# TOWN OF GLASTONBURY GL-2021-05 GLASTONBURY HIGH SCHOOL ATHLETICS FACILITY ADDENDUM NO. 3 December 18, 2020

# Bid Due Date: 12-22-2020 @ 11:00 A.M.

The attention of bidders submitting proposals for the above-referenced project is called to the following Addendum to the contract documents. The items set forth herein, whether of omission, addition, substitution or other change, are all to be included in and form a part of the proposed Contract Documents for the work. Bidders shall acknowledge this Addendum on the **Bid Form (ATTACHMENT 1)**.

# A. Instructions to Bidders Clarifications/Revisions:

a. Refer to attached geotechnical report.

# B. <u>RFI Questions and Answers:</u>

Question 1:	Switchback ramp detail on C-6.0 calls out for a brick pattern veneer on the exposed concrete. Please provide product specification
Answer:	Eliminate the brick veneer from the switchback ramp detail. The intent is to have exposed concrete, in lieu of brick veneer, for durability.
Question 2:	Will the placement of topsoil, permeable soils be part of the sitework alternate?
Answer:	Topsoil and permeable soils fall within fine grading, which is to be by the GC. Refer to the alternate description for more information.
Question 3:	Will the town have a place for us to export the excess soil material off site?
Answer:	Yes
Question 4:	The foundation removal states to demo to 18" below grade and the new building is going to be in the same place. The old foundation will likely interfere with the new one. Should the entire foundation be removed? Please advise.
Answer:	Yes, the entire existing foundation should be removed.
Question 5:	The parking spaces shown on the right hand side of drawing C-3.0 that are now part of the bid require some additional information. a) Does this area exist and require saw cutting and demolition of existing pavement?

- b) Does this work only apply to the shaded area (14 parking spaces) or does it require more?
- c) Will this area require any curbing? If so, clarify curbing material
- Answer: a) This area is not currently paved. Demolition of existing pavement is not required.b) This work only applies to 14 parking spaces.c) No curbing is proposed for these spaces.
- Question 6: Will ALL subgrades for the concrete sidewalks, slabs, asphalt and any other subbase for surfaces that require subbase be part of alternate #3. Please Clarify.
- **Answer:** Yes, all subgrades are part of Alternate #3.
- Question 7: 08 3313 Coiling Counter Doors was listed in the table of contents but could not be found in the documents. Please provide.
- Answer: Specification Section 083313 Coiling Counter Doors was issued in Addendum #2.
- *Question 8:* Spec SECTION 10 2800 TOILET ACCESSORIES listed some owner-furnished materials. Please clarify who will provide installation.
- **Answer:** The GC must provide installation of toilet accessories.

Question 9: Per spec section 07 2726 - FLUID-APPLIED MEMBRANE AIR BARRIERS, 1.7.1, install shall be licensed by ABAA according to ABAA's Quality Assurance Program and shall employ ABAA-certified installers and supervisors on Project. Can this requirement be waived?

- Answer: No.
- Question 10: Openings 07-B, 15-B, 18-B, 26-B, 27-B, sheet A-101 are shown as pairs. Hardware sets assigned are for pairs. Door schedule sheet A-800 has them as 3'-0" x 7'-0" doors. They are listed as type C, unequal pairs, which is shown on the floor plan. They will quoted as unequal pairs unless an addenda states otherwise.
- Answer: Doors 07-B, 15B, 18B, 26B, 27B, and 35B are all unequal pairs per type C on A-800.
- Question 11: Are we to include the Hardware for Aluminum door # 06, or is by storefront vender?
- **Answer:** Refer to hardware set 05 for aluminum door #06.

Question 12: Doors 42, 43 do not appear on floor plans A-101 or a-102. Are these the doors in the multi stall bathroom shown on A-101? If so, please advise hardware for these openings, and confirm they would be Door Type B.

Answer: Doors 42 and 43 are the doors into Men's Rm 01 and Women's Rm 03 and have been renumbered to 01 and 03 to correspond to the rooms that they are associated with. These

doors should be type B, HM, PNTD doors with Frame Type 1, HM, PNTD frames and hardware set #04. Refer to revisions to A-800 described in this addendum.

- Question 13: Openings 37, 38, 39, sheet A-102 are in mechanical rooms. Should Hardware set 09 be changed to delete BEST privacy set 45H-0L, and the mortise deadlock 48H-7R to just a 45H-7D storeroom lockset?
- Answer: Openings 37, 38 and 39 have been revised to hardware set 10 on A-801. Set 09 ATTIC in specification section 087100 has been revised to read "Set 10 ATTIC".
- Question 14: Please provide a detail showing the location and size of the under drain for the long jump track.
- **Answer:** Drain is as shown on the detail and in plan view on C-3.0.
- Question 15: Please provide Model Type and Locking Mechanism preference for the L3 PLAM Lockers on A910
- Answer: L3 locker shall be Hollman Model A wood veneer door locker. There is no lock required on the L3 lockers. Refer to specification section 105116 issued with this addendum.
- Question 16: Where are the revised civil, structural and arch drawings in your Addendum #2?
- **Answer:** All drawings issued with Addendum #2 were included in the PDF file.
- Question 17: On Drawing A-910 that was issued, "IM" doesn't seem to be called out in the FF&E Schedule. Is "IM" supposed to be the ice machine? The ice machine in the schedule is labeled as "HC". Is this item mislabeled?
- **Answer:** The ice machine is noted with the keynote "IM" on plan 2/A-910. HC in the schedule under ice machine has been revised to "IM".
- Question 18: The plant schedule and planting plan don't correspond. For example, there are (4) GI on the planting plan but "GI" doesn't exist in the plant schedule or (5) VA on the planting plan by no "VA" on the schedule. Please advise.
- **Answer:** The plant schedule on sheet C-5.0 was revised in Addendum #2.
- *Question 19: Please provide spec 323100 and 324000 as mentioned in the alternates section.*
- Answer: Specification sections 323100 and 324000 were issued as part of the Project Manual in the bid documents.
- Question 20: Alternate #2 states that the building demo is an alternate, does that mean we there in no building demo in our base bid scope? Will the building be demolished by owner if that is the case?

- Answer: All building demolition as described on AD-102 and the Alternates section shall be included in Alternate #2 scope and not in the base bid scope. The Owner may select to self-perform the building demolition.
- Question 21: Page C-5.0 has a Plant Schedule with 200+/- plants, but none are shown on the plan. Instead the plan shows 4 Gl, 6 Ec, and 5 Va, but these are not named. Are the three shown existing, and to be removed?
- **Answer:** The plant schedule on sheet C-5.0 was revised in Addendum #2.
- Question 22: Page C-3.0 shows a "planting area" on the west side of the new building. However these areas are too small for the 200+/- plants listed in the Planting Schedule.
- **Answer:** The plant schedule on sheet C-5.0 was revised in Addendum #2.
- Question 23: Addendum 2 shows current main line water service to be 3" is this correct, this is not available anymore, we propose 4" DIP water service
- Answer: Water service shall be 4" DIP.
- Question 24: Plans show for a 6" DIP Fire line to a new hydrant coming off a 3" main line, not feasible, please clarify
- **Answer:** Contractor shall install a 6" x 6" x 4" tee the junction of the existing 6" pipe to where it splits for the building service and fire hydrant service. See C-4.0.
- Question 25: Exterior Finishes Which of the below do we go with? a) Drawing A300 calls out for Painted Split Face CMU Block. S b) Specification Section 04200-Unit Masonry calls out for Ground Face finish.
- **Answer:** Specification Section 04200 was revised in Addendum #2 to call for Split-Face masonry.
- *Question 26: 6" Exterior CMU on Locker Room Building a) Please confirm that this is a veneer and requires no rebar or grout.*
- **Answer:** The CMU on the locker room building is a veneer and does not require rebar or grout.
- Question 27: Drawing A-802 shows a detail for a wood sill, does this detail occur at all W1 locations?
- Answer: Window sills shall be solid surface, at all W1 locations. Detail S1 on A-802 has been revised to show a solid surface sill.
- *Question 28: Please provide a spec for the metal panels under W2 and W3.*

#### **Answer:** Refer to specification revisions to section 084113 included with this addendum.

Question 29:	Drawing A-8.02 only indicates window type W1; exterior elevations show a W2 and a W3. It seems these are the security windows, please provide information in regards to size, details etc.
Answer:	Window type 3 and its associated security ticket window has been eliminated from the project. Window Type 2 has been added to A-802 issued with this addendum.
Question 30:	Please provide Wall Base type B2 as indicated on the flooring plan on drawing A-9.02. There is only a type B1 in the finish plan schedule.
Answer:	Base type B2 was clarified in Addendum #2.
Question 31:	Please provide spec 105116 as mentioned in the alternates section.
Answer:	Refer to attached specification section 105116.
Question 32:	<ul> <li>For the Louvers</li> <li>a) Didn't see a schedule, can one be provided?</li> <li>b) What are the sizes</li> <li>c) How many are required</li> </ul>
Answer:	Louver sizes and quantity have been added to revised sheet A-802, which is included in this addendum.
Question 33:	Regarding the Bathroom Partitions for Glastonbury High School. The spec is calling for Bradley 400 series Floor Anchored Partitions, 400 series is actually Floor Mounted Overhead Braced Partitions, 500 series would be Floor Anchored Partitions. Which type should we include in our pricing?
Answer:	Please provide floor anchored partitions.
Question 34:	Please confirm locations for the under lavatory guards.
Answer:	Provide under lavatory guards at every sink.
Question 35:	Please confirm all signage interior and exterior is by owner.
Answer:	The owner shall only provide the school signs on the exterior of the building. All room and ADA signage shall be by the General Contractor. The GC shall provide ADA signage at all bathrooms and exits per requirements on G-003 and room signage at all rooms.
Question 36:	In what areas of the building require duct liner and what type and how many feet in each duct system is needed?
Answer:	All the required duct liners are shown on the mechanical drawing.

<i>Question 37:</i> Answer:	<i>What pressure class of ductwork is acceptable for this project?</i> Please refer to specification section #233113
Question 38:	Is Duct cleaning and pressure testing required?
Answer:	Please refer to specification section #233113
Question 39:	In reference to remote control dampers are they required and if so which duct runs and locations?
Answer:	Please clarify the reference. Please refer to Construction Documents.
Question 40:	Which trade is responsible for spot and fastening flashing for gas furnace's, curbs for the air ventilators?
Answer:	It is the General contractor's responsibility to coordinate.
Question 41:	Do the air ventilators require guys wires for the roof and if so who is responsible for flashing, anchoring to the structure and installation of guy cables?
Answer:	Air ventilators shall be installed as per manufacturer written instructions and related local and international codes. Mechanical contractor is responsible to furnish, install and secure the air ventilators to the roof curbs.
Question 42:	Please provide Manufacturer and Specifications for the HVAC Controls Scope of Work.
Answer:	Please refer to the Heat Recovery Ventilator Schedule note#8 on sheet#H-000. Controller is integrated programmable controls - premium by Renewaire. Please refer to control diagram 9/H402 for more details.
Question 43:	Please provide projected schedule or Milestone Dates for wage rate purposes as well as winter conditions, if required.
Answer:	Schedule is generally March 29 to August 13.
Question 44:	Is there a geotechnical report available for download seeing the spec book says to refer to it ?
Answer:	Refer to the geotechnical report included with this addendum.
Question 45:	Are we to carry Glastonbury Building Permit, Fire Marshall plan review and State of CT Education fee?

