



Washoe County School District

Purchasing Department • 14101 Old Virginia Road • Reno, NV 89521
Phone (775) 850-8025 • Fax (775) 857-3175

ADDENDUM #2

Bid # 22-26-B-10-DA
Construction of Rio Wrangler Area Elementary School

November 4, 2021

Signature on this form acknowledges receipt of the Addendum and that any changes, additions, and/or clarifications addressed within the Addendum shall be recognized as an incorporated part of the bid documents. The Contractor shall assure themselves that items covered by the Addendum are thoroughly understood and are fully accounted for in their submitted pricing.

All prospective Bidders should **Acknowledge Receipt** of this Addendum by signing this document where noted and returning it with the bid submission. Failure to acknowledge receipt of this Addendum may result in a rejection of bid.

The opening date for Bid #22-26-B-10-DA – Construction of Rio Wrangler Area Elementary School is scheduled for November 23, 2019 and is due at 2:00 p.m. (Local Time).

1. **Addendum No. 2 dated November 4, 2021 from H+K Architects – 44 pages attached.**
2. **Revised Section 01020 Personnel Safety Check Application:**
Section 01020 Personnel Safety Check Application has been replaced with Section 01020 – Personnel Safety Check Application (New Construction) – 2 pages attached.

3. **Question:**
Is there a CAD file to assist with earthwork takeoff?

Response:

Odyssey Engineering, Inc. has provided an Electronic Data Release dated 10/19/21 for requested CAD Drawings (see below). Please sign release either electronically using a certified digital signature or with a "wet" signature and return it to solicitations@washoeschools.net. WCSD will then provide a link to the requested documents – 2 pages attached.

4. **Question:**
Will Oldcastle Building Products be an acceptable supplier for the storefront systems?

Response:

Manufacturer and/or products are not pre-approved during the bidding process. After a review of the contract documents, if you feel your products meet both the specifications and the design intent as shown on the drawings, we encourage you to submit a bid to the General Contractors registered as plan holders for this project.



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5. Question:

The plan set for Rio Wrangler appears to contain just 5 landscape sheets, duplicated (L100-202 and L4000-4004) none of which have the actual school on them. The 5 sheets are details and landscape plans for the street area landscape only. Please advise if there are more landscape sheets available for bid purposes including full scope landscape and play equipment documents.

Response:

The Building Landscape Plans are missing from the provided documents. Please refer to the drawings provided in Item #1 and attached.

6. Question:

The plans are missing a set of landscape plans; the only plans included are the ones for the turn lane. These same plans are repeat again for the school plans instead of the new plan set. Please provide a full set of landscape plans.

Response:

The Building Landscape Plans are missing from the provided documents. Please refer to the drawings provided in Item #1 and attached.

7. Question:

The RFP does not provide a date that a "Notice to Proceed" will be issued by. Can WCSD provide a "Notice to Proceed" date for scheduling purposes?

Response:

The Notice to Proceed will be issued after the project has been awarded, contract has been executed and all required insurance and bonds have been submitted. This project is scheduled to go to our Board of Trustees for approval on December 14, 2021. The Notice to Proceed will be issued after that date and only when all required documents listed above have been collected.

8. Question:

Please confirm if it is acceptable for all addendums to be acknowledged on the bid form or if each individual addendum needs to be signed and submitted with the bid documents.

Response:

It is acceptable to confirm all addendums on the Bid Form and/or sign each Addendum and submit it with the Bid Documents.



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9. Question:

Please confirm if the provided "Bid Bond" document needs to be filled out or if a similar surety-company issued document will be accepted. The Bid Bond form contains space for an actual dollar amount. Please confirm per the bid documents it is acceptable to populate this amount with "Five Percent (5%)."

Response:

The Bid Bond does not specifically have to be WCSD's form. A surety-company issued Bid Bond will be accepted. It is acceptable to write five percent (5%) in the field that asks for a dollar amount.

10. Question:

The Landscape Sheets L4000 – L4004 provide landscape plans, irrigation plans, details & notes for the Turn Pocket. However, the Landscape Sheets L100 – L300 also provide landscape, irrigation plans, details & notes for the Turn Pocket. The drawings provided do not have Landscape Plans, Irrigation Plans, Details & Notes for the Surrounding School Area Landscaping. Please provide Landscape Plans, Irrigation Plans, Details & Notes for the Surrounding School Area Landscaping.

Response:

The Building Landscape Plans are missing from the provided documents. Please refer to the drawings provided in Item #1 and attached.

ACKNOWLEDGEMENT OF RECEIPT

PRINT NAME (Authorized Proposer)

SIGNATURE (Authorized Proposer)

AGENCY NAME

DATE



Addendum No. 2

To the Contract Documents

for

**Washoe County School District
Rio Wrangler Elementary School
10600 Green Pasture Drive
Reno, NV**

November 4 , 2021

H+K ARCHITECTS
5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262

BIDDER'S NOTE: This addendum shall be recognized by all concerned as an incorporated part of the Contract Documents. The Contractor shall assure himself that all changes and interpretations covered by the contents herein are thoroughly understood and are fully accounted for in the Contract prices.

A. General

1. BIM models will be provided after the bid award for your convenience. They are NOT contract documents. The contractors are still responsible for reviewing the physical CDs and coordinating with their BIM effort. For example: the electrical drawings may be drawn in Revit, but they are still schematic in nature, following the industry standard.

B. Project Manual

<u>SECTION-PAGE</u>	<u>DESCRIPTION</u>
084113	ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS – Added requirements for Mockup
085113	ALUMINUM WINDOWS – Added requirements for Mockup
096816	VINYL-BACKED CUSHIONED CARPET - Added Paragraph 3.2- Preparation, and revised paragraph 3.3 Carpet Installation to include sub-paragraphs E & F.
102239	FOLDING PANEL PARTITIONS – Paragraph 2.2.j.1.c: “Revise to read: Panic hardware with lock. Lock shall accept cylinders as specified in Section 087100 Door Hardware and allow for cylinder dogging ”.

C. Drawings

<u>SHEET</u>	<u>DESCRIPTION</u>
H+K ARCHITECTS A001, A002	Enlarge transformer enclosure, per new NV Energy requirements.

5485 Reno Corporate Drive, Suite 100
Reno, Nevada 89511-2262

P 775+332+6640
F 775+332+6642

hkarchitects.com

Addendum for Washoe County School District
Rio Wrangler Elementary School
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A111, A701, A703, A814	Add a vision panel to doors A103, A104A, A107A, & A108. Add callouts for door B103D in the folding partition; "Egress Door, See Specifications".
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A703	Door Schedule – Areas B: Door B103D: Change door size to 3'-0" x 7'-0". Revise Comments for read "Folding panel door by manufacturer. See Specs."
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L100, L102, L200, L201, L202, L203, L300	Landscape plans to replace sheets L100 – L202
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D. Previous Addenda

<u>ADDENDUM-PAGE</u>	<u>DESCRIPTION</u>
None	

E. Attachments

Project Manual

<u>SECTION-PAGE</u>	<u>DESCRIPTION</u>
084113	ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS
085113	ALUMINUM WINDOWS
096816	VINYL-BACKED CUSHIONED CARPET
102239	FOLDING PANEL PARTITIONS

Drawings

<u>SHEET</u>	<u>DESCRIPTION</u>
A001	Revised size of transformer enclosure.
A002	Revised detail 4/A002.
A111	Revised doors
A701	Revised doors.
A703	Revised doors.
A814	Add note to folding partition door.
L100	Landscape planting plan
L101	Landscape details
L200	Irrigation plan
L201	Irrigation details
L202	Irrigation details
L203	Irrigation details
L300	Landscape & irrigation details

End of Addendum # 2

SECTION 084113 - ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:

- 1. Exterior and interior storefront framing.
 - 2. Storefront framing for punched openings.
 - 3. Louvers in Storefront Framing

- B. Related Requirements:

- 1. Section 014339 – “Classroom Mockup”.
 - 2. Section 079200 “Joint Sealants”.
 - 3. Sections 081416 “Flush Wood Doors” and 081743 “Flush FRP Doors” for doors in Aluminum-Framed Storefronts.
 - 4. Section 087100 “Door Hardware” for door hardware for doors in Aluminum-Framed Storefronts.
 - 5. Section 089119 “Fixed Louvers” for louvers installed in CMU walls.
 - 6. Section 085113 “Aluminum Windows” for windows installed in Aluminum-Framed Storefronts.
 - 7. Section 088000 “Glazing” for glazing installed in Aluminum-Framed Storefronts.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.

- 1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.

- B. Shop Drawings: For aluminum-framed entrances and storefronts. Include plans, elevations, sections, full-size details, and attachments to other work.

- 1. Include details of provisions for assembly expansion and contraction and for draining moisture occurring within the assembly to the exterior.
 - 2. Include full-size isometric details of each vertical-to-horizontal intersection of aluminum-framed entrances and storefronts, showing the following:
 - a. Joinery, including concealed welds.
 - b. Anchorage.
 - c. Expansion provisions.

- d. Glazing.
 - e. Flashing and drainage.
 - 3. Show connection to and continuity with adjacent thermal, weather, air, and vapor barriers.
 - C. Samples for Initial Selection: For units with factory-applied color finishes.
- 1.4 INFORMATIONAL SUBMITTALS
- A. Sample Warranties: For special warranties.
- 1.5 CLOSEOUT SUBMITTALS
- A. Maintenance Data: For aluminum-framed entrances and storefronts to include in maintenance manuals.
- 1.6 QUALITY ASSURANCE
- A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer.
- 1.7 WARRANTY
- A. Special Warranty: Manufacturer agrees to repair or replace components of aluminum-framed entrances and storefronts that do not comply with requirements or that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Structural failures including, but not limited to, excessive deflection.
 - b. Noise or vibration created by wind and thermal and structural movements.
 - c. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
 - d. Water penetration through fixed glazing and framing areas.
 - e. Failure of operating components.
 - 2. Warranty Period: 10 years from date of Substantial Completion.
 - B. Special Finish Warranty: Standard form in which manufacturer agrees to repair finishes or replace aluminum that shows evidence of deterioration of factory-applied finishes within specified warranty period.
 - 1. Deterioration includes, but is not limited to, the following:
 - a. Color fading more than 5 Hunter units when tested according to ASTM D 2244.
 - b. Chalking in excess of a No. 8 rating when tested according to ASTM D 4214.
 - c. Cracking, checking, peeling, or failure of paint to adhere to bare metal.
 - 2. Warranty Period: 10 years from date of Substantial Completion.

1.8 MOCKUPS

- A. Build mockups to verify selections made under Sample submittals, to demonstrate aesthetic effects, and to set quality standards for fabrication and installation.
 - 1. Build mockup of typical wall area as described in Section 014339 – Classroom Mockup.
 - 2. Testing shall be performed on mockups in accordance with requirements in "Field Quality Control" Article.
 - 3. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
 - 4. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. General Performance: Comply with performance requirements specified, as determined by testing of aluminum-framed entrances and storefronts representing those indicated for this Project without failure due to defective manufacture, fabrication, installation, or other defects in construction.
 - 1. Aluminum-framed entrances and storefronts shall withstand movements of supporting structure including, but not limited to, story drift, twist, column shortening, long-term creep, and deflection from uniformly distributed and concentrated live loads.
 - 2. Failure also includes the following:
 - a. Thermal stresses transferring to building structure.
 - b. Glass breakage.
 - c. Noise or vibration created by wind and thermal and structural movements.
 - d. Loosening or weakening of fasteners, attachments, and other components.
 - e. Failure of operating units.
- B. Structural Loads:
 - 1. Wind Loads: As indicated on Drawings.
 - 2. Other Design Loads: As indicated on Drawings.
- C. Deflection of Framing Members: At design wind pressure, as follows:
 - 1. Deflection Normal to Wall Plane: Limited to edge of glass in a direction perpendicular to glass plane not exceeding 1/175 of the glass edge length for each individual glazing lite or an amount that restricts edge deflection of individual glazing lites to 3/4 inch, whichever is less.
 - 2. Deflection Parallel to Glazing Plane: Limited to 1/360 of clear span or 1/8 inch, whichever is smaller.
 - a. Operable Units: Provide a minimum 1/16-inch clearance between framing members and operable units.
 - 3. Cantilever Deflection: Where framing members overhang an anchor point, as follows:

- a. Perpendicular to Plane of Wall: No greater than $1/240$ of clear span plus $1/4$ inch for spans greater than 11 feet 8- $1/4$ inches or $1/175$ times span, for spans less than 11 feet 8- $1/4$ inches.
- D. Structural: Test according to ASTM E 330 as follows:
1. When tested at positive and negative wind-load design pressures, assemblies do not evidence deflection exceeding specified limits.
 2. When tested at 150 percent of positive and negative wind-load design pressures, assemblies, including anchorage, do not evidence material failures, structural distress, or permanent deformation of main framing members exceeding 0.2 percent of span.
 3. Test Durations: As required by design wind velocity, but not less than 10 seconds.
- E. Air Infiltration: Test according to ASTM E 283 for infiltration as follows:
1. Fixed Framing and Glass Area:
 - a. Maximum air leakage of 0.06 cfm/sq. ft. at a static-air-pressure differential of 6.24 lbf/sq. ft.
- F. Seismic Performance: Aluminum-framed entrances and storefronts shall withstand the effects of earthquake motions determined according to ASCE/SEI 7.
1. Seismic Drift Causing Glass Fallout: Complying with criteria for passing based on building occupancy type when tested according to AAMA 501.6 at design displacement and 1.5 times the design displacement.
 2. Vertical Interstory Movement: Complying with criteria for passing based on building occupancy type when tested according to AAMA 501.7 at design displacement and 1.5 times the design displacement.
- G. Energy Performance: Certify and label energy performance according to NFRC as follows:
1. Thermal Transmittance (U-factor): Fixed glazing and framing areas shall have U-factor of not more than 0.57 Btu/sq. ft. x h x deg F as determined according to NFRC 100.
 2. Solar Heat Gain Coefficient: Fixed glazing and framing areas shall have a solar heat gain coefficient of no greater than 0.35 as determined according to NFRC 200.
 3. Condensation Resistance: Fixed glazing and framing areas shall have an NFRC-certified condensation resistance rating of no less than **35** as determined according to NFRC 500.
- H. Noise Reduction: Test according to ASTM E 90, with ratings determined by ASTM E 1332, as follows.
1. Outdoor-Indoor Transmission Class: Minimum 34.
- I. Thermal Movements: Allow for thermal movements resulting from ambient and surface temperature changes:
1. Temperature Change: 120 deg F, ambient; 180 deg F, material surfaces.
 2. Thermal Cycling: No buckling; stress on glass; sealant failure; excess stress on framing, anchors, and fasteners; or reduction of performance when tested according to AAMA 501.5.
 - a. High Exterior Ambient-Air Temperature: That which produces an exterior metal-surface temperature of 180 deg F.

- b. Low Exterior Ambient-Air Temperature: 0 deg F.
- c. Interior Ambient-Air Temperature: 75 deg F.

2.2 EXTERIOR FRAMING

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
- B. Basis-of-Design Product: Subject to compliance with requirements, provide Kawneer North America, an Arconic company; Trifab 601 T Framing System, or comparable product by one of the following:
 - 1. EFCO Corporation.
 - 2. U.S. Aluminum; a brand of C.R. Laurence.
- C. Framing Members: Manufacturer's extruded- or formed-aluminum framing members of thickness required and reinforced as required to support imposed loads.
 - 1. Construction: Thermally broken.
 - 2. Glazing System: Retained mechanically with gaskets on four sides.
 - 3. Glazing Plane: Center.
 - 4. Finish: Class I, Clear Anodic Finish.
 - 5. Fabrication Method: Field-fabricated stick system.
- D. Backer Plates: Manufacturer's standard, continuous backer plates for framing members, if not integral, where framing abuts adjacent construction.
- E. Brackets and Reinforcements: Manufacturer's standard high-strength aluminum with nonstaining, nonferrous shims for aligning system components.
- F. Materials:
 - 1. Aluminum: Alloy and temper recommended by manufacturer for type of use and finish indicated.
 - a. Sheet and Plate: ASTM B 209.
 - b. Extruded Bars, Rods, Profiles, and Tubes: ASTM B 221.
 - c. Extruded Structural Pipe and Tubes: ASTM B 429/B 429M.
 - d. Structural Profiles: ASTM B 308/B 308M.
 - e. Location: As Indicated on Drawings.

2.3 INTERIOR FRAMING

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
- B. Basis-of-Design Product: Subject to compliance with requirements, provide Kawneer North America, an Arconic company; Trifab VersaGlaze 451 Framing System, or comparable product by one of the following:
 - 1. EFCO Corporation.
 - 2. U.S. Aluminum; a brand of C.R. Laurence.

- C. Framing Members: Manufacturer's extruded- or formed-aluminum framing members of thickness required and reinforced as required to support imposed loads.
 - 1. Construction: Non-thermally broken.
 - 2. Glazing System: Retained mechanically with gaskets on four sides.
 - 3. Glazing Plane: Center.
 - 4. Finish: Class I, Clear Anodic Finish.
 - 5. Fabrication Method: Field-fabricated stick system.
- D. Backer Plates: Manufacturer's standard, continuous backer plates for framing members, if not integral, where framing abuts adjacent construction.
- E. Brackets and Reinforcements: Manufacturer's standard high-strength aluminum with nonstaining, nonferrous shims for aligning system components.
- F. Materials:
 - 1. Aluminum: Alloy and temper recommended by manufacturer for type of use and finish indicated.
 - a. Sheet and Plate: ASTM B 209.
 - b. Extruded Bars, Rods, Profiles, and Tubes: ASTM B 221.
 - c. Extruded Structural Pipe and Tubes: ASTM B 429/B 429M.
 - d. Structural Profiles: ASTM B 308/B 308M.
 - e. Location: As Indicated on Drawings.

2.4 GLAZING

- A. Glazing: Comply with Section 088000 "Glazing."
- B. Glazing Gaskets: Manufacturer's standard sealed-corner pressure-glazing system of black, resilient elastomeric glazing gaskets, setting blocks, and shims or spacers.
- C. Glazing Sealants: As recommended by manufacturer.
- D. Sealants used inside the weatherproofing system shall have a VOC content of 250 g/L.
- E. Weatherseal Sealants: ASTM C 920 for Type S; Grade NS; Class 25; Uses NT, G, A, and O; chemically curing silicone formulation that is compatible with structural sealant and other system components with which it comes in contact; recommended by structural-sealant, weatherseal-sealant, and structural-sealant-glazed storefront manufacturers for this use.
 - 1. Color: Match structural sealant.

2.5 LOUVERS

- A. Metal Louvers:
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Special-Lite

- b. Air Louvers Inc.
 - c. Anemostat; a Mestek company.
 - d. L & L Louvers, Inc.
 - e. McGill Architectural Products.
- 2. Blade Type: Vision-proof, inverted V or Y.
 - 3. Thickness: 1 inch to fit glazing pocket of framing system.
 - 4. Metal and Finish: Extruded aluminum with Class II, clear anodic finish, AA-M12C22A31.
 - 5. Provide screen at each exterior louver.
 - 6. Insulated, Blank-Off Panels at exterior louvers: Laminated panels consisting of an insulating core surfaced on back and front with metal sheets and attached to back of louver.
 - a. Thickness: 2 inches.
 - b. Metal Facing Sheets: Aluminum sheet, not less than 0.032-inch nominal thickness.
 - c. Insulating Core: Rigid polyisocyanurate board insulation.
 - d. Edge Treatment: Trim perimeter edges of blank-off panels with louver manufacturer's standard extruded-aluminum-channel frames, not less than 0.080-inch nominal thickness, with corners mitered and with same finish as panels.
 - e. Seal perimeter joints between panel faces and louver frames with gaskets or sealant.
 - f. Panel Finish: Same type of finish applied to louvers, but black color.
 - g. Attach blank-off panels with sheet metal screws.

2.6 ACCESSORIES

- A. Fasteners and Accessories: Manufacturer's standard corrosion-resistant, nonstaining, nonbleeding fasteners and accessories compatible with adjacent materials.
 - 1. Use self-locking devices where fasteners are subject to loosening or turning out from thermal and structural movements, wind loads, or vibration.
 - 2. Reinforce members as required to receive fastener threads.
- B. Anchors: Three-way adjustable anchors with minimum adjustment of 1 inch that accommodate fabrication and installation tolerances in material and finish compatible with adjoining materials and recommended by manufacturer.
 - 1. Concrete and Masonry Inserts: Hot-dip galvanized cast-iron, malleable-iron, or steel inserts complying with ASTM A 123/A 123M or ASTM A 153/A 153M requirements.
- C. Concealed Flashing: Manufacturer's standard corrosion-resistant, nonstaining, nonbleeding flashing compatible with adjacent materials.
- D. Bituminous Paint: Cold-applied asphalt-mastic paint complying with SSPC-Paint 12 requirements except containing no asbestos, formulated for 30-mil thickness per coat.

2.7 FABRICATION

- A. Form or extrude aluminum shapes before finishing.
- B. Weld in concealed locations to greatest extent possible to minimize distortion or discoloration of finish. Remove weld spatter and welding oxides from exposed surfaces by descaling or grinding.

- C. Fabricate components that, when assembled, have the following characteristics:
 - 1. Profiles that are sharp, straight, and free of defects or deformations.
 - 2. Accurately fitted joints with ends coped or mitered.
 - 3. Physical and thermal isolation of glazing from framing members.
 - 4. Accommodations for thermal and mechanical movements of glazing and framing to maintain required glazing edge clearances.
 - 5. Provisions for field replacement of glazing from exterior.
 - 6. Fasteners, anchors, and connection devices that are concealed from view to greatest extent possible.
- D. Mechanically Glazed Framing Members: Fabricate for flush glazing without projecting stops.
- E. Structural-Sealant-Glazed Framing Members: Include accommodations for using temporary support device to retain glazing in place while structural sealant cures.
- F. Storefront Framing: Fabricate components for assembly using shear-block system.
- G. Entrance Door Frames: Reinforce as required to support loads imposed by door operation and for installing entrance door hardware.
- H. Entrance Doors: Reinforce doors as required for installing entrance door hardware.
- I. Entrance Door Hardware Installation: Factory install entrance door hardware to the greatest extent possible. Cut, drill, and tap for factory-installed entrance door hardware before applying finishes.
- J. After fabrication, clearly mark components to identify their locations in Project according to Shop Drawings.

2.8 ALUMINUM FINISHES

- A. Class I, Clear Anodic Finish: AA-M12C22A41 (Mechanical Finish: nonspecular as fabricated; Chemical Finish: etched, medium matte; Anodic Coating: Architectural Class I, clear coating 0.018 mm or thicker) complying with AAMA 611.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Prepare surfaces that are in contact with structural sealant according to sealant manufacturer's written instructions to ensure compatibility and adhesion. Preparation includes, but is not limited to, cleaning and priming surfaces.

3.3 INSTALLATION

A. General:

1. Comply with manufacturer's written instructions.
2. Do not install damaged components.
3. Fit joints to produce hairline joints free of burrs and distortion.
4. Rigidly secure nonmovement joints.
5. Install anchors with separators and isolators to prevent metal corrosion and electrolytic deterioration and to prevent impeding movement of moving joints.
6. Seal perimeter and other joints watertight unless otherwise indicated.

B. Metal Protection:

1. Where aluminum is in contact with dissimilar metals, protect against galvanic action by painting contact surfaces with materials recommended by manufacturer for this purpose or by installing nonconductive spacers.
2. Where aluminum is in contact with concrete or masonry, protect against corrosion by painting contact surfaces with bituminous paint.

C. Set continuous sill members and flashing in full sealant bed as specified in Section 079200 "Joint Sealants" to produce weathertight installation.

D. Install components plumb and true in alignment with established lines and grades.

E. Install glazing as specified in Section 088000 "Glazing."

3.4 ERECTION TOLERANCES

A. Erection Tolerances: Install aluminum-framed entrances and storefronts to comply with the following maximum tolerances:

1. Plumb: 1/8 inch in 10 feet; 1/4 inch in 40 feet.
2. Level: 1/8 inch in 20 feet; 1/4 inch in 40 feet.
3. Alignment:
 - a. Where surfaces abut in line or are separated by reveal or protruding element up to 1/2 inch wide, limit offset from true alignment to 1/16 inch.
 - b. Where surfaces are separated by reveal or protruding element from 1/2 to 1 inch wide, limit offset from true alignment to 1/8 inch.
 - c. Where surfaces are separated by reveal or protruding element of 1 inch wide or more, limit offset from true alignment to 1/4 inch.
4. Location: Limit variation from plane to 1/8 inch in 12 feet; 1/2 inch over total length.

END OF SECTION 084113

SECTION 08 51 13 - ALUMINUM WINDOWS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section includes aluminum windows for interior and exterior locations with integral motorized internal roller shades.
- B. Related Requirements:
 - 1. Section 014339 – “Classroom Mockup”.
 - 2. Section 079200 “Joint Sealants”.
 - 3. Section 084113 “Aluminum-Framed Entrances and Storefronts” for frames where Aluminum Windows occur.
 - 4. Section 088000 “Glazing” for additional glazing requirements for Aluminum Windows.

1.3 REFERENCE STANDARDS

- A. AAMA/WDMA/CSA 101/I.S.2/A440 - North American Fenestration Standard/Specification for Windows, Doors, and Skylights; 2017.
- B. B.AAMA CW-10 - Care and Handling of Architectural Aluminum From Shop to Site; 2015.
- C. AAMA 502 - Voluntary Specification for Field Testing of Newly Installed Fenestration Products; 2012.
- D. AAMA 609 & 610 - Cleaning and Maintenance Guide for Architecturally Finished Aluminum (Combined Document); 2015.
- E. AAMA 611 - Voluntary Specification for Anodized Architectural Aluminum; 2014 (2015 Errata).
- F. AAMA 1503 - Voluntary Test Method for Thermal Transmittance and Condensation Resistance of Windows, Doors and Glazed Wall Sections; 2009.
- G. ASTM E90 - Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements; 2009 (Reapproved 2016).
- H. ASTM E283/E283M - Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Skylights, Curtain Walls, and Doors Under Specified Pressure Differences Across the Specimen; 2019.
- I. ASTM E331 - Standard Test Method for Water Penetration of Exterior Windows, Skylights, Doors, and Curtain Walls by Uniform Static Air Pressure Difference; 2000 (Reapproved 2016).

- J. ASTM E783 - Standard Test Method for Field Measurement of Air Leakage Through Installed Exterior Windows and Doors; 2002 (Reapproved 2018).
- K. ASTM E1105 - Standard Test Method for Field Determination of Water Penetration of Installed Exterior Windows, Skylights, Doors, and Curtain Walls, by Uniform or Cyclic Static Air Pressure Difference; 2015.
- L. ASTM E1332 - Standard Classification for Rating Outdoor-Indoor Sound Attenuation; 2016.
- M. ASTM E2112 - Standard Practice for Installation of Exterior Windows, Doors and Skylights; 2019c.
- N. ASTM F588 - Standard Test Methods for Measuring the Forced Entry Resistance of Window Assemblies, Excluding Glazing Impact; 2017.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 - 1. Include construction details, material descriptions, glazing and fabrication methods, dimensions of individual components and profiles, hardware, and finishes for aluminum windows.
- B. Shop Drawings: Include plans, elevations, sections, hardware, accessories, operational clearances, and details of installation, including anchor, flashing, and sealant installation.
- C. Product Schedule: For aluminum windows. Use same designations indicated on Drawings.

1.5 ADMINISTRATIVE REQUIREMENTS

- A. Preinstallation Meeting: Convene one week before starting work of this section.

1.6 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For manufacturer and Installer.

1.7 FIELD CONDITIONS

- A. Do not install sealants when ambient temperature is less than 40 degrees F.
- B. Maintain this minimum temperature during and 24 hours after installation of sealants.

1.8 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A manufacturer capable of fabricating aluminum windows that meet or exceed performance requirements indicated and of documenting this performance by test reports, and calculations.
- B. Installer Qualifications: An installer acceptable to aluminum window manufacturer for installation of units required for this Project.

1.9 MOCKUPS

- A. Build mockups to verify selections made under Sample submittals, to demonstrate aesthetic effects, and to set quality standards for fabrication and installation.
1. Build mockup of typical wall area as described in Section 014339 – Classroom Mockup.
 2. Testing shall be performed on mockups in accordance with requirements in "Field Quality Control" Article.
 3. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
 4. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

1.10 WARRANTY

- A. Manufacturer's Warranty: Manufacturer agrees to repair or replace aluminum windows that fail in materials or workmanship within specified warranty period.
1. Failures include, but are not limited to, the following:
 - a. Failure to meet performance requirements.
 - b. Structural failures including excessive deflection, water leakage, condensation, and air infiltration.
 - c. Faulty operation of movable sash and hardware.
 - d. Deterioration of materials and finishes beyond normal weathering.
 - e. Failure of insulating glass.
- B. Aluminum Window Warranty
1. 1.Products: Submit a written warranty, executed by the window manufacturer, for a period of 10 years from the date of manufacture, against defective materials or workmanship, including substantial non-compliance with applicable specification requirements and industry standards, which result in premature failure of the windows, finish, factory-glazed glass, or parts, outside of normal wear.
 2. .In the event that windows or components are found defective, manufacturer will repair or provide replacement material without charge at manufacturer's option.
 3. Warranty for all components must be direct from the manufacturer (non pass-through) and non pro-rated for the entire term. Warranty must be assignable to the non-residential owner, and transferable to subsequent owners through its length.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Basis-of-Design Product: Subject to compliance with requirements, provide 3-1/2" AW (Architectural Window) 4250i INvent Series Thermal Fixed windows w/ internal venetian blind on hinged access sash by Wausau Window and Wall Systems. – DESIGNATED BY 'W' ON GLAZING LEGEND.
- B. Basis-of-Design Product: Subject to compliance with requirements, 3-1/2" AW (Architectural Window) 4250i INvent Series Thermal Fixed windows w/ ballistic glazing and internal venetian blind on hinged access sash by Wausau Window and Wall Systems. – DESIGNATED BY 'W3' ON GLAZING LEGEND.

1. Exterior (non-classroom side) lite to be BR2 Rated per UL752 with Glass surface on outside face.
2. Interior (classroom side) lite to be 5/16" Laminated Glass with two plies of fully tempered float glass.
 - a. Minimum Thickness of Each Glass Ply: 3 mm.
 - b. Interlayer Thickness: 0.060 inch.
3. Interior (classroom side) lite to be 1/4" fully tempered float glass at Window Types B9, B10, B11 & B12.
4. Source Limitations: Obtain aluminum windows from single source from single manufacturer.

2.2 WINDOW PERFORMANCE REQUIREMENTS

- A. Product Standard: Comply with AAMA/WDMA/CSA 101/I.S.2/A440 for definitions and minimum standards of performance, materials, components, accessories, and fabrication unless more stringent requirements are indicated.
 1. Window Certification: AMMA certified with label attached to each window.
- B. Performance Class and Grade: AAMA/WDMA/CSA 101/I.S.2/A440 as follows:
 1. Minimum Performance Class: AW/HC.
 2. Minimum Performance Grade: 80.
- C. Thermal Transmittance: NFRC 100 maximum whole-window U-factor of 0.32 Btu/sq. ft. x h x deg F.
- D. Condensation-Resistance Factor (CRF): Provide aluminum windows tested for thermal performance according to AAMA 1503, showing a CRF of 52.
- E. Thermal Movements: Provide aluminum windows, including anchorage, that allow for thermal movements resulting from the following maximum change (range) in ambient and surface temperatures by preventing buckling, opening of joints, overstressing of components, failure of joint sealants, failure of connections, and other detrimental effects. Base engineering calculation on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.
 1. Temperature Change: 120 deg F, ambient; 180 deg F material surfaces.

2.3 ALUMINUM WINDOWS

- A. Operating Types: Provide the following operating types in locations indicated on Drawings:
 1. Casement: Project out.
 2. Fixed.
- B. Frames and Sashes: Aluminum extrusions complying with AAMA/WDMA/CSA 101/I.S.2/A440.
 1. Thermally Improved Construction: Fabricate frames, sashes, and muntins with an integral, concealed, low-conductance thermal barrier located between exterior materials

and window members exposed on interior side in a manner that eliminates direct metal-to-metal contact.

2. Thermal barrier to be Azo-braided for reduced thermal shrinkage.

C. Glass Type: Insulating-Glass Units: ASTM E 2190.

1. Glass: ASTM C 1036, Type 1, Class 1, q3.
 - a. Tint: Clear exterior lite, clear interior lite.
 - b. Kind: 1/4-inch fully tempered exterior lite, 5/16-inch laminated interior lite.
2. Lites: Two.
3. Filling: Fill space between glass lites with air.
4. Low-E Coating: Pyrolytic on second surface.

D. Glazing System: Manufacturer's standard factory-glazing system that produces weathertight seal.

E. Hardware, General: Provide manufacturer's standard hardware fabricated from aluminum, stainless steel, carbon steel complying with AAMA 907, or other corrosion-resistant material compatible with adjacent materials; designed to smoothly operate, tightly close, and securely lock windows, and sized to accommodate sash weight and dimensions.

1. Exposed Hardware Color and Finish: As indicated by manufacturer's designations.

F. Projected Window Hardware:

1. Type and Style: Manufacturer's Standard Lift-Lock Hardware.
2. Hinges: Non-friction type, not less than two per sash.
3. Lock: Lever handle and cam-action lock with keeper.
4. Limit Devices: Manufacturer's standard limit devices designed to restrict sash opening.
 - a. Limit clear opening to 4 inches for ventilation; with custodial key release.

G. Weather Stripping: Provide full-perimeter weather stripping for each operable sash unless otherwise indicated.

H. Fasteners: Noncorrosive and compatible with window members, trim, hardware, anchors, and other components.

1. Exposed Fasteners: Do not use exposed fasteners to the greatest extent possible. For application of hardware, use fasteners that match finish hardware being fastened.

2.4 ACCESSORIES

A. Sub Sill: Extruded-aluminum profiles in sizes and configurations indicated on Drawings.

B. Integral Venetian Blinds:

1. 5/8" wide aluminum slat blinds. Blind color shall be selected by Architect from entire product range.
2. Blind to be integrally mounted between the dual or triple glazing.
3. Tilt-control knob will be located on the interior face and incorporate a "slip clutch" feature.
4. Raise and lower pull cords will be located between glass for access only when glazed access panel is opened.

2.5 FABRICATION

- A. Fabricate aluminum windows in sizes indicated. Include a complete system for assembling components and anchoring windows.
- B. Glaze aluminum windows in the factory.
- C. Weather strip each operable sash to provide weathertight installation.
- D. Weep Holes: Provide weep holes and internal passages to conduct infiltrating water to exterior.
- E. Provide water-shed members above side-hinged sashes and similar lines of natural water penetration.
- F. Complete fabrication, assembly, finishing, hardware application, and other work in the factory to greatest extent possible. Disassemble components only as necessary for shipment and installation.
- G. Limited Opening Device
 - 1. Provide concealed device to limit initial sash operation to 4". (Specify other limited opening as necessary.)
 - 2. Operation past this point to be by use of a tool or removable key.

