



# Pavement Acceptance Manual for Development & Servicing Agreements

*Acceptance Criteria for Pavements Constructed  
Under Development or Servicing Agreements  
in the City of Winnipeg*

*Fall 2023*

This *Development/Service Agreement Pavement Acceptance Manual* in conjunction with, the *Streets Cuts Manual* and *City of Winnipeg Standard Construction Specifications* becomes the guiding document for the acceptance of *pavements* constructed under Development/Service Agreements.

The purpose of the *Development/Service Agreement Pavement Acceptance Manual* is to clarify the process and criteria for identification and restoration of *pavement* deficiencies, maximizing protection of the public interest and safety, and minimizing disruptions.

# TABLE OF CONTENTS

<b>DEVELOPMENT/SERVICING PAVEMENT ACCEPTANCE MANUAL .....</b>	<b>1</b>
DISCLAIMER .....	1
<b>DEFINITIONS.....</b>	<b>2</b>
<b>SURFACE WORKS WARRANTIES.....</b>	<b>4</b>
WARRANTY INSPECTION PROCESS.....	4
<i>On-Warranty Inspection.....</i>	4
<i>Off-Warranty Inspection.....</i>	4
<i>Follow-Up Inspection.....</i>	5
<b>TEMPORARY TRAFFIC CONTROL .....</b>	<b>6</b>
STREET LANE CLOSURES .....	6
WORK IN CITY STREETS .....	6
<i>Street Lane Closures Form .....</i>	6
<i>Traffic Management.....</i>	6
<b>CONSTRUCTION.....</b>	<b>7</b>
WORKSITE PROTECTION .....	7
<i>Works Within the Right-of-Way.....</i>	7
<i>Site Clean Up.....</i>	7
PAVEMENT CONSTRUCTION WORKS.....	7
<b>REGIONAL &amp; COLLECTOR CONCRETE PAVEMENT ACCEPTANCE GUIDELINES .....</b>	<b>8</b>
GENERAL GUIDELINES .....	8
CRACKING .....	8
<i>Route &amp; Seal.....</i>	8
<i>Replacement &amp; Repair.....</i>	8
DAMAGED JOINTS .....	9
<i>Regional Streets.....</i>	9
<i>Collector Streets.....</i>	9
MANHOLE & CATCH BASIN ISOLATIONS .....	9
<i>Isolation higher than surrounding pavement:.....</i>	9
<i>Isolation lower than surrounding concrete:.....</i>	9
SURFACE DEFECTS .....	9
<i>Regional Streets.....</i>	9
<i>Collector Streets.....</i>	10
HOLES OR GOUGING .....	10
JOINT SEALANT.....	10
DRAINAGE .....	10
<i>Regional Streets.....</i>	10
<i>Collector Streets.....</i>	10
SETTLEMENT .....	11
DIAMOND RESURFACING .....	11
<b>LOCAL STREET &amp; ALLEY CONCRETE PAVEMENT ACCEPTANCE GUIDELINES.....</b>	<b>12</b>
OVERVIEW .....	12
GENERAL GUIDELINES.....	12

CRACKING .....	12
<i>Route &amp; Seal</i> .....	12
<i>Half Panel Repairs</i> .....	12
<i>Full Panel Replacement</i> .....	13
DAMAGED JOINTS .....	13
MANHOLE & CATCH BASIN ISOLATIONS .....	13
<i>Isolation higher than surrounding pavement:</i> .....	13
<i>Isolation lower than surrounding concrete</i> .....	13
SURFACE DEFECTS .....	14
HOLES OR GOUGING .....	14
JOINT SEALANT .....	14
DRAINAGE .....	14
SETTLEMENT .....	15
DIAMOND RESURFACING .....	15
<b>CONCRETE SIDEWALKS AND ACTIVE TRANSPORTATION PATHWAY PAVEMENT</b>	
<b>ACCEPTANCE GUIDELINES .....</b>	<b>16</b>
CONCRETE SIDEWALK CRACKING & DEFICIENCIES .....	16
DETECTABLE WARNING SURFACE TILES .....	16
PAVEMENT CUTS DUE TO UTILITIES .....	16
ACTIVE TRANSPORTATION (AT) PATHWAY .....	16
<i>Pathway Repairs are required when:</i> .....	16
<i>Routing &amp; Sealing</i> .....	16
<b>APPENDIX A: CONCRETE PANEL REPAIR/REPLACEMENT CHARTS.....</b>	<b>17</b>
<b>APPENDIX B: COLLECTOR STREET; REPLACEMENT/REPAIR EXAMPLES .....</b>	<b>19</b>
<b>APPENDIX C: LOCAL STREET; REPLACEMENT/REPAIR EXAMPLES .....</b>	<b>20</b>
<b>APPENDIX D: ACTIVE TRANSPORTATION AND MULTIUSE PATH REPAIRS; ROUTE &amp; SEAL</b>	
<b>EXAMPLES .....</b>	<b>21</b>
<b>LINKS.....</b>	<b>22</b>
<b>DEVELOPMENT/SERVICING AGREEMENT AREA BOUNDRIES .....</b>	<b>23</b>
<b>NOTES .....</b>	<b>24</b>
<b>CONTACTS .....</b>	<b>25</b>

## DEVELOPMENT/SERVICING PAVEMENT ACCEPTANCE MANUAL

---

The Development/Servicing Agreement Pavement Acceptance Manual has been prepared by the Public Works Department, Engineering Division to provide information and details on the process of acceptance, identification of deficiencies and the restoration of these deficiencies in Development/Servicing Agreement areas.

Future versions of this Manual will include the Acceptance Criteria for Asphalt Pavement on *Regional, Collector and Local Streets*.

The Development/Servicing Agreement Pavement Acceptance Manual will be published on the City's web page for ease of access for all interested parties.

Jim Berezowsky,  
Director of Public Works

### Disclaimer

Any exceptions or discrepancies within this Manual will be at the discretion of the Land Development Administrator who may consult with the Research and Standards Engineer, or other qualified personnel within the City of Winnipeg to come to a final decision.

