Stantec New Zealand

Homestead Bay Development Consent Application

Engineering Feasibility Assessment

VOLUME 4 – DRAWINGS

Prepared for: RCL Homestead Bay Limited

> Project/File: 310101105

11 April 2025

Prepared by: Stantec New Zealand

Revision Schedule

Revision No.	Date	Description	Prepared by	Quality Reviewer	Independent Reviewer	Project Manager Final Approval
A	20-Dec-24	Draft discussion	Grant Kluyts Nick Keenan Ben Davies Andrew Metherell Ferdie Zimmerman	Richard Bennett Matt Barber Iain Banks	Peter White	Peter White
В	13-Jan-25	Draft for discussion	Grant Kluyts Nick Keenan Ben Davies Andrew Metherell Ferdie Zimmerman	Richard Bennett Matt Barber Iain Banks	Peter White	Peter White
С	11-April-25	Final Draft for Review	Grant Kluyts Nick Keenan Iain Banks	Richard Bennett Matt Barber	Peter White	Peter White

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Project: 310101105

Homestead Bay Development Consent Application

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Prepared by	A			
	Signature			
	Grant Kluyts			
	Printed Name			
Reviewed by	The			
	Signature			
	Peter White			
	Printed Name			
Approved by	Made			
	Signature			
	Peter White			
	Printed Name			



Project: 310101105

Client: RCL GROUP

Project: HOMESTEAD BAY DELEVLOPMENT

Project No.: 310104425



Drawing Number	Drawing Title	Current Revision	Drawing Status	Latest Issue Date	
	EARTHWORKS 1 OF 2 - VOLUME 3				
310104425-00-000-C0002	GENERAL ARRANGEMENT - ROAD RESERVE AND CARRIAGEWAY WIDTHS	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0003	GENERAL ARRANGEMENT - MAIN INFRASTRUCTURE FEATURES	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0020	EARTHWORKS - FINISHED GROUND CONTOURS - OVERALL LAYOUT	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0021	EARTHWORKS - FINISHED GROUND CONTOURS - SHEET 1 OF 8	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0022	EARTHWORKS - FINISHED GROUND CONTOURS - SHEET 2 OF 8	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0023	EARTHWORKS - FINISHED GROUND CONTOURS - SHEET 3 OF 8	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0024	EARTHWORKS - FINISHED GROUND CONTOURS - SHEET 4 OF 8	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0025	EARTHWORKS - FINISHED GROUND CONTOURS - SHEET 5 OF 8	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0026	EARTHWORKS - FINISHED GROUND CONTOURS - SHEET 6 OF 8	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0027	EARTHWORKS - FINISHED GROUND CONTOURS - SHEET 7 OF 8	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0028	EARTHWORKS - FINISHED GROUND CONTOURS - SHEET 8 OF 8	0	FOR CONSENT	11.04.2025	
	EARTHWORKS 2 OF 2 - VOLUME 3				
310104425-00-000-C0030	EARTHWORKS - DEPTHS PLAN - OVERALL LAYOUT	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0031	EARTHWORKS - DEPTHS PLAN - SHEET 1 OF 9	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0032	EARTHWORKS - DEPTHS PLAN - SHEET 2 OF 9	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0033	EARTHWORKS - DEPTHS PLAN - SHEET 3 OF 9	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0034	EARTHWORKS - DEPTHS PLAN - SHEET 4 OF 9	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0035	EARTHWORKS - DEPTHS PLAN - SHEET 5 OF 9	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0036	EARTHWORKS - DEPTHS PLAN - SHEET 6 OF 9	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0037	EARTHWORKS - DEPTHS PLAN - SHEET 7 OF 9	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0038	EARTHWORKS - DEPTHS PLAN - SHEET 8 OF 9	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0039	EARTHWORKS - DEPTHS PLAN - SHEET 9 OF 9	0	FOR CONSENT	11.04.2025	
	ROADING - VOLUME 4				
310104425-00-000-C0100	ROADING - OVERALL LAYOUT PLAN	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0101	ROADING - LAYOUT PLAN - SHEET 1 OF 8	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0102	ROADING - LAYOUT PLAN - SHEET 2 OF 8	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0103	ROADING - LAYOUT PLAN - SHEET 3 OF 8	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0104	ROADING - LAYOUT PLAN - SHEET 4 OF 8	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0105	ROADING - LAYOUT PLAN - SHEET 5 OF 8	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0106	ROADING - LAYOUT PLAN - SHEET 6 OF 8	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0107	ROADING - LAYOUT PLAN - SHEET 7 OF 8	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0108	ROADING - LAYOUT PLAN - SHEET 8 OF 8	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0120	ROADING - TYPICAL CROSS-SECTIONS - 24m ROAD RESERVE	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0121	ROADING - TYPICAL CROSS-SECTIONS - 22m AND 21m ROAD RESERVES	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0122	ROADING - TYPICAL CROSS-SECTIONS - 20m ROAD RESERVE	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0123	ROADING - TYPICAL CROSS-SECTIONS - 19m AND 18m ROAD RESERVES	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0124	ROADING - TYPICAL CROSS-SECTIONS - 17m ROAD RESERVE	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0125	ROADING - TYPICAL CROSS-SECTIONS - 16m ROAD RESERVE	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0126	ROADING - TYPICAL CROSS-SECTIONS - 15m ROAD RESERVE	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0127	ROADING - TYPICAL CROSS-SECTIONS 13.5m, 12m & 9m ROAD AND 7m LANE RESERVES	0	FOR CONSENT	11.04.2025	
	UTILITIES - VOLUME 4				
310104425-00-000-C0200	UTILITIES - SW - STORMWATER - OVERALL LAYOUT	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0201	UTILITIES - SW - STORMWATER LAYOUT - SHEET 1 OF 8	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0202	UTILITIES - SW - STORMWATER LAYOUT - SHEET 2 OF 8	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0203	UTILITIES - SW - STORMWATER LAYOUT - SHEET 3 OF 8	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0204	UTILITIES - SW - STORMWATER LAYOUT - SHEET 4 OF 8	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0205	UTILITIES - SW - STORMWATER LAYOUT - SHEET 5 OF 8	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0206	UTILITIES - SW - STORMWATER LAYOUT - SHEET 6 OF 8	0	FOR CONSENT	11.04.2025	
310104425-00-000-C0207	UTILITIES - SW - STORMWATER LAYOUT - SHEET 7 OF 8	0	FOR CONSENT	11.04.2025	

Client: RCL GROUP

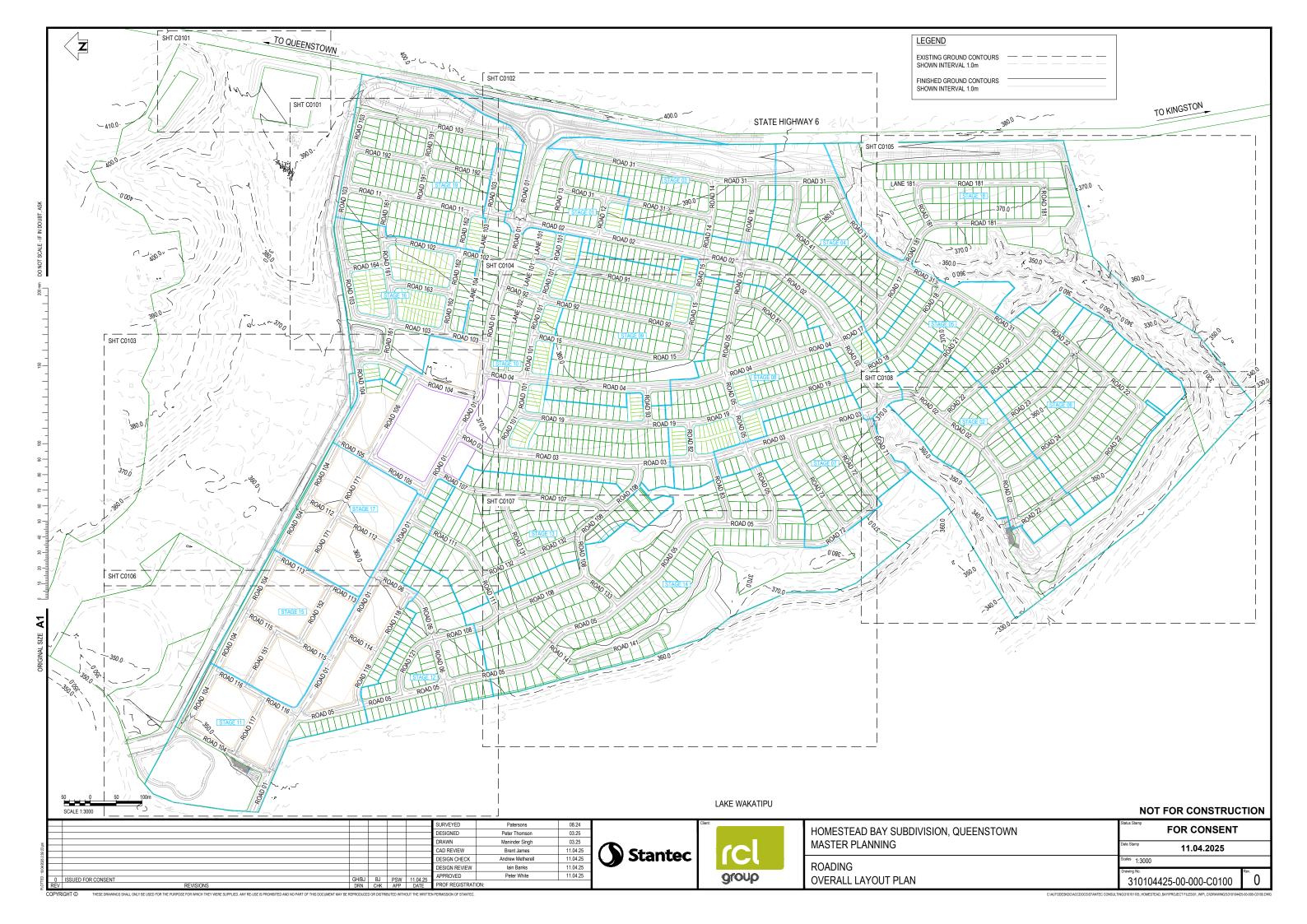
Project: HOMESTEAD BAY DELEVLOPMENT

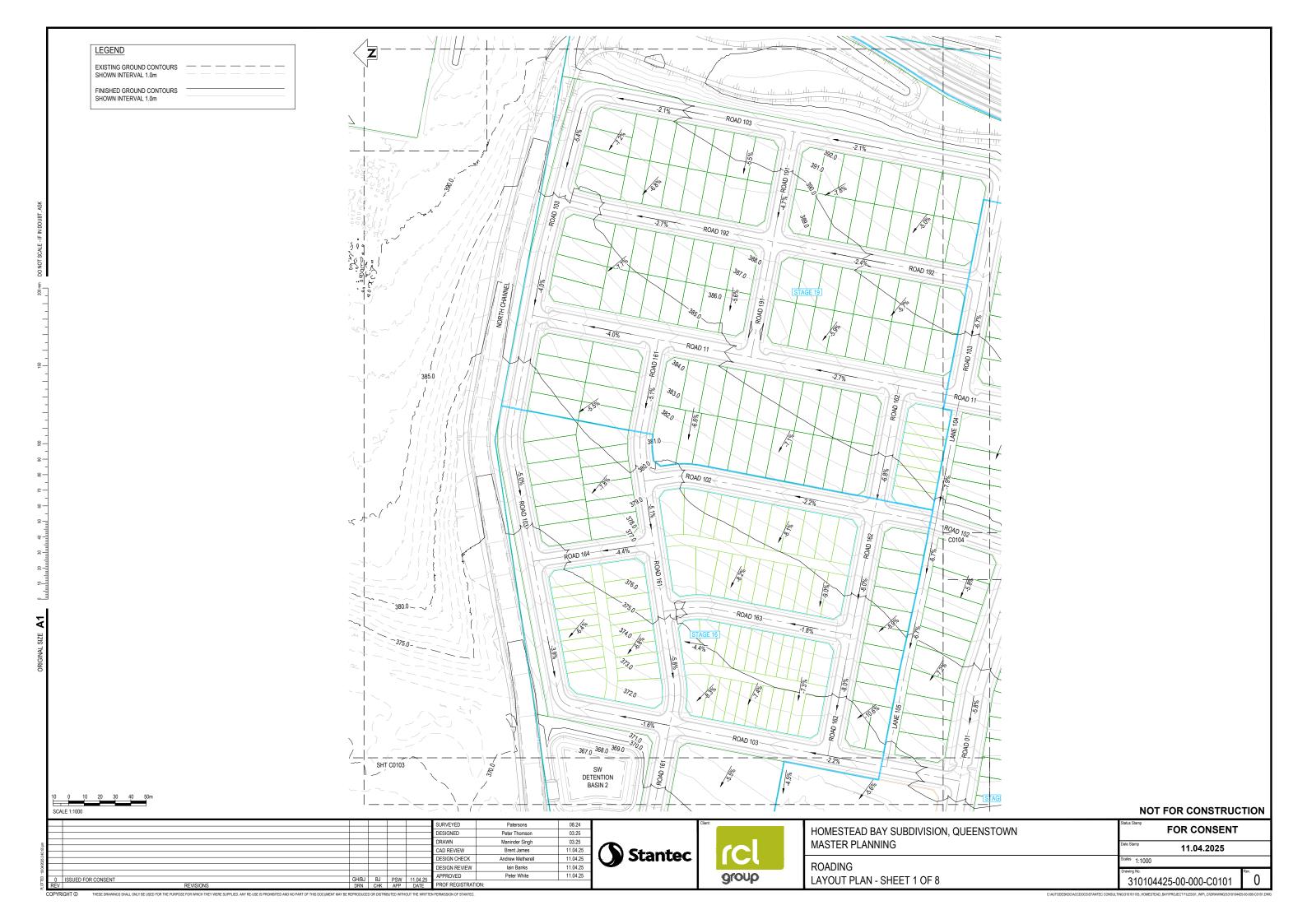


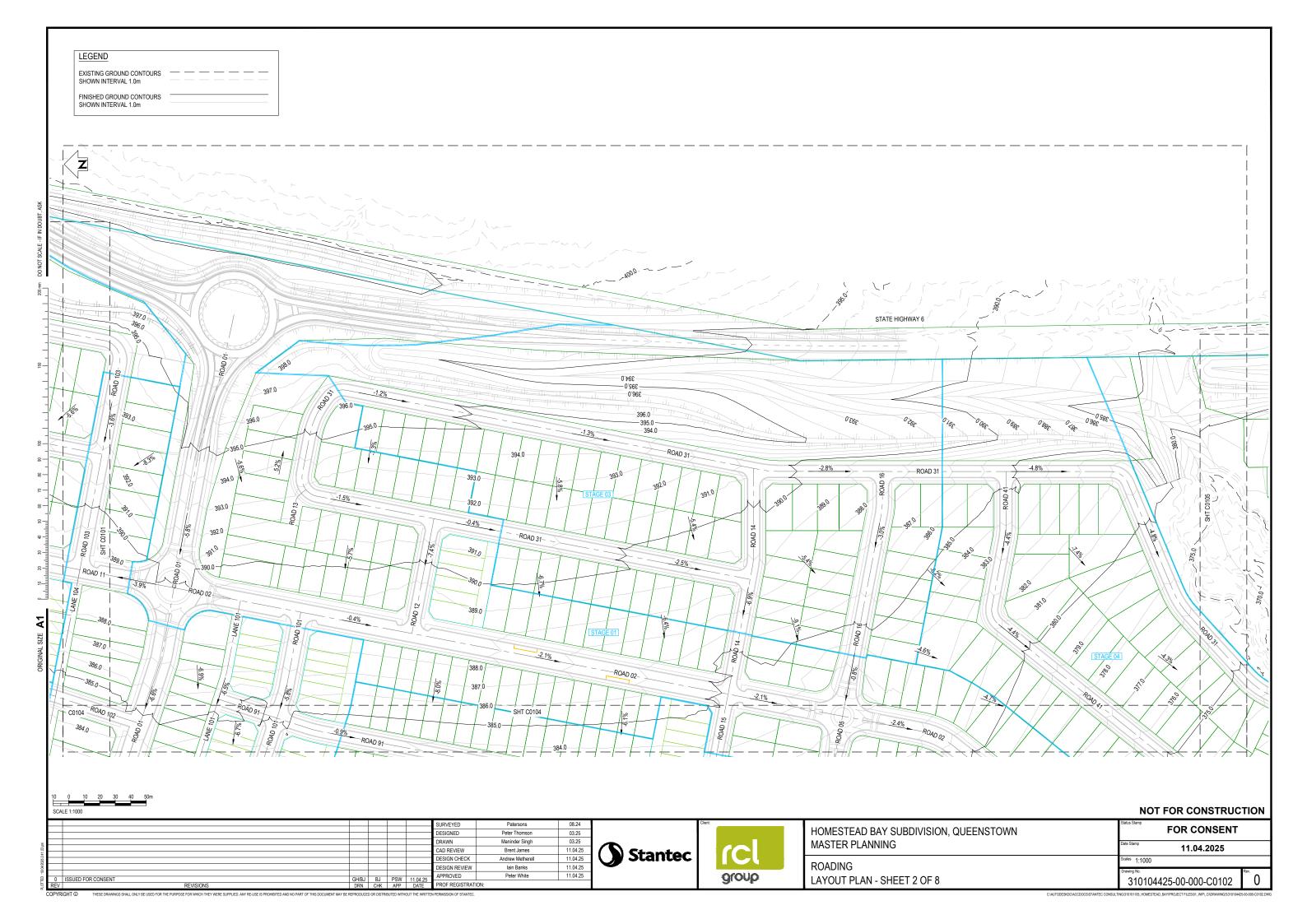
Stantec ISSUED DRAWINGS REGISTER Page: 2 of 2 Drawings in Current / Latest Issue shown BLUE Project No.: 310104425 **Drawing Number Drawing Title Current Revision Drawing Status Latest Issue Date** 310104425-00-000-C0208 **UTILITIES - SW - STORMWATER LAYOUT - SHEET 8 OF 8** FOR CONSENT 11.04.2025 310104425-00-000-C0230 **UTILITIES - SW - SOUTHERN CREEK BOX CULVERT PLAN AND SECTIONS** 0 FOR CONSENT 11.04.2025 310104425-00-000-C0250 **UTILITIES - SW - LAYOUT PLAN - MAJOR WATERCOURSES** 0 FOR CONSENT 11.04.2025 310104425-00-000-C0251 STORMWATER PRE-DEVELOPMENT CATCHMENTS 0 FOR CONSENT 11.04.2025 310104425-00-000-C0252 STORMWATER POST-DEVELOPMENT CATCHMENTS 0 FOR CONSENT 11.04.2025 310104425-00-000-C0253 STORMWATER SCHEME PLAN FOR CONSENT 11.04.2025 11.04.2025 310104425-00-000-C0256 **UTILITIES - SW - SW DETENTION BASINS DETAILS** 0 FOR CONSENT 310104425-00-000-C0261 **UTILITIES - SW - TYPICAL DETAILS - ROCK REVETMENTS** 0 FOR CONSENT 11.04.2025 11.04.2025 310104425-00-000-C0266 **UTILITIES - SW - TYPICAL DETAILS - IMPACT BASIN** 0 FOR CONSENT 310104425-00-000-C0267 **UTILITIES - SW - PLAN AND CROSS-SECTION AT BRIDGE SITE** 0 FOR CONSENT 11.04.2025 310104425-00-000-C0270 **UTILITIES - SW - NORTH CHANNEL PLAN AND LONGITUDINAL SECTION** 0 FOR CONSENT 11.04.2025 310104425-00-000-C0271 **UTILITIES - SW - NORTH CHANNEL PLAN AND LONGITUDINAL SECTION** 0 FOR CONSENT 11.04.2025 310104425-00-000-C0272 UTILITIES - SW - NORTH CHANNEL CROSS-SECTIONS CHO - 1350 0 FOR CONSENT 11.04.2025 310104425-00-000-C0273 NORTHERN SWALE PLAN AND CROSS SECTOINS 0 FOR CONSENT 11.04.2025 310104425-00-000-C0274 STORMWATER - SOUTHERN SWALE A - PLAN AND CROSS SECTIONS SHT 1 OF 2 0 FOR CONSENT 11.04.2025 310104425-00-000-C0275 STORMWATER - SOUTHERN SWALE A - PLAN AND CROSS SECTIONS SHT 2 OF 2 0 FOR CONSENT 11.04.2025 310104425-00-000-C0276 STORMWATER - SOUTHERN SWALE B - PLAN AND CROSS SECTIONS 0 FOR CONSENT 11.04.2025 11.04.2025 310104425-00-000-C0300 **UTILITIES - SS - SANITARY SEWER - OVERALL LAYOUT** 0 FOR CONSENT 310104425-00-000-C0301 **UTILITIES - SS - SANITARY SEWER LAYOUT - SHEET 1 OF 8** 0 FOR CONSENT 11.04.2025 310104425-00-000-C0302 **UTILITIES - SS - SANITARY SEWER LAYOUT - SHEET 2 OF 8** 0 FOR CONSENT 11.04.2025 UTILITIES - SS - SANITARY SEWER LAYOUT - SHEET 3 OF 8 FOR CONSENT 11.04.2025 310104425-00-000-C0303 11.04.2025 310104425-00-000-C0304 **UTILITIES - SS - SANITARY SEWER LAYOUT - SHEET 4 OF 8** 0 FOR CONSENT 310104425-00-000-C0305 **UTILITIES - SS - SANITARY SEWER LAYOUT - SHEET 5 OF 8** 0 FOR CONSENT 11.04.2025 310104425-00-000-C0306 **UTILITIES - SS - SANITARY SEWER LAYOUT - SHEET 6 OF 8** 0 FOR CONSENT 11.04.2025 310104425-00-000-C0307 **UTILITIES - SS - SANITARY SEWER LAYOUT - SHEET 7 OF 8** 0 FOR CONSENT 11.04.2025 310104425-00-000-C0308 **UTILITIES - SS - SANITARY SEWER LAYOUT - SHEET 8 OF 8** 0 FOR CONSENT 11.04.2025 310104425-00-000-C0350 **UTILITIES - SS - WASTEWATER TREATMENT PLANT - PROCESS SCHEMATIC** 0 FOR CONSENT 11.04.2025 310104425-00-000-C0351 SANITARY SEWER PUMP STATION A SITE PLAN 0 FOR CONSENT 11.04.2025 310104425-00-000-C0352 SANITARY SEWER PUMP STATION A SECTIONS 0 FOR CONSENT 11.04.2025 310104425-00-000-C0353 SANITARY SEWER PUMP STATION B SITE PLAN 0 FOR CONSENT 11.04.2025 310104425-00-000-C0354 SANITARY SEWER PUMP STATION B SECTIONS 0 FOR CONSENT 11.04.2025 11.04.2025 310104425-00-000-C0355 SANITARY SEWER PUMP STATION C SITE PLAN 0 FOR CONSENT 310104425-00-000-C0401 UTILITIES - WATER - WATER RISING AND FALLING MAINS LAYOUT 0 FOR CONSENT 11.04.2025 310104425-00-000-C0402 UTILITIES - WATER - BORE LOCATIONS AND ACCESS 0 FOR CONSENT 11.04.2025 310104425-00-000-C0403 **UTILITIES - WATER - TREATED WATER RESERVOIRS - LAYOUT AND SECTION** 0 FOR CONSENT 11.04.2025 310104425-00-000-C0404 **UTILITIES - WATER - WATER TREATMENT PLANT - SCHEMATIC** 0 FOR CONSENT 11.04.2025 310104425-00-000-C0405 UTILITIES - WATER - WATER TREATMENT PLANT LAYOUT 0 FOR CONSENT 11.04.2025 310104425-00-000-C0406 UTILITIES - WATER - TREATED WATER RESERVOIRS - DIMENSIONS AND OPERATING LVLS 0 FOR CONSENT 11.04.2025 EROSION AND SEDIMENT CONTROL - VOLUME 4 310104425-00-000-D2010 DRAFT EROSION AND SEDIMENT CONTROL PLAN - LAYOUT PLAN - ORIGINAL GROUND CONTOURS 0 FOR CONSENT 11.04.2025 310104425-00-000-D2011 DRAFT EROSION AND SEDIMENT CONTROL PLAN -MASTERPLAN LAYOUT ON FINISHED GROUND CONTOURS 0 FOR CONSENT 11.04.2025 310104425-00-000-D2012 DRAFT EROSION AND SEDIMENT CONTROL PLAN -TYPICAL CONSTRUCTION DETAILS 0 FOR CONSENT 11.04.2025 FIGURES - VOLUME 4 FIG.R001 ROAD CARRIAGEWAY HIERARCHY 0 FOR CONSENT 11.04.2025 FIG.R002 SHARED PATHS NETWORK 0 FOR CONSENT 11.04.2025 FIG.R003 **BUS ROUTES AND STOPS** 0 FOR CONSENT 11.04.2025 11.04.2025 FIG.R004 MULTI MODAL NETWORK 0 FOR CONSENT FIG.R005 ROAD OPERATING SPEEDS 0 FOR CONSENT 11.04.2025 0 FOR CONSENT FIG.R006 LOCAL PARKS 11.04.2025 FIG.R007 **HEAVY VEHICLE DESIGN PROVISIONS** 0 FOR CONSENT 11.04.2025

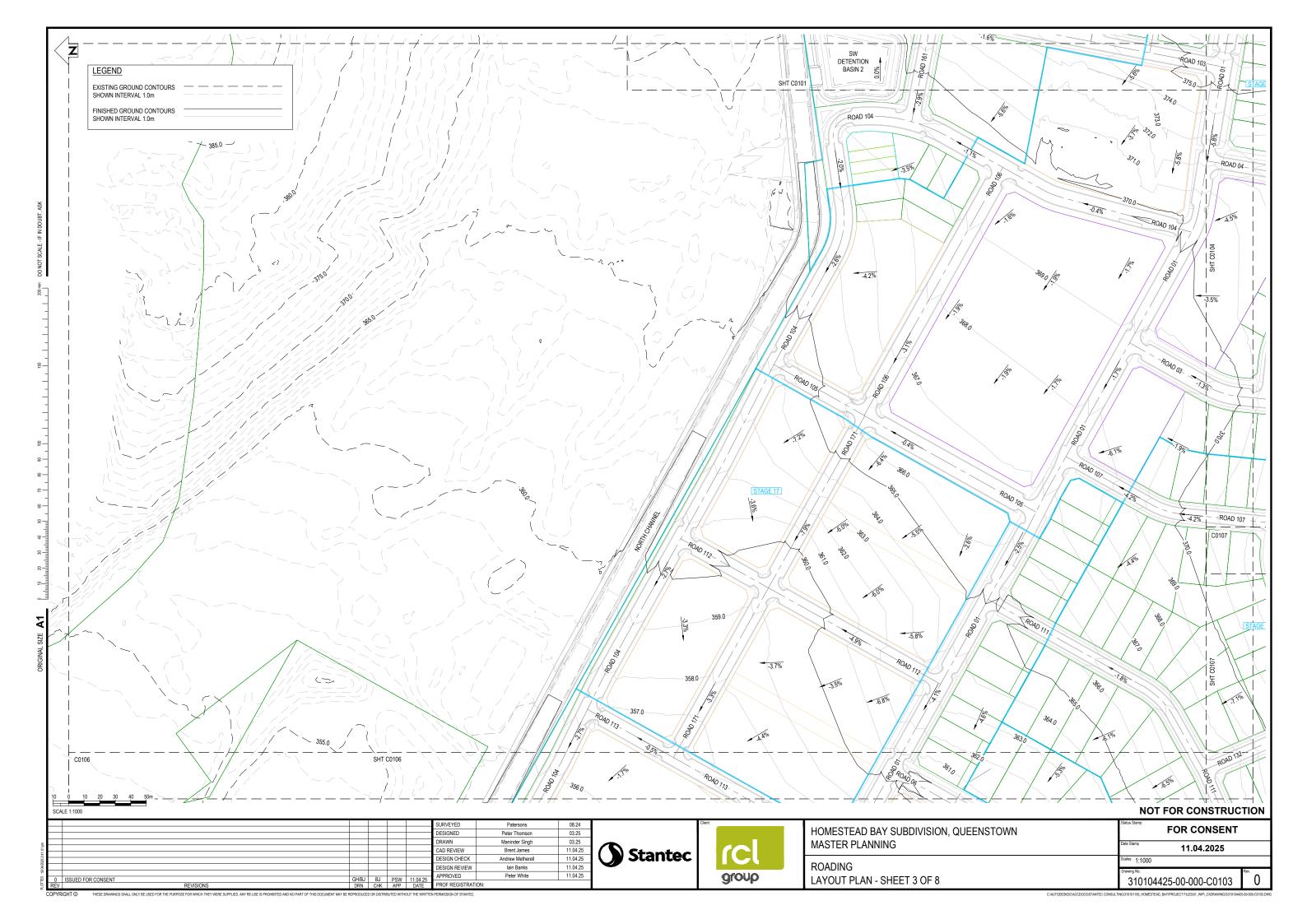
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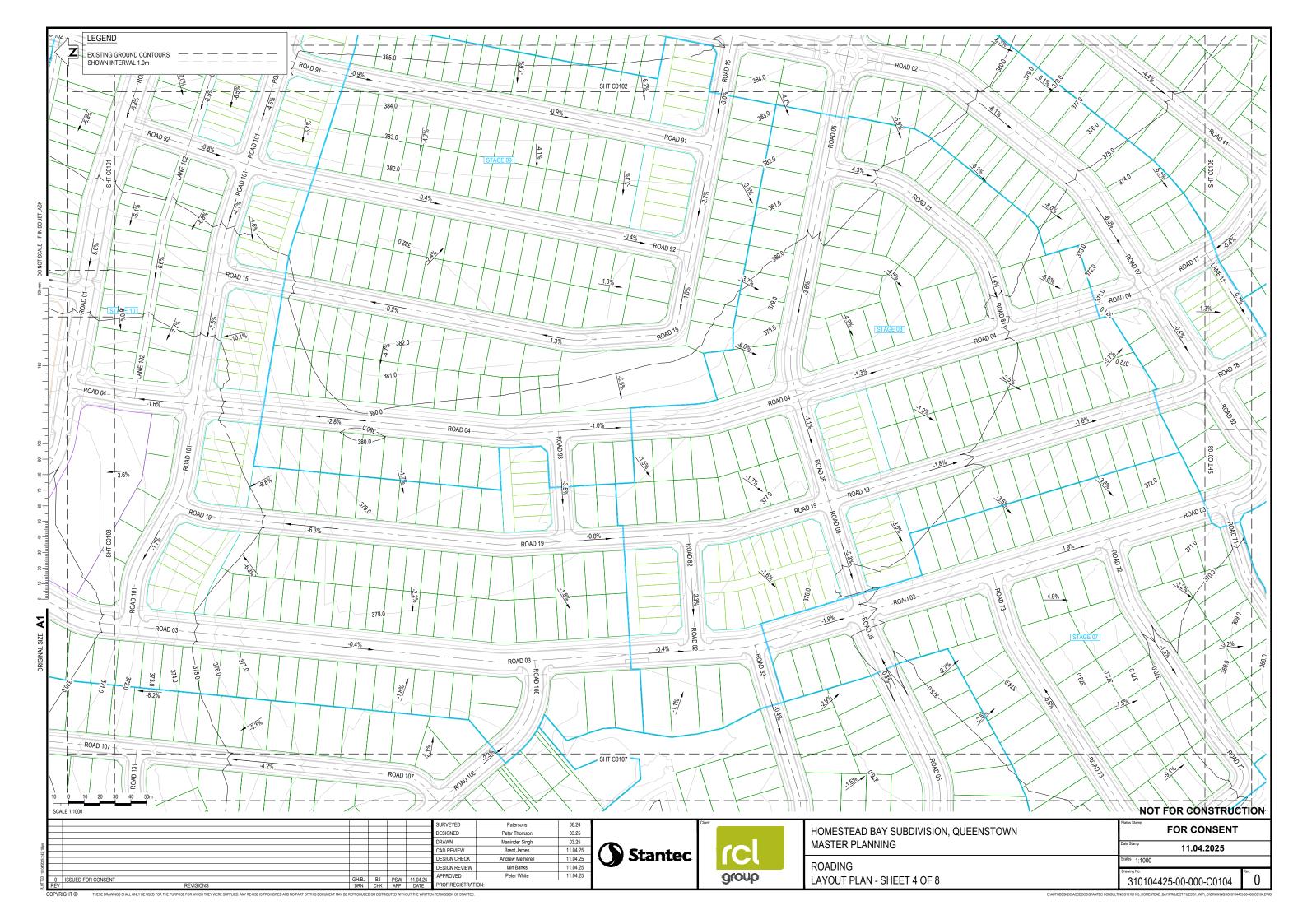
Drawings