Answer:	The Town will carry costs for permit, special inspection, GC is responsible for the State of CT Education fee.
Question 46:	Is the owner carrying costs for special inspections, I.E. site work, concrete, etc?
Answer:	The Town will carry costs for special inspections.
Question 47:	Please provide details for project sign.
Answer:	Do not provide a project sign.
Question 48:	Drawing C3.0 shows 2 CIP stairs, concrete stairs detail on 66.0. It does not appear these stairs would have a two line rail with bracketed handrail as shown. Please advise design and finish.
Answer:	The 2 CIP stairs require two line rails with bracketed handrail as shown in detail on C-6.0.
Question 49:	Drawing C3.0 shows a CIP switchback ramp with detail on C6.0. The guardrail/handrail systems design profile is not shown. Please advise for design and finish.
Answer:	Handrails shall be 1.5" steel pipe rail to match concrete stair handrails.
Question 50:	The owner is furnishing Toilet accessories T1 thru T6. Are they also installing them or is the general contractor?
Answer:	The Owner will furnish toilet accessories T1 through T6, and the GC will install them.
Question 51:	Specification section 102800- calls for Coat Hooks. None are shown on elevations, please advise locations.
Answer:	Coat hooks shall be provided on bathroom partitions in Restroom building, on the inside face of the door to the Trainer Room and the inside face of the Janitor Closet.
Question 52:	Floor Plan Key notes indicate Fire Extinguisher cabinets. There is nothing shown on the drawings or Table of Contents. Please advise if there are any.
Answer:	Fire extinguisher cabinets are required. Refer to specification section 104416 included with this addendum and locations marked on A-101 issued with this addendum.
Question 53:	Are there liquid soaps in toilet rooms #10, #14, #21, #25, #30 #34?
Answer:	Yes. Refer to elevations 5,6,11,12 on A-504, which are typical restroom elevations showing T5 soap dispenser locations required at all toilet rooms in the Locker Room building.

Question 54:	Section 10 2600 calls for wall protection- Stainless Steel Corner guards. They are not shown on the floor plans. Please advise if they are required, if So, please show locations.
Answer:	Corner guard locations are shown on the finish plan A-910.
Question 55:	Please provide manufacturer and specifications for the NVAC Controls scope of work.
Answer:	Please refer to the Heat Recovery Ventilator Schedule note#8 on sheet#H-000. Controller is integrated programmable controls - premium by Renewaire. Please refer to control diagram 9/H402 for more details.
Question 56:	H-402 - Detail 9 – Note 3 makes reference to BMS. Is the building furnished with a network connection to communicate with the Alerton School Wide DDC system?
Answer:	BMS connecting capability is for future use only. There is no BMS at this location.
Question 57:	Other than H-402 - Detail 9 – Note 3, is there any equipment that will be controlled and monitored by the existing Allerton School Wide DDC system.
Answer:	None of the equipment will be monitored by the existing School wide DDC system.
Question 58:	Please provide a Basis of Design for the Glass-Mat Gypsum Sheathing, described in the Sheathing specification 06 1600 2.2 A.
Answer:	Acceptable manufacturers include Certainteed, Georgia Pacific, USG, and National Gypsum.
Question 59:	Please provide a Basis of Design for the Sealant for the Glass-Mat Gypsum Sheathing, described in the Sheathing specification Section 06 1600 2.4 A.
Answer:	Acceptable manufacturers include Certainteed, Georgia Pacific, USG, and National Gypsum.
Question 60:	Please provide a Basis of Design for the Glass Fiber Sheathing Tape, described in the Sheathing specification section 06 1600 2.3 A. 1.
Answer:	Acceptable manufacturers include Certainteed, Georgia Pacific, USG, and National Gypsum.
Question 61:	What width is desired for the flanges on the corner guards?
Answer:	Provide corner guards with 2" flanges.
Question 62:	Per Addendum 2, the note about window types 2 and 3 (drawings currently do not have any details or elevations of these) Window Schedule is on A-802 and only lists info for

W1 while details 1 & 5 on A-300 call out a W2 and W3. The detail there is on 1 & 5 call it out as security windows in an aluminum storefront. Are there more detail to these windows?

Answer: Window type 3 and its associated security ticket window has been eliminated from the project. Window Type 2 has been added to A-802 issued with this addendum.

Question 63: Per Addendum 2, drawing A9.10 Lockers, are these lockers requiring concrete or masonry base? If yes, please provide details

- Answer: Yes, please provide a 4" high concrete curb under lockers, as detailed on A-101 and A-601 included in this addendum.
- *Question 64: Per drawing C-4.0 shows proposed natural gas service. Please clarify what is the scope by the contractor.*
- **Answer:** Contractor shall provide trenching and backfilling for the utility. Pipe to be installed by the utility.

Question 65: Drawing C-4.0 shows existing water service. A new water line looks like will tap to this existing water line. Please provide the size and materials of the new waterline and the size and make of existing waterline.

- **Answer:** The new water service will begin with a 6" x 6" x 4" tee with restraint couplings.
- *Question 66:* Drawing C-4.0 shows drainage line as labeled "D" but no diameter and material type is provided. Please clarify.
- **Answer:** Drainage pipe will be 12" HDPE.
- Question 67: Drawing C-3.0 shows location of Bituminous Concrete Pavement. There is an area on the upper right of the drawing that is grayed out and looks like Bituminous Concrete pavement but it didn't show on the site removal plan. Please clarify if this area is included.
- **Answer:** 14 paved parking stalls are proposed for the southern end of the field.

Question 68: Alternate No. 4 has listed spec sections 105116, 117900 and 125000. These spec sections are not in the bid documents. Drawing A-910 listed FF&E Schedule. Will there be additional specifications to be issued?

- **Answer:** Refer to attached section 105116 for locker specifications. The rest of the specifications were included on A-910 issued with Addendum #2.
- Question 69: Alternate The fence around the track is aluminized fabric with galvanized framework with top and bottom rails. 42" in height. Fence coming from each side of the existing building is aluminized fabric with galvanized framework with top rail and bottom

tension wire. 48" height. Plans are calling out for 6' black vinyl coated chain link fence and framework at the left side of the building and on the right side and connecting to the existing fence at the track.

- a) Do they want the different materials?
- b) Also, is there a detail/layout for the proposed a/c unit enclosure?

#### Answer:

- a) Yes, all new fencing shall be 6' black vinyl coated chain link fence
- b) The A/C unit enclosure should not be included in the base bid, it would be a potential future item supplied and installed by the Owner.
- Question 70: Please provide grout and rebar requirements for cmu walls
- **Answer:** Refer to SW-3 on S1.2 for grout and rebar requirements for structural CMU on the Restroom building.
- *Question 71:* There is some specification confusion. Please confirm that no lumber or trusses need to be fire treated.
- **Answer:** Correct, the lumber and trusses do not need to be fire treated.
- Question 72: 084113 Storefront- The specification requires an ultra thermal, blast mitigation storefront system. Is this required, or is a standard thermal storefront system such as Kawneer's Trifab VersGlaze 451T Framing System adequate? If the specified system is required, is it blast, hurricane impact or protective against forced entry?
- Answer: Refer to specification section 084113 for the storefront system specified, which is the Kawneer Trifab 451 UT Framing System. The storefront system is not specified to be blast resistant, hurricane impact or protective against forced entry. The two security ticket windows that were blast resistant have been eliminated from the project.
- Question 73: 088000 Glazing- In conjunction with the above question, the Architectural drawings call out doors and storefront to have a laminated / tempered glass. However, the glass specification breakdowns down a 1" tempered unit only, not laminated tempered. What is required?
- Answer: Glass in exterior door transoms and the storefront shall be 1" tempered and laminated, per the glass types on A-800. Glass in interior door lites is required to be tempered only per the glass types on A-800.
- Question 74: Please confirm opening 35-A is a cased open frame (frame type 6 in lieu of frame type 5 indicated) per plan view and remarks column on the door schedule as being correct. Please also confirm that no door is required in lieu of the door portion of the door schedule.
- Answer: Opening 35-A has been revised to be a cased open frame. Opening 35-A has been revised on A-800 to show frame type 6, and a cased opening.

Question 75: Verify openings 37, 38, 39 should be frame type 5, in lieu of indicated frame type 2.

- Answer: Openings 37, 38 and 39 shall be frame type 5. The frame types for openings 37, 38 and 39 have been revised to frame type 5 on A-800.
- Question 76: Verify opening 17-B should be hardware set 08, in lieu of indicated set 09.
- **Answer:** Opening 27-B has been revised to hardware set 08 in lieu of set 09.
- Question 77: Per drawing C-3.0 Site Layout and Materials Plan, are site signages part of this bid?
- **Answer:** Signage for handicap stalls are to be provided.
- Question 78: Per drawing C-2.0 Site Preparation Plan, It was not clear what type of existing drainage pipe to be remove and dispose, Please clarify.
- **Answer:** Pipe is assumed to be plastic.
- Question 79: Per drawing C-3.0 Site Layout and Materials Plan, Please provide thickness of gravel at utility area.
- **Answer:** Gravel shall be 4 inches thick.
- Question 80: Per review Bradley confirms that they do not provide a Color-Thru product in phenolic. We are requesting to provide a comparable and local vendor as an alternate, OR the architect will need to accept "Black Core" phenolic, which is what Bradley offers.
- **Answer:** Please provide an alternate vendor that provides a color-thru product.

# C. <u>Specification Clarifications/ Revisions:</u>

1. SECTION 000110 - TABLE OF CONTENTS

DIVISION 8 - OPENINGS

**DELETED** Section 085653 SECURITY WINDOWS

DIVISION 10 – SPECIALTIES

ADDED Section 101423.16 ROOM-IDENTIFICATION PANEL SIGNAGE ADDED Section 104413 FIRE EXTINGUISHER SPECIALITES ADDED Section 105116 WOOD LOCKERS

### 2. SECTION 083313 – COILING COUNTER DOORS

#### PART 2 – PRODUCTS

**REVISED** Paragraph B to read as follows:

- B. Basis-of-Design Product: **Cornell, Model ESD20W**, insulated rolling door with operational wind load, or comparable product meeting the specified requirements by one of the following:
  - 1. Cookson
  - 2. Clopay Building Products

#### 2.2 COUNTER DOOR ASSEMBLY

REVISED Paragraph C to read as follows:

#### C. Curtain:

- 1. Door Curtain Material: No. 6F
- 2. Galvanized Steel
- 3. Insulation: 7/8 inch (22mm) foamed-in-place, closed cell urethane
- 4. Total slat thickness: 15/16 inch (24 mm)
- 5. R-value: 8.0
- 6. STC Rating: Up to 32 for the curtain and up to 22 for the entire assembly.

