

THE PROJECT

York Region is making significant and urgent improvement to the Newmarket wastewater system. The York Durham Sewage System Forcemain Twinning project will twin the major sewage pipe (forcemain) through Newmarket.

Why is this project important? Major sewage forcemains are commonly twinned. When a sewer is not twinned, the community is at risk of a disruption of service, such as a sewage pipe break. This puts the local environment at risk and the sewer would be taken out of service until repaired.

Work will occur through the Town of Newmarket and include construction of a new forcemain parallel to the existing forcemain. This is known as forcemain twinning.

The project includes:

- Building a new twinned forcemain to move wastewater from the Newmarket Pumping Station to the Aurora Pumping Station
- Building a new twinned forcemain to move wastewater from the Bogart Creek Pumping Station to the new forcemain
- Changes to the Newmarket and Bogart Creek Pumping Stations to connect to the new twinned forcemain

What is a forcemain?

A pressurized sewer pipe powered by pumping stations. Forcemains are used to move wastewater when a gravity sewer is not an option.



Original Forcemain
Construction Photos
August 1983

PROJECT FEATURES

York Region is using microtunnelling technology and best construction practices to minimize disruptions to the public and natural environment.

Project features include:

- Use of microtunnelling to complete 95% of construction
- Strategically located work areas to protect the natural environment and avoid close proximity to residential homes and businesses
- Enclosed work areas with three-metre high solid fencing to limit disturbances, protect the public and minimize noise
- Dedicated trucking routes to minimize impacts to local roads
- Staff and paid-duty officers on-site as required to help with the movement of traffic
- Measurement of noise and vibration measured prior to construction and continuously during construction
- Pre-construction assessment of nearby structures, where necessary
- Full restoration of work areas completed after construction



PROJECT BENEFITS

Environmentally-friendly construction.

The forcemain is installed under forested areas, streets and environmentally-sensitive areas, such as rivers and creeks.

Minimal impacts to surrounding communities.

Noise, dust and vibration is reduced by tunnelling underground and confining construction to work areas.

Minimal disruption to road traffic and trail system.

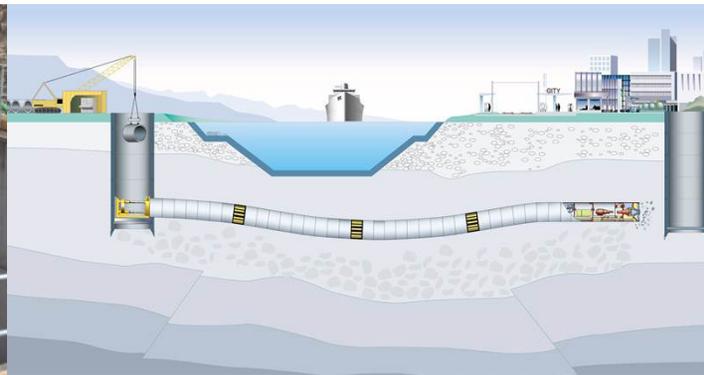
Microtunnelling under roads, sidewalks and trails limits the need for full road closures.

Minimal disruption to local businesses.

Microtunnelling limits cutting and excavating in front of commercial driveways allowing unrestricted access to businesses.

No utility service disruptions.

Using a laser-guidance system, microtunnelling avoids utility strikes causing outages.



CONSTRUCTION METHODS



MICROTUNNELLING

Microtunnelling is a type of trenchless technology that uses a laser-guided remote controlled tunnelling machine to install pipe with minimal disruption at ground surface.

PROS

- Minimal disruption to environment
- Reduced road closures
- Less disruption to traffic
- Extremely accurate with +/- 1" tolerance

CONS

- Relatively higher cost than open cut
- High skillset required
- Extensive ground investigations required



OPEN CUT CONSTRUCTION

This traditional construction technique involves excavating a trench in the ground to install a pipe. The trench is backfilled with granular material and the surface is restored.

PROS

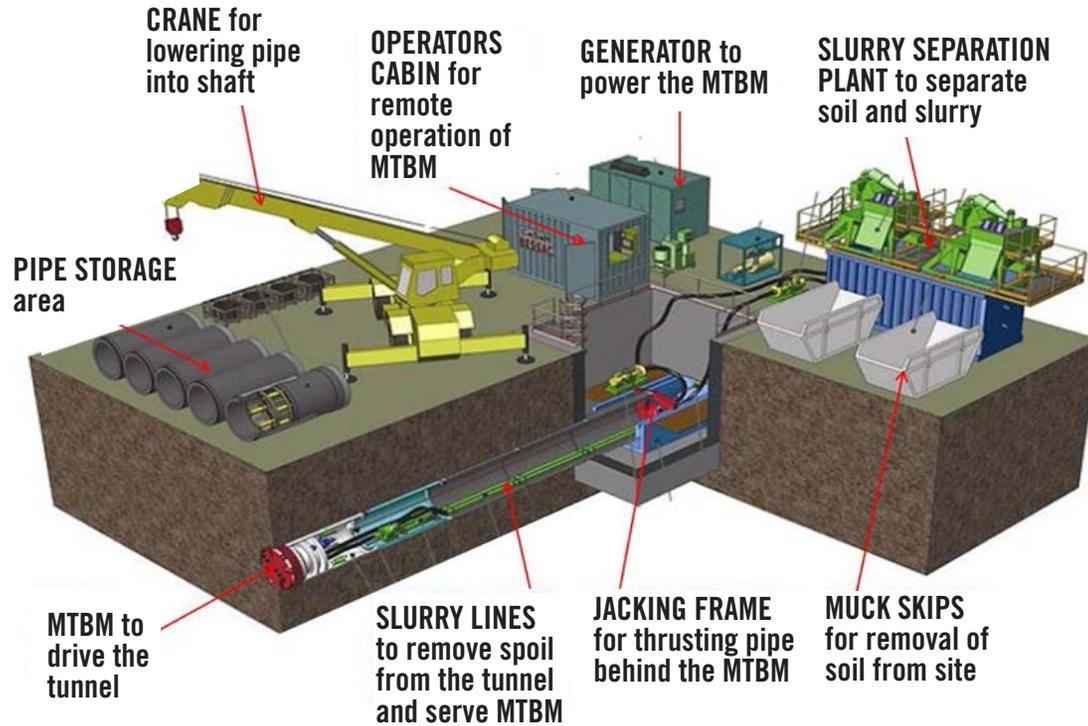
- Relatively lower cost than microtunnelling
- Easier to install

