



2018 Construction Update

PRESENTED TO
Middlebury Selectboard

PRESENTED BY
VTrans, VHB, and Kubricky

March 27, 2018





Meeting with you today

- **Kristin Higgins**, PE, Structures Program Manager, *VTrans*
- **Aaron Guyette**, PE, Design Project Manager, *VHB*
- **Mark Alexander**, Construction Project Manager, *Kubricky Construction*



Project Overview

Project Dimensions

Overall length: 3,550 feet

Tunnel length: 360 feet

Construction Area: 6.1 Acres



2018 Construction Activities

- Tree cutting
- Drainage infrastructure
- Temporary access roads
- Aerial utility relocations

2017

2018

2019

2020

2021

2018 Tree Cutting





2017

2018

2019

2020

2021

2018 Pre-Construction Activities

- Building inspection and vibration monitoring
- Temporary traffic control signing
- Temporary erosion prevention and sediment control

2017

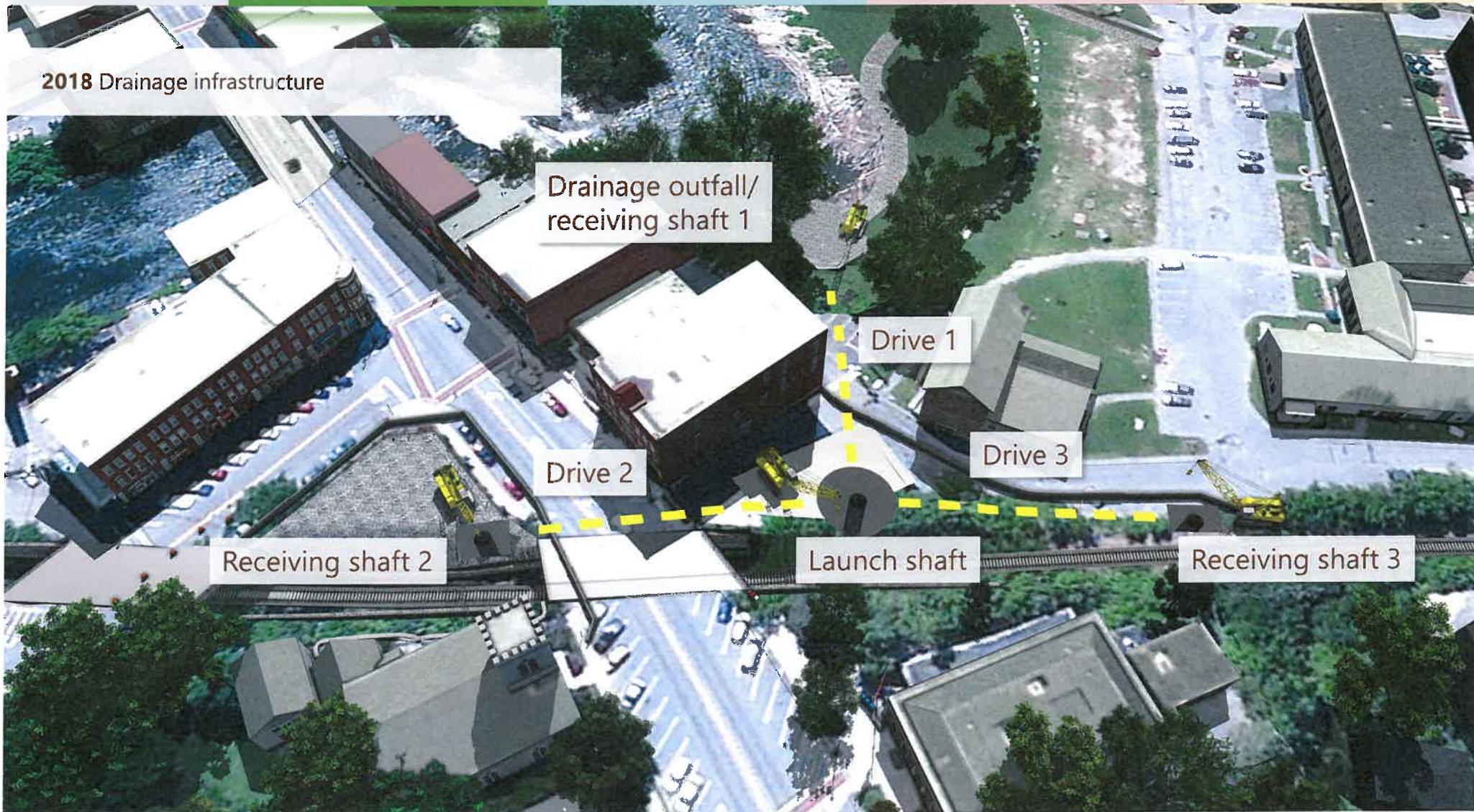
2018

2019

2020

2021

2018 Drainage infrastructure



2017

2018

2019

2020

2021

2018 Microtunneling Activities

- General Sequence
 - Launch Shaft – complete microtunnel drives – set manhole/backfill
 - Receiving Shaft 1 – microtunnel drive 1 – construct Headwall
 - Receiving Shaft 2 – microtunnel drive 2 – set manhole/backfill
 - Receiving Shaft 3 – microtunnel drive 3 – set manhole/backfill

A horizontal timeline bar at the top of the slide, divided into five colored segments representing the years 2017 to 2021. The 2018 segment is highlighted in green.