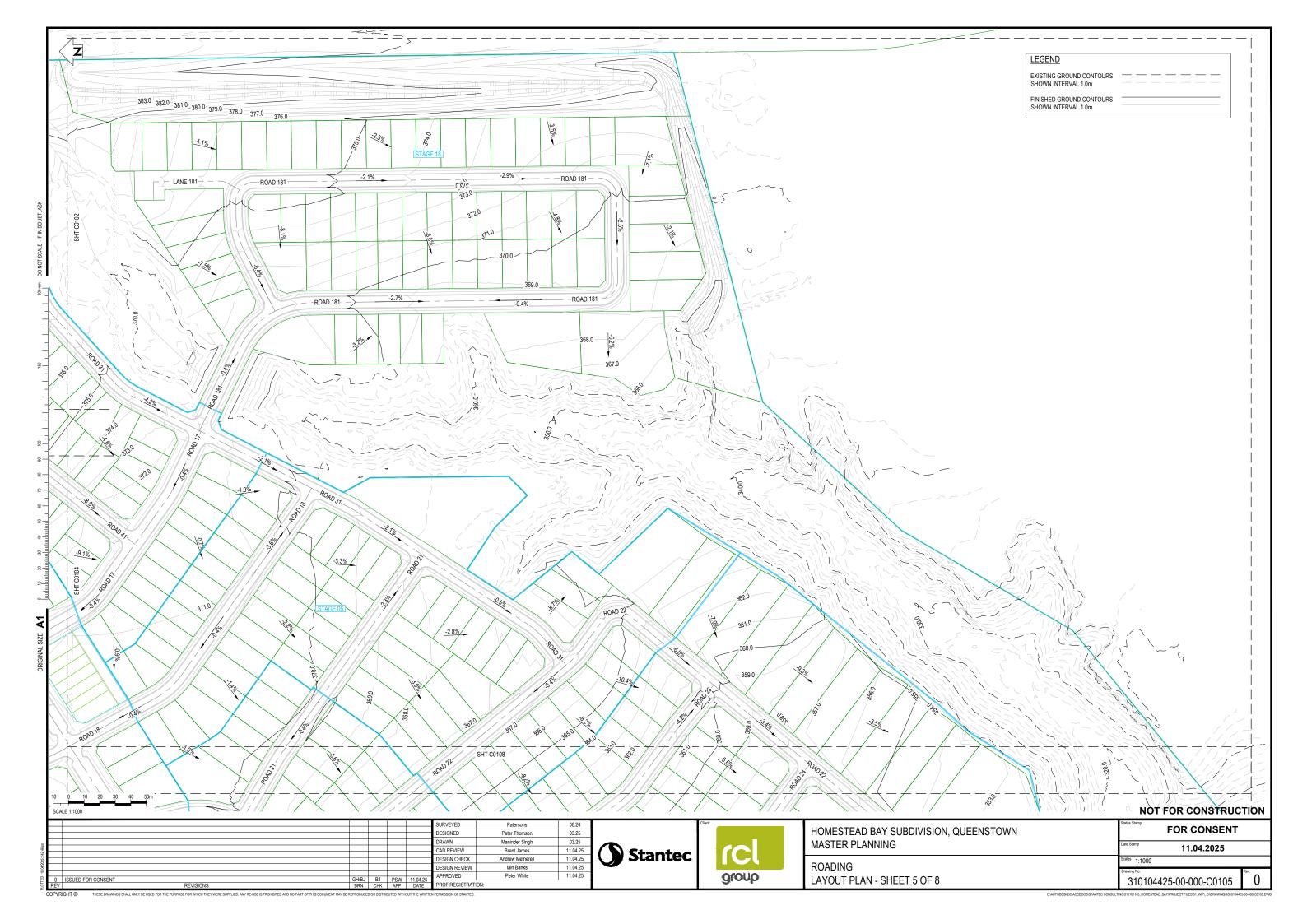


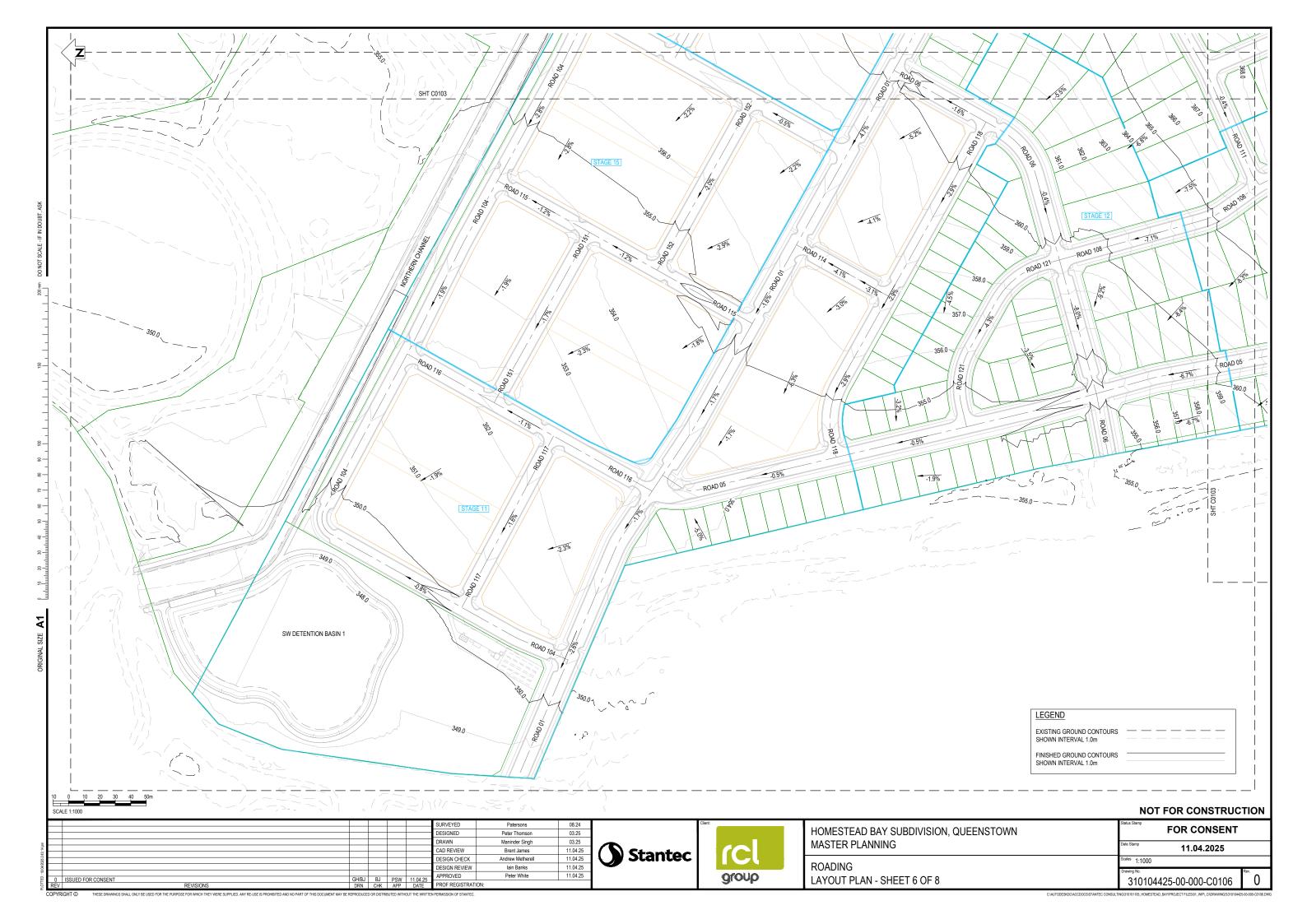


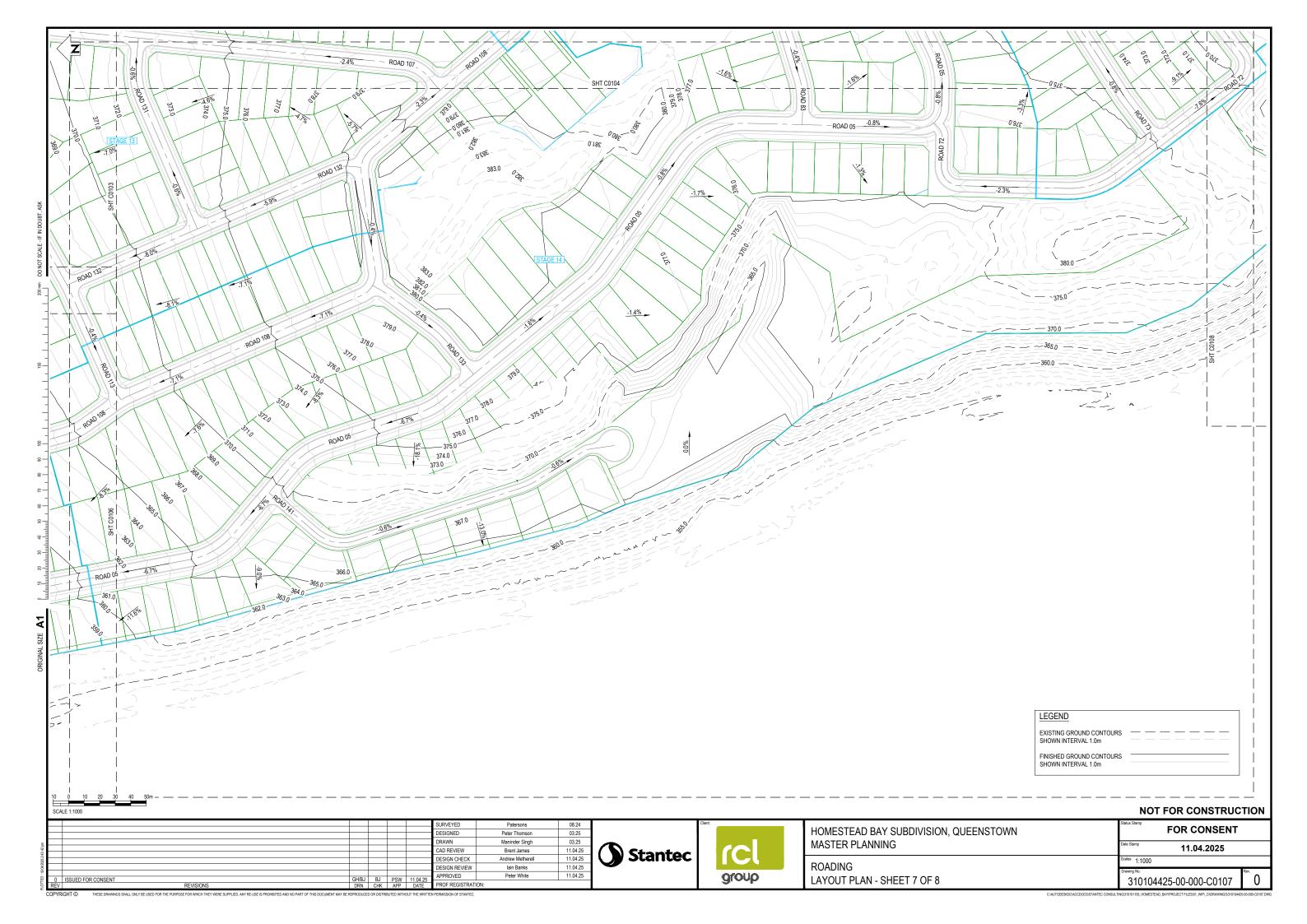


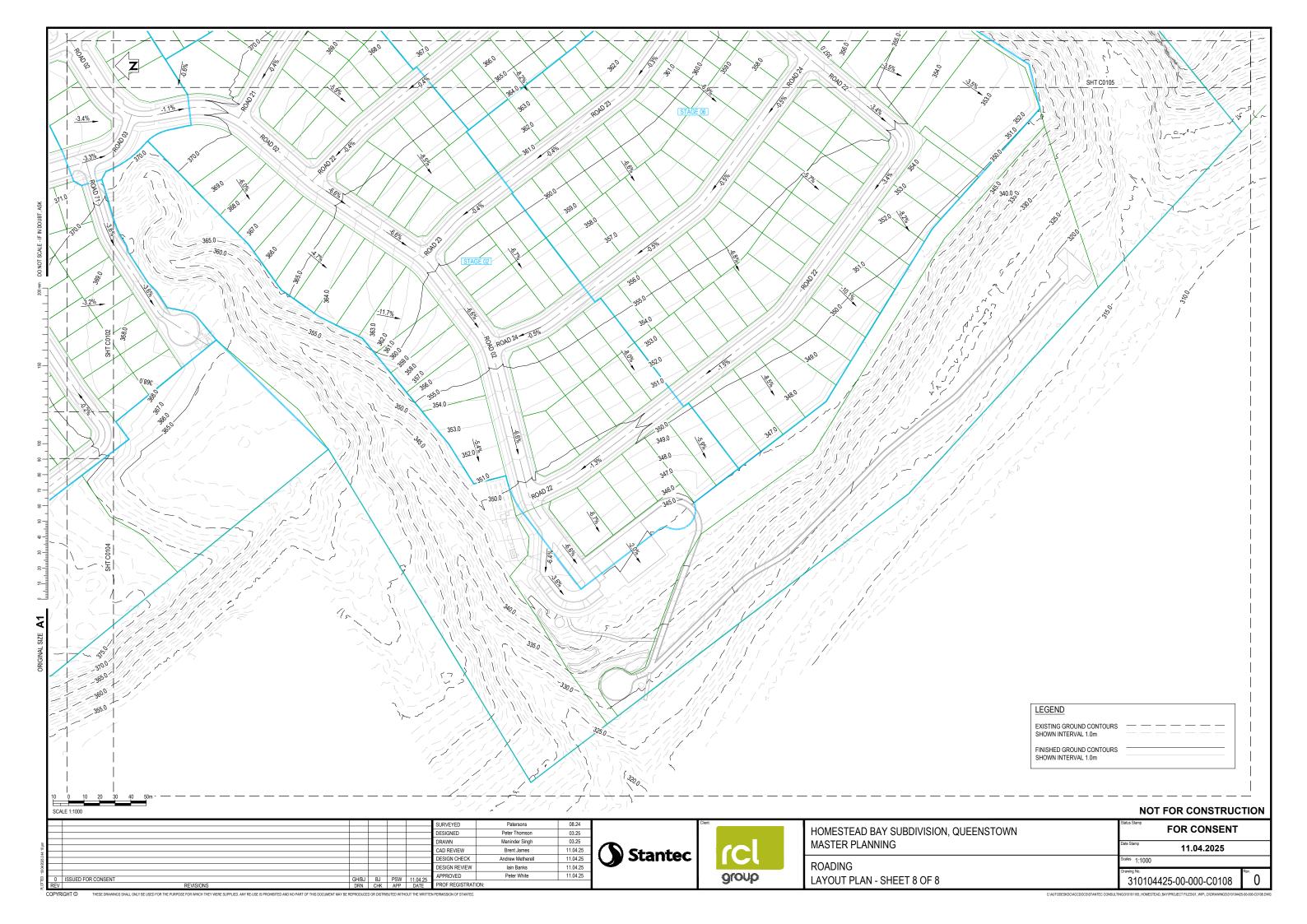


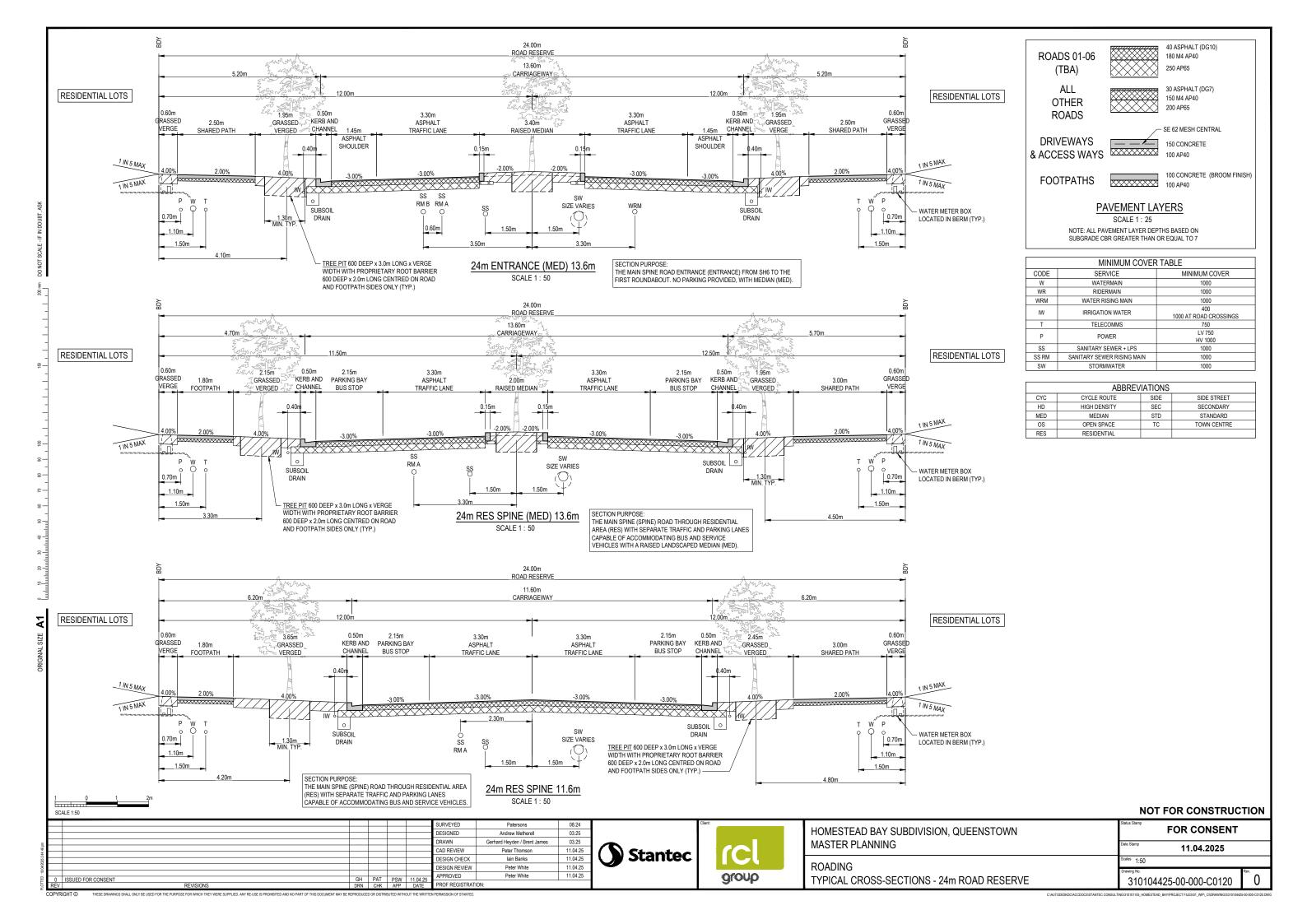


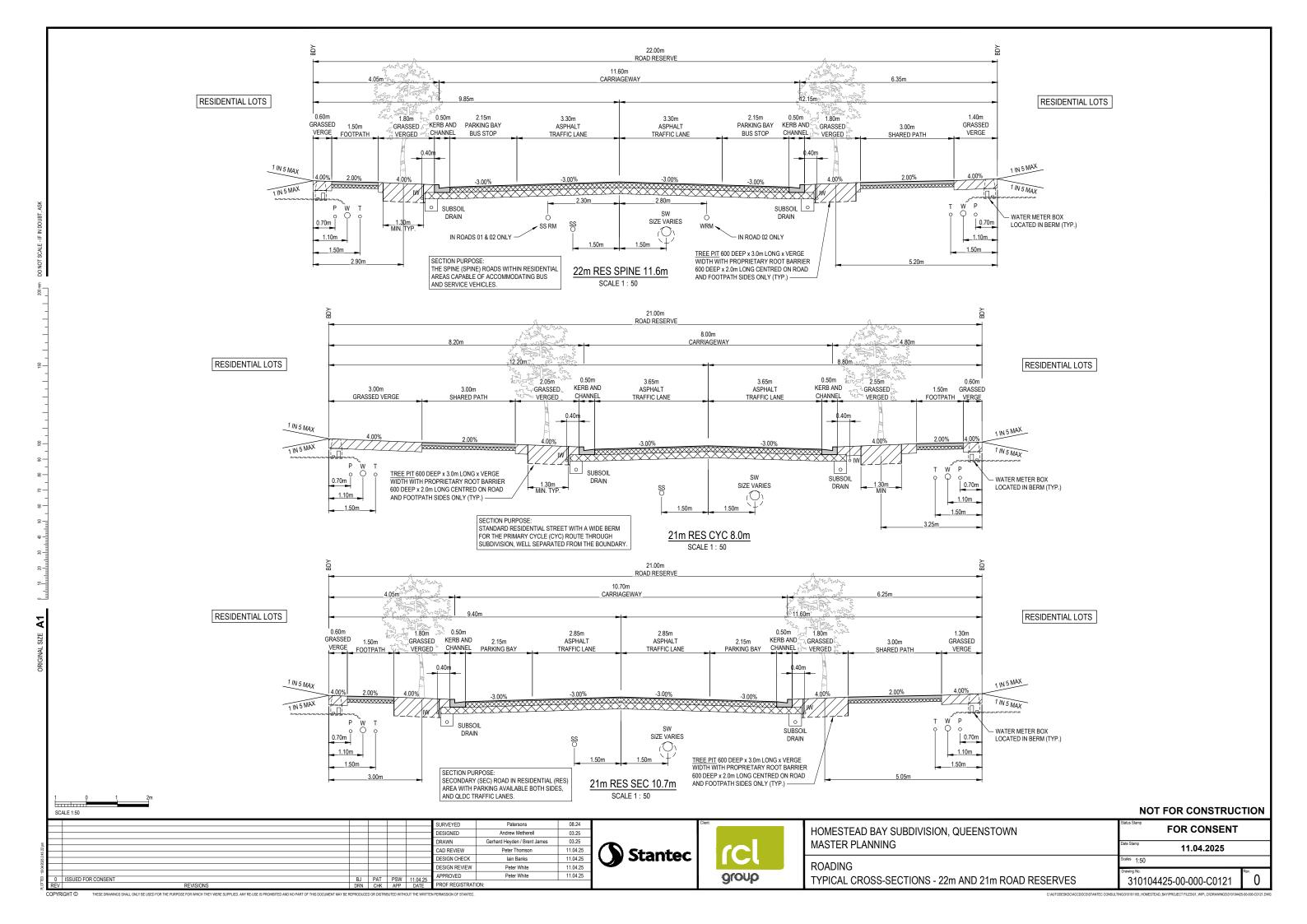


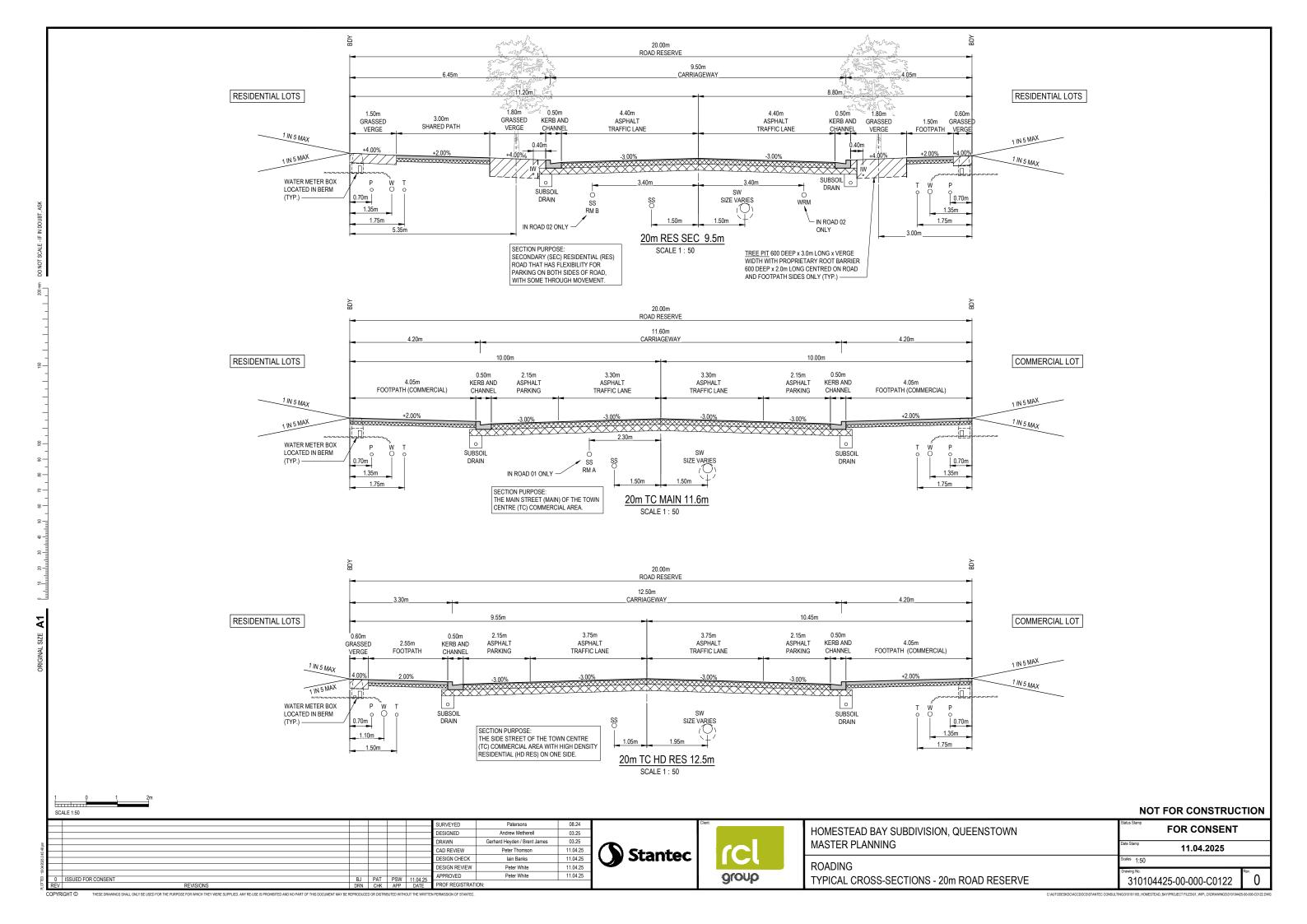


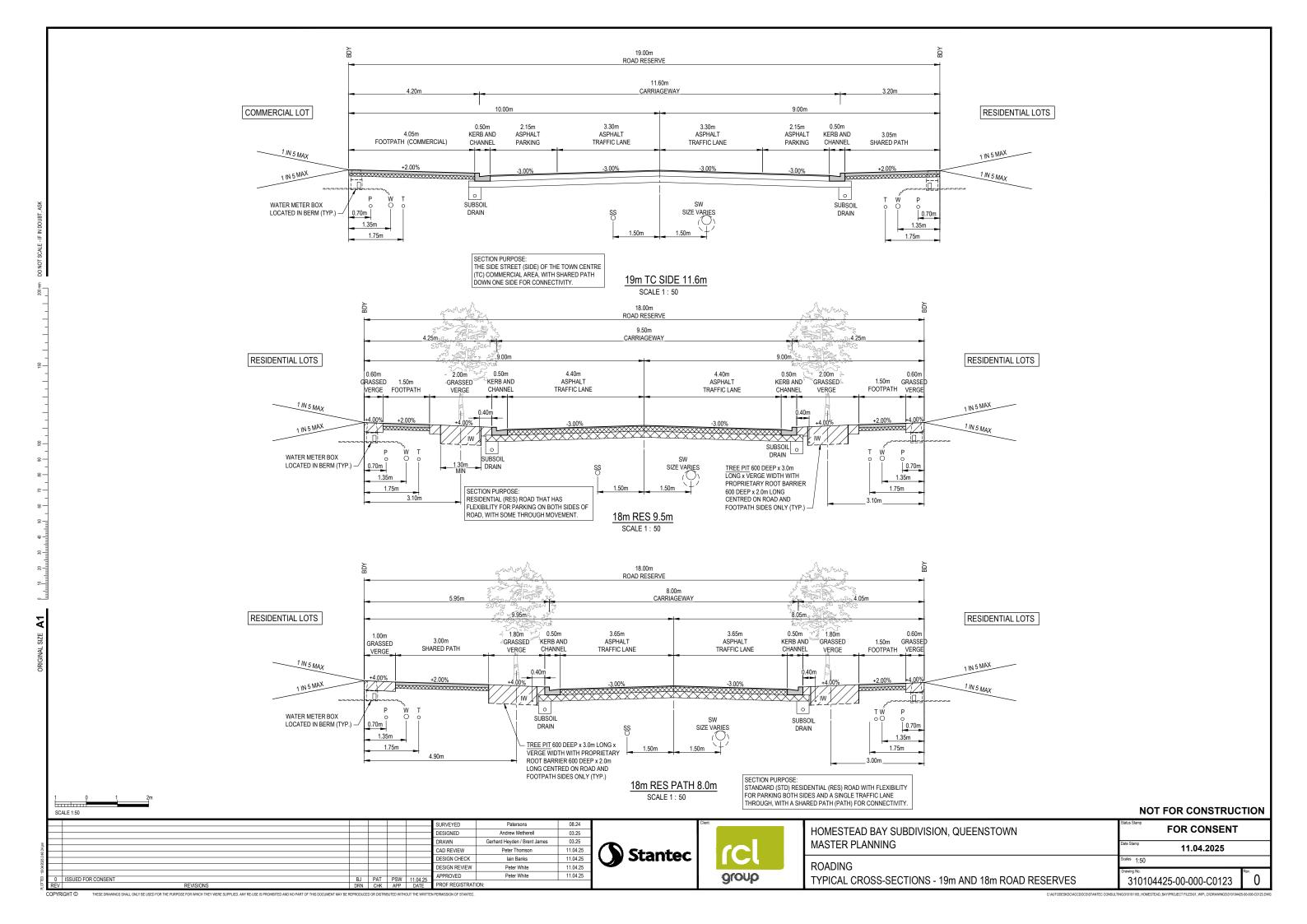


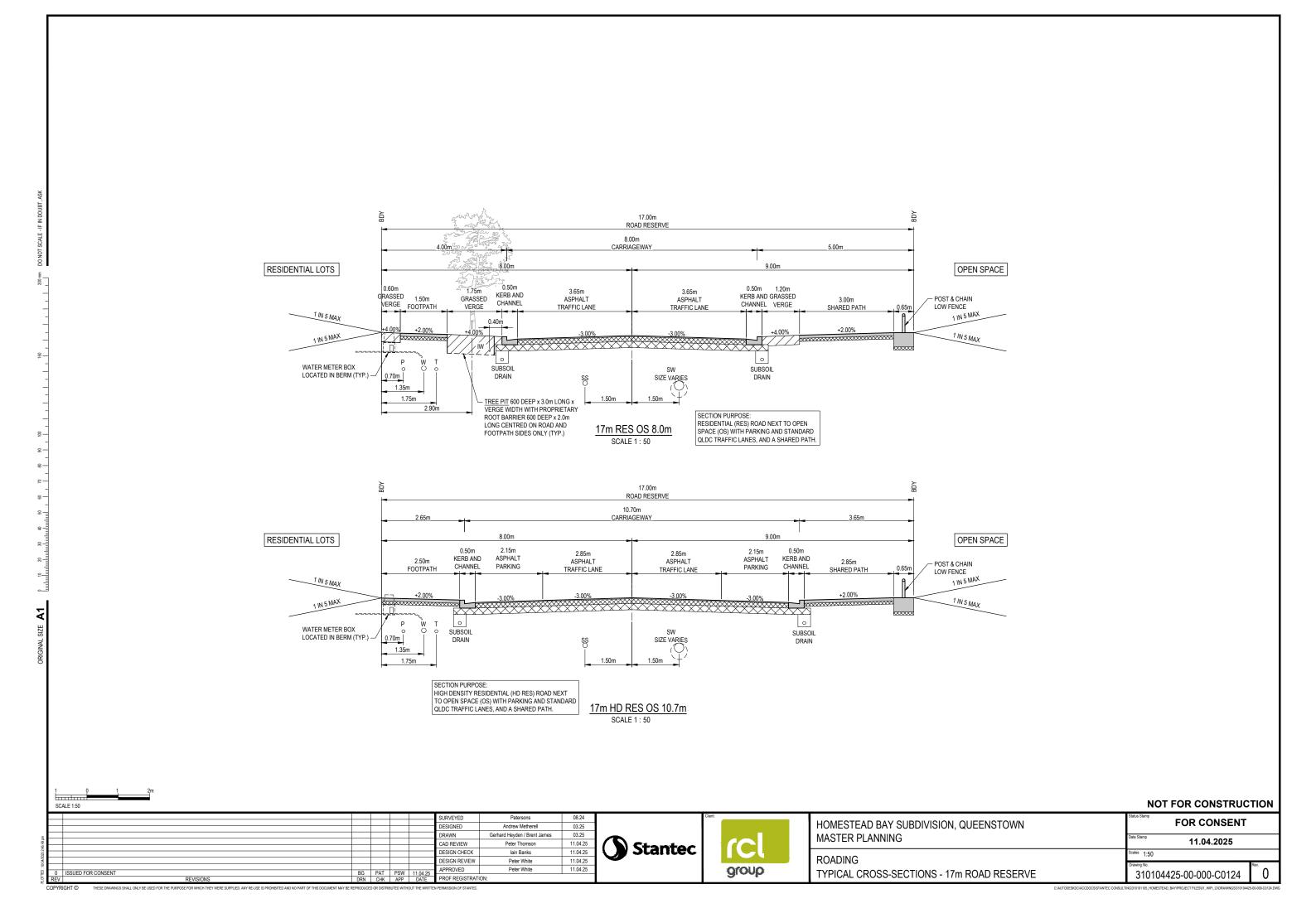


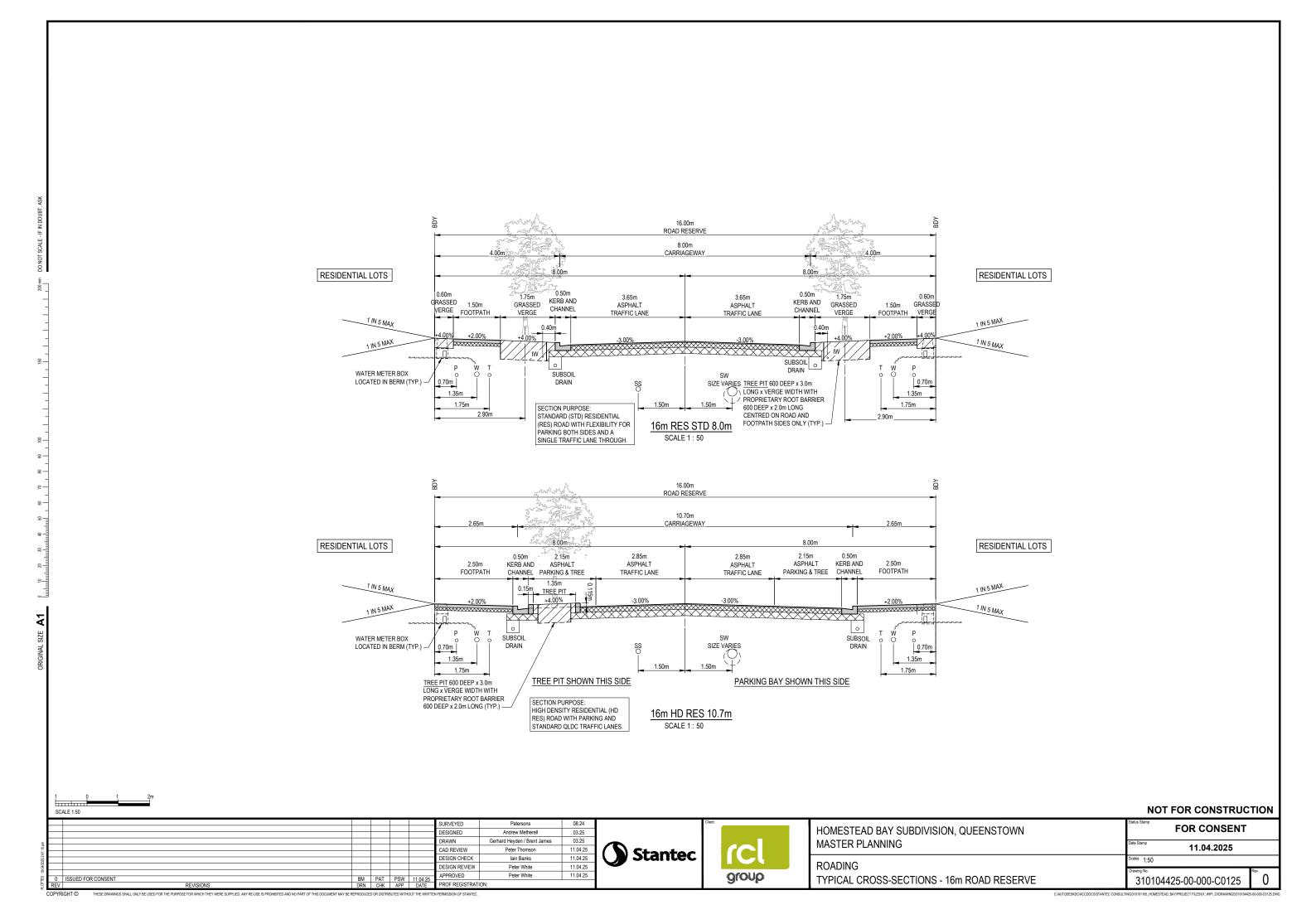


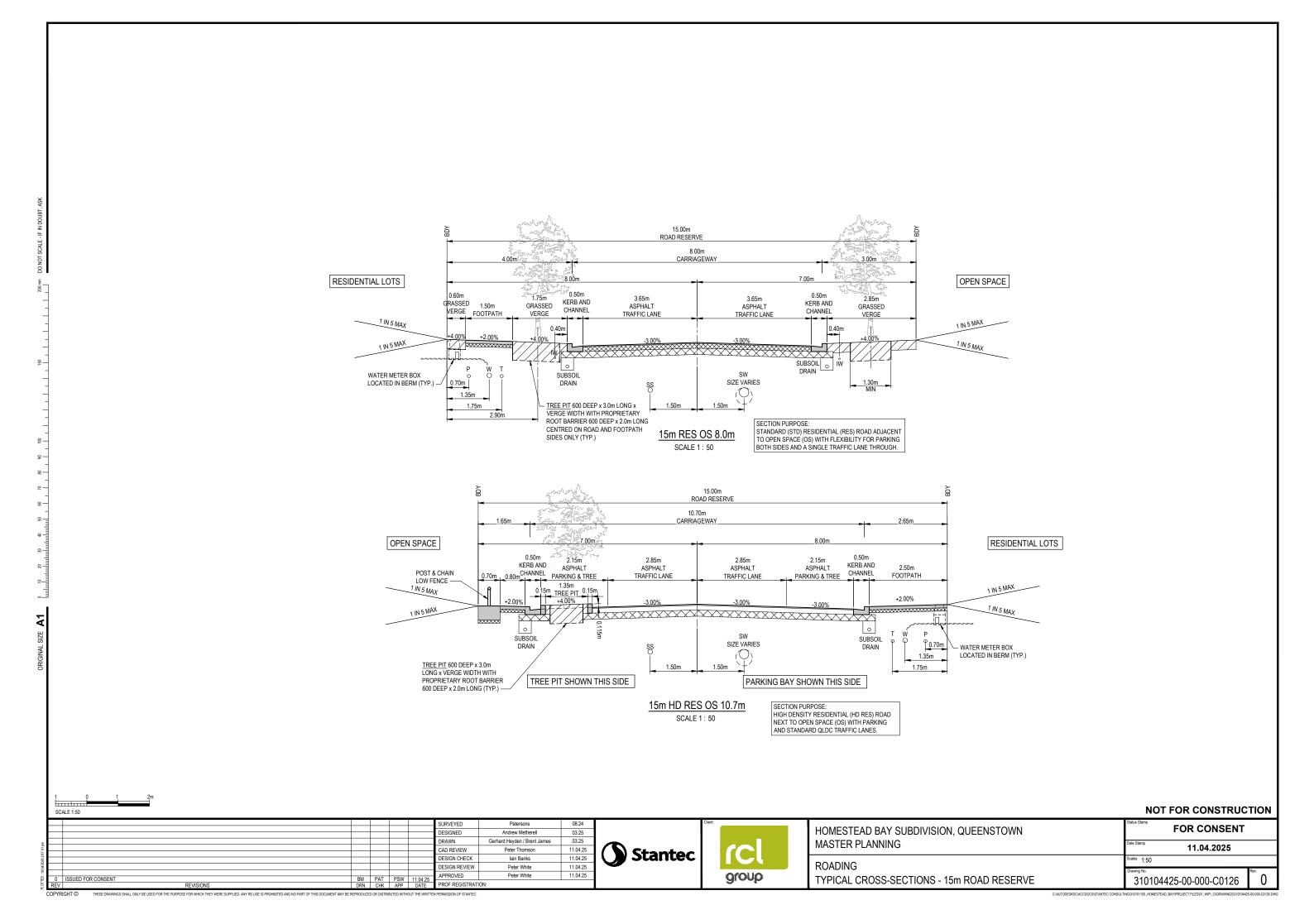


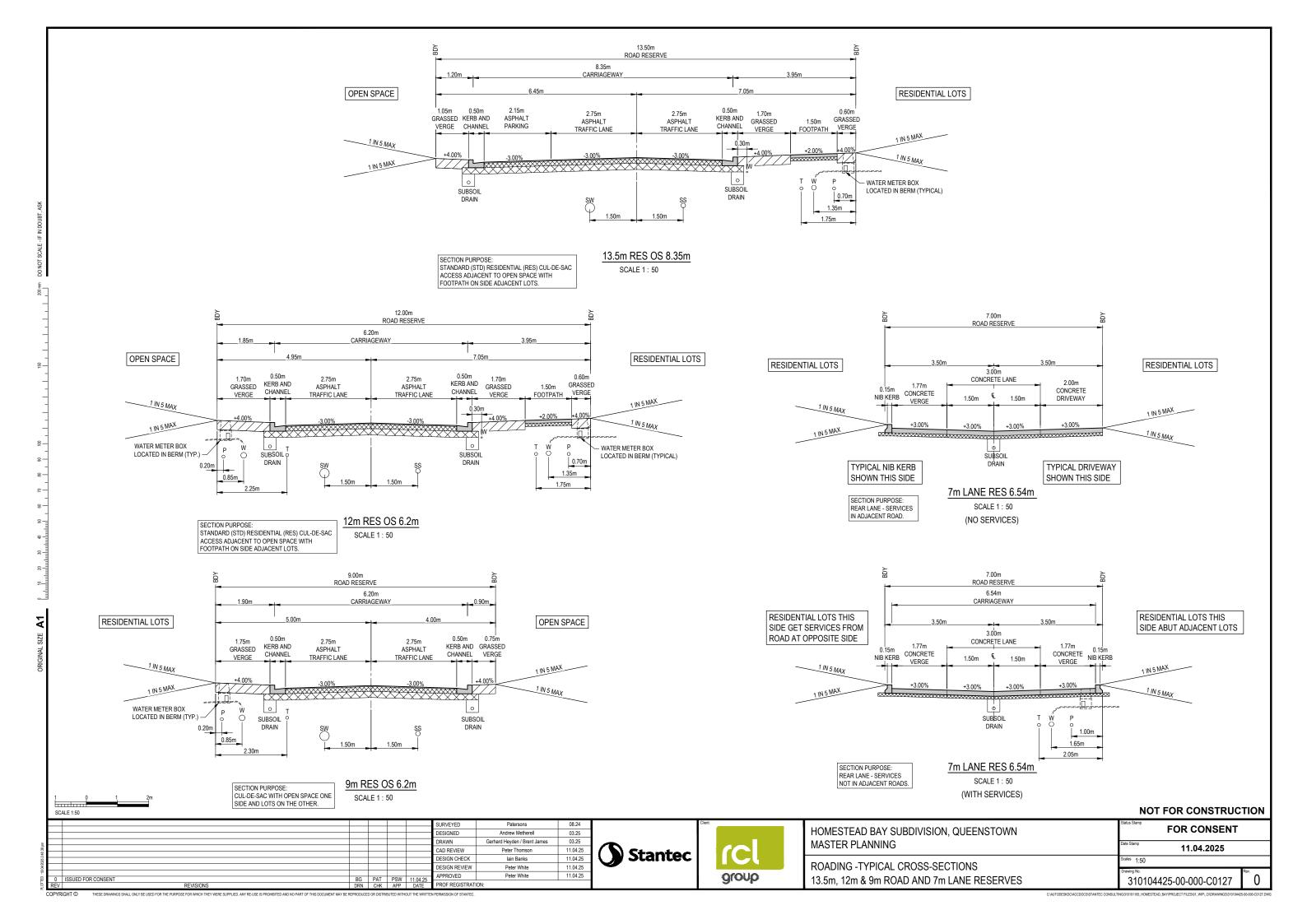


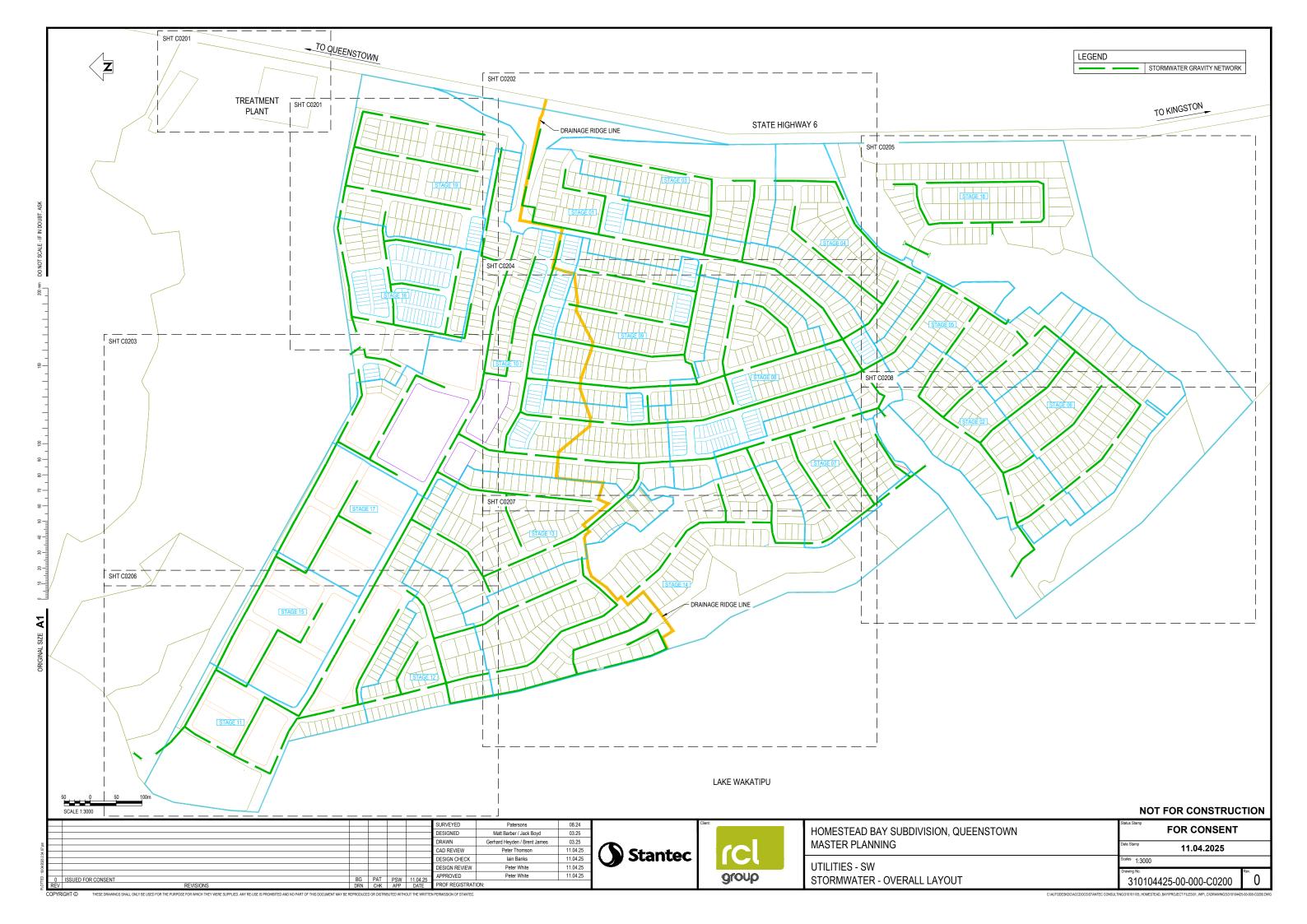




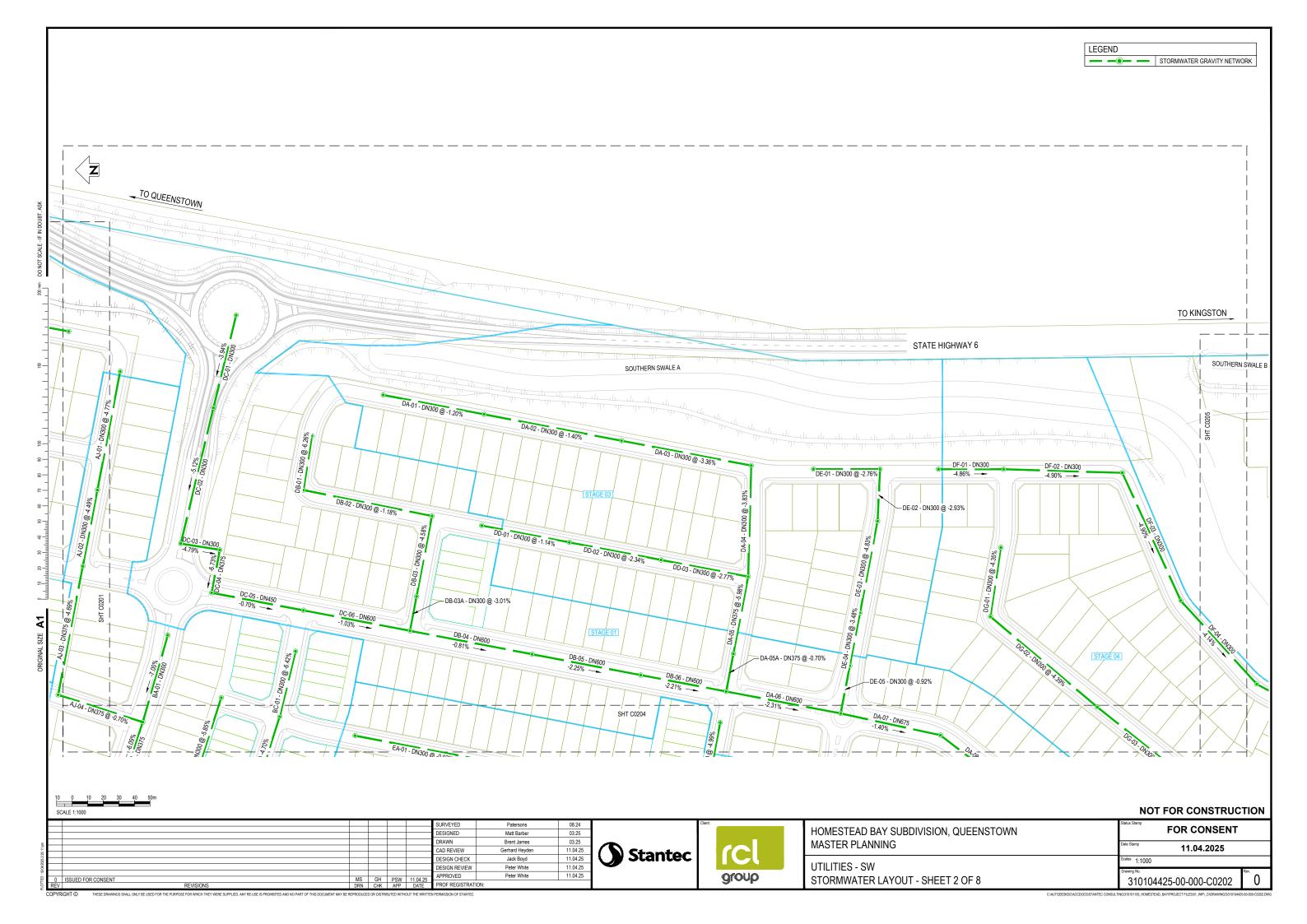


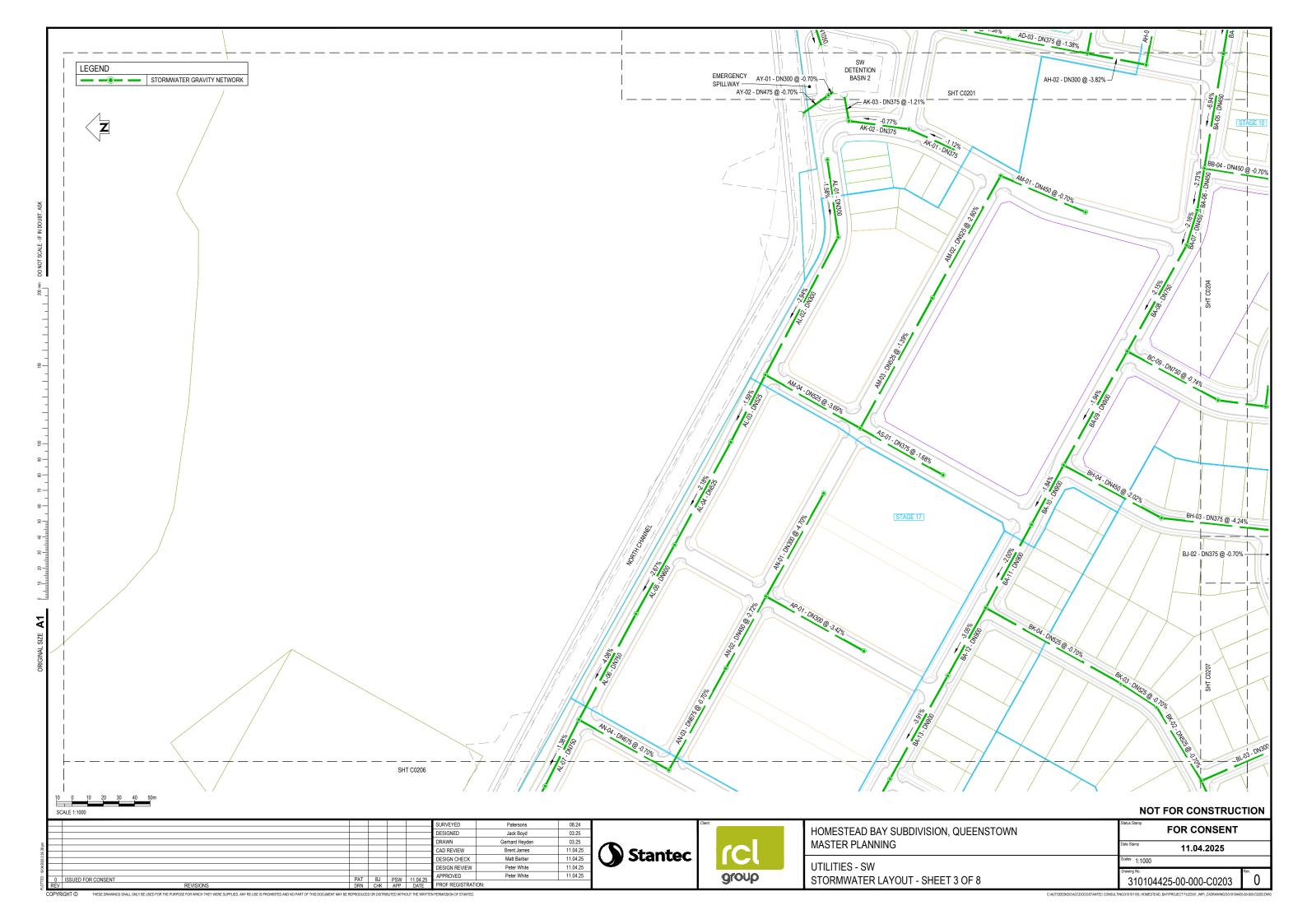


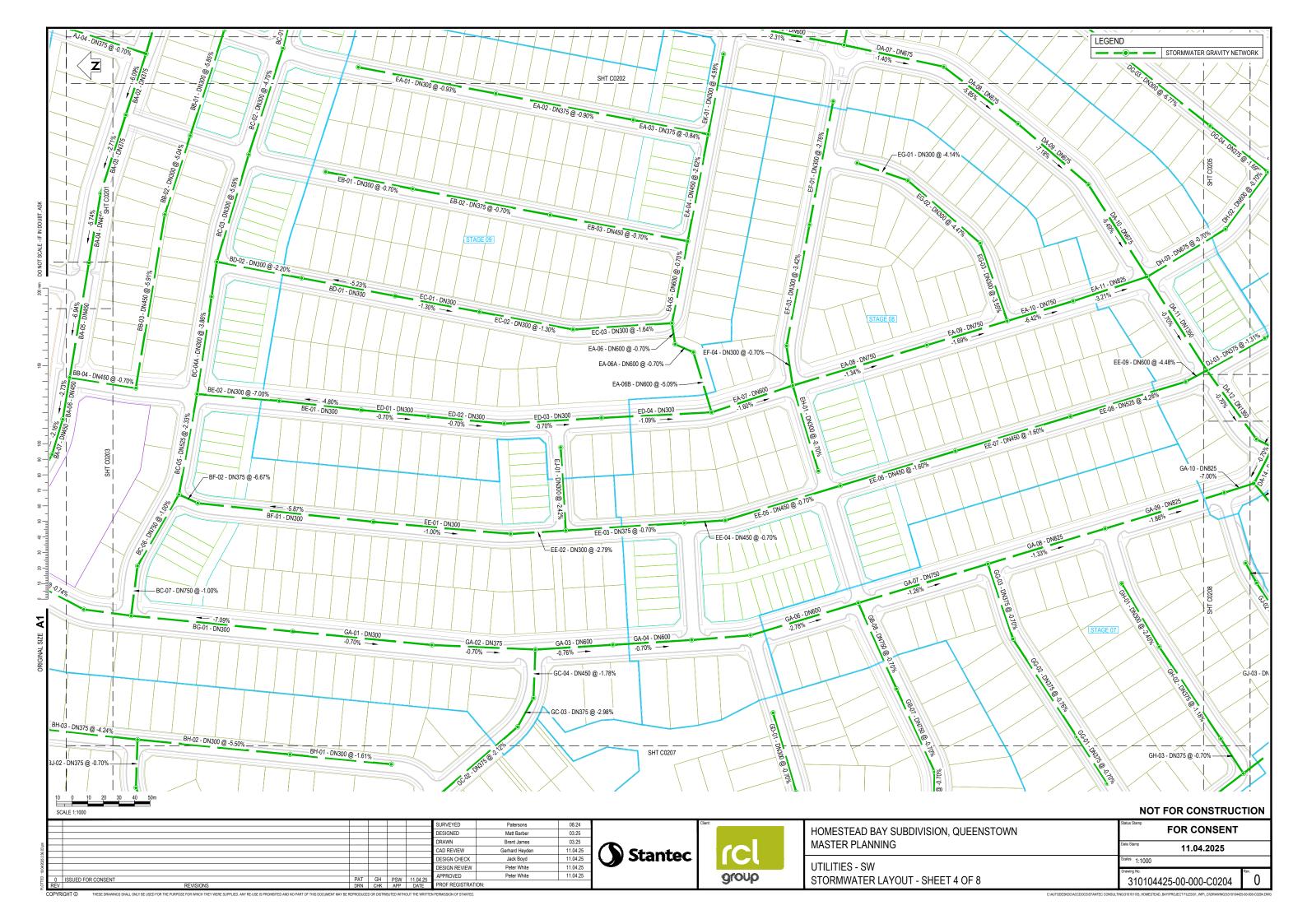


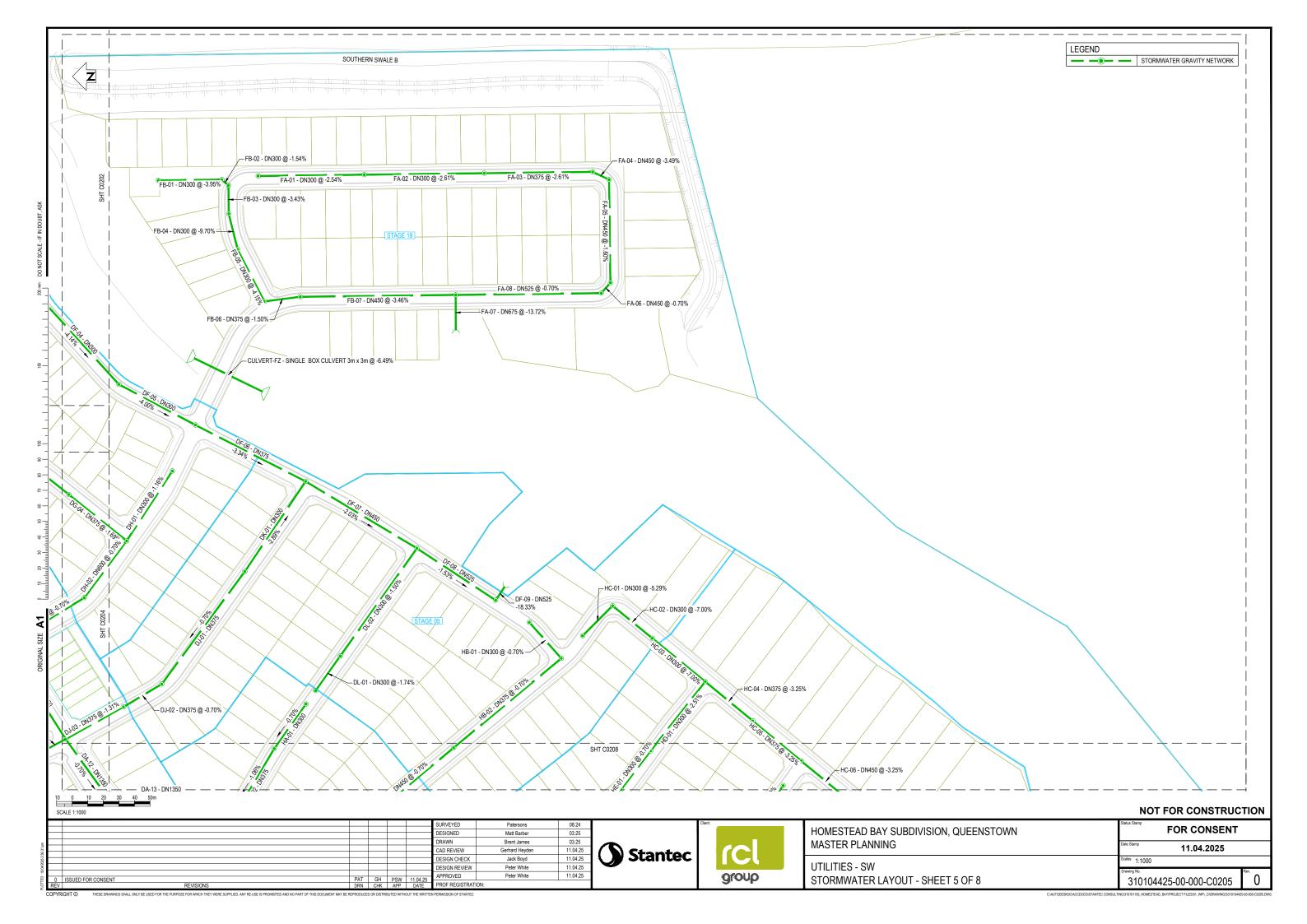


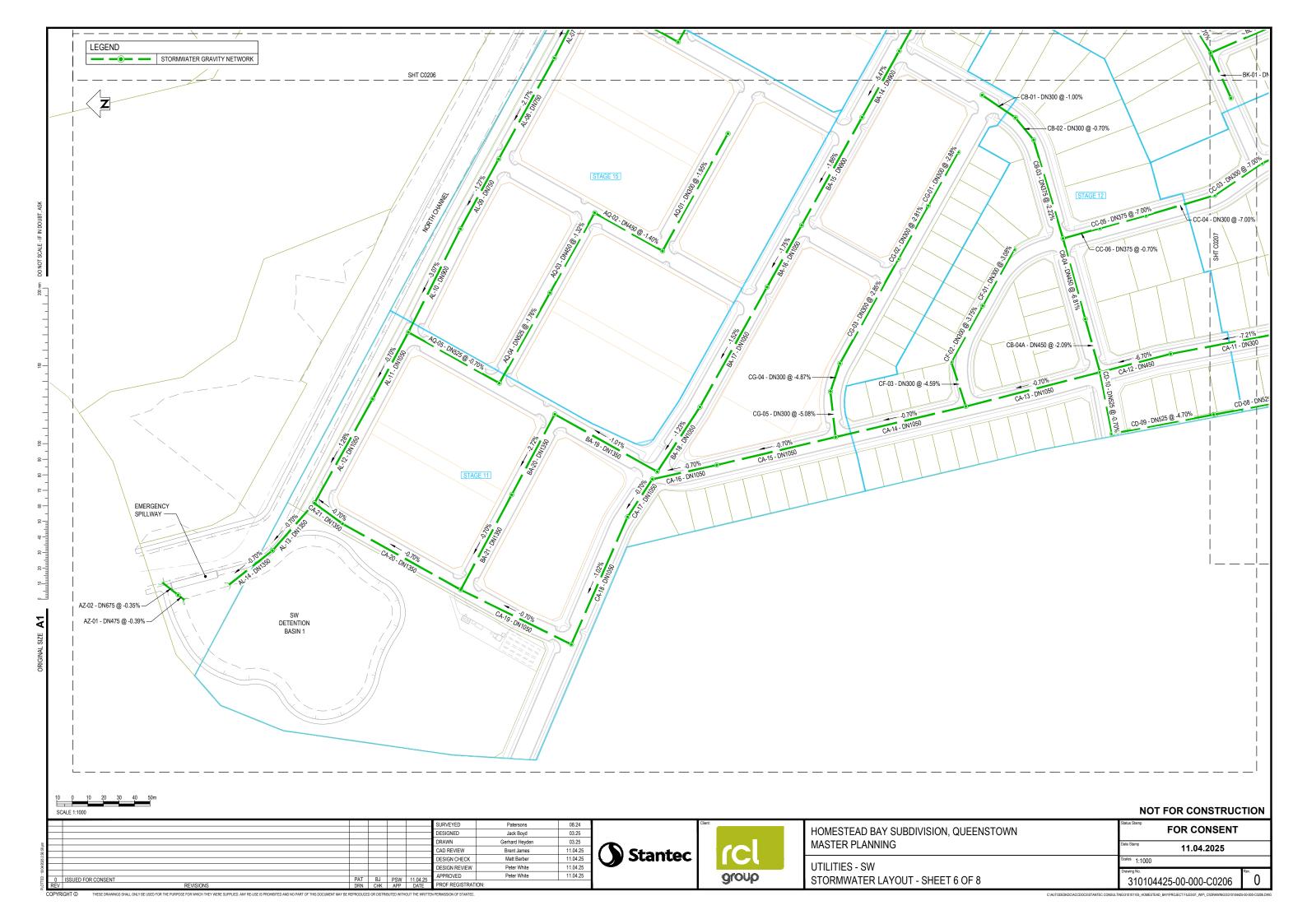


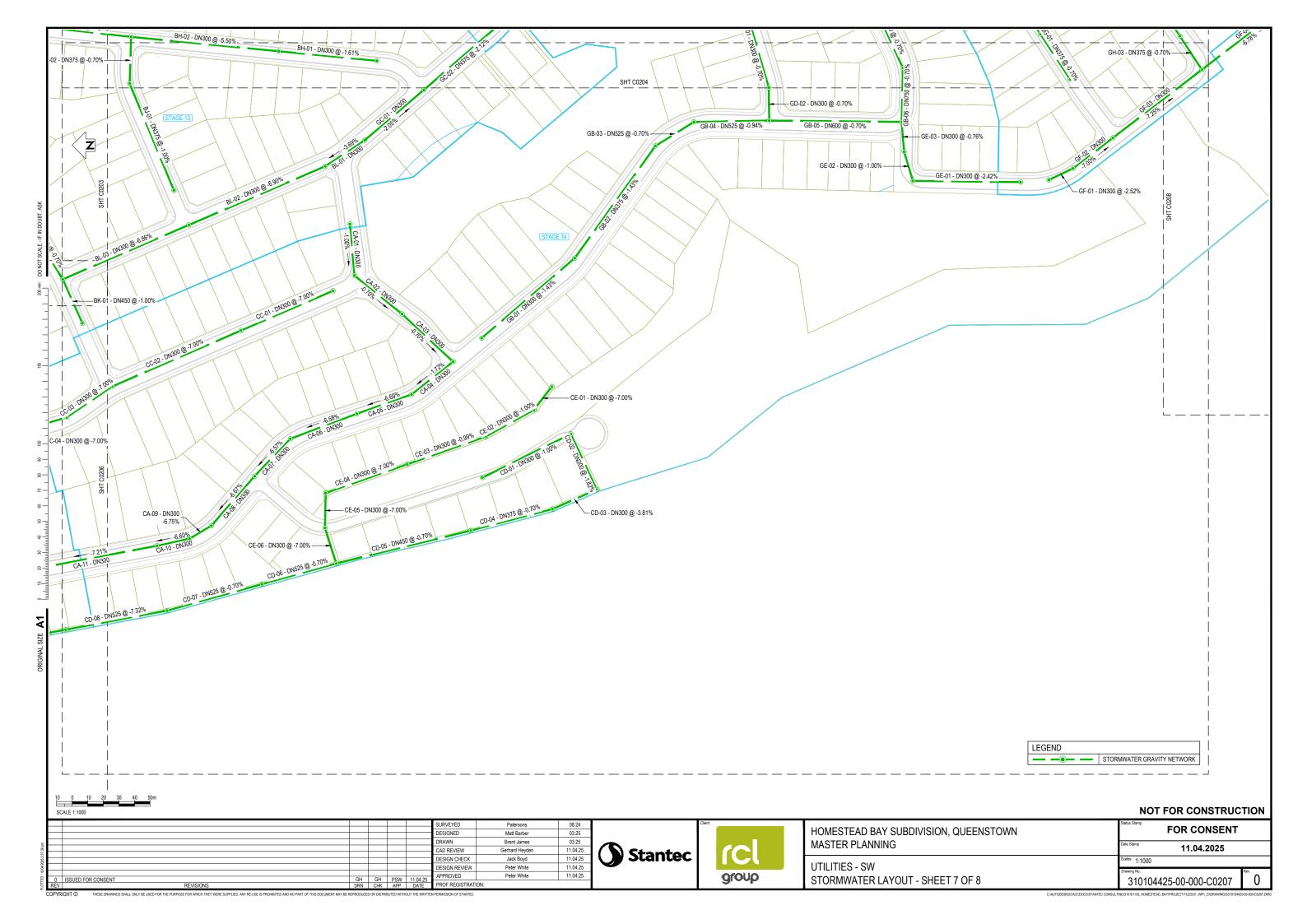


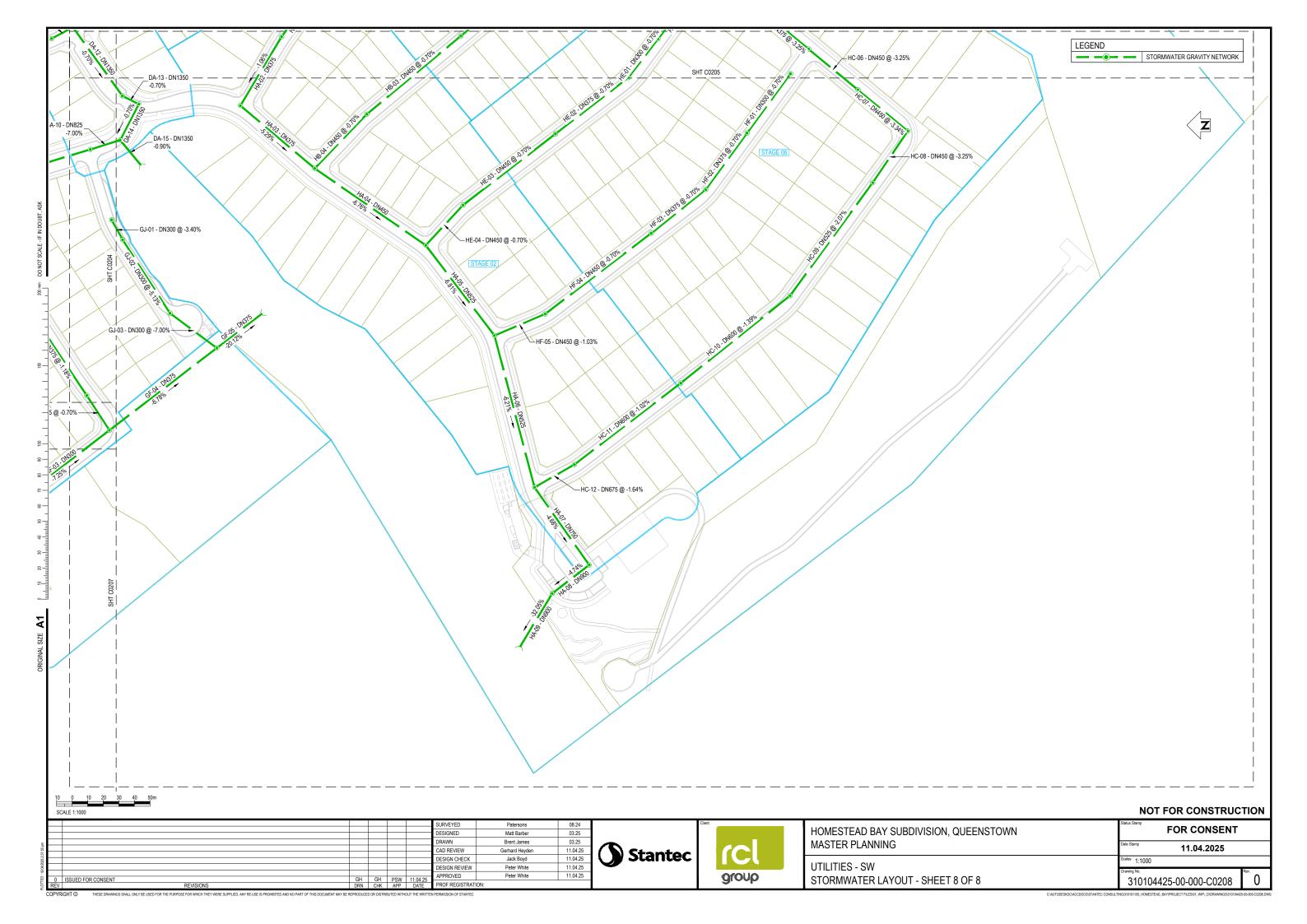