CONS

- Road closures required
- Tree removals required
- Dewatering of streams and rivers required
- More surface area disturbance

TYPICAL MICROTUNNELLING COMPOUND

MICROTUNNELLING BORING MACHINE (MTBM)



EVENT MANAGEMENT AND COMMUNICATIONS

York Region and the Town of Newmarket have a dedicated communication team working closely to develop timely communication and, ensure impacts to local events are minimal.

Our team will:

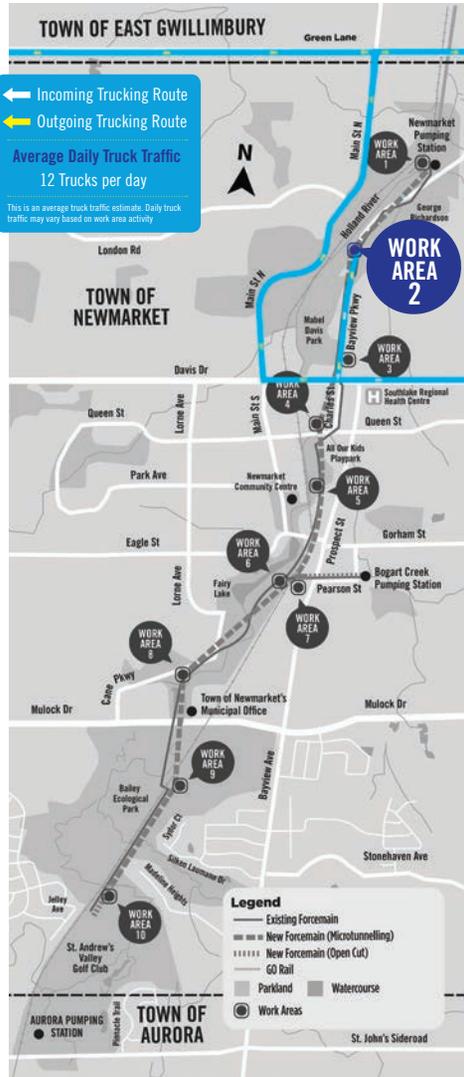
- Support a project dedicated toll free number available 24/7: **1-800-667-4817**
- Maintain a dedicated project website: york.ca/forcemaintwinning
- Provide construction notices and updates
- Engage regularly with and deliver notifications to residents, businesses and community organizations
- Install pedestrian directional signs, where required
- Provide updates on York Region and the Town of Newmarket Facebook and Twitter pages
- Participate in public engagement at the Farmers Market and various Newmarket events to keep residents informed



