Civic Centre 45 Princes Highway, Werribee, Victoria 3030, Australia
Postal PO Box 197, Werribee, Victoria 3030, Australia

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www.wyndham.vic.gov.au

DX 30258 Werribee Vic
ABN: 38 393 903 860

Your Ref:

Our Ref: SDW3682/24
WYP13902/22

Enquiries: *Rabin Khad Thakuri*
Tel: *(03) 8754 4999*

23 July 2025

Spiire Australia Pty Ltd
L 6 414 La Trobe St
MELBOURNE VIC 3000

Dear Rafe Wilson

RE: HARLOW STAGE 7 - CONSTRUCTION PLAN APPROVAL

Please be advised that the road and drainage construction plans submitted to Council for Harlow Stage 7 are approved subject to the following conditions:-

1. Prior to the placement of concrete kerb and channel, all constructed drainage lines, including easement drains and AG drains, must undergo inspection by an independent testing organisation using closed circuit television (CCTV). Report must be provided to Council as per Wyndham City Council's Technical Specification Section 701 – Underground Stormwater Drains.
2. **Prior to commencement of works, an on-site pre-commencement meeting must be held between Council, the Engineering Consultant and the Contractor. Please contact Robert Troiano from Council on 407802834 to book a precommencement meeting.**
3. **Prior to installation of any Tactile Ground Surface Indicators, the proposed product must be inspected and approved by Council. Please notify Councils construction supervisor to book an inspection prior to installation.**
4. **Prior to commencement of works, the Plan of Subdivision must be certified by Council.**
5. **Prior to commencement of approved works within <u>ANY</u> existing road reserves, the consultant/contractor <u>MUST</u> apply for consent to work within the road reserves from Council or any other relevant responsible authorities. The Contractor will be responsible for maintain <u>all</u> existing assets within the <u>limit of works</u> as demonstrated on the approved plans.**
6. **A free-flowing drainage outlet must be established and maintained throughout the entirety of construction works. No road boxing works are to commence in the absence of a free-flowing drainage outlet.**
7. Prior to commencement of works, the consultant/contractor shall provide to Council the following information:-
   - source of quarry material; and
   - optimum moisture content and maximum modified dry density of the F.C.R to be used (from N.A.T.A. approved laboratory).

If the source of the quarry material is changed during the course of the works, new test results shall be provided.

8. Please provide a Site Environment Management Plan (SEMP) to Council for approval. To submit a SEMP, complete Wyndham Council's online form after following the instructions on the website.
9. Construction is to commence within twelve (12) months of approval, otherwise construction plans and specifications are to comply with design standards current at the time of re-submission.
10. Filled allotments shall be compacted in 150mm maximum layers, with compaction tests being taken at not more than 300mm lift on all allotments and filled areas. The test results and location of the tests on each allotment shall be forwarded to Council.
11. Wyndham City Council Specifications and standard details shall be read in conjunction with the approved plans.
12. Prior to Council issuing a Statement of Compliance, pursuant to the Subdivision Act 1988, your firm shall provide to Council the following:
    - Payment of construction supervision fees amounting to 2.5% of the total cost of road and drainage works;
    - Payment of a maintenance bond amounting to 5% of the total cost of road and drainage works;
    - An electronic copy of all as constructed drawings and relevant files in both AutoCad DWG and Adobe PDF file formats, to either subdiveng@wyndham.vic.gov.au or via Objective Connect. Please note that the minimum resolution of PDF files required is 300dpi;
    - An electronic copy of drainage catchment plans and detailed computations in Adobe PDF file format to either subdiveng@wyndham.vic.gov.au or via Objective Connect;
    - As constructed asset information for drainage and related assets in digital format in accordance with "D-Spec" to either subdiveng@wyndham.vic.gov.au or via Objective Connect; and
    - As-constructed asset information for assets within the road reserve in digital format in accordance with "R-Spec" to either subdiveng@wyndham.vic.gov.au or via Objective Connect; and
    - The A.H.D levels and M.G.A co-ordinates of the high stability P.S.Ms.
    - For futher information please see: https://www.wyndham.vic.gov.au/subdivisionguidelines
13. Easements are to be created to cover all servics which cross any part of private allotments.
14. During construction of works under this permit, access to and egress from the subject land must be via a route designed and approved by the Council. Where practical this access should be remote from established residential areas.
15. Provide Landscaping Plan for approval by Council. Please contact subdivlud@wyndham.vic.gov.au to arrange a pre-application meeting prior to the submission of landscape plans for municipal reserves and/or public open space.
16. WorkSafe Victoria is to be advised via E-mail (construction@workcover.vic.gov.au) of these Subdivisional works with the following details:
    - Name of the principal contractor
    - Name and phone contact of relevant Engineering Consultants supervisor dealing with the works
    - Brief description of the works
    - Locality/address of the works
    - Estimated commencement date of the works, and
    - Expected completion date of the works.

17. In undertaking the construction works, the developer shall ensure all works are undertaken in accordance with the OH & S Act, Regulation and Codes, and shall maintain a safe workplace for Council's staff undertaking inspections. The supervision of works by Council staff only extends to the quality of Council's future infrastructure and does not include ensuring that the works are undertaken safely.

Please find a set of stamped approved plans attached.

Yours sincerely,

Nayana Prabhakar

Nayana Prabhakar
Team Leader Development Engineer
Encl: (1) Stamped approved plans

HARLOW ESTATE
STAGE 7
SIG GROUP

WYNDHAM CITY COUNCIL GENERAL NOTES:

SURVEY

1. ALL LEVELS ARE TO AUSTRALIAN HEIGHT DATUM AND ALL COORDINATES ARE TO MAP GRID OF AUSTRALIA (MGA) 94 , ZONE 55.
2. ALL EXISTING SURFACE LEVELS SHOWN ON THE ENGINEERING DRAWINGS HAVE BEEN INTERPOLATED FROM A DIGITAL TERRAIN MODEL. THESE LEVELS HAVE BEEN USED AS THE BASIS FOR ALL ENGINEERING DESIGN AND DETERMINATION OF QUANTITIES AND ARE ACCURATE TO WITHIN ±0.05m.
3. ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH AS2124-1992 GENERAL CONDITIONS OF CONTRACT, THE ROAD & DRAINAGE SPECIFICATION, APPROVED MUNICIPALITY SPECIFICATIONS AND STANDARD DRAWINGS AND TO THE SATISFACTION OF THE SUPERINTENDENT AND THE MUNICIPAL ENGINEER OR THEIR REPRESENTATIVE.
4. ROAD CHAINAGES REFER TO ROAD CENTRELINES. CHAINAGES FOR INTERSECTIONS AND CUL-DE-SACS REFER TO THE LIP OF KERB

EARTHWORKS

5. THE LOCATION OF EXISTING SERVICES SHOULD BE DETERMINED BY THE CONTRACTOR PRIOR TO COMMENCING ANY EXCAVATION BY CONTACTING ALL LOCAL SERVICE AUTHORITIES. ANY EXISTING SERVICES SHOWN ON THESE DRAWINGS ARE OFFERED AS A GUIDE ONLY AND ARE NOT GUARANTEED AS CORRECT.
6. WHERE REQUIRED ANY BUILDINGS, TROUGHS, FENCES AND OTHER STRUCTURES ON SITE ARE TO BE REMOVED AS DIRECTED BY THE ENGINEER. THE COST OF REMOVAL IS TO BE INCLUDED IN THE OVERALL EARTHWORKS FIGURE UNLESS A SPECIFIC ITEM FOR REMOVAL IS DENOTED IN THE SCHEDULE.
7. ALL EXCAVATED ROCK AND SURPLUS SPOIL TO BE REMOVED AND DISPOSED OFF SITE UNLESS NOTED OTHERWISE.
8. ALL FILLING ON LOTS AND WITHIN ROAD RESERVES GREATER THAN 200mm IS TO BE UNDERTAKEN USING LEVEL 1 SUPERVISION AND BE COMPLETED IN ACCORDANCE WITH AS 3798-2007. FILL AREAS ARE TO BE STRIPPED OF TOPSOIL, FILLED AND REPLACED WITH TOPSOIL (WHERE REQUIRED) TO OBTAIN THE FINAL LEVELS SHOWN ON THE DRAWINGS.
9. FILLING MATERIAL IS TO BE IN ACCORDANCE WITH THE SPECIFICATION, AS 3798-2007 & TO THE SATISFACTION OF COUNCIL AND THE SUPERINTENDENT.
10. ALL BATTERS SHALL BE 1 IN 6, UNLESS OTHERWISE SHOWN.
11. NO FILL OR STOCKPILING OF MATERIAL IS TO BE PLACED ON ANY RESERVE FOR PUBLIC OPEN SPACE UNLESS OTHERWISE DIRECTED OR APPROVED BY THE SUPERINTENDENT.
12. TBM'S TO BE RE-ESTABLISHED BY THE LICENSED SURVEYOR IF FOUND TO BE MISSING AT THE COMMENCEMENT OF CONSTRUCTION. THE CONTRACTOR WILL BE RESPONSIBLE FOR CARE AND MAINTENANCE OF T.B.M.'S THEREAFTER.
13. AT LEAST 3 DAYS PRIOR TO COMMENCING WORK ON EXCAVATIONS IN EXCESS OF 1.50m DEEP, A NOTIFICATION FORM MUST BE SENT TO WORKSAFE. THE CONTRACTOR IS TO COMPLY WITH WORKSAFE, THE MINES (TRENCHES) REGULATION 1982, THE MINES ACT 1958 AND OCCUPATIONAL HEALTH AND SAFETY ACT 1985, 2004.
14. ALL SERVICE TRENCHES UNDER DRIVEWAYS, FOOTPATHS AND PARKING BAYS TO BE BACKFILLED WITH CLASS 2 CRUSHED ROCK. SERVICE TRENCHES LESS THAN 750mm BEHIND KERB AND CHANNEL OR PAVED TRAFFIC AREAS ARE ALSO TO BE BACKFILLED WITH COMPACTED CLASS 2 CRUSHED ROCK.
15. WHERE REQUIRED, ALL EXISTING DAMS, DEPRESSIONS AND DRAINS ARE TO BE BREACHED, DRAINED, DESLUDGED AND SHALL BE EXCAVATED TO A CLEAN FIRM BASE. THE SURFACE SHALL BE INSPECTED, APPROVED AND LEVELED BY THE ENGINEER PRIOR TO COMMENCEMENT OF FILLING. THE FILL SHALL BE APPROVED SELECTED ON SITE MATERIAL OR APPROVED IMPORTED MATERIAL. THE FILL SHALL BE PLACED UNDER CONTROLLED MOISTURE CONDITIONS IN ACCORDANCE WITH THE SPECIFICATION
16. NO BLASTING TO BE CARRIED OUT WITHIN THE MUNICIPALITY WITHOUT OBTAINING COUNCILS PERMISSION.

SERVICES

17. GAS AND WATER CONDUITS ARE TO BE ,
    Ø50mm . CLASS 12 P.V.C. - SINGLE SERVICE
    Ø100mm . CLASS 12 P.V.C. - DUAL SERVICE (DRINKING AND NON DRINKING WATER)

    WITH THE FOLLOWING MINIMUM COVER TO FINISHED SURFACE LEVELS:
    ROAD PAVEMENT - 0.80m
    VERGE, FOOTPATHS - 0.45m
18. ALL SERVICE CONDUIT TRENCHES UNDER ROAD PAVEMENTS TO BE BACKFILLED IN ACCORDANCE WITH RELEVANT MUNICIPALITY OR ROAD AUTHORITY SPECIFICATION.
19. GAS AND WATER CONDUITS TO BE LOCATED AS SHOW, REFER TO WATER DESIGN FOR CONDUIT OFFSETS
20. TELSTRA ARE TO BE NOTIFIED 7 DAYS PRIOR TO PLACEMENT OF CONCRETE WORKS.

STORM WATER DRAINAGE

21. AG/SUBSOIL DRAIN TO BE LAID BEHIND KERB WHERE REQUIRED IN ACCORDANCE WITH THE COUNCIL STANDARD DRAWINGS AND CONNECTED TO UNDERGROUND DRAINAGE.
22. ALL STORMWATER DRAINS ARE TO BE CLASS '2' R.C. PIPES UNLESS OTHERWISE SHOWN.

ALL PIPES UP TO AND INCLUDING 750mm DIAMETER TO BE RUBBER RING JOINTED (R.R.J.) UNLESS STATED OTHERWISE.

23. CENTRELINES OF ALL EASEMENT DRAINS ARE OFFSET 1.0m OR 2.2m (WHERE OUTSIDE OF SEWER) FROM THE PROPERTY LINE UNLESS SHOWN OTHERWISE.
24. WHERE CURVED PIPES ARE SHOWN ON THE FACE PLANS THEY ARE TO BE LAID PARALLEL TO THE BACK OF KERB, EXCEPT WHERE A RADIUS HAS BEEN SPECIFICALLY NOMINATED. CURVED PIPES ARE TO BE APPROVED BY COUNCIL AND IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS.
25. HOUSE DRAINS NOT OUT OF PIT TO BE OFFSET IN ACCORDANCE WITH COUNCIL STANDARDS UNLESS NOTED OTHERWISE.
26. AFTER THE COMPLETION OF THE LOWER SUB BASE PAVEMENT LAYERS AND/OR CAPPING LAYER AND PRIOR TO THE PLACEMENT OF CONCRETE KERB AND CHANNEL, ALL DRAINAGE LINES INCLUDING EASEMENT DRAINS CONSTRUCTED MUST BE INSPECTED BY AN INDEPENDENT TESTING ORGANISATION USING CCTV AND RELEVANT WORKS MUST BE PROVIDED TO THE SATISFACTION OF COUNCIL.

PAVEMENT

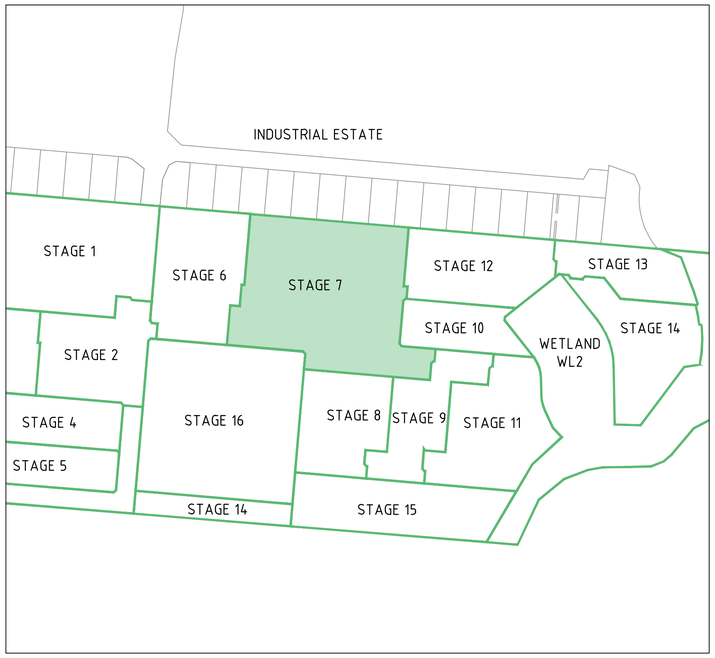
27. PAVEMENT DEPTHS MAY BE MODIFIED AS DIRECTED BY THE SUPERINTENDENT. PAVEMENT TO BE BOXED OUT TO MINIMUM DEPTH DENOTED, INSPECTED AND IF SUBGRADE IS IN QUESTION, FURTHER TESTING CARRIED OUT TO DETERMINE FINAL PAVEMENT DEPTH.
28. WHERE PAVEMENT IS CONSTRUCTED ON FILLING, FILL MATERIAL IS TO BE APPROVED BY THE SUPERINTENDENT AND COUNCIL. FILLING TO BE CONSTRUCTED IN LAYERS 150mm THICK WITH COMPACTION ACHIEVING 95% AUSTRALIAN STANDARD DENSITY.
29. WHEN PAVEMENT EXCAVATION IS IN ROCK ALL LOOSE MATERIAL (INCLUDING ROCKS AND CLAY) MUST BE REMOVED. THE SUB-GRADE MUST THEN BE REGULATED WITH COUNCIL APPROVED MATERIAL.

SIGNAGE AND LINEMARKING

30. LINEMARKING AND SIGNAGE TO BE INSTALLED IN ACCORDANCE WITH AS 1742 SERIES UNLESS NOTED OTHERWISE. STREET SIGNS ARE TO BE INSTALLED IN ACCORDANCE WITH COUNCIL STANDARDS.
31. ALL TEMPORARY WARNING SIGNS USED DURING CONSTRUCTION SHALL BE SUPPLIED AND MAINTAINED IN ACCORDANCE WITH AS 1742-3.
32. TACTILE GROUND SURFACE INDICATORS ARE TO BE INSTALLED IN ACCORDANCE WITH THE DISABILITY DISCRIMINATION ACT AND RELEVANT COUNCIL STANDARD DRAWINGS.

ENVIRONMENTAL

33. CONTRACTOR TO PROVIDE AN ENVIRONMENTAL MANAGEMENT PLAN INCLUDING SILT AND SEDIMENT RUNOFF PROTECTION ETC. PRIOR TO THE COMMENCEMENT OF WORKS.
34. ALL TREES AND SHRUBS ARE TO BE RETAINED UNLESS OTHERWISE SHOWN. IF ROAD AND DRAINAGE CONSTRUCTION NECESSITATES THEIR REMOVAL, WRITTEN PERMISSION MUST BE OBTAINED FROM THE SUPERINTENDENT.
35. TREES NOT SPECIFIED FOR REMOVAL ARE TO BE PROTECTED WITH APPROPRIATE EXCLUSION FENCING PRIOR TO COMMENCEMENT OF ANY WORKS.
36. THE CONTRACTOR IS REQUIRED TO OBTAIN A 'PERMIT TO WORK' FROM MELBOURNE WATER'S SURVEILLANCE OFFICER AT THE PRE-COMMENCEMENT MEETING. THE CONTRACTOR IS REQUIRED TO ENSURE THAT THE 'PERMIT TO WORK' IS KEPT UP TO DATE FOR THE DURATION OF THE CONTRACT.



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MGA 94
ZONE 55

LOCALITY PLAN

H 1:4000 SCALE @ A1 — 0 40 80 120 160 200

DRAWING SCHEDULE

DRAWING	DESCRIPTION	SHEET No.	REVISION
CR100	FACE SHEET	1	B
CR200	FACE PLAN	2	B
CR201	SERVICES PLAN	3	B
CR300	ROAD LONG SECTIONS - SHEET 1	4	A
CR301	ROAD LONG SECTIONS - SHEET 2	5	A
CR302	ROAD LONG SECTIONS - SHEET 3	6	A
CR400	ROAD CROSS SECTIONS - SHEET 1	7	A
CR401	ROAD CROSS SECTIONS - SHEET 2	8	B
CR402	ROAD CROSS SECTIONS - SHEET 3	9	A
CR403	ROAD CROSS SECTIONS - SHEET 4	10	A
CR404	ROAD CROSS SECTIONS - SHEET 5	11	A
CR405	ROAD CROSS SECTIONS - SHEET 6	12	A
CR500	INTERSECTION DETAILS - SHEET 1	13	A
CR501	INTERSECTION DETAILS - SHEET 2	14	A
CR600	DRAINAGE LONG SECTIONS - SHEET 1	15	B
CR601	DRAINAGE LONG SECTIONS - SHEET 2	16	B
CR602	DRAINAGE LONG SECTIONS - SHEET 3	17	B
CR603	DRAINAGE PIT SCHEDULE	18	B
CR700	PAVEMENT AND TYPICAL DETAILS	19	A
CR701	RAISED PAVEMENT DETAILS - SHEET 1	20	B
CR702	RAISED PAVEMENT DETAILS - SHEET 2	21	B
CR800	SIGNAGE AND LINEMARKING	22	B

B

LEGEND

DESCRIPTION	EXISTING	PROPOSED
WATER MAIN, VALVE AND HYDRANT	DW	DW
WATER RECYCLED	NDW	NDW
UNDERGROUND ELECTRICITY	E	E
OPTIC FIBRE	OF	OF
GAS MAIN	G	G
SEWER & MAINTENANCE STRUCTURE	S	S
CENTRAL INVERT	>	>
COUNCIL STORMWATER DRAIN AND PIT		
STORM WATER DRAINAGE PROPERTY INLETS		
HOUSE DRAIN	H	H
AG DRAIN AND FLUSHER	AG	AG
STORM WATER DRAINAGE PIT NUMBER	1	1
GAS & WATER CONDUITS	GW	GW
CONCRETE VEHICLE CROSSING		
RIDGE / CHANGE OF GRADE LINE		
SURFACE CONTOUR MINOR	- 169.00 -	169.00
SURFACE CONTOUR MAJOR	- 168.90 -	168.90
SURFACE LEVEL	E123.45	F124.68
BATTER LEVEL (TOP / TOE)	T124.80	T124.80
EARTHWORKS GRADE		1 in 150
SIGN AND POST		
LIGHT & POLE (BY OTHERS)		
STREET SIGN		
PERMANENT SURVEY MARK		
TEMPORARY BENCH MARK		
BOLLARD		
ROAD CHAINAGES	CH116.57 (L/R)TP CH116.57	CH116.57 (L/R)TP CH116.57
LOT CHAINAGES	CH20.06	CH20.06
SETOUT POINT		A2
LIMIT OF WORKS		
BATTER		
EXCAVATION GREATER THAN 0.20m		
FILLING GREATER THAN 0.20m		
FENCES		
PROPOSED TREE		
FOOTPATH		
TACTILE GROUND SURFACE INDICATOR		
KERB TRANSITION		B2 SM2

Planning and Environment Act 1987
Wyndham Planning Scheme

Approved Plan As Required under Condition 63
Permit No WYP13902/22
Date 23/07/2025

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Zero Damage - Zero Harm

WARNING
BEWARE OF UNDERGROUND/OVERHEAD SERVICES
THE LOCATION OF SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN. SPECIAL CONSIDERATION SHOULD BE GIVEN TO CONSTRUCTION PROCEDURES UNDER OVERHEAD ELECTRICITY TRANSMISSION LINES.

Rev	Amendments	Approved	Date
B	AMENDED AS PER COUNCIL COMMENTS	G.K	30/05/25
A	ISSUED TO COUNCIL	G.K	04/04/25

Scale

dlcs ISO 9001 certified ISO 45001 certified ISO 14001 certified
System Certified

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spiire.com.au ABN 55 050 029 635

Harlow TARNEIT

Designed T. NGUYEN
Checked G. KOHLMAN
Authorised G. KOHLMAN
Date 04/04/25

HARLOW ESTATE
STAGE 7
ROAD AND DRAINAGE
FACE SHEET
WYNDHAM CITY COUNCIL
SIG GROUP

PRELIMINARY
Drg No 309443CR100
Rev B

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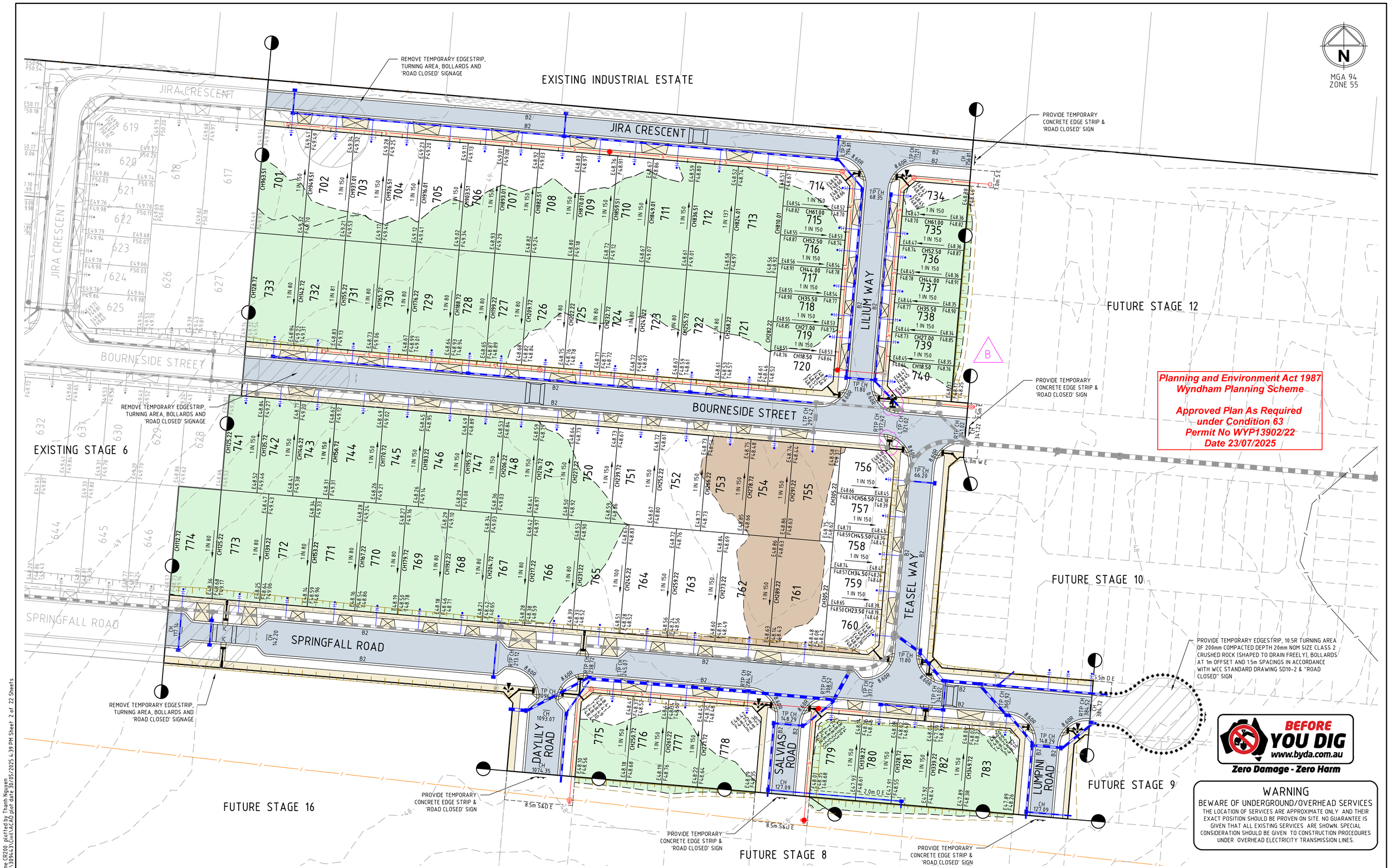

