RURAL RESIDENTIAL SUBDIVISION LOT 1 ON RP735200 - HASTIE ROAD OPERATIONAL WORKS DRAWINGS

DRAWING INDEX			
Drawing Number	Rev.	Date	Drawing Description
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HR18-020-C02	A	24/08/18	SITE PLAN - SHEET 1 OF 2
HR18-020-C03	A	24/08/18	SITE PLAN - SHEET 2 OF 2
HR18-020-C04	A	24/08/18	LAYOUT PLAN - SHEET 1 OF 2
HR18-020-C05	A	24/08/18	LAYOUT PLAN - SHEET 2 OF 2
HR18-020-C06	A	24/08/18	TYPICAL SECTIONS AND INTERSECTION DETAIL
HR18-020-C07	A	24/08/18	LONGITUDINAL SECTION - HASTIE ROAD WIDENING
HR18-020-C08	A	24/08/18	CROSS SECTIONS - HASTIE ROAD WIDENING
HR18-020-C09	A	24/08/18	CROSS SECTIONS - HASTIE ROAD WIDENING
HR18-020-C010	A	24/08/18	CROSS SECTIONS - HASTIE ROAD WIDENING
HR18-020-C011	A	24/08/18	CROSS SECTIONS - HASTIE ROAD WIDENING
HR18-020-C012	A	24/08/18	CROSS SECTIONS - HASTIE ROAD WIDENING
HR18-020-C013	A	24/08/18	EARTHWORKS - LAYOUT PLAN
HR18-020-C014	A	24/08/18	SEWERAGE RETICULATION - LAYOUT PLAN
HR18-020-C015	A	24/08/18	SEWERAGE LONGITUDINAL SECTIONS
HR18-020-C016	A	24/08/18	WATER RETICULATION - LAYOUT PLAN
HR18-020-C017	A	24/08/18	EROSION AND SEDIMENT - LAYOUT PLAN

PRELIMINARY ISSUE
AUGUST, 2018

FNQROC STANDARD DRAWINGS		
Drawing Number	Rev.	Drawing Description
S2000	B	VALVE BOX INSTALLATION
S2005	B	HYDRANT BOX INSTALLATION
S2010	C	KERB/ROAD MARKERS
S2015	C	THRUST BLOCK DETAILS
S2016	B	WATER RETICULATION BEDDING DETAILS
S2020	B	MAIN CONNECTION DETAILS
S3000	C	SEWERAGE MANHOLES
S3005	C	STANDARD HOUSE CONNECTION BRANCHES
S3015	C	BEDDING AND TRENCHING DETAILS - SEWERAGE

Ref.	Revision Notes	Date	Sign
A.	PRELIMINARY ISSUE	24/08/18	W.S.

DRAWN W.S. CHECKED W.S.
CAD FILE: HR18-020 OPERATIONAL WORKS.DWG
APPROVED DATE: 24/08/18

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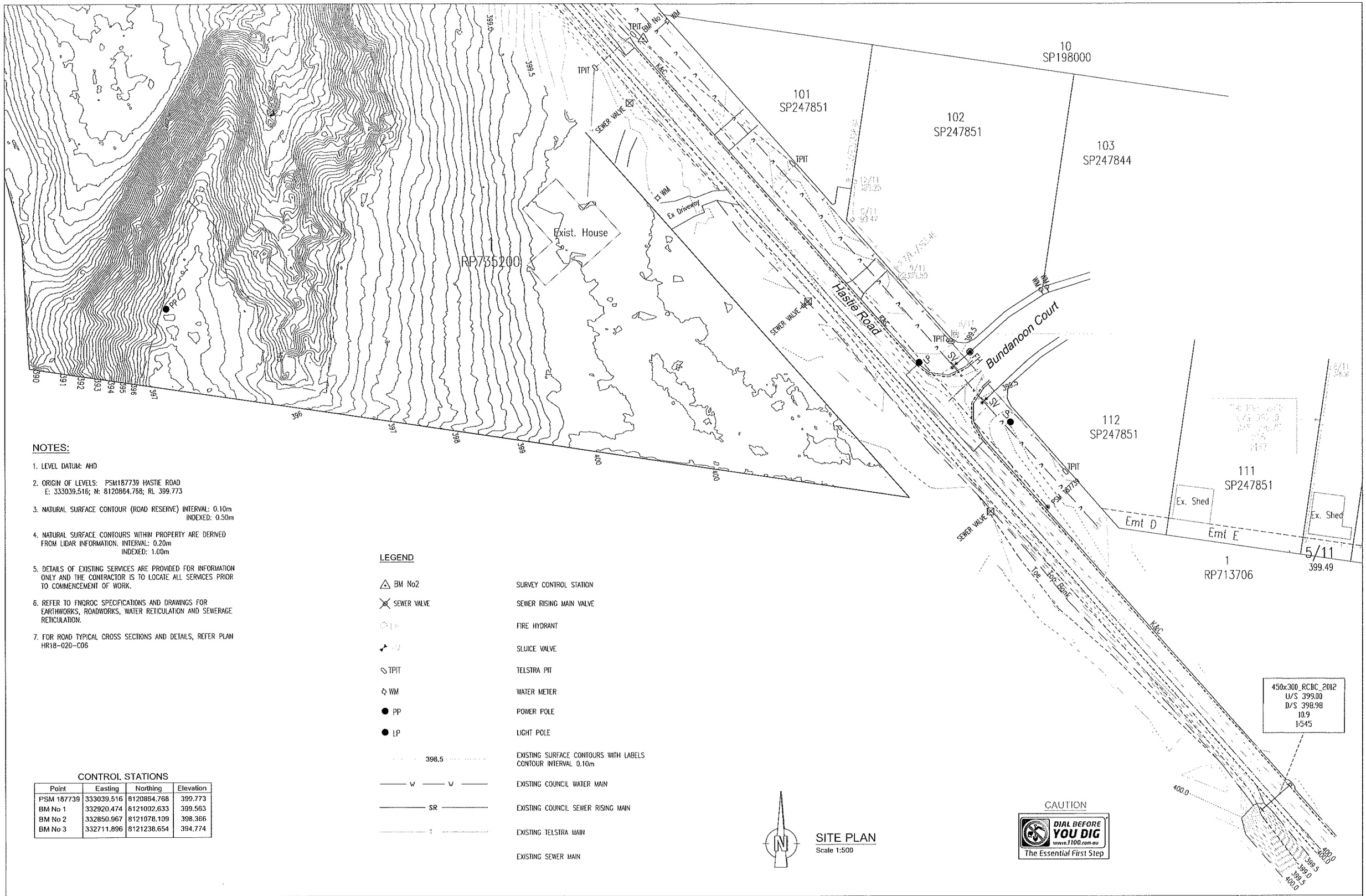
DATUM: PM187739
GDA94 ZONE 55
AUSTRALIAN HEIGHT DATUM (AHD)

Client: B. T. M. & S. STANKOVICH PTY LTD
Project: RURAL RESIDENTIAL SUBDIVISION OF LOT 1 ON RP735200
Title: COVER SHEET

Plan No: HR18-020-C01
Sheet No. 1/17
Issue: A



NOTES:

1. LEVEL DATUM: AHD
2. ORIGIN OF LEVELS: PSM187739 HASTIE ROAD
   E: 333039.516; N: 8120864.768; RL 399.773
3. NATURAL SURFACE CONTOUR (ROAD RESERVE) INTERVAL: 0.10m
   INDEXED: 0.50m
4. NATURAL SURFACE CONTOURS WITHIN PROPERTY ARE DERIVED FROM LIDAR INFORMATION. INTERVAL: 0.20m
   INDEXED: 1.00m
5. DETAILS OF EXISTING SERVICES ARE PROVIDED FOR INFORMATION ONLY AND THE CONTRACTOR IS TO LOCATE ALL SERVICES PRIOR TO COMMENCEMENT OF WORK.
6. REFER TO FNQROC SPECIFICATIONS AND DRAWINGS FOR EARTHWORKS, ROADWORKS, WATER RETICULATION AND SEWERAGE RETICULATION.
7. FOR ROAD TYPICAL CROSS SECTIONS AND DETAILS, REFER PLAN HR18-020-C06

LEGEND

BM No2	SURVEY CONTROL STATION
SEWER VALVE	SEWER RISING MAIN VALVE
LP	FIRE HYDRANT
SV	SLUICE VALVE
TPIT	TELSTRA PIT
WM	WATER METER
PP	POWER POLE
LP	LIGHT POLE
398.5	EXISTING SURFACE CONTOURS WITH LABELS CONTOUR INTERVAL 0.10m
W	EXISTING COUNCIL WATER MAIN
SR	EXISTING COUNCIL SEWER RISING MAIN
T	EXISTING TELSTRA MAIN
	EXISTING SEWER MAIN

CONTROL STATIONS

Point	Easting	Northing	Elevation
PSM 187739	333039.516	8120864.768	399.773
BM No 1	332920.474	8121002.633	399.563
BM No 2	332850.967	8121078.109	398.366
BM No 3	332711.896	8121238.654	394.774

N

SITE PLAN
Scale 1:500

CAUTION
DIAL BEFORE YOU DIG
www.1100.com.au
The Essential First Step

Ref.	Revision Notes	Date	Sign
A.	PRELIMINARY ISSUE	24/08/18	W.S.

DRAWN W.S. | CHECKED W.S. | APPROVED DATE: 24/08/18

CAD FILE: HR18-020 OPERATIONAL WORKS.DWG

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DATUM: PM187739
GDA94 ZONE 55
AUSTRALIAN HEIGHT DATUM (AHD)
0 10 20 30m
Scale 1:500 (A1)

Client: B. T. M. & S. STANKOVICH PTY LTD
Project: RURAL RESIDENTIAL SUBDIVISION OF LOT 1 ON RP735200
Title: SITE PLAN

Plan No: HR18-020-C02
Sheet No. 2/17
Issue: A

CAUTION

DIAL BEFORE YOU DIG
www.1100.com.au
The Essential First Step

Taper to Edge of Existing Bitumen

Existing Pipe to be Removed

600x300_RCBC_2012
U/S 394.47
D/S 394.39
7.44
1:90

10
SP198000

Barron River

Haslie Road

RP735200

101

NOTES:

1. LEVEL DATUM: AHD
2. ORIGIN OF LEVELS: PSM187739; HASTIE ROAD
   E: 333039.516; N: 8120864.768; RL 399.773
3. NATURAL SURFACE CONTOUR (ROAD RESERVE) INTERVAL: 0.10m
   INDEXED: 0.50m
4. NATURAL SURFACE CONTOURS WITHIN PROPERTY ARE DERIVED FROM LIDAR INFORMATION. INTERVAL: 0.20m
   INDEXED: 1.00m
5. DETAILS OF EXISTING SERVICES ARE PROVIDED FOR INFORMATION ONLY AND THE CONTRACTOR IS TO LOCATE ALL SERVICES PRIOR TO COMMENCEMENT OF WORK.
6. REFER TO FNQROC SPECIFICATIONS AND DRAWINGS FOR EARTHWORKS, ROADWORKS, WATER RETICULATION AND SEWERAGE RETICULATION.
7. FOR ROAD TYPICAL CROSS SECTIONS AND DETAILS, REFER PLAN HR18-020-C06

LEGEND

BM No2	SURVEY CONTROL STATION
SEWER VALVE	SEWER RISING MAIN VALVE
	FIRE HYDRANT
	SLUICE VALVE
TPIT	TELSTRA PIT
WM	WATER METER
PP	POWER POLE
LP	LIGHT POLE
398.5	EXISTING SURFACE CONTOURS WITH LABELS CONTOUR INTERVAL 0.10m
W	EXISTING COUNCIL WATER MAIN
SR	EXISTING COUNCIL SEWER RISING MAIN
T	EXISTING TELSTRA MAIN
	EXISTING SEWER MAIN

CONTROL STATIONS

Point	Easting	Northing	Elevation
PSM 187739	333039.516	8120864.768	399.773
BM No 1	332920.474	8121002.633	399.563
BM No 2	332850.967	8121078.109	398.366
BM No 3	332711.896	8121238.654	394.774

SITE PLAN
Scale 1:500 (A1)

Ref	Revision Notes	Date	Sign
A.	PRELIMINARY ISSUE	24/08/18	W.S.

DRAWN W.S. CHECKED W.S. APPROVED
DATE: 24/08/18
CAD FILE: HR18-020 OPERATIONAL WORKS.DWG

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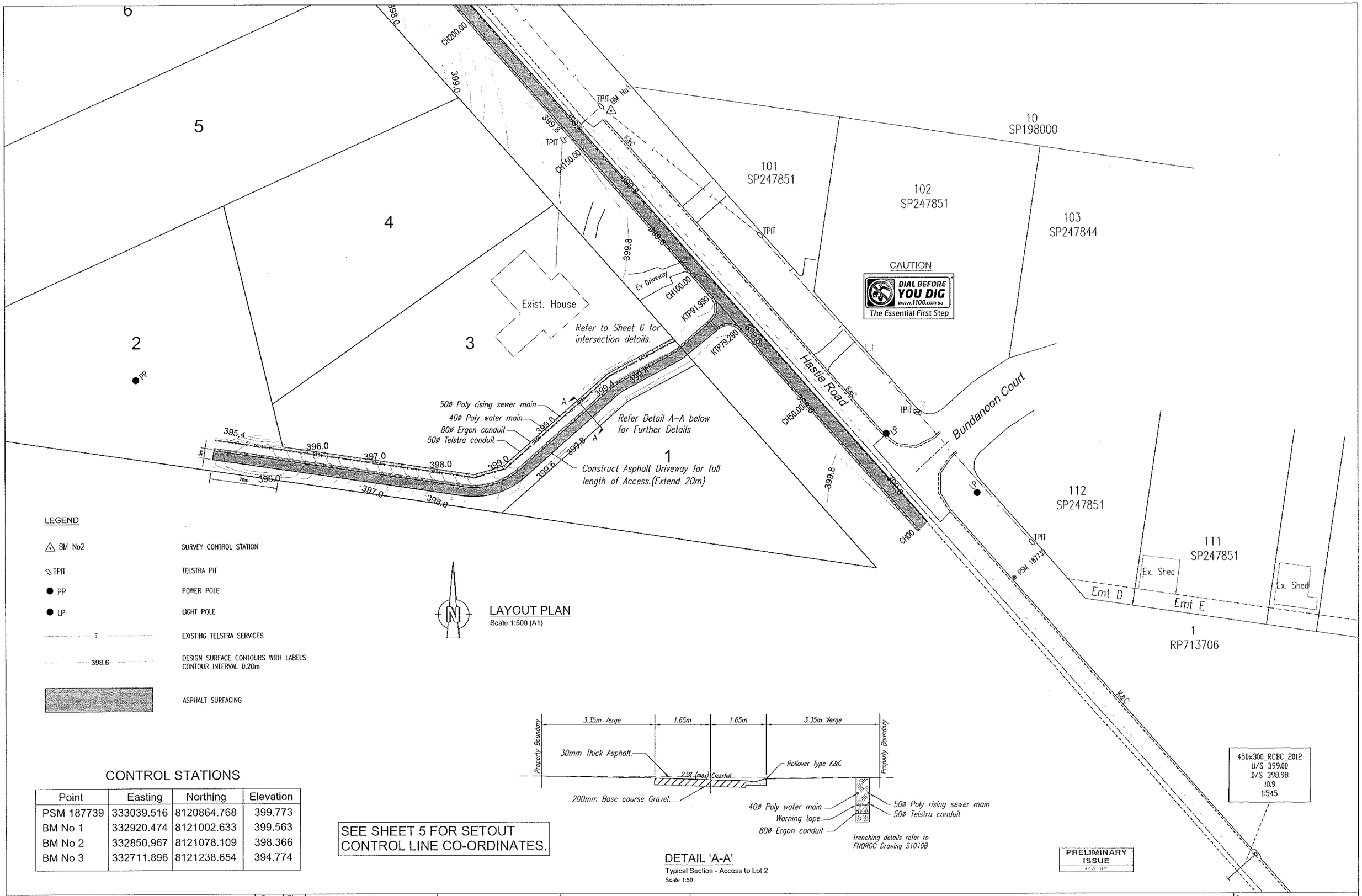
DATUM: PM187739
GDA94 ZONE 55
AUSTRALIAN HEIGHT DATUM (AHD)
0 10 20 30m
Scale 1:500 (A1)

