

King-Queen-Queensway-Roncesvalles

Ward 14

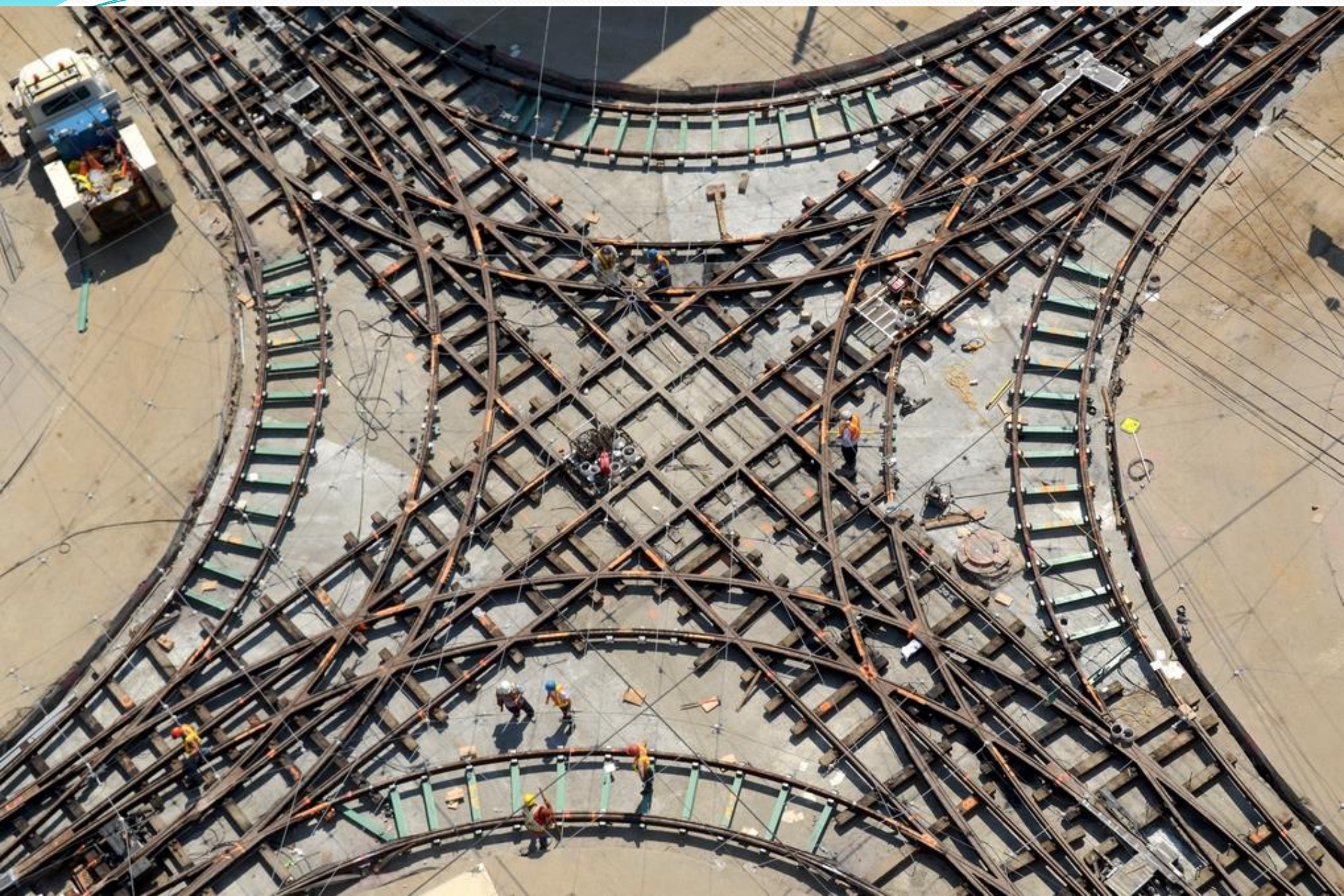
**Reconstruction of TTC track allowance, road,
sidewalk, Watermain, Sewer and platforms**

Contract No. 17ECS-TI-05SP

April – November 2017

Design Meeting Presentation

November 2015



Agenda Items:

- Introduction (5 min)
- Overview (10 min)
- Scope of work (60 min):
- Schedule and Traffic Staging / Closures (10 min)
- Cost estimate / Budget (10 min)
- Public Relations / Notifications (10 min)
- Consultant Assignments (10 min):
- Other Businesses / Questions (5 min)

1.2. Overview (10 min)

The TTC reconstructed the intersection of King/Queen/Roncesvalles/Queensway ("the intersection") in circa 2001 as part of their state of good repair program. The work included the replacement of the intersection, the north entrance on Roncesvalles and the entire south entrance for the yard on the north side of The Queensway, west of the intersection.

Due to the additional wear on the intersection area, TTC has proposed the original base scope to the project to be only the replacement of the intersection components of the track allowance. The north and south entrances were not part of the base scope and as such the track elements have not been budgeted or ordered for fabrication.

As part of the intersection reconstruction, TTC has proposed the elimination of the centre platform on the west side of the intersection in order to accommodate a dedicated left turn lane that is remote from the track allowance and the elimination of the current layby parking area on the north side of The Queensway, west of the intersection (in front of McDonalds).

1.2. Overview (10 min) – Cont'd

The elimination of the platform will require the streetcars to load and unload on Queen, east of the intersection. The TTC has proposed a set of extended sidewalk loading areas similar to those built on Roncesvalles recently in order to directly off-load riders onto the sidewalk. They have also proposed a set of extended sidewalk loading areas on Roncesvalles between Queen Street and the north entrance.

TTC tracks will be reconstructed from the east side of Humber River to Claude Avenue including raising the track allowance from west of Claude Avenue to the Parkside Bridge in order to provide a better vertical alignment for the streetcars.

1.2. Overview (10 min) – Cont'd

Dedicating TTC Track Allowance West of the King/Queen Intersection

The dedicated section will allow TTC to raise the track in the area from the Parkside bridge to Glendale Avenue to better improve the vertical alignment of the tracks.

The dedication of the track allowance will eliminate the turning movements from Claude Avenue forcing only right in and right out movements.

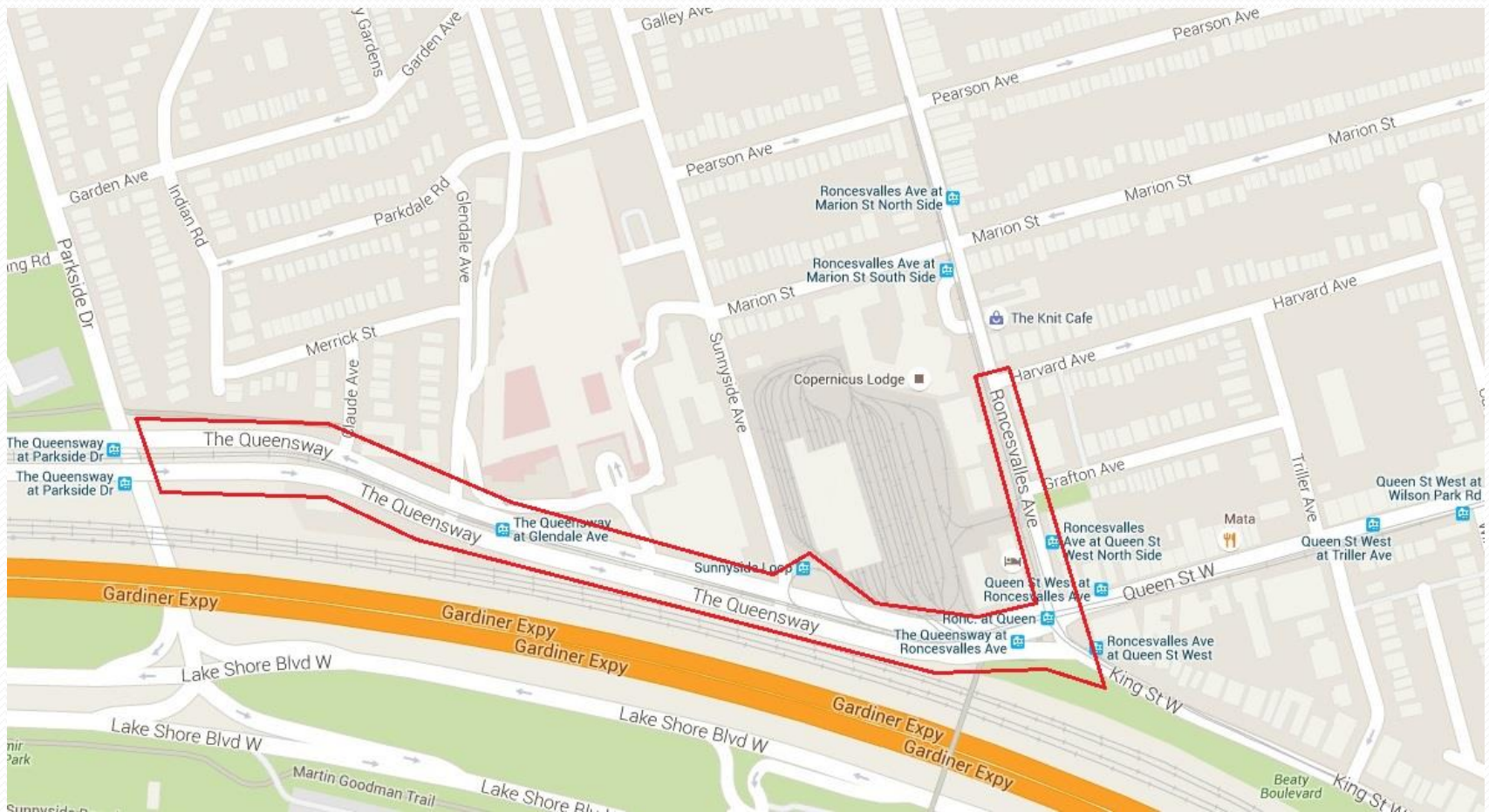
The dedication of the track allowance will require the widening of the road in the vicinity of Glendale Avenue and Sunnyside Avenue if the current left turn movements are to be maintained.

