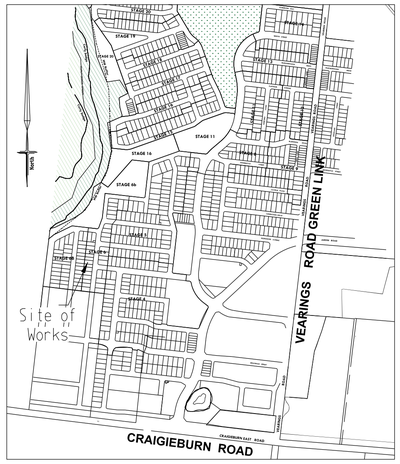
SERVICES OFFSETS AND LOCATIONS

Location	Gas	Water		Telecommunications		Electricity		BOK	Road Width	Joint Trenching	Street Classification
		NDW	DW	Cables	Pits	Cables	Poles				
PROVIDENCE AVENUE	2.25 S	2.70 S	3.20 S	1.85 N	1.78 N/S	2.60 N	1.00 BOK	4.35 S 4.05 N	16.00	G & W, FTTH & E	STREET-LEVEL 1
BRASSWOOD WAY	2.25 S	2.70 S	3.20 S	1.85 N	1.78 N/S	2.60 N	1.00 BOK	4.35 S 4.05 N	16.00	G & W, FTTH & E	STREET-LEVEL 1
PREVELI WAY	2.25 W	2.70 W	3.20 W	1.85 E	1.78 E/W	2.60 E	1.00 BOK	4.35 E 4.05 W	16.00	G & W, FTTH & E	STREET-LEVEL 1
PORTOFINO WAY	2.25 N	2.70 N	3.20 N	1.85 S	1.78 N/S	2.60 S	1.00 BOK	4.35 N 4.05 S	16.00	G & W, FTTH & E	STREET-LEVEL 1
LAKERIDGE DRIVE	1.80 S/E	2.20 S/E	2.65 S/E	0.80 S/E	0.80 S/E	0.30 N/W	0.90 BOK	1.85 N/W 4.05 S/E	13.50	G & W, FTTH & E	STREET-LEVEL 1

NOTE: a) At the court bowl where water and gas mains pass, the watermain offset is to be increased by 0.5 metres.
b) * Indicates offsets from back of kerb where services do not run parallel to title boundary.
c) * Indicates Telecommunication pits placed within concrete footpath.

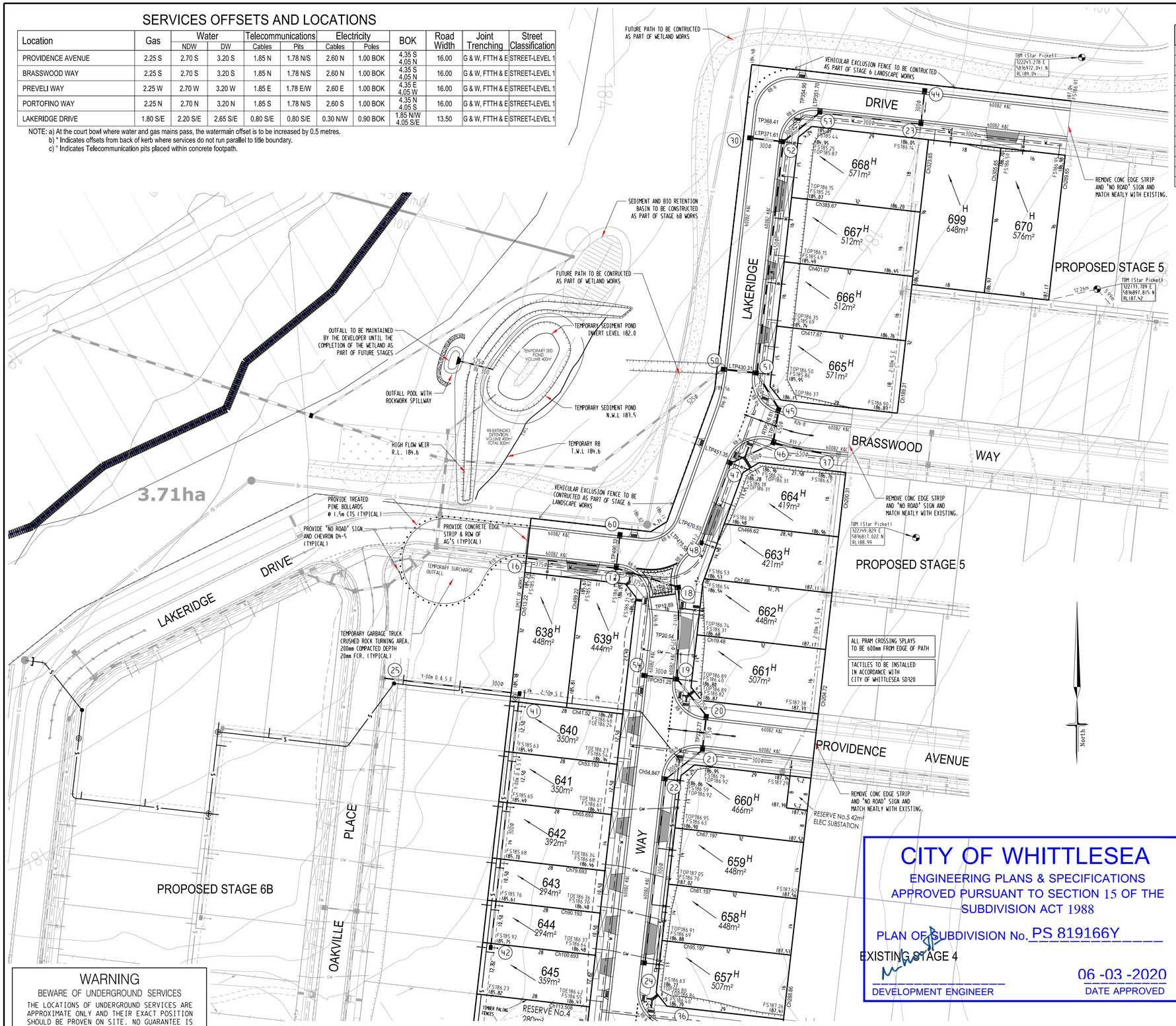
SHEET INDEX

SHT No.	VER	DESCRIPTION
1	P5	DETAIL PLAN SHEET 1
2	P3	NOTES AND TYPICAL SECTIONS
3	P2	INTERSECTION DETAILS 1
4	P3	INTERSECTION DETAILS 2
5	P2	LAKERIDGE DRIVE - LONGDITUDINAL SECTIONS
6	P2	LAKERIDGE DRIVE - CROSS SECTIONS
7	P1	PREVELI WAY - LONGDITUDINAL SECTION
8	P1	PREVELI WAY - CROSS SECTIONS
9	P1	BRASSWOOD WAY - LONGDITUDINAL & CROSS SECTIONS
10	P1	PROVIDENCE AVENUE - LONGDITUDINAL & CROSS SECTIONS
11	P1	PORTOFINO WAY - LONGDITUDINAL & CROSS SECTIONS
12	P4	DRAINAGE LONGDITUDINAL SECTIONS 1
13	P3	DRAINAGE LONGDITUDINAL SECTIONS 2, PIT SCHEDULE
14	P2	SIGNAGE AND LINEMARKING PLAN

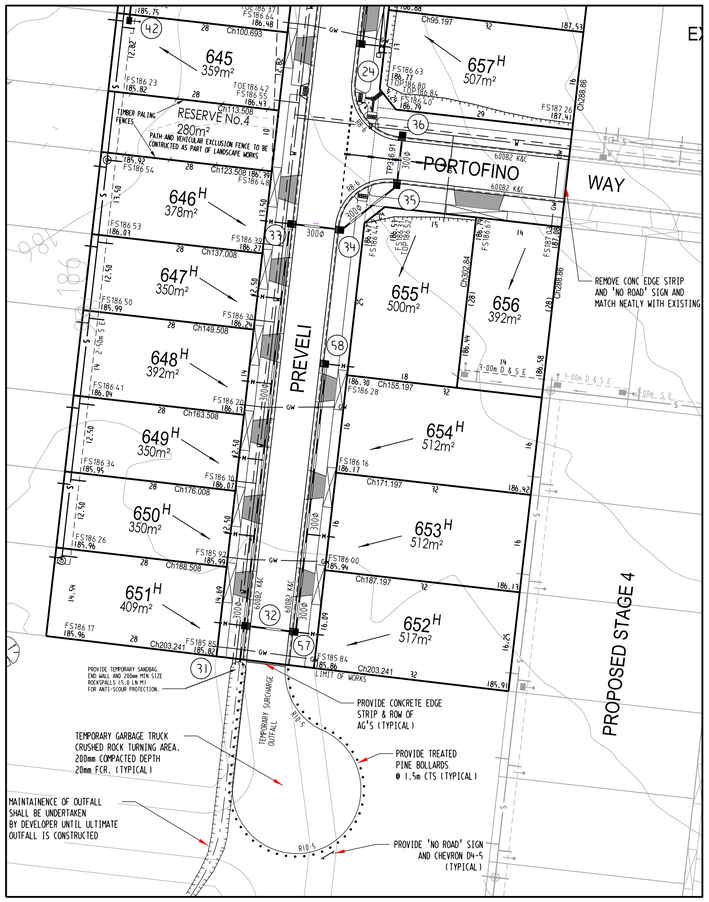


LOCALITY PLAN

N.T.S.
MELWAYS: 388 C 10



FOR CONTINUATION REFER TO INSET RIGHT



INSET

SCALE 1:500

WARNING

BEWARE OF UNDERGROUND SERVICES

THE LOCATIONS OF UNDERGROUND SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.

ATTENTION TO CONTRACTOR

1. **IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT THE DIGITAL PLAN, PROVIDED FOR SETOUT PURPOSES, MATCHES THE TBM COORDINATES SHOWN.**
2. **Contractor to ensure that the site is pegged and or set out checked by the licenced surveyor responsible for certifying the Plan of Subdivision prior to underground infrastructure being installed.**
3. Where concrete works abut a sewer access chamber surround or similar structure, an expansion joint of approved material shall be provided between the two faces.

PLAN

SCALE 1:500

SCALE 1 : 500

10 5 0 10 20 40

LENGTHS ARE IN METRES

SYMBOL LEGEND

	Prop	Exist
Drains		
Sewer <300	S	S
Sewer >300	S	S
Water	W	W
House Drain	H	H
Property Inlet		
Street Sign		
PSM		
Retaining Wall	RETAINING WALL	RETAINING WALL
Conduits 50mm	GW	GW
Conduits 100mm	W100	W100
Ex Gas/Elect/Tel	G E T	
Vehicular Exclusion Fence		

Ex/Natural/FS Level	+18.57	+N528.57	18.57
FS @ Building Line	18.28 N	
Top/Toe of Batter	TOP28.57	TOE28.57
Top Ret. Wall Level	TW28.57	
100yr Flood Level	FL28.57	
Fill Prop/Ex		
Cut Prop/Ex		

AMENDMENTS

VER.	DATE	REMARKS
P5	21·02·20	TEMP SED POND ADDED
P4	08·01·20	COUNCIL COMMENTS
P3	03·12·19	COUNCIL COMMENTS
P2	03·10·19	COUNCIL COMMENTS
P1	30·08·19	ISSUE FOR APPROVAL

CITY OF WHITTLESEA

ENGINEERING PLANS & SPECIFICATIONS
APPROVED PURSUANT TO SECTION 15 OF THE SUBDIVISION ACT 1988

PLAN OF SUBDIVISION No. PS 819166Y

DEVELOPMENT ENGINEER

06 -03 -2020
DATE APPROVED

breese pitt dixon pty. ltd.
land surveyors civil engineers
1/19 cato street
hawthorn east, 3123
telephone 8823 2300
fax no. 8823 2310

MELWAY REF.	388-C-10
SURVEY	BPD
DESIGN	RGW
DRAWN	RGW
CHECKED	NM

RATHDOWNE ESTATE STAGE 6

DETAIL PLAN AND SHEET INDEX

SCALE	DATUM	DATE	SHEET
AS SHOWN	AHD	AUG '19	1 OF 14 P5

MUNICIPALITY: WHITTLESEA
REFERENCE: 9365 E/06

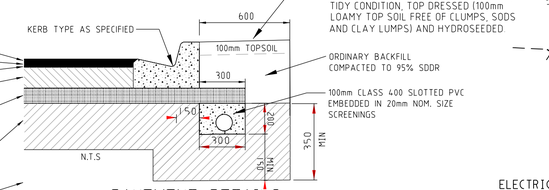
J:\HF965\Eng\Stage 6\E6_R01_DET.dgn
Plotted:10/03/2020

