

PROJECT:

RICHFIELD ARMORY - OUT BUILDING REMODEL

PROJECT ADDRESS - 620 W 200 S RICHFIELD, UTAH 84701-2412

DFCM PROJECT NO. 09168480



State of Utah - Department of Administrative Services

DIVISION OF FACILITIES CONSTRUCTION AND MANAGEMENT

4110 State Office Building/Salt Lake City, Utah 84114/538-3018

CODE ANALYSIS

APPLICABLE CODES

Code	Year	Code	Year
International Building Code	2006	National Electrical Code	2008
International Mechanical Code	2006	Uniform Code for Building Conservation	1991 UCBC
International Plumbing Code	2006	ADA Accessibility Guidelines	ADAAG + UFAS
International Fire Code	2006		
International Energy Conservation Code	2006		

- A. Occupancy and Group: 5-2
- Change in Use: Yes No x Mixed Occupancy: Yes No x
 Special Use and Occupancy (e.g. High Rise, Covered Mall):
- B. Seismic Design Category: Design Wind Speed: mph

C. Type of Construction (circle one):

- I/A I/B II/A II/B III/A III/B IV/HT V/A V/B

D. Fire Resistance Rating Requirements for the Exterior Walls based on the fire separation distance (in hours):

North: South: East: West:

E. Mixed Occupancies: NA Nonseparated Uses: NA

F. Sprinklers:

Required: NO Provided: NO Type of Sprinkler System: NA

G. Number of Stories: 2 Building Height: 20 FT

H. Actual Area per Floor (square feet): 1525 SF + 1435 SF + 2960 SF TOTAL

I. Tabular Area: 13500 SF

J. Area Modifications:

$$a) A_a = A_t + \left[\frac{A_t I_f}{100} \right] + \left[\frac{A_t I_s}{100} \right] \quad I_f = 100 \left[\frac{F}{P} - 0.25 \right] \frac{W}{30}$$

$$A_2 = 32,160 \text{ S.F.}$$

b) Sum of the Ratio Calculations for Mixed Occupancies: NA

$$\frac{\text{Actual Area}}{\text{Allowable Area}} \leq 1$$

c) Total Allowable Area for:

- One Story: 32,160 SF
- Two Story: A_a(2) NA
- Three Story: A_a(3) NA

d) Unlimited Area Building: Yes No x Code Section: NS

K. Fire Resistance Rating Requirements for Building Elements (hours).

Element	Hours	Assembly Listing	Element	Hours	Assembly Listing
Exterior Bearing Walls	0		Floors - Ceiling Floors	0	
Interior Bearing Walls	0		Roofs - Ceiling Roofs	0	
Exterior Non-Bearing Walls	0		Exterior Doors and Windows	0	
Structural Frame	0		Shaft Enclosures	0	
Partitions - Permanent	0		Fire Walls	0	
Fire Barriers	0		Fire Partitions	0	
			Smoke Partitions		

L. Design Occupant Load: 500 SF / OCC + 3 OCC / LOAD

Exit Width Required: 06' Exit Width Provided: 36'

M. Minimum Number of Required Plumbing Facilities:

- Water Closets - Required (m) NA (f) NA Provided (m) 0 (f) 0
- Lavatories - Required (m) NA (f) NA Provided (m) 0 (f) 0
- Bath Tubs or Showers: NA
- Drinking Fountains: NA Service Sinks: NA

FOOTNOTES:

1) In case of conflict with the U.S. Department of Justice Federal Registers Parts I through V - ADA Guidelines and specific reference to the International Building Code Accessibility Chapters, the more restrictive requirement shall govern.

2) Additional Code Information shall be provided at the discretion of the Building Official for Complex Buildings. Including, but not limited to:

- High Rise Requirements.
- Atriums.
- Performance Based Criteria.
- Means or Egress Analysis.
- Fire Assembly Locator Sheet.
- Exterior and Interior Accessibility Route.
- Fire Stopping, Including Tested Design Number.

ACCESSIBLE ROUTE: SITE AND OUT BUILDING, MAIN LEVEL IS REQUIRED TO BE ON AN ACCESSIBLE ROUTE AS PER 1103.1. UPPER LEVEL IS EXEMPT AS PER EXCEPTIONS 1 & 2.

INDEX TO DRAWINGS

SHEET	DRAWING TITLE
G-001	COVER SHEET, VICINITY MAP
5-101	STRUCTURAL NOTES
5-102	FOOTING AND FOUNDATION PLAN
5-103	MAIN FLOOR PLAN
5-104	UPPER FLOOR PLAN
5-105	UPPER FLOOR FRAMING
5-201	STRUCTURAL DETAILS
5-202	STRUCTURAL DETAILS
A-100	SITE PLAN
A-101	EXISTING FLOOR PLAN
A-102	MAIN LEVEL FLOOR PLAN
A-103	UPPER LEVEL FLOOR PLAN
A-104	EXISTING REFLECTED CEILING PLAN
A-105	MAIN LEVEL REFLECTED CEILING PLAN
A-106	UPPER LEVEL REFLECTED CEILING PLAN
A-201	EXTERIOR ELEVATIONS
A-202	EXTERIOR ELEVATIONS
A-301	WALL SECTIONS
A-302	STAIR SECTION
A-501	ARCHITECTURAL DETAILS
A-601	DOOR & WINDOW SCHEDULES
E-101	ELECTRICAL SYMBOLS AND NOTES
E-201	FLOOR PLANS - ELECTRICAL
E-301	ELECTRICAL SYMBOLS AND NOTES



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BUILDING NAME:

RICHFIELD ARMORY

UTAH NATIONAL GUARD

PROJECT TITLE:

OUT BUILDING REMODEL

MARK	DATE	DESCRIPTION
1	08/17/09	DFCM
2	08/25/09	DFCM R.2

ISSUE TYPE: CONSTRUCTION SET

ISSUE DATE: AUG 17, 2009

DFCM PROJECT NO: 09168480
 CAD PROJECT NO: 09044
 CAD DWG FILE:
 DRAWN BY: MHF
 CHK'D BY: CDJ
 COPYRIGHT: STATE OF UTAH

SHEET TITLE

COVER SHEET

SHEET NUMBER

G-001

SHEET 01 OF 24

PROJECT TEAM

ARCHITECT

JSA ARCHITECTS, LLC
 6465 SOUTH 3000 EAST SUITE 205
 SALT LAKE CITY, UTAH 84121
 PHONE: (801) 733-2500

INTERIOR DESIGNER

N/A

CIVIL ENGINEER

N/A

STRUCTURAL ENGINEER

ACUTE ENGINEERING P.C.
 1429 South State Street
 Orem, Utah 84097
 801-229-9020

MECHANICAL ENGINEER

N/A

ELECTRICAL ENGINEER

PVE, INC
 1040 N. 2200 W. STE 100
 SALT LAKE CITY, UTAH 84116
 801-359-3158

LANDSCAPE ARCHITECT

N/A

APPROVALS

PRIME AGENCY _____ DATE _____

DFCM _____ DATE _____

APPROVAL DOES NOT RELIEVE A/E OF DESIGN LIABILITY

PRIME AGENCY _____ DATE _____

DFCM _____ DATE _____

APPROVAL DOES NOT RELIEVE A/E OF DESIGN LIABILITY

ABBREVIATIONS

* NUMBER	FDN/FDTN. FOUNDATION	N.I.C. NOT IN CONTRACT
@ ANGLE	F.E. FIRE EXTINGUISHER	N.T.S. NOT TO SCALE
L ANCHOR BOLT	F.E.C. FIRE EXTINGUISHER CABINET	O.C. ON CENTER
AB. ABOVE	F.F. FINISH FLOOR	O.D. OUTSIDE DIAMETER
ADJ. ADJUSTABLE	FIN. FINISH	O.F. OUTSIDE FACE
AFF. ABOVE FINISH FLOOR	FLR. FLOOR	PERP. PERPENDICULAR
ALUM. ALUMINUM	FT. FEET	PL. PLATE
D.B.A. DEFORMED BAR ANCHOR	FIG. FOOTING	PLT. PAINTED
B.D.G. BOARD	G.A. GAGE/GAUGE	QTY. QUANTITY
B.M. BUILDING	GALV. GALVANIZED	R.D. ROOF DRAIN
B.O. BOTTOM OF	GPM. GALLONS PER MINUTE	RAD. RADIUS
B.P. BASE PLATE	GOVT. GOVERNMENT	REIN. REINFORCED
BRG. BEARING	G.Y.F. BD. GYPSUM WALL BOARD	REQD. REQUIRED
B.TUN. BETWEEN	H.C. HANDICAPPED	R.F. ROOM
C.J. CONSTRUCTION JOINT	H.D. HARDWARE	R.O. ROUGH OPENING
CLG. CEILING	H.M. HOLLOW METAL	SCHED. SCHEDULE
CLR. CLEAR	H.O.R.I.Z. HORIZONTAL	SHT. SHEET
CMU CONCRETE MASONRY UNIT	H.S.A. HEADED STUD ANCHOR	SIM. SIMILAR
COL. COLUMN	H.T. HEIGHT	SPEC. SPECIFICATION
CONC. CONCRETE	H.V.A.C. HEATING/VENTILATION/	STC SOUND TRANSMISSION
CONT. CONTINUOUS	A.I.R. COND. AIR CONDITIONING	STD. STANDARD
CONSTR. CONSTRUCTION	HYD. HYDRANT	STIFF. STIFFEN
C.T.J. CONTRACTION JOINT	I.D. INSIDE DIAMETER	STRUCT. STRUCTURAL
DBL. DOUBLE	I.F. INSIDE FACE	SUSP. SUSPENDED
DET./DTL. DETAIL	INFO. INFORMATION	T.O. TOP OF
DIA. DIAMETER	INSUL. INSULATION	T.O.C. TOP OF CURB
DUGS. DRAWINGS	LAV. LAVATORY	T.O.F. TOP OF FOOTING
E.F. EACH FACE	L.T. LIGHT	T.O.S. TOP OF SLAB
E.I. EXPANSION JOINT	L.T. WT. LIGHT WEIGHT	OR SIDEWALK
ELEV. ELEVATION	MAINT. MAINTENANCE	TOP OF WALL
EQ. EQUAL	MANUF. MANUFACTURER	TYP. TYPICAL
E.W. EACH WAY	MAX. MAXIMUM	UNO. UNLESS NOTED OTHERWISE
EXIST. EXISTING	MAT. MATERIAL	VERT. VERTICAL
EXT. EXTERIOR	M.C.J. MASONRY CONTROL JOINT	VNR. VENEER
E.W.C. ELECTRIC WATER COOLER	MECH. MECHANICAL	W. WOOD
F.D. FLOOR DRAIN	MIN. MINIMUM	W.U.F. WELDED WIRE FABRIC
	MISC. MISCELLANEOUS	
	M.O. MASONRY OPENING	
	M.T. METAL	

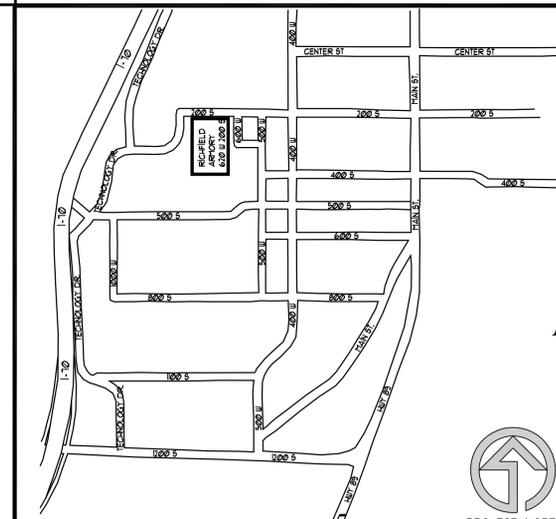
MATERIALS / LEGEND

	CONCRETE MASONRY UNIT
	BRICK VENEER
	STONE VENEER
	CONCRETE
	GYPSUM BOARD OR GROUT MORTAR
	BATT INSULATION
	PLYWOOD
	ROUGH WOOD-CONTINUOUS
	ROUGH WOOD-BLOCKING
	WOOD TRIM
	STEEL
	GRAVEL
	EARTH
	TILE

GRAPHIC SYMBOLS

	FLOOR OR POINT ELEVATION
	CENTER LINE
	DIAMETER
	KEY NOTE
	WALL TYPE
	DOOR NUMBER
	WINDOW NUMBER
	FIXTURE TAG
	REVISION TAG
	DETAIL
	INTERIOR ELEVATION
	ENTRY
	ROOM NAME & NUMBER
	BUILDING OR WALL ELEVATION
	WALL SECTION
	BUILDING SECTION
	MASTER GRID LINES
	PARKING GRID LINES
	BUILDING GRID LINES

VICINITY MAP



GENERAL STRUCTURAL NOTES

DESIGN CRITERIA

- 1. Building code: 2006 IBC
1.1. State amendments: Utah Administrative Code (UAC) R156-56
1.2. Use and occupancy classification: B (Business)
1.3. Category: II (Not occupancy categories I, III, IV)
2. Dead load
2.1. Roof = 0 psf (0 psf top chord, 0 psf bottom chord)
2.2. Floor = 56 psf
3.3. Walls = 10 psf (interior walls), 8 psf (exterior walls)
3. Live load
-- Roofs (ordinary construction) = 20 psf (or 300 lb point load)
-- Storage warehouses (light) = 125 psf (or 0 lb point load)
4. Snow load
4.1. Ground snow load, Pg = 43 psf (elevation 5350 ft)
4.2. Exposure factor, Ce = 1
4.3. Thermal factor, Ct = 1
4.4. Occupancy importance factor, Ie = 1
4.5. Flat roof snow load, Pf = 30 psf
5. Earthquake design data
5.1. Mapped acceleration parameters
5.1.1. Latitude, Longitude: 38.708, -111.728
5.1.2. MCE short period
5.1.3. MCE 1.0 sec. period
5.2. Seismic design category: D
5.3. Occupancy importance factor, Ie = 1
5.4. Basic structural system: Cantilevered column systems detailed
5.5. Seismic force-resisting system: OMF
5.5.1. Response modification factor
5.5.2. System overstrength factor
5.5.3. Deflection amplification factor
5.5. Equivalent Lateral Force Procedure
5.5.1. Seismic response coefficient
5.5.2. Seismic base shear (LRFD)
6. Wind design data
6.1. Exposure category: C
6.2. Basic wind speed, V = 90 mph
6.3. Occupancy importance factor, Iw = 1
6.4. Internal pressure coeff., Gcpi = 0.18
7. Foundation design data
7.1. Geotechnical report: Not Available
7.2. Site class = D
7.3. Soil classification types: GW, GP, SW, SP
7.4. Lateral earth pressure
7.4.1. Active = 30 psf
7.4.2. At-rest = 60 psf
7.5. Allowable foundation parameters
7.5.1. Allowable soil bearing, Qa = 1500 psf
7.5.2. Allowable lateral bearing = 150 psf
7.5.3. Coefficient of friction = 0.25
7.6. Minimum frost cover = 30 in.

DEFERRED SUBMITTALS

- 1. The following items are to be submitted subsequent to the time of application (deferred submittals):
-- Steel stairs (stair manufacturer) Approx. submittal date: 1 Nov. 2009
2. Deferred submittals shall have the prior approval of the building official (2006 IBC 106.3.4.2).
3. Deferred submittal documents shall be submitted to the registered design professional in responsible charge who shall review and forward them to the building official with a notation indicating that the documents have been reviewed and found to be in general conformance to the design of the building (2006 IBC 106.3.4.2).
4. Deferred submittal items shall not be installed until the design and submittal documents have been approved by the building official (2006 IBC 106.3.4.2).

GENERAL

- 1. Construction documents are valid for a single use at the project location and shall not be reused, copied, or reproduced without written approval of the registered design professional in responsible charge.
2. General notes and typical details are provided as a supplement to the construction documents and apply where specific notes and details are not available. Specific notes and structural details shall take precedence over general notes and typical details. Structural requirements shown in the framing plans and in structural details shall take precedence over structural notes indicated in architectural sections.
3. Printed dimensions shall take precedence over scales shown on construction documents. The registered design professional in responsible charge does not warrant the accuracy of scaled dimensions.
4. Approval by the inspector does not imply approval by the registered design professional in responsible charge. Structural specifications that are unclear or ambiguous shall be referred to the registered design professional in responsible charge for interpretation or clarification.
5. The registered design professional in responsible charge assumes no liability for the accuracy, completeness, or code compliance of architectural, electrical, mechanical, drainage, or other non-structural specifications.
6. Omissions in and conflicts between the various elements of the construction documents shall be brought to the immediate attention of the registered design professional in responsible charge and shall be resolved by the same before proceeding with any work involved.
7. Requests for substitutions shall be submitted in writing to the registered design professional in responsible charge and shall include the reasons for the request and any cost differentials. Substitutions are not allowed unless approved in writing by the registered design professional in responsible charge.
8. The contractor shall become familiar with all portions of the construction documents and shall insure that all subcontractors are familiar with those portions pertaining to their area of work. The contractor shall verify all site conditions, dimensions, elevations, coordinate all doors, windows, non-bearing interior and exterior walls, elevations, slopes, stairs, curbs, drains, recesses, depressions, railings, waterproofing, finishes, chamfer, kerfs, and so forth, and immediately notify the registered design professional in responsible charge regarding actual conditions which are not in agreement with the construction documents.
9. The contractor is responsible for the method, means, and sequence of all structural erection except when specifically noted otherwise in the construction documents. The contractor shall provide temporary shoring and bracing, providing adequate vertical and lateral support during erection. Shoring and bracing shall remain in place until all permanent members are placed and all final connections are completed.
10. The contractor is responsible for standard connections, unless noted otherwise. The contractor shall obtain additional assistance from the registered design professional in responsible charge for non-standard connections.

POST-INSTALLED ANCHORS

- 1. Epoxy adhesive anchoring systems:
1.1. Concrete: Hilti HIT-RE 500-SD (ICC ES ESR-2322) or Simpson SET-XP (ICC ES ESR-2508)
1.2. Masonry: Hilti HIT-HY 150-MAX (ICC ES ESR-1967)
1.3. Steel reinforcement and rods shall be embedded 10 bar diameters unless noted otherwise in the structural drawings and details. Where 10 bar diameters exceeds the member thickness minus minimum cover, steel reinforcement shall be embedded the member thickness minus minimum cover with a standard hook.
1.4. Embedded portions of steel reinforcement and rods shall be clean, straight, and free of mill scale, rust and other coatings that impair the bond with the adhesive. Reinforcement must not be bent after installation (ICC ES ESR-2322).
2. Mechanical expansion anchors:
2.1. Concrete: Hilti KWIK BOLT TZ (ICC ES ESR-1917)
2.2. Masonry: Hilti KWIK BOLT 3 (ICC ES ESR-1385)
2.3. Expansion anchors shall not be used in tensile load applications (e.g. hold-downs, moment frames).
3. Post-installed anchoring systems shall be installed according to the manufacturer's instructions. Hole cleaning method shall be based on drilling method and borehole conditions and shall conform to the manufacturer's instructions.

SOIL AND FOUNDATIONS

- 1. Foundation and soils investigations shall conform to 2006 IBC 1802. Excavation, grading and fill shall conform to 2006 IBC 1803. Footings and foundations shall be constructed in accordance with 2006 IBC 1805.
2. Where required, the owner shall submit a foundation and soils investigation report to the building official in accordance with 2006 IBC 1802. The contractor shall inform the registered design professional in responsible charge if the soil conditions are not consistent with the investigation report and the foundation design data.
3. Excavations for any purpose shall not remove lateral support from any footing or foundation without first underpinning or protecting the footing or foundation against settlement or lateral translation (2006 IBC 1803.1).
4. Excavation outside the foundation shall be backfilled with soil that is free of organic material, construction debris, cobbles and boulders or with soil that is a controlled low-strength material (CLSM). The backfill shall be placed in lifts and compacted, in a manner that does not damage the foundation or the waterproofing or dampproofing material (2006 IBC 1803.2).
5. The ground immediately adjacent to the foundation shall have a 5-percent slope away from the building for a minimum distance of 10 feet measured perpendicular to the face of the foundation wall. If physical obstructions or lot lines prohibit 10 feet of horizontal distance, a 5-percent slope shall be provided to an approved alternative method of diverting water away from the foundation. Impervious surfaces within 10 feet of the building foundation shall have a minimum 2-percent slope (2006 IBC 1803.3).
6. Footings and foundations shall be built on undisturbed soil, compacted fill material or CLSM. Compacted fill material and CLSM shall conform to 2006 IBC 1803.5 and 2006 IBC 1803.6, respectively (2006 IBC 1805.1).
7. The top surface of the footings shall be level. The bottom surface of footings is permitted to have a maximum 10-percent slope. Footings shall be stepped where it is necessary to change the elevation of the top surface of the footing or where the surface of the ground has more than a 10-percent slope (2006 IBC 1805.1).
8. The minimum depth of footings below the undisturbed ground surface shall be 12 inches. Foundation walls, piers and other permanent supports shall be extended below the frost line, except where otherwise protected from frost (2006 IBC 1805.2).
9. The placement of footings on or adjacent to 33-percent slopes and steeper shall conform to 2006 IBC 1805.3.
10. Floors of basements shall be placed over base course not less than 4 inches in thickness and a drain shall be installed around the foundation perimeter that consists of gravel or crushed stone containing not more than 10-percent material that passes through a No. 4 sieve (2006 IBC 1807.4).
11. Backfill shall not be placed against a foundation wall until the wall has sufficient strength and is anchored to the floor above, or is sufficiently braced to prevent damage by the backfill, except bracing is not required for wall supporting less than 4 feet of unbalanced backfill (R404.1.7).

