

Department of Administration, Public Works Division
Storage Building
Moraine Nature Preserve, Porter County
Department of Natural Resources
Project No. E160010

ADDENDUM NO. 2
October 5, 2017

The attention of all prospective Bidders on the subject project is directed to the following modification to the Plans and Specifications.

ITEM NO. 1 – Revision to Drawings C-1 and C-2 (dated REV 1 - 10/4/17):

The Building was moved 100 feet to East horizontally and lowered 1 foot vertically. The Construction Limits are adjusted to make sure that the disturbed site is under 1 acre. No Rule 5 permit is therefore needed. The Contractor shall still follow standard practice for minimizing erosion on site including the use of silt fencing along the construction limits.

The revised Finish Floor Elevation SHALL BE 827.00 = 100'-0"

All spot Finished Grade Elevations on drawing A-1, SHALL BE REVISED 1 FOOT VERTICALLY DOWN.

ITEM NO. 2- Specifications SECTION 02512

ANSWER TO CONTRACTOR QUESTION REGARDING DEPTH OF BASE MATERIAL:

Depth of the stone base for Alternate #1 is 6" of (I.D.O.T.S.S.) coarse aggregate No.2 crushed limestone over geotextile fabric. See Specifications Section 02512, 2.01 B.

Revision to Section 02512, 2.01 B.: Specified ProPex Amoco products no longer sold, and should be replaced with Propex Geotex 401.

ITEM NO. 3 – Clarification to Sanitary Portion of Project

ANSWER TO CONTRACTOR QUESTION REGARDING SCOPE OF SANITARY WORK:

Refer to Section 01010 – General Requirements, 1.02 D which states "*Constructing a New Well and Sanitary System outside the Storage Building is separate project.*" Accordingly, this project does not include the installation of the septic tank, septic field, well and other related components. The proposed septic field is shown for reference only as the area should remain undisturbed throughout construction of the building and road/ parking.

This project only includes installation of the septic connection sleeve and pipe extending five feet from the building at an invert elevation of 823.33'; confirm elevation with engineer prior to pouring foundation.

ITEM NO. 4 – Specification SECTION 07311 – ASPHALT SHINGLES

ANSWER TO CONTRACTOR QUESTIONS REGARDING SHINGLES:

Asphalt Shingles shall be **Certaiteed Landmark Pro** or equal.

Remove from specifications (07311. 2.2 A. 3.), ~~“Impact Resistance: UL 2218, Class 4.”~~

SECTION 07311, 1.6 WARRANTY shall be as Specified.

ITEM NO. 5 – Added Specifications for Thermal Insulation SECTION 07210

ITEM NO. 6 – Added Specifications for Resilient Base SECTION 09651

ITEM NO. 7 – Specifications SECTION 16050 – BASIC ELECTRICAL MATERIALS AND METHODS

REVISIONS

Re; RFI from Contractor.

Electrical Clarification:

1. Per the Kankakee Valley REMC quote No.1, the transformer will be located near the South East corner of the new building across from pole #1127 on the South side of the road.
2. Specifications supersede plans!

PART 2 - PRODUCTS: 2.02 CONDUCTORS:

B. Interior Conductors:

1. All interior conductors shall be type THHN or THWN-2 wire installed in intermediate metallic tubing (IMT) except where flexible metallic cable is allowed. All concealed interior conductors or exposed interior conductors that are not subject to physical damage may be non-metallic cable (N.M.) or metallic cable (M.C.).

