MERRIFIELD DEVELOPMENT

STAGE 13

DONNYBROOK ROAD, MICKLEHAM
HUME CITY COUNCIL

FOR





CIVIL DRAWINGS ROAD AND DRAINAGE

AS CONSTRUCTED

DCE REF: 11733



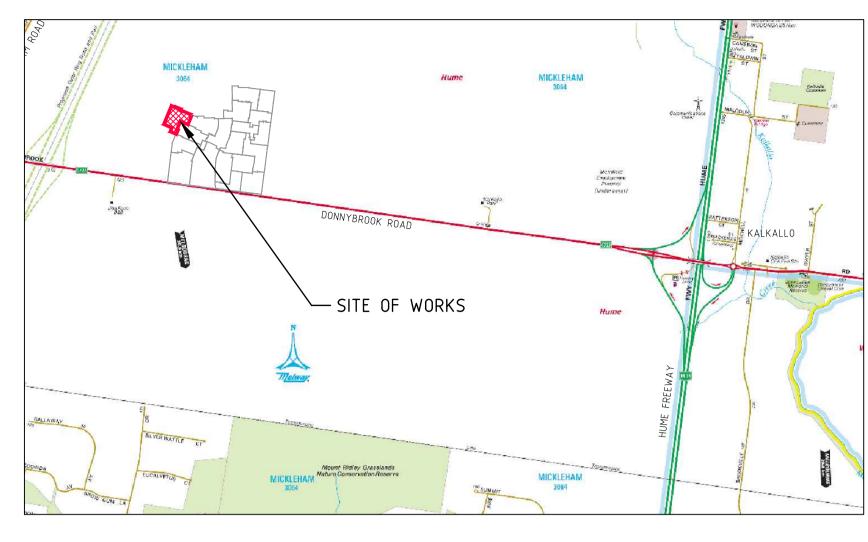


- 2. COUNCIL TO BE NOTIFIED SEVEN (7) CLEAR WORKING DAYS PRIOR TO THE COMMENCEMENT OF WORKS WITH A PRECOMMENCEMENT MEETING BEING HELD BETWEEN HUME CITY COUNCIL, THE CONSULTANT AND THE CONTRACTOR BEFORE WORKS COMMENCE. A SITE MANAGEMENT PLAN IS TO BE SUBMITTED PRIOR TO COMMENCEMENT OF WORKS AND PRIOR TO AN ONSITE PRECOMMENCEMNT MEETING.
- 3. PRIOR TO COMMENCEMENT OF THE WORKS, THE CONTRACTOR SHALL PROVIDE THE FOLLOWING INFORMATION:
 - (A) SOURCE OF QUARRY MATERIAL (B) N.A.T.A APPROVED TEST RESULTS FOR THE F.C.R. THAT IS TO BE USED.
 - (C) IF THE SOURCE OF THE QUARRY MATERIAL IS CHANGED DURING THE COURSE OF THE WORKS, THE NEW TEST RESULTS SHALL BE PROVIDED.
- 4. PRIOR TO ALL COMMENCEMENT OF WORKS ON SITE, THE CONTRACTOR MUST ENSURE THAT ALL MATTERS RELATING TO THE OCCUPATIONAL HEALTH AND SAFETY ACT 2004, HAVE BEEN AND WILL BE COMPLIED WITH.
- 5. ON COMMENCEMENT OF CONSTRUCTION WORKS. THE CONTRACTOR MUST COMPLY WITH THE RECOMMENDATIONS OF THE ENVIRONMENTAL PROTECTION AUTHORITY PUBLICATION "CONSTRUCTION TECHNIQUES FOR SEDIMENT POLLUTION CONTROL." APPROPRIATE SILTATION CONTROL IS TO BE MAINTAINED THROUGHOUT THE CONSTRUCTION AND MAINTENANCE PERIOD FOR THE WORKS.
- 6. THE DISPOSAL SITE FOR SPOIL REMOVAL FROM SITE AND TRUCK ROUTE IS TO BE SUBMITTED TO AND APPROVED BY THE CHIEF EXECUTIVE OFFICER AND/OR THEIR REPRESENTATIVE AS PER THE HOLD POINTS IN THE HUME CITY COUNCIL SPECIFICATIONS IN WRITING PRIOR TO THE COMMENCEMENT OF ANY WORKS.
- 7. WHERE WORKS ARE IN THE VICINITY OF EXISTING SERVICES, THESE SERVICES ARE TO BE LOCATED AND EXPOSED/PROVED PRIOR TO COMMENCEMENT OF WORKS, AND THE RELEVANT AUTHORITIES NOTIFIED SEVEN (7) CLEAR DAYS PRIOR TO THE COMMENCEMENT OF THE WORKS
- 8. ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
- 9. ALL LEVELS ARE TO AUSTRALIAN HEIGHT DATUM (AHD).
- 10. ALL COORDINATES ARE TO MAP GRID OF AUSTRALIA (MGA).
- 11. THE CONTRACTOR MUST ARRANGE THE REQUISITE INSPECTIONS OF THE WORKS WITH THE CHIEF EXECUTIVE OFFICER AND/OR THEIR REPRESENTATIVE AS PER THE HOLD POINTS IN THE HUME CITY COUNCIL SPECIFICATIONS.
- 12. FILL AREAS ARE TO BE STRIPPED OF TOPSOIL, FILLED, AND TOPSOIL REPLACED TO OBTAIN THE FINAL FILL LEVELS SHOWN ON PLAN. FILLING IS TO BE CLEAN CLAY COMPACTED TO A DENSITY NOT LESS THAN 95% OF THE MAXIMUM DRY DENSITY VALUE DETERMINED BY THE STANDARD COMPACTION TEST IN ACCORDANCE WITH AS1289.5.1.1-2003.
- 13. FILLING TO COMPLY WITH AS3798-2007 LEVEL 1 (OR 2) AS SPECIFIED.
- 14. 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 IF REQUIRED PROVIDE VERIFICATION INCLUDING TEST CERTIFICATES TO THE CHIEF EXECUTIVE OFFICER AND/OR THEIR REPRESENTATIVE.
- 15. WHERE, AS A CONDITION OF THE PLANNING PERMIT OR AS A RESULT OF THE PRE-CONSTRUCTION MEETING, FENCING OF AREAS CONTAINING TREES, NATIVE GRASSES AND SHRUBS IS REQUIRED, A THREE STRAND STAR PICKET AND WIRE FENCE SHALL BE CONSTRUCTED.
- 16. NO TREES OR NATIVE VEGETATION IS TO BE DISTURBED OR REMOVED WITHOUT PRIOR APPROVAL FROM COUNCIL SUSTAINABLE ENVIRONMENT DEPARTMENT. ANY TREES REMOVED, VEGETATION OR OTHER MATERIALS ARE NOT TO BE BURNT ON SITE.
- 17. BEFORE COMMENCING WORK ON TRENCHES IN EXCESS OF 1.5M DEEP, NOTICE OF SUCH PROPOSAL IS TO BE FORWARDED BY THE CONTRACTOR TO WORKSAFE VICTORIA.
- 18. THE CONTRACTOR IS TO OBTAIN A BUILDING PERMIT FOR ANY STRUCTURE/FENCES AND FOR ANY RETAINING WALLS OVER 1.0M IN HEIGHT.
- 19. 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 CHIEF EXECUTIVE OFFICER OR HIS REPRESENTATIVE.
- 20. ALL DISTURBED AREAS, ie, NATURESTRIPS, BATTERS, ALLOTMENTS AND RESERVES, ARE TO BE REINSTATED TO A CLEAN, TIDY CONDITION, TOP DRESSED (100MM LOAMY TOP SOIL FREE OF CLUMPS, SODS AND CLAY LUMPS) AND SOWN WITH GRASS SEED. SEED IS TO BE A DROUGHT TOLERANT COUCH/FESCUE MIX UNLESS OTHERWISE DETAILED. BLEND IS GENERALLY AS FOLLOWS:
 - 40% DWARF TALL FESCUE DROUGHT TOLERANT CULTIVARS 40% COUCH 20% HARD FESCUE
- NOTE: GRASS IS TO BE ESTABLISHED PRIOR TO THE END OF THE MAINTENANCE PERIOD.
- 21. FOOTPATHS TO BE OFFSET 50mm FROM THE TITLE BOUNDARIES UNLESS NOTED OTHERWISE. VEHICLE CROSSING ALIGNMENTS ARE GENERALLY TO BE PARALLEL TO THE SIDE BOUNDARY.

- 22. ALL NEW CONCRETE WORKS SHALL BE JOINED INTO ABUTTING EXISTING CONCRETE WITH 450MM LONG Y20 DOWEL BARS @ 600 CENTERS, UNLESS OTHERWISE SPECIFIED.
- 23. ANY EXPOSED AGGREGATE CONCRETE WORKS TO BE ACHIEVED BY SAND-BLASTING ONLY. WASHING AGGREGATE OFF WITH WATER IS NOT
- 24. ALL SERVICE CONDUITS TRENCHES UNDER ROAD PAVEMENTS ARE TO BE BACKFILLED WITH 20MM 3% CEMENT TREATED CLASS 3 CRUSHED ROCK COMPACTED TO A DENSITY NOT LESS THAN 95% OF THE MAXIMUM DRY DENSITY VALUE DETERMINED BY THE MODIFIED COMPACTION TEST IN ACCORDANCE WITH AS1289.5.2.1-2003.
- 25. ALL STORMWATER DRAINS ARE TO BE CLASS '2' RC OR RIGID FRC PIPES WITH ADCOL FLEXIBLE COLLAR UNLESS OTHERWISE SHOWN. ALL RC PIPES UP TO AND INCLUDING 750mm IN DIAMETER SHALL BE RUBBER RING JOINTED (RRJ). INTERLOCKING/FLUSH JOINTS WITH EXTERNAL BANDS CAN ONLY BE USED ON PIPE SIZES OVER 600mm DIA.
- 26. WHERE NEW ASPHALT, CONCRETE K & C, PATHS AND DRIVEWAYS MATCH INTO EXISTING, THE EXISTING SURFACE IS TO BE SAW CUT AND MATCHED
- 27. ALL REDUNDANT ASSETS ARE TO BE REMOVED AND DISPOSED OFF SITE.
- 28. ALL TREES AND SHRUBS ARE TO BE RETAINED UNLESS OTHERWISE SHOWN OR DIRECTED BY THE CHIEF EXECUTIVE OFFICER AND/OR THEIR REPRESENTATIVE.
- 29. 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 CHIEF EXECUTIVE OFFICER AND/OR THEIR REPRESENTATIVE.
- 30. 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 AS 1289.5.2.1-2003. ALL DRAINS, SEWER, GAS & WATER MAINS LAID THROUGH THE ROAD PAVEMENT (EXCEPT CONDUITS) ARE TO BE BACKFILLED WITH 20mm CLASS 2 F.C.R COMPACTED TO 98%OF THE MAXIMUM DRY DENSITY VALUE DETERMINED BY THE MODIFIED COMPACTION TEST IN ACCORDANCE WITH AS 1289.5.2.1-2003.
- 31. PAVEMENT DEPTH SPECIFIED IS A MINIMUM DEPTH AND MAY BE VARIED BY THE CHIEF EXECUTIVE OFFICER AND/OR THEIR REPRESENTATIVE. SOFT SPOTS SHALL BE EXCAVATED TO A PROOF ROLLED BASE AND BACKFILLED WITH APPROVED MATERIAL COMPACTED IN 150MM LAYERS TO ACHIEVE TO A DENSITY NOT LESS THAN 95% OF THE MAXIMUM DRY DENSITY VALUE DETERMINED BY THE STANDARD COMPACTION TEST IN ACCORDANCE WITH AS1289.5.1.1-2003.
- 32. ALL EXISTING ASSETS AFFECTED BY THE WORKS; EG SIGNS, VEHICLE CROSSINGS, FOOTPATHS, KERB AND LINEMARKING SHALL BE REINSTATED BY THE CONTRACTOR PRIOR TO THE COMPLETION OF THE WORKS TO THE SATISFACTION OF THE CHIEF EXECUTIVE OFFICER AND/OR THEIR REPRESENTATIVE.
- 33. ALL FIRE HYDRANTS ARE TO ME MARKED IN ACCORDANCE WITH "IDENTIFICATION OF STREET HYDRANTS FOR FIREFIGHTING 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.
- 34. AGRICULTURAL DRAINS ARE TO BE PLACED BEHIND ALL KERB AND CHANNEL, KERB ONLY AND EDGE STRIPS IN ACCORDANCE WITH COUNCIL STANDARD DRAWINGS.
- 35. ALL TABLE DRAINS AND VERGES ARE TO BE REINSTATED UPON COMPLETION OF WORKS TO THE SATISFACTION OF THE CONTRACTOR MUST ARRANGE THE REQUISITE INSPECTIONS OF THE WORKS TO THE SATISFACTION OF THE CHIEF EXECUTIVE OFFICER AND/OR THEIR REPRESENTATIVE.
- 36. ALL TRAFFIC CONTROL MEASURES, SIGNS AND LINEMARKING SHALL BE IN ACCORDANCE WITH AS1742 - 1, 2 & 3. STREET NAME SIGNS ARE TO BE IN ACCORDANCE WITH STANDARD DRAWING SD408.
- 37. ALL LINEMARKING PAINT SHALL BE LONG LIFE IN ACCORDANCE WITH SECTION 95C OF THE HUME CITY COUNCIL SPECIFICATIONS. LATERAL WORKS AND ARROWS BEING COLD APPLIED PLASTIC TROWELLED INTO PLACE (MATERIAL DEGADUR PLASTELINE) AND LONGITUDINAL LINES BEING EXTRUDED THERMOPLASTIC MATERIAL.
- 38. ALL SIGNS TO BE CLASS 1 HIGH INTENSITY TYPE AND COMPLY WITH THE REQUIREMENTS OF AS1743-2001.
- 39. HOUSE DRAIN CONNECTIONS TO 150mm DIAMETER PIPES TO BE VIA A MANUFACTURED JUNCTION PIECE. 150mm DIAMETER STORMWATER PIPES ARE TO BE HEAVY DUTY SEWER GRADE. PVC SHALL BE BACKFILLED WITH 10mm MINUS F.C.R TO 150mm ABOVE TOP OF PIPE IN ALL LOCATIONS.
- 40. 100mm HOUSE DRAIN CONNECTIONS TO BE LAID AT AN OFFSET OF 5.0M FROM THE LOW SIDE TITLE BOUNDARY AND PROPERTY INLETS 1.0M FROM THE LOW CORNER OF THE LOT UNLESS OTHERWISE SHOWN.
- 41. BLASTING GENERALLY IS NOT ENCOURAGED, HOWEVER BLASTING MAY BE REQUIRED AS A LAST RESORT DEPENDING ON GROUND CONDITIONS. COUNCIL IS TO BE NOTIFIED IN WRITING IF ANY BLASTING IS NECESSARY. RESIDENTS LIKELY TO BE AFFECTED BY THE BLASTING AND ALL SERVICE AUTHORITIES SHALL BE NOTIFIED IN WRITING PRIOR TO WORKS COMMENCING. COPIES OF THESE NOTIFICATIONS ARE TO BE SUBMITTED TO COUNCIL. RESIDENT NOTIFICATION LETTER IS TO INCLUDE BLASTING GUIDELINES, FIRING AND MISFIRE PROCEDURES AND CONTRACTORS AND CONSULTANT CONTACT NAMES AND NUMBERS. ALL BLASTING IS TO BE WITHIN THE LIMITS FOR AIR AND GROUND VIBRATION LEVELS AS SET DOWN IN AS1287.2-1993. ALL BLASTS SHALL BE MONITORED FOR AIR AND NOISE VIBRATION AT POTENTIALLY AFFECTED RESIDENCES. "FORM A" FROM AS2187.2-1993, AND WAVE TRACE COPIES ARE TO BE SUBMITTED TO COUNCIL FOR EACH BLAST. BLASTING IS TO BE RESTRICTED TO BETWEEN 9:00AM AND 3:30PM. BLASTING IS NOT TO OCCUR ON WEEKENDS OR PUBLIC HOLIDAYS. BLASTING AREA SIGNS ARE TO BE PLACED AT ALL ENTRANCES TO THE SITE.

GENERAL NOTES:

- 1. ALL BLOCKS ARE TO SURFACE GRADE WITH A MINIMUM FALL OF 1 IN 150 ALONG THE LOW SIDE BOUNDARY TO THE POINT OF DISCHARGE.
- 2. ALL BATTERS SHALL BE 1 IN 6, UNLESS OTHERWISE SHOWN.
- 3. ALL CHAINAGES REFER TO ROAD RESERVE DESIGN LINES EXCEPT - IN COURT HEADS WHERE CHAINAGES REFER TO LIP OF KERB - KERB RETURNS WHERE CHAINAGES REFER TO LIP OF KERB.
- 4. GENERALLY B2 KERB AND CHANNEL IS TO BE USED THROUGHOUT THE SUBDIVISION. WHERE OTHER KERB TYPES ARE REQUIRED THEY ARE SPECIFICALLY SHOWN ON THE DRAWINGS.
- 5. LIP OF ALL KERB RADII ARE 8.60m UNLESS OTHERWISE SHOWN.
- 6. WHEN PAVEMENT EXCAVATION IS IN ROCK ALL LOOSE MATERIAL (INCLUDING ROCKS AND CLAY) MUST BE REMOVED. THE SUB-GRADE MUST THEN BE REGULATED WITH COUNCIL APPROVED MATERIAL.
- 7. TBMS TO BE RE-ESTABLISHED BY THE LICENSED SURVEYOR IF FOUND TO BE MISSING AT THE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR WILL BE RESPONSIBLE FOR CARE AND MAINTENANCE OF TBMS THEREAFTER.
- 8. ALL EXISTING SURFACE LEVELS SHOWN ON THE ENGINEERING DRAWINGS HAVE BEEN INTERPOLATED FROM A DIGITAL TERRAIN MODEL. THESE LEVELS HAVE BEEN USED AS THE BASIS FOR ALL ENGINEERING DESIGN AND DETERMINATION OF QUANTITIES.
- 9. THE CONTRACTOR IS REQUIRED TO CONFINE CONSTRUCTION VEHICLES TO THE ROAD RESERVE AND EASEMENTS. ANY DAMAGE CAUSED TO ALLOTMENTS MUST BE MADE GOOD.
- 10. ANY BUILDINGS, TROUGHS, FENCES AND OTHER STRUCTURES ON SITE ARE TO BE REMOVED AS DIRECTED BY THE SUPERINTENDENT. THE COST OF REMOVAL IS TO BE INCLUDED IN THE OVERALL EARTHWORKS FIGURE UNLESS A SPECIFIC ITEM FOR REMOVAL IS DENOTED IN THE SCHEDULE.
- 11. VEHICULAR CROSSINGS OF THE TYPE INDICATED ARE TO BE OFFSET 1.5m FROM THE LOT BOUNDARY OR EASEMENT UNLESS OTHERWISE SHOWN. DRIVEWAY GRADES TO BE 1 IN 6 MAX.
- 12. PROVIDE LAYBACKS IN KERB TO ALL PRAM CROSSINGS IN ACCORDANCE WITH COUNCIL STANDARDS.
- 13. ASPHALT FILLETS/RAMPS ARE TO BE PROVIDED ON THE BASE COURSE ASPHALT TO REMOVE TRIPS AT ALL PEDESTRIAN CROSSING LOCATIONS.
- 14. ALL TEMPORARY WARNING SIGNS USED DURING CONSTRUCTION SHALL BE IN ACCORDANCE WITH AS 1742-3.
- 15. ALL EASEMENTS ARE 2.0m OR 3.0m WIDE DRAINAGE AND SEWERAGE EASEMENTS UNLESS OTHERWISE SHOWN.
- 16. CENTRELINES OF ALL SEWERS ARE OFFSET 1.2m OR 2.2m FROM THE PROPERTY LINE UNLESS OTHERWISE SHOWN.
- 17. CENTRELINES OF ALL EASEMENT DRAINS ARE OFFSET 1.0m OR 2.2m FROM THE PROPERTY LINE UNLESS OTHERWISE SHOWN.
- 18. WHERE CURVED PIPES ARE SHOWN ON THE DETAIL PLANS THEY ARE TO BE LAID PARALLEL TO THE BACK OF KERB, EXCEPT WHERE A RADIUS HAS BEEN SPECIFICALLY NOMINATED. ALL DRAINS BEHIND KERBS ARE TO BE LAID AT THE OFFSET SPECIFIED IN THE COUNCIL SPECIFICATION. CURVED PIPES OF DIAMETER LESS THAN 600mm ON LARGE RADIUS CURVES ARE APPROVED BY COUNCIL SUBJECT TO COMPLIANCE WITH MANUFACTURER'S
- 19. ALL SIDE ENTRY PITS EXCEPT THOSE AT LOW POINTS ARE TO HAVE FLUTES AS SPECIFIED IN THE COUNCIL STANDARD DRAWINGS.
- 20. ALL SERVICE TRENCHES UNDER DRIVEWAYS, FOOTPATHS AND PARKING BAYS TO BE BACKFILLED WITH CLASS 2 CRUSHED ROCK. SERVICE TRENCHES LESS THAN 750mm BEHIND PARKING BAYS ARE ALSO TO BE BACKFILLED WITH COMPACTED CLASS 2 CRUSHED ROCK.
- 21. POSITION CONDUITS SO THAT A MINIMUM DISTANCE BETWEEN TAPPINGS IS 1.0m. CONDUITS NOT TO BE LOCATED WITHIN 4.0m OF ALLOTMENT BOUNDARY, UNLESS OTHERWISE SHOWN.
- 22. WATER TAPPINGS FOR LOTS SITUATED ON THE SAME SIDE AS THE WATERMAIN ARE TO BE LOCATED AT THE CENTRE OF THE LOT. THE KERB IS TO BE MARKED "W" WITH AN ARROW POINTING TO THE TAPPING.
- 23. GAS TO BE 50mm DIA. CLASS 12 P.V.C. & WATER CONDUITS TO BE 100 DIA. CLASS 12 P.V.C. SINGLE CONDUIT CONTAINING BOTH DW & NDW SERVICES LAID IN ACCORDANCE WITH WSA 03-2002 DUAL WATER SUPPLY SYSTEM STANDARD DRAWING WAT-1806-V
- 24. ELECTRICITY CONDUITS ARE TO BE LAID WITH THE FOLLOWING MINIMUM COVER TO FINISHED SURFACE LEVELS UNDER ROADS - 0.90m ELSEWHERE - 0.60m
- 25. TACTILE GROUND SURFACE INDICATORS (TGSI'S) TO BE INSTALLED. TGSI'S ARE TO COMPLY WITH AS1428.4



MELWAY REF MAP: 366 D3,E4

		DRAWING INDEX
SHEET NO.	DRAWING NO.	DESCRIPTION
01	11733TD01	LOCALITY PLAN, INDEX AND NOTES
02	11733TD02	TYPICAL SECTIONS AND DETAILS
03	11733SP01	STAGING PLAN
04	11733DP01	DETAIL PLAN
05-06	11733S0P01-02	SETOUT DETAILS - SHEETS 01 TO 02
07-10	11733ID01-04	INTERSECTION DETAILS - SHEETS 01 TO 04
11	11733LM01	SIGNAGE AND LINE MARKING PLAN
12-15	11733LS01-04	LONGITUDINAL SECTIONS - SHEETS 01 TO 04
16-25	11733XS01-10	CROSS SECTIONS - SHEETS 01 TO 10
26-27	117330ED01-02	OPEN EARTH DRAIN PLAN - SHEET 01 TO 02
28-30	11733DR01-03	DRAINAGE LONGITUDINAL SECTIONS - SHEETS 01 TO 03
31	11733DR04	DRAINAGE PIT SCHEDULE
32	11733P0S01	PLAN OF SUBDIVISION
33	11733FP01	FILL PLAN
34	11733EF01	EXISTING FEATURES
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Drawn K.PAGE Date 16/05/15 AN 1511017 Designed N.MIRATANA Date 14/05/15 AN 1541195 Verified S.LEA Date 03/06/15 AN 1061781 Audited B.GORDON Date 10/11/15 TL AS CONSTRUCTED 22/04/16 AN 162632 0 CONSTRUCTION ISSUE 13/11/15 Approved T.LIAKOPOULOS Date 12/11/15 **AMENDMENTS** DATE APP'D. AN 884752

