

ADDENDUM NO. 01

July 7, 2022

**Zionsville Community High School Soccer Stadium and Parking Expansion
4400 S 875 E
Zionsville, IN 46077**

TO: ALL BIDDERS OF RECORD

This Addendum forms a part of and modifies the Bidding Requirements, Contract Forms, Contract Conditions, the Specifications, and the Drawings dated June 17, 2022, by Fanning Howey. Acknowledge receipt of the Addendum in the space provided on the Bid Form. Failure to do so may subject the Bidder to disqualification.

This Addendum consists of Pages ADD 1 -1, Specification Section 32 31 19 Decorative Metal Fences and Gates and attached Fanning/Howey Associates, Inc Addendum No. 1 dated July 7, 2022 consisting of four (4) pages, Specification Section 32 31 19 – Decorative Metal Fences and Gates, and drawing sheets G1.1, G4.1, G4.3, and A0.01.

A. SPECIFICATION SECTION 01 12 00 – Multiple Contract Summary

A. Bid Category 01 – General Trades

Add the following Specification Sections:

32 31 19 – Decorative Metal Fences and Gates

ADDENDUM NO. 1

Zionsville Community High School Soccer Stadium and Parking Expansion

Zionsville Community Schools
Zionsville, Indiana

Project No. 221192.00

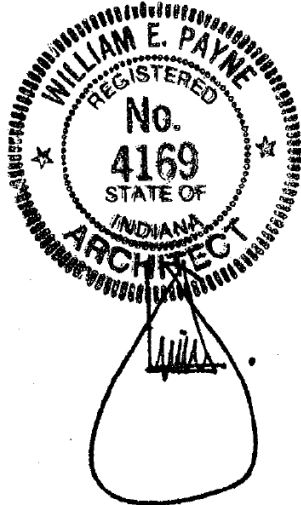
Index of Contents

Addendum No. 1, 9 items, 4 pages
New Project Manual Section: 32 31 19 – Decorative Metal Fences and Gates
Revised Drawing Sheets: G1.1, G4.1, G4.3, and A0.01

Date: July 7, 2022

I hereby certify that this Addendum was prepared by me or under my direct supervision and that I am a duly registered Architect/Engineer under the Laws of the State of Indiana.

FANNING/HOWEY ASSOCIATES, INC.
ARCHITECTS/ENGINEERS/CONSULTANTS



William E. Payne, AIA
Indiana Registration No. 4169

TO: ALL BIDDERS OF RECORD

ADDENDUM NO. 1 to Drawings and Project Manual, dated June 17, 2022, for Zionsville Community High School Soccer Stadium and Parking Expansion, for Zionsville Community Schools, 900 Mulberry Street, Zionsville, Indiana; as prepared by Fanning/Howey Associates, Inc., Indianapolis, Indiana.
This Addendum shall hereby be and become a part of the Contract Documents the same as if originally bound thereto.

The following clarifications, amendments, additions, revisions, changes, and modifications change the original Contract Documents only in the amount and to the extent hereinafter specified in this Addendum.

Each bidder shall acknowledge receipt of this Addendum in his proposal or bid.

NOTE: Bidders are responsible for becoming familiar with every item of this Addendum. (This includes miscellaneous items at the very end of this Addendum.)

RE: ALL BIDDERS

ITEM NO. 1. NEW PROJECT MANUAL SECTION(S)

- A. New Project Manual Section 32 31 19 – Decorative Metal Fences and Gates, dated 7/7/22, is included with and hereby made a part of this Addendum.

ITEM NO. 2. PROJECT MANUAL, TABLE OF CONTENTS

- A. Book 2, Page 00 00 20-6, DIVISION 32: Add Section 32 31 19 – Decorative Metal Fences and Gates.

ITEM NO. 3. PROJECT MANUAL, SECTION 11 68 43 – EXTERIOR SCOREBOARDS

- A. Replace 2.1, A., as follows:
 - “A. Basis-of-Design: The design is based on Nevco Scoreboard Company.”
- B. Article 2.3, A: Replace “Daktronics Model SO-2008” with “Nevco Model 3655”
- C. Article 2.4, A: At end of paragraph replace “Model All Sport 5000 as manufactured by Daktronics” with “MPCW-7 Wireless Controller as manufactured by Nevco”.

ITEM NO. 4. PROJECT MANUAL, SECTION 12 93 00 – SITE IMPROVEMENTS AND AMENITIES

- A. Add 1.02, 6, as follows:
 - “6. Rescue Station”
- B. Article 2.04: Add “RESCUE STATION” into title list.
- C. Article 2.04, A: Add “and Rescue Station” after “trash receptacles” within sentence.

ITEM NO. 5. PROJECT MANUAL, SECTION 31 20 00 – EARTH MOVING

A. Add 1.1, A., 7., as follows:

“7. Subbase drainage course and topping course for synthetic grass surfacing.”

B. Article 2.1: Change paragraph “J. Topsoil..” to “K. Topsoil ...”.

C. Add 2.1, L., as follows:

“L. Synthetic Grass Surfacing Base Materials: The base materials are critical to the performance of the entire system and should contain the necessary components and characteristics to satisfy local conditions.

1. Soil Separator: A geo-textile fabric shall be placed over the entire subgrade and within the pipe trenches prior to the installation of the base materials to minimize contamination of the aggregate and possible clogging of the perforated drainage pipes. Where soil conditions warrant, a polyethylene, PVC or other impermeable sheet liner may be used in lieu of the geo-textile to inhibit storm water infiltration into the subsoil.
2. Aggregate: The aggregate materials utilized to construct the field base must be a properly, graded, crushed stone to provide a balance between stability and permeability. A highly fractured material is desirable to provide the surface stability required for the synthetic turf surfacing, supplemental padding or porous paving as applicable. The graded aggregate particle sizes must be tightly controlled to fall within the bandwidth for all specified sieve sizes with just enough fines to provide stability while still allowing for sufficient drainage. Minimum stability and permeability requirements should be determined and confirmed by an independent certified laboratory prior to construction of the base course.
 - a. Subbase material shall be 1 inch diameter, maximum as indicated on Drawings.
 - b. Topping course shall be open graded fine crushed stone as indicated on Drawings.
3. Compaction: The base materials should be thoroughly compacted to prevent differential settlement across the field area. Minimum compaction levels should not be less than 90 percent density as measured by a standard proctor test. Special attention should be given to backfill compaction of any utility trenches that cross the field area.
4. Water Permeability: Water permeability rates for both the field's surfacing and the field base materials should be designed to accommodate the local weather patterns. The permeability of both the field surface and the base materials will typically decrease over the life of the field. An adequate factor of safety should be utilized to provide initial infiltration rates for the completed field above those required by the local weather conditions.”

