

CIVIL STRATEGY PLAN

PROPOSED SUBDIVISION

PRECINCT H - "THE WATERFRONT"

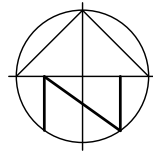
SHELL COVE

PLAN NUMBER	DRAWING TITLE
ISC00223-DA-C000	COVER SHEET AND DRAWING LIST
ISC00223-DA-C001	NOTES
ISC00223-DA-C002	KEY PLAN
ISC00223-DA-C005	LOT LAYOUT PLAN
ISC00223-DA-C010	GENERAL ARRANGEMENT PLAN SHEET 1 OF 2
ISC00223-DA-C011	GENERAL ARRANGEMENT PLAN SHEET 2 OF 2
ISC00223-DA-C015	TYPICAL ROAD CROSS SECTIONS PLAN
ISC00223-DA-C016	TYPICAL ROAD CROSS SECTIONS DETAIL SHEET 1 OF 2
ISC00223-DA-C017	TYPICAL ROAD CROSS SECTIONS DETAIL SHEET 2 OF 2
ISC00223-DA-C020	BULK EARTHWORKS PLAN
ISC00223-DA-C021	BULK EARTHWORKS SECTIONS SECTION 01 02 03 SHEET 1 OF 3
ISC00223-DA-C022	BULK EARTHWORKS SECTIONS SECTION 04 05 SHEET 2 OF 3
ISC00223-DA-C023	BULK EARTHWORKS SECTIONS SECTION 06 SHEET 2 OF 3
ISC00223-DA-C035	CIVIL DETAILS SHEET 1 OF 4
ISC00223-DA-C036	CIVIL DETAILS SHEET 2 OF 4
ISC00223-DA-C037	CIVIL DETAILS SHEET 3 OF 4
ISC00223-DA-C038	CIVIL DETAILS (CARPARK PLAN) SHEET 4 OF 4
ISC00223-DA-C050	LONGITUDINAL SECTION ROAD 01 SHEET 1 OF 6
ISC00223-DA-C051	LONGITUDINAL SECTION ROAD 02 & ROAD 03 SHEET 2 OF 6
ISC00223-DA-C052	LONGITUDINAL SECTION ROAD 04 SHEET 3 OF 6
ISC00223-DA-C053	LONGITUDINAL SECTION ROAD 05 & 06 & 07 SHEET 4 OF 6
ISC00223-DA-C054	LONGITUDINAL SECTION ROAD MC13 & MC23 (BY ARCADIS) SHEET 5 OF 6
ISC00223-DA-C055	LONGITUDINAL SECTION DUNE CREST & DUNE TOE SHEET 6 OF 6

PLAN NUMBER	DRAWING TITLE
ISC00223-DA-C110	STORMWATER LAYOUT PLAN SHEET 1 OF 2
ISC00223-DA-C111	STORMWATER LAYOUT PLAN SHEET 2 OF 2
ISC00223-DA-C120	CATCHMENT PLAN
ISC00223-DA-C140	INFILTRATION BASIN PLAN AND DETAIL
ISC00223-DA-C170	SCHEMATIC SERVICES LAYOUT SHEET 1 OF 2
ISC00223-DA-C171	SCHEMATIC SERVICES LAYOUT SHEET 2 OF 2
ISC00223-DA-C185	SOIL AND WATER MANAGEMENT PLAN
ISC00223-DA-C186	SOIL AND WATER MANAGEMENT DETAILS
ISC00223-DA-C205	SWEPT PATH ANALYSIS PLAN DESIGN VEHICLES SHEET 1 OF 4
ISC00223-DA-C206	SWEPT PATH ANALYSIS PLAN DESIGN VEHICLES SHEET 2 OF 4
ISC00223-DA-C207	SWEPT PATH ANALYSIS PLAN CHECK VEHICLES SHEET 3 OF 4
ISC00223-DA-C208	SWEPT PATH ANALYSIS PLAN CHECK VEHICLES SHEET 4 OF 4
ISC00223-DA-C210	SIGHT DISTANCE ANALYSIS KEY PLAN SHEET 1 OF 5
ISC00223-DA-C211	SIGHT DISTANCE ANALYSIS LAYOUT PLAN SHEET 2 OF 5
ISC00223-DA-C212	SIGHT DISTANCE ANALYSIS LAYOUT PLAN SHEET 3 OF 5
ISC00223-DA-C213	SIGHT DISTANCE ANALYSIS LAYOUT PLAN SHEET 4 OF 5
ISC00223-DA-C214	SIGHT DISTANCE ANALYSIS LAYOUT PLAN SHEET 5 OF 5
ISC00223-DA-C220	SIGNAGE AND LINEMARKING PLAN SHEET 1 OF 2
ISC00223-DA-C221	SIGNAGE AND LINEMARKING PLAN SHEET 2 OF 2
ISC00223-DA-C230	RETAINING WALL PLAN



LOCALITY DIAGRAM



CLIENT:



CONSULTANTS:



1. THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS THAT MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ANY DISCREPANCIES IN THESE DOCUMENTS SHALL BE REFERRED TO THE SUPERINTENDENT FOR A DECISION BEFORE PROCEEDING WITH THE WORK.
2. THE CONTRACTOR SHALL CHECK AND BE RESPONSIBLE FOR THE CORRECTNESS OF ALL DIMENSIONS, ANY DISCREPANCY SHALL BE REPORTED IMMEDIATELY TO THE SUPERINTENDENT. DIMENSIONS SHALL NOT BE OBTAINED BY SCALING OFF THE PLANS.
3. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT AUSTRALIAN STANDARDS, THE BY-LAWS AND ORDINANCES OF THE RELEVANT AUTHORITIES AND THE SPECIFICATIONS.
4. NO CHANGES SHALL BE MADE BY THE CONTRACTOR WITHOUT THE WRITTEN CONSENT OF THE SUPERINTENDENT THE SUPERINTENDENT IS TO CONFIRM THE EXACT EXTENTS ON SITE PRIOR TO COMMENCEMENT OF WORK.
5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT SAFE WORK PRACTICES ARE FOLLOWED AT ALL TIMES DURING THE COURSE OF THE CONTRACT. OHS&S REGULATIONS AND WORK COVER REQUIREMENTS ARE TO BE COMPLIED WITH. REFER TO THE SPECIFICATION AND CONTRACT DOCUMENTS.
6. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ALL SURVEY MARKS ARE MAINTAINED. IF THE CONTROL MARKS ARE DESTROYED OR MOVED DURING CONSTRUCTION THE CONTRACTOR MUST SUPPLY ADEQUATE MARKS FOR RE-ESTABLISHMENT AND INFORM THE SUPERINTENDENT.
7. CHANGES, REDUCED LEVELS, CHAINAGES, OFFSETS AND ROAD WIDTHS ARE IN METRES UNLESS OTHERWISE SHOWN.
8. LIAISE WITH THE APPOINTED SITE SUPERINTENDENT PRIOR TO COMMENCEMENT OF CONSTRUCTION.
9. ALL SITE FILLING SHALL BE COMPACTED TO 98% STANDARD COMPACTION, CONTROLLED BY THE GEOTECHNICAL ENGINEER OR AS PER A53798
10. SURPLUS EXCAVATED MATERIAL SHALL BE PLACED WHERE DIRECTED BY THE SUPERINTENDENT.
11. ALL NEW WORKS SHALL MAKE A SMOOTH JUNCTION WITH EXISTING CONDITIONS.
12. THE CONTRACTOR SHALL NOT ENTER UPON NOR DO ANY WORK WITHIN ADJACENT LANDS WITHOUT THE WRITTEN PERMISSION OF THE OWNERS.
13. SITE FILL AREAS - THE CONTRACTORS REGISTERED SURVEYOR SHALL TAKE LEVELS OF EXISTING SURFACE AFTER STRIPPING TOPSOIL AND PRIOR TO COMMENCING FILL OPERATIONS.
14. DRAINAGE LINES UNDER ROADS SHALL BE BACKFILLED WITH NON-COHESIVE SAND, AND THE SUBSOIL DRAIN WRAPPED IN APPROVED FILTER SOCK, DISCHARGING INTO DOWN STREAM PITS.
15. ALL CONDUITS AND MAINS SHALL BE LAID PRIOR TO LAYING FINAL ASPHALTIC CONCRETE SEAL.
16. STREET NAME SIGNS SHALL BE ERECTED, WHERE SHOWN, IN ACCORDANCE WITH COUNCIL'S STANDARD OR AS DIRECTED BY THE SUPERINTENDENT.
17. THE CONTRACTOR SHALL MAINTAIN DUST CONTROL THROUGHOUT THE DURATION OF THE PROJECT.
18. ALL TREES WITHIN LIMIT OF WORKS TO BE REMOVED UNLESS NOTED AS PER LEGEND. TREES OUT OF LIMIT OF WORKS ZONE ARE TO BE LEFT UNTOUCHED. SHOULD THERE BE ANY IMPACTED TREES OUTSIDE OF WORKS ZONE THE SUPERINTENDENT IS TO BE INFORMED IMMEDIATELY.
19. REFER TO COUNCIL'S SPECIFICATION AND STANDARD DRAWINGS OF KERB INLET PIT AND KERB AND GUTTER.
20. CONTRACTOR TO PROVIDE STORMWATER KERB DISCHARGE INCLUDING RECTANGULAR HOLLOW SECTION, ADAPTER AND PIPE EXTENDED 0.5m BEYOND THE PROPERTY BOUNDARY AND CAPPED OFF FOR FUTURE CONNECTION
21. DEWATER AND DESILT EXISTING DAMS TO PREPARE FOR SITE FILLING/OTHER WORKS REFER TO THE GEOTECHNICAL REPORT.

1. STRIP ALL TOPSOIL/ORGANIC MATERIAL FROM CONSTRUCTION AREA AND REMOVE FROM SITE OR STOCKPILE AS DIRECTED BY SUPERINTENDENT
2. COMPACTION, TESTING, FILING, STANDARD DRY DENSITIES & MOISTURE CONTENTS TO BE IN ACCORDANCE WITH SITE GEOTECHNICAL REPORT
3. ALL FILLING WORKS TO BE CARRIED OUT UNDER LEVEL 1 GEOTECH SUPERVISION AS PER AS 3798-2007.
4. ALL BULK EARTHWORKS TO BE CARRIED OUT IN ACCORDANCE WITH SHELLHARBOUR CITY COUNCIL'S ENGINEERING CONSTRUCTION CODE SPECIFICATION.

1. ORIGIN OF LEVELS: AHD. COORDINATES TO MGA 94 - MAP GRID AUSTRALIA
2. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE SPECIFICATION AND CONTRACT DOCUMENTS.
3. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED THROUGHOUT THE PERIOD OF WORKS, INCLUDING REPAIR AND/OR REPLACEMENT OF DAMAGED SECTIONS. INSPECTIONS ARE TO BE MADE PERIODICALLY DURING PROLONGED RAINFALL EVENTS AND AFTER STORM EVENTS FOR DAMAGE.
4. ALL EXISTING TREES ON THE SITE ARE NOT TO BE DISTURBED OTHER THAN THOSE DESIGNATED ON THE PLANS FOR REMOVAL. THE SUPERINTENDENT IS TO APPROVE ALL TREES TO BE REMOVED. REMAINING TREES MUST BE PROTECTED IN ACCORDANCE TO THE SPECIFICATION.
5. WHERE NOTED ON THE DRAWINGS THAT WORKS ARE TO BE CARRIED OUT BY OTHERS (EG. ADJUSTMENT OF SERVICES), COORDINATION OF THESE WORKS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

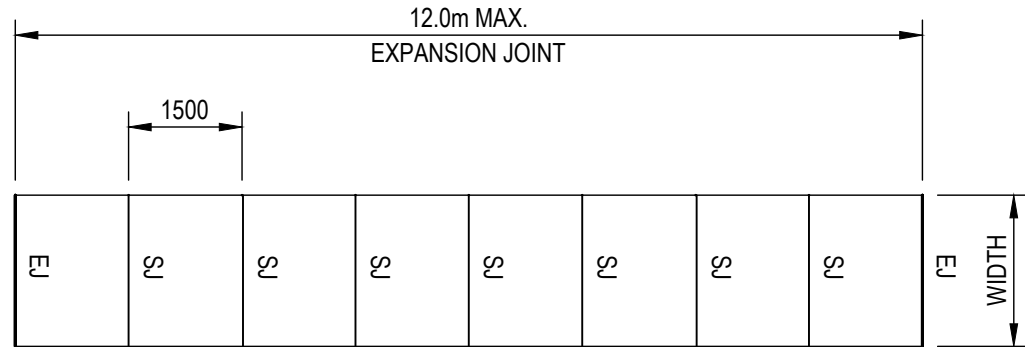
1. ALL SITE SET OUT POINTS ARE TO BE CERTIFIED BY A REGISTERED SURVEYOR.
2. THE EXISTING SITE CONDITIONS SHOWN ON THE FOLLOWING DRAWINGS HAVE BEEN INVESTIGATED BY THE REGISTERED SURVEYOR. THE INFORMATION IS SHOWN TO PROVIDE A BASIS FOR DESIGN. INDESCO DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE SURVEY BASE OR ITS SUITABILITY AS A BASIS FOR CONSTRUCTION DRAWINGS.
3. CONTACT SUPERINTENDENT IF DISCREPANCIES ARE ENCOUNTERED DURING CONSTRUCTION BETWEEN THE SURVEY DATA AND FIELD DATA.

1. ALL WORKS TO BE IN ACCORDANCE THE SHELLHARBOUR ENGINEERING CONSTRUCTION CODE
2. PREPARATION FOR PAVEMENT:
 - CLEAR SITE
 - STRIP TOPSOIL
 - CUT AND FILL AND PREPARATIONS OF SUBGRADE SHALL BE AS DESCRIBED IN 'EARTHWORKS'
3. SUBGRADE SHALL BE COMPACTED TO 97% STANDARD DRY DENSITY RATIO AT OPTIMUM MOISTURE CONTENT $\pm 2\%$ IN ACCORDANCE WITH AS1289.5.1
4. LOWER BASE COURSE SHALL BE CONSTRUCTED FROM CRUSHED ROCK COMPACTED TO 98% STANDARD DRY DENSITY RATIO AT OPTIMUM MOISTURE CONTENT $\pm 2\%$ IN ACCORDANCE WITH AS 1289.5.1.1. OF THICKNESS NOTED ON DRAWINGS.
5. BASE COURSE SHALL BE CONSTRUCTED FROM FINE CRUSHED ROCK D820 COMPACTED TO 100% STANDARD DRY DENSITY RATIO AT OPTIMUM MOISTURE CONTENT $\pm 2\%$ IN ACCORDANCE WITH AS1289.5.1.1. OF THICKNESS NOTED ON DRAWINGS.
6. APPLY TACK COAT 30-120 MINUTES BEFORE ASPHALT SURFACING IS PLACED. COVER THE SURFACE UNIFORMLY AT AN APPLICATION RATE OF 0.20 - 0.30 L/m² OF RESIDUAL BITUMEN.
7. WEARING SURFACE SHALL BE ASPHALTIC CONCRETE TO STANDARD SPECIFICATION.

1. ALL WORKS TO BE IN ACCORDANCE THE SHELLHARBOUR ENGINEERING CONSTRUCTION CODE
2. ALL CONCRETE TO HAVE A MINIMUM COMPRESSIVE STRENGTH OF 25 MPa. OTHERWISE AS PER COUNCIL SPECIFICATIONS.
3. ALL KERBS, GUTTERS, DISH DRAINS AND CROSSINGS TO BE CONSTRUCTED ON 100mm GRANULAR BASECOURSE COMPACTED TO MINIMUM 95% MODIFIED DRY DENSITY (AS 1289 S.2.11).
4. EXPANSION JOINTS (E.J) TO BE FORMED FROM 10mm COMPRESSIBLE CORK FILLER BOARD FOR THE FULL DEPTH OF THE SECTION AND CUT TO PROFILE. EXPANSION JOINTS TO BE LOCATED AT DRAINAGE PITS, ON TANGENT PORTIONS OF CURVES AND ELSEWHERE AT MAX 12m CENTRES EXCEPT FOR INTEGRAL KERBS WHERE THE EXPANSION JOINTS ARE TO MATCH THE JOINT LOCATIONS IN THE SLABS.
5. IN THE REPLACEMENT OF ROLL/KERB AND GUTTER, EXISTING ROAD PAVEMENT IS TO BE SAWCUT 500mm U.N.O FROM THE LIP OF GUTTER, UPON COMPLETION OF THE NEW ROLL/KERB AND GUTTER, NEW BASECOURSE AND SURFACE TO BE LAID 900mm WIDE U.N.O.
6. WEAKENED PLANE JOINTS TO BE A MINIMUM 3mm WIDE AND LOCATED AT 3m CENTRES EXCEPT ON INTEGRAL KERBS WHERE THE WEAKENED PLANE JOINTS SHALL MATCH THE JOINT LOCATIONS IN THE SLABS.
7. RAMPED AND VEHICULAR CROSSINGS SHALL HAVE AS BROOMED FINISH WITH ALL OTHER KERBING OR DISH GUTTERS TO HAVE SLIP FLOAT FINISHED.