## DEFINITIONS

---

- “**Alley**” means an open (traversable) right-of-way that has been designed, constructed and intended to provide access to and service the rear of places of residence or business. Alleys can also be referred to as “lanes” “back lanes” or “public lanes”.
- “**Collector Street**” means a street with a primary function of collecting and distributing traffic between *Local Streets* and arterial (*Regional*) streets.
- “**Contract**” means the terms and conditions that govern the legal relationship between the private Developer and its *Contractor* with respect to the work undertaken pursuant to the Developer’s Development/Service Agreement.
- “**Contract Administrator**” means the representative of the professional engineering consulting firm, selected by the Developer and accepted by the City of Winnipeg, engaged to provide the full range of engineering services as required pursuant to the Developer’s Development/Service Agreement with the City.
- “**Contractor**” means the party undertaking the construction of the pavement works being performed within the City of Winnipeg right-of-way. The Contractor may be engaged by the City of Winnipeg or a private Developer.
- “**Developer**” means the owner or entitled to be the owner of certain lands located within the boundaries of the City of Winnipeg responsible for the construction of works, pursuant to its Development/Service Agreement.
- “**Development/Service Agreement**” means an agreement between the City of Winnipeg and a Developer of land pursuant to sections 619(1), 620, or 623(3) of The City of Winnipeg Act.
- “**Frontage Road**” means an open (traversable) right-of-way that has been designed, constructed and intended to provide indirect access to and service the front of residences or businesses; avoiding direct access to a high traffic roadway such as a collector street. A residential frontage road, parallel to a collector street, typically features a 9.0m wide right-of-way with a 6.0m wide pavement complete with curbs on both sides. An industrial/commercial frontage road would be designed accordingly to accommodate specific needs. For the purposes of this Manual, frontage road matters are considered addressed under “Alley” “Local Street” considerations.
- “**Full Depth Repair**” means to saw-cut the full depth of the *pavement* marked for removal to the base course material and remove and replace that portion of the *pavement*.
- “**Full Panel Replacement**” means to saw-cut the full depth of a concrete *panel* (as defined below), to the base course material and remove and replace the entire *panel* of the *pavement*.
- “**Land Development Administrator**” means an employee of the City of Winnipeg to whom the Director of Public Works has delegated the authority to assess, inspect and accept on behalf of the City, the municipal servicing under Development/Service Agreements.
- “**Longitudinal Joint**” is the joint within the *pavement* structure that runs parallel to the roadway, that is typically along the center line of the concrete *pavement*, or a joint that is parallel to the center line of the *pavement*.

**“Local Street”** means an open (traversable) right-of-way that is not identified in Schedule E of the most recent City of Winnipeg Streets By-law No. 1481/77 (i.e., not a Regional Street). More specifically in the context of this document, a *Local Street* provides direct access to private properties, and will typically be defined under the parameters of an individual development.

**“Panel”** is a section of the concrete *pavement* structure defined by and contained within the longitudinal and *transverse joint* placements, and any edges of the *pavement* such as back of curb.

**“Pavement”** or the adjective “Paved” when used to describe a street, road, *alley*, sidewalk, or other area, refers to an area which has a surface constructed of Portland Cement concrete, asphalt, brick, tile or similar material. In this Manual, unless specified otherwise and/or used alone without a modifier;

- The term “concrete” shall mean Portland Cement concrete, and;
- The term “asphalt” shall mean Asphaltic Concrete.

**“Premature Surface Wear”** is when a new *pavement* surface deteriorates to a point where aggregate is exposed, usually due to failures in finishing or construction.

**“Regional Street”** means a street listed in Schedule “E” of the Streets By-law No. 1481/77, or those streets designated as planned Regional Streets within the planning and executing of the Development/Service Agreement.

**“Scaling”** means the local flaking or peeling off of the concrete surface.

**“Spalling”** means the deterioration of a joint, either parallel to the joint or at the intersection of two joints where the concrete fractures and breaks away.

**“Standard Construction Specifications”** means the *Standard Construction Specifications* for infrastructure work on City Streets approved by the Public Works Department and, unless otherwise specified, refers to the most recent edition. (See page 22, LINKS)

**“Street Cuts Manual”** means the *Street Cuts Manual* issued by the Director of Public Works under clause 4.12.02(1) of the *Streets By-law* and, unless otherwise specified, refers to the most recent edition of this Manual posted on the City of Winnipeg website.

**“Transverse Joint”** is the joint that is constructed perpendicular to the concrete *pavement’s longitudinal joint* (as defined above).

**“Total Performance”** means the work to be totally performed to the requirements of the *Contract* as certified by a professional engineer having delivered a Certificate of Total performance stating that the work is complete.

**“Warranty”** means that the Contractor warrants that the work performed under the *Contract* will be free of any and all defects or deficiencies during the Warranty Period

**“Warranty Period”** means a time interval that begins on the date of *Total Performance* for the municipal works including but not limited to pathways, sidewalks and roadways, and which expires at the end of the specified time interval, except where longer Warranty Periods are requested or specified by the Land Development Administrator. Before the expiration of any Warranty Period, the works under the warranty must be accepted by the Land Development Administrator.

# SURFACE WORKS WARRANTIES

---

## Warranty Inspection Process

### *On-Warranty Inspection*

The On-Warranty inspection is initiated by the *Contract Administrator*. For Surface works to be considered On-Warranty the following is required:

- Site inspection by the *Land Development Administrator*;
- Backfilling behind (or in front) of:
  - All Curbs;
  - Sidewalks; and
  - Active Transportation (AT) Pathways.
- All Manhole isolations completed with asphalt *pavement*;
- The *Contract Administrator* shall propose the location and the type of barricades for discontinued road openings;
- Any deficiencies and/or safety issues that are noted by the *Land Development Administrator* must be addressed to the satisfaction of the *Land Development Administrator* prior to On-Warranty status; and
- On-Warranty acceptance letter with all pertinent information and a drawing showing highlighted area(s) that are On-Warranty with date of On-Warranty Inspection noted.

Once the On-Warranty acceptance letter is issued the municipal works are opened to the public, and the *Land Development Administrator* will process Building Permits, Street Signage and Inventory.

### *Off-Warranty Inspection*

The Off-Warranty Inspection is initiated by the *Contract Administrator*. For the Off-Warranty Inspection to commence the following is required:

- Surface works must have gone through their On-Warranty period;
- Surface works are cleaned of all mud, sand and debris; and
- Street surface is flooded with water as per the direction of the *Land Development Administrator* for the Off-Warranty Inspection to indicate potential drainage issues (flooding of sidewalks & pathways is excluded).

If the *Land Development Administrator* deems any of the above requirements have not been attained to a satisfactory level, the Off-Warranty Inspection will be rescheduled.