2017

2018

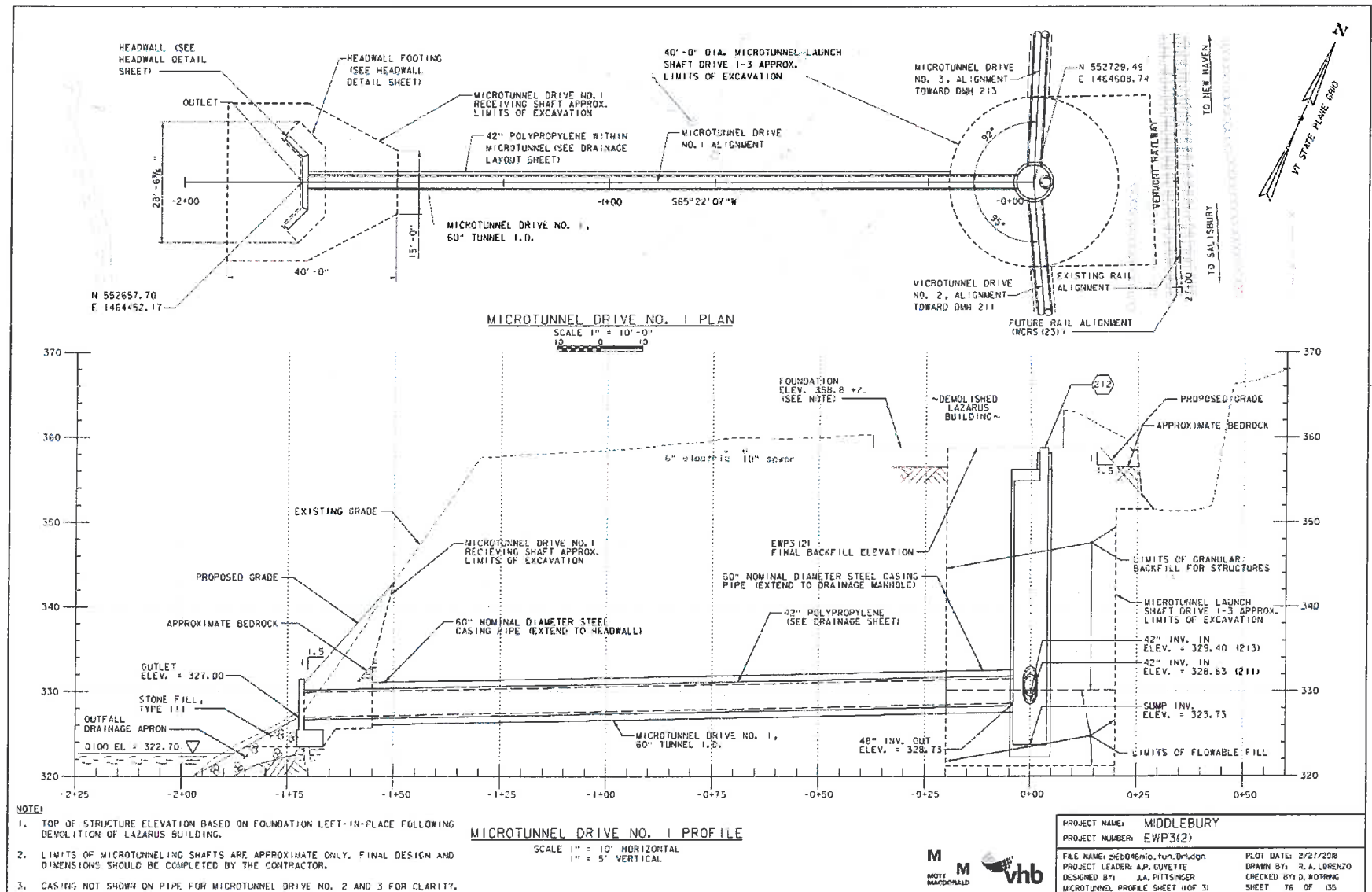
2019

2020

2021

Launch Shaft Construction

- Fencing in Printer's Alley: End of April 2018
- Earth Excavation: Late April 2018
- Drilling and blasting in Printer's Alley: May – July 2018
- Microtunneling start: August 2018
- Set manhole structure and backfill: March and April 2019
- Construction activity in Printer's Alley: April 2018 – April 2019



