



MAKING RIGHT OF WAY DATA ACCESSIBLE



Agency of Transportation

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MAKING RIGHT OF WAY DATA ACCESSIBLE

OVERVIEW

- § Statewide Picture - Need for Change
- § Project Design + Implementation
- § Real World Use

MAKING RIGHT OF WAY DATA ACCESSIBLE **LEGACY "SYSTEMS"**

1927 Floods à



ß 2011 Tropical Storm Irene

MAKING RIGHT OF WAY DATA ACCESSIBLE

THE PAPER AGE



MAKING RIGHT OF WAY DATA ACCESSIBLE **THE DIGITAL AGE**

- § 22,000+ projects
- § 2,100+ CADD
- § 7000+ scanned
- § 2,056 scanned half-sized
- § 2TB of scanned drawings
- § Route Logs
- § Thousands of acquisition documents



MAKING RIGHT OF WAY DATA ACCESSIBLE

USE CASES



MAKING RIGHT OF WAY DATA ACCESSIBLE

WHO



MAKING RIGHT OF WAY DATA ACCESSIBLE

WHY



Emergency
Readiness



Alternative
Energy



Asset
Management



Project
Delivery



Green
Stormwater
Infrastructure

MAKING RIGHT OF WAY DATA ACCESSIBLE

TIME FOR CHANGE

- § VT needed a better way to make ROW data easy to find.
- § Keep CADD as platform for roadway design.
- § Utilize GIS as a platform for managing the data.