D. Add 2.4, B., as follows:

“B. Separation Geotextile (Synthetic Grass Surfacing): Woven geotextile fabric, manufactured for separation applications, made from polyolefins or polyesters; with elongation less than 50 percent; complying with AASHTO M 288 and the following, measured per test methods referenced:

1. Survivability: Class 2; AASHTO M 288.
2. Grab Tensile Strength: 247lbf; ASTM D 4632.
3. Sewn Seam Strength: 222 lbf; ASTM D 4632.
4. Tear Strength: 90 lbf; ASTM D 4533.
5. Puncture Strength: 90 lbf; ASTM D 4833.
6. Apparent Opening Size: No. 60 sieve, maximum; ASTM D 4751.
7. Permittivity: 0.02 per second, minimum; ASTM D 4491.
8. UV Stability: 50 percent after 500 hours' exposure; ASTM D 4355.

E. Add 3.1, D., as follows:

- “D. Synthetic Grass Surfacing Subgrade Preparation: The subgrade should provide a stabilized foundation upon which base materials and subsequent components of playing field systems will be installed.
1. Function: It should also provide the pitched surface on which storm water is directed toward the active drainage system for evacuation.
 2. Shape and Compaction: Prior to placement of base materials, the subgrade should be shaped to an appropriate profile and compacted by proof rolling to obtain a firm even surface. Depressed areas should be filled and unsuitable materials removed and replaced with clean fill or aggregate. Compaction should be performed to achieve a minimum of 90 percent in accordance with ASTM D698 Standard Proctor Method. The appropriate moisture content must be maintained in the field subgrade to allow for optimal levels of compaction.
 3. Subgrade (Rough) Planarity: The tolerances for the finished subgrade should not exceed one inch as measured by a 10 foot straight edge. Grading of the subgrade shall minimize ponding to the extent practical.
 4. Proof-roll the subgrade in presence of Owner's Testing Agency and Synthetic Grass Surfacing Manufacturer to assure a consistent and uniform compaction of the entire field. The Synthetic Grass Surfacing Manufacturer must approve the subgrade preparation before commencing drainage installation and aggregate subbase installation.

F. Add 3.18 C., as follows:

- “C. Synthetic Grass Surfacing Aggregate Subbase: Installation of the aggregate base should provide a close, evenly textured surface meeting the required tolerances.
1. Construction: Extreme care should be taken to ensure that there is no disturbance to the subgrade and that there is no displacement of the soil separator. All disturbed, displaced, or damaged material is to be repaired or replaced.
 2. Placement: The aggregate base should be placed in a manner that will produce an evenly graded mass to the depth specified. The material should be constructed in successive horizontal layers not over six (6) inches in depth when compacting across the entire field area when spread by appropriate equipment and methods, and should be thoroughly and uniformly compacted with a self-propelled roller to achieve the specified density. The material should be placed and distributed so that there will be no pockets of uniform size solid material. Any pockets resulting from segregation of the stone during installation should be reworked.
 3. Compaction: The field base materials should be thoroughly compacted to prevent any significant differential settlement across the area of synthetic turf surfacing. Typical minimum compaction levels are 90 percent Standard Proctor for the base materials. The appropriate moisture content must be maintained in the base materials to allow for optimal levels of compaction.
 4. Finish-Grade Planarity (surface tolerances): Irregularities in the surface of the base materials are typically reflected in the finished field surface. Therefore it is important to install the base materials to controlled tolerances. The local deviation of the finished surface of the base stone should not exceed 1/4 inch in any direction when measured beneath a 10 foot long straight edge. Hollows and depressions, which may have developed during the process of compacting the base, should be filled with acceptable material and recompact.

ITEM NO. 6. PROJECT MANUAL, SECTION 32 18 13 – SYNTHETIC GRASS SURFACING

A. Replace 2.2, A., as follows:

- “A. Drainage System, refer to Division 33, Subdrainage.”

- B. Replace 2.2, B., as follows:
- “B. Base Materials, refer to Division 31, Earth Moving.”
- C. Replace 2.2, D, 9., g., as follows:
- “g. Base Bid – Infill Materials without shock pad: Rubber (Green) 70% and Sand 30%.
- D. Article 2.2, D., 9., h: Change “Rubber 30% (Green)” to “Rubber 50% (Green)” within sentence.
- E. Article 2.2, E., 2: Delete “either styrene butadiene rubber (SBR) or” from the first sentence of the paragraph.

ITEM NO. 7. PROJECT MANUAL, SECTION 32 31 13 – CHAIN LINK FENCES AND GATES

- A. Add 1.2, A., 3., and 4., as follows:
- “3. Fence Cap
4. Privacy Slats”
- B. Add Article 2.6 and 2.7 as follows:
- “2.6 FENCE CAP
- A. Fence Cap: 4-1/2 inch diameter, pre-slit poly tubing fully uv-protected, 100% virgin resin as manufactured by Beacon Athletics and as indicated on Drawings in location indicated only. Color as selected by Owner.”
- 2.7 PRIVACY SLATS
- A. Tubular Polyethylene Slats: Minimum 0.023-inch-thick tubular polyethylene, manufactured for chain-link fences from virgin polyethylene with UV inhibitor, sized to fit mesh specified for direction indicated, with fins for increased privacy factor. Color as selected by Architect from manufacturer’s full range.”

ITEM NO. 8. ACCEPTABLE MANUFACTURERS

The following manufacturers are to be considered acceptable manufacturers (suppliers and fabricators) for the Sections of the Specifications listed. Listed manufacturers are required to bid on products equal in type and design, size, function, and quality to that originally specified. Final decision as to equality of products specified versus those proposed shall be made by the Architect.

Section 13 34 17 – Angle Frame Bleachers
- Sturdisteel Company, Hewitt, Texas

Section 13 34 23 – Modular Pressbox
- Sturdisteel Company, Hewitt, Texas

ITEM NO. 9. REVISED DRAWING SHEETS

- A. Drawing Sheets: G1.1, G4.1, G4.3, and A0.01, have been revised, dated 7/7/22, and are included with and hereby made a part of this Addendum. These Drawings supersede the original documents.

END OF ADDENDUM

SECTION 32 31 19 – DECORATIVE METAL FENCES AND GATES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, Division 01 Specification Sections, and Division 08 Section Door Hardware Schedule, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Industrial ornamental aluminum fence
 - 2. Swing gates.
- B. Related Sections:
 - 1. Section 033000 "Cast-in-Place Concrete" for concrete post concrete fill.
 - 2. Section 312000 "Earth Moving" for site excavation, fill, and backfill where decorative metal fences and gates are located.

1.3 PERFORMANCE REQUIREMENTS

- A. Lightning-Protection System: Maximum grounding-resistance value of 25 ohms under normal dry conditions.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: For gates. Include plans, elevations, sections, details, and attachments to other work.
- C. Samples: Provide paint color selections.

1.5 INFORMATIONAL SUBMITTALS

- A. Welding certificates.
- B. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for ornamental picket fences, including finish, indicating compliance with referenced standard and other specified requirements.