WORK AREA 2

MADSEN'S GREEN HOUSE ON BAYVIEW PARKWAY

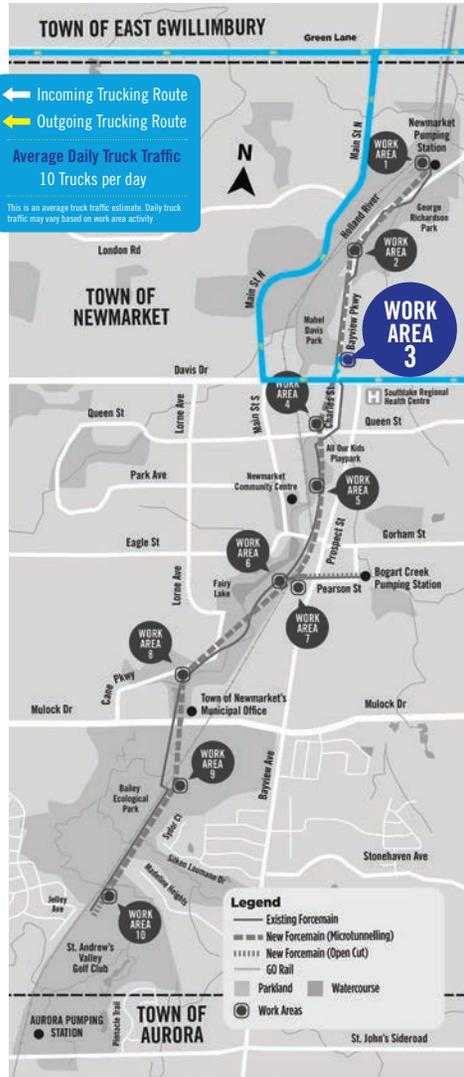
YORK DURHAM SEWAGE SYSTEM
**FORCEMAIN
TWINNING**
PROJECT 2019



WORK AREA 3

DAVIS DRIVE AND BAYVIEW PARKWAY

YORK DURHAM SEWAGE SYSTEM
FORCEMAIN TWINNING
PROJECT 2019



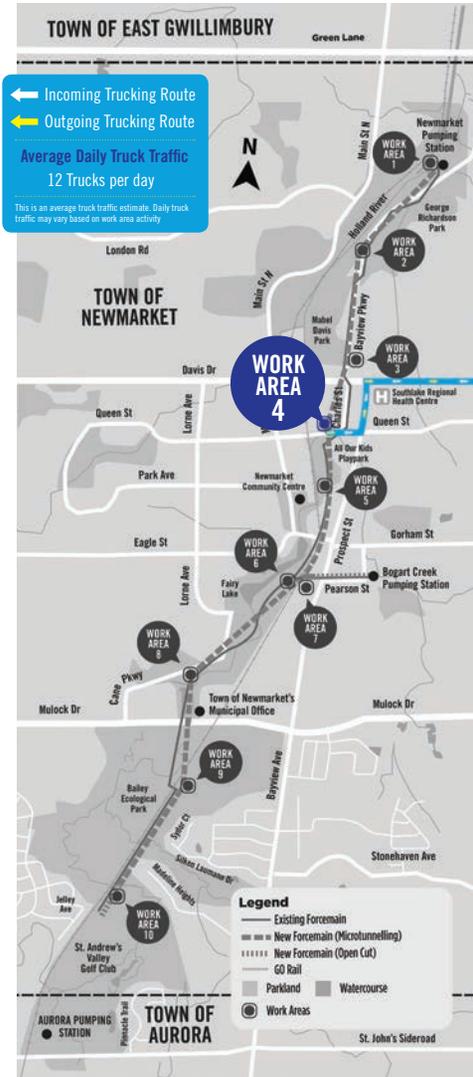
