August 5, 2013

To: Plan Holders for Improvements to the
Mountain View Airport
Mountain View, Missouri
MoDOT Project No. 13-104B-1

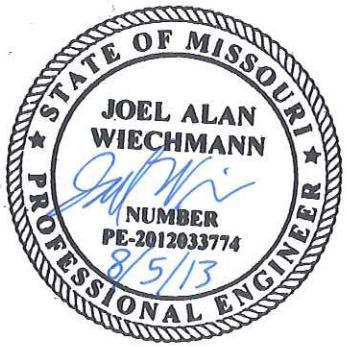
Transmitted herewith is Addendum **No. 1** to the Contract Documents, Plans and Specifications dated July 15, 2013 for Improvements to the Mountain View Airport, Mountain View, Missouri, MoDOT Project No. 13-104B-1.

SCHEDULE I:
Airfield Lighting Rehabilitation

Sincerely,

Jviation, Inc.

Joel Wiechmann, P.E.



Main 573.636.3200 **Fax** 573.636.3201
931 Wildwood Drive, Suite 101 | Jefferson City, MO 65109
JVIATION.COM

ADDENDUM NO. 1
TO
CONTRACT DOCUMENTS, PLANS AND SPECIFICATIONS
FOR IMPROVEMENTS TO THE
MOUNTAIN VIEW AIRPORT
MOUNTAIN VIEW, MISSOURI
MODOT PROJECT NO. 13-104B-1

To All Bidders: You are requested to make all changes and/or additions contained in this addendum to the Bidding Documents. Failure to acknowledge this Addendum in Proposal shall result in rejection of bid. Bidders are informed that the above referenced Contract Documents, Plans and Specifications are modified as follows as of August 5, 2013:

1. CONTRACT DOCUMENTS

Section:	Technical Specifications
Specification:	MO-610 Structural Portland Cement Concrete
Revision:	Replace entire specification with attached

2. PLANS

Sheet Name:	E300
Sheet No.:	19 of 20
Revision:	See attached revised sheet dated 08/05/13.

3. QUESTIONS

Question: We would like to provide an LED Internal Light Kit with an isolation transformer in lieu of providing a power adaptor. We believe it is less cost and more efficient. Would this be acceptable to the Airport?

Response: It will be acceptable for the Contractor to supply a new LED windcone in lieu of providing a power adaptor to supply the existing windcone, as specified.

**** END OF ADDENDUM NO. 1****

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ITEM MO-610 STRUCTURAL PORTLAND CEMENT CONCRETE

DESCRIPTION

610.1.1 This item shall consist of plain structural Portland cement concrete, prepared and constructed in accordance with these specifications, at the locations and of the form and dimensions shown on the plans. The materials and mixture shall meet the requirements of the 2004 Missouri Standard Specification for Highway Construction (MSSHC), Section 501-Concrete.

All construction methods, testing and acceptance criteria shall be in accordance with the standards included within this Item MO-610.

MATERIALS

610-2.1 GENERAL. Only approved materials, conforming to the requirements of these specifications, shall be used in the work. They may be subjected to inspection and tests at any time during the progress of their preparation or use. The source of supply of each of the materials shall be approved by the Engineer before delivery or use is started. Materials shall be stored and handled to insure the preservation of their quality and fitness for use and shall be located to facilitate prompt inspection. All equipment for handling and transporting materials and concrete must be clean before any material or concrete is placed therein.

610-2.2 MATERIALS. All materials, proportioning, slump, and air-entertainment for Portland cement concrete shall conform to requirements of the 2004 (MSSHC), Section 501, for **Class B** concrete and specifically as follows:

a. <u>Item</u>	<u>Section</u>
Reinforcing Steel for Concrete Structures	1036.1
Concrete Curing Material	1055
Materials for Joints	1057.1

b. Coarse Aggregate. The ledge stone from which the coarse aggregate will be produced has to have source approval from the Missouri Department of Transportation (MoDOT). Prior to use of the material, the contractor shall submit the current MoDOT source approval letter to the Engineer for the material proposed for use during construction. Source approval granted for "all types of highway construction" (Product Code 1005CACP) constitutes approval for all uses. Source approval granted for "all types except PCCP" (Product Code 1005CACM) comprises approval for all uses except portland cement concrete pavement. Source approval obtained for "all types except PCCP & PCCM" (Product Code 1002CAAC) is considered to be approval for all uses except portland cement concrete.

