

March 3, 2014

Mr. James Maier  
The Avenue at Tower City Center  
230 Huron Road, N.W.  
Cleveland, Ohio 44113

Re: 2013 Tower City Bridge Inspections and Maintenance Recommendations

Dear Mr. Maier:

Enclosed are copies of the completed BR-86 Bridge Inspection Forms for the above referenced project. The original forms have been submitted to the City of Cleveland for further processing. Also enclosed are representative photographs of significant findings observed during the bridge inspections.

The Huron Road, Prospect Avenue, West 2<sup>nd</sup> Street, West 3<sup>rd</sup> Street and West 6<sup>th</sup> Street structures were inspected from January 8<sup>th</sup> through January 18<sup>th</sup>, 2014. The inspections were performed by Luke A. Baker, P.E. and Micah M. Pilat, P.E.. Each bridge was rated as being in Satisfactory Condition, or 6 on the FHWA condition coding system. Due to the unique nature of the public spaces below, public safety is an additional concern. General and specific inspection findings and recommendations follow. Photos of the inspection findings are included as Appendix A. A plan view with unit and expansion joint designations is included as Appendix B. A plan sheet detailing locations where loose fireproofing concrete is recommended for removal is included as Appendix C.

### **Concrete Bridge Decks with Asphalt Wearing Surfaces**

The general deterioration of the bridge deck and the waterproofing membrane continues to lead to leaking cracks through the deck. The leakage has contributed to deterioration of the ceilings in the interior spaces as well as more spalls developing on the underside of the deck, both of which can cause hazards to pedestrians. Replacement of the asphalt wearing surface and *Eliminator* waterproofing membrane with a micro-silica concrete overlay is

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recommended. Doing so will prolong the life of the concrete deck and minimize further hazard to the occupied areas below.

### **Deck Expansion Joints**

Many expansion joint leaks have been sealed with a poured sealant. This maintenance generally works as a short-term repair; however several of these repairs have broken. Additionally the concrete surrounding the expansion joints is broken in many locations. Considering the age and performance of the expansion joints and the inability to replace the joint gland, replacement of all deck expansion joints is recommended.

### **Building Joints**

The building joint and surrounding concrete located at the eastern entrance of the M. K. Ferguson Building have been repaired.

### **Loose Concrete**

All accessible locations with suspected loose concrete were sounded to determine the level of deterioration. There were minor changes in the locations of loose concrete from last year's inspection. The locations provided below reflect this. Loose deck concrete and concrete fireproofing cover on steel members continues to be a safety issue. All loose concrete should be removed whenever possible. The location shown on the plan sheet attached as Appendix B is the only critically loose piece of concrete that should be removed immediately, since it is a hazard to fall into inhabited areas.

### **Locations with non-critical loose concrete to be monitored:**

#### ***Huron Road Bridge (Units 14 through 31)***

Huron Road has the most opportunity for hazardous situations with most of the units opening over public areas below, with little to no sub ceiling able to stop falling concrete. The major areas of concern are Tower City Food Court, Tower City Parking, Tower City Cinemas, Ritz-Carlton Valet Parking, and the Gateway Walkway.

- On the south side of Huron, most of the floor beams in Unit 14 and one in unit 15 show haunch delaminations and spalls

- Units 16 and 17 are open to parking lots below and have spalls throughout. The bulk of these spalls are not loose and there is minimal concrete falling.
- Unit 18:
  - Bay 4:
    - Beams 10 & 13
    - Beam 3, the concrete in the north face of the beam
  - Bay 5:
    - The spalled utility box assembly has been mostly removed, but the remaining areas have some partially loose concrete.
    - Beam 3, the concrete in the south face of the beam
    - Beams 10 & 13
    - Floor Beam between Beams 6 - 11
  - Bay 6:
    - Beam 2, the concrete below the bottom flange of the beam
    - Beams 3, 4, 10 & 13
    - Floor Beam 6, between Beams 13 & 14, the concrete below the bottom flange
  - Bay 7:
    - Beam 3
    - Beam 4, the concrete below the bottom flange of the beam
  - Bay 8:
    - Beam 3, the concrete below the bottom flange of the beam
    - The Floor Beam between Beams 3 & 4
  - Bay 9:
    - The Floor Beam along the joint between units 18 & 19
    - Beams 2 & 4
    - Floor Beam 10, south of the column between Beams 9 & 10, the concrete below the bottom flange
- Unit 19:
  - Bay 1:
    - Beams 5, 7 - 13
    - Along the Floor Beam between Beams 8 & 14
  - Bay 2:
    - Beam 1 & 3

- Deck between beams 6 & 7
  - Along floor beam between beams 13 & 14
  - Cribbing placed between beams 5 & 6
- Bay 3:
  - Beam 1
  - Beams 2 & 3, the concrete below the bottom flange of the beam
  - Floor beam between beams 2 & 3
  - Cribbing placed between beams 3 & 4
- Bay 4:
  - Beams 1 & 2
  - Floor beam between beams 7 & 13
  - The transverse column support beam between Beams 3 & 4, the concrete below the bottom flange of the beam
- Unit 20:
  - Bay 1:
    - Beams 1, 3, 4, 6, 10
    - Deck and Floor Beam between beams 1 & 2
    - The transverse column support beam between Beams 3 & 4, the concrete in the face of the beam
  - Bay 2:
    - Beams 1, 2, 7, 11
  - Bay 3:
    - Beams 1, 2, 3, & 12
  - Bay 4:
    - Beams 1 - 3, 5, 6, 7, 8, 12, 13
    - Large crack in column starting to spall at joint under beam 3
- Throughout Units 21 - 24, in the food court area, there are many obstructions and specific areas of loose concrete were unable to be located. This is an area of concern and should be monitored closely. One area noted was an active leak at the column in Unit 23 between Beams 8 & 9 near the joint with Unit 24 (Photo 1). This leak was saturating the fireproofing and the drywall cladding around the column. A number of small chunks of both were observed falling during the inspection.
- Along the joint between Units 25 & 26

- Units 28 through 31 are open to parking lots and RTA tracks and there are isolated locations of loose concrete evident throughout

### ***Prospect Avenue Bridge (Units 1 through 13)***

Prospect Avenue only has a few units which are open to the areas below and could allow falling concrete to be a hazard. The area of main concern is the Ritz-Carlton valet parking lots. The units over the RTA tracks are open and should be monitored but aren't as large of a concern.

- Units 4 – 6:
  - Parking lot under units 4 and 5 along the south side, mostly beams 1 & 2. Wraps and drip pans have been placed in the worst locations, but cracks will grow outside of the wrapped areas causing additional concrete to become loose.

### **General Inspection Findings**

The following are itemized inspection findings attributed to each of the five bridge structures.

### ***Prospect Avenue Bridge (Units 1 through 13)***

#### **Deck Floor:**

- The waterproofing beneath the asphalt wearing surface is failing.
- There are spalls and delaminations over approximately 10% of the deck floor with mottled or stained areas covering approximately another 10%

#### **Wearing Surface:**

- The wearing surface is heavily map cracked across Units 1 through 6.
- Unit 6, the center westbound lane is heavily cracked, rutted and shoved. The potholes are up to 3'-0" dia. and 4" deep. The shoving raises some segments of the asphalt 2" above the normal level. The entire lane over the whole unit is deficient. The areas of the worst asphalt deficiencies have increased by 20% in 2013. Elsewhere, there are isolated areas of map cracking covering approximately 40% of the wearing surface area.
- The wearing surface has scrapes and gouges in the eastbound and westbound lanes.
- At the abutments, the pavement is cracked and rutted with vertical differences of up to 1 1/2"

- There is a failed and sagging patch in the left eastbound lane, in the middle of Unit 11. Areas of the patch are repaired every year, but overall the entire patched area is still not functioning properly. There are new potholes in the right eastbound lane. The series of holes covers an area approximately 12' wide and 6' long

#### Curbs, Sidewalks & Walkways:

- The sidewalk has panels that are heavily cracked and spalled, including some locations with exposed reinforcing steel, due to the vertical growth of the exposed aggregate sections. The deficient areas worsened noticeably in 2013. The worst areas are the north side of Units 4-6 and Unit 1 at the Northwest corner of West 6th. These sections have large areas of the decorative concrete that has spalled out.
- The concrete handicap ramps are broken or cracked at the Northwest of Prospect and Ontario and the Northwest corner of Prospect and West 3rd Street. The ramp at the Southwest corner of Prospect and Ontario has no truncated domes.
- The Curb Plates are loose in Unit 10 and at the Northeast corner of West 2nd Street.

