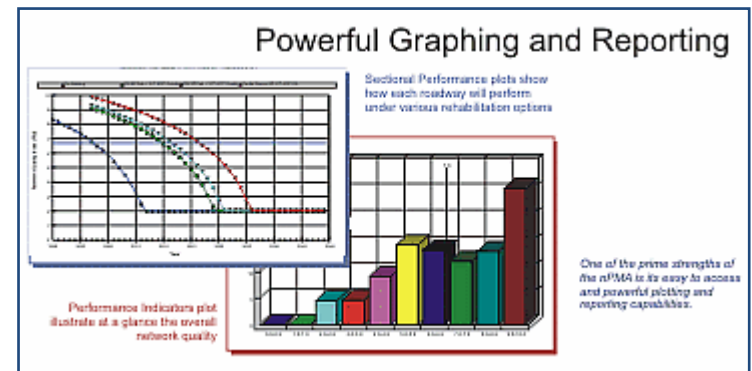


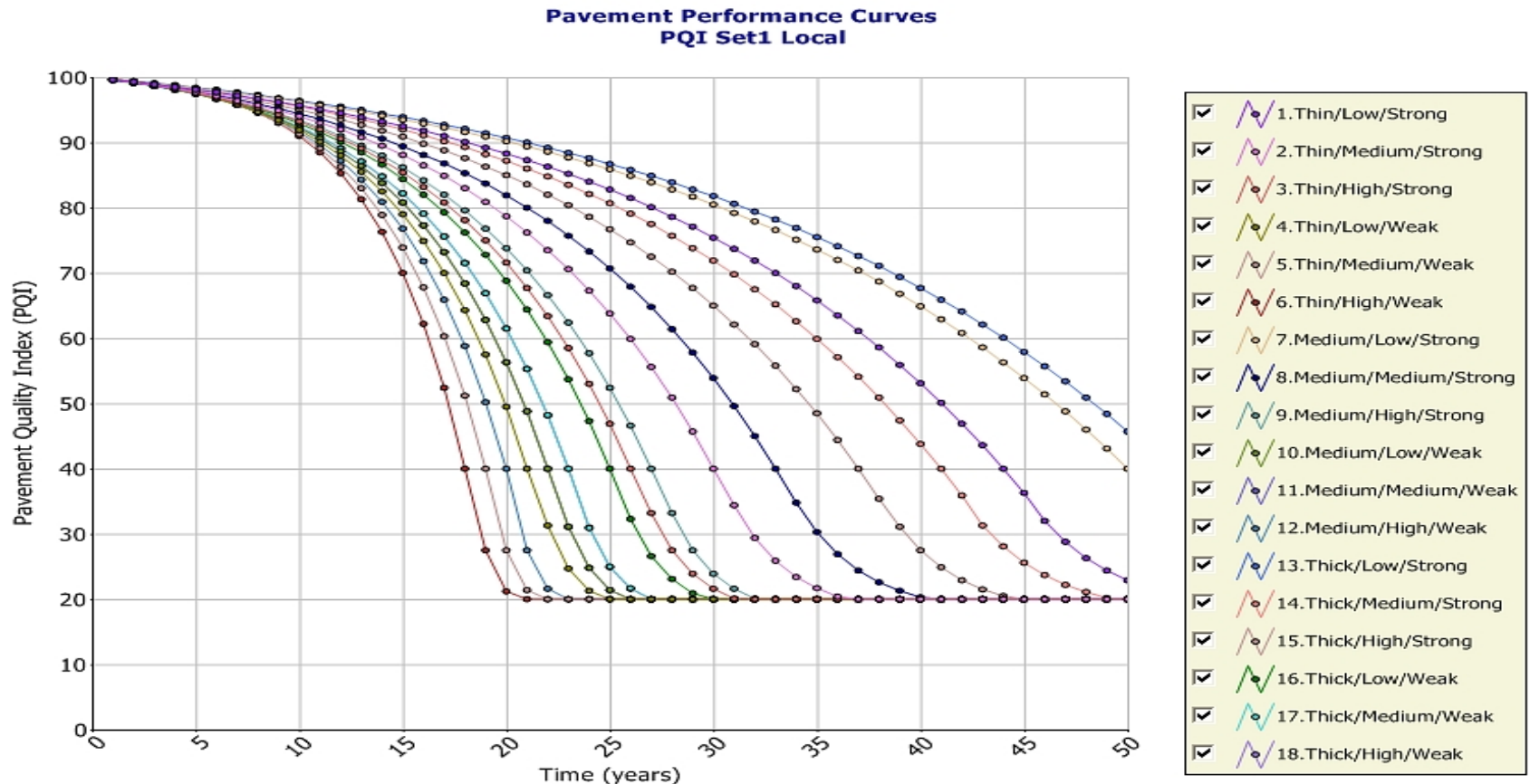
# RoadMatrix ~ Pavement Management

- **Inventory Module** ~ all roadway geometric, performance and attribute data
- **Rehabilitation Module** ~ determine maintenance and rehabilitation timing and needs over a 10-year program
- **Decision Tree manager** ~ graphical rehabilitation decision builder
- **Document Management Module** ~ organize and link electronic files to specific road segments in the network
- **History Module** ~ track the performance of each roadway segment
- **Reporting** ~ built in reports & custom capable



# RoadMatrix ~ Pavement Management

RoadMatrix utilizes performance deterioration models to predict how each road segment will perform over time using variations in levels of the pavement thickness, traffic volume and subgrade strength

