PRIVATE ACCESS

Guide to Constructing Private Approaches & Walks
Revised 03.15.2019
PRIVATE ACCESS KEY POINTS

- It is the responsibility of the property owner benefitted by the private access and the contractor constructing, removing, relocating or modifying the private access to ensure that construction, removal, relocation or modification complies with:
  
  a) *Private Access By-Law No. 49/2008*,
  b) The permit issued for the work, including any conditions attached to the permit,
  c) The Standard Construction Specifications,
  d) The Manual of Temporary Traffic Control, and
  e) Schedule “C” of the *Private Access By-Law No. 49/2008*

- The City of Winnipeg will not establish property lines or determine the location of the private access.

- The City of Winnipeg is **not** responsible to notify utilities for clearances.

- Where construction of the private access has been completed without an inspection having been arranged, the permit holder(s) must, at no cost to The City of Winnipeg, either demonstrate, at their own expenses, to the satisfaction of a designated employee that the private access meets all the requirements of The City of Winnipeg *Private Access By-law No. 49/2008* or must re-construct the private access at their own expense.

- Full depth saw cuts are required for the removal of existing curb and gutter, partial depth saw cuts are not allowed. When saw cutting into the existing street, **it must be full depth saw cutting and must be 0.3m from the back of the curb**. Cutting to the face of curb only will not be allowed. The finishing material of the curb & gutter replacement must match the finishing material of the street (see page 45)
PRIVATE ACCESS KEY POINTS (Cont.)

- The City of Winnipeg has approved the use of High Density Polyethylene (HDPE) Pipe for culverts, fittings, and accessories.

**Installation of Culverts (CW 3610)**

- Place and compact a foundation below the proposed pipe and bedding.
- Place and compact bedding material a minimum of 75mm below the invert of the culvert.
- Place sand as a leveling course over the bedding material. Sand is only to be used as a leveling course and is not to be used as backfill.
- Clay, silt or organic soil shall not be used as bedding or backfill material.
- Place and compact well graded granular material, in accordance with Section 2 of CW 3110 (see page 14 & 15), on both sides of the culvert up to the center of the pipe, then backfill to a depth above the top of the pipe in accordance with the manufacturer’s specifications and compact material in 150mm lifts.
- Shape and cap the side slopes around the culvert ends with impervious clay.
- For **APPROACH CULVERT: DIAMETER, LENGTH & ELEVATION** see page 51

- Unpaid permit(s) and/or no inspection will result in any damage deposit(s) not being released until it is proven that the approach meets all the requirements of The City of Winnipeg Private Access By-law No. 49/2008. This may result in the contractor’s license being put under review and/or penalties being assessed.

- **Flagperson**
  - Please be advised that the Province of Manitoba has amended the *Workplace Safety and Health Regulation, Manitoba Regulation 217/2006* with the Regulation 165/2012, regarding Flagperson rules, materials, equipment and signage. This information is available at [http://gov.mb.ca](http://gov.mb.ca), search Regulation 165/2012.
PRIVATE ACCESS KEY POINTS (Cont.)

- Flagperson training can be provided through the Construction Safety Association of Manitoba at 204.775.3171 and the Manitoba Heavy Construction Association at 204.947.1379.

- The City of Winnipeg **DOES NOT** provide Flagperson training.

- If a manhole is present, please call the Area Approach Inspector prior to excavating for the approach. (see Inspector Contacts page 53).

- Concrete in approaches must be supplied by Concrete Suppliers approved by The City of Winnipeg, see page 53 for Approved Products Website Address.

- The approach or approach flares **DO NOT** extend beyond the projection of the property line(s) without the approval of the City.

- Licensed Contractor is responsible to obtain a **copy of the private access permit** prior to construction of the approach.

- Only **LICENSED CONTRACTORS** may construct, remove, modify or relocate a private access

- **Crushed Recycled Concrete** is approved for use as a base course material for Private Accesses

- **Reinforcing steel** required for a private approach

- Residential Approval/Permit requires a single application. Commercial Private Accesses will require an application for approval and a permit individually. Permits expire after **24 months**.

- Private residential approach maximum conforming width is 6.5 metres at property line
PRIVATE ACCESS KEY POINTS (Cont.)

- Approval from City Forester if private access is within 2 metres of the outside of a tree trunk

- When constructing Private Accesses that are less than 1.5 metres from obstructions including but not limited to; fire hydrants, hydro poles, and communication pedestals, applicants must discuss options with an inspector (see Fig. 26)

- Commercial approach inspections require twenty-four (24) hours’ notice via email to the Commercial Approach Inspector to arrange for an inspection.

- Residential approach inspections require twenty-four (24) hours’ notice via email to the Residential Approach Inspector to arrange for an inspection.

- The City of Winnipeg will no longer accept telephone calls for residential approach inspections but rather an email to the Residential Approach Inspector will be required. Please see contact information update (see page 53)

- The use of caution tape or non-approved signs is an illegal violation of the City’s Streets By-Law 1481/77 and Traffic By-Law 1573/77, and is subject to prescribed fines. As outlined in the Manual of Temporary Traffic Control available on the City of Winnipeg website at https://winnipeg.ca/publicworks/trafficControl/manualTempTrafficControl.stm

DISCLAIMER

INFORMATION IN THIS GUIDE IS INTENDED AS A GUIDELINE ONLY AND DOES NOT TAKE PRECEDENCE OVER ANY CURRENT INFORMATION IN ALL OF THE BY-LAWS AND STANDARD CONSTRUCTION SPECIFICATIONS.

The Private Access By-Law No. 49/2008 is available online @ www.winnipeg.ca > Features > By-laws > Private Access
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DEFINITIONS

“Boulevard” means the portion of a street on either side of a roadway but does not include a sidewalk.

“Lane” means a street not more than nine metres in width.

“Licensed Contractor” means a contractor who holds a valid licence issued pursuant to By-law 49/2008.

“Non-residential Property” means real property that is not residential property as defined in By-law 49/2008.

“Private Access” means a private approach, private walk, loading bay, turning lane or median opening.

“Private Access Permit” means a permit for the construction, modification, relocation or removal of a private access issued pursuant to By-law 49/2008.

“Private Approach” means any modification to a street in order to facilitate vehicular access to private real property and includes a vehicular drive, road, path, culvert, lane widening or other structure constructed or maintained within a street between private real property and the roadway line for the use or benefit of the owner or occupant of the real property.

“Private Walk” means a pedestrian crossing between the sidewalk in front of the property of an owner, or the property itself, and the nearest curb or roadway in a street in like manner and for like purpose, constructed, installed or maintained.

“Property Line” means the line between the street and adjacent private real property.

“Regional Street” means a street listed in Schedule “E” of the Streets By-law No. 1481/77 or a street identified as a regional street in a successor by-law to the Streets By-law.

“Street” means any place or way, including any structure forming part thereof, which or any part of which has been dedicated as a roadway, lane, avenue, footpath, walkway, road or highway pursuant to the Real Property Act or which the public is ordinarily entitled to use for passage, with or without fee or charge therefore, and includes all the space between the boundary lines thereof.

“Driveway” an extension of the approach on private property verses an approach which is in the City of Winnipeg Right-of-Way.
FREQUENTLY ASKED QUESTIONS

Is a Permit required to construct a private approach or private walk, or to modify an existing approach or walk?
Yes. In most cases an approval/permit is required. Call Plan Approval/Permit Technologist at 204.986.4113.

Every owner desiring an approach or private walk or any relocation or widening thereof must make a written application. Applications for Residential private approaches on Non-Regional Streets must be made at the Customer Service Branch of the Public Work’s Customer Services counter, 107-1155 Pacific Ave.

Applications for all Commercial private approaches and Residential private approaches on Regional Streets must be made at the Traffic Assessment Branch of the Transportation Division, 101-1155 Pacific Ave.

The application will be reviewed to determine if it conforms with the Private Access By-law No. 49/2008.

What information do I require to make an application?
You should provide a copy of a Surveyor’s Building Location Certificate showing the location and dimensions of the proposed approach. As an alternative, a well-drawn site plan showing all property dimensions, locations of buildings and the location and dimensions of the proposed approach may be acceptable.

How can I obtain a Buildings Location Certificate?
Most home-owners already have this document - it usually comes with the purchase of a house. A qualified Land Surveyor (see Yellow Pages) can provide the certificate.

What if my application does not conform to the Private Access By-law?
If the approach does not conform to the By-law you will be advised as to why the application is non-conforming and informed of the process to follow should you wish to make an appeal to the applicable Community Committee for a residential approach or to the Standing Policy Committee for a commercial approach.

Who may construct a private access?
No person other than a licensed contractor, the employees of a licensed contractor or a City employee acting in the course of his or her employment may construct, remove, modify or relocate a private access.