Rev	Amendments	Approved	Date
B	PRAM CROSSINGS AMENDED & JIRA CRESCENT BERM REMOVED	G.K	30/05/25
A	ISSUED TO COUNCIL	G.K	04/04/25

Scale
H 1:500
SCALE @ A1
0 5 10 15 20 25

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Harlow TARNEIT

Designed	Checked
T. NGUYEN	G. KOHLMAN
Authorised	Date
G. KOHLMAN	04/04/25

HARLOW ESTATE
STAGE 7
ROAD AND DRAINAGE
FACE PLAN
WYNDHAM CITY COUNCIL
SIG GROUP

PRELIMINARY

Drg No 309443CR200
Rev B

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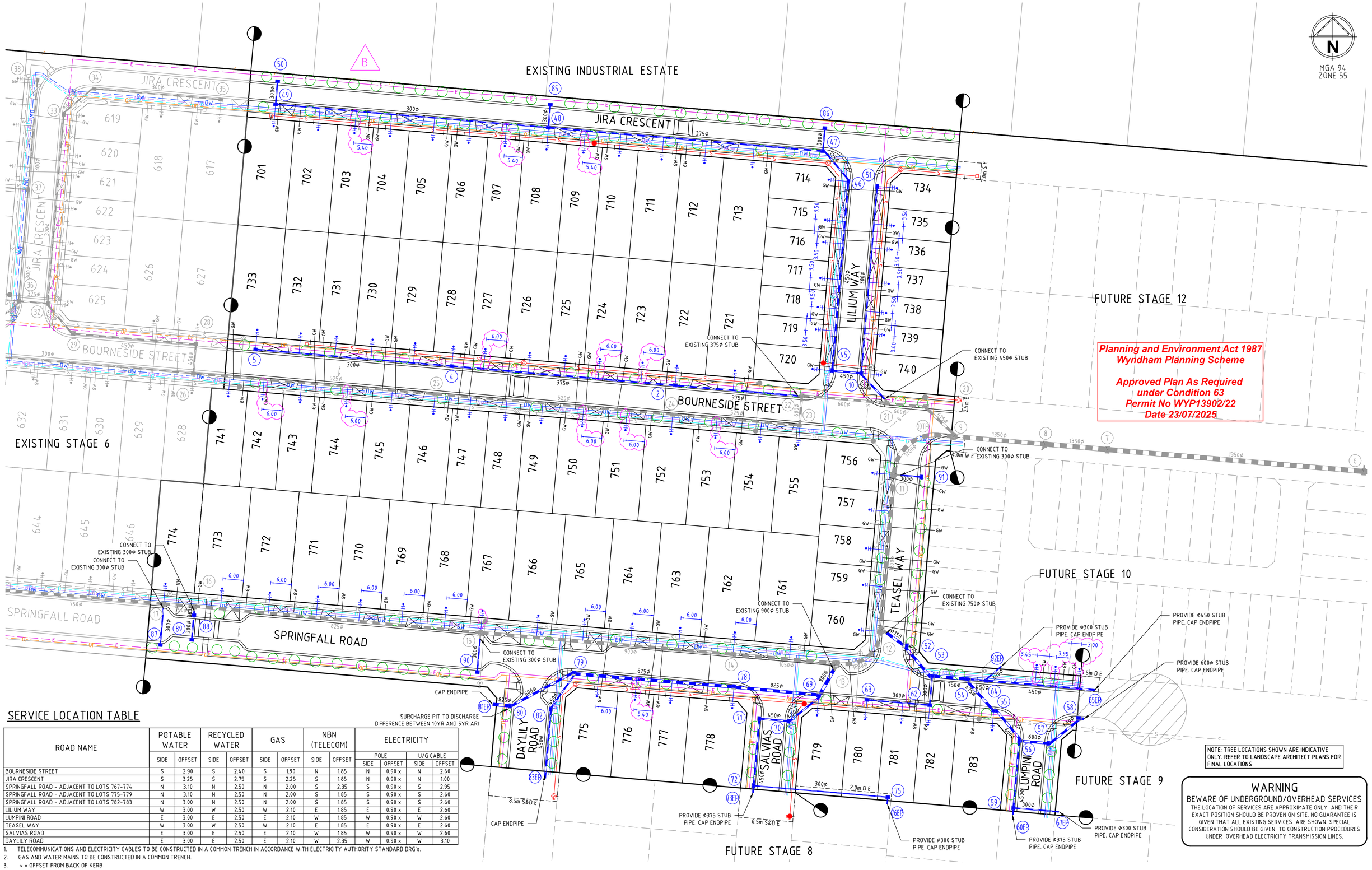

SERVICE LOCATION TABLE

ROAD NAME	POTABLE WATER		RECYCLED WATER		GAS		NBN (TELECOM)		ELECTRICITY			
									POLE		U/G CABLE	
	SIDE	OFFSET	SIDE	OFFSET	SIDE	OFFSET	SIDE	OFFSET	SIDE	OFFSET	SIDE	OFFSET
BOURNESIDE STREET	S	2.90	S	2.40	S	1.90	N	1.85	N	0.90 x	N	2.60
JIRA CRESCENT	S	3.25	S	2.75	S	2.25	S	1.85	N	0.90 x	N	1.00
SPRINGFALL ROAD – ADJACENT TO LOTS 767-774	N	3.10	N	2.50	N	2.00	S	2.35	S	0.90 x	S	2.95
SPRINGFALL ROAD – ADJACENT TO LOTS 775-779	N	3.10	N	2.50	N	2.00	S	1.85	S	0.90 x	S	2.60
SPRINGFALL ROAD – ADJACENT TO LOTS 782-783	N	3.00	N	2.50	N	2.00	S	1.85	S	0.90 x	S	2.60
LILIUM WAY	W	3.00	W	2.50	W	2.10	E	1.85	E	0.90 x	E	2.60
LUMPINI ROAD	E	3.00	E	2.50	E	2.10	W	1.85	W	0.90 x	W	2.60
TEASEL WAY	W	3.00	W	2.50	W	2.10	E	1.85	E	0.90 x	E	2.60
SALVIAS ROAD	E	3.00	E	2.50	E	2.10	W	1.85	W	0.90 x	W	2.60
DAYLILY ROAD	E	3.00	E	2.50	E	2.10	W	2.35	W	0.90 x	W	3.10

1. TELECOMMUNICATIONS AND ELECTRICITY CABLES TO BE CONSTRUCTED IN A COMMON TRENCH IN ACCORDANCE WITH ELECTRICITY AUTHORITY STANDARD DRG's.
2. GAS AND WATER MAINS TO BE CONSTRUCTED IN A COMMON TRENCH.
3. x = OFFSET FROM BACK OF KERB

NOTE: TREE LOCATIONS SHOWN ARE INDICATIVE ONLY. REFER TO LANDSCAPE ARCHITECT PLANS FOR FINAL LOCATIONS

WARNING
BEWARE OF UNDERGROUND/OVERHEAD SERVICES
THE LOCATION OF SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN. SPECIAL CONSIDERATION SHOULD BE GIVEN TO CONSTRUCTION PROCEDURES UNDER OVERHEAD ELECTRICITY TRANSMISSION LINES.

Rev	Amendments	Approved	Date
B	HOUSE DRAINS AMENDED & ADDED	G.K	30/05/25
A	ISSUED TO COUNCIL	G.K	04/04/25

Scale
H 1:500
SCALE @ A1
0 5 10 15 20 25

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Harlow TARNEIT

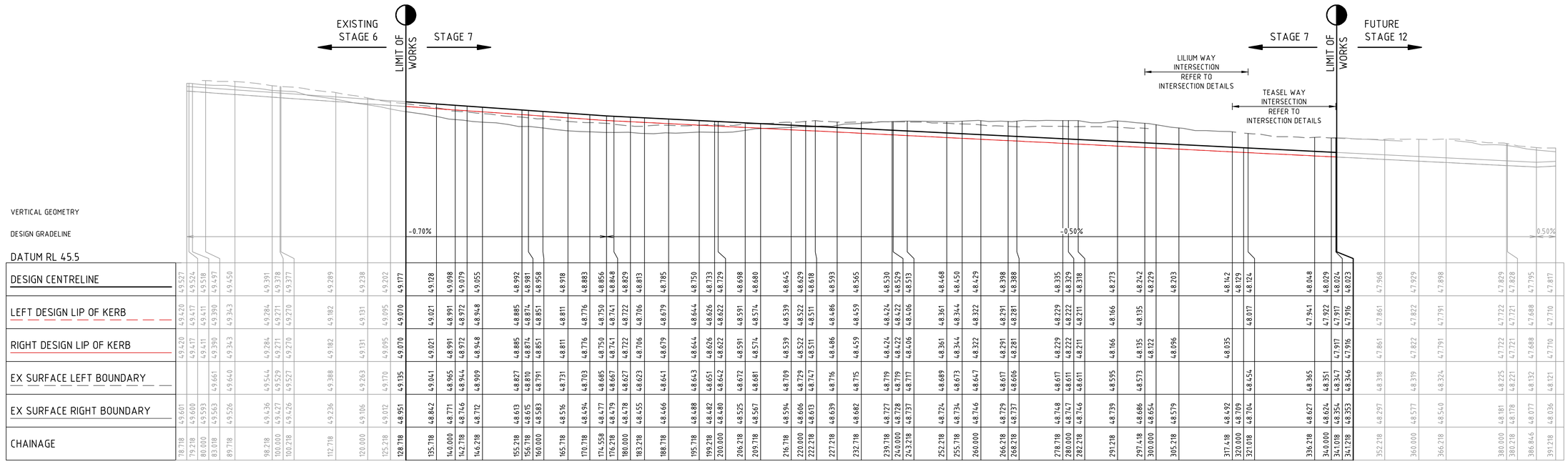
Designed	Checked
T. NGUYEN	G. KOHLMAN
Authorised	Date
G. KOHLMAN	04/04/25

HARLOW ESTATE
STAGE 7
ROAD AND DRAINAGE SERVICES PLAN
WYNDHAM CITY COUNCIL
SIG GROUP

PRELIMINARY

Drg No 309443CR201
Rev B

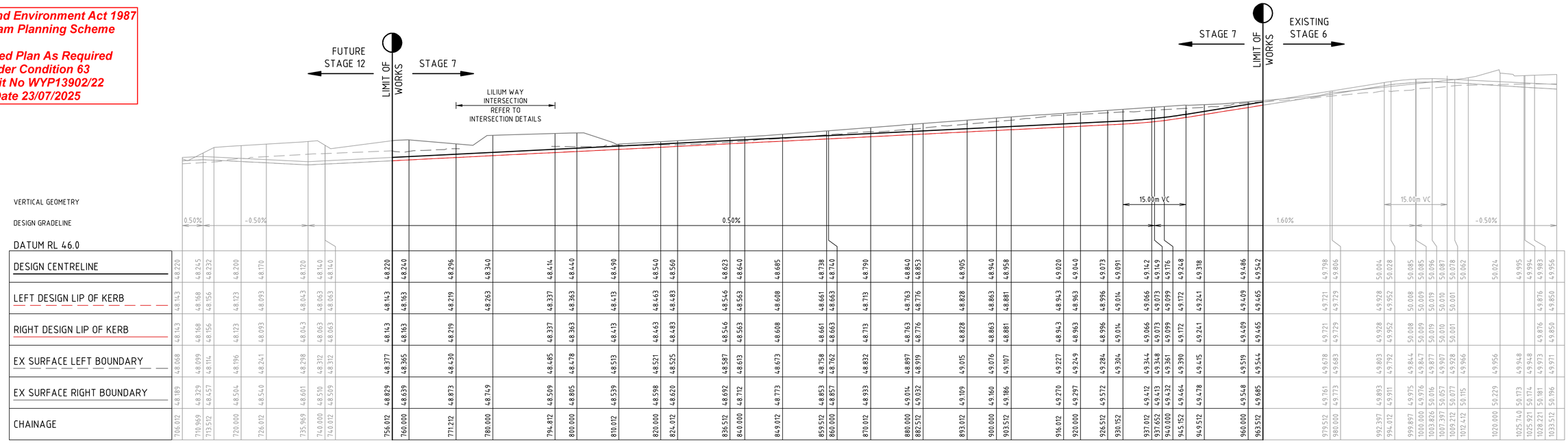
file name 309443CR200.dwg layout name CR201 plotted by Thanh Nguyen
file location \\spiire.mel\data\data\309\309443\civil\CAD plot date 30/05/2025 4:39 PM Sheet 3 of 22 Sheets



BOURNESIDE STREET

Planning and Environment Act 1987
Wyndham Planning Scheme

Approved Plan As Required under Condition 63
Permit No WYP13902/22
Date 23/07/2025



JIRA CRESCENT

Rev	Amendments	Approved	Date
A	ISSUED TO COUNCIL	G.K	04/04/25

Scale
H 1:500 SCALE @ A1 V 1:50
0 5 10 15 20 25
0 0.5 1 1.5 2 2.5

dlcs ISO 9001 certified ISO 45001 certified ISO 14001 certified
System Certified

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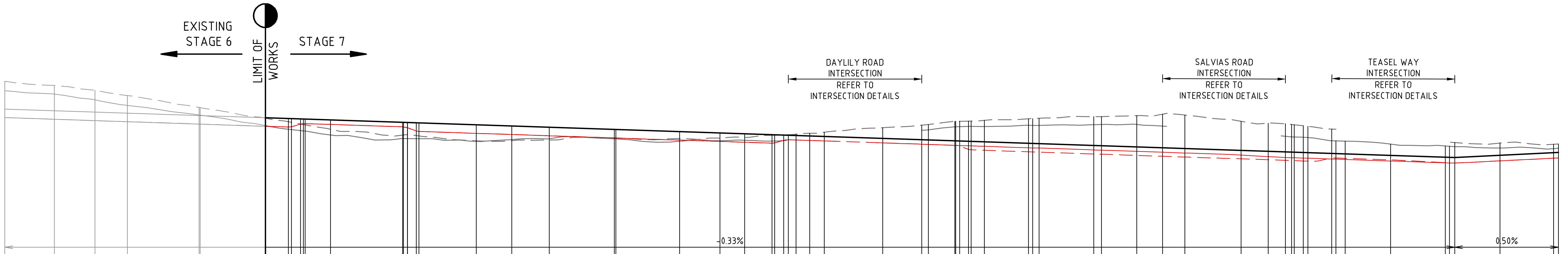
Harlow TARNEIT

Designed	Checked
T. NGUYEN	G. KOHLMAN
Authorised	**Date**
G. KOHLMAN	04/04/25

HARLOW ESTATE
STAGE 7
ROAD AND DRAINAGE
ROAD LONG SECTIONS - SHEET 1
WYNDHAM CITY COUNCIL
SIG GROUP

PRELIMINARY Drg No **309443CR300** Rev **A**



VERTICAL GEOMETRY

DESIGN GRADELINE

DATUM RL 45.5

DESIGN CENTRELINE	48.746	48.715	48.689	48.668	48.622	48.621	48.580	48.565	48.563	48.557	48.555	48.554	48.538	48.492	48.491	48.489	48.489
LEFT DESIGN LIP OF KERB	48.585	48.553	48.527	48.506	48.460	48.460	48.418	48.403	48.408	48.459	48.469	48.469	48.453	48.407	48.406	48.391	48.391
RIGHT DESIGN LIP OF KERB	48.585	48.553	48.527	48.506	48.460	48.460	48.418	48.403	48.408	48.459	48.469	48.469	48.453	48.407	48.406	48.391	48.391
EX SURFACE LEFT BOUNDARY	49.279	49.201	49.107	49.008	48.778	48.774	48.573	48.505	48.494	48.461	48.451	48.444	48.360	48.248	48.250	48.259	48.259
EX SURFACE RIGHT BOUNDARY	49.099	49.036	48.926	48.817	48.636	48.633	48.432	48.360	48.353	48.335	48.330	48.326	48.251	48.183	48.183	48.182	48.182
CHAINAGE	62.718	72.218	80.000	86.218	100.000	100.218	112.718	117.139	117.734	119.448	120.000	120.368	125.218	139.068	139.218	139.987	140.000

DESIGN CENTRELINE	48.483	48.481	48.445	48.422	48.398	48.356	48.355	48.315	48.289	48.273	48.255	48.254	48.248	48.245	48.240	48.231	48.222
LEFT DESIGN LIP OF KERB	48.328	48.320	48.283	48.260	48.236	48.195	48.194	48.153	48.127	48.111	48.094	48.099	48.150	48.160	48.155	48.146	48.137
RIGHT DESIGN LIP OF KERB	48.328	48.320	48.283	48.260	48.236	48.195	48.194	48.153	48.127	48.111	48.094	48.099	48.150	48.160	48.155		
EX SURFACE LEFT BOUNDARY	48.240	48.233	48.139	48.144	48.156	48.194	48.194	48.183	48.192	48.207	48.247	48.248	48.253	48.256	48.268	48.284	48.304
EX SURFACE RIGHT BOUNDARY	48.179	48.178	48.127	48.163	48.176	48.176	48.175	48.130	48.141	48.149	48.136	48.137	48.143				
CHAINAGE	141.701	142.196	153.218	160.000	167.218	179.718	180.000	192.218	200.000	204.718	209.989	210.484	212.198	213.118	214.568	217.218	220.000

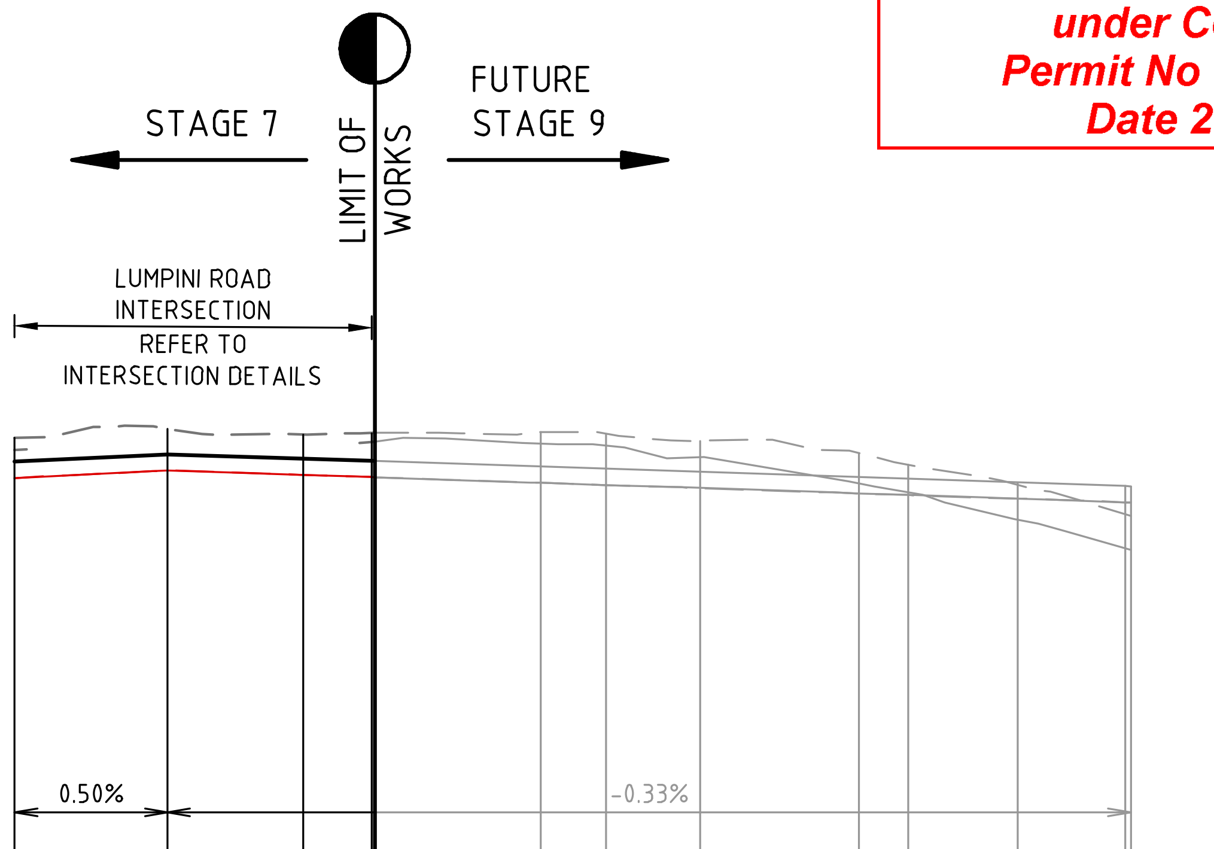
DESIGN CENTRELINE	48.185	48.160	48.155	48.138	48.138	48.135	48.130	48.128	48.120	48.091	48.089	48.085	48.050	48.045	48.022	48.006	47.991
LEFT DESIGN LIP OF KERB	48.100	48.075	48.070	48.053	48.053	48.038	47.975	47.966	47.958	47.930	47.927	47.923	47.888	47.883	47.860	47.844	47.830
RIGHT DESIGN LIP OF KERB		48.075	48.070	48.053	48.053	48.050	48.045	48.043	48.035	48.006	48.004	48.000	47.965	47.960	47.937	47.921	
EX SURFACE LEFT BOUNDARY	48.390	48.439	48.453	48.513	48.513	48.514	48.517	48.518	48.529	48.560	48.565	48.571	48.604	48.605	48.623	48.648	48.633
EX SURFACE RIGHT BOUNDARY		48.340	48.348	48.409	48.410	48.411	48.415	48.415	48.414	48.436	48.436	48.436	48.448	48.453	48.453	48.421	
CHAINAGE	231.218	238.718	240.000	245.068	245.218	245.987	247.701	248.196	250.718	259.218	260.000	261.218	271.718	273.218	280.000	284.918	289.218

DESIGN CENTRELINE	47.955	47.938	47.927	47.923	47.921	47.916	47.913	47.897	47.895	47.889	47.860	47.825	47.822	47.819	47.862	47.914	47.918
LEFT DESIGN LIP OF KERB	47.794	47.776	47.765	47.761	47.760	47.754	47.751	47.812						47.712	47.755	47.807	47.811
RIGHT DESIGN LIP OF KERB			47.820	47.816	47.815	47.809	47.806	47.791	47.788	47.782	47.753	47.718	47.715	47.712	47.755	47.807	47.811
EX SURFACE LEFT BOUNDARY	48.513	48.476	48.466	48.453	48.447	48.428	48.417	48.364						48.108	48.099	48.074	48.079
EX SURFACE RIGHT BOUNDARY			48.226	48.213	48.212	48.209	48.201	48.142	48.140	48.134	48.076	48.041	48.035	48.028	48.000	47.990	47.996
CHAINAGE	300.000	305.218	308.518	309.718	310.213	311.927	312.846	317.418	318.218	320.000	328.718	339.218	340.000	341.018	349.718	360.000	360.918

SPRINGFALL ROAD

Planning and Environment Act 1987
Wyndham Planning Scheme

Approved Plan As Required
under Condition 63
Permit No WYP13902/22
Date 23/07/2025



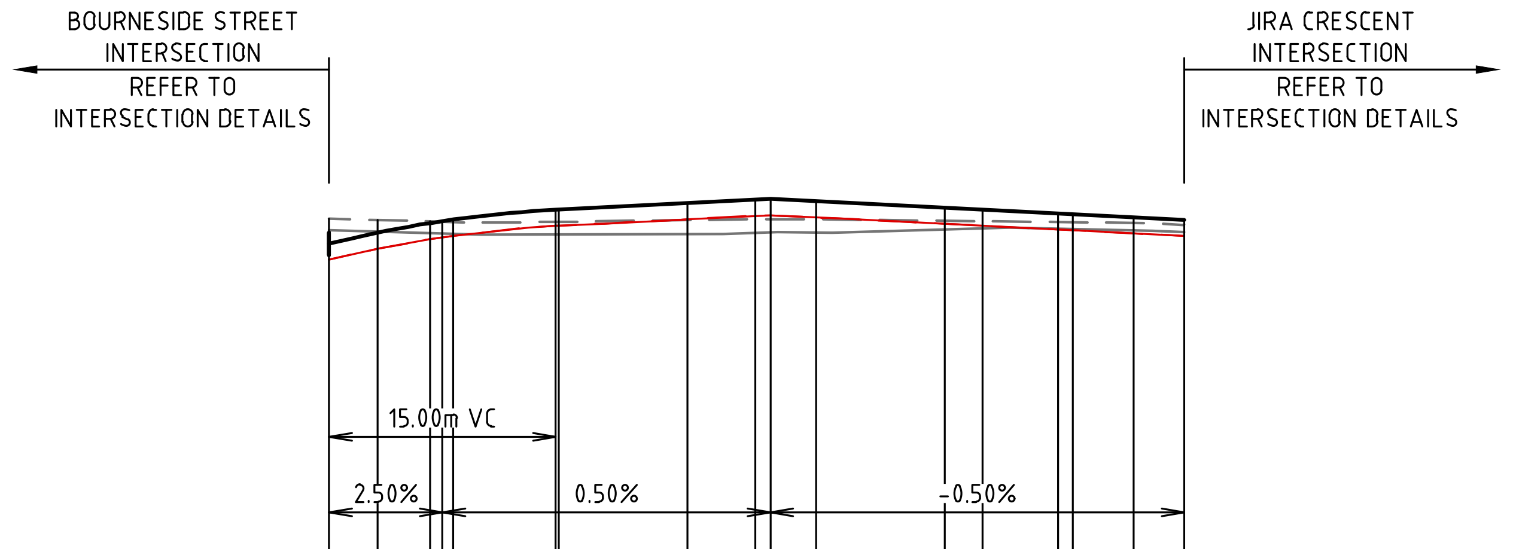
VERTICAL GEOMETRY

DESIGN GRADELINE

DATUM RL 45.0

DESIGN CENTRELINE	47.918	47.969	47.939	47.924	47.923	47.886	47.872	47.851	47.816	47.805	47.781	47.758	47.756
LEFT DESIGN LIP OF KERB	47.811	47.862	47.832	47.817	47.816	47.780	47.765	47.745	47.710	47.699	47.675	47.651	47.650
RIGHT DESIGN LIP OF KERB	47.811			47.817	47.816	47.780	47.765	47.745	47.710	47.699	47.675	47.651	47.650
EX SURFACE LEFT BOUNDARY	48.079	48.136	48.100	48.109	48.109	48.116	48.104	48.057	47.977	47.899	47.767	47.572	47.561
EX SURFACE RIGHT BOUNDARY	47.996			48.048	48.051	48.039	48.027	47.950	47.775	47.716	47.534	47.347	47.336
CHAINAGE	360.918	371.018	380.000	384.518	384.718	395.718	400.000	406.218	416.718	420.000	427.218	434.343	434.718