NOTES

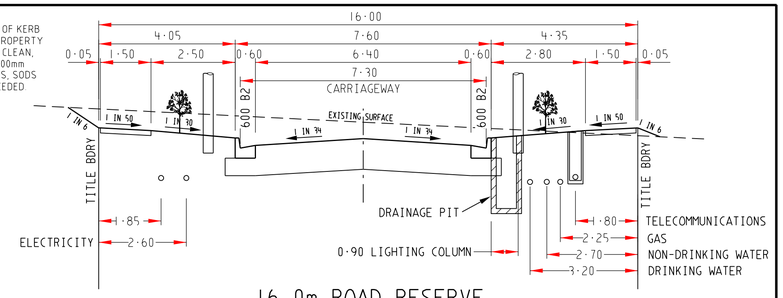
1. ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH PLANS AND CURRENT CITY OF WHITTLESEA SPECIFICATIONS AND STANDARD DRAWINGS APPROVED BY COUNCIL AND TO THE SATISFACTION OF THE ENGINEER. PRIOR TO COMMENCEMENT OF WORKS, THE CONTRACTOR SHALL PROVIDE THE FOLLOWING INFORMATION:
   a) SOURCES OF QUARRYMATERIAL
   b) N.A.T.A. APPROVED TEST RESULTS FOR THE F.C.R. THAT IS TO BE USED.
   c) IF THE SOURCE THE QUARRY MATERIAL IS CHANGED DURING THE COURSE OF THE WORKS, THEN NEW TEST RESULTS SHALL BE PROVIDED.
2. COUNCIL TO BE NOTIFIED 2 CLEAR DAYS PRIOR TO COMMENCEMENT OF WORKS.
3. ALL DIMENSIONS ARE IN METERS UNLESS NOTED OTHERWISE
4. ALL LEVELS ARE TO BE AUSTRALIAN HEIGHT DATUM (AHD)
5. DRAINAGE AND PITS TO BE SETOUT FROM OFFSETS SHOWN RATHER THAN FROM CENTRELINE PIPE CHAINAGES.
6. ALL PIPES TO BE CLASS 2 UNLESS OTHERWISE SPECIFIED AND SHALL BE RRJ UP TO AND INCLUDING 750mm DIAMETER. ALL DRAINS THAT CROSS UNDER ROAD PAVEMENTS ARE TO BE RRJ CLASS 4 R.C.P.
7. JOINTING FOR CURVED PIPE ALIGNMENT SHALL CONFORM TO MANUFACTURER'S SPECIFICATIONS (RRJ'S FOR MINOR DEFLECTIONS OR COMPLETE R.C. BANDAGES)
8. PROPERTY INLETS ARE TO BE PLACED 1.0m FROM THE LOW CORNER OF LOT UNLESS OTHERWISE SHOWN.
9. LOTS DENOTED THUS 416H ARE TO BE PROVIDED WITH A 100mm HOUSE DRAIN PLACED 7.00m FROM THE LOW CORNER OF THE LOT UNLESS OTHERWISE SHOWN. HOUSE DRAINS TO BE CONNECTED TO STREET DRAINAGE WITH 27A & CAP, CLEAR OF ANY PAVING. IF CONNECTION IS WITHIN PAVING A PIT MUST BE USED.
10. APPROVED GRANULAR BACKFILL TO BE PROVIDED WHERE PIPE TRENCHES ENCROACH UNDER ROADWAY DUE TO DEEP EXCAVATIONS IN ROCK.
11. SHALLOW CUT OFF DRAINS ARE TO BE PROVIDED ON SUBDIVISION BOUNDARY WHERE NECESSARY.
12. WHERE CONCRETE PAVING CROSSES SERVICE TRENCHES, SEWERAGE AND DRAINAGE, TRENCHES SHALL BE BACKFILL WITH COMPACTED FINE CRUSH ROCK.
13. ALL CROSSOVERS MUST BE 0.75m FROM THE DRAINAGE PITS AND PRAM CROSSINGS. IN ADDITION, THE PRAM CROSSING MUST BE 2m FROM THE DRAINAGE PITS.
14. PRIOR TO COMMENCEMENT OF WORKS ON SITE, THE CONTRACTOR MUST ENSURE THAT ALL MATTERS RELATING TO THE OCCUPATIONAL HEALTH AND SAFETY ACT 2004, INCLUDING ALL RELEVANT REGULATIONS, HAVE BEEN ADDRESSED. IN PARTICULAR, THE REQUIRED NOTIFICATIONS MUST BE CONVEYED TO THE VICTORIAN WORKCOVER AUTHORITY - HEALTH & SAFETY DIVISION WITH RESPECT TO TRENCHING OPERATIONS. DETAILS OF THE CONTRACTORS OCCUPATIONAL HEALTH & SAFETY PROCEDURES MUST BE LODGED WITH THE SUPERINTENDENT PRIOR TO COMMENCEMENT OF WORKS.
15. AGRICULTURAL PIPE DRAINS 100mm PVC CLASS 4 TO BE PLACED BEHIND ALL KERB AND CHANNEL AND BUFFER PITCHERS AND WHERE DIRECTED BY THE ENGINEER (REFER TO COUNCIL STANDARD DRAWINGS). WHERE KERB AND CHANNEL IS LOCATED ON TITLE BOUNDARY AG's ARE TO BE PLACED BENEATH KERB AND 750mm BELOW TOP OF KERB.
16. ALL DRAINS BEHIND KERB AND CHANNEL SHALL BE BACKFILLED TO MATCH PAVEMENT SUBGRADE LEVEL WITH 20mm CLASS 2 F.C.R. COMPACTED TO 95% OF THE MAXIMUM DRY DENSITY VALUE DETERMINED BY THE MODIFIED COMPACTION TEST IN ACCORDANCE WITH A.S. 1289.5.2.1-2003. EXCEPT WHERE DRAINS UP TO AND INCLUDING 450mm DIA. PIPES ARE LOCATED BEHIND KERB, THESE TRENCHES ARE TO BE BACKFILLED WITH SCREENINGS IN LIEU OF AG'S.
17. AGRICULTURAL DRAINS ARE TO BE 760mm BELOW TOP OF KERB.
18. BATTERS SHALL BE 1 IN 6 FOR CUT & FILL UNLESS OTHERWISE SHOWN.
19. ALL NATIVE TREES AND SHRUBS TO BE RETAINED UNLESS ROAD CONSTRUCTION NECESSITATES THEIR REMOVAL OR REMOVAL IS DIRECTED BY THE ENGINEER.
20. LOTS TO BE GRADED AND LEFT CLEAN TO THE SATISFACTION OF THE ENGINEER.
21. ON COMPLETION THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF RUBBISH AND SPOIL FROM SITE.
22. WHERE WORKS ARE IN THE VICINITY OF EXISTING SERVICES, THESE SERVICES ARE TO BE LOCATED AND THE VARIOUS AUTHORITIES NOTIFIED PRIOR TO COMMENCEMENT OF WORKS.
23. ALL MATERIAL SURROUNDING SERVICE AUTHORITY PITS LOCATED IN FOOTPATHS MUST BE ADEQUATELY COMPACTED IN 150mm LAYERS AND TESTED TO THE SATISFACTION OF THE CITY OF WHITTLESEA,PRIOR TO THE CONSTRUCTION OF FOOTPATH BAYS ADJACENT TO THESE PITS.
24. THE WATER CONDUIT OFFSET FROM THE LOT BOUNDARY IS GIVEN ON THE WATER RETICULATION PLAN. THE CONTRACTOR MUST CONSTRUCT CONDUITS TO ACCORD WITH THE GIVEN OFFSET AND ENSURE THAT THE CONCRETER MARKS THE KERB AND FOOTPATH EXACTLY ABOVE THE CONDUIT.
25. ALL GAS AND WATER CONDUIT TYPES ARE PVC CLASS 12 WITH A 50mm DIAMETER FOR RESIDENTIAL LOTS.
26. TELSTRA/NBN Co TO BE NOTIFIED 7 DAYS PRIOR TO CONCRETE BEING PLACED.
27. CONDUITS ARE TO BE EXTENDED 450mm BEHIND FACE OF KERB AND TO BE REFERENCED ON FACE OF KERB.
28. ALL STREET SIGNS TO BE CONSTRUCTED AND ERECTED TO CURRENT CITY OF WHITTLESEA STANDARDS. STREET NAME PLATES TO BE IN ACCORDANCE WITH STANDARD DRAWING SD812, INCLUDING "NO THROUGH ROAD" NOMINATION WHERE APPLICABLE.
29. TRAFFIC CONTROL SIGNS, MARKINGS & DELINEATORS TO BE INSTALLED IN ACCORDANCE WITH AS1742.2. ALL LINE MARKING IS TO BE LONG LIFE ROAD MARKING, WITH LONGITUDINAL LINES IN THERMOPLASTIC & TRANSVERSE MARKINGS IN COLD APPLIED.
30. ALL DRIVEWAYS TO BE OFFSET 0.75m FROM SIDE BOUNDARY OR EASEMENT UNLESS OTHERWISE SHOWN. REFER EDCM STD. DWG 501 FOR DETAILS.
31. ALL DRIVEWAY RAMPS INTO PROPERTIES ARE TO BE CUT IN AT A MAXIMUM GRADE OF 1 IN 6.
32. FILL AREAS ARE TO BE STRIPPED OF TOPSOIL, FILLED AND TOPSOIL REPLACED TO OBTAIN FINAL FILL LEVELS AS SHOWN ON PLANS. FILLING TO BE CLEAN CLAY COMPACTED TO A DRY DENSITY NOT LESS THAN 95% OF THE MAXIMUM DRY DENSITY VALUE DETERMINED BY THE STANDARD COMPACTION TEST IN ACCORDANCE WITH AUSTRALIAN STANDARD AS1289.5.2.1-1993. TESTING TO COMPLY WITH AS3798-1996 APPENDIX B, LEVEL 1.
33. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL IMPORTED FILL MATERIAL, INCLUDING TOPSOIL, SATISFIES THE DESCRIPTION FOR CLEAN FILL MATERIAL IN EPA BULLETIN PUBLICATION No. 448 (SEPT '95) AND SUBSEQUENT REVISIONS. THE CONTRACTOR SHALL PROVIDE VERIFICATION INCLUDING TEST CERTIFICATES TO THE SUPERVISING ENGINEER.
34. FILL REQUIRED UNDER ROADWAY KERB AND CHANNEL AND FOOTPATH TO BE APPROVED GRANULAR MATERIAL COMPACTED TO 95% AASHO IN 150mm LAYERS.
36. PAVEMENT DEPTH MAY BE MODIFIED AS DIRECTED BY THE ENGINEER.
37. ALL 125mm THICK FOOTPATH CONCRETE PAVING TO BE REINFORCED WITH SL72 MESH AND MUST BE CONSTRUCTED WITH A 50mm UNDERLAYER OF 20mm COMPACTED CLASS 3 FCR IN ACCORDANCE WITH EDCM STANDARD DRAWING 401.
38. THE CONTRACTOR IS TO ORGANISE AND PAY FOR TESTING OF PAVEMENT BASE COURSE MATERIAL AND FINAL LAYER OF CRUSHED ROCK. A COPY OF RESULTS IS TO BE FORWARDED TO THE DIRECTOR OF ENGINEERING OR HIS REPRESENTATIVE. THE RESULTS MUST MEET THE REQUIREMENTS OF THE CITY OF WHITTLESEA SPECIFICATION BEFORE ANY FURTHER WORKS ARE REQUIRED.
39. THE CONTRACTOR MUST COMPLETE A LEVEL CHECK BETWEEN ALL TBM'S TO VERIFY LEVEL VALUES BEFORE COMMENCEMENT OF WORKS. ALL TBM,s AND CONTROL POINTS ARE TO BE MAINTAINED AND PROTECTED AT ALL TIMES DURING CONSTRUCTION. SHOULD ANY MARKS BE DISTURBED, THE CONTRACTOR WILL IMMEDIATELY NOTIFY THE DEVELOPER'S CONSULTANT TO ARRANGE RE-INSTATEMENT AT THE CONTRACTORS EXPENSE.
40. PRIOR TO COMMENCEMENT OF WORKS, THE CONTRACTOR MUST SUBMIT A SMP TO THE DEVELOPER'S CONSULTANT FOR APPROVAL. THE CONTRACTOR MUST COMPLY WITH THE RECOMMENDATIONS OF THE ENVIRONMENT PROTECTION AUTHORITY PUBLICATION No.275 "CONSTRUCTION TECHNIQUES FOR SEDIMENT POLLUTION CONTROL" AND MW SITE ENVIRONMENTAL MANAGEMENT POLICY 3.8.2. APPROPRIATE SILTATION CONTROL IS TO BE MAINTAINED THROUGHOUT THE CONSTRUCTION AND MAINTENANCE PERIOD OF THE WORKS.
41. ALL FOOTPATHS IN ROADS TO BE OFFSET 50mm FROM PROPERTY BOUNDARY. FOOTPATHS CONSTRUCTED ABOVE EXISTING LEVEL TO BE CONSTRUCTED ON APPROVED FILL (TO AS-3798) OF F.C.R. INTO NATURAL GROUND.
42. REFER TO LANDSCAPE ARCHITECT PLANS FOR DETAILS OF VEHICLE EXCLUSION FENCING AROUND PERIMETER OF WORKS.
43. PRIOR TO COMMENCEMENT OF WORKS A RINGLOCK WIRE MESH FENCE, APPROX 1.8m HIGH, SHALL BE ERECTED AROUND TREES NOTED "TO BE RETAINED". CORNER POSTS TO BE TREATED PINE WITH TREATED PINE STAYS. INTERMEDIATE POSTS TO BE STAR PICKETS AT 3m INTERVALS,EVERY THIRD POST TO BE TREATED PINE. NO CONCRETE IS TO BE USED TO SECURE POSTS. NO EXCAVATION SHALL BE CARRIED OUT WITHIN 5.0m OF ANY TREE UNTIL APPROVAL IS GIVEN BY THE ENGINEER.
44. ALL FENCES ADJOINING ALL RESERVES (OTHER THAN ROAD RESERVES) ARE TO BE ERECTED BY THE DEVELOPER (OR OWNER) AT NO COST TO COUNCIL AND SHALL BE CONSTRUCTED PRIOR TO STATEMENT OF COMPLIANCE IN ACCORDANCE WITH CONDITION 43 OF THE PERMIT.
45. EXISTING DAM OR WATERCOURSES TO BE EXCAVATED TO A FIRM BASE AND BACKFILLED AS SPECIFIED. DEVELOPER'S CONSULTANT TO BE NOTIFIED WHEN THE DAM OR WATERCOURSES ARE EXCAVATED TO A FIRM BASE. NO FILLING IS TO BE PLACED PRIOR TO DAMS BEING INSPECTED AND LEVELS TAKEN. BACKFILLING IS TO BE CARRIED OUT TO THE SATISFACTION OF THE COUNCIL SUPERVISING ENGINEER.
46. TACTILE GROUND SURFACE INDICATORS (TGSI) ARE TO BE INSTALLED WHERE SHOWN IN ACCORDANCE WITH AS1428 AND SD320.
47. THE CONTRACTOR MUST ARRANGE THE REQUISITE INSPECTIONS OF THE WORKS WITH THE CHIEF EXECUTIVE OFFICER/OR THEIR REPRESENTATIVE AS PER THE HOLD POINTS IN THE WHITTLESEA CITY COUNCIL SPECIFICATIONS.
48. THE CONTRACTOR IS TO OBTAIN A BUILDING PERMIT FOR ANY STRUCTURE / FENCES AND OR ANY RETAINING WALLS 600mm IN HEIGHT.
49. ANY INFRASTRUCTURE DAMAGE DURING THE DEFECTS LIABILITY PERIOD IS THE RESPONSIBILITY OF THE DEVELOPER OR HIS REPRESENTATIVE AND IS TO BE REINSTATED TO THE SATISFACTION OF THE CHEIF EXECUTIVE OFFICER / OR THEIR REPRESENTATIVE.
50. AT THE COMPLETION OF ALL WORKS, ALL RUBBISH, DEBRIS AND SURPLUS SPOIL SHALL BE REMOVED AND THE SITE SHALL BE CLEARED TO THE SATISFACTION OF THE CHEIF EXECUTIVE OFFICER / OR THEIR REPRESENTATIVE.
51. ALL FIRE HYDRANTS ARE TO BE MARKED IN ACCORDANCE WITH "IDENTIFICATION OF STREET HYDRANTS FOR FIRE-FIGHTING PURPOSES" PUBLICATION (DEVELOPED BY C.F.A., M.F.E.S.B. & N.R.E.). MARKINGS TO BE VIA BLUE PAVEMENT MARKER AND A (RED TOPPED) WHITE POST.

PAVEMENT TO CONSIST OF: LAKERIDGE DRIVE 13.5m, PREVELI WAY, BRASSWOOD WAY, PROVIDENCE AVENUE.
(310mm DEPTH)

a) 20mm COMPACTED DEPTH SIZE 7 TYPE L ASHPHALT WITH A C170 BINDER
b) 30mm COMPACTED DEPTH SIZE 10 TYPE N ASHPHALT WITH A C170 BINDER
c) 10mm SAMI SEAL WITH CLASS S18RF BINDER AND BITUMINUS PRIME
d) 140mm COMPACTED DEPTH OF 20mm NOMINAL SIZE CLASS 2 FCR, COMPACTED TO AT LEAST 98% MODIFIED DRY DENSITY RATIO WITH A MEAN VALUE OF AT LEAST 100% MODIFIED DRY DENSITY RATIO AND WITHIN 1% OF THE MODIFIED OPTIMUM MOISTURE CONTENT
e) 110mm COMPACTED DEPTH OF 20mm NOMINAL SIZE CLASS 3 FCR, COMPACTED TO AT LEAST 95% MODIFIED DRY DENSITY RATIO WITH A MEAN VALUE OF AT LEAST 98% MODIFIED DRY DENSITY RATIO AND WITHIN 1% OF THE MODIFIED OPTIMUM MOISTURE CONTENT
g) 300mm SUBGRADE IMPROVEMENT - SELECT GRANULAR MATERIAL WITH A MINIMUM SOAKED CBR OF 10% COMPACTED TO AT LEAST 98% STANDARD DRY DENSITY RATIO WITH A MEAN VALUE OF AT LEAST 100% STANDARD DRY DENSITY RATIO AND WITHIN 1% OF THE STANDARD OPTIMUM MOISTURE CONTENT AND A PERCENTAGE SWELL OF LESS THAN 1.5%
h) NATURAL SILTY CLAY TESTED TO CONFIRM AN IN-SITU CBR OF AT LEAST 2.0% OR APPROVED FILL COMPACTED TO AT LEAST 100% STANDARD DRY DENSITY RATIO (SOAKED CBR?2.0%) WITHIN 2% OF THE STANDARD OPTIMUM MOISTURE CONTENT



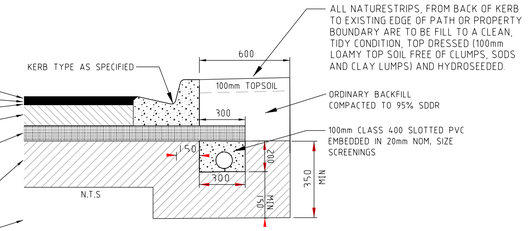
PAVEMENT DETAILS
LAKERIDGE DRIVE 13.5m, PREVELI WAY, BRASSWOOD WAY, PROVIDENCE AVENUE.



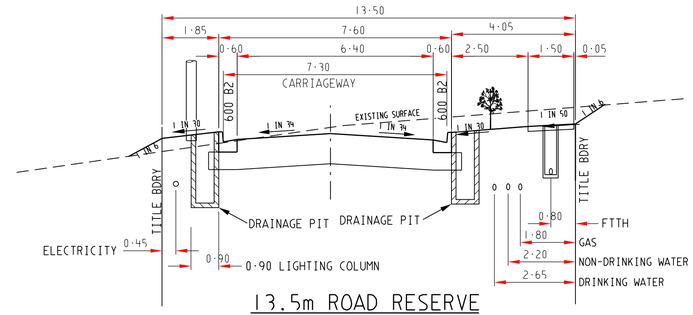
16.0m ROAD RESERVE
PROVIDENCE AVENUE, BRASSWOOD WAY, PORTOFINO WAY, OAKVILLE PLACE
LOCAL ACCESS STREET - LEVEL 1

PAVEMENT TO CONSIST OF: PORTOFINO WAY
(360mm DEPTH)

a) 30mm COMPACTED DEPTH SIZE 10 TYPE L ASHPHALT WITH A C170 BINDER
b) 30mm COMPACTED DEPTH SIZE 10 TYPE N ASHPHALT WITH A C170 BINDER
c) 10mm SAMI SEAL WITH CLASS S18RF BINDER AND BITUMINUS PRIME
d) 130mm COMPACTED DEPTH OF 20mm NOMINAL SIZE CLASS 2 FCR, COMPACTED TO AT LEAST 98% MODIFIED DRY DENSITY RATIO WITH A MEAN VALUE OF AT LEAST 100% MODIFIED DRY DENSITY RATIO AND WITHIN 1% OF THE MODIFIED OPTIMUM MOISTURE CONTENT
e) 160mm COMPACTED DEPTH OF 20mm NOMINAL SIZE CLASS 3 FCR, COMPACTED TO AT LEAST 95% MODIFIED DRY DENSITY RATIO WITH A MEAN VALUE OF AT LEAST 98% MODIFIED DRY DENSITY RATIO AND WITHIN 1% OF THE MODIFIED OPTIMUM MOISTURE CONTENT
g) 300mm SUBGRADE IMPROVEMENT - SELECT GRANULAR MATERIAL WITH A MINIMUM SOAKED CBR OF 10% COMPACTED TO AT LEAST 98% STANDARD DRY DENSITY RATIO WITH A MEAN VALUE OF AT LEAST 100% STANDARD DRY DENSITY RATIO AND WITHIN 1% OF THE STANDARD OPTIMUM MOISTURE CONTENT AND A PERCENTAGE SWELL OF LESS THAN 1.5%
h) NATURAL SILTY CLAY TESTED TO CONFIRM AN IN-SITU CBR OF AT LEAST 2.0% OR APPROVED FILL COMPACTED TO AT LEAST 100% STANDARD DRY DENSITY RATIO (SOAKED CBR?2.0%) WITHIN 2% OF THE STANDARD OPTIMUM MOISTURE CONTENT



