



Appendix A Viaducts

1.1 Introduction

The study area includes 48 locations where railroad bridges cross over roadways or pedestrian passages. A total of 37 viaduct locations were surveyed to document deficiencies in the lighting, drainage, roadway, sidewalks, and general structural conditions, as identified in the project’s Purpose and Need statement (see Chapter 1). Figure A-1 shows the locations of the viaducts surveyed.

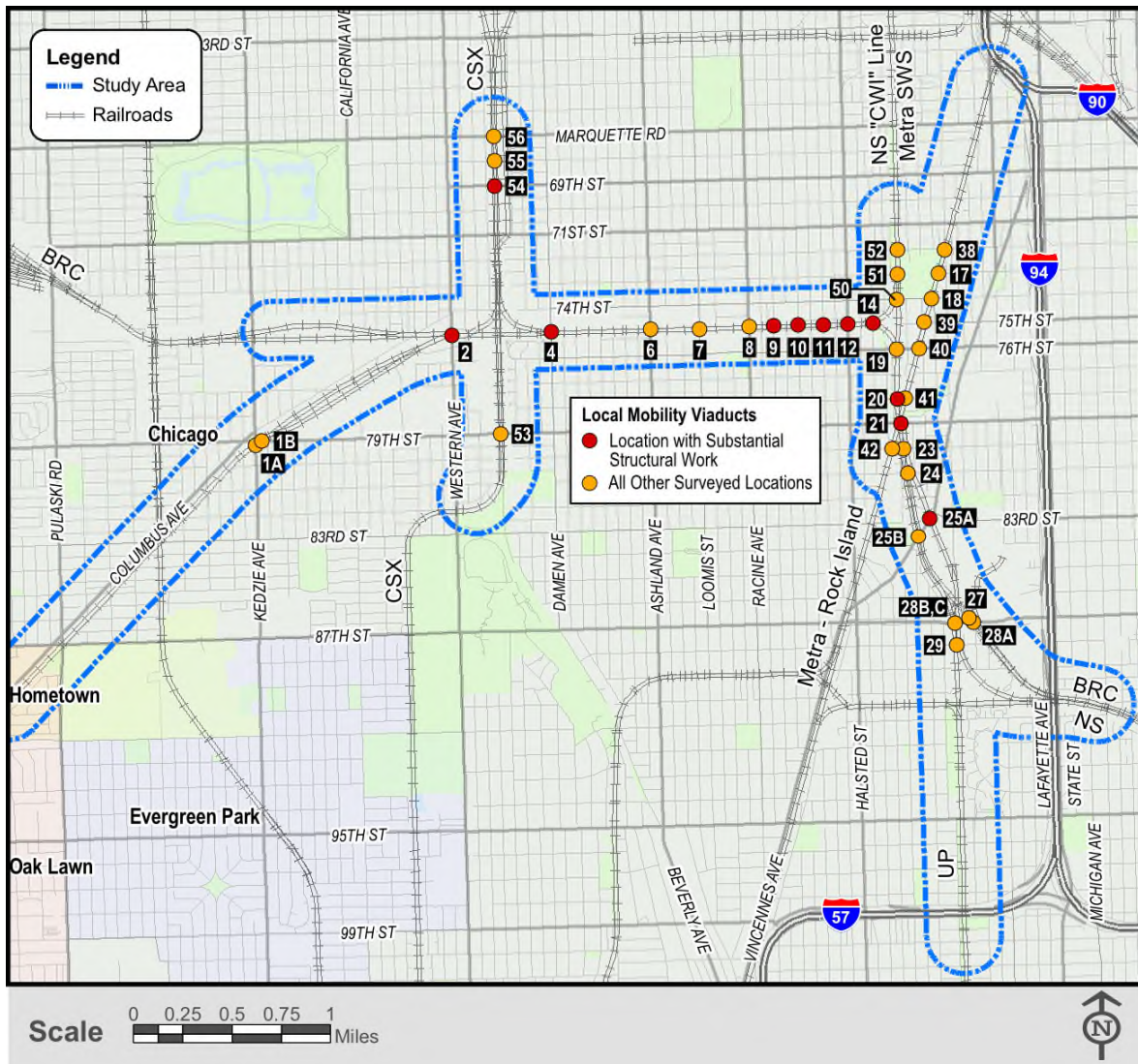


Figure A-1: Viaducts Included in Local Mobility Study

This appendix provides a series of tables summarizing the findings of the viaduct surveys and the preliminary estimated costs to correct the deficiencies. The field survey data forms themselves are voluminous, and have been kept with the project files.