PEDESTRIAN PAVEMENT JOINTS

1. ALL PEDESTRIAN PAVEMENTS ARE TO BE JOINTED AS FOLLOWS (U.N.O.)
2. EXPANSION JOINTS ARE TO BE LOCATED, WHERE POSSIBLE, AT TANGENT POINTS OF CURVES AND ELSEWHERE AT MAX. 1.2m CENTRES.
3. SAW JOINTS ARE TO BE LOCATED AT A MAX. SPACING OF 1.5m
4. JOINTS SHALL BE LOCATED TO MATCH KERBING AND OR ADJACENT PAVEMENT JOINTS WHERE POSSIBLE.
5. PEDESTRIAN PAVEMENT JOINTING DETAILS SHALL BE AS PER THE COUNCIL STANDARDS



6. ALL VEHICULAR PAVEMENTS TO BE JOINTED AS PER THE DRAWINGS.
7. VEHICULAR ACCESS IS TO BE MAINTAINED FOR ALL PROPERTIES DURING THE COURSE OF CONSTRUCTION.
8. THE CONTRACTOR SHALL CONTACT RESIDENTS/OWNERS WITHIN 48 HOURS PRIOR TO COMMENCEMENT OF WORKS UNLESS OTHERWISE DIRECTED.
9. ALL DRIVEWAY ADJUSTMENTS ARE TO BE CARRIED OUT IN ACCORDANCE WITH THE DRAWINGS
10. SUBSOIL FLUSHING POINTS ARE TO BE CONSTRUCTED IN ACCORDANCE WITH D.O.H. STANDARD DRAWING NO RM 14. THEY SHALL BE LOCATED AS DIRECTED
11. PROPOSED SERVICES WHICH CROSS THE EXISTING ROADS SHALL BE THRUST BORED UNDER THE ROAD TO AVOID DAMAGING THE EXISTING SURFACE
12. CONCRETE QUALITY:
 - 12.1. ALL CEMENT SHALL BE ACSE SPECIFICATION TYPE A.
 - 12.2. PROJECT CONTROL TESTING SHALL BE CARRIED OUT IN ACCORDANCE WITH AS3600

1. ALL SERVICES SHOWN ON THIS PLAN ARE APPROXIMATE ONLY AND HAVE BEEN LOCATED FROM SITE INVESTIGATION AND RELEVANT AUTHORITIES' PLANS. THESE SERVICES ARE NOT GUARANTEED CORRECT OR COMPLETE.
2. THE CONTRACTOR MUST OBTAIN UP-TO-DATE PLANS FROM 'DIAL BEFORE YOU DIG' BEFORE COMMENCEMENT OF WORKS. THE EXACT LOCATION OF ALL SERVICES ARE TO BE VERIFIED BY THE CONTRACTOR PRIOR TO THE COMMENCEMENT OF WORKS.
3. EXISTING SERVICES ARE TO BE MAINTAINED OR ADJUSTED AS DETAILED IN THE PLANS. ANY ADJUSTMENT OR PROTECTION MEASURES ARE TO BE CARRIED OUT BY ACCREDITED SERVICE PROVIDERS. REFER ANY CONFLICTS OR UNIDENTIFIED EXISTING SERVICES TO THE SUPERINTENDENT IMMEDIATELY.
4. ELECTRICAL CONDUITS SHOULD BE PROVIDED AND LOCATED TO THE SATISFACTION OF ENDEAVOUR ENERGY.
5. WATER CONDUITS SHOULD BE PROVIDED TO SUIT WATER MAIN LOCATIONS.
6. TELSTRA AND OPTUS CONDUITS PROVIDED AND LOCATED TO THE SATISFACTION OF THE RELEVANT TELECOMMUNICATIONS AUTHORITY.
7. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH:
 - JEMENA DRAWINGS
 - ENDEAVOUR ENERGY DRAWINGS (ELEKON)
 - SYDNEY WATER DRAWINGS (SYDNEY WIDE CO-ORDINATORS)
 - OPTICOM DRAWINGS
8. ALL SERVICES PIT COVERS AND MARKERS ARE TO BE LAID ENTIRELY WITHIN OR OUTSIDE OF THE CONCRETE FOOTPATH. REFER TO INDESCO SERVICE COORDINATION DRAWINGS FOR SERVICE COVER LOCATIONS. CONTACT SUPERINTENDENT SHOULD DIFFICULTIES ARISE.
9. WHERE SERVICES COVERS ARE LOCATED WITHIN THE FOOTPATH & ROADWAYS, INFILL COVERS WITH A PAVEMENT SIMILAR TO THAT OF THE FOOTPATH OR ADJACENT ROADWAY SHALL BE USED. PROVIDE CONCRETE INFILL WHERE COVERS ARE WITHIN LANDSCAPE.
10. ALL SERVICES COVERS TO BE PLACED AT FINISHED SURFACE LEVELS, ENSURE LONGITUDINAL AND CROSS FALL GRADES MATCH PROPOSED GRADES
11. ALL WATER AND SEWER TO BE INSTALLED IN ACCORDANCE WITH THE CURRENT SYDNEY WATER STANDARDS. CARE TO BE TAKEN WHEN INSTALLING HYDRANTS AND STOP VALVES IN THE FOOTPATH.

1. STORMWATER DESIGN CRITERIA:
 - 1.1. COUNCIL PIPE DRAINAGE SYSTEM IS DESIGNED FOR 5 YEAR ARI
 - 1.2. INTERALLOTMENT DRAINAGE SYSTEM IS DESIGNED FOR 20 YEAR ARI
 - 1.3. DRAINAGE SYSTEM IS DESIGNED FOR MAJOR EVENT OF 100 YEAR ARI
2. PIPE BEDDING MATERIAL SHALL BE CLEAN COURSE RIVER SAND WITH DEPTH AS FOLLOWS:
 - 2.1. CONCRETE AND FRC PIPES: 100mm (175mm IN ROCK)
 - 2.2. UPVC PIPE: 75mm (100mm IN ROCK)
 - 2.3. SUBSOIL 50mm
3. BACKFILL ALL PIPES WITH GRANULAR MATERIAL SUCH AS QUARRY FINES OF COARSE RIVER SAND TO A MINIMUM OF 150mm ABOVE THE PIPE. THE GRANULAR MATERIAL SHALL BE PLACED IN 150mm THICK MAX. LAYERS COMPACTED TO ACHIEVE A DENSITY INDEX OF 70% FREQUENCIES OF COMPACTION TESTS FOR TRENCHES SHALL BE 1 TEST PER 2 LAYERS PER 40 LINEAR METRE.
4. ALL BEDDING TO BE HS3 MINIMUM.
5. PIPES GREATER THAN 300 DIA. AND LARGER TO BE REINFORCED CONCRETE CLASS '2' 1020 COVER APPROVED SPIGOT AND SOCKET WITH RUBBER RING JOINT U.O.
6. PIPES UP TO AND INCLUDING 300 DIA. SHALL BE SEWER GRADE UPVC WITH SOLVENT WELDED JOINTS.
7. WHERE SUBSOIL DRAINS PASS UNDER FLOOR SLABS, UNSLOTTED UPVC SEWER GRADE PIPES SHALL BE USED.
8. ALL PITS DEEPER THAN 1.8m ARE TO BE REINFORCED CONCRETE.
9. ALL PITS, INCLUDING COUNCIL PITS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 32MPa. ALL REINFORCEMENT SHALL HAVE A MINIMUM COVER OF 50mm
10. COVERS AND GRATES SHALL CONFORM TO A.S. 3996 AND COUNCIL SPECIFICATIONS.
11. BACKFILL THE REMAINDER OF THE TRENCH ABOVE THE SAND TO SUBGRADE LEVEL WITH TRENCH MATERIAL. PLACE AND COMPACT MATERIALS IN LAYERS NOT EXCEEDING 150mm LOOSE THICKNESS. MATERIAL LOWER THAN 50mm BELOW SUBGRADE LEVEL SHALL BE COMPACTED TO A MIN. OF 95% OF STANDARD MAXIMUM DRY DENSITY. TOP 50mm BELOW PAVEMENT SUBGRADE LEVELS SHALL BE COMPACTED TO AT LEAST 100% STANDARD MAXIMUM DRY DENSITY (SMDD).
12. FILTER MATERIAL FOR SUBSOIL SHALL BE COARSE SAND OR CRUSHED STONE WHICH COMPLIES WITH ONE OF THE GRADINGS IN THE TABLE BELOW. AS SPECIFIED ON THE DRAWINGS THE 7mm CRUSHED ROCK FILTER MATERIAL SHALL BE ENCLOSED WITHIN FILTER FABRIC SHEET AS SPECIFIED. FILTER MATERIAL SHALL BE PLACED IN 250mm LAYERS AND COMPACTED TO A DENSITY INDEX OF 80%.

AS SIEVE SIZE (mm)	SAND	70mm ROCK
9.5	100	100
6.7	-	75-100
4.75	90-100	20-55
2.36	75-100	0-15
1.18	50-90	-
0.60	20-60	-
0.30	10-30	-
0.15	2-10	-
0.075	0-3	0-2

13. LINTEL LENGTH SHOWN ON DRAWING INDICATES THE CLEAR OPENING LENGTH.
14. PRIOR TO ISSUE OF PRACTICAL COMPLETION CONTRACTOR SHALL CARRY OUT CCTV ON ALL PIPES AND SUBMIT VIDEO AND WRITTEN REPORT CONFIRMING THAT ALL PIPES ARE FREE OF DEFECTS AND ARE LAID TO SPECIFICATION.
15. CARE IS TO BE TAKEN WITH LEVELS OF STORMWATER LINES. GRADES SHOWN ARE NOT TO BE REDUCED WITHOUT APPROVAL.
16. GRATES AND COVERS SHALL CONFORM WITH THE COUNCIL'S SPECIFICATION.
17. AT ALL TIMES DURING CONSTRUCTION OF STORMWATER PITS, ADEQUATE SAFETY PROCEDURES SHALL BE TAKEN TO ENSURE AGAINST THE POSSIBILITY OF PERSONNEL FALLING DOWN PITS.
18. BACKFILLING OF TRENCHES SHALL BE IN ACCORDANCE WITH THE COUNCIL'S SPECIFICATIONS.
19. STEP IRONS ARE TO BE PLACED IN PITS GREATER THAN 1.2m DEEP IN ACCORDANCE WITH THE COUNCIL'S AND MANUFACTURER'S REQUIREMENTS.
20. SUBSOIL DRAINS ARE TO BE PROVIDED BEHIND ALL KERBS AS DIRECTED.
21. ALL PITS SHALL BE BENCHED AND FLOW STREAMLINED.
22. ALL MILD STEEL FIXTURES INCLUDING (GRATES, FRAMES, STEP IRONS, LADDERS ETC) SHALL BE HOT DIP GALVANISED WHICH SHALL COMPLY WITH THE REQUIREMENTS OF AS 1214 OR AS 1650, AS APPROPRIATE.
23. GEOBARIC FILTER SHALL BE PERMEABLE, NON-WOVEN FABRIC MANUFACTURED FROM A POLYPROPYLENE OR POLYESTER OF MASS GREATER THAN 135g/m²
24. ALL INTERNAL WORKS WITHIN PROPERTY BOUNDARIES ARE TO COMPLY WITH A.S. 3500 3.1 (1998) AND AS/NZS 3500 3.2 (1998)
25. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING A MINIMUM COVER OF 600mm DURING CONSTRUCTION.

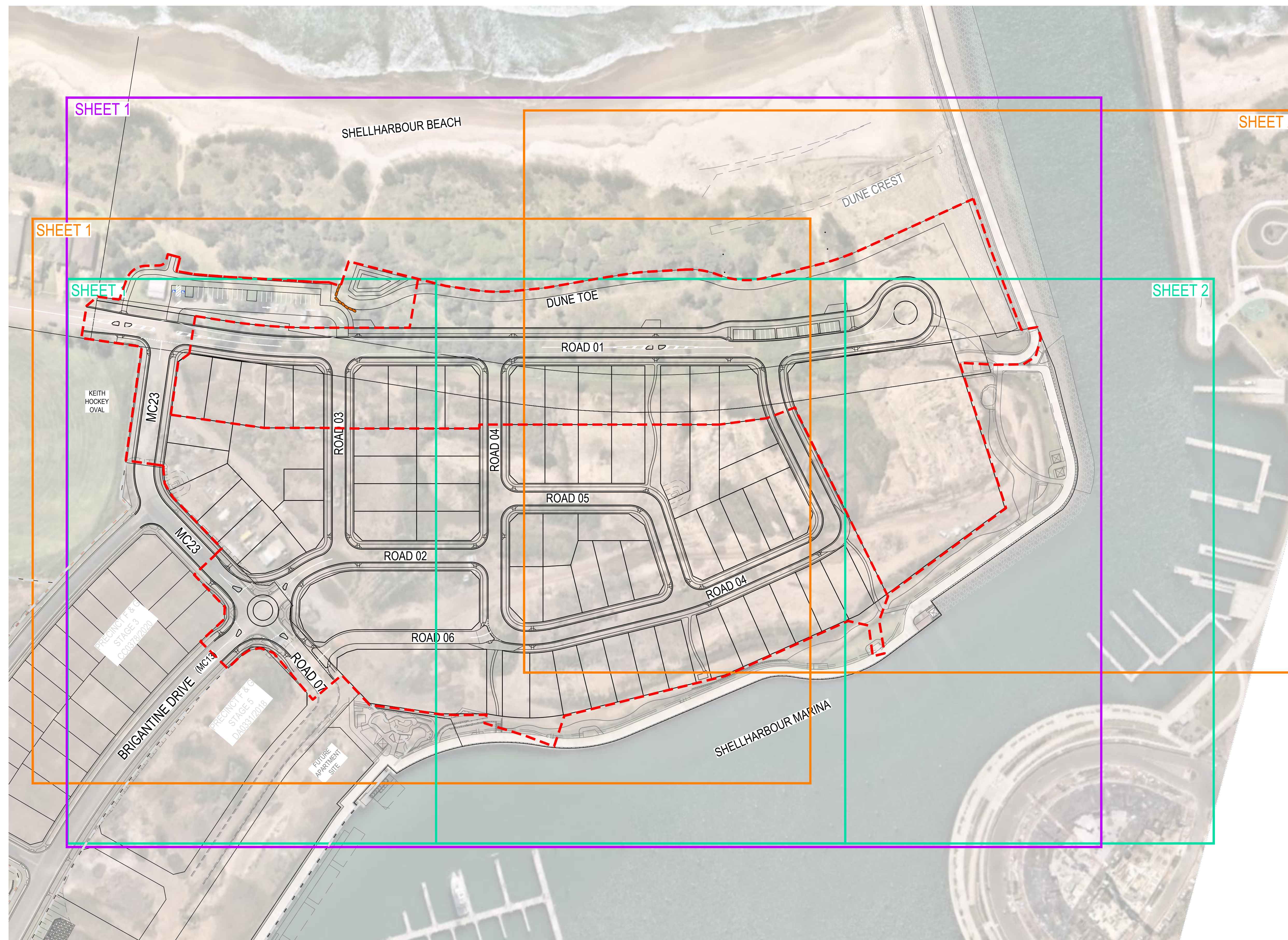
FOR APPROVAL



APPROVED	KJM	DATE	20.04.21
CHECKED	KJM	DATE	20.04.21
DESIGNED BY	SJW		
DRAWN BY	SJW		
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SCALE -		ORIGINAL SIZE A1	

CIVIL STRATEGY
PROPOSED SUBDIVISION OF
PRECINCT H
SHELL COVE

DRAWING TITLE		
NOTES		
PROJECT No. ISC00223-DA	DRAWING No. C001	AMDT 1




LEGEND

SHEET LAYOUT (1:500 SCALE)

SHEET LAYOUT (1:600 SCALE)

SHEET LAYOUT (1:800 SCALE)

STAGING BOUNDARY
NOTE: STAGE 1 TO DEFINE M.H.W.M.
(NOT SHOWN, SUBJ. TO SURVEY)



No.	AMENDMENT	APPROVED	DATE	APPROVED BY
5	AMENDED CARPARK SHAREPATH	KJM	22.07.22	SJW
4	RE-ISSUE FOR APPROVAL (LINEMARK-CARPARK-XING)	KJM	07.02.22	SJW
3	RE-ISSUE FOR AMENDED STAGING EXTENTS: LOTS RENUMBERED.	KJM	07.06.22	SJW
2	AMENDED LOT LAYOUT FOR VIEW CORRIDOR COMPLIANCE	KJM	14.09.21	SJW
1	ISSUE FOR APPROVAL	KJM	29.04.21	SJW

FOR APPROVAL



APPROVED	KJM	DATE	20.04.21
CHECKED	KJM	DATE	20.04.21
DESIGNED BY	SJW		
DRAWN BY	SJW		
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SCALE	-	ORIGINAL SIZE	A1

	PROJECT
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CIVIL STRATEGY
PROPOSED SUBDIVISION OF
PRECINCT H
SHELL COVE

DRAWING TITLE

KEY PLAN

PROJECT No. **ISC00223-DA**

DRAWING No.	C002
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AMDT
5



LEGEND

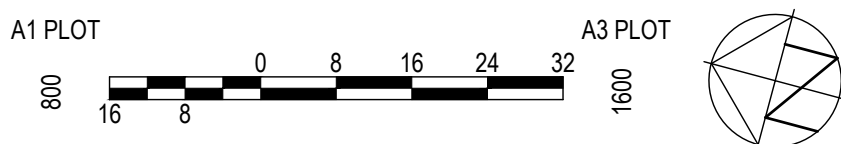
LOT FRONTAGE TABLE		
LOT WIDTH	COUNT	%
12.5m - 13.49m	5	8%
13.5m - 14.99m	28	42%
15m +	33	50%

PROPOSED	
	PROPOSED SEWER PUMP STATION
	PROPOSED MEDIUM DENSITY
	PROPOSED MIXED USE SITE
	PROPOSED PAVEMENT

	STAGING BOUNDARY NOTE: STAGE 1 TO DEFINE M.H.W.M. (NOT SHOWN, SUBJ. TO SURVEY)
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EXISTING	
	STAGING BOUNDARY (PRECINCT F&G)
	RE1 ZONING BOUNDARY
	PAVEMENT

NOTE
LOT 253 FOR SPS 1194.
DESIGN TO BE COMPLETED BY SYDNEY WATER.



No.	AMENDMENT	APPROVED	DATE	AMENDED BY
5	AMENDED CARPARK SHAREPATH	KJM	22.07.22	SIW
4	RE-ISSUE FOR APPROVAL (LINE MARK-CARPARK XING)	KJM	07.07.22	SIW
3	RE-ISSUE FOR AMENDED STAGING EXTENTS, LOTS RENUMBERED.	KJM	07.06.22	SIW
2	AMENDED LOT LAYOUT FOR VIEW CORR. ADD PRAM RMPs.	KJM	14.09.21	SIW
1	ISSUE FOR APPROVAL	KJM	20.04.21	SIW

FOR APPROVAL

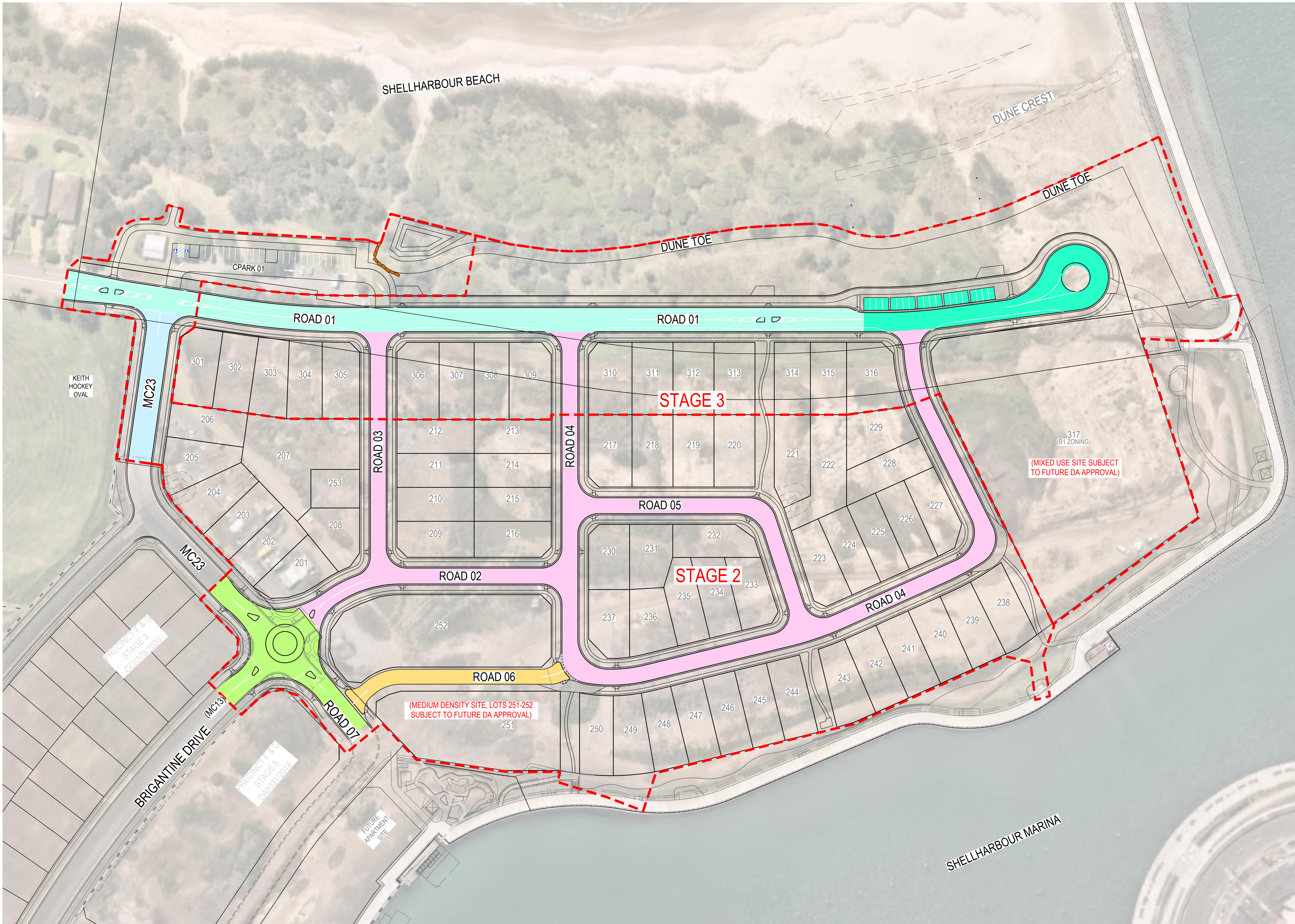


APPROVED	KJM	DATE	20.04.21
CHECKED	KJM	DATE	20.04.21
DESIGNED BY	SIW		
DRAWN BY	SIW		
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SCALE	1:800	ORIGINAL SIZE	A1

