

Criteria for Surface Treatment

Approved By: Council
Approval Date: February 14, 2013
Effective Date: February 14, 2013
Revision Date: February 14, 2023

Policy Statement

To guide the Township of Douro-Dummer in establishing which roads to convert to surface treatment, ~~or return to gravel.~~

Purpose: To guide the Township of Douro-Dummer Council and staff in determining whether a road section is eligible to be converted to surface treatment, ~~or return to gravel.~~

Application: Township of Douro-Dummer Council and staff.

Definitions:

Rural Roadside Environment: (areas with sparse development)

An area where there are 8 or less developed properties with a principal use within 500 metres. If both sides of the road are developed the standard is 4 or less developed properties on each side of the road with a principal use within 300 metres.

Semi-Urban Roadside Environment:

An area that has 8 or more developed properties with a principal use within 500 metres on one side, no curbs and gutters, and with or without storm sewers. If both sides of the road are developed the standard is 4 or more developed properties on each side of the road with a principal use within 300 metres.

Urban Roadside Environment:

An area that has 8 or more developed properties with a principal use in a span of less than 500 metres on one side. The majority of the lot frontages are less than 50 metres with curb and gutter on both sides, with/ or served by storm/combination sewers or curb and gutter on one side, with/ or served by storm/combination sewers or reversed paved shoulders with/ or served by storm/combination sewers for subdivisions.

Exclusions: None.

References & Related Policies:

Township of Douro-Dummer Road Needs Study.
Inventory Manual by the MTO.

Consequences of Non-Compliance:

Failure of Council or staff to follow this policy may result in implementation of the provisions of the disciplinary policy.

Review Cycle: This policy shall be reviewed by the Manager of Public Works on an annual basis.

Procedures

Regardless of the above definitions and in accordance with Council Resolution Number 329-2019, (August 8/September 3, 2019) all pre-existing surface treated roads will remain as such.

Resolution Number 329-2019

Moved by: Deputy Mayor Moher _____ Seconded by: Councillor Landsmann
That Council receive the Memo regarding notes from the Special Council meeting on road issues keep on August 8, 2019.....

And that the Surface treatment long term plan will be revised to incorporate a grandfathering of existing hard surface roads into future plans to leave these surface treated roads; Staff will provide a revised plan to incorporate these roads; Carried

the following roads are deemed to be Semi-Urban Roadside Environment and should remain as surface treatment roads:

Section 5	Golf Course Road
Section 8	Gilchrist Bay Road
Section 12	Dummer Lake Road West
Section 39	Clifford Road
Section 40	Banks Avenue
Section 43	Ford Street
Section 44	English Line
Section 45	Water Street
Section 46	Mill Street
Section 48	Church Street
Section 49	West Street
Section 52	Payne Line Road
Section 79	Daleview Road
Section 81	Plati Avenue
Section 82	Clinton Avenue
Section 83	Gifford Drive
Section 84	Kingsdale Drive
Section 85	Rexton Road
Section 86	Coral Drive

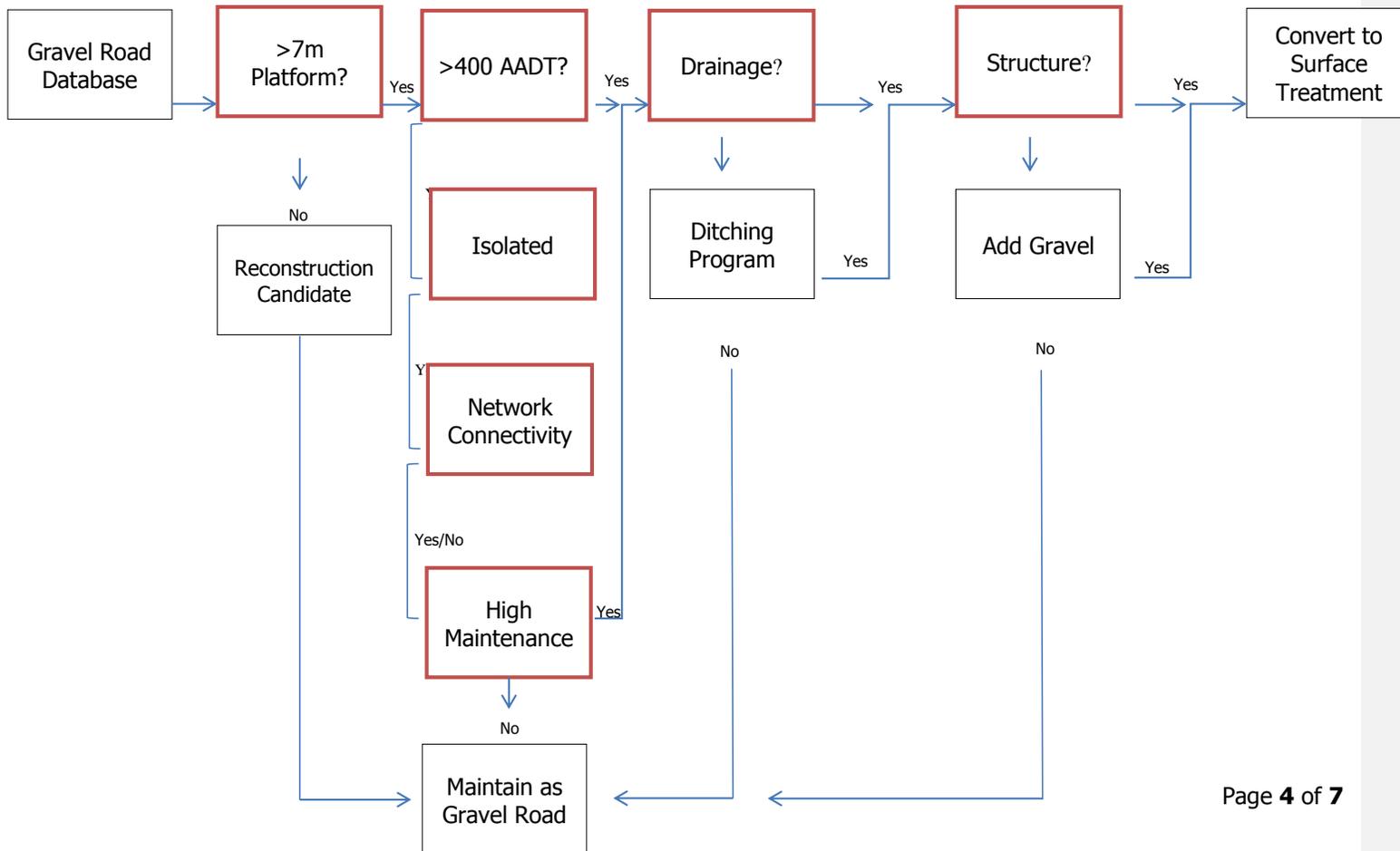
Section 87	Highland Avenue
Section 88	Valleyview Avenue
Section 89	Donwood Drive
Section 90	Hillview Avenue
Section 91	Orchard Crescent
Section 92	Maryvale Road
Section 93	Edgewood Avenue
Section 94	McNab Avenue
Section 105	Hilliard Way
Section 108	Thelgar Road
Section 109	South Beach Road
Section 110	Douro Third Line Road
Section 144	Ayotte Crescent
Section 166	Lonsberry Lane
Section 167	Canal Road
Section 170	Old Highway 28
Section 206	Iron Woods Drive
Section 211	Television Road