There is currently sufficient Right of Way to construct the road widening at the Glendale Avenue intersection. The work will require the relocation of approximately 6 poles and the resurfacing of the roadway to accommodate the widening on the south side of The Queensway and the relocation of the platforms. The relocation of the platform is required due to the wider platform width required and the lack of property and the existing retaining wall along the back of the north sidewalk, east of Glendale.

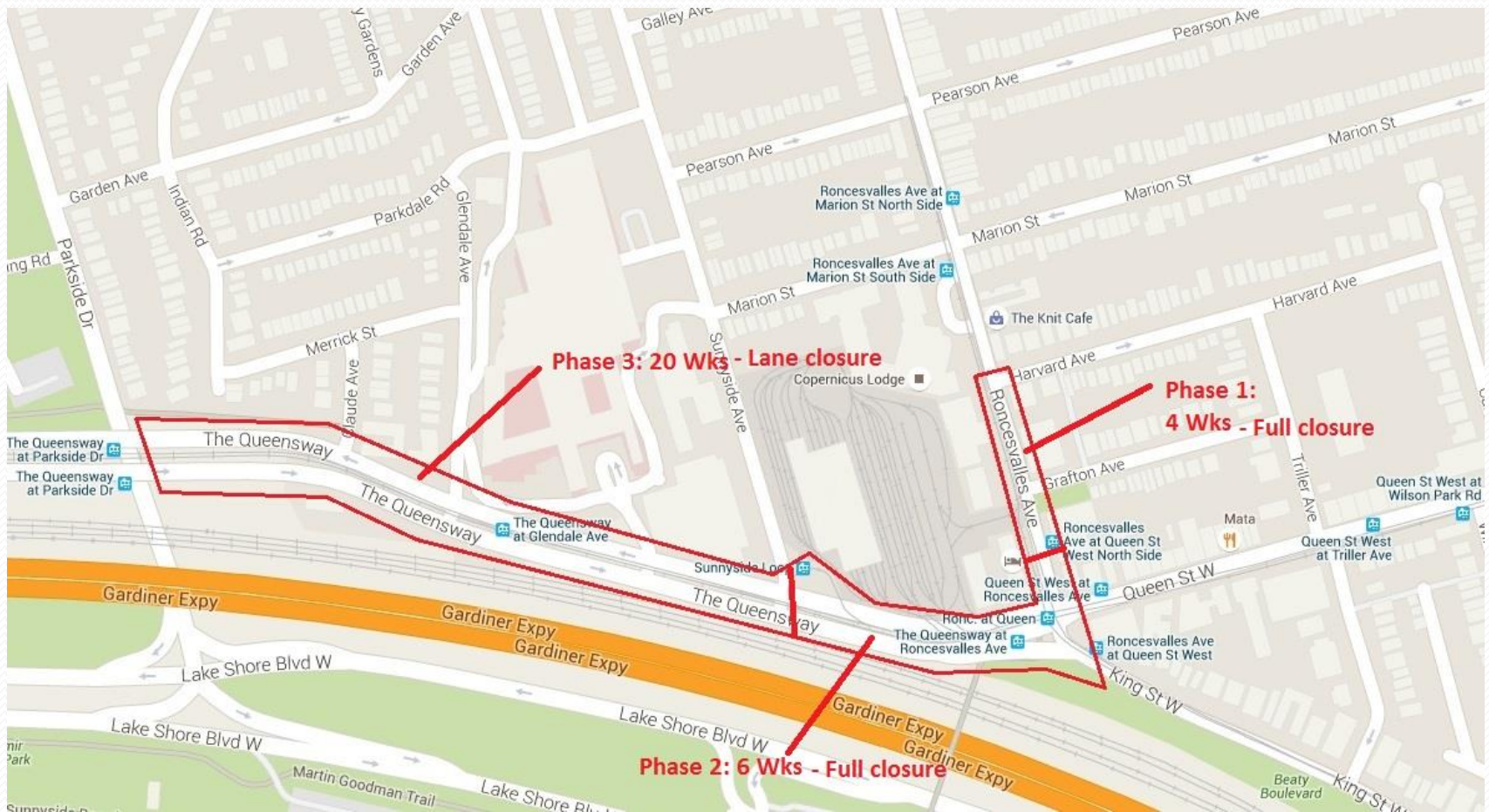
1.3. Scope of work (60 min):

- Phase 1 - Roncesvalles from Harvard to Queen including north TTC yard entrance
- Phase 2 - The intersection of King/Queen/Roncesvalles/Queensway ("the intersection") including South TTC yard entrance and the Loop
- Phase 3 - Queensway from Sunnyside to Parkside