2.6 GENERAL FINISH REQUIREMENTS

- A. Comply with NAAMM's "Metal Finishes Manual" for recommendations for applying and designating finishes.
- B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- C. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in the same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

2.7 ALUMINUM FINISHES

- A. Finish designations prefixed by AA comply with the system established by the Aluminum Association for designating aluminum finishes.
- B. Class I, Clear Anodic Finish: AA-M12C22A41 (Mechanical Finish: nonspecular as fabricated; Chemical Finish: etched, medium matte; Anodic Coating: Architectural Class I, clear coating 0.018 mm or thicker) complying with AAMA 611.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine openings, substrates, structural support, anchorage, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Manufacturer Site Visit: A representative from the Window Manufacturer is to visit the jobsite for the installation with the Manufacturer's Representative.
- C. Verify rough opening dimensions, levelness of sill plate, and operational clearances.
- D. Examine wall flashings, vapor retarders, water and weather barriers, and other built-in components to ensure weathertight window installation.
- E. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Comply with manufacturer's written instructions for installing windows, hardware, accessories, and other components. For installation procedures and requirements not addressed in manufacturer's written instructions, comply with installation requirements in ASTM E 2112.
- B. Install windows level, plumb, square, true to line, without distortion or impeding thermal movement, anchored securely in place to structural support, and in proper relation to wall flashing and other adjacent construction to produce weathertight construction.
- C. Install windows and components to drain condensation, water penetrating joints, and moisture migrating within windows to the exterior.
- D. Separate aluminum and other corrodible surfaces from sources of corrosion or electrolytic action at points of contact with other materials.

3.3 ADJUSTING, CLEANING, AND PROTECTION

- A. Adjust operating sashes and hardware for a tight fit at contact points and weather stripping for smooth operation and weathertight closure.
- B. Clean exposed surfaces immediately after installing windows. Avoid damaging protective coatings and finishes. Remove excess sealants, glazing materials, dirt, and other substances.
 - 1. Keep protective films and coverings in place until final cleaning.
- C. Remove and replace glass that has been broken, chipped, cracked, abraded, or damaged during construction period.
- D. Protect window surfaces from contact with contaminating substances resulting from construction operations. If contaminating substances do contact window surfaces, remove contaminants immediately according to manufacturer's written instructions.

END OF SECTION 08 51 13

SECTION 096816 - VINYL BACKED CUSHIONED CARPET

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
 - 1. Sheet carpet.
 - 2. Carpet accessories.
- B. Related Sections:
 - 1. Division 9, Section "Resilient Base and Accessories" for resilient base, reducer strips, and other accessories installed with carpet.
- C. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.3 DESCRIPTION

- A. The project consists of floor surface preparation and the installation of new carpeting, entry mat carpet tile, and other related work as required for a complete and finished product.
- B. The work shall include the furnishing of all labor, tools, equipment, material, supervision, coordination, transportation, and the performance of all operations and related items required to provide the above-mentioned work and shall include the cleanup and removal from the site of all debris resulting from the operations performed. It shall also be the Contractor's responsibility to take all necessary safety precautions and to furnish barricades and/or any safety measures as may be required to complete the recarpeting as shown on the Drawings, and further described in the Specifications and Contract Documents.

1.4 QUALITY CONTROL

- A. All carpet shall be from the same dye lot. On-site storage of carpet for future phases will not be available. The Contractor shall provide carpet storage per manufacturer's recommendations between Phases.
- B. The Contractor shall use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this specification.
- C. If in the opinion of the Owner, insufficient numbers of workmen are being utilized to finish the project within the specified time, the owner may request more workmen.

- D. Where a particular manufacturer and its model number or name is mentioned in connection with any item, they are listed to illustrate the **only** products that are acceptable to the District. **No substitutions will be evaluated or accepted.**
- E. The owner will award the bid with the understanding that the bids received were based upon the specified materials.
- F. Installation must be performed by a firm with not less than five (5) years of experience in installation of commercial carpet, by methods similar to those required for this project.
- G. Installation must be performed by an installer that is approved by the manufacturer to coordinate with warranties offered by the manufacture.
- H. Manufacturer is required to notify Owner, Architect, and General Contractor if installation instructions are not completely followed.
- I. Manufacturer must have been in continual operation for a minimum of ten years.
- J. Manufacturer will be on site to review startup of carpet installations to verify proposed installation procedures are correct and proposed seaming procedures are done in a proper fashion to stand by any warranties especially in the case of seams and carpet adhesion to substrate. **Written verification of review and acceptance of these startup installation procedures will be required by the Owner.** In addition, Manufacturer will be on site to review all installations within a three (3) month period **after** installation is complete to verify installation is correct and seaming was done in a proper fashion to stand by any warranties especially in the case of seams and carpet adhesion to substrate. **Written verification of review and acceptance of the completed installation will be required by the Owner.**

1.5 SUBMITTALS

- A. Contractor shall submit samples of each color pattern of carpet available for the Owner's review for selections. Colors and patterns submitted for selection shall be available to meet the project schedule. Contractor shall also submit the manufacturer's specifications covering the manufacture of the carpeting which they are proposing. The specifications shall include all minimum material specifications as listed in Section 2.1 (B).
- B. Contractor shall submit within fifteen (15) calendar days after the receipt of the Owner's Notice to Proceed, but before work begins. Manufacturer's recommended installation procedures which, when approved by the Owner, will become the basis for accepting or rejecting actual installation procedures used on the work.
- C. Seaming diagrams will not be required, but field seaming shall be discussed with and agreed to by the District representative prior to installation.
- D. Maintenance Manual: After award of bid, the Contractor shall furnish the Owner at least three (3) printed copies of the manufacturer's recommendation for the care, cleaning and maintenance of the carpet furnished and thoroughly instruct the Owner's maintenance personnel in the care, cleaning, and maintenance of the carpet if requested. This instruction shall happen once.

1.6 TESTING

- A. The Owner may decide that testing is required in order to establish conformance with these specifications. The Owner will select a prequalified independent testing laboratory should it be required. All testing will be in accordance with all pertinent codes and regulations and with selected standards of the American Society of Testing and Materials. All testing and retesting costs will be paid for by the Owner, except as otherwise directed in these specifications.
- B. It shall be the Contractor's responsibility to, at all times, cooperate with the testing laboratory. Representatives of the testing laboratory shall have access to the work at all times and at all locations where the work is in progress. All specimens and samples for testing shall be taken by the testing personnel or Owner. All deliveries of specimens and samples to the testing laboratory will be performed by the testing laboratory or the Owner. The Contractor shall establish with the testing laboratory a schedule of time to perform tests. If changes occur in this schedule, the Contractor shall coordinate all such changes with the testing laboratory. If the testing laboratory is prevented from taking specimens or testing due to uncoordinated time changes or incompleteness of the work, all extra charges for testing attributable to the delay will be back charged to the Contractor and shall not be borne by the Owner.

1.7 PRODUCT HANDLING

- A. Except as otherwise approved by the Owner, determine and comply with manufacturer's recommendations on product handling, storage, and protection. The Contractor shall provide all storage of materials used throughout this section.
- B. Deliver products to the job sites in their manufacturer's original container, with labels intact and legible. Maintain packaged materials with seals unbroken and labels intact until time of use. Carpet rolls shall have register number and tag attached or register numbers stenciled on bale and intact until time of use.
- C. The Owner may reject as noncomplying such material and products that do not bear identification satisfactory to the Owner as to manufacture, grade, quality, and other pertinent information as specified.
- D. The Contractor shall promptly remove damaged material and/or unsuitable or rejected items from the job site, and promptly replace with materials meeting the specified requirements, at no additional cost to the Owner.

1.8 FIELD CONDITIONS

- A. Comply with CRI 104 for temperature, humidity, and ventilation limitations.
- B. Environmental Limitations: Do not deliver or install carpet until spaces are enclosed and weathertight, wet work in spaces is complete and dry, and ambient temperature and humidity conditions are maintained at occupancy levels during the remainder of the construction period.
- C. Do not install carpet over concrete slabs until slabs have cured, are sufficiently dry to bond with adhesive, and have pH range recommended by carpet manufacturer.

PART 2 - PRODUCTS

2.1 VINYL BACKED CUSHIONED CARPET

- A. The specifications for carpeting outlined below are for the purpose of establishing quality standards required under the contract. Only the manufacturer's and products listed will be acceptable. There will be no evaluations of other products prior to bid, nor will there be any substitutions reviewed or allowed. Failure to submit a bid utilizing one of the listed products will be cause for rejection of the bid.
- B. Carpet – General
1. All materials shall be new and of domestic manufacture. Carpet of each type is to be of first quality and from one dye lot.
 2. All carpet to have built-in permanent static control, anti-microbial treatment, soil and stain protection treatment, and a moisture barrier backing.
- C. Material Specifications
1. Construction/Face Pattern:
 - a. Level Loop.
 - b. 8.5 stitches per square inch
 - c. 13th Gauge or higher
 - d. Primary Backing: Non-woven synthetic fiber
 - e. Width: 6 feet
 - f. Tuft Density: 108.8 tufts/sq in
 - g. Pile Height Average: 0.117 inch
 - h. Pile Thickness: 0.081 inch
 - i. Primary Tufting Substrate: Synthetic Non-Woven
 2. Yarn System:
 - a. Antron Legacy Nylon
 - c. Face weight **no greater** than 22 oz. and **no less** than 18 oz.
 3. Backing System:
 - a. Closed Cell Vinyl Cushion – ASTM D 1667; Min. 7 psi @ 25%; Max. 25 psi @ 25%
 - b. Permanently fused to tufting blanket
 - c. No Moisture Penetration in field or seams after 10,000 Impacts.
 - d. No backing degradation after 50,000 cycles from Phillips Chair Caster Test
 4. Installation System:
 - a. Factory supplied non-wet, low VOC adhesive
 - b. No off-gassing required
 - c. **Permanent chemically welded seams**
 - d. No seam degradation after 50,000 cycles from Phillips Chair Caster Test
 5. Sustainability: Manufacturer guarantees in writing that if materials are sent back for recycling, none will be landfilled or incinerated.

- D. Approved Carpet: Furnish carpet of one of the following, subject to meeting material, performance and warranty requirements of this Section.
1. Tandus | Centiva Flooring: textured patterned loop pile carpet with "Powerbond RS" backing; 18 ounce yard face weight minimum. Furnish in 6-foot wide rolls with low VOC non-wet peel and stick adhesive installation.
 - a. Style: 03343 Color Spectrum
 - b. Color: To be Selected by Architect from full range.

2.2 OTHER MATERIALS

- A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Owner.

PART 3 - EXECUTION

3.1 SURFACE AND CONDITIONS

- A. Examine all areas and conditions under which work will be performed. Correct conditions detrimental to timely and proper completion of the work. Do not proceed until satisfactory conditions are corrected.

3.2 PREPARATION

- A. General: Comply with the Carpet and Rug Institute's CRI 104 and with carpet manufacturer's written installation instructions for preparing substrates.
- B. Use trowelable leveling and patching compounds, according to manufacturer's written instructions, to fill cracks, holes, depressions, and protrusions in substrates. Fill or level cracks, holes and depressions 1/8 inch wide or wider, and protrusions more than 1/32 inch, unless more stringent requirements are required by manufacturer's written instructions.

At contractor's option, ridges at joints and slab edges may be ground using pwered grinding equipment.

- C. Concrete Substrates: Remove coatings, including curing compounds, and other substances that are incompatible with adhesives and that contain soap, wax, oil, or silicone, without using solvents. Use mechanical methods recommended in writing by adhesive and carpet manufacturers.

- D. Broom and vacuum clean substrates to be covered immediately before installing carpet.

3.3 CARPET INSTALLATION

- A. Align the lines of carpet, as woven, using no fill strips less than 12" wide. Lay all carpet in the same direction unless specifically directed otherwise by the Owner.
- B. Locate seams only where specifically approved by the Owner. Locate seams to the maximum extent possible out of the way of traffic. Fabricate seams by the compression method, using a butt joint and properly chemically weld, bead and seal.

- C. After installation: When installation is completed, clean up all dirt and debris, clean carpet of all spots. Remove all loose threads with scissors. Vacuum carpet.
- D. Where any Tandus | Centivis Floorings is installed, specifically peel-and-stick 6' wide rolls of Color Spectrum carpet, the contractor shall be responsible for contacting:

Tandus Flooring

Mike Milhous, LEED AP e-mail: mmilhous@tandus.com
3702 Sudor Lane, Loomis CA 95650
Cell: (916) 806-8502 Fax: (916) 765-2839

- for a post-installation inspection by the carpet manufacturer.
- E. Cut and fit carpet to butt tightly to vertical surfaces, permanent fixtures, and built-in furniture including cabinets, pipes, outlets, edgings, thresholds, and nosings. Bind or seal cut edges as recommended by carpet manufacturer.
 - F. Extend carpet into toe spaces, door reveals, closets, open-bottomed obstructions, removable flanges, alcoves, and similar openings.

PART 4 - GUARANTEE

4.1 MANUFACTURER'S WRITTEN WARRANTY

- A. All of the product related warranties listed below must be submitted as published warranties and presented as sample copies prior to approval. The originals must be signed by an official of the corporation that manufactures the carpeting and submitted to the Owner after installation is complete.
 - 1. Specification Warranty: The manufacturer warrants that the carpet conforms to specifications established for the product identified in the execution section, subject to normal manufacturing tolerances.
 - 2. Two Year Installation Workmanship: Provide special project warranty, signed by Contractor and installer, agreeing to repair or replace defective materials and workmanship of carpeting work during 2-year warranty period, without cost to Owner; and agreeing to repair or replace other defects beyond Contractor's/Installer's/Manufacturer's controls, as judged by Architect, at Owner's expense at prevailing rates.
 - 3. 20 Year non-prorated Wear Warranty: This carpet is warranted by the manufacturer for indoor commercial use. This manufacturer guarantees that the surface fiber of this carpet will wear less than 10% by weight from abrasion over a period of 20 years from the date of installation. Any area showing greater wear under conditions of normal use will be replaced at the manufacturer's expense including labor charges, as long as the carpet was properly installed and maintained.
 - 4. 20 Year non-prorated Adhesive Warranty: The Manufacturer warrants that the carpet will remain attached to the substrate for a period of twenty (20) years from the date of installation.

5. 20 Year non-prorated Edge Ravel Warranty: The Manufacturer warrants that the carpet will not have continuous ends coming out of lengthwise seams for a period of 20 years from the date of installation.
6. 20 Year non-prorated Zippering Warranty: The Manufacturer warrants that the carpet will not develop "pile yarn runners" in the body of the carpet for a period of twenty (20) years from the date of installation.
7. 20 Year non-prorated Delamination Warranty: The Manufacturer warrants that the carpet will not delaminate for a period of 20 years from the date of installation.
8. 20 Year non-prorated Texture Retention Warranty: The Manufacturer warrants that the carpet will substantially maintain its physical surface texture against crushing, matting and walking out for a period of twenty (20) years from the date of installation.
9. 20 Year non-prorated Run Resistance Strength Warranty: The Manufacturer warrants that the carpet will not zipper or develop continuous "pile yarn runners" for a period of twenty (20) years from the date of installation.
10. 10 Year non-prorated Colorfastness to Light Warranty: The Fiber Manufacturer warrants that when installed for indoor use only, the carpet will not display or significantly change color due to exposure to light for twenty (10) years from the date of installation. (Applies only to Antron Lumena)
11. Colorfastness to Atmospheric Contaminants Warranty: The Fiber Manufacturer warrants that when installed for indoor use only, the carpet will not display or significantly change color due to the atmospheric contaminants (Ozone or Oxides of Nitrogen) for five (5) years from the date of installation. (Applies only to Antron Lumena)

END OF SECTION 09 68 16

SECTION 102239 - FOLDING PANEL PARTITIONS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
 - 1. Manually operated, acoustical panel partitions.
- B. Related Requirements:
 - 1. Section 055000 "Metal Fabrications" for supports that attach supporting tracks to overhead structural system.

1.3 DEFINITIONS

- A. NIC: Noise Isolation Class.
- B. NRC: Noise Reduction Coefficient.
- C. STC: Sound Transmission Class.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: For operable panel partitions.
 - 1. Include plans, elevations, sections, details, numbered panel installation sequence, and attachments to other work.
 - 2. Indicate stacking and operating clearances. Indicate location and installation requirements for hardware and track, blocking, and direction of travel.
- C. Samples for Initial Selection: For each type of exposed material, finish, covering, or facing.
 - 1. Include Samples of accessories involving color selection.
- D. Samples for Verification: For each type of exposed material, finish, covering, or facing, prepared on Samples of size indicated below:
 - 1. Panel Facing Material: Manufacturer's standard-size unit, not less than 3 inches square.
 - 2. Hardware: One of each exposed door-operating device.

1.5 INFORMATIONAL SUBMITTALS

- A. Sample Warranty: For manufacturer's special warranty.

1.6 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For operable panel partitions to include in maintenance manuals.
 - 1. In addition to items specified in Section 017823 "Operation and Maintenance Data," include the following:
 - a. Panel finish facings and finishes for exposed trim and accessories. Include precautions for cleaning materials and methods that could be detrimental to finishes and performance.
 - b. Seals, hardware, track, track switches, carriers, and other operating components.

1.7 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials, from the same production run, that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Panel Finish-Facing Material: Furnish full width in quantity to cover both sides of two panels when installed.

1.8 QUALITY ASSURANCE

- A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer.

1.9 DELIVERY, STORAGE, AND HANDLING

- A. Protectively package and sequence panels for installation. Clearly mark packages and panels with numbering system used on Shop Drawings. Do not use permanent markings on panels.

1.10 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace components of operable panel partitions that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Faulty operation of operable panel partitions.
 - b. Deterioration of metals, metal finishes, and other materials beyond normal use.
 - 2. Warranty Period: Two years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Seismic Performance: Operable panel partitions shall withstand the effects of earthquake motions determined according to ASCE/SEI 7.

1. The term "withstand" means "the partition panels will remain in place without separation of any parts from the system when subjected to the seismic forces specified."
- B. Acoustical Performance: Provide operable panel partitions tested by a qualified testing agency for the following acoustical properties according to test methods indicated:
 1. Sound-Transmission Requirements: Operable panel partition assembly tested for laboratory sound-transmission loss performance according to ASTM E 90, determined by ASTM E 413, and rated for not less than the STC indicated.
 2. Noise-Reduction Requirements: Operable panel partition assembly, identical to partition tested for STC, tested for sound-absorption performance according to ASTM C 423, and rated for not less than the NRC indicated.
 3. Noise-Isolation Requirements: Installed operable panel partition assembly, identical to partition tested for STC, tested for NIC according to ASTM E 336, determined by ASTM E 413, and rated for 10 dB less than STC value indicated.

2.2 OPERABLE ACOUSTICAL PANELS

- A. Operable Acoustical Panels: Partition system, including panels, seals, finish facing, suspension system, operators, and accessories.
 1. Manufacturers: Subject to compliance with requirements,
 2. Basis-of-Design Product: Subject to compliance with requirements, provide PANELFOLD MODUFLEX SERIES 400 OPERABLE WALLS, 2. Model 410PP or comparable product by one of the following:
- B. Panel Operation: Manually operated, individual panels.
- C. Panel Construction: As required to support panel from suspension components and with reinforcement for hardware attachment. Fabricate panels with tight hairline joints and concealed fasteners. Fabricate panels so finished in-place partition is rigid; level; plumb; aligned, with tight joints and uniform appearance; and free of bow, warp, twist, deformation, and surface and finish irregularities.
- D. Dimensions: Fabricate operable acoustical panel partitions to form an assembled system of dimensions indicated and verified by field measurements.
 1. Panel Width: Standard widths.
- E. STC: Not less than 47.
- F. Panel Weight: 8 lb/sq. ft. maximum.
- G. Panel Thickness: Not less than 3 inches.
- H. Panel Closure: Manufacturer's standard unless otherwise indicated.
- I. Hardware: Manufacturer's standard as required to operate operable panel partition and accessories; with decorative, protective finish.
 1. Hinges: Manufacturer's standard.
- J. Single Pass Door: Where indicated shall be nominally 3'-0" (914) wide by 7'-0" (2134) high. Door shall be manufactured of the same materials and thickness as the panels and be equipped

with butt-type hinges and positive latches with drop cup and ring pulls. Double doors have roller latches.

1. Provide the following:
 - a. Self-illuminated exit signs.
 - b. Hydraulic door closers.
 - c. Panic hardware with lock. Lock shall accept cylinders as specified in Section 087100 Door Hardware and allow for cylinder dogging.
 - d. All hardware is to be installed by the panel manufacturer.

2.3 SEALS

- A. General: Provide seals that produce operable panel partitions complying with performance requirements and the following:
 1. Manufacturer's standard seals unless otherwise indicated.
 2. Seals made from materials and in profiles that minimize sound leakage.
 3. Seals fitting tight at contact surfaces and sealing continuously between adjacent panels and between operable panel partition perimeter and adjacent surfaces, when operable panel partition is extended and closed.
- B. Vertical Seals: Deep-nesting, interlocking astragals mounted on each edge of panel, with continuous PVC acoustical seal.
- C. Horizontal Top Seals: Continuous-contact, extruded-PVC seal exerting uniform constant pressure on track.
- D. Horizontal Bottom Seals: Manufacturer's standard continuous-contact seal exerting uniform constant pressure on floor.

2.4 PANEL FINISH FACINGS

- A. General: Provide finish facings for panels that comply with indicated fire-test-response characteristics and that are factory applied to operable panel partitions with appropriate backing, using mildew-resistant nonstaining adhesive as recommended by facing manufacturer's written instructions.
- B. High-Pressure Decorative Laminate: NEMA LD 3, Horizontal grade.
 1. Color/Pattern: As selected by Architect from manufacturer's full range.
- C. Trimless Edges: Fabricate exposed panel edges so finish facing wraps uninterrupted around panel, covering edge and resulting in an installed partition with facing visible on vertical panel edges, without trim, for minimal sightlines at panel-to-panel joints.

2.5 SUSPENSION SYSTEMS

- A. Tracks: Steel or aluminum mounted directly to overhead structural support, designed for operation, size, and weight of operable panel partition indicated. Size track to support partition operation and storage without damage to suspension system, operable panel partitions, or adjacent construction. Limit track deflection to no more than 0.10 inch between bracket supports. Provide a continuous system of track sections and accessories to accommodate configuration and layout indicated for partition operation and storage.

1. Panel Guide: Aluminum guide on both sides of the track to facilitate straightening of the panels; finished with factory-applied, decorative, protective finish.
 2. Head Closure Trim: As required for acoustical performance; with factory-applied, decorative, protective finish.
- B. Carriers: Trolley system as required for configuration type, size, and weight of partition and for easy operation; with ball-bearing wheels.
- C. Track Intersections, Switches, and Accessories: As required for operation, storage, track configuration, and layout indicated for operable panel partitions, and compatible with partition assembly specified. Fabricate track intersections and switches from steel or aluminum.
1. Curve-and-Diverter Switches: Allow radius turns to divert panels to an auxiliary track.
 2. L Intersections: Allow panels to change 90 degrees in direction of travel.
- D. Aluminum Finish: Mill finish or manufacturer's standard, factory-applied, decorative finish unless otherwise indicated.
- E. Steel Finish: Manufacturer's standard, factory-applied, corrosion-resistant, protective coating unless otherwise indicated.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine flooring, structural support, and opening, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of operable panel partitions.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. General: Comply with ASTM E 557 except as otherwise required by operable panel partition manufacturer's written installation instructions.
- B. Install operable panel partitions and accessories after other finishing operations, including painting, have been completed in area of partition installation.
- C. Install panels from marked packages in numbered sequence indicated on Shop Drawings.
- D. Broken, cracked, chipped, deformed, or unmatched panels are not acceptable.
- E. Broken, cracked, deformed, or unmatched gasketing or gasketing with gaps at butted ends is not acceptable.
- F. Light-Leakage Test: Illuminate one side of partition installation and observe vertical joints and top and bottom seals for voids. Adjust partitions for alignment and full closure of vertical joints and full closure along top and bottom seals.

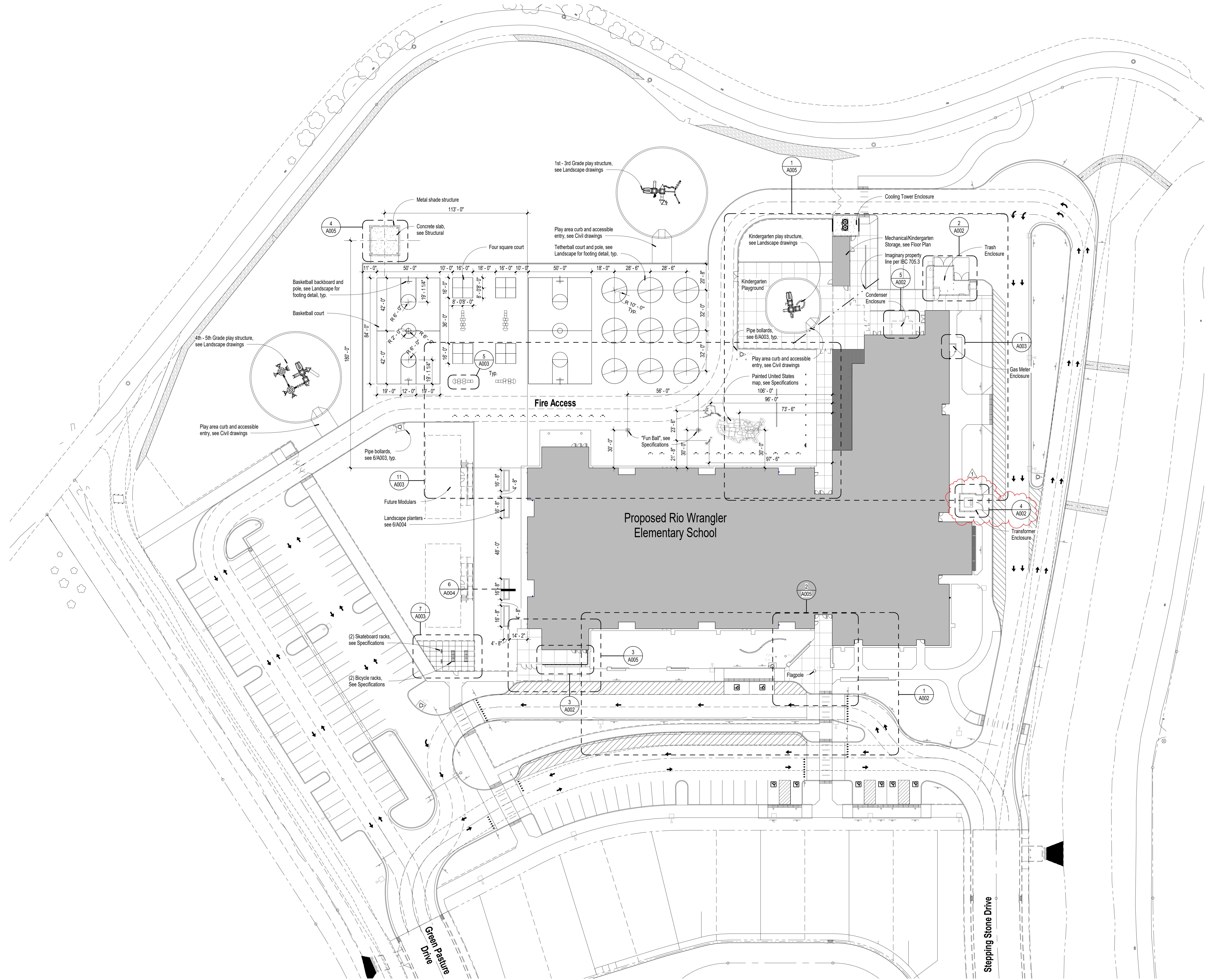
3.3 ADJUSTING

- A. Adjust operable panel partitions, hardware, and other moving parts to function smoothly, and lubricate as recommended by manufacturer.
- B. Verify that safety devices are properly functioning.

END OF SECTION 102239

Site Plan Notes

- General Contractor shall provide a 6'-0" high temporary chain link fence around the perimeter of the site upon commencement of construction activities. Such fence shall remain for duration of construction. Lockable gates shall be provided at each entry point to the site.
- See Civil Drawings for all pedestrian ramps, chain link fencing, parking layout, additional sitework details, and extent of site improvements.
- See Landscape Drawings for planing layout, playground equipment, irrigation, additional sitework details, and extent of site improvements.
- See Mechanical and Electrical drawings for additional equipment and systems, additional sitework details, and extent of sitework improvements.
- General Contractor is responsible for coordinating all temporary water, power, and facilities. Utilities and facilities are to be provided at no additional cost to the Owner.
- Contractor shall provide for fire department vehicle access and temporary or permanent fire water supply in compliance with 2012 IFC Chapter 33 prior to any combustible materials arriving on site.
- Slope sidewalk and patio concrete away from entry doors, see Civil Drawings.

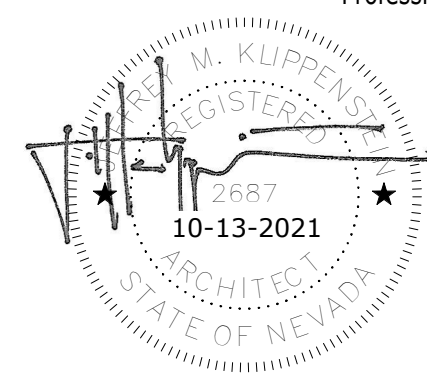


1 Overall Site Plan

1" = 30'-0"



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1 11/4/21 Addendum #2

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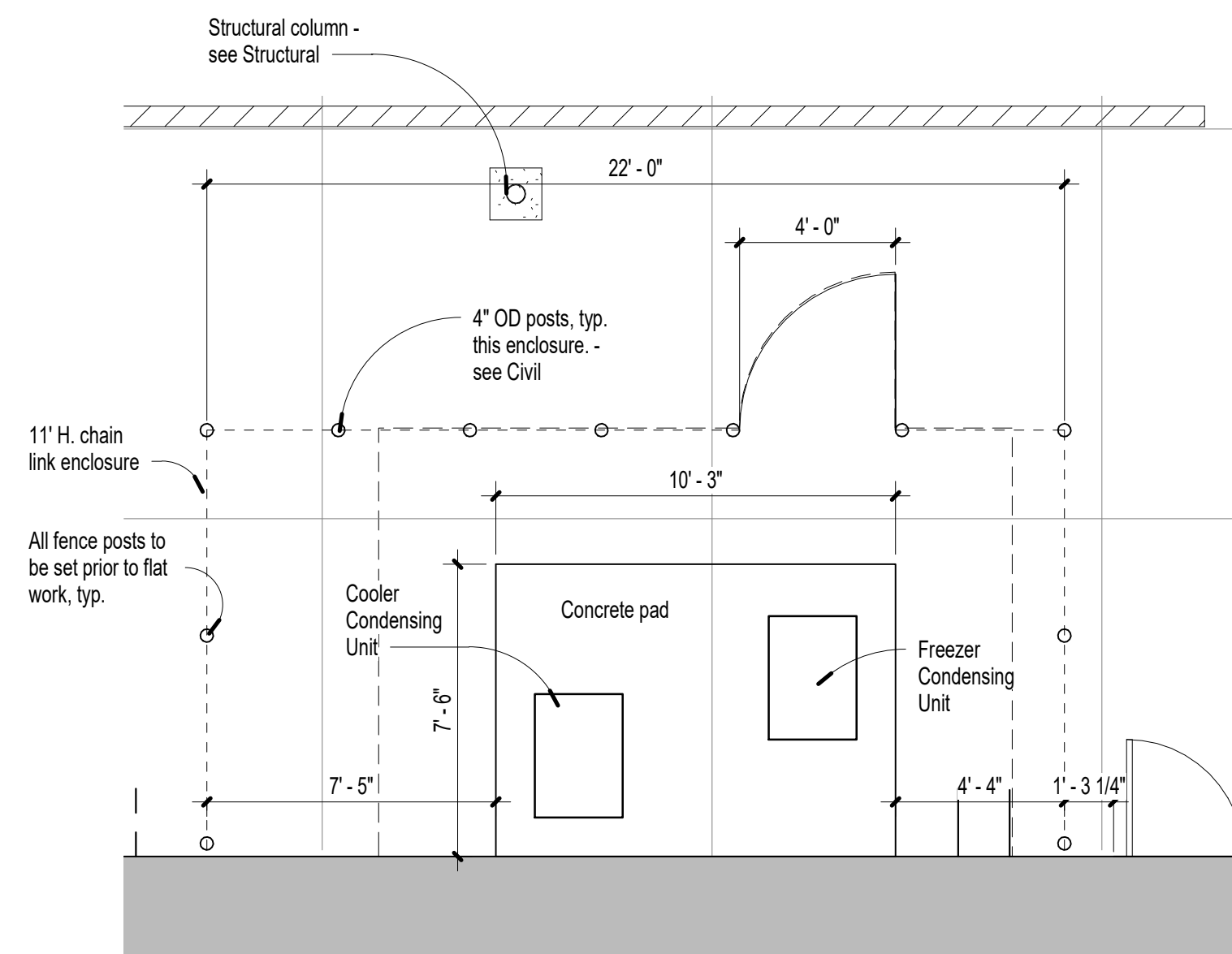
Overall Site Plan

