

Michigan Engineers'  
Resource Library

**MERL**



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NICK KOSZYKOWSKI, PRINCIPAL PROGRAMMER/ANALYST

CENTER FOR TECHNOLOGY AND TRAINING

***Michigan Tech***

Civil & Environmental  
Engineering

# CENTER FOR TECHNOLOGY AND TRAINING

- SURFACE TRANSPORTATION
- TYPICALLY APPLIED RESEARCH
- LOCAL & STATE AGENCIES



## STRENGTH AREAS:

IT – SOFTWARE

PAVEMENT MANAGEMENT / ASSET MANAGEMENT

TRAFFIC SAFETY ENGINEERING

BRIDGE ENGINEERING

BRIDGE LOAD RATING

CONSTRUCTION ENGINEERING

# CENTER FOR TECHNOLOGY AND TRAINING

UNDER CIVIL AND  
ENVIRONMENTAL ENGINEERING

20-22 FULL TIME STAFF

- ENGINEERS,
- COMPUTER PROGRAMMERS,
- TECHNICAL WRITERS,
- BUSINESS PROFESSIONALS

6-9 STUDENTS



# MERL



*Michigan Engineers' Resource Library*

- STARTED IN 1997
- YEARLY CONTRACT WITH MDOT
  - CURRENT CONTRACT: \$110,000
- FREE TO MI LOCAL AGENCIES/CONSULTANTS
- ~1400 USERS



**MERL**

*Michigan Engineers' Resource Library*

- PROJECT ESTIMATOR
  - MDOT'S PAY ITEM LIST AND AVERAGE UNIT PRICES
- BID UTILITY
  - COLLECT AND ANALYZE BIDS
- LOCAL JOB MANAGER
  - MANAGE THE PROJECT IN THE FIELD, TRACKING ITEM USAGE AND PAYMENTS

# LOCAL JOB MANAGER

- DAILY INSPECTIONS/POSTINGS
- PAY ESTIMATES
- CONTRACT MODIFICATIONS
- NO MATERIALS

| Date       | Total       | Notes  |
|------------|-------------|--|
| 10/17/2009 | \$2,008.74  | This posting is to balance our records with the contractor records t |
| 10/16/2009 | \$33,769.90 | HMA patch placed in all disturbed sidewalk areas today. No ticket    |
| 10/15/2009 | \$1,098.20  | Installed sewer lateral at Santo Stefano Del Lago                    |
| 10/14/2009 | \$6,963.50  | These items were placed at Santo Stefano Del Lago. In addition t     |
| 10/13/2009 | \$8,138.43  | Work was performed in front of Mr. Kozak's today. In addition to th  |

Posting Date: 10/13/2009    Field Book Number/Page: |

Notes:  
 Work was performed in front of Mr. Kozak's today. In addition to these items, future pay estimates need to include Extra Service Length, Long-1 each, and Upsize Water Service 1" to 1.5", Long-1 each.

+ Add Item(s)    X Remove Selected

| Pay Item  | Description  | Qty     | Units | Price      | Total      |
|-----------|--|---------|-------|------------|------------|
| 1 2040013 | Sidewalk, Rem                                      | 23.300  | Syd   | \$2.60     | \$60.58    |
| 2 4027002 | Forcemain, DI, 16 inch, Tr Det G                   | 34.500  | Ft    | \$32.30    | \$1,114.35 |
| 3 8250245 | Water and Fire Suppression Service, 6 inch, Long   | 1.000   | Ea    | \$5,400.00 | \$5,400.00 |
| 4 8257030 | Additional Water Main Fittings, Not Shown on Plans | 265.000 | Lb    | \$5.90     | \$1,563.50 |

