

LEGEND

PROPOSED PROPERTY BOUNDARIES

PROPOSED STAGE BOUNDARY

NEW POTABLE WATER RETICULATION MAIN

EXISTING WATER MAIN

Joins Plan P15

Revisions	Date
B Stages 4 & 8 DA	Oct 11
A Original issue	

BAKER ROSSOW

CONSULTING ENGINEERS

136 HERRIES STREET
PO BOX 1382
TOOWOOMBA
QLD 4350
PH.: 07 4638 5655
FAX.: 07 4638 3558
EMAIL: mail@bakertrossow.com.au

QUALITY ASSURED
SUPPLIER

QUEENSLAND GOVERNMENT

client	URBAN LAND DEVELOPMENT AUTHORITY
project	PROPOSED URBAN RESIDENTIAL DEVELOPMENT BOWEN STREET, ROMA
title	CONCEPTUAL LAYOUT PLAN WATER RETICULATION (SHEET 1 OF 3)

Survey/ Drawn
-
BOR
NOV 10

Design
ECA
NOV 10

J/M
ECA
NOV 10

Examined
/ /

Certified

FOR BAKER ROSSOW
CONSULTING ENGINEERS

DISCREPANCIES
WHERE ANY DISCREPANCY EXISTS BETWEEN FIGURED AND SCALED
DIMENSIONS, THE FIGURED DIMENSIONS SHALL APPLY.
COPYRIGHT
COPYRIGHT EXISTS ON ALL PLANS & DESIGNS PRODUCED BY BAKER
ROSSOW CONSULTING ENGINEERS AND SHALL NOT BE REPRODUCED
IN PART OR IN FULL WITHOUT WRITTEN APPROVAL.

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS,
LOCATIONS AND LEVELS AND REPORT ANY DISCREPANCIES
NECESSARY TO COMPLETE THE WORKS BEFORE
COMMENCING ANY WORK ON SITE. IF ANY DOUBT EXISTS
THE CONTRACTOR SHALL NOTIFY THE ENGINEER
IMMEDIATELY BEFORE PROCEEDING WITH ANY WORK.

SCALE 1 (1 : 750 AT A1)
- BAR SCALES -

JOB No.
105547

No. of plans
P14

Appendix H

Water Supply Headworks Charges

	FEE		GST STATUS	R / C	STATUTORY REFERENCE
Material Change of Use - Telecommunication Facility (Impact Assessable)	\$3,000.00		GST Free	R	Sustainability Planning Act 2009
Material Change of Use - All Other Uses	\$3,000.00		GST Free	R	Sustainability Planning Act 2009
Reconfiguring a Lot					
Boundary Realignment (no new lots)	\$551.50		GST Free	R	Sustainability Planning Act 2009
Lot Reconfiguration (additional lots)	\$550.00		GST Free	R	Sustainability Planning Act 2009
Operational Works					
Operational Works Application Fee	\$525.00	per lot	GST Free	R	Sustainability Planning Act 2009
Operational Works Inspection Fees	\$300.00		GST Free	R	Sustainability Planning Act 2009
Other Operational Works	\$600.00		GST Free	R	Sustainability Planning Act 2009
Preliminary Approval					
Preliminary Approval Application Fees	Any application for preliminary approval defined in accordance with Section 3.1.5 of the Integrated Planning Act 1997 is subject to the		GST Free	R	Sustainability Planning Act 2009
Headworks Charges (per lot)					
Water	\$1,819.00		GST Free	R	Sustainability Planning Act 2009
Sewerage	\$1,819.00		GST Free	R	Sustainability Planning Act 2009
Stormwater	\$1,213.00		GST Free	R	Sustainability Planning Act 2009
Transport	\$606.50		GST Free	R	Sustainability Planning Act 2009
Public Parks & Community Land	\$606.50		GST Free	R	Sustainability Planning Act 2009
Miscellaneous					
Contribution in Lieu of Parking Space - Roma Town Planning Scheme, Commercial & Industrial Zones	\$12,600.00		GST Free	R	Sustainability Planning Act 2009
Contribution in Lieu of Parking Space - All other areas	\$3,307.50		GST Free	R	Sustainability Planning Act 2009
Copy of Shire Planning Scheme (hard copy)	\$99.00		GST Inclusive	R	Sustainability Planning Act 2009

Appendix I
Existing Sewer Reticulation Layout Plan

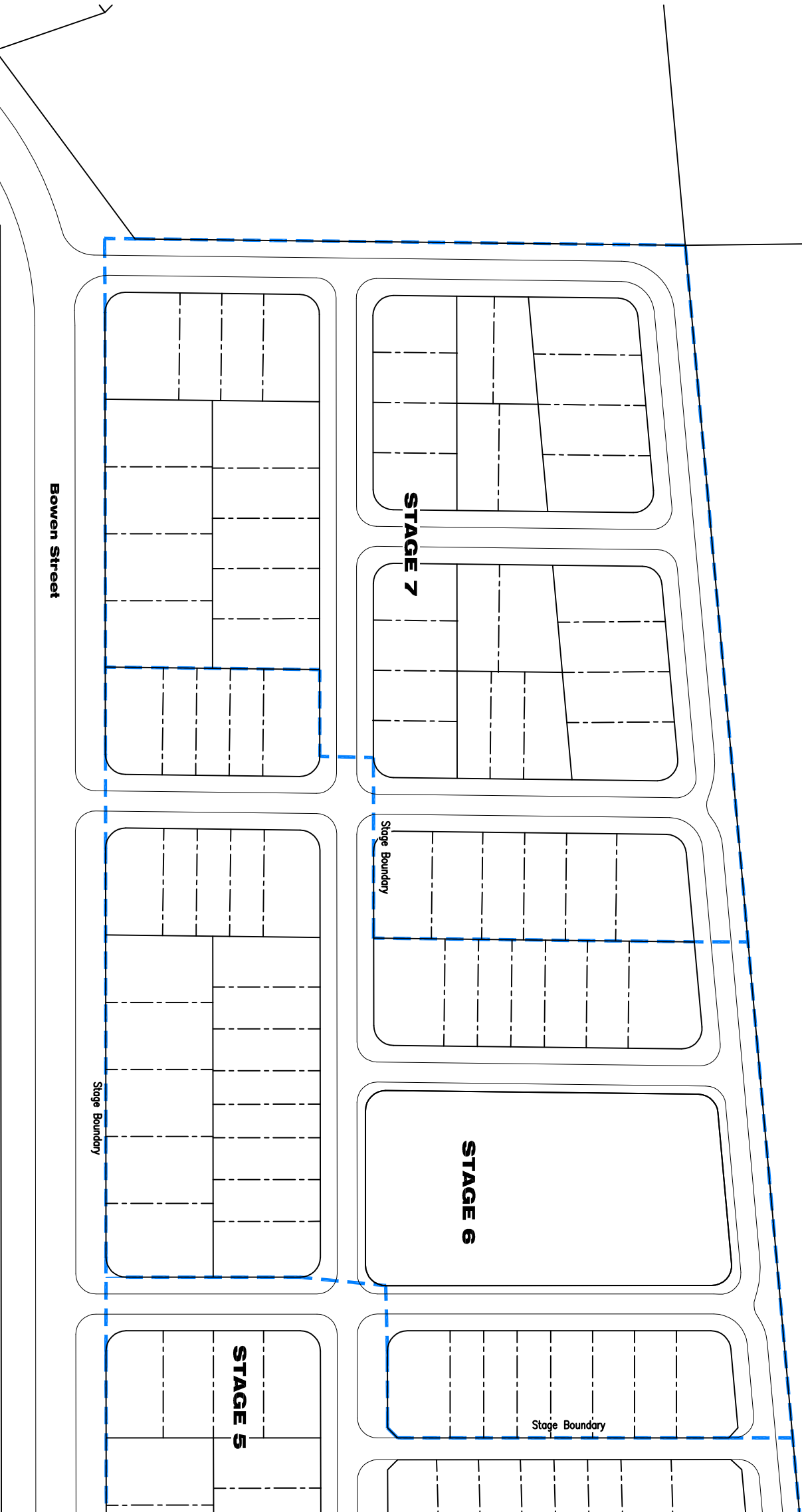
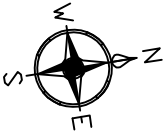


LEGEND

PROPOSED PROPERTY BOUNDARIES

PROPOSED STAGE BOUNDARY

EXISTING SEWER MAIN



Joins Plan P18

CONCEPTUAL LAYOUT PLAN
EXISTING SEWER RETICULATION

Revisions		Date
B	Stages 4 & 8 DA	Oct 11
A	Original issue	

BAKER ROSSOW

CONSULTING ENGINEERS

136 HERRIES STREET
PO BOX 1382
TOOWOOMBA
QLD 4350
PH.: 07 4638 5655
FAX.: 07 4638 3558

QUALITY ASSURED
SUPPLIER

QUEENSLAND GOVERNMENT

EMAIL:
mail@bakertrossow.com.au

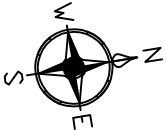
client	URBAN LAND DEVELOPMENT AUTHORITY						
project	PROPOSED URBAN RESIDENTIAL DEVELOPMENT BOWEN STREET, ROMA						
title	CONCEPTUAL LAYOUT PLAN EXISTING SEWER RETICULATION (SHEET 1 OF 3)						
Survey/	Drawn	Design	J/M	Examined	Certified	FOR BAKER ROSSOW CONSULTING ENGINEERS	DIMENSIONS THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, LOCATIONS AND SPACINGS AND SIGN OFF BEFORE COMMENCING ANY WORK ON SITE. IF ANY DOUBT EXISTS THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY BEFORE PROCEEDING WITH ANY WORK.
-	BDP NOV 10	EGA NOV 10	EGA NOV 10	/ /	/ /		
WHERE ANY DISCREPANCY EXISTS BETWEEN FIGURED AND SCALED DIMENSIONS, THE FIGURED DIMENSIONS SHALL APPLY.							
DISCREPANCIES COPYRIGHT							
COPYRIGHT EXISTS ON ALL PLANS & DESIGNS PRODUCED BY BAKER ROSSOW CONSULTING ENGINEERS AND SHALL NOT BE REPRODUCED IN PART OR IN FULL WITHOUT WRITTEN APPROVAL.							
SCALE J (1 : 750 AT A1) 0 10 20 30 40m						JOB No. 105547	
						No. of plans P17	
A						B	

LEGEND

PROPOSED PROPERTY BOUNDARIES

PROPOSED STAGE BOUNDARY

EXISTING SEWER MAIN



Roma Hospital

CONCEPTUAL LAYOUT PLAN

EXISTING SEWER RETICULATION

Revisions	Date
B Stages 4 & 8 DA	Oct 11
A Original issue	

136 HERRIES STREET
PO BOX 1382
TOOWOOMBA
QLD 4350
PH.: 07 4638 5655
FAX.: 07 4638 3558
EMAIL: mail@bakertrossow.com.au

QUALITY ASSURED
SYSTEM
REGISTERED
CONSULTING ENGINEERS

QUEENSLAND GOVERNMENT

client

URBAN LAND DEVELOPMENT AUTHORITY

project

PROPOSED URBAN RESIDENTIAL DEVELOPMENT
BOWEN STREET, ROMA

title

CONCEPTUAL LAYOUT PLAN
EXISTING SEWER RETICULATION (SHEET 3 OF 3)

Survey/ Drawn
BOR
NOV 10

Design
ECA
NOV 10

J/M
ECA
NOV 10

Examined
/ /

Certified

FOR BAKER ROSSOW
CONSULTING ENGINEERS

DISCREPANCIES
WHERE ANY DISCREPANCY EXISTS BETWEEN FIELD AND SCALED
DIMENSIONS, THE FIELD DIMENSIONS SHALL APPLY.
COPYRIGHT
COPYRIGHT EXISTS ON ALL PLANS & DESIGNS PRODUCED BY BAKER
ROSSOW CONSULTING ENGINEERS AND SHALL NOT BE REPRODUCED
IN PART OR IN FULL WITHOUT WRITTEN APPROVAL.

DIMENSIONS
THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS,
LOCATIONS AND LEVELS OF ALL WORKS BEFORE
COMMENCING ANY WORK ON SITE. IF ANY DOUBT EXISTS
THE CONTRACTOR SHALL NOTIFY THE ENGINEER
IMMEDIATELY BEFORE PROCEEDING WITH ANY WORK.

010203040m

SCALE J (1 : 750 AT A1)

— BAR SCALES —

JOB No.
105547

No. of plans
P19

A

B

Joins Plan P18

Appendix J
Preliminary Sewer Reticulation Concept Plans

LEGEND

PROPOSED PROPERTY BOUNDARIES

- - -

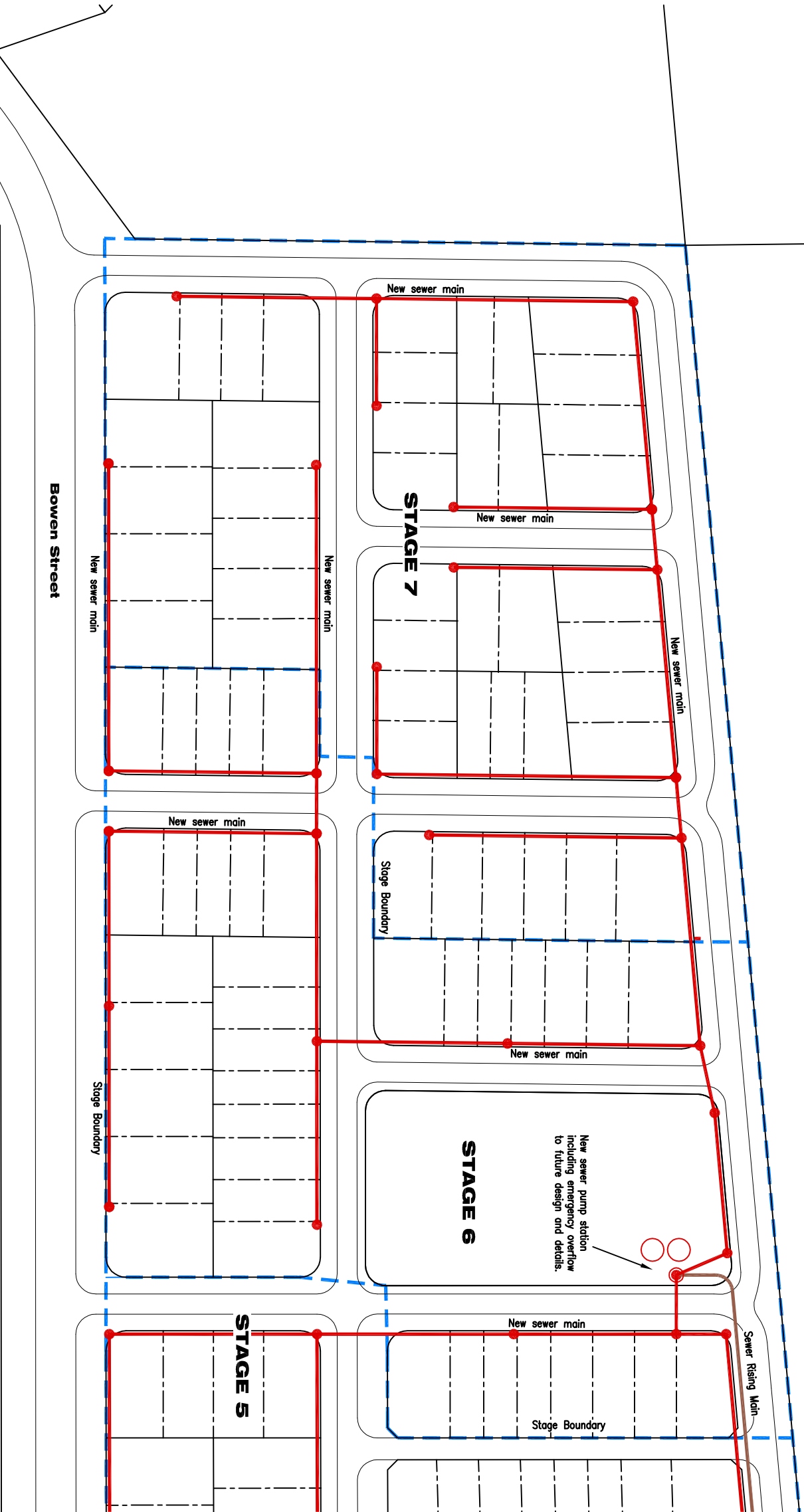
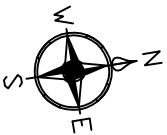
PROPOSED STAGE BOUNDARY

NEW SEWER MAIN

EXISTING SEWER MAIN TO REMAIN

EXISTING SEWER MAIN TO BE ABANDONED

NEW SEWER RISING MAIN



CONCEPTUAL LAYOUT PLAN

SEWER RETICULATION

Revisions	Date
C Stages 4 & 8 DA	Oct 11
B Sewer layout revised	Jun 11
A Original issue	

BAKER ROSSOW

CONSULTING ENGINEERS

136 HERBIES STREET

P.O. BOX 1382

100WOOOMBA

QLD 4350

PH.: 07 4638 5655

FAX.: 07 4638 3558

EMAIL: mail@bakertrossow.com.au

QUEENSLAND GOVERNMENT

QUALITY ASSURED SUPPLIER

client	URBAN LAND DEVELOPMENT AUTHORITY
project	PROPOSED URBAN RESIDENTIAL DEVELOPMENT BOWEN STREET, ROMA
title	CONCEPTUAL LAYOUT PLAN SEWER RETICULATION - OPTION A (SHEET 1 OF 3)

Survey/	Drawn	Design	J/M	Examined	Certified	FOR BAKER ROSSOW CONSULTING ENGINEERS	DIMENSIONS: THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, LOCATIONS AND SPACINGS AND BE RESPONSIBLE FOR COMPLETING THE WORKS BEFORE COMMENCING ANY WORK ON SITE. IF ANY DOUBT EXISTS THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY BEFORE PROCEEDING WITH ANY WORK.
-	BDP NOV 10	EGA NOV 10	EGA NOV 10	/ /			

DISCREPANCIES: WHERE ANY DISCREPANCY EXISTS BETWEEN FIGURED AND SCALED DIMENSIONS, THE FIGURED DIMENSIONS SHALL APPLY.

