



# **LONDON GROVE TOWNSHIP**

## **PUBLIC WORKS**

### **2021 PAVEMENT CONDITION REPORT & 3 YEAR PLAN**

**SHANE KINSEY – DIRECTOR OF PUBLIC WORKS**

# IMPLEMENTATION

**In 2010 implemented means and methods to evaluate current road conditions in order to make informed decisions on road maintenance, repair and replacement.**

- **Utilization of the “Pavement Surface Evaluation and Rating” system, known as “PASER”**
  - **Developed by the University of Wisconsin-Madison**
  - **Thru the FHA and LTAP**
  - **Based off ASTM D6433 “Standard Practice Values for Inspection”**
  - **ODOT Pavement Condition Rating System used for quotative values**
- **Subsequent rating were completed in 2013, 2017, and yearly since 2019.**





# EVALUATION

Roads are evaluated for multiple deficiencies



RUTTING



LONGITUDINAL CRACKING



BLEEDING

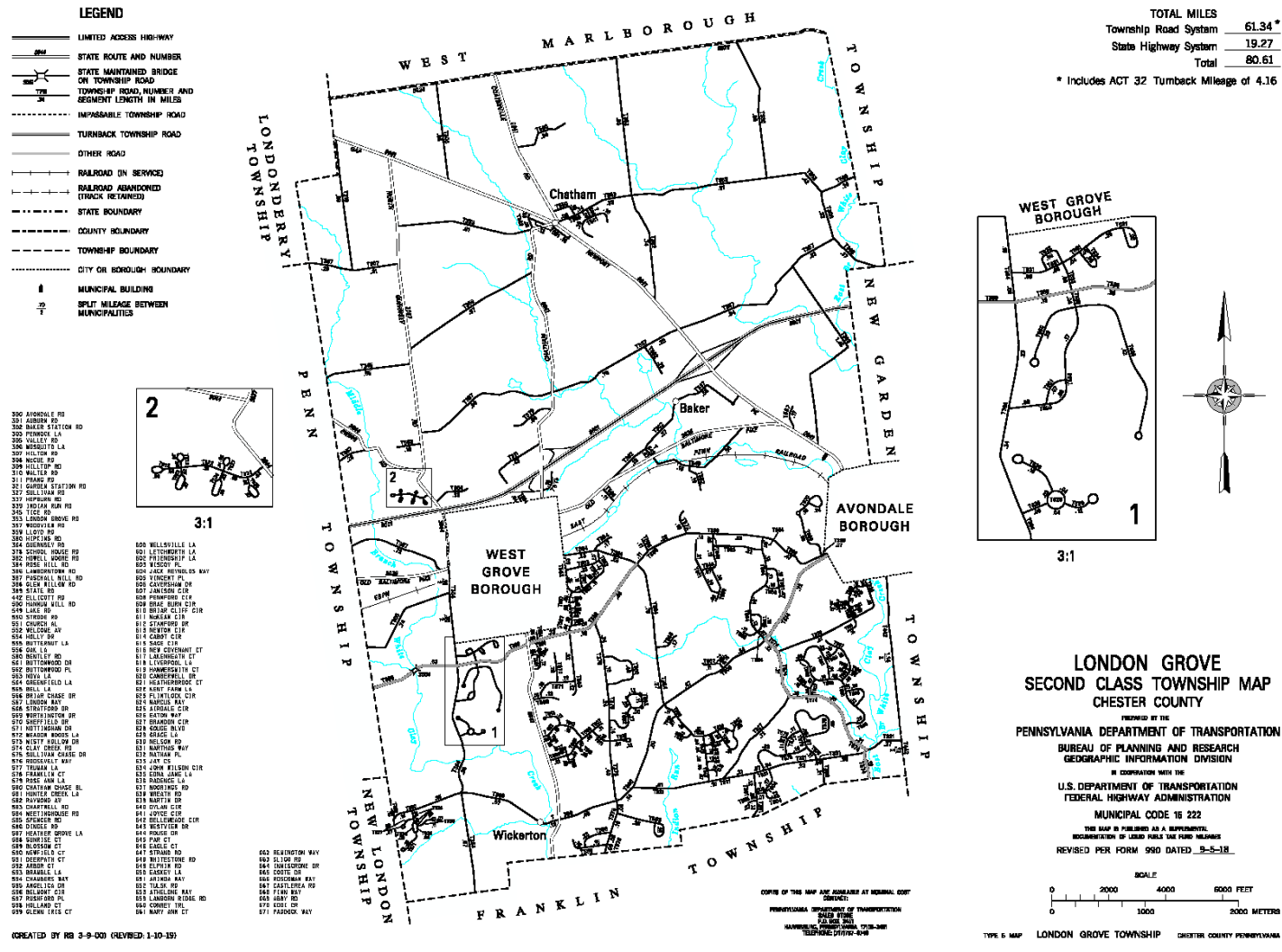
- REVELING
- PATCHING
- POTHOLES