The Off-Warranty Inspection is a thorough walk through of the surface works. During this walk through the *Land Development Administrator* is looking for Pavement deficiencies.

Results of an Off-Warranty Inspection will include but not to be limited to:

- Off-Warranty Inspection letter from the *Contract Administrator* with all noted deficiencies listed during the walk through and a drawing showing highlighted area(s) with date of Off-Warranty Inspection noted;
- The surface is officially Off-Warranty; and
- Securities are held for the deficiencies that are to be repaired as listed in the Off-Warranty Inspection letter.



### *Follow-Up Inspection*

The Follow-Up Inspection is initiated by the *Contract Administrator*. The Follow-Up Inspection consists of:

- Site inspection by the *Land Development Administrator*; and
  - This site inspection is to ensure that all of the deficiencies noted in the *Off-Warranty* inspection have been completed to the satisfaction of the *Land Development Administrator*.
- Follow-Up Inspection acceptance letter from the *Contract Administrator* with all pertinent information and a drawing showing highlighted *Off-Warranty* area(s).

This would conclude the *Warranty* Inspection Process. The Surface Works are now the responsibility of the City of Winnipeg.

There may be situations that necessitate special requirements (e.g., Extension of *Warranties*, Testing, Monitoring, Surveys, etc.); these requirements will be presented to and discussed with all parties, with the understanding that the final decision is to be determined by the *Land Development Administrator*.

## TEMPORARY TRAFFIC CONTROL

---

### Street Lane Closures

The *Contractor* is subject to the Construction Agency responsibilities outlined in *Section 2* of the *Manual of Temporary Traffic Control*. This includes, but is not limited to, the requirement to obtain approval from the Traffic Management Branch to work in all City Streets.

### Work in City Streets

When deemed necessary by the Director of Public Works, *contractors* doing work in City Streets are required to do all things necessary to expedite completion of the work. This may require *pavement* restorations which are to be achieved using:

- 24-hour work activities;
- Weekend work activities; and
- Steel plating of excavations during a.m. and/or p.m. peak rush hour periods.

**The Contractor is required to contact the Traffic Management Branch prior to commencing work to ensure the applicable guidelines are followed.**

### *Street Lane Closures Form*

Visit the City of Winnipeg website @ <https://www.winnipeg.ca/> and select **Departments > Public Works > Transportation > Road Construction & Lane Closures > [Request a Regional Street Lane Closure](#)** (*requires an account*).

### *Traffic Management*

Public Works Department  
Transportation Division  
Traffic Management Branch  
101-1155 Pacific Ave.  
Winnipeg, MB, Canada R3E 3P1  
[PWDLaneClosures@winnipeg.ca](mailto:PWDLaneClosures@winnipeg.ca)  
(Monday-Friday) 08:30 to 16:30

## CONSTRUCTION

---

### Worksite Protection

#### *Works Within the Right-of-Way*

All work within the Right-of-Way must be controlled in accordance with the *Manual of Temporary Traffic Control*. Vehicular and pedestrian traffic is to be maintained with the structural capacity to maintain safe passage, at any time of the day.

#### *Site Clean Up*

Upon completion of work or activity, all excess material shall be removed from the area of the construction site. The site shall be left in a safe, neat and clean condition to the satisfaction of the *Land Development Administrator*.

### Pavement Construction Works

- The *Standard Construction Specifications* apply as the standard for all construction, installation and maintenance of roads, alleys, sidewalks and appurtenances thereto, and all materials supplied for those purposes.
- All deficiencies, repairs, and restorations are to be assessed, determined, accepted by and be to the satisfaction of the *Land Development Administrator*.

# Regional & Collector Concrete Pavement Acceptance Guidelines

---

## General Guidelines

*Panel* repairs or replacements of any size must adhere to the following guidelines:

- Repairs or replacements at a *longitudinal joint* cannot extend into an adjacent *panel* more than 75mm; and
- Repairs or replacements at *transverse joint* cannot extend into an adjacent *panel* at all; and
- Overcutting with a saw into adjacent *panels* will result in an extended repair or replacement limit as determined by the Land Development Administrator; and
- If chipping occurs during saw cutting, the repair or replacement will be extended as determined by the *Land Development Administrator*. All saw cutting must have a straight clean edge.

When a street includes a 1.25m wide curb/gutter *panel*; the only option for any deficiencies is a *full panel replacement*.

## Cracking

### *Route & Seal*

Routing & sealing may be permissible for a crack that:

- Is less than 2mm in width, with no faulting or movement evident; and
- Is more than 1.6m from any *transverse* or *longitudinal joint*, *pavement* edge, or isolation; and
- Connects to any joint at an angle of greater than 60°; and
- Produces an area between the joint and the crack that is greater than 2.0m<sup>2</sup>.

### *Replacement & Repair*

*Full panel replacement* is required on either a *Regional* or *Collector Street* when:

- A crack has a **width of 2mm or greater**, of any length, depth or location; or
- A *panel* has **divided into three (3) or more pieces** (two or more cracks); or
- A crack width of 2mm or less that has **any faulting or evident movement**.
- A crack is within 1.6m of a *transverse* or *longitudinal joint*, *pavement* edge or isolation; or
- A crack forms an angle of less than 60° with any *transverse* or *longitudinal joint*, *pavement* edge, or isolation; or

Further to the above, on a *Collector Street*, a half *panel* repair may be permitted when:

- A crack is within 1.6 m of a *transverse* or *longitudinal joint*, *pavement* edge or isolation, AND located entirely within one half of the *panel*; or
- A crack forms an angle of less than 60° with any *transverse* or *longitudinal joint*, *pavement* edge, or isolation, AND located entirely within one half of the *panel*.

## Damaged Joints

Route & seal for a damaged joint is permitted if the damage is less than 25mm in width.

### Regional Streets

- If damage to a *transverse* or *longitudinal joint* is greater than 25mm in width, a *full panel replacement* is required.

### Collector Streets

- If damage to a *transverse* or *longitudinal joint* is greater than 25mm in width, a *half panel repair* is acceptable at the discretion of the *Land Development Administrator*.

## Manhole & Catch Basin Isolations

All restorations and repairs around **manholes** and **catch basins** shall be performed in accordance with the *Standard Construction Specifications*.