AS CONSTRUCTED



Coords: MGA Levels: AHD

Drawing No. 11733TD01 Rev 1 Sheet No. 01 AS CONSTRUCTED © Dalton Consulting Engineers Pty Ltd

DONNYBROOK ROAD, MICKLEHAM

LOCALITY PLAN, INDEX AND NOTES

STAGE 13

ABN 78 429 221 049

MERRIFIELD DEVELOPMENT



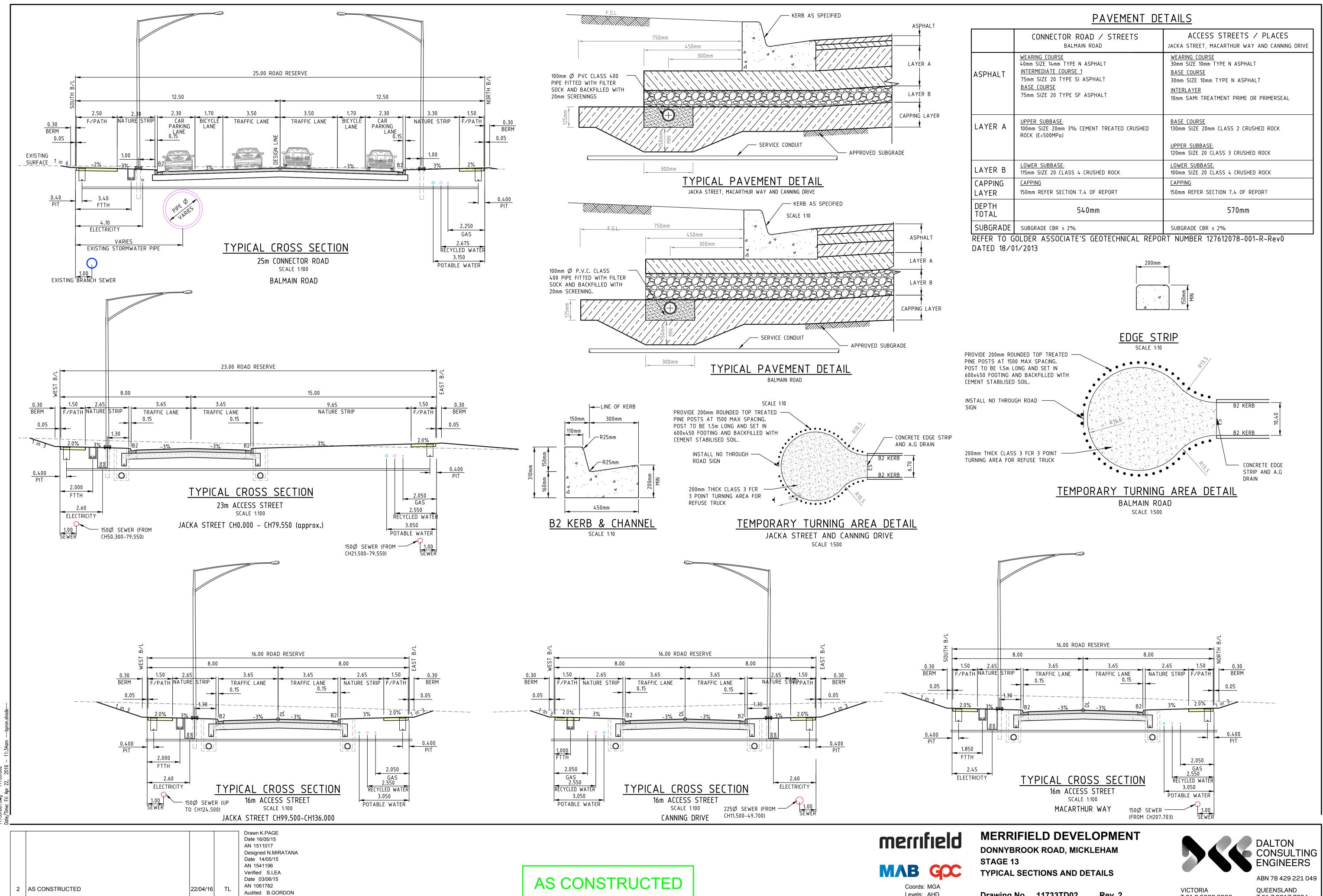
W dceng.com.au

ABN 78 429 221 049 QUEENSLAND T 61 7 3217 7234 E info@dceng.com.au

ENGINEERS

Scale @ A1/A3

Written dimensions to take precedence over scale. Contractor shall check and verify all dimensions on site, Discrepancies to be brought to the attention of the Superintendent.



Written dimensions to take precedence over scale. Contractor shall check and verify all dimensions on site, Discrepancies to be brought to the attention of the Superintendent.

AMENDMENTS

Date 10/11/15

Date 12/11/15

Approved T.LIAKOPOULOS

AN 162633

13/11/15

DATE APP'D.

CANNING DRIVE NBN AMENDED

0 CONSTRUCTION ISSUE

AS CONSTRUCTED

Coords: MGA Levels: AHD

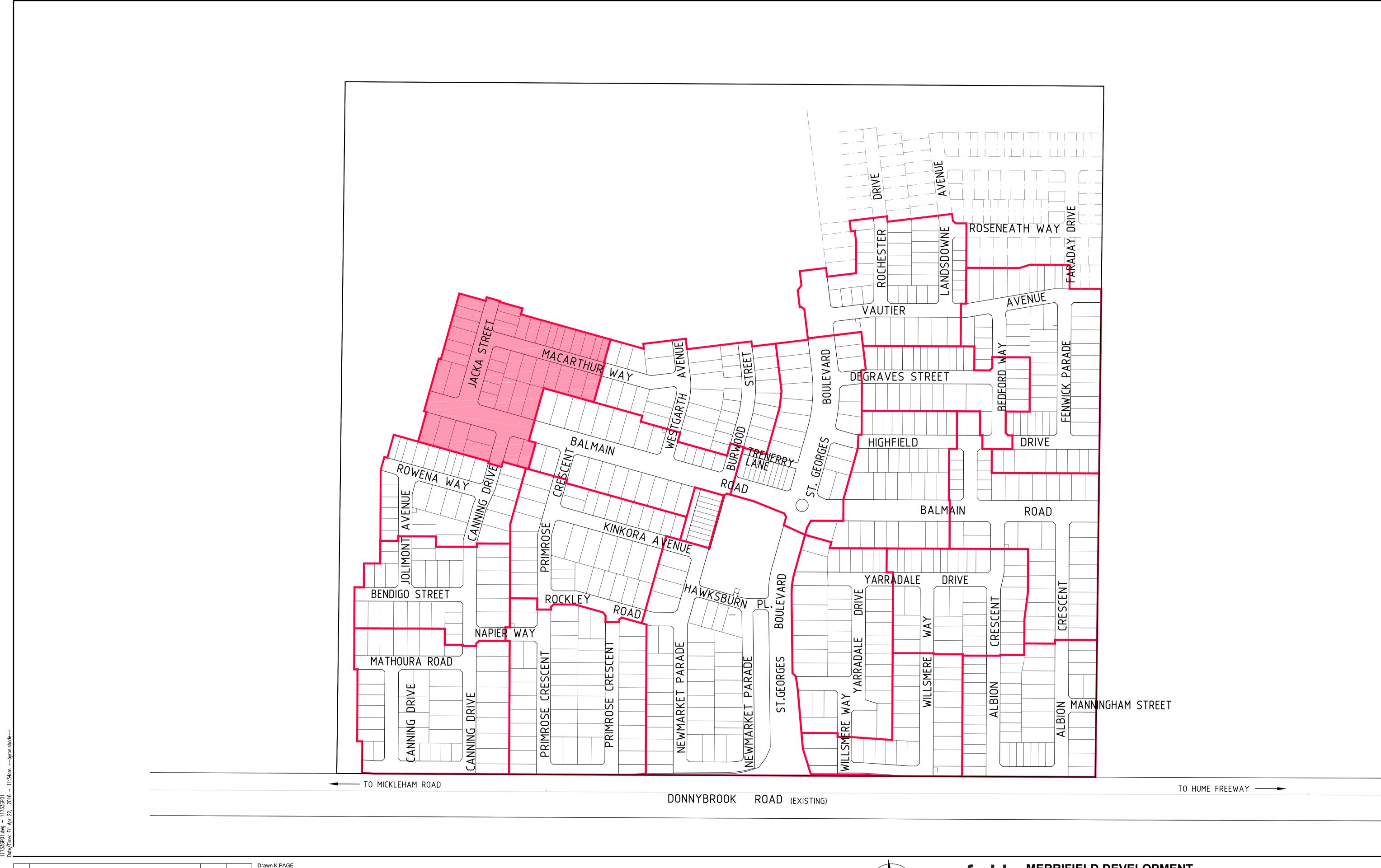
Scale @ A1/A3

ABN 78 429 221 049

Drawing No. 11733TD02 Rev 2

Sheet No. 02 AS CONSTRUCTED © Dalton Consulting Engineers Pty Ltd

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Date 16/05/15 AN 1511017 Designed N.MIRATANA Date 14/05/15 AN 1541197 Verified S.LEA Date 03/06/15 AN 1061783 Audited B.GORDON Date 10/11/15 AS CONSTRUCTED 22/04/16 AN 162634 0 CONSTRUCTION ISSUE 13/11/15 Approved T.LIAKOPOULOS Date 12/11/15 DATE APP'D. **AMENDMENTS** AN 884754

AS CONSTRUCTED



Hor 1:2000 0m 20m 40m

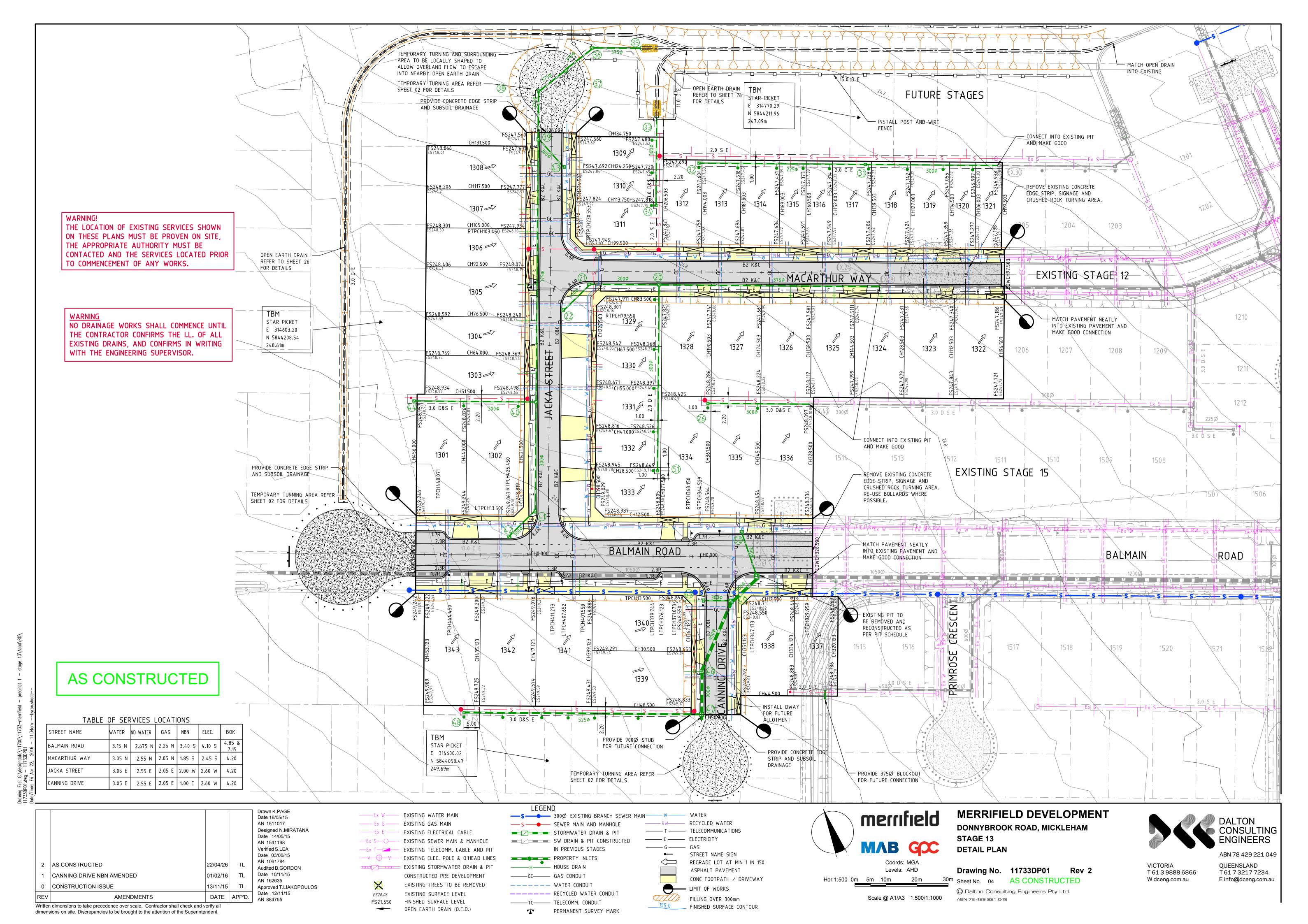
MERRIFIELD DEVELOPMENT DONNYBROOK ROAD, MICKLEHAM STAGE 13 **STAGING PLAN**

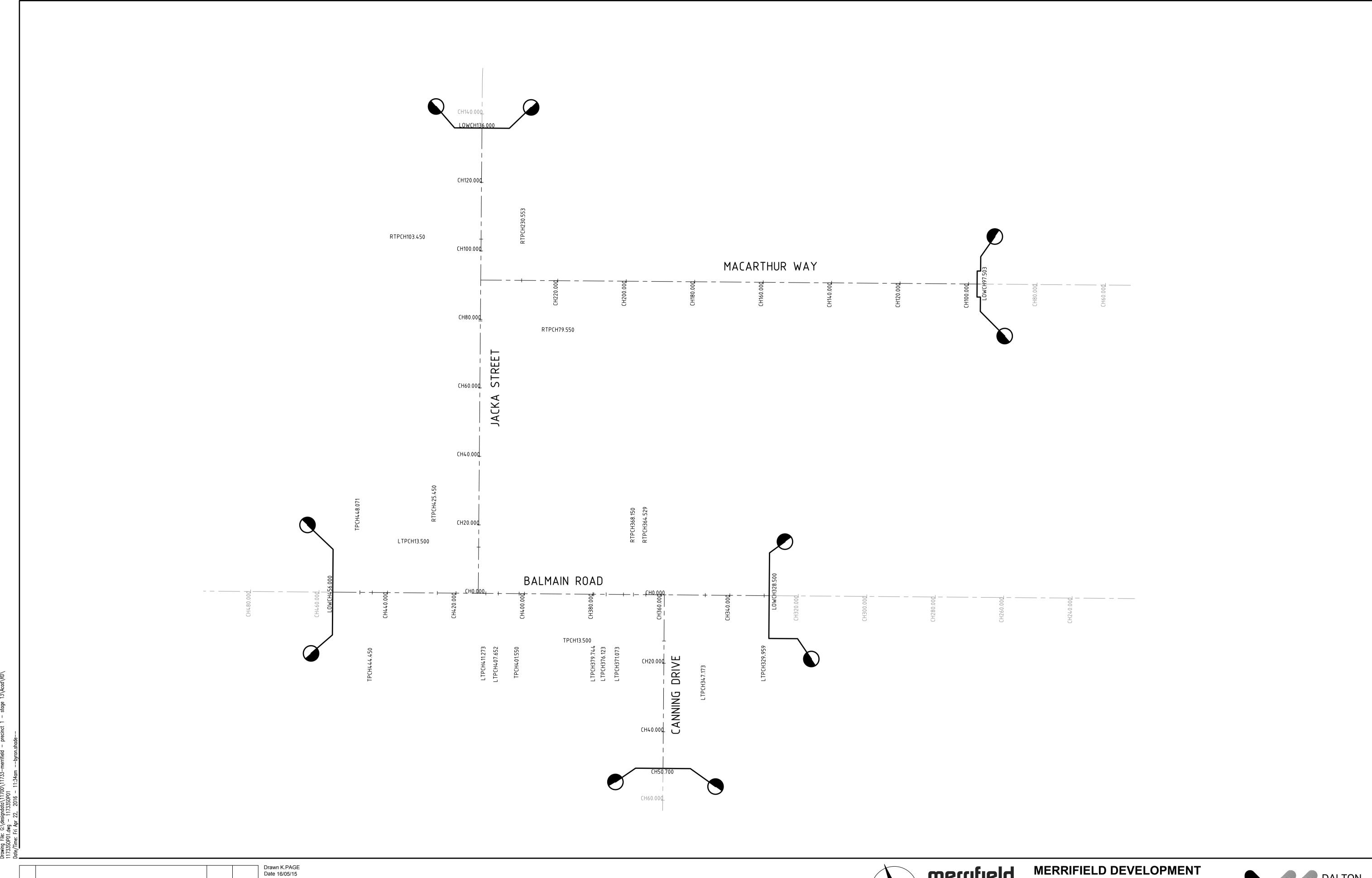
Drawing No. 11733SP01 Rev 1 120m Sheet No. 03 AS CONSTRUCTED © Dalton Consulting Engineers Pty Ltd



VICTORIA T 61 3 9888 6866

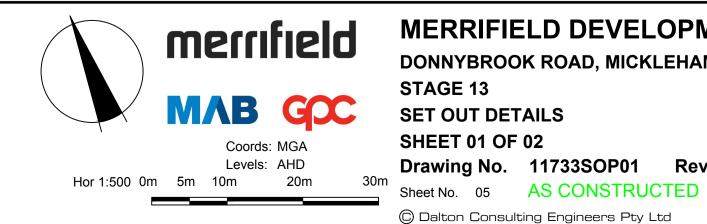
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AN 1511017 Designed N.MIRATANA Date 14/05/15 AN 1541199 Verified S.LEA Date 03/06/15 AN 1061785 Audited B.GORDON AS CONSTRUCTED Date 10/11/15 AN 162636 Approved T.LIAKOPOULOS
Date 12/11/15
AN 884756 0 CONSTRUCTION ISSUE 13/11/15 DATE APP'D. **AMENDMENTS**

AS CONSTRUCTED



DONNYBROOK ROAD, MICKLEHAM STAGE 13 **SET OUT DETAILS SHEET 01 OF 02** Drawing No. 11733SOP01 Rev 1

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ABN 78 429 221 049 QUEENSLAND T 61 7 3217 7234 E info@dceng.com.au VICTORIA T 61 3 9888 6866

180.000

186.667

188.418

200.000

220.000

240.000

POINT TYPE	CHAINAGE	COOR	DINATES		BEARING	RADIUS
		EASTING	NORTHING	R L	DEG MIN SEC	
STRAIGHT	280.000	314748.391	5844067.826	247.977	292°27′34.26″	
STRAIGHT	300.000	314729.908	5844075.467	248.115	292°27′34.26″	
STRAIGHT	320.000	3 1 4 7 1 1 . 4 2 5	5844083.107	248.253	292°27′34.26″	
STRAIGHT	328.500	314703.569	5844086.355	248.312	292°27′34.26″	
STRAIGHT	340.000	314692.942	5844090.748	248.391	292°27′34.26″	
STRAIGHT	360.000	314674.459	5844098.389	248.529	292°27′34.26″	
STRAIGHT	380.000	314655.976	5844106.029	248.667	292°27′34.26″	
STRAIGHT	400.000	314637.493	5844113.670	248.805	292°27′34.26″	
STRAIGHT	420.000	314619.010	5844121.310	248.943	292°27′34.26″	
STRAIGHT	440.000	314600.527	5844128.951	249.081	292°27′34.26″	
STRAIGHT	456.000	314585.740	5844135.064	249.192	292°27′34.26″	
STRAIGHT	460.000	314582.044	5844136.592	249.219	292°27′34.26″	
STRAIGHT	480.000	314563.561	5844144.232	249.357	292°27′34.26″	
STRAIGHT	500.000	314545.078	5844151.873	249.495	292°27′34.26″	
STRAIGHT	520.000	314526.595	5844159.513	249.633	292°27′34.26″	
STRAIGHT	540.000	314508.112	5844167.154	249.771	292°27′34.26″	
STRAIGHT	560.000	314489.629	5844174.795	249.909	292°27′34.26″	
STRAIGHT	580.000	314471.146	5844182.435	250.047	292°27′34.26″	

HORIZONTAL ALIGNMENT REPORT FOR CANNING DRIVE DESIGN LINE

EASTING

314675.269

314667.629

314659.988

314655.900

314652.347

314647.553

314646.055

314644.166

314643.889

314638.112

314636.934

314635.063

314634.726

314633.524

314625.883

314620.438

314618.448

314616.665

314615.458

314615.317

CHAINAGE

0.000

20.000

40.000

50.700

60.000

72.550

76.000

79.525

80.000

89.879

92.000

96.000

96.854

100.000

120.000

134.254

140.000

146.667

153.333

154.421

POINT TYPE

STRAIGHT

STRAIGHT

STRAIGHT

STRAIGHT

STRAIGHT

STRAIGHT

STRAIGHT

CURVE

CURVE

CURVE

CURVE

CURVE

CURVE

TANGENT - CURVE

CURVE – TANGENT

TANGENT - CURVE

CURVE-TANGENT

TANGENT-CURVE

CURVE-TANGENT

STRAIGHT (START ALN)

POINT TYPE	CHAINAGE	COORD	INATES		BEARING	RADIUS
		EASTING	NORTHING	RL	DEG MIN SEC	
STRAIGHT (START ALN)	0.000	314887.202	5844125.748	246.366	269°54′03.33″	
STRAIGHT	20.000	3 1 4 8 6 7 . 2 0 2	5844125.713	246.348	269°54′03.33″	
TANGENT – CURVE	33.270	314853.932	5844125.691	246.460	269°54′03.33″	
CURVE	36.000	3 1 4 8 5 1 . 2 0 5	5844125.810	246.486	275°06′54.50″	30.000
CURVE	40.000	314847.257	5844126.431	246.525	282°45′16.48″	30.000
CURVE	44.000	314843.426	5844127.571	246.563	290°23′38.45″	30.000
CURVE – TANGENT	45.081	314842.419	5844127.966	246.573	292°27′34.26″	30.000
STRAIGHT	60.000	314828.632	5844133.665	246.716	292°27′34.26′′	
STRAIGHT	80.000	314810.149	5844141.306	246.908	292°27′34.26′′	
STRAIGHT	97.503	314794.901	5844147.608	247.076	292°27′34.26″	
STRAIGHT	100.000	314791.666	5844148.947	247.099	292°27′34.26″	
STRAIGHT	120.000	314773.183	5844156.587	247.268	292°27′34.26″	
STRAIGHT	140.000	314754.700	5844164.228	247.368	292°27′34.26″	
STRAIGHT	160.000	314736.217	5844171.868	247.468	292°27′34.26″	
STRAIGHT	180.000	314717.734	5844179.509	247.568	292°27′34.26″	
STRAIGHT	200.000	314699.251	5844187.150	247.668	292°27′34.26″	
STRAIGHT	220.000	314680.768	5844194.790	247.768	292°27′34.26″	
STRAIGHT	240.000	314662.285	5844202.431	247.889	292°27′34.26″	
STRAIGHT (END ALN)	242.503	314659.973	5844203.387	247.964	292°27′34.26″	