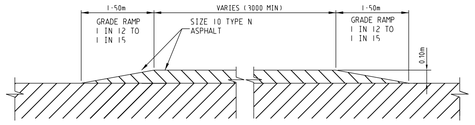
PAVEMENT DETAILS
PORTOFINO WAY



13.5m ROAD RESERVE
LAKERIDGE DRIVE
LOCAL ACCESS STREET - LEVEL 1

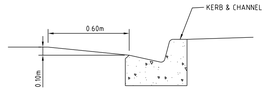
CITY OF WHITTLESEA
ENGINEERING PLANS & SPECIFICATIONS
APPROVED PURSUANT TO SECTION 15 OF THE SUBDIVISION ACT 1988
PLAN OF SUBDIVISION No. PS 819166Y
DEVELOPMENT ENGINEER
06 -03 -2020
DATE APPROVED

ALL SPEED HUMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH WHITTLESEA STD DRG 621

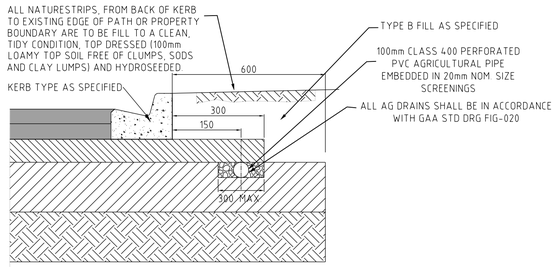


SPEED HUMP DETAIL
NOT TO SCALE

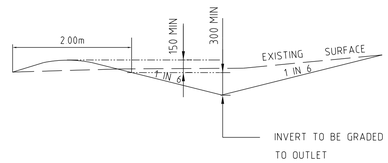
SECTION A-A



SECTION B-B



PAVEMENT COMPOSITION
NOT TO SCALE



CUT-OFF DRAIN DETAIL
NOT TO SCALE

VER.	DATE	REMARKS
P3	13·12·19	PAVEMENT MAKE-UPS UPDATED
P2	03·12·19	COUNCIL COMMENTS 10mm SAMI NOTE
P1	30·08·19	ISSUE FOR APPROVAL

AMENDMENTS

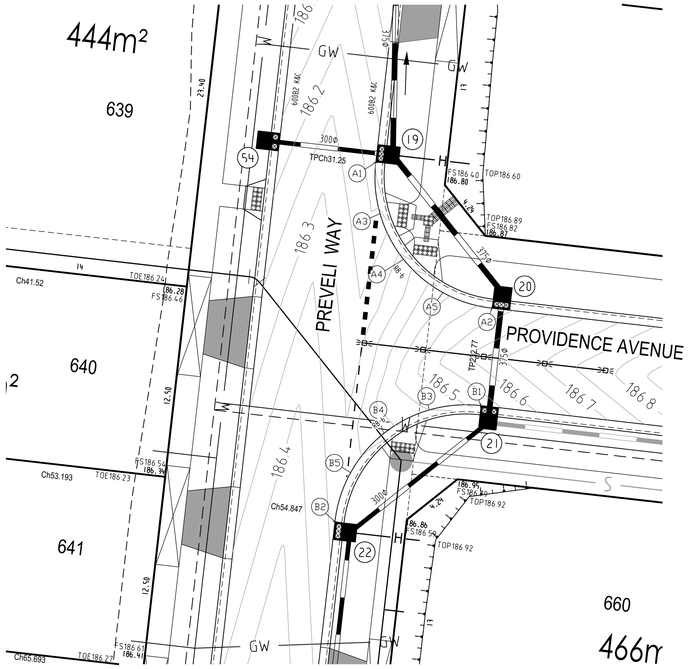
MELWAY REF.	388-C-10
SURVEY	BPD
DESIGN	RGW
DRAWN	RGW
CHECKED	NM

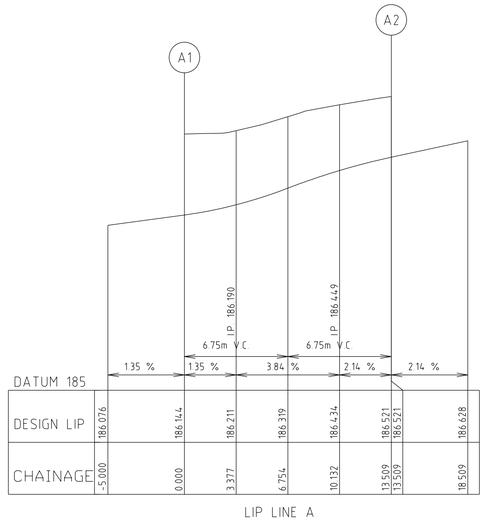
breese pitt dixon pty. ltd.
land surveyors civil engineers
1/19 cato street
hawthorn east, 3123
telephone 8823 2300
fax no. 8823 2310

RATHDOWNE ESTATE
STAGE 6
NOTES AND TYPICAL SECTIONS

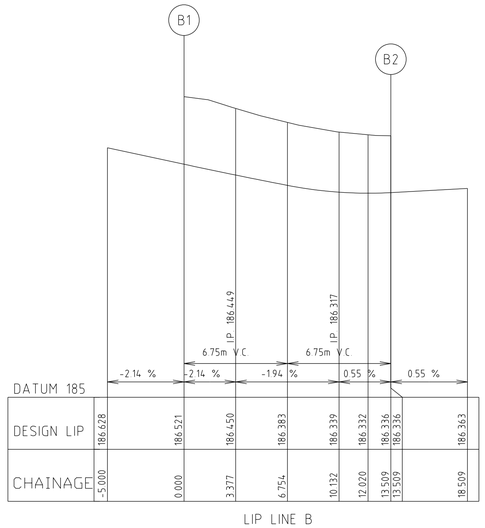
MUNICIPALITY: WHITTLESEA
REFERENCE: 9365 E/06
SCALE: AS SHOWN | DATUM: AHD | DATE: AUG '19
SHEET 2 OF 14 | P3

Plotted:17/12/2019
J:\9916\Eng\Stage 6\E6_R02_NOTE.dgn





LIP LINE A



LIP LINE B

NOTES

a) TRAFFIC ISLAND KERB TO BE SM1.

b) ROUNDABOUT KERB TO BE SM3.

c) ALL SIGNS TO BE SLEEVED USING A SL27 SLEEVE.

d) SWLM - INDICATES SOLID WHITE "LONGLIFE" LINE MARKING
BWLM - INDICATES BROKEN WHITE "LONGLIFE" LINE MARKING

e) INDICATES UNIDIRECTIONAL & BIDIRECTIONAL RRPM'S PLACED AT 3·00m CTS

f) HAZARD / DIRECTIONAL TGSI'S SHOWN THUS / AND FOOTPATH RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH VICROADS STD DWGS SD2031 TO SD2035. TGSI'S SHALL CONFORM TO AS1428.4

g) SHARED FOOTWAY/BICYCLE PATH TO CONSIST:
a) 100mm DEPTH CONCRETE REINFORCED WITH F62 MESH
b) 50mm DEPTH COMPACTED DEPTH 20mm CLASS 3CR

ALL PRAM CROSSING SPLAYS
TO BE 600mm FROM EDGE OF PATH

TACTILES TO BE INSTALLED
IN ACCORDANCE WITH
CITY OF WHITTLESEA SD320

Alignment A

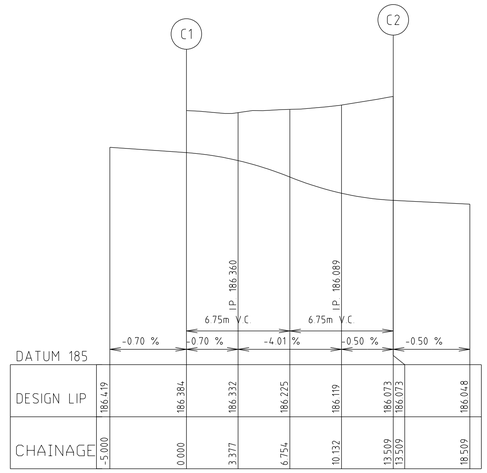
	Point no	Easting	Northing	RL
A	1	322028·852	5836800·964	186·144
A	2	322036·424	5836791·447	186·521
A	3	322029·130	5836797·620	186·211
A	4	322030·667	5836794·637	186·319
A	5	322033·228	5836792·469	186·434

	Curve no	I	Radius	Arc	Mid Ord	Qtr Ord	X	Y	I	Mid Ord RL
A	1 2	-90·000	-8·600	13·509	2·519	1·864	2·790	3·291	3·377	186·319

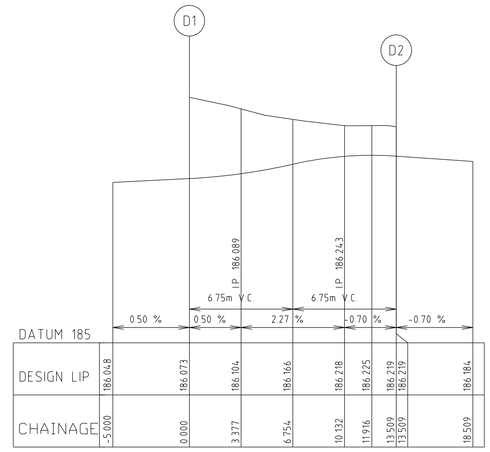
Alignment B

	Point no	Easting	Northing	RL
B	1	322035·700	5836785·088	186·521
B	2	322026·182	5836777·516	186·336
B	3	322032·356	5836784·810	186·450
B	4	322029·373	5836783·273	186·383
B	5	322027·205	5836780·712	186·339

	Curve no	I	Radius	Arc	Mid Ord	Qtr Ord	X	Y	I	Mid Ord RL
B	1 2	-90·000	-8·600	13·509	2·519	1·864	2·790	3·291	3·377	186·383



LIP LINE C



LIP LINE D

Alignment C

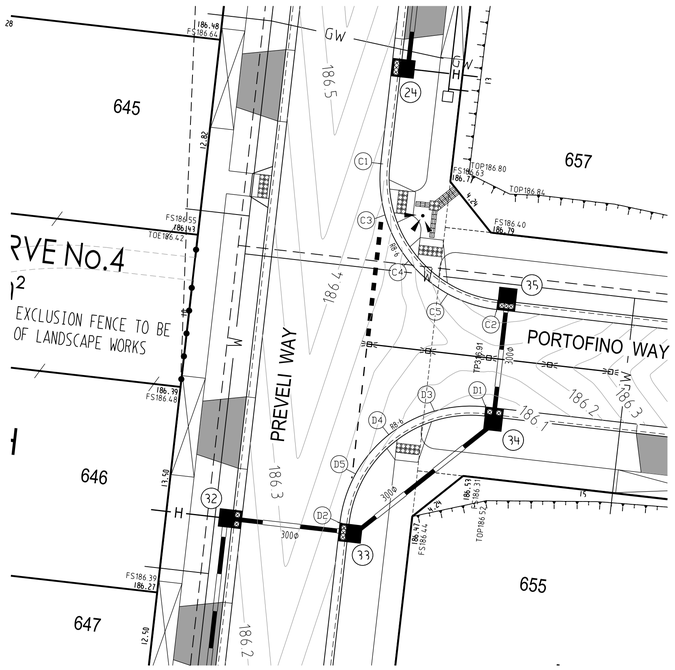
	Point no	Easting	Northing	RL
C	1	322020·220	5836725·154	186·384
C	2	322027·792	5836715·637	186·073
C	3	322020·498	5836721·810	186·332
C	4	322022·035	5836718·827	186·225
C	5	322024·596	5836716·659	186·119

	Curve no	I	Radius	Arc	Mid Ord	Qtr Ord	X	Y	I	Mid Ord RL
C	1 2	-90·000	-8·600	13·509	2·519	1·864	2·790	3·291	3·377	186·225

Alignment D

	Point no	Easting	Northing	RL
D	1	322027·068	5836709·278	186·073
D	2	322017·550	5836701·706	186·219
D	3	322023·724	5836709·000	186·104
D	4	322020·741	5836707·463	186·166
D	5	322018·573	5836704·902	186·218

	Curve no	I	Radius	Arc	Mid Ord	Qtr Ord	X	Y	I	Mid Ord RL
D	1 2	-90·000	-8·600	13·509	2·519	1·864	2·790	3·291	3·377	186·166



1) HAZARD / DIRECTIONAL TGSI'S SHOWN THUS / AND FOOTPATH RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH VICROADS STD DWGS SD2031 TO SD2035. TGSI'S SHALL CONFORM TO AS1428.4

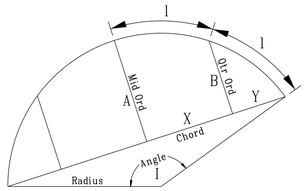
LIP OF KERB PROFILES

SCALE: HORIZONTAL 1:200
VERTICAL 1:20

INTERSECTION DETAILS

SCALE 1:200
SCALE 1 : 200

4 2 0 4 8 16
LENGTHS ARE IN METRES



CURVE SETOUT DIAGRAM

CITY OF WHITTLESEA

ENGINEERING PLANS & SPECIFICATIONS
APPROVED PURSUANT TO SECTION 15 OF THE
SUBDIVISION ACT 1988

PLAN OF SUBDIVISION No. PS 819166Y

DEVELOPMENT ENGINEER

06 -03 -2020
DATE APPROVED

VER.	DATE	REMARKS
P2	03·12·19	COUNCIL COMMENTS NOTE
P1	30·08·19	ISSUE FOR APPROVAL

AMENDMENTS

breese pitt dixon pty. ltd.
land surveyors civil engineers
1/19 cato street
hawthorn east, 3123
telephone 8823 2300
fax no. 8823 2310

MELWAY REF.	388-C-10
SURVEY	BPD
DESIGN	RGW
DRAWN	RGW
CHECKED	NM

RATHDOWNE ESTATE
STAGE 6
INTERSECTION DETAILS 1

MUNICIPALITY: WHITTLESEA
REFERENCE: 9365 E/06

SCALE AS SHOWN | DATUM AHD | DATE AUG '19 | SHEET 3 OF 14 | P2

J:\9365\Eng\Stage 6\E6_R03_INT1.dgn
Plotted:3/12/2019

INTERSECTION DETAILS

SCALE 1:200
SCALE 1 : 200

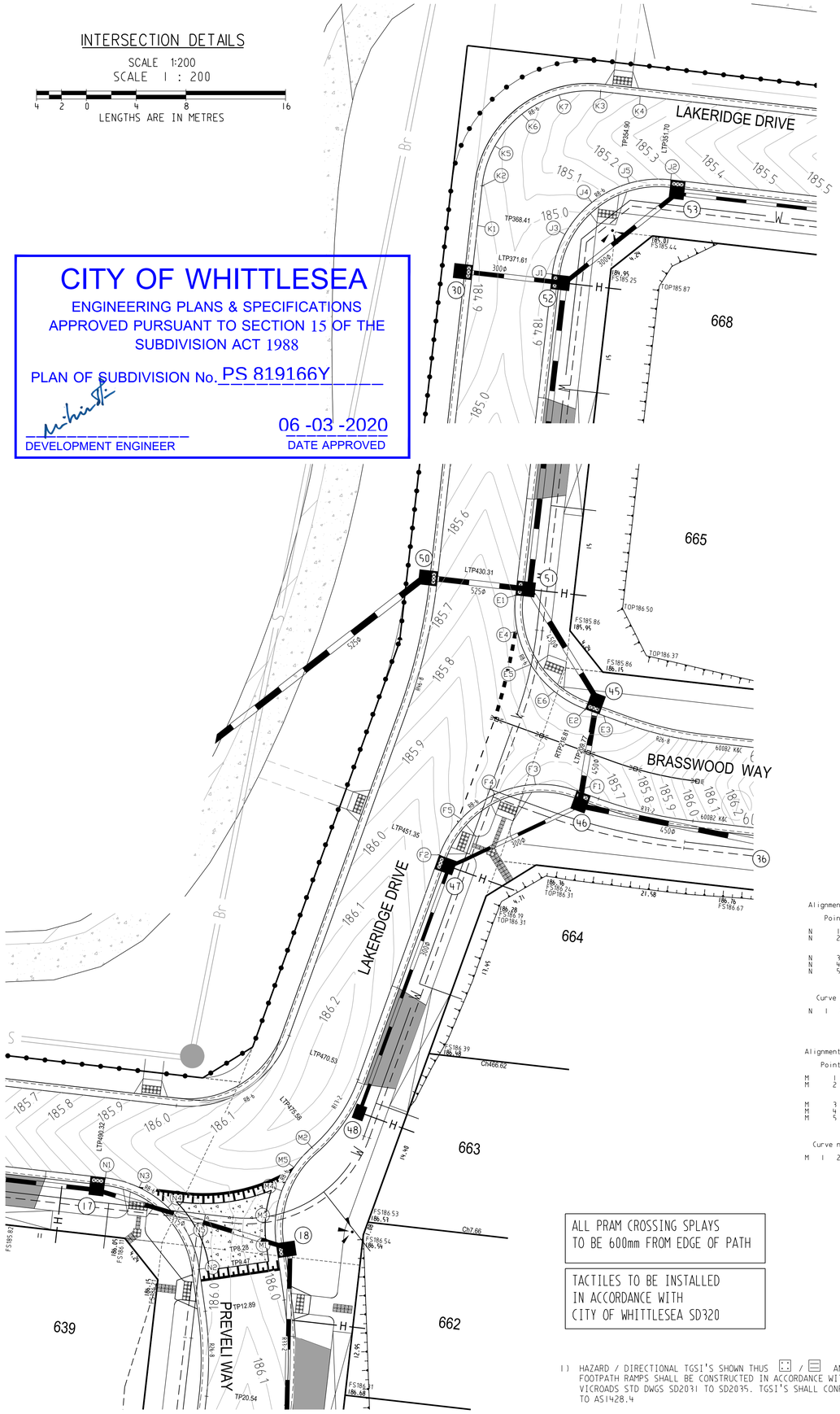
4 2 0 4 8 16
LENGTHS ARE IN METRES

CITY OF WHITTLESEA
ENGINEERING PLANS & SPECIFICATIONS
APPROVED PURSUANT TO SECTION 15 OF THE SUBDIVISION ACT 1988

PLAN OF SUBDIVISION No. PS 819166Y

DEVELOPMENT ENGINEER

06 -03 -2020
DATE APPROVED



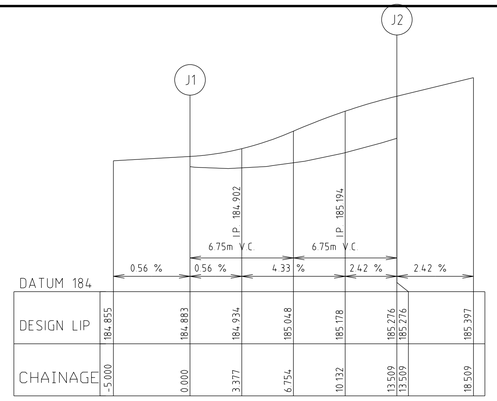
ALL PRAM CROSSING SPLAYS TO BE 600mm FROM EDGE OF PATH