ADDED Paragraph F as follows:

#### F. Bottom Bar

- 3. Configuration:
  - a. Insulated Bottom Bar: Reinforced extruded aluminum interior face with full depth insulation and exterior skin slat to match curtain material and gauge.
  - b. Finish: Powder Coat To match door slats

ADDED Paragraph L as follows:

#### L. Weatherstripping:

- 4. Bottom Bar:
  - a. Manually Operated Doors: Replaceable, bulb-style, compressible EPDM gasket extending into guides.
- 5. Guides: Replaceable vinyl strip on guides sealing against both sides of curtain.
- 6. Lintel seal: Nylon brush seal fitted at door header to impede air flow.

# 3. SECTION 084113 – ALUMINUM FRAMED STOREFRONTS

#### 1.2 SUMMARY

A. Section Includes: ADDED Subparagraph 2 as follows:

#### 2. Insulated Spandrel Panels

#### PART 2 – PRODUCTS

ADDED Article 2.5 as follows and renumbered all subsequent articles:

# 2.5 INSULATED SPANDREL PANELS

A. Basis of Design Product: Laminators Inc. Thermolite Spandrel Panels

- 1. Laminated, metal-faced flat panels with no deviations in plane exceeding 0.8 percent of panel dimension in width or length.
- 2. Overall Panel Thickness: 1 inch.
- 3. Exterior Skin: Aluminum; Thickness 0.032 inch; Finish: Fluoropolymer; Texture: Smooth.
- 4. Interior Skin: Aluminum; Thickness: 0.013 inch; Finish: Mill finish; Texture: Smooth
- 5. Surface-Burning Characteristics: Comply with ASTM E 84; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.
- 6. Flame Spread Index: 0; Smoke-Developed Index: 100 or less.
- 7. Finish Color to be determined by the Architect from manufacturer's standard range.

## 4. SECTION 087100 – DOOR HARDWARE

3.6 HARDWARE SCHEDULE

**C. Hardware Sets: REVISED** SET #09 ATTIC to SET #10 ATTIC:

#### SET #10 - ATTIC

3	Hinges CB199	SERIES AS SPECIFIED	US32D	ST
1	Storeroom Lock	45H-7D15R 7/8" LTC	626	BE
1	Door Closer	QDC111 R PULL SIDE MOUNT	689	SH
1	Kick Plate	KO050 10" X 2" LDW B4E CSK	630	TR
1	Door Sweep	200N (DOOR WIDTH)	AL	NA
1	Perimeter Seal	706 E (HEAD & JAMBS)	AL	NA
1	Saddle Thresho	ld 896ADJ V (DOOR WIDTH)	AL	NA

### 5. DELETED SECTION 085653 SECURITY WINDOWS

# 6. ADDED SECTION 101423.16 – ROOM-IDENTIFICATION PANEL SIGNAGE

# 7. ADDED SECTION 104413 – FIRE EXTINGUISHER SPECIALTIES

# 8. ADDED SECTION 105116 – WOOD LOCKERS

# C. Drawing Clarifications/ Revisions:

Item No.	Drawing	Detail	Revision Description
Item #1	C3.0		<b>REVISED</b> sheet C3.0
Item #2	C4.0		<b>REVISED</b> sheet C4.0
Item #3	C6.1		<b>REVISED</b> sheet C6.1
Item #6	S-4.1		ADDED detail for hurricane tie from connector trusses to LVL.
Item #7	A-101	1	ADDED downspouts to floor plan to clarify locations
Item #8	A-101	1	ADDED hatch for locations of 4" high concrete base under lockers
Item #9	A-101	3	ADDED Detail 3 "SECTION THROUGH TYPICAL CONCRETE
			CURB AT LOCKERS"
Item #10	A-101	1	ADDED fire extinguisher locations
Item #11	A-301	1	<b>DELETED</b> note "Security window for ticket booth"
Item #12	A-301	5	<b>DELETED</b> note "Security window for ticket booth".
Item #13	A-301	5	<b>REVISED</b> aluminum storefront to half height masonry wall with
			insulated coiling counter door above.
Item #14	A-410	2	<b>DELETED</b> aluminum storefront and transaction window.
			<b>REVISED</b> coiling counter door to insulated coiling counter door
			with half height masonry wall and solid surface sill below.
Item #15	A-410	2	<b>RENAMED</b> detail to "WALL SECTION AT STOREFRONT
			WINDOW"
Item #16	A-410	9	ADDED detail 9 "WALL SECTION AT COILING COUNTER
			DOOR"
Item #17	A-601	1,3,4	ADDED concrete locker curb to wall section details. REVISED 8"
			fiber cement base to 4" at concrete curb locations.
Item #18	A-800	Door	<b>REVISED</b> doors 42 and 43 to 01 and 03 to correspond to the rooms
		Schedule	that they are associated with. Revised doors 01 and 03 to be type B,
			HM, PNTD doors with Frame Type 1, HM, PNTD frames and
			hardware set #04.
Item #19	A-800	Door	<b>REVISED</b> opening 35-A to be Frame Type 6 and DELETED
		Schedule	references to HM door and frame. 35-A shall be a cased opening.
Item #20	A-800	Door	<b>REVISED</b> openings 37, 38 and 39 to frame type 5.
		Schedule	
Item #21	A-800	Door	<b>REVISED</b> Opening 27-B to hardware set 08 in lieu of set 09.
T. //22	4 000	Schedule	
Item #22	A-800	Door	<b>REVISED</b> openings 37, 38 and 39 to hardware set 10.
Tr. 1100	1 000	Schedule	
Item #23	A-800	Hardware	<b>DELETED</b> "Hardware Types" from sheet. Refer to specification
		Types	section 08/100 for hardware schedule.

Item #24	A-802	S1	<b>REVISED</b> wood sill and apron to solid surface sill and apron.
Item #25	A-802	2	ADDED Detail 2 "WINDOW TYPE 2"
Item #26	A-802	4	ADDED Detail 4 "TYPICAL LOUVER ELEVATION"
Item #27	A-802	Window	ADDED Window Type 2 to the Window Schedule.
		Schedule	
Item #28	A-802	H1	ADDED notes describing flashing at window head H1
Item #29	A-910	FF&E	<b>REVISED</b> "HC" under "ICE MACHINE" to "IM"
		Schedule	
Item #30	A-910	FF&E	<b>REVISED</b> L3 locker to "18" WIDE WOOD VENEER LOCKER",
		Schedule	Hollman Locker Model A wood veneer locker.
Item #31	P-100		<b>ADDED</b> connection to existing 1 <sup>1</sup> / <sub>2</sub> " water service

END OF ADDENDUM NO. 3

Note: This addendum consists of 72 pages, including the above text.

#### DR. CLARENCE WELTI, P.E., P.C.

**GEOTECHNICAL ENGINEERING** 

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December 2, 2006

Mr. Herb Schwind Town of Glastonbury, Facilities Maintenance 2149 Main Street Glastonbury, CT 06033

# Re: Proposed New Track & Field at Glastonbury High School, Glastonbury, CT Geotechnical Study

Dear Mr. Schwind:

1.0 Herewith are the data from the test borings taken at the above site. Nine borings were drilled to a depth of 6 feet below the existing grades. The boring locations were selected by others and are shown on the attached plan. Also included are the data from 4 borings taken as part of the previous study for the additions and renovations to the high school. *The borings were taken by this firm solely to obtain indications of subsurface conditions as part of a geotechnical exploration program. No services were performed to evaluate subsurface environmental conditions.* Seven grain size gradation analyses were performed on selected soil samples for soil classification.

2.0 The **Subject Project** will include the replacement of the existing bituminous concrete track with a new bituminous concrete surface track, and a new artificial turf athletic field on the inside of the track. The new track will generally overlie the footprint the existing track. The athletic field will replace existing natural turf field. The proposed grades at the new track and field will be close to the existing grades.

3.0 The natural soils at the site are from glacial lake deposits. These deposits consist generally of stratified fine to medium sand, trace to some silt.

3.1 The Soils Cross Sections from the borings is generally as follows:

#### Thru existing track (borings TB-1 thru TB-4)

Bituminous Concrete to 2.5" to 3.0" (includes 3/8" of track surface cover)

SAND and GRAVEL, little Silt to 8" (5" layer)

FILL; Fine to medium SAND, little to some Silt, little Gravel to 13" to 21"

Stratified Fine to fine to coarse SAND, trace to some Silt; or SILT, little to some fine Sand to 15+ feet, medium compact

# Existing Athletic Field inside of track (borings FB-1 thru FB-4)

Topsoil to 6" to 12"

Stratified Fine to fine to coarse SAND, trace to some Silt; or SILT, little to some fine Sand to 15+ feet, medium compact

3.2 The previous borings taken in April 2003 encountered the **Water Table** at 12 to 15 feet below the existing grades.

4.0 A proposed section for the new artificial turf field was not available at the time of this report. Based on other artificial turf fields we have worked the section is presumed to be generally as follows:

#### Artificial Surface

2" layer of 3/8" crushed stone

6" layer of 3/4" crushed stone atop geotextile (drainage piping to be placed at base of this layer)

6" layer of structural fill

4.1 There is 6" to 12" layer of topsoil on the existing field which will have to be stripped before placement of the new section. The soils beneath the topsoil to 6+ feet below the existing grades are generally a fine to medium sand with little silt. These soils will provide a stable base for placement of the field section and could be used as fill beneath the section where grading is required. There were localized areas (see boring FB-4 & TB-4) with silt and fine sand at the sub grade level. These soils will be sensitive to remolding beneath equipment when wet. To establish a stable level sub grade atop these soils, when they are wet, may require the placement of initial layer of 10"± layer of 1/2"crushed stone atop a geotextile. The 6" layer of structural fill should be placed atop the crushed stone before commencing with vibratory compaction. To avoid possible requirements for over excavation of disturbed wet silty soils the stone and gravel fill should be placed prior to the area receiving any equipment traffic. The 6" layer of "structural fill" should be conform to the gradation below.

Percent Passing	Sieve Size
100	3.5"

50 - 100	3/4"
25 - 80	No.4

The fraction, passing the No.4 sieve shall have less than 15%, passing the No. 200 sieve.

5.0 The recommended criteria for the design of the pavements is generally as follows:

1. The depth of frost free (free draining) material beneath the pavements should be at least equal to 60 % of the frost depth in 90% of the years.

2. The long term water table should be at least 20" below the pavement grade.

5.1 The required depth of free draining material (frost free) would be about 18" (this depth includes the bituminous concrete). The recommended section for the new track is as follows:

3" of Bituminous Concrete (1.5" top course + 1.5" binder course)

6" of Processed Aggregate Base (CTDOT - M..05.01)

10" of Gravel Subbase (CTDOT - M.02.02); or 3/8" crushed stone (CTDOT - M.01.01, No. 8 Stone), or material which conforms to section 4.1 above

5.2 There is processed base material to about 8" below the existing track (5" layer). The soils to 13" to 17" (5" to 9" layer) are in most areas a well draining sand with little silt and gravel. There was a localized area (see boring TB-3) where this material had a higher silt content (above 20%). To place the recommended section at the existing grades would require over excavation of the existing section to permit placement of the required depth of subbase materials. An alternative would be to reclaim the existing bituminous concrete with the base material to about 6", place an additional 3" layer of processed aggregate base. This would place the finished grades about 8" above the existing grades. The final section would include 19" to 22" of free draining or non frost susceptible materials.