COORDINATES IG NORTHING

5844098.053

5844079.570

5844061.087

5844051.199

5844042.605

5844031.006

5844027.901

5844024.927

5844024.541

5844016.527

5844014.764

5844011.232

5844010.447

5844007.540

5843989.057

5843975.884

5843970.495

5843964.074

5843957.519

5843956.440

POINT TYPE	CHAINAGE	COORI	DINATES		BEARING	RADIUS
TOTAL TITE	CHATHAGE	EASTING	NORTHING	RL	DEG MIN SEC	KABTOS
STRAIGHT (START ALN)	0.000	314625.017	5844118.827	248.899	2 2° 2 7 ′ 3 4 . 2 6 "	
STRAIGHT	20.000	314632.657	5844137.310	248.676	22°27′34.26″	
STRAIGHT	40.000	314640.298	5844155.793	248.496	22°27′34.26″	
STRAIGHT	60.000	314647.939	5844174.276	248.289	2 2 2 2 7 ′ 3 4 . 2 6 ″	
STRAIGHT	80.000	314655.579	5844192.759	248.083	2 2 2 2 7 ′ 3 4 . 2 6 ″	
STRAIGHT	100.000	314663.220	5844211.242	247.876	2 2 2 2 7 ′ 3 4 . 2 6 ″	
STRAIGHT	120.000	314670.860	5844229.725	247.625	22°27′34.26″	
STRAIGHT	136.000	314676.927	5844244.402	247.424	2 2 2 2 7 ′ 3 4 . 2 6 ″	
STRAIGHT	140.000	314678.501	5844248.208	247.374	22°27′34.26″	
TANGENT – CURVE	149.866	314682.270	5844257.325	247.250	22°27′34.26″	
CURVE	153.333	314683.687	5844260.490	247.206	25°46′15.91″	60.000
CURVE	160.000	314686.912	5844266.320	247.122	3 2° 0 8 ′ 1 4 . 2 3 ′′	60.000
CURVE	166.667	314690.765	5844271.757	247.038	38°30′12.54″	60.000
CURVE – CURVE	169.142	314692.345	5844273.662	247.007	40°52′00.57′′	60.000
CURVE	173.333	314694.975	5844276.925	246.955	36°51′50.29″	-60.000

5844282.470

5844288.390

5844289.998

5844300.702

5844319.185

5844337.668

314698.670

314701.728

314702.420

314706.845

314714.485

314722.126

246.871 30°29′51.98″

246.787 24°07′53.67″

246.765 22°27′34.26″

246.620 22°27′34.26″

246.368 22°27′34.26″

246.117 22°27′34.26″

REV	AMENDMENTS	DATE	APP'D.	Date 12/11/15 AN 884757
0	CONSTRUCTION ISSUE	13/11/15	TL	Approved T.LIAKOPOULOS
1	AS CONSTRUCTED	22/04/16	TL	Date 03/06/15 AN 1061786 Audited B.GORDON Date 10/11/15 AN 162637
				Drawn K.PAGE Date 16/05/15 AN 1511017 Designed N.MIRATANA Date 14/05/15 AN 1541200 Verified S.LEA

AS CONSTRUCTED

-60.000

-60.000

-60.000



MERRIFIELD DEVELOPMENT
DONNYBROOK ROAD, MICKLEHAM
STAGE 13
SET OUT DETAILS
SHEET 02 OF 02

Drawing No. 11733SOP02 Rev 1
Sheet No. 06 AS CONSTRUCTED

© Dalton Consulting Engineers Pty Ltd

ABN 78 429 221 049

VICTORIA

RADIUS

30.000

30.000

-30.000

-30.000

-30.000

-75.000

-75.000

-75.000

-75.000

BEARING

DEG MIN SEC

248.523 202°27′34.26″

248.452 202°27′34.26″ 248.627 202°27′34.26″

248.734 202°27′34.26″

248.827 202°27′34.26″

248.953 202°27′34.26″

248.987 209°02′54.71″

249.022 215°46′49.76″

249.027 215°46′49.76″

249.126 215°46′49.76″

249.147 211°43′47.34″

249.187 204°05′25.36″

249.196 202°27′34.26″

249.227 202°27′34.26″

249.327 202°27′34.26″

249.398 202°27′34.26″

249.427 198°04′11.88″

249.460 192°58′37.24″

249.494 187°53′02.59″

249.499 187°03′10.00″

VICTORIA T 61 3 9888 6866 W dceng.com.au ABN 78 429 221 049

QUEENSLAND

T 61 7 3217 7234

E info@dceng.com.au

Scale @ A1/A3 1:500/1:1000

CURVE

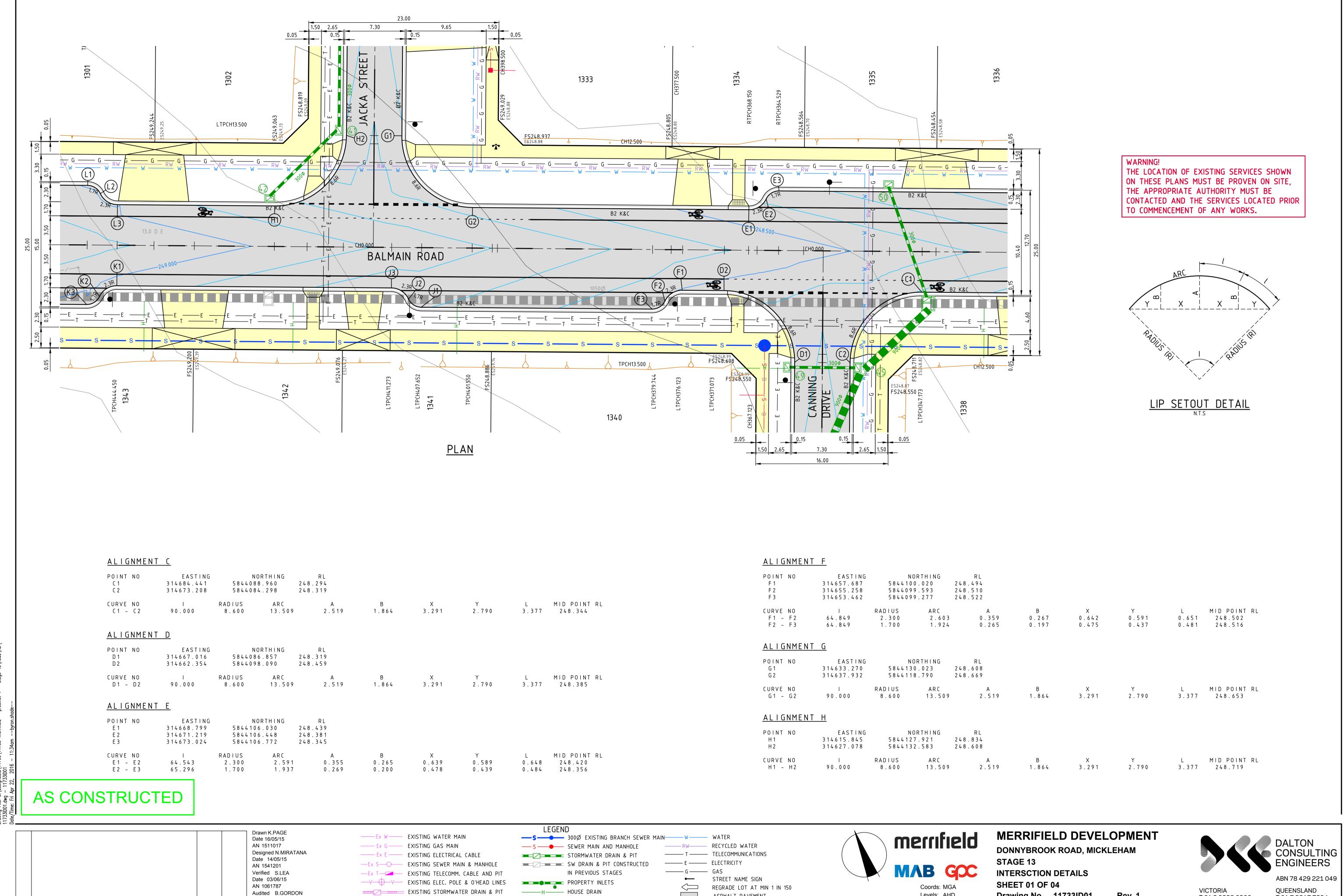
CURVE

STRAIGHT

STRAIGHT

STRAIGHT

CURVE-TANGENT



AMENDMENTS Written dimensions to take precedence over scale. Contractor shall check and verify all

1 AS CONSTRUCTED

0 CONSTRUCTION ISSUE

dimensions on site, Discrepancies to be brought to the attention of the Superintendent.

ES20.06

Date 10/11/15

Date 12/11/15

Approved T.LIAKOPOULOS

AN 162638

AN 884758

TL

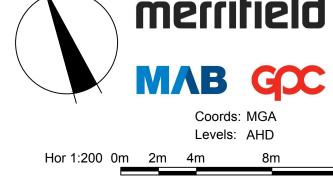
13/11/15

DATE APP'D.

CONSTRUCTED PRE DEVELOPMENT EXISTING TREES TO BE REMOVED EXISTING SURFACE LEVEL FINISHED SURFACE LEVEL OPEN EARTH DRAIN (O.E.D.)

———GC——— GAS CONDUIT ---- WATER CONDUIT ---- RECYCLED WATER CONDUIT PERMANENT SURVEY MARK

ASPHALT PAVEMENT CONC FOOTPATH / DRIVEWAY LIMIT OF WORKS FILLING OVER 300mm ______ FINISHED SURFACE CONTOUR



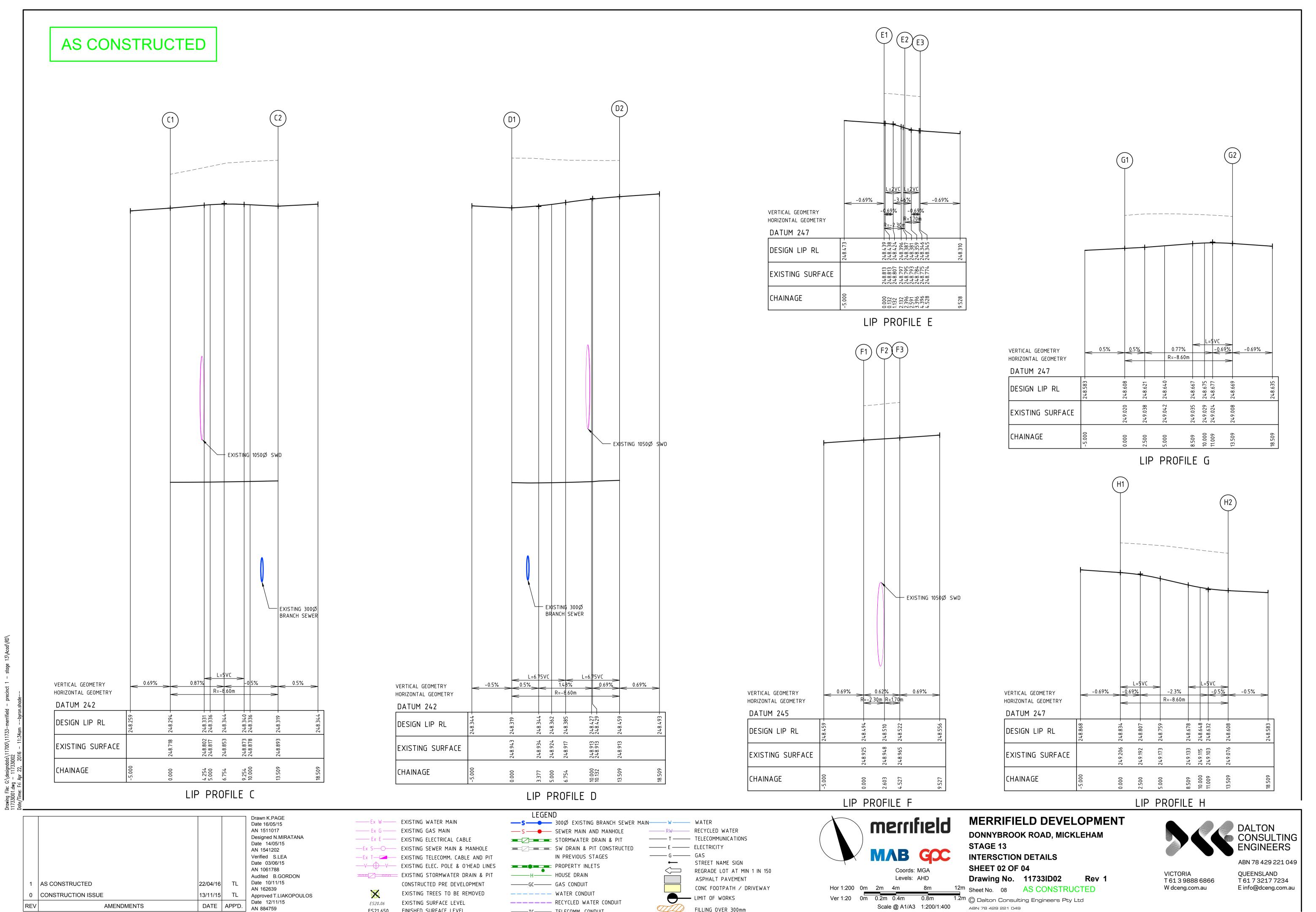
Scale @ A1/A3 1:200/1:400

Drawing No. 11733ID01 12m Sheet No. 07 AS CONSTRUCTED © Dalton Consulting Engineers Pty Ltd ABN 78 429 221 049

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Written dimensions to take precedence over scale. Contractor shall check and verify all dimensions on site, Discrepancies to be brought to the attention of the Superintendent.

FINISHED SURFACE LEVEL OPEN EARTH DRAIN (O.E.D.) PERMANENT SURVEY MARK

______ FINISHED SURFACE CONTOUR

FILLING OVER 300mm

<u>ALIGNMENT J</u> POINT NO EASTING NORTHING RL J 1 314627.670 5844109.939 248.707 J 2 314626.622 5844111.430 248.719 5844113.448 248.736 J 3 314625.203 CURVE NO RADIUS 64.849 1.700 0.265 0.197 0.475 0.437 J1 - J2 1 . 9 2 4 0.642 J2 - J3 64.849 2.300 2.603 0.359 0.267 0.591 <u>ALIGNMENT K</u> POINT NO EASTING NORTHING K 1 314594.542 5844126.123 248.965 K 2 314592.113 5844125.696 248.981 K 3 314590.317 5844125.381 248.993 CURVE NO 1 RADIUS 64.849 2.300 2.603 0.359 0.267 0.642 0.591 K1 - K2 1.924 0.265 K2 - K3 64.849 1.700 0.197 0.475 0.437 <u>ALIGNMENT L</u> POINT NO EASTING NORTHING 5844135.180 248.965 L 1 314598.286 L 2 314596.867 5844137.197 248.981 L 3 314595.819 5844138.688 248.993 CURVE NO 1 RADIUS ARC L1 - L2 64.849 2.300 2.603 0.359 0.267 0.642 0.591 L2 - L3 64.849 1.700 1.924 0.265 0.197 0.475 0.437 - EXISTING 10\$0Ø SWD EXISTING 1050Ø SWD — 0.62% 0.69% 0.57% _ 0.64% __ 0.69% 0.69% 0.69% _ 0.62% _ VERTICAL GEOMETRY VERTICAL GEOMETRY VERTICAL GEOMETRY R=-2.30m R=1.70 m R=1.70m R=-2.30 m R=2.30m R=-1.70m HORIZONTAL GEOMETRY HORIZONTAL GEOMETRY HORIZONTAL GEOMETRY DATUM 244 DATUM 245 DATUM 247 DESIGN LIP RL DESIGN LIP RL DESIGN LIP RL EXISTING SURFACE EXISTING SURFACE EXISTING SURFACE CHAINAGE CHAINAGE CHAINAGE LIP PROFILE J LIP PROFILE K LIP PROFILE L MERRIFIELD DEVELOPMENT merrifield ----Ex W---- EXISTING WATER MAIN →S→→ 300Ø EXISTING BRANCH SEWER MAIN── W WATER Date 16/05/15 AN 1511017 -----RW------ RECYCLED WATER EXISTING GAS MAIN —— S — SEWER MAIN AND MANHOLE DONNYBROOK ROAD, MICKLEHAM Designed N.MIRATANA TELECOMMUNICATIONS EXISTING ELECTRICAL CABLE STORMWATER DRAIN & PIT Date 14/05/15

PROPERTY INLETS

———GC——— GAS CONDUIT

EXISTING SEWER MAIN & MANHOLE

—Ex T—EXISTING TELECOMM. CABLE AND PIT

—V—V— EXISTING ELEC. POLE & O'HEAD LINES

EXISTING STORMWATER DRAIN & PIT

ES20.06

EXISTING SURFACE LEVEL

FINISHED SURFACE LEVEL

OPEN EARTH DRAIN (O.E.D.)

CONSTRUCTED PRE DEVELOPMENT

EXISTING TREES TO BE REMOVED

AN 1541203

Verified S.LEA

Audited B.GORDON

Approved T.LIAKOPOULOS

Date 03/06/15

Date 10/11/15

Date 12/11/15

AN 162640

22/04/16

13/11/15

DATE APP'D.

AS CONSTRUCTED

0 CONSTRUCTION ISSUE

AMENDMENTS

Written dimensions to take precedence over scale. Contractor shall check and verify all

dimensions on site, Discrepancies to be brought to the attention of the Superintendent.

AN 1061789

---- WATER CONDUIT ---- RECYCLED WATER CONDUIT PERMANENT SURVEY MARK

SW DRAIN & PIT CONSTRUCTED

IN PREVIOUS STAGES

_____155.0 FINISHED SURFACE CONTOUR

— E — ELECTRICITY

——— G ——— GAS

REGRADE LOT AT MIN 1 IN 150 ASPHALT PAVEMENT LIMIT OF WORKS FILLING OVER 300mm

STREET NAME SIGN

CONC FOOTPATH / DRIVEWAY

Levels: AHD Scale @ A1/A3 1:200/1:400

MAB GCC

Coords: MGA

STAGE 13 **INTERSCTION DETAILS**

SHEET 03 OF 04 Drawing No. 11733ID03 Rev 1 12m Sheet No. 09 AS CONSTRUCTED 1.2m © Dalton Consulting Engineers Pty Ltd

ABN 78 429 221 049



AS CONSTRUCTED

MID POINT RL

MID POINT RL

MID POINT RL

0.481 248.713

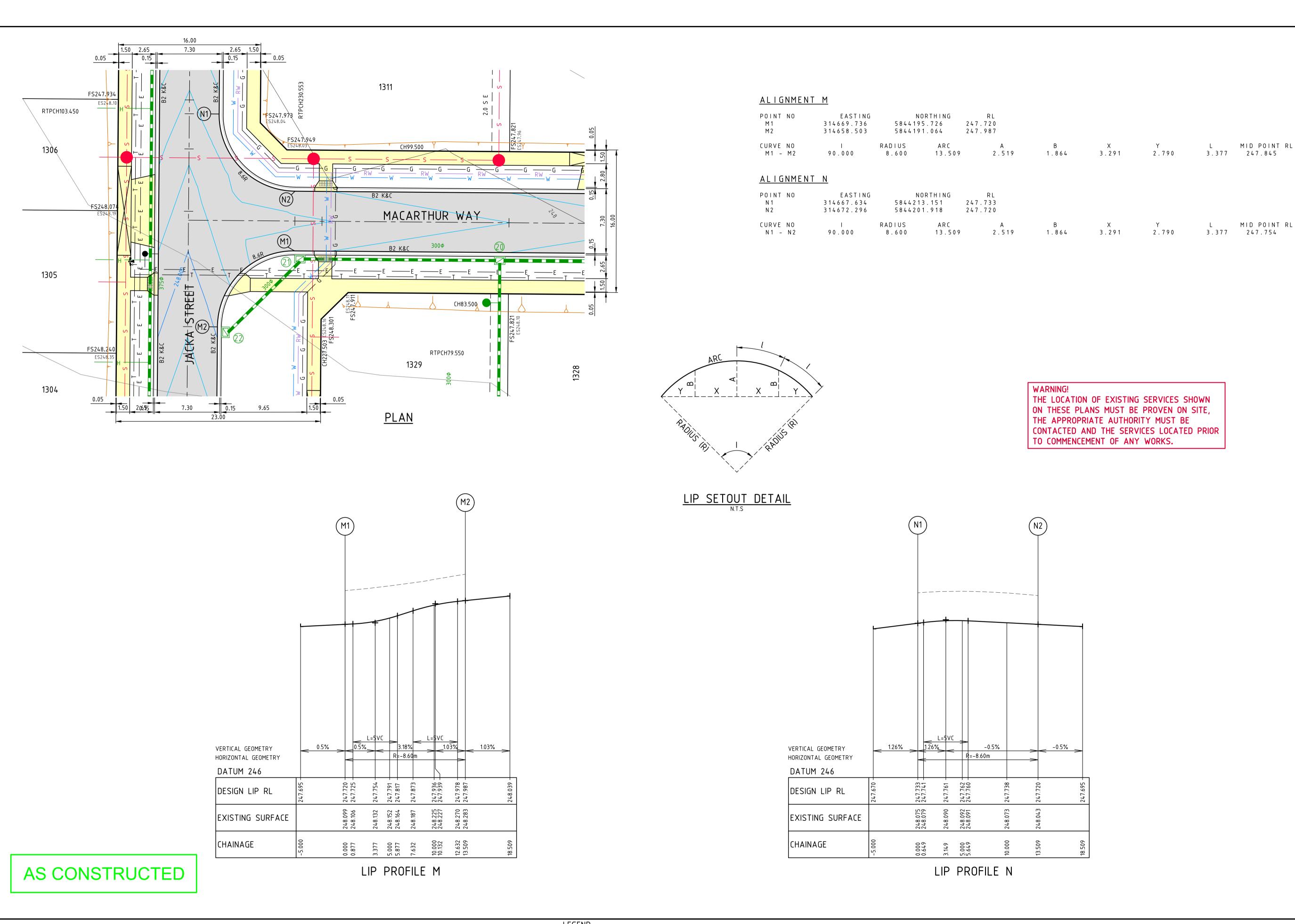
0.651 248.728

0.651 248.973

0.481 248.987

0.651 248.973

0.481 248.987



AS CONSTRUCTED

0 CONSTRUCTION ISSUE

AN 1511017 Designed N.MIRATANA Date 14/05/15 AN 1541204 Verified S.LEA Date 03/06/15 AN 1061790 Audited B.GORDON Date 10/11/15 AN 162641 Approved T.LIAKOPOULOS Date 12/11/15 DATE APP'D.

AN 884761

22/04/16

13/11/15

Date 16/05/15

—— Ex G — EXISTING GAS MAIN EXISTING ELECTRICAL CABLE —Ex S—O— EXISTING SEWER MAIN & MANHOLE —Ex T—EXISTING TELECOMM. CABLE AND PIT —V—V— EXISTING ELEC. POLE & O'HEAD LINES EXISTING STORMWATER DRAIN & PIT CONSTRUCTED PRE DEVELOPMENT EXISTING TREES TO BE REMOVED

ES20.06

----Ex W---- EXISTING WATER MAIN

SW DRAIN & PIT CONSTRUCTED IN PREVIOUS STAGES PROPERTY INLETS ———GC——— GAS CONDUIT ---- WATER CONDUIT ---- RECYCLED WATER CONDUIT EXISTING SURFACE LEVEL FINISHED SURFACE LEVEL OPEN EARTH DRAIN (O.E.D.)