PROJECT
CIVIL STRATEGY
PROPOSED SUBDIVISION OF
PRECINCT H
SHELL COVE

DRAWING TITLE
LOT LAYOUT PLAN

PROJECT No.	ISC00223-DA	DRAWING No.	C005	AMDT	5
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LEGEND

TYPE A - LOCAL STREET - (15.5 WIDE)

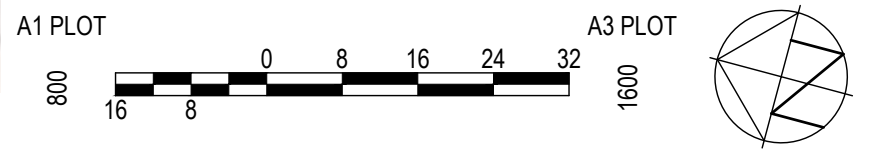
TYPE B - LANEWAY - (10.0 WIDE)

TYPE C1 - BUS CAPABLE ROUTE - (19.5 WIDE)

TYPE C2 - BUS CAPABLE ROUTE - (19.5 WIDE)
(WITH SHAREPATH)

TYPE D - LOCAL STREET - (19.4 WIDE)

TYPE E - LOCAL STREET - (22.9 WIDE)

STAGING BOUNDARY
NOTE: STAGE 1 TO DEFINE M.H.W.M.
(NOT SHOWN, SUBJ. TO SURVEY)

No.	AMENDMENT	APPROVED	DATE	AMENDS BY
5	AMENDED CARPARK SHAREPATH	KJM	22.07.22	SJW
4	RE-ISSUE FOR APPROVAL (LINEMARK-CARPARK.XING)	KJM	07.07.22	SJW
3	RE-ISSUE FOR AMENDED STAGING EXTENTS, LOTS RENUMBERED	KJM	07.06.22	SJW
2	TYPE C2 ADDED AND LOT LAYOUT FOR VIEW CORR. ADD PRAM RIMPS	KJM	14.09.21	SJW
1	ISSUE FOR APPROVAL	KJM	20.04.21	SJW

FOR APPROVAL

CLIENT

FRASERS
PROPERTY



APPROVED	KJM	DATE	20.04.21
CHECKED	KJM	DATE	20.04.21
DESIGNED BY	SJW		
DRAWN BY	SJW		
CAD FILE	G:\ISC00223 Shell Cove - Precinct H\Acad\Civil10 - DA\ISC00223-DA-C015.dwg		
SCALE	1:800	ORIGINAL SIZE	A1

PROJECT

CIVIL STRATEGY
PROPOSED SUBDIVISION OF
PRECINCT H
SHELL COVE

DRAWING TITLE

TYPICAL ROAD CROSS SECTIONS
PLAN

PROJECT No.

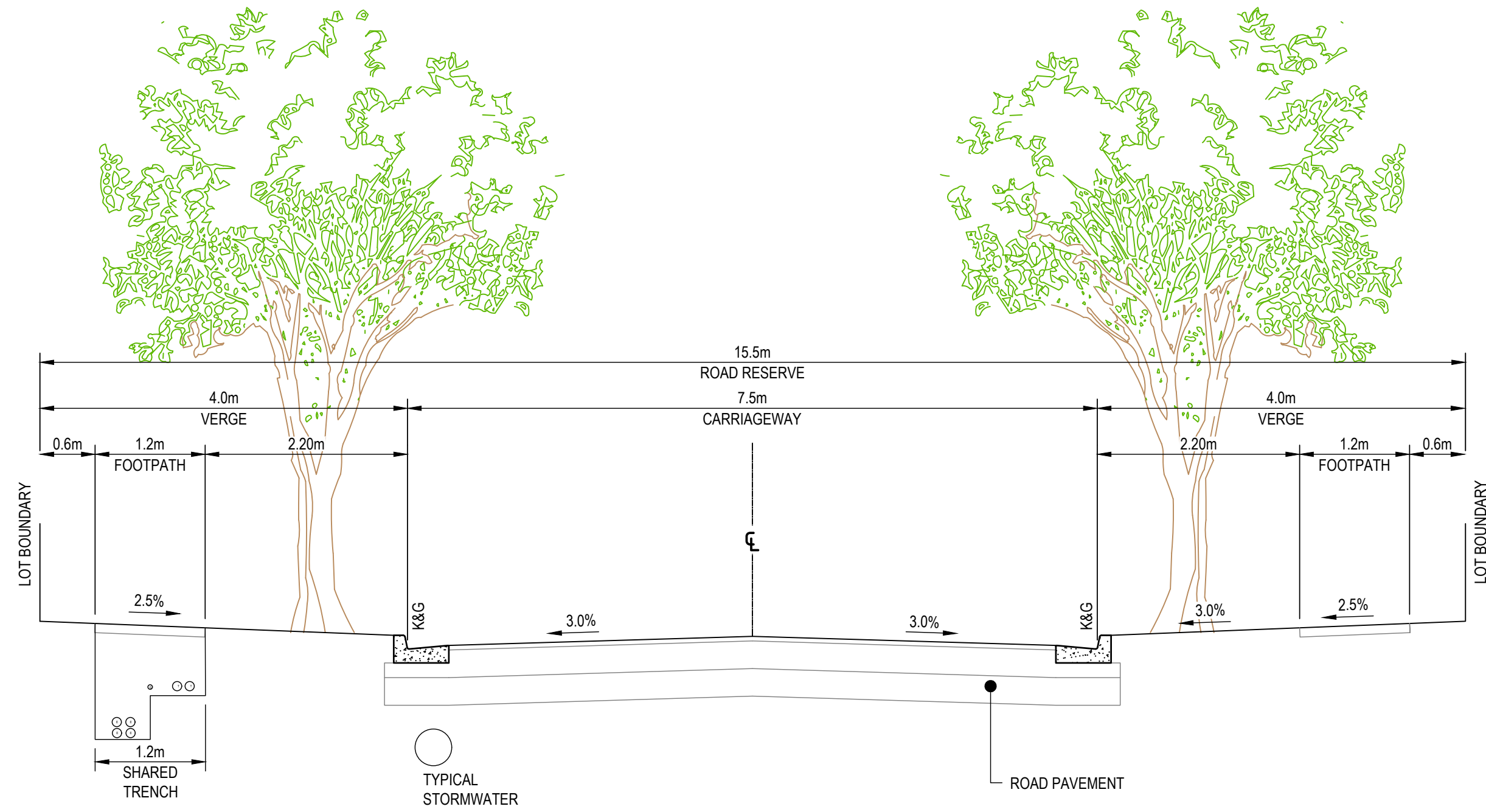
ISC00223-DA

DRAWING No.

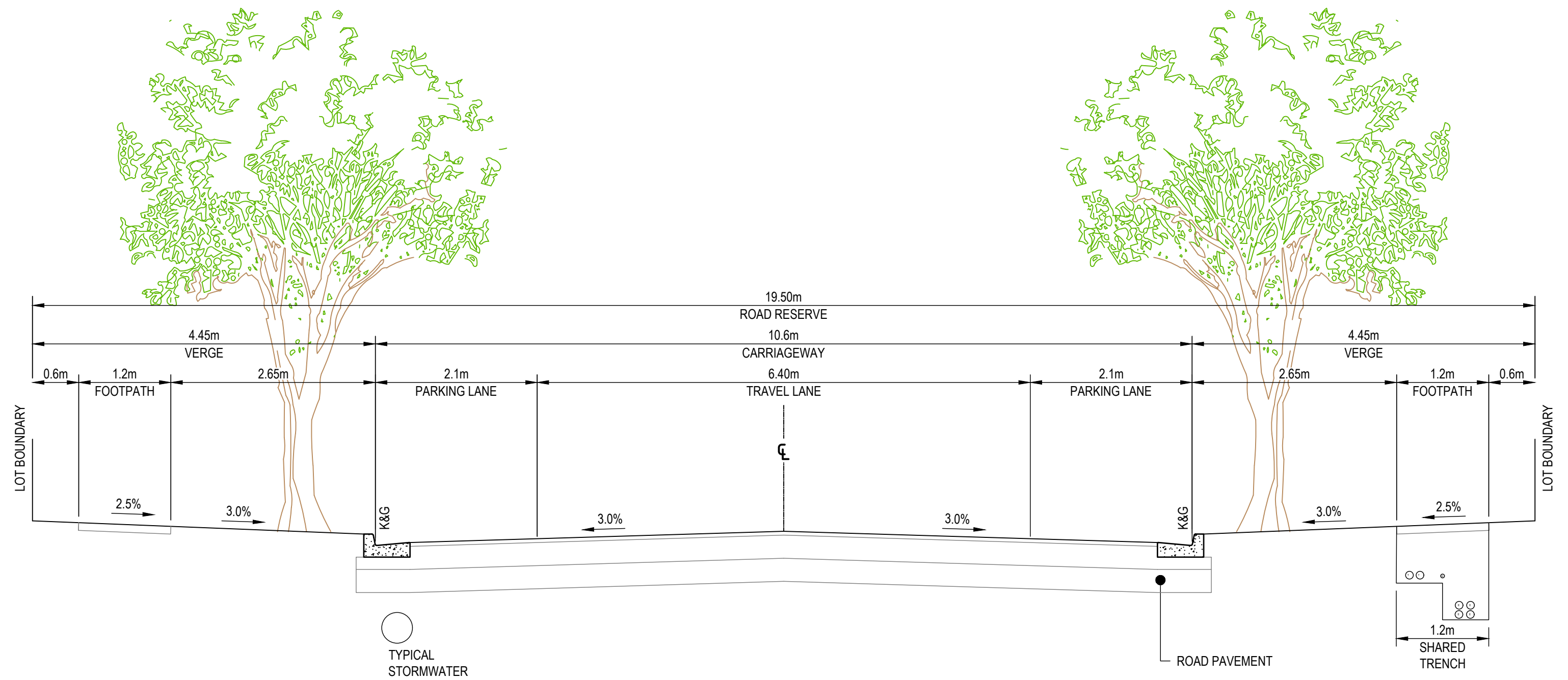
C015

AMDT

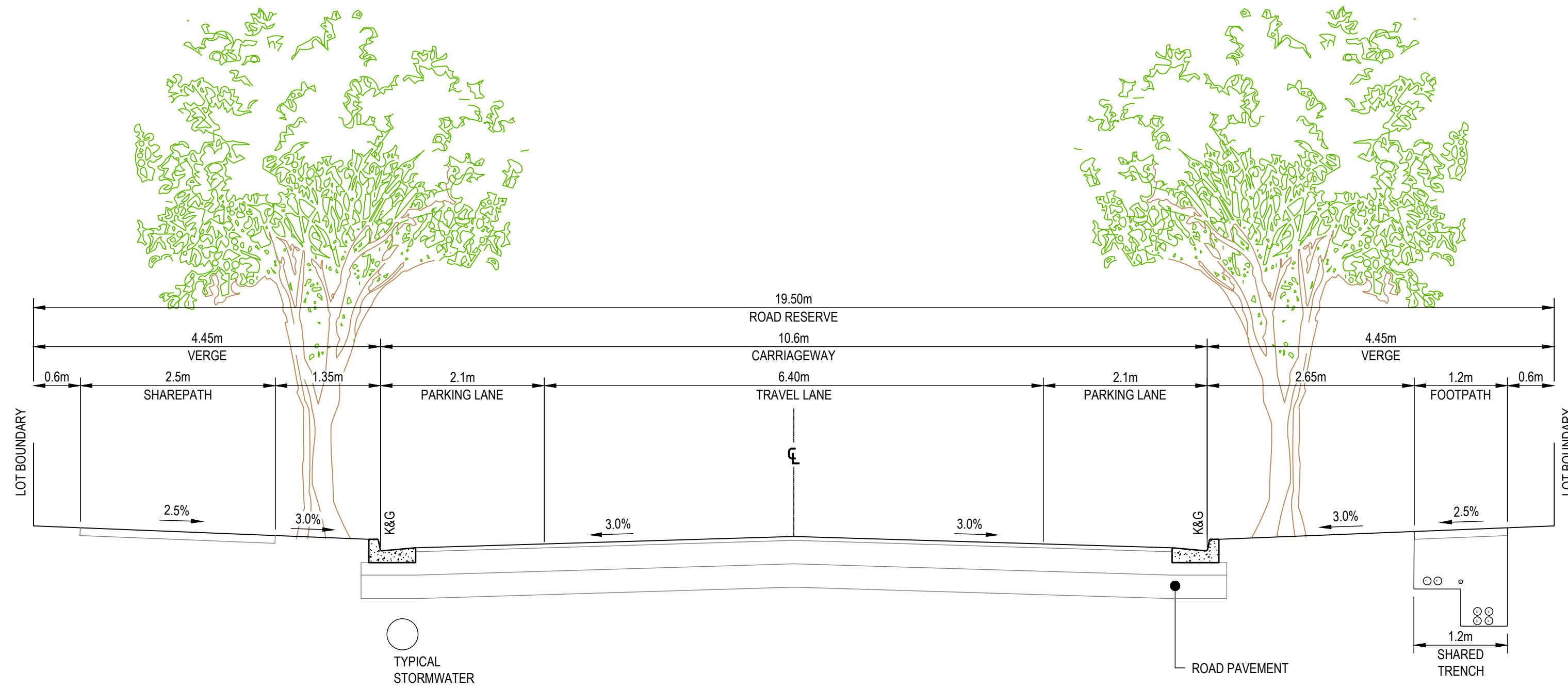
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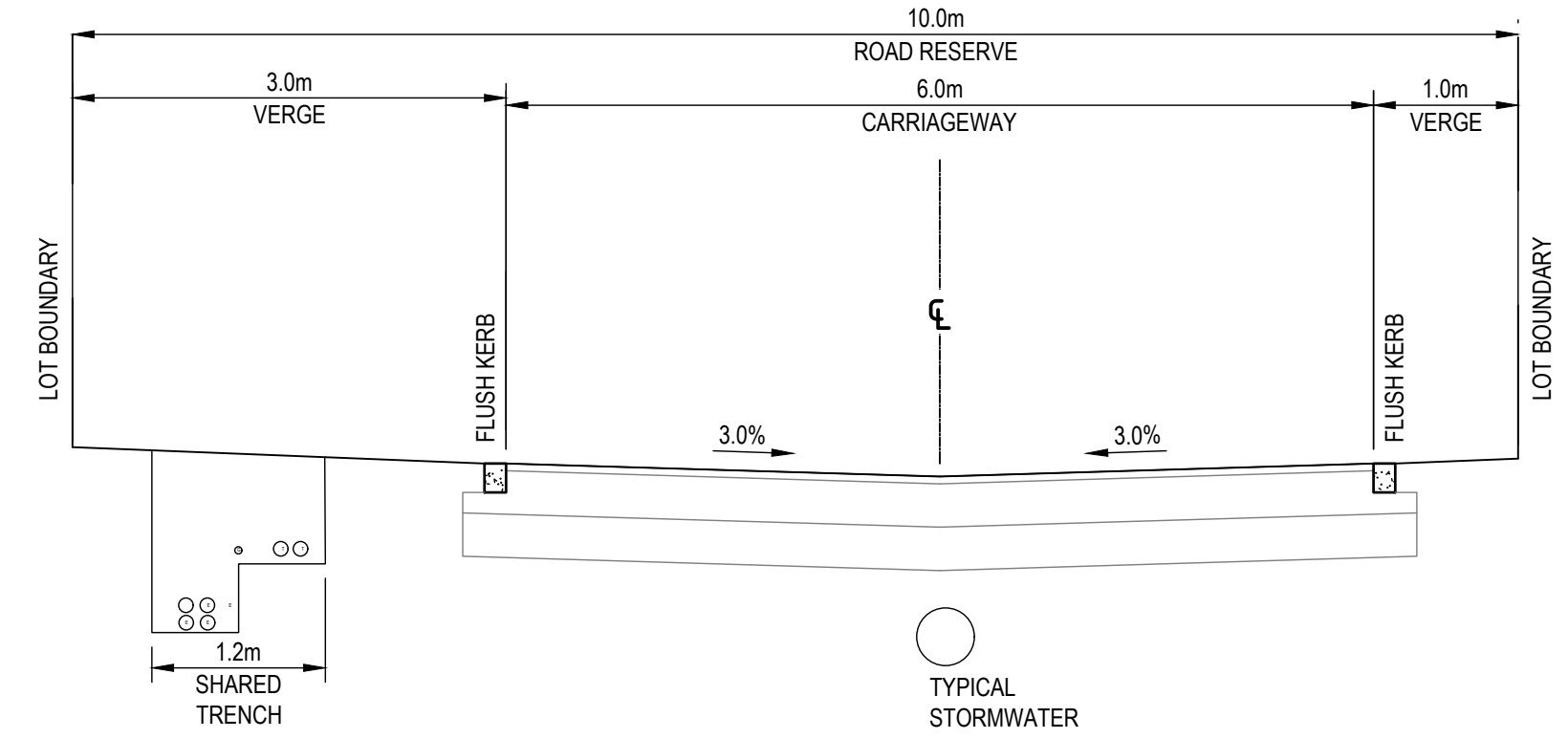
TYPE A - LOCAL STREET - 15.5m WIDE
1:50



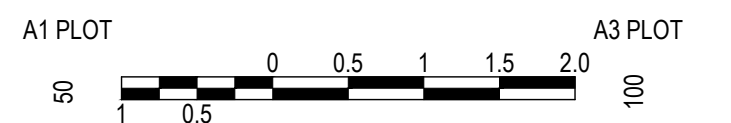
TYPE C1 - BUS CAPABLE ROUTE - 19.5m WIDE
1:50



TYPE C2 - BUS CAPABLE ROUTE (Share Path) - 19.5m WIDE
1:50



TYPE B - LANEWAY - 10.0m WIDE
1:50



No.	AMENDMENT	APPROVED	DATE	AMKES BY
3	TYPE C2 ADDED	KJM	07.06.22	SJW
2	TYPE C2 ADDED	KJM	14.09.21	SJW
1	ISSUE FOR APPROVAL	KJM	20.04.21	SJW