CONCRETE

- 1. Concrete materials, quality control, and construction shall comply with 2006 IBC Chapter 19 and ACI 318-05.
2. Compressive strength (minimum specified at 28 days)
2.1. Footings: 3,000 psi (2006 IBC 1805.4.2.1)
2.2. Interior floor slabs on grade: 4,000 psi
2.3. Exterior floor slabs on grade: 4,000 psi (2006 IBC Table 1904.2.2)
2.4. Suspended slabs: 4,000 psi (2006 IBC Table 1904.2.2)
2.5. Walls: 3,000 psi (2006 IBC Table 1904.2.2) for R-2, R-3 occupancies and appurtenances, 4,000 psi (2006 IBC Table 1904.2.2) for other occupancies
3. Materials
3.1. Cements (ASTM C 150). Concrete exposed to freezing and thawing or deicing chemicals shall conform to the maximum water-cementitious material ratios and minimum compressive strength requirements of ACI 318-05 Table 4.2.2.
3.2. Aggregates (ASTM C 33): nominal maximum size of coarse aggregate shall not be larger than 1/5 the narrowest dimension between forms, nor 1/3 the depth of slabs, nor 3/4 the minimum clear spacing between reinforcing bars or wires, tendons, or ducts (ACI 318-05 3.3.2).
3.3. Water used in mixing concrete shall be potable, clean and free from injurious amounts of oils, alkalis, salts, organic materials, or other substances deleterious to concrete or reinforcement (ACI 318-05 3.4.1.3).
3.4. Admixtures shall be subject to prior approval by the registered design professional in responsible charge (ACI 318-05 3.6.1).
3.5. Concrete exposed to freezing and thawing or deicing chemicals shall be air-entrained with air content indicated in ACI 318-05 Table 4.2.1. Tolerance on air content as delivered shall be plus/minus 1.5 percent (ACI 318-05 4.2.1).
4. Steel Reinforcement
4.1. Deformed bars: fy = 60 ksi (ASTM A 615)
4.2. Welded plain wire: fy = 60 ksi (ASTM A 185)
4.3. At the time concrete is placed, reinforcement shall be free from mud, oil, or other nonmetallic coatings that decrease bond (ACI 318-05 7.4.1).
4.4. Reinforcement shall be accurately placed and adequately supported before concrete is placed, and shall be secured against displacement (ACI 318-05 7.5.1).
4.5. Details of reinforcement shall conform to 2006 IBC 1907.
5. Minimum concrete cover (ACI 318-05 7.7.1)
5.1. Concrete cast against and exposed to soil: 3 inches
5.2. Concrete exposed to soil or weather: 2 inches
5.3. Concrete not exposed to soil or weather: 1.5 inches
6. Formwork shall conform to ACI 318-05 chapter 6 and ACI 347. Forms shall be removed in a manner as not to impair safety and serviceability of the structure. Concrete exposed by form removal shall have sufficient strength not to be damaged by removal operation (ACI 318-05 6.2.1).
7. Conduits, pipes, and sleeves of any material not harmful to concrete and within the limitations of ACI 318-05 6.3 shall be approved by the registered design professional in responsible charge (ACI 318-05 6.3.1).
8. Construction joints shall be so made and located as not to impair the strength of the structure (ACI 318-05 6.3.1).
9. The thickness of concrete floor slabs on grade shall not be less than 3.5 inches. A 6-mil polyethylene vapor retarder with joints lapped not less than 6 inches (or an equivalent material) shall be placed between the base course or subgrade and the concrete floor slab, except a vapor retarder is not required in detached utility buildings or other unheated facilities (2006 IBC 1910.1).

STEEL

- 1. Structural steel work shall conform to 2006 IBC 2205, AISC 341-05, AISC 358-05, and AISC 360-05.
2. Structural shapes
2.1. W: fy = 50 ksi (ASTM A992)
2.2. M.S.C.M.C. and L: fy = 36 ksi (ASTM A36)
2.3. HP: fy = 50 ksi (ASTM A572 Gr. 50)
2.4. HSS Rectangular: fy = 46 ksi (ASTM A500 Gr.B)
2.5. HSS Round: fy = 42 ksi (ASTM A500 Gr.B)
2.6. Pipe: fy = 35 ksi (ASTM A53 Gr.B)
2.7. All structural steel shall be properly primed and painted.
3. Plates and bars: fy = 36 ksi (ASTM A36)
4. Structural fasteners
4.1. High-strength bolts: fu = 105-150 ksi (ASTM A325, A490)
4.2. Common bolts: fu = 60 ksi (ASTM A307 Gr. A)
4.2.1. Nuts (ASTM A563)
4.2.2. Washers (ASTM F436)
4.2.3. Steel to steel bolted connections shall be made with high strength-bolts, unless noted otherwise. Bolts shall carry the identifying mark of three radial lines. All other bolted connections shall be made with bolts and nuts conforming to ASTM A307 unless noted otherwise. Bolted connections shall be tightened and shall have washers as required by AISC unless noted otherwise. Enlarging holes shall be accomplished by means of reaming. Do not use a torch on any bolt holes.
4.3. Shear studs: fu = 65 ksi (ASTM A108)
4.4. Threaded rods: fy = 36 ksi (ASTM A36)
4.5. Anchor rods: fy = 36 ksi (ASTM F1554 Gr. 36 or A307)
5. Steel deck: fy = 36 ksi (ASTM A611)
6. Welding
6.1. Welding work shall comply with the American Welding Society (AWS) "Structural Welding Code," excluding items conflicting with AISC requirements.

COLD-FORMED STEEL FRAMING

- 1. Cold-formed (light-gage) steel framing shall conform to 2006 IBC 2209-2210 and AISI-2004 standards.
2. Material: fy = 33 ksi (ASTM A1003)
3. Corrosion protection: steel framing shall have a metallic coating complying with ASTM A1003 (AISI-2004 A4).
4. Fastening requirements: screws for steel-to-steel connections shall be installed with a minimum edge distance and center-to-center spacing of 0.5 inches, self-drilling tapping, and conform to SAEJ78. Screws for attaching structural sheathing to steel wall framing shall be self-drilling tapping, and conform to SAEJ78. Gypsum board shall be attached to steel wall framing with minimum No. 6 screws conforming to ASTM C954. For all connections, screws shall extend through the steel a minimum of three exposed threads. All self-drilling tapping screws shall have a Type II coating in accordance with ASTM B633 (R603.2.4).
5. Tracks shall have the same minimum thickness as the wall studs (R603.3.2).
6. The flanges of steel studs shall be laterally braced in accordance with one or both of the following methods: gypsum board or structural sheathing; horizontal steel strapping (1.5 inches wide and 33 mils thick) with blocking at strap ends and spaced vertically at the mid-point for walls up to 8 feet, third points for walls up to 10 feet, and spacing determined by the structural engineer for taller walls (R603.3.3).

STATEMENT OF SPECIAL INSPECTIONS

- 1. Special inspections shall conform to 2006 IBC 1704. Special inspections are not required for occupancies in Group R-3, occupancies in Group U that are accessory to a residential occupancy, and work of a minor nature, unless otherwise

- required by the building official (2006 IBC 1704.1).
2. The owner shall employ one or more special inspectors to provide inspections during construction where special inspections are required. The special inspector shall be a qualified person who shall demonstrate competence, to the satisfaction of the building official, for inspection of the particular type of construction or operation requiring special inspection (2006 IBC 1704.1).
3. Special inspectors shall keep records of inspections. The special inspector shall furnish inspection reports to the building official, and to the registered design professional in responsible charge. Reports shall indicate that work inspected was done in conformance to approved construction documents. Discrepancies shall be brought to the immediate attention of the contractor for correction. If the discrepancies are not corrected, the discrepancies shall be brought to the attention of the building official and to the registered design professional in responsible charge prior to the completion of that phase of the work. A final report documenting required special inspections and correction of any discrepancies noted in the inspections shall be submitted at a point in time agreed upon by the permit applicant and the building official prior to the start of work (2006 IBC 1704.1.2).
4. Special inspections shall be required for proposed work that is, in the opinion of the building official, unusual in nature, such as, but not limited to, construction materials and systems that are alternatives to materials and systems prescribed by code and materials and systems required to be installed in accordance with additional manufacturer's instructions that prescribe requirements not contained in code (2006 IBC 1704.13).

DFCM REQUIRED VERIFICATION AND INSPECTION OF EPOXY
Verification and inspection task Continuous Periodic
Epoxy adhesive anchoring system (see GSN) X

- 5. Soils
5.1. Special inspections for existing site soil conditions, fill placement, and load-bearing requirements shall be as required by 2006 IBC 1704.7 and 2006 IBC Table 1704.7. The approved soils report, required by 2006 IBC 1802.2, and the documents prepared by the registered design professional in responsible charge shall be used to determine compliance. During fill placement, the special inspector shall determine that proper materials and procedures are used in accordance with the provisions of the approved soils report, as specified in 2006 IBC 1803.5. Special inspection is not required during placement of controlled fill having a total depth of 12 inches or less (2006 IBC 1704.7).

DFCM REQUIRED VERIFICATION AND INSPECTION OF SOILS
Verification and inspection task Continuous Periodic
Site preparation X
Structural fill material X
Structural fill fill thickness X
Structural fill fill densities X
Backfill soil materials X
Backfill soil densities X
Fill material under side walks and parking X
Fill soil densities under side walks and parking X

- 6. Concrete
6.1. Special inspections for concrete construction shall conform to 2006 IBC 1704.4 and 2006 IBC Table 1704.4.
6.2. Special inspections are not required for isolated spread concrete footings of buildings three stories or less in height that are fully supported on earth or rock, or for continuous concrete footings supporting walls of buildings three stories or less in height that are fully supported on earth or rock where (1) the footings support walls of light-frame construction, (2) the footings are designed in accordance with 2006 IBC Table 1805.4.2, or (3) the structural design of the footing is based on a specified compressive strength no greater than 2,500 psi, regardless of the compressive strength specified in the construction documents or used in the footing construction. Special inspections are not required for nonstructural concrete slabs on grade, including pre-stressed slabs on grade, where the effective pre-stress in the concrete is less than 150 psi. Special inspections are not required for concrete foundation walls constructed in accordance with 2006 IBC Table 18015(5), or for concrete patios, driveways and sidewalks on grade (2006 IBC 1704.4).

DFCM REQUIRED VERIFICATION AND INSPECTION OF CONCRETE
Verification and inspection task Continuous Periodic
Materials (1704.4.1) X
Steel placement X
Steel welding X
Bills prior & during placement X
Use of required design mix X
Concrete sampling for strength test, slump, air c X
Concrete & shotcrete placement X
Curing temperature and techniques X
Form work X

- 7. Steel
7.1. Special inspections for steel elements shall be as required by 2006 IBC 1704.3, 2006 IBC Table 1704.3, AISC 341 and AWS D1.1 (IBC 1707.2 and IBC 1708.4).
7.2. Special inspection of the steel fabrication process shall not be required where the fabricator does not perform any welding, thermal cutting or heating operation of any kind as part of the fabrication process. In such cases, the fabricator shall be required to submit a detailed procedure for material control that demonstrates the fabricator's ability to maintain suitable records and procedures such that, at any time during the fabrication process, the material specification, grade and mill test reports for the main stress-carrying elements are capable of being determined (2006 IBC 1704.3).
7.3. If welding materials, procedures, and qualifications of welders are verified prior to the start of the work; periodic inspections are made of the work in progress; and a visual inspection of all welds is made prior to completion or prior to shipment of shop welding, then the special inspector need not be continuously present during welding of the following items: (1) single-pass fillet welds not exceeding 5/16 inch in size, (2) floor and roof deck welding, (3) welded studs when used for structural diaphragm, (4) welded sheet steel for cold-formed steel framing members and (5) welding of stairs and railing systems (2006 IBC 1704.3).

DFCM TABLE REQUIRED VERIFICATION AND INSPECTION OF STEEL
Verification and inspection task Continuous Periodic
High Strength Bolting (1704.3.3) X
WELDED (1704.3.1) X
Details (1704.3.2) X
Complete & partial penetration groove welds X
Multipass fillet welds X
Single pass fillet welds < 5/16" X
Single pass fillet welds > 5/16" X
Floor & roof deck welds X
REINFORCEMENT STEEL
Verification of weldability X
Shear wall and shear reinforcement X
Other reinforcement X
Steel frame joint details X

- 8. Architectural components
8.1. Periodic special inspection is required during the erection and fastening of exterior cladding and veneer except for architectural components in structures 30 feet or less in height, or for cladding and veneer weighing 5 psf or less (2006 IBC 1707.7).

DFCM REQUIRED VERIFICATION AND INSPECTION OF SEISMIC RESISTANCE
Verification and inspection task Continuous Periodic
Structural Steel (1707.2) X
Cold-formed steel framing (1707.4) X
Storage racks & access floors (1707.6) X
Architectural components (1707.7) X
Mechanical & electrical items (1707.8) X
Disassembled systems verification (1707.9) X

- 9. Special Inspectors Shall:
9.1. Be approved by the Building Official prior to performing any duties.
9.2. Provide proof of licensure as a special inspector by the State of Utah for each type of inspection.
9.3. Inspection reports are to meet the requirements of 2006 IBC 1704.1.2 and DFCM standards.
9.4. Inspection reports are to be submitted to the code consultant, architect, DFCM project manager, and the State of Utah Building Official within 48 hrs. of inspections.
9.5. A final inspection report shall be submitted following completion of the project documenting the types of special inspections performed and a statement indicating that the structure is in compliance with the drawings, specifications and applicable codes. 2006 IBC 1704.1.2.

10. Fabricators
Item Required Not allowed
Approved fabricators X
Unapproved fabricators X
In-plant inspections:
Steel construction X
Welding X
Details X
Fabricators must be on approved DFCM list.



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BUILDING NAME:

RICHFIELD ARMORY

UTAH NATIONAL GUARD

PROJECT TITLE:

OUT BUILDING REMODEL

MARK DATE DESCRIPTION

Table with 3 columns: MARK, DATE, DESCRIPTION

ISSUE TYPE: 95% PERMIT SET

ISSUE DATE: JULY 30, 2009

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CAD PROJECT NO: 09044
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SHEET TITLE

STRUCTURAL NOTES

SHEET NUMBER

S-101

SHEET 2 OF 24



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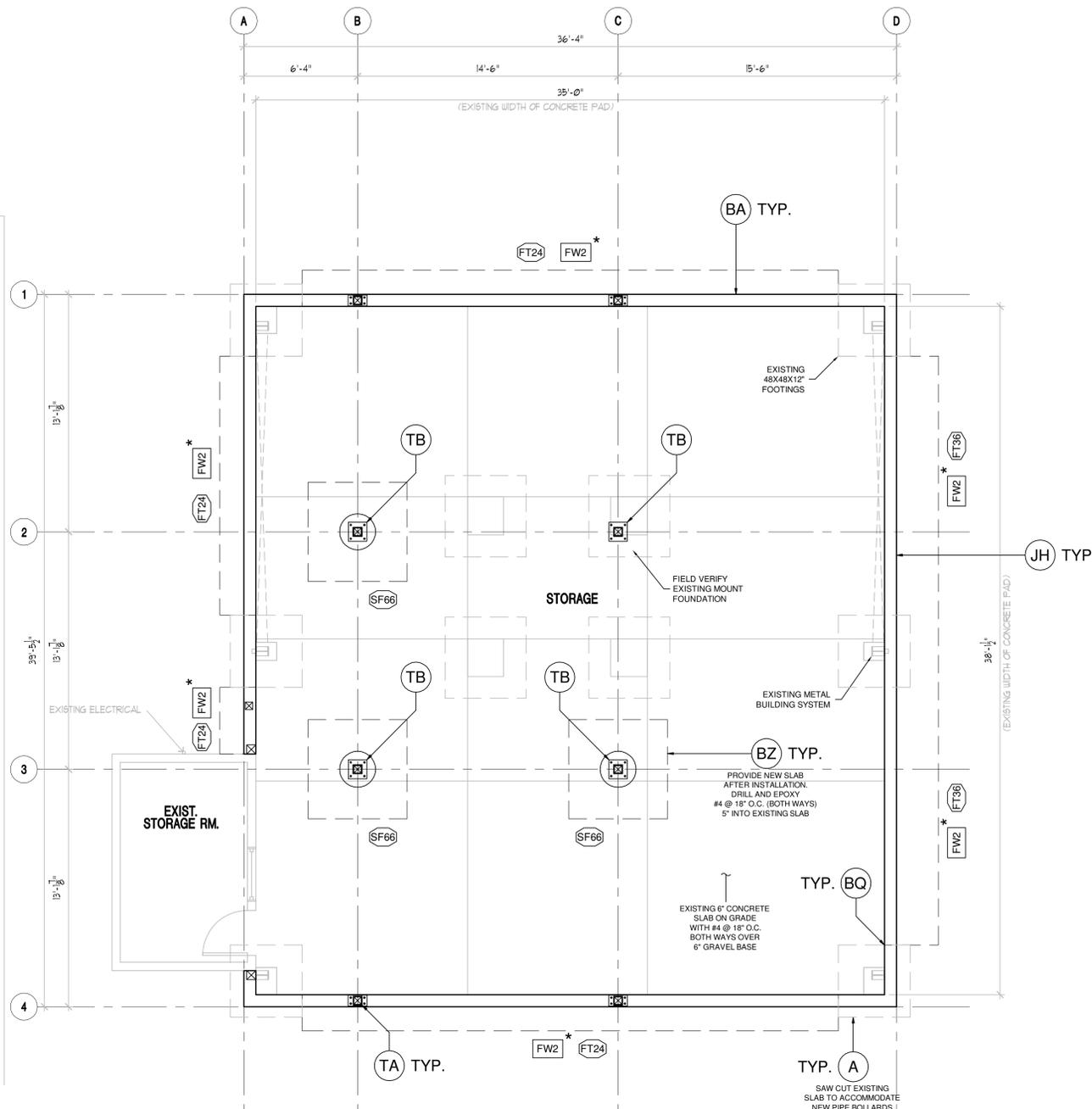
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FOOTING AND FOUNDATION

SHEET NUMBER

S-102

SHEET 3 OF 24



FOOTING AND FOUNDATION

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

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FOUNDATION SCHEDULE					
MARK	HEIGHT	WIDTH	REINFORCEMENT		
			VERTICAL	HORIZONTAL	LAYER
FW2	2.5'	8"	#4 @ 18" O.C.	(3) #4	CENTER

1. DOWEL VERTICAL BARS INTO FOOTING.
2. PLACE TOP AND BOTTOM BARS WITHIN 4" OF TOP AND BOTTOM OF WALL.
3. PLACE REINFORCEMENT LAYERS IN CENTER OR NEAR FACE AS NOTED.
* FOUNDATION WALL TO MATCH EXISTING

FOOTING SCHEDULE					
MARK	WIDTH	LENGTH	THICK.	REINFORCEMENT	
				TRANSVERSE	LENGTHWISE
FT24	24"	CONT.	12"	-	(3) #4
FT36	36"	CONT.	12"	#5 @ 14" O.C.	(3) #5
SF66	66"	66"	12"	(8) #4	(8) #4



