USING BUSINESS INTELLIGENCE AND ANALYTICS TO MANAGE TRANSPORTATION ASSETS
USING BUSINESS INTELLIGENCE (BI) AND ANALYTICS TO MANAGE TRANSPORTATION ASSETS

Presenters:
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ODOT Division of Planning
MEETING/EXCEEDING SYSTEM CONDITION CRITICAL SUCCESS FACTORS THROUGH 2021

The TAMP Documents:

- ODOT’s preservation strategies
- Planned investments using anticipated funding levels
- Data driven decisions
Multi-Level Buy-In, Holistic Approach Across All of ODOT
HOW WILL WE ACCOMPLISH?

Multi-disciplinary business owners and stakeholders from ODOT Central Office and Districts
SYSTEMATIC PROCESS: OPTIMIZE INVESTMENTS

GUIDANCE AND DIRECTION PROVIDED BY THE ASSET MANAGEMENT LEADERSHIP TEAM

- Maintain critical asset inventories and condition
- Establish performance targets and funding needs
- Communicate strategic direction and progress made
- Monitor progress for continuous improvement
- Develop work plans

Taking Care of What We Have
Three Critical Elements to Success

Supporting a reliable and sustainable transportation system

PEOPLE

PROCESSES

TECHNOLOGY

Ohio Department of Transportation

Taking Care of What We Have
Capacity Building

**ESRI Collector**
- Custom Off The Shelf (COTS), reusable field mobile data collection
- Culverts, BMP, Guardrail (Safety Barrier), Outfalls, Horizontal Curves, ADA Right of Way, Signs, Underdrains
- Adopt-a-Highway, Bi-Weekly Inspection, Geohazards, Highway Drainage, Highway Lighting, ITS

**MS2 Traffic Counts**
- Average Annual Daily Traffic (AADT), State System, available local

**EIMS**
- Agile Assets - maintenance work order tracking
USING BI AND ANALYTICS TO MANAGE TRANSPORTATION ASSETS

ESRI Collector

- 400+ iPads
- 500+ people trained
- 9 assets in production
  - 8 in development
- Supporting applications & technology
- Inventories published to Transportation Information Management System (TIMS) nightly
Information Discovery

Transportation Information Mapping System (TIMS)

Custom Web-Information Portal
https://gis.dot.state.oh.us/tims

MS2 Traffic Counts

AADT, State System, available local
http://odot.ms2soft.com/

Pathweb

Digital Photolog, International Roughness Index (IRI), Road Surface
http://pathweb.pathwayservices.com/ohiopublic/
Business Intelligence

Transportation Asset Management Decision Support Tool (TAMDST)

Custom BI/Analytic Tool
- MS Power BI
- Support Work Plan Development
TRANSPORTATION ASSET MANAGEMENT DECISION SUPPORT TOOL (TAMDST)

Welcome to TAMDST Dev

The Transportation Asset Management Decision Support Tool (TAMDST) is a web-based application for accessing and reporting on Ohio Department of Transportation assets. It lets you extract relevant transportation information for display on a map and in reports.

Whether you use a desktop computer or a tablet, or do your best work from maps, tables, or graphs, TAMDST has it all ... everything you need to make well-informed decisions!

Getting started is as simple as 1-2-3-4.

Just go to the green title bar at the top of the screen and select the following:

1. PREFERENCES
   Pop up the Preferences window and decide what type of asset data you want available.
   NOTE: You typically will do this infrequently.

2. FILTERS
   Pop up the Filters window to narrow down the assets you want to work with.

3. CONDITION MAP
   Display the Map page and zoom and pan, turn assets on or off, select assets and get information about them.

4. REPORTS
   Display the Reports panel and select a report to generate, restrict the data you want to see in the report, and drill-down for more details.

Taking Care of What We Have
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