A MEETING OF THE
INGHAM COUNTY BUILDING AUTHORITY
WILL BE HELD ON
Tuesday, September 12, 2017 at 3:30 p.m.

Hilliard Building
Second Floor Conference Room B
121 E. Maple Street
Mason, Michigan

AGENDA

Call to Order
Approval of the August 15, 2017 Minutes
Additions to the Agenda
Limited Public Comment

1. Community Mental Health
   a. Clark Change Order 18
   b. Clark Change Order 16
   c. Clark Change Order 25
   d. Phase II Discussion
   e. A&E Phase II Proposal
   f. HVAC Controls Proprietary Proposal
   g. Bergmann Invoice
   h. PSI Invoice A
   i. PSI Invoice B
   j. Builder’s Risk Discussion

Announcements
Public Comment
Adjournment
Members Present: Tim Dolehanty, Eric Schertzing, Peter Cohl

Members Absent: None.

Others Present: Facilities Director Rick Terrill, CMH Representative John Peiffer, CMH Representative Sarah Lurie, Deputy Controller Jared Cypher, Clark Construction Representative Paul Clark, Bergmann Associates Representative Alan Bergmann, Animal Shelter Director John Dinon

Call to Order: The Ingham County Building Authority meeting was called to order by Peter Cohl at 1:00 p.m., Tuesday, August 15, 2017 in Conference Room B of the Hilliard Building, 121 E. Maple St., Mason, Michigan

Approval of the Jul 20, 2017 Minutes: MR. SCHERTZING MOVED TO APPROVE THE MINUTES FOR THE JULY 20, 2017 BUILDING AUTHORITY MEETING. MR. DOLEHANTY SUPPORTED.

Additions to the Agenda: An additional Application Payment for Clark Construction and several Change Orders for the Community Mental Health Project were added to the agenda. The Change Orders were added as Item 1c and the additional Application Payment to follow the first.

Limited Public Comment: None.

1a. Clark Construction Application Payment

Mr. Terrill and Mr. Clark explained that the application had been reviewed and approved by the architect and engineering, through the A&E firm. The original copy, with the architect's signature, is on file with Trish Steffens in the Ingham County Facilities Department. Community Mental Health, however, had not yet reviewed the document. Mr. Terrill informed the Building Authority that the payment is consistent with the contract CMH already has in place and is recommending approval of the application payment.

MR. DOLEHANTY MOVED TO APPROVE THE APPLICATION PAYMENT IN THE AMOUNT OF $473,490.74 CONTINGENT UPON THE ACQUIESCENCE OF THE COMMUNITY MENTAL HEALTH AUTHORITY. MR. SCHERTZING SUPPORTED THE MOTION.

THE MOTION PASSED UNANIMOUSLY.

Mr. Terrill informed the Building Authority that the second Application for Payment had also not yet been reviewed by the Community Mental Health Authority; however, it had been approved by the same process as the former. He recommended payment in the amount of $525,373.76.

Discussion.
MR. DOLEHANTY MOVED TO APPROVE THE APPLICATION PAYMENT IN THE AMOUNT OF $525,373.76 CONTINGENT UPON THE ACQUIESCENCE OF THE COMMUNITY MENTAL HEALTH AUTHORITY. MR. SCHERTZING SUPPORTED THE MOTION.

THE MOTION PASSED UNANIMOUSLY.

1b. **Bergmann Invoice Approval**

   Discussion.

   MR. DOLEHANTY MOVED TO APPROVE #0115446 IN THE AMOUNT OF $16,634.85. MR. SCHERTZING SUPPORTED THE MOTION.

   THE MOTION PASSED UNANIMOUSLY.

1c. **Change Orders**

   Mr. Terrill presented several Change Order requests to the Building Authority.

   Mr. Clark explained that Change Order 7 addressed problems with design coordination and unanticipated materials. The Change Order would cast and place as well as add #5 dowels as additional reinforcements to the concrete.

   Discussion.

   MR. SCHERTZING MOVED TO APPROVE CHANGE ORDER 7 IN THE AMOUNT OF $28,443. MR. DOLEHANTY SUPPORTED THE MOTION.

   THE MOTION PASSED UNANIMOUSLY.

   Mr. Terrill explained that Change Order 8 was a result of trying to avoid winter costs.

   Mr. Schertzing asked why sales tax was being included in the Change Order costs for the steel.

   Mr. Clark explained that the project, as indicated by the State, is not tax exempt because Clark Construction itself is not a non-taxable entity, so tax costs were also included in the Change Order amount.

   Mr. Bergmann explained that they thought the project would be tax exempt under CMH, but the State is making fewer and fewer exceptions.

   Mr. Peiffer explained that unless CMH is buying the materials directly, they cannot avoid the sales tax on this project.

   Mr. Cohl stated that Clark is the agent for CMH and asked what would happen if the payment came directly from CMH.

   Mr. Clark stated that would be difficult as most companies, such as Douglas Steel, only deal with the agents for materials and payment.
Mr. Cohl asked CMH to look into the issue, and Mr. Peiffer said they would get the information to the Building Authority through Mr. Terrill.

Discussion.

MR. SCHERTZING MOVED TO APPROVE CHANGE ORDER 8 IN THE AMOUNT OF $3,000.26. MR. DOLEHANTY SUPPORTED THE MOTION.

THE MOTION PASSED UNANIMOUSLY.

Mr. Terrill presented Change Order 11.

Discussion.

MR. SCHERTZING MOVED TO APPROVE CHANGE ORDER 11 IN THE AMOUNT OF $1,085.47. MR. DOLEHANTY SUPPORTED THE MOTION.

THE MOTION PASSED UNANIMOUSLY.

Mr. Terrill presented Change Order 12 which covered design detail issues.

Discussion.

MR. SCHERTZING MOVED TO APPROVE CHANGE ORDER 12 IN THE AMOUNT OF $7,270. MR. DOLEHANTY SUPPORTED THE MOTION.

THE MOTION PASSED UNANIMOUSLY.

Mr. Terrill presented Change Order 14 which was for an overage in cost on undercut already approved by the Building Authority in a previous meeting. The amount was approved for a “not to exceed” amount, but more undercutting than was estimated was required.

Discussion.

MR. SCHERTZING MOVED TO APPROVE CHANGE ORDER 14 IN THE AMOUNT OF $6,617.42. MR. DOLEHANTY SUPPORTED THE MOTION.

THE MOTION PASSED UNANIMOUSLY.

Mr. Terrill presented Change Order 15 which was to cover the cost of drain tile.

Discussion.

MR. SCHERTZING MOVED TO APPROVE CHANGE ORDER 15 IN THE AMOUNT OF $3,192. MR. DOLEHANTY SUPPORTED THE MOTION.

THE MOTION PASSED UNANIMOUSLY.

1d. Future Meeting Dates (Discussion)
The Building Authority discussed dates previously brought before them. Future 2017 Building Authority meetings will be held on the following dates:

- Tuesday, September 12 at 3:30 p.m.
- Tuesday, October 17 at 1:00 p.m.
- Monday, November 13 at 3:30 p.m.
- Tuesday, December 12 at 3:30

2. **AIA Documents for Granger and Hobbs & Black**

   Mr. Terrill presented the Hobbs & Black invoice for the Animal Shelter project.

   Discussion.

   MR. SCHERTZING MOVED TO APPROVE THE HOBBS & BLACK INVOICE IN THE AMOUNT OF $9,182.50. MR. DOLEHANTY SUPPORTED THE MOTION.

   THE MOTION PASSED UNANIMOUSLY.

   **Announcements:** None.

   **Public Comment:** None.

The August 15, 2017 Building Authority meeting adjourned at 1:48 p.m.
8/29/2017

Richard Terrill
Community Mental Health
812 East Jolly
Lansing, MI 48933

RE:  PCO NO. 018
Community Mental Health Authority - 17-2747

Dear Richard Terrill,

We have finalized gathering all the required quotations for PCO No. 018 for the following extra work: Retaining Wall Undercut. We have reviewed the scopes of work and have verified that all extra work items are in compliance with the Contract Documents.

The following is a detailed itemization of all extra costs:

<table>
<thead>
<tr>
<th>Item</th>
<th>Budget Code</th>
<th>Description</th>
<th>Amount Proposed</th>
<th>Contractor</th>
</tr>
</thead>
<tbody>
<tr>
<td>001</td>
<td>002747 03 312000</td>
<td>Earthwork - Retaining Wall Undercut</td>
<td>$7,175.00</td>
<td>Hoffman Brothers</td>
</tr>
<tr>
<td>Level 001</td>
<td>002747 06 001000</td>
<td>Fee</td>
<td>$358.75</td>
<td>Clark Construction Company</td>
</tr>
<tr>
<td>Level 002</td>
<td>002747 06 001110</td>
<td>Bond</td>
<td>$75.34</td>
<td>Clark Construction Company</td>
</tr>
<tr>
<td>Level 003</td>
<td>002747 06 001120</td>
<td>GLL</td>
<td>$48.97</td>
<td>Clark Construction Company</td>
</tr>
</tbody>
</table>

Total Amount 7,658.05

This change will require 0 days extension to the contract completion date. This quote is valid after 30 days.

If you have any questions regarding this Potential Change Order Request, please call me at your earliest convenience.

If the above item(s) meet with your approval, please sign a copy of this letter and send back to me.