### Isolation higher than surrounding pavement:

- Where an isolated **manhole** is 5mm or more above the surrounding street *pavement*, the isolated manhole shall be adjusted by removing the surrounding asphalt *pavement* and replacing the steel ring and then replacing the asphalt *pavement*.
- Where an isolated **catch basin** frame and cover is 5mm or more above the surrounding *pavement*, removal and replacement of the isolation is required.

### Isolation lower than surrounding concrete:

- An isolated **manhole or catch basin** not more than 10mm below the surrounding *pavement* is considered acceptable.
- Where an isolated **manhole** is more than 10mm lower than the surrounding *pavement*, the manhole shall be adjusted by removing the surrounding asphalt *pavement* and replacing the steel ring and then replacing the asphalt *pavement*.
- Where an isolated **catch basin** is more than 10mm lower than the surrounding *pavement*, removal and replacement of the isolation is required.

## Surface Defects

- Concrete *pavement* surface defects include but are not limited to:
  - o *Spalling*;
  - o *Scaling*; and
  - o *Premature surface wear*.
- If the defect is within a joint and is less than 25mm in width, re-routing & sealing is required.

### Regional Streets

- If the defect is within a joint and is 25mm or more in width, a *full panel replacement* is required.
- If any defect within a concrete *panel* exposes aggregate or is otherwise considered excessive by the *Land Development Administrator*, a *full panel replacement* is required.

## Collector Streets

- If the defect is within a joint and is 25mm or more in width, a half *panel* repair is acceptable at the discretion of the *Land Development Administrator*.
- If the defect is mid-panel (i.e., greater than 1.6m from a joint) and exposes aggregate or is otherwise considered excessive by the *Land Development Administrator*, a half *panel* repair may be permitted.
- Any repair extending beyond the limits of a half *panel* shall require a *full panel replacement*.

## Holes or Gouging

All holes or gouges in the *pavement* greater than 10mm in depth and/or 50mm in width or length shall be treated as follows:

- For *Regional Streets*, *full panel replacement* is required; and
- For *Collector Streets*, half *panel* repair may be considered, as determined by the *Land Development Administrator*.

## Joint Sealant

- All joint sealant installation shall be in accordance with the *Standard Construction Specifications*.
- All products used in joint sealing operations must appear on the Approved Products for Surface Works list, as per the *Standard Construction Specifications*.

## Drainage

### *Regional Streets*

- Any water ponding of more than 5mm in depth on a *Regional Street* will require a *full panel replacement*. A survey will determine how many *panels* shall be replaced.
- No grinding of concrete will be permitted to remedy a drainage deficiency on *Regional Streets*.

### *Collector Streets*

- Water ponding of more than 5mm in depth on a *Collector Street* may be corrected with localized grinding, half *panel* repairs or *full panel replacement* at the discretion of the *Land Development Administrator*.
- Any grinding of concrete on *Collector Streets*, as permitted by the *Land Development Administrator*, shall not exceed 3.0m in length, or 10mm in depth, and must be a minimum 0.5m in width.

## Settlement

- If any settlement or heaving is noted within the *warranty period*, causing problems including but not limited to faulting, rideability or ponding, *full panel replacement* is required.
- In the event of projected long-term *pavement* settlement, as determined by the City, resulting in continued joint separation, *panel(s)* settlement, and/or attached sidewalk joint separation and associated cracking, the *pavement* shall be monitored, surveyed at intervals and placed on an extended *warranty*. The Developer may choose “*full panel replacement*” as an alternative to an extended *warranty*. In this case, “*full panel replacement*” may include reconstructing the entire *pavement* structure including the *pavement*, base, and subbase components. Any reconstruction would initiate an On-Warranty *period* as determined by the *Land Development Administrator*.
- Where there is agreement to proceed with an extended *warranty*, if it is determined by the City that the *pavement* settlement has stabilized, an inspection shall be conducted, with deficiencies noted for repairs and/or *full panel replacements*, as determined by the *Land Development Administrator*.

## Diamond Resurfacing

Diamond resurfacing of concrete *pavement* is not permitted on Regional Streets, but may be considered on Collector Streets only under certain circumstances, and to the satisfaction of the *Land Development Administrator*. Deficiencies that may be considered acceptable for resurfacing include, but are not limited to;

- excessive scaling; or
- improper finishing; or
- gouging.

Diamond resurfacing cannot exceed 4mm, and the extent and limit of the resurfacing will be determined by the *Land Development Administrator*.

# Local Street & Alley Concrete Pavement Acceptance Guidelines

---

## Overview

If more than one of the conditions described below (cracking, damaged joints, surface defects, holes or gouging, or required isolation repairs) are present within a single *panel*, a *full panel replacement* is required; however, if all of the defects are present within one half of the *panel*, a *half panel repair* may be permitted, as determined by the *Land Development Administrator*.

## General Guidelines

*Panel* repairs or replacements of any size must adhere to the following guidelines:

- Repairs or replacements at a *longitudinal joint* cannot extend into an adjacent *panel* more than 75mm; and
- Repairs or replacements at *transverse joint* cannot extend into an adjacent *panel*; and
- Overcutting with a saw into adjacent *panels* will result in extending the repair or replacement as determined by the Land Development Administrator; and
- If chipping occurs during saw cutting, the repair or replacement will be extended as determined by the *Land Development Administrator*. All saw cutting must have a straight **and** clean edge.

## Cracking

### *Route & Seal*

For any cracks less than 2mm, with no faulting or movement evident, and outside of the 1.6m limit of transverse or longitudinal joints, routing & sealing may be permitted.

- Do not route & seal when a crack of less than 2mm in width is also within 1.6m of a *transverse joint*; a minimum 1.0m *full depth repair* is required.
- Do not route & seal a non-moving joint after it has been repaired.
- If only one crack that is less than 2mm in width, that has not faulted is evident within 1.6m at an isolation, route & seal is acceptable. If there is more than one such crack, a *full panel replacement* is required.

### *Half Panel Repairs*

Half *panel* repairs may be permitted when any of the following are confined within the space of one half of the *panel*:

- A crack forms an angle of less than 60° with any *transverse* or *longitudinal joint*, *pavement edge*, or *isolation*.
- *Longitudinal* repairs must be from joint to joint and shall be a half *panel* minimum width (applies to *Local Streets*).
- If a *panel* is cracked into 3 or more pieces but the cracking is within half the *panel*.



## Full Panel Replacement

A *full panel replacement* is required when the following defects are present:

- All *Local Street* and *Alley* concrete *panels* with a **crack width 2mm or greater**, of any length, depth or location.
- Any *Local Street* and *Alley* concrete *panels* with any crack width 2mm or less **that have any faulting** (greater than 1mm).
- Any of the conditions noted above that extend beyond half the area of a concrete *panel*.