TACTILES TO BE INSTALLED IN ACCORDANCE WITH CITY OF WHITTLESEA SD320

1) HAZARD / DIRECTIONAL TGSI'S SHOWN THUS ∴ / ≡ AND FOOTPATH RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH VICROADS STD DWGS SD2031 TO SD2035. TGSI'S SHALL CONFORM TO AS1428.4

LIP OF KERB PROFILES

SCALE: HORIZONTAL 1:200
VERTICAL 1:20



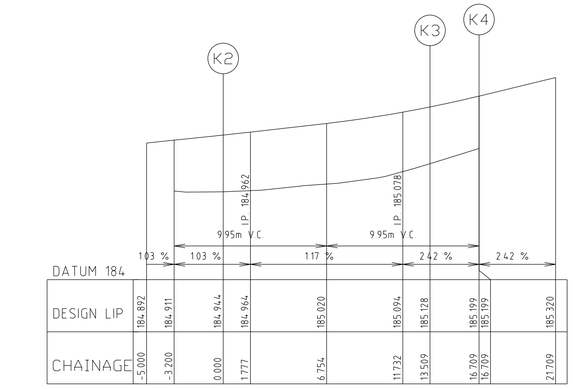
DATUM 184									
DESIGN LIP	184.855	184.883	184.934	185.048	185.178	185.276	185.276	185.397
CHAINAGE	-5.000	0.000	3.377	6.754	10.132	13.509	13.509	18.509

LIP LINE J

Alignment J

	Point no	Easting	Northing	RL
J	1	322055·179	5836934·946	184·883
J	2	322064·696	5836942·518	185·276
J	3	322056·201	5836938·142	184·934
J	4	322058·369	5836940·703	185·048
J	5	322061·352	5836942·240	185·178

	Curve no	I	Radius	Arc	Mid Ord	Qtr Ord	X	Y	I	Mid Ord RL
J	1 2	90·000	8·600	13·509	2·519	1·864	2·790	3·291	3·377	185·048



DATUM 184									
DESIGN LIP	184.892	184.911	184.944	184.964	185.020	185.094	185.128	185.199	185.199	185.320
CHAINAGE	-5.000	-3.200	0.000	1.777	6.754	11.732	13.509	16.709	16.709	21.709

LIP LINE K

Alignment K

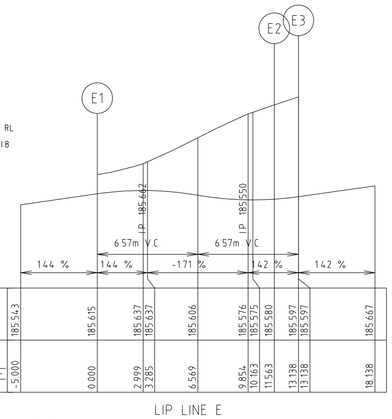
	Point no	Easting	Northing	RL
K	1	322049·182	5836938·850	184·911
K	2	322049·544	5836942·029	184·944
K	3	322059·062	5836949·601	185·128
K	4	322062·241	5836949·239	185·199
K	5	322050·567	5836945·225	184·981
K	6	322052·775	5836947·786	185·020
K	7	322055·718	5836949·323	185·067

	Curve no	I	Radius	Arc	Mid Ord	Qtr Ord	X	Y	I	Mid Ord RL
K	2 3	90·000	8·600	13·509	2·519	1·864	2·790	3·291	3·377	185·020

Alignment E

	Point no	Easting	Northing	RL
E	1	322048·533	5836876·598	185·615
E	2	322054·136	5836867·469	185·580
E	3	322055·617	5836866·931	185·597
E	4	322048·666	5836873·724	185·637
E	5	322049·740	5836871·054	185·618
E	6	322051·634	5836868·888	185·581

	Curve no	I	Radius	Arc	Mid Ord	Qtr Ord	X	Y	I	Mid Ord RL
E	1 2	-77·033	-8·600	11·563	1·871	1·390	2·519	2·837	2·891	185·618



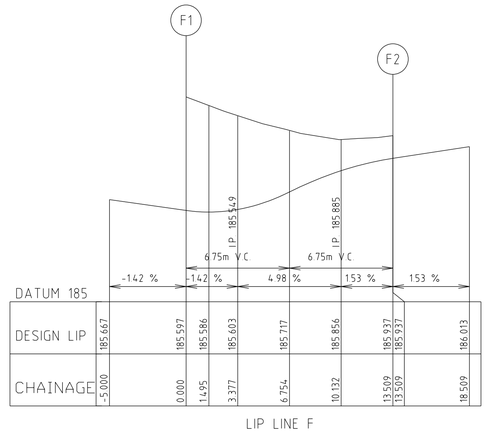
DATUM 185									
DESIGN LIP	185.543	185.615	185.637	185.637	185.606	185.576	185.575	185.580	185.597	185.597	185.667
CHAINAGE	-5.000	0.000	2.999	3.285	6.569	9.854	10.163	11.563	13.138	13.138	18.138

LIP LINE E

Alignment F

	Point no	Easting	Northing	RL
F	1	322053·434	5836860·915	185·597
F	2	322042·416	5836855·764	185·937
F	3	322050·117	5836861·422	185·603
F	4	322046·859	5836860·621	185·717
F	5	322044·154	5836858·635	185·856

	Curve no	I	Radius	Arc	Mid Ord	Qtr Ord	X	Y	I	Mid Ord RL
F	1 2	-90·000	-8·600	13·509	2·519	1·864	2·790	3·291	3·377	185·717



DATUM 185									
DESIGN LIP	185.667	185.597	185.586	185.603	185.717	185.856	185.937	185.937	186.013
CHAINAGE	-5.000	0.000	1.495	3.377	6.754	10.132	13.509	13.509	18.509

LIP LINE F

Alignment N

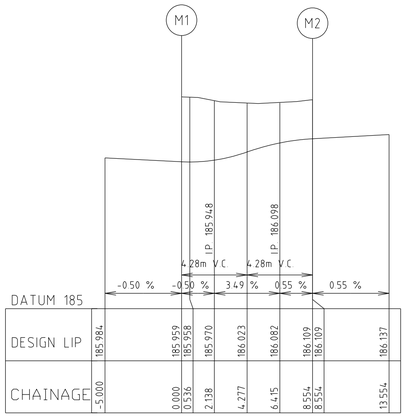
	Point no	Easting	Northing	RL
N	1	322015·585	5836829·855	185·871
N	2	322023·126	5836822·525	185·965
N	3	322018·293	5836829·083	185·913
N	4	322020·606	5836827·477	185·937
N	5	322022·277	5836825·210	185·951

	Curve no	I	Radius	Arc	Mid Ord	Qtr Ord	X	Y	I	Mid Ord RL
N	1 2	75·385	8·600	11·315	1·795	1·334	2·480	2·778	2·829	185·937

Alignment M

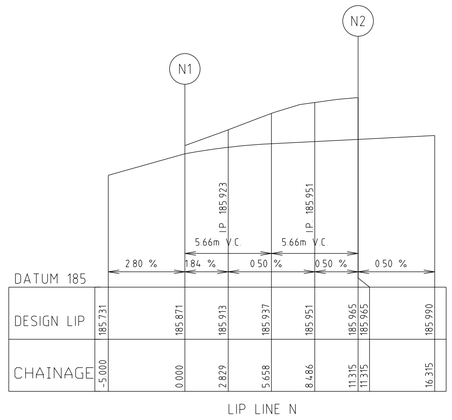
	Point no	Easting	Northing	RL
M	1	322029·293	5836824·608	185·959
M	2	322032·150	5836832·300	186·109
M	3	322029·256	5836826·741	185·970
M	4	322029·745	5836828·817	186·023
M	5	322030·730	5836830·709	186·082

	Curve no	I	Radius	Arc	Mid Ord	Qtr Ord	X	Y	I	Mid Ord RL
M	1 2	56·989	8·600	8·554	1·042	0·777	1·986	2·117	2·138	186·023



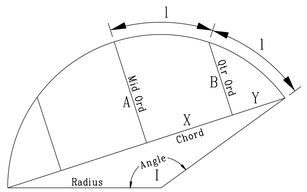
DATUM 185								
DESIGN LIP	185.984	185.959	185.958	185.970	186.023	186.082	186.109	186.109	186.137
CHAINAGE	-5.000	0.000	0.536	2.138	4.277	6.415	8.554	8.554	13.554

LIP LINE M



DATUM 185								
DESIGN LIP	185.731	185.871	185.913	185.937	185.951	185.965	185.965	185.990
CHAINAGE	-5.000	0.000	2.829	5.658	8.486	11.315	11.315	16.315

LIP LINE N



CURVE SETOUT DIAGRAM

AMENDMENTS			
P3	03·12·19	COUNCIL COMMENTS NOTE	
P2	30·08·19	COUNCIL COMMENTS - LIP LINE K, J, M & N	
P1	30·08·19	ISSUE FOR APPROVAL	
VER	DATE	REMARKS	

breese pitt dixon pty. ltd.
land surveyors civil engineers
1/19 cato street
hawthorn east, 3123
telephone 8823 2300
fax no. 8823 2310

MELWAY REF.	388-C-10
SURVEY	BPD
DESIGN	RGW
DRAWN	RGW
CHECKED	NM

RATHDOWNE ESTATE STAGE 6

INTERSECTION DETAILS 2

SCALE	AS SHOWN	DATUM	AHD
DATE	AUG '19		

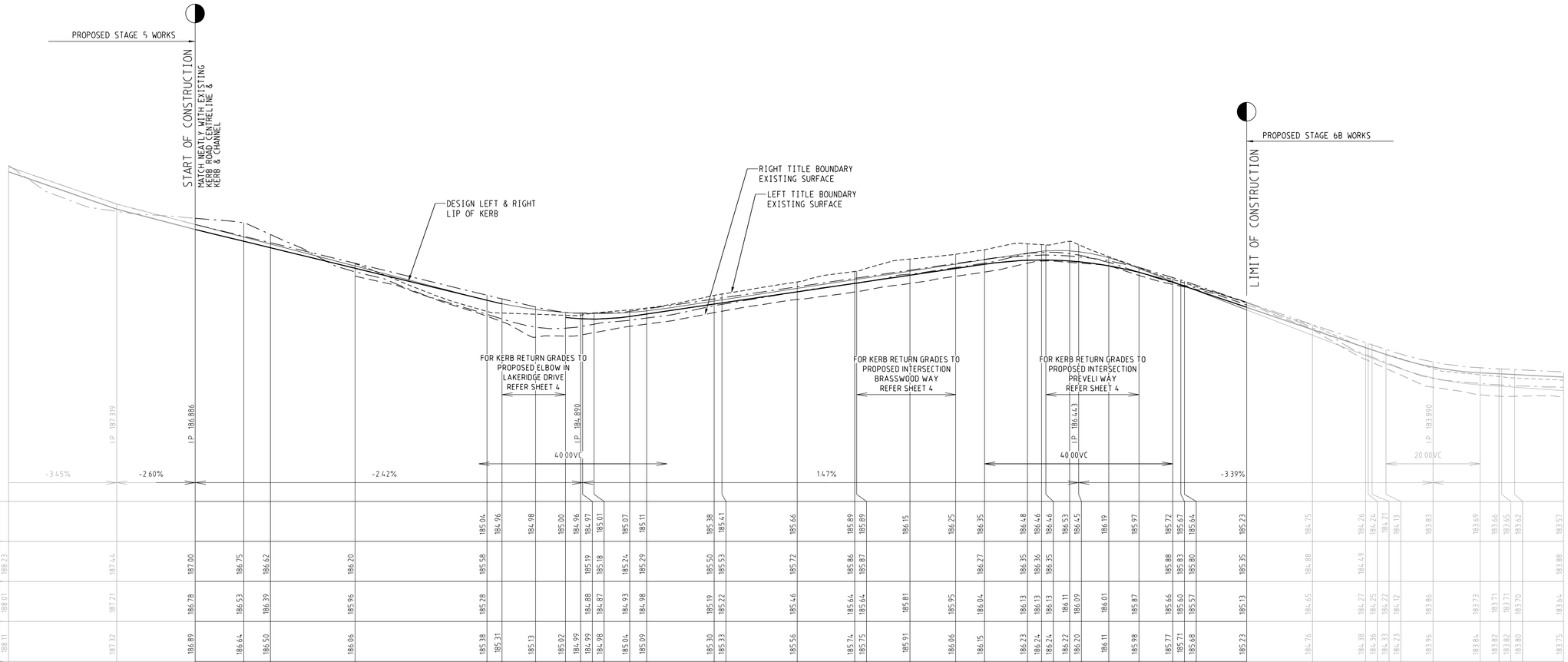
MUNICIPALITY: WHITTLESEA

REFERENCE: 9365 E/06

SHEET 4 OF 14 P3

J:\9365\Eng\Stage 6\E6_R04_INT2.dgn

Plot date: 17/12/2019

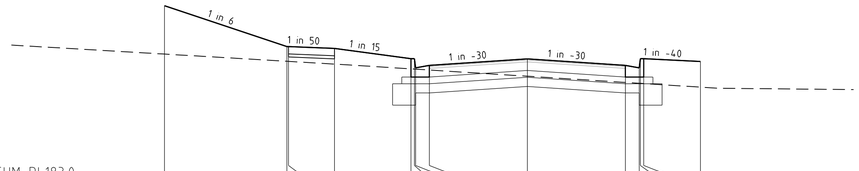


VC LENGTH

DESIGN GRADELINE

DATUM 181

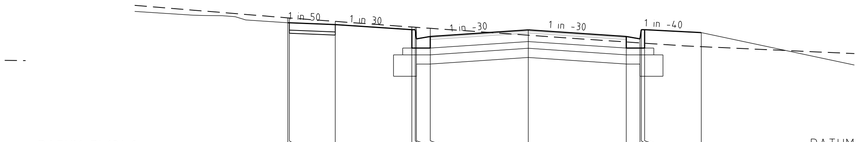
| | | |



DATUM RL183.0

DESIGN SURFACE	185.86	185.19	185.19	185.16	184.99	184.99	184.84	184.88	184.99	184.88	184.84	184.99	184.99	184.95
EXISTING SURFACE	185.08	184.96	184.96	184.91	184.84	184.83	184.83	184.82	184.72	184.61	184.60	184.60	184.60	184.54
OFFSET	-11.85	-7.85	-7.80	-6.30	-3.80	-3.69	-3.65	-3.20	0.00	3.20	3.65	3.69	3.80	5.65

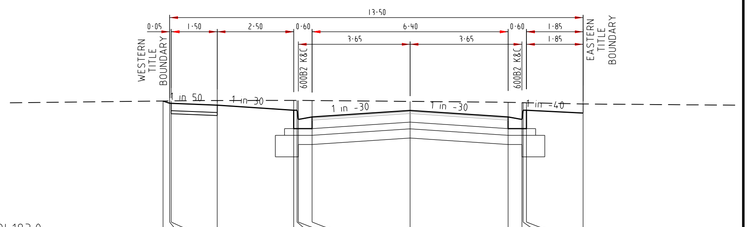
LTP Ch.371.61



DATUM RL184.0

DESIGN SURFACE	186.18	186.17	186.14	186.06	186.06	185.91	185.95	186.06	185.95	185.91	186.06	186.06	186.02
EXISTING SURFACE	186.25	186.25	186.20	186.11	186.10	186.10	186.08	185.97	185.86	185.85	185.84	185.84	185.79
OFFSET	-7.85	-7.80	-6.30	-3.80	-3.69	-3.65	-3.20	0.00	3.20	3.65	3.69	3.80	5.65

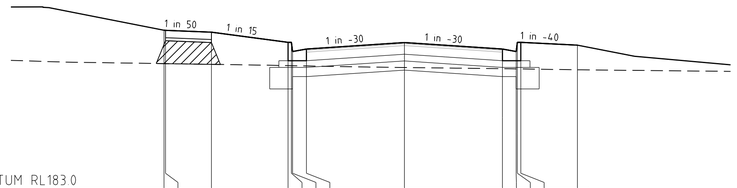
LTP Ch.451.35



DATUM RL183.0

DESIGN SURFACE	185.22	185.19	185.19	185.16	185.07	185.07	184.92	184.96	185.07	184.96	184.92	185.07	185.07	185.03
EXISTING SURFACE	185.22	185.23	185.23	185.23	185.23	185.23	185.23	185.23	185.22	185.20	185.20	185.20	185.20	185.18
OFFSET	-8.07	-7.85	-7.80	-6.30	-3.80	-3.69	-3.65	-3.20	0.00	3.20	3.65	3.69	3.80	5.65

