

Memorandum

To:	Wally Dubyk	Date:	June 7, 2024
From:	Basel Ansari, P.Eng.	Parsons No.:	478418-01000
Cc:	Jake Berube, P.Eng.; Mark Baker, P.Eng.		
Subject:	3930 & 3960 Riverside Drive (St. Mary's Plan of Subdivision) <i>Transportation Impact Assessment (TIA) Addendum No. 1</i>		

1.0 Project Background

The St. Mary's subdivision is a proposed residential development consisting of a mix of single house units, townhouse units and apartment building units. The plan for the site has continued to evolve over the years since the original Zoning By-Law Amendment Application in 2008. As part of the current plan, vehicle access to the development is proposed via a new signalized, full movement intersection along Riverside Drive, located approximately 270m north of the Hunt Club Road intersection.

The following memorandum represents an addendum to the original TIA Report that was prepared for the subject development site (Parsons, December 2023). The purpose of the addendum is to assess a new plan whereby an interim right-in/right-out vehicle access would be constructed at project onset, while the proposed new traffic signal would be constructed as part of future development phasing.

2.0 Proposed Development Phasing

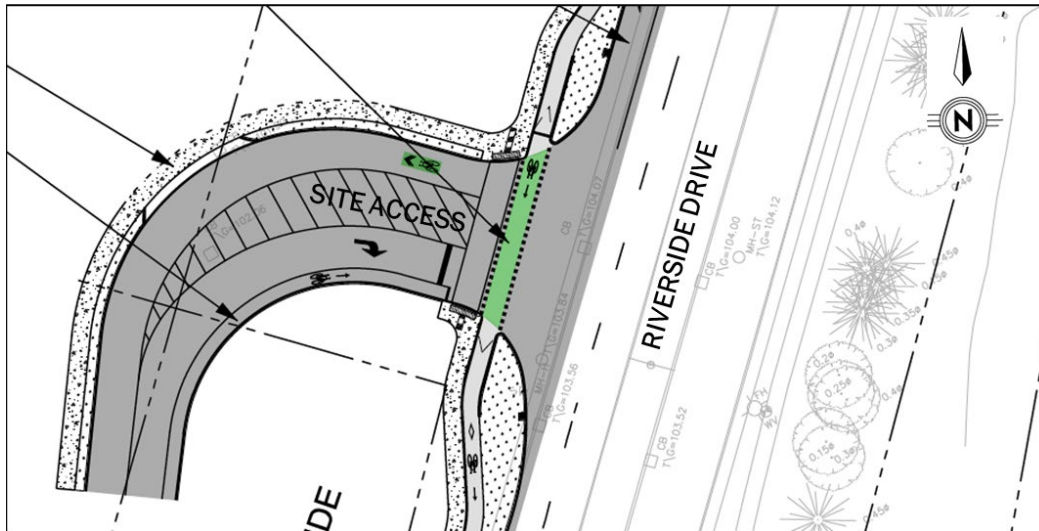
The TIA Report (December 2023) indicated two phases, namely: Phase 1 consisting of 24 single dwelling units, 53 townhouse dwelling units and a single 17-storey apartment block (T1 on Site Plan) comprised of approximately 183 apartment units; and Phase 2 consisting of 407 additional apartment units within three towers ranging in height from 9- to 13-storeys. The Site Plan has been provided in **Appendix A**.

The transportation impact of an interim intersection configuration as part of Phase 1 will be assessed herein, whereby the interim phase would see the construction of the 24 single dwelling units and 53 townhouse dwelling units (Phase 1A), followed by the construction of the 17-storey apartment building (Phase 1B). For the duration of Phase 1A, the site access along Riverside Dr is proposed to operate as a right-in/right-out configuration as shown in **Figure 1**. Once Phase 1B, or any of the towers considered in Phase 2, are constructed, the interim configuration would be modified to permit full movement and traffic signal control would be installed.

It is worth noting that the TIA Report had concluded that a traffic signal is not warranted at full site buildout due to the anticipated traffic volumes. However, the traffic signal was determined to be the most appropriate measure to mitigate delay and safety concerns resulting from compromised sightlines and high collision history in the area.

Some additional construction work is also proposed to be completed as part of Phase 1A, which includes the extension of the southbound right-turn lane at the Riverside/Hunt Club intersection by approximately 170m. Proposed future road design modifications and intersection configurations illustrated in the RMA are provided in **Appendix B**.

Figure 1: Phase 1A Intersection Design

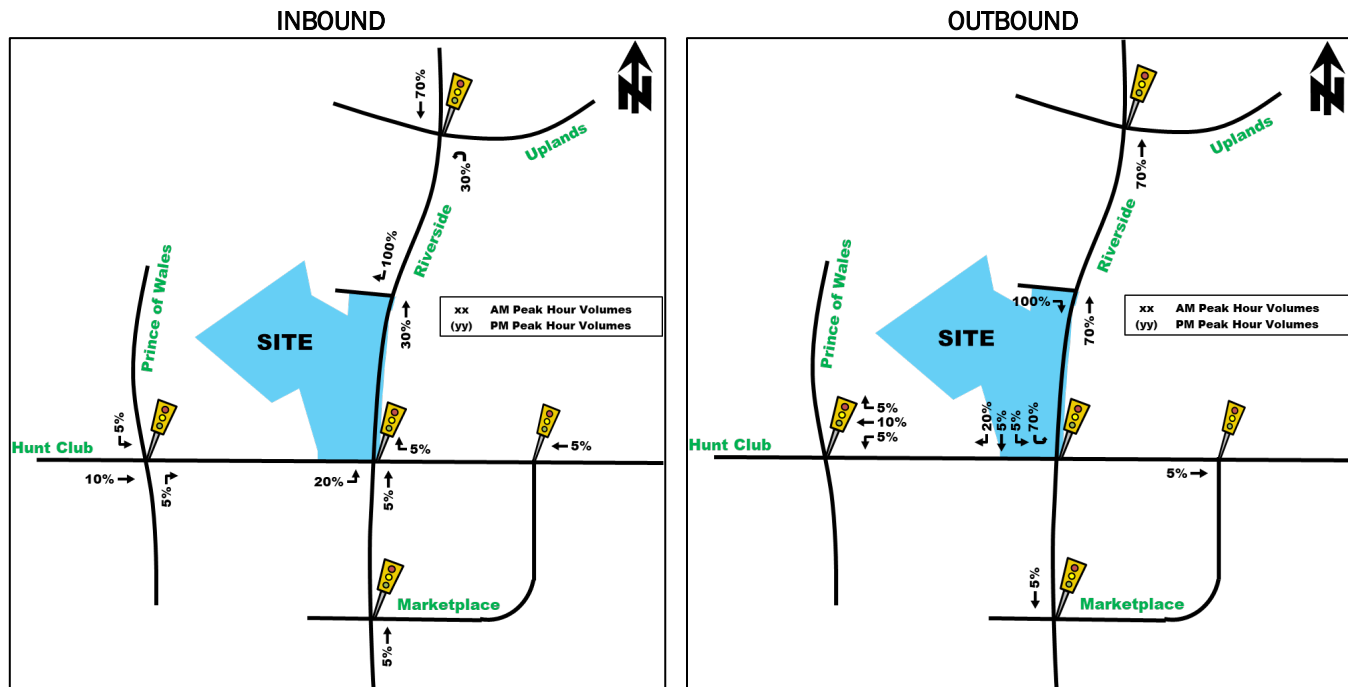


3.0 Phase 1A Vehicle Travel Routes and Assignment

3.1 Vehicle Travel Routes

Based on the trip distribution assumptions identified in the TIA Report, the inbound and outbound trip assignments to/from the site's proposed right-in/right-out access are shown in **Figure 2**.

Figure 2: Inbound and Outbound Vehicle Trip Distributions



- The majority of vehicles (70%) are expected to travel to/from north of the site. Therefore, the proposed inbound right-turn movement into the site will accommodate this travel demand from the north, whereas outbound vehicles destined north will exit the site southbound and most will use the left-turn lane to complete a U-turn at the Riverside/Hunt Club intersection. However, it should be stated that some northbound traffic may choose to

utilize either Prince of Wales Dr to travel northbound instead, or the Airport Parkway, located east of the study area.

- An estimated 30% of the travel will be to/from the south of the site. Outbound vehicles from the site destined to the south, east and west are not impacted, whereas inbound vehicles from the same areas will be forced to approach the site from the north.

