Manotick Pathways Inventory Notes
April 14, 2023

1 Entrance at Beaverwood Road: Small section of asphalt at road - in poor shape, not accessible. Bollards in poor shape.

2 Stonedust path 1.2-1.5 m wide upgraded here, in fairly good shape.

3 Erosion down path and at path intersection (low spot / not draining at intersection).

4 Very low and wet area (not draining).

5 Narrow path, shallow swale at property line (not draining).

6 Culvert at bend in path. Sump pump from adjacent house outlets here. Granular swale at culvert and extends south. Path ±900mm wide.

7 Swale overflows onto pathway.

8 Box end type drain - blocked or no slope? Culvert exposed on path, ends into Catch Basin. Water is not flowing.

9 Entrance at Beaverwood Road (west): Small section of asphalt at road - in poor shape, ±1.0 metre in width.

10 Section very wet, still snow here where most other places has melt. Swale not well defined, not draining. Lowest point at south end.

11 Low point and wet at bend in path, no drainage

12 2 culverts, both exposed, path uneven.

13 Low spot at bench.

14 Path connection to parking, culvert at swale. Area is not well defined with poor surfacing at parking lot connection.

15 Large low area behind addition – across pathway. Ground very uneven.

16 Broken asphalt, uneven ground at path junction.

17 Culvert exposed at pathways, drier here between ball diamonds.

18 Wet area – upper 'plateau' area with no drainage, no well defined swale.

19 Low spot near pathway junction. Path silted up from erosion (#3).

20 Upper pathway connection at Beaverwood: steep connection to road, not not accessible. No wet areas.

21 Second upper pathway connection at Beaverwood: very steep connection, not accessible.

LEGEND

- 18 — INVENTORY NOTE
- J — LOW AREAS
- E3 — PARK PEDESTRIAN ENTRANCE
- PATHWAY CONDITION VERY POOR
- PATHWAY CONDITION POOR
- PATHWAY CONDITION FAIR
- PATHWAY CONDITION GOOD
- EXISTING SWALE
- EXISTING CULVERT / DRAIN

0 50 100 150 200 250 m

MANOTICK CENTENNIAL PARK - PATHWAY UPGRADES

Dr Leach Drive, Manotick

INVENTORY PLAN

PRELIMINARY

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landscape architecture • urban design • site planning
Ph 613-234-1564 Fx 613-234-1537 info@rala.ca www.rala.ca

MAY 2023

Manotick Pathways Inventory Images

1

2

3

A

4

B

4a

5

B

6

C

D

7

E

8

E

9

9a

10

E

LOW AREAS

MANOTICK CENTENNIAL PARK - PATHWAY UPGRADES

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INVENTORY PHOTOS

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Manotick Pathways Inventory Images

11

12

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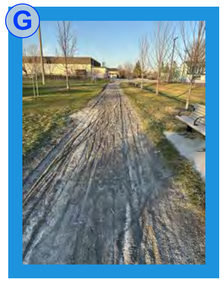

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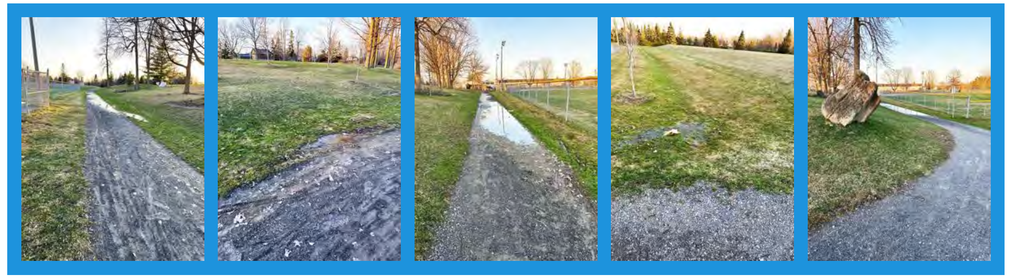