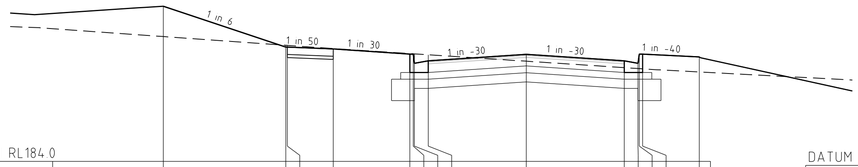
Ch.513.22



DATUM RL183.0

DESIGN SURFACE	185.58	185.58	185.55	185.39	185.39	185.24	185.28	185.38	185.28	185.24	185.39	185.39	185.34
EXISTING SURFACE	185.04	185.04	185.03	185.01	185.01	185.01	185.00	184.98	184.96	184.95	184.95	184.95	184.94
OFFSET	-7.85	-7.80	-6.30	-3.80	-3.69	-3.65	-3.20	0.00	3.20	3.65	3.69	3.80	5.65

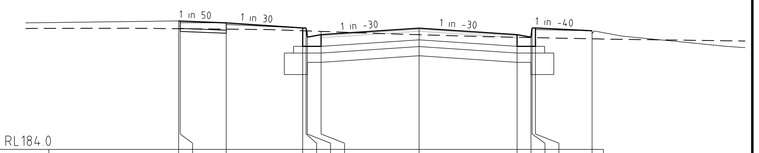
351.70



DATUM RL184.0

DESIGN SURFACE	186.53	185.87	185.86	185.83	185.75	185.75	185.60	185.64	185.75	185.64	185.60	185.75	185.75	185.71
EXISTING SURFACE	186.04	185.89	185.89	185.84	185.76	185.76	185.75	185.74	185.64	185.53	185.52	185.51	185.51	185.46
OFFSET	-11.85	-7.85	-7.80	-6.30	-3.80	-3.69	-3.65	-3.20	0.00	3.20	3.65	3.69	3.80	5.65

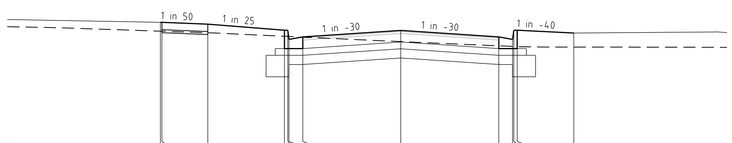
LTP Ch.430.31



DATUM RL184.0

DESIGN SURFACE	186.09	186.09	186.06	185.98	185.98	185.93	185.87	185.98	185.87	185.83	185.98	185.98	185.93
EXISTING SURFACE	185.97	185.97	185.96	185.94	185.93	185.93	185.92	185.87	185.83	185.82	185.82	185.82	185.80
OFFSET	-7.85	-7.80	-6.30	-3.80	-3.69	-3.65	-3.20	0.00	3.20	3.65	3.69	3.80	5.65

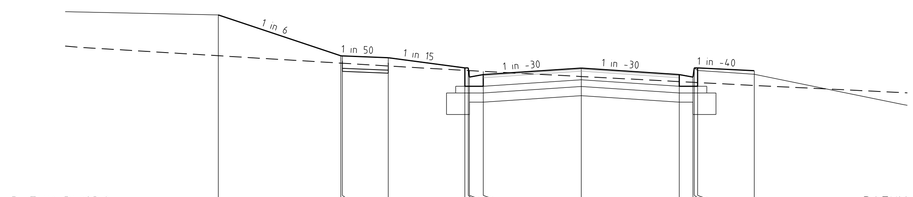
LTP Ch.490.32



DATUM RL184.0

DESIGN SURFACE	186.20	186.19	186.16	186.07	186.07	185.92	185.96	186.06	185.96	185.92	186.07	186.07	186.02
EXISTING SURFACE	186.05	186.05	186.02	185.97	185.96	185.96	185.95	185.88	185.81	185.80	185.80	185.80	185.79
OFFSET	-7.85	-7.80	-6.30	-3.80	-3.69	-3.65	-3.20	0.00	3.20	3.65	3.69	3.80	5.65

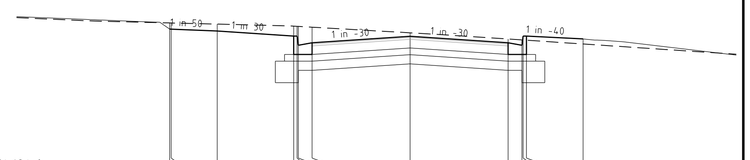
Ch.323.65



DATUM RL183.0

DESIGN SURFACE	186.19	185.53	185.53	185.50	185.33	185.33	185.18	185.22	185.33	185.22	185.18	185.33	185.33	185.28
EXISTING SURFACE	185.53	185.41	185.41	185.36	185.29	185.29	185.29	185.27	185.19	185.11	185.09	185.09	185.09	185.04
OFFSET	-11.85	-7.85	-7.80	-6.30	-3.80	-3.69	-3.65	-3.20	0.00	3.20	3.65	3.69	3.80	5.65

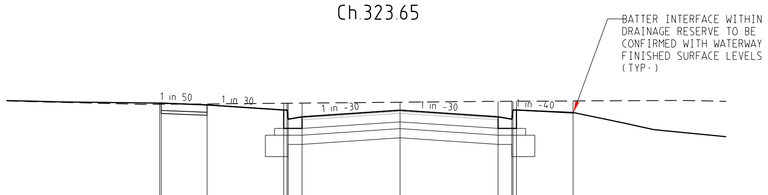
Ch401.67



DATUM RL184.0

DESIGN SURFACE	186.35	186.35	186.32	186.24	186.24	186.09	186.13	186.24	186.13	186.09	186.24	186.24	186.19
EXISTING SURFACE	186.46	186.45	186.44	186.40	186.40	186.40	186.39	186.29	186.19	186.18	186.18	186.17	186.11
OFFSET	-7.85	-7.80	-6.30	-3.80	-3.69	-3.65	-3.20	0.00	3.20	3.65	3.69	3.80	5.65

LTP Ch.470.53



DATUM RL185.0

DESIGN SURFACE	187.00	187.00	186.97	186.89	186.89	186.74	186.78	186.89	186.78	186.74	186.89	186.89	186.84
EXISTING SURFACE	186.98	186.98	186.99	187.00	187.00	187.00	187.00	187.02	187.03	187.03	187.03	187.03	187.04
OFFSET	-7.85	-7.80	-6.30	-3.80	-3.69	-3.65	-3.20	0.00	3.20	3.65	3.69	3.80	5.65

Ch.289.65

SELECT GRANULAR MATERIAL COMPACTED AS PER NOTE 35, SHEET 4

LAKERIDGE DRIVE

CROSS SECTION

SCALE HORIZONTAL 1:100
VERTICAL 1:50

1:100 2 1 00 2 4 8
1:50 1 0.5 00 1 2 4

CITY OF WHITTLESEA

ENGINEERING PLANS & SPECIFICATIONS APPROVED PURSUANT TO SECTION 15 OF THE SUBDIVISION ACT 1988

PLAN OF SUBDIVISION No. PS 819166Y

DEVELOPMENT ENGINEER

06 -03 -2020
DATE APPROVED

breese pitt dixon pty. ltd.
land surveyors civil engineers
1/19 cato street
hawthorn east, 3123
telephone 8823 2300
fax no. 8823 2310

AMENDMENTS			
P2	02·10·19	COUNCIL COMMENTS	
P1	30·08·19	ISSUE FOR APPROVAL	
VER.	DATE	REMARKS	

MELWAY REF.	388-C-10
SURVEY	BPD
DESIGN	RGW
DRAWN	RGW
CHECKED	NM

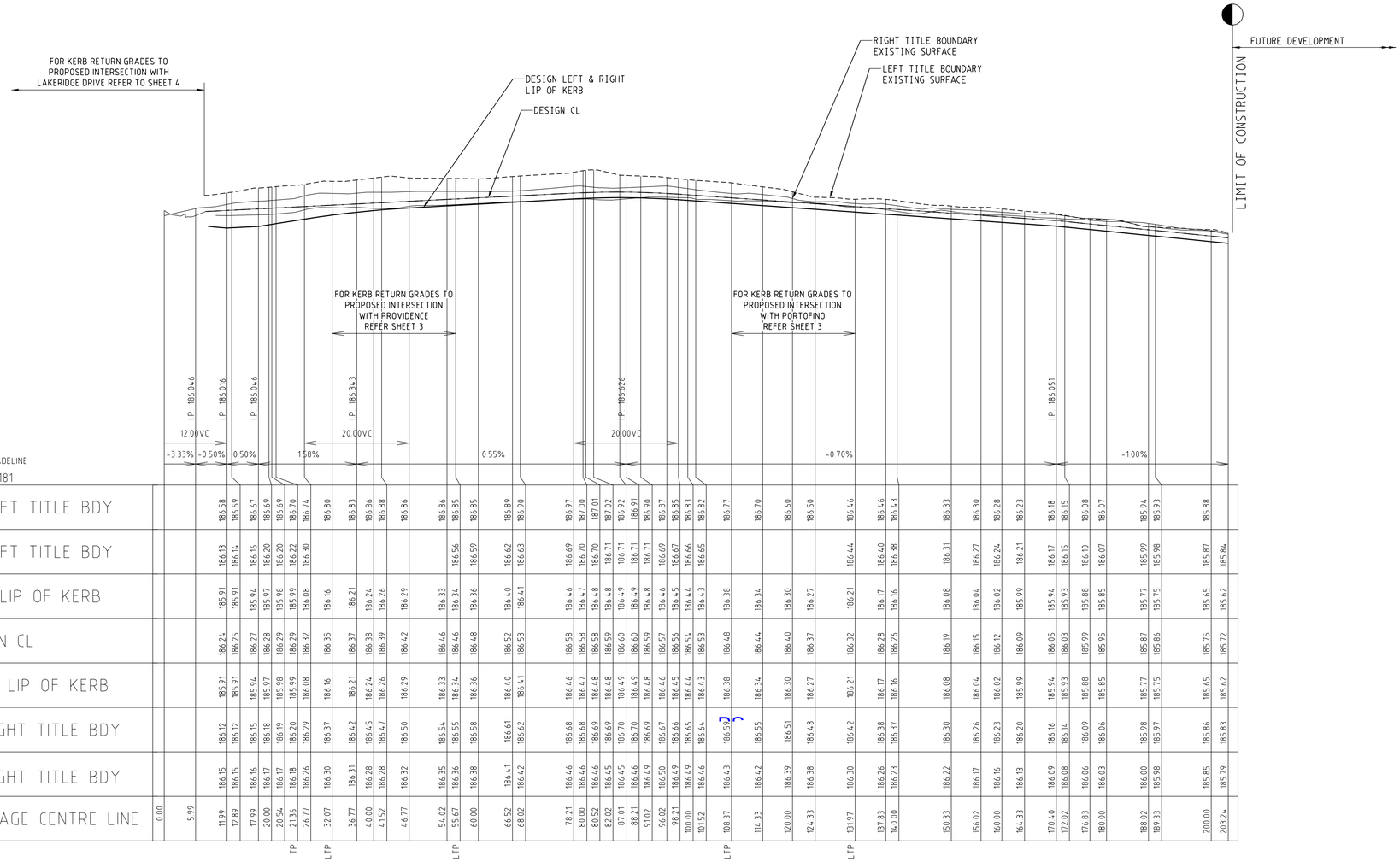
RATHDOWNE ESTATE
STAGE 6

MUNICIPALITY: WHITTLESEA
REFERENCE: 9365 E/06

SCALE AS SHOWN | DATUM AHD | DATE AUG '19 | SHEET 6 OF 14 | P2

Plotted:27/10/2019

J:\9365\Eng\Stage 6\E6_R06_LAK_XS.dgn



CHAINAGE CENTRE LINE	ES LEFT TITLE BDY	FS LEFT TITLE BDY	LEFT LIP OF KERB	DESIGN CL	RIGHT LIP OF KERB	FS RIGHT TITLE BDY	ES RIGHT TITLE BDY
0.00							
5.99							
11.99	186.58	186.13	185.91	186.24	185.91	186.12	186.15
12.89	186.59	186.14	185.91	186.25	185.91	186.12	186.15
17.99	186.67	186.16	185.94	186.27	185.94	186.15	186.16
20.00	186.69	186.20	185.97	186.28	185.97	186.18	186.17
20.54	186.69	186.20	185.98	186.29	185.98	186.19	186.17
21.36	186.70	186.22	185.99	186.29	185.99	186.20	186.18
TP 26.77	186.74	186.30	186.08	186.32	186.08	186.29	186.26
32.07	186.80		186.16	186.35	186.16	186.37	186.30
LTP 36.77	186.83		186.21	186.37	186.21	186.42	186.31
40.00	186.86		186.24	186.38	186.24	186.45	186.28
41.52	186.88		186.26	186.39	186.26	186.47	186.28
46.77	186.86		186.29	186.42	186.29	186.50	186.32
54.02	186.86		186.33	186.46	186.33	186.54	186.35
LTP 55.67	186.85	186.56	186.34	186.46	186.34	186.55	186.36
60.00	186.85	186.59	186.36	186.48	186.36	186.58	186.38
66.52	186.89	186.62	186.40	186.52	186.40	186.61	186.41
68.02	186.90	186.63	186.41	186.53	186.41	186.62	186.42
78.21	186.97	186.69	186.46	186.58	186.46	186.68	186.46
80.00	187.00	186.70	186.47	186.58	186.47	186.68	186.46
80.52	187.01	186.70	186.48	186.58	186.48	186.69	186.46
82.02	187.02	186.71	186.48	186.59	186.48	186.69	186.45
87.01	186.92	186.71	186.49	186.60	186.49	186.70	186.46
88.21	186.91	186.71	186.49	186.60	186.49	186.70	186.46
91.02	186.90	186.71	186.48	186.59	186.48	186.69	186.49
96.02	186.87	186.69	186.46	186.57	186.46	186.67	186.50
98.21	186.85	186.67	186.45	186.56	186.45	186.66	186.49
100.00	186.83	186.66	186.44	186.54	186.44	186.65	186.49
101.52	186.82	186.65	186.43	186.53	186.43	186.64	186.46
LTP 108.37	186.77		186.38	186.48	186.38	186.59	186.43
114.33	186.70		186.34	186.44	186.34	186.55	186.42
120.00	186.60		186.30	186.40	186.30	186.51	186.39
124.33	186.50		186.27	186.37	186.27	186.48	186.38
LTP 131.97	186.46	186.44	186.21	186.32	186.21	186.42	186.30
137.83	186.46	186.40	186.17	186.28	186.17	186.38	186.26
140.00	186.43	186.38	186.16	186.26	186.16	186.37	186.23
150.33	186.33	186.31	186.08	186.19	186.08	186.30	186.22
156.02	186.30	186.27	186.04	186.15	186.04	186.26	186.17
160.00	186.28	186.24	186.02	186.12	186.02	186.23	186.16
164.33	186.23	186.21	185.99	186.09	185.99	186.20	186.13
170.40	186.18	186.17	185.94	186.05	185.94	186.16	186.09
172.02	186.15	186.15	185.93	186.03	185.93	186.14	186.08
176.83	186.08	186.10	185.88	185.99	185.88	186.09	186.06
180.00	186.07	186.07	185.85	185.95	185.85	186.06	186.03
188.02	185.94	185.99	185.77	185.87	185.77	185.98	186.00
189.33	185.93	185.98	185.75	185.86	185.75	185.97	185.98
200.00	185.88	185.87	185.65	185.75	185.65	185.86	185.85
203.24	185.84	185.84	185.62	185.72	185.62	185.83	185.79

PREVELI WAY

LONGITUDINAL SECTION

SCALE HORIZONTAL 1:500
VERTICAL 1:50

1:500 10 5 00 10 20 40
1:50 1 0.5 00 1 2 4

CITY OF WHITTLESEA
ENGINEERING PLANS & SPECIFICATIONS
APPROVED PURSUANT TO SECTION 15 OF THE
SUBDIVISION ACT 1988

PLAN OF SUBDIVISION No. PS 819166Y

DEVELOPMENT ENGINEER

06 -03 -2020
DATE APPROVED

VER.	DATE	REMARKS
P1	30·08·19	ISSUE FOR APPROVAL

AMENDMENTS

breese pitt dixon pty. ltd.
land surveyors civil engineers
1/19 cato street
hawthorn east, 3123
telephone 8823 2300
fax no. 8823 2310

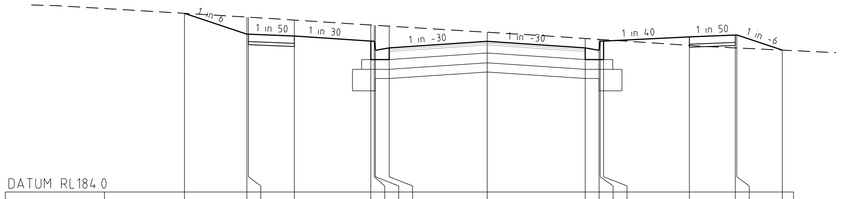
MELWAY REF. 388-C-10
SURVEY BPD
DESIGN RGW
DRAWN RGW
CHECKED NM

RATHDOWNE ESTATE
STAGE 6

MUNICIPALITY: WHITTLESEA
REFERENCE: 9365 E/06

SCALE AS SHOWN | DATUM AHD | DATE AUG '19 | SHEET 7 OF 14 | P1

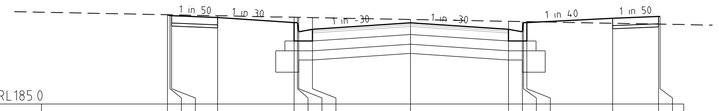
J:\9365\Eng\Stage 6\E6_R07_PRE_LS.dgn
Plotted:5/09/2019