Limit of Construction



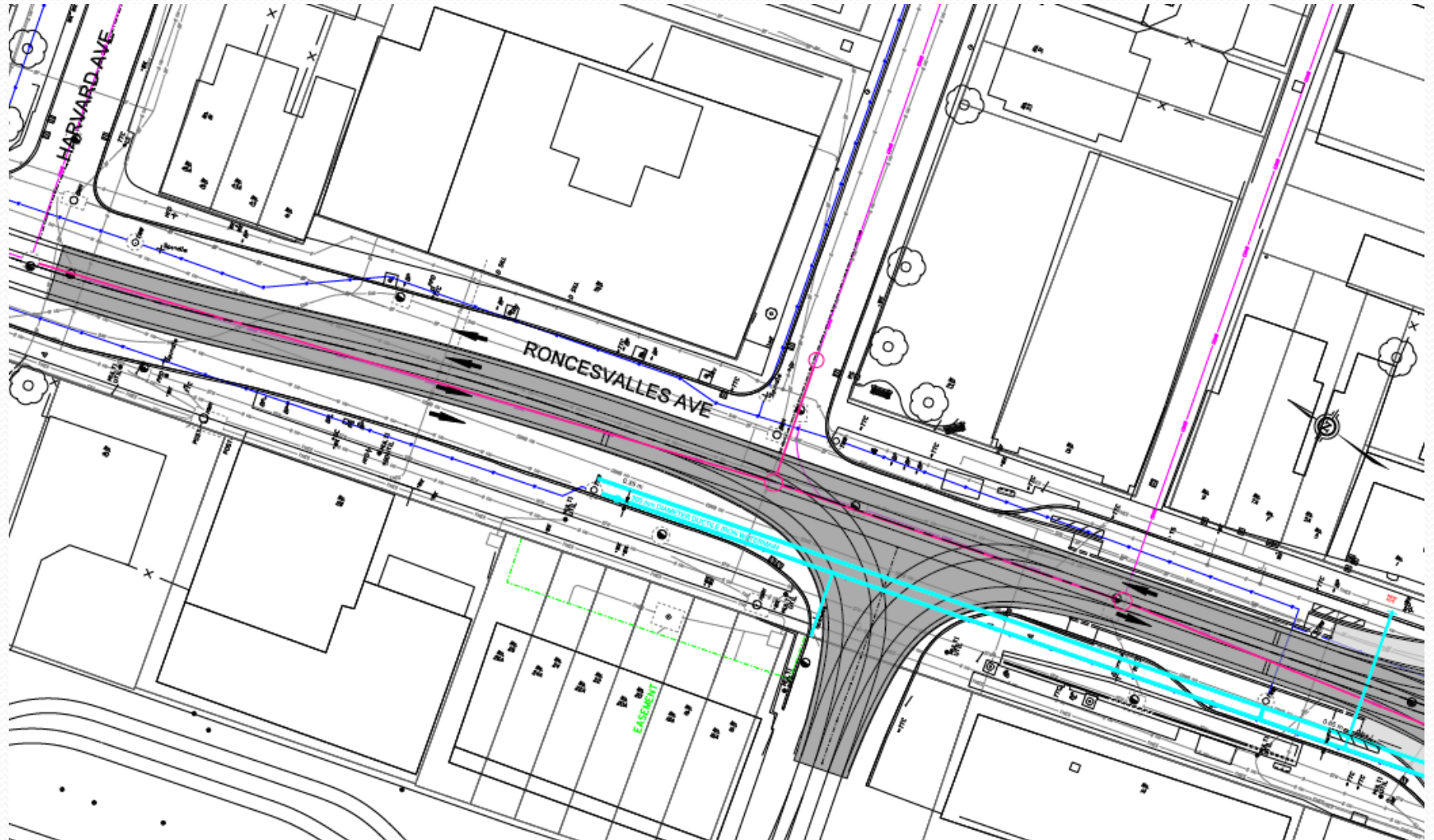
Limit of Construction



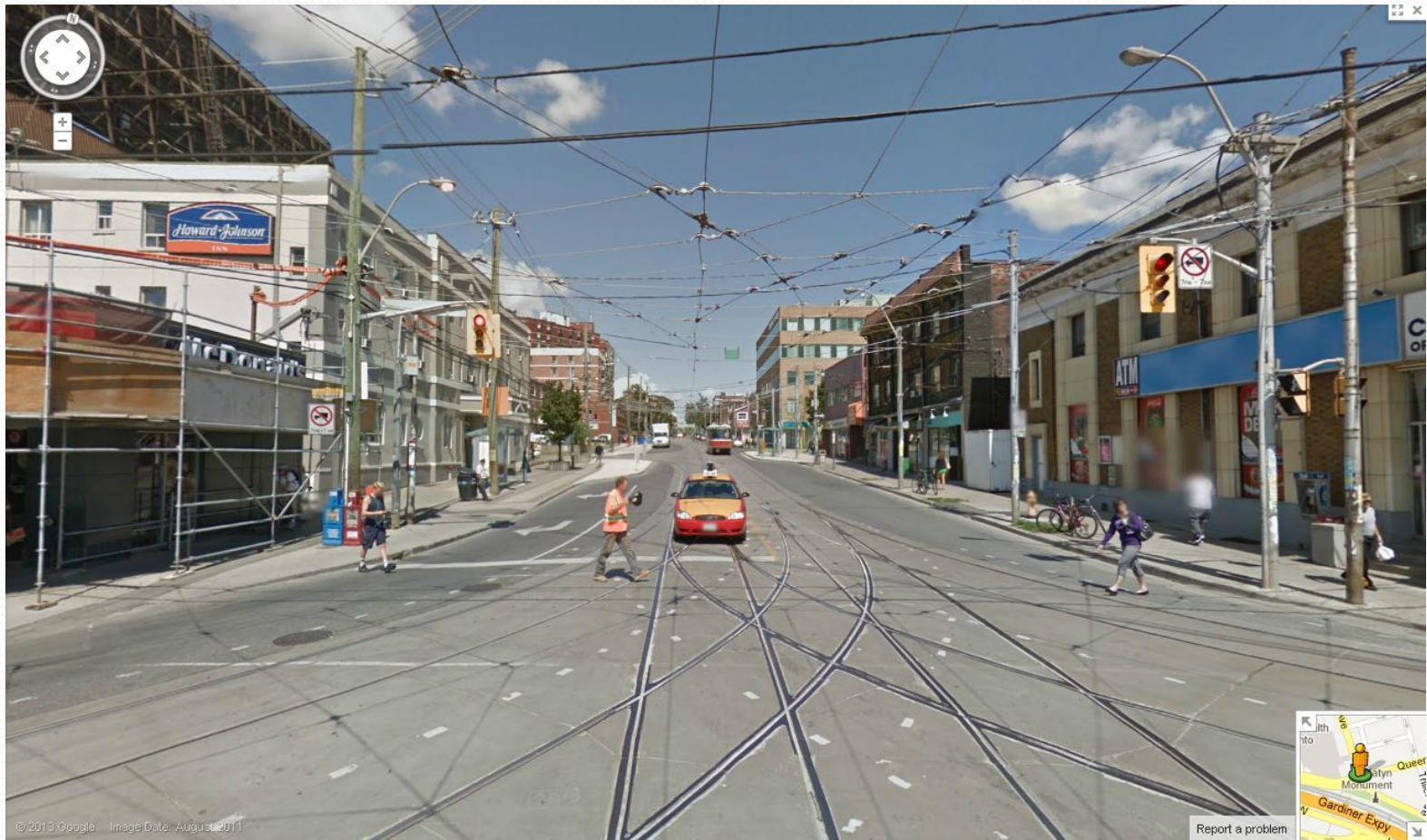
1.3. Scope of work (Cont'd):

- Phase 1 - Roncesvalles from Harvard to Queen including north TTC yard entrance:
 - TTC track (tangent and special) including overhead and electrical components
 - Watermain
 - Combined Sewer
 - Extended sidewalk loading areas
 - Associated roadway and sidewalk restorations