COPYRIGHT: COPYRIGHT EXISTS ON ALL PLANS & DESIGNS PRODUCED BY BAKER ROSSOW CONSULTING ENGINEERS AND SHALL NOT BE REPRODUCED IN PART OR IN FULL WITHOUT WRITTEN APPROVAL.

SCALE 1 (1 : 750 AT A1)

BAR SCALES -

JOB No. 105547

No. of plans P20

LEGEND

PROPOSED PROPERTY BOUNDARIES

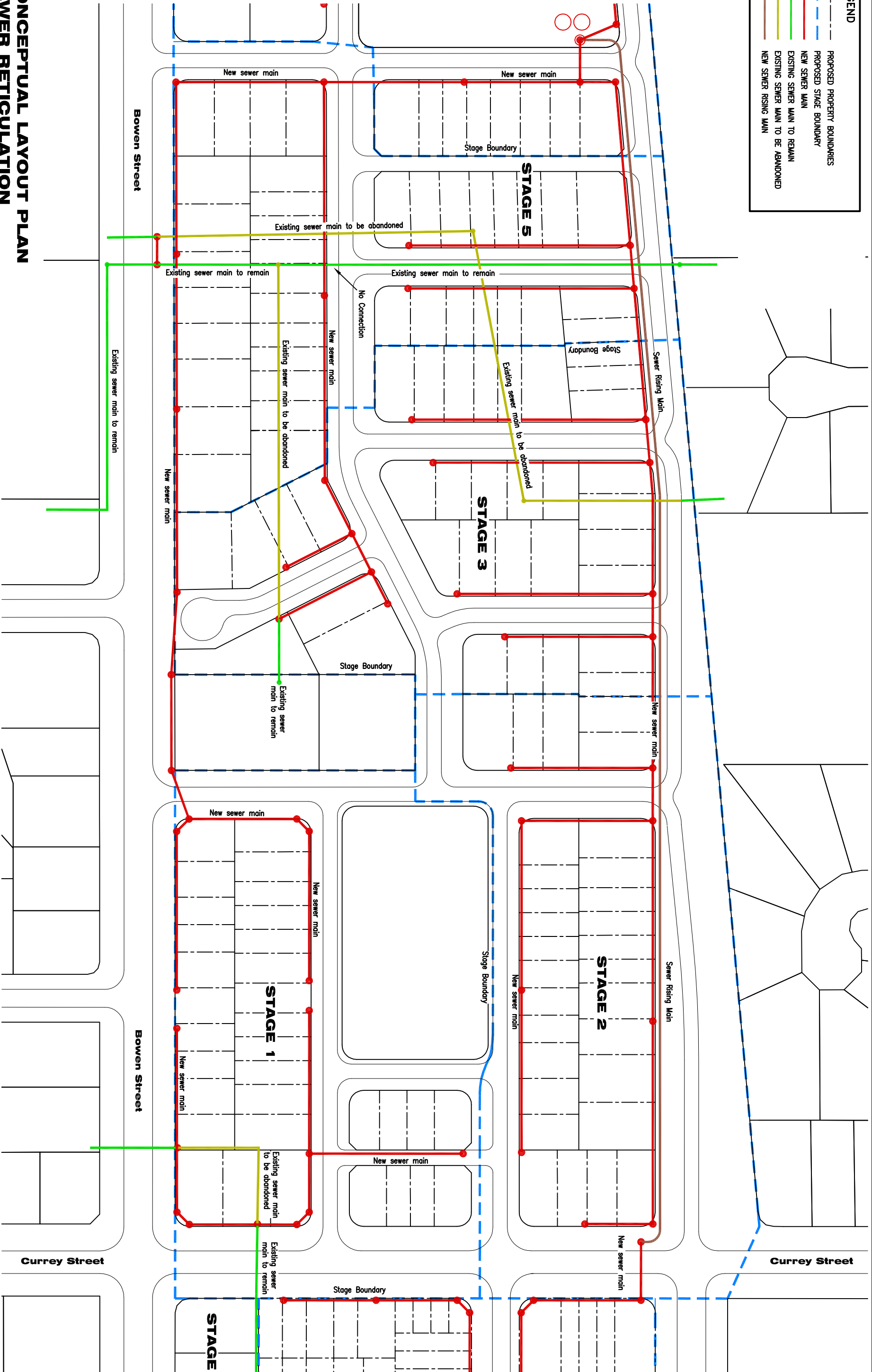
PROPOSED STAGE BOUNDARY

NEW SEWER MAIN

EXISTING SEWER MAIN TO REMAIN

EXISTING SEWER MAIN TO BE ABANDONED

NEW SEWER RISING MAIN



Revisions

Revisions	Date
C Stages 4 & 8 DA	Oct 11
B Sewer layout revised	Jun 11
A Original issue	

BAKER ROSSOW

CONSULTING ENGINEERS

136 HERBIES STREET
PO BOX 1382
TOOWOOMBA
QLD 4350
PH.: 07 4638 5655
FAX.: 07 4638 3558

QUALITY ASSURED
SHEET

QUEENSLAND GOVERNMENT

client

URBAN LAND DEVELOPMENT AUTHORITY

project

PROPOSED URBAN RESIDENTIAL DEVELOPMENT
BOWEN STREET, ROMA

title

CONCEPTUAL LAYOUT PLAN
SEWER RETICULATION - OPTION A (SHEET 2 OF 3)

Survey/

Drawn

Design

J/M

Examined

Certified

—

—

—

—

—

—

NOV 10

NOV 10

NOV 10

NOV 10

—

—

FOR BAKER ROSSOW
CONSULTING ENGINEERS

DIMENSIONS

THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS,
LOCATIONS AND DEPTHS PRIOR TO COMMENCING
ANY WORK ON SITE. IF ANY DOUBT EXISTS
THE CONTRACTOR SHALL NOTIFY THE ENGINEER
IMMEDIATELY BEFORE PROCEEDING WITH ANY WORK.

0

10

20

30

40M

SCALE 1 (1 : 750 AT A1)

— BAR SCALES —

JOB No.

105547

No. of plans

P21

A

B

C

LEGEND

PROPOSED PROPERTY BOUNDARIES

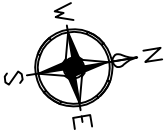
PROPOSED STAGE BOUNDARY

NEW SEWER MAIN

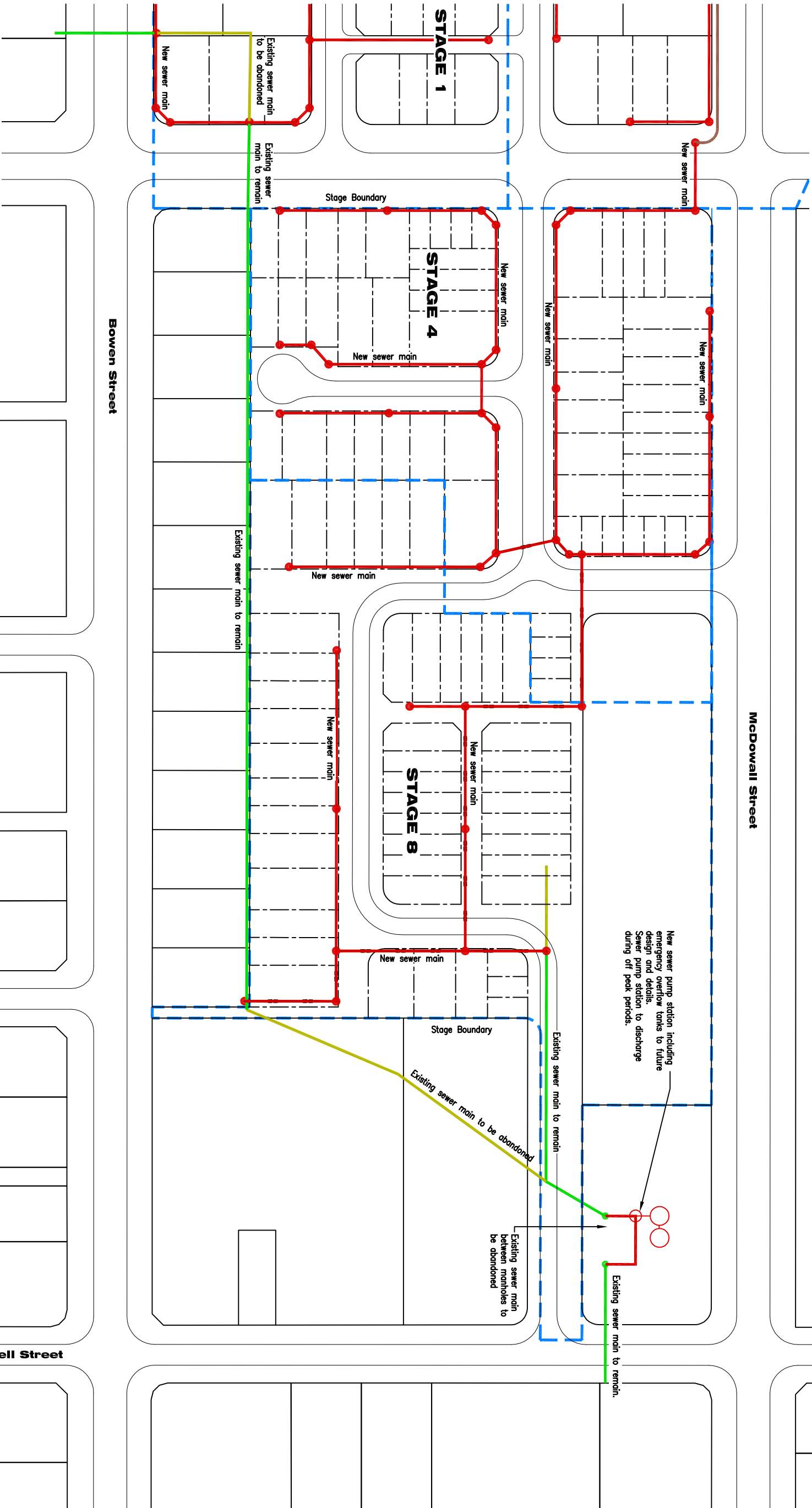
EXISTING SEWER MAIN TO REMAIN

EXISTING SEWER MAIN TO BE ABANDONED

NEW SEWER RISING MAIN



Roma Hospital



Joins Plan P21

CONCEPTUAL LAYOUT PLAN
SEWER RETICULATION

Revisions	Date
D Stages 4 & 8 DA	Oct 11
C Sewer Pump station revised	Jun 11
B Sewer layout revised	Jun 11
A Original issue	

BAKER ROSSOW
CONSULTING ENGINEERS

136 HERRIES STREET
PO BOX 1382
TOOWOOMBA
QLD 4350
PH.: 07 4638 5655
FAX.: 07 4638 3558
EMAIL: mail@bakertrossow.com.au

QUALITY ASSURED
SYSTEM
REGISTERED
CONSULTING ENGINEERS

client	URBAN LAND DEVELOPMENT AUTHORITY
project	PROPOSED URBAN RESIDENTIAL DEVELOPMENT BOWEN STREET, ROMA
title	CONCEPTUAL LAYOUT PLAN SEWER RETICULATION - OPTION A (SHEET 3 OF 3)

Survey/ Drawn BOR NOV 10	Design ECA NOV 10	J/M ECA NOV 10	Examined / /	Certified	FOR BAKER ROSSOW CONSULTING ENGINEERS	DIMENSIONS THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, LOCATIONS AND LEVELS PRIOR TO COMMENCING ANY WORK ON SITE. IF ANY DOUBT EXISTS THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY BEFORE PROCEEDING WITH ANY WORK.	SCALE 1 (1 : 750 AT A1) - BAR SCALES -	JOB No. 105547	No. of plans P22
--------------------------------	-------------------------	----------------------	-----------------	-----------	--	--	---	-------------------	---------------------

Appendix K Deleted

Appendix L
Sewerage Headwork's Charges

	FEE		GST STATUS	R / C	STATUTORY REFERENCE
Material Change of Use - Telecommunication Facility (Impact Assessable)	\$3,000.00		GST Free	R	Sustainability Planning Act 2009
Material Change of Use - All Other Uses	\$3,000.00		GST Free	R	Sustainability Planning Act 2009
Reconfiguring a Lot					
Boundary Realignment (no new lots)	\$551.50		GST Free	R	Sustainability Planning Act 2009
Lot Reconfiguration (additional lots)	\$550.00		GST Free	R	Sustainability Planning Act 2009
Operational Works					
Operational Works Application Fee	\$525.00	per lot	GST Free	R	Sustainability Planning Act 2009
Operational Works Inspection Fees	\$300.00		GST Free	R	Sustainability Planning Act 2009
Other Operational Works	\$600.00		GST Free	R	Sustainability Planning Act 2009
Preliminary Approval					
Preliminary Approval Application Fees	Any application for preliminary approval defined in accordance with Section 3.1.5 of the Integrated Planning Act 1997 is subject to the		GST Free	R	Sustainability Planning Act 2009
Headworks Charges (per lot)					
Water	\$1,819.00		GST Free	R	Sustainability Planning Act 2009
Sewerage	\$1,819.00		GST Free	R	Sustainability Planning Act 2009
Stormwater	\$1,213.00		GST Free	R	Sustainability Planning Act 2009
Transport	\$606.50		GST Free	R	Sustainability Planning Act 2009
Public Parks & Community Land	\$606.50		GST Free	R	Sustainability Planning Act 2009
Miscellaneous					
Contribution in Lieu of Parking Space - Roma Town Planning Scheme, Commercial & Industrial Zones	\$12,600.00		GST Free	R	Sustainability Planning Act 2009
Contribution in Lieu of Parking Space - All other areas	\$3,307.50		GST Free	R	Sustainability Planning Act 2009
Copy of Shire Planning Scheme (hard copy)	\$99.00		GST Inclusive	R	Sustainability Planning Act 2009

Appendix M
Preliminary Stormwater Drainage Concept Plans

LEGEND

PROPOSED PROPERTY BOUNDARIES

PROPOSED STAGE BOUNDARY

NEW STORMWATER DRAINAGE MAIN

NEW ROOFWATER DRAINAGE MAIN

NEW STORMWATER DRAINAGE GULLY PT / JUNCTION MANHOLE

ø375

PRELIMINARY STORMWATER DRAINAGE PIPE SIZE

The diagram illustrates a conceptual stormwater drainage layout for a residential development. It is divided into five stages, labeled STAGE 5 through STAGE 7. A central feature is the 'New stormwater detention Basin 1', which is a large circular structure. Various pipe sizes are indicated throughout the plan, including ø375, ø450, ø600, ø750, and ø825. The layout shows the flow of stormwater from individual lots through a network of pipes and manholes, eventually leading to a 'Stormwater outlet to existing drainage depression' on the right side. The plan also shows 'Bowen Street' at the bottom and 'New Roofwater main' and 'New Stormwater main' lines connecting different areas.

