

- LEGEND :**
- EXISTING CONTOURS
 - EXISTING KERB AND CHANNEL
 - EXISTING STORMWATER
 - EXISTING SEWERAGE
 - EXISTING WATER
 - EXISTING U/G ELECTRICAL
 - EXISTING TELSTRA
 - PROPOSED KERB AND CHANNEL
 - FUTURE KERB AND CHANNEL
 - PROPOSED RETAINING WALL
 - DENOTES TRANSITION IN K&C REFER INTERSECTION DETAILS
 - SINGLE PLATE STREET NAME SIGN
 - HAZARD MARKER D4-5
 - ROAD WIDENING PAVEMENT EXTENTS
 - BOLLARDS @ 1.5m CENTRES

- TREE LEGEND**
- TREES TO BE RETAINED AND PROTECTED
 - TREES TO BE RETAINED AND REQUIRES THE SUPERVISION OF ANY EXCAVATION OR SERVICES WORKS WITHIN THE HATCHED PROTECTION ZONE BY AN ARBORIST ON SITE.

TPZ
 Tree Protection Zone
 All vegetation to be protected in accordance with AS4970 - Protection of Trees on Development Sites & any conditions of approval.

FOR EARTHWORKS DETAILS REFER TO DWG No. M2584E_2 EW01-EW05

THE CONTRACTOR IS TO NOTIFY THE SUPERVISING ENGINEER OF ANY DISCREPANCIES BETWEEN THE DESIGN PLANS AND THE CONDITIONS ON SITE PRIOR TO COMMENCEMENT OF ANY WORK.

PRIOR TO COMMENCEMENT OF WORKS REFER TO VEGETATION MANAGEMENT PLAN.

REFER TO LANDSCAPE PLANS FOR FINAL TRIM DETAILS

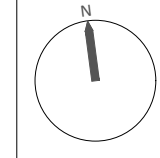
CASH STREET CONTROL LINE DETAILS

PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	480919.442	7014703.551	271°13'49.76"			
IP 2	18.902	480900.544	7014703.957				
IP 3	230.208	480691.046	7014731.534				
IP 4	301.787	480620.084	7014740.917				
IP 5	309.241	480612.698	7014741.919				
IP 6	396.501	480526.184	7014753.308				
IP 7	398.301	480524.396	7014753.513				
TC	480.919	480442.485	7014764.296	277°29'57.03"			
IP 8	517.219	480406.323	7014769.056		R = 303.730	72.601	13°41'43.89"
CT	553.520	480372.315	7014782.243	291°11'40.92"			
IP 9	590.463	480337.871	7014795.599				
IP 10	613.711	480316.921	7014805.677	295°41'22.04"			



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 JFP URBAN CONSULTANTS PTY. LTD. A.C.N. 050 414 045

PLANNERS
 URBAN DESIGNERS
 SURVEYORS
 ENGINEERS
 LANDSCAPE ARCHITECTS



NORTH:

SCALE:
 1:500
 A1
 THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE
 0 5 10 15 20 25 30 35 40 45 50 METRES
 (A1) 1:500
 (A3) 1:1000
 DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

APPROVED:
 T. MCKINNEY RPEQ 5087
 S. MARSH RPEQ 8068

DESIGNED: CDV
 DRAWN: BJ
 CHECKED: HW
 DATUM: AHD

ISSUE: A
 ISSUE FOR OPERATIONAL WORKS APPROVAL
 DATE: 16/06/20
 INIT: BJ

TITLE:
ROADWORKS LAYOUT
 DFC (PROJECT MANAGEMENT) PTY LTD
 'ARCHERS WAY' ESTATE - STAGE 2
 AT 22-80 CASH STREET, D'AGUILAR

DETAILS:
 PROJECT: M2584E_2
 PLAN: R01
 ISSUE: A
 LOCAL AUTHORITY REF: MORETON BAY REGIONAL COUNCIL
 COUNCIL REF: DA/38032/2019/V3RL
 FILE NAME: ROADWORKS.DWG



ROADWORKS NOTES

1. ALL DIMENSIONS ON THE DRAWINGS ARE IN METRES UNLESS SHOWN OTHERWISE.
2. ALL TURNOUT RADII ARE TO THE LIP OF THE CHANNEL.
3. LENGTH AND LOCATION OF MITRE DRAINS SHALL BE DETERMINED ON SITE BY THE SUPERINTENDENT.
4. ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH CURRENT MORETON BAY REGIONAL COUNCIL STANDARDS AND STANDARD DRAWINGS UNLESS DIRECTED OTHERWISE.
5. THE CONTRACTOR SHALL VERIFY LOCATIONS OF ALL EXISTING SERVICES WITH ALL RELEVANT AUTHORITIES BEFORE COMMENCING CONSTRUCTION. ANY COSTS ASSOCIATED WITH REPAIRING DAMAGE TO EXISTING SERVICES SHALL BE PAID FOR BY THE CONTRACTOR.
6. THE CONTRACTOR SHALL ERECT TRAFFIC CONTROL DEVICES IN ACCORDANCE WITH THE RELEVANT AUTHORITY SPECIFICATIONS.
7. SUB-BASE GRAVEL COMPACTED TO 95% AS1289 (MODIFIED) AND OF MINIMUM THICKNESS 75mm SHALL EXTEND UNDER THE KERB AND CHANNEL TO 150mm (MIN.) BEHIND THE KERB.
8. NBN TO RECEIVE 3 WEEKS NOTICE BEFORE INSTALLATION OF CONDUITS.
9. THE CONTRACTOR SHALL VERIFY OFFSET PEG LOCATIONS AND BENCH MARK LEVELS AND ADVISE THE SUPERINTENDENT OF ANY DISCREPANCY BEFORE THE COMMENCEMENT OF CONSTRUCTION.
10. KERB AND CHANNEL TO BE CONSTRUCTED IN ACCORDANCE WITH MBRC STD. DWG. RS-080.
11. SIDE DRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH MBRC STD DRAWINGS RS-140 AND 142.
 - a. TRIMMING AND COMPACTION OF SUBGRADE IS TO BE COMPLETED AND APPROVED BEFORE SUBSOIL DRAINS AND SERVICE CONDUITS ARE CONSTRUCTED. THE TRENCHES SHALL THEN BE EXCAVATED, AND THE EXCAVATED MATERIAL PLACED ON THE FOOTPATH AND NOT THE SUBGRADE.
 - b. WHERE SUBSOIL DRAINS PASS UNDER SERVICE CONDUITS, THE SIDE DRAINS ARE TO BE DEEPENED AND GRADED OUT TO A NORMAL DEPTH AT A MINIMUM GRADE OF 1:250.
 - c. IN DISPERSIVE, SOLUBLE OR FINE GRAINED SOILS, THE DEVELOPER'S REPRESENTATIVE IS TO EVALUATE WHETHER GEOFABRIC WRAPPED SUBSOIL DRAINS ARE REQUIRED. WHERE GEOFABRIC WRAPPED SUBSOIL DRAINS ARE PROPOSED THE DEVELOPER'S REPRESENTATIVE IS TO PROVIDE DETAILS FOR APPROVAL BY COUNCIL'S NOMINATED REPRESENTATIVE.
 - d. ROAD SUBSOIL DRAINAGE MUST BE 'DAYLIGHTED' AND DISCHARGED TO AN APPROVED LEGAL POINT OF DISCHARGE. CAPS ARE TO BE PROVIDED TO UPSTREAM ENDS OF SUBSOIL DRAINS.
12. EACH PAVEMENT COURSE SHOULD NOT BE COMMENCED UNTIL THE PREVIOUS COURSE HAS BEEN INSPECTED AND APPROVED AND CERTIFIED BY THE CONSULTANT WITH RESPECT TO COMPACTION, FINISHED LEVELS AND TEXTURE OF FINISH. COMPACTION TESTS OF EACH LAYER ARE REQUIRED BEFORE PROCEEDING TO THE NEXT LAYER. ALL TEST RESULTS ARE TO BE PROVIDED TO COUNCIL'S NOMINATED REPRESENTATIVE PRIOR TO SURFACING.
13. SUBGRADE IS TO BE TRIMMED TO AN EVEN SURFACE FREE FROM LOOSE MATERIAL AND GRADED TO BE FREE-DRAINING. UNSUITABLE MATERIAL SUCH AS ORGANIC MATTER IS TO BE REMOVED. SUBGRADE AFFECTED BY RAINFALL AFTER FINAL TRIMMING SHALL NOT BE ACCEPTED UNTIL APPROPRIATE DRYING OUT TREATMENT HAS BEEN AFFECTED.
14. UNBOUND PAVEMENT COURSE MATERIAL IS TO BE PLACED ONLY ON UNDERLYING LAYERS MAINTAINED AT THE CORRECT MOISTURE CONTENT. PREPARED SUBGRADES AND PRECEDING LAYERS OF BASE COURSE SHALL BE MOISTENED IMMEDIATELY PRIOR TO SPREADING THE NEXT COURSE. PAVEMENT MATERIAL IS TO BE MAINTAINED AT THE SPECIFIED MOISTURE CONTENT PRIOR TO AND DURING SPREADING. THE LEADING EDGES OF THE PAVEMENT MATERIAL ARE TO BE KEPT MOIST. MINIMUM COMPACTED LAYER THICKNESS SHALL BE 100 MILLIMETRES AND MAXIMUM COMPACTED THICKNESS SHALL BE 150mm.
15. PRAM RAMPS TO BE CONSTRUCTED IN ACCORDANCE WITH MBRC STD DWG PC-2101A

CONCRETE PATHWAYS

CONCRETE PATHWAYS TO BE CONSTRUCTED IN ACCORDANCE WITH IPWEA STD DWG RS-065

PAVEMENT DEPTH VERIFICATION

PAVEMENT DEPTHS SHALL BE VERIFIED BY THE PROVISION OF AS CONSTRUCTED LEVELS OF THE SUBGRADE AND PRE-SEAL STAGE (OR TOP OF KERB IF INSTALLED) AT A FREQUENCY OF THREE (3) LEVELS (RIGHT HAND SIDE, CENTRE AND LEFT HAND SIDE) EVERY 50 METRES. THE SURVEYED INFORMATION IS TO BE PROVIDED IN A TABULATED FORMAT AND IS TO BE CERTIFIED BY BOTH THE SURVEYOR AND CONSULTING ENGINEER PROVIDED WITH ON MAINTENANCE SUBMISSION.

SUBGRADE TESTING

A DESIGN CALIFORNIA BEARING RATION (CBR) IS TO BE DETERMINED FOR EACH IDENTIFIABLE UNIT DEFINED ON THE BASIS OF TOPOGRAPHY, GEOLOGICAL AND DRAINAGE CONDITION OF THE SITE. THE FOUR DAY SOAKED CBR AT A COMPACTION OF 100% STANDARD COMPACTION IS TO BE THE STANDARD TEST. TESTS ARE TO BE CARRIED OUT IN A NATA REGISTERED LABORATORY (NATIONAL ASSOCIATION OF TESTING AUTHORITIES). THE SAMPLING IS TO BE RANDOMLY LOCATED WITHIN EACH LENGTH OF THE PROPOSED ROADWAY WITH CONSTANT SUBGRADE MATERIAL. IT IS REQUIRED THAT A MINIMUM OF 1 TEST PER MATERIAL TYPE BE CARRIED OUT. THE LOCATION OF MATERIAL TYPE VARIANCES ARE TO BE DETAILED IN ACCORDANCE WITH SAMPLE TEST AND ADJOINING LOT. THE SAMPLES SHALL BE TAKEN GENERALLY IN THE POSITION OF THE OUTER WHEEL PATH ON BOTH SIDES OF THE PROPOSED ROAD. A SKETCH PLAN SHOWING THE LOCATION OF ALL TESTS IS TO BE SUBMITTED WITH THE TEST RESULTS.

ACCESS ROUTES.

THE CONTRACTOR MAY BE REQUIRED, FROM TIME TO TIME, DURING THE PERIOD OF CONSTRUCTION, TO CLEAN THOSE PARTS OF THE ACCESS ROUTE TO THE SITE THAT MAY BE AFFECTED BY ANY MATERIAL DROPPED, DEPOSITED OR SPILLED ON THE ROADS AS A RESULT OF CONSTRUCTION PROCESSES ASSOCIATED WITH THE SITE. ALL CONSTRUCTION TRAFFIC TO THE SUBJECT PROPERTY SHALL BE ACCESSED VIA BRISBANE ROAD.

DRIVEWAY NOTES:

ALL CONCRETE DRIVEWAYS ARE TO BE 3.0M. WIDE U.N.O., 125mm. THICK WITH F72 MESH, 50mm TOP COVER, ON A 75mm. THICK CBR15 GRAVEL BASE.

THE CONTRACTOR IS TO ENSURE THAT ALL SERVICE CONDUITS ARE IN PLACE BEFORE POURING THE DRIVEWAYS.

THE BACK OF KERB AND CHANNEL IS TO BE CUT DOWN AT ALL DRIVEWAY ENTRANCES.

THE EXACT LOCATION AND EXTENT OF THE DRIVEWAY WILL BE DETERMINED ON SITE BY THE SUPERVISING ENGINEER.

COMPACTION TESTING AND FREQUENCY

DETERMINATION OF THE COMPACTION PERFORMANCE OF THE SUBGRADE AND PAVEMENT GRAVEL MATERIALS -LABORATORY REFERENCE DENSITY, FIELD DENSITY, OPTIMUM MOISTURE CONTENT, FIELD MOISTURE CONTENT -SHALL BE CARRIED OUT IN ACCORDANCE WITH AS1289 METHODS OF TESTING SOILS FOR ENGINEERING PURPOSES, IN PARTICULAR THE E SERIES TESTS. THE LABORATORY REFERENCE DENSITY SHALL BE:

- NATURAL SUBGRADE - 100% STANDARD MAXIMUM DRY DENSITY (MDD)
- PAVEMENT UPPER AND LOWER SUB BASE LAYERS - 100% STANDARD MAXIMUM DRY DENSITY (MDD)
- PAVEMENT BASE LAYER - 100% STANDARD MAXIMUM DRY DENSITY (MDD)

THE MINIMUM FREQUENCY OF TESTING SHALL BE IN ACCORDANCE WITH COUNCIL'S PLANNING SCHEME POLICY OPERATIONAL WORKS INSPECTIONS, MAINTENANCE AND BONDING PROCEDURES. PLANNING SCHEME POLICY - INTEGRATED DESIGN - PAGE 45 OF 60.

A MINIMUM OF THREE (3) TESTS PER PROJECT WILL BE REQUIRED. A SKETCH PLAN SHOWING THE LOCATION OF THE TESTS IS TO BE SUBMITTED WITH THE RESULTS. ALL TESTS ARE TO BE DISTRIBUTED REASONABLY EVENLY THROUGH THE FULL DEPTH AND AREA OF PAVEMENT.

SURFACING

1. IN URBAN AND RURAL RESIDENTIAL AREAS, THE ASPHALTIC CONCRETE (A.C.) SURFACING THICKNESS IS TO BE:
 - 25mm (BCC TYPE 2) ON ACCESS TYPE STREETS AND LANEWAYS WITH TRAFFIC VOLUMES LESS THAN 4 X 105;
 - 50mm (BCC TYPE 3) FOR ARTERIAL AND SUB ARTERIAL ROADS; AND
 - 40mm (BCC TYPE 3) FOR ALL OTHER STREETS.

IN COMMERCIAL AND INDUSTRIAL AREAS THE MINIMUM A.C. SURFACING THICKNESS IS TO BE 40mm.

2. WHERE STENCILED OR PATTERNED SURFACE TREATMENTS ARE PROPOSED AN ADDITIONAL 10mm SHALL BE ADDED TO THE DESIGN THICKNESS OF THE SURFACING. THE A.C. BINDER TYPE IS TO BE IN ACCORDANCE WITH AUSTRROADS.
3. A.C. SURFACINGS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH BRISBANE CITY COUNCIL STANDARDS (BCC S310 SUPPLY OF DENSE GRADED ASPHALT AND S320 LAYING OF ASPHALT).
4. PRIMERS SEALS ARE REQUIRED TO BE PLACED UNDER ALL ASPHALT SURFACES. PRIMER SEALS SHALL CONSIST OF CUTBACK BITUMEN (AMC4) OR BITUMEN EMULSION TO MAIN ROADS SPECIFICATION (MRTS 11 SPRAYED BITUMINOUS SURFACINGS EXCLUDING EMULSIONS) AND MRTS 12 SPRAYED BITUMINOUS EMULSION SURFACINGS) WITH 10MM AGGREGATE. WHERE CUTBACK BITUMEN IS USED THE MINIMUM CURING TIME BEFORE THE NEXT SEALED LAYER (ASPHALT) CAN BE PLACED WILL BE FOURTEEN (14) DAYS. WHERE BITUMEN EMULSION IS USED THE MINIMUM CURING TIME BEFORE THE NEXT SEALED LAYER (ASPHALT) CAN BE PLACED WILL BE FOUR (4) DAYS.
5. IN RURAL AREAS AND WHERE SPECIFIED, BITUMEN SPRAY SEAL SURFACING IS TO BE PROVIDED IN THE FORM OF A 2 COAT POLYMER SPRAY SEAL (14MM/7MM) IN ACCORDANCE WITH MAIN ROAD TECHNICAL SPECIFICATIONS (MRTS 18 POLYMER MODIFIED BINDERS, MRTS 11 SPRAYED BITUMINOUS SURFACINGS EXCLUDING EMULSIONS).

THE DEGREE OF SATURATION OF BASE COURSE PRIOR TO SURFACING IS TO BE LESS THAN 65%. TEST RESULTS DEMONSTRATING DEGREE OF SATURATION ARE TO BE PROVIDED TO COUNCIL'S NOMINATED REPRESENTATIVE AT THE PRESEAL INSPECTION AND AS A PART OF THE ON MAINTENANCE DOCUMENTATION.

PAVEMENT

1. THE ROAD PAVEMENT ADOPTED WILL BE DETERMINED BY THE ENGINEER AND APPROVED BY MORETON BAY REGIONAL COUNCIL. THIS PAVEMENT SHALL BE BASED ON SOIL TESTS TAKEN AT FORMATION LEVEL.
2. ANY VARIATIONS TO THE NOMINAL PAVEMENT THICKNESS WILL BE PAID AT THE RATES SHOWN IN THE PRICED SCHEDULE OF RATES.