October 13, 2021
H+K Project No: 2001

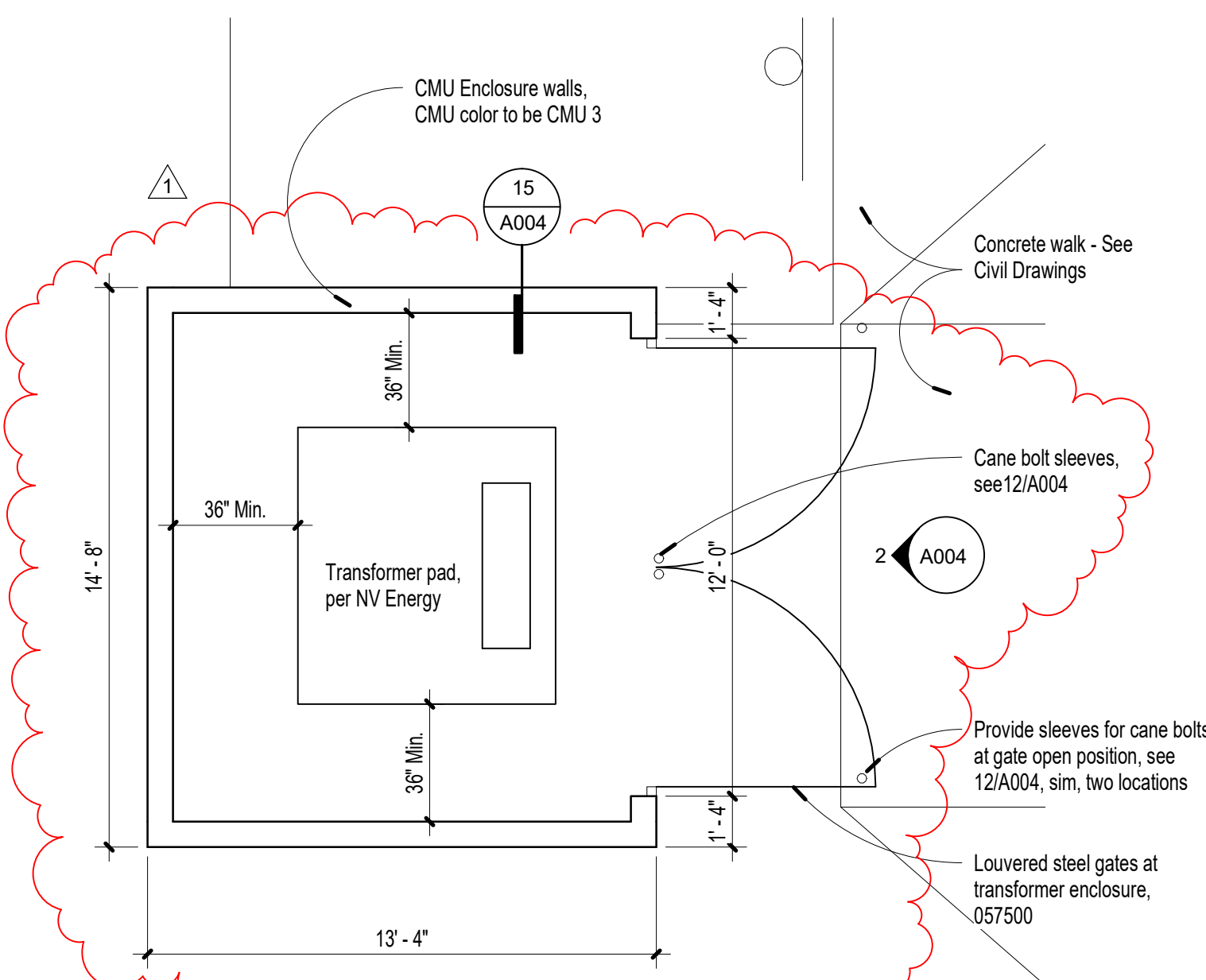
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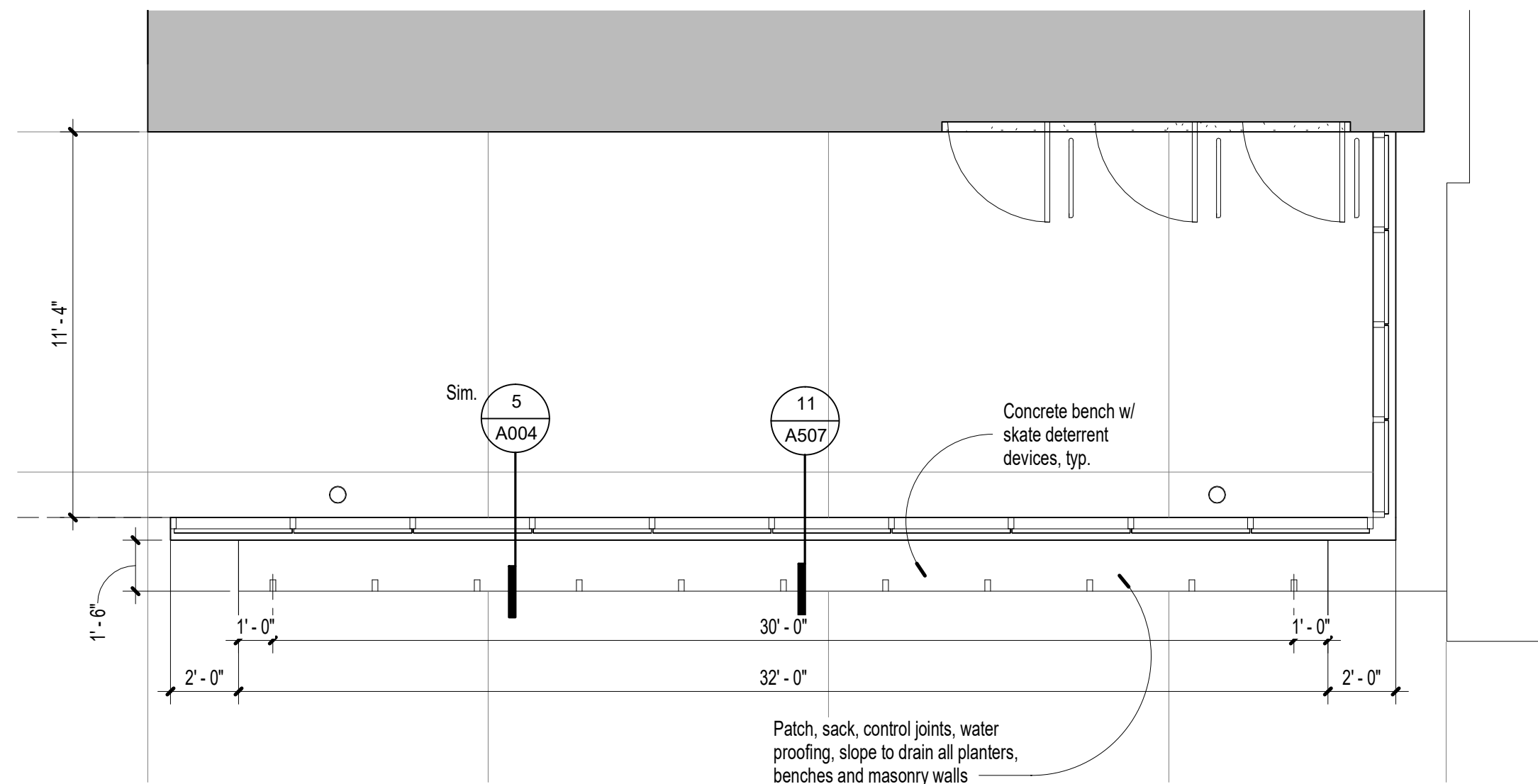
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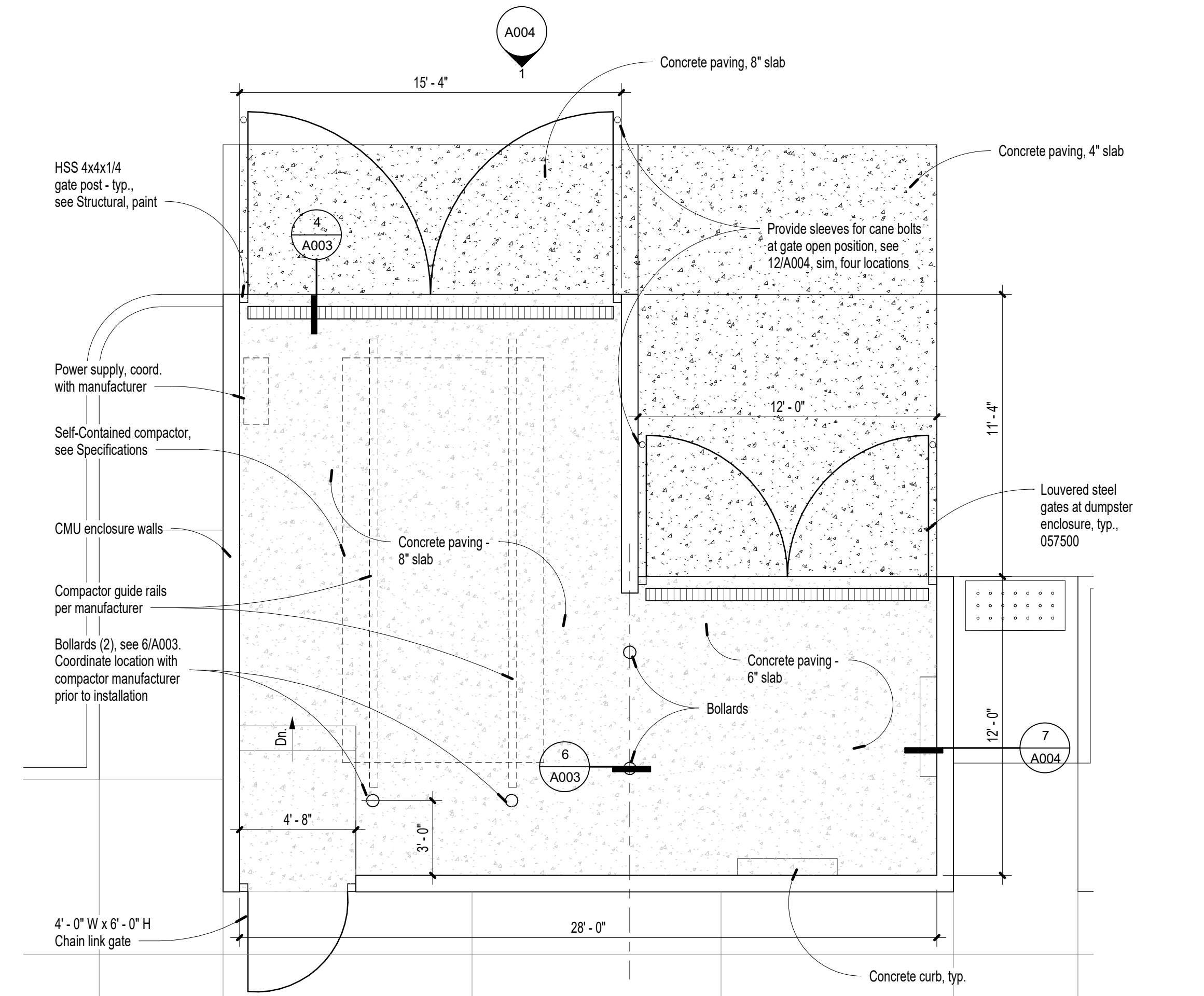
5 Enlarged Site Plan - Condenser Enclosure



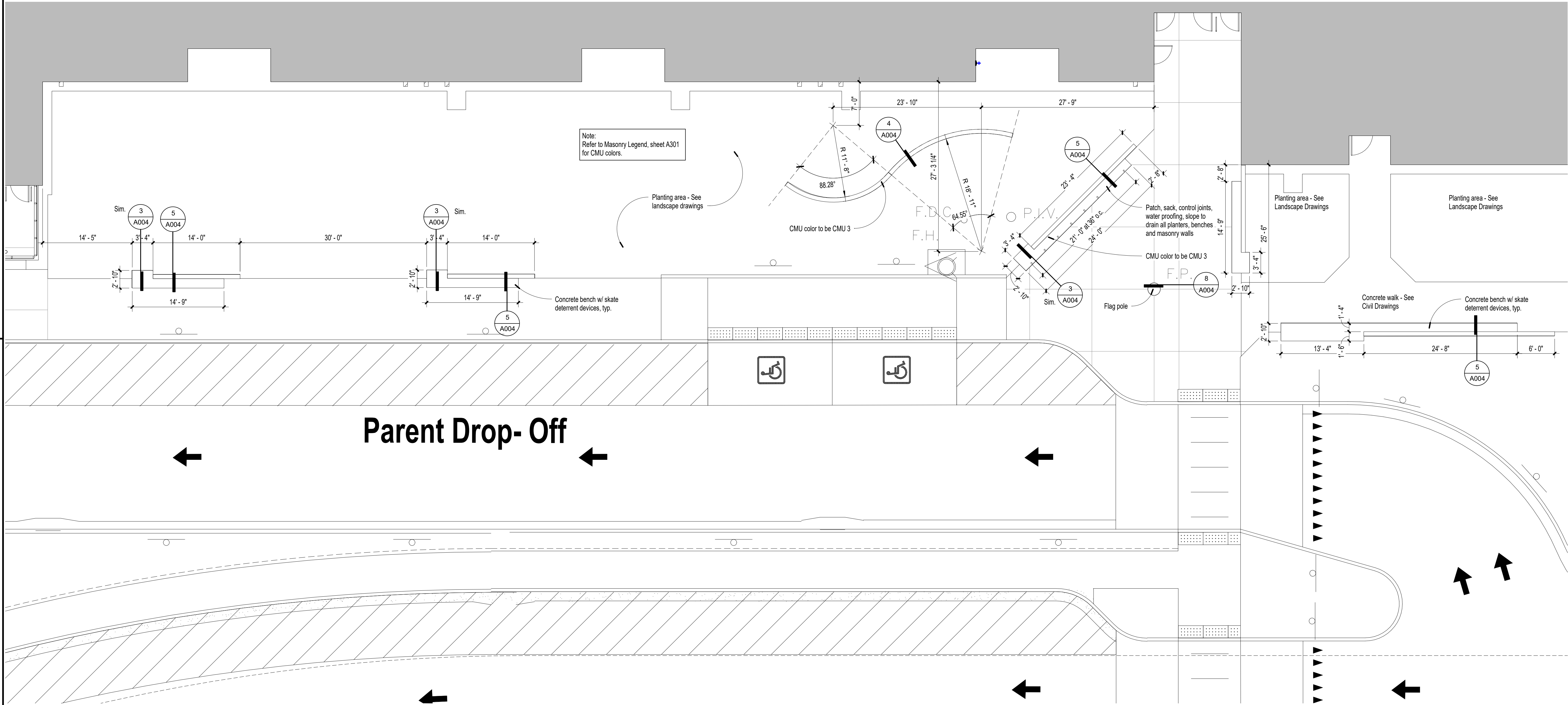
4 Enlarged Site Plan - Transformer Enclosure



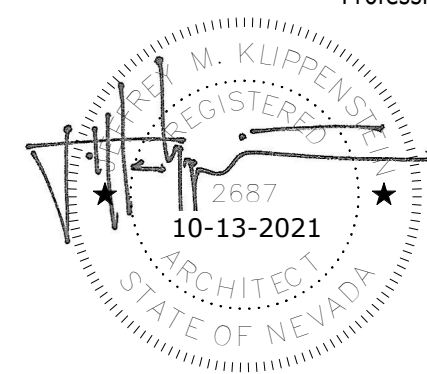
3 Enlarged Site Plan - Concrete Site Wall



2 Enlarged Site Plan - Trash Enclosure



1 Enlarged Site Plan - Main Entrance



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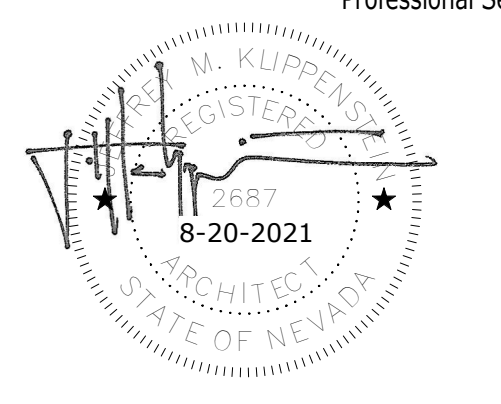
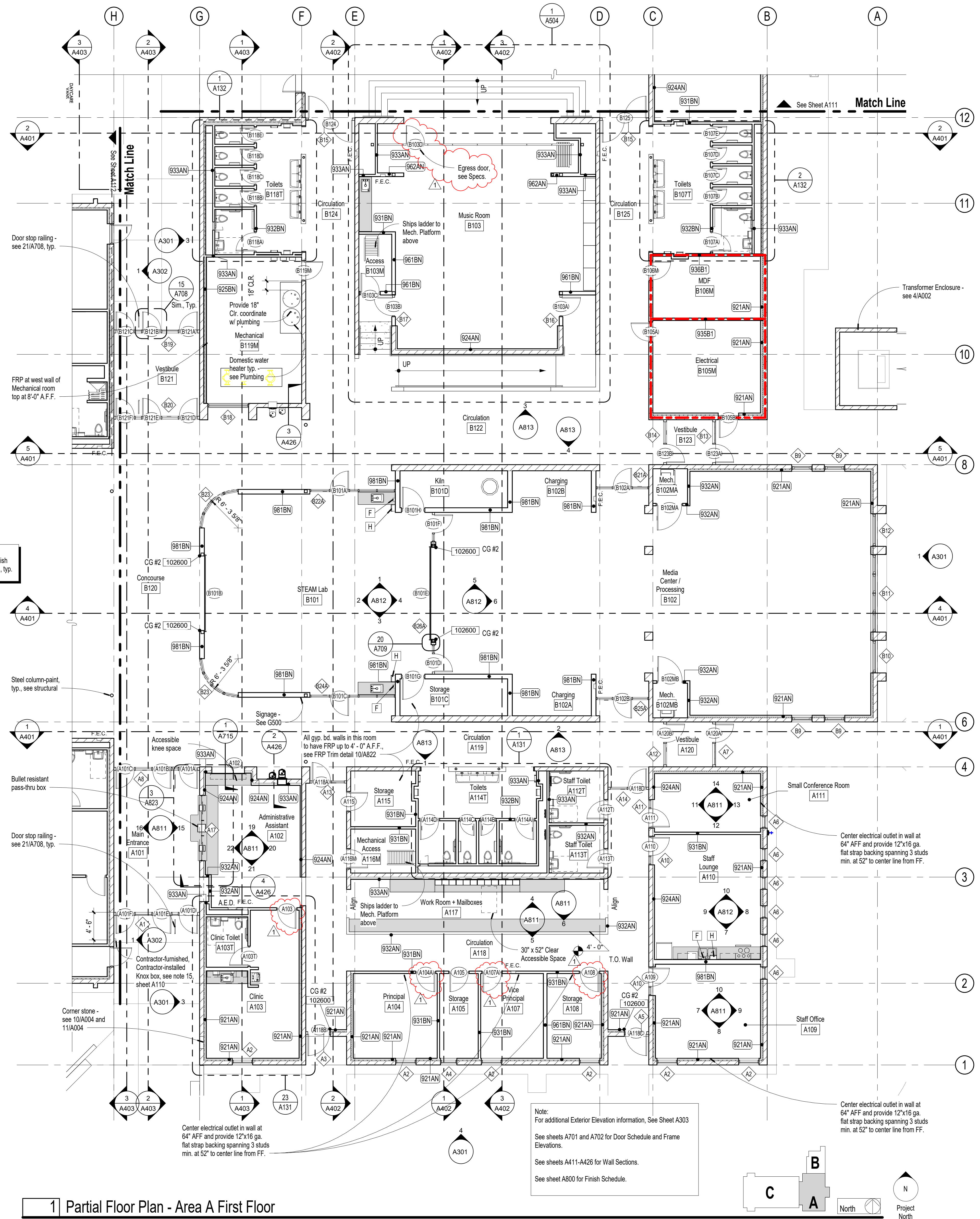
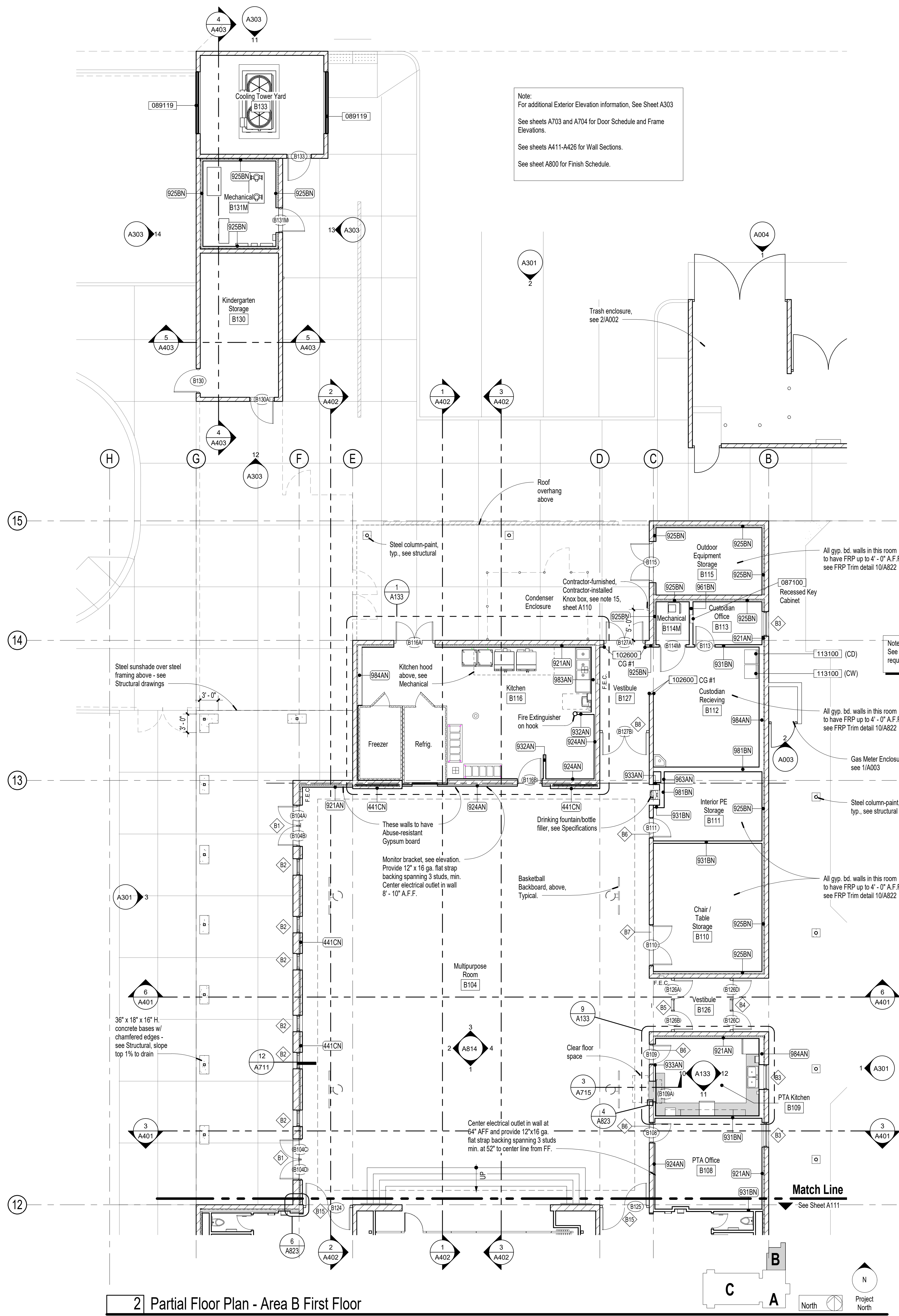
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Enlarged Site Plans

October 13, 2021
H+K Project No: 2001

A002





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Enlarged First Floor
Plans - Areas A + B

August 20, 2021
H+K Project No: 2001

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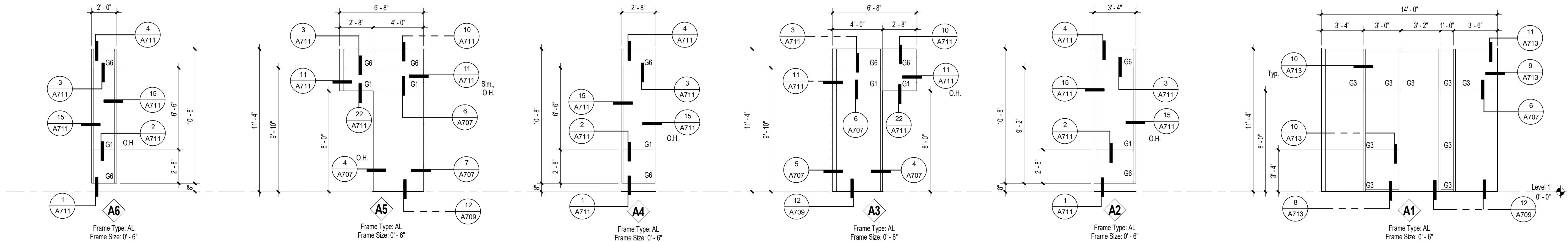
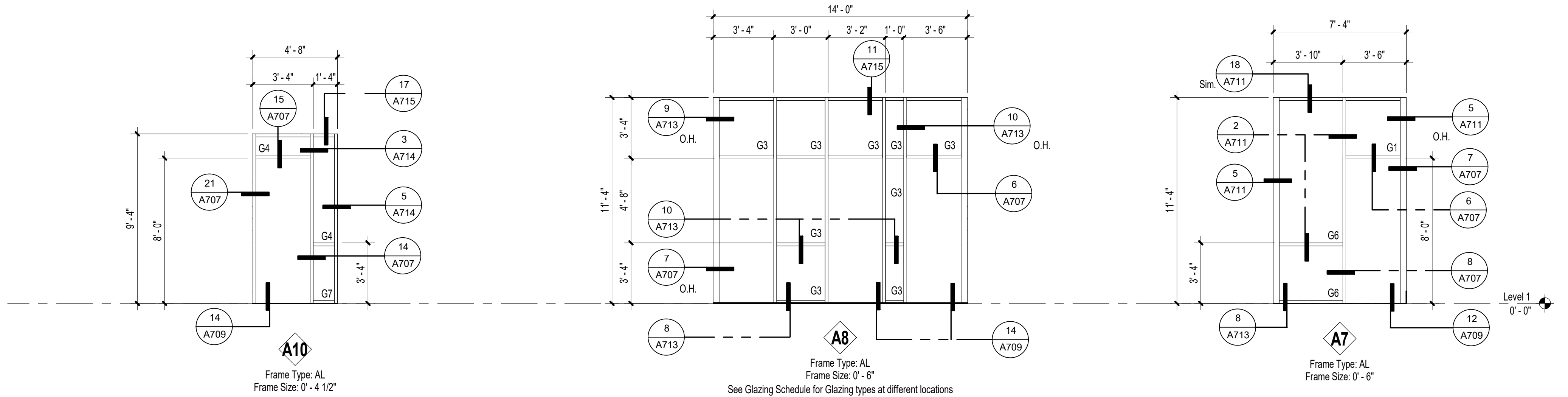
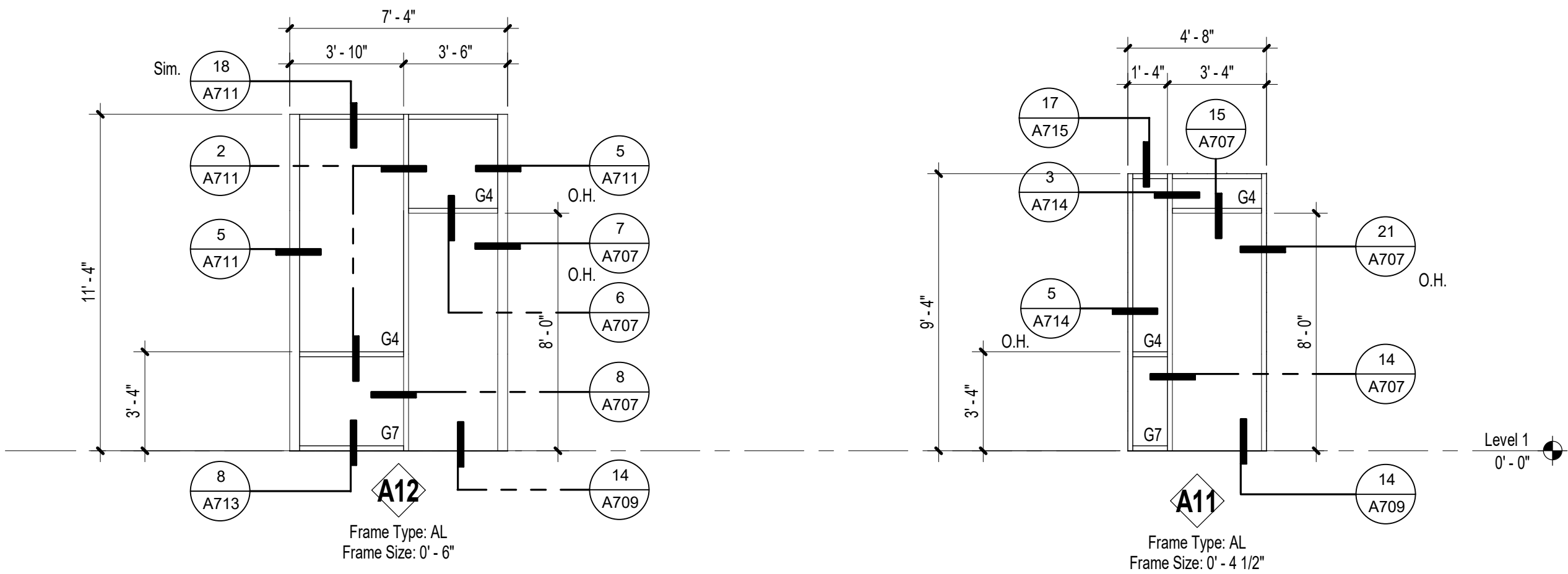


Glazing Notes:

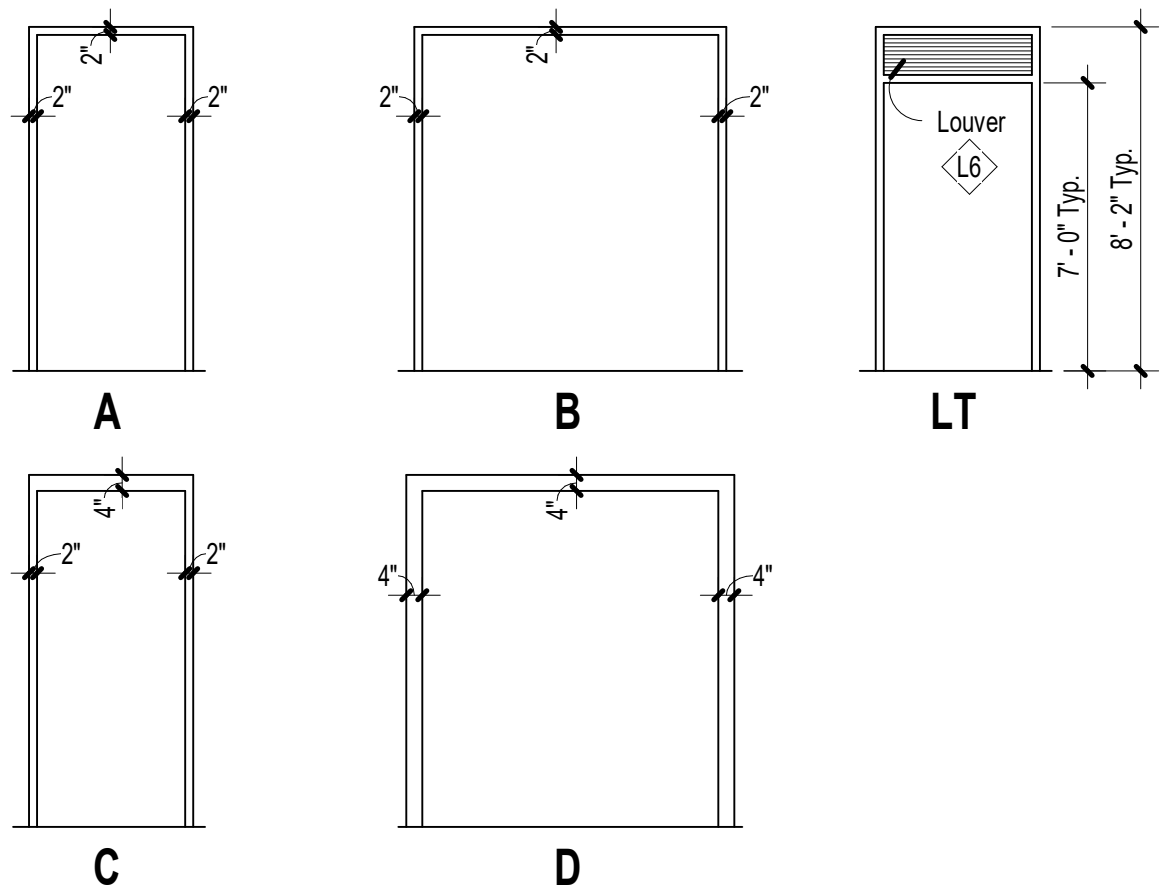
1. All exterior windows:
U-Values shall be certified by an independent
laboratory per NFRC 100 and labeled as such by
the manufacturer.