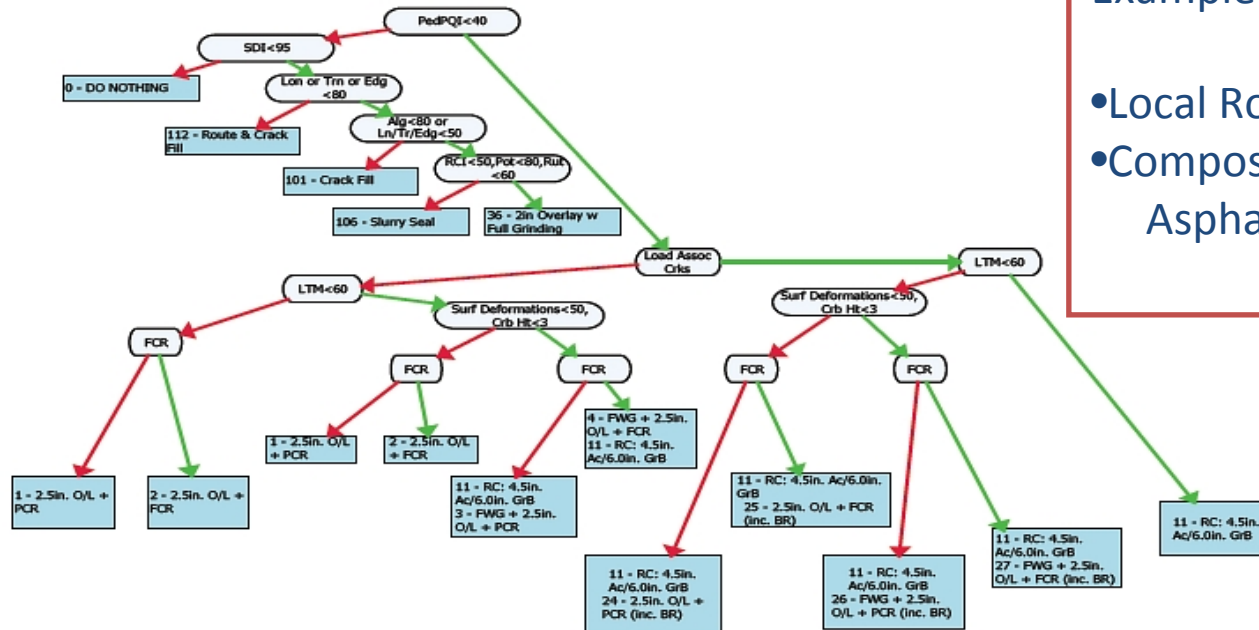


# RoadMatrix ~ Decision Tree

## Street Maintenance Added



**Functional Class: Local**    **Pavetype: Composite**  
 Minimum Acceptable PQI: 100    Minimum Acceptable Life: 1



**Example Tree**

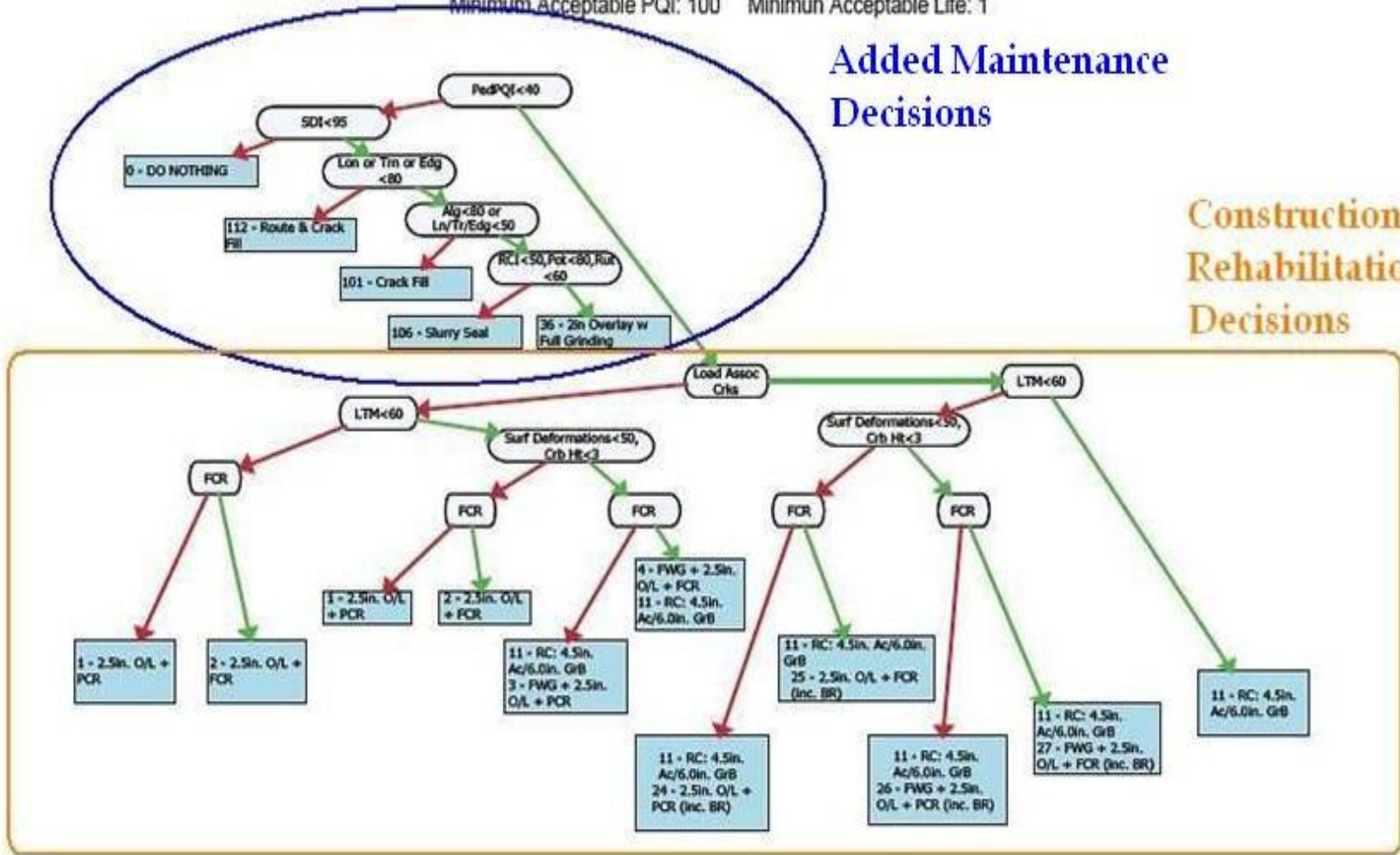
- Local Road
- Composite : Asphalt on Concrete

# RoadMatrix ~ Decision Tree

Functional Class: Local Pavetype: Composite  
 Minimum Acceptable PQI: 100 Minimum Acceptable Life: 1

Added Maintenance Decisions

Construction/ Rehabilitation Decisions



# RoadMatrix ~ Reporting

- Type ~ Historical, Program, Budget,  
Status – inventory or Remaining Service Life,  
Performance – Rehabilitation options, Budget  
scenarios, and Programs
- Methods ~ Plotting, graphing, mapping,  
Export Reports - Adobe, Excel, XML, HTML
- Scope Levels ~ Each segment, Subsets,  
Network
- GIS Integration ~ ArcMAP and Google Maps