- CRACK SEALING DEFICIENCIES
- SETTLEMENTS

- CORRUGATIONS
- WHEEL TRACK CRACKING
- BLOCK & TRANSVERSE CRACKING
- EDGE CRACKING
- DEBONDING

# **RATINGS**

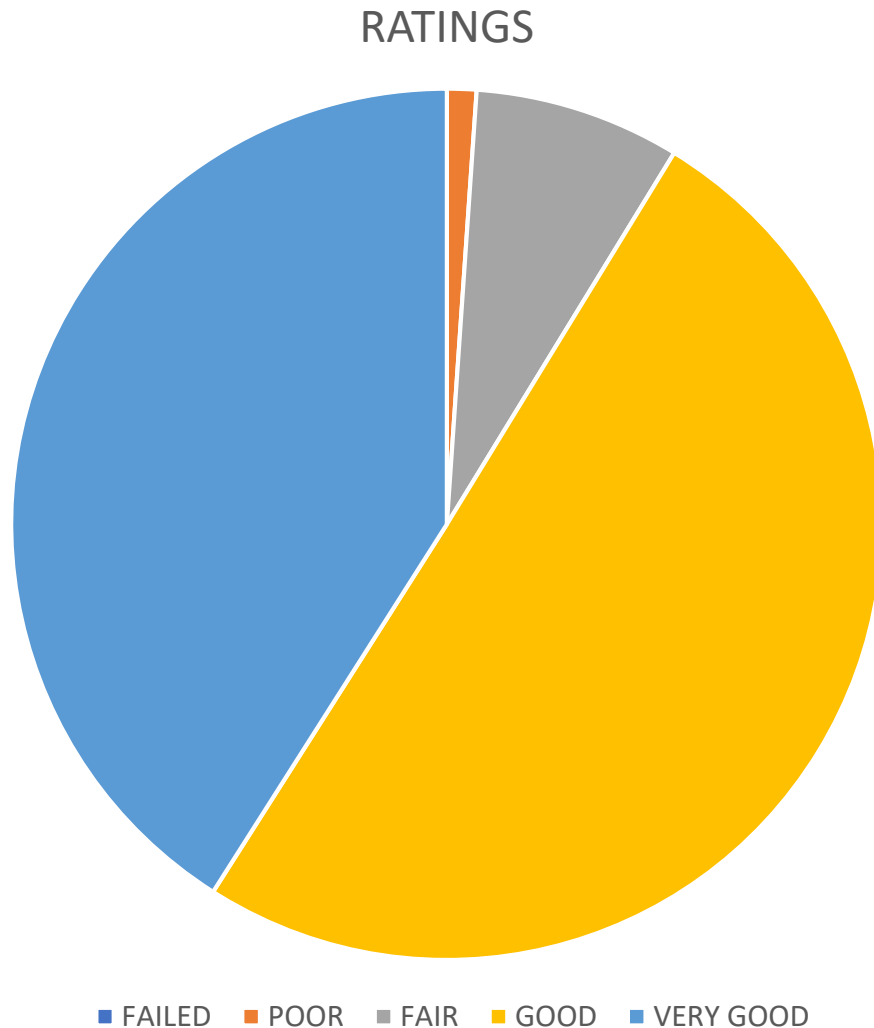
<b>9-10</b>	<b>VERY GOOD</b>	<b>Little or no maintenance required</b>
<b>7-8</b>	<b>GOOD</b>	<b>Routine maintenance, crack sealing and minor patching required</b>
<b>5-6</b>	<b>FAIR</b>	<b>Crack sealing, major patching and preventative treatments recommended</b>
<b>3-4</b>	<b>POOR</b>	<b>Structural improvements, leveling, overlay and/or recycling</b>
<b>1-2</b>	<b>FAILED</b>	<b>Complete Reconstruction</b>

# 2021 EVALUATION



- Completed December 2020 thru February 2021
- 61.92 Miles of road (approximately 128 lane miles)
- 183 Road segments

# 2021 RATINGS



**183**

## TOTAL SEGMENTS

Segments may be a whole road, or a section of road separated due to length or significant differences in the road condition.

