



Trans Mountain Expansion Project  
Fraser Heights Community Association Update  
June 29, 2017

# Agenda

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1. Trans Mountain Expansion Project overview
2. Routing in Surrey
3. Construction planning
4. Map review
5. Impact mitigation
6. Protection of the environment and wildlife habitat
7. Communications
8. Next steps

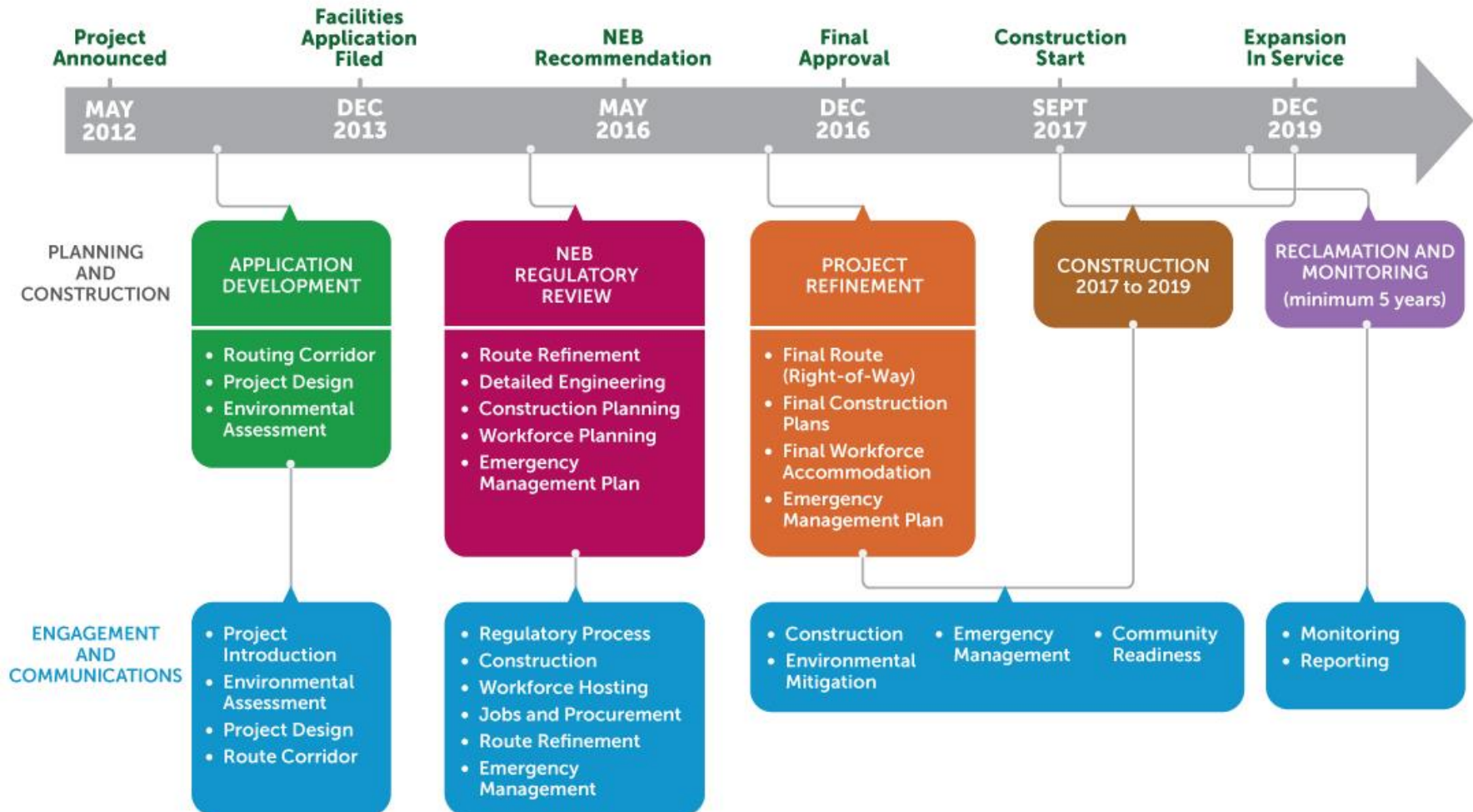
# Expansion Project



- \$7.4 billion\* capital cost
- Expand capacity to 890,000 barrels per day
- Project scope
  - 980 km new pipe
  - 12 new pump stations
  - 19 new tanks
  - 3 new tanker berths
- Increase in tanker traffic – not tanker size
- Terminals construction
- Approved by the NEB and Federal Government
- Received Environmental Certificate from BC Environmental Assessment Office
- Must meet 157 NEB conditions and 37 BC Environmental Assessment Office conditions