# RoadMatrix ~ Report Mapping

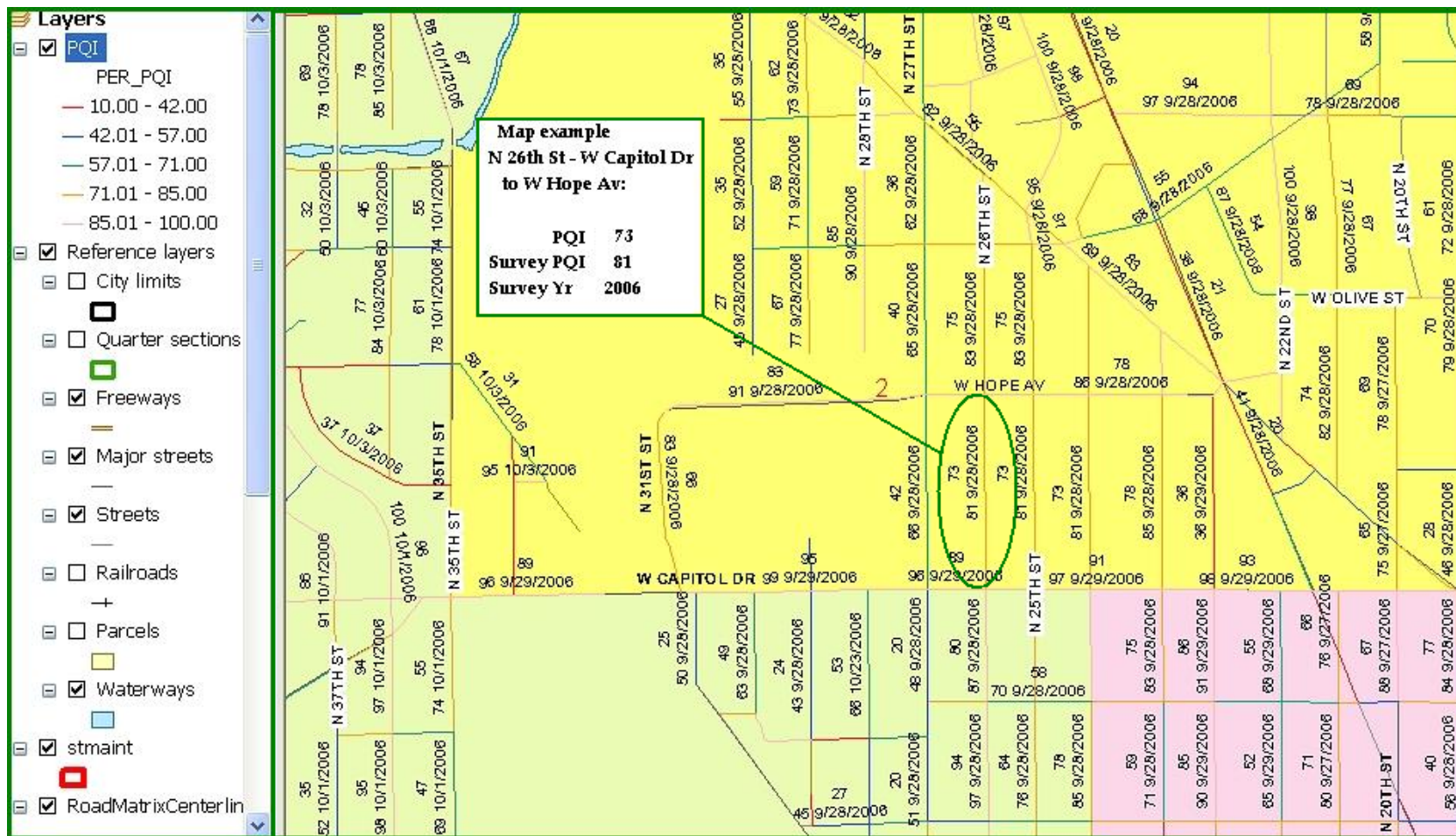
- GIS Integration ~ ArcMap or Google maps