-----RW------ RECYCLED WATER —— S — SEWER MAIN AND MANHOLE TELECOMMUNICATIONS STORMWATER DRAIN & PIT — E — ELECTRICITY ——— G ——— GAS STREET NAME SIGN REGRADE LOT AT MIN 1 IN 150 ASPHALT PAVEMENT CONC FOOTPATH / DRIVEWAY LIMIT OF WORKS FILLING OVER 300mm ______ FINISHED SURFACE CONTOUR PERMANENT SURVEY MARK

→S→→ 300Ø EXISTING BRANCH SEWER MAIN── W WATER



merrifield

INTERSCTION DETAILS SHEET 04 OF 04 Coords: MGA Levels: AHD

Drawing No. 11733ID04 Rev 1 12m Sheet No. 10 AS CONSTRUCTED Ver 1:20 0m 0.2m 0.4m 0.8m 1.2m © Dalton Consulting Engineers Pty Ltd Scale @ A1/A3 1:200/1:400 ABN 78 429 221 049

MERRIFIELD DEVELOPMENT

DONNYBROOK ROAD, MICKLEHAM

STAGE 13



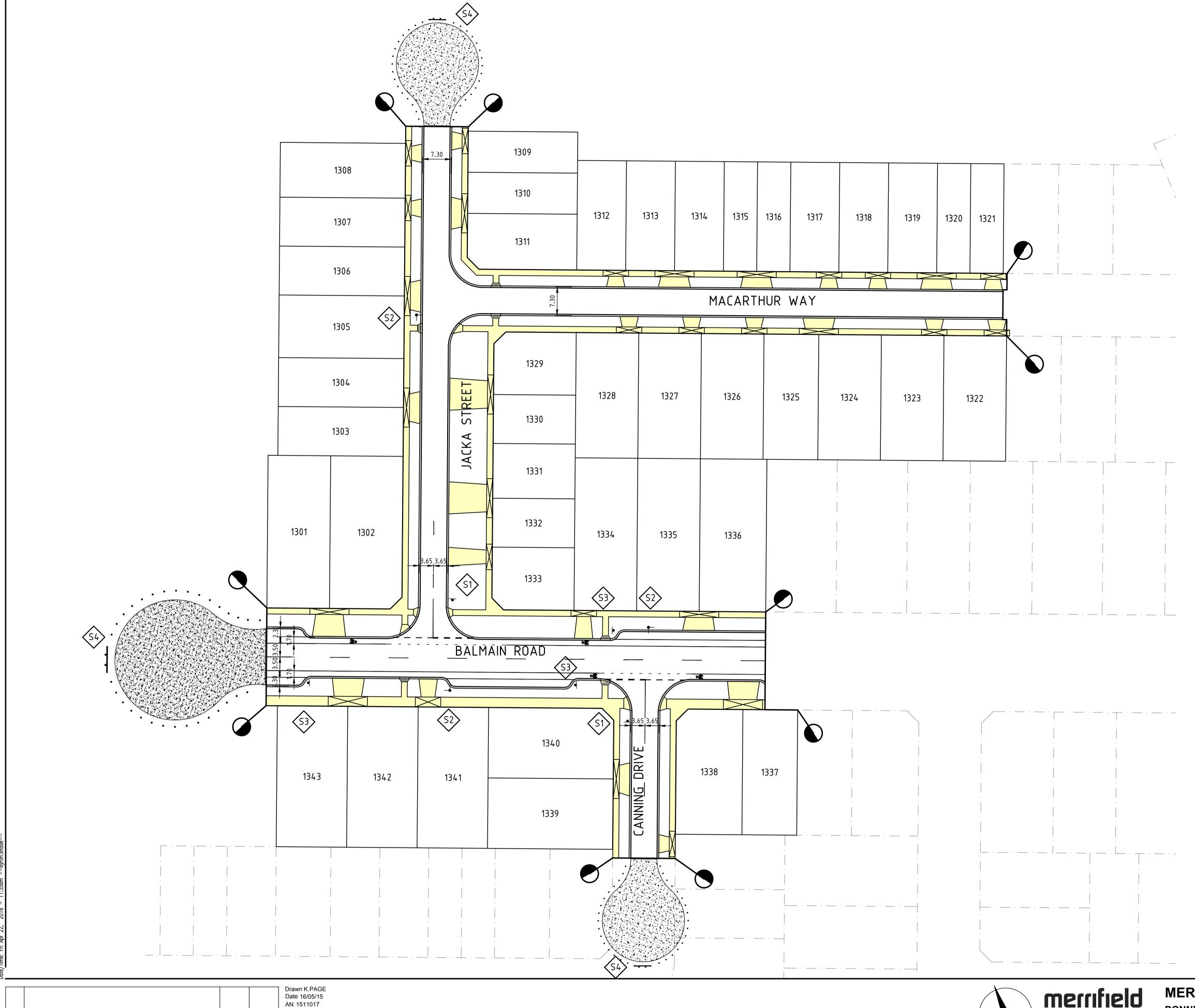
ENGINEERS ABN 78 429 221 049 QUEENSLAND T 61 7 3217 7234

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DALTON

AMENDMENTS



LINEMARKING LEGEND

■ ■ ■ 300mm WIDE GIVE WAY HOLDING LINE 200mm WIDE GIVE WAY LINE

200mm WIDE CONTINUITY LINE

RAISED REFLECTIVE PAVEMENT MARKERS (SPACED AT 6m c/c UNLESS NOTED OTHERWISE)

DENOTES TACTILE GROUND INDICATORS IN ACCORDANCE WITH AS. 1428

100mm WIDE BARRIER LINE

1. ALL WORKS TO BE IN ACCORDANCE WITH AS1742. ALL LINEMARKING AND SIGNAGE TO BE IN ACCORDANCE WITH VICROADS LINEMARKING AND TRAFFIC MANUALS.

2. LINEMARKING SET-OUT SHALL BE INSPECTED AND APPROVED BEFORE FINAL LINEMARKING IS CARRIED OUT.

3. ALL LINEMARKING TO BE AS PER HUME CITY COUNCIL NOTE

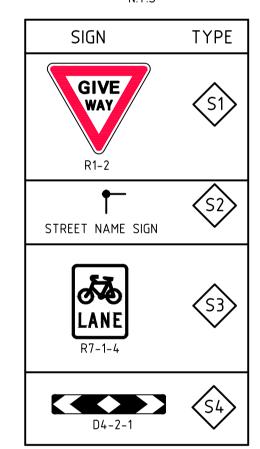
4. ANY OBSOLETE LINEMARKING IS TO BE REMOVED BY GRINDING, STRIPPING OR THE APPLICATION OF BITUMEN BINDER

5. ALL RADII ARE TO LIP OF CHANNEL OR LINE OF KERB. ALL LANE WIDTHS ARE TO LIP OF KERB & CHANNEL

AND GRIT PRIOR TO "NEW" LINEMARKING BEING PLACED.

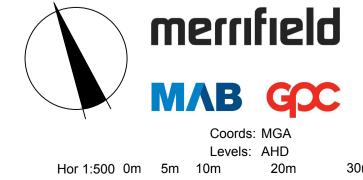
6. RRPM'S TO BE PROVIDED IN ACCORDANCE WITH AS1742.

SIGNAGE LEGEND N.T.S



Designed N.MIRATANA Date 14/05/15 AN 1541205 Verified S.LEA Date 03/06/15 AN 1061791 Audited B.GORDON AS CONSTRUCTED Date 10/11/15 AN 162642 0 CONSTRUCTION ISSUE 13/11/15 Approved T.LIAKOPOULOS Date 12/11/15 DATE APP'D. **AMENDMENTS** AN 884762

AS CONSTRUCTED



Scale @ A1/A3 1:500/1:1000

MERRIFIELD DEVELOPMENT DONNYBROOK ROAD, MICKLEHAM STAGE 13 SIGNAGE AND LINE MARKING PLAN

Drawing No. 11733LM01

ABN 78 429 221 049

Sheet No. 11 AS CONSTRUCTED © Dalton Consulting Engineers Pty Ltd



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EXISTING STAGE 15 STAGE 13 Ø300 \$WD 0.690% 0.690% VERTICAL GEOMETRY HORIZONTAL GEOMETRY DATUM RL241 DESIGN RIGHT 248.213 248.225 KERB RL DESIGN LEFT KERB RL 248.640 248.670 EXISTING SURFACE RL DESIGN SURFACE RL CHAINAGE

BALMAIN ROAD

Date 16/05/15 AN 1511017 Designed N.MIRATANA Date 14/05/15 AN 1541206 Verified S.LEA Date 03/06/15 AN 1061792 Audited B.GORDON 22/04/16 TL Date 10/11/15 AS CONSTRUCTED AN 162643 0 CONSTRUCTION ISSUE 13/11/15 Approved T.LIAKOPOULOS Date 12/11/15 DATE APP'D. | Date 12/11/. **AMENDMENTS**

AS CONSTRUCTED

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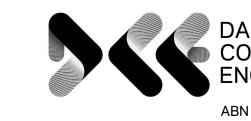
MAB GCC Coords: MGA

Levels: AHD 0.5m 1m 2m 3m © Dalton Consulting Engineers Pty Ltd Scale @ A1/A3 1:500/1:1000 ABN 78 429 221 049

MERRIFIELD DEVELOPMENT DONNYBROOK ROAD, MICKLEHAM STAGE 13

LONGITUDINAL SECTIONS

SHEET 01 OF 04 Drawing No. 11733LS01 Rev 1 Hor 1:500 0m 5m 10m 20m 30m Sheet No. 12 AS CONSTRUCTED



— EXISTING Ø225 BRANCH SEWER -0.500% -1.257% VERTICAL GEOMETRY R=60.00m R=-60.00m HORIZONTAL GEOMETRY DATUM RL239 DESIGN RIGHT 247.380 247.339 247.323 KERB RL DESIGN LEFT KERB RL EXISTING SURFACE RL DESIGN SURFACE RL CHAINAGE JACKA STREET

Date 16/05/15 AN 1511017 Designed N.MIRATANA Date 14/05/15 AN 1541207 Verified S.LEA Date 03/06/15 AN 1061793 Audited B.GORDON 1 AS CONSTRUCTED 22/04/16 TL Date 10/11/15 AN 162644 0 CONSTRUCTION ISSUE 13/11/15 Approved T.LIAKOPOULOS Date 12/11/15 DATE APP'D. | Date 12/11/. **AMENDMENTS**

AS CONSTRUCTED

merrifield

MAB GCC Coords: MGA Levels: AHD

MERRIFIELD DEVELOPMENT DONNYBROOK ROAD, MICKLEHAM STAGE 13

LONGITUDINAL SECTIONS

SHEET 02 OF 04 Drawing No. 11733LS02 Rev 1 Hor 1:500 0m 5m 10m 20m 30m Sheet No. 13 AS CONSTRUCTED 0.5m 1m 2m 3m © Dalton Consulting Engineers Pty Ltd Scale @ A1/A3 1:500/1:1000 ABN 78 429 221 049



ABN 78 429 221 049 QUEENSLAND T 61 7 3217 7234 E info@dceng.com.au

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Drawn K.PAGE Date 16/05/15 AN 1511017 Designed N.MIRATANA Date 14/05/15 AN 1541208 Verified S.LEA Date 03/06/15 AN 1061794 Audited B.GORDON 22/04/16 TL Date 10/11/15 1 AS CONSTRUCTED AN 162645 0 CONSTRUCTION ISSUE 13/11/15 TL Approved T.LIAKOPOULOS Date 12/11/15 DATE APP'D. AN 884765 AMENDMENTS

AS CONSTRUCTED

Ø 1050 SWD

CANNING DRIVE

VERTICAL GEOMETRY

HORIZONTAL GEOMETRY

DATUM RL239

DESIGN RIGHT KERB RL

DESIGN LEFT KERB RL

EXISTING SURFACE RL

DESIGN

SURFACE RL

CHAINAGE

Ø300 BRANCH SEWER

merrifield

MAB GCC Coords: MGA Levels: AHD

0.500%

R = -75.00 m

R=-30.00m

R=30.00m

LONGITUDINAL SECTIONS **SHEET 03 OF 04** Drawing No. 11733LS03 Rev 1 Hor 1:500 0m 5m 10m 20m 30m Sheet No. 14 AS CONSTRUCTED 0.5m 1m 2m 3m © Dalton Consulting Engineers Pty Ltd
Scale @ A1/A3 1:500/1:1000 ABN 78 429 221 049

STAGE 13

MERRIFIELD DEVELOPMENT

DONNYBROOK ROAD, MICKLEHAM



ABN 78 429 221 049 QUEENSLAND T 61 7 3217 7234 E info@dceng.com.au

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EXISTING STAGE 12 STAGE 13 EXISTING Ø 150 SEWER VERTICAL GEOMETRY R=30.00m HORIZONTAL GEOMETRY DATUM RL240 DESIGN RIGHT KERB RL DESIGN LEFT KERB RL 247.369 247.372 247.380 247.468 247.484 247.488 EXISTING SURFACE RL DESIGN SURFACE RL CHAINAGE

MACARTHUR WAY

Date 16/05/15 AN 1511017 Designed N.MIRATANA Date 14/05/15 AN 1541209 Verified S.LEA Date 03/06/15 AN 1061795 Audited B.GORDON 22/04/16 TL Date 10/11/15 AS CONSTRUCTED AN 162646 0 CONSTRUCTION ISSUE 13/11/15 Approved T.LIAKOPOULOS Date 12/11/15 DATE APP'D. | Date 12/11/. **AMENDMENTS**

AS CONSTRUCTED

merrifield

MAB GCC Coords: MGA

Levels: AHD Scale @ A1/A3 1:500/1:1000 ABN 78 429 221 049

MERRIFIELD DEVELOPMENT DONNYBROOK ROAD, MICKLEHAM STAGE 13

LONGITUDINAL SECTIONS **SHEET 04 OF 04**

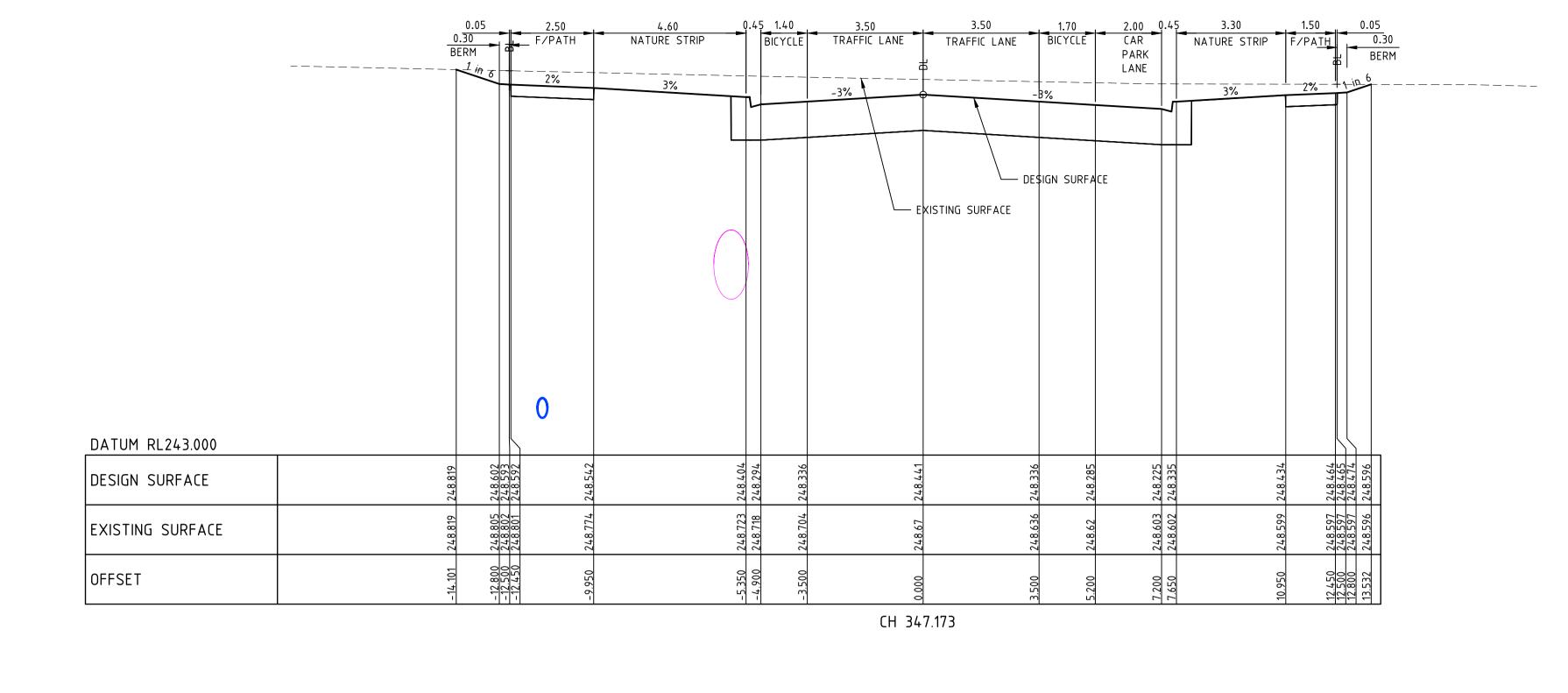
Drawing No. 11733LS04 Rev 1 Hor 1:500 0m 5m 10m 20m 30m Sheet No. 15 AS CONSTRUCTED 3m © Dalton Consulting Engineers Pty Ltd

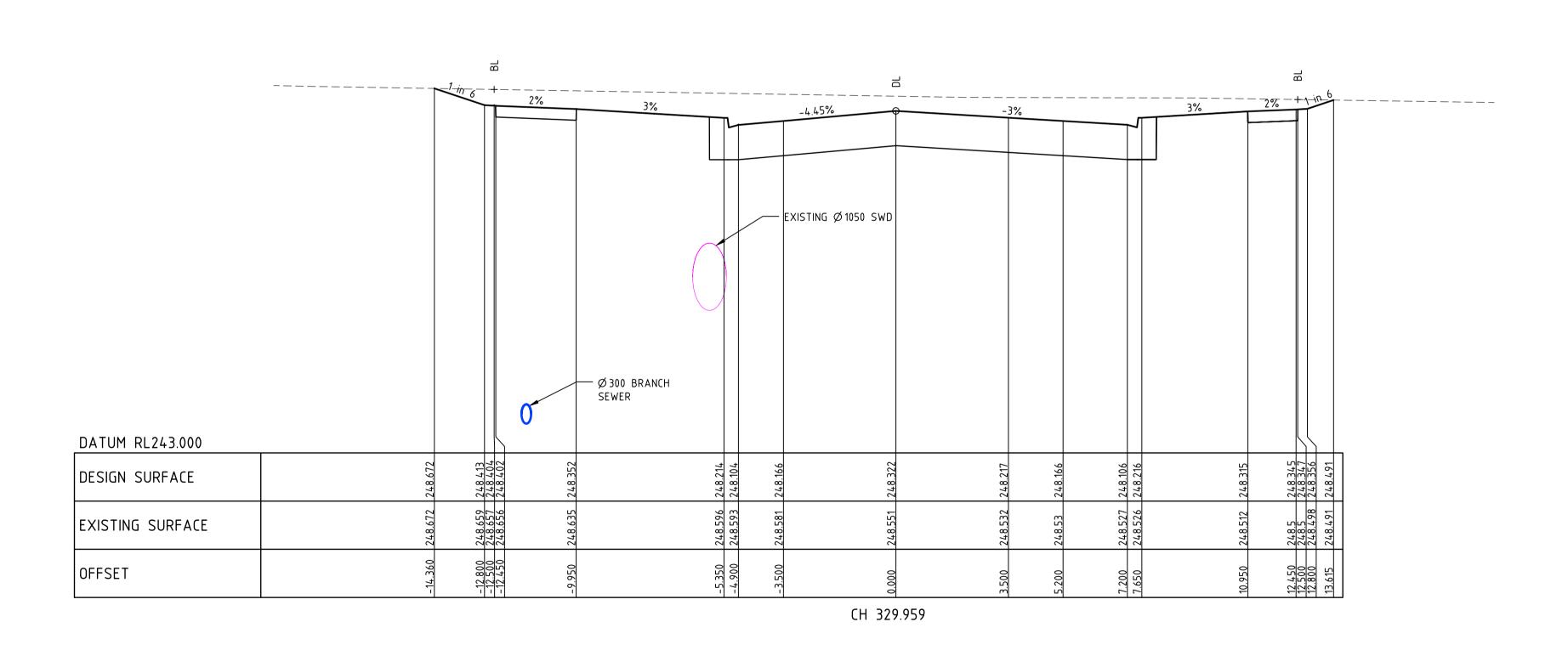


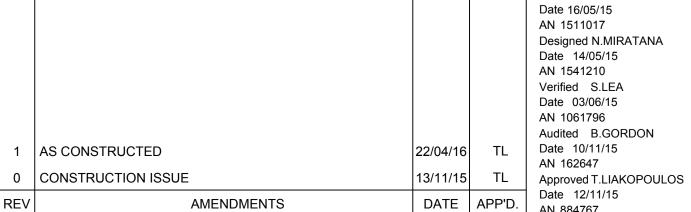
VICTORIA T 61 3 9888 6866

ABN 78 429 221 049 QUEENSLAND T 61 7 3217 7234 E info@dceng.com.au

Written dimensions to take precedence over scale. Contractor shall check and verify all dimensions on site, Discrepancies to be brought to the attention of the Superintendent.







AS CONSTRUCTED



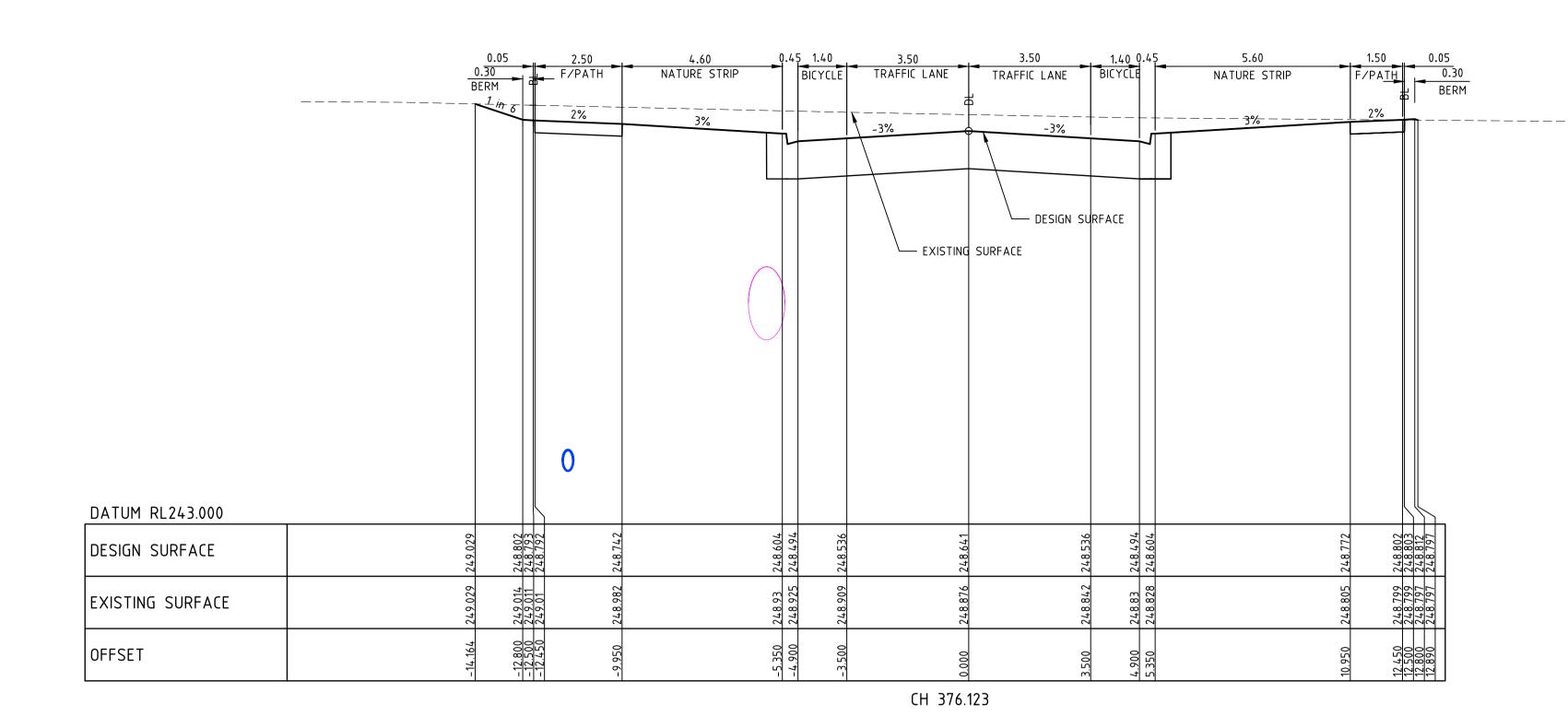
MERRIFIELD DEVELOPMENT
DONNYBROOK ROAD, MICKLEHAM
STAGE 13
CROSS SECTIONS
SHEET 01 OF 10

