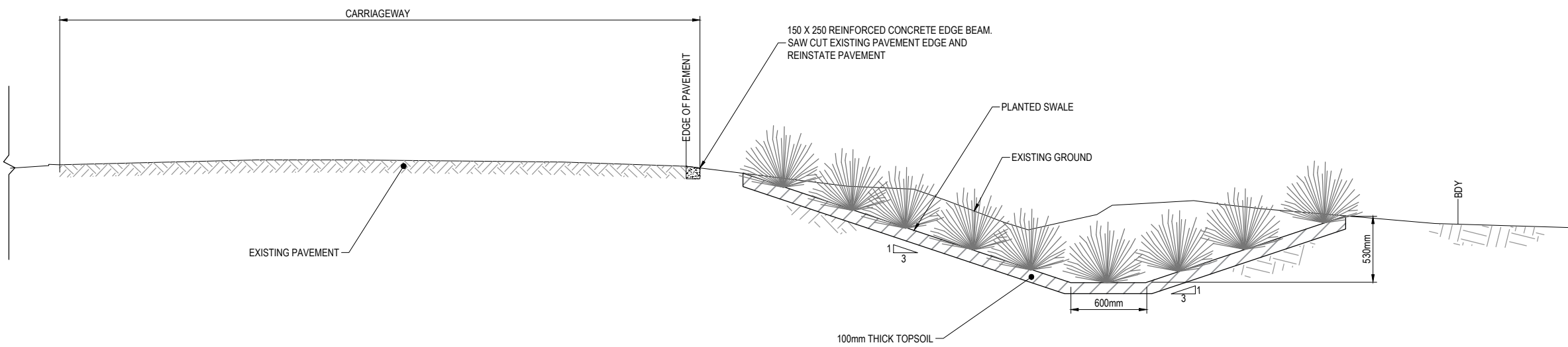


LEGEND:	
PROPERTY BOUNDARY	---
EXISTING STORMWATER	SW
EXISTING WASTEWATER	SS
EXISTING RISING MAIN	RM
EXISTING OVERHEAD POWER	OH
EXISTING UNDERGROUND POWER	UG
EXISTING TELECOM	T
EXISTING WATER	W
EXISTING DRAIN	---
EXISTING POWERPOLE	●
NEW REINFORCED CONCRETE DRIVEWAY	▨
GRATED DRAIN	---
WATERMAIN DIVERSION	W
PROPOSED KERB	---
EXISTING PIPE TO BE DEMOLISHED	W
EXISTING SW PIPE TO BE DEMOLISHED	SW
EXISTING FENCE	---
SCRUFFY DOME	⊙
PROPOSED STORMWATER	SW
PROPOSED SWALE	---
PROPOSED CULVERT	▬



A TYPICAL SWALE CROSS SECTION
SCALE 1:20

- NOTES:**
- ALLOW FOR RELOCATION OF WATER MAIN AND RECONNECTION TO EXISTING PROPERTIES
 - REMOVE AND DISPOSE ALL EXISTING DRIVEWAY CULVERTS
 - ALL DRIVEWAYS TO BE REINSTATED WITH 20 MPa REINFORCED CONCRETE
 - RIPRAP SCOUR PROTECTION TO BE PLACED AT ALL INLETS
 - EXTEND KERB AT BOW STREET RETURN. SAW CUT AS REQUIRED AND REINSTATE PAVEMENT
 - LOCATION, TYPE, SIZE AND DEPTH OF EXISTING SERVICES IS APPROXIMATE ONLY TO BE CONFIRMED ON SITE PRIOR TO CONSTRUCTION