I have an existing approach that is no longer required am I responsible for the cost of removing it?
Yes, the owner is responsible for the cost of removal of an existing private approach or part thereof. Only where it is considered by the City to be in the public interest to remove an approach that is no longer required will the cost of removing the approach be paid by the City.

A list of licensed Private Approach Contractors is available from:
Customer Services Branch
107-1155 Pacific Ave
Phone: 204.986.3184

Or online at: www.winnipeg.ca/publicworks/permits Approvals/approaches/default.stm
Are there City Standards that must be followed when constructing a private approach/walk?
Yes. One of the primary purposes of this book is to provide you with the minimum standards that must be met. These minimum standards in no way prevent you from constructing an approach that exceeds these standards. In fact in certain circumstances it is recommended that the approach design be increased.

There is a manhole in the boulevard in the location where I wish to construct my private approach. How will this affect my approach?
The property owner is financially responsible for any adjustments of manhole/catch basin (see Page 51 for details). If the approach is to be concrete it will be necessary for you to construct an isolation (see Fig. 22).

Any valve box or curb stop adjustments can only be done by a City Licensed Sewer/Water Contractor. (see Contacts; Page 53)

Be sure to read the section on Densities, Settlement & Compaction of Boulevards & Approaches on Page 18 & 19.

Who is responsible for repairing a Private Approach?
The owner of the approach is responsible for the cost of reconstruction, reinstallation, repair, alteration or maintenance. Should a private approach deteriorate to an unsafe condition the City can give written notice to the owner ordering the repairs to be done at the owner’s cost.

The street pavement is being renewed will I be required to pay for any necessary alterations to my private approach?
No. The City shall assume the costs, whenever the City widens, reconstructs or resurfaces a pavement and thereby necessitates alteration or reconstruction of a lawful private approach or walk. If the approach is not constructed to the same standard as the abutting street, the City may assess the cost of improving the approach against the benefiting property.

The City’s Waterworks crews removed a part of my approach while carrying out a repair to the Watermain will they be repairing the approach?
Yes. When the City, a utility company or others do work in a street that damages a lawful private approach or walk the person responsible for the damage shall assume the entire cost of restoring the approach or walk to its original condition. In most cases the utility will obtain a permit to make the excavation and will pay to the City the fees required to do the restoration.

My approach that was inspected by the City of Winnipeg has cracked. Is the City liable?
The City inspects the approach for design, layout and dimensions. The City was not a part of any agreements made between the owner and contractor or owner and supplier. It is the owner’s responsibility to ensure that minimum standards for both materials and construction practices are met. These standards are discussed later in this booklet.
“General Rules re. Private Access

17(1) Private access are non-conforming if they fail to conform to the following general rules:

(a) the private access must not be detrimental to the safe and efficient movement of vehicular and pedestrian traffic upon the adjacent street;

(b) subject to subsection (2), the projected nearest edge of an approach or nearest point of a loading bay must not be within 6 metres of an intersection or an intersecting street, measured along the property line;

(c) subject to subsection 25(5)¹, an approach must not be within 30 metres of the centre line of a railway track;

(d) two or more approaches benefiting the same assessment holding that are on the same street must be at least 15 metres apart, measured along the property line;

(e) the nearest point of intersection between a private approach and the property line must not be within 1.5 metres of a building or structure on the private real property.

17(2) Clause (1) (b) does not apply

(a) in the case of a private approach benefiting a residential property, where the proposed private approach is within the projected roadway line of a roadway that has come to a dead-end in a T-shaped intersection; and

(b) in the case of a private approach benefiting a non-residential property, when a proposed private approach is centred within the projected roadway line of a roadway that has come to a dead-end in a T-shaped intersection.

Specific Rules re. Residential Approaches

18. Private approaches benefiting residential properties are non-conforming if they fail to conform to the following rules:

(a) an approach must not be less than 3 metres or greater than 6.5 metres wide measured along the property line;
(b) subject to subsection 25(3)², a private approach must not extend beyond the lot line of the adjacent property projected into the street if

(i) the approach could negatively impact an existing or future conforming private approach benefiting an adjacent property; and

(ii) an alternate location of the approach is possible, taking into account the proposed or actual location of buildings on the lot;

(c) an approach must not be constructed or allowed to exist where a lane at least 4.5 metres wide is adjacent to the property, whether or not the lane is improved.”

Notes: ¹ “25(5) Notwithstanding that a private access has been approved by the City and is otherwise in compliance with this By-law, where Transport Canada or a railway company requires the removal, modification or relocation of the private access as a condition of maintaining a railway crossing, it must be removed, modified or relocated at the expense of the owner of the benefitting property.”

² “25(3) Notwithstanding clause 18(b) and subject to subsection (4)³, in order to accommodate an approach benefitting adjacent property, the Director may authorize the removal or modification of that portion of a private approach that has been permitted to extend beyond the lot line of the adjacent property projected onto the street.”

³ “25(4) The cost of the removal or modification referred to in subsection (3) must be borne by the owner of the property being benefitted by the approach being constructed.”

An application that does not meet one or more of the General/Specific Rules must be rejected by the officer for the City.

OTHER RULES

Where manholes exist, manhole isolation must be included in the construction of the approach. (See Fig. 22)

An approach shall be constructed such that the minimum of one and a half (1.50) metres of clearance is maintained from all obstructions. Obstructions include but not limited to; lamp standards, hydro poles, fire hydrants and communication pedestals. (See Fig. 26) The cost of removal or relocation or replacement of these obstructions shall be borne by the property owner. All approaches must maintain at least two (2.0) metres clearance from the outer edge of the trunk of a tree unless approval is granted by the City Forester.

The Private Access By-law contains a number of Schedules that restrict the construction of approaches on:

Most main Arterial Streets that do not have service roads; and
streets where there is other means of access to the property.
An application for a private approach or private walk which meets all of the Rules shall be approved and an Approval/Permit issued for construction and installation, unless the City is of the opinion that the approval of such approach or walk would be detrimental to the public interest. Example: Property owner of a corner lot wishes to construct a private approach on the side of the lot which is adjacent to a collector/bus route.

NON-CONFORMING PRIVATE APPROACHES

The Private Access By-law provides the property owner with a method of appealing an application that is refused;

a) because it does not conform with one or more of the Rules,

or;

b) on the basis that it is detrimental to the public interest.

Upon application for a private approach or private walk that does not comply with the Rules, or is determined to be detrimental to the public interest, the City will notify the applicant why the application has been denied and outline the procedure that the applicant can follow should the applicant wish to appeal to the designated Committee.

Where an application has been denied on the basis that it does not conform with one or more of the Rules of the By-law, the onus shall be on the owner to satisfy the Committee that:

i. no feasible method of providing access is possible within the terms of Rules;

ii. the approach is necessary for the intended use of the property, and;

iii. the granting of a variation of the terms of Rules will not be detrimental to the public interest.

Where an application has been denied on the basis that it is detrimental to the public interest the onus shall be on the City to satisfy the Committee of such detriment.

Applicants are welcome to attend Community Committee meetings, for information regarding the process, call the Plan Approval/Permit Technologist; 204.986.4113.
Material Layers

CONSTRUCTION MATERIALS

- REINFORCING STEEL
- STEEL/PLASTIC CHAIRS INSTALLED PRIOR TO PLACEMENT OF CONCRETE
- TIE BARS
- CURB LINE
- SUBGRADE
- SUB-BASE
- BASE COURSE
- SURFACE
- PROPERTY LINE
- STREET LINE
- BOULEVARD
- DRAKEWAY
- PRIVATE PROPERTY
- PRIVATE APPROACH
# SURFACE MATERIAL RESTRICTIONS

<table>
<thead>
<tr>
<th>ROADWAY TYPE</th>
<th>CONSTRUCTION MATERIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Concrete Roadway:</strong> (with or without asphalt overlay)</td>
<td></td>
</tr>
<tr>
<td>• with curb</td>
<td>Concrete*</td>
</tr>
<tr>
<td>• with asphalt or concrete shoulders:</td>
<td>Concrete*</td>
</tr>
<tr>
<td>• with gravel shoulders</td>
<td>Gravel, asphalt or concrete*</td>
</tr>
<tr>
<td>- farm or single family/ duplex residential</td>
<td></td>
</tr>
<tr>
<td>- all other land uses</td>
<td>Concrete*</td>
</tr>
<tr>
<td><strong>Asphalt Roadway:</strong></td>
<td></td>
</tr>
<tr>
<td>• with curb</td>
<td>Asphalt or concrete*</td>
</tr>
<tr>
<td>• with asphalt or concrete shoulders</td>
<td>Asphalt or concrete*</td>
</tr>
<tr>
<td>• with gravel shoulder:</td>
<td>Gravel, asphalt or concrete</td>
</tr>
<tr>
<td>- farm or single family/ duplex residential</td>
<td></td>
</tr>
<tr>
<td>- all other land uses</td>
<td>Asphalt or concrete*</td>
</tr>
<tr>
<td><strong>Gravel Roadway</strong></td>
<td>Gravel</td>
</tr>
</tbody>
</table>

* - includes a surface constructed of paving stones or concrete underlay with an asphalt overlay.