Joins Plan P27

CONCEPTUAL LAYOUT PLAN STORMWATER DRAINAGE

Revisions		Date	
A		Original issue	

BAKER ROSSOW
CONSULTING ENGINEERS

136 HERBIES STREET
PO BOX 1382
TOOWOOMBA
QLD 4350
PH.: 07 4638 5655
FAX.: 07 4638 3558
EMAIL: mail@bakertrossow.com.au

QUALITY ASSURED
SUPPORTER
QUEENSLAND GOVERNMENT

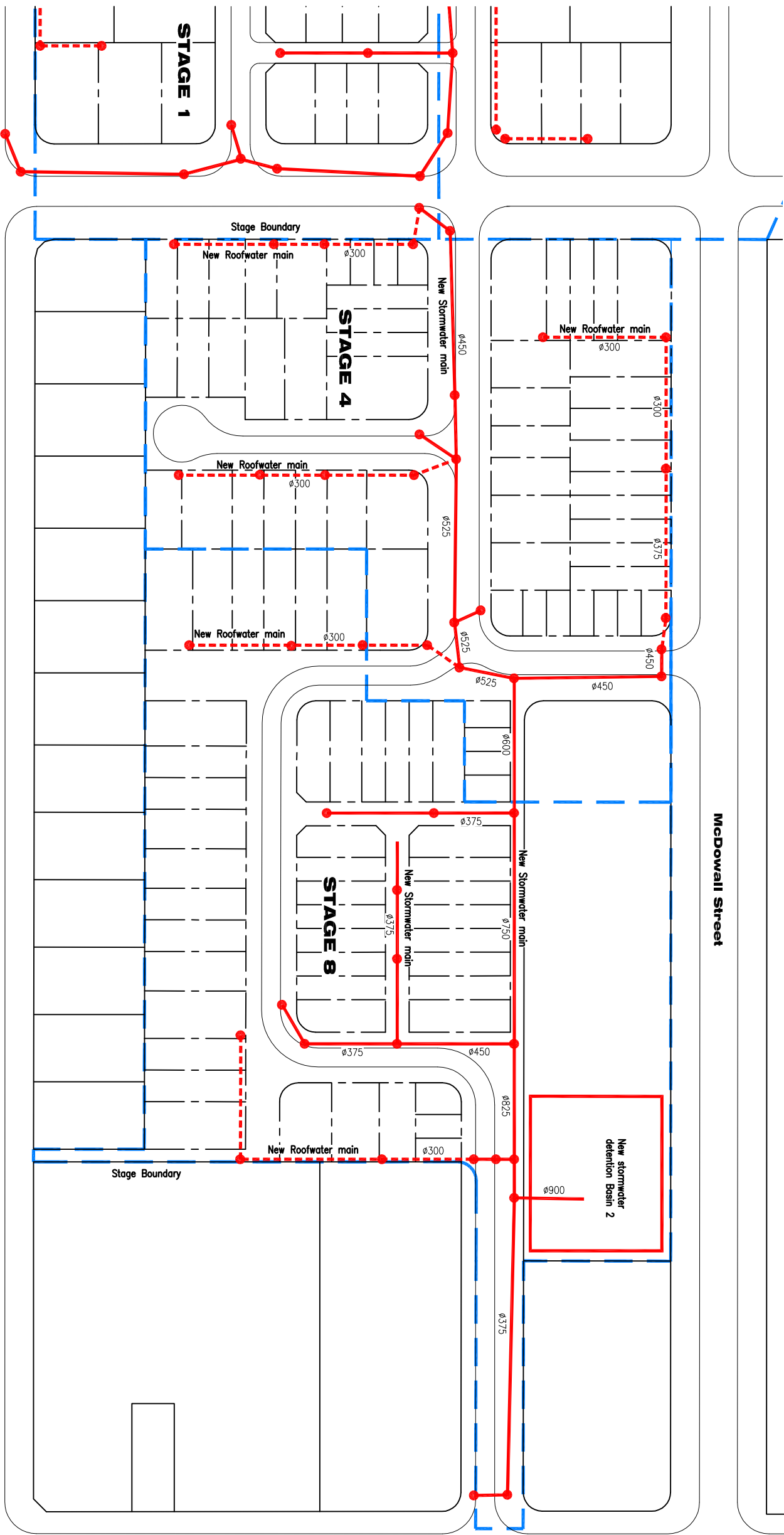
client	URBAN LAND DEVELOPMENT AUTHORITY								
project	PROPOSED URBAN RESIDENTIAL DEVELOPMENT BOWEN STREET, ROMA								
title	CONCEPTUAL LAYOUT PLAN STORMWATER DRAINAGE (SHEET 1 OF 3)								
Survey/	Drawn	Design	J/M	Examined	Certified	FOR BAKER ROSSOW CONSULTING ENGINEERS		DIMENSIONS	
-	BDP	ECG	ECG	/	/			THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, LOCATIONS AND DEPTHS AND SIGN OFF BEFORE COMMENCING ANY WORK ON SITE. IF ANY DOUBT EXISTS THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY BEFORE PROCEEDING WITH ANY WORK.	
NOV 10		NOV 10	NOV 10					JOB No. 105547	
								No. of plans	
								P26	

LEGEND

— — — —	PROPOSED PROPERTY BOUNDARIES
— — — —	PROPOSED STAGE BOUNDARY
— — — —	NEW STORMWATER DRAINAGE MAIN
— — — —	NEW ROOFWATER DRAINAGE MAIN
●	NEW STORMWATER DRAINAGE GULLY PIT / JUNCTION MANHOLE
ø 375	PRELIMINARY STORMWATER DRAINAGE PIPE SIZE



Roma Hospital



Bowen Street

CONCEPTUAL LAYOUT PLAN STORMWATER DRAINAGE

Revisions		Date
A	Original issue	



136 HERBIES STREET
PO BOX 1382
TOOWOOMBA
QLD 4350
PH.: 07 4638 5655
FAX.: 07 4638 3558

EMAIL: mail@blackrossow.com.au

QUALITY ASSIGNED
SUPPORT

DISCOUNT CONTINUUM

client	URBAN LAND DEVELOPMENT AUTHORITY
project	PROPOSED URBAN RESIDENTIAL DEVELOPMENT BOWEN STREET, ROMA
title	CONCEPTUAL LAYOUT PLAN STORMWATER DRAINAGE (SHEET 3 OF 3)

Survey		Drawn	Design	J/M	Examined	Certified	FOR BAKER ROSSOW CONSULTING ENGINEERS	
-		BDR	EGA	EGA	/	/		
-		NOV 10	NOV 10	NOV 10	/	/		
DISCREPANCIES _____ WHERE ANY DISCREPANCY EXISTS BETWEEN FIELDED AND SCALED DIMENSIONS, THE FIELDED DIMENSIONS SHALL APPLY. COPYRIGHT _____ COPYRIGHT EXISTS ON ALL PLANS & DESIGNS PRODUCED BY BAKER ROSSOW CONSULTING ENGINEERS AND SHALL NOT BE REPRODUCED IN PART OR IN FULL WITHOUT WRITTEN APPROVAL. DIMENSIONS _____ THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, LEVELS, EXISTING SERVICES AND OTHER ITEMS NECESSARY TO COMPLETE THE WORKS BEFORE COMMENCING ANY WORK ON SITE. IF ANY DOUBT EXISTS THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY BEFORE PROCEEDING WITH ANY WORK.								
JOB No. 105547							No. of plans Plan No. P28	

Appendix N

Preliminary Estimates

PRELIMINARY CONSTRUCTION ESTIMATE

CONTRACT ULDA-10-042/11

BOWEN STREET, ROMA - STAGE 4

Description **Proposed subdivision - Bowen Street, Roma**
Local Authority **Maranoa Regional Council**
Number of Lots **57 + Park**

Area of Allotments ≈15260m²

Civil Construction Costs

A	Roadwork's & Environmental	\$ 738,500.00
B	Stormwater Drainage	\$ 591,000.00
C	Water Reticulation	\$ 229,325.00
D	Sewerage	\$ 276,552.50
F	Electrical	\$ 273,545.00
	Sub Total	\$ 2,108,922.50
	contingencies @ 15%	\$ 316,338.38
	TOTAL (excluding GST)	\$ 2,425,260.88

Items Marked Provisional (P)

Where an item is marked provisional (i.e. the item number with the suffix "P"), the quantity for that item may be subject to variation.

The tendered unit rate shall not vary regardless of the quantity ordered by the Superintendent.

Item Marked Provisional (P) and Described as 'if ordered'.

Where an item is marked provisional (i.e. the item number with the suffix "P") and also in the description of the item an 'if ordered' statement is included, the quantity for that item may be subject to variation or the item shall be executed only if the Superintendent orders it in writing.

The tendered unit rate shall not vary regardless of the quantity ordered by the Superintendent.

THE ABOVE DOES NOT INCLUDE ANY FEES OR CHARGES APPLIED BY COUNCIL, STATE OR OTHER AUTHORITIES OR ERGON COSTS SUCH AS CABLING, TRANSFORMERS, ENERGISING INFRASTRUCTURE, ETC. WHICH WILL BE ADDITIONAL TO THE ABOVE FIGURES.

PRELIMINARY CONSTRUCTION ESTIMATE

BOWEN STREET, ROMA - STAGE 4

SECTION A : ROADWORKS

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1.0	Establishment				
1.1	Establishment and disestablishment of equipment site facilities, fees, insurances etc.	-	Item	-	\$75,000.00
1.2	Survey Setout including establishment of control stations and staking of allotments.	-	Item	-	\$12,000.00
1.3	Collection of As-Constructed data including lip of kerb levels, water mains, sewer and stormwater mains; preparation of As-constructed drawings including submission to Local Authority.	-	Item	-	\$8,500.00
2.0	Earthworks to Roads				
2.1	Clearing and grubbing to full width of road reserve and park, including removal and disposal of any trees and stumps, rocks, concrete slabs, removal of chain fence and any other rubbish from the site as directed by the Engineer. (No burning permitted)	-	Item	-	\$4,800.00
2.2	Stripping of topsoil to a minimum depth as detailed on plans, stockpile and respread on footpath areas as directed by the Engineer. (solid quantity).	m ³	800	\$12.00	\$9,600.00
2.3	Earthworks to roads including compaction, density testing, & final trim of subgrade. (solid quantity)				
2.3.1	(a) Cut / Excavation	m ³	2,500	\$9.50	\$23,750.00
2.3.2	(b) Fill / Embankment	m ³	1200	\$14.00	\$16,800.00
2.4	Compaction and final trim of subgrade including testing	m ²	3,500	\$2.25	\$7,875.00
2.5P	Excavation and removal of unsuitable material from the subgrade and replacement with material approved by the Engineer (min CBR15) including compaction and trimming to profile - (Provisional Item)	m ³	Rate Only		-
3.0	Earthworks to Allotments / Park				
3.1	Clearing and grubbing to full area of allotments, including removal and disposal of any trees and stumps, rocks, concrete slabs and any other rubbish from the site as directed by the Engineer. (No burning permitted)	-	Item	-	\$2,500.00
3.2	Stripping of topsoil to a minimum depth as detailed on plans, stockpile and respread on footpath areas as directed by the Engineer. (solid quantity).	m ³	Rate Only		-
3.3	Earthworks to allotments including compaction, density testing, & final trim. (solid quantity)				
3.3.1	(a) Cut / Excavation	m ³	Rate Only		-
3.3.2	(b) Fill / Embankment	m ³	Rate Only		-
SUB-TOTAL Section A : \$					\$160,825.00

PRELIMINARY CONSTRUCTION ESTIMATE

BOWEN STREET, ROMA - STAGE 4

SECTION A : ROADWORKS

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
4.0	Concrete Works			<i>Carried Forward</i>	\$160,825.00
4.1	Layback concrete kerb & channel IMEAQ type M3 (including transitions, brass plugs / marker discs) to roads, supplied and laid as per Drawings .	m	650	\$58.00	\$37,700.00
4.2	Barrier concrete kerb & channel IMEAQ type B1 (including transitions, brass plugs / marker discs) to roads, supplied and laid as per Drawings .	m	90	\$58.00	\$5,220.00
4.3	Flush concrete kerb BCC type G (including transitions, brass plugs / marker discs) to roads, supplied and laid as per Drawings .	m	90	\$55.00	\$4,950.00
4.4	Barrier concrete kerb IMEAQ type B2 (including transitions, brass plugs / marker discs) to roads, supplied and laid as per Drawings .	m	150	\$55.00	\$8,250.00
4.5	Concrete spoon drain (including transitions, brass plugs / marker discs) to roads, supplied and laid as per Drawings.	m	25	\$65.00	\$1,625.00
4.6	Concrete road pavement, 150mm thick reinforced concrete (N32, 4.25Mpa Flexural strength), including 2 layers SL82 mesh and trimmer bars, sawcutting and Oxide colour @8% dose rate, Standard Hanson Xposemasta aggregate mix and light water washed exposed finishing as detailed on the drawings, complete in place.	m ²	515	\$120.00	\$61,800.00
4.7	1.5m wide concrete footpath, 100mm thick reinforced concrete (N32), including 1 layer SL72 mesh and trimmer bars, sawcutting, standard grey concrete with broom finish as detailed on the drawings, complete in place.	m	720	\$110.00	\$79,200.00
4.8	2.5m wide concrete footpath, 100mm thick reinforced concrete (N32), including 1 layer SL72 mesh and trimmer bars, sawcutting, sawcutting and Oxide colour @8% dose rate and broom finish as detailed on the drawings, complete in place.	m	180	\$170.00	\$30,600.00
4.9	Construction of pram ramps to pathways at kerb locations.	No	11	\$650.00	\$7,150.00
4.10	Construction of Dowelled Expansion Joint, including sacrificial formwork, dowel-serts, steel dowel bars, ableflex and sealant	m	100	\$45.00	\$4,500.00
5.0	Road Surfacing				
5.1	30mm thick (DG10) Asphalt Concrete surfacing to roadworks as specified.	m ²	2,600	\$23.50	\$61,100.00
5.2	Prime including broom, supply and spray as per specification. (AMC0 application rate 1.0L/m ²)	m ²	Rate Only		-
5.3	Prime including broom, supply and spray as per specification. (Emulprime C application rate 1.2L/m ²)	m ²	2,600	\$2.90	\$7,540.00
SUB-TOTAL Section A : \$					\$470,460.00

PRELIMINARY CONSTRUCTION ESTIMATE

BOWEN STREET, ROMA - STAGE 4

SECTION A : ROADWORKS

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
				<i>Carried Forward</i>	\$470,460.00
6.0	Pavement Materials				
	Pavement material to roadworks to supply, spread, mix & compact (Including density testing & final trim).				
6.1	Base course gravel (MR SUBTYPE 3.1 CBR 80) thickness as per drawings and specification - (Solid Quantity)	m ³	340	\$160.00	\$54,400.00
6.2	Upper Sub-base gravel (MR SUBTYPE 3.2 CBR 60) thickness as per drawings and specification - (Solid Quantity)	m ³	465	\$150.00	\$69,750.00
6.3	Middle Sub-base gravel (MR SUBTYPE 3.3 CBR 45) thickness as per drawings and specification - (Solid Quantity)	m ³	540	\$140.00	\$75,600.00
6.4P	Lower Sub-base gravel (MR SUBTYPE 3.4 CBR 35) thickness as per drawings and specification - (Solid Quantity) (Provisional, If Ordered)	m ³	Rate Only		-
6.5	Subgrade Replacement (MR SUBTYPE 3.5 CBR 15) thickness as per drawings and specification - (Solid Quantity)	m ³	Rate Only		-
6.6P	Additional subbase gravel including excavation as necessary (Provisional, If Ordered)	m ³	Rate Only		-
7.0	Miscellaneous				
7.1P	Alterations to existing services (Provisional Item)	-	Item	-	\$2,500.00
7.2P	Extra over Items 2 for excavation in rock on roadway excavation (Provisional, If Ordered)	m ³	Rate Only		-
7.3	Provision for traffic / traffic control during construction of road widening of existing pavements, including preparation, certification and approval of traffic control plan	-	Item	-	\$4,500.00
7.4	Saw cut existing bitumen surfacing at cut back line along existing pavement.	m	55	\$14.00	\$770.00
7.5	Linemarking to carparking area: 100mm wide white painted line, complete as shown on the Drawings.	m	84	\$5.00	\$420.00
7.6	Linemarking to carparking area: white painted disabled symbol, complete as shown on the Drawings.	No	1	\$150.00	\$150.00
7.7	Subsoil drain behind back of kerb, Type 1 in accordance with IMAEQ standard drawing R-0140	m	Rate Only		-
SUB-TOTAL Section A : \$					\$678,550.00

PRELIMINARY CONSTRUCTION ESTIMATE

BOWEN STREET, ROMA - STAGE 4

SECTION A : ROADWORKS

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
			<i>Carried Forward</i>		\$678,550.00
8.0	Road Furniture				
8.1	Supply and install new approved class 1 street sign including Shire crest, together with V-Lock base	No.	4	\$390.00	\$1,560.00
8.2	Supply and installation of driven Give Way sign (R1-2A)	No.	2	\$450.00	\$900.00
9.0	Environmental				
9.1P	Sediment and erosion protection of exposed subgrade and pavement surfaces and details on the EMP (Provisional Item)	-	Item	-	\$2,500.00
9.2P	Sediment Fences constructed with approved U.V. stabilised specialised material, complete incl. return nibs and spill through weirs at positions agreed on site.(Do not construct from filter or shade cloth). (Provisional Sum)	m	350	\$10.00	\$3,500.00
9.3P	Turf longitudinal and transverse strips to: - footpath and back of kerb; - outlet channels; - between back of kerb and overflow sections from silt fences; all as detailed on the plans. (Provisional Quantity)	m ²	2,200	\$8.00	\$17,600.00
9.4P	Grass seeding of cut and fill batters, and all disturbed areas with a mix of rye grass and kikuyu of approved equivalent (if ordered) Provisional Quantity	m ²	6,500	\$0.75	\$4,875.00
9.5P	Filter socks. (Provisional No.)	No	20	\$100.00	\$2,000.00
9.6P	Water for control of dust (Provisional quantity)	kL	200	\$20.00	\$4,000.00
9.7	Construction of rock filter dam wall (temporary sediment basin), including 15-25mm single sized core rock, 200-300mm armour rock, footing excavation, complete in place as shown on the drawings	m	120	\$75.00	\$9,000.00
9.8	Catch Drains	m	210	\$7.50	\$1,575.00
9.9	Vibration Grate at site entry/exit, complete, in place in accordance with drawings	No.	4	\$2,200.00	\$8,800.00
10.0	Geotechnical				
10.1	Single point soaked CBR testing of subgrade for pavement depth design confirmation	No	7	\$520.00	\$3,640.00
	Note:- All areas and lengths are plan areas and lengths.The Contractor is to take into account adjustments for slope distances and areas when pricing.				
TOTAL Section A : \$					\$738,500.00