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NOT FOR CONSTRUCTION

No.	Revision	By	Chk	Appd	Date



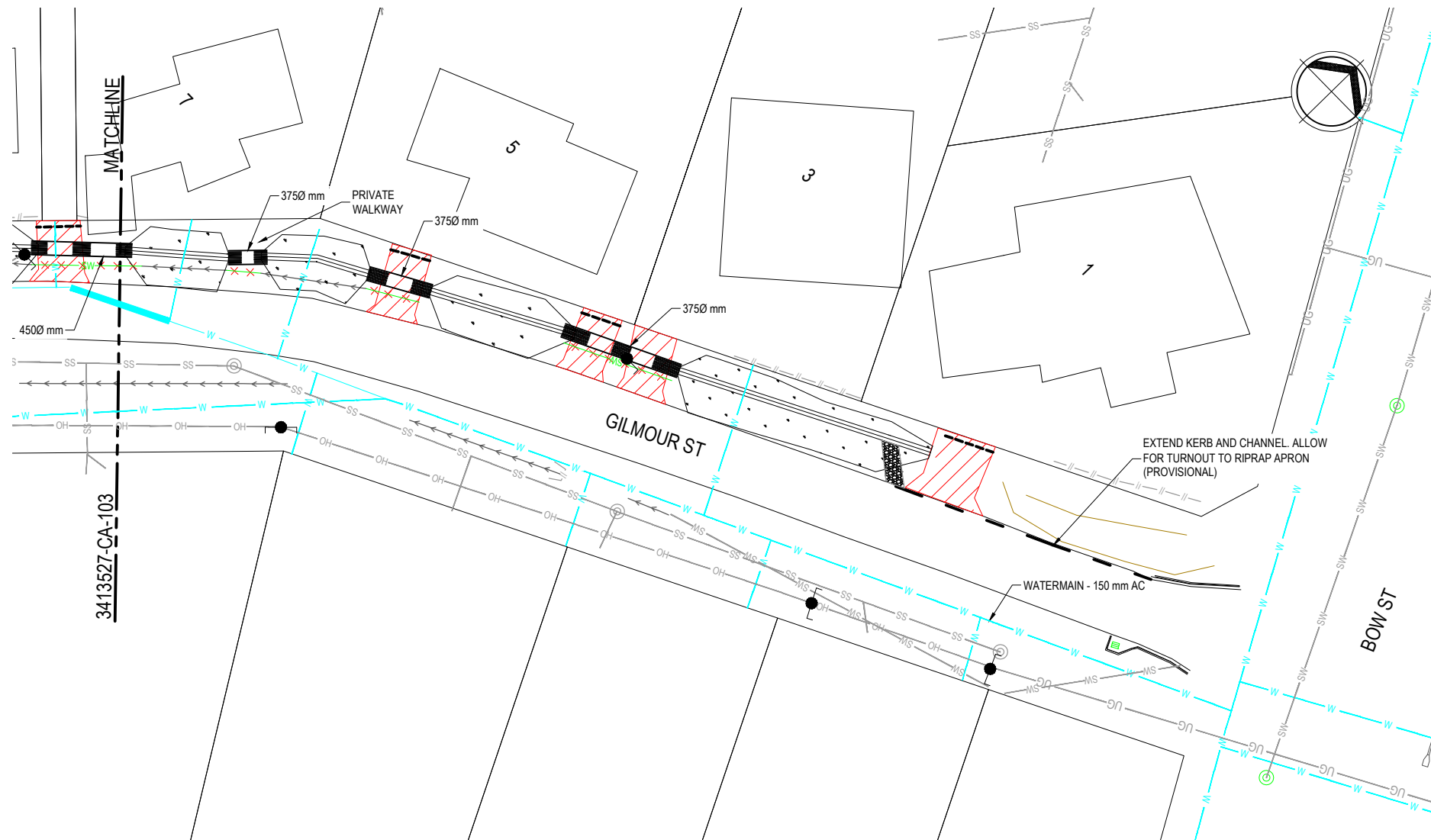
Original Scale (A1) 1:250	Design	Approved For Construction*
Reduced Scale (A3) 1:500	Drawn	Date
	Design Verifier	
	Design Check	
	* Refer to Revision 1 for Original Signature	