Door Schedule - Area A

Door Number	DOORS							FRAME				DETAILS						Hardware Group	Comments
	Width	Height	Pair	Material	Type	Glass	Door Rating	Material	Frame Rating	Elev.	Glass	Head	Strike	Hinge	Sill				
Level 1																			
A101A	3'-0"	8'-0"		FRP	G	G3		AL		A8	G3	6/A707	14/A707	5/A707	14/A709	H14	Closer to allow for greater than 90 degree swing.		
A101B	3'-0"	8'-0"		FRP	G	G3		AL		A8	G3	6/A707	14/A707	14/A707	14/A709	H14	Closer to allow for greater than 90 degree swing.		
A101C	3'-0"	8'-0"		FRP	G	G3		AL		A8	G3	6/A707	14/A707	5/A707	14/A709	H13	Closer to allow for greater than 90 degree swing.		
A101D	3'-0"	8'-0"		FRP	G	G3		AL		A1	G3	6/A707	14/A707	5/A707	12/A709	H11	Closer to allow for greater than 90 degree swing.		
A101E	3'-0"	8'-0"		FRP	G	G3		AL		A1	G3	6/A707	14/A707	14/A707	12/A709	H11	Closer to allow for greater than 90 degree swing.		
A101F	3'-0"	8'-0"		FRP	G	G3		AL		A1	G3	6/A707	14/A707	5/A707	12/A709	H12	Closer to allow for greater than 90 degree swing.		
A102	5'-10"	6'-10"		ST	CD	-		ST	-	-	-	2/A715	7/A715	7/A715	5/A715	H19			
A103	3'-0"	8'-0"		WD	N	-		AL (4")		A	-	20/A707	19/A707	19/A707	14/A709	H5			
A103T	3'-0"	8'-0"		WD	L	-		AL (4")		A	-	20/A707	19/A707 O.H.	24/A707 Sim.	14/A709	H2A			
A104A	3'-0"	8'-0"		WD	N	-		AL (4")		A	-	20/A707	19/A707	19/A707	14/A709	H5			
A105	3'-0"	8'-0"		WD	F	-		AL (4")		A	-	20/A707	19/A707	19/A707	14/A709	H5			
A107A	3'-0"	8'-0"		WD	N	-		AL (4")		A	-	20/A707	19/A707	19/A707	14/A709	H5			
A108	3'-0"	8'-0"		WD	N	-		AL (4")		A	-	20/A707	19/A707	19/A707	14/A709	H5			
A109	3'-0"	8'-0"		WD	F	-		AL		A10	G4/G7	15/A707	14/A707	21/A707	14/A709	H5			
A110	3'-0"	8'-0"		WD	F	-		AL		A10	G4/G7	15/A707	14/A707	21/A707	14/A709	H5			
A111	3'-0"	8'-0"		WD	F	-		AL		A11	G4/G7	15/A707	14/A707	21/A707	14/A709	H5			
A112T	3'-0"	7'-10"		WD	L	-		AL		A	-	17/A707	16/A707	16/A707	14/A709	H2A			
A113T	3'-0"	7'-10"		WD	L	-		AL		A	-	17/A707	16/A707	16/A707	14/A709	H2A			
A114A	3'-0"	7'-0"		FRP	F	-		AL		LT	-	15/A707	19/A707	19/A707	-	H2B	See note #7		
A114B	2'-4"	7'-0"		FRP	F	-		AL		LT	-	15/A707	19/A707	19/A707	-	H2	See note #7		
A114C	2'-4"	7'-0"		FRP	F	-		AL		LT	-	15/A707	19/A707	19/A707	-	H2	See note #7		
A114D	3'-0"	7'-0"		FRP	F	-		AL		LT	-	15/A707	19/A707	19/A707	-	H2B	See note #7		
A115	3'-0"	7'-10"		WD	F	-		AL		A	-	17/A707	16/A707	16/A707	14/A709	H6A			
A116M	3'-0"	7'-10"		WD	F	-		AL		A	-	17/A707	16/A707	16/A707	14/A709	H6A			
A118A	3'-0"	8'-0"		WD	F	G4		AL		A13	G4/G7	15/A707	14/A707	13/A707	14/A709	H1			
A118B	3'-6"	8'-0"		FRP	G	G5		AL		A3	G1/G6	6/A707	4/A707	5/A707	12/A709	H11			
A118C	3'-6"	8'-0"		FRP	G	G5		AL		A5	G1/G6	6/A707	4/A707	7/A707	12/A709	H12			
A118D	3'-0"	8'-0"		WD	F	-		AL		A14	G4/G7	15/A707	14/A707	13/A707 O.H.	14/A709	H1			
A120A	3'-0"	8'-0"		FRP	G	G5		AL		A7	G1/G6	6/A707	8/A707	7/A707	12/A709	H12			
A120B	3'-0"	8'-0"		FRP	G	G4		AL		A12	G4/G7	6/A707	8/A707	7/A707	14/A709	H10			
T.O. Mech. Platform Deck																			
A201M	3'-0"	7'-0"		HM	F	-		HM		C	-	2/A709	1/A709	1/A709	17/A709	H15	Sill at 16" - 8" - with 4" HM Head at Frame		



Door Frame Elevations



Glazing, Material, and Type Legend

Glazing Legend:

G1 1" Insulated, tempered and laminated glass
G3 BR3 Rated Security glazing - See Specifications
G4 1/4" Clear tempered glass
G5 BR2 Rated Security glazing - See Specifications
G6 1" Exterior opaque insulated panel
G7 1" Interior opaque panel - Color 1
G8 1" Interior opaque panel - Color 2
G9 Not Used
G10 1" Insulated translucent glass
GS Not Used

Material and Type Legend:

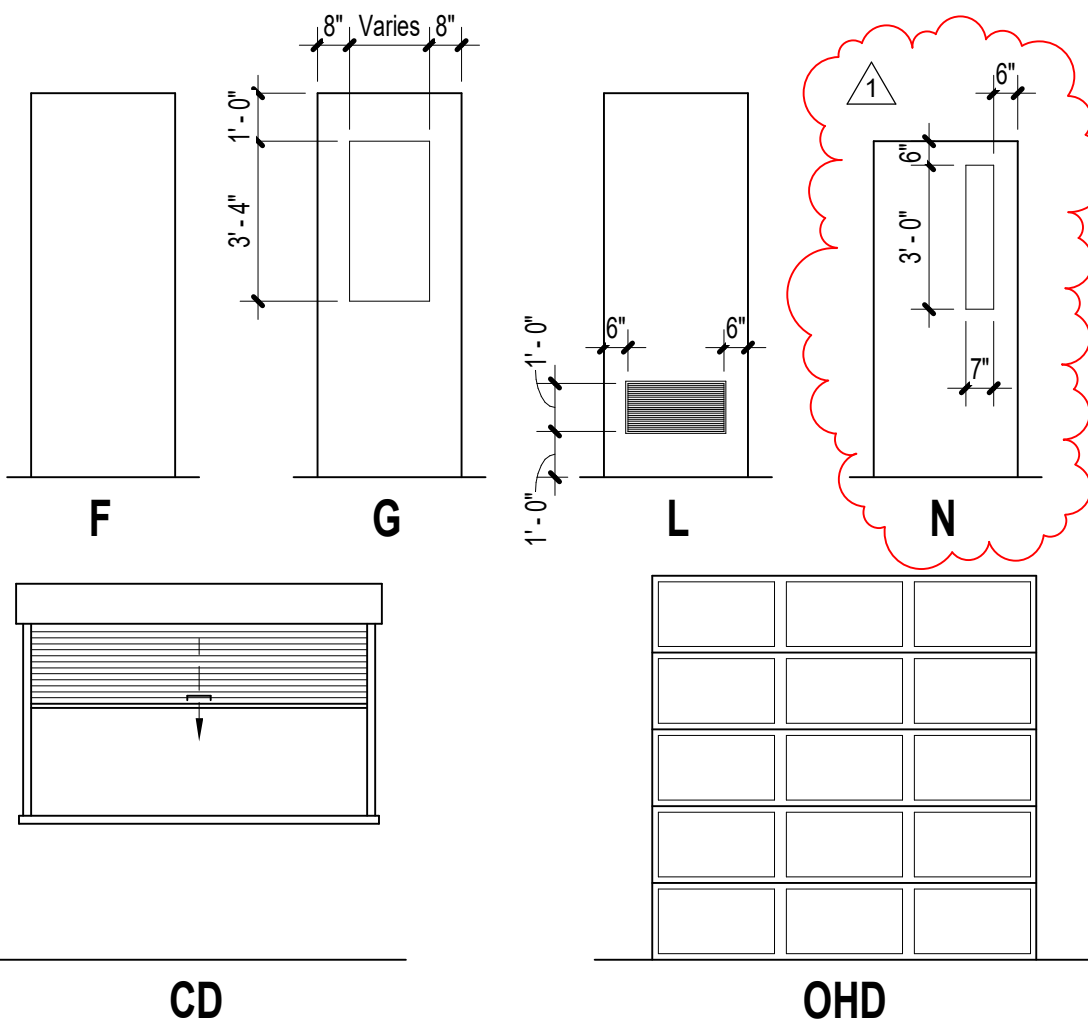
WD Solid Core Wood Veneer-faced
WP Solid Core Wood Writable P-Lam Face
HM Steel Hollow Metal - painted
AL Aluminum
ST Steel
FRP Fiber-Reinforced Plastic

Aluminum Window w/manually operated venetian blinds - see Specification Section 085113
Ballistic Rated Aluminum Window w/ manually operated venetian blinds - see Specification Section 085113

Door Schedule Notes

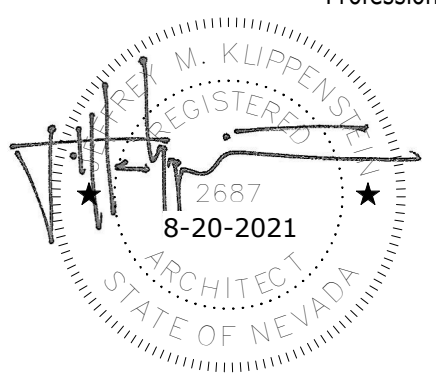
- Contractor and subcontractors shall provide all required electrical service and equipment for complete installation of any hardware requiring electrical service even though they may not be specifically noted on the electrical drawings.
- Hardware locations shall be in accordance with current edition of ANSIS/DI A250.8 for steel doors. Hardware for wood doors shall be located per DHI-WDHS-3. Contractor shall coordinate all door handling including all hardware provisions.
- Hardware supplier shall coordinate keying with Owner prior to submittal.
- All frame sizes in Door Schedule indicate overall frame width. Throat widths shall be coordinated by Contractor.
- Contractor to coordinate door handing per floor plans. Frame detail references do not indicate handing or orientation. Actual installations may be opposite hand, mirrored, or both. Detail references indicated for one frame condition are considered the same for all other similar conditions on that frame elevation.
- See Frame Elevations for additional details.
- Gender-neutral toilet room doors undercut - to be 1/8" above finish floor, max.

Door Types



Note:
3/8" Maximum caulk joints at all heads, jams and sills, typ.

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**Washoe County School District
Rio Wrangler Elementary School**

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Reno, Nevada 89521

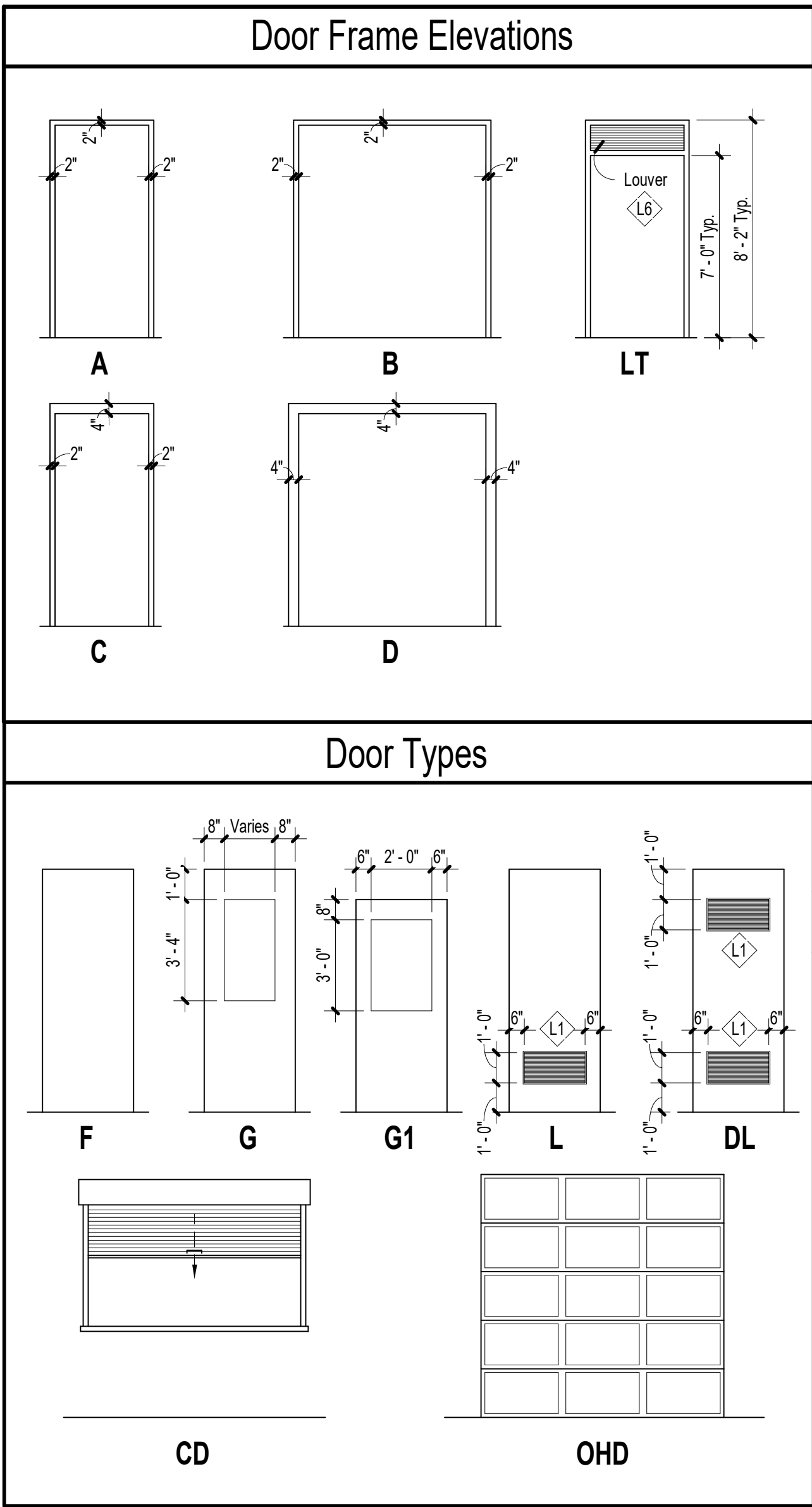
Frame Elevations, Door
Schedule and Door
Types - Area A

August 20, 2021
H+K Project No: 2001

A701



Door Schedule - Area B																			
Door Number	DOORS						FRAME			DETAILS						Hardware Group	Comments		
	Width	Height	Pair	Material	Type	Glass	Door Rating	Material	Frame Rating	Elev.	Glass	Head	Strike	Hinge	Sill				
Level 1																			
B101A	3'-0"	8'-0"		WD	F	-		AL		B22A	G5/G7	15A707	14A707	14A707	14A709	H1			
B101B	12'-2"	11'-2"		AL	OHD	G4		AL		-	G4	13A709	23A709	23A709	-	H19		See Interior Elevation 2/A812	
B101C	3'-0"	8'-0"		WD	F	-		AL		B24A	G5/G7	15A707	14A707	14A707	14A709	H1			
B101D	2'-11 1/4"	8'-0"		WD	F	-		AL		B26A	G4	15A707	14A707	23A707	14A709	H7			
B101E	15'-0"	11'-2"		AL	OHD	G4		AL		B26A	G4	13A709	20A709	20A709	14A709	H19		See Interior Elevation 4/A812	
B101F	2'-11 1/2"	8'-0"		WD	F	-		AL		B26A	G4	15A707	14A707	23A707	14A709	H7			
B101G	3'-8"	8'-0"		WD	F	-		AL		A	-	20A707	19A707	19A707	-	H6A			
B101H	3'-8"	8'-0"		WD	F	-		AL		A	-	20A707	19A707	19A707	-	H6A			
B102A	3'-0"	8'-0"		WD	F	-		AL		B21A	G5/G7	15A707	14A707	13A707	14A709	H1			
B102B	3'-0"	8'-0"		WD	F	-		AL		B25A	G5/G7	15A707	14A707	13A707	14A709	H1			
B102MA	4'-0"	8'-0"		WP	F	-		AL (4")		A	-	20A707	24A707	23A708 O.H.	14A709	H3			
B102MB	4'-0"	8'-0"		WP	F	-		AL (4")		A	-	20A707	24A707 O.H.	23A708	14A709	H3			
B103A	3'-0"	8'-0"		WD	F	-		AL		B16	G4/G7	15A707	14A707	1A708	14A709	H1			
B103B	3'-0"	8'-0"		WD	F	-		AL		B17	G4/G7	15A707	14A707	2A708	14A709	H1			
B103C	3'-0"	8'-0"		WD	F	-		AL		A	-	5A708	4A708	3A708	-	H6A			
B103D	3'-0"	3'-0"																	Panelfold door by manufacturer. See Specs.
B104A	3'-1"	8'-0"		FRP	G	G9		AL		B1		10A707	11A707	9A707	12A709	H11		Manual integral horizontal blind lites, see Specs.	
B104B	3'-1"	8'-0"		FRP	G	G9		AL		B1		10A707	11A707	9A707 O.H.	12A709	H11		Manual integral horizontal blind lites, see Specs.	
B104C	3'-1"	8'-0"		FRP	G	G9		AL		B1		10A707	11A707	9A707	12A709	H11		Manual integral horizontal blind lites, see Specs.	
B104D	3'-1"	8'-0"		FRP	G	G9		AL		B1		10A707	11A707	9A707 O.H.	12A709	H11		Manual integral horizontal blind lites, see Specs.	
B105A	3'-0"	7'-2"		WD	F	-	1 Hour	HM	1 Hour	A	-	8A709	6A709	6A709	-	H11B		6" Vinyl letters on exterior of door to read "FIRE ALARM CONTROL PANEL"	
B105B	3'-0"	7'-2"		HM	F	-	1 Hour	HM	1 Hour	A	-	5A709	4A709	3A709	12A709	H11A		6" Vinyl letters on exterior of door to read "FIRE ALARM CONTROL PANEL ELECTRICAL ROOM"	
B106M	3'-0"	7'-2"		WD	F	-	1 Hour	HM	1 Hour	A	-	8A709	6A709	6A709	-	H6			
B107A	3'-0"	7'-0"		FRP	F	-		AL (4")		LT		15A707	19A707 O.H.	19A707	-	H2B		See note #7	
B107B	2'-4"	7'-0"		FRP	F	-		AL (4")		LT		15A707	19A707	19A707 O.H.	-	H2		See note #7	
B107C	2'-4"	7'-0"		FRP	F	-		AL (4")		LT		15A707	19A707	19A707 O.H.	-	H2		See note #7	
B107D	2'-4"	7'-0"		FRP	F	-		AL (4")		LT		15A707	19A707	19A707 O.H.	-	H2		See note #7	
B107E	2'-4"	7'-0"		FRP	F	-		AL (4")		LT		15A707	19A707	19A707 O.H.	-	H2		See note #7	
B108	3'-0"	8'-0"		WD	F	-		AL		B6	G7	15A707	21A707	21A707 O.H.	14A709	H5			
B109	3'-0"	8'-0"		WD	F	-		AL		B6	G7	15A707	21A707	21A707 O.H.	14A709	H5			
B109A	3'-10"	5'-2"		ST	CD	-		ST		-	-	4A715	7A715	7A715	5A715	H19			
B110	3'-2 1/8"	8'-0"	X	WD	F	-		AL		B7	G7	15A707	16A707	16A707	-	H4A			
B111	3'-0"	8'-0"		WD	F	-		AL		B6	G7	15A707	16A707	16A707	-	H6A			
B113	3'-0"	7'-0"		WD	F	-		AL (4")		A	-	20A707	19A707 O.H.	19A707	-	H5			
B114M	4'-0"	8'-0"		WP	F	-		AL (4")		A	-	20A707	19A707 O.H.	19A707	-	H3			
B115	6'-0"	7'-0"	X	HM	DL	-		HM		B	-	2A709	-	1A709	12A709	H16		4" HM frame head and jamb	
B116A	6'-0"	7'-0"	X	HM	G1	G9		HM		D	-	24A709 Sim.	-	24A709	12A709	H16		4" HM frame head and jamb	
B116B	3'-8"	8'-0"		WD	G	G9		HM		A	-	11A709	9A709	10A709	14A709	H6		Custom frame with masonry anchors. Manual integral horizontal blind lites, see Specs.	
B118A	3'-0"	7'-0"		FRP	F	-		AL (4")		LT		15A707	19A707 O.H.	19A707	-	H2B		See note #7	
B118B	2'-4"	7'-0"		FRP	F	-		AL (4")		LT		15A707	19A707	19A707 O.H.	-	H2		See note #7	
B118C	2'-4"	7'-0"		FRP	F	-		AL (4")		LT		15A707	19A707	19A707 O.H.	-	H2		See note #7	
B118D	2'-4"	7'-0"		FRP	F	-		AL (4")		LT		15A707	19A707	19A707 O.H.	-	H2		See note #7	
B118E	2'-4"	7'-0"		FRP	F	-		AL (4")		LT		15A707	19A707	19A707 O.H.	-	H2		See note #7	
B119M	3'-0"	7'-2"		WD	F	-		AL		A	-	7A709	6A709	6A709 O.H.	-	H11B			
B121A	3'-0"	8'-0"		FRP	G	G1		AL		B19	G1/G4/G6/G7	6A707	8A707	7A707	12A709	H12		Closer to allow for greater than 90 degree swing.	
B121B	3'-0"	8'-0"		FRP	G	G1		AL		B19	G1/G4/G6/G7	6A707	8A707	8A707	12A709	H11		Closer to allow for greater than 90 degree swing.	
B121C	3'-0"	8'-0"		FRP	G	G1		AL		B19	G1/G4/G6/G7	6A707	8A707	7A707	12A709	H11		Closer to allow for greater than 90 degree swing.	
B121D	3'-0"	8'-0"		FRP	G	G4		AL		B20	G1/G4/G6/G7	6A707	8A707	12A707	14A709	H10		Closer to allow for greater than 90 degree swing.	
B121E	3'-0"	8'-0"		FRP	G	G4		AL		B20	G1/G4/G6/G7	6A707	8A707	8A707	14A709	H10		Closer to allow for greater than 90 degree swing.	
B121F	3'-0"	8'-0"		FRP	G	G4		AL		B20	G1/G4/G6/G7	6A707	8A707	7A707	14A709	H10		Closer to allow for greater than 90 degree swing.	
B123A	3'-0"	8'-0"		FRP	G	G5		AL		B13	G1/G6	6A707	8A707 O.H.	7A707 O.H.	12A709	H11			
B123B	3'-0"	8'-0"		FRP	G	G4		AL		B14	G4/G7	6A707	8A707 O.H.	7A707 O.H.	14A709	H10			
B124	3'-7"	8'-0"	X	FRP	G	G9		AL		B15		7A708	-	8A708 O.H.	13A709	H9		Provide Radius Meeting Stiles. Manual integral horizontal blind lites, see Specs.	
B125	3'-7"	8'-0"	X	FRP	G	G9		AL		B15		7A708	-	8A708 O.H.	13A709	H9		Provide Radius Meeting Stiles. Manual integral horizontal blind lites, see Specs.	
B126A	3'-0"	8'-0"		FRP	G	G9		AL		B5	G7	6A707	8A707	7A707	14A709	H10		Manual integral horizontal blind lites, see Specs.	
B126B	3'-0"	8'-0"		FRP	G	G9		AL		B5	G7	6A707	8A707	7A707	14A709	H10		Manual integral horizontal blind lites, see Specs.	
B126C	3'-0"	8'-0"		FRP	G	G5		AL		B4	G1/G6	6A707	8A707	7A707	12A709	H11			
B126D	3'-0"	8'-0"		FRP	G	G5		AL		B4	G1/G6	6A707	8A707	7A707	12A709	H11			
B127A	6'-0"	7'-0"	X	HM	F	-		HM		D	-	2A709	-	1A709	12A709	H17		4" HM frame head and jamb	
B127B	3'-7"	8'-0"	X	WD	F	-		AL		B8	-	15A707	-	7A707	14A709	H18			
B130	3'-8"	7'-2"		HM	F	-		HM		A	-	7A709	-	6A709	12A709	H15			
B130A	3'-8"	7'-2"		HM	F	-		HM		A	-	7A709	-	6A709	12A709	H15			
B131M	3'-8"	7'-2"		HM	F	-		HM		A	-	7A709	-	6A709	12A709	H15			
B133	3'-8"	7'-2"			F	-				A									
T.O. Mech. Platform Deck																			
B201M	3'-0"	7'-0"		HM	F	-		HM		A	-	2A709	1A709	1A709	17A709	H15		Sill at 15'-10" - with 4" HM Head at Frame	



Glazing, Material, and Type Legend	
Glazing Legend:	Material and Type Legend:
G1 1" Insulated tempered and laminated glass	WD Solid Core Wood Veneer-faced
G3 BR3 Rated Security glazing - See Specifications	WP Steel Hollow Metal - painted
G4 1/4" Clear tempered glass	AL Aluminum
G5 BR2 Rated Security glazing - See Specifications	ST Steel
G6 1" Exterior opaque insulated panel	FRP Fiber-Reinforced Plastic
G7 1" Interior opaque panel - Color 1	
G8 1" Interior opaque panel - Color 2	
G9 Not Used	
G10 1" Insulated translucent glass	
GS Not Used	

Aluminum Window w/manually operated venetian blinds - see Specification Section 085113

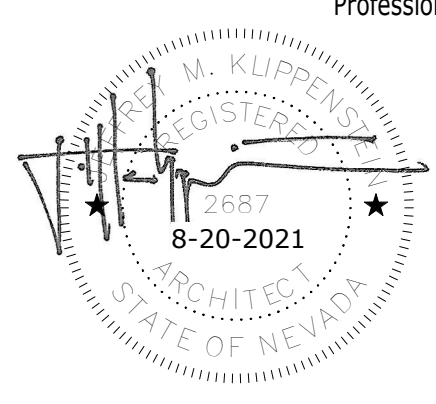
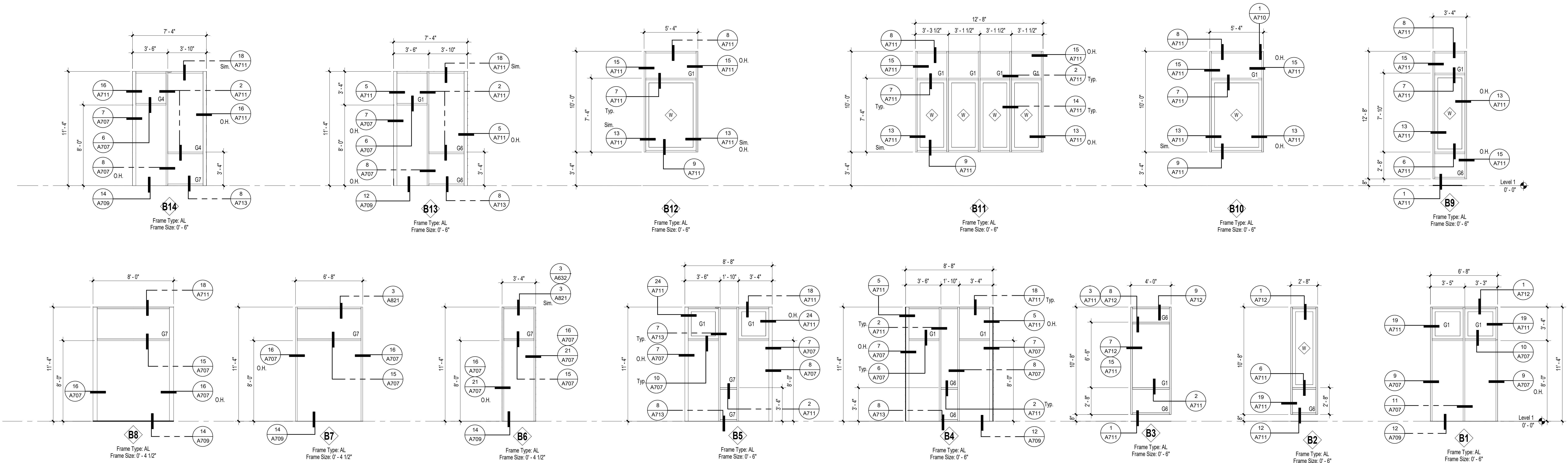
Ballistic Rated Aluminum Window w/ manually operated venetian blinds - see Specification Section 085113

Door Schedule Notes

- Contractor and subcontractors shall provide all required electrical service and equipment for complete installation of any hardware requiring electrical service even though they may not be specifically noted on the electrical drawings.
- Hardware locations shall be in accordance with current edition of ANSISDI A250.6 for steel doors. Hardware for wood doors shall be located per DHI-WDHS-3. Contractor shall coordinate all door handing including all hardware provisions.
- Hardware supplier shall coordinate keying with Owner prior to submittal.
- All frame sizes in Door Schedule indicate overall frame width. Throat widths shall be coordinated by Contractor.
- Contractor to coordinate door handing per floor plans. Frame detail references do not indicate handing or orientation. Actual installations may be opposite hand, mirrored, or both. Detail references indicated for one frame condition are considered the same for all other similar conditions on that frame elevation.
- See Frame Elevations for additional details.
- Gender-neutral toilet room doors undercut - to be 1/8" above finish floor, max.

Glazing Notes:

1. All exterior windows:
U-Values shall be certified by an independent laboratory per NFRC 100 and labeled as such by the manufacturer.



Professional Seal
Date Revision
1 Date 2 Bid Addendum #2

Consultant

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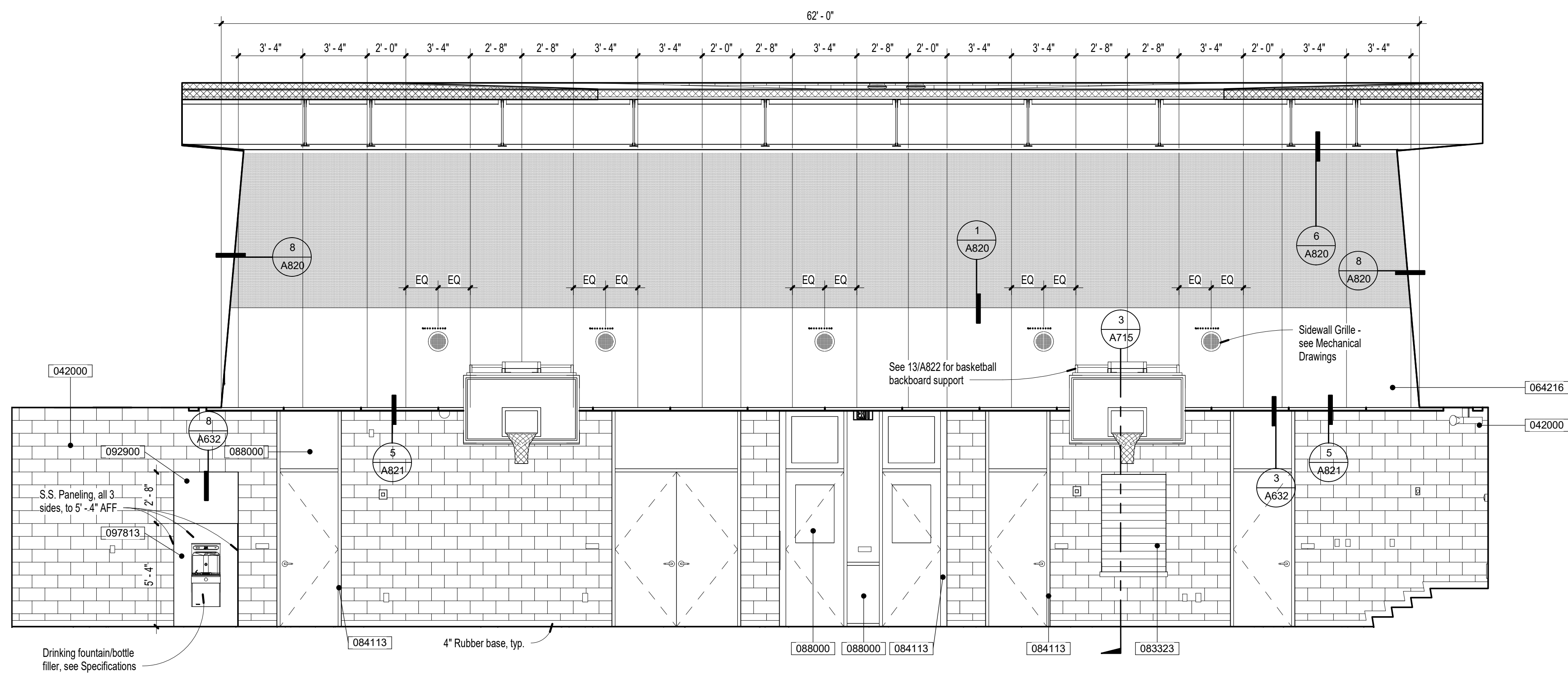
Washoe County School District
Rio Wrangler Elementary School
10600 Green Pasture Drive
Reno, Nevada 89521

Frame Elevations, Door
Schedule and Door
Types - Area B
August 20, 2021
H+K Project No: 2001

A703

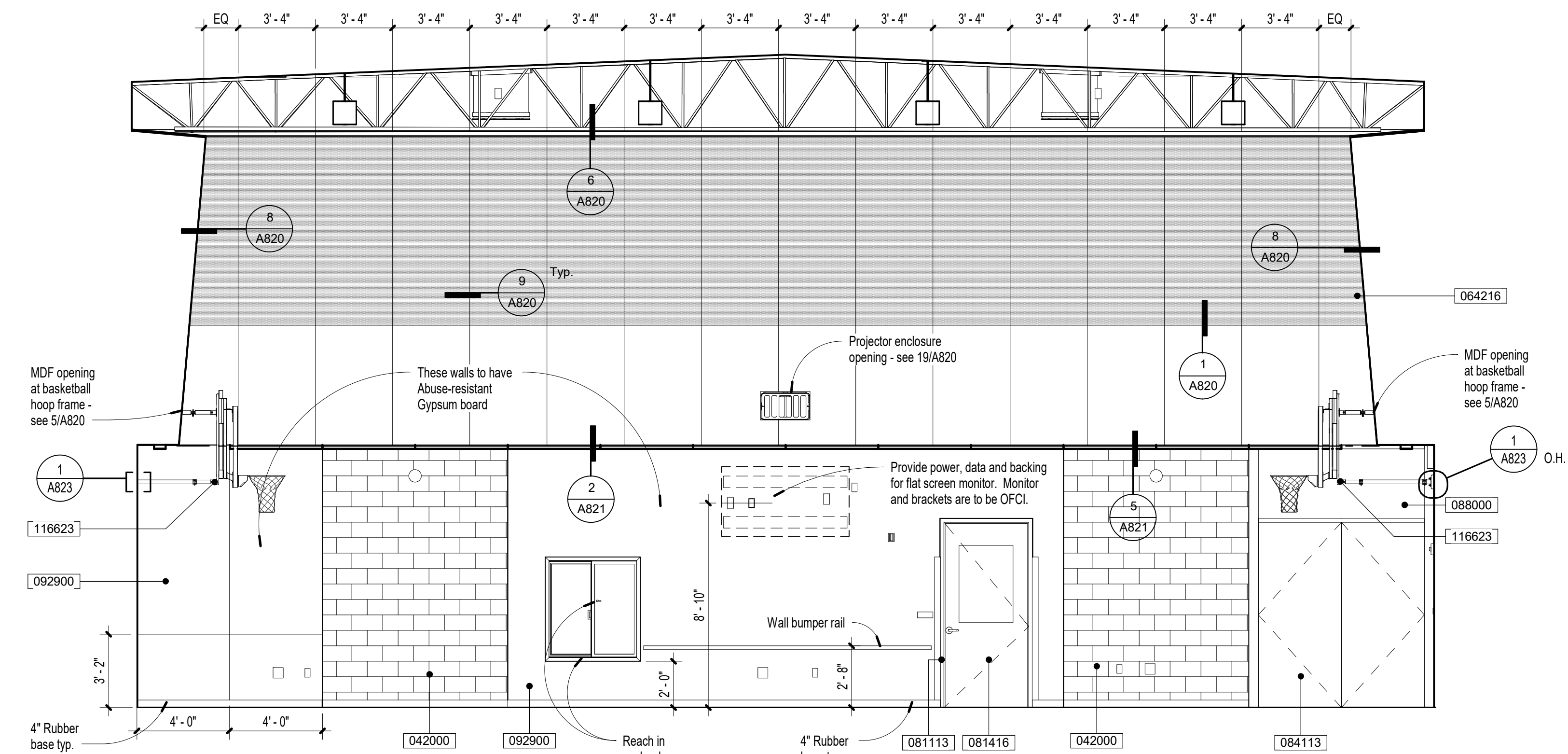


Project Keynotes	
Keynote	Description
033000	Cast-In-Place Concrete
042000	Concrete Unit Masonry
064216	Flush Wood Paneling
081113	Hollow Metal Doors and Frames
081416	Flush Wood Doors
083523	Overhead Coiling Doors
084113	Aluminum-Framed Entrances and Storefronts
086000	Ceiling
092000	Gypsum Board
097813	Metal Interior Wall Paneling
102239	Folding Panel Partitions
116623	Gymnasium Equipment



