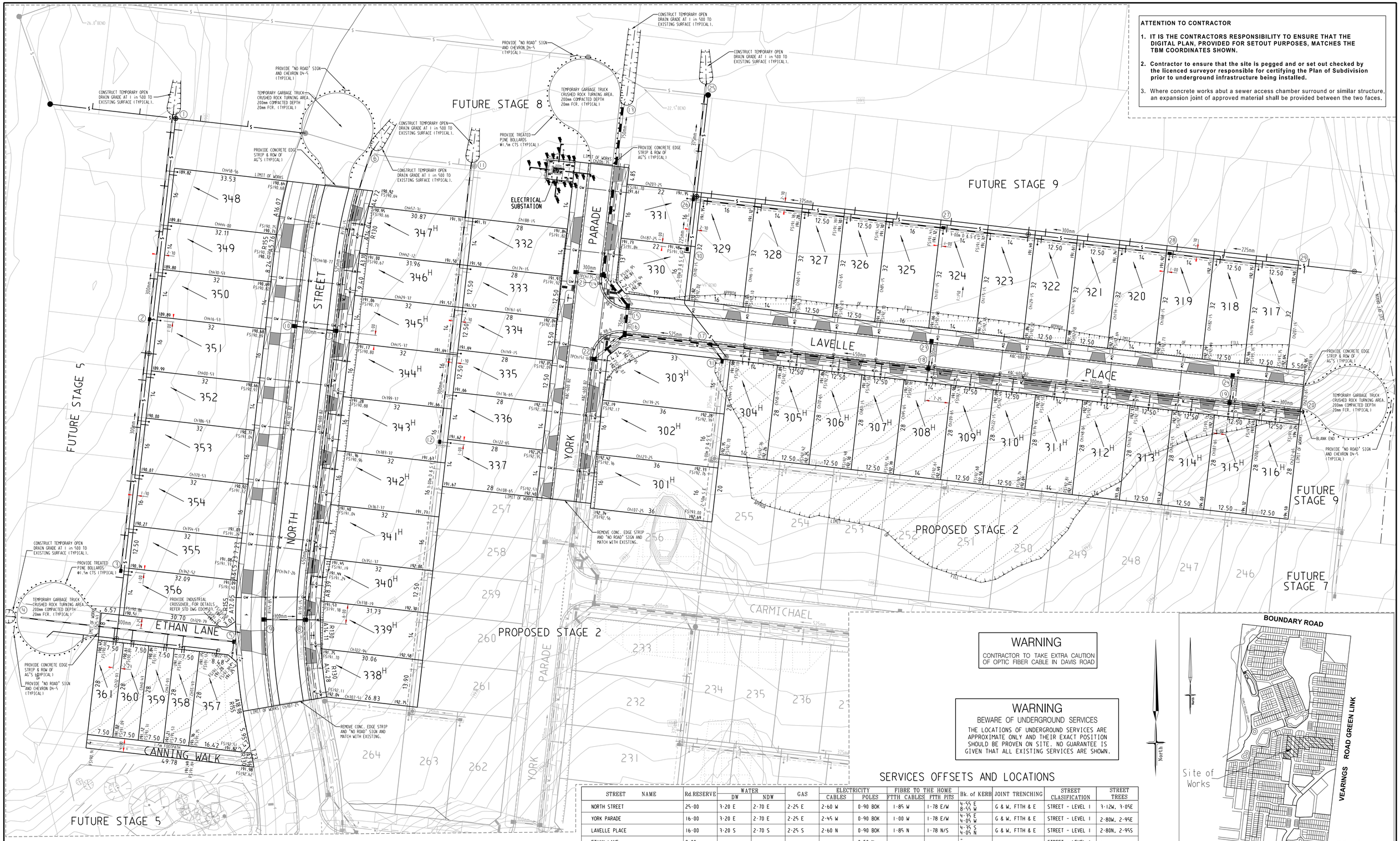
ATTENTION TO CONTRACTOR

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.



SHEET INDEX

SHT No.	VER	DESCRIPTION
1	H	DETAIL PLAN & SERVICES SCHEDULE
2	E	NOTES AND TYPICAL SECTIONS
3	B	INTERSECTION DETAILS AND ETHAN LANE LONGITUDINAL AND CROSS SECTIONS
4	B	NORTH STREET - LONGITUDINAL AND CROSS SECTIONS
5	B	NORTH STREET - CROSS SECTIONS
6	B	YORK PARADE - LONGITUDINAL AND CROSS SECTIONS
7	C	LAVELLE PLACE - LONGITUDINAL AND CROSS SECTIONS
8	C	LAVELLE PLACE - CROSS SECTIONS
9	E	DRAINAGE LONGITUDINAL SECTIONS & PIT SCHEDULE
10	E	DRAINAGE LONGITUDINAL SECTIONS
11	A	SIGNAGE AND LINEMARKING PLAN

PLAN

SCALE 1:500

SCALE 1 : 500

10 5 0 10 20 40

LENGTHS ARE IN METRES

AS CONSTRUCTED

WARNING

CONTRACTOR TO TAKE EXTRA CAUTION OF OPTIC FIBER CABLE IN DAVIS ROAD

WARNING

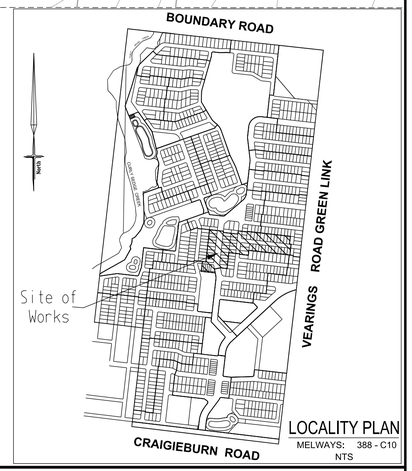
BEWARE OF UNDERGROUND SERVICES

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.

North

SERVICES OFFSETS AND LOCATIONS

STREET NAME	Rd.RESERVE	WATER DW	WATER NDW	GAS	ELECTRICITY CABLES	ELECTRICITY POLES	FIBRE TO THE HOME FTTH CABLES	FIBRE TO THE HOME FTTH PITS	Bk. of KERB	JOINT TRENCHING	STREET CLASIFICATION	STREET TREES
NORTH STREET	25·00	3·20 E	2·70 E	2·25 E	2·60 W	0·90 BOK	1·85 W	1·78 E/W	4·55 E 8·55 W	G & W, FTTH & E	STREET - LEVEL 1	3·12W, 3·05E
YORK PARADE	16·00	3·20 E	2·70 E	2·25 E	2·45 W	0·90 BOK	1·00 W	1·78 E/W	4·35 E 4·05 W	G & W, FTTH & E	STREET - LEVEL 1	2·80W, 2·95E
LAVELLE PLACE	16·00	3·20 S	2·70 S	2·25 S	2·60 N	0·90 BOK	1·85 N	1·78 N/S	4·35 S 4·05 N	G & W, FTTH & E	STREET - LEVEL 1	2·80N, 2·95S
ETHAN LANE	8·00					0·50 N			-		STREET - LEVEL 1	-
CANNING WALK	4·00	2·75 S	2·3 S	1·85 S	3·75 S	-	3·25 S	3·2 S	-	G & W, FTTH & E	STREET - LEVEL 1	-



LOCALITY PLAN
MELWAYS: 388 - C10
NTS

SYMBOL LEGEND

Prop / Exist

Drains
Sewer <300
Sewer >300
Water
House Drain
Property Inlet
Street Sign
PSM
Retaining Wall
Conduits 50mm
Conduits 100mm
Ex Gas/Elect/Tel

Ex/Natural/FS Level
FS @ Building Line
Top/Toe of Batter
Top Ret. Wall Level
100yr Flood Level
Fill Prop/Ex
Cut Prop/Ex

VER	DATE	REMARKS
H	07·03·19	SHEET INDEX UPDATED
F	18·01·19	SHEET INDEX UPDATED
E	05·09·18	DRAINAGE PIT 31 ADDED, PIT 17 MOVED
D	29·05·18	DRAIANGE PITS 13-15 LOWERED SHEET INDEX UPDATED
C	13·04·18	CROSS SECTIONS OF LAVELLE PLACE AMENDED
B	05·04·18	CROSS SECTION OF CANNING WALK TO INCLUDE SERVICES
A	20·12·17	ISSUED FOR CONSTRUCTION

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 SS
DRAWN RGW
CHECKED

RATHDOWNE ESTATE STAGE 3

DETAIL PLAN

MUNICIPALITY: WHITTLESEA

REFERENCE: 9365 E/3

SCALE AS SHOWN | DATUM AHD | DATE OCT'17 | SHEET 1 OF 11 | H

J:\9936\5\Eng\Stage 3\E03_RDI_DET.dgn

Plot Date: 7/03/2019

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 2 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.
35. PAVEMENT TO CONSIST OF: NORTH STREET (540mm DEPTH)
   a) 40mm COMPACTED DEPTH SIZE 14 TYPE H ASHPHALT WITH A C320 BINDER (ASPHALT TO BE 5mm PROUD OF LIP OF KERB)
   b) 75mm COMPACTED DEPTH SIZE 20 TYPE SI ASHPHALT WITH A C320 BINDER
   c) 75mm COMPACTED DEPTH SIZE 20 TYPE SF ASHPHALT WITH A C320 BINDER
   d) BITUMINOUS PRIME
   e) 100mm COMPACTED DEPTH OF 20mm NOMINAL SIZE CLASS 2 CR, COMPACTED TO AT LEAST 98% MODIFIED DRY DENSITY RATIO WITHIN 1% OF THE MODIFIED OPTIMUM MOISTURE CONTENT.
   f) 250mm COMPACTED DEPTH OF SELECT GRANULAR MATERIAL "TYPE A" WITH A MINIMUM SOAKED CBR OF 10% COMPACTED TO 98% STANDARD DRY DENSTIY RATIO WITHIN 1% OF THE STANDARD OPTIMUM MOISTURE CONTENT AND A PERCENTAGE SWELL OF LESS THAN 1.5%
   g) SUBGRADE TO CONSIST OF SILTY CLAY COMPACTED TO AT LEAST 100% STANDARD DRY DENSITY RATIO (SOAKED CBR>2.0%) WITHIN 2% OF THE OPTIMUM MOISTURE CONTENT. SUBGRADE IMPROVEMENT FOR SOFT OR ROCK AREAS, TO BE 150mm MINIMUM DEPTH OF COMPACTED CLASS 3 FCR" OR APPROVED EQUIVALENT MATERIAL.

   Refer to "Technical Specification for Roads and Drainage Works"
   Section 20.3.5 & Table 20.3.5 for requirements

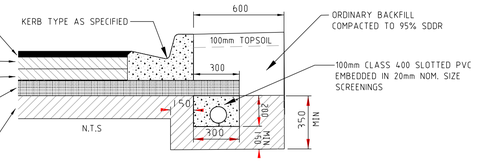
   SAMI TREATMENT (STRAIN ALLEVIATING MEMBRANE INTERLAYER) CONSISTING SIZE 10 SPRAYED SEAL USING CLASS S18RF BITUMEN CRUMB RUBBER BINDER PLACED AT AN APPLICATION RATE ≥ 1.8 l/m2 AND COVERED WITH A LIGHT APPLICATION OF PRE-COATED SIZE 10 AGGREGATE.

   PAVEMENT TO CONSIST OF: YORK PARADE (500mm DEPTH)
   a) 40mm COMPACTED DEPTH SIZE 14 TYPE N ASHPHALT WITH A C170 BINDER
   b) GLASGRID GG85111TF PLACED AS PER MANUFACTURERS SPECIFICATIONS
   c) 20mm COMPACTED DEPTH SIZE 7 TYPE N ASHPHALT WITH A C170 BINDER
   d) SAMI SEAL WITH CLASS 170R BITUMEN AND A 5mm AGGREGATE
   e) 130mm COMPACTED DEPTH OF 20mm NOMINAL SIZE CLASS 2 FCR, COMPACTED TO AT LEAST 98% MODIFIED DRY DENSITY RATIO WITHIN 1% OF THE MODIFIED OPTIMUM MOISTURE CONTENT.
   f) 160mm COMPACTED DEPTH OF 20mm NOMINAL SIZE CLASS 3 CEMENT MODIFIED CR, COMPACTED TO AT LEAST 98% MODIFIED DRY DENSITY RATIO WITHIN 2% OF THE MODIFIED OPTIMUM MOISTURE CONTENT WITH A MINIMUM YOUNG'S MODULUS OF 500MPa AND A MAXIMUM YOUNG'S MODULUS OF 1500MPa.
   g) 150mm COMPACTED DEPTH OF SELECT GRANULAR MATERIAL "TYPE A" WITH A MINIMUM CBR OF 10% COMPACTED TO 98% STANDARD DRY DENSTIY RATIO WITHIN 1% OF THE STANDARD OPTIMUM MOISTURE CONTENT AND A PERCENTAGE SWELL OF LESS THAN 1.5%
   h) SUBGRADE TO CONSIST OF SILTY CLAY COMPACTED TO AT LEAST 100% STANDARD DRY DENSITY RATIO (SOAKED CBR>2.5%) WITHIN 2% OF THE OPTIMUM MOISTURE CONTENT. SUBGRADE IMPROVEMENT FOR SOFT OR ROCK AREAS, TO BE 150mm MINIMUM DEPTH OF COMPACTED CLASS 3 FCR" OR APPROVED EQUIVALENT MATERIAL.

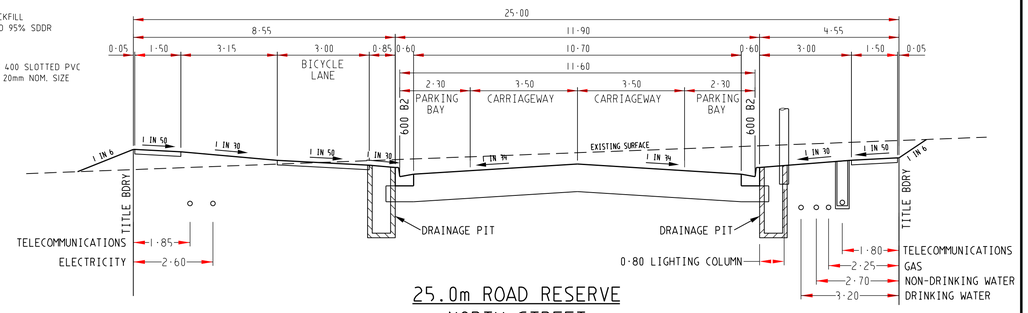
   PAVEMENT TO CONSIST OF: LAVELLE PLACE (450mm DEPTH)
   a) 40mm COMPACTED DEPTH SIZE 14 TYPE N ASHPHALT WITH A C170 BINDER
   b) GLASGRID GG85111TF PLACED AS PER MANUFACTURERS SPECIFICATIONS
   c) 20mm COMPACTED DEPTH SIZE 7 TYPE N ASHPHALT WITH A C170 BINDER
   d) SAMI SEAL WITH CLASS 170R BITUMEN AND A 5mm AGGREGATE
   e) 130mm COMPACTED DEPTH OF 20mm NOMINAL SIZE CLASS 2 FCR, COMPACTED TO AT LEAST 98% MODIFIED DRY DENSITY RATIO WITHIN 1% OF THE MODIFIED OPTIMUM MOISTURE CONTENT.
   f) 110mm COMPACTED DEPTH OF 20mm NOMINAL SIZE CLASS 3 CEMENT MODIFIED CR, COMPACTED TO AT LEAST 98% MODIFIED DRY DENSITY RATIO WITHIN 2% OF THE MODIFIED OPTIMUM MOISTURE CONTENT WITH A MINIMUM YOUNG'S MODULUS OF 500MPa AND A MAXIMUM YOUNG'S MODULUS OF 1500MPa.
   g) 150mm COMPACTED DEPTH OF SELECT GRANULAR MATERIAL "TYPE A" WITH A MINIMUM CBR OF 10% COMPACTED TO 98% STANDARD DRY DENSTIY RATIO WITHIN 1% OF THE STANDARD OPTIMUM MOISTURE CONTENT AND A PERCENTAGE SWELL OF LESS THAN 1.5%
   h) SUBGRADE TO CONSIST OF SILTY CLAY COMPACTED TO AT LEAST 100% STANDARD DRY DENSITY RATIO (SOAKED CBR>2.5%) WITHIN 2% OF THE OPTIMUM MOISTURE CONTENT. SUBGRADE IMPROVEMENT FOR SOFT OR ROCK AREAS, TO BE 150mm MINIMUM DEPTH OF COMPACTED CLASS 3 FCR" OR APPROVED EQUIVALENT MATERIAL.

