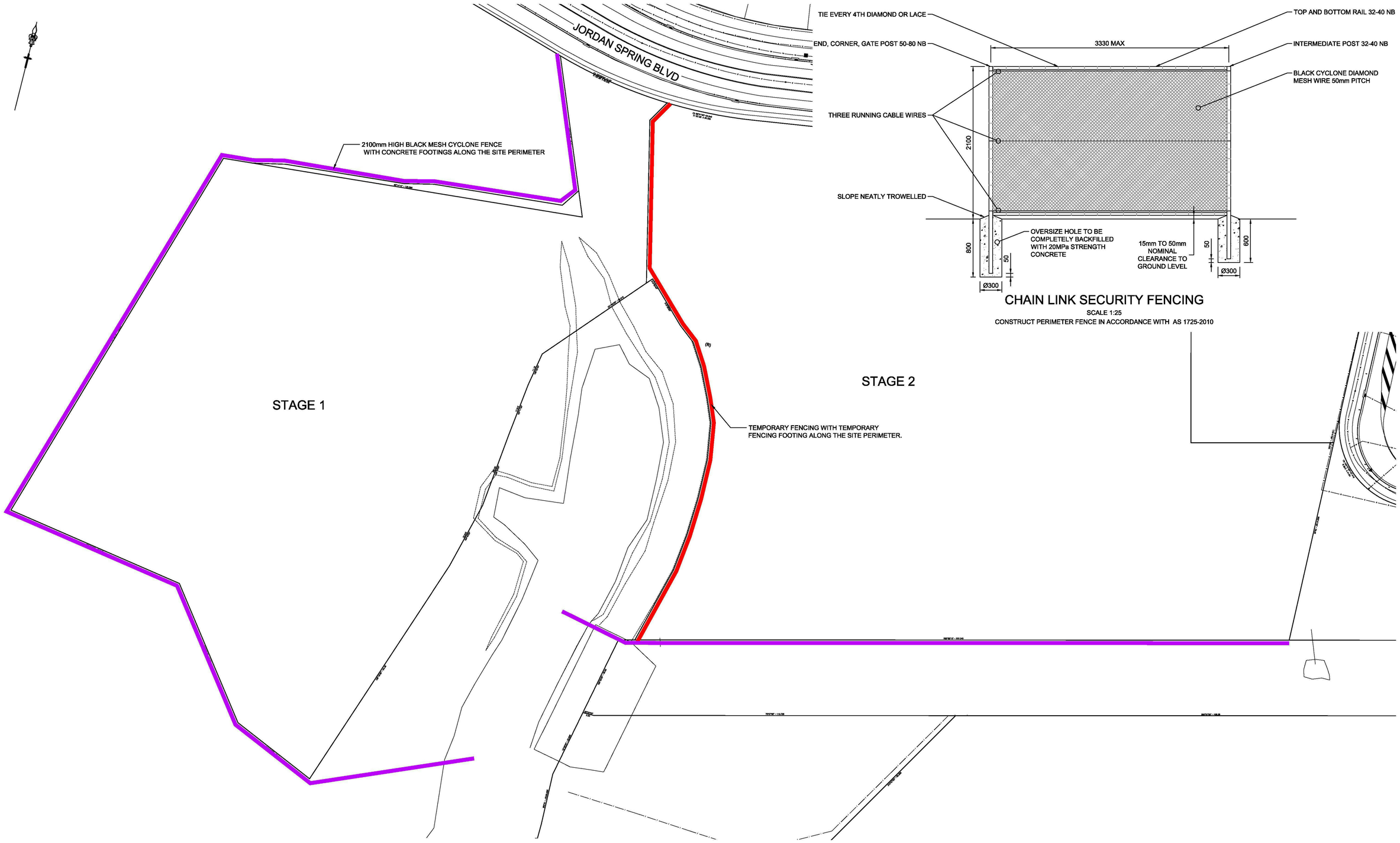

CHAIN LINK SECURITY FENCING

SCALE 1:25

CONSTRUCT PERIMETER FENCE IN ACCORDANCE WITH AS 1725-2010

PLAN

NOT TO SCALE

DRAFT ISSUE ONLY
PRELIMINARY DESIGNS SUBJECT TO CHANGE

1:25(AT A1) 500 0 500 1000 1500 2000 2500 MILLIMETRES

2	ISSUED FOR INFORMATION	MMC	NM	PI		04/03/19
1	ISSUED FOR INFORMATION	MMC	NM	PI		13/02/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

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DATUM:
ORIGIN:

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JORDAN SPRINGS
STAGE 1
FENCE LAYOUT PLAN

PLAN No: 110487/SK25 2
FILE No: 110487SK25
SHEET SIZE: A1 ORIGINAL

Plotted: 4 March , 2019 7:43:32 AM File Name: J:\110487 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\SK\110487SK25.dwg

Document Set ID: 8735604
Version: 1, Version Date: 17/06/2019

JORDAN SPRINGS STAGE 2 - RESIDENTIAL
LOT 12 DP1244083
PROPOSED LOT AND DRAINAGE WORKS
DA NUMBER: DA 18/0678

LOCALITY SKETCH

Prepared By:

J. WYNDHAM PRINCE

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ISSUED FOR CONSTRUCTION APPROVAL

PLAN No. 11048702/CC101 A

FILE No. 11048702CC101

Plotted: May 22, 2019 File Name: J:\110487 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\CC\STAGE 2\11048702CC101.dwg

Document Set ID: 8735604
Version: 1, Version Date: 17/06/2019

GENERAL NOTES

1. ALL WORKS ARE TO BE IN ACCORDANCE WITH COUNCILS "STANDARD SPECIFICATION FOR ENGINEERING WORKS.
2. SURVEY MARKS: -
   a. SURVEY MARKS SHOWN SHALL BE RETAINED AT ALL TIMES. WHERE RETENTION IS NOT POSSIBLE THE SUPERINTENDENT MUST BE NOTIFIED AND CONSENT RECEIVED PRIOR TO THEIR REMOVAL.
3. THE CONTRACTOR SHALL LOCATE AND LEVEL ALL EXISTING SERVICES PRIOR TO COMMENCING CONSTRUCTION AND MAKE ARRANGEMENTS WITH THE RELEVANT AUTHORITY TO RELOCATE OR ADJUST IF NECESSARY.
4. THE CONTRACTOR SHALL NOT ENTER UPON NOR DO ANY WORK WITHIN ADJACENT LANDS WITHOUT THE WRITTEN PERMISSION OF THE OWNERS. TO BE PROVIDED PRIOR TO THE APPROVAL OF THE PLANS.
5. THE CONTRACTOR SHALL MAINTAIN SERVICES AND ALL WEATHER ACCESS AT ALL TIMES TO ADJOINING PROPERTIES.
6. COUNCIL'S TREE PRESERVATION ORDER MUST BE OBSERVED AND NO TREE SHALL BE FELLED, LOPPED OR REMOVED WITHOUT THE PRIOR APPROVAL OF COUNCIL'S ENGINEER.
7. TREES TO BE RETAINED ON SITE SHALL BE PROTECTED BY SUITABLE STURDY APPROVED PROTECTIVE FENCING PRIOR TO COMMENCEMENT OF SITE WORKS.
8. THE CONTRACTOR SHALL CLEAR THE SITE BY REMOVING ALL RUBBISH, FENCES, OUT-HOUSES, CAR BODIES AND DEBRIS ETC.
9. PUBLIC RESERVE AREAS SHALL BE CLEARED OF UNDERGROWTH, IMPROVEMENTS AND FENCES AS DIRECTED BY THE ENGINEER.
10. FILLING IS TO BE FROM A NOMINATED SOURCE, OF SOUND CLEAN MATERIAL, FREE FROM LARGE ROCK, STUMPS, CONTAMINATED MATTER, INDUSTRIAL AND BUILDING WASTE, ORGANIC MATTER AND OTHER DEBRIS. PLACING OF FILLING ON THE PREPARED AREAS SHALL NOT COMMENCE UNTIL THE AUTHORITY TO DO SO HAS BEEN OBTAINED FROM THE COUNCIL.
11. SITE FILL AREAS: - THE CONTRACTOR SHALL TAKE LEVELS OF EXISTING SURFACE AFTER STRIPPING TOPSOIL AND PRIOR TO COMMENCING FILL OPERATIONS.
12. ALL SITE FILLING TO BE COMPACTED TO 95% STANDARD COMPACTION AND SHALL BE CONTROLLED BY A REGISTERED SOIL LABORATORY IN ACCORDANCE WITH COUNCIL'S "WORKS SPECIFICATION".
13. ALL SITE REGRADING AREAS SHALL BE GRADED AT A MINIMUM 1% TO THE ENGINEER'S REQUIREMENTS.
14. SURPLUS EXCAVATED MATERIAL SHALL BE PLACED WHERE DIRECTED BY THE SUPERINTENDENT.
15. VEHICULAR CROSSINGS SHALL BE CONSTRUCTED IN KERB AND GUTTER WHERE SHOWN.
16. PRAM CROSSINGS SHALL BE CONSTRUCTED IN KERB AND GUTTER IN ACCORDANCE WITH COUNCIL'S STANDARD DRAWING.
17. ALL NEW WORKS SHALL MAKE A SMOOTH JUNCTION WITH EXISTING CONDITIONS.
18. DIMENSIONS OF ANY DETAIL SHALL NOT BE SCALED - DIMENSIONS, IF IN DOUBT, SHALL BE VERIFIED BY THE SUPERINTENDENT.
19. ALL CONSTRUCTION AND RESTORATION WORK ON COUNCIL'S ROAD AND FOOTPATH AREA ARE TO BE CARRIED OUT IN ACCORDANCE WITH THE APPROVED DRAWINGS AND COUNCIL'S STANDARD SPECIFICATIONS.

PAVEMENT NOTES

1. PAVEMENT TO BE SUPPLIED AND LAID IN ACCORDANCE WITH COUNCIL SPECIFICATIONS.
2. PROVIDE 50mm MINIMUM TOPSOIL & SEED TO EMBANKMENTS.
3. SUBGRADE & PAVEMENT MATERIALS TO BE COMPACTED TO FOLLOWING MINIMUM DRY DENSITY RATIOS (AS 1289-5.4.1-1993):
   a. BASECOURSE 98% MODIFIED
   b. SUB-BASE 95% MODIFIED
   c. SUBGRADE 100% STANDARD
5. SUBSOIL DRAINAGE TO BE PLACED ON BOTH SIDES OF THE ROAD EXCEPT WHERE STORMWATER PIPES GREATER THAN Ø375mm ARE PROPOSED.

STORMWATER NOTES

1. STORMWATER DESIGN CRITERIA:

   AVERAGE RECURRANCE INTERVAL:
   1:100 MAJOR SYSTEM
   1:5 MINOR SYSTEM
2. PIPES TO BE INSTALLED TO TYPE HS2 SUPPORT IN ACCORDANCE WITH AS 3725 (1989) IN ALL CASES BACKFILL TRENCH WITH SAND TO 300mm ABOVE PIPE. WHERE PIPE IS UNDER PAVEMENTS BACKFILL REMAINDER OF TRENCH TO UNDERSIDE OF PAVEMENT WITH SAND OR APPROVED GRANULAR MATERIAL COMPACTED IN 300mm LAYERS TO MINIMUM 100% STANDARD MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289 5.2.1. (OR A DENSITY INDEX OF NOT LESS THAN 75)
3. ALL INTERNAL WORKS WITHIN PROPERTY BOUNDARIES ARE TO COMPLY WITH THE REQUIREMENTS OF AS 3500 3.1 (1998) AND AS/NZS 3500 3.2 (1998).
4. CARE IS TO BE TAKEN WITH LEVELS OF STORMWATER LINES. GRADES SHOWN ARE NOT TO BE REDUCED WITHOUT APPROVAL.
5. GRATES AND COVERS SHALL CONFORM TO AS 3996.
6. AT ALL TIMES DURING CONSTRUCTION OF STORMWATER PITS, ADEQUATE SAFETY PROCEDURES SHALL BE TAKEN TO ENSURE AGAINST THE POSSIBILITY OF PERSONNEL FALLING DOWN PITS.
7. ALL DRAINAGE LINES THROUGH LOTS SHALL BE CONTAINED WITHIN THE FOLLOWING EASEMENTS: -

a) INTERALLOTMENT DRAINS (C.D.L.) - 1.5m WIDE (UP TO 150mm DIAMETER), 2.0m WIDE (UP TO 300mm DIAMETER), 2.5m WIDE (UP TO 600mm DIAMETER

b) ALL OTHER DRAINS - REFER TO COUNCILS DESIGN GUIDELINES SUBDIVISION/ DEVELOPMENTS.

8. DRAINAGE LINES UNDER ROADS SHALL BE BACKFILLED WITH NON-COHESIVE SAND AND HAVE 3m (AS PER PENRITH COUNCIL DETAILS) OF SUBSOIL DRAIN WRAPPED IN APPROVED FILTER SOCK, DISCHARGING INTO DOWN STREAM PITS.
9. ALL STORMWATER PIPES WITHIN ROADS TO BE REINFORCED CONCRETE PIPE (RCP) CLASS 2 UNLESS NOTED OTHERWISE. STORMWATER PIPES CROSSING THE ROAD TO BE REINFORCED CONCRETE PIPE (RCP) CLASS 4 UNLESS NOTED OTHERWISE.
10. ALL INTERALLOTMENT DRAINAGE LINES SHALL BE LAID AT A MINIMUM GRADE OF 1% UNLESS OTHERWISE INDICATED.
11. DRAINAGE LINES ON PLANS ARE DIAGRAMMATIC ONLY AND PIPE CENTRELINES SHALL ENTER AND EXIT PITS AT THE CENTRE OF THE RESPECTIVE PIT WALLS.
12. ALL SPECIAL PITS, PITS DEEPER THAN 2m OR NON STANDARD DRAINAGE PITS CAN BE EITHER CAST INSITU, "AUS PIT" CUSTOM MADE PRECAST PIT OR SIMILAR APPROVED WITH STRUCTURAL DESIGN AND CERTIFICATION BY OTHERS.
13. 100YR FLOW PATHS TO BE FORMED AT TIME OF CONSTRUCTION.

SURVEY SET OUT INFORMATION NOTES:

1. ALL SITE SET OUT AND CONTROL POINTS ARE TO BE CERTIFIED BY A REGISTERED SURVEYOR.
2. THE INFORMATION DETAILED ON THE CERTIFIED CONSTRUCTION CERTIFICATE PLANS TAKES PRECEDENCE OVER ALL ELECTRONIC INFORMATION PROVIDED. THE ORDER OF PRIORITY FOR USE OF ALL INFORMATION PROVIDED IS AS FOLLOWS:
   a. CERTIFIED CONSTRUCTION CERTIFICATE DRAWINGS
   b. 2D DRAFTING BASE (ELECTRONIC FILE)
   c. 3D DTM (ELECTRONIC FILE)
3. ANY DISCREPANCY BETWEEN ANY OF THE INFORMATION CONTAINED WITHIN THESE FILES IS TO BE BROUGHT TO THE ATTENTION OF THE SUPERINTENDENT PRIOR TO CONSTRUCTION WHO WILL SEEK CLARIFICATION AND ISSUE INSTRUCTIONS ON THE APPROPRIATE COURSE OF ACTION.

CUSTOM MADE PRECAST PIT NOTES

1. DESIGN DOCUMENTATION REFLECTS PRECAST DRAINAGE PITS BEING USED FOR THE SITE. UNLESS NOTED OTHERWISE. AUSPITS OR SIMILAR APPROVED CUSTOM MADE PRECAST PITS TO BE USED.
2. PITS TO COMPLY WITH THE FOLLOWING PARAMETERS:
   a. ARE SPECIFICALLY MANUFACTURED FOR THE PROJECT.
   b. EACH PIT IS ACCOMPANIED BY A CERTIFICATE OF STRUCTURAL ADEQUACY SIGNED BY A NPER ENGINEER (STRUCTURAL)
   c. THE STRUCTURAL CERTIFICATION OF THE PITS SHOULD INCLUDE ANY ADDITIONAL PRECAST ELEMENTS REQUIRED TO BRING THE PIT UP TO FINAL LEVELS ON SITE.
   d. PITS MUST BE FIRMLY BEDDED ON SOUND MATERIAL.
   e. CONCRETE IS TO BE POURED AROUND THE BASE TO AID IN STABILISATION OF THE PIT.
   f. PIT FLOORS ARE TO HAVE A 1% FALL TOWARDS THE OUTLET PIPE.
   g. ANY PIT REQUIRING MODIFICATION AFTER IT HAS BEEN POURED IN THE FACTORY OR DAMAGED IN TRANSPORT CANNOT BE USED.
   h. ALL WORK TO BE TO THE SATISFACTION OF COUNCIL'S DEVELOPMENT INSPECTORS.
3. SHOULD THE CONTRACTOR CHOOSE TO CONSTRUCT ANY PIT AS "CAST-INSITU", IT'S THE CONTRACTORS RESPONSIBILITY TO PROVIDE DETAILED PIT DRAWINGS AND STRUCTURAL CERTIFICATION OF THE RELEVANT PITS.

CIVIL PLAN INDEX

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11048702/CC104	CUT & FILL PLAN	A
11048702/CC105	PAVEMENT PLAN	A
11048702/CC106	ENGINEERING PLAN	A
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11048702/CC108	SITE SECTIONS SHEET 2 OF 2	A
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11048702/CC112	ROAD LONGITUDINAL SECTIONS SHEET 2 OF 2	A
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11048702/CC119	KERB RETURNS SHEET 4 OF 4	A
11048702/CC120	CATCHMENT PLAN	A
11048702/CC121	DRAINAGE LONGITUDINAL SECTION SHEET 1 OF 5	A
11048702/CC122	DRAINAGE LONGITUDINAL SECTION SHEET 2 OF 5	A
11048702/CC123	DRAINAGE LONGITUDINAL SECTION SHEET 3 OF 5	A
11048702/CC124	DRAINAGE LONGITUDINAL SECTION SHEET 4 OF 5	A
11048702/CC125	DRAINAGE LONGITUDINAL SECTION SHEET 5 OF 5	A
11048702/CC126	DRAINAGE CALCULATIONS SHEET 1 OF 4	A
11048702/CC127	DRAINAGE CALCULATIONS SHEET 2 OF 4	A
11048702/CC128	DRAINAGE CALCULATIONS SHEET 3 OF 4	A
11048702/CC129	DRAINAGE CALCULATIONS SHEET 4 OF 4	A
11048702/CC130	RETAINING WALL PLAN SHEET 1 OF 3	A
11048702/CC131	RETAINING WALL PLAN SHEET 2 OF 3	A
11048702/CC132	RETAINING WALL PLAN SHEET 3 OF 3	A
11048702/CC133	RETAINING WALL SECTION SHEET 1 OF 6	A
11048702/CC134	RETAINING WALL SECTION SHEET 2 OF 6	A
11048702/CC135	RETAINING WALL SECTION SHEET 3 OF 6	A
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11048702/CC137	RETAINING WALL SECTION SHEET 5 OF 6	A
11048702/CC138	RETAINING WALL SECTION SHEET 6 OF 6	A
11048702/CC139	SOIL & WATER MANAGEMENT PLAN	A
11048702/CC140	TURNING PATH	A
11048702/CC141	BUS BAY	A

LEGEND

DESCRIPTION	PROPOSED	EXISTING	FUTURE
EXTENT OF WORKS			
FLUSH KERB	FK		
DISH CROSSING	DC		
INDICATIVE DRIVEWAY LOCATION	VC		
PRAM RAMP			
DRAINAGE LINE, PIT & EASEMENT	05/05 Ø225		
DRAINAGE LINE & PIT	05/06 Ø600		
HEADWALL			
ELECTRICITY, POWER POLE		eE eE eE	
TELECOM, BOX		eT eT eT eT	
WATER, STOP VALVE, HYDRANT		HYD SV eW eW eW	
SEWER, MANHOLE		SMH eS eS eS	
GAS		eG eG eG	
EXTENT OF FILL			
EXTENT OF CUT			
CONTOURS	46.0	47.0	
CATCH DRAIN			
KERB RETURN No	KR -		
STREET NAME SIGNS	SP		
SURVEY MARKS - BENCH MARKS			
STATE SURVEY MARKS			
STAGE BOUNDARY			
STABILISED SITE ACCESS			
SEDIMENT FENCE			
STRAW BALE BARRIER			
STOCKPILE	SP		
PROTECTIVE FENCING			
MESH AND GRAVEL INLET FILTER			
GEOTEXTILE INLET FILTER			
RETAINING WALL			

Survey By:
SDG
SUITE 1, 3 RAILWAY STREET
BAULKHAM HILLS, NSW 2153
PH: 02 96307955

Date: 11/05/18 File Name:7202 PARKLAND ESTATE JORDAN SPRINGS ROAD DETAIL ISSUE D.DWG

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NOTE: UTILITIES SHOWN MAY NOT INCLUDE ALL SERVICES WITHIN THE LIMIT OF WORKS

A	ISSUED FOR CONSTRUCTION CERTIFICATE	MMC	NM	DJH	MS	22/05/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

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ORIGIN:

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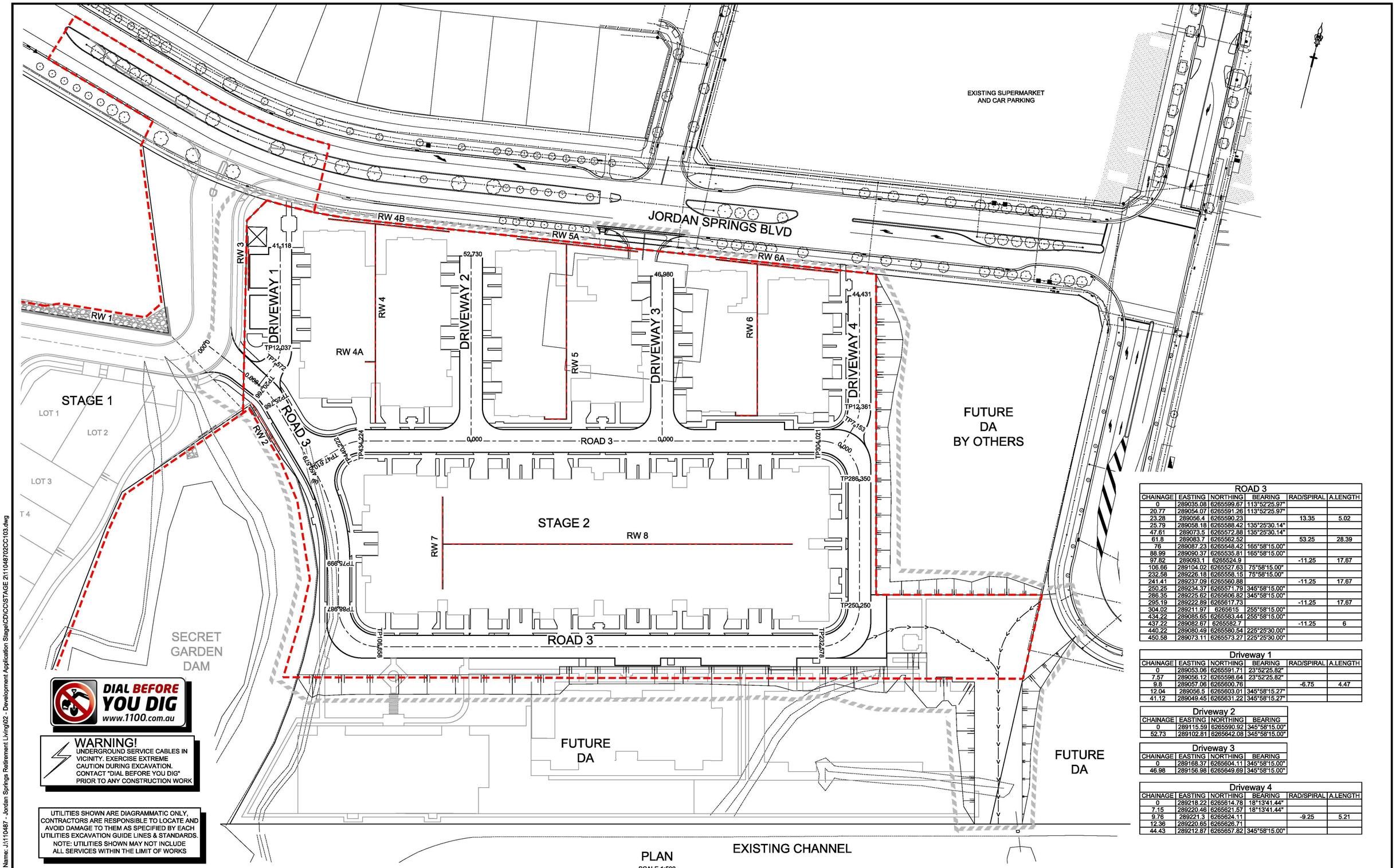
JORDAN SPRING
STAGE 2 - RETIREMENT VILLAS
GENERAL NOTES, LEGEND & INDEX

PLAN No: 11048702/CC102 A
FILE No: 11048702CC102
SHEET SIZE: A1 ORIGINAL

Plotted: 22 May , 2019 4:59:51 PM File Name: J:\110487 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\CC\STAGE 2\11048702CC102.dwg

Document Set ID: 8735604
Version: 1, Version Date: 17/06/2019



PLAN
SCALE 1:500

1:500 (AT A1)
1:1000 (AT A3)

10 0 10 20 30 40 50
METRES

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ROAD 3

CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	289035.08	6265599.67	113°52'25.97"		
20.77	289054.07	6265591.26	113°52'25.97"		
23.28	289056.4	6265590.23		13.35	5.02
25.79	289058.18	6265588.42	135°25'30.14"		
47.61	289073.5	6265572.88	135°25'30.14"		
61.8	289083.7	6265562.52		53.25	28.39
76	289087.23	6265548.42	165°58'15.00"		
88.99	289090.37	6265535.81	165°58'15.00"		
97.82	289093.1	6265524.9		-11.25	17.67
106.66	289104.02	6265527.63	75°58'15.00"		
232.58	289226.18	6265558.15	75°58'15.00"		
241.41	289237.09	6265560.88		-11.25	17.67
250.25	289234.37	6265571.79	345°58'15.00"		
286.35	289225.62	6265606.82	345°58'15.00"		
295.19	289222.89	6265617.73		-11.25	17.67
304.02	289211.97	6265615	255°58'15.00"		
434.22	289085.65	6265583.44	255°58'15.00"		
437.22	289082.67	6265582.7		-11.25	6
440.22	289080.49	6265580.54	225°25'30.00"		
450.58	289073.11	6265573.27	225°25'30.00"		

Driveway 1

CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	289053.06	6265591.71	23°52'25.82"		
7.57	289056.12	6265598.64	23°52'25.82"		
9.8	289057.06	6265600.76		-6.75	4.47
12.04	289056.5	6265603.01	345°58'15.27"		
41.12	289049.45	6265631.22	345°58'15.27"		

Driveway 2

CHAINAGE	EASTING	NORTHING	BEARING
0	289115.59	6265590.92	345°58'15.00"
52.73	289102.81	6265642.08	345°58'15.00"

Driveway 3

CHAINAGE	EASTING	NORTHING	BEARING
0	289168.37	6265604.11	345°58'15.00"
46.98	289156.98	6265649.69	345°58'15.00"

Driveway 4

CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	289218.22	6265614.78	18°13'41.44"		
7.15	289220.46	6265621.57	18°13'41.44"		
9.76	289221.3	6265624.11		-9.25	5.21
12.36	289220.65	6265626.71			
44.43	289212.87	6265657.82	345°58'15.00"		

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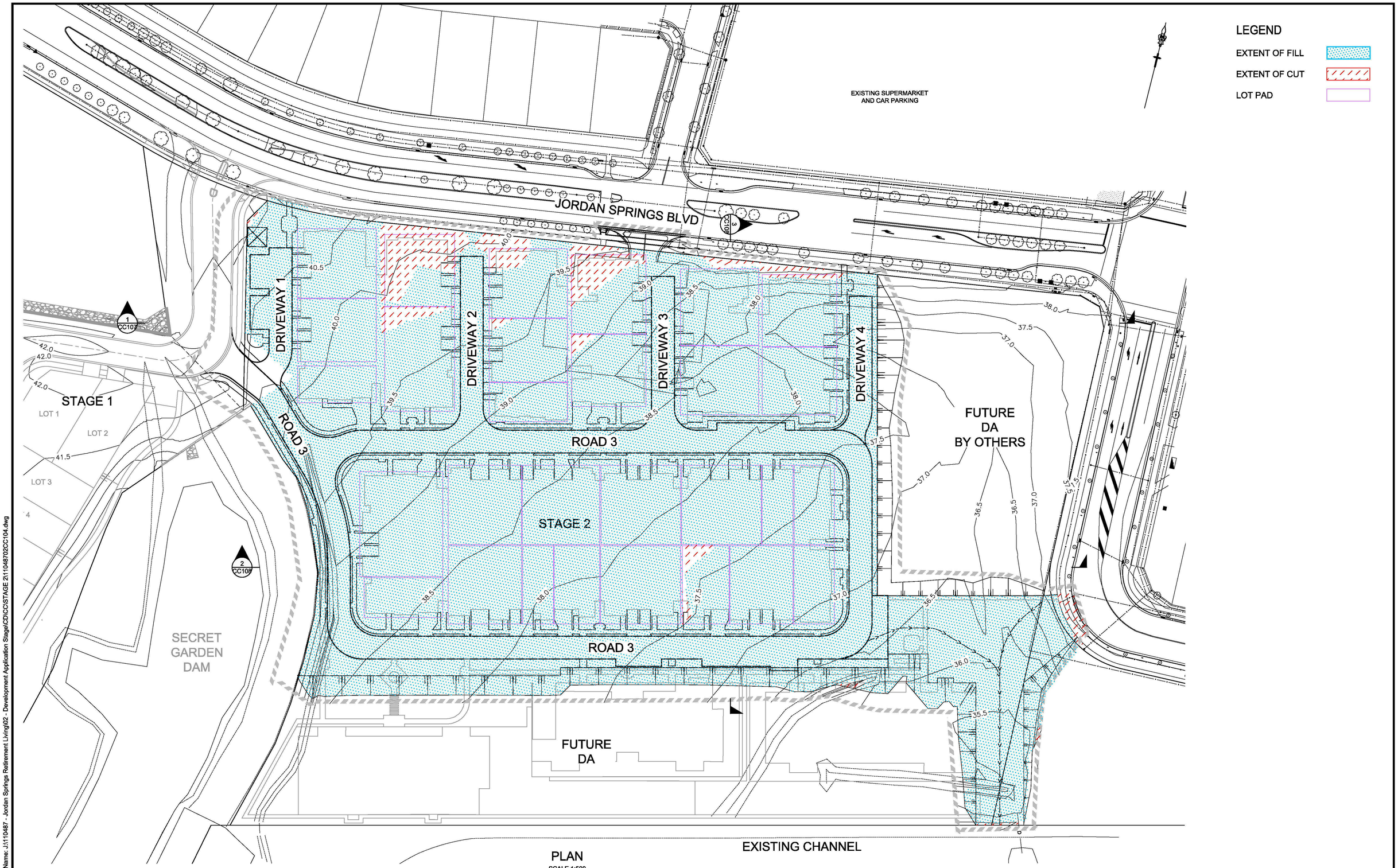
AZIMUTH:
DATUM:
ORIGIN:

JORDAN SPRING
STAGE 2 - RETIREMENT VILLAS
SITE LAYOUT & ROAD SETOUT PLAN

PLAN No: 11048702/CC103 A
FILE No: 11048702CC103
SHEET SIZE: A1 ORIGINAL

Plotted: 22 May , 2019 4:44:16 PM File Name: J:\11\0487 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\CC\STAGE 2\11048702CC103.dwg

Document Set ID: 8735604
Version: 1, Version Date: 17/06/2019



PLAN
SCALE 1:500

1:500 (AT A1)
1:1000 (AT A3)

10 0 10 20 30 40 50
METRES

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JORDAN SPRING
STAGE 2 - RETIREMENT VILLAS
CUT & FILL PLAN

PLAN No: 11048702/CC104 A
FILE No: 11048702CC104
SHEET SIZE: A1 ORIGINAL

Plotted: 22 May , 2019 4:44:29 PM File Name: J:\110487 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\CC\STAGE 2\11048702CC104.dwg

Document Set ID: 8735604
Version: 1, Version Date: 17/06/2019

EXISTING SUPERMARKET
AND CAR PARKING

DRIVEWAY 1
DRIVEWAY 2
DRIVEWAY 3
DRIVEWAY 4
ROAD 3
STAGE 1
LOT 1
LOT 2
LOT 3
4
STAGE 2
SECRET
GARDEN
DAM
FUTURE
DA
BY OTHERS
FUTURE
DA
EXISTING CHANNEL

41.118
52.730
46.980
44.431
TP12.037
TP12.361
TP286.350
TP250.250
TP304.021
TP434.224
TP232.578
TP106.658
TP75.999
TP86.987
E:289245.4206
N:6265559.6102
E:289241.0541
N:6265577.0852

PLAN

SCALE 1:500

1:500 (AT A1)
1:1000 (AT A3)

10 0 10 20 30 40 50
METRES

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LEGEND

PAVEMENT NOTES - ROAD 3 (ESA $5x10^5$)

PAVEMENT DESIGN TO GEOTECHNICAL DESIGN REPORT 8921/1 BY GEOTECH TESTING PTY LTD.
50mm MINIMUM THICKNESS (AC10) 2 x LAYERS 25mm (AC10)
SINGLE COAT HOT BITUMEN FLUSH SEAL
130mm DGB20 BASECOURSE COMPACTED TO MIN 98% M.M.D.D.
350mm CRUSHED SANDSTONE SUB BASECOURSE COMPACTED TO MIN 95% M.M.D.D.
COMPACTED SUBGRADE MIN. REQUIREMENTS: 100% S.M.D.D.

PAVEMENT NOTES - DRIVEWAYS

PAVEMENT DESIGN TO GEOTECHNICAL DESIGN REPORT 8921/1 BY GEOTECH TESTING PTY LTD.
150mm THICK 32MPa CONCRETE WITH SL82 MESH
ON COMPACTED GRANULAR SUBGRADE

PAVEMENT NOTES - MAINTENANCE ACCESS

PAVEMENT DESIGN TO GEOTECHNICAL DESIGN REPORT 8921/1 BY GEOTECH TESTING PTY LTD.
225mm THICK 32MPa CONCRETE WITH 2 LAYERS SL82 MESH
ON COMPACTED GRANULAR SUBGRADE
COLOUR: PLAIN CONCRETE.

A	ISSUED FOR CONSTRUCTION CERTIFICATE	MMC	NM	DJH	MS	22/05/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

J. WYNDHAM PRINCE
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AZIMUTH:
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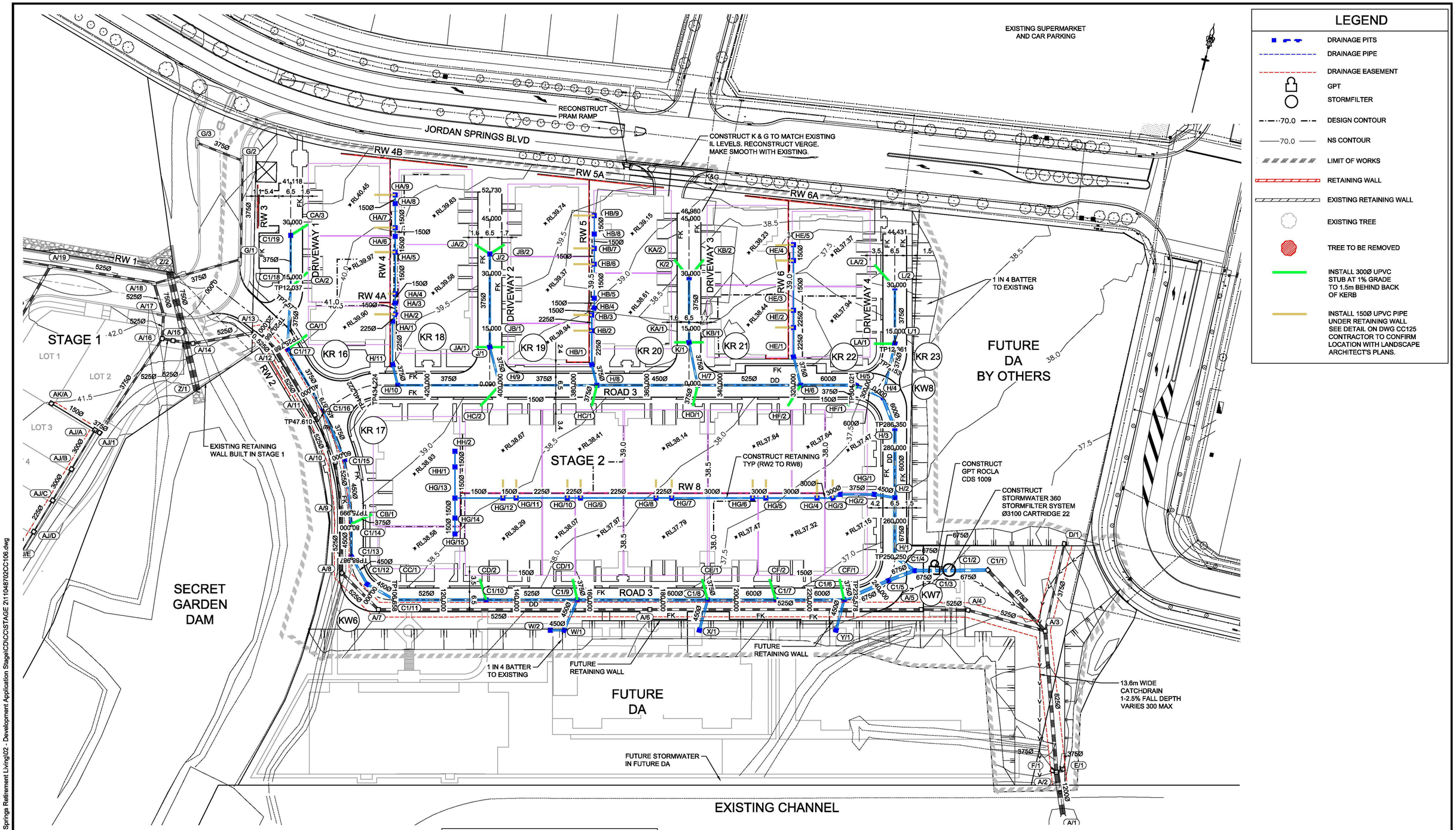
JORDAN SPRING
STAGE 2 - RETIREMENT VILLAS
PAVEMENT PLAN

PLAN No: 11048702/CC105 A
FILE No: 11048702CC105
SHEET SIZE: A1 ORIGINAL

Plotted: 22 May , 2019 4:44:40 PM File Name: J:\110487 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\CC\STAGE 2\11048702CC105.dwg

Document Set ID: 8735604
Version: 1, Version Date: 17/06/2019



LEGEND

- DRAINAGE PITS
- DRAINAGE PIPE
- DRAINAGE EASEMENT
- GPT
- STORMFILTER
- 70.0 — DESIGN CONTOUR
- 70.0 — NS CONTOUR
- LIMIT OF WORKS
- RETAINING WALL
- EXISTING RETAINING WALL
- EXISTING TREE
- TREE TO BE REMOVED
- INSTALL 300Ø UPVC STUB AT 1% GRADE TO 1.5m BEHIND BACK OF KERB
- INSTALL 150Ø UPVC PIPE UNDER RETAINING WALL SEE DETAIL ON DWG CC125 CONTRACTOR TO CONFIRM LOCATION WITH LANDSCAPE ARCHITECT'S PLANS.

NOTES:
PAD LEVELS ARE TAKEN IN THE CENTRE OF PAD. NOTE PAD FALLS 100mm.