TOPSOIL

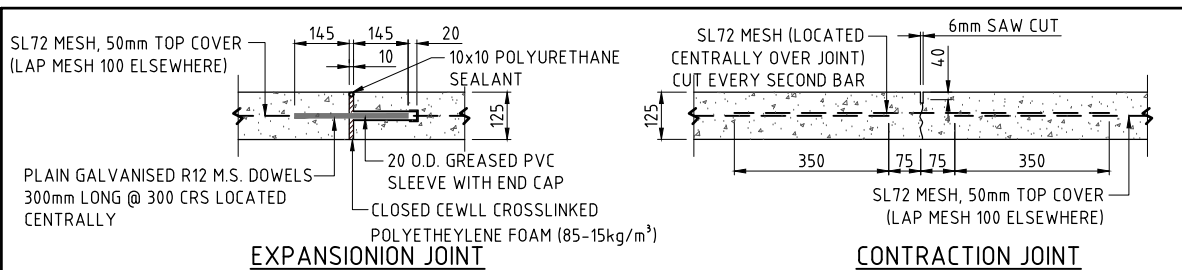
1. ALL TOPSOIL ON ROADWORK AREAS SHALL BE STRIPPED AND STOCKPILED PRIOR TO THE COMMENCEMENT OF ANY ROADWORK OPERATIONS.
2. A TOPSOIL DEPTH OF 150mm. HAS BEEN USED TO DETERMINE TOPSOIL AND EARTHWORK QUANTITIES. THE CONTRACTOR IS TO SATISFY HIMSELF OF THE ACCURACY OF THESE QUANTITIES AND TO MAKE ANY NECESSARY ALLOWANCE IF HE DISAGREES WITH THEM.
3. A TOPSOIL RESPREAD DEPTH OF 250mm ON ALLOTMENTS HAS BEEN USED TO DETERMINE EARTHWORK QUANTITIES.

ROAD 2 (FLINDERS STREET) CONTROL LINE DETAILS

PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	480653.667	7014740.239	187°29'57.03"			
TC	75.456	480643.820	7014665.428	187°29'57.03"			
IP 2	86.452	480641.992	7014651.548		R = -14.000	21.991	90°00'00.00"
CT	97.447	480655.873	7014649.721	97°29'57.03"			
TC	275.447	480832.350	7014626.490	97°29'57.03"			
IP 3	279.077	480836.032	7014626.005		R = -14.000	7.260	29°42'37.84"
CT	282.707	480839.470	7014627.409	67°47'19.19"			
IP 4	294.259	480850.164	7014631.776	67°47'19.19"			

ROAD 3 (MUSTER STREET & FLINDERS STREET) CONTROL LINE DETAILS

PT	CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH	DEFL.ANGLE
IP 1	0.000	480858.894	7014713.201	187°29'57.03"			
TC	74.434	480849.180	7014639.404	187°29'57.03"			
IP 2	86.215	480847.222	7014624.532		R = -15.000	23.562	90°00'00.00"
CT	97.996	480862.094	7014622.574	97°29'57.03"			
TC	196.535	480959.789	7014609.714	97°29'57.03"			
IP 3	203.608	480966.861	7014608.783		R = -45.000	14.147	18°00'45.00"
CT	210.682	480973.873	7014610.085	79°29'12.03"			
TC	234.589	480997.380	7014614.447	79°29'12.03"			
IP 4	245.192	481010.653	7014616.910		R = 13.500	21.206	90°00'00.00"
CT	255.795	481013.116	7014603.637	169°29'12.03"			
TC	278.295	481017.222	7014581.514	169°29'12.03"			
IP 5	291.345	481019.623	7014568.577		R = 83.000	26.099	18°01'00.07"
CT	304.395	481017.904	7014555.531	187°30'12.10"			
TC	396.875	481005.828	7014463.843	187°30'12.10"			
IP 6	423.186	481001.453	7014430.629		R = 33.500	52.622	90°00'00.00"
CT	449.497	480968.240	7014435.004	277°30'12.10"			
TC	641.596	480777.786	7014460.089	277°30'12.10"			
IP 7	652.593	480763.903	7014461.918		R = 14.000	21.994	90°00'44.90"
CT	663.590	480765.735	7014475.800	7°30'57.00"			
TC	721.680	480773.333	7014533.392	7°30'57.00"			
IP 8	732.678	480775.165	7014547.276		R = -14.000	21.995	90°00'59.97"
CT	743.676	480761.281	7014549.103	277°29'57.03"			
TC	863.314	480642.666	7014564.718	277°29'57.03"			
IP 9	874.309	480628.785	7014566.545		R = 14.000	21.991	90°00'00.00"
CT	885.305	480630.613	7014580.425	7°29'57.03"			
IP 10	943.305	480638.182	7014637.929				
IP 11	947.459	480638.741	7014642.173		R = 14.000	8.308	34°00'07.78"
IP 12	951.613	480641.577	7014645.379				
IP 13	961.944	480648.423	7014653.116	41°30'02.74"			



CONCRETE DRIVEWAYS TO SINGLE LOTS DETAILS

1. ALL CONCRETE DRIVEWAYS TO SINGLE LOTS ARE TO BE 3.0m WIDE U.N.O, GRADE N25 CONCRETE, 125mm THICK WITH SL72 MESH, 50mm TOP COVER, ON A 75mm CBR 15 GRAVEL BASE.
2. THE CONTRACTOR IS TO ENSURE THAT ALL SERVICE CONDUITS ARE IN PLACE BEFORE POURING THE DRIVEWAYS.
3. THE BACK OF KERB AND CHANNEL IS TO BE CUT DOWN AT ALL DRIVEWAY ENTRANCES. FOR DETAILS SEE MBRC STD DWGS RS-049 & RS 050
4. THE SUPERVISING ENGINEER IS TO BE NOTIFIED PRIOR TO POURING CONCRETE FOR INSPECTION OF PLACED MESH
5. THE EXACT LOCATION AND EXTENT OF THE DRIVEWAY WILL BE DETERMINED ON SITE BY THE SUPERVISING ENGINEER.
6. EXPANSION AND CONTRACTION JOINTS TO BE CONSTRUCTED IN ACCORDANCE WITH ABOVE DETAILS.

JFOP URBAN CONSULTANTS

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PLANNERS
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NORTH: SCALE: NOT TO SCALE THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE

A1

DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

APPROVED	T. KINNEY RPEQ 5087	A. FRASER RPEQ 5691	J. PAPPAS RPEQ 6086	DESIGNED CDV
	S. MARSH RPEQ 8068			DRAWN BJ
				CHECKED HW
				DATUM: AHD

FOR AND ON BEHALF OF JFOP URBAN CONSULTANTS PTY LTD

ISSUE: ISSUE FOR OPERATIONAL WORKS APPROVAL

DATE: 16/06/20

INIT: BJ

TITLE: ROADWORKS DETAILS PLAN

DETAILS: PROJECT: M2584E_2 PLAN: R02 ISSUE: A

LOCAL AUTHORITY REF: MORETON BAY REGIONAL COUNCIL

COUNCIL REF: DA/38032/2019/V3RL

FILE NAME: ROADWORKS.DWG

DFC (PROJECT MANAGEMENT) PTY LTD

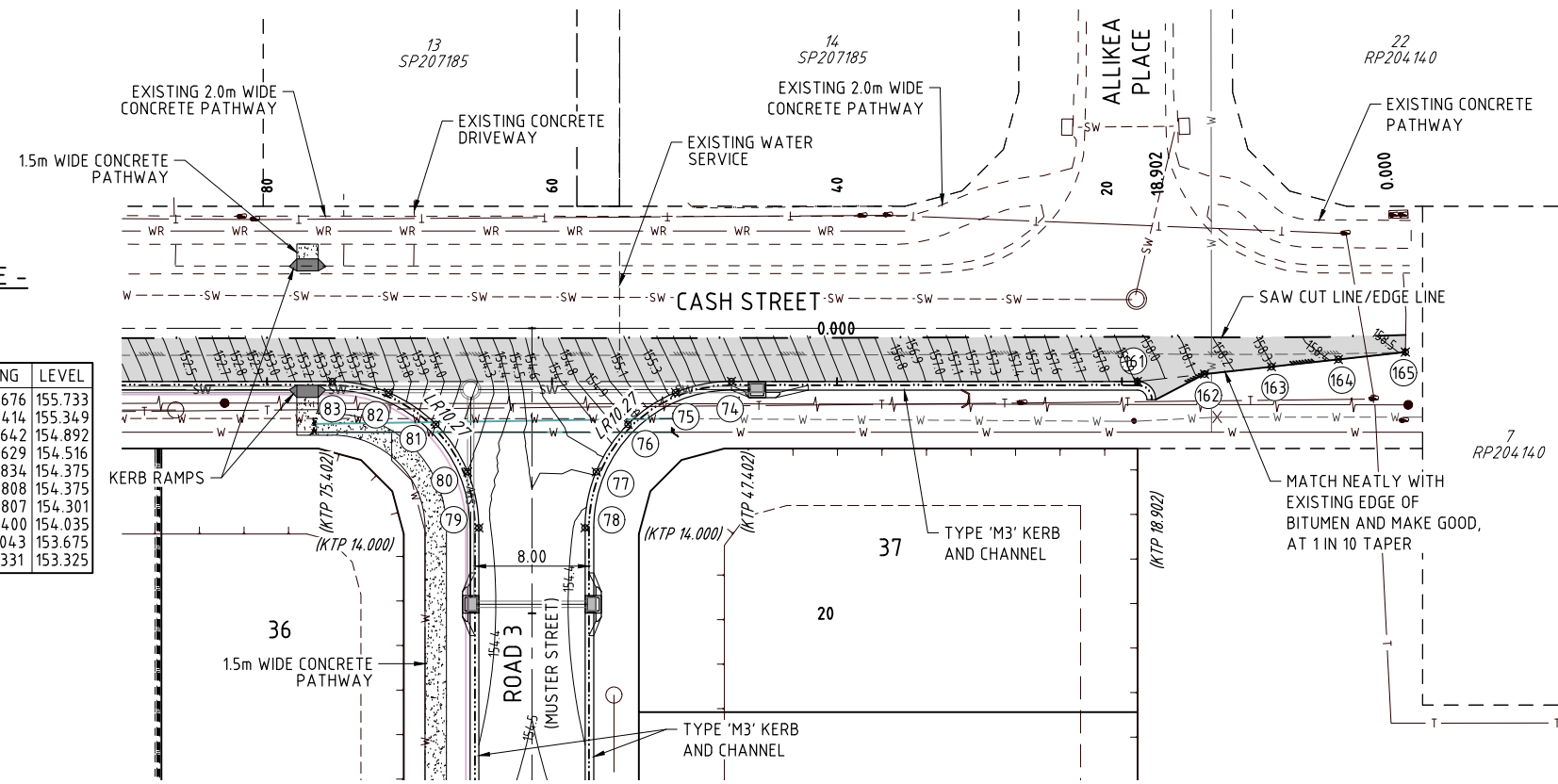
'ARCHERS WAY' ESTATE - STAGE 2
AT 22-80 CASH STREET, D'AGUILAR

DENNIS FAMILY CORPORATION



LIP OF KERB SETOUT TABLE - CASH STREET AND ROAD 3 (MUSTER STREET)

PT No.	TYPE	EASTING	NORTHING	LEVEL
74	KTP	480872.288	7014707.676	155.733
75	QTR	480868.289	7014707.414	155.349
76	QTR	480864.695	7014705.642	154.892
77	QTR	480862.053	7014702.629	154.516
78	KTP	480860.765	7014698.834	154.375
79	KTP	480853.369	7014699.808	154.375
80	QTR	480853.107	7014703.807	154.301
81	QTR	480851.334	7014707.400	154.035
82	QTR	480848.322	7014710.043	153.675
83	KTP	480844.527	7014711.331	153.325



INTERSECTION DETAIL - CASH STREET & ROAD 3
SCALE 1:250

TAPER DETAIL - CASH STREET WIDENING
SCALE 1:250

LEGEND:

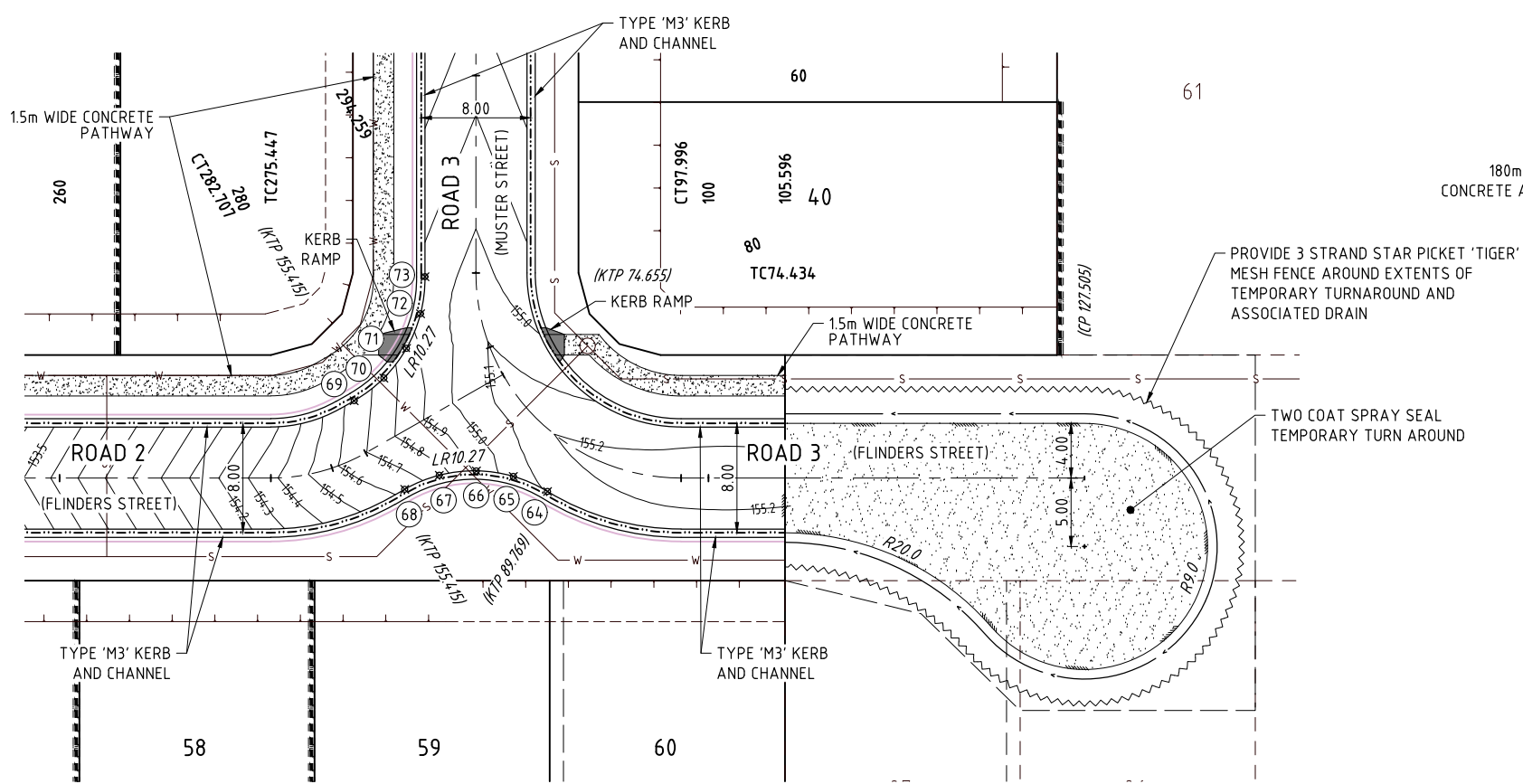
- PAVEMENT CONTOURS
- PROPOSED KERB AND CHANNEL
- PROPOSED STORMWATER
- SEWERAGE
- WATER MAIN
- EXISTING KERB AND CHANNEL
- EXISTING U/G ELECTRICAL
- TELSTRA
- ROAD WIDENING PAVEMENT EXTENTS
- KERB TRANSITION
- KERB RAMP
- BOLLARDS @ 1.5m CENTRES

LIP OF KERB SETOUT TABLE - CASH STREET TAPER

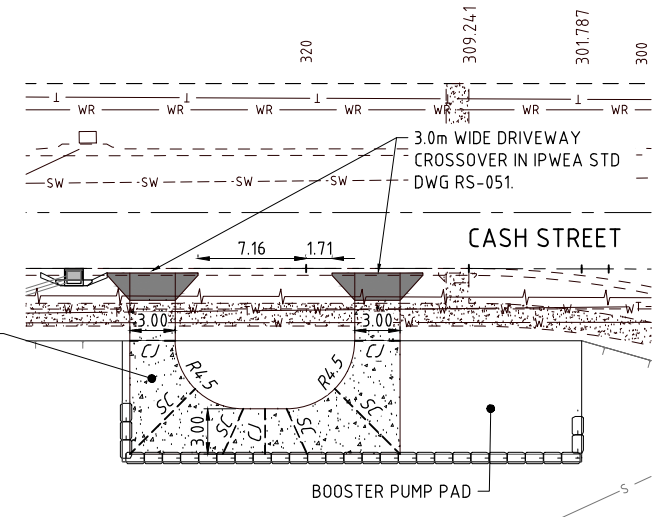
PT No.	TYPE	EASTING	NORTHING	LEVEL
161	KTP	480900.544	7014703.957	157.909
162	QTR	480905.268	7014703.855	158.126
163	QTR	480909.993	7014703.754	158.295
164	QTR	480914.717	7014703.652	158.414
165	IP	480919.442	7014703.551	158.509

LIP OF KERB SETOUT TABLE - ROAD 2 AND ROAD 3 (FLINDERS STREET & MUSTER STREET)

PT No.	TYPE	EASTING	NORTHING	LEVEL
64	KTP	480852.284	7014622.874	155.105
65	QTR	480849.949	7014624.293	155.045
66	QTR	480847.324	7014625.045	154.915
67	QTR	480844.592	7014625.079	154.762
68	KTP	480841.949	7014624.392	154.634
69	KTP	480839.129	7014631.299	154.634
70	QTR	480841.498	7014632.658	154.747
71	QTR	480843.425	7014634.594	154.856
72	QTR	480844.773	7014636.970	154.928
73	KTP	480845.447	7014639.617	154.930



INTERSECTION DETAIL - ROAD 2 & ROAD 3
SCALE 1:250



BOOSTER PUMP SITE DRIVEWAY
SCALE 1:250

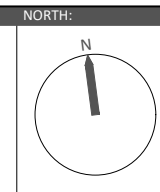
NOTE: ALL RADII ARE MEASURED TO THE LIP OF THE KERB AND CHANNEL.
● 1.8m LENGTH TRANSITION BETWEEN KERB TYPES UNLESS SHOWN OTHERWISE.

THE CONTRACTOR IS TO NOTIFY THE SUPERVISING ENGINEER OF ANY DISCREPANCIES BETWEEN THE DESIGN PLANS AND THE CONDITIONS ON SITE PRIOR TO COMMENCEMENT OF ANY WORK.



