



**PROJECT
AREA**



TRANSPORTATION
PLANNING DEPT.

**LEPINE
910 MARCH ROAD**

KEY PLAN

Transportation Engineering Services

Approved By:
TBD

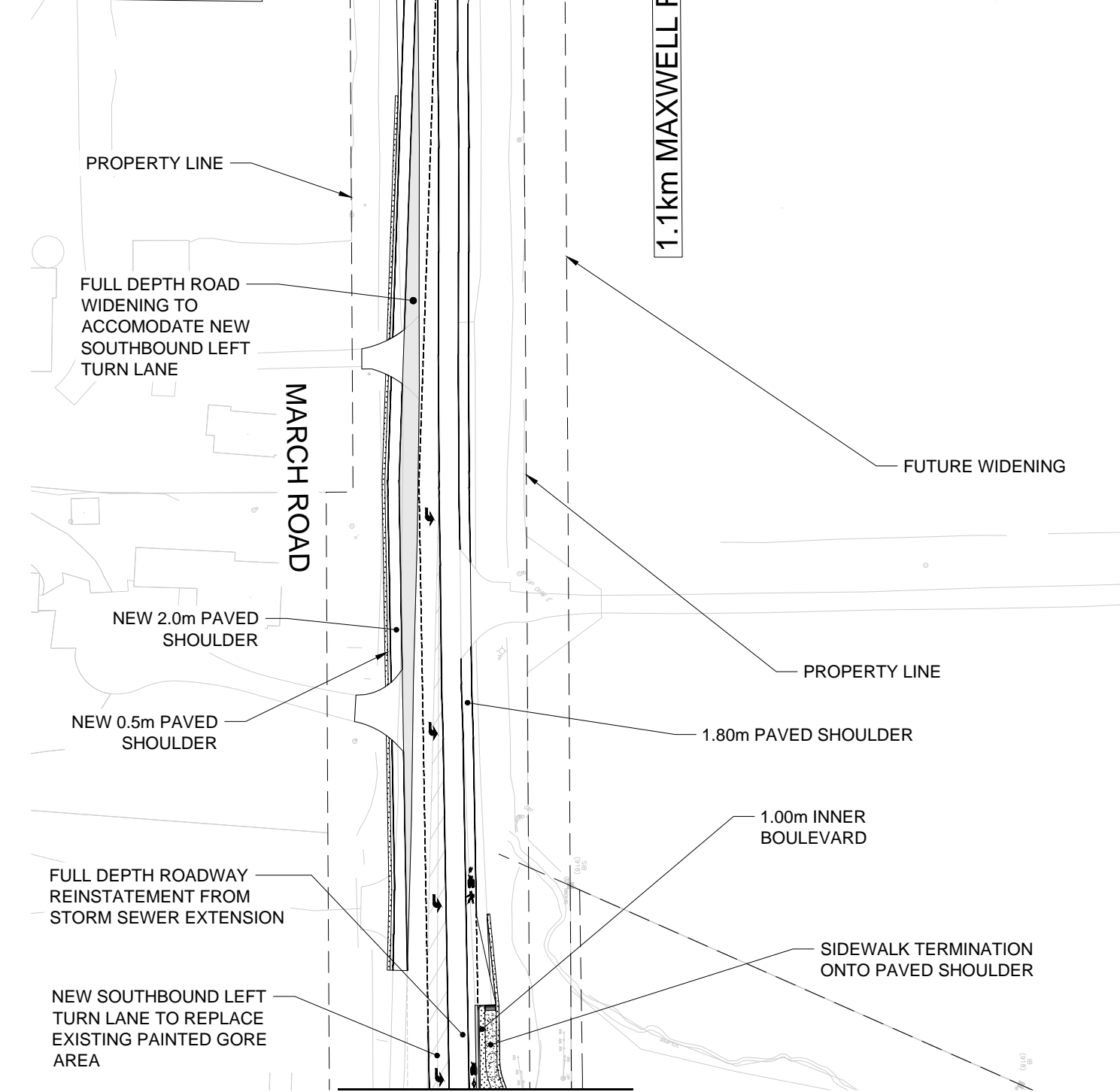
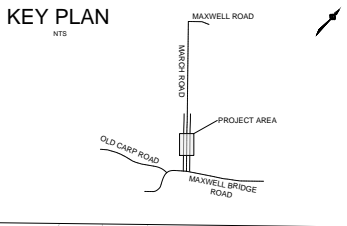
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CGH

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Date:
JULY
2023

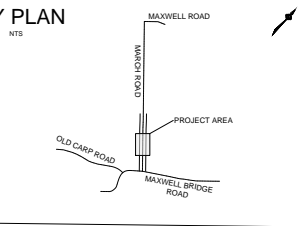
Drawing No.:

**RMA-2022
-TES-####A**



REFER TO ATTACHMENT 3

 TRANSPORTATION PLANNING DEPT.	LEPINE 910 MARCH ROAD	Transportation Engineering Services		
	MARCH ROAD MODIFICATIONS INTERIM CONDITION	Approved By: TBD	Drawing No.:	
		Completed By: CGH	RMA-2022 -TES-###B	
		Scale: 1:1000		



REFER TO ATTACHMENT 2



TOP SOIL AND SOD BOULEVARD

FULL MOVEMENT ACCESS

PAINTED GORE AREA

REPURPOSE EXISTING EASTERNMOST NORTHBOUND RUNOUT LANE TO RIGHT TURN LANE

MARCH ROAD

0.1km MAXWELL BRIDGE ROAD

LIMIT OF PROJECT

1.80m CYCLE LANE WITH SOLID GREEN THERMOPLAST AT CROSSING

2.00m DEPRESSED CONCRETE SIDEWALK PER SC7.1

FULL DEPTH ROADWAY WIDENING FOR NORTHBOUND RIGHT TURN LANE AND CYCLING LANE

1.00m INNER BOULEVARD

CYCLING LANE EXTENSION

2.00m EXISTING CONCRETE SIDEWALK EXTENSION

PROPERTY LINE

FUTURE WIDENING

EXISTING LANE TERMINATION SHIFTED SOUTH OF NEW ACCESS AND RIGHT TURN LANE



TRANSPORTATION PLANNING DEPT.