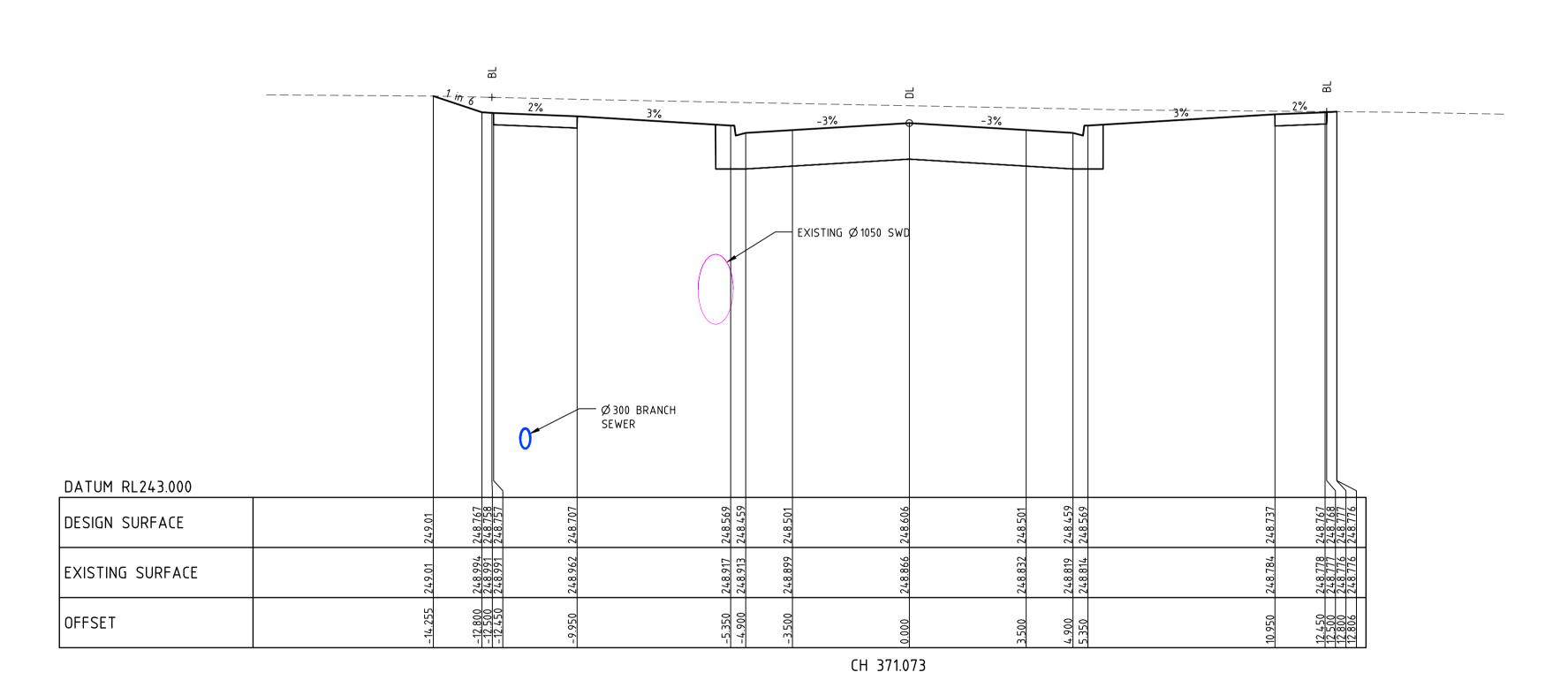
CROSS SECTIONS
SHEET 01 OF 10
Drawing No. 11733XS01 Rev 1

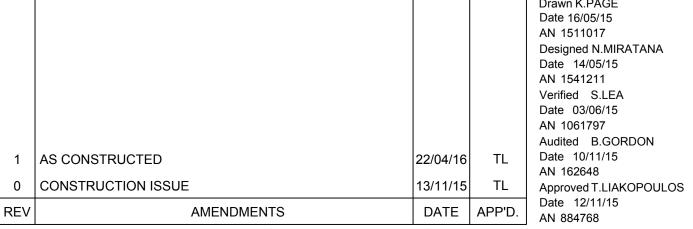
6m Sheet No. 16 AS CONSTRUCTED
3m © Dalton Consulting Engineers Pty Ltd



VICTORIA T 61 3 9888 6866







AS CONSTRUCTED



MERRIFIELD DEVELOPMENT DONNYBROOK ROAD, MICKLEHAM STAGE 13 **CROSS SECTIONS SHEET 02 OF 10** Drawing No. 11733XS02 Rev 1 6m Sheet No. 17 AS CONSTRUCTED



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Written dimensions to take precedence over scale. Contractor shall check and verify all dimensions on site, Discrepancies to be brought to the attention of the Superintendent.

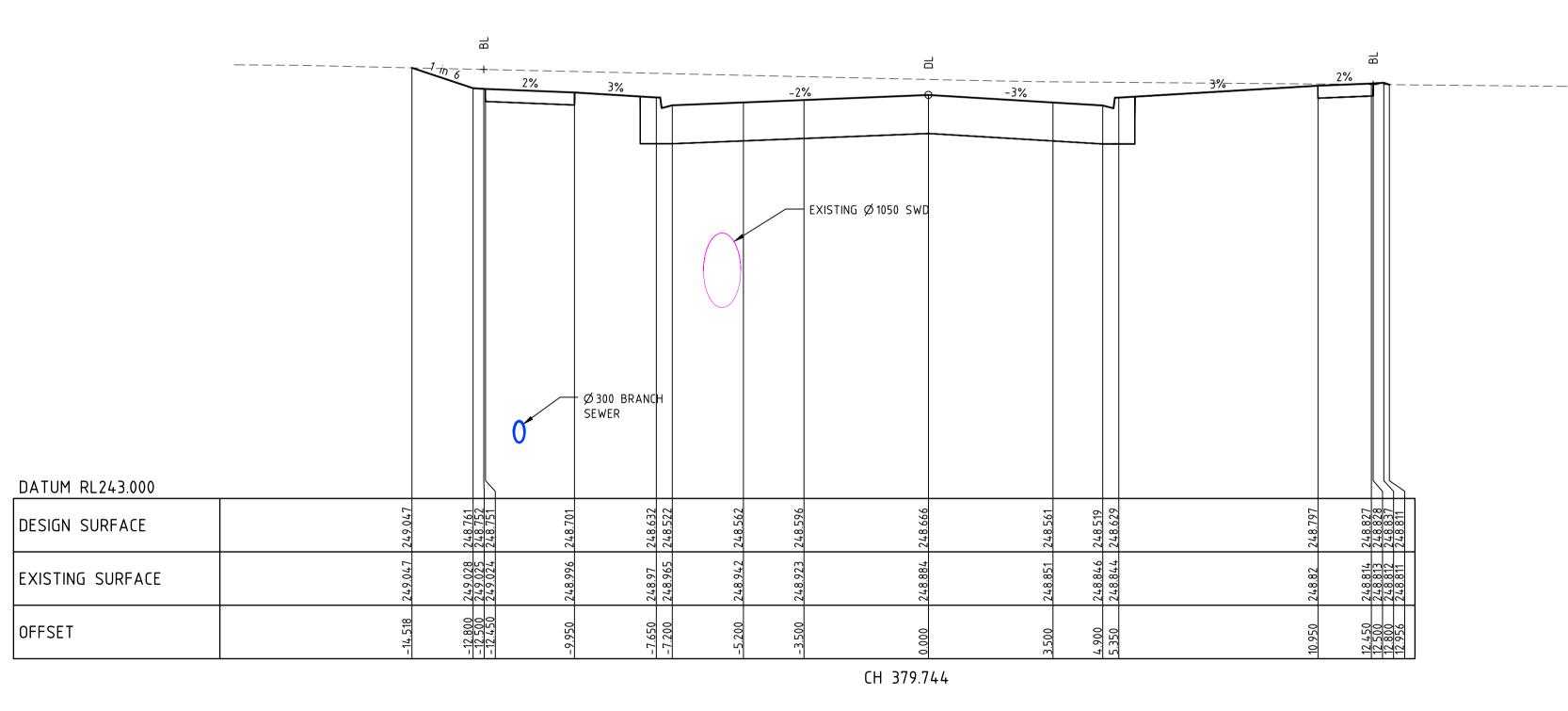
W dceng.com.au

TRAFFIC LANE

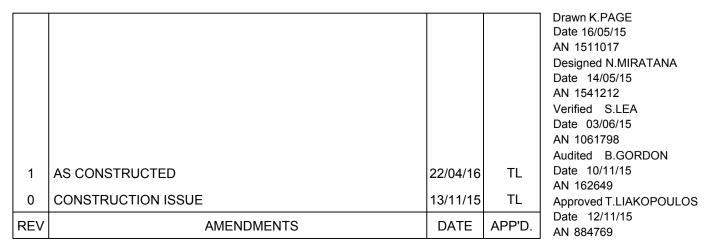
2.30 0.45 2.00 1.70

NATURE STRIP CAR
PARK BICYCLE

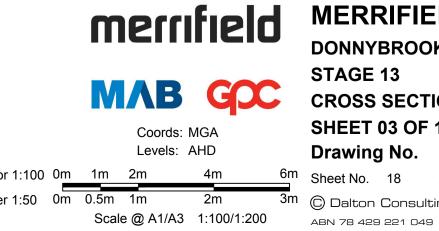
LANE



BALMAIN ROAD



AS CONSTRUCTED



F/PATH

BERM

NATURE STRIP

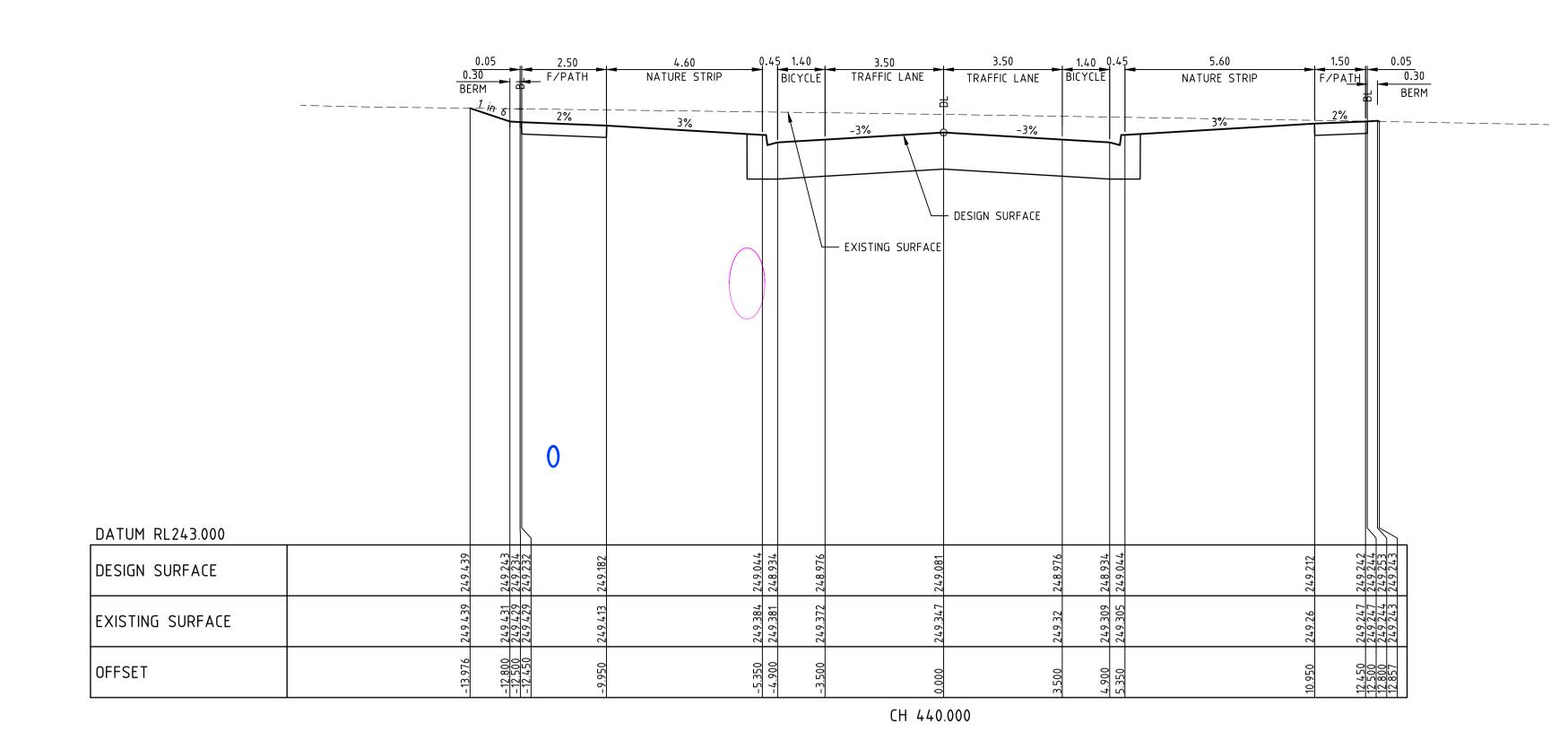
MERRIFIELD DEVELOPMENT
DONNYBROOK ROAD, MICKLEHAM
STAGE 13
CROSS SECTIONS

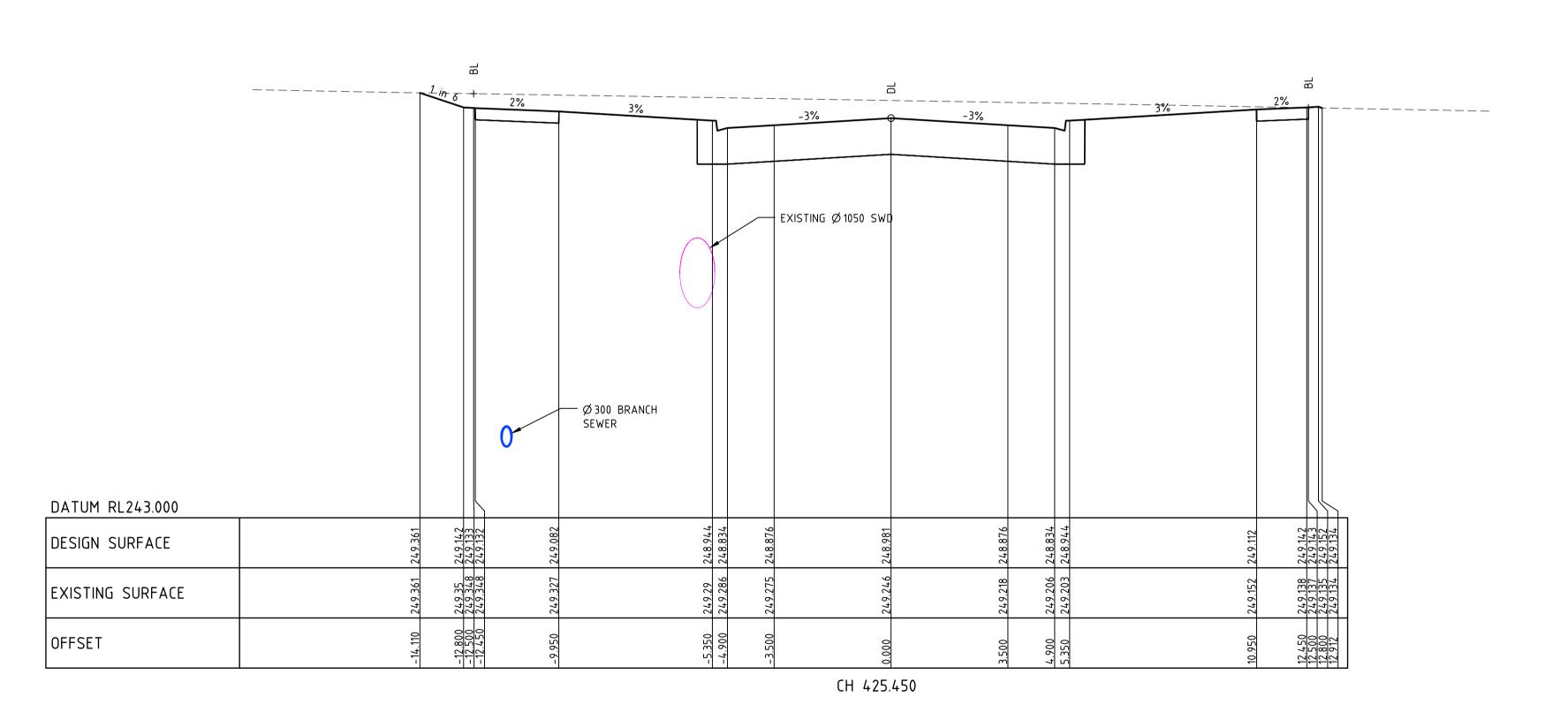
CROSS SECTIONS
SHEET 03 OF 10
Drawing No. 11733XS03 Rev 1

6m Sheet No. 18 AS CONSTRUCTED
3m © Dalton Consulting Engineers Pty Ltd



VICTORIA T 61 3 9888 6866





				Drawn K.PAGE Date 16/05/15 AN 1511017 Designed N.MIRATANA Date 14/05/15 AN 1541213 Verified S.LEA Date 03/06/15 AN 1061799
1	AS CONSTRUCTED	22/04/16	TL	Audited B.GORDON Date 10/11/15 AN 162650
0	CONSTRUCTION ISSUE	13/11/15	TL	Approved T.LIAKOPOULOS
REV	AMENDMENTS	DATE	APP'D.	Date 12/11/15

AS CONSTRUCTED



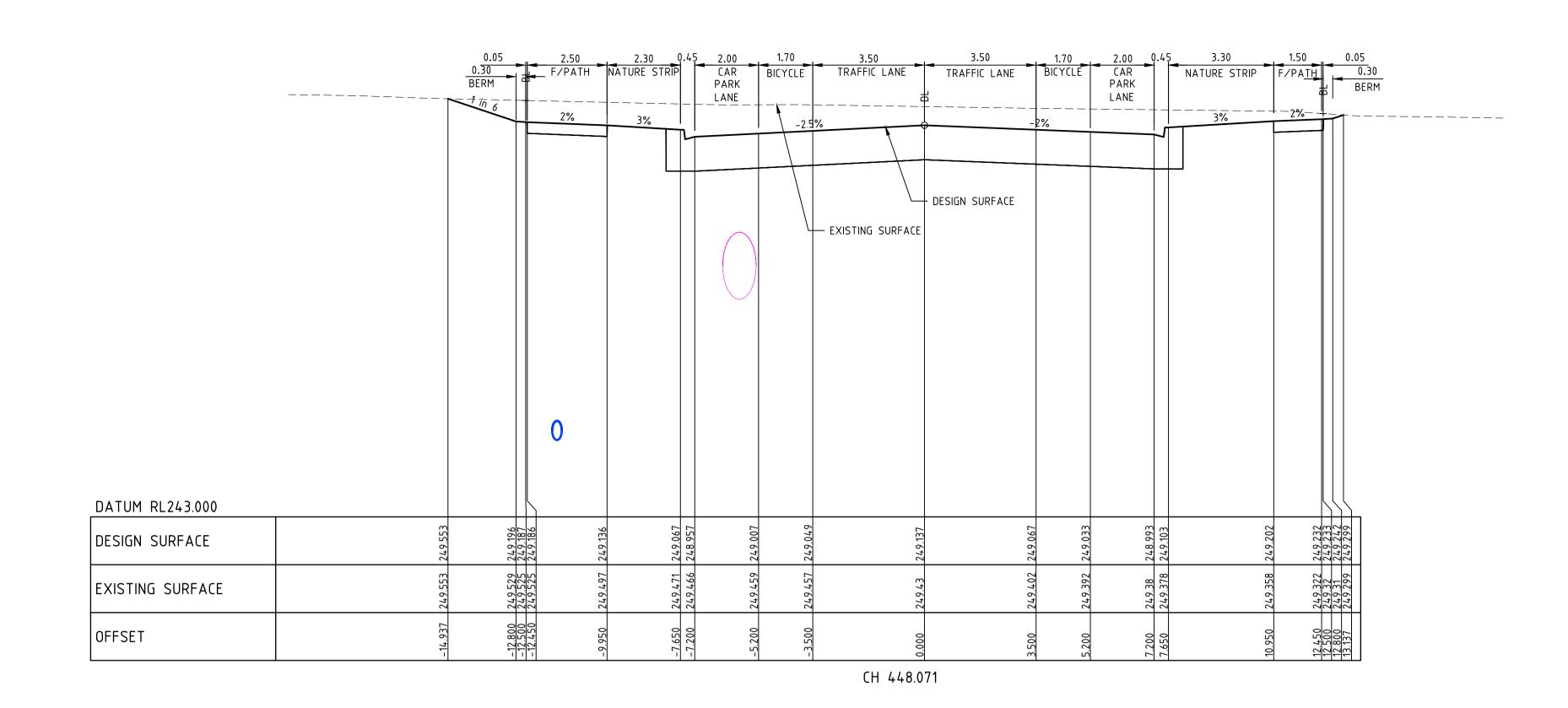
MERRIFIELD DEVELOPMENT DONNYBROOK ROAD, MICKLEHAM STAGE 13 **CROSS SECTIONS**

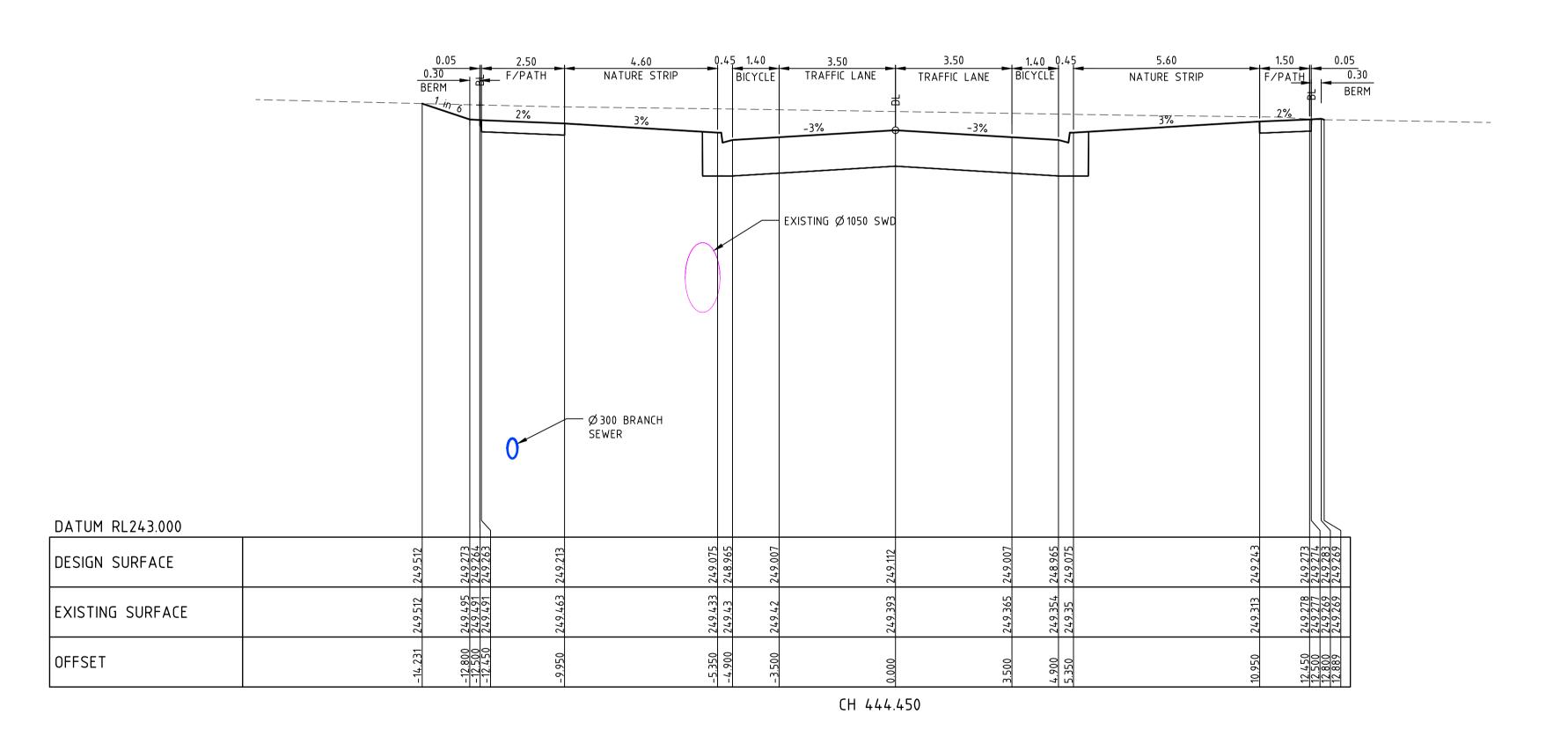
SHEET 04 OF 10 Drawing No. 11733XS04 6m Sheet No. 19 AS CONSTRUCTED 3m © Dalton Consulting Engineers Pty Ltd



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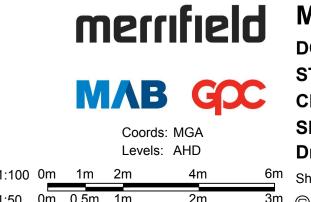
dimensions on site, Discrepancies to be brought to the attention of the Superintendent.