Project: **RAGLAN STORMWATER GILMOUR STREET STORMWATER UPGRADE PHASE 1**

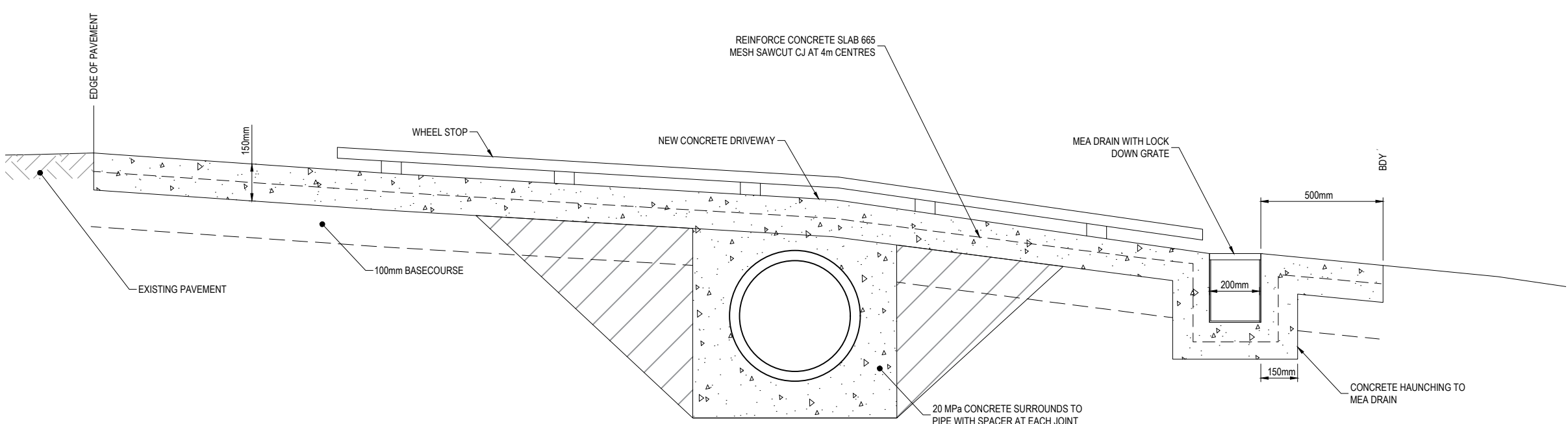
Title: **OPTION 1 PLAN SHEET 1 OF 2**

Discipline	CIVIL ENGINEERING
Drawing No.	3413527-CA-103
Rev.	A



LEGEND:

- PROPERTY BOUNDARY
- EXISTING STORMWATER
- EXISTING WASTEWATER
- EXISTING RISING MAIN
- EXISTING OVERHEAD POWER
- EXISTING UNDERGROUND POWER
- EXISTING TELECOM
- EXISTING WATER
- EXISTING DRAIN
- EXISTING POWERPOLE
- NEW REINFORCED CONCRETE DRIVEWAY
- GRATED DRAIN
- WATERMAIN DIVERSION
- PROPOSED KERB
- EXISTING PIPE TO BE DEMOLISHED
- EXISTING SW PIPE TO BE DEMOLISHED
- EXISTING FENCE
- SCRUFFY DOME
- PROPOSED STORMWATER
- PROPOSED SWALE
- PROPOSED CULVERT



B TYPICAL DRIVEWAY CROSS SECTION
103 SCALE 1:10

- NOTES:**
- ALLOW FOR RELOCATION OF WATER MAIN AND RECONNECTION TO EXISTING PROPERTIES
 - REMOVE AND DISPOSE ALL EXISTING DRIVEWAY CULVERTS
 - ALL DRIVEWAYS TO BE REINSTATED WITH 20 MPa REINFORCED CONCRETE
 - RIPRAP SCOUR PROTECTION TO BE PLACED AT ALL INLETS
 - EXTEND KERB AT BOW STREET RETURN. SAW CUT AS REQUIRED AND REINSTATE PAVEMENT LOCATION, TYPE, SIZE AND DEPTH OF EXISTING SERVICES IS APPROXIMATE ONLY TO BE CONFIRMED ON SITE PRIOR TO CONSTRUCTION

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No.	Revision	By	Chk	Appd	Date