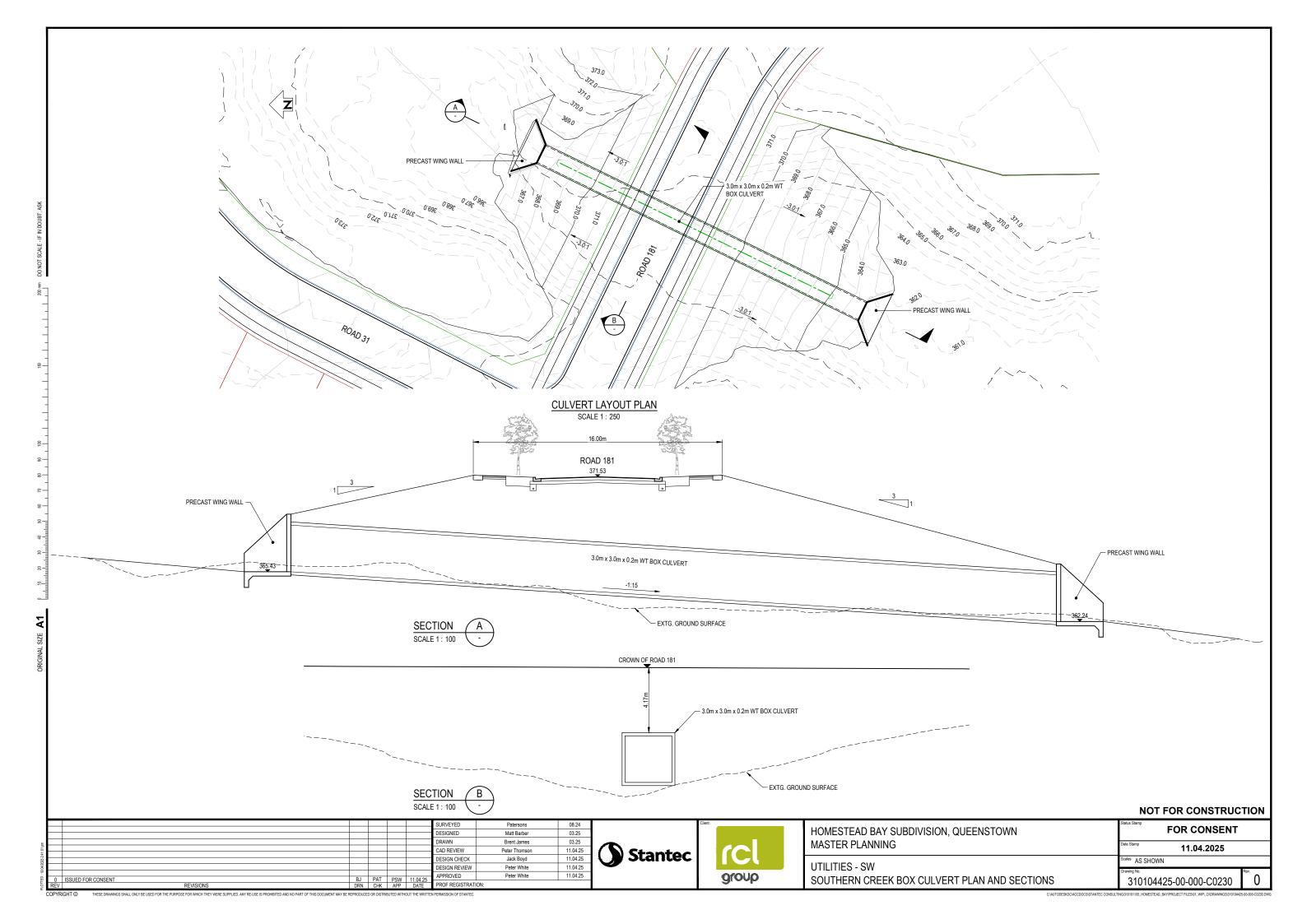












C

group

UTILITIES - SW

LAYOUT PLAN - MAJOR WATERCOURSES

Stantec

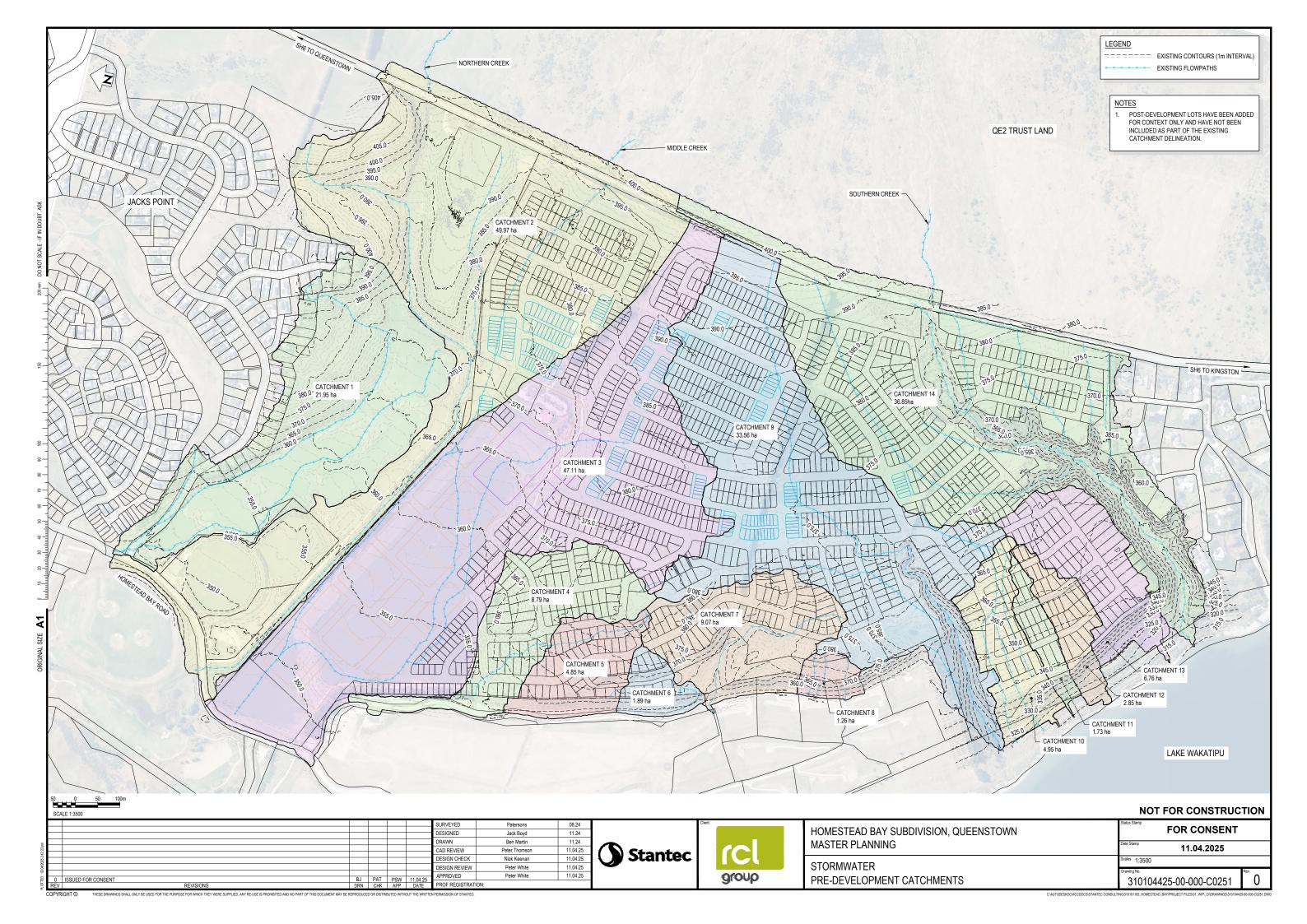
Peter White

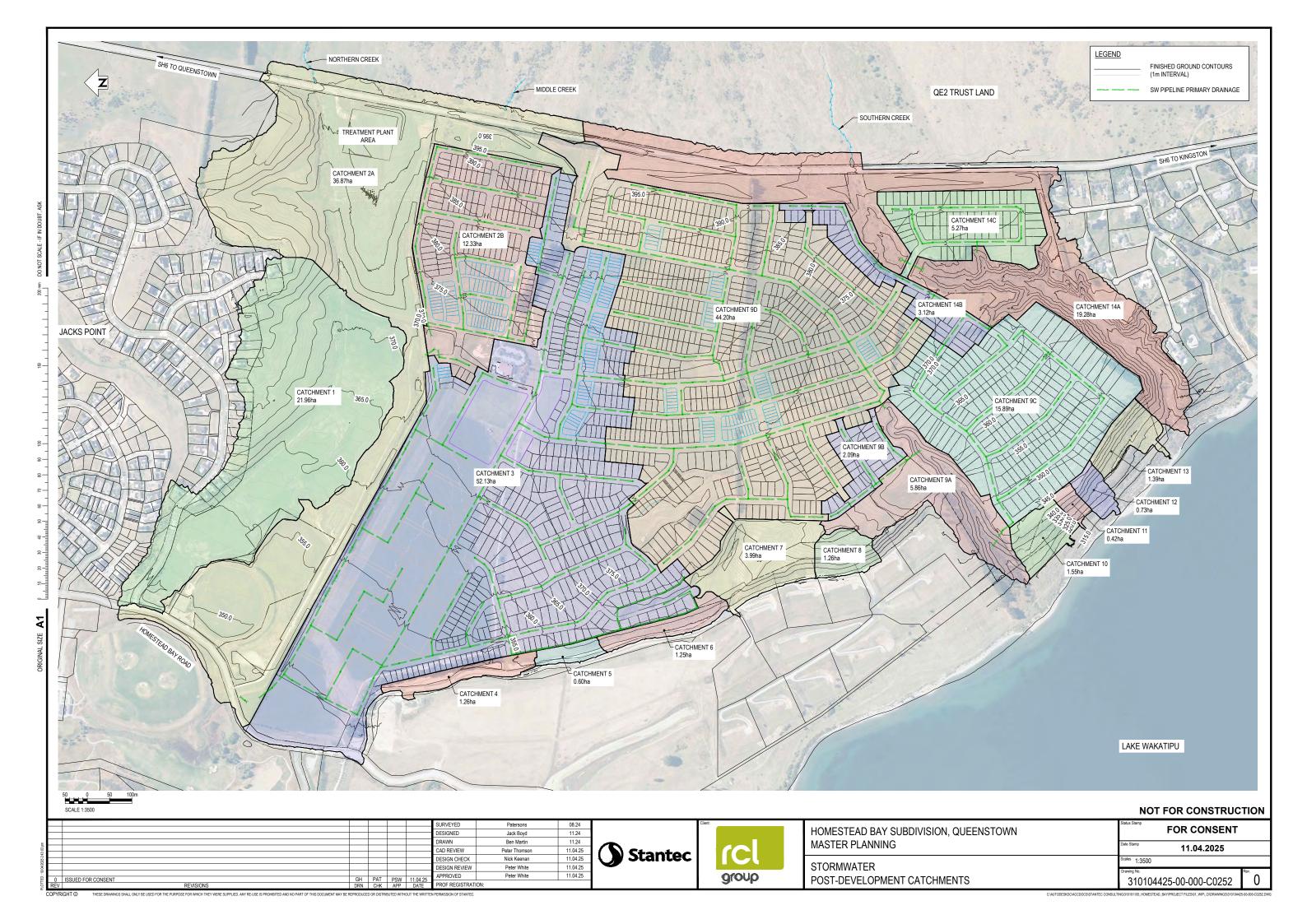
DESIGN REVIEW

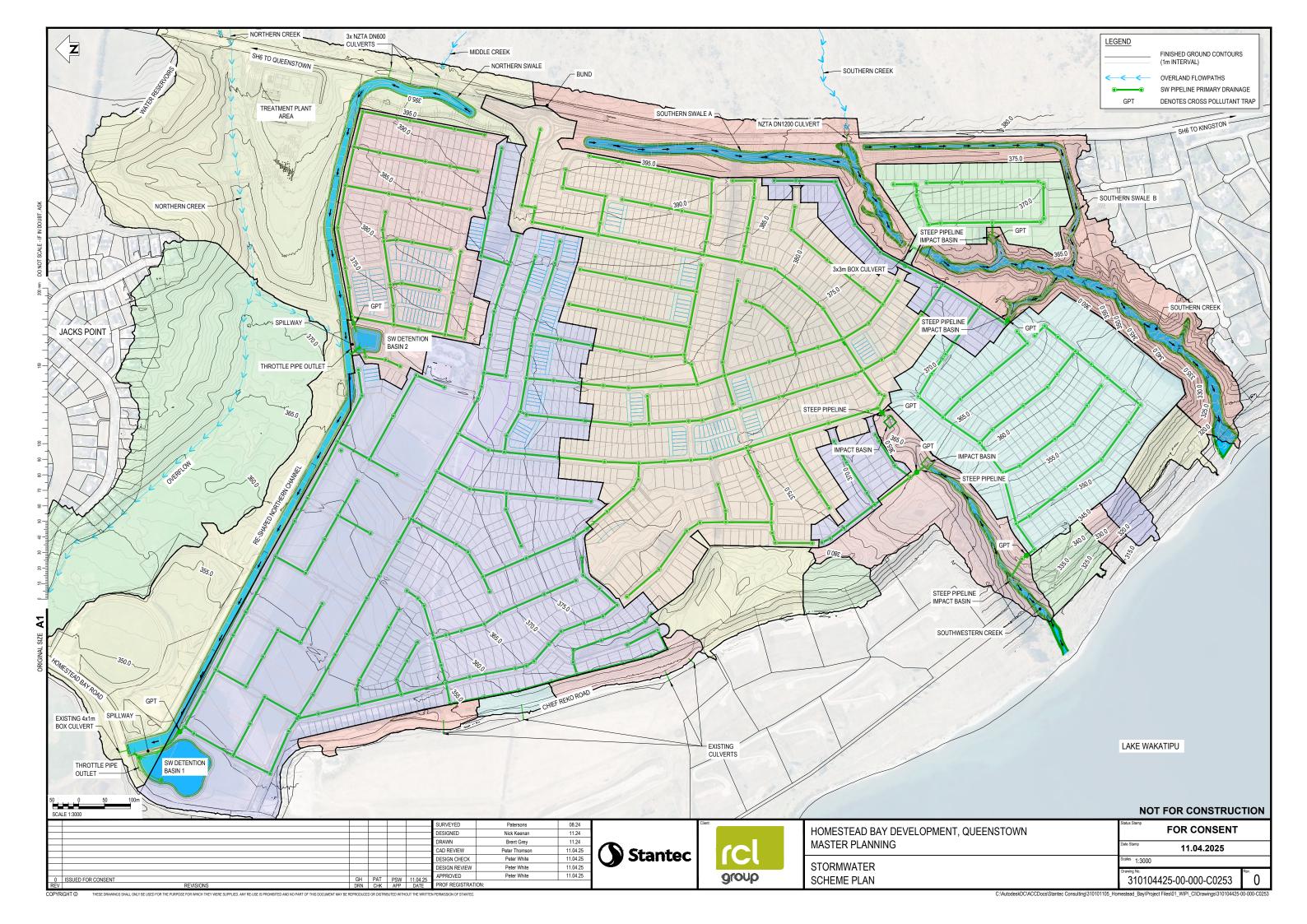
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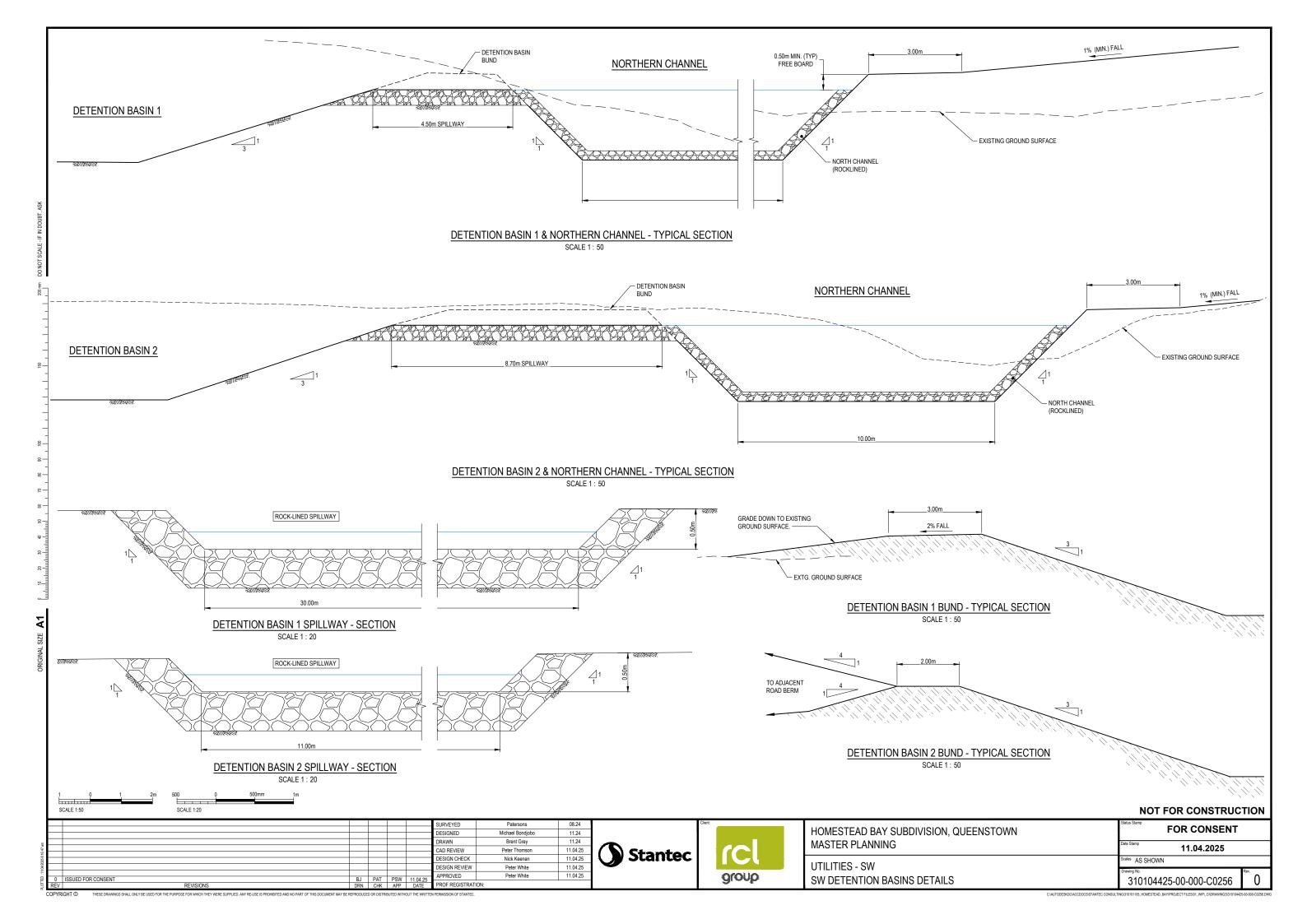
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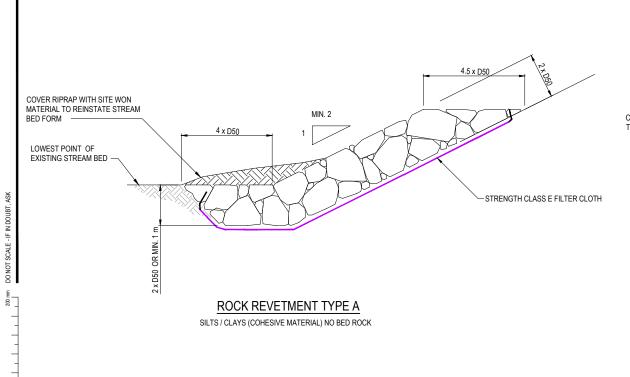
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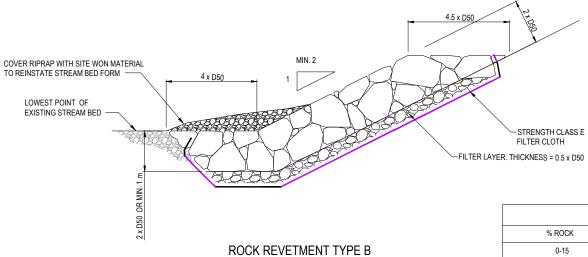












GRAVELS / SANDS (NON-COHESIVE MATERIAL) NO BED ROCK

NOTES

ROCK GRADINGS

15-50

RIPRAP

<0.5 D50

0.5 - 1 x D50

- ROCK KEY INTO BEDROCK TO BE FORMED WHERE ROCK IS SUFFICIENTLY WEAK FOR A TOOTHED DIGGER BUCKET TO RIP THE SURFACE
- 2. RIPRAP SLOPE MAY BE INCREASED TO 1:1.5 (H:V) WITH CPS APPROVAL. NOTE THE D50 MAY NEED TO BE INCREASED TO