Client: B. T. M. & S. STANKOVICH PTY LTD
Project: RURAL RESIDENTIAL SUBDIVISION OF LOT 1 ON RP735200
Title: SITE PLAN

Plan No: HR18-020-C03
Sheet No. 3/17
Issue: A



LAYOUT PLAN
Scale 1:500 (A1)

LEGEND

BM No2	SURVEY CONTROL STATION
TPIT	TELSTRA PIT
PP	POWER POLE
LP	LIGHT POLE
T	EXISTING TELSTRA SERVICES
398.6	DESIGN SURFACE CONTOURS WITH LABELS CONTOUR INTERVAL 0.20m
	ASPHALT SURFACING

CONTROL STATIONS

Point	Easting	Northing	Elevation
PSM 187739	333039.516	8120864.768	399.773
BM No 1	332920.474	8121002.633	399.563
BM No 2	332850.967	8121078.109	398.366
BM No 3	332711.896	8121238.654	394.774

SEE SHEET 5 FOR SETOUT CONTROL LINE CO-ORDINATES.

DETAIL 'A-A'
Typical Section - Access to Lot 2
Scale 1:50

PRELIMINARY ISSUE

Ref	Revision Notes	Date	Sign
A.	PRELIMINARY ISSUE	15/08/18	W.S

DRAWN W.S. CHECKED W.S. APPROVED DATE: 15/08/18
CAD FILE: HR18-020 OPERATIONAL WORKS.DWG

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DATUM: PM187739
GDA94 ZONE 55
AUSTRALIAN HEIGHT DATUM (AHD)
0 10 20 30m
Scale 1:500 (A1)

Client: B. T. M. & S. STANKOVICH PTY LTD
Project: RURAL RESIDENTIAL SUBDIVISION OF LOT 1 ON RP735200
Title: GENERAL ARRANGEMENT - LAYOUT PLAN

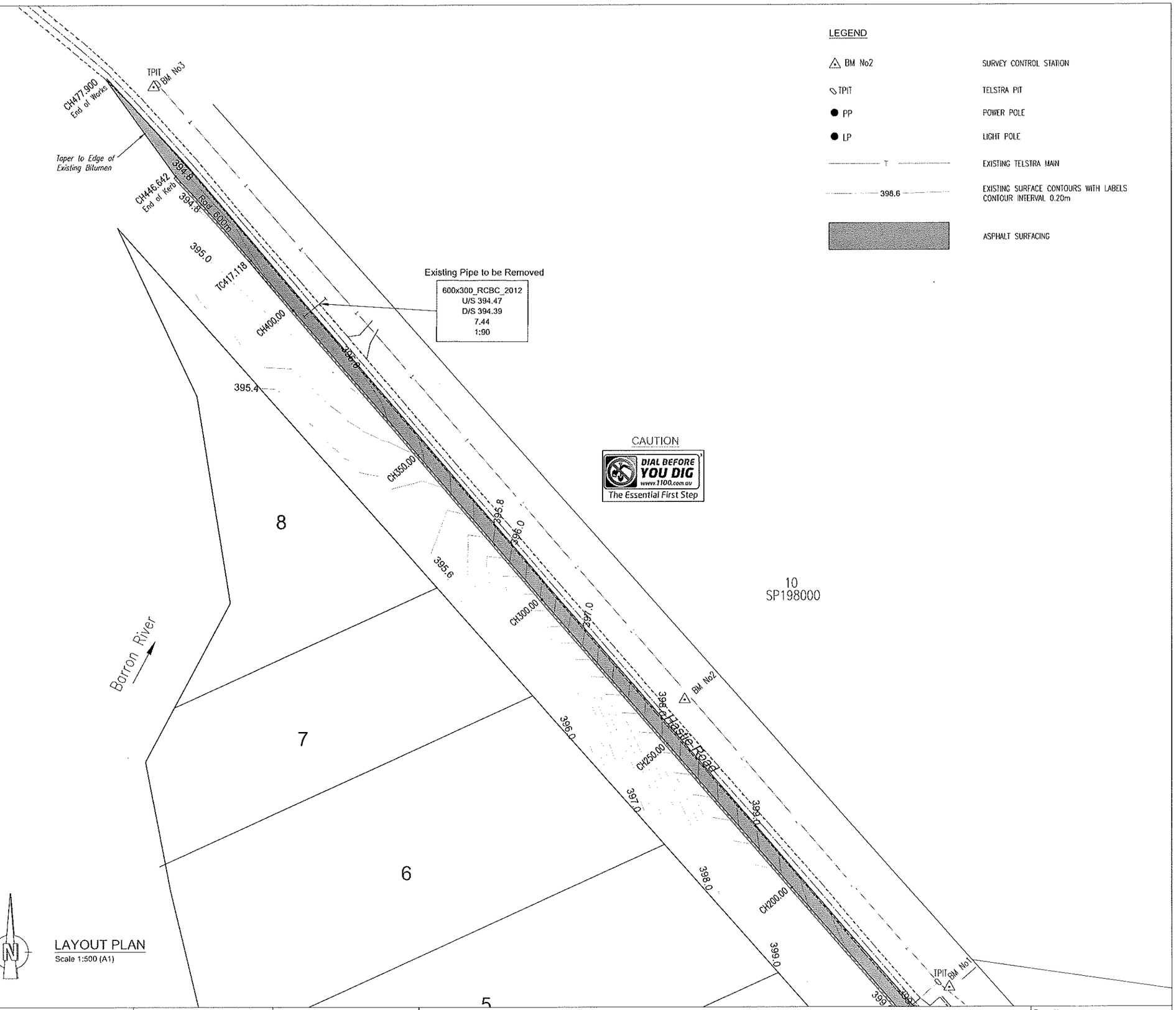
Plan No: HR18-020-C04
Sheet No. 4/17
Issue: A

CONTROL STATIONS

Point	Easting	Northing	Elevation
PSM 187739	333039.516	8120864.768	399.773
BM No 1	332920.474	8121002.633	399.563
BM No 2	332850.967	8121078.109	398.366
BM No 3	332711.896	8121238.654	394.774

HASTIE ROAD CONTROL LINE - SETOUT POINTS LIP OF KERB

POINT	CHAINAGE	EASTING	NORTHING	BEARING	RADIUS
IP1	0.000	333011.447	8120878.870	318°24'29"	
	10.000	333004.809	8120886.349	318°24'29"	
	20.000	332998.170	8120893.828	318°24'29"	
	30.000	332991.532	8120901.307	318°24'29"	
	40.000	332984.894	8120908.786	318°24'29"	
	50.000	332978.256	8120916.265	318°24'29"	
	60.000	332971.617	8120923.744	318°24'29"	
	70.000	332964.979	8120931.223	318°24'29"	
KTP	79.290	332958.812	8120938.171	318°24'29"	
	80.000	332958.341	8120938.702	318°24'29"	
	90.000	332951.703	8120946.181	318°24'29"	
KTP	91.990	332950.381	8120947.670	318°24'29"	
	100.000	332945.065	8120953.660	318°24'29"	
	110.000	332938.475	8120961.181	318°46'43"	
	120.000	332931.885	8120968.703	318°46'43"	
	130.000	332925.295	8120976.225	318°46'43"	
	140.000	332918.706	8120983.746	318°46'43"	
	150.000	332912.116	8120991.268	318°46'43"	
	160.000	332905.526	8120998.790	318°46'43"	
	170.000	332898.937	8121006.311	318°46'43"	
	180.000	332892.347	8121013.833	318°46'43"	
	190.000	332885.757	8121021.355	318°46'43"	
	200.000	332879.167	8121028.876	318°46'43"	
	210.000	332872.608	8121036.424	319°00'23"	
	220.000	332866.048	8121043.972	319°00'23"	
	230.000	332859.488	8121051.520	319°00'23"	
	240.000	332852.928	8121059.067	319°00'23"	
	250.000	332846.369	8121066.615	319°00'23"	
	260.000	332839.809	8121074.163	319°00'23"	
	270.000	332833.249	8121081.711	319°00'23"	
	280.000	332826.689	8121089.259	319°00'23"	
	290.000	332820.130	8121096.807	319°00'23"	
	300.000	332813.570	8121104.354	319°00'23"	
	310.000	332807.044	8121111.932	319°15'57"	
	320.000	332800.519	8121119.509	319°15'57"	
	330.000	332793.993	8121127.087	319°15'57"	
	340.000	332787.468	8121134.664	319°15'57"	
	350.000	332780.942	8121142.242	319°15'57"	
	360.000	332774.417	8121149.819	319°15'57"	
	370.000	332767.891	8121157.397	319°15'57"	
	380.000	332761.366	8121164.974	319°15'57"	
	390.000	332754.840	8121172.551	319°15'57"	
	400.000	332748.315	8121180.129	319°15'57"	
	410.000	332741.843	8121187.753	319°40'35"	
TC	417.118	332737.238	8121193.179	319°40'35"	
IP50	431.880	332727.683	8121204.436		600
CT	446.642	332717.587	8121215.209	316°51'25"	



LAYOUT PLAN
Scale 1:500 (A1)

Ref.	Revision Notes	Date	Sign
A.	PRELIMINARY ISSUE	15/08/18	W.S.

DRAWN W.S. CHECKED W.S. APPROVED
DATE: 15/08/18
CAD FILE: HR18-020 OPERATIONAL WORKS.DWG

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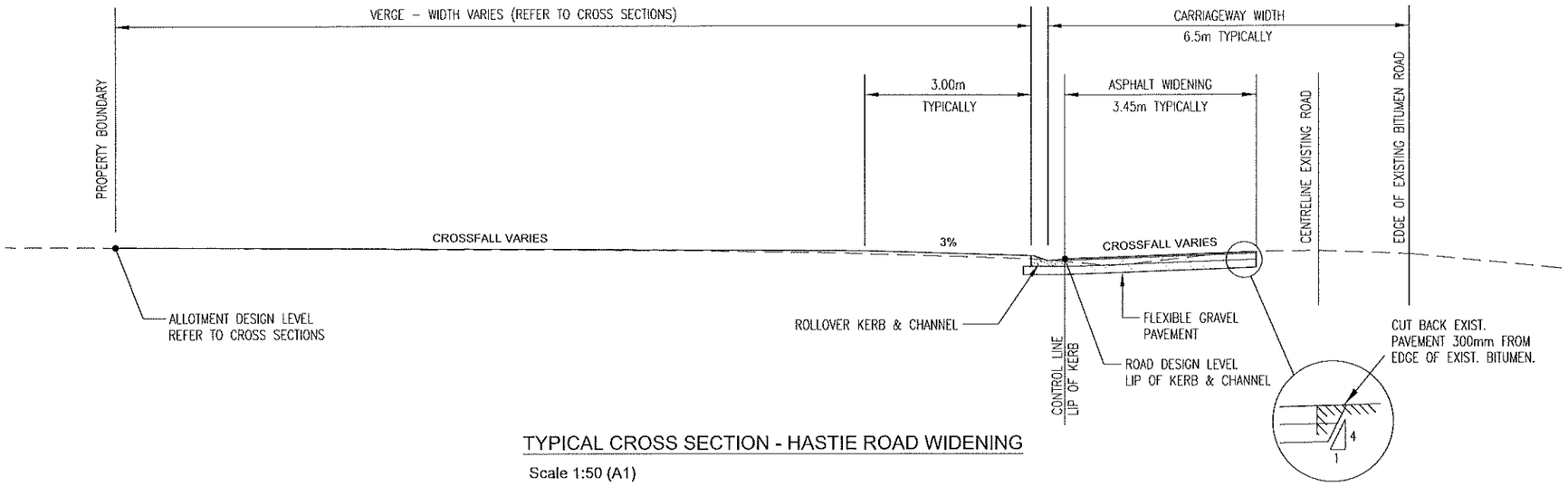
DATUM: PM187739
GDA94 ZONE 55
AUSTRALIAN HEIGHT DATUM (AHD)
0 10 20 30m
Scale 1:500 (A1)

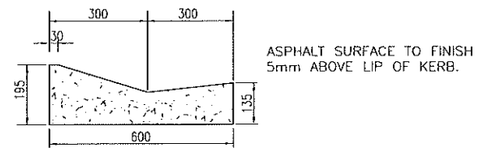
Client: B. T. M. & S. STANKOVICH PTY LTD
Project: RURAL RESIDENTIAL SUBDIVISION OF LOT 1 ON RP735200
Title: LAYOUT PLAN

