### Illinois Tollway M-ITS  Base Sheet Revisions

#### Section M  Base Sheet Drawings

<table>
<thead>
<tr>
<th>Drawing</th>
<th>Modification Summary</th>
<th>Effective: 2021-03-01</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Sheet</td>
<td>Retired Standard</td>
<td></td>
</tr>
</tbody>
</table>

#### Pole Assembly (ITS)-Series 1000

**M-ITS-1000**  Elevation Views Pole Mounted ITS Element Assembly

- Sheet 1 of 3: Added title for one section detail. Added note on wires from solar panels to battery box then to ITS enclosure then Cables to ITS devices installed on the ITS pole
- Sheet 2 of 3: Added title for ITS Disconnect Switch Cast-in-place
- Sheet 3 of 3: Added new assembly detail for ITS Disconnect Switch Pre-cast (simplified installation)

**M-ITS-1001**  General Notes Pole Mounted ITS Element Assembly

- Added Note 22: Cables shall enter poles through a grommet. Grommet size shall be chosen so that the center hole forms a water tight seal around the cables

#### Dynamic Message Sign (ITS)-Series 1100

**M-ITS-1103**  DMS Front Access-Cantilever Electrical Plan

- Revised assembly details for DMS Type 2 Cantilever pushed further away so the edge of the DMS clears Lane 1

**M-ITS-1104**  DMS Front Access-Butterfly Electrical Plan

- Revised assembly details for DMS Butterfly Type 2 Front Access pushed further away to the edge of the DMS clears Lane 1

#### Cabinet Wiring (ITS)-Series 1200

**M-ITS-1200**  to **M-ITS-1213**

- Revised assembly details for DMS Type 2 Cantilever pushed further away so the edge of the DMS clears Lane 1

**M-ITS-1217**  Cabinet Wiring Diagram in Pavement Detection System AP, PoE and Injector ITS Assembly

- Revised to show the fiber optic conduit and power conduit interface with the ITS Enclosure for location and size
- Added Note 13: Fiber cable shall run straight down from the Gator patch through the left most conduit. Power cable shall be pulled through the conduit to the right of the fiber conduit. No slack shall be placed in the cabinet. Slack shall be put in power and fiber optic handholes
- Revised layout to remove Cohu Surge Suppressor Part AS
- Revised details for Part V to remove dash line for DITEK surge suppressor
- Revised description for Item V to remove Cohu camera
- Revised Item AO to remove reference to Cohu PoE power injector
- Removed Item AS for Cohu PoE injector not required anymore
- Revised Note 4 to say Not used

#### Roadway Weather Information System (ITS)-Series 1300

**M-ITS-1300**  RWIS Pole, Sensor Mounting Detail

- Added Note 8: Wind sensor can be installed on the secondary pole if primary pole is close to tree line
- Added Note 9: All cables installed in a pole shall use a grommet to connect to ITS device installed on the pole

**M-ITS-1302**  Typical RWIS Site Installation Plan

- Added Note 5: Note to Designer: In the event the Primary and Secondary poles cannot be installed within the 40 foot maximum radius of the bridge deck, the DSE shall consult with the Tollway and GEC on an alternate placement solution
- Added Note 6: Note to Designer: Installation of the Primary and Secondary pole for bridge installation: pole to be installed near immediate entrance of the bridge so non-invasive laser temperature sensor can monitor bridge deck temperature and bridge approach temperature
### Solar Powered Generator (ITS)-Series 1400

**M-ITS-1400**  
**Base Sheet Drawings**  
**Solar Power Generator Details**  
- Added Note to Designer: The simplified solar power arrangement shall only be used for a maximum of 3 MVDS. For all other arrangements use the 1400 Series  