Phase 1



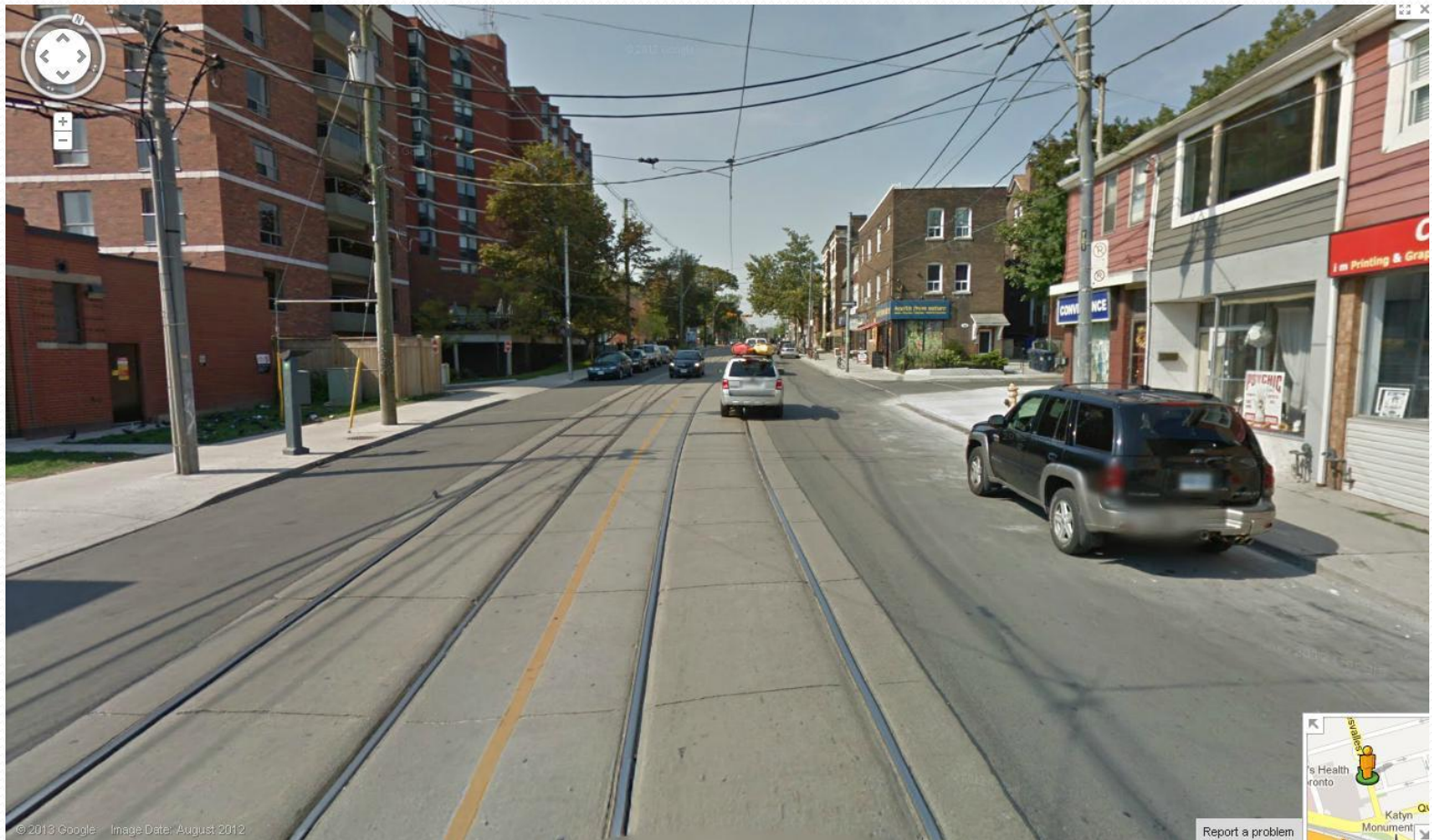
11_Roncesvalles_Looking North



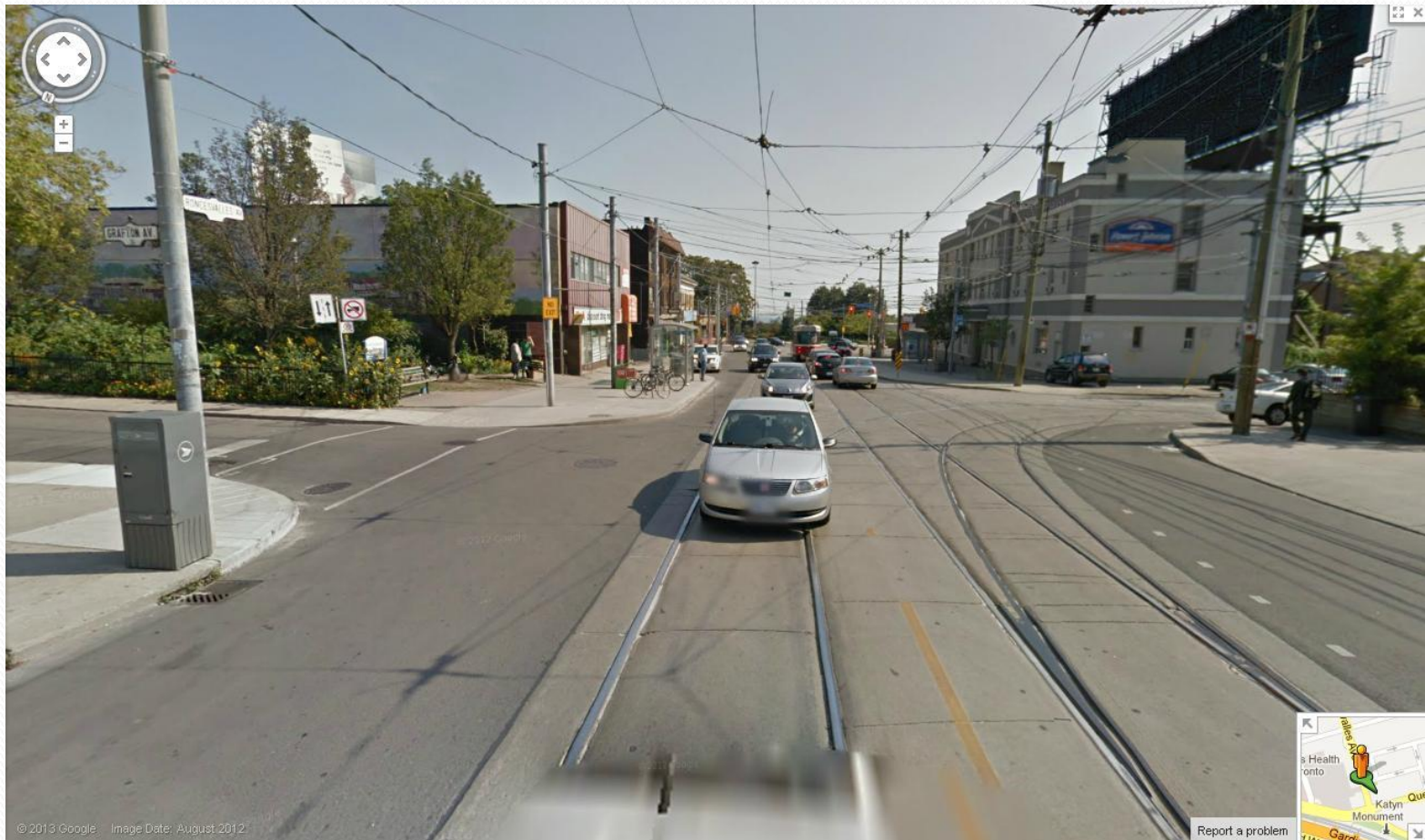
12_Roncesvalles_Looking North



13_Roncesvalles_Looking North



14_Roncesvalles_Looking South



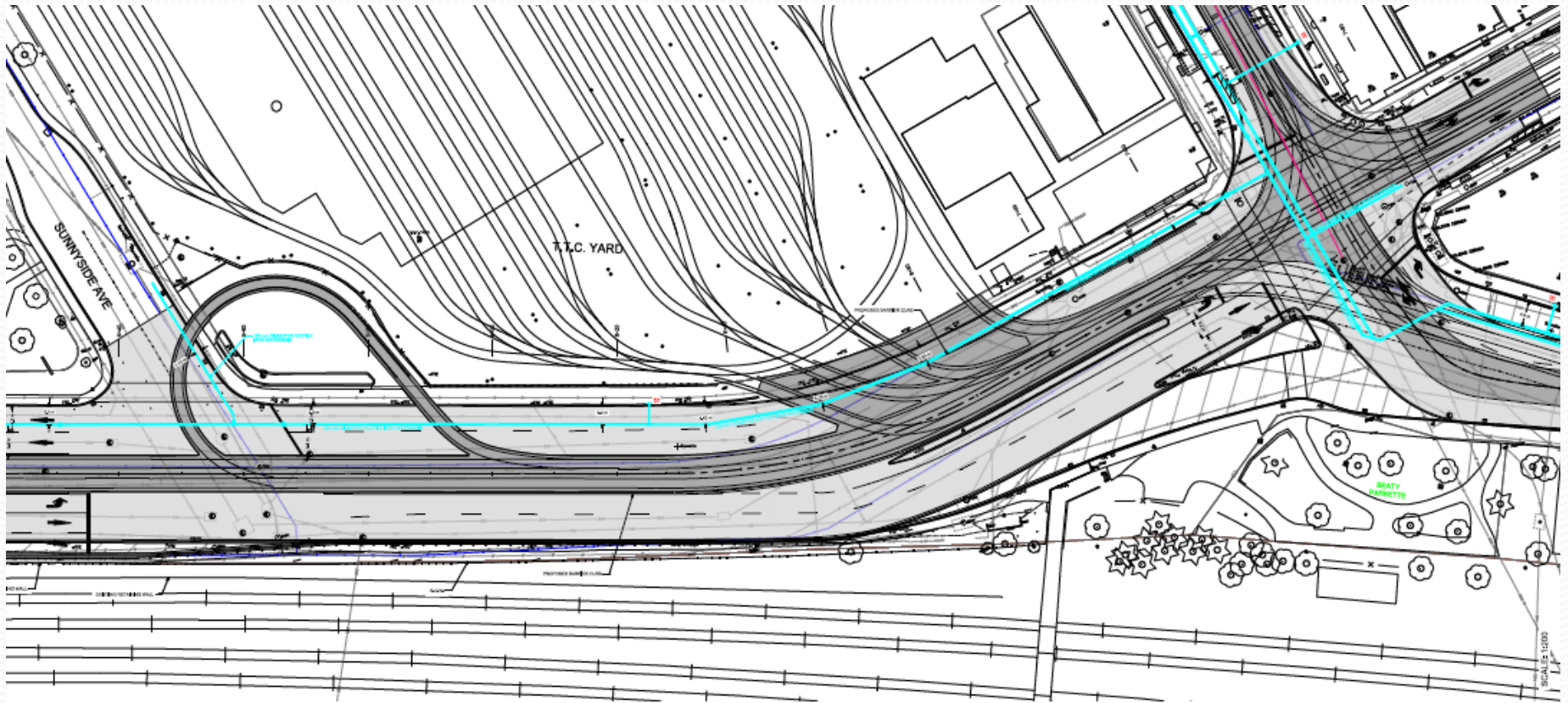
15_Roncesvalles_Looking South



1.3. Scope of work (Cont'd):

- Phase 2 - The intersection of KQRQ:
 - TTC track (tangent and special) including overhead and electrical components
 - Watermain
 - Combined Sewer on Roncesvalles
 - **Extended sidewalk loading areas on Queen (Out of scope Due to EA requirements)**
 - Associated roadway and sidewalk restorations
 - Potential Public Realm work at the South West corner of the intersection by the Beaty Park
 - Potential BIA work
 - TTC Pole relocations – Pole base design
 - New Queensway East / North Left Turn Lane (LTL) at Roncesvalles
 - Traffic signal modifications