DATUM RL184.0

DESIGN SURFACE	186.92	186.58	186.58	186.55	186.46	186.46	186.31	186.35	186.46	186.46	186.31	186.35	186.46	186.46	186.53	186.56	186.56	185.90
EXISTING SURFACE	186.92	186.86	186.85	186.81	186.73	186.72	186.72	186.71	186.61	186.51	186.49	186.49	186.49	186.49	186.39	186.35	186.35	186.26
OFFSET	-9.89	-7.85	-7.80	-6.30	-3.80	-3.69	-3.65	-3.20	0.00	3.20	3.65	3.69	3.80	6.60	6.60	8.10	8.15	9.63

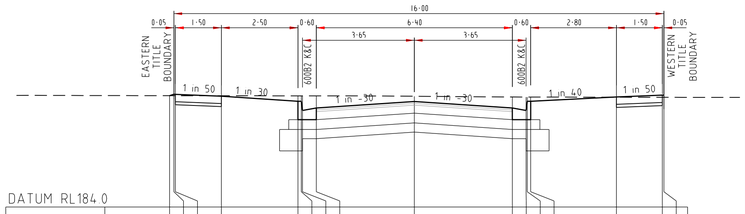
LTP Ch.55.67



DATUM RL185.0

DESIGN SURFACE	186.46	186.46	186.44	186.41	186.33	186.33	186.18	186.22	186.33	186.22	186.18	186.33	186.33	186.40	186.43	186.43
EXISTING SURFACE	186.46	186.46	186.46	186.44	186.42	186.42	186.42	186.41	186.38	186.35	186.35	186.35	186.34	186.32	186.30	186.30
OFFSET	-7.93	-7.85	-7.80	-6.30	-3.80	-3.69	-3.65	-3.20	0.00	3.20	3.65	3.69	3.80	6.60	8.10	8.15

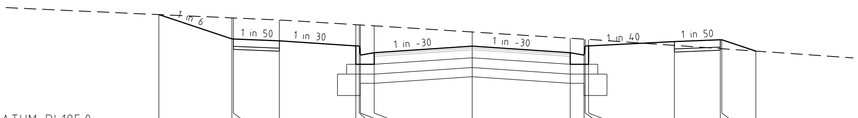
LTP Ch.131.97



DATUM RL184.0

DESIGN SURFACE	185.82	185.84	185.84	185.81	185.73	185.73	185.58	185.62	185.72	185.62	185.58	185.73	185.73	185.80	185.83	185.83
EXISTING SURFACE	185.82	185.82	185.82	185.82	185.81	185.81	185.81	185.81	185.81	185.80	185.80	185.80	185.80	185.79	185.79	185.79
OFFSET	-7.99	-7.85	-7.80	-6.30	-3.80	-3.69	-3.65	-3.20	0.00	3.20	3.65	3.69	3.80	6.60	8.10	8.15

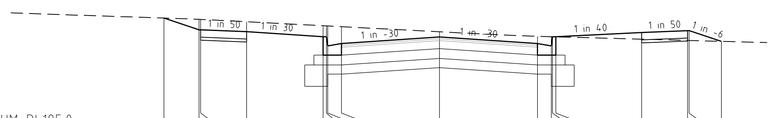
Ch.204.07



DATUM RL185.0

DESIGN SURFACE	186.86	186.46	186.46	186.43	186.34	186.34	186.19	186.23	186.34	186.23	186.19	186.34	186.34	186.41	186.44	186.45	186.30	186.26
EXISTING SURFACE	186.86	186.80	186.80	186.77	186.69	186.69	186.69	186.67	186.57	186.47	186.46	186.45	186.45	186.35	186.30	186.30	186.26	186.26
OFFSET	-10.23	-7.85	-7.80	-6.30	-3.80	-3.69	-3.65	-3.20	0.00	3.20	3.65	3.69	3.80	6.60	8.10	8.15	9.26	9.26

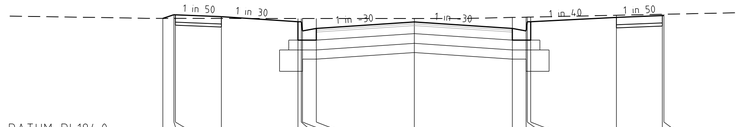
LTP Ch.32.07



DATUM RL185.0

DESIGN SURFACE	186.80	186.61	186.61	186.58	186.49	186.49	186.49	186.38	186.49	186.38	186.34	186.49	186.49	186.56	186.59	186.60	186.21
EXISTING SURFACE	186.80	186.78	186.78	186.74	186.67	186.67	186.67	186.66	186.58	186.50	186.50	186.49	186.49	186.45	186.43	186.43	186.40
OFFSET	-9.00	-7.85	-7.80	-6.30	-3.80	-3.69	-3.65	-3.20	0.00	3.20	3.65	3.69	3.80	6.60	8.10	8.15	10.45

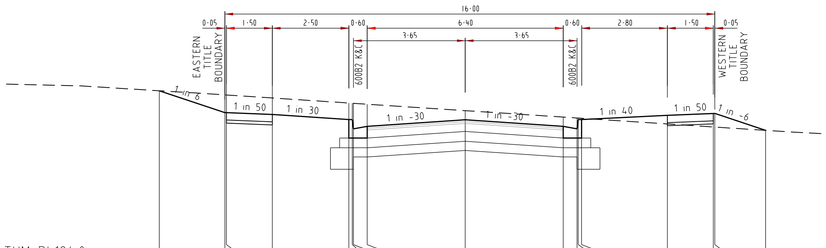
LTP Ch.108.37



DATUM RL184.0

DESIGN SURFACE	185.94	186.00	186.00	185.97	185.89	185.89	185.74	185.78	185.88	185.78	185.74	185.89	185.89	185.96	185.99	185.99
EXISTING SURFACE	185.94	185.94	185.94	185.94	185.94	185.94	185.94	185.94	185.94	185.96	185.96	185.96	185.96	185.99	186.01	186.01
OFFSET	-8.21	-7.85	-7.80	-6.30	-3.80	-3.69	-3.65	-3.20	0.00	3.20	3.65	3.69	3.80	6.60	8.10	8.15

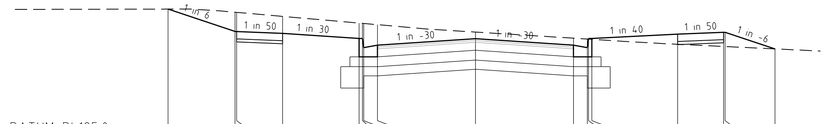
Ch.188.02



DATUM RL184.0

DESIGN SURFACE	186.76	186.41	186.40	186.37	186.29	186.29	186.14	186.18	186.29	186.18	186.14	186.29	186.29	186.36	186.39	186.39	186.12
EXISTING SURFACE	186.76	186.69	186.69	186.64	186.56	186.56	186.56	186.54	186.44	186.33	186.32	186.32	186.31	186.22	186.17	186.17	186.12
OFFSET	-9.99	-7.85	-7.80	-6.30	-3.80	-3.69	-3.65	-3.20	0.00	3.20	3.65	3.69	3.80	6.60	8.10	8.15	9.81

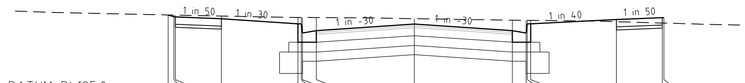
TP Ch.21.36



DATUM RL185.0

DESIGN SURFACE	187.07	186.71	186.70	186.67	186.59	186.59	186.44	186.48	186.59	186.48	186.44	186.59	186.59	186.66	186.69	186.69	186.03
EXISTING SURFACE	187.07	187.02	187.02	186.95	186.84	186.84	186.84	186.82	186.70	186.60	186.58	186.58	186.58	186.50	186.46	186.46	186.36
OFFSET	-10.04	-7.85	-7.80	-6.30	-3.80	-3.69	-3.65	-3.20	0.00	3.20	3.65	3.69	3.80	6.60	8.10	8.15	12.15

Ch.82.02



DATUM RL185.0

DESIGN SURFACE	186.31	186.28	186.27	186.24	186.16	186.16	186.01	186.05	186.16	186.05	186.01	186.16	186.16	186.23	186.26	186.26
EXISTING SURFACE	186.31	186.30	186.30	186.29	186.27	186.27	186.27	186.26	186.25	186.22	186.22	186.22	186.22	186.20	186.17	186.17
OFFSET	-8.04	-7.85	-7.80	-6.30	-3.80	-3.69	-3.65	-3.20	0.00	3.20	3.65	3.69	3.80	6.60	8.10	8.15

Ch.156.02

PREVELI WAY

CROSS SECTION

SCALE HORIZONTAL 1:100
VERTICAL 1:50

1:100 2 1 00 2 4 8
1:50 1 0.5 00 1 2 4

CITY OF WHITTLESEA
ENGINEERING PLANS & SPECIFICATIONS
APPROVED PURSUANT TO SECTION 15 OF THE SUBDIVISION ACT 1988

PLAN OF SUBDIVISION No. PS 819166Y

DEVELOPMENT ENGINEER

06 -03 -2020
DATE APPROVED

VER.	DATE	REMARKS
P1	30·08·19	ISSUE FOR APPROVAL

AMENDMENTS

breese pitt dixon pty. ltd.
land surveyors civil engineers
1/19 cato street
hawthorn east, 3123
telephone 8823 2300
fax no. 8823 2310

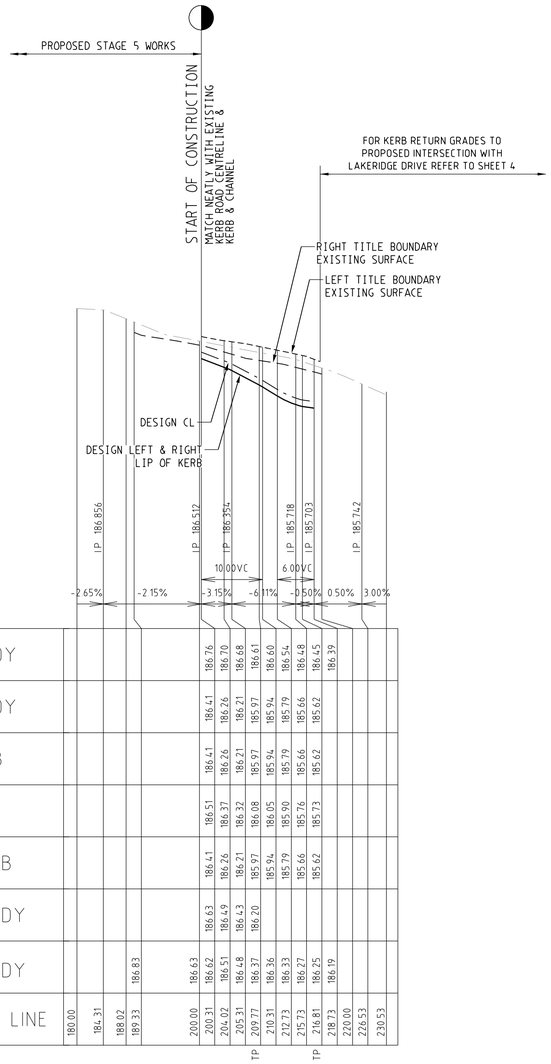
MELWAY REF.	388-C-10
SURVEY	BPD
DESIGN	RGW
DRAWN	RGW
CHECKED	NM

RATHDOWNE ESTATE
STAGE 6

MUNICIPALITY: WHITTLESEA
REFERENCE: 9365 E/06

SCALE AS SHOWN | DATUM AHD | DATE AUG '19 | SHEET 8 OF 14 | P1

J:\9936\Eng\Stage 6\Eb_RBB_PRE_XS.dgn
Plotted:5/09/2019

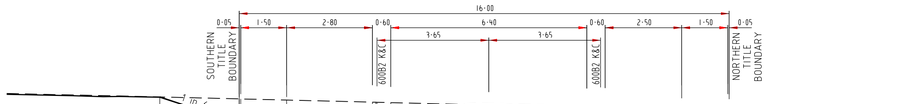


BRASSWOOD WAY

LONGITUDINAL SECTION

SCALE HORIZONTAL 1:500
VERTICAL 1:50

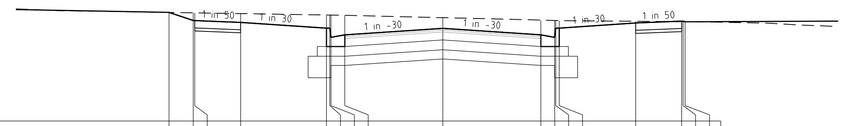
1:500 10 5 00 10 20 40
1:50 1 0.5 00 1 2 4



DATUM RL184.0

DESIGN SURFACE	186.64	186.21	186.21	186.18	186.08	186.08	185.93	185.97	186.08	185.97	185.93	186.08	186.08	186.17	186.20	186.20	186.35
EXISTING SURFACE	186.64	186.61	186.61	186.59	186.56	186.55	186.55	186.55	186.51	186.47	186.46	186.46	186.46	186.40	186.37	186.37	186.35
OFFSET	-10.74	-8.15	-8.10	-6.60	-3.80	-3.69	-3.65	-3.20	0.00	3.20	3.65	3.69	3.80	6.30	7.80	7.85	8.74

TP Ch.209.77



DATUM RL185.0

DESIGN SURFACE	186.77	186.64	186.64	186.61	186.52	186.52	186.37	186.41	186.51	186.41	186.37	186.52	186.52	186.60	186.63	186.63	186.62
EXISTING SURFACE	186.77	186.76	186.76	186.75	186.73	186.73	186.73	186.72	186.69	186.65	186.64	186.64	186.64	186.63	186.62	186.62	186.62
OFFSET	-8.94	-8.15	-8.10	-6.60	-3.80	-3.69	-3.65	-3.20	0.00	3.20	3.65	3.69	3.80	6.30	7.80	7.85	7.91

Ch.200.31

BRASSWOOD WAY

CROSS SECTION

SCALE HORIZONTAL 1:100
VERTICAL 1:50

1:100 2 1 00 2 4 8
1:50 1 0.5 00 1 2 4

CITY OF WHITTLESEA
ENGINEERING PLANS & SPECIFICATIONS
APPROVED PURSUANT TO SECTION 15 OF THE SUBDIVISION ACT 1988

PLAN OF SUBDIVISION No. PS 819166Y

DEVELOPMENT ENGINEER

06 -03 -2020
DATE APPROVED

VER.	DATE	REMARKS
P1	30·08·19	ISSUE FOR APPROVAL

AMENDMENTS

breese pitt dixon pty. ltd.
land surveyors civil engineers
1/19 cato street
hawthorn east, 3123
telephone 8823 2300
fax no. 8823 2310

MELWAY REF. 388-C-10
SURVEY BPD
DESIGN RGW
DRAWN RGW
CHECKED NM

RATHDOWNE ESTATE
STAGE 6

MUNICIPALITY WHITTLESEA
REFERENCE 9365 E/06

SCALE AS SHOWN DATUM AHD DATE AUG '19 SHEET 9 OF 14 P1

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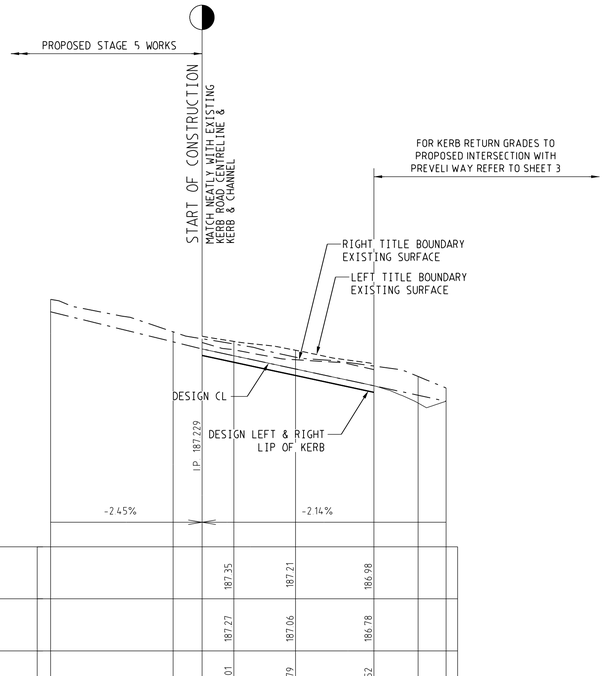
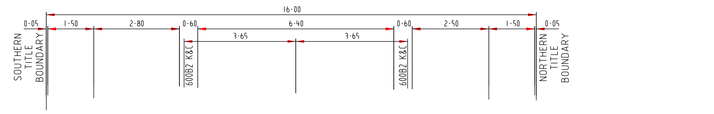


DATUM 184

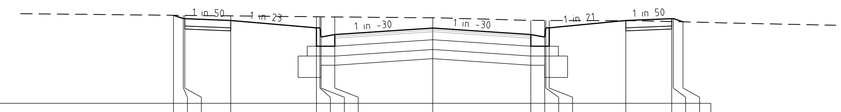
ES LEFT TITLE BDY			187.35	187.21	186.98			
FS LEFT TITLE BDY			187.27	187.06	186.78			
LEFT LIP OF KERB			187.01	186.79	186.52			
DESIGN CL	187.83	187.34	187.23	187.12	186.90	186.63	186.47	186.37
RIGHT LIP OF KERB				187.01	186.79	186.52		
FS RIGHT TITLE BDY				187.27	187.06	186.78		
ES RIGHT TITLE BDY				187.21	187.05	186.89		
CHAINAGE CENTRE LINE	180.00	200.00	204.72	209.92	220.00	232.77	240.00	244.57



