, Not Required on Joints or Screw Heads) — Vinyl, dry or premixed joint compound, applied in two coats to joints

and screw heads; paper tape, nom. 2 in. wide, embedded in first layer of compound over all joints. UL Design No. U935 over all joints. September 29, 2009

Bearing Wall Rating — 1-1/2 Hr or 4 Hr (see Item 5) Nonbearing Wall Rating — 1-1/2 Hr or 4 Hr (see Item 5) Load Restricted for Canadian Applications — See Guide BXUV7





1. Clay Masonry Units* — Hollow clay bricks, measuring 7-1/2 in. thick by 3-9/16 in. high by 15-1/2 in. long, with two main square cores and a center web core as shown in the above illustration. Bricks laid in mortar (Item 2) with vertical joints staggered. Bricks reinforced vertically and horizontally with rebar reinforcement (Item 4) and grout (Item 3) spaced 40 in. OC max. Vertical reinforcement placed in cells that align vertically and horizontal reinforcement placed in bond beam stretcher units that align horizontally. The allowable compressive stress for the hollow clay bricks shall be determined using the empirical design method for hollow clay brick found in the model codes. Suitable for exterior use applications. Investigated to ANSI/UL 263 only. INTERSTATE BRICK CO — Type 8x4x16 Atlas stretcher units and Type 8x4x16 Atlas bond beam stretcher units.

2. Mortar — Type S mortar consisting of 1 part Portland cement, 1/2 part hydrated lime to 4-1/2 parts sand by volume. Mortar applied to horizontal surface of the unit face shells and the head joints to a depth equal to the thickness of the face shell. Bed joint and head joint thickness nom 1/2 in.

3. Grout — Grout consisting of 1 part Portland cement, 3 parts sand by volume to 2

parts pea gravel by volume.

Bearing/Non-Bearing Wall Rating is 1-1/2 hr.

4. Rebar Reinforcement — Min. 5/8 in. diameter steel rebar.

5. Loose Masonry Fill — When all core spaces and voids — main square cores, center web cores, head joints, and voids above the webs — are filled as shown with grout, water repellant vermiculite masonry fill insulation, or silicone treated perlite loose fill insulation. Bearing/Non-Bearing Wall Rating is 4 hr. When no fill material is used.

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

Non-load Bearing Ceiling Membrane Rating - 1 and 2 Hr (See

Min. stud depth is 3-1/2 in., min. thickness of insulation (Item 4) is 3 in., and two layers of gypsum board panels (1/2 in. or 5/8 in. thick) shall be attached to furring channels as described in Item 6. One layer of gypsum board panels (1/2 in. or 5/8 in. thick) attached to opposite side of stud without furring channels as described in Item 6.

1J. Floor and Ceiling Runners — (Not shown) — Channel shaped, fabricated from min 5A. Gypsum Board* — (As an alternate to Item 5) — 5/8 in. thick, 24 to 54 in. wide, applied 0.02 in. galv steel, min width to accommodate stud size, with min 1 in. long legs, for use horizontally as the outer layer to one side of the assembly. Secured as described in Item 6. CGC INC — Type SHX.

When Item 7B, Steel Framing Members*, is used, Nonbearing Wall Rating is limited to 1 Hr.

UNITED STATES GYPSUM CO — Type FRX-G, SHX.

USG MEXICO S A DE C V — Type SHX.

1l. Framing Members* - Floor and Ceiling Runner — For use with Item 2H, proprietary

channel shaped runners, minimum width to accommodate stud size attached to floor

with study specified below and fabricated from min 0.02 in. galv steel or thicker,

2B. Steel Studs — (As an alternate to Item 2, For use with Items 5B & 5E) Channel

shaped, fabricated from min 20 MSG corrosion-protected or galv steel, 3-1/2 in. min

depth, spaced a max of 16 in. OC. Studs friction-fit into floor and ceiling runners. Studs

2D. Framing Members* - Metal Studs — Not shown - In lieu of Item 2 — For use with

Item 1D, proprietary channel shaped steel studs, min depth as indicated under Item 5,

spaced a max if 24 in. OC, fabricated from min 0.020 in. thick galv steel. Studs cut 3/8

2E. Framing Members*— Steel Studs — In lieu of Item 2 - For Use with Item 1E-

ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME Framing System

QUAIL RUN BUILDING MATERIALS INC — Type SUPREME Framing System

STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME Framing System

2F. Framing Members*— Steel Studs — (Not shown, As an alternate to Item 2) —For

use with Items 1G, 5F or 5G or 5I only, channel shaped studs, min depth as indicated

2G. Framing Members* - Metal Studs — Not shown - In lieu of Item 2 — For use with

Item 1H, proprietary channel shaped steel studs, minimum width indicated under Item 5

1-1/4 in. deep fabricated from min 0.015 in. (min bare metal thickness) galvanized steel.

1 sheathing (plywood) complying with DOC PS1 or PS2, or APA Standard PRP-108,

Vertical joints centered on studs, and staggered one stud space from wallboard joints.

Attached to studs with flat-head self-drilling tapping screws with a min. head diam. of

4. Batts and Blankets* — (Required as indicated under Item 5) — Mineral wool batts,

friction fitted between studs and runners. Min nom thickness as indicated under Item 5.

4A. Batts and Blankets* — (Optional) — Placed in stud cavities, any glass fiber or

5. Gypsum Board* — Gypsum panels with beveled, square or tapered edges, applied

Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be

systems) staggered a min of 12 in. The thickness and number of layers for the 1 hr, 2

cavity on opposite sides of studs. Vertical joints in adjacent layers (multilayer systems)

vertically or horizontally. Vertical joints centered over studs and staggered one stud

mineral wool insulation bearing the UL Classification Marking as to Surface Burning

Characteristics and/or Fire Resistance. See Batts and Blankets (BKNV or BZJZ)

staggered one stud cavity. Horizontal joints need not be backed by steel framing.

manufactured with exterior glue, applied horizontally or vertically to the steel studs.

galvanized steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly

under Item 5F, 5G or 5I, fabricated from min. 0.015 in. (min bare metal thickness)

UNITED METAL PRODUCTS INC — Type SUPREME Framing System

CLARKDIETRICH BUILDING SYSTEMS — CD ProSTUD

SOUTHEASTERN STUD & COMPONENTS INC — ProSTUD

Studs 3/8 in. to 3/4 in. less in lengths than assembly heights.

SUPER STUD BUILDING PRODUCTS — The Edge

be cut 3/8 to 3/4 in less than the assembly height.

STUDCO BUILDING SYSTEMS — CROCSTUD

Categories for names of Classified companies.

Gypsum Board Protection on Each Side of Wall

3-1/2 3-5/8 1 layer, 5/8 in. thick Optional

1-5/8 2-1/2 4 layers, 5/8 in. thick Optional

1-5/8 2-1/2 4 layers, 1/2 in. thick Optional

AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRX or WRC; 3/4 in. thick Types IP-X3 or

2-1/2 2-1/2 2 layers, 3/4 in. thick 2 in.

2-1/2 3-5/8 1 layer, 1/2 in. thick

1-5/8 3-5/8 1 layer, 3/4 in. thick

1-5/8 2-1/2 2 layers, 1/2 in. thick

1-5/8 2-1/2 2 layers, 5/8 in. thick

3-1/2 3-5/8 1 layer, 3/4 in. thick

1-5/8 2-1/2 3 layers, 1/2 in. thick

1-5/8 2-1/2 2 layers, 3/4 in. thick

1-5/8 2-1/2 3 layers, 5/8 in. thick

3/4 in. thick Types IP-X3 or ULTRACODE

Types IP-X3 or ULTRACODE

hr, 3 hr and 4 hr ratings are as follows:

accommodate stud size, with 1- 1/8 in. long legs fabricated from min 0.015 in. (min bare 2H. Framing Members* - Steel Studs — Not shown - In lieu of Item 2 - For use with Item

metal thickness) galv steel, attached to floor and ceiling with fasteners spaced 24 in.

11. Proprietary channel shaped studs, minimum width indicated under Item 5, Studs to

11. Framing Members* - Floor and Ceiling Runner — For use with Item 2H, proprietary
3. Wood Structural Panel Sheathing — (Optional, For use with Item 5 Only.)- (Not

1J. Floor and Ceiling Runners — (Not shown) — Channel shaped, fabricated from min 0.292 in. at maximum 6 in. OC. in the perimeter and 12 in. OC. in the field. When used,

& Thkns

Thkns of

Insulation

of Panel Min

ULTRACODE

0.02 in. galv steel, min width to accommodate stud size, with min 1 in. long legs, for use fastener lengths for gypsum panels increased by min. 1/2 in.

MBA BUILDING SUPPLIES — ProSTUD

TELLING INDUSTRIES L L C — TRUE-STUD $^{\text{TM}}$

BUILDING PRODUCTS DIV — Type SUPREME Framing System

Channel shaped studs, min depth as indicated under Item 5, spaced a max of 24 in.

Studs to be cut 3/4 in less than the assembly height and installed with a in. gap

CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper25™

attached to floor and ceiling with fasteners spaced max 24 in. OC.

and ceiling with fasteners 24 in. OC max

STUDCO BUILDING SYSTEMS — CROCSTUD Track

MARINO/WARE, DIV OF WARE INDUSTRIES

INC — Viper20™ Track VT100.

gypsum board only.

INC — Viper25™

INC — Viper20™

CRACO MFG INC — SmartStud™

MARINO/WARE, DIV OF WARE INDUSTRIES

TELLING INDUSTRIES L L C — Viper25™

in. to 3/4 in. less in lengths than assembly heights.

MARINO/WARE, DIV OF WARE INDUSTRIES

TELLING INDUSTRIES L L C — Viper20™

CONSOLIDATED FABRICATORS CORP.

OC. Studs to be cut 3/4 in. less than assembly height.

CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper20™

UL Design No. U419

March 07, 2012

Bearing Wall Rating — 2 Hr

Nonbearing Wall Ratings — 1, 2, 3 or 4 Hr (See Items 4 & 5)

1A. Framing Members* - Floor and Ceiling Runners — Not shown - In lieu of Item 1 –

1B. Framing Members* - Floor and Ceiling Runners — (Not shown - In lieu of Item 1) -

1C. Framing Members* - Floor and Ceiling Runner — Not shown - In lieu of Item 1 —

For use with Item 2C, proprietary channel shaped runners, 3-5/8 in. deep attached to

1D. Framing Members* - Floor and Ceiling Runner — Not shown - In lieu of Item 1 –

For use with Item 2D, proprietary channel shaped runners, 1-1/4 in. wide by 3-5/8 in.

deep fabricated from min 0.020 in. thick galv steel, attached to floor and ceiling with

1E. Framing Members*— Floor and Ceiling Runners — (Not shown) — In lieu of Item

1 - Channel shaped, attached to floor and ceiling with fasteners 24 in. OC. max.

ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME Framing System

QUAIL RUN BUILDING MATERIALS INC — Type SUPREME Framing System

STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME Framing System

UNITED METAL PRODUCTS INC — Type SUPREME Framing System

CLARKDIETRICH BUILDING SYSTEMS — CD ProTRAK

SOUTHEASTERN STUD & COMPONENTS INC — ProTRAK

TELLING INDUSTRIES L L C — TRUE-TRACK™

SUPER STUD BUILDING PRODUCTS — The Edge

STUDCO BUILDING SYSTEMS — CROCSTUD Track

and ceiling with fasteners 24 in. OC max.

MARINO/WARE, DIV OF WARE INDUSTRIES

INC — Viper20™ Track VT100.

3/8 to 3/4 in. less than assembly height.

fabricated from min 20 MSG corrosion-protected or galv steel, min depth to

accommodate stud size, with min 1 in. long legs, attached to floor and ceiling with

SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME Framing System

1F. Floor and Ceiling Runners — (Not shown)—For use with Item 2B- Channel shaped,

1G. Framing Members*— Floor and Ceiling Runners — (Not shown, As an alternate to

Item 1) — For use with Items 2F, 5F or 5G or 5I only, channel shaped, fabricated from

1H. Framing Members* - Floor and Ceiling Runner — Not shown - In lieu of Item 1 –

channel shaped runners, minimum width to accommodate stud size attached to floor

with studs specified below and fabricated from min 0.02 in. galv steel or thicker,

2. Steel Studs — Channel shaped, fabricated from min 25 MSG corrosion-protected

steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut

2A. Framing Members* - Steel Studs — In lieu of Item 2 - Proprietary channel shaped

studs, min. depth as indicated under Item 5, fabricated from min. 0.015 in. (min bare

metal thickness) galvanized steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in.

less than assembly height. Allowable use of studs is shown in the table below. For

2B. Steel Studs — (As an alternate to Item 2, For use with Items 5B & 5E) Channel

Studs to be cut 3/4 in less than the assembly height and installed with a in. gap

2D. Framing Members* - Metal Studs — Not shown - In lieu of Item 2 — For use with

2E. Framing Members*— Steel Studs — In lieu of Item 2 - For Use with Item 1E-

ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME Framing System

Channel shaped studs, min depth as indicated under Item 5, spaced a max of 24 in.

Item 1D, proprietary channel shaped steel studs, min depth as indicated under Item 5,

spaced a max if 24 in. OC, fabricated from min 0.020 in. thick galv steel. Studs cut 3/8

shaped, fabricated from min 20 MSG corrosion-protected or galv steel, 3-1/2 in. min

depth, spaced a max of 16 in. OC. Studs friction-fit into floor and ceiling runners. Studs

5C or 5I) - Proprietary channel shaped studs, 3-5/8 in. deep spaced a max of 24 in. OC. Stud

between the end of the stud and track at the bottom of the wall. For direct attachment of Item 2A No. of

2C. Framing Members* - Steel Studs — (As an alternate to Item 2, For use with Items 2, 2D, 2E, 2G and 2H

direct attachment of gypsum board only. Effective thickness is 0.034 in.

CLARKDIETRICH BUILDING SYSTEMS — UltraSTEEL®.

CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper25™

to be cut 5/8 to 3/4 in. less than assembly height.

MARINO/WARE, DIV OF WARE INDUSTRIES

TELLING INDUSTRIES L L C — Viper25™

in. to 3/4 in. less in lengths than assembly heights.

MARINO/WARE, DIV OF WARE INDUSTRIES

OC. Studs to be cut 3/4 in. less than assembly height.

TELLING INDUSTRIES L L C — Viper20™

CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper20TM

gypsum board only

INC — Viper25™

INC — Viper20™

CRACO MFG INC — SmartStud™

attached to floor and ceiling with fasteners spaced max 24 in. OC.

For use with Item 2G, proprietary channel shaped runners, minimum width to

min. 0.015 in. (min bare metal thickness) galvanized steel, attached to floor and ceiling DMFCWBS L L C — ProSTUD

BUILDING PRODUCTS DIV — Type SUPREME Framing System

CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper20™ Track

CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper25™ Track

with fasteners 24 in. OC max. Effective thickness is 0.034 in.

CLARKDIETRICH BUILDING SYSTEMS — UltraSTEEL®.

fasteners 24 in. OC. max. Effective thickness is 0.034 in.

floor and ceiling with fasteners 24 in. OC max.

MARINO/WARE, DIV OF WARE INDUSTRIES

TELLING INDUSTRIES L L C — Viper25™ Track

MARINO/WARE, DIV OF WARE INDUSTRIES

TELLING INDUSTRIES L L C — Viper20™ Track

CONSOLIDATED FABRICATORS CORP,

fasteners spaced max 24 in. OC.

with fasteners 24 in. OC. max.

DMFCWBS L L C — ProTRAK

MBA BUILDING SUPPLIES — ProTRAK

CRACO MFG INC — SmartTrack™

INC — Viper25™ Track

fasteners spaced 24 in. OC max.

INC — Viper20™ Track

CLARKDIETRICH BUILDING SYSTEMS — UltraSTEEL®.

1. Floor and Ceiling Runners — (Not shown) — For use with Item 2 - Channel shaped, 3/8 to 3/4 in. less than assembly height.

For use with Item 2A, proprietary channel shaped, min. 3-5/8 in. deep, fabricated from direct attachment of gypsum board only. Effective thickness is 0.034 in.

min. 0.015 in. (min bare metal thickness) galvanized steel, attached to floor and ceiling CLARKDIETRICH BUILDING SYSTEMS — UltraSTEEL®.

For use with Item 2A, proprietary channel shaped, min. 2-1/2 in. deep, fabricated from to be cut 5/8 to 3/4 in. less than assembly height.

(8)

2. Steel Studs — Channel shaped, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in, OC. Studs to be cut 5B. Gypsum Board* — (Not Shown) - As an alternate to Item 5 when used as the base layer fabricated from min 25 MSG corrosion-protected steel, min depth to accommodate stud

2A. Framing Members* - Steel Studs — In lieu of Item 2 - Proprietary channel shaped on one or both sides of wall when 5/8 in or in. thick products are specified. For direct size, with min 1-1/4 in. long legs, attached to floor and ceiling with fasteners 24 in. OC studs, min. depth as indicated under Item 5, fabricated from min. 0.015 in. (min bare attachment only to steel studs Item 2B, (not to be used with Item 3) - Nom 5/8 in. or in. may be used as alternate to all 5/8 in. or in. shown in Item 5, Wallboard Protection on Each Side metal thickness) galvanized steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height. Allowable use of study is shown in the table below. For of Wall table. Nom 5/8 in. or in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Gypsum board secured to 20 MSG steel studs Item 2B with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in

the field. To be used with Lead Batten Strips (see Item 11) or Lead Discs or Tabs (see Item RAY-BAR ENGINEERING CORP — Type RB-LBG min. 0.015 in. (min bare metal thickness) galvanized steel, attached to floor and ceiling and steel, attached to floor and ceiling 2C. Framing Members* - Steel Studs — (As an alternate to Item 2, For use with Items 5C. Gypsum Board* — (For Use With Item 2C) Rating Limited to 1 Hour. 5/8 in. thick, 48 in.

5C or 5l) - Proprietary channel shaped studs, 3-5/8 in. deep spaced a max of 24 in. OC. wide, Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. (Vertical Application) - The gypsum board is to be installed on each side of the between the end of the stud and track at the bottom of the wall. For direct attachment of studs with 1 in. long Type S coated steel screws spaced 8 in. OC starting 4 in. from the edge of the board at the vertical edges and 12 in. OC starting 6 in. from the edge of the board at the center of each board. Gypsum boards are to be secured to the top and bottom track with screws spaced 8 in. OC starting 4 in. from the board edge. Fasteners shall not penetrate through both the stud and the track at the same time. Vertical joints are to be centered over studs and staggered one stud cavity on opposite sides of studs. (Horizontal Application) -The gypsum board is to be installed on each side of the studs with 1 in. long Type S coated steel screws spaced 8 in. OC starting 4 in. from the edge of the board at the vertical edges and 12 in. OC starting 6 in. from the edge of the board at the center of each board. Gypsum boards are to be secured to the top and bottom track with screws spaced 8 in. OC starting 4 in. from the board edge. Fasteners shall not penetrate through both the stud and the track at the same time. All horizontal joints are to be backed as outlined under section VI of Volume 1 in the Fire Resistive Directory. CGC INC — Type SCX.

UNITED STATES GYPSUM CO — Type SCX, SGX.

USG MEXICO S A DE C V — Type SCX.

5D. Gypsum Board* — (As an alternate to Item 5) — 5/8 in. thick, 48 in. wide, applied

vertically or horizontally. Secured as described in Item 6. For use with Items 1 and 2 only. UNITED STATES GYPSUM CO — Type USGX.

5E. Gypsum Board* — (Not Shown) - (As an alternate to Item 5 when used as the base layer on one or both sides of wall when 1/2 in. or 5/8 in thick products are specified, For direct attachment only to steel studs Item 2B, not to be used with Item 3). Nominal 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 (or No. 6 by 1-1/4 in. long buale head fine driller) steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. NEW ENGLAND LEAD BURNING CO INC, DBA NELCO — Nelco

5F. Gvpsum Board* — (As an alternate to Item 5) — For use with Items 1G and 2F and limited to 1 Hour Rating only, Gypsum panels with beveled, square or tapered edges, applied vertically, and fastened to the steel studs with 1 in. long Type S screws spaced 8 in. OC along vertical and bottom edges and 12 in. OC in the field. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Steel stud depth shall be a minimum 3-5/8 in. SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME Framing System UNITED STATES GYPSUM CO — 5/8 in. thick Type SCX, SGX.