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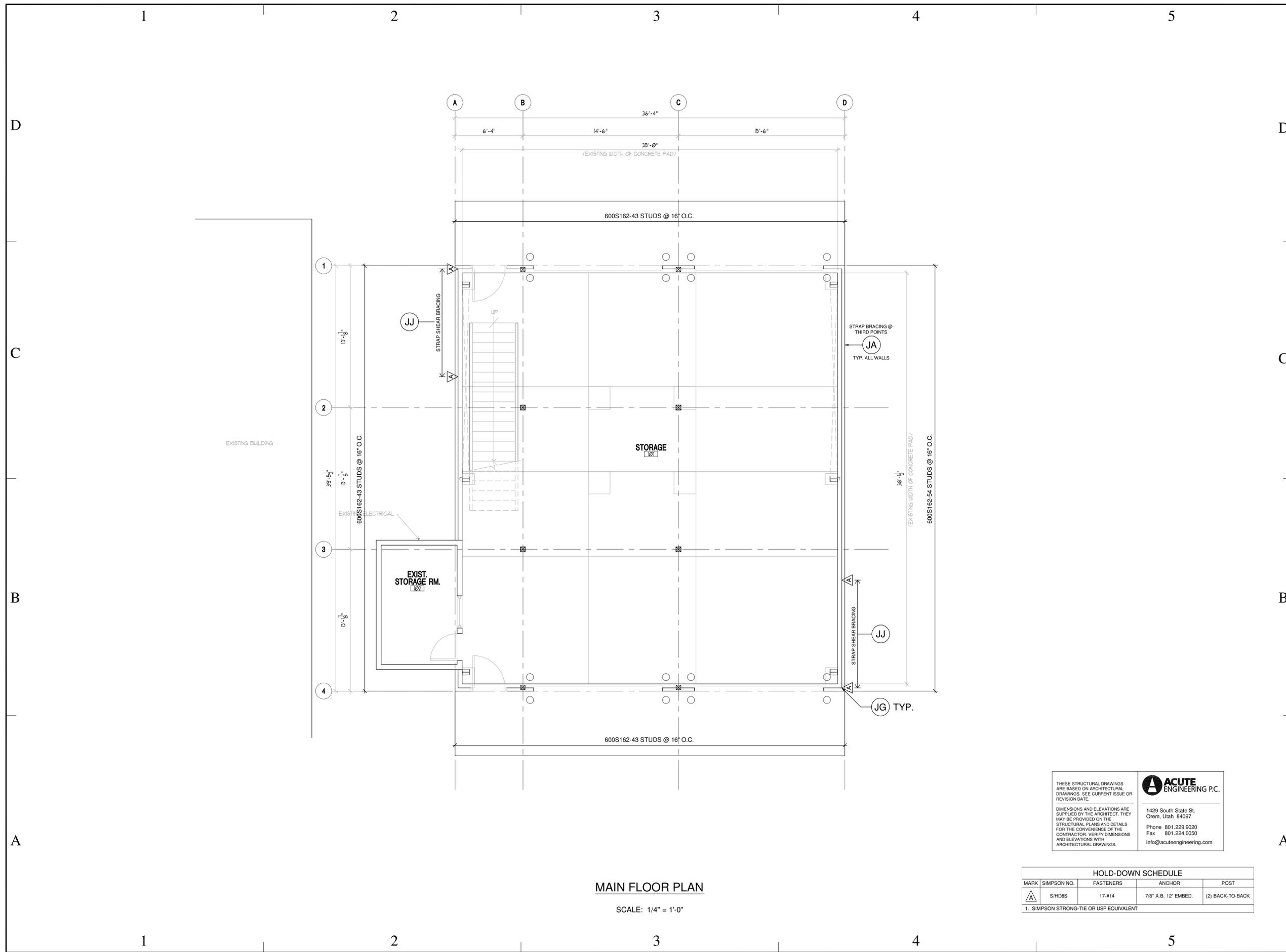
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MAIN FLOOR PLAN

SHEET NUMBER

S-103

SHEET 4 OF 24



MAIN FLOOR PLAN

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

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HOLD-DOWN SCHEDULE			
MARK	SIMPSON NO.	FASTENERS	ANCHOR POST
A	S/HD8S	17-#14	7/8" A.B. 12" EMBED. (2) BACK-TO-BACK
1. SIMPSON STRONG-TIE OR USP EQUIVALENT			

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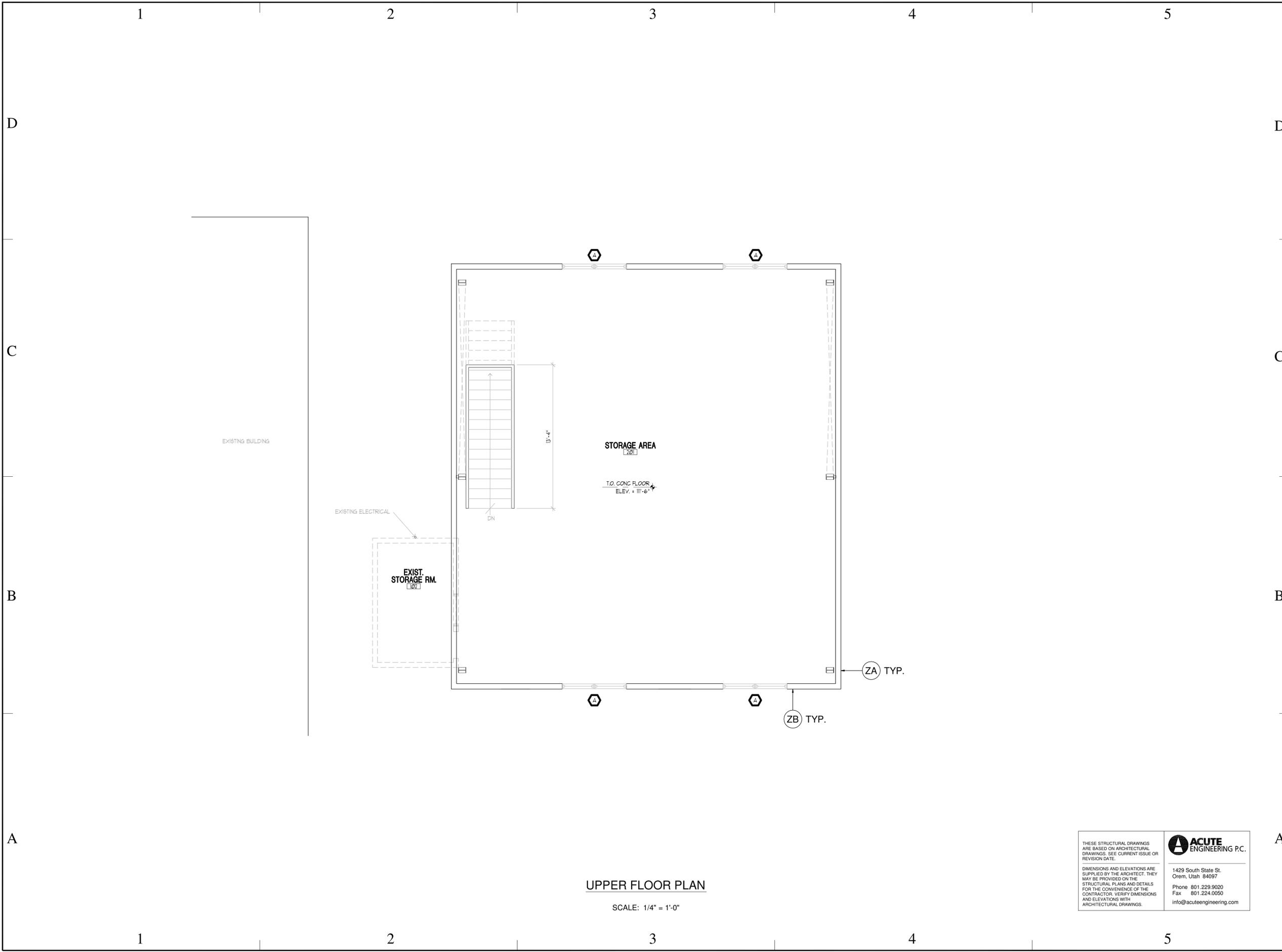
SHEET TITLE

UPPER FLOOR PLAN

SHEET NUMBER

S-104

SHEET 5 OF 24



UPPER FLOOR PLAN

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

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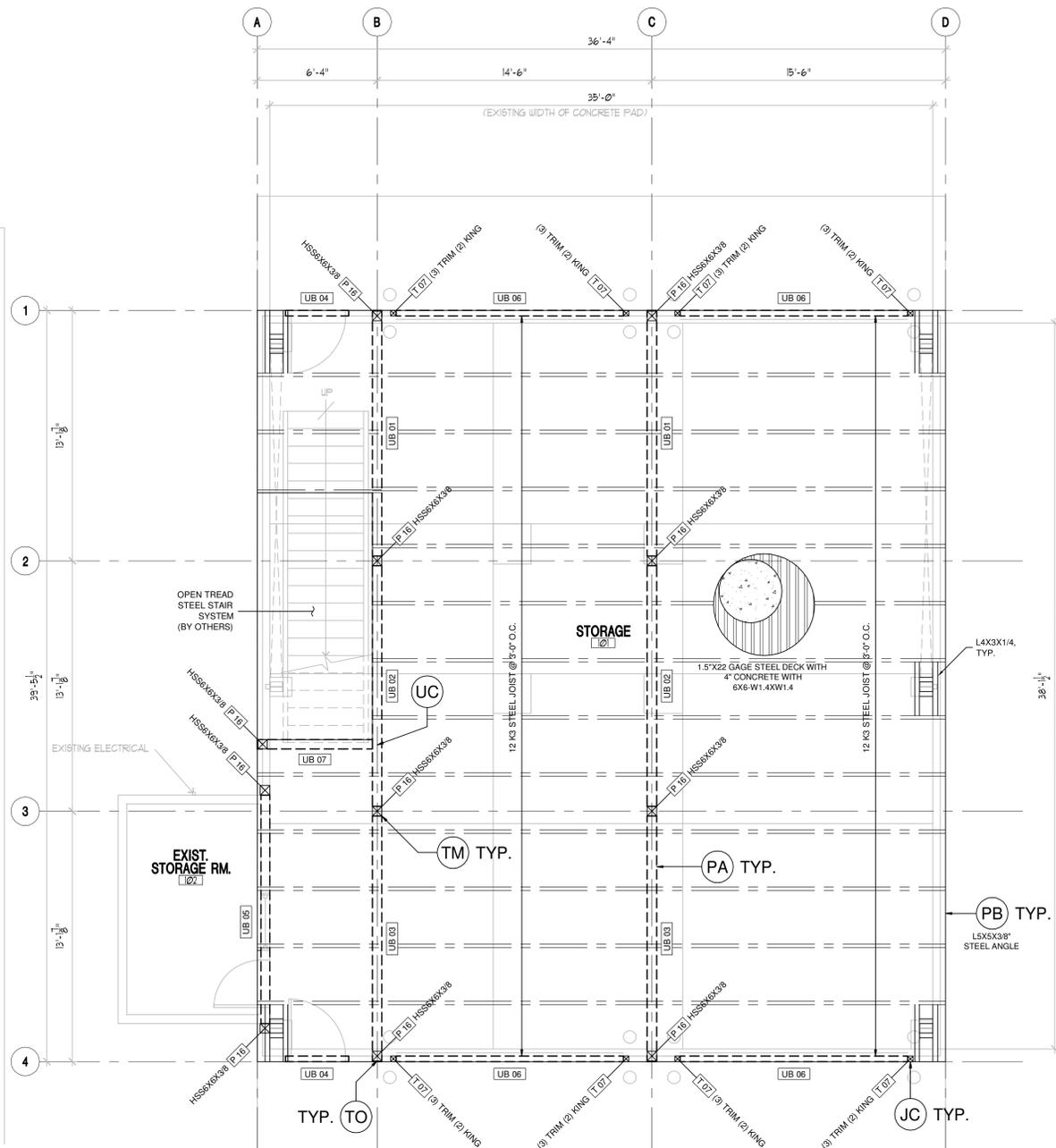
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UPPER FLOOR FRAMING

SHEET NUMBER

S-105

SHEET 6 OF 24



UPPPER FLOOR FRAMING

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

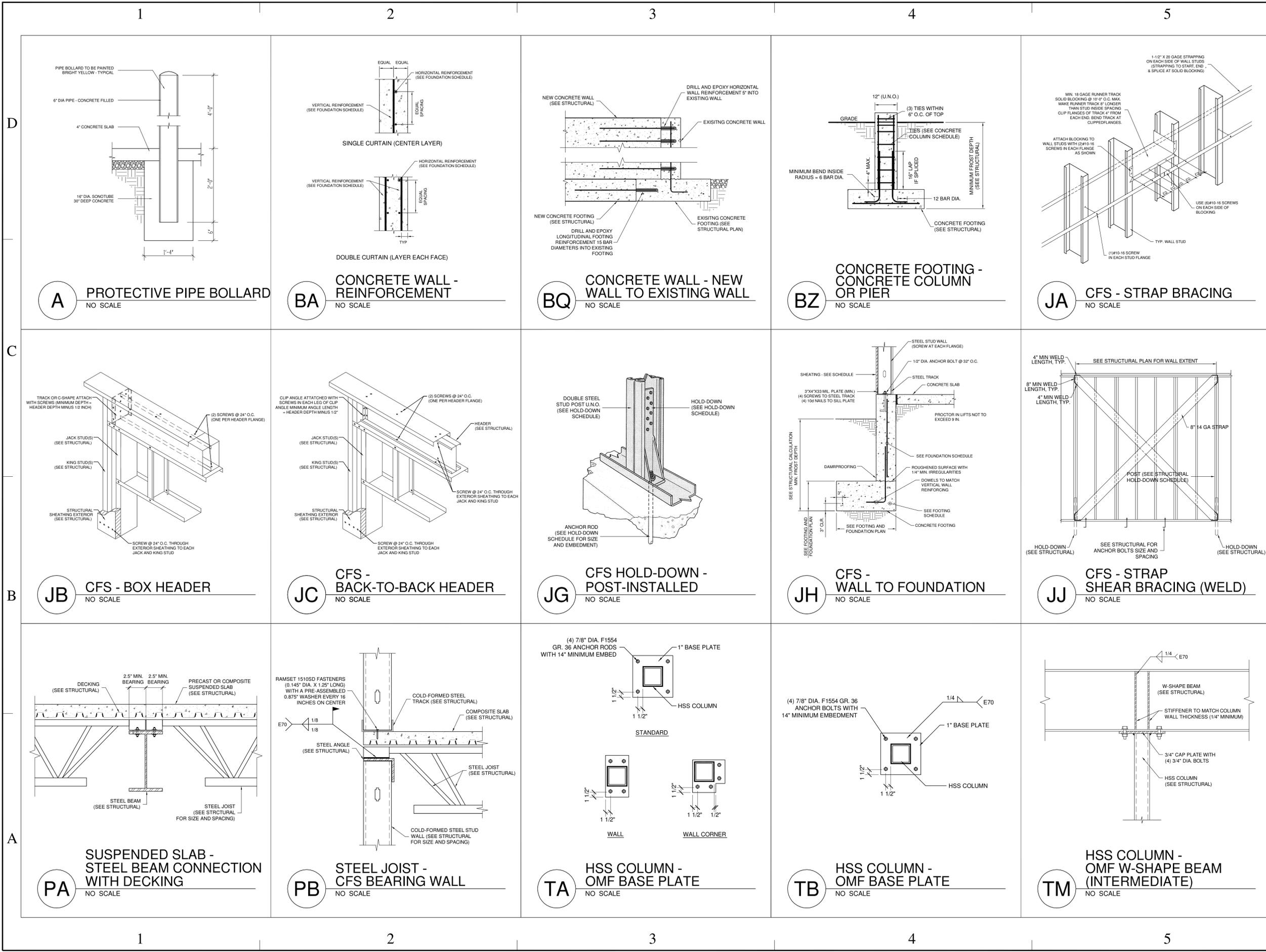
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BEAM SCHEDULE	
MARK	TYPE
UB 01	W10X33
UB 02	W10X33
UB 03	W10X33
UB 04	600S162-68
UB 05	HSS6X5X1/4
UB 06	(2)1200S200-68 BACK-TO-BACK
UB 07	C10X15.3

POST SCHEDULE	
P 16	HSS6X6X3/8
T 07	(3)TRIM (2)KING
1. STEEL COLUMNS REQUIRE BEARING PLATES	
2. CONTINUE POSTS TO FOUNDATION OR STRUCTURAL MEMBER	



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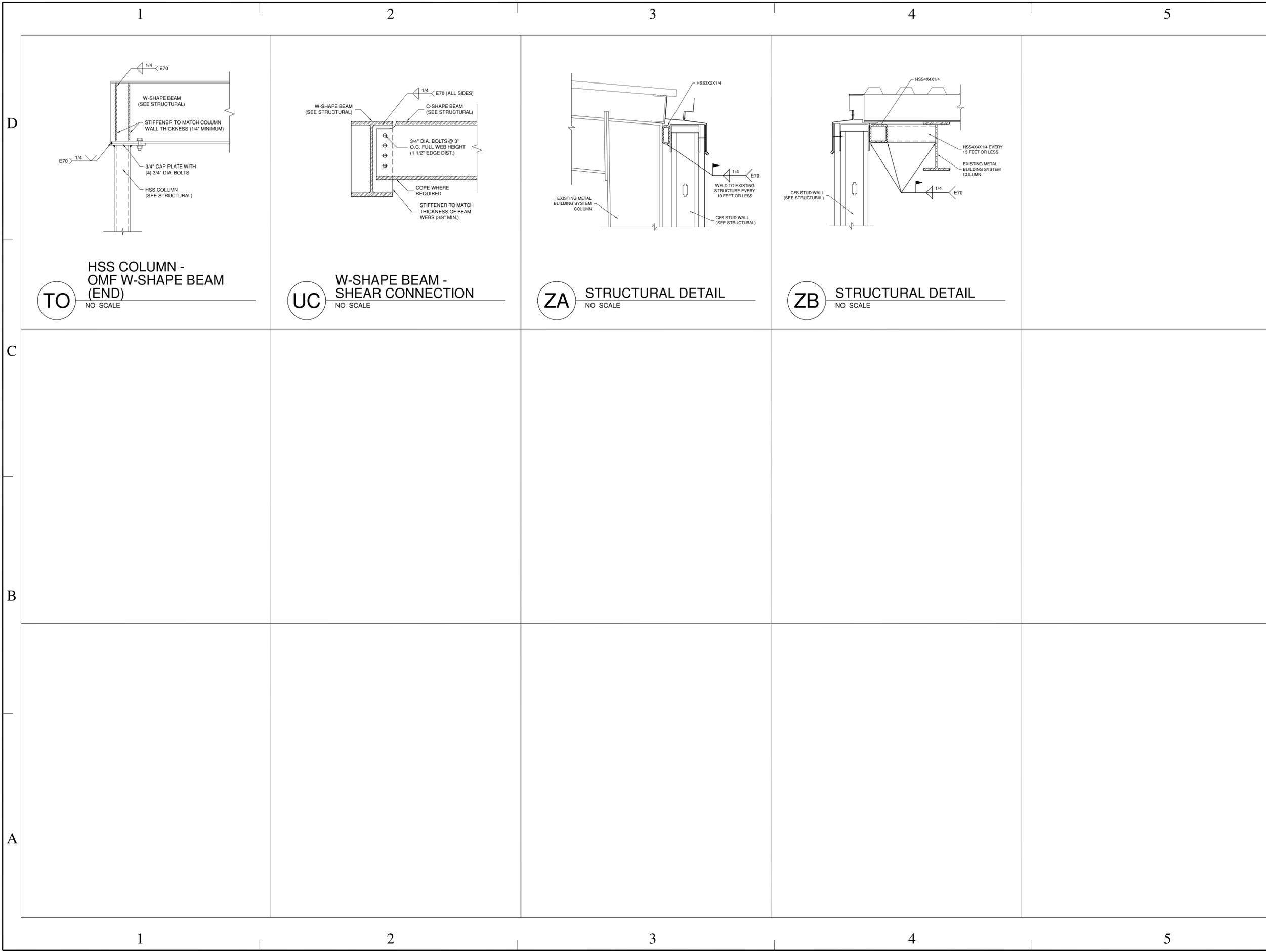
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STRUCTURAL DETAILS
 SHEET NUMBER
S-201
 SHEET 7 OF 24