   PAVEMENT TO CONSIST OF: ETHAN LANE
   a) 200mm CONCRETE PAVEMENT REINFORCED SL82 32MPa
   b) 150mm SUBBASE CLASS 3 CRUSHED ROCK

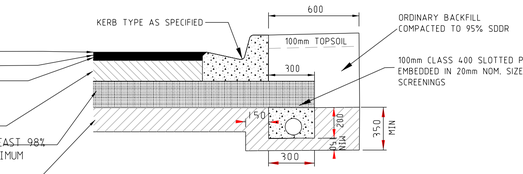
   TOTAL PAVEMENT DEPTH 350mm.
36. PAVEMENT DEPTH MAY BE MODIFIED AS DIRECTED BY THE ENGINEER.
37. ALL 125mm THICK FOOTPATH CONCRETE PAVING TO BE REINFORCED WITH SL72 MESH AND MUST BE CONSTRUCTED WITH A 50mm UNDERLAYER OF 20mm COMPACTED CLASS 3 FCR IN ACCORDANCE WITH EDCM STANDARD DRAWING 401.
38. THE CONTRACTOR 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.



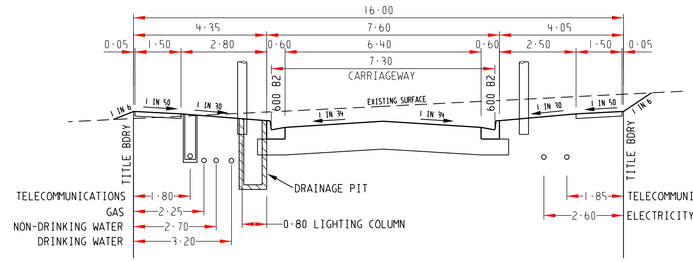
PAVEMENT DETAILS
NORTH STREET



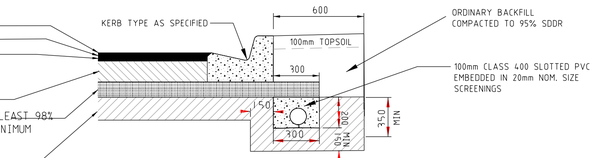
25.0m ROAD RESERVE
NORTH STREET
CONNECTOR ROAD



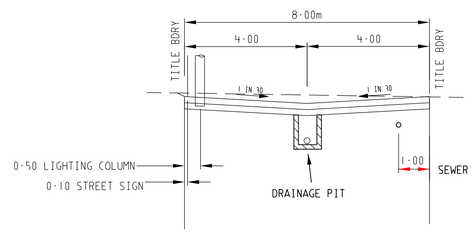
PAVEMENT DETAILS
YORK PARADE



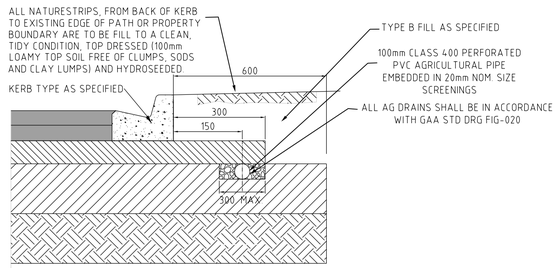
16.0m ROAD RESERVE
YORK PARADE & LAVELLE PLACE
LOCAL ACCESS STREET - LEVEL 1



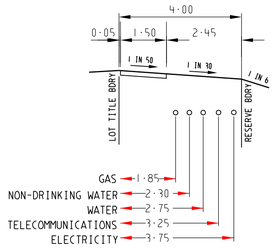
PAVEMENT DETAILS
LAVELLE PLACE



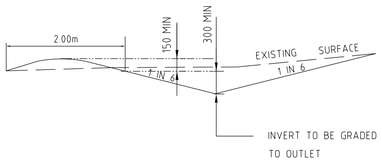
8.0m ROAD RESERVE
ETHAN LANE
LOCAL ACCESS LANE



PAVEMENT COMPOSITION
NOT TO SCALE



4.0m ROAD RESERVE
CANNING WALK



CUT-OFF DRAIN DETAIL
NOT TO SCALE

TYPICAL ROAD CROSS SECTIONS
SCALE HORIZONTAL 1:100
VERTICAL 1:50

AS CONSTRUCTED

VER.	DATE	REMARKS
E	07·03·19	PAVEMENT COMPOSITION UPDATED FOR YORK PARADE AND LAVELLE PLACE
D	25·02·19	CROSS SECTION ETHAN LANE UPDATED
C	18·01·19	NOTE 35 AMENDED
B	05·04·18	SERVICES IN CROSS SECTION OF CANNING WALK
A	20·12·17	ISSUED FOR CONSTRUCTION

AMENDMENTS

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

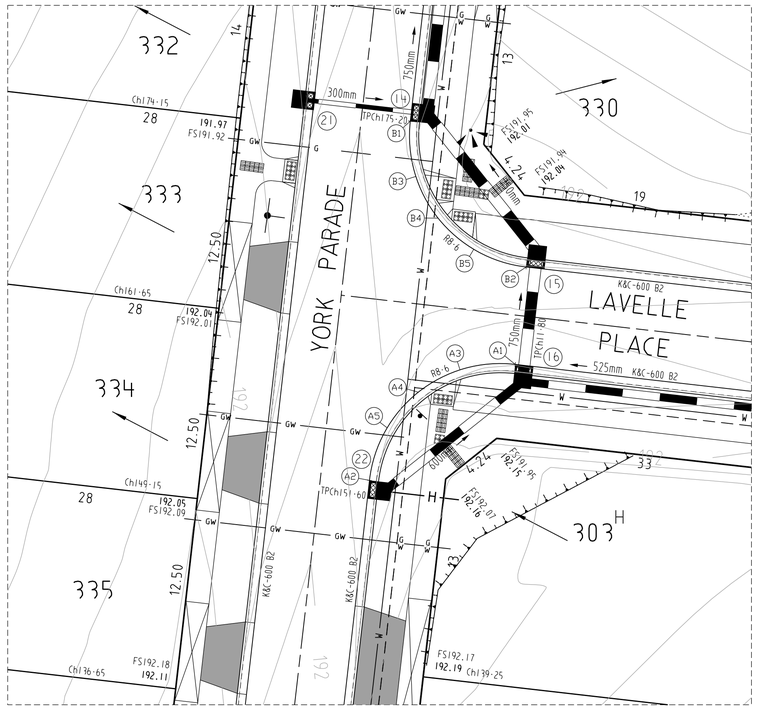
MELWAY REF. 388-C-10
SURVEY BPD
DESIGN SS
DRAWN RGW
CHECKED

RATHDOWNE ESTATE
STAGE 3
NOTES AND LOCALITY PLAN

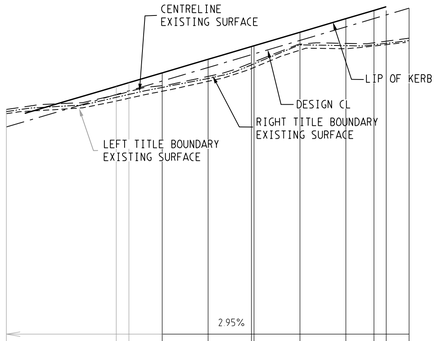
SCALE AS SHOWN DATUM AHD DATE OCT'17

MUNICIPALITY WHITTLESEA
REFERENCE 9365 E/3
SHEET 2 OF 11 E

Plotted:17/07/2019
J:\9365\Eng\Stage 3\E03_RDZ_NOTE_B.dgn



INTERSECTION YORK PARADE AND LAVELLE PLACE



TRUE LEFT & RIGHT ARE IN THE DIRECTION OF THE INCREASING CHAINAGE

VC LENGTH

DESIGN GRADELINE

DATUM 186

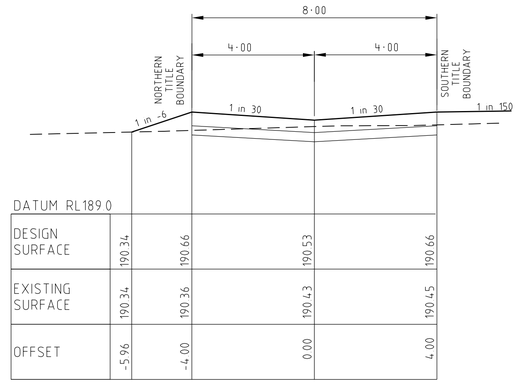
ES LEFT TITLE BDY	190.00		190.20	190.25	190.36	190.53	190.74	190.75	191.04	191.06	191.10	191.13
FS LEFT TITLE BDY			190.44	190.50	190.66	190.89	191.09	191.11	191.33	191.55	191.68	191.74
LEFT LIP OF KERB			190.44	190.50	190.66	190.89	191.09	191.11	191.33	191.55	191.68	191.74
DESIGN CL	189.78		190.31	190.37	190.53	190.75	190.96	190.97	191.19	191.42	191.55	191.61	191.72
RIGHT LIP OF KERB			190.44	190.50	190.66	190.89	191.09	191.11	191.33	191.55	191.68	191.74
FS RIGHT TITLE BDY			190.44	190.50	190.66	190.89	191.09	191.11	191.33	191.55	191.68	191.74
ES RIGHT TITLE BDY	190.07		190.33	190.36	190.45	190.61	190.83	190.84	191.13	191.15	191.15	191.18	191.22
CHAINAGE CENTRE LINE	0.00		17.93	20.00	25.43	32.93	40.00	40.43	47.93	55.43	60.00	62.00	65.75

LONGITUDINAL SECTION

SCALE HORIZONTAL 1:500
VERTICAL 1:50

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

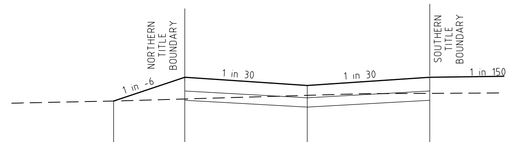
ETHAN LANE



DATUM RL189.0

DESIGN SURFACE	190.34	190.66	190.53	190.66
EXISTING SURFACE	190.34	190.36	190.43	190.45
OFFSET	-5.96	-4.00	0.00	4.00

25.43



DATUM RL189.0

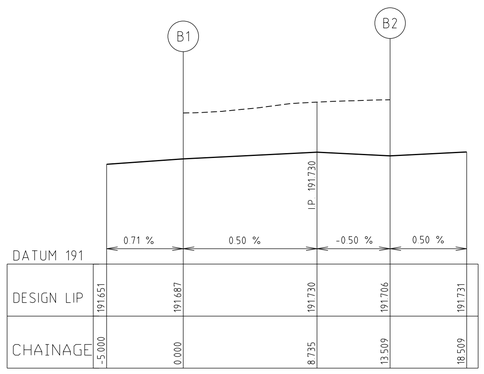
DESIGN SURFACE	190.72	191.11	190.97	191.11
EXISTING SURFACE	190.72	190.75	190.81	190.84
OFFSET	-6.32	-4.00	0.00	4.00

40.42

Alignment B

	Point no	Easting	Northing	RL
B	1	322442.592	5836994.537	191.687
B	2	322450.164	5836985.019	191.706
B	3	322442.949	5836990.935	191.705
B	4	322444.407	5836988.209	191.720
B	5	322446.735	5836986.176	191.725

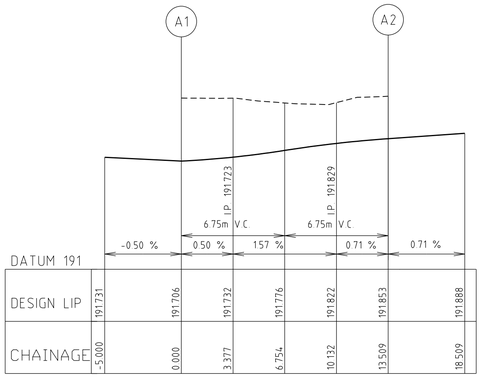
	Curve no	Radius	Chord	Mid Ord	Qtr Ord	Mid Ord RL
B	1 2	-8.600	12.162	2.519	1.963	191.720



DATUM 191

DESIGN LIP	191.651	191.687	191.730	191.706	191.731
CHAINAGE	-5.000	0.000	8.735	13.509	18.509

LIP LINE B



DATUM 191

DESIGN LIP	191.731	191.706	191.732	191.776	191.822	191.853	191.888
CHAINAGE	-5.000	0.000	3.377	6.754	10.132	13.509	18.509

LIP LINE A

Alignment A

	Point no	Easting	Northing	RL
A	1	322449.440	5836978.660	191.706
A	2	322439.922	5836971.088	191.853
A	3	322445.838	5836978.303	191.735
A	4	322443.113	5836976.845	191.776
A	5	322441.080	5836974.518	191.819

	Curve no	Radius	Chord	Mid Ord	Qtr Ord	Mid Ord RL
A	1 2	-8.600	12.162	2.519	1.963	191.776

LIP OF KERB PROFILES

SCALE: HORIZONTAL 1:200
VERTICAL 1:20

INTERSECTION DETAILS

SCALE 1:200
SCALE 1 : 200

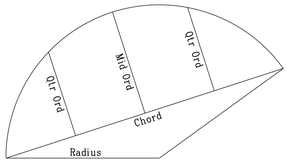
4 2 0 4 8 16
LENGTHS ARE IN METRES

CROSS SECTIONS

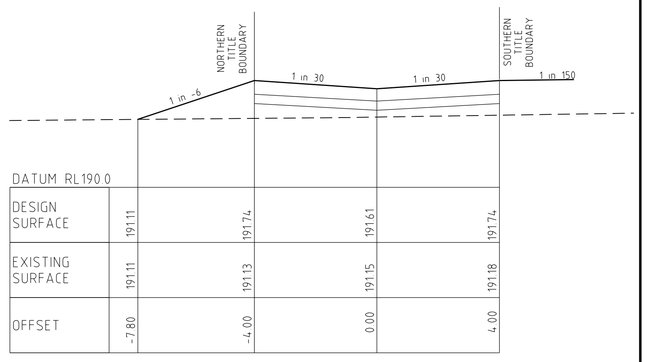
SCALE HORIZONTAL 1:100
VERTICAL 1:50

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

CRUSHED ROCK BACKFILL



CURVE SETOUT DIAGRAM



DATUM RL190.0

DESIGN SURFACE	191.11	191.74	191.61	191.74
EXISTING SURFACE	191.11	191.13	191.15	191.18
OFFSET	-7.80	-4.00	0.00	4.00

62.00

AS CONSTRUCTED

AMENDMENTS		
B	13·04·18	CROSS SECTIONS AMENDED
A	20·12·17	ISSUED FOR CONSTRUCTION
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