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LOW AREAS

21

MANOTICK CENTENNIAL PARK - PATHWAY UPGRADES

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INVENTORY PHOTOS

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landscape architecture • urban design • site planning
Ph 613-224-9344 Fx 613-224-9331 info@rala.ca www.rala.ca

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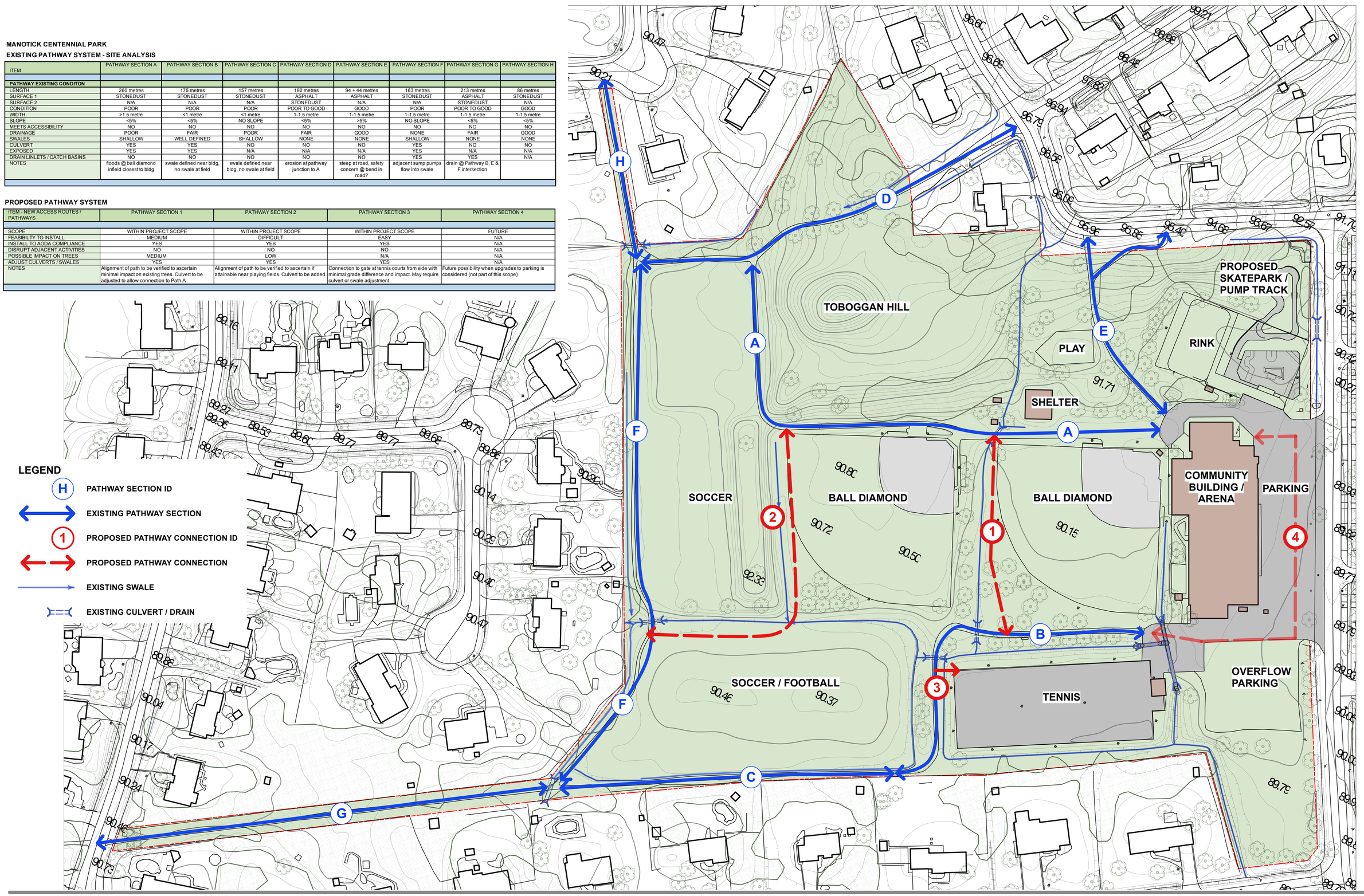
MANOTICK CENTENNIAL PARK