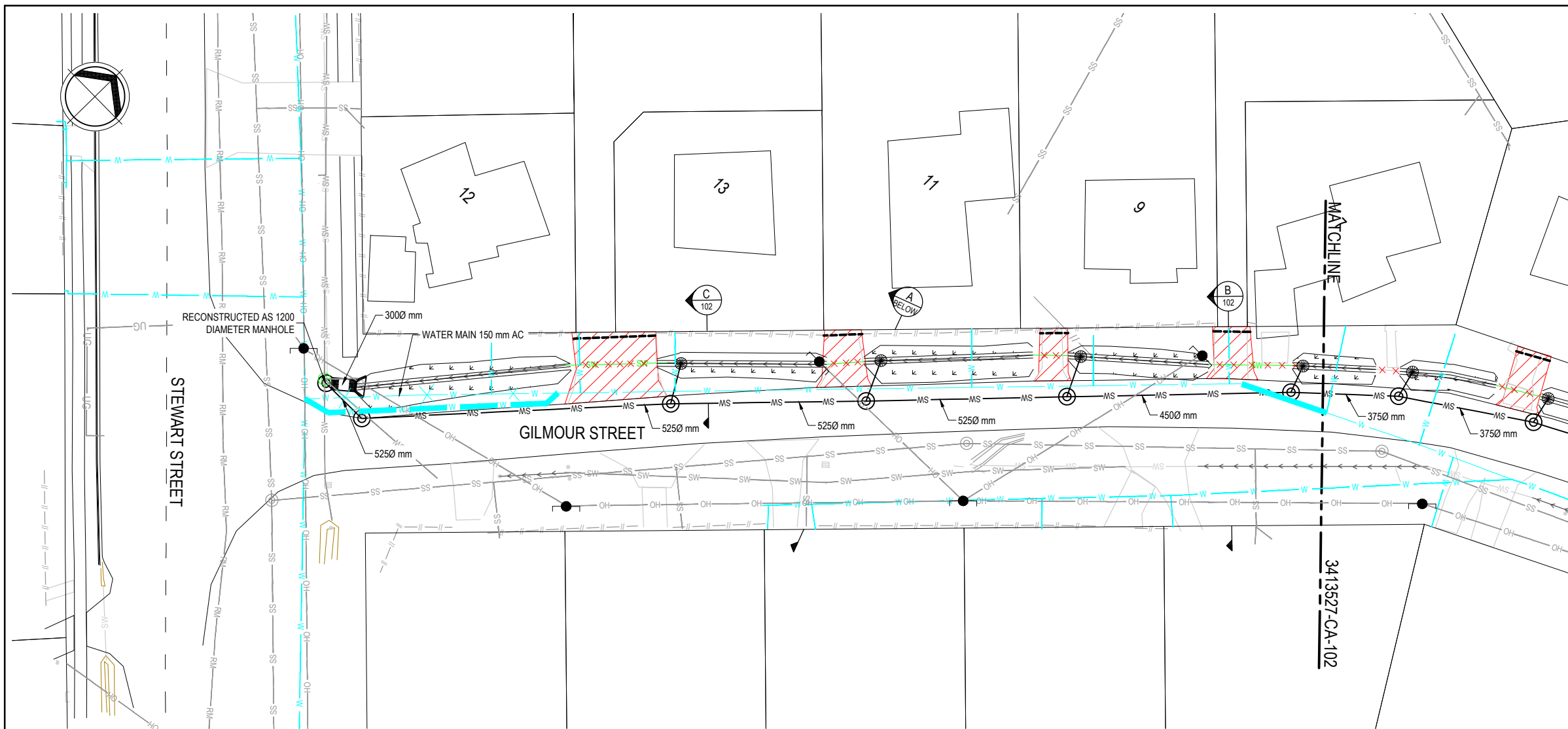
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Reduced Scale (A3) 1:500	Design Verifier Dwg Check	Date
* Refer to Revision 1 for Original Signature		