BRISBANE - SUNSHINE COAST - CENTRAL QLD
SUNSHINE COAST
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JFP URBAN CONSULTANTS PTY. LTD. A.C.N. 050 414 045

- PLANNERS
- URBAN DESIGNERS
- SURVEYORS
- ENGINEERS
- LANDSCAPE ARCHITECTS



SCALE: 1:250
THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE
A1
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APPROVED: [Signature] FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD

CHECKED: HW
DATE: AHD

DESIGNED: CDV
DRAWN: BJ
DATE: 07/04/21

ISSUE: B
ISSUE FOR OPERATIONAL WORKS APPROVAL
DATE: 16/06/20

ISSUE: A
DATE: 16/06/20

TITLE: BOOSTER PUMP DRIVEWAY ADDED
ISSUE FOR OPERATIONAL WORKS APPROVAL

PROJECT: 'ARCHERS WAY' ESTATE - STAGE 2
AT 22-80 CASH STREET, D'AGUILAR

DATE: 07/04/21
INIT: CDV

TITLE: ROADWORKS INTERSECTION DETAILS PLAN

DFC (PROJECT MANAGEMENT) PTY LTD

DENNIS FAMILY CORPORATION

DETAILS: PROJECT: M2584E_2 R03
PLAN: B
ISSUE: B

LOCAL AUTHORITY REF: MORETON BAY REGIONAL COUNCIL

COUNCIL REF: DA/38032/2019/V3RL

FILE NAME: INTERSECTION.DWG

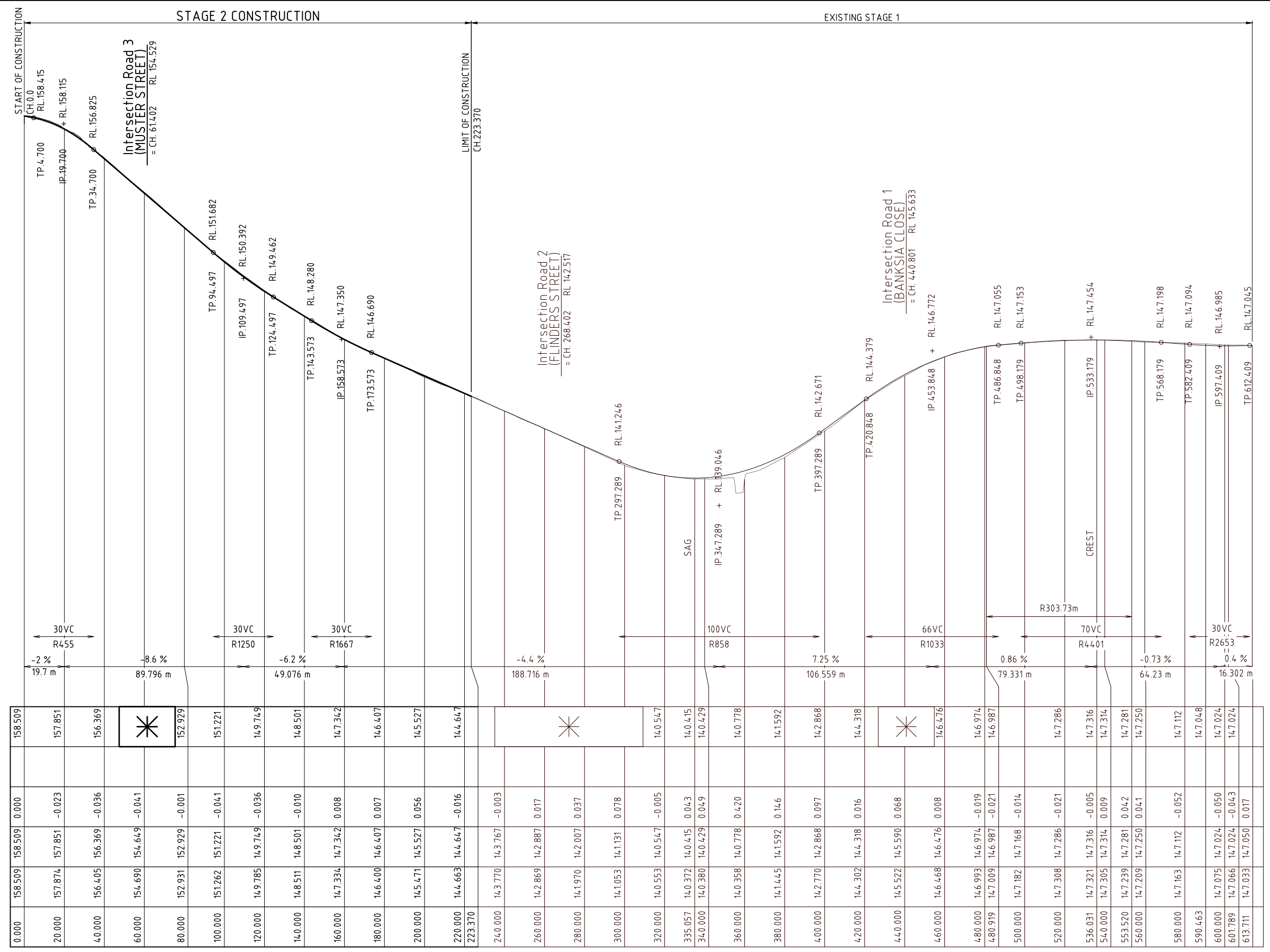


CONTRACTOR TO NOTIFY SUPERINTENDENT IF WORKS TO EXISTING KERB & PAVEMENT IS REQUIRED TO ENSURE ADEQUATE & FREE DRAINING CONNECTION TO EXISTING ROAD

NOTES:
 ASSUMED TOPSOIL DEPTH 150mm
 ULTIMATE PAVEMENT DEPTHS ARE DETERMINED BY SOIL TESTS TAKEN AT FORMATION LEVEL.
 ESA's 12x10⁵
 "LIVING RESIDENTIAL" - ACCESS STREET

NOMINAL PAVEMENT
 CH 0.000 TO CH 223.370
 25mm AC (BCC TYPE 2)
 125mm BASE COURSE (CBR 60)
 215mm SUB-BASE COURSE (CBR 45)

REFER INTERSECTION DETAILS FOR LIP OF KERB LEVELS ON DWG No. M2584E_2 R03



HORIZ. CURVE DATA
 V.C.LENGTH (m)
 RADIUS OF CURVATURE
 TANGENT GRADE (%)
 DISTANCE IP-IP

DATUM R.L. 129.0

CH	LHS LIP OF KERB LEVELS	RHS LIP OF KERB LEVELS	CUT (-ve) FILL	PAVEMENT LEVELS ALONG CONTROLLINE	SURFACE LEVELS ALONG CONTROLLINE	PEGGED CHAINAGE ALONG CONTROLLINE
0.000	158.509		0.000	158.509	158.509	0.000
20.000	157.851		-0.023	157.851	157.874	20.000
40.000	156.369		-0.036	156.369	156.405	40.000
60.000	154.649		-0.041	154.649	154.690	60.000
80.000	152.929		-0.001	152.929	152.931	80.000
100.000	151.221		-0.041	151.221	151.262	100.000
120.000	149.749		-0.036	149.749	149.785	120.000
140.000	148.501		-0.010	148.501	148.511	140.000
160.000	147.342		0.008	147.342	147.334	160.000
180.000	146.407		0.007	146.407	146.400	180.000
200.000	145.527		0.056	145.527	145.471	200.000
220.000	144.647		-0.016	144.647	144.663	220.000
223.370						223.370
240.000			-0.003	143.767	143.770	240.000
260.000			0.017	142.887	142.869	260.000
280.000			0.037	142.007	141.970	280.000
300.000			0.078	141.131	141.053	300.000
320.000			-0.005	140.547	140.553	320.000
335.057			0.043	140.415	140.372	335.057
340.000			0.049	140.429	140.380	340.000
360.000			0.420	140.778	140.358	360.000
380.000			0.146	141.592	141.445	380.000
400.000			0.097	142.868	142.770	400.000
420.000			0.016	144.318	144.302	420.000
440.000			0.068	145.590	145.522	440.000
460.000			0.008	146.476	146.468	460.000
480.000			-0.019	146.974	146.993	480.000
480.919			-0.021	146.987	147.009	480.919
500.000			-0.014	147.168	147.182	500.000
520.000			-0.021	147.286	147.308	520.000
536.031			-0.005	147.316	147.321	536.031
540.000			0.009	147.314	147.305	540.000
553.520			0.042	147.281	147.239	553.520
560.000			0.041	147.250	147.209	560.000
580.000			-0.052	147.112	147.163	580.000
590.463				147.048	147.075	590.463
600.000			-0.050	147.024	147.075	600.000
601.789			-0.043	147.024	147.066	601.789
613.711			0.017	147.050	147.033	613.711

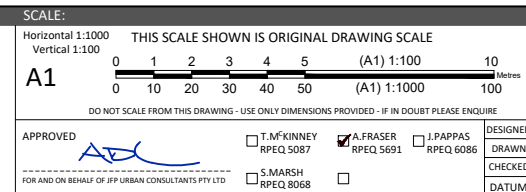
LONGITUDINAL SECTION - CASH STREET
 ("LIVING RESIDENTIAL" - ACCESS STREET CH.0.000 - CH.223.370)



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PLANNERS
 URBAN DESIGNERS
 SURVEYORS
 ENGINEERS
 LANDSCAPE ARCHITECTS

NORTH:

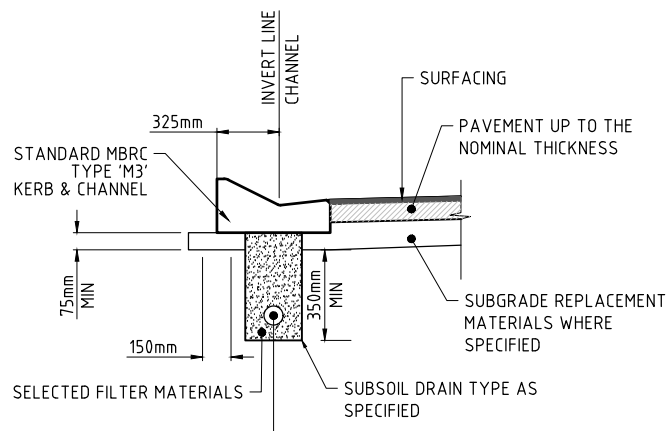
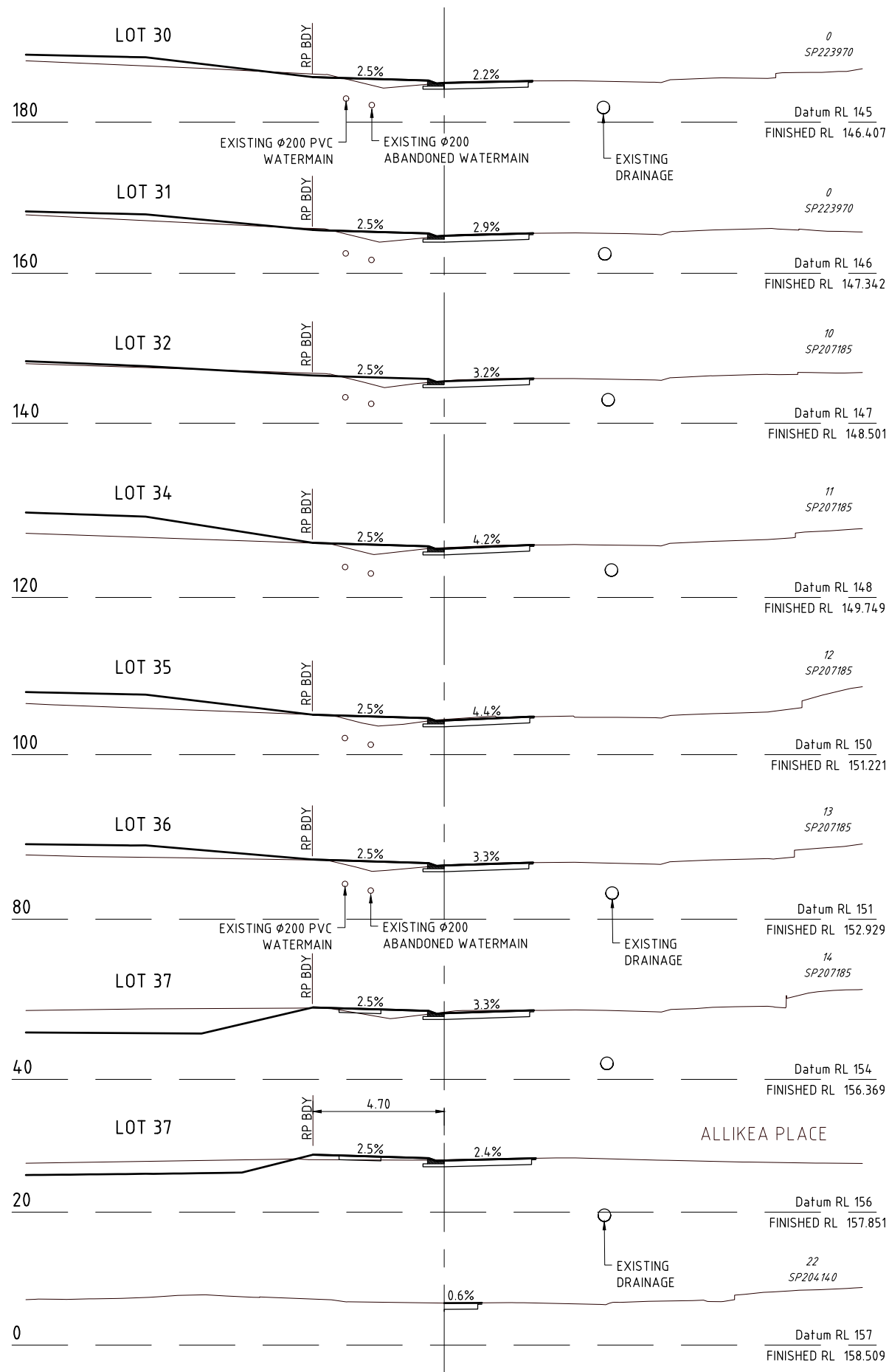


ISSUE:
 DESIGNED CDV
 DRAWN BJ
 CHECKED HW
 DATUM: AHD
 ISSUE: A
 ISSUE FOR OPERATIONAL WORKS APPROVAL
 DATE: 16/06/20
 INIT: BJ

TITLE:
**ROADWORKS LONGITUDINAL SECTION
 CASH STREET**
 DFC (PROJECT MANAGEMENT) PTY LTD
 'ARCHERS WAY' ESTATE - STAGE 2
 AT 22-80 CASH STREET, D'AGUILAR

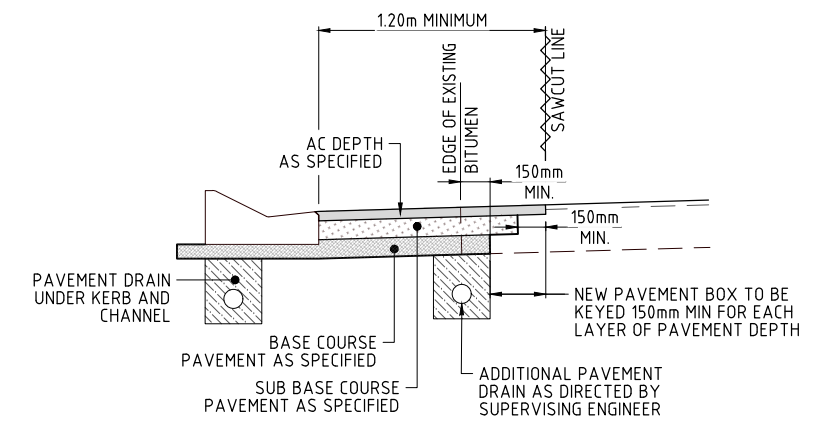


DETAILS:
 PROJECT: M2584E_2 R04
 LOCAL AUTHORITY REF: MORETON BAY REGIONAL COUNCIL
 COUNCIL REF: DA/38032/2019/V3R1
 FILE NAME: ROADWORKS SECTIONS.DWG
 PLAN: A
 ISSUE: A

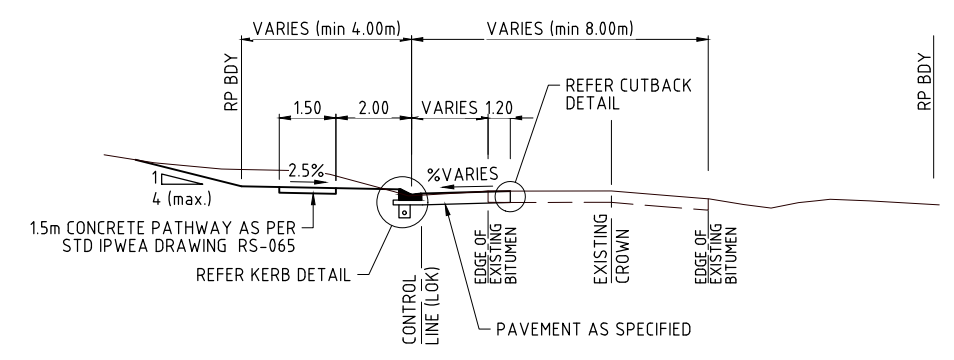


NOTE:
SIDE DRAINS ARE TO BE LOCATED UNDER ALL KERB AND CHANNEL. FOR DETAILS OF SIDE DRAIN CONSTRUCTION REFER TO IPWEAQ STD DRAWING RS-140 & RS-142

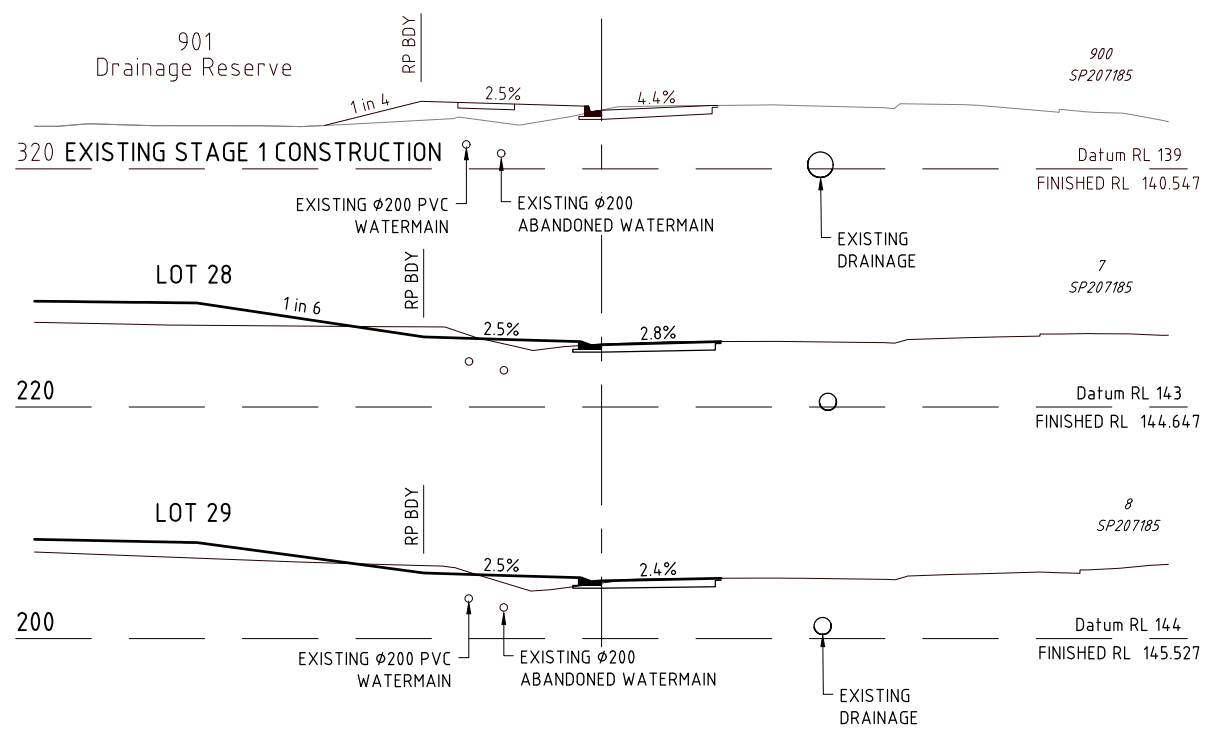
TYPICAL LOCATION NEW CONSTRUCTION - TYPE M3
SCALE 1:20



CUT BACK DETAIL
SCALE 1:20



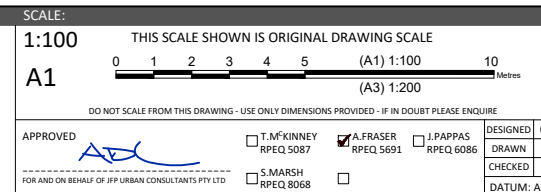
CASH STREET - TYPICAL CROSS SECTION
"LIVING RESIDENTIAL" ACCESS STREET/LOCAL COLLECTOR ROAD (40km/hr)
SCALE 1:100