DIAL BEFORE YOU DIG www.1100.com.au

WARNING! UNDERGROUND SERVICE CABLES IN VICINITY. EXERCISE EXTREME CAUTION DURING EXCAVATION. CONTACT "DIAL BEFORE YOU DIG" PRIOR TO ANY CONSTRUCTION WORK

UTILITIES SHOWN ARE DIAGRAMMATIC ONLY, CONTRACTORS ARE RESPONSIBLE TO LOCATE AND AVOID DAMAGE TO THEM AS SPECIFIED BY EACH UTILITIES EXCAVATION GUIDE LINES & STANDARDS. NOTE: UTILITIES SHOWN MAY NOT INCLUDE ALL SERVICES WITHIN THE LIMIT OF WORKS

1:500 (AT A1)
1:1000 (AT A3)
10 0 10 20 30 40 50
METRES

A	ISSUED FOR CONSTRUCTION CERTIFICATE	MMC	NM	DJH	MS	22/05/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

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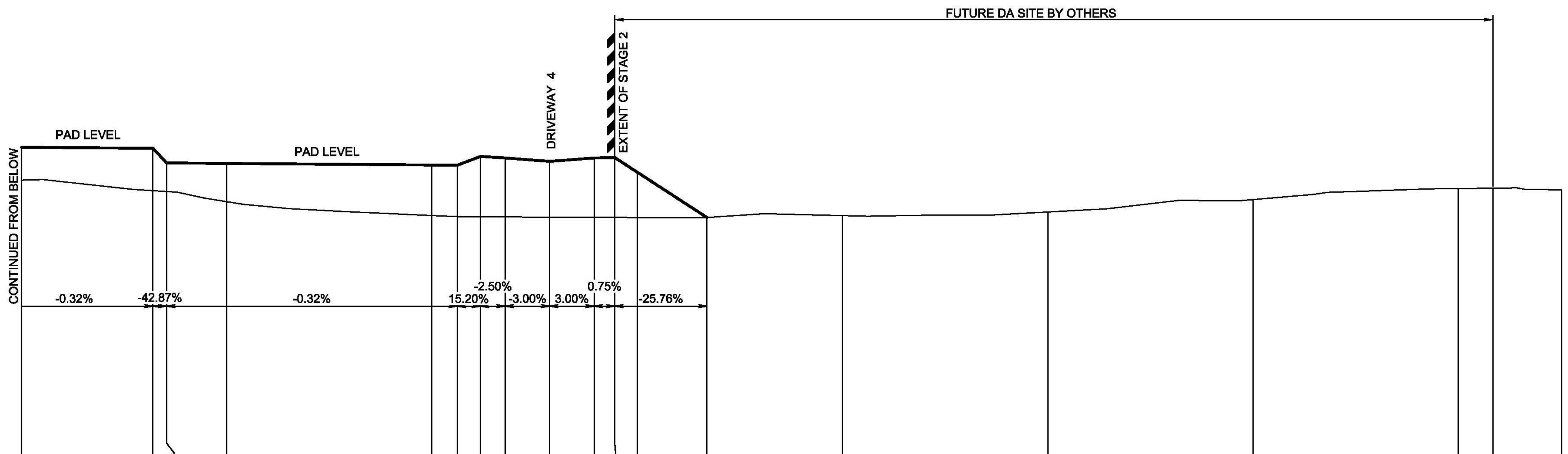
JORDAN SPRING
STAGE 2 - RETIREMENT VILLAS
ENGINEERING PLAN

PLAN No: 11048702/CC106 A
FILE No: 11048702CC106
SHEET SIZE: A1 ORIGINAL

Plotted: 22 May , 2019 4:45:03 PM File Name: J:\11\0487 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\CC\STAGE 2\11048702CC106.dwg

Document Set ID: 8735604
Version: 1, Version Date: 17/06/2019

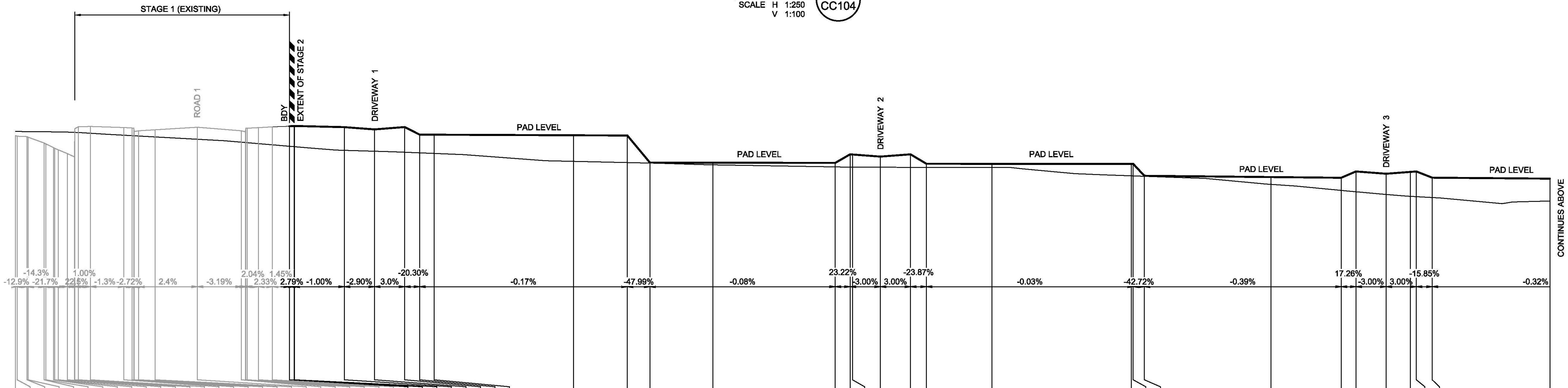


DATUM 30.0

DESIGN LINE GRADING	39.14	39.11	38.69	38.67	38.62	38.62	38.88	38.83	38.73	38.83
EXISTING SURFACE	38.18	37.88	37.85	37.55	37.15	37.12	37.11	37.10	37.10	37.09
CHAINAGE	165.00	174.60	175.60	180.00	195.00	196.85	198.55	200.35	203.60	206.85

DESIGN LINE GRADING	38.84	38.42	37.09						
EXISTING SURFACE	37.09	37.09	37.09	37.15	37.25	37.61	37.94	37.94	37.90
CHAINAGE	208.35	210.00	215.09	225.00	240.00	255.00	270.00	272.54	277.54

SECTION 1 / CC104
SCALE H 1:250
V 1:100



DATUM 30.0

DESIGN LINE GRADING	40.99	40.97	40.95	40.92	40.68	40.64	40.48	40.45	40.38	40.22
EXISTING SURFACE	41.17	41.17	41.17	41.16	41.16	41.16	41.15	41.15	41.15	41.14
CHAINAGE	0.00	0.17	1.23	1.35	3.07	3.26	4.08	4.21	4.58	5.58

DESIGN LINE GRADING	40.08	41.29	41.37	41.39	41.34	41.32	41.32	41.17	41.20	41.24
EXISTING SURFACE	41.13	41.13	41.13	41.10	41.01	40.99	40.99	40.99	40.98	40.94
CHAINAGE	6.33	6.37	6.75	8.05	11.65	12.54	12.70	12.75	13.23	15.00

DESIGN LINE GRADING	41.35	41.20	41.16	41.31	41.31	41.34	41.37	41.40	41.41	41.41
EXISTING SURFACE	40.84	40.71	40.70	40.70	40.69	40.65	40.60	40.54	40.52	40.52
CHAINAGE	19.55	24.27	24.71	24.75	24.90	26.12	27.62	29.45	29.95	30.00

DESIGN LINE GRADING	41.36	41.26	41.36	41.03	41.03	41.01	41.00	39.83	39.83	39.82
EXISTING SURFACE	40.36	40.32	40.28	40.25	40.23	39.89	39.83	39.81	39.74	39.65
CHAINAGE	35.35	38.60	41.85	43.45	45.00	60.00	65.80	68.22	75.00	88.15

DESIGN LINE GRADING	40.19	40.18	40.09	40.19	39.78	39.78	39.78	39.78	39.27	39.21
EXISTING SURFACE	39.63	39.63	39.63	39.63	39.63	39.63	39.26	39.26	39.24	38.90
CHAINAGE	89.75	90.00	93.00	96.25	97.95	105.00	120.00	120.20	121.40	135.00

DESIGN LINE GRADING	39.18	39.45	39.36	39.44	39.45	39.19	39.14
EXISTING SURFACE	38.64	38.58	38.46	38.38	38.37	38.33	38.18
CHAINAGE	142.57	144.15	147.40	150.00	150.65	152.35	165.00

SECTION 1 / CC104
SCALE H 1:250
V 1:100

1:250 (AT A1) 1:500 (AT A3) — 5 0 5 10 15 20 25 METRES

1:100 (AT A1) 1:200 (AT A3) — 2 1 0 1 2 3 4 5 6 7 8 9 10 METRES

A	ISSUED FOR CONSTRUCTION CERTIFICATE	MMC	NM	DJH	MS	22/05/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

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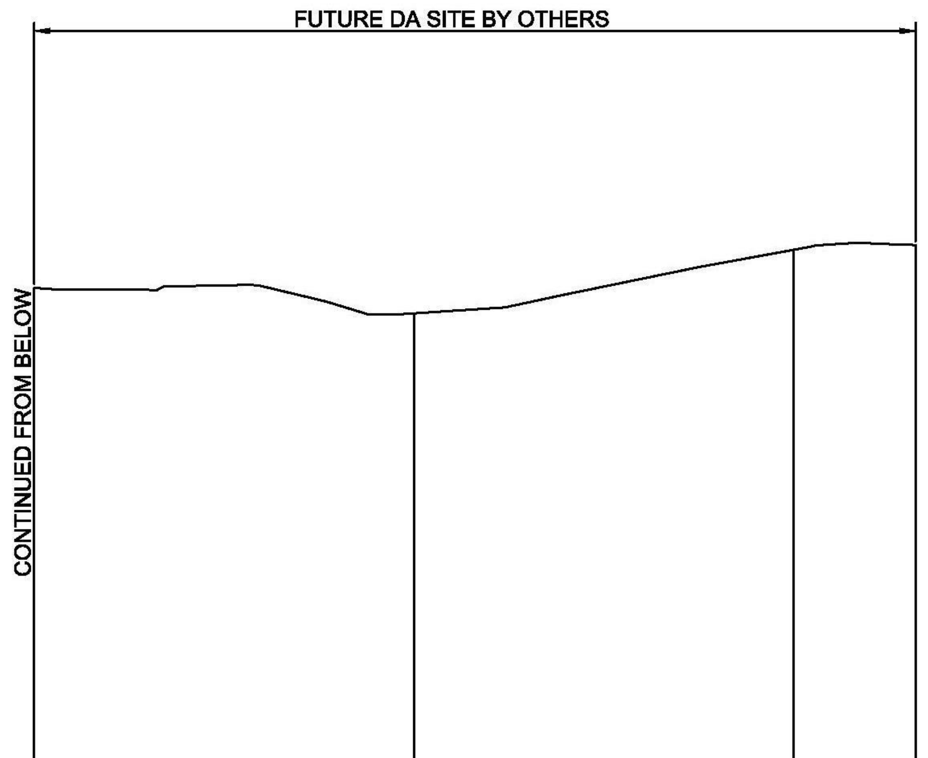
JORDAN SPRING
STAGE 2 - RETIREMENT VILLAS
SITE SECTIONS
SHEET 1 OF 2

PLAN No: 11048702/CC107 A
FILE No: 11048702CC107
SHEET SIZE: A1 ORIGINAL

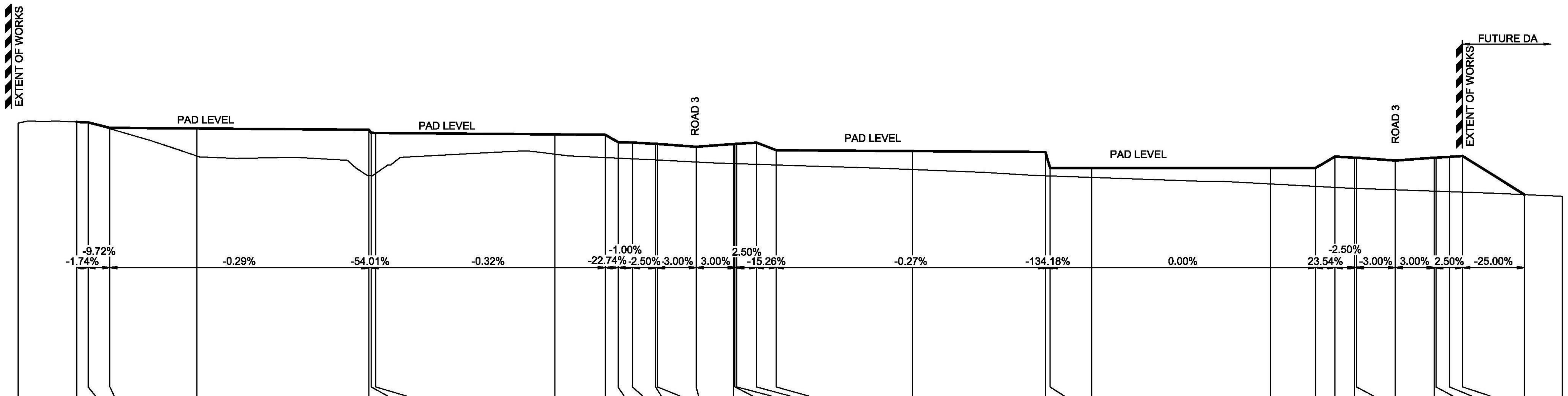
Plotted: 22 May , 2019 4:45:15 PM File Name: J:\110487 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\CC\STAGE 2\11048702CC107.dwg
Document Set ID: 8735604
Version: 1, Version Date: 17/06/2019



DATUM 29.0

CHAINAGE	DESIGN LINE GRADING	EXISTING SURFACE
195.00		36.60
210.00		36.19
225.00		37.20
229.81		37.27

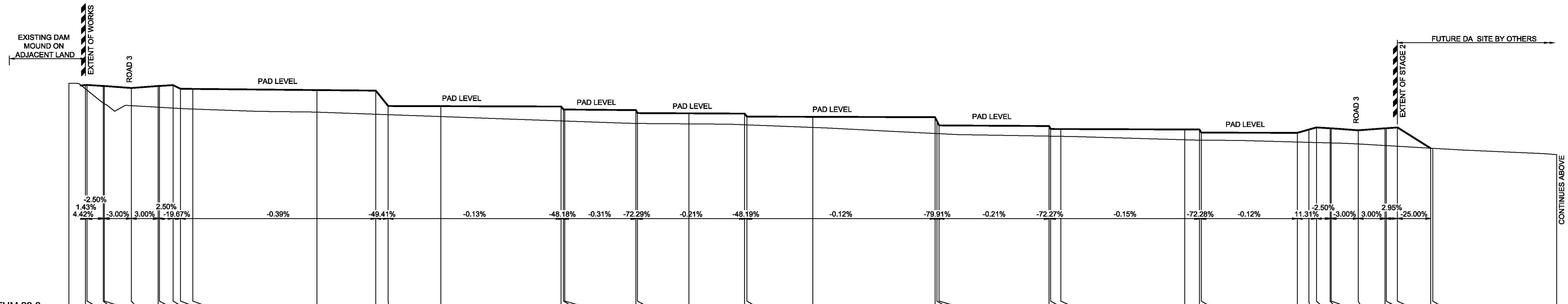
SECTION 2 / CC104
SCALE H 1:250
V 1:100



DATUM 30.0

CHAINAGE	DESIGN LINE GRADING	EXISTING SURFACE
0.00		39.34
4.94	39.38	39.38
5.87	39.36	39.36
7.71	39.19	39.15
15.00	39.16	38.24
29.41	39.12	37.58
29.61	39.01	37.58
30.00	39.01	37.66
45.00	38.96	38.30
49.23	38.95	38.19
50.30	38.71	38.17
51.50	38.69	38.14
53.45	38.65	38.11
53.60	38.65	38.10
56.85	38.55	38.04
60.00	38.64	37.98
60.10	38.65	37.98
60.25	38.65	37.98
61.90	38.69	37.96
63.55	38.44	37.94
75.00	38.40	37.79
86.13	38.37	37.58
86.53	37.84	37.57
90.00	37.84	37.52
105.00	37.84	37.30
108.76	37.84	37.22
110.40	38.22	37.19
112.05	38.18	37.15
112.20	38.18	37.15
115.45	38.09	37.11
118.70	38.18	37.06
118.85	38.18	37.06
120.00	38.21	37.04
121.10	38.24	37.03
121.10	38.24	37.03
129.43		36.89

SECTION 3 / CC104
SCALE H 1:250
V 1:100



DATUM 29.0

CHAINAGE	DESIGN LINE GRADING	EXISTING SURFACE
15.00		40.05
17.00	39.97	39.78
17.20	39.97	39.72
19.15	39.92	39.10
19.30	39.92	39.06
22.55	39.82	38.97
25.80	39.92	38.89
25.95	39.92	38.89
27.60	39.96	38.85
28.50	39.78	38.83
30.00	39.78	38.80
45.00	39.72	38.65
52.13	39.69	38.55
53.63	38.95	38.53
60.00	38.94	38.44
74.55	38.92	38.23
74.85	38.78	38.23
75.00	38.78	38.22
83.60	38.75	38.11
83.80	38.61	38.10
90.00	38.59	38.08
96.74	38.58	38.04
97.04	38.44	38.04
105.00	38.43	37.91
119.78	38.41	37.62
120.00	38.23	37.62
120.28	38.01	37.61
133.57	37.98	37.49
133.77	37.84	37.49
135.00	37.84	37.48
150.00	37.81	37.32
151.78	37.81	37.30
151.98	37.66	37.30
163.61	37.65	37.21
165.00	37.81	37.19
165.92	37.91	37.18
167.57	37.87	37.16
167.72	37.87	37.16
170.97	37.77	37.11
174.22	37.87	37.04
174.37	37.87	37.03
175.72	37.91	37.00
179.74	36.90	36.90
180.00		36.90
195.00		36.60

SECTION 2 / CC104
SCALE H 1:250
V 1:100

1:250 (AT A1) 1:500 (AT A3) — 5 0 5 10 15 20 25 METRES

1:100 (AT A1) 1:200 (AT A3) — 2 1 0 1 2 3 4 5 6 7 8 9 10 METRES

	AMENDMENT	DES	DRN	CKD	APR	DATE
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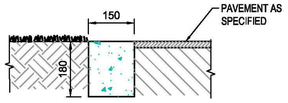
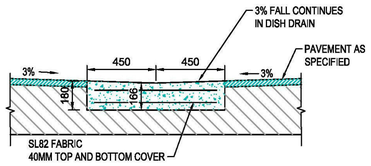
JORDAN SPRING
STAGE 2 - RETIREMENT VILLAS
SITE SECTIONS
SHEET 2 OF 2

PLAN No: 11048702/CC108 A
FILE No: 11048702CC108
SHEET SIZE: A1 ORIGINAL

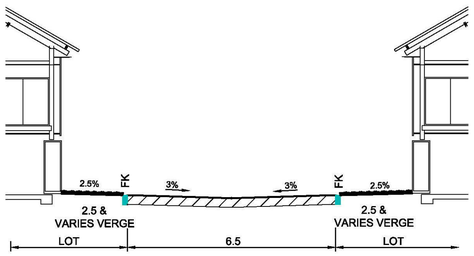
Plotted: 22 May , 2019 4:45:27 PM File Name: J:\110487 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\CC\STAGE 2\11048702CC108.dwg
Document Set ID: 8735604
Version: 1, Version Date: 17/06/2019



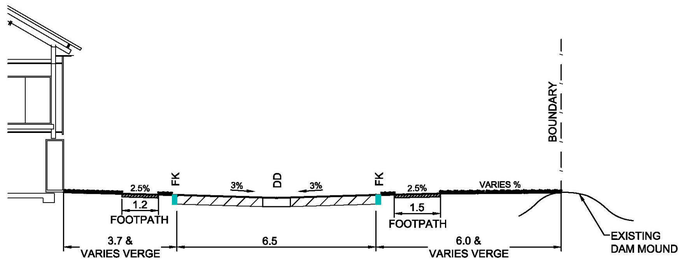
FLUSH KERB
SCALE 1:10



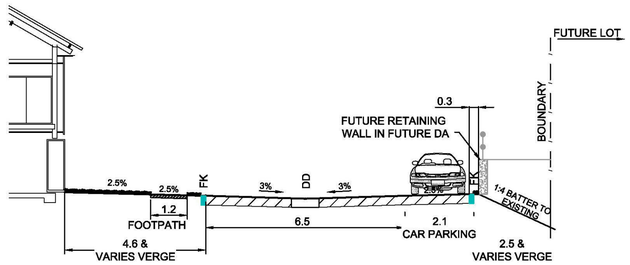
MODIFIED DISH DRAIN
SCALE 1:20



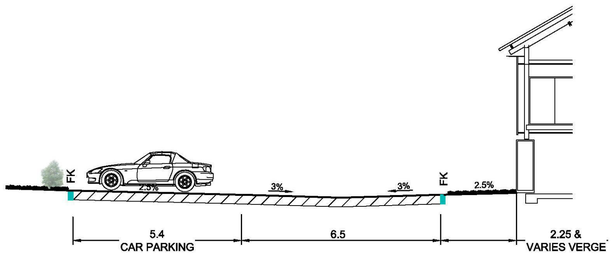
TYPICAL CROSS SECTION
DRIVEWAY 3
SCALE 1:100 NAT



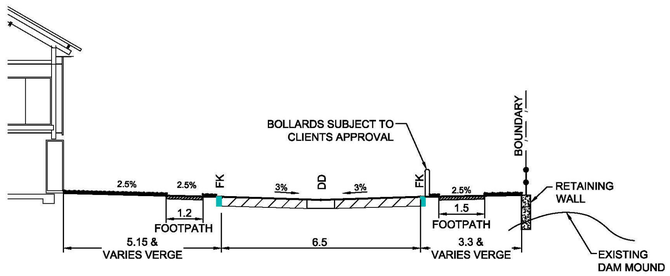
TYPICAL CROSS SECTION ROAD 3
ADJACENT TO EXISTING DAM
SCALE 1:100 NAT



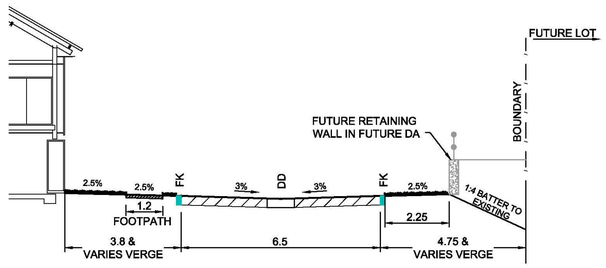
TYPICAL CROSS SECTION ROAD 3
ADJACENT TO FUTURE DA WITH PARKING
SCALE 1:100 NAT



TYPICAL CROSS SECTION DRIVEWAY 1
WITH PARKING
SCALE 1:100 NAT



TYPICAL CROSS SECTION ROAD 3
ADJACENT TO EXISTING DAM WITH
RETAINING WALL
SCALE 1:100 NAT



TYPICAL CROSS SECTION ROAD 3
WITH ADJACENT FUTURE DA
SCALE 1:100 NAT

1:10 (AT A1) 200 100 0 100 200 300 400 500 600 700 800 900 1000 MILLIMETRES

1:20 (AT A1) 400 200 0 400 800 1200 1600 2000 MILLIMETRES

1:100 (AT A1)
1:200 (AT A3) 2 1 0 1 2 3 4 5 6 7 8 9 10 METRES

A	ISSUED FOR CONSTRUCTION CERTIFICATE	MMC	NM	DJH	MS	22/05/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

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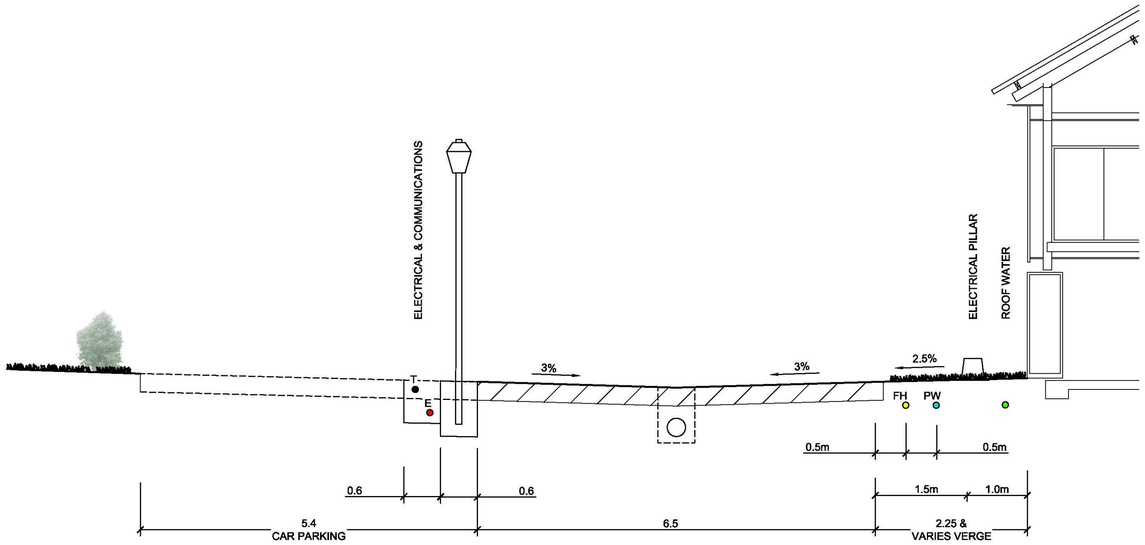
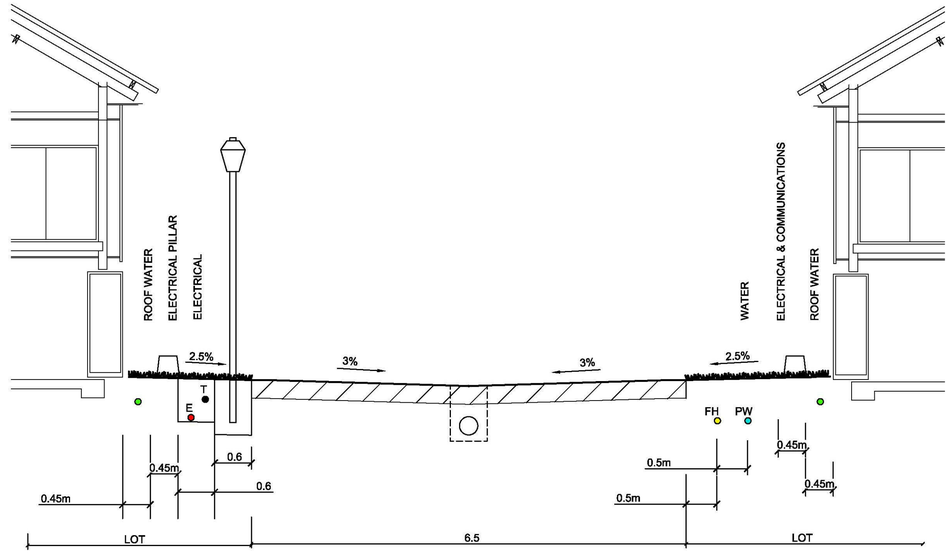
JORDAN SPRING
STAGE 2 - RETIREMENT VILLAS
TYPICAL SECTIONS

PLAN No: 11048702/CC109 A
FILE No: 11048702CC109
SHEET SIZE: A1 ORIGINAL

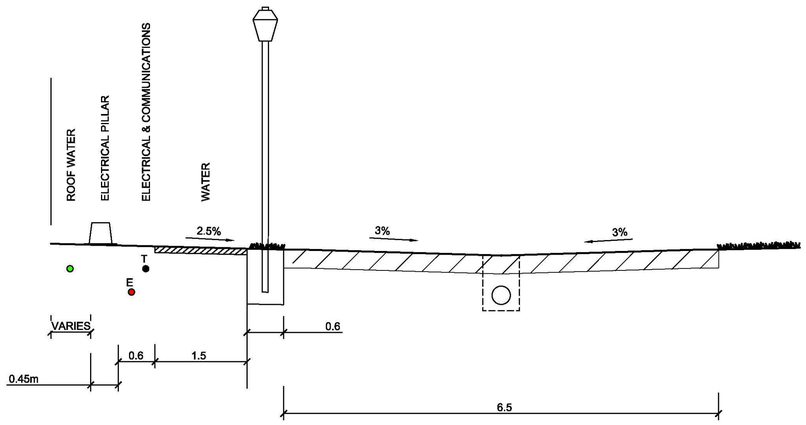
Plotted: 22 May , 2019 4:45:39 PM File Name: J:\110487 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\CC\STAGE 2\11048702CC109.dwg



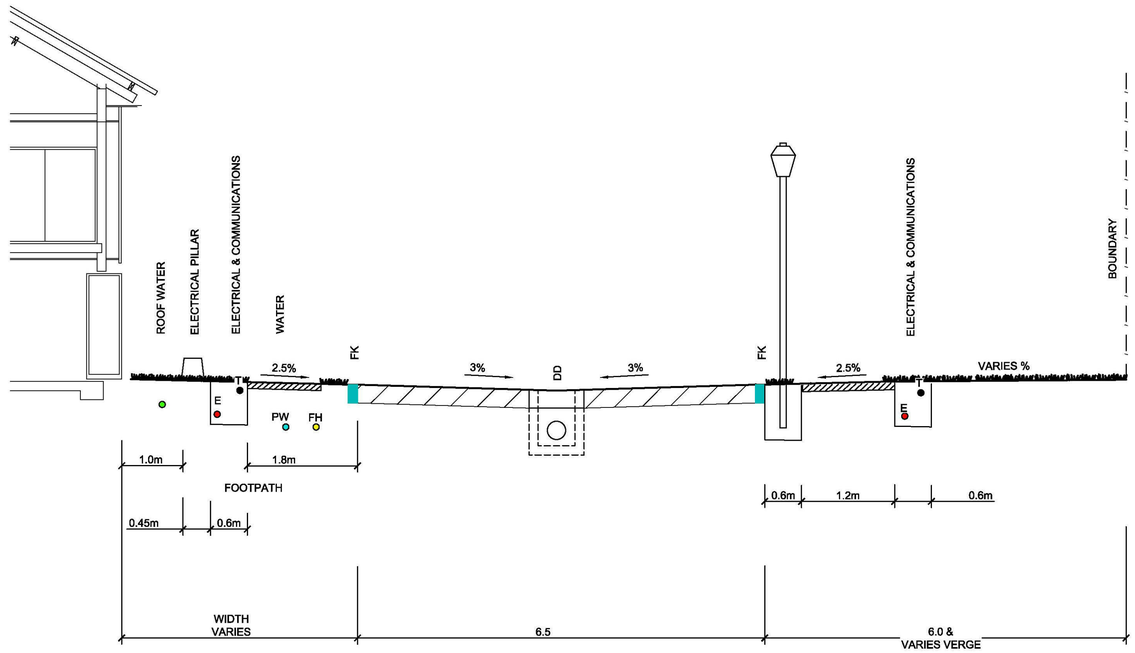
TYPICAL CROSS SECTION DRIVEWAY 1
SHOWING SERVICES
SCALE 1:50



TYPICAL CROSS SECTION DRIVEWAY 2 & 3
SHOWING SERVICES
SCALE 1:50



TYPICAL CROSS SECTION DRIVEWAY 4
SHOWING SERVICES
SCALE 1:50



TYPICAL CROSS SECTION ROAD 3
SHOWING SERVICES
SCALE 1:50

1:200 (AT A1)
1:400 (AT A3)

4 2 0 4 8 12 16 20
METRES

A	ISSUED FOR CONSTRUCTION CERTIFICATE	MMC	NM	DJH	MS	22/05/19
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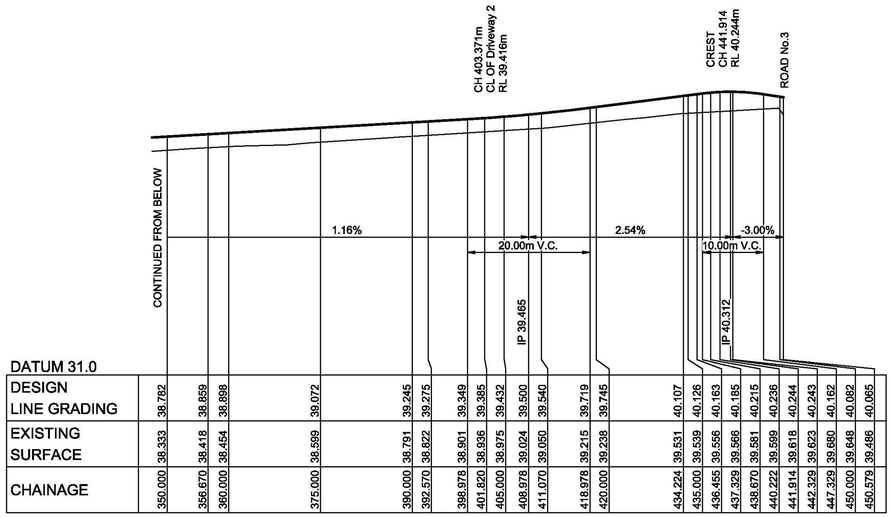
JORDAN SPRING
STAGE 2 - RETIREMENT VILLAS
TYPICAL SECTIONS SHOWING SERVICES

PLAN No: 11048702/CC110 A
FILE No: 11048702CC110
SHEET SIZE: A1 ORIGINAL

Plotted: 22 May, 2019 4:45:51 PM File Name: J:\110487 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\CC\STAGE 2\11048702CC110.dwg

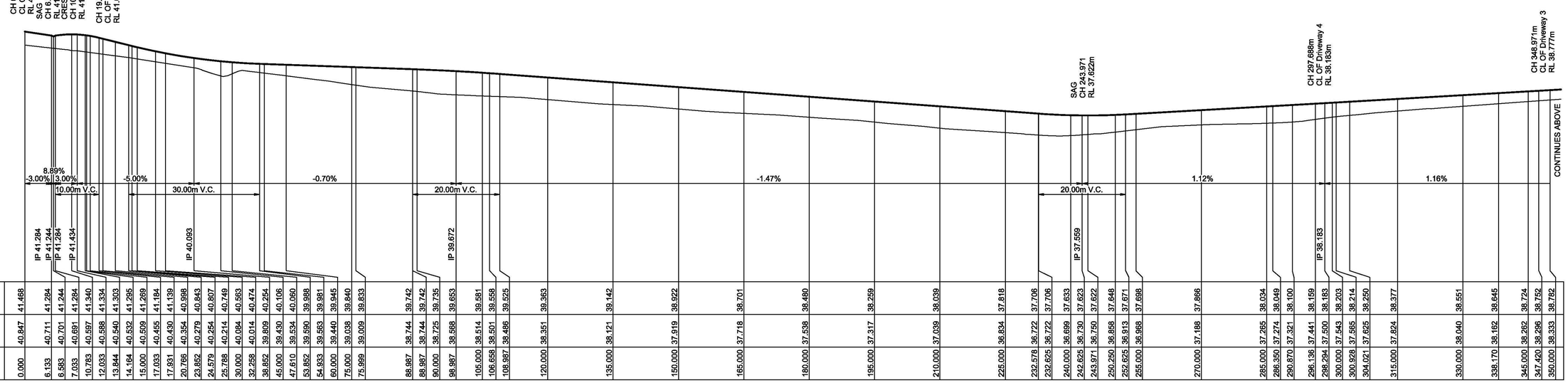
Document Set ID: 8735604
Version: 1, Version Date: 17/06/2019



DESIGN LINE GRADING	38.782	38.859	38.898	39.072	39.245	39.275	39.349	39.385	39.432	39.500	39.540	39.719	39.745	40.107	40.126	40.163	40.185	40.215	40.236	40.244	40.243	40.162	40.082	40.065				
EXISTING SURFACE	38.333	38.418	38.454	38.599	38.791	38.822	38.901	38.936	38.975	39.024	39.050	39.215	39.238	39.531	39.539	39.556	39.566	39.581	39.599	39.618	39.623	39.680	39.648	39.486				
CHAINAGE	350.000	356.670	360.000	375.000	390.000	392.570	398.978	401.820	405.000	408.978	411.070	418.978	420.000	434.224	435.000	436.455	437.329	438.670	440.222	441.914	442.329	447.329	450.000	450.579				

LONGITUDINAL SECTION ROAD 3

HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



DESIGN LINE GRADING	41.468	41.284	41.244	41.284	41.340	41.334	41.303	41.295	41.269	41.184	41.139	40.998	40.843	40.807	40.749	40.563	40.474	40.254	40.106	40.060	39.988	39.945	39.840	39.833	39.742	39.742	39.735	39.653
EXISTING SURFACE	40.847	40.711	40.701	40.691	40.597	40.588	40.540	40.532	40.509	40.455	40.430	40.354	40.279	40.254	40.214	40.084	40.014	39.809	39.430	39.534	39.590	39.553	39.440	39.038	39.009	38.744	38.744	38.725
CHAINAGE	0.000	6.133	6.583	7.033	10.783	12.033	13.844	14.164	15.000	17.033	17.931	20.766	23.852	24.579	25.788	30.000	32.258	38.852	45.000	47.610	53.852	54.933	60.000	75.000	75.999	88.987	88.987	90.000

DESIGN LINE GRADING	39.581	39.558	39.525	39.363	39.142	38.922	38.701	38.480	38.259	38.039	37.818	37.706	37.633	37.623	37.622	37.648	37.671	37.698	37.866	38.034	38.049	38.100	38.159	38.183	38.203	38.214	38.250	38.377
EXISTING SURFACE	38.514	38.501	38.486	38.351	38.121	37.919	37.718	37.538	37.317	37.039	36.834	36.722	36.699	36.730	36.750	36.868	36.913	36.868	37.188	37.265	37.274	37.321	37.441	37.500	37.543	37.565	37.625	37.824
CHAINAGE	105.000	106.658	108.987	120.000	135.000	150.000	165.000	180.000	195.000	210.000	225.000	232.578	232.625	240.000	242.625	243.971	250.250	252.625	255.000	270.000	285.000	286.350	290.870	296.136	298.294	300.000	300.928	304.021

DESIGN LINE GRADING	38.551	38.645	38.724	38.752	38.782																							
EXISTING SURFACE	38.040	38.162	38.262	38.296	38.333																							
CHAINAGE	315.000	330.000	338.170	345.000	347.420	350.000																						

LONGITUDINAL SECTION ROAD 3

HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100

1:500 (AT A1)
1:1000 (AT A3)
10 0 10 20 30 40 50
METRES

1:100 (AT A1)
1:200 (AT A3)
2 1 0 1 2 3 4 5 6 7 8 9 10
METRES

A	ISSUED FOR CONSTRUCTION CERTIFICATE	MMC	NM	DJH	MS	22/05/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

J. WYNDHAM PRINCE CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS

PO Box 4366 PENRITH WESTFIELD NSW 2750
P 02 4720 3300 F 02 4720 3399 W www.jwprince.com.au E jwp@jwprince.com.au

AZIMUTH:
DATUM:
ORIGIN:

CLIENT: lendlease

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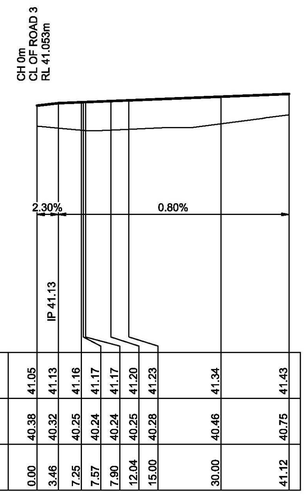
ISSUED FOR CONSTRUCTION APPROVAL

JORDAN SPRING
STAGE 2 - RETIREMENT VILLAS
ROAD LONGITUDINAL SECTIONS
SHEET 1 OF 2

PLAN No: 11048702/CC111 A
FILE No: 11048702CC111
SHEET SIZE: A1 ORIGINAL

Plotted: 22 May , 2019 4:46:02 PM File Name: J:\110487 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\CC\STAGE 2\11048702CC111.dwg

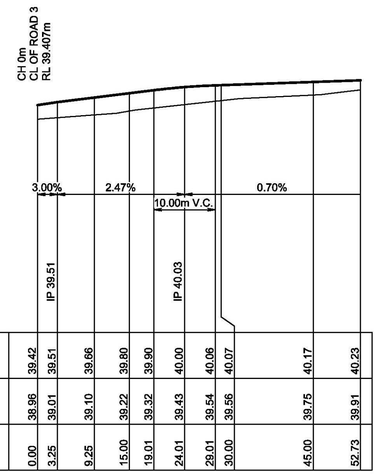
Document Set ID: 8735604
Version: 1, Version Date: 17/06/2019



DESIGN LINE GRADING	41.05	41.13	41.16	41.17	41.17	41.20	41.23	41.34	41.43
EXISTING SURFACE	40.38	40.32	40.25	40.24	40.24	40.25	40.28	40.46	40.75
CHAINAGE	0.00	3.46	7.25	7.57	7.90	12.04	15.00	30.00	41.12

LONGITUDINAL SECTION DRIVEWAY 1

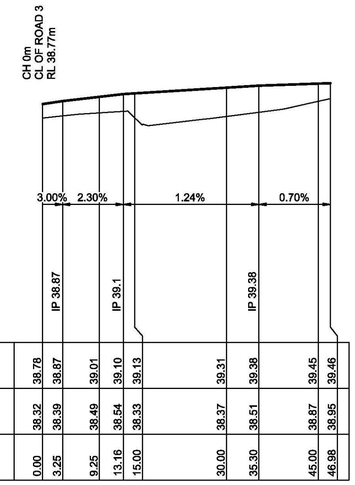
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



DESIGN LINE GRADING	39.42	39.51	39.66	39.80	39.90	40.00	40.06	40.07	40.17	40.23
EXISTING SURFACE	38.96	39.01	39.10	39.22	39.32	39.43	39.54	39.56	39.75	39.91
CHAINAGE	0.00	3.25	9.25	15.00	19.01	24.01	29.01	30.00	45.00	52.73