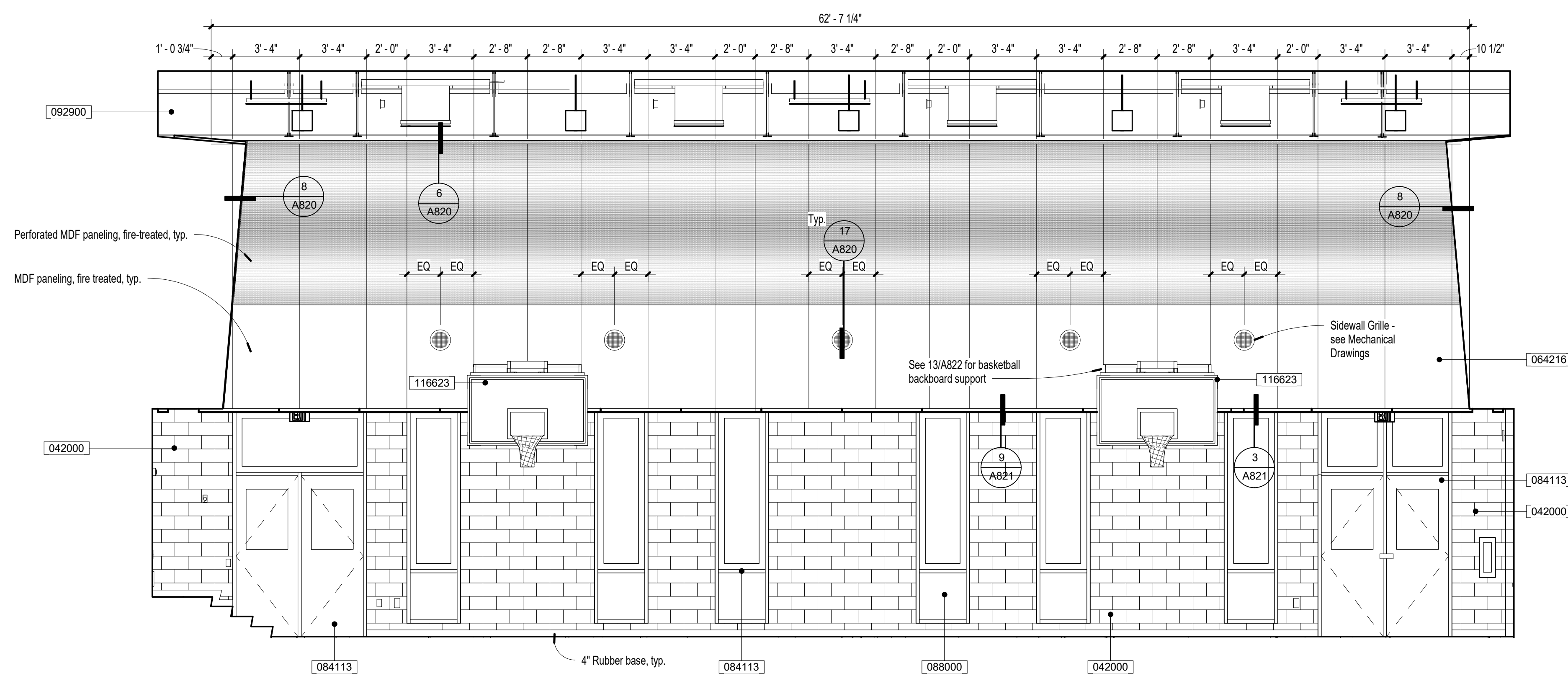
4 Multipurpose Room B104 East

$1/4" = 1'-0"$



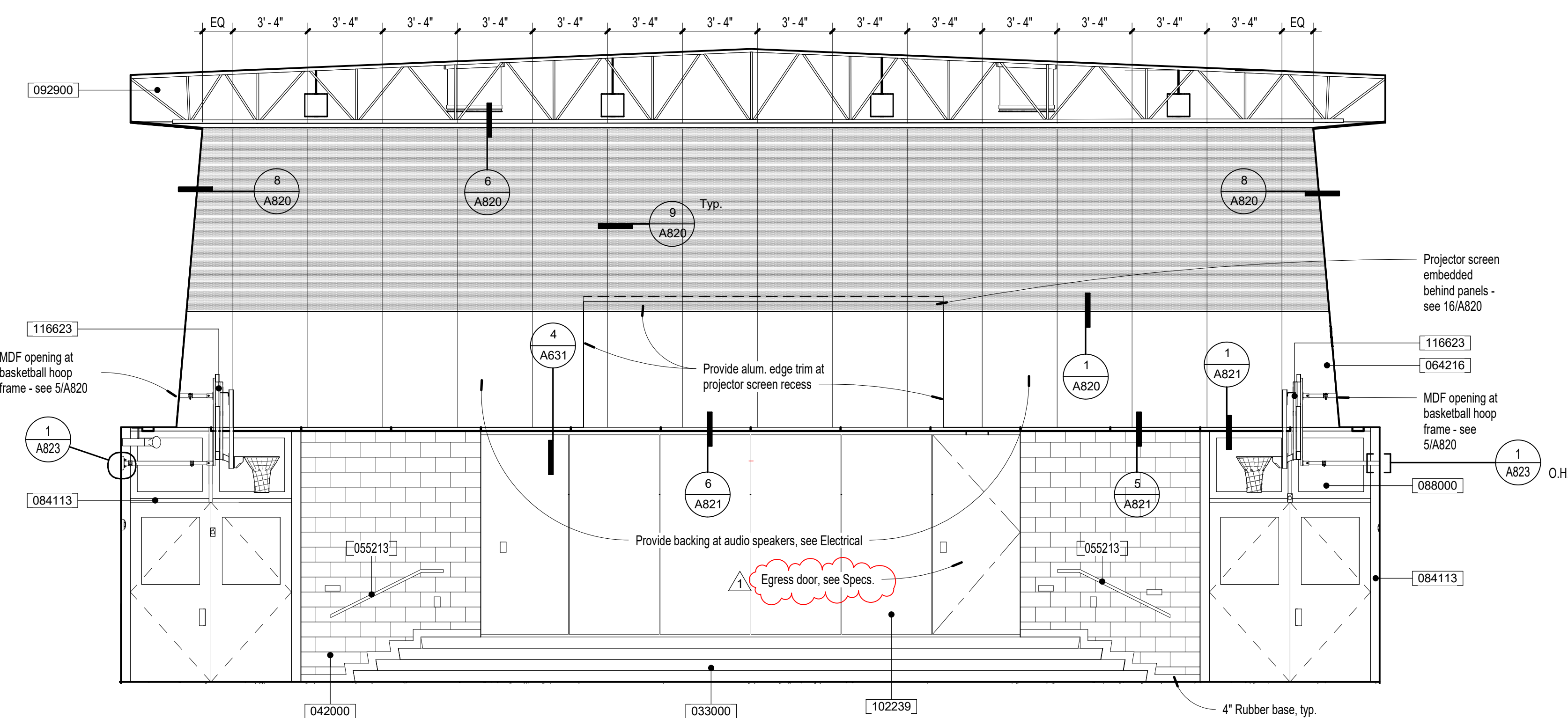
3 Multipurpose Room B104 North

$1/4'' = 1'-0''$



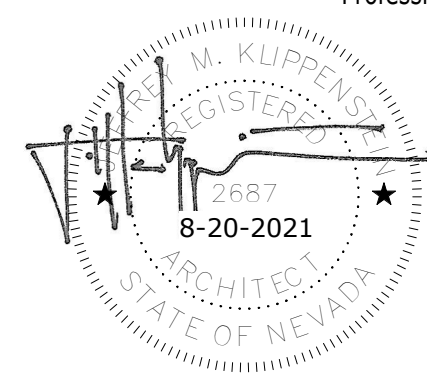
2 Multipurpose Room B104 West

1/4" = 1'-0"



1 Multipurpose Room B104 South

1/4" = 1'-0"



Professional Seal

△	Date	Revision
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1	Date 2	Bid Addendum #2
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Interior Elevations -
Area B

August 20, 2021
H+K Project No: 2001

A814



LANDSCAPE CALCULATIONS

GROSS SITE AREA: 9,92 AC 405,474 S.F.
REQUIRED LANDSCAPE 20% OF SITE AREA: 8,145 S.F.
LANDSCAPE AREA PROVIDED: 146,850 S.F. (INCLUDES 87,170 S.F.
D6 PLAYGROUND AREA, 51,680 S.F. OF PLANTER AREA)
TOTAL SITE PARKING AREA: 40,401 S.F.
PARKING AREA LANDSCAPE REQUIRED 18%: 6,060 S.F.
PARKING AREA LANDSCAPE PROVIDED 18%: 14,571 S.F.
PARKING SPACES PROVIDED: 112
TREE PLACEMENT REQUIRED 1/10 SPACES: 11 (5 PROVIDED)
TREES REQUIRED:
1 PER 300 S.F. OF REQ. LANDSCAPE AREA: 270
TREES PROVIDED: 270 (INCLUDES 14 PERIMETER TREES)
LARGE TREES REQUIRED (10%): 184
LARGE TREES PROVIDED: 184

WETLANDS - OPEN SPACE

GENERAL LANDSCAPE NOTES:

1. THE CONTRACTOR SHALL COORDINATE ALL WORK WITH OTHER TRADES (E.PAVING, PLUMBING, ELECTRICAL, ETC.)
2. ALL GRADES SHALL BE APPROVED BY THE OWNER'S REPRESENTATIVE AFTER IRRIGATION MAINS AND FINAL GRADING IS COMPLETE PRIOR TO PLANTING.
3. SOIL IN THE PLANTER AREAS SHALL BE AMENDED PER PER PLANTER SOIL NOTE THIS SHEET AND SPECIFICATION. AFTER ALL GRADING IS COMPLETE.
4. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING PLANT MATERIAL PER SYMBOLS AND SPACING INDICATED ON THE PLAN. SYMBOLS PREVAIL OVER QUANTITIES LISTED IN THE PLANT LEGEND.
5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND PROVIDE PLANT MATERIAL AS SPECIFIED ON THIS PLAN. THE CONTRACTOR MAY SUBMIT A REQUEST TO PROVIDE SUBSTITUTIONS FOR THE SPECIFIED PLANT MATERIAL UNDER THE FOLLOWING CONDITIONS:
A. ANY SUBSTITUTIONS PROPOSED SHALL BE SUBMITTED TO THE OWNER'S REPRESENTATIVE WITHIN TWO WEEKS OF THE AWARD OF CONTRACT. SUBSTITUTIONS MUST MEET EQUIVALENT DESIGN AND FUNCTIONAL GOALS OF THE ORIGINAL PLANT MATERIAL AS DETERMINED BY THE LANDSCAPE ARCHITECT. ANY CHANGES MUST HAVE THE APPROVAL OF THE LANDSCAPE ARCHITECT.
B. THE REQUEST MUST BE ACCOMPANIED BY AT LEAST THREE NOTICES FROM PLANT SUPPLIERS THAT THE PLANT MATERIAL SPECIFIED IS NOT AVAILABLE PRIOR TO THE CONSTRUCTION PHASE.
6. ALL PLANTS NOT MEETING OR EXCEEDING REQUIREMENTS AND RECOMMENDATIONS OF ANSI 2601 "AMERICAN STANDARD FOR NURSERY STOCK" SHALL BE REJECTED. THE CONTRACTOR SHALL RECEIVE ON-SITE APPROVAL OF PLANT MATERIAL BY THE LANDSCAPE ARCHITECT PRIOR TO PLANTING. FAILURE TO RECEIVE APPROVAL PRIOR TO PLANTING MAY RESULT IN REJECTION AND THE CONTRACTOR SHALL REPLACE ALL REJECTED PLANT MATERIAL AT HIS EXPENSE. THE OWNER RESERVES THE RIGHT TO INSPECT AND EVALUATE PLANT MATERIAL THROUGHOUT THE CONSTRUCTION AND MAINTENANCE PERIOD.
7. ALL PLANT SUBSTITUTIONS SHALL BE REVIEWED AND ACTION TAKEN BY THE LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR FOR PLANT REVIEW AND APPROVAL 48 HRS. PRIOR TO DELIVERY. ANY MATERIAL NOT ACCEPTABLE SHALL BE REMOVED IMMEDIATELY FROM THE SITE. THE OWNER'S REPRESENTATIVE MAY AT ANYTIME UNTIL FINAL ACCEPTANCE DIRECT THE CONTRACTOR TO REMOVE UNACCEPTABLE MATERIAL WITHOUT COST TO THE OWNER.
8. THE CONTRACTOR SHALL GUARANTEE ALL PLANT MATERIALS FOR ONE FULL YEAR UPON FINAL ACCEPTANCE OF THE PROJECT. ANY PLANTS REPLACED UNDER THIS GUARANTEE SHALL BE GUARANTEED FOR ONE FULL YEAR FROM THE DATE OF REPLACEMENT.
9. THE LANDSCAPE CONTRACTOR SHALL INSURE POSITIVE DRAINAGE IN ALL PLANTER AREAS PER CIVIL ENGINEER'S GRADING PLAN AFTER LANDSCAPE IMPROVEMENTS ARE COMPLETE.
10. REMOVE ALL WEEDS AND DEBRIS IN AND AROUND NEWLY INSTALLED PLANT MATERIAL. A PRE-EMERGENT HERBICIDE SHALL BE APPLIED TO ALL PLANTER AREAS PRIOR TO INSTALLATION OF MULCHES.
11. THE CONTRACTOR IS RESPONSIBLE FOR NOTIFYING THE OWNER/LA A MIN. OF 48 HOURS IN ADVANCE FOR THE FOLLOWING SITE OBSERVATIONS AND/OR MEETINGS:
A. PLANT MATERIAL ON SITE. SOIL PREP, INSTALLATION.
B. DRIP IRRIGATION IN PLACE PRIOR TO PLACING FABRIC AND MULCH.
C. FINAL PROJECT WALK-THROUGH.
D. ADDITIONAL SITE OBSERVATIONS DETERMINED BY THE OWNER'S REPRESENTATIVE OR CONTRACTOR.
12. REFER TO PLANTING DETAILS SHEET L300.

PLANT LEGEND:

TREES

40	FRUNUS V. 'CANADA RED'	CHOKECHERRY	24" BOX, 2.5" CAL.	L	30' X 30'
55	QUERCUS MACROCARPA	BUR OAK	24" BOX, 2.5" CAL.	L	30' X 30'
36	GINKGO B. 'PRINCETON SENTRY'	GINKGO	24" BOX, 2.5" CAL.	L	40' X 15'
30	GLEDITSIA T. 'INERMIS'	HONEY LOCUST	24" BOX, 2.5" CAL.	L	30' X 30'
24	CELTIS OCCIDENTALIS	HACKBERRY	24" BOX, 2.5" CAL.	L	40' X 40'
17	JUNIPERUS C. 'WICHITA BLUE'	COLUMNAR JUNIPER	6' MIN. HT.	L	10' X 6'
63	COTINUS C. 'ROYAL PURPLE'	PURPLE SMOKE BUSH	5 GAL. MULTI	L	15' X 12'

SHRUBS

87	CARYOPTERIS	BLUE MIST	5 GAL.	L	3' X 4'
49	ROSA 'MEIDLAND'	MEIDLAND ROSE	5 GAL.	L	2' X 3'
42	FRUNUS TOMENTOSA	NANKING CHERRY	5 GAL.	L	4' X 4'
38	FORSYTHIA I. 'SUNRISE'	FORSYTHIA	5 GAL.	L	4' X 5'
59	RHUS 'GROW LOW'	GROW LOW SUMAC	5 GAL.	L	18" X 4'
50	EUONYMUS F. 'GREENLANE'	EUONYMUS	5 GAL.	L	3' X 5'
37	VIBURNUM OPULUS	SNOWBALL BUSH	5 GAL.	L	6' X 6'
46	FRUNUS GLANDULOSA	FLA. ALMOND	5 GAL.	L	4' X 4'
19	JUNIPERUS 'SEA GREEN'	JUNIPER	5 GAL.	L	3' X 4'

GRASSES

93	PENNESETUM A. 'HAMMELIN'	DK. FOUNTAIN GRASS	1 GAL.	L	3' X 3'
134	CALAMAGROSIS ACUTIFLORA	FEATHERREED GRASS	1 GAL.	L	2' X 3'
101	MISCANTHUS MORNING LIGHT	MAIDEN GRASS	1 GAL.	L	3' X 3'

PERENNIALS

88	TEUCRIUM CHAMAEDRY'S	GERMANDER	1 GAL.	L	2' X 2'
55	COREOPSIS G. 'EARLY SUNRISE'	TICKSEED	1 GAL.	L	2' X 2'
61	SAURA L. 'PINK SISKIYOU'	SAURA	1 GAL.	L	3' X 3'
53	HEMEROCALLIS HYBRIDS	DAYLILY	1 GAL.	L	2' X 2'
58	SYMPHYOTRICHON N-A 'PURPLE DOME'	NEW ENGLAND ASTER	1 GAL.	L	2' X 2'
39	SAURA L. 'STRATOSPHERE WHITE'	SAURA	1 GAL.	L	3' X 3'

REFER TO PLANTING DETAILS SHEET L300
PROVIDE ROOT BARRIERS AT EDGE OF PAVEMENT WITHIN 8' OF CENTER OF TREE. REFER TO TREE PLANTING DETAIL SHEET L300

2-4" DIA. BOULDERS ROUNDED GRANITE
MATCH COLOR GRAY TO TAN. REFER TO DETAIL SHEET L-300
SAMPLES OF MULCH SHALL BE SUBMITTED TO THE OWNER
FOR APPROVAL PRIOR TO DELIVERY TO THE SITE.
ROCK MULCHES SHALL BE WASHED AND CLEAN OF
DIRT AND DEBRIS PRIOR TO DELIVERY TO THE SITE.

SCALE: 1" = 30'

0 15 30 60 150



100% CONSTRUCTION DOCUMENTS

PLANTER SOIL

NOTE: ONSITE EXISTING SOIL IS TO BE AMENDED WITH DAMONTE RANCH SOIL BLEND ESSENCE AS AVAILABLE FROM FULL CIRCLE COMPOST. BLEND 15" OF ESSENCE INTO THE TOP 12" OF ALL PLANTER AREAS AFTER SITE GRADING IS COMPLETE PER CIVIL PLANS INCLUDING THE PLANTER MOUNDINGS AS SHOWN ON THE CIVIL PLANS. FINISHED GRADING IS THE RESPONSIBILITY OF THE LA CONTRACTOR. BLEND MOUNDINGS AS REQUIRED TO PROVIDE SMOOTH TRANSITION TO FINISHED GRADE. ALL MOUNDING SHALL BE ROUNDED AT THE TOP AND SMOOTH CURVE INTO FINISHED GRADE. TILL SOIL ESSENCE INTO THE TOP 12" OF PLANTER SOIL AFTER GRADING IS COMPLETE. RAKE SMOOTH AFTER TILLING. IN THE DRDD ADJACENT TO THE TRAIL SOIL MAY BE AMENDED FOR BACKFILL SOIL AROUND THE PLANTS ONLY.

LEGEND

DECOMPOSED GRANITE MULCH 4" MIN. DEPTH ALL AREAS SHOWN
TREAT WITH PRE-EMERGENT HERBICIDE PRIOR TO PLACEMENT. (1/4" DIA.)
RAKE SMOOTH, MET AND COMPACT. TREAT MULCH SURFACE WITH PRE-EMERGENT AFTER INSTALLATION.

12" DEPTH OF PLAY GROUND BARK
AS AVAILABLE FROM OXBOROUGH TRUCKING OR EQUAL.
CURBING AND DRAIN BY OTHERS.
PLACE OVER WATER PERMEABLE DENITT
PRO 5 LANDSCAPE FABRIC. INSTALL PER MFG. SPEC.

DECOMPOSED GRANITE MULCH 4" MIN. DEPTH ALL AREAS PLANTER AREAS NOT DESIGNATED
PLACE OVER WATER PERMEABLE DENITT
PRO 5 LANDSCAPE FABRIC. INSTALL PER MFG. SPEC.
RAKE SMOOTH, MET AND COMPACT. TREAT MULCH SURFACE WITH PRE-EMERGENT AFTER INSTALLATION. PLACE COMPOST MULCH IN ALL PLANT BASINS.
REFER TO DETAIL SHEET L-300

ROCK ACCENT: 4" MIN. DEPTH OF 6"-12"
FRACTURED ROCK. ROCK COLOR GRAY TO TAN BLEND
PLACE OVER WATER PERMEABLE DENITT
PRO 5 LANDSCAPE FABRIC. INSTALL PER MFG. SPEC.
PLACE SHREDDED BARK MULCH IN ALL PLANT BASINS.
REFER TO DETAIL SHEET L300



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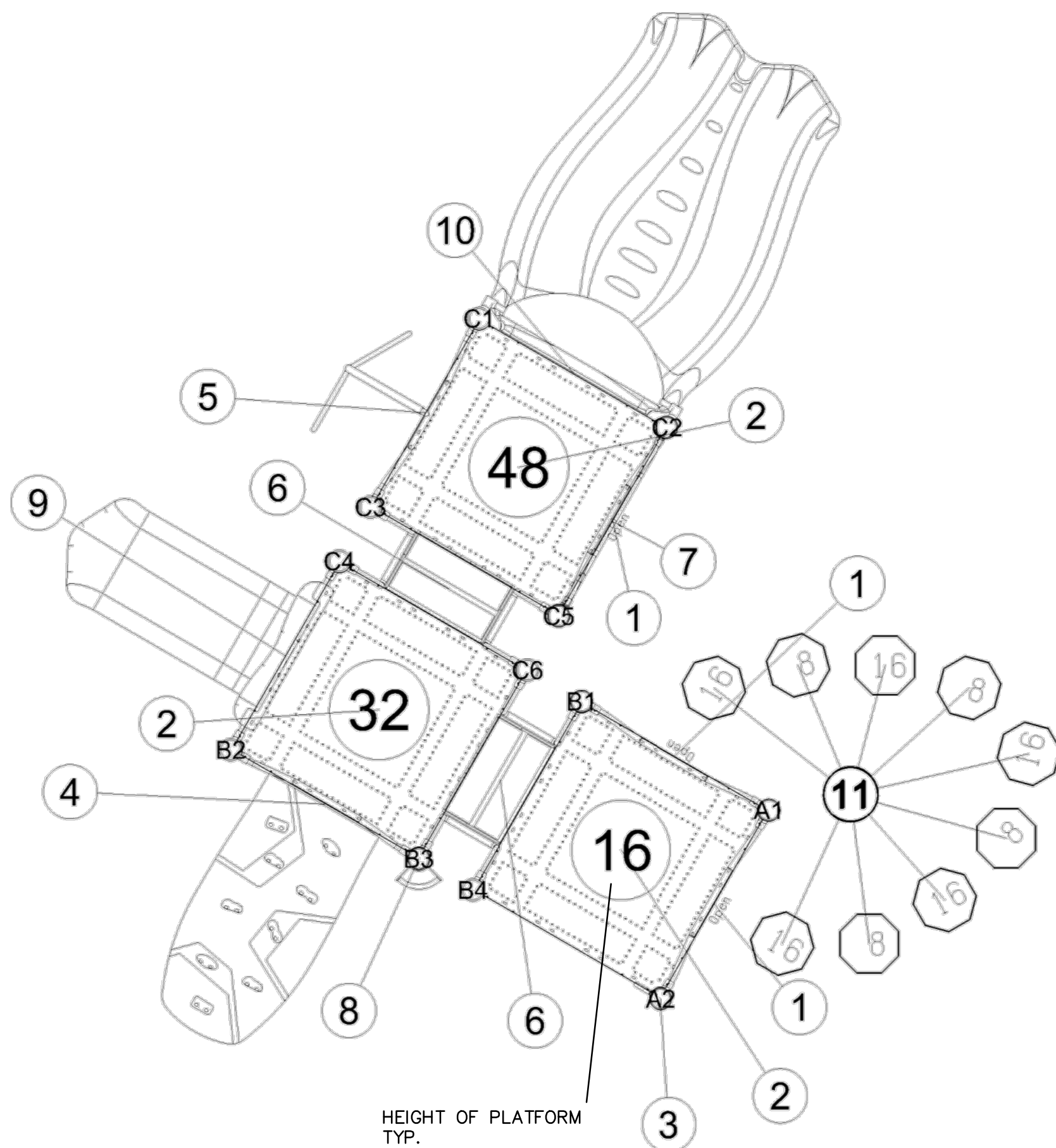
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Washoe County School District
Rio Wrangler Elementary School
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Reno, Nevada 89521

LANDSCAPE PLAN
AUGUST 20, 2021
H+K Project No: 2001
L100

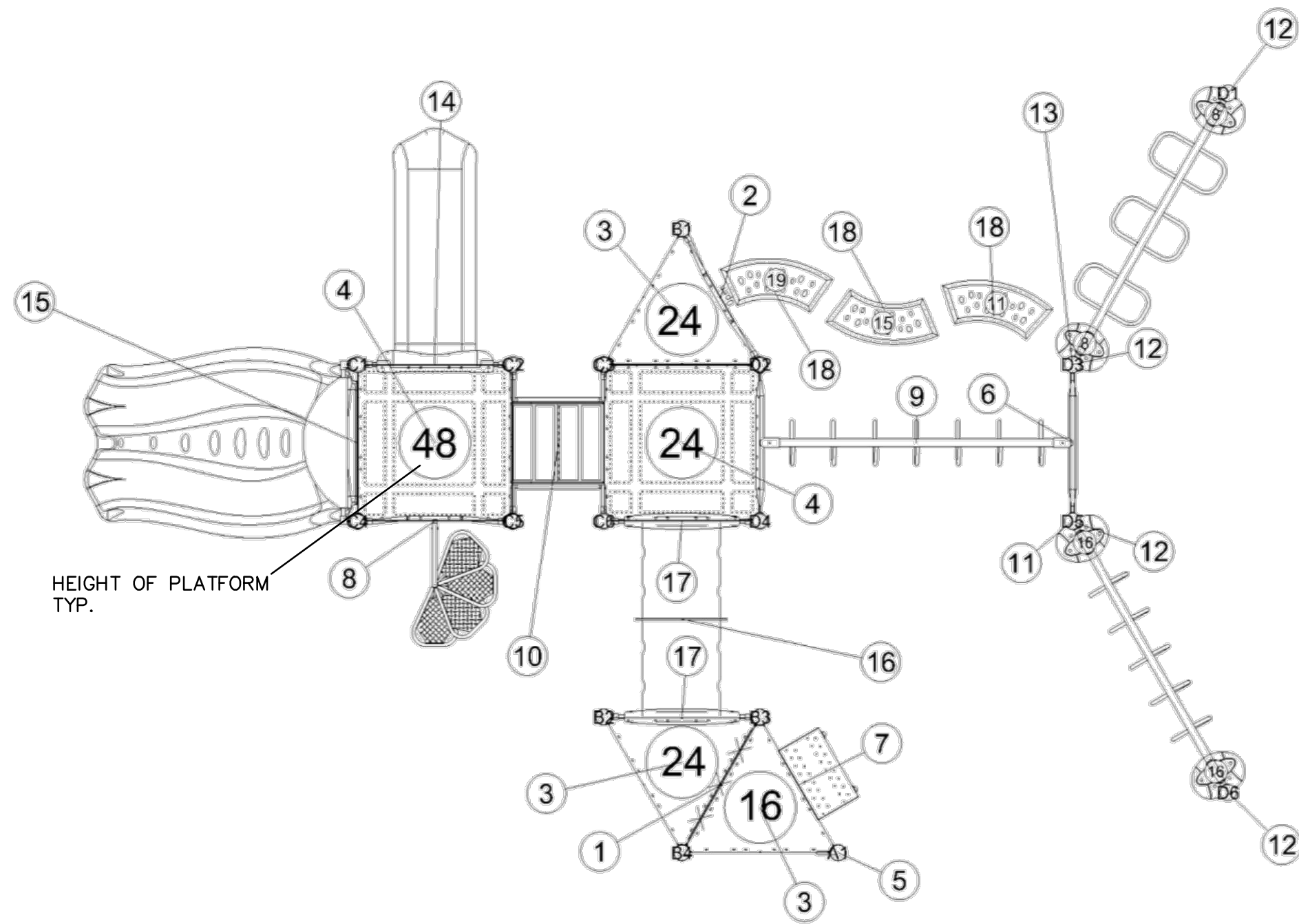




ITEM	COMP	DESCRIPTION
1	270-0112	UNITARY ENCLOSURE
2	270-0130	SQUARE PLATFORM
3	370-0016	GRAB BAR ASSEMBLY
4	370-0037	ASCEND ROCK CLIMBER 32'-40'
5	370-0482	DOUBLE WING CLIMBER 32'-48'
6	370-0486	18" TRANSITION STAIR W/BARR
7	370-0482	TRIFURC BRANCH CLIMBER 48"
8	370-1623	CRUNCH BAR STATION
9	470-0514	ROCKY ROLL SLIDE 24' - 32'
10	470-0755	LUGE SLIDE 48'-56'
11	566-0508	SINGLE POOL WALK 8'-16'

NOTE:
REFER TO PROJECT MANUAL / SPECIFICATIONS
FOR PLAY FIELD EQUIPMENT & STRUCTURES
SPECIFICATIONS.

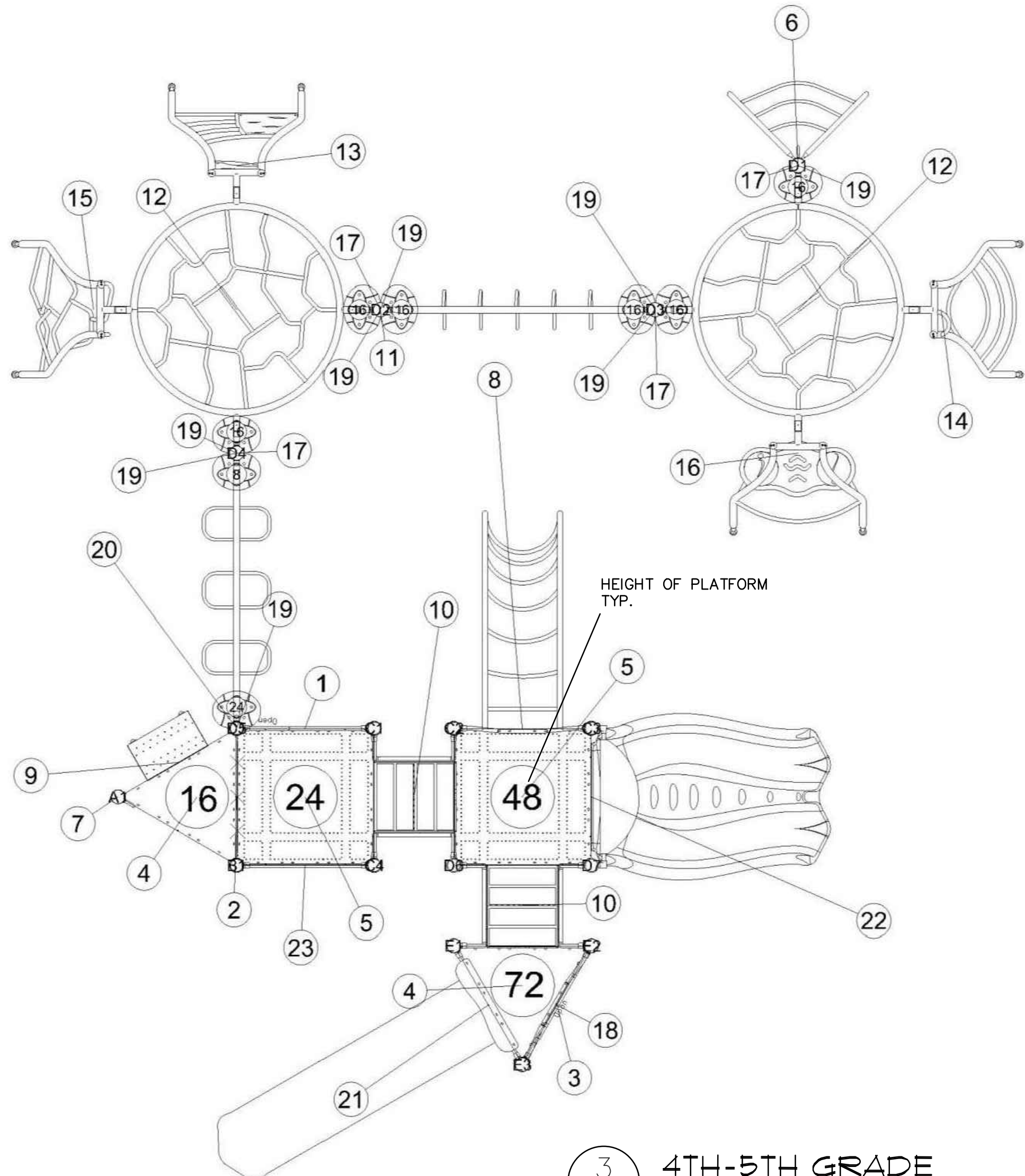
1
L101
KINDERGARTEN
PLAY STRUCTURE
NTS



ITEM	COMP	DESCRIPTION
1	270-0050	8" CLOSURE PLATE
2	270-0112	UNITARY ENCLOSURE
3	270-0129	TRIANGLE PLATFORM
4	270-0130	SQUARE PLATFORM
5	370-0016	GRAB BAR ASSEMBLY
6	370-0247	END RUNGS
7	370-0313	SINGLE STEP
8	370-0382	FAN CLIMBER 40" - 48"
9	370-0412	LONG STR. TRIANGLE OH. DK. TC
10	370-0467	24" TRANSITION STAIR W/BARR
11	370-0710	TRIANGLE TRAVERSE
12	370-1608	OVISTEP LAUNCH PAD
13	370-1610	ATHLETIC ARCH OH
14	470-0507	ROCKY ROLL SLIDE 40' - 48"
15	470-0755	LUGE SLIDE 48'-56'
16	570-0060	STRAIGHT TUNNEL W/ PORTS A
17	570-0785	TUNNEL PANEL ASSEMBLY
18	580-1312	NOVO ARC BENCH

NOTE:
REFER TO PROJECT MANUAL / SPECIFICATIONS
FOR PLAY FIELD EQUIPMENT & STRUCTURES
SPECIFICATIONS.