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NORTH:



CHECKED HW	DATE: 16/06/20	INIT: BJ
DATUM: AHD	ISSUE: A	ISSUE FOR OPERATIONAL WORKS APPROVAL
ISSUE: DETAILS:		

TITLE: ROADWORKS CROSS SECTIONS
CASH STREET
DFC (PROJECT MANAGEMENT) PTY LTD
'ARCHERS WAY' ESTATE - STAGE 2
AT 22-80 CASH STREET, D'AGUILAR



DETAILS: PROJECT: M2584E_2 R05 A
PLAN: LOCAL AUTHORITY REF: MORETON BAY REGIONAL COUNCIL
COUNCIL REF: DA/38032/2019/V3R1
FILE NAME: ROADWORKS SECTIONS.DWG

NOTES:
 ASSUMED TOPSOIL DEPTH 150mm
 ULTIMATE PAVEMENT DEPTHS ARE DETERMINED BY SOIL TESTS TAKEN AT FORMATION LEVEL.
 ESA's 12x10⁵
 "LIVING RESIDENTIAL" - ACCESS STREET

NOMINAL PAVEMENT
 CH 128.447 TO CH 294.259
 25mm AC (BCC TYPE 2)
 125mm BASE COURSE (CBR 60)
 215mm SUB-BASE COURSE (CBR 45)

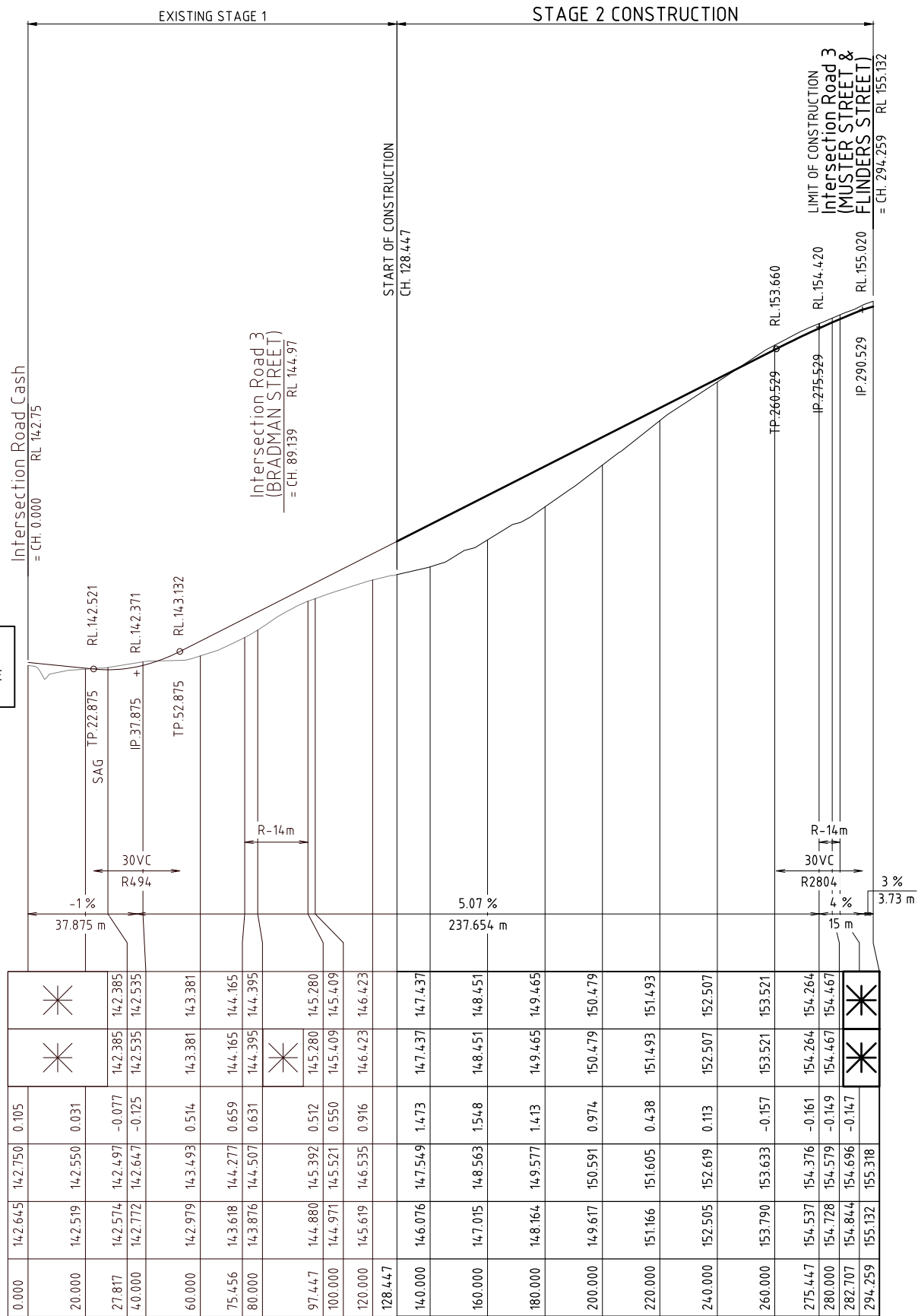
REFER INTERSECTION DETAILS FOR LIP OF KERB LEVELS ON DWG No. M2584E_2 R03

CONTRACTOR TO NOTIFY SUPERINTENDENT IF WORKS TO EXISTING KERB & PAVEMENT IS REQUIRED TO ENSURE ADEQUATE & FREE DRAINING CONNECTION TO EXISTING ROAD

HORIZ. CURVE DATA
 V.C LENGTH (m)
 RADIUS OF CURVATURE
 TANGENT GRADE (%)
 DISTANCE IP-IP

DATUM R.L.132.0

LHS LIP OF KERB LEVELS	*
RHS LIP OF KERB LEVELS	*
CUT (-ve) FILL	
PAVEMENT LEVELS ALONG CONTROLLINE	
SURFACE LEVELS ALONG CONTROLLINE	
PEGGED CHAINAGE ALONG CONTROLLINE	



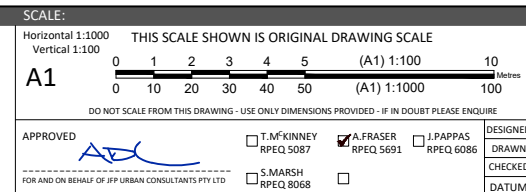
LONGITUDINAL SECTION - ROAD 2 (FLINDERS STREET)
 ("LIVING RESIDENTIAL" - ACCESS STREET CH.128.447 - END)



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NORTH:

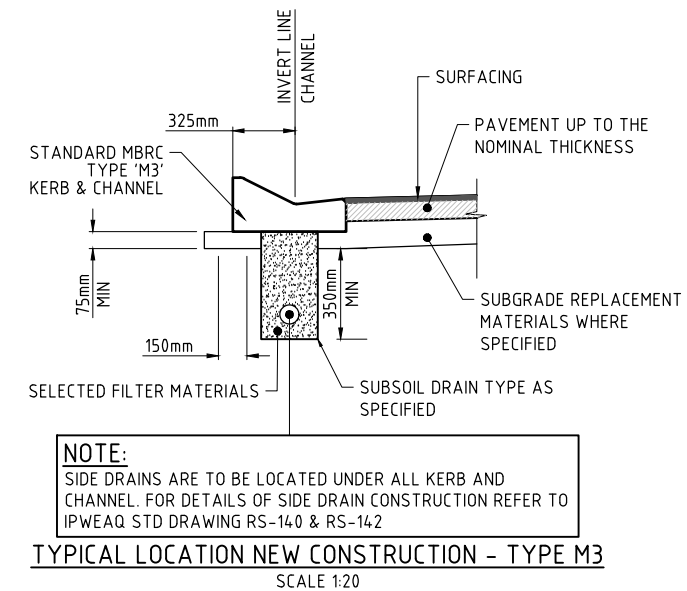
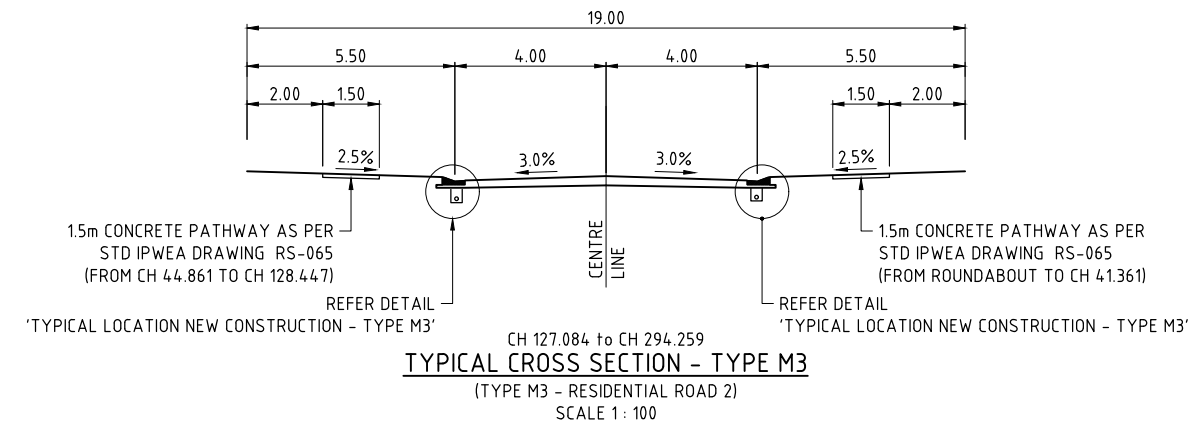
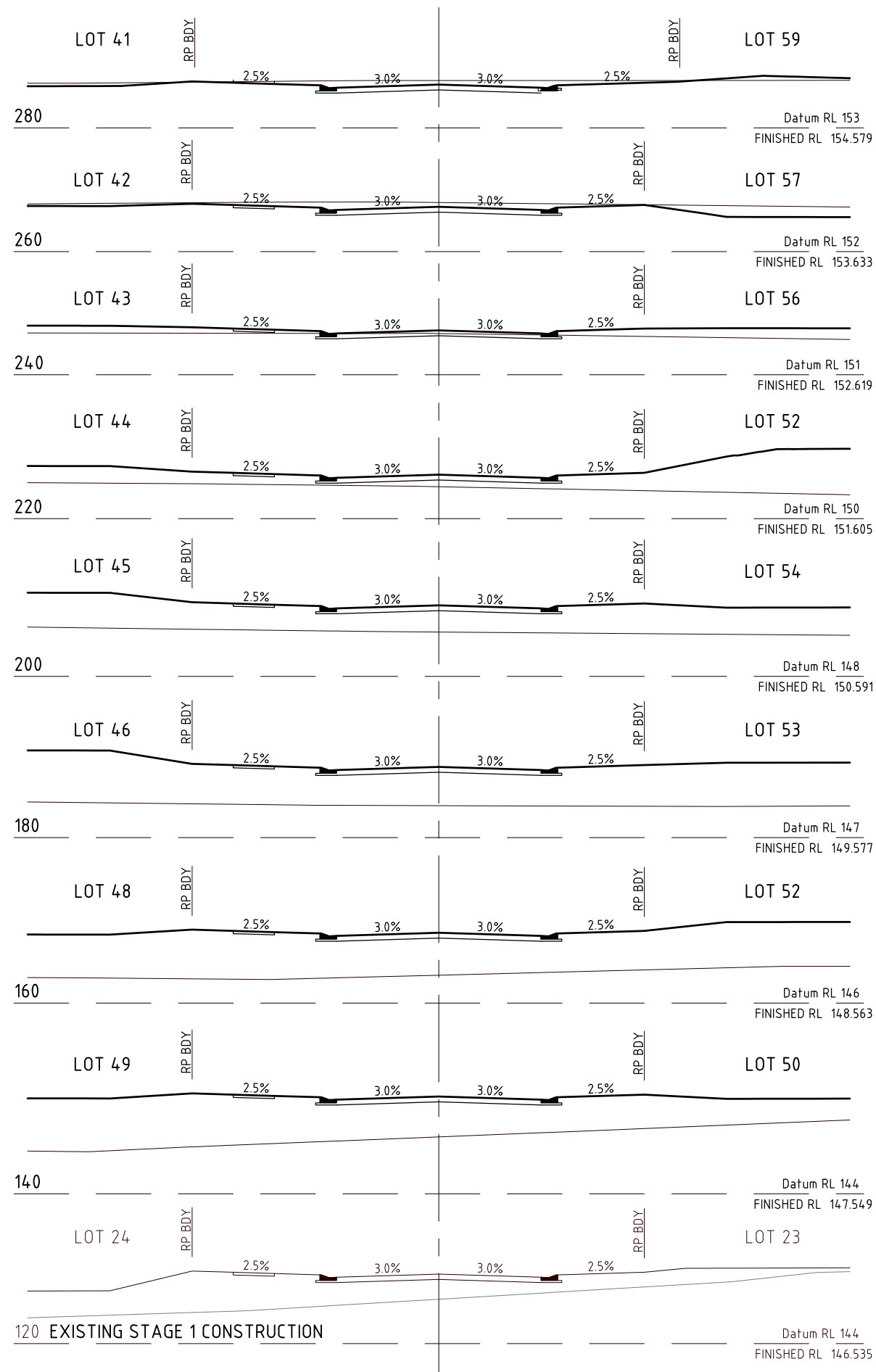


TITLE:
ROADWORKS LONGITUDINAL SECTION ROAD 2 (FLINDERS STREET)
 DFC (PROJECT MANAGEMENT) PTY LTD
 'ARCHERS WAY' ESTATE - STAGE 2 AT 22-80 CASH STREET, D'AGUILAR

DETAILS:
 PROJECT: M2584E_2 R06
 LOCAL AUTHORITY REF: MORETON BAY REGIONAL COUNCIL
 COUNCIL REF: DA/38032/2019/V3R1
 FILE NAME: ROADWORKS SECTIONS.DWG

DENNIS FAMILY CORPORATION





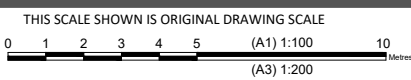
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NORTH:

SCALE:

1:100
A1



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APPROVED	T. MCKINNEY RPEQ 5087	A. FRASER RPEQ 5691	J. PAPPAS RPEQ 6086
FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD	S. MARSH RPEQ 8068		

ISSUE:

DESIGNED	CDV
DRAWN	BJ
CHECKED	HW
DATUM:	AHD
ISSUE:	A
ISSUE DETAILS:	ISSUE FOR OPERATIONAL WORKS APPROVAL

TITLE:

**ROADWORKS CROSS SECTIONS
ROAD 2 (FLINDERS STREET)**
DFC (PROJECT MANAGEMENT) PTY LTD
'ARCHERS WAY' ESTATE - STAGE 2
AT 22-80 CASH STREET, D'AGUILAR

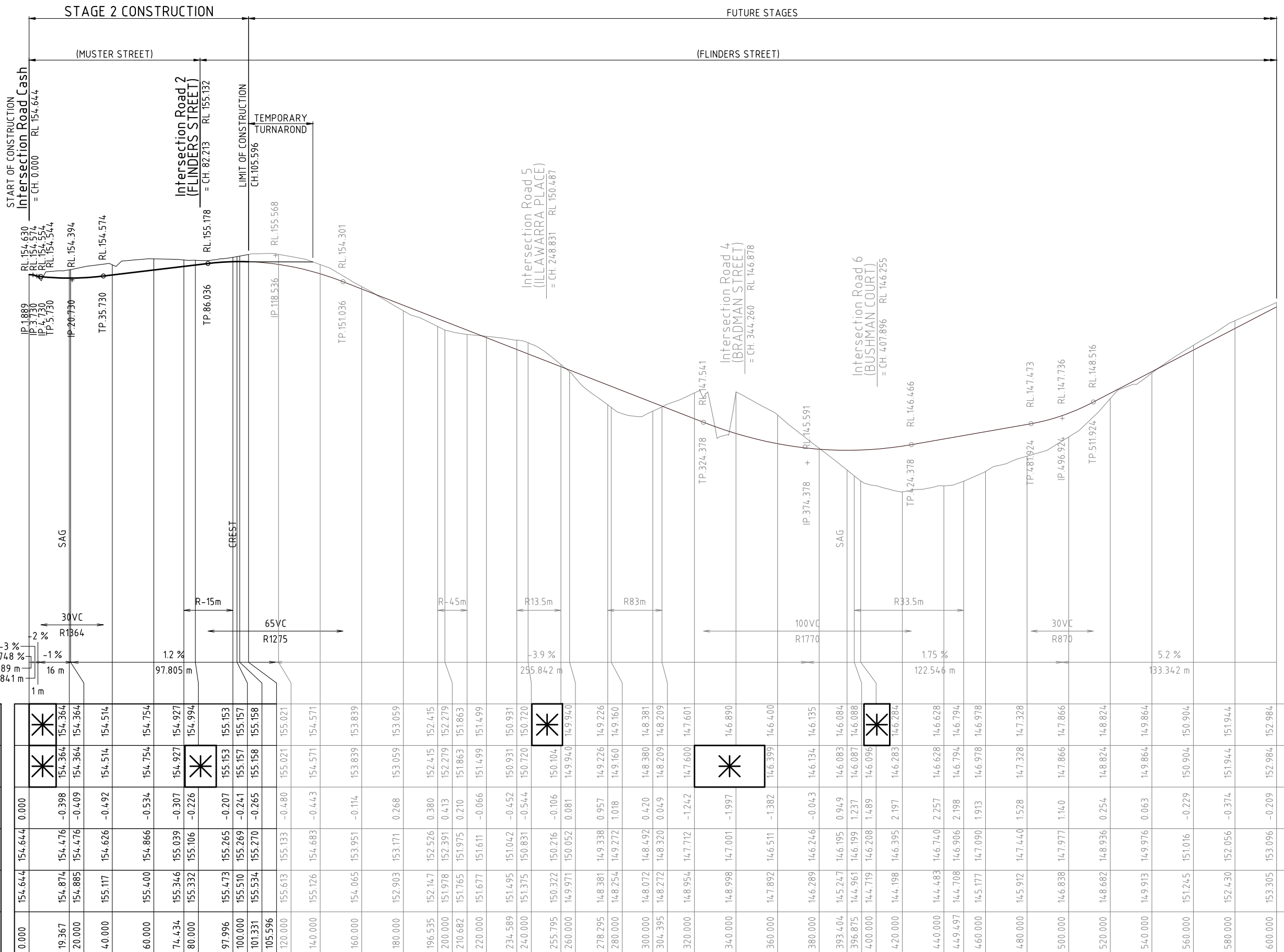


DETAILS:
PROJECT: M2584E_2
PLAN: R07
ISSUE: A
LOCAL AUTHORITY REF: MORETON BAY REGIONAL COUNCIL
COUNCIL REF: DA/38032/2019/V3RL
FILE NAME: ROADWORKS SECTIONS.DWG