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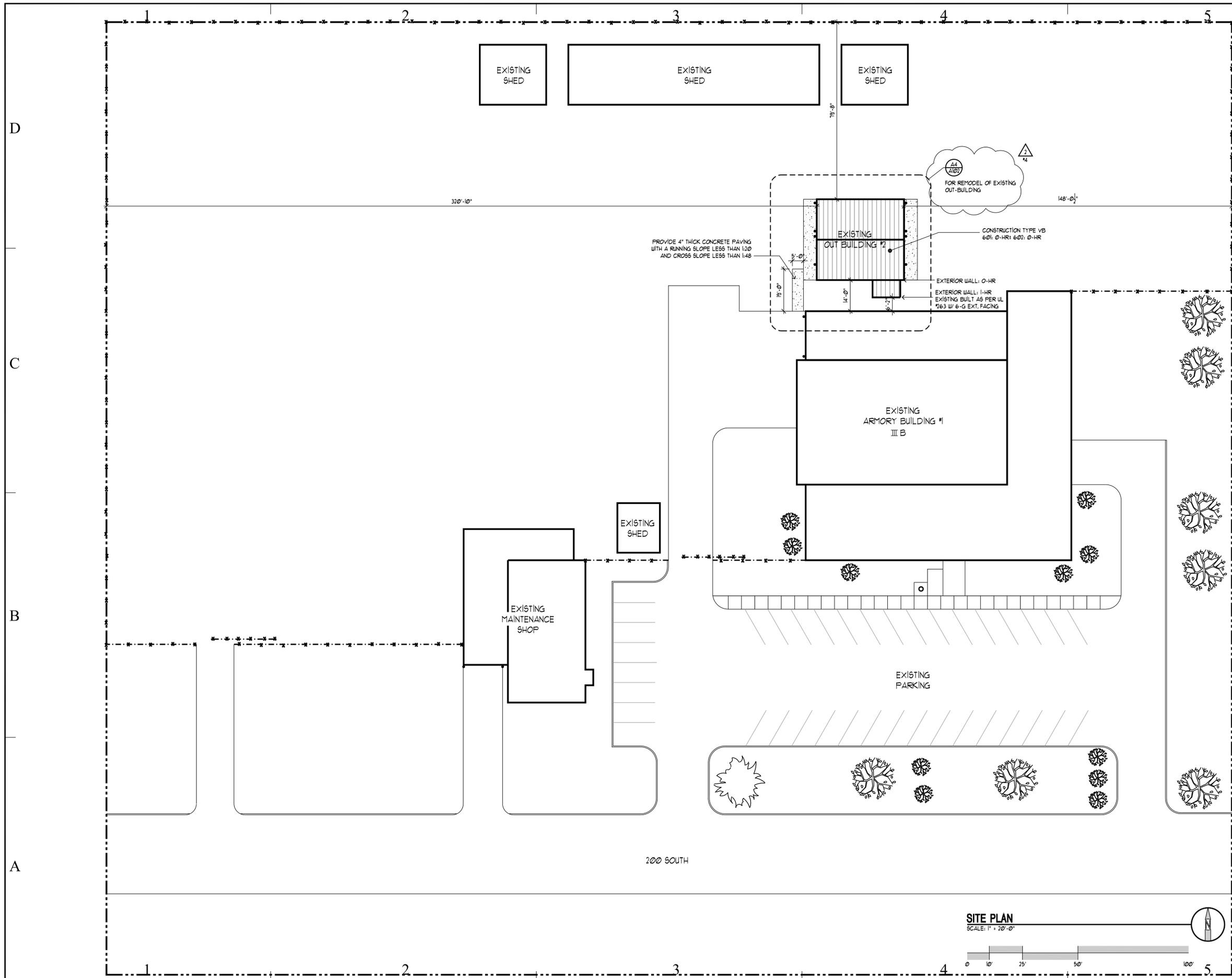
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STRUCTURAL DETAILS

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PROJECT TITLE:

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MARK	DATE	DESCRIPTION
1	08/17/09	DFCM
2	08/25/09	DFCM R.2

ISSUE TYPE: CONSTRUCTION SET

ISSUE DATE: AUG 17, 2009

DFCM PROJECT NO: 09168480

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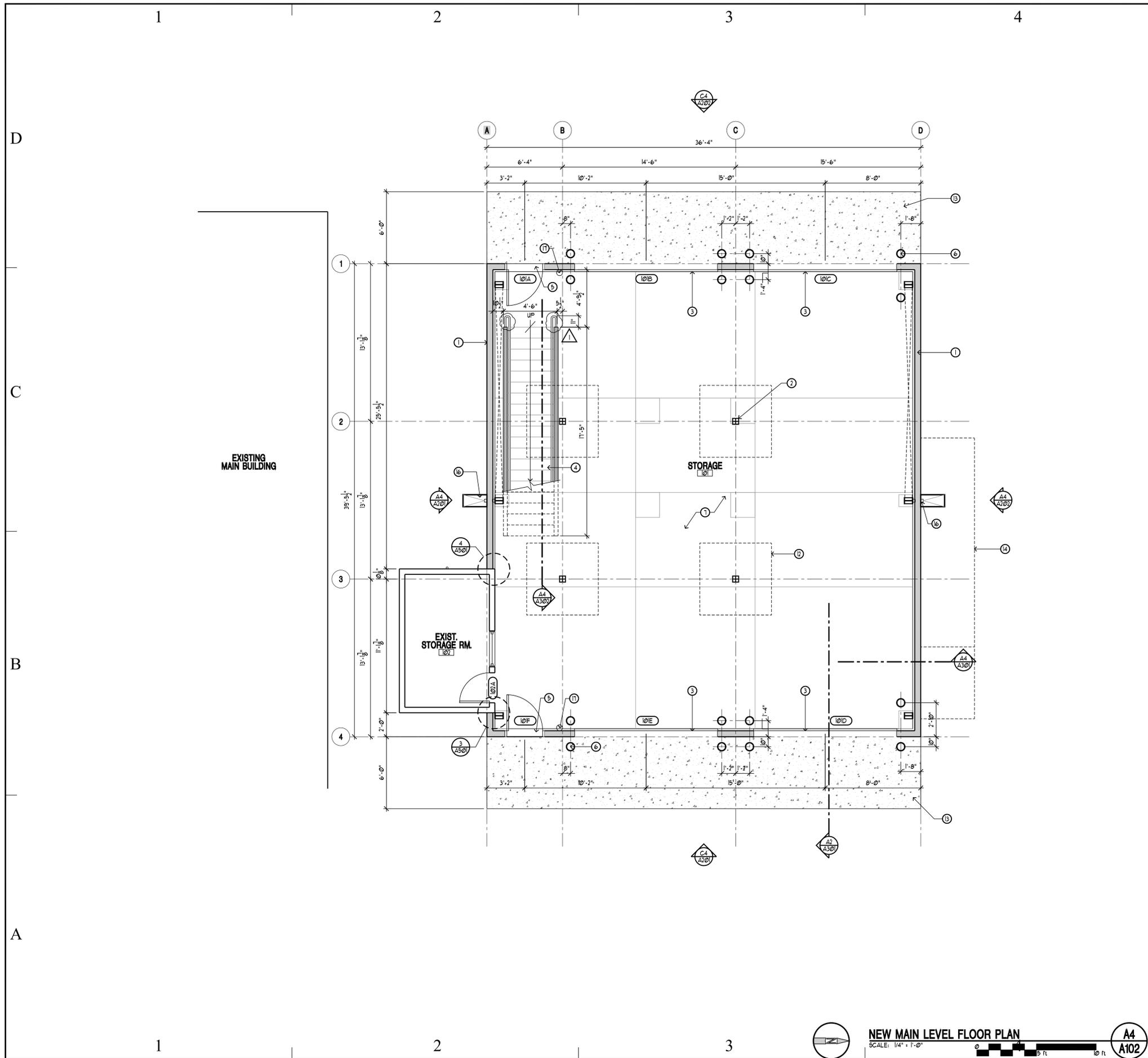
SHEET TITLE

SITE PLAN

SHEET NUMBER

A-100

SHEET 09 OF 24



FLOOR PLAN LEGEND		
HATCH PATTERN	SECTION	DESCRIPTION
	000000	EXISTING WALL CONSTRUCTION
	000000	NEW METAL STUD WALL

FLOOR PLAN KEY NOTES	
SECTION	DESCRIPTION
000000	1) NEW METAL STUD WALL WITH METAL SIDING AS DETAILED.
000000	2) NEW PAINTED TUBE STEEL COLUMNS, 4 LOCATIONS - SEE STRUCTURAL DRAWINGS.
000000	3) NEW PAINTED OVERHEAD SECTIONAL DOORS - 4 LOCATIONS.
000000	4) NEW PAINTED STEEL STAIR STRINGERS WITH BAR GRADE ALUMINUM TREADS.
000000	5) NEW HM DOOR AS SCHEDULED - 2 LOCATIONS.
000000	6) NEW CONCRETE - FILLED AND PAINTED STEEL PIPE BOLLARD - 16 LOCATIONS, SEE STRUCTURAL FOR DETAIL.
000000	7) SEAL EXISTING CONCRETE FLOOR.
000000	8) SEAL NEW CONCRETE FLOOR, SEE STRUCTURAL FOR CONSTRUCTION JOINT LOCATIONS.
000000	9) NEW WINDOW AS SCHEDULED - TYPICAL 4 LOCATIONS.
000000	10) NEW PAINTED STEEL GUARDRAIL SYSTEM AS DETAILED.
000000	11) EXISTING METAL ROOF BELOW PROTECT DURING CONSTRUCTION.
000000	12) CUT EXISTING CONCRETE FLOOR FOR PLACEMENT OF NEW FOOTINGS, SEE STRUCTURAL FOR COMPACTION AND NEW CONCRETE FLOOR AT FOOTINGS.
000000	13) 6" CONCRETE APRON ON 8" ROAD BASE - SLOPE AWAY FROM DOOR @ 1/4" / FT MIN.
000000	14) FUTURE STAIRWAY.
000000	15) FRAME WALL STUDS AND SIDING TO BE REMOVED FOR FUTURE DOORWAY.
000000	16) RELOCATED DOWNSPOUT WITH NEW SPLASH BLOCK.
000000	17) FIRE EXTINGUISHER - SEE SPECIFICATIONS.

FLOOR PLAN GENERAL NOTES	
1 -	DIMENSIONS ARE TO FACE-OF-STUDS UNLESS NOTED OTHERWISE I.E. GRID-LINE, CENTER-LINE OF DOORS.
2 -	COORDINATE WITH ELECTRICAL DRAWINGS FOR ALL LIGHTING AND POWER.
3 -	ALL EXT. WALLS ARE TO BE 2X6 METAL STUD WALLS UNLESS SHOWN/NOTED OTHERWISE.
4 -	BUILDING GRIDS ARE LOCATED AT FACE - OF - STUD & CENTER - LINE OF H66 COLUMNS.
5 -	SEE A-101 FOR EXISTING ELEMENTS TO REMAIN.



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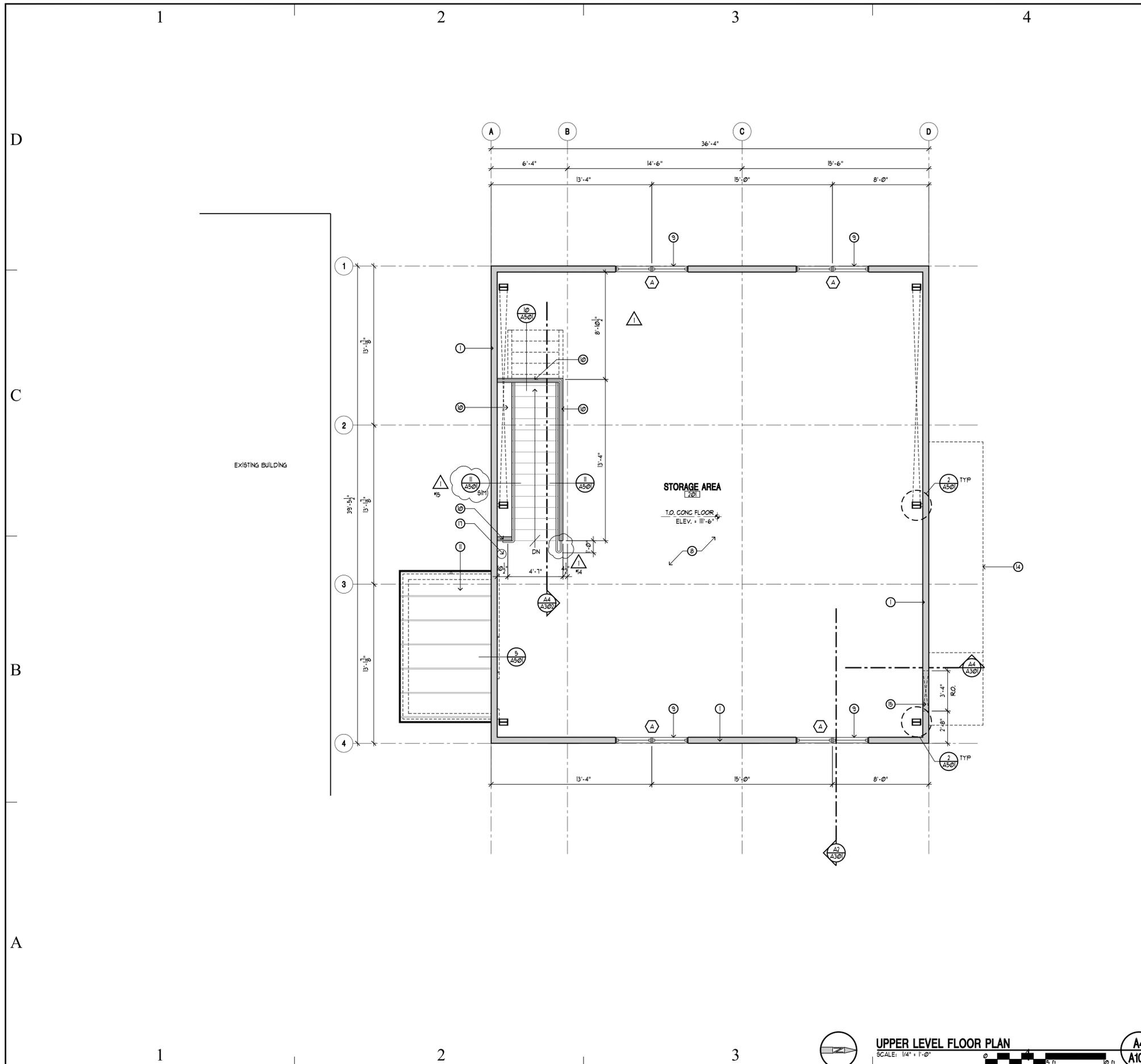
ISSUE TYPE: CONSTRUCTION SET
 ISSUE DATE: AUG 17, 2009

DFCM PROJECT NO: 09168480
 CAD PROJECT NO: 09044
 CAD DWG FILE:
 DRAWN BY: MHF
 CHK'D BY: CDJ
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SHEET TITLE
MAIN LEVEL FLOOR PLAN

SHEET NUMBER
A-102
 SHEET 11 OF 24





FLOOR PLAN LEGEND		
HATCH PATTERN	SECTION	DESCRIPTION
	000000	EXISTING WALL CONSTRUCTION
	000000	NEW METAL STUD WALL

FLOOR PLAN KEY NOTES	
SECTION	DESCRIPTION
000000	1 NEW METAL STUD WALL WITH METAL SIDING AS DETAILED.
000000	2 NEW PAINTED TUBE STEEL COLUMNS, 4 LOCATIONS - SEE STRUCTURAL DRAWINGS.
000000	3 NEW PAINTED OVERHEAD SECTIONAL DOORS - 4 LOCATIONS.
000000	4 NEW PAINTED STEEL STAIR STRINGERS WITH BAR GRADE ALUMINUM TREADS.
000000	5 NEW HM DOOR AS SCHEDULED - 2 LOCATIONS.
000000	6 NEW CONCRETE - FILLED AND PAINTED STEEL PIPE BOLLARD - 16 LOCATIONS. SEE STRUCTURAL FOR DETAIL.
000000	7 SEAL EXISTING CONCRETE FLOOR.
000000	8 SEAL NEW CONCRETE FLOOR. SEE STRUCTURAL FOR CONSTRUCTION JOINT LOCATIONS.
000000	9 NEW WINDOW AS SCHEDULED - TYPICAL 4 LOCATIONS.
000000	10 NEW PAINTED STEEL GUARDRAIL SYSTEM AS DETAILED.
000000	11 EXISTING METAL ROOF BELOW PROTECT DURING CONSTRUCTION.
000000	12 CUT EXISTING CONCRETE FLOOR FOR PLACEMENT OF NEW FOOTINGS, SEE STRUCTURAL FOR COMPACTION AND NEW CONCRETE FLOOR AT FOOTINGS.
000000	13 6" CONCRETE APRON ON 8" ROAD BASE - SLOPE AWAY FROM DOOR @ 1/4" / FT MIN.
000000	14 FUTURE STAIRWAY.
000000	15 FRAME WALL STUDS AND SIDING TO BE REMOVED FOR FUTURE DOORWAY.
000000	16 RELOCATED DOWNSPOUT WITH NEW SPLASH BLOCK.
000000	17 FIRE EXTINGUISHER - SEE SPECIFICATIONS.

FLOOR PLAN GENERAL NOTES	
1 -	DIMENSIONS ARE TO FACE-OF-STUDS UNLESS NOTED OTHERWISE I.E. GRID-LINE, CENTER-LINE OF DOORS.
2 -	COORDINATE WITH ELECTRICAL DRAWINGS FOR ALL LIGHTING AND POWER.
3 -	ALL EXT. WALLS ARE TO BE 2X6 METAL STUD WALLS UNLESS SHOWN/NOTED OTHERWISE.
4 -	BUILDING GRIDS ARE LOCATED AT FACE - OF - STUD & CENTER - LINE OF H66 COLUMNS.
5 -	SEE A-101 FOR EXISTING ELEMENTS TO REMAIN.



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BUILDING NAME:
RICHFIELD ARMORY
UTAH NATIONAL GUARD

PROJECT TITLE:
OUT BUILDING REMODEL

MARK	DATE	DESCRIPTION
1	08/17/09	DFCM
2	08/25/09	DFCM R.2

ISSUE TYPE: CONSTRUCTION SET

ISSUE DATE: AUG 17, 2009

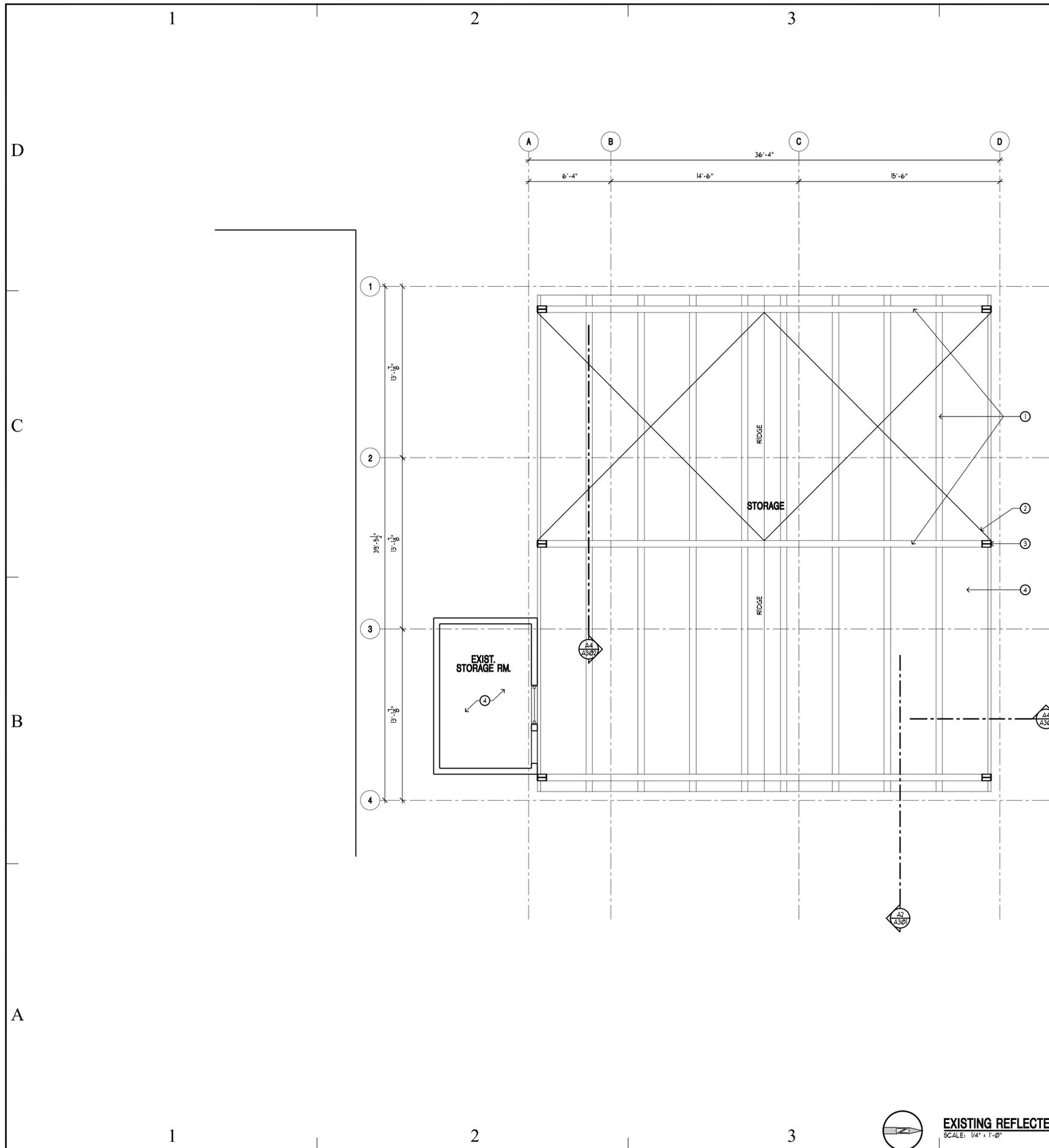
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 CAD PROJECT NO: 09044
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 SHEET TITLE

UPPER LEVEL FLOOR PLAN

SHEET NUMBER
A-103

SHEET 12 OF 24





REFLECTED CEILING PLAN LEGEND

PATTERN/SYMBOL	SECTION	DESCRIPTION
[Symbol]	00000	KEYNOTE

REFLECTED CEILING PLAN KEY NOTES

SECTION	DESCRIPTION
00000 ①	EXISTING STEEL BEAMS AND FURLING - NO PAINT.
00000 ②	EXISTING STEEL TIE RODS - NO PAINT.
00000 ③	EXISTING STEEL COLUMNS - NO PAINT.
00000 ④	EXISTING SLOPED (1:1) CORRUGATED METAL ROOF PANELS.
00000 ⑤	NEW STEEL BEAMS AND FURLING - NO PAINT.
00000 ⑥	NEW OVERHEAD DOOR TRACK SYSTEM - TYP 4 LOCATIONS.
00000 ⑦	NEW CORRUGATED, GALVANIZED METAL FLOOR DECK - NO PAINT.
00000 ⑧	NEW SUSPENDED LIGHT FIXTURE - SEE ELECTRICAL.
00000 ⑨	OPENING IN FLOOR FRAMING FOR STAIR.

