

LONDON GROVE TOWNSHIP

PUBLIC WORKS

2021 PAVEMENT CONDITION REPORT & THREE-YEAR PLAN



SHANE KINSEY - DIRECTOR OF PUBLIC WORKS

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2019 PAVEMENT CONDITION REPORT & 3 YEAR PLAN

INTRODUCTION

London Grove Township Public Works recognized the need to implement means and methods to evaluate the current road conditions, in order to make informed decisions on the maintenance, repair and replacement of the existing road network. Research was conducted to find a system which would provide the needed information in a fiscally responsible manner.

It was decided to utilize a system known as “Pavement Surface Evaluation and Rating” (PASER), which was produced by the University of Wisconsin-Madison, Transportation Information Center, in conjunction with the Federal Highway Administration and the National Local Technical Assistance Program (LTAP). The PASER system is based off of ASTM D6433 “Standard Practice for Roads and Parking Lots Pavement Condition Index Survey”. The PASER system does not provide specific quantitative values for inspection, so it was decided to use the “Pavement Condition Rating System” (PCR) methodology, as published by the Ohio Department of Transportation (ODOT).

It should be noted that this report is not intended to be a project-specific design tool. Its intent is to help identify the location and extent of pavement problems and to plan overall solution strategies.

METHODOLOGY

The roads were evaluated for the presence of multiple distresses, including releveling, bleeding, patching, potholes/debonding, crack sealing deficiency, rutting, settlements, corrugations, wheel track cracking, block and transverse cracking, longitudinal joint cracking, edge cracking, and random cracking. Based on this evaluation a “Pavement Condition Rating” (PCR) was assigned.

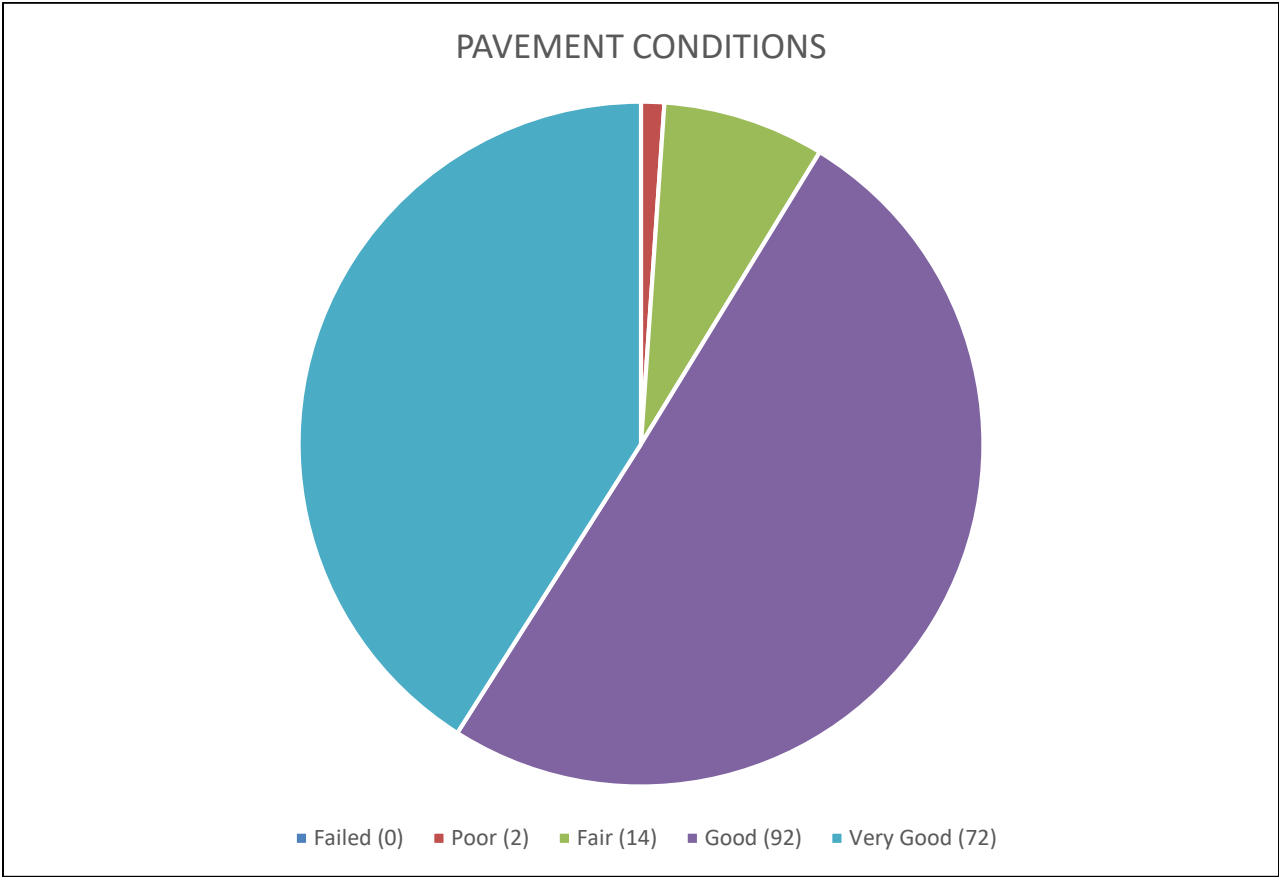
The Pavement Condition Rating indicates the overall condition of the segment. The higher the number, the better the condition. The PCR number generally indicates the condition as follows;

9-10	Very Good Condition	Little or no maintenance required
7-8	Good Condition	Routine maintenance, crack sealing and Minor patching recommended.
5-6	Fair Condition	Crack sealing, major patching, and Preventative treatments recommended.
3-4	Poor Condition	Structural improvements, leveling and Overlay, or recycling recommended.
1-2	Failed Roadway	Reconstruction recommended.