SPRINGFALL ROAD



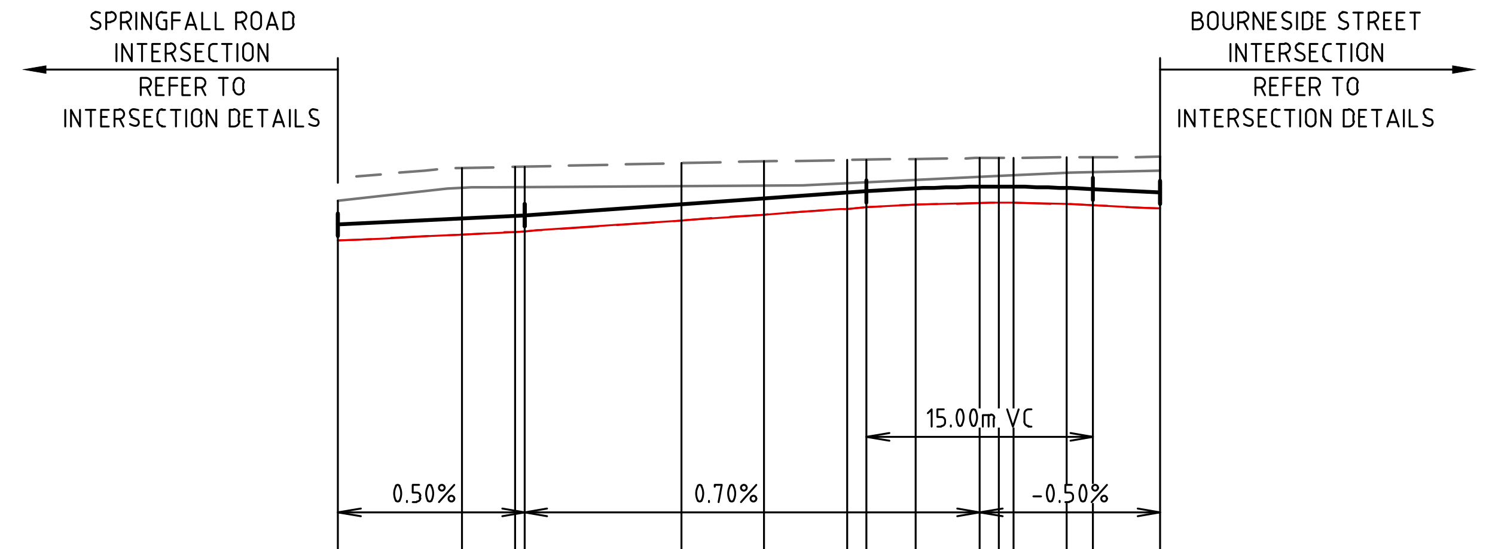
VERTICAL GEOMETRY

DESIGN GRADELINE

DATUM RL 46.0

DESIGN CENTRELINE	48.377	48.450	48.515	48.527	48.537	48.602	48.603	48.646	48.668	48.673	48.658	48.616	48.603	48.578	48.573	48.553	48.536
LEFT DESIGN LIP OF KERB	48.271	48.344	48.408	48.420	48.431	48.496	48.497	48.539	48.562	48.567	48.552	48.509	48.497	48.472	48.467	48.447	48.430
RIGHT DESIGN LIP OF KERB	48.271	48.344	48.408	48.420	48.431	48.496	48.497	48.539	48.562	48.567	48.552	48.509	48.497	48.472	48.467	48.447	48.430
EX SURFACE LEFT BOUNDARY	48.543	48.534	48.525	48.523	48.522	48.523	48.523	48.533	48.538	48.539	48.540	48.531	48.528	48.522	48.521	48.514	48.505
EX SURFACE RIGHT BOUNDARY	48.469	48.458	48.447	48.445	48.442	48.438	48.438	48.441	48.449	48.451	48.451	48.470	48.477	48.476	48.474	48.466	48.453
CHAINAGE	11.800	15.000	18.500	19.300	20.000	26.800	27.000	35.500	40.000	40.992	44.000	52.500	55.000	60.000	61.000	65.000	68.350

LILIUM WAY



VERTICAL GEOMETRY

DESIGN GRADELINE

DATUM RL 45.5

DESIGN CENTRELINE	48.004	48.045	48.063	48.066	48.138	48.177	48.215	48.224	48.243	48.254	48.255	48.254	48.247	48.239	48.217
LEFT DESIGN LIP OF KERB	47.898	47.939	47.956	47.959	48.032	48.070	48.109	48.118	48.136	48.146	48.148	48.148	48.140	48.133	48.110
RIGHT DESIGN LIP OF KERB	47.898	47.939	47.956	47.959	48.032	48.070	48.109	48.118	48.136	48.146	48.148	48.148	48.140	48.133	48.110
EX SURFACE LEFT BOUNDARY		48.377	48.386	48.387	48.411	48.423	48.431	48.433	48.438	48.444	48.445	48.446	48.448	48.449	48.454
EX SURFACE RIGHT BOUNDARY	48.161	48.246	48.252	48.253	48.260	48.264	48.279	48.285	48.300	48.319	48.325	48.329	48.345	48.350	48.360
CHAINAGE	11.800	20.000	23.500	24.149	34.500	40.000	45.500	46.758	50.000	54.258	55.508	56.500	60.000	61.758	66.200

TEASEL WAY

file name 309443CR300.dwg layout name CR301 plotted by Thanh Nguyen
file location G:\30\309443\Civil\ACAD plot date 30/05/2025 4:39 PM Sheet 5 of 22 Sheets

A	ISSUED TO COUNCIL	G.K	04/04/25
Rev	Amendments	Approved	Date

Scale
H 1:500
SCALE @ A1
V 1:50
0 5 10 15 20 25
0 0.5 1 1.5 2 2.5

ISO 9001 certified ISO 45001 certified ISO 14001 certified
System Certified

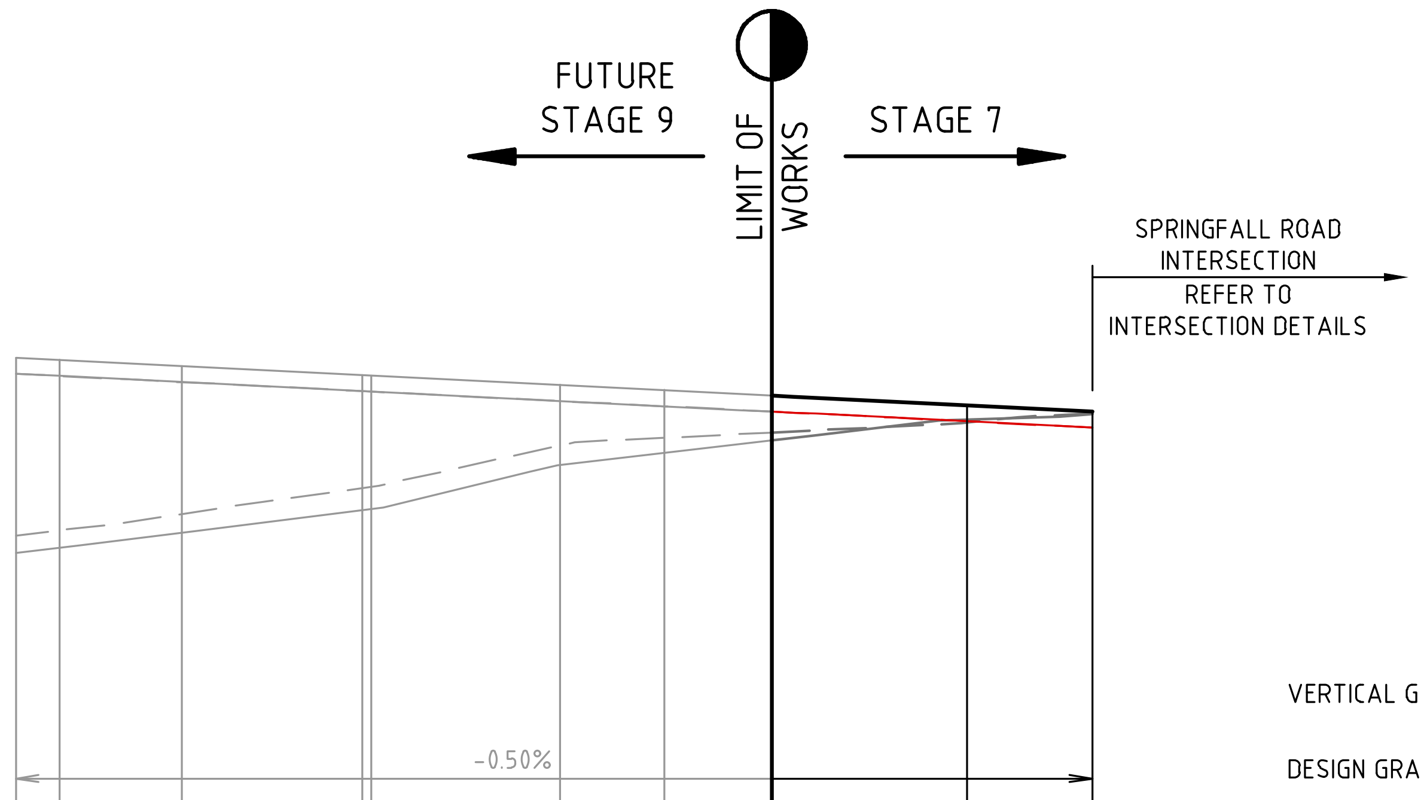
spiire
L6 414 LA TROBE STREET PO BOX 16084 MELBOURNE
VICTORIA 8007 AUSTRALIA T 61 3 9993 7888
spiire.com.au ABN 55 050 029 635

Harlow
TARNEIT

Designed T. NGUYEN	Checked G. KOHLMAN
Authorised G. KOHLMAN	Date 04/04/25

HARLOW ESTATE
STAGE 7
ROAD AND DRAINAGE
ROAD LONG SECTIONS - SHEET 2
WYNDHAM CITY COUNCIL
SIG GROUP

PRELIMINARY
Drg No **309443CR301**
Rev **A**



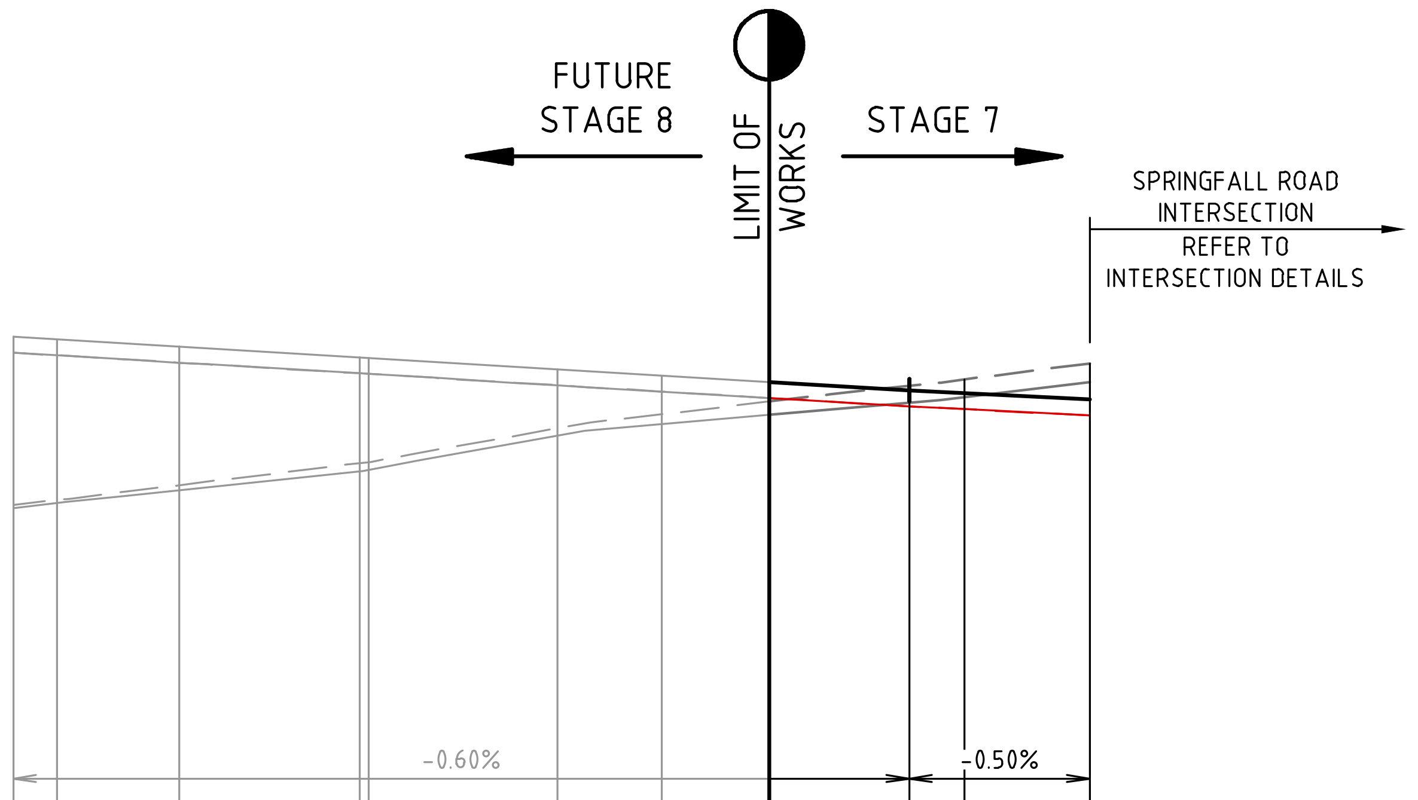
VERTICAL GEOMETRY

DESIGN GRADELINE

DATUM RL 45.0

DESIGN CENTRELINE	48.384	48.370	48.329	48.270	48.267	48.204	48.170	48.134	48.070	48.028
LEFT DESIGN LIP OF KERB	48.278	48.263	48.223	48.163	48.160	48.098	48.063	48.028	47.963	47.922
RIGHT DESIGN LIP OF KERB	48.278	48.263	48.223	48.163	48.160	48.098	48.063	48.028	47.963	47.922
EX SURFACE LEFT BOUNDARY	47.208	47.242	47.350	47.522	47.530	47.804	47.854	47.889	47.954	48.015
EX SURFACE RIGHT BOUNDARY	47.091	47.127	47.227	47.376	47.383	47.675	47.755	47.838	47.976	48.013
CHAINAGE	77.089	80.000	88.089	100.000	100.589	113.089	120.000	127.089	140.000	148.289

LUMPINI ROAD



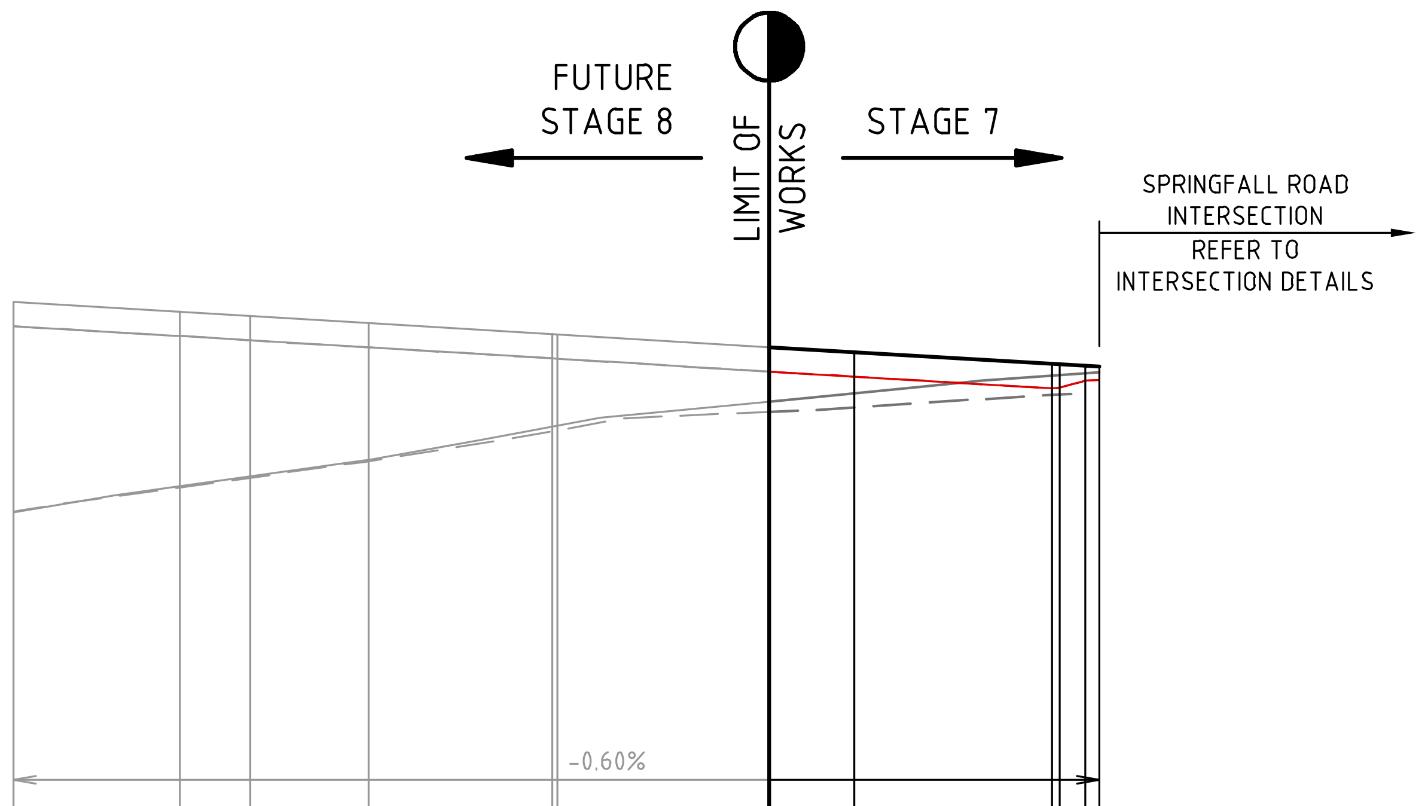
VERTICAL GEOMETRY

DESIGN GRADELINE

DATUM RL 45.0

DESIGN CENTRELINE	48.524	48.507	48.458	48.387	48.383	48.308	48.267	48.224	48.169	48.150	48.109
LEFT DESIGN LIP OF KERB	48.418	48.400	48.352	48.280	48.277	48.202	48.160	48.118	48.062	48.044	48.002
RIGHT DESIGN LIP OF KERB	48.418	48.400	48.352	48.280	48.277	48.202	48.160	48.118	48.062	48.044	48.002
EX SURFACE LEFT BOUNDARY	47.409	47.442	47.541	47.687	47.694	47.916	48.011	48.094	48.198	48.240	48.346
EX SURFACE RIGHT BOUNDARY	47.388	47.424	47.507	47.630	47.639	47.869	47.946	48.007	48.085	48.122	48.221
CHAINAGE	77.089	80.000	88.089	100.000	100.589	113.089	120.000	127.089	136.364	140.000	148.289

SALVIAS ROAD



VERTICAL GEOMETRY

DESIGN GRADELINE

DATUM RL 45.0

DESIGN CENTRELINE	48.764	48.698	48.670	48.623	48.550	48.548	48.464	48.430	48.352	48.349	48.338	48.333
LEFT DESIGN LIP OF KERB	48.602	48.536	48.508	48.461	48.388	48.386	48.302	48.268	48.190	48.194	48.241	48.248
RIGHT DESIGN LIP OF KERB	48.602	48.536	48.508	48.461	48.388	48.386	48.302	48.268	48.190	48.194	48.241	48.248
EX SURFACE LEFT BOUNDARY	47.374	47.535	47.599	47.709	47.905	47.912	48.034	48.065	48.146	48.149		
EX SURFACE RIGHT BOUNDARY	47.369	47.542	47.607	47.718	47.937	47.944	48.104	48.157	48.274	48.277	48.289	48.295
CHAINAGE	1024.348	1035.348	1040.000	1047.848	1060.000	1060.348	1074.348	1080.000	1093.070	1093.565	1095.279	1096.198

DAYLILY ROAD

Planning and Environment Act 1987
Wyndham Planning Scheme

Approved Plan As Required
under Condition 63
Permit No WYP13902/22
Date 23/07/2025

file name 309443CR300.dwg layout name CR302 plotted by Thanh Nguyen
file location G:\30\309443\Civil\ACAD plot date 30/05/2025 4:39 PM Sheet 6 of 22 Sheets

Rev	Amendments	Approved	Date
A	ISSUED TO COUNCIL	G.K	04/04/25

Scale

H 1:500 0 5 10 15 20 25
SCALE @ A1
V 1:50 0 0.5 1 1.5 2 2.5

dlcs ISO 9001 certified ISO 45001 certified ISO 14001 certified
System Certified

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L6 414 LA TROBE STREET PO BOX 16084 MELBOURNE
VICTORIA 8007 AUSTRALIA T 61 3 9993 7888
spiire.com.au ABN 55 050 029 635

Harlow
TARNEIT

Designed
T. NGUYEN
Checked
G. KOHLMAN
Authorised
G. KOHLMAN
Date
04/04/25

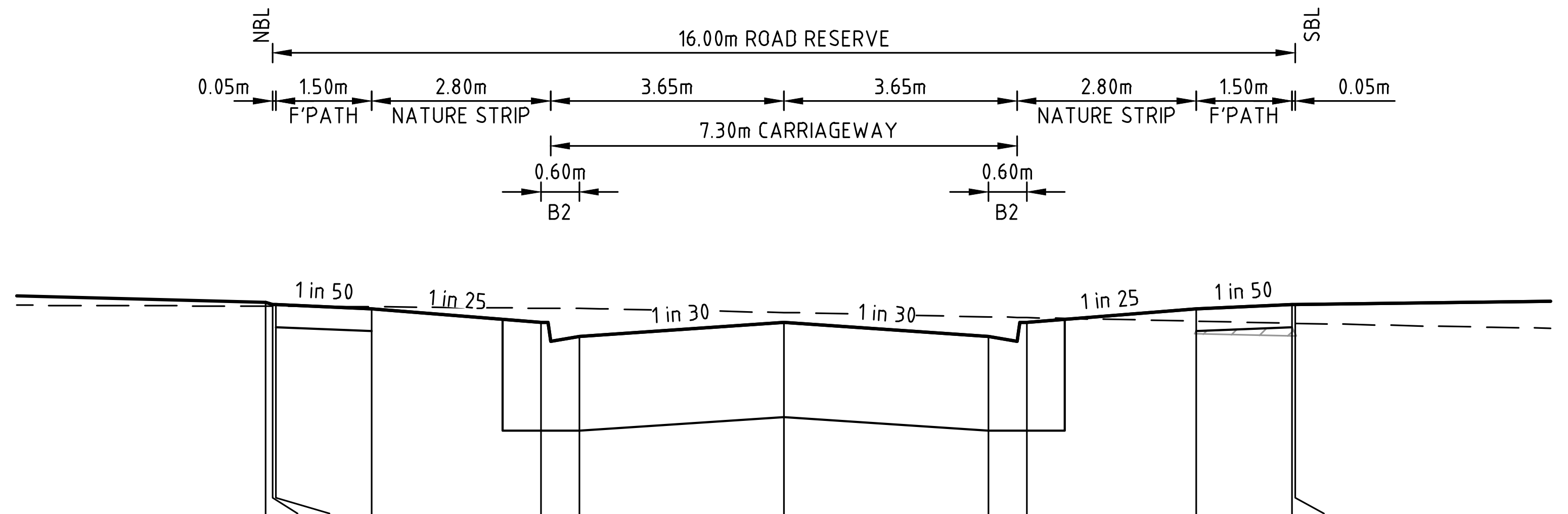
HARLOW ESTATE
STAGE 7
ROAD AND DRAINAGE
ROAD LONG SECTIONS - SHEET 3
WYNDHAM CITY COUNCIL
SIG GROUP

PRELIMINARY
Drg No 309443CR302
Rev A

FILLING NOTE

ALL FILLING WITHIN ROAD RESERVES IS TO BE UNDERTAKEN USING LEVEL 1 SUPERVISION AND BE COMPLETED IN ACCORDANCE WITH AS 3798-2007 AND TO THE SATISFACTION OF COUNCIL AND THE SUPERINTENDENT. FILL AREAS ARE TO BE STRIPPED OF TOPSOIL, FILLED AND REPLACED WITH TOPSOIL (WHERE REQUIRED) TO OBTAIN THE FINAL LEVELS SHOWN ON THE DRAWINGS.