** - includes a surface constructed of oil treated gravel or chip sealant roadways.
LAYERN MATERIALS

THE FOLLOWING ARE MINIMUM STANDARDS DERIVED FROM THE CITY OF WINNIPEG STANDARD CONSTRUCTION SPECIFICATIONS¹.

IT IS THE RESPONSIBILITY OF THE OWNER/APPLICANT/LICENSED CONTRACTOR TO ENSURE THAT THESE STANDARDS ARE MET OR EXCEEDED.

SEE THE FOLLOWING IMPORTANT INFORMATION ON:

1) PAGE 18 FOR IMPORTANT INFORMATION ON STANDARD PROCTOR DENSITIES
   AND
2) PAGE 19 FOR IMPORTANT INFORMATION CONCERNING BOULEVARD & APPROACH SETTLEMENT

SUBGRADE

ALL SURFACES (CW 3110)

Suitable site material Compact to a min. 95% standard proctor density

Unsuitable material Replace a min. depth of 300mm with sub-base material. See CW 3110 for acceptable sub-base materials (see also Crushed Sub-Base Material Grading Requirements (page 14)) and compact to specified density.

SUB-BASE

ALL SURFACE TYPES (EXCEPT GRAVEL – Where Clay material is used)
(WHERE THERE IS UNSUITABLE SUBGRADE MATERIAL) (CW 3110)

<table>
<thead>
<tr>
<th>Type</th>
<th>See CW 3110 for acceptable materials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min. thickness</td>
<td>300mm (Placed in compacted layers not exceeding 150mm)</td>
</tr>
<tr>
<td>Max. aggregate size</td>
<td>150mm</td>
</tr>
<tr>
<td>Gradation</td>
<td>As specified in CW 3110</td>
</tr>
<tr>
<td>Compaction</td>
<td>100% Standard Proctor Density</td>
</tr>
</tbody>
</table>

¹ The City of Winnipeg Standard Construction Specifications are available in Adobe Acrobat (PDF) format at The City of Winnipeg, Corporate Finance, Materials Management internet site www.winnipeg.ca/matmgt/Spec/Default.stm
FOR INTERLOCKING PAVING STONE

FOR COMMERCIAL APPROACHES (CW 3335)
Type Lean Concrete Mix over Sub-base
Lean Mix Concrete
Min. thickness 150mm
Aggregate size 20mm nominal
Slump 25-75mm
Compressive strength 5-10 MPa @ 28 days
Air content 5-8%
Cement content 150 kg/cu.m.
Fly ash (10% of cement) 15 kg/cu.m.

FOR COMMERCIAL & RESIDENTIAL APPROACHES (CW 3110)
Type Crushed Aggregate, Crushed Limestone or Crushed Concrete Pavement
Min. thickness 300mm (placed in two 150mm layers)
Max. aggregate size 20mm
Gradation well graded
Compaction 100% Standard Proctor Density

BASE COURSE

FOR CONCRETE (CW 3110)
Types
See CW 3110 for acceptable base course materials (see also Base Course Material Grading Requirements (page 15))
(Granular - 25 mm nominal, Crushed Limestone - 20mm nominal or Crushed Recycled Concrete\(^2\) - 20mm nominal)
Compaction 100% Standard Proctor Density
Min. thickness 75mm

FOR PAVING STONES (CW 3330)
Types Torpedo Sand, Conforms to CAN3-123 Section 5, see CW 3330.
See also Bedding Sand Grading Requirements (page 16)
Min. thickness 30mm without lean mix
15mm with lean mix

FOR ASPHALT (CW 3410)
Types
See CW 3110 & CW 3410 for acceptable base course materials (See also Base Course Material Grading Requirements (page 15))
(Granular – 25mm nominal, Crushed Limestone - 20mm nominal or Crushed Recycled Concrete\(^2\) - 20mm nominal)
Compaction 100% Standard Proctor Density
Min. thickness 150mm Residential
300mm Commercial

\(^2\) Refer to Base Course Material Grading Requirements (page 15) for more information
DRIVING SURFACES

CONCRETE (CW 3310)

Note: All concrete placed must be supplied by an Approved Concrete Supplier. A list of these suppliers is made available on the City of Winnipeg Website @ www.winnipeg.ca/matmgt/Spec/Default.stm. Select → Approved Concrete Mix Designs → Contents

CEMENT

Type 10 Normal Portland, Conforms to CSA A5

FOR RESIDENTIAL APPROACHES (CW 3310)
- Min. thickness: 150mm
- Min. compressive strength: 30 MPa @ 28 DAYS
- Min. cement content: 300 kg/cu.m.
- Max. water/cement ratio: 0.49
- Slump: 80 +/- 20mm
- Aggregate size: 20mm nominal
- Air content: 5.0 - 8.0%

FOR COMMERCIAL APPROACHES (CW 3310)
- Min. thickness: 200mm
- Min. compressive strength: 32 MPa @ 28 DAYS
- Min. cement content: 340 kg/cu.m.
- Max. water/cement ratio: 0.45
- Slump: 70 +/- 20mm
- Aggregate size: 20mm nominal
- Air content: 5.0 - 8.0%

REINFORCING STEEL (Fig. 24 & 25) (CW 3310)

Type A
- 12.7mm plain bars, grade 300, conforms to CSA G30.12.

Type B
- 10M (Deformed), grade 300, conforms to CSA G30.12.

Placement
- Maintain a 75mm clearance from edges. Elevate to mid depth of the concrete using steel/plastic chairs sufficiently placed to ensure positioning is maintained during concrete placement.

RESIDENTIAL APPROACH REINFORCING STEEL (SD-237 & FIG. 24)

Alternative 1
- Place in a grid to form a mat. Spaced not greater than 470mm O.C. in both directions, and welded or securely fastened at intersections. (Ref. FIG. 25)

Alternative 2
- Cut and place to form a grid spaced not greater than 400mm O.C. in both directions and welded or securely fastened at intersections.

COMMERCIAL APPROACH REINFORCING STEEL (SD-217 & FIG. 25)

Bar Mats are to be used in accordance with SD-217, FIG. 25 and ALTERNATIVE 1, SECTION A-A of SD-237, FIG. 24
PAVING STONES (CW 3330)

Type Conforms with CAN3-A231.2 Pre-cast Concrete Pavers
Placement Paving stones to be compacted into the sand bedding with a vibratory compactor & filler sand shall be swept into the joints until full.

ASPHALTIC CONCRETE (CW 3410)
See:
Combined Aggregate Gradation Limits (page 17)
Physical Requirements (page 17)

FOR RESIDENTIAL APPROACHES Type IA, or Type I
Minimum thickness 75mm

FOR COMMERCIAL APPROACHES Type IA
Minimum thickness 75mm

OVERLAY FOR CONCRETE Type II Minimum thickness 20mm

GRAVEL (CW 3150)
Base Course Material see Base Course Material Grading Requirements (page 15)

MISCELLANEOUS

CONCRETE INCIDENTAL ITEMS (CW 3310)
Expansion/Isolation Joint Fibre joint filler conforms to ASTM D1751, 15mm thick, pre-formed, rot-proof, bituminous fibre. Plastic expansion joint filler, fluted polypropylene type 6mm in thickness.
Contraction Joint Saw cut 40mm deep X 10mm wide, located as shown on drawing.
Tie Bars Grade 300 (Approach to pavement) – 15M deformed epoxy coated bars, 600mm long, placed 600mm O.C., drilled into existing pavement 230mm and bonded. (Curb Ramps) – 15M deformed epoxy coated bars, 600mm long, placed 600mm O.C.
Bonding Agent Conforms to ASTM C881, Type 1 grade 3 epoxy, see “Approved Products Surface Works” in Standard Construction Specifications.
Curing Compound Conforms to ASTM C309 Type 2 white pigmented, water based liquid membrane-forming.
CAST IN PLACE CONCRETE CURBS
FOR ASPHALT/PAVING STONE APPROACHES (CW 3310)

<table>
<thead>
<tr>
<th>Size</th>
<th>100mm Wide X 200mm Deep</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cement</td>
<td>Type GU, conforms to CSA A3001</td>
</tr>
<tr>
<td>Min. compressive strength</td>
<td>32 MPA @ 28 DAYS</td>
</tr>
<tr>
<td>Min. cement content</td>
<td>340 kg/cu.m.</td>
</tr>
<tr>
<td>Max. water/cement ratio</td>
<td>0.45</td>
</tr>
<tr>
<td>Max. slump</td>
<td>70 +/- 20mm</td>
</tr>
<tr>
<td>Aggregate size</td>
<td>20mm nominal</td>
</tr>
<tr>
<td>Air content</td>
<td>5-8%</td>
</tr>
<tr>
<td>Reinforcing steel</td>
<td>Conforms to CSA G30-12 Billet Steel for reinforcement, 2-15M deformed bars spaced as shown on applicable figures.</td>
</tr>
</tbody>
</table>

PLASTIC PAVER EDGE SUPPORT
FOR PAVING STONE APPROACHES (CW 3330)

Plastic paver edge support shall be made of High Density Polyethylene (HDPE) material.