LONGITUDINAL SECTION DRIVEWAY 2

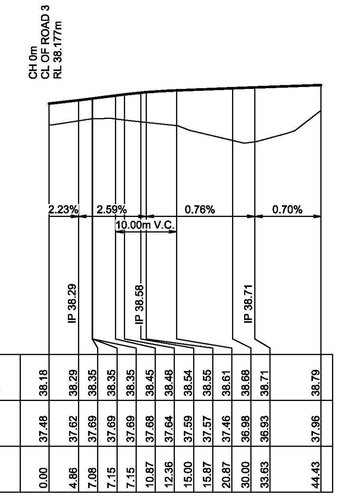
HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



DESIGN LINE GRADING	38.78	38.87	39.01	39.10	39.13	39.31	39.38	39.45	39.46
EXISTING SURFACE	38.32	38.39	38.49	38.54	38.33	38.37	38.51	38.87	38.95
CHAINAGE	0.00	3.25	9.25	13.16	15.00	30.00	35.30	45.00	46.98

LONGITUDINAL SECTION DRIVEWAY 3

HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



DESIGN LINE GRADING	38.18	38.29	38.35	38.35	38.35	38.45	38.48	38.54	38.55	38.61	38.68	38.71	38.79
EXISTING SURFACE	37.48	37.62	37.69	37.69	37.69	37.68	37.64	37.59	37.57	37.46	36.98	36.93	37.96
CHAINAGE	0.00	4.86	7.08	7.15	7.15	10.87	12.36	15.00	15.87	20.87	30.00	33.63	44.43

LONGITUDINAL SECTION DRIVEWAY 4

HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100

1:500 (AT A1)
1:1000 (AT A3)
10 0 10 20 30 40 50
METRES

1:100 (AT A1)
1:200 (AT A3)
2 1 0 1 2 3 4 5 6 7 8 9 10
METRES

CLIENT: lendlease

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ISSUED FOR CONSTRUCTION APPROVAL

A	ISSUED FOR CONSTRUCTION CERTIFICATE	MMC	NM	DJH	MS	22/05/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

J. WYNDHAM PRINCE CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS
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AZIMUTH:
DATUM:
ORIGIN:

JORDAN SPRING
STAGE 2 - RETIREMENT VILLAS
ROAD LONGITUDINAL SECTIONS
SHEET 2 OF 2

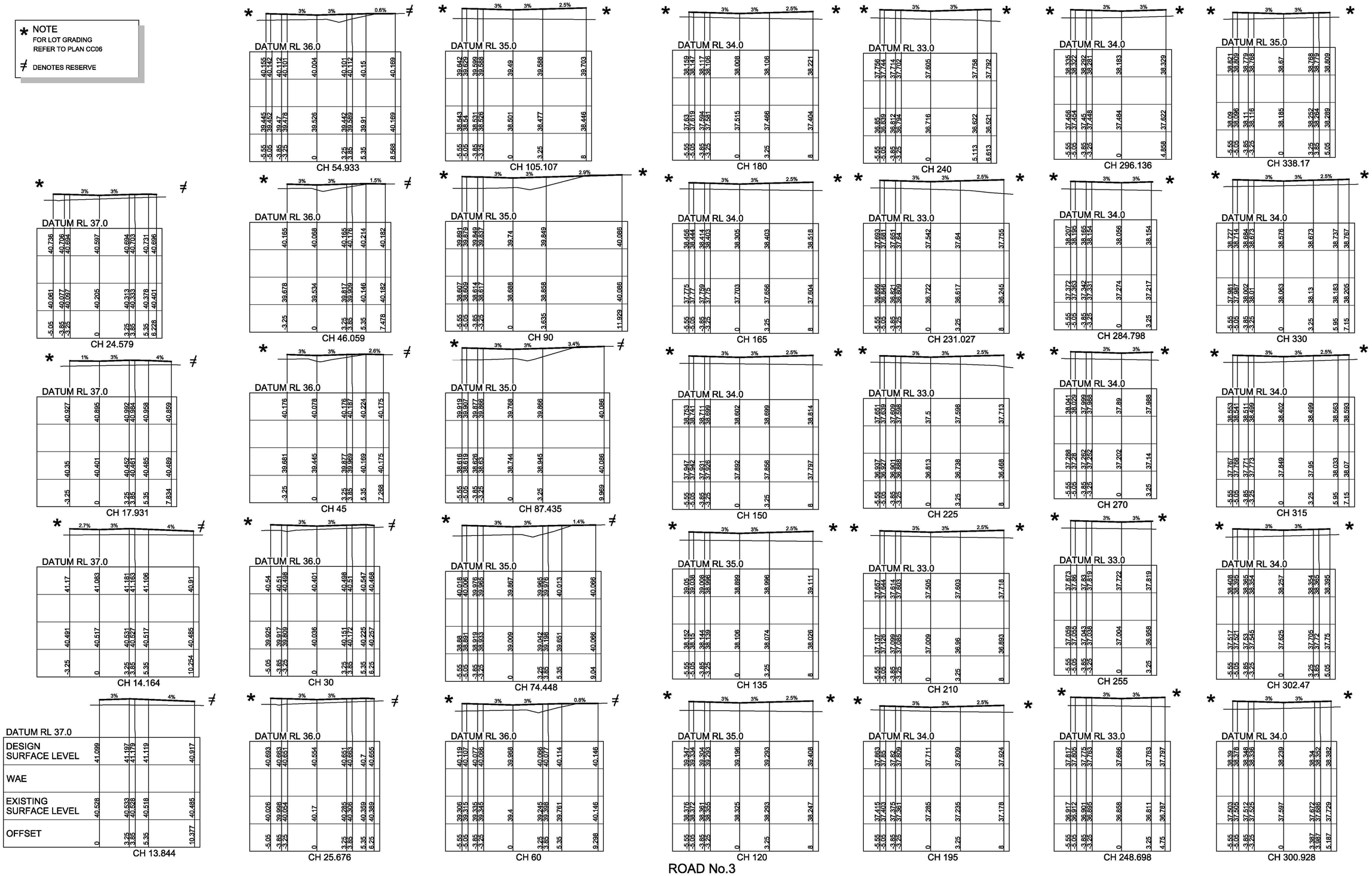
PLAN No: 11048702/CC112 A
FILE No: 11048702CC112
SHEET SIZE: A1 ORIGINAL

Plotted: 22 May , 2019 4:46:14 PM File Name: J:\110487 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\CC\STAGE 2\11048702CC112.dwg

Document Set ID: 8735604
Version: 1, Version Date: 17/06/2019

NOTE
FOR LOT GRADING
REFER TO PLAN CC06

≠ DENOTES RESERVE



1:200 (AT A1)
1:400 (AT A3)

4 2 0 4 8 12 16 20
METRES

A	ISSUED FOR CONSTRUCTION CERTIFICATE	MMC	NM	DJH	MS	22/05/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

J. WYNDHAM PRINCE CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS

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AZIMUTH:
DATUM:
ORIGIN:

CLIENT: lendlease

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ISSUED FOR CONSTRUCTION APPROVAL

JORDAN SPRING
STAGE 2 - RETIREMENT VILLAS
CROSS SECTIONS
SHEET 1 OF 3

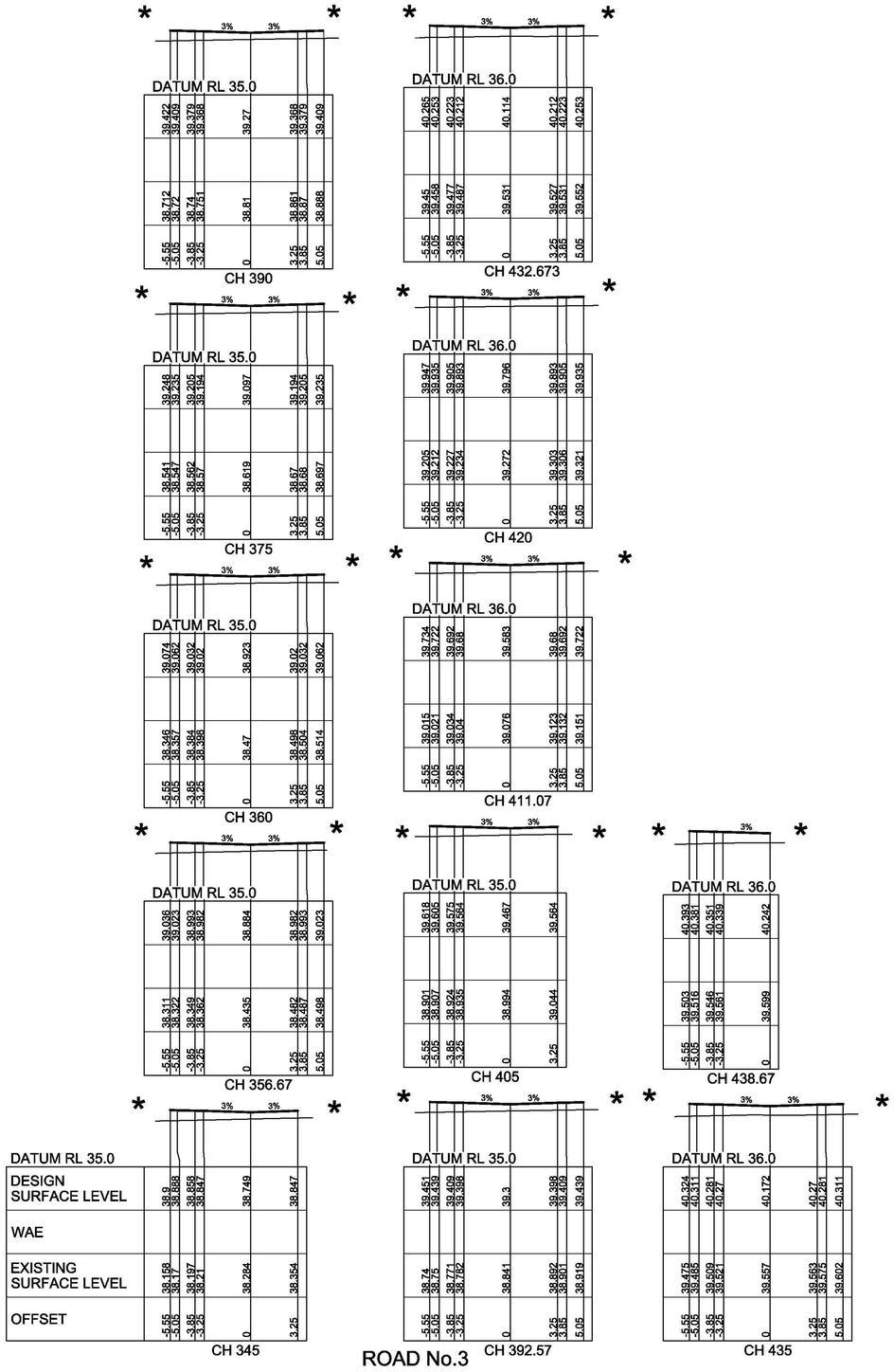
PLAN No: 11048702/CC113 A
FILE No: 11048702CC113
SHEET SIZE: A1 ORIGINAL

Plotted: 22 May , 2019 4:46:31 PM File Name: J:\110487 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\CC\STAGE 2\11048702CC113.dwg

Document Set ID: 8735604
Version: 1, Version Date: 17/06/2019

* NOTE
FOR LOT GRADING
REFER TO PLAN CC06

≠ DENOTES RESERVE



1:200 (AT A1)
1:400 (AT A3)
4 2 0 4 8 12 16 20
METRES

A	ISSUED FOR CONSTRUCTION CERTIFICATE	MMC	NM	DJH	MS	22/05/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

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AZIMUTH:
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ORIGIN:

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ISSUED FOR CONSTRUCTION APPROVAL

JORDAN SPRING
STAGE 2 - RETIREMENT VILLAS
CROSS SECTIONS
SHEET 2 OF 3

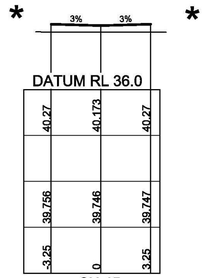
PLAN No: 11048702/CC114 A
FILE No: 11048702CC114
SHEET SIZE: A1 ORIGINAL

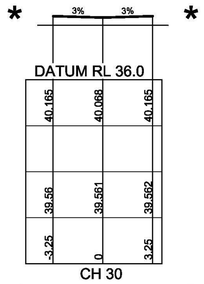
Plotted: 22 May , 2019 4:46:49 PM File Name: J:\110487 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\CC\STAGE 2\11048702CC114.dwg

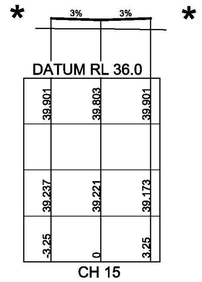
Document Set ID: 8735604
Version: 1, Version Date: 17/06/2019

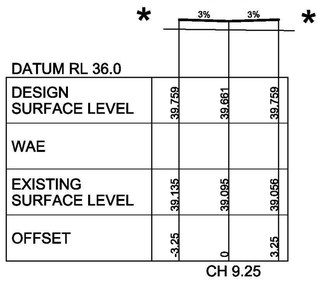
* NOTE
FOR LOT GRADING
REFER TO PLAN CC06

≠ DENOTES RESERVE

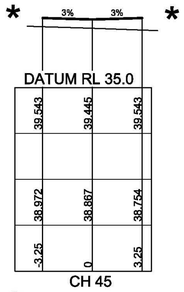


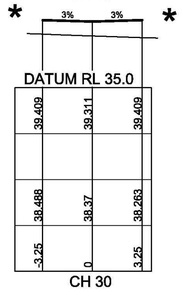


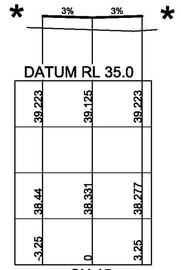


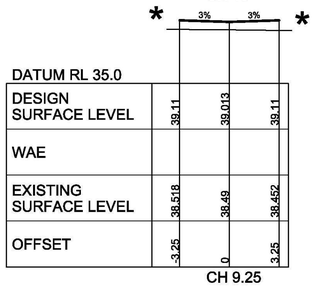


DRIVEWAY No.2.

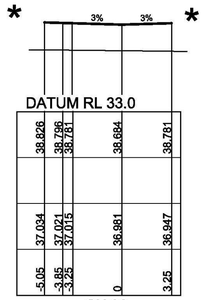


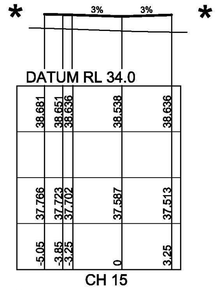


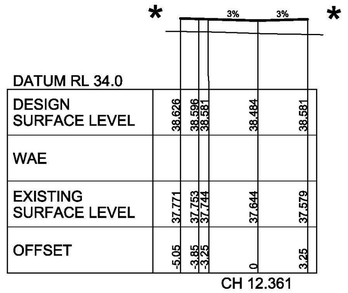




DRIVEWAY No.3.







DRIVEWAY No.4.

1:200 (AT A1)
1:400 (AT A3)

4 2 0 4 8 12 16 20
METRES

CLIENT: lendlease

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ISSUED FOR CONSTRUCTION APPROVAL

JORDAN SPRING
STAGE 2 - RETIREMENT VILLAS
CROSS SECTIONS
SHEET 3 OF 3

PLAN No: 11048702/CC115 A
FILE No: 11048702CC115
SHEET SIZE: A1 ORIGINAL

AZIMUTH:
DATUM:
ORIGIN:

J. WYNDHAM PRINCE CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS
PO Box 4366 PENRITH WESTFIELD NSW 2750
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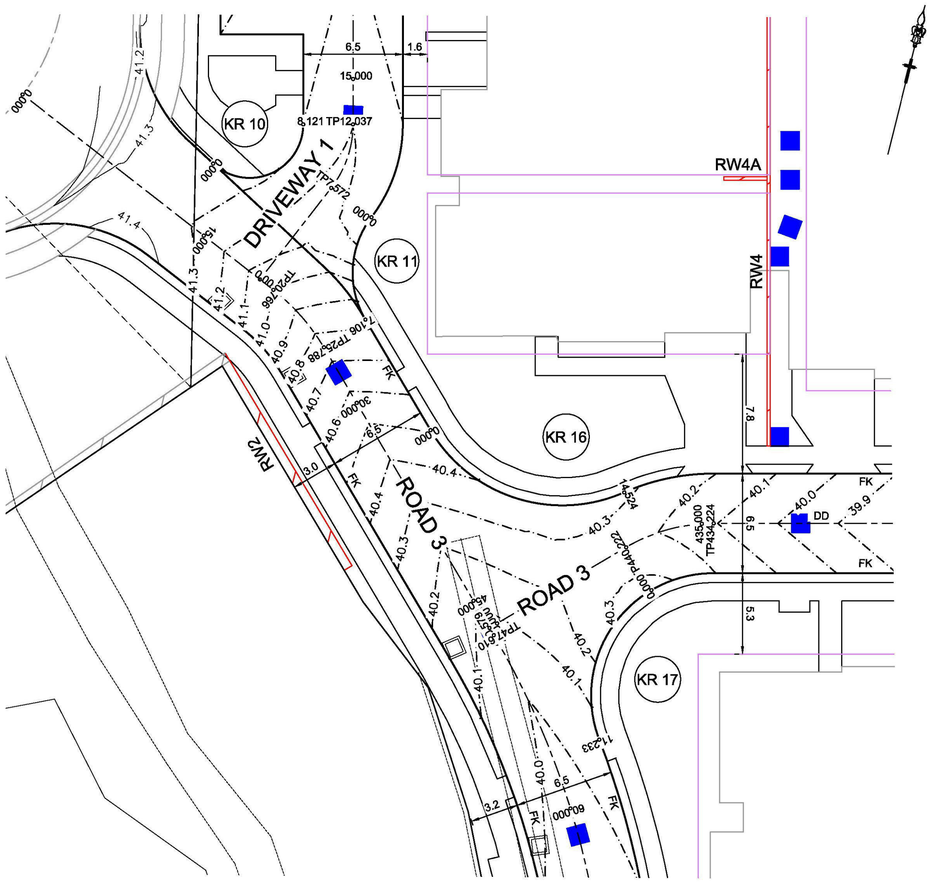
A	ISSUED FOR CONSTRUCTION CERTIFICATE	MMC	NM	DJH	MS	22/05/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

Plotted: 22 May , 2019 4:47:07 PM File Name: J:\110487 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\CC\STAGE 2\11048702CC115.dwg

Document Set ID: 8735604
Version: 1, Version Date: 17/06/2019

DESIGN LEVELS AND SETOUT ARE TO LIP OF GUTTER

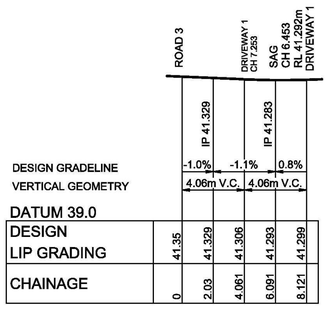


KR 10					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	289048.25	6265598.31	118°55'01.44"		
2.03	289050.26	6265597.2		-3.5	4.06
4.06	289052.08	6265598.59	52°26'38.36"		
6.09	289053.9	6265599.99		-3.5	4.06
8.12	289053.34	6265602.22	345°58'15.27"		

KR 11					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	289059.13	6265597.42	203°17'11.36"		
3.55	289057.54	6265593.71		-6	7.11
7.11	289060.37	6265590.83	135°25'28.70"		

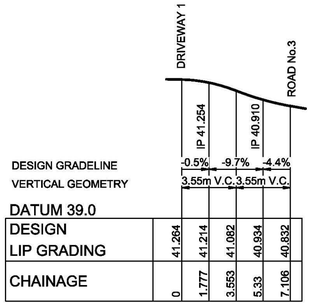
KR 16					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	289066.25	6265584.87	135°25'30.14"		
7.26	289072.48	6265578.54		-10	14.52
14.52	289079.5	6265583.99	52°12'27.79"		

KR 17					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	289082.77	6265578.23	225°25'30.00"		
5.62	289077.95	6265573.48		-8	11.23
11.23	289081.83	6265567.94	144°58'23.21"		



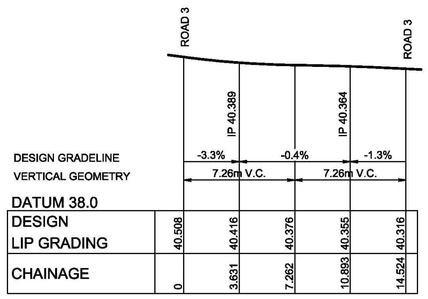
KR 10

HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50



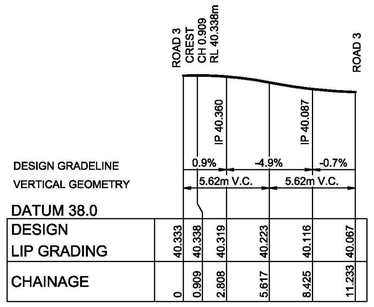
KR 11

HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50



KR 16

HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50



KR 17

HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50

1:50 (AT A1) — 100 0 100 200 300 400 500 — MILLIMETRES

1:200 (AT A1)
1:400 (AT A3) — 4 2 0 4 8 12 16 20 — METRES

A	ISSUED FOR CONSTRUCTION CERTIFICATE	MMC	NM	DJH	MS	22/05/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

J. WYNDHAM PRINCE CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS
PO Box 4366 PENRITH WESTFIELD NSW 2750
P 02 4720 3300 F 02 4720 3399 W www.jwprince.com.au E jwp@jwprince.com.au

AZIMUTH:
DATUM:
ORIGIN:

CLIENT: lendlease

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ISSUED FOR CONSTRUCTION APPROVAL

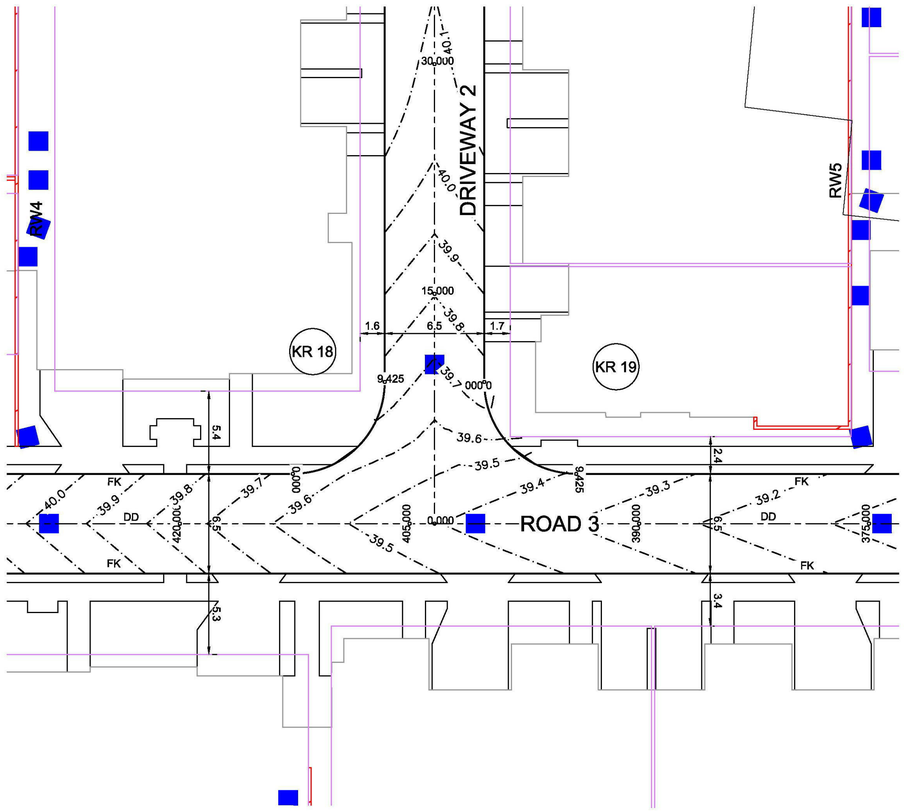
JORDAN SPRING
STAGE 2 - RETIREMENT VILLAS
KERB RETURNS
SHEET 1 OF 4

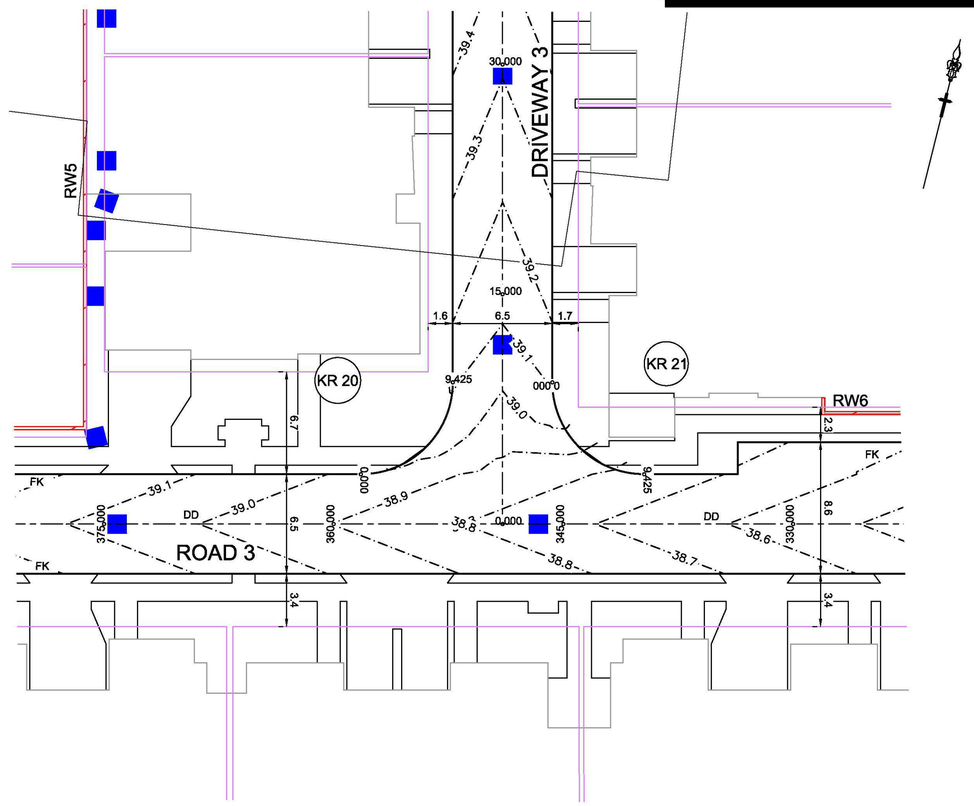
PLAN No: 11048702/CC116 A
FILE No: 11048702CC116
SHEET SIZE: A1 ORIGINAL

Plotted: 22 May , 2019 4:48:16 PM File Name: J:\110487 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\CC\STAGE 2\11048702CC116.dwg

Document Set ID: 8735604
Version: 1, Version Date: 17/06/2019

DESIGN LEVELS AND SETOUT ARE TO LIP OF GUTTER



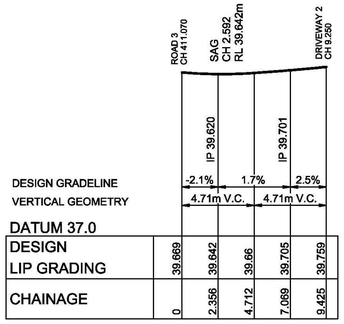


KR 18					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	289105.83	6265591.83	75°58'15.00"		
4.71	289111.65	6265593.29		-6	9.42
9.42	289110.19	6265599.11	345°58'15.00"		

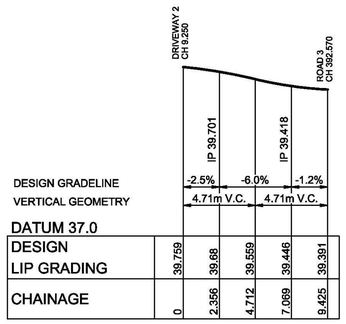
KR 19					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	289116.5	6265600.68	165°58'15.00"		
4.71	289117.95	6265594.86		-6	9.42
9.42	289123.77	6265596.32	75°58'15.00"		

KR 20					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	289158.6	6265605.02	75°58'15.00"		
4.71	289164.42	6265606.47		-6	9.42
9.42	289162.97	6265612.29	345°58'15.00"		

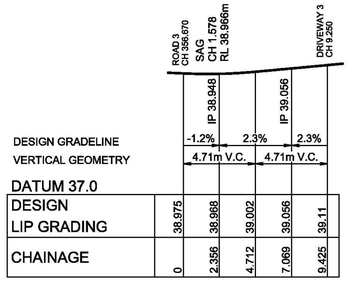
KR 21					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	289169.28	6265613.87	165°58'15.00"		
4.71	289170.73	6265608.05		-6	9.42
9.42	289176.55	6265609.5	75°58'15.00"		



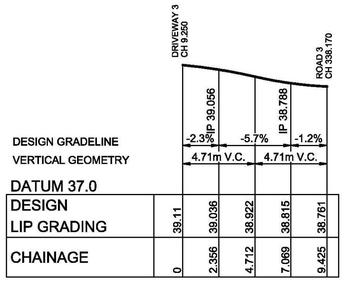
KR 18
HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50



KR 19
HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50



KR 20
HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50



KR 21
HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50

1:50 (AT A1) 100 0 100 200 300 400 500 MILLIMETRES

1:200 (AT A1)
1:400 (AT A3) 4 2 0 4 8 12 16 20 METRES

A	ISSUED FOR CONSTRUCTION CERTIFICATE	MMC	NM	DJH	MS	22/05/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

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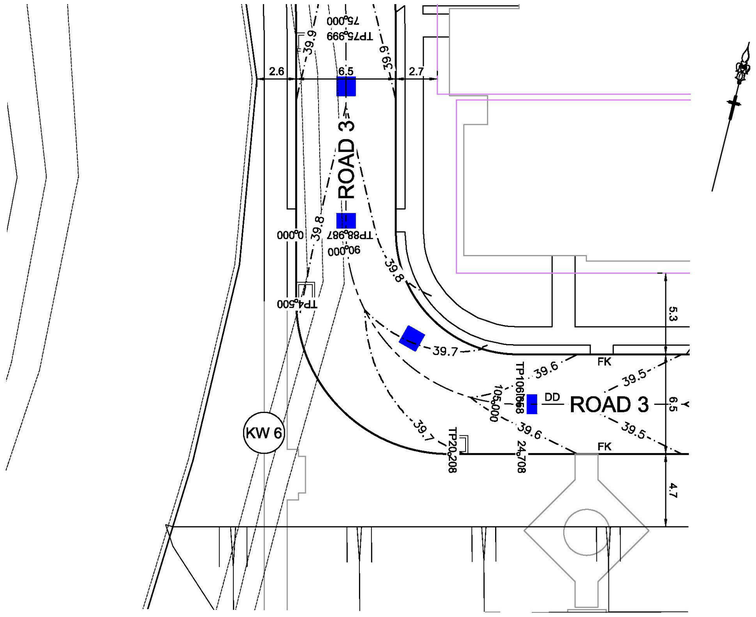
JORDAN SPRING
STAGE 2 - RETIREMENT VILLAS
KERB RETURNS
SHEET 2 OF 4

PLAN No: 11048702/CC117 A
FILE No: 11048702CC117
SHEET SIZE: A1 ORIGINAL

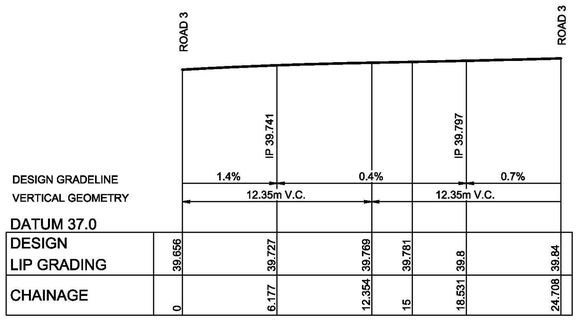
Plotted: 22 May , 2019 4:48:43 PM File Name: J:\110487 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\CC\STAGE 2\11048702CC117.dwg

Document Set ID: 8735604
Version: 1, Version Date: 17/06/2019

DESIGN LEVELS AND SETOUT ARE TO LIP OF GUTTER



KW6					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	289104.8	6265524.47	255°58'15.00"		
4.5	289100.44	6265523.38	255°58'15.00"		
12.35	289090.74	6265520.96		10	15.71
20.21	289088.31	6265530.66	345°58'15.00"		
24.71	289087.22	6265535.03	345°58'15.00"		



KW 6

HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50

1:50 (AT A1) 100 0 100 200 300 400 500 MILLIMETRES

1:200 (AT A1)
1:400 (AT A3) 4 2 0 4 8 12 16 20 METRES

A	ISSUED FOR CONSTRUCTION CERTIFICATE	MMC	NM	DJH	MS	22/05/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

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JORDAN SPRING
STAGE 2 - RETIREMENT VILLAS
KERB RETURNS
SHEET 3 OF 4

PLAN No: 11048702/CC118 A
FILE No: 11048702CC118
SHEET SIZE: A1 ORIGINAL

Plotted: 22 May , 2019 4:49:08 PM File Name: J:\110487 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\CC\STAGE 2\11048702CC118.dwg

Document Set ID: 8735604
Version: 1, Version Date: 17/06/2019

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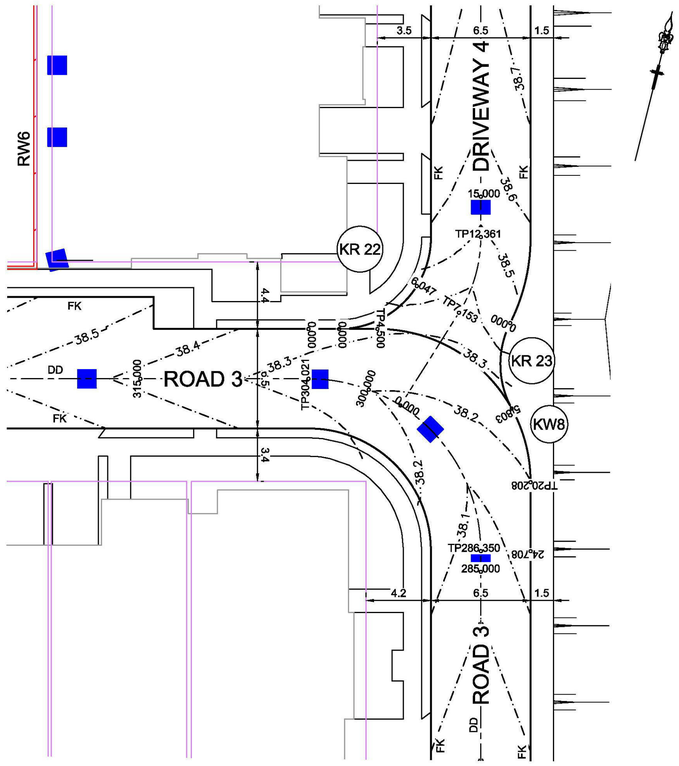
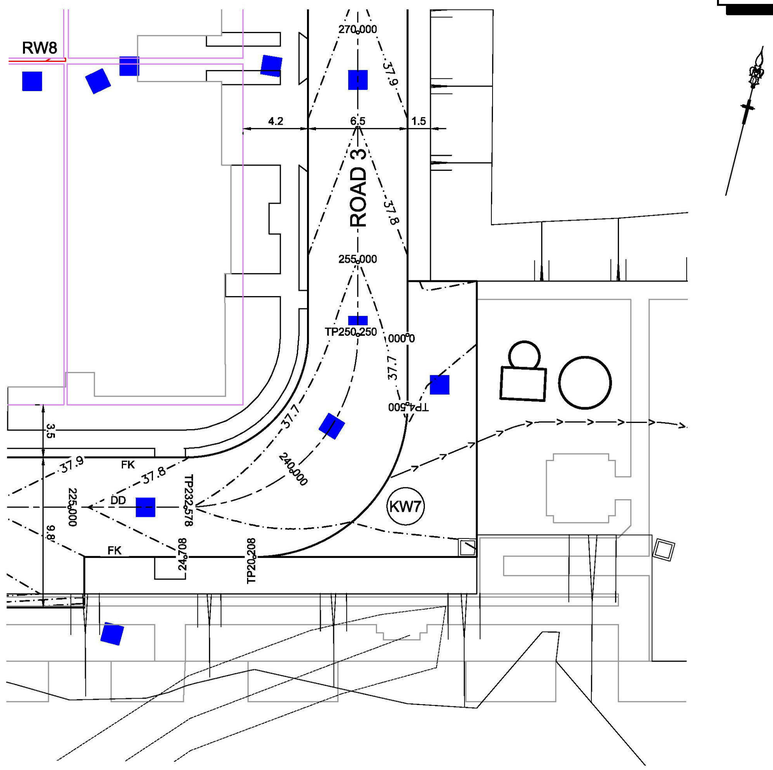


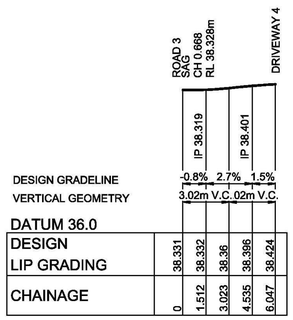


KR 22					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	289213.13	6265618.64	75°58'15.00"		
3.02	289216.34	6265619.44		-6	6.05
6.05	289217.37	6265622.59	18°13'41.44"		

KR 23					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	289223.87	6265621.72	192°39'18.42"		
2.9	289223.18	6265618.65		-6	5.8
5.8	289225.32	6265616.34	137°14'09.23"		

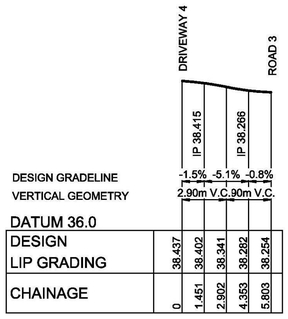
KW7					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	289237.52	6265572.58	165°58'15.00"		
4.5	289238.61	6265568.22	165°58'15.00"		
5.72	289238.91	6265567.02		10	2.45
6.95	289238.91	6265565.79	180°00'00.00"		
13.58	289238.91	6265557.98		10	13.26
20.21	289231.33	6265556.09	255°58'15.00"		
24.71	289226.97	6265555	255°58'15.00"		

KW8					
CHAINAGE	EASTING	NORTHING	BEARING	RAD/SPIRAL	A.LENGTH
0	289211.19	6265618.16	75°58'15.00"		
4.5	289215.55	6265619.25	75°58'15.00"		
12.35	289225.25	6265621.67		10	15.71
20.21	289227.68	6265611.97	165°58'15.00"		
24.71	289228.77	6265607.61	165°58'15.00"		



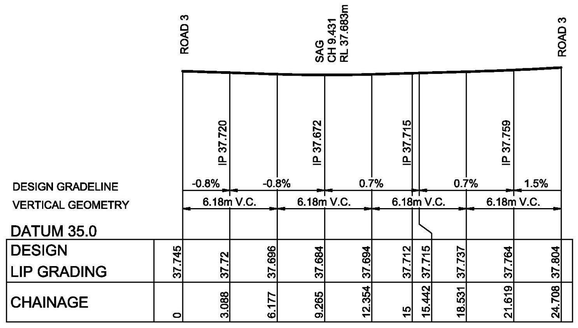
KR 22

HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50



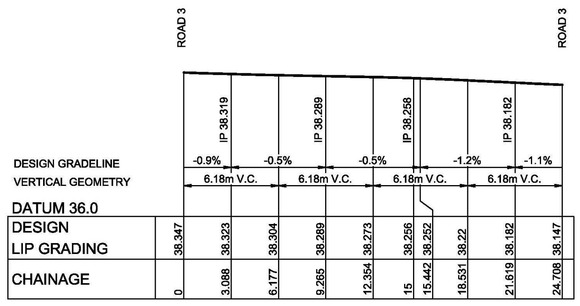
KR 23

HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50



KW 7

HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50



KW 8

HORIZONTAL SCALE 1:200
VERTICAL SCALE 1:50

1:50 (AT A1) 100 0 100 200 300 400 500 MILLIMETRES

1:200 (AT A1)
1:400 (AT A3) 4 2 0 4 8 12 16 20 METRES

A	ISSUED FOR CONSTRUCTION CERTIFICATE	MMC	NM	DJH	MS	22/05/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

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JORDAN SPRING
STAGE 2 - RETIREMENT VILLAS
KERB RETURNS
SHEET 4 OF 4

PLAN No: 11048702/CC119 A
FILE No: 11048702CC119
SHEET SIZE: A1 ORIGINAL

Plotted: 22 May , 2019 4:49:36 PM File Name: J:\110487 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\CC\STAGE 2\11048702CC119.dwg

Document Set ID: 8735604
Version: 1, Version Date: 17/06/2019

NOTES:
ALL GRATED PIT COVERS IN ROADS ARE TO BE BICYCLE SAFE.