C. Exterior Conductors:

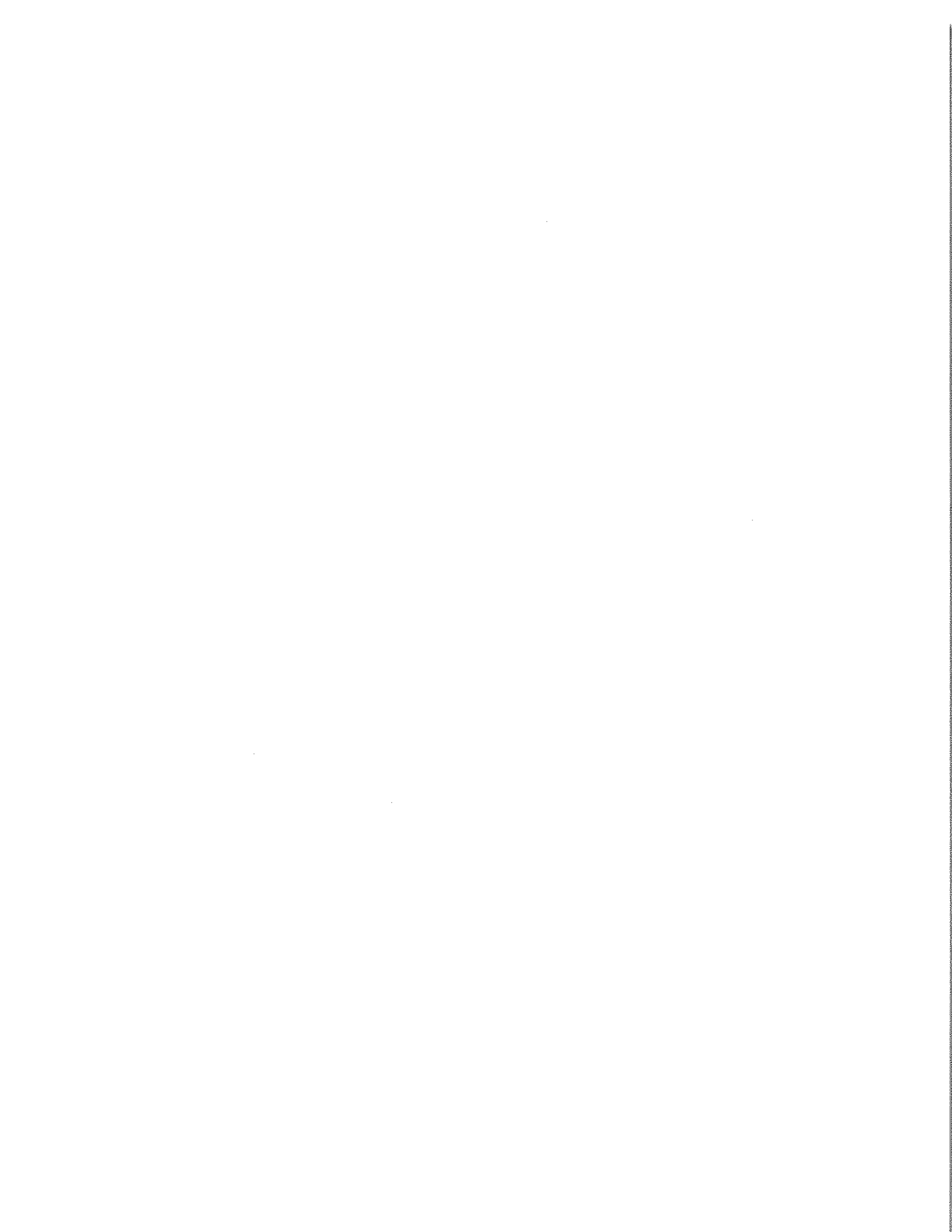
1. All direct buried conductors shall be type USE-2 buried 2 foot minimum depth.
2. Below ground in conduit shall be 600 volt NEC type RHW. Change to read “Below ground in conduit shall be 600 volt NEC type RHW-2.”
3. PLAN SHEET “E-2: “Feed circuit to the building shall be Min. #1 AWG.” Change to read “Feed circuit to the building shall be Min. #4/0 AWG.”

2.05 CONDUIT:

- A. All exterior conduit shall be in rigid galvanized steel or Schedule 80 PVC.
- B. Interior conduit shall be Electrical Metallic Tubing (EMT), sized in accordance with IEC requirements (Maximum 40% fill).

3. Schedule 80 PVC underground, IMC/RGC above grade to 10’AFF, & EMT above 10’AFF will be acceptable conduit in areas not subject to physical damage.

4&5. Fixtures “A” and “B” have individual motion detectors. Continued activity under each fixture will be required for illumination.



SECTION 09651 - RESILIENT BASE

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Resilient base.