# LOCAL JOB MANAGER

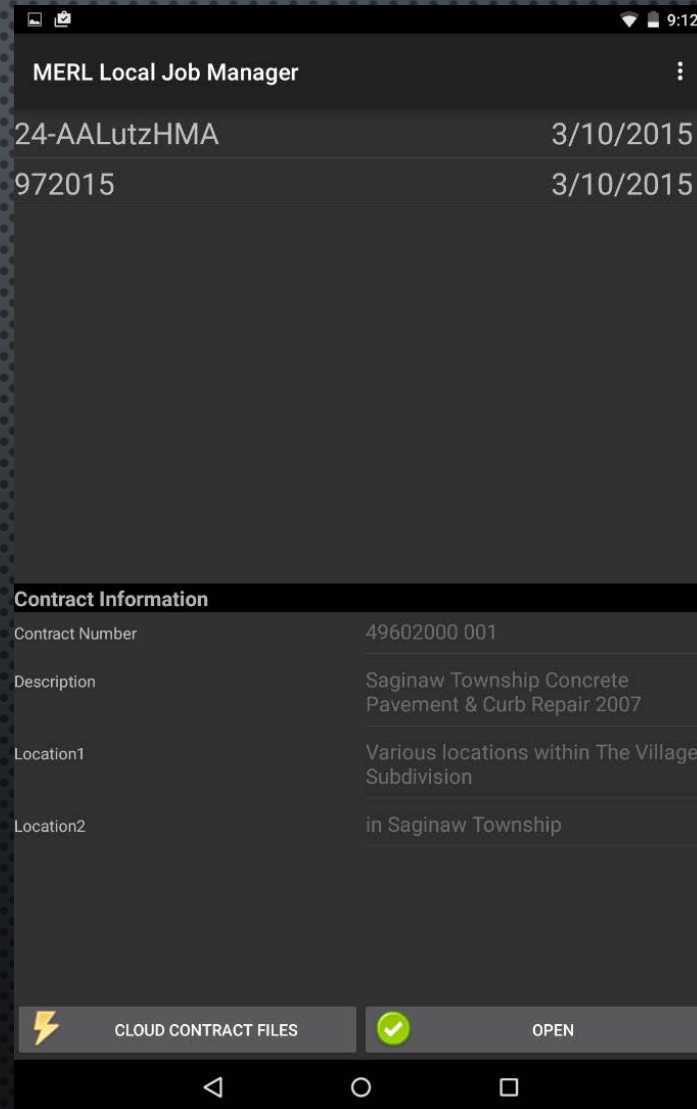
- ITEM SUMMARY
  - COMPLETELY PLACED, QTY REMAINING, UNPAID
- ITEM POSTING HISTORY

| <span>Postings</span> <span>Pay Estimates</span> <span>Contract Mods</span> <b>Item Summary</b> |  |  |          |          |       |  |
|---|--|--|----------|----------|-------|--|
| Filter:   |  |  |          |          |       |  |
| Pay Item:   |  | Description:                                   |          |          |       |  |
| <input type="text" value="Filter Pay Item"/>  | <input type="text" value="Filter Description"/>    | <input type="text" value="Completely Placed"/> |          |          |       |  |
| Pay Item  | Description  | Units  | Proj Qty | Placed   | Paid  |  |
| 2040005   | Curb, Rem  | Ft   | 105.00   | 105.00   | 0.00  |  |
| 4027054   | San Service Connection, PVC, 18 inch               | Ea   | 1.00     | 1.00     | 0.00  |  |
| 4027055   | San Service Connection, PVC, 30 inch               | Ea   | 1.00     | 1.00     | 0.00  |  |
| 4027060   | Sewer Flow Control, 24 inch                        | Ea   | 1.00     | 1.00     | 1.00  |  |
| 8120102   | Plastic Drum, High Intensity, Lighted, Fum         | Ea   | 40.00    | 40.00    | 40.00 |  |
| 8120103   | Plastic Drum, High Intensity, Lighted, Oper        | Ea   | 40.00    | 40.00    | 40.00 |  |
| 8250057   | Gate Valve and Box, 12 inch                        | Ea   | 2.00     | 2.00     | 0.00  |  |
| 8257030   | Additional Water Main Fittings, Not Shown on Plans | Lb   | 1,500.00 | 2,120.00 | 0.00  |  |

| Item Posting History                 |   |                                     |            |
|--------------------------------------|---|-------------------------------------|------------|
| Pay Item:                            |   | Description:                        |            |
| <input type="text" value="8257030"/> | <input type="text" value="Additional Water Main Fittings, Not Shown on Plans"/> | Units:                              |            |
| <input type="text" value="1500.00"/> | <input type="text" value="\$5.90"/>   | <input type="text" value="Lb"/>     |            |
| Project Qty:                         |   | Unit Price:                         |            |
| <input type="text" value="1500.00"/> |   | <input type="text" value="\$5.90"/> |            |
| Posting Date                         | FB No./Page   | Qty Placed                          | Total      |
| 10/02/2009                           |   | 265.00                              | \$1,563.50 |
| 10/05/2009                           |   | 265.00                              | \$1,563.50 |
| 10/06/2009                           |   | 265.00                              | \$1,563.50 |
| 10/07/2009                           |   | 265.00                              | \$1,563.50 |
| 10/08/2009                           |   | 265.00                              | \$1,563.50 |
| 10/10/2009                           |   | 265.00                              | \$1,563.50 |
| 10/13/2009                           |   | 265.00                              | \$1,563.50 |
| 10/14/2009                           |   | 265.00                              | \$1,563.50 |