EXISTING PATHWAY SYSTEM - SITE ANALYSIS

ITEM	PATHWAY SECTION A	PATHWAY SECTION B	PATHWAY SECTION C	PATHWAY SECTION D	PATHWAY SECTION E	PATHWAY SECTION F	PATHWAY SECTION G	PATHWAY SECTION H
PATHWAY EXISTING CONDITON								
LENGTH	260 metres	175 metres	157 metres	192 metres	94 + 44 metres	163 metres	213 metres	86 metres
SURFACE 1	STONEDUST	STONEDUST	STONEDUST	ASPHALT	ASPHALT	STONEDUST	ASPHALT	STONEDUST
SURFACE 2	N/A	N/A	N/A	STONEDUST	N/A	N/A	STONEDUST	N/A
CONDITION	POOR	POOR	POOR	POOR TO GOOD	GOOD	POOR	POOR TO GOOD	GOOD
WIDTH	>1.5 metre	<1 metre	<1 metre	1-1.5 metre	1-1.5 metre	1-1.5 metre	1-1.5 metre	1-1.5 metre
SLOPE	<5%	<5%	NO SLOPE	<5%	>5%	NO SLOPE	<5%	<5%
MEETS ACCESSIBILITY	NO	NO	NO	NO	NO	NO	NO	NO
DRAINAGE	POOR	FAIR	POOR	FAIR	GOOD	NONE	FAIR	GOOD
SWALES	SHALLOW	WELL DEFINED	SHALLOW	NONE	NONE	SHALLOW	NONE	NONE
CULVERT	YES	YES	NO	NO	NO	YES	NO	NO
EXPOSED	YES	YES	N/A	N/A	N/A	YES	N/A	N/A
DRAIN LINLETS / CATCH BASINS	NO	NO	NO	NO	NO	YES	YES	N/A
NOTES	floods @ ball diamond infield closest to bldg	swale defined near bldg, no swale at field	swale defined near bldg, no swale at field	erosion at pathway junction to A	steep at road, safety concern @ bend in road?	adjacent sump pumps flow into swale	drain @ Pathway B, E & F intersection	

PROPOSED PATHWAY SYSTEM

ITEM - NEW ACCESS ROUTES / PATHWAYS	PATHWAY SECTION 1	PATHWAY SECTION 2	PATHWAY SECTION 3	PATHWAY SECTION 4
SCOPE	WITHIN PROJECT SCOPE	WITHIN PROJECT SCOPE	WITHIN PROJECT SCOPE	FUTURE
FEASIBILTY TO INSTALL	MEDIUM	DIFFICULT	EASY	N/A
INSTALL TO AODA COMPLIANCE	YES	YES	YES	N/A
DISRUPT ADJACENT ACTIVITIES	NO	NO	NO	N/A
POSSIBLE IMPACT ON TREES	MEDIUM	LOW	N/A	N/A
ADJUST CULVERTS / SWALES	YES	YES	YES	N/A
NOTES	Alignment of path to be verified to ascertain minimal impact on existing trees. Culvert to be adjusted to allow connection to Path A	Alignment of path to be verified to ascertain if attainable near playing fields. Culvert to be added.	Connection to gate at tennis courts from side with minimal grade difference and impact. May require culvert or swale adjustment	Future possibility when upgrades to parking is considered (not part of this scope)



MANOTICK CENTENNIAL PARK - PATHWAY UPGRADES

Dr Leach Drive, Manotick

ANALYSIS PLAN

PRELIMINARY

0 50 100 150 200 250 m

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Pathway upgrades

PATHWAY STANDARD / WIDTH OPTIONS

The following options depict different widths allowing for accessibility and usage.