Respectfully,

CLARK CONSTRUCTION COMPANY
<table>
<thead>
<tr>
<th>Line #</th>
<th>Item Description</th>
<th>Estimated Quantity</th>
<th>Unit</th>
<th>Unit Price</th>
<th>Total Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>1753</td>
<td>(PCO 16) Under Cut Retaining Wall - Poor Soils (area 5' D X 8' W X 45' L) (based on No Trucking Cost) (based On PSI Email 8/23/17)</td>
<td>287.00 CY</td>
<td>CY</td>
<td>$25.00</td>
<td>$7,175.00</td>
</tr>
</tbody>
</table>

Total Bid Price: $7,175.00

Notes:
- Excludes: Layout, Testing, Engineering.
- Excludes: Bonds and/or dues.
- This proposal does not include any Builders Risk, OCP, Railroad Protective, Pollution Liability or any other special insurance coverage.
- Excludes: backfilling the area of the retaining wall near the pond prior to construction of the crane pad, due to the poor soil issues under the retaining wall.
- Excludes: building up crane pad with embankment to make the pad level.

Accepted:

The above prices, specifications and conditions are satisfactory and hereby accepted.

Buyer: ____________________________
Signature: _______________________
Date of Acceptance: ______________

Confirmed:

HOFFMAN BROS., INC.

Authorized Signature: ____________________________
Estimator: ______________
(269) 441-8267 mosinski@hoffmanbrosinc.com
Based on test pits excavated this morning, the organic material encountered below the retaining wall extended to a depth of 5 feet below the bottom of the footing from the southwest corner of the retaining wall to approximately 45 feet to the east.

-Joel

Joel Walter, P.E.
Branch Manager
Building & Construction
Intertek-PSI

Mobile  517.937.9006
Office   517.394.5700
Email    joel.walter@psiusa.com
www.intertek.com/building

Intertek-PSI, 3120 Sovereign Drive, Suite C, Lansing, Michigan 48911

From: Joel Walter
Sent: Friday, August 11, 2017 2:33 PM
To: 'RTerrill@ingham.org' <RTerrill@ingham.org>; 'peiffer@ceicmh.org' <peiffer@ceicmh.org>; 'pclark@clarkcc.com' <pclark@clarkcc.com>; 'gdeuel@clarkcc.com' <gdeuel@clarkcc.com>; 'mbutkovich@clarkcc.com' <mbutkovich@clarkcc.com>; 'agoschka@bergmannpc.com' <agoschka@bergmannpc.com>;
'larry.connelly@lansingmi.gov' <larry.connelly@lansingmi.gov>
Subject: RE: Community Mental Health

Additional reports for the Community Mental Health project are attached for review. Thanks.

-Joel

Joel Walter, P.E.
Branch Manager
Building & Construction
Paul Clark

From: Joel Walter <joel.walter@psiusa.com>
Sent: Monday, August 21, 2017 12:18 PM
To: Paul Clark
Subject: Community Mental Health

Paul-

Below is what was put together regarding the retaining wall undercut.

PSI was on site on 8/15/17 to observe the foundation bearing surface for a detention pond retaining wall. From the southwest corner of the detention pond the retaining wall extends approximately 60 feet to the north and 30 feet to the east. Organic soils were observed at the bearing surface and are not suitable to support the retaining wall foundation. The organic soils should be removed from beneath the foundations until suitable bearing soil is encountered and the excavation must be filled with lean concrete or engineered fill. Alternatively, foundations may be extended to bear directly on suitable native soils after removal of the organics. Any fill placed below the footings where unsuitable soils are removed should extend 1 foot outside of the limits for every 2 feet in thickness between the intended bearing surface and the natural, suitable underlying soils. PSI should observe the bearing surfaces prior to placing concrete reinforcing steel to verify the bearing capacity.

-Joel

Joel Walter, P.E.
Branch Manager
Building & Construction
Intertek-PSI

Mobile 517.937.9006
Office 517.394.5700
Email joel.walter@psiusa.com
www.intertek.com/building

Intertek PSI, 3120 Sovereign Drive, Suite C, Lansing, Michigan 48911
8/18/2017

Richard Terrill  
Community Mental Health  
612 East Jolly  
Lansing, MI  48933  

RE: PCO No. 016  
Community Mental Health Authority - 17-2747  

Dear Richard Terrill,  

We have finalized gathering all the required quotations for PCO No. 016 for the following extra work: Temp Gas Service Set-Up. We have reviewed the scopes of work and have verified that all extra work items are in compliance with the Contract Documents.

The following is a detailed itemization of all extra costs:

<table>
<thead>
<tr>
<th>Item</th>
<th>Budget Code</th>
<th>Description</th>
<th>Amount Proposed</th>
<th>Contractor</th>
</tr>
</thead>
<tbody>
<tr>
<td>001</td>
<td>002747 03 260000</td>
<td>Electrical</td>
<td>$527.08</td>
<td>Centennial Electric LLC</td>
</tr>
<tr>
<td>002</td>
<td>002747 03 220000</td>
<td>Plumbing / HVAC</td>
<td>$15,597.00</td>
<td>John E. Green Company</td>
</tr>
<tr>
<td>Level 001</td>
<td>002747 06 001000</td>
<td>Fee</td>
<td>$806.20</td>
<td>Clark Construction Company</td>
</tr>
<tr>
<td>Level 002</td>
<td>002747 06 001110</td>
<td>Bond</td>
<td>$169.30</td>
<td>Clark Construction Company</td>
</tr>
<tr>
<td>Level 003</td>
<td>002747 06 001120</td>
<td>GLI</td>
<td>$110.05</td>
<td>Clark Construction Company</td>
</tr>
</tbody>
</table>

Total Amount  17,209.55

This change will require 0 days extension to the contract completion date. This quote is void after 30 days.

If you have any questions regarding this Potential Change Order Request, please call me at your earliest convenience.

If the above item(s) meet with your approval, please sign a copy of this letter and send back to me.
PCO NO. 016 - Temp Gas Service Set-Up
Total Amount 17,209.55
Community Mental Health Authority - 17-2747
PAGE 2

Respectfully,

CLARK CONSTRUCTION COMPANY
FREE STANDING METER SUPPORT

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Description</th>
<th>Material No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>2</td>
<td>Galvanized steel pipe (11 feet), See Note 3</td>
<td>Customer</td>
</tr>
<tr>
<td>B</td>
<td>—</td>
<td>Concrete</td>
<td>Customer</td>
</tr>
<tr>
<td>C</td>
<td>As Required</td>
<td>Unistrut channel — 1-5/8&quot; x 3/16&quot;</td>
<td>10097422</td>
</tr>
<tr>
<td>D</td>
<td>4</td>
<td>2&quot; STD Unistrut pipe clamp</td>
<td>10090216</td>
</tr>
<tr>
<td>CU No.</td>
<td>CU102230</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes:
1. Use freestanding support where the building wall will not support the meter installation.
2. Consumers Energy reserves the right to refuse to connect a gas service to an improperly installed meter support.
3. Customer to provide and install items "A" and "B". Fence posts are not acceptable.
   - For 1.5 M to 7 M rotary meters – Use two 2-inch ID (internal diameter) galvanized steel pipe (Schedule 40) a minimum of 11 feet long.
   - For 11 M to 16 M rotary meters – Use two 3-inch ID (internal diameter) galvanized steel pipe (Schedule 40) a minimum of 11 feet long.
   - A 6" (or larger) auger is recommended for the postholes. The steel pipes must be plumb.
4. This meter pedestal can also accommodate the following sizes: Multiple 175 RMIs, 250 Metris, and 425, 800, 1000, and up to 11M compact rotary meters.
   - 16" between posts will accommodate 425 through 11M compact rotary meter installations.
   - 36" between posts will accommodate multiples of up to three 250 RMM Metris meters. Up to a 60" span is acceptable for multiples of greater than three 250 RMM Metris meters.
5. Height is field adjustable based on selected meter stand.
Wednesday, August 16, 2017

Clark Construction Company
3535 Moore's River Dr.
Lansing, MI 48911

Attn: Paul Clark

Re: Community Mental Health Authority - Building Addition
JEG Job No. 217-0057
Misc. 03 - Temporary Gas Service (Revised 2nd Time)

Gentlemen:

The John E. Green Company (JEG) is pleased to submit for your approval this quotation in the amount of Fifteen Thousand, Five Hundred Ninety-Seven Dollars ($15,597.00) to furnish and install the required work as described in "Misc. 03 - Temporary Gas Service", dated 8/16/17, at the subject project.

The addition of a temporary gas meter at a location away from the existing building will require additional expenses over and above that which would normally be figured, if a temporary meter were installed at the existing building. With the relocation of the temporary gas meter to a point away from the building, and mounted on a temporary stand, the work will now take a sufficient length of time so that temporary domestic water heating needs to be taken care of as well.

The pipe, valves, and fittings listed on the attached takeoff would be the quantities required for the extra work to connect to the temporary gas meter away from the building, as well as to pipe to a temporary water heater.

Please see our scope inclusions and exclusions below:

Included

Temporary gas meter stand
Additional 6" gas piping, with welded joints, original temporary gas meter location to gas meter stand
Furnish manlift for use of Consumers Power employees to remove existing permanent gas meter
Temporary water heater
Connection of temporary water heater to domestic water system
Remove temporary water heater for turnover to owner
Demolish 6" temporary gas line
Demolish temporary gas meter stand
Overtime labor as needed
Excluded
Demolition of existing gas meter
Furnishing of and installation of temporary gas meter
Electrical connection to temporary water heater
Demolition of temporary gas meter
Re-start of emergency generator
Electrical demolition

This change proposal covers only the direct costs associated with the work described above. JEG has made every attempt to include in this quotation all items that influence the work. However, JEG reserves the right to quote any additional charges caused by this change that may not have been identified as affecting JEG's work or inadvertently omitted from this quotation. JEG reserves the right to assess the impact of this change at a later date and to submit these costs, as they become known.