5.2.1 There should be an edge drain around the outside perimeter of the track. The edge drain should be enveloped in 3/8" crushed stone with a filter fabric around the stone. The edge drain should be placed 6" to 12" below the gravel subbase ( $30"\pm$ ). There will also be a drain on the inside perimeter installed as part of the artificial field drainage design.

6.0 The fill materials within the field should be compacted to at least 95% of modified optimum density. The processed aggregate base should be compacted to at least 98% of modified optimum density.

7.0 This report has been prepared in accordance with generally accepted soil and foundation engineering practices. No other warranty report has been prepared for specific application to the

subject project in , express or implied, is made. In the event that any changes in the nature, design and location of structures are planned, the conclusions and recommendations contained in this report should not be considered valid unless the changes are reviewed and conclusions of this report modified or verified in writing.

The analyses and recommendations submitted in this report are based in part upon data obtained from referenced explorations. The extent of variations between explorations may not become evident until construction. If variations then appear evident, it will be necessary to re-evaluate the recommendations of this report.

Dr. Clarence Welti, P.E., P.C., should perform a general review of the final design and specifications in order that geotechnical design recommendations may be properly interpreted and implemented as they were intended.

If you have any questions please call me.

Very truly yours ne Ohele

Clarence Welti Ph.D., P. E. President, Dr. Clarence Welti P.E.; P.C.





	CLIENT						PROJECT NAME				
CLARENCE WELTI ASSOC., INC. P.O. BOX 397								TRACK & FIELD @ ( LOCATION	BLASTON	IBURY H	IGH SCHOOL
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	2	9-7-7-9	2.25	-4.25'			RED/BR. FINE-CRS.SAND, TRA	ACE SILT			
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		AUGER	CASING	SAMPL	LER	CORE BA	AR. Urrsci		HOLE	NO.	FE	3-3
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SIZE I.D		3.75"		1.375	5"		N. COORDINATE	AT NONE FT. AFTER	) HOURS	DATE		
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HAMME	ER FALL			30"		1		<u> </u>				
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							RED/BR. FINE-MED. SAND, L	ITTLE SILT, TRACE GR	AVEL			
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CLARENCE WELTI ASSOC., INC.         P.O. BOX 397       TRACK & FIELD @ GL         GLASTONBURY, CONN 06033       TOWN OF GLASTONBURY         AUGER       CASING       SAMPLER       CORE BAR.       OFFSET       SURFACE ELEV.         TYPE       HSA       SS       LINE & STA.       GROUND WATER OBSERV/         SIZE LD       3 75"       1 375"       CORE SAMPLER       CORE STA.	ASTON TONBUI HOLE ATIONS HOURS HOURS	NO.	HIGH FI	SCHOOL
GLASTONBURY, CONN 06033     TOWN OF GLASTONBURY     GLAST       AUGER     CASING     SAMPLER     CORE BAR.     OFFSET     SURFACE ELEV.       TYPE     HSA     SS     LINE & STA.     GROUND WATER OBSERV.       SIZE LD     3 75"     1 375"     SURFACE DEC.     GROUND WATER OBSERV.	HOLE ATIONS HOURS HOURS	RY, CT NO. START DATE	FI	
AUGER     CASING     SAMPLER     CORE BAR.     OFFSET     SURFACE ELEV.       TYPE     HSA     SS     LINE & STA.     GROUND WATER OBSERV/       SIZE LD     3 75"     1 375"     GROUND WATER OBSERV/	HOLE ATIONS HOURS HOURS	NO. START DATE	FI	
TYPE     HSA     SS     LINE & STA.       SIZE LD     3.75"     1.375"	ATIONS HOURS HOURS	START DATE		3-4 I
SIZE I D 3 75" 1 375"	HOURS	DATE		
	HOURS		11/	22/06
HAMMER WT. 140lbs	noons	FINISH		
HAMMER FALL 30" E. COORDINATE		DATE	11/	22/06
SAMPLE STRATUM DESCRIPTION				
DEPTH NO. BLOWS/6" DEPTH A + REMARKS				ELEV.
0 1 1-4-6-8 0.00'-2.00'			.60	
2 6-6-8-8 2.00'-4.00'				
3 6-8-8-10 4.00'-6.00'				
5				
BOTTOM OF BORING @ 6.0'			6.0	
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LEGEND: COL. A: SAMPLE TYPE: D=DRY A=AUGER C=CORE U=UNDISTURBED PISTON S=SPLIT SPOON DRILLER: BREWER INSPECTOR:				
PROPORTIONS USED: TRACE=0-10% LITTLE=10-20% SOME=20-35% AND=35-50% SHEET 1 OF 1 H	HOLE NO	Э.	FE	-4

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P.O.	BOX 39	E WELTI A 7 IBY CONN	06033	NC.				TRACK & FIELD @ G LOCATION	LASTON	IBURY H	HIGH	SCHOOL		
						ТОУ	VN OF GLASTONBURY	GLAS	TONBUR	RY, CT				
		AUGER	CASING	SAMPLE	ER C	CORE BA	AR. OFFSET	SURFACE ELEV.	HOLE	NO.	FE	3-5		
TYPE		HSA		SS			LINE & STA.	GROUND WATER OBSERV	ATIONS	START		0.00		
SIZE I.D		3.75"		1.375"	,		N. COORDINATE	AT NONEFT. AFTER 0	HOURS	DATE	14/2	22/06		
HAMME	ER WT.			140lbs	5			AT FT AFTER	HOURS	FINISH		0.00		
HAMMI	ER FALL			30"			E. COORDINATE			DATE	11/2	22/06		
DEDTU		SAM	PLE			[	STRATUM	DESCRIPTION				EL EV		
DEPTH	NO.	BLOWS/6"	DEI	РТН	A			+ REMARKS				ELEV,		
0	1	1-4-7-8	0.00'	-2.00'			TOPSOIL				.80			
							RED/BR. FINE-MED. SAND, TH	ACE SILT		<b>W</b>				
	2	6-8-7-7	2.00'	-4.00'										
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Glastonbury High School Athletics Facility 330 Hubbard Street, Glastonbury CT GL-2021-05

#### SECTION 083313 - COILING COUNTER DOORS

#### 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. Manual Rolling Counter Shutters

#### 1.3 DESIGN REQUIREMENTS

- A. Wind Loading:
  - 1. Supply doors to withstand up to 40 psf design wind load
  - 2. 50 FPS Impact Speed
  - 3. Door to be provided with Florida wind load certification

#### 1.4 ACTION SUBMITTALS

- A. Product Data: For each type and size of coiling counter door and accessory.
  - 1. Include construction details, material descriptions, dimensions of individual components, profiles for slats, and finishes.
- B. Shop Drawings: For each installation and for special components not dimensioned or detailed in manufacturer's product data.
  - 1. Include plans, elevations, sections, and mounting details.
  - 2. Include details of equipment assemblies, and indicate dimensions, required clearances, method of field assembly, components, and location and size of each field connection.
  - 3. Include points of attachment and their corresponding static and dynamic loads imposed on structure.
  - 4. Show locations of controls, locking devices, and other accessories.
- C. Provide manufacturer ISO 9001:2015 registration
- D. Provide manufacturer's installation instructions

#### 1.5 CLOSEOUT SUBMITTALS

A. Maintenance Data: For coiling counter doors to include in maintenance manuals.

B. Certificate stating that installed materials comply with this specification.

#### 1.6 QUALITY ASSURANCE

- A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer for both installation and maintenance of units required for this Project.
- B. Warranty: Manufacturer's 2-year standard warranty.

#### PART 2 - PRODUCTS

#### 2.1 MANUFACTURERS

- A. Source Limitations: Obtain coiling counter doors from single source from single manufacturer.
  - 1. Obtain operators and controls from coiling counter door manufacturer.
- B. Basis-of-Design Product: **Cornell, Model ESD20W, insulated rolling door with operational wind load**, or comparable product meeting the specified requirements by one of the following:
  - 1. Cookson
  - 2. Clopay Building Products

#### 2.2 COUNTER DOOR ASSEMBLY

- A. Counter Door: Rolling counter door formed with curtain of interlocking metal slats.
- B. Operation Cycles: Door components and operators capable of operating for not less than 10,000. One operation cycle is complete when a door is opened from the closed position to the fully open position and returned to the closed position.

#### C. Curtain:

- 1. Door Curtain Material: No. 6F
- 2. Galvanized Steel
- 3. Insulation: 7/8 inch (22mm) foamed-in-place, closed cell urethane
- 4. Total slat thickness: 15/16 inch (24 mm)
- 5. R-value: 8.0
- 6. STC Rating: Up to 32 for the curtain and up to 22 for the entire assembly.
- D. Door Finish: Powder Coating System (Color Selected by Architect):
  - 1. ASTM A 653 galvanized base coating treated with dual process rinsing agents in preparation for chemical bonding, gray baked-on base coat and gray baked-on polyester finish coat
  - 2. Zirconium treatment followed by baked-on polyester powder coat, with [color as selected by Architect from manufacturer's standard color range, over 180 colors] minimum 2.5 mils (0.065 mm) cured film thickness; ASTM D-3363 pencil hardness: H or better

- E. Endlocks: Fabricate interlocking slat sections with high strength molded nylon endlocks riveted to ends of alternate slats.
- F. Bottom Bar
  - 1. Configuration:
    - a. Insulated Bottom Bar: Reinforced extruded aluminum interior face with full depth insulation and exterior skin slat to match curtain material and gauge.
    - b. Finish: Powder Coat To match door slats
- G. Guides:
  - 1. Configuration & Finish: Steel. Minimum 12 gauge formed shapes
  - Finish: Powder Coating System: Zirconium treatment followed by baked-on polyester powder coat, color as selected by Architect from manufacturer's standard color range; minimum 2.5 mils (0.065 mm) cured film thickness; ASTM D-3363 pencil hardness: H or better
- H. Shaft assembly:
  - Counterbalance Shaft Assembly:
    - a. Barrel: Steel pipe capable of supporting curtain load with maximum deflection of 0.03 inches per foot (2.5 mm per meter) of width
    - b. Spring Balance: Oil-tempered, heat treated steel helical torsion spring assembly designed for proper balance of door to ensure that maximum effort to operate will not exceed 25 lbs (110N). Provide wheel for applying and adjusting spring torque.
- I. Brackets:

1.

- 1. Fabricate from reinforced steel plate with bearings at rotating support points to support counterbalance shaft assembly and form end closures.
- Finish: Powder Coating System: Zirconium treatment followed by baked-on polyester powder coat, color as selected by Architect from manufacturer's standard color range; minimum 2.5 mils (0.065 mm) cured film thickness; ASTM D-3363 pencil hardness: H or better
- J. Hood:
  - 1. Minimum 24 gauge galvanized steel with reinforced top and bottom edges. Provide minimum  $\frac{1}{4}$  (6.35 mm) steel intermediate support brackets.
  - Finish: Powder Coating System: Zirconium treatment followed by baked-on polyester powder coat, color as selected by Architect from manufacturer's standard color range; minimum 2.5 mils (0.065 mm) cured film thickness; ASTM D-3363 pencil hardness: H or better
- K. Locking Devices: Equip door with locking device assembly.
  - 1. Padlockable slide bolt: Padlockable slide bolt on coil side of bottom bar at each jamb extending into slots in guides.