While culverts, bridges, and other infrastructure were not evaluated as part of this report, obvious issues were noted during the evaluation.

EVALUATION

The township’s 61.92 miles of road were evaluated December 2020 thru February of 2021, using a combination of “windshield evaluation” and surface investigation. This included 183 segments, 3 of which are part of development projects recently dedicated. Each segment may be a whole road, or a section of a road separated due to length or significant differences in road condition.



EVALUATION OUTCOME

The 2021 evaluation continues to show that ongoing maintenance efforts and near adequate budgeting has resulted in a significant increase in the overall Pavement Condition Rating and for the townships road network, resulting in a better road surfaces for motorists. Additionally we have reached a point where we are “maintaining” more roads, instead of “replacing”, which allows our available budget to maintain more road mileage at a lower cost.

It is imperative that maintenance programs such as yearly crack sealing and selective patching continue in order to maintain the road surfaces. Additionally, budgeting to allow for resurfacing of the road network in a timely manner needs to be continued.

Considering a surface lifespan of 20 years, and 61.92 miles of roadway, we recommend a minimum of \$600,000 be budgeted, on a yearly basis, for contract resurfacing and reconstruction. This figure will most likely need to increase in the near future due to dedication of additional roads and decreased pavement lifespans due to the increased use of recycled materials and poorer oil quality in available asphalt mixes.

3 YEAR PAVING PLAN

Utilizing the information gained from this report, Average Daily Traffic (ADT) for segments, as well as other information and knowledge, we formulate a 3-year paving plan annually. This plan is utilized to allow preparation for future years. However, it should be noted that this planning could change due to a variety of variables, which can significantly affect the condition of a road over a short period. Current planning allows for the reconstruction, repair, and/or resurfacing of all roads currently designated as “Fair Condition” or lower by 2023. Planning is based on an expenditure of \$600,000.00 per year.

Budgeted 2021 Projects

- Woodview Rd Full Length Chip Seal
- Spencer Rd Full Length Drainage, base repair, leveling, & overlay
- Briarchase Drive Full Length Leveling and overlay
- Auburn Rd Full Length Leveling and overlay
- Hills of Sullivan Entire Subdivision Ultra-Thin Bonded Wearing Course
 - Friendship Lane, Wiscoy Place, Angelica Drive, Letchworth Lane, Wellsville Lane, Rushford Place, Glen Iris Court, Holland Court, and Belmont Circle.
- Valley Rd¹ Partial Overlay
- Baker Station Rd² SR 1 to Hepburn Overlay

1 – To be coordinated with Hy-tech Project
2 - In house project. Road to be rebuilt as part of “London Grove West” project

Perspective 2022 Projects

- Ashland Woods¹ Entire Subdivision Ultra-Thin Bonded Wearing Course
 - Jack Reynolds Way
 - Vincent Place
- Wickerton Entire Subdivision Ultra-Thin Bonded Wearing Course
 - Stratford Drive, Nottingham Drive, Sheffield Drive, and Worthington Drive.
- Bell Lane Full Length Ultra-Thin Bonded Wearing Course
- Buttonwood Drive Entire Subdivision Ultra-Thin Bonded Wearing Course
- Rosehill Rd Full Length Mill, level, overlay
- Indian Run Rd Full Length Base Repair, Level, Overlay
- Hipkins Rd² W. Avondale Rd to New London Twp. Overlay

1 – Offset by “Ashland Woods Fund”
2 - In house project.

Perspective 2023 Projects

- Clay Creek Rd Garden Station Rd to Avondale Rd Mill, level, overlay
- Heather Grove Entire Subdivision Ultra-Thin Bonded Wearing Course
 - Welcome Ave, Chartwell Rd, Arber Ct, Deer Path Ct, Heather Grove Ln, Newfield Ct, Blossom Ct, and Sunrise Ct.
- Lamborntown Rd Entire Length Double App Chip Seal
- Howell Moore Rd Entire Length Double App Chip Seal
- Tice Rd¹ Entire open Length Level & Overlay
- Dingee Rd¹ Entire Length Level & Overlay

1 - In house project.

Perspective 2024 Projects

- Walter Rd Entire Length Double App Chip Seal
- Hilton Rd Entire Length Double App Chip Seal
- Kent Farm Entire Subdivision Ultra-Thin Bonded Wearing Course
 - Kent Farm Lane, Eaton Way, Flintlock Circle, Marcus Way, Bandon Circle, and Airdale Circle
- Garden Station Rd Roosevelt to Ellicott Base repair, Level & Overlay
- Glen Willow Rd Entire Length Base repair, Level & Overlay

Special Consideration Roads

- Hepburn Rd County Bridge to LG Village To be reconstructed under developer agreement for London Grove West project, timing unknown.
- Baker Station Rd Hepburn to dead end To be reconstructed under developer agreement for London Grove West project, timing unknown.
- State Rd Schoolhouse to Wickerton
Rosehill to Schoolhouse Paving to be coordinated with the State Rd sidewalk project. Anticipated completion 2022.