LEPINE
910 MARCH ROAD

MARCH ROAD
MODIFICATIONS
INTERIM CONDITION

Transportation Engineering Services

Approved By:
TBD

Completed By:
CGH

Scale:
1:1000

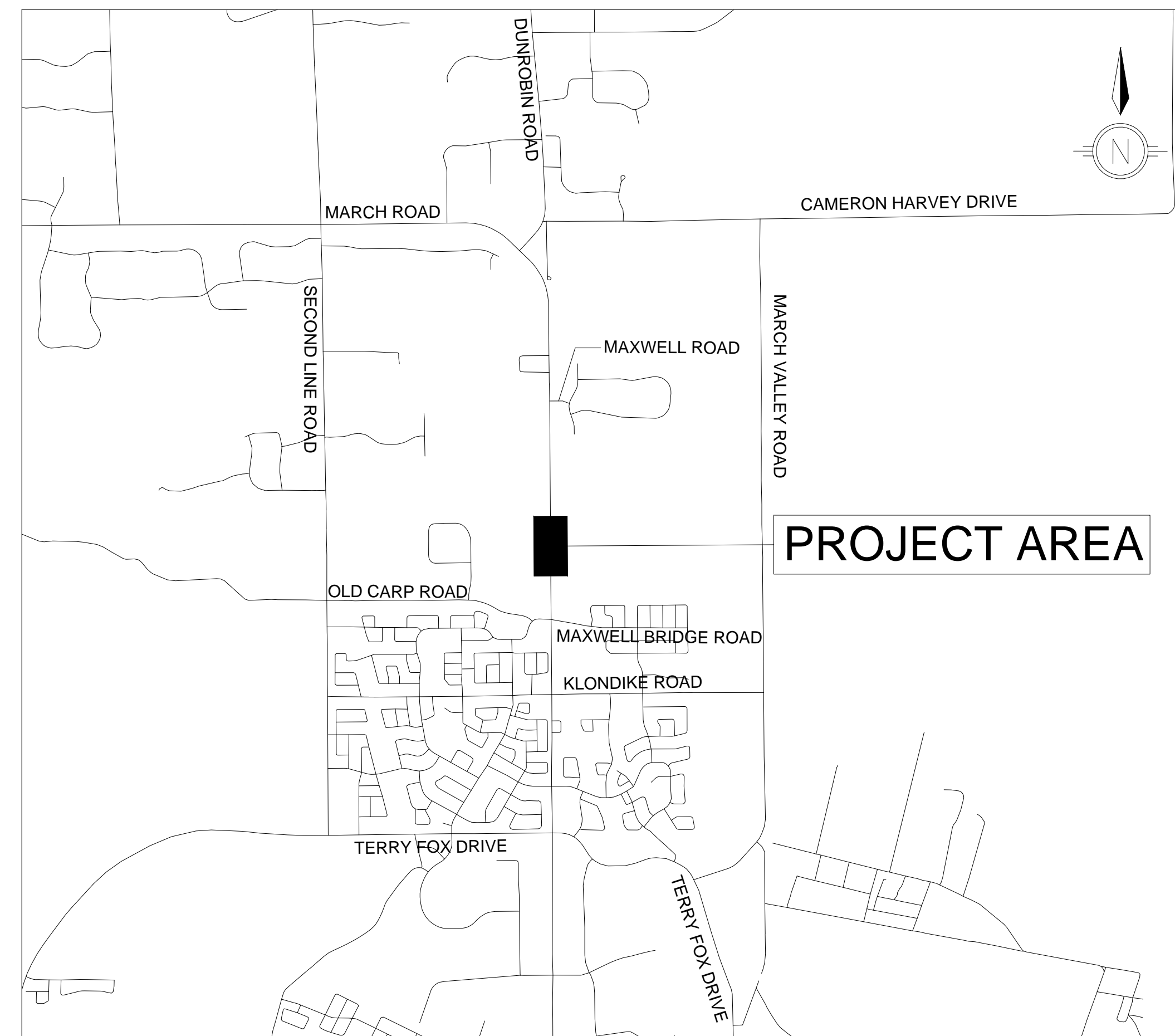
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JULY
2023

Drawing No.:

RMA-2022
-TES-###B



INFRASTRUCTURE SERVICES DEPARTMENT



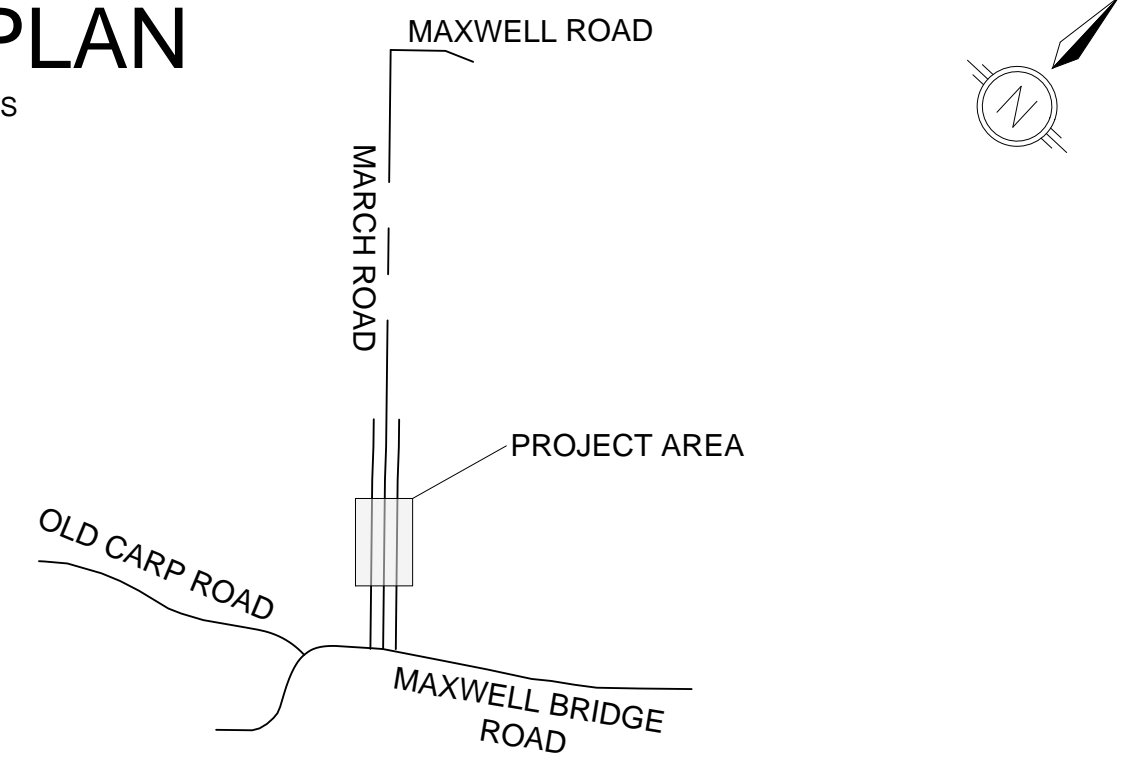
910 MARCH ROAD ROADWAY MODIFICATION INTERIM CONFIGURATION

CONTRACT NO. CP000XXX

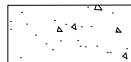



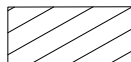

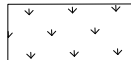
FUNCTIONAL DESIGN
NOT FOR CONSTRUCTION
JULY, 2023

KEY PLAN

NTS



LEGEND

-  CONCRETE SIDEWALK REINSTATEMENT
-  TACTILE WALKING SURFACE INDICATORS
-  FULL DEPTH ROAD STRUCTURE REINSTATEMENT & WIDENING
-  ASPHALT SHOULDER STRUCTURE
-  PARTIAL DEPTH ASPHALT REINSTATEMENT
-  GRANULAR SHOULDER
-  TOPSOIL AND SOD

910 MARCH ROAD
ROAD WIDENING



GEOMETRY & GENERAL LAYOUT
MARCH ROAD
STA 9+775 TO 9+960

Contract No. CP000XXX Dwg. No. G01
Sheet - of -

Asset No.

Asset Group



Des. B.B Chk'd. A.H

Dwn. B.B Chk'd. A.H

Utility Circ. No. Index No.