### L. Weatherstripping:

- 1. Bottom Bar:
  - a. Manually Operated Doors: Replaceable, bulb-style, compressible EPDM gasket extending into guides.
- 2. Guides: Replaceable vinyl strip on guides sealing against both sides of curtain.
- 3. Lintel seal: Nylon brush seal fitted at door header to impede air flow.

#### 2.3 OPERATION:

- A. Manual Door Operator:
  - 1. Manual Pushup with pole/ hook.
- 2.4 ACCESSORIES:
  - A. Curtain Accessories: Equip door with pole hook.

#### PART 3 - EXECUTION

#### 3.1 EXAMINATION

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

#### 3.2 INSTALLATION

- A. Install coiling counter doors and operating equipment complete with necessary hardware, anchors, inserts, hangers, and equipment supports; according to manufacturer's written instructions and as specified.
- B. Install coiling counter doors, hoods, and operators at the mounting locations indicated for each door.

#### 3.3 STARTUP SERVICE

- A. Engage a factory-authorized service representative to perform startup service.
  - 1. Complete installation and startup checks according to manufacturer's written instructions.
  - 2. Test and adjust controls and safety devices. Replace damaged and malfunctioning controls and equipment.

#### 3.4 ADJUSTING

- A. Adjust hardware and moving parts to function smoothly so that doors operate easily, free of warp, twist, or distortion.
- B. Lubricate bearings and sliding parts as recommended by manufacturer.

#### 3.5 MAINTENANCE SERVICE

- A. Initial Maintenance Service: Beginning at Substantial Completion, maintenance service shall include 12 months' full maintenance by skilled employees of coiling-door Installer. Include quarterly preventive maintenance, repair or replacement of worn or defective components, lubrication, cleaning, and adjusting as required for proper door operation. Parts and supplies shall be manufacturer's authorized replacement parts and supplies.
  - 1. Perform maintenance, including emergency callback service, during normal working hours.

#### 3.6 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain coiling counter doors.

#### END OF SECTION 083313

#### SECTION 101423.16 - ROOM-IDENTIFICATION PANEL SIGNAGE

#### PART 1 - GENERAL

#### 1.1 SUMMARY

A. Section includes room-identification signs that are directly attached to the building.

#### 1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: For room-identification signs.
  - 1. Include fabrication and installation details and attachments to other work.
  - 2. Show sign mounting heights, locations of supplementary supports to be provided by other installers, and accessories.
  - 3. Show message list, typestyles, graphic elements, including raised characters and Braille, and layout for each sign at least half size.
- C. Samples: For each exposed product and for each color and texture specified.

#### 1.3 INFORMATIONAL SUBMITTALS

A. Sample warranty.

#### 1.4 CLOSEOUT SUBMITTALS

A. Maintenance data.

#### 1.5 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace components of signs that fail in materials or workmanship within specified warranty period.
  - 1. Warranty Period: Five years from date of Substantial Completion.

#### PART 2 - PRODUCTS

#### 2.1 PERFORMANCE REQUIREMENTS

A. Accessibility Standard: Comply with applicable provisions in the USDOJ's "2010 ADA Standards for Accessible Design" and ICC A117.1.

#### 2.2 ROOM-IDENTIFICATION SIGNS

- A. Room-Identification Sign with smooth, uniform surfaces; with message and characters having uniform faces, sharp corners, and precisely formed lines and profiles; and as follows:
  - 1. Laminated-Sheet Sign: Photopolymer face sheet with raised graphics laminated to acrylic backing sheet to produce composite sheet.
    - a. Composite-Sheet Thickness: Manufacturer's standard for size of sign
    - b. Subsurface Graphics: Reverse halftone or dot-screen image.
    - c. Color(s): Match Architect's sample.
  - 2. Sign-Panel Perimeter: Finish edges smooth.
    - a. Edge Condition Square cut.
    - b. Corner Condition in Elevation: Square.
  - 3. Mounting: Manufacturer's standard method for substrates indicated

#### 2.3 SIGN MATERIALS

- A. Acrylic Sheet: ASTM D4802, category as standard with manufacturer for each sign, Type UVF (UV filtering).
- B. Vinyl Film: UV-resistant vinyl film with pressure-sensitive, permanent adhesive; die cut to form characters or images as indicated on Drawings and suitable for exterior applications.

#### 2.4 ACCESSORIES

- A. Fasteners and Anchors: Manufacturer's standard as required for secure anchorage of signs, noncorrosive and compatible with each material joined, and complying with the following:
  - 1. Use concealed fasteners and anchors unless indicated to be exposed.
  - 2. For exterior exposure, furnish stainless-steel devices unless otherwise indicated.
  - 3. Exposed Metal-Fastener Components, General:
    - a. Fabricated from same basic metal and finish of fastened sign unless otherwise indicated.
  - 4. Sign Mounting Fasteners:
    - a. Concealed Studs: Concealed (blind), threaded studs welded or brazed to back of sign material or screwed into back of sign assembly unless otherwise indicated.
    - b. Through Fasteners: Exposed metal fasteners matching sign finish, with type of head indicated, and installed in predrilled holes.
- B. Adhesive: As recommended by sign manufacturer.
- C. Two-Face Tape: Manufacturer's standard high-bond, foam-core tape, 0.045 inch (1.14 mm) thick, with adhesive on both sides.

#### 2.5 FABRICATION

- A. General: Provide manufacturer's standard sign assemblies according to requirements indicated.
  - 1. Mill joints to a tight, hairline fit. Form assemblies and joints exposed to weather to resist water penetration and retention.
  - 2. Conceal connections if possible; otherwise, locate connections where they are inconspicuous.
  - 3. Provide rabbets, lugs, and tabs necessary to assemble components and to attach to existing work. Drill and tap for required fasteners. Use concealed fasteners where possible; use exposed fasteners that match sign finish.
- B. Subsurface-Applied Graphics: Apply graphics to back face of clear face-sheet material to produce precisely formed image. Image shall be free of rough edges.
- C. Subsurface-Etched Graphics: Reverse etch back face of clear face-sheet material. Fill resulting copy with manufacturer's standard enamel. Apply opaque manufacturer's standard background color coating over enamel-filled copy.

#### PART 3 - EXECUTION

#### 3.1 INSTALLATION

- A. General: Install signs using mounting methods indicated and according to manufacturer's written instructions.
  - 1. Install signs level, plumb, true to line, and at locations and heights indicated, with sign surfaces free of distortion and other defects in appearance.
  - 2. Install signs so they do not protrude or obstruct according to the accessibility standard.
  - 3. Before installation, verify that sign surfaces are clean and free of materials or debris that would impair installation.
- B. Mounting Methods:
  - 1. Concealed Studs: Using a template, drill holes in substrate aligning with studs on back of sign. Remove loose debris from hole and substrate surface.
    - a. Masonry Substrates: Fill holes with adhesive. Leave recess space in hole for displaced adhesive. Place sign in position and push until flush to surface, embedding studs in holes. Temporarily support sign in position until adhesive fully sets.
    - b. Thin or Hollow Surfaces: Place sign in position and flush to surface, install washers and nuts on studs projecting through opposite side of surface, and tighten.
  - 2. Through Fasteners: Drill holes in substrate using predrilled holes in sign as template. Countersink holes in sign if required. Place sign in position and flush to surface. Install through fasteners and tighten.
  - 3. Adhesive: Clean bond-breaking materials from substrate surface and remove loose debris. Apply linear beads or spots of adhesive symmetrically to back of sign and of suitable quantity to support weight of sign after cure without slippage. Keep adhesive away from edges to prevent adhesive extrusion as sign is applied and to prevent visibility

of cured adhesive at sign edges. Place sign in position, and push to engage adhesive. Temporarily support sign in position until adhesive fully sets.

4. Two-Face Tape: Clean bond-breaking materials from substrate surface and remove loose debris. Apply tape strips symmetrically to back of sign and of suitable quantity to support weight of sign without slippage. Keep strips away from edges to prevent visibility at sign edges. Place sign in position, and push to engage tape adhesive.

END OF SECTION 101423.16

#### SECTION 10 4413 - FIRE EXTINGUISHER SPECIALTIES

#### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. This Section includes the following:
  - 1. Fire-protection cabinets for the following:
    - a. Portable fire extinguishers.
  - 2. Portable, hand-carried fire extinguishers and mounting brackets for fire extinguishers.

#### 1.3 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site.
  - 1. Review methods and procedures related to fire extinguishers and fire protection cabinets including, but not limited to, the following:
    - a. Schedules and coordination requirements.

#### 1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for fire-protection cabinets and fire extinguishers.
  - 1. Fire-Protection Cabinets: Include roughing-in dimensions, details showing mounting methods, relationships of box and trim to surrounding construction, door hardware, cabinet type, trim style, and panel style.
  - 2. Fire-Extinguishers: For each type of product indicated. Include rating and classification, material descriptions, dimensions of individual components and profiles, and finishes for fire extinguishers and mounting brackets.
- B. Shop Drawings: For fire protection cabinets. Include plans, elevations, sections, details, and attachments to other work.

- C. Samples for Verification: For each type of exposed factory-applied color finish required for fireprotection cabinets, prepared on Samples of size indicated below.
  - 1. Size: 6 by 6 inches (150 by 150 mm) square.
- D. Product Schedule: For fire extinguishers and fire protection cabinets. Coordinate final fire protection cabinet schedule with fire blanket and fire extinguisher schedule to ensure proper fit and function. Use same designations indicated on Drawings.

#### 1.5 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For fire extinguishers and fire-protection cabinets to include in operation and maintenance manuals.

#### 1.6 QUALITY ASSURANCE

- A. Source Limitations: Obtain fire extinguishers and fire-protection cabinets through one source from a single manufacturer.
- B. NFPA Compliance: Fabricate and label fire extinguishers to comply with NFPA 10, "Portable Fire Extinguishers."
- C. Fire Extinguishers: Listed and labeled for type, rating, and classification by an independent testing agency acceptable to authorities having jurisdiction.
  - 1. Provide fire extinguishers approved, listed, and labeled by FMG.

#### 1.7 COORDINATION

A. Coordinate size of fire-protection cabinets to ensure that fire blankets and type and capacity of fire extinguishers and type indicated are accommodated.

#### PART 2 - PRODUCTS

#### 2.1 MANUFACTURERS

- A. Basis-of-Design Products: Designs for fire extinguishers and fire protection cabinets are based on products as specified as manufactured by Larsen's Manufacturing Company. Subject to compliance with requirements, provide either the named products or comparable products by one of the following, as approved by the Architect:
  - 1. J.L. Industries, Inc.
  - 2. Potter-Roemer; Div. of Smith Industries, Inc.
  - 3. Watrous; Div. of American Specialties, Inc.

#### 2.2 MATERIALS

- A. Cold-Rolled Steel Sheet: ASTM A 1008/A 1008M, Commercial Steel (CS), Type B.
- B. Stainless Steel: ASTM A 666, Type 304.
- C. Tempered Float Glass: ASTM C 1048, Kind FT, Condition A, Type I, Quality q3, 3 mm thick, Class 1 (clear).