 - 3. RIPRAP THICKNESS MAY BE REDUCED TO 1.5 x D50 TO REDUCE CHANNEL ENCROACHMENT WITH CPS APPROVAL

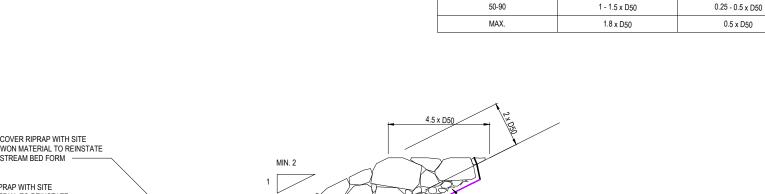
FILTER LAYER

<0.1 D50

0.1 - 0.25 x D50

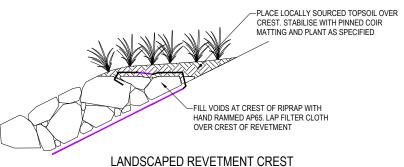
0.5 x D50

4. REFER TO THE STORMWATER SPECIFICATION FOR RIPRAP QUALITY INSTALLATION AND FILTER CLOTH LAPS



ROCK REVETMENT TYPE C

SILTS / CLAYS (COHESIVE MATERIAL) BED ROCK



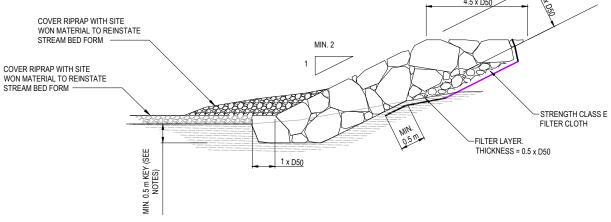
MIN. 2

1 x D50

COVER RIPRAP WITH SITE WON MATERIAL TO REINSTATE STREAM BED FORM

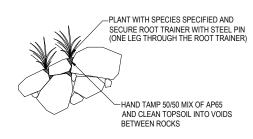
LOWEST POINT OF EXISTING STREAM BED

INCLUDE WHERE SPECIFIED



ROCK REVETMENT TYPE D

GRAVELS / SANDS (NON-COHESIVE MATERIAL) BED ROCK



POCKET PLANTED RIPRAP

INCLUDE WHERE SPECIFIED

DESIGNED Michael Bondjobo 11.24 12.24 CAD REVIEW 11.04.25 DESIGN CHECK Nick Keena 11.04.25 DESIGN REVIEW Peter White 11.04.25