1.2 ACTION SUBMITTALS

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

PART 2 - PRODUCTS

2.1 THERMOPLASTIC-RUBBER BASE

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Allstate Rubber Corp.
 - 2. Armstrong World Industries, Inc.
 - 3. Flexco.
 - 4. Johnsonite; A Tarkett Company
- B. Product Standard: ASTM F 1861, Type TP (rubber, thermoplastic).
- C. Thickness: 0.125 inch
- D. Height: 4 inches
- E. Lengths: Coils in manufacturer's standard length.
- F. Outside Corners: Job formed
- G. Inside Corners: Job formed.
- H. Colors: As indicated by manufacturer's designations

2.2 INSTALLATION MATERIALS

- A. Trowelable Leveling and Patching Compounds: Latex-modified, portland cement based or blended hydraulic-cement-based formulation provided or approved by resilient-product manufacturer for applications indicated.

Moraine Nature Preserve Storage Building

- B. Adhesives: Water-resistant type recommended by resilient-product manufacturer for resilient products and substrate conditions indicated.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Prepare substrates according to manufacturer's written instructions to ensure adhesion of resilient products.

3.2 RESILIENT BASE INSTALLATION

- A. Comply with manufacturer's written instructions for installing resilient base.
- B. Apply resilient base to walls, columns, pilasters, casework and cabinets in toe spaces, and other permanent fixtures in rooms and areas where base is required.
- C. Install resilient base in lengths as long as practical without gaps at seams and with tops of adjacent pieces aligned.
- D. Tightly adhere resilient base to substrate throughout length of each piece, with base in continuous contact with horizontal and vertical substrates.
- E. Do not stretch resilient base during installation.
- F. On masonry surfaces or other similar irregular substrates, fill voids along top edge of resilient base with manufacturer's recommended adhesive filler material.
- G. Job-Formed Corners:
 - 1. Outside Corners: Use straight pieces of maximum lengths possible and form with returns not less than 3 inches in length.
 - a. Form without producing discoloration (whitening) at bends.
 - 2. Inside Corners: Use straight pieces of maximum lengths possible and form with returns not less than 3 inches > in length.
 - a. Miter or cope corners to minimize open joints.

3.3 CLEANING AND PROTECTION

- A. Comply with manufacturer's written instructions for cleaning and protecting resilient products.

END OF SECTION 09651

SECTION 07210 - THERMAL INSULATION

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. This Section includes the following:
 - 1. Foam-plastic board insulation.
 - 2. Glass-fiber blanket insulation.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency for insulation products.
- C. Research/Evaluation Reports: For foam-plastic insulation.

1.4 QUALITY ASSURANCE

- A. Source Limitations: Obtain each type of building insulation through one source from a single manufacturer.
- B. Fire-Test-Response Characteristics: Provide insulation and related materials with the fire-test-response characteristics indicated, as determined by testing identical products per test method indicated below by UL or another testing and inspecting agency acceptable to authorities having jurisdiction. Identify materials with appropriate markings of applicable testing and inspecting agency.
 - 1. Surface-Burning Characteristics: ASTM E 84.
 - 2. Fire-Resistance Ratings: ASTM E 119.
 - 3. Combustion Characteristics: ASTM E 136.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Protect insulation materials from physical damage and from deterioration by moisture, soiling, and other sources. Store inside and in a dry location. Comply with manufacturer's written instructions for handling, storing, and protecting during installation.

PART 2 - PRODUCTS

2.1 FOAM-PLASTIC BOARD INSULATION

- A. Extruded-Polystyrene Board Insulation: ASTM C 578, of type and density indicated below, with maximum flame-spread and smoke-developed indexes of 75 and 450, respectively:
 - 1. Manufacturers:
 - a. DiversiFoam Products.
 - b. Dow Chemical Company.
 - c. Owens Corning.
 - 2. Type IV, 25 psi

2.2 GLASS-FIBER BLANKET INSULATION

- A. Manufacturers:
 - 1. CertainTeed Corporation.
 - 2. Johns Manville.
 - 3. Knauf Fiber Glass.
 - 4. Owens Corning.
- B. Unfaced, Glass-Fiber Blanket Insulation: ASTM C 665, Type I; with maximum flame-spread and smoke-developed indexes of 25 and 50, respectively, per ASTM E 84; passing ASTM E 136 for combustion characteristics.
- C. Polypropylene-Scrim-Kraft-Faced, Glass-Fiber Blanket Insulation: ASTM C 665, Type II (non-reflective faced), Class A (faced surface with a flame-spread index of 25 or less); Category 1 (membrane is a vapor barrier).
- D. Where glass-fiber blanket insulation is indicated by the following thicknesses, provide blankets in batt or roll form with thermal resistances indicated:
 - 1. 5-1/2 inches thick with a thermal resistance of 19 deg F x h x sq. ft./Btu at 75 deg F.
 - 2. 3-1/2 inches thick with a thermal resistance of 11 deg F x h x sq. ft./Btu at 75 deg F.
 - 3. 12 inches thick with a thermal resistance of 38 deg F x h x sq. ft./ Btu at 75 deg F.