2017

2018

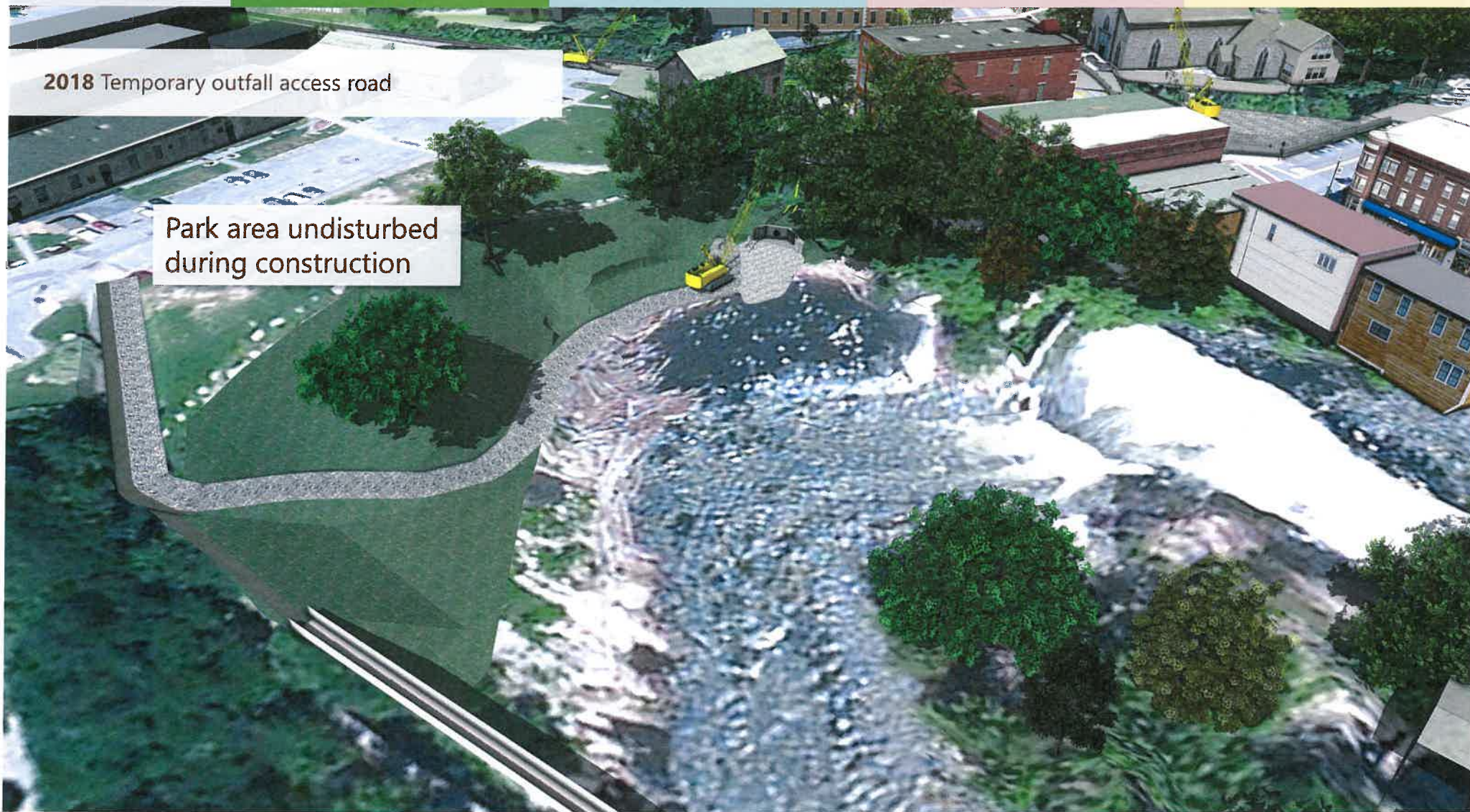
2019

2020

2021

2018 Temporary outfall access road

Park area undisturbed during construction



A horizontal timeline bar at the top of the slide, divided into five colored segments: 2017 (light blue), 2018 (green), 2019 (light blue), 2020 (pink), and 2021 (yellow). The 2018 segment is highlighted with a green underline.