The contractor shall submit certified test reports to the Engineer for the gradation of the coarse aggregate. The certification shall show the appropriate AASHTO test for the material, the test results, and a statement that the material passed or failed. The aggregate shall be sampled and tested for gradation using the following procedures:

(1) Sampling Aggregates. Sampling shall be in accordance with AASHTO T 2.

(2) Sieve Analysis of Fine and Coarse Aggregate. The coarse aggregate shall be tested in accordance with AASHTO T 27 and meet the applicable gradation requirements of the MSSHC, Section 1005.1.

(3) Material Passing No. 200 Sieve. The portion of material passing the No. 200 sieve shall be tested in accordance with AASHTO T 11 and meet the requirements of the MSSHC, Section 1005.1.

In lieu of the above gradation testing requirement, the contractor may provide documentation from MoDOT (District Materials Office) indicating that the material meets specification requirements.

c. Fine Aggregate. Prior to use of material, the contractor shall submit to the Engineer a certification from the supplier that the fine aggregate complies with the specification requirements. **The certification statement shall be signed by an authorized representative of the supplier and shall be substantially as follows:**

> "This certifies that the fine aggregate being supplied for this project complies with Section 1005.2 of the 2004 Missouri Standard Specification for Highway Construction."

d. Material Acceptance. Prior to the use of all other materials (cement, admixtures, reinforcing steel, etc.) proposed for use during construction, the contractor shall submit to the Engineer the appropriate manufacturer's certification per the 2004 MSSHC indicating that the material meets specification requirements.

CONSTRUCTION METHODS

610-3.1 GENERAL. The Contractor shall furnish all labor, materials, and services necessary for, and incidental to, the completion of all work as shown on the drawings and specified herein. All machinery and equipment owned or controlled by the Contractor, which he proposes to use on the work, shall be of sufficient size to meet the requirements of the work, and shall be such as to produce satisfactory work; all work shall be subject to the inspection and approval of the Engineer.

610-3.2 CONCRETE COMPOSITION. The concrete shall develop a compressive strength of 3,000 psi in 28 days as determined by test cylinders made in accordance with ASTM C 31 and tested in accordance with ASTM C39. The concrete shall contain 5.5 percent of entrained air, plus or minus 1.5 percent, as determined by ASTM C 231 and shall have a slump of not more than 4 inches as determined by ASTM C 143.

610-3.3 ACCEPTANCE SAMPLING AND TESTING. Concrete for each structure will be accepted on the basis of the compressive strength specified in paragraph 3.2. The concrete shall be sampled in accordance with ASTM C 172. Compressive strength specimens shall be made in accordance with ASTM C 31 and tested in accordance with ASTM C 39.

Concrete cylindrical test specimens shall be made in accordance with ASTM C 31 and tested in accordance with ASTM C 39. The Contractor shall cure and store the test specimens under such conditions as directed. All of this testing shall be performed by the Contractor.

610-3.4 PROPORTIONING AND MEASURING DEVICES. When package cement is used,

the quantity for each batch shall be equal to one or more whole sacks of cement. The aggregates shall be measured separately by weight. If aggregates are delivered to the mixer in batch trucks, the exact amount for each mixer charge shall be contained in each batch compartment. Weighing boxes or hoppers shall be approved by the Engineer and shall provide means of regulating the flow of aggregates into the batch box so that the required and exact weight of aggregates can be readily obtained.

610-3.5 CONSISTENCY. The consistency of the concrete shall be checked by the slump test specified in ASTM C 143.

610-3.6 MIXING. Concrete may be mixed at the construction site, at a central point, or wholly or in part in truck mixers. The concrete shall be mixed and delivered in accordance with the requirements of ASTM C 94.