Unless noted otherwise in this quotation, it is anticipated that all work required by this change will be done on a straight time basis. Overtime work, if required, will be billed as an additional item.

This quotation is good for 30 days. Please note that since the above work is not currently included in our contract, a delay in the acceptance of this quotation could result in additional costs.

SCHEDULE

The scope of work described in the change above will impact the schedule of mechanical work. At this time, however, we are unable to determine the overall impact to the project schedule.

Please advise as soon as possible if JEG is to proceed with this proposal. A change order will be required within 30 days of starting work on this change so invoicing can begin.
OVERTIME

The overtime pricing contained herein includes the added payroll costs for the overtime schedule provided by your office. Furthermore, this change order proposal contains a loss of labor productivity estimate based on the overtime schedule that we have received from your firm. The proposed overtime schedule provided by your office is the basis of our estimate for direct and inefficiency costs associated with this change order request. John E. Green Company expressly reserves the right to submit a separate change order proposal in the event the overtime schedule changes in any manner from that upon which we have relied in the pricing of this proposed change order.

A breakdown of the above quotation is attached. Please call if you have any questions on this matter.

Gregg Alchin
Project Manager
Community Mental Health Addition

Material Costs:

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Unit Cost</th>
<th>Total Cost</th>
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</thead>
<tbody>
<tr>
<td>PVF Material (Per attached sheet)</td>
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<tr>
<td>PVF Discount 0%</td>
<td></td>
<td>$2,169.00</td>
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<tr>
<td>Equipment &amp; Specialties</td>
<td></td>
<td>$1,650.00</td>
<td>$3,819.00</td>
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<tr>
<td>Miscellaneous Material 5%</td>
<td></td>
<td>$190.95</td>
<td>$4,009.95</td>
</tr>
<tr>
<td>Sales / Use Tax 6%</td>
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<td>$240.60</td>
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</tr>
<tr>
<td>Cartage 5%</td>
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<td>$190.95</td>
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<tr>
<td><strong>Subtotal</strong></td>
<td></td>
<td></td>
<td>$4,441.50</td>
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<tr>
<td><strong>Overhead &amp; Profit 10%</strong></td>
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<td></td>
<td>$444.15</td>
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<tr>
<td><strong>TOTAL MATERIAL COSTS</strong></td>
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<td>$4,885.65</td>
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Field Labor Costs:

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<tr>
<th>Labor Category</th>
<th>ST</th>
<th>1ST</th>
<th>2ST</th>
<th>ST Hrs</th>
<th>1ST Hrs</th>
<th>2ST Hrs</th>
<th>Total Hrs</th>
<th>Total Cost</th>
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</thead>
<tbody>
<tr>
<td>Journeyman</td>
<td>72.17</td>
<td>103.18</td>
<td>138.19</td>
<td>32</td>
<td>24.0</td>
<td></td>
<td>56.0</td>
<td>$4,833.76</td>
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<tr>
<td>Foreman</td>
<td>84.52</td>
<td>123.20</td>
<td>161.89</td>
<td>18</td>
<td>20.0</td>
<td></td>
<td>38.0</td>
<td>$3,985.36</td>
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<tr>
<td>Gen. Foreman</td>
<td>87.26</td>
<td>127.21</td>
<td>167.16</td>
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<td>$0.00</td>
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<td>Operator</td>
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<td>$0.00</td>
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<td>Detailer</td>
<td>90.00</td>
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<tr>
<td>BIM Manager</td>
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<td>Service Tech (Startup)</td>
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<td>$0.00</td>
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<td><strong>TOTAL FIELD HOURS</strong></td>
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<td>30.0</td>
<td>44.0</td>
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<td>94.0</td>
<td>$8,819.12</td>
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Shop Labor Costs:
- Journeyman
- Foreman

Overhead & Profit 10% $881.91

TOTAL LABOR COSTS $9,701.03

Rentals:

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<tr>
<th>Item</th>
<th>Rate ($/hr)</th>
<th>Hours</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td>Welding Machines</td>
<td>$5.80</td>
<td>40.0</td>
<td>$232.00</td>
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<tr>
<td>Pipe Machines</td>
<td>$5.50</td>
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<td>$0.00</td>
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<tr>
<td>Grooving Machine</td>
<td>$5.00</td>
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</tr>
<tr>
<td>Porta-John</td>
<td>$0.00</td>
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<tr>
<td>Coring Machine</td>
<td>$10.00</td>
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<tr>
<td>Manlifts</td>
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<td>$395.00</td>
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<tr>
<td>Brodersons</td>
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<td>$0.00</td>
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<tr>
<td>Pickup Trucks</td>
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<td>$0.00</td>
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<tr>
<td>Skytrak</td>
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<tr>
<td>Boom Truck</td>
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<tr>
<td><strong>Subtotal</strong></td>
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<td>$627.00</td>
</tr>
</tbody>
</table>

Overhead & Profit 10% $62.70

TOTAL RENTAL COSTS $689.70

Miscellaneous Costs: 1 of 2
Community Mental Health Addition

Cleanup Costs (% of Labor Costs)
Reproduction Costs

Overhead & Profit

Subtotal

TOTAL MISC COSTS

 Misc. 03 - Temporary Gas Service
(Revised 2nd Time)

3% $291.03 8/16/2017

10% $29.10

$320.13

Subcontractors:
Sheet Metal $0.00
Insulation $0.00
Temperature Controls $0.00
Crane Rental $0.00
Equipment Re-Start (Anderson) $0.00
Electrical $0.00

Subtotal $0.00
Overhead & Profit

5.0% $0.00

TOTAL SUBCONTRACTOR COSTS $0.00

QUOTATION SUBTOTAL $15,596.51

Bond Cost

0.00% $0.00

TOTAL QUOTATION $15,596.51
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</table>
# Quotation

**ETNA SUPPLY - GRAND RAPIDS**  
4601 CLAY AVENUE SW  
GRAND RAPIDS, MI 49548-3098  
816 241 5414  
Fax 816 241 4788

**QUOTE TO:**  
JEG LANSING  
1125 N CEDAR RD  
MASON, MI 48854-8722

**SHIP TO:**  
JEG LANSING  
1125 N CEDAR RD  
MASON, MI 48854-8722

<table>
<thead>
<tr>
<th>CUSTOMER NUMBER</th>
<th>JOB NAME / PC NUMBER</th>
<th>JOB NAME / RELEASE NUMBER</th>
<th>SALESPERSON</th>
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<tbody>
<tr>
<td>10135</td>
<td>50 GAL ELEC 480V</td>
<td></td>
<td>Richard Bordayo</td>
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<tr>
<th>WRITER</th>
<th>SHIP VIA</th>
<th>TERMS</th>
<th>EXPIRE DATE</th>
<th>FREIGHT EXEMPT</th>
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<tr>
<td>Tom Morin</td>
<td>BID</td>
<td>Cash Disc 10th Net</td>
<td>08/28/2017</td>
<td>No</td>
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<tr>
<th>ORDER QTY</th>
<th>DESCRIPTION</th>
<th>UNIT PRICE</th>
<th>EXT PRICE</th>
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| 1ea       | LOCHINVAR ETX050KD 50 GALLON LIGHT DUTY COMMERCIAL ELECTRIC 480V 3PH TWO 4500 WATT ELEMENTS 100143390  
*Nonstock - Restock Policy Applies*  
Pn: 147734 | 1650.000/ea | 1650.00  |

Taxes are not included!  
See Terms and Conditions on our website  
http://www.etnasupply.com/tcquotation

Prices are firm for 14 days. Price subject to change after 14 days.

<p>| | |</p>
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<tr>
<td>Date</td>
<td>ST Hours</td>
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<td>Tuesday, 8/15/17</td>
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<td>Monday, 8/21/17</td>
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<td>Total</td>
<td>50</td>
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</table>
5/7/2017

Richard Terrill  
Community Mental Health  
812 East I-96  
Lansing, MI  48933

RE: PCD No. 025  
Community Mental Health Authority - 17-2747

Dear Richard Terrill,

We have finalized gathering all the required quotations for PCD No. 025 for the following extra work: Missing Roof Insulation. We have reviewed the scopes of work and have verified that all extra work items are in compliance with the Contract Documents.

The following is a detailed itemization of all extra costs:

<table>
<thead>
<tr>
<th>Item</th>
<th>Budget Code</th>
<th>Description</th>
<th>Amount Proposed</th>
<th>Contractor</th>
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<tbody>
<tr>
<td>001</td>
<td>002747 03 075323</td>
<td>EPDM Roofing - Additional 4&quot; of roof insulation, where existing building mansard roofs were removed</td>
<td>$2,291.00</td>
<td>Ben-Car Roofing &amp; Sheet Metal, Inc.</td>
</tr>
<tr>
<td>Level 001</td>
<td>002747 06 001000</td>
<td>Fee</td>
<td>$114.55</td>
<td>Clark Construction Company</td>
</tr>
<tr>
<td>Level 002</td>
<td>002747 06 001110</td>
<td>Bond</td>
<td>$24.06</td>
<td>Clark Construction Company</td>
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<tr>
<td>Level 003</td>
<td>002747 06 001120</td>
<td>GLI</td>
<td>$15.64</td>
<td>Clark Construction Company</td>
</tr>
</tbody>
</table>

Total Amount: 2,445.25

This change will require 0 days extension to the contract completion date. This quote is valid after 30 days.

If you have any questions regarding this Potential Change Order Request, please call me at your earliest convenience.