Project: RAGLAN STORMWATER
GILMOUR STREET
STORMWATER UPGRADE PHASE 1

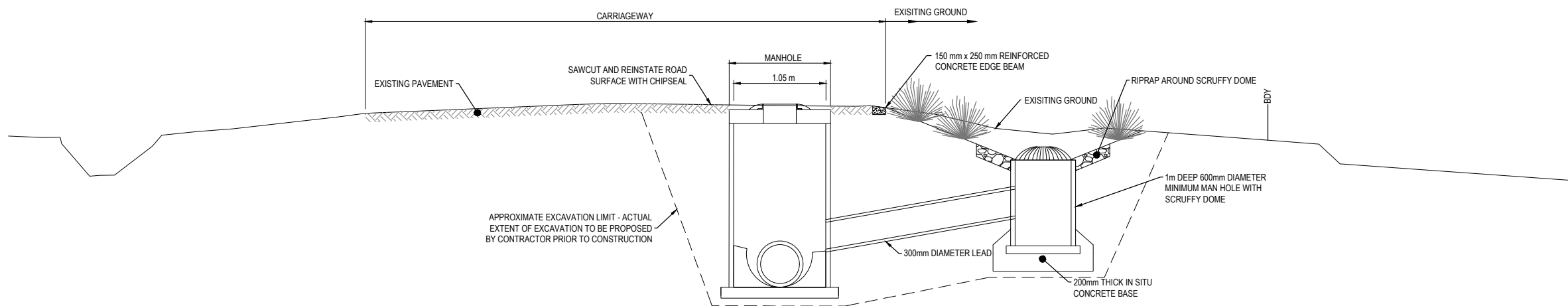
Title: OPTION 1 PLAN
SHEET 2 OF 2

Discipline CIVIL ENGINEERING	Rev. A
Drawing No. 3413527-CA-104	



LEGEND:

- PROPERTY BOUNDARY ————
- EXISTING STORMWATER — SW ————
- EXISTING WASTEWATER — SS ————
- EXISTING RISING MAIN — RM ————
- EXISTING OVERHEAD POWER — OH ————
- EXISTING UNDERGROUND POWER — UG ————
- EXISTING TELECOM — T ————
- EXISTING WATER — W ————
- EXISTING DRAIN ————
- EXISTING POWERPOLE ————
- NEW REINFORCED CONCRETE DRIVEWAY [Red hatched box symbol]
- GRATED DRAIN ————
- WATERMAIN DIVERSION [Blue line with 'W' symbol]
- PROPOSED KERB ————
- EXISTING PIPE TO BE DEMOLISHED [Blue line with 'X' symbol]
- EXISTING SW PIPE TO BE DEMOLISHED [Green line with 'X' symbol]
- EXISTING FENCE ————
- SCRUFFY DOME [Circular dome symbol]
- PROPOSED STORMWATER — SW ————
- PROPOSED SWALE [Trapezoidal symbol]
- PROPOSED CULVERT [Rectangular symbol]



A TYPICAL CATCHPIT CROSS SECTION
SCALE 1:20

- NOTES:**
- ALLOW FOR RELOCATION OF WATER MAIN AND RECONNECTION TO EXISTING PROPERTIES
 - REMOVE AND DISPOSE ALL EXISTING DRIVEWAY CULVERTS
 - ALL DRIVEWAYS TO BE REINSTATED WITH 20 MPa REINFORCED CONCRETE
 - RIPRAP SCOUR PROTECTION TO BE PLACED AT ALL INLETS
 - EXTEND KERB AT BOW STREET RETURN. SAW CUT AS REQUIRED AND REINSTATE PAVEMENT LOCATION, TYPE, SIZE AND DEPTH OF EXISTING SERVICES IS APPROXIMATE ONLY TO BE CONFIRMED ON SITE PRIOR TO CONSTRUCTION

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No.	Revision	By	Chk	Appd	Date
A	FOR INFORMATION				