**75 VERY GOOD**

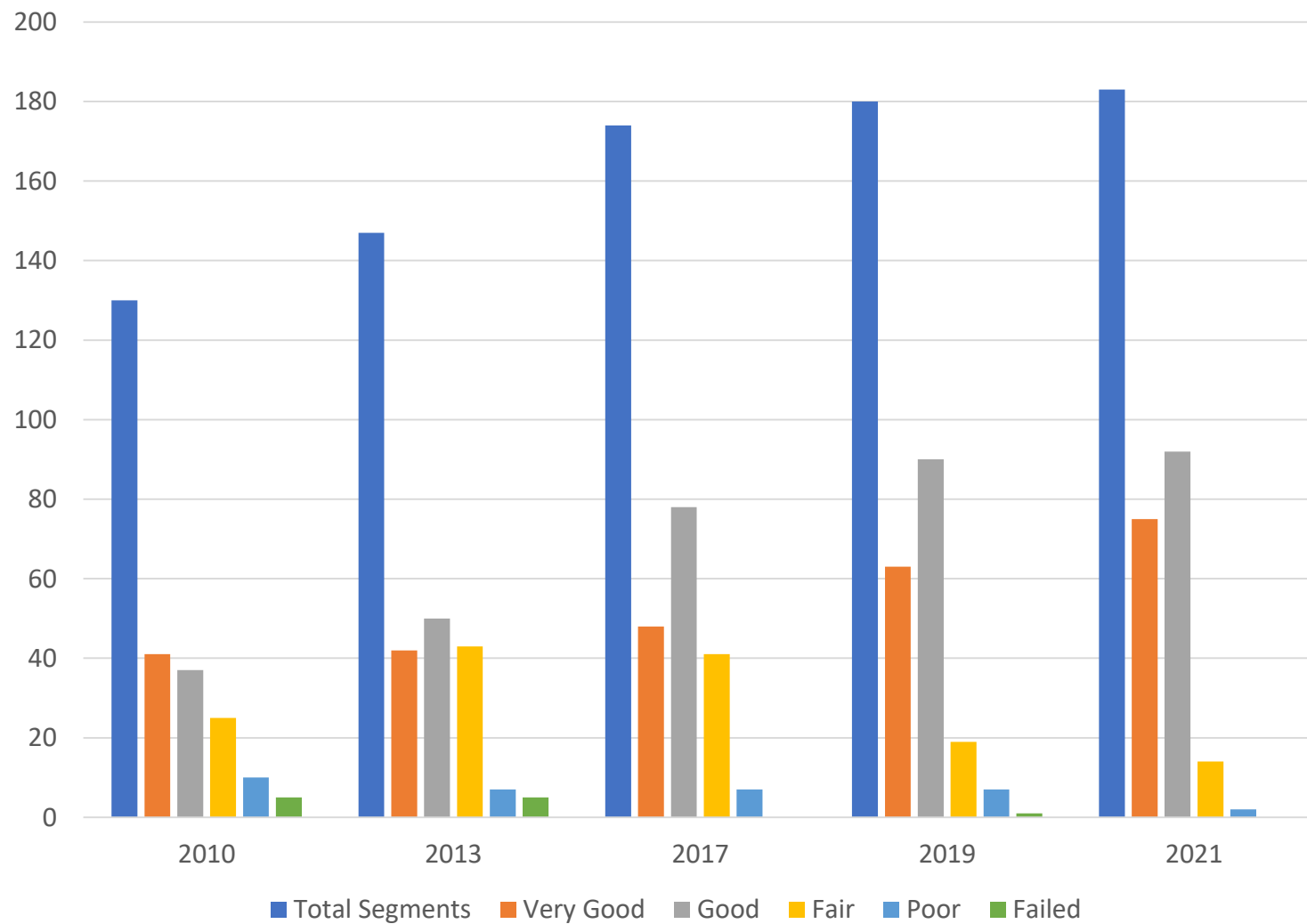
**92 GOOD**

**14 FAIR**

**2 POOR**

**0 FAILED**

# RATINGS



# INCREASED ROAD MILEAGE

## NEW ROADS IN 2021 EVALUATION

- Abby Road
- Denise Dr



## ADDITIONAL ROADS TO BE OFFERED FOR DEDICATION IN COMING YEARS

- Autumn Blaze Lane
- Cardinal Court
- Celia Court
- Denise Dr
- Dove Dr
- Finch Court
- Purple Martin Lane
- Salem Way



## WILL ADD APPROXIMATELY

3.02 Lane Miles of Road  
7 Intersections  
6 Cul-de-Sacs



# INCREASED TRAFFIC

## MORE PEOPLE

### London Grove Township

2000 Census	5285
2010 Census	7475
2019 Census est	8829

**68 % Increase in 19 Years!!!**



## MORE TRAFFIC

Example, State Rd, between 841 & Schoolhouse

Oct. 2011	4123 ADT
Sept. 2016	4447 ADT

**In 5 years increase of 324 ADT.**

**Not a lot ???**

**118,260 trips per year or 2,365,200 trips over anticipated life of road surface!!!!**



# INCREASED TRAFFIC

USE OF THE INTERNET HAS  
LED TO A SIGNIFICANT  
INCREASE IN DELIVERYS TO  
HOMES AND BUSINESSES



**MORE HOMES = MORE TRASH TRUCKS**



Passenger car	0 ESAL'S
Tractor trailer	1 ESAL
Tri-axle	4.5 ESAL'S

# 1 TRUCK TRIP - 10,000 CAR TRIPS

# CONTINUED MAINTENANCE

**NEED TO CONTINUE  
TO EVALUATE**



**NEED TO CONTINUE  
ROUTINE MAINTENANCE**

- Drainage repairs
- Crack sealing
- Bar Patching
- Patching



# CONTINUED SURFACE TREATMENT OR REPLACEMENT

## NEED TO BUDGET FOR

Surface treatment in 10 – 15 years

Resurfacing in 20 years

Based on our current 61.92 miles, should be budgeting a minimum of \$600,000 per year for these projects



