## Illinois Tollway Base Sheet Revisions

### Section M

<table>
<thead>
<tr>
<th>Drawing</th>
<th>Modification Summary</th>
<th>Effective: 2019-03-01</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pole Assembly (ITS)-Series 1000</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M-ITS-1000</td>
<td>Elevation Views Pole Mounted ITS Element Assembly</td>
<td>Changed disconnect switch to unfused.</td>
</tr>
<tr>
<td>M-ITS-1003</td>
<td>ITS Concrete Service Pad (2 sheets)</td>
<td>New drawing with three types of service pads for ITS poles for flat and slope installation.</td>
</tr>
<tr>
<td>M-ITS-1004</td>
<td>Cabinet Wiring Diagram - ITS Pole Mounted Enclosure (Solar Powered MVDS) (2 sheets)</td>
<td>New cabinet layout separating ITS enclosure and dedicated co-located solar generator/battery cabinet with four 6 V batteries.</td>
</tr>
<tr>
<td><strong>Dynamic Message Sign (ITS)-Series 1100</strong></td>
<td></td>
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<tr>
<td>M-ITS-1108</td>
<td>DMS Cabinet Wiring Diagram</td>
<td>Changed to Cisco 4000 series switch. Changed IP Relay to DIN IV.</td>
</tr>
<tr>
<td><strong>Cabinet Wiring (ITS)-Series 1200</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>Roadway Weather Information System (ITS)-Series 1300</strong></td>
<td></td>
<td></td>
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<tr>
<td>M-ITS-1300</td>
<td>RWIS Pole, Sensor Mounting Detail</td>
<td>Pole height changed to 50 feet as standard pole for ITS with 17.5 inch bolt circle.</td>
</tr>
<tr>
<td>M-ITS-1301</td>
<td>RWIS Cabinet Wiring Diagram</td>
<td>Changed to Cisco 4000 series switch. Not connected to RWIS controller, for future use. Added IP Relay. Disconnected, for future use. Added secondary sensor pole cabinet wiring diagram. Cabinet is part of the design but was omitted in last year release.</td>
</tr>
<tr>
<td>M-ITS-1303</td>
<td>Typical RWIS Grounding Schematic</td>
<td>New drawing showing RWIS grounding system with grounding cable.</td>
</tr>
<tr>
<td><strong>Solar Powered Generator (ITS)-Series 1400</strong></td>
<td></td>
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<tr>
<td>M-ITS-1402</td>
<td>Pole Mounted Solar MVDS Assembly</td>
<td>Co-located solar generator cabinet redesigned as M-ITS-1004.</td>
</tr>
<tr>
<td><strong>Tower Mounted CCTV (ITS)-Series 1500</strong></td>
<td></td>
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</tr>
<tr>
<td>M-ITS-1500</td>
<td>Tower Mount Camera Details</td>
<td>Cameras shown at offset height to avoid view obstruction. Pole mounting arm revised to Axis Q6155-E IP camera.</td>
</tr>
<tr>
<td>M-ITS-1503</td>
<td>Cabinet Wiring Diagram - Tower Mounted CCTV</td>
<td>Revised to show 24 VDC power supply, drawing drawn to scale.</td>
</tr>
<tr>
<td><strong>Flashing Beacon (ITS)-Series 1700</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M-ITS-1701</td>
<td>Flashing Sign Beacon Installation Wiring Diagram</td>
<td>Revised to show full cabinet layout accommodating flasher beacon. Re-drawn to scale. Added flashing beacon, new surge suppressor.</td>
</tr>
<tr>
<td><strong>IPDC Facility (ITS)-Series 1800</strong></td>
<td></td>
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</tr>
<tr>
<td>M-ITS-1802</td>
<td>Note 2: Seal door opening and protrusion/access against rodent and bugs. Note 3: Install removable stainless bollards per Illinois Tollway Maintenance.</td>
<td></td>
</tr>
<tr>
<td>M-ITS-1803</td>
<td>Added 24 V service power outlet outside side wall.</td>
<td></td>
</tr>
<tr>
<td><strong>Conduit Details at Integral Abutment Bridge (ITS)-Series 1900</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M-ITS-1900</td>
<td>Conduit Details at Integral Abutment Bridge with MSE Wall (Sheet 3)</td>
<td>Removed note stating concrete encasement to be placed monolithic with the approach slab. Added 0.5&quot; PJF at the back of the abutment and approach bent. Added 0.75&quot; PJF between the approach slab and encasement. Added detail for deflection and expansion fittings at the encasement and pier bent. Added detail for deflection fitting at encasement and abutment.</td>
</tr>
<tr>
<td><strong>100 FT. Monopole (ITS)-Series 2000</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M-ITS-2000</td>
<td>100 FT. Monopole Closed Circuit Television (CCTV) Camera Tower</td>
<td>Sheet 4 Added sheet 4 of 4 showing hexagonal service pad.</td>
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</tbody>
</table>

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New Sheet | Retired Sheet
CONDUIT HANGER ASSEMBLY DETAIL

NOTES:

1. Conduit shall be supported at a minimum interval of 5' and within 2' of any junction box, coupling, fitting, or change in direction.