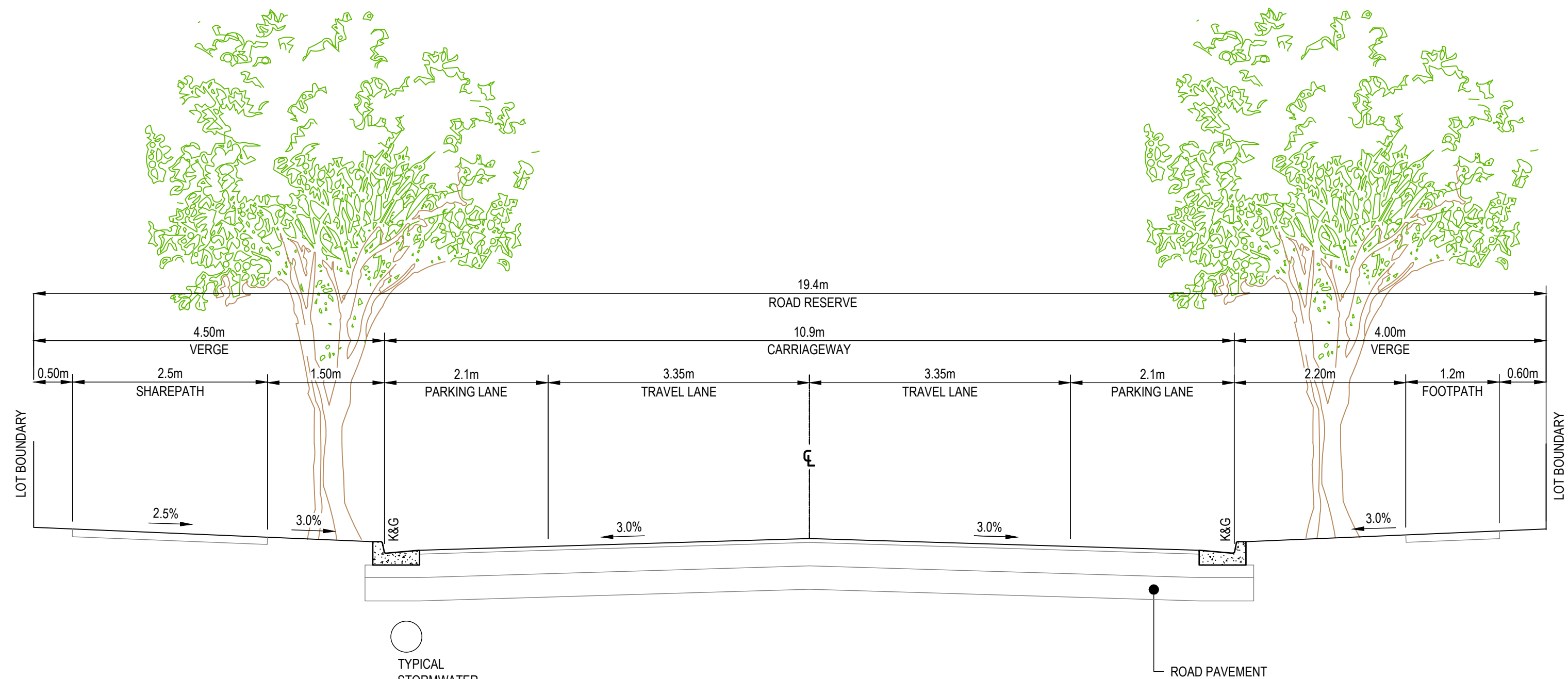
FOR APPROVAL



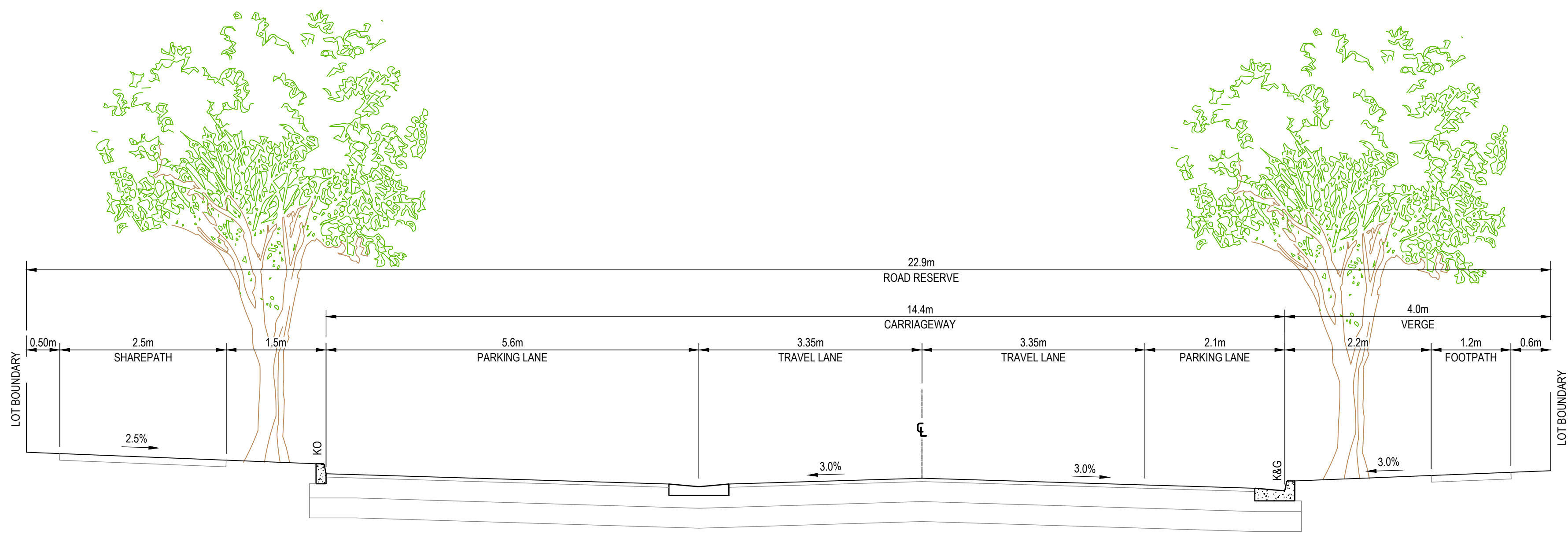
APPROVED	KJM	DATE	20.04.21
CHECKED	KJM	DATE	20.04.21
DESIGNED BY	SJW		
DRAWN BY	SJW		
CAD FILE	G:\ISC00223 Shell Cove - Precinct H\Acad\Civil\10 - DA\ISC00223-DA-C016.dwg		
SCALE	1:50	ORIGINAL SIZE	A1

PROJECT	CIVIL STRATEGY PROPOSED SUBDIVISION OF PRECINCT H SHELL COVE
---------	---

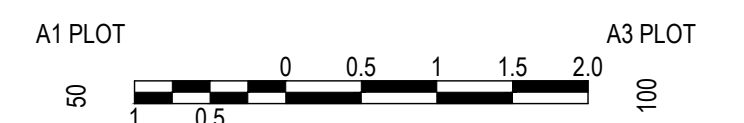
DRAWING TITLE	TYPICAL ROAD CROSS SECTIONS DETAIL SHEET 1 OF 2
PROJECT No.	ISC00223-DA
DRAWING No.	C016
AMDT	3



TYPE D - LOCAL STREET - 19.4m WIDE
(FROM PRECINCT A - TYPE C)
1:50



TYPE E - LOCAL STREET - 22.9m WIDE
(FROM PRECINCT A - TYPE D)
1:50



No.	AMENDMENT	APPROVED	DATE	AMENDED BY
1	ISSUE FOR APPROVAL	KJM	20.04.21	SJW

FOR APPROVAL



APPROVED	KJM	DATE	20.04.21
CHECKED	KJM	DATE	20.04.21
DESIGNED BY	SJW		
DRAWN BY	SJW		
CAD FILE	G:\ISC00223 Shell Cove - Precinct H\Acad\Civil\10 - DA\ISC00223-DA-C017.dwg		
SCALE	1:50	ORIGINAL SIZE	A1

PROJECT	CIVIL STRATEGY PROPOSED SUBDIVISION OF PRECINCT H SHELL COVE
---------	---

DRAWING TITLE	TYPICAL ROAD CROSS SECTIONS DETAIL SHEET 2 OF 2
PROJECT No.	ISC00223-DA
DRAWING No.	C017
AMDT	1

Datum R.L.-5.00

DEPTH

DESIGN

EXISTING

HOR 1:500
VERT 1:250

C020



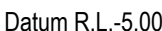
DEPTH

DESIGN

EXISTING

HOR 1:500
VERT 1:250

C02



DEPTH

DESIGN

EXISTING

HOR 1:500
VERT 1:250

C02W



HORIZONTAL

A3 PLOT

A1 PLOT

VERTICAL

A3 PLOT

FOR APPROVAL



APPROVED	KIM	DATE	20.04.21
----------	-----	------	----------

CHECKED	KIM
---------	-----

DESIGNED BY _____

DRAWING

SSW

A1

CIVIL STRATEGY

PROPOSED SUBDIVISION OF

PRECINCT H
SHELL 3015

SHELL COVE

BULK EARTHWORKS SECTIONS

SECTION 01 02 03

SHEET 1 OF 3

PROJECT №

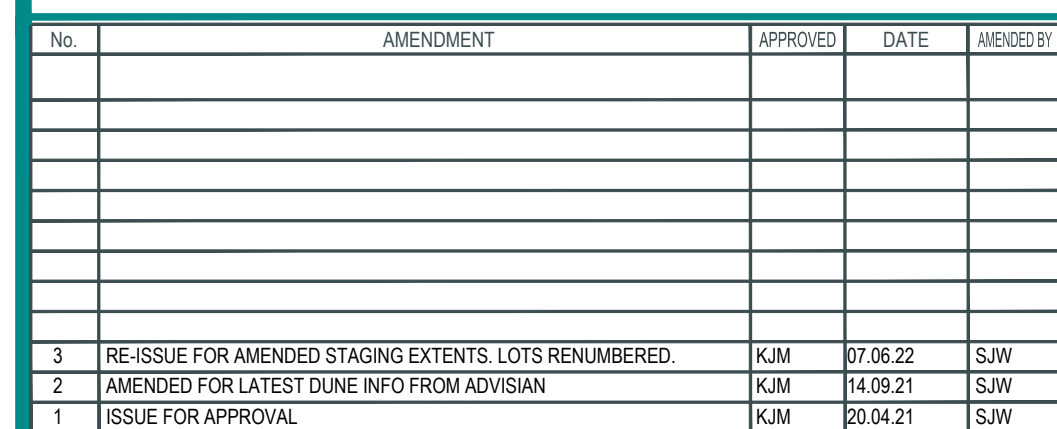
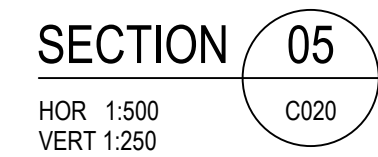
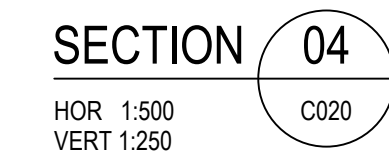
ISC00223-DA

DRAINING No.

C021

AMDT

1



APPROVED	KJM	DATE	20.04.21
CHECKED	KJM	DATE	20.04.21
DESIGNED BY	SJW		
DRAWN BY	SJW		
CAD FILE G:\SC00223 Shell Cove - Precinct H\Acad\Civil\110 - DA\SC00223-DA-C022.dwg			
SCALE -		ORIGINAL SIZE A1	

DRAWING TITLE

BULK EARTHWORKS SECTIONS

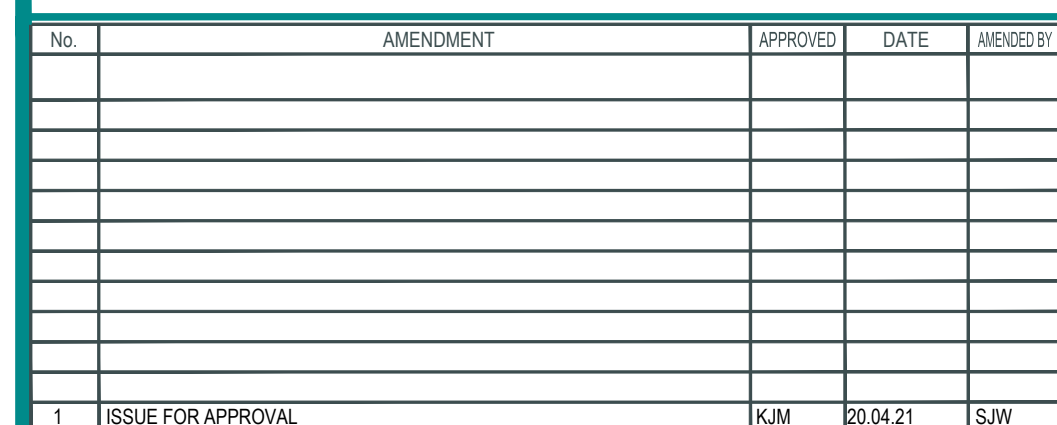
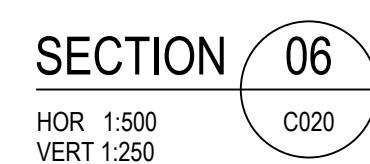
SECTION 04 05

SHEET 2 OF 3

PROJECT No.
ISC00223-DA

DRAWING No.
C022

OT	
----	--



MAKER ENG

APPROVED		KJM	DATE	20.04.21
CHECKED		KJM	DATE	20.04.21
DESIGNED BY		SIW		
DRAWN BY		SIW		
CAD FILE G:\ISC00223 Shell Cove - Precinct H\Acad\Civil\10 - DA\ISC00223-DA-C023.dwg				
SCALE		ORIGINAL SIZE		
-		A1		

DRAWING TITLE

BULK EARTHWORKS SECTIONS

SECTION 06

SHEET 2 OF 3

DRAWING No.
C023

MDT
1

FINAL VIEW CORRIDOR ARRANGEMENT (PATH WIDTH/LOCATION, LANDSCAPING ETC) SUBJECT TO DETAILED ARCHITECTURAL INPUT.



C010, C110

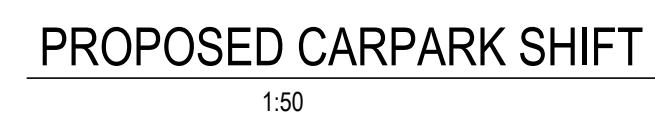
PRELIMINARY MODELLING INDICATES NO SIGNIFICANT OVERLAND FLOW FROM 1% AEP IS EXPECTED THROUGH VIEW CORRIDORS.

ANY 1% AEP OVERLAND FLOW THROUGH VIEW CORRIDOR AS A RESULT OF DETAILED DESIGN IS TO BE LIMITED IN ACCORDANCE COUNCIL DCP TABLE A10.5

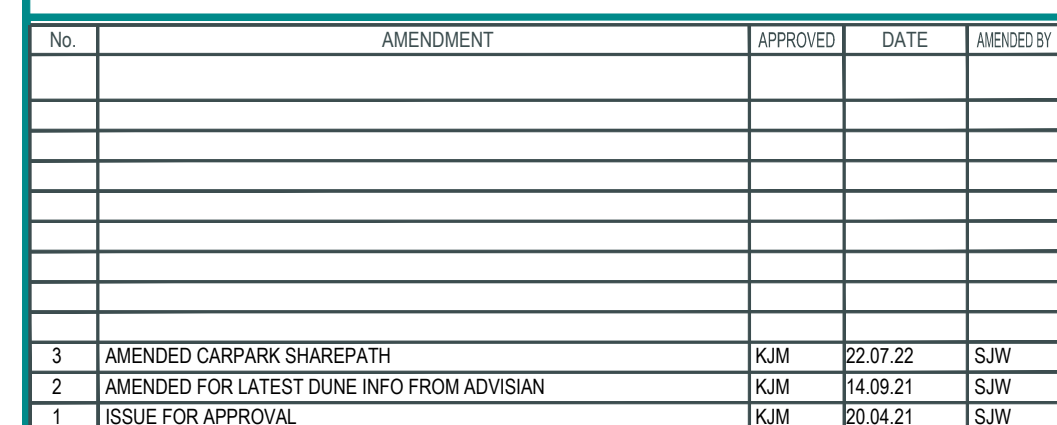
VIEW CORRIDOR / OLFP 02

1:50

C011, C111



C010, C110



APPROVED	KJM DATE 20.04.21
CHECKED	KJM DATE 20.04.21
DESIGNED BY	SJW
DRAWN BY	SJW
CAD FILE G:\SC00223 Shell Cove - Precinct H\Acad\Civil\10 - DA\SC00223-DA-C036.dwg	
SCALE	ORIGINAL SIZE
1:50	A1

DRAWING TITLE
CIVIL DETAILS
SHEET 2 OF 4

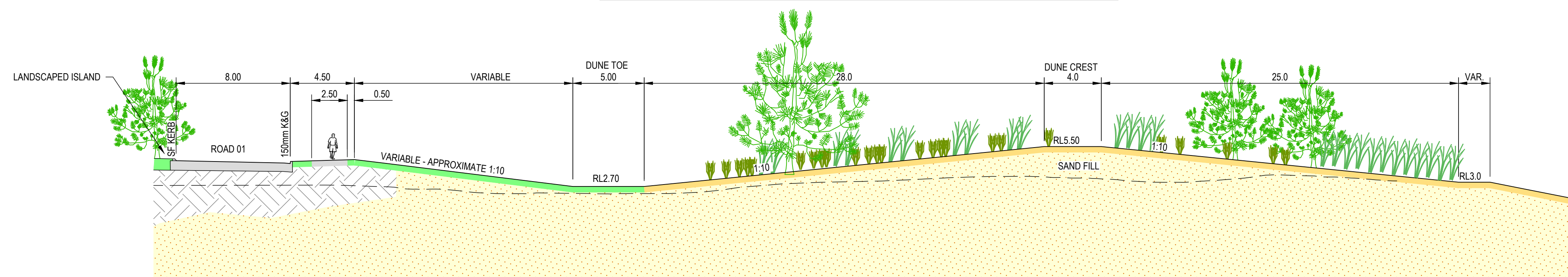
PROJECT No.
ISC00223-DA

AWING No.
C036

OT	
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<p>NOTE</p> <p>PROPOSED DUNE RE-ESTABLISHMENT WORKS IN ACCORDANCE WITH 'SHELL COVE BOAT HARBOUR BEACH NOURISHMENT / REHABILITATION MANAGEMENT PLAN' BY ADVISIAN</p>
--

PROPOSED DUNE RE-ESTABLISHMENT WORKS IN ACCORDANCE WITH
'SHELL COVE BOAT HARBOUR BEACH NOURISHMENT / REHABILITATION MANAGEMENT PLAN' BY ADVISIAN