#### Expansion Joints:

- There are spalls in the concrete along the joint armor.
- At the building joint along the M. K. Ferguson Building, the sidewalk is up to 2" higher than the joint leading to popped up and separated joint armor plates, the worst sections are on the western ½ of the north joint.
- In Unit 3, the exposed aggregate panels have popped the joint armor up approx. 1".
- In Unit 5-6, the joint is approx. 3" lower than the sidewalk with recent movement and failing caulk.
- The building joint along the north side of Prospect at Units 5-7 & 10 is popped up with large gaps (up to 1 ¾") typical.
- At the drive in unit 6, the building joint at the approach pavement is breaking up and the steel cover plate has been knocked out of place.
- The north sidewalk joint plates between Units 1 & 2 and 2 & 3 are popped up, with gaps up to 1", and are a tripping hazard. The joint at unit 3-4, in the southwest sidewalk has popped up approximately 1"
- There are spalls in the roadway at the following joints:

- Units 1 & 2,
- Units 4 & 5,
- Units 5 & 6,
- Units 6 & 7,
- Units 10 & 11 – There is poured urethane sealer in the spalls along the joint, it is mostly functioning,
- Units 11 & 12 - There is a deep spall which retains water.
- The following additional joint deficiencies were noted:
  - Unit 2 & 3 – Gasket Failing
  - Units 8 & 9 – Plow Damage to the joint cover

#### Beams:

- There are many locations with loose concrete fireproofing, covering approximately 15% of the beam area.
- There are some isolated corroded locations with no appreciable section loss. The floorbeams in Unit 12 and 13 have the greatest corroded areas.

#### Floorbeam Connections:

- There are isolated corroded locations due to leaks through the deck. The worst sections are in Units 12 & 13. There is no appreciable section loss at any of the corroded connections.
- Repairs were performed on a floorbeam connection in Unit 12.

#### Abutments and Abutment Seats:

- There are spalls and delaminations covering approximately 5% of the abutments and abutment seats

#### Backwalls:

- The tops of the backwalls are cracked at the roadway level.

#### Approach Pavement:

- The approach pavement is rutted and potholed, causing all vehicles to bounce when traversing it. The west approach has more deficient areas than the east.

#### Utilities:

- The sealing caulk around the pullboxes in the sidewalk has been removed. This provides a direct avenue for water infiltration.

### ***Huron Road Bridge (Units 14 through 31)***

#### Deck Floor:

- The waterproofing beneath the asphalt wearing surface is failing.
- The deck floor is spalled and/or delaminated over a total area of approximately 10% of the deck floor with mottled or stained areas covering approximately another 10%

#### Wearing Surface:

- The wearing surface is heavily map cracked above of Units 14 through 21. Elsewhere, there are isolated areas of map cracking covering approximately 40% of the wearing surface area. The large longitudinal cracks are up to 3/32" wide. The worst locations are Units 14-18; it worsens closer to the abutment with 14-15 being exceptionally map cracked.

#### Curbs, Sidewalks & Walkways:

- The sidewalk has panels that are heavily cracked and spalled, due to the vertical growth of the exposed aggregate sections. Some partial repairs have been performed. Many of the repair patches are cracked and spalled.
- The curb plates at the Southeast corner of West 2nd St. at Huron are loose or falling off.
- The curbs are cracked, spalled and undercut in some locations, especially on the traffic island in Unit 31.
- The handicap ramps at Huron and W 6th St. are broken.
- There is cracking around a settled manhole in unit 19 (north side of street). It gets worse each year.
- The concrete in the loading area on the north side of unit 30 is heavily cracked
- Many Fire Hydrants have new poured sealer

#### Railing:

- There are minor spalls and delaminations to the exterior face of the concrete parapet on the south side.
- The concrete south parapet is cracked at light post pilasters.

#### Drainage:

- The scuppers on the south side are intermittently blocked by debris.
- The catch basins are plugged on the south side of the street.

#### Expansion Joints:



- There are spalls in the concrete along the joint armor at the following locations:
  - Units 14 & 15,
  - Units 17 & 18,
  - Units 18 & 19,
  - Units 19 & 20,
  - Units 21 & 22 ,
  - Units 22 & 23,
  - Units 27 & 28,
  - Units 28 & 29,
  - Units 29 & 30.
- The sidewalk joints have deficiencies at:
  - Units 14 & 15 , north side - The armor plates are buckled and loose;
  - Units 21 & 22, north side - Spalled concrete around the joint and the armor plates are tilted up;
  - Units 22 & 23, north side - The armor plates are tilted up;
  - Units 26 & 27 , north side - The armor plates are buckled and loose;
  - Units 27 & 28 , north side, The armor plates are buckled and loose,
  - Units 28 & 29, north side - Spalled concrete around the joint
- Some of the building joints have vertical misalignment due to the vertical growth of the exposed aggregate sections of the sidewalks.

#### Beams:

- There are many locations with loose concrete fireproofing, covering approximately 15% of the beam area.
- There are some isolated corroded locations with no appreciable section loss.

#### Floorbeam Connections:

- There are isolated corroded locations due to leaks through the deck. There is no appreciable section loss at any of the corroded connections.

#### Abutments and Abutment Seats:

- There are spalls and delaminations covering approximately 5% of the abutments and abutment seats

#### Approach Pavement:

- Both approaches are cracked rutted and settled. The west approach has vertical deflections in the pavement up to 3", east up to 1". In addition to other vertical deflections, both approaches have potholes ranging from 2"-4" deep. All vehicles bounce as they traverse the backwall.

#### Utilities:

- The sealing caulk around the pullboxes in the sidewalk has been removed. This provides a direct avenue for water infiltration.
- The pull box cover in the sidewalk on the North side of Unit 17, at the S.E. corner of W. 6th Street, is very loose and could potentially be a hazard to pedestrians.
- Most of the remaining pull boxes have spalled concrete surrounding them and slightly loose covers.

### *West 2<sup>nd</sup> Street Bridge*

#### Deck Floor:

- The waterproofing beneath the asphalt wearing surface is failing.
- There are spalls and delaminations over approximately 10% of the deck floor with mottled or stained areas covering approximately another 10%, especially along the curb lines.

#### Wearing Surface:

- The Asphalt Wearing Surface is noticeably worn.

#### Curbs, Sidewalks & Walkways:

- The sidewalk has panels that are heavily cracked and spalled, due to the vertical growth of the exposed aggregate sections.
- The curb plates have detached from the curbs and are loose for 5 linear feet along the west side of the street and for 15 linear feet along the East side of the street.

#### Drainage:

- There is a distinct odor of sewage emanating from the Catch Basins.

#### Expansion Joints:

- There are spalls in the concrete along the joint armor.
- The deteriorated rubber strip seals have been rehabilitated with poured urethane sealer.
- Some of the building joints have vertical misalignment due to the vertical growth of the exposed aggregate sections of the sidewalks.

#### Beams & Floorbeams:

- There are many locations with loose concrete fireproofing, covering approximately 15% of the beam area.

- There are some isolated corroded locations with no appreciable section loss; beams 10-12 are the most corroded.

#### Floorbeam Connections:

- There are isolated corroded locations due to leaks through the deck. There is no appreciable section loss at any of the corroded connections.