Peter White

APPROVED

STRENGTH CLASS E

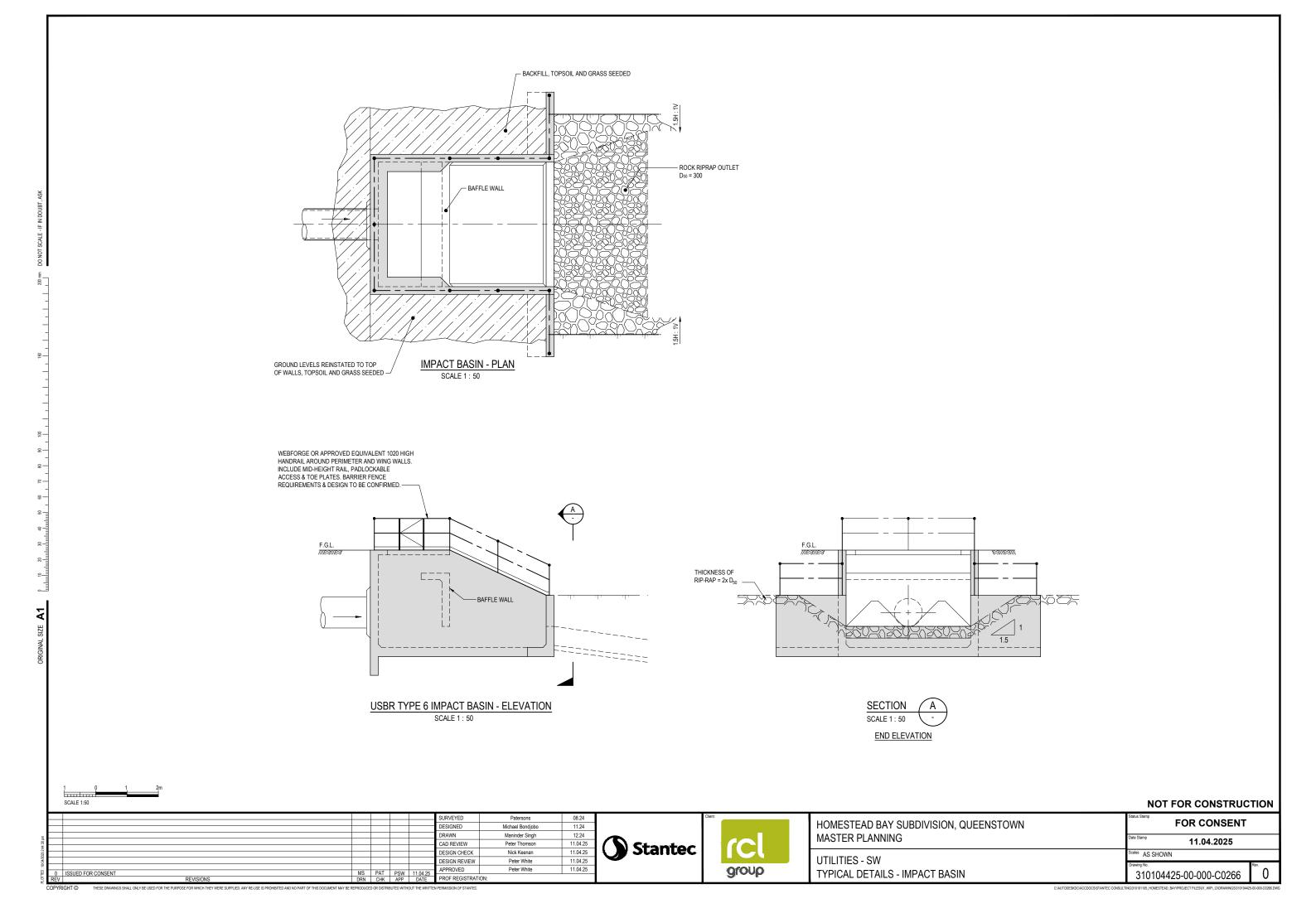
FILTER CLOTH

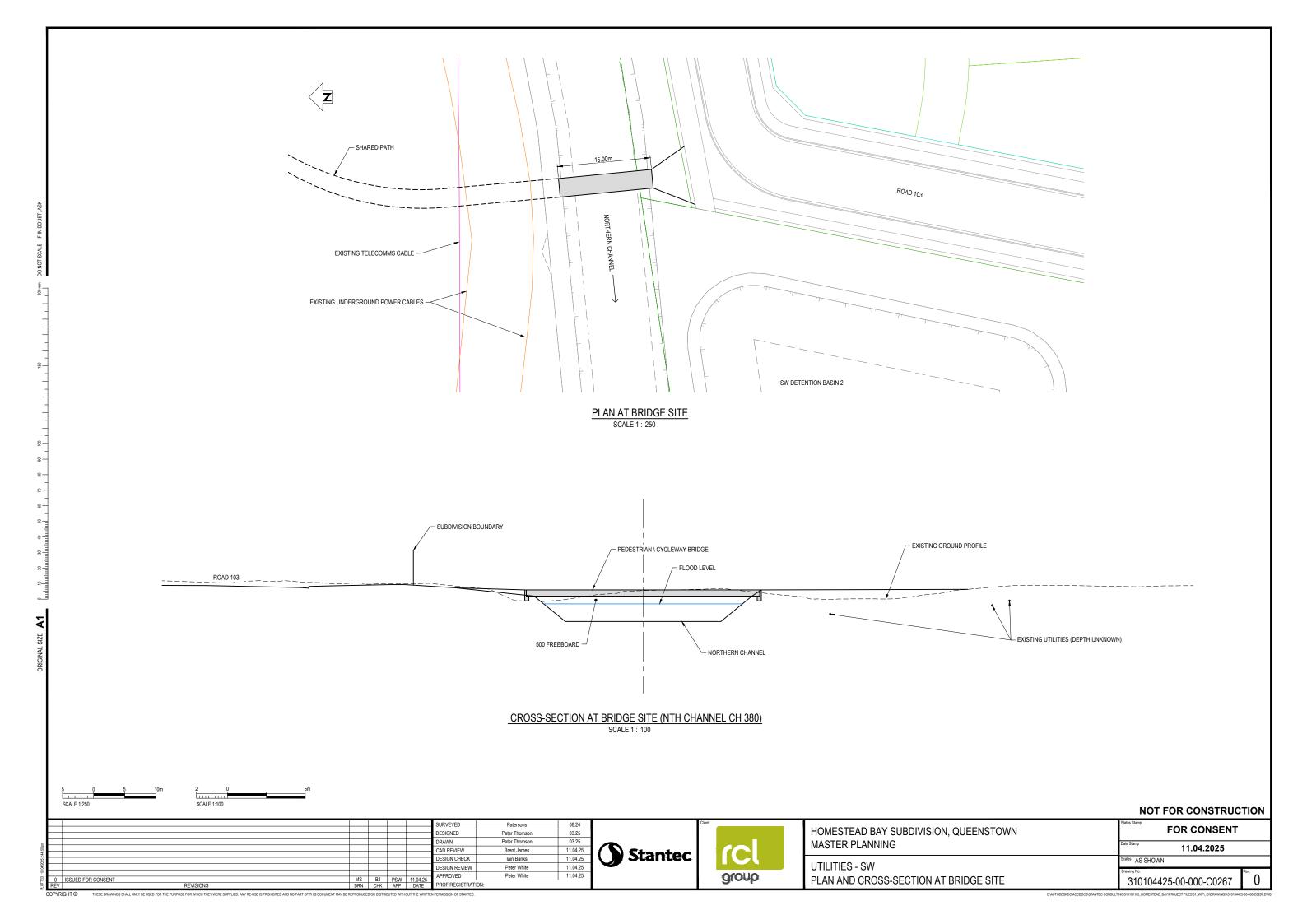


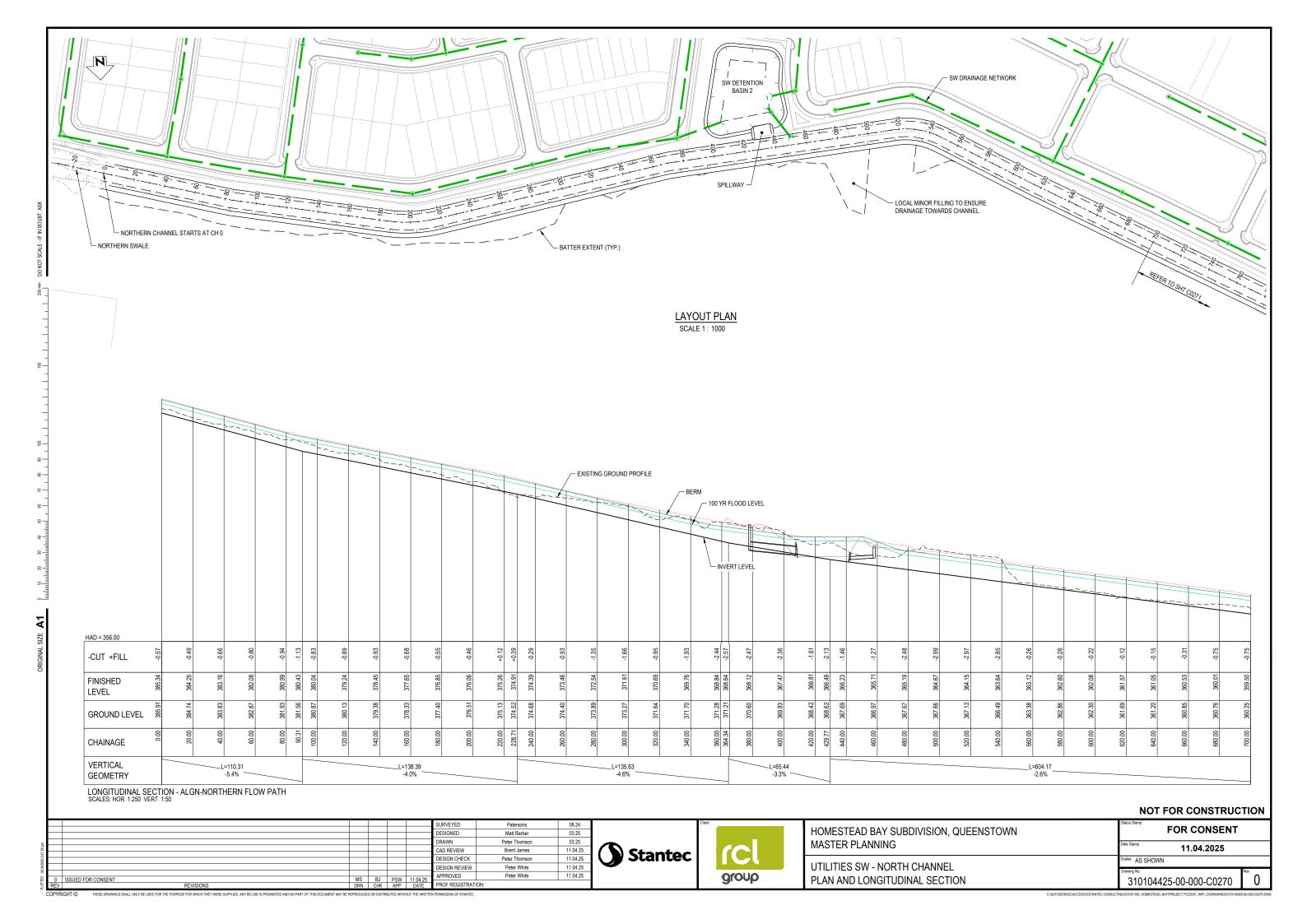


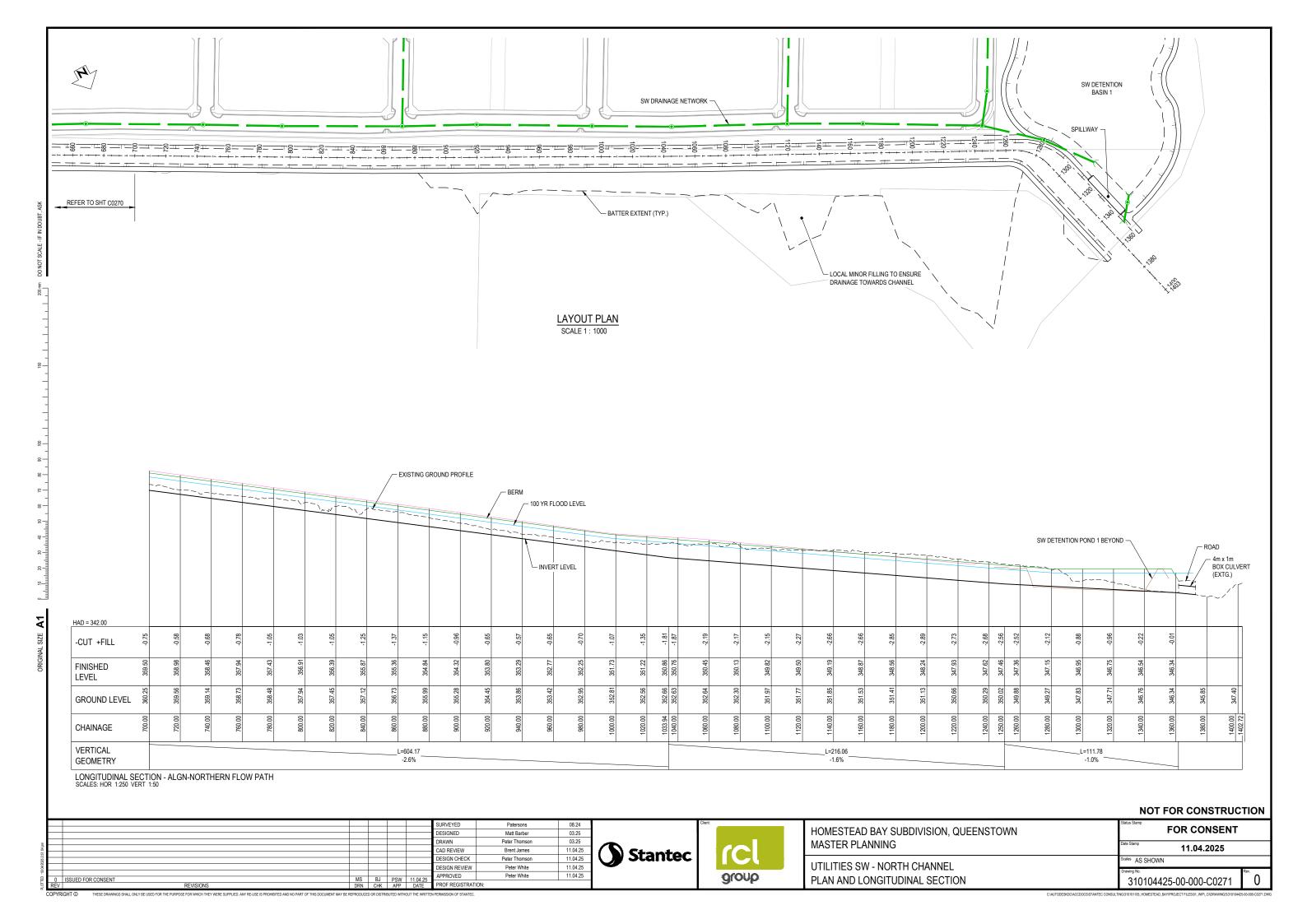
	NOT FOR CONSTRUCTION
HOMESTEAD BAY SUBDIVISION, QUEENSTOWN	FOR CONSENT
MASTER PLANNING	11.04.2025
UTILITIES - SW	Scales AS SHOWN
TYPICAL DETAILS - ROCK REVETMENTS	310104425-00-000-C0261 Rev. 0

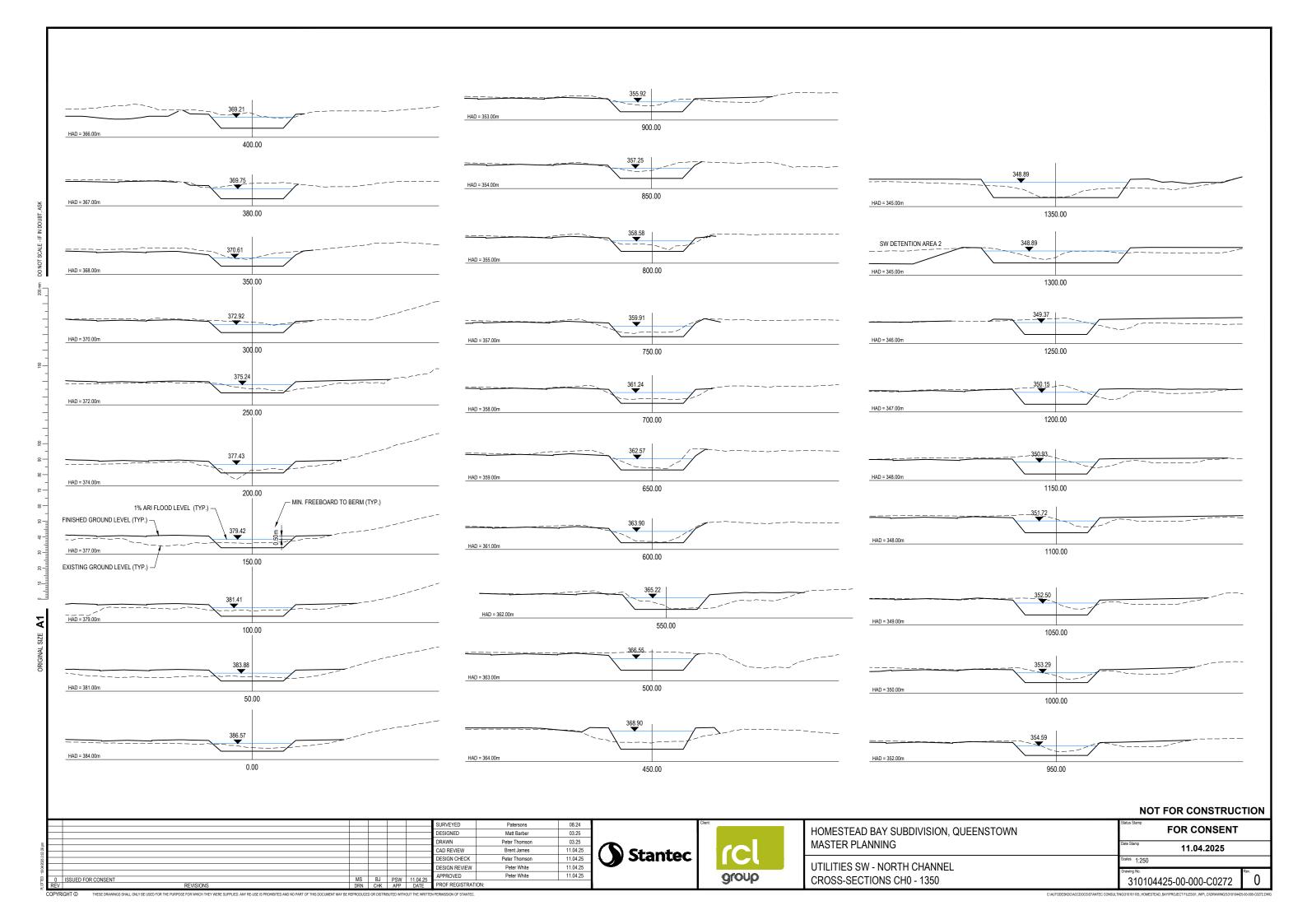
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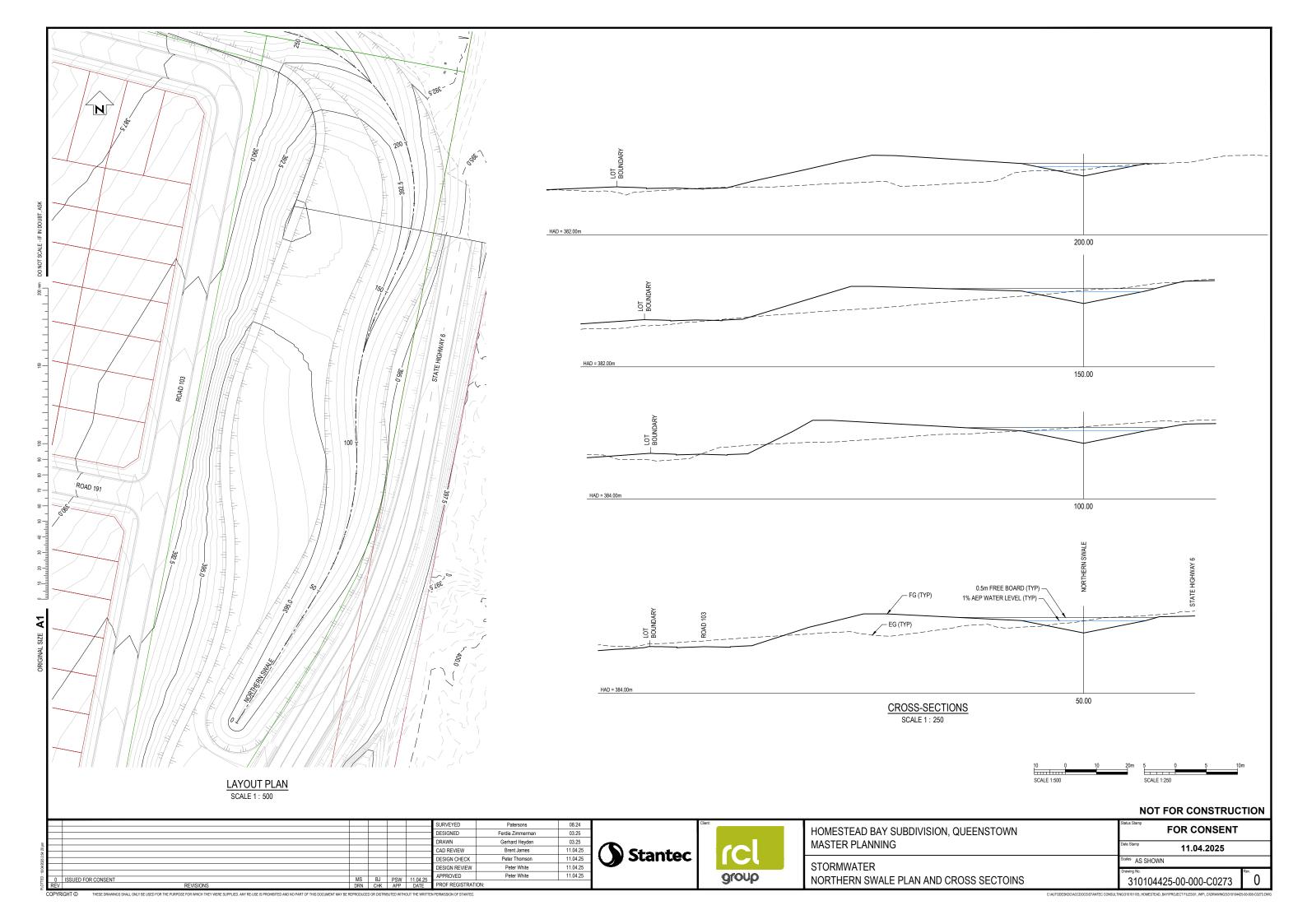