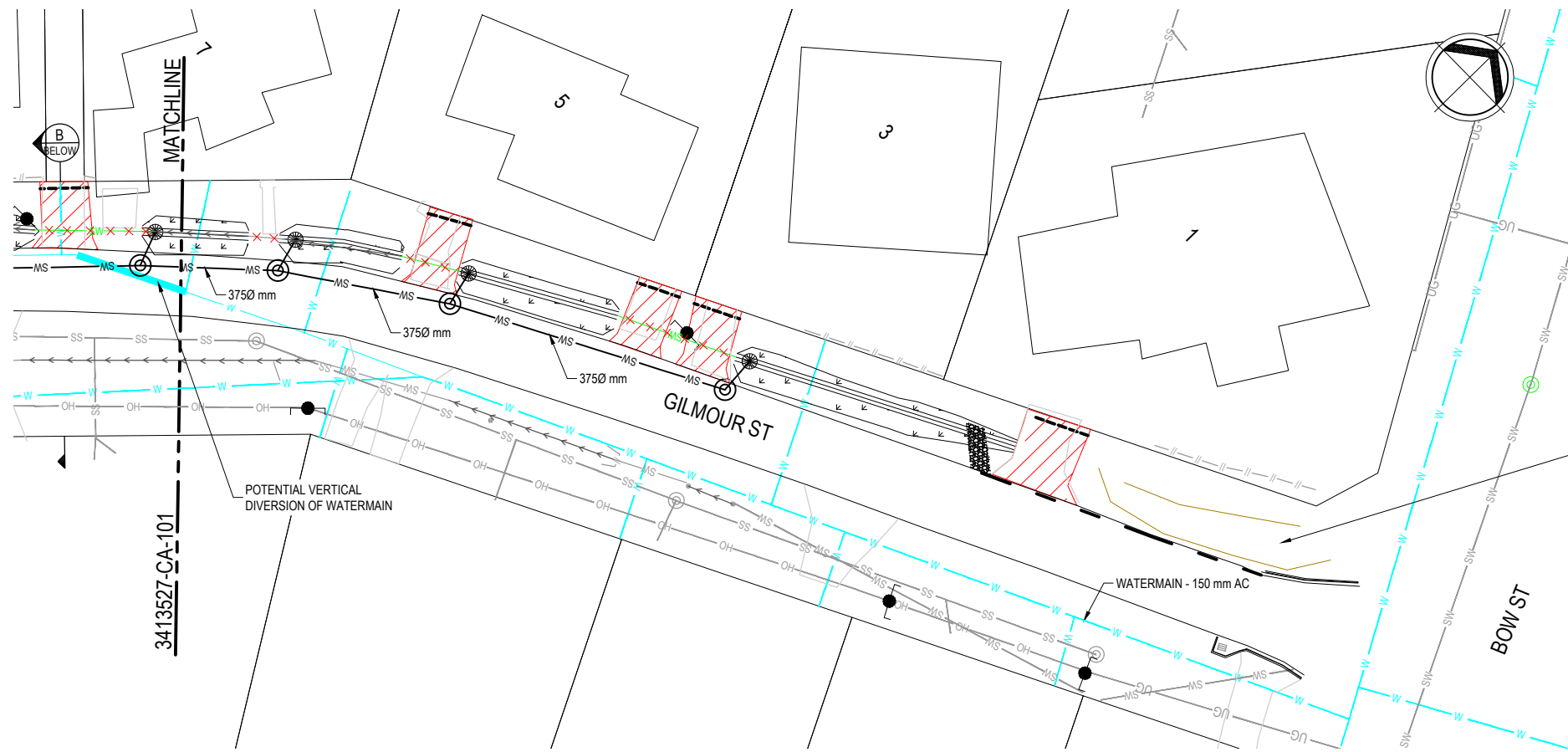
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1:250	Drawn	Date
Reduced Scale (A3)	Design Verifier	
1:500	Design Check	
	* Refer to Revision 1 for Original Signature	



Client: **Waikato District Council**
Project: **RAGLAN STORMWATER GILMOUR STREET STORMWATER UPGRADE PHASE 1**