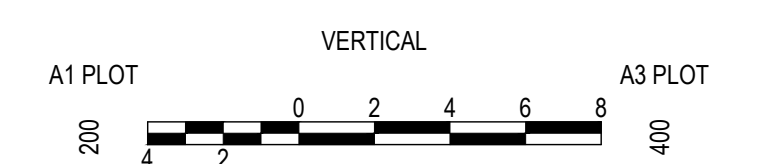


DUNE REHABILITATION

1:200

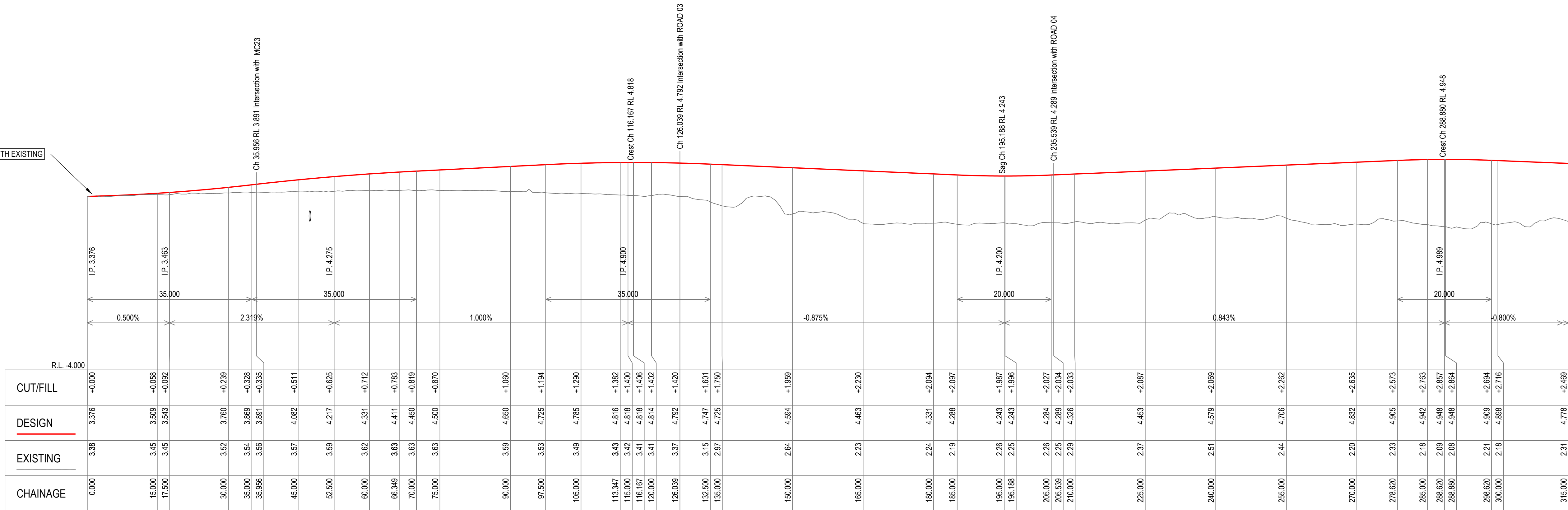
04

C011, C111

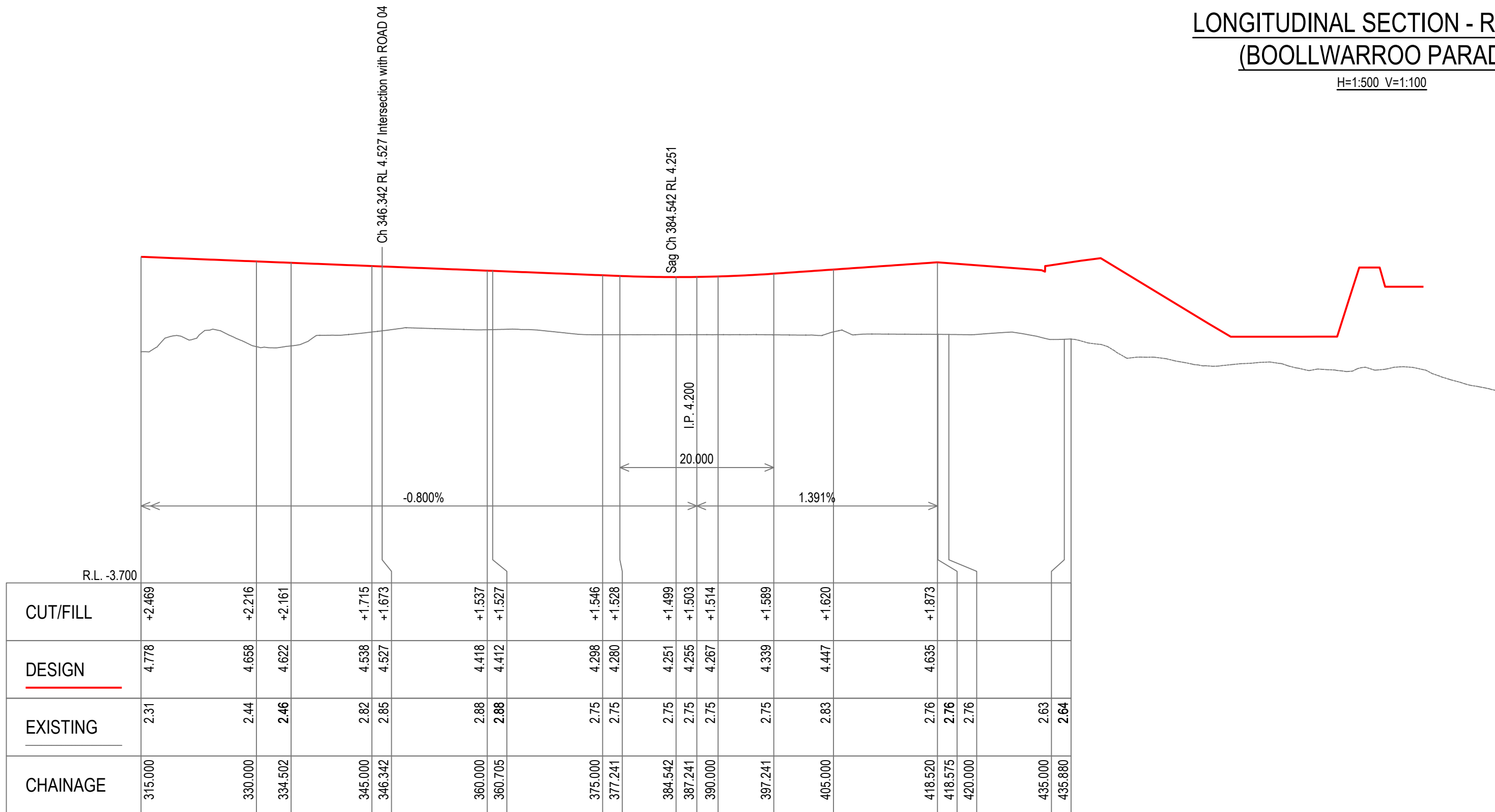


No.	AMENDMENT	APPROVED	DATE	AUDED BY	FOR APPROVAL			<table><tr><td>APPROVED</td><td>KJM</td><td>DATE</td><td>20.04.21</td></tr><tr><td>CHECKED</td><td>KJM</td><td>DATE</td><td>20.04.21</td></tr><tr><td>DESIGNED BY</td><td>SJW</td><td colspan="2"></td></tr><tr><td>DRAWN BY</td><td>SJW</td><td colspan="2"></td></tr><tr><td colspan="4">CAD FILE G:\IS000223 Shell Cove - Precinct H\Acad\Civil\10 - DA\IS000223-DA-C037.dwg</td></tr><tr><td>SCALE</td><td>1:200</td><td>ORIGINAL SIZE</td><td>A1</td></tr></table>	APPROVED	KJM	DATE	20.04.21	CHECKED	KJM	DATE	20.04.21	DESIGNED BY	SJW			DRAWN BY	SJW			CAD FILE G:\IS000223 Shell Cove - Precinct H\Acad\Civil\10 - DA\IS000223-DA-C037.dwg				SCALE	1:200	ORIGINAL SIZE	A1	<table><tr><td>PROJECT</td><td>CIVIL STRATEGY PROPOSED SUBDIVISION OF PRECINCT H SHELL COVE</td></tr></table>	PROJECT	CIVIL STRATEGY PROPOSED SUBDIVISION OF PRECINCT H SHELL COVE	<table><tr><td colspan="3">DRAWING TITLE CIVIL DETAILS SHEET 3 OF 4</td></tr><tr><td>PROJECT No. ISC00223-DA</td><td>DRAWING No. C037</td><td>AMD 2</td></tr></table>	DRAWING TITLE CIVIL DETAILS SHEET 3 OF 4			PROJECT No. ISC00223-DA	DRAWING No. C037	AMD 2
APPROVED	KJM	DATE	20.04.21																																							
CHECKED	KJM	DATE	20.04.21																																							
DESIGNED BY	SJW																																									
DRAWN BY	SJW																																									
CAD FILE G:\IS000223 Shell Cove - Precinct H\Acad\Civil\10 - DA\IS000223-DA-C037.dwg																																										
SCALE	1:200	ORIGINAL SIZE	A1																																							
PROJECT	CIVIL STRATEGY PROPOSED SUBDIVISION OF PRECINCT H SHELL COVE																																									
DRAWING TITLE CIVIL DETAILS SHEET 3 OF 4																																										
PROJECT No. ISC00223-DA	DRAWING No. C037	AMD 2																																								
2	ADDED OLP COMMENT	KJM	27.06.22	SJW																																						
1	ISSUE FOR APPROVAL	KJM	20.04.21	SJW																																						

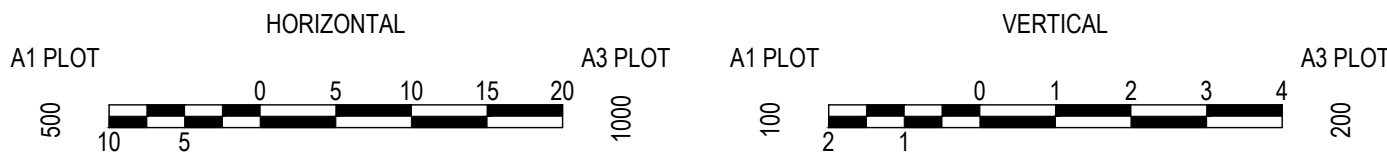
MAKE SMOOTH JUNCTION WITH EXISTING



LONGITUDINAL SECTION - ROAD 01
(BOOLLWARRO PARADE)
H=1:500 V=1:100



LONGITUDINAL SECTION - ROAD 01
(BOOLLWARRO PARADE)
H=1:500 V=1:100



FOR APPROVAL



APPROVED	KJM	DATE	20.04.21
CHECKED	KJM	DATE	20.04.21
DESIGNED BY	SJW		
DRAWN BY	SJW		
CAD FILE	G:\ISC00223 Shell Cove - Precinct H\Acad\Civil\10 - DA\ISC00223-DA-C050.dwg		
SCALE	ORIGINAL SIZE		
-	A1		

CIVIL STRATEGY
PROPOSED SUBDIVISION OF
PRECINCT H
SHELL COVE

LONGITUDINAL SECTION
ROAD 01
SHEET 1 OF 6

PROJECT No.	DRAWING No.	AMDT
ISC00223-DA	C050	1

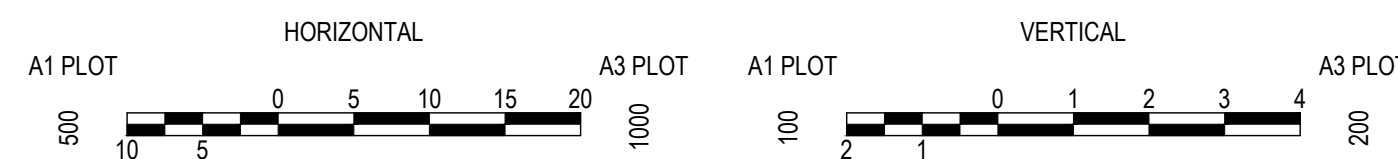


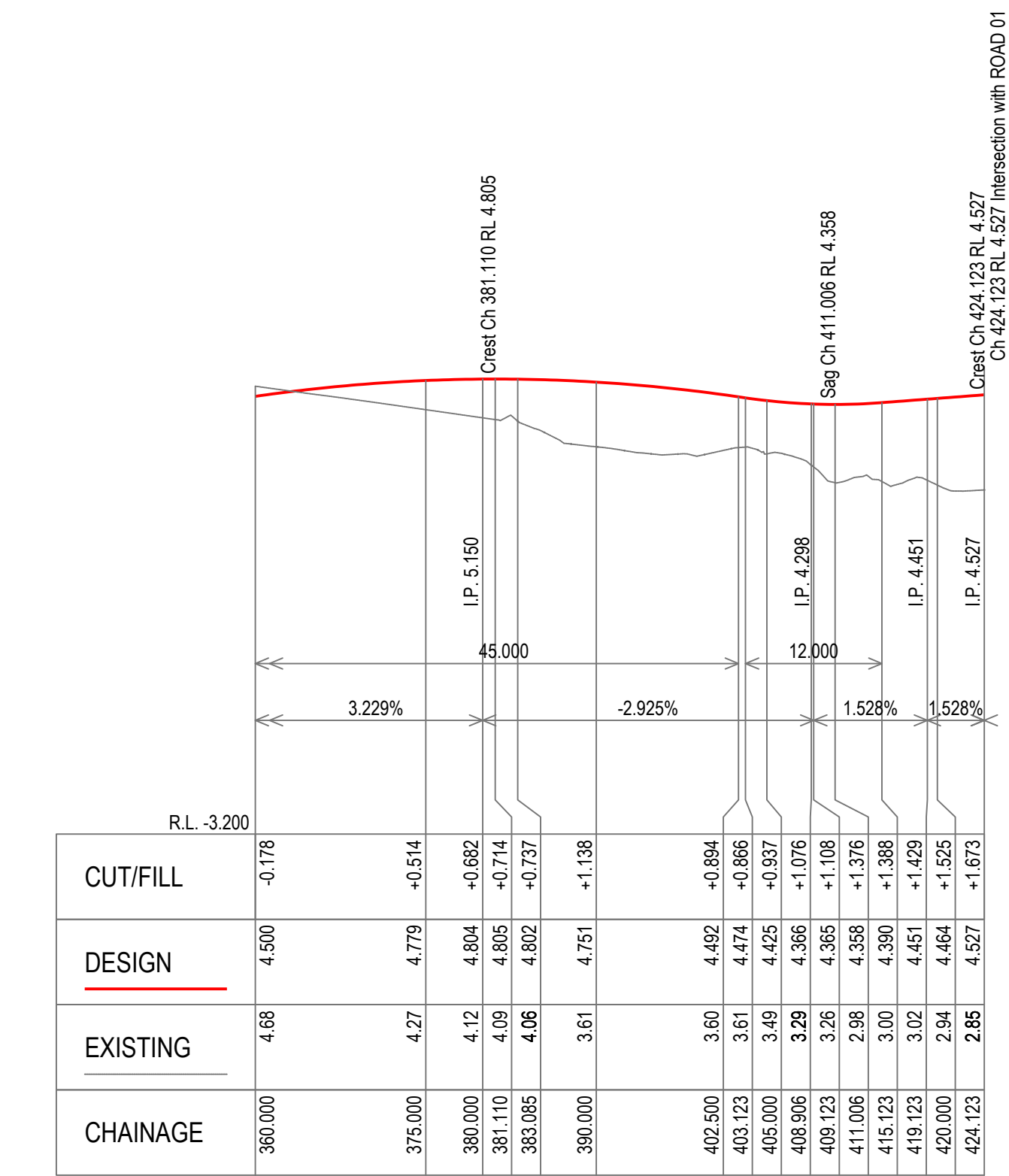
FOR APPROVAL



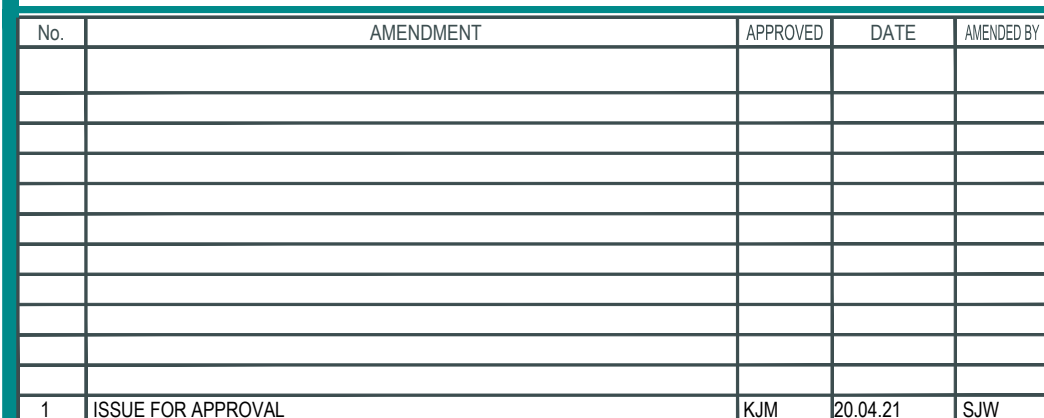
CIVIL STRATEGY
PROPOSED SUBDIVISION OF
PRECINCT H
SHELL COVE

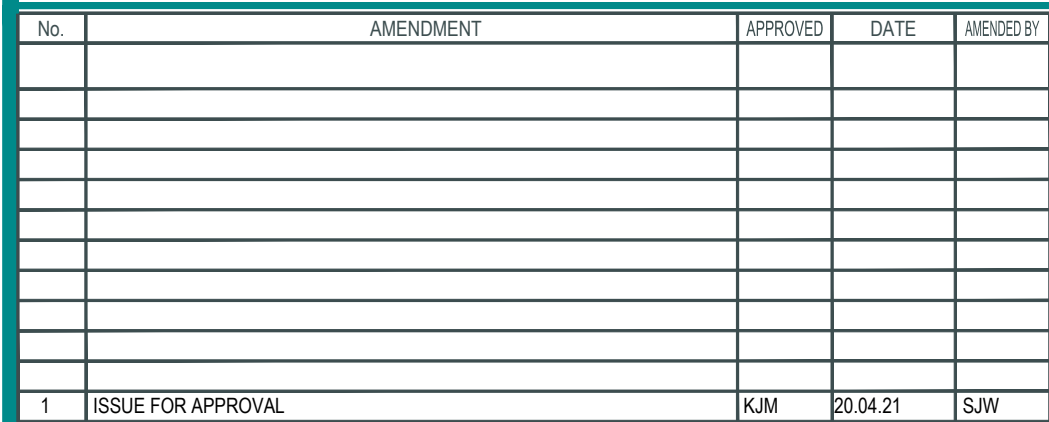
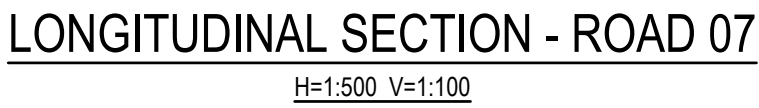
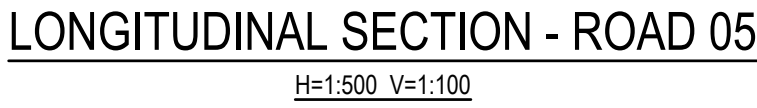
LONGITUDINAL SECTION
ROAD 02 & ROAD 03
SHEET 2 OF 6