REFLECTED CEILING PLAN GENERAL NOTES

- 1 - ALL CEILING HEIGHTS ARE MEASURED FROM TOP OF SLAB TO BOTTOM OF CEILING FRAMING UNO.
- 2 - COORDINATE WITH ELECTRICAL DRAWINGS FOR ALL LIGHTING, POWER, AND DATA REQUIREMENTS.



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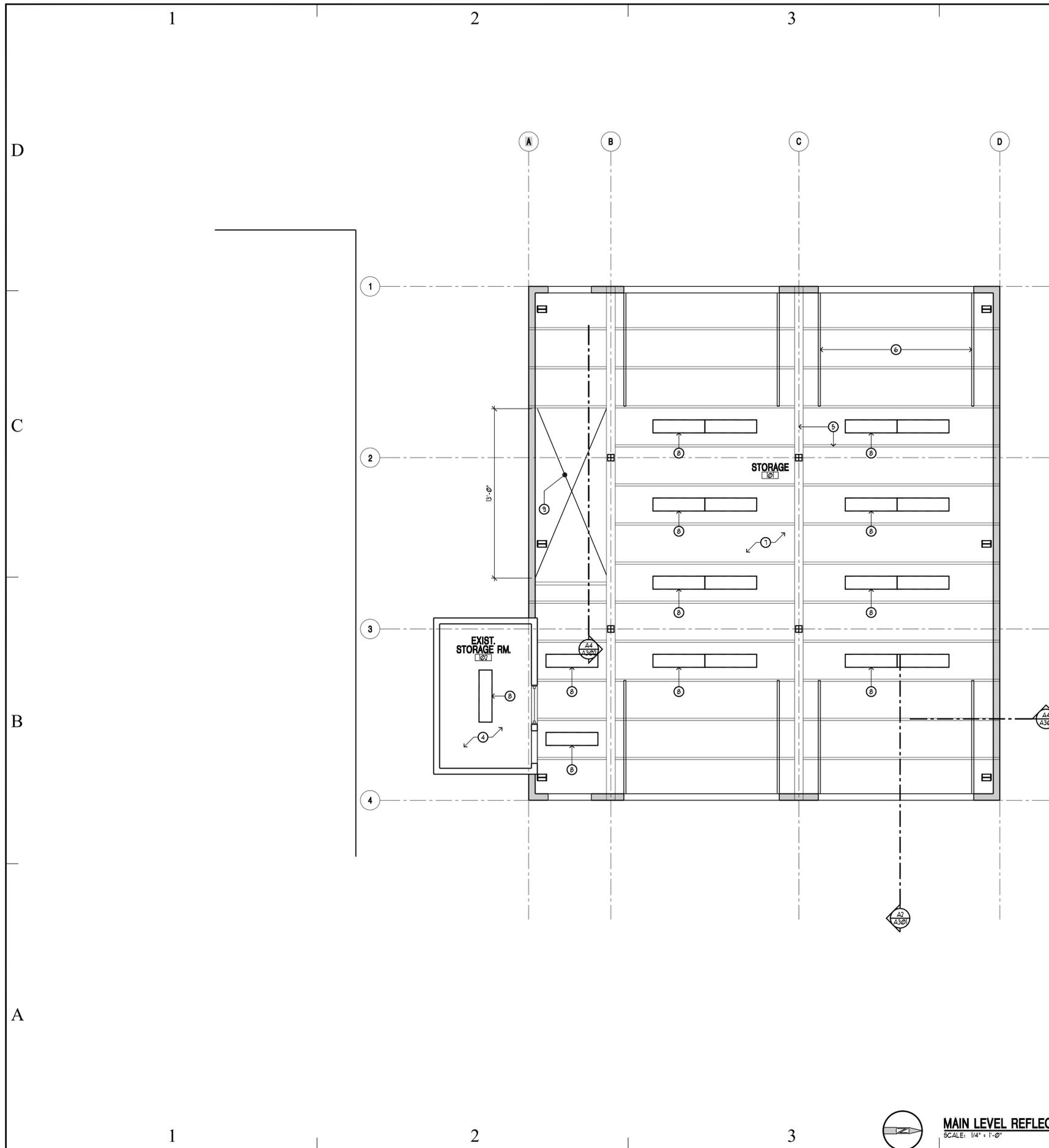
SHEET TITLE

EXISTING REF. CEILING PLAN

SHEET NUMBER

A-104

SHEET 13 OF 24



REFLECTED CEILING PLAN LEGEND

PATTERN/SYMBOL	SECTION	DESCRIPTION
[Symbol]	00000	KEYNOTE

REFLECTED CEILING PLAN KEY NOTES

SECTION	DESCRIPTION
00000 ①	EXISTING STEEL BEAMS AND FURLINGS - NO PAINT.
00000 ②	EXISTING STEEL TIE RODS - NO PAINT.
00000 ③	EXISTING STEEL COLUMNS - NO PAINT.
00000 ④	EXISTING SLOPED (1:1) CORRUGATED METAL ROOF PANELS.
00000 ⑤	NEW STEEL BEAMS AND FURLING - NO PAINT.
00000 ⑥	NEW OVERHEAD DOOR TRACK SYSTEM - TYP 4 LOCATIONS.
00000 ⑦	NEW CORRUGATED, GALVANIZED METAL FLOOR DECK - NO PAINT.
00000 ⑧	NEW SUSPENDED LIGHT FIXTURE - SEE ELECTRICAL.
00000 ⑨	OPENING IN FLOOR FRAMING FOR STAIR.

REFLECTED CEILING PLAN GENERAL NOTES

- ALL CEILING HEIGHTS ARE MEASURED FROM TOP OF SLAB TO BOTTOM OF CEILING FRAMING UNO.
- COORDINATE WITH ELECTRICAL DRAWINGS FOR ALL LIGHTING, POWER, AND DATA REQUIREMENTS.



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DFCM PROJECT NO: 09168480

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SHEET TITLE

MAIN LEVEL REF. CEILING PLAN

SHEET NUMBER

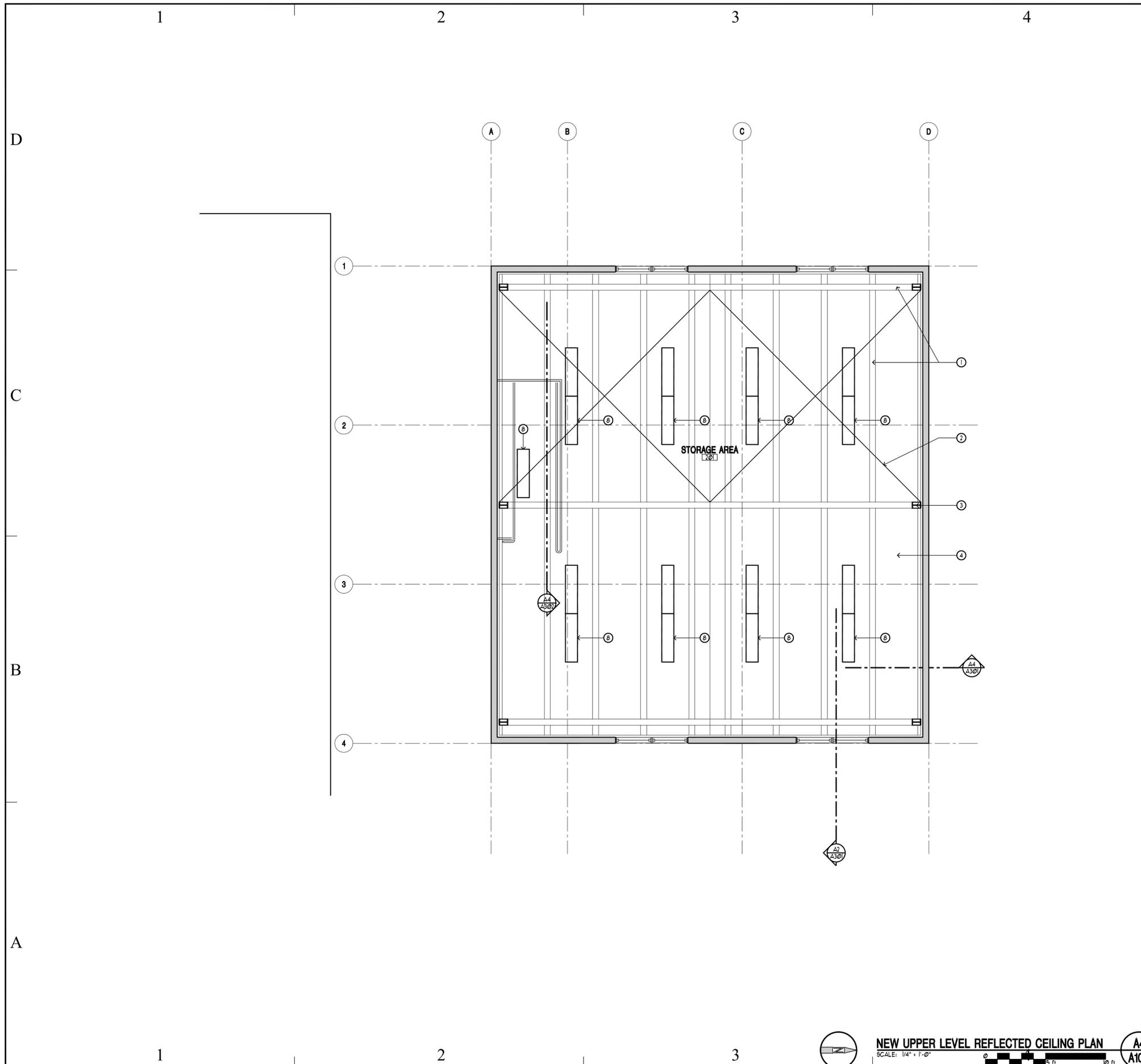
A-105

SHEET 14 OF 24

MAIN LEVEL REFLECTED CEILING PLAN

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





REFLECTED CEILING PLAN LEGEND		
PATTERN/SYMBOL	SECTION	DESCRIPTION
[Symbol]	00000	KEYNOTE

REFLECTED CEILING PLAN KEY NOTES	
SECTION	DESCRIPTION
00000 ①	EXISTING STEEL BEAMS AND FURLING - NO PAINT.
00000 ②	EXISTING STEEL TIE RODS - NO PAINT.
00000 ③	EXISTING STEEL COLUMNS - NO PAINT.
00000 ④	EXISTING SLOPED (1:1) CORRUGATED METAL ROOF PANELS.
00000 ⑤	NEW STEEL BEAMS AND FURLING - NO PAINT.
00000 ⑥	NEW OVERHEAD DOOR TRACK SYSTEM - TYP 4 LOCATIONS.
00000 ⑦	NEW CORRUGATED, GALVANIZED METAL FLOOR DECK - NO PAINT.
00000 ⑧	NEW SUSPENDED LIGHT FIXTURE - SEE ELECTRICAL.
00000 ⑨	OPENING IN FLOOR FRAMING FOR STAIR.

REFLECTED CEILING PLAN GENERAL NOTES

1 - ALL CEILING HEIGHTS ARE MEASURED FROM TOP OF SLAB TO BOTTOM OF CEILING FRAMING UNO.

2 - COORDINATE WITH ELECTRICAL DRAWINGS FOR ALL LIGHTING, POWER, AND DATA REQUIREMENTS.



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ISSUE TYPE: CONSTRUCTION SET

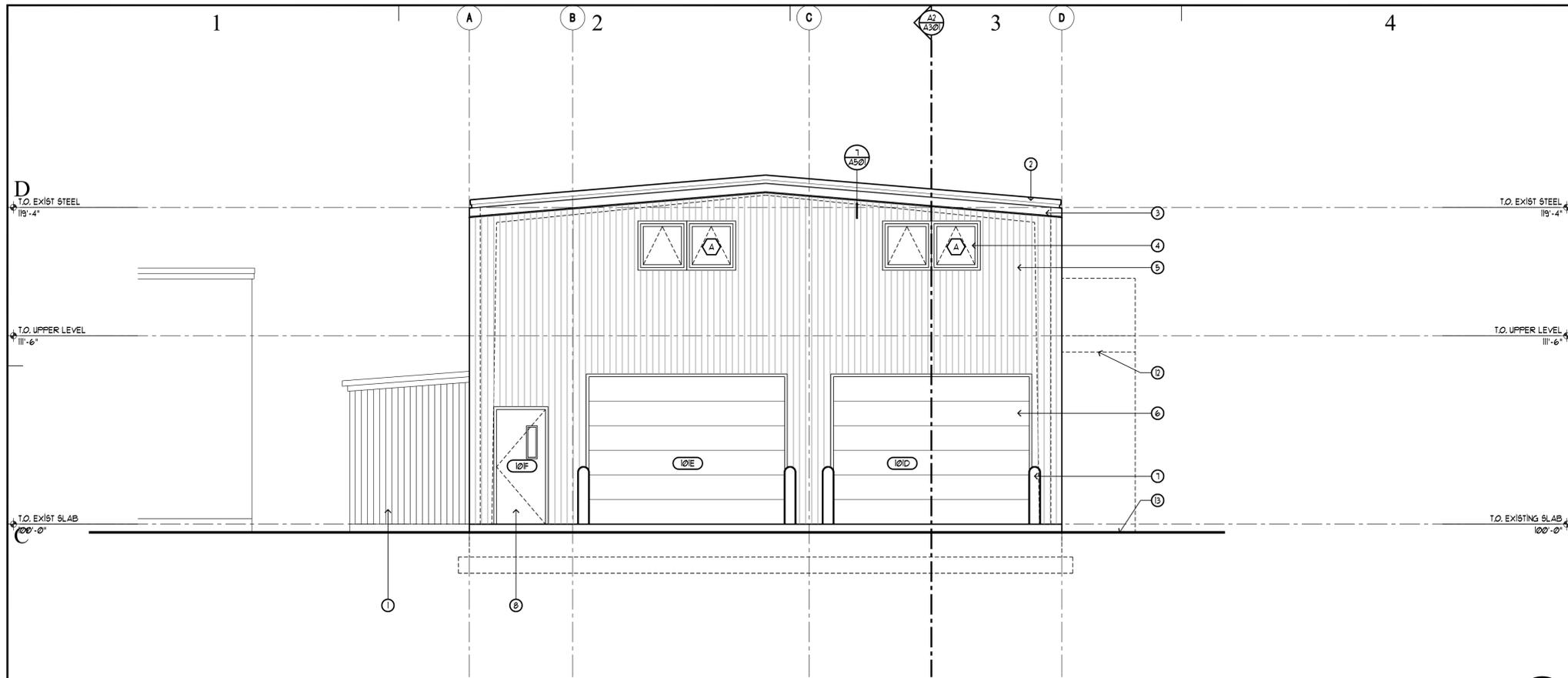
ISSUE DATE: AUG 17, 2009

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 CAD PROJECT NO: 09044
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SHEET TITLE
UPPER LEVEL REF. CEILING PLAN

SHEET NUMBER
A-106

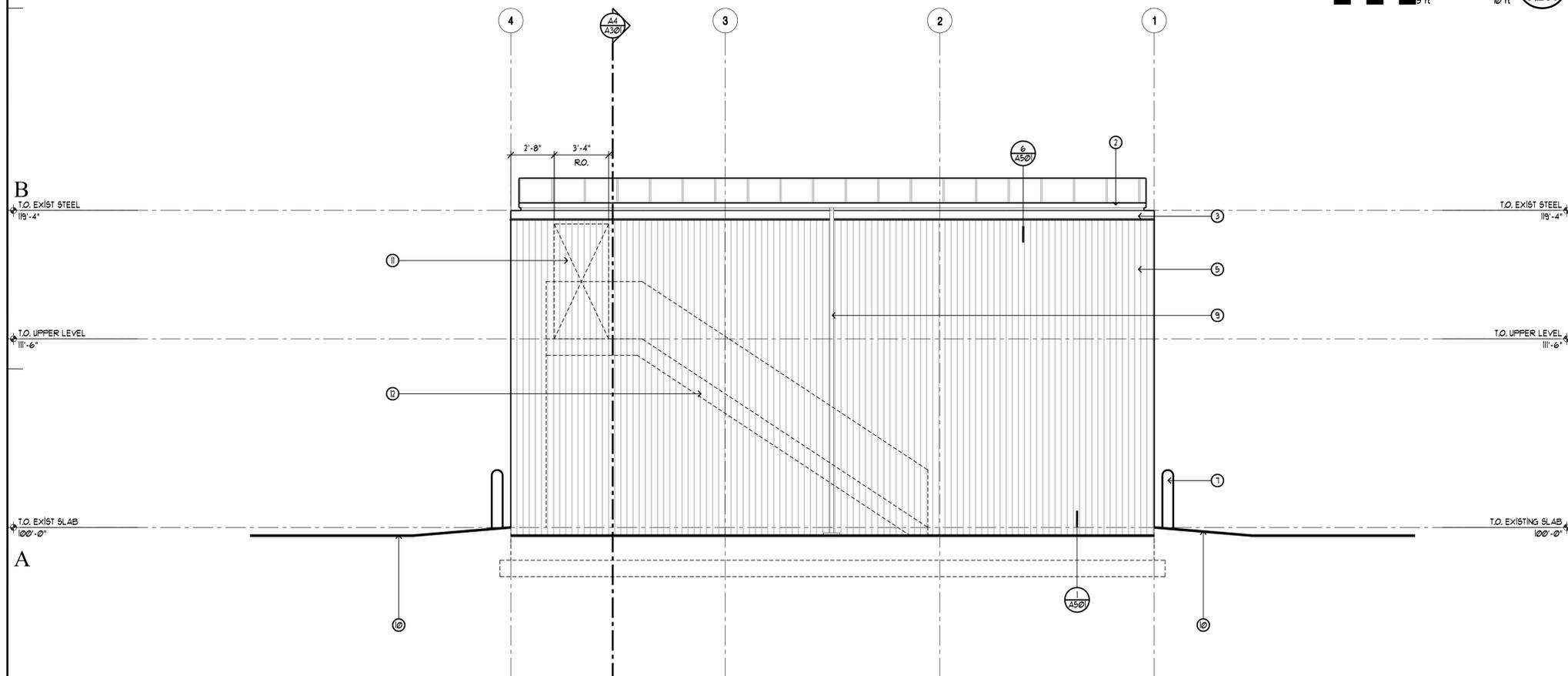
SHEET 15 OF 24



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



C4
A201



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



A4
A201

ELEVATION/SECTION LEGEND		
HATCH PATTERN	SECTION	DESCRIPTION
[Hatch Pattern]	000000	KEYNOTE

ELEVATION/SECTION KEY NOTES	
SECTION	DESCRIPTION
000000	1) EXISTING STRUCTURE - PROTECT DURING CONSTRUCTION.
000000	2) EXISTING METAL FASCIA - PROTECT DURING CONSTRUCTION.
000000	3) NEW SUB-FASCIA ATTACHED TO EXISTING FASCIA.
000000	4) NEW WINDOW AS SCHEDULED - SEE SHEET A-601.
000000	5) NEW CORRUGATED METAL SIDING.
000000	6) NEW OVERHEAD SECTIONAL DOOR - SEE SHEET A-601.
000000	7) NEW STEEL BOLLARD, PAINTED - SEE STRUCTURAL FOR DETAIL.
000000	8) NEW H.M. DOOR.
000000	9) RE-ATTACH EXISTING DOWNSPOUT, PATCH AND RE-SEAL JOINTS AS REQUIRED.
000000	10) CONCRETE APRON ON ROAD BASE.
000000	11) FRAME WALL STUDS AND SIDING TO BE REMOVED FOR FUTURE DOORWAY.
000000	12) FUTURE LANDING AND STAIRWAY.
000000	13) EXISTING GRAVEL - RE-GRADE AS NEEDED.