> 5G. Gypsum Board* — (As an alternate to Item 5) — For use with Items 1G and 2F only, Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally, as specified in the table below and fastened to the steel studs as described in Item 6. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layers (multilayer systems) staggered one stud cavity. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) staggered a min of 12 in. The thickness and number of layers for the 2 hr, 3 hr and 4 hr ratings are as follows: Gypsum Board Protection on Each Side of Wall

Min Stud Hr Depth, in. Item 2F No. of Layers & Thickness of Panel Min Thkns of Insulation 1-5/8 2 layers, 1/2 in. thick Optional 1-5/8 2 layers, 5/8 in. thick Optional 1-5/8 3 layers, 1/2 in. thick 1-5/8 3 layers, 5/8 in. thick Optional 1-5/8 4 layers, 5/8 in. thick Optional 1-5/8 4 layers, 1/2 in. thick Optional CGC INC — 1/2 in. thick Type C, IP-X2 or IPC-AR;, 5/8 in. thick Type AR, C, IP-AR, IP-X1. IP-X2, IPC-AR, SCX, SHX, or; 3/4 in. thick Types IP-X3 or ULTRACODE

UNITED STATES GYPSUM CO — 1/2 in. thick Type C, IP-X2, IPC-AR or; 5/8 in. thick Type SCX, SGX, SHX, IP-X1, AR, C, , FRX-G, IP-AR, IP-X2, IPC-AR; 3/4 in. thick Types IP-X3 or

USG MEXICO S A DE C V — 1/2 in. thick Type C, IP-X2, IPC-AR or; 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, or; 3/4 in. thick Types IP-X3 or ULTRACODE

5H. Gypsum Board* — (Not Shown) - (As an alternate to Item 5 when used as the base layer on one or both sides of wall when 5/8 or 3/4 in thick products are specified. For direct Shown) - 4 ft wide, 7/16 in. thick oriented strand board (OSB) or 15/32 in. thick structural attachment only to steel studs Item 2B, (not to be used with Item 3) - Nom 5/8 or 3/4 in. may be used as alternate to all 5/8 or 3/4 in. shown in Item 5, Wallboard Protection on Each Side of Wall table. Nom 5/8 or 3/4 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over 20 MSG steel studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the

field. Gypsum board secured to 20 MSG steel studs Item 2B with 1-1/4 in. long Type S-12

steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. For Joint Compound see Item 5. To be used with Lead Batten Strips (see Item 11A) or Lead Discs (see Item See Batts and Blankets (BKNV or BZJZ) Categories for names of Classified companies. 12A). MAYCO INDUSTRIES INC — Type X-Ray Shielded Gypsum

RADIATION PROTECTION PRODUCTS INC — Type RPP-LBG

5I. Gypsum Board* — (As an alternate to Item 5) - Nom. 5/8 in. thick gypsum panels with beveled, square or tapered edges installed as described in Item 5. Steel stud minimum depth shall be as indicated in Item 5.

staggered. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer UNITED STATES GYPSUM CO — Type ULX

USG MEXICO S A DE C V — Type ULX

5J. Gypsum Board* — (Not Shown) - (As an alternate to Item 5 when used as the base layer on one or both sides of wall when 1/2 in. or 5/8 in thick products are specified, For direct attachment only to steel studs Item 2B, not to be used with Item 3). Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to study with 1-1/4 in. long Type S-12 steel screws gypsum panel steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a max thickness of 0.14 in. placed on the face of studs and attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max 0.085 in. thick. Compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

6. Fasteners — (Not shown) — For use with Items 2 and 2F - Type S or S-12 steel screws used to attach panels to studs (Item 2) or furring channels (Item 7). Single layer systems: 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 8 in. OC when panels are applied horizontally, or 8 in. OC along vertical and bottom edges and 12 in. OC in the field when panels are applied vertically. Two layer systems: First layer- 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels or 2-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC with screws offset 8 in. from first layer. Three-layer systems: First layer- 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 CGC INC — 1/2 in. thick Type C, IP-X2 or IPC-AR; WRC, 5/8 in. thick Type AR, C, IPin. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Third layer- 2-1/4 in. long for 1/2 in., 5/8 in. thick panels or 2-5/8 in. long for 5/8 in. thick panels, spaced 12 in. OC. Screws offset min 6 in. from layer below. Four-layer systems: First layer- 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Third layer- 2-1/4 in. long for 1/2 in. thick panels or 2-5/8 in. long for 5/8 in. UNITED STATES GYPSUM CO — 1/2 in. thick Type C, IP-X2, IPC-AR or WRC; 5/8 in. thick panels, spaced 24 in. OC. Fourth layer- 2-5/8 in. long for 1/2 in. thick panels or 3 in. thick Type SCX, SGX, SHX, WRX, IP-X1, AR, C, WRC, FRX-G, IP-AR, IP-X2, IPC-AR; long for 5/8 in. thick panels, spaced 12 in. OC. Screws offset min 6 in. from layer below. 6A. Fasteners — (Not shown) —For use with Item 2A - Type S or S-12 steel screws used to attach panels to studs (Item 2A). Single layer systems: 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 8-1/2 in. OC with additional screws 1 USG MEXICO S A DE C V — 1/2 in. thick Type C, IP-X2, IPC-AR or WRC; 5/8 in. thick in. and 2-1/2 in. from edges of the board when panels are horizontally, or 8 in. OC along Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRX, WRC or; 3/4 in. thick vertical and bottom edges and 12 in. OC in the field when panels are applied vertically. Two layer systems applied vertically: First layer- 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels or 2-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC with screws offset 8 in. from first layer. Two layer systems applied horizontally: First layer- 1 in. long for 1/2 and

5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC starting 8 in.

from each edge of the board with an additional screw placed 1-1/4 in. from each edge of the board. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels or 2-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC starting 8 in. from each edge of the board with an additional screw placed 1-1/4 in. from each edge of the board with screws offset 8 in. from first layer. Three-layer systems: First layer- 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Third layer- 2-1/4 in. long for 1/2 in., 5/8 in. thick panels or 2-5/8 in. long for 5/8 in. thick panels, spaced 12 in. OC. Screws offset min 6 in. from layer below. For all layers, an additional screw shall be placed 1-1/4 in. from each edge of the board. Four-layer systems: First layer- 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Third layer- 2-1/4 in. long for 1/2 in. thick panels or 2-5/8 in. long for 5/8 in. thick panels, spaced 24 in. OC. Fourth layer- 2-5/8 in. long for 1/2 in. thick panels or 3 in. long for 5/8 in. thick panels, spaced 12 in. OC. Screws offset min 6 in. from layer below. For all layers, an additional

screw shall be placed 1-1/4 in. from each edge of the board. 7. Furring Channels — (Optional, not shown, for single or double layer systems) — Resilient furring channels fabricated from min 25 MSG corrosion-protected steel, spaced vertically a max of 24 in. OC. Flange portion attached to each intersecting stud with 1/2 in. long Type S-12 steel screws. Not for use with Item 5A and 5E. 7A. Framing Members* — (Not Shown) — (Optional on one or both sides, not shown, for single or double layer systems) — As an alternate to Item 7, furring channels and Steel Framing Members as described below: a. Furring Channels — Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep,

spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 6. Not for use b. Steel Framing Members* — Used to attach furring channels (Item 7Aa) to studs (Item 2). Clips spaced max. 48 in. OC. RSIC-1 clips secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. RSIC-V clips secured to studs with No. 8 x 9/16 in. minimum self-drilling, S-12 steel screw through the center hole. Furring channels are friction fitted into clips. PAC INTERNATIONAL INC — Types RSIC-1, RSIC-V.

7B. Framing Members* — (Optional, Not Shown) — As an alternate to Item 7, for single or double layer systems, furring channels and Steel Framing Members on only one side of studs as described below: a. Furring Channels — Formed of No. 25 MSG galv steel, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Batts and Blankets placed in stud cavity as described in Item 5. Two layers of gypsum board attached to furring channels as described in Item 5. Not for use with Item 5A and 5E. b. Steel Framing Members* — Used to attach furring channels (Item 7Ba) to one side of studs (Item 2) only. Clips spaced 48 in. OC., and secured to studs with two No. 8 x 2-1/2 in. coarse drywall screws, one through the hole at each end of the clip. Furring channels are friction fitted into clips. KINETICS NOISE CONTROL INC — Type Isomax

7C. Framing Members* — Optional - Not Shown - Used as an alternate method to attach resilient channels (Item 7). Clips attached at each intersection of the resilient channel and the steel studs (Item 2). Resilient channels are friction fitted into clips, and then clips are secured to the steel stud with min. 1 in. long Type S-12 steel screws through the center hole of the clip and the resilient channel flange. KEENE BUILDING PRODUCTS CO INC — Type RC Assurance.

7D. Framing Members* — (Not Shown) — (Optional on one or both sides, not shown, for single or double layer systems) — As an alternate to Item 7, furring channels and Steel Framing Members as described below: a. Furring Channels — Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 5A and 5E. b. Steel Framing Members* — Used to attach furring channels (Item 7Aa) to studs (Item 2). Clips spaced max. 48 in. OC. GENIECLIPS secured to study with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. Furring channels are friction fitted into clips PLITEQ INC — Type GENIECLIP

8. Joint Tape and Compound — Vinyl or casein, dry or premixed joint compound applied in two coats to joints and screw heads of outer layers. Paper tape, nom 2 in. wide, embedded in first layer of compound over all joints of outer layer panels. Paper tape and joint compound may be omitted when gypsum panels are supplied with a square edge. 9. Siding, Brick or Stucco — (Optional, not shown) — Aluminum, vinyl or steel siding, brick veneer or stucco, meeting the requirements of local code agencies, installed over gypsum panels. Brick veneer attached to studs with corrugated metal wall ties attached to each stud with steel screws, not more than each sixth course of brick. 10. Caulking and Sealants* — (Optional, not shown) — A bead of acoustical sealant applied around the partition perimeter for sound control. UNITED STATES GYPSUM CO — Type AS

11. Lead Batten Strips — (Not Shown, For Use With Item 5B) - Lead batten strips, min 1-1/2 in. wide, max 10 ft long with a max thickness of 0.125 in. Strips placed on the interior face of studs and attached from the exterior face of the stud with two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 5B) and optional at remaining stud locations. Required behind

11A. Lead Batten Strips — (Not Shown, For Use With Item 5H) Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.140 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grades "A, B, C or D". Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. 12. Lead Discs or Tabs — (Not Shown, For Use With Item 5B) - Used in lieu of or in addition to the lead batten strips (Item 11) or optional at other locations - Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards (Item 5B) underneath screw locations prior to the installation of the screws. Lead discs or tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". 12A. Lead Discs — (Not Shown, for use with Item 5H) Max 5/16 in. diam by max 0.140 in. thick lead discs compression fitted or adhered over steel screw heads. Lead discs to have a purity of 99.9% meeting the Federal Specification QQ-L-201f, Grades "A, B, C or D". 13. Lead Batten Strips — (Not Shown, For Use With Item 5E) Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.142 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 5E) and optional at remaining stud locations.

14. Lead Tabs — (Not Shown, For Use With Item 5E) 2 in. wide, 5 in. long with a max thickness of 0.142 in. Tabs friction-fit around front face of stud, the stud folded back flange, and the back face of the stud. Tabs required at each location where a screw (that secures the gypsum boards, Item 5E) will penetrate the steel stud. Lead tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead tabs may be held in place with standard adhesive tape if necessary. *Bearing the UL Classification Mark

UL Design No. U906 September 30, 2010 Bearing Wall Rating — 2 Hr Nonbearing Wall Rating — 2 Hr Load Restricted for Canadian Applications — See Guide BXUV7

1. Concrete Blocks* — Various designs. Classification D-2 (2 hr). See Concrete Blocks category for list of eligible manufacturers.

2. Mortar — Blocks laid in full bed of mortar, nom. 3/8 in. thick, of not less than 2-1/4 and not more than 3-1/2 parts of clean sharp sand to 1 part Portland cement (proportioned by volume) and not more than 50 percent hydrated lime (by cement volume). Vertical joints staggered.

3. Portland Cement Stucco or Gypsum Plaster — Add 1/2 hr to classification if used.

Where combustible members are framed in wall, plaster or stucco must be applied on the face opposite framing to achieve a max. Classification of 1-1/2 hr. Attached to concrete blocks (Item 1)

4. Loose Masonry Fill — If all core spaces are filled with loose dry expanded slag, expanded clay or shale (Rotary Kiln Process), water repellant vermiculite masonry fill insulation, or silicone treated perlite loose fill insulation add 2 hr to classification. 5. Foamed Plastic* — (Optional-Not Shown) — 1-1/2 in. thick max, 4 ft wide sheathing

attached to concrete blocks (Item 1). THE DOW CHEMICAL CO — Type Thermax Sheathing, Thermax Light Duty Insulation, Thermax Heavy Duty Insulation, Thermax Metal Building Board, Thermax White Finish Insulation, Thermax ci Exterior Insulation, Thermax IH Insulation, Thermax Plus Liner Panel and Thermax Heavy Duty Plus (HDP)

*Bearing the UL Classification Mark

Load Restriction - 33% of Capacity

ARCHITECTS

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#2

NOIL

 \triangleleft

WNS

SSUE NAME XX/XX/

UL DETAILS

LEMAY ERICKSON WILLCOX ARCHITECTS, COPYRIGHT AUGUST



BOLLARD CONTROL JOINT





- 8" STRUCTURAL CMU

- 6" BOLLARD. SEE

- 6" TUBE STEEL

POST, PTD

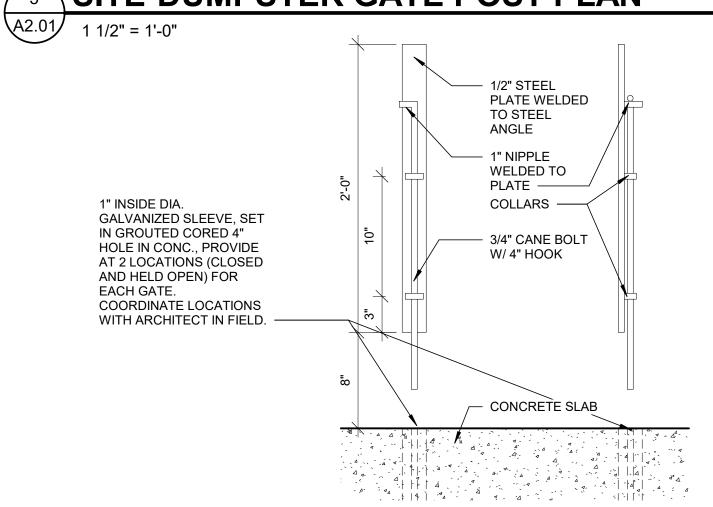
 HEAVY DUTY STEEL HINGE

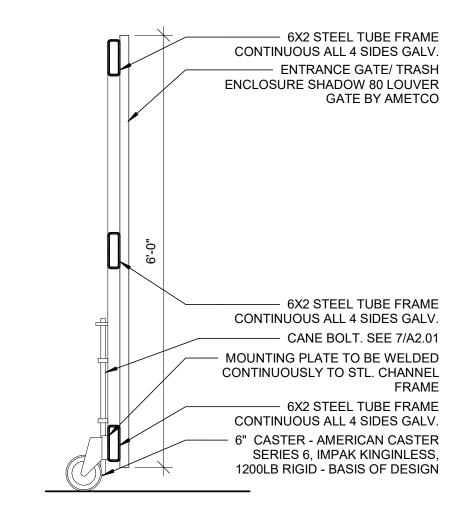
- ALUMINUM FIXED

FINISH. SEE 8/A2.01

LOUVER GATE WITH KYNAR

9/A2.01





CANE BOLT DETAIL

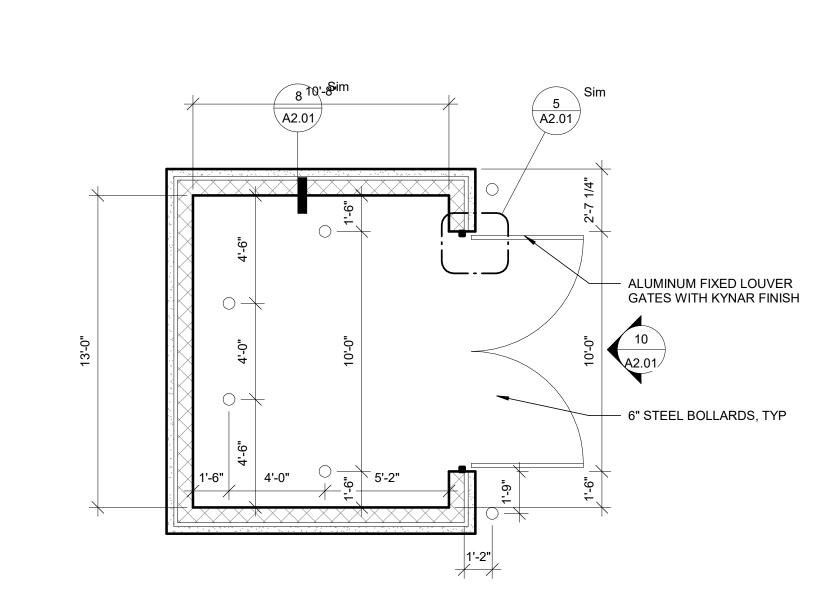
DUMPSTER GATE SECTION A2.01 3/4" = 1'-0"

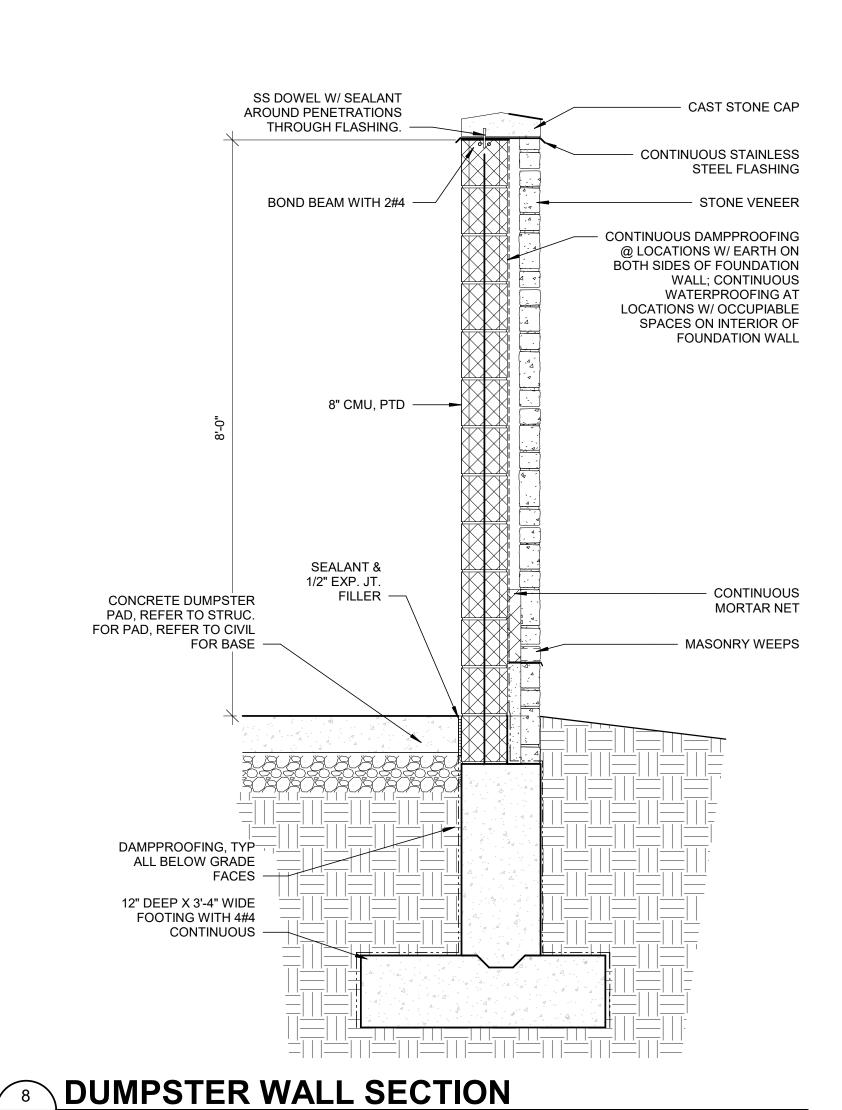
10 DUMPSTER GATE ELEVATION A2.01 1/4" = 1'-0"

CANE BOLT ON INSIDE FACE OF EACH GATE, TYP.

CAST STONE CAP, TYP.

ALUMINUM FIXED LOUVER
GATES WITH KYNAR FINISH





NOTE: CONTRACTOR SHALL VERIFY FLAGPOLE

FOOTING DIMENSIONS

PER MANUFACTURER'S

RECOMMENDATION

BASED ON THE POLE HEIGHT SPECIFIED.

6" DIAMETER CAP, WELDED,

PTD TO MATCH BOLLARD

NOTE: CONTRACTOR TO

— 6" DIAMETER GALVANIZED

WITH CONCRETE W/ PLASTIC YELLOW TRAFFIC

SAFETY COVER

— 1/4" ISOLATION JOINT.

— CONC. FOUNDATION, SEE

STRUCTURAL

A2.01 3/4" = 1'-0"

7 BOLLARD SECTION

STL PIPE BOLLARD FILLED

VERIFY BOLLARD CLEARS THE BUILDING FOOTING

COVER

- TAPERED FLAG POLE

— HARDWOOD WEDGES

CLIGHTING FIXTURE WITH

GRAVEL SETTING

- DRY SAND

9" 6" 6" 9"

FLAG POLE SECTION

APPLICATIONS, SEE ELECTRICAL

- FOUNDATION SLEEVE

- POURED IN PLACE CONCRETE

- STEEL BASE PLATE

- STEEL SUPPORT PLATE

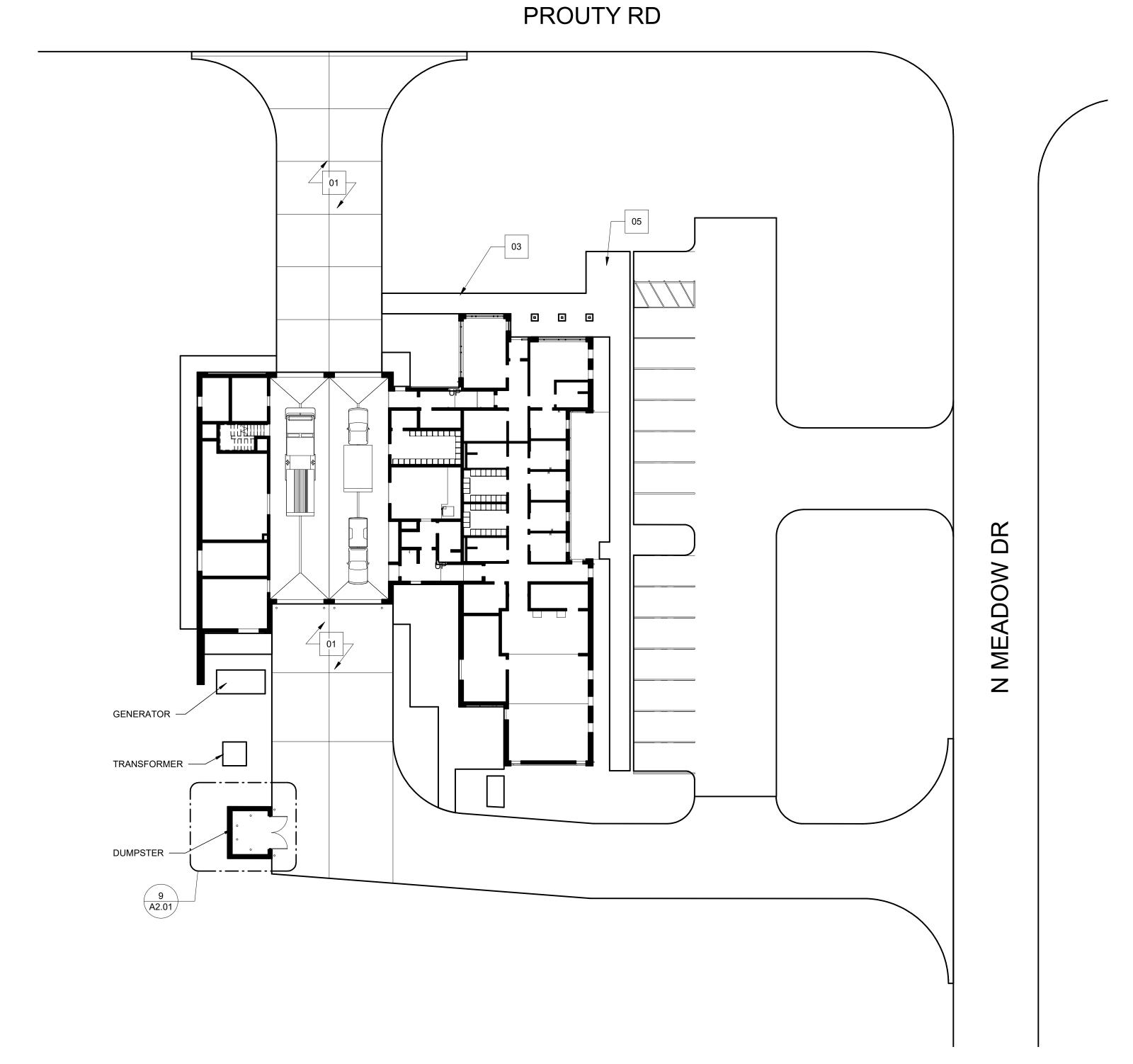
WELDED TO GROUND

MANUFACTURER'S STANDARD

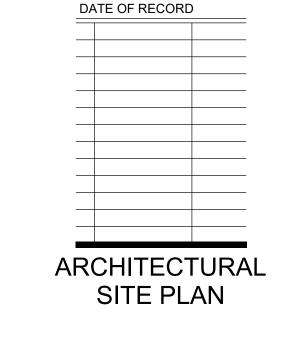
PROTECTIVE RING FOR USE IN

COLLAR

- SEALANT



ARCHITECTURAL SITE PLAN



A2.01

DUMPSTER PLAN A2.01 1/4" = 1'-0"

A2.01 1" = 20'-0"