WORK
AREA
4

QUEEN STREET AND CHARLES STREET

YORK DURHAM SEWAGE SYSTEM

**FORCEMAIN
TWINNING**

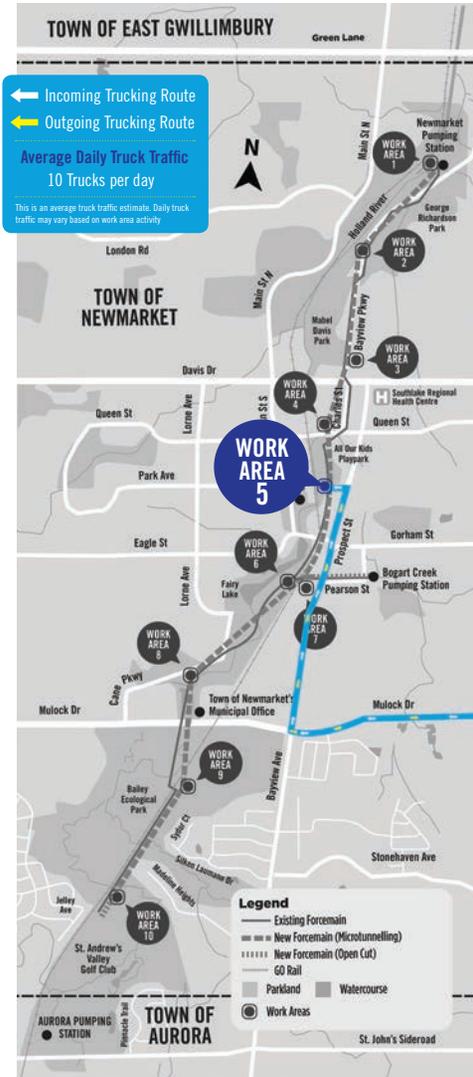
PROJECT 2019



WORK
AREA
5

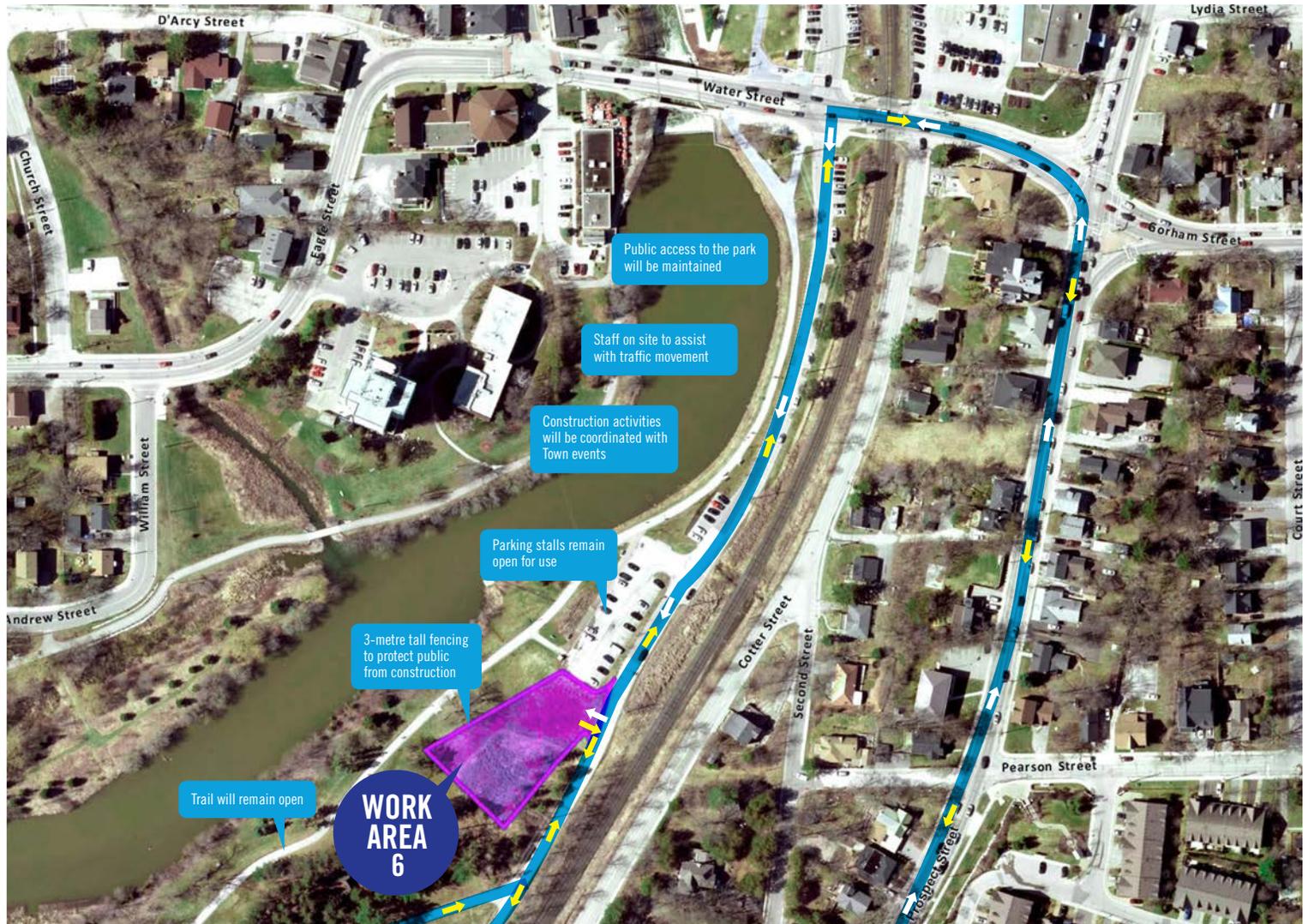
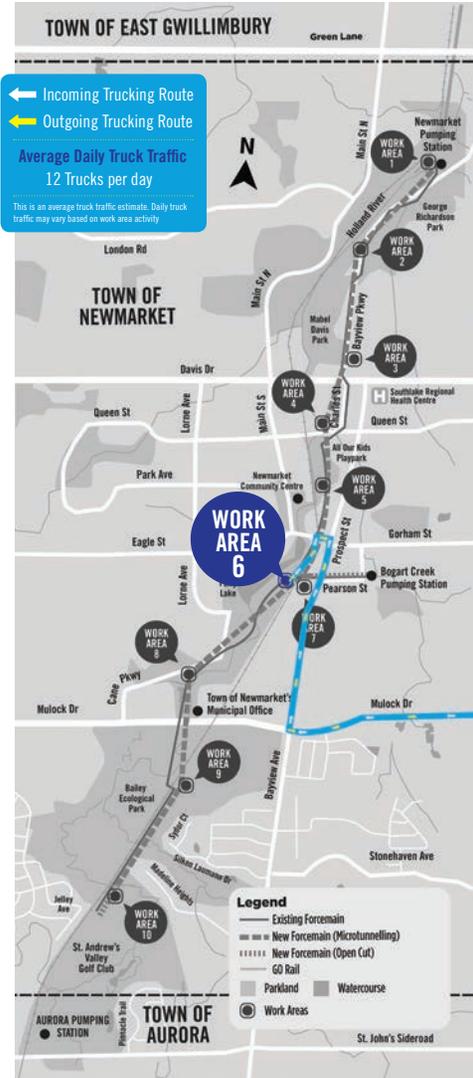
ALL OUR KIDS PLAYPARK