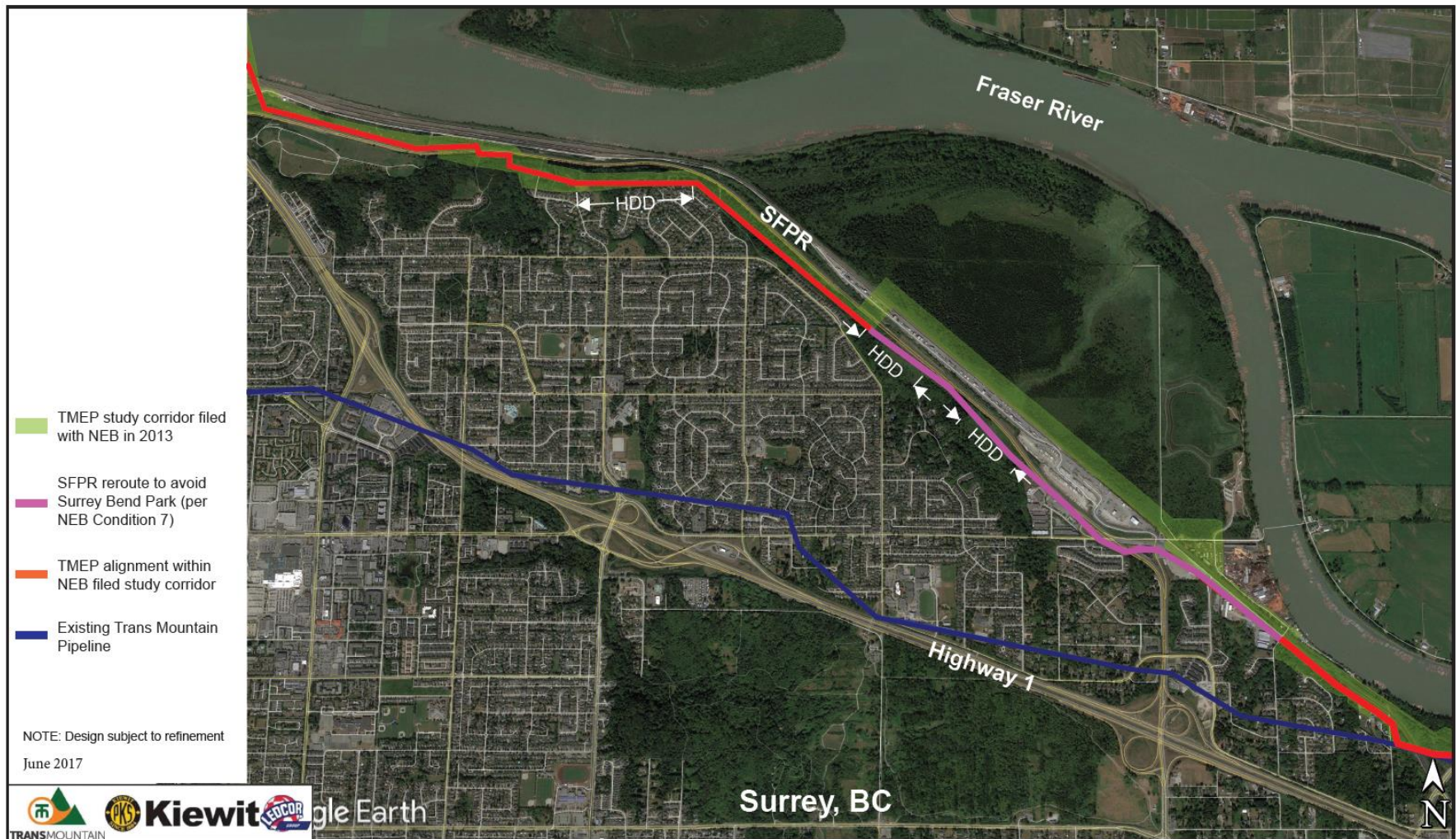
# Project Schedule



This schedule is subject to change based on detailed construction planning and regulatory timelines.

# SFPR Reroute to Avoid Surrey Bend Park

Routing through Surrey (Golden Ears Connector/Fraser Heights), Trans Mountain Expansion Project (TMEP)



# Benefits of SFPR Reroute

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## Routing

- SFPR reroute addresses concerns related to routing through Surrey Bend Regional Park
  - Subject to BC MOTI agreement and additional geo technical studies
  - Minimizes impact to wetlands

## Construction Methodology

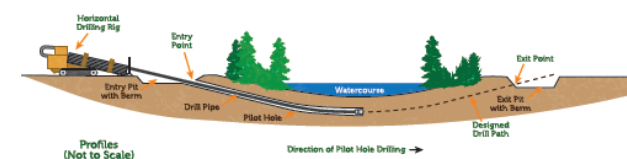
- Partial trenchless construction advantages:
  - Reduced construction footprint and surface impact during construction
  - Reduced tree removals
  - Reduced ground/soil disturbance and soil erosion potential
  - Reduced disturbance of natural surface and subsurface water flows
  - Where practical, trees retained between residential neighborhoods and the pipeline right-of-way provide visual barrier from highway and railway
  - Reduced impact to Pacific Water Shrew and other terrestrial wildlife

# Construction Scope in Surrey

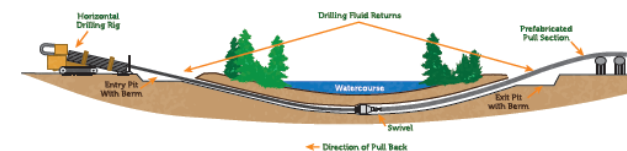
- Site preparation and tree/brush removal
- Construction of 11.5 km of new 36-inch pipeline
  - Trenched construction via open cut
  - Trenchless construction - no surface impact, except at the entry and exit points
    - Trenchless bores of all major road crossings
    - Three Horizontal Direction Drills (HDD) across the Fraser Heights slope and wetlands
    - HDD crossing of the Fraser River
- Reclamation of construction sites and all required temporary work space after construction