NOTES:
 ASSUMED TOPSOIL DEPTH 150mm
 ULTIMATE PAVEMENT DEPTHS ARE DETERMINED BY SOIL TESTS TAKEN AT FORMATION LEVEL.
 ESA's 1.2x10⁵
 "LIVING RESIDENTIAL" - ACCESS STREET

NOMINAL PAVEMENT
 CH 0.000 TO CH 105.596
 25mm AC (BCC TYPE 2)
 125mm BASE COURSE (CBR 60)
 215mm SUB-BASE COURSE (CBR 45)

REFER INTERSECTION DETAILS FOR LIP OF KERB LEVELS ON DWG No. M2584E_2 R03



HORIZ. CURVE DATA
 V.C. LENGTH (m)
 RADIUS OF CURVATURE
 TANGENT GRADE (%)
 DISTANCE IP-IP

DATUM R.L.134.0

LHS LIP OF KERB LEVELS	*	154.364	154.364	154.514	154.754	154.927	155.153	155.157	155.158	155.021	154.571	153.839	153.059	152.415	152.279	151.863	151.499	150.931	150.720	*	149.940	149.226	149.160	148.381	148.209	147.601	146.890	146.400	146.135	146.084	146.088	146.096	146.284	146.628	146.794	146.978	147.328	147.866	148.824	149.864	150.904	151.944	152.984	
RHS LIP OF KERB LEVELS	*	154.364	154.364	154.514	154.754	154.927	155.153	155.157	155.158	155.021	154.571	153.839	153.059	152.415	152.279	151.863	151.499	150.931	150.720	*	149.940	149.226	149.160	148.381	148.209	147.601	146.890	146.400	146.135	146.084	146.088	146.096	146.284	146.628	146.794	146.978	147.328	147.866	148.824	149.864	150.904	151.944	152.984	
CUT (-ve) FILL			-0.398	-0.409	-0.492	-0.534	-0.307	-0.226	-0.207	-0.241	-0.265	-0.480	-0.443	0.380	0.413	0.210	-0.066	-0.452	-0.544		0.081	0.957	1.018	0.420	0.049	-1.242	-1.197	-1.382	-0.043	0.949	1.237	1.489	2.197	2.257	2.198	1.913	1.528	1.140	0.254	0.063	-0.229	-0.374	-0.209	
PAVEMENT LEVELS ALONG CONTROLLINE	154.644	154.476	154.476	154.626	154.866	155.039	155.106	155.265	155.269	155.133	154.683	153.951	153.171	152.526	152.391	151.975	151.611	151.042	150.831	150.216	150.052	149.338	149.272	148.492	148.320	147.712	147.001	146.511	146.246	146.195	146.199	146.208	146.395	146.740	146.906	147.090	147.440	147.977	148.936	149.976	151.016	152.056	153.096	
SURFACE LEVELS ALONG CONTROLLINE	154.644	154.874	154.885	155.117	155.400	155.346	155.332	155.473	155.510	155.613	155.126	154.065	152.903	152.147	151.978	151.765	151.677	151.495	151.375	150.322	149.971	148.381	148.254	148.072	148.272	148.954	148.998	147.892	146.289	145.247	144.961	144.719	144.198	144.483	144.708	145.177	145.912	146.838	148.682	149.913	151.245	152.430	153.305	
PEGGED CHAINAGE ALONG CONTROLLINE	0.000	19.367	20.000	40.000	60.000	74.434	80.000	97.996	100.000	101.331	120.000	140.000	160.000	180.000	196.535	200.000	210.682	220.000	234.589	240.000	255.795	260.000	278.295	280.000	300.000	304.395	320.000	340.000	360.000	380.000	393.404	396.875	400.000	420.000	440.000	449.497	460.000	480.000	500.000	520.000	540.000	560.000	580.000	600.000

LONGITUDINAL SECTION - ROAD 3 (MUSTER STREET & FLINDERS STREET)
 ("LIVING RESIDENTIAL" - ACCESS STREET CH.0.0 - 105.596)



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NORTH: SCALE: THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE
 Horizontal 1:1000 Vertical 1:100
 A1 0 1 2 3 4 5 (A1) 1:100 10
 0 10 20 30 40 50 (A1) 1:1000 100
 DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

APPROVED: [Signature] A FRASER RPEQ 5691 I PAPPAS RPEQ 6086
 CHECKED: [Signature] S MARSH RPEQ 8068
 DATUM: AHD

DESIGNED: CDV
 DRAWN: BJ
 CHECKED: HW
 DATE: 16/06/20

ISSUE: A ISSUE FOR OPERATIONAL WORKS APPROVAL
 DATE: 16/06/20

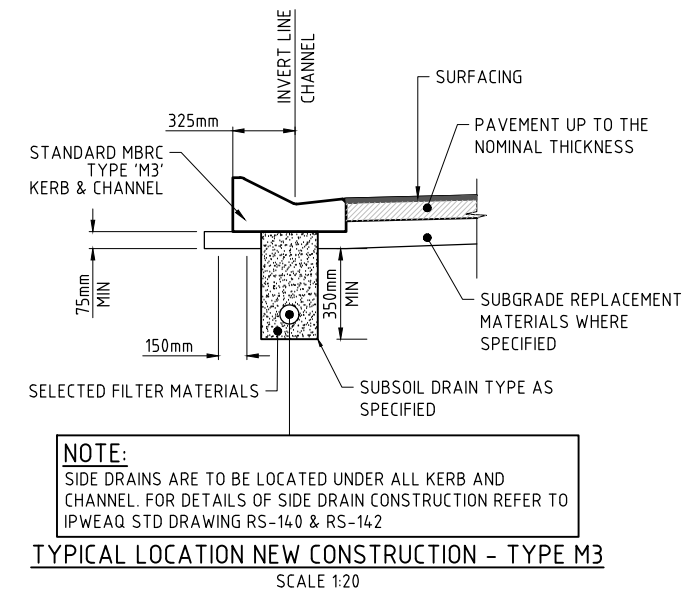
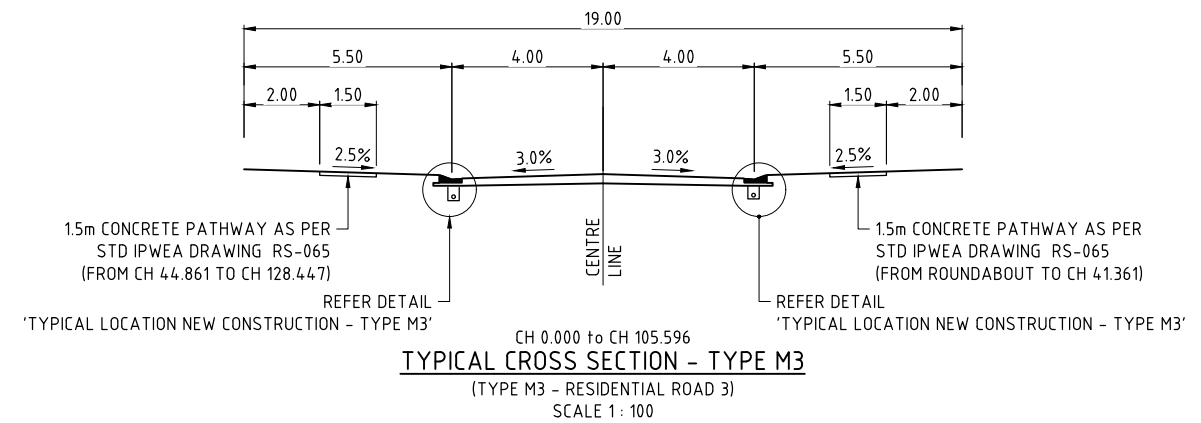
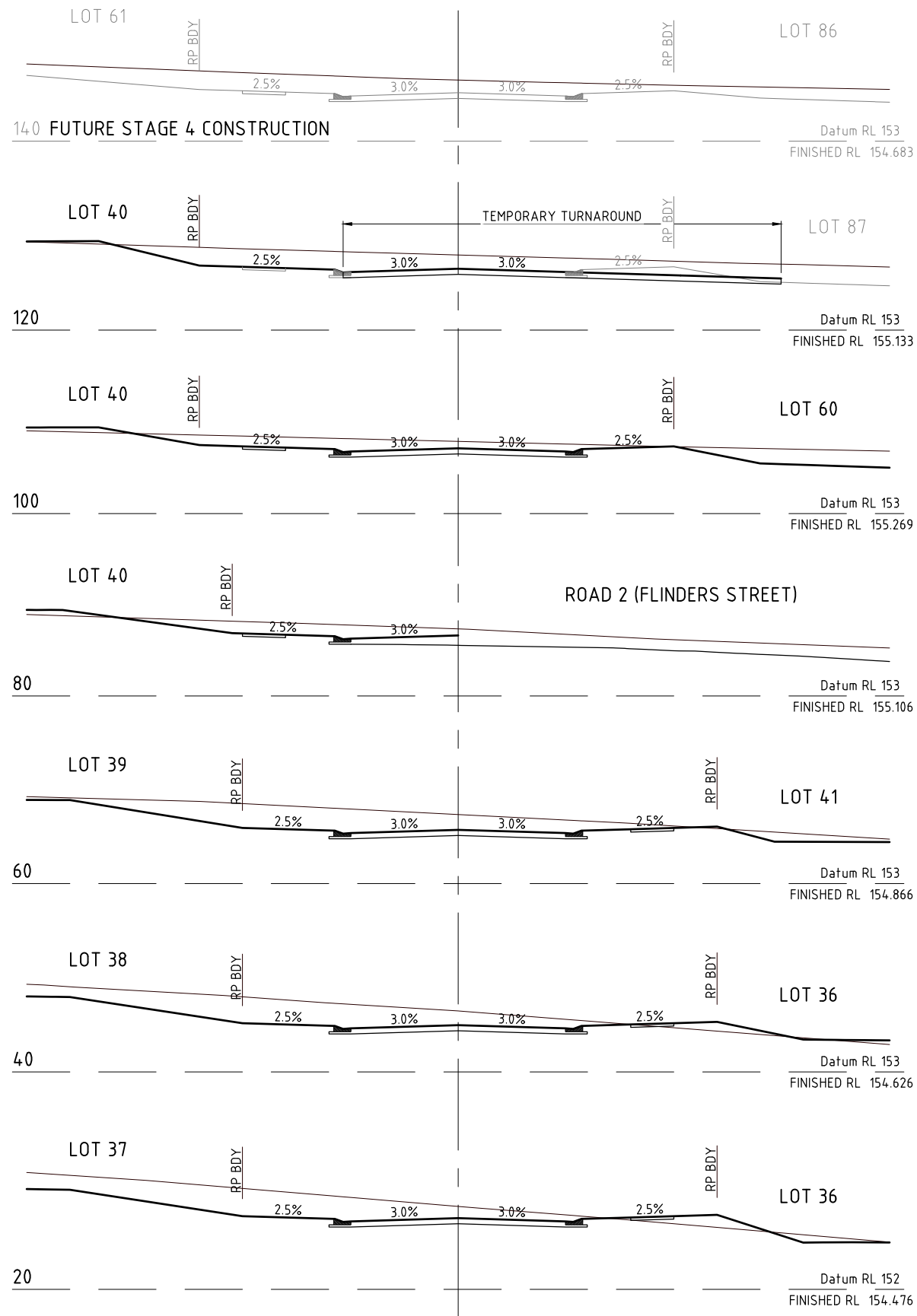
TITLE: ROADWORKS LONGITUDINAL SECTION ROAD 3 (MUSTER STREET & FLINDERS STREET)
 DFC (PROJECT MANAGEMENT) PTY LTD
 'ARCHERS WAY' ESTATE - STAGE 2 AT 22-80 CASH STREET, D'AGUILAR

DETAILS: PROJECT: M2584E_2 R08
 LOCAL AUTHORITY REF: MORETON BAY REGIONAL COUNCIL
 COUNCIL REF: DA/38032/2019/V3R1
 FILE NAME: ROADWORKS SECTIONS.DWG

THE ESSENTIAL FIRST STEP
 DIAL BEFORE YOU DIG
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DENNIS FAMILY CORPORATION

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JFP URBAN CONSULTANTS PTY. LTD. A.C.N. 050 414 045

PLANNERS
URBAN DESIGNERS
SURVEYORS
ENGINEERS
LANDSCAPE ARCHITECTS

NORTH: SCALE: 1:100

THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE

0 1 2 3 4 5 10 (A1) 1:100 (A3) 1:200

DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

APPROVED: [Signature] T. MCKINNEY RPEQ 5087 A. FRASER RPEQ 5691 J. PAPPAS RPEQ 6086 S. MARSH RPEQ 8068

DESIGNED: CDV
DRAWN: BJ
CHECKED: HW
DATE: 16/06/20

ISSUE: A

ISSUE FOR OPERATIONAL WORKS APPROVAL

DATE: 16/06/20

INIT: BJ

TITLE: ROADWORKS CROSS SECTIONS ROAD 3 (MUSTER STREET & FLINDERS STREET)

DFC (PROJECT MANAGEMENT) PTY LTD

'ARCHERS WAY' ESTATE - STAGE 2 AT 22-80 CASH STREET, D'AGUILAR

DENNIS FAMILY CORPORATION

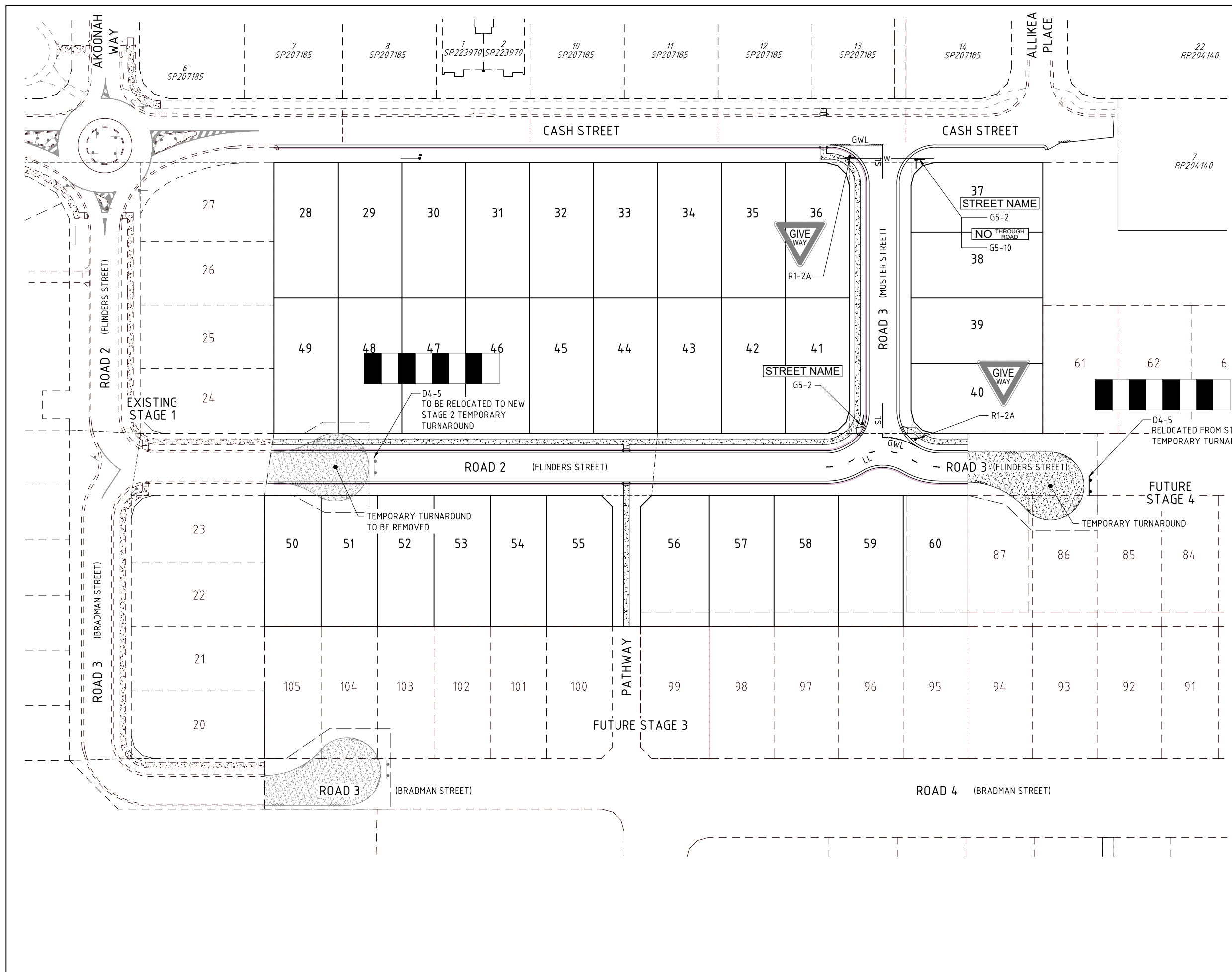
DETAILS: PROJECT: M2584E_2 R09 ISSUE: A

LOCAL AUTHORITY REF: MORETON BAY REGIONAL COUNCIL

COUNCIL REF: DA/38032/2019/V3RL

FILE NAME: ROADWORKS SECTIONS.DWG





- LEGEND**
- SL - SEPARATION LINE
 - BL - BARRIER LINE
 - LL - LANE LINE
 - EL - EDGE LINE
 - CL - CONTINUITY LINE
 - TL - TURN LINE
 - OL - PAINTED ISLAND
 - NSL - NO STOPPING LINES
 - SPL - STOP LINE
 - GWL - GIVEWAY LINE
 - CW - CROSSWALK LINE

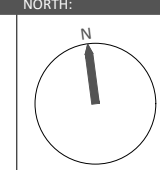
- NOTES**
1. ALL PAVEMENT MARKING AND TRAFFIC SIGNS TO BE INSTALLED IN ACCORDANCE WITH THE QUEENSLAND DEPARTMENT OF MAIN ROADS, MANUAL OF UNIFORM TRAFFIC CONTROLS DEVICES (MUTCD).
 2. TRAFFIC ISLAND NOSES ARE TO BE PAINTED WITH WHITE REFLECTORISED PAINT.
 3. RAISED REFLECTORISED PAVEMENT MARKERS (RRPM's) ARE TO BE PLACED IN ACCORDANCE WITH M.U.T.C.D. - PART 2 SECTION 4.6.5.3.
 4. INSTALL TGS1 ON ALL RAMPED KERB CROSSINGS IN ACCORDANCE WITH M.B.R.C. STANDARD DRAWING PC-2170.

