

# 2015 ROAD MAINTENANCE PROGRAM

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**Town of Bethlehem  
Superintendent of Highways**

**June 10, 2015**

# AGENDA

- ☒ Why do we maintain our roads?
- ☒ How is the Road Maintenance Plan developed?
  - The process
  - Pavement condition assessments on Town roads
  - Other considerations
- ☒ 2015 Road Maintenance Plan
- ☒ Section 284 Agreement

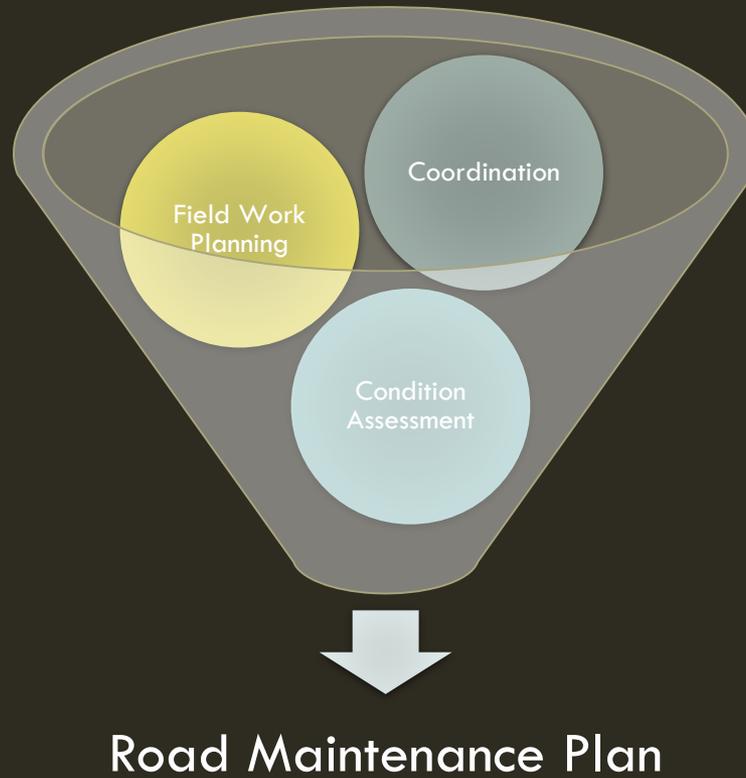
# WHY DO WE MAINTAIN OUR ROADS?

## Road Maintenance Program

- Goal is to maintain our high quality road system at lowest cost and avoid major reconstruction
- Road Maintenance program includes patching, area repairs, drainage maintenance, surface treatments and repaving for the Town's 175 mile road system



# HOW WAS THE ROAD MAINTENANCE PLAN DEVELOPED?



# HOW WAS THE ROAD MAINTENANCE PLAN DEVELOPED?

## ☒ Pavement Condition Assessment

- Highway Dept. formally re-assessed all 175 miles of Town roads in April 2015
- Condition Assessment is the foundation of road selection for Road Maintenance Plan

## ☒ Coordination

- DPW - water & sewer projects and problem areas
- Capital projects
- Engineering and Planning Dept. – New developments
- National Grid Gas and Electric
- Bike & Pedestrian Priorities – Complete Streets

## ☒ Field Work Planning

- Confirmation of street condition and priority
- Assess drainage & adjoining grades – milling required?
- Measurement of streets and planned work areas

# PAVEMENT CONDITION ASSESSMENT

## ☒ PASER – Pavement Surface Evaluation & Rating

→ Developed by University of Wisconsin – Madison

→ Assesses pavement surface condition based on four categories:

⦿ Surface Defects – raveling, flushing, polishing

⦿ Surface Deformation – rutting, frost heave, settling, shoving, etc.

⦿ Cracking – transverse, longitudinal, alligator, etc.

⦿ Patches & Potholes

→ Uses a 10 point rating system – 1 = failed; 10 = new

☒ Conducted Biennially by the same Highway Department crew to ensure the ratings are consistent

# PAVEMENT CONDITION ASSESSMENT



## How People Typically See Roads

- Nice suburban road
- It's not too bumpy – the tires aren't "thumping"
- There aren't any potholes

# PAVEMENT CONDITION ASSESSMENT



## Upon Closer Inspection....

- Longitudinal cracking where a seam failed
- Ponding water and drainage issues
- Reflective cracking from underlying pavement joints
- Rutting in the wheel tracks
- Raveling where asphalt binder has deteriorated