ALL SAG PITS TO HAVE WELDLOCK GGSB 94 5D GRATES

ALL PITS DEEPER THAN 1m TO HAVE GALVANISED OR APPROVED STEP IRONS INSTALLED IN ACCORDANCE WITH COUNCILS CONSTRUCTION SPECIFICATION.

FOR ALL PITS <2m DEEP REFER TO PENRITH CITY COUNCIL STANDARD PIT DRAWINGS SD 2002.

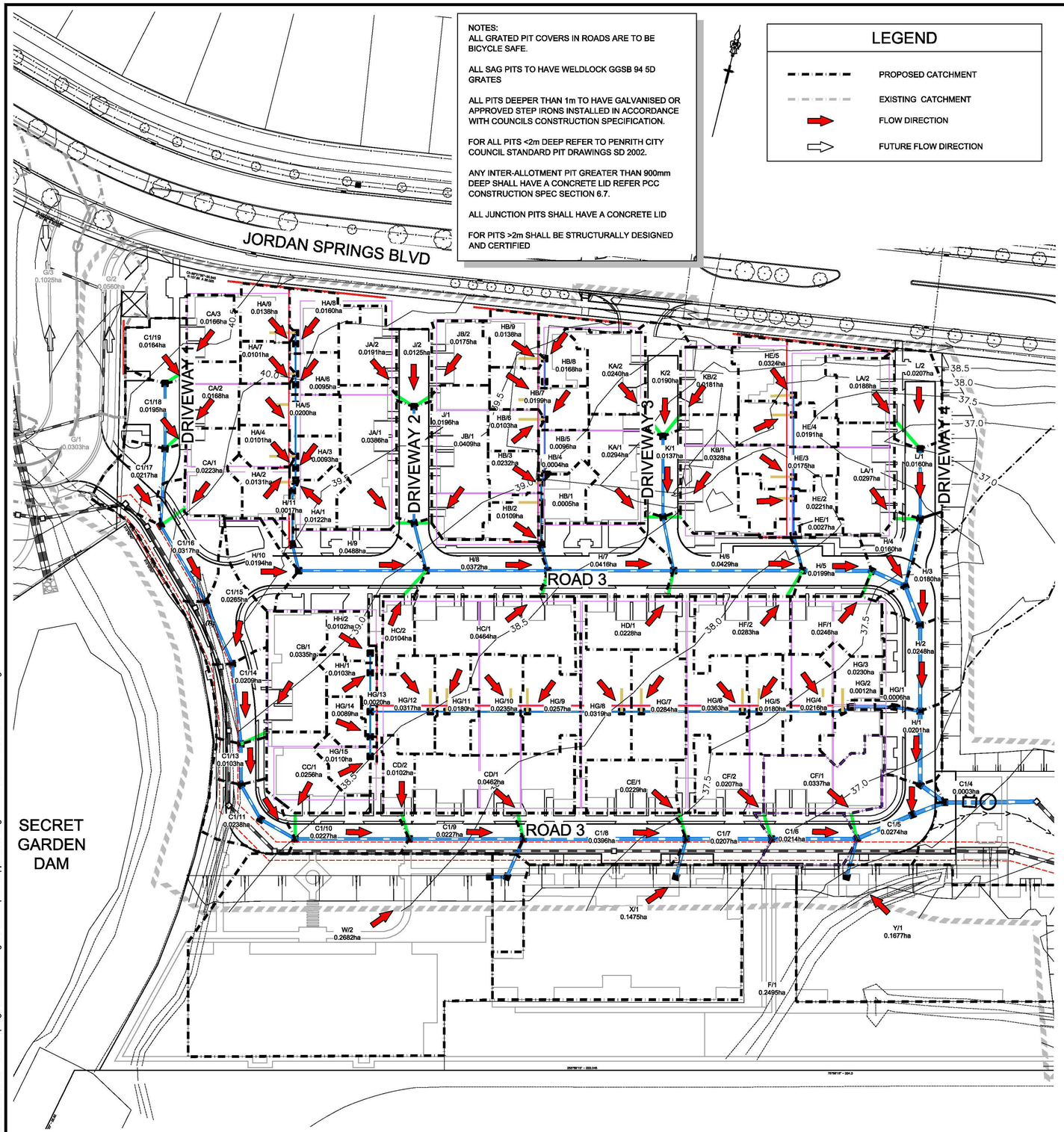
ANY INTER-ALLOTMENT PIT GREATER THAN 900mm DEEP SHALL HAVE A CONCRETE LID REFER PCC CONSTRUCTION SPEC SECTION 6.7.

ALL JUNCTION PITS SHALL HAVE A CONCRETE LID

FOR PITS >2m SHALL BE STRUCTURALLY DESIGNED AND CERTIFIED

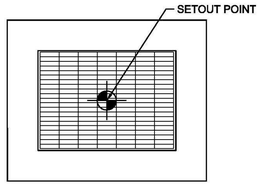
LEGEND

- PROPOSED CATCHMENT
- EXISTING CATCHMENT
- FLOW DIRECTION
- FUTURE FLOW DIRECTION

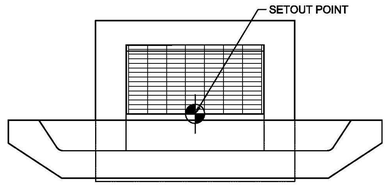


PIT SCHEDULE

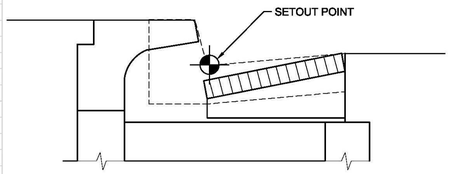
PIT NAME (-)	PIT TYPE (-)	PIT EASTING (m)	PIT NORTHING (m)	PIT DEPTH (m)	COMMENTS
C1/19	GISP 900x900 A	289052.9	6265617.4	1.01	
C1/18	GISP 900x900 A	289056.35	6265603.59	1.11	
C1/17	GISP 900x900 A	289059.51	6265587.08	1.28	
C1/16	GISP 900x900 A	289073.08	6265573.31	1.11	
C1/15	GISP 900x900 A	289082	6265561.57	1.17	
C1/14	GISP 900x900 A	289088.07	6265545.03	1.27	
C1/13	GISP 900x900 A	289090.23	6265536.4	1.35	
C1/12	JP SEALED 900 x 900	289096.23	6265530.1	1.45	
C1/11	GISP 900x900 A	289104.6	6265527.77	1.43	
C1/10	GISP 900x900 A	289128.78	6265533.82	1.34	
C1/9	GISP 900x900 A	289152.97	6265539.86	2.21	
C1/8	GISP 900x900 A	289187.47	6265548.48	2.07	
C1/7	GISP 900x900 A	289205.56	6265553	2.01	
C1/6	GISP 900x900 A	289223.64	6265557.52	1.98	
C1/5	GSIP 900x900 SAG	289234.16	6265565.6	2.04	
C1/4	JP GRATED 900 x 900	289240.34	6265569.94	2.23	
C1/3	GPT cds unit 1009	289245.43	6265571.21	2.25	
C1/2	GPT stormfilter dia3100/cart22	289249.41	6265572.2	2.94	
C1/1	JP SEALED 900 x 900	289259.79	6265574.95	2.95	EXISTING PIT
H/11	IAD 900x900	289088.45	6265589.95	1.65	
H/10	GISP 900x900 A	289091.17	6265584.82	1.62	
H/9	GISP 900x900 A	289118.17	6265591.57	1.34	
H/8	GISP 900x900 A	289143.94	6265598.01	1.34	
H/7	GISP 900x900 A	289170.63	6265604.67	1.32	
H/6	GISP 900x900 A	289197.95	6265611.5	1.31	
H/5	GISP 900x900 A	289212.64	6265615.15	1.34	
H/4	GISP 900x900 A	289220.49	6265613.74	1.37	
H/3	GISP 900x900 A	289225.76	6265606.23	1.41	
H/2	GISP 900x900 A	289230.33	6265587.94	1.56	
H/1	GISP 900x900 A	289234.22	6265572.38	1.59	
HA/9	IAD 600x600	289077.9	6265635.07	0.75	
HA/8	IAD 600x600	289078.48	6265632.74	0.81	
HA/7	IAD 600x600	289080.07	6265626.37	0.88	
HA/6	IAD 600x900	289080.65	6265624.04	0.93	
HA/5	IAD 600x900	289081.7	6265619.87	1.01	
HA/4	IAD 600x900	289084.44	6265608.88	1.15	
HA/3	IAD 900x900	289085.06	6265606.41	1.21	
HA/2	IAD 900x900	289085.81	6265603.42	1.29	
HA/1	IAD 900x900	289085.59	6265601.39	1.36	
HB/9	IAD 600x600	289132.05	6265642.76	0.75	
HB/8	IAD 600x600	289133.27	6265637.9	0.83	
HB/7	IAD 600x600	289134.22	6265634.07	0.9	
HB/6	IAD 600x900	289135.26	6265629.9	0.98	
HB/5	IAD 600x900	289137.52	6265620.86	1.01	
HB/4	IAD 600x900	289138.16	6265618.3	1.09	
HB/3	IAD 600x900	289137.95	6265616.26	1.16	
HB/2	IAD 900x900	289138.99	6265612.11	1.23	
HB/1	IAD 900x900	289141.23	6265603.14	1.38	
HE/5	IAD 600x600	289186.76	6265648.21	0.75	
HE/4	IAD 600x600	289187.8	6265644.04	0.83	
HE/3	IAD 600x900	289191.09	6265630.88	0.95	
HE/2	IAD 600x900	289192.23	6265626.32	1.03	
HE/1	IAD 900x900	289194.18	6265618.54	1.17	
HG/15	IAD 600x600	289116.15	6265549.23	0.75	
HG/14	IAD 600x900	289115.11	6265553.41	1.06	
HG/13	IAD 900x900	289113.78	6265558.73	1.49	
HG/12	IAD 600x600	289126.52	6265561.92	0.89	
HG/11	IAD 600x900	289130.03	6265562.8	0.96	
HG/10	IAD 600x900	289143.58	6265566.18	1	
HG/9	IAD 600x600	289147.08	6265567.06	0.91	
HG/8	IAD 600x900	289167.07	6265572.05	0.94	
HG/7	IAD 600x900	289171.25	6265573.09	1.11	
HG/6	IAD 600x900	289192.67	6265578.45	1.14	
HG/5	IAD 600x900	289196.18	6265579.32	1.21	
HG/4	IAD 900x900	289209.72	6265582.71	1.38	
HG/3	IAD 900x900	289213.89	6265583.75	1.45	
HG/2	IAD 900x900	289215.64	6265585.21	1.51	
HG/1	IAD 900x900	289224.63	6265587.45	1.61	
HH/2	IAD 600x600	289110.68	6265571.12	0.74	
HH/1	IAD 600x600	289111.73	6265566.95	0.84	
J/2	GISP 900x900 A	289106.91	6265625.65	1.02	
J/1	GISP 900x900 A	289113.07	6265601.01	1.07	
K/2	GISP 900x900 A	289161.25	6265632.57	1.02	
K/1	GISP 900x900 A	289165.53	6265615.46	1.07	
L/2	GISP 900x900 A	289216.44	6265643.53	1.02	
L/1	GISP 900x900 A	289220.14	6265628.73	1.07	
W/2	IAD 900x900	289147.84	6265530.07	1.74	
W/1	JP SEALED 900 x 900	289151.49	6265530.97	1.83	
X/1	IAD 900x900	289187.33	6265539.93	2.17	
Y/1	IAD 900x900	289223.53	6265548.98	3.15	



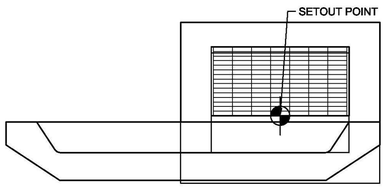
GRATED SURFACE INLET PIT (GSIP)
SCALE 1:20



SETOUT DETAIL KERB INLET PIT (SAG)
SCALE 1:20



SETOUT DETAIL KERB INLET PIT (LINTEL)
SCALE 1:10



SETOUT DETAIL KERB INLET PIT (LINTEL)
SCALE 1:20

1:20 (AT A1) 400 200 0 400 800 1200 1600 2000 MILLIMETRES

1:500 (AT A1)
1:1000 (AT A3) 10 0 10 20 30 40 50 METRES

A	ISSUED FOR CONSTRUCTION CERTIFICATE	MMC	NM	DJH	MS	22/05/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

J. WYNDHAM PRINCE CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS
PO Box 4366 PENRITH WESTFIELD NSW 2750
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AZIMUTH:
DATUM:
ORIGIN:

CLIENT: lendlease

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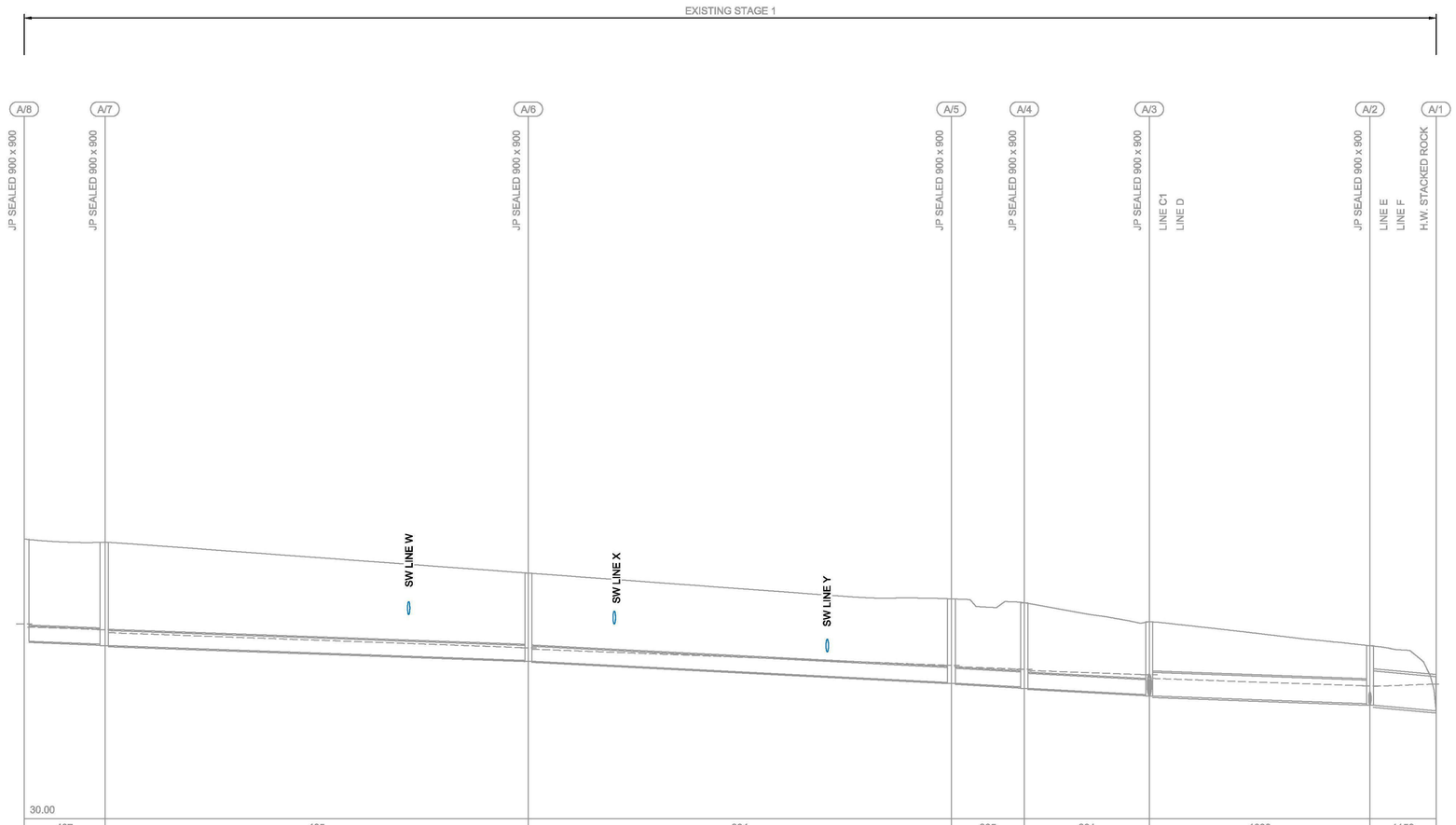
ISSUED FOR CONSTRUCTION APPROVAL

JORDAN SPRING
STAGE 2 - RETIREMENT VILLAS
CATCHMENT PLAN

PLAN No: 11048702/CC120 A
FILE No: 11048702CC120
SHEET SIZE: A1 ORIGINAL

Plotted: 22 May , 2019 4:49:55 PM File Name: J:\110487 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\CC\STAGE 2\11048702CC120.dwg

Document Set ID: 8735604
Version: 1, Version Date: 17/06/2019



DATUM (m)	30.00																						
PEAK FLOW (L/s)	407		405							394							385	384		1030		1158	
PIPE SIZE (mm)	525		525							525							525	525		825		1200	
PIPE CLASS	RRJ4		RRJ4							RRJ4							RRJ2	RRJ2		RRJ2		RRJ2	
PIPE GRADE (%)	0.7		0.7							1.0							1.0	1.0		0.7		1.7	
PIPE COVER MINIMUM	2.96		2.50							2.26							2.16	1.92		1.16			
FULL PIPE VELOCITY (m/s)	1.88		1.87							1.82							1.78	1.77		1.93		1.02	
HGL GRADE (%)	0.65		0.71							0.76							0.68	0.68		0.67		-0.67	
WAE																							
HYDRAULIC GRADE LINE	36.82	36.72		36.62	36.52				35.99	35.94						35.38	35.33	35.24	35.19		35.05	34.91		34.66	34.64		34.72
INVERT LEVEL	36.27	36.22		36.12	36.07				35.55	35.52						34.78	34.75	34.62	34.57		34.35	34.30		34.03	33.98	33.78	33.78
DESIGN SURFACE LEVEL	39.80		39.69							38.60						37.70		37.56			36.91			36.06			34.98
ROAD CHAINAGE	92.07		103.58							176.93																	
PIPE CHAINAGE	350.01		364.15							438.31						512.39		525.19			547.08			585.72			597.30

LINE A (EXISTING LINE)

1:500 (AT A1)
1:1000 (AT A3)
10 0 10 20 30 40 50
METRES

1:100 (AT A1)
1:200 (AT A3)
2 1 0 1 2 3 4 5 6 7 8 9 10
METRES

A	ISSUED FOR CONSTRUCTION CERTIFICATE	MMC	NM	DJH	MS	22/05/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

J. WYNDHAM PRINCE CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS
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AZIMUTH:
DATUM:
ORIGIN:

CLIENT: lendlease

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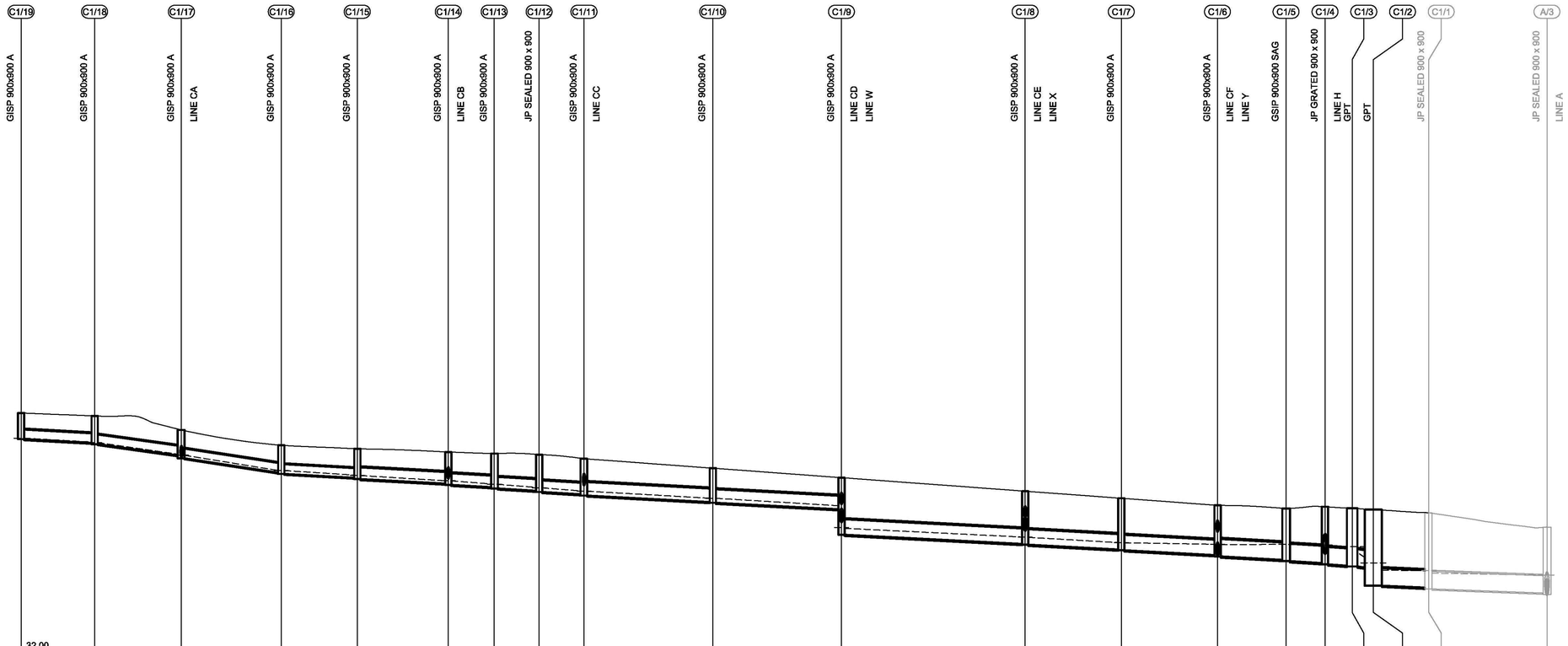
ISSUED FOR CONSTRUCTION APPROVAL

JORDAN SPRING
STAGE 2 - RETIREMENT VILLAS
DRAINAGE LONGITUDINAL SECTION
SHEET 1 OF 5

PLAN No: 11048702/CC121 A
FILE No: 11048702CC121
SHEET SIZE: A1 ORIGINAL

Plotted: 22 May , 2019 4:50:12 PM File Name: J:\11048702 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\CC\STAGE 2\11048702CC121.dwg

Document Set ID: 8735604
Version: 1, Version Date: 17/06/2019



DATUM (m)	32.00																					
PEAK FLOW (L/s)	3	8	26	33	39	53	56	56	67	71	152	198	203	260	271	592	591	590	588			
PIPE SIZE (mm)	375	375	375	375	450	450	450	450	525	525	600	600	600	675	675	675	675	675	675			
PIPE CLASS	RRJ4	RRJ4	RRJ4	RRJ4	RRJ4	RRJ4	RRJ4	RRJ4	RRJ4	RRJ4	RRJ4	RRJ4	RRJ4	RRJ4	RRJ4	RRJ4	RRJ2	RRJ2	RRJ2			
PIPE GRADE (%)	1.0	2.6	2.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.7	0.7			
PIPE COVER MINIMUM	0.60	0.61	0.60	0.69	0.68	0.78	0.86	0.90	0.75	0.67	1.41	1.35	1.29	1.25	1.32	1.50	1.52	2.18	1.78			
FULL PIPE VELOCITY (m/s)	0.03	0.07	0.24	0.30	0.25	0.33	0.35	0.35	0.31	0.33	0.54	0.70	0.72	0.73	0.76	1.65	1.65	1.65	1.64			
HGL GRADE (%)	1.05	2.68	3.04	1.17	1.14	1.36	1.38	1.38	1.09	1.15	0.95	1.09	0.3	-0.07	0.06	0.42	3.28	0.23	0.32			
WAE																						
HYDRAULIC GRADE LINE	40.35	40.20	40.17	39.72	39.68	39.10	39.09	38.92	38.90	38.69	38.67	38.56	38.44	38.42	38.30	38.29	38.02	37.73	36.86	36.52	36.51	36.30
	36.30	36.24	36.23	36.23	36.22	36.22	36.17	36.14	35.87	35.73	35.24	35.21	35.12	35.05	34.91							
INVERT LEVEL	40.31	40.16	40.11	39.68	39.57	39.01	38.98	38.81	38.76	38.59	38.54	38.45	38.40	38.31	38.26	38.17	38.12	37.87	37.84	37.59	36.61	36.25
	36.22	36.03	36.00	35.82	35.77	35.64	35.59	35.51	35.46	35.41	35.38	35.34	34.84	34.56	34.51	34.35	34.30					
DESIGN SURFACE LEVEL	41.32	41.21	40.66	40.07	39.93	39.81	39.75	39.71	39.55	39.18	38.82	38.29	38.02	37.74	37.62	37.69	37.63	37.58	37.46	36.91		
ROAD CHAINAGE	26.88	12.64	27.68	47.01	61.80	79.49	88.39	97.83	107.26	132.19	157.12	192.68	211.32	229.96	243.97	248.07	257.79	261.89	272.63	295.51		
PIPE CHAINAGE	0.00	14.24	31.05	50.38	65.13	82.75	91.64	100.34	109.03	133.96	158.89	194.45	213.09	231.73	244.99	252.55	257.79	261.89	272.63	295.51		

LINE C1

1:500 (AT A1)
1:1000 (AT A3)
10 0 10 20 30 40 50
METRES

1:100 (AT A1)
1:200 (AT A3)
2 1 0 1 2 3 4 5 6 7 8 9 10
METRES

A	ISSUED FOR CONSTRUCTION CERTIFICATE	MMC	NM	DJH	MS	22/05/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

J. WYNDHAM PRINCE CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS
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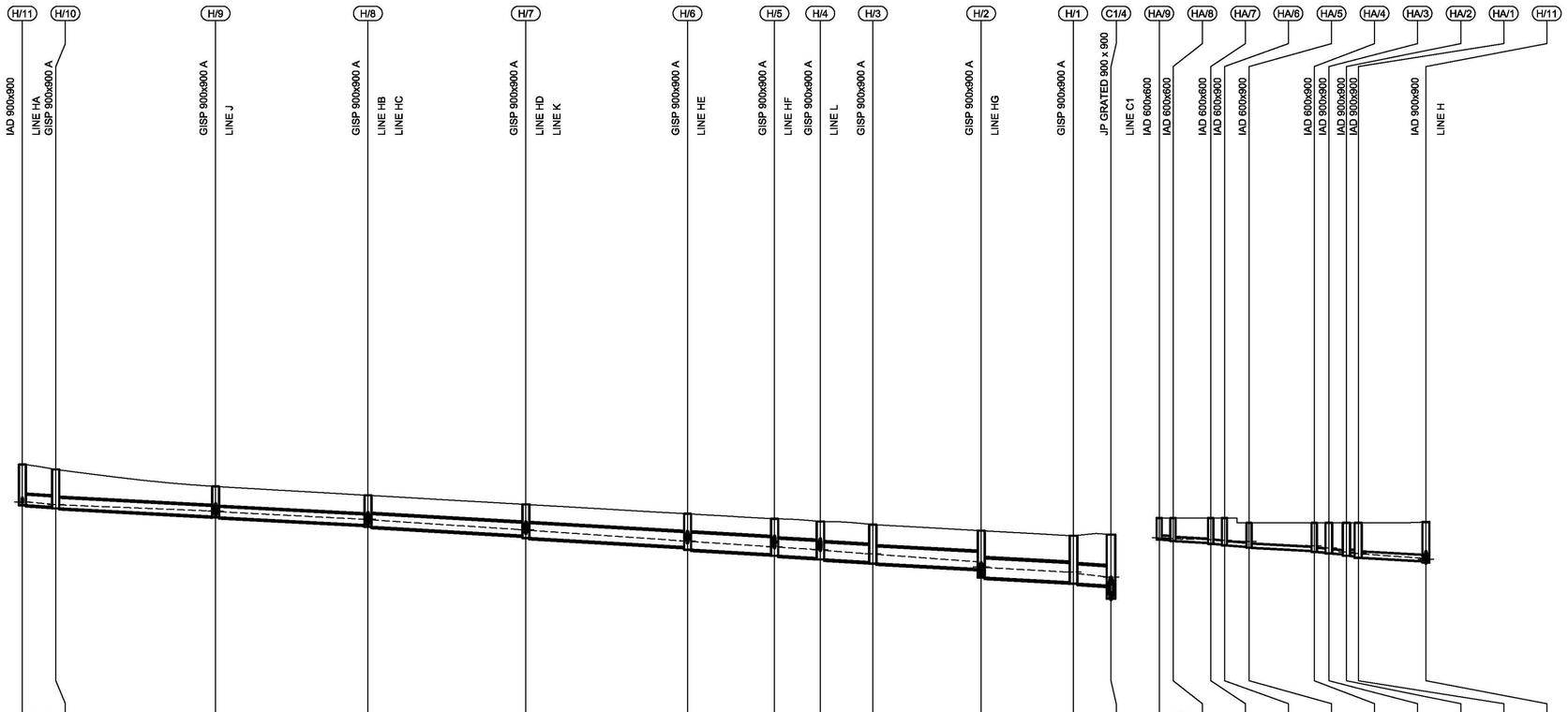
JORDAN SPRING
STAGE 2 - RETIREMENT VILLAS
DRAINAGE LONGITUDINAL SECTION
SHEET 2 OF 5

PLAN No: 11048702/CC122 A
FILE No: 11048702CC122
SHEET SIZE: A1 ORIGINAL

Plotted: 22 May , 2019 4:50:30 PM File Name: J:\110487 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\CC\STAGE 2\11048702CC122.dwg

Document Set ID: 8735604
Version: 1, Version Date: 17/06/2019



DATUM (m)	31.00																						33.00		
PEAK FLOW (L/s)	28		32		75		121		168		198		217	242	246		321	324	3	7	10	12	17	20	22	25	28
PIPE SIZE (mm)	375		375		375		450		525		600		600	600	600		675	675	150	150	150	150	150	150	150	225	225
PIPE CLASS	RRJ4		RRJ4		RRJ4		RRJ4		RRJ4		RRJ4		RRJ4	RRJ4	RRJ4		RRJ4	RRJ4	uPVC	uPVC	uPVC	uPVC	uPVC	uPVC	uPVC	uPVC	uPVC
PIPE GRADE (%)	1.0		1.0		1.0		1.1		1.1		1.1		1.0	1.0	1.0		1.0	1.0	1.0	1.0	1.0	1.2	1.0	1.0	1.0	1.0	1.0
PIPE COVER MINIMUM	0.92		0.65		0.63		0.60		0.60		0.60		0.64	0.68	0.70		0.90	0.96	0.60	0.66	0.75	0.66	0.72	0.86	0.92	0.92	0.99
FULL PIPE VELOCITY (m/s)	0.25		0.29		0.68		0.76		0.77		0.70		0.77	0.86	0.87		0.90	0.91	0.20	0.42	0.56	0.70	0.97	1.11	1.23	0.63	0.70
HGL GRADE (%)	1.41		0.78		0.99		1.25		1.33		1.2		1.08	1.35	1.37		1.03	1.85	0.29	0.29	0.15	0.38	0.75	0.97	1.29	2.1	1.26
WAE																											
HYDRAULIC GRADE LINE	38.83	38.75	38.73	38.52	38.49	38.23	38.21	37.86	37.84	37.47	37.45	37.27	37.26	37.17	37.14	37.02	37.01	36.75	36.55	36.38	36.34	36.22	36.17	39.57	39.57	39.54	39.52	39.50	39.50	39.47	39.46	39.39	39.30	39.25	39.23	39.17	39.14	39.08	39.04	39.02	38.87	38.83
INVERT LEVEL	38.71	38.65	38.60	38.32	38.29	38.02	37.98	37.66	37.57	37.26	37.17	37.01	36.95	36.88	36.83	36.73	36.68	36.49	36.19	36.03	35.98	35.91	35.46	39.52	39.49	39.46	39.40	39.37	39.34	39.31	39.26	39.23	39.12	39.09	39.06	39.03	39.00	38.95	38.93	38.88	38.76	38.71
DESIGN SURFACE LEVEL	40.13		39.96		39.37		39.06		38.74		38.42		38.24	38.15	38.04		37.83		37.65		37.69		40.27		40.27		40.27		40.27		40.10		40.10		40.10		40.10		40.10		40.13
ROAD CHAINAGE	429.93		428.54		400.71		374.14		346.63		318.48		303.34	295.19	285.75		266.89		250.85		248.07																				429.93
PIPE CHAINAGE	0.00		5.81		33.65		60.21		87.72		115.87		131.01	138.99	148.16		167.01		183.06		189.65		0.00		2.40		8.96		11.36		15.66		26.99		29.54		32.62		34.67		46.45

LINE H

LINE H

LINE HA

1:500 (AT A1)
1:1000 (AT A3)

10 0 10 20 30 40 50

METRES

1:100 (AT A1)
1:200 (AT A3)

2 1 0 1 2 3 4 5 6 7 8 9 10

METRES

A	ISSUED FOR CONSTRUCTION CERTIFICATE	MMC	NM	DJH	MS	22/05/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

J. WYNDHAM PRINCE
CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS
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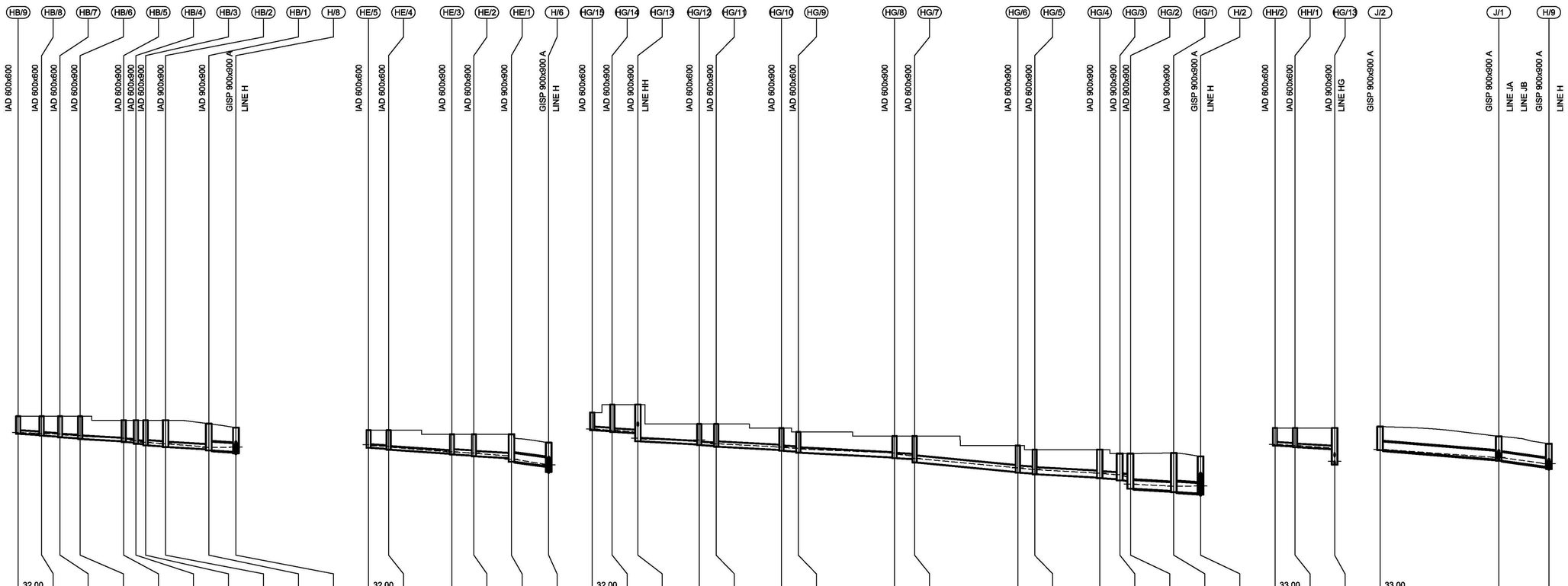
JORDAN SPRING
STAGE 2 - RETIREMENT VILLAS
DRAINAGE LONGITUDINAL SECTION
SHEET 3 OF 5

PLAN No: 11048702/CC123 A
FILE No: 11048702CC123
SHEET SIZE: A1 ORIGINAL

Plotted: 22 May , 2019 4:50:47 PM File Name: J:\110487 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\CC\STAGE 2\11048702CC123.dwg

Document Set ID: 8735604
Version: 1, Version Date: 17/06/2019



	LINE HB									
DATUM (m)	32.00									
PEAK FLOW (L/s)	3	8	13	15	17	17	23	26	26	
PIPE SIZE (mm)	150	150	150	150	150	150	225	225	375	
PIPE CLASS	uPVC	uPVC	uPVC	uPVC	uPVC	uPVC	uPVC	uPVC	RRJ4	
PIPE GRADE (%)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	
PIPE COVER MINIMUM	0.60	0.68	0.75	0.68	0.78	0.85	0.85	0.89	0.65	
FULL PIPE VELOCITY (m/s)	0.20	0.43	0.71	0.85	0.98	0.99	0.58	0.65	0.23	
HGL GRADE (%)	0.57	0.02	0.65	0.81	1.55	1.7	1.19	1.32	-0.24	
WAE										
HYDRAULIC GRADE LINE	38.85	38.82	38.80	38.80	38.75	38.72	38.69	38.61	38.57	38.53
INVERT LEVEL	38.80	38.75	38.72	38.68	38.65	38.60	38.57	38.48	38.45	38.42
DESIGN SURFACE LEVEL	39.55		39.55		39.55		39.55		39.38	
ROAD CHAINAGE										
PIPE CHAINAGE	0.00	5.02	8.96	13.26	22.58	25.22	27.26	31.54	40.79	46.60

	LINE HE									
DATUM (m)	32.00									
PEAK FLOW (L/s)	8	13	17	23	23					
PIPE SIZE (mm)	150	150	225	225	375					
PIPE CLASS	uPVC	uPVC	uPVC	uPVC	RRJ4					
PIPE GRADE (%)	1.0	1.3	1.0	1.0	2.3					
PIPE COVER MINIMUM	0.60	0.60	0.64	0.72	0.60					
FULL PIPE VELOCITY (m/s)	0.46	0.73	0.43	0.57	0.21					
HGL GRADE (%)	0.32	1.45	0.87	1.36	2.75					
WAE										
HYDRAULIC GRADE LINE	38.28	38.27	38.22		38.02	37.98	37.96	37.85	37.71	37.49
INVERT LEVEL	38.20	38.15	38.12	37.94	37.91	37.87	37.84	37.75	37.60	37.42
DESIGN SURFACE LEVEL	38.95	38.95		38.78		38.78		38.78		38.42
ROAD CHAINAGE									320.43	318.48
PIPE CHAINAGE	0.00	4.30		17.86		22.56			30.58	38.57

	LINE HG																					
DATUM (m)	32.00																					
PEAK FLOW (L/s)	3	5	10	18	23	28	34	42	48	57	61	66	71	71	71							
PIPE SIZE (mm)	150	150	150	150	225	225	225	225	300	300	300	300	300	375	450							
PIPE CLASS	uPVC	uPVC	uPVC	uPVC	uPVC	uPVC	uPVC	uPVC	uPVC	uPVC	uPVC	uPVC	uPVC	RRJ2	RRJ4							
PIPE GRADE (%)	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.8	1.0	1.0	1.0	1.0	1.0	1.0							
PIPE COVER MINIMUM	0.60	1.02	0.60	0.75	0.64	0.60	0.60	0.72	0.60	0.70	0.75	0.77	0.85	1.10	1.12							
FULL PIPE VELOCITY (m/s)	0.16	0.28	0.59	1.03	0.57	0.71	0.86	1.05	0.69	0.80	0.86	0.93	1.01	0.65	0.45							
HGL GRADE (%)	1.15	1.24	0.28	1.36	0.96	0.68	0.79	1.71	1.78	1.08	0.99	1.09	3.07	0.84	-0.11							
WAE																						
HYDRAULIC GRADE LINE	39.00	38.95	38.95	38.88	38.57	38.53	38.44	38.39	38.37	38.24	38.21	38.18	38.15		37.98	37.92	37.85	37.74		37.35	37.32	37.28
INVERT LEVEL	38.95	38.91	38.88	38.83	38.48	38.34	38.31	38.28	38.25	38.11	38.07	38.03	37.99		37.78	37.75	37.71	37.57		37.16	37.13	37.09
DESIGN SURFACE LEVEL	39.71		40.05		40.05		39.22		39.22		39.05		38.87		38.70			38.70			38.29	
ROAD CHAINAGE																						
PIPE CHAINAGE	0.00	4.30		9.79		22.93		26.54		40.50			44.12		64.73			69.03			91.11	

	LINE HG																					
DATUM (m)																						
PEAK FLOW (L/s)																						
PIPE SIZE (mm)																						
PIPE CLASS																						
PIPE GRADE (%)																						
PIPE COVER MINIMUM																						
FULL PIPE VELOCITY (m/s)																						
HGL GRADE (%)																						
WAE																						
HYDRAULIC GRADE LINE	37.12	37.09	37.05	37.01	36.94	36.64		36.56	36.56	36.55												
INVERT LEVEL	36.92	36.89	36.85	36.80	36.78	36.44	36.35	36.30	36.24	36.19												
DESIGN SURFACE LEVEL	38.12		38.12		37.95		37.95		37.98		37.83											
ROAD CHAINAGE									267.80		266.89											
PIPE CHAINAGE	94.72		108.68		112.98		115.26		124.53		130.25											

	LINE HH																					
DATUM (m)	33.00																					
PEAK FLOW (L/s)	3	5																				
PIPE SIZE (mm)	150	150																				
PIPE CLASS	uPVC	uPVC																				
PIPE GRADE (%)	1.0	1.0																				
PIPE COVER MINIMUM	0.60	0.67																				
FULL PIPE VELOCITY (m/s)	0.14	0.29																				
HGL GRADE (%)	1.01	1.16																				
WAE																						
HYDRAULIC GRADE LINE	39.34	39.30	39.29	39.19	38.57																	
INVERT LEVEL	39.30	39.26	39.23	39.14	38.48																	
DESIGN SURFACE LEVEL	40.05		40.05		40.05																	
ROAD CHAINAGE																						
PIPE CHAINAGE	0.00		4.30		12.77																	

	LINE J																					
DATUM (m)	33.00																					
PEAK FLOW (L/s)	3																					
PIPE SIZE (mm)	375																					
PIPE CLASS	RRJ4																					
PIPE GRADE (%)	1.6																					
PIPE COVER MINIMUM	0.60																					
FULL PIPE VELOCITY (m/s)	0.02																					
HGL GRADE (%)	1.34																					
WAE																						
HYDRAULIC GRADE LINE	39.13							38.79	38.78	38.52	38.49											
INVERT LEVEL	39.09							38.69	38.64	38.38	38.29											
DESIGN SURFACE LEVEL	40.11							39.69			39.37											
ROAD CHAINAGE											400.71											
PIPE CHAINAGE	0.00							25.40			36.13											

1:500 (AT A1)
1:1000 (AT A3)
10 0 10 20 30 40 50
METRES

1:100 (AT A1)
1:200 (AT A3)
2 1 0 1 2 3 4 5 6 7 8 9 10
METRES

A	ISSUED FOR CONSTRUCTION CERTIFICATE	MMC	NM	DJH	MS	22/05/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

J. WYNDHAM PRINCE CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS
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AZIMUTH:
DATUM:
ORIGIN:

CLIENT: lendlease

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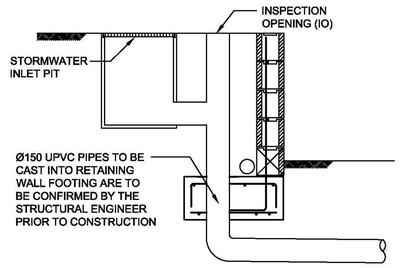
ISSUED FOR CONSTRUCTION APPROVAL

JORDAN SPRING
STAGE 2 - RETIREMENT VILLAS
DRAINAGE LONGITUDINAL SECTION
SHEET 4 OF 5

PLAN No: 11048702/CC124 A
FILE No: 11048702CC124
SHEET SIZE: A1 ORIGINAL

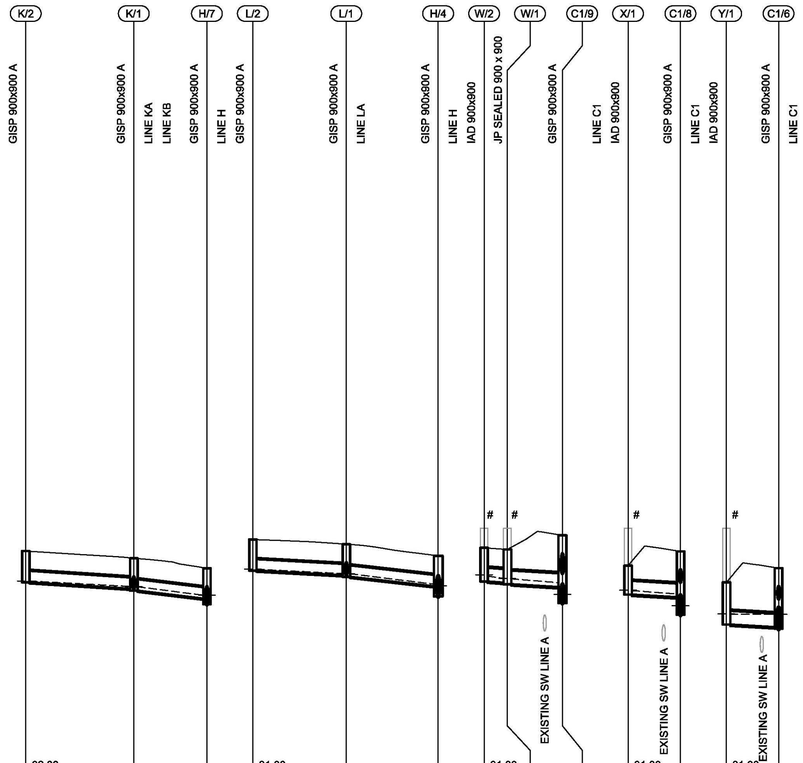
Plotted: 22 May , 2019 4:51:05 PM File Name: J:\11048702 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\CC\STAGE 2\11048702CC124.dwg

Document Set ID: 8735604
Version: 1, Version Date: 17/06/2019



TYPICAL DROP UNDER RETAINING WALL DETAIL

SUBJECT TO COUNCIL APPROVAL
NTS



FINAL PIT LEVEL IN FUTURE DA. PITS TO BE BUILT TO PROPOSED DESIGN LEVEL. THEN TEMPORARY STEEL LID BOLTED DOWN TO SEAL PIT UNTIL THE FINAL PIT LEVEL IS CONSTRUCTED IN FUTURE DA.