THE CONTRACTOR IS TO NOTIFY THE SUPERVISING ENGINEER OF ANY DISCREPANCIES BETWEEN THE DESIGN PLANS AND THE CONDITIONS ON SITE PRIOR TO COMMENCEMENT OF ANY WORK.



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PLANNERS
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 SURVEYORS
 ENGINEERS
 LANDSCAPE ARCHITECTS



SCALE:
 1:500
 A1
 THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE
 0 5 10 15 20 25 30 35 40 45 50
 (A1) 1:500
 (A3) 1:1000
 DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

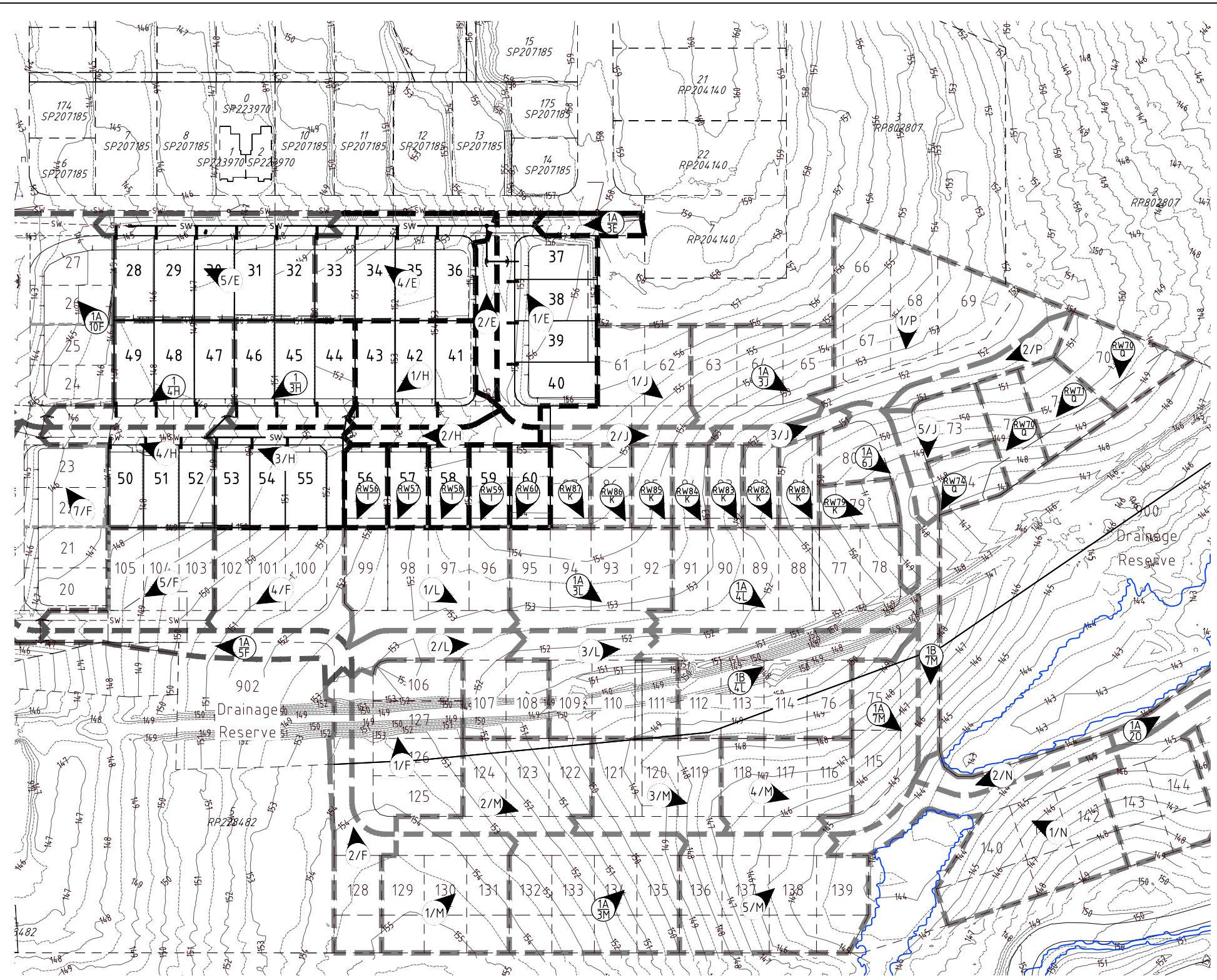
APPROVED: [Signature]
 FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD
 T.M'KINNEY RPEQ 5087
 A.FRASER RPEQ 5691
 J.PAPPAS RPEQ 6086
 S.MARSH RPEQ 8068

ISSUE:
 DESIGNED: CDV
 DRAWN: BJ
 CHECKED: HW
 DATUM: AHD
 DATE: 16/06/20
 INIT: BJ
 ISSUE: DETAILS: A
 ISSUE FOR OPERATIONAL WORKS APPROVAL

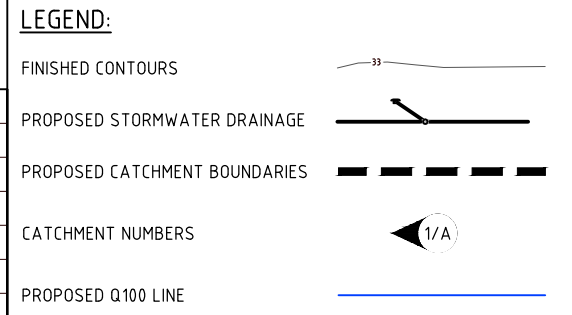
TITLE:
 SIGNS AND LINEMARKING PLAN
 DFC (PROJECT MANAGEMENT) PTY LTD
 'ARCHERS WAY' ESTATE - STAGE 2
 AT 22-80 CASH STREET, D'AGUILAR



DETAILS:
 PROJECT: M2584E_2
 PLAN: SL01
 ISSUE: A
 LOCAL AUTHORITY REF: MORETON BAY REGIONAL COUNCIL
 COUNCIL REF: DA/38032/2019/V3RL
 FILE NAME: LINEMARKING.DWG



CATCHMENT NAME	CATCHMENT AREA (ha)	RUNOFF COEFF MINOR	RUNOFF COEFF MAJOR
1/A	0.069	0.88	1.00
3/A	0.046	0.88	1.00
4/A	0.031	0.88	1.00
RW1/B	0.066	0.91	1.00
RW2/B	0.067	0.91	1.00
RW3/B	0.067	0.91	1.00
RW13/D	0.063	0.91	1.00
RW12/D	0.060	0.91	1.00
RW11/D	0.060	0.91	1.00
RW10/D	0.060	0.91	1.00
RW9/D	0.060	0.91	1.00
RW8/D	0.074	0.91	1.00
RW4/B	0.070	0.91	1.00
1A/6A	0.087	0.88	1.00
6/A	0.030	0.88	1.00
7/A	0.172	0.88	1.00
RW5/C	0.102	0.91	1.00
1/O	0.026	0.88	1.00
1A/2O	0.070	0.88	1.00
2/O	0.713	0.88	1.00
RW87/K	0.060	0.91	1.00
RW86/K	0.060	0.91	1.00
RW85/K	0.060	0.91	1.00
RW84/K	0.053	0.91	1.00
RW83/K	0.053	0.91	1.00
RW82/K	0.053	0.91	1.00
RW81/K	0.064	0.91	1.00
RW79/K	0.061	0.91	1.00
RW70/Q	0.125	0.91	1.00
RW71/Q	0.095	0.91	1.00
RW72/Q	0.083	0.91	1.00
RW74/Q	0.069	0.91	1.00
1/J	0.193	0.88	1.00
2/J	0.055	0.88	1.00
1/L	0.307	0.88	1.00
2/L	0.210	0.88	1.00
1/P	0.459	0.88	1.00
2/P	0.074	0.88	1.00
1A/3J	0.244	0.88	1.00
5/J	0.120	0.88	1.00
1A/3L	0.291	0.88	1.00
3/L	0.250	0.88	1.00
1A/4L	0.442	0.88	1.00
1B/4L	0.379	0.88	1.00
1A/6J	0.131	0.88	1.00
1/M	0.267	0.88	1.00
2/M	0.237	0.88	1.00
1A/3M	0.361	0.88	1.00
3/M	0.228	0.88	1.00
4/M	0.213	0.88	1.00



CATCHMENT NAME	CATCHMENT AREA (ha)	RUNOFF COEFF MINOR	RUNOFF COEFF MAJOR
5/M	0.380	0.88	1.00
1/N	0.409	0.88	1.00
2/N	0.070	0.88	1.00
1A/7M	0.199	0.88	1.00
1B/7M	0.091	0.88	1.00
RW60/I	0.060	0.91	1.00
RW59/I	0.060	0.91	1.00
RW58/I	0.060	0.91	1.00
RW57/I	0.060	0.91	1.00
RW56/I	0.064	0.91	1.00
1/F	0.315	0.88	1.00
2/F	0.171	0.88	1.00
4/F	0.247	0.88	1.00
1A/5F	0.127	0.88	1.00
5/F	0.217	0.88	1.00
7/F	0.333	0.88	1.00
8/F	0.386	0.88	1.00
1/E	0.334	0.88	1.00
2/E	0.062	0.88	1.00
1/H	0.239	0.88	1.00
2/H	0.069	0.88	1.00
1A/3E	0.041	0.88	1.00
4/E	0.308	0.88	1.00
5/E	0.399	0.88	1.00
1A/3H	0.230	0.88	1.00
3/H	0.236	0.88	1.00
1A/4H	0.253	0.88	1.00
4/H	0.211	0.88	1.00
1A/10F	0.372	0.88	1.00
10/F	0.082	0.88	1.00
1/G	0.171	0.88	1.00

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SCALE:
 1:1000
 A1
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 0 10 20 30 40 50 (A1) 1:1000 100
 (A3) 1:2000
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APPROVED:
 T. KINNEY RPEQ 5087
 A. FRASER RPEQ 5691
 S. MARSH RPEQ 8068

DESIGNED: CDV
DRAWN: BJ
CHECKED: HW
DATUM: AHD
ISSUE: A
ISSUE FOR OPERATIONAL WORKS APPROVAL

DATE: 16/06/20
INIT: BJ

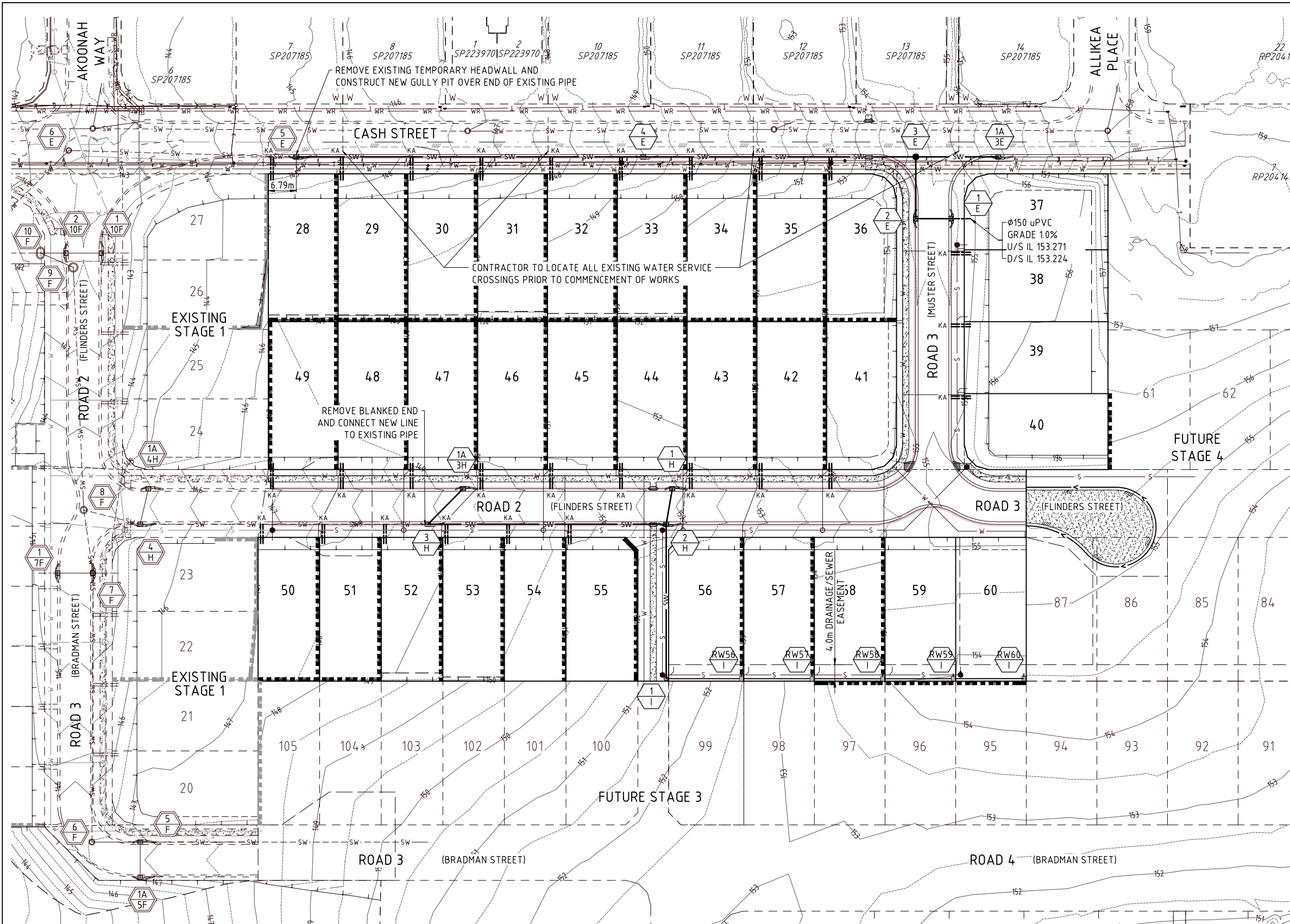
TITLE:
 DRAINAGE CATCHMENT PLAN
 DFC (PROJECT MANAGEMENT) PTY LTD
 'ARCHERS WAY' ESTATE - STAGE 2
 AT 22-80 CASH STREET, D'AGUILAR

DETAILS:
 PROJECT: M2584E_2
 PLAN: D01
 ISSUE: A
 LOCAL AUTHORITY REF: MORETON BAY REGIONAL COUNCIL
 COUNCIL REF: DA/38032/2019/V3RL
 FILE NAME: DRAINAGE.DWG

DENNIS FAMILY CORPORATION

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LEGEND:

- EXISTING STORMWATER DRAINAGE
- FINISHED CONTOURS
- PROPOSED STORMWATER DRAINAGE
- PROPOSED ROOFWATER DRAINAGE
- PROPOSED RETAINING WALL
- SEWERAGE
- WATER MAIN
- ROOFWATER DRAINAGE KERB ADAPTORS (FULL DEPTH TYPE)
- STRUCTURE NUMBERS

EXISTING / PROPOSED / FUTURE

- DRAINAGE NOTES:**
1. ROOFWATER LINES TO BE LAID 0.6m FROM PROPERTY BOUNDARIES, WHERE ROOFWATER LINE IS PARALLEL WITH SEWER 1.0m CLEARANCE TO SEWER LINE IS TO BE PROVIDED.
 2. ROOFWATER PITS TO BE IN ACCORDANCE WITH IPWEAQ STD DWG D-0110 WITH CONCRETE INFILL GATIC LIDS OR APPROVED EQUIVALENT.
 3. GRATED ROOFWATER PITS TO BE IN ACCORDANCE WITH IPWEAQ STD DWG D-0050 WITH 'BOLT DOWN' HEAVY DUTY GRATES & HOT DIPPED GALVANISED TO AS 1650.
 4. THE DESIGN SURFACE LEVELS SHOWN FOR ROOFWATER PITS IS INDICATIVE ONLY.
 - PITS WITH SOLID COVERS SHALL FINISH 25mm (APPROX) ABOVE THE FINISHED SURFACE LEVEL
 - PITS WITH GRATED TOPS SHALL FINISH:
 - a) AT THE INVERT OF CUT-OFF DRAINS (IF APPLICABLE)
 - b) 200mm BELOW THE SURROUNDING FINISHED SURFACE
 4. THE FINISHED SURFACE SHALL BE SHAPED TO DIRECT OVERLAND FLOW TO THE GRATED PITS
 5. ALL GULLIES ARE TO BE LIP IN LINE TYPE S LINTEL IN ACCORDANCE WITH IPWEA STD DWGS DS-061, DS-062 & DS-063.
 6. LOTS WITH FIELD INLETS ARE TO BE GRADED TO DIVERT WATER TO PITS.
 7. ALL GRATES IN PRIVATE PROPERTY ARE TO BOLTED DOWN.
 8. ACCESS CHAMBERS (MANHOLES) TO BE CONSTRUCTED IN ACCORDANCE WITH IPWEA STD DWGS DS-010, DS-015, DS-018, DS-019, DS-020 & DS-021.
 9. STORMWATER BEDDING AND BACKFILL TO BE IN ACCORDANCE WITH IPWEA STD DWGS DS-030 AND DS-031. THE MINIMUM FREQUENCY OF TESTING SHALL BE IN ACCORDANCE WITH COUNCIL'S PLANNING SCHEME POLICY OPERATIONAL WORKS INSPECTIONS MAINTENANCE AND BONDING PROCEDURES-INTEGRATED DESIGN.
 10. PIPES TO BE CONCRETE REINFORCED (CLASS 2) UNLESS NOTED OTHERWISE. (U) DENOTES uPVC CLASS SN8.
 11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PIPES DURING CONSTRUCTION AND SHALL ADOPT CONSTRUCTION PRACTICES TO PREVENT CRACKING. ALL PIPES TO BE CCTV INSPECTED AT THE END OF WORKS.