If the above item(s) meet with your approval, please sign a copy of this letter and send back to me.
Respectfully,

CLARK CONSTRUCTION COMPANY
September 7, 2017

Attn: Paul

Re: CMHA

We propose to do the following work

1. Furnish and install 2 layers of 2" ISO where Mansard is removed to match existing roof system 10' x 80'

Breakdown is as follows

<table>
<thead>
<tr>
<th>Material</th>
<th>$1,333.00</th>
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<tr>
<td>Tax.</td>
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<tr>
<td>M.U.</td>
<td>$254.00</td>
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<tr>
<td>Labor</td>
<td>8hrs.@78.00 $624.00</td>
</tr>
</tbody>
</table>

*Price for labor and material will be $2,291.00*

If you have any questions or concerns, please call the office at (989) 662-4532.

*Leonard R. Briston*  
Leonard R. Briston  
Accepted by

4597 S. Garfield Road, Auburn MI 48611  
PH 989-662-4532 FX 989-662-4601
Phase II Renovation Process with the Ingham County Building Authority:

**Step 1:** Revise the Scope of Work and Drawings: CMH and Bergman.

**Step 2:** Bergman to provide a proposal for A&E services Phase II based on revised scope of work.

**Step 3:** CMH to update final set of drawings with Bergman regarding staffing needs for 2018.

**Step 4:** Ingham County Building Authority Meeting: Bergman’s A&E proposal for Phase II. Obtain approval. Execute with signatures.

**Step 5:** Bergman to provide final set of drawings and specifications for all trades for bid, and City of Lansing plans review for permits.
   
   a. CMH to provide estimate for CMH Skilled Trades Phase II work assigned to in-house CMH Carpentry Staff.
   
   b. Provide preliminary estimates for all other Trades Sub-Contractors:
      
      i. Electrical
      
      ii. Mechanical HVAC
      
      iii. Plumbing
      
      iv. Fire Suppression
      
      v. Building automation controls: Security and HVAC.
      
      vi. Furniture DBI.

      Contractors to assist with estimates: Summit Electric, Andersen HVAC, Capital City Plumbing, Delau Fire, TYCO, DBI.

   c. Confirm that new numbers are within the allowance of $600,000. Hold $50,000 for contingency.

   d. Present to Building Authority for approval to bid.

**Step 6:** Work with Ingham County to bid out Sub-Contractors. Develop formal RFP.

**Step 7:** Review Bids, and make recommendations to award work.

**Step 8:** Present to Ingham County Building Authority to obtain approval of sub-contractor bid recommendations as presented by CMH and Ingham County Purchasing.

**Step 9:** AIA Contracts for sub-contractors developed and signed by CMH and the Ingham County Building Authority.

**Step 10:** Commencement of work. Scheduled to begin August 2018.
September 5, 2017

Mr Rick Terrill
Director
Ingham County
121 E Maple Street
Mason, Michigan 48854

c/o Ingham County Building Authority
c/c John Peiffer, Community Mental Health Authority

Re: Professional Services Proposal
Interior Renovation Proposal

Dear John,

Bergmann Associates is pleased to present this proposal to provide Professional Services to renovate selective suites within the existing three story, 75,000 square foot Community Mental Health Authority facility located in Lansing, Michigan.

Understanding of the Project:

The project will consist of suite renovations to accommodate the departmental relocations as developed during the facility master planning that was completed in the fall of 2015. Work on the ground level will consist of expanding the existing Training Room, expanding the AMHS – OCMS suite, creating a new Exercise Room and possibly a new shower area. Work on the second floor will consist of a new Pharmacy, two new office suites for CSDD Admin and QCSRR and renovations to the AMHS – CMS suite. The Server room project will include equipment investigation, layout, cabling, cooling and room construction. Changes required on the first floor (Conference Room and Interview Rooms) and the third floor (relocation of the Facilities Department) will be addressed through the addition project.

The block plans that were developed during master planning will be utilized as the basis of design, but departmental meetings will be required to finalize exact detailed requirements for each suite. Upon meeting with each department, design development drawings for each suite will be completed, reviewed and approved with each director. Once sign off is received, construction documents will be completed. Bergmann Associates will submit plans for preview and permitting. Since the building needs to remain occupied, a phasing plan will be developed to assist CMHA with phasing the construction. Bergmann Associates will also provide construction administration services throughout the duration of construction.

Scope of Work:

- Existing facility documentation for each suite.
- Design development of plans and specific suite layouts.
- Construction documents for architectural, mechanical and electrical.
- Coordination with Owner technology systems.
- Agency plan review.
- Owner project meetings.
- Construction administration.
Exclusions:

Services that are not included as part of this proposal include:

- Reimbursable expenses.
- Environmental remediation if required.

Fee Proposal:

Bergmann Associates propose to provide architectural, mechanical and electrical engineering services for the Community Mental Health Authority interior renovations for an hourly not to exceed fee as broken down below:

Design development: $9,560.00

- Establish communication policy and project schedule
- Investigation and documentation of the existing conditions
- Development of floor plans and interior casework elevations
- Development of project phasing
- Review of code requirements
- MEP system modifications
- Owner review meetings

Construction documents: $26,290.00

- Document preparation for architectural, mechanical and electrical
- Development of project specifications
- Agency plan review
- Review of code requirements
- Owner review meetings

Bidding and Negotiations: $2,390.00

- Assistance with the Owner for obtaining bids
- Respond to requests for information
- Issue addendum as required

Construction Administration: $9,560.00

- Attend construction meetings
- Review construction for conformity to the construction documents
- Review product submittals
- Respond to requests for information
- Issue bulletins as required
- Punch list

Total Interior Renovation Hourly Not To Exceed Project Fee:

Forty Seven Thousand Eight Hundred Dollars ($47,800.00)
Bergmann Associates propose to provide architectural, mechanical and electrical engineering services for the Community Mental Health Authority server room for an hourly not to exceed fee as broken down below:

**Design development:**
- Establish communication policy and project schedule
- Investigation and documentation of the existing conditions
- Investigation into server room equipment
- Development of floor plan
- Development of electrical and data management system
- Development of the room cooling system
- Review of code requirements
- Owner review meetings

$8,125.00

**Construction documents:**
- Document preparation for architectural, mechanical and electrical
- Development of project specifications
- Agency plan review
- Review of code requirements
- Owner review meetings

$16,250.00

**Bidding and Negotiations:**
- Assistance with the Owner for obtaining bids
- Respond to requests for information
- Issue addendum as required

$1,625.00

**Construction Administration:**
- Attend construction meetings
- Review construction for conformity to the construction documents
- Review product submittals
- Respond to requests for information
- Issue bulletins as required
- Punch list

$6,500.00

**Total Server Room Hourly Not To Exceed Project Fee:**

*Thirty Two Thousand Five Hundred Dollars ($32,500.00)*

These fees are based upon completing both the interior renovations and server room documents and bidding at the same time.
Bergmann Associates thanks you for this opportunity to provide our services to you. We trust you will find this proposal acceptable as outlined within this letter. Please sign and return the Bergmann Standard Term and Conditions sheet which is hereby attached to and included as part of this letter. Should you have any questions, or need additional information please do not hesitate to contact us. We are prepared to begin our services upon your written authorization to proceed.

Sincerely,

[Signature]
Alan Goschka, AIA
Project Manager

The undersigned parties therefore recognize and agree to the Procedures and conditions set forth in the aforementioned Letter and attached Bergmann Standard Terms and Conditions.

Authorized Agent for Client

Title

Date

Jeff Ledy, P.E.

VP – Midwest Buildings

Date

Rick Chelotti, P.E.

Sr VP – Midwest Region

Date
THIRD FLOOR PLAN
July 17, 2017

Community Mental Health
812 East Jolly Road
Lansing, MI 48910
Phone: 517-346-8200
Fax: 517-346-8245

We are pleased to submit our quotation for the following job:
Controls upgrade – 812 Jolly Road

We will provide materials and labor to:
   a) Disconnect and remove existing XBS supervisor
   b) Install new control package including:
      1) Tridium JACE 8000 with 128 MB RAM/128 MB Flash, 2 ethernet ports, 1 RS-485 serial port, 1
         RS-232 serial port, NDIO port and 2 communication card options
      2) HTML Web user interface
      3) JACE memory expansion
      4) LON card and driver bundle
      5) IO 16 provides 8 universal inputs, 4 relay outputs, 4 0-10VDC analog outputs
      6) DR-MDB can provide Modbus RTU over RS-232 or RS-485
      7) N4 supervisor with historical database
   c) Test, check and equipment start-up

Warranty:
1-year all parts

Additional info:
- Quote is been provided based on Excel Building Supervisor Obsolescence.
- Quote includes adding existing stand alone equipment.
- Quote include 18 months of security and web software updates.

Total cost for the project as outlined above:
$31,145.00

Sincerely,

Troy Wooley – General Manager
For more than 15 years, Tridium’s Niagara Framework has fundamentally changed the way devices and systems connect to people—and the ways people can control and optimize those machines.

With nearly half a million installed instances, Niagara is rapidly becoming the operating system of the Internet of Things. Its open, open-source distributed business model and open architectural support give you the freedom to choose how you work with the things you build and with what you connect. Niagara enables you to connect and control devices, while networking, monitoring, and analyzing data from nearly anywhere or anything.

From buildings and data centers to manufacturing systems and smart cities, the Niagara Framework’s diverse ecosystem is creating powerful, optimized environments and cost reductions that chart your business on a path toward competitive advantage. And with the release of Niagara 8 and the JACE 7000, the opportunity to achieve operational excellence is even greater than before.

Niagara’s truly open environment harnesses the power of the Internet of Things in ways never before imagined or possible.
NIAGARA 4

open 4 performance

NIAGARA 4 builds on the legacy of the NIAGARA Framework in new and exciting ways. It’s less reliant on browser plugins, faster and easier to use. Now end-users can directly access, analyze and act on a wide range of operational data. A truly open framework, NIAGARA 4 delivers a variety of notable improvements to help businesses take full advantage of the Internet of Things, including advanced visualization and new search, security and navigation tools.