	LINE K					LINE L				LINE W				LINE X				LINE Y		
DATUM (m)	32.00					31.00				31.00				31.00				31.00		
PEAK FLOW (L/s)	4		33			4		20		67		67		37				42		
PIPE SIZE (mm)	375		375			375		375		450		450		450				450		
PIPE CLASS	RRJ4		RRJ4			RRJ4		RRJ4		RRJ4		RRJ4		RRJ4				RRJ4		
PIPE GRADE (%)	1.2		2.2			1.0		2.1		1.0		1.0		1.0				1.0		
PIPE COVER MINIMUM	0.60		0.60			0.60		0.60		0.60		0.71		0.60				1.03		
FULL PIPE VELOCITY (m/s)	0.03		0.30			0.04		0.18		0.42		0.42		0.23				0.27		
HGL GRADE (%)	1.02		2.32			0.94		2.29		2.01		1.41		1.3				-0		
WAE																				
HYDRAULIC GRADE LINE	38.33	38.15	38.14	37.86	37.84	37.71		37.56	37.22	37.14	37.49	37.41	37.40	37.27	36.86	37.01	36.90	36.51	36.24	36.24	36.23
INVERT LEVEL	38.28	38.07	38.01	37.75	37.57	37.67	37.51	37.46	37.15	36.83	37.31	37.27	37.22	37.13	36.61	36.88	36.80	36.22	35.90	35.82	35.77
DESIGN SURFACE LEVEL	39.30		39.07		38.74	38.68		38.53		38.15	39.05		39.05		38.82	39.05		38.29	39.05		37.74
ROAD CHAINAGE					348.63					295.19	148.76		153.53		157.12	190.47		192.68	227.79		229.96
PIPE CHAINAGE	0.00		17.63		29.57	0.00		15.26		30.26	0.00		3.77		12.77	0.00		8.55	0.00		8.54

1:500 (AT A1)
1:1000 (AT A3)
10 0 10 20 30 40 50
METRES

1:100 (AT A1)
1:200 (AT A3)
2 1 0 1 2 3 4 5 6 7 8 9 10
METRES

CLIENT: lendlease

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	AMENDMENT	DES	DRN	CKD	APR	DATE

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AZIMUTH:
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JORDAN SPRING
STAGE 2 - RETIREMENT VILLAS
DRAINAGE LONGITUDINAL SECTION
SHEET 5 OF 5

PLAN No: 11048702/CC125 A
FILE No: 11048702CC125
SHEET SIZE: A1 ORIGINAL

Plotted: 22 May , 2019 4:51:22 PM File Name: J:\110487 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\CC\STAGE 2\11048702CC125.dwg

Document Set ID: 8735604
Version: 1, Version Date: 17/06/2019

DESIGN STORM 1:5yr ARI HYDROLOGIC RESULTS

PIT NAME (-)	PIT TYPE (-)	CATCHMENT AREA (ha)	IMPERVIOUS PERCENTAGE (%)	RUNOFF C (-)	IMPERVIOUS TIME Tc (min)	IMPERVIOUS INTENSITY I (mm/hr)	PERVIOUS TIME Tc (min)	PERVIOUS INTENSITY I (mm/hr)	FULL AREA TIME Tc (min)	FULL AREA INTENSITY I (mm/hr)	FULL AREA CATCHMENT FLOW Qc (L/s)	PARTIAL AREA TIME Tc (min)	PARTIAL AREA INTENSITY I (mm/hr)	PARTIAL AREA CATCHMENT FLOW Qc (L/s)	TOTAL CATCHMENT FLOW Qc (L/s)	DIRECT FLOW Qd (L/s)	APPROACH FLOW Qa (L/s)	FLOODED DEPTH d (m)	FLOODED WIDTH w (m)	FLOODED (vxd) (sq.m/s)	ROAD GRADE (%)	ROAD XFALL (%)	CHOKE FACTOR (-)	INLET FLOW Qg (L/s)	BYPASS FLOW Qb (L/s)	BYPASS PIT (-)	COMMENTS
C1/19	GISP 900x900 A	0.016	95	0.82	6	117.8	6	117.8	6	117.8	4	6	117.8	4	4	0	4	0.02	1.53	0.01	0.7	3	1	3	1	C1/18	
C1/18	GISP 900x900 A	0.019	95	0.82	6	117.8	6	117.8	6	117.8	5	6	117.8	5	5	0	6	0.02	1.96	0.01	0.8	3	1	5	2	C1/17	
C1/17	GISP 900x900 A	0.022	95	0.82	6	117.8	6	117.8	6	117.8	6	6	117.8	6	6	0	7	0.02	1.34	0.01	4.6		1	5	2	C1/16	
C1/16	GISP 900x900 A	0.032	90	0.794	6	117.8	6	117.8	6	117.8	8	6	117.8	8	8	0	11	0.03	1.71	0.01	1.9		1	7	4	C1/15	
C1/15	GISP 900x900 A	0.027	90	0.794	6	117.8	6	117.8	6	117.8	7	6	117.8	7	7	0	10	0.03	2.02	0.01	0.8		1	7	3	C1/14	
C1/14	GISP 900x900 A	0.021	95	0.82	6	117.8	6	117.8	6	117.8	6	6	117.8	6	6	0	9	0.03	1.91	0.01	0.7		1	6	3	C1/13	
C1/13	GISP 900x900 A	0.01	90	0.794	6	117.8	6	117.8	6	117.8	3	6	117.8	3	3	0	5	0.02	1.56	0.01	0.7		1	4	1	C1/11	
C1/12	JP SEALED 900 x 900	0	0						0	0	0	0	0	0	0	0	0				1.4			0	0		
C1/11	GISP 900x900 A	0.024	90	0.794	6	117.8	6	117.8	6	117.8	6	6	117.8	6	6	0	7	0.02	1.56	0.01	1.9		1	5	2	C1/10	
C1/10	GISP 900x900 A	0.023	95	0.82	6	117.8	6	117.8	6	117.8	6	6	117.8	6	6	0	8	0.02	1.62	0.01	1.5		1	6	3	C1/9	
C1/9	GISP 900x900 A	0.023	95	0.82	6	117.8	6	117.8	6	117.8	6	6	117.8	6	6	0	9	0.02	2	0.01	1.5		1	6	3	C1/8	
C1/8	GISP 900x900 A	0.04	95	0.82	6	117.8	6	117.8	6	117.8	11	6	117.8	11	11	0	13	0.03	1.93	0.01	1.5		1	9	5	C1/7	
C1/7	GISP 900x900 A	0.021	95	0.82	6	117.8	6	117.8	6	117.8	6	6	117.8	6	6	0	10	0.03	1.75	0.01	1.5		1	7	3	C1/6	
C1/6	GISP 900x900 A	0.021	95	0.82	6	117.8	6	117.8	6	117.8	6	6	117.8	6	6	0	9	0.03	1.67	0.01	1.5		1	6	3	C1/5	
C1/5	GSIP 900x900 SAG	0.027	90	0.794	6	117.8	6	117.8	6	117.8	7	6	117.8	7	7	0	12	0.02			0.3		1	12	0	LOST	
C1/4	JP GRATED 900 x 900	0	50	0.587	6	117.8	6	117.8	6	117.8	0	6	117.8	0	0	0	0				0.8	1.5	1	0	0	LOST	
C1/3	GPT	0	0						0	0	0	0	0	0	0	0	0				0.8			0	0		
C1/2	GPT	0	0						0	0	0	0	0	0	0	0	0							0	0		
C1/1	JP SEALED 900 x 900	0	0						0	0	0	0	0	0	0	0	0							0	0		EXISTING
H/11	IAD 900x900	0.002	85	0.768	6	117.8	6	117.8	6	117.8	0	6	117.8	0	0	0	0				2.5	-2.5	1	0	0	H/10	
H/10	GISP 900x900 A	0.019	90	0.794	6	117.8	6	117.8	6	117.8	5	6	117.8	5	5	0	5	0.02	1.21	0.01	2.5		1	4	1	H/9	
H/9	GISP 900x900 A	0.049	90	0.794	6	117.8	6	117.8	6	117.8	13	6	117.8	13	13	0	16	0.02	2.11	0.01	1.3		1	10	6	H/8	
H/8	GISP 900x900 A	0.037	90	0.794	6	117.8	6	117.8	6	117.8	10	6	117.8	10	10	0	16	0.03	2.14	0.01	1.2		1	10	6	H/7	
H/7	GISP 900x900 A	0.042	90	0.794	6	117.8	6	117.8	6	117.8	11	6	117.8	11	11	0	18	0.02	2.48	0.01	1.2		1	11	7	H/6	
H/6	GISP 900x900 A	0.043	90	0.794	6	117.8	6	117.8	6	117.8	11	6	117.8	11	11	0	18	0.02	2.26	0.01	1.2		1	11	7	H/5	
H/5	GISP 900x900 A	0.02	90	0.794	6	117.8	6	117.8	6	117.8	5	6	117.8	5	5	0	12	0.03	1.95	0.01	1.2		1	8	4	H/4	
H/4	GISP 900x900 A	0.016	95	0.82	6	117.8	6	117.8	6	117.8	4	6	117.8	4	4	0	10	0.01	1.94	0	1.6		1	7	3	H/3	
H/3	GISP 900x900 A	0.018	95	0.82	6	117.8	6	117.8	6	117.8	5	6	117.8	5	5	0	8	0.03	1.68	0.01	1.1		1	6	2	H/2	
H/2	GISP 900x900 A	0.025	95	0.82	6	117.8	6	117.8	6	117.8	7	6	117.8	7	7	0	9	0.03	1.76	0.01	1.1		1	6	3	H/1	
H/1	GISP 900x900 A	0.02	95	0.82	6	117.8	6	117.8	6	117.8	5	6	117.8	5	5	0	8	0.03	1.78	0.01	1		1	6	2	C1/5	
HA/9	IAD 600x600	0.014	85	0.768	6	117.8	6	117.8	6	117.8	3	6	117.8	3	3	0	3							3	0		
HA/8	IAD 600x600	0.016	85	0.768	6	117.8	6	117.8	6	117.8	4	6	117.8	4	4	0	4							4	0		
HA/7	IAD 600x600	0.01	85	0.768	6	117.8	6	117.8	6	117.8	3	6	117.8	3	3	0	3							3	0		
HA/6	IAD 600x900	0.01	85	0.768	6	117.8	6	117.8	6	117.8	2	6	117.8	2	2	0	2							2	0		
HA/5	IAD 600x900	0.02	85	0.768	6	117.8	6	117.8	6	117.8	5	6	117.8	5	5	0	5							5	0		
HA/4	IAD 600x900	0.01	85	0.768	6	117.8	6	117.8	6	117.8	3	6	117.8	3	3	0	3							3	0		
HA/3	IAD 900x900	0.009	85	0.768	6	117.8	6	117.8	6	117.8	2	6	117.8	2	2	0	2							2	0		
HA/2	IAD 900x900	0.013	85	0.768	6	117.8	6	117.8	6	117.8	3	6	117.8	3	3	0	3							3	0		
HA/1	IAD 900x900	0.012	85	0.768	6	117.8	6	117.8	6	117.8	3	6	117.8	3	3	0	3							3	0		
HB/9	IAD 600x600	0.014	85	0.768	6	117.8	6	117.8	6	117.8	3	6	117.8	3	3	0	3							3	0		
HB/8	IAD 600x600	0.017	85	0.768	6	117.8	6	117.8	6	117.8	4	6	117.8	4	4	0	4							4	0		
HB/7	IAD 600x600	0.02	85	0.768	6	117.8	6	117.8	6	117.8	5	6	117.8	5	5	0	5							5	0		
HB/6	IAD 600x900	0.01	85	0.768	6	117.8	6	117.8	6	117.8	3	6	117.8	3	3	0	3							3	0		
HB/5	IAD 600x900	0.01	85	0.768	6	117.8	6	117.8	6	117.8	2	6	117.8	2	2	0	2							2	0		
HB/4	IAD 600x900	0	85	0.768	6	117.8	6	117.8	6	117.8	0	6	117.8	0	0	0	0							0	0		
HB/3	IAD 600x900	0.023	85	0.768	6	117.8	6	117.8	6	117.8	6	6	117.8	6	6	0	6							6	0		
HB/2	IAD 900x900	0.011	85	0.768	6	117.8	6	117.8	6	117.8	3	6	117.8	3	3	0	3							3	0		
HB/1	IAD 900x900	0.001	85	0.768	6	117.8	6	117.8	6	117.8	0	6	117.8	0	0	0	0	0	0.53	0	1.2	-2.5	1	0	0	H/8	
HE/5	IAD 600x600	0.032	85	0.768	6	117.8	6	117.8	6	117.8	8	6	117.8	8	8	0	8							8	0		
HE/4	IAD 600x600	0.019	85	0.768	6	117.8	6	117.8	6	117.8	5	6	117.8	5	5	0	5							5	0		
HE/3	IAD 600x900	0.018	85	0.768	6	117.8	6	117.8	6	117.8	4	6	117.8	4	4	0	4							4	0		
HE/2	IAD 600x900	0.022	85	0.768	6	117.8	6	117.8	6	117.8	6	6	117.8	6	6	0	6							6	0		
HE/1	IAD 900x900	0.003	85	0.768	6	117.8	6	117.8	6	117.8	1	6	117.8	1	1	0	1	0.01	0.69	0	1.2	-4.3	1	1	0	H/6	
HG/15	IAD 600x600	0.011	85	0.768	6	117.8	6	117.8	6	117.8	3	6	117.8	3	3	0	3							3	0		
HG/14	IAD 600x900	0.009	85	0.768	6	117.8	6	117.8	6	117.8	2	6	117.8	2	2	0	2							2	0		
HG/13	IAD 900x900	0.002	85	0.768	6	117.8	6	117.8	6	117.8	0	6	117.8	0	0	0	0							0	0		
HG/12	IAD 600x600	0.032	85	0.768	6	117.8	6	117.8	6	117.8	8	6	117.8	8	8	0	8							8	0		
HG/11	IAD 600x900	0.018	85	0.768	6	117.8	6	117.8	6	117.8	5	6	117.8	5	5	0	5							5	0		
HG/10	IAD 600x900	0.023	85	0.768	6	117.8	6	117.8	6	117.8	6	6	117.8	6	6	0	6							6	0		
HG/9	IAD 600x600	0.026	85	0.768	6	117.8	6	117.8	6	117.8	6	6	117.8	6	6	0	6							6	0		
HG/8	IAD 600x900	0.032	85	0.768	6	117.8	6	117.8	6	117.8	8	6	117.8	8	8	0	8							8	0		
HG/7	IAD 600x900	0.028	85	0.768	6	117.8	6	117.8	6	117.8	7	6	117.8	7	7	0	7							7	0		
HG/6	IAD 600x900	0.036	85	0.768	6	117.8	6	117.8	6	117.8	9	6	117.8	9	9	0	9							9	0		
HG/5	IAD 600x900	0.018	85	0.768	6	117.8	6	117.8	6	117.8	5	6	117.8	5	5	0	5							5	0		
HG/4	IAD 900x900	0.022	85	0.768	6	117.8	6	117.8	6	117.8	5	6	117.8	5	5	0	5							5	0		
HG/3	IAD 900x900	0.023	85	0.768	6	117.8	6	117.8	6	117.8	6	6	117.8	6	6	0	6							6	0		
HG/2	IAD 900x900	0.001	85	0.768	6	117.8	6	117.8	6	117.8	0	6	117.8	0	0	0	0							0	0		
HG/1	IAD 900x900	0.001	85	0.768	6	117.8	6	117.8	6	117.8	0	6	117.8	0	0	0	0				1.1	-2.5	1	0	0	H/2	
HH/2	IAD 600x600	0.01	85	0.768	6	117.8	6	117.8	6	117.8	3	6	117.8	3	3	0	3							3	0		
HH/1	IAD 600x600	0.01	85	0.768	6	117.8	6	117.8	6	117.8	3	6	117.8	3	3	0	3							3	0		
J/2	GISP 900x900 A	0.013	90	0.794	6	117.8	6	117.8	6	117.8	3	6	117.8	3	3	0	3	0.01	1.87	0	0.7		1	3	1	J/1	
J/1	GISP 900x900 A	0.02	95	0.82	6	117.8	6	117.8	6	117.8	5	6	117.8	5	5	0	6	0.02	1.3	0.01	2.5		1	4	2	H/9	
K/2	GISP 900x900 A	0.019	90	0.794	6	117.8	6	117.8	6	117.8	5	6	117.8	5	5	0	5	0.02	1.57	0.01	1.2		1	4	1	K/1	
K/1	GISP 900x900 A	0.014	95	0.82	6	117.8	6	117.8	6	117.8	4	6	117.8	4	4	0	5	0.02	1.22	0.01	2.3		1	4	1	H/7	
L/2	GISP 900x900 A	0.021	90	0.794	6	117.8	6	117.8	6	117.8	5	6	117.8	5	5	0	5	0.02	1.65	0.01	0.8		1	4	1	L/1	
L/1	GISP 900x900 A	0.016	95	0.82	6	117.8	6	117.8	6	117.8	4	6	117.8	4	4	0	6	0.02	1.31	0.01	1.4		1	4	1	H/4	
W/2	IAD 900x900	0.268	85	0.768	6	117.8	6	117.8	6	117.8	67	6	117.8	67	67	0	67				1.5	12.6	1	67	0	C1/9	
W/1	JP SEALED 900 x 900	0	0						0	0	0	0	0	0	0	0	0				1.5			0	0		
X/1	IAD 900x900	0.148	85	0.768	6	117.8	6	117.8	6	117.8	37	6	117.8	37	37	0	37				1.5	25	1	37	0	LOST	
Y/1	IAD 900x900	0.168	85	0.768	6	117.8	6	117.8	6	117.8	42	6	117.8	42	42	0	42				1.5	25	1	42	0	LOST	

A	ISSUED FOR CONSTRUCTION CERTIFICATE	MMC	NM	DJH	MS	22/05/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

J. WYNDHAM PRINCE CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS

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AZIMUTH:
DATUM:
ORIGIN:

CLIENT: lendlease

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ISSUED FOR CONSTRUCTION APPROVAL

JORDAN SPRING
STAGE 2 - RETIREMENT VILLAS
DRAINAGE CALCULATIONS
SHEET 1 OF 4

PLAN No: 11048702/CC126 A
FILE No: 11048702CC126
SHEET SIZE: A1 ORIGINAL

Plotted: 22 May , 2019 4:51:30 PM File Name: J:\110487 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\CC\STAGE 2\11048702CC126.dwg

Document Set ID: 8735604
Version: 1, Version Date: 17/06/2019

DESIGN STORM 1:5yr ARI HYDRAULIC RESULTS

PIPE NAME (-)	PIPE TYPE (-)	PIPE DIAMETER (mm)	PIPE LENGTH (m)	PIPE SLOPE (%)	PIPE AREA Af (sq.m)	FULL AREA TIME Tc (min)	FULL AREA INTENSITY I (mm/hr)	FULL AREA SUM CA (ha)	FULL AREA FLOW Qc (L/s)	PART-AREA TIME Tc (min)	PART-AREA INTENSITY I (mm/hr)
C1/19 to C1/18	RRJ4	375	14.24	1	0.11	6	117.8	0.013	4.4	6	117.8
C1/18 to C1/17	RRJ4	375	16.81	2.56	0.11	6.36	115.3	0.029	9.4	6	117.8
C1/17 to C1/16	RRJ4	375	19.33	2.88	0.11	6.6	113.7	0.09	28.5	6.28	115.8
C1/16 to C1/15	RRJ4	375	14.75	1	0.11	6.78	112.5	0.115	36	6.42	114.9
C1/15 to C1/14	RRJ4	450	17.62	1	0.16	6.97	111.3	0.136	42.2	6.61	113.6
C1/14 to C1/13	RRJ4	450	8.89	1	0.16	7.19	110	0.179	54.8	6.7	113
C1/13 to C1/12	RRJ4	450	8.69	1	0.16	7.29	109.4	0.187	57	6.81	112.3
C1/12 to C1/11	RRJ4	450	8.69	1	0.16	7.39	108.8	0.187	56.7	6.9	111.7
C1/11 to C1/10	RRJ4	525	24.93	1	0.22	7.49	108.2	0.226	68	6.89	111.8
C1/10 to C1/9	RRJ4	525	24.93	1	0.22	7.76	106.7	0.245	72.5	7.16	110.2
C1/9 to C1/8	RRJ4	600	35.57	1	0.28	8.03	105.3	0.513	150	6.84	112.2
C1/8 to C1/7	RRJ4	600	18.64	1	0.28	8.34	103.7	0.676	194.7	6.85	112.1
C1/7 to C1/6	RRJ4	600	18.64	1	0.28	8.49	103	0.693	198.2	7	111.1
C1/6 to C1/5	RRJ4	675	13.26	1	0.36	8.64	102.2	0.881	250.2	6.75	112.7
C1/5 to C1/4	RRJ4	675	7.56	1	0.36	8.74	101.7	0.903	255.1	6.85	112.1
C1/4 to C1/3	RRJ4	675	5.25	1	0.36	8.8	101.5	1.998	563.3	7.3	109.3
C1/3 to C1/2	RRJ2	675	4.1	1	0.36	8.83	101.3	1.998	562.4	7.34	109.1
C1/2 to C1/1	RRJ2	675	10.74	0.7	0.36	8.86	101.2	1.998	561.8	7.36	109
C1/1 to A/3	RRJ2	675	22.88	0.7	0.36	8.93	100.8	1.998	559.8	7.44	108.5
H/11 to H/10	RRJ4	375	5.81	1.02	0.11	6.63	113.5	0.089	28	6.44	114.7
H/10 to H/9	RRJ4	375	27.84	1.02	0.11	6.71	113	0.104	32.7	6.52	114.2
H/9 to H/8	RRJ4	375	26.56	1	0.11	7.07	110.7	0.258	79.4	6.62	113.5
H/8 to H/7	RRJ4	450	27.51	1.11	0.16	7.34	109.1	0.412	125	6.65	113.4
H/7 to H/6	RRJ4	525	28.15	1.11	0.22	7.58	107.7	0.569	170.3	6.67	113.2
H/6 to H/5	RRJ4	600	15.14	1.06	0.28	7.81	106.5	0.675	199.7	6.89	111.8
H/5 to H/4	RRJ4	600	7.98	1	0.28	7.93	105.8	0.732	215.1	7.01	111.1
H/4 to H/3	RRJ4	600	9.17	1	0.28	8	105.5	0.812	237.8	7.03	111
H/3 to H/2	RRJ4	600	18.86	1	0.28	8.07	105.1	0.826	241.3	7.1	110.6
H/2 to H/1	RRJ4	675	16.04	1	0.36	8.21	104.4	1.079	312.8	7.17	110.1
H/1 to C1/4	RRJ4	675	6.59	1	0.36	8.33	103.8	1.095	315.8	7.28	109.4
HA/9 to HA/8	uPVC	150	2.4	1	0.02	6	117.8	0.011	3.5	6	117.8
HA/8 to HA/7	uPVC	150	6.56	0.99	0.02	6.05	117.5	0.023	7.5	6	117.8
HA/7 to HA/6	uPVC	150	2.4	1.04	0.02	6.15	116.7	0.031	9.9	6.11	117
HA/6 to HA/5	uPVC	150	4.3	1.19	0.02	6.19	116.5	0.038	12.3	6.14	116.8
HA/5 to HA/4	uPVC	150	11.33	1.01	0.02	6.24	116.1	0.053	17.2	6.2	116.4
HA/4 to HA/3	uPVC	150	2.55	1.02	0.02	6.39	115	0.061	19.5	6.35	115.4
HA/3 to HA/2	uPVC	150	3.08	1.01	0.02	6.43	114.8	0.068	21.8	6.27	115.9
HA/2 to HA/1	uPVC	225	2.05	1.03	0.04	6.47	114.5	0.078	24.9	6.32	115.6
HA/1 to H/11	uPVC	225	11.78	1	0.04	6.49	114.4	0.088	27.9	6.3	115.7
HB/9 to HB/8	uPVC	150	5.02	1	0.02	6	117.8	0.011	3.5	6	117.8
HB/8 to HB/7	uPVC	150	3.94	1.01	0.02	6.1	117.1	0.024	7.6	6	117.8
HB/7 to HB/6	uPVC	150	4.3	1.02	0.02	6.16	116.6	0.039	12.6	6.06	117.4
HB/6 to HB/5	uPVC	150	9.32	1.01	0.02	6.22	116.2	0.047	15.1	6.12	116.9
HB/5 to HB/4	uPVC	150	2.64	1.02	0.02	6.35	115.4	0.054	17.3	6.25	116
HB/4 to HB/3	uPVC	150	2.05	1.03	0.02	6.38	115.1	0.054	17.4	6.28	115.8
HB/3 to HB/2	uPVC	225	4.28	1	0.04	6.41	114.9	0.072	23	6.25	116.1
HB/2 to HB/1	uPVC	225	9.24	1.01	0.04	6.46	114.6	0.08	25.6	6.3	115.7
HB/1 to H/8	RRJ4	375	5.81	1.02	0.11	6.57	113.9	0.081	25.6	6.41	115
HE/5 to HE/4	uPVC	150	4.3	1.02	0.02	6	117.8	0.025	8.1	6	117.8
HE/4 to HE/3	uPVC	150	13.56	1.28	0.02	6.07	117.3	0.04	12.9	6	117.8
HE/3 to HE/2	uPVC	225	4.7	1.02	0.04	6.24	116.1	0.053	17.1	6.17	116.6
HE/2 to HE/1	uPVC	225	8.02	1.01	0.04	6.3	115.7	0.07	22.5	6.23	116.1
HE/1 to H/6	RRJ4	375	7.98	2.29	0.11	6.4	115	0.072	23	6.33	115.5
HG/15 to HG/14	uPVC	150	4.3	1.02	0.02	6	117.8	0.008	2.8	6	117.8
HG/14 to HG/13	uPVC	150	5.49	1	0.02	6.09	117.2	0.015	5	6	117.8
HG/13 to HG/12	uPVC	150	13.14	1	0.02	6.24	116.1	0.032	10.5	6.19	116.5
HG/12 to HG/11	uPVC	150	3.61	1.02	0.02	6.44	114.8	0.057	18.1	6.34	115.4
HG/11 to HG/10	uPVC	225	13.96	1	0.04	6.48	114.4	0.071	22.5	6.34	115.4
HG/10 to HG/9	uPVC	225	3.61	1	0.04	6.65	113.3	0.089	27.9	6.51	114.3
HG/9 to HG/8	uPVC	225	20.61	1	0.04	6.69	113.1	0.108	34.1	6.26	116
HG/8 to HG/7	uPVC	225	4.3	1	0.04	6.92	111.6	0.133	41.2	6.48	114.5
HG/7 to HG/6	uPVC	300	22.08	1.84	0.07	6.96	111.4	0.155	47.9	6.53	114.2
HG/6 to HG/5	uPVC	300	3.61	1.02	0.07	7.14	110.3	0.183	55.9	6.66	113.3
HG/5 to HG/4	uPVC	300	13.96	1	0.07	7.18	110.1	0.196	60.1	6.69	113.1
HG/4 to HG/3	uPVC	300	4.3	0.98	0.07	7.31	109.3	0.213	64.7	6.65	113.3
HG/3 to HG/2	uPVC	300	2.28	1.01	0.07	7.35	109.1	0.231	69.9	6.69	113.1
HG/2 to HG/1	RRJ2	375	9.26	1	0.11	7.37	109	0.232	70.1	6.72	112.9
HG/1 to H/2	RRJ4	450	5.73	1.01	0.16	7.46	108.4	0.232	69.9	6.81	112.3
HH/2 to HH/1	uPVC	150	4.3	0.98	0.02	6	117.8	0.008	2.6	6	117.8
HH/1 to HG/13	uPVC	150	8.47	1	0.02	6.09	117.1	0.016	5.1	6	117.8
J/2 to J/1	RRJ4	375	25.4	1.57	0.11	6	117.8	0.01	3.3	6	117.8
J/1 to H/9	RRJ4	375	10.74	2.47	0.11	6.6	113.7	0.115	36.4	6.05	117.4
K/2 to K/1	RRJ4	375	17.63	1.21	0.11	6	117.8	0.015	4.9	6	117.8
K/1 to H/7	RRJ4	375	11.93	2.17	0.11	6.44	114.7	0.106	33.9	6.41	115
L/2 to L/1	RRJ4	375	15.26	1	0.11	6	117.8	0.016	5.4	6	117.8
L/1 to H/4	RRJ4	375	15	2.07	0.11	6.46	114.6	0.067	21.3	6.37	115.2
W/2 to W/1	RRJ4	450	3.77	1.04	0.16	6	117.8	0.206	67.4	6	117.8
W/1 to C1/9	RRJ4	450	9.01	1.01	0.16	6.04	117.5	0.206	67.2	6.04	117.5
X/1 to C1/8	RRJ4	450	8.55	0.99	0.16	6	117.8	0.113	37.1	6	117.8
Y/1 to C1/6	RRJ4	450	8.54	1	0.16	6	117.8	0.129	42.2	6	117.8