# LOCAL JOB MANAGER MOBILE

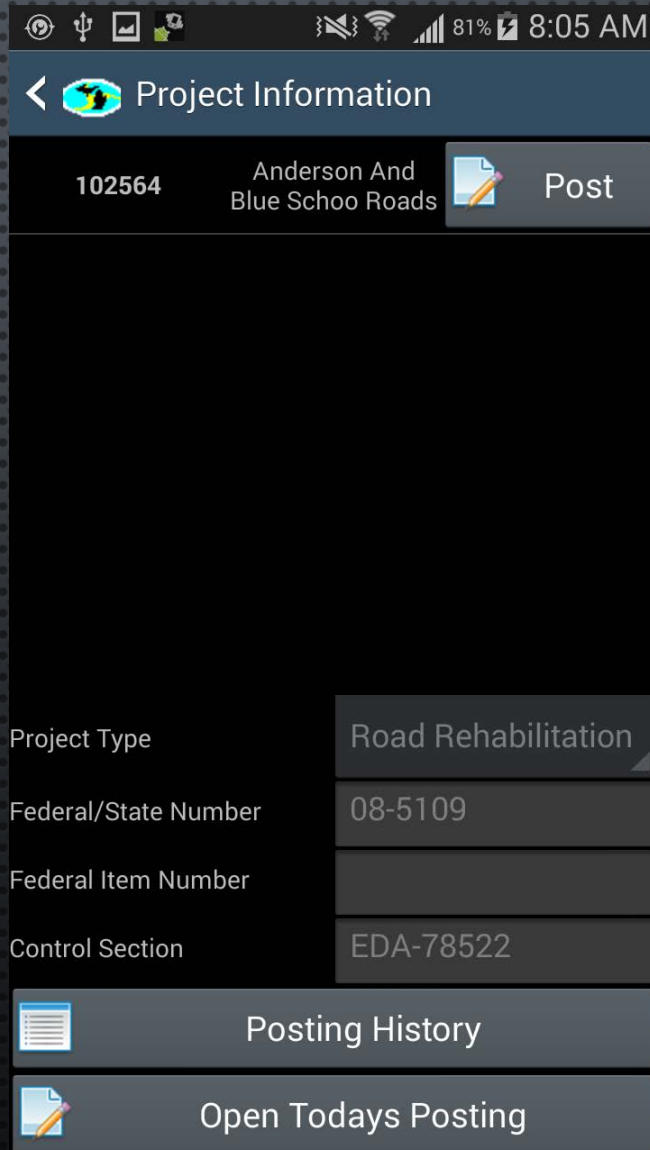
- ANDROID APP
  - GOOGLE PLAY STORE
  - “MERL”
- IOS APP APRIL





# LOCAL JOB MANAGER MOBILE

- PROJECT INFO
- POSTING HISTORY
- ADD POSTING



# LOCAL JOB MANAGER MOBILE

← Daily Posting

Posting [edit]

Posting Date: 3/10/2015

Posting Total: \$0.00

Field Book Number/Page: 1

Notes: Light foundation construction began.