DATUM RL185.0

DESIGN SURFACE	186.98	186.78	186.78	186.75	186.63	186.63	186.48	186.52	186.63	186.52	186.48	186.63	186.63	186.75	186.78	186.78	186.89
EXISTING SURFACE	186.98	186.98	186.98	186.98	186.96	186.96	186.96	186.96	186.95	186.92	186.91	186.91	186.91	186.89	186.89	186.89	186.89
OFFSET	-9.32	-8.15	-8.10	-6.60	-3.80	-3.69	-3.65	-3.20	0.00	3.20	3.65	3.69	3.80	6.30	7.80	7.85	8.50

Ch232.77



DATUM RL186.0

DESIGN SURFACE	187.44	187.38	187.38	187.35	187.23	187.23	187.08	187.12	187.23	187.12	187.08	187.23	187.23	187.35	187.38	187.38	187.33
EXISTING SURFACE	187.44	187.44	187.43	187.43	187.41	187.41	187.41	187.41	187.40	187.35	187.35	187.35	187.35	187.35	187.33	187.33	187.33
OFFSET	-8.47	-8.15	-8.10	-6.60	-3.80	-3.69	-3.65	-3.20	0.00	3.20	3.65	3.69	3.80	6.30	7.80	7.85	8.17

Ch204.72

PROVIDENCE AVENUE

CROSS SECTION

SCALE HORIZONTAL 1:100
VERTICAL 1:50

1:100 2 1 00 2 4 8
1:50 1 0.5 00 1 2 4

PROVIDENCE AVENUE

LONGITUDINAL SECTION

SCALE HORIZONTAL 1:500
VERTICAL 1:50

1:500 10 5 00 10 20 40
1:50 1 0.5 00 1 2 4

CITY OF WHITTLESEA
ENGINEERING PLANS & SPECIFICATIONS
APPROVED PURSUANT TO SECTION 15 OF THE SUBDIVISION ACT 1988

PLAN OF SUBDIVISION No. PS 819166Y

DEVELOPMENT ENGINEER

06 -03 -2020
DATE APPROVED

AMENDMENTS

VER	DATE	REMARKS
P1	30·08·19	ISSUE FOR APPROVAL

breese pitt dixon pty. ltd.
land surveyors civil engineers

1/19 cato street
hawthorn east, 3123
telephone 8823 2300
fax no. 8823 2310

MELWAY REF. 388-C-10
SURVEY BPD
DESIGN RGW
DRAWN RGW
CHECKED NM

RATHDOWNE ESTATE
STAGE 6

MUNICIPALITY WHITTLESEA
REFERENCE 9365 E/06

SCALE AS SHOWN DATUM AHD DATE AUG '19 SHEET 10 OF 14 P1

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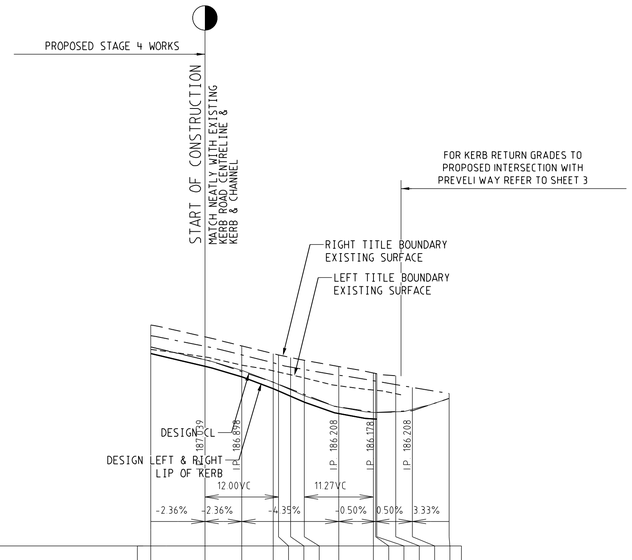
Plot Date: 5/09/2019



VC LENGTH

DESIGN GRADELINE

DATUM 184

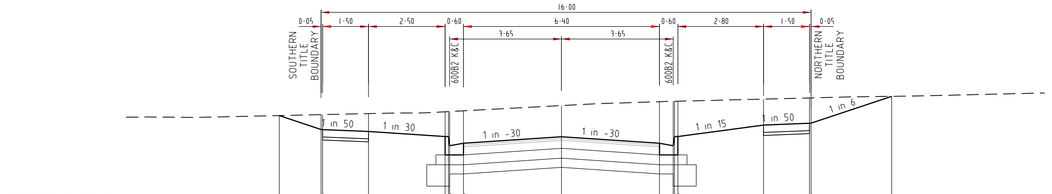
ES LEFT TITLE BDY	187.21	187.08	186.95	186.86	186.84	186.79	186.74	186.61	186.55	186.54	186.49			
FS LEFT TITLE BDY	187.37	187.16	186.98	186.79	186.75	186.67	186.57	186.39	186.30	186.30				
LEFT LIP OF KERB	187.14	186.93	186.76	186.57	186.53	186.44	186.35	186.16	186.07	186.07				
DESIGN CL	187.25	187.04	186.87	186.67	186.64	186.55	186.45	186.26	186.18	186.18	186.18	186.19	186.21	186.41
RIGHT LIP OF KERB	187.14	186.93	186.76	186.57	186.53	186.44	186.35	186.16	186.07	186.07				
FS RIGHT TITLE BDY	187.47	187.26	187.09	186.89	186.86	186.77	186.67	186.49	186.40	186.40				
ES RIGHT TITLE BDY	187.61	187.41	187.27	187.14	187.12	187.08	187.03	186.93	186.82	186.82	186.81	186.78		
CHAINAGE CENTRE LINE	280.00	288.86	294.86	300.00	300.86	302.84	305.08	310.71	316.34	316.71	316.91	320.00	322.71	328.71

PORTOFINO WAY

LONGITUDINAL SECTION

SCALE HORIZONTAL 1:500
VERTICAL 1:50

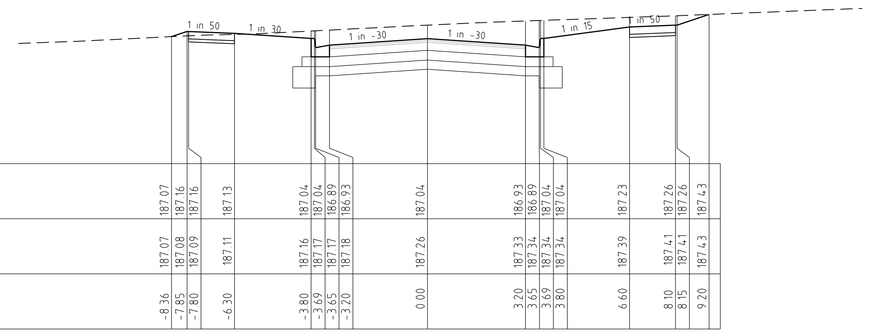
1:500 10 5 00 10 20 40
1:50 1 0.5 00 1 2 4



DATUM RL185.0

DESIGN SURFACE	186.52	186.30	186.30	186.27	186.18	186.18	186.03	186.07	186.18	186.07	186.03	186.18	186.18	186.37	186.40	186.40	186.84
EXISTING SURFACE	186.52	186.54	186.54	186.56	186.59	186.59	186.59	186.60	186.69	186.75	186.76	186.76	186.76	186.79	186.81	186.81	186.84
OFFSET	-9.22	-7.85	-7.80	-6.30	-3.80	-3.69	-3.65	-3.20	0.00	3.20	3.65	3.69	3.80	6.60	8.10	8.15	10.78

TP Ch.316.91



DATUM RL185.0

DESIGN SURFACE	187.07	187.16	187.16	187.13	187.04	187.04	186.89	186.93	187.04	186.93	186.89	187.04	187.04	187.23	187.26	187.26	187.43
EXISTING SURFACE	187.07	187.08	187.09	187.11	187.16	187.17	187.17	187.18	187.26	187.33	187.34	187.34	187.34	187.39	187.41	187.41	187.43
OFFSET	-8.36	-7.85	-7.80	-6.30	-3.80	-3.69	-3.65	-3.20	0.00	3.20	3.65	3.69	3.80	6.60	8.10	8.15	9.20

Ch.288.86

PORTOFINO WAY

CROSS SECTION

SCALE HORIZONTAL 1:100
VERTICAL 1:50

1:100 2 1 00 2 4 8
1:50 1 0.5 00 1 2 4

CITY OF WHITTLESEA
ENGINEERING PLANS & SPECIFICATIONS
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DEVELOPMENT ENGINEER

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fax no. 8823 2310

MELWAY REF.	388-C-10
SURVEY	BPD
DESIGN	RGW
DRAWN	RGW
CHECKED	NM

RATHDOWNE ESTATE
STAGE 6

MUNICIPALITY: WHITTLESEA
REFERENCE: 9365 E/06

SCALE AS SHOWN | DATUM AHD | DATE AUG '19 | SHEET 11 OF 14 | P1

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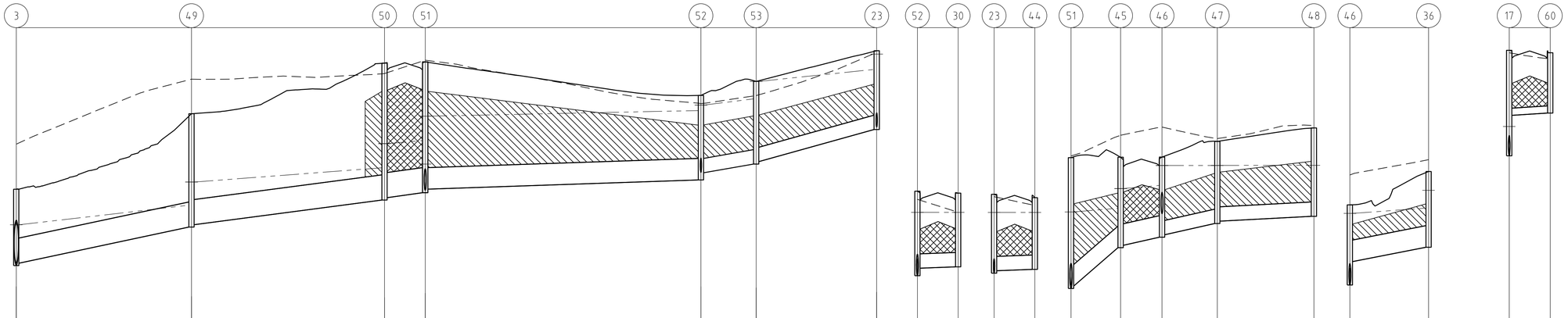
Plotted:5/08/2019

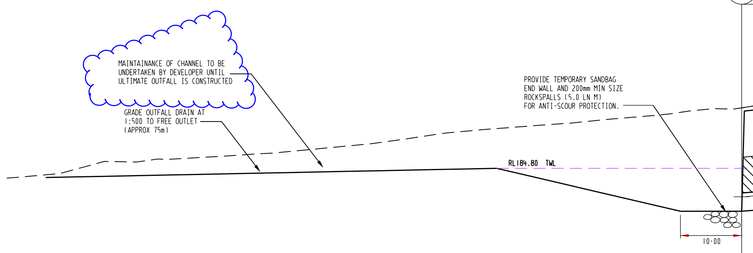


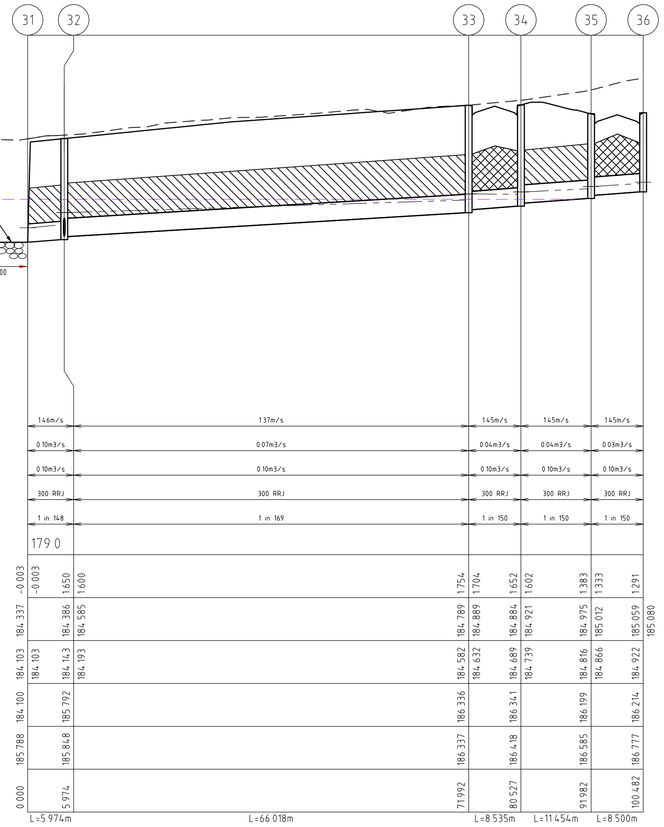
	3–49	49–50	50–51	51–52	52–53	53–23
VELOCITY (m/sec)	3.71m/s	2.92m/s	2.84m/s	1.35m/s	2.79m/s	2.90m/s
DESIGN (m3/s)	0.47m3/s	0.48m3/s	0.48m3/s	0.17m3/s	0.15m3/s	0.15m3/s
CAPACITY (m3/s)	0.80m3/s	0.63m3/s	0.61m3/s	0.21m3/s	0.20m3/s	0.21m3/s
DIAMETER AND TYPE (CLASS 2)	525 RRJ	525 RRJ	CLASS 4 525 RRJ	450 RRJ	300 RRJ	300 RRJ
GRADE	1 in 485	1 in 78.2	1 in 82.8	1 in 300	1 in 62.8	1 in 37.5
DATUM RL	178.0					
DEPTH FS TO INVERT	1.595 / 1.545	2.368 / 2.318	2.859 / 2.809	2.733 / 2.658	1.766 / 1.616	1.647
HGL LEVEL	182.071 / 182.329	182.738 / 183.222	183.520 / 184.024	184.088 / 184.598	184.715 / 184.828	185.574 / 185.895
INVERT	181.477 / 181.527	182.281 / 182.331	182.846 / 182.896	182.999 / 183.074	183.265 / 183.415	184.319
FINISHED SURFACE	183.072	184.649	185.705	185.731	185.031	185.966
NATURAL SURFACE	184.014	185.370	185.489	185.767	184.860	185.916
CHAINAGE	-36.558	0.000	40.276	48.775	106.301	142.976
	L=36.558m	L=40.276m	L=8.498m	L=57.526m	L=11.526m	L=25.150m

	52–30	23–44
VELOCITY (m/sec)	1.03m/s	1.03m/s
DESIGN (m3/s)	0.00m3/s	0.00m3/s
CAPACITY (m3/s)	0.07m3/s	0.07m3/s
DIAMETER AND TYPE (CLASS 2)	CLASS 4 300 RRJ	CLASS 4 300 RRJ
GRADE	1 in 300	1 in 300
DATUM RL	180.0	181.0
DEPTH FS TO INVERT	1.766 / 1.608	1.647 / 1.597
HGL LEVEL	184.715 / 184.828	185.574 / 185.895
INVERT	183.265 / 183.423	184.319 / 184.369
FINISHED SURFACE	185.031	185.966
NATURAL SURFACE	184.860	185.916
CHAINAGE	0.000	0.000
	L=8.500m	L=8.500m

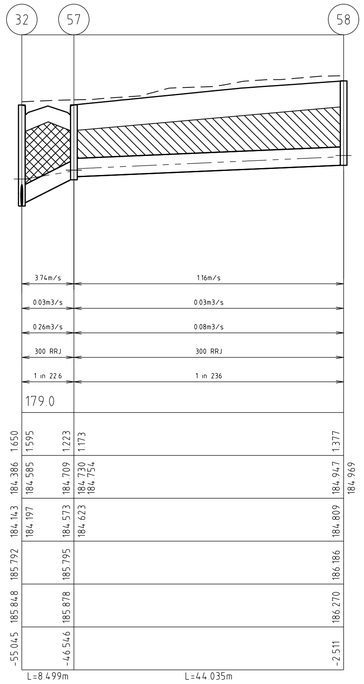
	51–45	45–46	46–47	47–48
VELOCITY (m/sec)	6.49m/s	3.27m/s	2.54m/s	1.26m/s
DESIGN (m3/s)	0.32m3/s	0.32m3/s	0.01m3/s	0.01m3/s
CAPACITY (m3/s)	1.03m3/s	0.52m3/s	0.18m3/s	0.09m3/s
DIAMETER AND TYPE (CLASS 2)	450 RRJ	CLASS 4 450 RRJ	300 RRJ	300 RRJ
GRADE	1 in 12.9	1 in 50.8	1 in 4.9	1 in 20.0
DATUM RL	180.0			
DEPTH FS TO INVERT	2.733 / 2.683	1.891 / 1.841	1.674 / 1.624	1.715 / 1.665 / 1.847
HGL LEVEL	184.088 / 184.598	184.674 / 185.086	185.151 / 185.567	185.568 / 185.570 / 185.571 / 185.571
INVERT	182.999 / 183.049	183.850 / 183.900	184.070 / 184.120	184.356 / 184.406
FINISHED SURFACE	185.731	185.741	185.745	186.071
NATURAL SURFACE	185.767	186.199	186.370	186.131
CHAINAGE	-36.558	-26.206	-17.561	-6.035
	L=10.352m	L=8.645m	L=11.526m	L=20.162m