BILL OF QUANTITIES
BOWEN STREET, ROMA - STAGE 4
SECTION B : STORMWATER DRAINAGE

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1.0	STORMWATER Pipe Schedule Stormwater drainage pipes in place complete including excavation, supply, lay (including sand bedding and sand surround), backfill to drawings and specification.				
1.1	150 uPVC SN8 Rubber Ring Jointed	m	Rate Only	\$82.50	-
1.2	225 uPVC SN8 Rubber Ring Jointed	m	Rate Only	\$110.00	-
1.3	300 uPVC SN8 Rubber Ring Jointed	m	Rate Only	\$128.00	-
1.4	225 FRC Class 2 Rubber Ring Joint	m	Rate Only	\$120.00	-
1.5	225 FRC Class 3 Rubber Ring Joint	m	80	\$130.00	\$10,400.00
1.6	300 FRC Class 2 Rubber Ring Joint	m	170	\$135.00	\$22,950.00
1.7	300 R.C.P. Class 2 Rubber Ring Jointed	m	50	\$125.00	\$6,250.00
1.8	375 R.C.P. Class 2 Rubber Ring Jointed	m	180	\$150.00	\$27,000.00
1.9	450 R.C.P. Class 2 Rubber Ring Jointed	m	150	\$165.00	\$24,750.00
1.10	525 R.C.P. Class 2 Rubber Ring Jointed	m	100	\$190.00	\$19,000.00
1.11	600 R.C.P. Class 2 Rubber Ring Jointed	m	50	\$220.00	\$11,000.00
1.12	675 R.C.P. Class 2 Flush Jointed	m	Rate Only	\$275.00	-
1.13	750 R.C.P. Class 2 Flush Jointed	m	75	\$300.00	\$22,500.00
1.14	825 R.C.P. Class 2 Flush Jointed	m	80	\$340.00	\$27,200.00
1.15	900 R.C.P. Class 2 Flush Jointed	m	25	\$450.00	\$11,250.00
1.16	1050 R.C.P. Class 2 Flush Jointed	m	Rate Only	\$680.00	-
1.17	1200 R.C.P. Class 2 Flush Jointed	m	Rate Only	\$710.00	-
1.18	150 Dia slotted subsoil drainage pipe in geotextile sock (BCC Type C), including single sized aggregate surround	m	Rate Only	\$95.00	-
2.0	STORMWATER CPO Manholes / Junction Pits				
2.1	900mm dia. C.P.O. stormwater junction manholes supplied complete in place including medium duty circular concrete surround and cast iron covers, rendering, benching, backfill, etc. to design and specification.	No.	4	\$1,950.00	\$7,800.00
2.2	1050mm dia. C.P.O. stormwater junction manholes supplied complete in place including medium duty circular concrete surround and cast iron covers, rendering, benching, backfill, etc. to design and specification.	No.	14	\$2,650.00	\$37,100.00
2.3	1200mm dia. C.P.O. stormwater junction manholes supplied complete in place including medium duty circular concrete surround and cast iron covers, rendering, benching, backfill, etc. to design and specification.	No.	6	\$2,900.00	\$17,400.00
2.4	1500mm dia. C.P.O. stormwater junction manholes supplied complete in place including medium duty circular concrete surround and cast iron covers, rendering, benching, backfill, etc. to design and specification.	No.	1.0	\$3,200.00	\$3,200.00
2.5	1800mm dia. C.P.O. stormwater junction manholes supplied complete in place including medium duty circular concrete surround and cast iron covers, rendering, benching, backfill, etc. to design and specification.	No.	Rate Only	\$3,850.00	-
SUB TOTAL SECTION B : \$					\$247,800.00

BILL OF QUANTITIES

BOWEN STREET, ROMA - STAGE 4

SECTION B : STORMWATER DRAINAGE

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
				<i>Carried Forward</i>	\$247,800.00
2.5	1800mm dia. C.P.O. stormwater junction manholes supplied complete in place including medium duty circular concrete surround and cast iron covers, rendering, benching, backfill, etc. to design and specification.	No.	Rate Only		-
3.0	STORMWATER Gully inlets				
3.1	Stormwater Gully 2.4m long Lip-in-Line Sag Inlet, Type 'S' Lintel with cycle proof grates on precast dia. C.P.O. manhole complete in place including backfilling to drawing and specification.:				
	(a) On 1050mm Dia CPO manhole	No.	3	\$2,650.00	\$7,950.00
	(b) On 1200mm Dia CPO manhole	No.	Rate Only	\$2,750.00	-
	(c) On 1500mm Dia CPO manhole	No.	Rate Only	\$2,900.00	-
	(d) On 1800mm Dia CPO manhole	No.	Rate Only	\$3,100.00	-
3.2	Stormwater Gully 2.4m Lip-in-Line On Grade Inlet, Type 'S' Lintel with cycle proof grates on precast C.P.O. manhole complete in place including backfilling to drawing and specification:				
	(a) On 1050mm Dia CPO manhole	No.	5	\$2,750.00	\$13,750.00
	(b) On 1200mm Dia CPO manhole	No.	Rate Only	\$2,750.00	-
	(c) On 1500mm Dia CPO manhole	No.	Rate Only	\$2,900.00	-
	(d) On 1800mm Dia CPO manhole	No.	Rate Only	\$3,100.00	-
3.3	Stormwater Gully 3.6m long Lip-in-Line Sag Inlet, Type 'S' Lintel with cycle proof grates on precast dia. C.P.O. manhole complete in place including backfilling to drawing and specification.:				
	(a) On 1050mm Dia CPO manhole	No.	Rate Only		-
	(b) On 1200mm Dia CPO manhole	No.	Rate Only		-
	(c) On 1500mm Dia CPO manhole	No.	Rate Only		-
	(d) On 1800mm Dia CPO manhole	No.	Rate Only		-
3.4	Stormwater Gully 3.6m Lip-in-Line On Grade Inlet, Type 'S' Lintel with cycle proof grates on precast C.P.O. manhole complete in place including backfilling to drawing and specification:				
	(a) On 1050mm Dia CPO manhole	No.	Rate Only		-
	(b) On 1200mm Dia CPO manhole	No.	Rate Only		-
	(c) On 1500mm Dia CPO manhole	No.	Rate Only		-
	(d) On 1800mm Dia CPO manhole	No.	Rate Only		-
3.5	Stormwater Gully 4.8m long Lip-in-Line Sag Inlet, Type 'S' Lintel with cycle proof grates on precast dia. C.P.O. manhole complete in place including backfilling to drawing and specification.:				
	(a) On 1050mm Dia CPO manhole	No.	Rate Only		-
	(b) On 1200mm Dia CPO manhole	No.	Rate Only		-
	(c) On 1500mm Dia CPO manhole	No.	Rate Only		-
	(d) On 1800mm Dia CPO manhole	No.	Rate Only		-
SUB TOTAL SECTION B : \$					\$269,500.00

BILL OF QUANTITIES
BOWEN STREET, ROMA - STAGE 4
SECTION B : STORMWATER DRAINAGE

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
				<i>Carried Forward</i>	\$269,500.00
3.6	Stormwater Gully 4.8m Lip-in-Line On Grade Inlet, Type 'S' Lintel with cycle proof grates on precast C.P.O. manhole complete in place including backfilling to drawing and specification:				
	(a) On 1050mm Dia CPO manhole	No.	Rate Only		-
	(b) On 1200mm Dia CPO manhole	No.	Rate Only		-
	(c) On 1500mm Dia CPO manhole	No.	Rate Only		-
	(d) On 1800mm Dia CPO manhole	No.	Rate Only		-
3.7	Stormwater grate inlet - MaxQ "Manning" 800x500 grate on precast C.P.O. Manhole complete in place including adapter slab and square concrete surround:				
	(a) On 1050mm Dia CPO manhole	No.	Rate Only	\$4,500.00	-
	(b) On 1200mm Dia CPO manhole	No.	Rate Only		-
	(c) On 1500mm Dia CPO manhole	No.	Rate Only		-
	(d) On 1800mm Dia CPO manhole	No.	Rate Only		-
3.8	Stormwater grate inlet - Rocla "RKO" 600x600 domed inlet on precast C.P.O. Manhole complete in place including square concrete surround:				
	(a) On 1050mm Dia CPO manhole	No.	4	\$3,200.00	\$12,800.00
	(b) On 1200mm Dia CPO manhole	No.	Rate Only		-
	(c) On 1500mm Dia CPO manhole	No.	Rate Only		-
	(d) On 1800mm Dia CPO manhole	No.	Rate Only		-
3.9	Stormwater grate inlet - 450x450 concrete field inlet to off street parking, with square trafficable grate complete in place	No.	3	\$800.00	\$2,400.00
3.10	Anti-pondage pit constructed in accordance with IPWEAQ standard drawing No. D-0068. Complete in place.	No.	2	\$2,800.00	\$5,600.00
4.0	Stormwater outlet structures				
4.1	Pre-cast headwall including wingwalls, apron slab and cutoff wall, complete in place as shown on the Drawings.				
	(a) Dia 450 pipe outlet	No.	Rate Only		-
	(b) Dia 525 pipe outlet	No.	Rate Only		-
	(c) Dia 600 pipe outlet	No.	Rate Only	\$750.00	-
	(d) Dia 675 pipe outlet	No.	Rate Only		-
	(e) Dia 750 pipe outlet	No.	1	\$1,250.00	\$1,250.00
	(f) Dia 825 pipe outlet	No.	Rate Only		-
	(g) Dia 900 pipe outlet	No.	Rate Only		-
	(h) Dia 1050 pipe outlet	No.	Rate Only		-
	(i) Dia 1200 pipe outlet	No.	Rate Only		-
4.2	Provide stone pitching (typical rock size dia 300mm) on A34 Bidim geotextile, downstream of stormwater outlet.	-	Item	-	\$1,500.00
4.3	Stormwater outlet channels including excavation and stone pitching as shown on the Drawings.				
	(a) Strip	m ³	Rate Only	\$25.00	-
	(b) Cut	m ³	Rate Only	\$35.00	-
SUB TOTAL SECTION B : \$					\$293,050.00

BILL OF QUANTITIES
BOWEN STREET, ROMA - STAGE 4
SECTION B : STORMWATER DRAINAGE

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
				<i>Carried Forward</i>	\$293,050.00
5.0	Miscellaneous				
5.1P	Extra over item 1 for excavation in rock in trench excavation (Provisional, If Ordered)	m ³	Rate Only		-
5.2	1100mm high galvanised steel post and rail fence to stormwater headwall as shown on the Drawings, in accordance with IMEAQ standard drawing G-0044; type 2	m	50	\$220.00	\$11,000.00
5.3	CCTV inspection of completed stormwater lines by NATA registered provider, including preparation of report and provision to Local Authority	-	Item	-	\$5,500.00
5.4	Supply and install roofwater outlets to kerb including Duragal CHS pipe under footpath and galvanised steel kerb adapters	No.	22	\$350.00	\$7,700.00
5.5	Installation of roofwater house connection branches, class SN10 pvc including marker tape and stake	No.	35	\$250.00	\$8,750.00
5.6	Construction of Stormwater detention basin in existing Park, including cut and fill earthworks, inlet and outlet structures, outlet pipework, signage, turfing and grass seeding	-	Item	-	\$265,000.00
TOTAL SECTION B : \$					\$591,000.00

BILL OF QUANTITIES
BOWEN STREET, ROMA - STAGE 4
SECTION C : WATER RETICULATION

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1.0	Potable Water Mains Excavate, supply, lay, bed (including sand bedding and sand surround), end cap and backfill (including compaction) all pipes, fittings, marker posts, thrust blocks at changes of direction, and road crossings to roads, marker tape with metallic strip, all as detailed on the drawings and in the specification.				
1.1	150mm Class 16 PVC-O 'Supermain' water main socket and spigot, rubber ring jointed to AS4765 complete with fittings as required.	m	240	\$115.00	\$27,600.00
	100mm Class 16 PVC-O 'Supermain' water main socket and spigot, rubber ring jointed to AS4765 complete with fittings as required.	m	170	\$95.00	\$16,150.00
1.2	Dia 63mm OD Poly water return pipe in cul-de sac , complete with 50mm connections and control valves as	m	65	\$55.00	\$3,575.00
2.0	Hydrants				
2.1	80mm dia. hydrant including 150 dia hydrant tee, riser, spring hydrant and fittings complete in place including construction of hydrant chamber and installation of box, surround and markers.	No.	2	\$1,350.00	\$2,700.00
2.2	80mm dia. Duckfoot hydrant including 150 dia hydrant bend, riser, spring hydrant and fittings complete in place including construction of hydrant chamber and installation of box, surround and markers.	No.	Rate Only	\$1,350.00	-
2.3	80mm dia. hydrant including 100 dia hydrant tee, riser, spring hydrant and fittings complete in place including construction of hydrant chamber and installation of box, surround and markers.	No.	3	\$1,200.00	\$3,600.00
2.4	80mm dia. Duckfoot hydrant including 100 dia hydrant bend, riser, spring hydrant and fittings complete in place including construction of hydrant chamber and installation of box, surround and markers.	No.	1	\$1,200.00	\$1,200.00
3.0	Potable Water Service Connections				
3.1	LONG ENVELOPER, DOUBLE SERVICE. Supply and install 100mm uPVC Class 'SH' Water Service Enveloper Conduit (long) beneath roads, including tapping band (or readytap), TPFNR bonnet ferrule, ferrule poly adaptor, double poly service line, potable water meter and stop cock.	No.	Rate Only	\$1,300.00	-
3.2	NO ENVELOPER, DOUBLE SERVICE. Supply and install 100mm uPVC Class 'SH' Water Service Enveloper Conduit (long) beneath roads, including tapping band (or readytap), TPFNR bonnet ferrule, ferrule poly adaptor, double poly service line, potable water meter and stop cock.	No.	Rate Only	\$1,100.00	-
SUB TOTAL SECTION C : \$					\$54,825.00

BILL OF QUANTITIES
BOWEN STREET, ROMA - STAGE 4
SECTION C : WATER RETICULATION

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
			<i>Carried Forward</i>		\$54,825.00
3.3	LONG ENVELOPER, SINGLE SERVICE. Supply and install 100mm uPVC Class 'SH' Water Service Enveloper Conduit (long) beneath roads, including tapping band (or readytap), TPFNR bonnet ferrule, ferrule poly adaptor, double poly service line, potable water meter and stop cock.	No.	12	\$1,200.00	\$14,400.00
3.4	NO ENVELOPER, SINGLE SERVICE. Supply and install tapping band (or readytap), TPFNR bonnet ferrule, ferrule poly adaptor, double poly service line, potable water meter and stop cock.	No.	45	\$650.00	\$29,250.00
3.5	Water meter box: Plastic water meter box, complete in place	No.	57	\$550.00	\$31,350.00
4.0	Bends (Potable water main) Supply and install bitumen dipped (or epoxy coated) Cast Iron socket-socket water main bend				
4.1	150mm dia x 11.25° CI bend	No.	Rate Only	\$280.00	-
4.2	150mm dia x 22.5° CI bend	No.	4	\$310.00	\$1,240.00
4.3	150mm dia x 45° CI bend	No.	Rate Only	\$200.00	-
4.3	150mm dia x 90° CI bend	No.	Rate Only	\$370.00	-
4.4	100mm dia x 11.25° CI bend	No.	Rate Only	\$200.00	-
4.5	100mm dia x 22.5° CI bend	No.	Rate Only	\$200.00	-
4.6	100mm dia x 45° CI bend	No.	2	\$255.00	\$510.00
4.7	100mm dia x 90° CI bend	No.	Rate Only	\$250.00	-
5.0	Tees (Potable water main) Supply and install bitumen dipped (or epoxy coated) Cast Iron socket-socket water main tee				
5.1	150mm x 150mm x 150mm CI tee	No.	2	\$350.00	\$700.00
5.2	150mm x 150mm x 100mm CI tee	No.	2	\$380.00	\$760.00
5.3	100mm x 100mm x 100mm CI tee	No.	1	\$350.00	\$350.00
5.4	100mm x 100mm x 100mm x 100mm CI cross	No.	Rate Only	\$380.00	-
5.5	100mm x 100mm x 150mm x 150mm CI cross	No.	Rate Only	\$420.00	-
6.0	Valves (Potable water main) Supply and install bitumen dipped (or epoxy coated) Cast Iron socket-socket water main valve				
6.1	150mm dia Stop Valve complete incl. valve box and marker plate	No.	2	\$1,600.00	\$3,200.00
6.2	100mm dia Stop Valve complete incl. valve box and marker plate	No.	5	\$1,250.00	\$6,250.00
7.0	Other Fittings (Potable water main) Supply and install bitumen dipped (or epoxy coated) Cast Iron socket-socket water main 150mm to 100mm dia CI reducer				
7.1		No.	Rate Only	\$420.00	-
7.2	Supply and install water main end cap, including thrust block	No.	2	\$425.00	\$850.00
SUB TOTAL SECTION C : \$					\$143,685.00