610-3.7 MIXING CONDITIONS. The concrete shall be mixed only in quantities required for immediate use. Concrete shall not be mixed while the air temperature is below 40 F without permission of the Engineer. If permission is granted for mixing under such conditions, aggregates or water, or both, shall be heated and the concrete shall be placed at a temperature not less than 50 nor more than 100 F. The Contractor shall be held responsible for any defective work, resulting from freezing or injury in any manner during placing and curing, and shall replace such work at his/her expense.

Retempering of concrete by adding water or any other material shall not be permitted.

The delivery of concrete to the job shall be in such a manner that batches of concrete will be deposited at uninterrupted intervals.

610-3.8 FORMS. Concrete shall not be placed until all the forms and reinforcements have been inspected and approved by the Engineer. Forms shall be of suitable material and shall be of the type, size, shape, quality, and strength to build the structure as designed on the plans. The forms shall be true to line and grade and shall be mortar-tight and sufficiently rigid to prevent displacement and sagging between supports. The Contractor shall bear responsibility for their adequacy. The surfaces of forms shall be smooth and free from irregularities, dents, sags, and holes.

The internal ties shall be arranged so that, when the forms are removed, no metal will show in the concrete surface or discolor the surface when exposed to weathering. All forms shall be wetted with water or with a nonstaining mineral oil which shall be applied shortly before the concrete is placed. Forms shall be constructed so that they can be removed without injuring the concrete or concrete surface. The forms shall not be removed before the expiration of at least 30 hours from vertical faces, walls, slender columns, and similar structures; forms supported by falsework under slabs, beams, girders, arches, and similar construction shall not be removed until tests indicate that at least 60% of the design strength of the concrete has developed.

610-3.9 PLACING REINFORCEMENT. All reinforcement shall be accurately placed, as shown on the plans, and shall be firmly held in position during concreting. Bars shall be fastened together at intersections. The reinforcement shall be supported by approved metal chairs. Shop drawings, lists, and bending details shall be supplied by the Contractor when required.

610-3.10 EMBEDDED ITEMS. Before placing concrete, any items that are to be embedded shall be firmly and securely fastened in place as indicated. All such items shall be clean and free from coating, rust, scale, oil, or any foreign matter. The embedding of wood shall be avoided. The concrete shall be spaded and consolidated around and against embedded items.

610-3.11 PLACING CONCRETE. All concrete shall be placed during daylight, unless otherwise approved. The concrete shall not be placed until the depth and character of foundation, the adequacy of forms and falsework, and the placing of the steel reinforcing have been approved. Concrete shall be placed as soon as practical after mixing and in no case later than 1 hour after water has been added to the mix. The method and manner of placing shall be such to avoid segregation and displacement of the reinforcement. Troughs, pipes, and chutes shall be used as an aid in placing concrete when necessary. Dropping the concrete a distance of more than 5 feet, or depositing a large quantity at one point, will not be permitted. Concrete shall be placed upon clean, damp surfaces, free from running water, or upon properly consolidated soil.

The concrete shall be compacted with suitable mechanical vibrators operating within the concrete. When necessary, vibrating shall be supplemented by hand spading with suitable tools to assure proper and adequate compaction. Vibrators shall be manipulated so as to work the concrete thoroughly around the reinforcement and embedded fixtures and into corners and angles of the forms. The vibration at any joint shall be of sufficient duration to accomplish compaction but shall not be prolonged to the point where segregation occurs. Concrete deposited under water shall be carefully placed in a compact mass in its final position by means of a tremie, a closed bottom dump bucket, or other approved method and shall not be disturbed after being deposited.

610-3.12 CONSTRUCTION JOINTS. When the placing of concrete is suspended, necessary provisions shall be made for joining future work before the placed concrete takes its initial set. For the proper bonding of old and new concrete, such provisions shall be made for grooves, steps, keys, dovetails, reinforcing bars or other devices as may be prescribed. The work shall be arranged so that a section begun on any day shall be finished during daylight of the same day. Before depositing new concrete on or against concrete which has hardened, the surface of the hardened concrete shall be cleaned by a heavy steel broom, roughened slightly, wetted, and covered with a neat coating of cement paste or grout.