▨ STRUCTURAL FILL IN ACCORDANCE WITH AS3798-2007, LEVEL 1

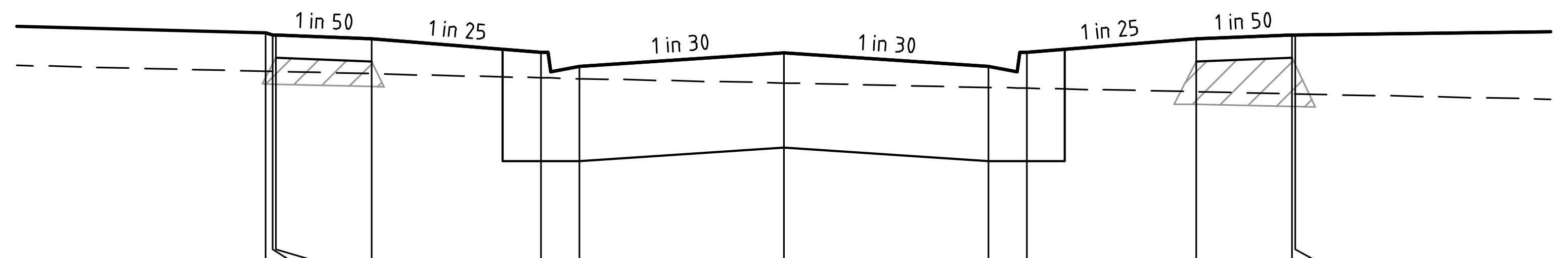


DATUM R.L.47.0

DESIGN SURFACE LEVEL	48.776	48.759	48.757	48.727	48.621	48.511	48.618	48.511	48.621	48.727	48.757	48.759
EXISTING SURFACE LEVEL	48.747	48.747	48.746	48.741	48.731	48.728	48.697	48.663	48.657	48.629	48.613	48.613
OFFSET	-8.105	-8.000	-7.950	-6.450	-3.800	-3.200	0.000	3.200	3.800	6.450	7.950	8.000

BOURNESIDE STREET

CH 222.22

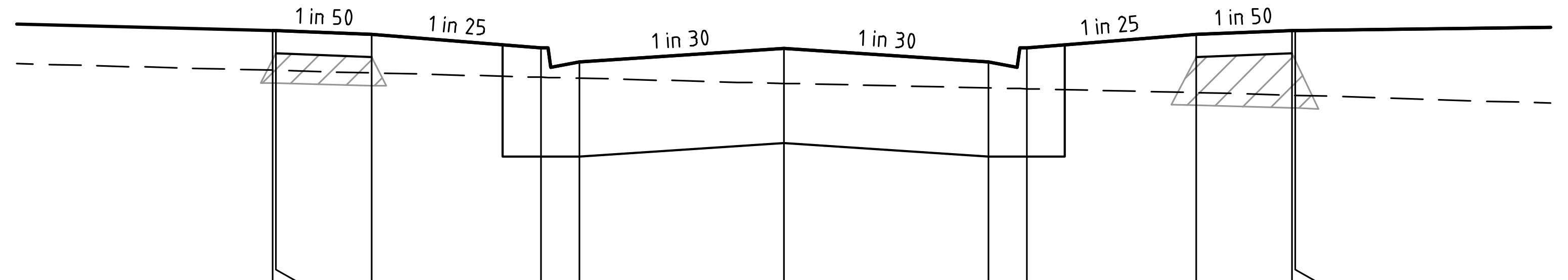


DATUM R.L.47.0

DESIGN SURFACE LEVEL	48.944	48.926	48.925	48.895	48.789	48.679	48.785	48.679	48.789	48.895	48.925	48.926
EXISTING SURFACE LEVEL	48.642	48.641	48.640	48.623	48.591	48.584	48.550	48.516	48.510	48.482	48.466	48.466
OFFSET	-8.105	-8.000	-7.950	-6.450	-3.800	-3.200	0.000	3.200	3.800	6.450	7.950	8.000

BOURNESIDE STREET

CH 188.72

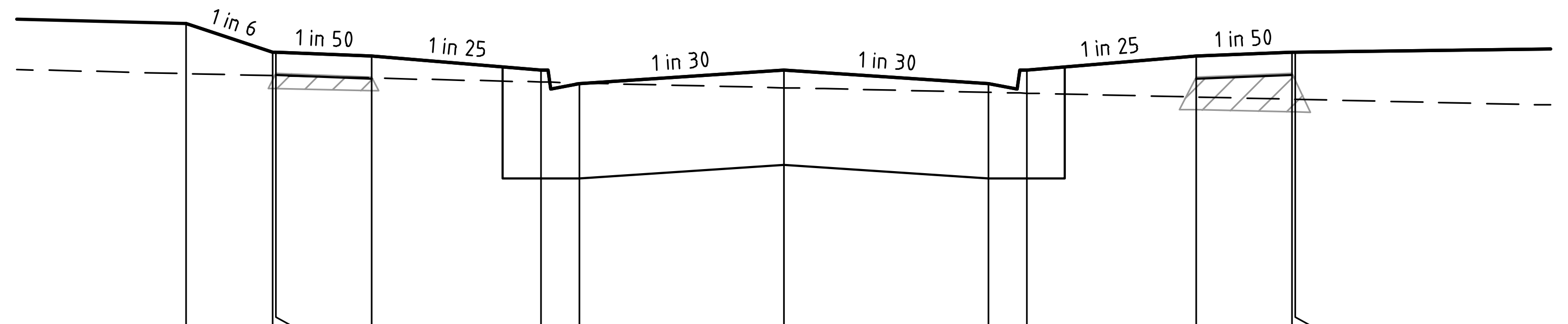


DATUM R.L.47.0

DESIGN SURFACE LEVEL	49.122	49.120	49.090	48.984	48.874	48.981	48.874	48.984	49.090	49.120	49.122
EXISTING SURFACE LEVEL	48.810	48.810	48.790	48.756	48.749	48.708	48.673	48.666	48.636	48.616	48.615
OFFSET	-8.000	-7.950	-6.450	-3.800	-3.200	0.000	3.200	3.800	6.450	7.950	8.000

BOURNESIDE STREET

CH 156.72

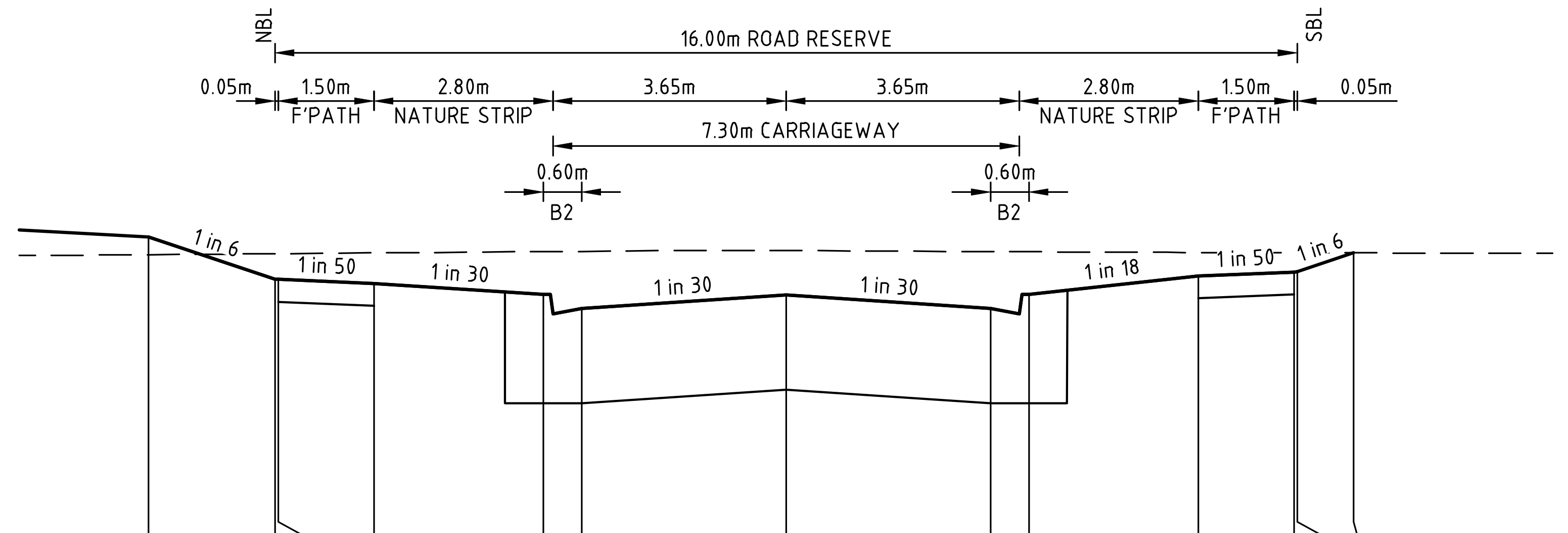


DATUM R.L.47.0

DESIGN SURFACE LEVEL	49.544	49.318	49.316	49.286	49.180	49.070	49.177	49.070	49.180	49.286	49.316	49.318
EXISTING SURFACE LEVEL	49.151	49.135	49.135	49.117	49.085	49.078	49.040	49.004	48.997	48.968	48.951	48.951
OFFSET	-9.356	-8.000	-7.950	-6.450	-3.800	-3.200	0.000	3.200	3.800	6.450	7.950	8.000

BOURNESIDE STREET

CH 128.72

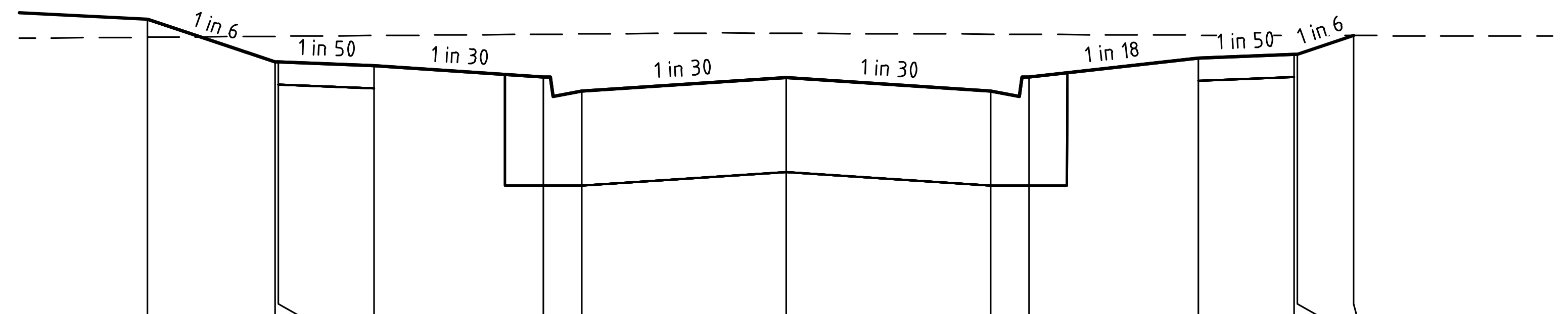


DATUM R.L.46.0

DESIGN SURFACE LEVEL	48.476	48.146	48.145	48.115	48.026	47.916	48.023	47.916	48.026	48.173	48.203	48.205	48.352
EXISTING SURFACE LEVEL	48.339	48.346	48.346	48.352	48.362	48.364	48.370	48.363	48.361	48.356	48.354	48.353	48.352
OFFSET	-9.981	-8.000	-7.950	-6.450	-3.800	-3.200	0.000	3.200	3.800	6.450	7.950	8.000	8.883

BOURNESIDE STREET

CH 341.22

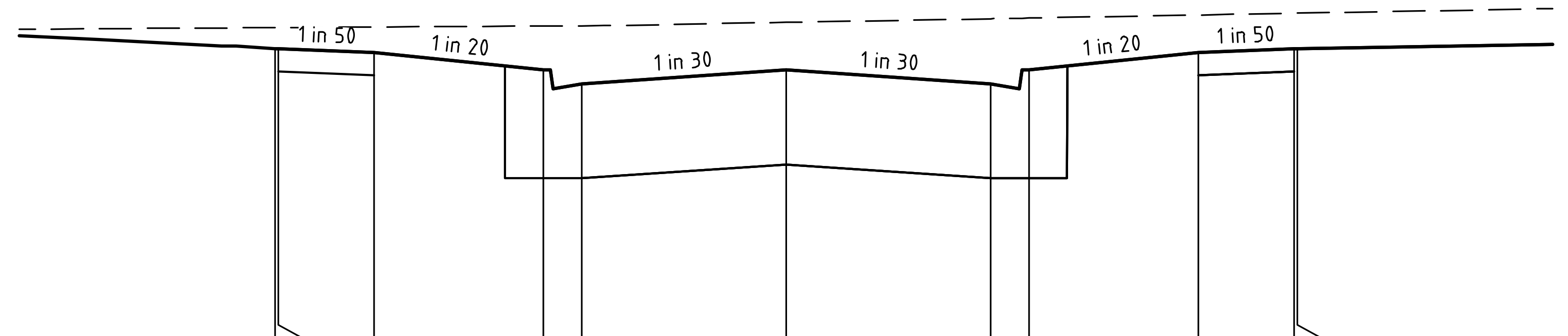


DATUM R.L.46.0

DESIGN SURFACE LEVEL	48.479	48.147	48.146	48.116	48.027	47.917	48.024	47.917	48.027	48.174	48.204	48.206	48.353
EXISTING SURFACE LEVEL	48.339	48.347	48.347	48.353	48.363	48.365	48.371	48.363	48.362	48.356	48.354	48.354	48.353
OFFSET	-9.992	-8.000	-7.950	-6.450	-3.800	-3.200	0.000	3.200	3.800	6.450	7.950	8.000	8.879

BOURNESIDE STREET

CH 341.02

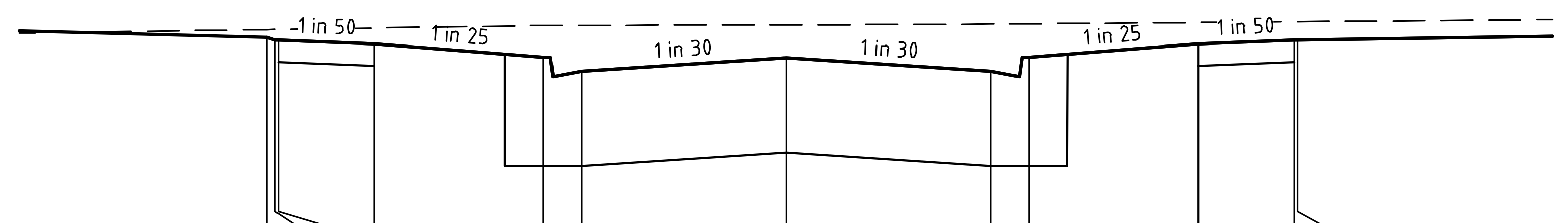


DATUM R.L.46.0

DESIGN SURFACE LEVEL	48.409	48.408	48.378	48.245	48.135	48.242	48.135	48.245	48.378	48.408	48.409
EXISTING SURFACE LEVEL	48.573	48.573	48.578	48.586	48.588	48.614	48.643	48.649	48.672	48.686	48.686
OFFSET	-8.000	-7.950	-6.450	-3.800	-3.200	0.000	3.200	3.800	6.450	7.950	8.000

BOURNESIDE STREET

CH 297.42



DATUM R.L.47.0

DESIGN SURFACE LEVEL	48.612	48.591	48.590	48.560	48.454	48.344	48.450	48.344	48.454	48.560	48.590	48.591
EXISTING SURFACE LEVEL	48.672	48.673	48.674	48.685	48.704	48.705	48.709	48.715	48.717	48.728	48.734	48.734
OFFSET	-8.126	-8.000	-7.950	-6.450	-3.800	-3.200	0.000	3.200	3.800	6.450	7.950	8.000

BOURNESIDE STREET

CH 255.72

Planning and Environment Act 1987
Wyndham Planning Scheme

Approved Plan As Required
under Condition 63
Permit No WYP13902/22
Date 23/07/2025

file name 309443CR400.dwg layout name CR400 plotted by Thanh Nguyen
file location \\spiire\meldata\Data\30\309443\Civil\ACAD plot date 30/05/2025 4:39 PM Sheet 7 of 22 Sheets

A	ISSUED TO COUNCIL	G.K	04/04/25
Rev	Amendments	Approved	Date

Scale
H 1:100 | 0 1 2 3 4 5
SCALE @ A1
V 1:50 | 0 0.5 1 1.5 2 2.5

dlcs ISO 9001 certified ISO 45001 certified ISO 14001 certified
System Certified

spiire
L6 414 LA TROBE STREET PO BOX 16084 MELBOURNE
VICTORIA 8007 AUSTRALIA T 61 3 9993 7888
spiire.com.au ABN 55 050 029 635

Harlow
TARNEIT

Designed
T. NGUYEN
Checked
G. KOHLMAN
Authorised
G. KOHLMAN
Date
04/04/25

HARLOW ESTATE
STAGE 7
ROAD AND DRAINAGE
ROAD CROSS SECTIONS - SHEET 1
WYNDHAM CITY COUNCIL
SIG GROUP

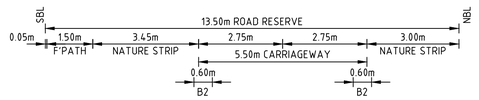
PRELIMINARY
Drg No
309443CR400
Rev
A

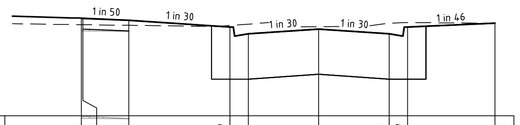
FILLING NOTE
ALL FILLING WITHIN ROAD RESERVES IS TO BE UNDERTAKEN USING LEVEL 1 SUPERVISION AND BE COMPLETED IN ACCORDANCE WITH AS 3798-2007 AND TO THE SATISFACTION OF COUNCIL AND THE SUPERINTENDENT. FILL AREAS ARE TO BE STRIPPED OF TOPSOIL, FILLED AND REPLACED WITH TOPSOIL (WHERE REQUIRED) TO OBTAIN THE FINAL LEVELS SHOWN ON THE DRAWINGS.

STRUCTURAL FILL IN ACCORDANCE WITH AS3798-2007, LEVEL 1

Planning and Environment Act 1987
Wyndham Planning Scheme

Approved Plan As Required under Condition 63
Permit No WYP13902/22
Date 23/07/2025

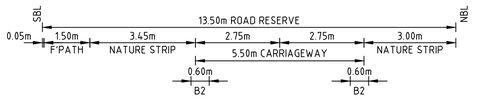


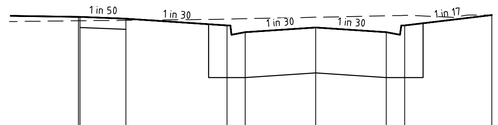


DATUM R.L.47.0

DESIGN SURFACE LEVEL	48.589	48.587	48.557	48.447	48.337	48.474	48.337	48.447	48.509
EXISTING SURFACE LEVEL	48.485	48.484	48.475	48.471	48.494	48.452	48.508	48.519	48.509
OFFSET	-7.750	-7.700	-6.200	-2.900	-2.300	0.000	2.300	2.900	5.750

JIRA CRESCENT CH 794.81

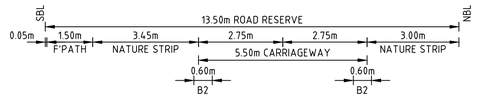


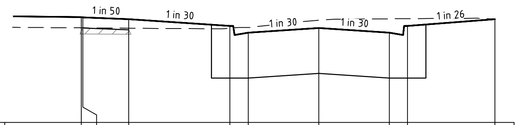


DATUM R.L.47.0

DESIGN SURFACE LEVEL	49.080	49.078	49.048	48.938	48.828	48.905	48.828	48.938	49.109
EXISTING SURFACE LEVEL	49.015	49.015	49.023	49.041	49.049	49.073	49.127	49.120	49.109
OFFSET	-7.750	-7.700	-6.200	-2.900	-2.300	0.000	2.300	2.900	5.750

JIRA CRESCENT CH 893.01

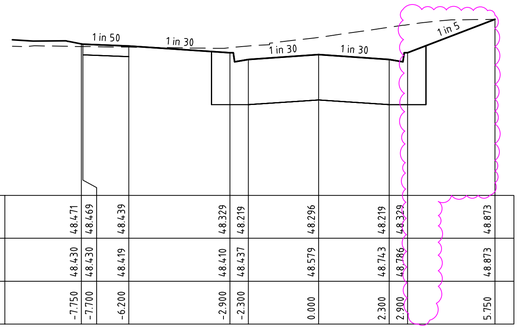




DATUM R.L.48.0

DESIGN SURFACE LEVEL	49.717	49.715	49.685	49.575	49.465	49.542	49.465	49.575	49.685
EXISTING SURFACE LEVEL	49.544	49.544	49.538	49.539	49.549	49.668	49.692	49.694	49.685
OFFSET	-7.750	-7.700	-6.200	-2.900	-2.300	0.000	2.300	2.900	5.750

JIRA CRESCENT CH 963.51

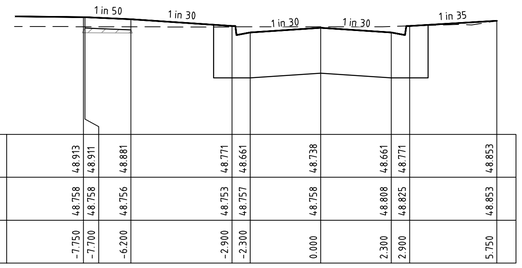


DATUM R.L.46.0

DESIGN SURFACE LEVEL	48.471	48.469	48.439	48.329	48.219	48.296	48.219	48.329	48.873
EXISTING SURFACE LEVEL	48.430	48.430	48.419	48.410	48.437	48.579	48.743	48.786	48.873
OFFSET	-7.750	-7.700	-6.200	-2.900	-2.300	0.000	2.300	2.900	5.750

JIRA CRESCENT CH 771.21

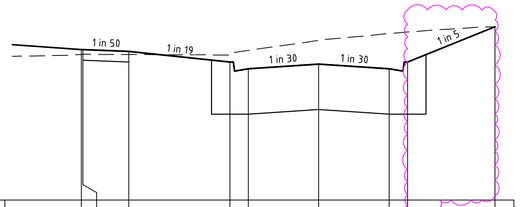
B



DATUM R.L.47.0

DESIGN SURFACE LEVEL	48.913	48.911	48.881	48.771	48.661	48.738	48.661	48.771	48.853
EXISTING SURFACE LEVEL	48.758	48.758	48.756	48.753	48.757	48.758	48.808	48.825	48.853
OFFSET	-7.750	-7.700	-6.200	-2.900	-2.300	0.000	2.300	2.900	5.750

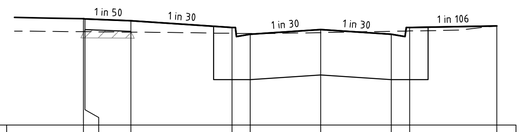
JIRA CRESCENT CH 859.51



DATUM R.L.46.0

DESIGN SURFACE LEVEL	48.458	48.457	48.427	48.253	48.143	48.220	48.143	48.253	48.829
EXISTING SURFACE LEVEL	48.377	48.379	48.376	48.401	48.443	48.607	48.718	48.743	48.829
OFFSET	-7.750	-7.700	-6.200	-2.900	-2.300	0.000	2.300	2.900	5.750

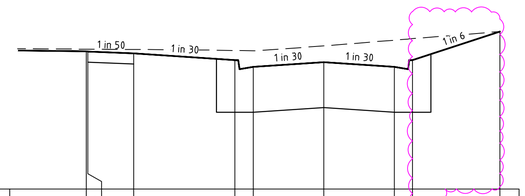
JIRA CRESCENT CH 756.01



DATUM R.L.47.0

DESIGN SURFACE LEVEL	48.735	48.733	48.703	48.593	48.483	48.560	48.483	48.593	48.620
EXISTING SURFACE LEVEL	48.525	48.525	48.518	48.498	48.494	48.510	48.528	48.541	48.620
OFFSET	-7.750	-7.700	-6.200	-2.900	-2.300	0.000	2.300	2.900	5.750

JIRA CRESCENT CH 824.01



B

DATUM R.L.47.0

DESIGN SURFACE LEVEL	49.248	49.246	49.216	49.106	48.996	49.073	48.996	49.106	49.572
EXISTING SURFACE LEVEL	49.284	49.284	49.279	49.262	49.256	49.337	49.431	49.457	49.572
OFFSET	-7.750	-7.700	-6.200	-2.900	-2.300	0.000	2.300	2.900	5.750

JIRA CRESCENT CH 926.51

Rev	Amendments	Approved	Date
B	ROAD CROSS SECTIONS AMENDED	G.K	30/05/25
A	ISSUED TO COUNCIL	G.K	04/04/25

Scale
H 1:100 SCALE @ A1
V 1:50
0 1 2 3 4 5
0 0.5 1 1.5 2 2.5

dlcs ISO 9001 certified ISO 45001 certified ISO 14001 certified
System Certified

spiire
L6 414 LA TROBE STREET PO BOX 16084 MELBOURNE
VICTORIA 8007 AUSTRALIA T 61 3 9993 7888
spiire.com.au ABN 55 050 029 635

Harlow TARNEIT

Designed T. NGUYEN
Checked G. KOHLMAN
Authorised G. KOHLMAN
Date 04/04/25

HARLOW ESTATE
STAGE 7
ROAD AND DRAINAGE
ROAD CROSS SECTIONS - SHEET 2
WYNDHAM CITY COUNCIL
SIG GROUP

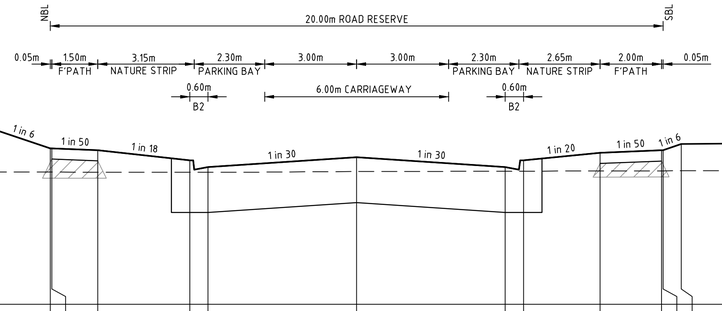
PRELIMINARY
Drg No **309443CR401**
Rev **B**

file name 309443CRG00.dwg layout name CRG01 plotted by Thanh Nguyen
file location G:\309\309443\Civil\AUCAD plot date 30/05/2025 4:39 PM Sheet 8 of 22 Sheets

FILLING NOTE

ALL FILLING WITHIN ROAD RESERVES IS TO BE UNDERTAKEN USING LEVEL 1 SUPERVISION AND BE COMPLETED IN ACCORDANCE WITH AS 3798-2007 AND TO THE SATISFACTION OF COUNCIL AND THE SUPERINTENDENT. FILL AREAS ARE TO BE STRIPPED OF TOPSOIL, FILLED AND REPLACED WITH TOPSOIL (WHERE REQUIRED) TO OBTAIN THE FINAL LEVELS SHOWN ON THE DRAWINGS.