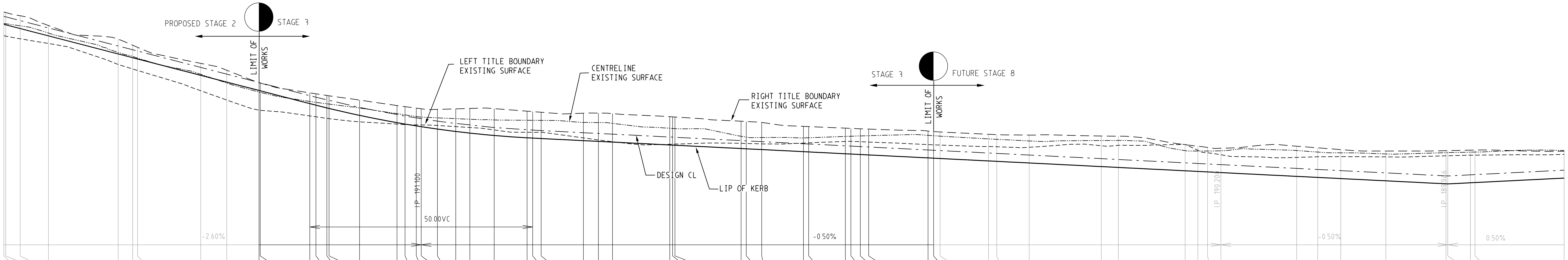
MELWAY REF.	388-C-10
SURVEY	BPD
DESIGN	SS
DRAWN	RGW
CHECKED	

RATHDOWNE ESTATE
STAGE 3
INTERSECTION DETAILS & ETHAN LANE

MUNICIPALITY: WHITTLESEA
REFERENCE: 9365 E/3

SCALE AS SHOWN | DATUM AHD | DATE OCT'17 | SHEET 3 OF 11 | B

J:\H9365\Eng\Stage 3\E03_R03_INT.dgn
Plotted:11/04/2018



TRUE LEFT & RIGHT ARE IN
THE DIRECTION OF THE
INCREASING CHAINAGE

VC LENGTH

DESIGN GRADELINE

DATUM 188

ES LEFT TITLE BDY	193.10	193.09	193.03	192.92	192.45	192.35	192.32	191.87	191.65	191.42	191.42	191.29	191.27	191.24	191.23	191.16
FS LEFT TITLE BDY	193.69	193.68	193.59	193.43	193.02	192.94	192.91	192.54	192.39	192.20	192.19	191.91	191.87	191.81	191.80	191.64
LEFT LIP OF KERB	193.35	193.34	193.26	193.09	192.69	192.60	192.57	192.21	192.05	191.87	191.86	191.57	191.54	191.47	191.46	191.31
DESIGN CL	193.53	193.52	193.44	193.27	192.86	192.78	192.75	192.38	192.23	192.04	192.04	191.75	191.71	191.65	191.64	191.49
RIGHT LIP OF KERB	193.35					192.60	192.57	192.21	192.05	191.87	191.86	191.57	191.54	191.47	191.46	191.31
FS RIGHT TITLE BDY	193.59					192.84	192.81	192.45	192.30	192.11	192.10	191.81	191.78	191.72	191.70	191.55
ES RIGHT TITLE BDY	193.63	193.62	193.55	193.33	193.02	192.88	192.84	192.47	192.32	192.04	192.03	191.81	191.79	191.75	191.75	191.65
CHAINAGE CENTRE LINE	250.00	250.43	253.67	260.00	275.66	278.90	280.00	294.16	300.00	307.25	307.51	318.63	320.00	322.45	322.94	329.79

ES LEFT TITLE BDY	191.11	191.10	191.09	191.09	191.08	191.05	191.03	190.98	190.93	190.93	190.93	190.80	190.75	190.71	190.66	190.66	190.66
FS LEFT TITLE BDY	191.48	191.45	191.40	191.39	191.33	191.28	191.24	191.19	191.14	191.13	191.12	191.07	191.06	191.04	190.98	190.97	190.97
LEFT LIP OF KERB	191.14	191.11	191.07	191.05	191.00	190.95	190.91	190.86	190.80	190.80	190.79	190.74	190.72	190.71	190.64	190.64	190.64
DESIGN CL	191.32	191.29	191.25	191.23	191.18	191.12	191.09	191.03	190.98	190.97	190.97	190.92	190.90	190.88	190.82	190.82	190.81
RIGHT LIP OF KERB	191.14	191.11	191.07	191.05	191.00	190.95	190.91	190.86	190.80	190.80	190.79	190.74	190.72	190.71	190.64	190.64	190.64
FS RIGHT TITLE BDY	191.38	191.35	191.31	191.29	191.24	191.19	191.15	191.10	191.04	191.04	191.03	190.98	190.96	190.95	190.88	190.88	190.88
ES RIGHT TITLE BDY	191.53	191.50	191.47	191.45	191.44	191.45	191.46	191.46	191.40	191.39	191.38	191.36	191.36	191.35	191.28	191.27	191.27
CHAINAGE CENTRE LINE	338.19	340.00	342.52	343.63	347.26 TPCH	351.37	354.53	360.00	367.37	368.63	370.53	380.00	383.37	386.53	399.37	400.00	400.53

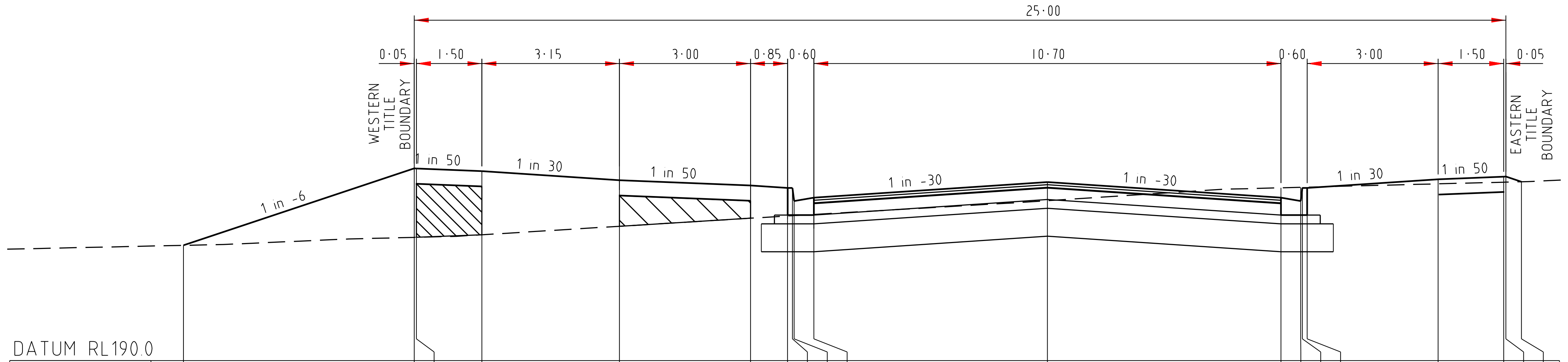
ES LEFT TITLE BDY	190.68	190.68	190.67	190.68	190.69	190.72	190.72	190.72	190.71	190.65	190.64	190.64	190.61	190.60	190.59
FS LEFT TITLE BDY	190.90	190.89	190.87	190.83	190.82	190.78	190.77	190.76	190.75	190.69	190.68	190.67	190.62	190.61	190.57
LEFT LIP OF KERB	190.56	190.56	190.54	190.49	190.49	190.44	190.44	190.43	190.42	190.35	190.34	190.34	190.28	190.27	190.24
DESIGN CL	190.74	190.73	190.72	190.67	190.66	190.62	190.62	190.61	190.60	190.53	190.52	190.52	190.46	190.45	190.42
RIGHT LIP OF KERB	190.56	190.56	190.54	190.49	190.49	190.44	190.44	190.43	190.42	190.35	190.34	190.34	190.28	190.27	190.24
FS RIGHT TITLE BDY	190.80	190.80	190.78	190.73	190.73	190.69	190.68	190.67	190.66	190.59	190.64	190.58	190.52	190.52	190.48
ES RIGHT TITLE BDY	191.18	191.17	191.15	191.06	191.05	191.02	191.01	191.01	191.00	190.95	190.94	190.93	190.88	190.87	190.86
CHAINAGE CENTRE LINE	415.37	416.53	420.00	429.37	430.53	438.77 TPCH	440.00	442.12	444.00	457.31	458.56	460.00	470.87	472.71	480.00

ES LEFT TITLE BDY			190.65	190.52	190.46	190.42	190.36	190.38	190.38	190.37	190.40	190.40	190.41	190.41	190.43
FS LEFT TITLE BDY	190.49	190.47	190.40	190.38	190.37	190.36	190.27	190.25	190.22	190.17	190.10	190.10	190.13	190.13	190.23
LEFT LIP OF KERB	190.16	190.14	190.06	190.05	190.04	190.02	189.94	189.91	189.89	189.84	189.77	189.77	189.79	189.80	189.90
DESIGN CL	190.33	190.32	190.24	190.23	190.22	190.20	190.12	190.09	190.07	190.02	189.95	189.95	189.97	189.98	190.08
RIGHT LIP OF KERB	190.16	190.14	190.06	190.05	190.04	190.02	189.94	189.91	189.89	189.84	189.77	189.77	189.79	189.80	189.90
FS RIGHT TITLE BDY	190.40	190.38	190.30	190.29	190.28	190.26	190.18	190.15	190.13	190.08	190.01	190.01	190.03	190.04	190.14
ES RIGHT TITLE BDY	190.84	190.84	190.65	190.61	190.59	190.57	190.61	190.58	190.54	190.51	190.51	190.51	190.52	190.53	190.50
CHAINAGE CENTRE LINE	496.18	500.00	514.97	517.83	520.00	523.00	540.00	544.73	549.89	560.00	573.49	573.89	578.96	580.00	600.00

LONGITUDINAL SECTION

SCALE HORIZONTAL 1:500
VERTICAL 1:50

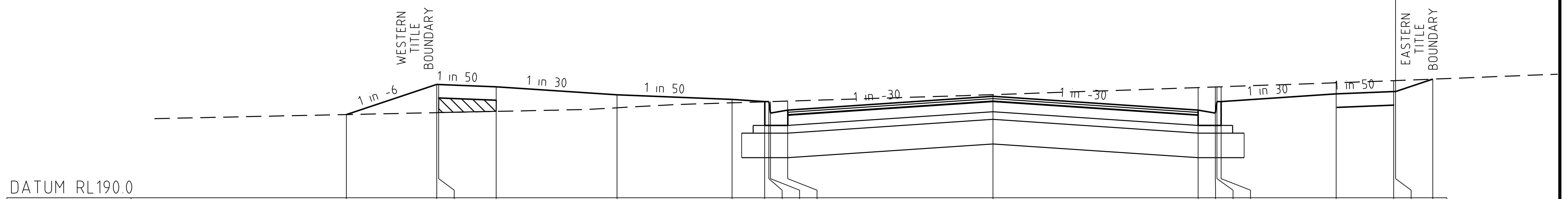
1:50 1 0.5 00 1 2 4
1:500 10 5 00 10 20 40



DATUM RL190.0

DESIGN SURFACE	191.32	192.20	192.20	192.17	192.06	192.00	191.98	191.98	191.83	191.87	192.04	191.87	191.83	191.98	191.98	192.08	192.11	192.11	192.05
EXISTING SURFACE	191.32	191.41	191.41	191.44	191.54	191.63	191.66	191.66	191.66	191.67	191.83	191.98	191.98	191.98	191.99	192.02	192.04	192.04	192.05
OFFSET	-19.79	-14.50	-14.45	-12.95	-9.80	-6.80	-5.95	-5.84	-5.80	-5.35	0.00	5.35	5.80	5.84	5.95	8.95	10.45	10.50	10.86

307.25



DATUM RL190.0

DESIGN SURFACE	191.08	191.48	191.48	191.45	191.34	191.28	191.25	191.25	191.10	191.14	191.32	191.14	191.10	191.25	191.25	191.35	191.38	191.38	191.55
EXISTING SURFACE	191.08	191.11	191.11	191.13	191.17	191.24	191.25	191.25	191.25	191.26	191.34	191.44	191.44	191.44	191.45	191.50	191.53	191.53	191.55
OFFSET	-16.86	-14.50	-14.45	-12.95	-9.80	-6.80	-5.95	-5.84	-5.80	-5.35	0.00	5.35	5.80	5.84	5.95	8.95	10.45	10.50	11.47

338.19

AS CONSTRUCTED

▨ CRUSHED ROCK BACKFILL

NORTH STREET

CROSS SECTIONS

SCALE HORIZONTAL 1:100
VERTICAL 1:50

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

VER.	DATE	REMARKS
A	20·12·17	ISSUED FOR CONSTRUCTION

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	SS
DRAWN	RGW
CHECKED	

RATHDOWNE ESTATE
STAGE 3
NORTH STREET

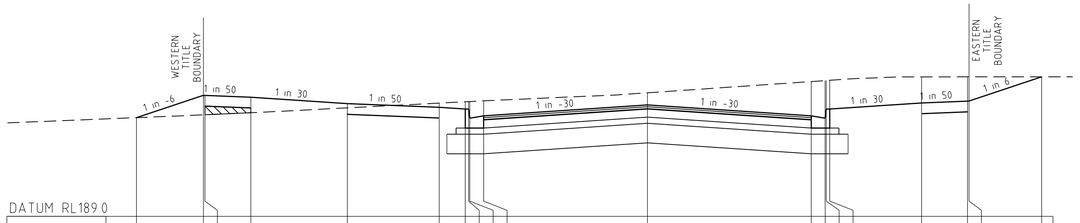
MUNICIPALITY WHITTLESEA

REFERENCE 9365 E/3

SCALE AS SHOWN | DATUM AHD | DATE OCT'17 | SHEET 4 OF 11 | B

Plotted: 11/04/2018

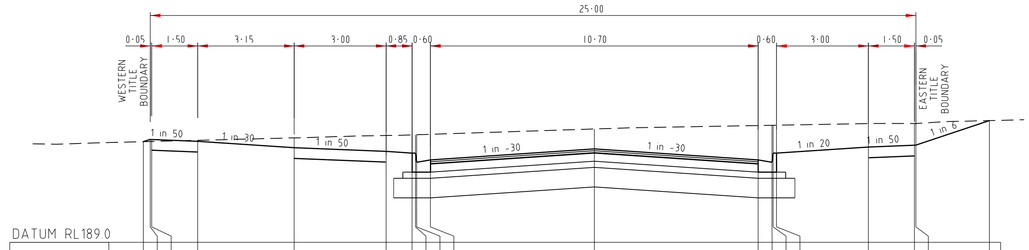
J:\N9365\Eng\Stage 3\E03_R04_NSLSXS.dgn



DATUM RL189.0

DESIGN SURFACE	190.61	190.98	190.98	190.95	190.84	190.78	190.75	190.75	190.60	190.64	190.82	190.64	190.60	190.22	190.75	190.85	190.88	190.88	191.28
EXISTING SURFACE	190.61	190.66	190.66	190.69	190.77	190.85	190.87	190.87	190.87	190.89	191.02	191.20	191.22	191.22	191.22	191.28	191.28	191.28	191.28
OFFSET	-16.69	-14.50	-14.45	-12.95	-9.80	-6.80	-5.95	-5.84	-5.80	-5.35	0.00	5.35	5.80	5.84	5.95	8.95	10.45	10.50	12.87