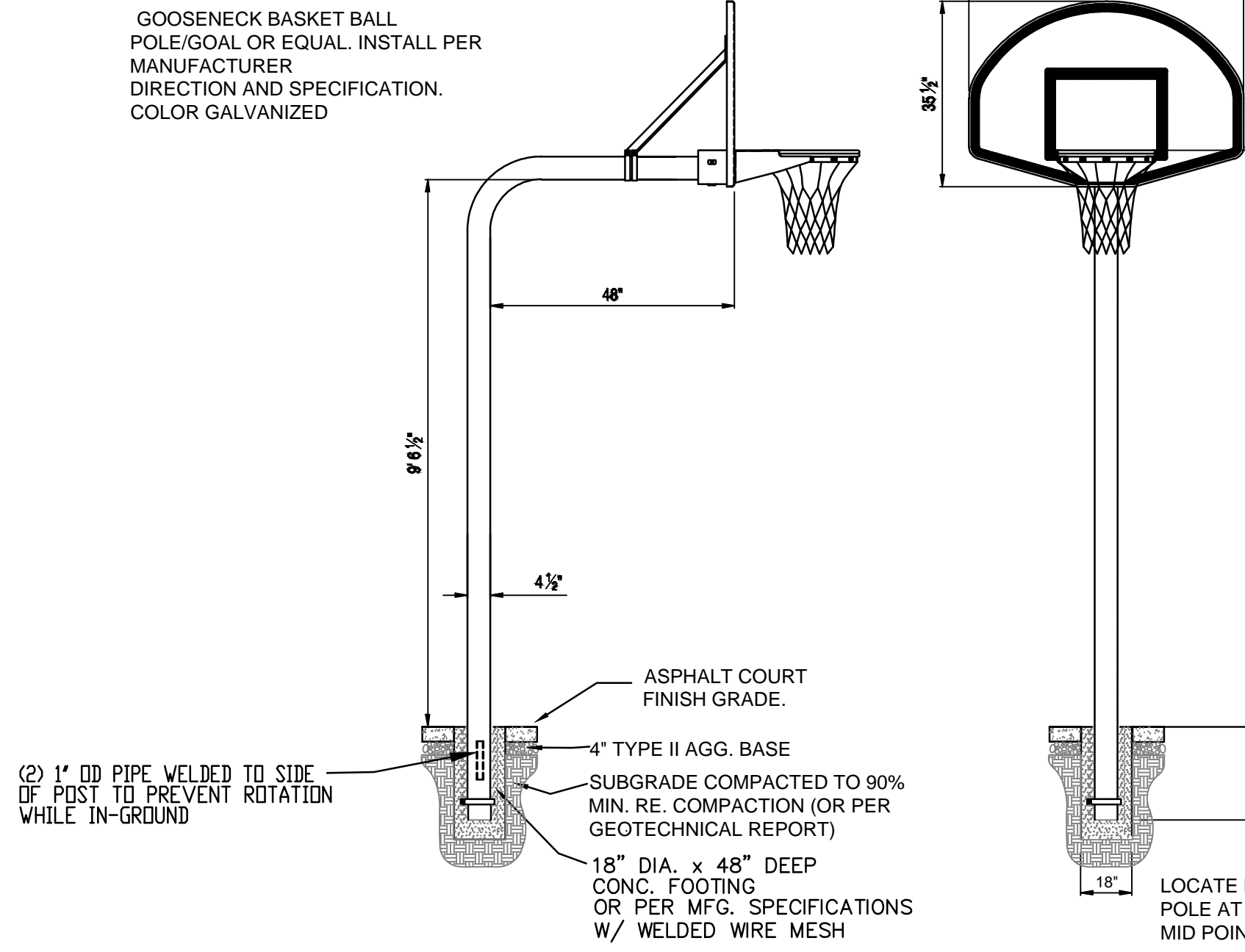
2
L101
1ST - 3RD GRADE
PLAY STRUCTURE
NTS



ITEM	COMP	DESCRIPTION
1	270-0001	OFFSET ENCLOSURE
2	270-0050	8" CLOSURE PLATE
3	270-0112	UNITARY ENCLOSURE
4	270-0129	TRIANGLE PLATFORM
5	270-0130	SQUARE PLATFORM
6	370-0003	VITAL VORTEX CLIMBER
7	370-0016	GRAB BAR ASSEMBLY
8	370-0148	LOOP CLIMBER 32' - 48"
9	370-0313	SINGLE STEP
10	370-0467	24" TRANSITION STAIR W/BARR
11	370-0710	TRIANGLE TRAVERSE
12	370-0829	PLEXUS OVERHEAD
13	370-0830	PLEXUS HOLE CLIMBER
14	370-0831	PLEXUS RUNG CLIMBER
15	370-0832	PLEXUS TANGLE CLIMBER
16	370-0833	PLEXUS STEP CLIMBER
17	370-0834	OVERHEAD POST ATTACHMENT
18	370-0865	TREE BRANCH CLIMBER 72"
19	370-1608	OVISTEP LAUNCH PAD
20	370-1610	ATHLETIC ARCH OH
21	470-0753	VELO SLIDE 64'-72"
22	470-0755	LUGE SLIDE 48'-56"
23	570-0394	PIPE WALL

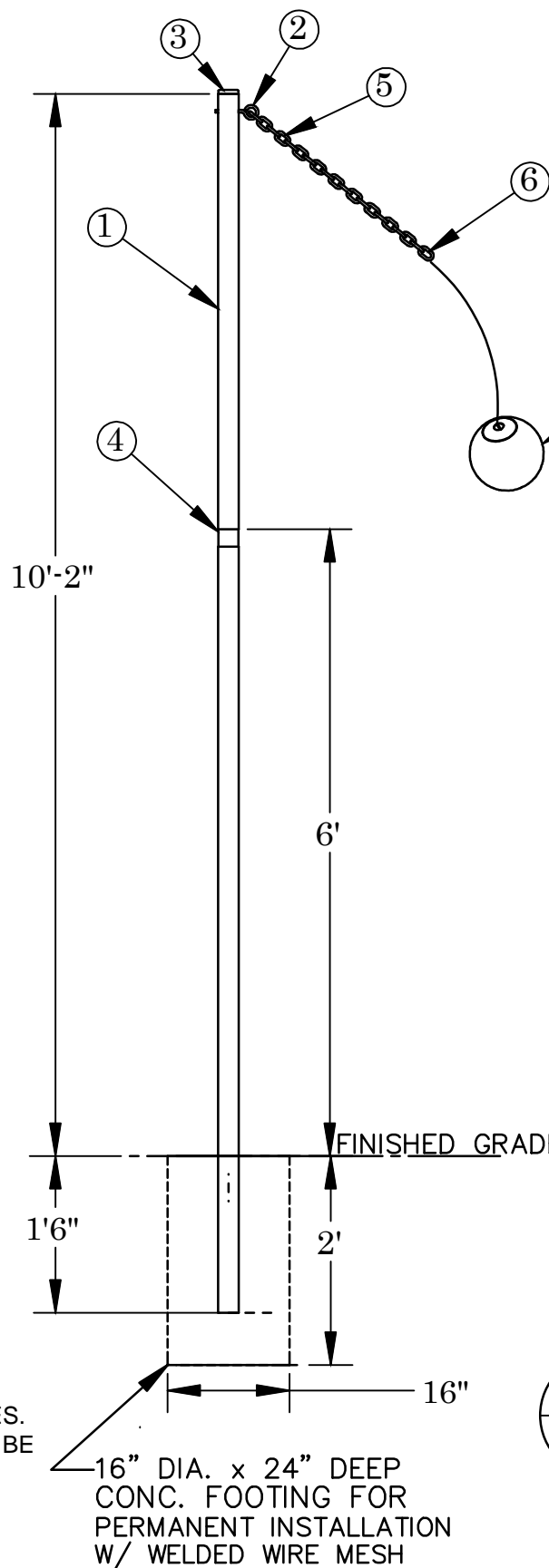
NOTE:
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FOR PLAY FIELD EQUIPMENT & STRUCTURES
SPECIFICATIONS.

3
L101
4TH-5TH GRADE
PLAY STRUCTURE
NTS



4
L101
BASKETBALL GOAL
N.T.S.

NOTE:
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SPECIFICATIONS.



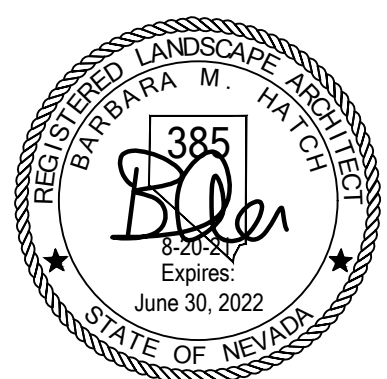
PARTS LIST

ITEM	QTY.	PART NO.	DESCRIPTION
1	1	F04TB001	2-3/8" GALV. POST @ 11'-8"
2	1	P013EB03	3/8" EYE WELDED TO POST
3	1	P03TB009	WELDED GALVINIZED CAP
4	1	F12TB000	RED FOUL MARK PAINTED TO POST
5	1	F01TB001	3/16" GALV. CHAIN @ 38"
6	1	P01TB001	5/8" SWIVEL HARNESS SNAP
7	1	P22TB000	BUTYL RUBBER BALL w/ ROPE

INSTALLATION
LOCATE THE CENTER OF THE COURT. DIG A
FOOTING AS SHOWN. IF A SLEEVE IS TO BE
USED, REFER TO THE SLEEVE INSTALLATION
DRAWINGS.
PLACE THE POST IN THE FOOTING HOLE AND
SUPPORT IN A PLUMB AND LEVEL POSITION.
POUR CONCRETE INTO THE FOOTINGHOLE AND
MAKE SURE THAT THE TOP OF THE FOOTING
SLOPES AWAY FROM THE POST FOR
DRAINAGE.
ALLOW THE CONCRETE TO SET AT LEAST 42
HOURS BEFORE ATTACHING THE BACKBOARD
AND GOAL.

5
L101
TETHERBALL ASSEMBLY
N.T.S.

NOTE:
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FOR PLAY FIELD EQUIPMENT & STRUCTURES
SPECIFICATIONS.



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Date Revision

Date Revision

Date Revision

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Washoe County School District
Rio Wrangler Elementary School
Volume 1 - Site
10600 Green Pasture Drive
Reno, Nevada 89521

LANDSCAPE PLAN

AUGUST 20, 2021
H+K Project No: 2001

L101

100% CONSTRUCTION
DOCUMENTS



OPEN SPACE

PROVIDE SLEEVING FOR DRIP IRRIGATION
ACROSS EXISTING PATH AT DIRECTION
OF OFFSITE MAINTENANCE. SEE NOTE
LEFT.

PROVIDE SLEEVING FOR DRIP IRRIGATION
ACROSS EXISTING PATH AT DIRECTION
OF OFFSITE MAINTENANCE. SEE NOTE
RIGHT.

THE IRRIGATION CONTRACTOR SHALL INSTALL ALL IRRIGATION SLEEVES PRIOR TO PAVING. COORDINATE WITH THE GENERAL CONTRACTOR. SLEEVES ARE SHOWN ON THIS SHEET AND ON THE CIVIL PLANS.

(S)	RAINBIRD	WRS	WIRELESS RAIN SENSOR INSTALL PER MFG. DIRECTION, SEE DETAIL SHEET L203
(G)	RAINBIRD	44LNP	1" QUICK COUPLER VALVE, 2 PIECE BODY W/ LOCKING COVER
(W)	WIRE SPlice - NOT SHOWN TO BE FIELD NOTED FOR ASBUILT DRAWINGS		
(D)	MAINLINE DRAIN 3/4" CURB STOP VALVE -NOT SHOWN- TO BE FIELD NOTED FOR ASBUILT DRAWINGS INSTALL 1 EVERY 40 L. F. AND AT EVERY VALVE MANIFOLD		
(FP)	FLUSHING END PLUG AT THE END OF ALL 3/4" PEFCO POLY TUBING NOTE LOCATIONS ON ASBUILT DRAWINGS (NOT SHOWN).		



L200

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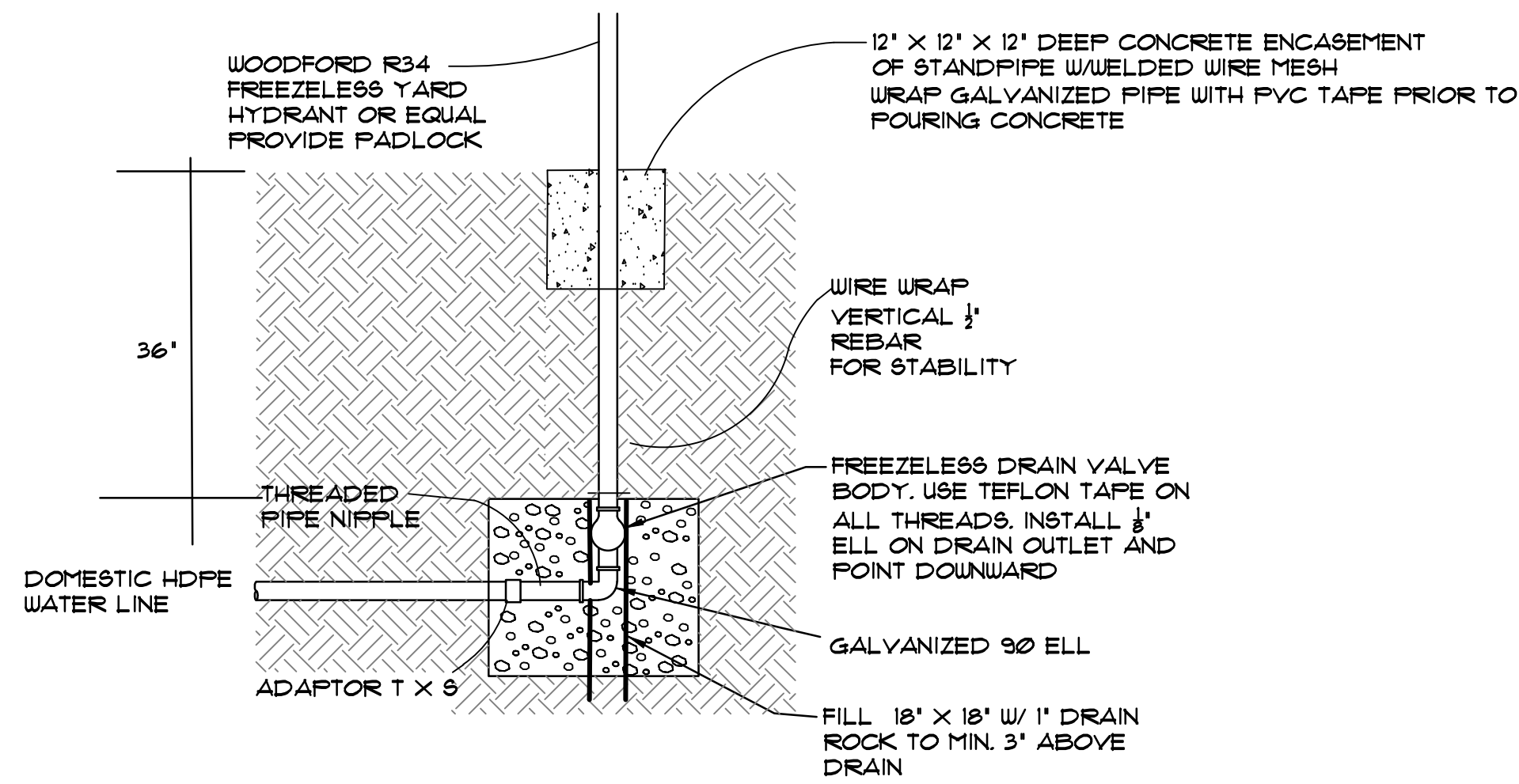
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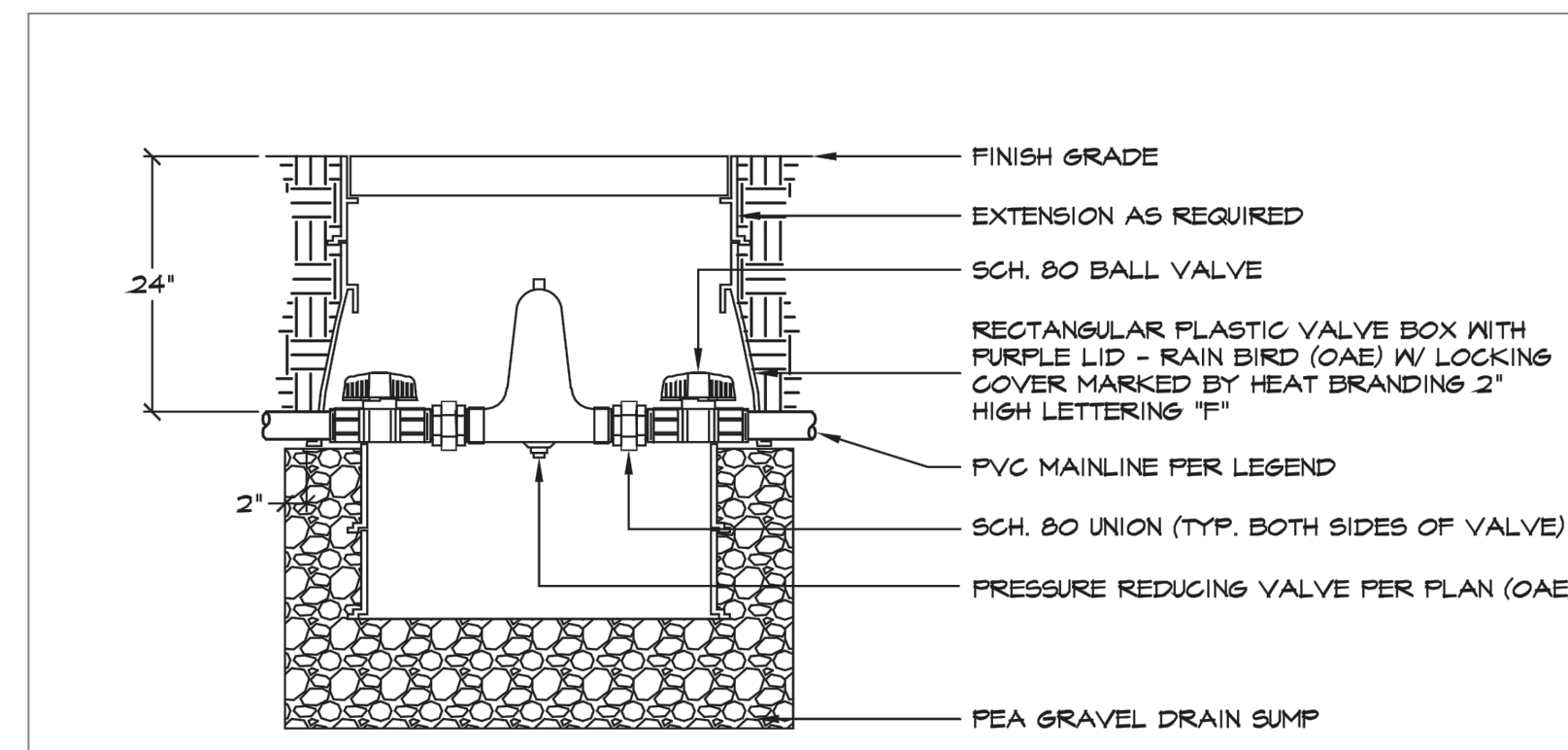
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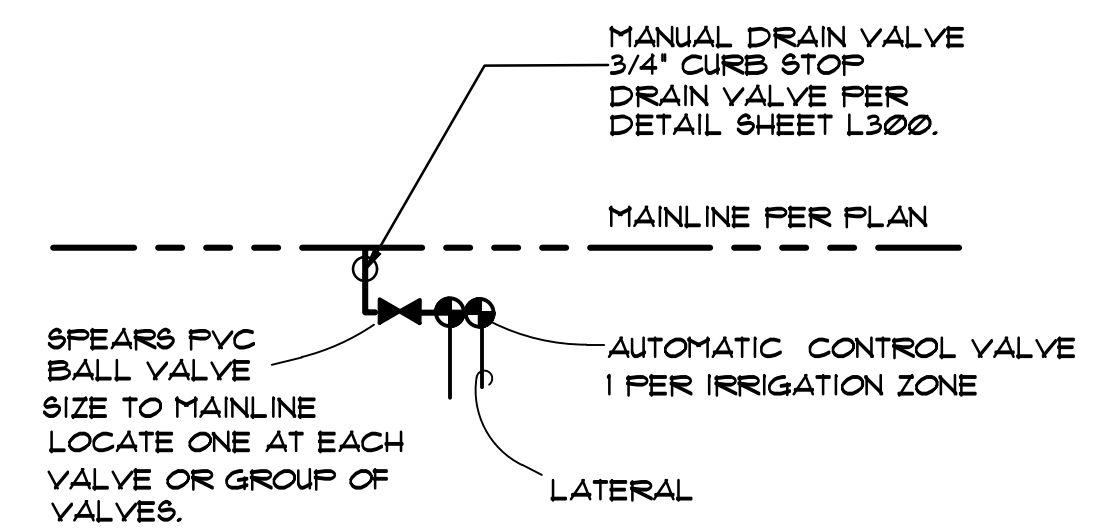
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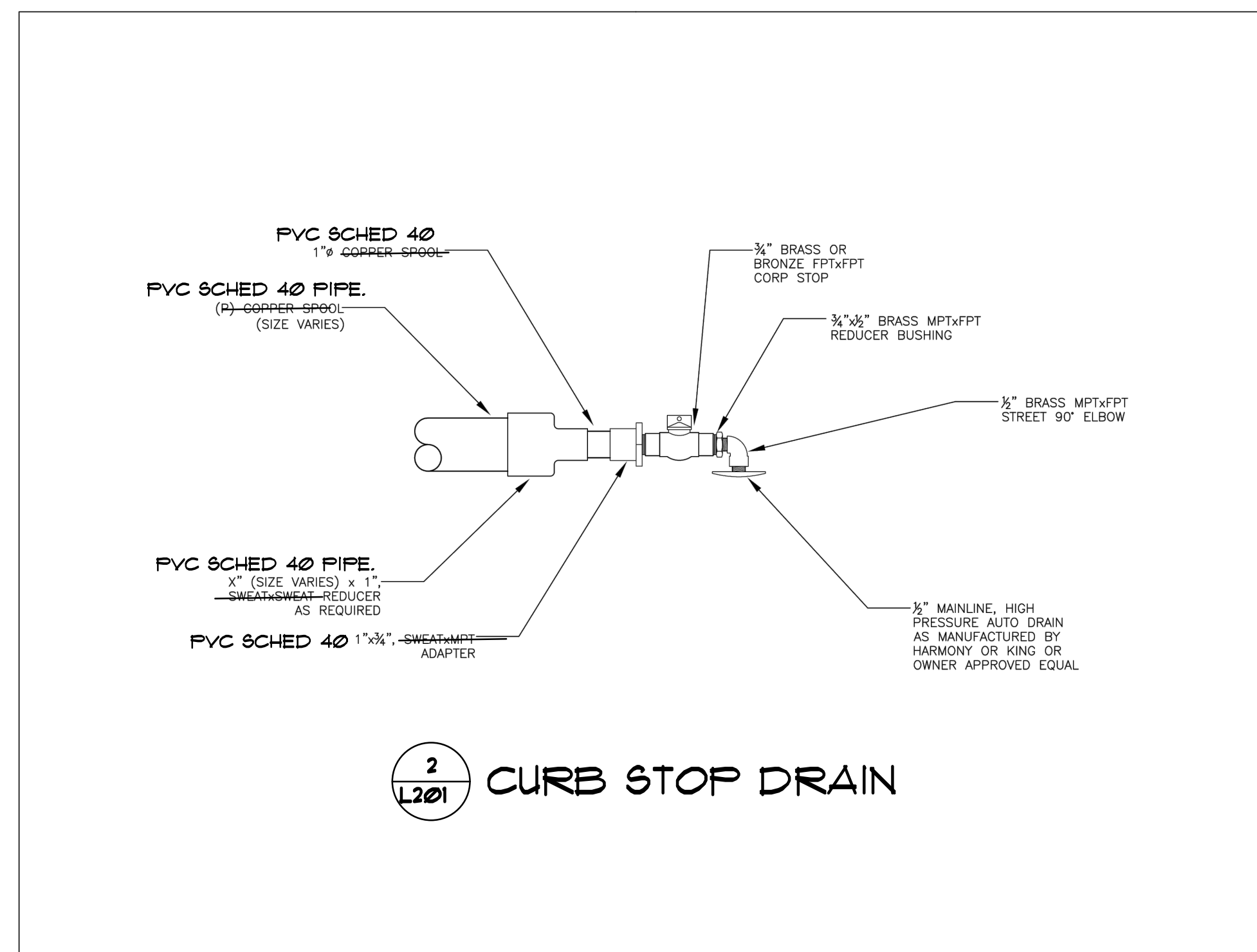
3
L201 FREEZELESS YARD HYDRANT



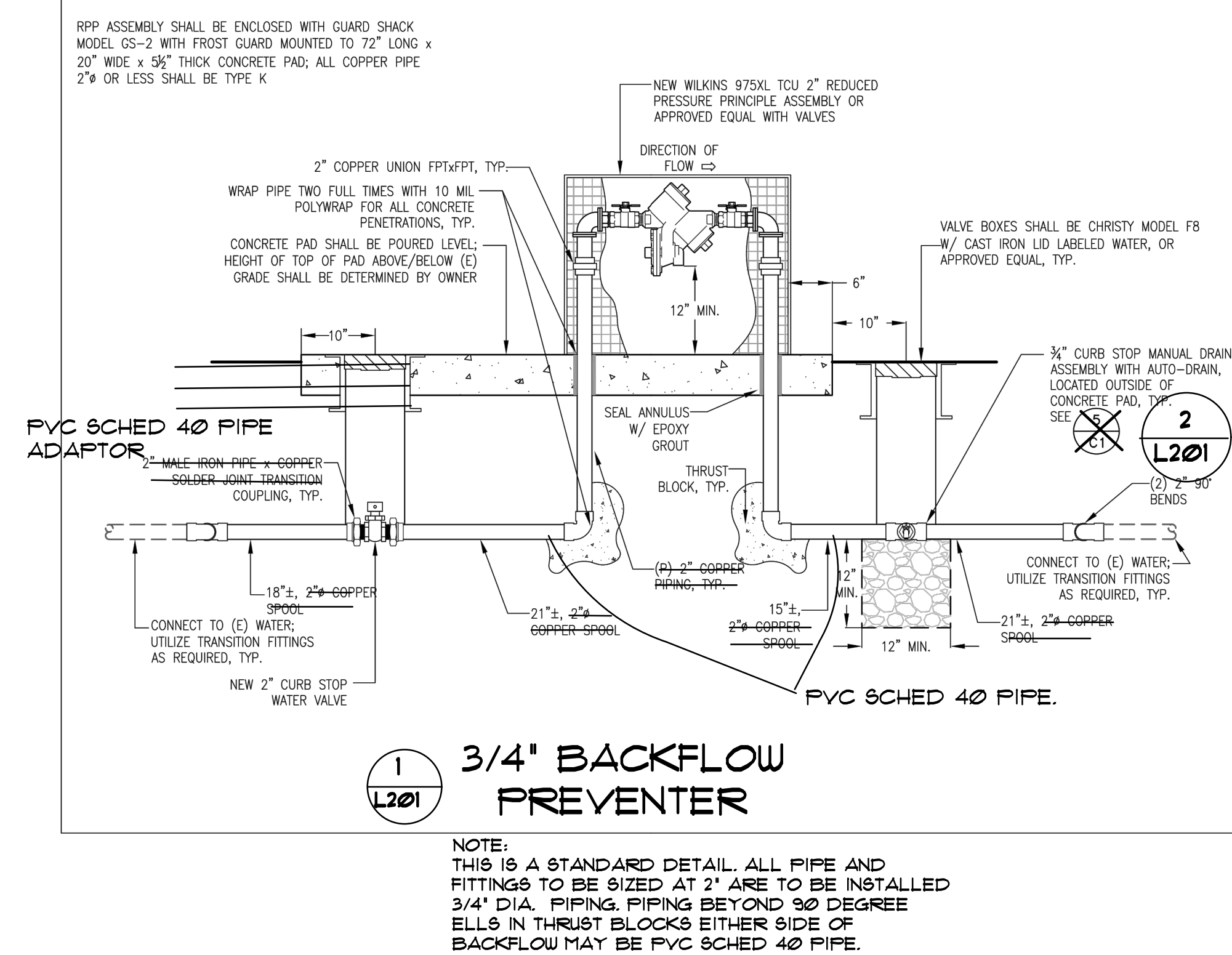
PRESSURE REGULATOR



AUTOMATIC CONTROL VALVE CONNECTION DETAIL

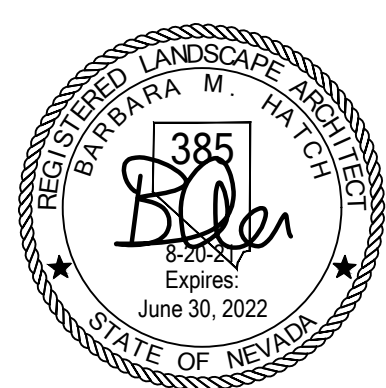


2
L201 CURB STOP DRAIN



1
L201 3/4' BACKFLOW PREVENTER

NOTE: THIS IS A STANDARD DETAIL. ALL PIPE AND FITTINGS TO BE SIZED AT 2" ARE TO BE INSTALLED 3/4" DIA. PIPING BEYOND 90 DEGREE ELLS IN THRUST BLOCKS EITHER SIDE OF BACKFLOW MAY BE PVC SCHED 40 PIPE.



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IRRIGATION PLAN
AUGUST 20, 2021
H+K Project No: 2001

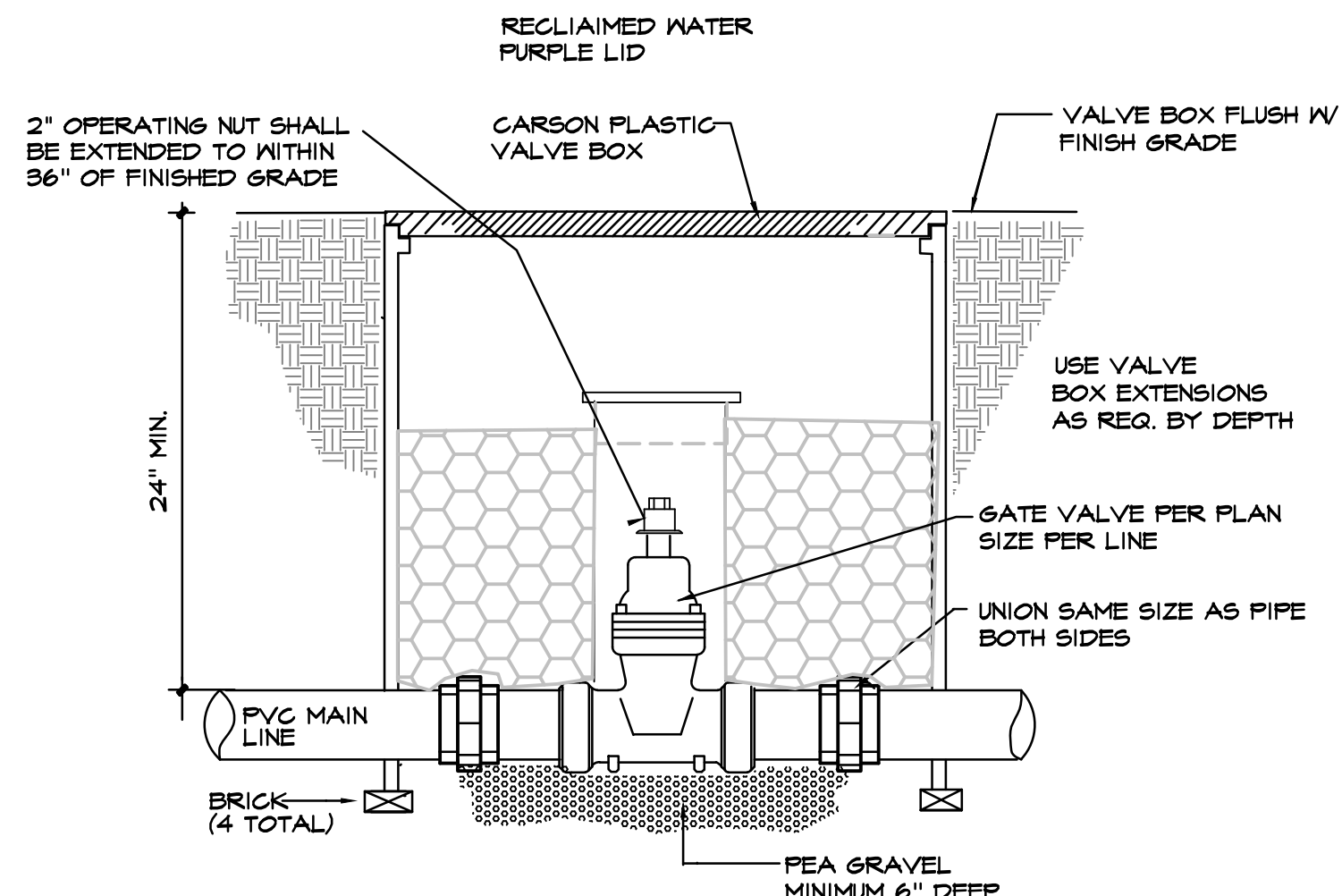
L201



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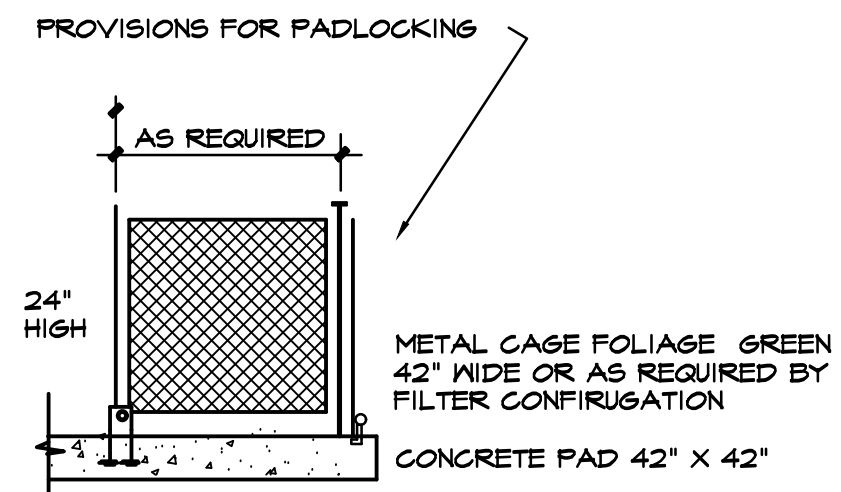
IRRIGATION GENERAL NOTES