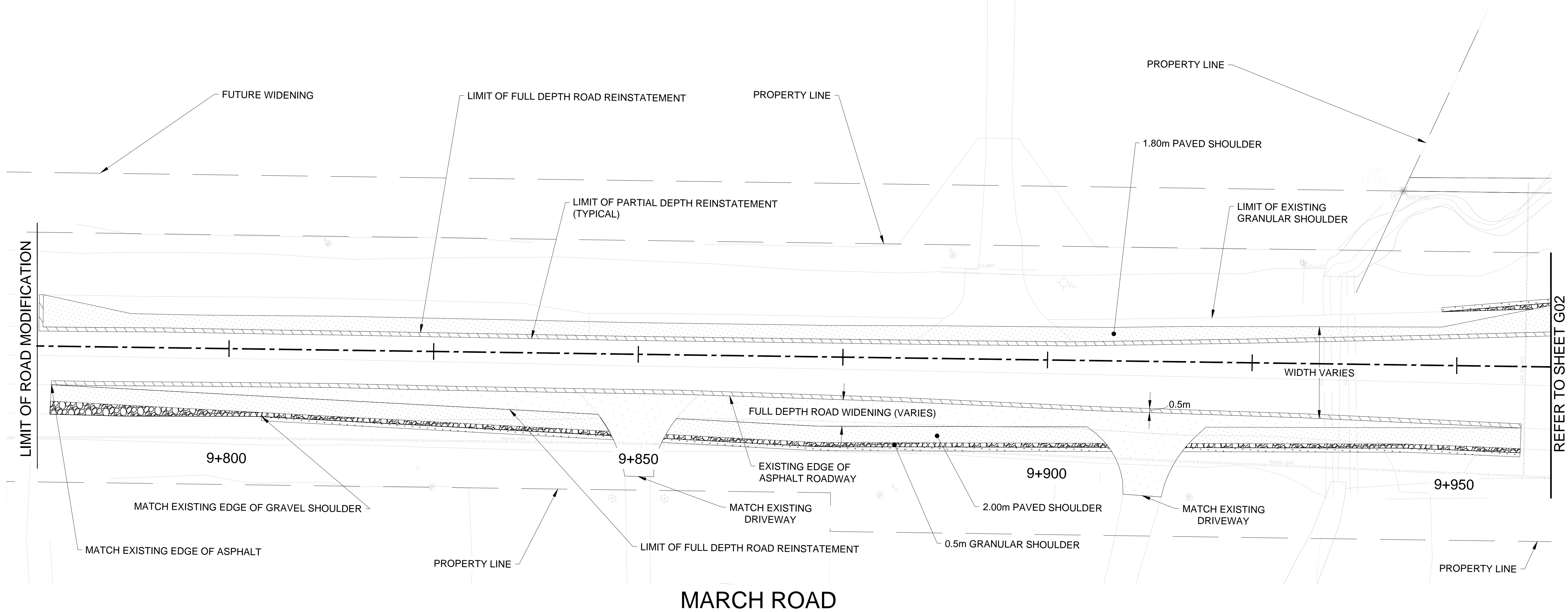
Const. Inspector

Scale: HORIZONTAL
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NOTE: The location of utilities is approximate only, the exact location should be determined by consulting the municipal authorities and utility companies concerned. The contractor shall prove the location of utilities and shall be responsible for adequate protection from damage.

No.	Description	By	Date (dd/mm/yy)
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2.	ISSUED FOR FUNCTIONAL DESIGN REVIEW	M.C	27/07/23

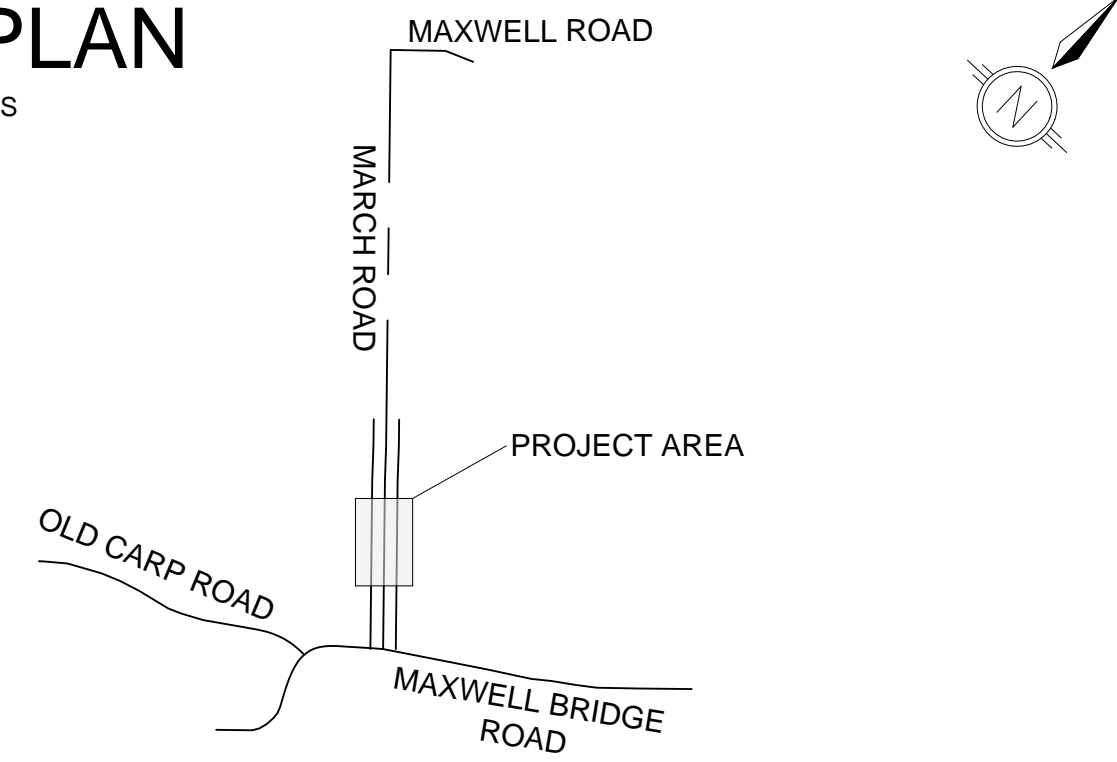
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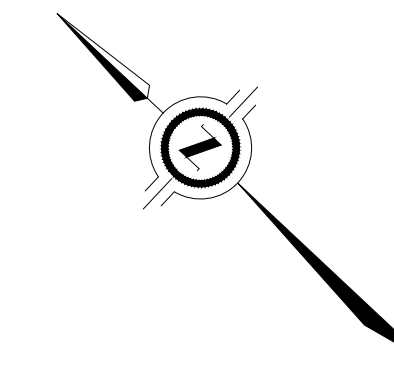
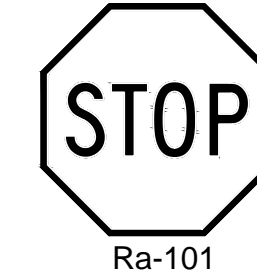
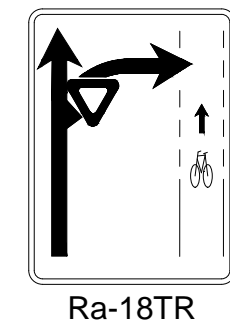
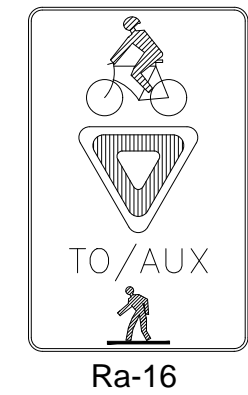
MARCH ROAD

KEY PLAN

NTS



SIGN LEGEND



910 MARCH ROAD
ROAD WIDENING



PAVEMENT MARKING AND SIGNAGE
MARCH ROAD
STA 9+775 TO 9+945

Contract No. CP000XXX Dwg. No. PMK01
Sheet - of -

Asset No.