## Damaged Joints

Route & seal for a damaged joint is permitted if the damage is less than 25mm wide.

- If the damage to a *transverse joint* is greater than 25mm wide, a *full depth repair* minimum 1.0m wide for the full *panel* width is required.
- If the damage to a *longitudinal joint* is greater than 25mm wide, on a *Local Street*, a *full depth repair* for half of the *panel* is required; on an *Alley*, a minimum 1.0m *full depth repair* is required.

## Manhole & Catch Basin Isolations

*Isolation higher than surrounding pavement:*

- Where an isolated **manhole** is 5mm or more above the surrounding street *pavement*, the isolated manhole shall be adjusted by removing the surrounding asphalt *pavement*, and replacing the steel ring, and then replacing the asphalt *pavement*.
- Where an isolated **catch basin** is 5mm or more above the surrounding *pavement*, removal and replacement of the isolation is required.

*Isolation lower than surrounding concrete*

- An isolated **manhole or catch basin** not more than 10mm below the surrounding *pavement* is considered acceptable.
- Where an isolated **manhole** is more than 10mm below the surrounding *pavement*, the manhole shall be adjusted by removing the surrounding asphalt *pavement* and replacing the steel ring and then replacing the asphalt *pavement*.
- Where an isolated **catch basin** is more than 10mm lower than the surrounding *pavement*, removal and replacement of the isolation is required.

All restorations and repairs around **manholes** and **catch basins** shall be performed in accordance with the *Standard Construction Specifications*.

All restorations and repairs around **manholes** and **catch basins** shall maintain a minimum distance of 0.6m from the isolation.

## Surface Defects

- Concrete *pavement* surface defects include but are not limited to:
  - *Spalling*;
  - *Scaling*; and
  - *Premature surface wear*.
- If the defect is within a joint and is less than 25mm in width, re-routing & sealing is required.
- If the defect is within a joint and is 25mm or more in width, a *full depth repair* to a minimum width of 1.0m is required as determined by the *Land Development Administrator*.
- If the defect is mid-panel (i.e., greater than 1.6m from a joint) and exposes aggregate or is otherwise considered excessive by the *Land Development Administrator* a *full depth repair* is required based on the limits determined by the *Land Development Administrator*.

## Holes or Gouging

- Where there are three or fewer holes or gouges in a panel, and all are more than 0.5 m from a joint, less than 25 mm deep, or less than 150 mm wide or long, a surface repair with an approved pre-bagged patching product prepared and placed in accordance with the manufacturer's directions may be considered, as determined by the Land Development Administrator.
- All holes or gouges in the *pavement* greater than 25mm in depth and/or 150mm in width or length, or less than 0.5 m from a joint shall be a *full depth repair*, based on limits as determined by the *Land Development Administrator*.

## Joint Sealant

- All joint sealant installation shall be in accordance with the *Standard Construction Specifications*.
- All products used in joint sealing operations must appear on the Approved Products for Surface Works list, as per the *Standard Construction Specifications*.

## Drainage

- Water ponding of more than 5mm in depth on a *Local Street* or *Alley* may be corrected with localized grinding, half *panel* repairs or *full panel replacement* at the discretion of the *Land Development Administrator*.
- Any grinding of concrete on *Local Streets* or *Alleys* shall not exceed 3.0m in length or 10mm in depth and must be a minimum 0.5m in width.

## Settlement

- If any settlement or heaving is noted within the *warranty period*, causing problems including but not limited to faulting, rideability or ponding, *full panel replacement* is required.
- In the event of projected long-term *pavement* settlement, as determined by the City, resulting in continued joint separation, *panel(s)* settlement, and/or attached sidewalk joint separation and associated cracking, the *pavement* shall be monitored, surveyed at intervals and placed on an extended *warranty*. The Developer may choose “full replacement” as an alternative to an extended *warranty*. In this case, “full replacement” may include reconstructing the entire *pavement* structure including the *pavement*, base, and subbase components. Any reconstruction would initiate an On-Warranty *period* as determined by the *Land Development Administrator*.
- Where there is agreement to proceed with an extended *warranty*, if it is determined by the City that the *pavement* settlement has stabilized, an inspection shall be conducted, with deficiencies noted for repairs and/or *full panel replacements*, as determined by *Land Development Administrator*.

## Diamond Resurfacing

Diamond resurfacing of concrete *pavement* may be considered on *Local Streets* under certain circumstances and to the satisfaction of the *Land Development Administrator*. Deficiencies that may be considered acceptable for resurfacing include, but are not limited to;

- excessive scaling; or
- improper finishing; or
- gouging.

Diamond resurfacing cannot exceed 4mm, and the extent and limit of the resurfacing will be determined by the *Land Development Administrator*.

# Concrete Sidewalks and Active Transportation Pathway Pavement Acceptance Guidelines

---

## Concrete Sidewalk Cracking & Deficiencies

- All cracked, damaged or deficient sidewalk *panels* are to be removed and replaced.
- Ensure there is backfill at the back and face of the walk to limit trip/fall hazard.
- Saw cuts are to be in accordance with the *Standard Construction Specification*.

## Detectable Warning Surface Tiles

- Detectable Warning Surface Tiles are considered deficient when:
  - Missing;
  - Improperly aligned or located;
  - Improperly cut;
  - Improperly installed with respect to depth; and
  - Damaged.
- Detectable Warning Surface Tiles shall be installed in accordance with the *Standard Construction Specifications*.

## Pavement Cuts Due to Utilities

- Utility cuts in new *pavement* shall be in accordance with the Cut Permit Process.
- Utility cuts in new *pavement* shall be in accordance with the most recent *Street Cuts Manual* for restoration.

## Active Transportation (AT) Pathway

- Minimum Pathway repair is 1.5m in length.
- Pathway repairs shall be full width.
- Construction and repair of asphalt *pavements* shall be in accordance with the *Standard Construction Specifications*.