- ALL MATERIALS AND CONSTRUCTION SHALL BE IN ACCORDANCE WITH THESE PLANS, THE REQUIREMENTS OF THE SCHOOL DISTRICT, THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, LOCAL BUILDING CODES, ORDINANCES, AND OTHER CODES OR REGULATIONS THAT APPLY.
- ALL PIPING AND WIRING UNDER PAVING SHALL BE INSTALLED IN SLEEVES. PIPING AND CONTROL WIRES UNDER PAVEMENT SHALL BE INSTALLED IN SEPARATE SLEEVES. SLEEVE SIZE SHALL BE A MINIMUM OF TWICE (2X) O.D. DIAMETER OF THE PIPE TO BE SLEEVED. SLEEVES SHALL BE EXTENDED 12"-18" BEYOND HARDSCAPE. STAKE TO MARK END. SLEEVES SHALL BE LAID A MIN. OF AT LEAST TWICE AS FAR APART AS THE SLEEVE SIZE.
- IRRIGATION SLEEVES UNDER PAVEMENT SHALL BE INSTALLED 24" BELOW TOP PAVEMENT. THE TRENCH SHALL BE CLEANED FREE OF ALL ROCK & DEBRIS, AND BACKFILLED WITH SAND TO A MINIMUM DEPTH OF 6" OVER THE SLEEVE. PIPE UNDER PAVEMENT SHALL BE SCH. 40 P.V.C. PIPE.
- ALL MAIN LINES SHALL BE PRESSURE TESTED AT 150 PSI FOR A MINIMUM 2.5 HOUR PERIOD PRIOR TO BACKFILLING OF TRENCHES. IF ANY LEAKS ARE PRESENT THEY SHALL BE CORRECTED AND LINES SHALL BE RE-TESTED PRIOR TO BACKFILLING TRENCHES.
- PIPE SIZES SHALL CONFORM TO THOSE SHOWN ON THE DRAWINGS. NO SUBSTITUTIONS OF SMALLER PIPE SIZES SHALL BE PERMITTED, BUT SUBSTITUTIONS OF LARGER SIZES MAY BE APPROVED. ALL DAMAGED AND REJECTED PIPE SHALL BE REMOVED FROM THE SITE AT THE TIME OF SAID REJECTION.
- THE IRRIGATION CONTRACTOR SHALL FLUSH ALL LATERALS PRIOR TO INSTALLING EMITTERS.
- THIS DESIGN IS DIAGRAMMATIC. ALL PIPING, VALVES, ETC. SHOWN OUTSIDE OF THE PLANTER AREAS IS FOR DESIGN CLARIFICATION ONLY AND SHALL BE INSTALLED IN THE PLANTER AREAS.
- IT IS THE RESPONSIBILITY OF THE IRRIGATION CONTRACTOR TO FAMILIARIZE HIMSELF WITH ALL GRADE DIFFERENCES, LOCATION OF WALLS, RETAINING WALLS, STRUCTURES AND UTILITIES. THE IRRIGATION CONTRACTOR SHALL REPAIR OR REPLACE ALL ITEMS DAMAGED BY HIS WORK. HE SHALL COORDINATE HIS WORK WITH OTHER CONTRACTORS, FOR THE LOCATION AND INSTALLATION OF PIPE SLEEVES AND LATERALS UNDER ROADWAYS AND PAVING.
- SHOULD DISCREPANCIES IN THE PLANS OR FIELD MODIFICATIONS BE REQUIRED, CONTACT THE LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION FOR RESOLUTION OR CLARIFICATION.
- DO NOT WILLFULLY INSTALL THE IRRIGATION SYSTEM AS SHOWN ON THE DRAWINGS WHEN IT IS OBVIOUS IN THE FIELD THAT UNKNOWN OBSTRUCTIONS, GRADE DIFFERENCES OR DIFFERENCES IN THE AREA DIMENSIONS EXIST THAT MIGHT NOT HAVE BEEN CONSIDERED IN THE ENGINEERING. SUCH OBSTRUCTIONS OR DIFFERENCES SHOULD BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT. IN THE EVENT THIS NOTIFICATION IS NOT PERFORMED, THE IRRIGATION CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ANY REVISIONS NECESSARY.
- ALL IRRIGATION EQUIPMENT NOT OTHERWISE DETAILED OR SPECIFIED SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.
- THE CONTRACTOR SHALL AT HIS OWN EXPENSE, LOCATE ALL UNDERGROUND UTILITIES WHICH MAY AFFECT HIS OPERATION DURING CONSTRUCTION AND SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO THE SAME.
- THE CONTRACTOR SHALL USE EXTREME CAUTION WHEN WORKING NEAR OVERHEAD OR UNDERGROUND POWER AND/OR TELEPHONE, WATER, GAS AND SEWER FACILITIES SO AS TO SAFELY PROTECT ALL UTILITIES, PERSONNEL, AND EQUIPMENT, AND SHALL BE RESPONSIBLE FOR ALL COSTS AND LIABILITY IN CONNECTION THEREWITH.
- THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES NECESSARY TO PROTECT EXISTING IMPROVEMENTS WHICH ARE TO REMAIN IN PLACE, FROM DAMAGE, AND ALL SUCH IMPROVEMENTS DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPAIRED OR RECONSTRUCTED SATISFACTORY TO THE OWNER AT THE EXPENSE OF THE CONTRACTOR.
- AN OPEN TRENCH INSPECTION OF THE REDUCED PRESSURE PRINCIPLE BACKFLOW DEVICE SHALL BE PERFORMED BY THE WATER PURVEYOR PRIOR TO OPERATING THE IRRIGATION SYSTEM.
- THE IRRIGATION CONTROLLER SHALL BE WIRED DIRECTLY TO THE POWER SOURCE. IT SHALL BE THE RESPONSIBILITY OF THE LANDSCAPE CONTRACTOR TO SUPPLY AND WIRE TO THE CONTROLLER LOCATION. CONNECTING THE CONTROLLER TO THE POWER SOURCE SHALL BE THE RESPONSIBILITY OF A LICENSED ELECTRICAL CONTRACTOR. THE INSTALLATION SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ANY LOCAL CODES OR ORDINANCES THAT APPLY. IT SHALL BE THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO COORDINATE THE POWER SOURCE AND EXACT LOCATION OF THE CONTROLLER WITH THE OWNER'S REPRESENTATIVE. FINAL CONNECTION OF THE VALVE WIRES TO THE CONTROLLER SHALL BE THE LANDSCAPE CONTRACTOR'S RESPONSIBILITY.
- INSTALL REMOTE CONTROL VALVES, PRESSURE REGULATOR AND QUICK COUPLER VALVES AS DETAILED. INSTALL R.C.V.'S TO TAGS MANUFACTURED BY T. CHRISTY, ENT. STANDARD SIZE 1 1/8" NOT STAMPED BLACK LETTERS ON YELLOW BACKGROUND ON SOLENOID WIRES. LETTERS TO CONFORM TO CONTROLLER/STATION NUMBER.
- ALL VALVE CONTROL WIRE SHALL BE SIZED PER CONTROLLER AND VALVE MANUFACTURER'S RECOMMENDATIONS, BUT NOT TO BE LESS THAN NO. 14 AWG COPPER WIRE APPROVED FOR DIRECT BURIAL IN GROUND. CONNECT WIRES AS DETAILED PER MANUFACTURER'S SPECIFICATIONS. RUN ONE (1) EXTRA CONTROL WIRE OF DIFFERENT COLOR THROUGH ALL VALVE LOCATIONS FROM THE CONTROLLER. EACH WIRE AT VALVES SHALL HAVE 24" EXCESS COILED LOOP IN VALVE BOXES. TAPE WIRES TO MAINLINE EVERY FIFTEEN FEET (15').
- ALL BACKFILL MATERIAL, OTHER THAN SAND AROUND THE MAINLINE, SHALL BE FREE OF ROCKS, CLODS AND OTHER EXTRANEOUS MATERIALS. COMPACT BACKFILL TO ORIGINAL DENSITY.
- AT JOB COMPLETION, SUPPLY OWNER WITH ONE (1) SET OF MATCHING QUICK COUPLER VALVE KEY AND HOSE SWIVEL, AND TWO (2) KEYS FOR THE CONTROLLER.
- ACCURATELY AND NEATLY MARK ALL FIELD CHANGES MADE DURING CONSTRUCTION ON A DAILY BASIS ON ONE PLAN SET. ALL DRAFTING TO BE DONE BY A COMPETENT DRAFTSMAN. SUBMIT TO OWNER FOR RECORD. DIMENSION MAINLINE OFF BACK OF CURB OR SIDE WALK, FOR REFERENCE ON CONSTRUCTION PLAN SET. LOCATE ALL RAIN SENSORS, DRAIN ON THE PLAN. A LAMINATED COLORED DIAGRAM OF THE IRRIGATION PLAN SHOWING HYDROZONES SHALL BE KEPT WITH THE IRRIGATION CONTROLLER FOR SUBSEQUENT MANAGEMENT PURPOSES.
- ALL IRRIGATION INSTALLATION AND EQUIPMENT SHALL GUARANTEED FOR A PERIOD OF ONE YEAR.
- REUSE OR RECYCLE EXCESS CONSTRUCTION MATERIAL.
- PROVIDE (1) DIGITAL COPY OF SUBMITTAL PACKAGE OF ALL IRRIGATION COMPONENTS AND MATERIALS FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO COMMENCING WORK.
- THE IRRIGATION CONTRACTOR SHALL FIELD VERIFY PRESSURE AT EACH POINT OF CONNECTION. THE SYSTEM IS DESIGNED WITH A MINIMUM OF 60 PSI AT THE METER POINT OF CONNECTION. PRESSURE REGULATING DEVICES SHALL BE REQUIRED IF THE WATER PRESSURE IS BELOW OR EXCEEDS THE RECOMMENDED PRESSURE OF THE SPECIFIED IRRIGATION DEVICES.
- CHECK VALVES OR ANTI-DRAIN VALVES ARE REQUIRED ON ALL SPRINKLER HEADS WHERE LOW POINT DRAINAGE WOULD OCCUR.



- NOTES:
- INSTALL GATE VALVES FOR ISOLATION OF MAIN.
 - GATE VALVE SHALL BE CAST IRON WITH SCREW-IN BONNET. WILKINS OR EQUAL.
 - PROVIDE 2 KEYS PER PROJECT PRIOR TO ACCEPTANCE BY THE OWNER.

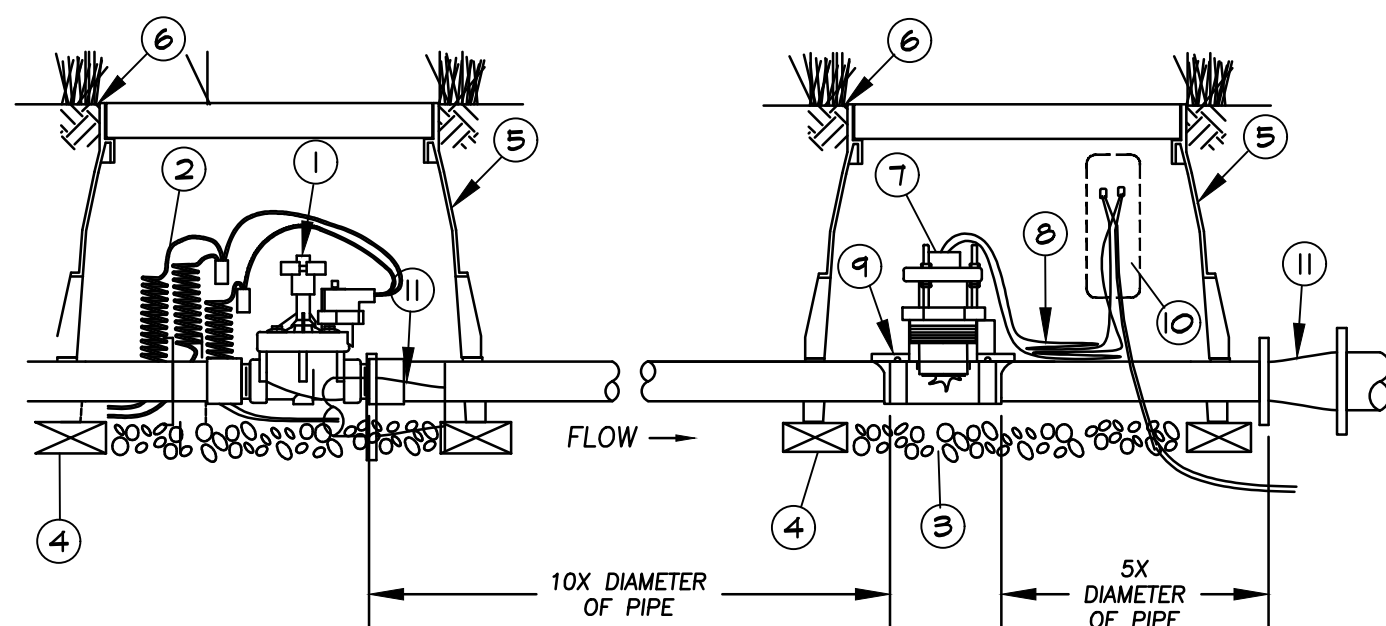
GATE VALVE



- NOTES:
- 'X' REFER TO MANUFACTURER'S CATALOG FOR CORRECT DIMENSIONS TO FIT SIZE OF SPECIFIED BACKFLOW.
 - CONCRETE FOUNDATION DIMENSIONS 42" X 42". VERIFY EXACT SIZE REQUIRED PER CONSTRUCTION CONFIGURATION OF THE FILTER. CONCRETE PAD AND AGGREGATE BASE PER SITE PEDESTRIAN CONC. FLATWORK PER CIVIL DWGS.

FILTER ASSEMBLY ENCLOSURE

NOT TO SCALE

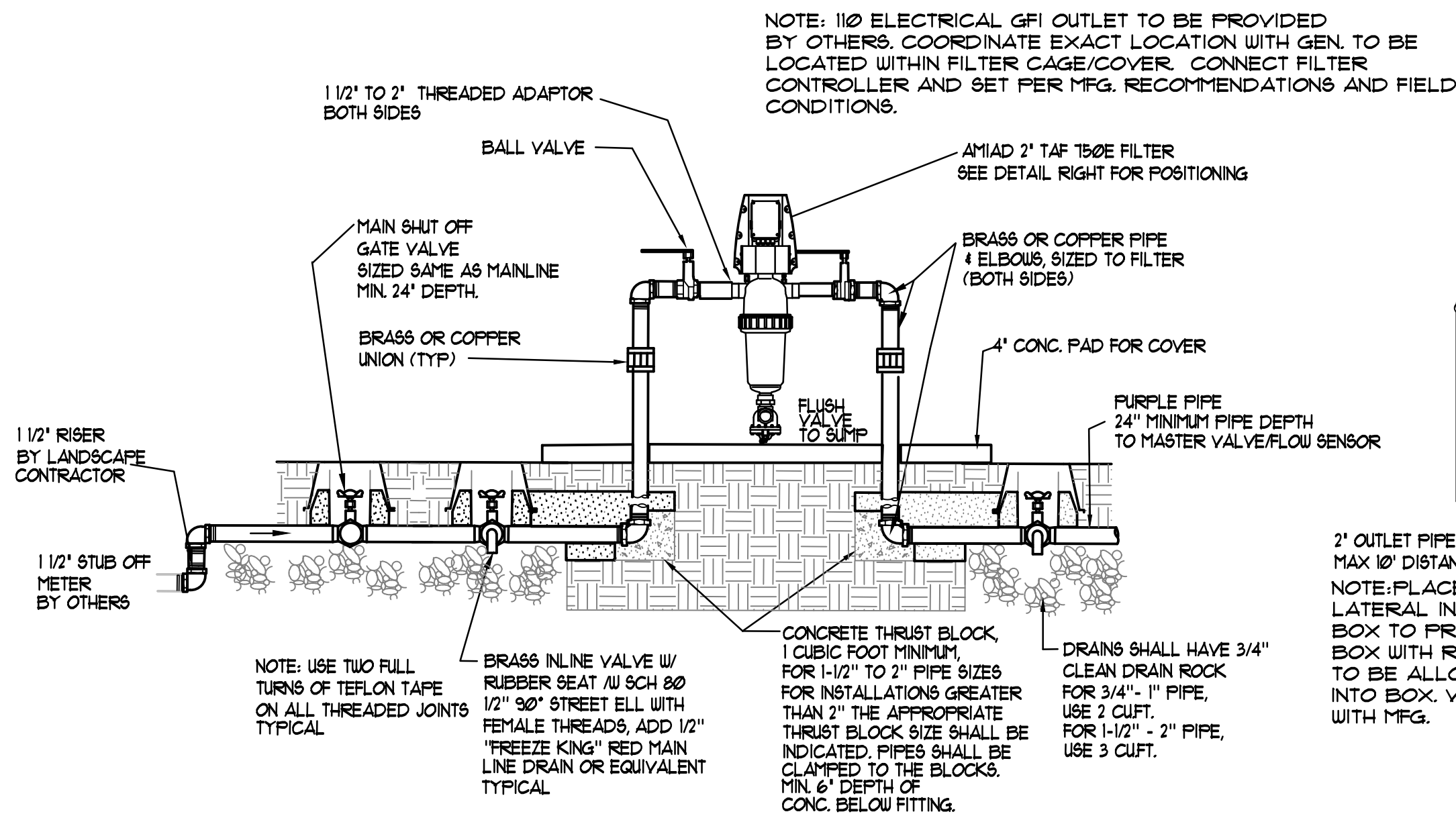


MASTER VALVE (NORMALLY CLOSED) AND INSERTION STYLE FLOW SENSOR

NOT TO SCALE

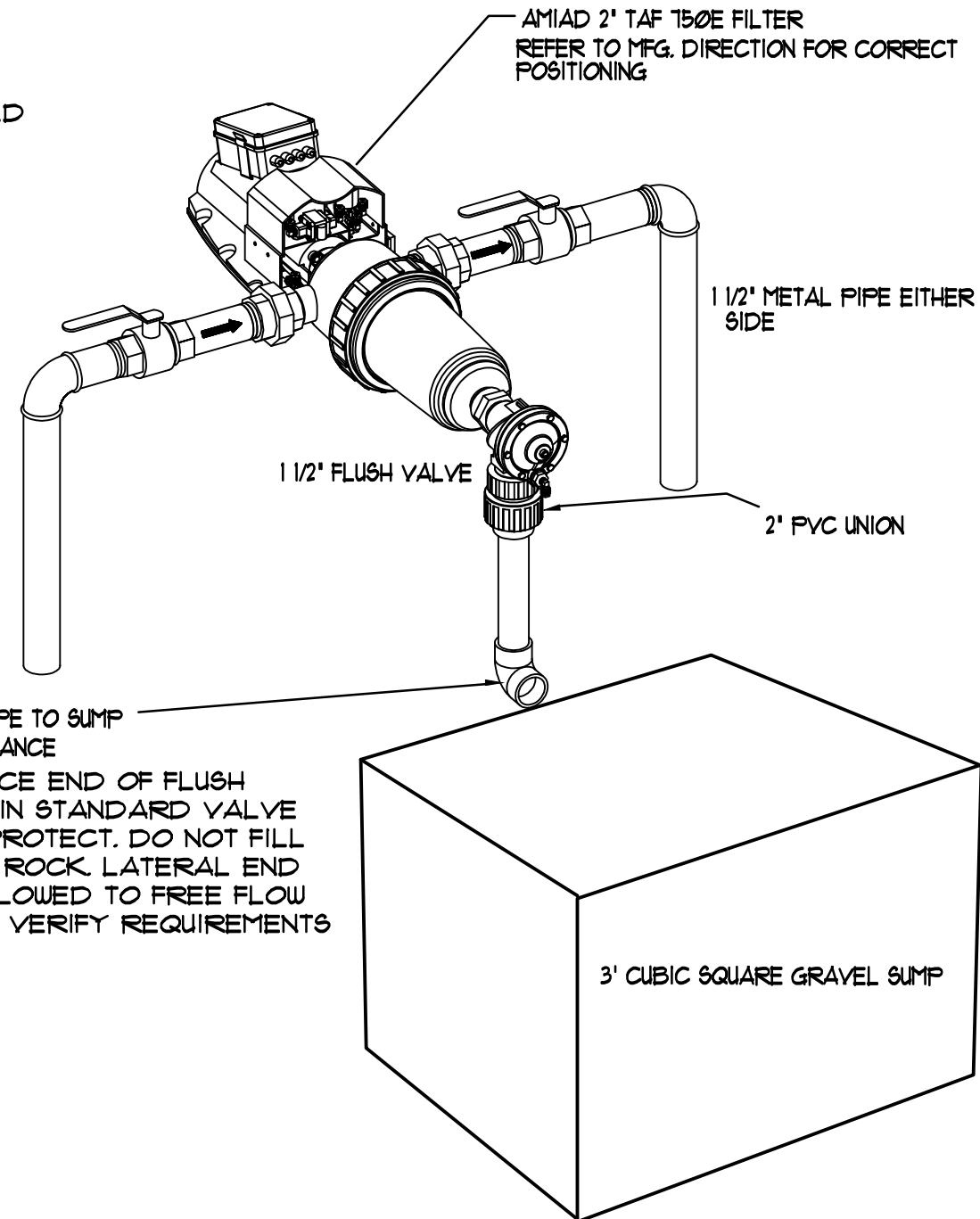
NOTE:
1. REFER TO RAIN BIRD TECHNICAL DATA FOR FLOW SENSOR INSTALLATION BASED ON PIPE SIZING PARAMETERS.

- NORMALLY CLOSED MASTER VALVE: RAIN BIRD PEB NORMALLY CLOSED MASTER VALVE
- WIRE TO CONTROLLER MASTER VALVE CIRCUIT (36-INCH EXPANSION COIL, EACH WIRE)
- 4-INCH MINIMUM DEPTH OF 3/4-INCH WASHED GRAVEL
- BRICK (1 OF 4)
- RECTANGULAR VALVE BOX WITH COVER: RAIN BIRD VB-STD
- FINISH GRADE
- FLOW SENSOR: CST F9 SERIES
- PE-CABLE TO FLOW SENSING EQUIPMENT AT CONTROLLER ASSEMBLY (36-INCH EXPANSION COIL)
- DOUBLE-STRAP SADDLE
- WIRE SPLICE: SEE RAIN BIRD DETAIL PE-SPLICE-TW FOR SPLICE. SEE FLOW SENSOR WIRING DETAIL FOR WIRING DIAGRAM
- CONCENTRIC REDUCER



IRRIGATION FILTER

NOT TO SCALE



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IRRIGATION DETAILS
AND NOTES

AUGUST 20, 2021
H+K Project No: 2001

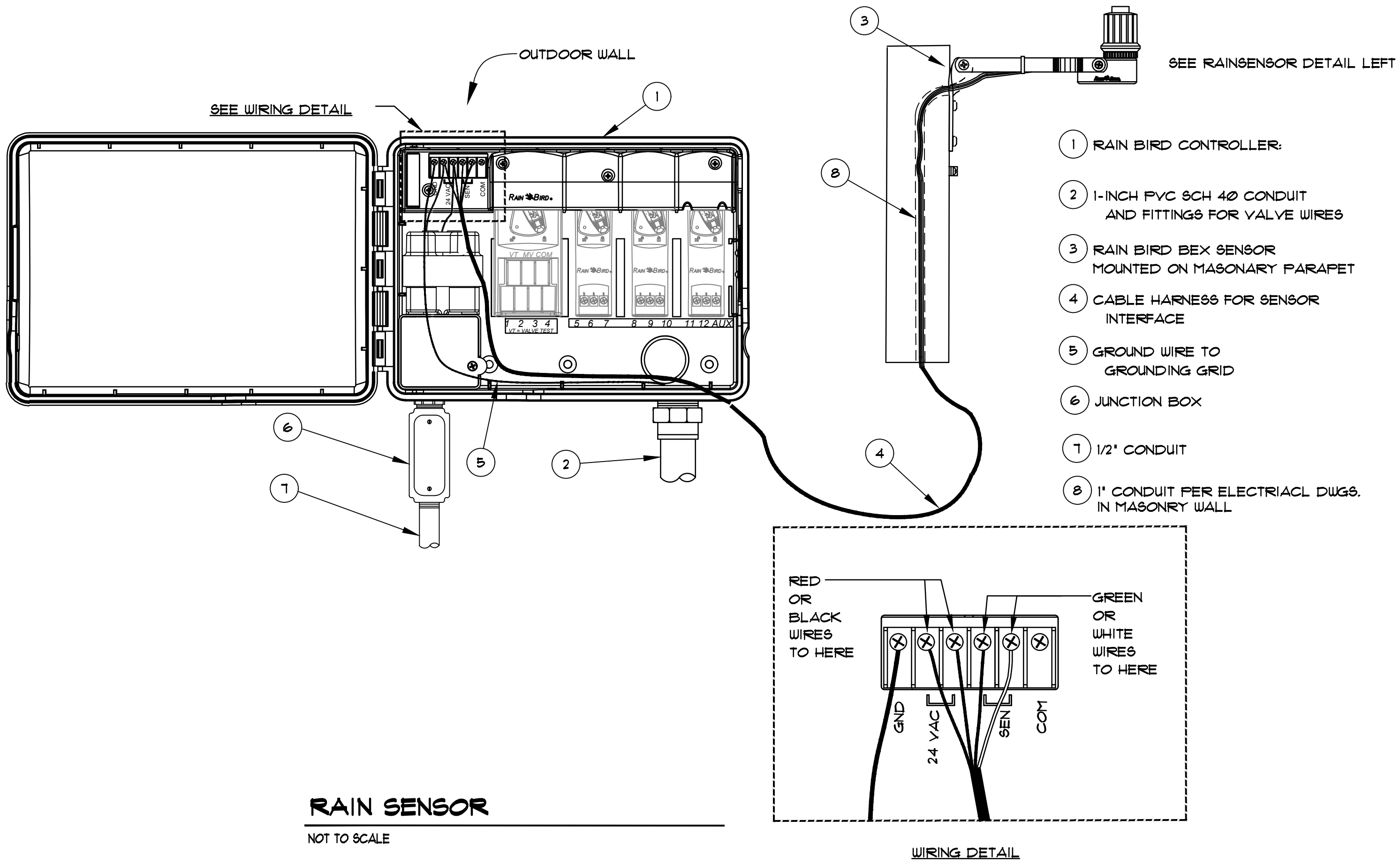
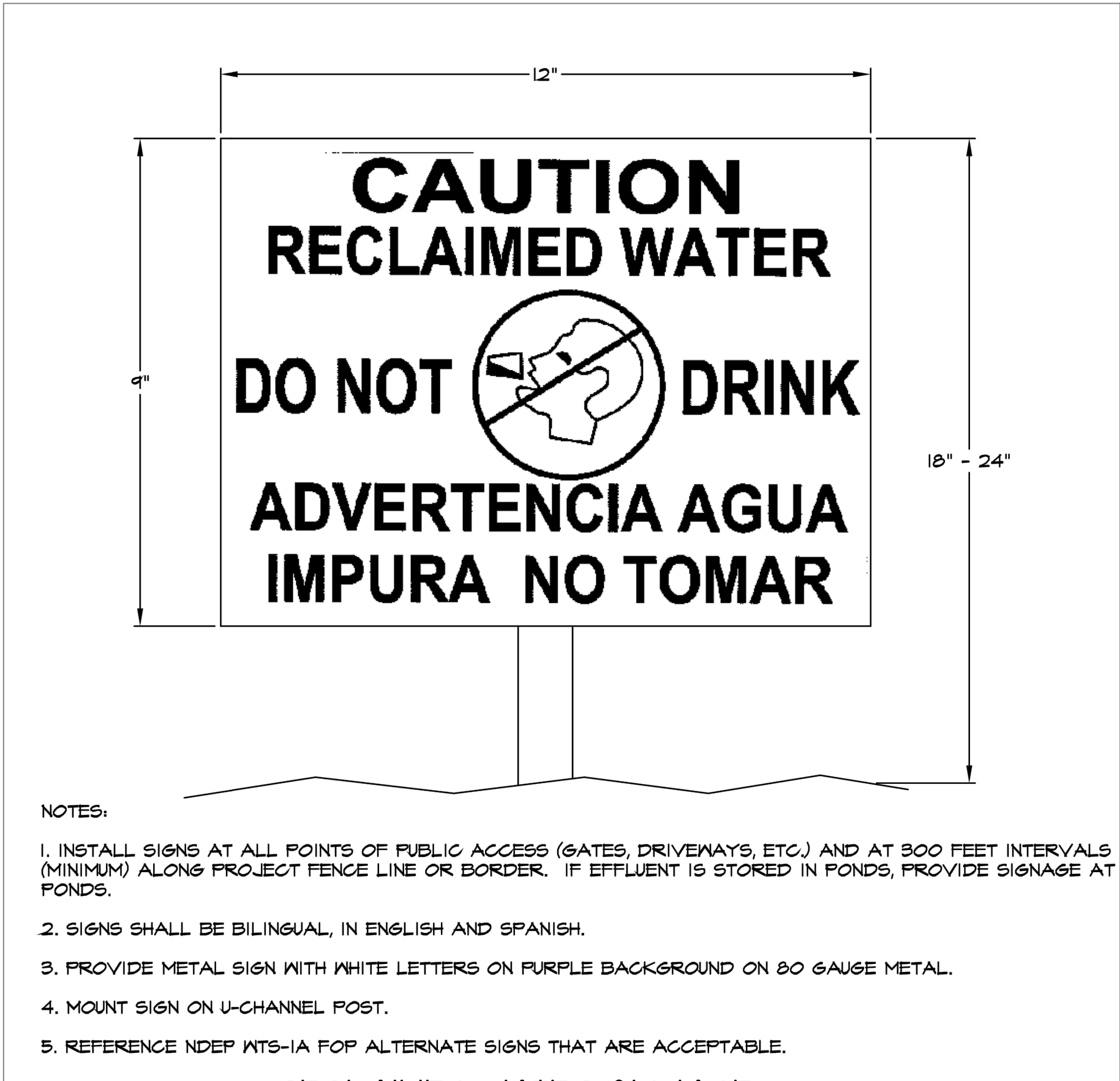
L202