Asset Group



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Dwn. B.B Chk'd. A.H

Utility Circ. No. Index No.

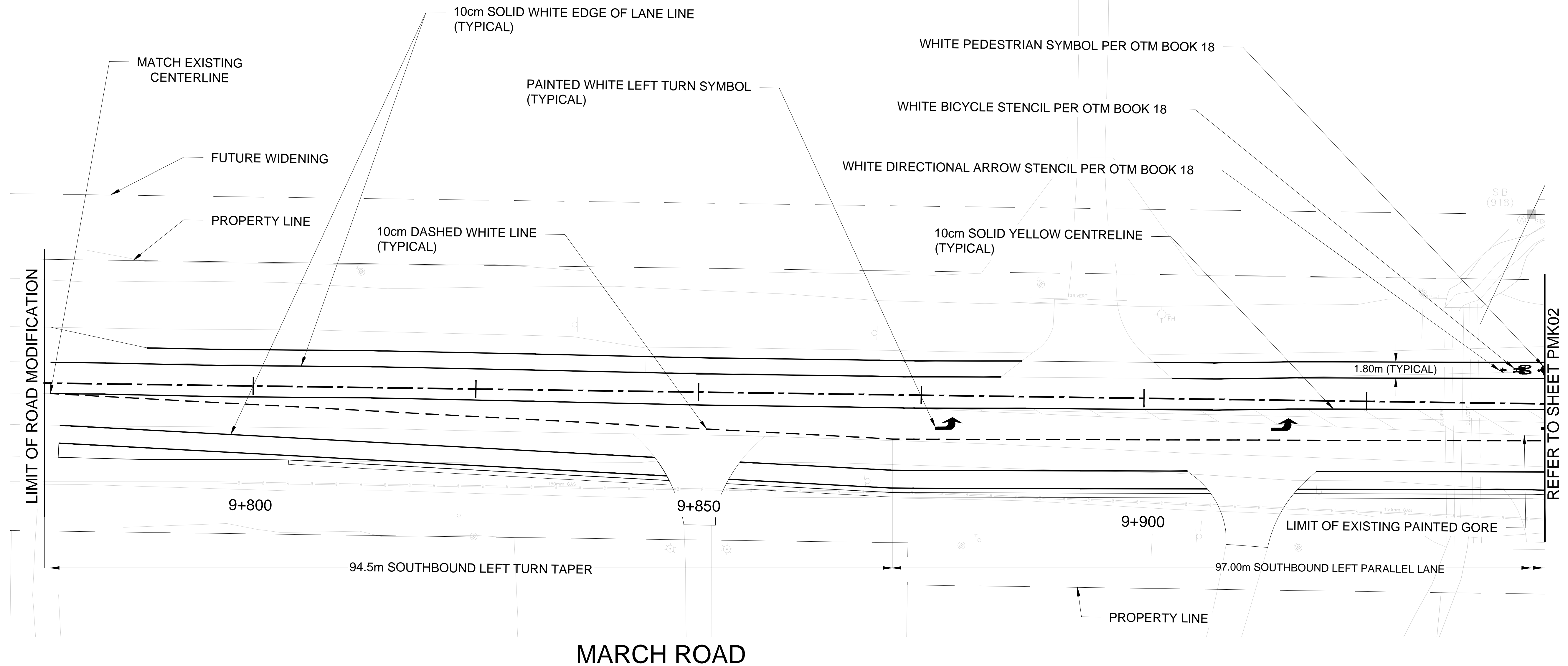
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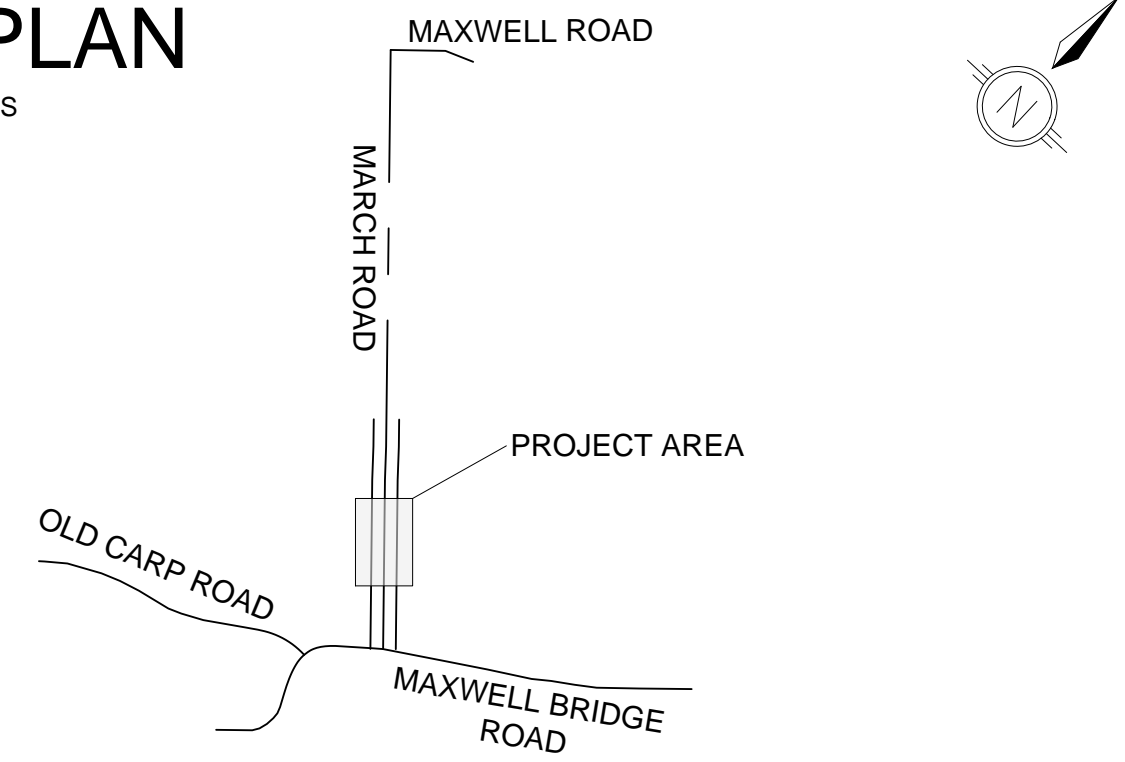
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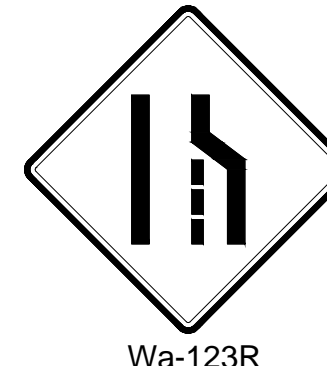
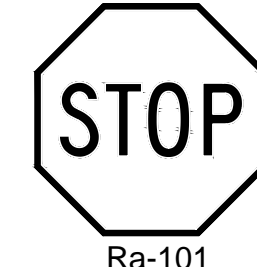
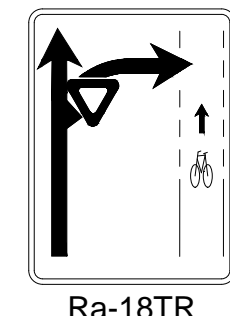
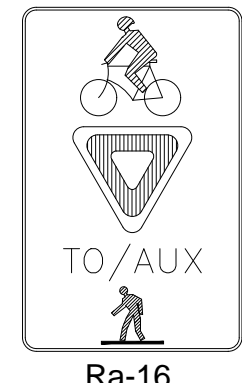
REFER TO SHEET PMK02