Geographical representation of all the data matrix elements in **RoadMatrix**

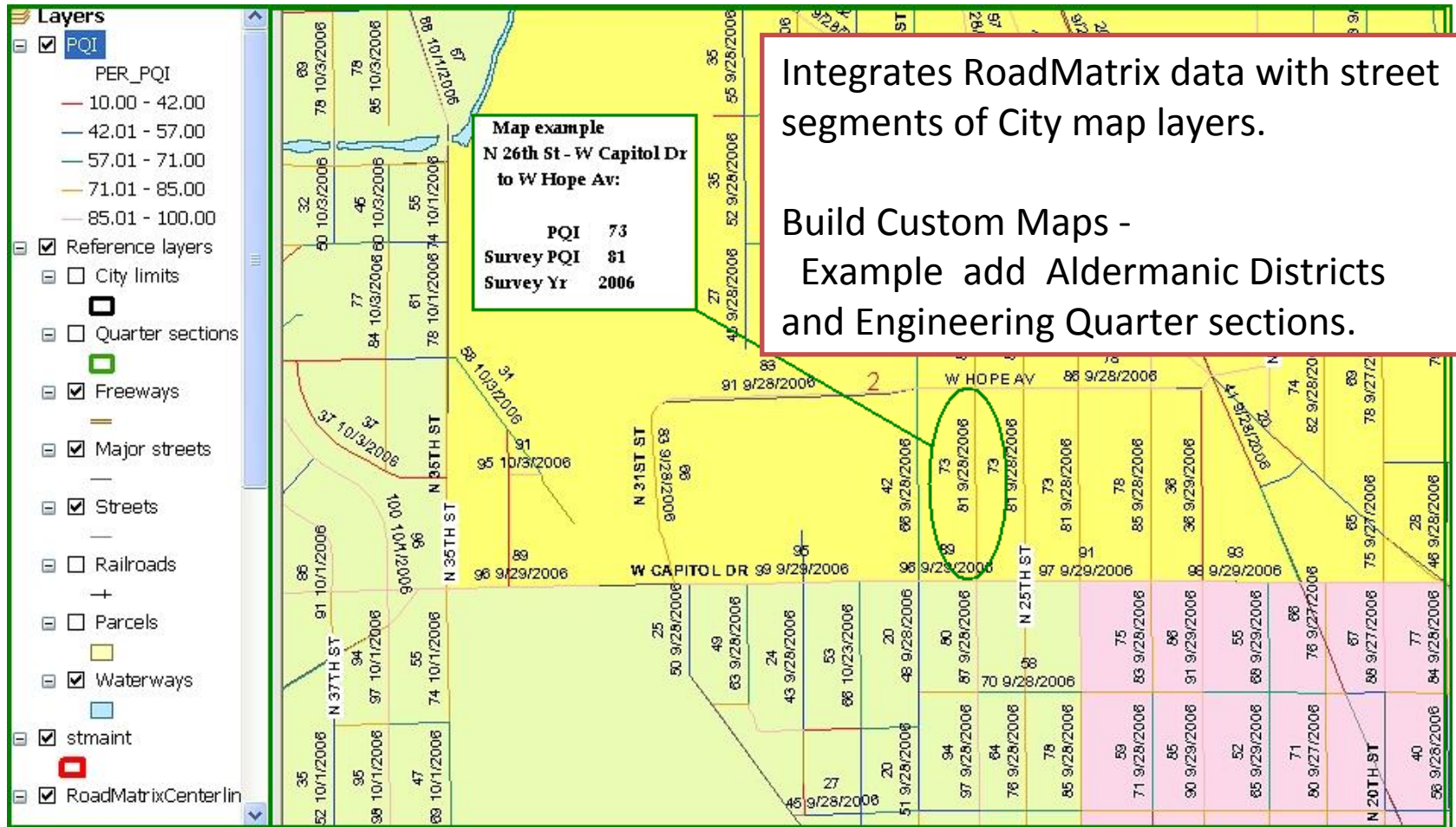
- pavement performance & roadway attributes
  - need year & rehabilitation needs
  - yearly pavement management programs
- Required bi-annual pavement inventory report – create RoadMatrix-ArcMAP map file for upload to the WisDot's WISLR system