PIPE NAME (-)	PART-AREA SUM CA (ha)	PART-AREA FLOW Qc (L/s)	DIRECT PIPE FLOW Qp (L/s)	PEAK FLOW Qrat (L/s)	NET BYPASS FLOW Qb (L/s)	PIPE FLOW Q (L/s)	FLOW CAP. Qcap (L/s)	Q/Qcap RATIO (-)	FULL PIPE VELOCITY (m/s)	NORM. DEPTH VELOCITY (m/s)	CRIT. DEPTH VELOCITY (m/s)	U/S PIT GRATE RL (m)	PIPE U/S IL (m)	PIPE D/S IL (m)	PIPE D/S DROP (m)
C1/19 to C1/18	0.01	4.4	0	4.4	-1	3.4	190.4	0.02	0.03	0.66	0.52	41.32	40.305	40.162	0.05
C1/18 to C1/17	0.03	9.4	0	9.4	-1.6	7.8	303.9	0.03	0.07	1.18	0.65	41.206	40.112	39.682	0.116
C1/17 to C1/16	0.09	28.6	0	28.6	-2.3	26.2	322.3	0.08	0.24	1.76	0.91	40.662	39.567	39.011	0.051
C1/16 to C1/15	0.11	36.3	0	36.3	-3.6	32.7	190.4	0.17	0.3	1.29	0.96	40.069	38.961	38.813	0.051
C1/15 to C1/14	0.13	42.6	0	42.6	-3.2	39.3	309.7	0.13	0.25	1.33	0.98	39.932	38.763	38.586	0.05
C1/14 to C1/13	0.18	55.4	0	55.4	-2.6	52.8	309.1	0.17	0.33	1.45	1.06	39.808	38.536	38.447	0.051
C1/13 to C1/12	0.18	57.7	0	57.7	-1.2	56.4	309.1	0.18	0.35	1.48	1.09	39.746	38.397	38.31	0.051
C1/12 to C1/11	0.18	57.3	0	57.3	-1.2	56.1	309.2	0.18	0.35	1.48	1.08	39.707	38.26	38.173	0.051
C1/11 to C1/10	0.22	68.9	0	68.9	-2.3	66.7	466.8	0.14	0.31	1.53	1.1	39.549	38.123	37.873	0.031
C1/10 to C1/9	0.24	73.6	0	73.6	-2.6	71	466.8	0.15	0.33	1.56	1.12	39.183	37.843	37.593	0.987
C1/9 to C1/8	0.5	154.8	0	154.8	-2.7	152.1	665.5	0.23	0.54	1.91	1.36	38.816	36.606	36.25	0.031
C1/8 to C1/7	0.65	202.6	0	202.6	-4.8	197.8	665.5	0.3	0.7	2.05	1.48	38.293	36.22	36.034	0.031
C1/7 to C1/6	0.67	206.1	0	206.1	-3.4	202.7	665.5	0.3	0.72	2.07	1.49	38.019	36.004	35.818	0.051
C1/6 to C1/5	0.84	262.9	0	262.9	-2.9	260	911	0.29	0.73	2.19	1.56	37.745	35.768	35.635	0.051
C1/5 to C1/4	0.86	268.2	0	268.2	2.4	270.6	911	0.3	0.76	2.22	1.58	37.622	35.585	35.509	0.051
C1/4 to C1/3	1.95	592.1	0	592.1	0	592.1	911	0.65	1.65	2.71	2.13	37.69	35.459	35.407	0.03
C1/3 to C1/2	1.95	591.1	0	591.1	0	591.1	911	0.65	1.65	2.71	2.13	37.631	35.377	35.336	0.7
C1/2 to C1/1	1.95	590.3	0	590.3	0	590.3	763.5	0.77	1.65	2.35	2.12	37.579	34.636	34.561	0.05
C1/1 to A/3	1.95	587.9	0	587.9	0	587.9	762.2	0.77	1.64	2.35	2.12	37.457	34.511	34.35	0.05
H/11 to H/10	0.09	28.1	0	28.1	0	28.1	191.5	0.15	0.25	1.24	0.92	40.131	38.713	38.654	0.051
H/10 to H/9	0.1	32.9	0	32.9	-1.4	31.5	191.9	0.16	0.29	1.28	0.95	39.962	38.604	38.32	0.031
H/9 to H/8	0.26	80.5	0	80.5	-5.9	74.6	190.2	0.39	0.68	1.62	1.25	39.37	38.29	38.024	0.062
H/8 to H/7	0.4	127.3	0	127.3	-5.8	121.5	324.8	0.37	0.76	1.89	1.38	39.061	37.962	37.658	0.089
H/7 to H/6	0.55	174.5	0	174.5	-6.9	167.6	490.7	0.34	0.77	2.05	1.46	38.743	37.57	37.258	0.093
H/6 to H/5	0.66	205.2	0	205.2	-7	198.2	686.3	0.29	0.7	2.1	1.48	38.417	37.166	37.005	0.051
H/5 to H/4	0.72	221.2	0	221.2	-4.2	217.1	666.3	0.33	0.77	2.11	1.52	38.241	36.955	36.875	0.05
H/4 to H/3	0.79	245.1	0	245.1	-3.3	241.8	666.6	0.36	0.86	2.17	1.58	38.148	36.825	36.733	0.05
H/3 to H/2	0.81	248.7	0	248.7	-2.5	246.2	666.2	0.37	0.87	2.18	1.59	38.042	36.683	36.494	0.302
H/2 to H/1	1.06	323.4	0	323.4	-2.9	320.6	912.6	0.35	0.9	2.33	1.67	37.83	36.192	36.031	0.05
H/1 to C1/4	1.07	326.4	0	326.4	-2.4	324.1	911.6	0.36	0.91	2.33	1.68	37.653	35.981	35.915	0.456
HA/9 to HA/8	0.01	3.5	0	3.5	0	3.5	19.8	0.18	0.2	0.84	0.62	40.272	39.519	39.495	0.031
HA/8 to HA/7	0.02	7.5	0	7.5	0	7.5	19.7	0.38	0.42	1.04	0.79	40.272	39.464	39.399	0.031
HA/7 to HA/6	0.03	9.9	0	9.9	0	9.9	20.2	0.49	0.56	1.14	0.87	40.272	39.369	39.344	0.031
HA/6 to HA/5	0.04	12.3	0	12.3	0	12.3	21.6	0.57	0.7	1.26	0.95	40.272	39.314	39.263	0.031
HA/5 to HA/4	0.05	17.2	0	17.2	0	17.2	19.9	0.87	0.97	1.27	1.13	40.1	39.233	39.119	0.031
HA/4 to HA/3	0.06	19.5	0	19.5	0	19.5	20	0.98	1.11	1.29	1.22	40.1	39.089	39.063	0.031
HA/3 to HA/2	0.07	21.8	0	21.8	0	21.8	19.9	1.1	1.23	1.23	1.31	40.1	39.033	39.002	0.051
HA/2 to HA/1	0.08	25	0	25	0	25	59.2	0.42	0.63	1.42	1.03	40.1	38.952	38.931	0.05
HA/1 to H/11	0.09	27.9	0	27.9	0	27.9	58.4	0.48	0.7	1.45	1.08	40.1	38.881	38.763	0.05
HB/9 to HB/8	0.01	3.5	0	3.5	0	3.5	19.8	0.18	0.2	0.84	0.62	39.55	38.797	38.747	0.031
HB/8 to HB/7	0.02	7.6	0	7.6	0	7.6	19.9	0.38	0.43	1.05	0.79	39.55	38.717	38.677	0.031
HB/7 to HB/6	0.04	12.6	0	12.6	0	12.6	20	0.63	0.71	1.2	0.96	39.55	38.647	38.603	0.031
HB/6 to HB/5	0.05	15.1	0	15.1	0	15.1	19.9	0.76	0.85	1.24	1.05	39.55	38.573	38.479	0.031
HB/5 to HB/4	0.05	17.4	0	17.4	0	17.4	20	0.87	0.98	1.28	1.13	39.378	38.449	38.422	0.05
HB/4 to HB/3	0.05	17.4	0	17.4	0	17.4	20.1	0.87	0.99	1.28	1.13	39.378	38.372	38.351	0.05
HB/3 to HB/2	0.07	23.1	0	23.1	0	23.1	58.5	0.39	0.58	1.39	1	39.378	38.301	38.258	0.031
HB/2 to HB/1	0.08	25.7	0	25.7	0	25.7	58.6	0.44	0.65	1.43	1.05	39.378	38.228	38.135	0.05
HB/1 to H/8	0.08	25.7	0	25.7	0	25.7	191.5	0.13	0.23	1.21	0.9	39.231	38.085	38.026	0.065
HE/5 to HE/4	0.02	8.1	0	8.1	0	8.1	20	0.41	0.46	1.07	0.81	38.95	38.198	38.154	0.039
HE/4 to HE/3	0.04	12.9	0	12.9	0	12.9	22.4	0.58	0.73	1.31	0.97	38.95	38.116	37.943	0.031
HE/3 to HE/2	0.05	17.1	0	17.1	0	17.1	59	0.29	0.43	1.29	0.91	38.778	37.913	37.865	0.031
HE/2 to HE/1	0.07	22.5	0	22.5	0	22.5	58.7	0.38	0.57	1.38	1	38.778	37.835	37.754	0.153
HE/1 to H/6	0.07	23	0	23	0	23	287.7	0.08	0.21	1.56	0.87	38.778	37.601	37.418	0.253
HG/15 to HG/14	0.01	2.8	0	2.8	0	2.8	20	0.14	0.16	0.8	0.58	39.707	38.955	38.911	0.031
HG/14 to HG/13	0.02	5	0	5	0	5	19.8	0.25	0.28	0.93	0.69	40.05	38.881	38.826	0.351
HG/13 to HG/12	0.03	10.5	0	10.5	0	10.5	19.9	0.53	0.59	1.14	0.89	40.05	38.475	38.343	0.031
HG/12 to HG/11	0.06	18.2	0	18.2	0	18.2	20	0.91	1.03	1.28	1.16	39.217	38.313	38.276	0.031
HG/11 to HG/10	0.07	22.5	0	22.5	0	22.5	58.5	0.39	0.57	1.37	1	39.217	38.246	38.106	0.037
HG/10 to HG/9	0.09	28	0	28	0	28	58.3	0.48	0.71	1.45	1.08	39.045	38.069	38.033	0.043
HG/9 to HG/8	0.11	34.3	0	34.3	0	34.3	58.4	0.59	0.86	1.53	1.17	38.873	37.99	37.784	0.031
HG/8 to HG/7	0.13	41.6	0	41.6	0	41.6	58.4	0.71	1.05	1.59	1.29	38.701	37.754	37.711	0.142
HG/7 to HG/6	0.15	48.4	0	48.4	0	48.4	170.7	0.28	0.69	2.08	1.17	38.701	37.569	37.162	0.031
HG/6 to HG/5	0.18	56.7	0	56.7	0	56.7	127.2	0.45	0.8	1.75	1.24	38.294	37.132	37.095	0.031
HG/5 to HG/4	0.19	60.9	0	60.9	0	60.9	125.9	0.48	0.86	1.77	1.28	38.122	37.065	36.925	0.031
HG/4 to HG/3	0.21	65.7	0	65.7	0	65.7	124.3	0.53	0.93	1.78	1.31	38.122	36.894	36.852	0.05
HG/3 to HG/2	0.23	71.1	0	71.1	0	71.1	126.4	0.56	1.01	1.84	1.36	37.95	36.802	36.779	0.337
HG/2 to HG/1	0.23	71.3	0	71.3	0	71.3	190.4	0.37	0.65	1.6	1.23	37.951	36.443	36.35	0.051
HG/1 to H/2	0.23	71	0	71	0	71	311	0.23	0.45	1.58	1.16	37.978	36.3	36.242	0.05
HH/2 to HH/1	0.01	2.6	0	2.6	0	2.6	19.6	0.13	0.14	0.77	0.57	40.05	39.297	39.255	0.031
HH/1 to HG/13	0.02	5.1	0	5.1	0	5.1	19.8	0.26	0.29	0.94	0.7	40.05	39.225	39.14	0.665
J/2 to J/1	0.01	3.3	0	3.3	-0.7	2.5	238.5	0.01	0.02	0.7	0.48	40.108	39.094	38.694	0.051
J/1 to H/9	0.11	36.6	0	36.6	-1.7	34.9	298.5	0.12	0.32	1.81	0.98	39.689	38.644	38.379	0.089
K/2 to K/1	0.02	4.9	0	4.9	-1.2	3.7	208.8	0.02	0.03	0.72	0.54	39.303	38.285	38.072	0.063
K/1 to H/7	0.11	33.9	0	33.9	-1.3	32.6	279.9	0.12	0.3	1.69	0.96	39.069	38.01	37.751	0.181
L/2 to L/1	0.02	5.4	0	5.4	-1.3	4.1	189.7	0.02	0.04	0.7	0.55	38.681	37.666	37.514	0.051
L/1 to H/4	0.07	21.3	0	21.3	-1.5	19.8	273.6	0.07	0.18	1.44	0.84	38.526	37.464	37.153	0.328
W/2 to W/1	0.21	67.4	0	67.4	0	67.4	314.5	0.21	0.42	1.57	1.14	39.05	37.309	37.27	0.051
W/1 to C1/9	0.21	67.2	0	67.2	0	67.2	310.6	0.22	0.42	1.56	1.14	39.05	37.22	37.129	0.523
X/1 to C1/8	0.11	37.1	0	37.1	0	37.1	308.1	0.12	0.23	1.31	0.96	39.05	36.883	36.798	0.578
Y/1 to C1/6	0.13	42.2	0	42.2	0	42.2	309	0.14	0.27	1.36	1	39.05	35.903	35.818	0.051

PIPE NAME (-)	U/S PIT Ku (-)	U/S PIT Kw (-)	PIPE V'HEAD (m)	PIT LOSS (Ku.V'head) (m)	WSE LOSS (Kw.V'head) (m)	TOTAL PIPE LOSS (m)	U/S PIT HGL (m)	U/S PIPE HGL (m)	D/S PIPE HGL (m)	HGL GRADE (%)	MIN. COVER (m)	U/S FREEBOARD (m)	COMMENTS
C1/19 to C1/18	4.5		0	0	0	0.14	40.346	40.346	40.197	1.05	0.6	0.97	
C1/18 to C1/17	2.81		0	0	0	0.4	40.175	40.174	39.723	2.68	0.61	1.03	
C1/17 to C1/16	1.77	2	0	0.01	0.01	0.53	39.689	39.683	39.096	3.04	0.6	0.97	
C1/16 to C1/15	1.16		0	0.01	0.01	0.14	39.096	39.091	38.918	1.17	0.69	0.97	
C1/15 to C1/14	0.66		0	0	0	0.17	38.9	38.898	38.698	1.14	0.68	1.03	
C1/14 to C1/13	0.81		0.01	0	0	0.07	38.698	38.694	38.573	1.36	0.78	1.11	
C1/13 to C1/12	0.72		0.01	0	0	0.07	38.565	38.56	38.44	1.38	0.86	1.18	
C1/12 to C1/11	0.39		0.01	0	0	0.07	38.425	38.423	38.303	1.38	0.9	1.28	
C1/11 to C1/10	0.82		0	0	0	0.24	38.297	38.293	38.022	1.09	0.75	1.25	
C1/10 to C1/9	0.58		0.01	0	0	0.23	38.022	38.018	37.731	1.15	0.67	1.16	
C1/9 to C1/8	1.9	2.28	0.01	0.03	0.03	0.35	36.89	36.857	36.519	0.95	1.41	1.93	
C1/8 to C1/7	0.47		0.02	0.01	0.01	0.18	36.519	36.508	36.305	1.09	1.35	1.77	
C1/7 to C1/6	0.36		0.03	0.01	0.01	0.12	36.305	36.295	36.24	0.3	1.29	1.71	
C1/6 to C1/5	0.52		0.03	0.01	0.01	0.01	36.24	36.226	36.235	-0.07	1.25	1.51	
C1/5 to C1/4	0.43		0.03	0.01	0.01	0.01	36.235	36.222	36.218	0.06	1.32	1.39	
C1/4 to C1/3	0.36		0.14	0.05	0.05	0.02	36.218	36.167	36.145	0.42	1.5	1.47	
C1/3 to C1/2	2		0.14	0.28	0.28	0	36.145	35.867	35.732	3.28	1.52	1.49	
C1/2 to C1/1	2		0.14	0.28	0.28	0.04	35.517	35.239	35.215	0.23	2.18	2.06	
C1/1 to A/3	0.7	0.71	0.14	0.1	0.1	0.09	35.216	35.119	35.047	0.32	1.78	2.24	
H/11 to H/10	0.3		0	0	0	0.05	38.834	38.833	38.751	1.41	0.92	1.3	
H/10 to H/9	1.86	2.17	0	0.01	0.01	0.25	38.74	38.731	38.515	0.78	0.65	1.22	
H/9 to H/8	1.11		0.02	0.03	0.03	0.27	38.515	38.489	38.227	0.99	0.63	0.85	
H/8 to H/7	0.71		0.03	0.02	0.02	0.29	38.227	38.205	37.862	1.25	0.6	0.83	
H/7 to H/6	0.58		0.03	0.02	0.02	0.27	37.862	37.845	37.47	1.33	0.6	0.88	
H/6 to H/5	0.5		0.03	0.01	0.01	0.16	37.466	37.454	37.273	1.2	0.6	0.95	
H/5 to H/4	0.53		0.03	0.02	0.02	0.08	37.273	37.257	37.17	1.08	0.64	0.97	
H/4 to H/3	0.7		0.04	0.03	0.03	0.08	37.17	37.144	37.02	1.35	0.68	0.98	
H/3 to H/2	0.38		0.04	0.01	0.01	0.15	37.02	37.005	36.747	1.37	0.7	1.02	
H/2 to H/1	0.35		0.04	0.01	0.01	0.16	36.563	36.549	36.383	1.03	0.9	1.27	
H/1 to C1/4	1.03	1.07	0.04	0.04	0.04	0.04	36.385	36.34	36.218	1.85	0.96	1.27	
HA/9 to HA/8	4.5		0	0.01	0.01	0.02	39.581	39.572	39.565	0.29	0.6	0.69	
HA/8 to HA/7	2.4		0.01	0.02	0.02	0.04	39.565	39.543	39.524	0.29	0.66	0.71	
HA/7 to HA/6	1.28		0.02	0.02	0.02	0.01	39.524	39.503	39.5	0.15	0.75	0.75	
HA/6 to HA/5	1.06		0.02	0.03	0.03	0.02	39.5	39.474	39.457	0.38	0.66	0.77	
HA/5 to HA/4	1.42		0.05	0.07	0.07	0.09	39.457	39.389	39.303	0.75	0.72	0.64	
HA/4 to HA/3	0.79		0.06	0.05	0.05	0.02	39.303	39.254	39.229	0.97	0.86	0.8	
HA/3 to HA/2	0.7		0.08	0.05	0.05	0.03	39.229	39.175	39.135	1.29	0.92	0.87	
HA/2 to HA/1	0.3		0.02	0.01	0.01	0.01	39.09	39.084	39.041	2.1	0.92	1.01	
HA/1 to H/11	0.79		0.03	0.02	0.02	0.1	39.041	39.021	38.873	1.26	0.99	1.06	
HB/9 to HB/8	4.5		0	0.01	0.01	0.04	38.859	38.85	38.821	0.57	0.6	0.69	
HB/8 to HB/7	2.53		0.01	0.02	0.02	0.02	38.821	38.797	38.796	0.02	0.68	0.73	
HB/7 to HB/6	1.76		0.03	0.05	0.05	0.04	38.796	38.751	38.723	0.65	0.75	0.75	
HB/6 to HB/5	0.96		0.04	0.04	0.04	0.09	38.723	38.687	38.611	0.81	0.68	0.83	
HB/5 to HB/4	0.83		0.05	0.04	0.04	0.02	38.611	38.571	38.53	1.55	0.78	0.77	
HB/4 to HB/3	0.29		0.05	0.01	0.01	0.02	38.508	38.494	38.459	1.7	0.85	0.87	
HB/3 to HB/2	0.3		0.02	0.01	0.01	0.04	38.433	38.427	38.376	1.19	0.85	0.95	
HB/2 to HB/1	0.69		0.02	0.01	0.01	0.07	38.376	38.362	38.239	1.32	0.89	1	
HB/1 to H/8	0.3		0	0	0	0.01	38.214	38.213	38.227	-0.24	0.65	1.02	
HE/5 to HE/4	4.5		0.01	0.05	0.05	0.03	38.33	38.281	38.267	0.32	0.6	0.62	
HE/4 to HE/3	1.68		0.03	0.05	0.05	0.16	38.267	38.221	38.025	1.45	0.6	0.68	
HE/3 to HE/2	0.3		0.01	0	0	0.05	38.024	38.021	37.98	0.87	0.64	0.75	
HE/2 to HE/1	1.25		0.02	0.02	0.02	0.06	37.98	37.96	37.851	1.36	0.72	0.8	
HE/1 to H/6	0.3		0	0	0	0.13	37.71	37.709	37.49	2.75	0.6	1.07	
HG/15 to HG/14	4.5		0	0.01	0.01	0.04	39.008	39.002	38.953	1.15	0.6	0.7	
HG/14 to HG/13	1.9		0	0.01	0.01	0.05	38.953	38.945	38.877	1.24	1.02	1.1	
HG/13 to HG/12	2.11	2.66	0.02	0.04	0.05	0.06	38.618	38.57	38.533	0.28	0.6	1.43	
HG/12 to HG/11	1.77		0.05	0.1	0.1	0.03	38.533	38.437	38.388	1.36	0.75	0.68	
HG/11 to HG/10	0.3		0.02	0	0	0.14	38.376	38.371	38.237	0.96	0.64	0.84	
HG/10 to HG/9	1.11		0.03	0.03	0.03	0.03	38.237	38.209	38.184	0.68	0.6	0.81	
HG/9 to HG/8	1.03		0.04	0.04	0.04	0.19	38.184	38.145	37.983	0.79	0.6	0.69	
HG/8 to HG/7	1.04		0.06	0.06	0.06	0.03	37.983	37.925	37.851	1.71	0.72	0.72	
HG/7 to HG/6	0.3		0.02	0.01	0.01	0.4	37.747	37.739	37.347	1.78	0.6	0.95	
HG/6 to HG/5	0.92		0.03	0.03	0.03	0.04	37.347	37.317	37.278	1.08	0.7	0.95	
HG/5 to HG/4	0.55		0.04	0.02	0.02	0.14	37.278	37.257	37.119	0.99	0.75	0.84	
HG/4 to HG/3	0.59		0.04	0.03	0.03	0.04	37.119	37.094	37.047	1.09	0.77	1	
HG/3 to HG/2	0.71		0.05	0.04	0.04	0	37.047	37.01	36.94	3.07	0.85	0.9	
HG/2 to HG/1	0.3		0.02	0.01	0.01	0.09	36.644	36.638	36.56	0.84	1.1	1.31	
HG/1 to H/2	0.3		0.01	0	0	0.01	36.56	36.557	36.563	-0.11	1.12	1.42	
HH/2 to HH/1	4.5		0	0	0	0.04	39.347	39.342	39.299	1.01	0.6	0.7	
HH/1 to HG/13	2.06		0	0.01	0.01	0.08	39.299	39.29	39.192	1.16	0.67	0.75	
J/2 to J/1	4.5		0	0	0	0.35	39.129	39.129	38.788	1.34	0.6	0.98	
J/1 to H/9	1.89	2.22	0.01	0.01	0.01	0.26	38.789	38.778	38.515	2.45	0.6	0.9	
K/2 to K/1	4.5		0	0	0	0.19	38.328	38.328	38.148	1.02	0.6	0.97	
K/1 to H/7	1.83	2.12	0	0.01	0.01	0.25	38.149	38.14	37.862	2.32	0.6	0.92	
L/2 to L/1	4.5		0	0	0	0.15	37.711	37.711	37.567	0.94	0.6	0.97	
L/1 to H/4	1.84	2.13	0	0	0	0.27	37.568	37.564	37.221	2.29	0.6	0.96	
W/2 to W/1	4.5		0.01	0.04	0.04	0.02	37.529	37.488	37.412	2.01	0.6	1.52	
W/1 to C1/9	1.47	1.56	0.01	0.01	0.01	0.07	37.413	37.399	37.271	1.41	0.71	1.64	
X/1 to C1/8	4.5		0	0.01	0.01	0.07	37.027	37.014	36.903	1.3	0.6	2.02	
Y/1 to C1/6	4.5		0	0.02	0.02	0	36.256	36.24	36.24	0	1.03	2.79	

Plotted: 22 May , 2019 4:51:38 PM File Name: J:\110487 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\CC\STAGE 2\11048702CC127.dwg

	AMENDMENT	DES	DRN	CKD	APR	DATE
A	ISSUED FOR CONSTRUCTION CERTIFICATE	MMC	NM	DJH	MS	22/05/19

J. WYNDHAM PRINCE CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS
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AZIMUTH:
DATUM:
ORIGIN:

CLIENT: lendlease

THIS DRAWING MUST NOT BE USED FOR CONSTRUCTION UNLESS SIGNED AS PART OF AN APPROVED CONSTRUCTION CERTIFICATE.

ISSUED FOR CONSTRUCTION APPROVAL

JORDAN SPRING
STAGE 2 - RETIREMENT VILLAS
DRAINAGE CALCULATIONS
SHEET 2 OF 4

PLAN No: 11048702/CC127 A
FILE No: 11048702CC127
SHEET SIZE: A1 ORIGINAL

Document Set ID: 8735604
Version: 1, Version Date: 17/06/2019

DESIGN STORM 1:100yr ARI HYDROLOGIC RESULTS

PIT NAME {-}	PIT TYPE {-}	CATCHMENT AREA {ha}	IMPERVIOUS PERCENTAGE {%}	RUNOFF C {-}	IMPERVIOUS TIME Tc {min}	IMPERVIOUS INTENSITY I {mm/hr}	PERVIOUS TIME Tc {min}	PERVIOUS INTENSITY I {mm/hr}	FULL AREA TIME Tc {min}	FULL AREA INTENSITY I {mm/hr}	FULL AREA CATCHMENT FLOW Qc {L/s}	PARTIAL AREA TIME Tc {min}	PARTIAL AREA INTENSITY I {mm/hr}	PARTIAL AREA CATCHMENT FLOW Qc {L/s}	TOTAL CATCHMENT FLOW Qc {L/s}	DIRECT FLOW Qd {L/s}	APPROACH FLOW Qa {L/s}	FLOODED DEPTH d {m}	FLOODED WIDTH w {m}	FLOODED {vxd} {sq.m/s}	ROAD GRADE {%}	ROAD XFALL {%}	CHOKE FACTOR {-}	INLET FLOW Qg {L/s}	BYPASS FLOW Qb {L/s}	BYPASS PIT {-}	COMMENTS
C1/19	GISP 900x900 A	0.016	95	0.971	6	207.5	6	207.5	6	207.5	9	6	207.5	9	9	0	11	0.03	2.15	0.01	0.7	3	0.8	6	5	C1/18	
C1/18	GISP 900x900 A	0.019	95	0.971	6	207.5	6	207.5	6	207.5	11	6	207.5	11	11	0	18	0.03	2.89	0.01	0.8	3	0.8	9	9	C1/17	
C1/17	GISP 900x900 A	0.022	95	0.971	6	207.5	6	207.5	6	207.5	12	6	207.5	12	12	0	21	0.03	1.98	0.02	4.6		0.8	10	11	C1/16	
C1/16	GISP 900x900 A	0.032	90	0.942	6	207.5	6	207.5	6	207.5	17	6	207.5	17	17	0	31	0.04	2.55	0.02	1.9		0.8	13	17	C1/15	
C1/15	GISP 900x900 A	0.027	90	0.942	6	207.5	6	207.5	6	207.5	14	6	207.5	14	14	0	32	0.05	3.06	0.02	0.8		0.8	14	18	C1/14	
C1/14	GISP 900x900 A	0.021	95	0.971	6	207.5	6	207.5	6	207.5	12	6	207.5	12	12	0	33	0.05	3.12	0.02	0.7		0.8	15	18	C1/13	
C1/13	GISP 900x900 A	0.01	90	0.942	6	207.5	6	207.5	6	207.5	6	6	207.5	6	6	0	24	0.04	2.76	0.02	0.7		0.8	11	13	C1/11	
C1/12	JP SEALED 900 x 900	0	0						0	0	0	0	0	0	0	0	0				1.4			0	0		
C1/11	GISP 900x900 A	0.024	90	0.942	6	207.5	6	207.5	6	207.5	13	6	207.5	13	13	0	28	0.04	2.57	0.02	1.9		0.8	12	16	C1/10	
C1/10	GISP 900x900 A	0.023	95	0.971	6	207.5	6	207.5	6	207.5	13	6	207.5	13	13	0	30	0.04	2.6	0.02	1.5		0.8	13	17	C1/9	
C1/9	GISP 900x900 A	0.023	95	0.971	6	207.5	6	207.5	6	207.5	13	6	207.5	13	13	0	62	0.04	4.17	0.03	1.5		0.8	23	39	C1/8	
C1/8	GISP 900x900 A	0.04	95	0.971	6	207.5	6	207.5	6	207.5	22	6	207.5	22	22	0	64	0.05	3.46	0.04	1.5		0.8	24	40	C1/7	
C1/7	GISP 900x900 A	0.021	95	0.971	6	207.5	6	207.5	6	207.5	12	6	207.5	12	12	0	54	0.05	3.25	0.03	1.5		0.8	21	33	C1/6	
C1/6	GISP 900x900 A	0.021	95	0.971	6	207.5	6	207.5	6	207.5	12	6	207.5	12	12	0	49	0.05	3.14	0.03	1.5		0.477448	11	37	C1/5	
C1/5	GSIP 900x900 SAG	0.027	90	0.942	6	207.5	6	207.5	6	207.5	15	6	207.5	15	15	0	71	0.06			0.3		0.5	46	25	LOST	
C1/4	JP GRATED 900 x 900	0	50	0.71	6	207.5	6	207.5	6	207.5	0	6	207.5	0	0	0	0	0	1.27	0	0.8	1.5	0.8	0	0	LOST	
C1/3	GPT	0	0						0	0	0	0	0	0	0	0	0				0.8			0	0		
C1/2	GPT	0	0						0	0	0	0	0	0	0	0	0							0	0		
C1/1	JP SEALED 900 x 900	0	0						0	0	0	0	0	0	0	0	0							0	0		EXISTING
H/11	IAD 900x900	0.002	85	0.913	6	207.5	6	207.5	6	207.5	1	6	207.5	1	1	0	1				2.5	-2.5	0.8	1	0	H/10	
H/10	GISP 900x900 A	0.019	90	0.942	6	207.5	6	207.5	6	207.5	11	6	207.5	11	11	0	11	0.02	1.6	0.01	2.5		0.8	6	5	H/9	
H/9	GISP 900x900 A	0.049	90	0.942	6	207.5	6	207.5	6	207.5	26	6	207.5	26	26	0	46	0.03	3.15	0.02	1.3		0.8	18	27	H/8	
H/8	GISP 900x900 A	0.037	90	0.942	6	207.5	6	207.5	6	207.5	20	6	207.5	20	20	0	53	0.05	3.37	0.03	1.2		0.8	20	32	H/7	
H/7	GISP 900x900 A	0.042	90	0.942	6	207.5	6	207.5	6	207.5	23	6	207.5	23	23	0	69	0.04	3.72	0.03	1.2		0.8	25	44	H/6	
H/6	GISP 900x900 A	0.043	90	0.942	6	207.5	6	207.5	6	207.5	23	6	207.5	23	23	0	70	0.03	3.75	0.02	1.2		0.8	25	45	H/5	
H/5	GISP 900x900 A	0.02	90	0.942	6	207.5	6	207.5	6	207.5	11	6	207.5	11	11	0	58	0.05	3.5	0.03	1.2		0.8	22	36	H/4	
H/4	GISP 900x900 A	0.016	95	0.971	6	207.5	6	207.5	6	207.5	9	6	207.5	9	9	0	54	0.02	3.68	0.02	1.6		0.8	21	33	H/3	
H/3	GISP 900x900 A	0.018	95	0.971	6	207.5	6	207.5	6	207.5	10	6	207.5	10	10	0	44	0.05	3.16	0.03	1.1		0.8	18	26	H/2	
H/2	GISP 900x900 A	0.025	95	0.971	6	207.5	6	207.5	6	207.5	14	6	207.5	14	14	0	40	0.05	3.05	0.03	1.1		0.8	17	23	H/1	
H/1	GISP 900x900 A	0.02	95	0.971	6	207.5	6	207.5	6	207.5	11	6	207.5	11	11	0	35	0.05	3.04	0.02	1		0.8	15	19	C1/5	
HA/9	IAD 600x600	0.014	85	0.913	6	207.5	6	207.5	6	207.5	7	6	207.5	7	7	0	7							7	0		
HA/8	IAD 600x600	0.016	85	0.913	6	207.5	6	207.5	6	207.5	8	6	207.5	8	8	0	8							8	0		
HA/7	IAD 600x600	0.01	85	0.913	6	207.5	6	207.5	6	207.5	5	6	207.5	5	5	0	5							5	0		
HA/6	IAD 600x900	0.01	85	0.913	6	207.5	6	207.5	6	207.5	5	6	207.5	5	5	0	5							5	0		
HA/5	IAD 600x900	0.02	85	0.913	6	207.5	6	207.5	6	207.5	11	6	207.5	11	11	0	11							11	0		
HA/4	IAD 600x900	0.01	85	0.913	6	207.5	6	207.5	6	207.5	5	6	207.5	5	5	0	5							5	0		
HA/3	IAD 900x900	0.009	85	0.913	6	207.5	6	207.5	6	207.5	5	6	207.5	5	5	0	5							5	0		
HA/2	IAD 900x900	0.013	85	0.913	6	207.5	6	207.5	6	207.5	7	6	207.5	7	7	0	7							7	0		
HA/1	IAD 900x900	0.012	85	0.913	6	207.5	6	207.5	6	207.5	6	6	207.5	6	6	0	6							6	0		
HB/9	IAD 600x600	0.014	85	0.913	6	207.5	6	207.5	6	207.5	7	6	207.5	7	7	0	7							7	0		
HB/8	IAD 600x600	0.017	85	0.913	6	207.5	6	207.5	6	207.5	9	6	207.5	9	9	0	9							9	0		
HB/7	IAD 600x600	0.02	85	0.913	6	207.5	6	207.5	6	207.5	10	6	207.5	10	10	0	10							10	0		
HB/6	IAD 600x900	0.01	85	0.913	6	207.5	6	207.5	6	207.5	5	6	207.5	5	5	0	5							5	0		
HB/5	IAD 600x900	0.01	85	0.913	6	207.5	6	207.5	6	207.5	5	6	207.5	5	5	0	5							5	0		
HB/4	IAD 600x900	0	85	0.913	6	207.5	6	207.5	6	207.5	0	6	207.5	0	0	0	0							0	0		
HB/3	IAD 600x900	0.023	85	0.913	6	207.5	6	207.5	6	207.5	12	6	207.5	12	12	0	12							12	0		
HB/2	IAD 900x900	0.011	85	0.913	6	207.5	6	207.5	6	207.5	6	6	207.5	6	6	0	6							6	0		
HB/1	IAD 900x900	0.001	85	0.913	6	207.5	6	207.5	6	207.5	0	6	207.5	0	0	0	0	0	0.7	0	1.2	-2.5	0.8	0	0	H/8	
HE/5	IAD 600x600	0.032	85	0.913	6	207.5	6	207.5	6	207.5	17	6	207.5	17	17	0	17							17	0		
HE/4	IAD 600x600	0.019	85	0.913	6	207.5	6	207.5	6	207.5	10	6	207.5	10	10	0	10							10	0		
HE/3	IAD 600x900	0.018	85	0.913	6	207.5	6	207.5	6	207.5	9	6	207.5	9	9	0	9							9	0		
HE/2	IAD 600x900	0.022	85	0.913	6	207.5	6	207.5	6	207.5	12	6	207.5	12	12	0	12							12	0		
HE/1	IAD 900x900	0.003	85	0.913	6	207.5	6	207.5	6	207.5	1	6	207.5	1	1	0	1	0.01	0.9	0	1.2	-4.3	0.8	1	0	H/6	
HG/15	IAD 600x600	0.011	85	0.913	6	207.5	6	207.5	6	207.5	6	6	207.5	6	6	0	6							6	0		
HG/14	IAD 600x900	0.009	85	0.913	6	207.5	6	207.5	6	207.5	5	6	207.5	5	5	0	5							5	0		
HG/13	IAD 900x900	0.002	85	0.913	6	207.5	6	207.5	6	207.5	1	6	207.5	1	1	0	1							1	0		
HG/12	IAD 600x600	0.032	85	0.913	6	207.5	6	207.5	6	207.5	17	6	207.5	17	17	0	17							17	0		
HG/11	IAD 600x900	0.018	85	0.913	6	207.5	6	207.5	6	207.5	9	6	207.5	9	9	0	9							9	0		
HG/10	IAD 600x900	0.023	85	0.913	6	207.5	6	207.5	6	207.5	12	6	207.5	12	12	0	12							12	0		
HG/9	IAD 600x600	0.026	85	0.913	6	207.5	6	207.5	6	207.5	14	6	207.5	14	14	0	14							14	0		
HG/8	IAD 600x900	0.032	85	0.913	6	207.5	6	207.5	6	207.5	17	6	207.5	17	17	0	17							17	0		
HG/7	IAD 600x900	0.028	85	0.913	6	207.5	6	207.5	6	207.5	15	6	207.5	15	15	0	15							15	0		
HG/6	IAD 600x900	0.036	85	0.913	6	207.5	6	207.5	6	207.5	19	6	207.5	19	19	0	19							19	0		
HG/5	IAD 600x900	0.018	85	0.913	6	207.5	6	207.5	6	207.5	9	6	207.5	9	9	0	9							9	0		
HG/4	IAD 900x900	0.022	85	0.913	6	207.5	6	207.5	6	207.5	11	6	207.5	11	11	0	11							11	0		
HG/3	IAD 900x900	0.023	85	0.913	6	207.5	6	207.5	6	207.5	12	6	207.5	12	12	0	12							12	0		
HG/2	IAD 900x900	0.001	85	0.913	6	207.5	6	207.5	6	207.5	1	6	207.5	1	1	0	1							1	0		
HG/1	IAD 900x900	0.001	85	0.913	6	207.5	6	207.5	6	207.5	0	6	207.5	0	0	0	0				1.1	-2.5	0.8	0	0	H/2	
HH/2	IAD 600x600	0.01	85	0.913	6	207.5	6	207.5	6	207.5	5	6	207.5	5	5	0	5							5	0		
HH/1	IAD 600x600	0.01	85	0.913	6	207.5	6	207.5	6	207.5	5	6	207.5	5	5	0	5							5	0		
J/2	GISP 900x900 A	0.013	90	0.942	6	207.5	6	207.5	6	207.5	7	6	207.5	7	7	0	11	0.02	2.92	0.01	0.7		0.8	6	5	J/1	
J/1	GISP 900x900 A	0.02	95	0.971	6	207.5	6	207.5	6	207.5	11	6	207.5	11	11	0	24	0.03	2.19	0.02	2.5		0.8	11	13	H/9	
K/2	GISP 900x900 A	0.019	90	0.942	6	207.5	6	207.5	6	207.5	10	6	207.5	10	10	0	15	0.03	2.36	0.01	1.2		0.8	8	7	K/1	
K/1	GISP 900x900 A	0.014	95	0.971	6	207.5	6	207.5	6	207.5	8	6	207.5	8	8	0	21	0.03	2.12	0.02	2.3		0.8	10	11	H/7	
L/2	GISP 900x900 A	0.021	90	0.942	6	207.5	6	207.5	6	207.5	11	6	207.5	11	11	0	13	0.03	2.32	0.01	0.8		0.8	7	6	L/1	
L/1	GISP 900x900 A	0.016	95	0.971	6	207.5	6	207.5	6	207.5	9	6	207.5	9	9	0	18	0.03	2.04	0.02	1.4		0.8	9	9	H/4	
W/2	IAD 900x900	0.268	85	0.913	6	207.5	6	207.5	6	207.5	141	6	207.5	141	141	0	141				1.5	12.6	0.8	113	28	C1/9	
W/1	JP SEALED 900 x 900	0	0						0	0	0	0	0	0	0	0	0				1.5			0	0		
X/1	IAD 900x900	0.148	85	0.913	6	207.5	6	207.5	6	207.5	78	6	207.5	78	78	0	78				1.5	25	0.8	62	16	LOST	
Y/1	IAD 900x900	0.168	85	0.913	6	207.5	6	207.5	6	207.5	88	6	207.5	88	88	0	88				1.5	25	0.8	71	18	LOST	

A	ISSUED FOR CONSTRUCTION CERTIFICATE	MMC	NM	DJH	MS	22/05/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

J. WYNDHAM PRINCE CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS

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AZIMUTH:
DATUM:
ORIGIN:

CLIENT: lendlease

THIS DRAWING MUST NOT BE USED FOR CONSTRUCTION UNLESS SIGNED AS PART OF AN APPROVED CONSTRUCTION CERTIFICATE.