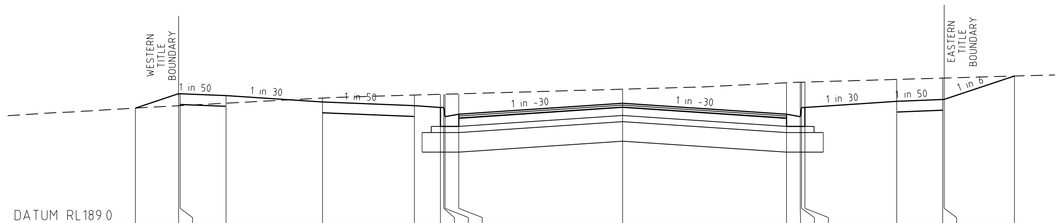
399.37



DATUM RL189.0

DESIGN SURFACE	190.64	190.68	190.68	190.65	190.54	190.48	190.45	190.45	190.30	190.34	190.52	190.34	190.30	190.45	190.45	190.60	190.63	190.64	190.99
EXISTING SURFACE	190.64	190.64	190.65	190.66	190.70	190.74	190.75	190.75	190.75	190.76	190.85	190.91	190.91	190.91	190.91	190.94	190.94	190.94	190.99
OFFSET	-14.73	-14.50	-14.45	-12.95	-9.80	-6.80	-5.95	-5.84	-5.80	-5.35	0.00	5.35	5.80	5.84	5.95	8.95	10.45	10.50	12.90

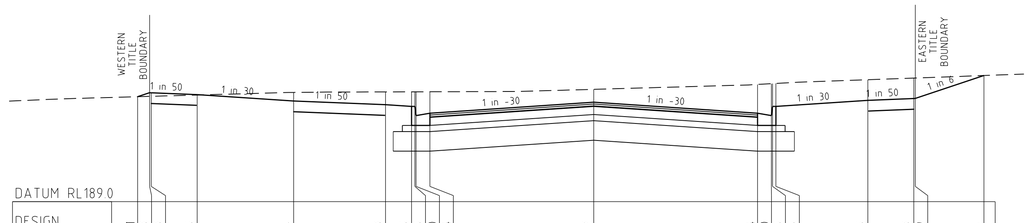
458.56



DATUM RL189.0

DESIGN SURFACE	190.89	191.12	191.12	191.09	190.99	190.93	190.90	190.90	190.79	190.79	190.97	190.79	190.75	190.90	190.90	191.00	191.03	191.03	191.41
EXISTING SURFACE	190.89	190.92	190.93	190.97	191.05	191.10	191.11	191.11	191.75	191.12	191.19	191.30	191.31	191.31	191.31	191.35	191.38	191.38	191.41
OFFSET	-15.91	-14.50	-14.45	-12.95	-9.80	-6.80	-5.95	-5.84	-5.80	-5.35	0.00	5.35	5.80	5.84	5.95	8.95	10.45	10.50	12.79

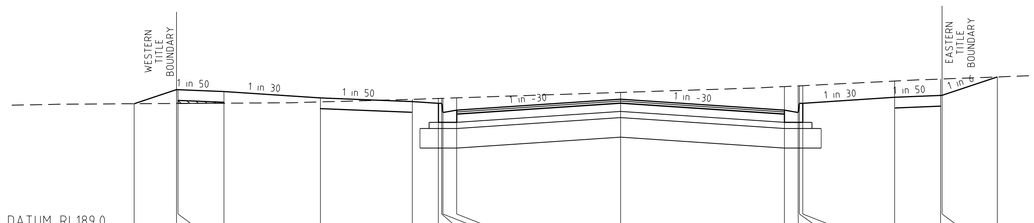
370.53



DATUM RL189.0

DESIGN SURFACE	190.71	190.78	190.78	190.75	190.64	190.58	190.55	190.55	190.40	190.44	190.62	190.44	190.40	190.55	190.55	190.65	190.68	190.69	191.06
EXISTING SURFACE	190.71	190.72	190.72	190.74	190.78	190.79	190.79	190.79	190.79	190.79	190.83	190.91	190.93	190.93	190.93	190.99	191.02	191.02	191.06
OFFSET	-14.89	-14.50	-14.45	-12.95	-9.80	-6.80	-5.95	-5.84	-5.80	-5.35	0.00	5.35	5.80	5.84	5.95	8.95	10.45	10.50	12.74

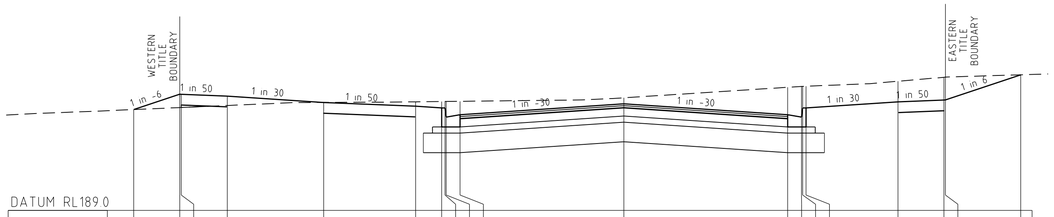
438.77



DATUM RL189.0

DESIGN SURFACE	191.05	191.28	191.28	191.25	191.14	191.08	191.06	191.06	190.91	190.95	191.12	190.95	190.91	191.06	191.06	191.16	191.19	191.19	191.49
EXISTING SURFACE	191.05	191.05	191.05	191.06	191.08	191.12	191.14	191.14	191.14	191.15	191.23	191.33	191.34	191.34	191.34	191.42	191.45	191.45	191.49
OFFSET	-15.88	-14.50	-14.45	-12.95	-9.80	-6.80	-5.95	-5.84	-5.80	-5.35	0.00	5.35	5.80	5.84	5.95	8.95	10.45	10.50	12.30

351.37



DATUM RL189.0

DESIGN SURFACE	190.65	190.90	190.90	190.87	190.76	190.70	190.67	190.67	190.52	190.56	190.74	190.56	190.52	190.67	190.67	190.77	190.80	190.80	191.21
EXISTING SURFACE	190.65	190.68	190.68	190.71	190.76	190.77	190.78	190.78	190.78	190.78	190.84	191.01	191.02	191.02	191.03	191.11	191.17	191.17	191.21
OFFSET	-16.00	-14.50	-14.45	-12.95	-9.80	-6.80	-5.95	-5.84	-5.80	-5.35	0.00	5.35	5.80	5.84	5.95	8.95	10.45	10.50	12.96

415.37

NORTH STREET

AS CONSTRUCTED

CROSS SECTIONS

SCALE HORIZONTAL 1:100
VERTICAL 1:50

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

CRUSHED ROCK BACKFILL

AMENDMENTS

VER.	DATE	REMARKS
A	20·12·17	ISSUED FOR CONSTRUCTION

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	SS
DRAWN	RGW
CHECKED	

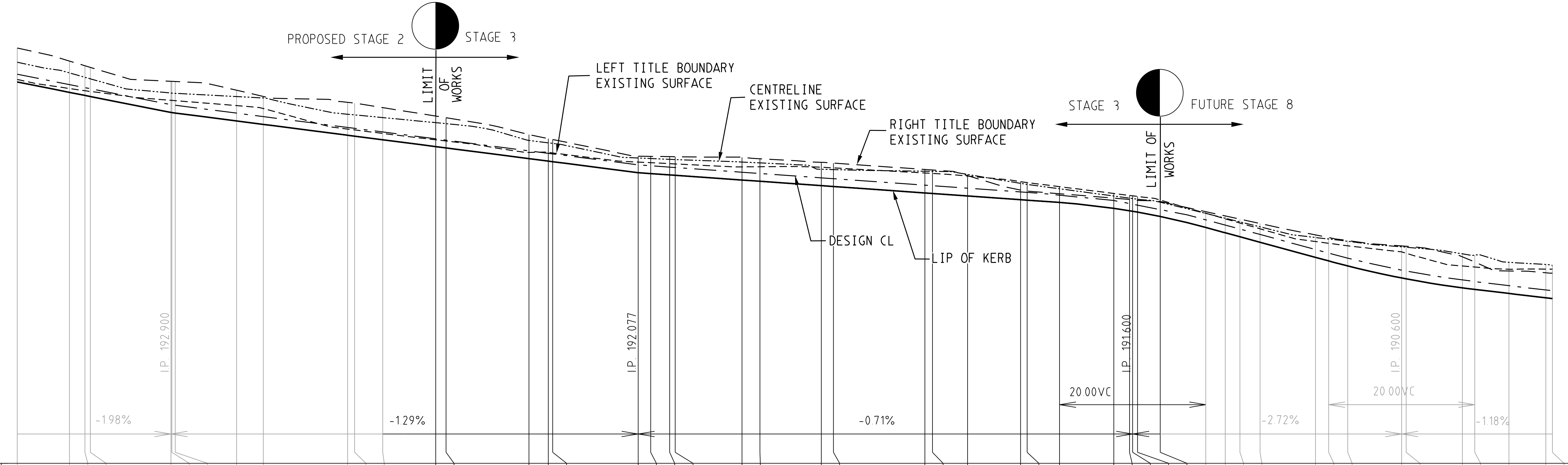
RATHDOWNE ESTATE
STAGE 3
NORTH STREET

MUNICIPALITY: WHITTLESEA
REFERENCE: 9365 E/3

SCALE AS SHOWN | DATUM AHD | DATE OCT'17 | SHEET 5 OF 11 | B

J:\H9365\Eng\Stage 3\E03_R05_NS15.dgn
Plotted:17/04/2018

TRUE LEFT & RIGHT ARE IN
THE DIRECTION OF THE
INCREASING CHAINAGE.



VC LENGTH

DESIGN GRADELINE

ES LEFT TITLE BDY	193.24	193.12	193.09	193.08	192.96	192.96	192.96	192.89	192.85	192.57	192.56	192.51	192.42
FS LEFT TITLE BDY	193.43	193.29	193.25	193.24	193.02	193.02	193.01	192.90	192.86	192.71	192.69	192.64	192.55
LEFT LIP OF KERB	193.21	193.07	193.03	193.01	192.79	192.79	192.79	192.68	192.63	192.48	192.47	192.42	192.33
DESIGN CL	193.32	193.17	193.13	193.12	192.90	192.90	192.89	192.78	192.74	192.59	192.58	192.53	192.43
RIGHT LIP OF KERB	193.21	193.07	193.03	193.01	192.79	192.79	192.79	192.68	192.63	192.48	192.47	192.42	192.33
FS RIGHT TITLE BDY	193.44	193.30	193.26	193.25	193.03	193.03	193.02				192.70	192.65	192.56
ES RIGHT TITLE BDY	193.67	193.50	193.43	193.41	193.22	193.22	193.22	193.10	193.01	192.93	192.92	192.86	192.74
CHAINAGE CENTRE LINE	50.00	57.15	59.25	60.00	71.03	71.15	71.60	80.00	83.65	95.20	96.15	100.00	107.25

ES LEFT TITLE BDY	192.40	192.25	192.25	192.24	192.12	192.11	192.09	192.09	192.05	192.05	192.05	192.04	191.97
FS LEFT TITLE BDY	192.53	192.39	192.35	192.35	192.19	192.18	192.16	192.16	192.09	192.08	192.02	192.01	191.92
LEFT LIP OF KERB	192.31	192.16	192.13	192.12	191.97	191.96	191.94	191.93	191.87	191.85	191.79	191.78	191.69
DESIGN CL	192.42	192.27	192.24	192.23	192.08	192.07	192.05	192.04	191.98	191.96	191.90	191.89	191.80
RIGHT LIP OF KERB	192.31	192.16	192.13	192.12	191.97	191.96	191.94	191.93	191.87	191.85	191.79	191.78	191.69
FS RIGHT TITLE BDY	192.54	192.40	192.36	192.36	192.20	192.19	192.17	192.17	192.10	192.09			
ES RIGHT TITLE BDY	192.72	192.49	192.44	192.42	192.20	192.19	192.19	192.19	192.18	192.16	192.11	192.10	192.01
CHAINAGE CENTRE LINE	108.65	120.00	122.65	123.25	134.94	136.65	139.25	140.00	149.15	151.60	160.00	161.65	174.15
										TPCH			

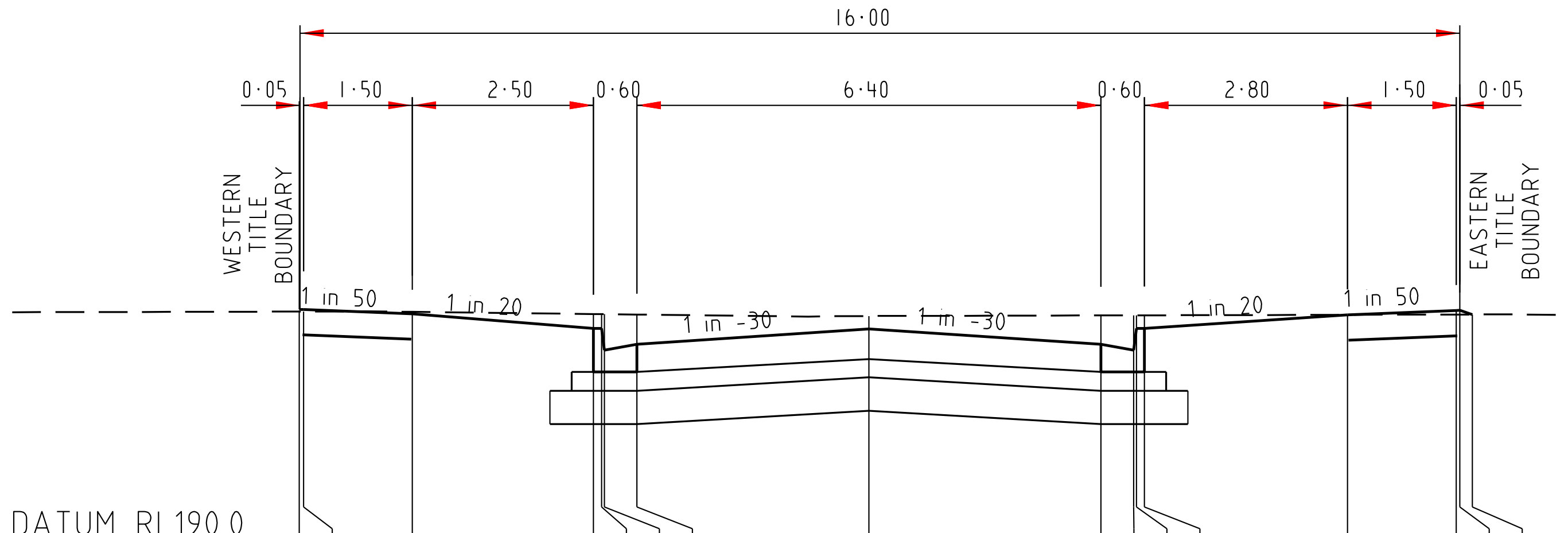
ES LEFT TITLE BDY	191.96	191.92	191.85	191.84	191.78	191.69	191.66	191.65	191.65	191.60	191.42	191.34	191.28
FS LEFT TITLE BDY	191.91	191.88	191.83	191.82	191.79	191.71	191.67	191.67	191.66	191.65	191.45	191.37	191.32
LEFT LIP OF KERB	191.69	191.65	191.60	191.60	191.56	191.48	191.45	191.44	191.43	191.37	191.22	191.15	191.09
DESIGN CL	191.79	191.76	191.71	191.70	191.67	191.59	191.56	191.55	191.54	191.48	191.33	191.26	191.20
RIGHT LIP OF KERB	191.69	191.65	191.60	191.60	191.56	191.48	191.45	191.44	191.43	191.37	191.22	191.15	191.09
FS RIGHT TITLE BDY		191.89	191.84	191.83	191.80	191.72	191.68	191.68	191.67	191.66	191.46	191.38	191.33
ES RIGHT TITLE BDY	192.01	191.93	191.73	191.72	191.68	191.62	191.61	191.60	191.59	191.58	191.44	191.38	191.34
CHAINAGE CENTRE LINE	175.20	180.00	187.25	188.15	192.58	200.00	202.15	202.58	203.25	206.35	212.58	215.25	217.25
	TPCH												