KEY PLAN

NTS



SIGN LEGEND



910 MARCH ROAD
ROAD WIDENING



PAVEMENT MARKING AND SIGNAGE
MARCH ROAD
STA 9+945 TO 10+100

Contract No. CP000XXX Dwg. No. PMK02
Sheet - of -

Asset No.

Asset Group



Des. B.B Chk'd. A.H

Dwn. B.B Chk'd. A.H

Utility Circ. No. Index No.

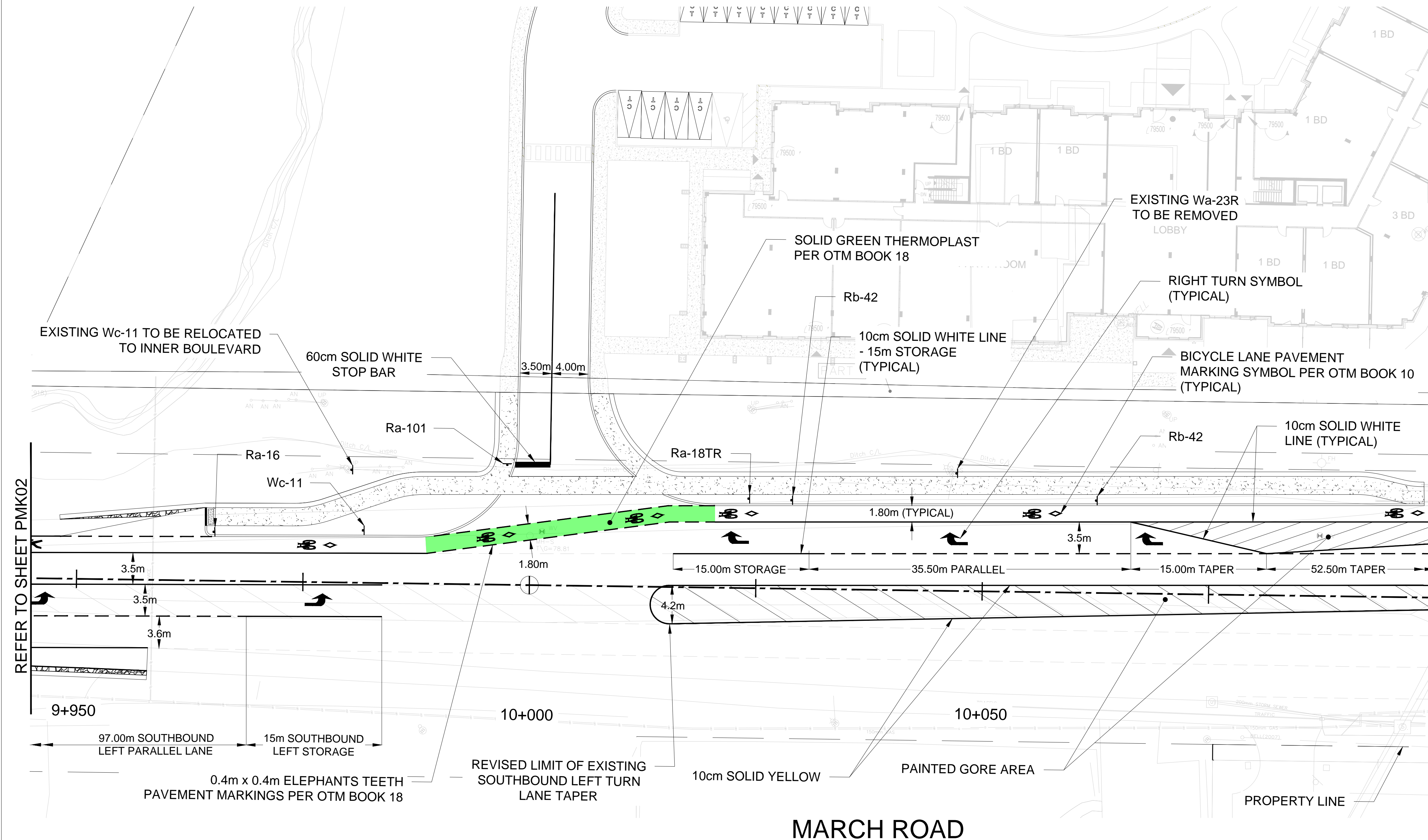
Const. Inspector

Scale: HORIZONTAL
0m 5 10

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FUNCTIONAL DESIGN
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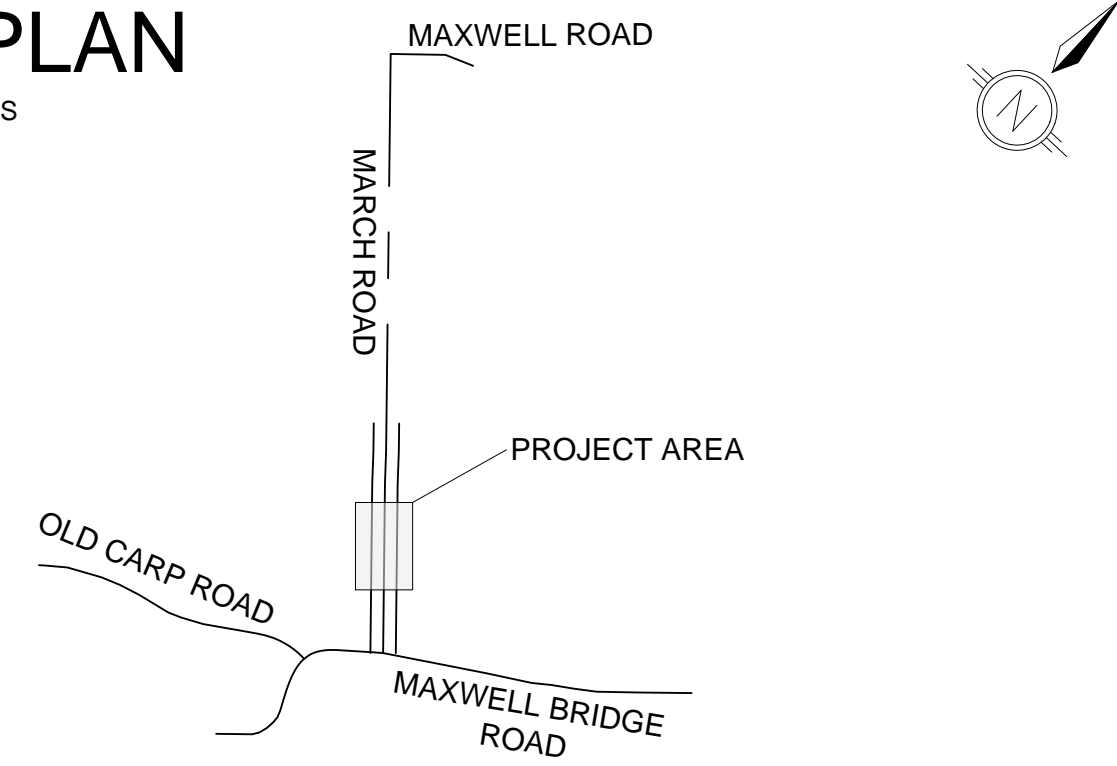