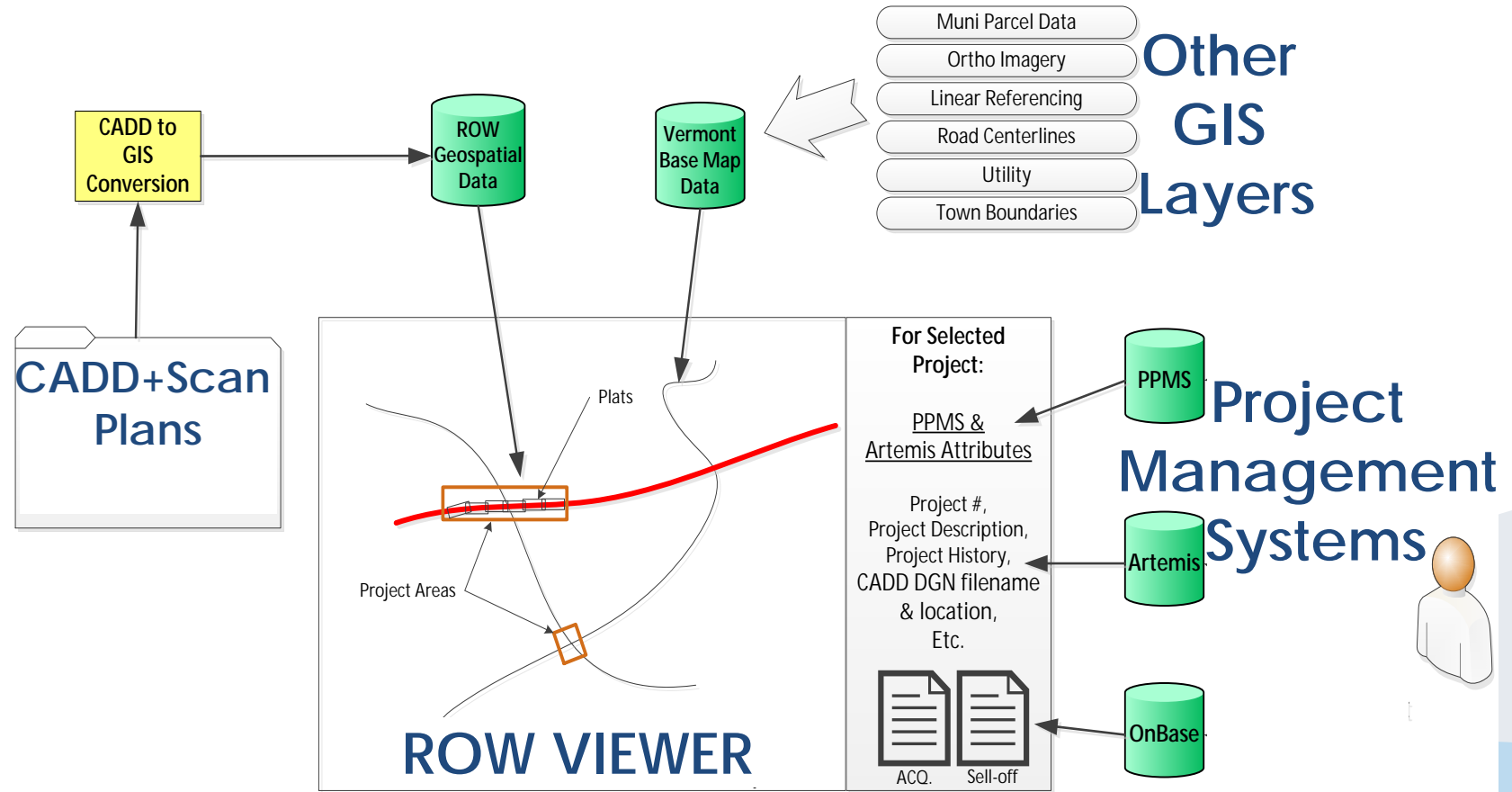
MAKING RIGHT OF WAY DATA ACCESSIBLE

PROJECT GOALS

1. Create a combined data model
 - § Repeatabile method of CADD-GIS conversion
 - § Process to review and digitize scans
2. Publish data as a web service
 - § Direct user access
3. Advance web based viewer
 - § Link data to other internal systems