#### *West 3<sup>rd</sup> Street Bridge*

#### Deck Floor:

- The waterproofing beneath the asphalt wearing surface is failing.
- There are spalls and delaminations over approximately 10% of the deck floor with mottled or stained areas covering approximately another 10%, especially along the curb lines.

#### Curbs, Sidewalks & Walkways:

- The sidewalk has panels that are heavily cracked and spalled, due to the vertical growth of the exposed aggregate sections.

#### Drainage:

- There is a distinct odor of sewage emanating from the Catch Basins.

#### Expansion Joints:

- There are spalls in the concrete along the joint armor.
- The rubber strip seals are highly deteriorated and missing in some sections.
- Some of the building joints have vertical misalignment due to the vertical growth of the exposed aggregate sections of the sidewalks. Notable is the joint between Unit 21 and the South end of West 3<sup>rd</sup> Street.

#### Beams & Floorbeams:

- There are many locations with loose concrete fireproofing, covering approximately 15% of the beam area.
- There are some isolated corroded locations with no appreciable section loss; beams 1-3 and 10-12 are the most corroded.

#### Floorbeam Connections:

- There are isolated corroded locations due to leaks through the deck. There is no appreciable section loss at any of the corroded connections.

## *West 6<sup>th</sup> Street Bridge*

### Deck Floor:

- The waterproofing beneath the asphalt wearing surface is failing.
- There are spalls and delaminations over approximately 10% of the deck floor with mottled or stained areas covering approximately another 10%, especially along the curb lines.

### Curbs, Sidewalks & Walkways:

- The sidewalk has panels that are heavily cracked and spalled, due to the vertical growth of the exposed aggregate sections.
- The interface between the curb and roadway at the northeast corner of West 6th Street is spalled out. Spalls occur in both the roadway and curb areas.

### Drainage:

- There is a distinct odor of sewage emanating from the Catch Basins.

### Expansion Joints:

- There are spalls in the concrete along the joint armor, specifically at the joint between the North side of Unit 17 and the South side of West 6th Street.
- The rubber strip seals are highly deteriorated and missing in some sections.
- Some of the building joints have vertical misalignment due to the vertical growth of the exposed aggregate sections of the sidewalks.

### Beams & Floorbeams:

- There are many locations with loose concrete fireproofing, covering approximately 15% of the beam area.
- There are some isolated corroded locations with no appreciable section loss; beams 1-3 and 10-12 are the most corroded.

### Floorbeam Connections:

- There are isolated corroded locations due to leaks through the deck. There is no appreciable section loss at any of the corroded connections.

### Sway Bracing:

- The sway bracing is corroded along the south half of the east side of the bridge

### Utilities:

- The sealing caulk around the pullboxes in the sidewalk has been removed. This provides a direct avenue for water infiltration.

Please do not hesitate to call if you have any questions or comments.

Very Truly Yours,  
EUTHENICS, INC.

Ronald A. Bender, P.E.  
President

Encls.

RAB:mmmp

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# **Appendix A**

## Inspection Photos



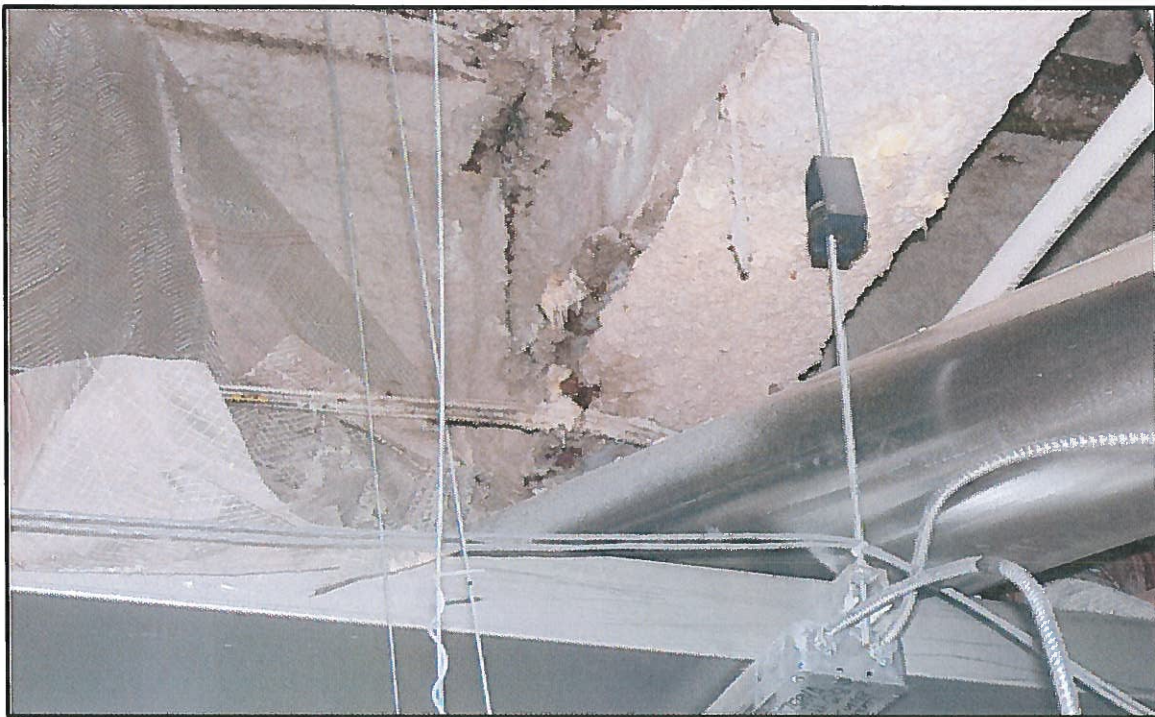


Photo 1 – Active leak in Unit 24, showing typical signs of minor beam corrosion at active leaks



Photo 2 – Active leak in Unit 6, showing typical beam corrosion after removal of fireproofing concrete





Photo 3 – Active Leak in Unit 26, showing typical map cracking in deficient deck locations



Photo 4 – Deficient asphalt wearing surface in the westbound lanes of Prospect Avenue in Unit 5





Photo 5 – Deficient asphalt wearing surface in the westbound lanes of Prospect Avenue in Unit 5



Photo 6 – Deficient asphalt wearing surface in the eastbound lanes of Prospect Avenue in Units 14 & 15





Photo 7 – Deficient asphalt wearing surface and settled catch basin in the westbound lanes of Prospect Avenue in Unit 14



Photo 8 – Typical deficient decorative aggregate sidewalk panels





Photo 8 - Typical growth of decorative aggregate sidewalk panels



Photo 9 - Settling of the north building joint along the M. K. Fergusson Building.



Photo 10 - Missing concrete  
along the building joint at the  
south side of Unit 1



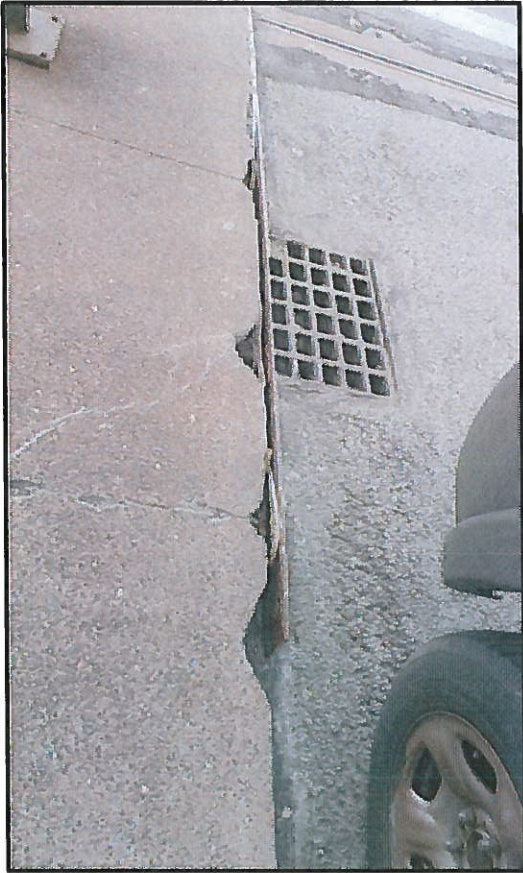
Photo 11 - Typical fractured  
concrete at the roadway  
expansion joints





Photos 12 & 13 – Severely undercut curbs at the concrete island at the east end of Huron Ave.