NIAGARA 4 is less reliant on browser plug-ins, featuring an intuitive HTML5 interface

MORE DATA AT YOUR FINGERTIPS

NIAGARA offers a suite of features that empower users to do more than ever. Because devices, options and data points can be tagged in NIAGARA 4, users can quickly navigate to a specific logical state of the system in question.

POWERFUL SECURITY

NIAGARA is fully compliant in many of the existing common security practices. It delivers a secure, reliable system that is designed to withstand the challenges of a complex environment.

EASY INTEGRATION

NIAGARA features intuitive integration and rapid deployment. NIAGARA 4 is designed to integrate with your existing infrastructure, making it easy to get up and running.

FAST, MORE POWERFUL DEVELOPMENT

NIAGARA 4 features a rich, fully-integrated development environment. This includes a rich editor, powerful debugging tools, and a robust testing framework. It’s the perfect tool for developing and testing NIAGARA 4 applications.
JACE® 8000 CONTROLLER

a modular approach for global design

Optimized for Niagara 4, Tridium has created an all-new hardware platform: the JACE 8000 controller. This “next-generation” controller features a new global design that functions with legacy systems and has the ability to scale for future needs.

DIFFERENT GLOBAL DESIGN
The new modular design of the JACE 8000 controller makes it easy to install, integrate, and upgrade. Fail-safe installation with expansion capability makes installation complex and error-free. Systems integration can take place with appropriate modules, not requiring components. This box enables simplified professional global firmware and improved access to standard interfaces.

WIRELESS CapABILITY
Standard wireless technology enables a direct connection to the next generation of wireless sensors and devices. The JACE 8000 controller simplifies installation and cost-advantageous on-site deployment. Its modular design allows for easy installation and easy reconfiguration.

JACE 8000 CONTROLLER

key features

- Product line includes data collection, network management, and easy installation.
- Flexible networking.
- 48-port Ethernet switch with an additional options module.
- Native IP capabilities.
- 4-byte variable word length.
- Easy-to-use software interface.
- High-capacity network management.
- 32-port network management.
- Ethernet switch supports multiple protocols.
- Easy to install.
- Includes the best networking hardware.
- Includes the best networking software.
- Includes the best networking management.

With simple configuration, tool-less installation, low-cost integration, and high-powered performance, the JACE 8000 controller is a modular ecosystem in connecting and controlling devices worldwide.

NIAGARA AX
seamless conversion

Tridium has engineered Niagara AX and the new JACE 8000 controller to be easy to add to, or upgrade from, your current Niagara-based systems.

NIAGARA AX compatibility summary

- Niagara AX controller is an upgrade to Niagara 4 and Niagara 4.5.
- Niagara AX controller is an upgrade to Niagara 4.5.
- Niagara AX controller is an upgrade to Niagara 4.5.
- Niagara AX controller is an upgrade to Niagara 4.5.
- Niagara AX controller is an upgrade to Niagara 4.5.
- Niagara AX controller is an upgrade to Niagara 4.5.
- Niagara AX controller is an upgrade to Niagara 4.5.
open the internet of things

The reach of Tridium's Niagara Framework® is global—and growing daily. Our pioneering innovations have created a large and active community of innovative developers, integrators, consultants, manufacturers, resellers and end users who understand that Niagara is an essential part of the Internet of Things.

That's the power of open, and the future of innovation.

Niagara 4 and the JACE® 8000 controller are available through a wide variety of original equipment manufacturers. Our open distribution business model and open protocol support allow a vendor-neutral application compatible with devices and systems throughout the world.

To learn more about how to purchase, install and start using Niagara 4 and the JACE 8000 controller, or if you are an original equipment manufacturer and would like to add them to your suite of offerings, please contact us.

TRIDIIUM 804.747.4771 Corporate HQ / 877.305.1745 Customer Support

tridium.com
Niagara 4 builds on the legacy of the Niagara Framework® in new and exciting ways. It’s less reliant on browser plug-ins, faster and easier to use. End users can now directly access, analyze and act on a wide range of operational data as a result of several innovative changes.

AN ALL-NEW USER INTERFACE
Niagara 4 features a bold and intuitive new interface. Modern and easy to use, the platform utilizes HTML5 to provide an array of rich features.

MORE DATA AT YOUR FINGERTIPS
With a simple point-and-click or drag-and-drop, users can instantly find and display critical information from their desktop, tablet or mobile device.

EASIER INTEGRATION
Niagara 4’s new templating feature enables tags to be applied to devices quickly, and allows applications to be prebuilt against a set of standardized templates which then can be quickly created and reused. In other words, once a template is made, it can be redeployed as often as needed in other instances.

POWERFUL SECURITY
Niagara 4 takes a “defense-in-depth” approach to Internet of Things security. Building on the security of previous Niagara versions, Niagara 4 is secure by default. Authentication requires users to choose strong credentials, and both data in motion and sensitive data at rest are encrypted. Niagara 4 also uses Role-Based Access Control (RBAC), making user permissions easy to configure and less error-prone. Niagara 4 also can be integrated with existing enterprise identity and access management systems, such as LDAP and Kerberos. All user actions and security-related events are recorded in Niagara’s audit log for traceability.

FASTER, MORE POWERFUL DEVELOPMENT
Developers will find improved documentation, a rich open API library, JavaScript 2.0, semantic data modeling via tags and other ready-made tools to greatly speed and support development. Anyone familiar with open Web development can now create a custom UI in Niagara.

CLEAR TRANSITION FROM NIAGARA AX TO NIAGARA 4
Tridium has engineered Niagara 4 and the new JACE® 8000 controller to be easy to add to, or upgrade from, your current Niagara-based systems.

Niagara 4 is less reliant on browser plug-ins, featuring an intuitive HTML5 interface
Niagara 4 features and advantages

AN ADVANCED, MODERN USER INTERFACE—INTUITIVE AND CUSTOMIZABLE
- New UX framework with HTML5 provides rich UI features
- Common design language for a unified experience between desktop, tablet and mobile
- Intuitive charting, alarm console, scheduler, navigation tree and property sheets
- JavaScript 2.0 makes it easier to develop custom UI
- Optimized workflows for common tasks—fewer clicks, more intuitive interaction
- No need to update a navigation file every time a new device is added to system

MORE DATA AT YOUR FINGERTIPS TO FIND, VISUALIZE AND TAKE CONTROL OF YOUR OPERATIONS
- Access data quickly with Niagara Search using tags
- Drop-and-drop customizable charting for fast information visualization
- Feature-rich charts make comparing data easier
- Customizable dashboards and data cleansing for accuracy and precision

POWERFUL SECURITY
- “Defense-in-depth” approach
- Secure by default
- Users required to choose strong credentials
- Encryption of data in motion and sensitive data at rest
- Role-Based Access Control (RBAC) for less error-prone and easy-to-configure user permissions
- Can be integrated with existing systems, such as LDAP and kerberos
- Audit log of all user actions and security-related events for traceability

FASTER, MORE POWERFUL DEVELOPMENT AND SUPPORT
- Rich set of public APIs
- Improved documentation with code examples
- Semantic data modeling—developers can build applications directly compatible with Niagara
- New UX framework is easy for Web developers to extend

EASIER INTEGRATION AND DEVICE MANAGEMENT
- Device templating for easy reuse
- Templating allows Niagara to apply tags to devices automatically
- Applications can be prebuilt against standardized templates

Niagara 4 is available through a wide variety of original equipment manufacturers. Our open distribution business model and open protocol support allow a vendor-neutral application compatible with devices and systems throughout the world.

To learn more about how to purchase, install and start using Niagara 4, or if you are an original equipment manufacturer and would like to add Niagara 4 to your suite of offerings, please contact us.

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PRODUCT DEFINITION

The JACE 8000 is a compact, embedded Niagara Framework®-based controller and server platform for connecting multiple and diverse devices and sub-systems. It’s designed as a Network Automation Controller optimized for BAS applications. With Internet connectivity and Web-serving capability, the JACE 8000 controller provides integrated control, supervision, data logging, alarming, scheduling and network management. It streams data and rich graphical displays to a standard Web browser via an Ethernet or wireless LAN, or remotely over the Internet.

The licensing model for the JACE 8000 controller features standard drivers along with optional IO and field bus expansion modules for ultimate flexibility and expandability. The JACE 8000 controller is optimized for Niagara 4, which takes a “defense-in-depth” approach to Internet of Things security and is secure by default. In larger facilities, multi-building applications and large-scale control system integrations, Niagara 4 Supervisors can be used with JACE 8000 controllers to aggregate information, including real-time data, history and alarms, to create a single, unified application.