1.1.1 Viaduct Construction Needs

The viaduct surveys found many deficiencies that would need to be addressed through reconstruction or replacement and which would be eligible for funding as a part of the 75th Street CIP. A description of these major reconstruction work items that could be incorporated into the project, and which are included as part of the Preferred Alternative, is as follows:

- ◆ Full replacement of viaduct lighting systems from existing orange sodium vapor lighting to white metal-halide lighting. This is the new standard for the City of Chicago.
- ◆ Roadway resurfacing or reconstruction where the pavement condition is rated below 6 out of 10 using the Pavement Surface Evaluation and Rating (PaSER) rating system^{1,2}, or where the existing pavement is brick.
- ◆ Sidewalk reconstruction where the condition is rated as fair or poor (as opposed to excellent or good).
- ◆ Sidewalk ramp construction where current Americans with Disabilities Act (ADA) guidelines³ are not met.
- ◆ Sewer reconstruction where cleaning proves to be insufficient to remedy the drainage problems.
- ◆ Inlet and catch basin construction where they are missing or collapsed.
- ◆ Bridge and abutment waterproofing where trackwork will allow access to the deck surface and underdrains behind abutments where there are substantial leaks.

These viaduct construction needs are summarized in Table A-1 through Table A-5.

The viaduct surveys were completed in November, 2010, and September, 2011, and construction needs shown in the following tables are based on conditions at that time.



Table A-1: Viaduct Construction Needs Summary – Pavement Condition

| Structure No. | Location | Bridge Ownership | Pavement Type | Vertical Clearance (Standard 14'-6") | Pavement Condition (1=worst to 10=best) | Possible Pavement Work | Estimated Pavement Cost |
|---------------|--|------------------|------------------------------------|--------------------------------------|---|--|-------------------------|
| 1A | Kedzie Ave - South of 79th St | NS | Asphalt | 13'-6" | 8 | --- | \$ - |
| 1B | 79th St - East of Kedzie Ave | NS | Asphalt | 13'-6" | 8 | --- | \$ - |
| 2 | Western Ave - at 75th St | BRC/NS | Concrete | 14'-0" | 9 | --- | \$ - |
| 4 | Damen Ave - at 75th St | BRC/NS | Asphalt | 13'-0" | 7 | --- | \$ - |
| 6 | Ashland Ave - at 75th St | BRC/NS | Concrete | 13'-10" | 9 | --- | \$ - |
| 7 | Loomis Blvd - at 75th St | BRC/NS | Asphalt | 11'-8" | 5 | Resurface Pavement | \$ 67,000 |
| 8 | Racine Ave - at 75th St | BRC/NS | Asphalt | 12'-8" | 5 | Resurface Pavement | \$ 68,000 |
| 9 | Aberdeen St - at 75th St | BRC/NS | Asphalt | 13'-8" | 8 | --- | \$ - |
| 10 | Morgan St - at 75th St | BRC/NS | Asphalt | 14'-4" | 9 | --- | \$ - |
| 11 | Peoria St - at 75th St | BRC/NS | Concrete | 12'-0" | 3 | Replace Pavement | \$ 346,000 |
| 12 | Halsted St - at 75th St | BRC/NS | Asphalt | 13'-10" | 4 | Replace Pavement | \$ 356,000 |
| 14 | Union Ave - at 75th St | BRC/NS | Brick | 11'-10" | Brick | Viaduct to be closed. Some portions of street included with project. | \$ - |
| 17 | 73rd St Pedway - East of Hamilton Park | METRA | Concrete Path | Unknown | N/A | --- | \$ - |
| 18 | 74th St - East of Normal Ave | METRA | Asphalt | 12'-8" | 4 | Resurface Pavement | \$ 43,000 |
| 19 | 76th St - West of Parnell Ave | BRC/NS | Asphalt | 11'-6" | 6 | --- | \$ - |
| 20 | 78th St - East of Wallace St | BRC/NS | Concrete | 11'-8" | 5 (EB) 3 (WB) | Replace Pavement | \$ 266,000 |
| 21 | 79th St - East of Wallace St | BRC/NS | Asphalt | 13'-10" | 6(EB) 6 (WB) | --- | \$ - |
| 23 | 80th St - East of Wallace St | BRC/NS/UP | Brick | 11'-8" | Brick | Replace Pavement | \$ 307,000 |
| 24 | 81st St - East of Wallace St | BRC/NS/UP | Asphalt | 13'-8" | 3 (EB) 4 (WB) | Resurface Pavement | \$ 88,000 |
| 25A | Vincennes Ave - South of 83rd St | NS | Asphalt | 14'-0" | 4 | Resurface Pavement | \$ 67,000 |
| 25B | Vincennes Ave - North of 84th St | BRC/UP | Concrete (NB Outside lane asphalt) | 14'-0" | 6 (NB) 4 (SB) | Resurface NB Outside Lane | \$ 67,000 |