Stage 1: Pilot Hole Directional Drilling

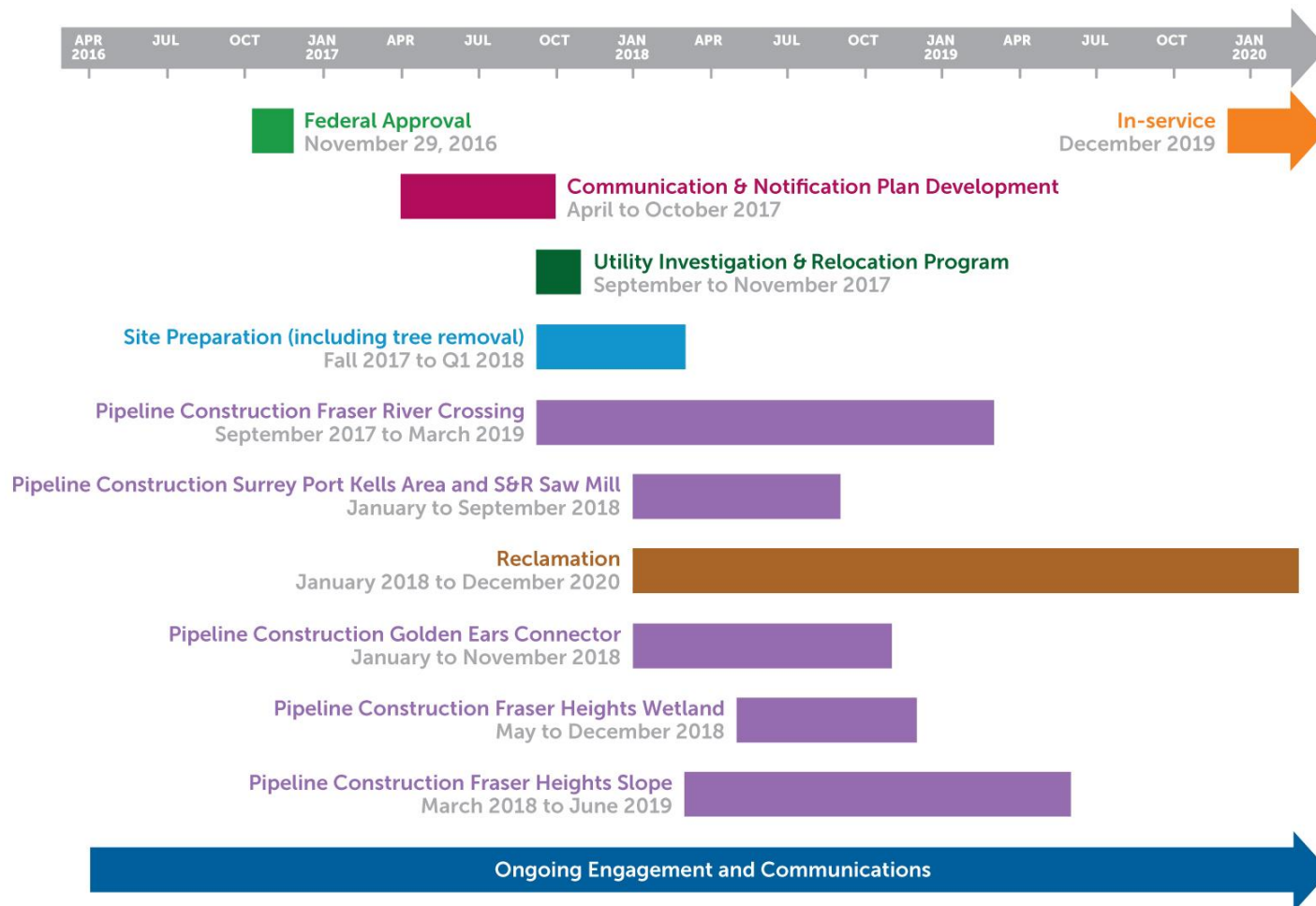


Stage 2: Reaming and Pulling Back



The river and watercourse crossing construction technique may be refined during the detailed engineering and design phase.

# Construction Schedule in Surrey\*



\*Timeline for specific construction activities is subject to refinement with ongoing construction planning and work is subject to receipt of all approvals.