2017

2018

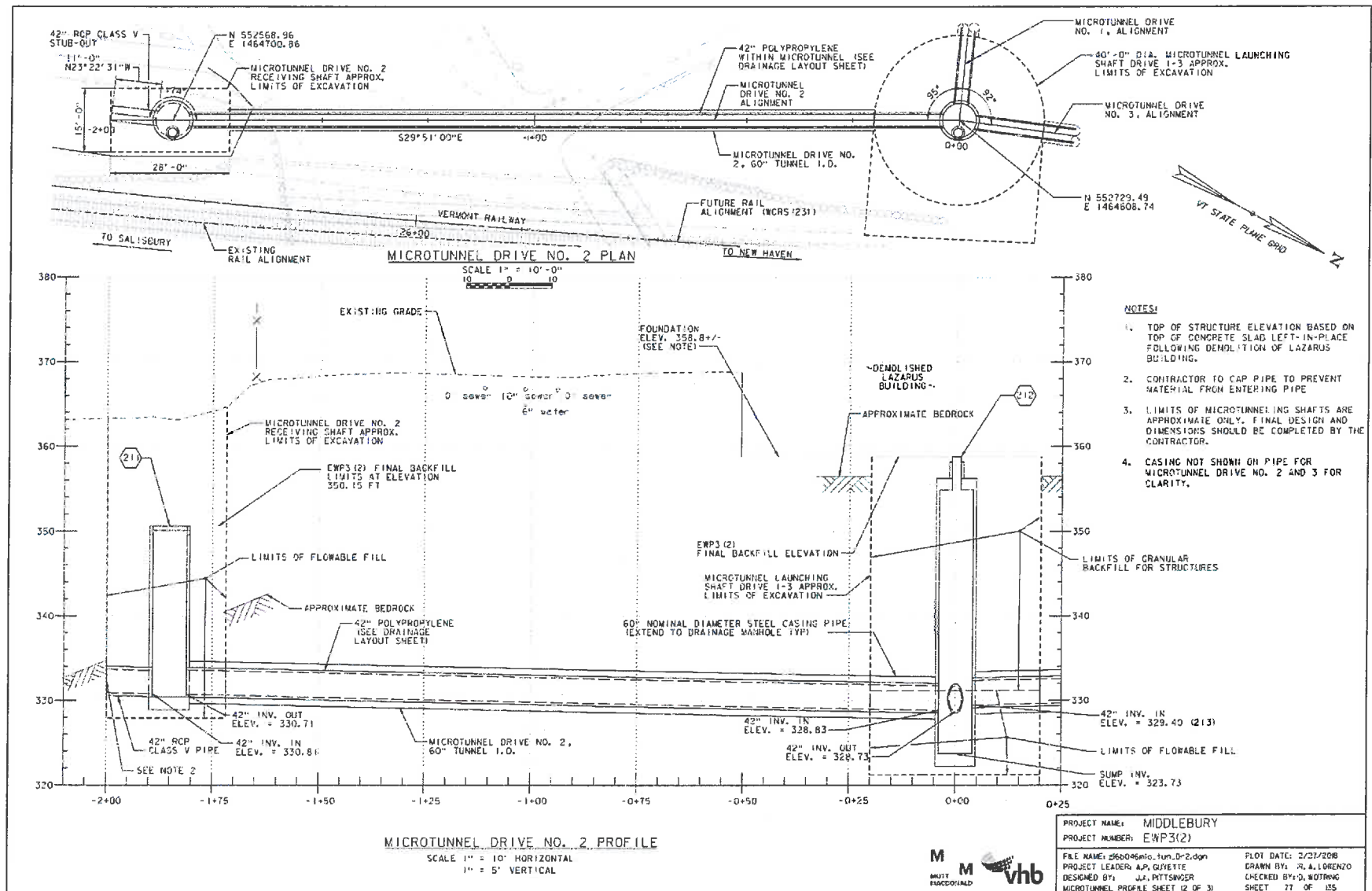
2019

2020

2021

Receiving Shaft 1 Construction

- Installation of access road and tree clearing: April 2018
- Soil excavation: May 2018
- Drilling and blasting: June 2018
- Completion of microtunnel drive 1: August 2018
- Removal of temporary access road: Spring 2019