OPTION 1: maintain existing width, which in some cases is less than 1 metre (3') and in many cases less than 1.5 metres (5'). Where pathways are less than 1.5 metres, they are not compliant to latest accessibility standards.

OPTION 2 - 1.50 metres (5'): this is the minimum accessible width to be compliant with AODA (Accessibility for Ontarians with Disabilities Act). Option 2 allows for users to pass each other if both are using accessible devices. It does not allow for any maintenance vehicles and is not conducive to multi use (walking, cycling, scooter, other).

OPTION 3 - 1.80 metres (6'): minimum City of Ottawa standard accessible pathway width allowing for ease of use in both directions if both are using accessible devices, multiple people. It does not allow for any maintenance vehicles and is not conducive to multi use (walking, cycling, scooter, other).

OPTION 4 - 2.40 metres: standard City of Ottawa Heavy Duty pathway width allowing for maintenance vehicles, ease of use in both directions if both are using accessible devices, multiple people. It is not conducive to multi use (walking, cycling, scooter, other).

OPTION 5 - 3.0 metres: standard width for multi-use pathways (MUPs). Allows for ease of users with different modes (walking, cycling, scooters), plus maintenance vehicles.

SURFACE OPTIONS

The following options depict different pathway surfacing options depending on width and usage. The full reconstruction options also pertain to the new pathway sections.

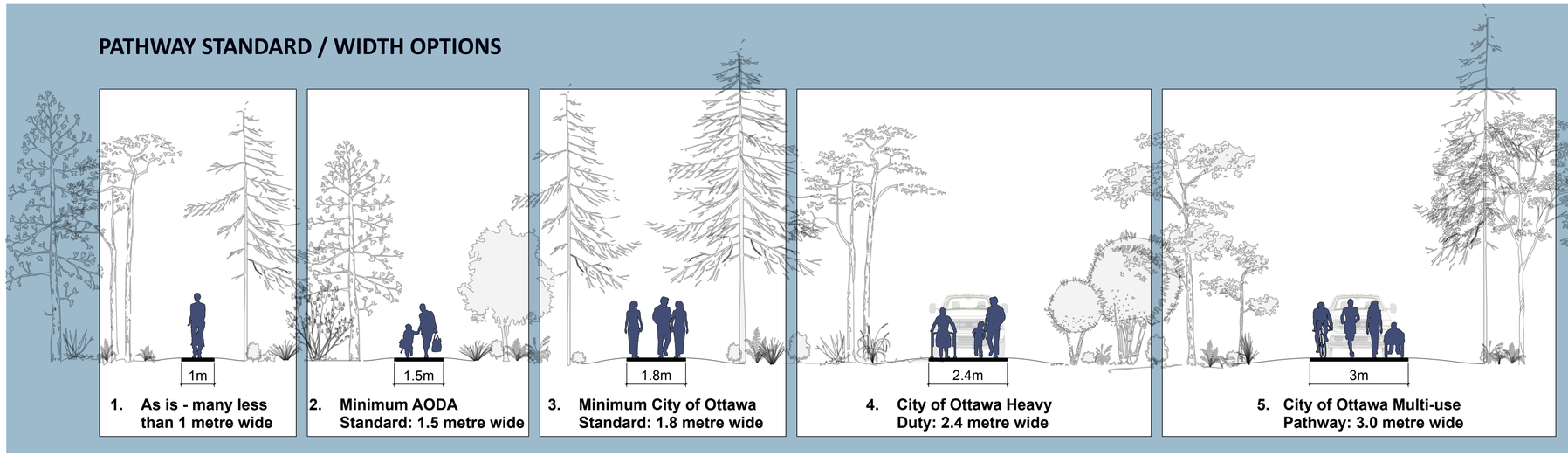
OPTION 1 - STONEDUST RESURFACING: maintain existing width of pathway, add additional stonedust and consolidate.

OPTION 2 - STONEDUST FULL RECONSTRUCTION: remove existing pathway, excavate and install new base to new elevations for reconstructed pathways with optional widths 1, 2 or 3.