Phase 2



9_Queen_Looking East



10_Queen_Looking West



1_King_Looking North



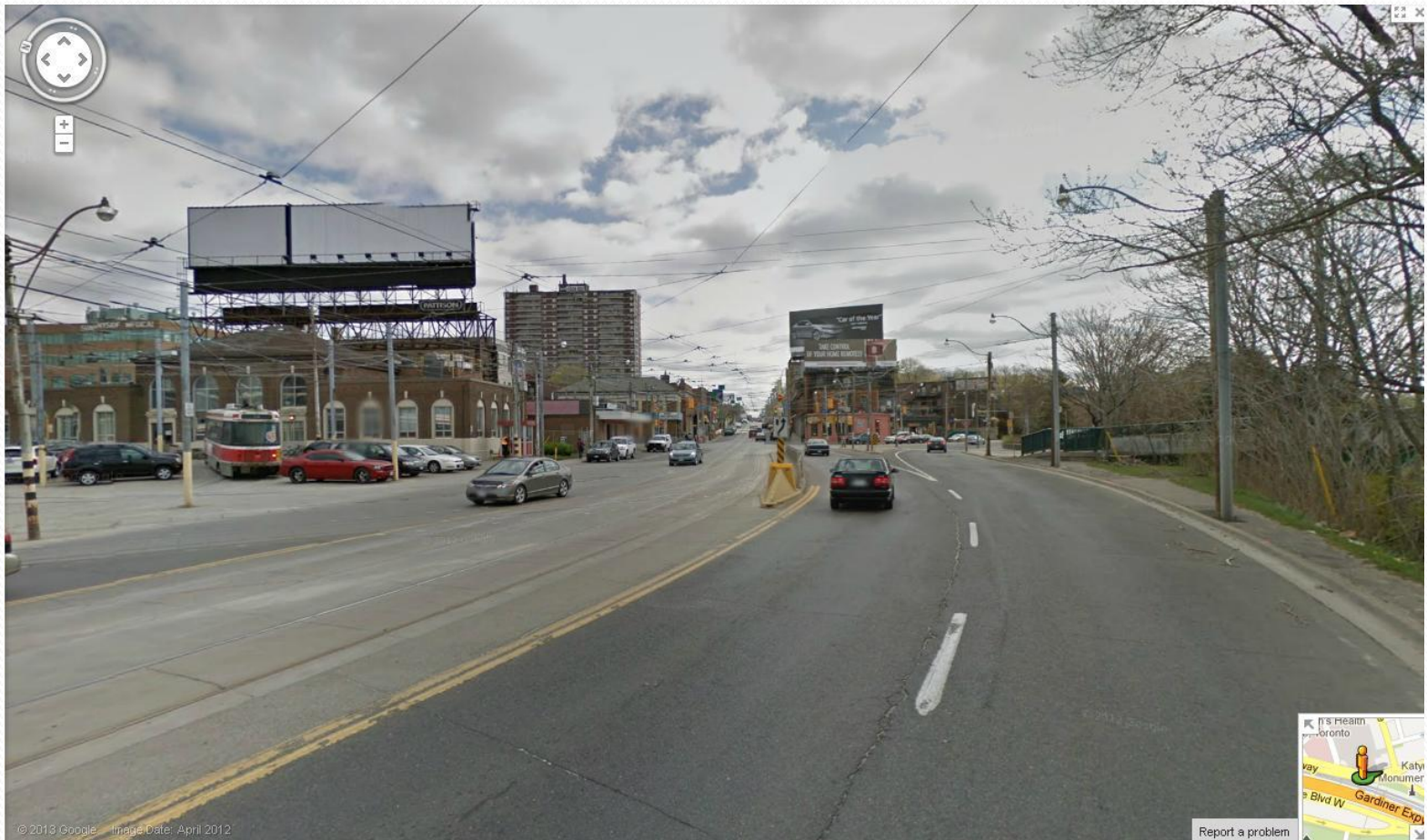
2_King_Looking North



8_Queensway_Looking East



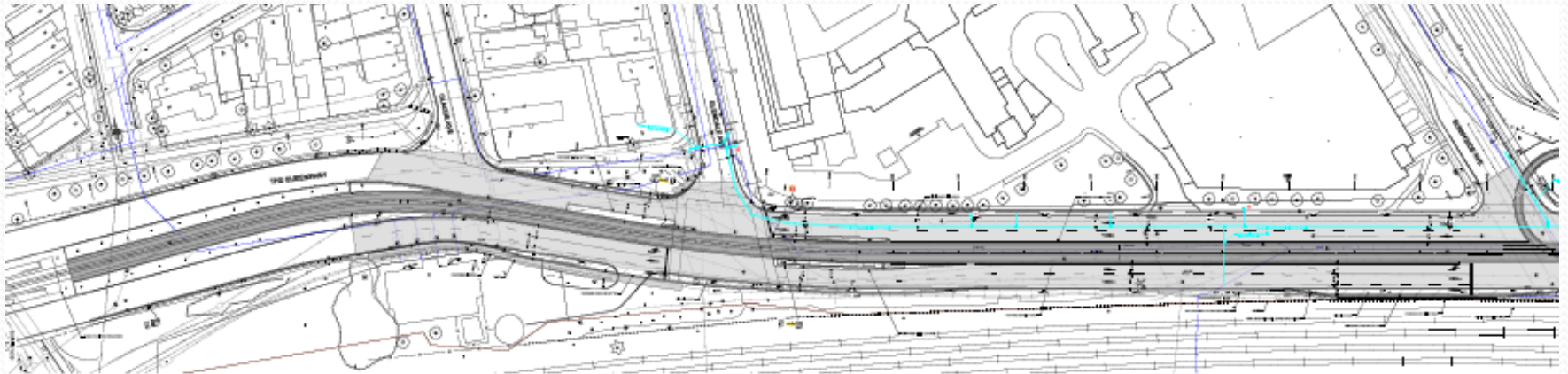
7_Queensway_Looking East



1.3. Scope of work (Cont'd):

- **Phase 3 - Queensway from Sunnyside to Parkside**
 - Dedicating TTC Track Allowance reconstruction
 - New Queensway LTL at Sunnyside including widening on the south side with the associated retaining wall and required roadside barriers
 - New Queensway LTL at Glendale including widening on the south side
 - Reconstruction of the Queensway median platforms at Glendale with the new TTC track vertical profile modification
 - Traffic signal modifications at Glendale
 - New set of Traffic signals at Sunny side
 - TTC track allowance - vertical profile modification and associated retaining walls between Glendale and Parkside Bridge
 - TTC track allowance - Surface treatment modifications between Claude and Parkside
 - TTC Pole relocations
 - Utility relocation liaisons
 - Easement from Rail corridor / liaison
 - Watermain - Roncesvalles to Glendale
 - Potential BIA work
 - Potential Public realm work

Phase 3



W/B

E/B

T.T.C TRACK ALLOWANCE

1625 mm DEVL. STRIP

EXISTING GROUND

EXISTING MONOLITHIC CURB AND SIDEWALK

300 mm

3000 mm

3200 mm

3300 mm

250 mm

463 mm

300 mm

2100 mm WIDENING

PROPOSED STEEL BEAM GUIDE RAIL WITH CHANNEL AS PER OPSD #12,140

PROPOSED CURB AND GUTTER

500 mm

REMOVE AND REPLACE EXISTING CHAIN LINK FENCE AS PER OPSD #12,131

GRANULAR 'A'

PROPOSED RETAINING WALL

EXISTING GROUND

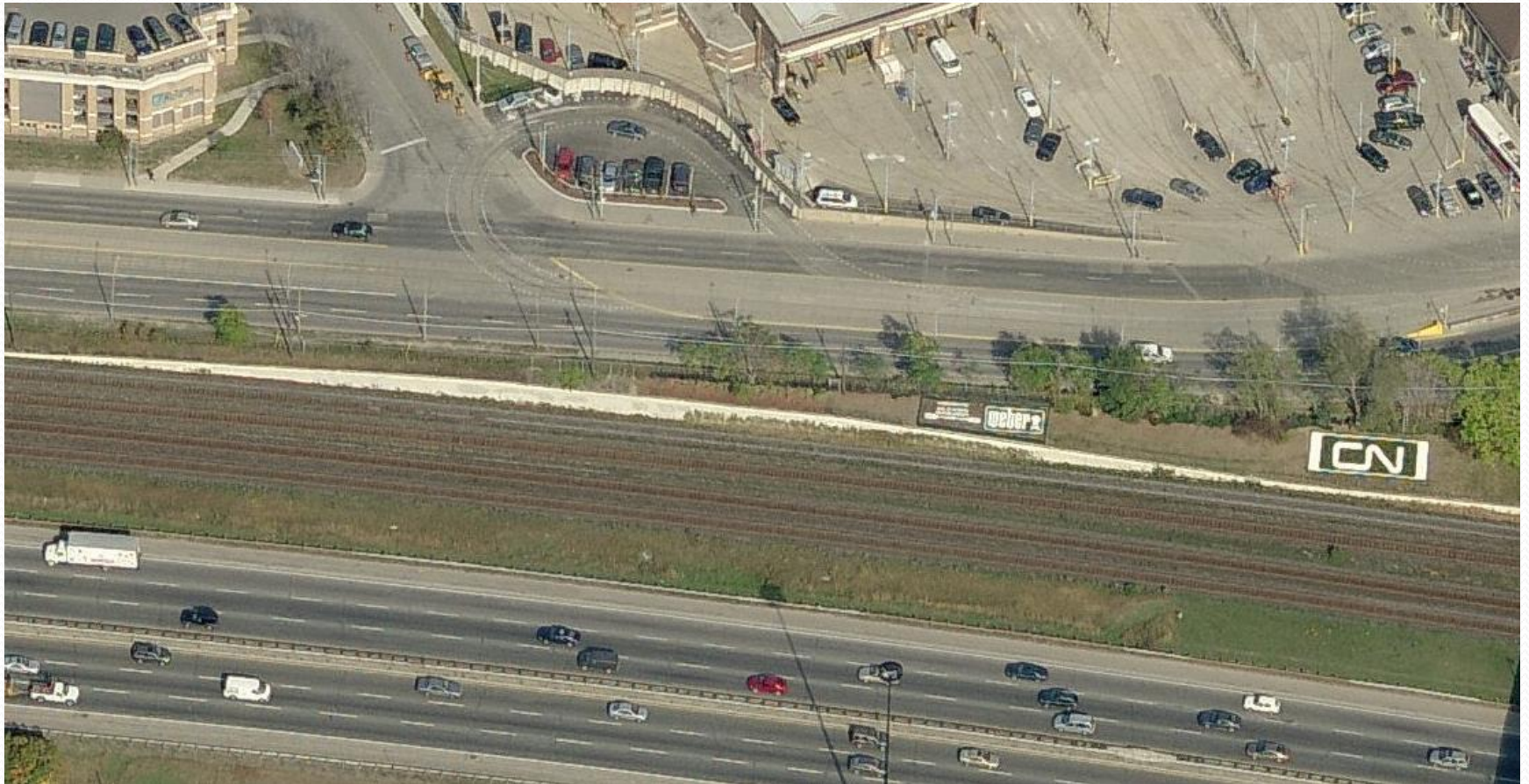
GRANULAR 'B'

EXISTING RETAINING WALL

TYPICAL CROSS SECTION AT SUNNYSIDE INTERSECTION WEST SIDE

N.T.S.