3.2 Trip Generation and Assignment

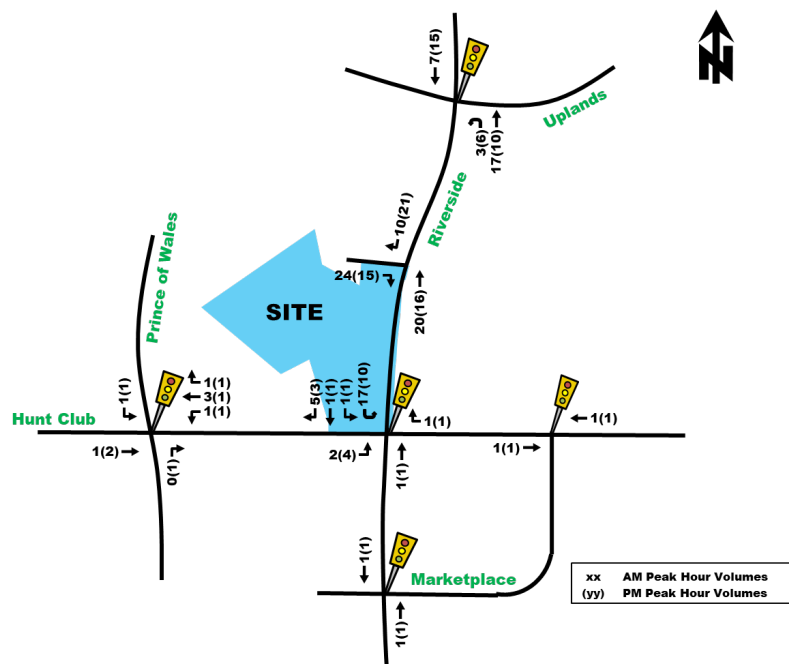
Using the trip generation methodology previously followed in the TIA Report, the anticipated trip generation of Phase 1A has been calculated as shown in **Table 1**, with traffic volumes assigned to the road network based on the assumed inbound and outbound travel routes as shown in **Figure 3**. Based on the table, Phase 1A is expected to generate an estimated two-way traffic volume of 35 veh/h during the morning and afternoon peak hours.

As the traffic volumes are expected to disperse to various nearby intersections, the absolute number of new vehicles assigned to individual movements is considered minimal. The highest additional volume added to a specific movement, as a result of Phase 1A development, is 18 veh/h during the morning peak hour using the southbound left-turn lane at the Riverside/Hunt Club intersection. U-turn movements are currently permitted at this intersection approach.

Table 1: Residential Peak Hour Trips Mode Shares Breakdown – Phase 1A

TRAVEL MODE	MODE SHARE	AM PEAK (TRIPS/H)			PM PEAK (TRIPS/H)		
		IN	OUT	TOTAL	IN	OUT	TOTAL
Auto Driver	55%	10	24	34	21	15	36
Auto Passenger	14%	3	6	9	5	4	9
Transit	20%	4	9	12	8	5	13
Cycling	2%	0	1	1	1	1	1
Walking	9%	2	4	6	3	2	6
Total Person Trips	55%	19	43	62	38	27	65

Figure 3: Phase 1A Peak Hour Traffic Generation



4.0 Intersection and Street Impacts

The traffic impacts resulting from the provision of a right-in/right-out are considered to be very minimal and will result in a limited impact to study area intersections and streets compared to any impacts identified in the previous TIA Report.

Site Access: The SYNCHRO analysis of the right-in/right-out configuration indicates very good performance during peak hours, considering the low two-way volumes generated by the site.

South of the site at Riverside/Hunt Club intersection: Southbound left-turn and U-turn movement is permitted at this intersection located 270 m south of the proposed site access location. Right-turning vehicles leaving the site would need to complete one lane change over a 130m distance before entering the taper area for the auxiliary southbound left-turn lane. Additional volume added to the southbound left-turn movement at this intersection is less than 20 veh/h (compared to existing 70 veh/h).

North of the site at Riverside/Kimberwick intersection(s): Northbound left-turn and U-turn movements are permitted at both the southerly intersection with Kimberwick (unsignalized; 300m to the north of site) and northerly intersection with Kimberwick-Uplands (signalized; 575 m to the north of site). Additional volume added to the northbound left-turn movement at these intersections is approximately 5 veh/h (compared to existing 13 veh/h).

For those drivers that elect to turn-left rather than a complete U-turn at Kimberwick Cr, some may choose to travel the entire length of Kimberwick Cres (local road) to eventually intersect with Riverside Dr, or alternatively use a private driveway on Kimberwick Cres to turn around. This behaviour, as well as use of the IBM site on the east side to turn around, is expected to be infrequent.

East of the site at Uplands Drive: For those vehicles travelling eastbound on Hunt Club Rd destined to the site, a very small percentage of drivers may elect to use Uplands Dr (collector located 2.4 km east of Riverside Dr) in order to approach the site from the north. For those vehicles leaving the site and destined north, it is very unlikely that Uplands Dr would be used as route to reach northbound on Riverside Dr (5 km diversion). Additional volume is expected to be minimal.

West of the site at Prince of Wales Drive: For those vehicles leaving the site and destined north, Prince of Wales Dr does represent an alternative to Riverside Dr for northbound travel. Additional volume is expected to be minimal given that Prince of Wales Dr is situated on the west side of the Rideau River with the next available crossing opportunity almost 4km to the north at the Hog's Back Bridge.

5.0 Multi-Modal Impacts

The interim right-in/right-out configuration does not provide a protected crossing of Riverside Dr for pedestrians and cyclists. This is a feature of providing traffic signal control, however, the desire line to cross at this location is considered negligible for pedestrians and low for cyclists given the modest number of residential units associated with Phase 1A development.

There are no bus routes operating along the site's Riverside Dr frontage (and therefore no bus stops or passenger crossing demands at this location).

Large vehicles, including those required to support on-going construction within the development site, are normally incapable of completing U-turns at nearby intersections. This challenge will need to be addressed as part of a subsequent construction traffic management plan by a contractor.

6.0 Conclusions and Recommendations

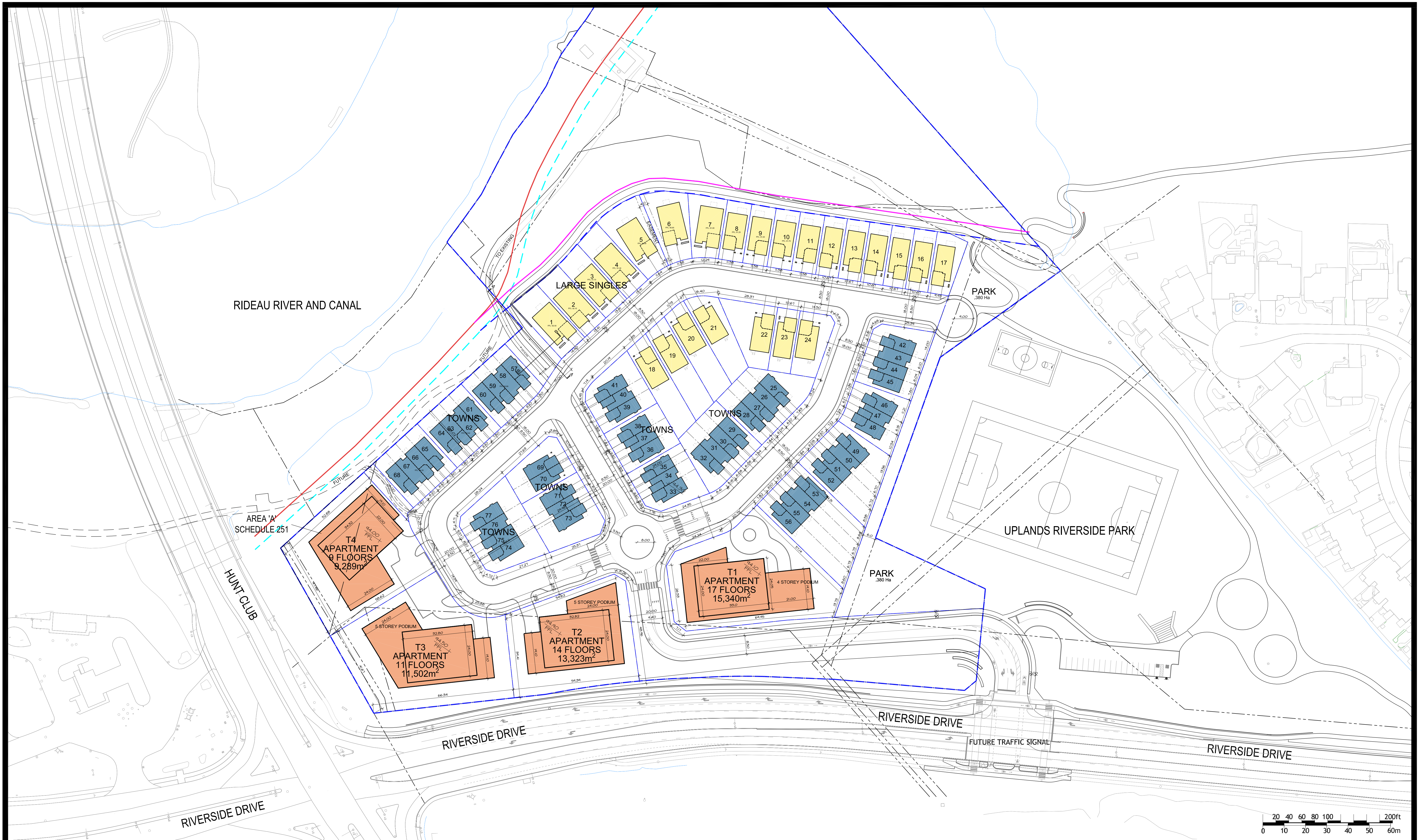
This TIA Addendum was prepared to provide an overview of the travel behaviors and potential traffic impacts that may result from the provision of an interim right-in/right-out access serving the site.