ES LEFT TITLE BDY	191.20	191.03	191.01	190.97	190.89	190.87					
FS LEFT TITLE BDY	191.24	191.04	190.99	190.92	190.76	190.74	190.62	190.60	190.54	190.49	190.47
LEFT LIP OF KERB	191.02	190.81	190.77	190.70	190.53	190.52	190.40	190.38	190.32	190.26	190.25
DESIGN CL	191.13	190.92	190.87	190.80	190.64	190.63	190.50	190.48	190.43	190.37	190.36
RIGHT LIP OF KERB	191.02	190.81	190.77	190.70	190.53	190.52	190.40	190.38	190.32	190.26	190.25
FS RIGHT TITLE BDY	191.25	191.05	191.00	190.93	190.77	190.75	190.63	190.61	190.55	190.50	190.48
ES RIGHT TITLE BDY	191.28	191.12	191.08	191.05	190.97	190.97	190.82	190.75	190.63	190.60	190.60
CHAINAGE CENTRE LINE	220.00	227.60	229.39	232.01	239.39	240.00	247.68	249.39	254.05	259.09	260.00

LONGITUDINAL SECTION

SCALE HORIZONTAL 1:500
VERTICAL 1:50

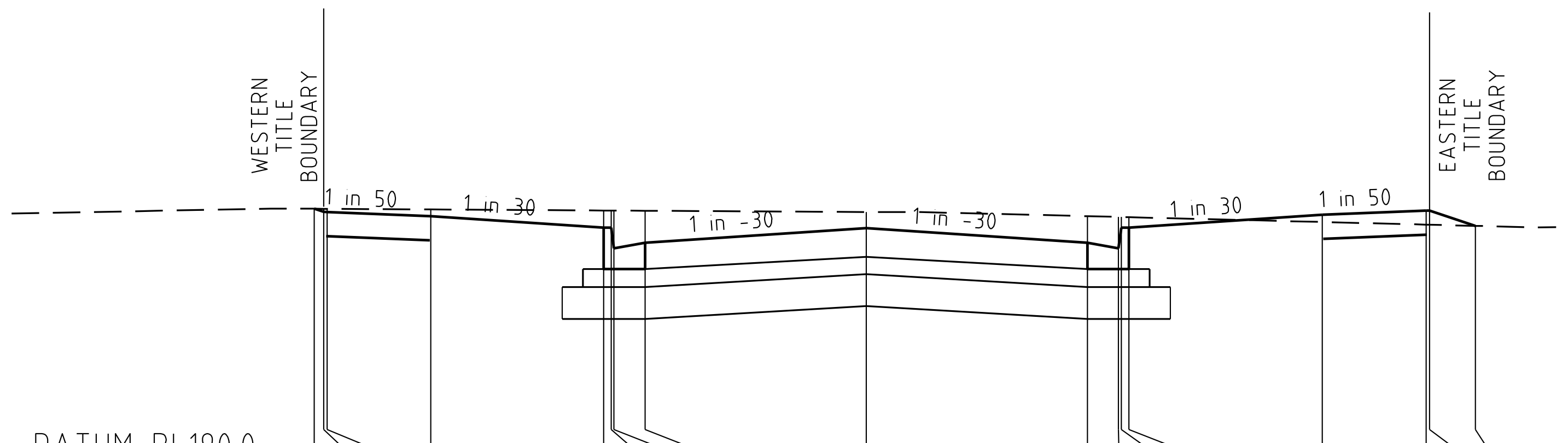
1:50 1 0.5 00 1 2 4
1:500 10 5 00 10 20 40



DATUM RL190.0

DESIGN SURFACE	191.65	191.64	191.61	191.48	191.48	191.33	191.37	191.48	191.37	191.33	191.48	191.48	191.62	191.65	191.66	191.58
EXISTING SURFACE	191.60	191.60	191.60	191.58	191.58	191.58	191.58	191.57	191.57	191.57	191.57	191.57	191.57	191.58	191.58	191.58
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	6.60	8.10	8.15	8.32

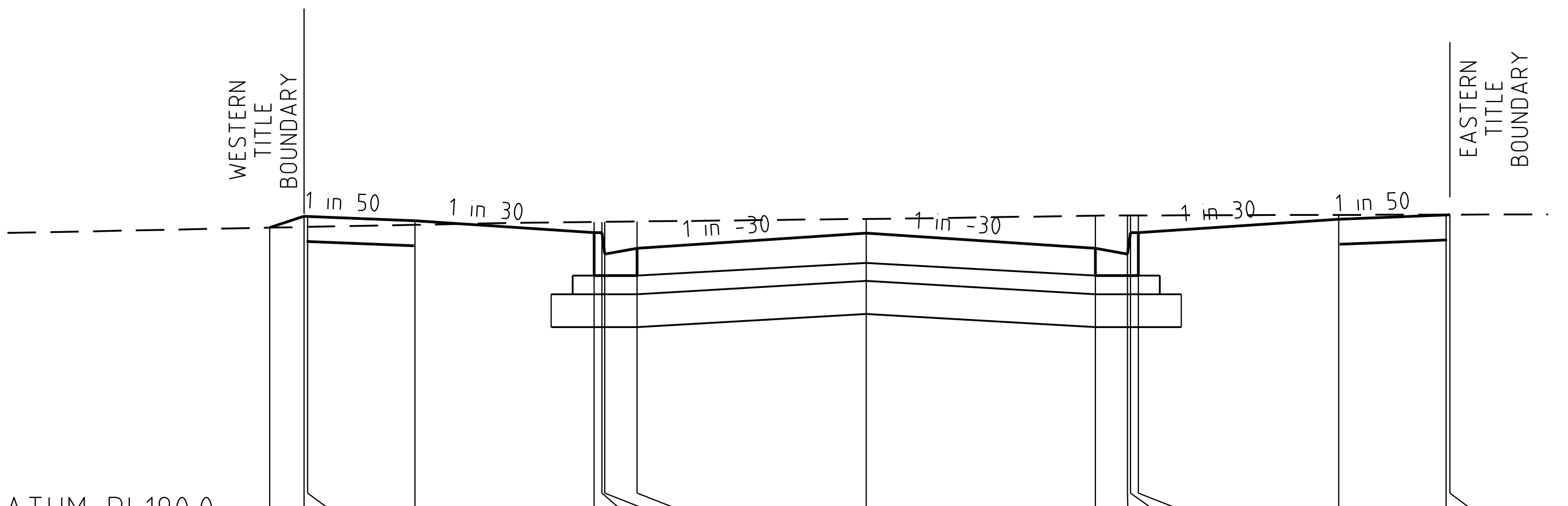
206.35



DATUM RL190.0

DESIGN SURFACE	191.85	191.83	191.82	191.79	191.71	191.71	191.56	191.60	191.71	191.60	191.56	191.71	191.71	191.80	191.83	191.84	191.72
EXISTING SURFACE	191.85	191.85	191.85	191.84	191.84	191.84	191.84	191.83	191.82	191.79	191.79	191.79	191.79	191.75	191.73	191.73	191.72
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	8.82

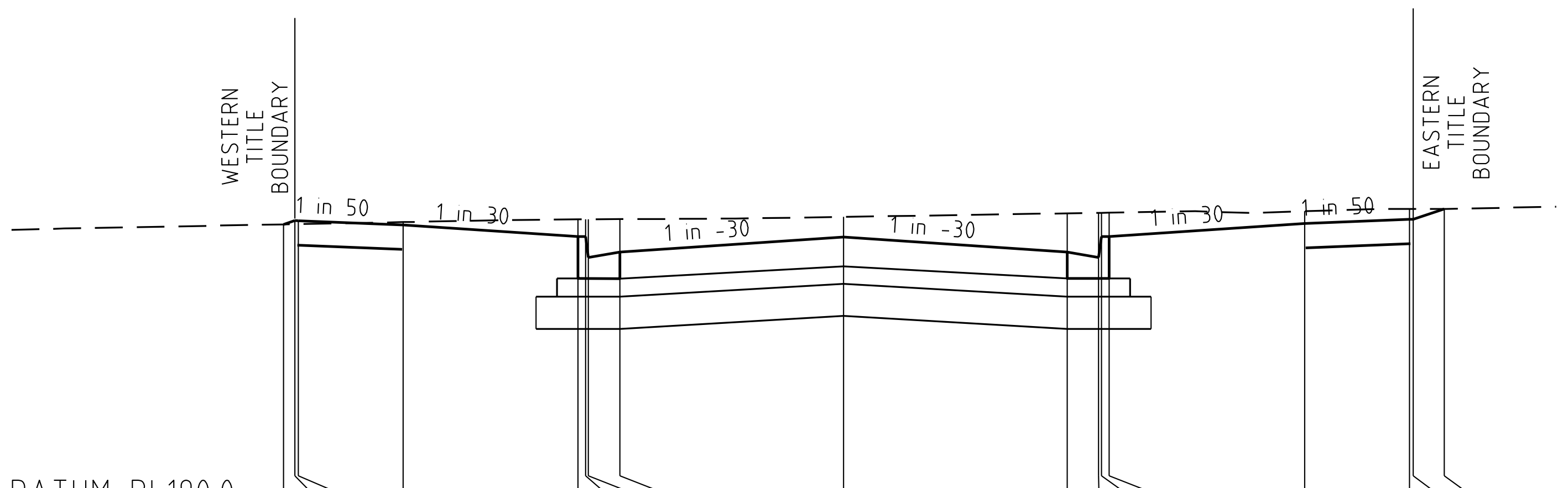
187.25



DATUM RL190.0

DESIGN SURFACE	192.10	192.18	192.18	192.15	192.07	192.07	191.92	191.96	192.07	191.96	191.92	192.07	192.07	192.16	192.19	192.19
EXISTING SURFACE	192.10	192.11	192.11	192.12	192.14	192.14	192.14	192.15	192.16	192.19	192.19	192.19	192.19	192.19	192.19	192.19
OFFSET	-8.33	-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

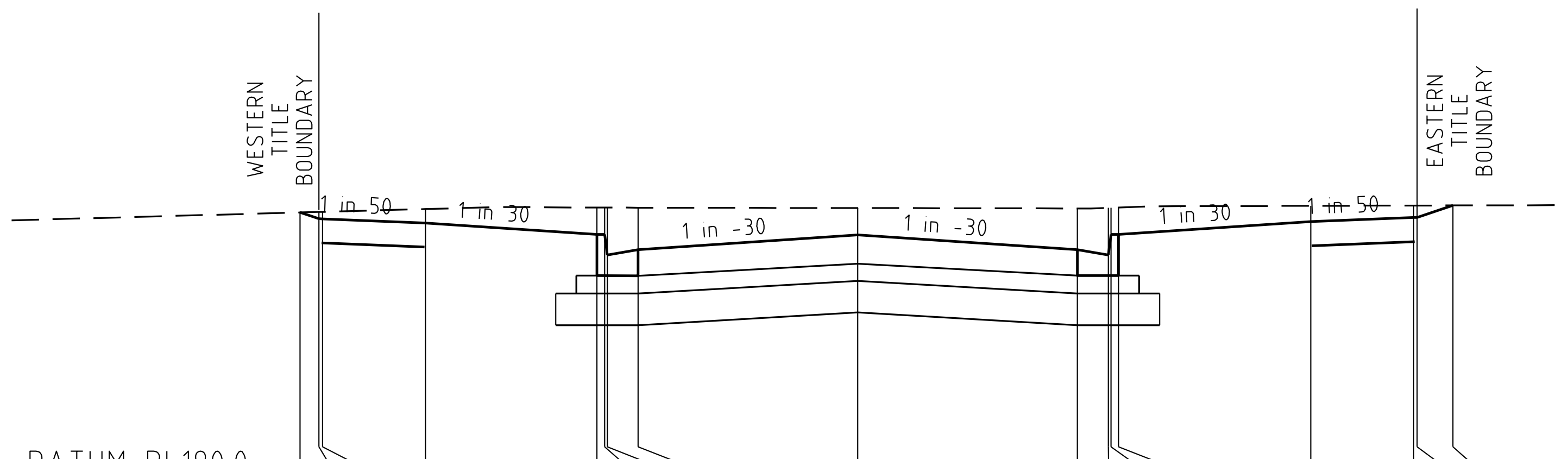
136.65



DATUM RL190.0

DESIGN SURFACE	192.05	192.08	192.08	192.05	191.96	191.96	191.81	191.85	191.96	191.85	191.81	191.96	191.96	192.06	192.09	192.09	192.16
EXISTING SURFACE	192.05	192.05	192.05	192.07	192.09	192.09	192.09	192.09	192.10	192.13	192.13	192.13	192.13	192.14	192.16	192.16	192.16
OFFSET	-8.01	-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	8.60

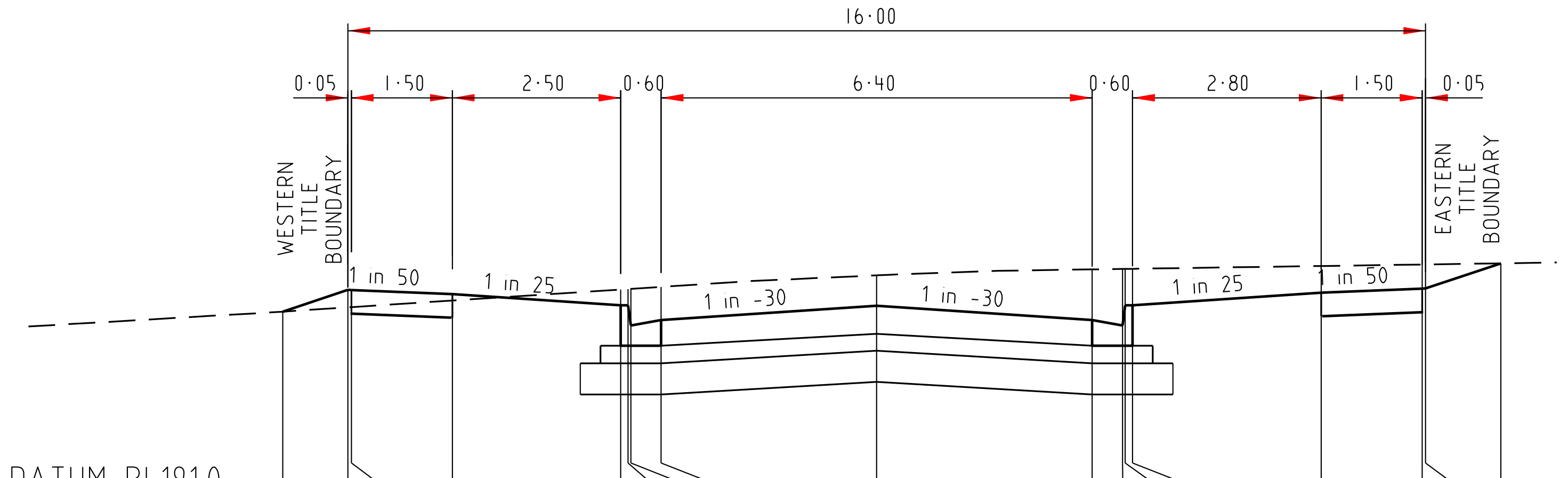
151.60



DATUM RL190.0

DESIGN SURFACE	191.96	191.91	191.91	191.88	191.80	191.80	191.65	191.69	191.79	191.69	191.65	191.80	191.80	191.89	191.92	191.92	192.01
EXISTING SURFACE	191.96	191.96	191.96	191.98	191.99	191.99	191.99	191.99	191.99	191.99	191.99	191.99	191.99	192.01	192.01	192.01	192.01
OFFSET	-8.13	-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	8.67