SPECIFICATIONS

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
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<tbody>
<tr>
<td>T1 AM3352</td>
<td>1000MHz ARM® Cortex™-A8 with secure boot</td>
</tr>
<tr>
<td>1GB DDR3 SDRAM</td>
<td></td>
</tr>
<tr>
<td>Removable micro-SD card with 4GB flash total storage/2GB user storage</td>
<td></td>
</tr>
<tr>
<td>Wi-Fi (Client or WAP)</td>
<td>IEEE802.11a/b/g/n IEEE802.11n HT20 @ 2.4GHz IEEE802.11n HT20/HT40 @ 5GHz Configurable radio (Off, WAP, WPA2-PSK)</td>
</tr>
<tr>
<td>USB type A connector</td>
<td>Back-up and restore support</td>
</tr>
<tr>
<td>(2) isolated RS-485 with switch-selectable bias and termination</td>
<td></td>
</tr>
<tr>
<td>(2) 10/100MB Ethernet ports</td>
<td></td>
</tr>
<tr>
<td>24VAC/DC power supply</td>
<td>Runs Niagara 4.1 and later</td>
</tr>
<tr>
<td>Real time clock</td>
<td>Batteryless</td>
</tr>
<tr>
<td>Supports SSL and TLS encryption</td>
<td></td>
</tr>
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</table>

-powered by

niagara framework®
EXPANSION MODULE AND IO CONFIGURATIONS

MAXIMUM EXPANSION (MODULES SUPPORTED)  MAXIMUM IO (MODULES SUPPORTED)
- NPB-8000-LON (4)  - IO-16-485 (16)
- NPB-8000-232 (4)  
- NPB-8000-2X-485 (2)

MAXIMUM COMBINATIONS

<table>
<thead>
<tr>
<th>EXPANSION</th>
<th>EXPANSION</th>
<th>EXPANSION</th>
<th>EXPANSION</th>
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<tr>
<td>232 or LON</td>
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<tr>
<td>485</td>
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<tr>
<td>485</td>
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Expandability is dependent on the type of expansion module used.
JACE®8000 CONTROLLER MOUNTING & DIMENSIONS

1. JACE 8000 controller. Allow at least 1.5" (38mm) clearance around all sides and minimum 3" (76mm) at bottom for Wi-Fi antenna.

2. Expansion module. Up to four (4) may be used. See "Expansion Module and IO Configurations".

3. Distances between center of tabs from one unit to another unit.

---

AGENCY CERTIFICATIONS

- UL 915
- CE EN 61326-1
- FCC Part 15 Subpart B, Class B
- FCC Part 18 Subpart C
- C-UL listed to Canadian Standards Association (CSA)
  C22.2 No. 205-M1983
  "Signal Equipment"
- 1999/5/EC R&TTE Directive
- CCC
- SRRRC
- RSS
- ROHS

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ENVIRONMENTAL SPECIFICATIONS

- Operating temperature: -20-60°C
- Storage temperature: -40-85°C
- Humidity: 5%-95% — Non condensing
- Shipping & vibration: ASTM D4169, Assurance Level II
- MTTF: 10 years+
### ORDERING INFORMATION

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<tr>
<th>Part number</th>
<th>Description</th>
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<tbody>
<tr>
<td>J-8005</td>
<td>JACE®8000 for 5 devices/250 point core</td>
</tr>
<tr>
<td>J-8010</td>
<td>JACE®8000 for 10 devices/500 point core</td>
</tr>
<tr>
<td>J-8025</td>
<td>JACE®8000 for 25 devices/1250 point core</td>
</tr>
<tr>
<td>J-8100</td>
<td>JACE®8000 for 100 devices/5,000 point core</td>
</tr>
<tr>
<td>J-8200</td>
<td>JACE®8000 for 200 devices/10,000 point core</td>
</tr>
<tr>
<td>DEVICE-10</td>
<td>Add 10 devices/500 points to initial order</td>
</tr>
<tr>
<td>DEVICE-25</td>
<td>Add 25 devices/1,250 points to initial order</td>
</tr>
<tr>
<td>DEVICE-50</td>
<td>Add 50 devices/2,500 points to initial order</td>
</tr>
<tr>
<td>DEVICE-UP-10</td>
<td>Upgrade of 10 devices/500 points to existing license</td>
</tr>
<tr>
<td>DEVICE-UP-25</td>
<td>Upgrade of 25 devices/1,250 points to existing license</td>
</tr>
<tr>
<td>DEVICE-UP-50</td>
<td>Upgrade of 50 devices/2,500 points upgrade to existing license</td>
</tr>
<tr>
<td>NPB-8000-2X-485</td>
<td>JACE®8000 controller—add on dual port RS-485 module</td>
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<tr>
<td>NPB-8000-LON</td>
<td>JACE®8000 controller—add on single port LON FTT10A module</td>
</tr>
<tr>
<td>NPB-8000-232</td>
<td>JACE®8000 controller—add on single port RS-232 module</td>
</tr>
<tr>
<td>WPM-8000</td>
<td>JACE®8000 100-240V universal power supply</td>
</tr>
<tr>
<td>IO-16-485</td>
<td>Remote IO module, compatible with the JACE®8000 controller. Communication using RS 485, maximum IO supported IO-16-485 modules: 16</td>
</tr>
<tr>
<td>NPB-PWR</td>
<td>24V power supply for IO-16-485</td>
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<tr>
<td>NPB-PWR-UN</td>
<td>Universal power supply for IO-16-485</td>
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</table>

JACE®8000s include a Niagara 4 license and Tridium’s standard drivers. Please see Tridium’s Niagara 4 drivers documentation for more details.

To learn more about how to purchase, install and start using the JACE®8000 controller, contact your VYKON partner. The global community of certified Niagara professionals can serve your unique business needs across any industry or geographic region.

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Richard Tentill  
Ingham County Building Authority  
121 East Maple Street  
Mason, MI 48854  

CMHA  
612 East Jolly Rd Building Expansion Project - CA  
Professional Services: from July 22, 2017 to August 18, 2017  

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<th>Earned</th>
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<td>Previous Fee Billing</td>
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<td>2,590.00</td>
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Reimbursable Expenses  
REIM MILEAGE  
7/19/2017  
GOSCHKA, ALAN  
CMHA Meeting in Lansing  
11.77  
8/9/2017  
CAREW, CODY  
Job Site meeting  
11.77  
Total Reimbursables  
23.54  
23.54  
Total this invoice  
$2,613.54

Outstanding Invoices  

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<td>8,817.77</td>
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<td>0115907</td>
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<td>7,817.08</td>
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<td>Total</td>
<td>16,634.85</td>
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Total Now Due  
$19,248.39
### Detailed Expense Report

**Bergmann Associates, Architects, Engineers**

**Employee** 02125  CAREW, CODY

**Signed**

CAREW, CODY

**Approved**

LEDY, JEFFREY

**Report Date:** 9/9/2017

<table>
<thead>
<tr>
<th>Date</th>
<th>Category</th>
<th>Description</th>
<th>Project</th>
<th>Phase</th>
<th>Task</th>
<th>Bill</th>
<th>Amount</th>
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<tbody>
<tr>
<td>8/9/2017</td>
<td>Travel - Mileage Job Site meeting</td>
<td>012248.00 (C)</td>
<td>INGHAM CO-CMHA ADDITION CA</td>
<td></td>
<td></td>
<td>11.77</td>
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<tr>
<td></td>
<td>Business Reason: On site construction</td>
<td>Travel From/To: Bergmann to CMHA</td>
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<td></td>
<td>Travel: 22.00 mi @ 0.535</td>
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**Total Expenses** 11.77

**Amount Advanced**

**Total Due** 11.77
## Detailed Expense Report

**Employee:** 01835  
**GOSCHKA, ALAN**

**Signed:**  
**GOSCHKA, ALAN**

**Approved:**  
**LEDY, JEFFREY**

**Organization:**  
1:01:08:00

**Expense Report:** w/e 07-21-2017  
**Report Date:** 7/21/2017

<table>
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<th>Amount</th>
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<td>CMHA Meeting in Lansing</td>
<td>012248.00</td>
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<td></td>
<td>X</td>
<td>11.77</td>
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<td></td>
<td></td>
<td></td>
<td>INGHAM CO-CMHA ADDITION CA</td>
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<td>7/20/2017</td>
<td>Travel - Mileage</td>
<td>McLaren Central MI Project Meeting</td>
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<td>80.25</td>
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<td>MCLAREN CENTRAL MI - ED RENOS &amp; ADDITION</td>
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<td>McLaren Central MI Marketing Lunch</td>
<td>00023.73</td>
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<td></td>
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<td>MARKETING - MW - BUILDINGS</td>
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**Business Reason:** Project meeting in Mt Pleasant, MI  
Travel: 22.00 mi @ 0.535  
Travel: 150.00 mi @ 0.535

**Business Reason:** Marketing lunch with McLaren Central Michigan  
Departed 8:00am / Returned 3:00pm

**Total Expenses:** 123.61

**Amount Advanced:**  
**Total Due:** 123.61
ATTN: MR. RICK TERRILL
INGHAM COUNTY FACILITIES DEPT
121 EAST MAPLE STREET
MASON MI 48854
USA

INFORMATION TO BUILD ON
Professional Service Industries, Inc.
www.psiusa.com

项目的名称: COMMUNITY MENTAL HEALTH-LANSING, MICHIGAN

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<th>Quantity</th>
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发票总额: *Continued*

**TERMS:** Net 30 Days. A service charge of 1.5% per month, which is an annual percentage rate of 18% will be added to all past due accounts. For questions regarding this invoice, please call the phone number above.

To assure proper credit to your account, please return with your check made payable to PSI.

Professional Service Industries, Inc.
PO Box 74008418
Chicago, IL 60674-8418

43
Professional Service Industries, Inc.
www.psiusa.com

ATTN: MR. RICK TERRILL
INGHAM COUNTY FACILITIES DEPT
121 EAST MAPLE STREET
MASON MI 48854
USA

INGHAM COUNTY FACILITIES DEPT
121 EAST MAPLE STREET
MASON MI 48854

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Project: COMMUNITY MENTAL HEALTH-LANSING, MICHIGAN

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|               |               |                           |          |           |          |
| Invoice Total |               |                           |          |           | $1,914.00|
| Balance Due   |               |                           |          |           | $1,914.00|

TERMS: NET 30 DAYS. A SERVICE CHARGE OF 1.5% PER MONTH, WHICH IS AN ANNUAL PERCENTAGE RATE OF 18% WILL BE ADDED TO ALL PAST DUE ACCOUNTS. FOR QUESTIONS REGARDING THIS INVOICE, PLEASE CALL THE PHONE NUMBER ABOVE.