### *Pathway Repairs are required when:*

- Any cracking is present with any observable faulting;
- Any cracks greater than 5mm in width;
- Multiple cracks less than 5mm in width are close together in any direction, as determined by the *Land Development Administrator*;
- There are defects such as gouging, holes or other damages that are greater than 5mm in width and/or 10mm in depth;
- There are surface damages, ponding or defects (e.g., pitting, *premature surface wear*, etc.), as determined by the *Land Development Administrator*, who may permit repairs by asphalt planing of a minimum of 5.0m<sup>2</sup>, to a minimum depth of 35mm and repaving with a minimum 40mm thick asphalt surfacing; and
- If multiple repairs are less than 3.0m apart, a continuous repair is required.

### *Routing & Sealing*

- Route & seal is permissible for cracks which are less than 5mm in width.

# Appendix A: Concrete Panel Repair/Replacement Charts

**Table 1 - Regional and Collector Street Repair Summary**

Concrete Panel Condition		Regional Street	Collector Street	
CRACKING	Crack >2mm in width	Full Panel Replacement		
	Crack ≤2mm in width	With faulting	Full Panel Replacement	
		No faulting	Route & Seal	
		≤1.6m from any joint, edge or isolation	Full Panel Replacement	Half Panel Repair <sup>1</sup>
		>1.6m from any joint, edge or isolation	Route & Seal	
		Area between joint and crack is <2.0m <sup>2</sup>	Full Panel Replacement	Half Panel Repair <sup>1</sup>
		Area between joint and crack is >2.0m <sup>2</sup>	Route & Seal	
		crack is <60° from a joint, pavement edge, or isolation	Full Panel Replacement	Half Panel Repair <sup>1</sup>
		Panel broken - 3 or more pieces	Full Panel Replacement	
TRANSVERSE JOINT	Gap in Transverse Joint is ≤25mm and in good condition	Route & Seal		
	Gap in Transverse Joint is >25mm, regardless of condition	Full Panel Replacement	Half Panel Repair <sup>1</sup>	
LONGITUDINAL JOINT	Longitudinal Joint is ≤25mm and in good condition	Route & Seal		
	Longitudinal Joint is >25mm, regardless of condition	Full Panel Replacement	Half Panel Repair <sup>1</sup>	
SURFACE DEFECTS	Within a joint, <25mm in width	Route & Seal		
	Within a joint, >25mm in width	Full Panel Replacement	Half Panel Repair <sup>1</sup>	
	Within a concrete panel			
Ponding >5mm in depth		Full Panel Replacement <i>(No grinding)<sup>2</sup></i>	<ul style="list-style-type: none"> <li>• Minimum Half Panel Repair where grinding concrete will not eliminate ponding<sup>1</sup></li> <li>• Localized Grinding may be permitted<sup>3</sup></li> </ul>	
Holes/Gouging greater than 10mm in depth and/or 50mm in length		Full Panel Replacement	Half Panel Repair as determined by the Land Development Administrator <sup>1</sup>	
Multiple Repairs in any Panel (no more than one repair per panel)		Full Panel Replacement		
Settlement or heaving within the warranty period		Full Panel Replacement; see Settlement section		

<sup>1</sup> If repair is beyond half the panel, a full-panel replacement is required

<sup>2</sup> Survey to determine replacement limits

<sup>3</sup> Grinding shall not exceed 10mm in depth, 3.0m in length, and shall be a minimum 4.0m in width

**Table 2 - Local Street and Alley Repair Summary**

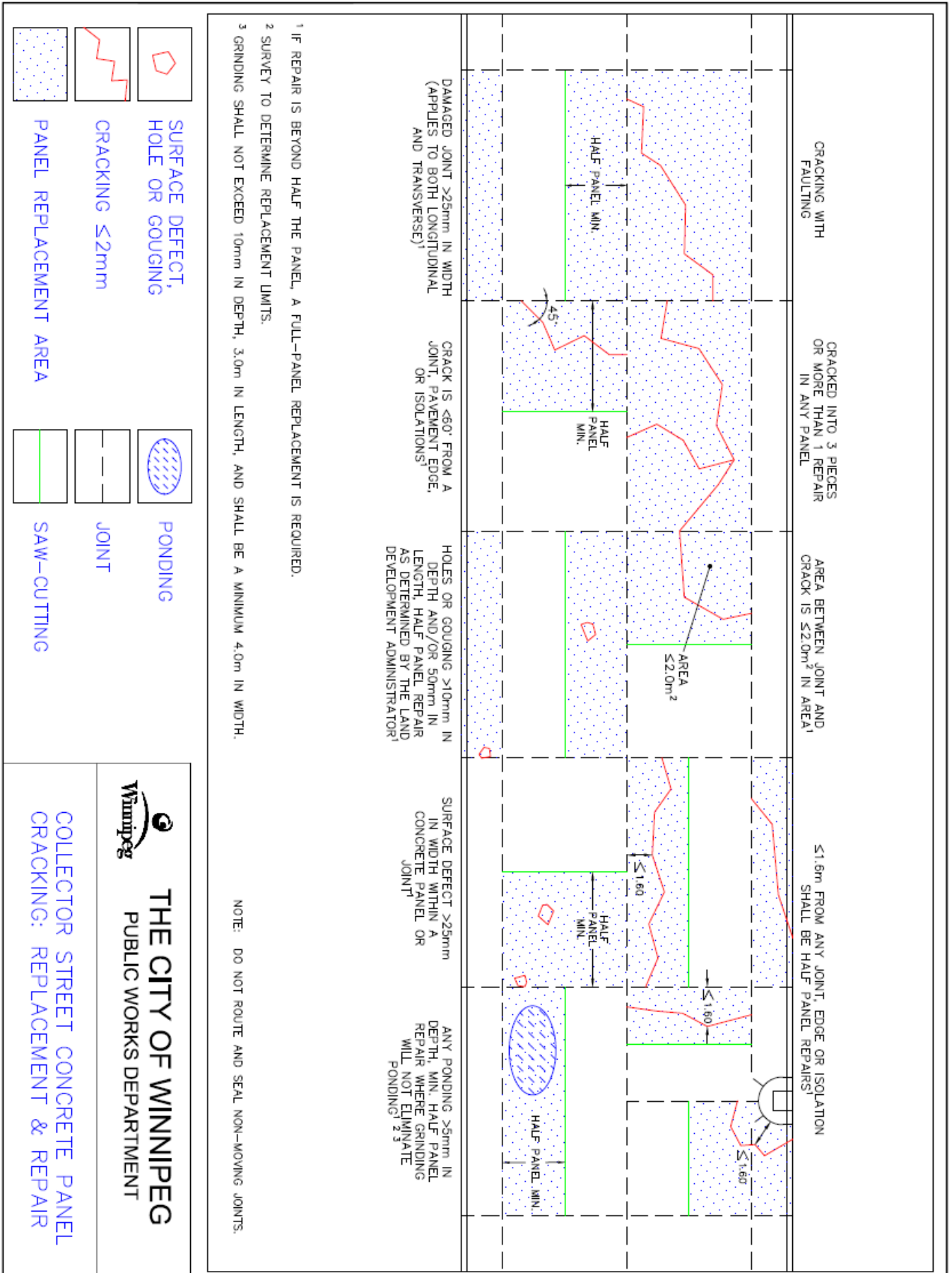
Concrete Panel Condition		Local Street	Alley	
CRACKING	Crack >2mm in width	Full Panel Replacement		
	Crack ≤2mm in width	With faulting	Full Panel Replacement	
		No faulting	Route & Seal	
		≤1.6m from any joint, edge or isolation	Min. 1.0m Full Depth Repair <sup>1</sup>	
		>1.6m from any joint, edge or isolation	Route & Seal	
		Area between joint and crack is <2.0m <sup>2</sup>	Half Panel Repair <sup>1</sup>	
		Area between joint and crack is >2.0m <sup>2</sup>	Route & Seal	
		crack is <60° from a joint, pavement edge, or isolation	Half Panel Repair or Full Panel replacement, depending on location <sup>1</sup>	
		Panel broken into 3 pieces	Half Panel Repair if repair is within half the panel <sup>1</sup>	
TRANSVERSE JOINT	Gap in Transverse Joint is ≤25mm and in good condition	Route & Seal		
	Gap in Transverse Joint is >25mm, regardless of condition	Min. 1.0m Full Depth Repair <sup>1</sup>		
LONGITUDINAL JOINT	Longitudinal Joint is ≤25mm and in good condition	Route & Seal		
	Longitudinal Joint is >25mm, regardless of condition	Half Panel Repair <sup>1</sup>	Min. 1.0m Full Depth Repair <sup>1</sup>	
SURFACE DEFECTS	Within a joint, <25mm in width	Route & Seal		
	Within a joint, >25mm in width	Min. 1.0m Full Depth repair <sup>1</sup>		
	Within a concrete panel			
Ponding >5mm in depth		<ul style="list-style-type: none"> <li>• Minimum Half Panel Repair where grinding concrete will not eliminate ponding<sup>2</sup></li> <li>• Localized Grinding may be permitted<sup>3</sup></li> </ul>		
Holes/Gouging greater than 10mm in depth and/or 50mm in length		<ul style="list-style-type: none"> <li>• Half Panel Repair as determined by the Land Development Administrator<sup>1</sup></li> <li>• For three (3) or fewer, see “Holes or Gouging”, page 14</li> </ul>		
Multiple Repairs in any Panel (no more than one repair per panel)		Full Panel Replacement		
Settlement or heaving within the warranty period		Full Panel Replacement; see Settlement section		