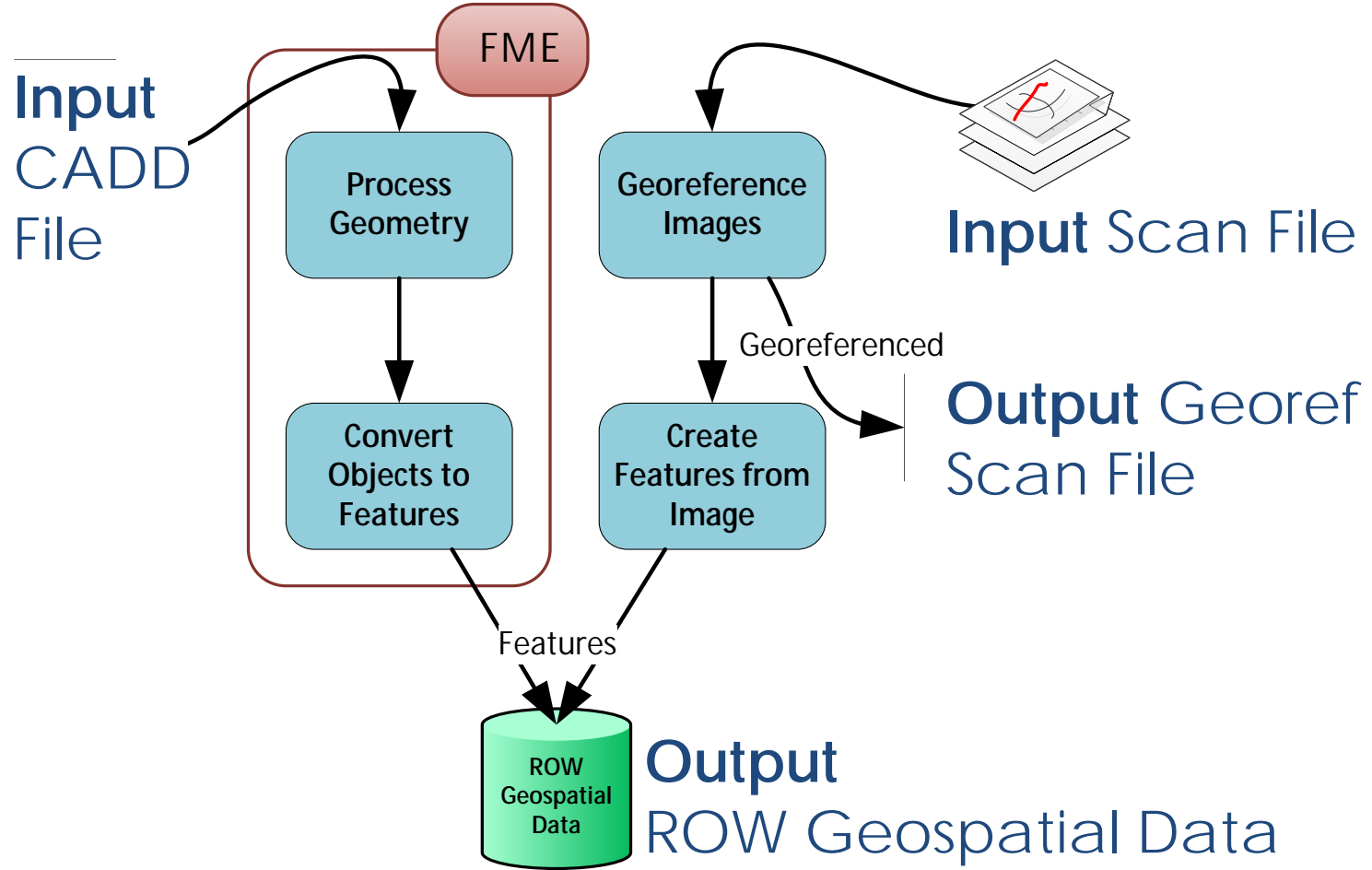
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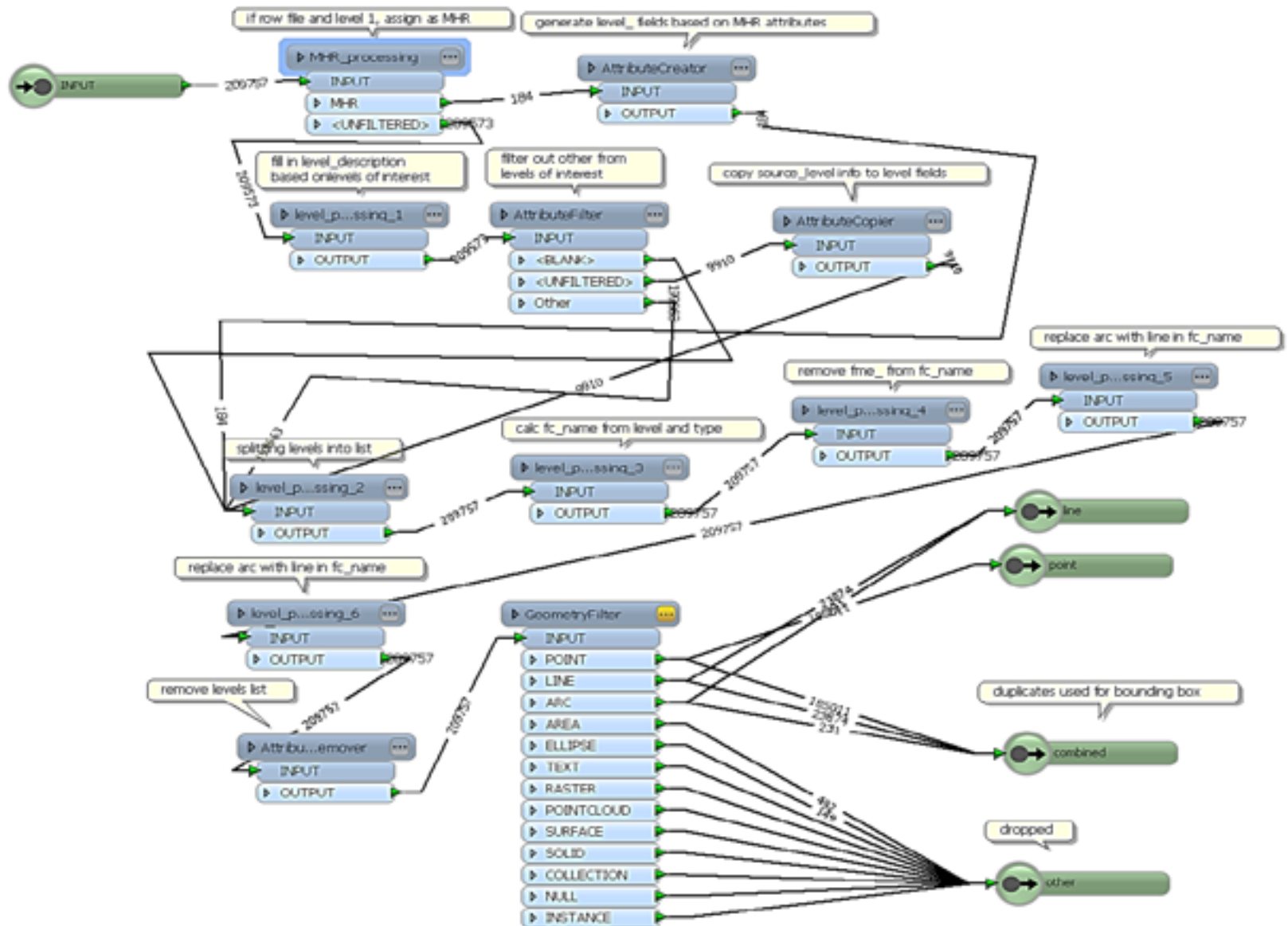
DESIGN