	46–36	17–60
VELOCITY (m/sec)	3.16m/s	
DESIGN (m3/s)	0.30m3/s	0.00m3/s
CAPACITY (m3/s)	0.50m3/s	
DIAMETER AND TYPE (CLASS 2)	450 RRJ	150 RRJ
GRADE	1 in 54.5	1 in 18.0
DATUM RL	181.0	178.0
DEPTH FS TO INVERT	1.674 / 1.185	2.203 / 1.359 / 1.260
HGL LEVEL	185.151 / 185.567	184.087 / 184.382 / 0.000
INVERT	184.070 / 184.559	184.615 / 0.000
FINISHED SURFACE	185.745	185.974
NATURAL SURFACE	186.370	185.923
CHAINAGE	0.000	0.000
	L=16.415m	L=8.564m





	31–32	32–33	33–34	34–35	35–36
VELOCITY (m/sec)	1.46m/s	1.37m/s	1.45m/s	1.45m/s	1.45m/s
DESIGN (m3/s)	0.10m3/s	0.07m3/s	0.04m3/s	0.04m3/s	0.03m3/s
CAPACITY (m3/s)	0.10m3/s	0.10m3/s	0.10m3/s	0.10m3/s	0.10m3/s
DIAMETER AND TYPE (CLASS 2)	300 RRJ	300 RRJ	300 RRJ	300 RRJ	300 RRJ
GRADE	1 in 14.8	1 in 16.9	1 in 15.0	1 in 15.0	1 in 15.0
DATUM RL	179.0				
DEPTH FS TO INVERT	-0.003 / -0.003	1.650 / 1.600	1.754 / 1.704	1.652 / 1.602	1.383 / 1.333 / 1.291
HGL LEVEL	184.337	184.386 / 184.585	184.789 / 184.889	184.886 / 184.921	184.975 / 185.012 / 185.059 / 185.080
INVERT	184.103	184.143 / 184.193	184.582 / 184.632	184.689 / 184.739	184.816 / 184.866 / 184.922
FINISHED SURFACE	184.100	185.792	186.336	186.341	186.199 / 186.214
NATURAL SURFACE	185.788	185.848	186.337	186.418	186.585 / 186.777
CHAINAGE	0.000	5.974	71.992	80.527	91.982 / 100.482
	L=5.974m	L=66.018m	L=8.535m	L=11.454m	L=8.500m



	32–57	57–58
VELOCITY (m/sec)	3.74m/s	1.16m/s
DESIGN (m3/s)	0.03m3/s	0.03m3/s
CAPACITY (m3/s)	0.26m3/s	0.08m3/s
DIAMETER AND TYPE (CLASS 2)	300 RRJ	300 RRJ
GRADE	1 in 22.6	1 in 23.6
DATUM RL	179.0	
DEPTH FS TO INVERT	1.650 / 1.595	1.223 / 1.173
HGL LEVEL	184.386 / 184.585	184.709 / 184.730 / 184.754
INVERT	184.143 / 184.197	184.573 / 184.623
FINISHED SURFACE	185.792	185.795
NATURAL SURFACE	185.848	185.878
CHAINAGE	-55.045	-46.546
	L=8.499m	L=44.035m

DRAINAGE LONGITUDINAL SECTIONS

SCALE HORIZONTAL 1:500
VERTICAL 1:50

1:50 1 0.5 0 0 1 2 4
1:500 10 5 0 0 10 20 40

INDICATES CRUSHED ROCK BACKFILL CLASS 2

INDICATES CRUSHED ROCK BACKFILL CLASS 3

INDICATES 5YR HGL

CITY OF WHITTLESEA

ENGINEERING PLANS & SPECIFICATIONS
APPROVED PURSUANT TO SECTION 15 OF THE SUBDIVISION ACT 1988

PLAN OF SUBDIVISION No. PS 819166Y

DEVELOPMENT ENGINEER

06-03-2020
DATE APPROVED

AMENDMENTS

VER.	DATE	REMARKS
P4	08.01.20	COUNCIL COMMENTS
P3	16.12.19	COUNCIL COMMENTS
P2	02.10.19	COUNCIL COMMENTS
P1	30.08.19	ISSUE FOR APPROVAL

breese pitt dixon pty. ltd.
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telephone 8823 2300
fax no. 8823 2310

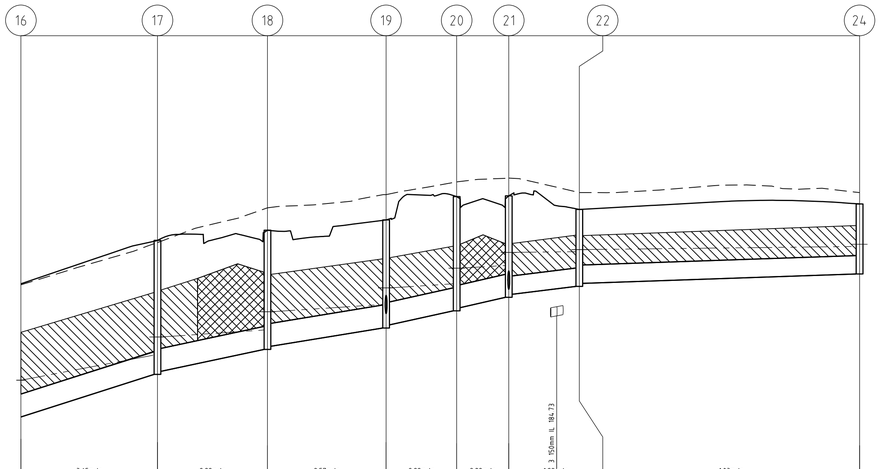
MELWAY REF.	388-C-10
SURVEY	BPD
DESIGN	RGW
DRAWN	RGW
CHECKED	NM

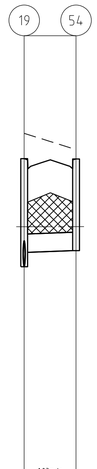
RATHDOWNE ESTATE
STAGE 6
DRAINAGE LONGDITUDINAL SECTIONS 1

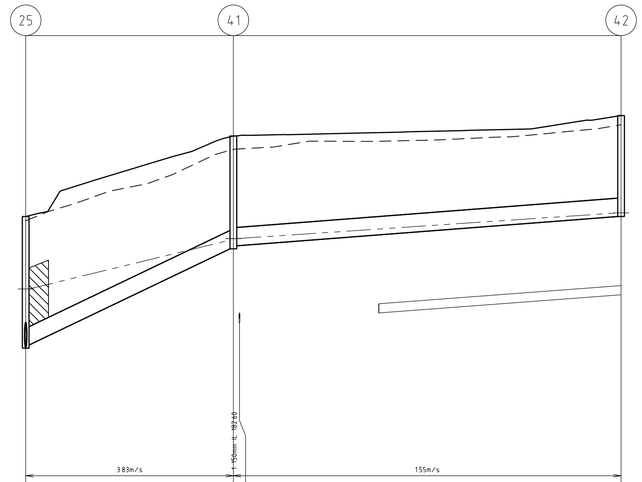
MUNICIPALITY: WHITTLESEA
REFERENCE: 9365 E/06

SCALE AS SHOWN | DATUM AHD | DATE AUG '19 | SHEET 12 OF 14 | P4

Plotted:8/01/2020
J:\9936\5\Eng\Stage 6\E6_R12_DRN1.dgn







	16–17	17–18	18–19	19–20	20–21	21–22	22–24	19–54	25–41	41–42
VELOCITY (m/sec)	3.65m/s	2.92m/s	2.57m/s	2.92m/s	2.92m/s	1.88m/s	1.03m/s	1.03m/s	3.83m/s	1.55m/s
DESIGN (m3/s)	0.19m3/s	0.19m3/s	0.18m3/s	0.18m3/s	0.16m3/s	0.04m3/s	0.04m3/s	0.01m3/s	0.03m3/s	0.01m3/s
CAPACITY (m3/s)	0.40m3/s	0.32m3/s	0.28m3/s	0.32m3/s	0.32m3/s	0.13m3/s	0.07m3/s	0.07m3/s	0.27m3/s	0.11m3/s
DIAMETER AND TYPE (CLASS 2)	375 RRJ	CLASS 4 375 RRJ	375 RRJ	375 RRJ	CLASS 4 375 RRJ	300 RRJ	300 RRJ	CLASS 4 300 RRJ	300 RRJ	300 RRJ
GRADE	1 in 32.1	1 in 50	1 in 64.7	1 in 50	1 in 50	1 in 90	1 in 300	1 in 300	1 in 216	1 in 132
DATUM RL	180.0							179.0	178.0	
DEPTH FS TO INVERT	2.175 2.175	2.188 2.138	1.945 1.895	1.763 1.713	1.864 1.814	1.657 1.607	1.256 1.206	1.763 1.529	2.148 2.097	1.842 1.792	1.647
HGL LEVEL	183.391 183.678	184.088 184.383	184.497 184.794	184.914 185.183	185.351 185.507	185.549 185.763	185.775 185.809	184.914 185.183	182.856 183.148	183.945 183.969	184.389 184.390
INVERT	183.076 183.076	183.771 183.821	184.180 184.230	184.530 184.580	184.810 184.860	185.030 185.080	185.208 185.258	184.530 184.763	182.182 182.233	183.892 183.942	184.330
FINISHED SURFACE	185.251	185.959	186.125	186.293	186.674	186.687	186.464	186.293	184.330	185.644	185.977
NATURAL SURFACE	185.234	185.923	186.490	186.706	186.914	186.976	186.740	186.706	184.261	185.428	185.829
CHAINAGE	-32.596	-10.297	7.658	27.028	38.554	47.054	54.894 58.580	0.000	0.000	33.900 34.901	97.201
	L=22.299m	L=17.955m	L=19.370m	L=11.526m	L=8.500m	L=11.526m	L=45.749m	L=8.467m	L=33.900m	L=63.300m	

PIT SCHEDULE

PIT No.	PIT DESCRIPTION	LENGTH	WIDTH	INLET INVERT	INLET DIA	OUTLET INVERT	OUTLET DIA	TOP PIT RL	DEPTH INVERT	REMARKS
3	JUNCTION PIT	900	1050	181·53	900	181·48	900	183·07	1·60	EDCM 605 Class B cover (HAUNCHED)
16	END PIPE			183·08	375	183·08	375	185·25	2·18	CONNECT TO EX PIPE
17	GRATED ENTRY PIT (B2)	900	600	183·82	375	183·77	375	185·96	2·19	EDCM 601 Class B cover
18	GRATED ENTRY PIT (B2)	900	600	184·23	375	184·18	375	186·13	1·95	EDCM 601 Class B cover
19	GRATED ENTRY PIT (B2)	900	600	184·58	375	184·53	375	186·29	1·76	EDCM 601 Class B cover
				184·76	300					
20	GRATED ENTRY PIT (B2)	900	600	184·86	375	184·81	375	186·67	1·86	EDCM 601 Class B cover
21	GRATED ENTRY PIT (B2)	900	600	185·08	300	185·03	375	186·69	1·66	EDCM 601 Class B cover
				185·16	300					
22	GRATED ENTRY PIT (B2)	900	600	185·26	300	185·21	300	186·46	1·26	EDCM 601 Class B cover
23	END PIPE			184·37	300			185·97	1·65	CONNECT TO EX PIPE
						184·32	300			
24	JUNCTION PIT	900	600			185·41	300	186·55	1·14	EDCM 605 Class B cover
25	ENDPIPE	900	600	182·23	375	182·18	375	184·33	2·15	ENDPIPE
30	GRATED ENTRY PIT (B2)	900	600			183·45	300	184·99	1·54	EDCM 601 Class B cover
31	END PIPE			184·103	300			185·788	1·69	CONNECT TO FUT PIPE
32	GRATED ENTRY PIT (B2)	900	600	184·632	300	184·582	300	186·336	1·754	EDCM 601 Class B cover
33	GRATED ENTRY PIT (B2)	900	600	184·632	300	184·582	300	186·336	1·754	EDCM 601 Class B cover
34	GRATED ENTRY PIT (B2)	900	600	184·739	300	184·689	300	186·341	1·652	EDCM 601 Class B cover
35	GRATED ENTRY PIT (B2)	900	600	184·866	300	184·816	300	186·199	1·383	EDCM 601 Class B cover
36	GRATED ENTRY PIT (B2)	900	600			184·922	300	186·214	1·291	EDCM 601 Class B cover
37	END PIPE					184·861	450	186·442	1·581	CONNECT TO EX PIPE
44	GRATED ENTRY PIT (B2)	900	600			184·397	300	185·932	1·535	EDCM 601 Class B cover
45	GRATED ENTRY PIT (B2)	900	600	183·9	450	183·85	450	185·741	1·891	EDCM 601 Class B cover
46	GRATED ENTRY PIT (B2)	900	600	184·559	450			185·745	1·674	EDCM 601 Class B cover
				184·12	300	184·07	450			
47	GRATED ENTRY PIT (B2)	900	600	184·406	300	184·356	300	186·071	1·715	EDCM 601 Class B cover
48	JUNCTION PIT	900	600			184·506	300	186·353	1·847	EDCM 605 Class B cover
49	JUNCTION PIT	900	900	182·331	525	182·281	525	184·649	2·368	EDCM 605 Class B cover (HAUNCHED)
50	GRATED ENTRY PIT (B2)	900	900	182·896	525	182·846	525	185·705	2·859	EDCM 601 Class B cover (HAUNCHED)
51	GRATED ENTRY PIT (B2)	900	900	183·049	450			185·731	2·733	EDCM 601 Class B cover
				183·074	450	182·999	525			
52	GRATED ENTRY PIT (B2)	900	900	183·423	300			185·031	1·766	EDCM 601 Class B cover
				183·315	300	183·265	450			
53	GRATED ENTRY PIT (B2)	900	600	183·648	300	183·598	300	185·325	1·726	EDCM 601 Class B cover
54	GRATED ENTRY PIT (B2)	900	600			184·792	300	186·288	1·497	EDCM 601 Class B cover
57	JUNCTION PIT			184·623	300	184·573	300	185·795	1·223	EDCM 605 CLASS B COVER
58	JUNCTION PIT	900	600			184·809	300	186·13	1·321	EDCM 605 CLASS B COVER
60	GRATED ENTRY PIT (B2)	900	600			184·663	300	185·923	1·260	EDCM 601 Class B cover

CITY OF WHITTLESEA

ENGINEERING PLANS & SPECIFICATIONS
APPROVED PURSUANT TO SECTION 15 OF THE SUBDIVISION ACT 1988

PLAN OF SUBDIVISION No. PS 819166Y

DEVELOPMENT ENGINEER

06-03-2020
DATE APPROVED

DRAINAGE LONGITUDINAL SECTIONS

SCALE HORIZONTAL 1:500
VERTICAL 1:50

1:50 1 0.5 0 0 1 2 4
1:500 10 5 0 0 10 20 40

INDICATES CRUSHED ROCK BACKFILL CLASS 2

INDICATES CRUSHED ROCK BACKFILL CLASS 3

INDICATES 5YR HGL

VER.	DATE	REMARKS
P3	08·01·20	PIT SCHEDULE UPDATED
P2	17·12·19	PIT SCHEDULE UPDATED
P1	30·08·19	ISSUE FOR APPROVAL

AMENDMENTS

breese pitt dixon pty. ltd.
land surveyors civil engineers
1/19 cato street
hawthorn east, 3123
telephone 8823 2300
fax no. 8823 2310

MELWAY REF.	388-C-10
SURVEY	BPD
DESIGN	RGW
DRAWN	RGW
CHECKED	NM

RATHDOWNE ESTATE
STAGE 6
DRAINAGE LONGITUDINAL SECTIONS 2

MUNICIPALITY: WHITTLESEA
REFERENCE: 9365 E/06

SCALE AS SHOWN | DATUM AHD | DATE AUG '19 | SHEET 13 OF 14 | P3

Plotted:8/01/2020
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CITY OF WHITTLESEA

ENGINEERING PLANS & SPECIFICATIONS
APPROVED PURSUANT TO SECTION 15 OF THE
SUBDIVISION ACT 1988

PLAN OF SUBDIVISION No. PS 819166Y

DEVELOPMENT ENGINEER

06 -03 -2020
DATE APPROVED

SIGNAGE & LINEMARKING LEGEND

S1	"STREET NAME" SIGN	
S2	"GIVE WAY" SIGN (R1-2A)	R1-2
S3	"NO ROAD" SIGN & "HAZARD" SIGN (G9-18)	
S4	ROUNDABOUT SIGN	R1-3
S5	"KEEP LEFT" SIGN (R2-3L)	R2-3(L)
S6	HAZARD BOARD (D4-1-1)	
S7	"RAISED PAVEMENT AHEAD" WARNING SIGN	W3-4
S8	ROAD HUMP SIGN & ADVISORY SPEED SIGN (20km/h)	W5-10, W8-2

NOTE:
- STREET NAME SIGN TO MOUNT ON LIGHTING POLE WHERE POSSIBLE
- STREET SIGNS TO HAVE MINIMUM 2 WEDGES IN THE POLE SLEEVES
- REFER HCC SD407 FOR "NO ROAD SIGN"

PLAN
SCALE 1:500

SCALE 1 : 500
10 5 0 10 20 40
LENGTHS ARE IN METRES

AMENDMENTS			
P	02·10·19	COUNCIL COMMENTS	
P1	30·08·19	ISSUE FOR APPROVAL	
VER.	DATE	REMARKS	

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DESIGN	RGW
DRAWN	RGW
CHECKED	NM

RATHDOWNE ESTATE
STAGE 6
SIGNAGE AND LINEMARKING PLAN

MUNICIPALITY: WHITTLESEA
REFERENCE: 9365 E/06

SCALE AS SHOWN | DATUM AHD | DATE AUG '19 | SHEET 14 OF 14 | P2

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Plotted:27/10/2019