1.6 QUALITY ASSURANCE

- A. Installer Qualifications: Fabricator of products.
- B. Welding Qualifications: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code – Steel or AWS D1.2/D1.2M, "Structural Welding Code – Aluminum", depending upon selected material type.
- C. Mockups: Build mockups to verify selections made under sample submittals and to demonstrate aesthetic effects and set quality standards for fabrication and installation.
 - 1. Include 10-foot length of fence complying with requirements.
 - 2. Approved mockups may become part of the completed Work if undisturbed at time of Substantial Completion.
- D. The contractor shall provide laborers and supervisors who are thoroughly familiar with the type of construction involved and materials and techniques specified.
- E. Preinstallation Conference: Conduct conference at Project site.

1.7 PRODUCT HANDLING AND STORAGE

- A. Upon receipt at the job site, all materials shall be checked to ensure that no damage occurred during shipping or handling. Materials shall be stored in such a manner to ensure proper ventilation and drainage, and to protect against damage, weather, vandalism and theft.

PART 2 - PRODUCTS

2.1 MANUFACTURER

- A. The industrial ornamental aluminum fence and gate system shall conform to Ameristar Echelon II Majestic 4-Rail style manufactured by Ameristar Fence Products, Inc., in Tulsa, Oklahoma, or approved equal.

2.2 MATERIALS

- A. Aluminum material for fence framework (i.e., tubular pickets, rails and posts) shall conform to the requirements of ASTM B221. The aluminum extrusions for posts and rails shall be Alloy and Temper Designation 6005-T52. The aluminum extrusions for pickets shall be Alloy and Temper Designation 6063-T52.
- B. The manufactured framework shall be subjected to the Ameristar thermal stratification coating process (high-temperature, in-line, multi-stage, and multi-layer) including, as a minimum, a six-stage pretreatment/wash and an electrostatic spray application of a polyester finish. The topcoat shall be a "no-mar" TGIC polyester powder coat finish with a minimum thickness of 2 mils (0.0508mm). The color shall be Black. The stratification-coated framework shall be capable of meeting the performance requirements for each quality characteristic shown in Table 2.
- C. Material for fence pickets shall be 1" square x 0.062" thick (.125" wall for Invincible) extruded tubing. The cross-sectional shape of the rails shall conform to the manufacturer's ForeRunner™ design with outside cross-section dimensions of 1.75" square. The top wall and internal web of the rail shall be 0.070" thick; the sidewalls shall be 0.070" thick for superior vertical load

strength. Picket holes in the ForeRunner rail shall be spaced 4.715" o.c., except for Invincible style 6' long, which shall be, spaced 4.98" o.c. Picket retaining rods shall be 0.125" diameter galvanized steel. Fence posts and gate posts shall meet the minimum size requirements of Table 1. High quality PVC grommets shall be supplied to seal all picket-to-rail intersections.

- D. Bracket to rail attachments shall be made using specially designed one-way tamperproof security nuts with carriage bolt. Bracket to post connections shall be made using self-drilling hex-head screws.
- E. Aluminum castings shall be used for all rings, post caps, finials, and miscellaneous adornments.

2.3 FABRICATION

- A. Pickets, rails and posts shall be pre-cut to specified lengths. ForeRunner rails shall be pre-punched to accept pickets.
- B. The rail inner slide shall be fully inserted into the rail outer channel to form the raceway for the internal retaining rod. Grommets shall be inserted into the pre-punched holes in the rails, and pickets shall be inserted through the grommets so that pre-drilled picket holes align with the internal raceway of the two-part ForeRunner rails. (Note: This can best be accomplished by using an alignment template). Retaining rods shall be inserted into each ForeRunner rail so that they pass through the pre-drilled holes in each picket, thus completing the panel assembly.
- C. Completed panels shall be capable of supporting a 300 lb. load (applied at midspan) without permanent deformation. Panels shall be biasable to a 25% change in grade.
- D. Gates shall be fabricated using 1.75" sq. reinforced ForeRunner rail material, 2" sq. x .250" gate ends, and 1" sq. x .125" pickets. All rail and upright intersections shall be joined by welding. All picket and rail intersections shall be joined by welding.

2.4 MISCELLANEOUS MATERIALS

- A. Welding Rods and Bare Electrodes: Select according to AWS specifications for metal alloy welded.
 - 1. For aluminum, provide type and alloy as recommended by producer of metal to be welded and as required for strength and compatibility in fabricated items.
- B. Concrete: Normal-weight, air-entrained, ready-mix concrete complying with requirements in Section 033000 "Cast-in-Place Concrete" with a minimum 28-day compressive strength of 3500 psi, 3-inch slump, and 1-inch maximum aggregate size.
- C. Nonshrink Grout: Factory-packaged, nonstaining, noncorrosive, nongaseous grout complying with ASTM C 1107 and specifically recommended by manufacturer for exterior applications.
- D. Lexan panels for gates. Per detail.

2.5 GROUNDING MATERIALS

- A. Grounding Conductors: Bare, solid wire for No. 6 AWG and smaller; stranded wire for No. 4 AWG and larger.
 - 1. Material above Finished Grade: Copper.
 - 2. Material on or below Finished Grade: Copper.
 - 3. Bonding Jumpers: Braided copper tape, 1 inch wide, woven of No. 30 AWG bare copper

wire, terminated with copper ferrules.

B. Grounding Connectors and Grounding Rods: Comply with UL 467.

1. Connectors for Below-Grade Use: Exothermic-welded type.
2. Grounding Rods: Copper-clad steel.

a. Size: 5/8 by 96 inches.

2.6 MINIMUM POST SIZES

Table 1 – Minimum Sizes for Echelon II Posts				
Fence Posts	Panel Height			
2-1/2" x 2-1/2" x .080" Alum. w/ reinforced web	Up to & Including 6' Height			
3" x 3" x .120" Alum.	Over 6' Up to & Including 8' Height			
4" x 4" x .250" Alum.	Over 8' Height Up to 10'			
Gate Leaf	Gate Height			
	Up to & Including 4'	Over 4' Up to & Including 6'	Over 6' Up to & Including 8'	Over 8' Up to & Including 10'
Up to 4'	3" x 3" x .120" Alum.	4" x 4" x .250 Alum. or 3" x 12 Ga. steel	4" x 11 Ga. steel	4" x 11 Ga. steel
4'1" to 6'	4" x 4" x .250 Alum. or 3" x 12Ga. steel	3" x 12 Ga. steel	4" x 11 Ga. steel	4" x 11 Ga. steel
6'1" to 8'	4" x 11 Ga. steel	4" x 11 Ga. steel	4" x 11 Ga. steel	6" x 3/16" steel
8'1" to 10'	4" x 11 Ga. steel	4" x 11 Ga. steel	6" x 3/16" steel	6" x 3/16" steel
10'1" to 12'	4" x 11 Ga. steel	6" x 3/16" steel	6" x 3/16" steel	6" x 3/16" steel
12'1" to 14'	6" x 3/16" steel	6" x 3/16" steel	6" x 3/16" steel	6" x 3/16" steel

2.7 COATING PERFORMANCE REQUIREMENTS

Table 2 – Coating Performance Requirements		
Quality Characteristics	ASTM Test Method	Performance Requirements
Adhesion	D3359 – Method B	Adhesion (Retention of Coating) over 90% of test area (Tape and knife test).
Corrosion Resistance	B117 & D1654	Corrosion Resistance over 1,000 hours (Scribed per D1654; failure mode is accumulation of 1/8" coating loss from scribe or medium #8 blisters).
Impact Resistance	D2794	Impact Resistance over 60 inch lb. (Forward impact using 0.625" ball).
Weathering Resistance	D822 D2244, D523 (60° Method)	Weathering Resistance over 1,000 hours (Failure mode is 60% loss of gloss or color variance of more than 3 delta-E color units).