<sup>1</sup> If repair is beyond half the panel, a full-panel replacement is required

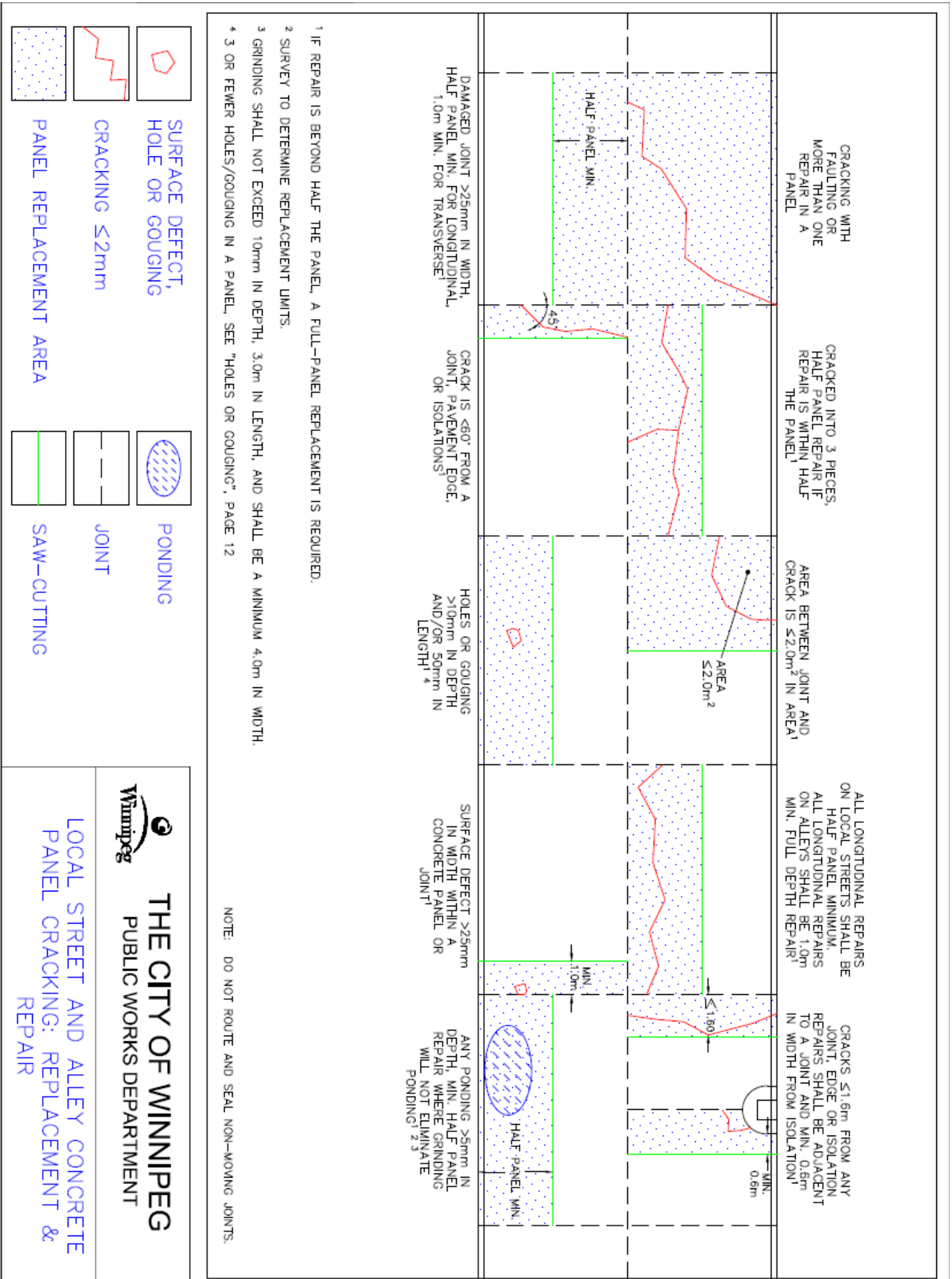
<sup>2</sup> Survey to determine replacement limits

