VERMONT
AGENCY OF TRANSPORTATION

FACT SHEET

Maintenance GIS Innovations

PROJECT TITLE
Maintenance GIS Innovations

STUDY TIMELINE
2017- Ongoing Process

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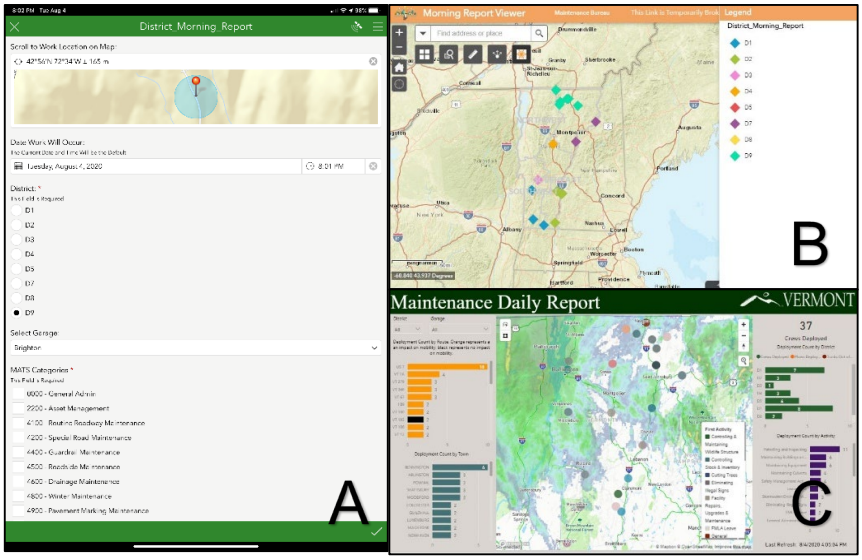
More information about the VTrans Research Program, including additional Fact Sheets, can be found at: http://vtrans.vermont.gov/planning/research

Problem Statement

Roadway maintenance is geospatially orientated; thus, GIS is the perfect tool to improve data management and efficiency. How can we mobilize GIS resources to improve Maintenance data accessibility and streamline Maintenance processes?



Methodology

We interviewed Maintenance operations personnel to identify antiquated or ineffective data management processes. We then worked with stakeholders across the Agency to mobilize available GIS technology to fulfill data needs using standardized methods that are integrated across Districts. For example, the Morning Report Application (for use on iPad, laptop, or smartphone) was developed to enable Maintenance Garage Supervisors to easily communicate each days' planned maintenance activities (Picture A) to the District General Manager. General Managers may then access this information on a GIS Dashboard (Pictures B and C). Another example is the roadway infrastructure Storm Damage Assessment process. This protocol uses the Survey123 GIS application to enable roadway damage assessors to quickly identify storm damage and generate accurate cost of repair and allows Decision easy accessibility to real-time. This data is again viewable using a GIS Dashboard.

Next Steps

GIS technology enables Maintenance personnel to create quality geospatial data. This technology should be further implemented to improve processes.

Potential Impacts and VTrans Benefits

Accurate geospatial data is critical to planning and implementing efficient Maintenance operations while reducing costs.