YORK DURHAM SEWAGE SYSTEM
**FORCEMAIN
TWINNING**
PROJECT 2019



WORK AREA 6

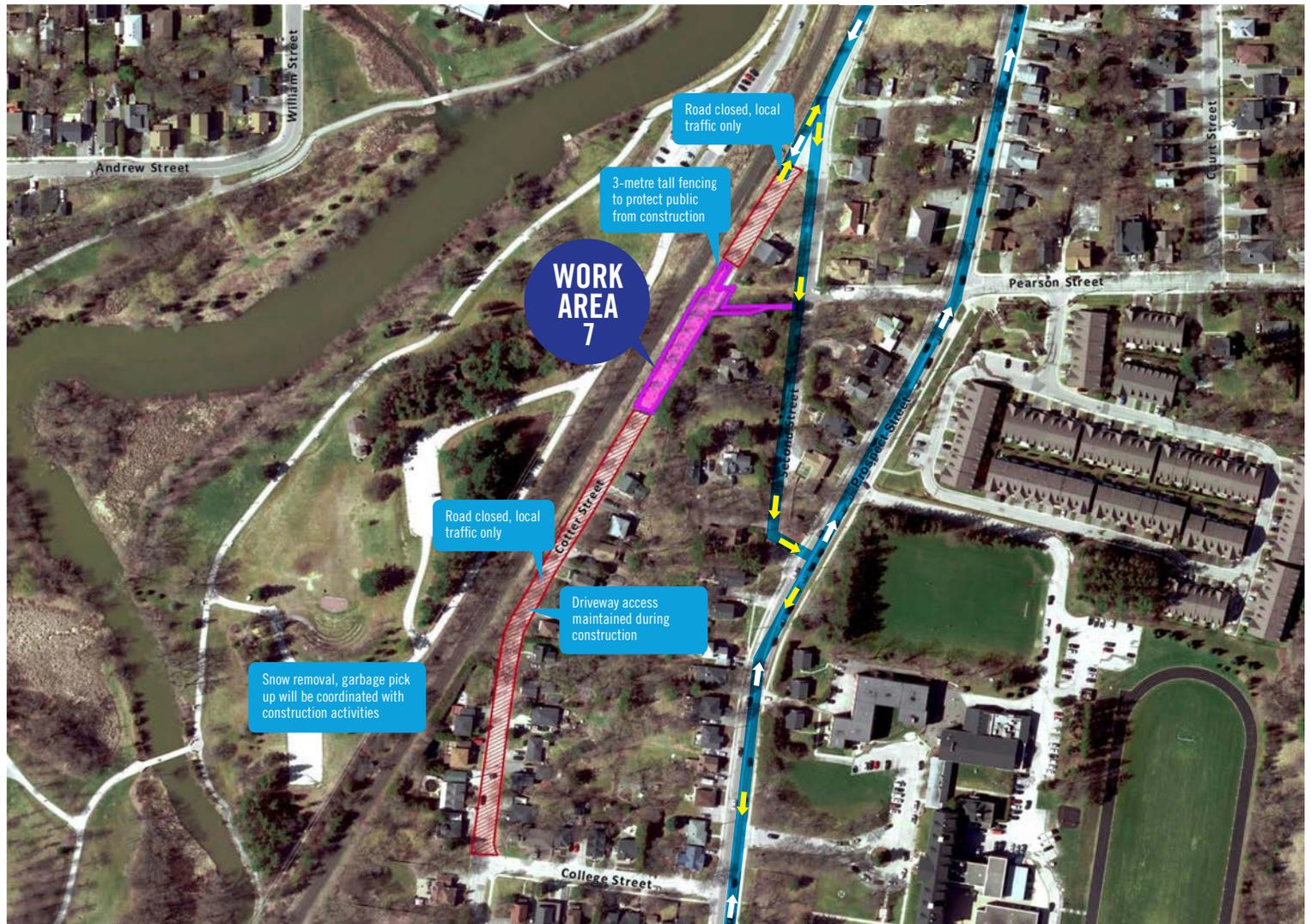
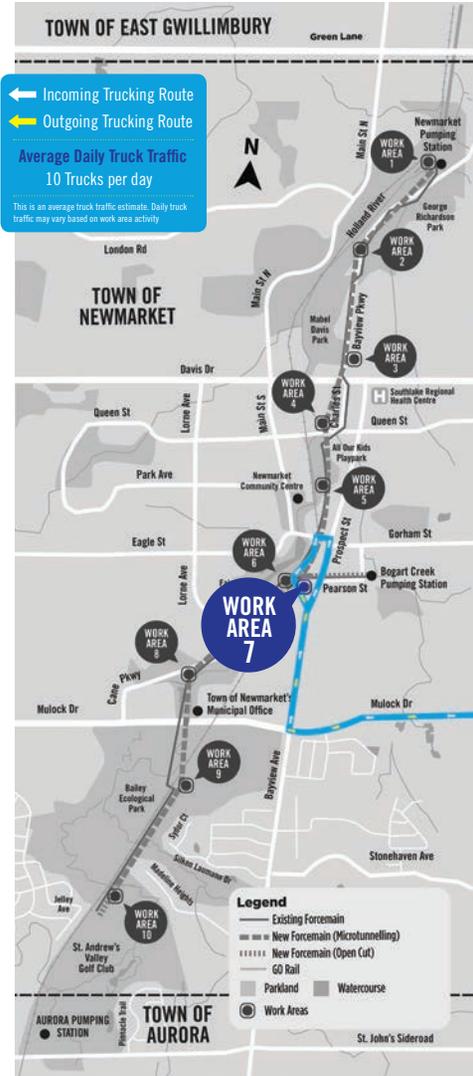
FAIRY LAKE