ISSUED FOR CONSTRUCTION APPROVAL

JORDAN SPRING
STAGE 2 - RETIREMENT VILLAS
DRAINAGE CALCULATIONS
SHEET 3 OF 4

PLAN No: 11048702/CC128 A
FILE No: 11048702CC128
SHEET SIZE: A1 ORIGINAL

Plotted: 22 May , 2019 4:51:45 PM File Name: J:\110487 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\CC\STAGE 2\11048702CC128.dwg

Document Set ID: 8735604
Version: 1, Version Date: 17/06/2019

DESIGN STORM 1:100yr ARI HYDRAULIC RESULTS

PIPE	PIPE	PIPE	PIPE	PIPE	PIPE	FULL AREA	FULL AREA	FULL AREA	FULL AREA	PART-AREA	PART-AREA	PART-AREA	PART-AREA	DIRECT PIPE	PEAK	NET BYPASS	PIPE	FLOW	Q/Qcap	FULL PIPE	NORM. DEPTH	CRIT. DEPTH	U/S PIT	PIPE	PIPE	PIPE	U/S PIT	U/S PIT	PIPE	PIT LOSS	WSE LOSS	TOTAL	U/S PIT	U/S PIPE	D/S PIPE	HGL	MIN.	U/S	COMMENTS
NAME	TYPE	DIAMETER	LENGTH	SLOPE	AREA Af	TIME Tc	INTENSITY I	SUM CA	FLOW Qc	TIME Tc	INTENSITY I	SUM CA	FLOW Qc	FLOW Qp	FLOW Qrat	FLOW Qb	FLOW Q	CAP. Qcap	RATIO	VELOCITY	VELOCITY	VELOCITY	GRATE RL	U/S IL	D/S IL	D/S DROP	Ku	Kw	V'HEAD	(Ku.V'head)	(Kw.V'head)	PIPE LOSS	HGL	HGL	HGL	GRADE	COVER	FREEBOARD	
(-)	(-)	(mm)	(m)	(%)	(sq.m)	(min)	(mm/hr)	(ha)	(L/s)	(min)	(mm/hr)	(ha)	(L/s)	(L/s)	(L/s)	(L/s)	(L/s)	(L/s)	(-)	(m/s)	(m/s)	(m/s)	(m)	(m)	(m)	(m)	(-)	(-)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(%)	(m)	(m)	
C1/19 to C1/18	RRJ4	375	14.24	1	0.11	6	207.5	0.016	9.2	6	207.5	0.02	9.2	0	9.2	-3.2	6	190.4	0.03	0.05	0.78	0.61	41.32	40.305	40.162	0.05	4.5		0	0	0	0.14	40.36	40.359	40.208	1.07	0.6	0.96	
C1/18 to C1/17	RRJ4	375	16.81	2.56	0.11	6.3	203.7	0.035	19.7	6	207.5	0.03	19.6	0	19.7	-5.2	14.5	303.9	0.05	0.13	1.41	0.77	41.206	40.112	39.682	0.116	3.01		0	0	0	0.39	40.2	40.197	39.739	2.73	0.61	1.01	
C1/17 to C1/16	RRJ4	375	19.33	2.88	0.11	6.5	201.4	0.107	59.8	6.24	204.4	0.11	60	0	60	-13.5	46.5	322.3	0.14	0.42	2.07	1.07	40.662	39.567	39.011	0.051	1.77	2	0.01	0.02	0.02	0.55	39.741	39.723	39.155	2.94	0.6	0.92	
C1/16 to C1/15	RRJ4	375	14.75	1	0.11	6.66	199.6	0.137	75.8	6.35	203.1	0.14	76.3	0	76.3	-17.3	58.9	190.4	0.31	0.53	1.52	1.16	40.069	38.961	38.813	0.051	1.21		0.01	0.02	0.02	0.13	39.155	39.137	38.956	1.23	0.69	0.91	
C1/15 to C1/14	RRJ4	450	17.62	1	0.16	6.82	197.7	0.162	88.8	6.52	201.2	0.16	89.5	0	89.5	-17.6	71.9	309.7	0.23	0.45	1.59	1.17	39.932	38.763	38.586	0.05	0.73		0.01	0.01	0.01	0.18	38.956	38.948	38.772	1	0.68	0.98	
C1/14 to C1/13	RRJ4	450	8.89	1	0.16	7	195.7	0.213	115.6	6.6	200.3	0.21	116.8	0	116.8	-18.3	98.5	309.1	0.32	0.62	1.73	1.29	39.808	38.536	38.447	0.051	0.93		0.02	0.02	0.02	0.09	38.772	38.754	38.648	1.2	0.78	1.04	
C1/13 to C1/12	RRJ4	450	8.69	1	0.16	7.09	194.8	0.222	120.3	6.68	199.3	0.22	121.6	0	121.6	-12.6	109	309.1	0.35	0.69	1.77	1.33	39.746	38.397	38.31	0.051	0.86		0.02	0.02	0.02	0.07	38.648	38.627	38.498	1.48	0.86	1.1	
C1/12 to C1/11	RRJ4	450	8.69	1	0.16	7.17	193.9	0.222	119.8	6.76	198.4	0.22	121	0	121	-12.6	108.4	309.2	0.35	0.68	1.77	1.33	39.707	38.26	38.173	0.051	0.39		0.02	0.01	0.01	0.08	38.498	38.489	38.38	1.26	0.9	1.21	
C1/11 to C1/10	RRJ4	525	24.93	1	0.22	7.25	193.1	0.268	143.8	6.75	198.5	0.26	145.6	0	145.6	-15.7	129.9	466.8	0.28	0.6	1.85	1.34	39.549	38.123	37.873	0.031	0.9		0.02	0.02	0.02	0.25	38.38	38.363	38.107	1.03	0.75	1.17	
C1/10 to C1/9	RRJ4	525	24.93	1	0.22	7.48	190.8	0.29	153.8	6.98	196	0.29	155.8	0	155.8	-15.4	140.4	466.8	0.3	0.65	1.89	1.38	39.183	37.843	37.593	0.987	0.63		0.02	0.01	0.01	0.07	38.107	38.093	38.093	0	0.67	1.08	
C1/9 to C1/8	RRJ4	600	35.57	1	0.28	7.7	188.6	0.609	318.9	6.69	199.1	0.59	327.9	0	327.9	-39.1	288.8	665.5	0.43	1.02	2.27	1.69	38.816	36.606	36.25	0.031	1.65	1.78	0.05	0.09	0.09	0.07	38.1	38.006	37.939	0.19	1.41	0.72	
C1/8 to C1/7	RRJ4	600	18.64	1	0.28	7.96	186.1	0.803	415	6.71	199	0.78	429.7	0	429.7	-55.6	374	665.5	0.56	1.32	2.42	1.86	38.293	36.22	36.034	0.031	0.45		0.09	0.04	0.04	0.06	37.939	37.899	37.84	0.32	1.35	0.35	
C1/7 to C1/6	RRJ4	600	18.64	1	0.28	8.09	184.9	0.823	422.6	6.83	197.6	0.8	437.6	0	437.6	-46.5	391.1	665.5	0.59	1.38	2.45	1.9	38.019	36.004	35.818	0.051	0.35		0.1	0.03	0.03	0.06	37.84	37.805	37.741	0.35	1.29	0.18	
C1/6 to C1/5	RRJ4	675	13.26	1	0.36	8.21	183.8	1.046	534.1	6.63	199.8	1.01	558	0	558	-70.3	487.7	911	0.54	1.36	2.59	1.95	37.745	35.768	35.635	0.051	0.46		0.09	0.04	0.04	0.04	37.741	37.697	37.659	0.29	1.25	0	
C1/5 to C1/4	RRJ4	675	7.56	1	0.36	8.3	183	1.072	545	6.72	198.9	1.03	569.6	0	569.6	-38.9	530.7	911	0.58	1.48	2.64	2.03	37.622	35.585	35.509	0.051	0		0	0	0	0	37.659	37.659	37.659	0	1.32	-0.04	
C1/4 to C1/3	RRJ4	675	5.25	1	0.36	8.35	182.6	2.373	1203.6	7.07	195	2.32	1257.9	0	1257.9	-58.3	1199.5	911	1.32	3.35	3.35	3.42	37.69	35.459	35.407	0.03	0.37		0.05	0.02	0.02	0.01	37.659	37.639	37.631	0.16	1.5	0.03	
C1/3 to C1/2	RRJ2	675	4.1	1	0.36	8.37	182.4	2.373	1202.1	7.1	194.7	2.32	1256.1	0	1256.1	-58.3	1197.7	911	1.31	3.35	3.35	3.41	37.631	35.377	35.336	0.7	2		0.02	0.05	0.05	0	37.631	37.582	37.579	0.07	1.52	0	
C1/2 to C1/1	RRJ2	675	10.74	0.7	0.36	8.39	182.2	2.373	1200.9	7.12	194.5	2.32	1254.7	0	1254.7	-58.3	1196.3	763.5	1.57	3.34	3.34	3.41	37.579	34.636	34.561	0.05	2		0.2	0.39	0.39	0.06	37.579	37.188	37.124	0.59	2.18	0	
C1/1 to A/3	RRJ2	675	22.88	0.7	0.36	8.45	181.7	2.373	1197.8	7.17	194	2.32	1251	0	1251	-58.3	1192.7	762.2	1.56	3.33	3.33	3.4	37.457	34.511	34.35	0.05	0.66	0.66	0.57	0.37	0.38	0.39	37.128	36.752	36.36	1.71	1.78	0.33	
H/11 to H/10	RRJ4	375	5.81	1.02	0.11	6.48	201.7	0.106	59.2	6.32	203.6	0.11	59.4	0	59.4	-0.2	59.2	191.5	0.31	0.54	1.53	1.16	40.131	38.713	38.654	0.051	0.3		0.01	0	0	0.01	39.088	39.084	39.079	0.09	0.92	1.04	
H/10 to H/9	RRJ4	375	27.84	1.02	0.11	6.54	200.9	0.124	69.2	6.38	202.8	0.12	69.5	0	69.5	-5.1	64.4	191.9	0.34	0.58	1.57	1.19	39.962	38.604	38.32	0.031	1.83	2.13	0.02	0.03	0.04	0.03	39.084	39.047	39.015	0.11	0.65	0.88	
H/9 to H/8	RRJ4	375	26.56	1	0.11	6.83	197.6	0.307	168.3	6.52	201.2	0.3	170.1	0	170.1	-26.4	143.7	190.2	0.76	1.3	1.89	1.63	39.37	38.29	38.024	0.062	0.97		0.09	0.08	0.08	0.15	39.015	38.931	38.78	0.57	0.63	0.35	
H/8 to H/7	RRJ4	450	27.51	1.11	0.16	7.07	195	0.49	265.3	6.53	201	0.48	269.1	0	269.1	-32.1	236.9	324.8	0.73	1.49	2.23	1.82	39.061	37.962	37.658	0.089	0.69		0.11	0.08	0.08	0.16	38.78	38.701	38.539	0.59	0.6	0.28	
H/7 to H/6	RRJ4	525	28.15	1.11	0.22	7.27	192.9	0.676	362.2	6.57	200.6	0.66	369.2	0	369.2	-43.5	325.7	490.7	0.66	1.5	2.42	1.9	38.743	37.57	37.258	0.093	0.58		0.12	0.07	0.07	0.14	38.539	38.472	38.335	0.49	0.6	0.2	
H/6 to H/5	RRJ4	600	15.14	1.06	0.28	7.47	190.9	0.802	425.3	6.76	198.4	0.79	434.6	0	434.6	-41.7	393	686.3	0.57	1.39	2.51	1.9	38.417	37.166	37.005	0.051	0.49		0.1	0.05	0.05	0.05	38.335	38.287	38.234	0.35	0.6	0.08	
H/5 to H/4	RRJ4	600	7.98	1	0.28	7.57	189.9	0.869	458.4	6.86	197.3	0.86	468.9	0	468.9	-36	432.9	666.3	0.65	1.53	2.51	1.99	38.241	36.955	36.875	0.05	0.54		0.12	0.06	0.06	0.03	38.234	38.17	38.136	0.42	0.64	0.01	
H/4 to H/3	RRJ4	600	9.17	1	0.28	7.62	189.4	0.964	507	6.87	197.2	0.95	519.4	0	519.4	-33.5	485.9	666.6	0.73	1.72	2.57	2.1	38.148	36.825	36.733	0.05	0.73		0.15	0.11	0.11	0.05	38.136	38.026	37.977	0.53	0.68	0.01	
H/3 to H/2	RRJ4	600	18.86	1	0.28	7.68	188.8	0.981	514.6	6.93	196.5	0.97	527.2	0	527.2	-25.9	501.4	666.2	0.75	1.77	2.59	2.14	38.042	36.683	36.494	0.302	0.4		0.16	0.06	0.06	0.11	37.977	37.912	37.805	0.57	0.7	0.06	
H/2 to H/1	RRJ4	675	16.04	1	0.36	7.8	187.6	1.281	667.7	6.97	196.1	1.26	686	0	686	-23.3	662.8	912.6	0.73	1.85	2.78	2.25	37.83	36.192	36.031	0.05	0.35		0.18	0.06	0.06	0.08	37.805	37.744	37.659	0.53	0.9	0.02	
H/1 to C1/4	RRJ4	675	6.59	1	0.36	7.9	186.7	1.301	674.6	7.06	195.1	1.28	693	0	693	-19.4	673.6	911.6	0.74	1.88	2.79	2.27	37.653	35.981	35.915	0.456	0		0	0	0	0	37.659	37.659	37.659	0	0.96	-0.01	
HA/9 to HA/8	uPVC	150	2.4	1	0.02	6	207.5	0.013	7.3	6	207.5	0.01	7.3	0	7.3	0	7.3	19.8	0.37	0.41	1.03	0.78	40.272	39.519	39.495	0.031	4.5		0	0	0	0	40.272	40.272	40.272	0	0.6	0	
HA/8 to HA/7	uPVC	150	6.56	0.99	0.02	6.04	207	0.027	15.6	6	207.5	0.03	15.6	0	15.6	0	15.6	19.7	0.79	0.89	1.24	1.07	40.272	39.464	39.399	0.031	1.3		0	0	0	0	40.272	40.272	40.272	0	0.66	0	
HA/7 to HA/6	uPVC	150	2.4	1.04	0.02	6.13	205.9	0.036	20.8	6.09	206.4	0.04	20.8	0	20.8	0	20.8	20.2	1.03	1.18	1.3	1.27	40.272	39.369	39.344	0.031	0.81		0.02	0.02	0.02	0.01	40.272	40.255	40.247	0.33	0.75	0	
HA/6 to HA/5	uPVC	150	4.3	1.19	0.02	6.16	205.5	0.045	25.7	6.12	206	0.05	25.8	0	25.8	0	25.8	21.6	1.19	1.46	1.46	1.5	40.272	39.314	39.263	0.031	0.69		0.11	0.07	0.07	0.07	40.247	40.173	40.1	1.69	0.66	0.02	
HA/5 to HA/4	uPVC	150	11.33	1.01	0.02	6.21	204.9	0.063	36	6.17	205.4	0.06	36.1	0	36.1	0	36.1	19.9	1.82	2.04	2.04	2.05	40.1	39.233	39.119	0.031	0.89		0.07	0.06	0.06	0.12	40.1	40.04	39.921	1.05	0.72	0	
HA/4 to HA/3	uPVC	150	2.55	1.02	0.02	6.3	203.8	0.073	41.1	6.26	204.2	0.07	41.1	0	41.1	0	41.1	20	2.06	2.33	2.33	2.33	40.1	39.089	39.063	0.031	0.53		0.28	0.15	0.15	0.11	39.921	39.774	39.664	4.31	0.86	0.18	
HA/3 to HA/2	uPVC	150	3.08	1.01	0.02	6.32	203.6	0.081	45.8	6.19	205.1	0.08	45.9	0	45.9	0	45.9	19.9	2.31	2.6	2.6	2.6	40.1	39.033	39.002	0.051	0.48		0.34	0.17	0.17	0.17	39.664	39.499	39.333	5.37	0.92	0.44	
HA/2 to HA/1	uPVC	225	2.05	1.03	0.04	6.34	203.3	0.093	52.5	6.21	204.9	0.09	52.6	0	52.6	0	52.6	59.2	0.89	1.32	1.68	1.47	40.1	38.952	38.931	0.05	0.3		0.09	0.03	0.03	0.02	39.333	39.307	39.29	0.81	0.92	0.77	
HA/1 to H/11	uPVC	225	11.78	1	0.04	6.36	203.1	0.104	58.8	6.2	205	0.1	58.9	0	58.9	0	58.9	58.4	1.01	1.48	1.67	1.59	40.1	38.881	38.763	0.05	0.73		0.11	0.08	0.08	0.12	39.29	39.208	39.088	1.02	0.99	0.81	
HB/9 to HB/8	uPVC	150	5.02	1	0.02	6	207.5	0.013	7.3	6	207.5	0.01	7.3	0	7.3	0	7.3	19.8	0.37	0.41	1.03	0.78	39.55	38.797	38.747	0.031	4.5		0	0	0	0	39.55	39.55	39.55	0	0.6	0	
HB/8 to HB/7	uPVC	150	3.94	1.01	0.02	6.08	206.5	0.028	16	6	207.5	0.03	16	0	16	0	16	19.9	0.8	0.91	1.25	1.08	39.55	38.717	38.677	0.031	1.31		0	0	0	0	39.55	39.55	39.55	0	0.68	0	
HB/7 to HB/6	uPVC	150	4.3	1.02	0.02	6.13	205.8	0.046	26.3	6.05	206.8	0.05	26.4	0	26.4	0	26.4	20	1.32	1.49	1.49	1.53	39.55	38.647	38.603	0.031	1.08		0	0	0	0	39.55	39.55	39.55	0	0.75	0	
HB/6 to HB/5	uPVC	150	9.32	1.01	0.02	6.18	205.2	0.055	31.6	6.1	206.2	0.06	31.7	0	31.7	0	31.7	19.9	1.59	1.79	1.79	1.81	39.55	38.573	38.479	0.031	0.63		0.12	0.07	0.07	0.17	39.55	39.477	39.309	1.8	0.68	0	
HB/5 to HB/4	uPVC	150	2.64	1.02	0.02	6.27	204.2	0.064	36.4	6.19	205.1	0.06	36.5	0	36.5	0	36.5	20	1.82	2.06	2.06	2.07	39.378	38.449	38.422	0.05	0.55		0.22	0.12	0.12	0.09	39.309	39.189	39.099	3.39	0.78	0.07	
HB/4 to HB/3	uPVC	150	2.05	1.03	0.02	6.29	203.9	0.065	36.6	6.21	204.9	0.06	36.7	0	36.7	0	36.7	20.1	1.83	2.07	2.07	2.08	39.378	38.372	38.351	0.05	0.28		0.22	0.06	0.06	0.07	39.099	39.038	38.968	3.42	0.85	0.28	
HB/3 to HB/2	uPVC	225	4.28	1	0.04	6.31	203.7	0.086	48.5	6.17	205.3	0.09	48.7	0	48.7	0	48.7	58.5	0.83	1.22	1.65	1.4	39.378	38.301	38.258	0.031	0.3		0.08	0.02	0.02	0.03	38.968	38.945	38.915	0.69	0.85	0.41	
HB/2 to HB/1	uPVC	225	9.24	1.01	0.04	6.35	203.2	0.096	54	6.22	204.8	0.1	54.2	0	54.2	0	54.2	58.6	0.92	1.36	1.67	1.5	39.378	38.228	38.135	0.05	0.5		0.09	0.05	0.05	0.08	38.915	38.868	38.788	0.86	0.89	0.46	
HB/1 to H/8	RRJ4	375	5.81	1.02	0.11	6.44	202.1	0.096	54	6.31	203.7	0.1	54.2	0	54.2	-0.1	54.1	191.5	0.28	0.49	1.49	1.12	39.231	38.085	38.026	0.065	0.3		0.01	0	0	0	38.788	38.784	38.78	0.08	0.65	0.44	
HE/5 to HE/4	uPVC	150	4.3	1.02	0.02	6	207.5	0.03	17	6	207.5	0.03	17	0	17	0	17	20	0.85	0.96	1.27	1.12	38.95	38.198	38.154	0.039	4.5		0.02	0.07	0.07	0.01	38.95	38.877	38.866	0.25	0.6	0	
HE/4 to HE/3	uPVC	150	13.56	1.28	0.02	6.06	206.8	0.047	27	6	207.5	0.05	27	0	27	0	27	22.4	1.21	1.53	1.53	1.56	38.95	38.116	37.943	0.031	1.04		0.12	0.12	0.12	0.25	38.866	38.742	38.49	1.86	0.6	0.08	
HE/3 to HE/2	uPVC	225	4.7	1.02	0.04	6.2	204.9	0.063	35.9	6.15	205.6	0.06	35.9	0	35.9	0	35.9	59	0.61	0.9	1.56	1.2	38.778	37.913	37.865	0.031	0.3		0.04	0.01	0.01	0.02	38.49	38.477	38.46	0.38	0.64	0.29	
HE/2 to HE/1	uPVC	225	8.02	1.01	0.04	6.25	204.3	0.083	47.2	6.2	205	0.08	47.2	0	47.2	0	47.2	58.7	0.81	1.19	1.64	1.38	38.778	37.835	37.754	0.153	0.89		0.07	0.06	0.06	0.05	38.46	38.396	38.343	0.65	0.72	0.32	
HE/1 to H/6	RRJ4	375	7.98	2.29	0.11	6.34	203.3	0.086	48.4	6.28	204	0.09	48.4	0	48.4	-0.3	48.1	287.7	0.17	0.44	1.93	1.08	38.778	37.601	37.418	0.253	0.3		0.01	0	0	0.01	38.343	38.34	38.335	0.06	0.6	0.43	
HG/15 to HG/14	uPVC	150	4.3	1.02	0.02	6	207.5	0.01	5.8	6	207.5	0.01	5.8	0	5.8	0	5.8	20	0.29	0.33	0.98	0.72	39.707	38.955	38.911	0.031	4.5		0.01	0.02	0.02	0	39.563	39.538	39.534	0.09	0.6	0.14	
HG/14 to HG/13	uPVC	150	5.49	1	0.02	6.07	206.6	0.018	10.4	6	207.5	0.02	10.4	0	10.4	0	10.4	19.8	0.53	0.59	1.14	0.89	40.05	38.881	38.826	0.351	1.16		0.02	0.02	0.02	0.02	39.534	39.514	39.499	0.28	1.02	0.52	
HG/13 to HG/12	uPVC	150	13.14	1	0.02	6.2	205	0.039	22	6.15	205.6	0.04	22	0	22	0	22	19.9	1.11	1.25	1.25	1.32	40.05	38.475	38.343	0.031	1.51	1.89	0.08	0.12	0.15	0.16	39.529	39.379	39.217	1.23	0.6	0.52	
HG/12 to HG/11	uPVC	150	3.61	1.02	0.02	6.38	202.9	0.068	38.1	6.3	203.8	0.07	38.1	0	38.1	0	38.1	20	1.9	2.16	2.16	2.17	39.217	38.313	38.276	0.031	1.14		0.07	0.08	0.08	0.04	39.217	39.141	39.104	1.04	0.75	0	
HG/11 to HG/10	uPVC	225	13.96	1	0.04	6.4	202.5	0.084	47.2	6.28	204	0.08	47.4	0	47.4	0	47.4	58.5	0.81	1.19	1.64	1.38	39.217	38.246	38.106	0.037	0.3		0.07	0.02	0.02	0.09	39.104	39.082	38.99	0.66	0.64	0.11	
HG/10 to HG/9	uPVC	225	3.61	1	0.04	6.55	200.9	0.105	58.8	6.35	203.2	0.1	59	0	59	0	59	58.3	1.01	1.48	1.67	1.59	39.045	38.069	38.033	0.043	0.71		0.11	0.08	0.08	0.04	38.99	38.91	38.873	1.02	0.6	0.05	
HG/9 to HG/8	uPVC	225	20.61	1	0.04	6.58	200.4	0.129	71.7	6.21	204.9	0.13	72.2	0	72.2	0	72.2	58.4	1.24	1.82	1.82	1.86	38.873	37.99	37.784	0.031	0.67		0.07	0.05	0.05	0.14	38.873	38.824	38.687	0.66	0.6	0	
HG/8 to HG/7	uPVC	225	4.3	1	0.04	6.77	198.3	0.158	87	6.4	202.6	0.16	87.8	0	87.8	0	87.8	58.4	1.5	2.21	2.21	2.23	38.701	37.754	37.711	0.142	0.67		0.25	0.17	0.17	0.1	38.687	38.519	38.422	2.26	0.72	0.01	
HG/7 to HG/6	uPVC	300	22.08	1.84	0.07	6.8	197.9	0.184	101.1	6.43	202.2	0.18	102.2	0	102.2	0	102.2	170.7	0.6	1.45	2.52	1.64	38.701	37.569	37.162	0.031	0.3		0.11	0.03	0.03	0.15	38.422	38.39	38.245	0.66	0.6	0.28	
HG/6 to HG/5	uPVC	300	3.61	1.02	0.07	6.95	196.3	0.217	118.3	6.55	200.8	0.21	119.8	0	119.8	0	119.8	127.2	0.94	1.69	2.05	1.82	38.294	37.132	37.095	0.031	0.61		0.15	0.09	0.09	0.03	38.245	38.155	38.122	0.91	0.7	0.05	
HG/5 to HG/4	uPVC	300	13.96	1	0.07	6.98	196	0.233	127.1	6.58	200.5	0.23	128.7	0	128.7	0	128.7	125.9	1.02	1.82	2.03	1.92	38.122	37.065	36.925	0.031	0.4		0.03	0.01	0.01	0.03	38.122	38.11	38.084	0.18	0.75	0	
HG/4 to HG/3	uPVC	300	4.3	0.98	0.07	7.09	194.8	0.253	137	6.55	200.8	0.25	138.8	0	138.8	0	138.8	124.3	1.12	1.96	1.96	2.04	38.122	36.894	36.852	0.05	0.42		0.2	0.08	0.08	0.05	38.084	38.002	37.95	1.22	0.77	0.04	
HG/3 to HG/2	uPVC	300	2.28	1.01	0.07	7.13	194.4	0.274	148	6.58	200.4	0.27	150.2	0	150.2	0	150.2	126.4	1.19	2.12	2.12	2.18	37.95	36.802	36.779	0.337	0.55		0.04	0.02	0.02	0.01	37.95	37.925	37.919	0.28	0.85	0	
HG/2 to HG/1	RRJ2	375	9.26	1	0.11	7.15	194.2	0.275	148.5	6.6	200.2	0.27	150.7	0	150.7	0	150.7	190.4	0.79	1.36	1.91	1.67	37.951	36.443	36.35	0.051	0.3		0.09	0.03	0.03	0.06	37.919	37.89	37.832	0.63	1.1	0.03	
HG/1 to H/2	RRJ4	450	5.73	1.01	0.16	7.23	193.3	0.276	148.1	6.68	199.3	0.27	150.3	0	150.3	-0.1	150.2	311	0.48	0.94	1.94	1.5	37.978	36.3	36.242	0.05	0.3		0.05	0.01	0.01	0.01	37.832	37.819	37.805	0.24	1.12	0.15	
HH/2 to HH/1	uPVC	150	4.3	0.98	0.02	6	207.5	0.009	5.3	6	207.5	0.01	5.3	0	5.3	0	5.3	19.6	0.27	0.3	0.94	0.71	40.05	39.297	39.255	0.031	4.5		0	0.02	0.02	0	39.578	39.557	39.554	0.07	0.6	0.47	
HH/1 to HG/13	uPVC	150	8.47	1	0.02	6.08	206.5	0.019	10.7	6	207.5	0.02	10.7	0	10.7	0	10.7	19.8	0.54	0.61	1.14	0.9	40.05	39.225	39.14	0.665	1.63		0.02	0.03	0.03	0.02	39.554	39.523	39.499	0.29	0.67	0.5	
J/2 to J/1	RRJ4	375	25.4	1.57	0.11	6	207.5	0.012	6.8	6	207.5	0.01	6.8	0	6.8	-0.9	5.9	238.5	0.02	0.05	0.91	0.6	40.108	39.094	38.694	0.051	4.5		0	0	0	0.11	39.148	39.148	39.06	0.35	0.6	0.96	
J/1 to H/9	RRJ4	375	10.74	2.47	0.11	6.47	201.8	0.137	76.7	6.04	207	0.13	76.9	0	76.9	-13.1	63.7	298.5	0.21	0.58	2.15	1.19	39.689	38.644	38.379	0.089	1.9	2.22	0.02	0.03	0.04	0.01	39.065	39.027	39.015	0.11	0.6	0.62	
K/2 to K/1	RRJ4	375	17.63	1.21	0.11	6	207.5	0.018	10.3	6	207.5	0.02	10.3	0	10.3	-2.8	7.5	208.8	0.04	0.07	0.89	0.64	39.303	38.285	38.072	0.063	4.5		0	0	0	0	38.58	38.579	38.579	0	0.6	0.72	
K/1 to H/7	RRJ4	375	11.93	2.17	0.11	6.38	202.8	0.126	71.2	6.33	203.4	0.13	71.2	0	71.2	-11.4	59.8	279.9	0.21	0.54	2.02	1.16	39.069	38.01	37.751	0.181	1.85	2.14	0.01	0.03	0.03	0.01	38.583	38.551	38.539	0.1	0.6	0.49	
L/2 to L/1	RRJ4	375	15.26	1	0.11	6	207.5	0.02	11.3	6	207.5	0.02	11.3	0	11.3	-4.2	7	189.7	0.04	0.06	0.82	0.63	38.681	37.666	37.514	0.051	4.5		0	0	0	0	38.151	38.151	38.15	0	0.6	0.53	
L/1 to H/4	RRJ4	375	15	2.07	0.11	6.4	202.5	0.079	44.6	6.31	203.6	0.08	44.7	0	44.7	-9.4	35.3	273.6	0.13	0.32	1.71	0.99	38.526	37.464	37.153	0.328	1.8	2.04	0.01	0.01	0.01	0.01	38.152	38.141	38.136	0.03	0.6	0.37	
W/2 to W/1	RRJ4	450	3.77	1.04	0.16	6	207.5	0.245	141.1	6	207.5	0.24	141.1	0	141.1	-28.2	112.9	314.5	0.36	0.71	1.81	1.35	39.05	37.309	37.27	0.051	4.5		0.03	0.12	0.12	0.01	38.259	38.143	38.138	0.13	0.6	0.79	
W/1 to C1/9	RRJ4	450	9.01	1.01	0.16	6.03	207.1	0.245	140.8	6.03	207.1	0.24	140.8	0	140.8	-28.2	112.6	310.6	0.36	0.71	1.8	1.35	39.05	37.22	37.129	0.523	1.3	1.36	0.03	0.03	0.03	0.01	38.14	38.105	38.093	0.13	0.71	0.91	
X/1 to C1/8	RRJ4	450	8.55	0.99	0.16	6	207.5	0.135	77.6	6	207.5	0.13	77.6	0	77.6	-15.5	62.1	308.1	0.2	0.39	1.52	1.12	39.05	36.883	36.798	0.578	4.5		0.01	0.03	0.03	0	37.977	37.942	37.939	0.04	0.6	1.07	
Y/1 to C1/6	RRJ4	450	8.54	1	0.16	6	207.5	0.153	88.2	6	207.5	0.15	88.2	0	88.2	-17.6	70.6	309	0.23	0.44	1.57	1.16	39.05	35.903	35.818	0.051	4.5		0.01	0.05	0.05	0	37.79	37.745	37.741	0.05	1.03	1.26	

Plotted: 22 May , 2019 4:51:53 PM File Name: J:\110487 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\CC\STAGE 2\11048702CC129.dwg

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	AMENDMENT	DES	DRN	CKD	APR	DATE

J. WYNDHAM PRINCE

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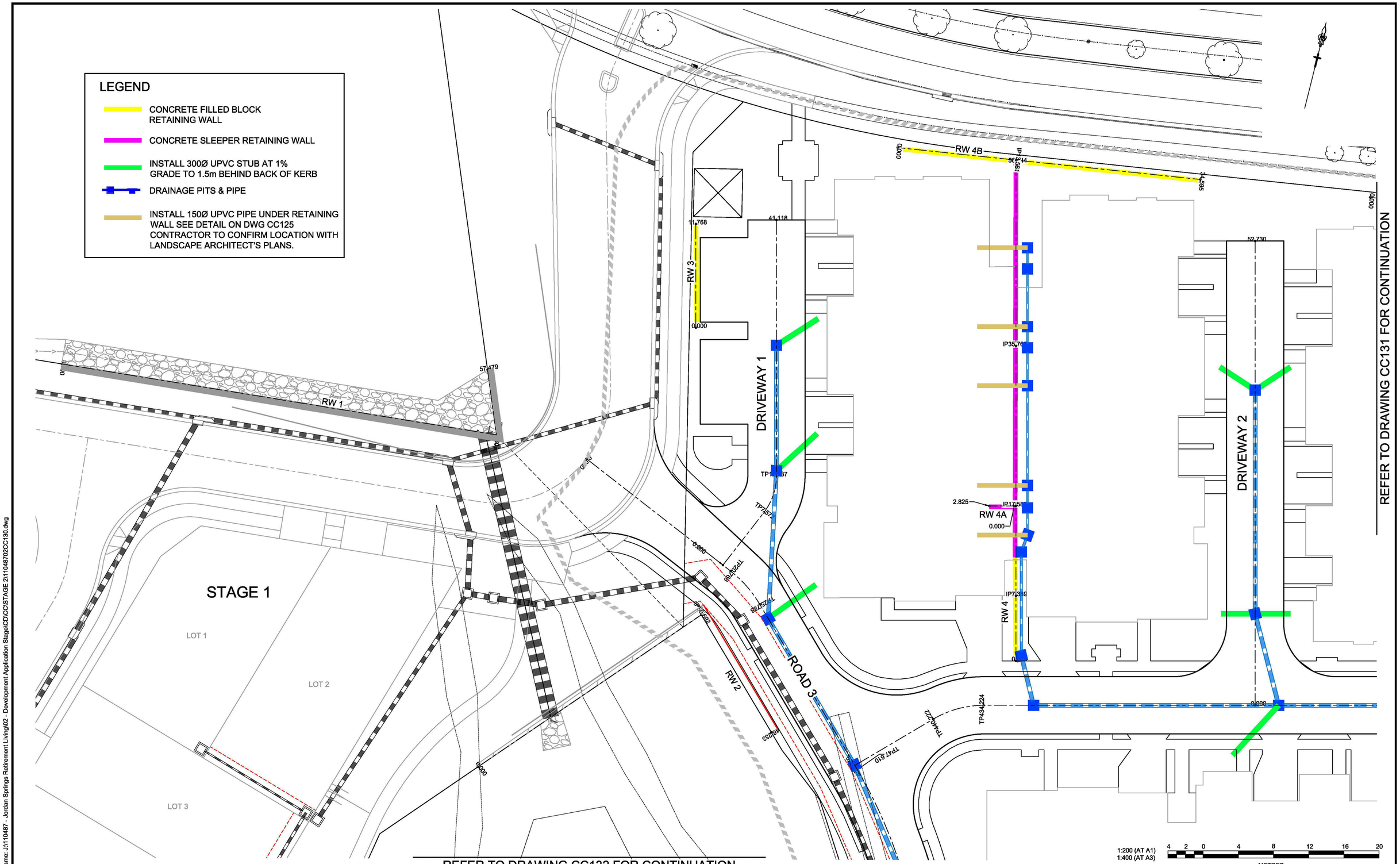
JORDAN SPRING
STAGE 2 - RETIREMENT VILLAS
DRAINAGE CALCULATIONS
SHEET 4 OF 4

PLAN No: 11048702/CC129 A

FILE No: 11048702CC129

SHEET SIZE: A1 ORIGINAL

Document Set ID: 8735604
Version: 1, Version Date: 17/06/2019



PLAN
SCALE 1:200

A	ISSUED FOR CONSTRUCTION CERTIFICATE	MMC	NM	DJH	MS	22/05/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

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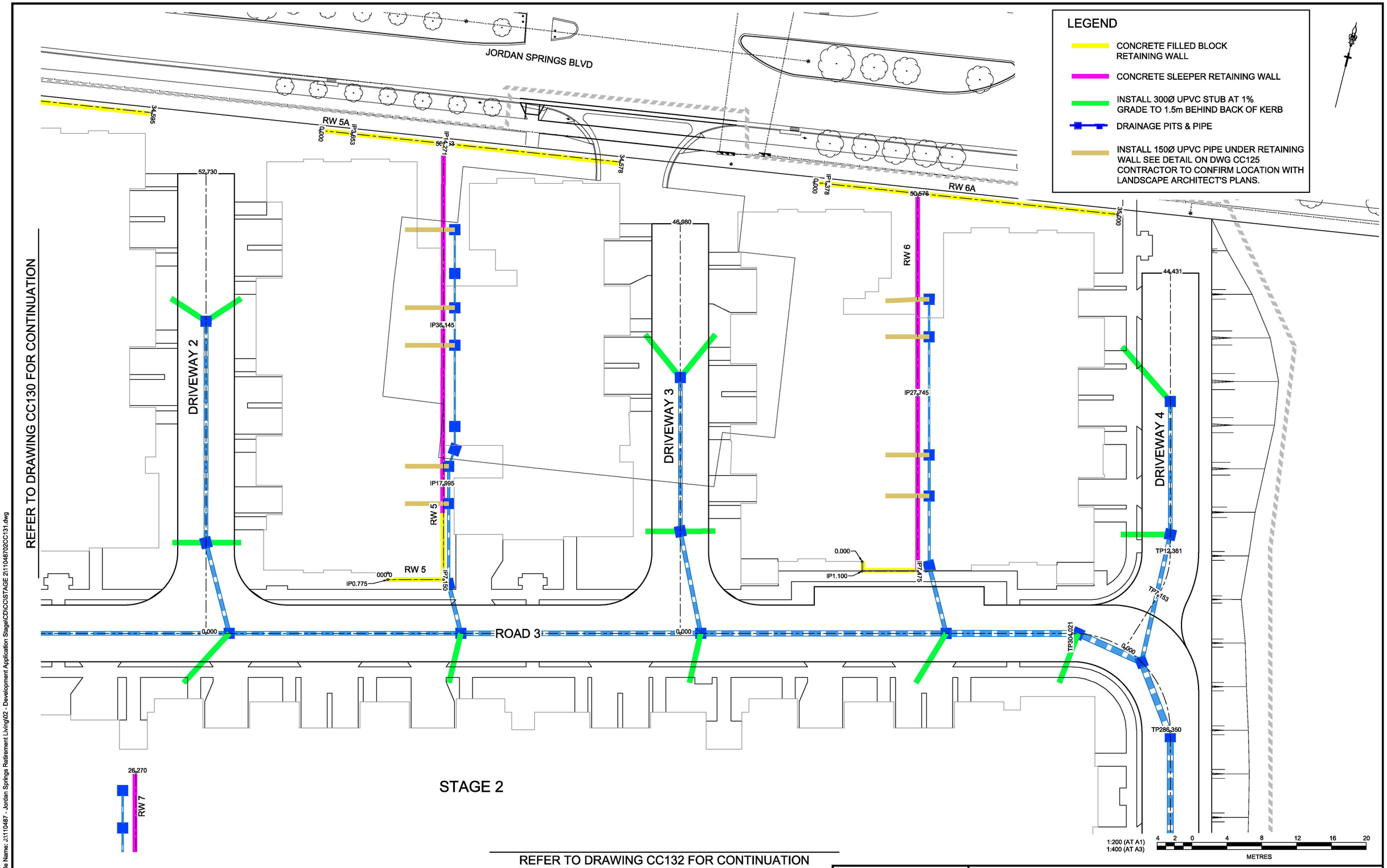
JORDAN SPRING
STAGE 2 - RETIREMENT VILLAS
RETAINING WALL PLAN
SHEET 1 OF 3

PLAN No: 11048702/CC130 A
FILE No: 11048702CC130
SHEET SIZE: A1 ORIGINAL

Plotted: 22 May , 2019 4:52:07 PM File Name: J:\110487 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\CC\STAGE 2\11048702CC130.dwg

Document Set ID: 8735604
Version: 1, Version Date: 17/06/2019



REFER TO DRAWING CC132 FOR CONTINUATION

PLAN

SCALE 1:200

CLIENT: lendlease

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	AMENDMENT	DES	DRN	CKD	APR	DATE

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AZIMUTH:

DATUM:

ORIGIN:

JORDAN SPRING
STAGE 2 - RETIREMENT VILLAS
RETAINING WALL PLAN
SHEET 2 OF 3

PLAN No: 11048702/CC131 A

FILE No: 11048702CC131

SHEET SIZE: A1 ORIGINAL

Plotted: 22 May , 2019 4:52:22 PM File Name: J:\110487 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\CC\STAGE 2\11048702CC131.dwg

Document Set ID: 8735604
Version: 1, Version Date: 17/06/2019

REFER TO DRAWING CC130 FOR CONTINUATION

REFER TO DRAWING CC131 FOR CONTINUATION

RW 4 | IP7.389 | 0.000

DRIVEWAY 2 | 0.000

RW 5 | IP0.775 | 0.000 | IP2.150

DRIVEWAY 3 | 0.000

RW 6 | 0.000 | IP1.100 | IP2.475

TP434.224

ROAD 3

TP304.021

TP286.350

26.270

RW 7 | IP12.015 | 0.000 | IP3.730 | 0.000

STAGE 2

IP22.340 | IP44.445 | RW 8 | IP67.495 | IP90.630 | 99.555

INSTALL 150Ø UPVC PIPE ONLY
DROP UNDER RETAINING WALL
NOT REQUIRED

TP250.250

TP106.958

ROAD 3

TP232.578

LEGEND

- CONCRETE FILLED BLOCK RETAINING WALL
- CONCRETE SLEEPER RETAINING WALL
- INSTALL 300Ø UPVC STUB AT 1% GRADE TO 1.5m BEHIND BACK OF KERB
- DRAINAGE PITS & PIPE
- INSTALL 150Ø UPVC PIPE UNDER RETAINING WALL SEE DETAIL ON DWG CC125 CONTRACTOR TO CONFIRM LOCATION WITH LANDSCAPE ARCHITECT'S PLANS.