2.3 AUXILIARY INSULATING MATERIALS

- A. Adhesive for Bonding Insulation: Product with demonstrated capability to bond insulation securely to substrates indicated without damaging insulation and substrates.

2.4 INSULATION FASTENERS

- A. Adhesively Attached, Spindle-Type Anchors: Plate welded to projecting spindle; capable of holding insulation of thickness indicated securely in position indicated with self-locking washer in place; and complying with the following requirements:

Moraine Nature Preserve Storage Building

1. Products:
 - a. AGM Industries, Inc.; Series T TACTOO Insul-Hangers.
 - b. Gemco; Spindle Type.
 2. Plate: Perforated galvanized carbon-steel sheet, 0.030 inch thick by 2 inches square.
 3. Spindle: Copper-coated, low carbon steel; fully annealed; 0.105 inch in diameter; length to suit depth of insulation indicated.
- B. Adhesively Attached, Angle-Shaped, Spindle-Type Anchors: Angle welded to projecting spindle; capable of holding insulation of thickness indicated securely in position indicated with self-locking washer in place; and complying with the following requirements:
1. Products:
 - a. Gemco; 90-Degree Insulation Hangers.
 2. Angle: Formed from 0.030-inch- thick, perforated, galvanized carbon-steel sheet with each leg 2 inches square.
 3. Spindle: Copper-coated, low carbon steel; fully annealed; 0.105 inch in diameter; length to suit depth of insulation indicated.
- C. Insulation-Retaining Washers: Self-locking washers formed from 0.016-inch- thick galvanized steel sheet, with beveled edge for increased stiffness, sized as required to hold insulation securely in place, but not less than 1-1/2 inches square or in diameter.
1. Products:
 - a. AGM Industries, Inc.; RC150.
 - b. AGM Industries, Inc.; SC150.
 - c. Gemco; Dome-Cap.
 - d. Gemco; R-150.
 - e. Gemco; S-150.
 2. Protect ends with capped self-locking washers incorporating a spring steel insert to ensure permanent retention of cap in the following locations:
 - a. Ceiling plenums.
 - b. Attic spaces.
- D. Anchor Adhesive: Product with demonstrated capability to bond insulation anchors securely to substrates indicated without damaging insulation, fasteners, and substrates.
1. Products:
 - a. AGM Industries, Inc.; TACTOO Adhesive.
 - b. Gemco; Tuff Bond Hanger Adhesive.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Comply with insulation manufacturer's written instructions applicable to products and application indicated.
- B. Install insulation that is undamaged, dry, and unsoiled and that has not been left exposed at any time to ice, rain, and snow.
- C. Extend insulation in thickness indicated to envelop entire area to be insulated. Cut and fit tightly around obstructions and fill voids with insulation. Remove projections that interfere with placement.
- D. Water-Piping Coordination: If water piping is located within insulated exterior walls, coordinate location of piping to ensure that it is placed on warm side of insulation and insulation encapsulates piping.

3.2 INSTALLATION OF PERIMETER AND BETWEEN-SLABS INSULATION

- A. On vertical surfaces, set insulation units in adhesive applied according to manufacturer's written instructions. Use adhesive recommended by insulation manufacturer.
- B. On horizontal surfaces, lay insulation units according to manufacturer's written instructions. Stagger end joints and tightly abut insulation units.
- C. Protect below-grade insulation on vertical surfaces from damage during backfilling by applying protection course with joints butted. Set in adhesive according to insulation manufacturer's written instructions.

3.3 INSTALLATION OF GENERAL BUILDING INSULATION

- A. Apply insulation units to substrates by method indicated, complying with manufacturer's written instructions. If no specific method is indicated, bond units to substrate with adhesive or use mechanical anchorage to provide permanent placement and support of units.

3.4 PROTECTION

- A. Protect installed insulation from damage due to harmful weather exposures, physical abuse, and other causes. Provide temporary coverings or enclosures where insulation is subject to abuse and cannot be concealed and protected by permanent construction immediately after installation.

END OF SECTION 07210