Phase 3



6_Queensway_Looking East



5_Queensway_Sunnyside_Looking West



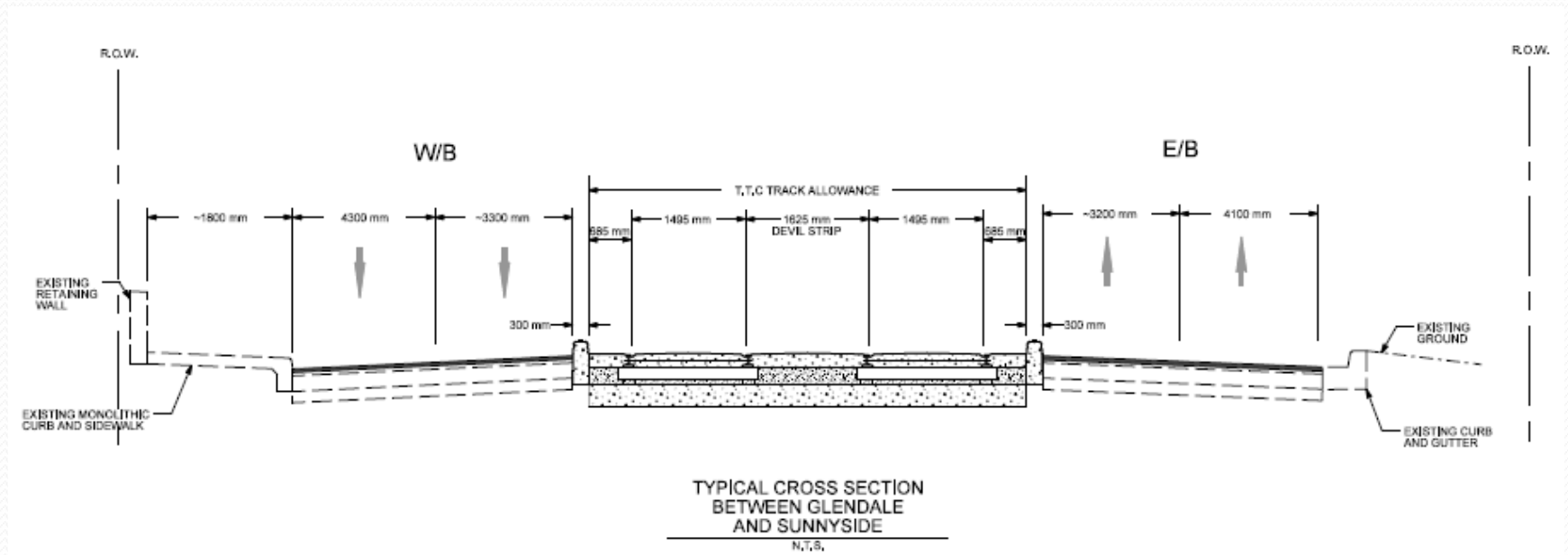
3_Queensway_Sunnyside_Looking East



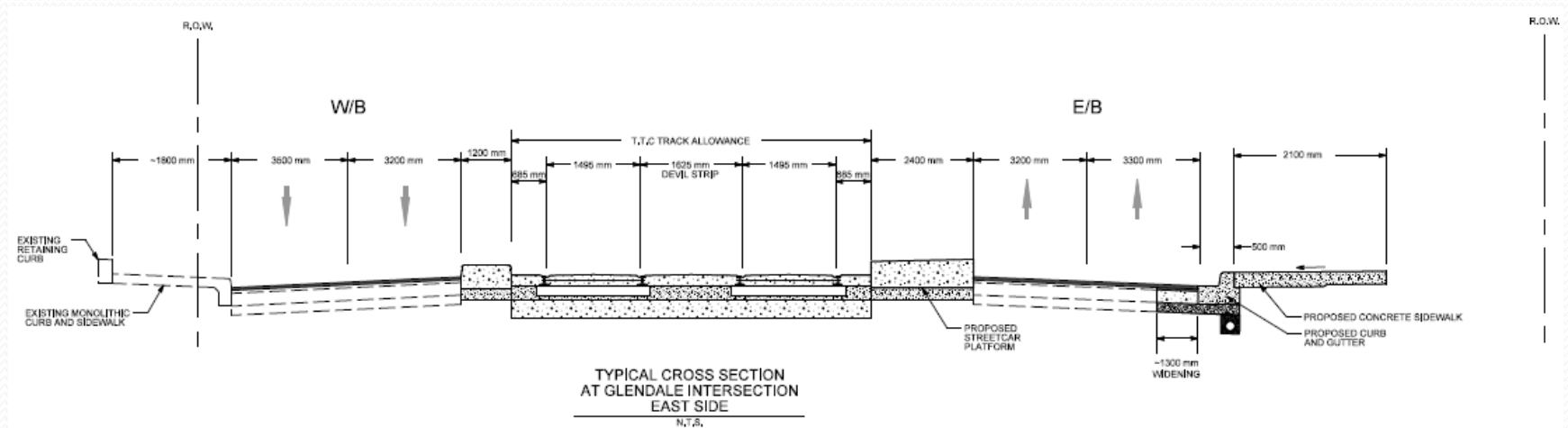
4_Queensway_Sunnyside_Looking East_2



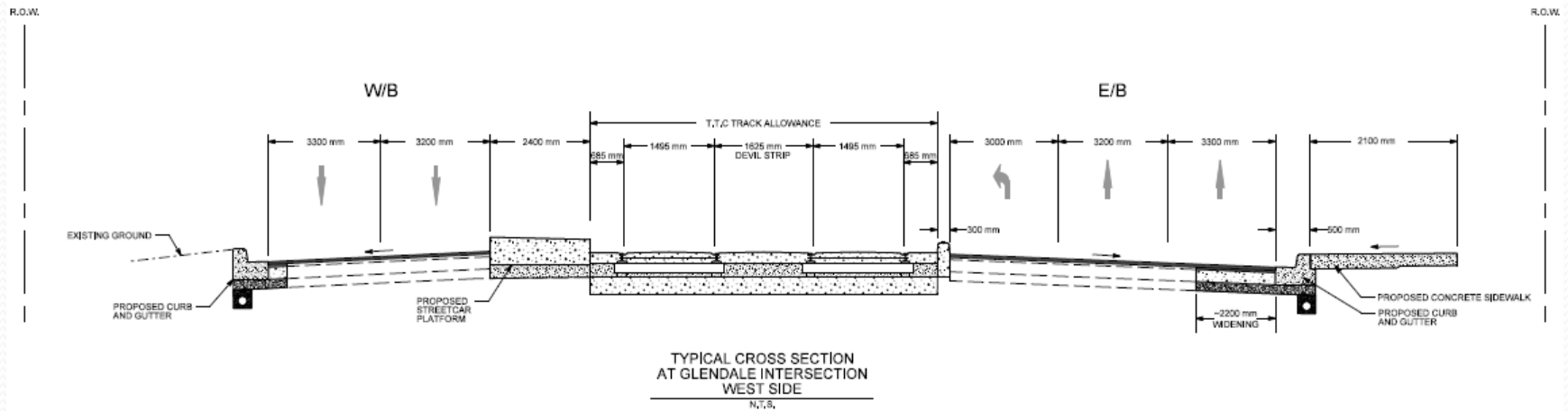
XS-Glendale to Sunnyside



XS-Glendale East



XS-Glendale West



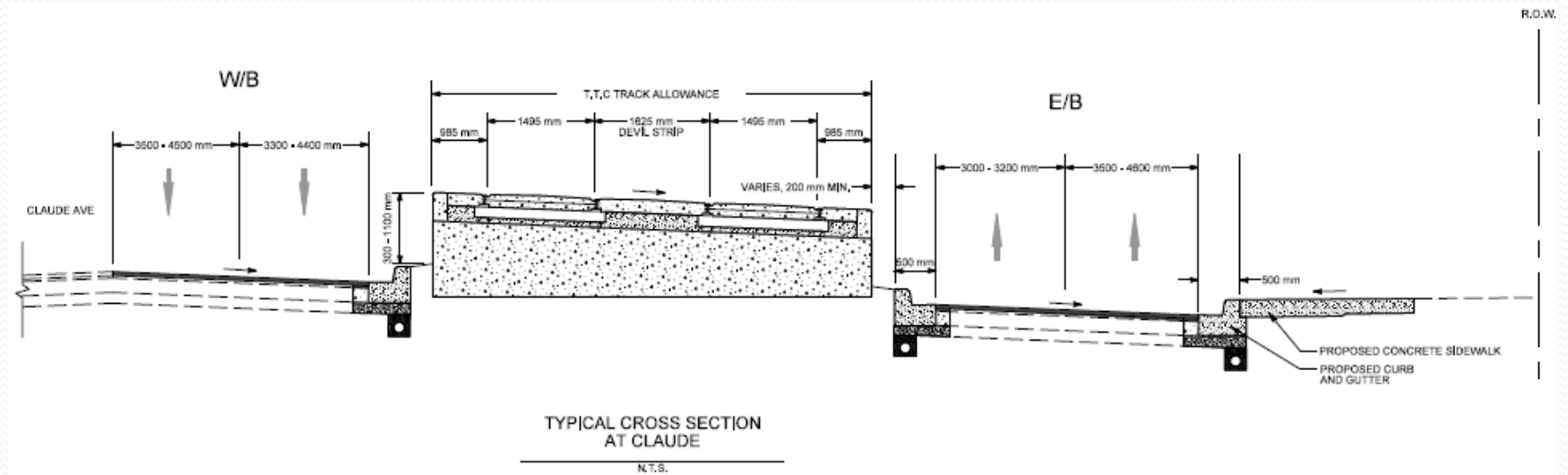
Glendale_Looking East



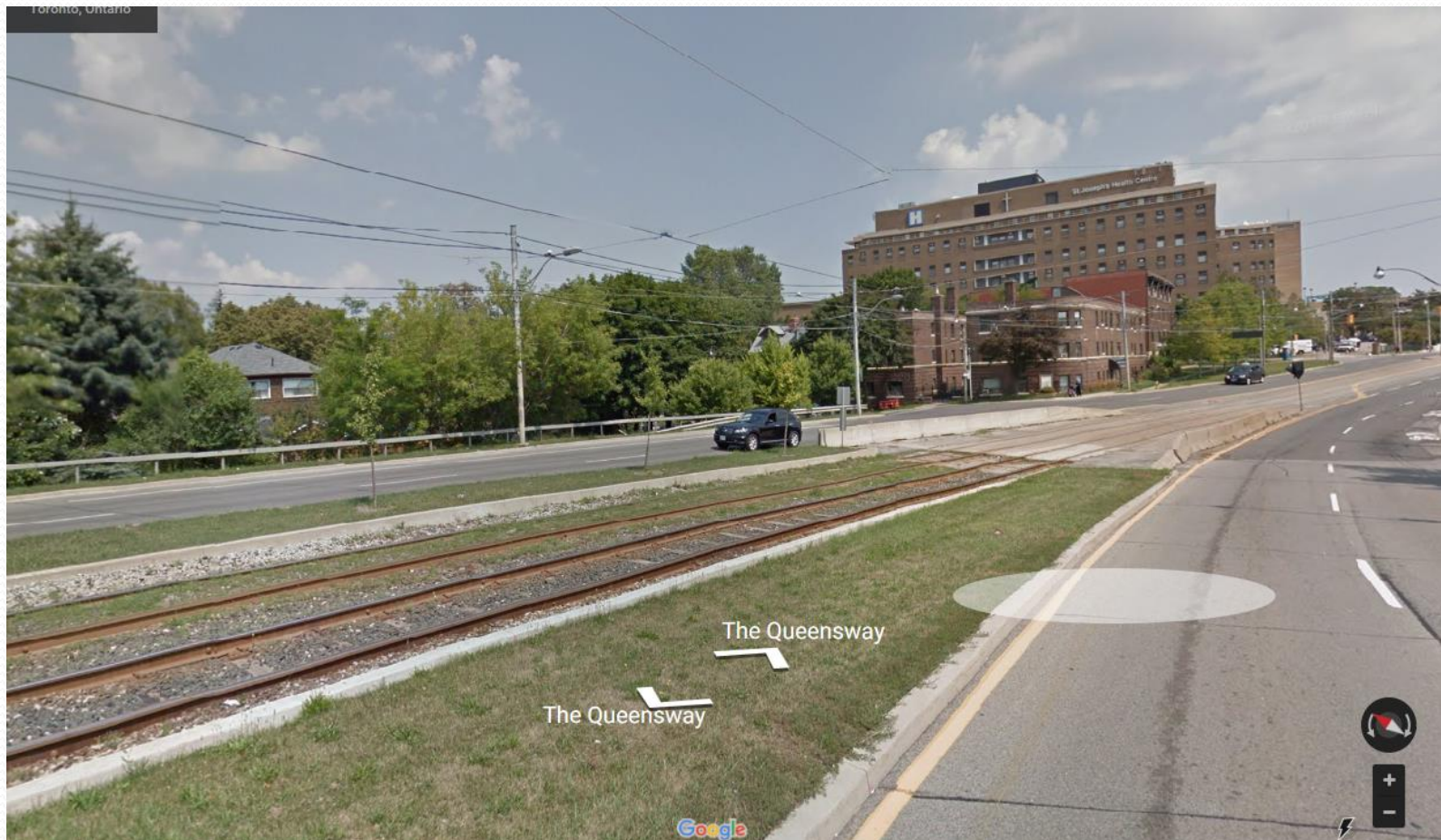
Glendale_Looking West



XS-Claude



Queensway_Looking East



1.4. Schedule and Traffic Staging / Closures (10 min)



1.4. Schedule and Traffic Staging / Closures (10 min)

- Phase 1 - Roncesvalles from Harvard to Queen including north TTC yard entrance: 1 week for overhead removals with lane closure and 4 weeks of full intersection closure; April 3 – May 8, 2017
- Phase 2 - The intersection of KQRQ including South TTC yard entrance and the Loop: 10 weeks of construction including 6 weeks of full intersection closure with the exception of maintaining an Eastbound lane for 4 weeks within this 6 weeks along Queensway and King and 4 weeks of lane closures; May 8 – July 17, 2017
- Phase 3 - Queensway from Sunnyside to Parkside: One lane of traffic in each direction shall be maintained at all times during this phase. July 17 – Oct 27, 2017

1.4. Schedule and Traffic Staging / Closures (Cont'd)

Streetcar service disruption in 2017:

- 501 Queensway - April 1 to Nov 18
- 501 Queen - May 7 to July 17
- 504/508 King - May 7 to July 17
- 504 Roncesvalles – April 1 to July 17

1.5. Cost estimate / Budget (10 min)

Preliminary Cost Estimate Summary						
17ECS-TI-05SP King-Queen-Roncesvalles						
Total Cost For All Work			TTC	Trans.	Toronto Water	Total Cost
Part A Site Requirements			\$644,120.30	\$83,371.15	\$285,508.56	\$1,013,000.01
Part B TTC Track			\$2,667,550.00	\$0.00	\$0.00	\$2,667,550.00
Part C TTC College Street platforms			\$747,000.00	\$0.00	\$0.00	\$747,000.00
Part D TTC Track Electrical			\$215,500.00	\$0.00	\$0.00	\$215,500.00
Part E TTC Transit Communication			\$98,000.00	\$0.00	\$0.00	\$98,000.00
Part F Road & Sidewalk			\$1,043,787.01	\$465,610.33	\$212,352.67	\$1,721,750.01
Part G Streetlighting			\$261,036.64	\$171,563.36	\$0.00	\$432,600.00
Part H Underground			\$0.00	\$0.00	\$2,020,000.00	\$2,020,000.00
Change Orders			\$0.00	\$0.00	\$0.00	\$0.00
SubTotal, net of taxes			\$5,676,993.95	\$720,544.84	\$2,517,861.23	\$8,915,400.02
Non-Recoverable HST (11.76%)			\$99,915.10	\$12,681.58	\$44,314.35	\$156,911.04
Total, including non-recoverable HST			\$5,776,909.05	\$733,226.42	\$2,562,175.58	\$9,072,311.06
Recoverable HST (11.24%)			\$638,094.12	\$80,989.24	\$283,007.60	\$1,002,090.96
Grand Total, including all HST			\$6,415,003.17	\$814,215.66	\$2,845,183.18	\$10,074,402.02