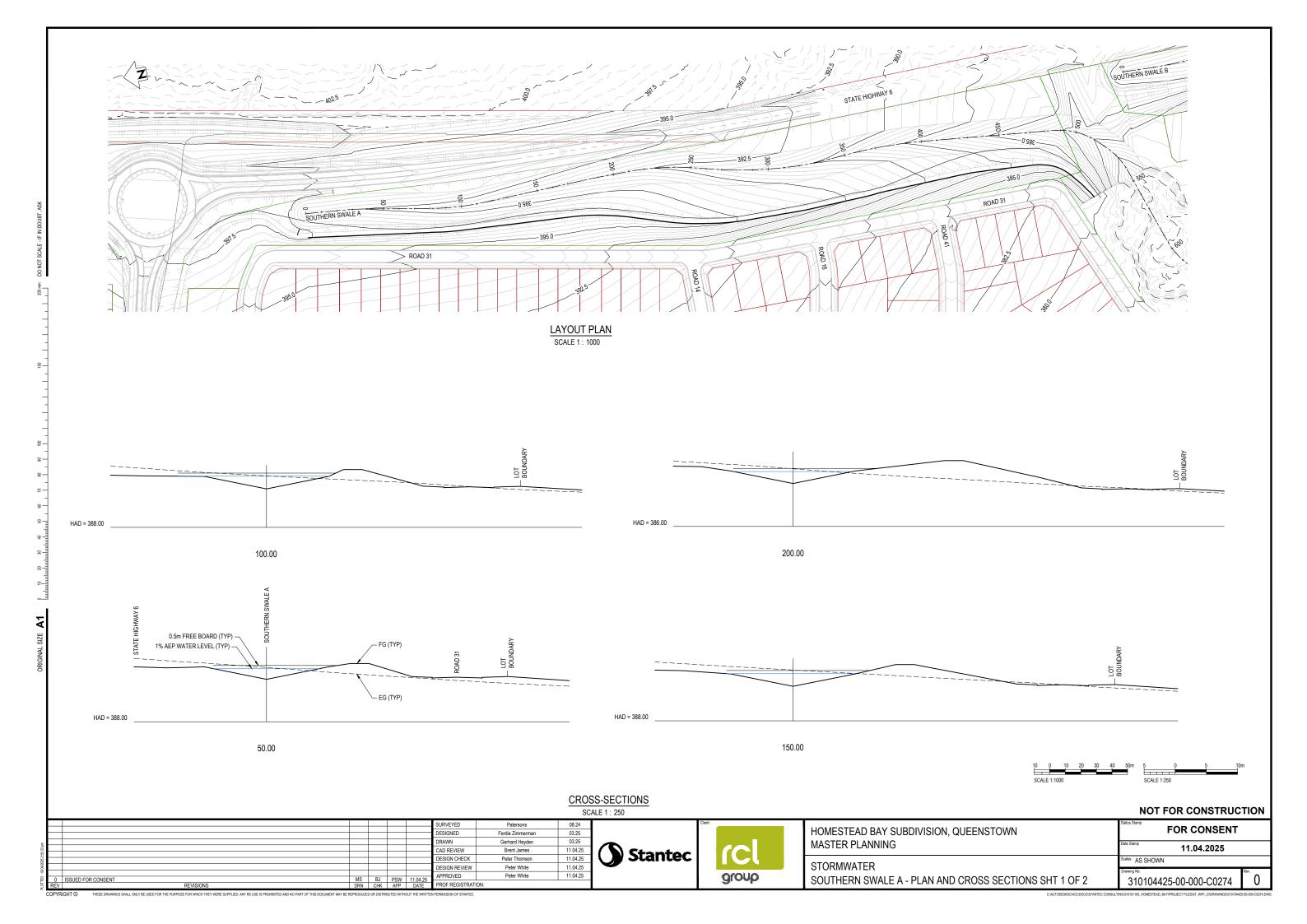


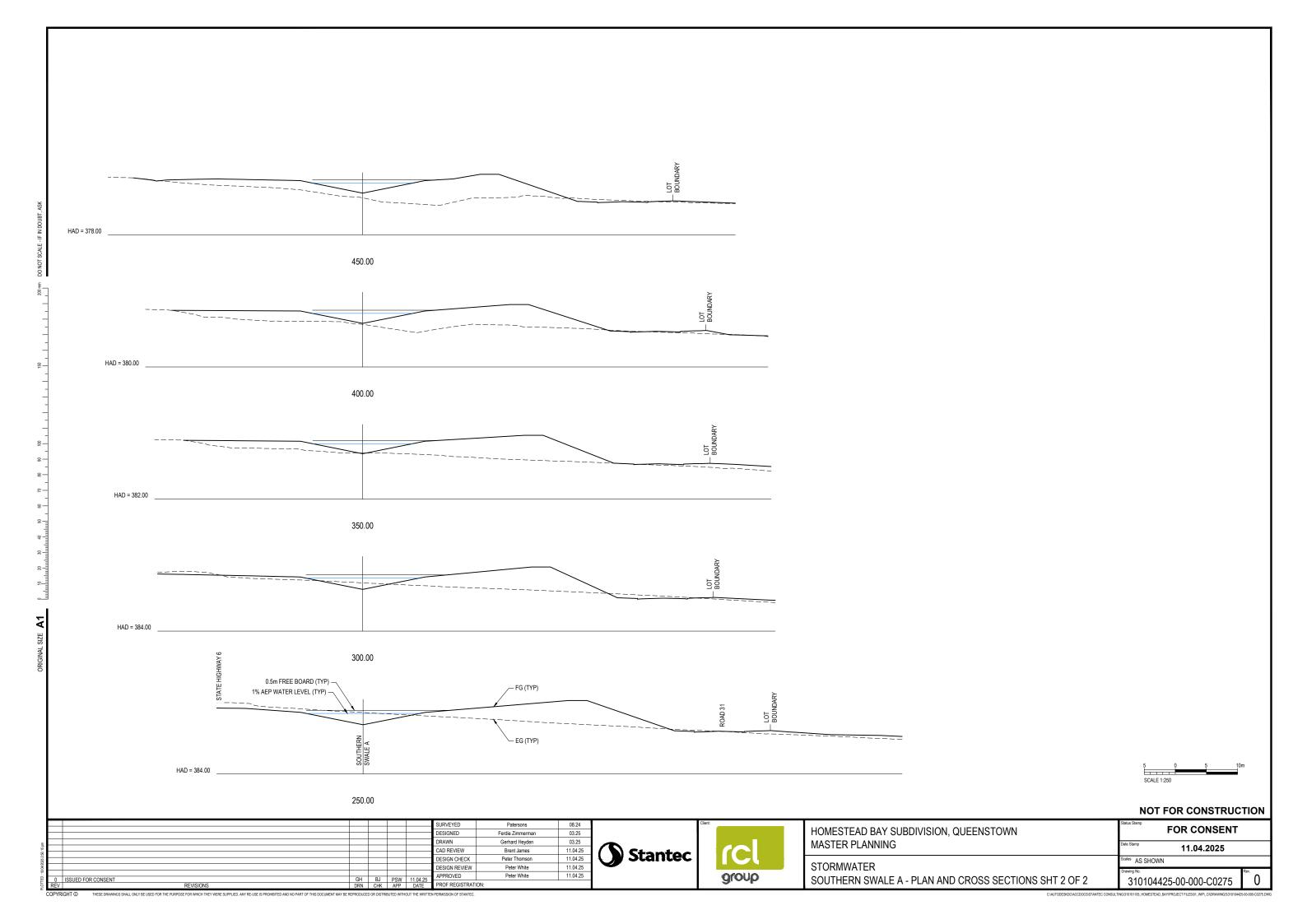


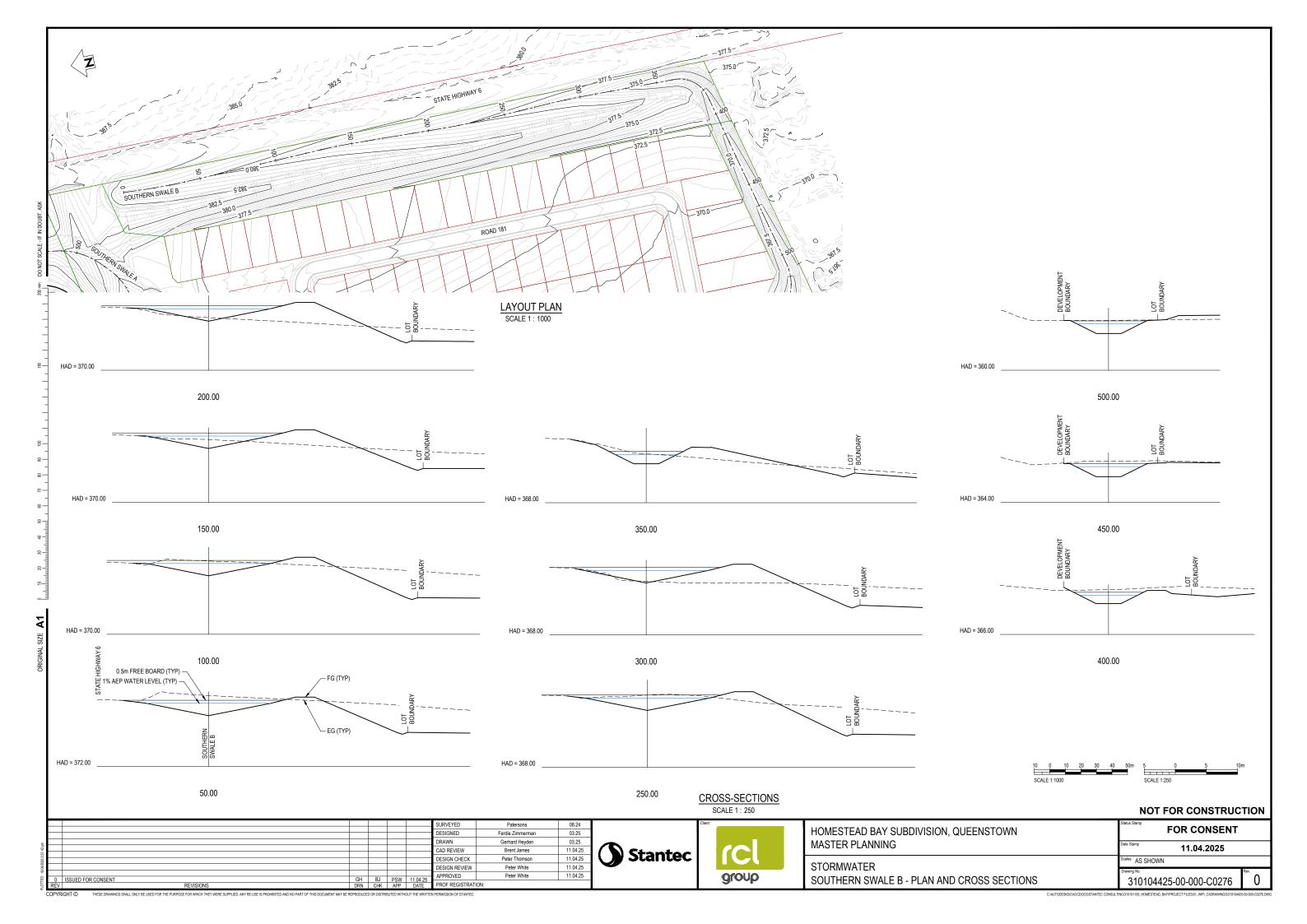


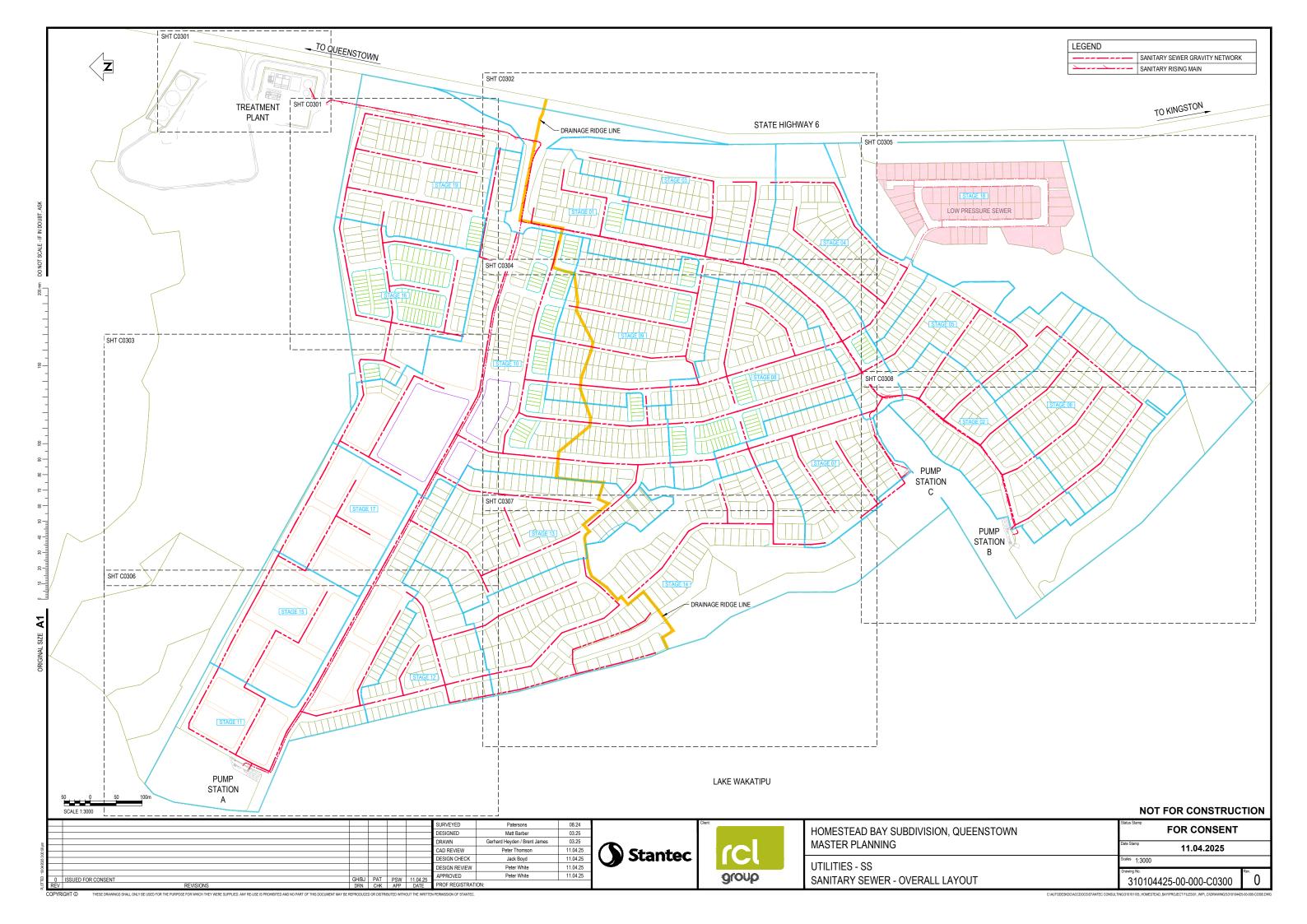


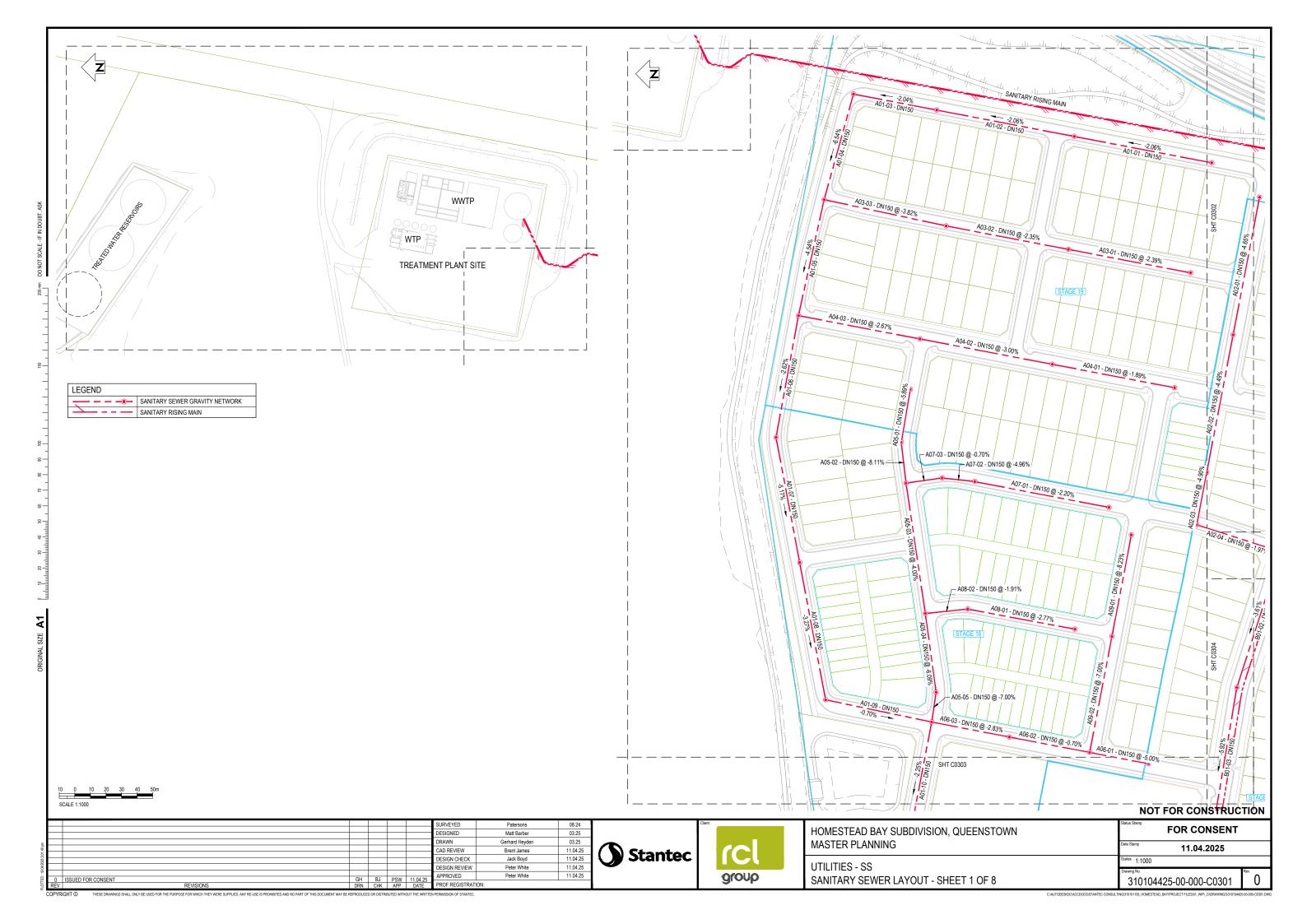


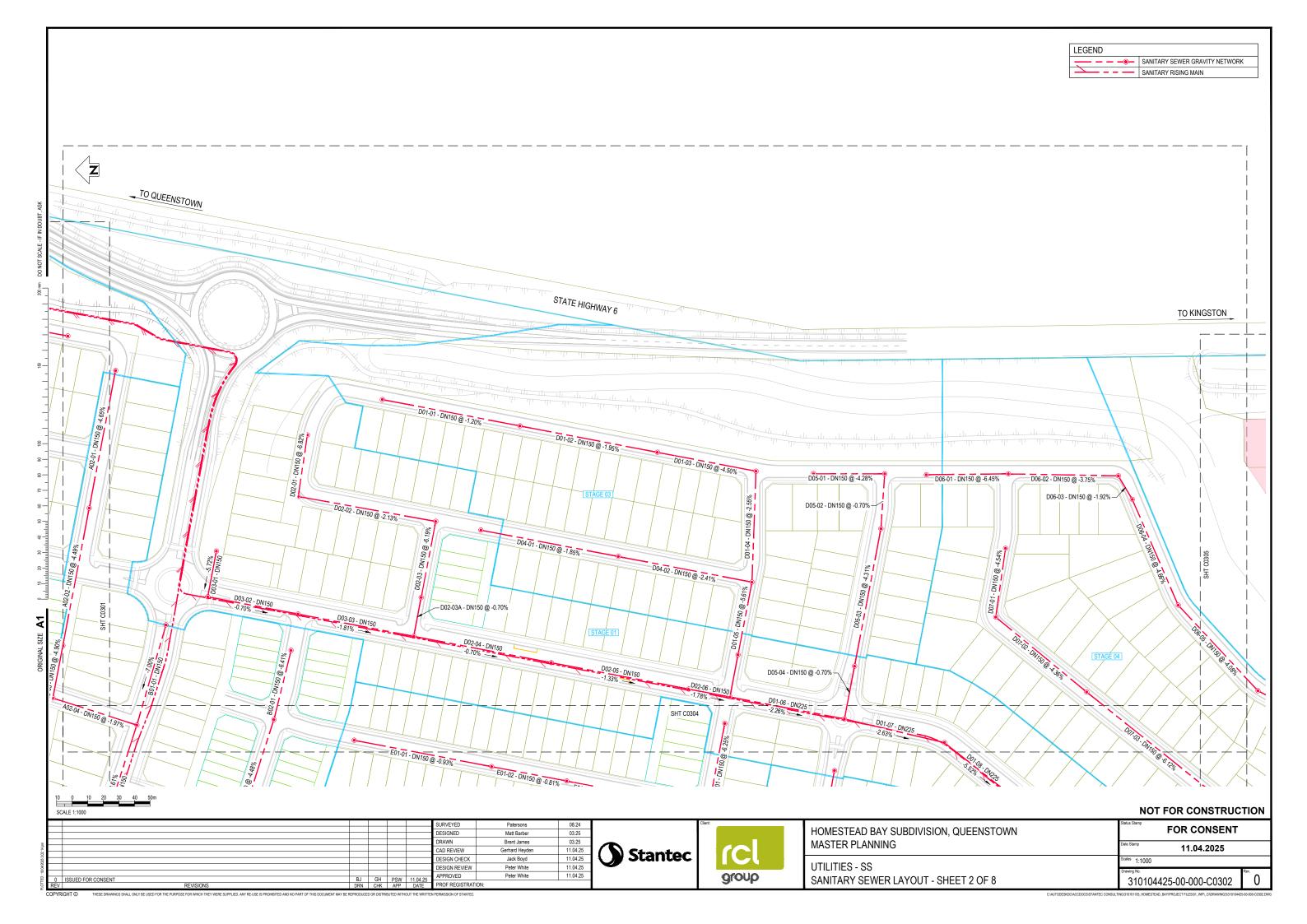


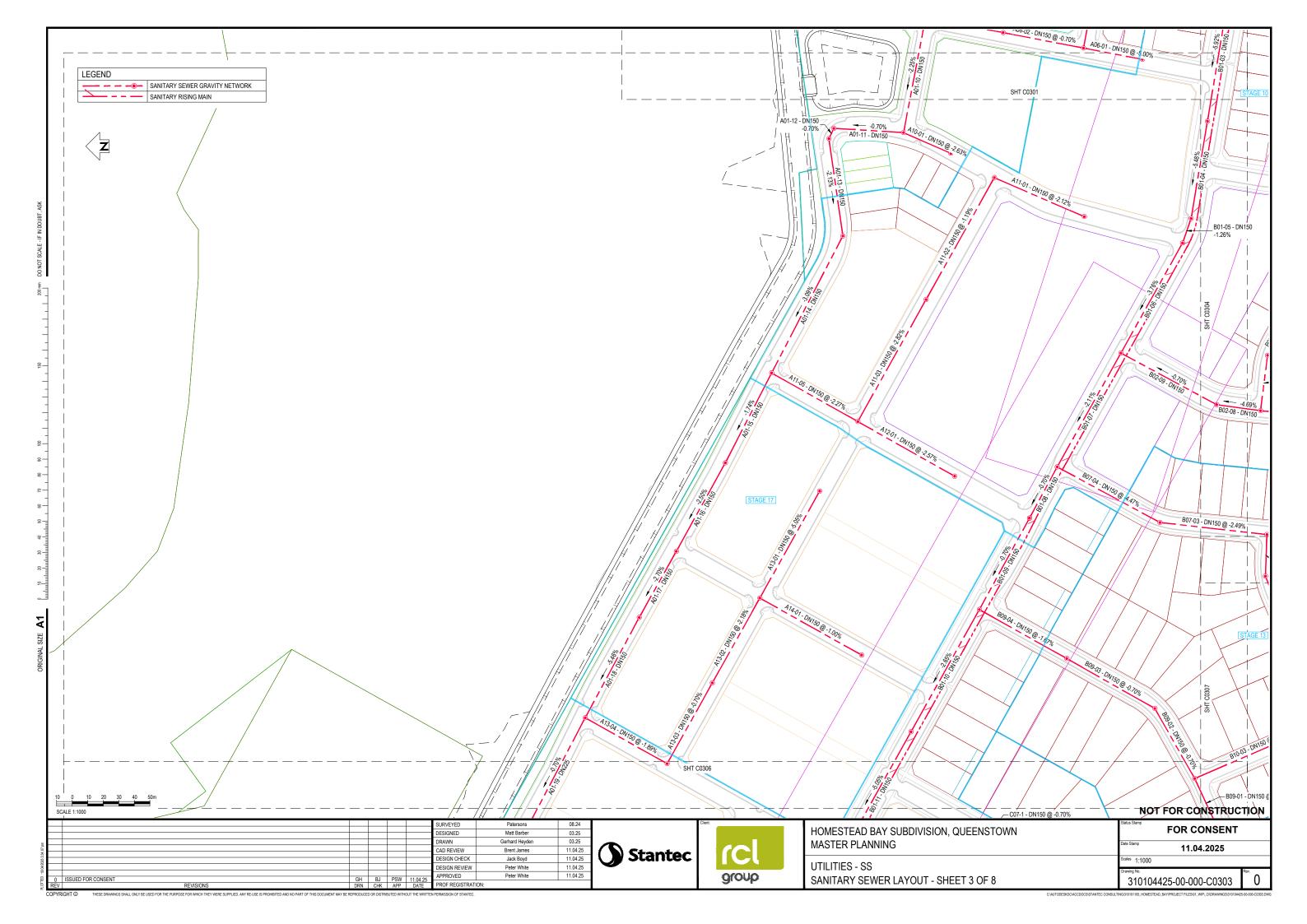


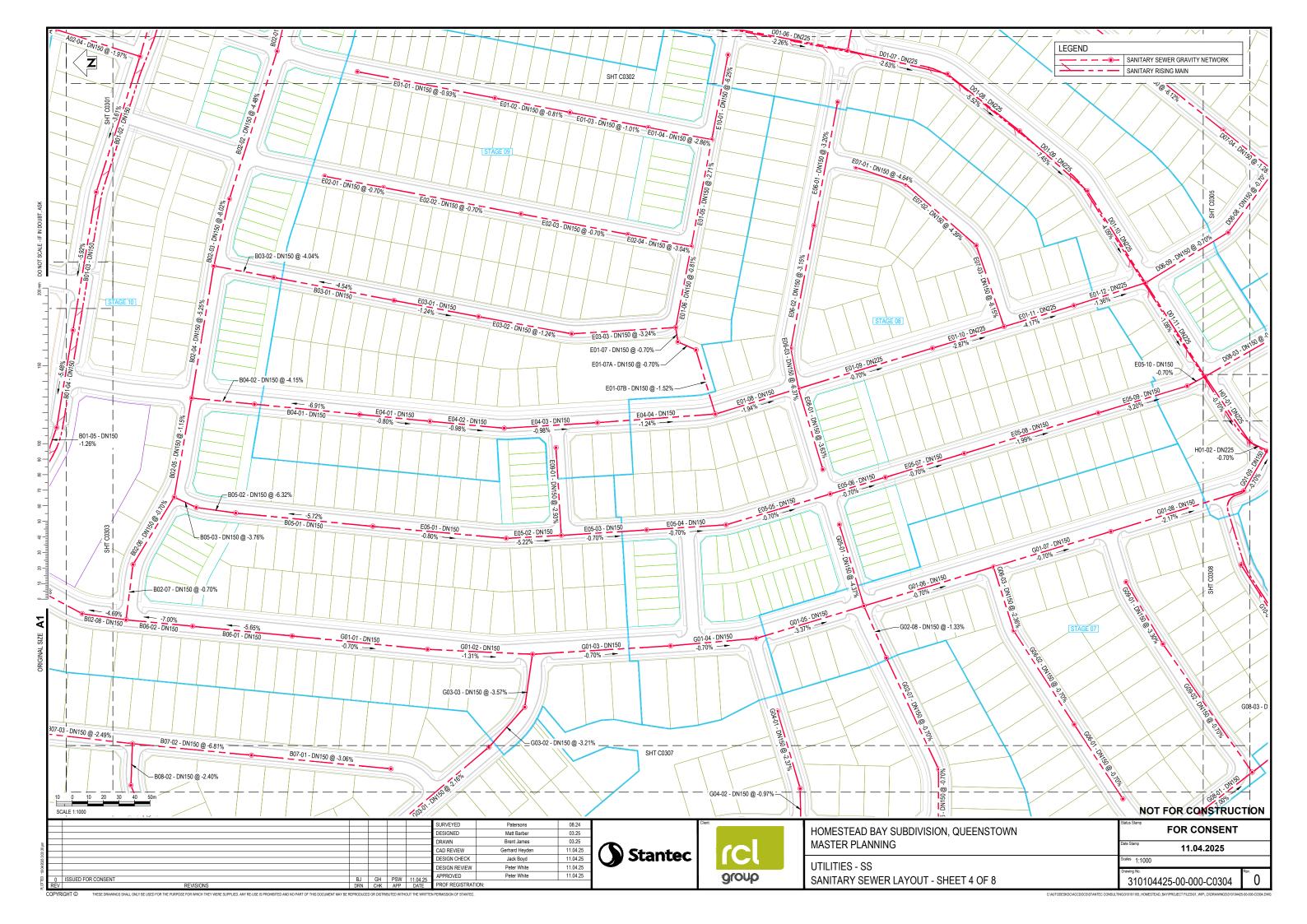


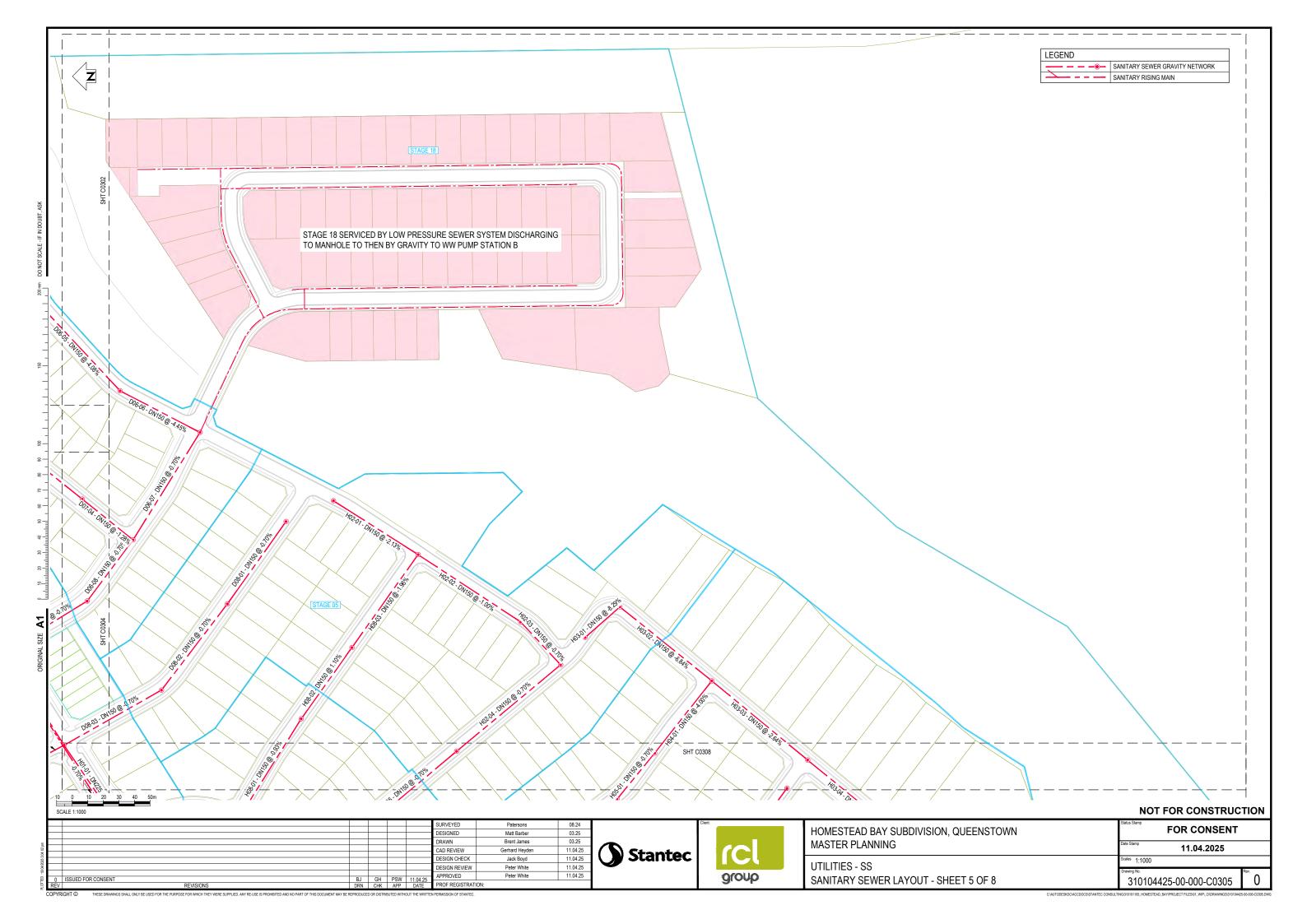


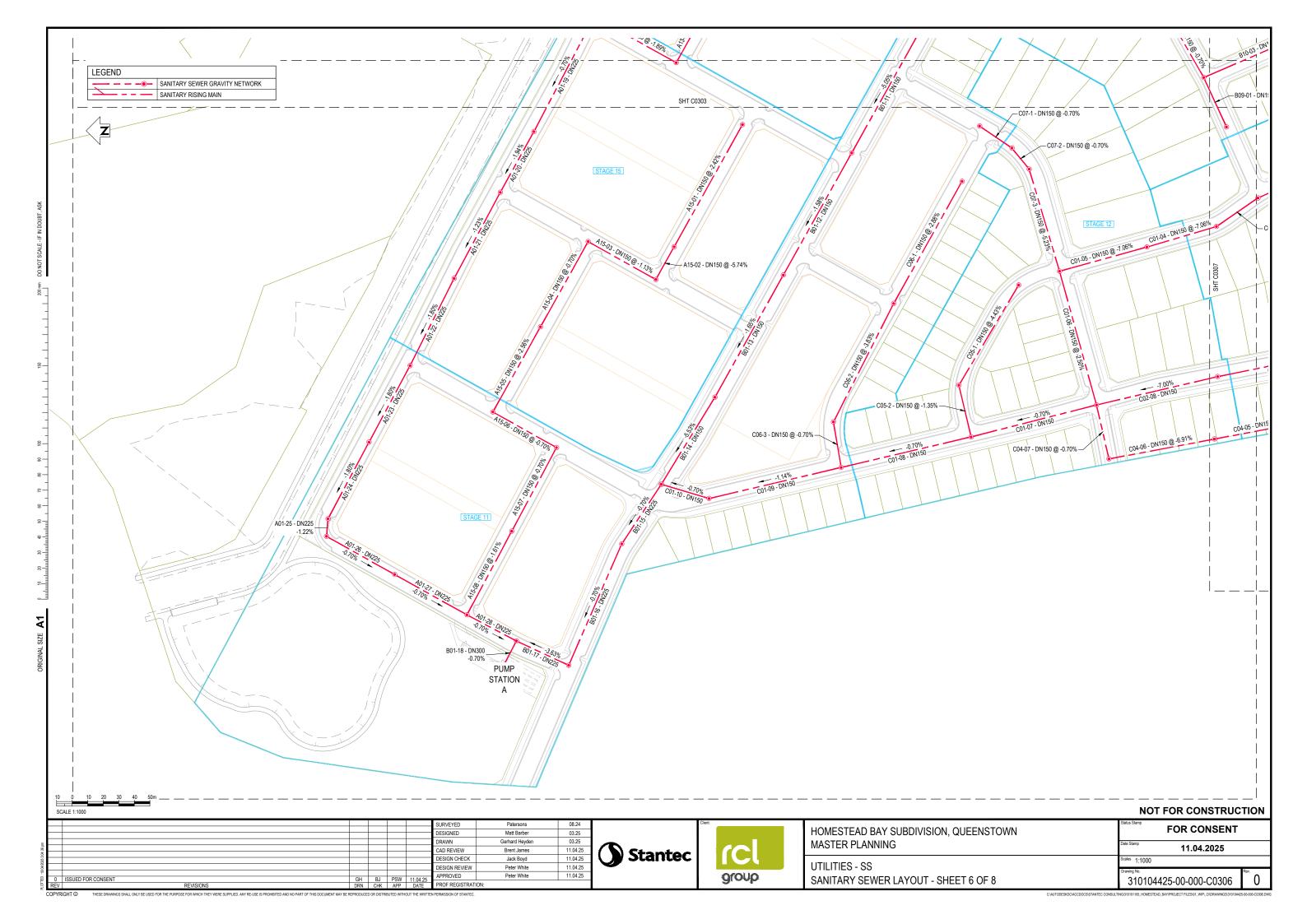


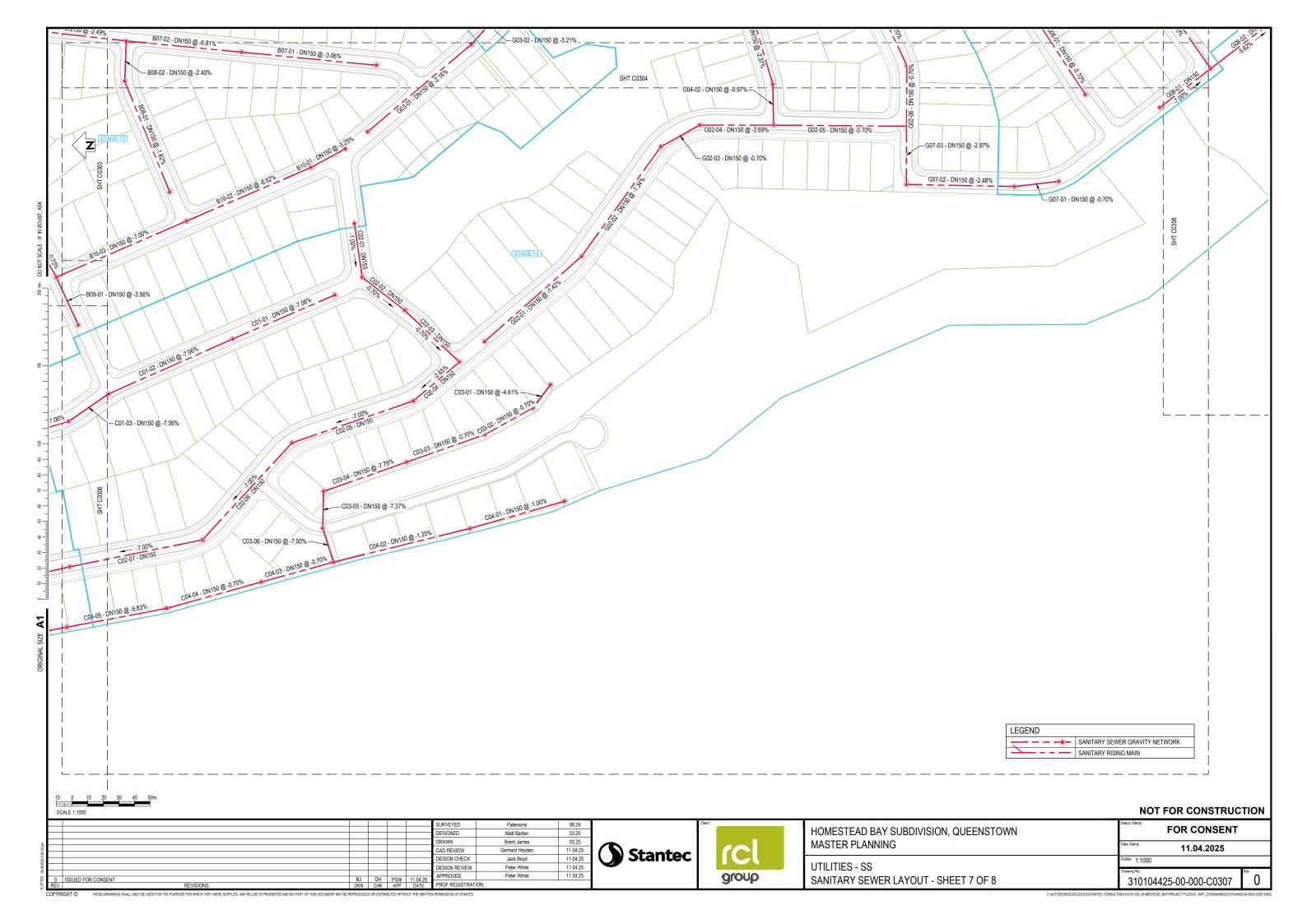


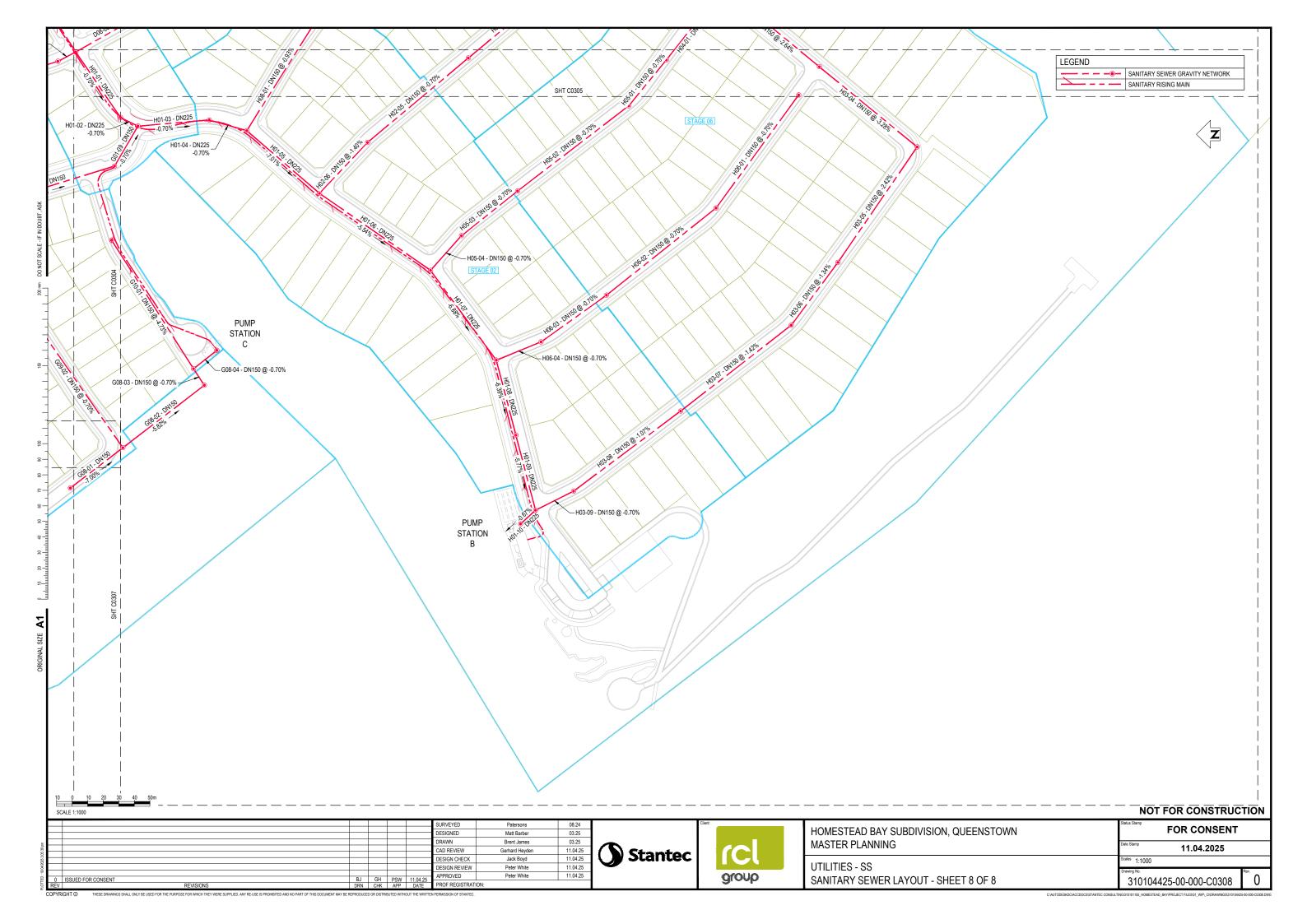


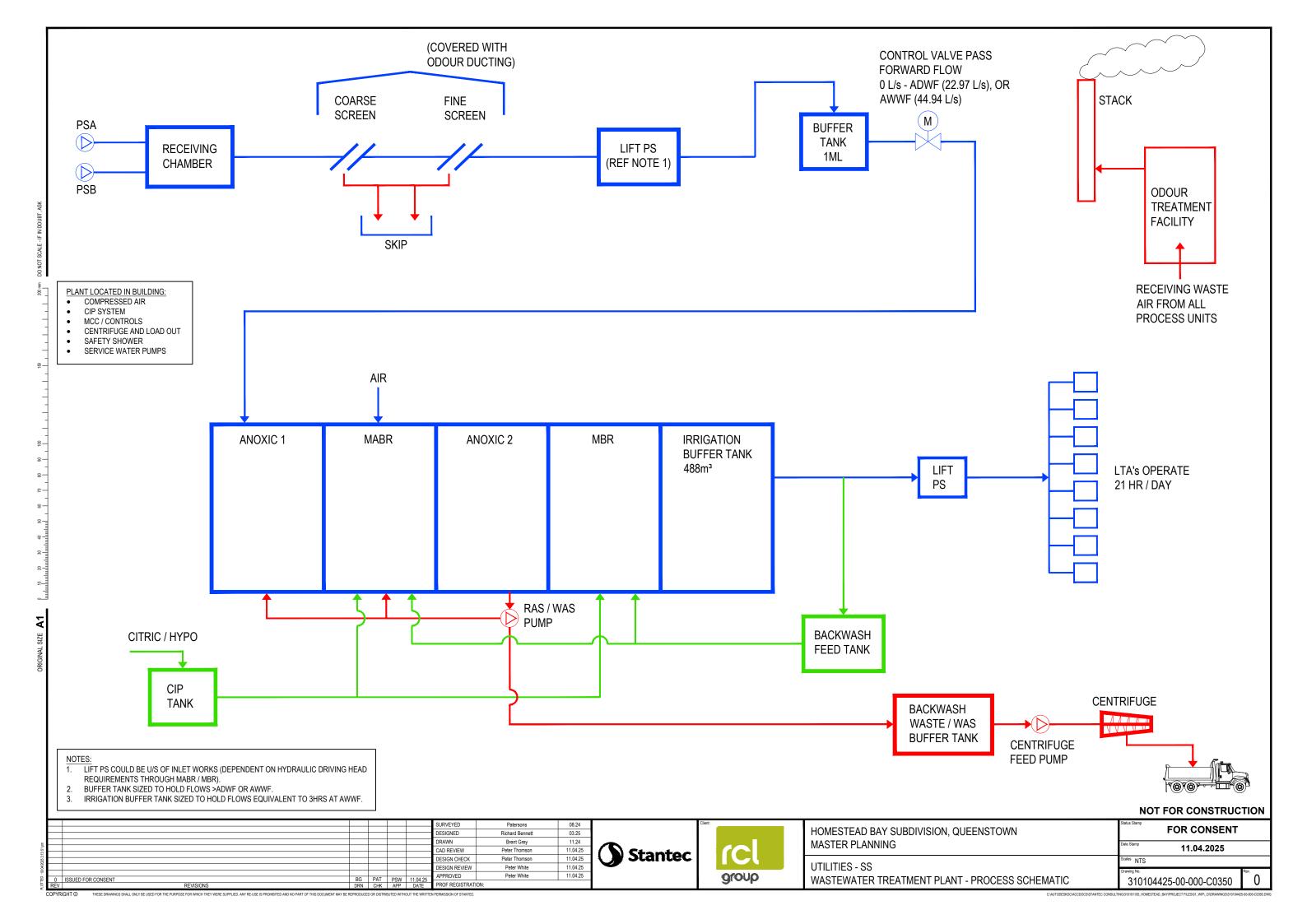


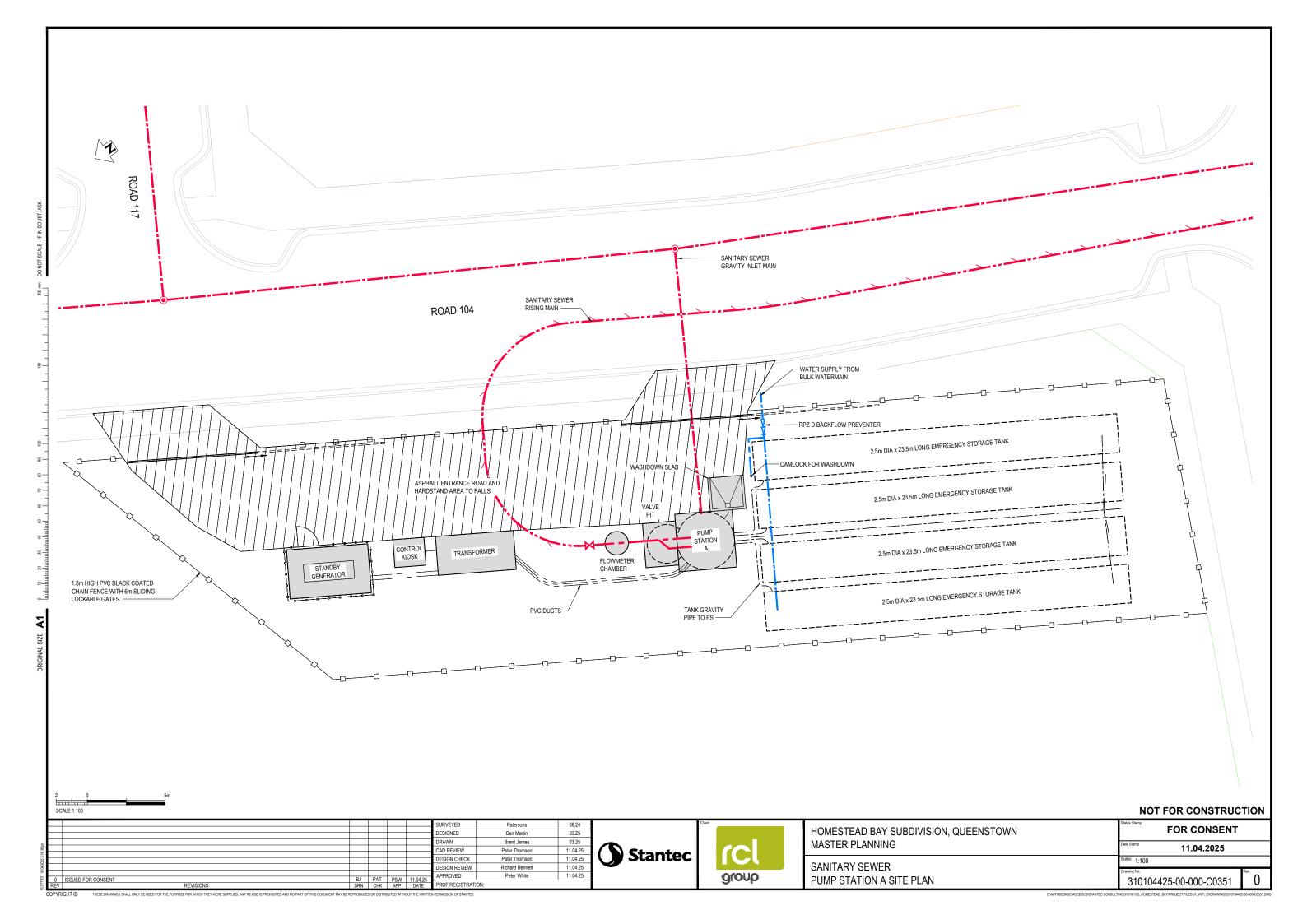


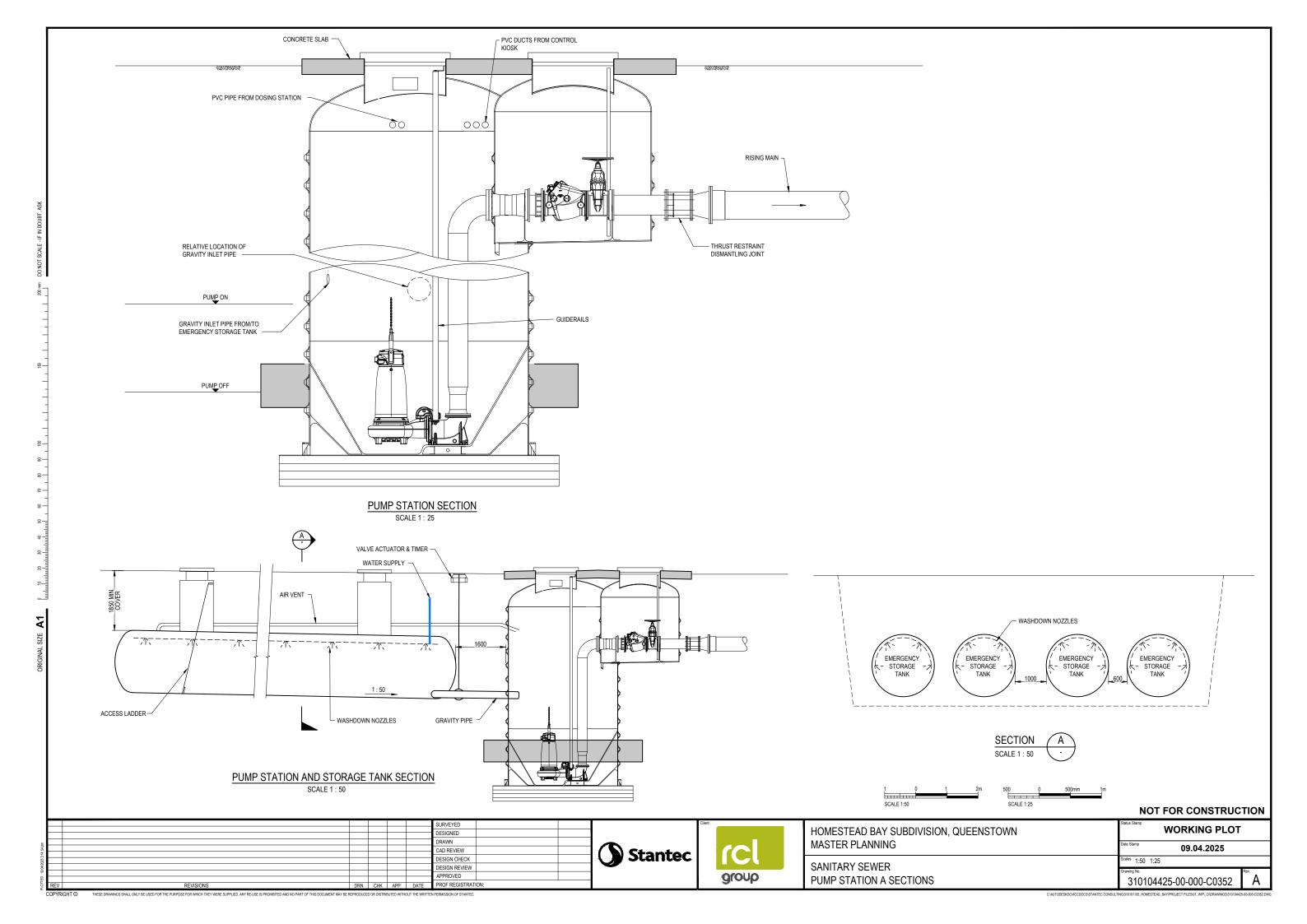