Plastic paver edge support may be installed as a paving stone edging for residential approaches. All installation shall be in accordance with the manufacturer’s instructions.

For vehicular applications 10” or 12” x 3/8” diameter steel spikes shall be spaced every 12” (min. every 3rd hole) with the exception of radius applications, where the steel spikes should be spaced every 8” to 12”.

An acceptable plastic edge support is “Snap Edge” as manufactured by Snapedge Canada Ltd. or Snap Edge Corporation.

www.snapedge.ca

CULVERTS
FOR STREETS WITH DITCH TYPE DRAINAGE (CW 3610)

<table>
<thead>
<tr>
<th>Size: Diameter</th>
<th>To be determined by the City of Winnipeg, Water &amp; Waste Department, Engineering Division, Land Drainage and Flood Protection Technologist at 204.986.3670.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>Contractor to calculate culvert length based on approved approach width, shoulder widths and a minimum 4:1 (rise over run) ditch slope.</td>
</tr>
<tr>
<td>Type</td>
<td>Corrugated Steel Pipe, conforms to CSA CAN3-G401, pre-cast concrete pipe, conforms to ASTM C-14, C-76, or C-655, High Density Polyethylene (HDPE) Pipe, conforms to CSA B182.8 and ASTM D2412.</td>
</tr>
</tbody>
</table>
**Crushed Sub-Base Material Grading Requirements (Ref. TABLE CW 3110.1)**

<table>
<thead>
<tr>
<th>CDN. METRIC SIEVE SIZE</th>
<th>PERCENT OF TOTAL DRY WEIGHT PASSING EACH SIEVE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>50mm MAX.</td>
</tr>
<tr>
<td>200 000</td>
<td></td>
</tr>
<tr>
<td>150 000</td>
<td></td>
</tr>
<tr>
<td>100 000</td>
<td></td>
</tr>
<tr>
<td>50 000</td>
<td></td>
</tr>
<tr>
<td>25 000</td>
<td></td>
</tr>
<tr>
<td>5 000</td>
<td></td>
</tr>
<tr>
<td>80</td>
<td></td>
</tr>
</tbody>
</table>

a) 150mm and 100mm crushed sub-base material when subject to the abrasion test will have a loss of not more than 40% when tested in accordance with grading 1 of ASTM C535, Test for Resistance to Degradation of Large Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine.

b) 50mm crushed sub-base material when subjected to the abrasion test will have a loss of not more than 40% when tested in accordance with grading A of ASTM C131, Test for Resistance to Degradation of Small Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine.

c) Crushed sub-base material will be crushed aggregate, crushed granite, crushed limestone or crushed concrete pavement. The content composition of crushed concrete pavement shall be based on weight as follows:
- minimum of 85% Crushed Recycled Concrete
- maximum of 15% recycled asphaltic concrete
- maximum of 3% clay
- maximum of 1% deleterious material
Base course material will consist of sound hard, crushed rock, crushed gravel, or crushed concrete. Base course material will consist of sound durable particles produced by crushing, screening and grading of recovered materials, free from soft material that would decay or disintegrate from weathering.

Crushed rock and crushed gravel will be free from organic or soft material that would disintegrate through decay or weathering.

Crushed concrete base course material is limited to a maximum of two percent of the total dry weight of deleterious material. Deleterious material includes soft material that would decay or disintegrate from weathering, porcelain, vegetation, organic material, wood, glass, plastic, metal, reinforcing steel, building rubble, brick, shale, and friable particles.

Materials are to be spread uniformly to avoid segregation, free of pockets of fine and coarse material.

Base course material will be well-graded and conform to the following grading requirements:

<table>
<thead>
<tr>
<th>CDN. METRIC SIEVE SIZE</th>
<th>PERCENT OF TOTAL DRY WEIGHT PASSING EACH SIEVE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>GRANULAR CRUSHED LIMESTONE CRUSHED CONCRETE</td>
</tr>
<tr>
<td>25 000</td>
<td>100%</td>
</tr>
<tr>
<td>20 000</td>
<td>80% - 100% 100%</td>
</tr>
<tr>
<td>5 000</td>
<td>40% - 70% 40% - 70% 40% - 70%</td>
</tr>
<tr>
<td>2 500</td>
<td>25% - 55% 25% - 60% 25% - 60%</td>
</tr>
<tr>
<td>315</td>
<td>13% - 30% 8% - 25% 8% - 25%</td>
</tr>
<tr>
<td>80</td>
<td>5% - 15% 6% - 17% 6% - 17%</td>
</tr>
</tbody>
</table>

Base course material when subjected to the abrasion test will have a loss of not more than 35% when tested in accordance with grading B of ASTM C131, Test for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine.

Where base course is being placed under an asphaltic concrete pavement, the aggregate retained on a No. 5 000 sieve shall contain not less than 35% crushed aggregate as determined by actual particle count. Crushed aggregate will be considered as that aggregate having at least one fractured face.

Test base course material using an Atterberg Limits in accordance with ASTM D4318. The material passing the 315 sieve shall have a liquid limit not greater than 25 and a plasticity index not greater than 6.
Bedding Sand Grading Requirements (Ref. TABLE CW 3330-R3.1)

<table>
<thead>
<tr>
<th>CDN. METRIC SIEVE SIZE</th>
<th>PERCENT OF TOTAL DRY WEIGHT PASSING EACH SIEVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 000</td>
<td>100%</td>
</tr>
<tr>
<td>5 000</td>
<td>95% - 100%</td>
</tr>
<tr>
<td>2 500</td>
<td>80% - 100%</td>
</tr>
<tr>
<td>1 250</td>
<td>50% - 85%</td>
</tr>
<tr>
<td>630</td>
<td>25% - 60%</td>
</tr>
<tr>
<td>315</td>
<td>10% - 35%</td>
</tr>
<tr>
<td>160</td>
<td>5% - 15%</td>
</tr>
<tr>
<td>80</td>
<td>0% - 10%</td>
</tr>
</tbody>
</table>
## ASPHALTIC CONCRETE

### COMBINED AGGREGATE GRADATION LIMITS (REF. TABLE 1 CW3410-R5.1)

#### PHYSICAL REQUIREMENTS (REF. TABLE 2 CW3410-R5.2)

<table>
<thead>
<tr>
<th>Type</th>
<th>Type I (Surface Course)</th>
<th>Type II (Surface Course)</th>
<th>Type III (Base Course)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent of Total Dry Weight Passing Each Sieve</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Canadian Metric Sieve Size</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>40 000</td>
<td>99% to 100%</td>
<td>70% to 88%</td>
<td>100%</td>
</tr>
<tr>
<td>25 000</td>
<td>95% to 100%</td>
<td>70% to 88%</td>
<td>100%</td>
</tr>
<tr>
<td>16 000</td>
<td>95% to 100%</td>
<td>70% to 88%</td>
<td>100%</td>
</tr>
<tr>
<td>12 500</td>
<td>85% to 100%</td>
<td>65% to 100%</td>
<td>100%</td>
</tr>
<tr>
<td>10 000</td>
<td>85% to 100%</td>
<td>65% to 100%</td>
<td>100%</td>
</tr>
<tr>
<td>5 000</td>
<td>85% to 100%</td>
<td>65% to 100%</td>
<td>100%</td>
</tr>
<tr>
<td>2 500</td>
<td>80% to 100%</td>
<td>60% to 100%</td>
<td>100%</td>
</tr>
<tr>
<td>1 250</td>
<td>80% to 100%</td>
<td>60% to 100%</td>
<td>100%</td>
</tr>
<tr>
<td>630</td>
<td>75% to 100%</td>
<td>55% to 100%</td>
<td>100%</td>
</tr>
<tr>
<td>315</td>
<td>75% to 100%</td>
<td>55% to 100%</td>
<td>100%</td>
</tr>
<tr>
<td>160</td>
<td>75% to 100%</td>
<td>55% to 100%</td>
<td>100%</td>
</tr>
<tr>
<td>80</td>
<td>75% to 100%</td>
<td>55% to 100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

### Crush Count:

(Clause 5.4.1 (b) (iii))