THE CONTRACTOR IS TO NOTIFY THE SUPERVISING ENGINEER OF ANY DISCREPANCIES BETWEEN THE DESIGN PLANS AND THE CONDITIONS ON SITE PRIOR TO COMMENCEMENT OF ANY PIPE LAYING.

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NORTH:

SCALE: 1:500
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 A1 0 5 10 15 20 25 30 35 40 45 50 METRES
 (A1) 1:500
 (A3) 1:1000

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APPROVED:
 FOR AND ON BEHALF OF JFP URBAN CONSULTANTS PTY LTD

DESIGNED: CDV
 DRAWN: BJ
 CHECKED: HW
 DATUM: AHD

ISSUE: A
 ISSUE FOR OPERATIONAL WORKS APPROVAL

DATE: 16/06/20
 INIT: BJ

TITLE: DRAINAGE LAYOUT PLAN

DFC (PROJECT MANAGEMENT) PTY LTD

'ARCHERS WAY' ESTATE - STAGE 2
 AT 22-80 CASH STREET, D'AGUILAR

DETAILS: PROJECT: M2584E_2 PLAN: D02 ISSUE: A
 LOCAL AUTHORITY REF: MORETON BAY REGIONAL COUNCIL
 COUNCIL REF: DA/38032/2019/V3RL
 FILE NAME: DRAINAGE.DWG

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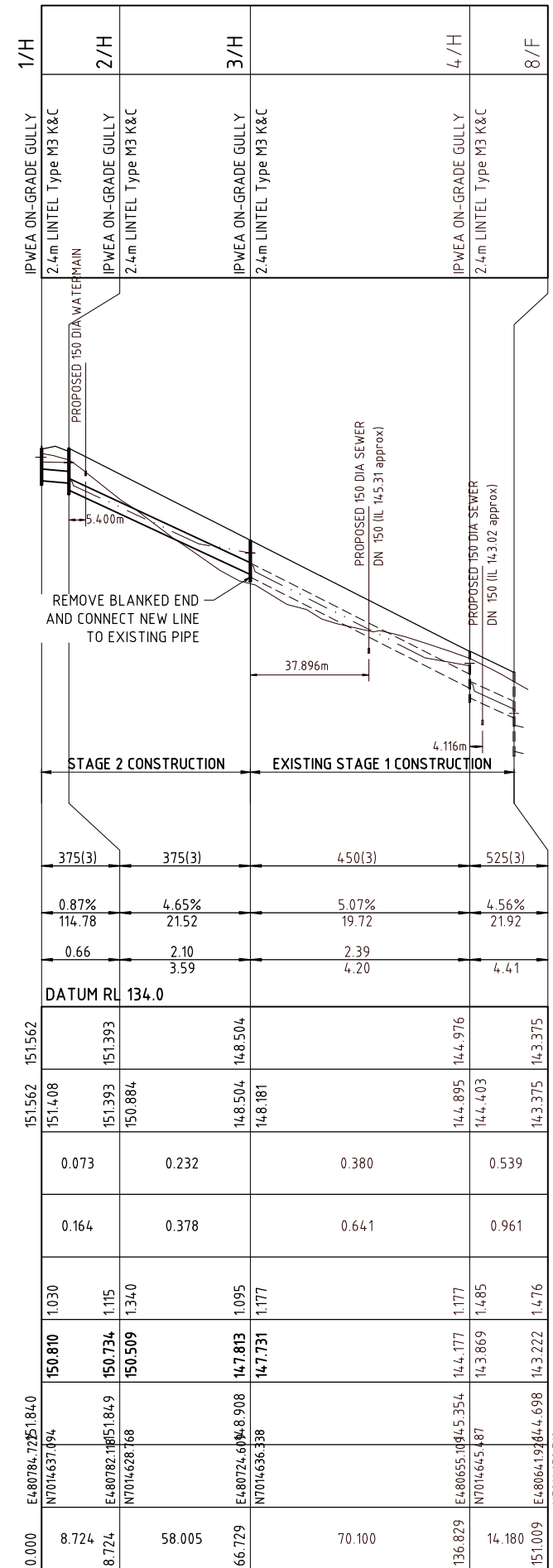
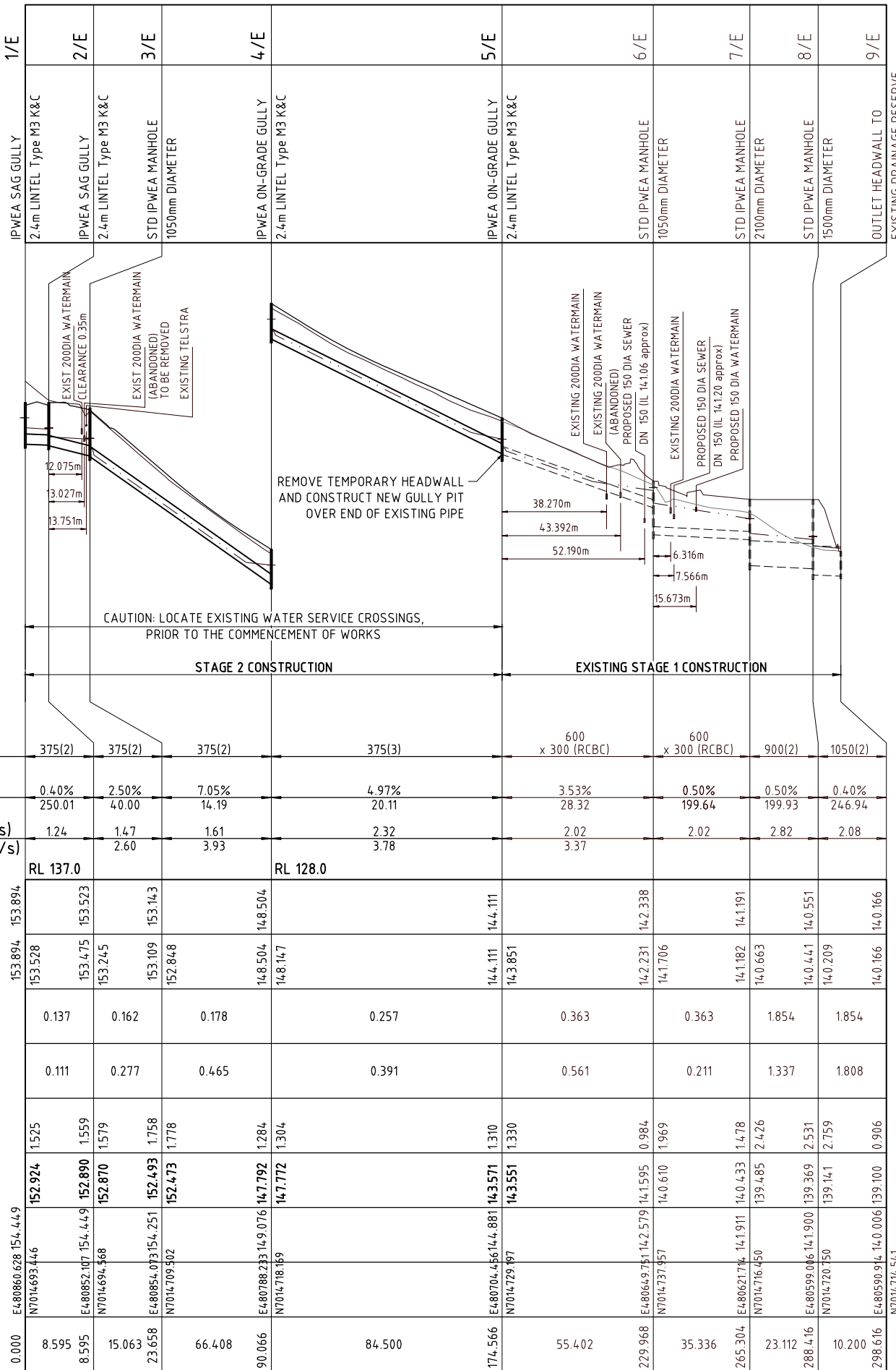
STRUCTURE NAME
STRUCTURE DESCRIPTION

Fire Ant Movement Controls

To prevent the spread of fire ants, the Queensland Government has implemented controls that apply to individuals and commercial operators, to restrict the movement of materials that could carry fire ants including soil, turf, potted plants, mulch, baled hay or straw, animal manures, mining or quarry products.

Penalties apply for non-compliance with the movement controls: if you are unsure of your obligations under the Biosecurity Act 2014 contact the relevant Queensland State Government Department.

PIPE SIZE (mm) AND PIPE CLASS	375(2)	375(2)	375(2)	375(3)	600 x 300 (RCBC)	600 x 300 (RCBC)	900(2)	1050(2)
PIPE GRADE %	0.40%	2.50%	7.05%	4.97%	3.53%	0.50%	0.50%	0.40%
PIPE SLOPE 1 in X	250.01	40.00	14.19	20.11	28.32	199.64	199.93	246.94
FULL PIPE FLOW VELOCITY (m/s)	1.24	1.47	1.61	2.32	2.02	2.02	2.82	2.08
PART FULL FLOW VELOCITY (m/s)		2.60	3.93	3.78	3.37			
DATUM	RL 137.0							RL 128.0
WATER LEVEL IN STRUCTURE	153.894	153.894	153.894	144.111	142.338	14.1191	14.0551	14.0166
HYDRAULIC GRADE LEVEL	153.528	153.475	153.245	148.504	14.1706	14.1182	14.0663	14.0166
PIPE FLOW (Cumecs)	0.137	0.162	0.178	0.257	0.363	0.363	1.854	1.854
PIPE CAPACITY AT GRADE (Cumecs)	0.111	0.277	0.465	0.391	0.561	0.211	1.337	1.808
DEPTH TO INVERT	1525	1525	1525	1310	0.984	1.478	2.426	0.906
INVERT LEVEL OF DRAIN	152.924	152.890	152.870	143.571	14.1595	14.0433	139.485	139.100
DESIGN SURFACE LEVEL	154.449	154.449	154.251	144.881	14.579	14.1911	14.900	14.006
STRUCTURE SETOUT CO-ORDINATES	E480860.628	E480852.107	E480854.073	E480788.233	E480649.751	E480621.74	E480599.016	E480590.914
RUNNING CHAINAGE	0.000	8.595	15.063	66.408	84.500	174.566	229.968	298.616



STRUCTURE TYPE	HORIZONTAL REFERENCE LOCATION (STRUCTURE SETOUT CO-ORDINATES)	VERTICAL REFERENCE LEVEL
MANHOLE AND ROOFWATER PIT	€ MAIN SHAFT	FINISHED SURFACE LEVEL - MANHOLE/PIT COVER
KERB INLET LIP IN LINE (DS-063)	CENTRE OF GULLY CHAMBER	LIP OF KERB
FIELD INLET AND ROOFWATER PIT	CENTRE OF GULLY CHAMBER	TOP OF GRATE OR COVER
HEADWALL	€ OF HEADWALL (END OF OUTLET PIPE)	INVERT OF OUTLET PIPE.

REFER M2584E_2 D07 FOR ALLOWABLE STORMWATER PIPE CONSTRUCTION EQUIPMENT LOAD TABLE

		BRISBANE - SUNSHINE COAST - CENTRAL QLD SUNSHINE COAST T209, Kon-Tiki Tower 1, 55 Plaza Parade, Maroochydore Qld 4558 P 07 5450 3900 W www.jfpc.com.au JFP URBAN CONSULTANTS PTY. LTD. A.C.N. 050 414 045		PLANNERS URBAN DESIGNERS SURVEYORS ENGINEERS LANDSCAPE ARCHITECTS		NORTH: SCALE: Horizontal 1:1000 Vertical 1:100 A1 THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE 0 1 2 3 4 5 (A1) 1:100 10 0 10 20 30 40 50 (A1) 1:1000 100 DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE		ISSUE: AMENDMENTS TO COINCIDE WITH STAGE 1 DESIGN ISSUE FOR OPERATIONAL WORKS APPROVAL 09/03/21 16/06/20 WN BJ		TITLE: DRAINAGE LONGITUDINAL SECTIONS LINES E & H DFC (PROJECT MANAGEMENT) PTY LTD 'ARCHERS WAY' ESTATE - STAGE 2 AT 22-80 CASH STREET, D'AGUILAR		DETAILS: PROJECT: M2584E_2 D03 PLAN: B ISSUE: LOCAL AUTHORITY REF: MORETON BAY REGIONAL COUNCIL COUNCIL REF: DA/38032/2019/V3R1 FILE NAME: DRAINAGE SECTIONS.DWG	
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B:\04\2021\10\25\2584E_2\DESIGN\WORKING DRAWINGS\DRAINAGE SECTIONS

Fire Ant Movement Controls

To prevent the spread of fire ants, the Queensland Government has implemented controls that apply to individuals and commercial operators, to restrict the movement of materials that could carry fire ants including soil, turf, potted plants, mulch, baled hay or straw, animal manures, mining or quarry products.

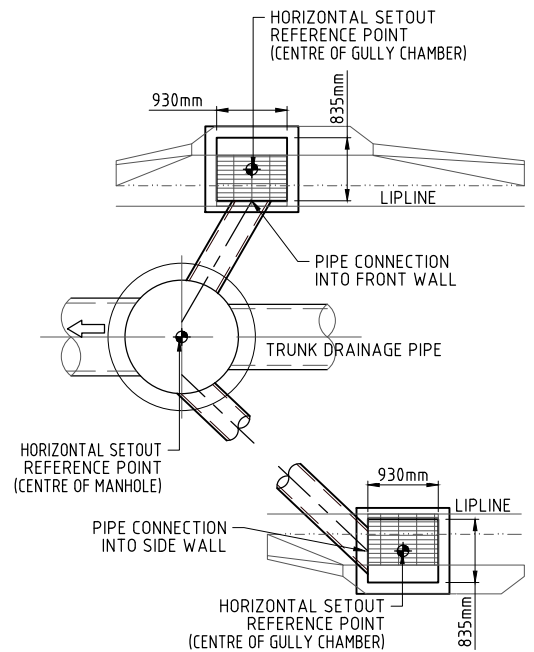
Penalties apply for non-compliance with the movement controls, if you are unsure of your obligations under the Biosecurity Act 2014 contact the relevant Queensland State Government Department.

LINE	1A/3E	3/E	1A/3E	3/E	RW60/1	RW59/1	RW58/1	RW57/1	RW56/1	1/1	2/H
	IPWEA ON-GRADE GULLY 2.4m LINTEL Type M3 K&C	IPWEA ON-GRADE GULLY 2.4m LINTEL Type M3 K&C	IPWEA ON-GRADE GULLY 2.4m LINTEL Type M3 K&C	IPWEA ON-GRADE GULLY 2.4m LINTEL Type M3 K&C	IPWEA TYPE 2 FIELD INLET 900x600 WITH GRATED COVER	IPWEA TYPE 2 FIELD INLET 900x600 WITH GRATED COVER	IPWEA TYPE 2 FIELD INLET 900x600 WITH GRATED COVER	IPWEA TYPE 2 FIELD INLET 900x600 WITH GRATED COVER	IPWEA TYPE 2 FIELD INLET 900x600 WITH GRATED COVER	ROOFWATER MANHOLE 900mm DIAMETER	IPWEA ON-GRADE GULLY 2.4m LINTEL Type M3 K&C
	375(3)	375(2)	375(2)	375(2)	225(U)	225(U)	225(U)	300(U)	300(U)	375(2)	
PIPE SIZE (mm) AND PIPE CLASS											
PIPE GRADE %	10.03%	10.03%	10.03%	10.03%	0.51%	1.03%	3.50%	1.15%	1.00%	1.50%	
PIPE SLOPE 1 in X	9.97	9.97	9.97	9.97	195.26	97.48	28.56	86.76	100.00	66.67	
FULL PIPE FLOW VELOCITY (m/s)	0.20				0.72	1.42	2.09	1.75	2.19	1.44	
PART FULL FLOW VELOCITY (m/s)	2.43										
DATUM	RL 135.0	136.0	136.0	136.0	RL 136.0						
WATER LEVEL IN STRUCTURE	155.228	155.228	155.228	155.228	153.656	153.539	153.233	152.618	152.403	151.955	151.393
HYDRAULIC GRADE LEVEL	155.228	154.928	154.928	154.928	153.585	153.410	153.233	152.601	152.207	151.704	151.393
PIPE FLOW (Cumecs)	0.022	0.022	0.022	0.022	0.033	0.065	0.096	0.127	0.159	0.159	
PIPE CAPACITY AT GRADE (Cumecs)	0.555	0.555	0.555	0.555	0.046	0.065	0.120	0.127	0.118	0.215	
DEPTH TO INVERT	1.010	1.095	1.095	1.095	1.146	1.394	1.252	1.443	1.089	1.341	1.084
INVERT LEVEL OF DRAIN	154.877	154.877	154.877	154.877	152.677	152.589	152.569	151.770	151.552	151.349	150.765
DESIGN SURFACE LEVEL	155.887	154.714	154.714	154.714	153.823	153.983	153.645	153.213	152.641	152.690	151.849
STRUCTURE SETOUT CO-ORDINATES	E480873.993	N7014.706.879	E480854.073	N7014.709.502	E480863.569	E480846.512	E480829.457	E480812.407	E480795.354	E480771.210	E480782.118
RUNNING CHAINAGE	0.000	20.092	20.092	20.092	17.200	17.200	34.400	51.600	68.800	87.101	124.704

REFERENCE POINT LOCATION FOR STORMWATER DRAINAGE STRUCTURES

STRUCTURE TYPE	HORIZONTAL REFERENCE LOCATION (STRUCTURE SETOUT CO-ORDINATES)	VERTICAL REFERENCE LEVEL
MANHOLE AND ROOFWATER PIT	€ MAIN SHAFT	FINISHED SURFACE LEVEL - MANHOLE/PIT COVER
TYPE 'A' GULLY PIT, LIP IN LINE	CENTRE OF GULLY	LIP OF KERB
FIELD INLET AND ROOFWATER PIT	CENTRE OF GULLY	TOP OF GRATE OR COVER
HEADWALL	€ OF HEADWALL (END OF OUTLET PIPE)	INVERT OF OUTLET PIPE.