Photos 14 & 15 - Typical loose and missing curb plates

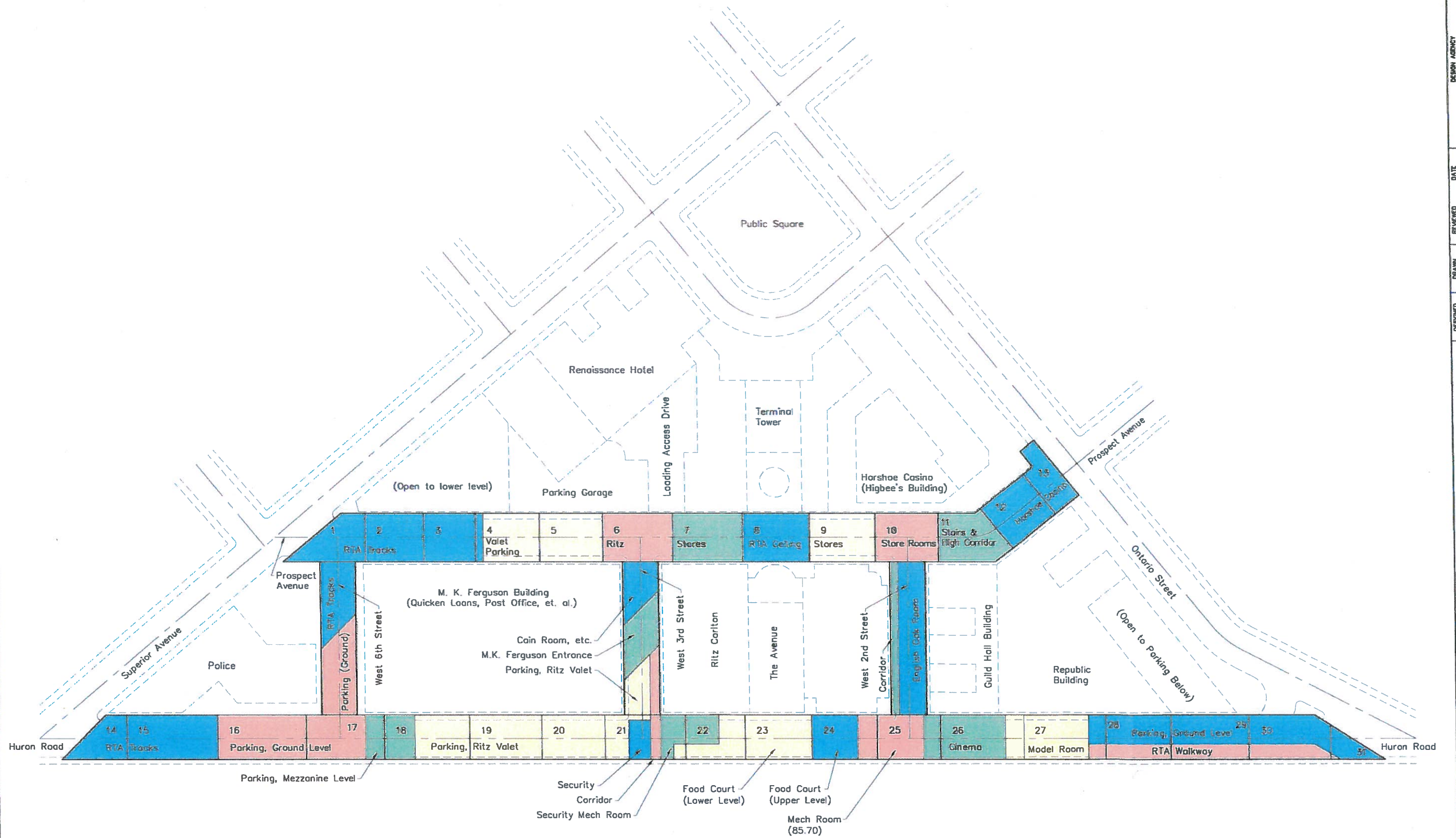


Photo 16 - Typical pull box with missing caulk sealer

## **Appendix B**

### Plan View of Structures and Unit Designations







# **Appendix C**

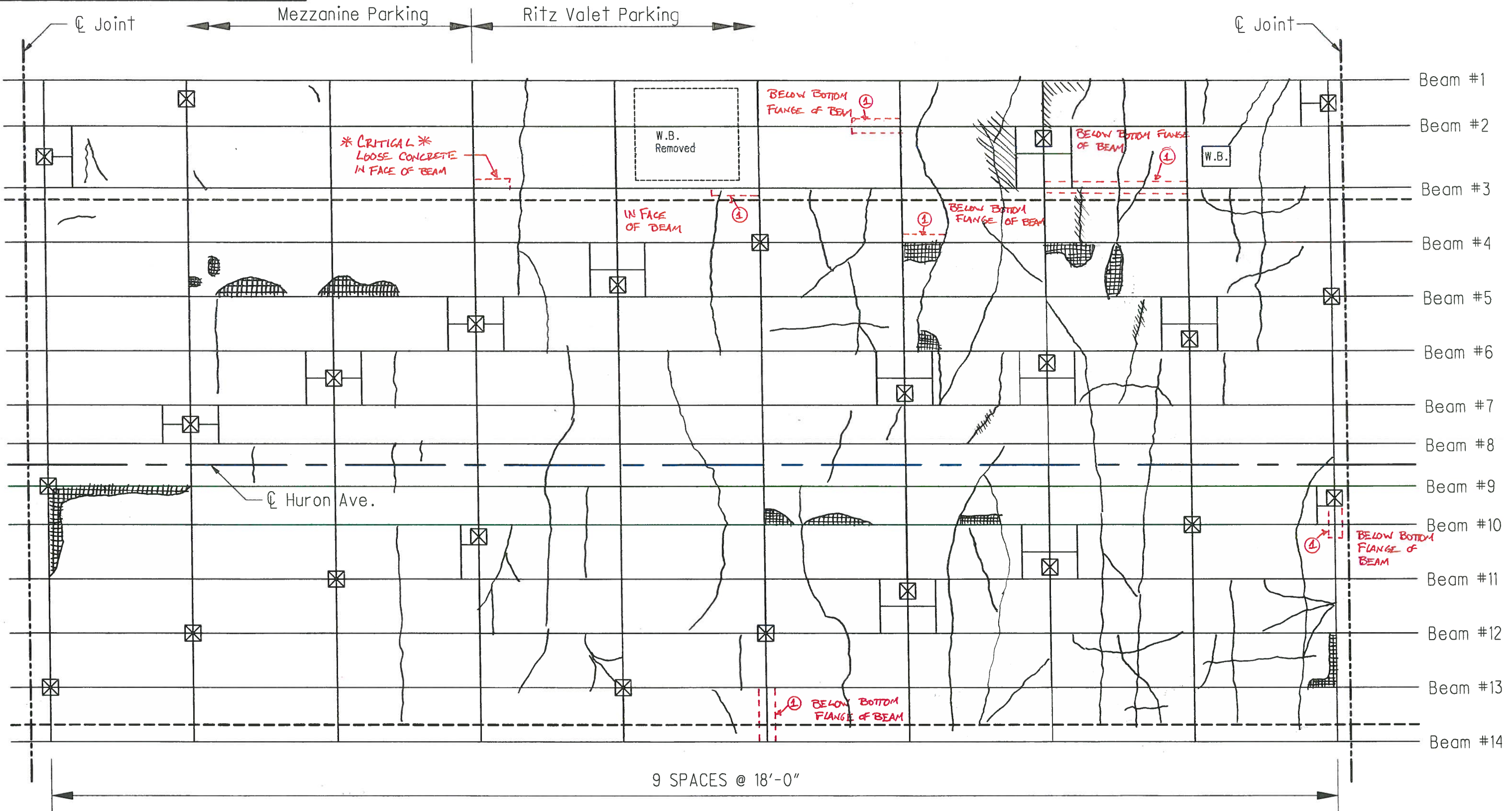
## **Loose Concrete Locations**

Tower City Inspection  
Unit 18 - Huron Avenue

Date: 08 Jan 2013

Inspected By: MMP/LAB

① - LOCATION OF NON-CRITICAL  
LOOSE CONCRETE, TO BE  
MONITORED



# Appendix D

## BR-86 Forms

## OHIO DEPARTMENT OF TRANSPORTATION

## BRIDGE INSPECTION REPORT

1	8	6	9	4	4	2
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STRUCTURE FILE NUMBER