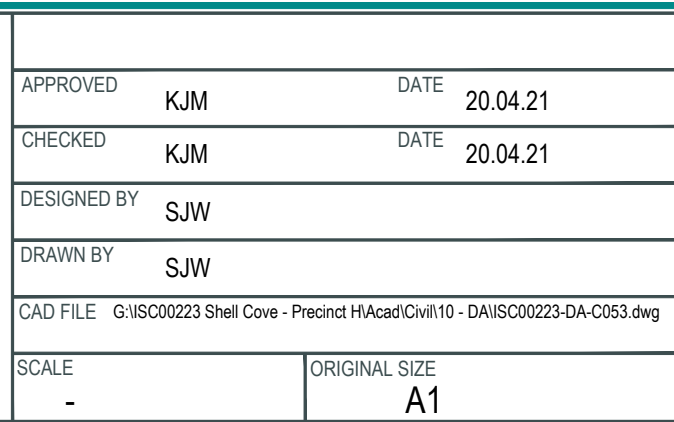


LONGITUDINAL SECTION - ROAD 04
H=1:500 V=1:100





FRASERS
PROPERTY



DRAWING TITLE

LONGITUDINAL SECTION

ROAD 05 & 06 & 07

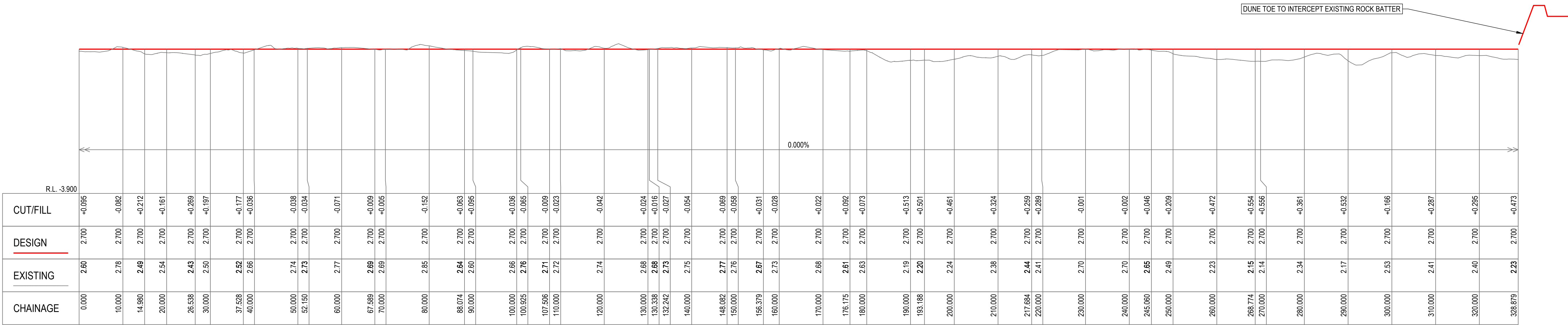
SHEET 4 OF 6

DRAWING No.
C053

AMDT
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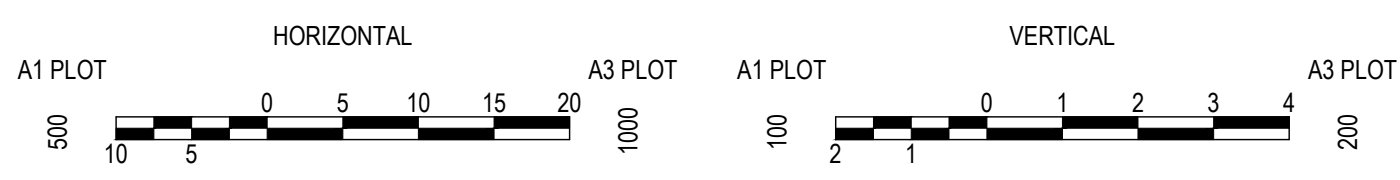
NOTE

PROPOSED DUNE RE-ESTABLISHMENT WORKS AND PLANTING IN ACCORDANCE WITH 'SHELL COVE BOAT HARBOUR BEACH NOURISHMENT / REHABILITATION MANAGEMENT PLAN' BY ADVISIAN. 301015-02681-001 REV G. AND AMENDED DWG 301052681-MA-DWG-0130 REV2



LONGITUDINAL SECTION - DUNE TOE

H=1:500 V=1:100



<table><tr><th>No.</th><th>AMENDMENT</th><th>APPROVED</th><th>DATE</th><th>AMENDED BY</th></tr><tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr><tr><td> </td><td> </td><td> </td><td> </td><td> </td></tr><tr><td>2</td><td>AMENDED FOR LATEST DUNE INFO FROM ADVISIAN</td><td>KJM</td><td>14.09.21</td><td>SJW</td></tr><tr><td>1</td><td>ISSUE FOR APPROVAL</td><td>KJM</td><td>20.04.21</td><td>SJW</td></tr></table>					No.	AMENDMENT	APPROVED	DATE	AMENDED BY																																														2	AMENDED FOR LATEST DUNE INFO FROM ADVISIAN	KJM	14.09.21	SJW	1	ISSUE FOR APPROVAL	KJM	20.04.21	SJW	FOR APPROVAL		<div>FRASERS PROPERTY</div>		<div>MAKER ENG</div>		<table><tr><td>APPROVED</td><td>KJM</td><td>DATE</td><td>20.04.21</td></tr><tr><td>CHECKED</td><td>KJM</td><td>DATE</td><td>20.04.21</td></tr><tr><td>DESIGNED BY</td><td>SJW</td><td></td><td></td></tr><tr><td>DRAWN BY</td><td>SJW</td><td></td><td></td></tr><tr><td colspan="2">CAD FILE</td><td colspan="2">G:\ISC00223 Shell Cove - Precinct H\Acad\Civil\10 - DA\ISC00223-DA-C055.dwg</td></tr><tr><td>SCALE</td><td>-</td><td>ORIGINAL SIZE</td><td>A1</td></tr></table>		APPROVED	KJM	DATE	20.04.21	CHECKED	KJM	DATE	20.04.21	DESIGNED BY	SJW			DRAWN BY	SJW			CAD FILE		G:\ISC00223 Shell Cove - Precinct H\Acad\Civil\10 - DA\ISC00223-DA-C055.dwg		SCALE	-	ORIGINAL SIZE	A1	PROJECT CIVIL STRATEGY PROPOSED SUBDIVISION OF PRECINCT H SHELL COVE		DRAWING TITLE LONGITUDINAL SECTION DUNE CREST & DUNE TOE SHEET 6 OF 6			PROJECT No. ISC00223-DA		DRAWING No. C055		AMDT 2
No.	AMENDMENT	APPROVED	DATE	AMENDED BY																																																																																																						
2	AMENDED FOR LATEST DUNE INFO FROM ADVISIAN	KJM	14.09.21	SJW																																																																																																						
1	ISSUE FOR APPROVAL	KJM	20.04.21	SJW																																																																																																						
APPROVED	KJM	DATE	20.04.21																																																																																																							
CHECKED	KJM	DATE	20.04.21																																																																																																							
DESIGNED BY	SJW																																																																																																									
DRAWN BY	SJW																																																																																																									
CAD FILE		G:\ISC00223 Shell Cove - Precinct H\Acad\Civil\10 - DA\ISC00223-DA-C055.dwg																																																																																																								
SCALE	-	ORIGINAL SIZE	A1																																																																																																							





PROPOSED

STAGING BOUNDARY
NOTE: STAGE 1 TO DEFINE M.H.W.M.
(NOT SHOWN, SUBJ. TO SURVEY)

STORMWATER PIPE (RCP)

STORMWATER PIPE (PVC)

STORMWATER STRUCTURES

DESIGN INFILTRATION AREA

CONCEPTUAL SEWER ARRANGEMENT
(GRAVITY)

7.0

CONTOURS (0.5m)

INDICATIVE BEACH ACCESS POINT
(REFER DUNE NOURISHMENT REPORT
BY ADVISIAN, 304015-02681-001 REV G)

EXISTING

PAVEMENT

FORESHORE DRAINAGE WORKS

RE1 ZONING BOUNDARY

7.0

CONTOURS (1.0m)

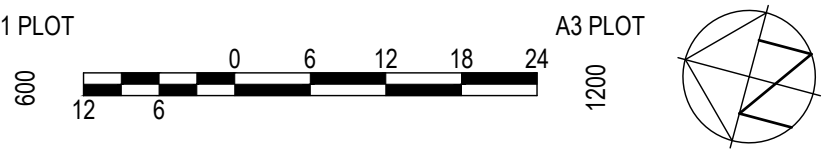
OVERLAND FLOW COMMENTS

PRELIMINARY MODELLING INDICATES NO SIGNIFICANT OVERLAND FLOW FROM 1% AEP IS EXPECTED THROUGH VIEW CORRIDORS.

VIEW CORRIDOR RETAINING WALLS ARE OFFERING PRIVACY FOR ADJACENT LOTS WITH FREEBOARD BEING A SECONDARY OUTCOME.

ANY 1% AEP OVERLAND FLOW THROUGH VIEW CORRIDOR AS A RESULT OF DETAILED DESIGN IS TO BE LIMITED IN ACCORDANCE COUNCIL DCP TABLE A10.5

ALL 1% AEP ROADWAY SURFACE FLOW IS TO BE LIMITED TO <200mm DEPTH &/OR 0.3dxv IN ACCORDANCE WITH COUNCIL REQUIREMENT.



No.	AMENDMENT	APPROVED	DATE	AMEND BY
5	AMENDED CARPARK SHAREPATH	KJM	22.07.22	SJW
4	RE-ISSUE FOR APPROVAL (LINEMARK-CARPARK XING)	KJM	07.07.22	SJW
3	RE-ISSUE FOR AMENDED STAGING EXTENTS, LOTS RENUMBERED	KJM	07.06.22	SJW
2	AMENDED LOT LAYOUT FOR VIEW CORR. ADD PRAM RMPs, OLFP CMINT	KJM	14.09.21	SJW
1	ISSUE FOR APPROVAL	KJM	20.04.21	SJW

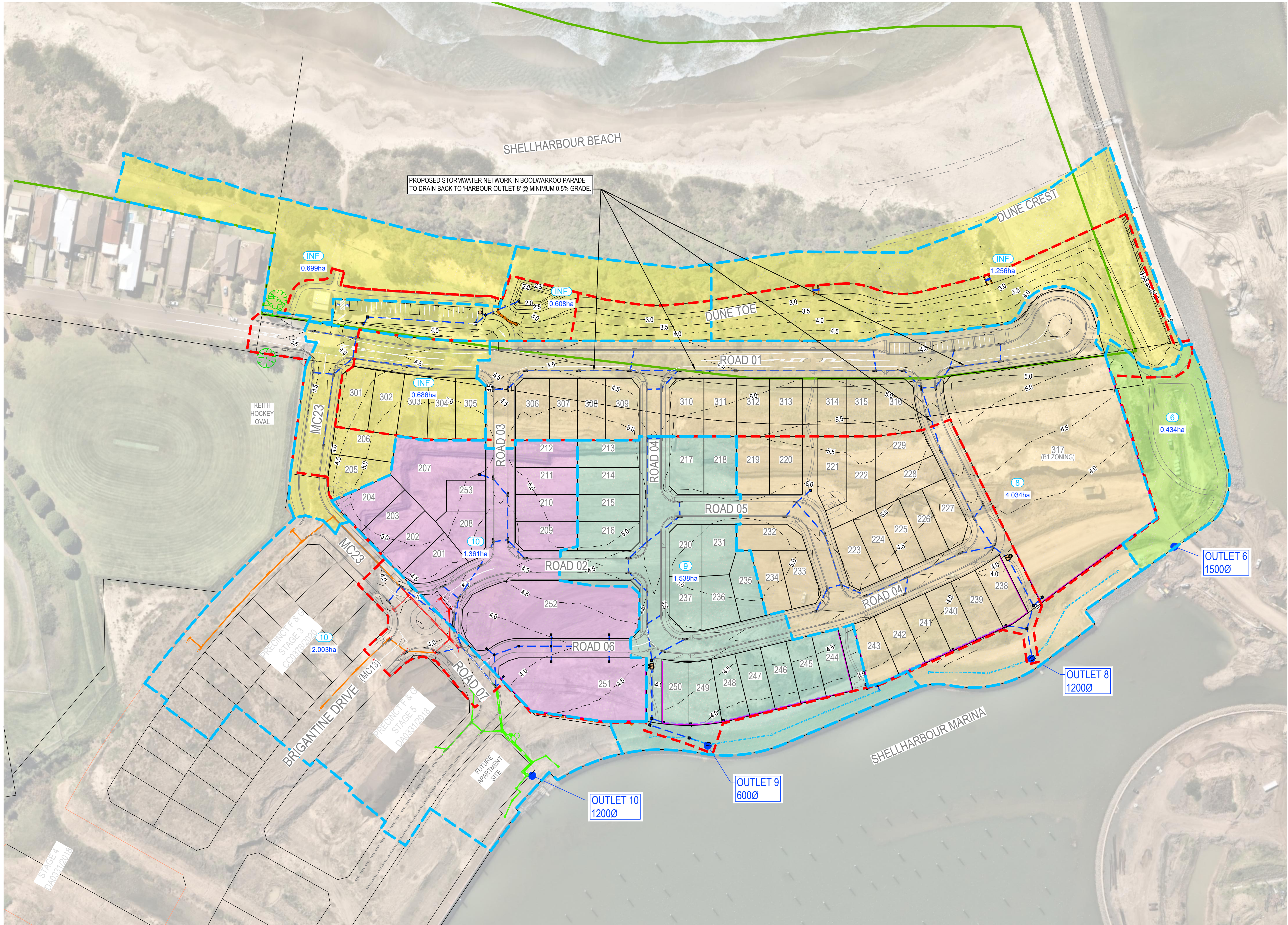
FOR APPROVAL



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CHECKED	KJM	DATE	20.04.21
DESIGNED BY	SJW		
DRAWN BY	SJW		
CAD FILE: G:\ISC00223 Shell Cove - Precinct H\Acad\Civil\10 - DA\ISC00223-DA-C111.dwg			
SCALE	1:600	ORIGINAL SIZE	A1

PROJECT	CIVIL STRATEGY PROPOSED SUBDIVISION OF PRECINCT H SHELL COVE
---------	---

DRAWING TITLE	STORMWATER LAYOUT PLAN SHEET 2 OF 2
PROJECT No.	ISC00223-DA
DRAWING No.	C111
AMDT	5



PROPOSED

EXTENT OF WORKS

OUTLET '10' - CATCHMENT
(HATCHED AREA FROM SITE ONLY)

OUTLET '9' - CATCHMENT

OUTLET '8' - CATCHMENT

OUTLET '6' - CATCHMENT
(LANDSCAPE DRAINAGE BY G.S.A.)

OUTLET 'INFILTRATION' - CATCHMENT

STORMWATER PIPE (RCP)

STORMWATER PIPE (PVC)

STORMWATER STRUCTURES

ASSUMED G.P.T. BYPASS
(SUBJ TO DETAILED ASSESSMENT)

7.0

CONTOURS (0.5m)

APPROVED / FUTURE STORMWATER WORKS

PRECINCT F & G - STAGE 3

CC APPROVED STORMWATER PIT/PIPE

CC APPROVED STORMWATER PIT/PIPE
TO BE REMOVED/RECONFIGURED

PRECINCT F & G - STAGE 5

DA APPROVED UNDER DETAILED DESIGN

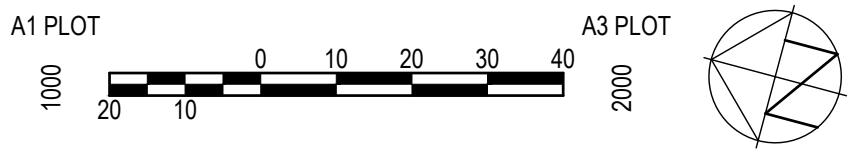
EXISTING

FORESHORE DRAINAGE WORKS

RE1 ZONING BOUNDARY

7.0

CONTOURS (1.0m)



No.	AMENDMENT	APPROVED	DATE	AMEND BY
5	AMENDED CARPARK SHAREPATH	KJM	22.07.22	SJW
4	RE-ISSUE FOR APPROVAL (LINEMARK-CARPARK XING)	KJM	07.07.22	SJW
3	RE-ISSUE FOR AMENDED STAGING EXTENTS, LOTS RENUMBERED	KJM	07.06.22	SJW
2	CAT 9 INCREASED AMENDED LOT LAYOUT FOR VIEW CORR. ADD PRAM RAMP	KJM	14.09.21	SJW
1	ISSUE FOR APPROVAL	KJM	20.04.21	SJW

FOR APPROVAL

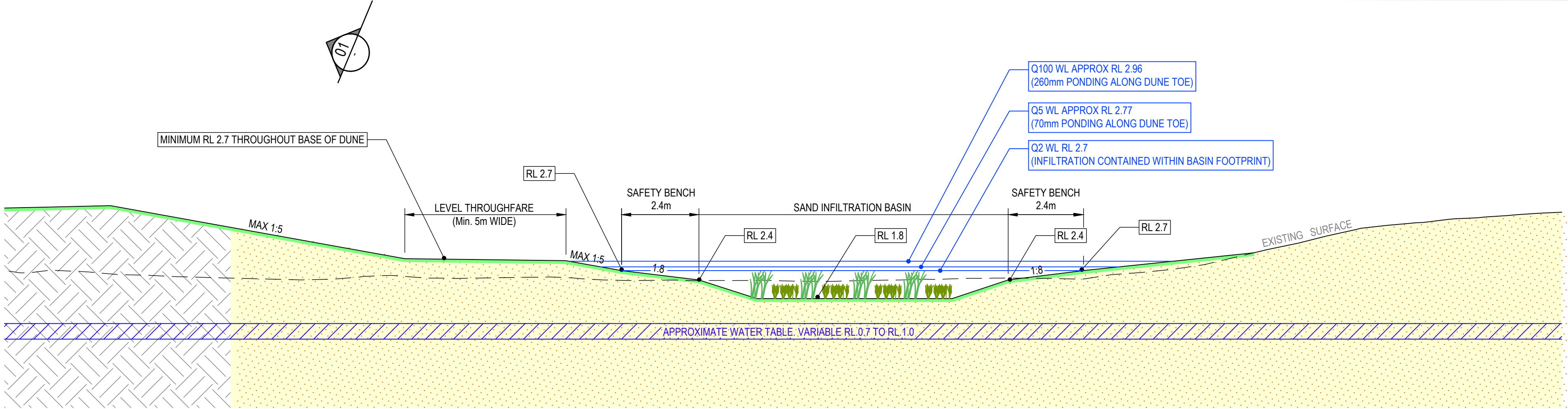
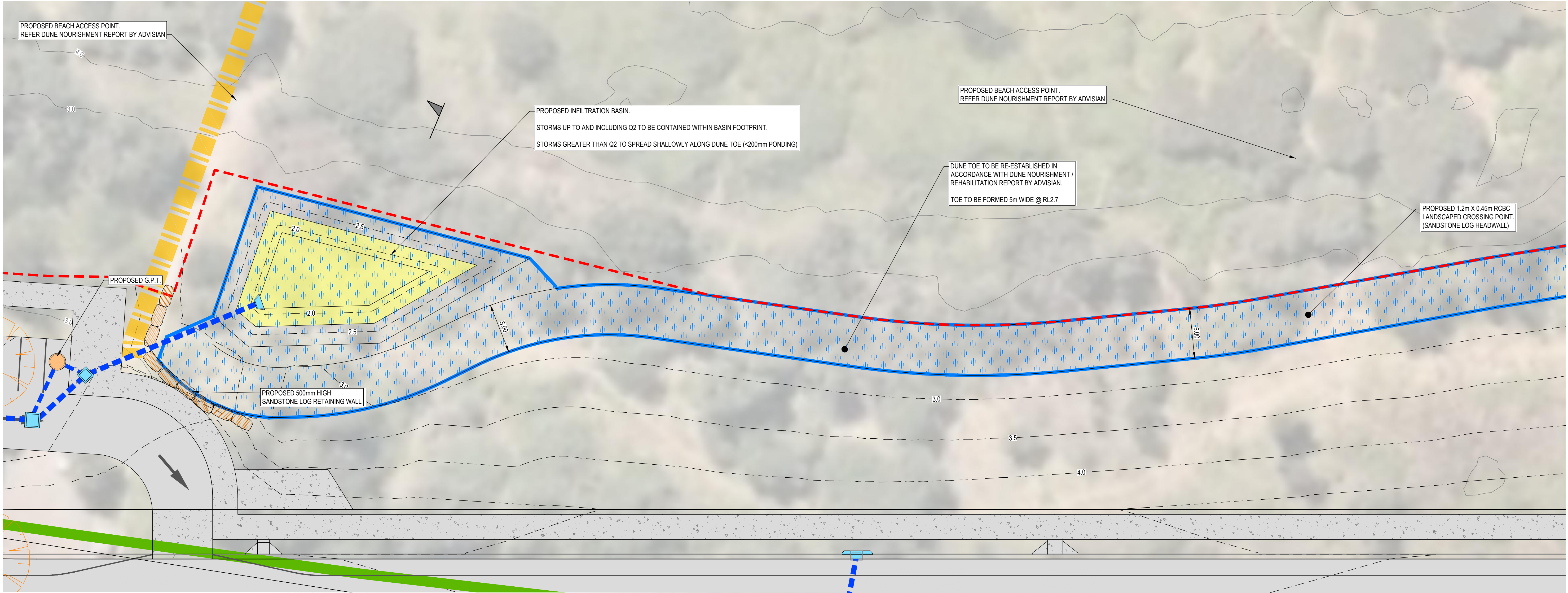