175.20



DATUM RL191.0

DESIGN SURFACE	192.37	192.55	192.55	192.52	192.42	192.42	192.27	192.31	192.42	192.31	192.27	192.42	192.42	192.53	192.56	192.56	192.73
EXISTING SURFACE	192.37	192.40	192.41	192.45	192.54	192.54	192.54	192.56	192.64	192.69	192.69	192.69	192.69	192.71	192.72	192.72	192.73
OFFSET	-8.82	-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	9.27

108.65

YORK PARADE

CROSS SECTIONS

SCALE HORIZONTAL 1:100
VERTICAL 1:50

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

AS CONSTRUCTED

▨ CRUSHED ROCK BACKFILL

AMENDMENTS		
VER.	DATE	REMARKS
A	20·12·17	ISSUED FOR CONSTRUCTION

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

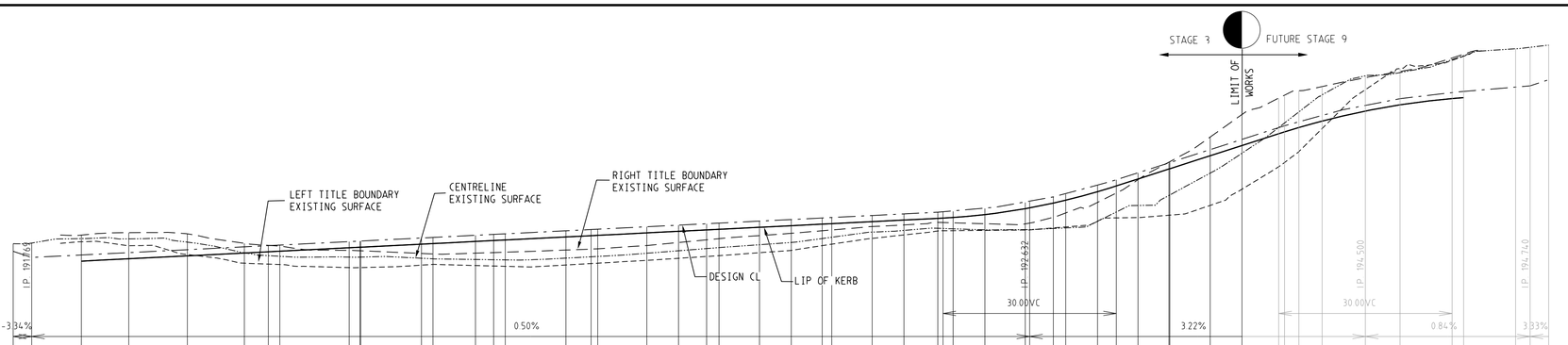
MELWAY REF. 388-C-10
SURVEY BPD
DESIGN SS
DRAWN SS
CHECKED

RATHDOWNE ESTATE
STAGE 3
YORK PARADE

MUNICIPALITY WHITTLESEA
REFERENCE 9365 E/3

SCALE AS SHOWN
DATUM AHD
DATE OCT'17
SHEET 6 OF 11
A

Plotted:20-Dec-17
J:\H9365\Eng\Stage 3\E03_R06_YPLSXS.dgn



TRUE LEFT & RIGHT ARE IN THE DIRECTION OF THE INCREASING CHAINAGE

VC LENGTH

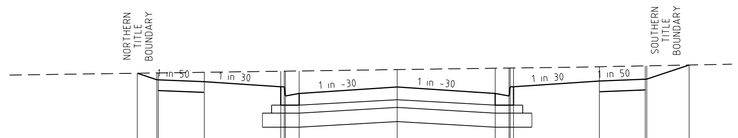
DESIGN GRADELINE

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				19.188			
3.20				19.177			
11.80 TPCH	192.04	191.93	191.71	191.81	191.71	191.94	192.16
20.00	191.97	191.97	191.75	191.85	191.75	191.98	192.20
30.15	191.82	192.02	191.80	191.90	191.80	192.03	192.18
40.00	191.67	192.07	191.85	191.95	191.85	192.08	192.01
44.15	191.65	192.09	191.87	191.97	191.87	192.10	191.98
46.15	191.65	192.10	191.88	191.98	191.88	192.11	191.97
58.15	191.59	192.16	191.94	192.04	191.94	192.17	191.89
60.00	191.59	192.17	191.95	192.05	191.95	192.18	191.89
60.15	191.59	192.17	191.95	192.05	191.95	192.18	191.88
70.65	191.64	192.22	192.00	192.11	192.00	192.23	191.84
72.65	191.65	192.23	192.01	192.12	192.01	192.24	191.83
80.00	191.63	192.27	192.05	192.15	192.05	192.28	191.84
83.15	191.62	192.29	192.06	192.17	192.06	192.30	191.85
85.15	191.62	192.30	192.07	192.18	192.07	192.31	191.86
95.65	191.64	192.35	192.12	192.23	192.12	192.36	191.90
100.00	191.66	192.37	192.15	192.25	192.15	192.38	191.91
101.15	191.67	192.38	192.15	192.26	192.15	192.39	191.92
109.65	191.72	192.42	192.19	192.30	192.19	192.43	191.98
115.15	191.75	192.45	192.22	192.33	192.22	192.46	192.03
120.00	191.79	192.47	192.25	192.35	192.25	192.48	192.07
122.15	191.80	192.48	192.26	192.36	192.26	192.49	192.09
129.15	191.85	192.52	192.29	192.40	192.29	192.53	192.15
134.65	191.89	192.54	192.32	192.43	192.32	192.55	192.19
140.00	191.97	192.57	192.35	192.45	192.35	192.58	192.23
141.65	192.00	192.58	192.35	192.46	192.35	192.59	192.24
148.65	192.10	192.61	192.39	192.50	192.39	192.62	192.30
154.15	192.16	192.64	192.42	192.52	192.42	192.65	192.33
160.00	192.23	192.67	192.45	192.55	192.45	192.68	192.38
160.90	192.23	192.67	192.45	192.56	192.45	192.68	192.37
162.65	192.23	192.68	192.46	192.57	192.46	192.69	192.37
168.15	192.24	192.73	192.51	192.62	192.51	192.74	192.35
175.15	192.24	192.84	192.61	192.72	192.61	192.85	192.35
175.90	192.25	192.85	192.63	192.73	192.63	192.86	192.36
180.00	192.28	192.94	192.71	192.82	192.71	192.95	192.46
182.15	192.30	192.99	192.76	192.87	192.76	193.00	192.54
187.65	192.40	193.13	192.91	193.01	192.91	193.14	192.72
190.90	192.45	193.23	193.01	193.11	193.01	193.24	192.89
194.65	192.46	193.35	193.13	193.23	193.13	193.36	193.12
200.00	192.50	193.52	193.30	193.41	193.30	193.53	193.42
200.15	192.50	193.53	193.31	193.41	193.31	193.54	193.43
207.15	192.67	193.75	193.53	193.64	193.53	193.76	193.85
212.65	192.95	193.93	193.71	193.81	193.71	193.94	194.24
219.00	193.34	194.14	193.91	194.02	193.91	194.15	194.53
220.00	193.41	194.17	193.94	194.05	193.94	194.18	194.58
222.50	193.60	194.24	194.02	194.13	194.02	194.25	194.66
226.52	194.00	194.35	194.13	194.24	194.13	194.36	194.73
234.00	194.67	194.53	194.30	194.41	194.30	194.54	194.88
240.00	195.04	194.64	194.41	194.52	194.41	194.65	194.99
249.00	195.18	194.74	194.52	194.63	194.52	194.75	195.22
251.00	195.25	194.76	194.54	194.64	194.54	194.77	195.29
260.00				194.72			
262.51				194.74			
265.71				194.85			

LONGITUDINAL SECTION

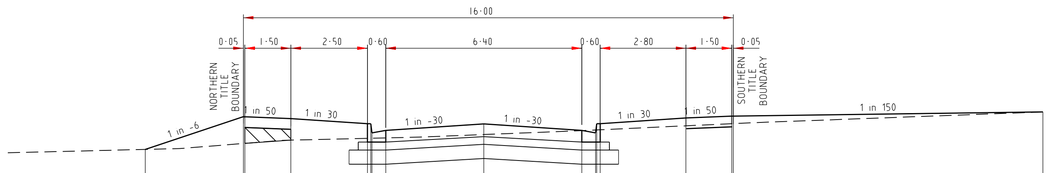
SCALE HORIZONTAL 1:500
VERTICAL 1:50

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



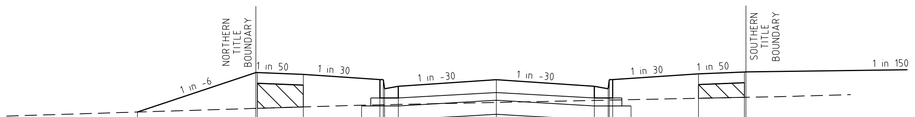
DATUM RL190.0																											
DESIGN SURFACE	192.04	191.93	191.93	191.90	191.82	191.82	191.67	191.67	191.71	191.81	191.71	191.67	191.82	191.82	191.91	191.94	191.94	192.17
EXISTING SURFACE	192.04	192.04	192.04	192.05	192.07	192.07	192.07	192.07	192.07	192.10	192.12	192.12	192.12	192.12	192.14	192.16	192.16	192.17
OFFSET	-8.49	-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	9.53

11.80



DATUM RL190.0																											
DESIGN SURFACE	191.56	192.09	192.09	192.06	191.98	191.98	191.83	191.87	191.97	191.87	191.83	191.98	191.98	192.07	192.10	192.10	192.17
EXISTING SURFACE	191.56	191.65	191.66	191.71	191.74	191.74	191.74	191.75	191.80	191.86	191.87	191.88	191.88	191.94	191.98	191.98	192.17
OFFSET	-11.05	-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	18.26

44.15



DATUM RL190.0																											
DESIGN SURFACE	191.59	192.23	192.23	192.20	192.12	192.12	191.97	192.01	192.12	192.01	191.97	192.12	192.12	192.21	192.24	192.24
EXISTING SURFACE	191.59	191.65	191.65	191.67	191.71	191.71	191.71	191.71	191.75	191.78	191.78	191.78	191.78	191.81	191.83	191.83
OFFSET	-11.72	-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

72.65

CROSS SECTIONS

SCALE HORIZONTAL 1:100
VERTICAL 1:50

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

CRUSHED ROCK BACKFILL

LAVELLE PLACE

AS CONSTRUCTED

VER.	DATE	REMARKS
C	13·04·18	CROSS SECTIONS UPDATED TO REFLECT FACE PLAN
A	20·12·17	ISSUED FOR CONSTRUCTION

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 SS
DRAWN RGW
CHECKED

RATHDOWNE ESTATE
STAGE 3
LAVELLE PLACE

MUNICIPALITY: WHITTLESEA
REFERENCE: 9365 E/3

SCALE AS SHOWN | DATUM AHD | DATE OCT'17 | SHEET 7 OF 11 | C

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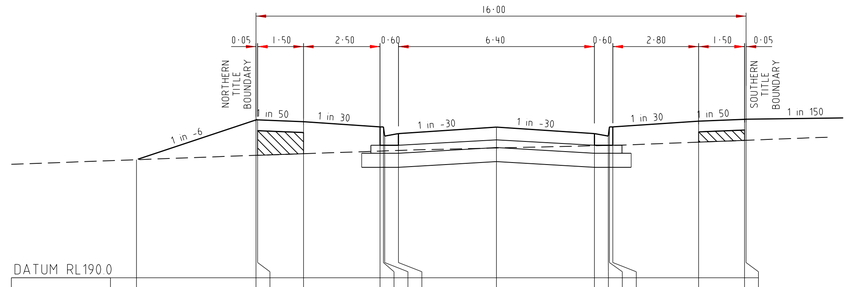
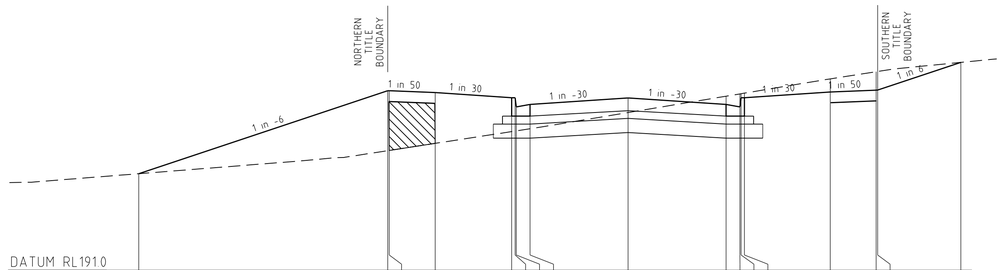
Plotted:18/04/2018



DATUM RL190.0

DESIGN SURFACE	191.93			192.58	192.58	192.55			192.46	192.46	192.31	192.35			192.46			192.35	192.31	192.46	192.46			192.56			192.59	192.59	
EXISTING SURFACE	191.93			192.00	192.00	192.03			192.07	192.07	192.07	192.08			192.12			192.16	192.16	192.16	192.16			192.21			192.24	192.24	
OFFSET	-11.75			-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	

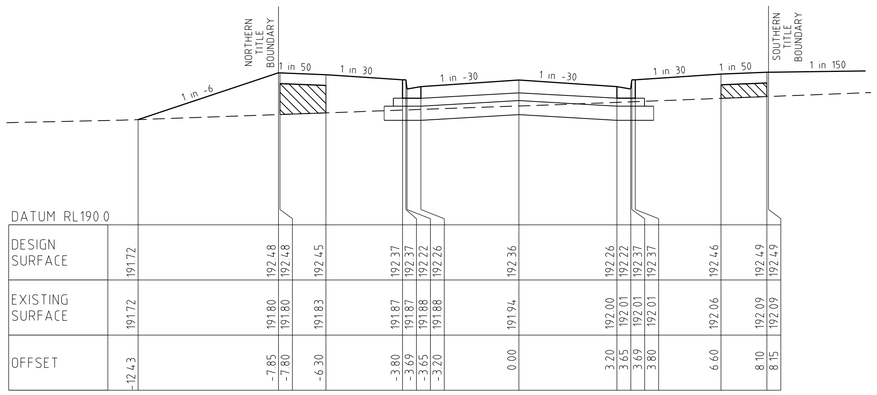
141.65



DATUM RL191.0

DESIGN SURFACE	192.58			193.93	193.93	193.90			193.82	193.82	193.67	193.71			193.81			193.71	193.67	193.82	193.82			193.91			193.94	193.94			194.39
EXISTING SURFACE	192.58			192.95	192.96	193.07			193.26	193.27	193.28	193.31			193.57			193.84	193.88	193.88	193.89			194.12			194.24	194.24			194.39
OFFSET	-15.98			-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			10.86

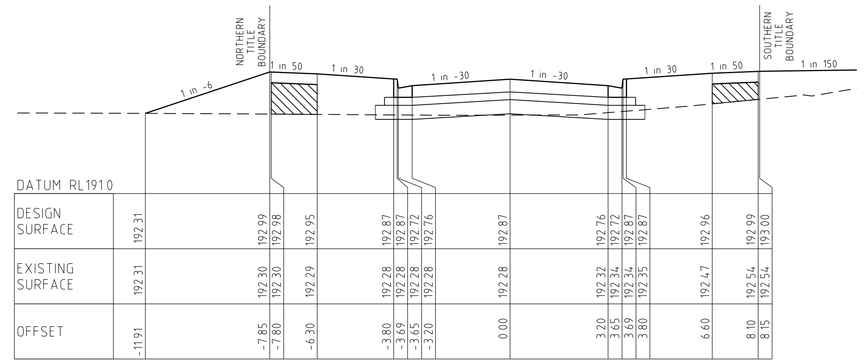
212.65



DATUM RL190.0

DESIGN SURFACE	191.72			192.48	192.48	192.45			192.37	192.37	192.22	192.26			192.36			192.26	192.22	192.27	192.37			192.46			192.49	192.49	
EXISTING SURFACE	191.72			191.80	191.80	191.83			191.87	191.87	191.88	191.88			191.94			192.00	192.01	192.01	192.01			192.06			192.09	192.09	
OFFSET	-12.43			-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	