<table>
<thead>
<tr>
<th>Type I À (Surface Course)</th>
<th>Type I (Surface Course)</th>
<th>Type II (Surface Course)</th>
<th>Type III (Base Course)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percentage of Total Sample Weight</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Asphalt Cement</td>
<td>3.0% to 5.0%</td>
<td>5.0% to 7.0%</td>
<td>14.5% min.</td>
</tr>
<tr>
<td>Voids in Mineral Aggregate, VMA</td>
<td>7.0% to 14.0%</td>
<td>12.0% min.</td>
<td>6.0 to 16.0</td>
</tr>
<tr>
<td>Air Voids</td>
<td>4.0% to 6.0%</td>
<td>5.0% to 7.0%</td>
<td>12.0% min.</td>
</tr>
<tr>
<td>Marshall Stability, kN at 60°C</td>
<td>7.0% to 16.0</td>
<td>5.0% to 10.0</td>
<td>5.0% to 16.0</td>
</tr>
<tr>
<td>Flow Index, units of 250 µm</td>
<td>7.0% to 16.0</td>
<td>5.0% to 16.0</td>
<td>5.0% to 16.0</td>
</tr>
</tbody>
</table>
STANDARD PROCTOR DENSITIES

Standard Proctor Densities are a measure of soils density obtained using industry standard tests. The Standard Proctor Density for a soil is unique to that soil type. A sandy soil compacted to 100% Standard Proctor Density would not be as dense as a soil with a greater clay content compacted to the same 100% Standard Proctor Density.

Engineering consultants can determine soil densities and compaction (percent of Standard Proctor Density) at a cost.

A general rule of thumb can be applied to most soils to determine the approximate degree of compaction. A simple procedure is to try to penetrate the compacted soil with a common screwdriver. The screwdriver blade should be placed in contact with the soil and then hand force applied to the screwdriver to penetrate the soil. For Suitable Site sub-grade materials compacted to 95% Standard Proctor Density it should take considerable force to make the screwdriver penetrate the soil 50-75mm. For a base course material compacted to 100% Standard Proctor Density the screwdriver should only penetrate the soil approximately 25mm.
BOULEVARD & APPROACH SETTLEMENT

Water, sewer and other utility trenches exist in most boulevards in the City of Winnipeg. Long term settlement of the trench backfill material can occur even though steps have been taken during the utility installation to ensure that compaction of the backfill material was in accordance with Standard Construction Specifications.

Over time boulevard and approach settlement can occur that might adversely affect a private approach. It is therefore recommended that the sub-grade material in the boulevard and under the approach be examined and preventative measures such as sub-grade compaction by jetting and flooding or proper mechanical means and methods be performed prior to constructing a private approach.

Special attention should be given to sewer manholes and catch basins that will lie within the limits of an approach. Backfill around manholes may be more susceptible to settlement. Where a manhole or catch basin exists, manhole and catch basin isolations must be included in the construction of the approach. A manhole or catch basin which is not isolated will act as a pile under the approach which can lead to serious undermining followed by high severity cracking of the approach when settlement ultimately does occur.

Property owners/licensed contractors should also consider design alternatives above the minimum standards to minimize the effect of long term trench and approach settlement.
TO USE THE DETAIL CHARTS (PAGES 21 & 22) TO DETERMINE WHICH APPROACH DETAIL IS APPLICABLE. FOLLOW THESE STEPS:

STEP 1  Determine your land usage:
- for Residential or Farm property use Chart I.
- for Commercial, Industrial or any other property use Chart II.

STEP 2  Verify:
a) The type of pavement of the Street to which the approach will access:
   - Concrete or Asphalt over Concrete,
   - Asphalt, or
   - Gravel
b) The type of curb if any:
   - Barrier (rectangular with a vertical face)
   - Lip (rolled with a diagonal face)
c) The shoulder type if applicable:
   - Asphalt, or
   - Gravel

Use the information from a, b & c, starting from the left to select the proper row.

STEP 3  Determine whether the Street to which the approach will access is considered Regional or Non-Regional. (see definitions for Regional Streets (page 1))

Use this information to select the appropriate side of the table.

STEP 4  In the row you selected in step 2, on the side you select in step 3, locate the cell containing the surface material type you intend to use.

Note: The listed types are the option available to conform to the Private Access By-law.

The figure number in this cell will reference the applicable detail.
<table>
<thead>
<tr>
<th>LAND USE</th>
<th>RESIDENTIAL / FARM</th>
<th>NON-REGIONAL STREETS</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAVEMENT TYPE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CONCRETE</td>
<td>CONCRETE</td>
<td>CONCRETE</td>
</tr>
<tr>
<td>ASPHALT</td>
<td>ASPHALT</td>
<td>ASPHALT</td>
</tr>
<tr>
<td>GRAVEL</td>
<td>GRAVEL</td>
<td>GRAVEL</td>
</tr>
<tr>
<td>PAVING STONES</td>
<td>PAVING STONES</td>
<td>PAVING STONES</td>
</tr>
<tr>
<td>BARREL CURB</td>
<td>BARREL CURB</td>
<td>BARREL CURB</td>
</tr>
<tr>
<td>LIP CURB</td>
<td>LIP CURB</td>
<td>LIP CURB</td>
</tr>
<tr>
<td>NONE</td>
<td>NONE</td>
<td>NONE</td>
</tr>
</tbody>
</table>

**Chart I**

**Figures:**
- FIG. 1
- FIG. 2
- FIG. 3
- FIG. 4
- FIG. 5
- FIG. 6
- FIG. 7
- FIG. 8
- FIG. 9
- FIG. 10
- FIG. 11
- FIG. 12
- FIG. 13
- FIG. 14
- FIG. 15
- FIG. 16
- FIG. 17
- FIG. 18
- FIG. 19
- FIG. 20

**Legend:**
- FIGURES refer to illustrations of different pavement types and designs.
# CHART II – COMMERCIAL / INDUSTRIAL

<table>
<thead>
<tr>
<th>PAVEMENT TYPE</th>
<th>CURB TYPE</th>
<th>SHOULDER TYPE</th>
<th>LAND USE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>COMMERCIAL / INDUSTRIAL</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>REGIONAL STREETS</td>
</tr>
<tr>
<td>CONCRETE OR ASPHALT OVER CONCRETE</td>
<td>BARRIER CURB</td>
<td>NONE</td>
<td>CONCRETE</td>
</tr>
<tr>
<td></td>
<td>LIP CURB</td>
<td>NONE</td>
<td>CONCRETE</td>
</tr>
<tr>
<td></td>
<td>NONE</td>
<td>ASPHALT</td>
<td>CONCRETE</td>
</tr>
<tr>
<td></td>
<td>NONE</td>
<td>GRAVEL</td>
<td>CONCRETE</td>
</tr>
<tr>
<td>ASPHALT</td>
<td>BARRIER CURB</td>
<td>NONE</td>
<td>ASPHALT</td>
</tr>
<tr>
<td></td>
<td>LIP CURB</td>
<td>NONE</td>
<td>ASPHALT</td>
</tr>
<tr>
<td></td>
<td>NONE</td>
<td>ASPHALT</td>
<td>ASPHALT</td>
</tr>
<tr>
<td></td>
<td>NONE</td>
<td>GRAVEL</td>
<td>ASPHALT</td>
</tr>
<tr>
<td>GRAVEL</td>
<td>NONE</td>
<td>GRAVEL / NONE</td>
<td>GRAVEL</td>
</tr>
</tbody>
</table>
COMMERCIAL CONCRETE APPROACH ON REGIONAL AND NON-REGIONAL STREETS WITH BARRIER CURB & RESIDENTIAL CONCRETE APPROACH ON REGIONAL STREETS WITH BARRIER CURB

NOTE
1) SEE FIG. 22 FOR MANHOLE ISOLATION DETAIL IF REQUIRED.
2) WHEN REPLACING THE CONNECTING SIDEWALK AT AN APPROACH, THE SIDEWALK MUST MAINTAIN A 5% GRADE OR LESS (EXTRA PANELS MAY NEED TO BE REMOVED).
COMMERCIAL PAVING STONE APPROACH ON REGIONAL AND NON-REGIONAL STREETS WITH BARRIER CURB & RESIDENTIAL PAVING STONE APPROACH ON REGIONAL STREETS WITH BARRIER CURB

1) WHEN REPLACING THE CONNECTING SIDEWALK AT AN APPROACH, THE SIDEWALK MUST MAINTAIN A 5% GRADE OR LESS (EXTRA PANELS MAY NEED TO BE REMOVED)

NOTE
FIGURE 3

COMMERCIAL CONCRETE APPROACH ON REGIONAL AND NON-REGIONAL STREETS WITH LIP CURB &
RESIDENTIAL CONCRETE APPROACH ON REGIONAL STREETS WITH LIP CURB

