ASSET MANAGEMENT

BRIDGE MANAGEMENT SYSTEM PERSPECTIVE

ASSET MANAGEMENT – BRIDGE MANAGEMENT SYSTEM PERSPECTIVE

What did we have?

- Data rich environment due to the bridge inspection data since the 1970's

- Since we had been collecting data for 30+ years we can generate deterioration trends and bridge reconstruction needs

**ASSET MANAGEMENT – BRIDGE MANAGEMENT
SYSTEM PERSPECTIVE**

Bridge Project Programming

- Based strictly on Sufficiency Rating – "worst/first"

- Identified High Cost Bridges

- Did not worry about Bridge Maintenance – (that's what Maintenance does)

ASSET MANAGEMENT – BRIDGE MANAGEMENT SYSTEM PERSPECTIVE

Reality Check

- **More bridge needs than funds available**
- **"High Cost Bridges" had become exorbitantly high cost bridges**
- **Maintenance resources (both financial & human) had been drastically reduced**

We cannot continue doing business the same way!!!

ASSET MANAGEMENT – BRIDGE MANAGEMENT SYSTEM PERSPECTIVE

What to do??

- Change our priority from worst/first philosophy
- Look at what impacts motorists most (decks)
- Cannot let bridges age w/o maintenance

ASSET MANAGEMENT – BRIDGE MANAGEMENT SYSTEM PERSPECTIVE

We went back to the bridge data and asked some different questions:

- <u>For Priority</u> – Condition, Size, ADT, Deck Rating
- <u>For Decks</u> – Just bridges w/ bad deck ratings

ASSET MANAGEMENT – BRIDGE MANAGEMENT SYSTEM PERSPECTIVE

We went back to the bridge data and asked some different questions:

- <u>For Maintenance</u>

1. High Cost & Movable Bridges – Initiate bridge preservation projects

2. Bridges over Interstates – Preventive maintenance program

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After the "black box" provides bridges, or lists of bridges, the projects get evaluated by :

- **Manager of Bridge Inspection**
- **Manager of Bridge Design**
- **Executive Manager of Structural Engineering**
- **Chief Engineer (State Transportation Engineer)**
- **Others (Construction, Project Mgmt, Maint. & Ops., DPPD)**
- **Projects get initiated in each of the Pipelines**

*****Subject Matter Experts Input*****

ASSET MANAGEMENT – BRIDGE MANAGEMENT SYSTEM PERSPECTIVE

The Capital Investment Strategy process was invaluable in moving from a simple Bridge programming process to an Asset/Bridge Management System:

- Recognized Needs >>>Resources
- Allowed New Programs Deck Replacement & Interstate Preventive Maintenance to be initiated

ASSET MANAGEMENT – BRIDGE MANAGEMENT SYSTEM PERSPECTIVE

What's next??

Highway Infrastructure Asset Management Structures

- Continued refinement of the Bridge Management System
- Apply the same methodology to other structural assets which we have data for – culverts, sign structures & high mast lighting
- Begin collecting data on noise walls & retaining walls

Highway Infrastructure Asset Management
Structures

Assets	Asset Data
• Major Viaducts	• NBIS 2 year Cycle
• Movable Bridges	• NBIS 2 year Cycle
• Major Bridges	• NBIS 2 year Cycle
• Minor Bridges	• 4 year Cycle
• Dams	• NBIS & DEP 2 year Cycle
• Sign Structures	• 4 year Cycle
• Noise Walls	• Not Inventoried
• Retaining Walls	• Not Inventoried
• High Mast Lighting	• 4 year Cycle