Plan No: HR18-020-C05
Sheet No. 5/17
Issue: A



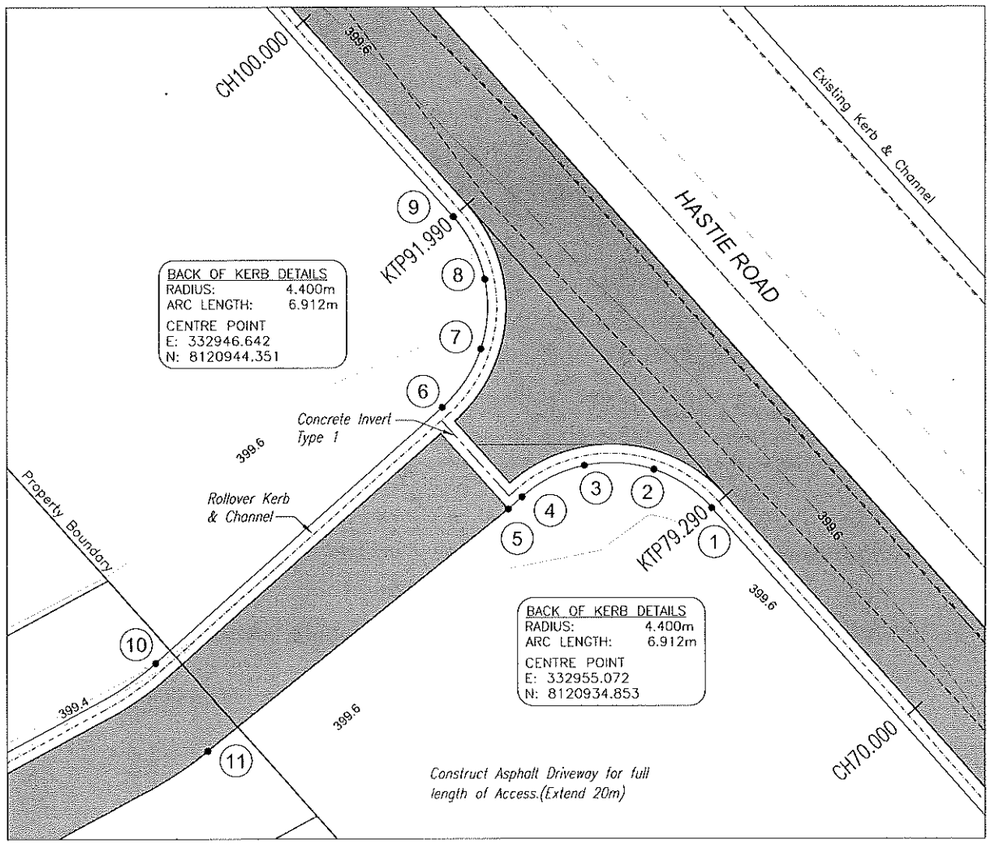
TYPICAL CROSS SECTION - HASTIE ROAD WIDENING

Scale 1:50 (A1)



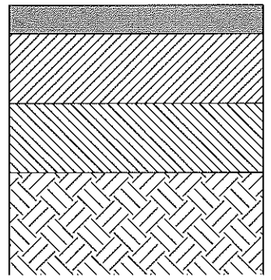
ROLLOVER KERB AND CHANNEL

SCALE 1:10 (A1)



INTERSECTION DETAIL - ACCESS TO LOT 2

Scale 1:100



30mm ASPHALT

110mm BASE, TYPE 2.2 MINIMUM CBR 60%
COMPACTED TO 100% SRDD.

140mm SUB BASE, TYPE 2.3 MINIMUM CBR
45% COMPACTED TO 100% SRDD.

SUB-GRADE CBR 7% (ASSUMED)
COMPACTED TO 98% SRDD.
(CBR TO BE CONFIRMED BY TAKING SAMPLES AT
100m INTERVALS, MINIMUM OF 3).

NOTE: SUBGRADE CBR RESULTS AND FINAL PAVEMENT DESIGN ARE TO BE SUBMITTED TO COUNCIL FOR APPROVAL PRIOR TO PLACEMENT OF GRAVEL.

PAVEMENT DETAIL

N.T.S.

BACK OF KERB SETOUT TABLE

POINT	EASTING	NORTHING	LEVEL
1	332958.363	8120937.774	399.570
2	332956.461	8120939.027	399.562
3	332954.188	8120939.163	399.554
4	332952.151	8120938.143	399.546
5	332951.703	8120937.745	399.486
6	332949.562	8120941.060	399.519
7	332950.816	8120942.961	399.549
8	332950.952	8120945.235	399.578
9	332949.932	8120947.272	399.608
10	332940.191	8120932.742	399.456
11	332941.907	8120929.873	399.464

LEGEND

(18) •	BACK OF KERB SETOUT POINT AND POINT LABEL
KTP79.920	KERB TANGENT POINT
402.0	DESIGN CONTOURS WITH LABELS CONTOUR INTERVAL 0.20m

Ref	Revision Notes	Date	Sign
A.	PRELIMINARY ISSUE	15/08/18	W.S.

DRAWN W.S. CHECKED W.S. APPROVED DATE 15/08/18

CAD FILE: HR18-020 OPERATIONAL WORKS.DWG

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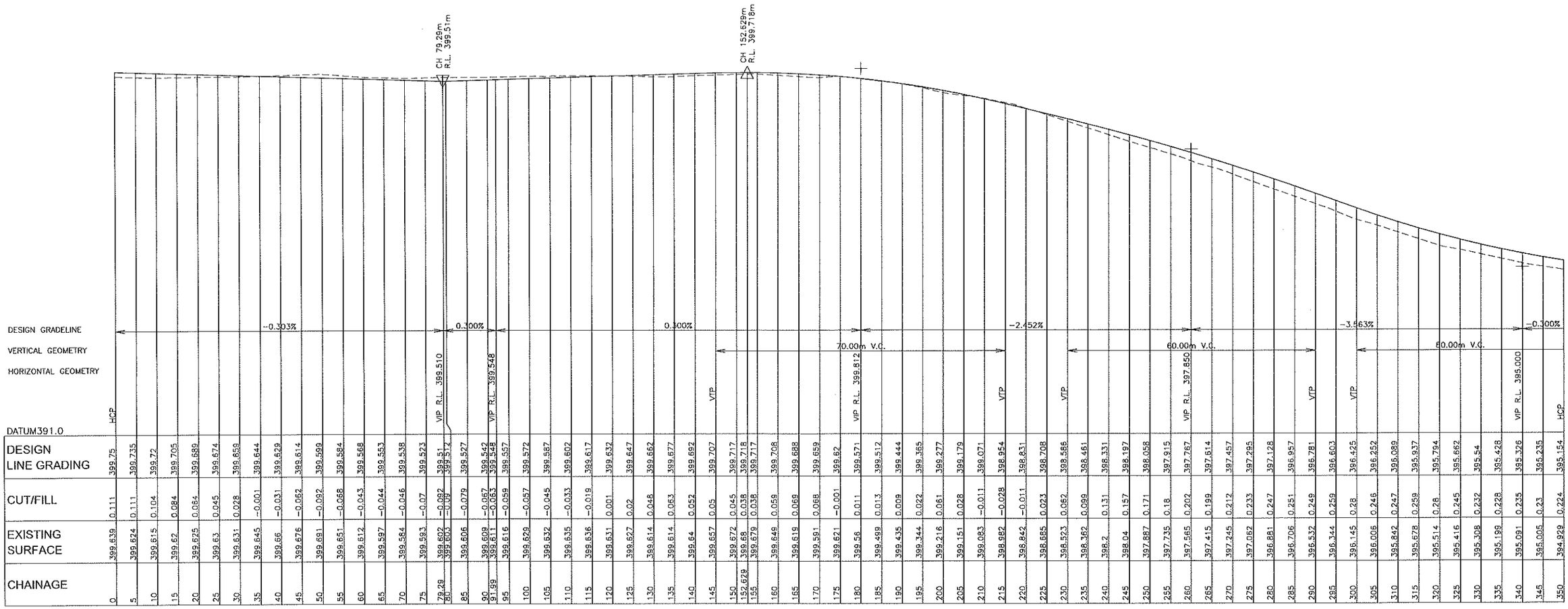
DATUM: PM187739
GDA94 ZONE 55
AUSTRALIAN HEIGHT DATUM (AHD)
0 2 4 6m
Scale 1:100 (A1)

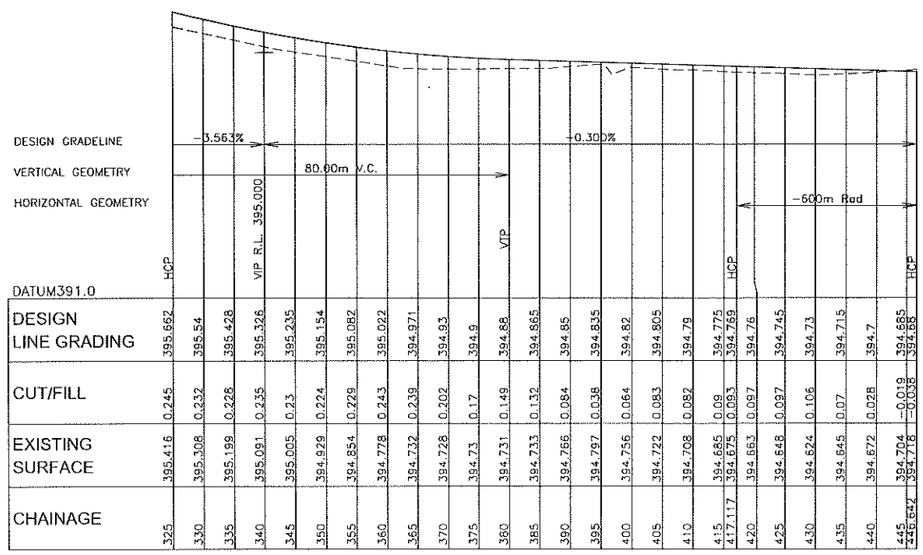
Client: B. T. M. & S. STANKOVICH PTY LTD
Project: RURAL RESIDENTIAL SUBDIVISION of LOT 1 on RP735200 - HASTIE ROAD
Title: HASTIE ROAD WIDENING - DETAILS

Plan No: HR18-020-C06
Sheet No. 6/17
Issue: A



HASTIE ROAD - LONGITUDINAL SECTION - LIP OF KERB

Horz Scale 1:500
Vert Scale 1:50



HASTIE ROAD - LONGITUDINAL SECTION - LIP OF KERB

Horz Scale 1:500
Vert Scale 1:50

Ref.	Revision Notes	Date	Sign
A.	PRELIMINARY ISSUE	24/08/18	W.S.

DRAWN W.S. CHECKED W.S. APPROVED
DATE: 24/08/18
CAD FILE: HR18-020 OPERATIONAL WORKS.DWG

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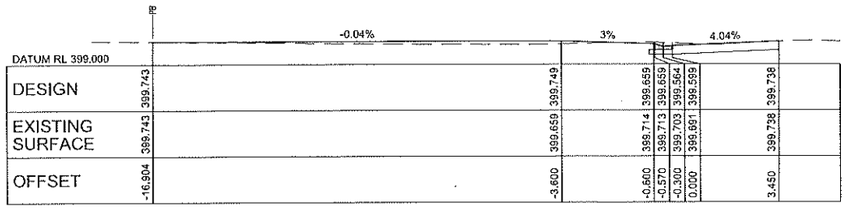
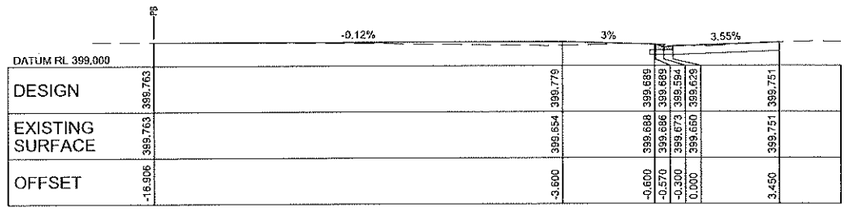
DATUM: PM187739
GDA94 ZONE 55
AUSTRALIAN HEIGHT DATUM (AHD)
0 10 20 30m
Scale 1:500 (A1)

Client: B. T. M. & S. STANKOVICH PTY LTD
Project: RURAL RESIDENTIAL SUBDIVISION OF LOT 1 ON RP735200
Title: HASTIE ROAD WIDENING - LONGITUDINAL SECTION

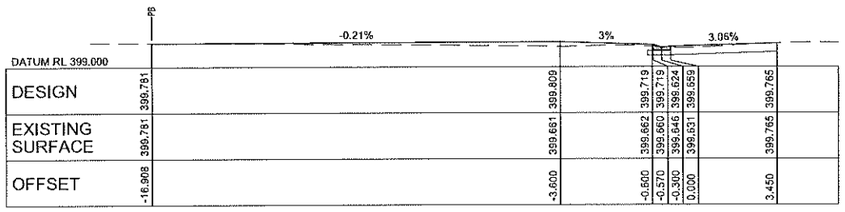
Plan No: HR18-020-C07
Sheet No. 7/17
Issue: A



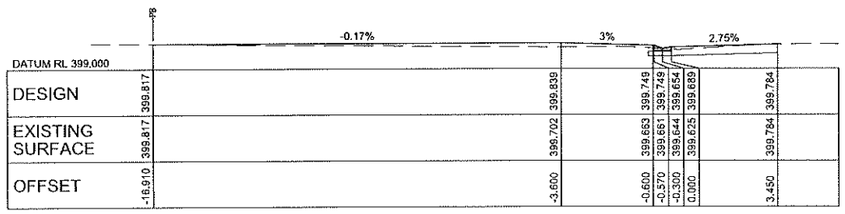
CHAINAGE 50



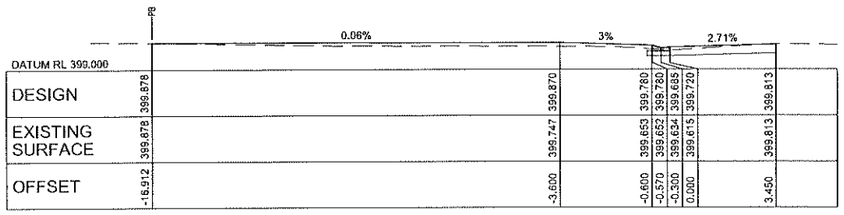
CHAINAGE 40



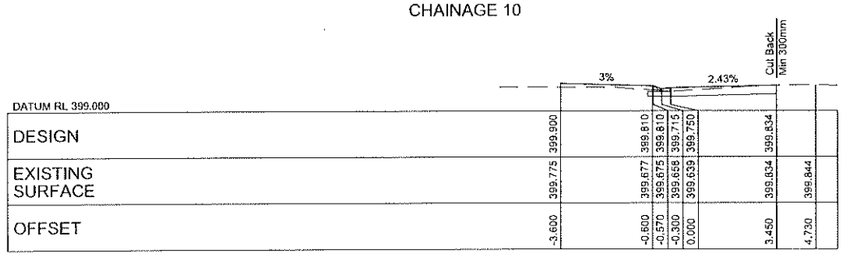
CHAINAGE 30



CHAINAGE 20



CHAINAGE 10



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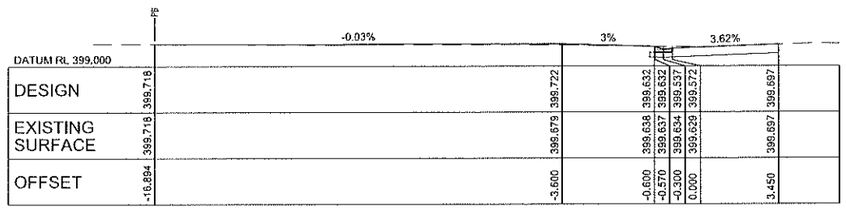