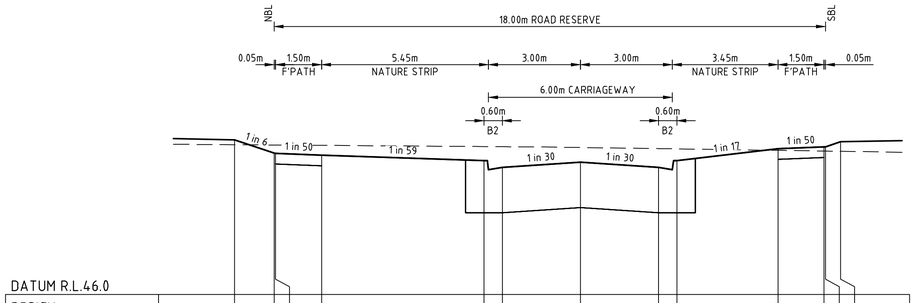
STRUCTURAL FILL IN ACCORDANCE WITH AS3798-2007, LEVEL 1



DATUM R.L.46.0

DESIGN SURFACE LEVEL	48.859	48.545	48.543	48.513	48.346	48.236	48.398	48.236	48.346	48.471	48.511	48.513	48.613
EXISTING SURFACE LEVEL	48.157	48.156	48.156	48.155	48.154	48.153	48.164	48.170	48.171	48.174	48.176	48.176	48.177
OFFSET	-11.885	-10.000	-9.950	-8.450	-5.450	-4.850	0.000	4.850	5.450	7.950	9.950	10.000	10.600

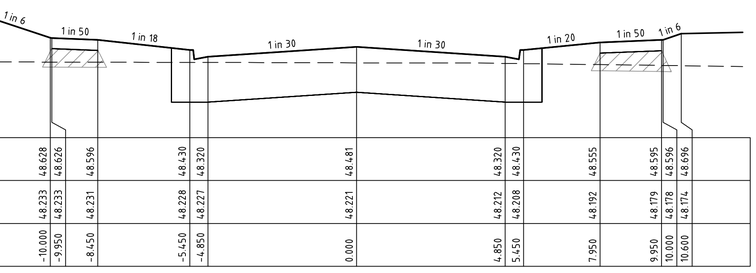
SPRINGFALL ROAD CH 167.22



DATUM R.L.46.0

DESIGN SURFACE LEVEL	48.521	48.346	48.305	48.275	48.185	48.075	48.160	48.075	48.185	48.379	48.409	48.410	48.493
EXISTING SURFACE LEVEL	48.444	48.439	48.439	48.433	48.414	48.411	48.398	48.381	48.376	48.352	48.340	48.340	48.336
OFFSET	-11.288	-10.000	-9.950	-8.450	-3.150	-2.550	0.000	2.550	3.150	6.450	7.950	8.000	8.496

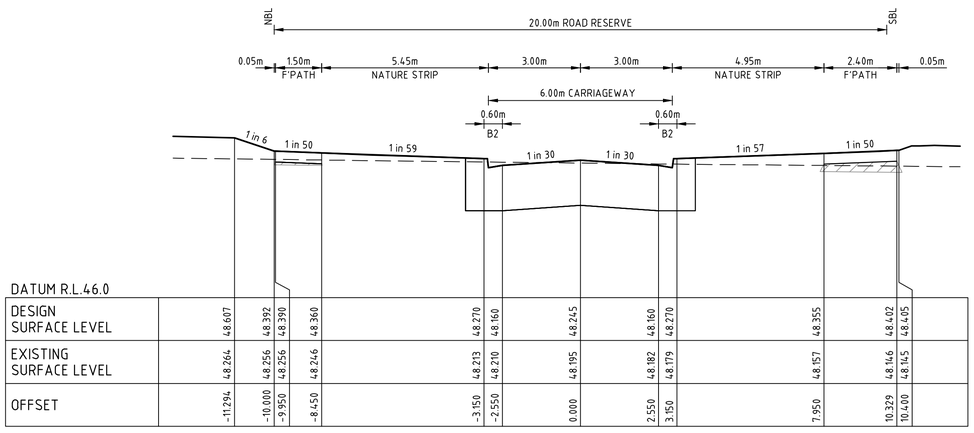
SPRINGFALL ROAD CH 238.72



DATUM R.L.47.0

DESIGN SURFACE LEVEL	49.041	48.628	48.626	48.596	48.430	48.320	48.481	48.320	48.430	48.555	48.595	48.596	48.696
EXISTING SURFACE LEVEL	48.236	48.233	48.233	48.231	48.228	48.227	48.221	48.212	48.208	48.192	48.179	48.178	48.174
OFFSET	-12.481	-10.000	-9.950	-8.450	-5.450	-4.850	0.000	4.850	5.450	7.950	9.950	10.000	10.600

SPRINGFALL ROAD CH 142.20



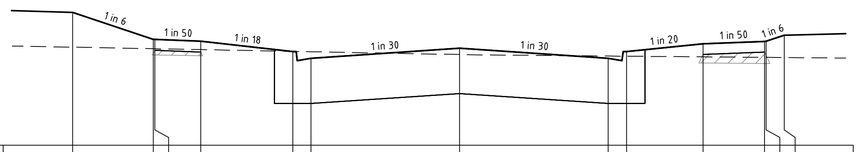
DATUM R.L.46.0

DESIGN SURFACE LEVEL	48.607	48.392	48.390	48.360	48.270	48.160	48.245	48.160	48.270	48.355	48.402	48.405	
EXISTING SURFACE LEVEL	48.264	48.256	48.256	48.246	48.213	48.210	48.195	48.182	48.179	48.157	48.146	48.145	
OFFSET	-11.294	-10.000	-9.950	-8.450	-3.150	-2.550	0.000	2.550	3.150	7.950	10.329	10.400	

SPRINGFALL ROAD CH 213.12

Planning and Environment Act 1987
Wyndham Planning Scheme

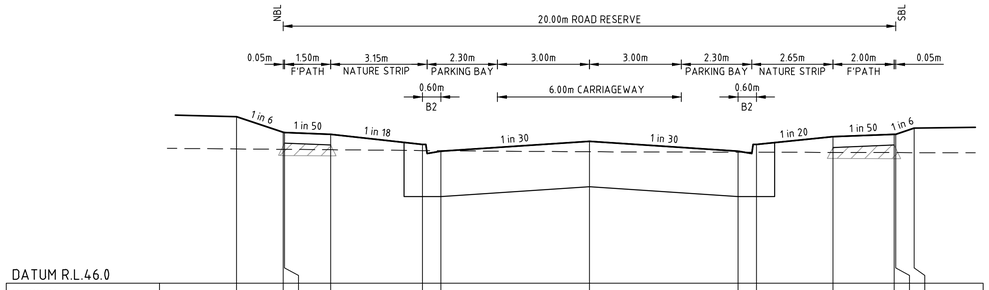
Approved Plan As Required under Condition 63
Permit No WYP13902/22
Date 23/07/2025



DATUM R.L.47.0

DESIGN SURFACE LEVEL	49.165	48.726	48.725	48.695	48.528	48.418	48.580	48.418	48.528	48.653	48.693	48.695	48.795
EXISTING SURFACE LEVEL	48.598	48.573	48.573	48.558	48.530	48.524	48.478	48.454	48.451	48.441	48.432	48.432	48.429
OFFSET	-12.632	-10.000	-9.950	-8.450	-5.450	-4.850	0.000	4.850	5.450	7.950	9.950	10.000	10.600

SPRINGFALL ROAD CH 112.72



DATUM R.L.46.0

DESIGN SURFACE LEVEL	48.715	48.461	48.460	48.430	48.263	48.153	48.315	48.153	48.263	48.388	48.428	48.430	48.530
EXISTING SURFACE LEVEL	48.190	48.183	48.183	48.176	48.163	48.161	48.144	48.137	48.136	48.133	48.139	48.139	48.129
OFFSET	-11.520	-10.000	-9.950	-8.450	-5.450	-4.850	0.000	4.850	5.450	7.950	9.950	10.000	10.600

SPRINGFALL ROAD CH 192.22

Rev	Amendments	Approved	Date
A	ISSUED TO COUNCIL	G.K	04/04/25

Scale
H 1:100 SCALE @ A1
V 1:50

spiire
L6 414 LA TROBE STREET PO BOX 16084 MELBOURNE
VICTORIA 8007 AUSTRALIA T 61 3 9993 7888
spiire.com.au ABN 55 050 029 635

Harlow TARNEIT

Designed T. NGUYEN | Checked G. KOHLMAN
Authorised G. KOHLMAN | Date 04/04/25

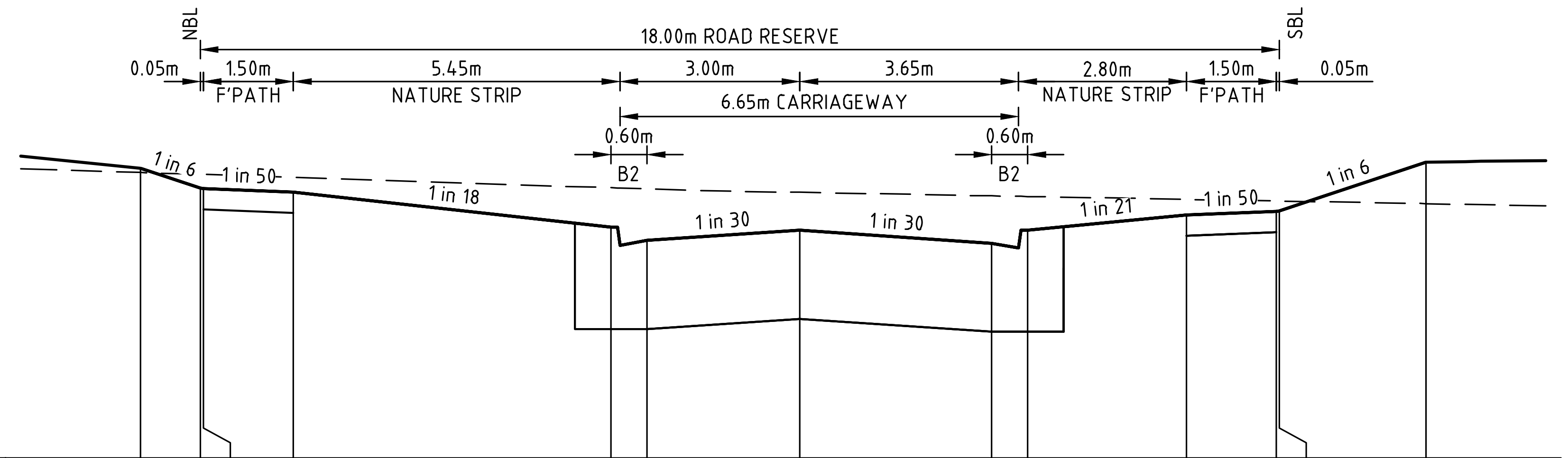
HARLOW ESTATE
STAGE 7
ROAD AND DRAINAGE
ROAD CROSS SECTIONS - SHEET 3
WYNDHAM CITY COUNCIL
SIG GROUP

PRELIMINARY Drg No **309443CR402** Rev **A**

file name 309443CR400.dwg, layout name: CR402 plotted by Thanh Nguyen
file location G:\309\309443\Civil\ACAD plot date 30/05/2025 4:39 PM Sheet 9 of 22 Sheets

FILLING NOTE
ALL FILLING WITHIN ROAD RESERVES IS TO BE UNDERTAKEN USING LEVEL 1 SUPERVISION AND BE COMPLETED IN ACCORDANCE WITH AS 3798-2007 AND TO THE SATISFACTION OF COUNCIL AND THE SUPERINTENDENT. FILL AREAS ARE TO BE STRIPPED OF TOPSOIL, FILLED AND REPLACED WITH TOPSOIL (WHERE REQUIRED) TO OBTAIN THE FINAL LEVELS SHOWN ON THE DRAWINGS.

▨ STRUCTURAL FILL IN ACCORDANCE WITH AS3798-2007, LEVEL 1

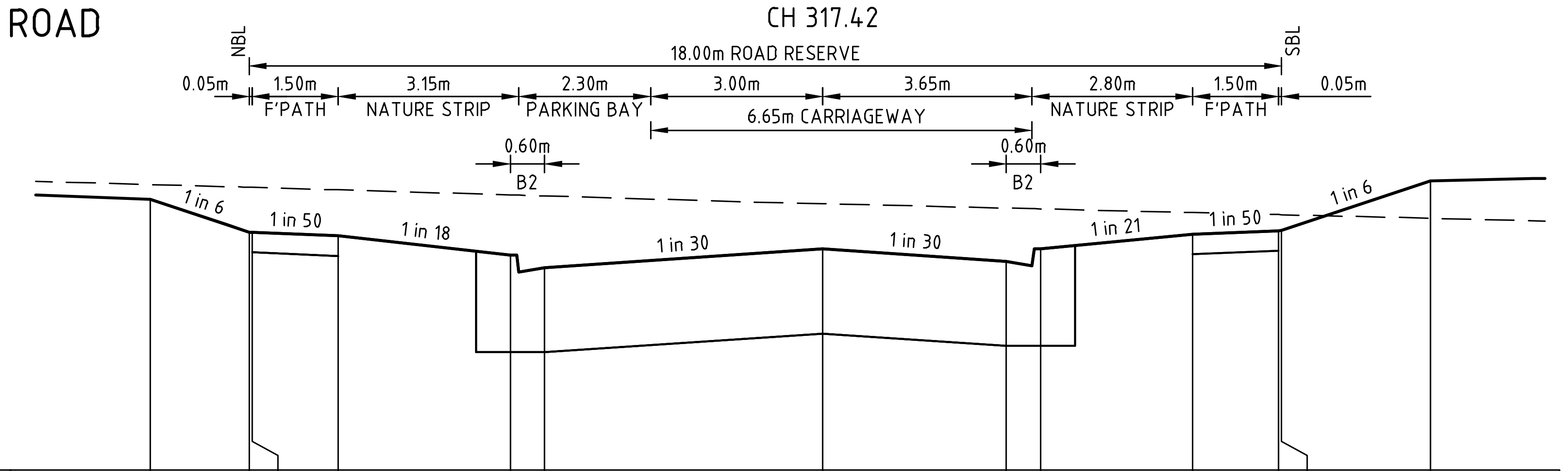


DATUM R.L.46.0

DESIGN SURFACE LEVEL	48.415	48.248	48.247	48.217	47.922	47.812	47.897	47.791	47.901	48.027	48.057	48.059	48.466
EXISTING SURFACE LEVEL	48.381	48.364	48.363	48.339	48.253	48.243	48.214	48.186	48.180	48.156	48.143	48.142	48.120
OFFSET	-11.000	-10.000	-9.950	-8.450	-3.150	-2.550	0.000	3.200	3.800	6.450	7.950	8.000	10.445

SPRINGFALL ROAD

CH 317.42

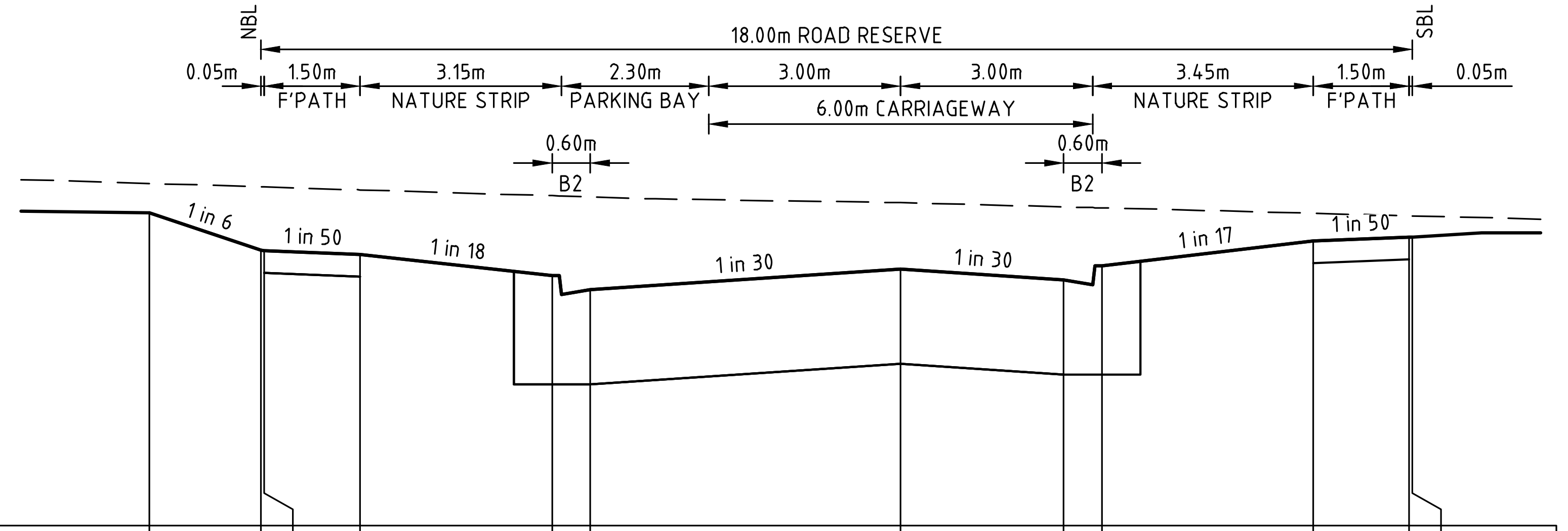


DATUM R.L.46.0

DESIGN SURFACE LEVEL	48.362	48.074	48.072	48.042	47.875	47.765	47.927	47.820	47.930	48.057	48.087	48.088	48.521
EXISTING SURFACE LEVEL	48.490	48.466	48.466	48.443	48.399	48.390	48.322	48.284	48.277	48.245	48.227	48.226	48.195
OFFSET	-11.730	-10.000	-9.950	-8.450	-5.450	-4.850	0.000	3.200	3.800	6.450	7.950	8.000	10.595

SPRINGFALL ROAD

CH 308.52

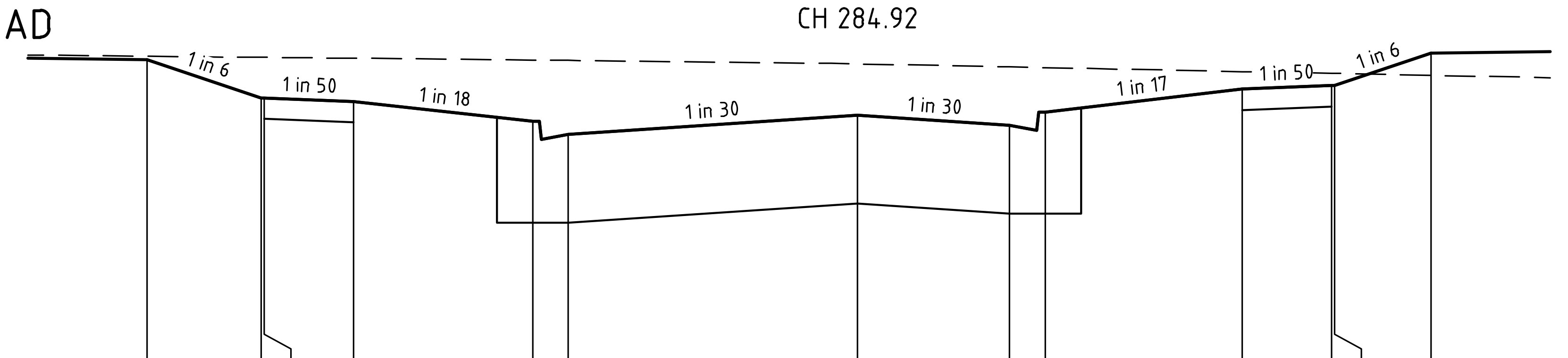


DATUM R.L.46.0

DESIGN SURFACE LEVEL	48.444	48.152	48.151	48.121	47.954	47.844	48.006	47.921	48.031	48.225	48.255	48.256
EXISTING SURFACE LEVEL	48.675	48.648	48.647	48.624	48.579	48.569	48.524	48.491	48.484	48.441	48.422	48.421
OFFSET	-11.747	-10.000	-9.950	-8.450	-5.450	-4.850	0.000	2.550	3.150	6.450	7.950	8.000

SPRINGFALL ROAD

CH 284.92



DATUM R.L.46.0

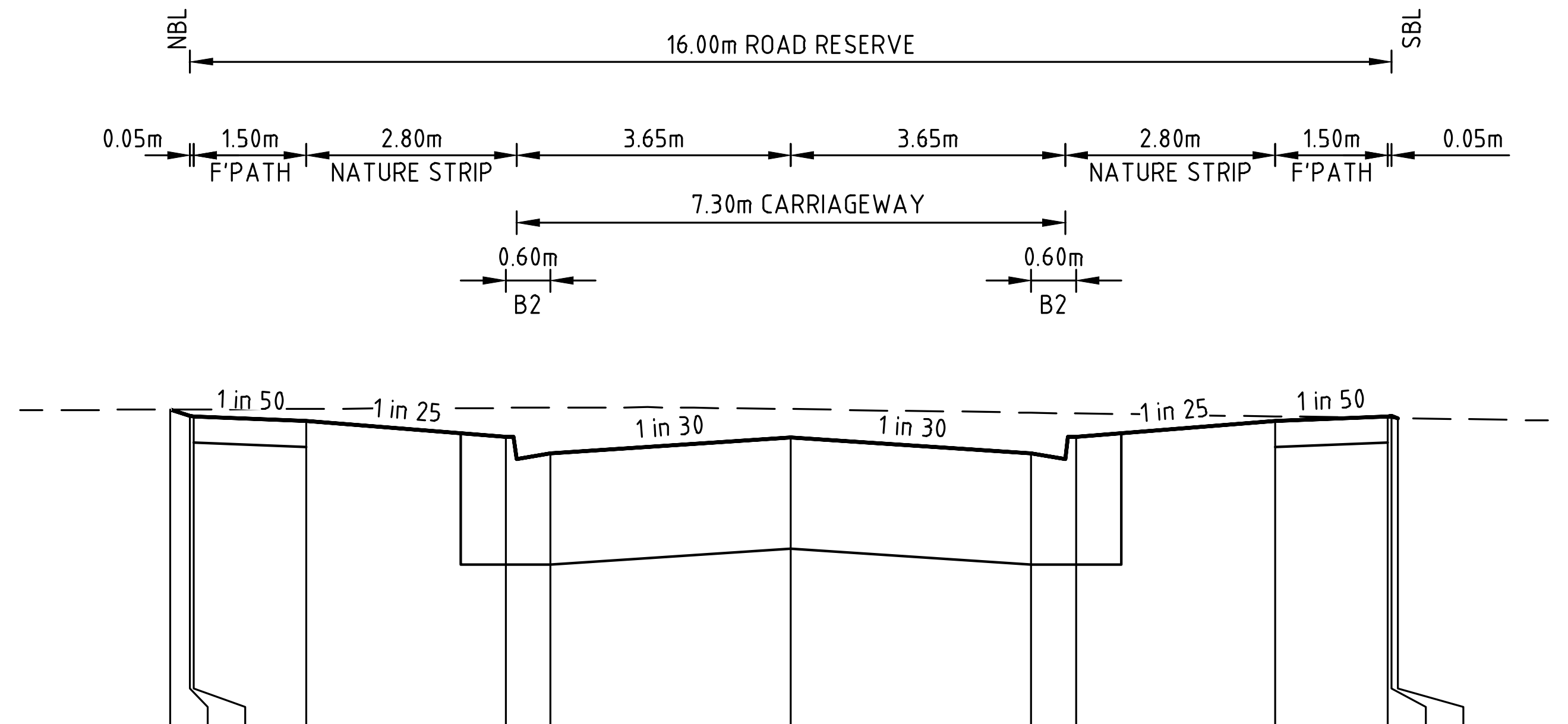
DESIGN SURFACE LEVEL	48.550	48.231	48.230	48.200	48.033	47.923	48.085	48.000	48.110	48.304	48.334	48.335	48.604
EXISTING SURFACE LEVEL	48.580	48.571	48.571	48.563	48.549	48.545	48.516	48.490	48.484	48.452	48.437	48.436	48.420
OFFSET	-11.912	-10.000	-9.950	-8.450	-5.450	-4.850	0.000	2.550	3.150	6.450	7.950	8.000	9.613

SPRINGFALL ROAD

CH 261.22

Planning and Environment Act 1987
Wyndham Planning Scheme

Approved Plan As Required
under Condition 63
Permit No WYP13902/22
Date 23/07/2025

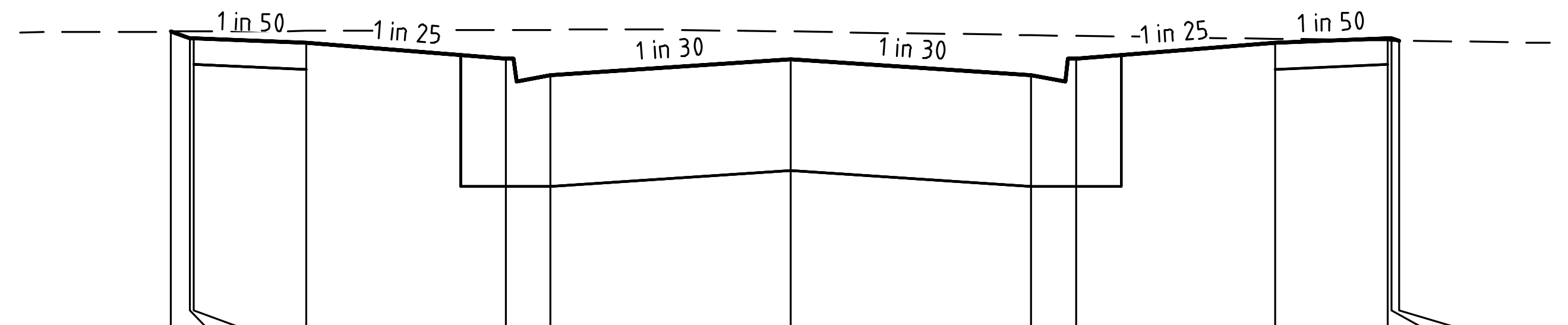


DATUM R.L.46.0

DESIGN SURFACE LEVEL	48.108	48.064	48.062	48.032	47.926	47.816	47.923	47.816	47.926	48.032	48.062	48.064	48.051
EXISTING SURFACE LEVEL	48.108	48.109	48.109	48.113	48.119	48.120	48.111	48.087	48.082	48.063	48.052	48.051	48.051
OFFSET	-8.266	-8.000	-7.950	-6.450	-3.800	-3.200	0.000	3.200	3.800	6.450	7.950	8.000	8.081