ADD ITEM(S)

SUBMIT POSTING

| Pay Item Code | Qty | Units | Price | Total |
|---------------|-----|-------|-------|-------|
| Description   |     |       |       |       |

← Add Items

3 inch

| Pay Item Code                                | Units | Quantity Available |
|--|-------|--------------------|
| Description                                  |       |                    |
| 8190029<br>Conduit, DB, 1, 3 inch            | Ft    | 15                 |
| 8190032<br>Conduit, DB, 2, 3 inch            | Ft    | 50                 |
| 8190044<br>Conduit, Directional Bore, 3 inch | Ft    | 50                 |

**Current Items**

| Pay Item Code                     | Quantity | Units | Price   | Total      |
|-----------------------------------|----------|-------|---------|------------|
| Description                       |          |       |         |            |
| 8190029<br>Conduit, DB, 1, 3 inch | 185      | Ft    | \$10.00 | \$1,850.00 |

← Add Items

conduit

| Pay Item Code                         | Units | Quantity Available |
|---------------------------------------|-------|--------------------|
| Description                           |       |                    |
| 8190026<br>Conduit, DB, 1, 1 1/4 inch | Ft    | 120                |
| 8190029<br>Conduit, DB, 1, 3 inch     | Ft    | 200                |

**Edit Posting Item Quantity**

Quantity: 185

Available: 200

Units: Ft

Description: Conduit, DB, 1, 3 inch

Supplemental Description:

PayItemCode: 8190029

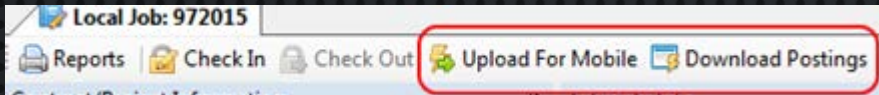
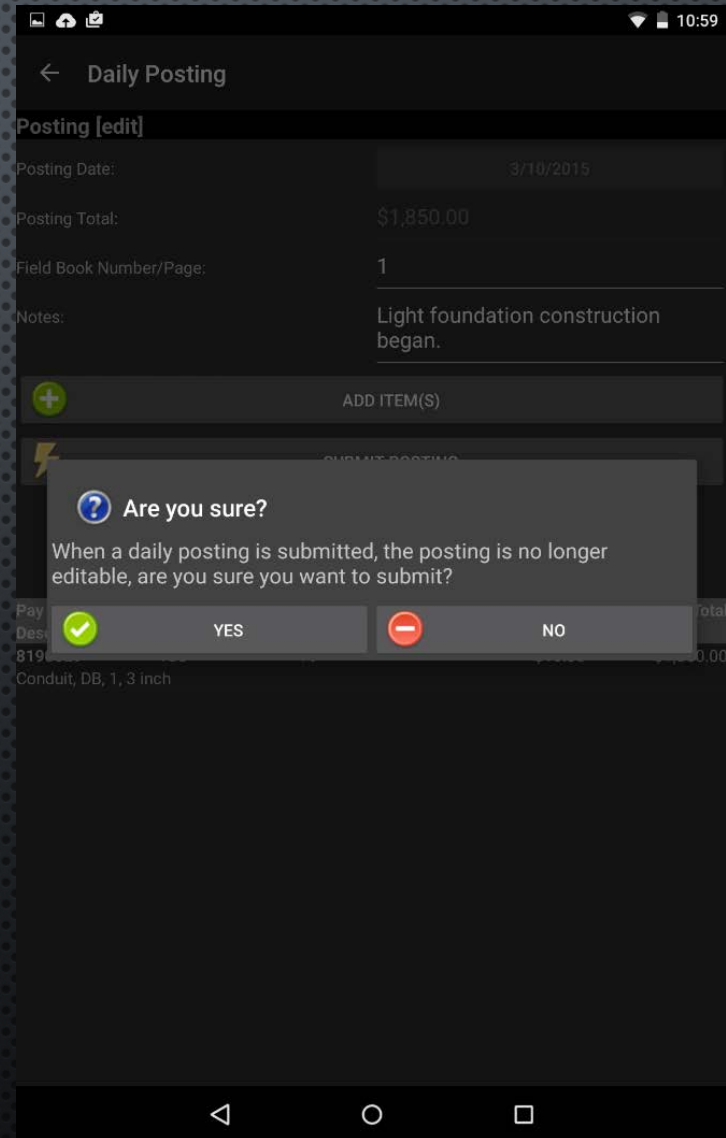
Placed: 0

Project Quantity: 200

SAVE CANCEL

# LOCAL JOB MANAGER MOBILE

- SUBMIT/UPLOAD POSTING
- DOWNLOAD TO MERL



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## CONTACT INFO:

- [MERL@MTU.EDU](mailto:MERL@MTU.EDU)
- 906-487-2102

## FREE TO DOWNLOAD:

- [HTTP://MERL.TRANS.MTU.EDU](http://MERL.TRANS.MTU.EDU)