| Structure No. | Location | Bridge Ownership | Pavement Type | Vertical Clearance (Standard 14'-6") | Pavement Condition (1=worst to 10=best) | Possible Pavement Work | Estimated Pavement Cost |
|-----------------------|--|------------------|---------------------------|--------------------------------------|---|------------------------|-------------------------|
| 27 | Holland Rd - North of 87th St | BRC | Asphalt | 11'-8" | 8 | --- | \$ - |
| 28A | 87th St - East of Holland Rd | BRC | Concrete | 12'-10" | 9 | --- | \$ - |
| 28B&C | 87th St - East of Eggleston Ave | NS/UP | Concrete | 12'-10" | 9 (EB) 10 (WB) | --- | \$ - |
| 29 | 88th St - West of Harvard Ave | NS/UP | Asphalt | 11'-8" | 6 | --- | \$ - |
| 38 | 72nd St - at Stewart Ave | METRA | Asphalt | 12'-6" | 8 | --- | \$ - |
| 39 | 75th St - at Normal Ave | METRA | Asphalt | high | 8 | --- | \$ - |
| 40 | 76th St - at Normal Ave | METRA | Asphalt | 11'-6" | 6 | --- | \$ - |
| 41 | 78th St - West of Fielding Ave | METRA | Concrete | 11'-8" | 3 | Replace Pavement | \$ 265,000 |
| 42 | 80th St - West of Wallace St | METRA | Brick | 11'-8" | Brick | Replace Pavement | \$ 271,000 |
| 50 | 74th St - West of Parnell Ave | NS | Asphalt | 12'-10" | 4 | Resurface Pavement | \$ 42,000 |
| 51 | 73rd St Pedway - West of Hamilton Park | NS | Concrete Path | Unknown | N/A | --- | \$ - |
| 52 | 72nd St - West of Parnell Ave | NS | Asphalt | 11'-6" | 3 | Replace Pavement | \$ 326,000 |
| 53 | 79th St - East of Oakley Ave | CSX | Asphalt/ WB concrete path | 13'-0" | 4 | Resurface WB | \$ 73,000 |
| 54 | 69th St - East of Bell Ave | CSX | Asphalt | 14'-2" | 9 | --- | \$ - |
| 55 | 68th St - East of Bell Ave | CSX | Brick | 11'-10" | Brick | Replace Pavement | \$ 615,000 |
| 56 | 67th St (Marquette) - East of Bell Ave | CSX | Asphalt | 12'-10" | 8 | --- | \$ - |
| Pavement Total | | | | | | | \$ 3,267,000 |

Table A-2: Viaduct Construction Needs Summary – Sidewalks and ADA Curb Ramps

| Structure No. | Location | Bridge Ownership | Sidewalk Deficiencies | Possible Sidewalk Work | Estimated Sidewalk Cost | ADA Ramp Deficiencies | Possible ADA Ramp Work | Estimated ADA Ramp Cost |
|---------------|--|------------------|-----------------------|--|-------------------------|--|------------------------|-------------------------|
| 1A | Kedzie Ave - South of 79th St | NS | --- | --- | \$ - | Zero of 9 ADA ramps meet standards | Construct 9 ramps | \$ 59,000 |
| 1B | 79th St - East of Kedzie Ave | NS | Both Sides | Replace All | \$ 71,000 | --- | --- | \$ - |
| 2 | Western Ave - at 75th St | BRC/NS | --- | --- | \$ - | Zero of 2 ADA ramps meet standards | Construct 2 ramps | \$ 13,000 |
| 4 | Damen Ave - at 75th St | BRC/NS | --- | --- | \$ - | --- | --- | \$ - |
| 6 | Ashland Ave - at 75th St | BRC/NS | --- | --- | \$ - | Zero of 2 ADA ramps meet standards | Construct 2 ramps | \$ 13,000 |
| 7 | Loomis Blvd - at 75th St | BRC/NS | --- | --- | \$ - | --- | --- | \$ - |
| 8 | Racine Ave - at 75th St | BRC/NS | --- | --- | \$ - | --- | --- | \$ - |
| 9 | Aberdeen St - at 75th St | BRC/NS | --- | --- | \$ - | --- | --- | \$ - |
| 10 | Morgan St - at 75th St | BRC/NS | --- | --- | \$ - | 8 out of 10 ADA Ramps meet standards | Construct 2 ramps | \$ 13,000 |
| 11 | Peoria St - at 75th St | BRC/NS | --- | --- | \$ - | 9 out of 12 ADA Ramps meet standards | Construct 3 ramps | \$ 20,000 |
| 12 | Halsted St - at 75th St | BRC/NS | --- | --- | \$ - | 2 out of 5 ADA Ramps meet standards | Construct 3 ramps | \$ 20,000 |
| 14 | Union Ave - at 75th St | BRC/NS | Both Sides | Viaduct to be closed. Some sidewalk included with project. | \$ - | Zero out of 4 ADA Ramps meet standards | Included with Project | \$ - |
| 17 | 73rd St Pedway - East of Hamilton Park | METRA | Yes | Replace | \$ 47,000 | 4 of 8 ADA ramps meet standards | Construct 4 Ramps | \$ 26,000 |
| 18 | 74th St - East of Normal Ave | METRA | Both Sides | Replace | \$ 58,000 | Zero of 3 ADA ramps meet standards | Construct 3 Ramps | \$ 20,000 |