610-3.13 EXPANSION JOINTS. Expansion joints shall be constructed at such points and of such dimensions as may be indicated on the drawings. The premolded filler shall be cut to the same shape as that of the surfaces being joined. The filler shall be fixed firmly against the surface of the concrete already in place in such manner that it will not be displaced when concrete is deposited against it.

610-3.14 DEFECTIVE WORK. Any defective work disclosed after the forms have been removed shall be immediately removed and replaced. If any dimensions are deficient, or if the surface of the concrete is bulged, uneven, or shows honeycomb, which in the opinion of the Engineer cannot be repaired satisfactorily, the entire section shall be removed and replaced at the expense of the Contractor.

610-3.15 SURFACE FINISH. All exposed concrete surfaces shall be true, smooth, free from

open or rough spaces, depressions, or projections. The concrete in horizontal plane surfaces shall be brought flush with the finished top surface at the proper elevation and shall be struck-off with a straightedge and floated. Mortar finishing shall not be permitted, nor shall dry cement or sand-cement mortar be spread over the concrete during the finishing of horizontal plane surfaces.

When directed, the surface finish of exposed concrete shall be a rubbed finish. If forms can be removed while the concrete is still green, the surface shall be pointed and wetted and then rubbed with a wooden float until all irregularities are removed. If the concrete has hardened before being rubbed, a carborundum stone shall be used to finish the surface. When approved, the finishing can be done with a rubbing machine.

610-3.16 CURING AND PROTECTION. All concrete shall be properly cured and protected by the Contractor. The work shall be protected from the elements, flowing water, and from defacement of any nature during the building operations. The concrete shall be cured as soon as it has sufficiently hardened by covering with an approved material. Water-absorptive coverings shall be thoroughly saturated when placed and kept saturated for a period of at least 3 days. All curing mats or blankets shall be sufficiently weighted or tied down to keep the concrete surface covered and to prevent the surface from being exposed to currents of air. Where wooden forms are used, they shall be kept wet at all times until removed to prevent the opening of joints and drying out of the concrete. Traffic shall not be allowed on concrete surfaces for 7 days after the concrete has been placed.

610-3.17 DRAINS OR DUCTS. Drainage pipes, conduits, and ducts that are to be encased in concrete shall be installed by the Contractor before the concrete is placed. The pipe shall be held rigidly so that it will not be displaced or moved during the placing of the concrete.

610-3.18 COLD WEATHER PROTECTION. When concrete is placed at temperatures below 40 F, the Contractor shall provide satisfactory methods and means to protect the mix from injury by freezing. The aggregates, or water, or both, shall be heated in order to place the concrete at temperatures between 50 and 100 F.

After the concrete has been placed, the Contractor shall provide sufficient protection such as cover, canvas, framework, heating apparatus, etc., to enclose and protect the structure and maintain the temperature of the mix at not less than 50 F until at least 60% of the designed strength has been attained.

610-3.19 FILLING JOINTS. All joints which require filling shall be thoroughly cleaned, and any excess mortar or concrete shall be cut out with proper tools. Joint filling shall not be started until after final curing and shall be done only when the concrete is completely dry. The cleaning and filling shall be carefully done with proper equipment and in a manner to obtain a neat looking joint free from excess filler.

METHOD OF MEASUREMENT

610-4.1 Portland cement concrete shall not be measured separately.