- Phase 1A was estimated to generate approximately 35 veh/h two-way during the morning and afternoon peak hours.
- This volume is considered low and is expected to have very limited impacts to study area intersections and streets.
- Compared to traffic signal control, the right-in/right-out configuration is less favourable in accommodating any crossing of Riverside Dr at this location by active users, however, this activity is forecasted to be very low for Phase 1A.

Therefore, the proposed interim right-in/right-out configuration serving the site as part of Phase 1A development is considered acceptable and recommended to proceed from a transportation perspective.

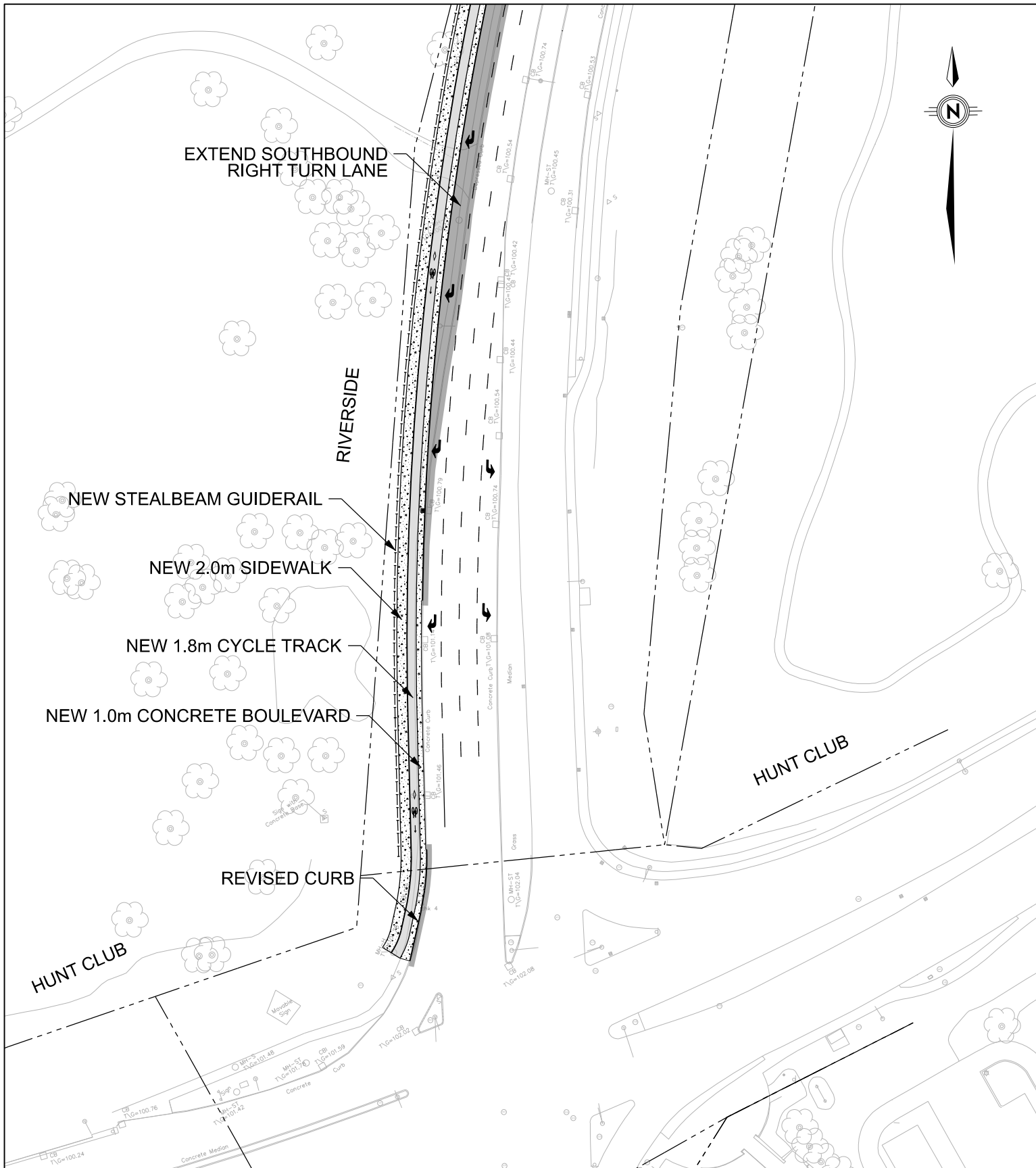
Appendix A

Full-Buildout Site Plan

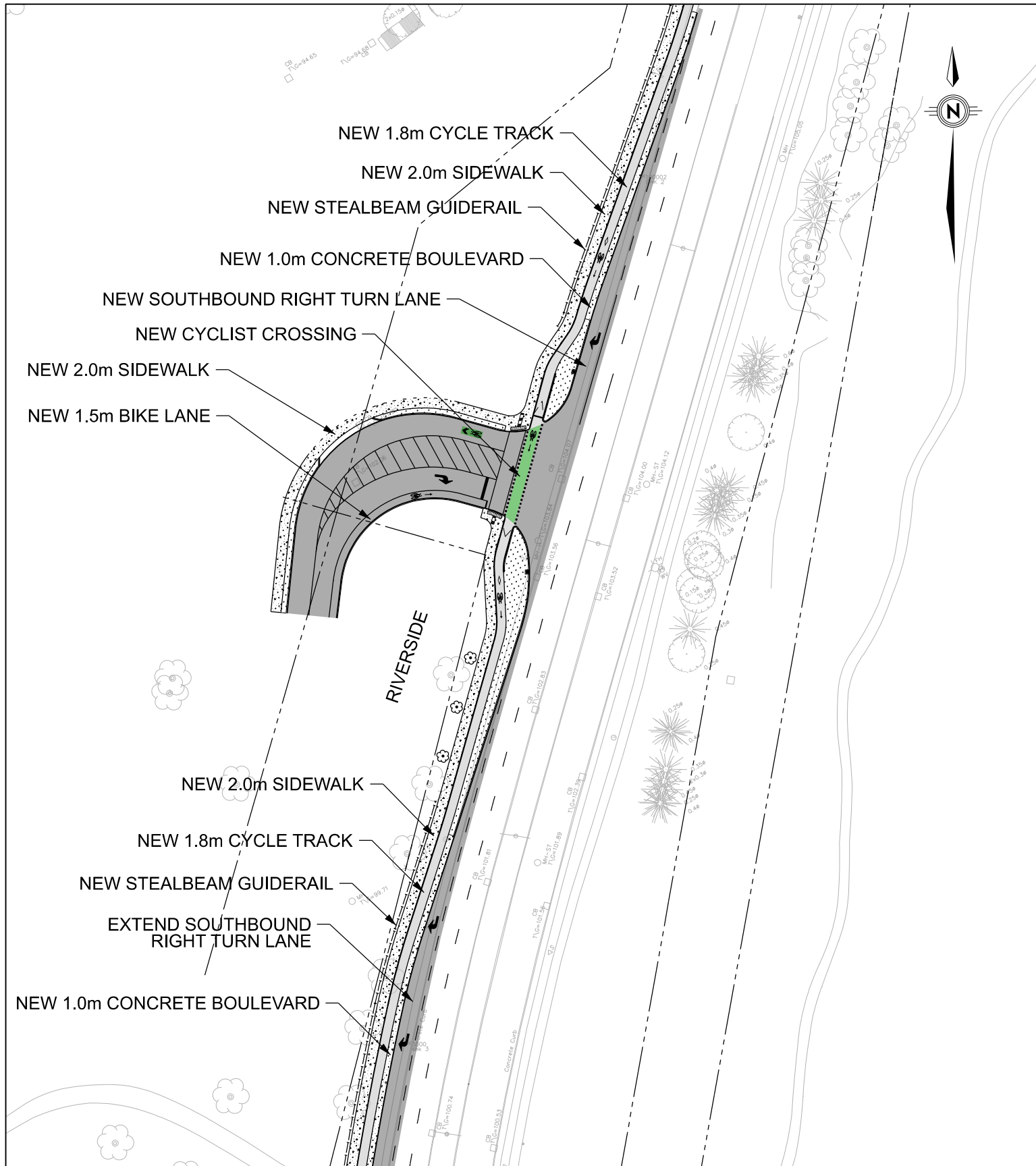


Appendix B

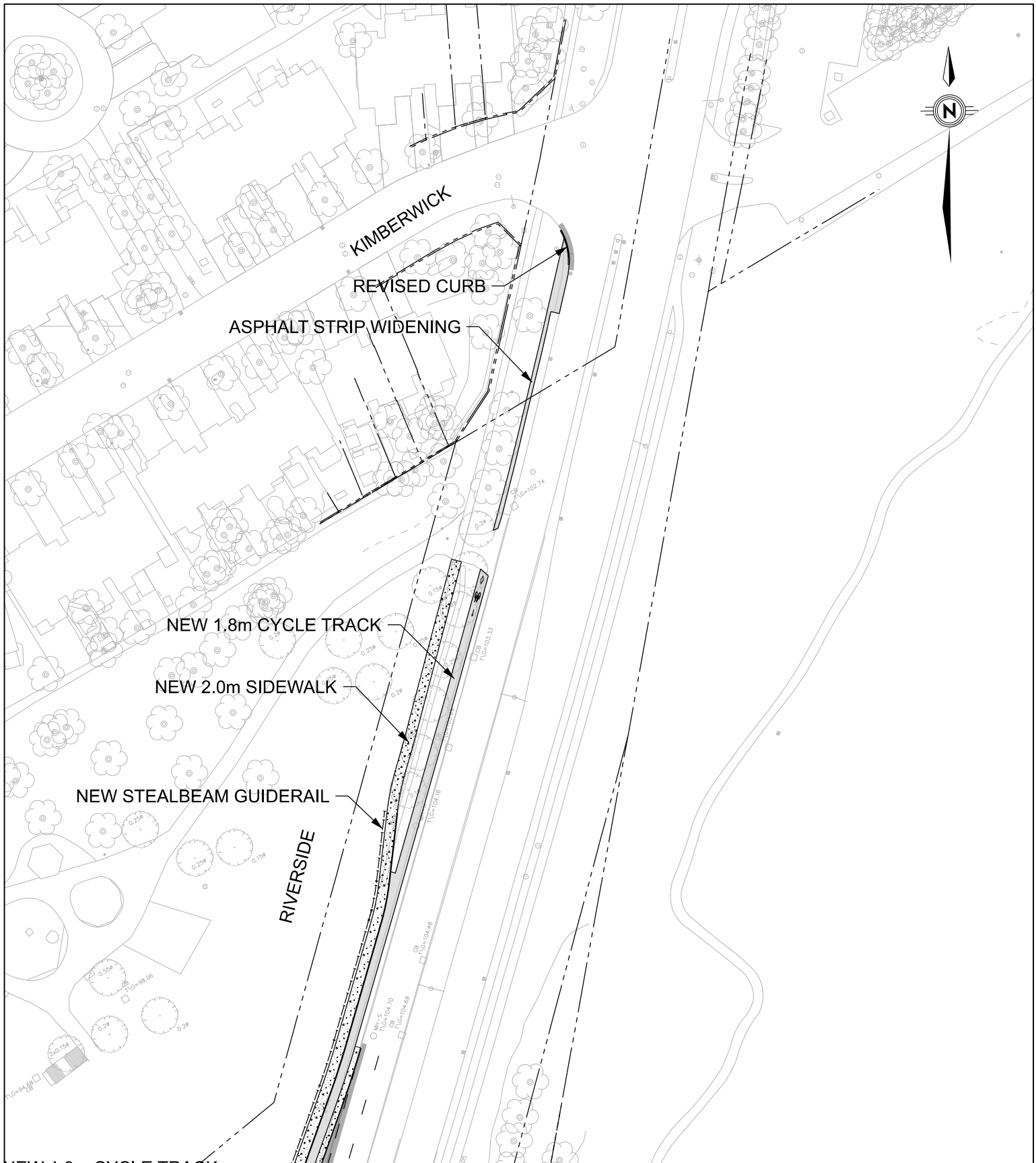
RMA Plans



 PLANNING, REAL ESTATE, AND ECONOMIC DEVELOPMENT DEPARTMENT	<u>PROPOSED ROADWAY MODIFICATIONS</u> ST-MARY'S RIVERSIDE DRIVE SUBDIVISION - PHASE 1 3930 & 3960 RIVERSIDE DRIVE Plan 1 of 3	Transportation Engineering Services Branch	
		Approved By:	Drawing No.:
		Completed By: PARSONS	RMA-2023- TPD-002-B
		Scale: N.T.S.	



 PLANNING, REAL ESTATE, AND ECONOMIC DEVELOPMENT DEPARTMENT	<u>PROPOSED ROADWAY MODIFICATIONS</u> ST-MARY'S RIVERSIDE DRIVE SUBDIVISION - PHASE 1 3930 & 3960 RIVERSIDE DRIVE Plan 2 of 3	Transportation Engineering Services Branch	
		Approved By:	Drawing No.:
		Completed By: PARSONS	RMA-2023- TPD-002-C
		Scale: N.T.S.	



 PLANNING, REAL ESTATE, AND ECONOMIC DEVELOPMENT DEPARTMENT	<u>PROPOSED ROADWAY MODIFICATIONS</u> ST-MARY'S RIVERSIDE DRIVE SUBDIVISION - PHASE 1 3930 & 3960 RIVERSIDE DRIVE Plan 3 of 3	Transportation Engineering Services Branch	
		Approved By:	Drawing No.:
		Completed By: PARSONS	RMA-2023- TPD-002-D
		Scale: N.T.S.	

PARSONS**CONSTRUCTION CLASS 'C' COST ESTIMATE**

Project No. 478418
 Contract No. -

Subject: **Roadway Modifications St-Mary's Development - Phase 1 Construction**

Location: **3930 and 3960 Riverside Drive**

Client: **Taggart Realty Management**

By: Patrick Roger Date: May 1, 2024