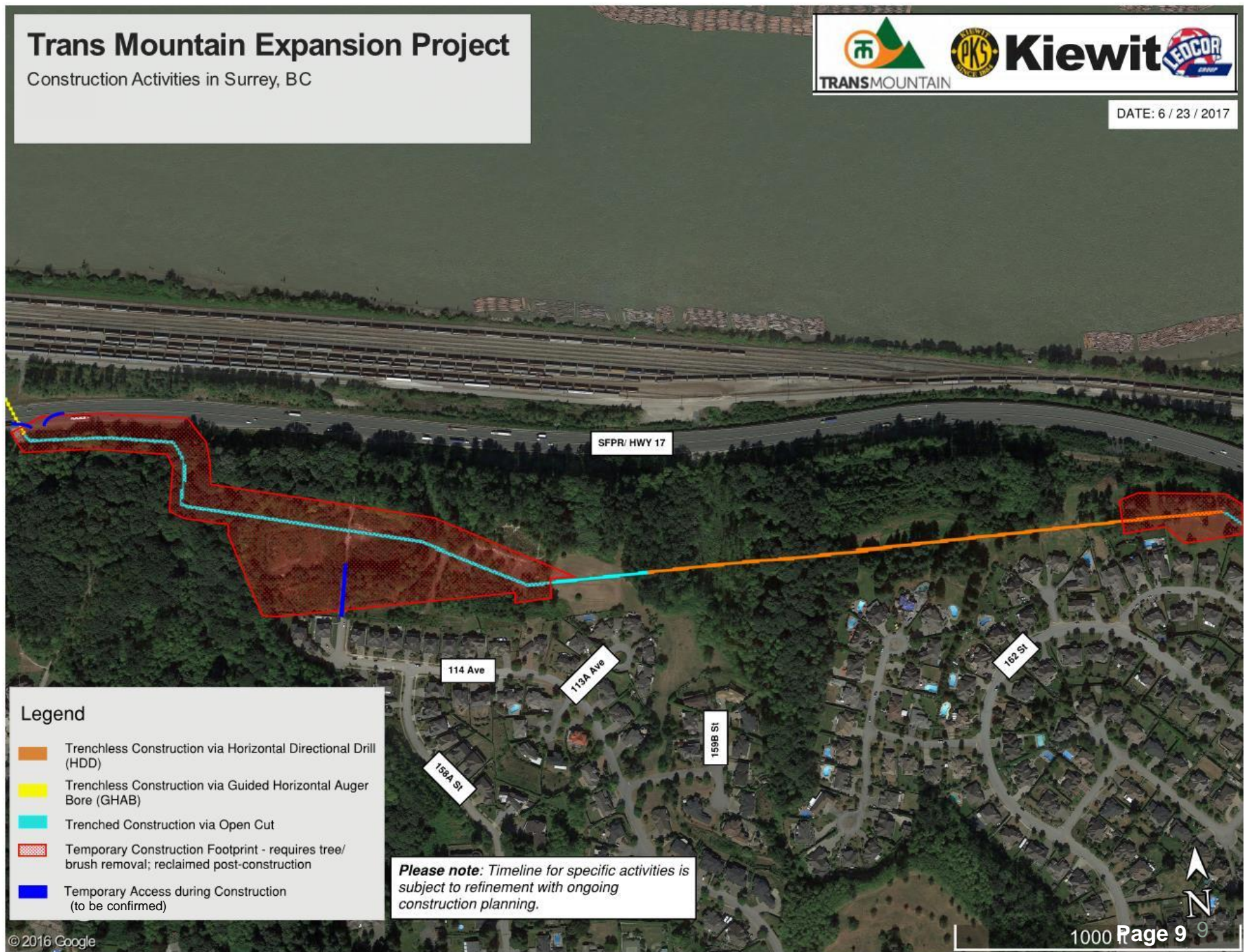
June 2017

# Trans Mountain Expansion Project

Construction Activities in Surrey, BC



DATE: 6 / 23 / 2017

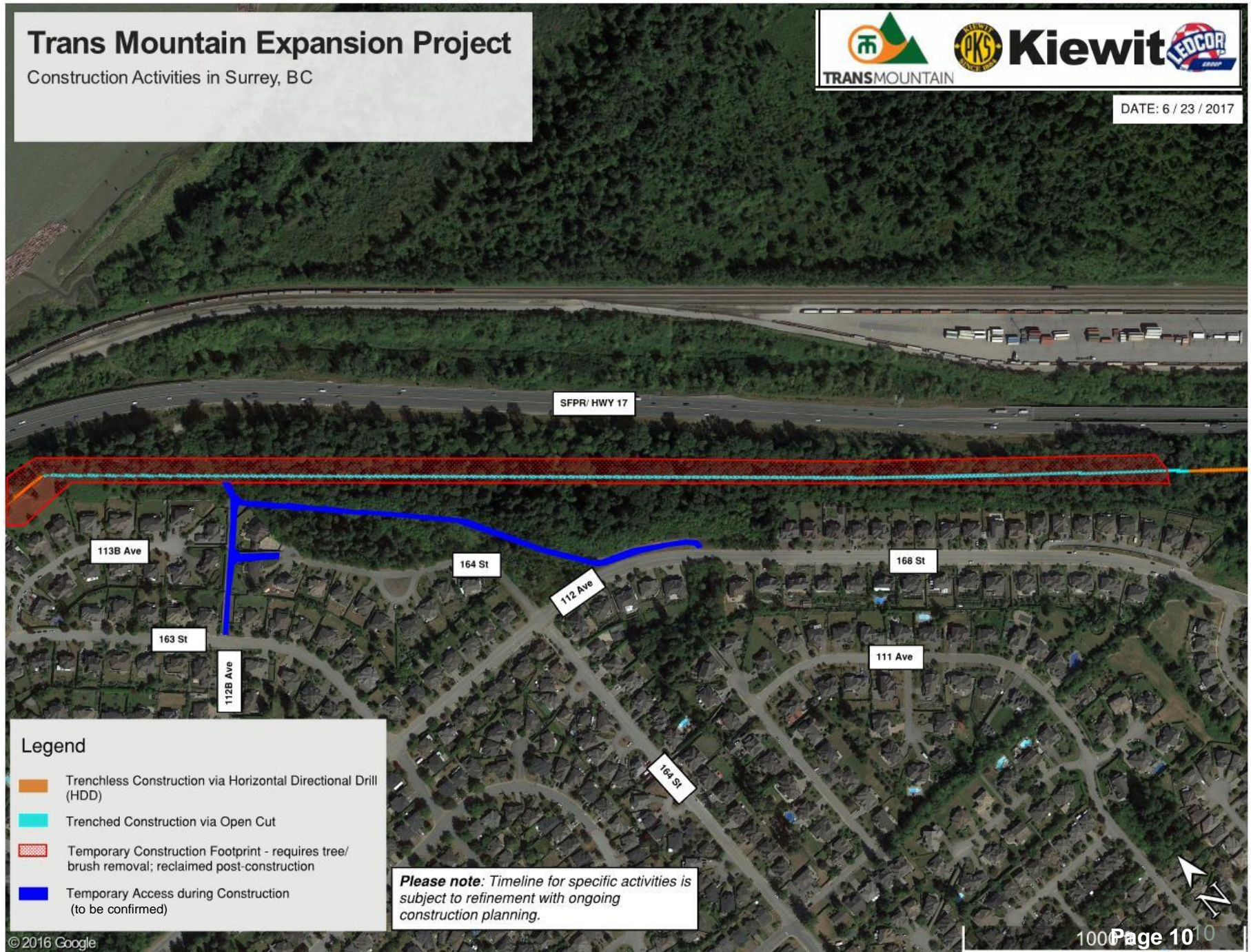


# Trans Mountain Expansion Project

Construction Activities in Surrey, BC



DATE: 6 / 23 / 2017



## Legend

- Trenchless Construction via Horizontal Directional Drill (HDD)
- Trenched Construction via Open Cut
- Temporary Construction Footprint - requires tree/brush removal; reclaimed post-construction
- Temporary Access during Construction (to be confirmed)