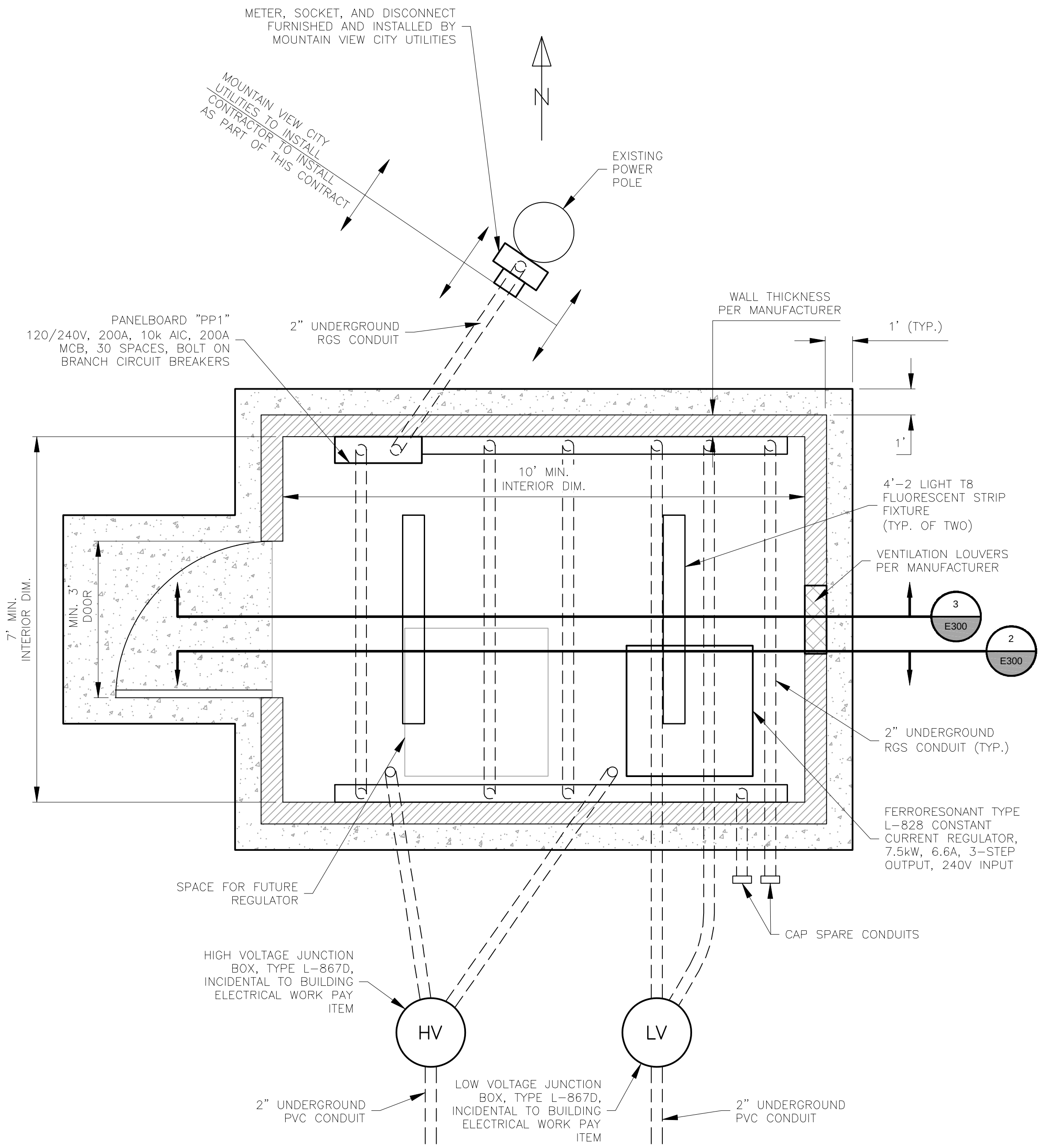
BASIS OF PAYMENT

610-5.1 No separate payment shall be made for this item as it will be considered incidental to other items.