| Structure No. | Location | Bridge Ownership | Sidewalk Deficiencies | Possible Sidewalk Work | Estimated Sidewalk Cost | ADA Ramp Deficiencies | Possible ADA Ramp Work | Estimated ADA Ramp Cost |
|---------------|----------------------------------|------------------|-----------------------|------------------------|-------------------------|--|------------------------|-------------------------|
| 19 | 76th St - West of Parnell Ave | BRC/NS | Both Sides | Replace All | \$ 71,000 | Zero of 10 ADA ramps meet standards | Construct 10 ramps | \$ 65,000 |
| 20 | 78th St - East of Wallace St | BRC/NS | Both Sides | Replace All | \$ 53,000 | --- | --- | \$ - |
| 21 | 79th St - East of Wallace St | BRC/NS | --- | --- | \$ - | 2 of 4 ADA ramps meet standards | Construct 2 ramps | \$ 13,000 |
| 23 | 80th St - East of Wallace St | BRC/NS/UP | --- | --- | \$ - | Zero of 2 ADA ramps meet standards | Construct 2 ramps | \$ 13,000 |
| 24 | 81st St - East of Wallace St | BRC/NS/UP | South Side | Replace south | \$ 71,000 | Zero of 2 ADA ramps meet standards | Construct 2 ramps | \$ 13,000 |
| 25A | Vincennes Ave - South of 83rd St | NS | Both Sides | Replace All | \$ 82,000 | Zero of 4 ADA ramps meet standards | Construct 4 ramps | \$ 26,000 |
| 25B | Vincennes Ave - North of 84th St | BRC/UP | Both Sides | Replace All | \$ 90,000 | 4 of 6 ADA ramps at Parnell meet standards | Construct 2 ramps | \$ 13,000 |
| 27 | Holland Rd - North of 87th St | BRC | --- | --- | \$ - | --- | --- | \$ - |
| 28A | 87th St - East of Holland Rd | BRC | --- | --- | \$ - | --- | --- | \$ - |
| 28B&C | 87th St - East of Eggleston Ave | NS/UP | --- | --- | \$ - | --- | --- | \$ - |
| 29 | 88th St - West of Harvard Ave | NS/UP | --- | --- | \$ - | Zero of 8 ADA ramps meet standards | Construct 8 Ramps | \$ 52,000 |
| 38 | 72nd St - at Stewart Ave | METRA | --- | --- | \$ - | Zero of 4 ADA ramps meet standards | Construct 4 Ramps | \$ 26,000 |
| 39 | 75th St - at Normal Ave | METRA | Both Sides | Replace All | \$ 19,000 | 4 of 6 ADA ramps meet standards | Construct 2 Ramps | \$ 13,000 |
| 40 | 76th St - at Normal Ave | METRA | Both Sides | Replace All | \$ 19,000 | 3 of 9 ADA ramps meet standards | Construct 6 Ramps | \$ 39,000 |
| 41 | 78th St - West of Fielding Ave | METRA | Both Sides | Partial Replace | \$ 30,000 | 4 of 8 ADA ramps meet standards | Construct 4 Ramps | \$ 26,000 |
| 42 | 80th St - West of Wallace St | METRA | --- | --- | \$ - | Zero of 4 ADA ramps meet standards | Construct 4 ramps | \$ 26,000 |

DRAFT ENVIRONMENTAL IMPACT STATEMENT

| Structure No. | Location | Bridge Ownership | Sidewalk Deficiencies | Possible Sidewalk Work | Estimated Sidewalk Cost | ADA Ramp Deficiencies | Possible ADA Ramp Work | Estimated ADA Ramp Cost |
|------------------------|--|------------------|-----------------------|------------------------|-------------------------|--|------------------------|-------------------------|
| 50 | 74th St - West of Parnell Ave | NS | Both Sides | Replace | \$ 55,000 | --- | --- | \$ - |
| 51 | 73rd St Pedway - West of Hamilton Park | NS | --- | --- | \$ - | Zero of 2 ADA ramps meet standards | Construct 2 Ramps | \$ 13,000 |
| 52 | 72nd St - West of Parnell Ave | NS | North Side | Replace North | \$ 69,000 | --- | --- | \$ - |
| 53 | 79th St - East of Oakley Ave | CSX | --- | --- | \$ - | --- | --- | \$ - |
| 54 | 69th St - East of Bell Ave | CSX | --- | --- | \$ - | Zero of 4 ADA ramps meet standards | Construct 4 Ramps | \$ 26,000 |
| 55 | 68th St - East of Bell Ave | CSX | --- | --- | \$ - | Zero of 5 ADA ramps meet standards, 1 ramp missing | Construct 6 Ramps | \$ 39,000 |
| 56 | 67th St (Marquette) - East of Bell Ave | CSX | --- | --- | \$ - | 6 of 6 ADA ramps meet standards | --- | \$ - |
| Sidewalk Totals | | | | | \$ 735,000 | ADA Ramp Totals | | \$ 587,000 |