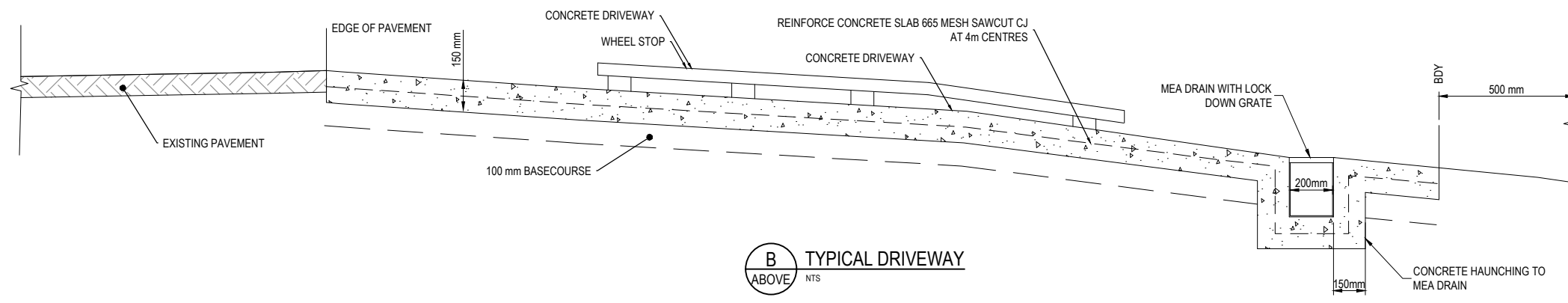
Title: **OPTION 2 PLAN SHEET 1 OF 2**

Discipline	CIVIL ENGINEERING
Drawing No.	3413527-CA-101
Rev.	A

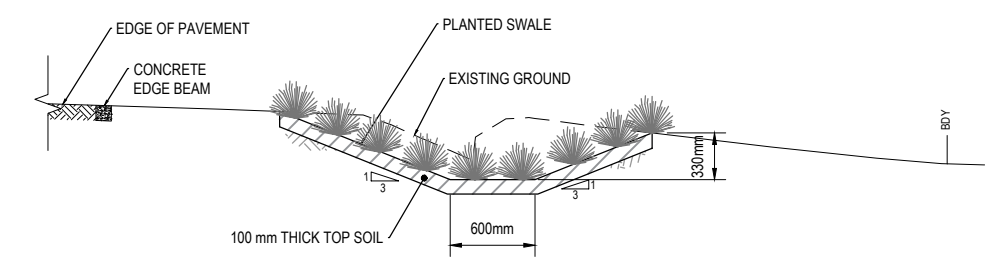


LEGEND:

PROPERTY BOUNDARY	—	
EXISTING STORMWATER	— SW —	⊙
EXISTING WASTEWATER	— SS —	⊙
EXISTING RISING MAIN	— RM —	
EXISTING OVERHEAD POWER	— OH —	
EXISTING UNDERGROUND POWER	— UG —	
EXISTING TELECOM	— T —	
EXISTING WATER	— W —	
EXISTING DRAIN	—	→
EXISTING POWERPOLE		●
NEW REINFORCED CONCRETE DRIVEWAY		▨
GRATED DRAIN		—
WATERMAIN DIVERSION	— W —	— W —
PROPOSED KERB		—
EXISTING PIPE TO BE DEMOLISHED		— X —
EXISTING SW PIPE TO BE DEMOLISHED		— X SW X —
EXISTING FENCE		—
SCRUFFY DOME		⊙
PROPOSED STORMWATER	— SW —	⊙
PROPOSED SWALE		—
PROPOSED CULVERT		—



B TYPICAL DRIVEWAY
ABOVE NTS



C TYPICAL SWALE CROSS SECTION
ABOVE NTS

NOTES:

1. ALLOW FOR RELOCATION OF WATER MAIN AND RECONNECTION TO EXISTING PROPERTIES
2. REMOVE AND DISPOSE ALL EXISTING DRIVEWAY CULVERTS
3. ALL DRIVEWAYS TO BE REINSTATED WITH 20 MPa REINFORCED CONCRETE
4. RIPRAP SCOUR PROTECTION TO BE PLACED AT ALL INLETS
5. EXTEND KERB AT BOW STREET RETURN. SAW CUT AS REQUIRED AND REINSTATE PAVEMENT LOCATION, TYPE, SIZE AND DEPTH OF EXISTING SERVICES IS APPROXIMATE ONLY TO BE CONFIRMED ON SITE PRIOR TO CONSTRUCTION

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No.	Revision	By	Chk	Appd	Date



Original Scale (A1) 1:250	Design Drawn	Approved For Construction*
Reduced Scale (A3) 1:500	Design Verifier	Date
	Design Check	

* Refer to Revision 1 for Original Signature



Project: **RAGLAN STORMWATER GILMOUR STREET STORMWATER UPGRADE PHASE 1**

Title: **OPTION 2 PLAN SHEET 2 OF 2**

Discipline	CIVIL ENGINEERING
Drawing No.	3413527-CA-102
Rev.	A