Utilize best solution for roadway,  
based on condition and ADT

- Base repair
- Leveling
- Milling
- Overlay
- Chip Seal
- Cape Seal
- Ultra Thin Bonded Wearing Course (NovaChip)
- Geotextile Paving Fabric (PetroMat)



# COMPLETED 2020 PROJECTS

- Garden station Rd ( Auburn Rd to Avondale Rd)
  - selective
  - Base repair, paving , level, overlay
  - \$173,653.90
- Sullivan Station Entire Subdivision
  - Ultra-Thin Bituminous Wearing Course
  - \$140,284.09
- Valley Rd (Entire Length in London grove)
  - partially completed by contractor part of Hy-tech expansion project
  - Base repair, Leveling
  - \$77,979.36
- South Guernsey Rd (Baltimore Pike to State Rd ½ West Grove borough)
  - Selective Base repair, mill, level, overlay
  - \$95,154.46

**3.52Miles of Road**  
**\$487,071.81**

(Not including in house work)



# BUDGETED 2021 PROJECTS

## 2021 BUDGET

\$ 50,000.00	SECCRA ROAD IMPROVEMENT
\$ 250,000.00	LIQUID FUELS
\$ 211,000.00	GENERAL FUND
<b>\$ 511,000.00</b>	<b>TOTAL</b>

(Does not include in house work)



- Hills Sullivan (Entire subdivision)
  - Ultra-Thin Bituminous Wearing Course
- Spencer Rd (Full Length in London grove)
  - Drainage repair(in house)
  - Base repair, Mill, level, overlay
- Briarchase Dr (Full Length)
  - Drainage repair (in house)
  - Mill, level, overlay
- Auburn Rd (Full Length in London Grove)
  - Drainage repair(in house)
  - Mill, level, overlay
- Woodview Rd (Full Length)
  - Chip Seal
- Baker Station Rd
  - Overlay

# 3 YEAR PLAN – YEAR 1

## 2022

**Rosehill Rd (Full Length)**  
**Mill, level, overlay**

**Ashland Woods Subdivision**  
**Ultra Thin Bonded Wearing Course**

**Wickerton Subdivision**  
**Ultra Thin Bonded Wearing Course**

**Bell Lane (Full length)**  
**Ultra Thin Bonded Wearing Course**

**Buttonwood Subdivision**  
**Ultra Thin Bonded Wearing Course**

**Indian Run Road (Full length)**  
**Base Repair, Leveling and Overlay**

**Hipkins Rd (Full Length)**  
**Leveling and Overlay**



Advance planning may need to be modified due to variety of variables which can significantly effect road surface conditions over a short period of time



# 3 YEAR PLAN – YEAR 2

## 2023

Clay Creek Rd (Garden Station Rd to Avondale rd)

Mill, level, overlay

Heather Grove Subdivision

Ultra Thin Bonded Wearing Course

Tice Rd

Leveling and Overlay

Dingee Rd

Leveling and Overlay

Lamborntown Rd

Chip seal

Howell Moore rd

Chip Seal





# 3 YEAR PLAN – YEAR 3

## 2024

Walter Rd  
Chip Seal

Hilton Rd  
Chip Seal

Kent Farm Subdivision  
Ultra Thin Bonded Wearing Course

Garden Station Rd  
Base Repair, Leveling and Overlay

Glen Willow Rd  
Base Repair, Leveling and Overlay



# SPECIAL CONDITION ROADS

THE FOLLOWING ROADS HAVE PROJECTS ASSOCIATED WITH THEM THAT EFFECT THE MAINTENANCE PLAN FOR A VARIETY OF REASONS

## **BAKER STATION RD** (from Hepburn to dead end)

- To be reconstructed as part of the London Grove West Project
- Timing is unknown

## **HEPBURN RD** (from the top of the London Grove Village BLVD to county bridge 59)

- To be repaired and overlaid as part of the London Grove West Project

## **STATE RD** (from Rose Hill Rd to Wickerton Rd (SR 841))

- Sidewalk Grant work will effect paved surface
- Repair and overlay will be coordinated with sidewalk work





# QUESTIONS ?