Item No.	Description	Unit	Estimated Quantity	Unit Price	Amount
Developer Construction Cost (Does not include contingency)					\$ 910,239.00
1.0 - General					
1.1	Traffic Control Plan	LS	1.0	\$ 5,000.00	\$ 5,000.00
1.2	Police Assistance at Intersection	hr	0.0	\$ 260.53	\$ -
1.3	Construction Site Pedestrian Control Plan	LS	1.0	\$ 2,000.00	\$ 2,000.00
1.4	Steel Interlocking Pedestrian Barrier	m	0.0	\$ 34.00	\$ -
1.5	Erosion and sediment control	LS	1.0	\$ 7,000.00	\$ 7,000.00
Section 1.0 Total					\$ 14,000.00
2.0 - Removals					
2.1	Removal of Asphalt Sidewalk	m ²	563.0	\$ 42.00	\$ 23,646.00
2.2	Saw-Cutting of Asphalt	m	0.0	\$ 15.00	\$ -
2.3	Saw-Cutting of Concrete	m	0.0	\$ 40.00	\$ -
2.4	Remove Asphalt Pavement by Dry Grinding	m ²	50.0	\$ 100.00	\$ 5,000.00
2.5	Remove Asphalt Pavement Full Depth	m ²	0.0	\$ 50.00	\$ -
2.6	Earth Excavation - Grading	m ³	582.0	\$ 30.00	\$ 17,460.00
2.7	Disposal of Excess Soils	m ³	582.0	\$ 50.00	\$ 29,100.00
2.8	Adjust or Rebuilding Catch Basins, any size, any type including twin	ea	1.0	\$ 1,000.00	\$ 1,000.00
2.9	Removal of Concrete Barrier Curb	m	347.0	\$ 30.00	\$ 10,410.00
2.10	Remove and Relocate Catch Basin	ea	1.0	\$ 10,000.00	\$ 10,000.00
2.11	Removal of Streetlighting	ea	0.0	\$ 10,000.00	\$ -
2.12	Remove Existing Box Beam Guiderail	m	415.0	\$ 42.00	\$ 17,430.00
Section 2.0 Total					\$ 114,046.00
3.0 - Roads					
3.1	Earth Borrow	m ³	4,000.0	\$ 39.72	\$ 158,880.00
3.2	Select Subgrade Material	m ³	1,485.0	\$ 36.00	\$ 53,460.00
3.3	Granular 'A'	t	706.0	\$ 40.00	\$ 28,240.00
3.4	Granular 'B' Type II	t	1,179.0	\$ 30.00	\$ 35,370.00
3.5	Concrete Sidewalks, Boulevards and Islands	m2	100.0	\$ 212.00	\$ 21,200.00
3.6	Concrete Pavement for Truck Apron	m2	0.0	\$ 250.00	\$ -
3.7	Monolithic Concrete Sidewalks, Boulevards and Islands	m2	600.0	\$ 276.00	\$ 165,600.00
3.8	TWSI	m2	5.5	\$ 1,300.00	\$ 7,150.00
3.9	Concrete Barrier Curb as per SC1.1	m	150.0	\$ 165.00	\$ 24,750.00
3.10	HL3F mix with PGAC 58-34 for Residential Driveways/Private Walks/Commercial Driveways	t	10.0	\$ 390.00	\$ 3,900.00
3.11	Performance Graded Superpave 12.5mm Level D (PG 64-34)	t	106.0	\$ 350.00	\$ 37,100.00