A horizontal timeline bar at the top of the slide, divided into five colored segments: 2017 (light blue), 2018 (green), 2019 (light blue), 2020 (light red), and 2021 (light yellow). The year 2018 is highlighted with a green background and a green underline.

2017

2018

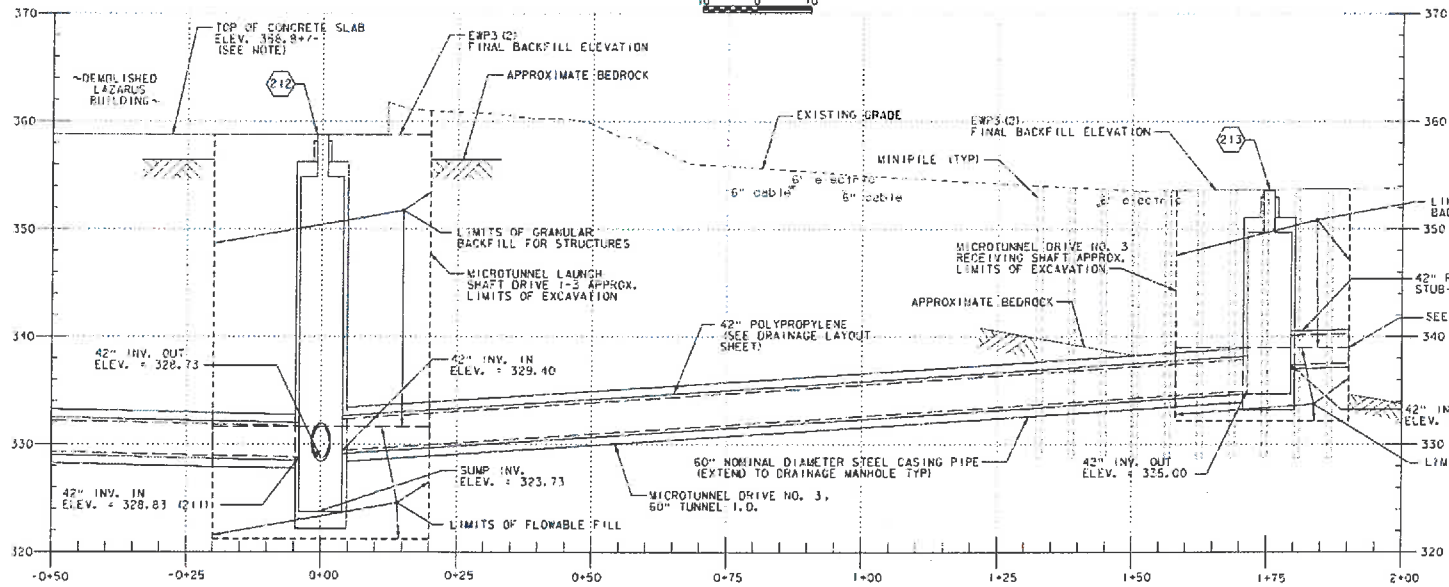
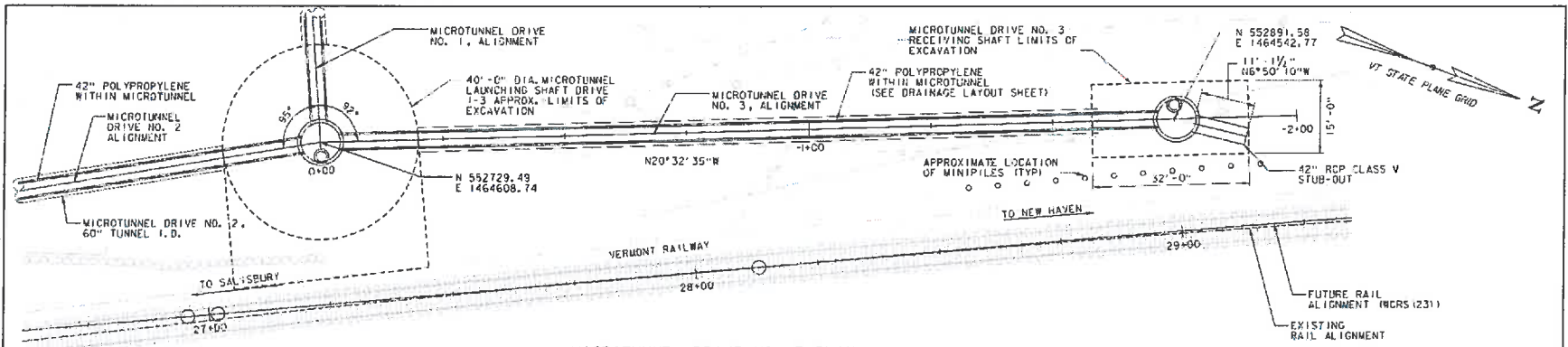
2019