Date 16/05/15 AN 1511017 Designed N.MIRATANA Date 14/05/15 AN 1541214 Verified S.LEA Date 03/06/15 AN 1061800 Audited B.GORDON 22/04/16 TL Date 10/11/15 AS CONSTRUCTED AN 162651 0 CONSTRUCTION ISSUE 13/11/15 Approved T.LIAKOPOULOS Date 12/11/15 DATE APP'D. **AMENDMENTS** AN 884771

AS CONSTRUCTED



MERRIFIELD DEVELOPMENT

DONNYBROOK ROAD, MICKLEHAM

STAGE 13

CROSS SECTIONS

SHEET 05 OF 10

Drawing No. 11733XS05 Rev. 1

CROSS SECTIONS

Coords: MGA
Levels: AHD

Drawing No. 11733XS05 Rev 1

The 2m 4m 6m Sheet No. 20 AS CONSTRUCTED

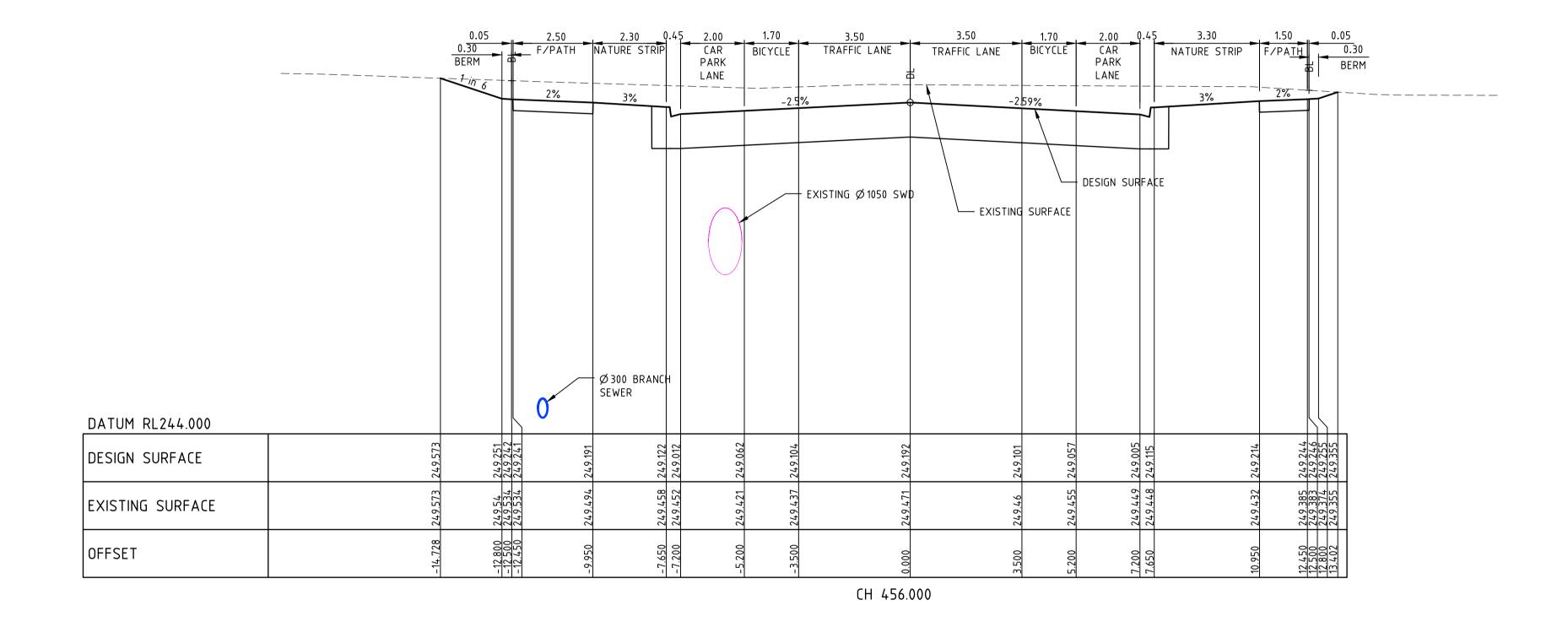
0.5m 1m 2m 3m © Dalton Consulting Engineers Pty Ltd

Scale @ A1/A3 1:100/1:200

ABN 78 429 221 049

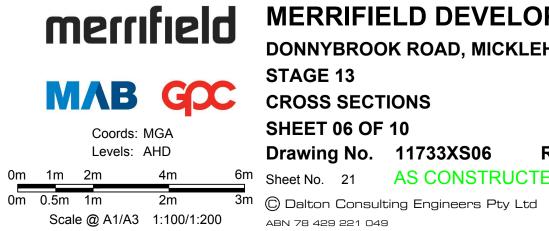


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Drawn K.PAGE Date 16/05/15 AN 1511017 Designed N.MIRATANA Date 14/05/15 AN 1541215 Verified S.LEA Date 03/06/15 AN 1061801 Audited B.GORDON 22/04/16 TL Date 10/11/15 1 AS CONSTRUCTED AN 162652 0 CONSTRUCTION ISSUE 13/11/15 Approved T.LIAKOPOULOS Date 12/11/15 DATE APP'D. | Date 12/11/. AN 884772 **AMENDMENTS**

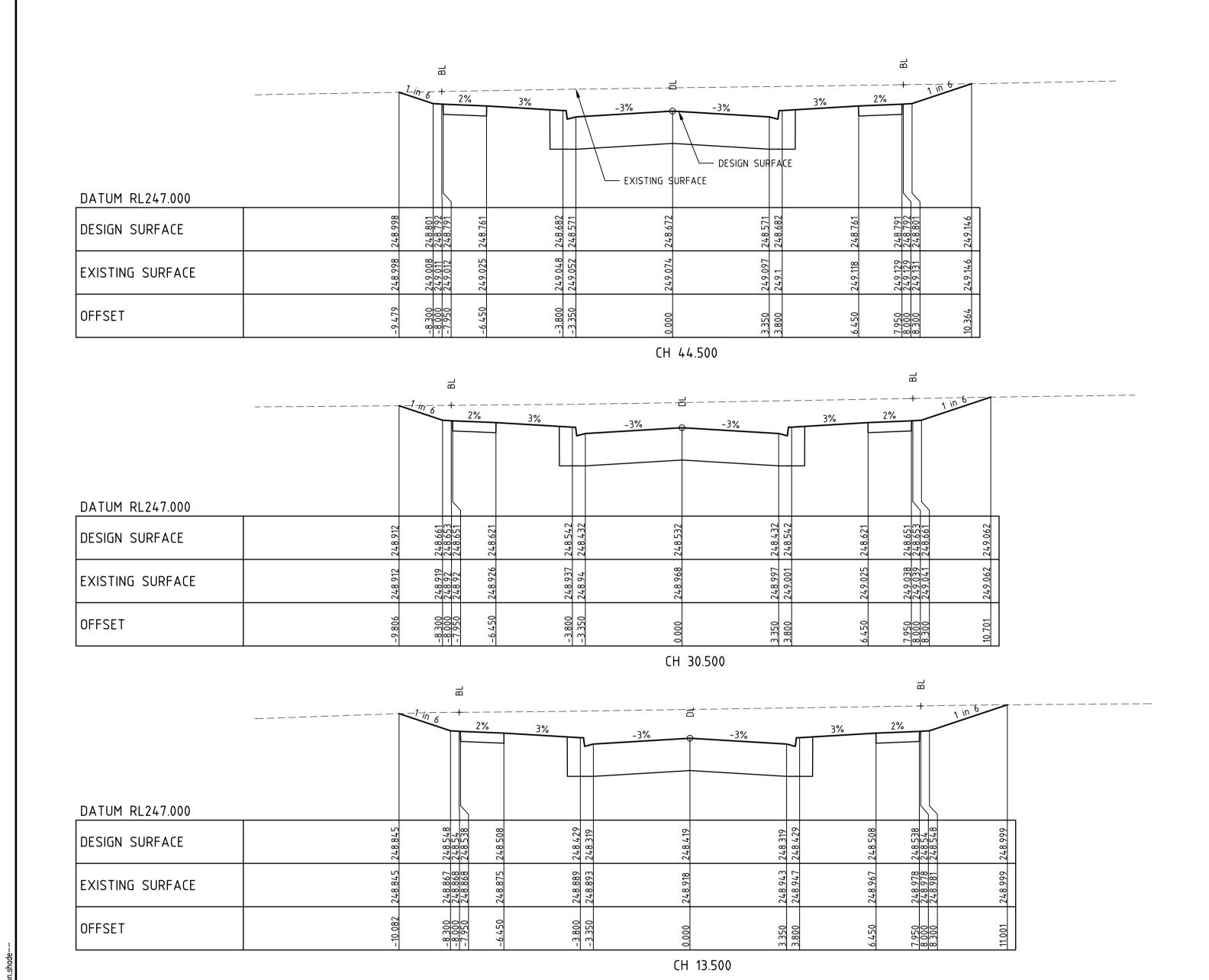
AS CONSTRUCTED

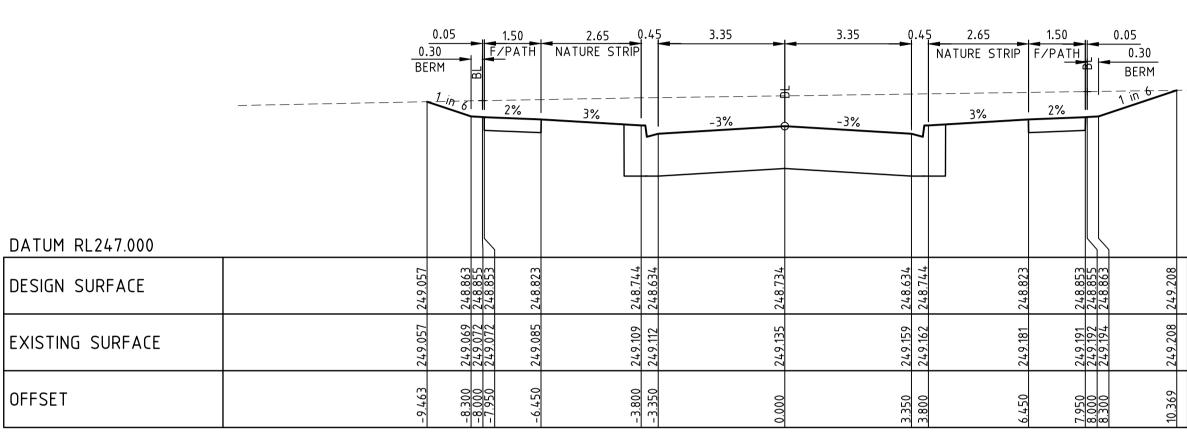


MERRIFIELD DEVELOPMENT DONNYBROOK ROAD, MICKLEHAM STAGE 13

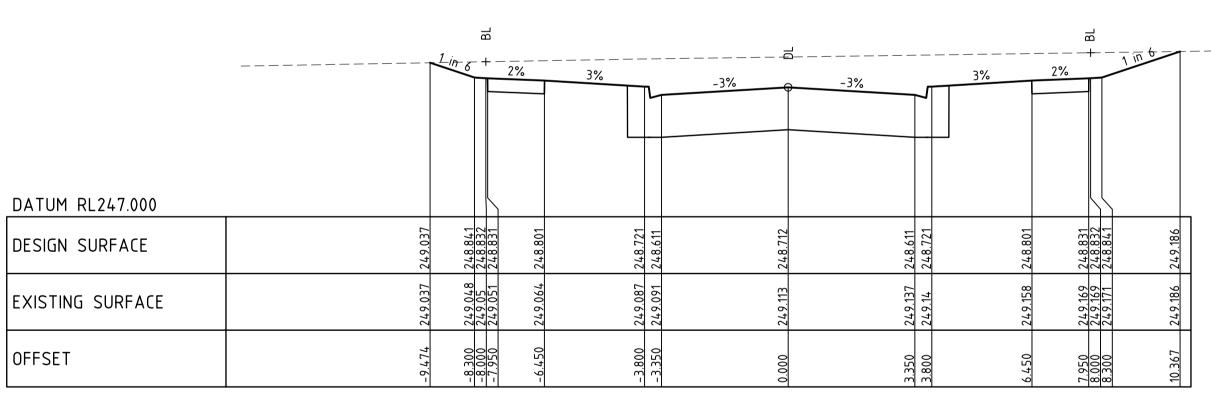
CROSS SECTIONS SHEET 06 OF 10 Drawing No. 11733XS06 Rev 1 6m Sheet No. 21 AS CONSTRUCTED

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CH 50.700



CH 48.500

CANNING DRIVE

Date 16/05/15 AN 1511017 Designed N.MIRATANA Date 14/05/15 AN 1541216 Verified S.LEA Date 03/06/15 AN 1061802 Audited B.GORDON AS CONSTRUCTED Date 10/11/15 22/04/16 AN 162653 0 CONSTRUCTION ISSUE 13/11/15 Approved T.LIAKOPOULOS Date 12/11/15 DATE APP'D. AN 884773 **AMENDMENTS**

AS CONSTRUCTED



MAB GCC Coords: MGA

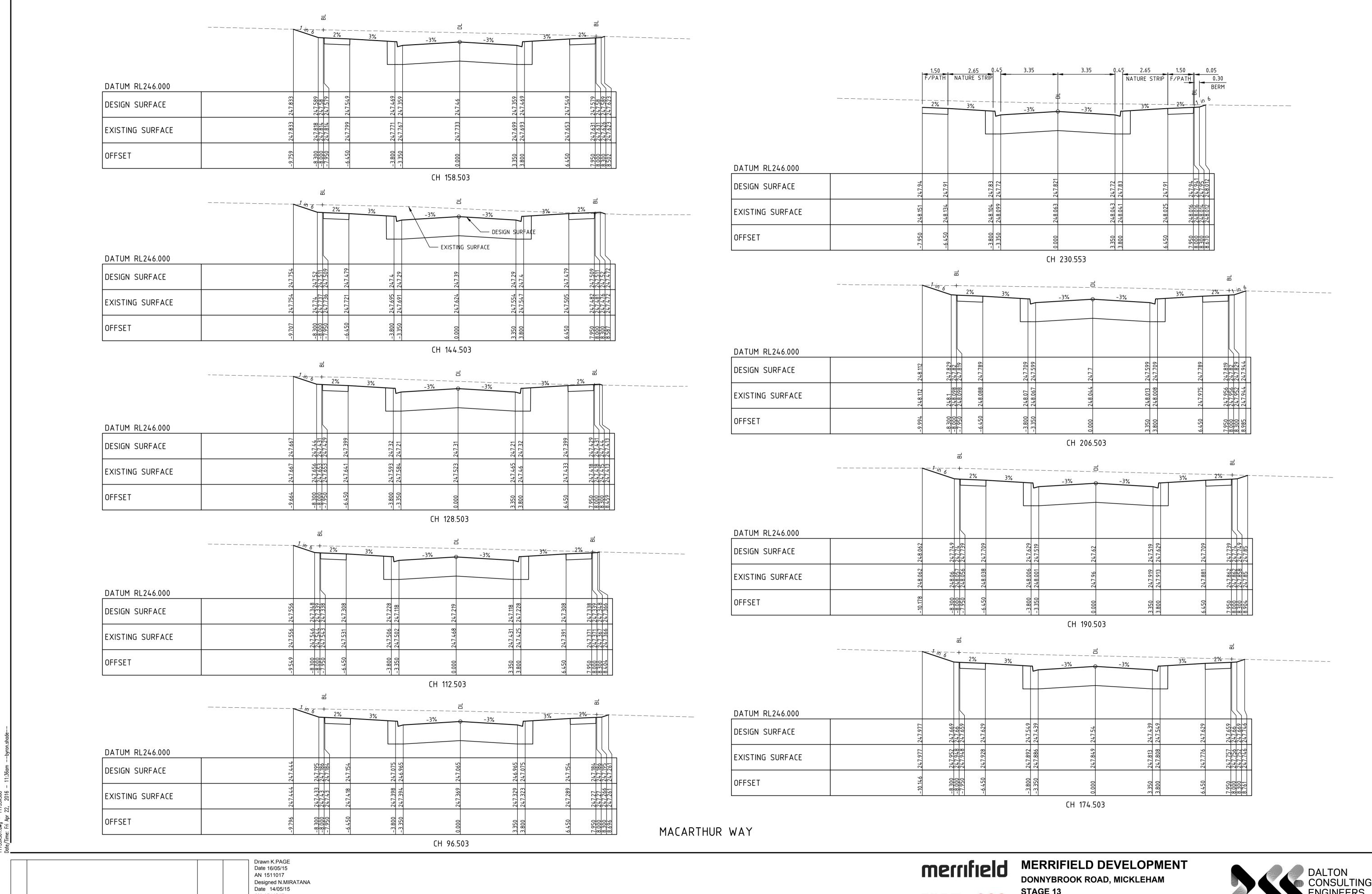
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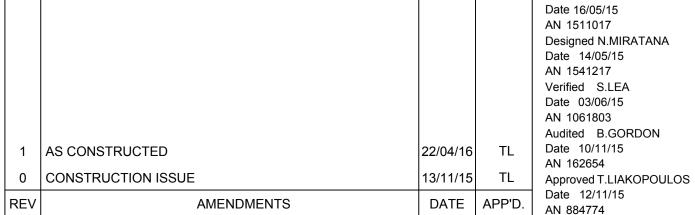
MERRIFIELD DEVELOPMENT DONNYBROOK ROAD, MICKLEHAM STAGE 13

CROSS SECTIONS SHEET 07 OF 10 Drawing No. 11733XS07 Rev 1 6m Sheet No. 22 AS CONSTRUCTED

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AS CONSTRUCTED

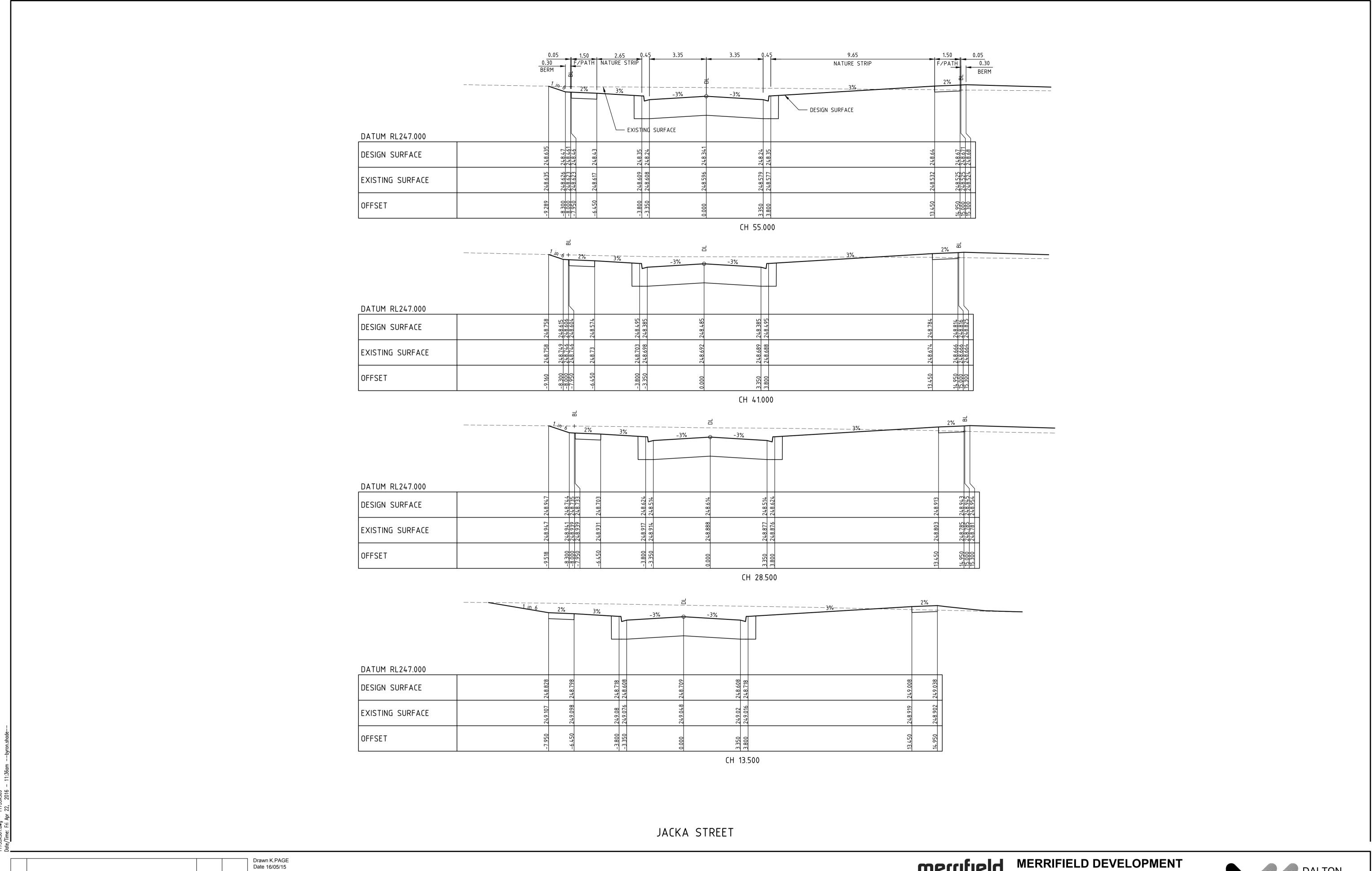


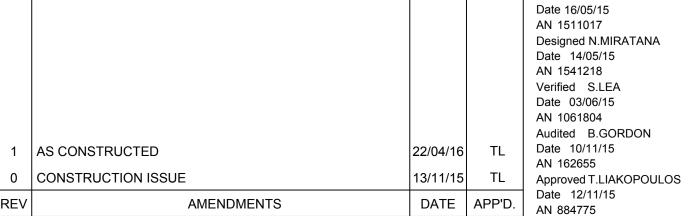
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STAGE 13 **CROSS SECTIONS**

SHEET 08 OF 10 Drawing No. 11733XS08 Rev 1 6m Sheet No. 23 AS CONSTRUCTED 3m © Dalton Consulting Engineers Pty Ltd







AS CONSTRUCTED



Scale @ A1/A3 1:100/1:200

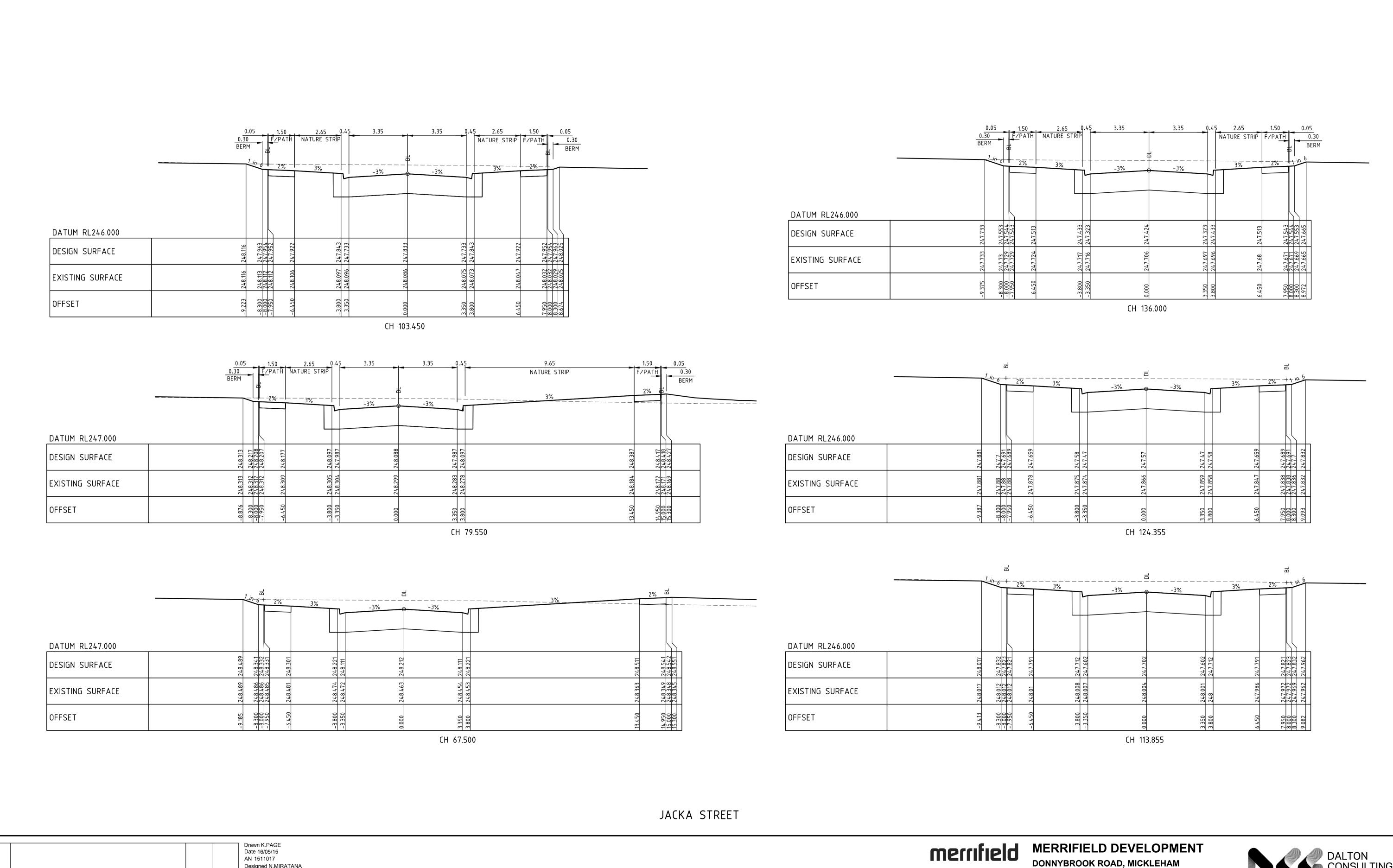
DONNYBROOK ROAD, MICKLEHAM STAGE 13 **CROSS SECTIONS SHEET 09 OF 10** Drawing No. 11733XS09 Rev 1 6m Sheet No. 24 AS CONSTRUCTED

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dimensions on site, Discrepancies to be brought to the attention of the Superintendent.