SPRINGFALL ROAD

CH 384.72

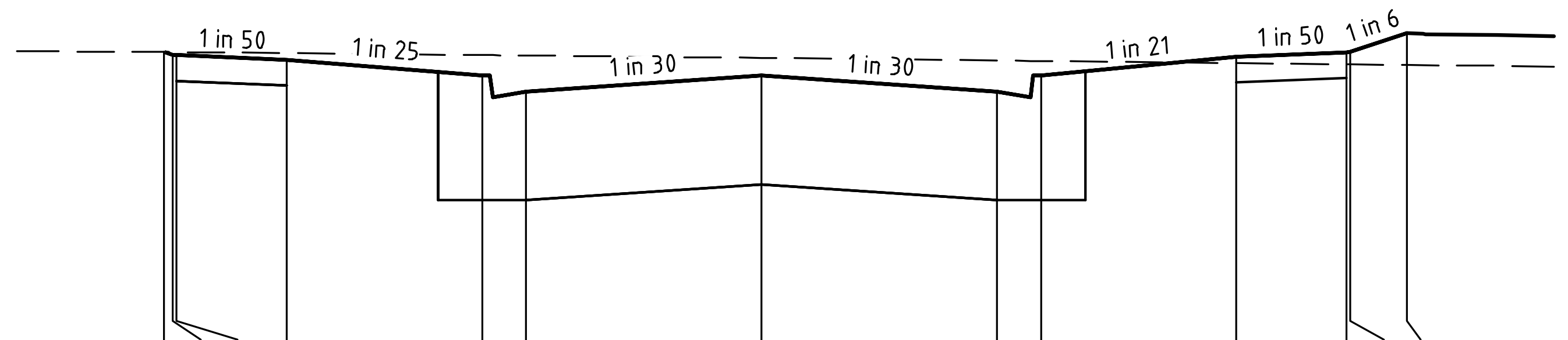


DATUM R.L.46.0

DESIGN SURFACE LEVEL	48.108	48.065	48.063	48.033	47.927	47.817	47.924	47.817	47.927	48.033	48.063	48.065	48.048
EXISTING SURFACE LEVEL	48.108	48.109	48.109	48.112	48.119	48.120	48.108	48.084	48.080	48.060	48.049	48.048	48.048
OFFSET	-8.259	-8.000	-7.950	-6.450	-3.800	-3.200	0.000	3.200	3.800	6.450	7.950	8.000	8.102

SPRINGFALL ROAD

CH 384.52

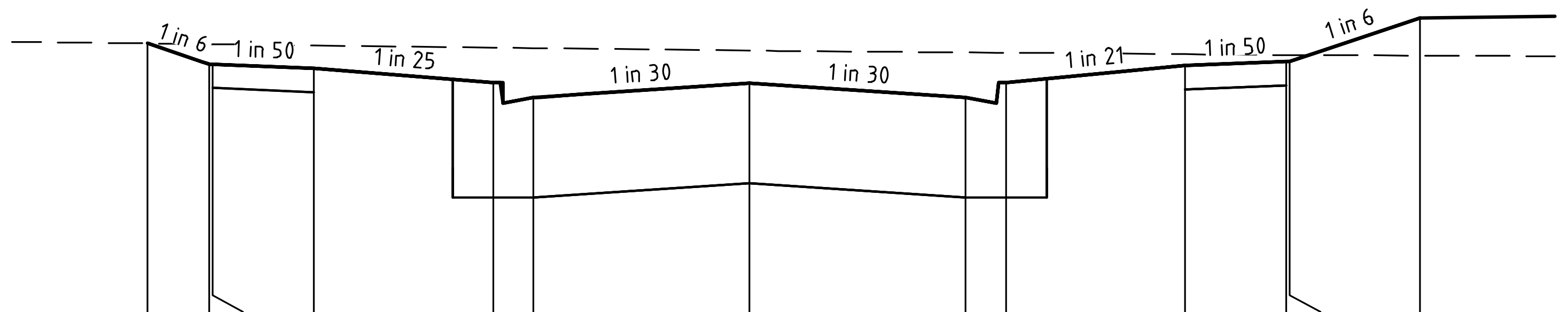


DATUM R.L.46.0

DESIGN SURFACE LEVEL	48.079	48.059	48.057	48.027	47.921	47.811	47.918	47.811	47.921	48.048	48.078	48.079	48.207
EXISTING SURFACE LEVEL	48.079	48.079	48.079	48.072	48.058	48.055	48.039	48.022	48.018	48.004	47.996	47.996	47.992
OFFSET	-8.120	-8.000	-7.950	-6.450	-3.800	-3.200	0.000	3.200	3.800	6.450	7.950	8.000	8.764

SPRINGFALL ROAD

CH 360.92



DATUM R.L.46.0

DESIGN SURFACE LEVEL	48.113	47.960	47.958	47.928	47.822	47.712	47.819	47.712	47.822	47.948	47.978	47.980	48.301
EXISTING SURFACE LEVEL	48.113	48.108	48.107	48.098	48.083	48.079	48.060	48.046	48.044	48.033	48.028	48.028	48.023
OFFSET	-8.922	-8.000	-7.950	-6.450	-3.800	-3.200	0.000	3.200	3.800	6.450	7.950	8.000	9.929

SPRINGFALL ROAD

CH 341.02

Rev	Amendments	Approved	Date
A	ISSUED TO COUNCIL	G.K	04/04/25

Scale
H 1:100 0 1 2 3 4 5
SCALE @ A1
V 1:50 0 0.5 1 1.5 2 2.5

dlcs ISO 9001 certified ISO 45001 certified ISO 14001 certified
System Certified

spiire
L6 414 LA TROBE STREET PO BOX 16084 MELBOURNE
VICTORIA 8007 AUSTRALIA T 61 3 9993 7888
spiire.com.au ABN 55 050 029 635

Harlow
TARNEIT

Designed
T. NGUYEN
Checked
G. KOHLMAN
Authorised
G. KOHLMAN
Date
04/04/25

HARLOW ESTATE
STAGE 7
ROAD AND DRAINAGE
ROAD CROSS SECTIONS - SHEET 4
WYNDHAM CITY COUNCIL
SIG GROUP

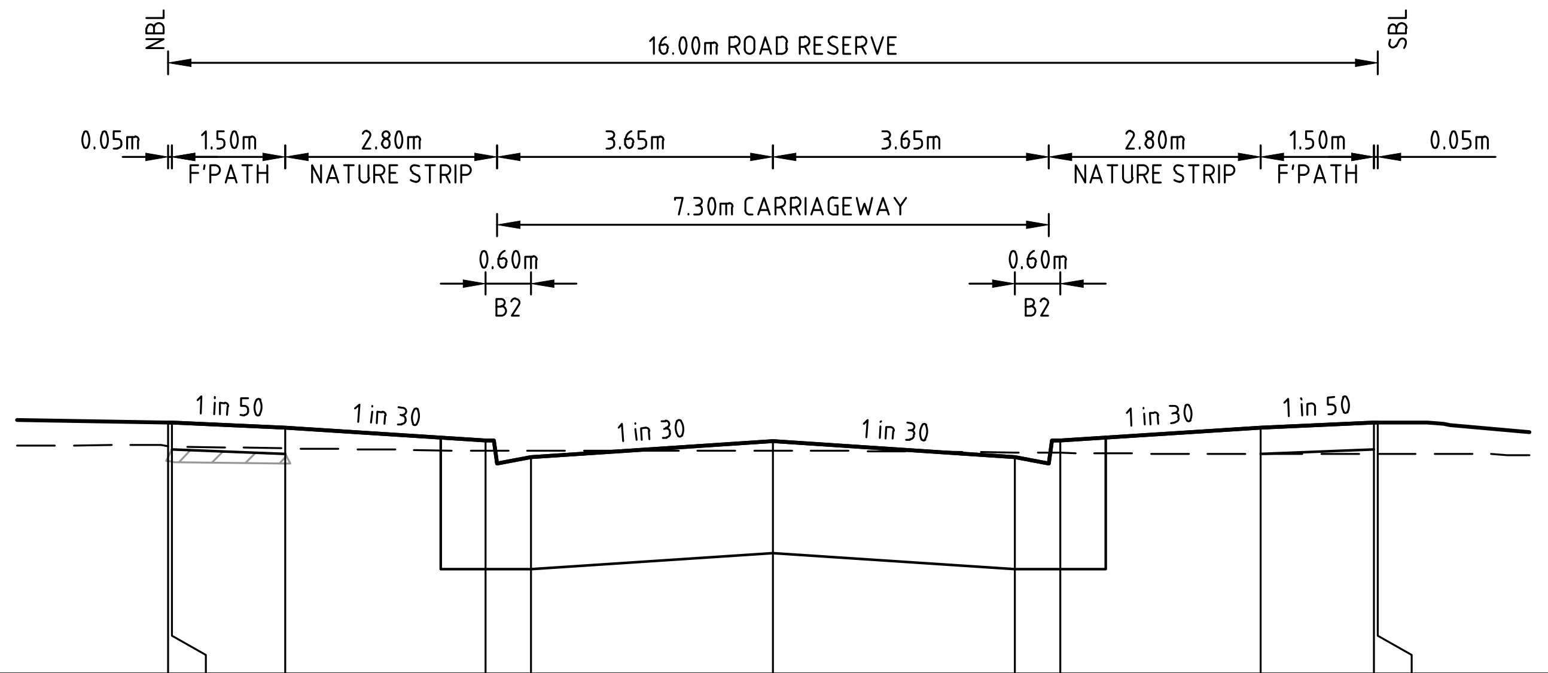
PRELIMINARY
Drg No
309443CR403
Rev
A

FILLING NOTE
ALL FILLING WITHIN ROAD RESERVES IS TO BE UNDERTAKEN USING LEVEL 1 SUPERVISION AND BE COMPLETED IN ACCORDANCE WITH AS 3798-2007 AND TO THE SATISFACTION OF COUNCIL AND THE SUPERINTENDENT. FILL AREAS ARE TO BE STRIPPED OF TOPSOIL, FILLED AND REPLACED WITH TOPSOIL (WHERE REQUIRED) TO OBTAIN THE FINAL LEVELS SHOWN ON THE DRAWINGS.

▨ STRUCTURAL FILL IN ACCORDANCE WITH AS3798-2007, LEVEL 1

Planning and Environment Act 1987
Wyndham Planning Scheme

Approved Plan As Required
under Condition 63
Permit No WYP13902/22
Date 23/07/2025

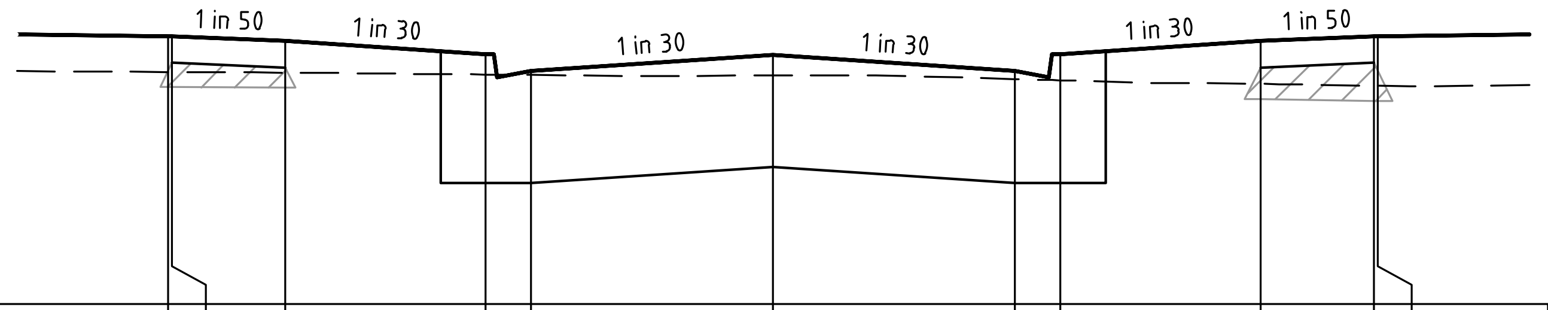


DATUM R.L.47.0

DESIGN SURFACE LEVEL	48.660	48.658	48.628	48.540	48.430	48.536	48.430	48.540	48.628	48.658	48.660	
EXISTING SURFACE LEVEL	48.505	48.501	48.490	48.473	48.472	48.472	48.462	48.459	48.453	48.453	48.453	
OFFSET	-8.000	-7.950	-6.450	-3.800	-3.200	0.000	3.200	3.800	6.450	7.950	8.000	

LILIUM WAY

CH 68.35

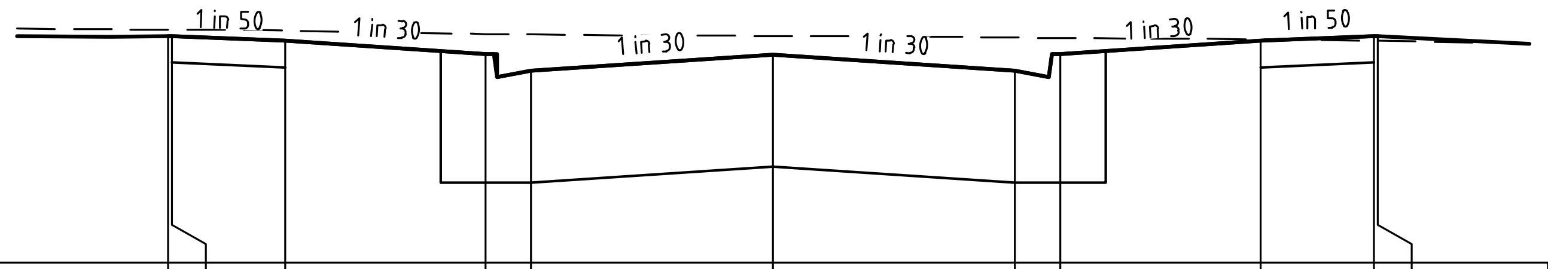


DATUM R.L.47.0

DESIGN SURFACE LEVEL	48.769	48.767	48.737	48.649	48.539	48.646	48.539	48.649	48.737	48.767	48.769	
EXISTING SURFACE LEVEL	48.533	48.533	48.528	48.515	48.513	48.509	48.486	48.477	48.454	48.442	48.441	
OFFSET	-8.000	-7.950	-6.450	-3.800	-3.200	0.000	3.200	3.800	6.450	7.950	8.000	

LILIUM WAY

CH 35.50

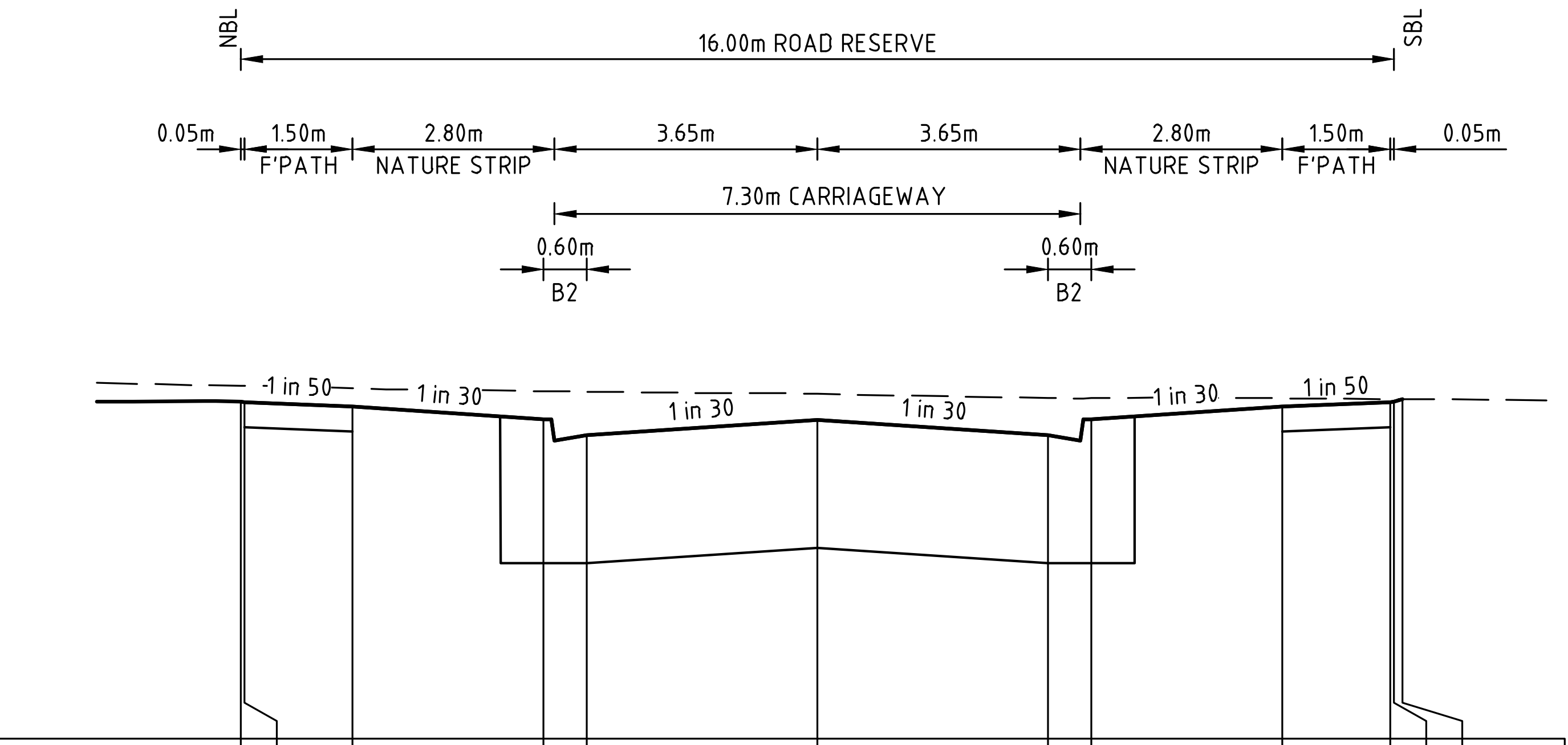


DATUM R.L.47.0

DESIGN SURFACE LEVEL	48.501	48.499	48.469	48.381	48.271	48.377	48.271	48.381	48.469	48.499	48.501	
EXISTING SURFACE LEVEL	48.543	48.542	48.535	48.514	48.511	48.501	48.490	48.487	48.480	48.469	48.469	
OFFSET	-8.000	-7.950	-6.450	-3.800	-3.200	0.000	3.200	3.800	6.450	7.950	8.000	

LILIUM WAY

CH 11.80

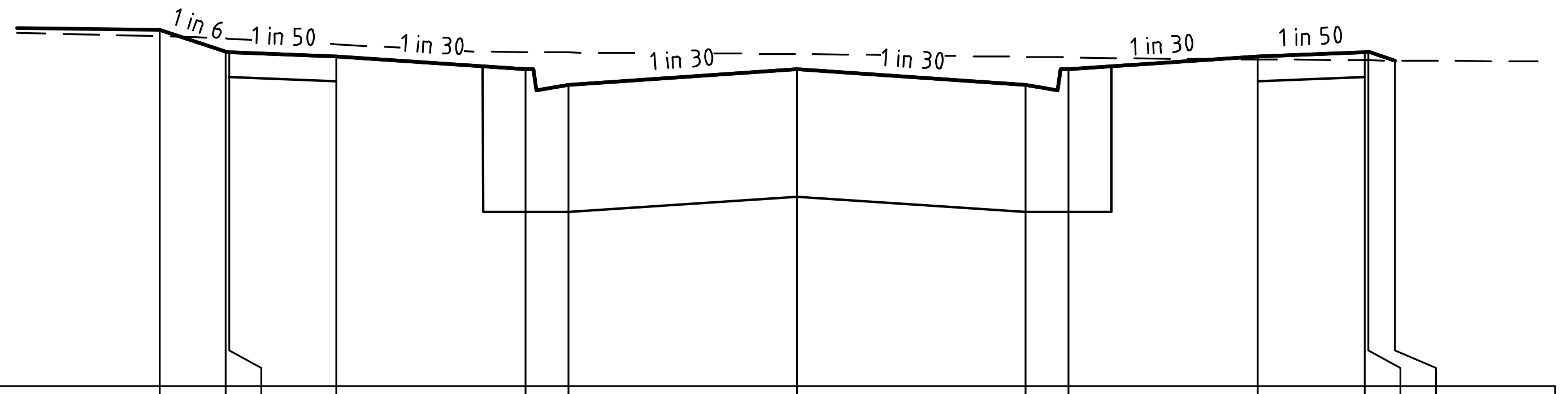


DATUM R.L.46.0

DESIGN SURFACE LEVEL	48.340	48.339	48.309	48.220	48.110	48.217	48.110	48.220	48.309	48.339	48.340	48.360	
EXISTING SURFACE LEVEL	48.454	48.453	48.436	48.415	48.412	48.396	48.367	48.366	48.366	48.360	48.360	48.360	
OFFSET	-8.000	-7.950	-6.450	-3.800	-3.200	0.000	3.200	3.800	6.450	7.950	8.000	8.116	

TEASEL WAY

CH 66.20

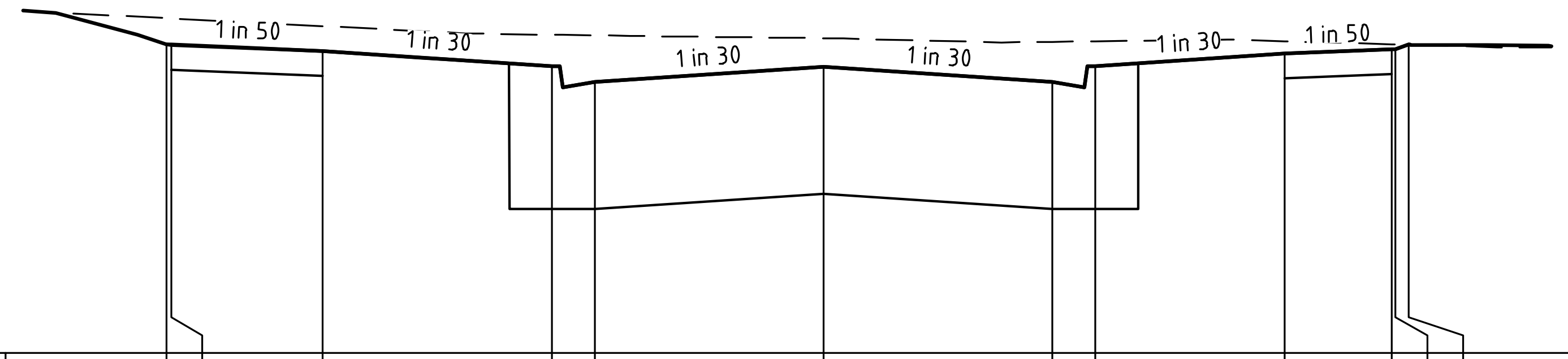


DATUM R.L.46.0

DESIGN SURFACE LEVEL	48.493	48.339	48.337	48.307	48.219	48.109	48.215	48.109	48.219	48.307	48.337	48.339	48.278	
EXISTING SURFACE LEVEL	48.447	48.431	48.430	48.391	48.336	48.334	48.323	48.303	48.299	48.285	48.279	48.279	48.278	
OFFSET	-8.923	-8.000	-7.950	-6.450	-3.800	-3.200	0.000	3.200	3.800	6.450	7.950	8.000	8.366	

TEASEL WAY

CH 45.50



DATUM R.L.46.0

DESIGN SURFACE LEVEL	48.159	48.157	48.114	48.008	47.898	48.004	47.898	48.008	48.096	48.126	48.128	48.158	
EXISTING SURFACE LEVEL	48.343	48.341	48.287	48.228	48.224	48.203	48.179	48.182	48.182	48.161	48.161	48.158	
OFFSET	-9.200	-9.129	-7.008	-3.800	-3.200	0.000	3.200	3.800	6.450	7.950	8.000	8.183	

TEASEL WAY

CH 11.80

file name 309443CR400.dwg layout name CR404 plotted by Thanh Nguyen
file location G:\30\309443\Civil\ACAD plot date 30/05/2025 4:39 PM Sheet 11 of 22 Sheets

A	ISSUED TO COUNCIL	G.K	04/04/25
Rev	Amendments	Approved	Date

Scale
H 1:100
SCALE @ A1
V 1:50
0 1 2 3 4 5
0 0.5 1 1.5 2 2.5

System Certified

spiire
L6 414 LA TROBE STREET PO BOX 16084 MELBOURNE
VICTORIA 8007 AUSTRALIA T 61 3 9993 7888
spiire.com.au ABN 55 050 029 635

Harlow
TARNEIT

Designed
T. NGUYEN
Checked
G. KOHLMAN
Authorised
G. KOHLMAN
Date
04/04/25

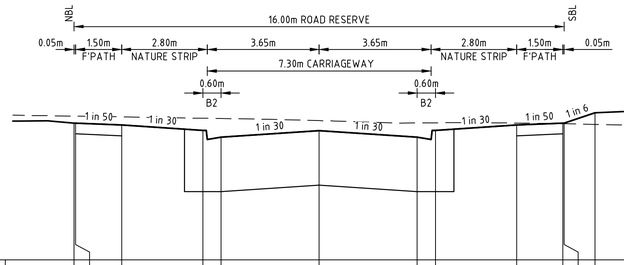
HARLOW ESTATE
STAGE 7
ROAD AND DRAINAGE
ROAD CROSS SECTIONS - SHEET 5
WYNDHAM CITY COUNCIL
SIG GROUP

PRELIMINARY
Drg No **309443CR404**
Rev **A**

FILLING NOTE

ALL FILLING WITHIN ROAD RESERVES IS TO BE UNDERTAKEN USING LEVEL 1 SUPERVISION AND BE COMPLETED IN ACCORDANCE WITH AS 3798-2007 AND TO THE SATISFACTION OF COUNCIL AND THE SUPERINTENDENT. FILL AREAS ARE TO BE STRIPPED OF TOPSOIL, FILLED AND REPLACED WITH TOPSOIL (WHERE REQUIRED) TO OBTAIN THE FINAL LEVELS SHOWN ON THE DRAWINGS.