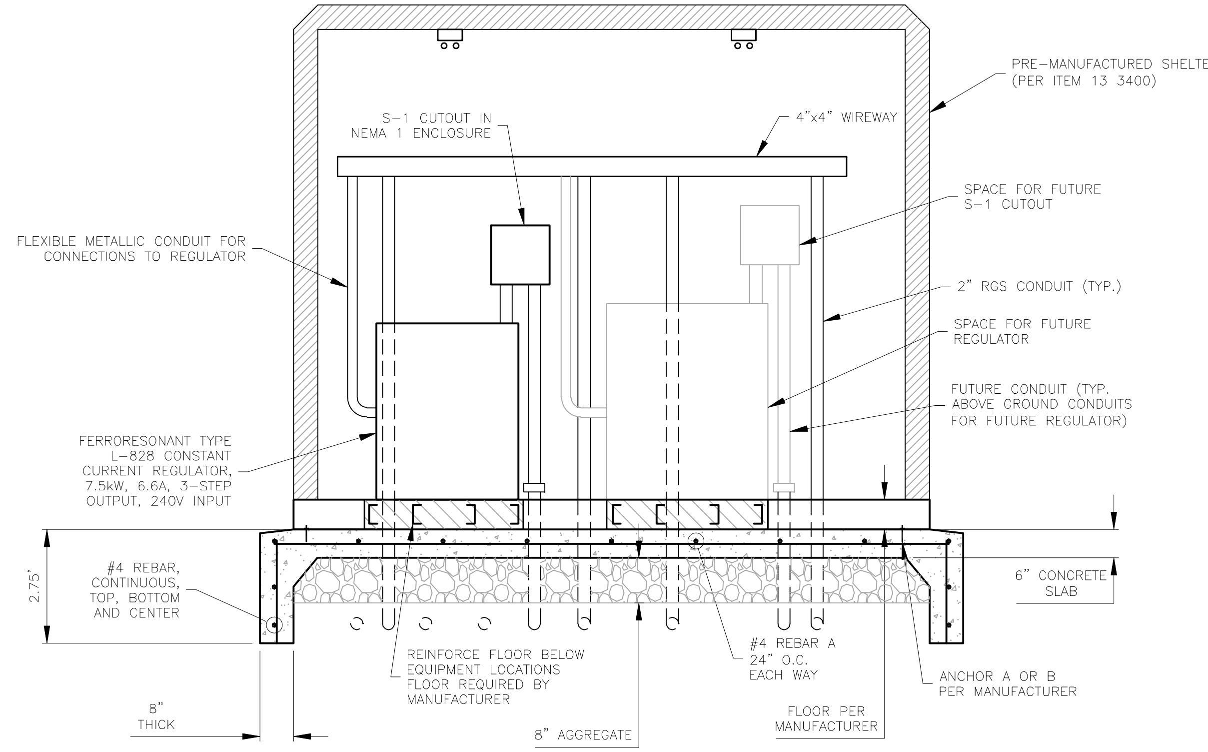
Payment will be made under:

No payment shall be made for this item.