Table A-3: Viaduct Construction Needs Summary – Inlet and Sewer Drainage

| Structure No. | Location | Bridge Ownership | Inlet & Sewer Deficiencies | Possible Inlet & Sewer Work | Estimated Inlet & Sewer Cost |
|---------------|--|------------------|---|--|------------------------------|
| 1A | Kedzie Ave - South of 79th St | NS | --- | --- | \$ - |
| 1B | 79th St - East of Kedzie Ave | NS | --- | --- | \$ - |
| 2 | Western Ave - at 75th St | BRC/NS | --- | --- | \$ - |
| 4 | Damen Ave - at 75th St | BRC/NS | Inlet in SE corner collapsed | Rebuild Collapsed Inlet | \$ 13,000 |
| 6 | Ashland Ave - at 75th St | BRC/NS | --- | --- | \$ - |
| 7 | Loomis Blvd - at 75th St | BRC/NS | Clogged inlet in SE corner | Possible reconstruct sewer | \$ 5,000 |
| 8 | Racine Ave - at 75th St | BRC/NS | Inlet not at curb line | Rebuild During Resurfacing | \$ 13,000 |
| 9 | Aberdeen St - at 75th St | BRC/NS | --- | --- | \$ - |
| 10 | Morgan St - at 75th St | BRC/NS | --- | --- | \$ - |
| 11 | Peoria St - at 75th St | BRC/NS | Evidence of ponding on pavement in NE and NW corners | Possible reconstruct sewer | \$ 42,000 |
| 12 | Halsted St - at 75th St | BRC/NS | Ponding in pavement along SB lanes & long both east and west gutters | Possible reconstruct sewer | \$ 61,000 |
| 14 | Union Ave - at 75th St | BRC/NS | Ponding in NW, NE, and SE corners. Drainage structures in NW and SE corners clogged | To be closed | \$ - |
| 17 | 73rd St Pedway - East of Hamilton Park | METRA | --- | --- | \$ - |
| 18 | 74th St - East of Normal Ave | METRA | Ponding two spots, missing CB cover | Clean, replace cover, and possible reconstruct sewer | \$ 26,000 |
| 19 | 76th St - West of Parnell Ave | BRC/NS | --- | --- | \$ - |
| 20 | 78th St - East of Wallace St | BRC/NS | Reconstruct w/Sidewalk Repairs | Clean & Repair Inlets | \$ 19,000 |
| 21 | 79th St - East of Wallace St | BRC/NS | --- | --- | \$ - |
| 23 | 80th St - East of Wallace St | BRC/NS/UP | Clogged inlets NE and SE corners, collapsed CB in NW corner | Repair Catch basins, Possible Reconstruct Sewer | \$ 18,000 |
| 24 | 81st St - East of Wallace St | BRC/NS/UP | Clogged inlet in NW corner, ponding in WB lane at NE corner | Possible Reconstruct Sewer | \$ 64,000 |
| 25A | Vincennes Ave - South of 83rd St | NS | Clogged inlet in SW corner | Possible reconstruct sewer | \$ 5,000 |
| 25B | Vincennes Ave - North of 84th St | BRC/UP | Water ponding along curb and in up to 1/2 of the northbound lane | Add New Inlet to Improve Drainage | \$ 50,000 |