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AS CONSTRUCTED

STAGE 13

Scale @ A1/A3 1:100/1:200

MAB GCC Coords: MGA

CROSS SECTIONS SHEET 10 OF 10 Drawing No. 11733XS10 Rev 1 6m Sheet No. 25 AS CONSTRUCTED 3m © Dalton Consulting Engineers Pty Ltd ABN 78 429 221 049



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AMENDMENTS Written dimensions to take precedence over scale. Contractor shall check and verify all Designed N.MIRATANA

Audited B.GORDON

Approved T.LIAKOPOULOS

Date 14/05/15

Verified S.LEA

Date 03/06/15

Date 10/11/15

Date 12/11/15

AN 162656

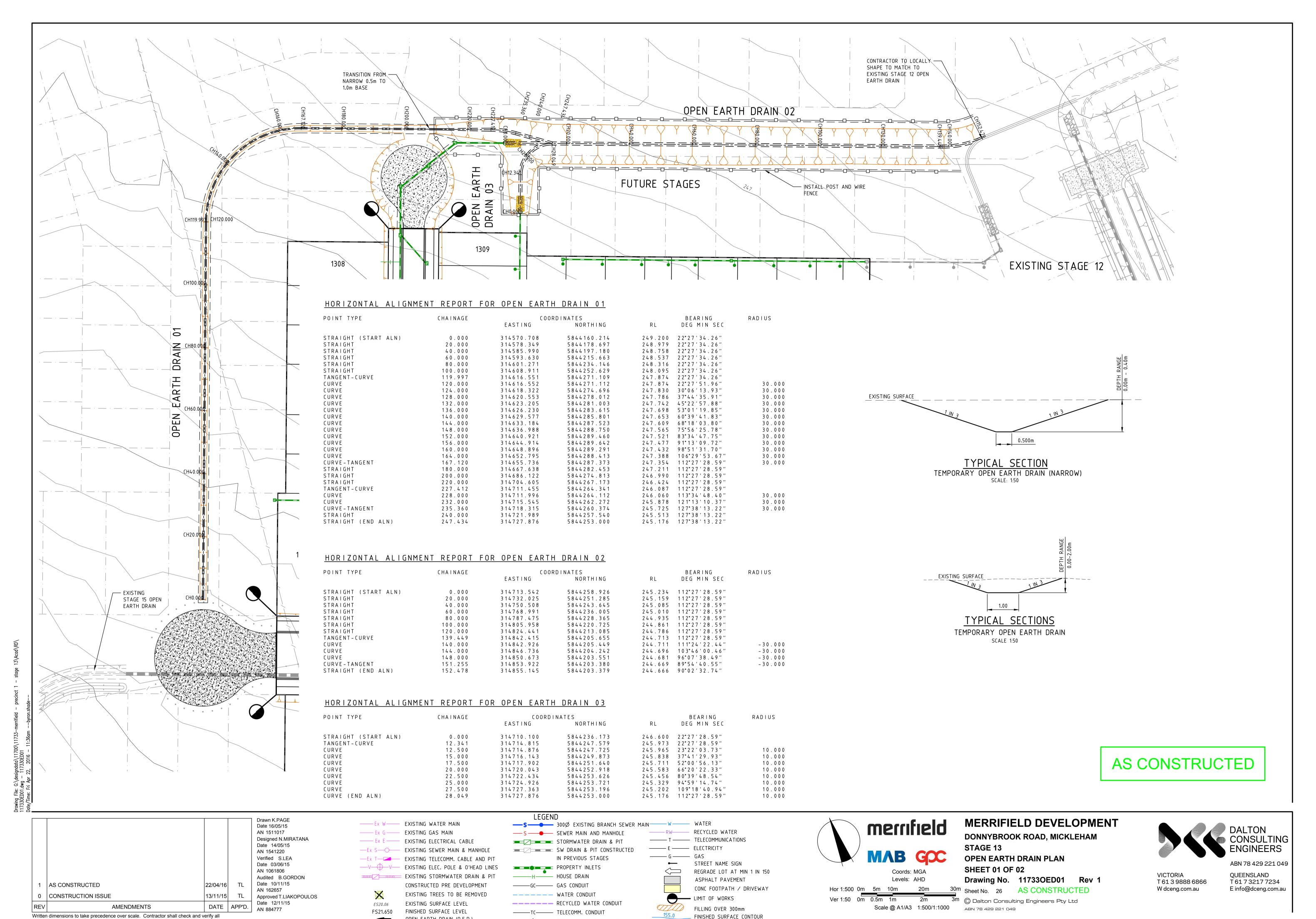
AN 884776

13/11/15

DATE APP'D.

AN 1061805

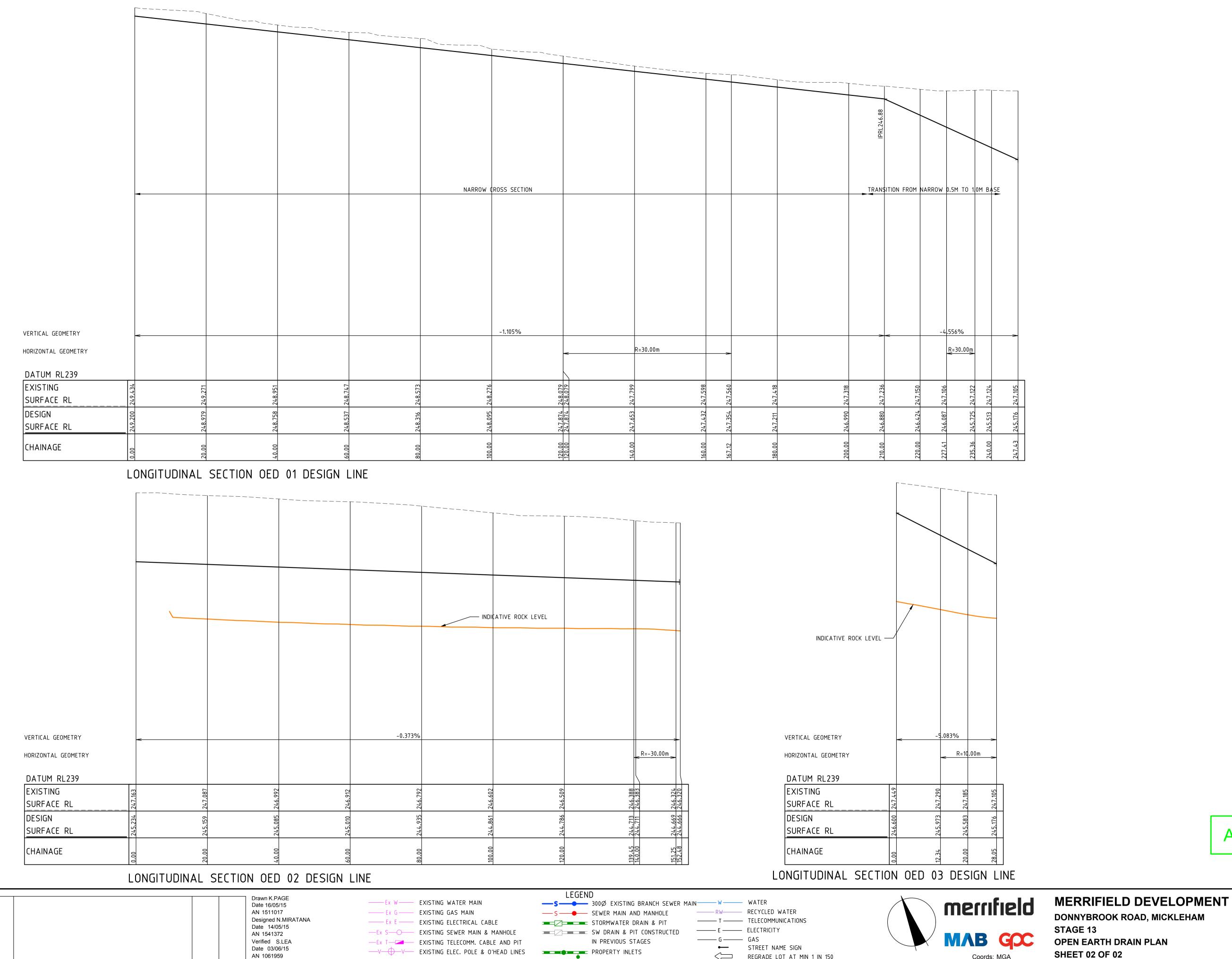
AN 1541219



Written dimensions to take precedence over scale. Contractor shall check and verify all dimensions on site, Discrepancies to be brought to the attention of the Superintendent.

OPEN EARTH DRAIN (O.E.D.)

PERMANENT SURVEY MARK



AS CONSTRUCTED

ABN 78 429 221 049 QUEENSLAND T 61 7 3217 7234 E info@dceng.com.au

ES20.06

Audited B.GORDON

Approved T.LIAKOPOULOS

Date 10/11/15

Date 12/11/15

AN 162658

AN 884778

22/04/16

13/11/15

DATE APP'D.

EXISTING STORMWATER DRAIN & PIT CONSTRUCTED PRE DEVELOPMENT EXISTING TREES TO BE REMOVED

EXISTING SURFACE LEVEL

FINISHED SURFACE LEVEL

OPEN EARTH DRAIN (O.E.D.)

PROPERTY INLETS ———GC——— GAS CONDUIT

————— WATER CONDUIT

---- RECYCLED WATER CONDUIT

PERMANENT SURVEY MARK

REGRADE LOT AT MIN 1 IN 150 ASPHALT PAVEMENT CONC FOOTPATH / DRIVEWAY LIMIT OF WORKS FILLING OVER 300mm 155.0 FINISHED SURFACE CONTOUR

Coords: MGA 3m © Dalton Consulting Engineers Pty Ltd Scale @ A1/A3 1:500/1:1000 ABN 78 429 221 049

DONNYBROOK ROAD, MICKLEHAM **OPEN EARTH DRAIN PLAN SHEET 02 OF 02** Drawing No. 117330ED02 Rev 1 30m Sheet No. 27 AS CONSTRUCTED

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AMENDMENTS

AS CONSTRUCTED

0 CONSTRUCTION ISSUE

CANNING DRIVE ___ EXISTING SURFACE — DESIGN SURFACE CONVERT TEMPORARY JP TO GSEP AND -MATCH TO DESIGN SURFACE LEVELS CONNECT TO EXISTING PIT AND MAKE GOOD INDICATIVE ROCK — SURFACE EXISTING PIT TO BE ---REMOVED AND NEW PIT TO BE CONSTRUCTED AS PER NEW DIMENSIONS VELOCITY (m/s) 1.604 1.390 1.180 1.077 1.038 4.095 3.617 3.161 2.141 1.623 3.910 1.297 1.369 2.847 3.191 PIPE GRADE VELOCITY 1.623 1.369 3.364 1.304% 0.667% 0.667% 0.667% 2.577% 1.396% PIPE GRADE % 0.168 0.098 0.050 0.020 0.017 1.508 1.458 0.082 1.448 PIPE FLOW (m3/s) 2.487 0.351 0.351 0.143 0.097 2.140 0.097 0.691 PIPE CAPACITY AT GRADE 1.811 525 PIPE SIZE (mm) DATUM 237.000 DEPTH TO INVERT 245.937 245.955 246.032 HYDRAULIC GRADE LINE 245.583 245.730 245.880 INVERT LEVEL DESIGN SURFACE LEVEL EXISTING SURFACE LEVEL 193.270 194.720 11.738 10.752 CHAINAGE 0.000 11.731 8.056 90.124 71.394 76.750 22.450 24.367 Š 13.763 Drawn K.PAGE MERRIFIELD DEVELOPMENT LEGEND Date 16/05/15 DALTON CONSULTING ENGINEERS AN 1511017 DONNYBROOK ROAD, MICKLEHAM DENOTES CLASS 2 CRUSHED ROCK BACKFILL Designed N.MIRATANA

0 CONSTRUCTION ISSUE 13/11/15 AMENDMENTS DATE APP'D. Written dimensions to take precedence over scale. Contractor shall check and verify all

dimensions on site, Discrepancies to be brought to the attention of the Superintendent.

AS CONSTRUCTED

Date 14/05/15

Verified S.LEA

Date 03/06/15

Date 10/11/15

Date 12/11/15

AN 162659

22/04/16

Audited B.GORDON

Approved T.LIAKOPOULOS

AN 1061807

AN 1541221

AS CONSTRUCTED

MAB GC DRAINAGE LONGITUDINAL SECTIONS Coords: MGA

STAGE 13

SHEET 01 OF 03 Drawing No. 11733DR01 Hor 1:500 0m 5m 10m 20m 30m Sheet No. 28 AS CONSTRUCTED 3m © Dalton Consulting Engineers Pty Ltd Scale @ A1/A3 1:500/1:1000 ABN 78 429 221 049



EXISTING SURFACE CONVERT TEMPORARY JP TO GSEP AND -MATCH TO DESIGN SURFACE LEVELS _____ _____ DESIGN SURFACE CONNECT TO EXISTING PIT AND MAKE GOOD CONNECT TO EXISTING PIT AND MAKE GOOD INDICATIVE ROCK → SURFACE RCP CLASS 4 1.153 1.123 1.123 0.500% 0.500% 1.168 1.619 VELOCITY (m/s) 1.056 0.950 0.905 1.039 1.884 2.072 0.968 0.968 1.371 PIPE GRADE VELOCITY 1.685 1.896% 0.500% 0.500% 1.473% 2.293% 1.515% PIPE GRADE % 0.069 0.069 0.032 0.029 0.012 0.050 0.006 0.011 PIPE FLOW (m3/s) 0.124 0.124 375 375 0.133 0.068 0.055 0.068 0.146 0.119 PIPE CAPACITY AT GRADE PIPE SIZE (mm) DATUM 236.000 235.000 DEPTH TO INVERT 246.355 246.517 246.430 246.529 246.529 HYDRAULIC GRADE LINE INVERT LEVEL DESIGN SURFACE LEVEL EXISTING SURFACE LEVEL CHAINAGE 53.500 59.750 43.000 33.000 3.004 S 5.496 | % 6.688 | \(\frac{\pi}{2} \) 37.270 Drawn K.PAGE Date 16/05/15 merrifield MERRIFIELD DEVELOPMENT DONNYBROOK ROAD, MICKLEHAM LEGEND DALTON CONSULTING ENGINEERS AN 1511017 DENOTES CLASS 2 CRUSHED ROCK BACKFILL Designed N.MIRATANA Date 14/05/15 STAGE 13 AN 1541222 MAB GC DRAINAGE LONGITUDINAL SECTIONS Verified S.LEA ABN 78 429 221 049 Date 03/06/15 **SHEET 02 OF 03** AS CONSTRUCTED AN 1061808 Coords: MGA QUEENSLAND T 61 7 3217 7234 Audited B.GORDON Drawing No. 11733DR02 Rev 1

Hor 1:500 0m 5m 10m 20m 30m Sheet No. 29 AS CONSTRUCTED

Scale @ A1/A3 1:500/1:1000 ABN 78 429 221 049

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Date 10/11/15

Date 12/11/15

Approved T.LIAKOPOULOS

AN 162660

13/11/15

DATE APP'D.

AS CONSTRUCTED

0 CONSTRUCTION ISSUE

AMENDMENTS

Written dimensions to take precedence over scale. Contractor shall check and verify all dimensions on site, Discrepancies to be brought to the attention of the Superintendent.

FUTURE JACKA STREET JACKA STREET — PITS TO BE CONSTRUCTED 150mm TEMPORARY 1 in 6 — BELOW SURFACE OF BATTER TO EXISTING TURNING CIRCLE AS JP AND EXTENDED TO DESIGN SURFACE TO PIT TO BE CONSTRUCTED AS — CONVERTED TO GSEP IN ROCK OUTLET WITH CONC. CUT-OFF TO — A JP TO EXISTING SURFACE ___ EXISTING SURFACE FUTURE STAGE AND CONVERTED TO GSEP IN SUIT 300Ø RCP IN ACCORDANCE WITH — DESIGN SURFACE MPA FIGURE 019. FUTURE STAGE ROCK BEACHING — FUTURE DESIGN SURFACE — TEMPORARY 1 in 6 — BATTER TO EXISTING ROCK OUTLET WITH CONC. CUT-OFF TO — SUIT 375Ø RCP IN ACCORDANCE WITH MPA FIGURE 019. 000000 INDICATIVE ROCK -SURFACE RCP CLASS 4 0.940 1.213 1.470 1.469 1.466 2.259 1.869 1.246 1.779 1.727 VELOCITY (m/s) 2.322 PIPE GRADE VELOCITY 1.630 1.297 1.297 1.297 2.246 1.822 1.369 2.302 2.098 2.880% 1.418% 2.000% 1.316% 1.000% 2.830% 2.350% 0.667% 0.667% 0.667% PIPE GRADE % 0.004 0.020 0.131 0.130 0.128 0.127 0.112 0.034 0.031 0.036 PIPE FLOW (m3/s) 0.201 0.097 0.164 PIPE CAPACITY AT GRADE 0.115 0.143 0.248 0.163 0.148 0.143 0.143 300 375 375 375 300 PIPE SIZE (mm) DATUM 236.000 237.000 236.000 237.000 DEPTH TO INVERT 245.945 246.208 245.995 246.267 247.352 247.466 247.465 247.352 247.466 247.465 245.741 245.766 245.775 245.861 245.930 245.928 247.674 247.685 HYDRAULIC GRADE LINE 245.461 245.511 INVERT LEVEL DESIGN SURFACE LEVEL EXISTING SURFACE LEVEL CHAINAGE 0 11.115 95.51 11.024 2.269 15.518 84.448 S 11.632 39.100 28.200 35.200 Drawn K.PAGE Date 16/05/15 merrifield MERRIFIELD DEVELOPMENT DONNYBROOK ROAD, MICKLEHAM LEGEND DALTON CONSULTING ENGINEERS AN 1511017

Written dimensions to take precedence over scale. Contractor shall check and verify all dimensions on site, Discrepancies to be brought to the attention of the Superintendent.

AS CONSTRUCTED

0 CONSTRUCTION ISSUE

AMENDMENTS DATE APP'D.

Designed N.MIRATANA

Audited B.GORDON

Approved T.LIAKOPOULOS

Date 14/05/15

Verified S.LEA

Date 03/06/15

Date 10/11/15

AN 162661

22/04/16

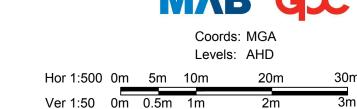
13/11/15

AN 1061809

AN 1541223

DENOTES CLASS 2 CRUSHED ROCK BACKFILL

AS CONSTRUCTED



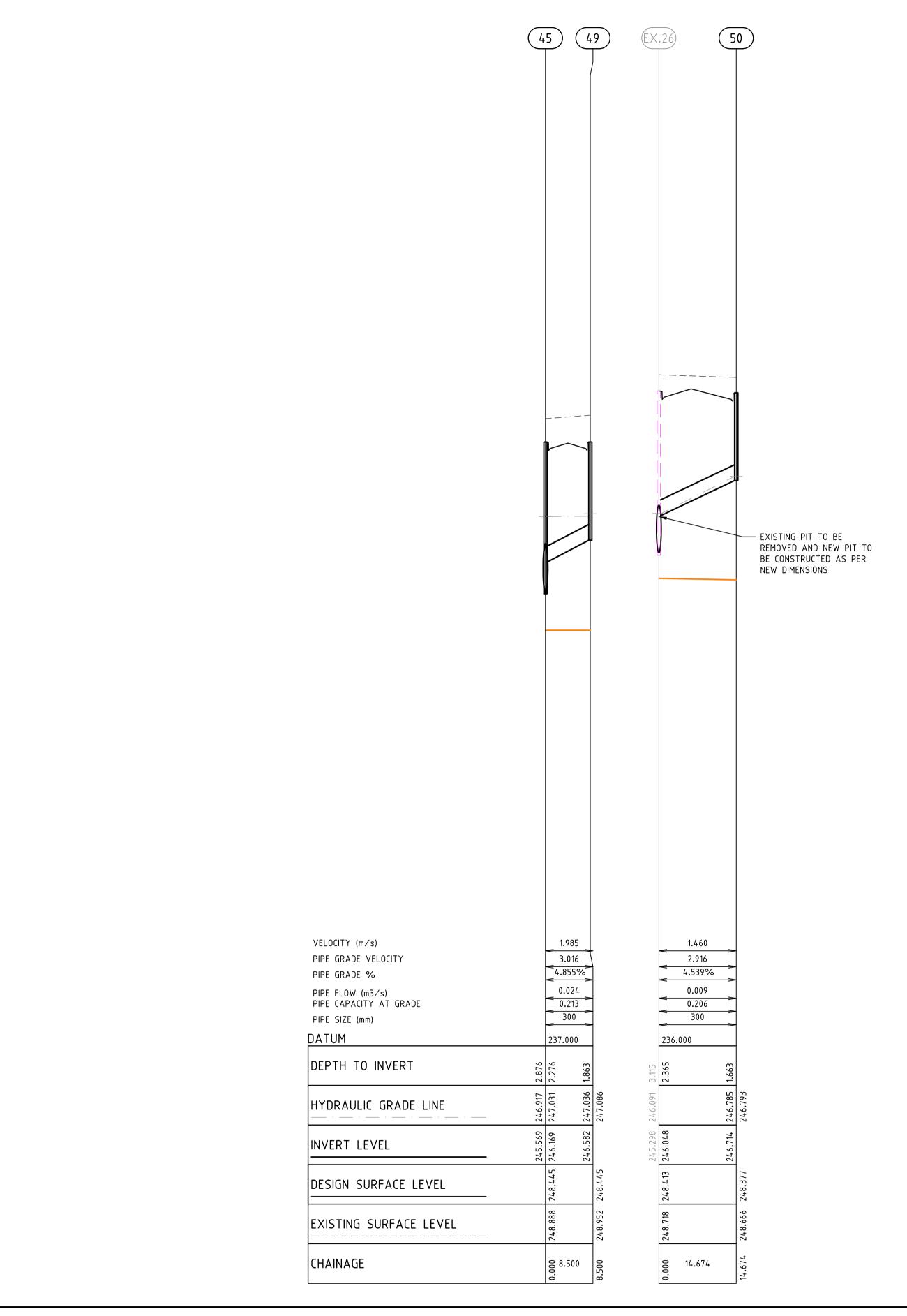
STAGE 13

MAB GC DRAINAGE LONGITUDINAL SECTIONS **SHEET 03 OF 03**

Drawing No. 11733DR03 Rev 1 20m 30m Sheet No. 30 AS CONSTRUCTED 3m © Dalton Consulting Engineers Pty Ltd Scale @ A1/A3 1:500/1:1000 ABN 78 429 221 049