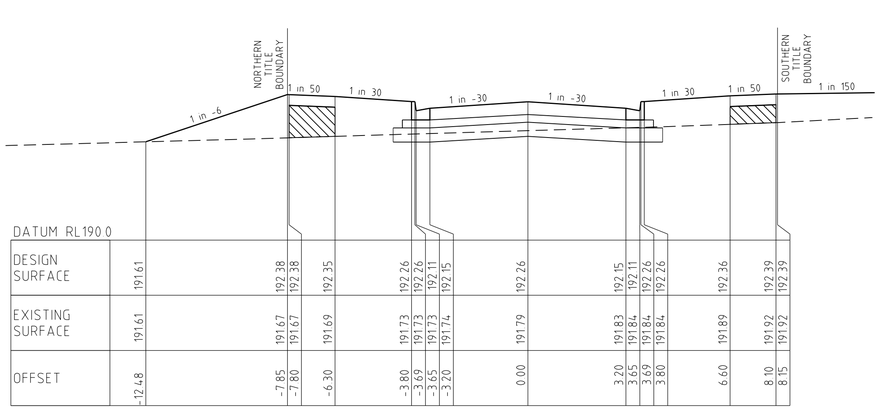
122.15



DATUM RL191.0

DESIGN SURFACE	192.31			192.99	192.98	192.95			192.87	192.87	192.72	192.76			192.87			192.76	192.72	192.87	192.87			192.96			192.99	193.00	
EXISTING SURFACE	192.31			192.30	192.30	192.29			192.28	192.28	192.28	192.28			192.28			192.32	192.34	192.34	192.35			192.47			192.54	192.54	
OFFSET	-11.91			-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	

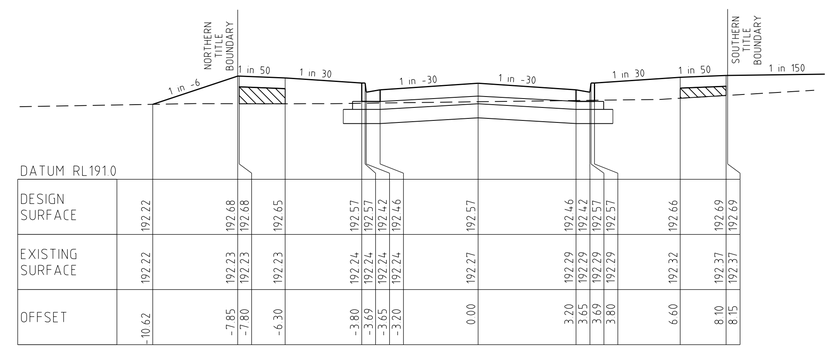
182.15



DATUM RL190.0

DESIGN SURFACE	191.61			192.38	192.38	192.35			192.26	192.26	192.11	192.15			192.26			192.15	192.11	192.26	192.26			192.36			192.39	192.39	
EXISTING SURFACE	191.61			191.67	191.67	191.69			191.73	191.73	191.73	191.74			191.79			191.83	191.84	191.84	191.84			191.89			191.92	191.92	
OFFSET	-12.48			-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	

101.15



DATUM RL191.0

DESIGN SURFACE	192.22			192.68	192.68	192.65			192.57	192.57	192.42	192.46			192.57			192.46	192.42	192.57	192.57			192.66			192.69	192.69	
EXISTING SURFACE	192.22			192.23	192.23	192.23			192.24	192.24	192.24	192.24			192.27			192.29	192.29	192.29	192.29			192.32			192.37	192.37	
OFFSET	-10.62			-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	

162.65

AS CONSTRUCTED

CROSS SECTIONS

SCALE HORIZONTAL 1:100
VERTICAL 1:50

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

LAVELLE PLACE

CRUSHED ROCK BACKFILL

VER.	DATE	REMARKS
C	13·04·18	CROSS SECTIONS AMENDED
A	20·12·17	ISSUED FOR CONSTRUCTION

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 SS
DRAWN RGW
CHECKED

RATHDOWNE ESTATE
STAGE 3
LAVELLE PLACE

MUNICIPALITY: WHITTLESEA
REFERENCE: 9365 E/3

SCALE AS SHOWN | DATUM AHD | DATE OCT'17 | SHEET 8 OF 11 | C

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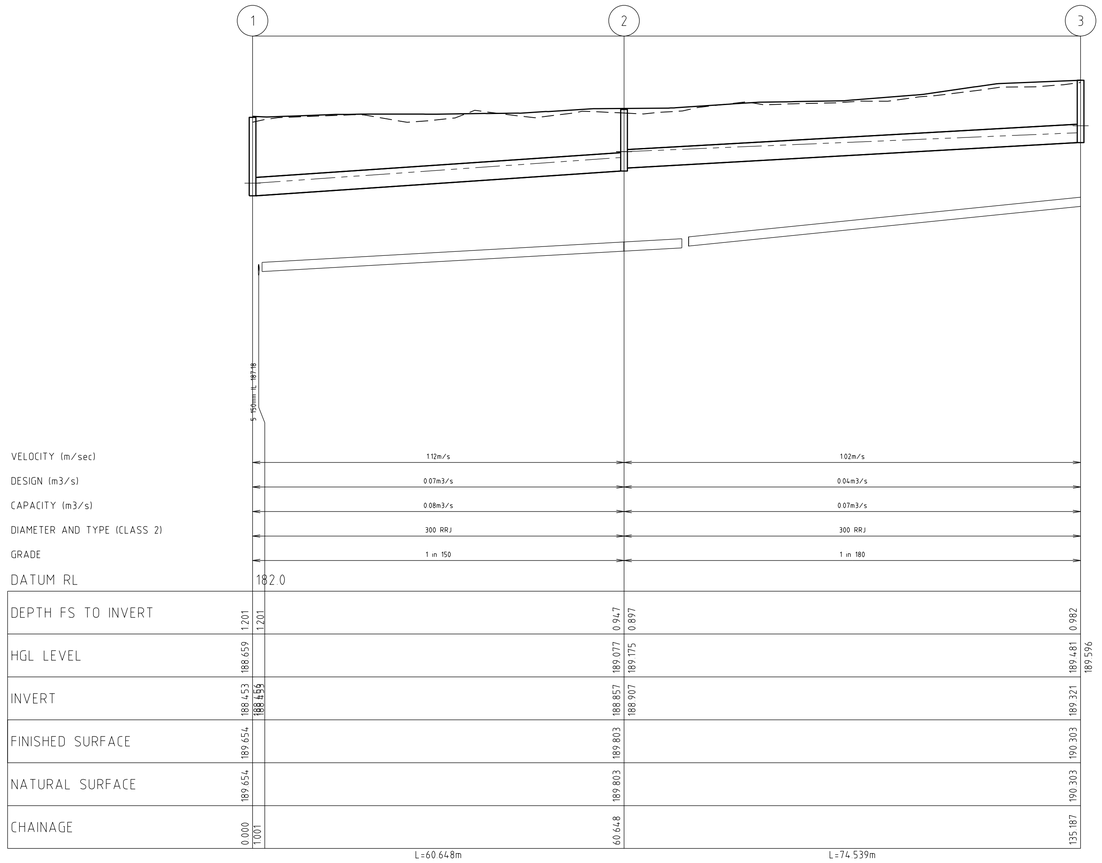
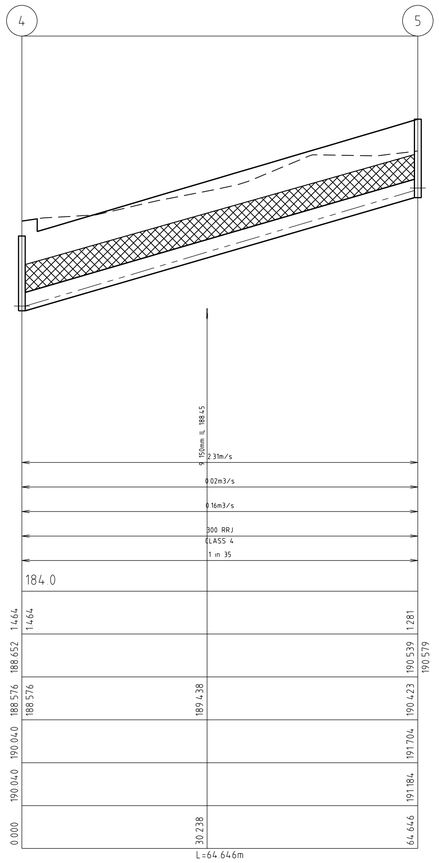
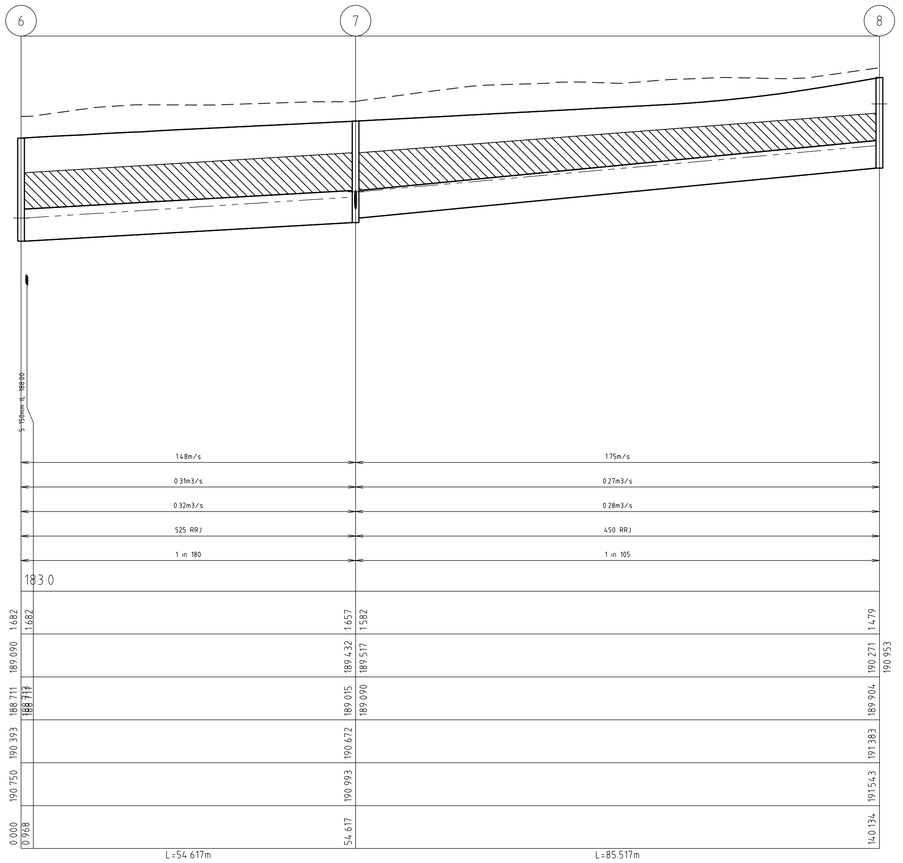
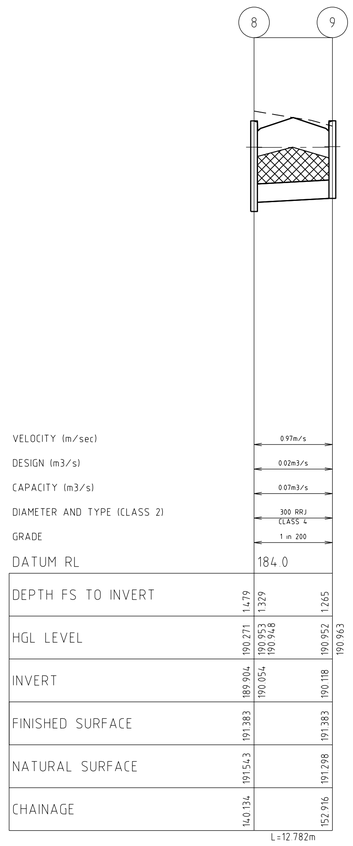
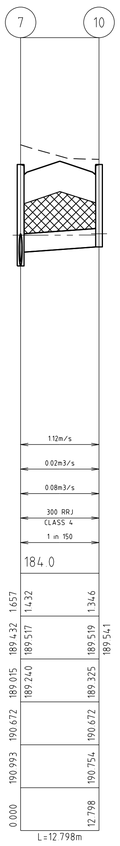
Plotted:18/04/2018