WORK
AREA
7

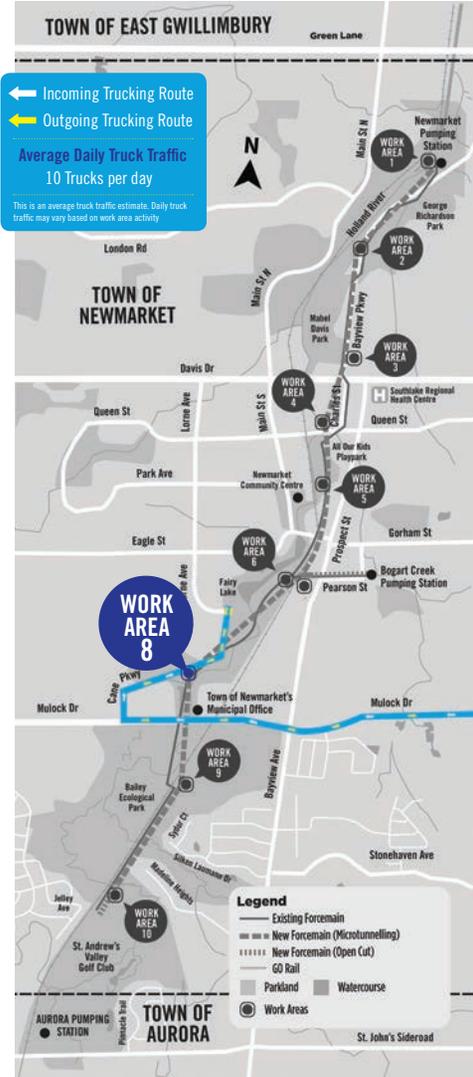
COTTER STREET

YORK DURHAM SEWAGE SYSTEM
**FORCEMAIN
TWINNING**
PROJECT 2019



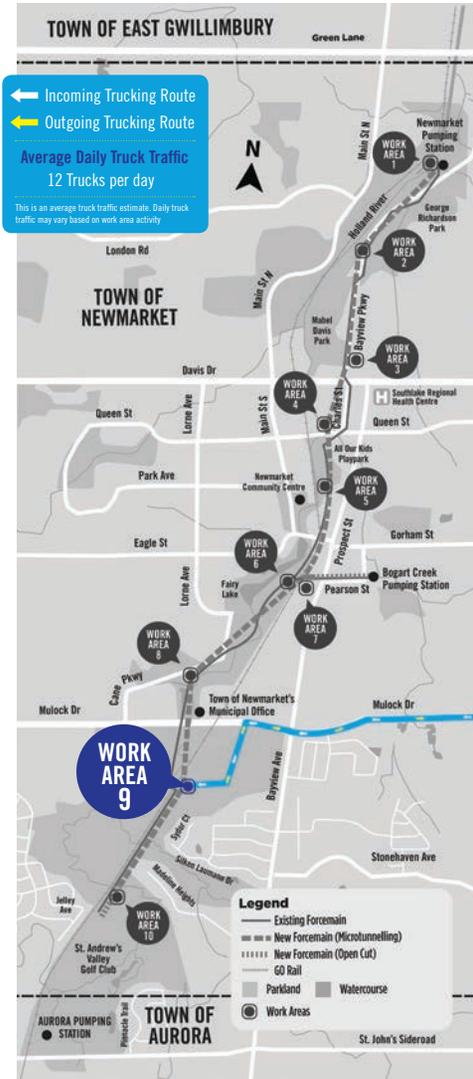
WORK AREA 8

CANE PARKWAY



**WORK
AREA
9**

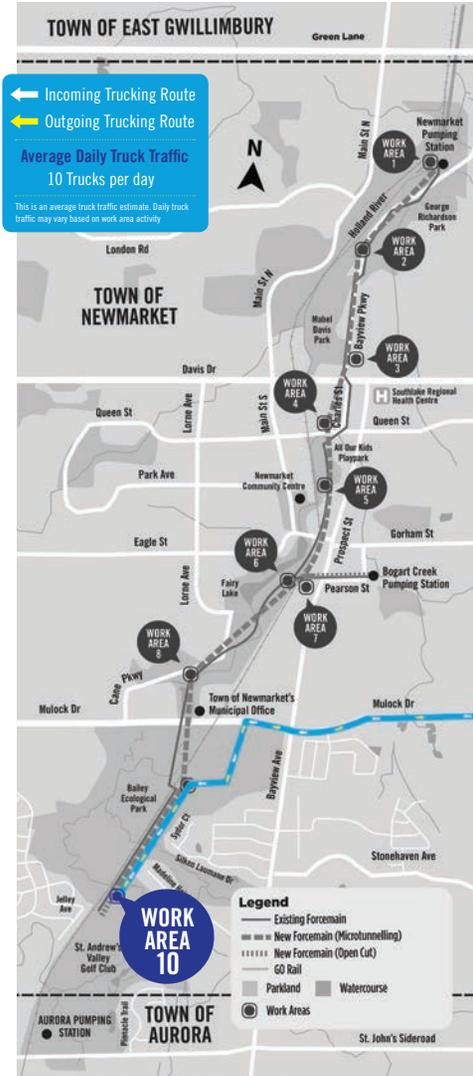
SOUTH OF MULOCK DRIVE



**WORK
AREA
10**

ST. ANDREW'S VALLEY GOLF COURSE

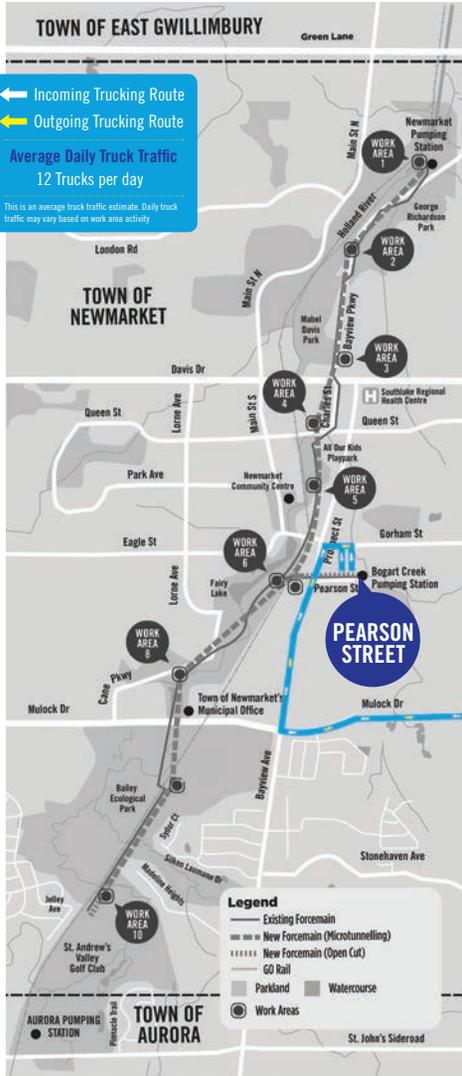
YORK DURHAM SEWAGE SYSTEM
**FORCEMAIN
TWINNING**
PROJECT 2019



WORK
AREA

PEARSON STREET

YORK DURHAM SEWAGE SYSTEM
**FORCEMAIN
TWINNING**
PROJECT 2019



YORK DURHAM SEWAGE SYSTEM