CUY  
COHuron  
ROUTE4023M  
UNIT

YEAR BUILT 1930/1986

Huron Ave. over

DIST 12

BRIDGE TYPE

STEEL/FRAME/CONTINUOUS

TYPE OF SERVICE

1 9

RTA Rapid &amp; Tower City Mall

DECK

1. Floor	2	2. Wearing Surface	3
3. Curbs, Sidewalks & Walkways	2	4. Median	
5. Railing	2	6. Drainage	2
7. Expansion Joints	2	8. SUMMARY	6

SUPERSTRUCTURE

9. Alignment of Members	1	10. Beams/Girders/Slab	2
11. Diaphragms or Cross frames		12. Joists/Stringers	
13. Floorbeams	2	14. Floorbeam Connections	2
15. Verticals		16. Diagonals	
17. End posts		18. Upper Chord	
19. Lower Chord		20. Gusset Plates	
21. Lateral Bracing		22. Sway Bracing	
23. Portals		24. Bearing Devices	2
25. Arch		26. Arch Columns or Hangers	
27. Spandrel Walls		28. Protective Coating System (PCS)	6
29. Pins/Hangers/Hinges		30. Fatigue Prone Detail (E & E')	1
31. Live Load Response (E or S)	S	32. SUMMARY	6

SUBSTRUCTURE

33. Abutments	2	34. Abutment Seats	2
35. Piers	1	36. Pier Seats	1
37. Backwalls	2	38. Wingwalls	
39. Fenders and Dolphins		40. Scour (Insp Type - 1, 2, 3)	
41. Slope Protection		42. SUMMARY	6

CULVERT

43. General		44. Alignment	
45. Shape		46. Seams	
47. Headwall or Endwalls		48. Scour (Insp Type - 1,2,3)	
49. Abutments		50. SUMMARY	

CHANNEL

51. Alignment		52. Protection	
53. Hydraulic Opening		54. SUMMARY	

APPROACHES

55. Pavement	3	56. Approach Slabs	2
57. Guardrail		58. Relief Joint	
59. Embankment	2	60. SUMMARY	5

GENERAL

61. Navigation Lights		62. Warning Signs	
63. Sign Supports		64. Utilities	1
65. Vertical Clearance (1, 2-change, N)	N	66. General Appraisal & Operational Status	6 A

67. Inspected By, First &amp; Last Name

Luke Baker

Euthenics, Inc.

75415

PE Number

68. Reviewed By, First &amp; Last Name

Micah Pilat

Euthenics, Inc.

74876

PE Number

Date 1/17/2014

1 N N N N N N N N

Date 1/20/2014

69. Survey (1, 0, N)

## OHIO DEPARTMENT OF TRANSPORTATION

## BRIDGE INSPECTION REPORT

1	8	6	9	4	4	2	CUY CO	Huron ROUTE	4023M UNIT	YEAR BUILT 1930/1986
STRUCTURE FILE NUMBER										
DIST 12	BRIDGE TYPE		STEEL/FRAME/CONTINUOUS		TYPE OF SERVICE		1 9		Huron Ave. over RTA Rapid & Tower City Mall	

**COMMENTS:****DECK**1. Floor

The waterproofing beneath the asphalt wearing surface is failing.

The deck floor is spalled and/or delaminated over a total area of approximately 10% of the deck floor with mottled or stained areas covering approximately another 10%

2. Wearing Surface

The wearing surface is heavily map cracked above of Units 14 through 21. Elsewhere, there are isolated areas of map cracking covering approximately 40% of the wearing surface area. The large longitudinal cracks are up to 3/32" wide. The worst locations are Units 14-18, it worsens closer to the abutment with 14-15 being exceptionally map cracked.

3. Curbs, Sidewalks & Walkways

The sidewalk has panels that are heavily cracked and spalled, due to the vertical growth of the exposed aggregate sections. Some partial repairs have been performed. Many of the repair patches are cracked and spalled.

The curb plates at the SE corner of West 2nd St. at Huron are loose or falling off.

The curbs are cracked, spalled and undercut in some locations, especially on the traffic island in Unit 31.

The handicap ramps at Huron and W 6th St. are broken.

There is cracking around a settled manhole in unit 19 (north side of street). It gets worse each year.

The concrete in the loading area on the north side of unit 30 is heavily cracked

Many Fire Hydrants have new poured sealer

5. Railing

There are minor spalls and delaminations to the exterior face of the concrete parapet on the south side.

The concrete south parapet is cracked at light post pilasters.

6. Drainage

The scuppers on the south side are intermittently blocked by debris.

The catch basins are plugged on the south side of the street.

7. Expansion Joints

There are spalls in the concrete along the joint armor at the following locations: Units 14 & 15, Units 17 & 18, Units 18 & 19, Units 19 & 20, Units 21 & 22, Units 22 & 23, Units 27 & 28, Units 28 & 29, Units 29 & 30.

The sidewalk joints have deficiencies at: Units 14 & 15, north side - The armor plates are buckled and loose;

Units 21 & 22, north side - Spalled concrete around the joint and the armor plates are tilted up;

Units 22 & 23, north side - The armor plates are tilted up; Units 26 & 27, north side - The armor plates are buckled and loose; Units 27 & 28, north side, The armor plates are buckled and loose, Units 28 & 29,

north side - Spalled concrete around the joint

## OHIO DEPARTMENT OF TRANSPORTATION

## BRIDGE INSPECTION REPORT

1	8	6	9	4	4	2	CUY	Huron	4039M	YEAR BUILT .0/1986
STRUCTURE FILE NUMBER							CO	ROUTE	UNIT	
DIST	12	BRIDGE TYPE	STEEL/FRAME/CONTINUOUS				TYPE OF SERVICE	1 9	Huron Ave. over RTA Rapid & Tower City Mall	

**GENERAL**64. Utilities

The sealing caulk around the pullboxes in the sidewalk has been removed. This provides a direct avenue for water infiltration.

## OHIO DEPARTMENT OF TRANSPORTATION

## BRIDGE INSPECTION REPORT

1	8	6	9	4	4	2	CUY CO	Huron ROUTE	4023M UNIT	YEAR BUILT	1930/1986
STRUCTURE FILE NUMBER											
DIST	12	BRIDGE TYPE	STEEL/FRAME/CONTINUOUS					TYPE OF SERVICE	1 9	Huron Ave. over RTA Rapid & Tower City Mall	

**COMMENTS (continued):**7. Expansion Joints (Continued)

Some of the building joints have vertical misalignment due to the vertical growth of the exposed aggregate sections of the sidewalks.

**SUPERSTRUCTURE**10. Beams

There are many locations with loose concrete fireproofing, covering approximately 15% of the beam area. There are some isolated corroded locations with no appreciable section loss.

14. Floorbeam Connections

There are isolated corroded locations due to leaks through the deck. There is no appreciable section loss at any of the corroded connections.