2. All hardware shall be stainless steel in accordance with Appendix E of the Standard Specifications.

3. The electrical contractor shall coordinate the location of the conduit with the bridge contractor.

4. The cost of the concrete inserts shall be included in the cost of the structure.

5. Conduit shall be centered between the beams.

6. Conduit shall not come into contact with any bracing or other structural members.

7. Provide a minimum clearance to all structural members.

NOTE TO DESIGNER

This base sheet shows typical new construction but it is not a standard drawing. It requires completion by the designer prior to insertion into a contract. Microstation files and the "Standard Drawings Manual" are available on the Illinois Tollway website. The designer shall accept the responsibility of the design of this sheet upon its completion and insertion into a contract. All notes in designer boxes shall be removed prior to insertion of the sheet into the plan set.
**NOTE TO DESIGNER**

This base sheet shows typical new construction but is not a standard drawing. It requires completion by the designer prior to insertion into a contract, construction plans and the "CADD Standards Manual" are available on the Illinois Tollway website. The designer shall accept the responsibility of the design of this sheet upon its completion and insertion into a contract. All "NOTE TO DESIGNER" boxes shall be removed prior to insertion of the sheet into the plan set.

**NOTES:**

1. The conduit shall furnish & install a pull tape through all conduits installed as part of this work.
2. All hardware shall be stainless steel in accordance with Article 1006.31 of the standard specifications.
3. Conduit shall be supported at a maximum interval of 5' and within 2' of any section.
4. The junction box shall meet the requirements of Article 1006.31 of the standard specifications.
5. Flexible conduit shall be limited to a maximum length of 6
6. Junction box shall be located at least 24' from cross frame.
7. Provide dimensions from adjacent.
8. Provide a minimum of 3" concrete encasement around conduit.
9. Dimension shown shall meet the requirements of the specific project.
10. A cavity opens 3" in length by diameter than the deflection fitting diameter.
11. The deflection fitting shall be centered in the opening and embedded in the concrete only up to the deflection fitting center.
12. The barrel of the fitting shall be fully embedded in the concrete.
13. Coupling must be properly installed to achieve acceptable performance.

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**CONDUIT DETAILS AT INTEGRAL ABUTMENT BRIDGE WITH MSE WALL**

**BASE SHEET M-ITS-1900**

**CONCRETE**

- Expansion fitting
- Stainless steel concrete inserts
- See structural plans

**STAINLESS STEEL CONCRETE INSERTS**

- See structural plans
- Concrete
- See note 8

**CONDUIT EXPANSION / DEFLECTION COUPLING DETAIL**

- All metallic parts shall be stainless steel

**DETAIL A**

- Metallic to non-metallic conduit coupling
- See note 10

**DETAIL B**

- Metallic to non-metallic conduit coupling
- See note 10

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**CONTRACTOR SHALL FURNISH & INSTALL A PULL TAPE THROUGH ALL CONDUITS INSTALLED AS PART OF THIS WORK.**

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**NOTES:**

- All hardware shall be stainless steel in accordance with Article 1006.31 of the standard specifications.
- Provide a minimum of 3" concrete encasement around conduit.
- Dimension shown shall meet the requirements of the specific project.
- A cavity opens 3" in length by diameter than the deflection fitting diameter.
- The deflection fitting shall be centered in the opening and embedded in the concrete only up to the deflection fitting center.
- The barrel of the fitting shall be fully embedded in the concrete.
- Coupling must be properly installed to achieve acceptable performance.

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**ILLINOIS TOLLWAY**

**DATE:** 03-15-2000

**CONDUIT DETAILS AT INTEGRAL ABUTMENT BRIDGE WITH MSE WALL**

**BASE SHEET M-ITS-1900**
CONDUIT HANGER ASSEMBLY DETAIL

**NOTES:**

1. Conduit shall be supported at a maximum interval of 5' and within 2' of any junction box, couplings, fittings, or change in direction.
2. All hardware shall be stainless steel in accordance with Article 1006 of the Standard Specifications.
3. The electrical contractor shall coordinate the location of the concrete inserts with the bridge contractor.
4. The cost of the concrete inserts shall be included in the cost of conduit attached to structure.
5. Conduit shall be centered between the beams.
6. Conduit shall not come into contact with any bracing or other structural members.
7. Provide a minimum clearance to all structural members.

**SIDE VIEW**

**SECTION VIEW**

**NOTE TO DESIGNER**

This base sheet shows typical new construction, but it is not a standard drawing. It requires completion by the designer prior to insertion into a contract. Information from files and the ILLINOIS TOLLWAY website is available on the Illinois Tollway website. The designer shall accept the responsibility of the design of this sheet upon its completion and insertion into a contract. All "Note to Designer" boxes shall be removed prior to insertion of the sheet into the plan set.