To assure proper credit to your account, please return with your check made payable to PSI.

Please mail remittance to:

Professional Service Industries, Inc.
PO Box 74008418
Chicago, IL 60674-8418
**Project:** COMMUNITY MENTAL HEALTH-LANSING, MICHIGAN

<table>
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**Invoice Total:** *Continued*

TERMS: NET 30 DAYS. A SERVICE CHARGE OF 1.5% PER MONTH, WHICH IS AN ANNUAL PERCENTAGE RATE OF 18% WILL BE ADDED TO ALL PAST DUE ACCOUNTS. FOR QUESTIONS REGARDING THIS INVOICE, PLEASE CALL THE PHONE NUMBER ABOVE.

To assure proper credit to your account, please return with your check made payable to PSI.

Please mail remittance to:

**Professional Service Industries, Inc.**
PO Box 74008418
Chicago, IL 60674-8418

---

**.Attention:** MR. RICK TERRILL  
**INGHAM COUNTY FACILITIES DEPT**  
121 EAST MAPLE STREET  
MASON MI 48854  
USA

**INFORMATION TO BUILD ON**  
Federal ID: 37-8962090  
Professional Service Industries, Inc.  
www.psiusa.com

**LANSING BRANCH**  
LANSING, MI 48911  
(517) 394-5700

**ATTN:** MR. RICK TERRILL  
**INGHAM COUNTY FACILITIES DEPT**  
121 EAST MAPLE STREET  
MASON MI 48854  
USA

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**Customer #** | **Purchase Order** | **Project Number** | **Date** | **Invoice #** | **Page**
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Project: COMMUNITY MENTAL HEALTH-LANSING, MICHIGAN

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<th>Unit Cost</th>
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Invoice Total: $2,259.00
Balance Due: $2,259.00

TERMS: NET 30 DAYS. A SERVICE CHARGE OF 1.5% PER MONTH, WHICH IS AN ANNUAL PERCENTAGE RATE OF 18% WILL BE ADDED TO ALL PAST DUE ACCOUNTS. FOR QUESTIONS REGARDING THIS INVOICE, PLEASE CALL THE PHONE NUMBER ABOVE.

To assure proper credit to your account, please return with your check made payable to PSI.

Please mail remittance to:
Professional Service Industries, Inc.
PO Box 74008418
Chicago, IL 60674-8418
-----Original Message-----
From: Terrill, Richard
Sent: Thursday, August 03, 2017 2:12 PM
To: Paul Clark
Cc: Terrill, Richard
Subject: FW: JOB# 2747/ Builder's Risk

Paul, see comments below from our MMRMA rep.

Thanks,

RT

Thank you for your inquiry regarding the AIA contract 11.3.1 language. The builder's risk coverage issued by the MMRMA is very comprehensive to our members and we feel meets the specification language in 11.3.1. I have attached language for your review from our Property Coverage Document. I want to reiterate that our coverage would be for member owned property. It is not designed to cover property/tools/machinery/equipment owned by the contractor, sub-contractors or sub-sub-contractors. Their property should already be insured under policies carried by them.

Please see the attached policy language for Building Under Construction and Renovations Under Construction.

Thank you for all your work on these projects.
B. MEMBER BUILDING UNDER CONSTRUCTION OR RENOVATIONS UNDER CONSTRUCTION

1. MMRMA will pay for loss or damage the Member actually incurs for each covered property described below. The loss or damage must occur at the premises under construction or renovation and result from a covered cause of loss. The Member must notify MMRMA of the construction or renovation within 60 calendar days after the start of such renovation or construction for this coverage to apply.

2. The most MMRMA will pay for loss or damage in any one occurrence for coverages in Section 2, B(1); B(2); B(3); is the limits of coverage for Member Buildings and Personal Property including Personal Property of Others as stated in the Coverage Overview.

   a. Building Under Construction

   Member building under construction means a structure designed to be roofed and walled in the course of construction and includes the following, if attached to the building, intended to become a part of the building or within 1,000 feet of the building under construction:

   (1) Permanently installed fixtures, machinery, and equipment;

   (2) Foundations;

   (3) Indoor and outdoor equipment, signs, machinery, fixtures and personal property intended to be contained within or used to maintain or service the structure;

   (4) The Member’s building materials and supplies, or those in the Member’s care, custody or control:

       (a) at a job-site awaiting and during installation and

   (5) If not covered by other insurance, temporary structures built or assembled on site, including cribbing, scaffolding and construction forms.

   Building under construction does not mean land, landfill, water, outdoor trees, shrubs, plants or lawns.

   Building under construction shall be valued on a replacement cost basis as defined in this Coverage Document.

   b. Renovations Under Construction

   Renovations under construction means improvements, alterations or repairs to an existing building of the Member’s as defined in Section 2 including the following property located in or on the building, within 1,000 feet of the building, or while in transit to the building, and intended to become a permanent part of an existing building on file with MMRMA:

   (1) the Member’s fixtures, machinery and equipment used to service the building.
(2) the Member's building materials and supplies, or those in the Member's care, custody or control, used for construction; and

(3) the Member's personal property or that of others in the Member's care, custody or control, intended to be contained within the renovations under construction; and

(4) temporary structures built or assembled on site including cribbing, scaffolding and construction forms, if not covered by other insurance.

Renovations under construction does not mean buildings existing prior to construction of the improvements, alterations, or repairs.

Renovations under construction shall be valued on a replacement cost basis as defined in this Coverage Document.

3. Other Subjects of Coverage only for Member Buildings Under Construction or Renovations Under Construction:

Soft costs and rents mean the extra costs and loss of rental income the Member incurs as a result of a delay in the completion of the building or renovations under construction when that delay is caused by a covered cause of loss. MMRMA will pay for soft costs and loss of rental income from the date the construction would have been completed had no loss occurred prior to the completion of the construction until the construction is completed up to a maximum of 12 months. The Member must make every effort to complete the construction on schedule or as soon as possible.

a. Soft costs mean costs over and above the costs the Member would have incurred during the construction if the covered cause of loss had not occurred.

Soft costs shall include only the following:

(1) extra construction costs the Member incurs to continue construction and meet contract dates;

(2) construction loan interest accruing during the period of delay only on money borrowed to finance construction;

(3) realty taxes and other assessments on the construction site accruing only during the period of delay;

(4) architect, engineering, consultant, legal and accounting fees;

(5) insurance premiums;

(6) advertising and promotional expenses which become necessary as a result of the covered cause of loss; and

(7) costs and commissions resulting from renegotiating leases which directly result from the covered cause of loss.

b. Rental income means the actual loss of net rental income to the Member incurred minus all charges and expenses which are not necessary to

© March 2012 Property and Crime Coverage Document
continue during the period of delay caused by a covered cause of loss.

c. MMRMA will also pay for soft costs and loss of net rental income when a civil authority prohibits access to the building under construction or renovation. This action must be a result of a direct physical loss or damage by a covered cause of loss to property away from the building renovation or under construction. MMRMA's coverage is limited to 30 days from the time the civil authority takes action.

d. MMRMA will not pay for any loss or increase in loss resulting from:

   (1) interference by strikers or other persons affecting the:

      (a) transportation of property to be used in the construction or renovation project;

      (b) construction of the project premises;

      (c) rebuilding, repairing, or replacing the covered property; or

      (d) occupancy and use of the premises;

   (2) suspension, lapse, or cancellation of any license, permit, lease, contract, or order;

   (3) additional time required to repair or replace the property as a result of adverse weather conditions, reduction in work force due to economic conditions, or from improvements necessary to correct deficiencies in the original construction; or

   (4) any consequential losses; or

   (5) loss covered through other insurance or similar protection. MMRMA coverage shall be in excess thereof only.

4. Cessation of Coverage

Coverage ceases when any one of the following first occurs:

a. The Member's interest in the building under construction ceases;

b. The building under construction or renovation under construction is completed and accepted by the Member, at which point the building will be afforded coverage, subject to the applicable provisions of this Coverage Document;

c. The Member abandons the construction with no intention to complete it; or

d. MMRMA membership is terminated.

C. ZONING, USE, AND BUILDING REGULATIONS
Clark’s Response to MMRMA
August 11, 2017

Subject: Builders Risk Insurance for Community Mental Health Authority Project

Mr. Terrill,

After reviewing the Builders Risk Member Building Construction or Renovation Under Construction Section B. It has been determined that the only party that is currently being covered for that policy is the “Member”. Clark Construction Company and its subcontractors are not members of the MMRMA. So, coverage under that policy is not being provided to us.

Please reference the Property Insurance section (11.3) of the current AIA Contract that Clark Construction Company has for the Community Mental Health Authority project. Section 11.3.1 of our contract states that

"Unless otherwise provided, the Owner shall purchase and maintain, in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located, property insurance written on a builder’s risk “all-risk” or equivalent policy form in the amount of the initial Contract Sum, plus value of subsequent Contract Modifications and cost of materials supplied or installed by others, comprising total value for the entire Project at the site on a replacement cost basis without optional deductibles. Such property insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final payment has been made as provided in Section 9.10 or until no person or entity other than the Owner has an insurable interest in the property required by this Section 11.2 to be covered, whichever is later. This insurance shall include interests of the owner, the contractor, subcontractor and Sub-subcontractors in the Project." The currently builders risk policy that has been provided to us only covers the interests of the Member of the MMRMA.

Here are two different options on how we can meet the requirements that are called out in the Property Insurance Section.