DRAFT ENVIRONMENTAL IMPACT STATEMENT

| Structure No. | Location | Bridge Ownership | Inlet & Sewer Deficiencies | Possible Inlet & Sewer Work | Estimated Inlet & Sewer Cost |
|-------------------------------|--|------------------|--|-----------------------------------|------------------------------|
| 27 | Holland Rd - North of 87th St | BRC | --- | --- | \$ - |
| 28A | 87th St - East of Holland Rd | BRC | --- | --- | \$ - |
| 28B&C | 87th St - East of Eggleston Ave | NS/UP | --- | --- | \$ - |
| 29 | 88th St - West of Harvard Ave | NS/UP | --- | --- | \$ - |
| 38 | 72nd St - at Stewart Ave | METRA | --- | --- | \$ - |
| 39 | 75th St - at Normal Ave | METRA | Water ponding along curb and on sidewalk | Add New Inlet to Improve Drainage | \$ 50,000 |
| 40 | 76th St - at Normal Ave | METRA | --- | --- | \$ - |
| 41 | 78th St - West of Fielding Ave | METRA | Ponding on pavement | Possible reconstruct sewer | \$ 74,000 |
| 42 | 80th St - West of Wallace St | METRA | Ponding on pavement at one CB | Possible reconstruct sewer | \$ 13,000 |
| 50 | 74th St - West of Parnell Ave | NS | Ponding on pavement | Possible reconstruct sewer | \$ 14,000 |
| 51 | 73rd St Pedway - West of Hamilton Park | NS | --- | --- | \$ - |
| 52 | 72nd St - West of Parnell Ave | NS | Two filled CBs | Possible reconstruct sewer | \$ 3,000 |
| 53 | 79th St - East of Oakley Ave | CSX | --- | --- | \$ - |
| 54 | 69th St - East of Bell Ave | CSX | Low Point - Water on pavement at one CB | Possible reconstruct sewer | \$ 2,000 |
| 55 | 68th St - East of Bell Ave | CSX | Missing CB cover | Clean and replace cover | \$ 3,000 |
| 56 | 67th St (Marquette) - East of Bell Ave | CSX | Ponding on pavement | Possible construct sewer | \$ 18,000 |
| Inlet and Sewer Totals | | | | | \$ 493,000 |



Table A-4: Viaduct Construction Needs Summary – Bridge and Abutment Drainage

| Structure No. | Location | Bridge Ownership | Bridge Drainage Deficiencies | Possible Bridge Drainage Work | Estimated Bridge Deck Waterproofing Cost | Estimated Bridge Abutment Drainage Cost | Total Estimated Bridge Drainage Cost |
|---------------|--|------------------|--|---------------------------------|--|---|--------------------------------------|
| 1A | Kedzie Ave - South of 79th St | NS | --- | --- | \$ - | \$ - | \$ - |
| 1B | 79th St - East of Kedzie Ave | NS | Minor water staining on abutment | None | \$ - | \$ - | \$ - |
| 2 | Western Ave - at 75th St | BRC/NS | Minor water staining on east abutment | None | \$ - | \$ - | \$ - |
| 4 | Damen Ave - at 75th St | BRC/NS | --- | --- | \$ - | \$ - | \$ - |
| 6 | Ashland Ave - at 75th St | BRC/NS | Minor water staining on east abutment | None | \$ - | \$ - | \$ - |
| 7 | Loomis Blvd - at 75th St | BRC/NS | Water staining on east abutment, water standing on walkway | Waterproof Deck with Track Work | \$ 364,000 | \$ - | \$ 364,000 |
| 8 | Racine Ave - at 75th St | BRC/NS | water staining on abutments | Waterproof Deck with Track Work | \$ 364,000 | \$ - | \$ 364,000 |
| 9 | Aberdeen St - at 75th St | BRC/NS | water staining on abutments | Waterproof Deck with Track Work | \$ 364,000 | \$ - | \$ 364,000 |
| 10 | Morgan St - at 75th St | BRC/NS | --- | --- | \$ - | \$ - | \$ - |
| 11 | Peoria St - at 75th St | BRC/NS | --- | --- | \$ - | \$ - | \$ - |
| 12 | Halsted St - at 75th St | BRC/NS | Water staining on abutments | Waterproof Deck with Track Work | \$ 364,000 | \$ - | \$ 364,000 |
| 14 | Union Ave - at 75th St | BRC/NS | Water leaking through Deck and Abutment | To be closed | \$ - | \$ - | \$ - |
| 17 | 73rd St Pedway - East of Hamilton Park | METRA | --- | --- | \$ - | \$ - | \$ - |
| 18 | 74th St - East of Normal Ave | METRA | --- | --- | \$ - | \$ - | \$ - |
| 19 | 76th St - West of Parnell Ave | BRC/NS | Water leaking through Deck and Abutment | Waterproof Deck with Track Work | \$ 312,000 | \$ - | \$ 312,000 |
| 20 | 78th St - East of Wallace St | BRC/NS | Water leaking | Waterproof Deck | \$ 312,000 | \$ - | \$ 312,000 |