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CADD TO GIS WORKFLOW







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DEMO

<http://host.appgeo.com/vtrans/>

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ORTHOIMAGAERY

VTrans Vermont Agency of Transportation
Vermont Portal

Right of Way Roadway Town Projects Features **Aerial Imagery** Scanned Drawings

Scale 1" = 772 ft

Legend

- Mile Posts
- Correction Points
- Right-Of-Way Lines
 - <Null>
 - MEE
 - MEP
 - MEP_P
 - MHR
 - MHRB
 - MDN
 - MIS
 - MMP
 - MPIP
 - MPIR
 - MPL
 - MPLB
 - MRBL
 - NRIB
 - MRS
 - MRT
 - MSL
 - MIL_P
- Project Areas
- Drawing Areas
 - <All other values>
 - <Null>

VERMONT

MAKING RIGHT OF WAY DATA ACCESSIBLE

ROADWAY

VTrans Vermont Agency of Transportation

Front Portal

Right of Way | **Roadway** | Town | Projects | Features | Aerial Imagery | Scanned Drawings

Scale 1" = 772 ft

Map showing roadway data with labels: CHARLOTTE, 1.1, 1.2, 1.1, 0.8, 0.8, 0.7, 772 ft.

Selection | Legend | Location | Markup

Select **Project Areas**

(show all)

Pin	# Drawings	ROW Miles	Project completion date
35e477	13		
78d062	3	26	

2 selected | To Making Labels | To Spreadsheet

Project | Print

ROW length in miles
Project ROW 3
Total VTrans ROW 1642

Artemis
PIN 78D062
Project Name CHARLOTTE
Project Number FEGC 019-4(20)
Status ACTIVE