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UTAH NATIONAL GUARD

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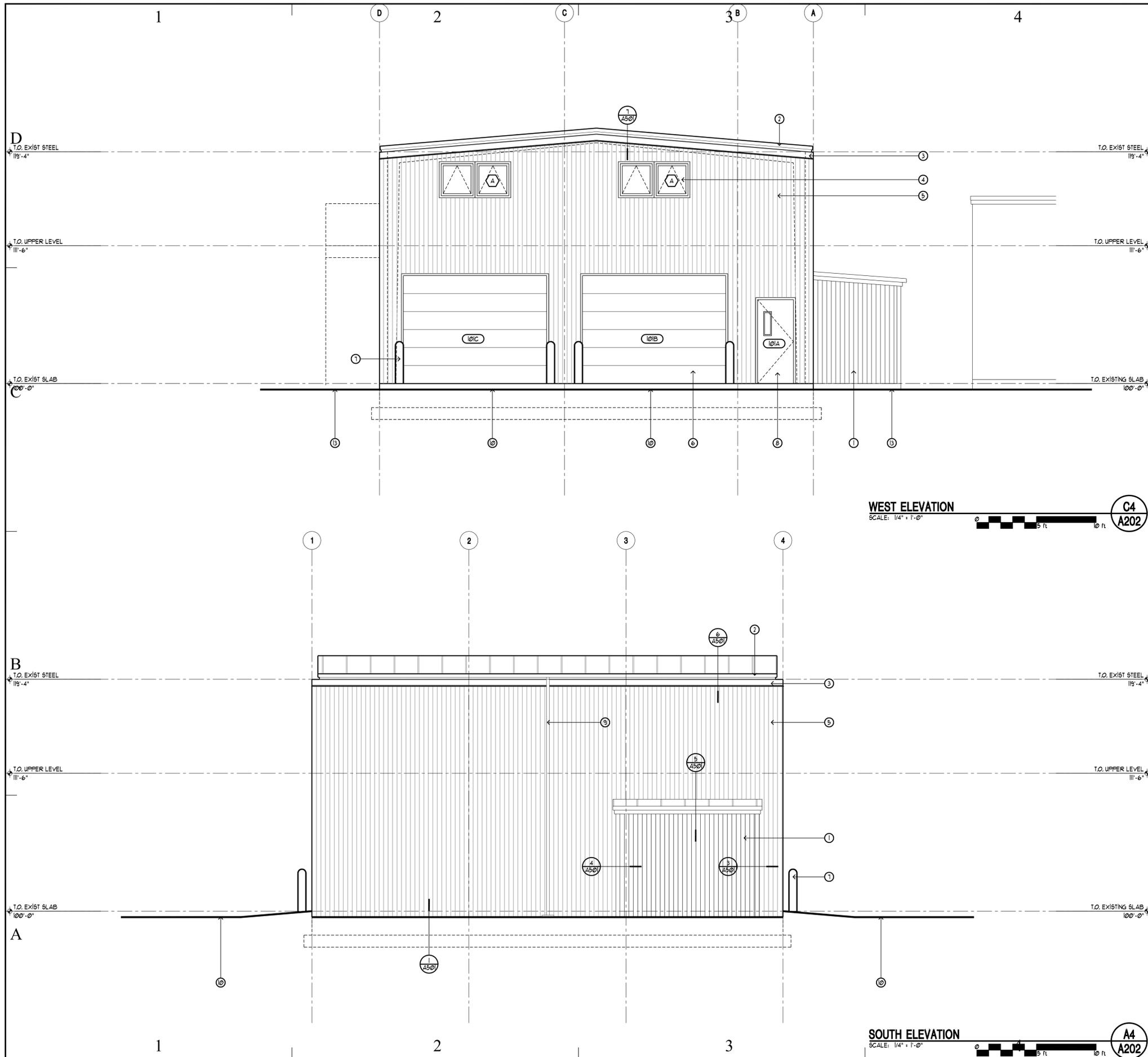
SHEET TITLE

EXTERIOR ELEVATIONS

SHEET NUMBER

A-201

SHEET 16 OF 24



5

ELEVATION/SECTION LEGEND

HATCH PATTERN	SECTION	DESCRIPTION
[Hatch Pattern]	000000	KEYNOTE

ELEVATION/SECTION K-

SECTION

- ① EXISTING STRUCTURE - PROTECT DURING CONSTRUCTION.
- ② EXISTING METAL FASCIA - PROTECT DURING CONSTRUCTION.
- ③ NEW SUB-FASCIA ATTACHED TO EXISTING FASCIA.
- ④ NEW WINDOW AS SCHEDULED - SEE SHEET A-601.
- ⑤ NEW CORRUGATED METAL SIDING.
- ⑥ NEW OVERHEAD SECTIONAL DOOR - SEE SHEET A-601.
- ⑦ NEW STEEL BOLLARD, PAINTED - SEE STRUCTURAL FOR DETAIL.
- ⑧ NEW H.M. DOOR.
- ⑨ RE-ATTACH EXISTING DOWNSPOUT, PATCH AND RE-SEAL JOINTS AS REQUIRED.
- ⑩ CONCRETE APRON ON ROAD BASE.
- ⑪ FRAME WALL STUDS AND SIDING TO BE REMOVED FOR FUTURE DOORWAY.
- ⑫ FUTURE LANDING AND STAIRWAY.
- ⑬ EXISTING GRAVEL - RE-GRADE AS NEEDED.



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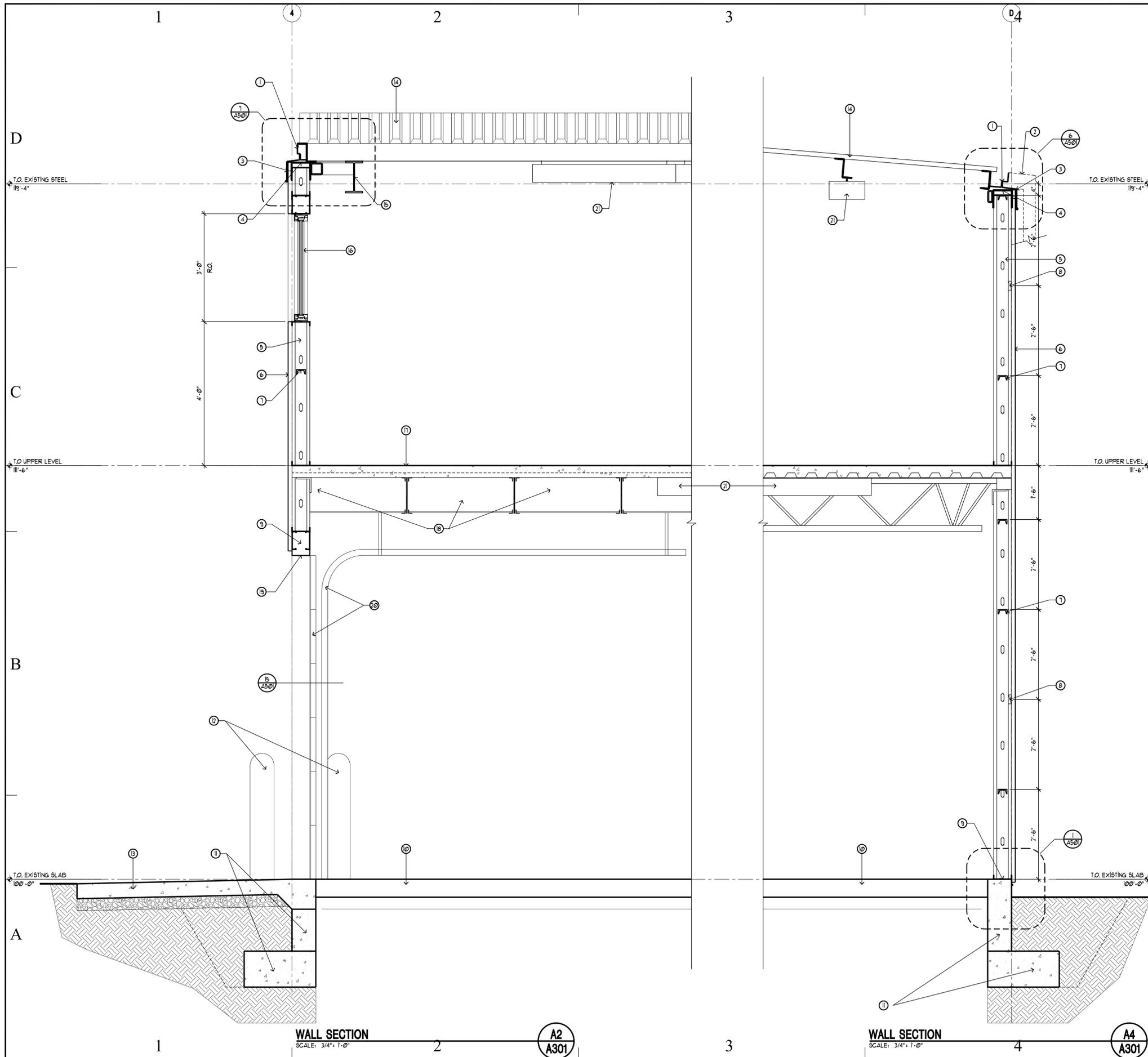
SHEET TITLE

EXTERIOR ELEVATIONS

SHEET NUMBER

A-202

SHEET 17 OF 24



WALL SECTION
SCALE: 3/4" = 1'-0"

A2
A301

WALL SECTION
SCALE: 3/4" = 1'-0"

A4
A301

ELEVATION/SECTION LEGEND		
HATCH PATTERN	SECTION	DESCRIPTION
[Hatch Pattern]	00000	KEYNOTE

ELEVATION/SECTION KEY NOTES	
SECTION	DESCRIPTION
00000	1) EXISTING METAL GUTTER / FASCIA TO REMAIN. PATCH AND RESEAL JOINTS AS REQUIRED.
00000	2) RE-ATTACH EXISTING DOWNSPOUT - PATCH AND RESEAL JOINTS AS REQUIRED.
00000	3) NEW SUB-FASCIA SEE DETAILS 6-41/A501.
00000	4) SLIP TRACK.
00000	5) 6" X 25 GAUGE C-STUD GALVANIZED STEEL STUDS @ 18" O.C.
00000	6) CORRUGATED, 36" WIDE PRE-PAINTED LAPPED METAL SIDING PANELS.
00000	7) 3.5 X 25 GAUGE C-STUD GALVANIZED SOLID BLOCKING ALTERNATING AT 2'-6" O.C. HORIZONTAL WITH SOLID BLOCKING.
00000	8) 3.5 X 25 GAUGE GALVANIZED STRAP "NAILER" ALTERNATING AT 2'-6" O.C. HORIZONTAL WITH SOLID BLOCKING.
00000	9) 6" X 25 GAUGE GALVANIZED C-TRACK.
00000	10) EXISTING CONCRETE FLOOR.
00000	11) NEW CONCRETE FOOTING AND FOUNDATION.
00000	12) NEW CONCRETE BOLLARD - SEE STRUCTURAL DETAILS.
00000	13) 6" CONCRETE APRON ON 8" ROAD BASE.
00000	14) EXISTING CORRUGATED METAL ROOF. PROTECT DURING CONSTRUCTION.
00000	15) EXISTING STEEL BEAMS.
00000	16) NEW WINDOW AS SCHEDULED.
00000	17) NEW CONCRETE FLOOR ON CORRUGATED, GALVANIZED METAL DECK - SEE STRUCTURAL DRAWINGS.
00000	18) NEW STEEL BEAMS AND PURLINS - SEE STRUCTURAL DRAWINGS.
00000	19) NEW STEEL DOOR HEADER - SEE STRUCTURAL DRAWINGS.
00000	20) OVERHEAD SECTIONAL DOOR AND TRACK.
00000	21) NEW LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS.
00000	22) NEW T.S. PAINTED RAILING SYSTEM - SEE DETAIL 11/A501.
00000	23) ALUMINUM BAR GRATING STAIR TREADS - SEE SPECIFICATIONS.
00000	24) STEEL STRINGERS, PAINTED - SEE STRUCTURAL DRAWINGS.

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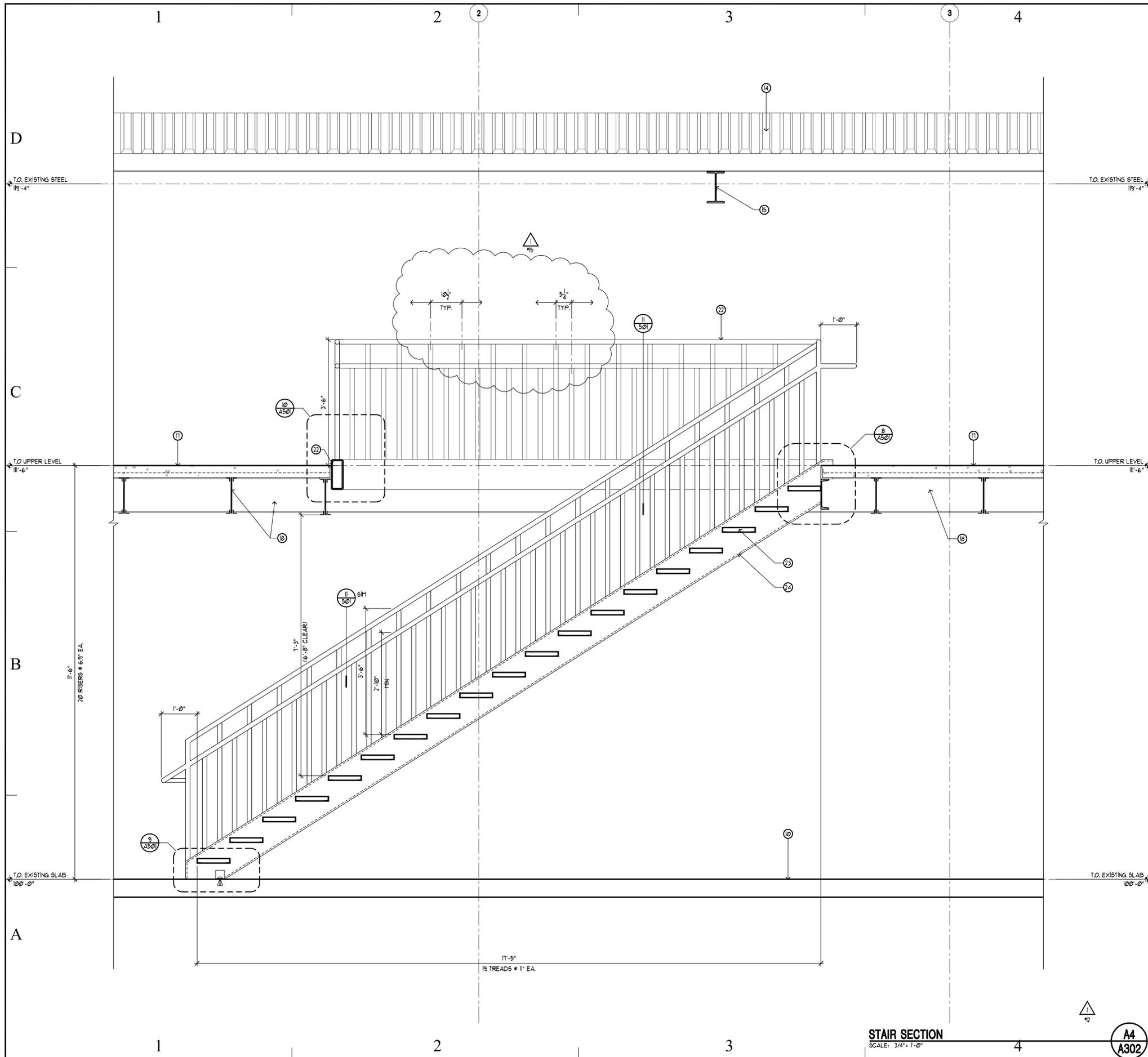
SHEET TITLE

WALL SECTIONS

SHEET NUMBER

A-301

SHEET 18 OF 24



ELEVATION/SECTION LEGEND		
HATCH PATTERN	SECTION	DESCRIPTION
[Hatch Pattern]	00000	KEYNOTE

ELEVATION/SECTION KEY NOTES	
SECTION	DESCRIPTION
00000	1) EXISTING METAL GUTTER / FASCIA TO REMAIN, PATCH AND RESEAL JOINTS AS REQUIRED.
00000	2) RE-ATTACH EXISTING DOWNSPOUT - PATCH AND RESEAL JOINTS AS REQUIRED.
00000	3) NEW SUB-FASCIA SEE DETAILS 6/41/A50L.
00000	4) SLIP TRACK.
00000	5) 6" X 25 GAUGE C-STUD GALVANIZED STEEL STUDS AT 18" O.C.
00000	6) CORRUGATED, 36" WIDE PRE-PAINTED LAPPED METAL SIDING PANELS.
00000	7) 3.5 X 25 GAU.
00000	8) RACK.
00000	9) NEW CONCRETE FOOTING AND FOUNDATION.
00000	10) EXISTING CONCRETE FLOOR.
00000	11) NEW CONCRETE BOLLARD - SEE STRUCTURAL DETAILS.
00000	12) 6" CONCRETE APRON ON 8" ROAD BASE.
00000	13) EXISTING CORRUGATED METAL ROOF, PROTECT DURING CONSTRUCTION.
00000	14) EXISTING STEEL BEAMS.
00000	15) NEW WINDOW AS SCHEDULED.
00000	16) NEW CONCRETE FLOOR ON CORRUGATED, GALVANIZED METAL DECK - SEE STRUCTURAL DRAWINGS.
00000	17) NEW STEEL BEAMS AND PURLINS - SEE STRUCTURAL DRAWINGS.
00000	18) NEW STEEL DOOR HEADER - SEE STRUCTURAL DRAWINGS.
00000	19) OVERHEAD SECTIONAL DOOR AND TRACK.
00000	20) NEW LIGHT FIXTURE - SEE ELECTRICAL DRAWINGS.
00000	21) NEW T.S. PAINTED RAILING SYSTEM - SEE DETAIL 11/A50L.
00000	22) ALUMINUM BAR GRATING STAIR TREADS - SEE SPECIFICATIONS.
00000	23) STEEL STRINGERS, PAINTED - SEE STRUCTURAL DRAWINGS.