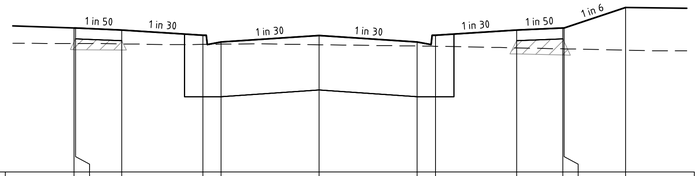
STRUCTURAL FILL IN ACCORDANCE WITH AS3798-2007, LEVEL 1



DATUM R.L.46.0

DESIGN SURFACE LEVEL	48.232	48.231	48.201	48.112	48.002	48.109	48.002	48.112	48.201	48.231	48.232	48.399		
EXISTING SURFACE LEVEL	48.346	48.346	48.334	48.311	48.306	48.272	48.234	48.237	48.232	48.222	48.221	48.211		
OFFSET	-8.000	-7.950	-6.450	-3.800	-3.200	0.000	3.200	3.800	6.450	7.950	8.000	9.000		

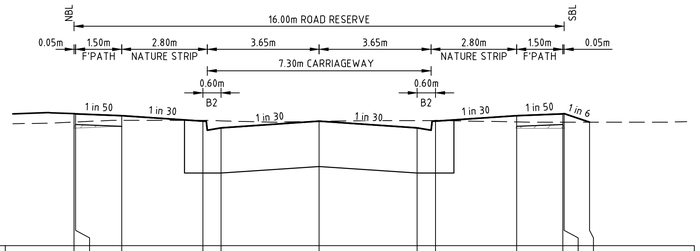
SALVIAS ROAD — CH 148.29



DATUM R.L.46.0

DESIGN SURFACE LEVEL	48.348	48.346	48.316	48.228	48.118	48.224	48.118	48.228	48.316	48.346	48.348	48.681		
EXISTING SURFACE LEVEL	48.094	48.094	48.088	48.080	48.083	48.074	48.054	48.049	48.023	48.007	48.007	47.985		
OFFSET	-8.000	-7.950	-6.450	-3.800	-3.200	0.000	3.200	3.800	6.450	7.950	8.000	10.000		

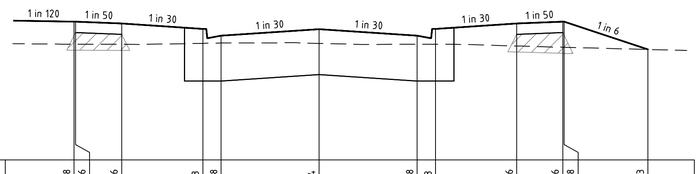
SALVIAS ROAD — CH 127.09



DATUM R.L.46.0

DESIGN SURFACE LEVEL	48.152	48.150	48.120	48.032	47.922	48.028	47.922	48.032	48.120	48.150	48.152	48.013		
EXISTING SURFACE LEVEL	48.015	48.016	48.043	48.044	48.036	48.026	48.040	48.041	48.017	48.013	48.013	48.013		
OFFSET	-8.000	-7.950	-6.450	-3.800	-3.200	0.000	3.200	3.800	6.450	7.950	8.000	8.829		

LUMPINI ROAD — CH 148.29



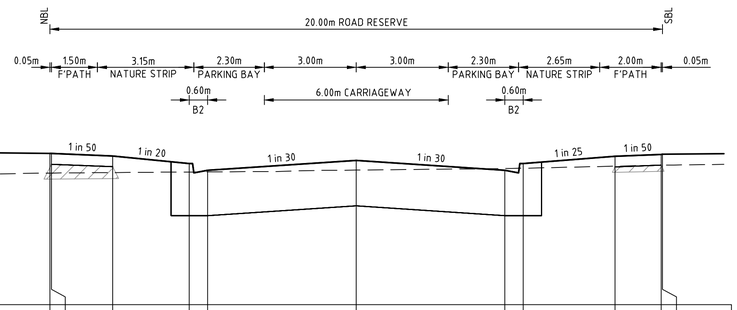
DATUM R.L.46.0

DESIGN SURFACE LEVEL	48.258	48.256	48.226	48.138	48.028	48.134	48.028	48.138	48.226	48.256	48.258	47.803		
EXISTING SURFACE LEVEL	47.889	47.889	47.867	47.903	47.908	47.903	47.888	47.888	47.860	47.839	47.838	47.803		
OFFSET	-8.000	-7.950	-6.450	-3.800	-3.200	0.000	3.200	3.800	6.450	7.950	8.000	10.728		

LUMPINI ROAD — CH 127.09

Planning and Environment Act 1987
Wyndham Planning Scheme

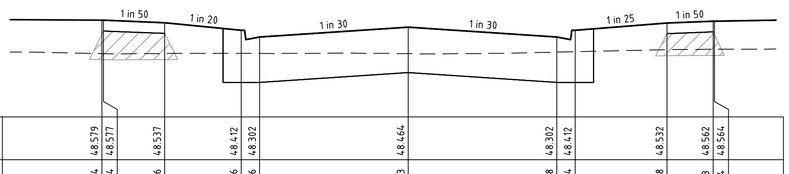
Approved Plan As Required under Condition 63
Permit No WYP13902/22
Date 23/07/2025



DATUM R.L.46.0

DESIGN SURFACE LEVEL	48.467	48.465	48.425	48.300	48.190	48.352	48.190	48.300	48.420	48.450	48.452			
EXISTING SURFACE LEVEL	48.146	48.146	48.154	48.163	48.165	48.195	48.220	48.225	48.258	48.273	48.274			
OFFSET	-10.000	-9.950	-7.950	-5.450	-4.850	0.000	4.850	5.450	8.450	9.950	10.000			

DAYLILY ROAD — CH 1093.07



DATUM R.L.47.0

DESIGN SURFACE LEVEL	48.579	48.577	48.537	48.412	48.302	48.464	48.302	48.412	48.532	48.562	48.564			
EXISTING SURFACE LEVEL	48.034	48.034	48.036	48.036	48.036	48.033	48.058	48.064	48.098	48.103	48.104			
OFFSET	-10.000	-9.950	-7.950	-5.450	-4.850	0.000	4.850	5.450	8.450	9.950	10.000			

DAYLILY ROAD — CH 1074.35

Rev	Amendments	Approved	Date
A	ISSUED TO COUNCIL	G.K	04/04/25

Scale
H 1:100 SCALE @ A1
V 150
0 1 2 3 4 5
0 0.5 1 1.5 2 2.5

dtcs ISO 9001 Certified ISO 45001 Certified ISO 14001 Certified
System Certified

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L6 414 LA TROBE STREET PO BOX 16084 MELBOURNE
VICTORIA 8007 AUSTRALIA T 61 3 9993 7888
spiire.com.au ABN 55 050 029 635

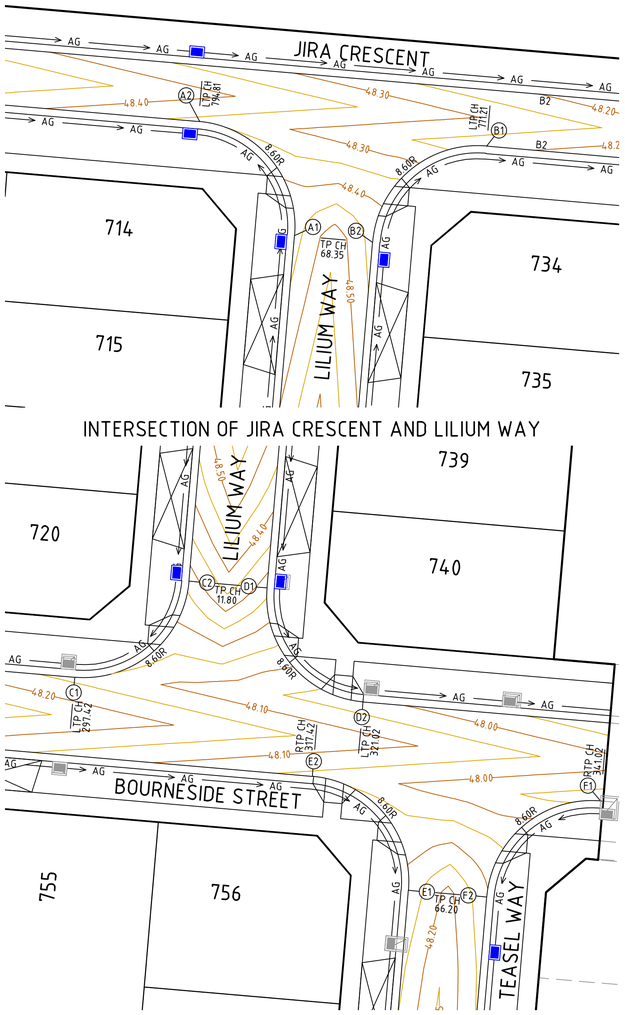
Harlow TARNEIT

Designed	Checked
T. NGUYEN	G. KOHLMAN
Authorised	Date
G. KOHLMAN	04/04/25

HARLOW ESTATE
STAGE 7
ROAD AND DRAINAGE
ROAD CROSS SECTIONS - SHEET 6
WYNDHAM CITY COUNCIL
SIG GROUP

PRELIMINARY Drg No **309443CR405** Rev **A**

file name 309443CR0000.dwg Layout name CR405 plotted by Thanh Nguyen
file location G:\30\309443\Civil\ACAD plot date 30/05/2025 4:39 PM Sheet 12 of 22 Sheets

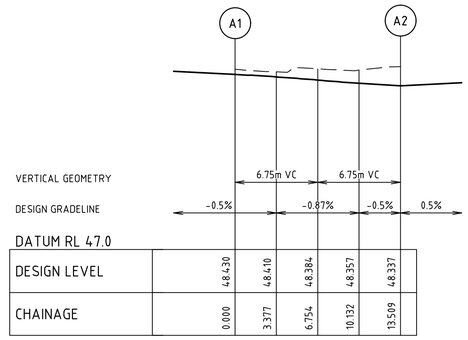


INTERSECTION OF JIRA CRESCENT AND LILIUM WAY

INTERSECTION OF BOURNSIDE STREET AND LILIUM WAY & TEASEL WAY

INTERSECTION OF SRPINGFALL ROAD AND TEASEL WAY

MGA 94
ZONE 55



DATUM RL 47.0

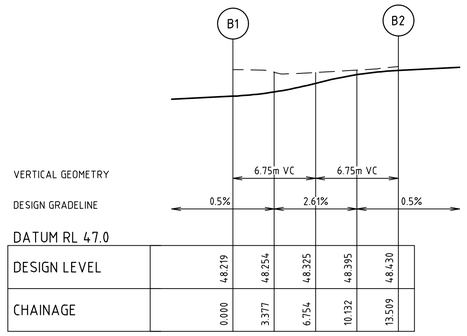
DESIGN LEVEL	48.430	48.410	48.384	48.357	48.337
CHAINAGE	0.000	3.377	6.754	10.132	13.509

ALIGNMENT A

ALIGNMENT A

POINT NO	EASTING	NORTHING	RL
A1	298107.573	5812773.374	48.430
1/4	298107.201	5812776.709	48.410
1/2	298105.581	5812779.648	48.384
3/4	298102.961	5812781.743	48.357
A2	298099.737	5812782.676	48.337

CURVE	RADIUS	ARC L	CHORD	MID ORD	QTR ORD
A1-A2	8.600	13.509	12.162	2.519	-0.655



DATUM RL 47.0

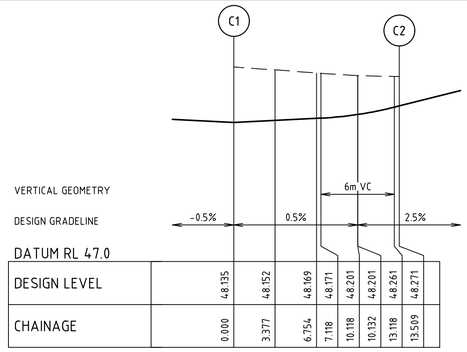
DESIGN LEVEL	48.219	48.254	48.325	48.395	48.430
CHAINAGE	0.000	3.377	6.754	10.132	13.509

ALIGNMENT B

ALIGNMENT B

POINT NO	EASTING	NORTHING	RL
B1	298123.251	5812780.665	48.219
1/4	298119.916	5812780.293	48.254
1/2	298116.978	5812778.673	48.325
3/4	298114.882	5812776.052	48.395
B2	298113.950	5812772.829	48.430

CURVE	RADIUS	ARC L	CHORD	MID ORD	QTR ORD
B1-B2	8.600	13.509	12.162	2.519	-0.655



DATUM RL 47.0

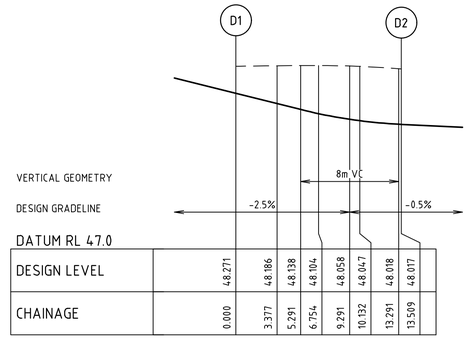
DESIGN LEVEL	48.135	48.152	48.169	48.171	48.201	48.201	48.261	48.271
CHAINAGE	0.000	3.377	6.754	7.118	10.118	10.132	13.118	13.509

ALIGNMENT C

ALIGNMENT C

POINT NO	EASTING	NORTHING	RL
C1	298093.451	5812709.195	48.135
1/4	298096.786	5812709.566	48.152
1/2	298099.725	5812711.186	48.169
3/4	298101.820	5812713.807	48.201
C2	298102.753	5812717.030	48.271

CURVE	RADIUS	ARC L	CHORD	MID ORD	QTR ORD
C1-C2	8.600	13.509	12.162	2.519	-0.655



DATUM RL 47.0

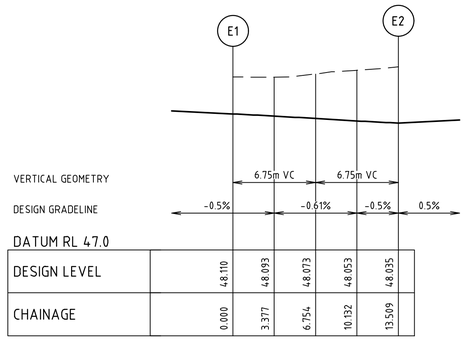
DESIGN LEVEL	48.271	48.186	48.138	48.104	48.058	48.047	48.018	48.017
CHAINAGE	0.000	3.377	5.291	6.754	9.291	10.132	13.291	13.509

ALIGNMENT D

ALIGNMENT D

POINT NO	EASTING	NORTHING	RL
D1	298109.129	5812716.485	48.271
1/4	298109.501	5812713.150	48.186
1/2	298111.121	5812710.211	48.104
3/4	298113.742	5812708.116	48.047
D2	298116.965	5812707.183	48.017

CURVE	RADIUS	ARC L	CHORD	MID ORD	QTR ORD
D1-D2	8.600	13.509	12.162	2.519	-0.655



DATUM RL 47.0

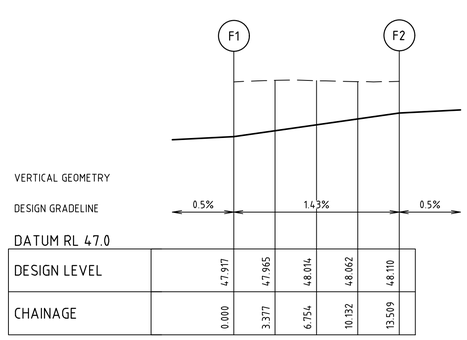
DESIGN LEVEL	48.110	48.093	48.073	48.053	48.035
CHAINAGE	0.000	3.377	6.754	10.132	13.509

ALIGNMENT E

ALIGNMENT E

POINT NO	EASTING	NORTHING	RL
E1	298120.668	5812691.811	48.110
1/4	298120.297	5812695.146	48.093
1/2	298118.677	5812698.085	48.073
3/4	298116.056	5812700.180	48.053
E2	298112.833	5812701.113	48.035

CURVE	RADIUS	ARC L	CHORD	MID ORD	QTR ORD
E1-E2	8.600	13.509	12.162	2.519	-0.655



DATUM RL 47.0

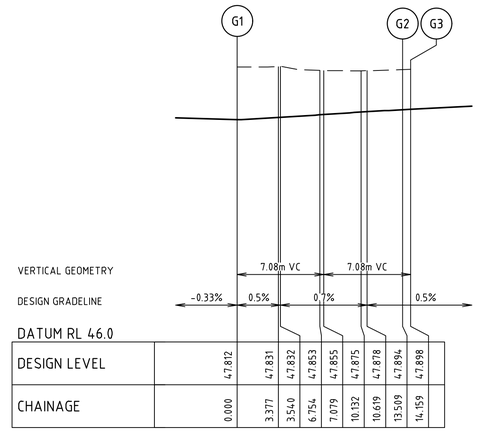
DESIGN LEVEL	47.917	47.965	48.014	48.062	48.110			
CHAINAGE	0.000	3.377	6.754	10.132	13.509			

ALIGNMENT F

ALIGNMENT F

POINT NO	EASTING	NORTHING	RL
F1	298136.347	5812699.102	47.917
1/4	298133.012	5812698.730	47.965
1/2	298130.073	5812697.110	48.014
3/4	298127.978	5812694.489	48.062
F2	298127.045	5812691.266	48.110

CURVE	RADIUS	ARC L	CHORD	MID ORD	QTR ORD
F1-F2	8.600	13.509	12.162	2.519	-0.655



DATUM RL 46.0

DESIGN LEVEL	47.812	47.831	47.832	47.853	47.855	47.875	47.894	47.898	
CHAINAGE	0.000	3.377	3.540	6.754	7.079	10.132	10.619	13.509	14.159

ALIGNMENT G

ALIGNMENT G

POINT NO	EASTING	NORTHING	RL
G1	298106.674	5812629.126	47.812
1/4	298110.009	5812629.498	47.831
1/2	298112.948	5812631.117	47.853
3/4	298115.043	5812633.738	47.875
G2	298115.976	5812636.962	47.894
G3	298116.031	5812637.609	47.898

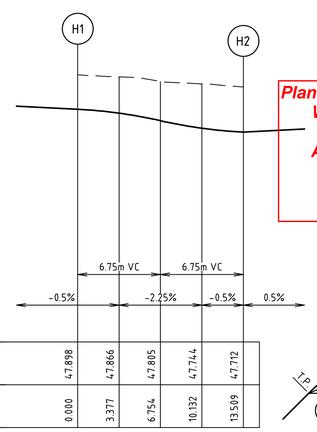
CURVE	RADIUS	ARC L	CHORD	MID ORD	QTR ORD
G1-G2	8.600	13.509	12.162	2.519	-0.655

ALIGNMENT H

ALIGNMENT H

POINT NO	EASTING	NORTHING	RL
H1	298122.408	5812637.064	47.898
1/4	298122.780	5812633.729	47.866
1/2	298124.399	5812630.790	47.805
3/4	298127.020	5812628.695	47.744
H2	298130.244	5812627.762	47.712

CURVE	RADIUS	ARC L	CHORD	MID ORD	QTR ORD
H1-H2	8.600	13.509	12.162	2.519	-0.655

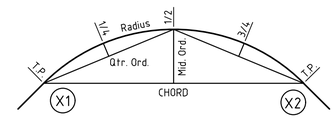


DATUM RL 46.0

DESIGN LEVEL	47.898	47.866	47.805	47.744	47.712
CHAINAGE	0.000	3.377	6.754	10.132	13.509

Planning and Environment Act 1987
Wyndham Planning Scheme

Approved Plan As Required under Condition 63
Permit No WYP13902/22
Date 23/07/2025



KERB RETURN SETOUT DETAIL

Rev	Amendments	Approved	Date
A	ISSUED TO COUNCIL	G.K	04/04/25

Scale

DETAIL PLAN
H 1:250 SCALE @ A1 — 0 2.5 5 7.5 10 12.5

LIP PROFILE
H 1:250 SCALE @ A1 — 0 2.5 5 7.5 10 12.5
V 1:25 — 0 0.25 0.50 0.75 1.00 1.25

dlca ISO 9001 certified ISO 45001 certified ISO 14001 certified
System Certified

spiire
L6 414 LA TROBE STREET PO BOX 16084 MELBOURNE
VICTORIA 8007 AUSTRALIA T 61 3 9993 7888
spiire.com.au ABN 55 050 029 635

Harlow TARNEIT

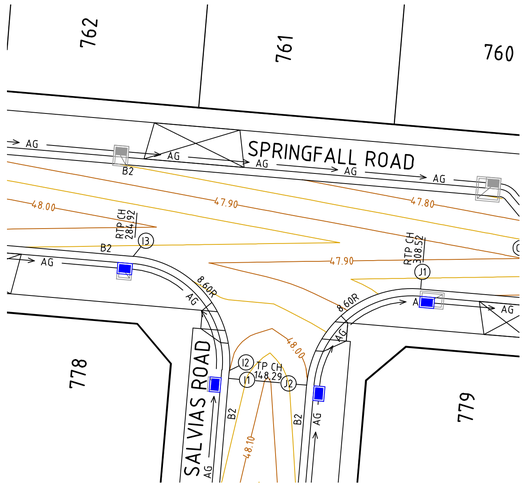
Designed	Checked
T. NGUYEN	G. KOHLMAN
Authorised	Date
G. KOHLMAN	04/04/25

HARLOW ESTATE
STAGE 7
ROAD AND DRAINAGE
INTERSECTION DETAILS - SHEET 1
WYNDHAM CITY COUNCIL
SIG GROUP

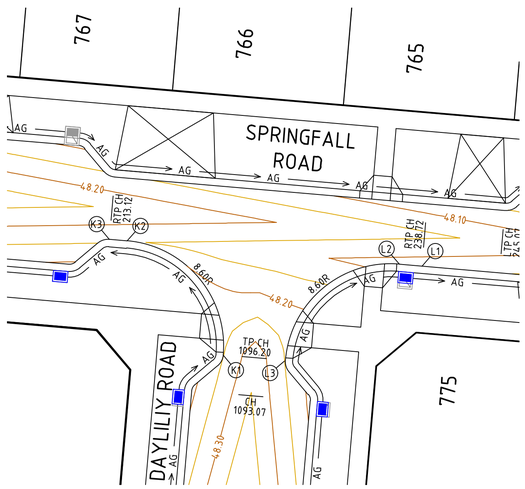
PRELIMINARY

Drg No **309443CR500** Rev **A**

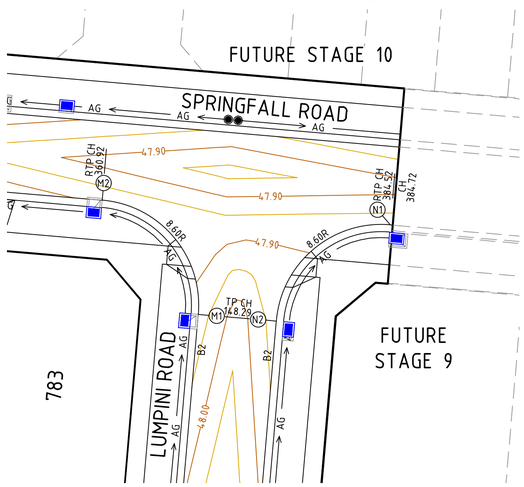
file name 309443CR500.dgn layout name CR500 plotted by Thanh Nguyen
file location \\spiire.med\data\Data\309443\Civil\ACAD plot date 30/05/2025 4:39 PM Sheet 13 of 22 Sheets



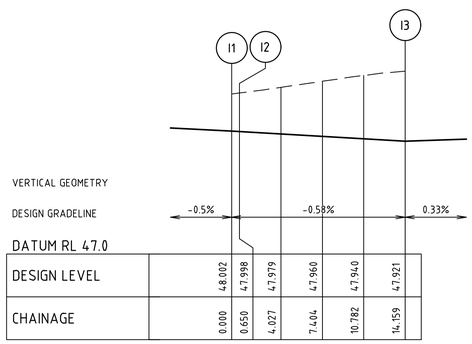
INTERSECTION OF SRPINGFALL ROAD AND SALVIAS ROAD



INTERSECTION OF SRPINGFALL ROAD AND DAYLILY ROAD



INTERSECTION OF SRPINGFALL ROAD AND LUMPINI ROAD



DATUM RL 47.0

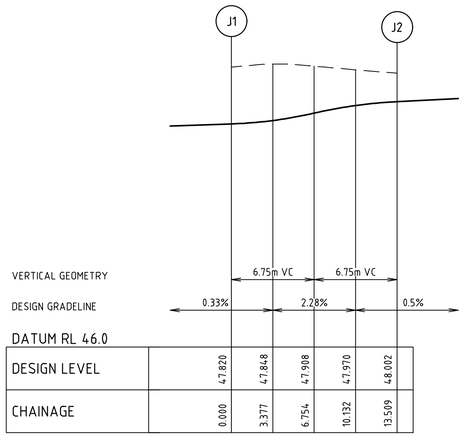
DESIGN LEVEL	48.002	47.998	47.979	47.960	47.940	47.921
CHAINAGE	0.000	0.650	4.027	7.404	10.782	14.159

ALIGNMENT I

ALIGNMENT I

POINT NO	EASTING	NORTHING	RL
I1	298081.638	5812616.866	48.002
I2	298081.693	5812617.513	47.998
1/4	298081.322	5812620.848	47.979
1/2	298079.702	5812623.787	47.960
3/4	298077.081	5812625.882	47.940
I3	298073.858	5812626.815	47.921