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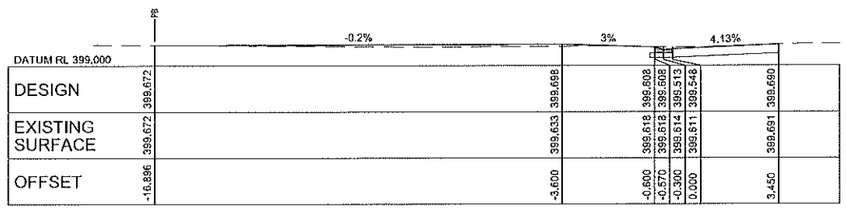

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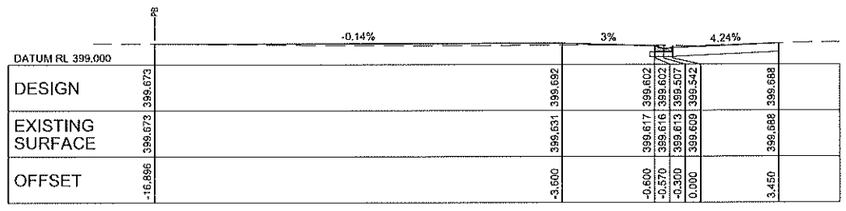
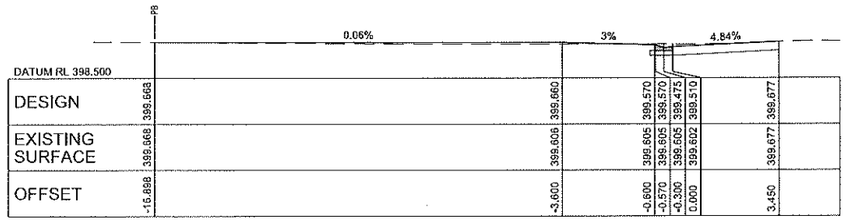


CHAINAGE 90



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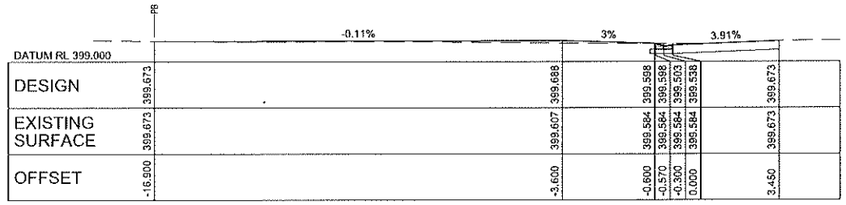
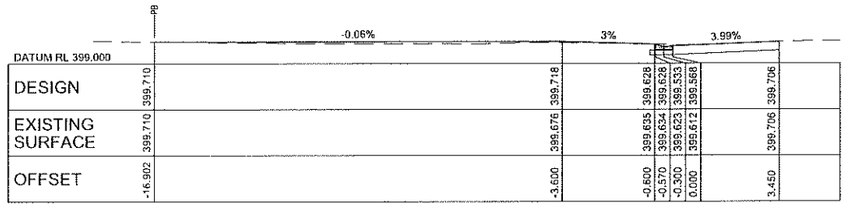


CHAINAGE 70



CHAINAGE 60

HASTIE ROAD WIDENING - CROSS SECTIONS

Scale 1:100

Ref.	Revision Notes	Date	Sign
A.	PRELIMINARY ISSUE	24/08/18	W.S.

DRAWN W.S. CHECKED W.S.
CAD FILE: HR18-020 OPERATIONAL WORKS.DWG
APPROVED DATE: 24/08/18

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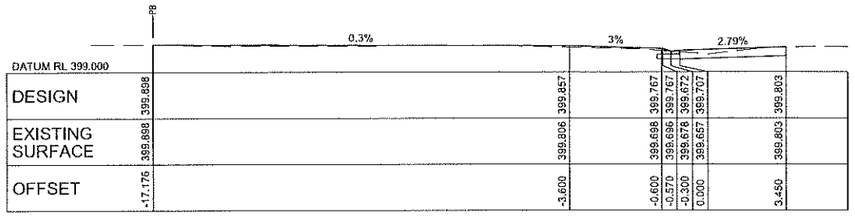
DATUM: PM187739
GDA94 ZONE 55
AUSTRALIAN HEIGHT DATUM (AHD)
0 2 4 6m
Scale 1:100 (A1)

Client: B. T. M. & S. STANKOVICH PTY LTD
Project: RURAL RESIDENTIAL SUBDIVISION of LOT 1 on RP735200 - HASTIE ROAD
Title: HASTIE ROAD WIDENING - CROSS SECTIONS CH 00 to CH 100

Plan No: HR18-020-C08
Sheet No. 8/17
Issue: A



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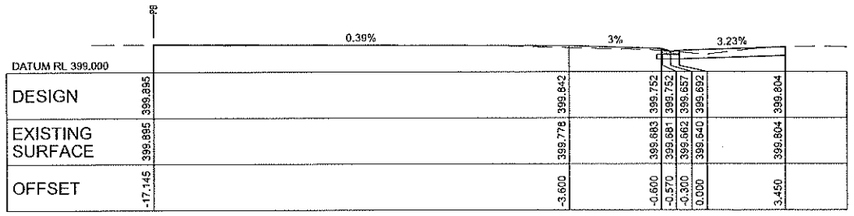

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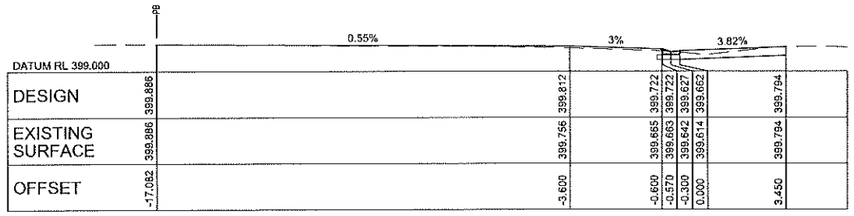

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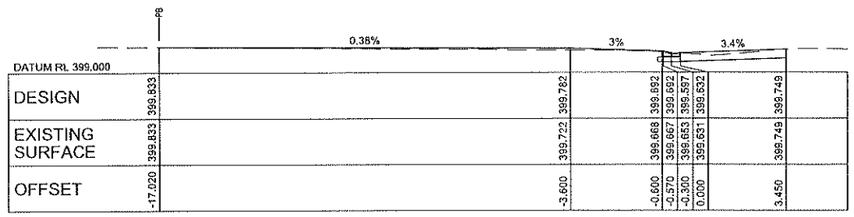

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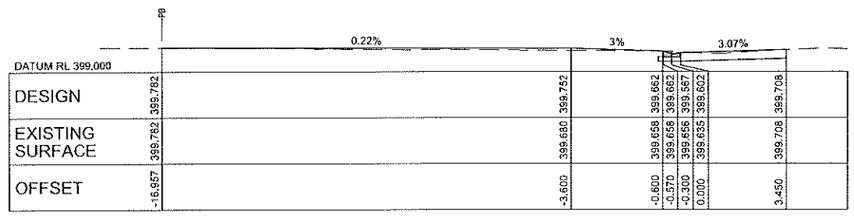

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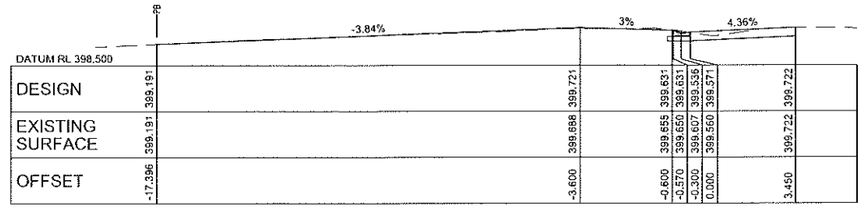

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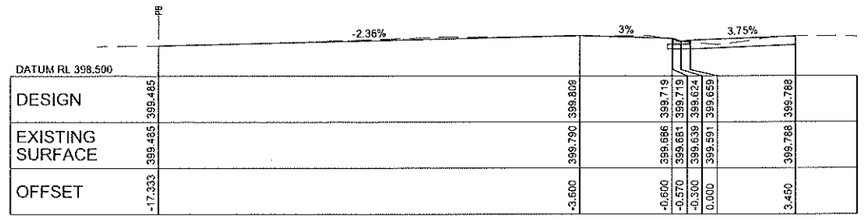

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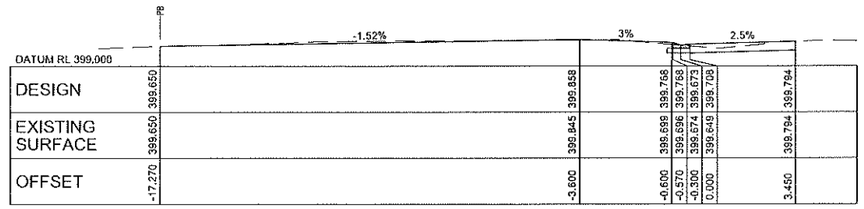

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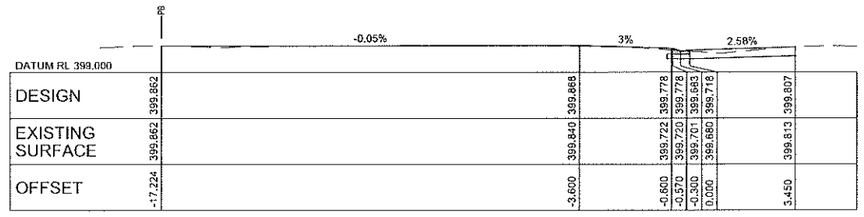

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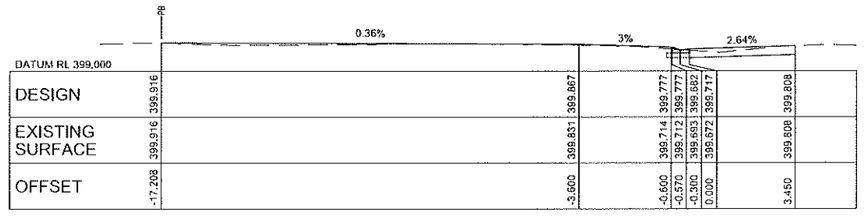

CHAINAGE 150

HASTIE ROAD WIDENING - CROSS SECTIONS

Scale 1:100

Ref	Revision Notes	Date	Sign
A.	PRELIMINARY ISSUE	15/08/18	W.S.

DRAWN W.S. CHECKED W.S.

CAD FILE: HR18-020 OPERATIONAL WORKS.DWG

APPROVED DATE: 15/08/18

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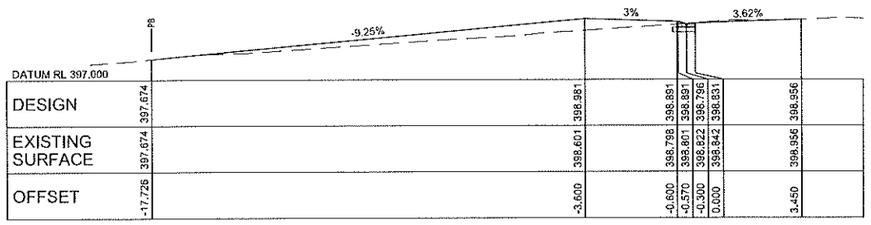
DATUM: PM187739
GDA94 ZONE 55
AUSTRALIAN HEIGHT DATUM (AHD)

0 2 4 6m
Scale 1:100 (A1)

Client: B. T. M. & S. STANKOVICH PTY LTD
Project: RURAL RESIDENTIAL SUBDIVISION of LOT 1 on RP735200 - HASTIE ROAD
Title: HASTIE ROAD WIDENING - CROSS SECTIONS CH 110 to CH 180

Plan No: HR18-020-C09
Sheet No. 9/17
Issue: A



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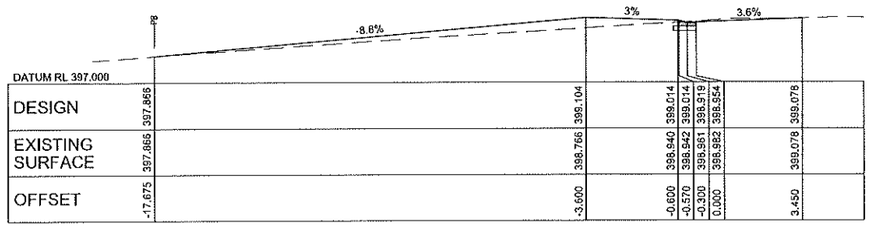

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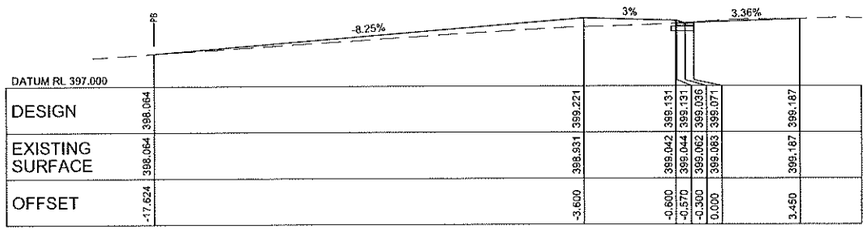

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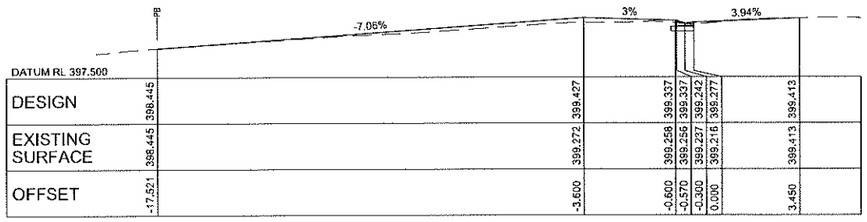