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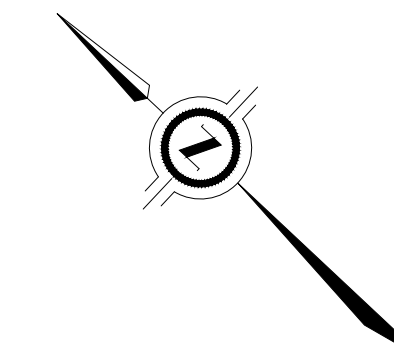
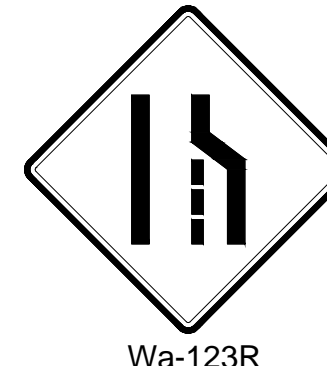
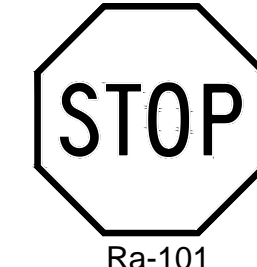
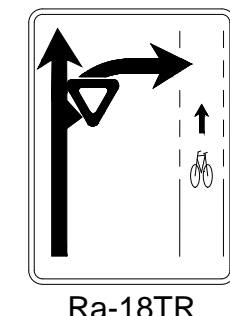
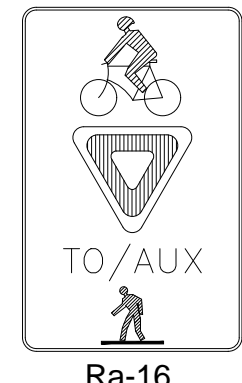
MARCH ROAD

KEY PLAN

NTS



SIGN LEGEND



910 MARCH ROAD
ROAD WIDENING



PAVEMENT MARKING AND SIGNAGE
MARCH ROAD
STA 10+100 TO 10+200

Contract No. CP000XXX Dwg. No. PMK03
Sheet - of -

Asset No.

Asset Group



Des. B.B Chk'd. A.H

Dwn. B.B Chk'd. A.H

Utility Circ. No. Index No.

Const. Inspector

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0m 5 10

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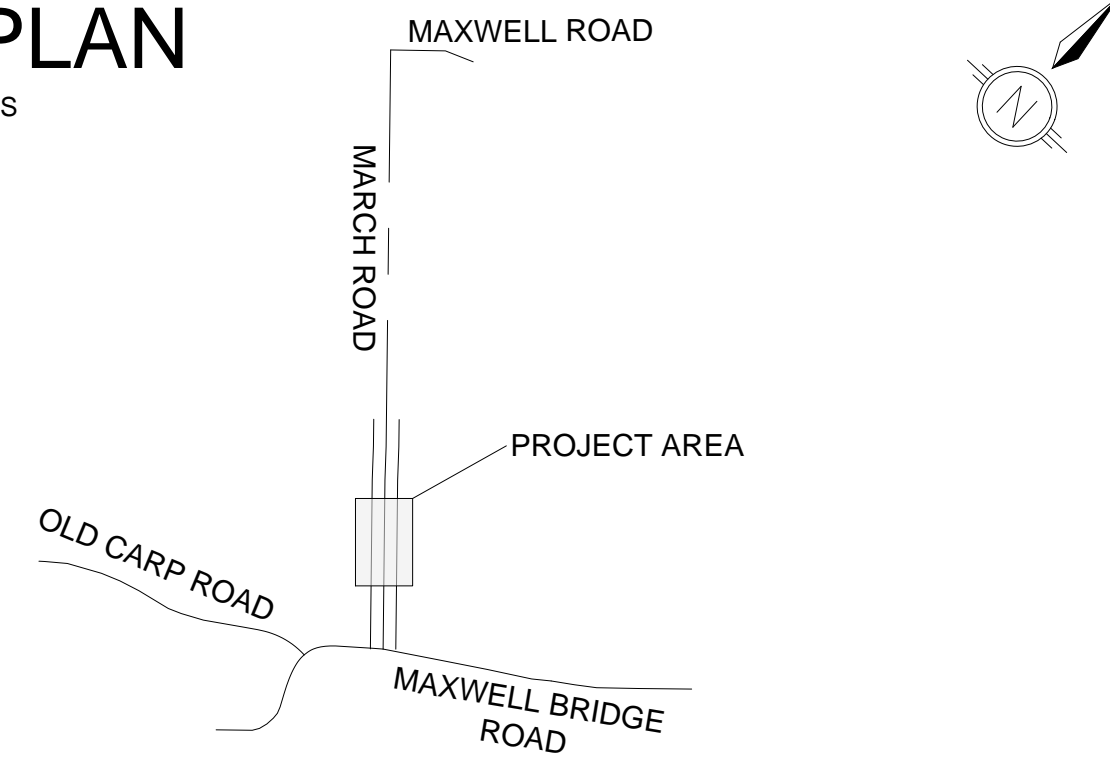
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NOT FOR CONSTRUCTION



REFER TO SHEET PMK02

KEY PLAN

NTS



910 MARCH ROAD
ROAD WIDENING



HSU DESIGN VEHICLE
TURNING MOVEMENT ANALYSIS
NEW SITE ACCESS

Contract No. CP000XXX Dwg. No. TT01
Sheet - of -

Asset No.

Asset Group



Des. B.B Chk'd. A.H

Dwn. B.B Chk'd. A.H

Utility Circ. No. Index No.