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PROJECT NO.LEWA-21820

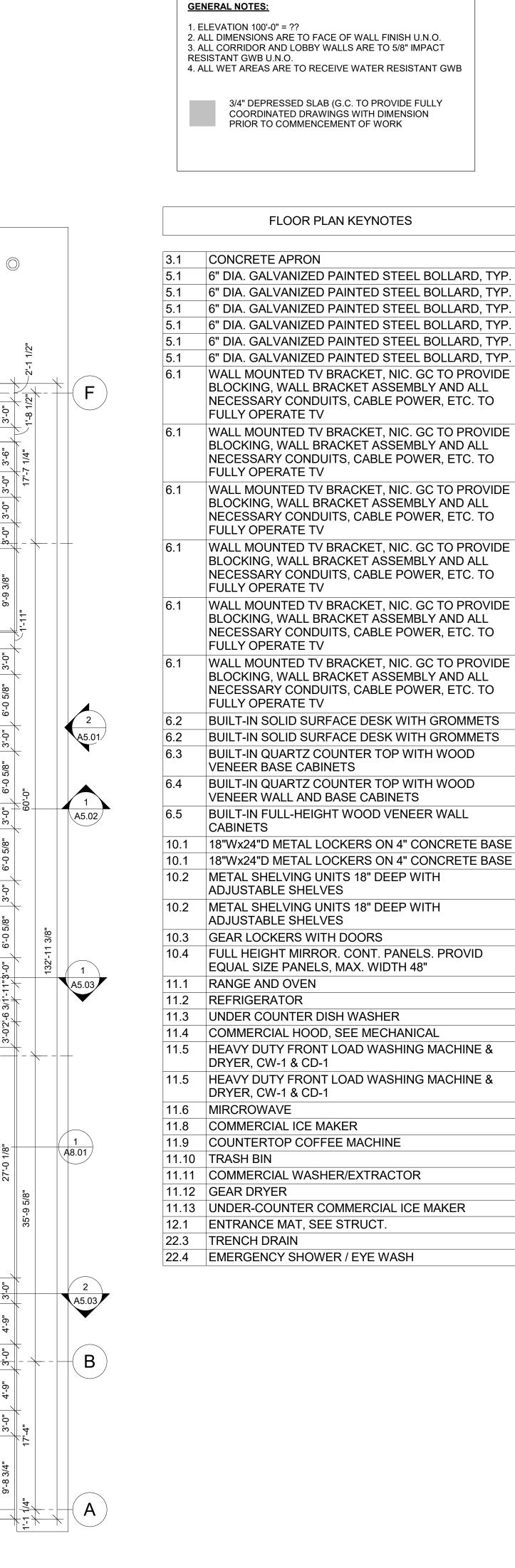
FLOOR PLAN NOTES

DATE OF RECORD

FIRST AND MEZZANINE FLOOR PLANS

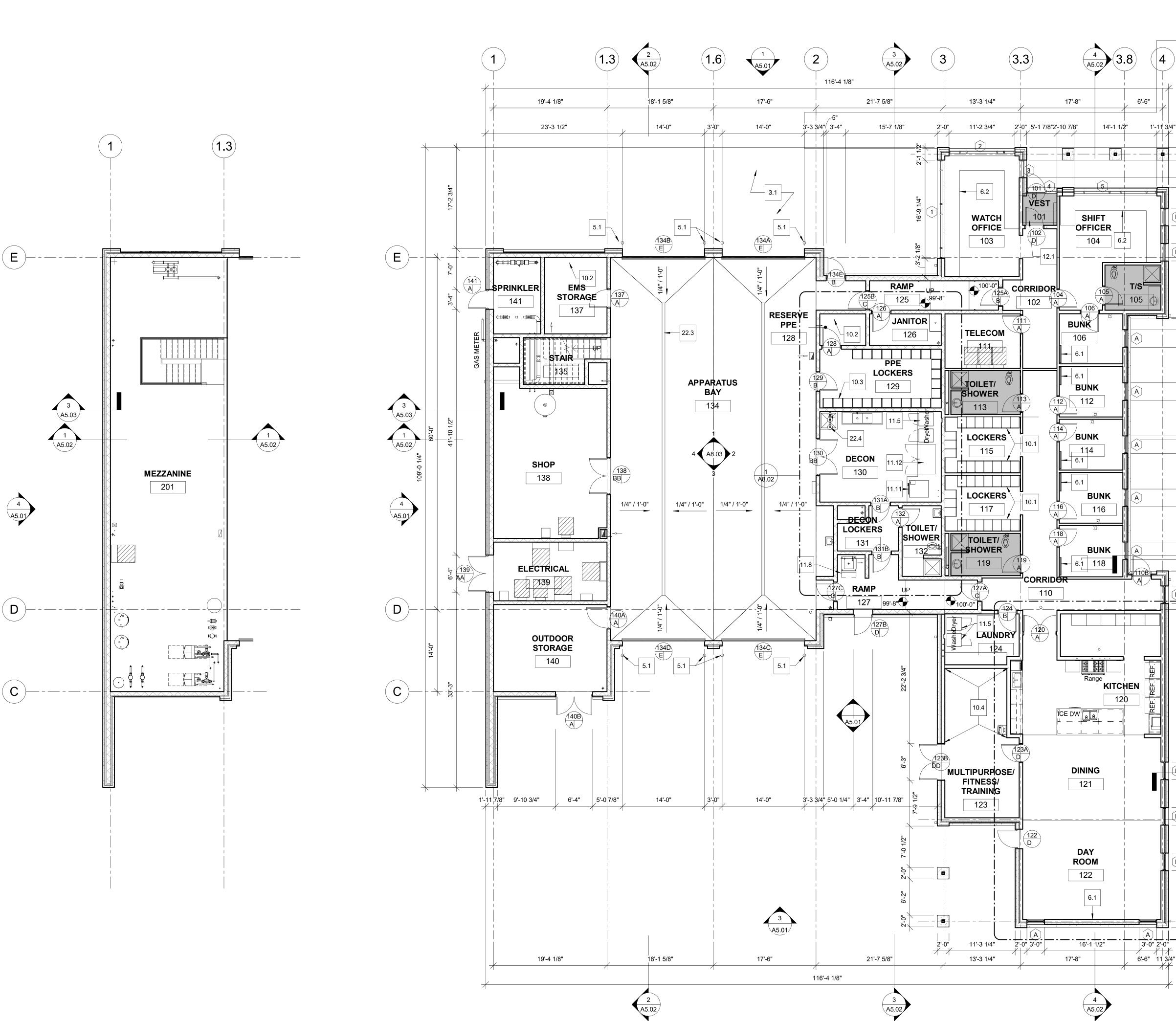
A3.01

PROJECT NO.LEWA-21820



6'-6"

6'-6" 11 3/4"

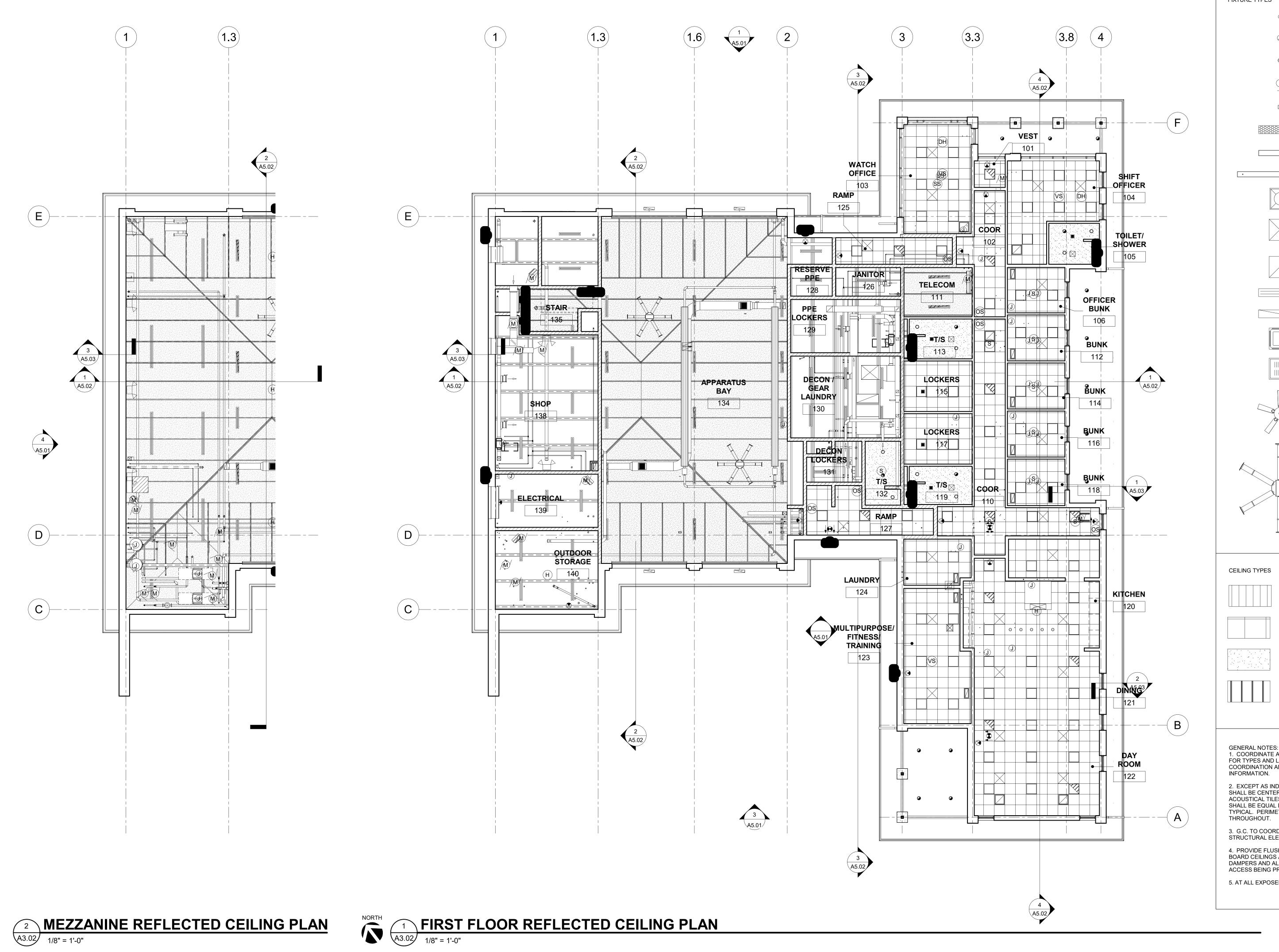


MEZZANINE FLOOR PLAN A3.01 1/8" = 1'-0"

1 FIRST FLOOR PLAN

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TATION



FIXTURE TYPES SPECIALTY PENDANT FIXTURE RECESSED CAN (INTERIOR) EXTERIOR SURFACE MOUNTED FIXTURE WALL SCONCE EXTERIOR RECESSED FIXTURE COVE LIGHT FIXTURE PENDANT FIXTURE APP BAY LINEAR PENDANT 2X2 RECESSED LIGHT FIXTURE MECHANICAL SUPPLY MECHANICAL RETURN MECHANICAL SUPPLY - LINEAR MECHANICAL RETURN - LINEAR MECHANICAL CASSETTE RECESSED UNIT HEATER **CEILING FAN** 8' DIA. DESTRATIFICATION FAN METAL SOFFIT

REFLECTED CEILING PLAN LEGEND AND GENERAL NOTES

2X2 ACOUSTICAL CEILING TILE WITH SUSPENSION SYSTEM

GWB CEILING

OPEN CEILING (STRUCTURE VISIBLE)

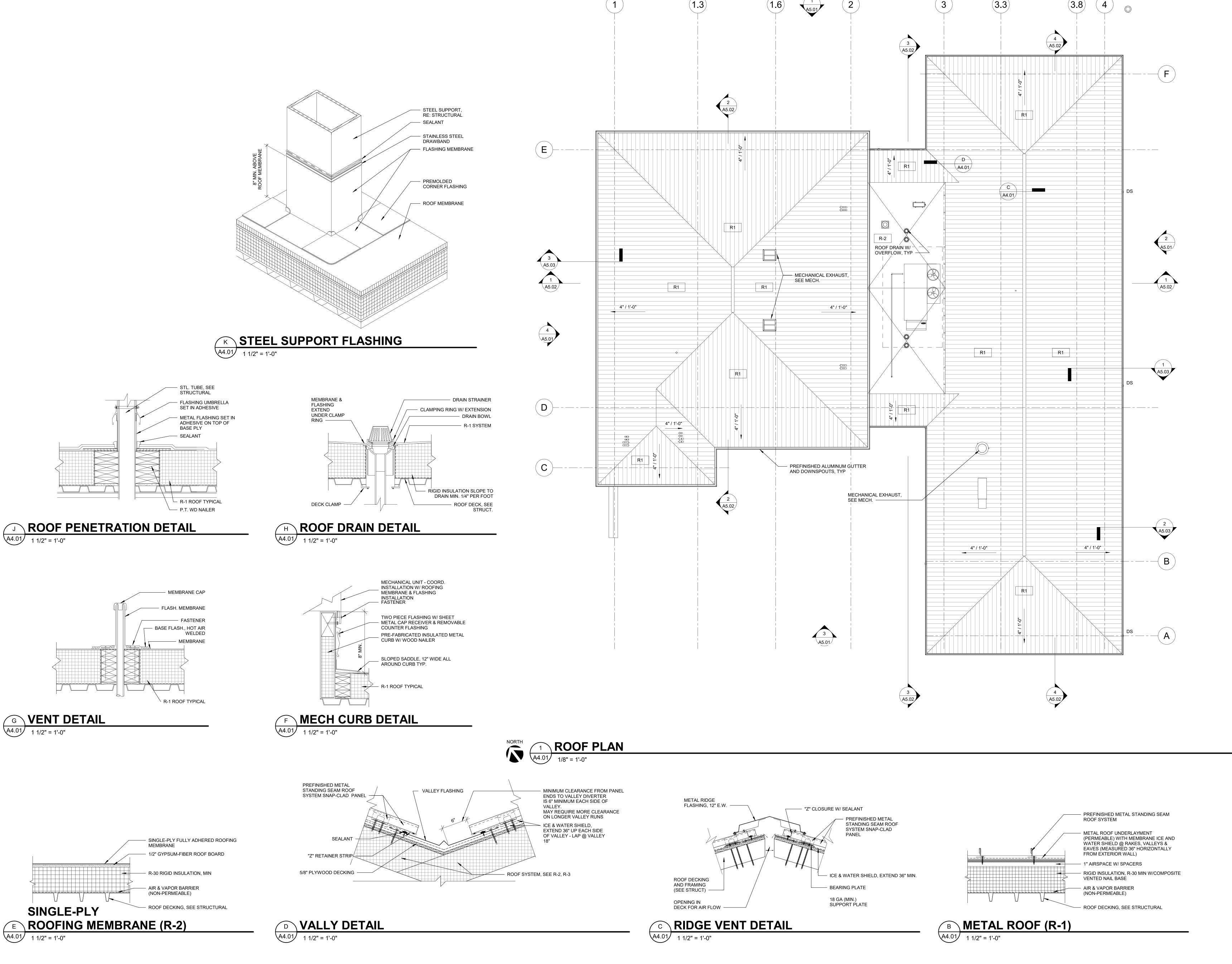
1. COORDINATE ALL FIXTURES W/ MECHANICAL AND ELECTRICAL DRAWINGS FOR TYPES AND LOCATIONS. FIXTURES AND DEVICES INDICATED ARE FOR COORDINATION AND LOCATION ONLY. SEE MPE DRAWINGS FOR ADDITIONAL

2. EXCEPT AS INDICATED OR DETAILED OTHERWISE, CEILING GRID SYSTEM SHALL BE CENTERED IN EACH INDIVIDUAL ROOM. PROVIDE A SERIES OF CUT ACOUSTICAL TILES AROUND THE ROOM PERIMETER. PERIMETER CUT TILES SHALL BE EQUAL DIMENSIONS AT WALLS OPPOSITE TO ONE ANOTHER, TYPICAL. PERIMETER CUT CEILING TILES SHALL NOT BE LESS THAN 6" WIDE

3. G.C. TO COORDINATE ALL MECHANICAL, ELECTRICAL, PLUMBING AND STRUCTURAL ELEMENTS THAT OCCUR IN THE CEILING SPACE. 4. PROVIDE FLUSH ACCESS DOORS WITH CONCEALED HINGES AT GYPSUM BOARD CEILINGS AS REQUIRED FOR ACCESS TO MANUAL BALANCING DAMPERS AND ALL FEATURES AS REQUIRED. SIZE OPENING FOR TYPE OF ACCESS BEING PROVIDED.

5. AT ALL EXPOSED CEILINGS ALL SYSTEMS MEP ECT. ARE TO BE PAINTED.

NOTE: ALL CEILINGS AT 9'-4" A.F.F. UNLESS NOTED OTHERWISE



LEMAY ERICKSON WILLCOX ARCHITECTS

956-5600 • Fax (703) 956-5601

FIRE STATION #2

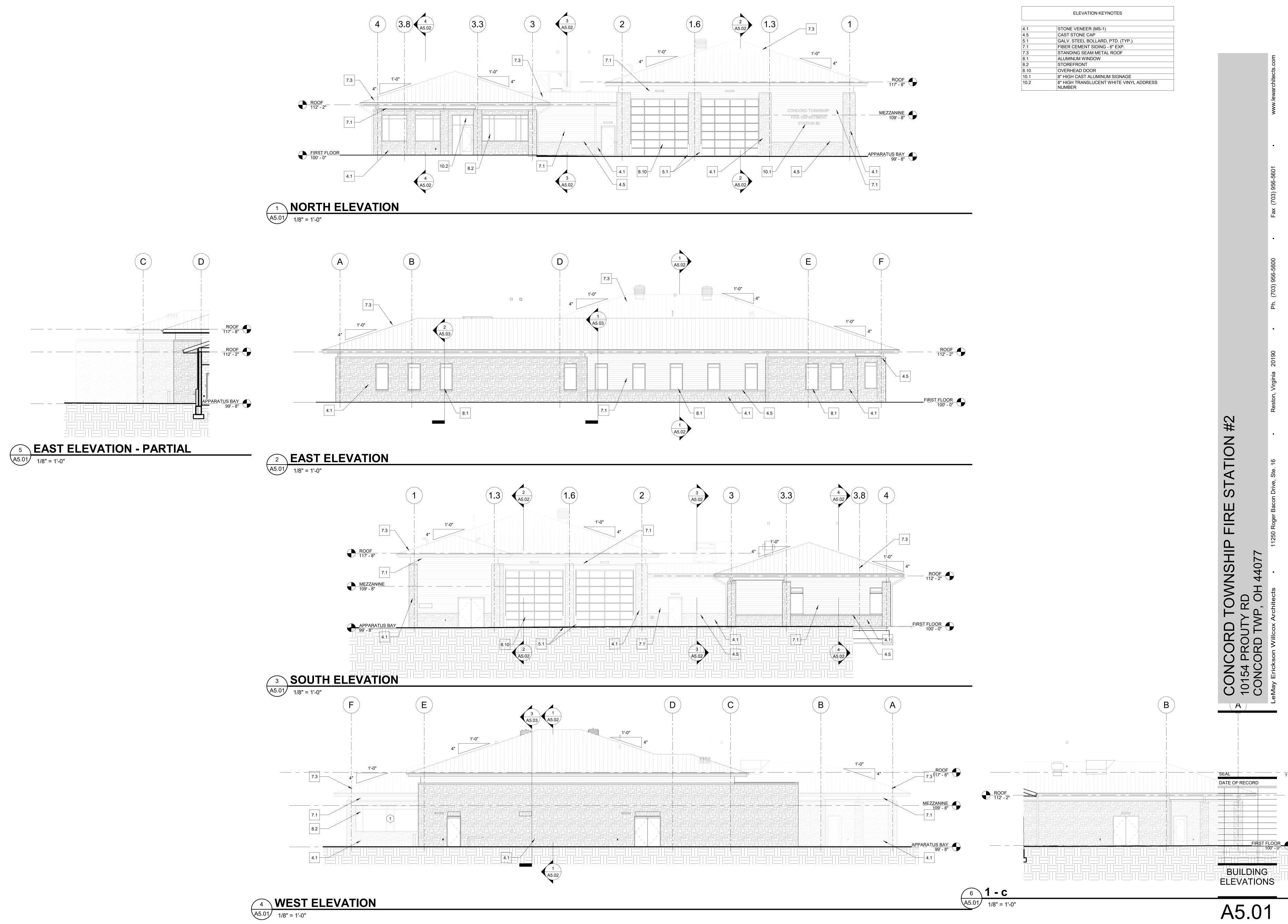
CONCORD TOWNSHIP F 10154 PROUTY RD CONCORD TWP, OH 44077

SEAL

DATE OF RECORD

ROOF PLAN

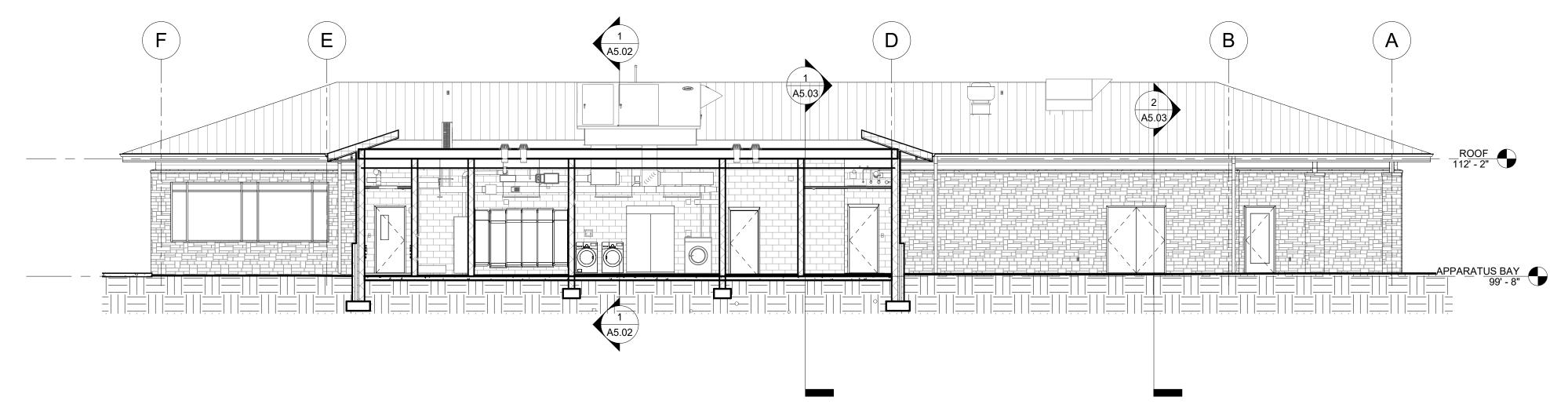
A4.01



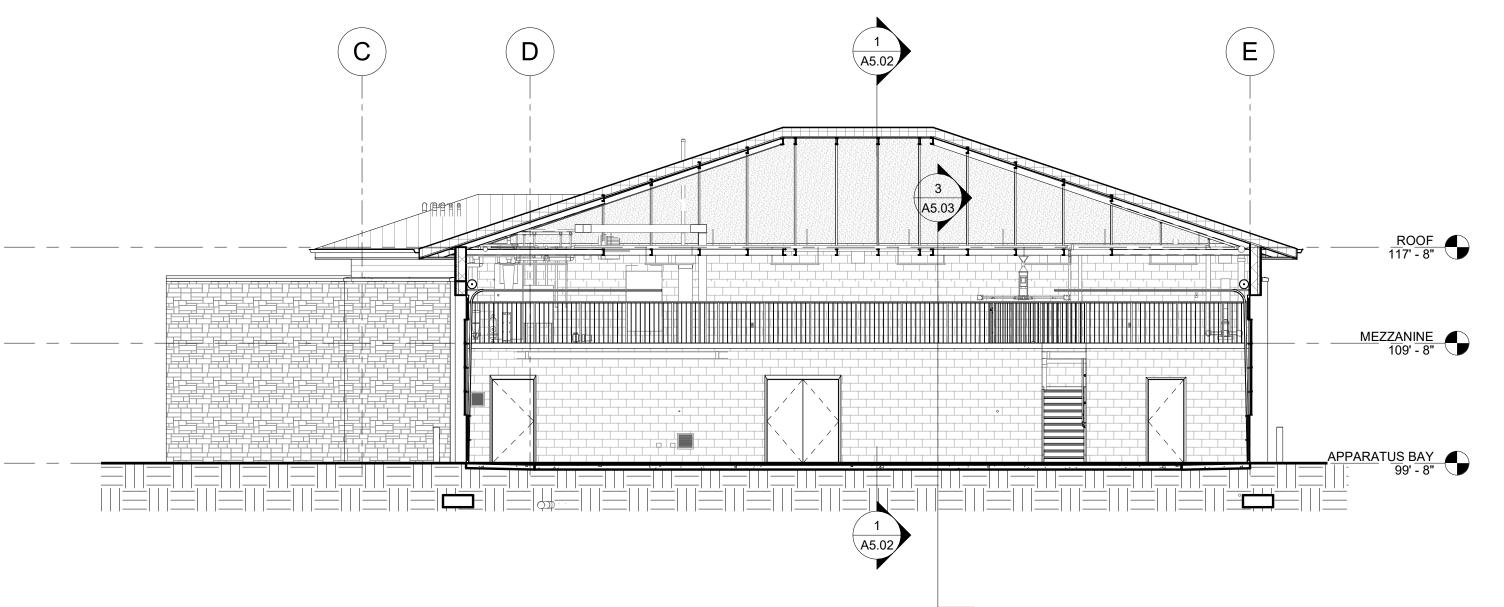
LEMAY ERICKSON WILLCOX ARCHITECTS, COPYRIGHT 2014