2020

2021

Receiving Shaft 2 Construction

- Removal of park amenities: end of April 2018
- Installation of fencing around Triangle Park: end of April 2018
- Support of excavation (minipiles): May 2018
- Soil excavation: May and July 2018
- Drilling and blasting: August 2018
- Completion of microtunnel drive 2: October 2018
- Set manhole structure and backfill: January 2019



NOTES CONTINUED:

4. LIMITS OF MICROTUNNELING SHAFTS ARE APPROXIMATE ONLY. FINAL DESIGN AND DIMENSIONS SHOULD BE COMPLETED BY THE CONTRACTOR.
5. CASING NOT SHOWN ON PIPE FOR MICROTUNNEL DRIVE NO. 2 AND 3 FOR CLARITY.

NOTES:

1. TOP OF STRUCTURE ELEVATION BASED ON TOP OF CONCRETE SLAB LEFT-IN-PLACE FOLLOWING DEMOLITION OF LAZARUS BUILDING.
2. CONTRACTOR TO CAP PIPE TO PREVENT MATERIAL FROM ENTERING PIPE.
3. MINIPILES TO BE INSTALLED TO ELEVATION DETERMINED BY CONTRACTOR PRIOR TO CONSTRUCTION OF RECEIVING SHAFT 3. MINIPILES TO BE CUT OFF TO ELEVATION BELOW UTILITY VAULTS AFTER RECEIVING SHAFT 3 IS BACKFILLED.

MICROTUNNEL DRIVE NO. 3 PROFILE

SCALE 1" = 10' HORIZONTAL
1" = 5' VERTICAL



PROJECT NAME: MIDDLEBURY
PROJECT NUMBER: EWP3(2)

FILE NAME: 266046.mxd, 10-1-0-3.dgn
PROJECT LEADER: A.P. GUYETTE
DESIGNED BY: J.A. PITTSINGER
MICROTUNNEL PROFILE SHEET 13 OF 31

PLOT DATE: 2/27/2008
DRAWN BY: R.A. LORENZO
CHECKED BY: D. NOTTING
SHEET 18 OF 135

A horizontal timeline bar at the top of the slide, divided into five colored segments: light blue for 2017, green for 2018, light blue for 2019, pink for 2020, and yellow for 2021. The year 2018 is highlighted with a green background and a green underline.

2017

2018

2019

2020

2021

Receiving Shaft 3 Construction

- Installation of fencing and barriers: May and June 2018
- Support of excavation (minipiles): May and June 2018
- Soil excavation: August 2018
- Drilling and blasting: September 2018
- Completion of microtunnel drive 3: November 2018
- Set manhole structure and backfill: February 2019