**FORCEMAIN
TWINNING**
PROJECT 2019

STAY IN THE KNOW.

If you have any construction questions or comments, or to sign up for project updates, please contact: **York Region | 1-800-667-4817,**
accessyork@york.ca, york.ca/forcemaintwinning

For emergencies outside of regular business hours contact: **1-800-667-4817**

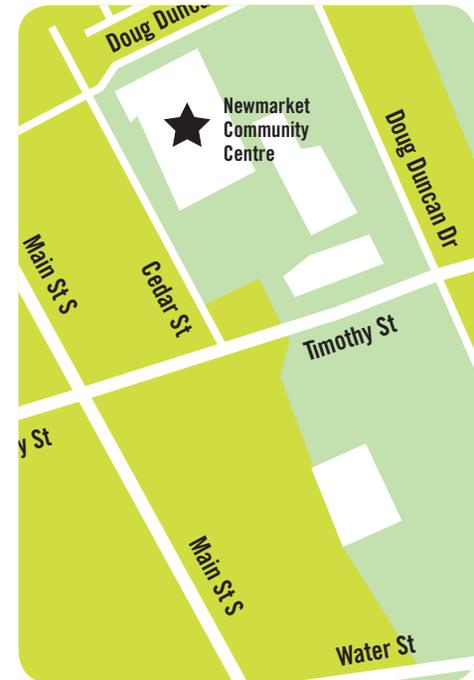
**OPEN
HOUSE**

WEDNESDAY*
MAY 15, 2019

4 P.M. TO 8 P.M.

TUESDAY*
MAY 21, 2019

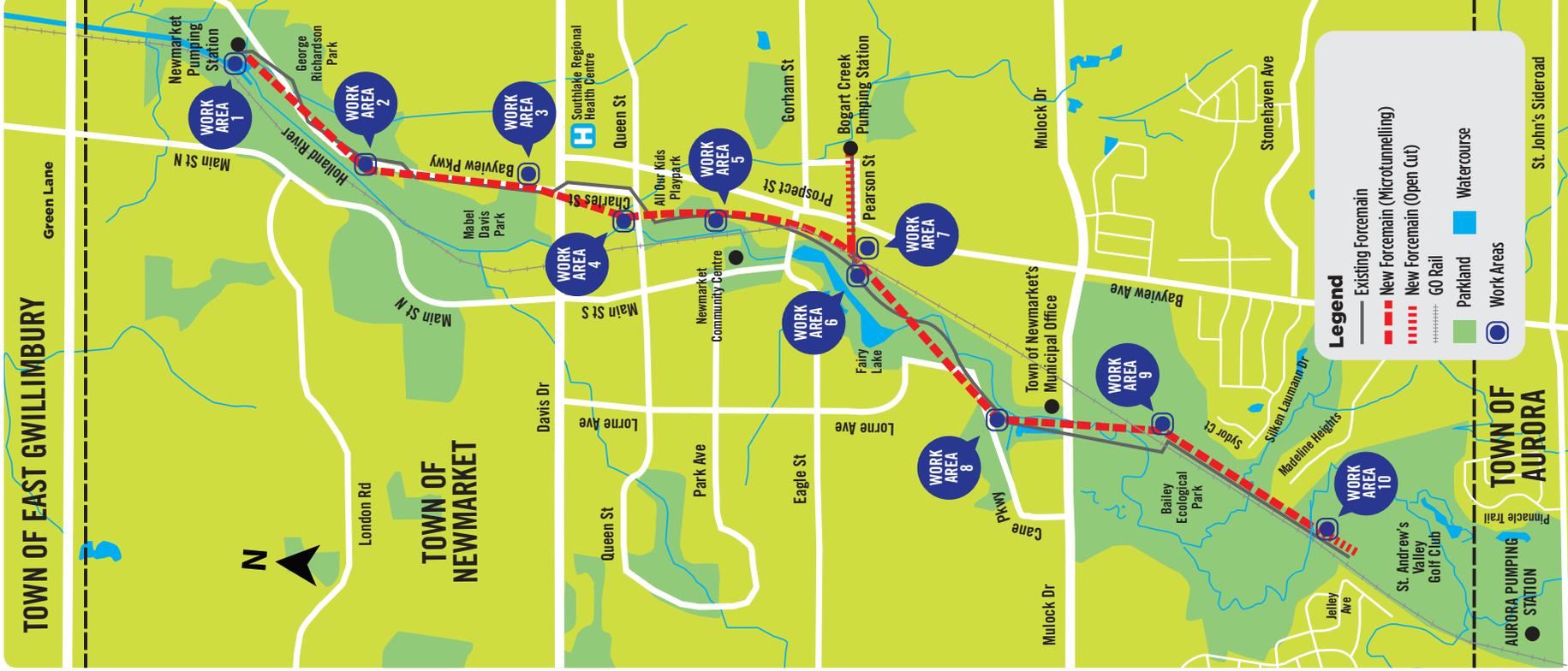
* The same material will be presented on both dates