2.8 ECHELON II – POST SPACING BY BRACKET TYPE

Span	For CLASSIC, GENESIS, & MAJESTIC					
	8' Nominal (92.625" Rail)					
Post Size	2-1/2"	3"	2-1/2"	3"	2-1/2"	3"
Bracket Type	Industrial Universal (BB302)	Industrial Universal (BB303)	Industrial Flat Mount (BB301)		Industrial Swivel (BB304)*	
Post Settings ± 1/2" O.C.	96"	96.5"	96"	96-1/2"	*97.5"	*98"
Span	For CLASSIC, GENESIS, & MAJESTIC					
	6' Nominal (67.75" Rail)					
Post Size	2-1/2"	3"	2-1/2"	3"	2-1/2"	3"
Bracket Type	Industrial Universal (BB302)	Industrial Universal (BB303)	Industrial Flat Mount (BB301)		Industrial Swivel (BB304)*	
Post Settings +/-1/2" O.C.	71.5"	72"	71.5"	72"	*73"	*73.5"

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and conditions, with Installer present, for compliance with requirements for site clearing, earthwork, pavement work, construction layout, and other conditions affecting performance of the Work.
- B. Do not begin installation before final grading is completed unless otherwise permitted by Architect.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Stake locations of fence lines, gates, and terminal posts. Do not exceed intervals of 500 feet or line of sight between stakes. Indicate locations of utilities, lawn sprinkler system, underground structures, benchmarks, and property monuments.

- 1. Construction layout and field engineering are specified in Section 017300 "Execution."

3.3 DECORATIVE FENCE INSTALLATION

- A. Install fences according to manufacturer's written instructions.
- B. Fence posts shall be spaced according to Table above, plus or minus ½".
- C. For installations that must be raked to follow sloping grades, the post spacing dimension must be measured along the grade.
- D. Fence panels shall be attached to posts with brackets supplied by the manufacturer
- E. Post Excavation: Drill or hand-excavate holes for posts in firm, undisturbed soil. Excavate holes to a diameter of not less than 4 times post size and a depth of not less than 24 inches plus 3 inches for each foot or fraction of a foot that fence height exceeds 4 feet.
- F. Post Setting: Set posts in concrete at manufacturer's recommended depth into firm, undisturbed soil.
 - 1. Verify that posts are set plumb, aligned, and at correct height and spacing, and hold in position during setting with concrete or mechanical devices.
 - 2. Concrete Fill: Place concrete around posts and vibrate or tamp for consolidation. Protect aboveground portion of posts from concrete splatter.
 - a. Exposed Concrete: Extend to finish grade. Finish and slope top surface to drain water away from post.
- G. When cutting/drilling rails or posts adhere to the following steps to seal the exposed surfaces;
 - 1. Remove all metal shavings from cut area.
 - 2. Apply custom finish paint matching fence color. Failure to seal exposed surfaces per steps 1& 2 above will negate warranty. Ameristar spray cans or paint pens shall be used to prime and finish

exposed surfaces; it is recommended that paint pens be used to prevent overspray. Use of non-Ameristar parts or components will negate the manufactures' warranty.

3.4 GATE INSTALLATION

- A. Install gates according to manufacturer's written instructions, level, plumb, and secure for full opening without interference. Attach hardware using tamper-resistant or concealed means. Install ground-set items in concrete for anchorage. Adjust hardware for smooth operation and lubricate where necessary.
- B. Gate posts shall be spaced according to the manufacturers' gate drawings, dependent on standard out-to-out gate leaf dimensions and gate hardware selected. Type and quantity of gate hinges shall be based on the application; weight, height, and number of gate cycles. The manufacturers' gate drawings shall identify the necessary gate hardware required for the application. Gate hardware shall be provided by the manufacture of the gate and shall be installed per manufacturer's recommendations.

3.5 GROUNDING AND BONDING

- A. Fence Grounding: Install at maximum intervals of 1500 feet except as follows:
 - 1. Fences within 100 Feet of Buildings, Structures, Walkways, and Roadways: Ground at maximum intervals of 750 feet.
 - a. Gates and Other Fence Openings: Ground fence on each side of opening.
 - 1) Bond metal gates to gate posts.
 - 2) Bond across openings, with and without gates, except openings indicated as intentional fence discontinuities. Use No. 2 AWG wire and bury it at least 18 inches below finished grade.
- B. Protection at Crossings of Overhead Electrical Power Lines: Ground fence at location of crossing and at a maximum distance of 150 feet on each side of crossing.
- C. Grounding Method: At each grounding location, drive a grounding rod vertically until the top is 6 inches below finished grade. Connect rod to fence with No. 6 AWG conductor. Connect conductor to each fence component at the grounding location.
- D. Bonding Method for Gates: Connect bonding jumper between gate post and gate frame.
- E. Connections: Make connections so possibility of galvanic action or electrolysis is minimized. Select connectors, connection hardware, conductors, and connection methods so metals in direct contact will be galvanically compatible.
 - 1. Use electroplated or hot-tin-coated materials to ensure high conductivity and to make contact points closer in order of galvanic series.
 - 2. Make connections with clean, bare metal at points of contact.
 - 3. Make aluminum-to-steel connections with stainless-steel separators and mechanical clamps.
 - 4. Make aluminum-to-galvanized-steel connections with tin-plated copper jumpers and mechanical clamps.
 - 5. Coat and seal connections having dissimilar metals with inert material to prevent future penetration of moisture to contact surfaces.

- F. Bonding to Lightning-Protection System: If fence terminates at lightning-protected building or structure, ground the fence and bond the fence grounding conductor to lightning-protection down conductor or lightning-protection grounding conductor, complying with NFPA 780.