PARSONS**CONSTRUCTION CLASS 'C' COST ESTIMATE**

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Client: **Taggart Realty Management**

By: Patrick Roger Date: May 1, 2024

Item No.	Description	Unit	Estimated Quantity	Unit Price	Amount
3.12	Performance Graded Superpave 19.0mm Level D (PG 64-34)	t	205.0	\$ 230.00	\$ 47,150.00
3.13	Single rail steel beam guiderail per OPSD 912.130	m	75.0	\$ 270.00	\$ 20,250.00
3.14	Tactile Paver Strips	m ²	3.9	\$ 650.00	\$ 2,535.00
Section 3.0 Total					\$ 605,585.00
4.0 - Traffic Signals					
4.1	Electrical work for new intersection (Above ground and underground including intersection lighting)	LS	0.0	\$ 435,000.00	\$ -
Section 4.0 Total					\$ -
5.0 - Pavement Marking and Signage					
5.1	Pavement Markings (lines - symbols and thermoplastic)	LS	1.0	\$ 7,500.00	\$ 7,500.00
5.2	New Signs on new posts	ea	6.0	\$ 400.00	\$ 2,400.00
Section 5.0 Total					\$ 9,900.00
6.0 - Miscellaneous					
6.1	Topsoil - 100mm Thick	m ³	350.0	\$ 90.00	\$ 31,500.00
6.2	Sodding Including Watering	m ²	700.0	\$ 24.00	\$ 16,800.00
6.3	Hydraulic Seeding and mulching	m ²	3,068.0	\$ 6.00	\$ 18,408.00
6.4	Utilities (Lowering Hydro MH)	LS	1.0	\$ 100,000.00	\$ 100,000.00
Section 6.0 Total					\$ 166,708.00
City of Ottawa Construction Cost (Does not include contingency)					\$ 814,663.20
7.0 - General					
7.1	Traffic Control Plan	LS	1.0	\$ 20,000.00	\$ 20,000.00
7.2	Police Assistance at Intersection	hr	40.0	\$ 260.53	\$ 10,421.20
7.3	Construction Site Pedestrian Control Plan	LS	1.0	\$ 6,000.00	\$ 6,000.00
7.4	Steel Interlocking Pedestrian Barrier	m	30.0	\$ 34.00	\$ 1,020.00
7.5	Erosion and sediment control	LS	1.0	\$ 5,000.00	\$ 5,000.00
Section 7.0 Total					\$ 42,441.20
8.0 - Removals					
8.1	Removal of Asphalt Sidewalk	m ²	143.0	\$ 42.00	\$ 6,006.00
8.2	Saw-Cutting of Asphalt	m	40.0	\$ 15.00	\$ 600.00
8.3	Remove Asphalt Pavement by Dry Grinding	m ²	121.5	\$ 100.00	\$ 12,150.00
8.4	Earth Excavation - Grading	m ³	613.0	\$ 30.00	\$ 18,390.00

PARSONS**CONSTRUCTION CLASS 'C' COST ESTIMATE**

Project No. 478418
 Contract No. -

Subject: **Roadway Modifications St-Mary's Development - Phase 1 Construction**

Location: **3930 and 3960 Riverside Drive**

Client: **Taggart Realty Management**

By: Patrick Roger Date: May 1, 2024

Item No.	Description	Unit	Estimated Quantity	Unit Price	Amount
8.5	Disposal of Excess Soil	m ³	598.0	\$ 50.00	\$ 29,900.00
8.6	Removal of tree	ea	2.0	\$ 600.00	\$ 1,200.00
8.7	Removal of Concrete Barrier Curb	m	200.0	\$ 30.00	\$ 6,000.00
Section 8.0 Total					\$ 74,246.00
9.0 - Roads					
9.1	Earth Borrow	m ³	2,000.0	\$ 39.72	\$ 79,440.00
9.2	Select Subgrade Material	m ³	480.0	\$ 36.00	\$ 17,280.00
9.3	Granular 'A'	t	882.0	\$ 40.00	\$ 35,280.00
9.4	Granular 'B' Type II	t	598.0	\$ 30.00	\$ 17,940.00
9.5	Monolithic Concrete Sidewalks, Boulevards and Islands	m ²	220.0	\$ 276.00	\$ 60,720.00
9.6	Concrete sidewalk boulevard and Islands	m ²	473.0	\$ 212.00	\$ 100,276.00
9.7	Concrete Barrier Curb as per SC1.1	m	228.0	\$ 165.00	\$ 37,620.00
9.8	HL3F mix with PGAC 58-34 for Residential Driveways/Private Walks/Commercial Driveways	t	120.0	\$ 390.00	\$ 46,800.00
9.9	Performance Graded Superpave 12.5mm Level D (PG 64-34)	t	63.0	\$ 350.00	\$ 22,050.00
9.1	Performance Graded Superpave 19.0mm Level D (PG 64-34)	t	121.0	\$ 230.00	\$ 27,830.00
9.11	Single rail steel beam guiderail per OPSD 912.130	m	205.0	\$ 270.00	\$ 55,350.00
9.12	Steel Beam Guide Rail Energy Attenuating Terminal System	ea	3.0	\$ 8,500.00	\$ 25,500.00
Section 9.0 Total					\$ 526,086.00
10.0 - Streetlighting					
10.1	Relocation of Streetlighting	ea	2.0	\$ 9,000.00	\$ 18,000.00
Section 10.0 Total					\$ 18,000.00
11.0 - Pavement Marking and Signage					
11.1	Pavement Markings (lines - symbols)	LS	1.0	\$ 2,000.00	\$ 2,000.00
Section 11.0 Total					\$ 2,000.00
12.0 - Miscellaneous					
12.1	Topsoil - 100mm Thick imported	m ³	221.0	\$ 90.00	\$ 19,890.00
12.2	Sodding Including Watering	m ²	430.0	\$ 24.00	\$ 10,320.00
12.3	Hydraulic Seeding and mulching	m ²	1,780.0	\$ 6.00	\$ 10,680.00