1.5. Cost estimate / Budget (10 min)

Roncesvalles Intersection Base Cost			TTC	Trans.	Toronto Water	Total Cost
Part A Site Requirements			\$195,725.62	\$32,606.25	\$65,418.13	\$293,750.00
Part B TTC Track			\$874,600.00	\$0.00	\$0.00	\$874,600.00
Part C TTC College Street platforms			\$253,000.00	\$0.00	\$0.00	\$253,000.00
Part D TTC Track Electrical			\$148,000.00	\$0.00	\$0.00	\$148,000.00
Part E TTC Transit Communication			\$88,000.00	\$0.00	\$0.00	\$88,000.00
Part F Road & Sidewalk			\$172,888.14	\$187,740.13	\$12,871.72	\$373,499.99
Part G Streetlighting			\$57,836.64	\$77,963.36	\$0.00	\$135,800.00
Part H Underground			\$0.00	\$0.00	\$520,000.00	\$520,000.00
Change Orders			\$0.00	\$0.00	\$0.00	\$0.00
SubTotal, net of taxes			\$1,790,050.40	\$298,309.74	\$598,289.85	\$2,686,649.99
Non-Recoverable HST (1.76%)			\$31,504.89	\$5,250.25	\$10,529.90	\$47,285.04
Total, including non-recoverable HST			\$1,821,555.29	\$303,559.99	\$608,819.75	\$2,733,935.03
Recoverable HST (11.24%)			\$201,201.66	\$33,530.01	\$67,247.78	\$301,979.46
Grand Total, including all HST			\$2,022,756.95	\$337,090.00	\$676,067.53	\$3,035,914.49

1.5. Cost estimate / Budget (10 min)

Roncesvalles TTC Entrance			TTC	Trans.	Toronto Water	Total Cost
Part A Site Requirements			\$103,859.68	\$1,342.52	\$56,547.80	\$161,750.00
Part B TTC Track			\$420,950.00	\$0.00	\$0.00	\$420,950.00
Part C TTC College Street platforms			\$220,000.00	\$0.00	\$0.00	\$220,000.00
Part D TTC Track Electrical			\$67,500.00	\$0.00	\$0.00	\$67,500.00
Part E TTC Transit Communication			\$10,000.00	\$0.00	\$0.00	\$10,000.00
Part F Road & Sidewalk			\$125,844.16	\$12,142.86	\$10,762.99	\$148,750.01
Part G Streetlighting			\$93,600.00	\$0.00	\$0.00	\$93,600.00
Part H Underground			\$0.00	\$0.00	\$500,000.00	\$500,000.00
Change Orders			\$0.00	\$0.00	\$0.00	\$0.00
SubTotal, net of taxes			\$1,041,753.84	\$13,485.38	\$567,310.79	\$1,622,550.01
Non-Recoverable HST (1.76%)			\$18,334.87	\$237.34	\$9,984.67	\$28,556.88
Total, including non-recoverable HST			\$1,060,088.71	\$13,722.72	\$577,295.46	\$1,651,106.89
Recoverable HST (11.24%)			\$117,093.13	\$1,515.76	\$63,765.73	\$182,374.62
Grand Total, including all HST			\$1,177,181.84	\$15,238.48	\$641,061.19	\$1,833,481.51

1.5. Cost estimate / Budget (10 min)

Sunnyside Road Widening			TTC	Trans.	Toronto Water	Total Cost
Part A Site Requirements			\$144,559.75	\$34,899.50	\$99,290.75	\$278,750.00
Part B TTC Track			\$686,000.00	\$0.00	\$0.00	\$686,000.00
Part C TTC College Street platforms			\$0.00	\$0.00	\$0.00	\$0.00
Part D TTC Track Electrical			\$0.00	\$0.00	\$0.00	\$0.00
Part E TTC Transit Communication			\$0.00	\$0.00	\$0.00	\$0.00
Part F Road & Sidewalk			\$367,877.85	\$160,729.75	\$123,892.41	\$652,500.01
Part G Streetlighting			\$0.00	\$93,600.00	\$0.00	\$93,600.00
Part H Underground			\$0.00	\$0.00	\$600,000.00	\$600,000.00
Change Orders			\$0.00	\$0.00	\$0.00	\$0.00
SubTotal, net of taxes			\$1,198,437.60	\$289,229.25	\$823,183.16	\$2,310,850.01
Non-Recoverable HST (1.76%)			\$21,092.50	\$5,090.43	\$14,488.02	\$40,670.96
Total, including non-recoverable HST			\$1,219,530.10	\$294,319.68	\$837,671.18	\$2,351,520.97
Recoverable HST (11.24%)			\$134,704.39	\$32,509.37	\$92,525.79	\$259,739.54
Grand Total, including all HST			\$1,354,234.49	\$326,829.05	\$930,196.97	\$2,611,260.51

1.5. Cost estimate / Budget (10 min)

Glendale Road Widening			TTC	Trans.	Toronto Water	Total Cost
Part A Site Requirements			\$199,975.25	\$14,522.88	\$64,251.88	\$278,750.01
Part B TTC Track			\$686,000.00	\$0.00	\$0.00	\$686,000.00
Part C TTC College Street platforms			\$274,000.00	\$0.00	\$0.00	\$274,000.00
Part D TTC Track Electrical			\$0.00	\$0.00	\$0.00	\$0.00
Part E TTC Transit Communication			\$0.00	\$0.00	\$0.00	\$0.00
Part F Road & Sidewalk			\$377,176.86	\$104,997.59	\$64,825.55	\$547,000.00
Part G Streetlighting			\$109,600.00	\$0.00	\$0.00	\$109,600.00
Part H Underground			\$0.00	\$0.00	\$400,000.00	\$400,000.00
Change Orders			\$0.00	\$0.00	\$0.00	\$0.00
SubTotal, net of taxes			\$1,646,752.11	\$119,520.47	\$529,077.43	\$2,295,350.01
Non-Recoverable HST (1.76%)			\$28,982.84	\$2,103.56	\$9,311.76	\$40,398.16
Total, including non-recoverable HST			\$1,675,734.95	\$121,624.03	\$538,389.19	\$2,335,748.17
Recoverable HST (11.24%)			\$185,094.94	\$13,434.10	\$59,468.30	\$257,997.34
Grand Total, including all HST			\$1,860,829.89	\$135,058.13	\$597,857.49	\$2,593,745.51

1.5. Cost estimate / Budget (10 min)

Ancillary Costs	Estimate	TTC	Trans. Toronto Water	Total Cost
Advance Signs	\$30,000.00	\$30,000.00		\$30,000.00
Traffic Signals	\$10,000.00	\$10,000.00		\$10,000.00
SubTotal, net of taxes		\$40,000.00		\$40,000.00
Non-Recoverable HST (1.76%)		\$704.00		\$704.00
Total, including non-recoverable HST		\$40,704.00		\$40,704.00
Recoverable GST (5.00%)		\$2,000.00		\$2,000.00
Recoverable ON Tax Rebate (6.24%)		\$2,496.00		\$2,496.00
Total Cost Including All Taxes		\$45,200.00		\$45,200.00

Contract Purchase Order Summary (No Ancillaries or Tax Included)

TTC	\$5,676,993.95
Transportation	\$720,544.84
Toronto Water	\$2,517,861.23
Total Contract Purchase Order Required	\$8,915,400.02

TTC Purchase Order Summary

Contract Costs, including 1.76% HST	\$5,776,909.05
Estimated Ancillaries, including 1.76% HST	\$40,704.00
Subtotal	\$5,817,613.05
Total Overhead	\$1,057,174.36
Total TTC Purchase Order Required	\$6,874,787.41

1.5. Cost estimate / Budget (10 min)

Additional Costs to be added to the base scope:

City Public Realm - ~\$150K

Utility Relocations – Minimum ~\$200K for chamber modifications

Additional Contingency Allowance for unknowns (10%) - \$500K

Unknown Costs:

Property Acquisition - Unknown

TTC Overhead Relocations - Unknown

Impact to rail corridor - Unknown

Location Specific Estimates:

Roncesvalles Intersection	\$2,700,000
Roncesvalles North Entrance	\$1,700,000
Sunnyside Widening	\$2,400,000
Glendale Widening	\$2,300,000

1.6. Public Relations / Notifications (10 min)

- Website for all Contracts along Queensway:
 - ECS contract from Roncesvalles to Parkside
 - TTC Contract from Parkside to Humber
 - ECS contract Humber River Bridge
 - Toronto Water Pumping station
- Meeting with the Councillor
- Update the BIAs
- Pre-Construction Notice
- Construction Notice

1.7. Consultant Assignments (10 min):

- URS – Glendale Platforms
- Morrison Hershfield – TTC Surface treatment Claude to Humber
- TTC Pole base design – Pole relocation
- City Consultant Services Roster – Retaining walls & Traffic signals

1.8. Other Businesses / Questions (5 min)

- Design / Tender Schedule: Following tentative time lines to be discussed:
- Scope Confirmation by clients - December 18, 2015
- 30% Design Completion – February, 2016
- 60% Design Completion – April, 2016
- 90% Design Completion – September, 2016
- Tender advertisement – December, 2016
- Award of Contract – February, 2017