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CHECKED	KJM	DATE	20.04.21
DESIGNED BY	SJW		
DRAWN BY	SJW		
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SCALE	1:1000	ORIGINAL SIZE	A1

PROJECT
CIVIL STRATEGY
PROPOSED SUBDIVISION OF
PRECINCT H
SHELL COVE

DRAWING TITLE
CATCHMENT PLAN

PROJECT No.	DRAWING No.	AMDT
ISC00223-DA	C120	5



INFILTRATION BASIN

1:100

01

INFILTRATION NOTES

- DURING EXCAVATION OF INFILTRATION BASINS & BIORETENTON SWALE THE CONTRACTOR SHALL ARRANGE FOR THE SITE GEOTECHNICAL ENGINEER TO OBSERVE THE EXPOSED NATURAL SAND FOR ANY INCONSTANT MATERIAL AND CONDUCT PERMEABILITY TESTS TO ENSURE THAT THE MATERIAL CAN ACHIEVE A PERMEABILITY OF 180mm/hr OR GREATER.
- MAIN INFILTRATION BASIN TO BE EXCAVATED TO 300mm ABOVE F.S.L. FOR EROSION & SEDIMENT CONTROL.
- DURING CONSTRUCTION THE CONTRACTOR MUST TAKE ALL NECESSARY EROSION AND SEDIMENT CONTROL PRECAUTIONS TO ENSURE THAT SILT DOES NOT ENTER THE BASIN AFTER IT HAS BEEN EXCAVATED.
- PRIOR TO PRACTICAL COMPLETION, THE CONTRACTOR SHALL ARRANGE FOR THE SITE GEOTECHNICAL ENGINEER TO INSPECT THE INFILTRATION BASIN FOR CONTAMINATION BY SILT OR ANY FOREIGN MATERIAL THAT WILL REDUCE PERMEABILITY AND THEN CONDUCT PERMEABILITY TESTS TO ENSURE THAT THE MATERIAL CAN ACHIEVE A PERMEABILITY OF 180mm/hr OR GREATER. ANY FOREIGN MATERIAL OR REDUCTION OF THE INFILTRATION CAPACITY OF THE BASIN MUST BE RECTIFIED BY THE CONTRACTOR AT THEIR COST.
- THE GEOTECHNICAL ENGINEER MUST CONFIRM COMPLIANCE WITH THE ABOVE REQUIREMENTS AND PROVIDE THE GEOTECHNICAL ENGINEER'S CERTIFICATION TO THE SUPERINTENDENT.

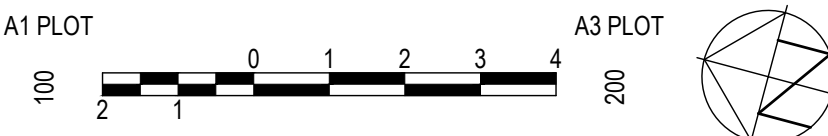
No.	AMENDMENT	APPROVED	DATE	AMENDED BY
4	RE-ISSUE FOR APPROVAL (LINE MARK CAR PARKING)	KJM	07.07.22	SJW
2	REMO NETTECH GPT. REPLACED FOR STANDARD GPT.	KJM	14.09.21	SJW
1	ISSUE FOR APPROVAL	KJM	20.04.21	SJW

FOR APPROVAL



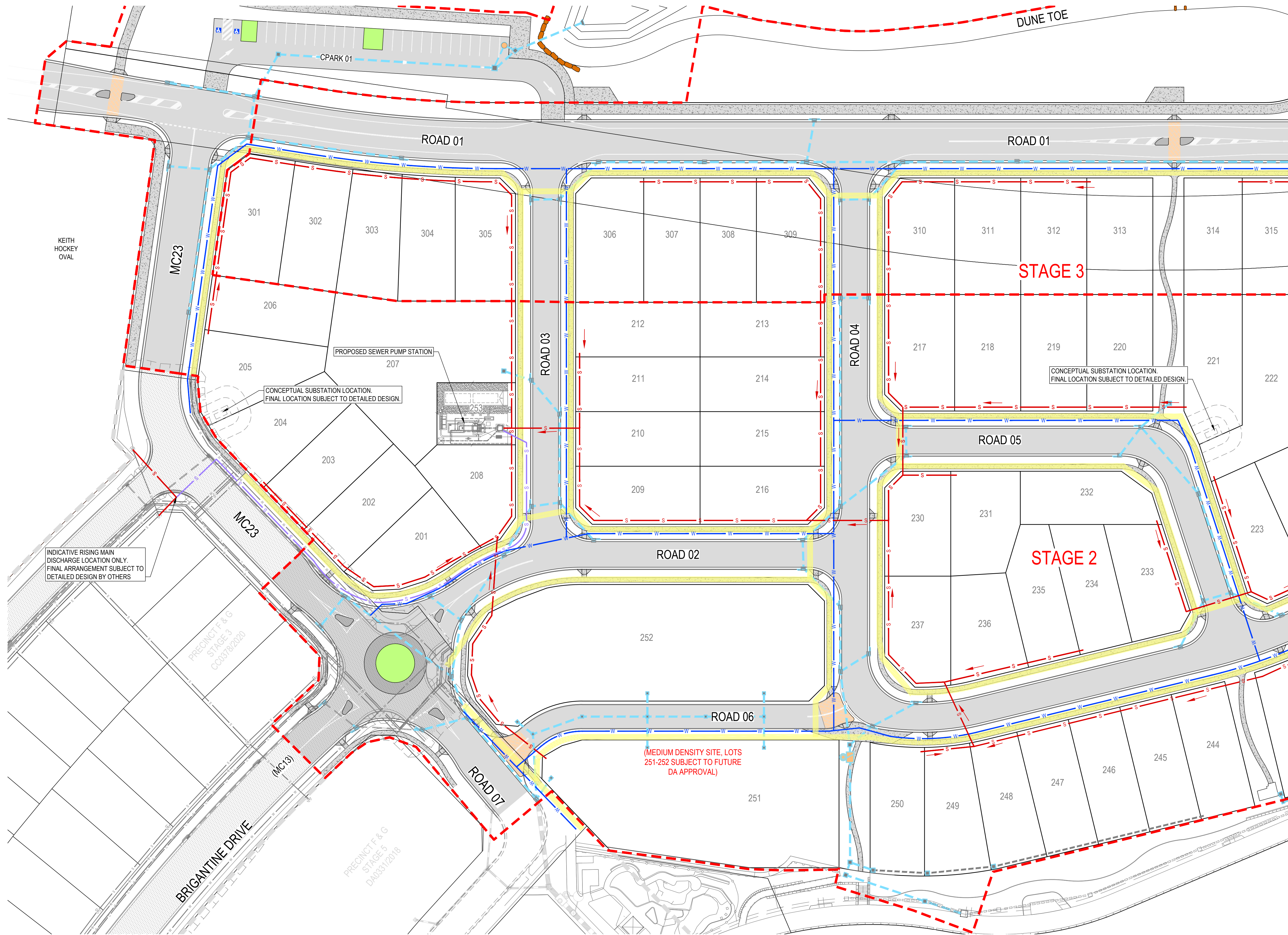
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CHECKED	KJM	DATE	20.04.21
DESIGNED BY	SJW		
DRAWN BY	SJW		
CAD FILE	G:\ISC00223 Shell Cove - Precinct H\Acad\Civil\10 - DA\ISC00223-DA-C140.dwg		
SCALE	1:100	ORIGINAL SIZE	A1

CIVIL STRATEGY
PROPOSED SUBDIVISION OF
PRECINCT H
SHELL COVE



DRAWING TITLE
INFILTRATION BASIN PLAN
AND DETAIL

PROJECT No.	DRAWING No.	AMDT
ISC00223-DA	C140	4



PROPOSED

STAGING BOUNDARY
NOTE: STAGE 1 TO DEFINE M.H.W.M.
(NOT SHOWN, SUBJ. TO SURVEY)

CONCEPTUAL ELECTRICAL,
TELECOMMUNICATIONS AND GAS
SHARED TRENCH ALLOCATION
(SUBJECT TO DETAILED DESIGN)

S S

CONCEPTUAL SEWER ARRANGEMENT
(GRAVITY)

S S

CONCEPTUAL SEWER ARRANGEMENT
(RISING MAIN)
(INDICATIVE ONLY, SYDNEY WATER
DESIGN TO CONFIRM R.M. LOCATION)

W W

CONCEPTUAL WATER ARRANGEMENT

STORMWATER PIT/PIPE

UNDER CONSTRUCTION STAGE 3 SERVICE

E E

UNDERGROUND ELEC

G G

GAS

C C

NBN

W W

WATER

S S

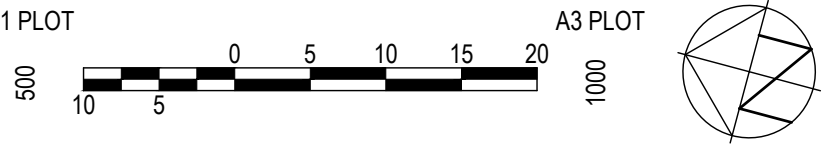
SEWER

STORMWATER PIT/PIPE

EXISTING / STAGE 3 / FUTURE

STORMWATER PIT/PIPE

NOTE
CONCEPTUAL SERVICE ARRANGEMENT ONLY.
FINAL ARRANGEMENT SUBJECT TO DETAILED DESIGN
AND APPROVAL BY RELEVANT SERVICE AUTHORITY



No.	AMENDMENT	APPROVED	DATE	AMENDED BY
5	AMENDED CARPARK SHAREPATH	KJM	22.07.22	SJW
4	RE-ISSUE FOR APPROVAL (LINEMARK-CARPARK XING)	KJM	07.07.22	SJW
3	RE-ISSUE FOR AMENDED STAGING EXTENTS, LOTS RENUMBERED.	KJM	07.06.22	SJW
2	AMENDED LOT LAYOUT FOR VIEW CORR. ADD PRAM RMPs.	KJM	14.09.21	SJW
1	ISSUE FOR APPROVAL	KJM	20.04.21	SJW

FOR APPROVAL

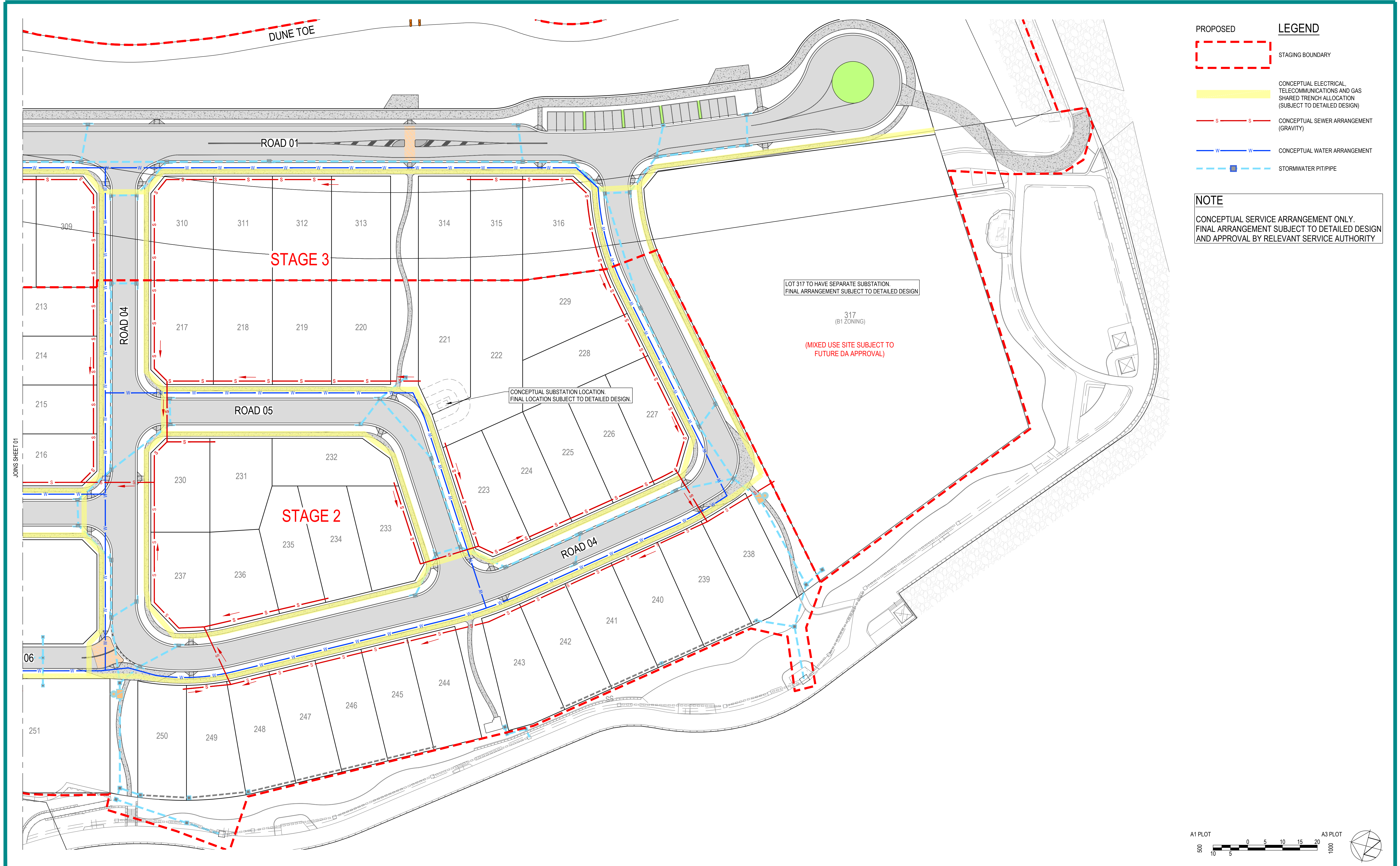


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CHECKED	KJM	DATE	20.04.21
DESIGNED BY	SJW		
DRAWN BY	SJW		
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SCALE	1:500	ORIGINAL SIZE	A1

CIVIL STRATEGY
PROPOSED SUBDIVISION OF
PRECINCT H
SHELL COVE

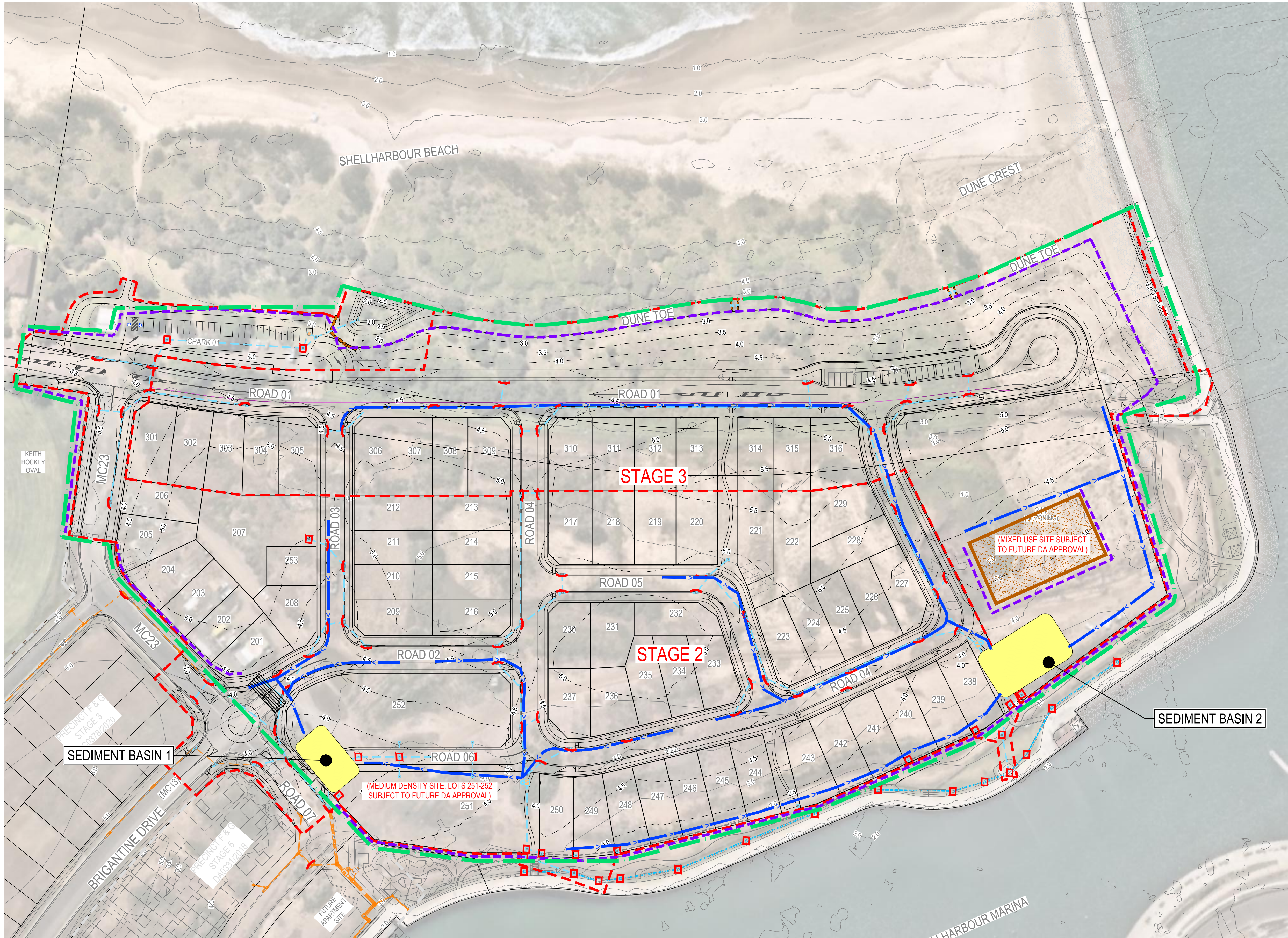
DRAWING TITLE
SCHEMATIC SERVICES LAYOUT
SHEET 1 OF 2

PROJECT No.	DRAWING No.	AMDT
ISC00223-DA	C170	5



No.	AMENDMENT	APPROVED	DATE	AMENDS BY
5	AMENDED CARPARK SHAREPATH	KJM	22.07.22	SJW
4	RE-ISSUE FOR APPROVAL (LINEMARK-CARPARK XING)	KJM	07.07.22	SJW
3	RE-ISSUE FOR AMENDED STAGING EXTENTS, LOTS RENUMBERED.	KJM	07.06.22	SJW
2	AMENDED LOT LAYOUT FOR VIEW CORR. ADD PRAM RMPs.	KJM	14.09.21	SJW
1	ISSUE FOR APPROVAL	KJM	20.04.21	SJW