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UTAH NATIONAL GUARD

PROJECT TITLE:

OUT BUILDING REMODEL

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SHEET TITLE

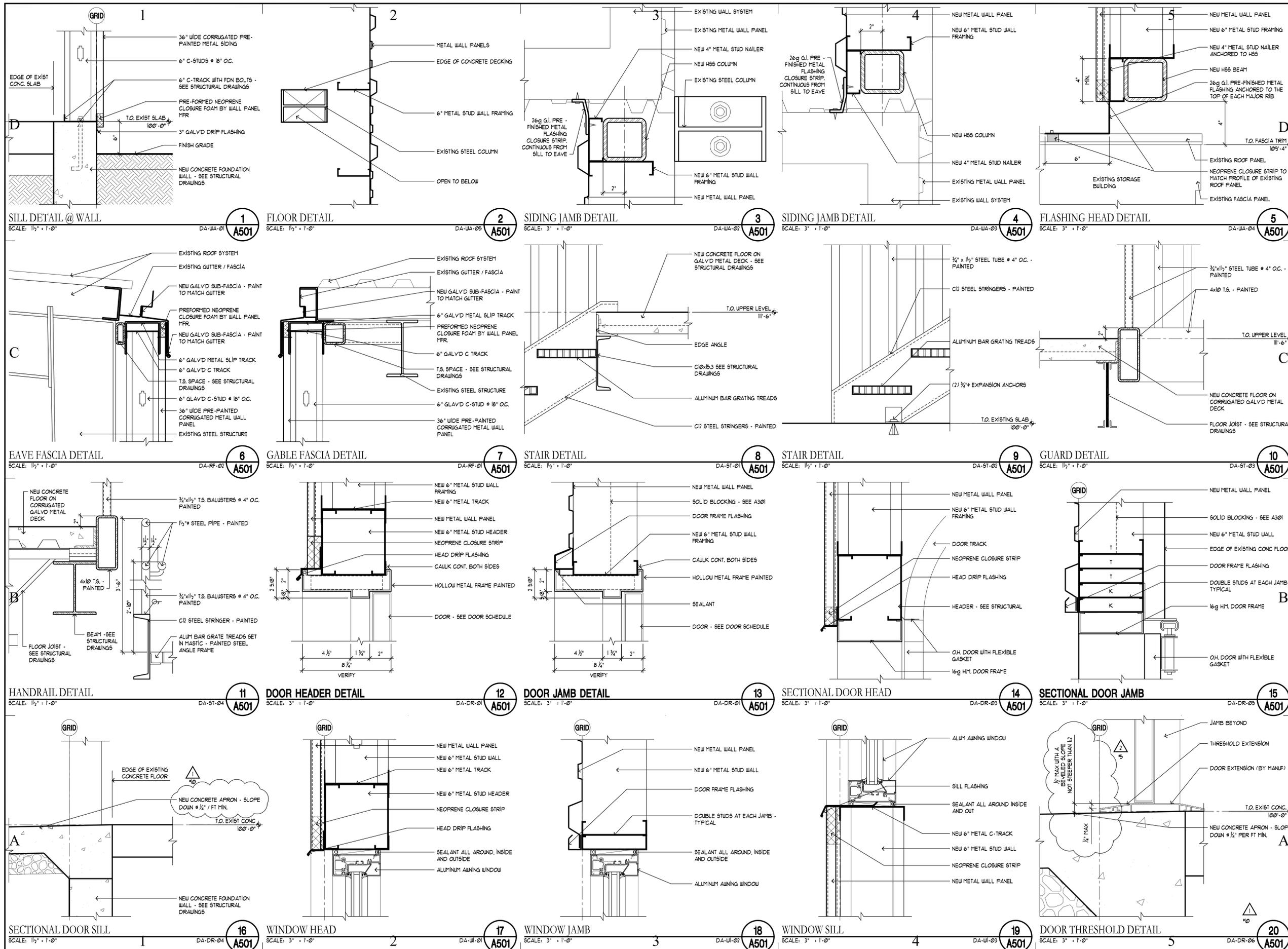
STAIR SECTION

SHEET NUMBER

A-302

SHEET 19 OF 24

STAIR SECTION
 SCALE: 3/4" = 1'-0"
 A4 A302



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BUILDING NAME:

RICHFIELD ARMORY

UTAH NATIONAL GUARD

PROJECT TITLE:

OUT BUILDING REMODEL

MARK	DATE	DESCRIPTION
1	08/17/09	DFCM
2	08/25/09	DFCM R.2

MARK	DATE	DESCRIPTION

ISSUE TYPE: CONSTRUCTION SET

ISSUE DATE: AUG 17, 2009

DFCM PROJECT NO: 09168480
 CAD PROJECT NO: 09044
 CAD DWG FILE:
 DRAWN BY: MHF
 CHK'D BY: CDJ
 COPYRIGHT: STATE OF UTAH

SHEET TITLE

ARCHITECTURAL DETAILS

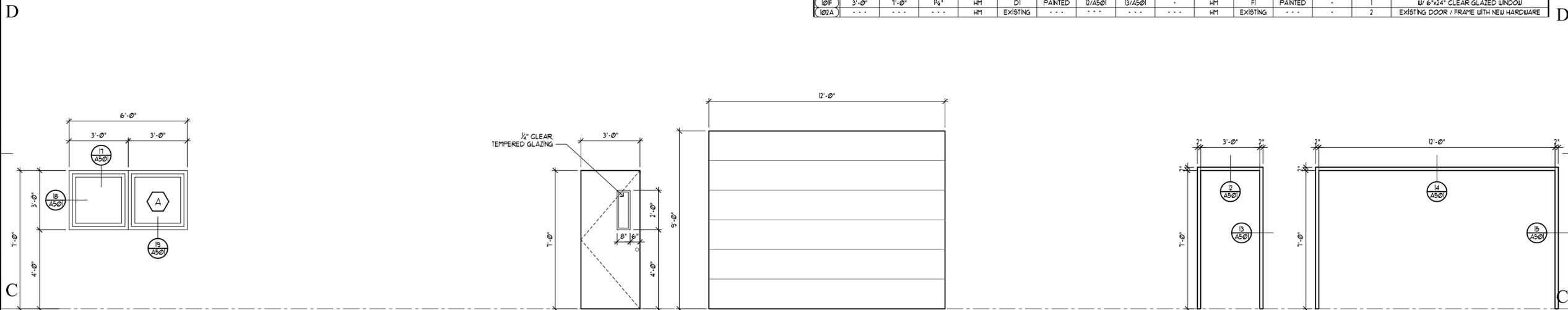
SHEET NUMBER

A-501

SHEET 20 OF 24

WINDOW SCHEDULE										
MARK	SIZE		HEAD HEIGHT	FRAME MATERIAL	TYPE	GLAZING	DETAILS			REMARKS
	WIDTH	HEIGHT					HEAD	JAMB	SILL	
(A)	6'-0"	3'-0"	1'-0"	ALUMINUM	AWING	INSULATED CLEAR	11/A501	12/A501	13/A501	PAIR OF 3'-0"x3'-0"

DOOR SCHEDULE																
MARK	DOOR			MATERIAL	TYPE	FINISH	FRAME			MATERIAL	TYPE	FINISH	FIRE RATING	HARDWARE	REMARKS	
	WIDTH	HEIGHT	THICKNESS				HEAD	JAMB	SILL							
10A	3'-0"	1'-0"	1 1/2"	HM	D1	PAINTED	12/A501	13/A501	-	HM	F1	PAINTED	-	1	W/ 6"x24" CLEAR GLAZED WINDOW	
10B	12'-0"	9'-0"	-	-	D2	PAINTED	14/A501	15/A501	16/A501	HM	F2	PAINTED	-	-	OVERHEAD SECTIONAL DOOR	
10C	12'-0"	9'-0"	-	-	D2	PAINTED	14/A501	15/A501	16/A501	HM	F2	PAINTED	-	-	OVERHEAD SECTIONAL DOOR	
10D	12'-0"	9'-0"	-	-	D2	PAINTED	14/A501	15/A501	16/A501	HM	F2	PAINTED	-	-	OVERHEAD SECTIONAL DOOR	
10E	12'-0"	9'-0"	-	-	D2	PAINTED	14/A501	15/A501	16/A501	HM	F2	PAINTED	-	-	OVERHEAD SECTIONAL DOOR	
10F	3'-0"	1'-0"	1 1/2"	HM	D1	PAINTED	12/A501	13/A501	-	HM	F1	PAINTED	-	1	W/ 6"x24" CLEAR GLAZED WINDOW	
10A	-	-	-	HM	EXISTING	-	-	-	-	HM	EXISTING	-	-	2	EXISTING DOOR / FRAME WITH NEW HARDWARE	



DOOR TYPE D1
HOLLOW METAL DOOR
PAINTED

DOOR TYPE D2
OVERHEAD SECTIONAL DOOR
PAINTED

FRAME TYPE F1
HOLLOW METAL -
PAINTED

FRAME TYPE F2
HOLLOW METAL -
PAINTED

WINDOW ELEVATION - TYPE A
SCALE: 3/8" = 1'-0"



DOOR TYPES
SCALE: 3/8" = 1'-0"



FRAME TYPES
SCALE: 3/8" = 1'-0"



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ISSUE DATE: AUG 17, 2009

DCFM PROJECT NO: 09168480

CAD PROJECT NO: 09044

CAD DWG FILE:

DRAWN BY: MHF

CHK'D BY: CDJ

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SHEET TITLE

DOOR & WINDOW SCHEDULES

SHEET NUMBER

A-601

SHEET 21 OF 24

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ELECTRICAL SYMBOLS

Table of electrical symbols and descriptions. Columns include SYMBOL, DESCRIPTION, MOUNTING HEIGHT, and various notes. Categories include ELECTRICAL WIRING, LIGHTING CONTROL, AUDIO / VIDEO, ELECTRICAL POWER, LIGHTING, ELECTRICAL CONNECTIONS, ELECTRICAL DISTRIBUTION, and ELECTRICAL DEVICES.

ABBREVIATIONS

Table of abbreviations for electrical symbols. Columns include symbol, description, and notes. Includes terms like AFF ABOVE FINISHED FLOOR, ARG ARG FULT PROTECTOR, etc.

GENERAL NOTES:

- 1. THE ELECTRICAL CONTRACTOR SHALL REVIEW AND COORDINATE WITH ARCHITECTURAL, CIVIL, STRUCTURAL, MECHANICAL, PLUMBING AND OTHER DRAWINGS PRIOR TO BID.
2. SUBMIT SHOP DRAWINGS IN ACCORDANCE WITH THE SPECIFICATIONS BOUND IN A THREE RING BINDER...
3. IT IS THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS TO ESTABLISH A STANDARD OF QUALITY...
4. CONTRACTOR SHALL SECURE AND PAY FOR ALL NECESSARY BUILDING PERMITS AND INSPECTION FEES.
5. ALL IMPACT FEES ASSOCIATED WITH CITY, UTILITY OR SERVICE COMPANIES FOR BUT NOT LIMITED TO POWER, TELEPHONE, FIBER OPTIC & INTERNET SHALL BE THE RESPONSIBILITY OF THE OWNER.
6. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH THE GENERAL CONTRACTOR TO PROVIDE AND INSTALL TEMPORARY POWER FOR PROJECT CONSTRUCTION AS REQUIRED...
7. THE ELECTRICAL CONTRACTOR SHALL NOTIFY AND COOPERATE WITH THE MECHANICAL CONTRACTOR...
8. DO NOT SCALE DRAWINGS VERIFY DIMENSIONS IN FIELD PRIOR TO MAKING ANY ROUGHING.
9. VERIFY EXACT LOCATION OF EQUIPMENT TO BE FURNISHED BY OTHERS PRIOR TO ROUGH-IN.
10. CONSULT ARCHITECTS REFLECTED CEILING PLANS FOR EXACT LOCATIONS OF LIGHTING FIXTURES, SPEAKERS, SMOKE DETECTORS ETC.
11. ELECTRICAL CONTRACTOR SHALL MEET WITH THE CEILING AND MECHANICAL CONTRACTORS TO COORDINATE LOCATIONS, CLEARANCES, CEILING TYPES AND ROUGH-IN REQUIREMENTS OF ALL LIGHTING FIXTURES PRIOR TO DUCT, PIPING AND CEILING INSTALLATIONS.
12. VERIFY EXACT LOCATION OF EQUIPMENT TO BE FURNISHED BY OTHERS PRIOR TO ROUGH-IN.
13. ELECTRICAL CONTRACTOR SHALL VERIFY ALL EQUIPMENT DIMENSIONS AND LOCATIONS BEFORE BEGINNING ROUGHING.
14. ELECTRICAL ROOM DRAWINGS ARE FOR REFERENCE ONLY OF EQUIPMENT QUANTITIES.
15. CONTRACTOR SHALL VERIFY ACTUAL ELECTRICAL LOADS FROM NAMEPLATE RATINGS OF EACH PIECE OF EQUIPMENT REQUIRING POWER BRING ANY DISCREPANCIES TO THE ATTENTION OF THE PROJECT ENGINEER.
16. WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER PER INDUSTRY STANDARD AND TO THE SATISFACTION OF THE ARCHITECT AND ENGINEER.
17. WORK MATERIALS AND EQUIPMENT SHALL CONFORM TO THE LATEST EDITIONS OF LOCAL, STATE AND NATIONAL CODES, STANDARDS AND ORDINANCES.
18. FINAL CONNECTIONS TO EQUIPMENT SHALL BE MADE AS PER MANUFACTURERS WRITTEN INSTRUCTIONS AND APPROVED WIRING DIAGRAMS AND DETAILS.
19. ALL EMPTY RACEWAY SYSTEMS SHALL HAVE A 200LB RATED RULL GORD INSTALLED AND SHALL BE IDENTIFIED AT EACH JUNCTION, RULL AND TERMINATION POINT USING PERMANENT MARKER IN THE BOX.
20. ALL PENETRATIONS OF FIRE RATED FLOORS, CEILING AND WALLS SHALL BE SEALED WITH LISTED AND RATED FIRE STOP MATERIAL TO MAINTAIN FIRE RATINGS OF ASSEMBLY.
21. ELECTRICAL BOXES SHALL NOT BE LOCATED IN MASONRY OR CONCRETE CEILING, BOND BEAMS OR GROUTED CELLS OF MASONRY WALLS ADJACENT TO JOINTS WITHOUT COORDINATION WITH THE MASONRY CONTRACTOR.
22. WIRE FOR GENERAL USE SHALL BE COPPER 75° C RATED.
23. CONDUCTORS HAVE BEEN SIZED FOR VOLTAGE DROP AS PER PLANS AND DIRECT ROUTING.
24. ALL WIRING IN PATIENT TREATMENT AREAS SHALL BE ENCLOSED IN METAL RACEWAYS.
25. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL UTILITY METERING EQUIPMENT TO COMPLY WITH THE STANDARDS OF THE LOCAL OR PROJECT SPECIFIC POWER COMPANY.
26. VERIFY EXACT LOCATIONS OF ALL NEW AND EXISTING UNDERGROUND SITE UTILITIES, PIPING AND RACEWAY SYSTEMS PRIOR TO TRENCHING.
27. ALL WIRING IN PATIENT TREATMENT AREAS SHALL BE ENCLOSED IN METAL RACEWAYS.
28. PROVIDE RECORD DRAWINGS IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
29. THE CONTRACTOR SHALL GUARANTEE THE INSTALLATION AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP WHICH MAY OCCUR UNDER NORMAL USAGE FOR A PERIOD OF ONE YEAR AFTER SUBSTANTIAL COMPLETION.
30. PROVIDE RECORD DRAWINGS IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
31. THE CONTRACTOR SHALL GUARANTEE THE INSTALLATION AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP WHICH MAY OCCUR UNDER NORMAL USAGE FOR A PERIOD OF ONE YEAR AFTER SUBSTANTIAL COMPLETION.
32. ALL CABLES AND RACEWAYS INSTALLED UNDER METAL CORRUGATED ROOF DECK SHALL BE INSTALLED AND SUPPORTED TO THE NEAREST OUTSIDE SURFACE IF THE CABLE OR RACEWAY IS NOT LESS THAN 1/2" FROM THE NEAREST SURFACE OF THE ROOF DECKING.

ELECTRICAL SPECIFICATIONS

SECTION 16000 - GENERAL PROVISIONS
WORK CONSISTS OF FURNISHING LABOR, MATERIALS, EQUIPMENT AND SERVICES REQUIRED FOR THE COMPLETE INSTALLATION OF ELECTRICAL WORK SHOWN IN THE CONTRACT DOCUMENTS AND SPECIFIED IN DIVISION 16.
INCLUDE ALL PARTS AND LABOR WHICH ARE INCIDENTAL AND NECESSARY FOR A COMPLETE AND OPERABLE INSTALLATION EVEN THOUGH NOT SPECIFICALLY MENTIONED IN THE CONTRACT DOCUMENTS.
REQUEST INSPECTIONS AS REQUIRED BY REGULATING AGENCIES AND/OR REGULATIONS.
INCLUDE STATE AND LOCAL SALES TAXES IN THE BID.
MEET OR EXCEED ALL CURRENT APPLICABLE CODES, ORDINANCES AND REGULATIONS FOR ALL INSTALLATIONS.
THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH THE GENERAL CONTRACTOR TO PROVIDE AND INSTALL TEMPORARY POWER FOR PROJECT CONSTRUCTION AS REQUIRED.
THE TERMS DEFINED BELOW APPLY TO ALL WORK INCLUDED IN DIVISION 16.
a. THE WORK - AS DEFINED IN THE BIDDING DOCUMENT ADDI.
b. FURNISH - TO OBTAIN IN NEW CONDITION READY FOR INSTALLATION INTO THE WORK.
c. INSTALL - TO STORE SET IN PLACE, CONNECT AND PLACE INTO OPERATION INTO THE WORK.
d. PROVIDE - TO FURNISH AND INSTALL.
e. CONNECT - TO BRING SERVICE TO THE EQUIPMENT AND MAKE FINAL ATTACHMENT INCLUDING NECESSARY SWITCHES, OUTLETS, BOXES, TERMINATIONS, ETC.
f. CONDUIT - INCLUDES IN ADDITION TO CONDUIT, ALL FITTINGS, RULL BOXES, HANGERS AND OTHER SUPPORTS AND ACCESSORIES RELATED TO SUCH CONDUIT.
g. CONCEALED - HIDDEN FROM SIGHT IN CHASES, FURRED SPACES, SHAFTS, HUNG CEILING, EMBEDDED IN CONSTRUCTION, IN GRAVEL SPACES OR BURIED.
h. EXPOSED - NOT INSTALLED UNDERGROUND NOR CONCEALED AS DEFINED ABOVE.
EXISTING ELECTRICAL SERVICE, MAINTAIN EXISTING SYSTEM IN SERVICE DISABLE SYSTEM ONLY TO MAKE SWITCHOVERS AND CONNECTIONS.
EXISTING TELEPHONE, DATA, CCTV & SECURITY SYSTEM MAINTAIN EXISTING SYSTEMS IN SERVICE.
DEMOLISH AND EXTEND EXISTING ELECTRICAL WORK UNDER AND THIS SECTION AND AS INDICATED ON THE DRAWINGS.
PROVIDE SUPPORTS FOR ALL EXISTING ELECTRICAL EQUIPMENT THAT WAS SUPPORTED PREVIOUSLY BY DEMOLISHED WALLS, FLOORS, CEILING OR OTHER STRUCTURES.
OWNER RESERVES THE RIGHT OF FIRST REFUSAL TO OBTAIN MATERIAL SHOWN TO BE REMOVED UNDER THIS CONTRACT.
EXTEND EXISTING INSTALLATIONS USING MATERIALS AND METHODS COMPATIBLE WITH EXISTING ELECTRICAL INSTALLATIONS.
RELOCATE EXISTING INSTALLATIONS AND WIRING AS REQUIRED FOR CONDUIT CONCEALED IN WALLS OR STRUCTURE BEING ALTERED AS PART OF THE RENOVELING.
REROUTE EXISTING RACEWAY AND WIRING WHICH IS EXPOSED DUE TO REMOVAL OF EXISTING CONSTRUCTION.
SECTION 16020 - BASIC MATERIALS AND METHODS
ENGAGE ALL CONDUCTORS IN A CONTINUOUS RACEWAY SYSTEM.
PROVIDE FULL AND JUNCTION BOXES AS REQUIRED BY THE NEC.
PROVIDE EXPANSION FITTINGS WHERE RACEWAY CROSSES BUILDING EXPANSION JOINTS.
RUN ALL EXPOSED CONDUIT IN A NEAT, WORKMANLIKE MANNER PARALLEL TO THE BUILDING LINES.
HOLE MOUNTING STRAPS, MINIMUM THREE (3) FEET ON CENTER.
PROVIDE GALVANIZED CODE GAUGE STEEL JUNCTION AND RULL BOXES WITH SCREW ON COVERS OF TYPE, SHAPE AND SIZE REQUIRED TO SUIT EACH INSTALLATION.
PROVIDE 4" BOXES THROUGHOUT.
PROVIDE 3/4" DEEP BOXES WHERE INSTALLED IN MASONRY.
COORDINATE THE LOCATION OF ALL OUTLETS WITH MECHANICAL DRAWINGS BEFORE INSTALLATION.
PROVIDE WIRE AND CABLE WITH INSULATION VOLTAGE RATINGS EQUAL TO OR GREATER THAN THE APPLIED SYSTEM VOLTAGE.
FLUORESCENT LAMP BALLAST FOR T8 4 T5 LAMPS SHALL BE ELECTRONIC CEM CERTIFIED W/ THD LESS THAN 20% RAPID START.
SUPPORT ALL RECESSED LIGHTING FIXTURES W/ 4" IDGA WIRES INDEPENDENT FROM CEILING SUPPORT SYSTEM.

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PROJECT TITLE:

UTNG ARMORY

RICHFIELD, UTAH

Table with 3 columns: MARK, DATE, DESCRIPTION. It is mostly empty.