PROJECT NO. LEWA-21820

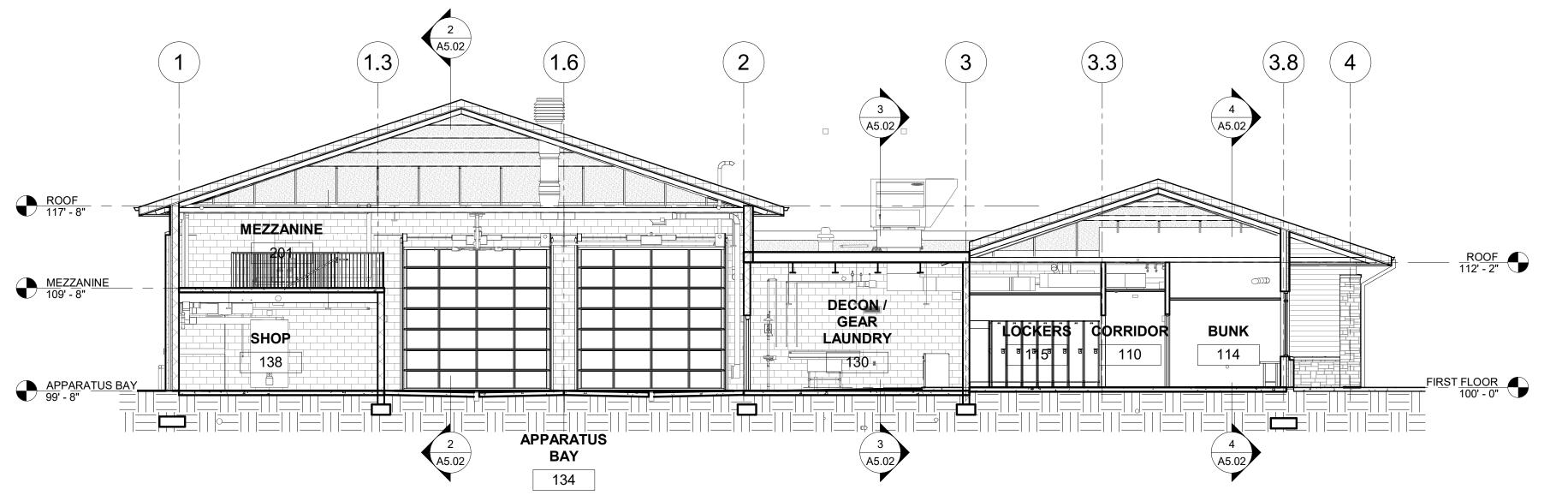
4 NORTH SOUTH SECTION THRU BUNKS A5.02 1/8" = 1'-0"



3 NORTH SOUTH BUILDING SECTION THRU DECON



NORTH SOUTH BUILDING SECTION THROUGH APPARATUS BAY A5.02 1/8" = 1'-0"



EAST WEST BUILDING SECTION THROUGH DECON

1/8" = 1'-0"

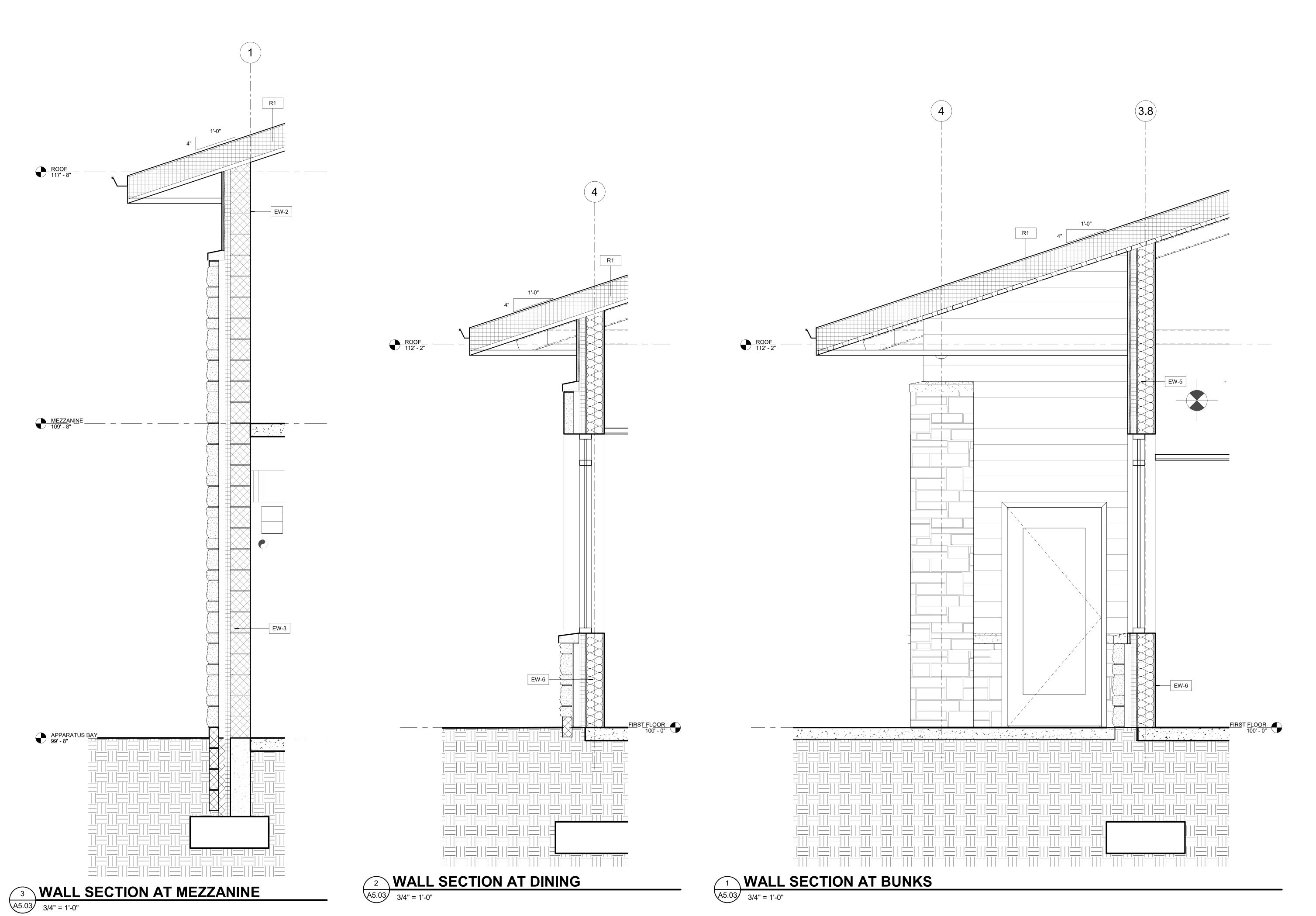
DATE OF RECORD

BUILDING SECTIONS

A5.02

PROJECT NO.LEWA-21820

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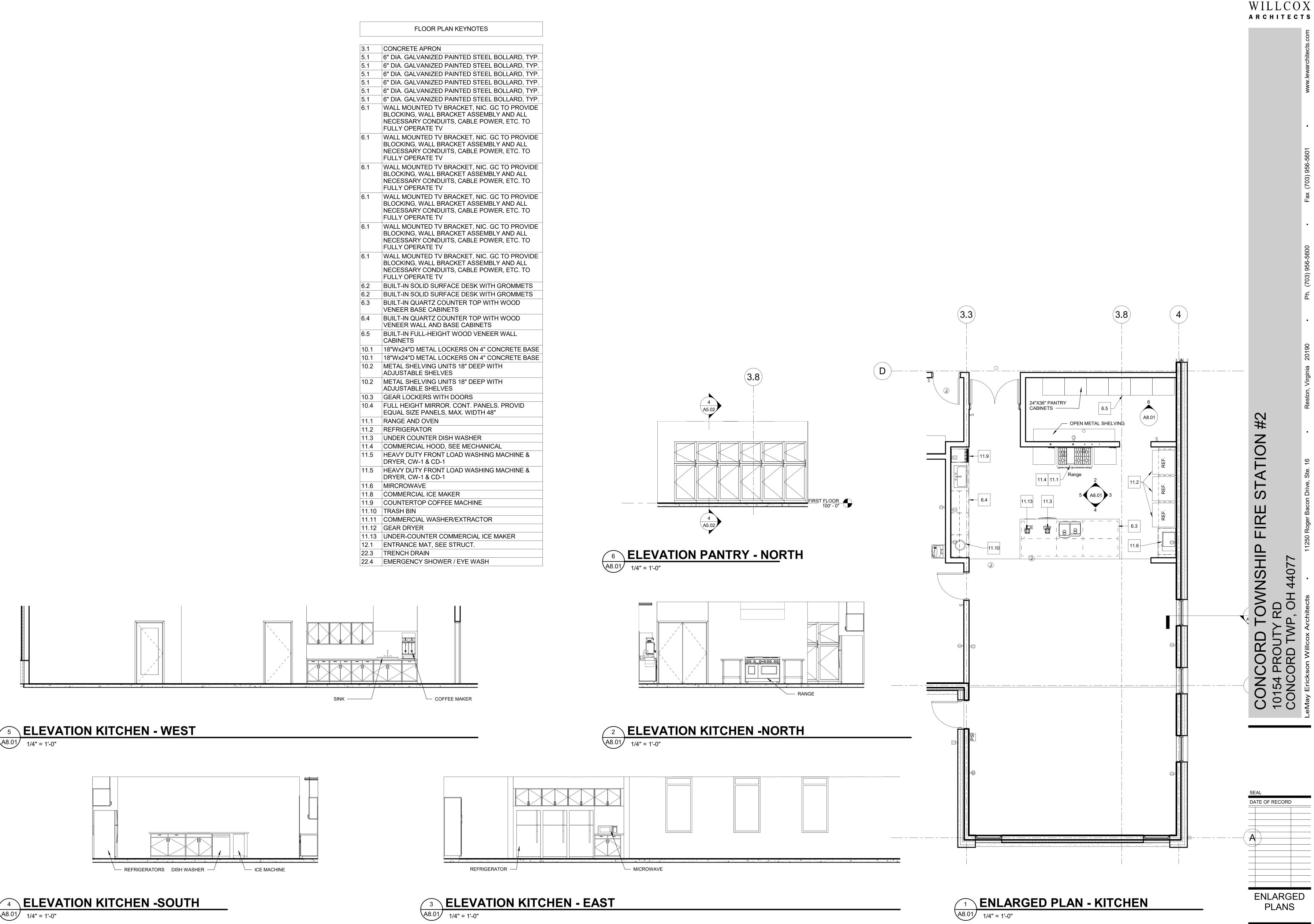


AL TE OF RECORD

A5.03

WALL SECTIONS

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A8.01 1/4" = 1'-0"

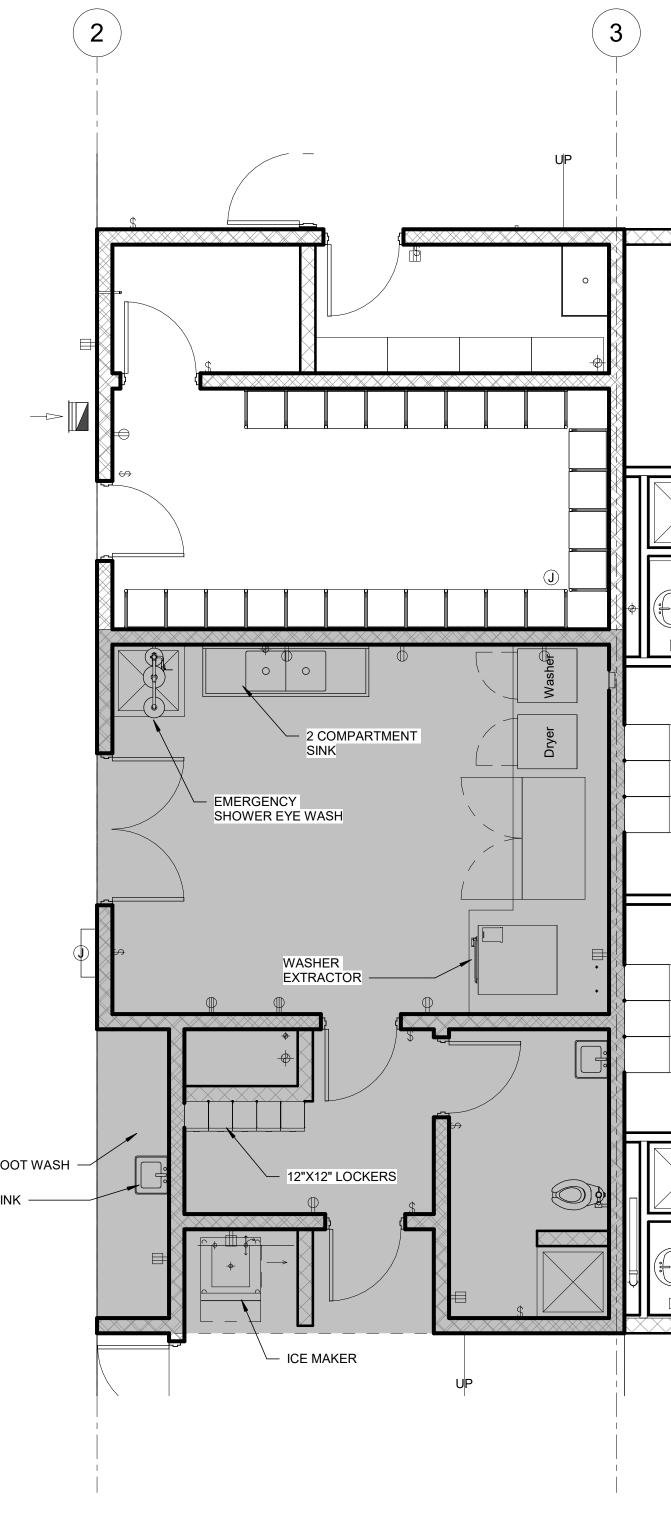
A8.01

ERICKSON

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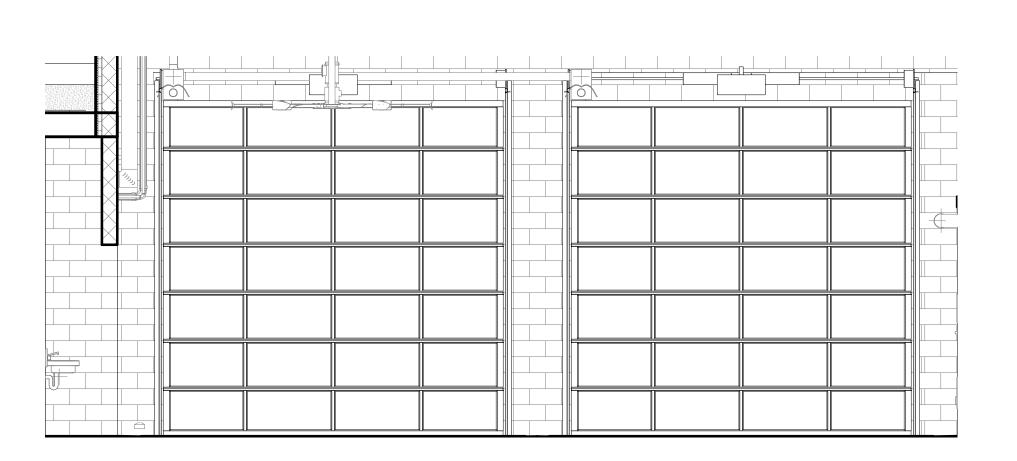
PROJECT NO.LEWA-21820

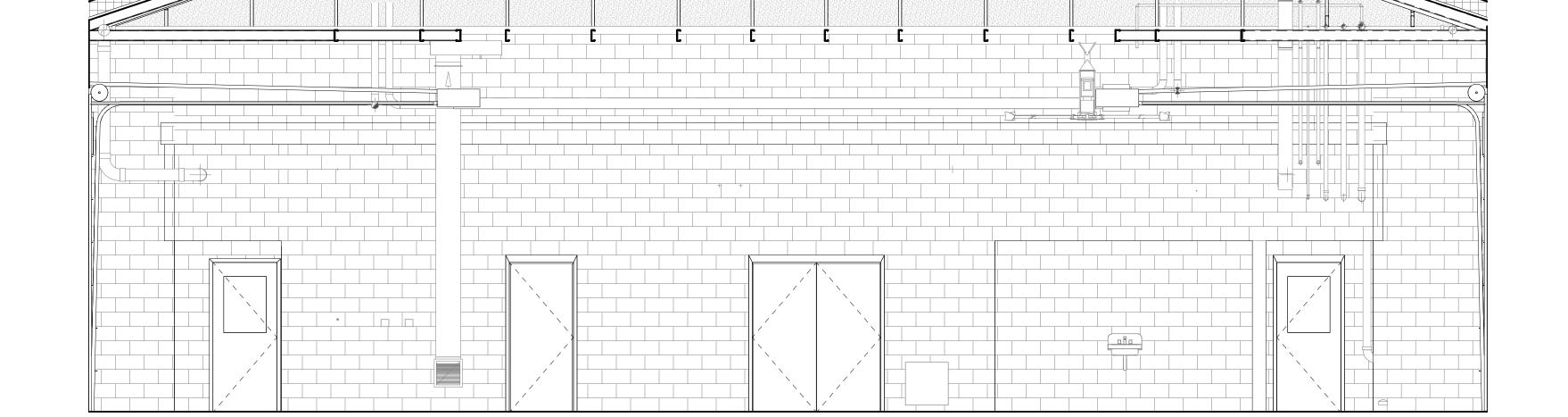
2' ABOVE THE 100 YEAR FLOOD ELEVATION ABOVE THE 500 YEAR FLOOD ELEVATION ABOVE THE HIGHEST RECORDED FLOOR ELEVATION? OCCUPANT DENSITY 5 SF PER PERSON WHEELCHAIR 10 SF BEDRIDDEN 30 SF





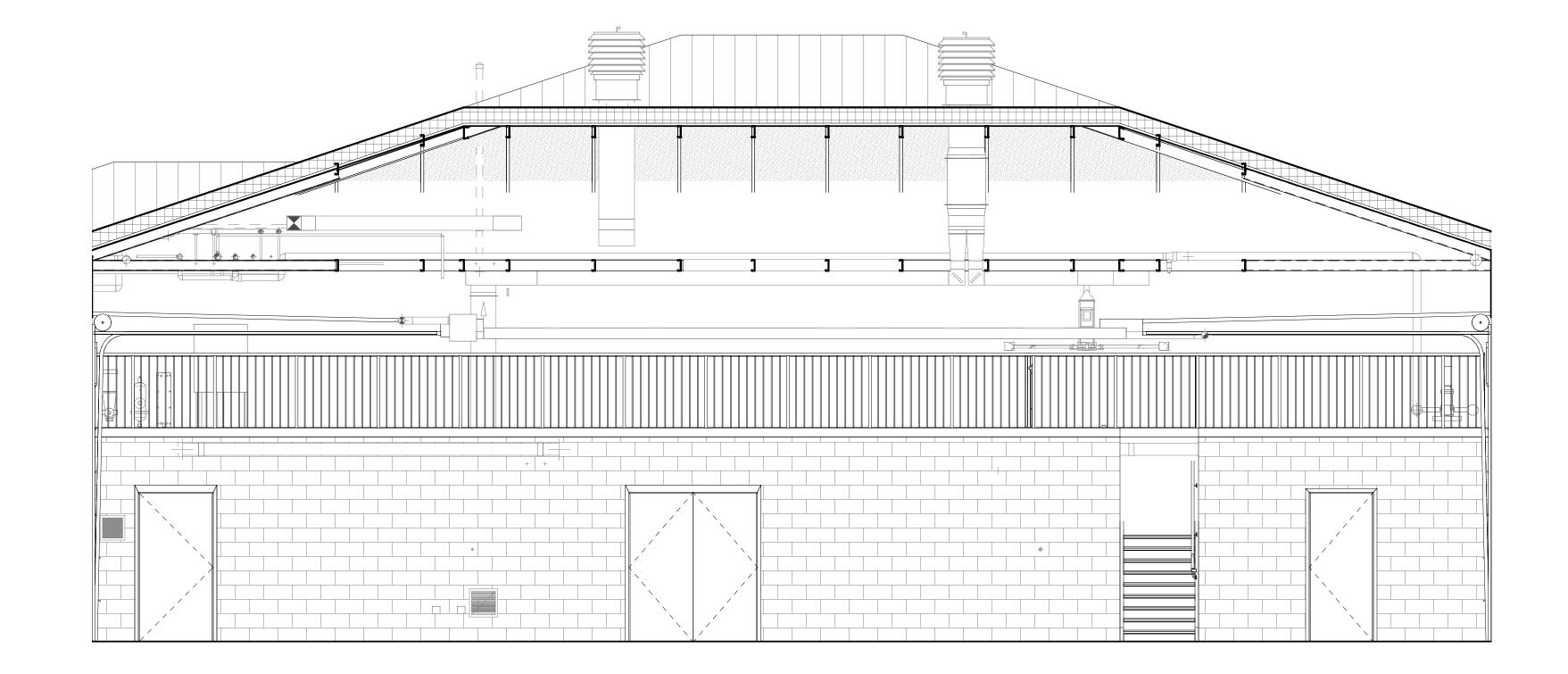
A8.02 PROJECT NO.LEWA-21820

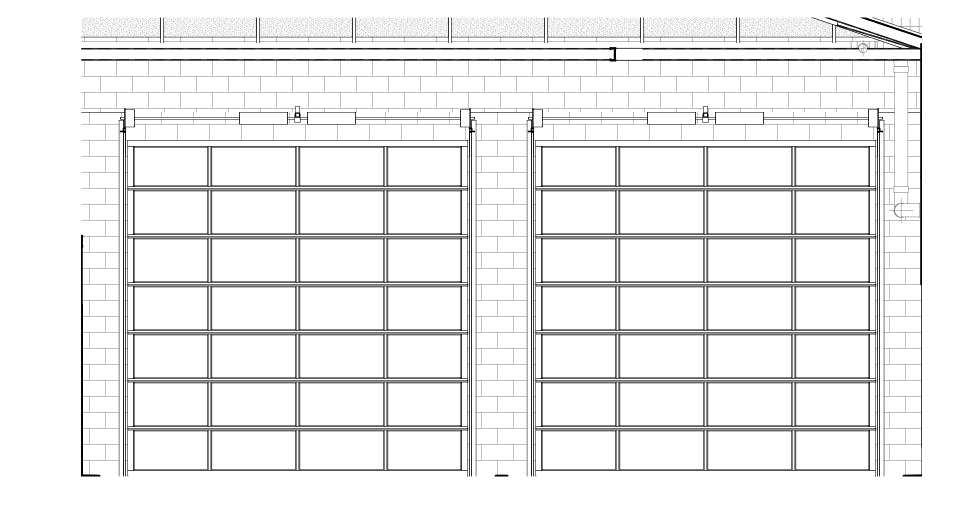




3 APPARATUS BAY - SOUTH ELEVATION A8.03 1/4" = 1'-0"







APPARATUS BAY - WEST ELEVATION

A8.03 1/4" = 1'-0"