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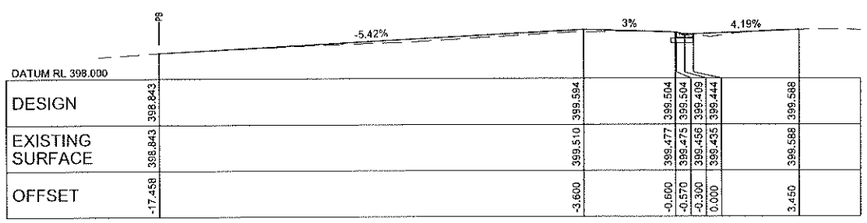

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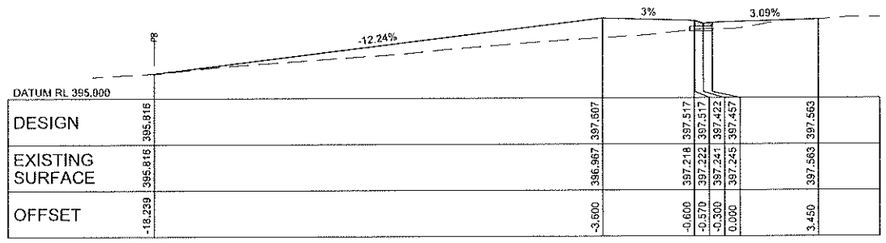

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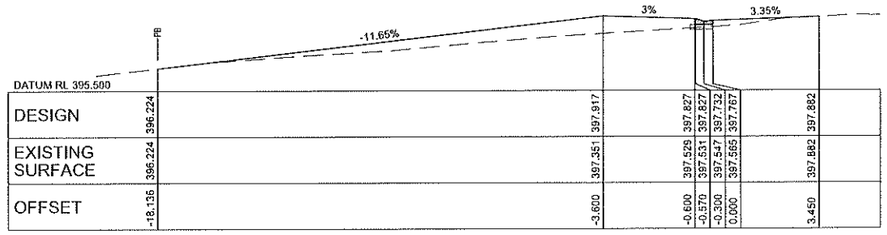

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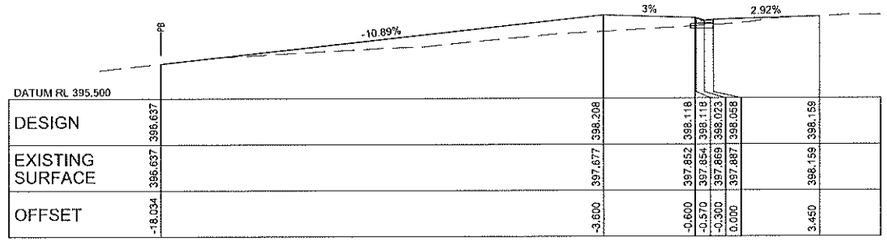

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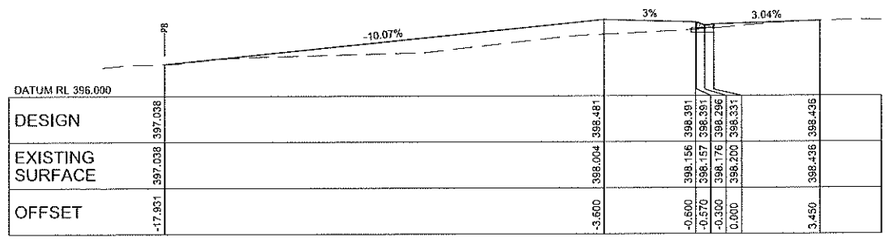

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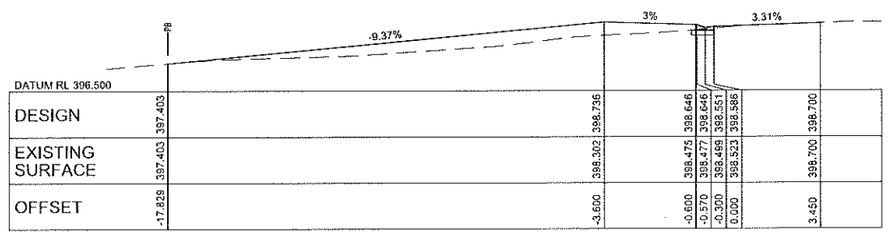

CHAINAGE 230

HASTIE ROAD WIDENING - CROSS SECTIONS

Scale 1:100

Ref	Revision Notes	Date	Sign
A.	PRELIMINARY ISSUE	15/08/18	W.S.

DRAWN W.S. | CHECKED W.S. | APPROVED DATE 15/08/18

CAD FILE: HR18-020 OPERATIONAL WORKS.DWG

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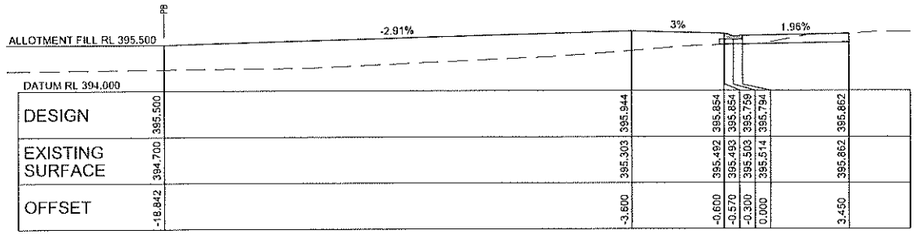
DATUM: PM187739
GDA94 ZONE 55
AUSTRALIAN HEIGHT DATUM (AHD)

0 2 4 6m
Scale 1:100 (A1)

Client: B. T. M. & S. STANKOVICH PTY LTD
Project: RURAL RESIDENTIAL SUBDIVISION of LOT 1 on RP735200 - HASTIE ROAD
Title: HASTIE ROAD WIDENING - CROSS SECTIONS CH 190 to CH 270

Plan No: HR18-020-C10
Sheet No. 10/17
Issue: A



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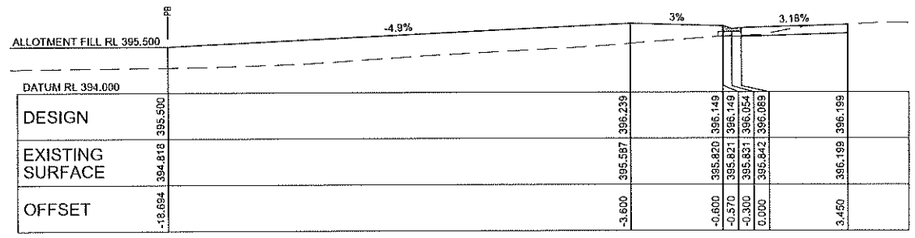
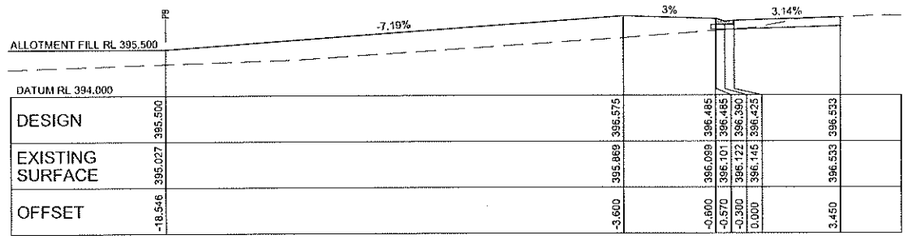


CHAINAGE 310



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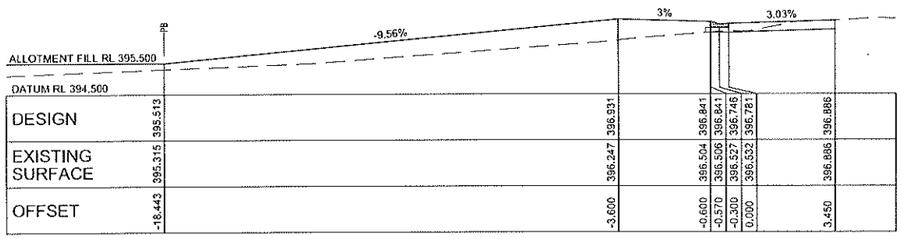

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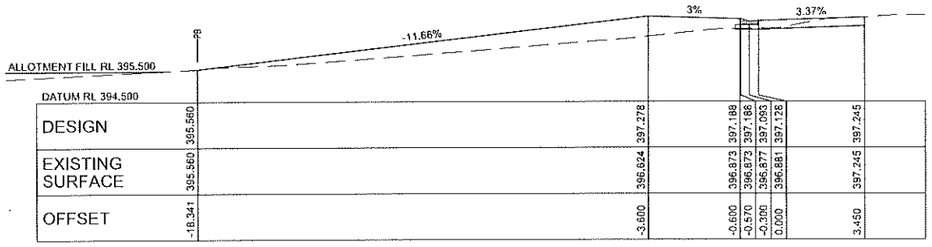

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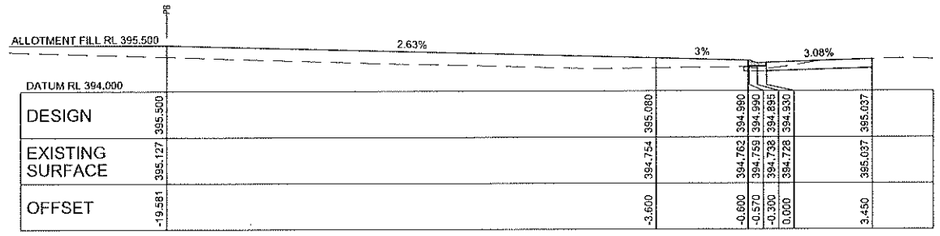
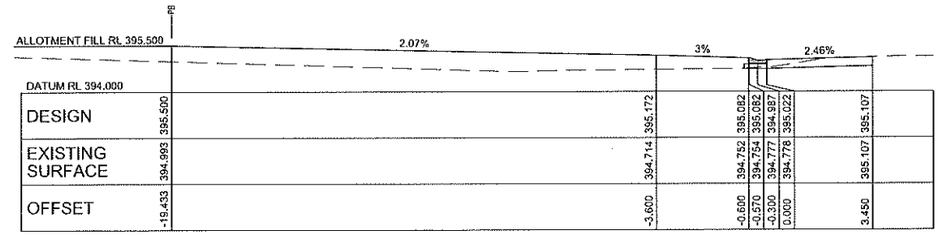
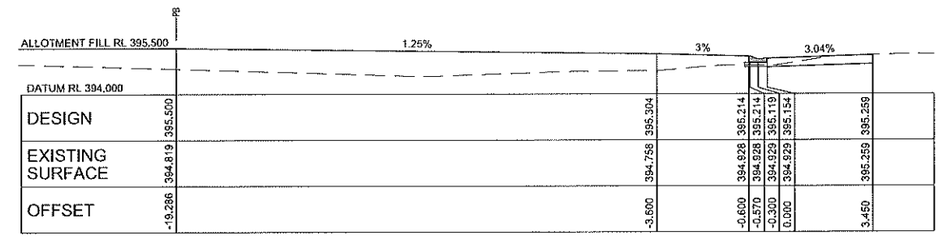


CHAINAGE 370



CHAINAGE 360



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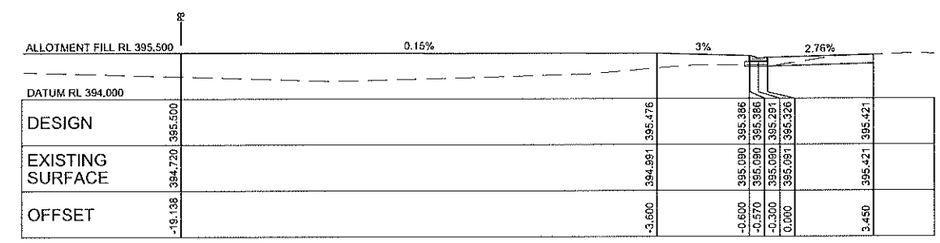

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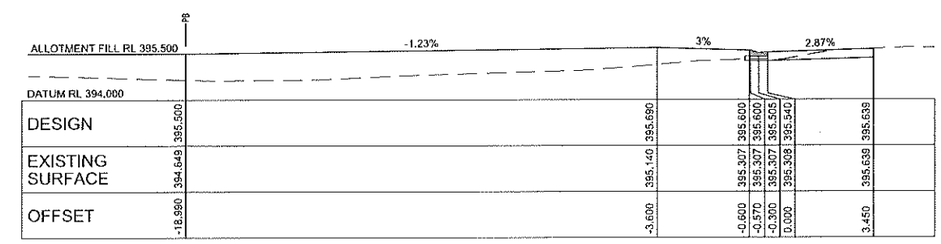

CHAINAGE 330

HASTIE ROAD WIDENING - CROSS SECTIONS

Scale 1:100

Ref	Revision Notes	Date	Sign
A.	PRELIMINARY ISSUE	15/08/18	W.S.