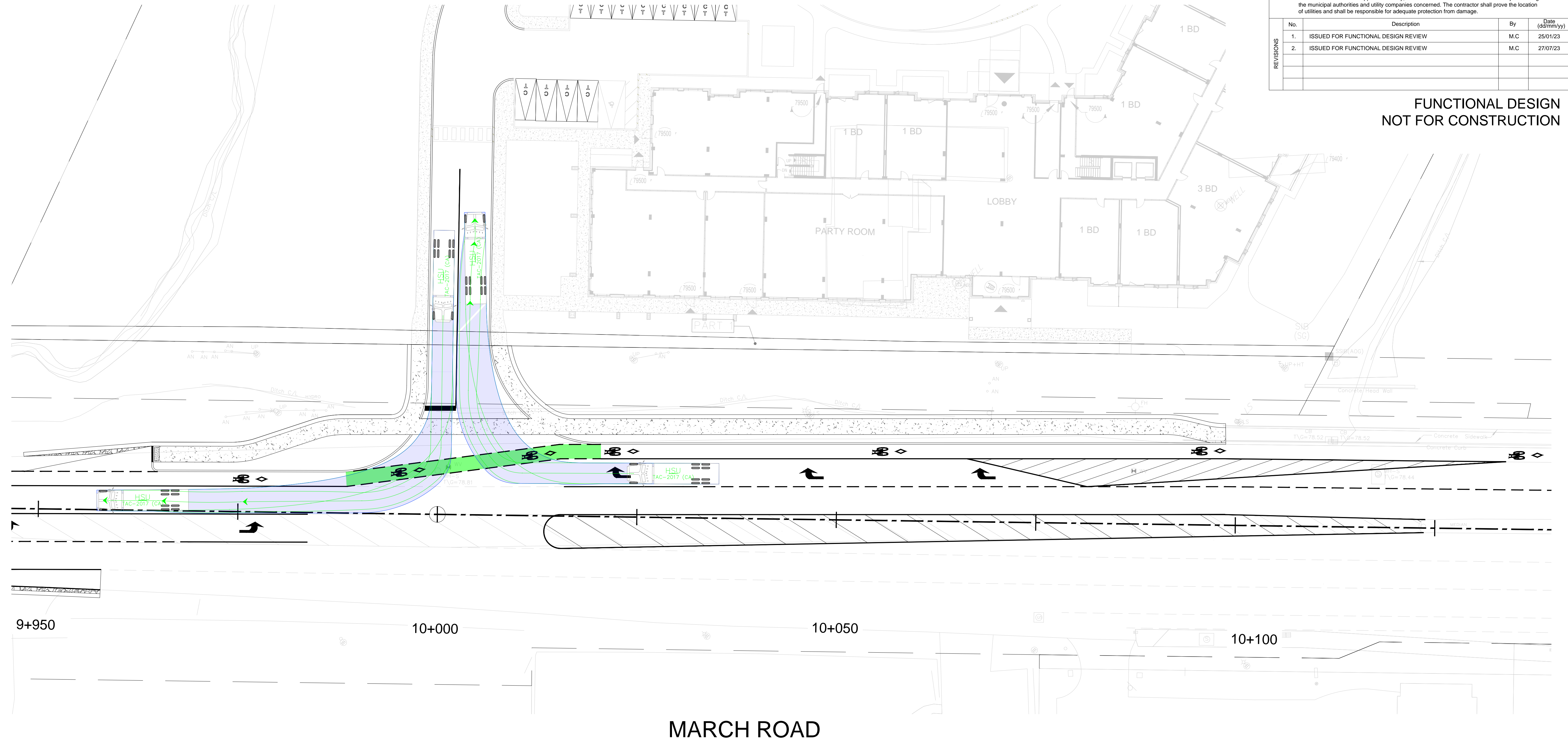
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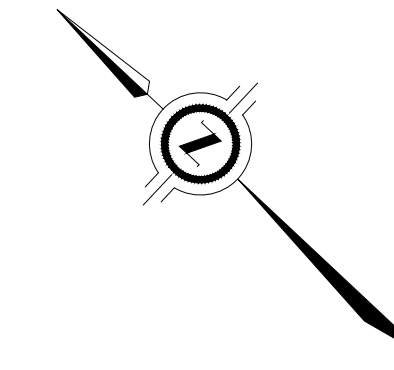
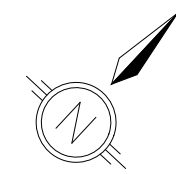
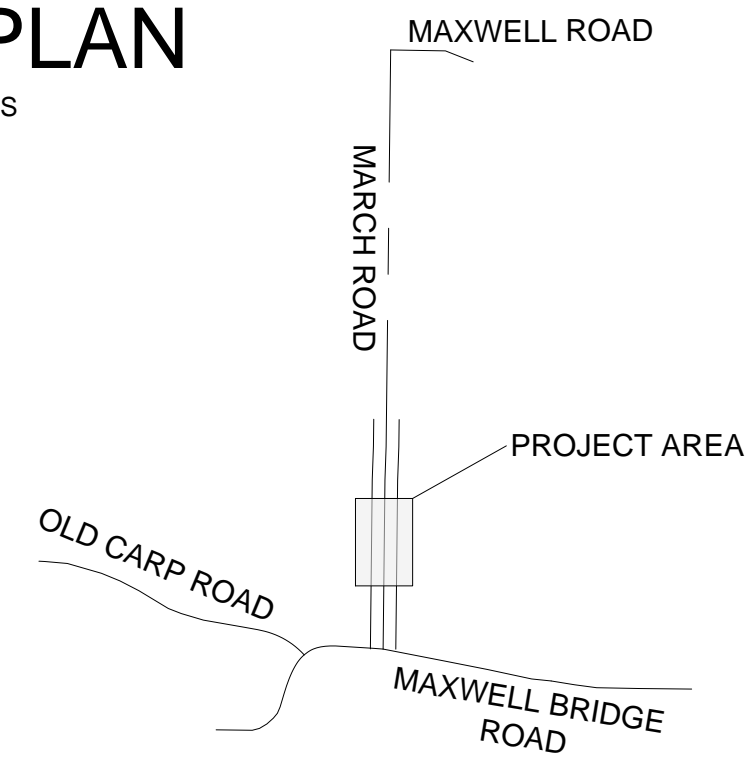
**FUNCTIONAL DESIGN
NOT FOR CONSTRUCTION**



MARCH ROAD

KEY PLAN

NTS



910 MARCH ROAD
ROAD WIDENING



HSU DESIGN VEHICLE
TURNING MOVEMENT ANALYSIS
NEW SITE ACCESS

Contract No. CP000XXX Dwg. No. TT02
Sheet - of -

Asset No.

Asset Group



Des. B.B Chk'd. A.H

Dwn. B.B Chk'd. A.H

Utility Circ. No. Index No.