# IT'S NOT JUST PAVEMENT AGE



Ratings based largely on frequency & significance of common surface defects



# IF WE WAIT TOO LONG COSTS GO UP QUICKLY

## Goal:

Maintain good conditions & find problems early

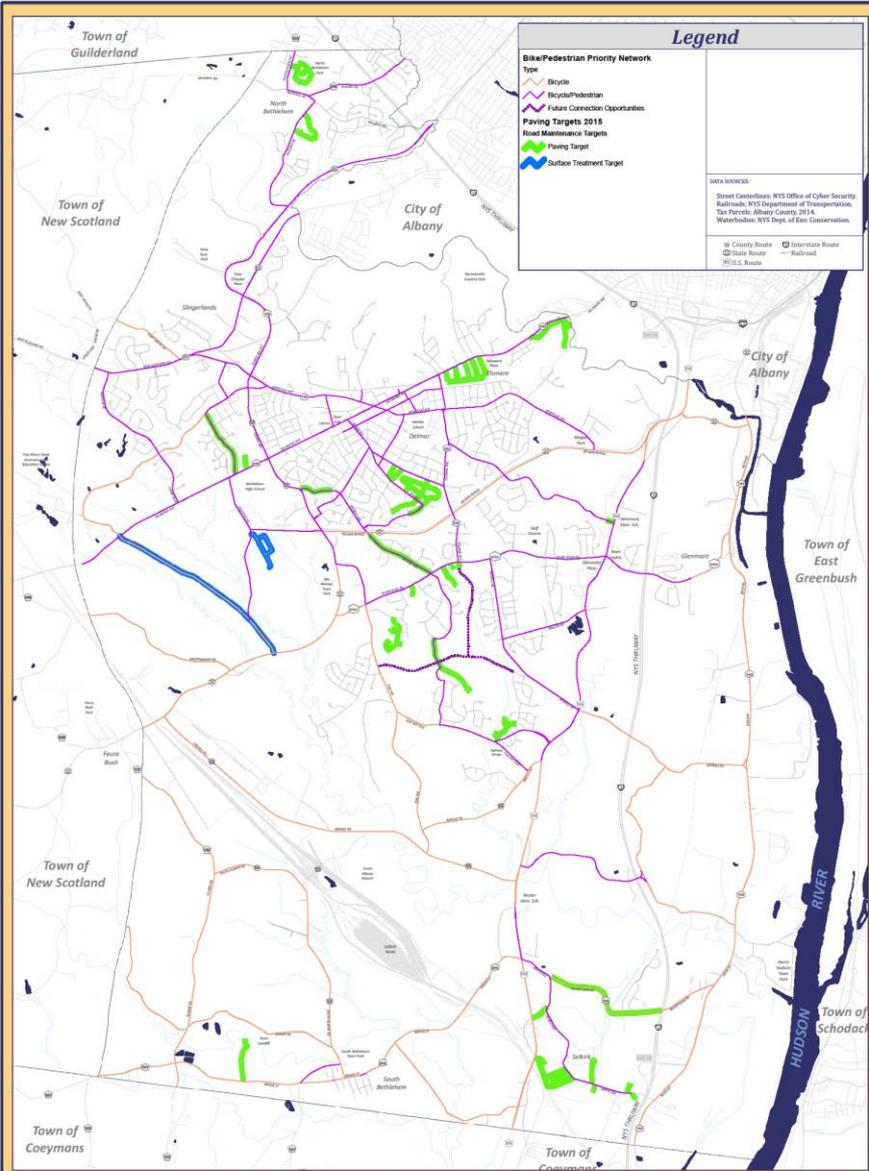


Pavement Condition Informs Maintenance Need		Cost Scale
Rating 9 & 10	No maintenance	
Rating 8	Little maintenance	
Rating 7	Routine maintenance (e.g. patching, drainage, etc.)	\$
Rating 5 & 6	Preventative treatments – surface treatment, thin overlay (< 2”), etc.	\$\$\$
Rating 3 & 4	Needs strengthening – milling, patching, reclamation, structural overlay (> 2”), etc.	(3 to 10) x \$
Rating 1 & 2	Full reconstruction	(40 to 50) x \$





# BIKE & PEDESTRIAN CONSIDERATIONS



## Legend:

- Green – Target for 2015 Paving
- Blue – Target for Surface Treatment
- Purple – Bike/Ped. Priority Network
- Orange – Bike only Priority Network

# 2015 ROAD MAINTENANCE SUMMARY

Street Name	Begin	End	Width (Ft.)	Length (Ft.)	Tons	Cost
Jean Lane	Schoolhouse Road	Henry Avenue	22	325	57	\$3,039
Henry Avenue	Albert Drive	Beverly Drive	22	900	159	\$8,417
Lena Drive	Henry Avenue	Albert Drive	20	650	104	\$5,526
Albert Drive	Henry Avenue	Beverly Drive	22	850	150	\$7,949
Beverly Drive	Henry Avenue	its Dead End	22	1,075	190	\$10,054
Fenview Drive	Beverly Drive	its Dead End	24	100	19	\$1,020
Mosall Drive	Blessing Road	Stafford's Cr	24	1,300	250	\$13,263
Stafford's Crossing	Blessing Road	its Dead End	24	1,500	289	\$15,304
Brockley Drive	Delaware Avenue	Orchard Street	22	3,400	720	\$38,157
Evelyn Drive	Delaware Avenue	its Dead End	20	700	135	\$7,142
Old Brick Road	Delaware Avenue	the Town Lin	20	2,000	385	\$20,405
Rockefeller Road	its Dead End	Old Brick Ro	20	1,550	249	\$13,178
Mill Road	its Dead End	Delaware Av	20	625	100	\$5,314
Booth Road	Delaware Avenue	Elsworth Ave	20	525	84	\$4,464
Lincoln Avenue	Delaware Avenue	Elsworth Ave	20	700	112	\$5,951
Bedell Avenue	Elsworth Avenue	Delaware Av	20	900	144	\$7,652
Snowden Avenue	Delaware Avenue	Elsworth Ave	20	1,025	164	\$8,715
Plymouth Avenue	Delaware Avenue	Elsworth Ave	20	875	140	\$7,439
Elsworth Avenue	Booth Road	Plymouth Av	20	1,950	313	\$16,579
And so on as detailed in the Section 284 Agreement for a total of :						<b>\$780,469</b>

# SECTION 284 AGREEMENT

☒ Requirement of NYS Highway Law

☒ NYS Highway Law – Section 284: Expenditures for Repair and Improvement of Highways

➔ Requires a written agreement signed by a majority of the Town Board and Superintendent of Highways for:

- ⦿ Expenditure of local tax money
- ⦿ Expenditure of state funds (CHIPS)
- ⦿ For repairs, improvements or renewal of highways
- ⦿ Identifies locations, extent of work, and costs
- ⦿ Must be filed in Town Clerk's and County Highway Superintendent's office