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DOCUMENTS



RECLAIMED WATER NOTES

1. DESIGN
- A) THE RECLAIMED WATER IRRIGATION SYSTEM SHALL BE DESIGNED TO STANDARD POTABLE WATER SYSTEM REQUIREMENTS EXCEPT AS SPECIFIED HEREIN.
- B) THE RECLAIMED WATER IRRIGATION SYSTEM SHALL MEET DISTRIBUTION SYSTEM REQUIREMENTS INCLUDED HEREIN.
2. TRACER WIRE AND TEST STATIONS
- A) TRACER WIRE SHALL BE PROVIDED FOR ALL IRRIGATION RECLAIMED WATER PIPING 3-INCHES DIAMETER AND LARGER, BOTH WITHIN PUBLIC RIGHT-OF-WAY AND PRIVATE PROPERTY, AND SHALL BE PLACED ON TOP OF PIPE AND ATTACHED WITH DUCT TAPE AT 6 FEET MAXIMUM INTERVALS. TRACER WIRE SHALL BE LONG ENOUGH TO EXTEND FOUR (4) FEET ABOVE GROUND AND SHALL TERMINATE IN APPROPRIATE IRRIGATION CONTROL/VALVE BOX AT MAXIMUM 500 FEET INTERVALS. WIRE SHALL BE #12 AWG, INSULATED, STRANDED COPPER, THIN 600V. PRIOR TO ACCEPTANCE OF THE RECLAIMED WATERLINE(S) BY THE CITY OF SPARKS, THE CONTRACTOR SHALL PERFORM A CONTINUITY TEST AFTER BACKFILLING THE TRENCH TO THE SATISFACTION OF THE CITY OF SPARKS INSPECTOR AND/OR ENGINEER.
3. SLEEVES FOR IRRIGATION PIPING
- A) ALL IRRIGATION PIPING UNDER HARDSCAPED PUBLIC RIGHT-OF-WAY IMPROVEMENTS (ROADS, CURB & GUTTER, SIDEWALK, ETC.), THAT DOES NOT MEET THE REQUIREMENTS OF SECTION 4 OF THE DISTRIBUTION SYSTEM STANDARDS (I.E. SCH-40 PVC PIPE), SHALL BE PLACED INSIDE SLEEVES.
- B) SLEEVES SHALL BE SDR-35 PVC PIPE, COLORED PURPLE OR OTHERWISE IDENTIFIED FOR RECLAIMED WATER PER SUBSEQUENT SECTION 7 OF THIS STANDARD.
- C) SLEEVES SHALL BE SIZED BY THE DESIGN ENGINEER TO ACCOMMODATE THE IRRIGATION PIPING, BUT IN NO CASE SHALL BE LESS THAN 4-INCH DIAMETER.
- D) SLEEVES SHALL EXTEND A MINIMUM OF 3 FEET BEYOND HARDSCAPED PUBLIC RIGHT-OF-WAY IMPROVEMENTS.
- E) SLEEVES SHALL BE INSTALLED PER CITY OF SPARKS RECLAIMED WATER TREATED EFFLUENT TYPICAL TRENCH SECTION DETAIL SR-4, DESIGN DEPTH OF COVER = 4 FEET.
- F) TRACER WIRE SHALL BE INSTALLED ON ALL SLEEVES PER PREVIOUS SECTION 2 OF THIS STANDARD.
4. FILTRATION
- A) PROVIDE IN-LINE FILTRATION / STRAINER TO INSURE PROPER OPERATION OF IRRIGATION SYSTEM.
5. MANUAL DRAINS
- A) PROVIDE GRAVEL INFILTRATION PIT AT MANUAL RECLAIMED WATER TREATED EFFLUENT DRAINS. PIT SHALL BE ADEQUATELY SIZED TO PREVENT RECLAIMED WATER TREATED EFFLUENT RUNOFF.
6. HIGH WIND SHUTDOWN
- A) PROVIDE ANEMOMETER AND AUTOMATIC SYSTEM SHUTDOWN TO PREVENT AEROSOL DRIFT IF REQUIRED PER NDEP DISCHARGE PERMIT.
7. PURPLE COLORATION AND MARKINGS
- A) ALL COVERS FOR METER BOXES, VALVE BOXES, FLUSH VALVES, PRESSURE REDUCING VAULTS, AND ALL OTHER APPURTENANCES REQUIRING VAULTS OR BOXES SHALL BE PURPLE IN COLOR (PANTONE COLOR #512), LABELED "RECLAIMED WATER" OR "EFFLUENT", AND HAVE SECURED OR LOCKING LIDS. PURPLE COLORATION SHALL BE OBTAINED FROM THE MANUFACTURER OR BE APPLIED BY POWDER COATING OR EPOXY PAINT. ALL APPURTENANCES SHALL HAVE A PURPLE TAG ATTACHED WITH THE WORDING "WARNING RECYCLED/RECLAIMED WATER DO NOT DRINK" AND "AVISO AGUA IMPURA NO TOMAR" (T. CHRISTY ENTERPRISES, MAXI VALVE IDENTIFICATION TAG, ID-MAX-P2-RC006 OR CITY OF SPARKS APPROVED EQUAL). A DEBRIS CAP WITH PURPLE COLORATION SHALL BE INSTALLED INSIDE ALL ROUND BOXES.
- B) ALL ABOVE GROUND PIPING SHALL BE EPOXY PAINTED PURPLE (PANTONE COLOR #512) AND HAVE A PURPLE TAG ATTACHED WITH THE WORDING "WARNING RECYCLED/RECLAIMED WATER DO NOT DRINK" AND "AVISO AGUA IMPURA NO TOMAR" (T. CHRISTY ENTERPRISES, MAXI VALVE IDENTIFICATION TAG, ID-MAX-P2-RC006 OR CITY OF SPARKS APPROVED EQUAL).
- C) ALL BURIED IRRIGATION PIPING UPSTREAM OF AN ELECTRICAL CONTROL VALVE SHALL BE PURPLE PLASTIC PIPE OR BE ENCASED IN PURPLE POLYETHYLENE OR BAGS LABELED "CAUTION: BURIED RECLAIMED WATER LINE BELOW" AT INTERVALS NO GREATER THAN 5 FEET. FOR POLYETHYLENE (PE) SERVICE PIPE, PURPLE STRIPES ARE ACCEPTABLE.
- D) ALL PIPING DOWNSTREAM OF AN ELECTRICAL CONTROL VALVE SHALL BE PURPLE PLASTIC OR HAVE PURPLE RECLAIMED MARKING TAPE PLACED ON TOP OF THE PIPE. THIS DOES NOT APPLY TO FLEXIBLE POLYETHYLENE TUBING USED IN DRIP ZONES.
8. MINIMIZE PUBLIC EXPOSURE
- A) THE EFFLUENT IRRIGATION SYSTEM SHALL BE DESIGNED AND OPERATED TO MINIMIZE EFFLUENT EXPOSURE TO THE PUBLIC.
- I) IRRIGATION TIME SCHEDULE:
- (1) IRRIGATION MAY BE SCHEDULED SEVEN DAYS PER WEEK.
- (2) DAILY IRRIGATION SHALL BE SCHEDULED TO MINIMIZE PUBLIC EXPOSURE. TYPICALLY, ONLY DRIP IRRIGATION WILL BE ALLOWED DURING DAYTIME HOURS (6:00 A.M. TO 8:00 P.M.), AND SPRAY IRRIGATION WILL BE ALLOWED DURING NIGHTTIME HOURS (8:00 P.M. TO 4:00 A.M.). SITE SPECIFIC IRRIGATION HOURS WILL BE ESTABLISHED IN THE EFFLUENT AGREEMENT WITH THE CITY OF SPARKS.
- (3) MAXIMIZE AREAS OF DRIP IRRIGATION IN LIEU OF SPRAY IRRIGATION.
- (4) ADJUST SPRAY IRRIGATION HEADS TO PREVENT AEROSOL DRIFT TOWARD PUBLIC AREAS.
- (5) ADJUST IRRIGATION DURATION TO MINIMIZE RECLAIMED WATER TREATED EFFLUENT RUNOFF.
- (6) GRADE SURFACE TO MINIMIZE RUNOFF TO PAVED TRAVELWAYS.
9. QUICK COUPLERS
- A) ALL QUICK COUPLER VALVES SHALL HAVE PURPLE, LOCKABLE COVERS (RAIN BIRD 44NP OR CITY OF SPARKS APPROVED EQUAL).
10. IRRIGATION CONTROLLERS
- A) ALL IRRIGATION CONTROLLER ENCLOSURES SHALL BE LABELED INSIDE AND OUTSIDE WARNING THAT THE SYSTEM USES RECLAIMED WATER (T. CHRISTY ENTERPRISES, CONTROLLER MARKING DECAL, PART NUMBER #ID-4100, OR CITY OF SPARKS APPROVED EQUAL).
11. HOSE BIBS
- A) HOSE BIBS SHALL NOT BE INSTALLED ON RECLAIMED WATER SYSTEMS.
- SITE STANDARDS FOR RECLAIMED WATER TREATED EFFLUENT
1. THE FOLLOWING REFERENCED DOCUMENTS SHALL SERVE AS SITE STANDARDS:
- A) TYPICAL ENGINEERING & CONSTRUCTION STANDARD SECTIONS 8 AND 8A
- B) SECTION 1820.0 OF THE UNIFORM PLUMBING CODE, LATEST EDITION (CROSS-CONNECTION TESTING)
- C) NDEP WTS-1A: GENERAL DESIGN CRITERIA FOR RECLAIMED WATER IRRIGATION USE
- D) NDEP WTS-1B: GENERAL CRITERIA FOR PREPARING AN EFFLUENT MANAGEMENT PLAN
- E) NDEP WTS-37: GUIDANCE DOCUMENT FOR DESIGN OF WASTEWATER DETENTION BASINS
- F) NAC 445A.275 - 445A.280, USE OF TREATED EFFLUENT (REUSE REGULATIONS)
- G) NAC 445A.675 - 445A.67215, WATER/SEWER SYSTEM SEPARATION REGULATIONS
1. ALL COVERS FOR METER BOXES, VALVE BOXES, FLUSH VALVES, PRESSURE REDUCING VAULTS, AND ALL OTHER APPURTENANCES REQUIRING VAULTS OR BOXES SHALL BE PURPLE IN COLOR (PANTONE COLOR #512), LABELED "RECLAIMED WATER" OR "EFFLUENT", AND HAVE SECURED OR LOCKING LIDS. PURPLE COLORATION SHALL BE OBTAINED FROM THE MANUFACTURER OR BE APPLIED BY POWDER COATING OR EPOXY PAINT. ALL APPURTENANCES SHALL HAVE A PURPLE TAG ATTACHED WITH THE WORDING "WARNING RECYCLED/RECLAIMED WATER DO NOT DRINK" AND "AVISO AGUA IMPURA NO TOMAR" (T. CHRISTY ENTERPRISES, MAXI VALVE IDENTIFICATION TAG, ID-MAX-P2-RC006 OR CITY OF SPARKS APPROVED EQUAL). A DEBRIS CAP WITH PURPLE COLORATION SHALL BE INSTALLED INSIDE OF ALL ROUND BOXES.
2. ALL ABOVE GROUND PIPING SHALL BE EPOXY PAINTED PURPLE (PANTONE COLOR #512) AND HAVE A PURPLE TAG ATTACHED WITH THE WORDING "WARNING RECYCLED/RECLAIMED WATER DO NOT DRINK" AND "AVISO AGUA IMPURA NO TOMAR" (T. CHRISTY ENTERPRISES, MAXI VALVE IDENTIFICATION TAG, ID-MAX-P2-RC006 OR CITY OF SPARKS APPROVED EQUAL).
3. ALL QUICK COUPLER VALVES SHALL HAVE PURPLE, LOCKABLE COVERS (RAIN BIRD 44NP OR CITY OF SPARKS APPROVED EQUAL).
4. ALL IRRIGATION CONTROLLER ENCLOSURES SHALL BE LABELED INSIDE AND OUTSIDE WARNING THAT THE SYSTEM USES RECLAIMED WATER (T. CHRISTY ENTERPRISES, CONTROLLER MARKING DECAL, PART NUMBER #ID-4100, OR CITY OF SPARKS APPROVED EQUAL).
5. DIRECT CONNECTIONS BETWEEN POTABLE WATER PIPING AND RECLAIMED WATER PIPING SHALL NOT EXIST UNDER ANY CONDITION, WITH OR WITHOUT BACKFLOW PROTECTION. REFERENCE SECTION 609.3.5 OF THE UNIFORM PLUMBING CODE, LATEST EDITION.
6. EACH EFFLUENT SERVICE CONNECTION SHALL INCLUDE A METER PROVIDED BY THE CITY OF SPARKS, UNLESS OTHERWISE STATED IN THE EFFLUENT AGREEMENT WITH THE CITY OF SPARKS.
7. TRACER WIRE SHALL BE PROVIDED FOR ALL DISTRIBUTION RECLAIMED WATER LINES AND SERVICE LATERALS AND SHALL BE PLACED ON TOP OF PIPE AND ATTACHED WITH DUCT TAPE AT 6 FEET MAXIMUM INTERVALS. AT 500 FEET INTERVALS, TRACER WIRE SHALL BE EXTENDED INTO SEPARATE TEST STATIONS CONSISTING OF RISERS AND VALVE BOXES. TEST LEAD WIRE SHALL BE LONG ENOUGH TO EXTEND FOUR (4) FEET ABOVE GROUND LEVEL AND SHALL TERMINATE IN TEST STATION BOX. TRACER WIRE SHALL BE ATTACHED TO SERVICE LATERALS WITH DUCT TAPE AT 6 FEET MAXIMUM INTERVALS, AND SHALL BE LONG ENOUGH TO EXTEND FOUR (4) FEET ABOVE GROUND AND SHALL TERMINATE IN METER BOX. TRACER WIRE SHALL BE PROVIDED FOR ALL IRRIGATION RECLAIMED WATER PIPING 3-INCH DIAMETER AND LARGER, BOTH WITHIN PUBLIC RIGHT-OF-WAY AND PRIVATE PROPERTY, AND SHALL BE PLACED ON TOP OF PIPE AND ATTACHED WITH DUCT TAPE AT 6 FEET MAXIMUM INTERVALS. TRACER WIRE SHALL BE LONG ENOUGH TO EXTEND FOUR (4) FEET ABOVE GROUND AND SHALL TERMINATE IN APPROPRIATE IRRIGATION CONTROL/VALVE BOX AT MAXIMUM 500 FEET INTERVALS. WIRE SHALL BE #12 AWG, INSULATED, STRANDED COPPER, THIN 600V. PRIOR TO ACCEPTANCE OF THE RECLAIMED WATERLINE(S) BY THE CITY OF SPARKS, THE CONTRACTOR SHALL PERFORM A CONTINUITY TEST AFTER BACKFILLING THE TRENCH TO THE SATISFACTION OF THE CITY OF SPARKS INSPECTOR AND/OR ENGINEER.
8. ALL BURIED IRRIGATION PIPING UPSTREAM OF AN ELECTRICAL CONTROL VALVE SHALL BE PURPLE PLASTIC PIPE OR BE ENCASED IN PURPLE POLYETHYLENE OR BAGS LABELED "CAUTION: BURIED RECLAIMED WATER LINE BELOW" AT INTERVALS NO GREATER THAN 5 FEET. FOR POLYETHYLENE (PE) SERVICE PIPE, PURPLE STRIPES ARE ACCEPTABLE.
9. ALL PIPING DOWNSTREAM OF AN ELECTRICAL CONTROL VALVE SHALL BE PURPLE PLASTIC OR HAVE PURPLE RECLAIMED MARKING TAPE PLACED ON TOP OF THE PIPE. THIS DOES NOT APPLY TO FLEXIBLE POLYETHYLENE TUBING USED IN DRIP ZONES.
10. BURIED MARKING AND IDENTIFICATION TAPE SHALL BE POLYETHYLENE PLASTIC, METALLIC CORE DETECTABLE MARKING TAPE. APWA, APWA, ACID AND ALKALI RESISTANT. PERMANENT MARKING, UNAFFECTED BY MOISTURE OR SOIL. MINIMUM FIVE (5) MILS THICK BY 3-INCHES WIDE. MARKING TAPE SHALL BE MANUFACTURED SPECIFICALLY FOR LOCATING, MARKING, AND IDENTIFICATION OF BURIED UTILITY LINES. APWA COLOR CODED PURPLE FOR RECLAIMED WATER WITH MARKING AND IDENTIFICATION IMPRINTED IN BOLD BLACK LETTERS CONTINUOUSLY OVER THE ENTIRE TAPE LENGTH. MARKING AND IDENTIFICATION TO READ "CAUTION: BURIED RECLAIMED WATER LINE BELOW" OR SIMILAR.
11. SIGNAGE SHALL BE POSTED AT ALL POINTS OF PUBLIC ACCESS (GATES, DRIVEWAYS, ETC.) AND AT MINIMUM 500 FEET INTERVALS ALONG PROJECT FENCELINE OR BORDER. IF RECLAIMED WATER IS STORED IN PONDS, PROVIDE SIGNAGE AT PONDS. SIGNS SHALL BE BILINGUAL IN ENGLISH AND SPANISH. MINIMUM SIGN SIZE SHALL BE 4' X 12'. REFERENCE CITY OF SPARKS EFFLUENT REUSE SYSTEM DETAIL SR-2.
12. RECLAIMED WATER LINES SHALL BE TREATED AS SEWER LINES AND ALL APPLICABLE SEPARATION FROM POTABLE WATER LINES SHALL BE MAINTAINED, UNLESS OTHERWISE AUTHORIZED.
13. HOSE BIBS SHALL NOT BE INSTALLED ON RECLAIMED WATER SYSTEMS.
14. CITY OF SPARKS INSPECTOR SHALL BE NOTIFIED BEFORE ANY SECTION OF PIPELINE IS BURIED TO ALLOW FOR INSPECTION AND POSITIONAL GPS OF THE FACILITIES.
15. THE FOLLOWING REFERENCED DOCUMENT SHALL SERVE AS SITE STANDARDS.
16. "CITY OF SPARKS RECLAIMED WATER TREATED EFFLUENT DESIGN & PERFORMANCE STANDARDS."



Professional Seal

△ Date Revision

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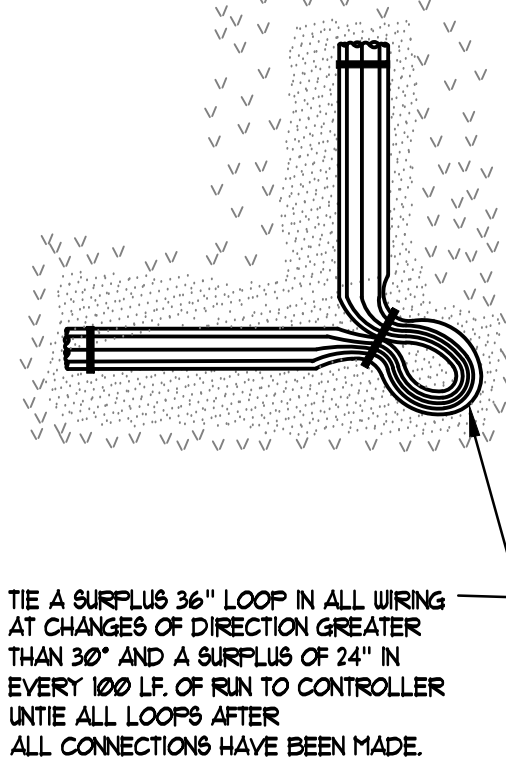
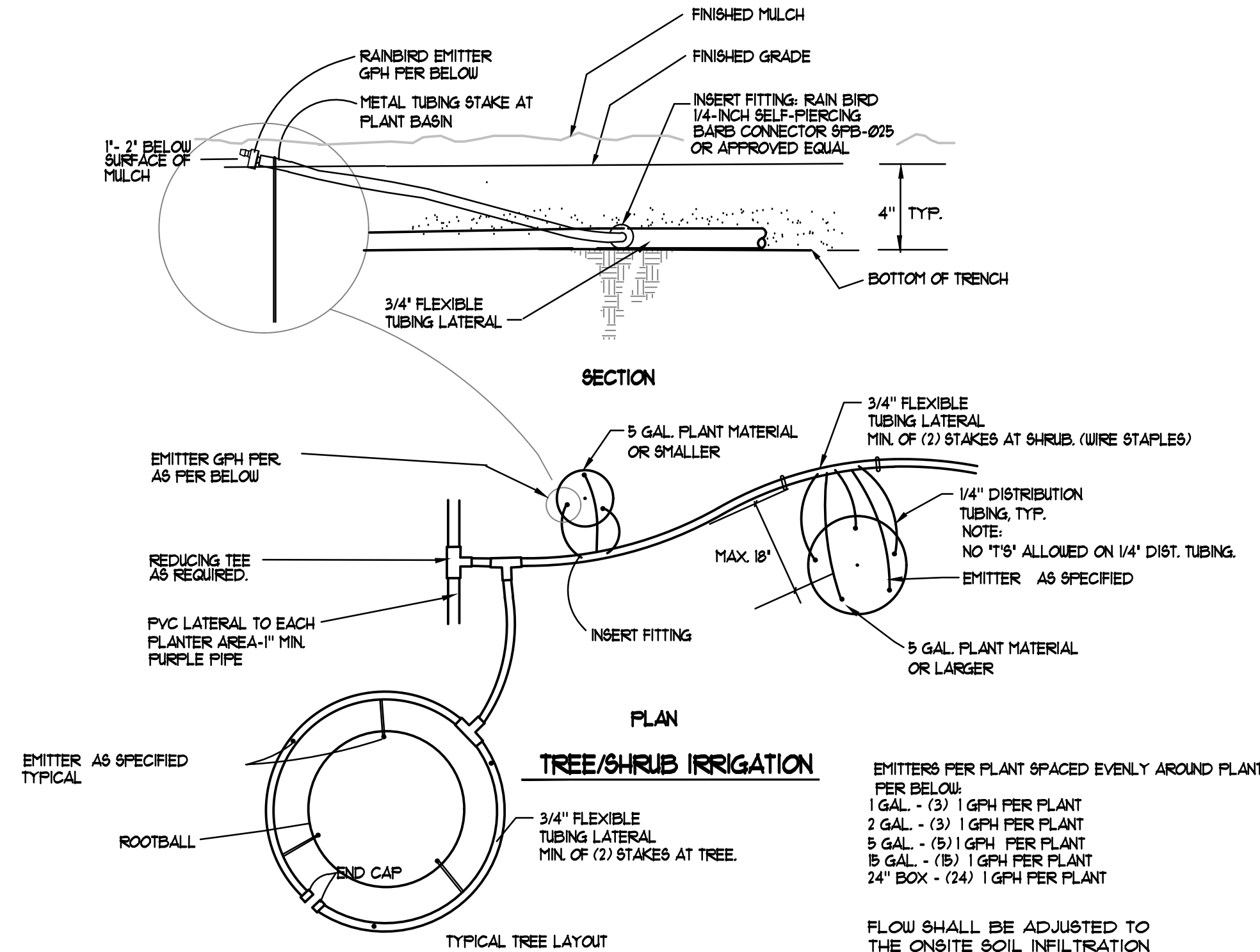
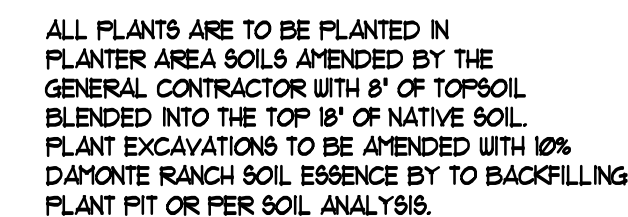
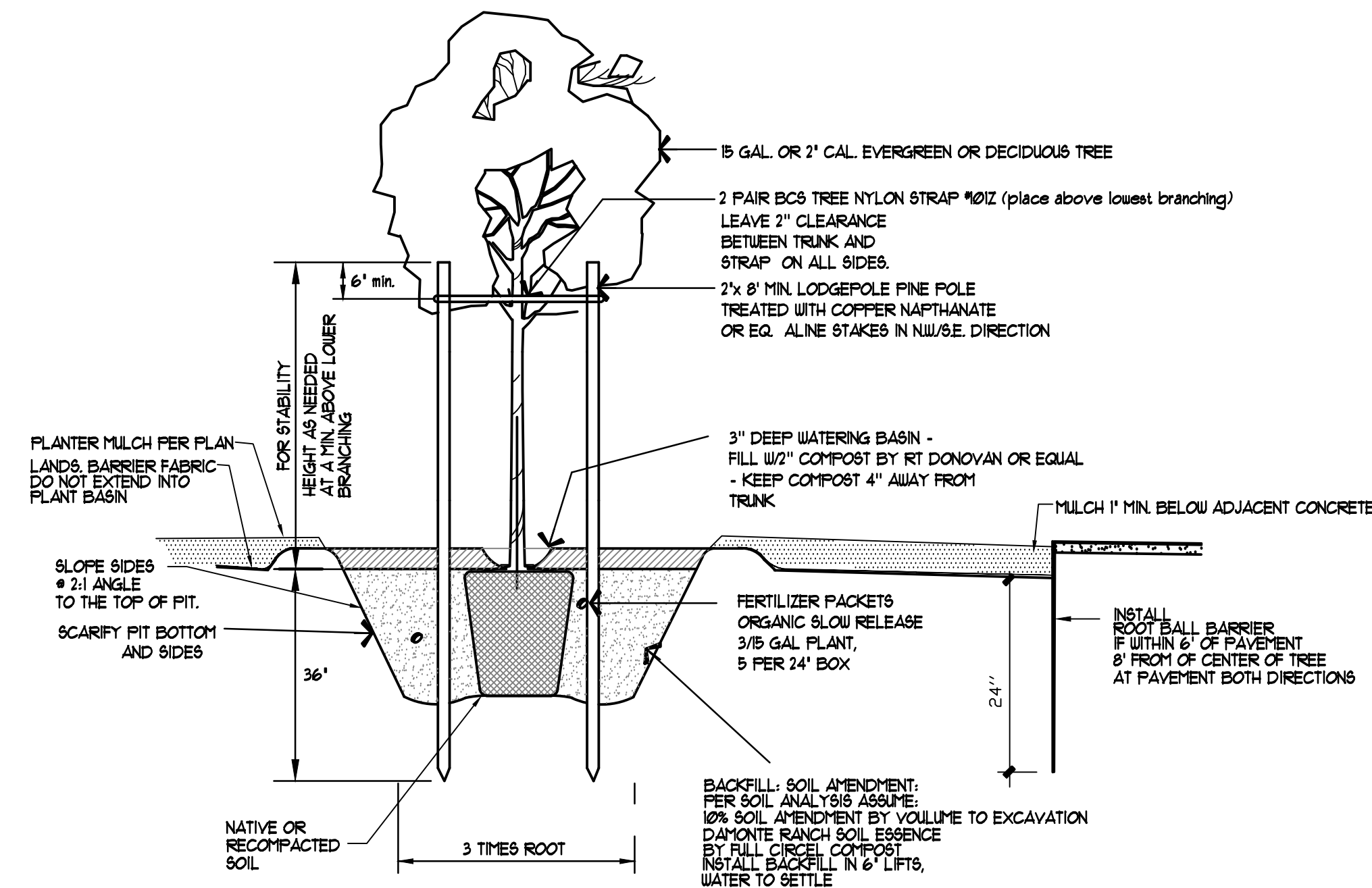
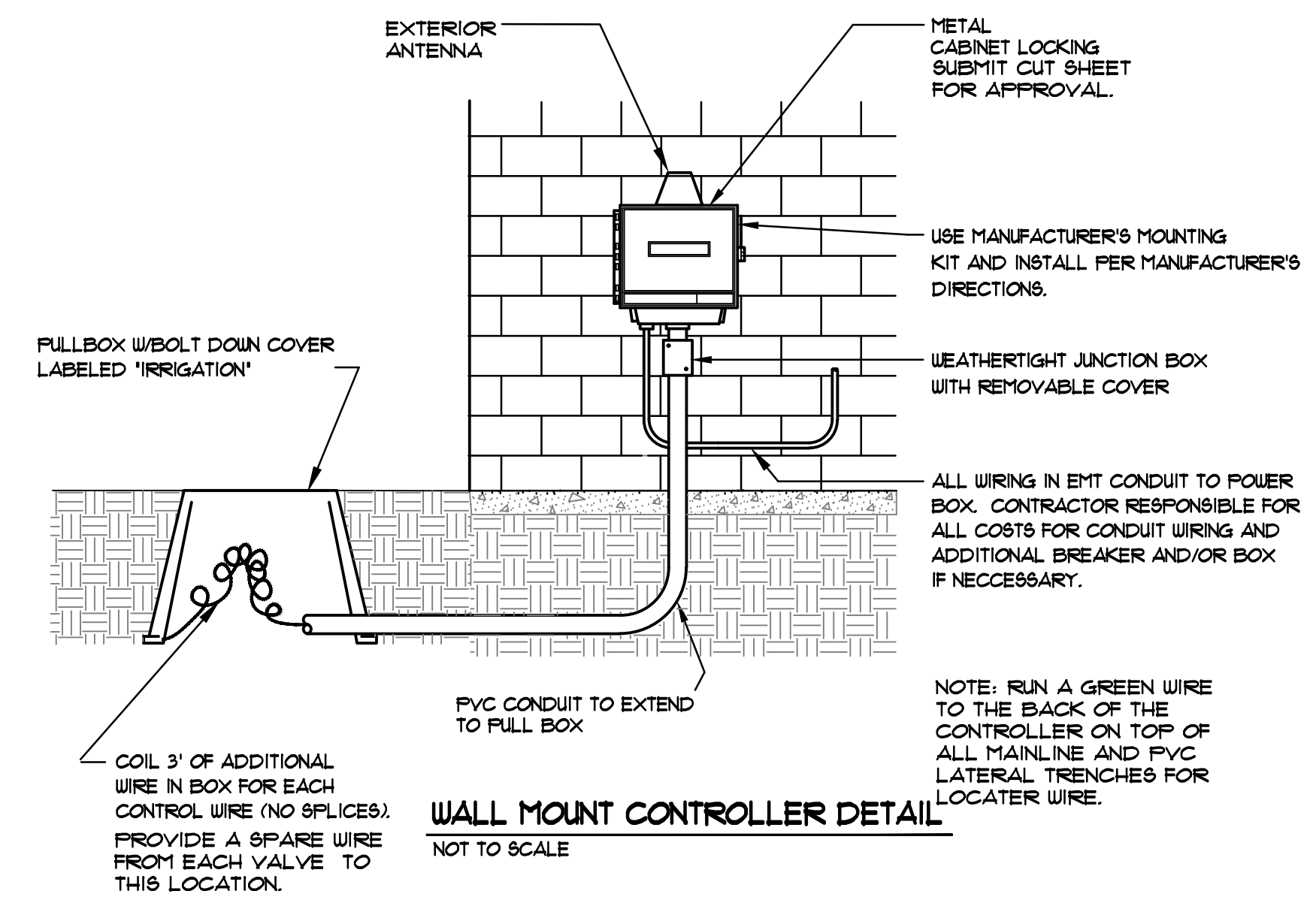
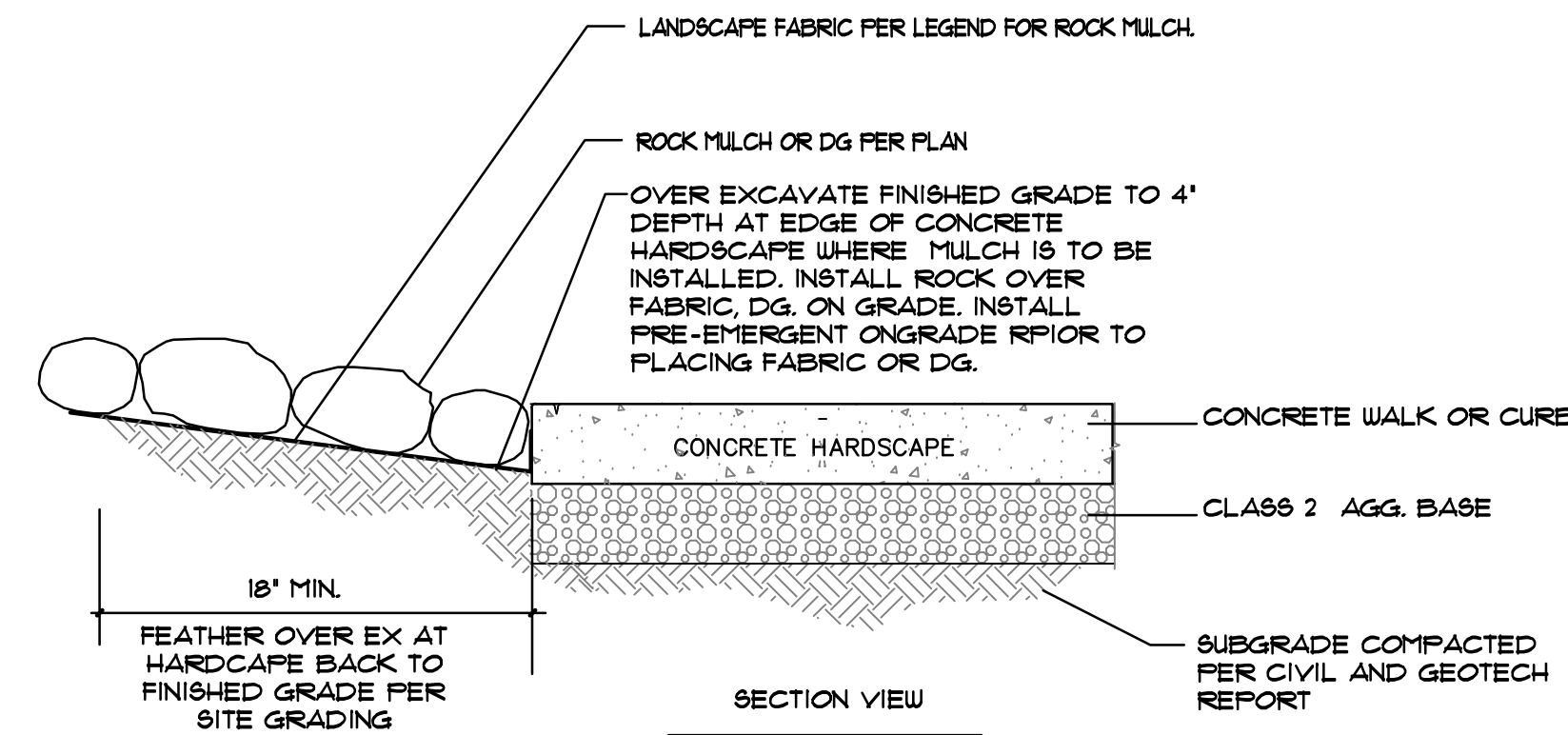
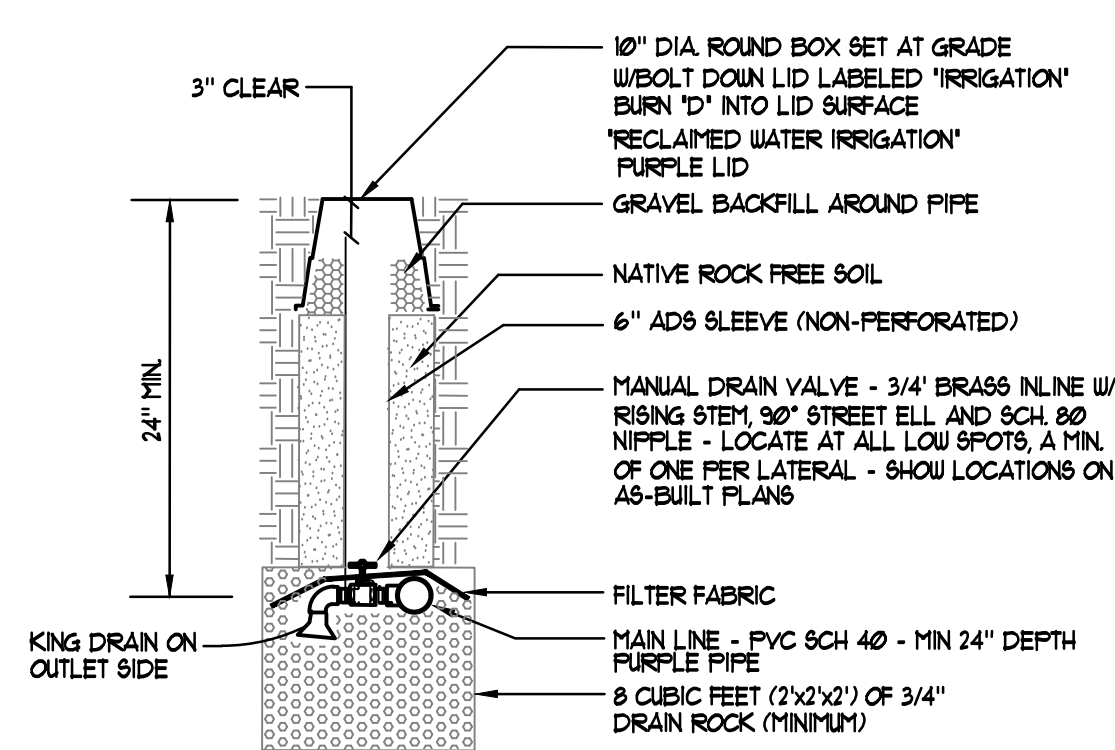
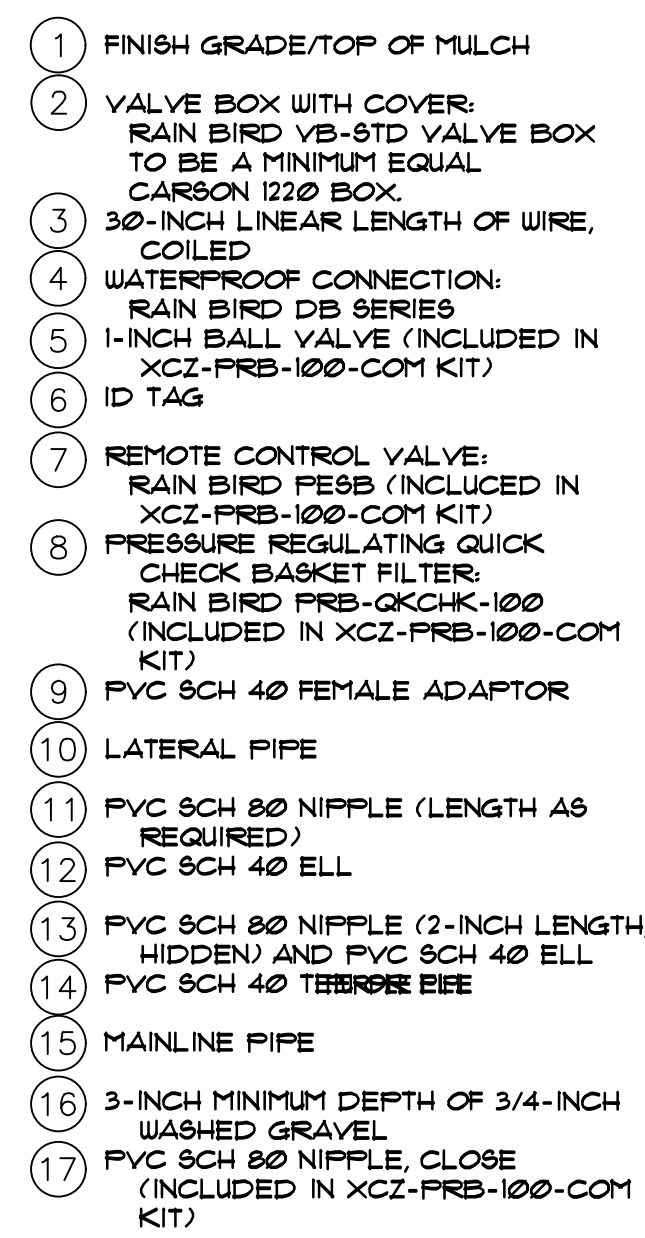
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AND NOTES

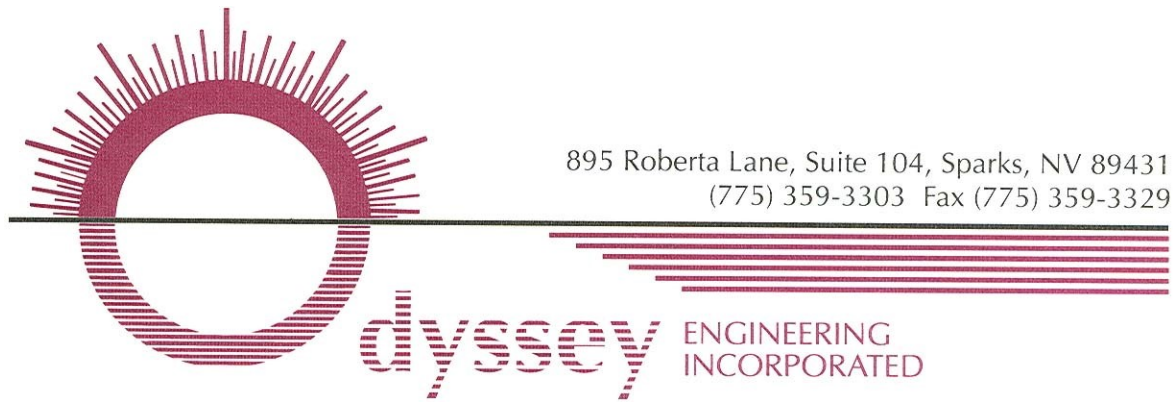
AUGUST 20, 2021
H+K Project No: 2001

L203



100% CONSTRUCTION
DOCUMENTS





ELECTRONIC DATA RELEASE CONDITIONS

TO: Prospective Bidders

DATE: 10/19/2021

RE: Rio Wrangler Elementary School Data Release

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Sincerely,

ODYSSEY ENGINEERING, INC.

A handwritten signature in blue ink, appearing to read 'Jared Wittler', is positioned above the printed name.

Jared Wittler, P.E.
Staff Engineer

Accepted By:

Printed Name

Signature

Contractor/Company

Date

The files encompassed by this release are as follows:

- CSES Civil Grading Plan and all Apparent Revisions