DRAWN W.S. CHECKED W.S. APPROVED DATE: 15/08/18

CAD FILE: HR18-020 OPERATIONAL WORKS.DWG

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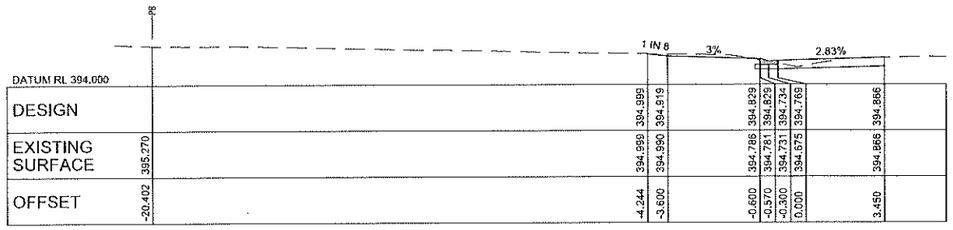
DATUM: PM187739
GDA94 ZONE 55
AUSTRALIAN HEIGHT DATUM (AHD)

0 2 4 6m
Scale 1:100 (A1)

Client: B. T. M. & S. STANKOVICH PTY LTD
Project: RURAL RESIDENTIAL SUBDIVISION of LOT 1 on RP735200 - HASTIE ROAD
Title: HASTIE ROAD WIDENING - CROSS SECTIONS CH 280 to CH 370

Plan No: HR18-020-C11
Sheet No. 11/17
Issue: A



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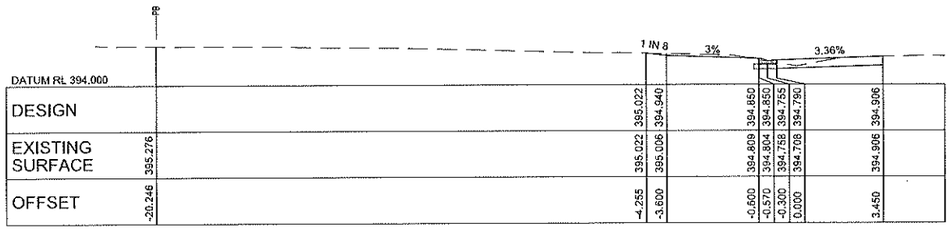
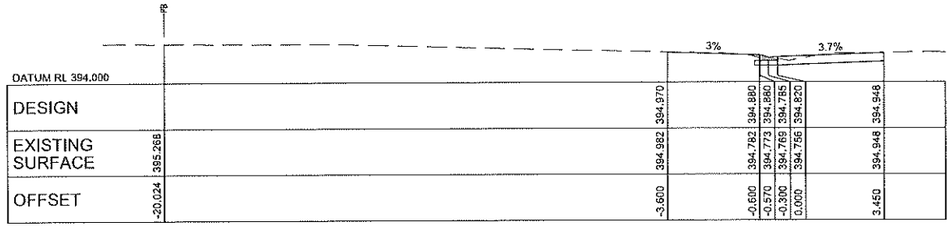


CHAINAGE 410



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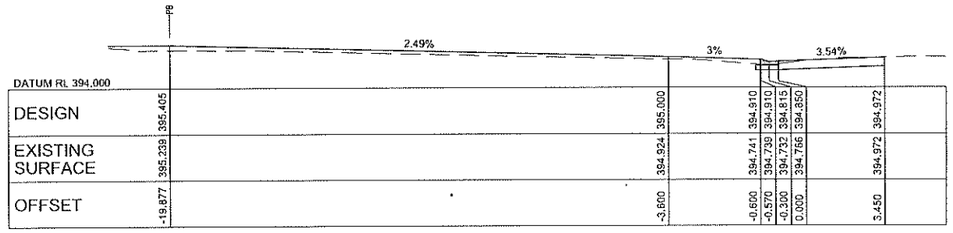

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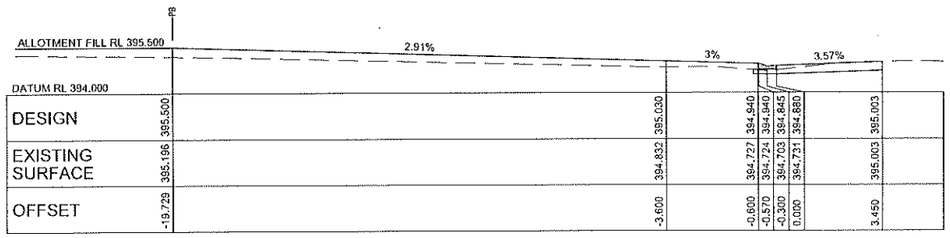
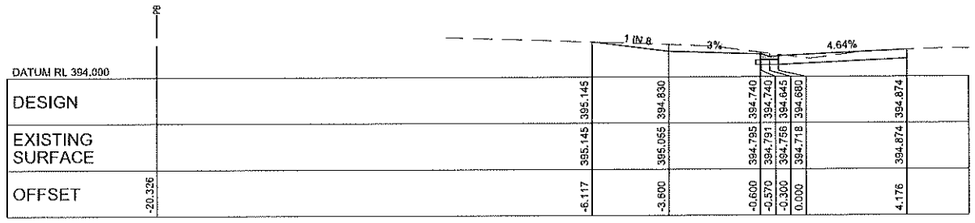


CHAINAGE 380



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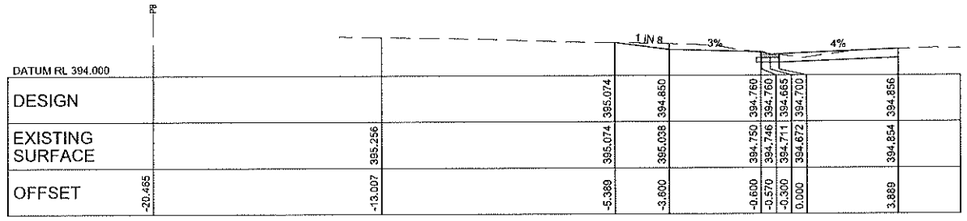

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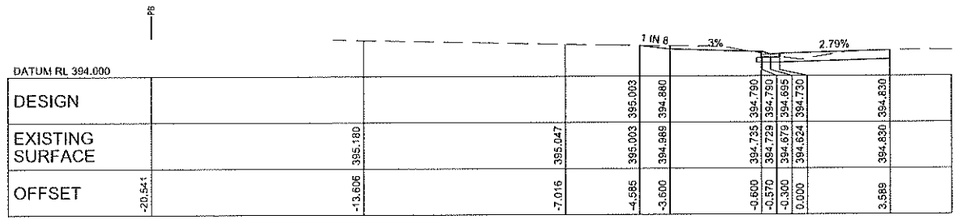

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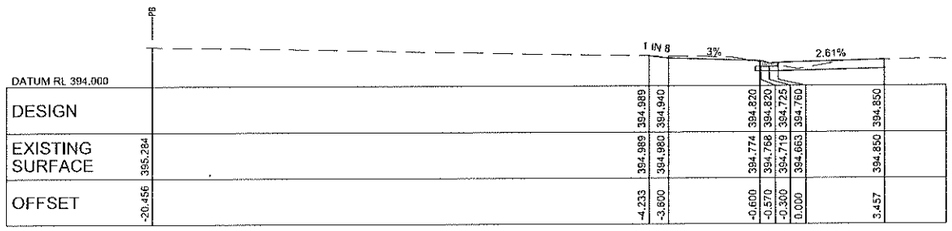

CHAINAGE 420

HASTIE ROAD WIDENING - CROSS SECTIONS

Scale 1:100

Ref.	Revision Notes	Date	Sign
A.	PRELIMINARY ISSUE	15/08/18	W.S.

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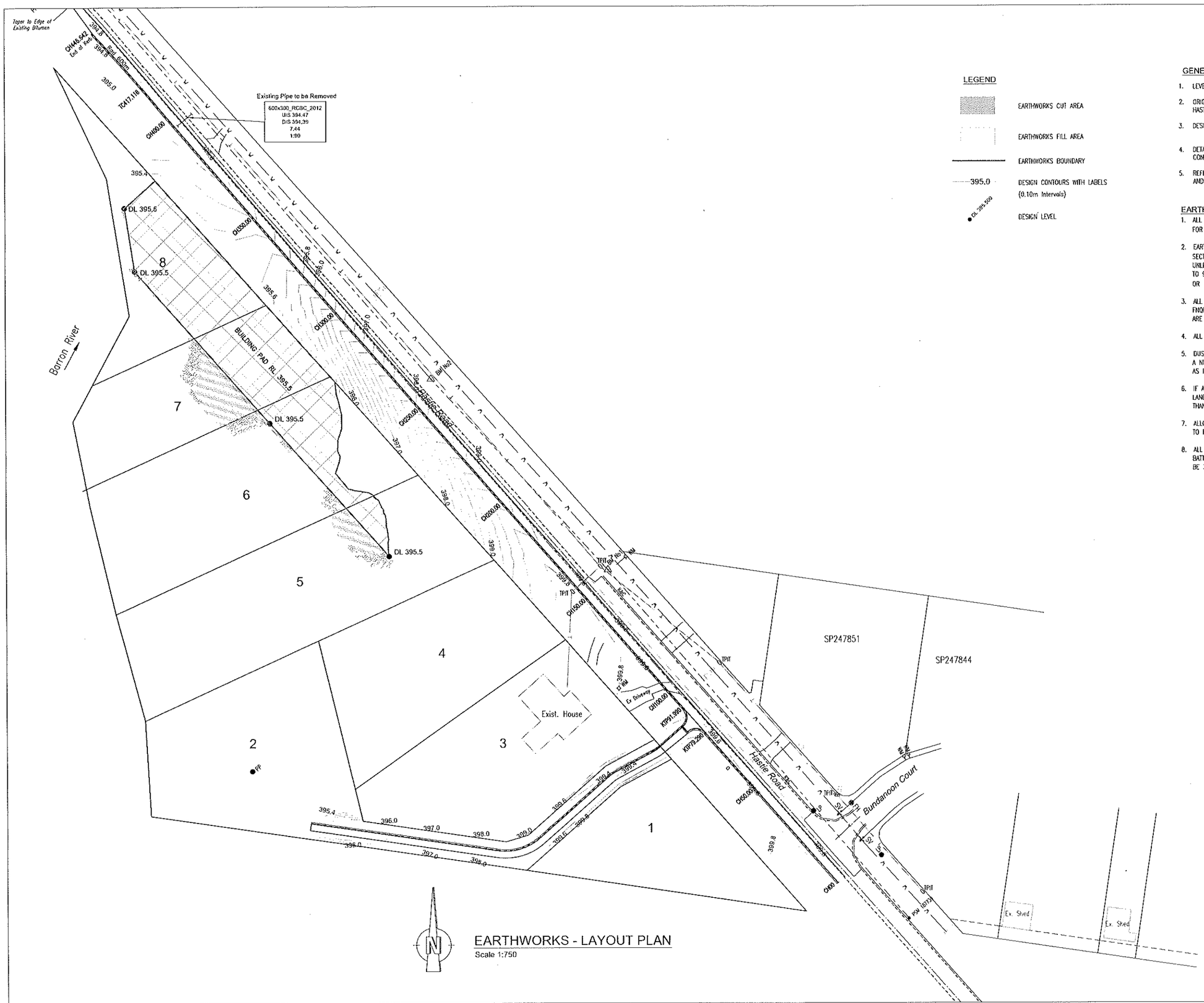
DATUM: PM187739
GDA94 ZONE 55
AUSTRALIAN HEIGHT DATUM (AHD)
0 2 4 6m
Scale 1:100 (A1)

Client: B. T. M. & S. STANKOVICH PTY LTD
Project: RURAL RESIDENTIAL SUBDIVISION of LOT 1 on RP735200 - HASTIE ROAD
Title: HASTIE ROAD WIDENING - CROSS SECTIONS CH 280 to CH 370

Plan No: HR18-020-C12
Sheet No. 12/17
Issue: A



EARTHWORKS - LAYOUT PLAN
Scale 1:750

LEGEND

- EARTHWORKS CUT AREA
- EARTHWORKS FILL AREA
- EARTHWORKS BOUNDARY
- 395.0 — DESIGN CONTOURS WITH LABELS (0.10m Intervals)
- DL 395.500 — DESIGN LEVEL

GENERAL NOTES

1. LEVEL DATUM: AHD
2. ORIGIN OF LEVELS: PSM187739; RL 399.773
   HASTIE ROAD. E 333039.516; N 8120864.768
3. DESIGN SURFACE CONTOUR INTERVAL: 0.20m
   INDEXED: 1.00m
4. DETAILS OF EXISTING SERVICES ARE PROVIDED FOR INFORMATION ONLY AND THE CONTRACTOR IS TO LOCATE ALL SERVICES PRIOR TO COMMENCEMENT OF WORK.
5. REFER TO FNQROC SPECIFICATIONS AND DRAWINGS FOR EARTHWORKS, ROADWORKS, WATER AND STORMWATER DRAINAGE.

EARTHWORKS NOTES

1. ALL EARTHWORKS SHALL BE IN ACCORDANCE WITH AS3798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS" AND FNQROC STANDARD SPECIFICATIONS.
2. EARTHWORKS TO BE LEVEL TWO CONTROLLED FILL. COMPACTION TESTING IS TO COMPLY WITH SECTION 5 OF "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS" UNLESS NOTED OTHERWISE. FILL LAYERS SHALL NOT EXCEED 200mm DEPTH AND COMPACTED TO 95% STANDARD COMPACTION. COMPACTION TESTS TO BE CARRIED OUT AT 1 TEST PER 200m^3 OR 1 PER 1000m^2 PER LAYER, WHICHEVER GIVES GREATER NUMBER OF TESTS.
3. ALL DISTURBED AREAS ARE TO BE TOPSOILED AND DRILL SEEDED IN ACCORDANCE WITH THE FNQROC STANDARD SPECIFICATIONS, WITH EXCEPTION OF BATTERS STEEPER THAN 1 IN 4 THAT ARE TO BE TOPSOILED AND HYDROMULCHED.
4. ALL CUT & FILL BATTERS ARE TO BE 1 IN 2 OR FLATTER.
5. DUST SUPPRESSION MEASURES MUST BE UNDERTAKEN TO ENSURE THAT DUST DOES NOT CAUSE A NUISANCE TO SURROUNDING AREAS AND RESIDENTS. SUCH MEASURES MUST BE SUBMITTED AS PART OF THE SEDIMENT CONTROL PLAN..
6. IF ANY DUST OR MUD IS BOUGHT ONTO THE ROAD PAVEMENT FROM WORKS ON THE SUBJECT LAND, IT MUST BE PROPERLY CLEANED AWAY TO ELIMINATE MUD OR DUST NUISANCE NO LATER THAN AT THE END OF EACH WORKING DAY.
7. ALLOTMENTS SHALL BE PROVIDED WITH A MINIMUM FINISHED SURFACE GRADIENT OF 0.5%, TO FACILITATE DRAINAGE.
8. ALL EMBANKMENTS AND CUTTINGS MUST BE OUTSIDE THE ROAD RESERVE. THE TOE OF ANY CUT BATTER IS TO BE 300mm INSIDE THE PROPERTY BOUNDARY; THE TOP OF ANY FILL BATTER IS TO BE 300mm INSIDE THE PROPERTY BOUNDARY.

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AUGUST 2018

Ref.	Revision Notes	Date	Sign
A.	PRELIMINARY ISSUE	15/08/18	W.S.