APPARATUS BAY ELEVATIONS

STATION #2

A8.03

CODES AND STANDARDS

STRUCTURE IS DESIGNED IN ACCORDANCE WITH THE FOLLOWING CODES:

OHIO BUILDING CODE, 2017 EDITION INTERNATIONAL BUILDING CODE, 2015 EDITION ACI 318-14 ACI 530 / 530.1-13 ACI 543R-12 (CONCRETE PILE GUIDE)

ANSI/AISC 360-10, THIRTEENTH EDITION ASCE 7-10

AWS D1.1-15, D1.3-08, D1.4-11 ANSI/AISC 303-010 RCSC, SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS, 2014

DESIGN LOADS AND CRITERIA

DESIGN LIVE LOADS (REDUCED AS ALLOWED BY THE BUILDING CODE):

ROOF OFFICES & RESIDENTIAL (INCLUDING PARTITIONS) LIGHT STORAGE MECHANICAL* STAIRS AND CORRIDORS AREAS NOT OTHERWISE SPECIFIED	30 PSF 65PSF 125PSF 125 PSF 100PSF 100PSF
AREAS NOT OTHERWISE SPECIFIED	100PSF

*OR EQUIPMENT WEIGHT IF GREATER

2. DESIGN DEAD LOADS

MEP / CEILING CMU PARTITIONS	15 PSF ACTUAL WEIGHT
3. DESIGN SNOW LOAD: GROUND SNOW LOAD, Pg FLAT ROOF SNOW LOAD, Pf EXPOSURE FACTOR, Ce ROOF THERMAL FACTOR, Ct IMPORTANCE FACTOR, Is	30 PSF 25.2 PSF 1.0 1.0 1.20
SNOW DRIFT LOADS:	SEE SHEET S0.03
4. DESIGN WIND LOADS: BASIC WIND SPEED, V	120 MPH (ULTIMATE, RISK-WEIGHTED

BASIC WIND SPEED, V IMPORTANCE FACTOR, Iw

90 MPH (THREE SECOND GUST) 1.15 +/-0.18 INTERNAL PRESSURE COEFF, GCpi COMPONENTS AND CLADDING WIND LOADS: SEE SHEET S0.03

DESIGN SEISMIC LOADS ARE BASED ON THE FOLLOWING DATA:

MAPPED SHORT PERIOD SPECTRAL RESPONSE ACCELERATION, SS MAPPED 1-SEC PERIOD SPECTRAL RESPONSE ACCELERATION, S1 SHORT PERIOD DESIGN SPECTRAL RESPONSE ACCELERATION, Sds 0.174 1-SEC PERIOD DESIGN SPECTRAL RESPONSE ACCELERATION, Sd1 0.070 OCCUPANCY CATEGORY SEISMIC DESIGN CATEGORY C (ESTIMATED, TO BE CONFIRMED) SITE CLASS C (ESTIMATED, TO BE CONFIRMED) BASIC STRUCTURAL SYSTEM STEEL FRAME SYSTEM & MASONRY SHEAR WALLS BASIC SEISMIC-FORCE-RESISTING SYSTEM STEEL BRACED FRAMES AND MOMENT FRAMES (STEEL SYSTEM NOT SPECIFICALLY DETAILED FOR SEISMIC RESISTANCE) RESPONSE MODIFICATION FACTOR, R DEFLECTION AMPLIFICATION FACTOR, Cd IMPORTANCE FACTOR, le ANALYSIS PROCEDURE **EQUIVALENT LATERAL FORCE**

GENERAL

DESIGN BASE SHEAR, V

 THE CONTRACTOR SHALL REVIEW AND COORDINATE DIMENSIONS PROVIDED IN THE CONTRACT DOCUMENTS. LAYOUT OF BUILDING FOUNDATIONS AND OTHER STRUCTURAL MEMBERS SHALL BE BASED ON THE FULL SET OF CONTRACT DOCUMENTS, INCLUDING BUT NOT LIMITED TO THE ARCHITECTURAL, CIVIL AND STRUCTURAL DRAWINGS AND PROJECT SPECIFICATIONS. INCONSISTENCIES OR OMISSIONS IN DIMENSIONS SHALL BE FORWARDED TO THE ARCHITECT FOR REVIEW AND RESOLUTION PRIOR TO PROCEEDING.

XXX KIPS

- 2. THE STRUCTURAL DESIGN IS BASED ON THE STRUCTURE IN ITS COMPLETED STATE. THE CONTRACTOR AND HIS SUBS SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY BRACING AND SHORING, AS REQUIRED, TO ENSURE VERTICAL AND LATERAL STABILITY OF THE ENTIRE STRUCTURE OR PORTION THEREOF DURING CONSTRUCTION.
- 3. DETAILS, SECTIONS, AND NOTES SHOWN ON THESE DRAWINGS ARE INTENDED TO BE TYPICAL AND SHALL APPLY TO SIMILAR CONDITIONS ELSEWHERE UNLESS OTHERWISE SHOWN OR NOTED.
- 4. ALL WALLS ARE DESIGNED AS LATERALLY BRACED BY THE FLOOR AND ROOF SYSTEMS. CONTRACTOR SHALL ENSURE THAT WALLS ARE ADEQUATELY BRACED DURING CONSTRUCTION.
- 5. TEMPORARY BRACING SHALL BE PROVIDED FOR ALL WALLS SUBJECT TO UNBALANCED BACKFILL. BRACE WALL PLUMB UNTIL STABILIZING ELEMENT ABOVE IS IN PLACE.
- 6. ANY REQUIRED TEMPORARY SHEETING AND SHORING SHALL BE IN CONFORMANCE WITH OSHA REGULATIONS. UNBRACED EXCAVATIONS SHALL BE SLOPED NO GREATER THAN (1.5) HORIZONTAL TO (1) VERTICAL
- 7. CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES IN VICINITY OF FOUNDATIONS AND DETERMINE IF A CONFLICT EXISTS. CONTRACTOR SHALL ALSO PROVIDE INFORMATION ON LOCATION SIZE AND ELEVATION OF UTILITIES PRIOR TO START OF WORK SO THAT ANY NECESSARY CHANGES CAN BE MADE WITHOUT DELAYING THE PROJECT SCHEDULE.
- 8. THE DEVELOPMENT AND IMPLEMENTATION OF JOB SITE SAFETY AND CONSTRUCTION PROCEDURES ARE SOLELY THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.
- 9. WHERE CONFLICTS EXISTS AMONG THE VARIOUS PARTS OF THE STRUCTURAL CONTRACT DOCUMENTS. STRUCTURAL DRAWINGS, GENERAL NOTES, AND SPECIFICATION, THE STRICTEST REQUIREMENT SHALL GOVERN.

FOUNDATIONS

- 1. FOUNDATION DESIGN IS BASED ON THE PRELIMINARY GEOTECHNICAL REPORT PREPARED BY AECOM DATED JULY 9, 2019. THE REPORT IS AVAILABLE FOR REFERENCE ONLY.
- 2. THE BUILDING WILL BE CONSTRUCTED ON SHALLOW SPREAD FOOTINGS BEARING ON AN UNDISTURBED SURFACE WITHIN THE NATIVE CLAY DEPOSIT AT LEAST 5 FT BELOW EXISTING SURFACE GRADES. FOOTING EXCAVATIONS CAN BE UNDERCUT TO A MINIMUM DEPTH OF 5 FT BELOW EXISTING GRADES, AND THEN BACKFILLED USING A LEAN CONCRETE OR FLOWABLE FILL MATERIAL WITH A MINIMUM COMPRESSIVE STRNGTH OF 500 PSI, TO A DEPTH CORRESPONDING TO NO LESS THAN 42 INCHES BELOW PROPOSED SURROUNDING GRADES. THE FOOTING MAY THEN BE CONSTRUCTED ON THE LEAN CONCRETE/FLOWABLE FILL SURFACE. THE SHALLOW SPREAD FOOTINGS AS DESCRIBED ABOVE MAY BE DESIGNED FOR A MAXIMUM BEARING PRESSURE OF 3,500 PSF (NET) BELOW CONCENTRATED LOADS.
- 3. NO FOUNDATION CONCRETE SHALL BE INSTALLED UNTIL ALL FOUNDATION WORK HAS BEEN COORDINATED WITH UNDERGROUND UTILITIES. LOCATE AND PROTECT ALL UTILITIES WHICH MAY BE AFFECTED BY THE CONSTRUCTION PROCESS. FOOTINGS SHALL BE LOWERED WHERE REQUIRED TO AVOID UTILITIES. DO NOT PLACE UTILITY LINES THROUGH OR BELOW FOUNDATIONS WITHOUT REVIEW BY THE ENGINEER OF RECORD.
- 4. EXTEND BOTTOM OF PERIMETER FOUNDATIONS A MINIMUM OF 42 INCHES BELOW GRADE. PROVIDE ALL NECESSARY MEASURES TO PREVENT ANY FROST OR ICE FROM PENETRATING ANY FOUNDATION OR SLAB SUBGRADE BEFORE AND AFTER PLACING OF CONCRETE AND UNTIL SUCH SUBGRADES ARE FULLY PROTECTED BY THE PERMANENT BUILDING STRUCTURE.
- 5. TO MINIMIZE WEATHERING, THE LAST 6 INCHES OF EXCAVATION FOR ALL FOOTINGS SHALL BE MADE IMMEDIATELY PRIOR TO PLACEMENT OF FOOTINGS.
- 6. SHOULD WATER OR FROST ENTER A FOOTING EXCAVATION AFTER SUBGRADE APPROVAL, THE SUBGRADE SHALL BE RE-INSPECTED BY THE GEOTECHNICAL ENGINEER AFTER REMOVAL OF WATER OR FROST.

- 7. UNLESS OTHERWISE SHOWN, THE CENTERLINES OF ALL PIERS AND COLUMN FOOTINGS SHALL BE LOCATED ON COLUMN CENTERLINES.
- 8. FOUNDATION SUBGRADE, CAPACITY AND FINAL ELEVATIONS SHALL BE INSPECTED AND APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACING CONCRETE.
- 9. SEE ARCHITECTURAL DRAWINGS FOR ALL WATERPROOFING AND DAMP-PROOFING DETAILS.

CONCRETE

- 1. CAST-IN-PLACE CONCRETE WORK SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE CODES AND STANDARDS. ACI 301-10 "STANDARD SPECIFICATIONS FOR STRUCTURAL CONCRETE" IS HEREBY MADE A PART OF THESE DRAWINGS. ALL CONCRETE CONSTRUCTION SHALL CONFORM TO ACI 301-10, EXCEPT AS EXPLICITLY MODIFIED HEREIN.
- 2. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH ACI 318-08, "THE BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE".
- 3. ALL CONCRETE SHALL BE NORMAL WEIGHT 145 PCF WET CONCRETE DENSITY (UNLESS NOTED OTHERWISE) AND SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL BEFORE USE, WITH COMPRESSIVE STRENGTH AS FOLLOWS:

STRUCTURAL SLABS-ON-GRADE (OFFICE) f'c = 4000 PSI (AIR ENTRAINED @ EXT SLABS) STRUCTURAL SLABS-ON-GRADE (APPARATUS BAY) fc = 5000 PSI (AIR ENTRAINED @ EXT SLABS) CONCRETE FILL ON COMPOSITE DECK (LW) f'c = 4000 PSI (115 PCF) FOOTINGS / PIERS f'c = 3000 PSI ALL CONCRETE NOT OTHERWISE SPECIFIED f'c = 4000 PSI

- 4. CALCIUM CHLORIDE SHALL NOT BE PERMITTED IN CONCRETE
- 5. DEPRESS FLOOR SLABS AS REQUIRED; SEE ARCHITECTURAL DRAWINGS FOR LOCATION AND DEPTH OF DEPRESSED AREAS.
- 6. CHAMFER EDGES OF PERMANENTLY EXPOSED CONCRETE SURFACES 3/4-INCH, UNO.
- 7. CONCRETE SHALL NOT BE DROPPED THROUGH REINFORCING STEEL SO AS TO CAUSE SEGREGATION OF AGGREGATE, HOPPERS, VERTICAL CHUTES, OR TRUNKS SHALL BE USED IN SUFFICIENT NUMBERS SO THAT THE FREE UNCONFINED FALL OF CONCRETE SHALL NOT EXCEED SIX FEET AND TO ENSURE THAT THE CONCRETE IS KEPT LEVEL AT ALL TIMES.
- 8. ALL KEYS SHALL BE 2" X 4" (NOMINAL) UNLESS OTHERWISE SHOWN ON THE DRAWINGS
- 9. CONCRETE CAST ON SLOPED SURFACES SHALL BEGIN AT THE LOWEST ELEVATION AND CONTINUE MONOLITHICALLY TOWARD THE HIGHER ELEVATION UNTIL THE INTENDED POUR IS COMPLETED.
- 10. SEE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR LOCATIONS OF OPENINGS AND SLEEVES IN CONCRETE WALLS AND SUPPORTED FLOORS. SPREAD REINFORCEMENT AT OPENINGS AND SLEEVES UNLESS OTHERWISE SHOWN. DO NOT CUT REINFORCEMENT. SEE TYPICAL REINFORCEMENT DETAILS FOR OPENINGS IN SLABS AND WALLS FOR ADDITIONAL REQUIREMENTS.
- 11. ALL PLUMBING SLOTS AROUND SLEEVES SHALL BE FILLED WITH FIRE RATED MATERIAL WITH AN EQUIVALENT RATING OF THE ADJACENT FLOOR CONSTRUCTION.
- 12. CONDUITS ARE NOT PERMITTED IN THE STRUCTURAL SLAB-ON-GRADE. CONDUIT IN ELEVATED, CONCRETE SLABS SHALL BE SPACED SUCH THAT THE CENTER TO CENTER DISTANCE BETWEEN CONDUITS IS A MINIMUM OF THREE TIMES THE OUTSIDE DIAMETER OF THE LARGEST CONDUIT AND MUST BE APPROVED BY THE ENGINEER PRIOR TO PLACEMENT.
- 13. CONDUIT HAVING OUTSIDE DIAMETER LARGER THAN ONE THIRD OF THE SLAB THICKNESS SHALL NOT BE PERMITTED. CONDUITS THAT CROSS EACH OTHER IN SLAB SHALL NOT CONSUME AT POINT OF INTERSECTION MORE THAN ONE THIRD OF THE SLAB THICKNESS.
- 14. ALL PIPE SLEEVES THROUGH WALLS AND SLABS SHALL BE SCHEDULE 40 STEEL PIPE.
- 15. ALUMINUM CONDUITS ARE NOT PERMITTED IN CONCRETE ELEMENTS

REINFORCING STEEL

- 1. REINFORCING BARS
- ASTM A 615 GRADE 60 (NEW BILLET STEEL), DEFORMED Fy = 60 KSI
- 2. REINFORCEMENT SHALL BE DETAILED, FABRICATED, AND PLACED IN ACCORDANCE WITH THE ACI DETAILING MANUAL, SP-66 (LATEST EDITION).
- 3. CONTINUOUS REINFORCING IN WALLS AND SLABS MAY BE SPLICED, AS REQUIRED, PROVIDING BARS ARE OF THE LONGEST PRACTICABLE LENGTH AND SPLICES ARE SHOWN ON REINFORCING SHOP DRAWINGS. WHEREVER POSSIBLE, SPLICES SHALL BE STAGGERED.
- 4. UNLESS OTHERWISE SHOWN, BARS AT WALL AND CONTINUOUS FOOTING CORNERS AND INTERSECTIONS SHALL BE DETAILED AS SHOWN IN SP-66. CORNER BARS SHALL BE DETAILED AS SHOWN FOR OUTSIDE LOADED CORNERS. INTERSECTIONS SHALL BE DETAILED WITHOUT DIAGONAL BARS.
- 5. PROVIDE CONCRETE COVER FOR REINFORCING AS SPECIFIED IN SP-66 AND AS LISTED BELOW, UNLESS OTHERWISE INDICATED ON THE STRUCTURAL DRAWINGS. SECURELY PLACE REINFORCEMENT TO PREVENT DISPLACEMENT DURING CONCRETE PLACEMENT.

CAST AGAINST EARTH	3"
EXPOSED TO EARTH OR WEATHER: #5 AND SMALLER BARS AND WWF #6 AND LARGER BARS	1-1/2" (UNO) 2"
NOT EXPOSED TO EARTH OR WEATHER SLABS AND WALLS:	: :
#11 AND SMALLER AND WWF	3/4"
#14 AND LARGER BARS	1-1/2"
BEAMS AND COLUMNS	1-1/2"
SLAB SUBJECT TO VEHICULAR TRAFFIC	
FRAMED SLABS TOP COVER	2"
BOTTOM COVER	3/4"

- 6. PROVIDE DOWELS TO MATCH REINFORCEMENT SIZE AND SPACING INDICATED FOR ALL STRUCTURAL ELEMENTS, UNLESS OTHERWISE INDICATED.
- 7. UNLESS OTHERWISE INDICATED, REINFORCE ALL CAST IN PLACE WALLS AS FOLLOWS:

WALL THICKNESS	<u>REINFORCEMENT</u>
6"	#4@12 EW, MIDDLE
8"	#4@10 EW, MIDDLE
12"	#4@12 EW, E.F.
ADD 2 #5 CONTINU	OUS AT THE TOP OF WALLS

8. REINFORCE NON-STRUCTURAL SLABS ON GRADE IN ACCORDANCE WITH THE FOLLOWING SCHEDULE UNLESS OTHERWISE NOTED. PLACE REINFORCEMENT 2 INCHES BELOW TOP OF SLAB UNLESS NOTED **OTHERWISE**

SLAB THICKNESS	<u>REINFORCEMENT</u>
5"	6X6 W2.9XW2.9 WWF
8"	#4 BARS @ 12" OC

9. WHERE CONSTRUCTION JOINTS ARE PROVIDED, THE REINFORCEMENT SHALL PASS CONTINUOUSLY THROUGH THE JOINT.

10. WELDED-WIRE FABRIC SHALL HAVE ENDS LAPPED ONE FULL PANEL

- 11. ALL WELDING OF REINFORCING TO BE DONE WITH E90XX ELECTRODES IN ACCORDANCE WITH AWS SPECIFICATIONS D1.4 (LATEST EDITION).
- 12. ANY MECHANICAL SPLICES USED MUST BE "TENSION-COMPRESSION" TYPE AND SHALL COMPLY WITH ACI-318 12.14.3 UNLESS OTHERWISE SPECIFICALLY APPROVED BY THE STRUCTURAL ENGINEER. SHOP DRAWINGS SUBMITTED FOR ENGINEERS APPROVAL MUST INDICATE THE USE AND TYPE OF ANY MECHANICAL SPLICES USED. MUST DEVELOPED BY 125% OF THE STRENGTH OF BAR IN TENSION.

- 14. DEVELOPMENT AND SPLICE LENGTHS ARE IN TENSION UNLESS OTHERWISE INDICATED. PIER AND COLUMN VERTICAL BARS ARE IN COMPRESSION UNLESS OTHER-WISE INDICATED AS TENSION-CONTROLLED. COMPRESSION EMBEDMENT: 22X BAR DIAMETER: COMPRESSION SPLICE: 30X BAR DIAMETER. TENSION LAP SPLICES SHALL BE AS TABULATED IN THE SPLICE LENGTH TABLE, (THIS SHEET). UNLESS OTHERWISE INDICATED. DEVELOPMENT AND LAP SPLICE LENGTH SHALL BE CALCULATED ACCORDING TO ACI-318 CHAPTER 12 OR USE BELOW:
- 14.1 DEVELOPMENT LENGTH FOR DEFORMED BARS IN COMPRESSION: ldc = 22d
- 14.2 DEVELOPMENT LENGTH FOR DEFORMED BARS IN TENSION SEE SCHEDULE BELOW: INCREASE LENGTH 30% FOR LIGHT WEIGHT CONCRETE LAP SPLICE LENGTHS FOR CLASS A SPLICES = 1.0 ld LAP SPLICE LENGTHS FOR CLASS B SPLICES = 1.3 ld

- 1. MATERIAL STRENGTH WIDE FLANGE SHAPES ASTM A 992 Fy = 50 KSISTEEL PIPE ASTM A 53 GRADE B Fy = 35 KSI (NOTED AS "PIPE 3 STD") STRUCTURAL RECTANGULAR TUBING ASTM A 500 GRADE B Fy = 46 KSI (NOTED AS "HSS 4x4x1/4") STRUCTURAL ROUND TUBING ASTM A 500 GRADE B Fy = 42 KSI (NOTED AS "HSS 4.0x0.220") ALL OTHER STRUCTURAL STEEL ASTM A 36 Fy = 36 KSI
- 2. ALL STEEL DESIGNED IN ACCORDANCE WITH AISC 360-10, ASD.
- 3. THE CENTERLINES OF ALL COLUMNS AND BEAMS SHALL BE LOCATED ON COLUMN LINES UNLESS OTHERWISE SHOWN.
- 4. BEAMS SHALL BE FABRICATED AND INSTALLED WITH THE NATURAL CAMBER UP.
- 5. BOLTS SHALL BE 3/4-INCH DIAMETER CONFORMING TO ASTM A325, UNLESS OTHERWISE INDICATED.
- 6. ANCHOR BOLTS SHALL CONFORM TO ASTM F1554, GRADE 36, UNLESS NOTED OTHERWISE. SWAGED ANCHOR BOLTS AND ANCHOR BOLTS WITH HOOKED END ANCHORAGE ARE NOT ALLOWED.
- 7. ALL BOLTED AND WELDED CONNECTIONS SHALL BE DESIGNED BY THE STEEL FABRICATOR PER THE SPECIFICATIONS. SHEAR CONNECTIONS FOR SIMPLY SUPPORTED BEAMS SHALL BE DESIGNED FOR LRFD REACTIONS INDICATED ON THE FRAMING PLANS. WHERE NONE ARE INDICATED, BEAMS SHALL BE DESIGNED FOR AN END REACTION EQUAL TO 1/2 OF THE TOTAL UNIFORM LOAD CAPACITY TABULATED IN THE ALLOWABLE UNIFORM LOAD TABLES OF THE AISC MANUAL, 13TH EDITION, USE
- 3/4-INCH DIAMETER BOLTS PER CONNECTION AS PER THE FOLLOWING TABLE (UNO):