PLAN VIEW

LONGITUDINAL SECTION

NOTE
1) SEE FIG. 22 FOR MANHOLE ISOLATION DETAIL IF REQUIRED.
2) WHEN REPLACING THE CONNECTING SIDEWALK AT AN APPROACH, THE SIDEWALK MUST MAINTAIN A 5% GRADE OR LESS (EXTRA PANELS MAY NEED TO BE REMOVED).
FIGURE 4

COMMERCIAL PAVING STONE APPROACH ON REGIONAL AND NON-REGIONAL STREETS WITH LIP CURB & RESIDENTIAL PAVING APPROACH ON REGIONAL STREETS WITH LIP CURB

PLAN VIEW

CROSS SECTION

LONGITUDINAL SECTION

NOTE

1) WHEN REPLACING THE CONNECTING SIDEWALK AT AN APPROACH, THE SIDEWALK MUST MAINTAIN A 5% GRADE OR LESS (EXTRA PANELS MAY NEED TO BE REMOVED)
COMMERCIAL CONCRETE APPROACH ON REGIONAL AND NON-REGIONAL STREETS WITH SHOULDERS & RESIDENTIAL CONCRETE APPROACH ON REGIONAL STREETS WITH SHOULDERS

PLAN VIEW

LONGITUDINAL SECTION

NOTE
1) SEE FIG. 22 FOR MANHOLE ISOLATION DETAIL IF REQUIRED.
2) CAP SIDE SLOPES AROUND THE CULVERT ENDS WITH IMPERVIOUS CLAY
FIGURE 6

COMMERCIAL PAVING STONE APPROACH ON REGIONAL AND NON-REGIONAL STREETS WITH SHOULDERS

& RESIDENTIAL PAVING STONE APPROACH ON REGIONAL STREETS WITH SHOULDERS

PLAN VIEW

CROSS SECTION

LONGITUDINAL SECTION

NOTE
1) CAP SIDE SLOPES AROUND THE CULVERT ENDS WITH IMPERVIOUS CLAY

N.T.S.
COMMERCIAL ASPHALT APPROACH ON REGIONAL AND NON-REGIONAL STREETS WITH BARRIER CURB & RESIDENTIAL ASPHALT APPROACH ON REGIONAL STREETS WITH BARRIER CURB

1) WHEN REPLACING THE CONNECTING SIDEWALK AT AN APPROACH, THE SIDEWALK MUST MAINTAIN A 5% GRADE OR LESS (EXTRA PANELS MAY NEED TO BE REMOVED)
COMMERCIAL ASPHALT APPROACH ON REGIONAL AND NON-REGIONAL STREETS WITH LIP CURB

&

RESIDENTIAL ASPHALT APPROACH ON REGIONAL STREETS WITH LIP CURB

NOTE

1) WHEN REPLACING THE CONNECTING SIDEWALK AT AN APPROACH, THE SIDEWALK MUST MAINTAIN A 5% GRADE OR LESS (EXTRA PANELS MAY NEED TO BE REMOVED)
COMMERCIAL ASPHALT APPROACH ON REGIONAL AND NON-REGIONAL STREETS WITH SHOULDERS & RESIDENTIAL ASPHALT APPROACH ON REGIONAL STREETS WITH SHOULDERS

PLAN VIEW

CROSS SECTION

LONGITUDINAL SECTION

NOTE

1) CAP SIDE SLOPES AROUND THE CULVERT ENDS WITH IMPERVIOUS CLAY.
FIGURE 10

COMMERCIAL GRAVEL APPROACH ON REGIONAL AND NON-REGIONAL STREETS WITH SHOULDERS &
RESIDENTIAL GRAVEL APPROACH ON REGIONAL STREETS WITH SHOULDERS

PLAN VIEW

LONGITUDINAL SECTION

NOTE

1) CAP SIDE SLOPES AROUND THE CULVERT ENDS WITH IMPERVIOUS CLAY

N.T.S.
FIGURE 11

RESIDENTIAL CONCRETE APPROACH ON NON-REGIONAL STREETS WITH BARRIER CURB

NOTE

1) SEE FIG. 22 FOR MANHOLE ISOLATION DETAIL IF REQUIRED.
2) WHEN REPLACING THE CONNECTING SIDEWALK AT AN APPROACH, THE SIDEWALK MUST MAINTAIN A 5% GRADE OR LESS (EXTRA PANELS MAY NEED TO BE REMOVED).
FIGURE 12

RESIDENTIAL PAVING STONE APPROACH ON NON-REGIONAL STREETS WITH BARRIER CURB

PROPERTY LINE (STREET LINE)

EXISTING SIDEWALK SHALL BE REMOVED AND THE APPROACH EXTENDED BACK TO THE PROPERTY LINE

TAPER CURB TO "0"

ROLL CURB TOWARD DRIVING SURFACE

EXTENT OF 150mm BARRIER CURB

SAW CUT AND REMOVE EXISTING BARRIER CURB AND PAVEMENT, AND REPLACE WITH 40mm LIP CURB (SEE FIG. 23)

CONCRETE CURB CAST-IN PLACE REINFORCED PRECAST OR PLASTIC EDGE SUPPORT OR 65mm X 140mm PRECAST CURB OR 100mm X 200mm CAST-IN-PLACE CURB WITH TWO 15M DEFORMED BARS

FINISHED SURFACE TO BE FLUSH TO EXISTING ROAD SURFACE

30 mm TORPEDO SAND

60mm PAVING STONES

300mm CRUSHED SUB-BASE

SUB-GRADE 300mm CRUSHED SUB-BASE

MIN.=2% MAX. 4% MIN.=2% MAX. 8% CROSSFALL

PRIVATE APPROACH

FRONTAL PERSPECTIVE OF FINISHED PRIVATE APPROACH

NOTE

1) WHEN REPLACING THE CONNECTING SIDEWALK AT AN APPROACH, THE SIDEWALK MUST MAINTAIN A 5% GRADE OR LESS (EXTRA PANELS MAY NEED TO BE REMOVED)

N.T.S.
FIGURE 13

RESIDENTIAL CONCRETE APPROACH ON NON-REGIONAL STREETS WITH LIP CURB

NOTE

PROPERTY LINE

EXISTING SIDEWALK SHALL BE REMOVED AND THE APPROACH EXTENDED BACK TO THE PROPERTY LINE

PROPOSED OR EXISTING SIDEWALK

PLAN VIEW

BAR MAT (SEE "REINFORCING STEEL" FIG. 24 & 25)

1.5m SIDEWALK

150mm CONCRETE

LIP CURB

SUBGRADE

APPROACH LENGTH VARIES

CROSS SECTION

MINIMUM 3m

7.5m

1.5m

MINIMUM 3m

MAXIMUM 6.5m

15mm EXPANSION JOINT AS REQUIRED

CONTRACTION JOINT AS REQUIRED TO MATCH JOINT IN STREET

75mm BASE COURSE

DEEPEN SECTION TO 150mm BELOW EXISTING CONCRETE GUTTER

150mm ROAD

15mm TIE BARS 600MM LONG AT 600MM O.C. (CONCRETE STREETS ONLY)

FRONTAL PERSPECTIVE OF FINISHED PRIVATE APPROACH

NOTE

1) SEE FIG. 22 FOR MANHOLE ISOLATION DETAIL IF REQUIRED.
2) IF CURB HEIGHT >80mm REFER TO FIG. 23.
3) WHEN REPLACING THE CONNECTING SIDEWALK AT AN APPROACH, THE SIDEWALK MUST MAINTAIN A 5% GRADE OR LESS (EXTRA PANELS MAY NEED TO BE REMOVED).