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DATUM: PM187739
GDA94 ZONE 55
AUSTRALIAN HEIGHT DATUM (AHD)
0 15 30 45m
Scale 1:750 (A1)

Client: B. T. M. & S. STANKOVICH PTY LTD
Project: RURAL RESIDENTIAL SUBDIVISION OF LOT 1 ON RP735200
Title: EARTHWORKS - LAYOUT PLAN

Plan No: HR18-020-C13
Sheet No. 13/17
Issue: A

SEWER STRUCTURE SETOUT				
No.	EASTING	NORTHING	LEVEL	DESCRIPTION
1/12	333073.815	8120857.424	Top RL 399.84	Manhole
2/12	332978.637	8120888.100	Top RL 399.85	Manhole
3/12	332937.831	8120934.082	Top RL 399.60	Discharge Manhole
4/12	332901.791	8120974.718	Top RL 399.95	Discharge Manhole

CONTROL STATIONS

Point	Easting	Northing	Elevation
PSM 187739	333039.516	8120864.768	399.773
BM No 1	332920.474	8121002.633	399.563
BM No 2	332850.967	8121078.109	398.366
BM No 3	332711.896	8121238.654	394.774

FNQROC DRAWINGS

S3000C	SEWERAGE MANHOLES
S3005D	PROPERTY CONNECTION BRANCHES
S3015C	BEDDING AND TRENCHING DETAILS

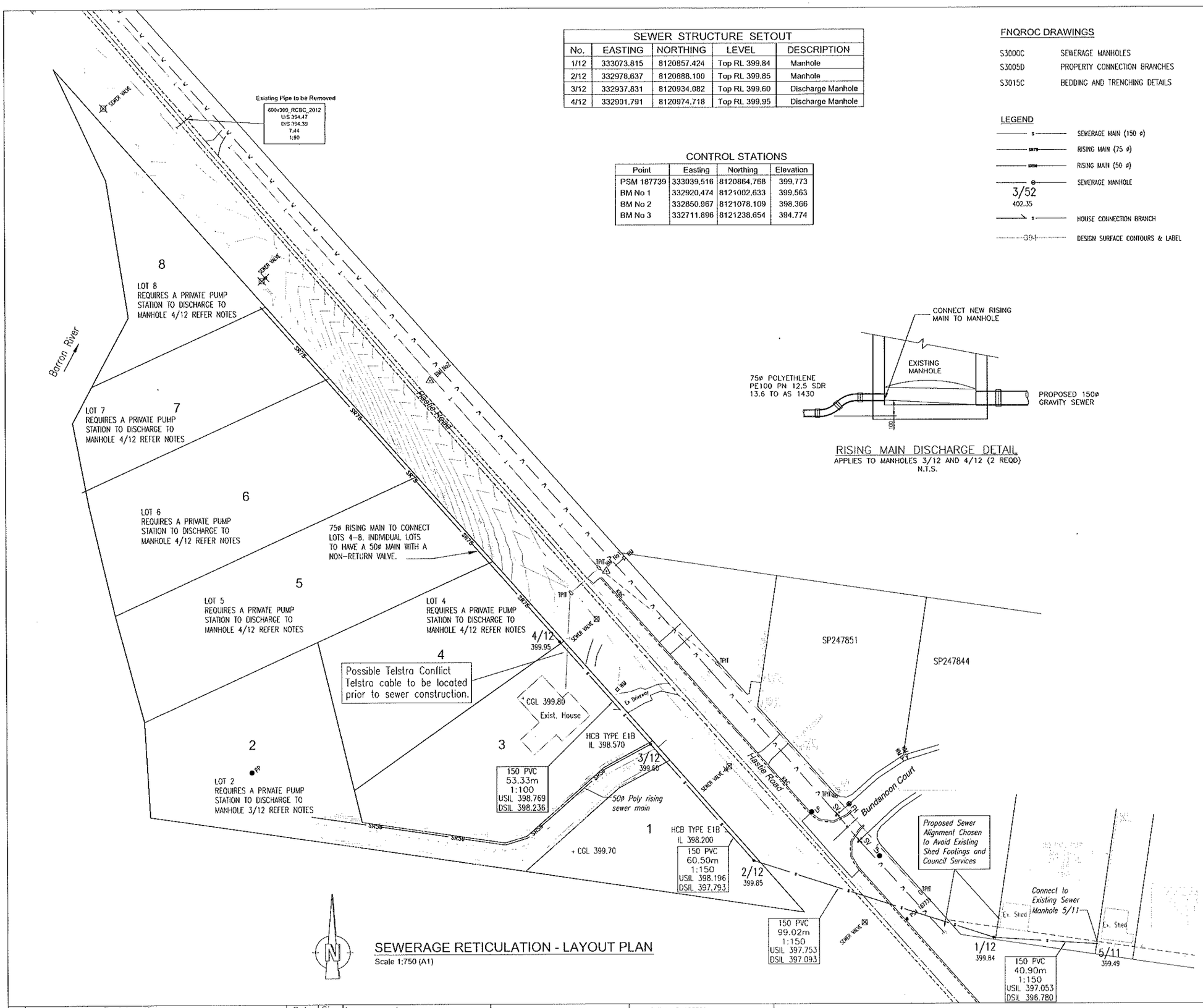
LEGEND

- SEWERAGE MAIN (150 ø)
- RISING MAIN (75 ø)
- RISING MAIN (50 ø)
- SEWERAGE MANHOLE (3/52, 402.35)
- HOUSE CONNECTION BRANCH
- DESIGN SURFACE CONTOURS & LABEL

SEWER NOTES

1. ALL SEWERS Ø150 uPVC CLASS SEH U.N.O. SEWER MANHOLES ARE TO BE LOCATED 1.5m FROM FRONT BOUNDARIES TO CENTRE OF MANHOLE AND 0.8m FROM SIDE AND REAR BOUNDARIES TO CENTRE OF MANHOLE U.N.O.
2. REFER TO FNQROC STANDARD DRAWINGS S3000 TO S3015 FOR SEWER CONSTRUCTION DETAILS. REFER DRAWINGS
3. REFER DWG HR18-020-C15 FOR SEWER LONGITUDINAL SECTION.
4. THE CONTRACTOR IS TO CONFIRM THE LOCATIONS AND LEVELS OF EXISTING SERVICES PRIOR TO CONSTRUCTION COMMENCING.
5. CONNECTIONS TO EXISTING WATER & SEWER MAINS TO BE UNDERTAKEN OR SUPERVISED BY MAREEBA SHIRE COUNCIL.
6. ENSURE MIN. 150mm CLEARANCE BETWEEN ALL SERVICES AND STORMWATER STRUCTURES.
7. SEWER TO HAVE MINIMUM 800mm COVER UNDER ROADS AND 600mm ELSEWHERE.
8. ALL MANHOLES ARE TO FINISH 50mm ABOVE FINISHED DESIGN SURFACE LEVEL.
9. ALL TYPE E1B HCB's TO BE FABRICATED FIBREGLASS, HEAVY DUTY, DEEP SEWER DROPS.
10. BRING ALL HCB's TO SURFACE WITH A VERTICAL RISER FITTED WITH A BOLTED TRAP SCREW & CONCRETE SURROUND.
11. INSTALL A RED PAINTED STAR PICKET ADJACENT TO RISER, 1m HIGH.
12. MANHOLE COVERS ARE TO BE GAS TIGHT.
13. MANHOLE COVERS ARE TO BE LOCATED SUCH THAT THE POSITION OF THE ACCESS IS DIRECTLY OVER THE OUTLET PIPE.
14. THE INSTALLATION OF PRECAST MANHOLE COVERS SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS' RECOMMENDED PROCEDURES AND REQUIREMENTS.
15. WHERE MANHOLES OCCUR AT THE ENDS OF SEWER LINES, THE STUB FOR THAT END ALLOTMENT SHALL CONNECT INTO THE MANHOLE IN ORDER TO AVOID A DRY MANHOLE SITUATION.
16. DESIGN CONTOURS ARE 0.2M INTERVAL.
17. IN LOTS 2, 4, 5, 6, 7 & 8 WHERE PRIVATE PUMP STATIONS ARE TO BE INSTALLED THEN THESE SHALL COMPLY WITH THE REQUIREMENTS OF THE FNQROC DEVELOPMENT MANUAL. A STANDBY GENERATOR SHALL BE PROVIDED.

RISING MAIN DISCHARGE DETAIL
APPLIES TO MANHOLES 3/12 AND 4/12 (2 REQD)
N.T.S.



SEWERAGE RETICULATION - LAYOUT PLAN
Scale 1:750 (A1)

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PRELIMINARY ISSUE

Ref	Revision Notes	Date	Sign
A.	PRELIMINARY ISSUE	15/08/18	W.S.

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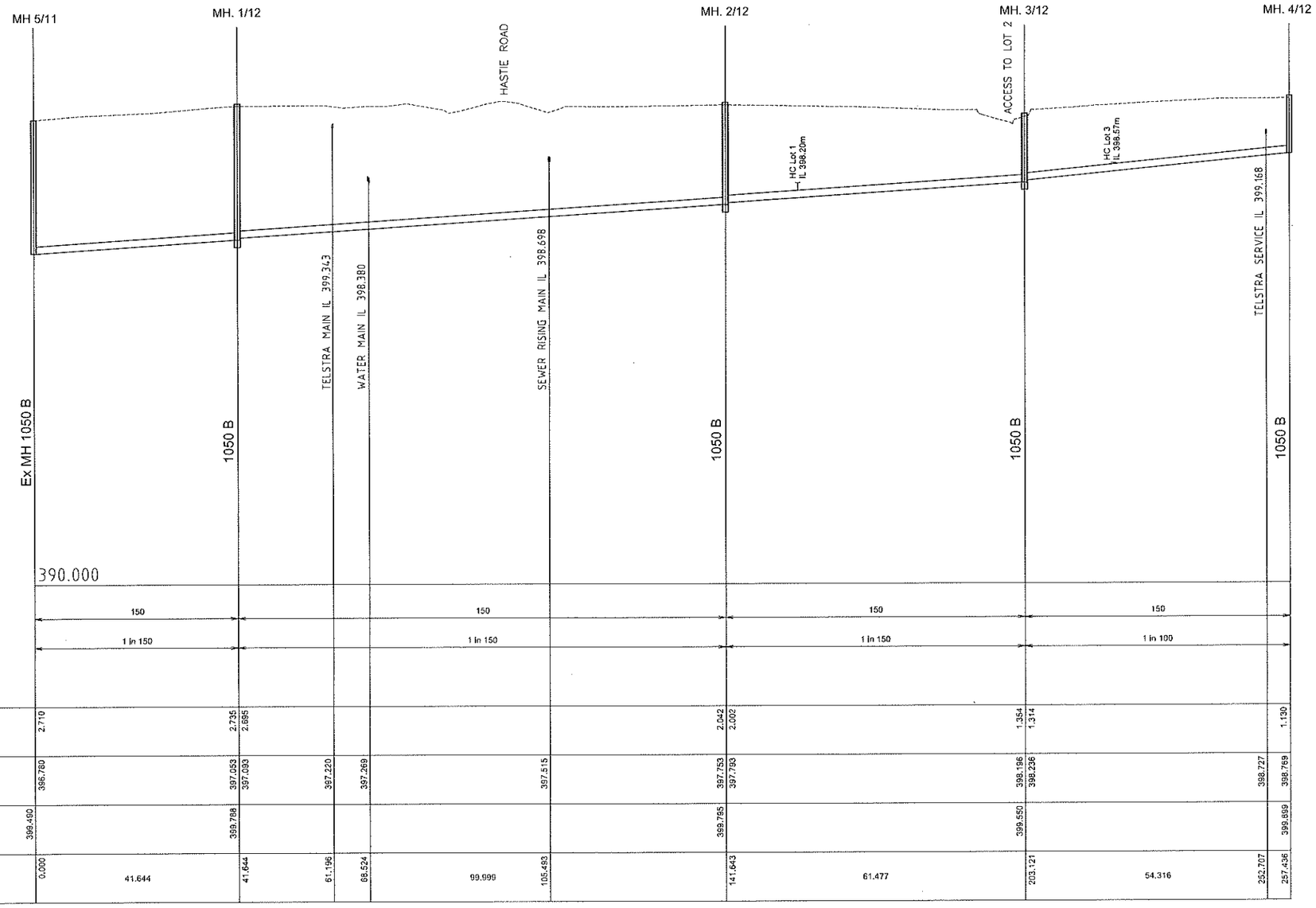
DATUM: PM187739
GDA94 ZONE 55
AUSTRALIAN HEIGHT DATUM (AHD)
0 15 30 45m
Scale 1:750 (A1)

Client: B. T. M. & S. STANKOVICH PTY LTD
Project: RURAL RESIDENTIAL SUBDIVISION OF LOT 1 ON RP735200
Title: SEWERAGE RETICULATION - LAYOUT PLAN

Plan No: HR18-020-C14
Sheet No. 14/17
Issue: A



CONNECT TO EXISTING SEWER MANHOLE. INVERT LEVEL TO BE CONFIRMED PRIOR TO COMMENCEMENT OF WORKS.

MANHOLE DIAMETER
CLASS OF LID

DATUM R.L.

DIAMETER

GRADE

DEPTH TO INVERT OF SEWER	2.710		2.735	2.695					2.042	2.002		1.354	1.314			1.130
INVERT LEVEL	396.780		397.053	397.093	397.220	397.269	397.515		397.753	397.793		398.196	398.236		398.727	398.769
FINISHED SURFACE LEVEL	399.490		399.788						399.755			399.550				399.859
RUNNING CHAINAGE	0.000	41.644		41.644	61.196	68.524	99.999	105.493		141.643	61.477		203.121	54.316	252.707	257.436

SEWERAGE RETICULATION - LONGITUDINAL SECTION

Horz Scale 1:500
Vert Scale 1:50

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Service Levels Shown are Approximate Only.
All Services Should be Located Prior to Commencement of Works.

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A.	PRELIMINARY ISSUE	24/08/18	W.S.