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PIT EASTING		EACTING	NORTHING	INTE	RNAL	IN	LET	OU	TLET	PI	Т	REMARKS	
NAME	TYPE	CASTING	NOKITING	WD	LEN	DIA	INV LEV	DIA	INV LEV	SETOUT RL	DEPTH	KEIVIAKKS	
Ex.19	GSEP	21/1756 672	5844158.814	600	900	375	245.88	525	245.73	247.372	1.642	EXISTING JP TO BE CONVERTED TO GSEP REFER TO MPA STD DRG FIG.012	
EX.19	GSEF	314/30.072	3644136.614	000	900	300	245.955	323	245.75	247.372	1.042	EXISTINGS TO BE CONVENTED TO OSET REFER TO WILL A STD DROTTO.012	
20	GSEP	21/600 60/	5844186.088	600	900	300	246.43	375	246.355	247.729	1.373	REFER TO MPA STD DRG FIG.012	
20	GSEF	314090.094	3644160.066	000	300	300	246.43	3/3	240.333	247.723	1.575	REPER TO WIFA 31D DRG FIG.012	
21	GSEP	314669.947	5844194.665	600	900	300	246.705	300	246.655	247.841	1.186	REFER TO MPA STD DRG FIG.012	
22	GSEP	314659.106	5844190.165	600	900			300	246.822	248.117	1.294	REFER TO MPA STD DRG FIG.012	
Ex.24	GSEP	314750.822	5844170.427	600	900			300	246.202	247.421	1.219	EXISTING JP TO BE CONVERTED TO GSEP REFER TO MPA STD DRG FIG.012	
51	JP	314667.868	5844130.87	600	900			300	247.8	248.674	0.874	REFER TO MPA STD DRG FIG.014	
Ex.43	JP	314721.479	5844132.297	600	900	300	246.95			248.129	1.179	CONNECT TO EXISTING PIT	
26	JP	314690.982	5844144.904	600	900			300	247.45	248.319	0.869	REFER TO MPA STD DRG FIG.014	
Ex.30	JP	314806.421	5844180.72	600	900	300	245.822	300	245.772	246.957	1.185	CONNECT TO EXISTING PIT	
31	JP	314766.683	5844197.147	600	900	225	246.112	300	246.037	247.248	1.211	REFER TO MPA STD DRG FIG.014	
32	JP	314717.241	5844217.586	600	900			225	246.9	247.62	0.72	REFER TO MPA STD DRG FIG.014	
33	EW	314710.1	5844236.173			300	246.6			247.426	0.826	OUTFALL STRUCTURE. REF MPA STD DRW FIG. 019	
34	JP	314699.327	5844210.112	600	900			300	247	247.839	0.839	REFER TO MPA STD DRG FIG.014	
35	EW	314713.542	5844258.926			375	245.234			245.859	0.625	OUTFALL STRUCTURE. REF MPA STD DRW FIG. 019	
36	GSEP	314699.293	5844264.771	600	900	375	245.387	375	245.337	246.913	1.576	REFER TO MPA STD DRG FIG.012	
37	JP	314688.794	5844261.125	600	900	375	245.511	375	245.461	247.17	1.709	TEMP. JP CONVERTED TO GSEP IN FUTURE. REFER TO MPA STD DRG FIG.012	
38	JP	314678.113	5844258.395	600	900	375	245.634	375	245.584	247.28	1.696	TEMP. JP CONVERTED TO GSEP IN FUTURE. REFER TO MPA STD DRG FIG.012	
30	CCED	214672 105	5844244.054	600	000	375	245.995	375	245.045	247.475	1 521	DEFED TO MADA CTD DDC FIG 042	
39	GSEP	3146/2.185	5844244.054	600	900	300	246.02	3/5	245.945	247.475	1.531	REFER TO MPA STD DRG FIG.012	
40	CCED	24.4620.705	F044166 060	600	000	300	247.181	275	247.100	240 427	1 222	DEFED TO MADA CTD DDC FIG 043	
40	GSEP	314639.785	5844166.069	600	900	300	247.181	375	247.106	248.427	1.322	REFER TO MPA STD DRG FIG.012	
41	GSEP	314626.337	5844133.539	600	900	300	247.583	300	247.533	248.733	1.2	REFER TO MPA STD DRG FIG.012	
42	GSEP	314615.634	5844128.982	600	900			300	247.912	248.962	1.05	REFER TO MPA STD DRG FIG.012	
43	GSEP	314676.66	5844232.63	600	900			300	246.373	247.586	1.214	REFER TO MPA STD DRG FIG.012	
44	JP	314603.65	5844181.006	600	900			300	248.1	248.938	0.838	REFER TO MPA STD DRG FIG.014	
Ex.26	GSEP	31/168/1 6/12	5844087.903	T600	T900	1050	245.348	1050	245.298	248.413	3.065	EXISTING PIT TO BE REMOVED AND NEW HAUNCHED GSEP TO BE CONSTRUCTE	
LX.20	OSLI	314004.042	3644087.303	B1200	B1300	900	245.448	1030	243.236	240.413	240.413 3.003	REFER TO MPA STD DRG FIG.012 & HUME CITY COUNCIL SD 245	
				D1200	D1300	300	246.048						
45	GSEP	314673.81	5844083.399	T600	T900	900	245.619	900	245.569	248.445	2.876	HAUNCHED GSEP. REFER TO MPA STD DRG FIG.012 & HUME CITY COUNCIL SD 2	
45	GSEF	3140/3.61	3644063.333	B1200	B900	300	246.169	300	243.303	240.443	2.670	THA ON CHED GSEF. REFER TO INFA 31D DRG FIG.012 & HOME CITY COONCIESD 2	
46	GSEP	21//657 221	5844065.542	T600	T900	900	246.009	900	245.959	248.619	2.66	HAUNCHED GSEP. REFER TO MPA STD DRG FIG.012 & HUME CITY COUNCIL SD 2	
40	GSEF	314037.231	3644003.342	B1200	B900	300	240.009	300	243.333	240.013	2.00	THACKCILD GSEF. REFER TO IVIFA STD DRG FIG.012 & HOIVIE CITT COUNCIESD 2	
47	GSEP	21/651 072	5844052.823	600	900	525	246.522	900	246.147	248.757	2.61	HAUNCHED GSEP. REFER TO MPA STD DRG FIG.012 & HUME CITY COUNCIL SD 2	
4/	GSEP	314031.3/3	3044032.823	B1200	B900	323	240.322	900	240.14/	240.737	2.01	THAUNCHED GSEF. REFER TO IVIPA STD DRG FIG.012 & HOIVIE CITY COUNCILSD 2	
48	JP	314581.044	5844082.144	600	900			525	248.5	249.778	1.278	REFER TO MPA STD DRG FIG.012	
49	GSEP	314665.955	5844086.646	600	900			300	246.582	248.445	1.863	REFER TO MPA STD DRG FIG.012	
50	GSEP	314685.606	5844102.545	600	900			300	246.714	248.377	1.663	REFER TO MPA STD DRG FIG.012	

GSEP = GRATED SIDE ENTRY PIT

JP = JUNCTION PIT ENDWALL

EX = EXISTING PIT

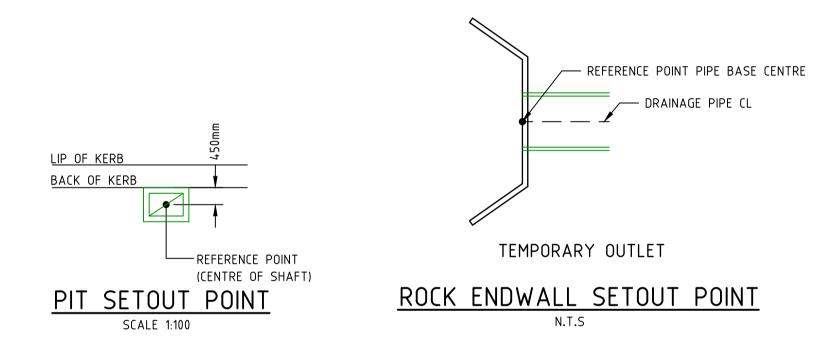
PP = PIPE TO PIPE CONNECTION (T) = TOP INTERNAL PIT DIMENSION

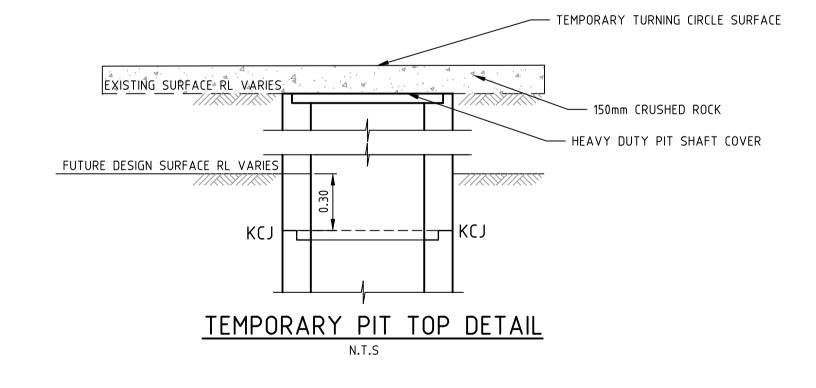
(B) = BOTTOM INTERNAL PIT DIMENSION

- 1. EASTING, NORTHING SETOUT TO CENTRE OF PIT COVER SHAFT.
- 2. SETOUT LEVEL TO PIT COVER LEVEL.
- 3. EASTING, NORTHING ENDWALL SETOUT POINTS QUOTED TO PIPE BASE CENTRE.
- 4. ALL PIT COVERS TO BE IN ACCORDANCE TO GROWTH AREAS AUTHORITY STD FIGURE 012.
- 5. STEP IRONS REQUIRED FOR ALL PITS GREATER THAN 900mm IN DEPTH.
- 6. PIT FLOOR TO BE SHAPED TO MATCH LOWER HALF OF PIPE WHERE DROPS LESS THAN 50mm.
- 7. ALL DRAINAGE WORKS ARE TO BE CONSTRUCTED TO MPA SPECIFICATIONS.
- 8. PIT BASE TO BE SHAPED WITH MASS CONCRETE FOR SMOOTH HYDRAULIC FLOW.
- 9. ALL STORMWATER DRAINS ARE TO BE CLASS '2' RC UNLESS OTHERWISE SHOWN. ALL PIPES UP TO AND INCLUDING 750mm IN DIAMETER SHALL BE RUBBER RING JOINTED. PIPES ABOVE THIS SIZE

MAY BE FLUSH JOINTED WITH EXTERNAL SEALING BANDS.

10. ALL HAUNCHED PITS SHALL BE CONSTRUCTED IN ACCORDANCE WITH HCC SD245.







AN 884782

AS CONSTRUCTED



Coords: MGA

Levels: AHD

Scale @ A1/A3 1:500/1:1000 ABN 78 429 221 049

Hor 1:500 0m 5m 10m

merrifield MERRIFIELD DEVELOPMENT DONNYBROOK ROAD, MICKLEHAM

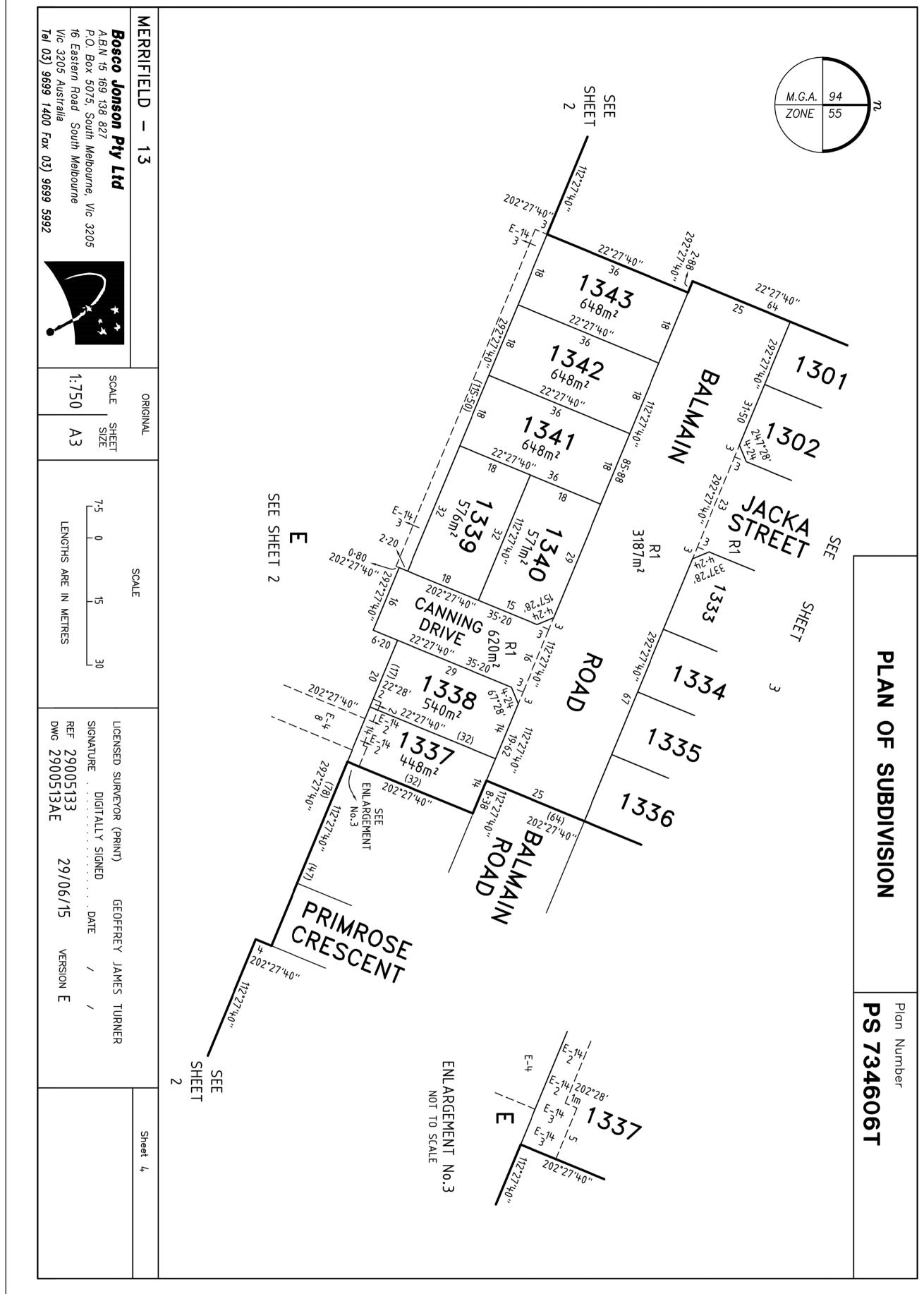
STAGE 13 DRAINAGE PIT SCHEDULE

> Drawing No. 11733DR04 Rev 1 30m Sheet No. 31 AS CONSTRUCTED 3m © Dalton Consulting Engineers Pty Ltd



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ZONE 55 BALMAIN 7302 1305 512m25 SHEET 1:750 SHEET SIZE ROAD 1335 624m² MACARTHUR Z 1336 663m2 N QF SIGN/ REF DWG 29005133 2900513AE 350m24 1325 S 0/1 **JBDIVISION** 29/06/15 MAY 512 П S 734606 .ARGEMENT I 13₂₁



Drawn K.PAGE Date 16/05/15 AN 1511017 Designed N.MIRATANA Date 14/05/15 AN 1541225 Verified S.LEA Date 03/06/15 AN 1061811 Audited B.GORDON Date 10/11/15 AS CONSTRUCTED AN 162663 0 CONSTRUCTION ISSUE 13/11/15 Approved T.LIAKOPOULOS Date 12/11/15 **AMENDMENTS** DATE APP'D.

AS CONSTRUCTED





Scale @ A1/A3 1:500/1:1000

PLAN OF SUBDIVISION

GA
HD Drawing No. 11733PO

Sheet No. 32 AS CONS

STAGE 13

Drawing No. 11733POS01 Rev 1
Sheet No. 32 AS CONSTRUCTED

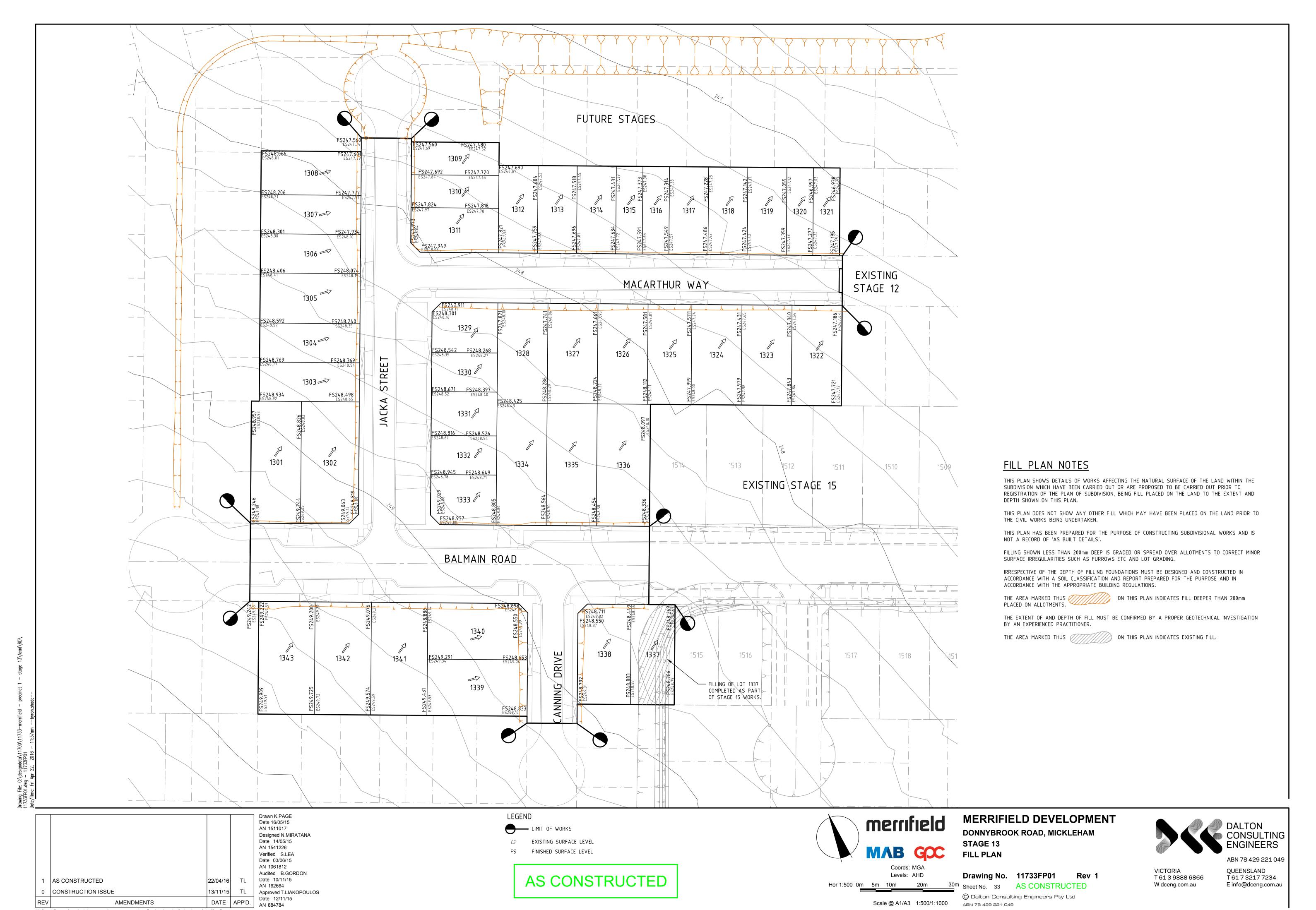
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DONNYBROOK ROAD, MICKLEHAM

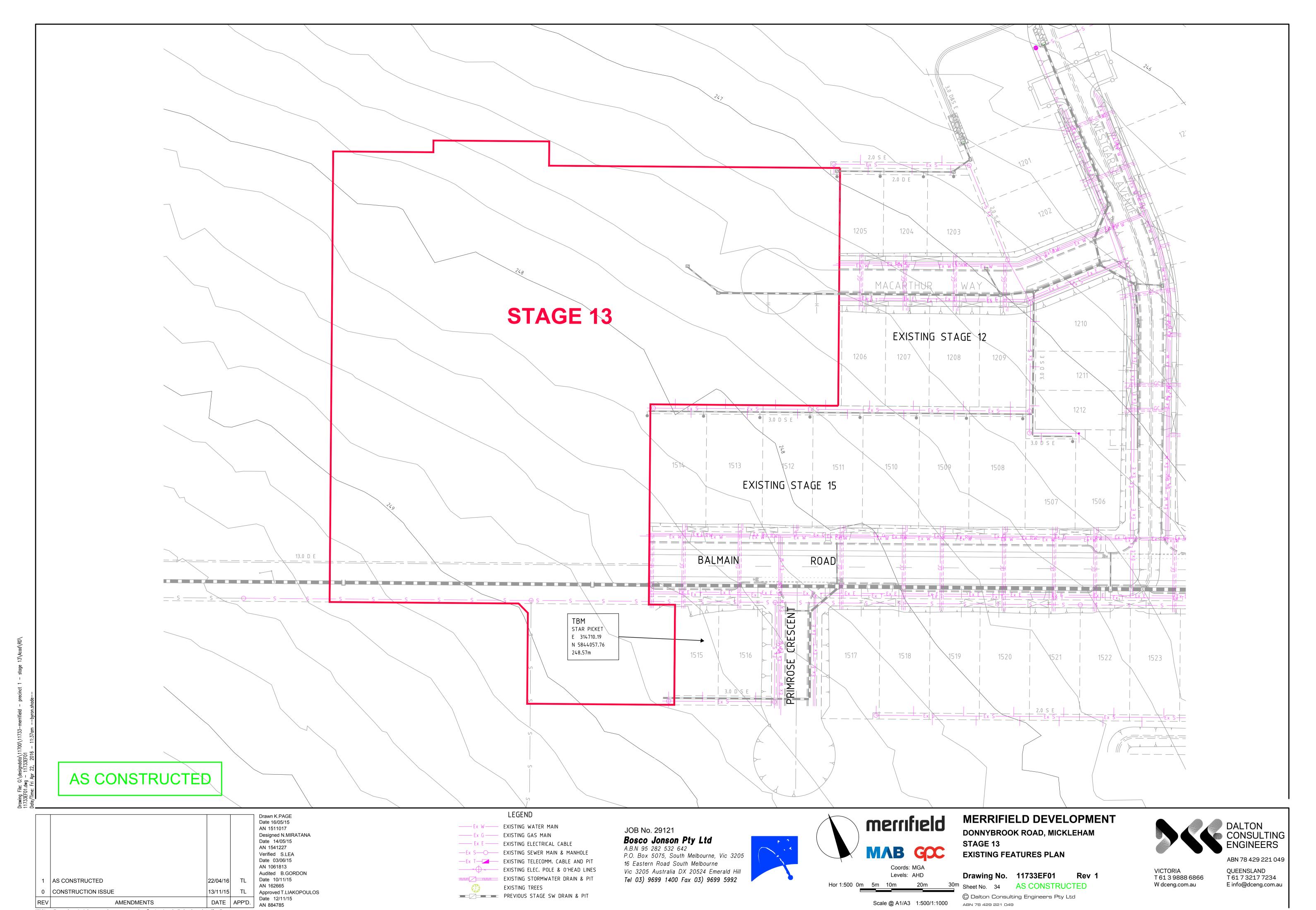
MERRIFIELD DEVELOPMENT



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Written dimensions to take precedence over scale. Contractor shall check and verify all dimensions on site, Discrepancies to be brought to the attention of the Superintendent.



Written dimensions to take precedence over scale. Contractor shall check and verify all dimensions on site, Discrepancies to be brought to the attention of the Superintendent.