ABUTMENT CONNECTION DETAIL

NOTES FOR ABUTMENT CONNECTION:
1. When wall mounted sections are used, a legal by pipe as the post. The post shall be secured to the abutment wall with 1/4" diameter bolts with standard Outside Meeting the Approval of the Engineer.

ELECTRICAL GROUNDING DETAILS

NOTES FOR STANDARD AND COUNTERPOISE GROUND:
1. The intervals for grounding continuous fencing shall not exceed 500 feet. In urban areas, pole and run in rural areas, these intervals shall be determined by the Engineer.
2. Fencing crossing under a power line shall have ground wire. Fencing crossing under a telephone line or cable crossing shall have a single ground wire.
3. Counterpoise grounds shall be used at locations where ground rods can not be driven due to impurities in the ground.
4. The ground wires shall be connected to fence fabric and ground rod by standard splice. Never use wire nuts. The cover connection of the fence shall be used to the bottom termination of the ground rod.
5. See sheet 2 of 2 in this series for additional details and general notes.

ALTERNATE DRIVEN LINE POST ANCHORAGE WITH OR WITHOUT DRIVE ANCHORS

NOTES FOR FENCE POST:
1. Alternate driven line post anchorage is optional. Driven line post anchorage with drive anchors may be used in areas with frost conditions. When soils is hard, 1-1/2" long driven posts with hard ground anchors shall be installed. Drive anchors shall be installed at intervals to conform to local codes and standards for different type of posts. Anchors made of not as recommended by the manufacturer.
2. Terminal posts shall be used for corner, gate and end posts and first line posts. All terminal posts shall be set in concrete footing as shown on wall standards. 

STANDARD 01-00

DATE
REVISIONS
RIGHT OF WAY FENCE
MISCELLANEOUS FENCE DETAILS

2/5/2007 3:31:21 PM
ELECTRICAL AND MECHANICAL ITEMS

EXISTING

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MONUMENT DETAIL

NOTES FOR PERMANENT MONUMENT AND MARKER:

1. NODDE AND THE FINISHED SURFACE WILL BE PUNCHED AFTER SETTING TO SHOW CENTERLINE POINT.
2. MACHINED AREA IN RAISED SURFACE TO BE STAMPED WITH CORRECT CENTERLINE STATION AS DIRECTED BY THE ENGINEER.
3. MARKER TO BE SET IN MONUMENT WITH MUD CEMENT AND WATER OR MELTED SULPHUR.
4. MONUMENTS SHALL BE PLACED AT PLATS AND PLACES OF HORIZONTAL CURVES AND SPACES ALONG TANGENTS AND CURVES IN A WAY THAT A MINIMUM OF TWO MARKERS ARE ALWAYS INTER-VISIBLE.

PERMANENT MONUMENT AND MARKER

TYPICAL CENTERLINE MARKER AT MEDIAN BARRIER

RIGHT OF WAY MARKER

NOTES FOR RIGHT OF WAY MARKER:

1. RIGHT OF WAY MARKERS SHALL BE PLACED ON STATE, COUNTY, AND TOWNSHIP ROADS AT THE FOLLOWING LOCATIONS:
   a) AT INTERVALS OF 1000 FT. ON TANGENTS AND 500 FT. ON CURVES.
   b) AT ALL INTERSECTING ROADS EXCEPT STREETS IN SUBURBS OUTSIDE OF CORPORATE LIMITS.
   c) AT EACH END OF ALL ROADS.
   d) OPPOSITE POINTS OF CURVATURE AND TANGENCY AND OPPOSITE THE MIDPOINT OF CURVES.
2. MARKERS SHALL BE SET BACK OF MIRROR Flush with the FLUSH LINE.
3. CLASS 5 CONCRETE SHALL BE USED IN THE POSTS.
4. METHOD B RIGHT OF WAY MARKERS SHALL BE USED WITHIN URBAN AND RESIDENTIAL AREAS AT THE LOCATIONS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

DATE REVISIONS
MONUMENTS AND MARKERS
STANDARD D3-00
NOTES FOR DELINEATOR INSTALLATION:

1. Delineators on tangent sections of main line shall be placed at one foot intervals in the right and single white reflector units shall be placed on the left on main line sections without barriers.

2. Reflectors shall be placed on the inside of all curves between 200 feet and 800 feet of the curve. The delineator shall be placed at a distance of 40 feet from the curve. The delineator shall be placed at a distance of 100 feet from the curve.

3. Steel posts shall be placed on the inside of all curves between 200 feet and 800 feet of the curve. The delineator shall be placed at a distance of 40 feet from the curve. The delineator shall be placed at a distance of 100 feet from the curve.

4. Steel posts shall be placed on the inside of all curves between 200 feet and 800 feet of the curve. The delineator shall be placed at a distance of 40 feet from the curve. The delineator shall be placed at a distance of 100 feet from the curve.

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6. Steel posts shall be placed on the inside of all curves between 200 feet and 800 feet of the curve. The delineator shall be placed at a distance of 40 feet from the curve. The delineator shall be placed at a distance of 100 feet from the curve.

7. Steel posts shall be placed on the inside of all curves between 200 feet and 800 feet of the curve. The delineator shall be placed at a distance of 40 feet from the curve. The delineator shall be placed at a distance of 100 feet from the curve.