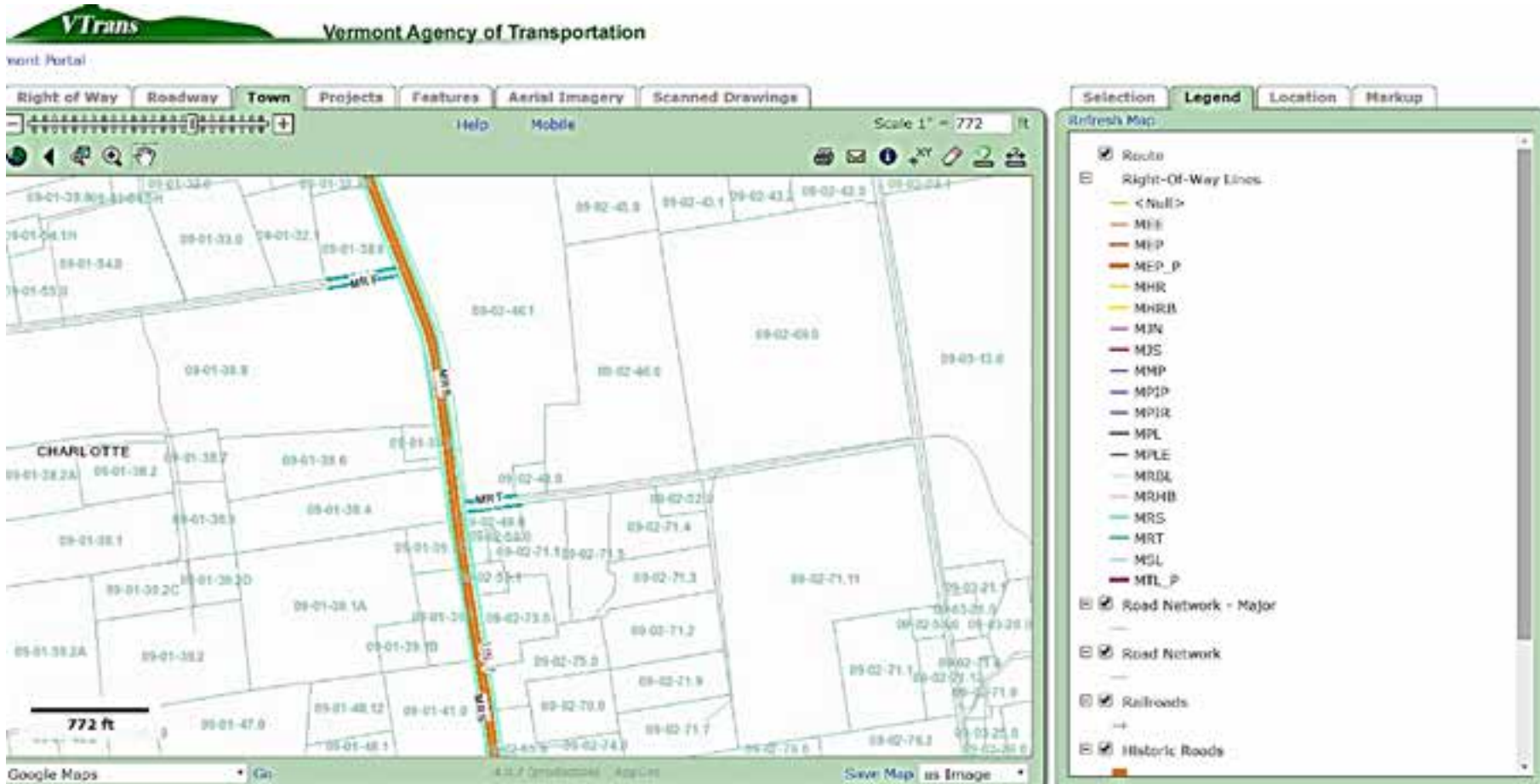
Project Drawings
r78d062_row.dgn
Source Type DGN
Source Date 03-26-2013
GIS Date 07-01-2013
Source Path V:\transportation\1\external\charlotte

Google Maps | Go | Save Map as Image

MAKING RIGHT OF WAY DATA ACCESSIBLE

PARCELS

asri



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CADD OBJECTS

VTrans Vermont Agency of Transportation

Right of Way | Roadway | Town | Projects | **Features** | Aerial Imagery | Scanned Drawings

Scale 1" = 772 ft

CHARLOTTE

772 ft

Google Maps | Go | 4.0.7 (production) | Save Map as Image

Legend

- Mile Posts
- Correction Points
- CADD Points
- CADD Lines
- Other Lines
- Pavement Lines
- Roadway Lines
- Bridge Lines
 - BDC
 - BDCT
 - BDR
 - BR
- Drainage Lines
 - DCP
 - DD
 - DDEFAULT
 - D_C
- Landscape Lines
 - LASF
 - LAW
 - LFNC
 - LW
 - LWET
 - LWS
- Manning Lines

MAKING RIGHT OF WAY DATA ACCESSIBLE SCANS

VTrans Vermont Agency of Transportation
ment Portal

Right of Way | Roadway | Town | Projects | Features | Aerial Imagery | **Scanned Drawings**

Scale 1" = 772 ft

79d062 78d062 CHARLOTTE 79d062

772 ft

Google Maps Go 4.0.7 (Production) | | | | Save Map as Image

Selection Legend Location Markup

Select Project Areas

(show all)