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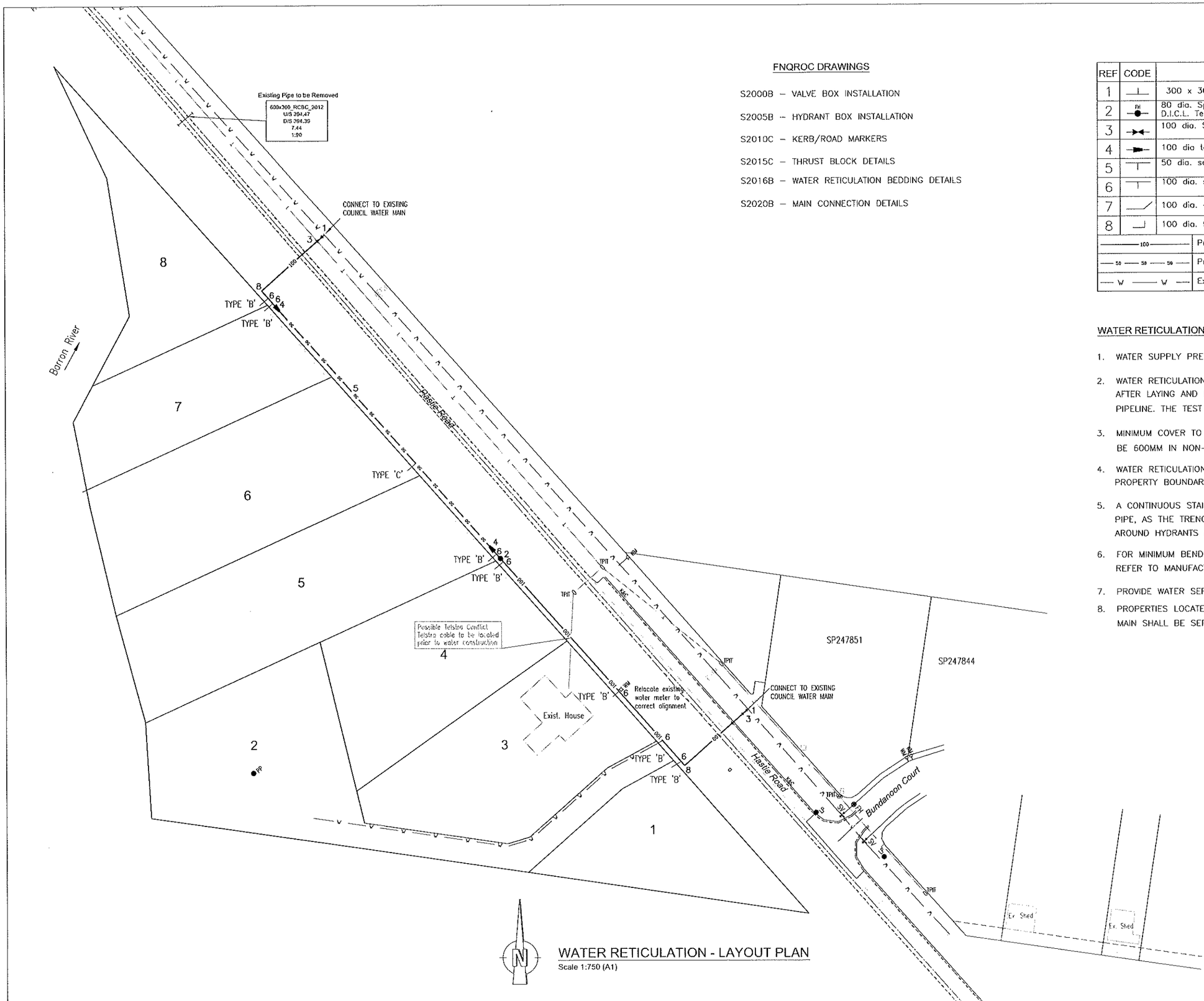
DATUM: PM187739
GDA94 ZONE 55
AUSTRALIAN HEIGHT DATUM (AHD)
0 10 20 30m
Scale 1:500 (A1)

Client: B. T. M. & S. STANKOVICH PTY LTD
Project: RURAL RESIDENTIAL SUBDIVISION OF LOT 1 ON RP735200
Title: HASTIE ROAD WIDENING - SEWERAGE LONGITUDINAL SECTION

Plan No: HR18-020-C15
Sheet No. 15/17
Issue: A



FNQROC DRAWINGS

S2000B – VALVE BOX INSTALLATION

S2005B – HYDRANT BOX INSTALLATION

S2010C – KERB/ROAD MARKERS

S2015C – THRUST BLOCK DETAILS

S2016B – WATER RETICULATION BEDDING DETAILS

S2020B – MAIN CONNECTION DETAILS

REF	CODE	DESCRIPTION
1		300 x 300 x 100 D.I.C.L. Tee with concrete thrust block.
2		80 dia. Spring Hydrant "Maxi Flow" 2000 type (DN80) complete with D.I.C.L. Tee, Riser, C.I. cover box margin and kerb marker. (100 Main)
3		100 dia. Sluice Valve Class 600 M.E. complete with C.I. cover box margin and kerb marker.
4		100 dia to 50 dia Reducer.
5		50 dia. service fitting to 40 or 20Ø copper service to brass stop cock, meter & dirt box. TYPE 'C'
6		100 dia. service fitting to 40 or 20Ø copper service to brass stop cock, meter & dirt box. TYPE 'B'
7		100 dia. 45° bend with concrete thrust block.
8		100 dia. 90° bend with concrete thrust block.
	100	Proposed Water Main 50Ø I.D. (Class 16)
	50 — 50 — 50	Proposed Water Main 50Ø I.D. (Class 16)
	W — W	Existing Water Main

WATER RETICULATION NOTES

1. WATER SUPPLY PRESSURE PIPES TO COMPLY WITH AS1477.
2. WATER RETICULATION TO BE HYDRAULICALLY PRESSURE TESTED TO 1250 KPA AFTER LAYING AND BEFORE BEING CONNECTED TO THE EXISTING COUNCIL PIPELINE. THE TEST PRESSURE SHALL BE HELD FOR 15 MINUTES MIN. WITHOUT LOSS.
3. MINIMUM COVER TO ALL PIPES (TOP OF PIPE TO FINISHED SURFACE LEVEL) SHALL BE 600MM IN NON-TRAFFICKED AREAS AND 800MM IN TRAFFICKED AREAS.
4. WATER RETICULATION ALIGNMENT FOR ALL ROADS SHALL BE 2.0M FROM PROPERTY BOUNDARY.
5. A CONTINUOUS STAINLESS STEEL OR COPPER WIRE SHALL BE LAID 150MM ABOVE PIPE, AS THE TRENCH IS BACKFILLED. THIS WIRE SHALL BE WRAPPED ONCE AROUND HYDRANTS AND SLUICE VALVES.
6. FOR MINIMUM BENDING RADIUS TO 50 DIA POLTETHYLENE REFER TO MANUFACTURERS SPECIFICATIONS.
7. PROVIDE WATER SERVICE AND METER TO EACH PROPERTY.
8. PROPERTIES LOCATED ON THE OPPOSITE SIDE OF THE ROAD TO THE RETICULATION MAIN SHALL BE SERVICED BY A 50mm Dia (63 OD) POLYETHYLENE LOOP MAIN Cl 16.

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PRELIMINARY ISSUE

WATER RETICULATION - LAYOUT PLAN

Scale 1:750 (A1)

Ref	Revision Notes	Date	Sign
A.	PRELIMINARY ISSUE	15/08/18	W.S.

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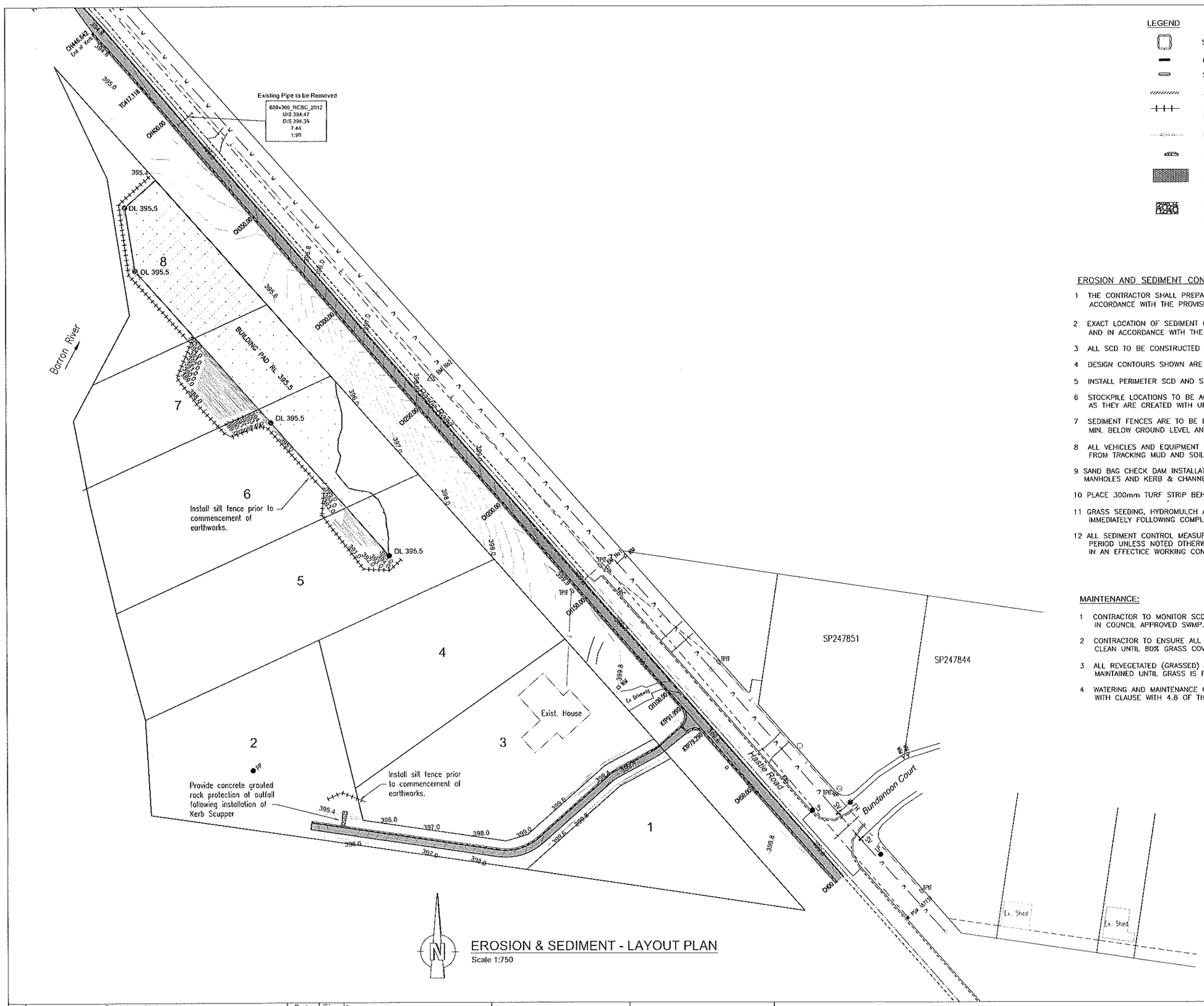
0 15 30 45m
Scale 1:750 (A1)

Client: B. T. M. & S. STANKOVICH PTY LTD
Project: RURAL RESIDENTIAL SUBDIVISION OF LOT 1 ON RP735200
Title: WATER RETICULATION - LAYOUT PLAN

Plan No: HR18-020-C16
Sheet No. 16/17
Issue: A



EROSION & SEDIMENT - LAYOUT PLAN
Scale 1:750

LEGEND

- SAND BAG SURROUND
- COCONUT FIBRE LOGS
- SEDIMENT FENCE
- 300MM TURF STRIP PLACED BEHIND KERB.
- SILT FENCE (RETURN TO BE CONSTRUCTED EVERY PROPERTY BOUNDARY)
- DESIGN CONTOURS WITH LABELS (0.50M INTERVAL)
- GRATED KERB INLET PIT
- ROCK PROTECTION.
- CONSTRUCTION ENTRY/EXIT REFER IEAUST DWG A5-C3-1 FOR DETAIL

EROSION AND SEDIMENT CONTROL NOTES:

1 THE CONTRACTOR SHALL PREPARE AN EROSION AND SEDIMENT CONTROL PLAN IN ACCORDANCE WITH THE PROVISIONS OF THE FNQROC DEVELOPMENT MANUAL.

2 EXACT LOCATION OF SEDIMENT CONTROL DEVICES (SCD) TO BE AGREED ON SITE AND IN ACCORDANCE WITH THE CONTRACTORS STORMWATER MANAGEMENT PLAN (SWMP).

3 ALL SCD TO BE CONSTRUCTED IN ACCORDANCE WITH THE INSTITUTE OF ENGINEERS GUIDELINES.

4 DESIGN CONTOURS SHOWN ARE AT 0.2M INTERVALS.

5 INSTALL PERIMETER SCD AND STABILISED ENTRY/EXIT POINT PRIOR TO DISTURBANCE.

6 STOCKPILE LOCATIONS TO BE AGREED ON SITE WITH ENGINEER. STOCKPILES TO BE PROTECTED AS THEY ARE CREATED WITH UP-SLOPE PERIMETER BANK AND DOWN SLOPE SEDIMENT FENCE.

7 SEDIMENT FENCES ARE TO BE INSTALLED SUCH THAT THE BASE OF THE FENCE IS PLACED 150mm MIN. BELOW GROUND LEVEL AND ANCHORED SECURELY IN POSITION.

8 ALL VEHICLES AND EQUIPMENT ENTRY/EXIT POINTS SHALL HAVE SHAKER GRIDS TO PREVENT VEHICLES FROM TRACKING MUD AND SOIL OFF SITE. LOCATIONS TO BE DETERMINED ON SITE.

9 SAND BAG CHECK DAM INSTALLATION TO CORRESPOND WITH THE INSTALLATION OF STORMWATER MANHOLES AND KERB & CHANNEL.

10 PLACE 300mm TURF STRIP BEHIND KERB IN ACCORDANCE FNQROC STD DWG S5010.

11 GRASS SEEDING, HYDROMULCH AND/OR TURF TO BE APPLIED TO FINISHED IMMEDIATELY FOLLOWING COMPLETION IN ACCORDANCE WITH THE DEVELOPMENT MANUAL.

12 ALL SEDIMENT CONTROL MEASURES ARE TO REMAIN IN PLACE UNTIL THE END OF THE MAINTENANCE PERIOD UNLESS NOTED OTHERWISE. ALL SEDIMENT CONTROL DEVICES ARE TO BE FULLY MAINTAINED IN AN EFFECTICE WORKING CONDITION DURING CONSTRUCTION AND THE MAINTENANCE PERIOD.

MAINTENANCE:

1 CONTRACTOR TO MONITOR SCD ON A DAILY BASIS OR AS DETAILED IN COUNCIL APPROVED SWMP.

2 CONTRACTOR TO ENSURE ALL SCD ARE FULLY MAINTAINED AND CLEAN UNTIL 80% GRASS COVER.

3 ALL REVEGETATED (GRASSED) AREAS TO BE WATERED AND MAINTAINED UNTIL GRASS IS FULLY ESTABLISHED.

4 WATERING AND MAINTENANCE OF GRASSED AREAS TO BE IN ACCORD. WITH CLAUSE WITH 4.8 OF THE FNQROC DEVELOPMENT MANUAL.

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0 15 30 45m
Scale 1:750 (A1)

Client: B. T. M. & S. STANKOVICH PTY LTD
Project: RURAL RESIDENTIAL SUBDIVISION OF LOT 1 ON RP735200
Title: EROSION & SEDIMENT CONTROL - LAYOUT PLAN

Plan No: HR18-020-C17
Sheet No. 17/17
Issue: A