#### 2.3 PORTABLE, HAND-CARRIED FIRE EXTINGUISHERS FE

- A. General: Provide fire extinguishers of type, size, and capacity for each fire-protection cabinet indicated.
  - 1. Valves: Manufacturer's standard.
  - 2. Handles and Levers: Manufacturer's standard.
  - 3. Instruction Labels: Include pictorial marking system complying with NFPA 10, Appendix B and bar coding for documenting fire extinguisher location, inspections, maintenance, and recharging.
- B. Multipurpose Dry-Chemical Type in Steel Container: UL-rated 4-A: 80-B:C, 10-lb(4.5-kg) nominal capacity, with monoammonium phosphate-based dry chemical in enameled-steel container.
  - 1. Basis-of-Design Product: Larsen's Manufacturing Company; "MP SERIES MP10".
  - 2. Locations: Typical for all locations, unless otherwise indicated.
- C. Mounting Brackets: Manufacturer's standard galvanized steel, designed to secure fire extinguisher to wall or structure, of sizes required for types and capacities of fire extinguishers indicated, with plated or red baked-enamel finish.
- D. Identification: Lettering complying with authorities having jurisdiction for letter style, size, spacing, and location. Locate as indicated by Architect.
  - 1. Identify bracket-mounted fire extinguishers with the words "**FIRE EXTINGUISHER**" in red letter decals applied to mounting surface.
    - a. Orientation: Vertical, unless otherwise directed by the Architect.

#### 2.4 FIRE-PROTECTION CABINET FEC

- A. Cabinet Type: Suitable for fire extinguisher.
  - 1. Type FEC-FR (fully recessed)
    - a. Basis-of-Design Product: Larsen's Manufacturing Company; "Model No. SS2409-R1 Architectural Series".

- B. Cabinet Construction: Nonrated, and 1-hour fire rated.
  - 1. Fire-Rated Cabinets: Construct fire-rated cabinets with double walls fabricated from 0.0428inch- (1.1-mm-) thick, cold-rolled steel sheet lined with minimum 5/8-inch-(16-mm-) thick, fire-barrier material. Provide factory-drilled mounting holes.
- C. Recessed Cabinet: Cabinet box recessed in walls of sufficient depth to suit style of trim indicated.
  - 1. Exposed Flat Trim: One-piece combination trim and perimeter door frame overlapping surrounding wall surface with exposed trim face and wall return at outer edge (backbend).
- D. Cabinet Trim Material: Stainless steel sheet.
- E. Door Material: Stainless steel sheet.
- F. Door Style: Vertical Duo panel with frame.
- G. Door Glazing: Tempered float glass (clear).
- H. Door Hardware: Manufacturer's standard door-operating hardware of proper type for cabinet type, trim style, and door material and style indicated.
  - 1. Provide projecting lever handle with cam-action latch, projecting door pull and friction latch, or recessed door pull and friction latch.
  - 2. Provide continuous hinge, of same material and finish as trim, permitting door to open 180 degrees.
- I. Accessories:
  - 1. Mounting Bracket: Manufacturer's standard steel, designed to secure fire extinguisher to fire protection cabinet, of sizes required for types and capacities of fire extinguishers indicated, with plated or baked-enamel finish.
  - 2. Identification: Lettering complying with authorities having jurisdiction for letter style, size, spacing, and location. Locate as directed by Architect.
    - a. Identify fire extinguisher in fire protection cabinet with the words "FIRE EXTINGUISHER."
      - 1) Location: Applied to cabinet door.
      - 2) Application Process: Silk-screened.
      - 3) Lettering Color: Red.
      - 4) Orientation: Vertical.
- J. Finishes:
  - 1. Steel: Manufacturer's standard baked-enamel paint for the following:
    - a. Interior of cabinet.
  - 2. Stainless Steel: No. 4 directional satin finish.

#### 2.5 FABRICATION

- A. Fire-Protection Cabinets: Provide manufacturer's standard box (tub), with trim, frame, door, and hardware to suit cabinet type, trim style, and door style indicated.
  - 1. Weld joints and grind smooth.
  - 2. Provide factory-drilled mounting holes.
- B. Cabinet Doors: Fabricate doors according to manufacturer's standards, from materials indicated and coordinated with cabinet types and trim styles selected.
  - 1. Fabricate door frames with tubular stiles and rails and hollow-metal design, minimum 1/2 inch (13 mm) thick.
  - 2. Miter and weld perimeter door frames.

#### 2.6 GENERAL FINISH REQUIREMENTS

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" 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. Finish fire-protection cabinets after assembly.
- D. Appearance of Finished Work: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

#### 2.7 STEEL FINISHES

- A. Surface Preparation: Remove mill scale and rust, if present, from uncoated steel, complying with SSPC-SP 5/NACE No. 1, "White Metal Blast Cleaning" or SSPC-SP 8, "Pickling". After cleaning, apply a conversion coating suited to the organic coating to be applied over it.
- B. Baked-Enamel Finish: Immediately after cleaning and pretreating, apply manufacturer's standard twocoat, baked-on finish consisting of prime coat and thermosetting topcoat. Comply with coating manufacturer's written instructions for applying and baking to achieve a minimum dry film thickness of 2 mils (0.05 mm).

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

A. Examine fire extinguishers for proper charging and tagging.

- 1. Remove and replace damaged, defective, or undercharged fire extinguishers.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

#### 3.2 INSTALLATION

- A. General: Install fire-protection specialties in locations and at mounting heights indicated.
- B. Fire-Protection Cabinets: Fasten fire-protection cabinets to structure, square and plumb.
  - 1. Fasten mounting brackets to inside surface of fire-protection cabinets, square and plumb.
- C. Fire Extinguishers: Install wall-mounted fire extinguishers and mounting brackets in locations indicated and in compliance with requirements of authorities having jurisdiction.
  - 1. Mounting Brackets: Fasten mounting brackets to surfaces, square and plumb, at locations indicated.
- D. Identification: Apply vinyl lettering at locations indicated.

#### 3.3 ADJUSTING AND CLEANING

- A. Remove temporary protective coverings and strippable films, if any, as fire-protection specialties are installed, unless otherwise indicated in manufacturer's written installation instructions.
- B. Adjust fire-protection cabinet doors to operate easily without binding. Verify that integral locking devices operate properly.
- C. On completion of fire-protection cabinet installation, clean interior and exterior surfaces as recommended by manufacturer.
- D. Touch up marred finishes, or replace fire-protection cabinets that cannot be restored to factoryfinished appearance. Use only materials and procedures recommended or furnished by fire-protection cabinet manufacturer.
- E. Replace fire-protection cabinets that have been damaged or have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

END OF SECTION 10 4413

SECTION 105116 - WOOD LOCKERS

#### 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 wood-faced wood lockers and benches.

#### 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 for each type of wood locker **and bench**.
- B. Shop Drawings: For wood lockers.
  - 1. Include plans, elevations, sections, and attachment details.
  - 2. Show details full size.
  - 3. Show locations and sizes of furring, blocking, and hanging strips, including concealed blocking and reinforcement specified in other Sections.
  - 4. Show locations and sizes of cutouts and holes for items installed in lockers.
  - 5. Show locker fillers, trim, base, sloping tops, and accessories.
  - 6. Show locker identification system and numbering sequence.
- C. Samples for Initial Selection: For each type of the following:
  - 1. Thermoset decorative overlay panels.
- D. Samples for Verification: For the following products:
  - 1. Thermoset decorative-overlay-surfaced panels, not less than 8 by 10 inches (203 by 254 mm), for each type, color, pattern, and surface finish.
  - 2. Exposed cabinet hardware and accessories, one unit for each type and finish.

#### 1.4 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer.
- B. Sample Warranty: For special warranty.

#### 1.5 CLOSEOUT SUBMITTALS

A. Maintenance Data: For adjusting, repairing, and replacing locker doors and latching mechanisms to include in maintenance manuals.

#### 1.6 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
  - 1. Units of the following locker hardware items equal to [10] percent of amount installed for each type and finish installed, but no fewer than **five** units:
    - a. Hinges.
    - b. Pulls.
    - c. Shelf rests.
    - d. Cylinder locks.
    - e. Blank identification plates
    - f. Hooks.

#### 1.7 QUALITY ASSURANCE

- A. Mockups: Build mockups to verify selections made under Sample submittals, to demonstrate aesthetic effects, and to set quality standards for materials and execution.
  - 1. Build mockup of typical corner[, including one locker on each side of corner and corner filler][, including door panel with specified door hardware] <Insert Project-specific requirements>, as shown on Drawings.
  - 2. Approval of mockups does not constitute approval of deviations from the Contract Documents contained in mockups unless Architect specifically approves such deviations in writing.
  - 3. Subject to compliance with requirements, approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.

#### 1.8 DELIVERY, STORAGE, AND HANDLING

A. Do not deliver lockers until painting and similar operations that could damage lockers have been completed in installation areas. If lockers must be stored in other-than-installation areas, store only in areas where environmental conditions are the same as those in final installation location, and comply with requirements specified in "Field Conditions" Article.

#### 1.9 FIELD CONDITIONS

A. Environmental Limitations: Do not deliver or install wood lockers until building is enclosed, wetwork is complete, and HVAC system is operating and maintaining temperature between 60 and 90 deg F (16 and 32 deg C) and relative humidity between **25 and 55** percent during the remainder of the construction period.

- B. Field Measurements: Where lockers are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication, and indicate measurements on Shop Drawings.
  - 1. Locate concealed framing, blocking, and reinforcements that support lockers by field measurements before being enclosed, and indicate measurements on Shop Drawings.
- C. Established Dimensions: Where wood lockers are indicated to fit to other construction, establish dimensions for areas where lockers are to fit. Provide allowance for trimming at site, and coordinate construction to ensure that actual dimensions correspond to established dimensions.

#### 1.10 COORDINATION

- A. Coordinate sizes and locations of concealed support bases.
- B. Coordinate sizes and locations of framing, blocking, furring, reinforcements, and other related units of work specified in other Sections to ensure that wood lockers can be supported and installed as indicated.

#### 1.11 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace components of lockers that fail in materials or workmanship within specified warranty period.
  - 1. Failures include, but are not limited to, the following:
    - a. Structural failures.
    - b. Faulty operation of locks and other hardware.
    - c. Deterioration of wood, wood finishes, and other materials beyond normal use.
  - 2. Warranty Period: **Three** years from date of Substantial Completion.

#### PART 2 - PRODUCTS

#### 2.1 PERFORMANCE REQUIREMENTS

A. Accessibility Standard: For lockers indicated to be accessible, comply with applicable provisions in the USDOJ's "2010 ADA Standards for Accessible Design" the ABA standards of the Federal agency having jurisdiction and ICC A117.1.