OPTION 3 - ASPHALT FULL RECONSTRUCTION STANDARD: remove existing pathway, excavate and install new base and asphalt to new elevations for reconstructed pathways with optional widths 2 or 3.

OPTION 4 - ASPHALT FULL RECONSTRUCTION HEAVY DUTY / MUPs: remove existing pathway, excavate and install new granular bases and asphalt to new elevations for reconstructed pathways to optional widths 4 or 5. Allows for multi-use and/or maintenance vehicle access.

PATHWAY STANDARD / WIDTH OPTIONS

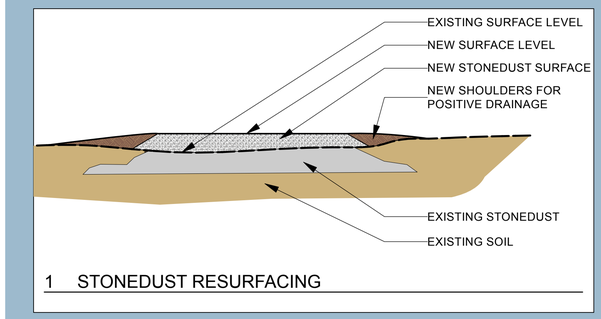


1. As is - many less than 1 metre wide
2. Minimum AODA Standard: 1.5 metre wide
3. Minimum City of Ottawa Standard: 1.8 metre wide
4. City of Ottawa Heavy Duty: 2.4 metre wide
5. City of Ottawa Multi-use Pathway: 3.0 metre wide

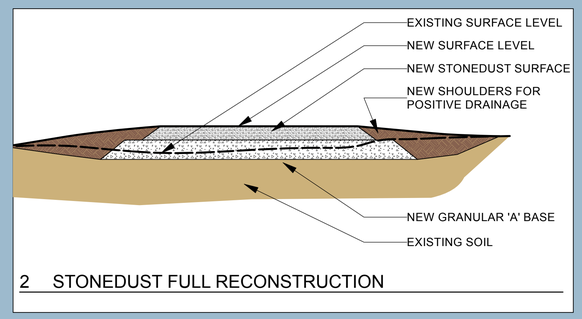
PATH WIDTH AND USAGE

	WIDTH	STONEDUST	ASPHALT	ACCESSIBLE	USE
1	<1.5m	√	X	X	Pedestrian
2	1.5m	√	√	√	Pedestrian
3	1.8m	√	√	√	Pedestrian
4	2.4m	X	√	√	Heavy duty
5	3.0m	X	√	√	Multi-purpose

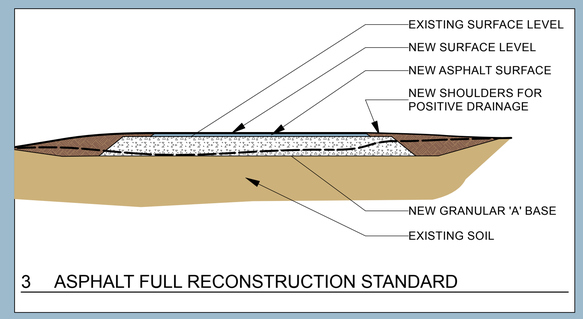
SURFACE OPTIONS



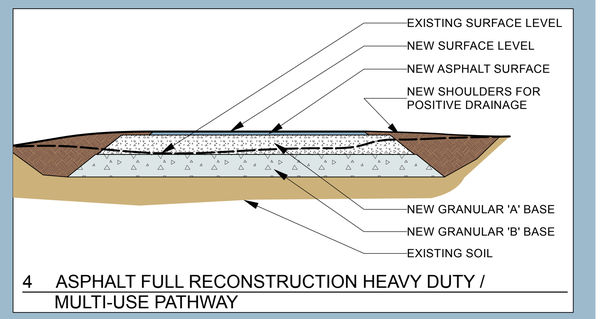
1 STONEDUST RESURFACING



2 STONEDUST FULL RECONSTRUCTION



3 ASPHALT FULL RECONSTRUCTION STANDARD



4 ASPHALT FULL RECONSTRUCTION HEAVY DUTY / MULTI-USE PATHWAY

MANOTICK CENTENNIAL PARK - PATHWAY UPGRADES

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DESIGN OPTIONS

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DRAINAGE OPTIONS / UPGRADES

The following depicts the existing conditions of the drainage components in the park (catch basin, culverts, culvert covers, swales) and some proposed design options. Some options will require further input to the design feasibility such as adding catch basin or other subsurface infrastructure (outside this scope).