DRAFT ENVIRONMENTAL IMPACT STATEMENT

| Structure No. | Location | Bridge Ownership | Bridge Drainage Deficiencies | Possible Bridge Drainage Work | Estimated Bridge Deck Waterproofing Cost | Estimated Bridge Abutment Drainage Cost | Total Estimated Bridge Drainage Cost |
|---------------|----------------------------------|------------------|---|---|--|---|--------------------------------------|
| | | | through Deck and Abutment | with Track Work | | | |
| 21 | 79th St - East of Wallace St | BRC/NS | Water leaking through Deck and Abutment | Place New Wall Drains | \$ - | \$ 49,000 | \$ 49,000 |
| 23 | 80th St - East of Wallace St | BRC/NS/UP | Water leaking through Deck and Abutment | Waterproof Deck & Abutment Place New Wall Drains | \$ 312,000 | \$ 49,000 | \$ 361,000 |
| 24 | 81st St - East of Wallace St | BRC/NS/UP | Water leaking through Deck and Abutment | Waterproof Deck & Abutment | \$ 312,000 | \$ - | \$ 312,000 |
| 25A | Vincennes Ave - South of 83rd St | NS | Water leaking through Deck and Abutment | Waterproof Deck & Abutment | \$ 312,000 | \$ - | \$ 312,000 |
| 25B | Vincennes Ave - North of 84th St | BRC/UP | Water leaking through Deck and Abutment | Waterproof Deck & Abutment and New Underdrains | \$ 520,000 | \$ 62,000 | \$ 582,000 |
| 27 | Holland Rd - North of 87th St | BRC | --- | --- | \$ - | \$ - | \$ - |
| 28A | 87th St - East of Holland Rd | BRC | --- | --- | \$ - | \$ - | \$ - |
| 28B&C | 87th St - East of Eggleston Ave | NS/UP | Water leaking through Deck and Abutment | Waterproof Deck & Abutment | \$ 104,000 | \$ - | \$ 104,000 |
| 29 | 88th St - West of Harvard Ave | NS/UP | | --- | \$ - | \$ - | \$ - |
| 38 | 72nd St - at Stewart Ave | METRA | --- | --- | \$ - | \$ - | \$ - |
| 39 | 75th St - at Normal Ave | METRA | Water leaking through Deck and Abutment | Waterproof Deck & Abutment | \$ 208,000 | \$ 24,000 | \$ 232,000 |
| 40 | 76th St - at Normal Ave | METRA | --- | --- | \$ - | \$ - | \$ - |
| 41 | 78th St - West of Fielding Ave | METRA | Water leaking | Waterproof Deck | \$ 208,000 | \$ - | \$ 208,000 |



| Structure No. | Location | Bridge Ownership | Bridge Drainage Deficiencies | Possible Bridge Drainage Work | Estimated Bridge Deck Waterproofing Cost | Estimated Bridge Abutment Drainage Cost | Total Estimated Bridge Drainage Cost |
|---------------|--|------------------|------------------------------|-------------------------------|--|---|--------------------------------------|
| | | | through Deck and Abutment | & Abutment | | | |
| 42 | 80th St - West of Wallace St | METRA | --- | --- | \$ - | \$ - | \$ - |
| 50 | 74th St - West of Parnell Ave | NS | --- | --- | \$ - | \$ - | \$ - |
| 51 | 73rd St Pedway - West of Hamilton Park | NS | --- | --- | \$ - | \$ - | \$ - |
| 52 | 72nd St - West of Parnell Ave | NS | --- | --- | \$ - | \$ - | \$ - |
| 53 | 79th St - East of Oakley Ave | CSX | Minor leakage at abutments | New Bridge Underdrains | \$ - | \$ 38,000 | \$ 38,000 |
| 54 | 69th St - East of Bell Ave | CSX | --- | --- | \$ - | \$ - | \$ - |
| 55 | 68th St - East of Bell Ave | CSX | --- | --- | \$ - | \$ - | \$ - |
| 56 | 67th St (Marquette) - East of Bell Ave | CSX | --- | --- | \$ - | \$ - | \$ - |
| | | | | | | Bridge Drainage Totals | \$ 4,278,000 |