2017

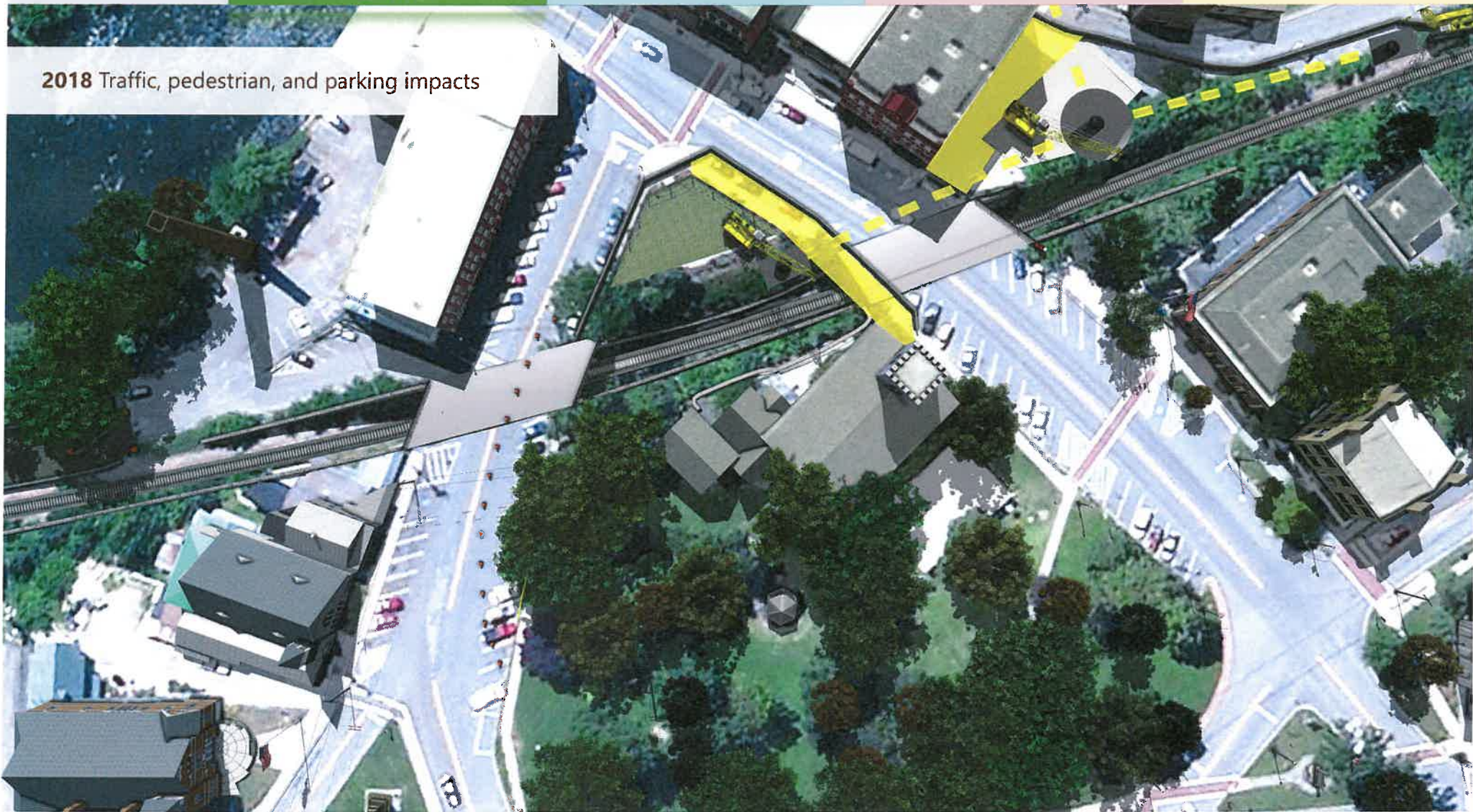
2018

2019

2020

2021

2018 Traffic, pedestrian, and parking impacts



A horizontal timeline bar with five colored segments: 2017 (light blue), 2018 (dark green), 2019 (light blue), 2020 (light red), and 2021 (light yellow). The 2018 segment is highlighted with a green underline.

2017

2018

2019

2020

2021

Water Street Temporary Access Road

- Construction: Summer of 2018
- Access to railroad corridor and lower Battell Block parking area

2017

2018

2019

2020

2021

Summer 2018 Temporary access road





2018

2019

2020

2021

Aerial Utility Relocations

- Electric and telecommunications relocations
- Printer's Alley area
- Merchants Row crossing



Summary of 2018 Downtown Impacts

- Short term closures of Printer's Alley
- Utility duct bank installation across Merchants Row
- Intermittent truck traffic downtown
- Minor construction noise during daytime working hours
- Normal working hours: 7:00am – 5:00pm
 - Isolated extended hours and weekends

2017

2018

2019

2020

2021



2018 Downtown Events

- Construction Activities will work around these events
 - Festival on the Green
 - Peasant's Market
 - Lion's Club Auction

2017

2018

2019

2020

2021



Questions?