REFER M2584E_2 D07 FOR ALLOWABLE STORMWATER PIPE CONSTRUCTION EQUIPMENT LOAD TABLE



CONTRACTOR IS TO ENSURE THAT PIPE CONNECTIONS TO GULLY PITS ARE NOT CONSTRUCTED INTO THE CORNER OF TWO WALLS

GULLY PIT PIPE CONNECTION DETAIL
SCALE: NTS

NOTE: GRATED LIDS TO BE DEPRESSED 50mm BELOW FINISHED SURFACE LEVEL

LINE 3E 3E I



BRISBANE - SUNSHINE COAST - CENTRAL QLD
SUNSHINE COAST
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Maroochydore Qld 4558
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PLANNERS
URBAN DESIGNERS
SURVEYORS
ENGINEERS
LANDSCAPE ARCHITECTS

NORTH: SCALE: Horizontal 1:1000 Vertical 1:100
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A1
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CHECKED: HW DATE: 16/06/20
DATE: 16/06/20

DESIGNED: CDV
DRAWN: BJ

ISSUE: A ISSUE FOR OPERATIONAL WORKS APPROVAL

ISSUE: A
DATE: 16/06/20
INIT: BJ

TITLE: DRAINAGE LONGITUDINAL SECTIONS
LINES 3E, 3H & I
DFC (PROJECT MANAGEMENT) PTY LTD
'ARCHERS WAY' ESTATE - STAGE 2
AT 22-80 CASH STREET, D'AGUILAR

DETAILS: PROJECT: M2584E_2 D04
PLAN: A
ISSUE: A
LOCAL AUTHORITY REF: MORETON BAY REGIONAL COUNCIL
COUNCIL REF: DA/38032/2019/V3R1
FILE NAME: DRAINAGE SECTIONS.DWG



DESIGN ARI	STRUCTURE No.	DRAIN SECTION	SUB-CATCHMENTS CONTRIBUTING	LAND USE	SLOPE OF CATCHMENT	TIME		SUB-CATCHMENT RUNOFF						INLET DESIGN						DRAIN DESIGN										HEADLOSSES					PART FULL					DESIGN LEVELS															
						tc	I	C10	C	A	CxA	+CA	Q	Qg	Qb	tc	I	+CA	Qt	Qm	Qs	Qp	L	S	V	T	V2/2g	Ku	hu	Kl	hl	Kw	hw	Sf	hf	Vp	OBVERT LEVELS	DRAIN SECTION H.G.L	UPSTREAM H.G.L	LAT. H.G.L	W.S.E.	SURFACE OR K&C INVERT LEVEL	STRUCTURE No.												
10 100	3/H	3/H to 4/H	RW60/1/RW59 /1/RW58/1/RW57/1/RW56/1/1 /H,2/H,1A/3H .3/H	ROAD/ALLOT	%	min	mm/h	0.88	0.253	0.222	0.208	0.236	0.236	97	97	5.80	771	1	73	24	4/H	10.61	164	0.959	74.3	(Pipe flow = Sum upstr atten flows)	379	70.100	5.07	450(2)	2.38	0.49	0.289	1.12	0.323				2/H and 1A/3H Vel1 2.047 Vel2 0.741 Eq Dia 480 Angle 168 Flow 0.308 CHART 33 Angle 0 S/Do 2.5 Du/Do 1.07 Qg/Do 0.19 K 0.78 S/Do 1.61 cor 0.18 Ku 0.94 Kw 0.96 Interpolated Ku= 1.12 Kw= 1.12	1.12	0.323	1.77	1.241	0.249	4.20	14.4.181	14.4.627	14.8.181	14.4.891	14.8.504	14.8.504	14.8.504	14.8.504	14.8.823	3/H
10 100	1A/4H	1A/4H to 4/H	1A/4H	ROAD/ALLOT	10.00	168	0.88	0.253	0.222	0.253	0.253	104	178	139	5.80	771	1	94	4.5	1A/10F	10.00	168	0.222	179	(Pipe flow = Grate flow)	94	8.824	1.14	375(2)	0.85	0.15	0.037	4.31	0.159				4.31	0.159	0.29	0.025		14.4.416	14.4.916	14.4.315	14.4.891	14.5.075	14.5.075	14.5.075	14.5.371	1A/4H				
10 100	4/H	4/H to 9/F	RW60/1/RW59 /1/RW58/1/RW57/1/RW56/1/1 /H,2/H,1A/3H .3/H,1A/4H,4 /H	ROAD/ALLOT	10.00	168	0.88	0.211	0.185	0.211	0.185	86	149	111	5.80	771	1	80	31	7/F	11.10	161	1.366	104.5	(Pipe flow = Sum upstr atten flows)	538	18.626	3.47	525(2)	2.40	0.13	0.294	1.66	0.488				1A/4H and 3/H Vel1 0.812 Vel2 2.340 Eq Dia 536 Angle 150 Flow 0.462 Angle 30 Chart 36 S/Do 2.5 chartdeg Du/Do 1.02 K0 1.52 K0.5 1.87 Qu/Do 0.86 Cg 0.35 K 1.64 S/Do 2.5 K0 1.52 K0.5 1.87 K 1.64 S/Do 2.0 K0 1.82 K0.5 2.08 K 1.91 Interp val for S/Do 2.04 Kw 1.89 CHART 35 S/Do 2.5 K0 1.33 K0.5 1.49 K 1.39 S/Do 2.0 K0 1.55 K0.5 1.75 K 1.62 Interp val for S/Do 2.04 Ku 1.60 K vals step pipes as pipe flow Ku Averaged Ku 1.66 Kw 1.95	1.95	0.571	1.43	0.267	0.311	3.97	14.4.403	14.3.756	14.3.542	14.4.891	14.4.891	14.4.974	14.5.269	4/H			
10 100	7/E	7/E to 8/E	1/E,2/E,1A/3E .4/E,5/E,1/F, 2/F,4/F,1A/5 F,5/F,7/F,8/F .RW60/1/RW59/1/RW58/1/RW57/1/RW56/1/1 /H,2/H,1A/3 H,3/H,1A/4H, 4/H,1A/10F,10 /F	MH													4.1				13.12	150	4.352	3126	(Pipe flow = Sum upstream flows)	138	1318	1808	23.112	0.50	825(2)	3.28	0.12	0.548	1.07	0.587				1.07	0.587	1.46	0.338		14.0.323	14.0.726	14.0.388	14.1.313	14.1.313	14.1.911	7/E				
10 100	8/E	8/E to 9/E	1/E,2/E,1A/3E .4/E,5/E,1/F, 2/F,4/F,1A/5 F,5/F,7/F,8/F .RW60/1/RW59/1/RW58/1/RW57/1/RW56/1/1 /H,2/H,1A/3 H,3/H,1A/4H, 4/H,1A/10F,10 /F	MH													4.1				13.24	149	4.352	3112	(Pipe flow = Sum upstream flows)	138	1305	1808	10.200	0.40	1050(2)	2.03	0.08	0.210	0.86	0.181				1.56	0.329	0.40	0.041		14.0.207	14.0.207	14.0.388	14.0.388	14.0.536	14.1.900	8/E				
3mth 100	9A	9A to OUT/B1		DRAINAGE RESERVE													4.1				5.00	216	0.120	110	(Pipe flow set by user)	110	12.350	0.50	375(2)	1.00	0.21	0.051	1.00	0.083				1.00	0.083	0.39	0.049	0.275	1.27	14.1.607	14.1.545	14.1.445	14.1.590	14.1.590	14.3.396	9A/B1					
3mth 100	7E	7E to OUT/B2		DRAINAGE RESERVE													4.1				5.00	216	0.449	410	(Pipe flow set by user)	410	6.605	0.50	600(2)	1.40	0.08	0.100	6.69	0.668				6.69	0.668	0.41	0.027	0.454	1.76	14.1.173	14.1.173	14.0.994	14.1.841	14.1.841	14.1.911	7E/B2					

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PLANNERS
URBAN DESIGNERS
SURVEYORS
ENGINEERS
LANDSCAPE ARCHITECTS

NORTH: SCALE: THIS SCALE SHOWN IS ORIGINAL DRAWING SCALE

A1

DO NOT SCALE FROM THIS DRAWING - USE ONLY DIMENSIONS PROVIDED - IF IN DOUBT PLEASE ENQUIRE

APPROVED: [Signature] T. KINNEY RPEQ 5087 A. FRASER RPEQ 5691 J. PAPPAS RPEQ 6086 S. MARSH RPEQ 8068

DESIGNED: CDV
DRAWN: BJ
CHECKED: HW
DATUM: AHD

ISSUE: A ISSUE FOR OPERATIONAL WORKS APPROVAL

DATE: 16/06/20

TITLE: DRAINAGE CALCULATIONS TABLES SHEET 2 of 2

DFC (PROJECT MANAGEMENT) PTY LTD

'ARCHERS WAY' ESTATE - STAGE 2
AT 22-80 CASH STREET, D'AGUILAR

DATE: 16/06/20

INIT: BJ

DETAILS: PROJECT: M2584E_2 D06 A PLAN: MORETON BAY REGIONAL COUNCIL COUNCIL REF: DA/38032/2019/V3RL FILE NAME: DRAINAGE SECTIONS.DWG

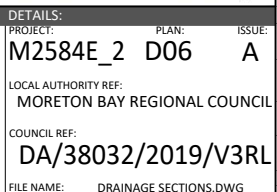
ISSUE: A

LOCAL AUTHORITY REF: MORETON BAY REGIONAL COUNCIL

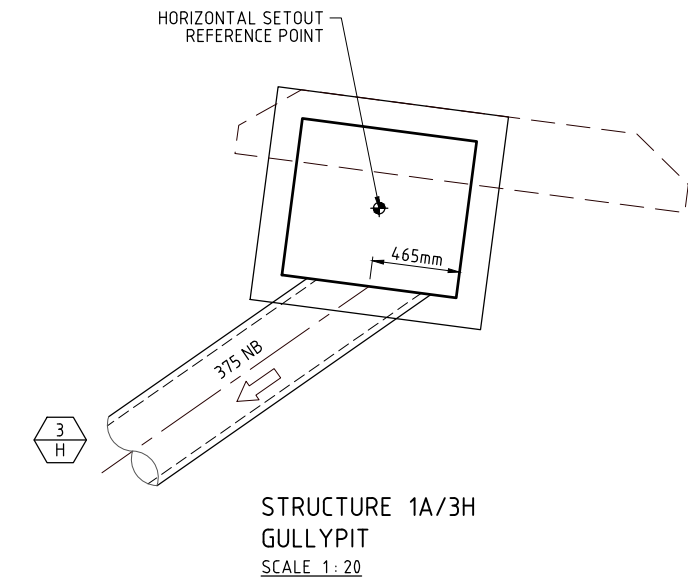
COUNCIL REF: DA/38032/2019/V3RL

FILE NAME: DRAINAGE SECTIONS.DWG

16/06/2019 14:56:53 PAGE_20 DESIGN WORKING DRAWINGS DRAINAGE SECTIONS

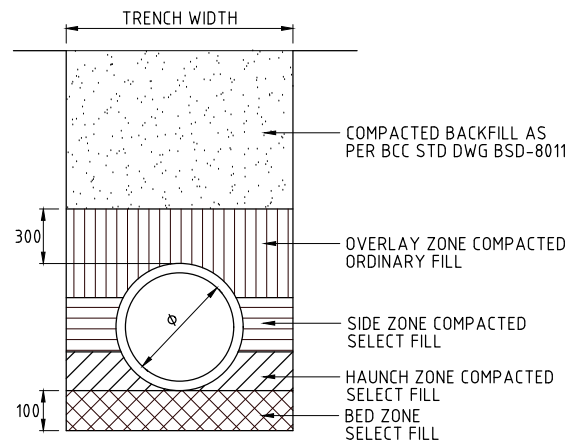


CONSTRUCTION EQUIPMENT	PIPE CLASS	MINIMUM COMPACTION COVER TO PIPE OBVERT								
		φ375	φ450	φ525	φ600	φ675	φ750	φ825	φ900	φ1050
VIBRATORY RAMMER (UP TO 75kg)	2	0.450	0.400	0.400	0.350	0.350	0.300	0.300	0.250	0.25
	3	0.300	0.300	0.300	0.250	0.250	0.200	0.200	0.200	0.200
VIBRATORY TRENCH ROLLER (UP TO 2t)	2	0.400	0.400	0.350	0.250	0.250	0.200	0.200	0.200	0.200
	3	0.250	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
VIBRATORY SMOOTH DRUM ROLLER (7t)	2	0.700	0.700	0.650	0.650	0.650	0.600	0.600	0.400	0.400
	3	0.450	0.450	0.450	0.350	0.350	0.200	0.200	0.200	0.200
VIBRATORY SMOOTH DRUM ROLLER (10t)	2	0.850	0.850	0.800	0.800	0.800	0.750	0.750	0.750	0.750
	3	0.550	0.550	0.500	0.500	0.500	0.200	0.200	0.200	0.200
EXCAVATOR AND COMPACTION WHEEL (15t)	2	0.700	0.650	0.650	0.650	0.650	0.600	0.600	0.550	0.550
	3	0.450	0.450	0.450	0.450	0.450	0.350	0.350	0.250	0.250
EXCAVATOR AND COMPACTION WHEEL (25t)	2	1.050	1.000	0.950	0.900	0.900	0.850	0.850	0.750	0.750
	3	0.650	0.650	0.650	0.650	0.650	0.600	0.600	0.500	0.500
GRADER [CAT120H] (14.5t)	2	0.600	0.600	0.450	0.200	0.200	0.200	0.200	0.200	0.200
	3	0.600	0.450	0.450	0.200	0.200	0.200	0.200	0.200	0.200
GRADER [CAT140H] (17.0t)	2	0.600	0.600	0.600	0.200	0.200	0.200	0.200	0.200	0.200
	3	0.600	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
SCRAPER [CAT613C11] (27.2t)	2	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.200	0.200
	3	0.600	0.600	0.600	0.600	0.600	0.200	0.200	0.200	0.200
SCRAPER [CAT621F] (53.8t)	2	0.700	0.650	0.650	0.650	0.600	0.600	0.600	0.600	0.600
	3	0.650	0.600	0.600	0.650	0.600	0.600	0.600	0.600	0.600
DOZER [CATD7 G]	2	0.600	0.600	0.600	0.200	0.200	0.200	0.200	0.200	0.200
	3	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
DOZER [CATD9 R]	2	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.200
	3	0.600	0.600	0.600	0.600	0.600	0.200	0.200	0.200	0.200
EXCAVATOR [CAT315B] (15.8t)	2	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
	3	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
EXCAVATOR [CAT317] (17.3t)	2	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
	3	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
EXCAVATOR [CAT325B] (25.9t)	2	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
	3	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200



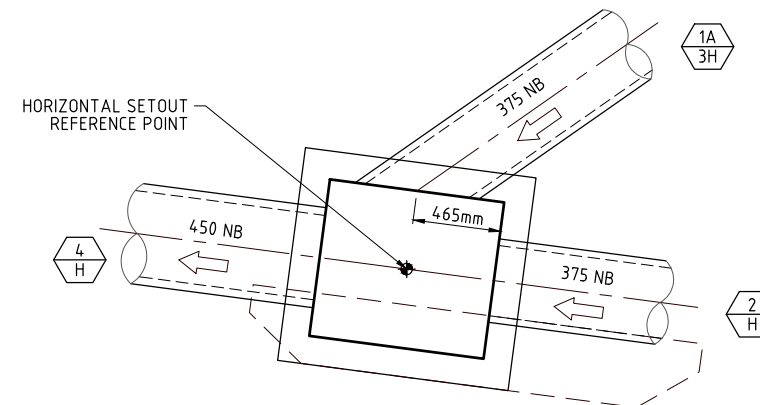
TYPE HS2 SUPPORT:

1. THE HAUNCH ZONE GOES FROM THE BASE OF THE PIPE TO A HEIGHT OF 0.3m TIMES THE DIAMETER OF THE PIPE (ie TO 3/10 OF THE DIAMETER OF THE PIPE).
2. THE HAUNCH ZONE IS COMPACTED TO A MINIMUM DRY DENSITY RATIO OF 90%. (DI=60)
3. THE SIDE ZONE GOES FROM THE TOP OF THE HAUNCH ZONE TO A HEIGHT OF 0.7 TIMES THE DIAMETER OF THE PIPE (ie TO 7/10 OF THE DIAMETER OF THE PIPE).
4. THE SIDE ZONE IS COMPACTED TO A MINIMUM DRY DENSITY RATIO OF 90%. (DI=60)
5. THERE IS A 300mm OVERLAY ZONE OF COMPACTED ORDINARY FILL.



INSTALLATION TYPE HS2

NOTE:
CRACKED PIPES WILL NOT BE ACCEPTED AT 'ON MAINTENANCE' AND IT IS TO BE DEMONSTRATED IN ACCORDANCE WITH COUNCIL STANDARDS THAT THE STORMWATER SYSTEM IS ACCEPTABLE TO COUNCIL WITH REGARD TO CRACKED PIPES. (THE CONTRACTOR IS TO REFER TO SECTION 6.5.1 OF THE SUBDIVISION AND DEVELOPMENT GUIDELINES FOR FURTHER INFORMATION.)



NOTES:

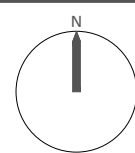
1. SOIL TYPE USED FOR THIS TABLE IS CLAYEY SAND. ALL OTHER SOIL TYPES MUST BE REFERRED IMMEDIATELY TO THE SUPERVISING ENGINEER SO MINIMUM COVERS CAN BE CALCULATED.
2. INSTALLATION TYPE FOR THIS TABLE IS HS2. (REFER DETAIL)
3. ANY CONSTRUCTION EQUIPMENT, INSTALLATION TYPE, PIPE CLASS OR PIPE DIAMETER NOT COVERED IN THIS TABLE SHOULD BE REFERRED ONTO THE SUPERVISING ENGINEER BEFORE ANY CONSTRUCTION COMMENCES
4. DISTANCES SHOWN ARE THE ABSOLUTE MINIMUM COMPACTION COVER TO THE OBVERT OF THE STORMWATER PIPE FOR THE NOMINATED MACHINERY. THE CONTRACTOR IS TO ENSURE THAT MACHINES THAT REQUIRE HIGHER COMPACTION COVER ARE KEPT CLEAR OF STORMWATER PIPES AND TRENCHES UNTIL THEIR NECESSARY COMPACTION COVER IS ACHIEVED.
5. CONSTRUCTION EQUIPMENT LISTED IN THIS TABLE ARE EXAMPLES ONLY AND EQUIVALENT MACHINERY MAY BE USED.



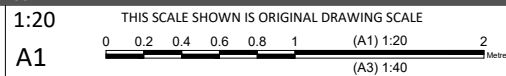
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URBAN DESIGNERS
SURVEYORS
ENGINEERS
LANDSCAPE ARCHITECTS

NORTH:



SCALE:



ISSUE:

DESIGNED	CDV
DRAWN	BJ
CHECKED	HW
DATUM	AHD
ISSUE	A

TITLE:

DRAINAGE STRUCTURE DETAILS

DFC (PROJECT MANAGEMENT) PTY LTD

'ARCHERS WAY' ESTATE - STAGE 2
AT 22-80 CASH STREET, D'AGUILAR

DETAILS:

PROJECT:	M2584E_2	PLAN:	D07	ISSUE:	A
LOCAL AUTHORITY REF:	MORETON BAY REGIONAL COUNCIL	COUNCIL REF:	DA/38032/2019/V3R1	FILE NAME:	DRAINAGE DETAILS.DWG