PARSONS**CONSTRUCTION CLASS 'C' COST ESTIMATE**

Project No. 478418
 Contract No. -

Subject: **Roadway Modifications St-Mary's Development - Phase 1 Construction**

Location: **3930 and 3960 Riverside Drive**

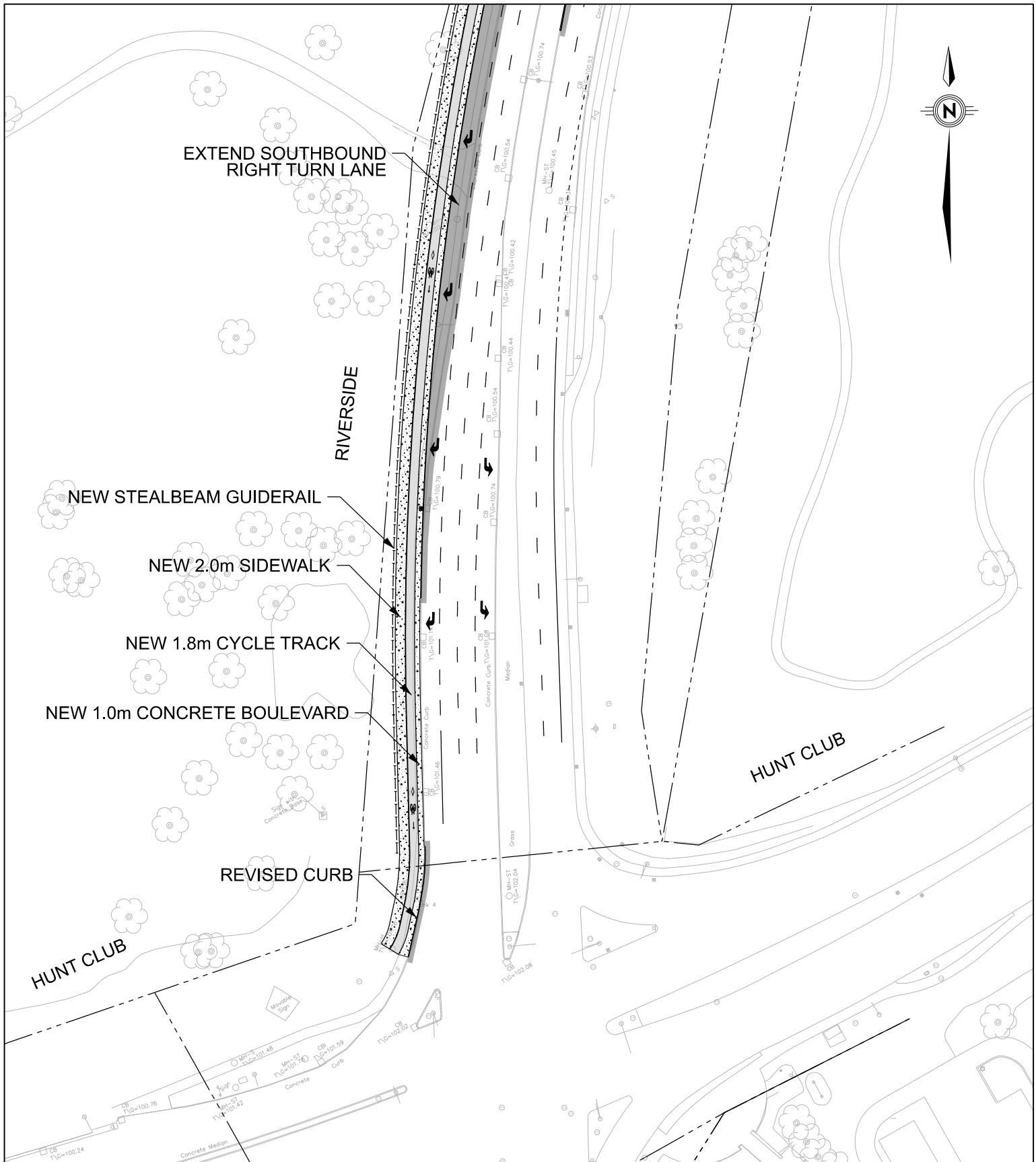
Client: **Taggart Realty Management**

By: Patrick Roger Date: May 1, 2024

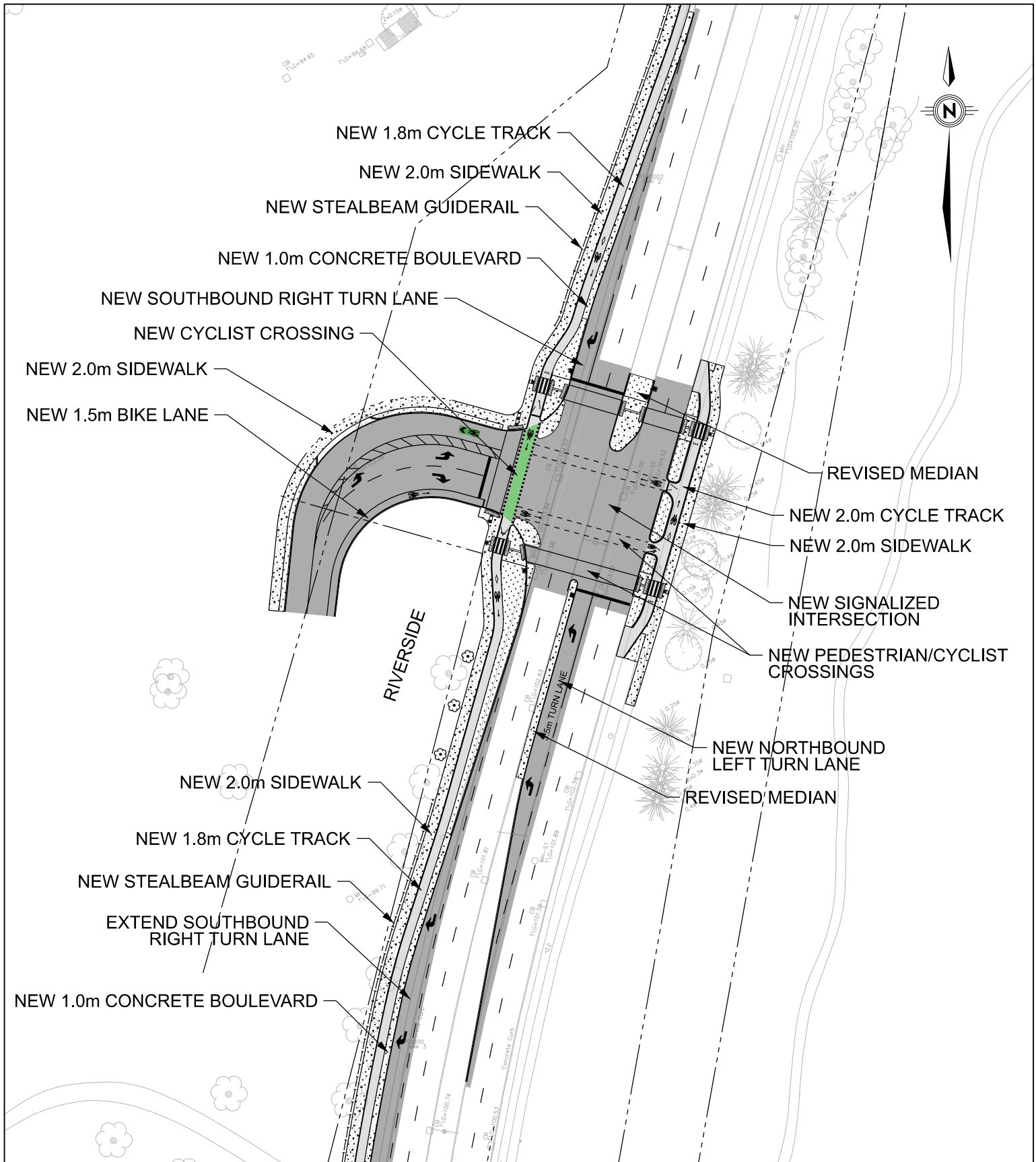
Item No.	Description	Unit	Estimated Quantity	Unit Price	Amount
12.4	Erosion Control Blanket	m ²	1,000.0	\$ 11.00	\$ 11,000.00
12.5	Utilities (Lowering Hydro MH)	LS	1.0	\$ 100,000.00	\$ 100,000.00
Section 12.0 Total					\$ 151,890.00
Developer Cost Summary					
	Subtotal Developer Construction Costs (Sections 1-6)				\$910,239.00
	Engineering and Contract Administration (Section 1-6)		15%		\$136,535.85
	Project Contingency (Section 1-6)		25%		\$227,559.75
	Total Developer Construction Costs (Sections 1-6)				\$1,274,334.60
City of Ottawa Cost Summary					
	South Bound Right Turn Lane Extension				\$536,123.22
	South West Cycle track Extension (1+980 - 2+250)				\$124,784.00
	North West Cycle track Extension (2+300 - 2+540)				\$54,944.00
	North West Sidewalk Extension (2+300 - 2+470)				\$98,812.00
	Engineering and Contract Administration (Section 7-12)		15%		\$122,199.48
	Project Contingency (Section 7-12)		25%		\$203,665.81
	Total City Construction Costs (Sections 7-12)				\$1,140,528.51
Total Project Cost (Rounded)					\$2,414,863.11

Notes and Assumptions

- Costs are in 2023 dollars and exclude HST.
- Unit rates are based on City of Ottawa historical unit prices for April 2023
- Does not include City Internal Cost or Misc. Soft Costs.
- Does not include servicing infrastructure costs
- Does not include Landscaping elements beyond topsoil and seed
- Construction contract initiation costs are assumed to be included in the general contingency
- No property aquisition costs expected
- Pavement structure to be confirmed by a Geotechnical Engineer during detailed design
- Traffic Signal and Street-lighting costs are based on recent project costing and will be subject to change once the City of Ottawa has completed the design and costing for each.
- Utilities cost is for lowering one Hydro Ottawa maintenance hole structure
Cost may be subject to change should relocation of these structure/duct bank be required as a result of consultation with Hydro Ottawa.
- Estimate does not include the City of Ottawa parking lot NW of the proposed intersection.
- Quantity for earth borrow is approximate only and needs to be refined at the next stages of design
- Estimate to be read in conjunction with the cost sharing sketch rev.6
- Item for Disposal of Excess soils as per the O'Reg 406/19 is approximate only and needs to be refined at the next stage of the design



 PLANNING, REAL ESTATE, AND ECONOMIC DEVELOPMENT DEPARTMENT	<u>PROPOSED ROADWAY MODIFICATIONS</u> ST-MARY'S RIVERSIDE DRIVE SUBDIVISION - PHASE 2 3930 & 3960 RIVERSIDE DRIVE Plan 1 of 3	Transportation Engineering Services Branch	
		Approved By:	Drawing No.:
		Completed By: PARSONS	RMA-2023- TPD-002-B
		Scale: N.T.S.	