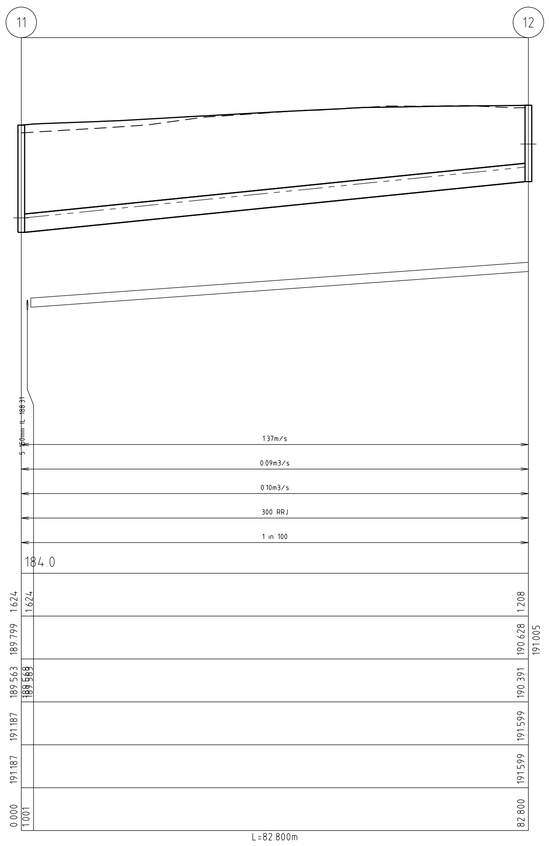












PIT SCHEDULE

PIT No.	PIT DESCRIPTION	LENGTH	WIDTH	INLET INVERT	INLET DIA	OUTLET INVERT	OUTLET DIA	TOP PIT RL	DEPTH INVERT	REMARKS
1	END PIPE			188·45	300			189·73	1·28	TEMPORARY SANDBAG ENDWALL
2	JUNCTION PIT	900	600	188·91	300	188·86	300	189·86	1·01	EDCM STD DWG 605
3	JUNCTION PIT	900	600			189·32	300	190·34	1·02	EDCM STD DWG 605
4	END PIPE			188·58	300			189·80	1·22	TEMPORARY SANDBAG ENDWALL
5	GRATED PIT	900	600			190·42	300	191·70	1·28	EDCM STD DWG 605, GRATED COVER
6	END PIPE			188·71	525			190·39	1·68	TEMPORARY SANDBAG ENDWALL
7	GRATED ENTRY PIT (B2)	900	900	189·09	450	189·02	525	190·67	1·66	EDCM STD DWG 601 (HAUNCHED)
				189·24	300					
8	GRATED ENTRY PIT (B2)	900	600	190·05	300	189·90	450	191·38	1·48	EDCM STD DWG 601
9	GRATED ENTRY PIT (B2)	900	600			190·12	300	191·38	1·27	EDCM STD DWG 601
10	GRATED ENTRY PIT (B2)	900	600			189·33	300	190·67	1·35	EDCM STD DWG 601
11	END PIPE			189·56	300			191·31	1·75	TEMPORARY SANDBAG ENDWALL
12	JUNCTION PIT	900	600			190·39	300	191·64	1·25	EDCM STD DWG 605
13	END PIPE			189·29	750			190·95	1·67	TEMPORARY SANDBAG ENDWALL
14	GRATED ENTRY PIT (B2)	1050	1050	189·70	750	189·65	750	191·81	2·16	EDCM STD DWG 601 (HAUNCHED)
				190·15	300					
15	GRATED ENTRY PIT (B2)	1050	1050	189·80	750	189·75	750	191·83	2·08	EDCM STD DWG 601 (HAUNCHED)
16	GRATED ENTRY PIT (B2)	1050	1050	190·08	525	189·85	750	191·83	1·98	EDCM STD DWG 601 (HAUNCHED)
				190·00	600					
17	JUNCTION PIT	900	900	190·43	450	190·34	525	191·96	1·62	EDCM STD DWG 607 (HAUNCHED)
				190·48	375					
18	GRATED ENTRY PIT (B2)	900	600	190·84	300	190·69	450	192·28	1·59	EDCM STD DWG 601
				190·84	300					
19	GRATED ENTRY PIT (B2)	900	600	191·79	300	191·74	300	193·16	1·42	EDCM STD DWG 601
				191·79	300					
20	END PIPE					192·28	300	193·86	1·59	BLANKED END
21	GRATED ENTRY PIT (B2)	900	600			190·47	300	191·81	1·34	EDCM STD DWG 601
22	GRATED ENTRY PIT (B2)	900	900			190·34	600	191·98	1·64	EDCM STD DWG 601 (HAUNCHED)
23	GRATED ENTRY PIT (B2)	900	600			190·93	300	192·29	1·36	EDCM STD DWG 601
24	GRATED ENTRY PIT (B2)	900	600			191·84	300	193·16	1·32	EDCM STD DWG 601
25	END PIPE			189·30	375			190·67	1·37	TEMPORARY SANDBAG ENDWALL
26	JUNCTION PIT	900	600	189·61	375	189·55	375	191·38	1·83	EDCM STD DWG 605
				189·76	225					
27	JUNCTION PIT	900	600	190·18	300	190·10	375	191·43	1·33	EDCM STD DWG 605
28	JUNCTION PIT	900	600	190·92	225	190·85	300	191·96	1·11	EDCM STD DWG 605
29	END PIPE					191·90	225	192·75	0·85	BLANKED END
30	JUNCTION PIT	900	600			190·35	225	191·55	1·20	EDCM STD DWG 605
31	JUNCTION PIT	900	600	190·52	375	190·57	375	192·09	1·57	EDCM STD DWG 605
										CONNECT TO EXISTING PIPE AND MAKE GOOD

DRAINAGE LONGITUDINAL SECTIONS

SCALE HORIZONTAL 1:500
VERTICAL 1:50

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

AS CONSTRUCTED

SCHEDULE NOTES:-

1. WHERE PIT HAUNCHING IS REQUIRED, INTERNAL PIT WALL DIMENSIONS MUST ALLOW 50mm CLEARANCE EACH SIDE OF PIPE OUTSIDE DIAMETER, INCLUDING ANGULAR PIPE ENTRY TO PIT. MINIMUM DIMENSIONS OF PIT BASE ARE TO BE AS PER SIZES SPECIFIED IN THE PIT SCHEDULE. TOP OF PIT OPENING FOR ALL HAUNCHED PITS TO BE 900mm x 600mm.
2. PIT BASE TO BE SHAPED TO MATCH LOWER HALF OF PIPE WHERE DROP ACROSS PIT IS LESS THAN 50mm.
3. PROVIDE BICYCLE SAFE "V" SHAPED CLASS D GRATE (600mm MIN WIDTH).

INDICATES CRUSHED ROCK BACKFILL CLASS 2

INDICATES CRUSHED ROCK BACKFILL CLASS 3

INDICATES 5YR HGL

AMENDMENTS			
E	05·09·18	PIT SCHEDULE UPDATED	
B	29·05·18	DRAINAGE PITS 13-15 LOWERED PIT SCHEDULE UPDATED	
A	20·12·17	ISSUED FOR CONSTRUCTION	
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 SS
DRAWN RGW
CHECKED

RATHDOWNE ESTATE STAGE 3

DRAINAGE LONGITUDINAL SECTION

MUNICIPALITY: WHITTLESEA
REFERENCE: 9365 E/3

SCALE AS SHOWN | DATUM AHD | DATE OCT'17 | SHEET 9 OF 11 | E

Plotted:5/09/2018

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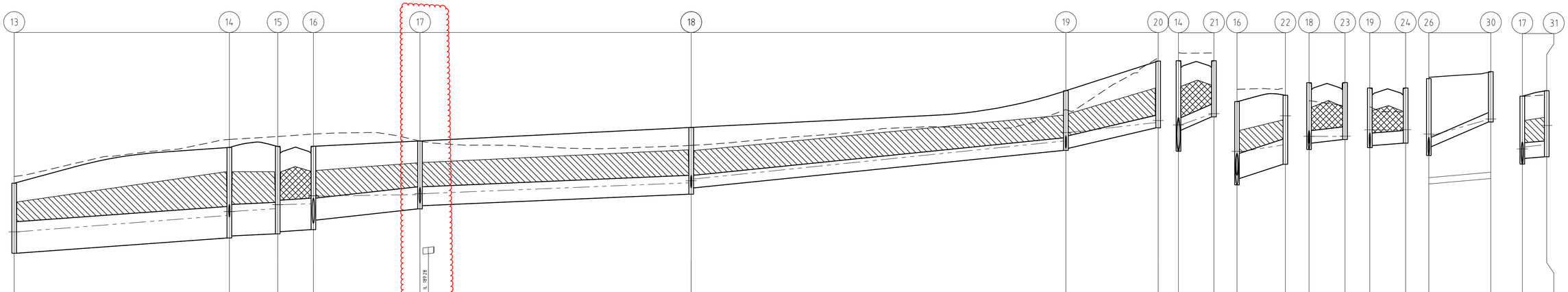
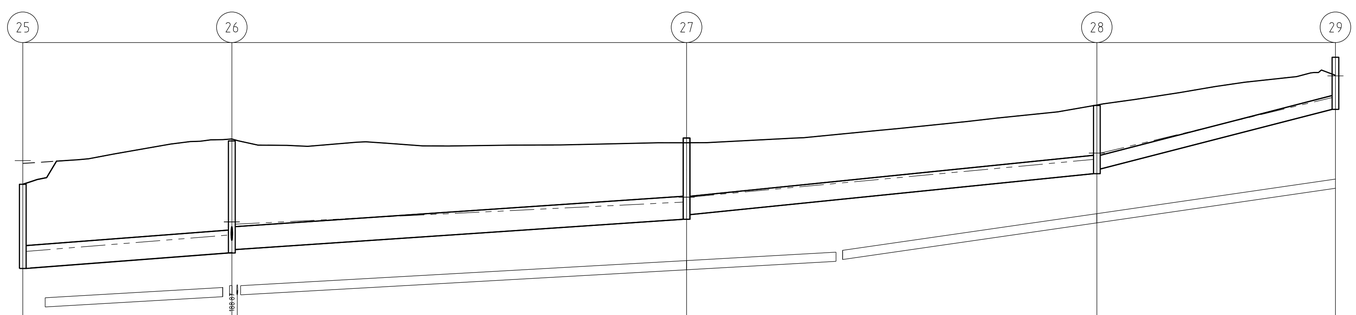


	13–14	14–15	15–16	16–17	17–18	18–19	19–20	14–21	16–22	18–23	19–24	26–30	17–31
VELOCITY (m/sec)	2.12m/s	1.66m/s	1.93m/s	2.05m/s	1.17m/s	1.37m/s	2.04m/s	2.66m/s	3.73m/s	1.37m/s	1.12m/s	2.26m/s	1.30m/s
DESIGN (m3/s)	0.75m3/s	0.75m3/s	0.74m3/s	0.25m3/s	0.13m3/s	0.08m3/s	0.03m3/s	0.01m3/s	0.49m3/s	0.01m3/s	0.01m3/s	0.01m3/s	0.13m3/s
CAPACITY (m3/s)	0.94m3/s	0.73m3/s	0.85m3/s	0.44m3/s	0.19m3/s	0.10m3/s	0.14m3/s	0.19m3/s	1.06m3/s	0.10m3/s	0.08m3/s	0.09m3/s	0.14m3/s
DIAMETER AND TYPE (CLASS 2)	750 RRJ	750 RRJ	750 RRJ CLASS 4	525 RRJ	450 RRJ	300 RRJ	300 RRJ	300 RRJ CLASS 4	600 RRJ	300 RRJ CLASS 4	300 RRJ CLASS 4	225 RRJ	375 RRJ
GRADE	1 in 142	1 in 231	1 in 170	1 in 94.4	1 in 235	1 in 100	1 in 45	1 in 26.4	1 in 33.9	1 in 100	1 in 150	1 in 25	1 in 150
DATUM RL	185.0					186.0		184.0	185.0	185.0	186.0	184.0	185.0
DEPTH FS TO INVERT	1.666 1.666	2.157 2.107	2.083 2.033	1.984 1.759	1.617 1.542	1.589 1.440	1.421 1.371	2.157 1.657 1.336	1.984 1.834 1.643	1.589 1.440 1.357	1.421 1.372 1.316	1.861 1.655 1.192	1.617 1.480 1.573
HGL LEVEL	189.797	190.187 190.280	190.349 190.444	190.466 190.656 190.646	190.685 190.706	190.915 191.012 191.055	191.959 192.160	192.448 190.185 190.277 190.540 190.545	190.641 190.837 190.800 191.494	190.959 191.006 191.003 191.009	191.959 192.160 192.161 192.164	189.863 190.059 190.021	190.685 190.706 190.751 190.806 191.265
INVERT	189.288 189.288	189.650 189.700	189.750 189.800	189.850 190.075	190.344 190.429 190.429	190.694 190.863	191.736 191.786	189.650 190.150 190.470	189.850 190.000 190.340	190.694 190.863 190.929	191.736 191.786 191.842	189.550 189.756	190.344 190.480 190.519
FINISHED SURFACE	190.954	191.807	191.833	191.834	191.961	192.283	193.157	191.807 191.806	191.834 191.983	192.283 192.285	193.157 193.158	191.411	191.961 191.538 192.092
NATURAL SURFACE	191.114	191.998	192.066 192.126		191.961	191.855	192.705	191.998 191.992	192.126 192.141	191.855 191.730	192.705 192.551	191.411	191.961 191.538 192.000
CHAINAGE	0.000	51.262	62.788	71.290	96.676 98.698	161.290	250.557	272.540 0.000 8.444	0.000 11.525	0.000 8.572	0.000 8.540	0.000 14.770	0.000 5.821
	L=51.262m	L=11.526m	L=8.502m	L=25.386m	L=64.614m	L=89.267m	L=21.983m	L=8.444m	L=11.525m	L=8.572m	L=8.540m	L=14.770m	L=5.821m



	25–26	26–27	27–28	28–29
VELOCITY (m/sec)	1.37m/s	1.30m/s	1.37m/s	1.79m/s
DESIGN (m3/s)	0.14m3/s	0.13m3/s	0.09m3/s	0.05m3/s
CAPACITY (m3/s)	0.15m3/s	0.14m3/s	0.10m3/s	0.07m3/s
DIAMETER AND TYPE (CLASS 2)	375 RRJ	375 RRJ	300 RRJ	225 RRJ
GRADE	1 in 135	1 in 150	1 in 100	1 in 40
DATUM RL	183.0			
DEPTH FS TO INVERT	1.374 1.374	1.861 1.805	1.249 1.174	1.120 1.045 0.555
HGL LEVEL	189.577	189.863 190.059 190.021	190.382 190.463	191.079 191.180 192.088 192.442
INVERT	189.297 189.297 189.317	189.550 189.609 189.606	190.101 190.176	190.846 190.921 191.895
FINISHED SURFACE	190.972	191.411	191.351	191.966 192.450
NATURAL SURFACE	191.013	191.411	191.351 190.463	191.966 192.450
CHAINAGE	0.000 3.100	34.131 35.013	108.372	175.356 214.314
	L=34.131m	L=74.242m	L=66.983m	L=38.958m

DRAINAGE LONGITUDINAL SECTIONS

SCALE HORIZONTAL 1:500
VERTICAL 1:50

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

AS CONSTRUCTED

SCHEDULE NOTES:-

1. WHERE PIT HAUNCHING IS REQUIRED, INTERNAL PIT WALL DIMENSIONS MUST ALLOW 50mm CLEARANCE EACH SIDE OF PIPE OUTSIDE DIAMETER, INCLUDING ANGULAR PIPE ENTRY TO PIT. MINIMUM DIMENSIONS OF PIT BASE ARE TO BE AS PER SIZES SPECIFIED IN THE PIT SCHEDULE. TOP OF PIT OPENING FOR ALL HAUNCHED PITS TO BE 900mm x 600mm.
2. PIT BASE TO BE SHAPED TO MATCH LOWER HALF OF PIPE WHERE DROP ACROSS PIT IS LESS THAN 50mm.
3. PROVIDE BICYCLE SAFE "V" SHAPED CLASS D GRATE (600mm MIN WIDTH).

INDICATES CRUSHED ROCK BACKFILL CLASS 2

INDICATES CRUSHED ROCK BACKFILL CLASS 3

INDICATES 5YR HGL

AMENDMENTS

VER.	DATE	REMARKS
D	05·09·18	DRAINAGE PIT 17 MOVED, PIT 31 ADDED
B	29·05·18	DRAINAGE PITS 14-16 LOWERED
A	20·12·17	ISSUED FOR CONSTRUCTION

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 SS
DRAWN RGW
CHECKED

RATHDOWNE ESTATE STAGE 3

DRAINAGE LONGITUDINAL SECTION

MUNICIPALITY: WHITTLESEA
REFERENCE: 9365 E/3
SCALE AS SHOWN | DATUM AHD | DATE OCT'17 | SHEET 10 OF 11 | E

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Plotted:5/09/2018

FUTURE STAGE 8

FUTURE STAGE 9

FUTURE STAGE 5

FUTURE STAGE 9

FUTURE STAGE 7

PROPOSED STAGE 2

PROPOSED STAGE 2

ELECTRICAL SUBSTATION

NORTH STREET

YORK PARADE

LAVELLE PLACE

ETHAN LANE

CANNING WALK

APPROX LIMIT OF FILL

707

SIGNAGE & LINEMARKING LEGEND

- S1 "STREET" SIGN
- S2 "GIVE WAY" SIGN (R1-2A) — GIVE WAY
- S3 "NO ROAD" SIGN & "HAZARD" SIGN (G9-18) — NO THROUGH ROAD
- S4 SEGREGATED FOOTWAY (R8-3) — ONLY ONLY R8-3(R)

North

AS CONSTRUCTED

PLAN

SCALE 1:500

SCALE 1 : 500

10 5 0 10 20 40

LENGTHS ARE IN METRES

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.

WARNING

CONTRACTOR TO TAKE EXTRA CAUTION OF OPTIC FIBER CABLE IN DAVIS ROAD

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	G E T

Ex/Natural/FS Level +28·57 +N528·57 28·57

FS @ Building Line 28·48·57

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		
A	20·12·17	ISSUED FOR CONSTRUCTION
VER.	DATE	REMARKS

breese pitt dixon pty. ltd.
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1/19 cato street
hawthorn east, 3123
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MELWAY REF.	388-C-10
SURVEY	BPD
DESIGN	SS
DRAWN	RGW
CHECKED	

RATHDOWNE ESTATE STAGE 3

SIGNAGE AND LINE MARKING PLAN

MUNICIPALITY: WHITTLESEA

REFERENCE: 9365 E/3

SCALE: AS SHOWN | DATUM: AHD | DATE: OCT'17 | SHEET 11 OF 11 | A

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Plot Date: 20/02/2019