BILL OF QUANTITIES
BOWEN STREET, ROMA - STAGE 4
SECTION C : WATER RETICULATION

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
			<i>Carried Forward</i>		\$143,685.00
7.3	100mm Dia Scour assembly, including 80mm socket scour tee and 80mm flanged sluice (stop) valve with flanged socket connector, including pre-cast manhole in general accordance with IMEAQ standard drawing W-0080	No.	Rate Only	\$1,200.00	-
7.4	150mm Dia Scour assembly, including 80mm socket scour tee and 80mm flanged sluice (stop) valve with flanged socket connector, including pre-cast manhole in general accordance with IMEAQ standard drawing W-0080	No.	Rate Only	\$1,650.00	-
7.5	Unirain ARV-2"-KA Kinetic and Automatic air release valve, including 100mm Dia tapping band, valve box and marker (available from Vinidex Australia)	No.	Rate Only	\$1,650.00	-
7.6	Unirain ARV-2"-KA Kinetic and Automatic air release valve, including 150mm Dia tapping band, valve box and marker (available from Vinidex Australia)	No.	Rate Only	\$1,850.00	-
8.0	Recycled Water Mains Excavate, supply, lay, bed (including sand bedding and sand surround), end cap and backfill (including compaction) all pipes, electrofusion welded fittings, marker posts, thrust blocks at changes of direction, and road crossings to roads, marker tape with metallic strip, all as detailed on the drawings and in the specification.				
8.1	DN110 (Class PE100, PN16, SDR11) HDPE purple stripe recycled water main complete with electrofusion welded fittings as required.	m	Rate Only		-
8.2	DN63 (Class PE100, PN16, SDR11) HDPE purple stripe recycled water main complete with electrofusion welded fittings as required.	m	Rate Only		-
9.0	Recycled Water Service Connections				
9.1	LONG ENVELOPER, DOUBLE SERVICE. Supply and install 100mm uPVC Class 'SH' Water Service Enveloper Conduit (long) beneath roads, including electrofusion welded service tapping saddle, ball valve, double poly service line (DN32 purple poly), tee and single poly service lines (DN25 purple poly), recycled water meters and stop cocks.	No.	Rate Only		-
9.2	NO ENVELOPER, DOUBLE SERVICE. Supply and install electrofusion welded service tapping saddle, ball valve, double poly service line (DN32 purple poly), tee and single poly service lines (DN25 purple poly), recycled water meters and stop cocks.	No.	Rate Only		-
9.3	LONG ENVELOPER, SINGLE SERVICE. Supply and install 100mm uPVC Class 'SH' Water Service Enveloper Conduit (long) beneath roads, including electrofusion welded service tapping saddle, ball valve, single poly service line(DN25 purple poly), recycled water meter and stop cock.	No.	Rate Only		-
SUB TOTAL SECTION C : \$					\$143,685.00

BILL OF QUANTITIES
BOWEN STREET, ROMA - STAGE 4
SECTION C : WATER RETICULATION

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
				<i>Carried Forward</i>	\$143,685.00
9.4	NO ENVELOPER, SINGLE SERVICE. Supply and install electrofusion welded service tapping saddle, ball valve, single poly service line (DN25 purple poly), recycled water meter and stop cock.	No.	Rate Only		-
10.0	Bends (Recycled water main) Supply and install Plasson electrofusion welded bend - Coupler to Coupler				
10.1	DN110 x 22.5° CI bend	No.	Rate Only		-
10.2	DN110 x 45° CI bend	No.	Rate Only		-
10.3	DN110 x 90° CI bend	No.	Rate Only		-
10.4	DN110 Adjustable Elbow - Coupler to Coupler	No.	Rate Only		-
10.5	DN63 x 45° CI bend	No.	Rate Only		-
10.6	DN63 x 90° CI bend	No.	Rate Only		-
11.0	Tees (Recycled water main) Supply and install Plasson electrofusion welded tee: Coupler-Coupler-Spigot, and additional electrofusion welded coupler				
11.1	DN110 x 110 x 110	No.	Rate Only		-
11.2	DN110 x 110 x 63	No.	Rate Only		-
11.3	DN63 x 63 x 63	No.	Rate Only		-
12.0	Valves (Recycled water main) Supply and install Hawle System 2000 restrained Ductile Iron fitting	No.	Rate Only		-
12.1	DN110 Hawle system 2000 valve	No.	Rate Only		-
12.2	DN63 Hawle system 2000 valve	No.	Rate Only		-
13.0	Flushing Points (Recycled water main)				
13.1	IN LINE: Supply and install Plasson electrofusion welded Tee, HDPE riser, transition coupling, brass ball valve, nut and spindle, poly camlock, in ACO CABLEMATE Type 45 pit and lid. Complete in place, in accordance with the standard drawing.	No.	Rate Only		-
13.2	END OF LINE: Supply and install Plasson electrofusion welded 90° bend, HDPE riser, transition coupling, brass ball valve, nut and spindle, poly camlock, in ACO CABLEMATE Type 45 pit and lid. Complete in place, in accordance with the standard drawing.	No.	Rate Only		-
14.0	Inter-main Connection				
14.1	Supply and install Plasson electrofusion welded Tee (Coupler-Coupler-Flange), CI Tee (So-So-Flange) and CI Valve (FI-FI); together with 600mm Dia MH cover and concrete surround as surface fitting, 225mm Dia PVC shroud pipe on DI or polyprop base to DN63 main	No.	Rate Only		-
SUB TOTAL SECTION C : \$					\$143,685.00

BILL OF QUANTITIES
BOWEN STREET, ROMA - STAGE 4
SECTION C : WATER RETICULATION

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
			<i>Carried Forward</i>		\$143,685.00
14.2	Supply and install Plasson electrofusion welded Tee (Coupler-Coupler-Flange), CI Tee (So-So-Flange) and CI Valve (FI-FI); together with 600mm Dia MH cover and concrete surround as surface fitting, 225mm Dia PVC shroud pipe on DI or polyprop base to DN110 main	No.	Rate Only		-
15.0	Miscellaneous				
15.1	Connection to existing dia water main (all fittings to be supplied by contractor)	No.	2	\$2,000.00	\$4,000.00
15.2	Pressure testing, chlorination and flushing of new mains	-	Item	-	\$4,500.00
15.3	Supply and install Plasson electrofusion welded end cap and thrust block to DN63 main	No.	Rate Only	\$375.00	-
15.4	Supply and install Plasson electrofusion welded end cap and thrust block to DN110 main	No.	Rate Only	\$425.00	-
16.0	Gas Reticulation				
	Excavate, supply, lay, bed (including sand bedding and sand surround), end cap and backfill (including compaction) all pipes, fittings, marker posts, and road crossings, all as detailed on the drawings.				
16.1	50mm PE (Yellow Stripe) gas main, including all bends and fittings as required.	m	395	\$52.00	\$20,540.00
16.2	50mm Gas main Valve, including valve box and marker post	No.	5	\$1,350.00	\$6,750.00
16.3	Dual Long gas service: 40mm PE (Yellow Stripe), including tee, 32mm service pipe all bends and fittings as required with SN4 envelope pipe for cross road services.	No.	6	\$1,350.00	\$8,100.00
16.4	Short gas service: 32mm PE (Yellow Stripe), including all fittings as required.	No.	45	\$750.00	\$33,750.00
16.5P	Connection to existing gas main (all fittings to be supplied by contractor) Provisional Item	No.	2	\$2,000.00	\$4,000.00
16.6	Gas main pigging, pressure testing and purging of new gas mains and services as detailed on drawings.	L/S	Item	-	\$4,000.00
TOTAL SECTION C : \$					\$229,325.00

BILL OF QUANTITIES
BOWEN STREET, ROMA - STAGE 4
SECTION D : SEWERAGE RETICULATION

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1.0	Sewer Main Excavate, backfill (including compaction) supply, lay (including bedding), and air test sewer lines, including all rubber rings, shorts, make up pieces, jump-ups etc. including slip couplings to design and specification requirements				
1.1	150mm dia. Sewer Class SN8 rubber ring jointed or approved equivalent.	m	695	\$105.00	\$72,975.00
1.2	225mm dia. Sewer Class SN8 rubber ring jointed or approved equivalent.	m	250	\$155.00	\$38,750.00
2.0	Sewer Rising Main Excavate, backfill (including compaction) supply, lay (including bedding), and test sewer rising main including all electrofusion welded joints, shorts, to design and specification requirements in 450mm wide trench				
2.1	DN63mm HDPE (Class PE80, PN12.5, SDR11)	m	Rate only	\$95.00	-
2.2	DN110mm HDPE (Class PE80, PN12.5, SDR11)	m	Rate only	\$115.00	-
2.3	DN125mm HDPE (Class PE80, PN12.5, SDR11)	m	Rate only	\$125.00	-
2.4	DN160mm HDPE (Class PE80, PN12.5, SDR11)	m	Rate only	\$140.00	-
3.0	Sewer Manholes 1050mm dia. sewer concrete manholes supplied complete in place including concrete covers, frames, rendering, benching, inlet drops etc to design and specification.				
3.1	Manholes up to 2000 in depth	No.	5	\$2,900.00	\$14,500.00
3.2	2001mm - 3000mm in depth	No.	20	\$3,300.00	\$66,000.00
3.3	3001mm - 4000mm in depth	No.	7	\$4,200.00	\$29,400.00
3.4	Construct new manhole in existing sewer main.	No.	1	\$3,700.00	\$3,700.00
4.0	Sewer Maintenance Shafts Wormall "Poo Pit 600" sewer maintenance shafts supplied complete in place including covers, inlet drops etc to design and specification.				
4.1	Shafts up to 2000 in depth	No.	Rate only	\$2,600.00	-
4.2	2001mm - 3000mm in depth	No.	Rate only	\$3,450.00	-
4.3	3001mm - 4000mm in depth	No.	Rate only	\$4,450.00	-
5.0	House Connection Branch Stubs (HCB)				
5.1	100mm dia. DWV class "SN10" pipe (1 in 60 min grade) house connection branch stubs, supply and install as detailed on the drawings.	No.	57	\$580.00	\$33,060.00
6.0	Miscellaneous				
6.1P	Extra over Items 1 and 2 for excavation in rock (Provisional Item)	m ³	Rate only		-
6.2	Final connection of sewer main to existing manhole including benching.	-	Rate only		-
SUB TOTAL SECTION D : \$					\$258,385.00

BILL OF QUANTITIES
BOWEN STREET, ROMA - STAGE 4
SECTION D : SEWERAGE RETICULATION

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
				<i>Carried Forward</i>	\$258,385.00
6.3	CCTV inspection of completed sewer lines by NATA registered provider, including preparation of report and provision to Local Authority	-	Item	-	\$5,500
6.4	Vacuum testing of sewer manholes and maintenance shafts by NATA registered authority, including preparation and submission of reports to Engineer	No.	32	\$210.00	\$6,720.00
6.5	Vacuum testing of sewer lines by NATA registered authority, including preparation and submission of reports to Engineer	m	915	\$6.50	\$5,947.50
7.0 7.1P	Pump Station (to details by ITT Flytt) Supply and delivery of ITT Flygt CSM Package Pump station, including switchboard and control panel and telemetry equipment (P C Item) CSM2200/4.2 110-D	No.	Rate Only		-
7.2	Excavation, installation and backfill of pump station including connection of electrical reticulation and sewer and rising mains	No.	Rate Only		-
7.3	On site commissioning and testing of pump station by ITT Industries, in the presence of the engineer and Local Authority, including testing of telemetry equipment.	No.	Rate Only		-
7.4	Hire and transport of mobile 3-phase generator to enable commissioning and testing of pump station, prior to final connection of electricity.	No.	Rate Only		-
7.5	Design, supply and installation of 22,500L reinforced concrete emergency overflow holding tank to pump station including excavation and backfilling operations, reinforced concrete base & lid with access manhole, complete in place.	No.	Rate Only		-
7.6	Supply and install IFDP DS342 DN110 PVC sewer non return valve or approved equivalent including 1050 dia CPO valve pit	No.	Rate Only		-
7.7	Supply and install vehicle warning signage complete in place as detailed on the plans	No.	Rate Only		-
7.8	Connection of rising main to discharge manhole including benching and coating with Peerless Industries "Epigen 0402" and "Epigen 1311"	No.	Rate Only		-
7.9	Pressure testing of sewer rising main	No.	Rate Only		-
SUB TOTAL SECTION D : \$					\$276,552.50

BILL OF QUANTITIES
BOWEN STREET, ROMA - STAGE 4
SECTION D : SEWERAGE RETICULATION

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
				<i>Carried Forward</i>	\$276,552.50
8.0	Pipework to Pump Station Excavate, supply, lay, bed (including sand bedding and sand surround), end cap and backfill (including compaction) all pipes, fittings, marker posts, thrust blocks at changes of direction, and road crossings to roads, all as detailed on the drawings and in the specification.				
8.1	100mm Class K9 DICL Sp-So pipework to pump station, complete as required.	m	Rate Only		-
8.2	150mm Class K9 DICL Sp-So pipework to pump station, complete as required.	m	Rate Only		-
8.3	DN125 Class PE80, PN 12.5 HDPE sewer emergency overflow line, complete in place as shown on the plans.	m	Rate Only		-
9.0	Bends				
9.2	150mm dia x 11.25° Class K9 DICL So-So bend	No.	Rate Only		-
9.3	150mm dia x 22.5° Class K9 DICL So-So bend	No.	Rate Only		-
9.4	150mm dia x 45° Class K9 DICL So-So bend	No.	Rate Only		-
9.5	150mm dia x 90° So-So "Tyco System 2000" DICL bend (horizontally) with concrete thrust block.	No.	Rate Only		-
9.6	100mm dia x 90° So-So "Tyco System 2000" DICL bend (vertically) with concrete thrust block.	No.	Rate Only		-
9.7	100mm dia x 90° So-So "Tyco System 2000" DICL bend (horizontally) with concrete thrust block.	No.	Rate Only		-
10.0	Fittings				
10.1	150mm dia Class K9 DICL Gibault joint	No.	Rate Only		-
10.2	150mm dia Class K9 DICL Sluice valve	No.	Rate Only		-
10.3	100mm dia flange to DN110 HDPE connector	No.	Rate Only		-
	Note:- All areas and lengths are plan areas and lengths. The Contractor is to take into account adjustments for slope distances and areas when pricing.				
SUB TOTAL SECTION D : \$					\$276,552.50

BILL OF QUANTITIES
BOWEN STREET, ROMA - STAGE 4
SECTION E : ELECTRICAL SUPPLY

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	TO BE CONFIRMED FOLLOWING DESIGN BY ELECTRICAL CONSULTANT				
1.0	Conduits Excavate, bed, supply, lay, joint and backfill conduits including all necessary fittings and complete with draw wire, sealed ends including 150mm wide electricity warning tape, as detailed and specified.				
1.1P	Low Voltage Conduit - 80mm dia Light Duty (L.D.) rigid plain orange UPVC in accordance with AS 2053 Parts 1 & 2. (Provisional Quantity)	m	200	\$60.00	\$12,000.00
1.2P	Low Voltage Conduit - 100mm dia Light Duty (L.D.) rigid plain orange UPVC in accordance with AS 2053 Parts 1 & 2. (Provisional Quantity)	m	1350	\$65.00	\$87,750.00
1.3P	High Voltage Conduit - 125mm dia Light Duty (L.D.) rigid plain orange UPVC in accordance with AS 2053 Parts 1 & 2. (Provisional Quantity)	m	850	\$72.00	\$61,200.00
1.4P	Street Lighting Conduit - 40mm dia (Heavy Duty) (H.D.) rigid plain UPVC in accordance with AS 2053. (Provisional Quantity)	m	150	\$30.00	\$4,500.00
2.0	Trenching				
2.1P	450 wide trench for single High Voltage, single Low Voltage Electrical and street lighting conduits and Telstra Conduit in shared trench arrangement, including bedding sand. (Provisional Quantity)	m	750	\$12.00	\$9,000.00
2.2P	Extra over Items 1 for excavation in rock (Provisional Item)	m ³	Rate only		
3.0	Miscellaneous				
3.1P	Public Light Pole Foundations (Minor Road) complete in place as detailed on Ergon Plan No. 819 - Cast in Situ (Provisional Quantity)	No.	9	\$2,850.00	\$25,650.00
3.2P	Public Light Pole Foundations (Major Road) complete in place as detailed on Ergon Plan No. 810 - Cast in Situ (Provisional Quantity)	No.	8	\$3,880.00	\$31,040.00
3.3P	200mm wide Polymeric cable protection cover to all conduits outside Electricity Footpath allocation, and under roads. Material to complying with AS4702. (Provisional Quantity)	m	350	\$6.30	\$2,205.00
3.4P	Sand bedding material (unwashed) (Provisional Quantity)	m ³	200	\$62.00	\$12,400.00
3.5	Service Conduits - 90 degree bend 40 dia with reducer to 25dia installed at 45° to the property boundary	No.	57	\$150.00	\$8,550.00
3.6	Inspection, certification and preparation of as-constructed drawings for submission to Ergon Energy to be carried out by Registered Electrical Engineer	-	Item	-	\$2,750.00
3.7	Construct bases for padmount transformers	No.	3	\$5,500.00	\$16,500.00
TOTAL SECTION E:					\$273,545.00

PRELIMINARY MONTHLY EXPENDITURE
CONTRACT ULDA-10-042/11
BOWEN STREET, ROMA - STAGE 4

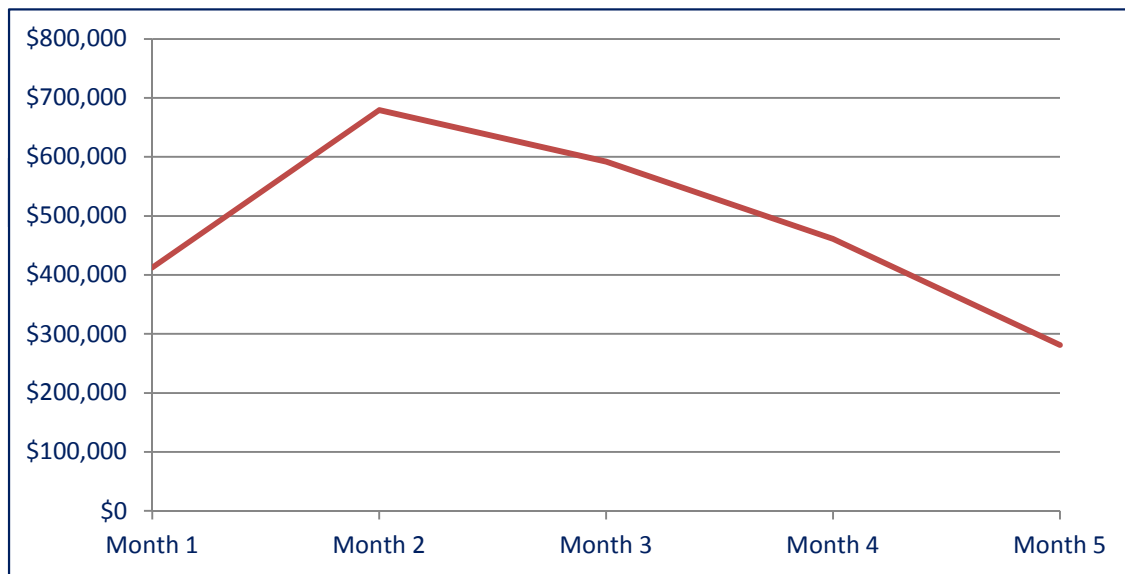
Description	Proposed subdivision - Bowen Street, Roma
Local Authority	Maranoa Regional Council
Number of Lots	57 + Park

Civil Construction Costs

TOTAL (excluding GST)	\$ 2,425,260.88
------------------------------	------------------------

Possible Monthly Expenditure

Month 1	\$ 412,294.35
Month 2	\$ 679,073.05
Month 3	\$ 591,763.65
Month 4	\$ 460,799.57
Month 5	\$ 281,330.26
	\$ 2,425,260.88



Note

The above possible expenditure figures are intended as a guide only, and will be subject to the final Contract Sum, the Contractor's timeframe for construction, works program and the like. The figures shown do not make allowance for construction of electrical infrastructure, NBN, consultants fees, contributions, landscaping or any upgrades to external

The above figures do not make allowance for expenditure associated with Principal's or Contractor's Security, retention money or substitution of retention money.