PATHWAY DESIGN
Pathway upgrades would include raising the grade, adjusting side slope and redefining the adjacent swales to alleviate low areas, or areas with no drainage. Design would also divert runoff in areas where erosion occurs.

BIOSWALES / INFILTRATION AREAS
Designing the low areas with little or no slope to allow for better uptake of water using bioswale and infiltration areas. These may or may not have subdrains, depending on feasibility of outletting the drains.

SWALE DESIGN
Adjust swale shape and flow to allow for better drainage. Designed in conjunction with pathways, culverts, catch basins, bioswales and retention areas.

CULVERTS
Reinstate existing culverts at proper depths with proper cover at pathway. New culverts to be added where required to alleviate drainage and low spots.

CATCH BASINS / BACKYARD DRAINS
Further study can determine whether catch basins can be added to alleviate some of the drainage issues and poor performance of existing catch basin in existing low area E. Installation and/or upgrades of existing catch basins would entail a major investment for design and installation.

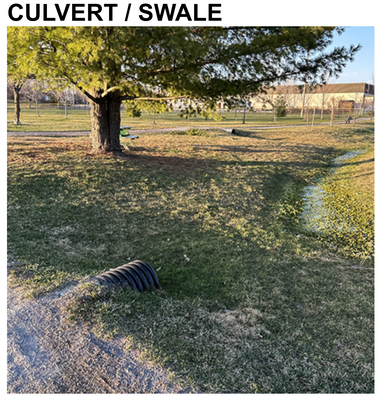
EXISTING DRAINAGE

CATCH BASIN

DRAIN COVER

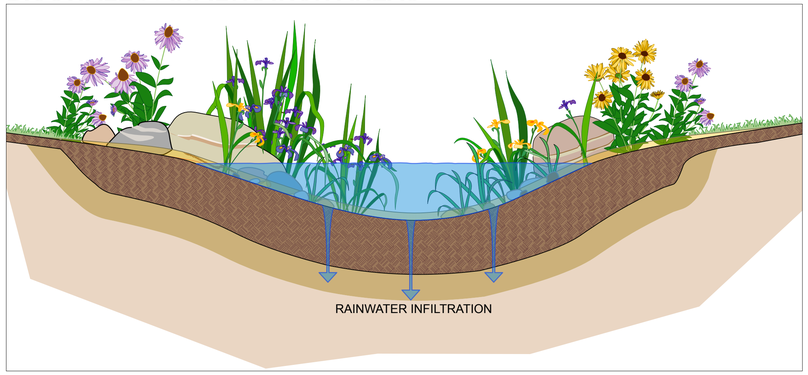
CULVERTS

CULVERT / SWALE

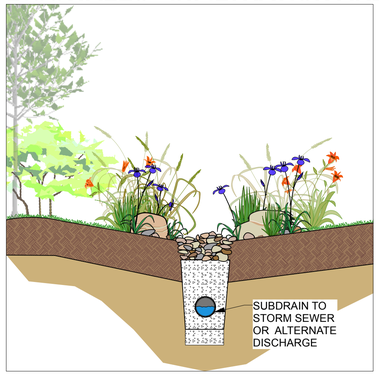


DRAINAGE UPGRADE OPTIONS

BIOSWALES / INFILTRATION AREAS



BIOSWALES / INFILTRATION AREAS



RAISED PATHWAY

BACKYARD DRAINS

CATCHBASINS

CULVERTS

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DESIGN OPTIONS

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