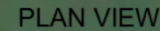




# Immersed Tube Tunnel Concept Design









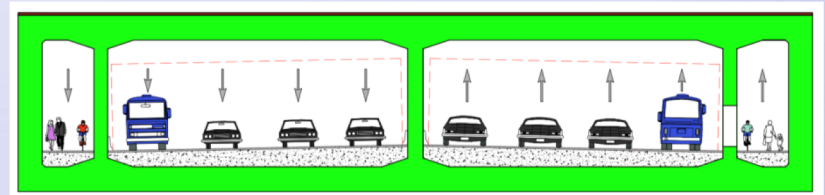


## Immersed Tube Tunnel Portal



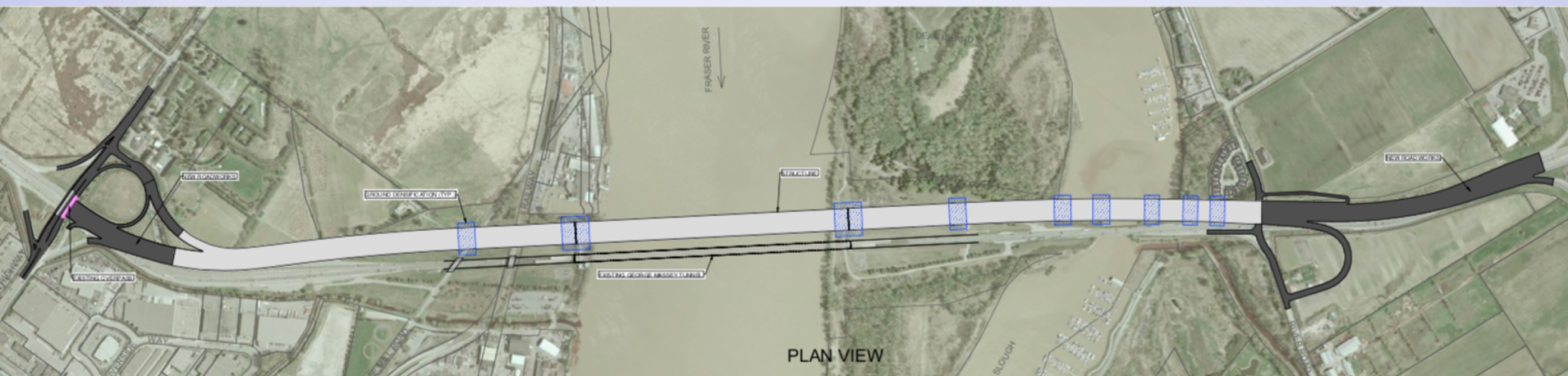
## Immersed Tube Tunnel

- Temporary environmental impact during construction; lowest long term impact
- Greatest potential for environmental enhancements
- Medium timeframe to completion
- Low property impact
- Comparable order of magnitude cost to bridge





# Long Span Bridge Concept Planview





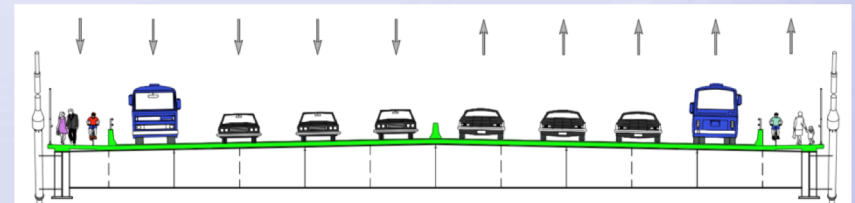
# Long Span Bridge Concept Design





## Long Span Bridge

- Long term noise, visual and shading impacts
- Land-side property impacts
- No in-river disturbance
- Shortest timeframe to completion
- Comparable order of magnitude cost to ITT
- Local construction expertise



## Technology Summary

| Option  | Bore Tunnel   | Immersed Tube   | Long-span Bridge  |
|---|---|---|---|
| <b>Environment Impacts</b>  | <ul style="list-style-type: none"> <li>• Sinkhole potential</li> <li>• ALR</li> <li>• Ground densification</li> </ul> | <ul style="list-style-type: none"> <li>• In-river construction</li> </ul>     | <ul style="list-style-type: none"> <li>• Noise, visual and shade</li> </ul> |
| <b>Est. Schedule</b> <ul style="list-style-type: none"> <li>• EA</li> <li>• Construction</li> </ul> | <ul style="list-style-type: none"> <li>• 3 yr</li> <li>• 7 yr</li> </ul>  | <ul style="list-style-type: none"> <li>• 3 yr</li> <li>• 5 yr</li> </ul>      | <ul style="list-style-type: none"> <li>• 2 yr</li> <li>• 5 yr</li> </ul>    |
| <b>Construction Risk</b>  | <ul style="list-style-type: none"> <li>• High</li> </ul>  | <ul style="list-style-type: none"> <li>• Medium</li> </ul>                    | <ul style="list-style-type: none"> <li>• Low</li> </ul>                     |
| <b>High level cost estimate</b>   | <ul style="list-style-type: none"> <li>• Approx. 3 times cost of ITT/bridge</li> </ul>                                | <ul style="list-style-type: none"> <li>• Comparable cost to bridge</li> </ul> | <ul style="list-style-type: none"> <li>• Comparable cost to ITT</li> </ul>  |



## Goals Summary

### Key differences by goal area:

- **Goal 1:** ALR impact, timeline
- **Goal 2:** Transit, cycling + pedestrian experience
- **Goal 3:** Goods and service reliability, industrial land impact
- **Goal 4:** In-river impact, community livability



Not aligned















Somewhat aligned



Aligned

## Goal Achievement Analysis Summary

| Goal   | Bored Tunnel  | Immersed Tube   | Bridge  |
|--|---|---|---|
| <b>Goal 1:</b> Support community sustainability    |    |    |    |
| <b>Goal 2:</b> Increase share of sustainable modes |    |    |    |
| <b>Goal 3:</b> Enhance regional goods movement     |    |    |    |
| <b>Goal 4:</b> Support healthy environment         |  |  |  |



Not aligned



Somewhat aligned



Aligned





## Request to Task Force

- Select preferred option(s) to endorse for Metro Vancouver Board recommendation to take to public engagement



Ministry of  
Transportation  
and Infrastructure

A decorative banner at the top of the slide features the British Columbia flag, which includes a crown and a ship's sail, set against a background of a coastal scene with mountains and water.

# Thank You