PRELIMINARY CONSTRUCTION ESTIMATE

CONTRACT ULDA-10-042/11

BOWEN STREET, ROMA - STAGE 8

Description **Proposed subdivision - Bowen Street, Roma**
Local Authority **Maranoa Regional Council**
Number of Lots **46 + Park**

Area of Allotments ≈13785m²

Civil Construction Costs

A	Roadwork's & Environmental	\$ 707,867.50
B	Stormwater Drainage	\$ 172,050.00
C	Water Reticulation	\$ 246,995.00
D	Sewerage	\$ 338,735.00
F	Electrical	\$ 190,865.00
	Sub Total	\$ 1,656,512.50
	contingencies @ 15%	\$ 248,476.88
	TOTAL (excluding GST)	\$ 1,904,989.38

Items Marked Provisional (P)

Where an item is marked provisional (i.e. the item number with the suffix "P"), the quantity for that item may be subject to variation.

The tendered unit rate shall not vary regardless of the quantity ordered by the Superintendent.

Item Marked Provisional (P) and Described as 'if ordered'.

Where an item is marked provisional (i.e. the item number with the suffix "P") and also in the description of the item an 'if ordered' statement is included, the quantity for that item may be subject to variation or the item shall be executed only if the Superintendent orders it in writing.

The tendered unit rate shall not vary regardless of the quantity ordered by the Superintendent.

THE ABOVE DOES NOT INCLUDE ANY FEES OR CHARGES APPLIED BY COUNCIL, STATE OR OTHER AUTHORITIES OR ERGON COSTS SUCH AS CABLING, TRANSFORMERS, ENERGISING INFRASTRUCTURE, ETC. WHICH WILL BE ADDITIONAL TO THE ABOVE FIGURES.

PRELIMINARY CONSTRUCTION ESTIMATE

BOWEN STREET, ROMA - STAGE 8

SECTION A : ROADWORKS

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1.0	Establishment				
1.1	Establishment and disestablishment of equipment site facilities, fees, insurances etc.	-	Item	-	\$75,000.00
1.2	Survey Setout including establishment of control stations and staking of allotments.	-	Item	-	\$12,000.00
1.3	Collection of As-Constructed data including lip of kerb levels, water mains, sewer and stormwater mains; preparation of As-constructed drawings including submission to Local Authority.	-	Item	-	\$8,500.00
2.0	Earthworks to Roads				
2.1	Clearing and grubbing to full width of road reserve and park, including removal and disposal of any trees and stumps, rocks, concrete slabs, removal of chain fence and any other rubbish from the site as directed by the Engineer. (No burning permitted)	-	Item	-	\$4,800.00
2.2	Stripping of topsoil to a minimum depth as detailed on plans, stockpile and respread on footpath areas as directed by the Engineer. (solid quantity).	m ³	750	\$12.00	\$9,000.00
2.3	Earthworks to roads including compaction, density testing, & final trim of subgrade. (solid quantity)				
2.3.1	(a) Cut / Excavation	m ³	2,200	\$9.50	\$20,900.00
2.3.2	(b) Fill / Embankment	m ³	1000	\$14.00	\$14,000.00
2.4	Compaction and final trim of subgrade including testing	m ²	3,850	\$2.25	\$8,662.50
2.5P	Excavation and removal of unsuitable material from the subgrade and replacement with material approved by the Engineer (min CBR15) including compaction and trimming to profile - (Provisional Item)	m ³	Rate Only		-
3.0	Earthworks to Allotments / Park				
3.1	Clearing and grubbing to full area of allotments, including removal and disposal of any trees and stumps, rocks, concrete slabs and any other rubbish from the site as directed by the Engineer. (No burning permitted)	-	Item	-	\$2,500.00
3.2	Stripping of topsoil to a minimum depth as detailed on plans, stockpile and respread on footpath areas as directed by the Engineer. (solid quantity).	m ³	Rate Only		-
3.3	Earthworks to allotments including compaction, density testing, & final trim. (solid quantity)				
3.3.1	(a) Cut / Excavation	m ³	Rate Only		-
3.3.2	(b) Fill / Embankment	m ³	Rate Only		-
SUB-TOTAL Section A : \$					\$155,362.50

PRELIMINARY CONSTRUCTION ESTIMATE

BOWEN STREET, ROMA - STAGE 8

SECTION A : ROADWORKS

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
			<i>Carried Forward</i>		\$155,362.50
4.0	Concrete Works				
4.1	Layback concrete kerb & channel IMEAQ type M3 (including transitions, brass plugs / marker discs) to roads, supplied and laid as per Drawings .	m	470	\$58.00	\$27,260.00
4.2	Barrier concrete kerb & channel IMEAQ type B1 (including transitions, brass plugs / marker discs) to roads, supplied and laid as per Drawings .	m	240	\$58.00	\$13,920.00
4.3	Flush concrete kerb BCC type G (including transitions, brass plugs / marker discs) to roads, supplied and laid as per Drawings .	m	Rate Only	\$55.00	-
4.4	Barrier concrete kerb IMEAQ type B2 (including transitions, brass plugs / marker discs) to roads, supplied and laid as per Drawings .	m	110	\$55.00	\$6,050.00
4.5	Concrete spoon drain (including transitions, brass plugs / marker discs) to roads, supplied and laid as per Drawings.	m	70	\$65.00	\$4,550.00
4.6	Concrete road pavement, 150mm thick reinforced concrete (N32, 4.25Mpa Flexural strength), including 2 layers SL82 mesh and trimmer bars, sawcutting and Oxide colour @8% dose rate, Standard Hanson Xposemasta aggregate mix and light water washed exposed finishing as detailed on the drawings, complete in place.	m ²	1400	\$120.00	\$168,000.00
4.7	1.5m wide concrete footpath, 100mm thick reinforced concrete (N32), including 1 layer SL72 mesh and trimmer bars, sawcutting, standard grey concrete with broom finish as detailed on the drawings, complete in place.	m	260	\$110.00	\$28,600.00
4.8	2.5m wide concrete footpath, 100mm thick reinforced concrete (N32), including 1 layer SL72 mesh and trimmer bars, sawcutting, sawcutting and Oxide colour @8% dose rate and broom finish as detailed on the drawings, complete in place.	m	Rate Only	\$170.00	-
4.9	Construction of pram ramps to pathways at kerb locations.	No	4	\$650.00	\$2,600.00
4.10	Construction of Dowelled Expansion Joint, including sacrificial formwork, dowel-serts, steel dowel bars, ableflex and sealant	m	40	\$45.00	\$1,800.00
5.0	Road Surfacing				
5.1	30mm thick (DG10) Asphalt Concrete surfacing to roadworks as specified.	m ²	2,200	\$23.50	\$51,700.00
5.2	Prime including broom, supply and spray as per specification. (AMC0 application rate 1.0L/m ²)	m ²	Rate Only		-
5.3	Prime including broom, supply and spray as per specification. (Emulprime C application rate 1.2L/m ²)	m ²	2,200	\$2.90	\$6,380.00
SUB-TOTAL Section A : \$					\$466,222.50

PRELIMINARY CONSTRUCTION ESTIMATE

BOWEN STREET, ROMA - STAGE 8

SECTION A : ROADWORKS

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
				<i>Carried Forward</i>	\$466,222.50
6.0	Pavement Materials				
	Pavement material to roadworks to supply, spread, mix & compact (Including density testing & final trim).				
6.1	Base course gravel (MR SUBTYPE 3.1 CBR 80) thickness as per drawings and specification - (Solid Quantity)	m ³	275	\$160.00	\$44,000.00
6.2	Upper Sub-base gravel (MR SUBTYPE 3.2 CBR 60) thickness as per drawings and specification - (Solid Quantity)	m ³	390	\$150.00	\$58,500.00
6.3	Middle Sub-base gravel (MR SUBTYPE 3.3 CBR 45) thickness as per drawings and specification - (Solid Quantity)	m ³	640	\$140.00	\$89,600.00
6.4P	Lower Sub-base gravel (MR SUBTYPE 3.4 CBR 35) thickness as per drawings and specification - (Solid Quantity) (Provisional, If Ordered)	m ³	Rate Only		-
6.5	Subgrade Replacement (MR SUBTYPE 3.5 CBR 15) thickness as per drawings and specification - (Solid Quantity)	m ³	Rate Only		-
6.6P	Additional subbase gravel including excavation as necessary (Provisional, If Ordered)	m ³	Rate Only		-
7.0	Miscellaneous				
7.1P	Alterations to existing services (Provisional Item)	-	Item	-	\$2,500.00
7.2P	Extra over Items 2 for excavation in rock on roadway excavation (Provisional, If Ordered)	m ³	Rate Only		-
7.3	Provision for traffic / traffic control during construction of road widening of existing pavements, including preparation, certification and approval of traffic control plan	-	Item	-	\$4,500.00
7.4	Saw cut existing bitumen surfacing at cut back line along existing pavement.	m	35	\$14.00	\$490.00
7.5	Linemarking to carparking area: 100mm wide white painted line, complete as shown on the Drawings.	m	27	\$5.00	\$135.00
7.6	Linemarking to carparking area: white painted disabled symbol, complete as shown on the Drawings.	No	1	\$150.00	\$150.00
7.7	Subsoil drain behind back of kerb, Type 1 in accordance with IMAEQ standard drawing R-0140	m	Rate Only		-
SUB-TOTAL Section A : \$					\$666,097.50

PRELIMINARY CONSTRUCTION ESTIMATE

BOWEN STREET, ROMA - STAGE 8

SECTION A : ROADWORKS

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
			<i>Carried Forward</i>		\$666,097.50
8.0	Road Furniture				
8.1	Supply and install new approved class 1 street sign including Shire crest, together with V-Lock base	No.	3	\$390.00	\$1,170.00
8.2	Supply and installation of driven Give Way sign (R1-2A)	No.	1	\$450.00	\$450.00
9.0	Environmental				
9.1P	Sediment and erosion protection of exposed subgrade and pavement surfaces and details on the EMP (Provisional Item)	-	Item	-	\$2,500.00
9.2P	Sediment Fences constructed with approved U.V. stabilised specialised material, complete incl. return nibs and spill through weirs at positions agreed on site.(Do not construct from filter or shade cloth). (Provisional Sum)	m	300	\$10.00	\$3,000.00
9.3P	Turf longitudinal and transverse strips to: - footpath and back of kerb; - outlet channels; - between back of kerb and overflow sections from silt fences; all as detailed on the plans. (Provisional Quantity)	m ²	1,900	\$8.00	\$15,200.00
9.4P	Grass seeding of cut and fill batters, and all disturbed areas with a mix of rye grass and kikuyu of approved equivalent (if ordered) Provisional Quantity	m ²	6,500	\$0.75	\$4,875.00
9.5P	Filter socks. (Provisional No.)	No	20	\$100.00	\$2,000.00
9.6P	Water for control of dust (Provisional quantity)	kL	200	\$20.00	\$4,000.00
9.7	Construction of rock filter dam wall (temporary sediment basin), including 15-25mm single sized core rock, 200-300mm armour rock, footing excavation, complete in place as shown on the drawings	m	Rate Only	\$75.00	-
9.8	Catch Drains	m	210	\$7.50	\$1,575.00
9.9	Vibration Grate at site entry/exit, complete, in place in accordance with drawings	No.	2	\$2,200.00	\$4,400.00
10.0	Geotechnical				
10.1	Single point soaked CBR testing of subgrade for pavement depth design confirmation	No	5	\$520.00	\$2,600.00
	Note:- All areas and lengths are plan areas and lengths.The Contractor is to take into account adjustments for slope distances and areas when pricing.				
TOTAL Section A : \$					\$707,867.50

BILL OF QUANTITIES
BOWEN STREET, ROMA - STAGE 8
SECTION B : STORMWATER DRAINAGE

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1.0	STORMWATER Pipe Schedule Stormwater drainage pipes in place complete including excavation, supply, lay (including sand bedding and sand surround), backfill to drawings and specification.				
1.1	150 uPVC SN8 Rubber Ring Jointed	m	Rate Only	\$82.50	-
1.2	225 uPVC SN8 Rubber Ring Jointed	m	Rate Only	\$110.00	-
1.3	300 uPVC SN8 Rubber Ring Jointed	m	Rate Only	\$128.00	-
1.4	225 FRC Class 2 Rubber Ring Joint	m	Rate Only	\$120.00	-
1.5	225 FRC Class 3 Rubber Ring Joint	m	75	\$130.00	\$9,750.00
1.6	300 FRC Class 2 Rubber Ring Joint	m	70	\$135.00	\$9,450.00
1.7	300 R.C.P. Class 2 Rubber Ring Jointed	m	50	\$125.00	\$6,250.00
1.8	375 R.C.P. Class 2 Rubber Ring Jointed	m	280	\$150.00	\$42,000.00
1.9	450 R.C.P. Class 2 Rubber Ring Jointed	m	Rate Only	\$165.00	-
1.10	525 R.C.P. Class 2 Rubber Ring Jointed	m	Rate Only	\$190.00	-
1.11	600 R.C.P. Class 2 Rubber Ring Jointed	m	Rate Only	\$220.00	-
1.12	675 R.C.P. Class 2 Flush Jointed	m	Rate Only	\$275.00	-
1.13	750 R.C.P. Class 2 Flush Jointed	m	Rate Only	\$300.00	-
1.14	825 R.C.P. Class 2 Flush Jointed	m	Rate Only	\$340.00	-
1.15	900 R.C.P. Class 2 Flush Jointed	m	Rate Only	\$450.00	-
1.16	1050 R.C.P. Class 2 Flush Jointed	m	Rate Only	\$680.00	-
1.17	1200 R.C.P. Class 2 Flush Jointed	m	Rate Only	\$710.00	-
1.18	150 Dia slotted subsoil drainage pipe in geotextile sock (BCC Type C), including single sized aggregate surround	m	150	\$95.00	\$14,250.00
2.0	STORMWATER CPO Manholes / Junction Pits				
2.1	900mm dia. C.P.O. stormwater junction manholes supplied complete in place including medium duty circular concrete surround and cast iron covers, rendering, benching, backfill, etc. to design and specification.	No.	2	\$1,950.00	\$3,900.00
2.2	1050mm dia. C.P.O. stormwater junction manholes supplied complete in place including medium duty circular concrete surround and cast iron covers, rendering, benching, backfill, etc. to design and specification.	No.	7	\$2,650.00	\$18,550.00
2.3	1200mm dia. C.P.O. stormwater junction manholes supplied complete in place including medium duty circular concrete surround and cast iron covers, rendering, benching, backfill, etc. to design and specification.	No.	Rate Only	\$2,900.00	-
2.4	1500mm dia. C.P.O. stormwater junction manholes supplied complete in place including medium duty circular concrete surround and cast iron covers, rendering, benching, backfill, etc. to design and specification.	No.	Rate Only	\$3,200.00	-
2.5	1800mm dia. C.P.O. stormwater junction manholes supplied complete in place including medium duty circular concrete surround and cast iron covers, rendering, benching, backfill, etc. to design and specification.	No.	Rate Only	\$3,850.00	-
SUB TOTAL SECTION B : \$					\$104,150.00