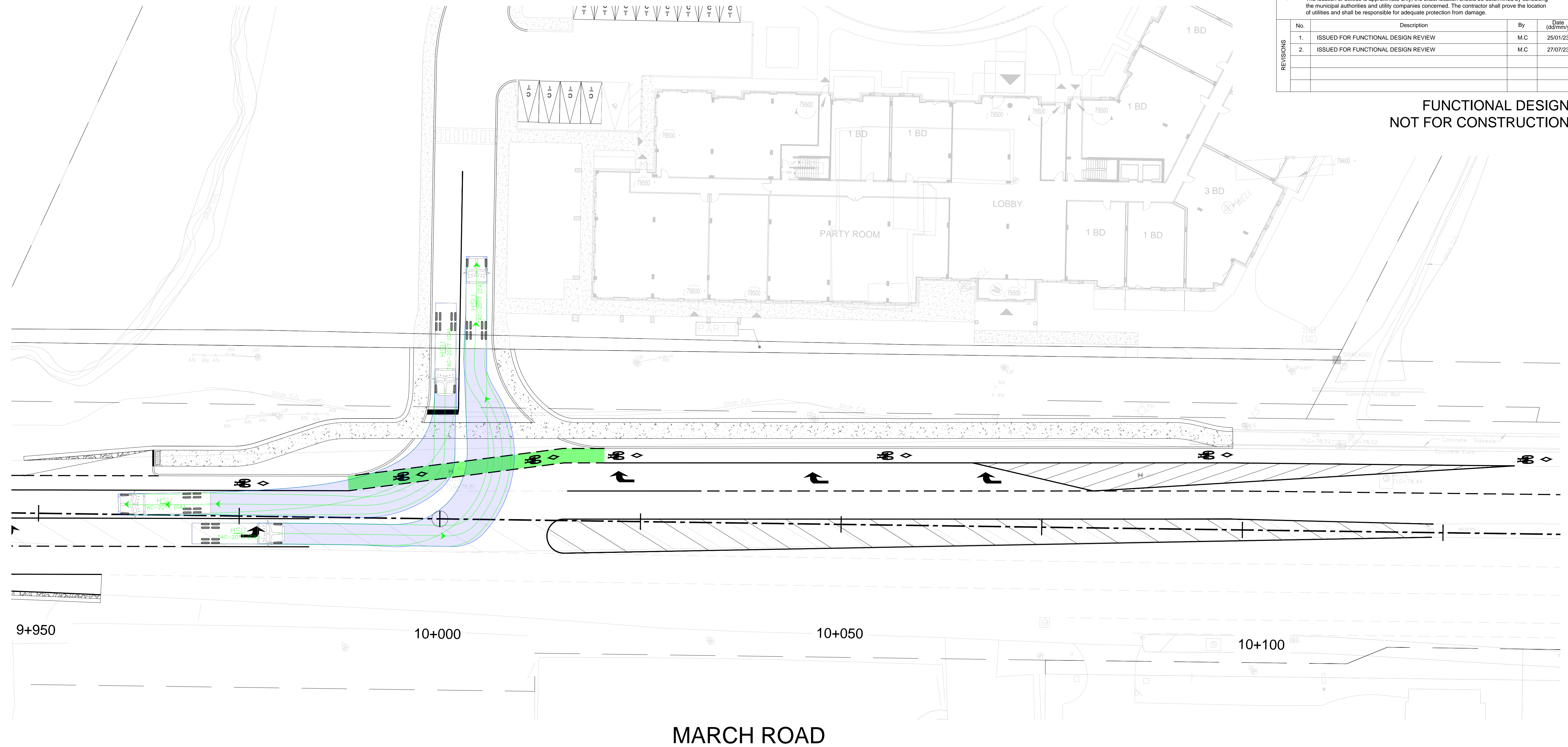
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**FUNCTIONAL DESIGN
NOT FOR CONSTRUCTION**



MARCH ROAD

910 March Road
Intersection Modification Construction Costs
Interim Condition
Class 'D' Cost Estimate
2023-07-27



RMA-20XX-TPD-XX

Item	Description		Amount
10	Construction		\$ 478,390.82
10.00	Construction - General		\$ 4,500.00
10.01	Excavation and Removals		\$ 130,211.26
10.02	Concrete		\$ 90,167.88
10.03	Pavement Structure		\$ 193,133.44
10.04	Landscaping		\$ 7,493.28
10.05	Pavement Marking		\$ 5,750.00
10.06	Storm Sewer		\$ 45,734.96
10.07	Signage		\$ 1,400.00
20	Engineering and Architectural Services	15%	\$ 71,758.62
30	Contract Administration Fees (If Required)	10%	\$ 47,839.08
	Sub Total		\$ 597,988.53
40	Contingency	15%	\$ 71,758.62
	GRAND TOTAL		\$ 669,747.15

910 March Road
Intersection Modification Construction Costs
Interim Condition
Class 'D' Cost Estimate
2023-07-27



Item No.	Item Code	Description	Quantity	Units	Unit Price	Amount
10.00		Construction General				
	A020.01	Traffic Control Plan (includes Police assistance)	1	LS	\$ 3,500.00	\$ 3,500.00
	A030.01	Construction Site Pedestrian Control Plan	1	LS	\$ 1,000.00	\$ 1,000.00
10.01		Excavation and Removals				
	L040.35	Saw Cutting of Asphalt	1260	m	\$ 13.63	\$ 17,172.03
	L040.37	Remove Asphalt Pavement by Dry Grinding	254	m ²	\$ 103.17	\$ 26,205.18
	L040.38	Remove Asphalt Pavement - Full Depth (Stripping)	732	m ²	\$ 42.74	\$ 31,265.59
	L120.01	Earth Excavation (Includes stripping, Duct and Foundation Removals)	1849	m ³	\$ 30.05	\$ 55,568.46
10.02		Concrete				
	L260.01	Concrete Barrier Curb as per SC1.1	148	m	\$ 160.65	\$ 23,708.73
	L250.06	Concrete Sidewalks, Boulevards and Islands	308	m ²	\$ 211.74	\$ 65,110.05
	L250.11	TWSI	1	m ²	\$ 1,309.81	\$ 1,349.10
10.03		Pavement Structure				
	L380.20	Superpave 12.5mm (50mm Depth)	215	t	\$ 341.39	\$ 73,398.85
	L390.05	Superpave 19.0mm (70mm Depth)	145	t	\$ 226.39	\$ 32,715.62
	L210.01	Granular 'A' (150mm Depth)	880	t	\$ 41.90	\$ 36,872.00
	L210.03	Granular 'B', Type II (450mm Depth)	1206	t	\$ 28.89	\$ 34,827.47
	L190.09	Geotextile	650	m ²	\$ 2.67	\$ 1,735.50
	-	Clean Fill	960	m ³	\$ 14.15	\$ 13,584.00
10.04		Landscaping				
	T020.03	Top Soil, Imported (150mm Thick)	5	m ³	\$ 91.84	\$ 413.28
	T030.05	Sod, Including Watering	300	m ²	\$ 23.60	\$ 7,080.00
10.05		Pavement Markings				
	-	Pavement Markings [Provisional]	1	LS	\$ 5,750.00	\$ 5,750.00
10.06		Storm Sewer				
	F010.05	Subdrains (includes connections)	148	m	\$ 41.93	\$ 6,205.64
	F040.01	600mm x 600mm PCC Catch Basin	4	ea	\$ 5,557.85	\$ 22,231.40
	F060.02	200mm dia. PVC Catch Basin Leads	32	m	\$ 540.56	\$ 17,297.92
10.07		Signage				
		Ra-101	1	ea	\$ 400.00	\$ 400.00
		Ra-16	1	ea	\$ 150.00	\$ 150.00
		Ra-18TR	1	ea	\$ 150.00	\$ 150.00
		Rb-42	2	ea	\$ 150.00	\$ 300.00
		Wa-123R	1	ea	\$ 400.00	\$ 400.00
Total						\$ 478,390.82