**SUBSTRUCTURE**33. Abutments and 34. Abutment Seats

There are spalls and delaminations covering approximately 5% of the abutments and abutment seats

**APPROACHES**55. Pavement

Both approaches are cracked rutted and settled. The west approach has vertical deflections in the pavement up to 3", east up to 1". In addition to other vertical deflections, both approaches have potholes ranging from 2"-4" deep. All vehicles bounce as they traverse the backwall.

**GENERAL**64. Utilities

The sealing caulk around the pullboxes in the sidewalk has been removed. This provides a direct avenue for water infiltration.

The pull box cover in the sidewalk on the North side of Unit 17, at the S.E. corner of W. 6th Street, is very loose and could potentially be a hazard to pedestrians. Most of the remaining pull boxes have spalled concrete surrounding them and slightly loose covers.



## OHIO DEPARTMENT OF TRANSPORTATION

## BRIDGE INSPECTION REPORT

1	8	7	0	0	2	5
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STRUCTURE FILE NUMBER

CUY

Prospect

4028M

YEAR BUILT 1930/1986

CO

ROUTE

UNIT

DIST

12

BRIDGE TYPE

STEEL/FRAME/CONTINUOUS

TYPE OF SERVICE

1 9

Prospect Ave. over  
RTA Rapid & Tower City MallDECK

1. Floor	2	2. Wearing Surface	2
3. Curbs, Sidewalks & Walkways	2	4. Median	
5. Railing	2	6. Drainage	2
7. Expansion Joints	2	8. SUMMARY	6

SUPERSTRUCTURE

9. Alignment of Members	1	10. Beams/Girders/Slab	2
11. Diaphragms or Cross frames		12. Joists/Stringers	
13. Floorbeams	2	14. Floorbeam Connections	2
15. Verticals		16. Diagonals	
17. End posts		18. Upper Chord	
19. Lower Chord		20. Gusset Plates	
21. Lateral Bracing		22. Sway Bracing	
23. Portals		24. Bearing Devices	2
25. Arch		26. Arch Columns or Hangers	
27. Spandrel Walls		28. Protective Coating System (PCS)	6
29. Pins/Hangers/Hinges		30. Fatigue Prone Detail (E & E')	1
31. Live Load Response (E or S)	S	32. SUMMARY	6

SUBSTRUCTURE

33. Abutments	2	34. Abutment Seats	2
35. Piers	1	36. Pier Seats	1
37. Backwalls	2	38. Wingwalls	
39. Fenders and Dolphins		40. Scour (Insp Type - 1, 2, 3)	
41. Slope Protection		42. SUMMARY	6

CULVERT

43. General		44. Alignment	
45. Shape		46. Seams	
47. Headwall or Endwalls		48. Scour (Insp Type - 1,2,3)	
49. Abutments		50. SUMMARY	

CHANNEL

51. Alignment		52. Protection	
53. Hydraulic Opening		54. SUMMARY	

APPROACHES

55. Pavement	3	56. Approach Slabs	2
57. Guardrail		58. Relief Joint	
59. Embankment	2	60. SUMMARY	5

GENERAL

61. Navigation Lights		62. Warning Signs	
63. Sign Supports		64. Utilities	1
65. Vertical Clearance (1, 2-change, N)	N	66. General Appraisal & Operational Status	6 A

67. Inspected By, First &amp; Last Name

Micah Pilat

Euthenics, Inc.

74876

PE Number

68. Reviewed By, First &amp; Last Name

Luke Baker

Euthenics, Inc.

75415

PE Number

Date 1/17/2014

1 N N N N N N N N

Date 1/20/2014

69. Survey (1, 0, N)



## OHIO DEPARTMENT OF TRANSPORTATION

## BRIDGE INSPECTION REPORT

1	8	7	0	0	2	5	CUY CO	Prospect ROUTE	4028M UNIT	YEAR BUILT 1930/1986
STRUCTURE FILE NUMBER										
DIST 12		BRIDGE TYPE STEEL/FRAME/CONTINUOUS		TYPE OF SERVICE 1 9		Prospect Ave. over RTA Rapid & Tower City Mall				

**COMMENTS:****DECK**1. Floor

The waterproofing beneath the asphalt wearing surface is failing.

There are spalls and delaminations over approximately 10% of the deck floor with mottled or stained areas covering approximately another 10%

2. Wearing Surface

The wearing surface is heavily map cracked across Units 1 through 6.

Unit 6, the center westbound lane is heavily cracked, rutted and shoved. The potholes are up to 3'-0" dia. and 4" deep. The shoving raises some segments of the asphalt 2" above the normal level. The entire lane over the whole unit is deficient. The areas of the worst asphalt deficiencies have increased by 20% in 2013.

Elsewhere, there are isolated areas of map cracking covering approximately 40% of the wearing surface area.

The wearing surface has scrapes and gouges in the eastbound and westbound lanes.

At the abutments, the pavement is cracked and rutted with vertical differences of up to 1 1/2"

There is a failed and sagging patch in the left eastbound lane, in the middle of Unit 11. Areas of the patch are repaired every year, but overall the entire patched area is still not functioning properly. There are new potholes in the right eastbound lane. The series of holes covers an area approximately 12' wide and 6' long

3. Curbs, Sidewalks & Walkways

The sidewalk has panels that are heavily cracked and spalled, including some locations with exposed reinforcing steel, due to the vertical growth of the exposed aggregate sections. The deficient areas worsened noticeably in 2013. The worst areas are the north side of Units 4-6 and Unit 1 at the Northwest corner of West 6th.

These sections have large areas of the decorative concrete that has spalled out.

The concrete handicap ramps are broken or cracket at the Northwest of Prospect and Ontario and the Northwest corner of Prospect and West 3rd Street. The ramp at the Southwest corner of Prospect and Ontario has no truncated domes.

The Curb Plates are loose in Unit 10 and at the Northeast corner of West 2nd Street.

7. Expansion Joints

There are spalls in the concrete along the joint armor.

At the building joint along the M. K. Ferguson Building, the sidewalk is up to 2" higher than the joint leading to popped up and separated joint armor plates, the worst sections are on the western 1/2 of the north joint. In Unit 3, the exposed aggregate panels have popped the joint armor up approx. 1". In Unit 5-6, the joint is approx. 3" lower than the sidewalk with recent movement and failing caulk.

Building joint along the north side of Prospect at Units 5-7 & 10 is popped up with large gaps (up to 1 3/4") typical.

At the drive in unit 6, the building joint at the approach pavement is breaking up and the steel cover plate has been knocked out of place.

## OHIO DEPARTMENT OF TRANSPORTATION

## BRIDGE INSPECTION REPORT

1	8	7	0	0	2	5
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STRUCTURE FILE NUMBER

CUY  
COProspect  
ROUTE4028M  
UNIT

YEAR BUILT 1930/1986

DIST

12

BRIDGE TYPE

STEEL/FRAME/CONTINUOUS

TYPE OF SERVICE

1 9

Prospect Ave. over  
RTA Rapid & Tower City Mall**COMMENTS (continued):****7. Expansion Joints (Continued)**

The north sidewalk joint plates between Units 1 & 2 and 2 & 3 are popped up, with gaps up to 1", and are a tripping hazard. The joint at unit 3-4, in the southwest sidewalk has popped up approximately 1"

There are spalls in the roadway at the following joints: Units 1 & 2, Units 4 & 5, Units 5 & 6, Units 6 & 7,

Units 10 & 11 – There is poured urethane sealer in the spalls along the joint, it is mostly functioning, Units 11 &

12 - There is a deep spall which retains water.

The following additional joint deficiencies were noted:

Unit 2 & 3 – Gasket Failing

Units 8 & 9 – Plow Damage to the joint cover

**SUPERSTRUCTURE****10. Beams**

There are many locations with loose concrete fireproofing, covering approximately 15% of the beam area.