Table A-5: Viaduct Construction Needs Summary – Lighting

| Structure No. | Location | Bridge Ownership | Luminaires | | | Non-functional Fixtures | Estimated Replacement Cost |
|---------------|--|------------------|------------|------------|-------|-------------------------|----------------------------|
| | | | Roadway | Pedestrian | Total | | |
| 1A | Kedzie Ave - South of 79th St | NS | 8 | 0 | 8 | 1 | \$16,000 |
| 1B | 79th St - East of Kedzie Ave | NS | 8 | 12 | 20 | 0 | \$39,000 |
| 2 | Western Ave - at 75th St | BRC/NS | 16 | 14 | 30 | 0 | \$59,000 |
| 4 | Damen Ave - at 75th St | BRC/NS | 10 | 10 | 20 | 0 | \$39,000 |
| 6 | Ashland Ave - at 75th St | BRC/NS | 8 | 8 | 16 | 0 | \$32,000 |
| 7 | Loomis Blvd - at 75th St | BRC/NS | 10 | 6 | 16 | 16 | \$32,000 |
| 8 | Racine Ave - at 75th St | BRC/NS | 12 | 10 | 22 | 0 | \$43,000 |
| 9 | Aberdeen St - at 75th St | BRC/NS | 8 | 8 | 16 | 0 | \$32,000 |
| 10 | Morgan St - at 75th St | BRC/NS | 8 | 8 | 16 | 0 | \$32,000 |
| 11 | Peoria St - at 75th St | BRC/NS | 8 | 8 | 16 | 6 | \$32,000 |
| 12 | Halsted St - at 75th St | BRC/NS | 8 | 6 | 14 | 8 | \$28,000 |
| 14 | Union Ave - at 75th St | BRC/NS | 12 | 12 | 24 | 7 | \$0 |
| 17 | 73rd St Pedway - East of Hamilton Park | METRA | 0 | 6 | 6 | 6 | \$12,000 |
| 18 | 74th St - East of Normal Ave | METRA | 8 | 6 | 14 | 0 | \$28,000 |
| 19 | 76th St - West of Parnell Ave | BRC/NS | 14 | 14 | 28 | 2 | \$55,000 |
| 20 | 78th St - East of Wallace St | BRC/NS | 12 | 12 | 24 | 12 | \$47,000 |
| 21 | 79th St - East of Wallace St | BRC/NS | 10 | 13 | 23 | 1 | \$45,000 |
| 23 | 80th St - East of Wallace St | BRC/NS/UP | 13 | 10 | 23 | 1 | \$45,000 |
| 24 | 81st St - East of Wallace St | BRC/NS/UP | 15 | 12 | 27 | 4 | \$53,000 |
| 25A | Vincennes Ave - South of 83rd St | NS | 6 | 7 | 13 | 0 | \$26,000 |
| 25B | Vincennes Ave - North of 84th St | BRC/UP | 38 | 38 | 76 | 3 | \$149,000 |
| 27 | Holland Rd - North of 87th St | BRC | 10 | 10 | 20 | 0 | \$39,000 |
| 28A | 87th St - East of Holland Rd | BRC | 6 | 8 | 14 | 7 | \$28,000 |
| 28B&C | 87th St - East of Eggleston Ave | NS/UP | 4 | 4 | 8 | 2 | \$16,000 |
| 29 | 88th St - West of Harvard Ave | NS/UP | 4 | 6 | 10 | 3 | \$20,000 |
| 38 | 72nd St - at Stewart Ave | METRA | 6 | 6 | 12 | 0 | \$24,000 |
| 39 | 75th St - at Normal Ave | METRA | 8 | 8 | 16 | 2 | \$32,000 |



| Structure No. | Location | Bridge Ownership | Luminaires | | | Non-functional Fixtures | Estimated Replacement Cost |
|------------------------|--|------------------|------------|------------|------------|-------------------------|----------------------------|
| | | | Roadway | Pedestrian | Total | | |
| 40 | 76th St - at Normal Ave | METRA | 10 | 10 | 20 | 3 | \$39,000 |
| 41 | 78th St - West of Fielding Ave | METRA | 10 | 9 | 19 | 3 | \$38,000 |
| 42 | 80th St - West of Wallace St | METRA | 7 | 8 | 15 | 1 | \$30,000 |
| 50 | 74th St - West of Parnell Ave | NS | 12 | 10 | 22 | 2 | \$43,000 |
| 51 | 73rd St Pedway - West of Hamilton Park | NS | 0 | 6 | 6 | 0 | \$12,000 |
| 52 | 72nd St - West of Parnell Ave | NS | 10 | 12 | 22 | 5 | \$43,000 |
| 53 | 79th St - East of Oakley Ave | CSX | 8 | 6 | 14 | 0 | \$28,000 |
| 54 | 69th St - East of Bell Ave | CSX | 45 | 38 | 83 | 4 | \$162,000 |
| 55 | 68th St - East of Bell Ave | CSX | 43 | 40 | 83 | 6 | \$162,000 |
| 56 | 67th St (Marquette) - East of Bell Ave | CSX | 30 | 0 | 30 | 3 | \$59,000 |
| Lighting Totals | | | 445 | 401 | 846 | 108 | \$1,619,000 |

Endnotes:

¹ Walker, Donald. Tech. *Pavement Surface Evaluation and Rating - Asphalt PASER Manual*. Wisconsin Transportation Information Center, 2002. Web. 31 Oct. 2011. <<http://www.dot.state.il.us/blr/p017.pdf>>.

² Walker, Donald. Tech. *Pavement Surface Evaluation and Rating - Concrete PASER Manual*. Wisconsin Transportation Information Center, 2002. Web. 31 Oct. 2011. <<http://www.dot.state.il.us/blr/p016.pdf>>.

³ United States Access Board. *Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way*. 26 July 2011. Web. 31 Oct. 2011. <<http://www.access-board.gov/provac/nprm.pdf>>.