Pin	# Drawings	ROW Miles	Project completion date
35e477	13		
78d062	3	26	

2 selected To Mailing Labels To Spreadsheet

Project Print

ROW length in miles

Project ROW

Total VTrans ROW 1642

Artemis

Project Drawings

Georef_014.jpg

Source Type Scan

Source Date 12-01-1926

GIS Date 08-19-2013

Source Path V:\Data\Images\ROWSheets\Batch12

Georef_015.jpg

Source Type Scan

Source Date 12-01-1926

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REAL WORLD USE

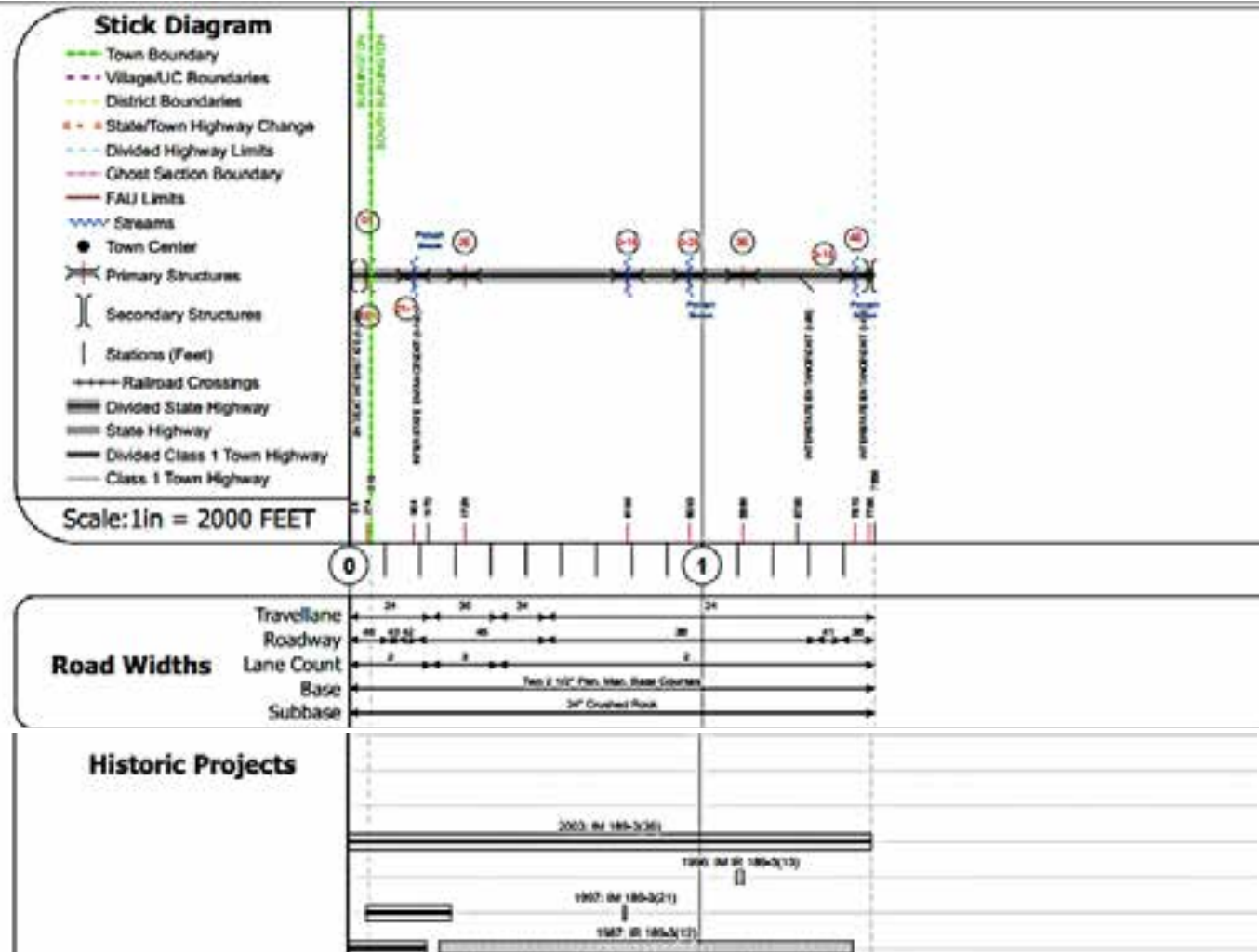
§ Rail

§ Route Logs

§ Operations

MAKING RIGHT OF WAY DATA ACCESSIBLE

ROUTE LOGS



MAKING RIGHT OF WAY DATA ACCESSIBLE OPERATIONS





QUESTIONS?

THANK YOU



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