

# **NYSDOT Roadway Inventory**

Both On and Off the State System

## NYSDOT Highway Data Services Bureau

Highway Data	Traffic Monitoring	Pavement Data
Inventory of public roads, incl. LHI	Traffic counts – volume, class, speed	Pavement condition ratings
Systems designations (FC, NHS)	Continuous count operations	Dominant distresses
GIS mapping	Coordination with county & local	Pavement "profile" data

www.dot.ny.gov/highway-data-services



# Extent of roadway system - 114,000 miles

NYSDOT	15,100	<b>13</b> %
County	20,200	18%
Town	57,800	<b>51</b> %
City	12,100	11%
Village	6,400	6%
Thruway	700	1%
Other State	500	<1%
Reservation, Federal, other toll, etc	900	1%



#### State System - Touring & Reference Routes

- NYSDOT primary mission is state system
- State System − 16,700 miles
  - ☐ Touring (Int., US, NY) vs Reference Routes
  - Jurisdiction varies
    - NYSDOT 15,100
    - **■** Thruway 700
    - City 400
    - **■** County 300
    - Remainder village, state agency, Reservation, Federal



## **State System**

- Condition & Performance data primarily on the State System
  - ☐ "Sufficiency"/"e-Score" since 1981
  - □ Profiler data since early 2000s
  - Traffic volumes since 1960s
- ⇒ Additional data
  - □ Local highways current form since '81
  - HPMS Sample data
  - □ Photolog since 1975



#### Federal Aid Eligible Roadways

- ⇒ FHWA interest in all Federal Aid Systems
  - 27,700 miles Fed Aid, 7,970 Principal Arterial
  - 8,080 National Highway System

	NYSDOT	Thruway	County	City	Other
PA - Interstates	1,170	550	0	<10	0
Principal Arterials - Other	4,880	<10	320	980	50
Minor Arterials, Collectors	8,530	0	5550	2,640	3,040

	NYSDOT	Thruway	County	City	Other
National Highway System	6,090	560	330	1,010	90



#### Federal Aid Eligible Roadways

- ⇒ FHWA interest in all Federal Aid Systems
  - 27,700 miles Fed Aid, 7,970 Principal Arterial
  - 8,080 National Highway System
- Using HPMS as the implementation tool,
  - Inventory requirements expanded to ramps
  - □ Traffic data expanded to all Fed Aid + ramps
  - Pavement condition data expanded to all Principal Arterials / NHS
  - GIS requirement expanded to all public roads



#### **Extent of NYSDOT roadway data (HDSB)**

- ⇒ Roadway data all public roads
- GIS coverage on all public roads
  - ☐ Finishing up with Long Island, NYC
  - Will be posted to GIS Clearinghouse
- ⇒ Traffic data all Federal Aid eligible roadways + some non-FA
- Pavement condition data focused on state system
  - Profiler to be extended to non-state FA



#### Roadway Inventory (with LRS link for GIS use)

- Road names, from/to, lengths, location
- Jurisdiction, designation
- Lanes, pavement type, pavement width
- Bridge & RR crossing locations
  - Culverts on state system
- Truck routes, Scenic Byways
- Speed Limits



## **Local Highway Inventory**

- A subset of the roadway inventory
- Used as input to CHIPS formulas
- Represents roads owned by counties, cities, villages & towns
- All LHI data also usable within GIS

Jurisdiction:	Villag	е															
State DOT ID Route	County Road#	Road/ Street Name	Start of Section	End of Section	Beg MP	End MP	Length	DIV	No. of Lanes	One	Pvt Type	Pvt Width	Shidr Width	Med Type	Med Width	Func	
178633	11300-2-	ACESS RAMP	EAST VILLAGE L	INTERS NYS RT	0.00	0.15	0.15		-	11.01	A	10	0	None	0	19	141.15
178634		CEMETARY ST	WILLOW ST	VILLAGE LINE	0.00	0.51	0.51		2		A	10	0	None	0	19	
178635		CHURCH ST	PECK ST	LERAY ST	0.00	0.12	0.12		2		A	10	0	None	0	19	
178636		FACTORY ST	NOBLE ST	VILLAGE LINE	0.00	0.33	0.33		2		A	10	0	None	0	16	
178637		HENRY ST	LERAY ST	DEAD END	0.00	0.18	0.18		2		Α	10	0	None	0	19	
276813		LERAY ST	EVANS MILLS V/	N MAIN ST	0.10	0.57	0.47		2		0	24	8	None	0	16	
178638		NOBLE ST	LERAY ST	FACTORY ST	0.00	0.14	0.14		2		A	10	0	None	0	16	
178639		NORTH MAIN ST	SOUTH MAIN ST	VILLAGE LINE	0.00	0.55	0.55		2		A	10	0	None	0	19	
178640		PEARL ST	SOUTH MAIN ST	DEAD END	0.00	0.07	0.07		2		A	10	0	None	0	19	
178641		PECK ST	SOUTH MAIN ST	CHURCH ST	0.00	0.09	0.09		2		A	10	0	None	0	19	
178641		PECK ST	CHURCH ST	VILLAGE LINE	0.09	0.36	0.27		2		A	10	0	None	0	19	



#### **Traffic Data**

- Volume, vehicle class, speed, weight
- Locations counted
  - State system, non-state Fed Aid roads
  - □ Bridges, RR crossings
  - County counting partnership
  - MPO count locations
- Special local road count project − 8,000 counts taken at geographically distributed, randomly selected locations



#### **Extent of Selected Data**

	Fed Aid	Non-FA	Total	%
Traffic Data	26,800	19,000	45,800	40%
Speed Limits	26,300	15,200	41,500	36%
E-Score	16,100	600	16,700	15%
Profiler	17,100	600	17,800	16%
Profiler (planned)	27,700	600	28,300	25%
TOTAL			114,000	



#### **Newest additions to Highway Data**

- Pavement data
  - Profiler will be expanded to all Fed Aid roads
- ⇒ GIS
  - Now completed for all public roads for entire state
- **⇒** Traffic data / VMT
  - Collected enough local data over last few years to produce VMT estimates by county and functional classification



#### Data management

- ⇒ New GIS-based roadway inventory database system under development
- Concepts for new traffic database to be solicited, to be tied to roadway inventory
- New pavement database and management system moves to production soon
- NYSDOT systems designed to house data from outside sources as well as internal sources



#### Data availability

- Selected data files published annually
- GIS network and roadway inventory geodatabase published annually
- Extensive data available via NYSDOT web pages
  - □ www.dot.ny.gov/highway-data-services
  - **□** FC Viewer, Traffic Data Viewer
- Can request data from Highway Data Services Bureau at any time



# Contact information: Highway Data Services Bureau 50 Wolf Road, 4-2, Albany, NY 12232 (518) 457-1965

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#### Non-HDSB asset data

- Probe data NPMRDS
  - National Performance Mgmnt Rsrch Data Set
  - University at Albany www.availabs.org
- Statewide Intersection layer node based
- Railroad Crossing Inventory
- Bridge Inventory
- Fugro Profiler Surveyor Tool
  - ☐ Signs, guide rail, lane count/width



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**NYS GIS Clearinghouse:** 

gis.ny.gov