FOR APPROVAL	CLIENT	FRASERS PROPERTY	MAKER ENG	PROJECT	CIVIL STRATEGY PROPOSED SUBDIVISION OF PRECINCT H SHELL COVE	DRAWING TITLE	SCHEMATIC SERVICES LAYOUT SHEET 2 OF 2
				APPROVED	KJM	DATE	20.04.21
				CHECKED	KJM	DATE	20.04.21
				DESIGNED BY	SJW		
				DRAWN BY	SJW		
				CAD FILE	G:\ISC00223 Shell Cove - Precinct H\Acad\Civil\10 - DA\ISC00223-DA-C171.dwg		
				SCALE	1:500	ORIGINAL SIZE	A1
				PROJECT No.	ISC00223-DA		
				DRAWING No.	C171		
				AMDT	5		



PROPOSED

LEGEND

EXTENT OF WORKS

A.T.F. BARRIER FENCING

SEDIMENT FENCING

DIVERSION CHANNEL

STRAW BALES

SHAKER PAD

TEMPORARY STOCKPILE LOCATION

TEMPORARY SEDIMENT BASIN

SURFACE INLET PIT PROTECTION(S)

STORMWATER PIPE

STORMWATER STRUCTURES

7.0

CONTOURS (0.5m)

APPROVED / FUTURE STORMWATER WORKS

STORMWATER PIT/PIPE

EXISTING

7.0

CONTOURS (1.0m)

FORESHORE DRAINAGE WORKS

1. Erosion Hazard and Sediment Basins

Site Name: The Waterfront

Site Location: Shell Cove

Precinct/Stage: Precinct H

Other Details: Calculation Assumes Imported Type D Material

Site area	Sub-catchment or Name of	Notes
	Basin 1	
	Basin 2	
Total catchment area (ha)	1.892	4.484
Disturbed catchment area (ha)	1.892	4.484

Soil analysis (enter sediment type if known, or laboratory particle size data)

Sediment Type (C, F or D) if known:	D	D	From Appendix C (if known)
% sand (fraction 0.02 to 2.00 mm)			Enter the percentage of each soil fraction. E.g. enter 10 for 10%
% silt (fraction 0.002 to 0.02 mm)			
% clay (fraction finer than 0.002 mm)			
Dispersion percentage			E.g. enter 10 for dispersion of 10%
% of whole soil dispersible			See Section 6.3.3(e). Auto-calculated
Soil Texture Group	D	D	Automatic calculation from above

Rainfall data

Design rainfall depth (no of days)	5	5	See Section 6.3.4 and, particularly, Table 6.3 on pages 6-24 and 6-25.
Design rainfall depth (percentile)	80	80	
x-day, y-percentile rainfall event (mm)	32.2	32.2	
Rainfall R-factor (if known)			
FD: 2-year, 6-hour storm (if known)	13.9	13.9	Only need to enter one or the other here

RUSLE Factors

Rainfall erosivity (R-factor)	4220	4220	Auto-filled from above
Soil erodibility (K-factor)	0.025	0.025	
Slope length (m)	40	70	
Slope gradient (%)	2	2	RUSLE LS factor calculated for a high rill/interill ratio.
Length/gradient (LS-factor)	0.31	0.39	
Erosion control practice (P-factor)	1.3	1.3	
Ground cover (C-factor)	1	1	

Sediment Basin Design Criteria (for Type D/F basins only. Leave blank for Strage (soil) zone design (no of months)

Strage (soil) zone design (no of months)	2	2	Minimum is generally 2 months
Cr (Volumetric runoff coefficient)	0.42	0.42	See Table F2, page F-4 in Appendix F

Calculations and Type D/F Sediment Basin Volumes

Soil loss (t/ha/yr)	43	53	
Soil Loss Class	1	1	See Table 4.2, page 4-13
Soil loss (m ³ /ha/yr)	33	41	Conversion to cubic metres
Sediment basin strorage (soil) volume (m ³)	10	30	See Sections 6.3.4(i) for calculations
Sediment basin settling (water) volume (m ³)	256	606	See Sections 6.3.4(i) for calculations
Sediment basin total volume (m ³)	266	636	

NB for sizing of Type C (coarse) sediment basins, see Worksheet 3 (if required).

A1 PLOT

A3 PLOT

800

1600

0

8

16

24

32

16

8

1600

No.	AMENDMENT	APPROVED	DATE	AMEND BY
5	AMENDED CARPARK SHAREPATH	KJM	22.07.22	SJW
4	RE-ISSUE FOR APPROVAL (LINE-MARK-CARPARK-XING)	KJM	07.07.22	SJW
3	RE-ISSUE FOR AMENDED STAGING EXTENTS, LOTS RENUMBERED	KJM	07.06.22	SJW
2	BOTH PERC ADPTD. AMND LOT LAYOUT FOR VIEW CORR. ADD PRAM RMPs	KJM	14.09.21	SJW
1	ISSUE FOR APPROVAL	KJM	20.04.21	SJW

FOR APPROVAL

APPROVED	KJM	DATE	20.04.21
CHECKED	KJM	DATE	20.04.21
DESIGNED BY	SJW		
DRAWN BY	SJW		
CAD FILE	G:\ISC00223 Shell Cove - Precinct H\Acad\Civil10 - DA\ISC00223-DA-C185.dwg		
SCALE	1:800	ORIGINAL SIZE	A1

CIVIL STRATEGY
PROPOSED SUBDIVISION OF
PRECINCT H
SHELL COVE

DRAWING TITLE
SOIL AND WATER MANAGEMENT
PLAN

PROJECT No.	ISC00223-DA	DRAWING No.	C185	AMDT	5
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NOTE: THIS PRACTICE ONLY TO BE USED WHERE SPECIFIED IN AN APPROVED SWMP/ESCP.

GENERAL CONSTRUCTION NOTES

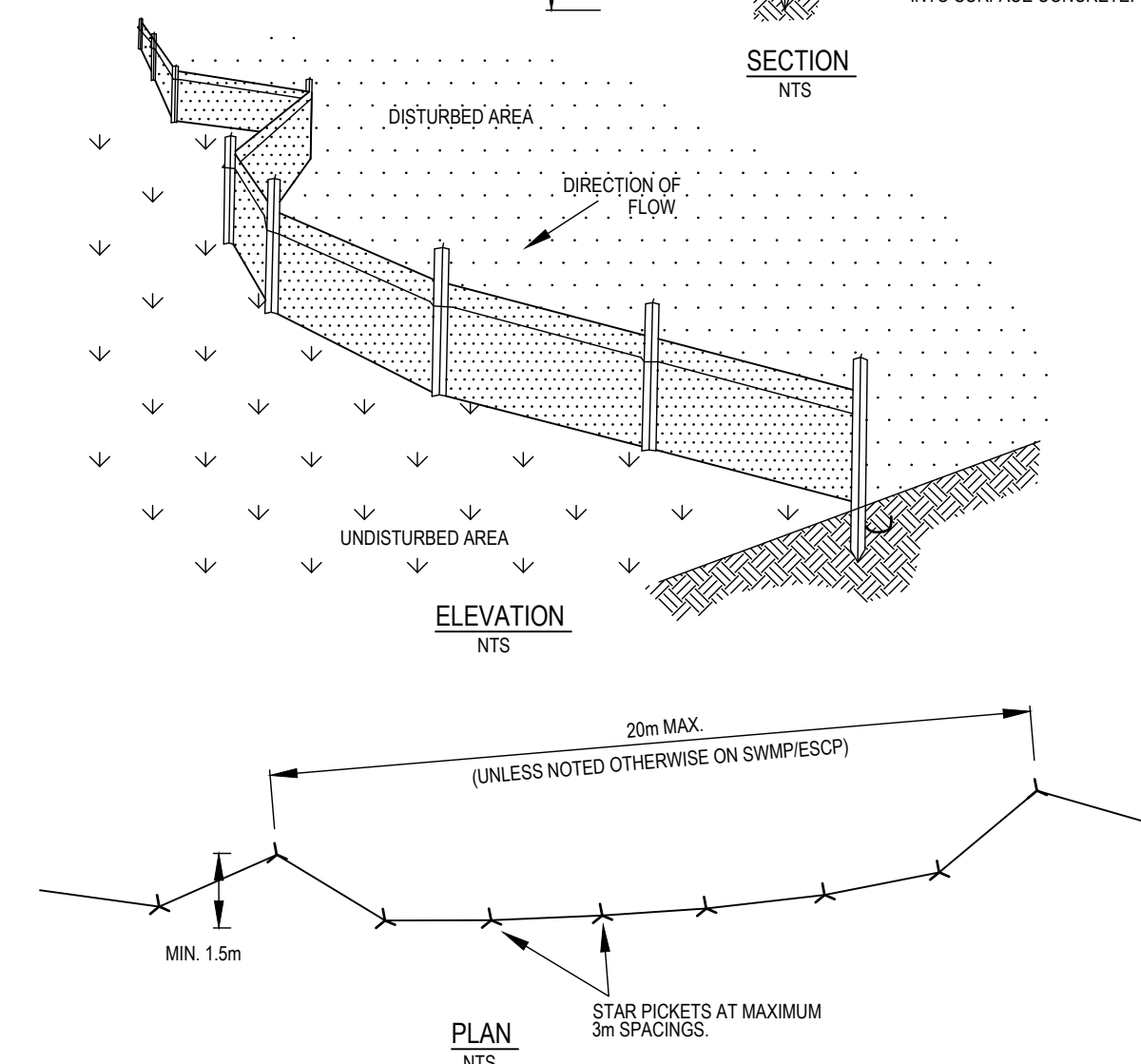
1. FABRICATE A SLEEVE MADE FROM GEOTEXTILE OR WIRE MESH LONGER THAN THE LENGTH OF THE INLET PIT.
2. FILL THE SLEEVE WITH 25mm TO 50mm GRAVEL.
3. FORM AN ELLIPTICAL CROSS SECTION ABOUT 150mm HIGH * 400mm WIDE.
4. PLACE THE FILTER AT THE OPENING OF THE KERB INLET LEAVING A 100mm GAP AT THE TOP TO ACT AS AN EMERGENCY SPILLWAY.
5. MAINTAIN THE OPENING WITH SPACER BLOCKS.
6. FORM A SEAL WITH THE KERBING AND PREVENT SEDIMENT BYPASSING THE FILTER.
7. FIT TO ALL KERB INLETS AS SHOWN.

MESH AND GRAVEL INLET FILTER
(TO BE PROVIDED ON ALL PITS)



1. LOCATE STOCKPILE AT LEAST 5m FROM EXISTING VEGETATION, CONCENTRATED WATER FLOWS, ROADS AND HAZARD AREAS.
2. CONSTRUCT ON THE CONTOUR AS A LOW, FLAT, ELONGATED MOUND.
3. WHERE THERE IS SUFFICIENT AREA TOPSOIL STOCKPILES SHALL BE LESS THAN 2m IN HEIGHT.
4. REHABILITATE IN ACCORDANCE WITH THE SWMP/ESCP.
5. CONSTRUCT EARTH BANK (SD 5-2) ON THE UPSLOPE SIDE TO DIVERT RUN OFF AROUND THE STOCKPILE AND A SEDIMENT FENCE (SD 6-7) 1 To 2m DOWNSLOPE OF STOCKPILE.

STOCKPILES SD 4-1
NTS



GENERAL CONSTRUCTION NOTES

1. CONSTRUCT SEDIMENT FENCE AS CLOSE AS POSSIBLE TO PARALLEL TO THE CONTOURS OF THE SITE.
2. DRIVE 1.5m LONG STAKE PICKETS INTO GROUND, 3m APART.
3. DIG A 150mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
4. BACKFILL TRENCH OVER BASE OF FABRIC.
5. FIX SELF-SUPPORTING GEOTEXTILE TO UPSLOPE SIDE OF POSTS WITH WIRE TIES OR AS RECOMMENDED BY GEOTEXTILE MANUFACTURER.
6. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP.

SEDIMENT FENCE SD 6-7

[illegible]

FOR APPROVAL



APPROVED	KJM	DATE	20.04.21
CHECKED	KJM	DATE	20.04.21
DESIGNED BY	SJW		
DRAWN BY	SJW		
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SCALE	-	ORIGINAL SIZE	A1

OBJECT

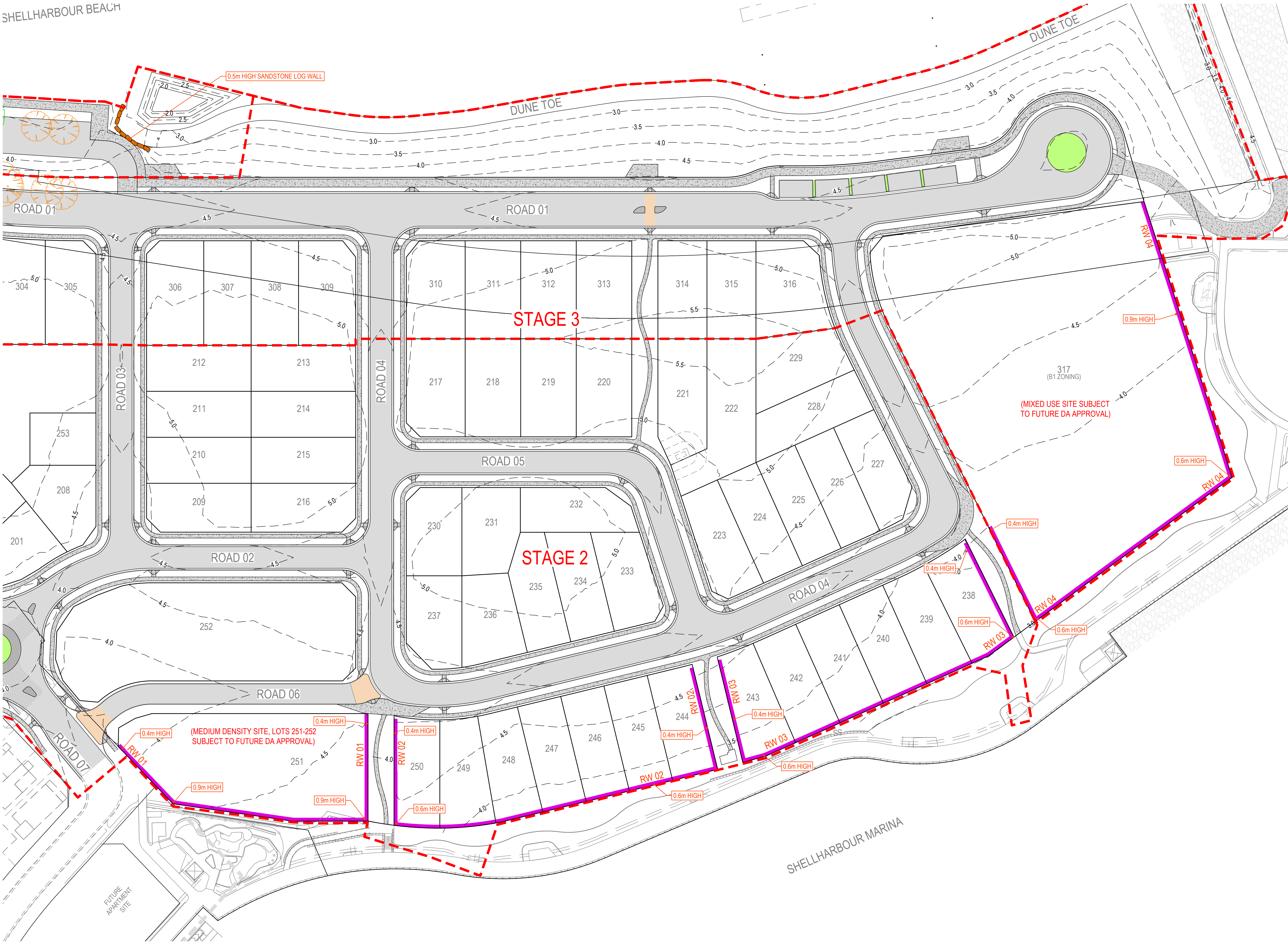
CIVIL STRATEGY
PROPOSED SUBDIVISION OF
PRECINCT H
SHELL COVE

DRAWING TITLE

SOIL AND WATER MANAGEMENT DETAILS

PROJECT No.	DRAWING No.	AMDT
ISC00223-DA	C186	1

SHELLHARBOUR BEACH



PROPOSED

STAGING BOUNDARY
NOTE: STAGE 1 TO DEFINE M.H.W.M.
(NOT SHOWN, SUBJ. TO SURVEY)

RW 01

RETAINING WALL

0.6m HIGH

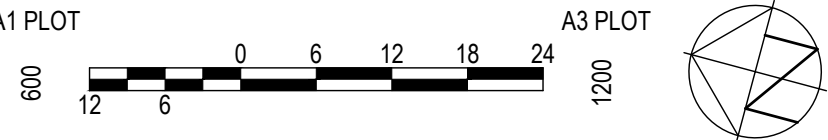
RETAINING WALL HEIGHT

7.0

CONTOURS (0.5m)

NOTE

RETAINING WALL TYPE SUBJECT
TO ARCHITECTURAL INPUT.



No.	AMENDMENT	APPROVED	DATE	AMENDED BY
5	AMENDED CARPARK SHAREPATH	KJM	22.07.22	SJW
4	RE-ISSUE FOR APPROVAL (LINEMARK-CARPARK XING)	KJM	07.07.22	SJW
3	RE-ISSUE FOR AMENDED STAGING EXTENTS, LOTS RENUMBERED	KJM	07.06.22	SJW
2	ADD WALL FOR NEW CORR. AMID'D LOT LAYOUT FOR VIEW CORR.	KJM	14.09.21	SJW
1	ISSUE FOR APPROVAL	KJM	20.04.21	SJW

FOR APPROVAL



APPROVED	KJM	DATE	20.04.21
CHECKED	KJM	DATE	20.04.21
DESIGNED BY	SJW		
DRAWN BY	SJW		
CAD FILE	G:\ISC00223 Shell Cove - Precinct H\Acad\Civil\10 - DA\ISC00223-DA-C230.dwg		
SCALE	1:600	ORIGINAL SIZE	A1

PROJECT	CIVIL STRATEGY PROPOSED SUBDIVISION OF PRECINCT H SHELL COVE
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DRAWING TITLE	RETAINING WALL PLAN
PROJECT No.	ISC00223-DA
DRAWING No.	C230
AMDT	5