N.T.S.
FIGURE 14

RESIDENTIAL PAVING STONE APPROACH ON NON-REGIONAL STREETS WITH EXISTING LIP CURB

PROPERTY LINE
(Street Line)

EXISTING SIDEWALK SHALL BE REMOVED AND THE APPROACH EXTENDED BACK TO THE PROPERTY LINE

PLASTIC EDGE SUPPORT OR REINFORCED PRECAST OR CAST-IN-PLACE CONCRETE CURB

EXISTING LIP CURB

MINIMUM 3m
MAXIMUM 6.5m
1.5m

PLAN VIEW

FINISHED SURFACE TO BE Flush TO EXISTING ROAD SURFACE
60mm PAVING STONES
30mm TORPEDO SAND
300mm CRUSHED SUB-BASE

SUB-GRADE

CROSS SECTION

FRONTAL PERSPECTIVE OF FINISHED PRIVATE APPROACH

NOTE
1) IF CURB HEIGHT >80mm REFER TO FIG. 23
2) WHEN REPLACING THE CONNECTING SIDEWALK AT AN APPROACH, THE SIDEWALK MUST MAINTAIN A 5% GRADE OR LESS (EXTRA PANELS MAY NEED TO BE REMOVED)
RESIDENTIAL CONCRETE APPROACH ON NON-REGIONAL STREETS WITH SHOULDERS

2) WHEN REPLACING THE CONNECTING SIDEWALK AT AN APPROACH, THE SIDEWALK MUST MAINTAIN A 3% GRADE OR LESS (EXTRA PANELS MAY NEED TO BE REMOVED)

3) CAP SIDE SLOPES AROUND THE CULVERT ENDS WITH IMPERVIOUS CLAY

NOTE

1) SEE FIG. 22 FOR MANHOLE ISOLATION DETAIL IF REQUIRED.
2) WHEN REPLACING THE CONNECTING SIDEWALK AT AN APPROACH, THE SIDEWALK MUST MAINTAIN A 3% GRADE OR LESS (EXTRA PANELS MAY NEED TO BE REMOVED)
3) CAP SIDE SLOPES AROUND THE CULVERT ENDS WITH IMPERVIOUS CLAY
RESIDENTIAL PAVING STONE APPROACH ON NON-REGIONAL STREETS WITH SHOULDERS

NOTE
1) WHEN REPLACING THE CONNECTING SIDEWALK AT AN APPROACH, THE SIDEWALK MUST MAINTAIN A 5% GRADE OR LESS (EXTRA PANELS MAY NEED TO BE REMOVED)
2) CAP SIDE SLOPES AROUND THE CULVERT ENDS WITH IMPERVIOUS CLAY
FIGURE 17

RESIDENTIAL GRAVEL APPROACH ON NON-REGIONAL STREETS WITH SHOULDERS

NOTE

1) WHEN REPLACING THE CONNECTING SIDEWALK AT AN APPROACH, THE SIDEWALK MUST MAINTAIN A 5% GRADE OR LESS (EXTRA PANELS MAY NEED TO BE REMOVED).
2) CAP SIDE SLOPES AROUND THE CULVERT ENDS WITH IMPERVIOUS CLAY.
RESIDENTIAL ASPHALT APPROACH ON NON-REGIONAL STREETS WITH SHOULDERS

NOTE
1) WHEN REPLACING THE CONNECTING SIDEWALK AT AN APPROACH, THE SIDEWALK MUST MAINTAIN A 5% GRADE OR LESS (EXTRA PANELS MAY NEED TO BE REMOVED).
2) CAP SIDE SLOPES AROUND THE CULVERT ENDS WITH IMPERVIOUS CLAY.
RESIDENTIAL ASPHALT APPROACH ON NON-REGIONAL STREETS WITH BARRIER CURB

- Existing sidewalk shall be removed and the approach extended back to the property line.
- 15mm expansion joint as required.
- Reinforced precast or cast-in-place concrete curb.
- Taper curb to "0".
- Roll curb toward driving surface.
- Saw cut and remove existing barrier curb and pavement, and replace with 40mm lip curb (see Fig. 23).
- Extent of 150mm barrier curb.
- 2m minimum 3m maximum 6.5m 1m minimum.
- Extent of curb and pavement removal.
- 65mm x 140mm precast curb or 100mm x 200mm cast-in-place curb with two 15mm deformed bars.
- Finished surface to be flush to existing road surface.
- 75mm min. thickness asphalt.
- Sub-grade.
- 15mm base course.

NOTE

1) When replacing the connecting sidewalk at an approach, the sidewalk must maintain a 5% grade or less (extra panels may need to be removed).
FIGURE 20

RESIDENTIAL ASPHALT APPROACH ON NON-REGIONAL STREETS WITH LIP CURB

EXISTING SIDEWALK SHALL BE REMOVED AND THE APPROACH EXTENDED BACK TO THE PROPERTY LINE

15mm EXPANSION JOINT AS REQUIRED

REINFORCED PRECAST OR CAST-IN-PLACE CONCRETE CURB

1.5m MINIMUM 3m MAXIMUM 6.5m 1.5m

PLAN VIEW

65mm X 140mm PRECAST CURB OR 100mm X 200mm CAST-IN-PLACE CURB WITH TWO 15MM DEFORMED BARS

FINISHED SURFACE TO BE FLUSH TO EXISTING ROAD SURFACE

75mm MIN. THICKNESS ASPHALT

SUB-GRADE

150mm BASE COURSE

CROSS SECTION

FRONTAL PERSPECTIVE OF FINISHED PRIVATE APPROACH

NOTE

1) IF CURB HEIGHT >80mm REFER TO FIG. 23
2) WHEN REPLACING THE CONNECTING SIDEWALK AT AN APPROACH, THE SIDEWALK MUST MAINTAIN A 5% GRADE OR LESS (EXTRA PANELS MAY NEED TO BE REMOVED)
FIGURE 21

CURB RAMP DETAIL FOR COMMERCIAL CONCRETE APPROACHES

SECTION A-A

NOTE

1) SIDEWALK RAMP SURFACE SHALL BE GIVEN A TEXTURED BROOM FINISH ACROSS THE SIDEWALK.
2) 15M TIE BARS SHALL BE PLACED PRIOR TO THE PLACING OF ANY CONCRETE. TIE BARS SHALL BE BENT AS REQUIRED AND PLACED SO AS TO ENSURE A MINIMUM CONCRETE COVER OF 50mm.
3) WHEN REPLACING THE CONNECTING SIDEWALK AT AN APPROACH, THE SIDEWALK MUST MAINTAIN A 5% GRADE OR LESS (EXTRA PANELS MAY NEED TO BE REMOVED)
FIGURE 22

MANHOLE ISOLATION FOR CONCRETE APPROACHES

NOTE

1) MANHOLE ISOLATION DIAMETER = MANHOLE O.D. + 150mm + 150mm
FIGURE 23

CURB AND GUTTER REPLACEMENT FOR RESIDENTIAL APPROACHES; CONCRETE/PAVING STONE OR ASPHALT ON NON-REGIONAL STREETS WITH BARRIER OR LIP CURB >80mm

REMOVAL

NEW CONCRETE OR PAVING STONE APPROACH

DETAIL 'A'

15M TIE BARS 600mm LONG @ 600 O.C. FOR CONCRETE

NOTE: APPLICABLE FOR EXISTING CURB HEIGHT > 80mm

REPLACEMENT

NEW CONCRETE OR PAVING STONE APPROACH

DETAIL 'B'

15M TIE BARS 600mm LONG @ 600 O.C. FOR CONCRETE

EXISTING CONCRETE PAVEMENT

300mm

BACK OF CURB LINE

300mm

FINISHED SURFACE - MATCH EXISTING SURFACE TYPE

10-15mm

5R

CONCRETE PAVEMENT

150mm

150mm

40mm

EXISTING CONCRETE PAVEMENT

300mm

BACK OF CURB LINE

300mm

FINISHED SURFACE - MATCH EXISTING SURFACE TYPE

10-15mm

5R

CONCRETE PAVEMENT

150mm

150mm

40mm

EXISTING CONCRETE PAVEMENT

300mm

BACK OF CURB LINE

300mm

N.T.S.
FIGURE 24

RESIDENTIAL APPROACH REINFORCING STEEL
SAW CUT LAYOUTS
BAR MAT LAYOUT FOR APPROACHES

ALTERNATIVE 1 - BAR MATS (12.7mm PLAIN)

ALTERNATIVE 2 - 10M (DEFORMED)

NOTE

1) DIMENSIONS ARE IN MILLIMETERS.
2) TRANSVERSE SAW CUT AT PAVEMENT JOINTS.
3) ALL SAW CUTS SHALL BE 50mm DEEP BY 3 mm WIDE SAW CUTTING LAYOUTS SHOWN ARE TWO POSSIBLE OPTIONS
   IF "W" >4300 ADD SAWCUT AT W/2, IF "X" <1000 EXTEND SAWCUT TO POINT "Z", IF "Y" <1000 NO SAWCUT REQUIRED

SECTION A-A

N.T.S.
COMMERCIAL APPROACH REINFORCING STEEL
AND
LAYOUT FOR TYPE “A” AND “B” BAR MAT REINFORCEMENT

**NOTE**

1) ALL BAR MATS JOINTS TO BE ELECTRICALLY SPOT WELDED.
2) ALL DIMENSIONS ARE TO CENTRES OF BARS.
3) ALL DIMENSIONS ARE IN MILLIMETERS.
FIGURE 26

APPROACHES LOCATED ADJACENT TO OBSTRUCTIONS, INCLUDING BUT NOT LIMITED TO; FIRE HYDRANTS, HYDRO POLES AND COMMUNICATION PEDESTALS

NOTE

1) APPROACHES MUST BE CONSTRUCTED TO MAINTAIN THE MIN. 1.5m CLEARANCE
2) OBSTRUCTIONS INCLUDE, BUT NOT LIMITED TO; LAMP STANDARDS, HYDRO POLES AND FIRE HYDRANTS
3) AREA INSPECTORS ARE AVAILABLE TO HELP WITH GEOMETRY OF APPROACH FLARES
4) CITY FORESTER APPROVAL IS REQUIRED IF A TREE IS WITHIN 2.0m OF THE EDGE OF AN APPROACH

PLAN VIEW

N.T.S.
FIGURE 27

MODIFIED BARRIER CURB FOR COMMERCIAL CONCRETE APPROACHES

INTEGRAL MODIFIED BARRIER CURB

N.T.S.
GENERAL INFORMATION

APPROVALS/PERMITS for private approaches/walks are coordinated through one of two divisions of the Public Works Department.