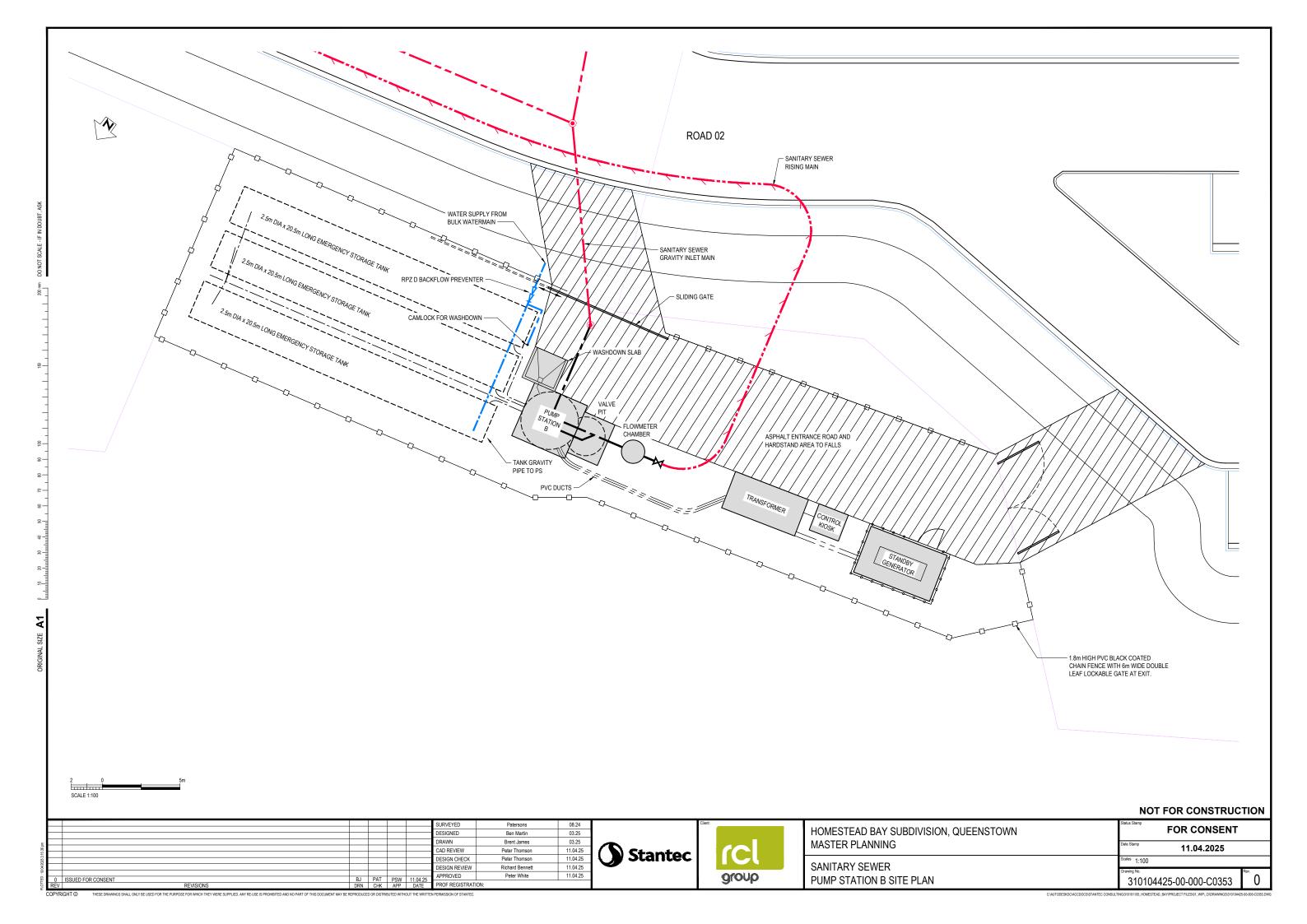


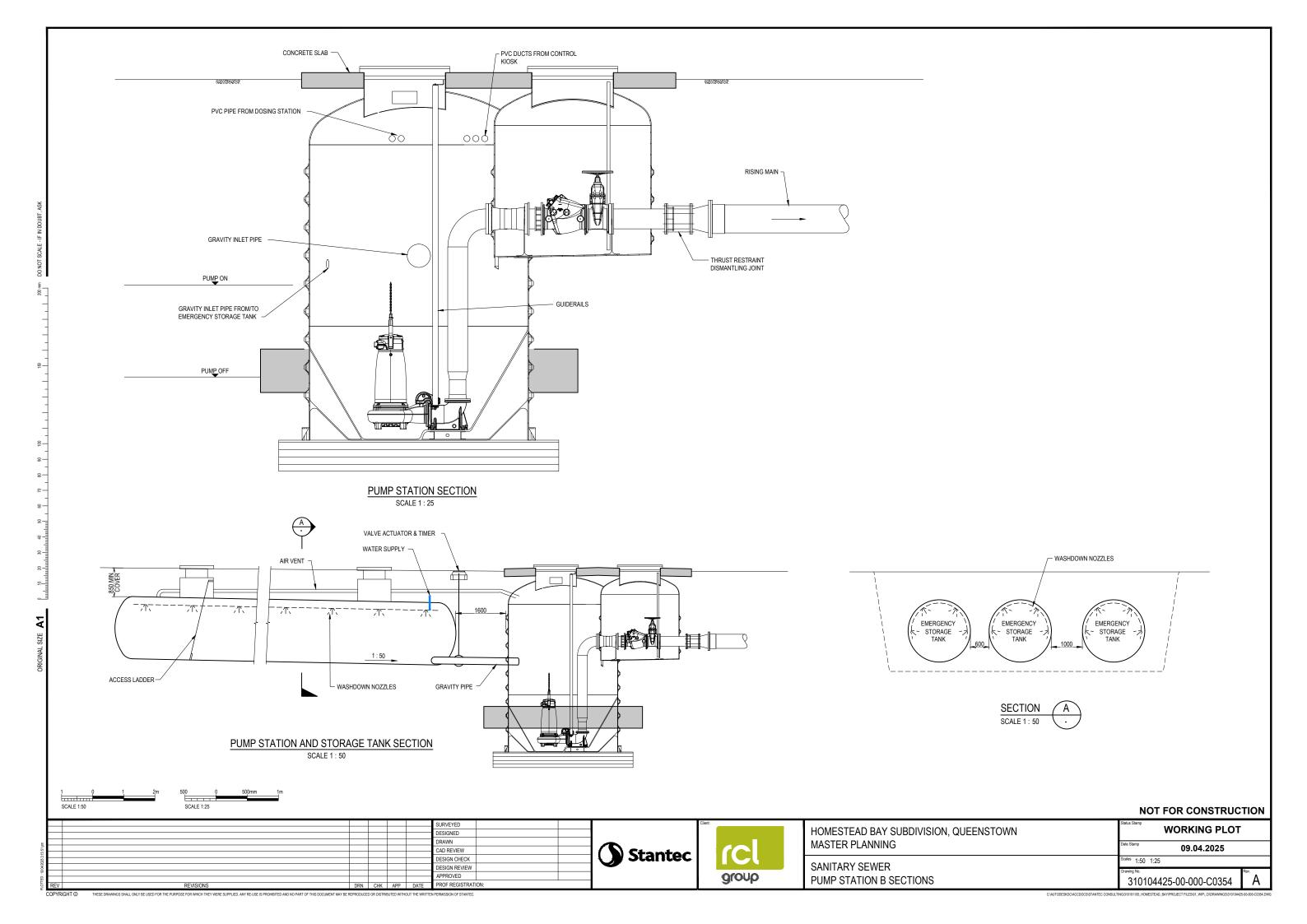


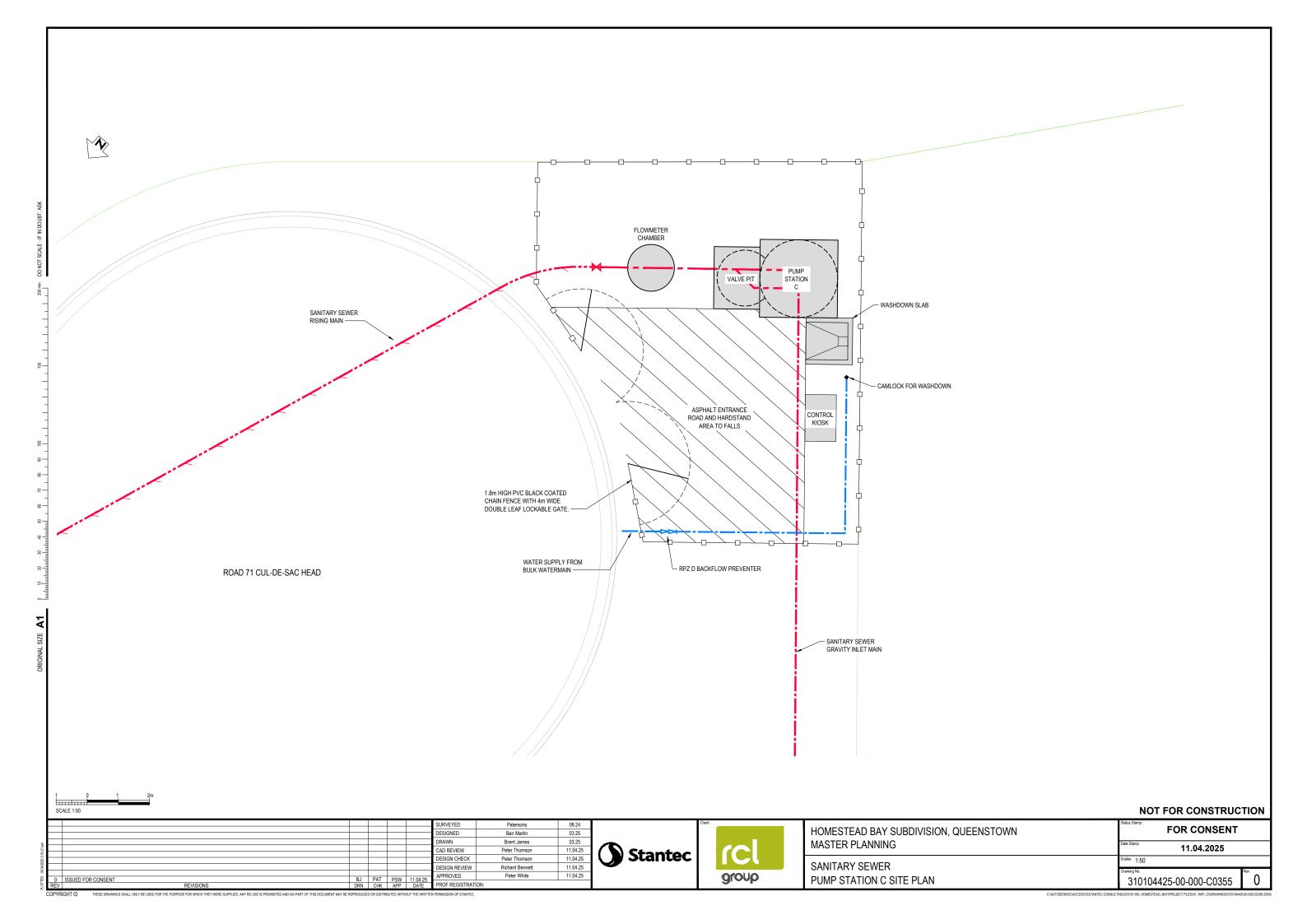


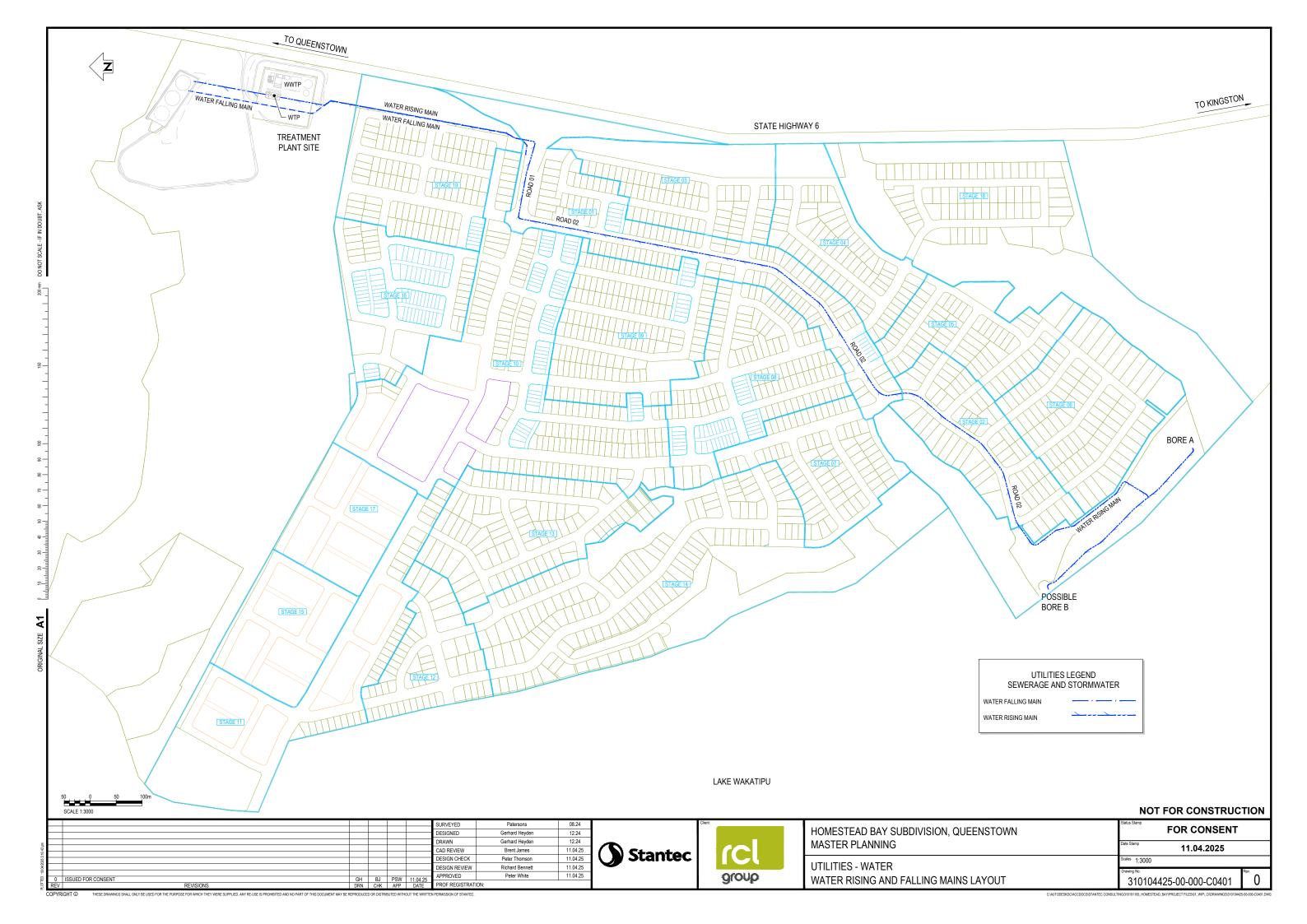








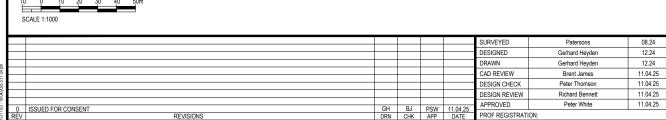










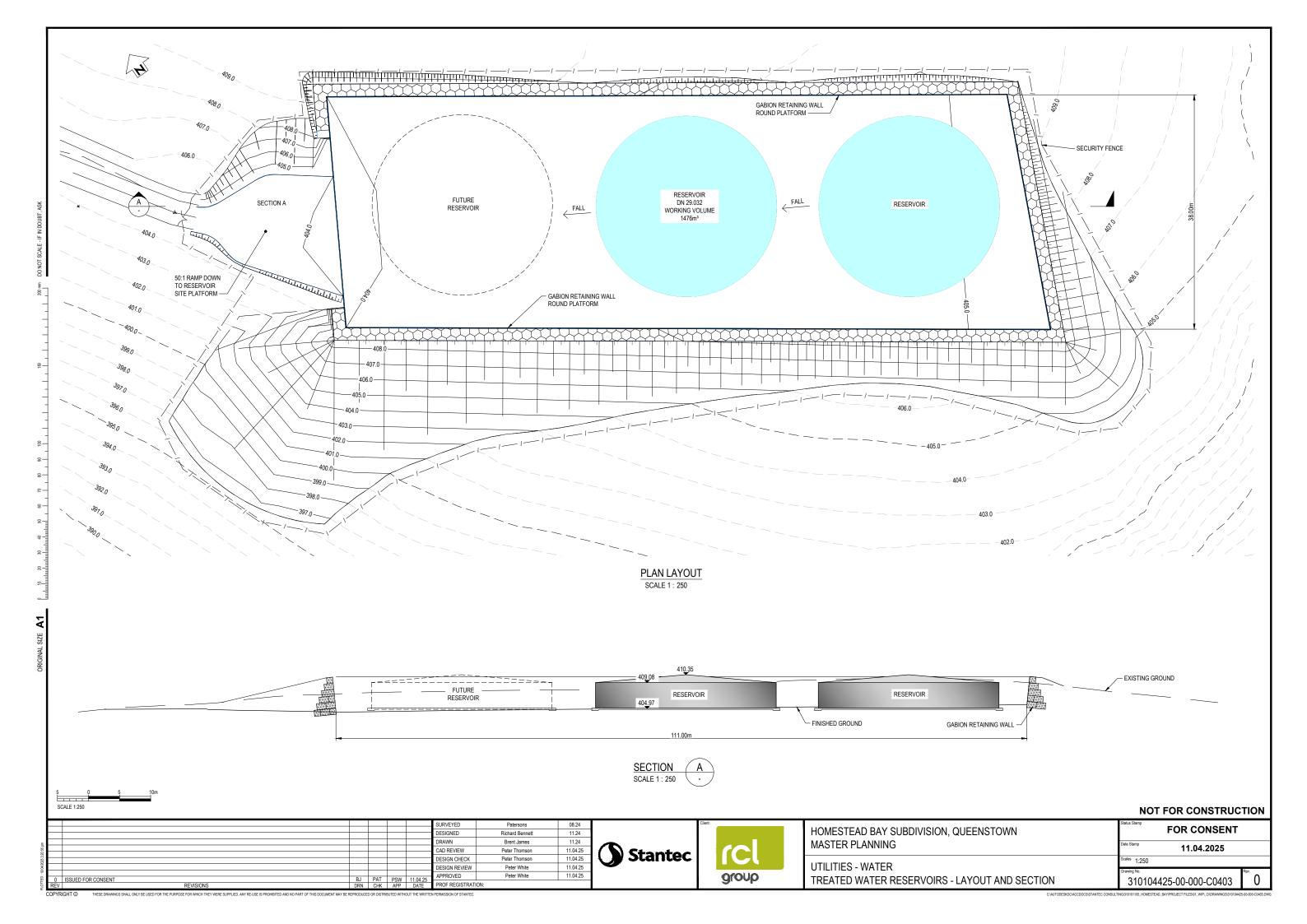


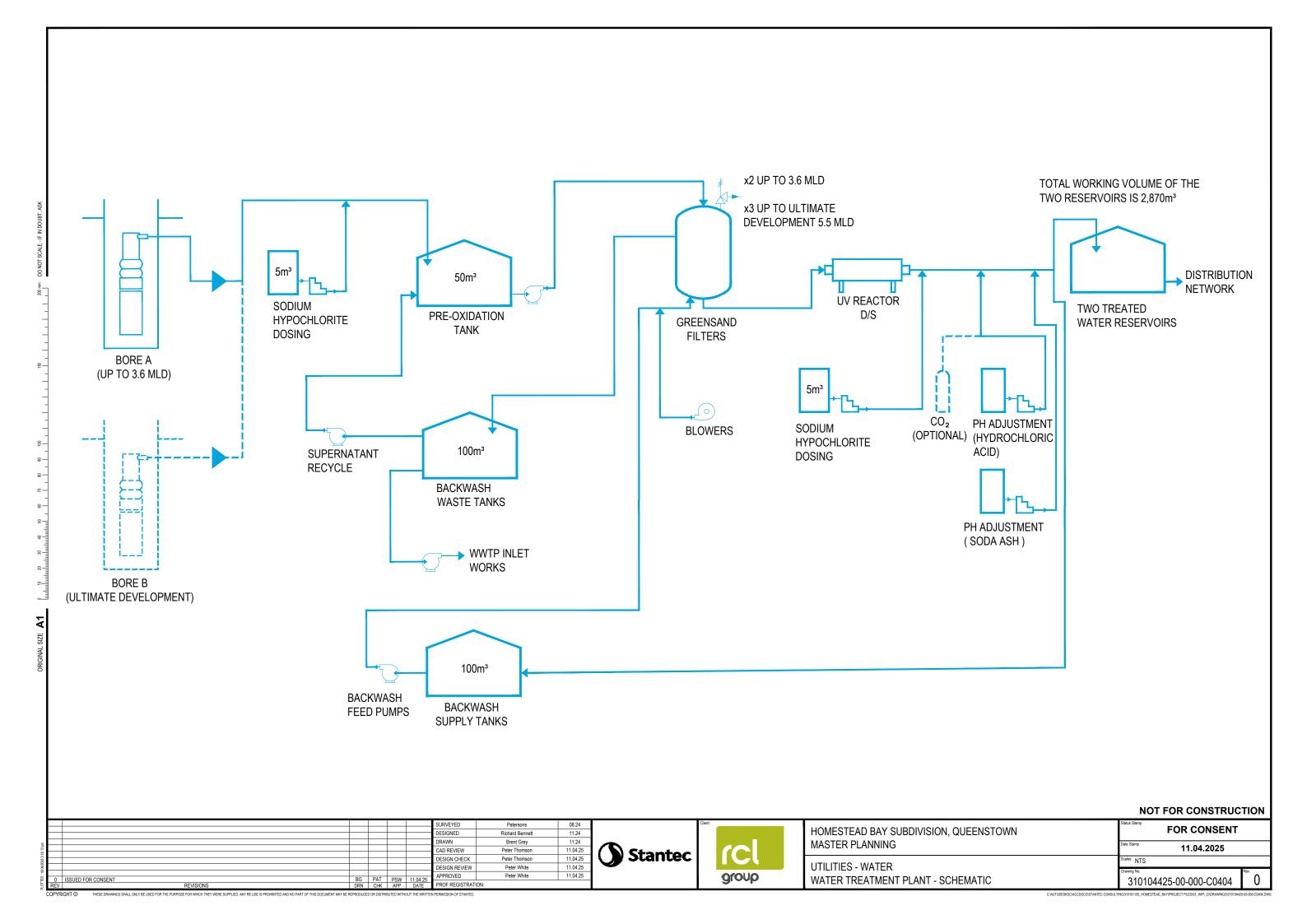
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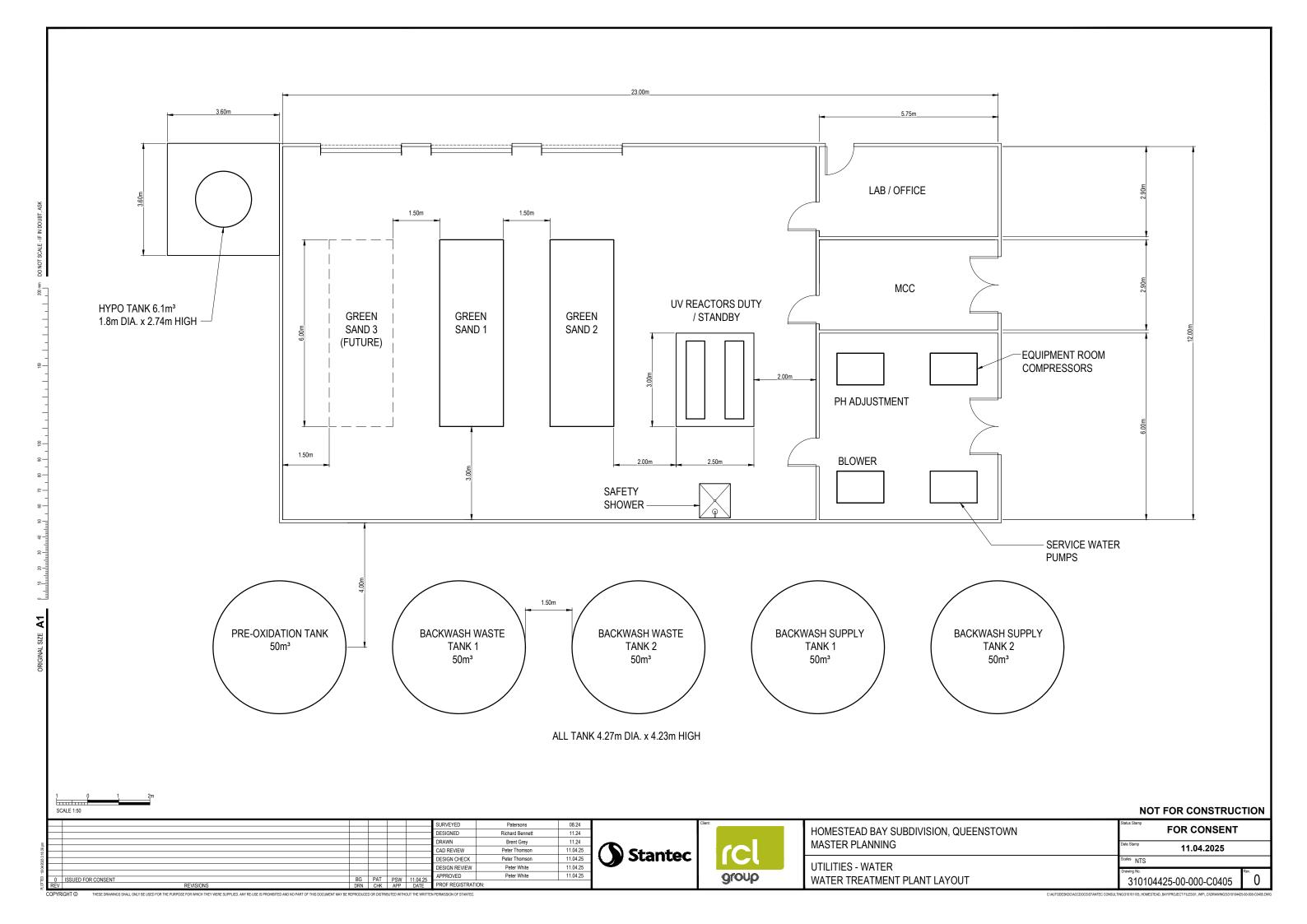


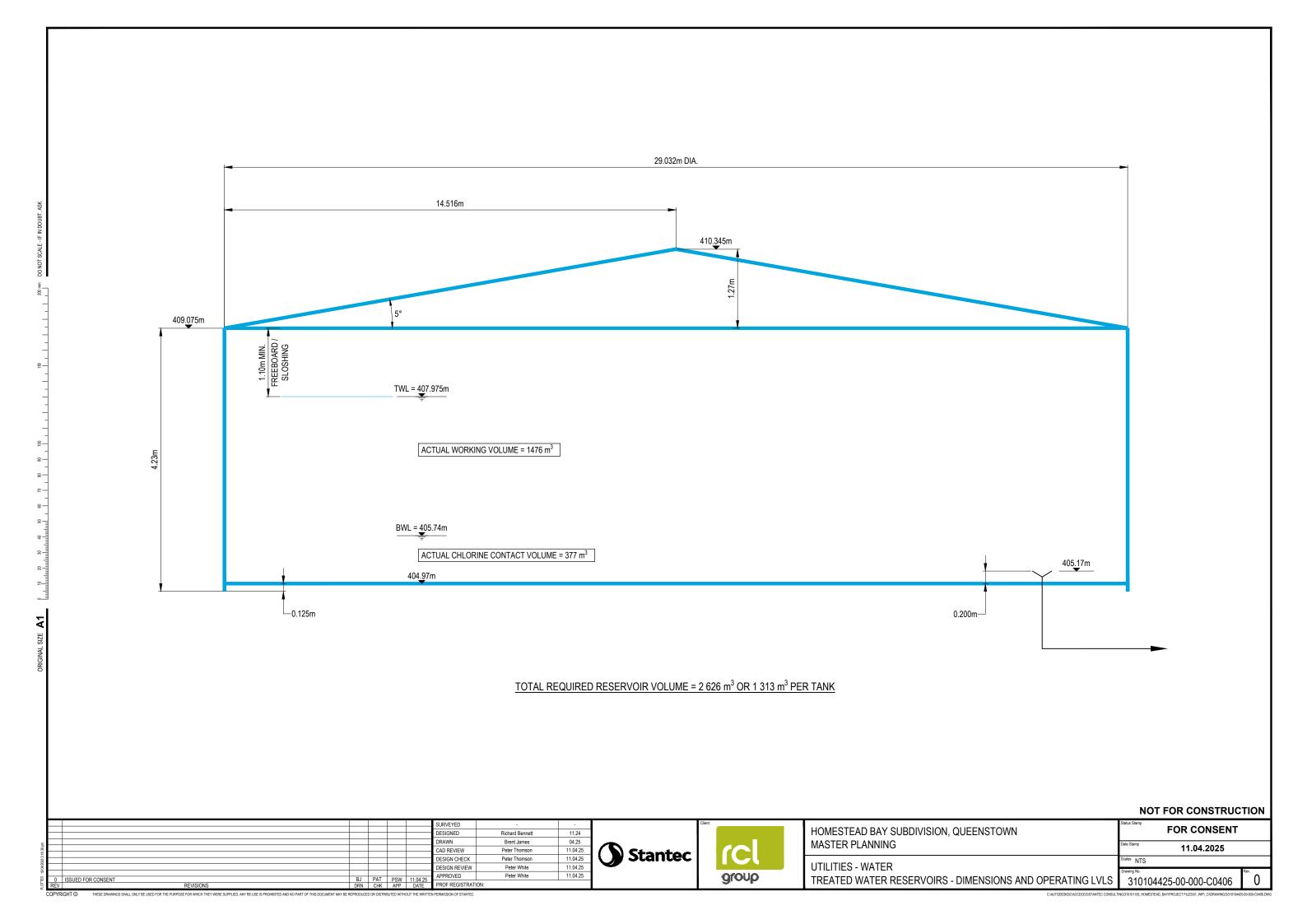
HOMESTEAD BAY SUBDIVISION, QUEENSTOWN	FOR CONSENT
MASTER PLANNING	Date Stamp 11.04.2025
UTILITIES - WATER WATER - BORE LOCATIONS AND ACCESS	Scales 1:1000
	310104425-00-000-C0402 Rev. 0