**Please note:** Timeline for specific activities is subject to refinement with ongoing construction planning.

# Trans Mountain Expansion Project

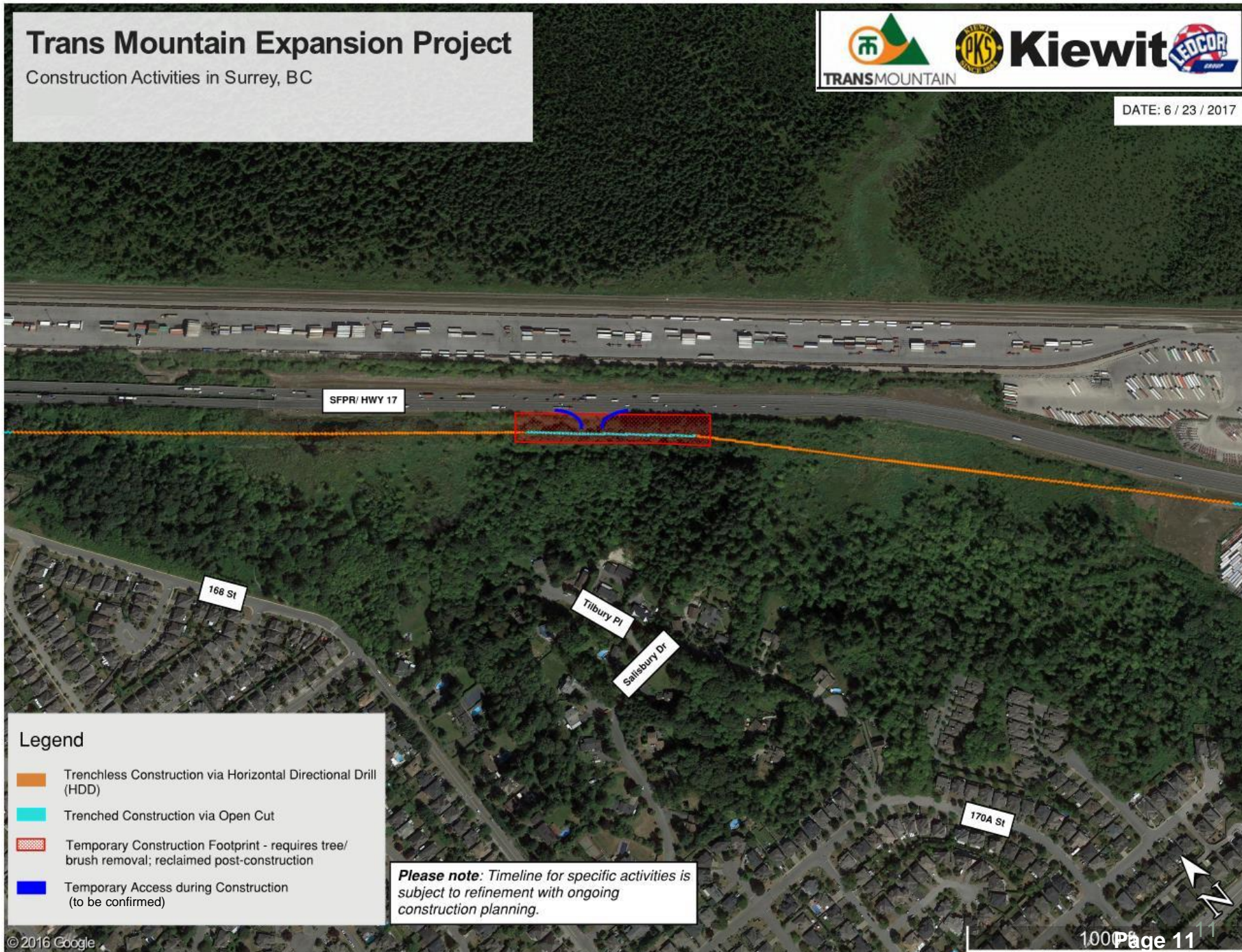
Construction Activities in Surrey, BC



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DATE: 6 / 23 / 2017



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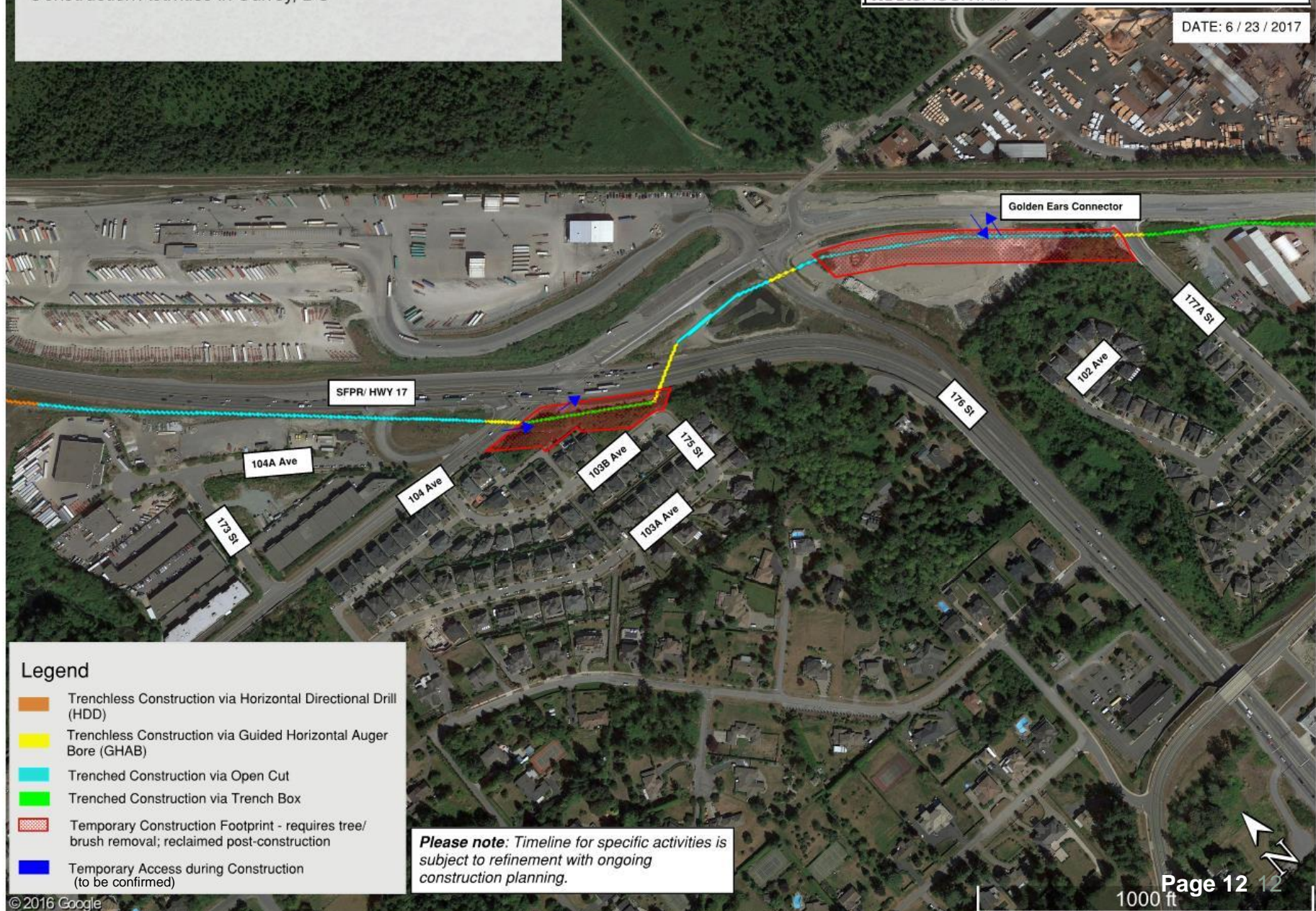
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# Trans Mountain Expansion Project