# RoadMatrix ~ Report Mapping



# RoadMatrix ~ Report Mapping



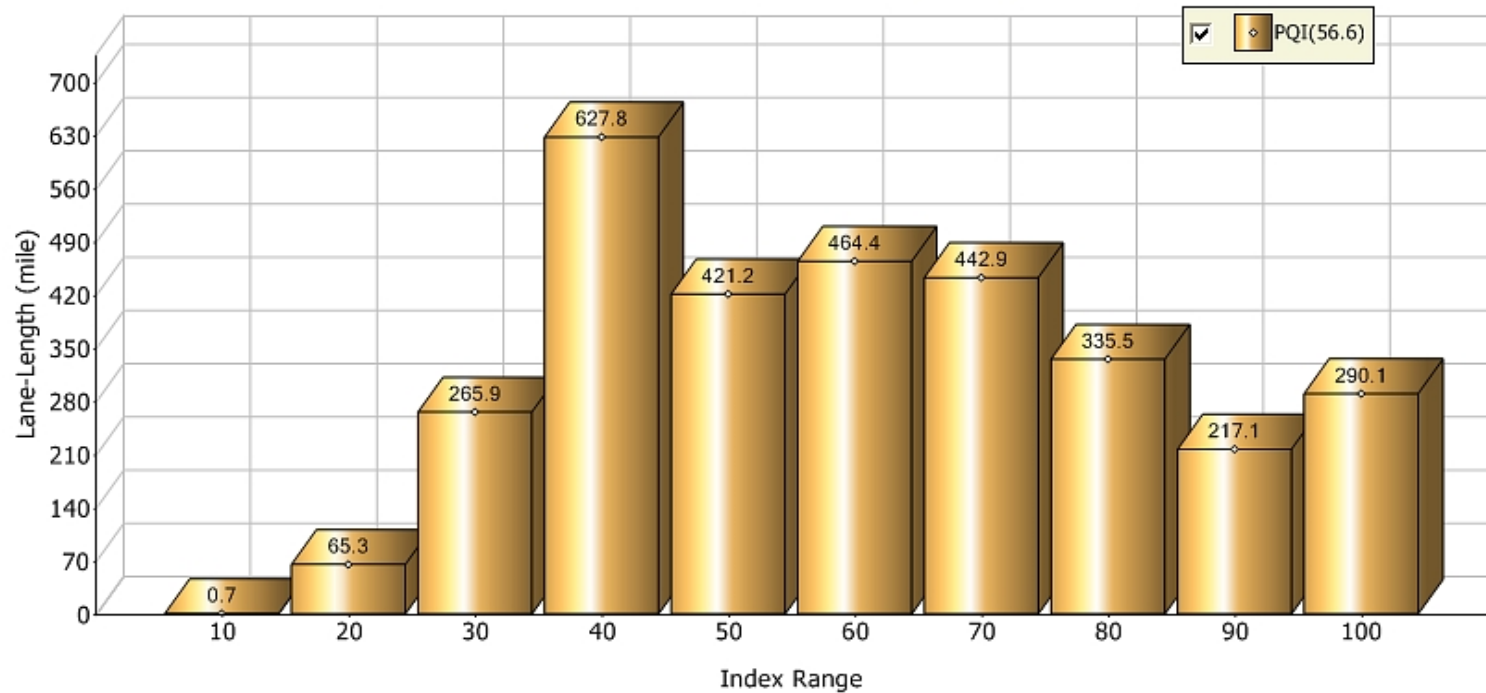


# RoadMatrix ~ Compatible with City Mapping & Data

- RoadMatrix's data matrix linked to Map files
  - Enhanced reporting
  - Edit within mapped group subset
  - Adding and editing data fields
- City of Milwaukee ArcMAP Layer Library
  - Compatible ~ Build and save custom maps
  - RoadMatrix structure basis same as many City data bases ~ the “dimefile” identifier

# RoadMatrix ~ Reporting-Status

**Network Present Status Distribution**  
**Func Class = Locals OR Collectors Previously Surveyed Sections**



PQI Range	10	20	30	40	50	60	70	80	90	100	Total
<b>Sections</b>	4	260	1038	2426	1625	1738	1711	1369	885	1206	12262
<b>Lane-Length (mile)</b>	0.7	65.3	265.9	627.8	421.2	464.4	442.9	335.5	217.1	290.1	3130.9
<b>Lane-Length %</b>	0	2.1	8.5	20.1	13.5	14.8	14.1	10.7	6.9	9.3	100
<b>Area (yd<sup>2</sup>)</b>	4929.2	490214.9	1814317.4	4122652.2	2736026.8	2976793.9	2838335.4	2147518.4	1444923.3	1881256.6	20456968.1
<b>Area %</b>	0	2.4	8.9	20.2	13.4	14.6	13.9	10.5	7.1	9.2	100