#### 2.2 WOOD LOCKERS

- A. Solid Wood Lockers Basis of Design: **Pro Sports Locker, Model #PSY0028** Manufactured by Player Stall.
  - 1. <sup>3</sup>/<sub>4</sub>" White Birch with solid White Birch finished edging
  - 2. Seat enclosed compartment for extra storage
  - 3. Locking: Provide locks on storage compartment
  - 4. Size: 76" x 18" wide x 18" deep

- B. Wood Veneer Faced Wood Lockers Basis of Design: **Model A Wood veneer locker** Manufactured by Hollman.
  - 1. Finish: As selected by Architect
  - 2. 72" high x 18" wide x 18" deep
- C. Final Assembly: Manufacturer's standard assembly.
- D. Locker Body: Manufacturer's standard body. All exposed edges to be solid wood.
- E. Flush, Solid-Wood Doors: 3/4-inch- (19-mm-) thick, solid wood; manufacturer's standard.
- F. Flush, Wood-Faced Doors: Wood veneer applied over 3/4-inch- (19-mm-) thick, hardwoodplywood core.
  - 1. Wood Veneer: White birch, plain sliced
  - 2. Wood Edges: 1-inch- (25-mm-) thick, solid wood of same wood species as face veneer.
- G. End Panels: Match style, material, construction, and finish of wood-faced wood doors.
- H. Shelves: Fabricated from **plywood** core panels covered on both sides with thermoset decorative overlay; **fixed unless otherwise indicated**.
  - 1. Thickness: 3/4 inch (19 mm)
  - 2. Exposed Edges: Solid wood to match doors.
- I. Corners and Filler Panels: 3/4-inch- (19-mm-) thick panel. Match style, material, construction, and finish of wood-faced wood doors.
- J. Continuous Finish Base: Wood-faced, 3/4-inch- (19-mm-) thick panel that matches door faces; fabricated in lengths as long as practical to enclose base and base ends of lockers.
- K. Continuously Sloping Tops: Wood-faced, 3/4-inch- (19-mm-) thick panel that matches door faces for installation over lockers with separate flat tops. Fabricate tops in lengths as long as practical, without visible fasteners at splice locations. Provide fasteners, supports, and closures, as follows:
  - 1. Sloping-top corner fillers, mitered.
- L. Grain Matching: Run and match grain vertically for doors and fixed panels.
- M. Veneer Matching:
  - 1. None required; select and arrange veneers for compatible grain and color.
- N. Transparent Finish: Manufacturer's standard two-coat, clear, catalyzed lacquer finish with sanding between coats. Seal with moisture-resistant topcoat.
- O. Factory finish wood lockers as specified in this Section. Defer only final touchup, cleaning, and polishing until after installation.
  - 1. Preparations for Finishing: Sand, fill countersunk fasteners, seal concealed surfaces, and perform similar preparations for finishing lockers, as applicable to each unit of the Work.

2. Backpriming: Apply one coat of sealer or primer, compatible with finish coats, to concealed surfaces of wood lockers that do not have finish materials applied. Apply two coats to concealed backs and ends of panels.

#### 2.3 MATERIALS

- A. Solid Wood: Clear hardwood lumber, selected for compatible grain and color.
- B. Composite Wood: Provide materials that comply with requirements of referenced quality standard for each type of woodwork and quality grade specified unless otherwise indicated.
  - 1. Thermoset Decorative Panels: Particleboard or medium-density fiberboard finished with thermally fused, melamine-impregnated decorative paper and complying with requirements of NEMA LD 3, Grade VGL, for Test Methods 3.3, 3.4, 3.6, 3.8, and 3.10.
  - 2. Medium-Density Fiberboard: ANSI A208.2, [Grade 130] < Insert grade>.
  - 3. Particleboard: ANSI A208.1, [Grade M-2] [Grade M-2-Exterior Glue].
  - 4. Softwood Plywood: DOC PS 1[, medium-density overlay].
  - 5. Veneer-Faced Panel Products (Hardwood Plywood): HPVA HP-1.
- C. Fire-Retardant-Treated Materials: Where fire-retardant-treated materials are indicated, use materials impregnated with fire-retardant chemical formulations indicated by a pressure process or other means acceptable to authorities having jurisdiction to produce products with fire-test-response characteristics specified.
  - 1. Do not use material that is warped, discolored, or otherwise defective.
  - 2. Use fire-retardant-treatment formulations that do not bleed through or otherwise adversely affect finishes. Do not use colorants in solution to distinguish treated material from untreated material.
  - 3. Fire-Retardant Particleboard: Panels made from softwood particles and fire-retardant chemicals mixed together at time of panel manufacture to achieve flame-spread index of 25 or less and smoke-developed index of 25 or less according to ASTM E84:
    - a. Panels 3/4 Inch (19 mm) Thick and Less: ANSI A208.1, Grade M-2, except for the following minimum properties: density, 45 lb/cu. ft. (720 kg/cu. m); modulus of rupture, 1600 psi (11 MPa); modulus of elasticity, 300,000 psi (2000 MPa); internal bond, 80 psi (550 kPa); and screw-holding capacity on face and edge, 250 and 225 lbf (1100 and 1000 N), respectively.
    - b. Panels 13/16 to 1-1/4 Inches (20 to 32 mm) Thick: ANSI A208.1, Grade M-1, except for the following minimum properties: density, 44 lb/cu. ft. (705 kg/cu. m); modulus of rupture, 1300 psi (9 MPa); modulus of elasticity, 250,000 psi (1700 MPa); linear expansion, 0.50 percent; and screw-holding capacity on face and edge, 250 and 175 lbf (1100 and 780 N), respectively.
  - 4. Fire-Retardant Fiberboard: Medium-density panels according to ANSI A208.2, made from softwood fibers, synthetic resins, and fire-retardant chemicals mixed together at time of panel manufacture to achieve flame-spread index of 25 or less and smoke-developed index of 200 or less according to ASTM E84.
- D. Furring, Blocking, Shims, and Hanging Strips: **Fire-retardant-treated softwood lumber**, kiln dried to less than 15 percent moisture content.

E. Anchors: Material, type, size, and finish as required for each substrate for secure anchorage. Provide metal expansion sleeves or expansion bolts for post-installed anchors. Use nonferrousmetal or hot-dip galvanized anchors and inserts at inside face of exterior walls and at floors.

#### 2.4 HARDWARE

- A. Cam Padlock Hasp: Surface mounted, steel; finished to match other locker hardware.
- B. Cylinder Lock: Built-in, flush cam locks with five-pin tumbler keyway, keyed separately and master keyed. Furnish two change keys for each lock and [**two**] <**Insert number**> master keys.
  - 1. Key Type: [Flat] [Grooved][, with minimum 2-by-2.68-inch (51-by-68.3-mm) key head for accessible lockers].
  - 2. Bolt Operation: [Manually locking deadbolt] [or] [automatically locking spring bolt].
- C. Accessible Handle: Metal, fixed, graspable lever handle and rose trim; surface mounted.
- D. Shelf Rests: BHMA A156.9, B04013.
- E. Hooks: Provide hooks as per Manufacturer's standard design, construction, quantity and location.

#### 2.5 ADA LOCKER BENCH

- A. Manufacturers: Subject to compliance with requirements, provide the following:
  - 1. Hollman, Inc. "Oslo" style bench with attached back.
- B. Provide bench unit with seat height of 18 inches.
- C. ADA-Compliant Bench Top: Manufacturer's standard unit, with rounded corners and edges.
  - 1. Size: 20 inches wide by 48- inches long.
  - 2. Laminated clear hardwood seat and back with one coat of clear sealer on all surfaces and one coat of clear lacquer on top and sides.
- D. Fixed-Bench Legs: Rectangular stainless steel supports, with predrilled fastener holes for attaching bench top and anchoring to floor, complete with fasteners and anchors, and as follows:
  - 1. Provide 2 rectangular legs for each ADA bench top unit.
- E. Bench Backs: Back support for full width of bench, secured to bench.
  - a. Construction: Match style, material, and finish of bench top:
  - b. Height: Beginning at a point no more than 2 inches (51 mm) above the seat surface to a height no less than 18 inches (457 mm) above the seat surface.

#### 2.6 LOCKER BENCH

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

- 1. Hollman, Inc. "Oslo" style bench.
- B. Provide bench unit with seat height of 18 inches.
- C. Bench Top: Manufacturer's standard unit, with rounded corners and edges.
  - 1. Size: Provide in Manufacturer's standard sizes, as noted on the drawings.
  - 2. Laminated clear hardwood seat with one coat of clear sealer on all surfaces and one coat of clear lacquer on top and sides.
- D. Fixed-Bench Legs: Rectangular stainless steel supports, with predrilled fastener holes for attaching bench top and anchoring to floor, complete with fasteners and anchors, and as follows:
  - 1. Provide leg quantity per manufacturer's standard.

#### 2.7 FABRICATION

- A. Fabricate each locker with shelves, an individual door and frame, an individual top, a bottom, and a back, and with common intermediate uprights separating compartments.
  - 1. Fabricate lockers to dimensions, profiles, and details indicated.
  - 2. Ease edges of corners of solid-wood members to 1/16-inch (1.5-mm) radius.
- B. Fabricate lockers square, rigid, without warp, and with finished faces flat and free of dents, scratches, and chips. Accurately factory machine components for attachments. Make joints tight and true.
  - 1. Fabricate lockers using manufacturer's standard construction, with joints made with dowels, dados, or rabbets. Dado side panels to receive shelving except where indicated to be adjustable.
  - 2. Fabricate lockers with joints that are dadoed or rabbeted, glued full length, and stapled. Dado side panels to receive shelving except where indicated to be adjustable.
  - 3. Join drawer subfronts, backs, and sides with manufacturer's standard glued joints.
  - 4. Join drawer subfronts, backs, and sides with [glued rabbeted joints supplemented by mechanical fasteners] [or] [glued dovetail joints].
- C. Accessible Lockers: Provide one accessible locker per locker room. Fabricate as follows:
  - 1. Locate bottom shelf no lower than 15 inches (381 mm) above the floor.
  - 2. Where hooks, coat rods, or additional shelves are provided, locate no higher than 48 inches (1219 mm) above the floor.
- D. Complete fabrication, including assembly, finishing, and hardware application, to maximum extent possible, before shipment to Project site. Disassemble components only as necessary for shipment and installation. Where necessary for fitting at site, provide ample allowance for scribing, trimming, and fitting.
  - 1. Trial fit assemblies at fabrication shop that cannot be shipped completely assembled. Install dowels, screws, bolted connectors, and other fastening devices that can be removed after trial fitting. Verify that the parts fit as intended, and check measurements of

assemblies against field measurements indicated on Shop Drawings before disassembling for shipment.

- 2. Use only manufacturer's nuts, bolts, screws, and other devices for assembly.
- E. Shop cut openings, to maximum extent possible, to receive hardware, electrical work, and similar items. Locate openings accurately and use templates or roughing-in diagrams to produce accurately sized and shaped openings. Sand edges of cutouts to remove splinters and burrs.

#### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Examine walls and floors or support bases, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Verify that furring is attached to concrete and masonry walls that are to receive lockers.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

#### 3.2 PREPARATION

- A. Condition lockers to average prevailing humidity conditions in installation areas before installation.
- B. Before installing lockers, examine factory-fabricated work for completeness and complete work as required, including removal of packing.

#### 3.3 INSTALLATION

- A. Install lockers level, plumb, and true; use concealed shims.
- B. Connect groups of lockers together with manufacturer's standard fasteners, through predrilled holes, with no exposed fasteners on face frames. Fit lockers accurately together to form flush, tight, hairline joints.
- C. Install lockers without distortion so doors and drawers fit openings properly and are accurately aligned. Adjust hardware to center doors and drawers in openings, providing unencumbered operation. Complete installation of hardware and accessory items as indicated.
  - 1. Installation Tolerance: No more than 1/8 inch in 96-inch (3 mm in 2400-mm) sag, bow, or other variation from a straight line. Shim as required with concealed shims.
  - 2. Maintain veneer sequence matching of wood-faced wood lockers.
- D. Scribe and cut corner and filler panels to fit adjoining work using fasteners concealed where practical. Repair damaged finish at cuts.
- E. Attach sloping-top units to lockers, with end panels covering exposed ends.