3.6 FIELD QUALITY CONTROL

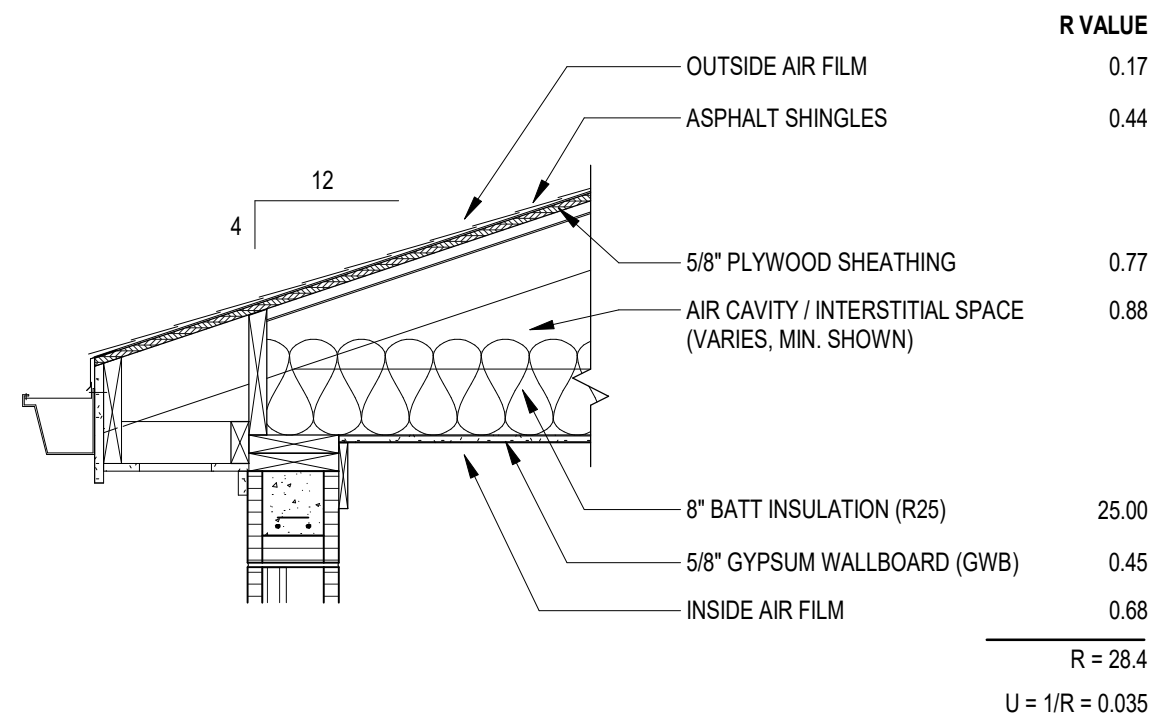
- A. Grounding-Resistance Testing: Owner will engage a qualified testing agency to perform tests and inspections.
 - 1. Grounding-Resistance Tests: Subject completed grounding system to a megger test at each grounding location. Measure grounding resistance not less than two full days after last trace of precipitation, without soil having been moistened by any means other than natural drainage or seepage and without chemical treatment or other artificial means of reducing natural grounding resistance. Perform tests by two-point method according to IEEE 81.
 - 2. Excessive Grounding Resistance: If resistance to grounding exceeds specified value, notify Architect promptly. Include recommendations for reducing grounding resistance and a proposal to accomplish recommended work.
 - 3. Report: Prepare test reports certified by a testing agency of grounding resistance at each test location. Include observations of weather and other phenomena that may affect test results.

3.7 ADJUSTING

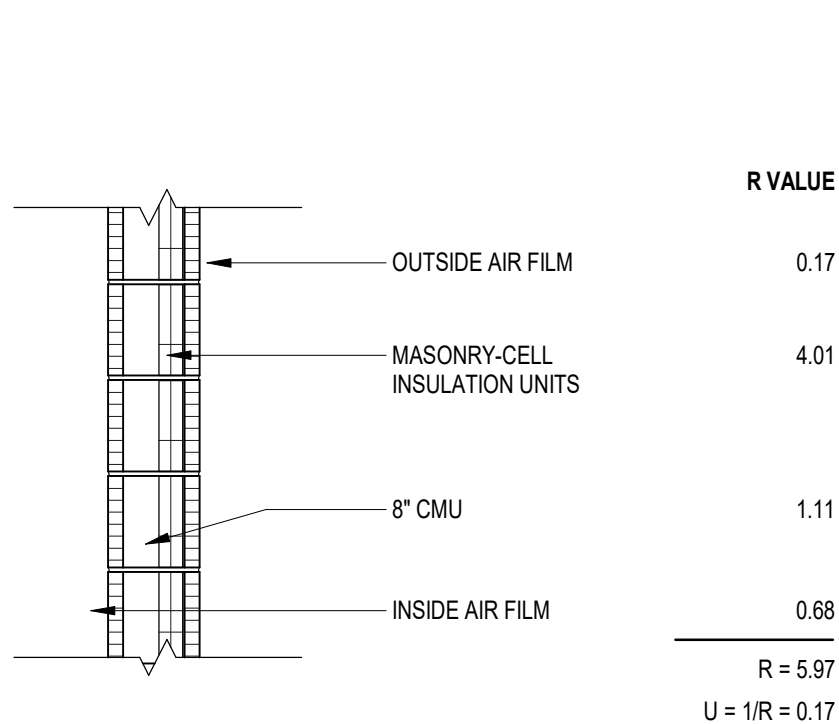
- A. Gates: Adjust gates to operate smoothly, easily, and quietly, free of binding, warp, excessive deflection, distortion, nonalignment, misplacement, disruption, or malfunction, throughout entire operational range. Confirm that latches and locks engage accurately and securely without forcing or binding.
- B. Lubricate hardware and other moving parts.

END OF SECTION 32 31 19

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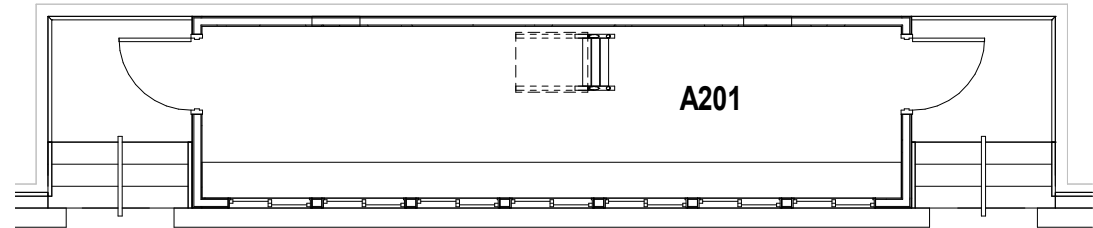