PLANNING, REAL ESTATE,
AND ECONOMIC
DEVELOPMENT DEPARTMENT

PROPOSED ROADWAY MODIFICATIONS

ST-MARY'S RIVERSIDE DRIVE SUBDIVISION - PHASE 2

3930 & 3960 RIVERSIDE DRIVE

Plan 2 of 3

Transportation Engineering Services Branch

Approved By:

Drawing No.:

Completed By:

PARSONS

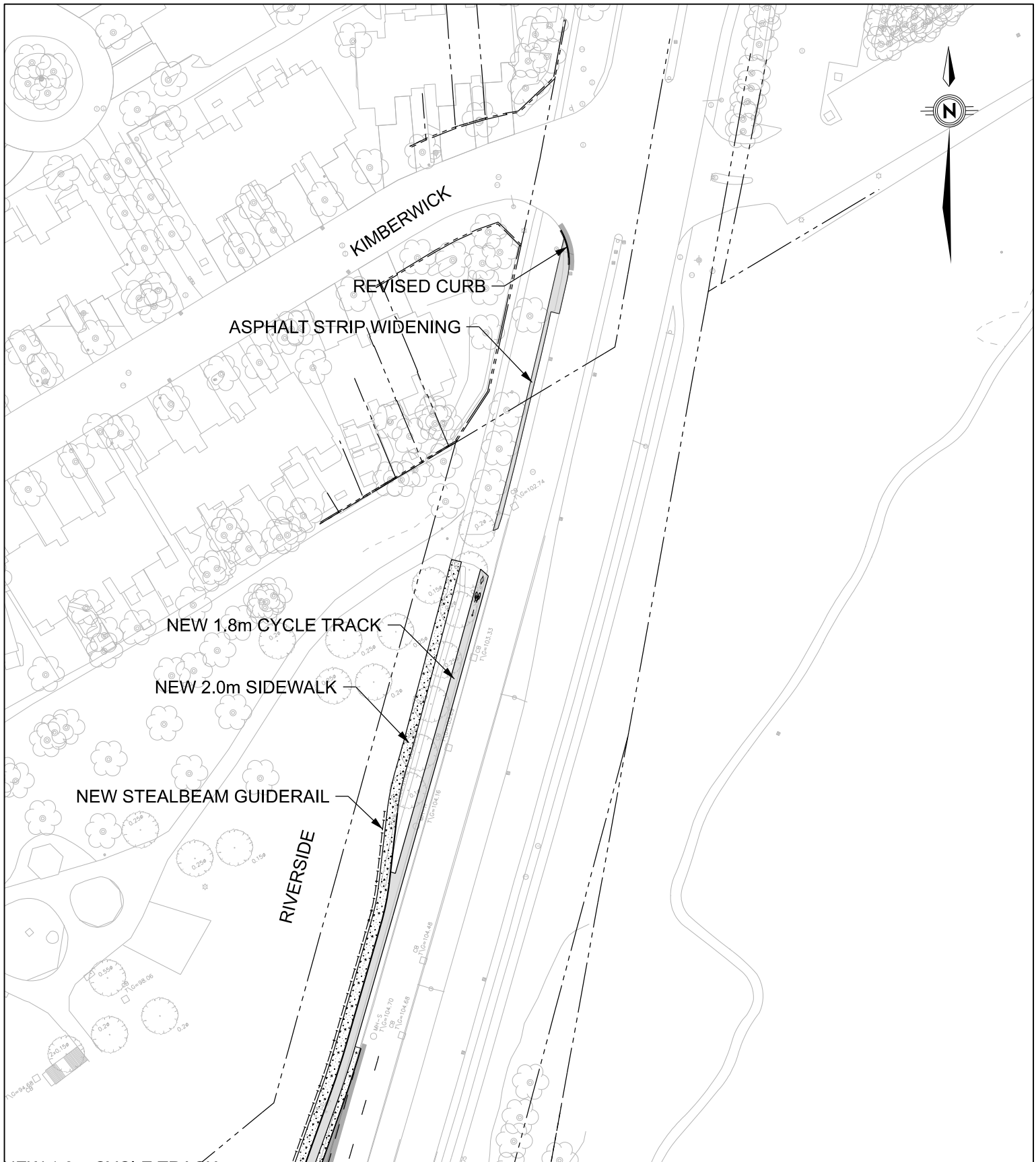
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N.T.S.

Date:

APRIL
2024

RMA-2023-
TPD-002-C



 PLANNING, REAL ESTATE, AND ECONOMIC DEVELOPMENT DEPARTMENT	<u>PROPOSED ROADWAY MODIFICATIONS</u> ST-MARY'S RIVERSIDE DRIVE SUBDIVISION - PHASE 2 3930 & 3960 RIVERSIDE DRIVE Plan 3 of 3	Transportation Engineering Services Branch	
		Approved By:	Drawing No.:
		Completed By: PARSONS	RMA-2023- TPD-002-D
		Scale: N.T.S.	

PARSONS**CONSTRUCTION CLASS 'C' COST ESTIMATE**

Project No. 478418
 Contract No. -

Subject: **Roadway Modifications St-Mary's Development - Phase 2 Construction**

Location: **3930 and 3960 Riverside Drive**

Client: **Taggart Realty Management**

By: Patrick Roger Date: May 1st, 2024

Item No.	Description	Unit	Estimated Quantity	Unit Price	Amount
Developer Construction Cost (Does not include contingency)					\$ 1,104,060.80
1.0 - General					
1.1	Traffic Control Plan	LS	1.0	\$ 30,000.00	\$ 30,000.00
1.2	Police Assistance at Intersection	hr	60.0	\$ 260.53	\$ 15,631.80
1.3	Construction Site Pedestrian Control Plan	LS	1.0	\$ 4,000.00	\$ 4,000.00
1.4	Steel Interlocking Pedestrian Barrier	m	100.0	\$ 34.00	\$ 3,400.00
1.5	Erosion and sediment control	LS	1.0	\$ 3,000.00	\$ 3,000.00
Section 1.0 Total					\$ 56,031.80
2.0 - Removals					
2.1	Removal of Asphalt Sidewalk	m ²	0.0	\$ 42.00	\$ -
2.2	Saw-Cutting of Asphalt	m	250.0	\$ 15.00	\$ 3,750.00
2.3	Saw-Cutting of Concrete	m	10.0	\$ 40.00	\$ 400.00
2.4	Remove Asphalt Pavement by Dry Grinding	m ²	60.0	\$ 100.00	\$ 6,000.00
2.5	Remove Asphalt Pavement Full Depth	m ²	816.0	\$ 50.00	\$ 40,800.00
2.6	Earth Excavation - Grading	m ³	1,250.0	\$ 30.00	\$ 37,500.00
2.7	Disposal of Excess Soils	m ³	1,250.0	\$ 50.00	\$ 62,500.00
2.8	Adjust or Rebuilding Catch Basins, any size, any type including twin	ea	3.0	\$ 1,000.00	\$ 3,000.00
2.9	Removal of Concrete Barrier Curb	m	0.0	\$ 30.00	\$ -
2.10	Remove and Relocate Catch Basin	ea	2.0	\$ 10,000.00	\$ 20,000.00
2.11	Removal of Streetlighting	ea	1.0	\$ 10,000.00	\$ 10,000.00
2.12	Remove Existing Box Beam Guiderail	m	0.0	\$ 42.00	\$ -
Section 2.0 Total					\$ 183,950.00
3.0 - Roads					
3.1	Earth Borrow	m ³	0.0	\$ 39.72	\$ -
3.2	Select Subgrade Material	m ³	0.0	\$ 36.00	\$ -
3.3	Granular 'A'	t	740.0	\$ 40.00	\$ 29,600.00
3.4	Granular 'B' Type II	t	1,676.0	\$ 30.00	\$ 50,280.00
3.5	Concrete Sidewalks, Boulevards and Islands	m ²	89.0	\$ 212.00	\$ 18,868.00
3.6	Concrete Pavement for Truck Apron	m ²	41.0	\$ 250.00	\$ 10,250.00
3.7	Monolithic Concrete Sidewalks, Boulevards and Islands	m ²	281.0	\$ 276.00	\$ 77,556.00
3.8	TWSI	m ²	22.0	\$ 1,300.00	\$ 28,600.00
3.9	Concrete Barrier Curb as per SC1.1	m	211.0	\$ 165.00	\$ 34,815.00
3.10	HL3F mix with PGAC 58-34 for Residential Driveways/Private Walks/Commercial Driveways	t	26.0	\$ 390.00	\$ 10,140.00
3.11	Performance Graded Superpave 12.5mm Level D (PG 64-34)	t	195.0	\$ 350.00	\$ 68,250.00