There are some isolated corroded locations with no appreciable section loss. The floorbeams in Unit 12 and 13 have the greatest corroded areas.

**14. Floorbeam Connections**

There are isolated corroded locations due to leaks through the deck. The worst sections are in Units 12 & 13.

Repairs were performed on a floorbeam connection in unit 12. There is no appreciable section loss at any of the corroded connections.

**SUBSTRUCTURE****33. Abutments and 34. Abutment Seats**

There are spalls and delaminations covering approximately 5% of the abutments and abutment seats

**37. Backwalls**

The tops of the backwalls are cracked at the roadway level.

**APPROACHES****55. Pavement**

The approach pavement is rutted and potholed, causing all vehicles to bounce when traversing it. The west approach has more deficient areas than the east.

**GENERAL****64. Utilities**

The sealing caulk around the pullboxes in the sidewalk has been removed. This provides a direct avenue for water infiltration.

## OHIO DEPARTMENT OF TRANSPORTATION

## BRIDGE INSPECTION REPORT

1	8	6	7	2	4	5
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STRUCTURE FILE NUMBER

CUY

West 2<sup>nd</sup> St.

4033M

YEAR BUILT 1930/1986

CO

ROUTE

UNIT

DIST 12

BRIDGE TYPE

STEEL/FRAME/CONTINUOUS

TYPE OF SERVICE

1 9

West 2<sup>nd</sup> Street over  
RTA Rapid & Tower City MallDECK

1. Floor	2	2. Wearing Surface	1
3. Curbs, Sidewalks & Walkways	2	4. Median	
5. Railing		6. Drainage	2
7. Expansion Joints	2	<b>8. SUMMARY</b>	6

SUPERSTRUCTURE

9. Alignment of Members	1	10. Beams/Girders/Slab	2
11. Diaphragms or Cross frames		12. Joists/Stringers	
13. Floorbeams	2	14. Floorbeam Connections	2
15. Verticals		16. Diagonals	
17. End posts		18. Upper Chord	
19. Lower Chord		20. Gusset Plates	
21. Lateral Bracing		22. Sway Bracing	
23. Portals		24. Bearing Devices	2
25. Arch		26. Arch Columns or Hangers	
27. Spandrel Walls		<b>28. Protective Coating System (PCS)</b>	7
29. Pins/Hangers/Hinges		30. Fatigue Prone Detail (E & E')	1
31. Live Load Response ( <i>E or S</i> )	S	<b>32. SUMMARY</b>	6

SUBSTRUCTURE

33. Abutments		34. Abutment Seats	
35. Piers	2	36. Pier Seats	2
37. Backwalls		38. Wingwalls	
39. Fenders and Dolphins		40. Scour ( <i>Insp Type - 1, 2, 3</i> )	
41. Slope Protection		<b>42. SUMMARY</b>	6

CULVERT

43. General		44. Alignment	
45. Shape		46. Seams	
47. Headwall or Endwalls		48. Scour ( <i>Insp Type - 1, 2, 3</i> )	
49. Abutments		<b>50. SUMMARY</b>	

CHANNEL

51. Alignment		52. Protection	
53. Hydraulic Opening		<b>54. SUMMARY</b>	

APPROACHES

55. Pavement	3	56. Approach Slabs	
57. Guardrail		58. Relief Joint	
59. Embankment		<b>60. SUMMARY</b>	6

GENERAL

61. Navigation Lights		62. Warning Signs	
63. Sign Supports		64. Utilities	1
65. Vertical Clearance ( <i>1, 2-change, N</i> )	N	<b>66. General Appraisal &amp; Operational Status</b>	6 A

67. Inspected By, First &amp; Last Name

Luke Baker
Euthenics, Inc.

75415

PE Number

68. Reviewed By, First &amp; Last Name

Micah Pilat
Euthenics, Inc.

74876

PE Number

Date 1/17/2014

N	N	N	N	N	N	N	N
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Date 1/20/2014

69. Survey (1, 0, N)

## OHIO DEPARTMENT OF TRANSPORTATION

## BRIDGE INSPECTION REPORT

1	8	6	7	2	4	5	CUY CO	West 2 <sup>nd</sup> St. ROUTE	4033M UNIT	YEAR BUILT 1930/1986
STRUCTURE FILE NUMBER										
DIST 12		BRIDGE TYPE		STEEL/FRAME/CONTINUOUS		TYPE OF SERVICE		1 9		West 2 <sup>nd</sup> Street over RTA Rapid & Tower City Mall

**COMMENTS:****DECK**1. Floor

The waterproofing beneath the asphalt wearing surface is failing.

There are spalls and delaminations over approximately 10% of the deck floor with mottled or stained areas covering approximately another 10%, especially along the curb lines.

2. Wearing Surface

The Asphalt Wearing Surface is noticeably worn.

3. Curbs, Sidewalks & Walkways

The sidewalk has panels that are heavily cracked and spalled, due to the vertical growth of the exposed aggregate sections.

The curb plates have detached from the curbs and are loose for 5 linear feet along the west side of the street and for 15 linear feet along the East side of the street.

6. Drainage

There is a distinct odor of sewage emanating from the Catch Basins.

7. Expansion Joints

There are spalls in the concrete along the joint armor.

The deteriorated rubber strip seals have been rehabilitated with poured urethane sealer.

Some of the building joints have vertical misalignment due to the vertical growth of the exposed aggregate sections of the sidewalks.

**SUPERSTRUCTURE**10. Beams & 13. Floorbeams

There are many locations with loose concrete fireproofing, covering approximately 15% of the beam area.

There are some isolated corroded locations with no apprecable section loss; beams 10-12 are the most corroded.

14. Floorbeam Connections

There are isolated corroded locations due to leaks through the deck. There is no appreciable section loss at any of the corroded connections.

**APPROACHES**55. Pavement

The pavement is rated the same as the wearing surfaces for the Huron Ave. and Prospect Ave. bridges.

## OHIO DEPARTMENT OF TRANSPORTATION

## BRIDGE INSPECTION REPORT

1	8	6	8	4	0	3
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STRUCTURE FILE NUMBER

CUY

CO

West 3<sup>rd</sup> St.

ROUTE

4038M

UNIT

YEAR BUILT 1930/1986

DIST

12

BRIDGE TYPE

STEEL/FRAME/CONTINUOUS

TYPE OF SERVICE

1 9

West 3<sup>rd</sup> Street over  
RTA Rapid & Tower City MallDECK

1. Floor	2	2. Wearing Surface	1
3. Curbs, Sidewalks & Walkways	2	4. Median	
5. Railing		6. Drainage	2
7. Expansion Joints	2	<b>8. SUMMARY</b>	6

SUPERSTRUCTURE

9. Alignment of Members	1	10. Beams/Girders/Slab	2
11. Diaphragms or Cross frames		12. Joists/Stringers	
13. Floorbeams	2	14. Floorbeam Connections	1
15. Verticals		16. Diagonals	
17. End posts		18. Upper Chord	
19. Lower Chord		20. Gusset Plates	
21. Lateral Bracing		22. Sway Bracing	
23. Portals		24. Bearing Devices	2
25. Arch		26. Arch Columns or Hangers	
27. Spandrel Walls		<b>28. Protective Coating System (PCS)</b>	8
29. Pins/Hangers/Hinges		30. Fatigue Prone Detail (E & E')	1
31. Live Load Response ( <i>E or S</i> )	S	<b>32. SUMMARY</b>	6

SUBSTRUCTURE

33. Abutments		34. Abutment Seats	
35. Piers	2	36. Pier Seats	2
37. Backwalls		38. Wingwalls	
39. Fenders and Dolphins		40. Scour ( <i>Insp Type - 1, 2, 3</i> )	
41. Slope Protection		<b>42. SUMMARY</b>	6

CULVERT

43. General		44. Alignment	
45. Shape		46. Seams	
47. Headwall or Endwalls		48. Scour ( <i>Insp Type - 1, 2, 3</i> )	
49. Abutments		<b>50. SUMMARY</b>	

CHANNEL

51. Alignment		52. Protection	
53. Hydraulic Opening		<b>54. SUMMARY</b>	

APPROACHES

55. Pavement	3	56. Approach Slabs	
57. Guardrail		58. Relief Joint	
59. Embankment		<b>60. SUMMARY</b>	6

GENERAL

61. Navigation Lights		62. Warning Signs	
63. Sign Supports		64. Utilities	1
65. Vertical Clearance ( <i>1, 2-change, N</i> )	N	<b>66. General Appraisal &amp; Operational Status</b>	6 A

67. Inspected By, First &amp; Last Name

Micah Pilat

Euthenics, Inc.