TYPICAL ROOF ASSEMBLY



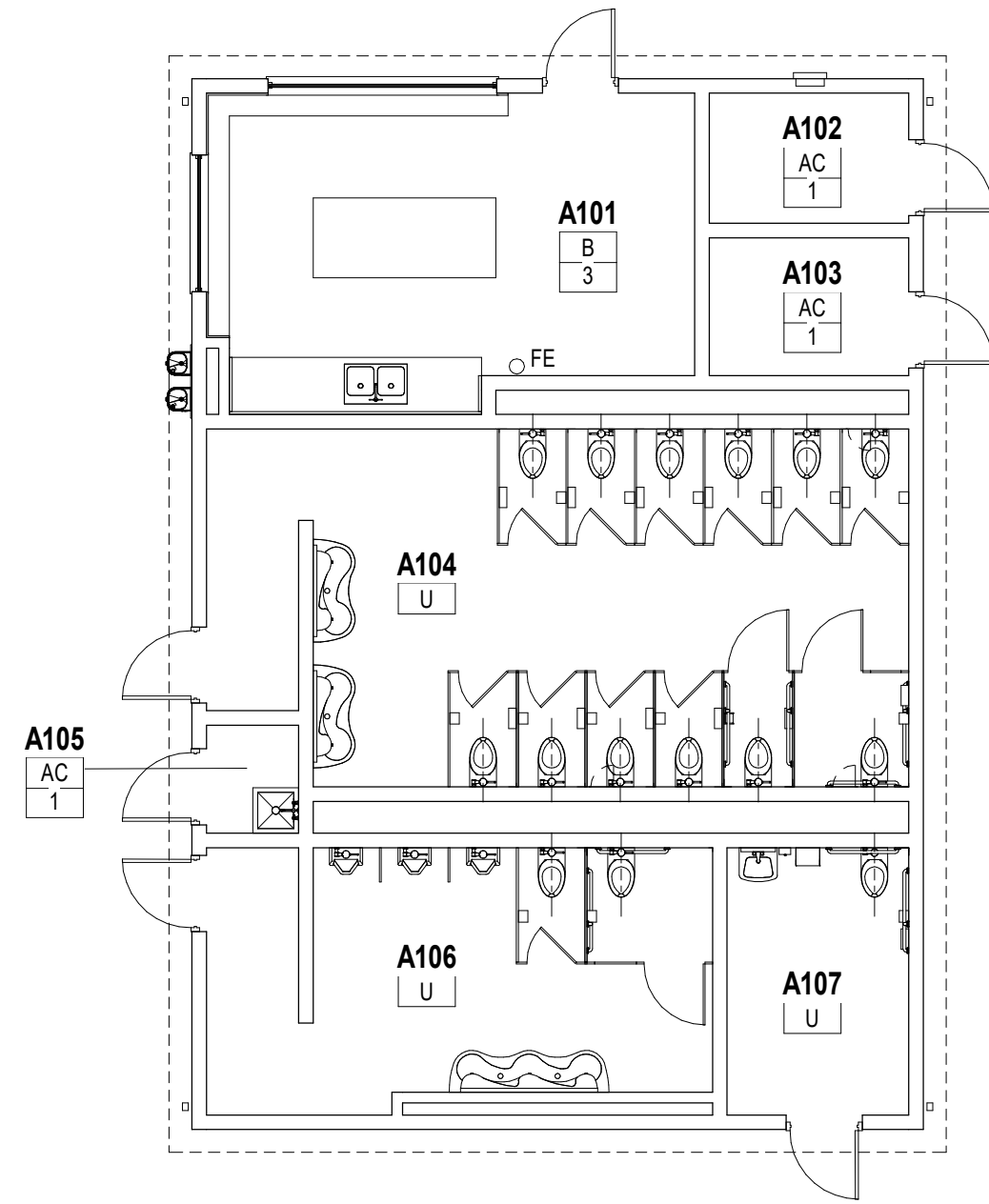
TYPICAL EXTERIOR WALL ASSEMBLY (8" CMU)

ROOM LEGEND - FIRST FLOOR		
ROOM NO.	ROOM NAME	AREA (SF)
A101	CONCESSIONS	281 SF
A102	ELECTRICAL / TECHNOLOGY	50 SF
A103	PLUMBING	53 SF
A104	WOMENS RESTROOM	461 SF
A105	CUSTODIAL	19 SF
A106	MENS RESTROOM	240 SF
A107	FAMILY RESTROOM	93 SF
A201	PRESSBOX	209 SF