1) The contractor, subcontractors and sub-subcontractor contractor can be added to your current builder’s risk policy (No additional Cost)

Or
2) As the contractor, we can purchase a project specific builders risk policy for the Community Mental Health Project. This option would come with an additional cost of $10,000. The contract we currently have states that the owner is responsible for the builder’s risk coverage that was to have included the owner, contractor, subcontractor and sub-subcontractor.

Please let me know if you have any questions.

Sincerely,

[Signature]

Paul Clark

CC: Mary Kane Butkovich, Allen Blower, John Peiffer
CERTIFICATE OF COVERAGE

This certificate is issued as a matter of information only and confers no rights upon the certificate holder except to the extent shown below. This certificate does not amend, extend or alter the coverage contained in the Authority’s Joint Powers Agreement and coverage attachments thereto. This is to certify that a Self-Insured Program has been undertaken by the member listed below through the Authority pursuant to Act 138 P.A. 1982.

The coverage provided by the Authority is as follows:

1. Liability coverage for general liability, automobile (including Michigan no-fault) law enforcement and public officials liability; in the sum of $15,000,000 per each occurrence inclusive of loss adjustment and defense costs.

2. Property Coverage including loss to real & personal property, to amounts stipulated in coverage documents and overview for this member.


4. Information only:

5. The entity named below is included in the scope of protection as respects claims arising from a COVERED CONTRACT as defined in the MMRMA Liability and Motor Vehicle Physical Damage Coverage Document. Per the Letter of Intent between the City of Lansing and Ingham County for the duration of the construction project at Ingham County Community Mental Health.

6. Other (as described here):

This certificate is issued in accordance with and is subject to all provisions of the Joint Powers Agreement, Coverage Documents, reinsurance agreements, MMRMA rules, regulations and administrative procedures. Should the member identified below withdraw from the Authority, or its Authority Membership be otherwise terminated, the Authority will endeavor to notify the certificate holder in writing thirty (30) days in advance thereof, but failure to furnish such notice will impose no obligation or liability of any kind upon the Authority, or its representatives.

Certificate Holder:
City of Lansing
124 West Michigan Ave.
Lansing, MI 48933

Member:
Ingham County
121 East Maple Street
PO BOX 319
Mason, MI 48854

Member Number: # M0001279
Effective Date of Membership: 07/01/1986

Certificate Expiration Date: 07/01/2018

Date Issued: 05/09/2017

Distribution:
MMRMA Underwriting

Authorized Representative

14001 Merriman Road • Livonia, MI 48154 • 734.513.0300 • 800.243.1324 • FAX 734.513.0318 • www.mmrma.org
B. MEMBER BUILDING UNDER CONSTRUCTION OR RENOVATIONS UNDER CONSTRUCTION

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2. The most MMRMA will pay for loss or damage in any one occurrence for coverages in Section 2, B(1); B(2); B(3); is the limits of coverage for Member Buildings and Personal Property including Personal Property of Others as stated in the Coverage Overview.

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(1) Permanently installed fixtures, machinery, and equipment;

(2) Foundations;

(3) Indoor and outdoor equipment, signs, machinery, fixtures and personal property intended to be contained within or used to maintain or service the structure;

(4) The Member's building materials and supplies, or those in the Member's care, custody or control:

(a) at a job-site awaiting and during installation and

(5) If not covered by other insurance, temporary structures built or assembled on site, including cribbing, scaffolding and construction forms.

Building under construction does not mean land, landfill, water, outdoor trees, shrubs, plants or lawns.

Building under construction shall be valued on a replacement cost basis as defined in this Coverage Document.

b. Renovations Under Construction

Renovations under construction means improvements, alterations or repairs to an existing building of the Member's as defined in Section 2 including the following property located in or on the building, within 1,000 feet of the building, or while in transit to the building, and intended to become a permanent part of an existing building on file with MMRMA:

(1) the Member's fixtures, machinery and equipment used to service the building;
(2) the Member's building materials and supplies, or those in the Member's care, custody or control, used for construction; and

(3) the Member's personal property or that of others in the Member's care, custody or control, intended to be contained within the renovations under construction; and

(4) Temporary structures built or assembled on site including cribbing, scaffolding and construction forms, if not covered by other insurance.

Renovations under construction does not mean buildings existing prior to construction of the improvements, alterations, or repairs.

Renovations under construction shall be valued on a replacement cost basis as defined in this Coverage Document.

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a. Soft costs mean costs over and above the costs the Member would have incurred during the construction if the covered cause of loss had not occurred.

Soft costs shall include only the following:

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(2) construction loan interest accruing during the period of delay only on money borrowed to finance construction;
(3) realty taxes and other assessments on the construction site accruing only during the period of delay;
(4) architect, engineering, consultant, legal and accounting fees;
(5) insurance premiums;
(6) advertising and promotional expenses which become necessary as a result of the covered cause of loss; and
(7) costs and commissions resulting from renegotiating leases which directly result from the covered cause of loss.

b. Rental income means the actual loss of net rental income to the Member incurred minus all charges and expenses which are not necessary to
continue during the period of delay caused by a covered cause of loss.

c. MMRMA will also pay for soft costs and loss of net rental income when a civil authority prohibits access to the building under construction or renovation. This action must be a result of a direct physical loss or damage by a covered cause of loss to property away from the building renovation or under construction. MMRMA's coverage is limited to 30 days from the time the civil authority takes action.

d. MMRMA will not pay for any loss or increase in loss resulting from:

(1) interference by strikers or other persons affecting the:
    (a) transportation of property to be used in the construction or renovation project;
    (b) construction of the project premises;
    (c) rebuilding, repairing, or replacing the covered property;
    or
    (d) occupancy and use of the premises;

(2) suspension, lapse, or cancellation of any license, permit, lease, contract, or order;

(3) additional time required to repair or replace the property as a result of adverse weather conditions, reduction in work force due to economic conditions, or from improvements necessary to correct deficiencies in the original construction; or

(4) any consequential losses; or

(5) loss covered through other insurance or similar protection. MMRMA coverage shall be in excess thereof only.

4. Ceasation of Coverage

Coverage ceases when any one of the following first occurs:

a. The Member's interest in the building under construction ceases;

b. The building under construction or renovation under construction is completed and accepted by the Member, at which point the building will be afforded coverage, subject to the applicable provisions of this Coverage Document;

c. The Member abandons the construction with no intention to complete it;

or

d. MMRMA membership is terminated.

C. ZONING, USE, AND BUILDING REGULATIONS
Claims for damages because of bodily injury, death of a person or property damage arising out of ownership, maintenance or use of a motor vehicle;

Claims for bodily injury or property damage arising out of completed operations; and

Claims involving contractual liability insurance applicable to the Contractor's obligations under Section 3.18.

§ 11.2 AMENDED
§ 11.3 AMENDED
§ 11.4 DELETED

§ 11.2 OWNER'S LIABILITY INSURANCE
The Owner shall be responsible for purchasing and maintaining the Owner’s usual liability insurance.

§ 11.3 PROPERTY INSURANCE
§ 11.3.1 Unless otherwise provided, the Owner shall purchase and maintain, in a company or companies lawfully authorized to do business in the jurisdiction in which the Project is located, property insurance written on a builder’s risk “all-risk” or equivalent policy form in the amount of the initial Contract Sum, plus value of subsequent Contract Modifications and cost of materials supplied or installed by others, comprising total value for the entire Project at the site on a replacement cost basis without optional deductibles. Such property insurance shall be maintained, unless otherwise provided in the Contract Documents or otherwise agreed in writing by all persons and entities who are beneficiaries of such insurance, until final payment has been made as provided in Section 9.10 or until no person or entity other than the Owner has an insurable interest in the property required by this Section 11.3 to be covered, whichever is later. This insurance shall include interests of the Owner, the Contractor, Subcontractors and Sub-subcontractors in the Project.

§ 11.3.1.1 Property insurance shall be on an “all-risk” or equivalent policy form and shall include, without limitation, insurance against the perils of fire (with extended coverage) and physical loss or damage including, without duplication of coverage, theft, vandalism, malicious mischief, collapse, earthquake, flood, windstorm, falsework, testing and startup, temporary buildings and debris removal including demolition occasioned by enforcement of any applicable legal requirements, and shall cover reasonable compensation for Architect’s and Contractor’s services and expenses required as a result of such insured loss.

§ 11.3.1.2 If the Owner does not intend to purchase such property insurance required by the Contract and with all of the coverages in the amount described above, the Owner shall so inform the Contractor in writing prior to commencement of the Work. The Contractor may then effect insurance that will protect the interests of the Contractor, Subcontractors and Sub-subcontractors in the Work, and by appropriate Change Order the cost thereof shall be charged to the Owner. If the Contractor is damaged by the failure or neglect of the Owner to purchase or maintain insurance as described above, without so notifying the Contractor in writing, then the Owner shall bear all reasonable costs properly attributable thereto.

§ 11.3.1.3 If the property insurance requires deductibles, the Owner shall pay costs not covered because of such deductibles.

§ 11.3.1.4 This property insurance shall cover portions of the Work stored off the site, and also portions of the Work in transit.

§ 11.3.1.5 Partial occupancy or use in accordance with Section 9.9 shall not commence until the insurance company or companies providing property insurance have consented to such partial occupancy or use by endorsement or otherwise. The Owner and the Contractor shall take reasonable steps to obtain consent of the insurance company or companies and shall, without mutual written consent, take no action with respect to partial occupancy or use that would cause cancellation, lapse or reduction of insurance.

§ 11.3.2 BOILER AND MACHINERY INSURANCE
The Owner shall purchase and maintain boiler and machinery insurance required by the Contract Documents or by law, which shall specifically cover such insured objects during installation and until final acceptance by the Owner;