****END OF ITEM MO-610****

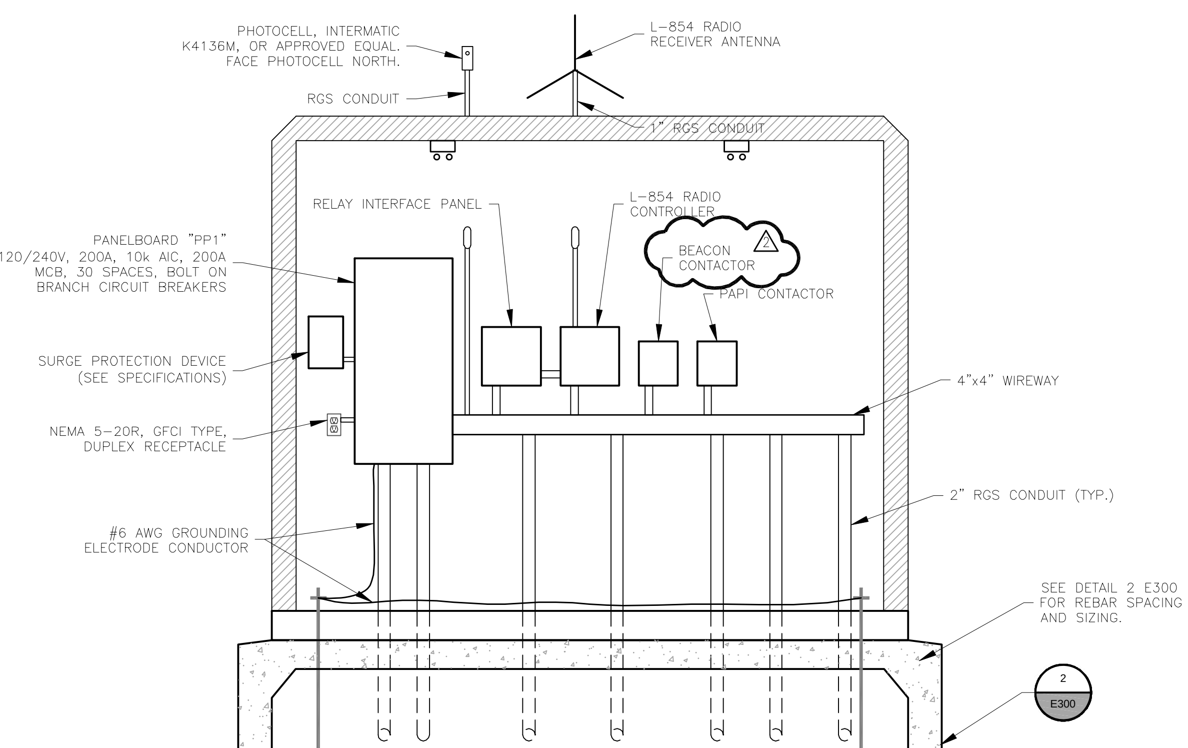


1 E300 **PLAN VIEW ELECTRICAL VAULT**
N.T.S.

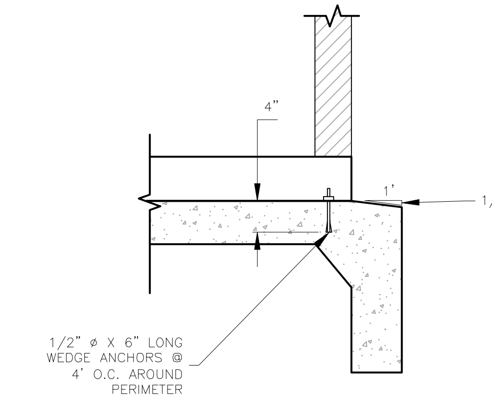


NOTE:
REBAR SPLICES SHALL OVERLAP BY 2'-0" MIN.

2 E300 **SOUTH WALL ELEVATION ELECTRICAL VAULT**
N.T.S.

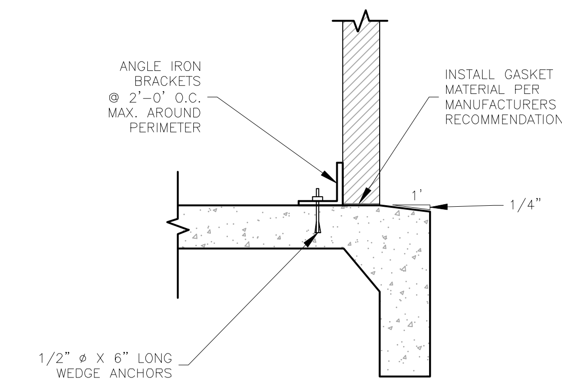


3 E300 **NORTH WALL ELEVATION ELECTRICAL VAULT**
N.T.S.



A E300 **PRE-MANUFACTURED SHELTER ANCHOR DETAIL 1**
N.T.S.

NOTE:
FOR SHELTER WITH A STEEL FRAMED FLOOR



B E300 **PRE-MANUFACTURED SHELTER ANCHOR DETAIL 2**
N.T.S.

NOTE:
FOR SHELTER WITHOUT A FRAMED FLOOR

ISSUE FOR BID

THESE DRAWINGS ARE FOR BIDDING ONLY AND ARE NOT INTENDED FOR CONSTRUCTION, OR PERMIT PURPOSES. THEY WERE PREPARED BY OR UNDER THE SUPERVISION OF:

NAME	REG. NO.	DATE
JOEL A. WIECHMANN	PE-2012033774	8/5/13

JVIATION®

MOUNTAIN VIEW AIRPORT
MOUNTAIN VIEW, MISSOURI

DES: J.A.W.
DR: A.P.A
CH: C.L.G.
APP: J.A.W.

ISSUE RECORD

NO.	BY	DATE	DESCRIPTION
1	J.A.W.	8/5/13	ISSUED FOR BID
2	J.A.W.	8/5/13	ADDENDUM NO. 1

AIRFIELD LIGHTING REHABILITATION

ELECTRICAL VAULT DETAILS

MODOT PROJ. NO.	JVIATION PROJ. NO.	DATE:
MO-13-104B-1	2013.MNF.01	8/5/13

SHEET NAME
E300