8. Steel posts shall be placed on the inside of all curves between 200 feet and 800 feet of the curve. The delineator shall be placed at a distance of 40 feet from the curve. The delineator shall be placed at a distance of 100 feet from the curve.

9. Steel posts shall be placed on the inside of all curves between 200 feet and 800 feet of the curve. The delineator shall be placed at a distance of 40 feet from the curve. The delineator shall be placed at a distance of 100 feet from the curve.

10. Steel posts shall be placed on the inside of all curves between 200 feet and 800 feet of the curve. The delineator shall be placed at a distance of 40 feet from the curve. The delineator shall be placed at a distance of 100 feet from the curve.
MOVABLE CONCRETE BARRIER

POST MOUNTED DELINEATOR SPACING ON CURVES

<table>
<thead>
<tr>
<th>Radius of Curve (ft)</th>
<th>Spacing on Curves (ft)</th>
<th>Spacing in Advance of Shoulder (ft)</th>
<th>15'</th>
<th>25'</th>
<th>300'</th>
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<td>20</td>
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<td>100 - 174</td>
<td>30</td>
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<td>90</td>
<td>90</td>
<td>180</td>
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<tr>
<td>175 - 224</td>
<td>25</td>
<td>70</td>
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<tr>
<td>225 - 274</td>
<td>40</td>
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<td>130</td>
<td>130</td>
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<tr>
<td>275 - 345</td>
<td>50</td>
<td>95</td>
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<td>350 - 445</td>
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<td>105</td>
<td>170</td>
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<td>350</td>
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<tr>
<td>450 - 545</td>
<td>65</td>
<td>125</td>
<td>195</td>
<td>195</td>
<td>400</td>
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<tr>
<td>550 - 645</td>
<td>70</td>
<td>140</td>
<td>205</td>
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<td>650 - 745</td>
<td>75</td>
<td>150</td>
<td>220</td>
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<td>750 - 845</td>
<td>80</td>
<td>165</td>
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<td>850 - 945</td>
<td>85</td>
<td>175</td>
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<td>255</td>
<td>600</td>
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<td>950 - 1040</td>
<td>90</td>
<td>185</td>
<td>270</td>
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<td>650</td>
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<td>1050 - 1200</td>
<td>100</td>
<td>200</td>
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<td>700</td>
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<td>205</td>
<td>305</td>
<td>305</td>
<td>750</td>
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<td>1200 - 1300</td>
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<td>210</td>
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<td>800</td>
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<tr>
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<td>115</td>
<td>215</td>
<td>335</td>
<td>335</td>
<td>850</td>
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</tbody>
</table>

NOTES FOR BARRIER DELINEATOR:
- The barrier delineator shall be placed at 10 ft intervals along roadway and 5 ft on bridges and 3 ft on approaches at 10 ft intervals on bridge approaches. The spacing is the same for tangent and curve alignments.
- BARRIER DELINEATOR SHALL BE PLACED ON THE RIGHT SIDE AND MOWER ON THE LEFT SIDE.

BARRIER DELINEATOR INSTALLATION ON GUARDRAIL AT BRIDGE APPROACHES

Also see sheet 1 of 2 in this series for additional information.

DATE

REVISIONS

DELINEATORS

STANDARD D4-00

Illinois Tollway
Open Roads for a future
GENERAL NOTES:
1. DIAGONAL SHOULDER STRIPING REQUIRED WHERE HABITABLE SHOULDER WIDTH (NORMALITY 6' OR LESS) IS LESS THAN 12'.
2. ROADWAY MARKING MATERIALS TO BE USED ON FINISHED CONCRETE SURFACE, AND NOT ASPHALT SURFACE, SHALL BE AS SHOWN ON THE PLANS.
3. WHEN THE GUARDRAIL ENTRANCES ON THE SHOULDER THE DIAGONAL MARKINGS SHALL EXTEND AS CLOSE TO THE FACE OF THE RAIL AS POSSIBLE.

SECTION A-A

ROADWAY AND SHOULDER STRIPING - NEW CONSTRUCTION
GENERAL NOTES:
1. DIAGONAL SHOULDER STRIPING REQUIRED WHERE (SHOULDER WIDTH - ORIGINAL) / 2 OR LESS THAN 25.
2. ROADWAY MARKING MATERIALS TO BE USED ON FINISHED CONCRETE SURFACE AND NOT NEW ASPHALT SURFACE SHALL BE AS SHOWN ON THE PLANS.

SECTION B:B (SHOULDER WITHOUT CUTTER)
WHERE THE GUARDRAIL ENCOMPASSES ON THE SHOULDER THE COCHONAL MARKINGS SHALL BE PLACED AS CLOSE TO THE FACE OF THE RAIL AS POSSIBLE.

ROADWAY AND SHOULDER STRIPING - NEW CONSTRUCTION
ENTRANCE - SINGLE LANE RAMP WITH BEGINNING OF LANE 3

ENTRANCE - TWO LANE RAMP WITH BEGINNING OF LANE 3

ENTRANCE - TWO LANE PARALLEL RAMP

EXIT - TWO LANE PARALLEL RAMP

EXIT - SINGLE LANE RAMP LANE THREE TERMINATION

GENERAL NOTES

1. Rumble strips shall be installed up to the edge when auxiliary lanes, acceleration lanes, and deceleration lanes lengths are greater than 1000 ft.