Construction Activities in Surrey, BC



DATE: 6 / 23 / 2017



## Legend

- Trenchless Construction via Horizontal Directional Drill (HDD)
- Trenchless Construction via Guided Horizontal Auger Bore (GHAB)
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- Trenched Construction via Trench Box
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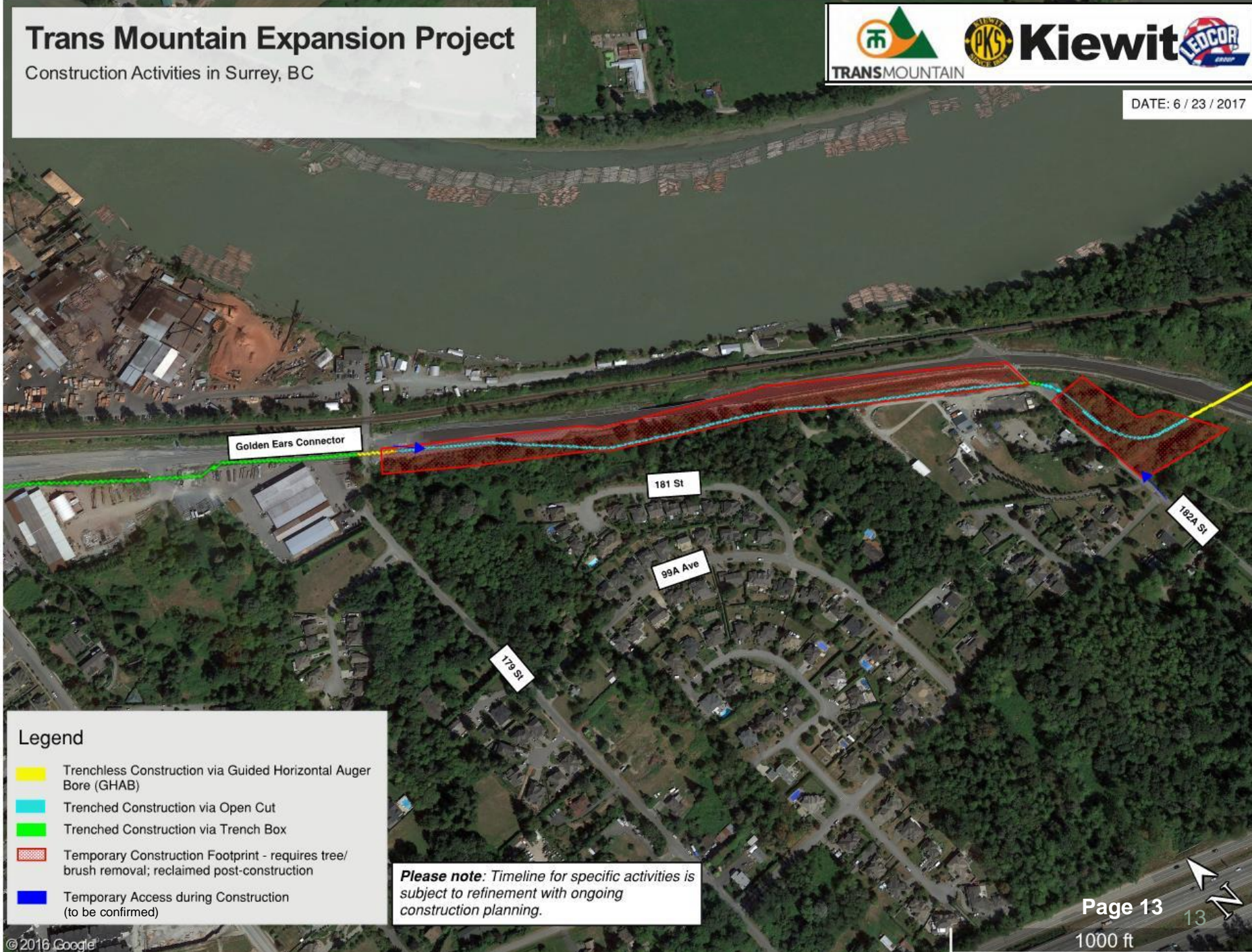
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# Trans Mountain Expansion Project

Construction Activities in Surrey, BC



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# Impact Mitigation

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- Goal is to minimize impacts to residents and businesses to the extent practical by developing and implementing:
  - Traffic Management Plans
  - HDD Noise Management Plan
  - Strict adherence to safety procedures and Project-specific Safety Plans
  - Compliance with municipal bylaws
  - Monitoring and access control to areas under construction
  - Signage, fencing and 24/7 security
- Typical hours of work:
  - Within noise bylaws; typically Monday to Friday, 7 am to 8 pm
  - Saturday, 7 am to 8 pm, as required
  - HDD work will require 24/7 operation

# Impact Mitigation: Construction Noise

- HDD activities will take place over a 24/7 period
  - HDD construction is anticipated to take approximately 4-6 months per section
- Site-specific HDD Noise Management Plan (NEB Condition 74)
- Noise mitigation measures may include:
  - Temporary sound walls
  - Noise enclosures around equipment
  - Other measures based on noise studies and monitoring