ISSUE TYPE: CONSTRUCTION SET

ISSUE DATE: August 17, 2009

DFCM PROJECT NO: 09160480

PVE PROJECT NO: 09101.00.01

CAD DWG FILE: E101-09101.01-R

DESIGNED BY: KJH

CHECKED BY: RKR

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SHEET TITLE

ELECTRICAL SYMBOLS & NOTES

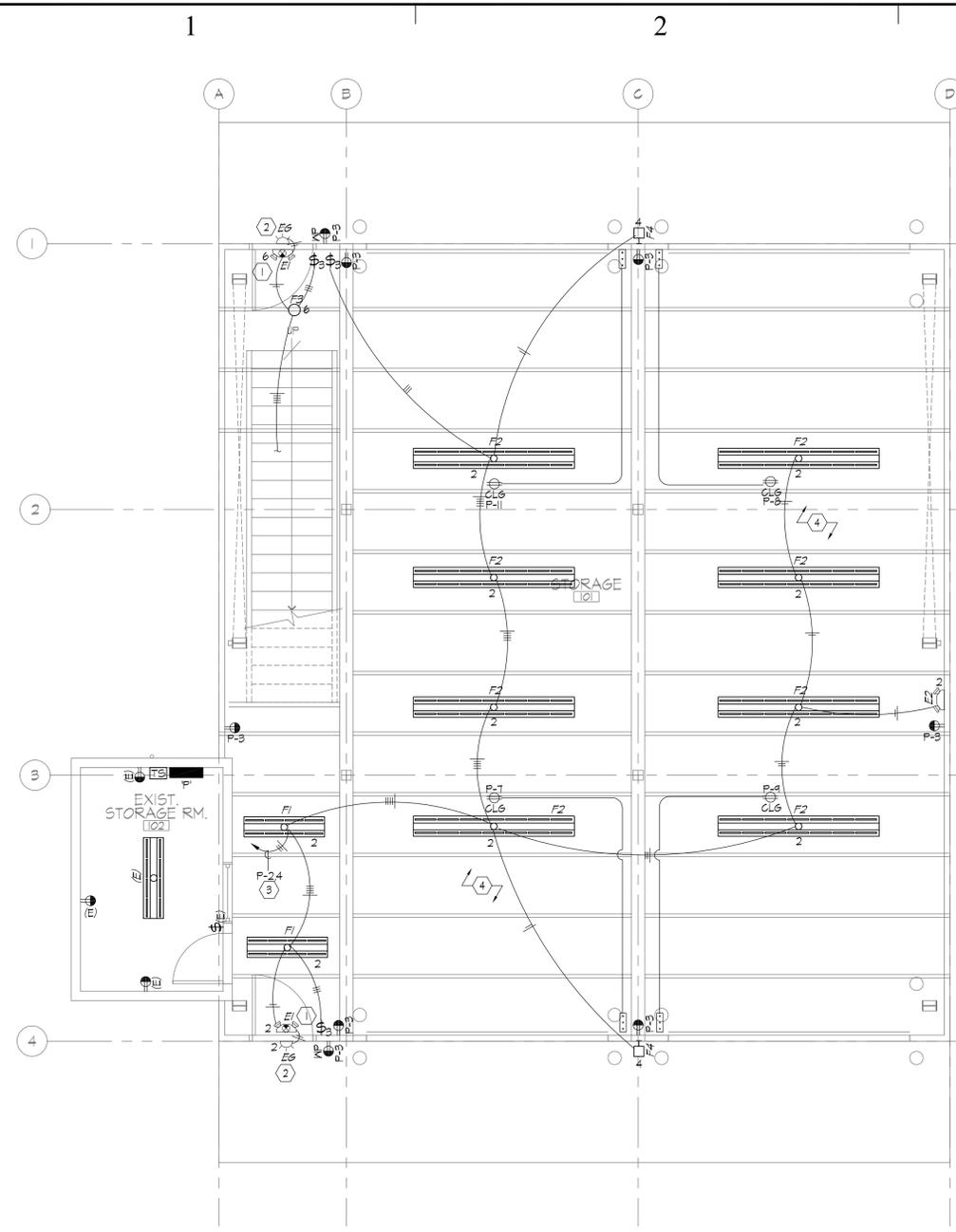
SHEET NUMBER

E101

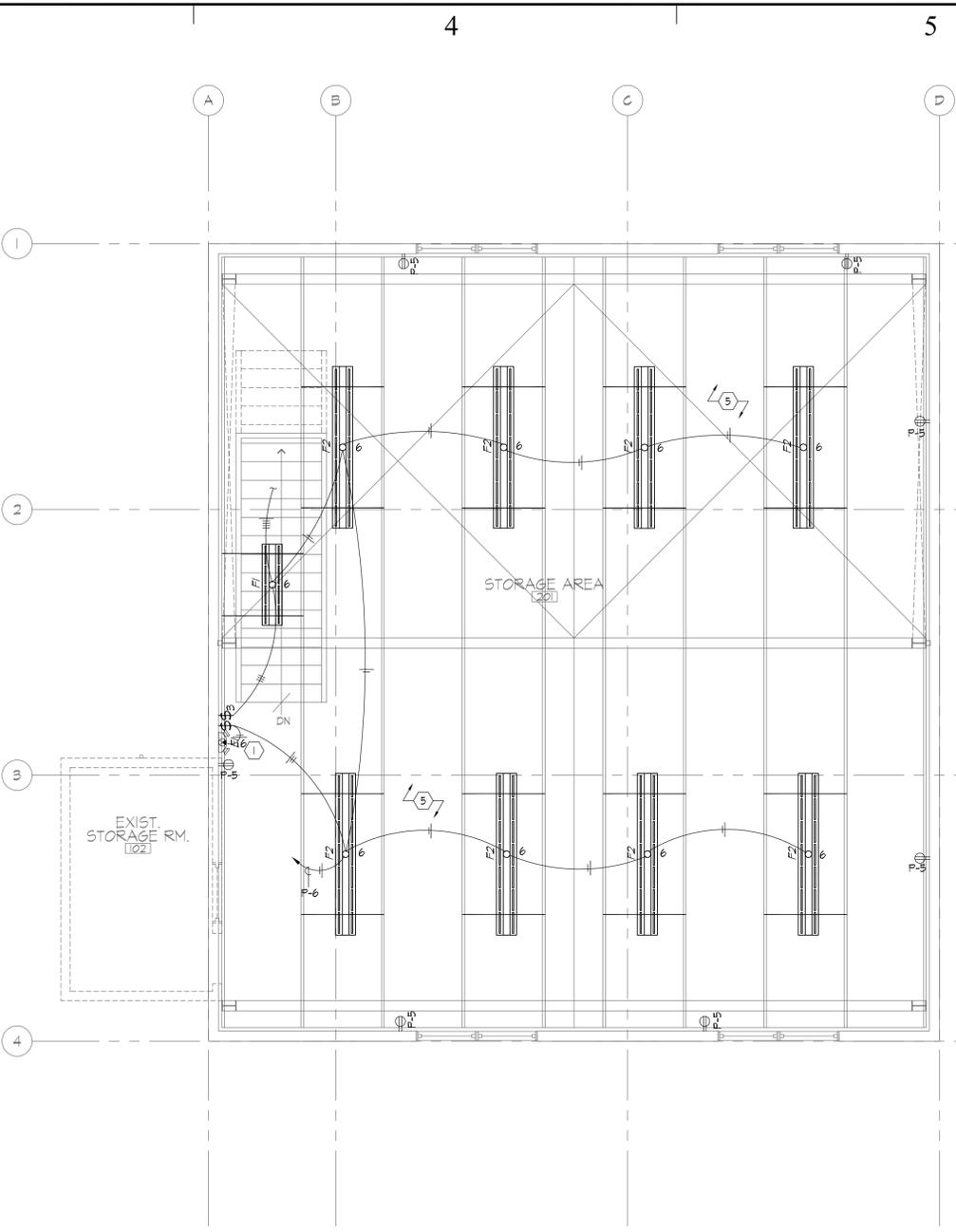
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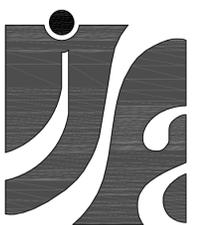


A MAIN LEVEL FLOOR PLAN - ELECTRICAL
 E201 SCALE: 1/4" = 1'-0"
 3' 0' 2' 4' 6' 8'
 NORTH



B UPPER LEVEL FLOOR PLAN - ELECTRICAL
 E201 SCALE: 1/4" = 1'-0"
 3' 0' 2' 4' 6' 8'
 NORTH

- KEYED NOTES (⊙):**
- EMERGENCY LIGHT FIXTURE TO BE UNSWITCHED, PROVIDE CONTINUOUS CIRCUIT (SEE EMERGENCY BALLAST OPERATION DETAIL).
 - EMERGENCY EGRESS FIXTURE ON EM BATTERY PACK (SEE EMERGENCY BALLAST OPERATION DETAIL).
 - RUN CIRCUIT P-4 VIA SEVEN DAY ASTRONOMICAL TIME SWITCH.
 - LIGHTING FIXTURES TO BE SURFACE MOUNTED TO STRUCTURE.
 - LIGHTING FIXTURES TO BE MOUNTED TO A UNISTRUT CHANNEL. UNISTRUT CHANNELS TO BE SECURED AS REQUIRED TO THE STRUCTURAL PERLINS.



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UTNG ARMORY

RICHFIELD, UTAH

MARK	DATE	DESCRIPTION

ISSUE TYPE: CONSTRUCTION SET

ISSUE DATE: August 17, 2009

DFCM PROJECT NO: 09160480
 PVE PROJECT NO: 09101.00.01
 CAD DWG FILE: E201-09101.01-R
 DESIGNED BY: KJH
 CHECKED BY: RKR
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SHEET TITLE
FLOOR PLANS - ELECTRICAL

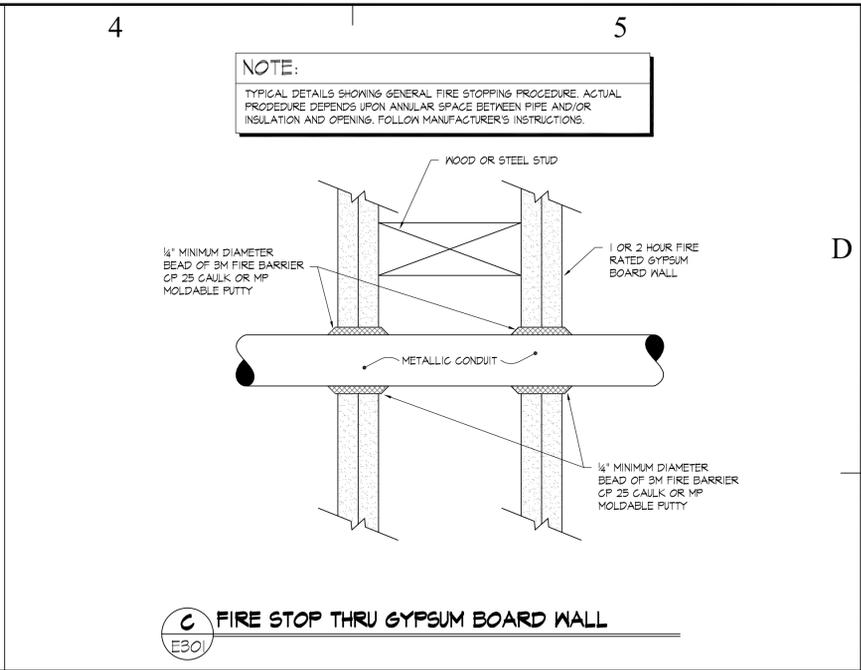
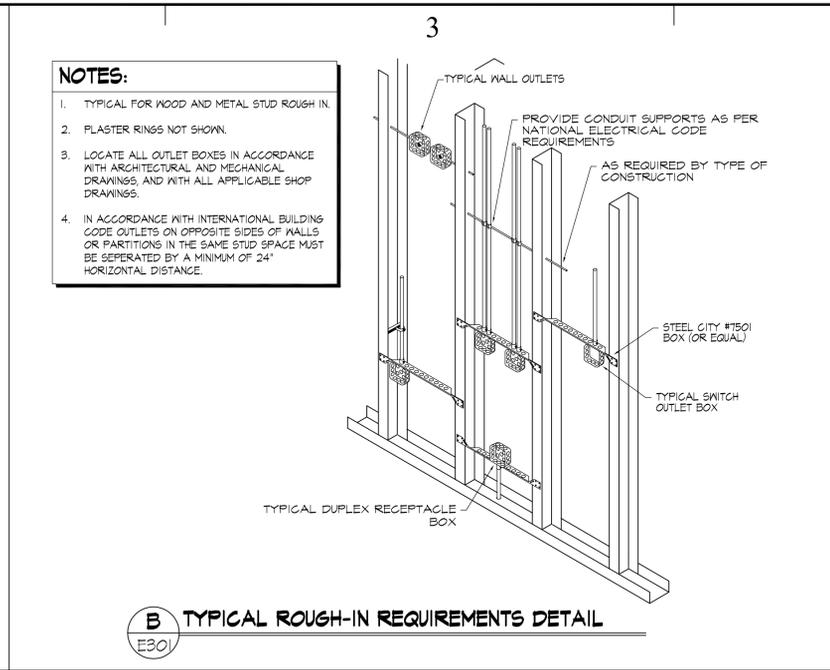
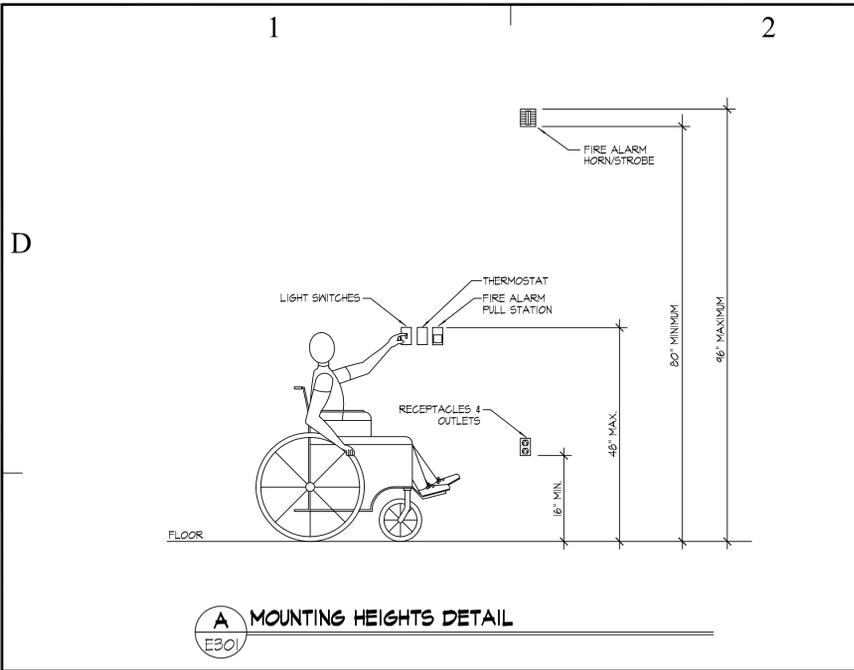
SHEET NUMBER

E201

SHEET 23 OF 24



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RICHFIELD, UTAH

MARK	DATE	DESCRIPTION

ISSUE TYPE: CONSTRUCTION SET
ISSUE DATE: August 17, 2009
DFCM PROJECT NO: 09160480
PVE PROJECT NO: 09101.00.01
CAD DWG FILE: E301-09101.01-R
DESIGNED BY: KJH
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SHEET TITLE
ELECTRICAL SYMBOLS & NOTES
SHEET NUMBER
E301
SHEET 24 OF 24



LIGHT FIXTURE SCHEDULE									
FIXTURE NUMBER	FIXTURE MANUFACTURER	FIXTURE CATALOG #	DESCRIPTION	LAMPS		FIXTURE		REMARKS	
				TYPE	QTY.	VOLTS	WATTS		
F1	METALIX DAYERITE	IA-292-EB81 IA322-VI2EB	48" INDUSTRIAL FLUORESCENT	F3218/SP38 EGO	2	120	66	SURFACE/CHAIN	PROVIDE WITH ELECTRONIC BALLAST
F2	METALIX DAYERITE	8TA-292-EB81 TA292-VI4EB	96" INDUSTRIAL FLUORESCENT (TANDEM)	F3218/SP38 EGO	4	120	132	SURFACE/CHAIN	PROVIDE WITH ELECTRONIC BALLAST
F3	LUMARK DAYERITE	FLVS-C66-26 VFN26G-C-LP-IP6	FLUORESCENT CEILING MOUNTED	26DTT	1	120	27	SURFACE CEILING	PROVIDE WITH ELECTRONIC BALLAST
F4	DAYERITE LUMARK	MLL250M-LP MHLL 250-MT-LL	250 WATT METAL HALIDE WALL PACK	250M MH	1	120	300	SURFACE WALL	
E1	SURE-LITES MCPHILEN	LFX-10-026MH CGAXL-1-SM	2-HEAD EM WALL PACK (SURFACE) WITH EXIT LIGHT	INCLUDED	2	120	5.4	SURFACE WALL	
E2	SURE-LITES MCPHILEN	CC-6-MH CT6	2-HEAD EM WALL PACK (SURFACE)	INCLUDED	2	120	5.4	SURFACE WALL	
E6	ISOLITE MCPHILEN	ETE-6-SCBA PDNBZ	EMERGENCY EGRESS LIGHT - METAL	6W XENON INCLUDED	2	120	12	SURFACE WALL	EMERGENCY EGRESS
XI	ISOLITE MCPHILEN	LFD2665-MH-M EBSL-1-MB	POWERED SINGLE FACE EXIT W/ "DM" BATTERY PACK	INCLUDED	2	120	11.2	UNIVERSAL	INDELEAD/MEM BATTERY SINGLE FACE EXIT

NOTE:
ELECTRICAL CONTRACTOR SHALL PROVIDE A QUICK DISCONNECT HARNESS FOR EACH FLUORESCENT LIGHTING FIXTURE TO SERVE AS A MEANS OF DISCONNECT TO ALLOW THE FIXTURE BALLAST TO BE SERVICED IN PLACE, AS PER THE NATIONAL ELECTRICAL CODE 2008, ARTICLE 410.150 (6).

PANEL SCHEDULE													
PANEL: P		BUS AMPS: 225		MAIN OVERCURRENT DEVICE: L1955		USE: E = Equipment Load M = Motor Load							
VOLTAGE: 208 / 120		PHASE: 3		MAIN OVERCURRENT AMPS: N/A		L = Lighting Load							
MOUNTING: SURFACE		WIRE: 4		MINIMUM EQUIPMENT RATING: 22,000 AMPS (RMS-9YM)		R = Receptacle Load							
ENCLOSURE: NEMA 1													
REMARKS:													
No.	AMPS	POLE	KEYED NOTE	CIRCUIT NAME	C	WIRE	GRD	USE	KWTS	ØA	ØB	ØC	DEMAND
1	20	1		RECEPTACLES	3/4"	#12	R	120	1874				5042
2	20	1		RECEPTACLES	3/4"	#12	R	1200	1560				78
3	20	1		RECEPTACLES	3/4"	#12	R	1080	600				3060
4	20	1		DOOR OPENER	3/4"	#12	M	1200	2400				300
5	20	1		DOOR OPENER	3/4"	#12	M	1200	3600				300
6	20	1		DOOR OPENER	3/4"	#12	M	1200	2400				300
7	20	1		SPARE									
8	20	1		SPARE									
9	20	1		SPARE									
LIGHTING LOAD (VA)										ØA	ØB	ØC	DEMAND
LIGHTING CONTINUOUS LOAD PER NEC 210.20(A) (VA)										1254	600	188	5042
RECEPTACLE LOAD PER NEC 220.44 (VA)													78
EQUIPMENT LOAD (VA)										120	1260	1080	3060
25% LARGEST MOTOR (VA)										2400	3600	3600	600
KITCHEN EQUIPMENT LOAD (VA)										0	0	0	0
TOTAL LOAD (VA)										4374	5460	5868	16763
TOTAL LOAD (AMPS)										36	46	48	47

GENERAL NOTES:
1. ALL INSULATION ON CONDUCTORS TO BE THIN, UNLESS NOTED OTHERWISE. INSULATION ON ALL UNDERGROUND CONDUCTORS SHALL BE THIN.
2. RECEPTACLE LOAD CALCULATED AS PER SECTION 220 OF THE NATIONAL ELECTRICAL CODE.
3. PANEL COVER SHALL BE FIELD MARKED FOR FLASH PROTECTION WITH A PERMANENT LABEL AS REQUIRED BY THE NATIONAL ELECTRICAL CODE SECTION 10. LABEL SHALL READ AS FOLLOWS: "DANGER: POTENTIAL ARC FLASH HAZARD".
KEYED NOTES:
A. LOCK-ON BREAKER.
B. PROVIDE ARC FLASH TAG/ID BREAKER.
C. PROVIDE GFCI BREAKER.