F. Fixed Locker Benches: Provide no fewer than two pedestals for each bench, uniformly spaced not more than 72 inches (1830 mm) apart. Securely fasten tops of pedestals to undersides of bench tops, and anchor bases to floor.

#### 3.4 ADJUSTING

A. Clean, lubricate, and adjust hardware. Adjust doors to operate easily without binding. Verify that integral locking devices operate properly.

#### 3.5 PROTECTION

- A. Protect lockers from damage, abuse, dust, dirt, stain, or paint. Do not permit use during construction.
- B. Touch up marred finishes, or replace lockers that cannot be restored to factory-finished appearance. Use only materials and procedures recommended or furnished by locker manufacturer.

END OF SECTION 105116



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16. ALL NON-ACCESSIBLE PARKING SPACES ARE 9' X 18'. VERIFY OVERALL LAYOUT DIMENSIONS BASED ON THESE DIMENSIONS AND THE NUMBER OF SPACES INDICATED. FIELD-ADJUST OVERALL LAYOUT DIMENSION IN CONCERT WITH THE ENGINEER IF REQUIRED. 17. DIMENSIONS INDICATED ARE TO FACE OF CURB, PAVEMENT EDGE, EDGE OR CENTERLINE OF IMPROVEMENT, OR AS OTHERWISE NOTED.

18. PROVIDE FOR THE LAYOUT AND STAKING/MARKING OF THE PROPOSED LOCATION OF ALL PROPOSED SITE IMPROVEMENTS, INCLUDING FURNISHINGS. OBTAIN ENGINEER'S APPROVAL OF THE LAYOUT PRIOR TO PROCEEDING WITH THE WORK.

15. UNLESS OTHERWISE SPECIFIED, MISCELLANEOUS CONCRETE PADS SHALL BE CONSTRUCTED PER SIDEWALK DETAIL.

19. UNLESS OTHERWISE INDICATED, LINES ARE PARALLEL OR PERPENDICULAR TO LINE FROM WHICH THEY ARE MEASURED.

— RETAINING WALL - BUILT IN BENCH - PROPOSED SIGN 10 - PROPOSED PARKING SPACES ACCESSIBLE PARKING SPACE



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Drawing Information

11/18/20

GL-2021-05

Issue Record Issued for Bid 11/20/20

1 Addendum 2 2 Addendum 3

Date

Job Number

Revisions 12/10/20 12/18/20

Structural Engineer

MEP Engineer

860 652 8227

655 Winding Brook Drive

Glastonbury, Connecticut 06033

Issued for Bid 330 Hubbard Street Glastonbury, CT 06033 GL-2021-05 Project Team **Civil Engineer** 

**Glastonbury High School** 



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**Athletics Facility** 





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## **Glastonbury High School Athletics Facility**

Issued for Bid 330 Hubbard Street Glastonbury, CT 06033 GL-2021-05 Project Team

**Civil Engineer** 655 Winding Brook Drive Glastonbury, Connecticut 06033 860 652 8227

MEP Engineer

Structural Engineer

Revisions 1 Addendum 2 12/10/20 2 Addendum 3 12/18/20

> Issue Record Issued for Bid 11/20/20

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Job Number	GL-2021-05
Date	11/18/20

Drawing Information

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Issue Record Issued for Bid 11/20/20

1 Addendum 2 2 Addendum 3 Revisions 12/10/20 12/18/20

Structural Engineer

Glastonbury, Connecticut 06033 860 652 8227 MEP Engineer

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Drawing Number



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Date	11/18/20
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Issue Record Issued for Bid 11/20/20

Addendum 2
Addendum 3

Revisions 12/10/20 12/18/20

Structural Engineer

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## 4 <u>SECTION</u> 3/4" = 1'-0"

3 <u>SECTION</u> 3/4" = 1'-0"

SKEWED.

ROOF SHEATHING - SEE PLAN CONNECTOR TRUSSES - SEE PLAN - BLOCKING - RIP TO FIT - (3) LVLs - SEE PLAN 2x4 RIBBON BOARD, RIPPED TO FIT  $\sim$ PROVIDE SIMPSON H2.5A @ EA TRUSS. FASTEN TO (3) LVLS. 



- FASTEN TOP & BOTTOM CHORD TO EA WALL STUD W/ (2) 0.148"x3" NAILS. – ROOF SHEATHING - SEE PLAN - CONNECTOR TRUSSES - SEE PLAN – LVLs - SEE PLAN



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

NOTES:

- SEE ROOF FRAMING PLAN NOTES. TRUSS TO BE DESIGNED FOR AN ADDITIONAL DEAD LOAD OF 150PLF ON EASTERN HALF OF TRUSS. TOTAL DEFLECTION SHOULD BE LIMITED TO THE LESSER OF 0.3" OR L/600. PROVIDE W8X10 LINTEL W/ 1/4"x7" PLATE AT BOTTOM. WELD PLATE TO WF FLANGE W/ 2" LONG FILLET WELD @ 12" O/C, EF. PROVIDE 4" BEARING @ EA END. 2.
- 3.

- LVLs TO BEAR ON 5 1/4" x 5 1/4" PSL

 PROVIDE (2) 1 3/4" x 5 1/2" LVLs
(ONE EA SIDE), FULL HEIGHT, @
LVL SUPPORT LOCATIONS. FASTEN EA 5 1/2" LVL TO (3) LVLs w/ (4) 4" SIMPSON SCREWS. FASTEN TO TOP PLATE W/ HU1.8/5,



# S4.1

Drawing Number

## Connector Roof Alternate

	Drawing Information
Date	11/20/20
Job Number	GL-2021-05
Scale	As indicated
Drawn	EAM
Checked	DJM
	Drawing Name

Seal

Issue Record Issued for Bid 11/20/20

1 Addendum 2 2 Addendum 3

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Revisions 12/10/20 12/18/20

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## FLOOR PLAN NOTES

- STUD/MASONRY UNLESS OTHERWISE NOTED.

- 1. PARTITIONS LOCATED BY DIMENSION STRING ARE DIMENSIONED TO THE FACE OF 9. FULLY LAY OUT WALL AND OPENING PLACEMENT IN AN AREA PRIOR TO START OF PARTITION CONSTRUCTION. VERIFY THAT DIMENSIONS ARE CONSISTENT WITH









Drawing Number

FIRST FLOOR PLANS

	Drawing Information
Date	November 20, 2020
Job Number	GL-2021-05
Scale	As indicated
Drawn	JP
Checked	KS
	Drawing Name

Seal

Issue Record Issued for Bid 11/18/20

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3 A-400 \A-400 A-401 5 A-301 12 A-301 METAL LOUVER, SEE STOREFRONT DOOR AND TRANSOM T.AthRodfATE 10'106-3941/2 LF-3 ALUMINUM
CASEMENT INSULATED COILING COUNTER W1 WINDOW Restroom FFE 0' - 0" T.O.R. Footing 6' - 8" -2' - 6" 🔇 --,=A-|--,=A-B.O.R. Footing -3' - 6" 33' - 4" 36' - 0" PAINTED SPLIT FACE CMU BLOCK PAINTED SPLIT FACE CMU BLOCK 5 Restroom Building Elevation - South 1/8" = 1'-0" 4 Locker Room Building Elevation - North 1/8" = 1'-0" 2 (A-401) (5) (A-401) MECHANICAL INTAKE AND EXHAUST FANS, SEE MECHANICAL DRAWINGS LF-3 LF-3 LF-3 LF-3 LF-3 LF-3 3 A-101/ - HM DOOR & FRAME, TYPICAL — 3" DOWNSPOUT TIGHT AGAINST BRICK BLOCK WALL 62' - 8" 35' - 4" PAINTED SPLIT FACE CMU BLOCK PAINTED "EMBOSSED BRICK" CMU A-401 - CONTINUOUS RIDGE VENT ASSEMBLY, TYPICAL - ASPHALT SHINGLE ROOF ASSEMBLY, TYPICAL - FUTRURE SOLAR PANELS BY OWNER LF-3 LF-3 3 A-101 (07-B) (18-B) ́ 1|5-В

40' - 0"

\_\_\_\_\_ \_\_ \_\_\_ |-

BRICK BLOCK WALL

3" DOWNSPOUT TIGHT AGAINST

29' - 4"

PAINTED "EMBOSSED BRICK" CMU

\_\_\_\_\_

62' - 8" PAINTED SPLIT FACE CMU BLOCK

\_\_\_\_\_







Drawing Number

## EXTERIOR ELEVATIONS

	Drawing Information
Date	November 20, 2020
Job Number	GL-2021-05
Scale	1/8" = 1'-0"
Drawn	Author
Checked	Checker
	Drawing Name

Seal

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GL-2021-05

Project Team



A - 4.-- A

· - 4<sup>-</sup>

49 · A4

T.O.R. Footing -2' - 6"

B.O.R. Footing -3' - 6"

. . .

TO STRUCTURAL NARRATIVE





-14 dri

, 4 , <sup>1</sup> 4 4

4

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\_\_\_\_\_T.O.R. Footing -2' - 6"

B.O.R. Footing -3' - 6"



1 WALL SECTION AT WOMEN'S ROOM LOOKING SOUTH 3/4" = 1'-0"





Drawing Number

Drawing Name

### WALL SECTIONS AT **RESTROOM BUILDING**

	Drawing Information
Date	November 20, 2020
Job Number	GL-2021-05
Scale	As indicated
Drawn	KS
Checked	JS

Seal

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Drawing Number

Drawing Name

## SECTION DETAILS AT LOCKER BUILDING

	Drawing Information
Date	November 20, 2020
Job Number	GL-2021-05
Scale	As indicated
Drawn	KS
Checked	JS

Seal

Issue Record Issued for Bid 11/18/20

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) 667-323

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**Civil Engineer** 

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1' - 3" @ WT1 4 3/8" @ WT2

J1 JAMB DETAIL 3" = 1'-0"

# A-802

Drawing Number

## WINDOW SCHEDULE, FRAMES, AND ELEVATIONS

	Drawing Information
Date	November 20, 2020
Job Number	GL-2021-05
Scale	As indicated
Drawn	Author
Checked	Checker
	Drawing Name

Seal

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MEP Engineer BEMIS | ASSOCIATES, LLC Consulting Engineers

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### 2 LOCKER ROOM BUILDING - PLUMBING FLOOR PLAN P-100 3/16" = 1'-0"



# 3 LOCKER ROOM BUILDING - PLUMBING FLOOR PLAN P-100 3/16" = 1'-0"



1LOCKER ROOM BUILDING - FOUNDATION PLUMBING PLANP-1001/8" = 1'-0"

## **P-100**

Drawing Number

### FOUNDATION AND FIRST FLOOR PLUMBING PLAN

	Drawing Information
Date	11/20/20
Job Number	GL-2021-05
Scale	As indicated
Drawn	WKH
Checked	LMD
	Drawing Name

Seal

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