BILL OF QUANTITIES

BOWEN STREET, ROMA - STAGE 8

SECTION B : STORMWATER DRAINAGE

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
				<i>Carried Forward</i>	\$104,150.00
2.5	1800mm dia. C.P.O. stormwater junction manholes supplied complete in place including medium duty circular concrete surround and cast iron covers, rendering, benching, backfill, etc. to design and specification.	No.	Rate Only		-
3.0	STORMWATER Gully inlets				
3.1	Stormwater Gully 2.4m long Lip-in-Line Sag Inlet, Type 'S' Lintel with cycle proof grates on precast dia. C.P.O. manhole complete in place including backfilling to drawing and specification.:				
	(a) On 1050mm Dia CPO manhole	No.	2	\$2,650.00	\$5,300.00
	(b) On 1200mm Dia CPO manhole	No.	Rate Only	\$2,750.00	-
	(c) On 1500mm Dia CPO manhole	No.	Rate Only	\$2,900.00	-
	(d) On 1800mm Dia CPO manhole	No.	Rate Only	\$3,100.00	-
3.2	Stormwater Gully 2.4m Lip-in-Line On Grade Inlet, Type 'S' Lintel with cycle proof grates on precast C.P.O. manhole complete in place including backfilling to drawing and specification:				
	(a) On 1050mm Dia CPO manhole	No.	3	\$2,750.00	\$8,250.00
	(b) On 1200mm Dia CPO manhole	No.	Rate Only	\$2,750.00	-
	(c) On 1500mm Dia CPO manhole	No.	Rate Only	\$2,900.00	-
	(d) On 1800mm Dia CPO manhole	No.	Rate Only	\$3,100.00	-
3.3	Stormwater Gully 3.6m long Lip-in-Line Sag Inlet, Type 'S' Lintel with cycle proof grates on precast dia. C.P.O. manhole complete in place including backfilling to drawing and specification.:				
	(a) On 1050mm Dia CPO manhole	No.	Rate Only		-
	(b) On 1200mm Dia CPO manhole	No.	Rate Only		-
	(c) On 1500mm Dia CPO manhole	No.	Rate Only		-
	(d) On 1800mm Dia CPO manhole	No.	Rate Only		-
3.4	Stormwater Gully 3.6m Lip-in-Line On Grade Inlet, Type 'S' Lintel with cycle proof grates on precast C.P.O. manhole complete in place including backfilling to drawing and specification:				
	(a) On 1050mm Dia CPO manhole	No.	Rate Only		-
	(b) On 1200mm Dia CPO manhole	No.	Rate Only		-
	(c) On 1500mm Dia CPO manhole	No.	Rate Only		-
	(d) On 1800mm Dia CPO manhole	No.	Rate Only		-
3.5	Stormwater Gully 4.8m long Lip-in-Line Sag Inlet, Type 'S' Lintel with cycle proof grates on precast dia. C.P.O. manhole complete in place including backfilling to drawing and specification.:				
	(a) On 1050mm Dia CPO manhole	No.	Rate Only		-
	(b) On 1200mm Dia CPO manhole	No.	Rate Only		-
	(c) On 1500mm Dia CPO manhole	No.	Rate Only		-
	(d) On 1800mm Dia CPO manhole	No.	Rate Only		-
SUB TOTAL SECTION B : \$					\$117,700.00

BILL OF QUANTITIES
BOWEN STREET, ROMA - STAGE 8
SECTION B : STORMWATER DRAINAGE

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
				<i>Carried Forward</i>	\$117,700.00
3.6	Stormwater Gully 4.8m Lip-in-Line On Grade Inlet, Type 'S' Lintel with cycle proof grates on precast C.P.O. manhole complete in place including backfilling to drawing and specification:				
	(a) On 1050mm Dia CPO manhole	No.	Rate Only		-
	(b) On 1200mm Dia CPO manhole	No.	Rate Only		-
	(c) On 1500mm Dia CPO manhole	No.	Rate Only		-
	(d) On 1800mm Dia CPO manhole	No.	Rate Only		-
3.7	Stormwater grate inlet - MaxQ "Manning" 800x500 grate on precast C.P.O. Manhole complete in place including adapter slab and square concrete surround:				
	(a) On 1050mm Dia CPO manhole	No.	5	\$4,500.00	\$22,500.00
	(b) On 1200mm Dia CPO manhole	No.	Rate Only		-
	(c) On 1500mm Dia CPO manhole	No.	Rate Only		-
	(d) On 1800mm Dia CPO manhole	No.	Rate Only		-
3.8	Stormwater grate inlet - Rocla "RKO" 600x600 domed inlet on precast C.P.O. Manhole complete in place including square concrete surround:				
	(a) On 1050mm Dia CPO manhole	No.	Rate Only	\$3,200.00	-
	(b) On 1200mm Dia CPO manhole	No.	Rate Only		-
	(c) On 1500mm Dia CPO manhole	No.	Rate Only		-
	(d) On 1800mm Dia CPO manhole	No.	Rate Only		-
3.9	Stormwater grate inlet - 450x450 concrete field inlet to off street parking, with square trafficable grate complete in place	No.	2	\$800.00	\$1,600.00
3.10	Anti-pondage pit constructed in accordance with IPWEAQ standard drawing No. D-0068. Complete in place.	No.	2	\$2,800.00	\$5,600.00
4.0	Stormwater outlet structures				
4.1	Pre-cast headwall including wingwalls, apron slab and cutoff wall, complete in place as shown on the Drawings.				
	(a) Dia 450 pipe outlet	No.	1	\$750.00	\$750.00
	(b) Dia 525 pipe outlet	No.	Rate Only		-
	(c) Dia 600 pipe outlet	No.	Rate Only	\$750.00	-
	(d) Dia 675 pipe outlet	No.	Rate Only		-
	(e) Dia 750 pipe outlet	No.	Rate Only	\$1,250.00	-
	(f) Dia 825 pipe outlet	No.	Rate Only		-
	(g) Dia 900 pipe outlet	No.	Rate Only		-
	(h) Dia 1050 pipe outlet	No.	Rate Only		-
	(i) Dia 1200 pipe outlet	No.	Rate Only		-
4.2	Provide stone pitching (typical rock size dia 300mm) on A34 Bidim geotextile, downstream of stormwater outlet.	-	Item	-	\$1,500.00
4.3	Stormwater outlet channels including excavation and stone pitching as shown on the Drawings.				
	(a) Strip	m ³	Rate Only	\$25.00	-
	(b) Cut	m ³	Rate Only	\$35.00	-
SUB TOTAL SECTION B : \$					\$149,650.00

BILL OF QUANTITIES
BOWEN STREET, ROMA - STAGE 8
SECTION B : STORMWATER DRAINAGE

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
			<i>Carried Forward</i>		\$149,650.00
5.0	Miscellaneous				
5.1P	Extra over item 1 for excavation in rock in trench excavation (Provisional, If Ordered)	m ³	Rate Only		-
5.2	1100mm high galvanised steel post and rail fence to stormwater headwall as shown on the Drawings, in accordance with IMEAQ standard drawing G-0044; type 2	m	20	\$220.00	\$4,400.00
5.3	CCTV inspection of completed stormwater lines by NATA registered provider, including preparation of report and provision to Local Authority	-	Item	-	\$5,500.00
5.4	Supply and install roofwater outlets to kerb including Duragal CHS pipe under footpath and galvanised steel kerb adapters	No.	10	\$350.00	\$3,500.00
5.5	Installation of roofwater house connection branches, class SN10 pvc including marker tape and stake	No.	36	\$250.00	\$9,000.00
5.6	Construction of Stormwater detention basin in existing Park, including cut and fill earthworks, inlet and outlet structures, outlet pipework, signage, turfing and grass seeding	-	Rate Only		-
TOTAL SECTION B : \$					\$172,050.00

BILL OF QUANTITIES
BOWEN STREET, ROMA - STAGE 8
SECTION C : WATER RETICULATION

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1.0	Potable Water Mains Excavate, supply, lay, bed (including sand bedding and sand surround), end cap and backfill (including compaction) all pipes, fittings, marker posts, thrust blocks at changes of direction, and road crossings to roads, marker tape with metallic strip, all as detailed on the drawings and in the specification.				
1.1	150mm Class 16 PVC-O 'Supermain' water main socket and spigot, rubber ring jointed to AS4765 complete with fittings as required.	m	220	\$115.00	\$25,300.00
	100mm Class 16 PVC-O 'Supermain' water main socket and spigot, rubber ring jointed to AS4765 complete with fittings as required.	m	365	\$95.00	\$34,675.00
1.2	Dia 63mm OD Poly water return pipe in cul-de sac , complete with 50mm connections and control valves as	m	30	\$55.00	\$1,650.00
2.0	Hydrants				
2.1	80mm dia. hydrant including 150 dia hydrant tee, riser, spring hydrant and fittings complete in place including construction of hydrant chamber and installation of box, surround and markers.	No.	3	\$1,350.00	\$4,050.00
2.2	80mm dia. Duckfoot hydrant including 150 dia hydrant bend, riser, spring hydrant and fittings complete in place including construction of hydrant chamber and installation of box, surround and markers.	No.	Rate Only	\$1,350.00	-
2.3	80mm dia. hydrant including 100 dia hydrant tee, riser, spring hydrant and fittings complete in place including construction of hydrant chamber and installation of box, surround and markers.	No.	4	\$1,200.00	\$4,800.00
2.4	80mm dia. Duckfoot hydrant including 100 dia hydrant bend, riser, spring hydrant and fittings complete in place including construction of hydrant chamber and installation of box, surround and markers.	No.	2	\$1,200.00	\$2,400.00
3.0	Potable Water Service Connections				
3.1	LONG ENVELOPER, DOUBLE SERVICE. Supply and install 100mm uPVC Class 'SH' Water Service Enveloper Conduit (long) beneath roads, including tapping band (or readytap), TPFNR bonnet ferrule, ferrule poly adaptor, double poly service line, potable water meter and stop cock.	No.	1	\$1,300.00	\$1,300.00
3.2	NO ENVELOPER, DOUBLE SERVICE. Supply and install 100mm uPVC Class 'SH' Water Service Enveloper Conduit (long) beneath roads, including tapping band (or readytap), TPFNR bonnet ferrule, ferrule poly adaptor, double poly service line, potable water meter and stop cock.	No.	11	\$1,100.00	\$12,100.00
SUB TOTAL SECTION C : \$					\$86,275.00

BILL OF QUANTITIES
BOWEN STREET, ROMA - STAGE 8
SECTION C : WATER RETICULATION

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
			<i>Carried Forward</i>		\$86,275.00
3.3	LONG ENVELOPER, SINGLE SERVICE. Supply and install 100mm uPVC Class 'SH' Water Service Enveloper Conduit (long) beneath roads, including tapping band (or readytap), TPFNR bonnet ferrule, ferrule poly adaptor, double poly service line, potable water meter and stop cock.	No.	13	\$1,200.00	\$15,600.00
3.4	NO ENVELOPER, SINGLE SERVICE. Supply and install tapping band (or readytap), TPFNR bonnet ferrule, ferrule poly adaptor, double poly service line, potable water meter and stop cock.	No.	9	\$650.00	\$5,850.00
3.5	Water meter box: Plastic water meter box, complete in place	No.	46	\$550.00	\$25,300.00
4.0	Bends (Potable water main) Supply and install bitumen dipped (or epoxy coated) Cast Iron socket-socket water main bend				
4.1	150mm dia x 11.25° CI bend	No.	Rate Only	\$280.00	-
4.2	150mm dia x 22.5° CI bend	No.	Rate Only	\$310.00	-
4.3	150mm dia x 45° CI bend	No.	Rate Only	\$200.00	-
4.3	150mm dia x 90° CI bend	No.	Rate Only	\$370.00	-
4.4	100mm dia x 11.25° CI bend	No.	Rate Only	\$200.00	-
4.5	100mm dia x 22.5° CI bend	No.	6	\$200.00	\$1,200.00
4.6	100mm dia x 45° CI bend	No.	2	\$255.00	\$510.00
4.7	100mm dia x 90° CI bend	No.	2	\$250.00	\$500.00
5.0	Tees (Potable water main) Supply and install bitumen dipped (or epoxy coated) Cast Iron socket-socket water main tee				
5.1	150mm x 150mm x 150mm CI tee	No.	1	\$350.00	\$350.00
5.2	150mm x 150mm x 100mm CI tee	No.	1	\$380.00	\$380.00
5.3	100mm x 100mm x 100mm CI tee	No.	2	\$350.00	\$700.00
5.4	100mm x 100mm x 100mm x 100mm CI cross	No.	Rate Only	\$380.00	-
5.5	100mm x 100mm x 150mm x 150mm CI cross	No.	Rate Only	\$420.00	-
6.0	Valves (Potable water main) Supply and install bitumen dipped (or epoxy coated) Cast Iron socket-socket water main valve				
6.1	150mm dia Stop Valve complete incl. valve box and marker plate	No.	1	\$1,600.00	\$1,600.00
6.2	100mm dia Stop Valve complete incl. valve box and marker plate	No.	5	\$1,250.00	\$6,250.00
7.0	Other Fittings (Potable water main) Supply and install bitumen dipped (or epoxy coated) Cast Iron socket-socket water main 150mm to 100mm dia CI reducer				
7.1		No.	Rate Only	\$420.00	-
7.2	Supply and install water main end cap, including thrust block	No.	Rate Only	\$425.00	-
SUB TOTAL SECTION C : \$					\$144,515.00

BILL OF QUANTITIES
BOWEN STREET, ROMA - STAGE 8
SECTION C : WATER RETICULATION

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
			<i>Carried Forward</i>		\$144,515.00
7.3	100mm Dia Scour assembly, including 80mm socket scour tee and 80mm flanged sluice (stop) valve with flanged socket connector, including pre-cast manhole in general accordance with IMEAQ standard drawing W-0080	No.	Rate Only	\$1,200.00	-
7.4	150mm Dia Scour assembly, including 80mm socket scour tee and 80mm flanged sluice (stop) valve with flanged socket connector, including pre-cast manhole in general accordance with IMEAQ standard drawing W-0080	No.	Rate Only	\$1,650.00	-
7.5	Unirain ARV-2"-KA Kinetic and Automatic air release valve, including 100mm Dia tapping band, valve box and marker (available from Vinidex Australia)	No.	Rate Only	\$1,650.00	-
7.6	Unirain ARV-2"-KA Kinetic and Automatic air release valve, including 150mm Dia tapping band, valve box and marker (available from Vinidex Australia)	No.	Rate Only	\$1,850.00	-
8.0	Recycled Water Mains Excavate, supply, lay, bed (including sand bedding and sand surround), end cap and backfill (including compaction) all pipes, electrofusion welded fittings, marker posts, thrust blocks at changes of direction, and road crossings to roads, marker tape with metallic strip, all as detailed on the drawings and in the specification.				
8.1	DN110 (Class PE100, PN16, SDR11) HDPE purple stripe recycled water main complete with electrofusion welded fittings as required.	m	Rate Only		-
8.2	DN63 (Class PE100, PN16, SDR11) HDPE purple stripe recycled water main complete with electrofusion welded fittings as required.	m	Rate Only		-
9.0	Recycled Water Service Connections				
9.1	LONG ENVELOPER, DOUBLE SERVICE. Supply and install 100mm uPVC Class 'SH' Water Service Enveloper Conduit (long) beneath roads, including electrofusion welded service tapping saddle, ball valve, double poly service line (DN32 purple poly), tee and single poly service lines (DN25 purple poly), recycled water meters and stop cocks.	No.	Rate Only		-
9.2	NO ENVELOPER, DOUBLE SERVICE. Supply and install electrofusion welded service tapping saddle, ball valve, double poly service line (DN32 purple poly), tee and single poly service lines (DN25 purple poly), recycled water meters and stop cocks.	No.	Rate Only		-
9.3	LONG ENVELOPER, SINGLE SERVICE. Supply and install 100mm uPVC Class 'SH' Water Service Enveloper Conduit (long) beneath roads, including electrofusion welded service tapping saddle, ball valve, single poly service line (DN25 purple poly), recycled water meter and stop cock.	No.	Rate Only		-
SUB TOTAL SECTION C : \$					\$144,515.00