PLAN

SCALE 1:200

1:200 (AT A1)
1:400 (AT A3)

4 2 0 4 8 12 16 20

METRES

CLIENT: lendlease

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AZIMUTH:
DATUM:
ORIGIN:

JORDAN SPRING
STAGE 2 - RETIREMENT VILLAS
RETAINING WALL PLAN
SHEET 3 OF 3

PLAN No: 11048702/CC132 A

FILE No: 11048702CC132

SHEET SIZE: A1 ORIGINAL

Plotted: 22 May , 2019 4:52:37 PM File Name: J:\110487 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\CC\STAGE 2\11048702CC132.dwg

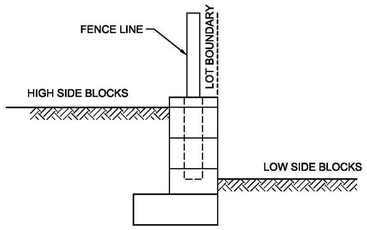
Document Set ID: 8735604
Version: 1, Version Date: 17/06/2019

NOTE: T.O.W LEVELS SHOWN ARE TO UNDERSIDE OF CAPPING

LEGEND

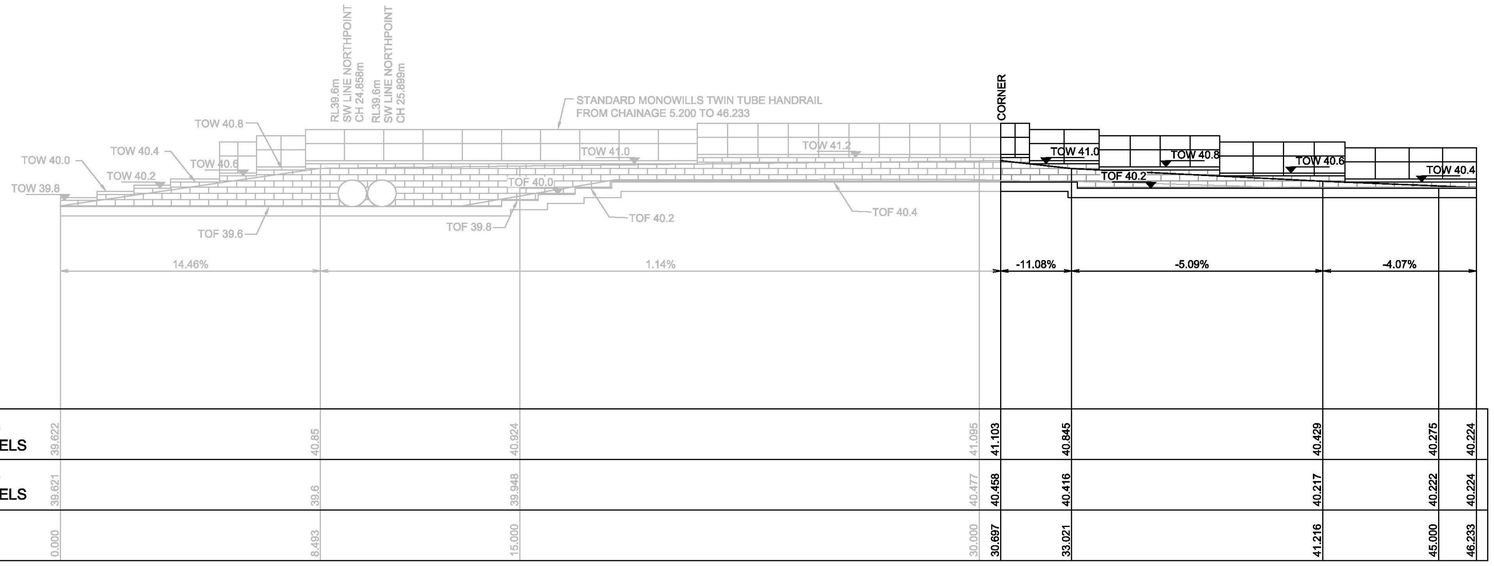
TYPE 1 - BORAL FLUSHFACE KEYSTONE CHARCOAL COLOUR RETAINING WALL (SUBJECT TO CLIENT CONFIRMATION)

NOTE:
DESIGN AND CONSTRUCT RETAINING WALL, IT IS THE CONTRACTOR RESPONSIBILITY FOR STRUCTURAL DESIGN OF RETAINING WALL AND FOOTING



TYPICAL DETAIL
RETAINING WALL LOCATION
SCALE 1:20

RW 2			
CHAINAGE	EASTING	NORTHING	BEARING
0	289031.6	6265582.73	41°43'46.27"
30.69	289052.03	6265585.64	
46.23	289063	6265574.62	135°07'38.74"



LONGITUDINAL SECTION RW 2
HORIZONTAL SCALE 1:100
VERTICAL SCALE 1:100

1:20 (AT A1) 400 200 0 400 800 1200 1600 2000 MILLIMETRES

1:100 (AT A1) 1:200 (AT A3) 2 1 0 1 2 3 4 5 6 7 8 9 10 METRES

A	ISSUED FOR CONSTRUCTION CERTIFICATE	MMC	NM	DJH	MS	22/05/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

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JORDAN SPRING
STAGE 2 - RETIREMENT VILLAS
RETAINING WALL SECTION
SHEET 1 OF 6

PLAN No: 11048702/CC133 A
FILE No: 11048702CC133
SHEET SIZE: A1 ORIGINAL

Plotted: 22 May , 2019 4:52:55 PM File Name: J:\110487 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\CC\STAGE 2\11048702CC133.dwg

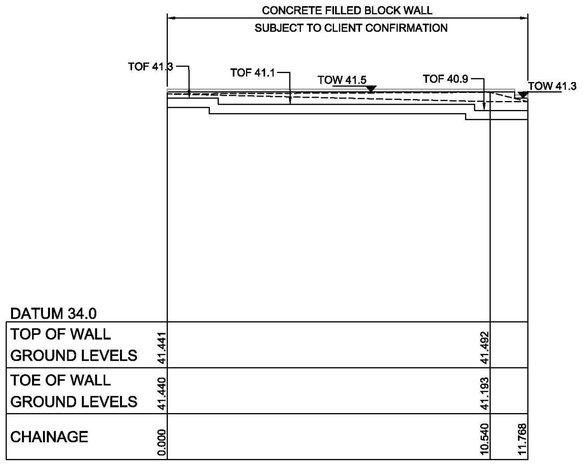
Document Set ID: 8735604
Version: 1, Version Date: 17/06/2019

NOTE: T.O.W LEVELS SHOWN ARE TO UNDERSIDE OF CAPPING

RW 3			
CHAINAGE	EASTING	NORTHING	BEARING
0	289043.54	6265617.13	345°58'14.41"
11.77	289040.68	6265628.55	345°58'14.41"

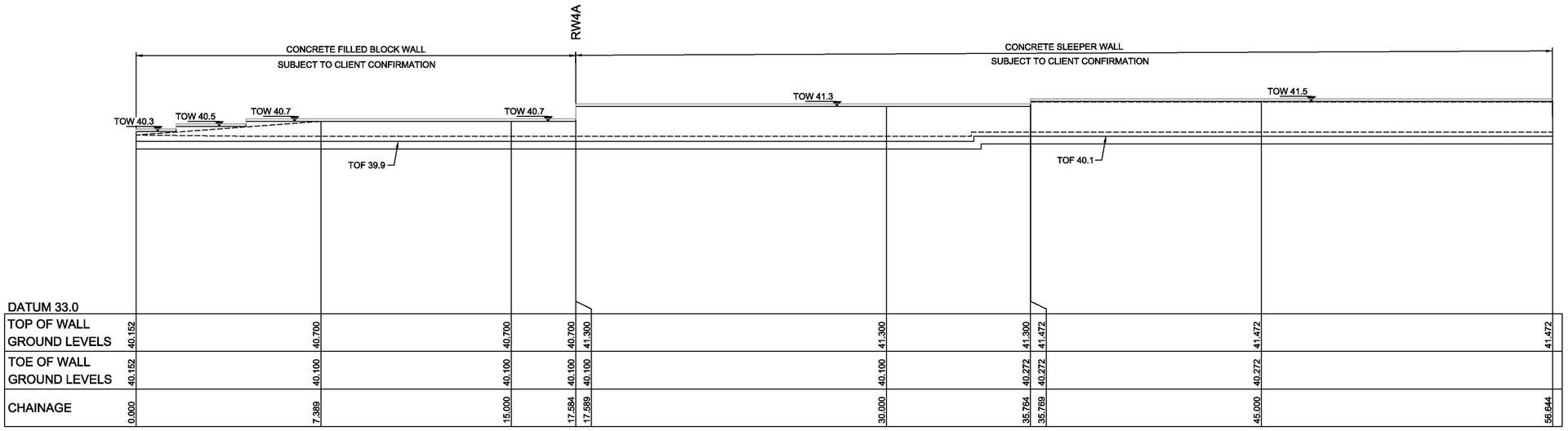
RW 4			
CHAINAGE	EASTING	NORTHING	BEARING
0	289088	6265589.23	345°58'15.00"
17.58	289083.74	6265606.29	
17.59	289083.74	6265606.3	
56.64	289074.27	6265644.19	345°58'15.00"

NOTE:
DESIGN AND CONSTRUCT RETAINING WALL,
IT IS THE CONTRACTOR RESPONSIBILITY FOR STRUCTURAL DESIGN OF RETAINING WALL AND FOOTING.



LONGITUDINAL SECTION RW 3

HORIZONTAL SCALE 1:100
VERTICAL SCALE 1:100



LONGITUDINAL SECTION RW 4

HORIZONTAL SCALE 1:100
VERTICAL SCALE 1:100

1:100 (AT A1)
1:200 (AT A3)
2 1 0 1 2 3 4 5 6 7 8 9 10
METRES

A	ISSUED FOR CONSTRUCTION CERTIFICATE	MMC	NM	DJH	MS	22/05/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

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JORDAN SPRING
STAGE 2 - RETIREMENT VILLAS
RETAINING WALL SECTION
SHEET 2 OF 6

PLAN No: 11048702/CC134 A
FILE No: 11048702CC134
SHEET SIZE: A1 ORIGINAL

Plotted: 22 May, 2019 4:53:12 PM File Name: J:\110487 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\CC\STAGE 2\11048702CC134.dwg

Document Set ID: 8735604
Version: 1, Version Date: 17/06/2019

NOTE: T.O.W LEVELS SHOWN ARE TO UNDERSIDE OF CAPPING

RW 4A			
CHAINAGE	EASTING	NORTHING	BEARING
0	289083.54	6265606.25	255°58'15.00"
2.82	289080.8	6265605.56	255°58'15.00"

RW 4B			
CHAINAGE	EASTING	NORTHING	BEARING
0	289060.81	6265642.52	81°58'50.00"
1.08	289061.87	6265642.67	
1.08	289061.88	6265642.67	
2.14	289062.93	6265642.82	
2.15	289062.94	6265642.82	
13.56	289074.24	6265644.41	
13.57	289074.24	6265644.41	
19.86	289080.48	6265645.29	
19.87	289080.48	6265645.29	
34.6	289095.06	6265647.35	81°58'50.00"

NOTE:
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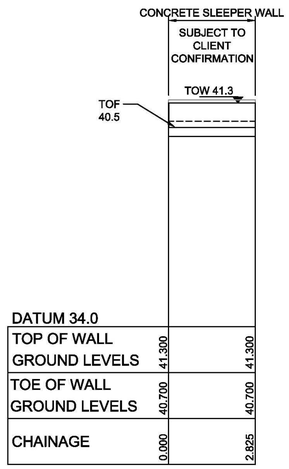
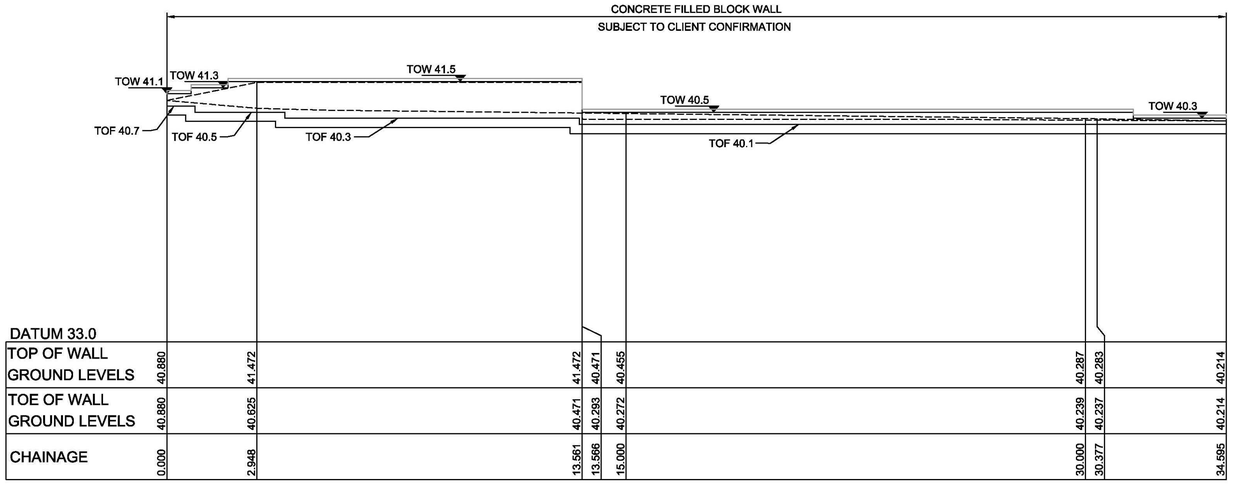


LONGITUDINAL SECTION RW 4A

HORIZONTAL SCALE 1:100
VERTICAL SCALE 1:100



LONGITUDINAL SECTION RW 4B

HORIZONTAL SCALE 1:100
VERTICAL SCALE 1:100

1:100 (AT A1)
1:200 (AT A3)

2 1 0 1 2 3 4 5 6 7 8 9 10

METRES

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	AMENDMENT	DES	DRN	CKD	APR	DATE

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JORDAN SPRING
STAGE 2 - RETIREMENT VILLAS
RETAINING WALL SECTION
SHEET 3 OF 6

PLAN No: 11048702/CC135 A
FILE No: 11048702CC135
SHEET SIZE: A1 ORIGINAL

Plotted: 22 May , 2019 4:53:29 PM File Name: J:\110487 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\CC\STAGE 2\11048702CC135.dwg

Document Set ID: 8735604
Version: 1, Version Date: 17/06/2019

NOTE: T.O.W LEVELS SHOWN ARE TO UNDERSIDE OF CAPPING

RW 5			
CHAINAGE	EASTING	NORTHING	BEARING
0	289134.13	6265602.71	165°58'15.00"
0.77	289134.32	6265601.95	
7.15	289140.51	6265603.5	
36.14	289133.48	6265631.63	
36.14	289133.48	6265631.63	
56.95	289128.43	6265651.82	345°58'15.00"

RW 5A			
CHAINAGE	EASTING	NORTHING	BEARING
0	289117.89	6265650.56	81°58'50.00"
10.61	289128.4	6265652.05	
10.62	289128.41	6265652.05	
32.44	289150.02	6265655.09	
32.45	289150.02	6265655.09	
34.62	289152.18	6265655.39	
36.78	289152.66	6265653.29	167°02'48.77"

NOTE:
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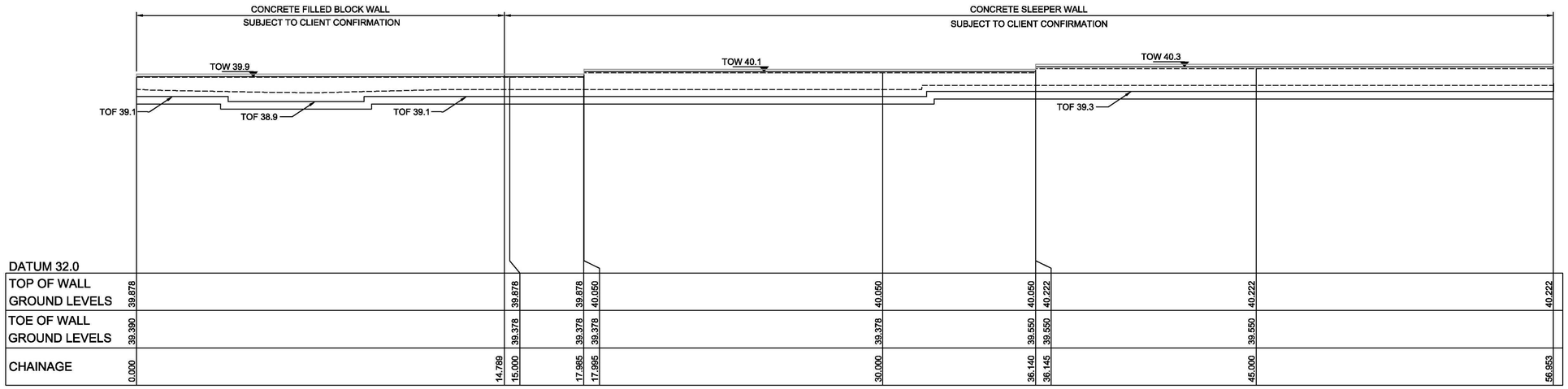
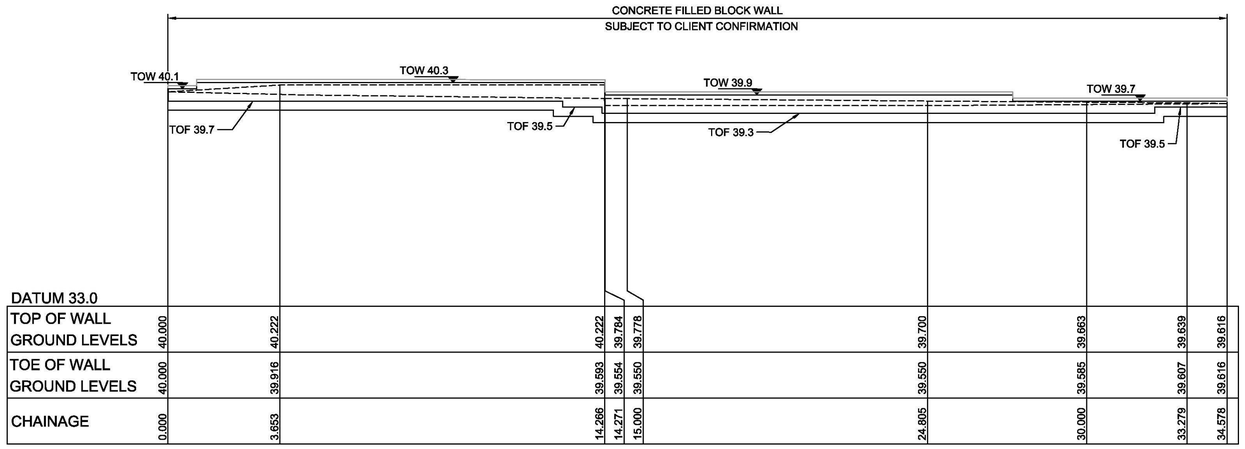


LONGITUDINAL SECTION RW 5

HORIZONTAL SCALE 1:100
VERTICAL SCALE 1:100



LONGITUDINAL SECTION RW 5A

HORIZONTAL SCALE 1:100
VERTICAL SCALE 1:100

1:100 (AT A1)
1:200 (AT A3)

2 1 0 1 2 3 4 5 6 7 8 9 10

METRES

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	AMENDMENT	DES	DRN	CKD	APR	DATE

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JORDAN SPRING
STAGE 2 - RETIREMENT VILLAS
RETAINING WALL SECTION
SHEET 4 OF 6

PLAN No: 11048702/CC136 A
FILE No: 11048702CC136
SHEET SIZE: A1 ORIGINAL

Plotted: 22 May , 2019 4:53:47 PM File Name: J:\110487 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\CC\STAGE 2\11048702CC136.dwg

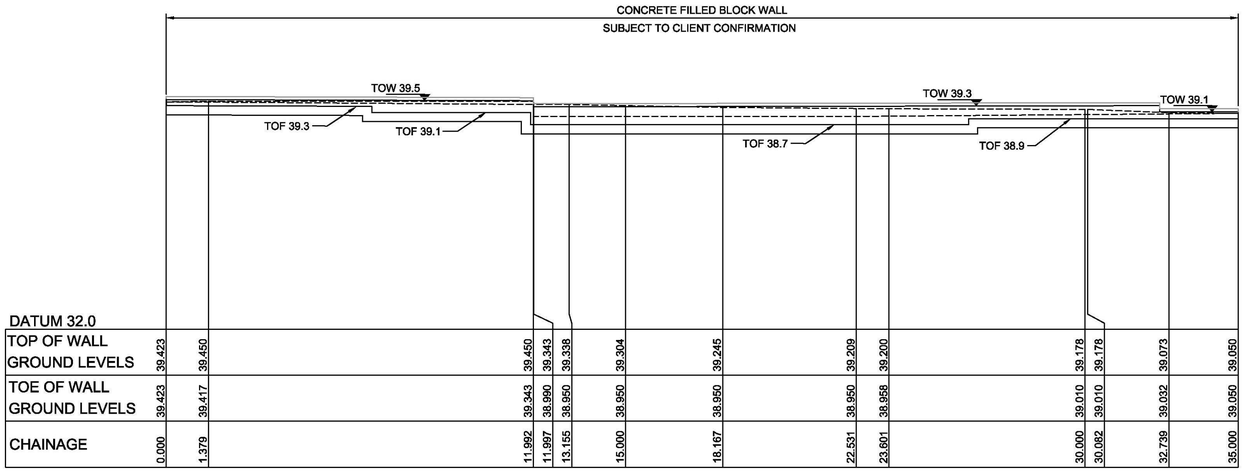
Document Set ID: 8735604
Version: 1, Version Date: 17/06/2019

NOTE: T.O.W LEVELS SHOWN ARE TO UNDERSIDE OF CAPPING

RW 6			
CHAINAGE	EASTING	NORTHING	BEARING
0	289186.6	6265617.16	165°58'15.00"
1.1	289186.86	6265616.09	
1.3	289187.06	6265616.14	
1.3	289187.06	6265616.14	
2.42	289188.14	6265616.41	
2.42	289188.15	6265616.41	
7.47	289193.05	6265617.63	
50.58	289182.6	6265659.45	345°58'15.00"

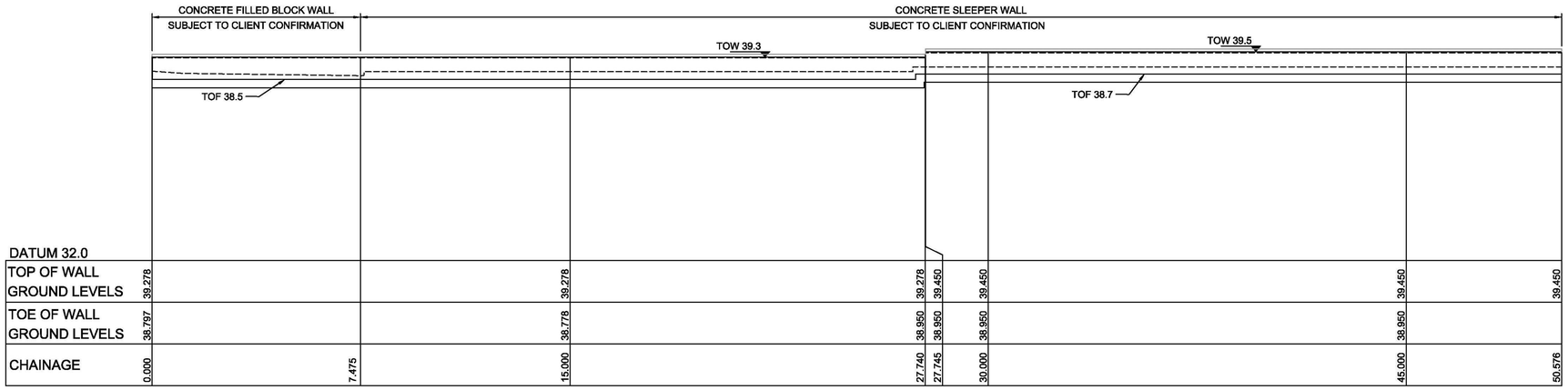
RW 6A			
CHAINAGE	EASTING	NORTHING	BEARING
0	289162.01	6265656.78	81°58'50.00"
12.93	289174.81	6265658.58	
12.94	289174.82	6265658.59	
32.36	289194.05	6265661.3	
32.37	289194.06	6265661.3	
44.39	289205.97	6265662.97	
46.45	289206.46	6265660.98	165°58'15.01"

NOTE:
DESIGN AND CONSTRUCT RETAINING WALL, IT IS THE CONTRACTOR RESPONSIBILITY FOR STRUCTURAL DESIGN OF RETAINING WALL AND FOOTING.



LONGITUDINAL SECTION RW 6A

HORIZONTAL SCALE 1:100
VERTICAL SCALE 1:100



LONGITUDINAL SECTION RW 6

HORIZONTAL SCALE 1:100
VERTICAL SCALE 1:100

1:100 (AT A1)
1:200 (AT A3)

2 1 0 1 2 3 4 5 6 7 8 9 10

METRES

CLIENT: lendlease

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ISSUED FOR CONSTRUCTION APPROVAL

A	ISSUED FOR CONSTRUCTION CERTIFICATE	MMC	NM	DJH	MS	22/05/19
	AMENDMENT	DES	DRN	CKD	APR	DATE

J. WYNDHAM PRINCE CONSULTING CIVIL INFRASTRUCTURE ENGINEERS & PROJECT MANAGERS
PO Box 4366 PENRITH WESTFIELD NSW 2750
P 02 4720 3300 F 02 4720 3399 W www.jwprince.com.au E jwp@jwprince.com.au

AZIMUTH:
DATUM:
ORIGIN:

JORDAN SPRING
STAGE 2 - RETIREMENT VILLAS
RETAINING WALL SECTION
SHEET 5 OF 6

PLAN No: 11048702/CC137 A
FILE No: 11048702CC137
SHEET SIZE: A1 ORIGINAL

Plotted: 22 May , 2019 4:54:04 PM File Name: J:\110487 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\CC\STAGE 2\11048702CC137.dwg

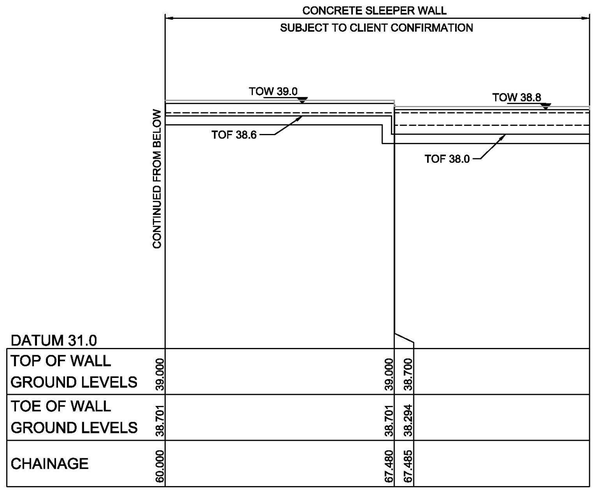
Document Set ID: 8735604
Version: 1, Version Date: 17/06/2019

NOTE: T.O.W LEVELS SHOWN ARE TO UNDERSIDE OF CAPPING

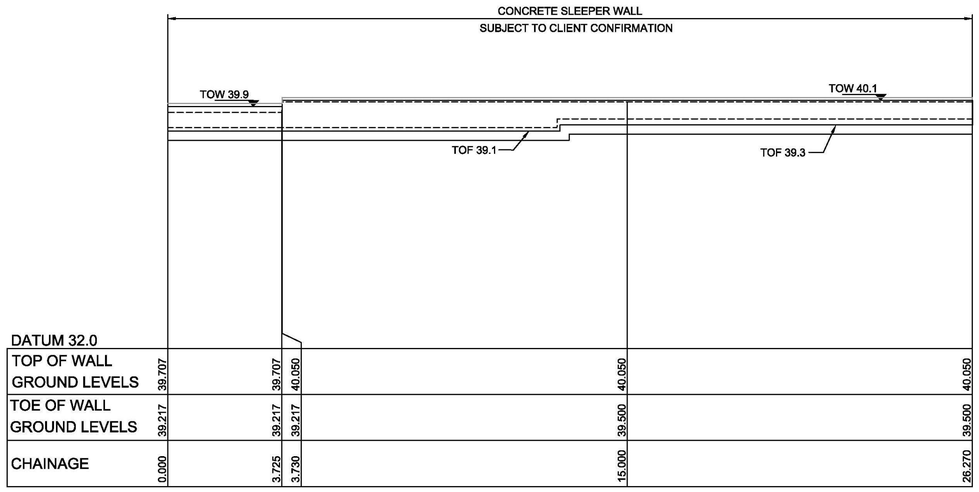
RW 7			
CHAINAGE	EASTING	NORTHING	BEARING
0	289118.01	6265548.03	345°58'15.01"
26.27	289111.64	6265573.52	345°58'15.01"

RW 8			
CHAINAGE	EASTING	NORTHING	BEARING
0	289114.93	6265560.36	75°58'15.00"
22.34	289136.6	6265565.78	
22.34	289136.6	6265565.78	
44.44	289158.05	6265571.14	
44.45	289158.05	6265571.14	
67.48	289180.4	6265576.72	
67.49	289180.4	6265576.72	
90.43	289202.66	6265582.28	
90.43	289202.66	6265582.29	
99.56	289211.52	6265584.5	75°58'15.00"

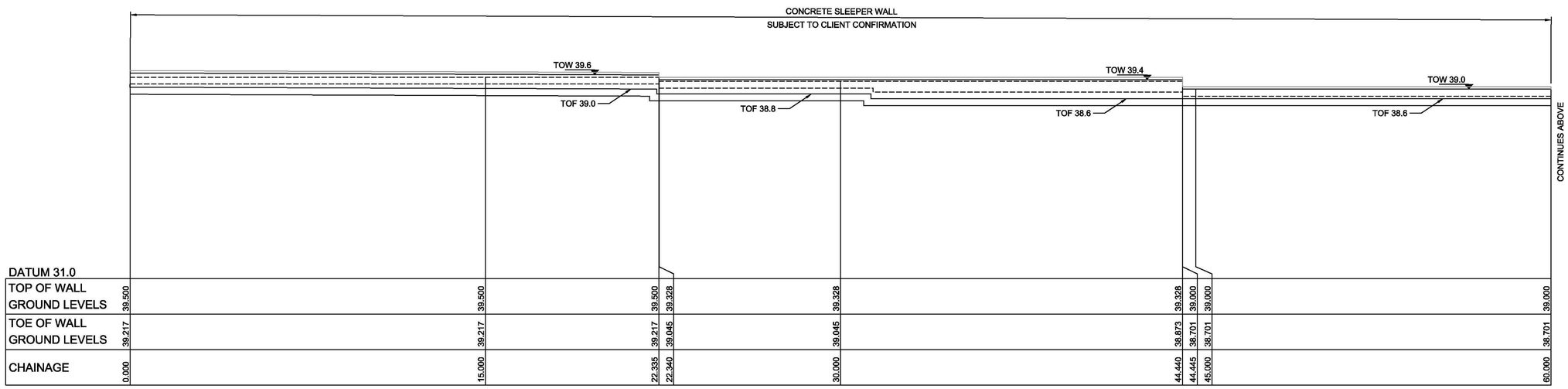
NOTE:
DESIGN AND CONSTRUCT RETAINING WALL, IT IS THE CONTRACTOR RESPONSIBILITY FOR STRUCTURAL DESIGN OF RETAINING WALL AND FOOTING.



LONGITUDINAL SECTION RW 8
HORIZONTAL SCALE 1:100
VERTICAL SCALE 1:100



LONGITUDINAL SECTION RW 7
HORIZONTAL SCALE 1:100
VERTICAL SCALE 1:100



LONGITUDINAL SECTION RW 8
HORIZONTAL SCALE 1:100
VERTICAL SCALE 1:100

1:100 (AT A1)
1:200 (AT A3)
2 1 0 1 2 3 4 5 6 7 8 9 10
METRES

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	AMENDMENT	DES	DRN	CKD	APR	DATE

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CLIENT: lendlease

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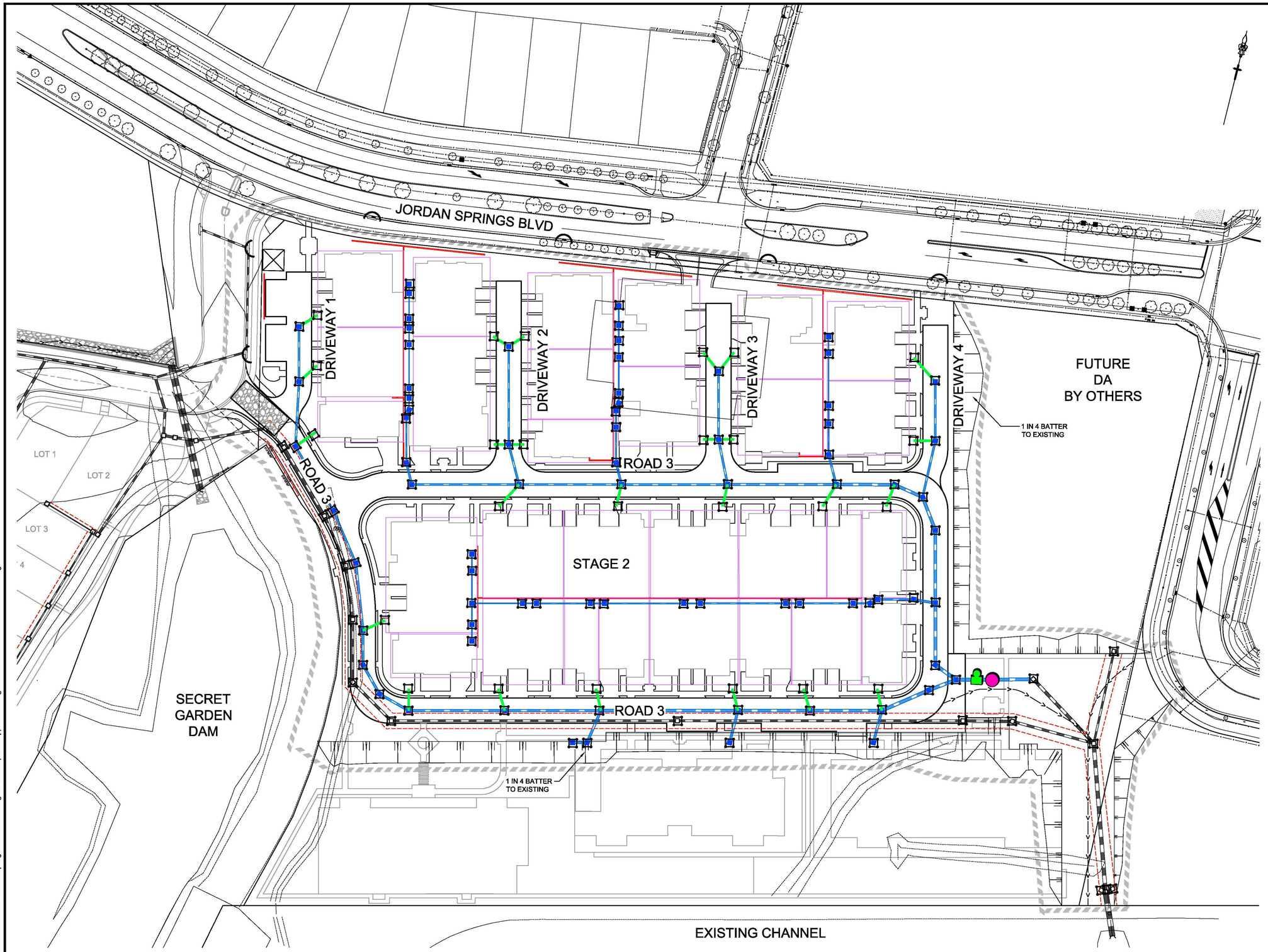
ISSUED FOR CONSTRUCTION APPROVAL

JORDAN SPRING
STAGE 2 - RETIREMENT VILLAS
RETAINING WALL SECTION
SHEET 6 OF 6

PLAN No: 11048702/CC138 A
FILE No: 11048702CC138
SHEET SIZE: A1 ORIGINAL

Plotted: 22 May , 2019 4:54:22 PM File Name: J:\110487 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\CC\STAGE 2\11048702CC138.dwg

Document Set ID: 8735604
Version: 1, Version Date: 17/06/2019



LEGEND

- FILTER ROLLS (AT KERB INLET PIT)
- SURFACE INLET SEDIMENT TRAP.
- SEDIMENT FENCE.
- S.P. — TOPSOIL STOCKPILE / BUND
- STABILISED SITE ACCESS
- LIMIT OF WORKS
- DIVERSION DRAIN
- STRAWBALE FILTER
- STABILISED SITE ACCESS
- TREES TO BE REMOVED
- GPT ROCLA CDS 1009
- STORMWATER 360 STORMFILTER SYSTEM Ø3100 CARTRIDGE 22

1:500 (AT A1)
1:1000 (AT A3)

10 0 10 20 30 40 50
METRES

CLIENT: lendlease

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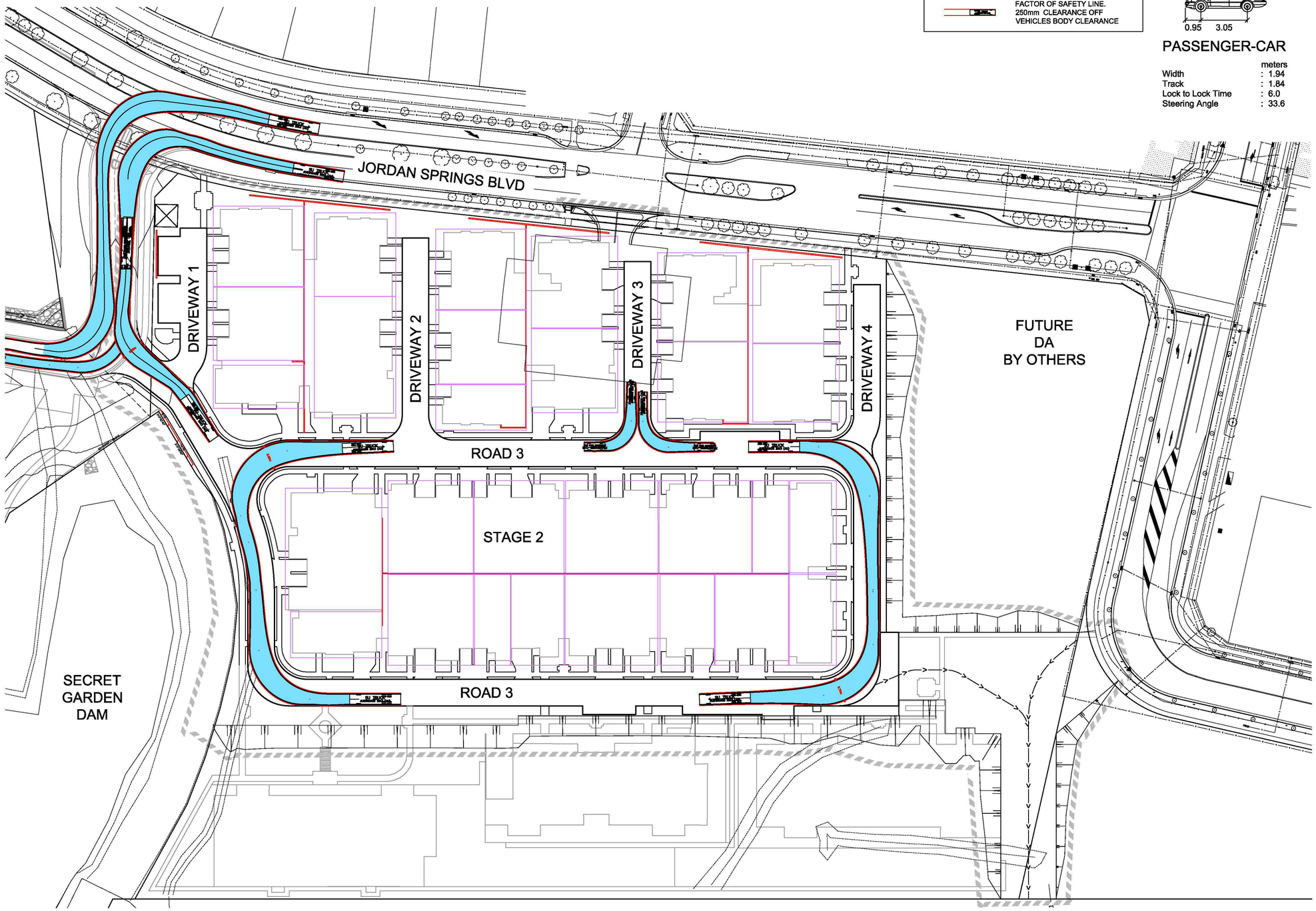
AZIMUTH:
DATUM:
ORIGIN:

JORDAN SPRING
STAGE 2 - RETIREMENT VILLAS
SOIL & WATER MANAGEMENT PLAN

PLAN No: 11048702/CC139 A
FILE No: 11048702CC139
SHEET SIZE: A1 ORIGINAL

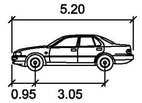
Plotted: 22 May , 2019 4:54:39 PM File Name: J:\11048702 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\CC\STAGE 2\11048702CC139.dwg

Document Set ID: 8735604
Version: 1, Version Date: 17/06/2019



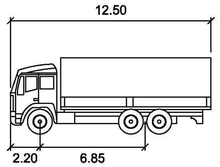
LEGEND

- VEHICLE
- VEHICLES BODY CLEARANCE
- FACTOR OF SAFETY LINE. 250mm CLEARANCE OFF VEHICLES BODY CLEARANCE



PASSENGER-CAR

	meters
Width	: 1.94
Track	: 1.84
Lock to Lock Time	: 6.0
Steering Angle	: 33.6



SU TRUCK

	meters
Width	: 2.50
Track	: 2.50
Lock to Lock Time	: 6.0
Steering Angle	: 36.6

1:500 (AT A1)
1:1000 (AT A3)

10 0 10 20 30 40 50
METRES

CLIENT: lendlease

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AZIMUTH:
DATUM:
ORIGIN:

JORDAN SPRING
STAGE 2 - RETIREMENT VILLAS
TURNING PATH

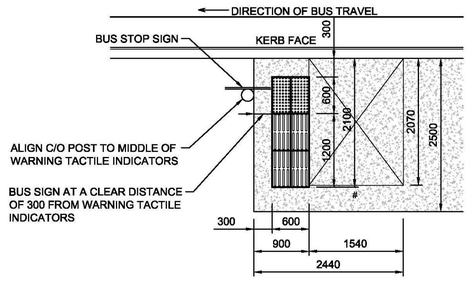
PLAN No: 11048702/CC140 A
FILE No: 11048702CC140
SHEET SIZE: A1 ORIGINAL

Plotted: 22 May , 2019 4:54:50 PM File Name: J:\110487 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\C\STAGE 2\11048702CC140.dwg

Document Set ID: 8735604
Version: 1, Version Date: 17/06/2019

PLAN

SCALE 1:100



TYPICAL BUS STOP TACTILE INDICATOR DETAIL

SCALE 1:50

- DENOTES BASIC BOARDING POINT - MANOEUVRING AREA
WHEELCHAIR CIRCULATION SPACE, 2070mm x 1540mm

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WARNING!
UNDERGROUND SERVICE CABLES IN VICINITY. EXERCISE EXTREME CAUTION DURING EXCAVATION. CONTACT "DIAL BEFORE YOU DIG" PRIOR TO ANY CONSTRUCTION WORK

UTILITIES SHOWN ARE DIAGRAMMATIC ONLY, CONTRACTORS ARE RESPONSIBLE TO LOCATE AND AVOID DAMAGE TO THEM AS SPECIFIED BY EACH UTILITIES EXCAVATION GUIDE LINES & STANDARDS.
NOTE: UTILITIES SHOWN MAY NOT INCLUDE ALL SERVICES WITHIN THE LIMIT OF WORKS

LEGEND

PAVEMENT NOTES - BUS SHELTER SLAB
PAVEMENT DESIGN SUBJECT TO GEOTECHNICAL DESIGN

150mm THICK 32MPa CONCRETE WITH 1 LAYER OF SL82 MESH ON COMPACTED GRANULAR SUBGRADE
COLOUR: PLAIN CONCRETE WITH BROOM FINISH.

1:100 (AT A1)
1:200 (AT A3)
2 1 0 1 2 3 4 5 6 7 8 9 10
METRES

1:50 (AT A1)
1:100 (AT A3)
1 0 1 2 3 4 5
METRES

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ISSUED FOR CONSTRUCTION APPROVAL

JORDAN SPRING
STAGE 2 - RETIREMENT VILLAS
BUS BAY

PLAN No: 11048702/CC141 A
FILE No: 11048702CC141
SHEET SIZE: A1 ORIGINAL

Plotted: 22 May , 2019 4:43:49 PM File Name: J:\110487 - Jordan Springs Retirement Living\02 - Development Application Stage\CD\CC\STAGE 2\11048702CC141.dwg

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