NOMINAL BEAM DEPTH	MIN. # OF ROWS
8, 10, 12	2
14, 16, 18	3
21, 24	4
27, 30	5
33, 38	6

- 8. BOLTED MOMENT CONNECTIONS SHALL BE SLIP-CRITICAL CONNECTIONS. OTHER CONNECTIONS SHALL BE BEARING CONNECTIONS WITH THREADS INCLUDED IN SHEAR PLANES.
- 9. WELDING ELECTRODES SHALL BE LOW HYDROGEN AND CONFORM TO REQUIREMENTS SHOWN IN AWS D1.1. FILLER METAL SHALL HAVE A MINIMUM YIELD STRENGTH OF 70 KSI. WHERE WELD SIZE IS NOT GIVEN, WELD SIZE SHALL BE A MINIMUM IN ACCORDANCE WITH TABLE 5.8 OF AWS D1.1:2004.
- 10. WELDS INDICATED "CJP" SHALL BE COMPLETE JOINT PENETRATION GROOVE WELDS. FABRICATOR SHALL PRODUCE COMPLETE JOINT PENETRATION GROOVE WELDS WHICH CONFORM TO ALL AWS D1.1 QUALIFIED WELD REQUIREMENTS AND WHICH ARE APPLICABLE TO THE SPECIFIC CONDITIONS
- 11. WHERE THE WORK OF OTHER TRADES REQUIRES CUTS, HOLES, ETC., IN STRUCTURAL STEEL MEMBERS, CUTS, HOLES, ETC., SHALL BE MADE IN THE SHOP AND SHALL BE SHOWN ON THE SHOP DRAWINGS. MAKING HOLES OR CUTS IN STRUCTURAL STEEL MEMBERS IN THE FIELD WILL NOT BE PERMITTED WITHOUT SPECIFIC APPROVAL OF THE ENGINEER.
- 12. COMPOSITE SLABS SHALL BE PLACED TO A MINIMUM OF THE THICKNESS INDICATED AND SHALL BE SCREEDED LEVEL.
- 13. SHEAR CONNECTORS FOR COMPOSITE BEAMS SHALL BE 3/4-INCH DIAMETER x 4-1/2-INCH LONG STUDS OF THE QUANTITY INDICATED ON THE FLOOR PLAN. DISTRIBUTE STUDS UNIFORMLY ALONG BEAMS AND GIRDERS WHERE QUANTITY IS SHOWN AS A SINGLE NUMBER. WHERE QUANTITY IS SHOWN AS MULTIPLE CALLOUTS ALONG A GIRDER, DISTRIBUTE STUDS UNIFORMLY ALONG EACH SEGMENT WHERE THE FLUTE OF THE DECK IS PERPENDICULAR TO THE BEAM, PROVIDE NO MORE THAN ONE STUD IN A FLUTE PER ROW (ALONG THE LENGTH OF THE BEAM). WHERE ONE ROW OF STUDS WILL NOT ACCOMMODATE THE REQUIRED QUANTITY OF STUDS, DISTRIBUTE HALF OF THE REMAINDER TO EACH END OF THE BEAM USING TWO ROWS OF STUDS WITH A MINIMUM CENTER-TO-CENTER SPACING BETWEEN ROWS OF 3 INCHES. WHERE THE FLUTE OF THE DECK IS PARALLEL TO THE GIRDERS, PROVIDE A MINIMUM LONGITUDINAL SPACING OF 4-1/2 INCHES BETWEEN THE STUDS.
- 14. THE LATERAL LOAD RESISTING SYSTEM INCLUDES STRUCTURAL STEEL, NON-STRUCTURAL STEEL ELEMENTS, AND THE DIAPHRAGM AS INDICATED BELOW. ALL ELEMENTS OF THE LATERAL LOAD RESISTING SYSTEM AND DIAPHRAGM ARE REQUIRED TO BE COMPLETE AS INDICATED AND DETAILED IN THE STRUCTURAL CONTRACT DOCUMENTS TO PROVIDE THE LATERAL STRENGTH AND STABILITY OF THE STEEL STRUCTURE. THE STRUCTURE SHALL BE CONSIDERED UNSTABLE UNTIL THESE SYSTEMS AND ELEMENTS ARE COMPLETE.
- 14.1 THE LATERAL LOAD RESISTING SYSTEM FOR THE STEEL STRUCTURE INCLUDES THE **FOLLOWING** ELEMENTS AS INDICATED AND DETAILED IN THE STRUCTURAL CONTRACT DOCUMENTS:
 - BRACED FRAMES AND MOMENT FRAMES CONNECTIONS, BASEPLATES, ANCHOR BOLTS, AND GROUT
- 14.2 THE LATERAL LOAD RESISTING DIAPHRAGM FOR THE STEEL STRUCTURE INCLUDES THE FOLLOWING ELEMENTS AS INDICATED AND DETAILED IN THE STRUCTURAL CONTRACT DOCUMENTS:
 - STEEL FLOOR DECK WITH CONCRETE AT 28-DAY STRENGTH STEEL ROOF DECK
- 15. STABILITY BRACING: THE STABILITY OF STRUCTURAL STEEL ELEMENTS INCLUDING INDIVIDUAL HOT-ROLLED STEEL SHAPES AND FABRICATED TRUSSES IS PROVIDED BY THE FOLLOWING ELEMENTS AS INDICATED AND DETAILED IN THE STRUCTURAL CONTRACT DOCUMENTS. THESE ELEMENTS SHALL BE COMPLETE AS SHOWN IN THE STRUCTURAL CONTRACT DOCUMENTS BEFORE ANY TEMPORARY MEANS AND METHODS REQUIRED FOR ERECTION ARE REMOVED.
 - STEEL FLOOR DECK WITH CONCRETE AT 28-DAY STRENGTH STEEL ROOF DECK STRUCTURAL STEEL BRACING AND KICKERS
- 16. ALL BUTT WELDS SHALL BE FULL PENETRATION BUTT WELDS.

- 17. SPLICING OF STRUCTURAL STEEL MEMBERS WHERE NOT DETAILED IS PROHIBITED WITHOUT PRIOR APPROVAL OF THE ENGINEER.
- 18. BASE PLATES, BEAMS, COLUMNS AND HARDWARE EXPOSED TO SOIL SHALL BE COVERED WITH MINIMUM OF 3 INCHES OF CONCRETE PRIOR TO BACKFILL.
- 19. ALL TEMPORARY ERECTION BRACING AND TIE RODS SHALL REMAIN IN PLACE UNTIL ALL STRUCTURAL MEMBERS ARE PROPERLY ALIGNED AND CONNECTED AND SHALL NOT BE REMOVED WITHOUT WRITTEN APPROVAL FROM THE TESTING AGENCY.
- 20. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF ALL ERECTION PROCEDURES AND
- 21. ANY BOLTED CONNECTION INDICATED ON THE DRAWINGS CAN BE SUBSTITUTED WITH A WELDED ONE (SHOP OR FIELD) OF EQUAL CAPACITY. SUBSTITUTION SHALL BE AT NO EXTRA COST TO THE OWNER AND ONLY AFTER APPROVAL OF THE ENGINEER AND TESTING AGENCY.
- 22. LOADS SHOWN ON DRAWINGS ARE FACTORED LRFD LOADS.
- 23. ALL BOLTED CONNECTIONS SHALL BE SNUG TIGHT, UNLESS NOTED OTHERWISE

STEEL STAIRS AND HANDRAILS

SEQUENCES.

- 1. DESIGN OF STEEL STAIRS AND RAILINGS IS THE RESPONSIBILITY OF THE STAIR FABRICATOR. THE FABRICATOR SHALL RETAIN THE SERVICES OF A PROFESSIONAL ENGINEER, REGISTERED IN OHIO, FOR THE DESIGN OF THE STEEL STAIRS AND ASSOCIATED ELEMENTS. STEEL STAIRS SHALL BE DESIGNED TO SUPPORT A SUPERIMPOSED LIVE LOAD OF 100 PSF AS INDICATED IN THE DESIGN LOADS SECTION OF THE GENERAL NOTES. OTHER STAIR ELEMENTS (RAILINGS, ETC.) SHALL BE DESIGNED IN ACCORDANCE WITH THE APPLICABLE BUILDING CODE AS REFERENCED IN THE MAJOR CODES AND STANDARDS SECTION OF THE GENERAL NOTES.
- 2. ALL METAL STAIRS AND RAILINGS SHALL BE DESIGNED BY A PROFESSIONAL ENGINEER, REGISTERED IN OHIO. STAIR DRAWINGS AND CALCULATIONS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER, REGISTERED IN OHIO.
- 3. SEE ARCHITECTURAL DRAWINGS FOR STAIR LOCATIONS, DIMENSIONS, AND DETAILS.
- 4. REFER TO ASCE 7-05 SECTION 4.4 FOR DESIGN CRITERIA FOR THE DESIGN OF HANDRAILS AND GUARDRAILS.

OPEN-WEB STEEL JOISTS

- 1. STEEL JOIST SPACING SHALL NOT EXCEED SPACING INDICATED ON DRAWINGS AND PLACEMENT OF JOISTS SHALL BE CAREFULLY COORDINATED WITH PARTITIONS AND WORK OF OTHER TRADES TO AVOID INTERFERENCES.
- 2. ROOF STEEL JOISTS, AS DESIGNED, DO NOT ACCOUNT FOR ROOF SLOPE. JOIST SIZES ARE PRELIMINARY AND PROIVDED FOR BIDDING PURPOSES ONLY. JOIST MANUFACTURER TO DESIGN ALL JOISTS AND VERIFY SIZE INDICATED IS ADEQUATE THROUGH COMPLETE ANALYSIS, INCLUDING GRAVITY, SNOW (INCLUDING SURCHARGE LOADS DUE TO DRIFTING), WIND UPLIFT, AND LATERAL LOADS PER THE JOIST LOADING DIAGRAM ON SHEET S5.12.
- 3. STEEL JOISTS SHALL BE DESIGNED FOR A NET UPLIFT PER THE SPECIFICATIONS.
- 4. CONCENTRATED LOADS IN EXCESS OF 50 POUNDS APPLIED TO JOISTS SHALL BE APPLIED AT PANEL POINTS. UNLESS AN ADDED WEB MEMBER IS PROVIDED FROM POINT OF APPLICATION OF LOAD ON TO THE NEAREST PANEL POINT ON OPPOSITE CHORD.
- 5. PROVIDE JOISTS BRIDGING IN ACCORDANCE WITH SJI SPECIFICATIONS, OMIT JOISTS BRIDGING WHERE REQUIRED TO ALLOW INSTALLATION OF WORK OF OTHER TRADES. PROVIDE DIAGONAL BRIDGING IN EACH ADJACENT BAY IN LINE WITH OMITTED BRIDGING.
- 6. LONG-SPAN JOISTS SHALL BE DESIGNED AND DETAILED BY THE JOIST PROVIDER PER THE SPECIFICATIONS. SHOP DRAWINGS AND CALCULATIONS SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF OHIO.

STEEL DECK

1. DESIGN ROOF DECK IN ACCORDANCE WITH THE FOLLOWING:

	DECK A	DECK B
DEPTH	1-1/2", TYPE B	3", TYPE NA (ACOUSTICAL)
MINIMUM GAGE	20	20
WIDE-RIB CONFIGURATION, ASTM A653	Fy = 40 KSI	Fy = 40 KSI
COLLATERAL DESIGN DEAD LOAD	25 PSF	25 PSF
MINIMUM SECTION MODULUS, Sp	0.234 in3	0.501 in3
MINIMUM SECTION MODULUS, Sn	0.247 in3	0.552 in3

MINIMUM MOMENT OF INERTIA

2. ROOF DECK CONNECTIONS: IN ACCORDANCE WITH ROOF DECK ATTACHMENT DETAIL ON SHEET S5.11. WELDING WASHERS NOT RECOMMENDED FOR DECK THICKNESSES GREATER THAN 0.0280" (APPLICABLE FOR ALL DECK).

0.222 in4

1.079 in4

DESIGN COMPOSITE FLOOR DECK IN ACCORDANCE WITH THE FOLLOWING:

2", TYPE VLI
20
Fy = 40 KSI
20 PSF
0.341 in3
0.346 in3
0.409 in4

- 4. FLOOR DECK CONNECTIONS:
- IN ACCORDANCE WITH COMPOSITE FLOOR DECK ATTACHMENT DETAIL ON SHEET S5.11.
- SHALL BEAR AT LEAST 2-1/2 INCHES ON STEEL SUPPORTS. 6. THE CONTRACTOR SHALL VERIFY THE SIZE AND LOCATION OF ALL OPENINGS, SLEEVES, INSERTS, ETC., WITH SHOP DRAWINGS OF THE EQUIPMENT TO BE INSTALLED. SEE MECHANICAL DRAWINGS FOR

LOCATIONS OF PIPE SLEEVES. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF OPENINGS IN

5. PROVIDE DECK IN LENGTHS ADEQUATE FOR A THREE-SPAN CONDITION WHERE POSSIBLE AND

- FLOOR OR ROOF DECK. 7. CONTRACTOR SHALL PROVIDE MATERIALS, DESIGN AND INSTALLATION OF DECK FOR THE REQUIREMENTS OF STEEL DECK INSTITUTE'S "DESIGN MANUAL FOR COMPOSITE DECKS, FORM DECKS AND ROOF DECKS." DECK PROPERTIES SHALL BE COMPUTED USING THE 2002 EDITION OF AISI
- 8. PROVIDE WELDED WIRE FABRIC IN ALL CONCRETE FILL ON METAL DECK WWF6x6-W1.4xW1.4 MINIMUM, UNO. CONDUIT SHALL NOT BE EMBEDDED IN CONCRETE FILL ON METAL DECK.

SPECIFICATION FOR THE "DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS."

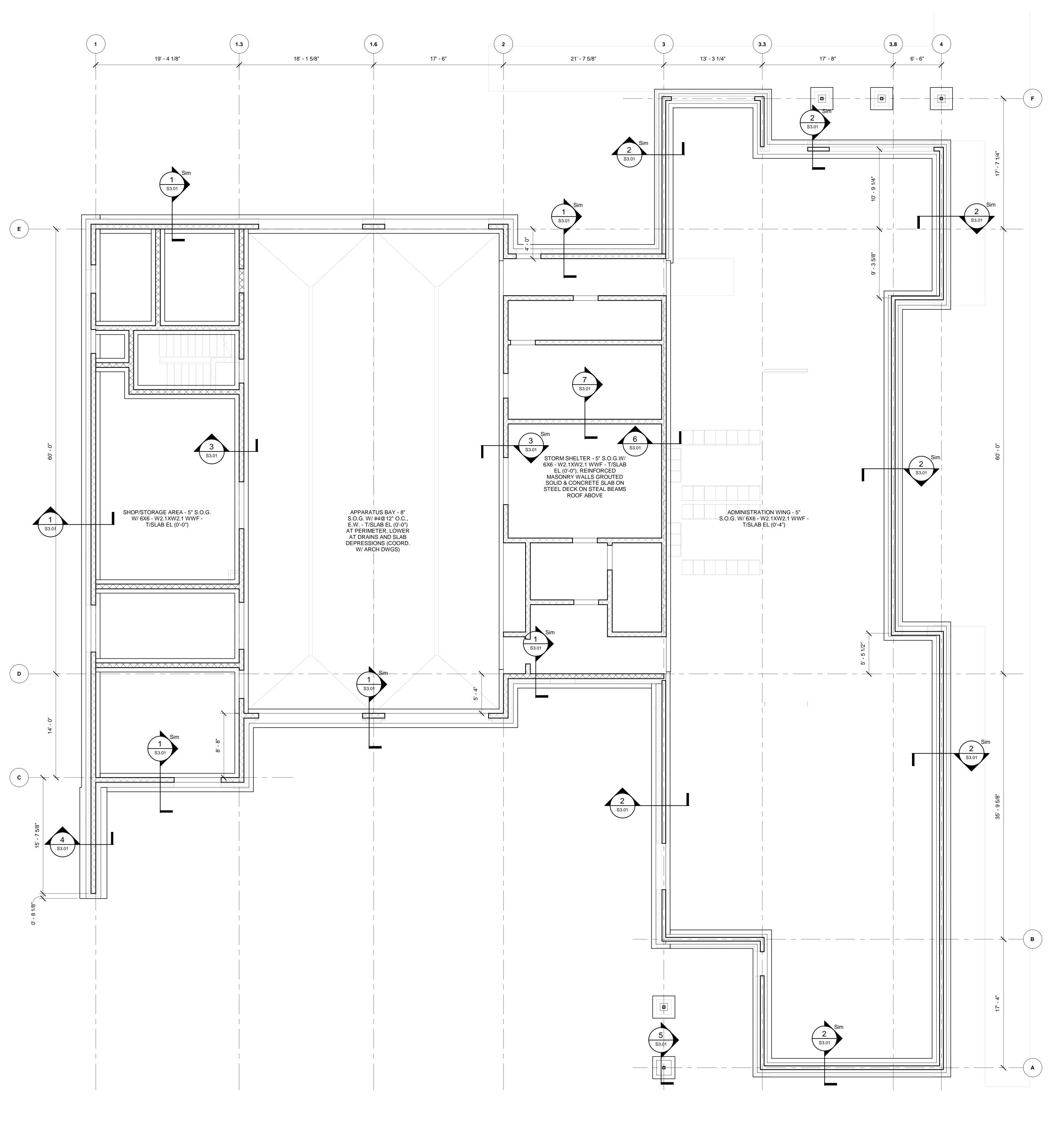
- 9. DECKING CONTRACTOR SHALL FURNISH AND INSTALL CONTINUOUS CLOSURES AND POUR STOPS AT DECK ENDS, EDGES AND OPENINGS WHERE NO STEEL ANGLE IS SPECIFIED.
- 10. THE CONTRACTOR SHALL PROVIDE SUPPLEMENTAL FRAMING (L4 X 3-1/2 X 5/16, HSS 2-1/2 X 2-1/2 X 1/4) AS NECESSARY FOR THE SUPPORT OF METAL DECK WHERE NOT SHOWN ON DRAWINGS, UNLESS OTHERWISE INDICATED.
- 11. CONTRACTOR SHALL INCLUDE FOR ALL ADDITIONAL CONCRETE, WHICH MAY BE REQUIRED AS A RESULT OF DEFLECTION OF THE FLOOR BEAMS AND DECK DURING PLACEMENT OF CONCRETE.
- 12. SUPPORTS FOR DECK OPENINGS SHALL BE FABRICATED SO THAT THE DECK RUNS CONTINUOUSLY OVER THE OPENING. DECK SHALL BE CUT FROM THE OPENING IMMEDIATELY PRIOR TO PLACING THE EQUIPMENT OVER THE OPENING OR WALLS AROUND THE SHAFT