### Tower Mounted CCTV (ITS)-Series 1500

**M-ITS-1500**  
**ITS Details Tower Mount Camera Details**  
- Added note to Designer: The 2 CCTV shall be placed on the leg facing the roadway with a clear field of view  
- Added Note 23: The CCTV cameras shall be mounted on the same tower leg with an Axis T93962 mounting arm with T94A01D pendant kit, or equivalent as approved by the engineer. There will be 24in vertical spacing between the cameras  
- Revised Item AS: removed PoE power injector  
- Removed details for Part AS: removed reference to Cohu PoE injector  

### Flashing Sign Beacon (ITS)-Series 1700

**M-ITS-1700**  
**Flashing Sign Installation Breakaway Electrical Details**  
- Added details for power cable disconnect box Breakaway  
- Added details for the 4 flashing lights installed on the static sign with flashing sequence and light mounting details onto the sign  
- Added Note 1: see plans for required conductor sizes  
- Added Note 2: All three conductors shall be in one harness  
- Added Note 3: As an alternative to the conduit body on foundation, use thermoplastic junction boxes  
- Added Note 4: Slack in line side cable shall be provided in handhole  
- Added Note to Designer: Install new CCTV within 500 feet upstream of the static beacon sign  
- Added note to Designer: If an existing ITS enclosure lies within the immediate proximity of the flashing sign then power can be connected to that enclosure, otherwise install a new ITS enclosure near the flashing sign  

### Conduit Details at Integral Abutment Bridge (ITS)-Series 1900

**M-ITS-1900**  
**Conduit Details at Integral Abutment Bridge with MSE Wall (Sheet 3)**  
- Added material type for ITS conduit attached to bridge: PVC coated steel or FRE conduit per plan  

### Video Power Junction Box (ITS)-Series 2100

**M-ITS-2100**  
**Video Power Junction Box Model A:** 4 PoE CCTV arrangement without communication switch  
- New drawing created to standardize Video Power Junction Box arrangement - Without Cisco switch when the box is installed and can use Cat 6 cables when distance is less than 300 feet from Plaza Communication Room  

**M-ITS-2101**  
**Video Power Junction Box Model B: 4 PoE CCTV arrangement Cisco 4000 switch**  
- New drawing created to standardize Video Power Junction Box arrangement - With Cisco 4000 switch when the box is installed at a distance greater than 300 feet from the Cisco switch in the Plaza Communication Room
NOTE TO DESIGNER

This base sheet shows typical new construction and is not a standard drawing. It requires completion by the designer prior to insertion into the contract, specification, and contract section. All "NOTE TO DESIGNER" boxes shall be removed by the designer prior to insertion of the sheet into the plan set.

NOTE TO DESIGNER

If an electric ITS cabinet lies within 300 feet upstream of the immediate proximity of the flashing beacon cabinet, power can be connected through that cabinet. Otherwise, a separate ITS cabinet is required. The immediate proximity of the flashing beacon cabinet if there is no existing CCTV within 500 feet of the new site, install a new CCTV within 500 feet upstream of the flashing beacon cabinet if there is no existing CCTV within 500 feet of the new site.

NOTE TO DESIGNER

Install a new CCTV within 300 feet upstream of the immediate proximity of the flashing beacon cabinet. An alternate to the conduit body on foundation, use thermostatic junction boxes (Carlton part no. E2258W) attached to side of foundation. See plans for required conductor sizes.

NOTE TO DESIGNER

1. See plans for required conductor sizes.
2. All three conductors shall be in one harness.
3. As an alternate to the conduit body on foundation, use thermostatic junction boxes (Carlton part no. E2258W) attached to side of foundation. See note 4.
4. Slack in line side cable shall be provided in manhole.

TYPICAL PLAN AT FLASHING BEACON

SCALE: N.T.S.

SECTION B-B

SCALE: N.T.S.

ELEVATION A-A

NOTE TO DESIGNER

This base sheet shows typical new construction and is not a standard drawing. It requires completion by the designer prior to insertion into the contract, specification, and contract section. All "NOTE TO DESIGNER" boxes shall be removed by the designer prior to insertion of the sheet into the plan set.