PARSONS**CONSTRUCTION CLASS 'C' COST ESTIMATE**

Project No. 478418
Contract No. -

Subject: Roadway Modifications St-Mary's Development - Phase 2 Construction

Location: 3930 and 3960 Riverside Drive

Client: Taggart Realty Management

By: Patrick Roger **Date:** May 1st, 2024

Item No.	Description	Unit	Estimated Quantity	Unit Price	Amount
3.12	Performance Graded Superpave 19.0mm Level D (PG 64-34)	t	373.0	\$ 230.00	\$ 85,790.00
3.13	Single rail steel beam guiderail per OPSD 912.130	m	0.0	\$ 270.00	\$ -
3.14	Tactile Paver Strips	m ²	2.6	\$ 650.00	\$ 1,690.00
Section 3.0 Total					\$ 415,839.00
4.0 - Traffic Signals					
4.1	Electrical work for new intersection (Above ground and underground including intersection lighting)	LS	1.0	\$ 435,000.00	\$ 435,000.00
Section 4.0 Total					\$ 435,000.00
5.0 - Pavement Marking and Signage					
5.1	Pavement Markings (lines - symbols and thermoplastic)	LS	1.0	\$ 7,500.00	\$ 7,500.00
5.2	New Signs on new posts	ea	4.0	\$ 400.00	\$ 1,600.00
Section 5.0 Total					\$ 9,100.00
6.0 - Miscellaneous					
6.1	Topsoil - 100mm Thick	m ³	30.0	\$ 90.00	\$ 2,700.00
6.2	Sodding Including Watering	m ²	60.0	\$ 24.00	\$ 1,440.00
6.3	Hydraulic Seeding and mulching	m ²	0.0	\$ 6.00	\$ -
6.4	Utilities (Lowering Hydro MH)	LS	0.0	\$ 100,000.00	\$ -
Section 6.0 Total					\$ 4,140.00
City of Ottawa Construction Cost (Does not include contingency)					\$ -
7.0 - General					
7.1	Traffic Control Plan	LS	1.0	\$ -	\$ -
7.2	Police Assistance at Intersection	hr	0.0	\$ 260.53	\$ -
7.3	Construction Site Pedestrian Control Plan	LS	0.0	\$ 6,000.00	\$ -
7.4	Steel Interlocking Pedestrian Barrier	m	0.0	\$ 34.00	\$ -
7.5	Erosion and sediment control	LS	0.0	\$ 5,000.00	\$ -
Section 7.0 Total					\$ -
8.0 - Removals					
8.1	Removal of Asphalt Sidewalk	m ²	0.0	\$ 42.00	\$ -
8.2	Saw-Cutting of Asphalt	m	0.0	\$ 15.00	\$ -
8.3	Remove Asphalt Pavement by Dry Grinding	m ²	0.0	\$ 100.00	\$ -
8.4	Earth Excavation - Grading	m ³	0.0	\$ 30.00	\$ -

PARSONS**CONSTRUCTION CLASS 'C' COST ESTIMATE**

Project No. 478418
 Contract No. -

Subject: **Roadway Modifications St-Mary's Development - Phase 2 Construction**

Location: **3930 and 3960 Riverside Drive**

Client: **Taggart Realty Management**

By: Patrick Roger Date: May 1st, 2024

Item No.	Description	Unit	Estimated Quantity	Unit Price	Amount
8.5	Disposal of Excess Soil	m ³	0.0	\$ 50.00	\$ -
8.6	Removal of tree	ea	0.0	\$ 600.00	\$ -
8.7	Removal of Concrete Barrier Curb	m	0.0	\$ 30.00	\$ -
Section 8.0 Total					\$ -
9.0 - Roads					
9.1	Earth Borrow	m ³	0.0	\$ 39.72	\$ -
9.2	Select Subgrade Material	m ³	0.0	\$ 36.00	\$ -
9.3	Granular 'A'	t	0.0	\$ 40.00	\$ -
9.4	Granular 'B' Type II	t	0.0	\$ 30.00	\$ -
9.5	Monolithic Concrete Sidewalks, Boulevards and Islands	m ²	0.0	\$ 276.00	\$ -
9.6	Concrete sidewalk boulevard and Islands	m ²	0.0	\$ 212.00	\$ -
9.7	Concrete Barrier Curb as per SC1.1	m	0.0	\$ 165.00	\$ -
9.8	HL3F mix with PGAC 58-34 for Residential Driveways/Private Walks/Commercial Driveways	t	0.0	\$ 390.00	\$ -
9.9	Performance Graded Superpave 12.5mm Level D (PG 64-34)	t	0.0	\$ 350.00	\$ -
9.1	Performance Graded Superpave 19.0mm Level D (PG 64-34)	t	0.0	\$ 230.00	\$ -
9.11	Single rail steel beam guiderail per OPSD 912.130	m	0.0	\$ 270.00	\$ -
9.12	Steel Beam Guide Rail Energy Attenuating Terminal System	ea	0.0	\$ 8,500.00	\$ -
Section 9.0 Total					\$ -
10.0 - Streetlighting					
10.1	Relocation of Streetlighting	ea	0.0	\$ 9,000.00	\$ -
Section 10.0 Total					\$ -
11.0 - Pavement Marking and Signage					
11.1	Pavement Markings (lines - symbols)	LS	0.0	\$ 2,000.00	\$ -
Section 11.0 Total					\$ -
12.0 - Miscellaneous					
12.1	Topsoil - 100mm Thick imported	m ³	0.0	\$ 90.00	\$ -
12.2	Sodding Including Watering	m ²	0.0	\$ 24.00	\$ -
12.3	Hydraulic Seeding and mulching	m ²	0.0	\$ 6.00	\$ -

PARSONS**CONSTRUCTION CLASS 'C' COST ESTIMATE**

Project No. 478418
 Contract No. -

Subject: **Roadway Modifications St-Mary's Development - Phase 2 Construction**

Location: **3930 and 3960 Riverside Drive**

Client: **Taggart Realty Management**

By: Patrick Roger Date: May 1st, 2024

Item No.	Description	Unit	Estimated Quantity	Unit Price	Amount
12.4	Erosion Control Blanket	m ²	0.0	\$ 11.00	\$ -
12.5	Utilities (Lowering Hydro MH)	LS	0.0	\$ 100,000.00	\$ -
Section 12.0 Total					\$ -
Developer Cost Summary					
	Subtotal Developer Construction Costs (Sections 1-6)				\$1,104,060.80
	Engineering and Contract Administration (Section 1-6)		15%		\$165,609.12
	Project Contingency (Section 1-6)		25%		\$276,015.20
	Total Developer Construction Costs (Sections 1-6)				\$1,545,685.12
City of Ottawa Cost Summary					
	South Bound Right Turn Lane Extension				\$0.00
	South West Cycle track Extension (1+980 - 2+250)				\$0.00
	North West Cycle track Extension (2+300 - 2+540)				\$0.00
	North West Sidewalk Extension (2+300 - 2+470)				\$0.00
	Engineering and Contract Administration (Section 7-12)		15%		\$0.00
	Project Contingency (Section 7-12)		25%		\$0.00
	Total City Construction Costs (Sections 7-12)				\$0.00
Total Project Cost (Rounded)					\$1,545,685.12

Notes and Assumptions

- Costs are in 2023 dollars and exclude HST.
- Unit rates are based on City of Ottawa historical unit prices for April 2023
- Does not include City Internal Cost or Misc. Soft Costs.
- Does not include servicing infrastructure costs
- Does not include Landscaping elements beyond topsoil and seed
- Construction contract initiation costs are assumed to be included in the general contingency
- No property aquisition costs expected
- Pavement structure to be confirmed by a Geotechnical Engineer during detailed design
- Traffic Signal and Street-lighting costs are based on recent project costing and will be subject to change once the City of Ottawa has completed the design and costing for each.
- Utilities cost is for lowering one Hydro Ottawa maintenance hole structure
Cost may be subject to change should relocation of these structure/duct bank be required as a result of consultation with Hydro Ottawa.
- Estimate does not include the City of Ottawa parking lot NW of the proposed intersection.
- Quantity for earth borrow is approximate only and needs to be refined at the next stages of design
- Estimate to be read in conjunction with the cost sharing sketch rev.6
- Item for Disposal of Excess soils as per the O'Reg 406/19 is approximate only and needs to be refined at the next stage of the design