ERICKSON WILLCOX ARCHITECTS

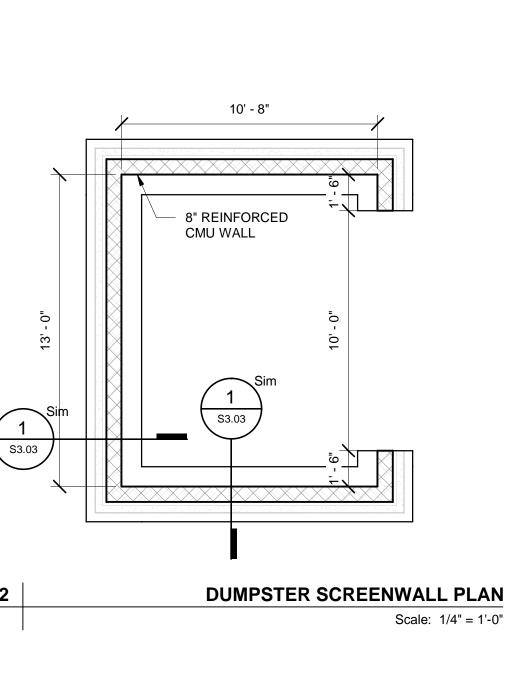
Structui ord Ö O

DATE OF RECORD

GENERAL NOTES







SEAL

DATE OF RECORD

Structural

FOUNDATION PLAN

S1.01

LEMAY ERICKSON WILLCOX ARCHITECTS, COPYRIGHT 2014

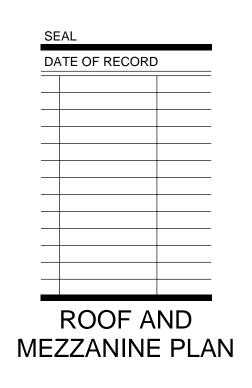
___13' - 3 1/4"___

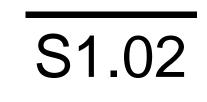
AECOM architects.com

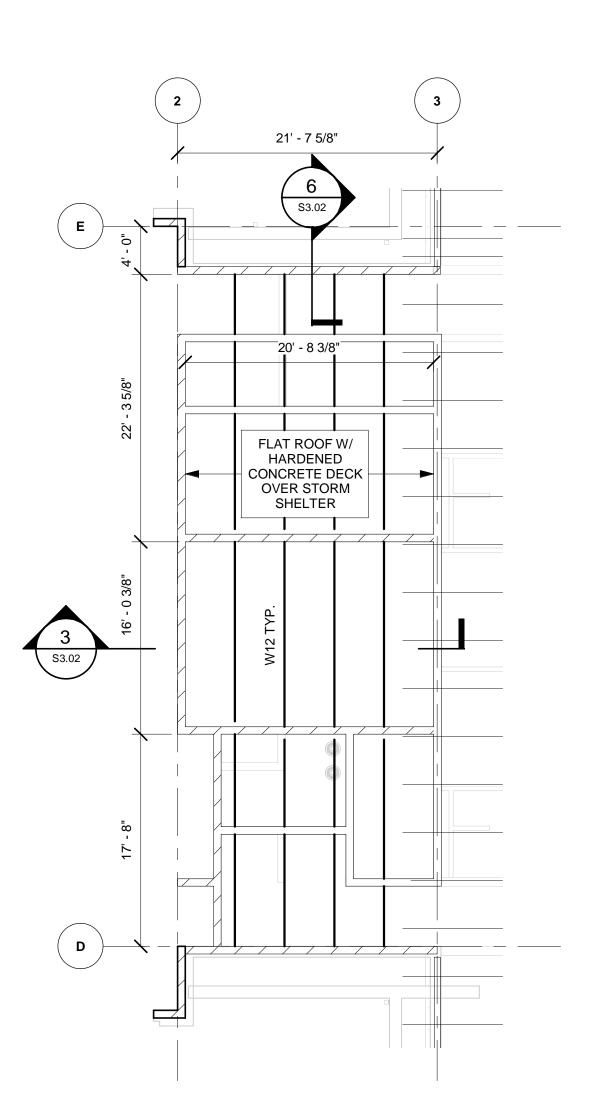
- Reston, Virginia 20190

Structural

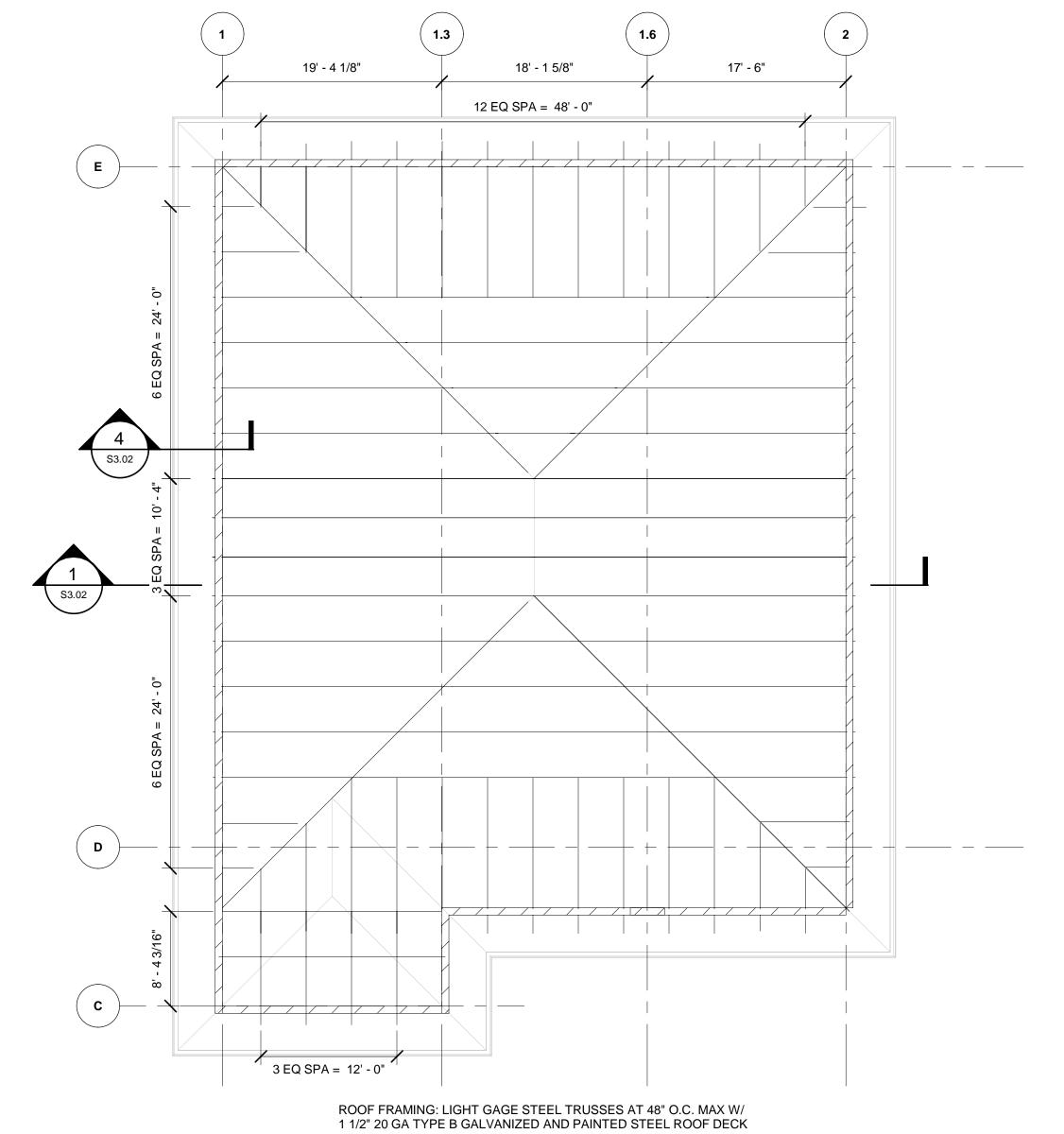
Concord FS

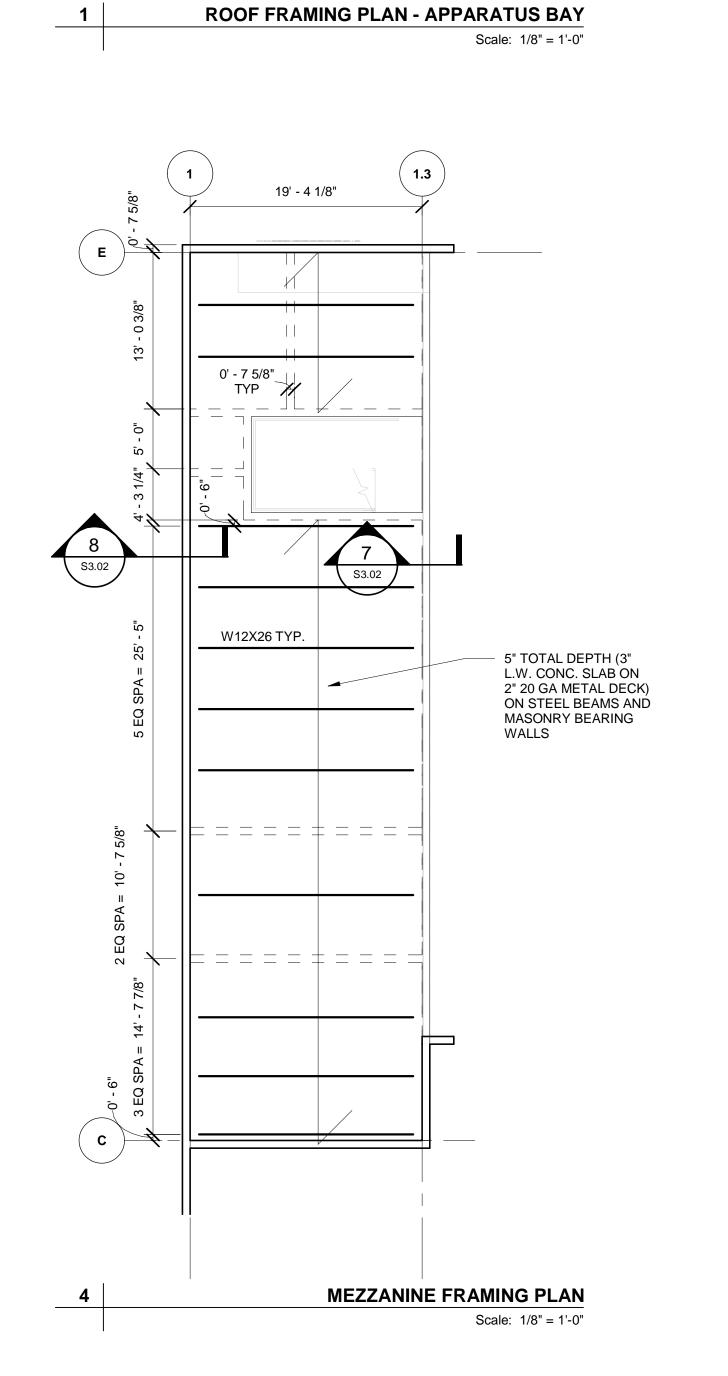














Scale: 1/8" = 1'-0"

ROOF FRAMING: LIGHT GAGE STEEL TRUSSES AT 48" O.C. MAX W/ 1 1/2" 20 GA TYPE B GALVANIZED AND PAINTED STEEL ROOF DECK

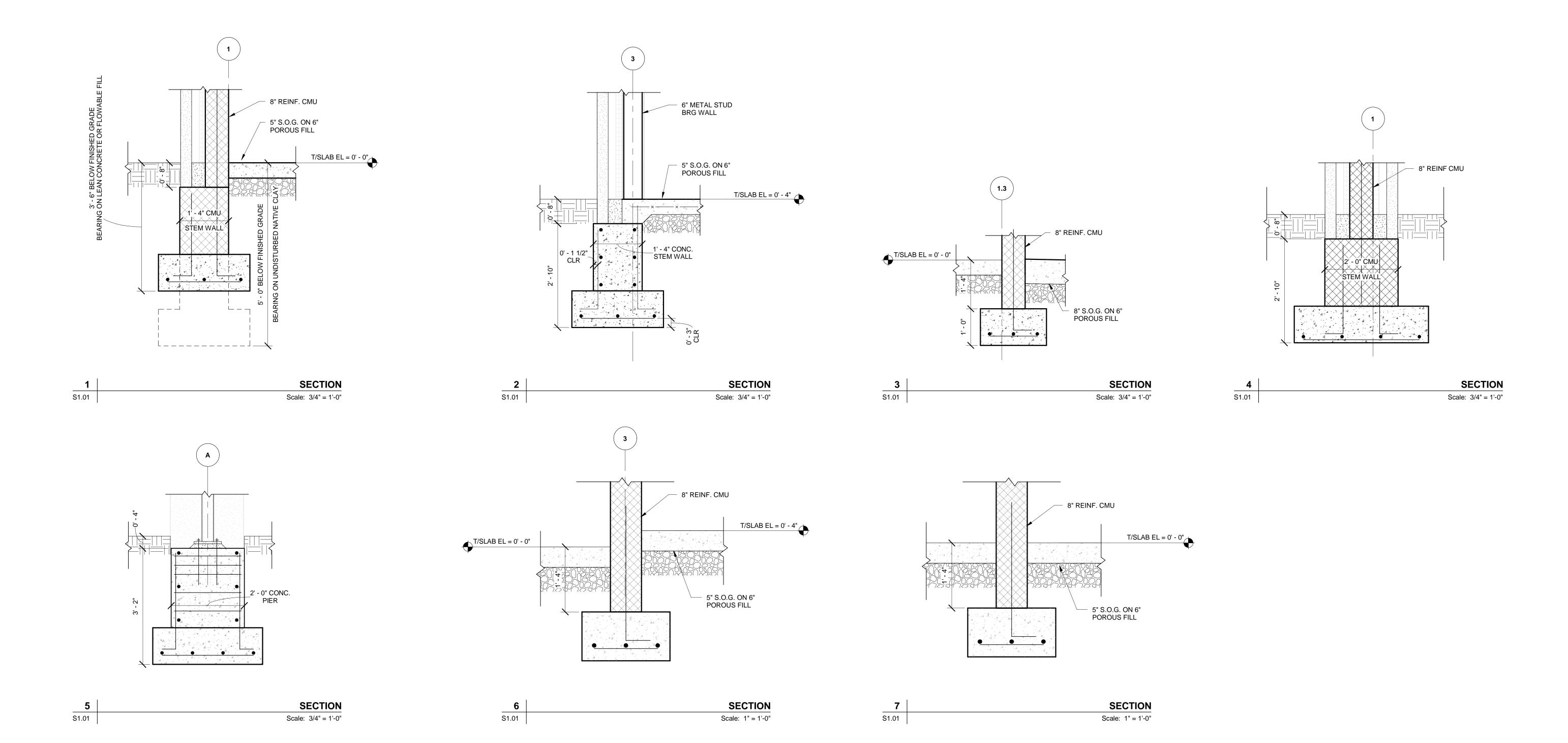
ROOF FRAMING PLAN - ADMINISTRATION WING

Structural

Concord

S3.01

PROJECT NO. 00000000

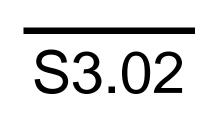


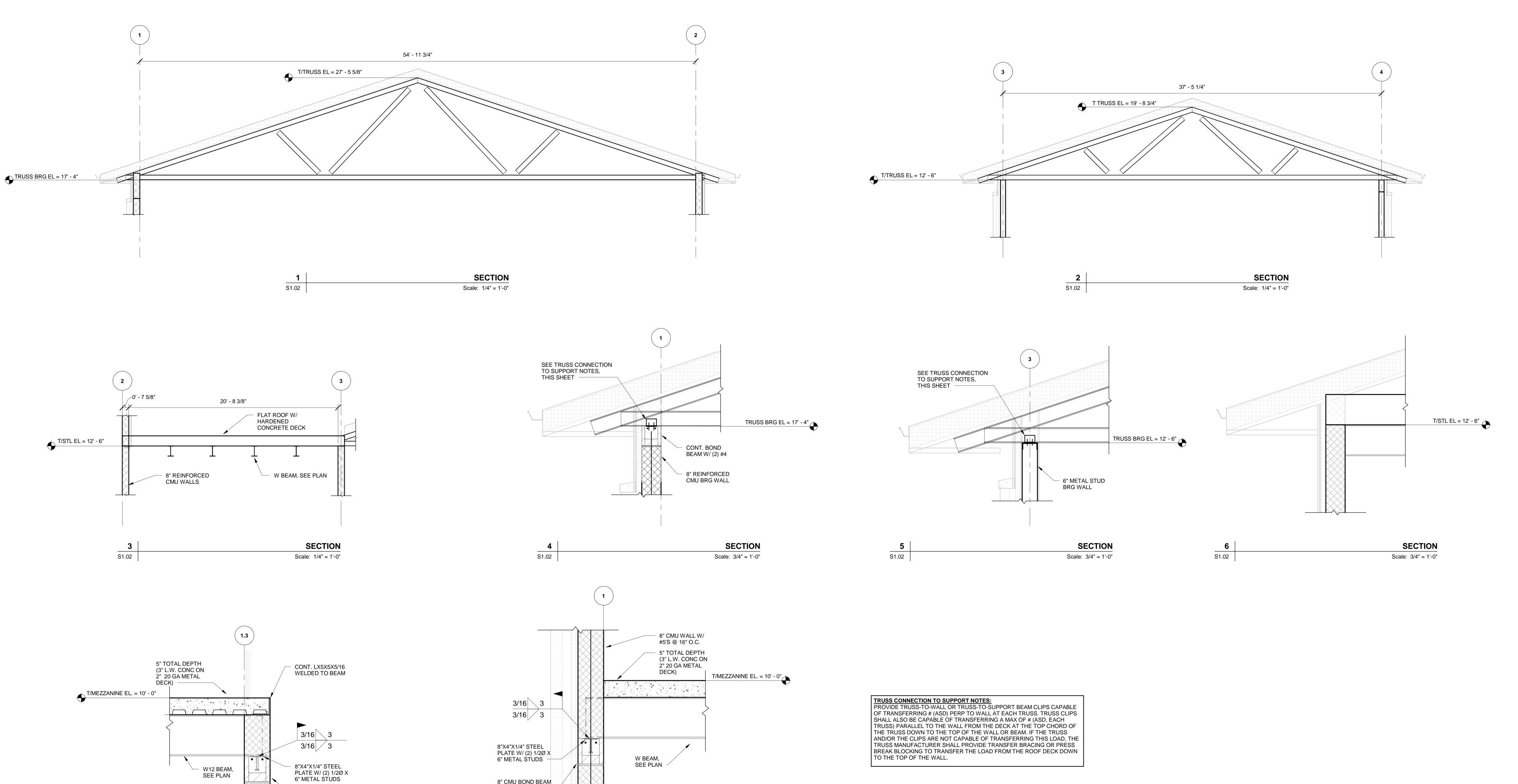






Concord





SECTION

Scale: 1" = 1'-0"

W12 BEAM, SEE PLAN

8" CMU WALL W/ #5'S @ 24" O.C. —

7 S1.02

8" CMU BOND BEAM W/ (2) #4'S CONT.

SECTION

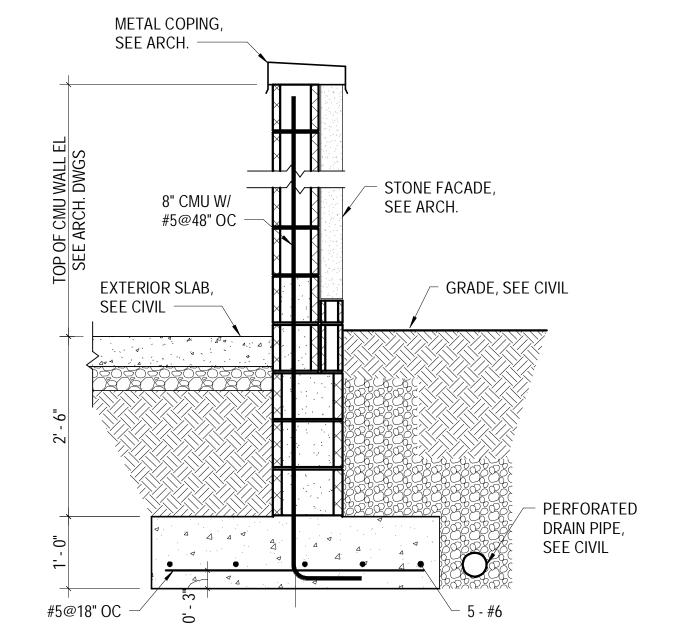
Scale: 1" = 1'-0"

8" CMU BOND BEAM W/ (2) #4'S CONT.

8 S1.02

Concord FS

S3.03

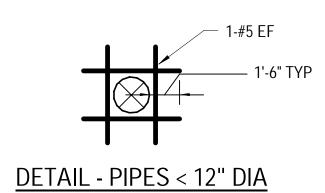


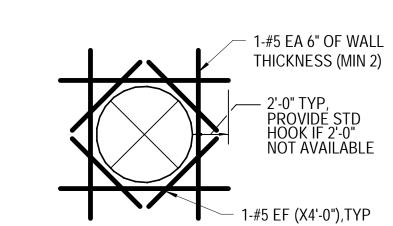
SEE CIVIL DRAWINGS FOR WALL LOCATION AND ALL OTHER INFORMATION NOT PROVIDED.

SEE TYP FOUNDATION PREPARATION FOR FOOTINGS ON STRUCTURAL FILL PAD DETAIL FOR SUBGRADE REQUIREMENTS.

3. ALL CELLS BELOW GRADE SHALL BE GROUTED SOLID.

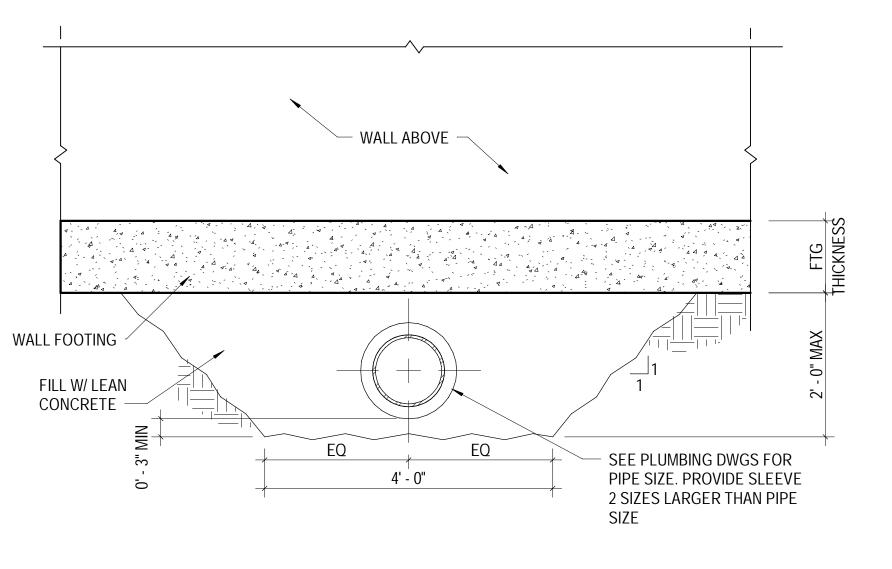
RETAINING WALL DETAIL 1 S1.01 Scale: 3/4" = 1'-0"



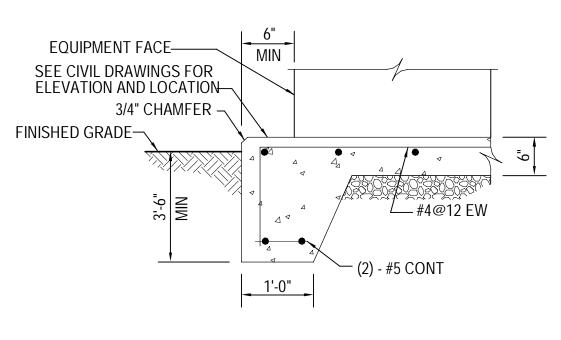


DETAIL - PIPES > 12" DIA







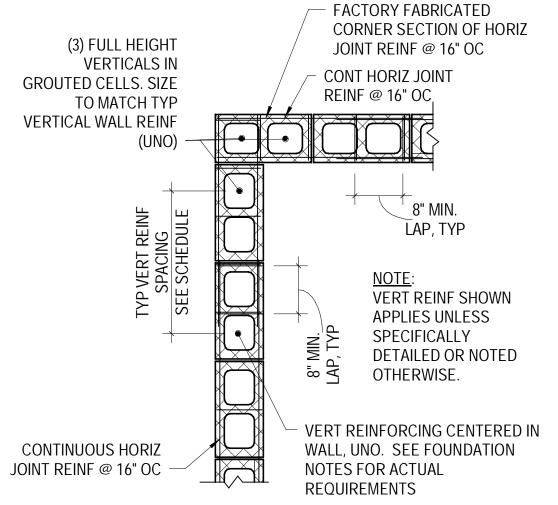


TYP EXTERIOR EQPT PAD DETAIL Scale: 12" = 1'-0"

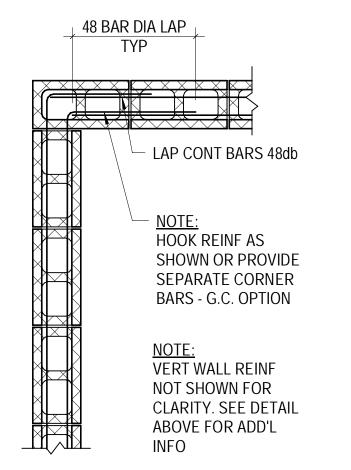
MASONRY **DETAILS**

S3.04

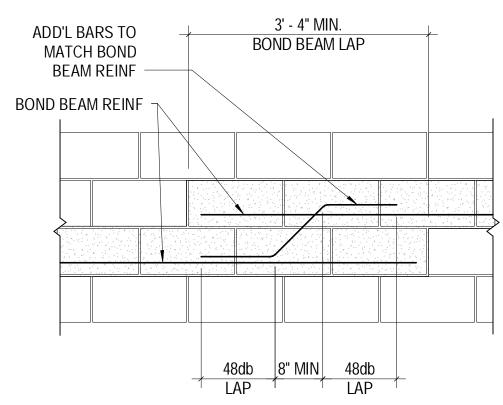
PROJECT NO. 00000000



TYP VERTICAL REINFORCING & JOINT REINFORCING



AT BOND BEAMS

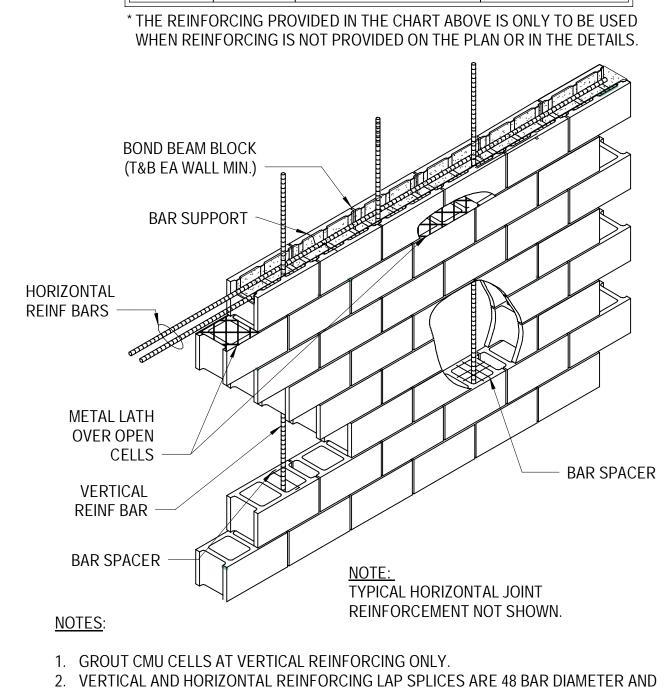


NOTE: IF BOND BEAM CHANGES ELEV AT BLDG CORNER, EXTEND EACH BOND BEAM 3'-4" AROUND CORNER AND OMIT ADD'L BARS.

ELEVATION 'AA' IF BOND BEAM STEP



NON LOAD-BEARING MASONRY REINFORCEMENT SCHEDULE			
12" CMU	EXTERIOR -	Hw ≤ 10'-0"	#6@48" CENTERED
		Hw > 10'-0" ≤ 14'-0"	#6@48" CENTERED
	INTERIOR	Hw ≤ 16'-0"	#5@48" CENTERED
8" CMU (EXCLUDES DISPATCH CENTER)	EXTERIOR -	Hw [≤] 14'-0"	#5@48" CENTERED
		Hw > 14'-0"	#6@24" CENTERED
	INTERIOR	Hw ≤ 16'-0"	#4@48" CENTERED

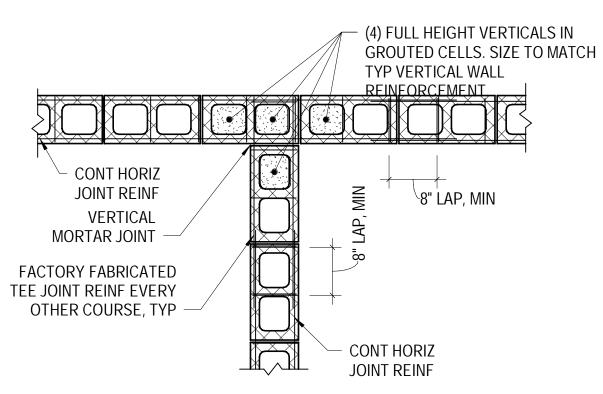


- SHALL BE TIED TOGETHER, UNO. 3. ANCHOR ALL VERTICAL REINF TO FOUNDATION USING MATCHING DOWELS.
- 4. PROVIDE ADDITIONAL 2 #5 VERT REINF EACH SIDE OF OPENING AND CONTROL
- 5. PROVIDE CONTINUOUS 9 GA TRUSS TYPE HORIZONTAL JOINT REINF AT 16" OC. 6. REINFORCE CMU CORES AT ALL CORNERS W/ 2 - #6 BARS. 7. USE BOND BEAM W/ 2 - #5 BARS MIN. AT TOP AND BOT OF WALL.
- 8. EXTERIOR LOCATION APPLIES WHERE CMU WALL OR FINISH ON CMU WALL IS DIRECTLY EXPOSED TO WIND INCLUDING INTERIOR WALLS LOCATED IN WIND PATHS. INTERIOR LOCATION APPLIES WHERE CMU WALL IS NOT DIRECTLY EXPOSED
- 9. REINFORCEMENT SHOWN IN SCHEDULE APPLIES UNLESS GREATER REINFORCEMENT CALLED OUT IN PLAN OR DETAILS.
- 10. THIS DETAIL REQUIRES THE USE OF TYPE S MORTAR.