PRESSBOX CODE PLAN

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



CONCESSIONS BUILDING - CODE PLAN

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

BUILDING CODE INFORMATION

1. BUILDING DESCRIPTION: NEW CONCESSIONS BUILDING (STADIUM)
2. APPLICABLE CODE: 2012 INTERNATIONAL BUILDING CODE - INDIANA BUILDING CODE, 2014 EDITION (675 IAC 13-2.6)
2012 INTERNATIONAL FIRE CODE - INDIANA FIRE CODE, 2014 EDITION (675 IAC 22-2)
2012 INTERNATIONAL MECHANICAL CODE - INDIANA MECHANICAL CODE, 2014 EDITION (675 IAC 18-1.6)
2012 INTERNATIONAL PLUMBING CODE - INDIANA PLUMBING CODE, 2012 EDITION (675 IAC 16-1.4)
2012 INTERNATIONAL ELECTRICAL CODE - INDIANA ELECTRICAL CODE, 2009 EDITION [NFPA 70-2008] (675 IAC 17-1.8)
INDIANA ENERGY CONSERVATION CODE, 2010 [ASHRAE 90.1, 2007 AMENDED] (672 IAC 19-4)
2010 ADA STANDARDS FOR ACCESSIBLE DESIGN
3. BUILDING AREA AND HEIGHT
A. OCCUPANCY/USE GROUP: A-5, ASSEMBLY (STADIUM - GRANDSTANDS / PRESSBOX), B (CONCESSIONS BUILDING)
B. CONSTRUCTION TYPE: V-B (TABLE 601)
C. AREA LIMITATION:
1. ACTUAL AREA:
a. CONCESSIONS BUILDING
TOTAL FIRST FLOOR 1,472 SF
TOTAL GROSS SF 1,472 SF
b. PRESSBOX: 240 SF
TOTAL NEW SF 1,712 SF
D. HEIGHT LIMITATION:
1. HEIGHT MODIFICATIONS: 2 STORY, 40'-0" (503)
2. ACTUAL BUILDING HEIGHT: 1 STORY, 18'-0"
4. USE AND OCCUPANCY CLASSIFICATION INDIANA BUILDING CODE CHAPTER 3:
ACCESSORY USE AREAS INDIANA BUILDING CODE SECTION 508.3.1.
ACCESSORY OCCUPANCIES ARE THOSE OCCUPANCIES SUBSIDIARY TO THE MAIN OCCUPANCY OF THE BUILDING OR PORTION THEREOF. AGGREGATE ACCESSORY OCCUPANCIES SHALL NOT OCCUPY MORE THAN 10% OF THE AREA OF THE STORY IN TABLE 503 WITHOUT HEIGHT AND AREA INCREASES IN ACCORDANCE WITH SECTIONS 504 AND 506 FOR SUCH ACCESSORY OCCUPANCIES (2012 INTERNATIONAL BUILDING CODE)
MIXED OCCUPANCIES INTERNATIONAL BUILDING CODE SECTION 508.3.
AREA LIMITATION INDIANA BUILDING CODE SECTION 503
5. TYPE OF CONSTRUCTION INDIANA BUILDING CODE CHAPTER 6 (SEE TABLE)
TYPE V-B
FIRE SEPARATION DISTANCES INDIANA BUILDING CODE TABLE 602:
REFER TO THE SITE PLAN DRAWINGS FOR LOCATION OF BUILDING(S) ON SITE; DISTANCES TO CLOSEST INTERIOR LOT LINES; TO THE CENTER OF A STREET, ALLEY OR PUBLIC WAY; OR TO AN IMAGINARY LINE BETWEEN TWO BUILDINGS ON THE SAME LOT.
6. FIRE RESISTANCE RATED CONSTRUCTION INDIANA BUILDING CODE CHAPTER 7:
PENETRATIONS THROUGH FIRE-RESISTANCE RATED ASSEMBLIES SHALL BE PROVIDED WITH FIRESTOPPING PER PROJECT MANUAL.
CEILING AND FLOOR OPENINGS THROUGH NON-FIRE-RESISTANCE-RATED ASSEMBLIES SHALL BE PROVIDED WITH FIREBLOCKING PER PROJECT MANUAL.
7. INTERIOR FINISHES TO COMPLY WITH INDIANA BUILDING CODE CHAPTER 8
8. FIRE PROTECTION SYSTEMS INDIANA BUILDING CODE CHAPTER 9:
THE BUILDING DOES NOT HAVE A SPRINKLER SYSTEM.
9. MEANS OF EGRESS INDIANA BUILDING CODE CHAPTER 10:
THE MEANS OF EGRESS REQUIREMENTS SHALL BE DETERMINED BY THE ACTUAL OR COMPUTED NUMBER OF OCCUPANTS WHICHEVER IS THE LARGEST NUMBER. REFER TO THE CODE PLANS FOR ROOM OCCUPANT LOADS. AREAS OR ROOMS WITH 50 OR MORE OCCUPANTS SHALL BE PROVIDED WITH TWO OR MORE MEANS OF EGRESS. 500 OR MORE OCCUPANTS SHALL BE PROVIDED WITH THREE OR MORE MEANS OF EGRESS; AND 1000 OR MORE OCCUPANTS SHALL BE PROVIDED WITH FOUR OR MORE MEANS OF EGRESS.
10. STRUCTURAL DESIGN LOADS:
REFER TO STRUCTURAL DRAWINGS FOR CODE REQUIREMENTS
11. VARIANCE 22-06-16 WAS APPROVED SO THAT THE BUILDING DOES NOT NEED TO FOLLOW THE ENERGY CODE.

BUILDING DESIGNED FOR:
1,200 PATRONS (800 HOME, 400 VISITOR)

XX ————— CALCULATED MAXIMUM OCCUPANT LOAD

OCCUPANCY CLASSIFICATION - KEY

Class Abbreviation	Classification	Area Per Occupant	Occupancy Gross or Net
A5	A5 - Assembly - Stadiums, Grandstands, Bleachers		
AC	AC - Accessory Storage Areas, Mechanical Equipment Rooms	300 SF	Gross
B	B - Business Areas	100 SF	Gross
U	U - Unoccupied - Corridors	0 SF	Gross

PLUMBING FIXTURE COUNTS

USER GROUP	NUMBER OF USERS	USER PER GENDER	WATER CLOSETS		LAVATORIES		DRINKING FTNS.		SERVICE SINKS	
			REQUIRED	PROVIDED	REQUIRED	PROVIDED	REQUIRED	PROVIDED	REQUIRED	PROVIDED
STADIUMS (A5)	1,200	600 M.	1/100 = 6	3 W.C. 3 URNL.	1/200 = 3	3	1/1000 = 2	2	1	1
		600 F.	1/50 = 12	12 W.C.	1/150 = 4	4				

BUILDING DESIGNED FOR 1,200 SPECTATORS.

FAMILY RESTROOM/UNISEX:
ASSEMBLY AREAS - 1 REQUIRED, 1 PROVIDED
FAMILY RESTROOM WATER CLOSET IS INCLUDED IN TOTAL NUMBER OF PROVIDED WATER CLOSETS ABOVE.

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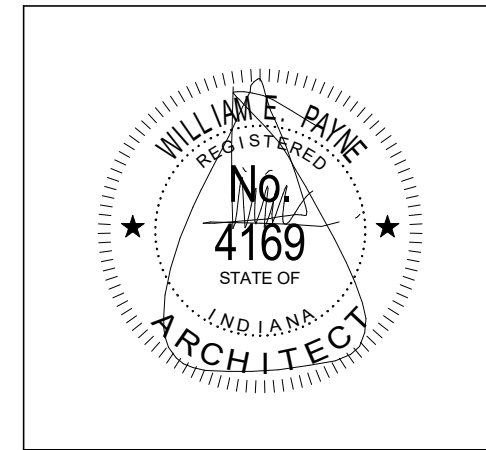


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CONSTRUCTION DOCUMENTS



DRAWN BY: KT

PROJECT NUMBER: 221192.00

PROJECT ISSUE DATE: 06.17.2022

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM #1	07.07.2022

FIRST FLOOR CODE PLAN

A0.01

Drawing Path: F:\2022\000\068\CAD\Civil\Active\06_2022-068_G1_1.SP.dwg
Plotted By: csheller Time of Plot: 7/5/22 - 12:43pm Last Edited: 7/5/22 - 12:37pm



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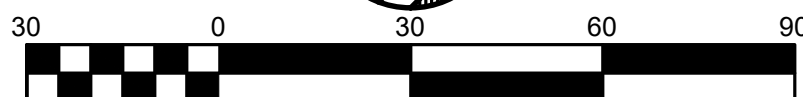
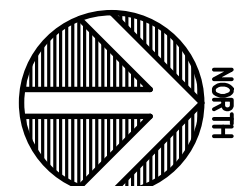
CAUTION !!

THE LOCATIONS OF ALL EXISTING UNDERGROUND UTILITIES SHOWN ON THE PLAN ARE BASED UPON ABOVE GROUND EVIDENCE (INCLUDING, BUT NOT LIMITED TO, MANHOLES, INLETS, VALVES, AND MARKS MADE UPON THE GROUND BY OTHERS) AND ARE SPECULATIVE IN NATURE. THERE MAY ALSO BE OTHER EXISTING UNDERGROUND UTILITIES FOR WHICH THERE IS NO ABOVE GROUND EVIDENCE OR FOR WHICH NO ABOVE GROUND EVIDENCE WAS OBSERVED. THE EXACT LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHALL BE VERIFIED BY CONTRACTOR PRIOR TO ANY AND ALL CONSTRUCTION.