All other road sections in the Township will be classified as Rural Roadside Environment.

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Gravel Road Conversion Decision Matrix



Road Scoring System

Road Name:
Road Section:
Location:
MTO
Classification:
Traffic Count:

Date of Scoring: _____

0%

Criteria	Score	
> 7m Platform (Minimum of 6m of road and 0.5m of shoulder)	10	
> 400 AADT (Annual Average Daily Traffic Count)	40	0
Isolated (Location of road) (Travel time for grader)	5	
Network Connectivity	5	
High Maintenance (Cost to maintain as a gravel road)	20	
Drainage (Ditching)	10	
Structure (Base Layer)	10	
Total Score out of 100		0

Notes:

Scoring Explanation

>7m Platform:

10 - The platform width would have to be 6 metres of travel of surface and 0.5 metres of shoulder on both sides of road. It is the best practice to try and achieve a 7 metre platform. The road score will decrease by the percentage of sections where it does not reach 7 metres.

>400 AADT (Annual Average Daily Traffic Count):

When calculating the score, rounding rules will apply.

Example:

Traffic count of 176 ($176 \div 400 = 44\%$)	Traffic count of 173 ($174 \div 400 = 43\%$)
44% of 40 = 17.6	43% of 40 = 17.2
Therefore the score would be 18	Therefore the score would be 17

40 – Traffic count would be greater than or equal to 400

20 – Traffic count would be equal to 200

0 – Traffic count of 0

Isolated:

0 – Not isolated, the time to get to the road section would be less than 20 minutes of travel time for the grader.

5 – Is considered to be an isolated road, the travel time for the grader would be approximately 20 minutes or greater with no other road to be graded on route.

Network Connectivity:

The Township section of road helps to link traffic routes with other Township roads that have higher traffic counts.

5 - The section of road helps to link various significant travel routes.

0 – Dead end road.

High Maintenance as gravel:

~~Not only is the matrix a scoring system for a road to become surface treated, it is also a scoring system to determine if a road could be returned to a gravel road.~~ The maintenance cost is based on an average from grading, sand and snowplowing operations and the location of a road section (i.e. East and West sections of road are generally fairly shaded and require more maintenance, whereas North and South sections of road are generally sun covered [and](#) do not require as much maintenance.) Surface treatment of a road could decrease the maintenance cost. ~~(If the road section is surface treated, the score is based on if it would become a gravel road. Summer and winter maintenance is the basis.)~~

0 – Average cost to maintain road.

20 – Higher cost to maintain road section as gravel.

Drainage:

10 – Road section has been properly ditched to allow drainage away from road

- 5 – 50% of road section requires ditching
- 0 – 90 % of road section requires ditching

Structure (base layer):

- 10 – No issues with base heaving and soft spots. The base is withstanding the traffic volume.
- 5 – Base is in moderate condition. Apply gravel and possibly cloth.
- 0 – Road section requires attention with base heaving, undesirable material is present for base (i.e. top soil)

Overall Total Score:

At a score of 45 we would need to review the road for surface treatment

- a more accurate traffic count will be taken
- would go through matrix again

~~If a road section does not meet the requirements in scoring for surface treatment, budget for pulverizing and re-gravelling need to be considered.~~

At a score of 51, it would trigger further review through budgeting before surface treatment.

A high score does not necessarily mean the road will receive surface treatment. It will help to determine the order of road sections that will be considered in the budget.

Note: Decisions to move forward with surface treatment would be the ultimate decision of Township Council and budgetary constraints.