<sup>3</sup> Grinding shall not exceed 10mm in depth, 3.0m in length, and shall be a minimum 4.0m in width

# Appendix B: Collector Street; Replacement/Repair Examples



# Appendix C: Local Street; Replacement/Repair Examples







## LINKS

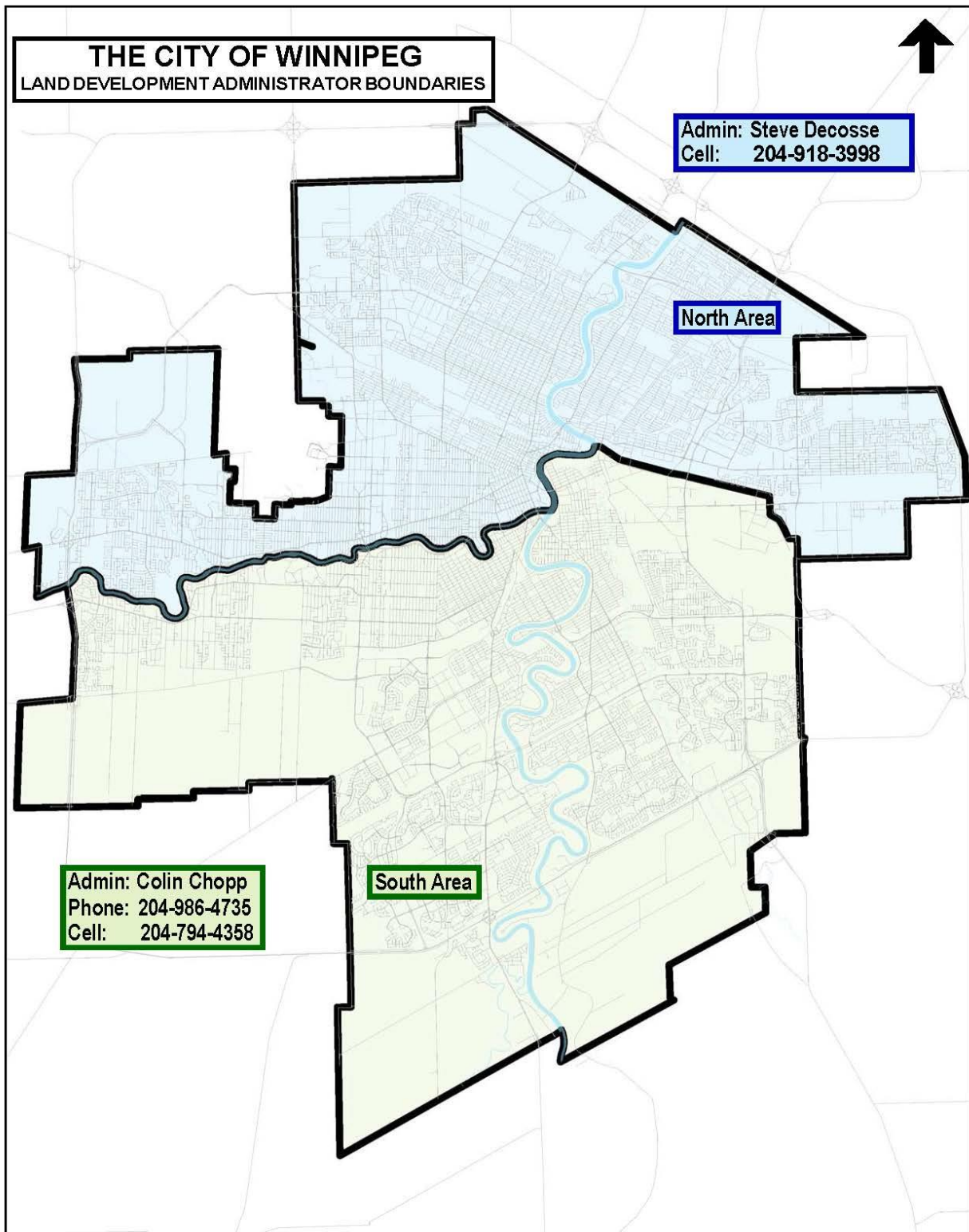
---

The City of Winnipeg's *Manual of Temporary Traffic Control in Work Areas on City Streets*; available in Adobe Acrobat (pdf) format: [Manual of Temporary Traffic Control](#)  
Or the root directory at [www.winnipeg.ca/publicworks/trafficControl](http://www.winnipeg.ca/publicworks/trafficControl)

The City of Winnipeg's *Standard Construction Specifications* (Includes Concrete Mix Design Approval); available in Adobe Acrobat (pdf) format: [Standard Construction Specifications](#)  
Or the root directory at: [www.winnipeg.ca/matmgt](http://www.winnipeg.ca/matmgt)

The most recent edition of the *Street Cuts Manual*; available in Adobe Acrobat (pdf) format: [Cuts Manual](#)  
Or the root directory at: [www.winnipeg.ca/publicworks/permitsApprovals](http://www.winnipeg.ca/publicworks/permitsApprovals)

# DEVELOPMENT/SERVICING AGREEMENT AREA BOUNDRIES





## CONTACTS

---

**PWD Project Management – Development Projects Engineer**

Email: [tzielonko@winnipeg.ca](mailto:tzielonko@winnipeg.ca)

**North Area – PWD Land Development Administrator**

Email: [sdecosse@winnipeg.ca](mailto:sdecosse@winnipeg.ca)

**South Area – PWD Land Development Administrator**

Email: [cchopp@winnipeg.ca](mailto:cchopp@winnipeg.ca)

**Traffic Management Branch**

Email: [PWDLaneClosures@winnipeg.ca](mailto:PWDLaneClosures@winnipeg.ca)

Published by:  
The City of Winnipeg  
Public Works Department  
Engineering Division  
106-1155 Pacific Avenue  
Winnipeg, MB, Canada R3E 3P1