PROPOSED SITE LEGEND

- BUILDING
- CONCRETE SIDEWALK/PAVEMENT
- ASPHALT PAVEMENT
- ASPHALT PAVEMENT OVERLAY
- SEEDDED LAWN, SEE LANDSCAPE PLAN
- MINERAL MULCH, SEE LANDSCAPE PLAN



GENERAL NOTES

- SEE DRAWING GD0.1 FOR GENERAL NOTES.
- TOPOGRAPHIC CONDITIONS AND EXISTING UTILITIES SHOWN WERE PROVIDED BY DEBOY LAND DEVELOPMENT SERVICE. THE ENGINEER MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED.
- CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS IN THE PROJECT AREA INCLUDING UNDERGROUND UTILITY CONDITIONS, LOCATION AND DEPTH PRIOR TO ANY OTHER SITE CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEER.

SITE KEYNOTES

- ASPHALT PAVEMENT - SEE DETAIL ON G4.1
- CONCRETE PAVEMENT - SEE DETAIL ON G4.1
- CONCRETE SIDEWALK - SEE DETAIL ON G4.1
- MONOLITHIC CURB & WALK - SEE DETAIL ON G4.1
- CONCRETE STRAIGHT CURB - SEE DETAIL ON G4.1
- CONCRETE ROLL CURB - SEE DETAIL ON G4.1
- CONCRETE CONTROL JOINT - PER DETAIL ON G4.1
- CONCRETE STOOP - SEE DETAIL ON G4.1
- CONCRETE COLLAR - PER DETAIL ON G4.1
- CONCRETE EQUIPMENT PAD - REFER TO DETAIL ON G4.1 AND ELECTRIC PLAN
- ADA ACCESSIBLE RAMP (TYPE 2) - PER DETAIL ON G4.3
- ADA ACCESSIBLE RAMP (TYPE 1) - PER DETAIL ON G4.3
- PROVIDE DOWEL BETWEEN NEW WALK AND EXISTING CONCRETE CURB - SEE DETAIL ON G4.1
- CONCRETE CURB CONNECTION - SEE DETAIL ON G4.1
- MINERAL MULCH BED - SEE LANDSCAPE PLAN
- SEEDDED LAWN - REFER TO LANDSCAPE PLAN
- 4" WIDE WHITE PAVEMENT STRIPING
- 4" SOLID WHITE PAVEMENT STRIPE AT 3'-0" O.C. AT 45° ANGLE - PER DETAIL ON G4.3
- 4" WIDE BLUE PAVEMENT STRIPING
- BLUE SOLID PAVEMENT STRIPING 4" WIDE @ 3'-0" O.C. AT 45 DEGREES - PER DETAIL ON G4.3
- WHITE ADA LOGO ON BLUE BACKGROUND - PER DETAIL ON G4.3
- ADA "VAN" ACCESSIBLE PARKING SIGN - PER DETAIL ON G4.3
- CROSSWALK - PER DETAIL ON G4.3
- PARKING BUMPER - PER DETAIL ON G4.3
- LIGHTPOLE - SEE DETAIL , COORDINATE WITH ELECTRICAL SITE PLAN
- RELOCATED SPORTS FIELD LIGHTING
- 8' HT. BLACK VINYL CHAIN LINK FENCE FENCE - PER DETAIL ON G4.2
- 40' HT. STRAIGHT POLE TENSION NET SYSTEM AVAILABLE FROM SPORTSFIELD SPECIALTIES (SEE DWG G5.1 KEYNOTE 14 FOR REQUIREMENTS), POLE SPACING AT BASED, EL. FIELD TO BE APPROX. 40' O.C. - FIELD VERIFY PER EXISTING FENCE RADIUS, NETTING TO START FROM GROUND
- 10' WIDE DOUBLE SWING GATE - PER DETAIL ON G4.2
- 15' WIDE DOUBLE SWING GATE - PER DETAIL ON G4.2
- RELOCATED STORAGE BUILDINGS
- RELOCATED SUPPORT BUILDING
- POURED IN PLACE PLAYGROUND SURFACING LOGO - PER DETAIL M/G4.3
- ASPHALT OVERLAY - SEE DETAIL ON G4.1
- 4' HT. BLACK VINYL CHAIN LINK FENCE FENCE - PER DETAIL ON G4.2
- RELOCATED SIGN
- BRICK COLUMNS AND ORNAMENTAL DOUBLE SWING GATE
- WOOD BOLLARD - PER DETAIL ON G4.3
- RESCUE STATION (POST WITH SIGN & FLOATATION DEVICE)
- CONCRETE EXPANSION JOINT - PER DETAIL ON SHEET G4.1
- ISOLATION JOINT - PER DETAIL ON SHEET G4.1
- RELOCATED TRASH DUMPSTER, NEW CONCRETE PAVEMENT SHALL BE FLUSH WITH EXISTING ASPHALT PAVEMENT
- 8' EVEREST SERIES HEAVY DUTY PICNIC TABLE AVAILABLE FROM THE PARK AND FACILITIES CATALOG, PROVIDE 1 ADA TABLE PER BREAKOUT AREA, POWDER COAT BLACK
- 16' WIDE OPENING FOR DOUBLE SWING GATE - PER DETAIL ON G4.3 AND ARCHITECTURAL PLANS
- 8' HT. ORNAMENTAL FENCE - PER DETAIL ON G4.1 AND ARCHITECTURAL PLANS
- 8' HT. BLACK VINYL CHAIN LINK FENCE FENCE W/ BLACK PRIVACY SLATS - PER DETAIL ON G4.2 AND SPECIFICATIONS

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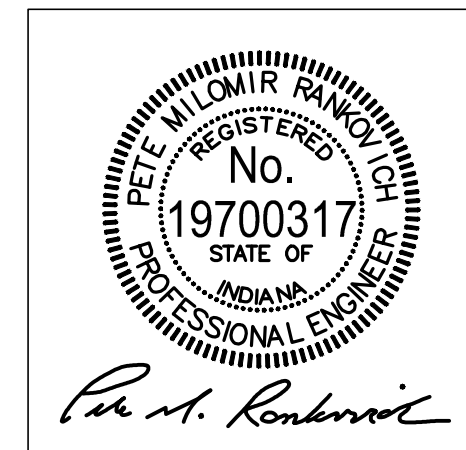
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DRAWN BY: HHW

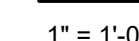
PROJECT NUMBER: 221192.00

PROJECT ISSUE DATE: 06.17.2022

REV. NO.	DESCRIPTION	DATE
1	ADDENDUM 1	07/07/2022

SITE PLAN

G1.1



Drawing Path: P:\2022\000\068\CAD\Civil\Active\13_2022-068_G4.1_SD.dwg
Plotted By: asheller Time of Plot: 7/6/22 - 12:26pm Last Edited: 7/6/22 - 12:24pm