*Example of a temporary sound wall for HDD  
for illustration purpose only*

# Traffic & Access Control Management

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- Traffic and Access Control Management Plan (NEB Condition 73)
- Traffic counts and site-specific Traffic Management Plans
- Compliance with applicable municipal and provincial permits
- Management of Project traffic flow:
  - Minimize disruption to public use of roadways
  - Maintain road safety for vehicles, pedestrians, transit users, cyclists and public emergency response vehicles
- Utilize shuttles/vans for workers to minimize Project-related traffic
- Public information and advance notice, changeable signage
- Other important considerations:
  - Transit stops
  - School zones and school areas
  - Playground zones and playground areas
  - Pedestrian traffic around the work zone
  - Public protection measures
  - Security and safety of the area

# Tree Removal and Viewscales

- Tree and brush removal will be required prior to construction for temporary work space and permanent right-of-way (ROW)
  - Typical ROW is 18 m wide
  - In Surrey, the permanent ROW for the new line will be reduced to 10 m in areas with trenched construction
  - Minimal tree removal required in areas with HDD to provide a line of sight
- All areas disturbed by construction will be reclaimed



# Reclamation Goals

- Prevent the loss of surface material from wind and water erosion
- Reclaim disturbed areas to a stable condition acceptable for operational requirements or better
- Maintain the equivalent land capability, ensuring the ability of the land to support various land uses similar to the uses that existed before construction, however not necessarily identical
- Comply with Project approval conditions, including permits



# Replanting and Re-vegetation

Replant the areas affected by construction:

- In consultation with the City of Surrey
- Tree replanting outside the 10 m permanent ROW
- Low growing plants and grasses within 10 m permanent ROW to meet regulatory requirements and ensure safety of the public and the pipeline



# Environmental Management Plans

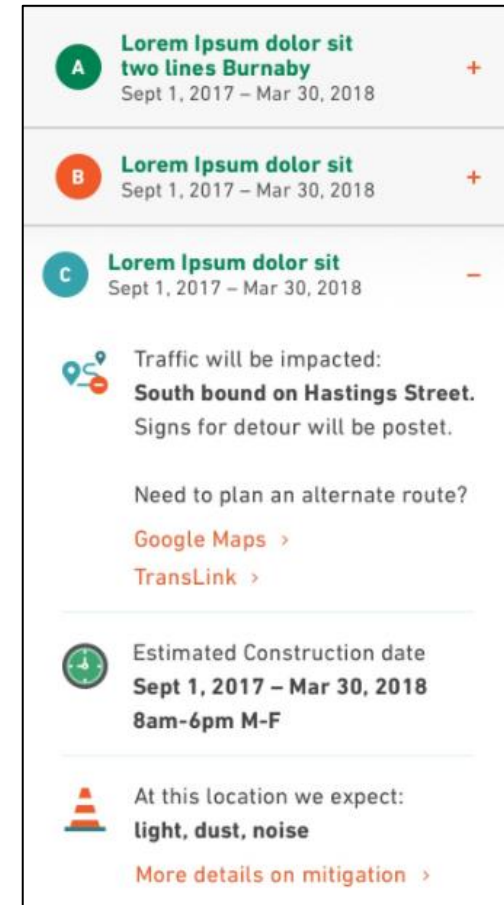
- Pipeline Environmental Protection Plan (EPP) – (NEB Condition 72)
  - Communicates environmental procedures and mitigation measures to field/construction personnel
  - Applies throughout various stages of the Project
  - Outlines mitigation measures
  - Goal is to avoid or reduce environmental impacts
- Reclamation Plan; Riparian Habitat Management Plan; Wetland Survey and Mitigation Plan
- Terrestrial Wildlife Mitigation and Habitat Restoration Plans
  - Critical habitat as identified by Federal Recovery Strategy
  - Pacific Water Shrew Mitigation and Habitat Restoration Plan
- Ongoing engagement and communication with key stakeholders including Surrey Environmental Partners



# Pre-Construction Communications and Notifications

Multiple NEB Condition requirements and commitments to stakeholders to share construction information in advance of construction start, including:

- Late July 2017: refreshed website with ability for users to obtain location-specific construction information
- Summer/Early Fall: neighbourhood information session
- Summer/Early Fall: local newspaper notification of upcoming construction activities
- Summer: individual conversations with neighbours immediately adjacent to Fraser Heights slope
- Summer/Early Fall: neighbourhood signage



*Sample snapshot of mobile-enabled website screen, for illustration purpose only*

*\*timing and specific activities may change*

- Continuation of ongoing engagement and communications
  - Information line and email for inquiries from stakeholders, neighbours and general public
  - Ongoing communication about construction activities through multiple channels including online, traditional and social media
  - Community liaison for key stakeholders
- Inquiry management process
  - Ensure all inquiries and complaints receive timely responses
  - Track and report on all inquiries and complaints
  - Emergency contact availability at all times

*\*timing and specific activities may change*

## CONTACT US: Trans Mountain Expansion Project



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