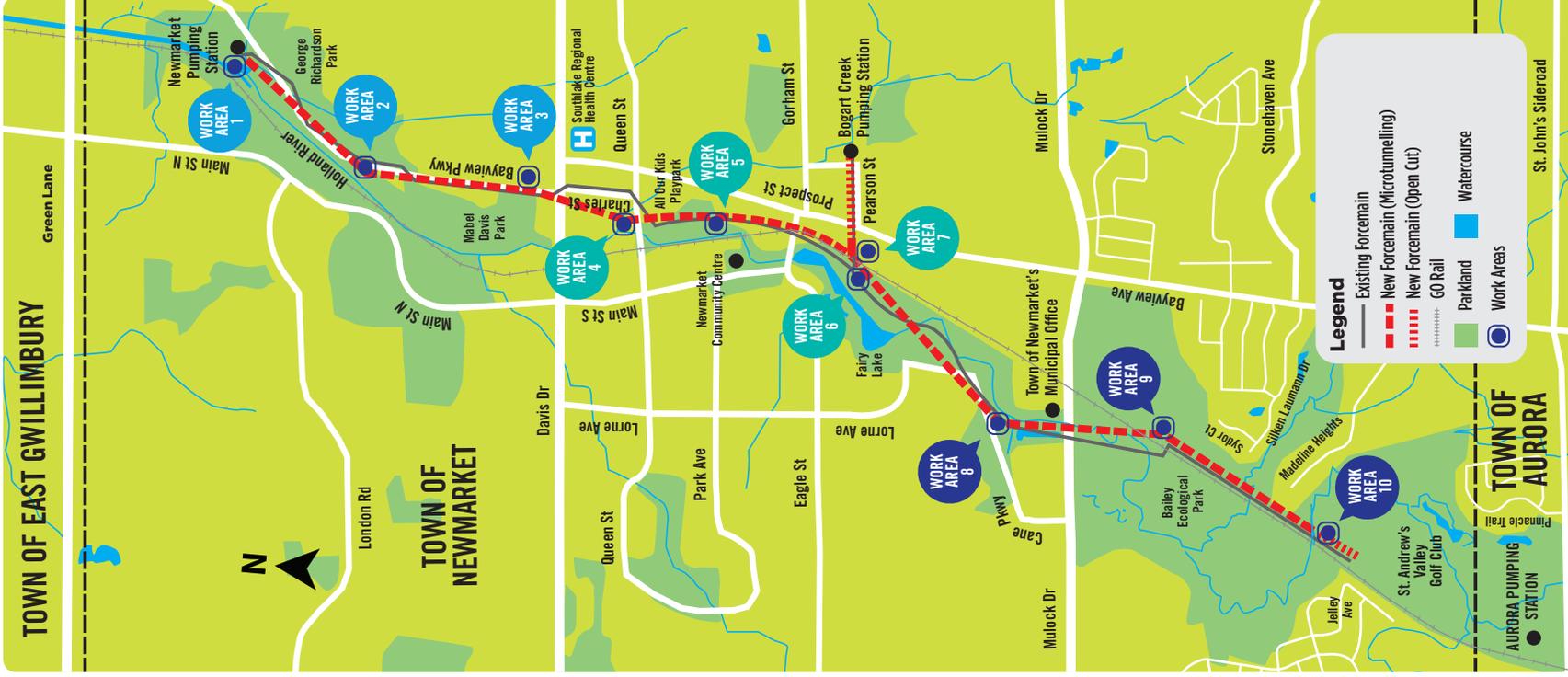
Newmarket Community Centre - Hall 2
200 Doug Duncan Drive, Newmarket, ON L3Y 3X1

All of the information on the boards at today's open house will be available at york.ca/forcemaintwinning beginning May 15, 2019.

PROJECT WORK AREAS



CONSTRUCTION TIMING



WORK AREA 1

WORK AREA CONSTRUCTION
WINTER 2019

WORK AREA 2

TUNNELING OPERATION
FALL 2020 - SPRING 2021

WORK AREA 3

RESTORATION
FALL 2021

WORK AREA 4

WORK AREA 5

WORK AREA CONSTRUCTION
FALL 2019

WORK AREA 6

TUNNELING OPERATION
SPRING - FALL 2020

WORK AREA 7

RESTORATION
FALL 2021

WORK AREA 8

WORK AREA CONSTRUCTION
SUMMER 2019

WORK AREA 9

TUNNELING OPERATION
FALL 2019 - SPRING 2020

WORK AREA 10

RESTORATION
FALL 2021

As with all construction projects, some work may need to be rescheduled due to weather and other factors.