For approvals of:

1) **ALL COMMERCIAL / INDUSTRIAL** Private Approaches/Walks & **RESIDENTIAL/FARM PRIVATE** Approach/Walks on **REGIONAL STREETS**

   Contact – Private Approach Technician  
   Traffic Assessment Branch  
   Transportation Division  
   Public Works Department  
   101-1155 Pacific Ave., Winnipeg, MB R3E 3P1

2) **RESIDENTIAL / FARM** Private Approaches on **NON-REGIONAL STREETS**

   Contact – Plan Approval/Permit Technologist 204.986.4113  
   Email: PWDPermits@winnipeg.ca  
   Email only for Plan Approval/Permit Technologist, not for Private Approach Technician  
   Technology Services Branch  
   Engineering Division  
   Public Works Department  
   106-1155 Pacific Ave., Winnipeg, MB R3E 3P1

Always contact the applicable technician/technologist when constructing, removing, relocating or modifying a private approach/walk. The technician/technologist will determine if an approval/permit is required for the proposed works.

All Permits are issued by the Plan Approval/Permit Technologist at 204.986.4113

An approval/permit is always required to construct a new private approach/walk or for their reconstruction. When hiring a **LICENSED PRIVATE APPROACH CONTRACTOR** you should verify that there is a valid approval/permit.

INSPECTIONS of Private Approaches/Walks are performed by the City of Winnipeg, Public Works Department, Engineering Division.

**TO ARRANGE FOR AN INSPECTION:**

- **A.M RESIDENTIAL INSPECTIONS**-Email prior to noon of the previous business day.
- **P.M. RESIDENTIAL INSPECTIONS**-Email prior the end of the previous business day.
RESIDENTIAL APPROACH INSPECTION – Provide at least twenty-four (24) hours’ notice to the Residential Approach Inspector. The City of Winnipeg will no longer accept telephone calls for residential approach inspections but rather an email to the Residential Approach Inspector will be required (see page 54).

COMMERCIAL INSPECTION – Provide at least twenty-four (24) hours’ notice to the Area Inspector. Calls received on Fridays (or the last business day of the week in the event of holidays) will be accommodated on Mondays (or the first business day of the week in the event of holidays)

See page 54 for Inspector contact information.

WEATHER CONDITIONS
Concrete shall be adequately protected from freezing for a minimum of five (5) days after completion of placing operations, or longer as required to ensure that the pavement opening requirements of Clause 9.9 of Specification CW 3310 are met. A minimum requirement for protection shall be provided as follows when the air temperature as forecast by Environment Canada is:

0°C to -3°C The concrete shall be covered with polyethylene film.

-3°C to -5°C Insulated tarp(s) or two sheets of polyethylene film covering, separated by 300 mm of dry straw.

Concrete damaged as a result of inadequate protection against weather conditions shall be removed and replaced by the Contractor at his own expense.

For temperatures below -5°C a plan of heating and hoarding the concrete shall be submitted to the Senior Technologist for approval before commencement of work. See page 54 for Senior Technologist contact information.

APPROACH CULVERTS: DIAMETER, LENGTH & ELEVATION
Culvert diameter to be determined by the City of Winnipeg, Water & Waste Department, Engineering Division, Land Drainage and Flood Protection Technologist at 204.986.3670.

Contractor to calculate culvert length based on approved approach width, approach shoulder widths and a minimum 4:1 (rise over run) ditch slope.

For culvert elevations call 204.986.4113 at least five (5) working days prior to the work commencing.

RE-INSPECTION FEE
Where an inspection takes place and the private approach cannot be approved by the designated employee because

(a) the work is not at a stage where an inspection of the work can take place; or
(b) the work has not been carried out in compliance with the By-law;

An inspection fee of $30.00 is payable by the LICENSED CONTRACTOR to the City.
MANHOLE & CATCH BASIN ADJUSTMENT (CW 3210 & CW 2130 of The City of Winnipeg Standard Construction Specifications)

The Private Access By-law No. 49/2008, Section 22 requires all manhole adjustments necessary for the construction of new private approaches in new subdivision be the full responsibility of the property owner. Any adjustments that are required to the structure of the manhole i.e. concrete risers; pipe and barrel repairs shall be completed by a licensed sewer and water contractor. Manholes/catch basins are to be isolated as outlined on page 44. (See page 54, Contacts & Web Addresses - Licensed Sewer/Water Contractors) The installation of cast iron lifter rings or installation of levelling bricks may be performed by an experienced licensed approach contractor. All works must be performed to the City of Winnipeg Standard Construction Specifications and must be inspected prior to pouring of the concrete approach, and re-inspected when completed.

If a manhole/catch basin is present, please call the Area Approach Inspector prior to excavating for the approach. (See Inspector contacts: page 54).
APPROACH INSPECTION BOUNDARIES
CONTACTS

INSPECTOR CONTACTS

<table>
<thead>
<tr>
<th>Contact</th>
<th>Contact Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Senior Technologist</strong></td>
<td>204.986.4112 <a href="mailto:RWeibel@winnipeg.ca">RWeibel@winnipeg.ca</a></td>
</tr>
<tr>
<td>(Licensing &amp; Compliance)</td>
<td></td>
</tr>
<tr>
<td><strong>Junior Technologist</strong></td>
<td>204.794.4060 <a href="mailto:CTimbreza@winnipeg.ca">CTimbreza@winnipeg.ca</a></td>
</tr>
<tr>
<td>(Approach Inquiries, Inspections &amp; Licensing)</td>
<td></td>
</tr>
<tr>
<td><strong>North Residential</strong></td>
<td><a href="mailto:pwappron@winnipeg.ca">pwappron@winnipeg.ca</a></td>
</tr>
<tr>
<td>Approach Inspector*</td>
<td></td>
</tr>
<tr>
<td><strong>South Residential</strong></td>
<td><a href="mailto:pwappro@winnipeg.ca">pwappro@winnipeg.ca</a></td>
</tr>
<tr>
<td>Approach Inspector*</td>
<td></td>
</tr>
<tr>
<td><strong>North Area Commercial</strong></td>
<td>204.794.4062 <a href="mailto:TKrainert@winnipeg.ca">TKrainert@winnipeg.ca</a></td>
</tr>
<tr>
<td>Approach Inspector</td>
<td></td>
</tr>
<tr>
<td><strong>South Area Commercial</strong></td>
<td>204.391.3626 <a href="mailto:RLim2@winnipeg.ca">RLim2@winnipeg.ca</a></td>
</tr>
<tr>
<td>Approach Inspector</td>
<td></td>
</tr>
<tr>
<td><strong>East Area Commercial</strong></td>
<td>204.451.5871 <a href="mailto:KBoles@winnipeg.ca">KBoles@winnipeg.ca</a></td>
</tr>
<tr>
<td>Approach Inspector</td>
<td></td>
</tr>
</tbody>
</table>

*The Residential Approach Inspectors’ email addresses are only active during the construction season (approximately May to October, weather dependent)*

OTHER CONTACTS & WEB ADDRESSES

**Plan Approval/ Permit Technologist** (Residential on Non-Regional Streets)
Permits/Approvals)...............................................................204.986.4113

**Private Approach Technician** (All Commercial & Residential on Regional Streets
Permits and Approvals)............................................................DBinda@winnipeg.ca
Customer Services Branch ......................................................204.986.3184

**Streets By-Law No. 1481/77**........... www.winnipeg.ca >Features>By-laws>Streets By-law
**Private Access By-Law No. 49/2008**..... www.winnipeg.ca >Features>By-laws>Private Access
Approved Products..............................................................www.winnipeg.ca/matmgmt/Spec/Default.stm
Snap Edge Canada Ltd............................................................www.snapedge.ca
Licensed Sewer/Water Contractors .......................www.winnipeg.ca/waterandwaste/dept/licensedContractors.stm
For Culvert Diameter contact City of Winnipeg, Water & Waste Department, Engineering
Division, Land Drainage & Flood Protection Technologist........................................204.986.3670

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