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PE Number

68. Reviewed By, First &amp; Last Name

Luke Baker

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75415

PE Number

Date

1/17/2014

N N N N N N N N

Date

1/20/2014

69. Survey (1, 0, N)

## OHIO DEPARTMENT OF TRANSPORTATION

**BRIDGE INSPECTION REPORT**

1	8	6	8	4	0	3	CUY CO	West 3 <sup>rd</sup> St. ROUTE	4038M UNIT	YEAR BUILT 1930/1986
STRUCTURE FILE NUMBER										
DIST	12	BRIDGE TYPE	STEEL/FRAME/CONTINUOUS		TYPE OF SERVICE		1 9	West 3 <sup>rd</sup> Street over RTA Rapid & Tower City Mall		

**COMMENTS:****DECK****1. Floor**

The waterproofing beneath the asphalt wearing surface is failing.

There are spalls and delaminations over approximately 10% of the deck floor with mottled or stained areas covering approximately another 10%, especially along the curb lines.

**3. Curbs, Sidewalks & Walkways**

The sidewalk has panels that are heavily cracked and spalled, due to the vertical growth of the exposed aggregate sections.

**6. Drainage**

There is a distinct odor of sewage emanating from the Catch Basins.

**7. Expansion Joints**

There are spalls in the concrete along the joint armor.

The rubber strip seals are highly deteriorated and missing in some sections.

Some of the building joints have vertical misalignment due to the vertical growth of the exposed aggregate sections of the sidewalks. Noteable is the joint between Unit 21 and the and the South end of West 3<sup>rd</sup> Street.

**SUPERSTRUCTURE****10. Beams & 13. Floorbeams**

There are many locations with loose concrete fireproofing, covering approximately 15% of the beam area.

There are some isolated corroded locations with no appreciable section loss; beams 1-3 and 10-12 are the most corroded.

**14. Floorbeam Connections**

There are isolated corroded locations due to leaks through the deck. There is no appreciable section loss at any of the corroded connections.

**APPROACHES****55. Pavement**

The pavement is rated the same as the wearing surfaces for the Huron Ave. and Prospect Ave. bridges.

**GENERAL****64. Utilities**

The failing water vaults have been either removed or wrapped with a fiberglass-epoxy wrap to prevent concrete from falling in the future.



## OHIO DEPARTMENT OF TRANSPORTATION

## BRIDGE INSPECTION REPORT

1	8	6	8	4	1	1
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STRUCTURE FILE NUMBER

CUY

West 6<sup>th</sup> St.

4039M

YEAR BUILT 1930/1986

CO

ROUTE

UNIT

DIST

12

BRIDGE TYPE

STEEL/FRAME/CONTINUOUS

TYPE OF SERVICE

1 9

West 6<sup>th</sup> Street over  
RTA Rapid & Tower City MallDECK

1. Floor	2	2. Wearing Surface	1
3. Curbs, Sidewalks & Walkways	2	4. Median	
5. Railing		6. Drainage	2
7. Expansion Joints	2	<b>8. SUMMARY</b>	6

SUPERSTRUCTURE

9. Alignment of Members	1	10. Beams/Girders/Slab	1
11. Diaphragms or Cross frames		12. Joists/Stringers	
13. Floorbeams	1	14. Floorbeam Connections	1
15. Verticals		16. Diagonals	
17. End posts		18. Upper Chord	
19. Lower Chord		20. Gusset Plates	
21. Lateral Bracing		22. Sway Bracing	2
23. Portals		24. Bearing Devices	2
25. Arch		26. Arch Columns or Hangers	
27. Spandrel Walls		<b>28. Protective Coating System (PCS)</b>	8
29. Pins/Hangers/Hinges		30. Fatigue Prone Detail (E & E')	1
31. Live Load Response ( <i>E or S</i> )	S	<b>32. SUMMARY</b>	6

SUBSTRUCTURE

33. Abutments		34. Abutment Seats	
35. Piers	1	36. Pier Seats	1
37. Backwalls		38. Wingwalls	
39. Fenders and Dolphins		40. Scour ( <i>Insp Type - 1, 2, 3</i> )	
41. Slope Protection		<b>42. SUMMARY</b>	7

CULVERT

43. General		44. Alignment	
45. Shape		46. Seams	
47. Headwall or Endwalls		48. Scour ( <i>Insp Type - 1, 2, 3</i> )	
49. Abutments		<b>50. SUMMARY</b>	

CHANNEL

51. Alignment		52. Protection	
53. Hydraulic Opening		<b>54. SUMMARY</b>	

APPROACHES

55. Pavement	3	56. Approach Slabs	
57. Guardrail		58. Relief Joint	
59. Embankment		<b>60. SUMMARY</b>	6

GENERAL

61. Navigation Lights		62. Warning Signs	
63. Sign Supports		64. Utilities	1
65. Vertical Clearance ( <i>1, 2-change, N</i> )	N	<b>66. General Appraisal &amp; Operational Status</b>	6 A

67. Inspected By, First &amp; Last Name

Luke Baker

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PE Number

68. Reviewed By, First &amp; Last Name

Micah Pilat

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74876

PE Number

Date 1/17/2014

N N N N N N N N

Date 1/20/2014

69. Survey (1, 0, N)

## OHIO DEPARTMENT OF TRANSPORTATION

## BRIDGE INSPECTION REPORT

1	8	6	8	4	1	1	CUY	West 6 <sup>th</sup> St.	4039M	YEAR BUILT	1930/1986
STRUCTURE FILE NUMBER							CO	ROUTE	UNIT	West 6 <sup>th</sup> Street over	
DIST	12	BRIDGE TYPE		STEEL/FRAME/CONTINUOUS			TYPE OF SERVICE		1 9	RTA Rapid & Tower City Mall	

**COMMENTS:****DECK**1. Floor

The waterproofing beneath the asphalt wearing surface is failing.

There are spalls and delaminations over approximately 10% of the deck floor with mottled or stained areas covering approximately another 10%, especially along the curb lines.

3. Curbs, Sidewalks & Walkways

The sidewalk has panels that are heavily cracked and spalled, due to the vertical growth of the exposed aggregate sections.

The interface between the curb and roadway at the northeast corner of West 6th Street is spalled out. Spalls occur in both the roadway and curb areas.

6. Drainage

There is a distinct odor of sewage emanating from the Catch Basins.

7. Expansion Joints

There are spalls in the concrete along the joint armor, specifically at the joint between the North side of Unit 17 and the South side of West 6th Street.

The rubber strip seals are highly deteriorated and missing in some sections.

Some of the building joints have vertical misalignment due to the vertical growth of the exposed aggregate sections of the sidewalks.

**SUPERSTRUCTURE**10. Beams & 13. Floorbeams

There are many locations with loose concrete fireproofing, covering approximately 15% of the beam area.

There are some isolated corroded locations with no appreciable section loss; beams 1-3 and 10-12 are the most corroded.

14. Floorbeam Connections

There are isolated corroded locations due to leaks through the deck. There is no appreciable section loss at any of the corroded connections.

22. Sway Bracing

The sway bracing is corroded along the south half of the east side of the bridge

**APPROACHES**55. Pavement

The pavement is rated the same as the wearing surfaces for the Huron Ave. and Prospect Ave. bridges.