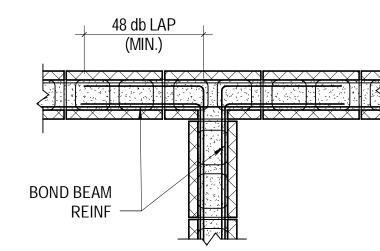
2	TYP RUNNING BOND CMU REINF SCHEDULE
	Scale: 3/4" = 1'-0"

PERPENDICULAR

TO BEAM SPAN



TYP VERT REINF & JOINT REINF

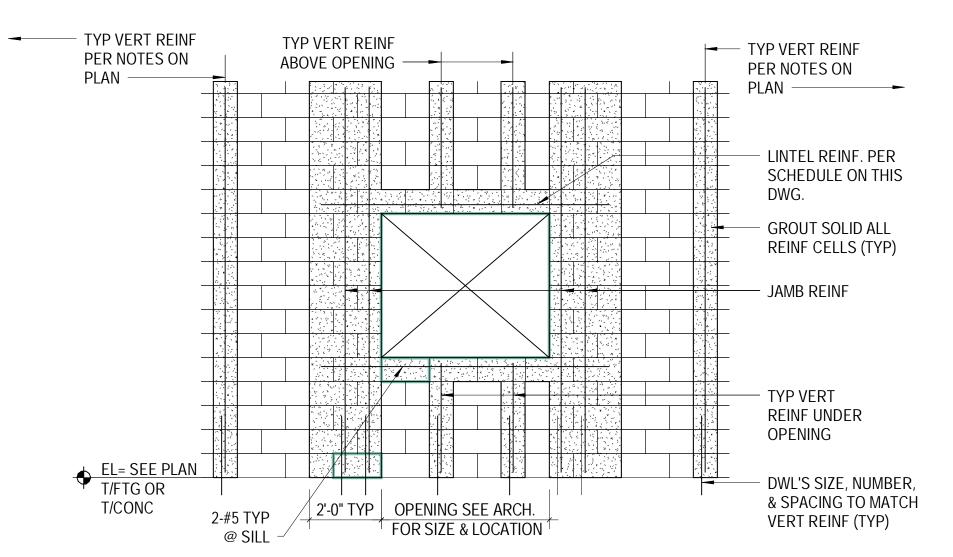


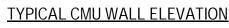
VERT WALL REINF NOT SHOWN FOR CLARITY. SEE DETAIL ABOVE FOR ADD'L INFO.

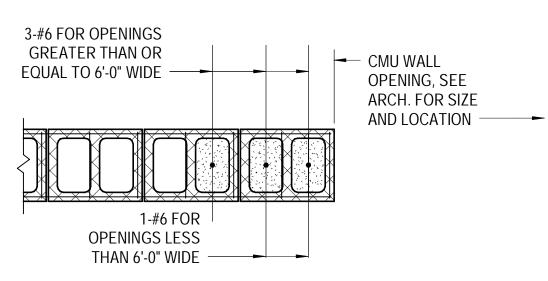
AT BOND BEAMS

NOTE: BOND BEAM REINFORCING AT FRAMED FLOORS AND ROOF LEVEL SHALL BE CONTINUOUS THROUGH THE CONTROL JOINT. INTERMEDIATE BOND BEAM REINFORCING, BOND BEAM REINFORCING AT TOP PARAPETS AND BOND BEAM REINFORCING AT SLAB ON GRADE ELEVATION SHALL BE DISCONTINUED AT CONTROL JOINTS.

TYP CMU WALL INTERSECTION DETAIL Scale: 3/4" = 1'-0"







TYP JAMB DETAIL

1. TYP BOND BEAM REINFORCING NOT SHOWN FOR CLARITY 2. DETAIL SHOWN IS FOR WINDOWS. DOOR OPNGS ARE SIMILAR.

4 TYP RUNNING BOND CMU WALL OPENING DETAIL

Scale: 3/4" = 1'-0"

CONNECT DECK TO L3 IN

ACCORDANCE W/ DECK

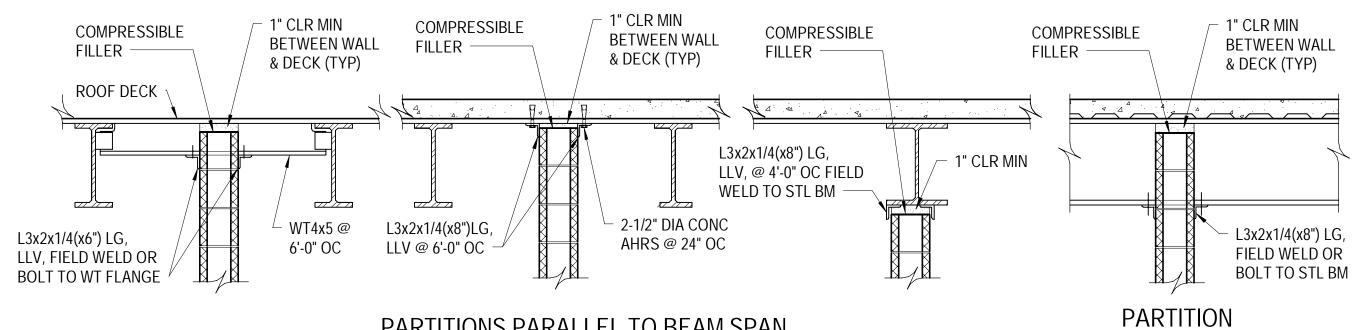
ATTACHMENT DETAIL

CONT L3x3x1/4

TYP FLOOR SUPPORT DETAIL

Scale: 12" = 1'-0"

- WWF



PARTITIONS PARALLEL TO BEAM SPAN

Scale: 12" = 1'-0"

1. AT CONTRACTOR'S OPTION, CONNECTIONS MAY BE FIELD WELDED. 2. PROVIDE LATERAL BRACING AS SHOWN FOR ALL INTERIOR CMU PARTITION WALLS WHERE PARTITION LENGTH BETWEEN CROSS WALLS EXCEEDS 16'-0" FOR 6" THICK WALLS OR 22'-0" FOR 8" THICK WALLS.

TYP CMU TO STL BEAM/SLAB PARTITION BRACING **DETAIL**

SEE TYP CMU **CONTROL JOINT** WALL REINF STOP HORIZ JOINT REINFORCING

TYP REINFORCING AT CONTROL JOINT DETAIL Scale: 12" = 1'-0"

#4 EACH SIDE OF AT EACH SIDE OF CONTROL JOINT / CL CONTROL JOINT

FIN. FL EL -

8" CMU W/ #5@48" OC -

3/4" DIA CONC AHR

SPACING TO MATCH

VERT REINF -

Ö

On

STEEL DETAILS

PROJECT NO. 00000000

FLOOR OPENING SCHEDULE SEE NOTE BELOW TO 10" NO ADDITIONAL REINFORCING REQUIRED CL OF INTERMEDIATE 10" TO 16" OF SUPPORT 16" TO 24" 24" TO 30" OVER 30" 5/8" DIA PUDDLE WELDS @ 12" AT PERIMETER

#10 TEK SCREWS @

12" AT SIDE LAPS -

5/8" DIA PUDDLE WELDS

@ 12" AT PERIMETER -

→ #10 TEK SCREWS

TYP COMPOSITE DECK ATTACHMENT DETAIL

* DECK HEIGHT

1. ALL SHEAR STUDS TO BE 3/4" DIA, 4-1/2" TALL UNLESS NOTED OTHERWISE

BETWEEN INTERSECTING MEMBERS AND/OR SUPPORTING MEMBERS.

EQUAL. SEE NOTE 3 FOR SPACING LIMITATIONS.

2. THE NUMBER OF STUDS IS INDICATED THUS (XX) ON THE PLAN. WHEN MORE THAN ONE QUANTITY OF STUDS ARE INDICATED ON THE BEAM, STUDS SHALL BE PLACED IN CORRESPONDING GROUPS

COMPOSITE BEAM SHALL BE 4-1/2" AND THE MAXIMUM CENTER TO CENTER SPACING SHALL BE

4. WHERE DECK IS PERPENDICULAR TO THE COMPOSITE BEAM, STUDS SHALL BE PLACED AS FOLLOWS: CASE #1: (MORE DECK FLUTES THAN STUDS) PLACE ONE STUD IN EVERY OTHER DECK FLUTE THEN STARTING AT EACH END OF THE BEAM, PLACE REMAINING STUDS IN UNUSED

DECK FLUTES. THE NUMBER OF STUDS ON EACH HALF OF THE BEAM SHOULD BE

CASE #2: (MORE STUDS THAN DECK FLUTES) PLACE ONE STUD IN EVERY DECK FLUTE THEN

STARTING AT EACH END OF THE BEAM, DOUBLE STUD EVERY DECK FLUTE UNTIL

5. WHERE DECK IS PARALLEL TO THE COMPOSITE BEAM, THE STUDS SHALL BE UNIFORMLY SPACED IN

A SINGLE ROW. IF THE STUDS CANNOT BE SPACED AT 4-1/2" CENTER TO CENTER OR GREATER IN

6. COMPOSITE BEAM NOTATION: (KEY VALUES AND SIZES SHOWN FOR ILLUSTRATION PURPOSES ONLY)

- # OF SHEAR STUDS-SEGMENTED LAYOUT (SEE NOTE 2)

SHEAR STUD PLACEMENT NOTES

- BEAM OR GIRDER

CJP, T&B FLG

TOS, SEE PLANS

SEE NOTE 4

-BEAM OR GIRDER

Scale: 3/4" = 1'-0"

REMAINING STUDS ARE USED. THE NUMBER OF STUDS ON EACH HALF OF THE BEAM

B. $\,$ MINIMUM CENTER TO CENTER SPACING OF STUDS ALONG THE LONGITUDINAL AXIS OF THE

32". ALONG THE TRANSVERSE AXIS, THE CENTER TO CENTER SPACING SHALL BE 3".

SHOULD BE EQUAL. SEE NOTE 3 FOR SPACING LIMITATIONS.

A SINGLE ROW, THE STUDS SHALL BE UNIFORMLY SPACED IN A DOUBLE ROW.

OF SHEAR STUDS-UNIFORM LAYOUT (SEE NOTE 2)

FACTORED REACTION (LRFD)

SUPPORT

Scale: 12" = 1'-0"

CL OF INTERMEDIATE SUPPORT

@ FLUTES NOT HAVING STUDS

5/8" DIA PUDDLE WELDS

#10 TEK SCREWS @

12" AT SIDE LAPS -

CONTRACTOR'S OPTION

20 GAGE BENT CLOSURE

PERIMETER HIGH FLUTES

SHEAR STUD PLACEMENT NOTES:

≤ STOP WELD 1/2" BACK FROM EDGE OF FLG

SECTION A-A

NO SCALE

TS(xWS)—

STIFF PL,

4 REQ'D—

SIMILAR.

INTO THE COLUMN.

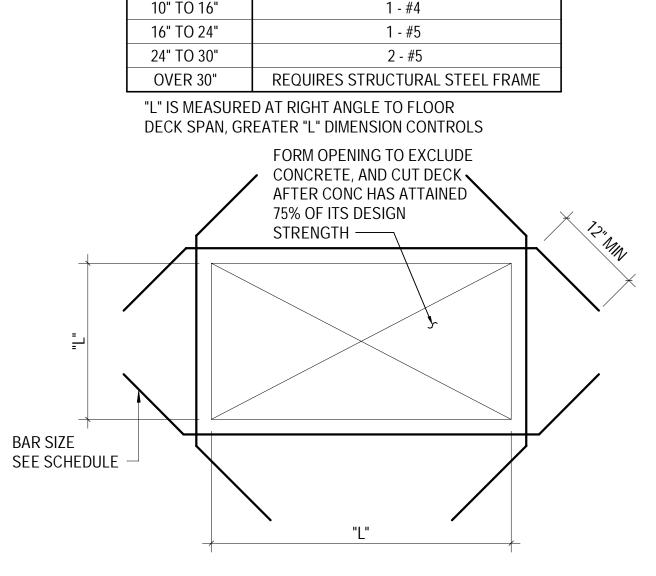
PLATE (7" MAX.) AT

1-1/2" ROOF DECK: 5/8" DIA PUDDLE WELDS @ 36/4 PATTERN AT ENDS AND SUPPORTS 5/8" DIA PUDDLE WELDS @ 36/7 PATTERN AT ROOF EDGES AND CORNERS

3" ROOF DECK: 5/8" DIA PUDDLE WELDS @ 24/4 PATTERN AT ENDS AND SUPPORTS

CL OF END SUPPORT

TYP ROOF DECK ATTACHMENT DETAIL Scale: 12" = 1'-0"



TYP FLOOR SLAB ON DECK OPNG REINF DETAIL

Scale: 12" = 1'-0"

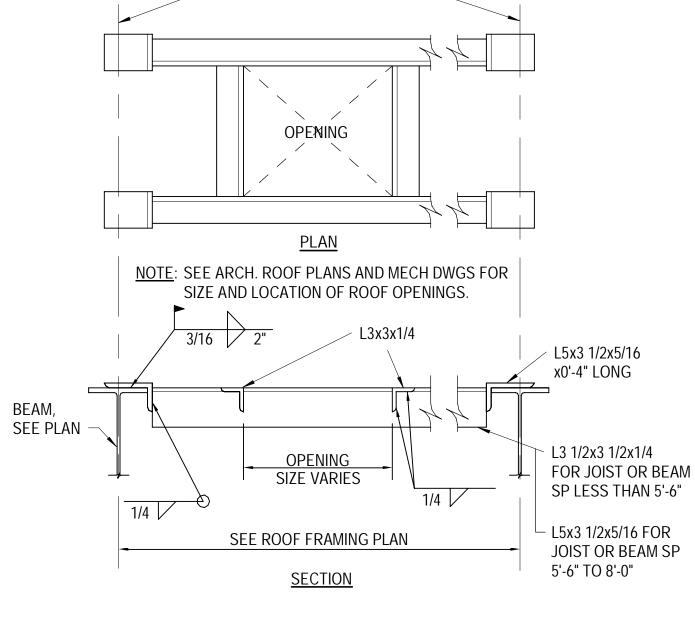
Scale: 3/4" = 1'-0"

REINFORCEMENT

- CONTINUOUS SHEET MTL. CLOSURE 3/8" PLATE (MIN) STIFF. (TOP TO BE AT THE SAME ELEVATION AS TOP OF SPANDREL L3x3x1/4 (MIN) BEAMS OR GIRDERS) L3x3x1/4 (MIN) NOTE: METAL DECK CONTRACTOR SHALL FURNISH AND LINE INSTALL L3x3x1/4 (MIN) DECK SUPPORT AT COLUMNS WHERE DECK RIBS ARE INTERRUPTED

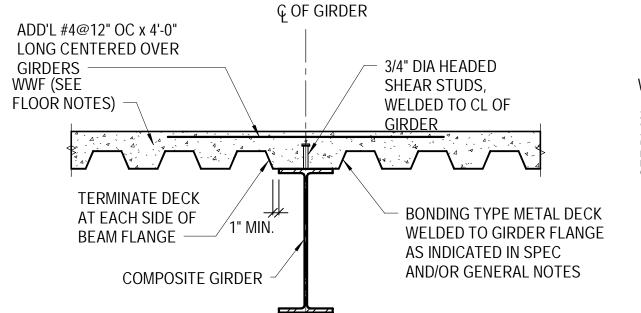
TYP COMPOSITE DECK SUPPORT @ COLUMNS

Scale: 3/4" = 1'-0"



CL STL JOIST OR BEAM

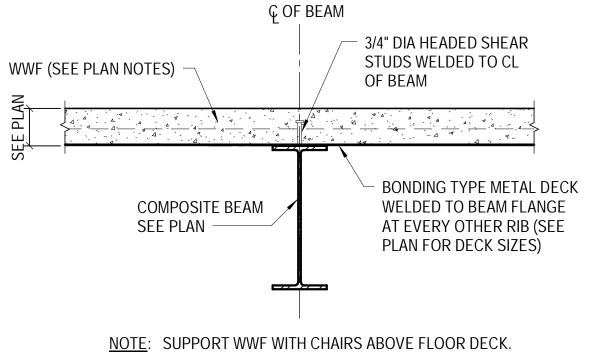
TYP FRAMING FOR ROOF OPENING DETAIL Scale: 12" = 1'-0"



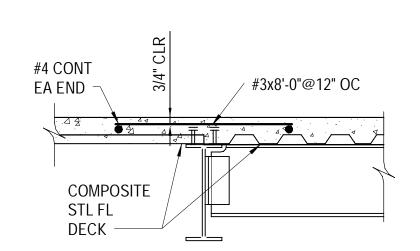
NOTE: SUPPORT WWF WITH CHAIRS ABOVE FLOOR DECK.

TYP COMPOSITE GIRDER DETAIL

Scale: 3/4" = 1'-0"

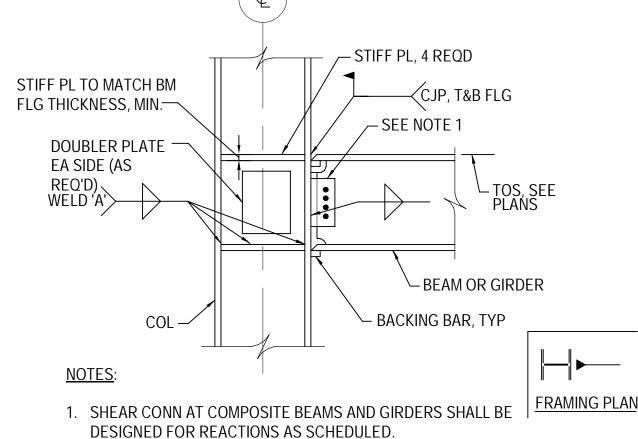


TYP COMPOSITE BEAM DETAIL



NOTE: SUPPORT REBAR WITH CHAIRS ABOVE FLOOR DECK.

TYP CHANGE IN DECK SPAN DIRECTION DETAIL Scale: 12" = 1'-0"



- 2. STIFFENER PLATES REQ'D FOR WEAK-AXIS MOMENT CONNS ACT AS EFFECTIVE STIFFENER PLATES FOR STRONG-AXIS MOMENT CONNS.
- 3. ONE-SIDED MOMENT CONNS SHOWN; MULTIPLE CONN SHALL BE SIMILAR.
- 4. SHEAR PLATE THICKNESS AT WEAK-AXIS MOMENT CONNS SHALL MATCH THE WEB THICKNESS OF THE BEAM OR GIRDER FRAMING INTO THE COLUMN.

TYP STRONG-AXIS MOMENT CONNECTION Scale: 12" = 1'-0"

IN (#4	@12" OC TOP BARS, L PLANS OR SECTIONS !@8" OC TOP BARS HERE OVERHANG IS > #4 BAR COMPOS SLAB DEPTH SHEET METAL POU SEE TABLE FOR TH UNO IN SECTIONS	CONT SITE JR STOP, HICKNESS	OR A	PLAN ARCH. 2" MIN ANG	FOR POUF STOP MATERIAL 1/8 2@12 FOR POUF STOP MATERIAL 3" LONG PUDDL LOGA. TO 1/4" WELD @ 1'-0" OC, TYP 2'-1" COMPOSITE SLAB - SEE PLAN FOR ORIENTATION (PROVIDE 1-1/2" MIN BEAR FOR METAL DECK SPANNI
			FOR SIZE	l	PERPENDICULAR TO BEAN
			CHEDULE		\ SEE SHEAR STUD PLACEMENT
	OVERHANG	GAGE		WELD LENGTH	NOTES ON S5.11
	O" TO 6"	12	0.10460"	SEE ABOVE	
	>6" TO 9"	10	0.13450"	SEE ABOVE	
	>9" TO 1'-0"	-	3/16"	SEE ABOVE	
	>1'-0" TO 1'-4"	-	1/4"	SEE ABOVE	
	>1'-4" TO 1'-7"	-	3/8"	2"@12"	

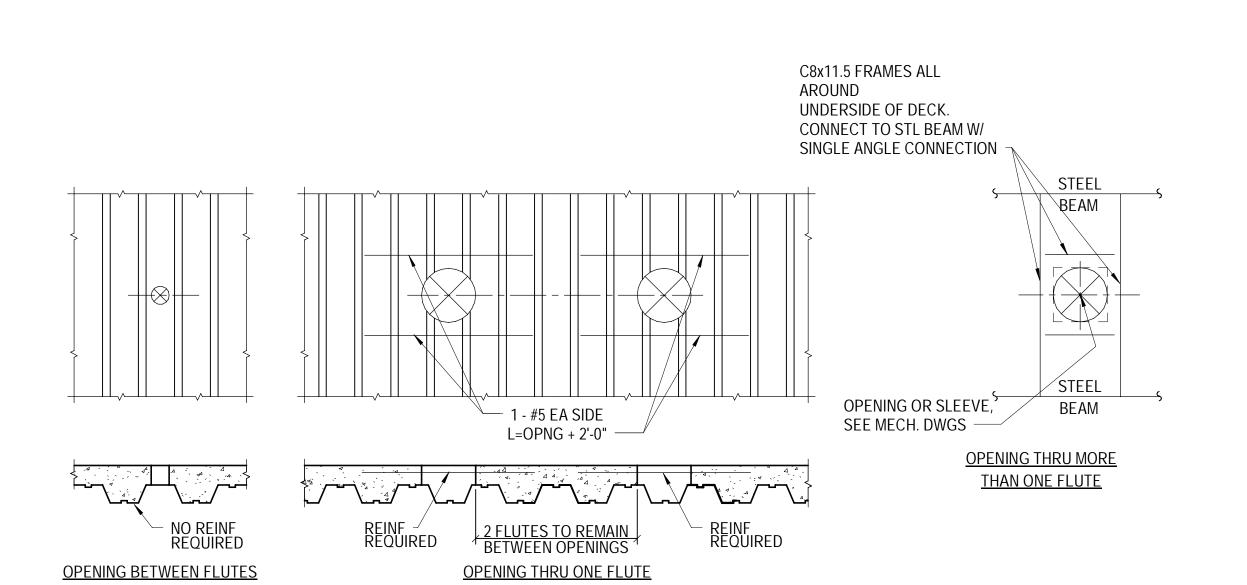
TYPE EDGE OF COMPOSITE SLAB DETAIL Scale: 3/4" = 1'-0"

1/2"

3/4"

>1'-7" TO 1'-10"

>1'-10" TO 2'-2"



13 TYP OPENINGS IN COMPOSITE FLOOR DECK DETAIL Scale: 3/4" = 1'-0"

1. SHEAR CONN AT COMPOSITE BEAMS AND GIRDERS SHALL BE FRAMING PLAN

2. STIFFENER PLATES REQ'D FOR WEAK-AXIS MOMENT CONNS ACT AS

3. ONE-SIDED MOMENT CONNS SHOWN; MULTIPLE CONNS SHALL BE

4. SHEAR PLATE THICKNESS AT WEAK-AXIS MOMENT CONNS SHALL MATCH THE WEB THICKNESS OF THE BEAM OR GIRDER FRAMING

EFFECTIVE STIFFENER PLATES FOR STRONG-AXIS MOMENT CONNS.

DESIGNED FOR REACTIONS AS SCHEDULED.