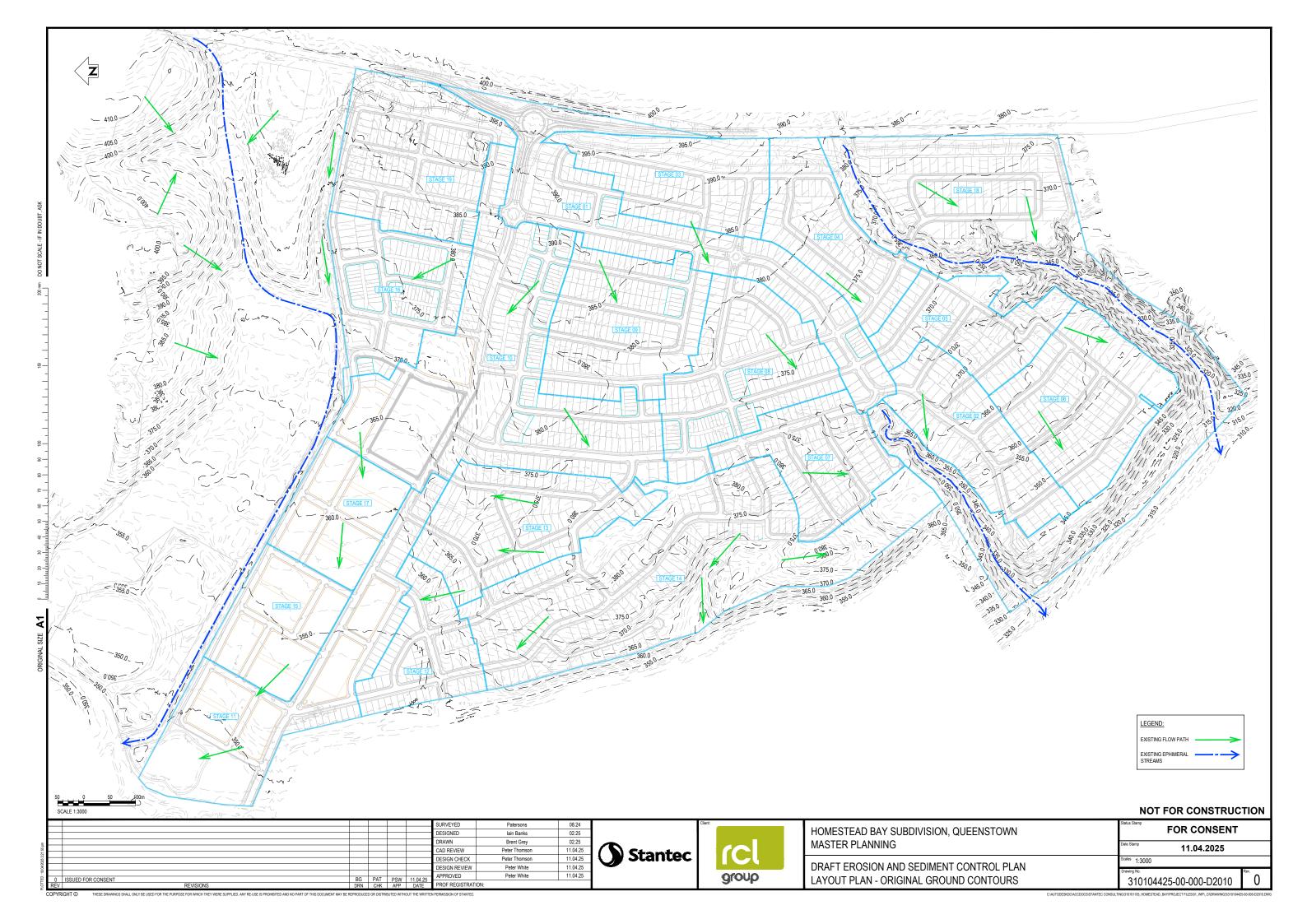
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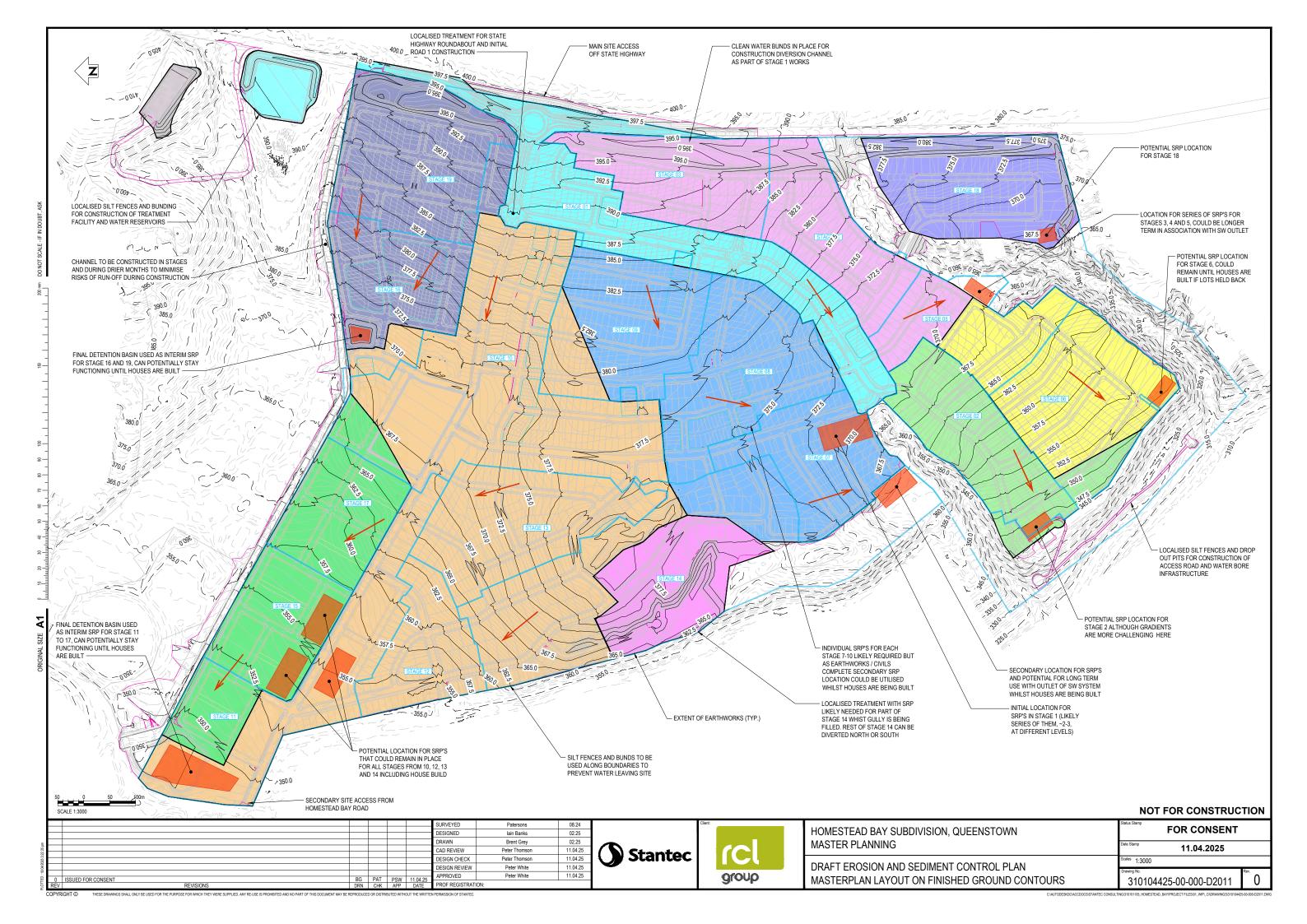


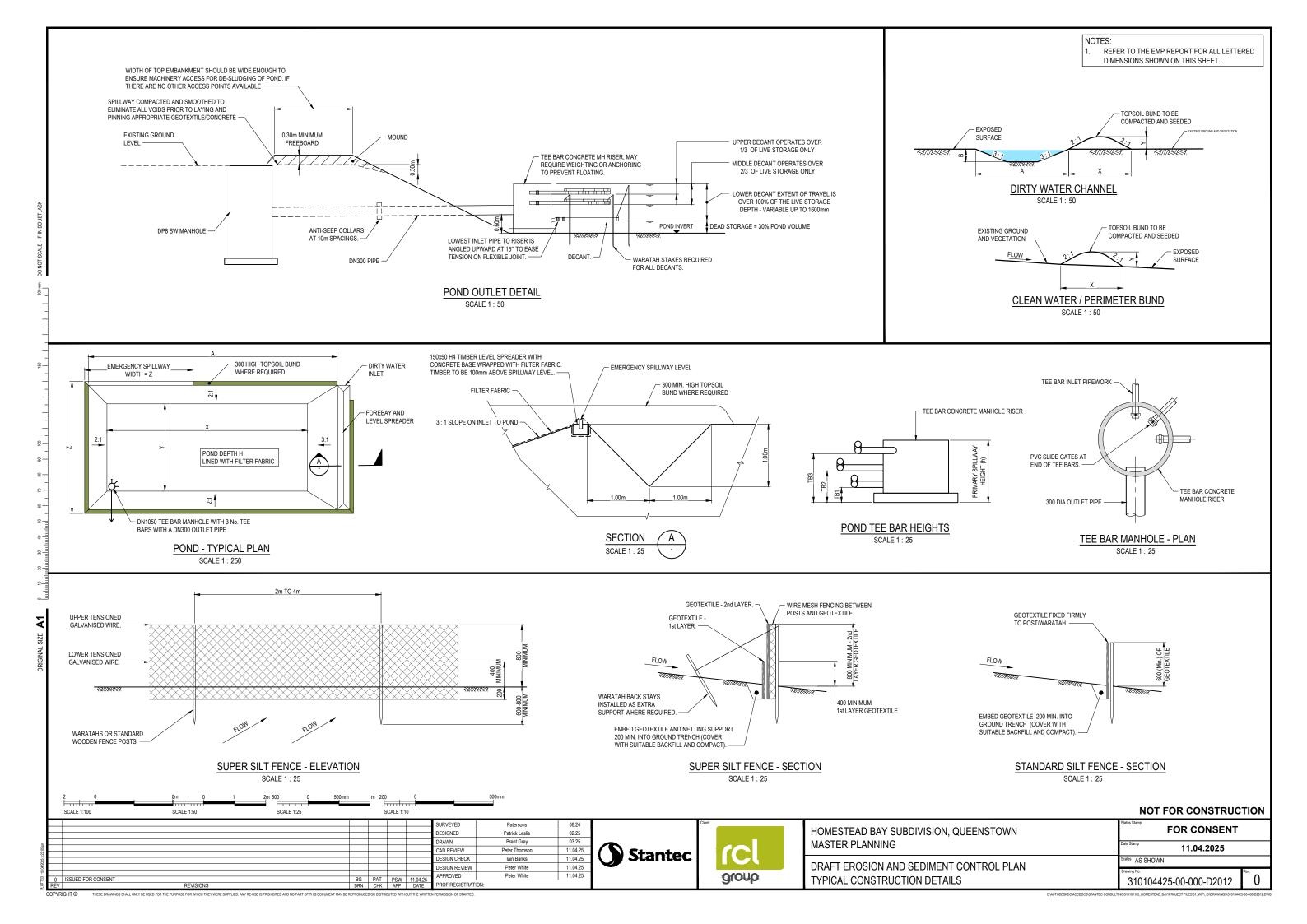


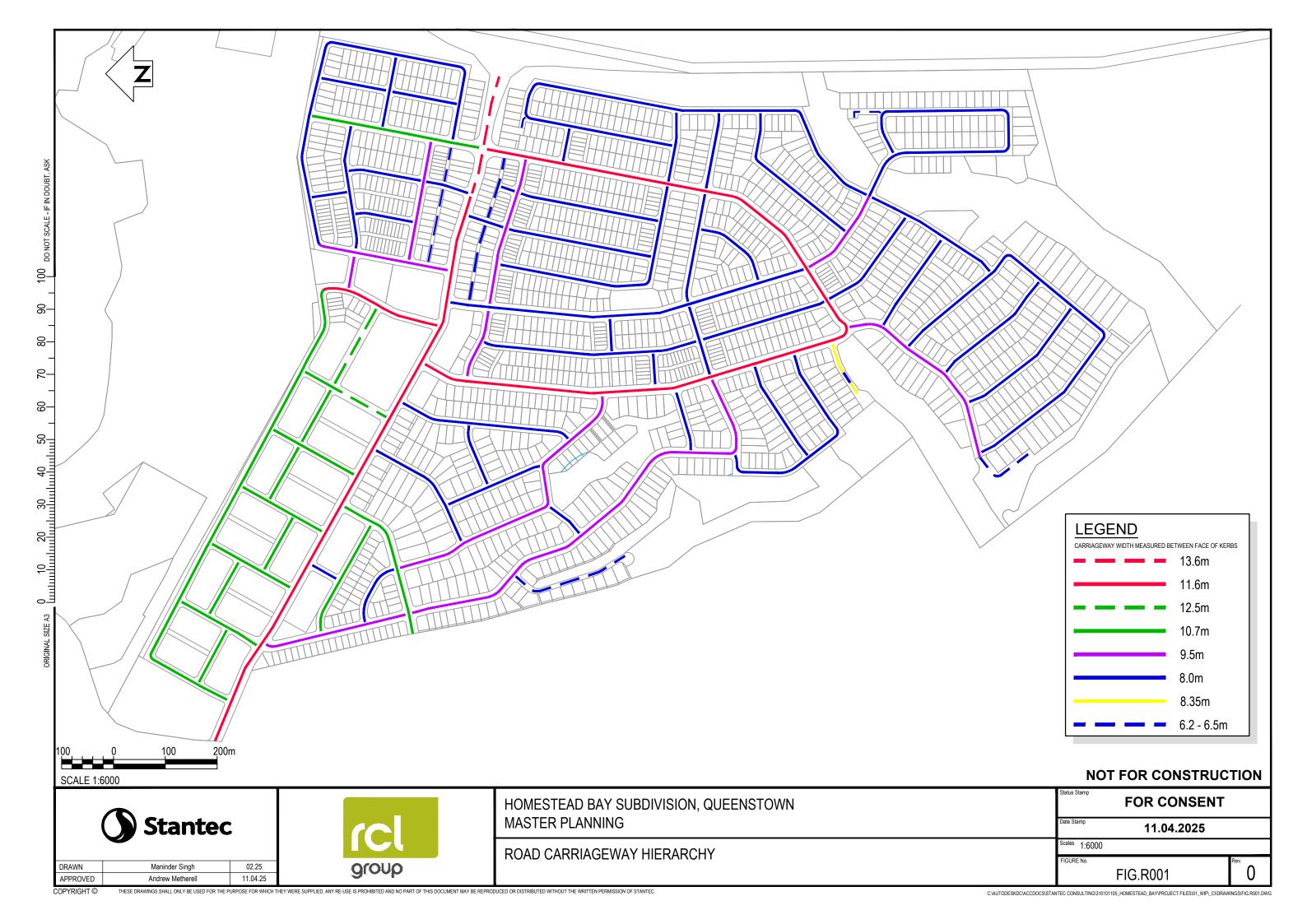


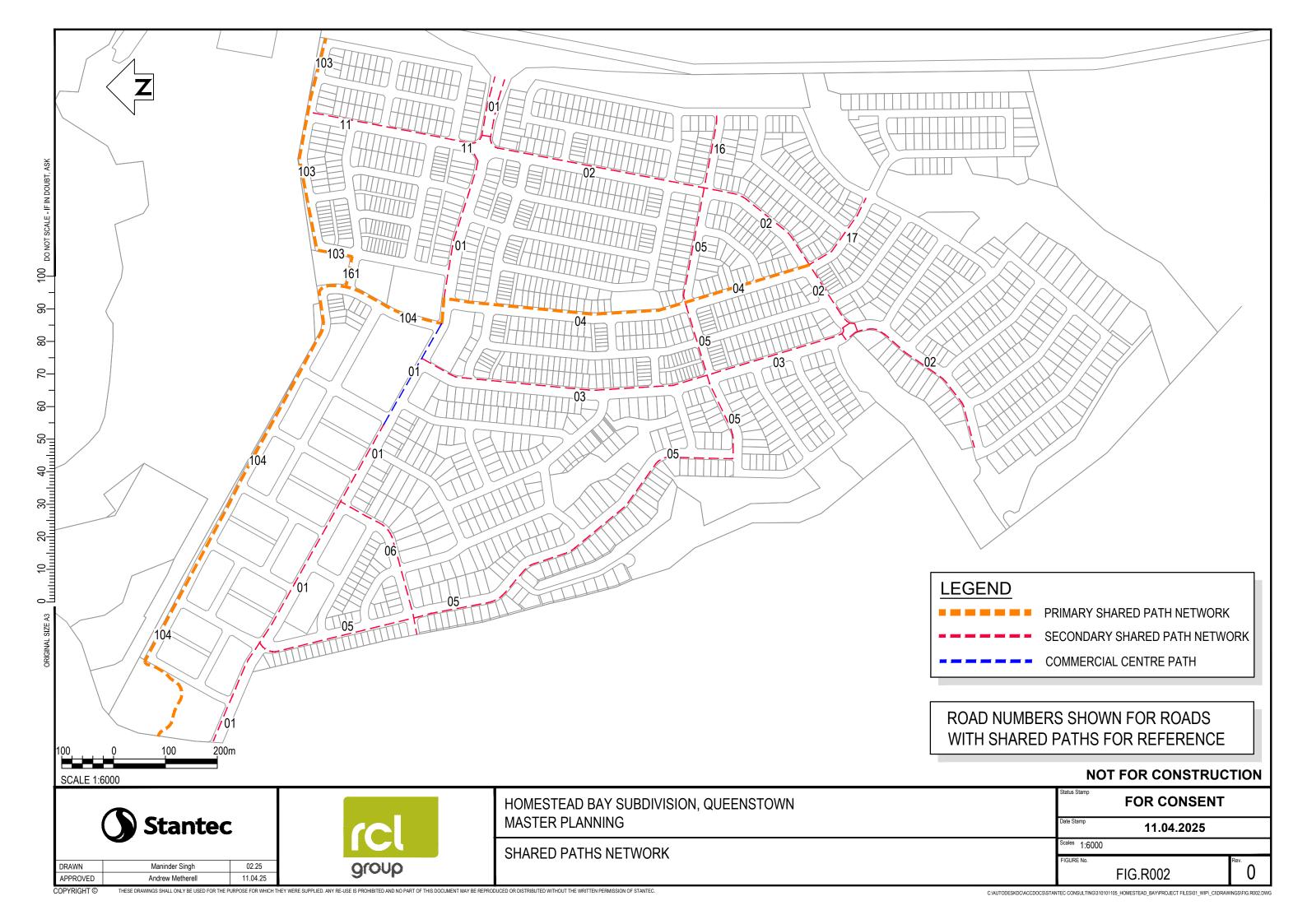


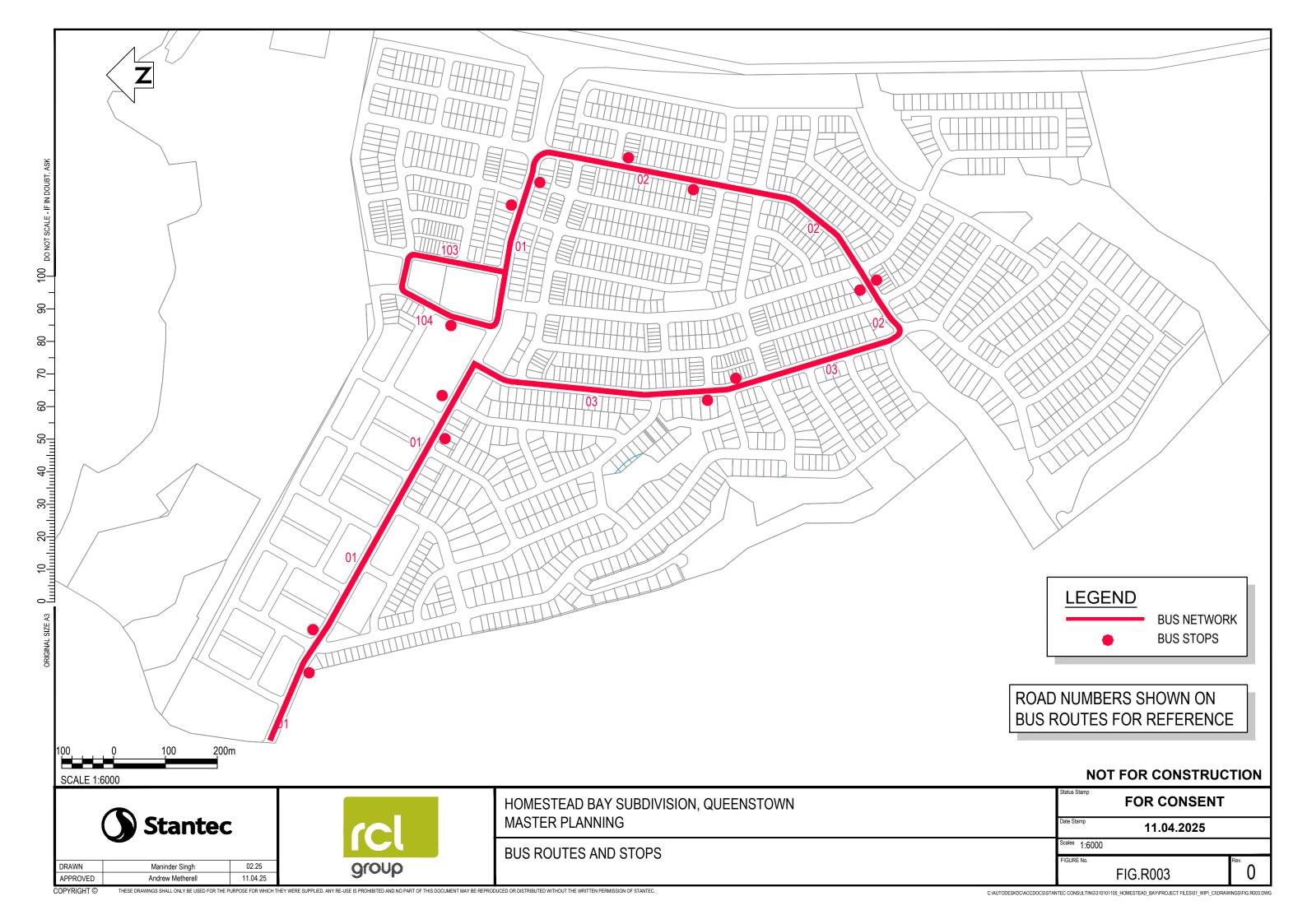


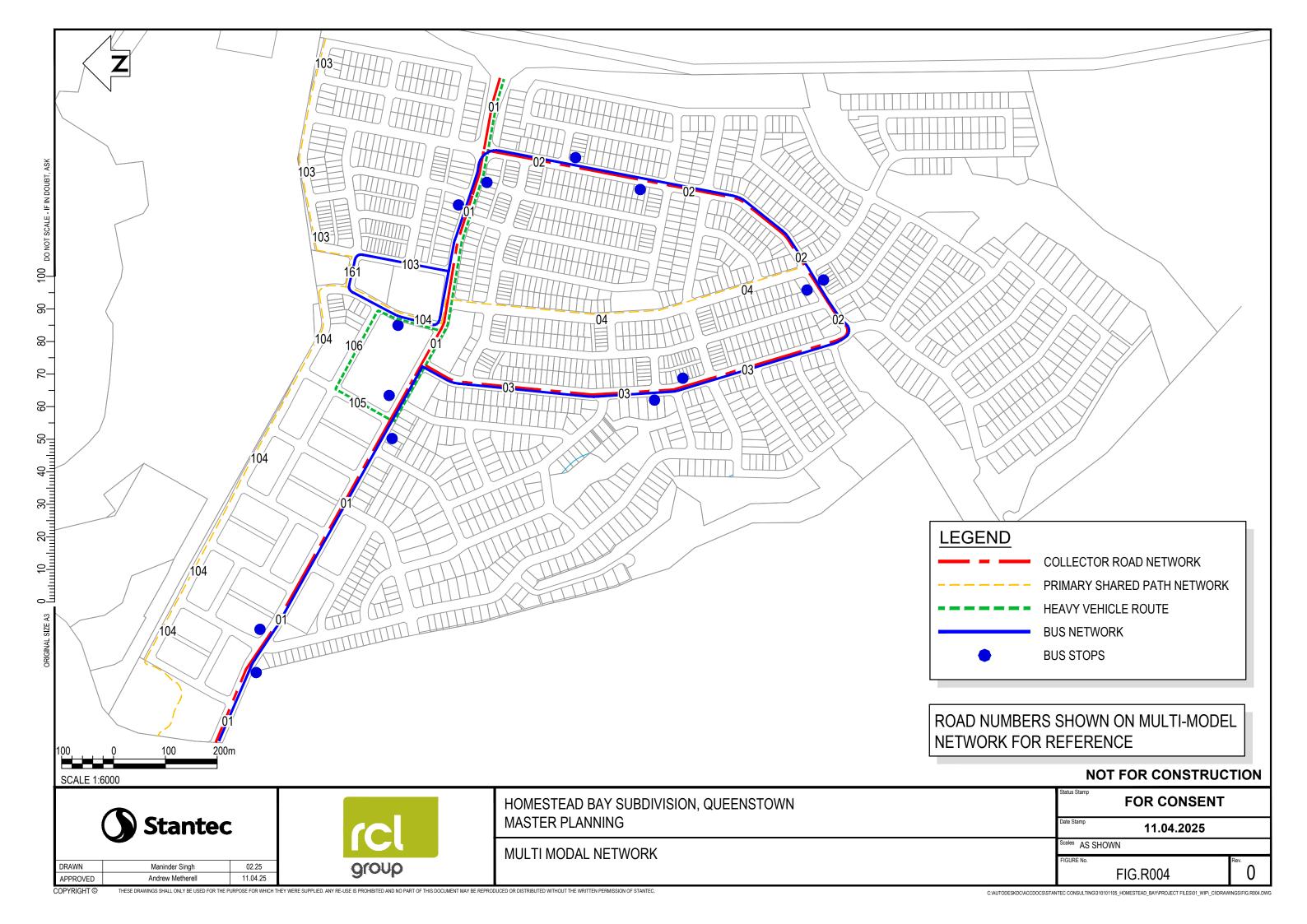


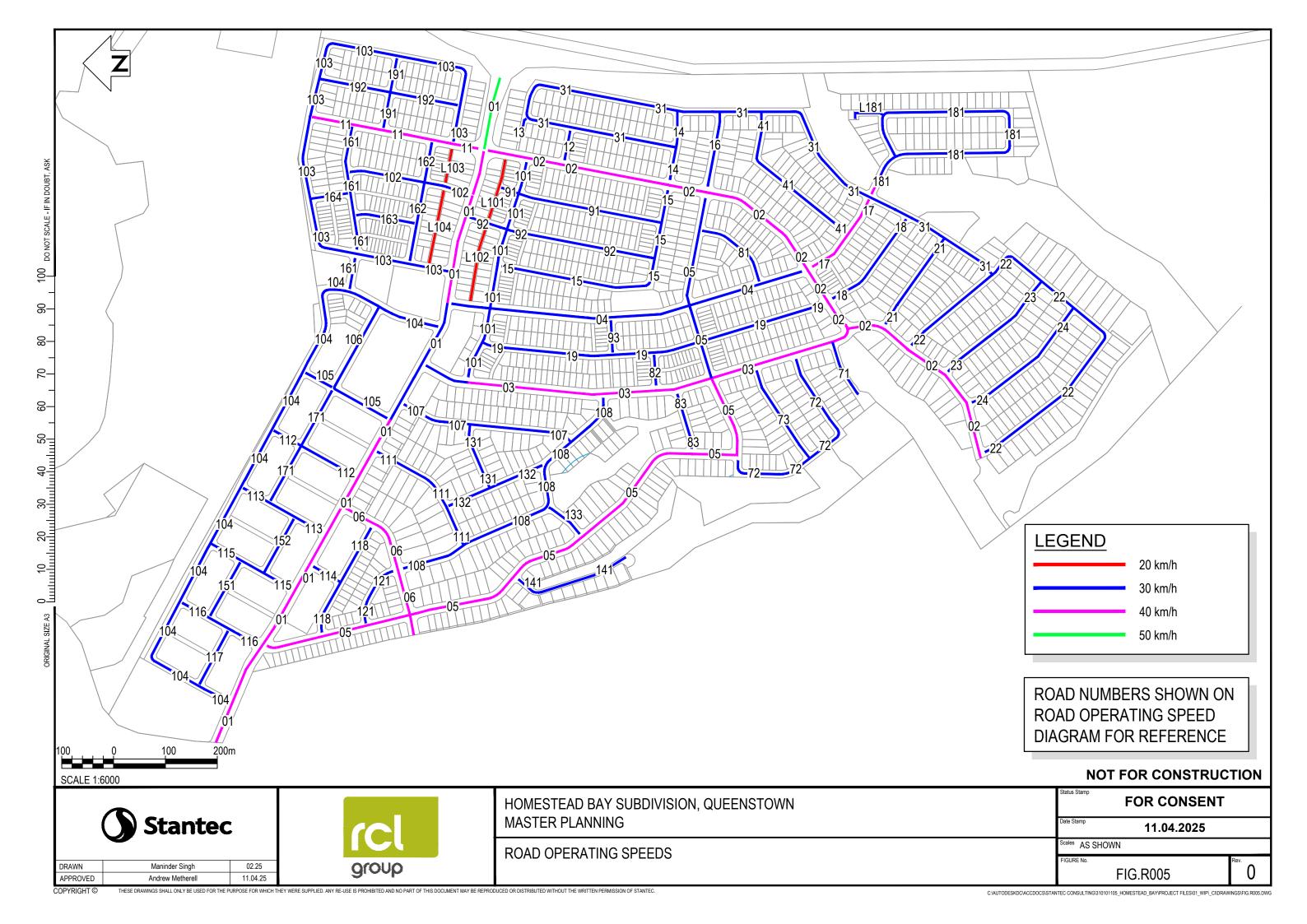


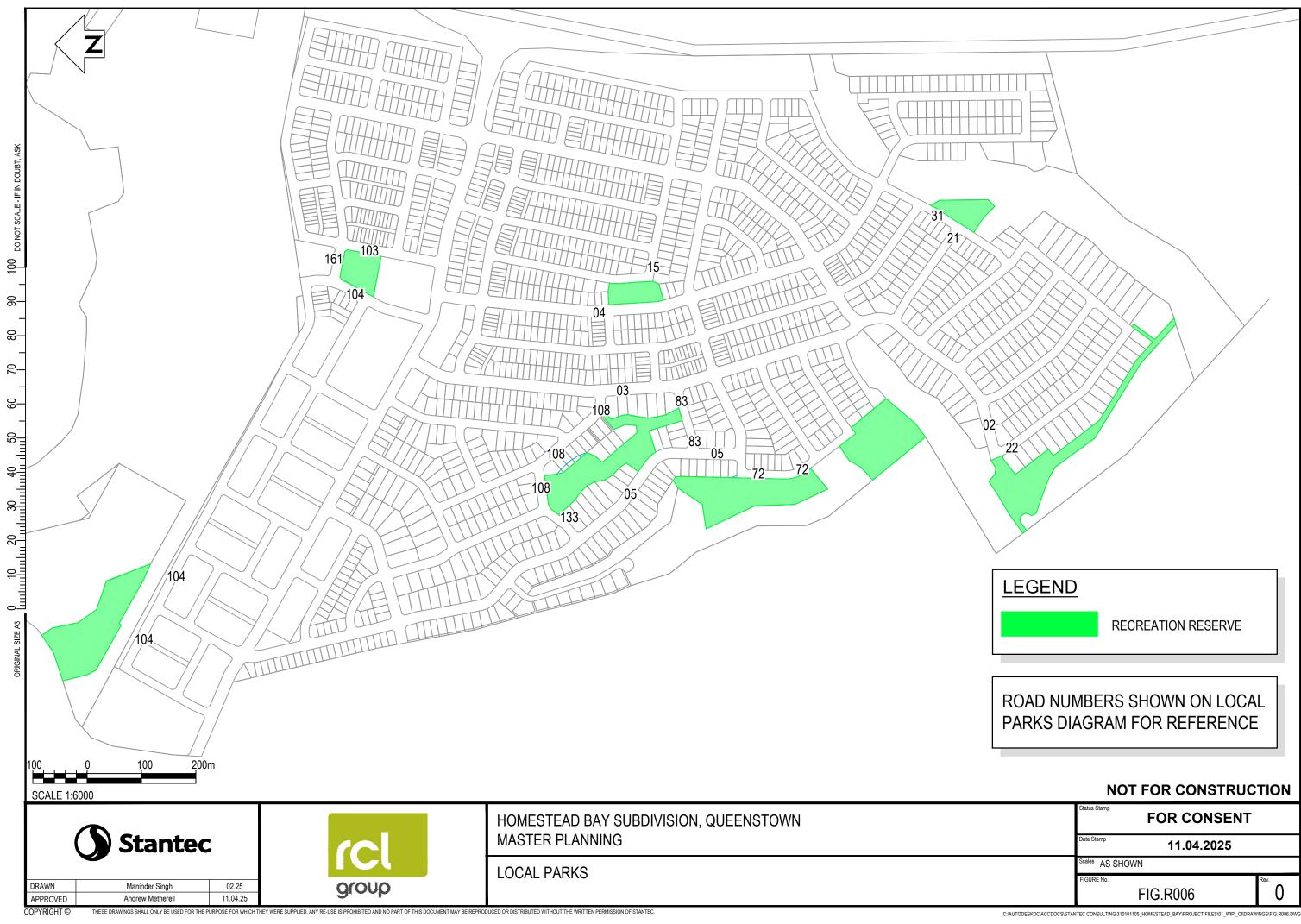


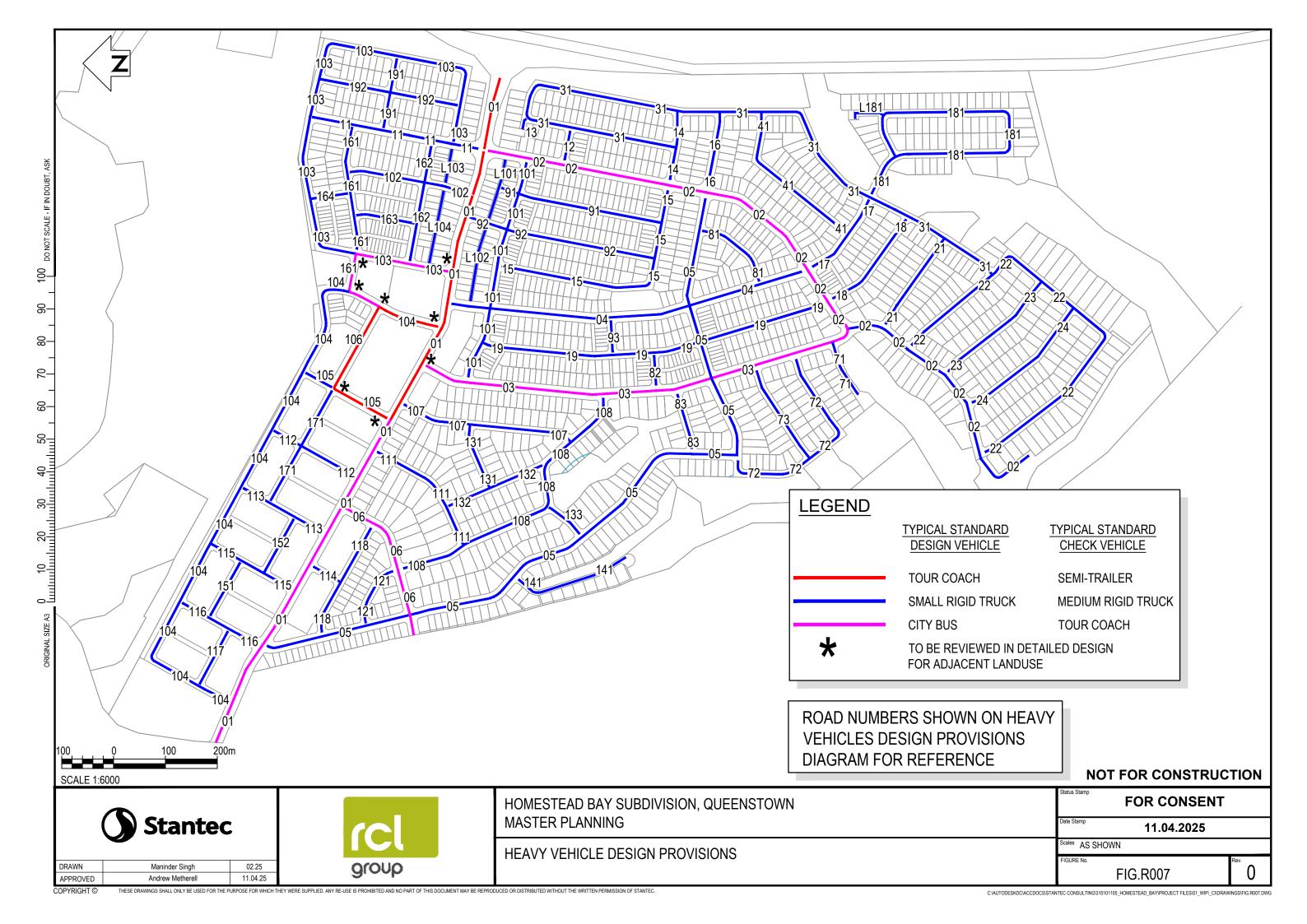














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