BILL OF QUANTITIES
BOWEN STREET, ROMA - STAGE 8
SECTION C : WATER RETICULATION

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
				<i>Carried Forward</i>	\$144,515.00
9.4	NO ENVELOPER, SINGLE SERVICE. Supply and install electrofusion welded service tapping saddle, ball valve, single poly service line (DN25 purple poly), recycled water meter and stop cock.	No.	Rate Only		-
10.0	Bends (Recycled water main) Supply and install Plasson electrofusion welded bend - Coupler to Coupler				
10.1	DN110 x 22.5° CI bend	No.	Rate Only		-
10.2	DN110 x 45° CI bend	No.	Rate Only		-
10.3	DN110 x 90° CI bend	No.	Rate Only		-
10.4	DN110 Adjustable Elbow - Coupler to Coupler	No.	Rate Only		-
10.5	DN63 x 45° CI bend	No.	Rate Only		-
10.6	DN63 x 90° CI bend	No.	Rate Only		-
11.0	Tees (Recycled water main) Supply and install Plasson electrofusion welded tee: Coupler-Coupler-Spigot, and additional electrofusion welded coupler				
11.1	DN110 x 110 x 110	No.	Rate Only		-
11.2	DN110 x 110 x 63	No.	Rate Only		-
11.3	DN63 x 63 x 63	No.	Rate Only		-
12.0	Valves (Recycled water main) Supply and install Hawle System 2000 restrained Ductile Iron fitting	No.	Rate Only		-
12.1	DN110 Hawle system 2000 valve	No.	Rate Only		-
12.2	DN63 Hawle system 2000 valve	No.	Rate Only		-
13.0	Flushing Points (Recycled water main)				
13.1	IN LINE: Supply and install Plasson electrofusion welded Tee, HDPE riser, transition coupling, brass ball valve, nut and spindle, poly camlock, in ACO Cablemate Type 45 pit and lid. Complete in place, in accordance with the standard drawing.	No.	Rate Only		-
13.2	END OF LINE: Supply and install Plasson electrofusion welded 90° bend, HDPE riser, transition coupling, brass ball valve, nut and spindle, poly camlock, in ACO Cablemate Type 45 pit and lid. Complete in place, in accordance with the standard drawing.	No.	Rate Only		-
14.0	Inter-main Connection				
14.1	Supply and install Plasson electrofusion welded Tee (Coupler-Coupler-Flange), CI Tee (So-So-Flange) and CI Valve (FI-FI); together with 600mm Dia MH cover and concrete surround as surface fitting, 225mm Dia PVC shroud pipe on DI or polyprop base to DN63 main	No.	Rate Only		-
SUB TOTAL SECTION C : \$					\$144,515.00

BILL OF QUANTITIES
BOWEN STREET, ROMA - STAGE 8
SECTION C : WATER RETICULATION

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
			<i>Carried Forward</i>		\$144,515.00
14.2	Supply and install Plasson electrofusion welded Tee (Coupler-Coupler-Flange), CI Tee (So-So-Flange) and CI Valve (FI-FI); together with 600mm Dia MH cover and concrete surround as surface fitting, 225mm Dia PVC shroud pipe on DI or polyprop base to DN110 main	No.	Rate Only		-
15.0	Miscellaneous				
15.1	Connection to existing dia water main (all fittings to be supplied by contractor)	No.	2	\$2,000.00	\$4,000.00
15.2	Pressure testing, chlorination and flushing of new mains	-	Item	-	\$4,500.00
15.3	Supply and install Plasson electrofusion welded end cap and thrust block to DN63 main	No.	Rate Only	\$375.00	-
15.4	Supply and install Plasson electrofusion welded end cap and thrust block to DN110 main	No.	Rate Only	\$425.00	-
16.0	Gas Reticulation				
	Excavate, supply, lay, bed (including sand bedding and sand surround), end cap and backfill (including compaction) all pipes, fittings, marker posts, and road crossings, all as detailed on the drawings.				
16.1	50mm PE (Yellow Stripe) gas main, including all bends and fittings as required.	m	665	\$52.00	\$34,580.00
16.2	50mm Gas main Valve, including valve box and marker post	No.	5	\$1,350.00	\$6,750.00
16.3	Dual Long gas service: 40mm PE (Yellow Stripe), including tee, 32mm service pipe all bends and fittings as required with SN4 envelope pipe for cross road services.	No.	7	\$1,350.00	\$9,450.00
16.4	Short gas service: 32mm PE (Yellow Stripe), including all fittings as required.	No.	32	\$750.00	\$24,000.00
16.5P	Connection to existing gas main (all fittings to be supplied by contractor) Provisional Item	No.	2	\$2,000.00	\$4,000.00
16.6	Gas main pigging, pressure testing and purging of new gas mains and services as detailed on drawings.	L/S	Item	-	\$4,000.00
16.7	Excavate and remove section of existing gas service line, including backfilling operations and compaction	m	140	\$80.00	\$11,200.00
TOTAL SECTION C : \$					\$246,995.00

BILL OF QUANTITIES
BOWEN STREET, ROMA - STAGE 8
SECTION D : SEWERAGE RETICULATION

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
1.0	Sewer Main Excavate, backfill (including compaction) supply, lay (including bedding), and air test sewer lines, including all rubber rings, shorts, make up pieces, jump-ups etc. including slip couplings to design and specification requirements				
1.1	150mm dia. Sewer Class SN8 rubber ring jointed or approved equivalent.	m	190	\$105.00	\$19,950.00
1.2	225mm dia. Sewer Class SN8 rubber ring jointed or approved equivalent.	m	180	\$155.00	\$27,900.00
2.0	Sewer Rising Main Excavate, backfill (including compaction) supply, lay (including bedding), and test sewer rising main including all electrofusion welded joints, shorts, to design and specification requirements in 450mm wide trench				
2.1	DN63mm HDPE (Class PE80, PN12.5, SDR11)	m	Rate only	\$95.00	-
2.2	DN110mm HDPE (Class PE80, PN12.5, SDR11)	m	Rate only	\$115.00	-
2.3	DN125mm HDPE (Class PE80, PN12.5, SDR11)	m	Rate only	\$125.00	-
2.4	DN160mm HDPE (Class PE80, PN12.5, SDR11)	m	Rate only	\$140.00	-
3.0	Sewer Manholes 1050mm dia. sewer concrete manholes supplied complete in place including concrete covers, frames, rendering, benching, inlet drops etc to design and specification.				
3.1	Manholes up to 2000 in depth	No.	2	\$2,900.00	\$5,800.00
3.2	2001mm - 3000mm in depth	No.	3	\$3,300.00	\$9,900.00
3.3	3001mm - 4000mm in depth	No.	3	\$4,200.00	\$12,600.00
3.4	Construct new manhole in existing sewer main.	No.	1	\$3,700.00	\$3,700.00
4.0	Sewer Maintenance Shafts Wormall "Poo Pit 600" sewer maintenance shafts supplied complete in place including covers, inlet drops etc to design and specification.				
4.1	Shafts up to 2000 in depth	No.	Rate only	\$2,600.00	-
4.2	2001mm - 3000mm in depth	No.	Rate only	\$3,450.00	-
4.3	3001mm - 4000mm in depth	No.	Rate only	\$4,450.00	-
5.0	House Connection Branch Stubs (HCB)				
5.1	100mm dia. DWV class "SN10" pipe (1 in 60 min grade) house connection branch stubs, supply and install as detailed on the drawings.	No.	46	\$580.00	\$26,680.00
6.0	Miscellaneous				
6.1P	Extra over Items 1 and 2 for excavation in rock (Provisional Item)	m ³	Rate only		-
6.2	Final connection of sewer main to existing manhole including benching.	-	Rate only		-
6.3	Excavation and removal of existing sewer main, including backfill and compaction operations	m	45	\$100.00	\$4,500.00
SUB TOTAL SECTION D : \$					\$111,030.00

BILL OF QUANTITIES
BOWEN STREET, ROMA - STAGE 8
SECTION D : SEWERAGE RETICULATION

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
				<i>Carried Forward</i>	\$111,030.00
6.4	CCTV inspection of completed sewer lines by NATA registered provider, including preparation of report and provision to Local Authority	-	Item	-	\$5,500.00
6.5	Vacuum testing of sewer manholes and maintenance shafts by NATA registered authority, including preparation and submission of reports to Engineer	No.	8	\$210.00	\$1,680.00
6.6	Vacuum testing of sewer lines by NATA registered authority, including preparation and submission of reports to Engineer	m	290	\$6.50	\$1,885.00
7.0 7.1P	Pump Station (to details by ITT Flytt) Supply and delivery of ITT Flygt CSM Package Pump station, including switchboard and control panel and telemetry equipment (P C Item) CSM2200/4.2 110-D	No.	Item	-	\$129,000.00
7.2	Excavation, installation and backfill of pump station including connection of electrical reticulation and sewer and rising mains	No.	Item	-	\$15,600.00
7.3	On site commissioning and testing of pump station by ITT Industries, in the presence of the engineer and Local Authority, including testing of telemetry equipment.	No.	Item	-	\$21,500.00
7.4	Hire and transport of mobile 3-phase generator to enable commissioning and testing of pump station, prior to final connection of electricity.	No.	Item	-	\$5,500.00
7.5	Design, supply and installation of 22,500L reinforced concrete emergency overflow holding tank to pump station including excavation and backfilling operations, reinforced concrete base & lid with access manhole, complete in place.	No.	Item	-	\$18,500.00
7.6	Supply and install IFDP DS342 DN110 PVC sewer non return valve or approved equivalent including 1050 dia CPO valve pit	No.	Item	-	\$2,850.00
7.7	Supply and install vehicle warning signage complete in place as detailed on the plans	No.	Item	-	\$1,200.00
7.8	Connection of rising main to discharge manhole including benching and coating with Peerless Industries "Epigen 0402" and "Epigen 1311"	No.	Item	-	\$2,800.00
7.9	Pressure testing of sewer rising main	No.	Item	-	\$850.00
SUB TOTAL SECTION D : \$					\$317,895.00

BILL OF QUANTITIES
BOWEN STREET, ROMA - STAGE 8
SECTION D : SEWERAGE RETICULATION

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
				<i>Carried Forward</i>	\$317,895.00
8.0	Pipework to Pump Station Excavate, supply, lay, bed (including sand bedding and sand surround), end cap and backfill (including compaction) all pipes, fittings, marker posts, thrust blocks at changes of direction, and road crossings to roads, all as detailed on the drawings and in the specification.				
8.1	100mm Class K9 DICL Sp-So pipework to pump station, complete as required.	No.	10	\$210.00	\$2,100.00
8.2	150mm Class K9 DICL Sp-So pipework to pump station, complete as required.	No.	15	\$240.00	\$3,600.00
8.3	DN125 Class PE80, PN 12.5 HDPE sewer emergency overflow line, complete in place as shown on the plans.	No.	60	\$140.00	\$8,400.00
9.0	Bends				
9.2	150mm dia x 11.25° Class K9 DICL So-So bend	No.	2	\$255.00	\$510.00
9.3	150mm dia x 22.5° Class K9 DICL So-So bend	No.	2	\$285.00	\$570.00
9.4	150mm dia x 45° Class K9 DICL So-So bend	No.	2	\$305.00	\$610.00
9.5	150mm dia x 90° So-So "Tyco System 2000" DICL bend (horizontally) with concrete thrust block.	No.	2	\$355.00	\$710.00
9.6	100mm dia x 90° So-So "Tyco System 2000" DICL bend (vertically) with concrete thrust block.	No.	2	\$285.00	\$570.00
9.7	100mm dia x 90° So-So "Tyco System 2000" DICL bend (horizontally) with concrete thrust block.	No.	2	\$285.00	\$570.00
10.0	Fittings				
10.1	150mm dia Class K9 DICL Gibault joint	No.	2	\$650.00	\$1,300.00
10.2	150mm dia Class K9 DICL Sluice valve	No.	1	\$1,350.00	\$1,350.00
10.3	100mm dia flange to DN110 HDPE connector	No.	1	\$550.00	\$550.00
	Note:- All areas and lengths are plan areas and lengths. The Contractor is to take into account adjustments for slope distances and areas when pricing.				
SUB TOTAL SECTION D : \$					\$338,735.00

BILL OF QUANTITIES
BOWEN STREET, ROMA - STAGE 8
SECTION E : ELECTRICAL SUPPLY

ITEM	DESCRIPTION	UNIT	QTY	RATE	AMOUNT
	TO BE CONFIRMED FOLLOWING DESIGN BY ELECTRICAL CONSULTANT				
1.0	Conduits Excavate, bed, supply, lay, joint and backfill conduits including all necessary fittings and complete with draw wire, sealed ends including 150mm wide electricity warning tape, as detailed and specified.				
1.1P	Low Voltage Conduit - 80mm dia Light Duty (L.D.) rigid plain orange UPVC in accordance with AS 2053 Parts 1 & 2. (Provisional Quantity)	m	150	\$60.00	\$9,000.00
1.2P	Low Voltage Conduit - 100mm dia Light Duty (L.D.) rigid plain orange UPVC in accordance with AS 2053 Parts 1 & 2. (Provisional Quantity)	m	1050	\$65.00	\$68,250.00
1.3P	High Voltage Conduit - 125mm dia Light Duty (L.D.) rigid plain orange UPVC in accordance with AS 2053 Parts 1 & 2. (Provisional Quantity)	m	650	\$72.00	\$46,800.00
1.4P	Street Lighting Conduit - 40mm dia (Heavy Duty) (H.D.) rigid plain UPVC in accordance with AS 2053. (Provisional Quantity)	m	100	\$30.00	\$3,000.00
2.0	Trenching				
2.1P	450 wide trench for single High Voltage, single Low Voltage Electrical and street lighting conduits and Telstra Conduit in shared trench arrangement, including bedding sand. (Provisional Quantity)	m	550	\$12.00	\$6,600.00
2.2P	Extra over Items 1 for excavation in rock (Provisional Item)	m ³	Rate only		
3.0	Miscellaneous				
3.1P	Public Light Pole Foundations (Minor Road) complete in place as detailed on Ergon Plan No. 819 - Cast in Situ (Provisional Quantity)	No.	7	\$2,850.00	\$19,950.00
3.2P	Public Light Pole Foundations (Major Road) complete in place as detailed on Ergon Plan No. 810 - Cast in Situ (Provisional Quantity)	No.	1	\$3,880.00	\$3,880.00
3.3P	200mm wide Polymeric cable protection cover to all conduits outside Electricity Footpath allocation, and under roads. Material to complying with AS4702. (Provisional Quantity)	m	250	\$6.30	\$1,575.00
3.4P	Sand bedding material (unwashed) (Provisional Quantity)	m ³	180	\$62.00	\$11,160.00
3.5	Service Conduits - 90 degree bend 40 dia with reducer to 25dia installed at 45° to the property boundary	No.	46	\$150.00	\$6,900.00
3.6	Inspection, certification and preparation of as-constructed drawings for submission to Ergon Energy to be carried out by Registered Electrical Engineer	-	Item	-	\$2,750.00
3.7	Construct bases for padmount transformers	No.	2	\$5,500.00	\$11,000.00
TOTAL SECTION E:					\$190,865.00

PRELIMINARY MONTHLY EXPENDITURE
CONTRACT ULDA-10-042/11
BOWEN STREET, ROMA - STAGE 8

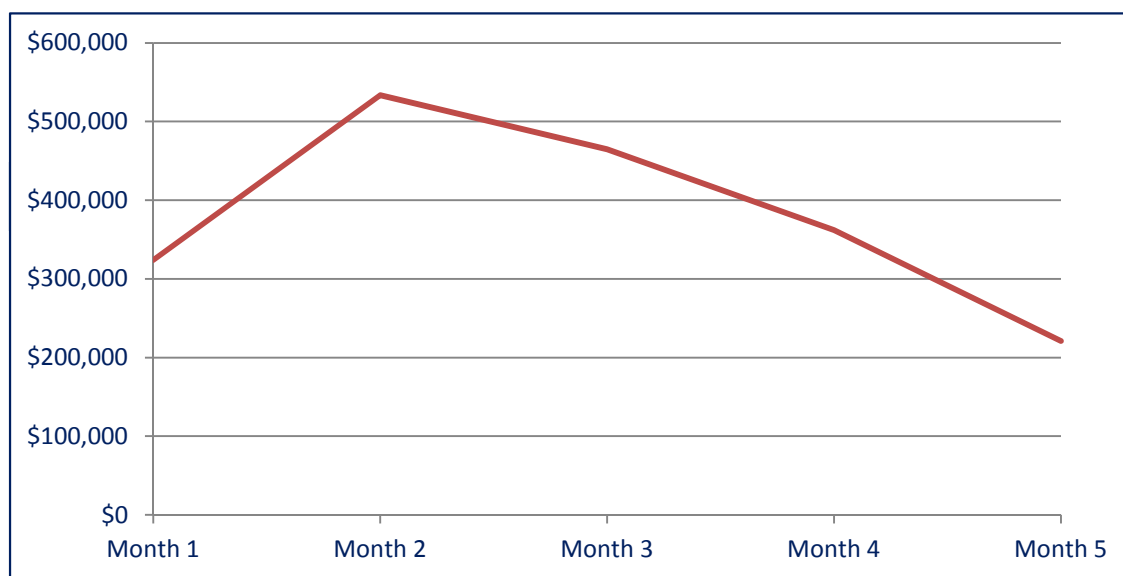
Description	Proposed subdivision - Bowen Street, Roma
Local Authority	Maranoa Regional Council
Number of Lots	46 + Park

Civil Construction Costs

TOTAL (excluding GST)	\$ 1,904,989.38
------------------------------	------------------------

Possible Monthly Expenditure

Month 1	\$ 323,848.19
Month 2	\$ 533,397.03
Month 3	\$ 464,817.41
Month 4	\$ 361,947.98
Month 5	\$ 220,978.77
	\$ 1,904,989.38



Note

The above possible expenditure figures are intended as a guide only, and will be subject to the final Contract Sum, the Contractor's timeframe for construction, works program and the like. The figures shown do not make allowance for construction of electrical infrastructure, NBN, consultants fees, contributions, landscaping or any upgrades to external

The above figures do not make allowance for expenditure associated with Principal's or Contractor's Security, retention money or substitution of retention money.