CURVE	RADIUS	ARC L	CHORD	MID ORD	QTR ORD
I2-I3	8.600	13.509	12.162	2.519	-0.655



DATUM RL 46.0

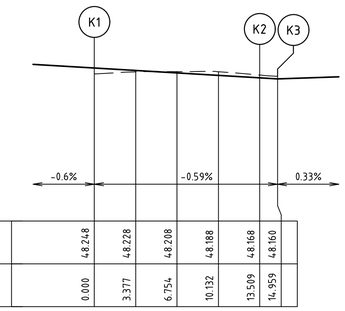
DESIGN LEVEL	47.820	47.848	47.908	47.970	48.002	
CHAINAGE	0.000	3.377	6.754	10.132	13.509	

ALIGNMENT J

ALIGNMENT J

POINT NO	EASTING	NORTHING	RL
J1	298097.316	5812624.156	47.820
1/4	298093.981	5812623.784	47.848
1/2	298091.043	5812622.164	47.908
3/4	298088.947	5812619.543	47.970
J2	298088.015	5812616.320	48.002

CURVE	RADIUS	ARC L	CHORD	MID ORD	QTR ORD
J1-J2	8.600	13.509	12.162	2.519	-0.655



DATUM RL 47.0

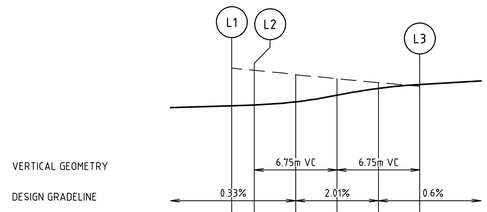
DESIGN LEVEL	48.248	48.228	48.208	48.188	48.168	48.160
CHAINAGE	0.000	3.377	6.754	10.132	13.509	14.959

ALIGNMENT K

ALIGNMENT K

POINT NO	EASTING	NORTHING	RL
K1	298011.599	5812623.510	48.248
1/4	298011.228	5812626.845	48.228
1/2	298009.608	5812629.783	48.208
3/4	298006.987	5812631.879	48.188
K2	298003.764	5812632.811	48.168
K3	298002.319	5812632.935	48.160

CURVE	RADIUS	ARC L	CHORD	MID ORD	QTR ORD
K1-K2	8.600	13.509	12.162	2.519	-0.655



DATUM RL 47.0

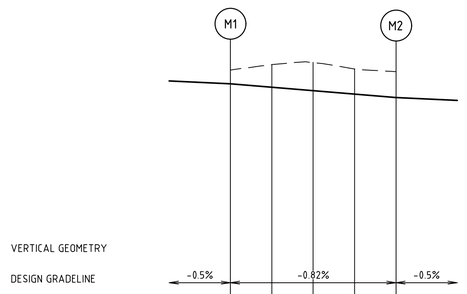
DESIGN LEVEL	48.075	48.081	48.106	48.160	48.216	48.248
CHAINAGE	0.000	1.850	5.228	8.605	11.982	15.359

ALIGNMENT L

ALIGNMENT L

POINT NO	EASTING	NORTHING	RL
L1	298027.826	5812630.753	48.075
L2	298025.983	5812630.911	48.081
1/4	298022.648	5812630.539	48.106
1/2	298019.709	5812628.919	48.160
3/4	298017.614	5812626.298	48.216
L3	298016.681	5812623.075	48.248

CURVE	RADIUS	ARC L	CHORD	MID ORD	QTR ORD
L1-L2	8.600	13.509	12.162	2.519	-0.655



DATUM RL 46.0

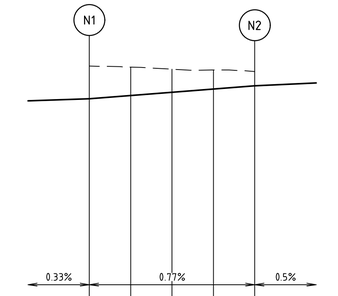
DESIGN LEVEL	47.922	47.894	47.867	47.839	47.811	
CHAINAGE	0.000	3.377	6.754	10.132	13.509	

ALIGNMENT M

ALIGNMENT M

POINT NO	EASTING	NORTHING	RL
M1	298157.361	5812610.387	47.922
1/4	298156.990	5812613.722	47.894
1/2	298155.370	5812616.661	47.867
3/4	298152.749	5812618.756	47.839
M2	298149.526	5812619.689	47.811

CURVE	RADIUS	ARC L	CHORD	MID ORD	QTR ORD
M1-M2	8.600	13.509	12.162	2.519	-0.655



DATUM RL 46.0

DESIGN LEVEL	47.817	47.843	47.869	47.895	47.922	
CHAINAGE	0.000	3.377	6.754	10.132	13.509	

ALIGNMENT N

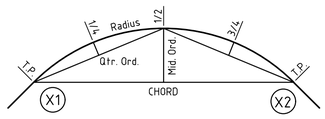
ALIGNMENT N

POINT NO	EASTING	NORTHING	RL
N1	298173.040	5812617.678	47.817
1/4	298169.705	5812617.306	47.843
1/2	298166.766	5812615.686	47.869
3/4	298164.671	5812613.065	47.895
N2	298163.738	5812609.842	47.922

CURVE	RADIUS	ARC L	CHORD	MID ORD	QTR ORD
N1-N2	8.600	13.509	12.162	2.519	-0.655

Planning and Environment Act 1987
Wyndham Planning Scheme

Approved Plan As Required
under Condition 63
Permit No WYP13902/22
Date 23/07/2025



KERB RETURN SETOUT DETAIL

Rev	Amendments	Approved	Date
A	ISSUED TO COUNCIL	G.K	04/04/25

Scale

DETAIL PLAN
H 1:250 SCALE @ A1 (0, 2.5, 5, 7.5, 10, 12.5)

LIP PROFILE
H 1:250 SCALE @ A1 (0, 2.5, 5, 7.5, 10, 12.5)
V 1:25 (0, 0.25, 0.50, 0.75, 1.00, 1.25)

System Certified

spiire
L6 414 LA TROBE STREET PO BOX 16084 MELBOURNE
VICTORIA 8007 AUSTRALIA T 61 3 9993 7888
spiire.com.au ABN 55 050 029 635

Harlow TARNEIT

Designed	Checked
T. NGUYEN	G. KOHLMAN
Authorised	**Date**
G. KOHLMAN	04/04/25

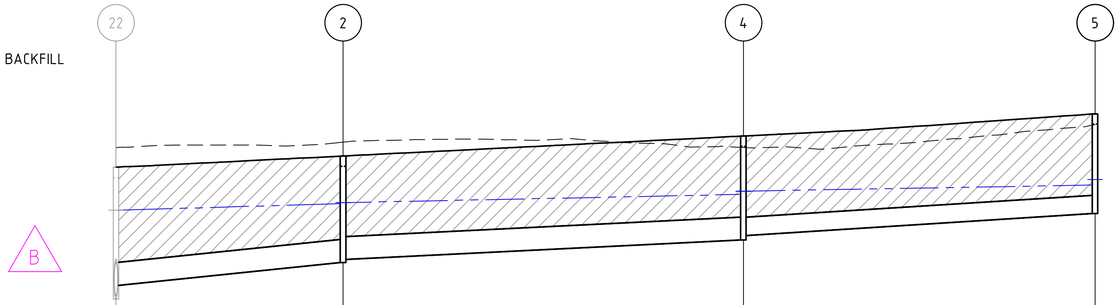
HARLOW ESTATE
STAGE 7
ROAD AND DRAINAGE
INTERSECTION DETAILS - SHEET 2
WYNDHAM CITY COUNCIL
SIG GROUP

PRELIMINARY

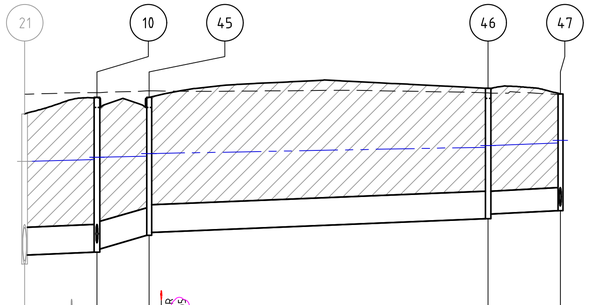
Drg No **309443CR501**
Rev **A**

file name 309443CR500.dwg, layout name CR501, plotted by Thanh Nguyen
file location \\spiire\media\Data\309\443\Civil\ACAD, plot date 30/05/2025 4:39 PM Sheet 14 of 22 Sheets

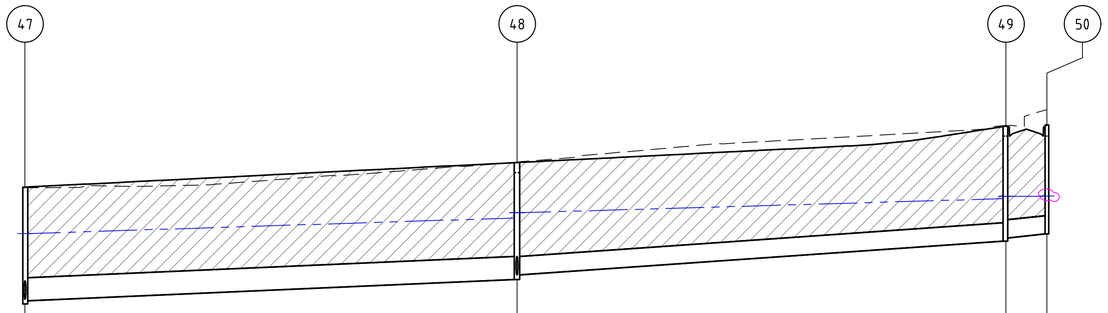
CRUSHED ROCK BACKFILL



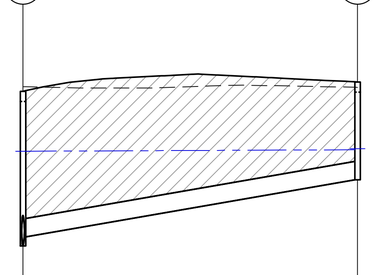
Pipe Diameter		375ø	375ø	300ø
Pipe Class		Class 3	Class 3	Class 3
Pipe Grade		1 in 100	1 in 206	1 in 161
Velocity (m/s)		Vf=1.587	Vf=1.106	Vf=1.079
Pipe Flow (m3/s)		Qa=0.094	Qa=0.079	Qa=0.040
Pipe Capacity (m3/s)		Qcap=0.175	Qcap=0.122	Qcap=0.076
DATUM		43.00		
DEPTH TO INVERT	2.153 / 1.928	1.738 / 1.688	1.698 / 1.623	1.629
DESIGN INVERT LEVEL	46.118 / 46.343	46.713 / 46.763	47.080 / 47.155	47.512
HYDRAULIC GRADE LEVEL	47.439 / 47.568	47.674 / 47.693	47.825 / 47.879	47.978 / 48.067
FINISHED SURFACE LEVEL	48.271	48.452	48.778	49.140
EXISTING SURFACE LEVEL	48.589	48.679	48.591	48.964
CHAINAGE	0.000	L=37.060m / 37.060	L=65.340m / 102.400	L=57.400m / 159.800



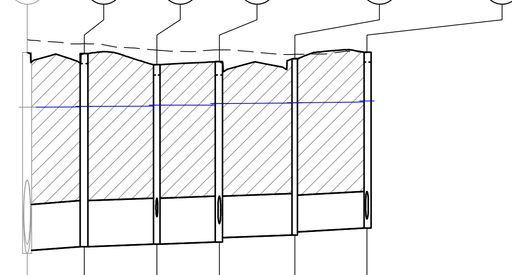
Pipe Diameter		450ø	450ø	450ø	375ø
Pipe Class		Class 2	Class 2	Class 2	Class 2
Pipe Grade		1 in 250	1 in 38	1 in 250	1 in 200
Velocity (m/s)		Vf=1.134	Vf=2.897	Vf=1.134	Vf=1.123
Pipe Flow (m3/s)		Qa=0.143	Qa=0.122	Qa=0.122	Qa=0.106
Pipe Capacity (m3/s)		Qcap=0.180	Qcap=0.461	Qcap=0.180	Qcap=0.124
DATUM		42.00			
DEPTH TO INVERT	2.452 / 2.302	2.525 / 2.475	2.253 / 2.203	2.130 / 2.055	1.904
DESIGN INVERT LEVEL	45.687 / 45.837	45.885 / 45.935	46.156 / 46.206	46.428 / 46.503	46.562
HYDRAULIC GRADE LEVEL	47.166 / 47.365	47.395 / 47.432	47.448 / 47.493	47.595 / 47.622	47.665 / 47.708
FINISHED SURFACE LEVEL	48.139	48.409	48.409	48.558	48.465
EXISTING SURFACE LEVEL	48.463	48.485	48.516	48.480	48.455
CHAINAGE	0.000	L=11.808m / 11.808	L=8.500m / 20.308	L=55.350m / 75.658	L=11.783m / 87.441



Pipe Diameter		375ø	300ø	300ø
Pipe Class		Class 2	Class 2	Class 3
Pipe Grade		1 in 231	1 in 145	1 in 100
Velocity (m/s)		Vf=1.045	Vf=1.136	Vf=1.369
Pipe Flow (m3/s)		Qa=0.099	Qa=0.052	Qa=0.004
Pipe Capacity (m3/s)		Qcap=0.115	Qcap=0.080	Qcap=0.097
DATUM		43.00		
DEPTH TO INVERT	1.904 / 1.854	1.908 / 1.833	1.879 / 1.829	1.779
DESIGN INVERT LEVEL	46.562 / 46.612	46.959 / 47.034	47.584 / 47.634	47.701
HYDRAULIC GRADE LEVEL	47.665 / 47.708	47.962 / 48.048	48.277 / 48.318	48.318 / 48.318
FINISHED SURFACE LEVEL	48.465	48.867	49.462	49.480
EXISTING SURFACE LEVEL	48.455	48.874	49.470	49.721
CHAINAGE	87.441	L=80.300m / 167.741	L=79.800m / 247.541	L=6.700m / 254.241



Pipe Diameter		300ø	
Pipe Class		Class 3	
Pipe Grade		1 in 59	
Velocity (m/s)		Vf=1.785	
Pipe Flow (m3/s)		Qa=0.020	
Pipe Capacity (m3/s)		Qcap=0.126	
DATUM		42.00	
DEPTH TO INVERT	2.525 / 2.375	1.598	
DESIGN INVERT LEVEL	45.885 / 46.035	46.964	
HYDRAULIC GRADE LEVEL	47.395 / 47.432	47.455 / 47.475	
FINISHED SURFACE LEVEL	48.409	48.562	
EXISTING SURFACE LEVEL	48.485	48.472	
CHAINAGE	0.000	L=54.600m / 54.600	



Pipe Diameter		750ø	750ø	750ø	675ø
Pipe Class		Class 2	Class 2	Class 2	Class 2
Pipe Grade		1 in 150	1 in 300	1 in 300	1 in 300
Velocity (m/s)		Vf=2.058	Vf=1.455	Vf=1.455	Vf=1.357
Pipe Flow (m3/s)		Qa=0.245	Qa=0.243	Qa=0.219	Qa=0.180
Pipe Capacity (m3/s)		Qcap=0.909	Qcap=0.643	Qcap=0.643	Qcap=0.485
DATUM		41.00			
DEPTH TO INVERT	3.281 / 3.231	3.151	2.929	2.946	2.871
DESIGN INVERT LEVEL	44.762 / 44.812	44.874	44.914	44.948	45.023
HYDRAULIC GRADE LEVEL	47.149 / 47.199	47.163	47.168	47.182	47.211
FINISHED SURFACE LEVEL	48.043	48.026	47.863	47.894	47.940
EXISTING SURFACE LEVEL	48.256	48.189	48.081	48.088	48.012
CHAINAGE	0.000	L=9.318m / 9.318	L=11.855m / 21.174	L=10.200m / 31.374	L=12.307m / 43.680

Pipe Diameter		675ø	600ø		
Pipe Class		Class 2	Class 2		
Pipe Grade		1 in 300	1 in 188		
Velocity (m/s)		Vf=1.357	Vf=1.583		
Pipe Flow (m3/s)		Qa=0.180	Qa=0.176		
Pipe Capacity (m3/s)		Qcap=0.485	Qcap=0.448		
DATUM					
DEPTH TO INVERT	2.876	2.826	2.873		
DESIGN INVERT LEVEL	45.064	45.114	45.176		
HYDRAULIC GRADE LEVEL	47.217	47.223	47.233	47.251	
FINISHED SURFACE LEVEL	47.940		48.050		
EXISTING SURFACE LEVEL	48.012		48.038		
CHAINAGE	L=12.307m / 43.680		L=11.789m / 55.470		

Planning and Environment Act 1987
Wyndham Planning Scheme

Approved Plan As Required
under Condition 63
Permit No WYP13902/22
Date 23/07/2025

Rev	Amendments	Approved	Date
B	DRAINAGE LONG SECTIONS AMENDED	G.K	30/05/25
A	ISSUED TO COUNCIL	G.K	04/04/25

Scale
H 1:500 SCALE @ A1
V 1:50
0 5 10 15 20 25
0 0.5 1 1.5 2 2.5

dlcs ISO 9001 certified ISO 45001 certified ISO 14001 certified
System Certified

spiire
L6 414 LA TROBE STREET PO BOX 16084 MELBOURNE
VICTORIA 8007 AUSTRALIA T 61 3 9993 7888
spiire.com.au ABN 55 050 029 635

Harlow TARNEIT

Designed T. NGUYEN
Checked G. KOHLMAN
Authorised G. KOHLMAN
Date 04/04/25

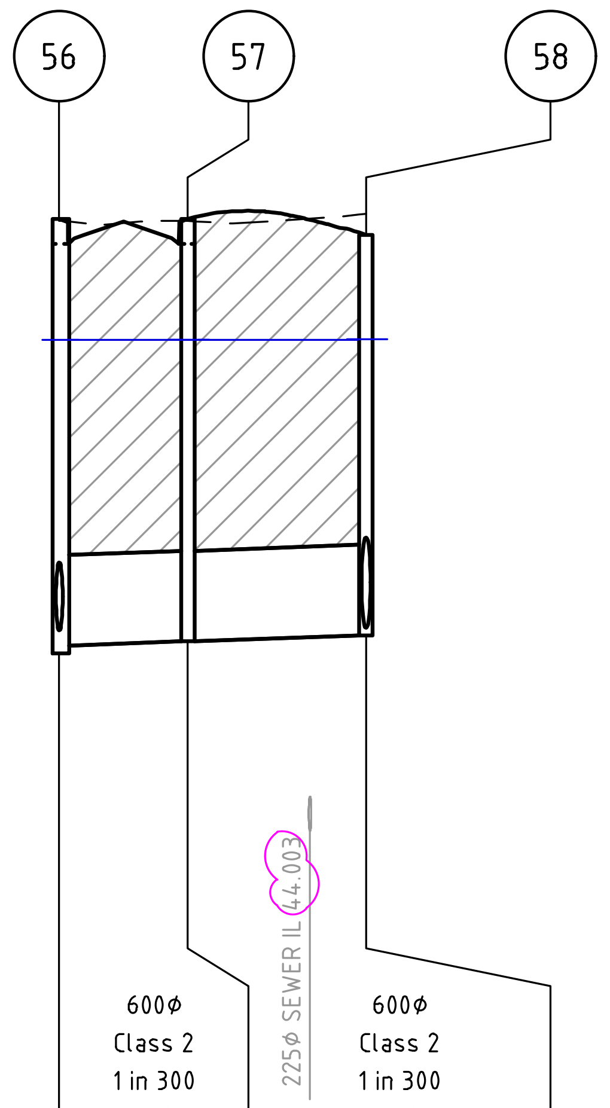
HARLOW ESTATE
STAGE 7
ROAD AND DRAINAGE
DRAINAGE LONG SECTIONS - SHEET 1
WYNDHAM CITY COUNCIL
SIG GROUP

PRELIMINARY

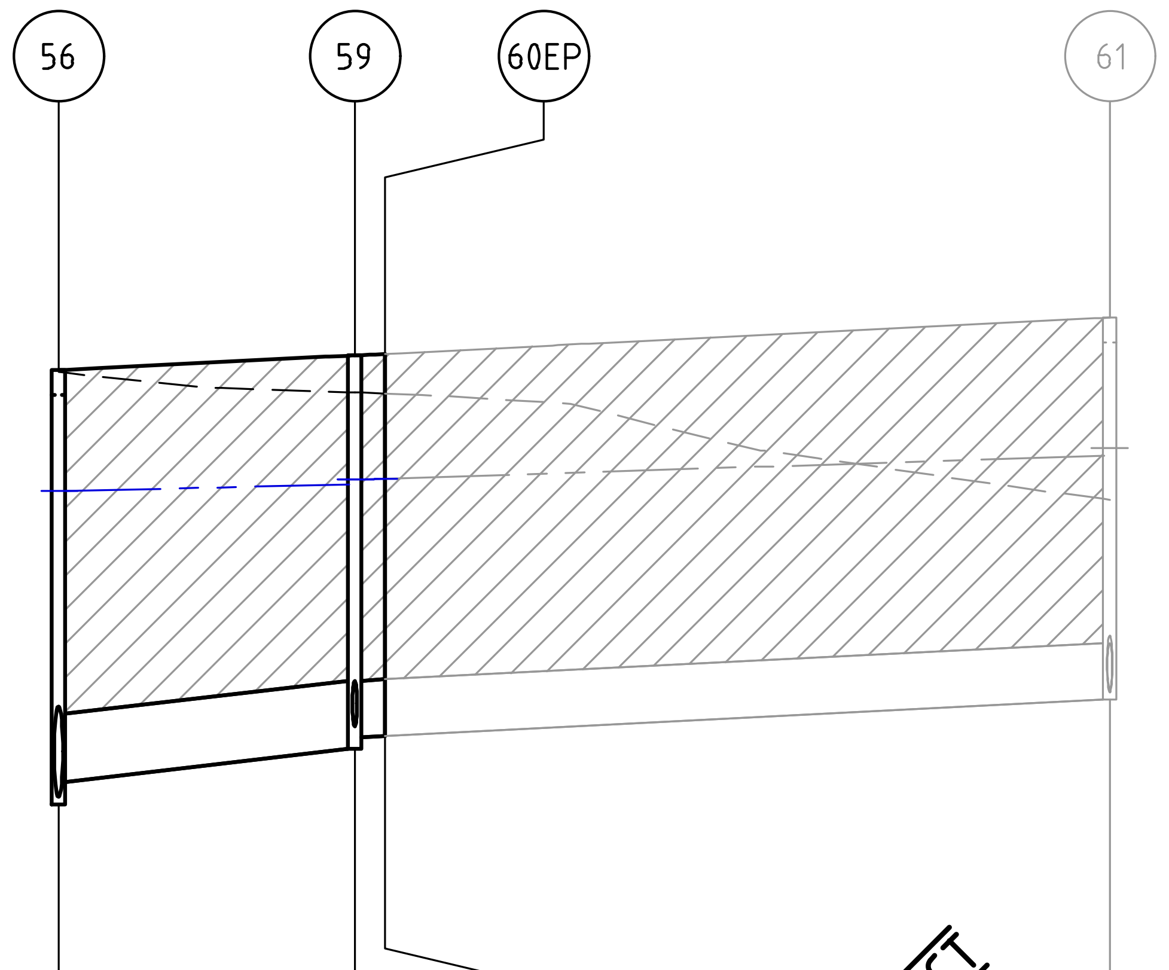
Drg No 309443CR600 Rev B

file name 309443CR600.dwg layout name CR600 plotted by Thanh Nguyen
file location \\spiire.vmdata\data\301\309443\civil\ACAD plot date 30/05/2025 4:39 PM Sheet 15 of 22 Sheets

▨ CRUSHED ROCK BACKFILL

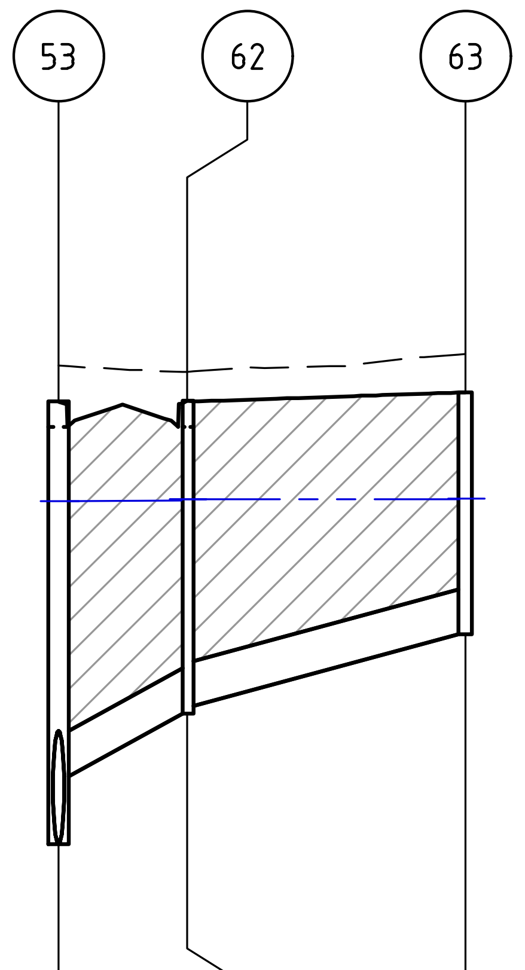


Pipe Diameter		600ø		600ø		
Pipe Class		Class 2		Class 2		
Pipe Grade		1 in 300		1 in 300		
Velocity (m/s)		Vf=1.254		Vf=1.254		
Pipe Flow (m3/s)		Qa=0.038		Qa=0.031		
Pipe Capacity (m3/s)		Qcap=0.355		Qcap=0.355		
DATUM		41.00				
DEPTH TO INVERT	2.873	2.823	2.795	2.795	2.649	
DESIGN INVERT LEVEL	45.176	45.226	45.255	45.255	45.294	
HYDRAULIC GRADE LEVEL	47.233	47.251	47.251	47.252	47.252	47.253
FINISHED SURFACE LEVEL	48.050		48.050		47.943	
EXISTING SURFACE LEVEL	48.038		48.037		48.084	
CHAINAGE	55.470	L=8.500m	63.970	L=11.789m	75.759	

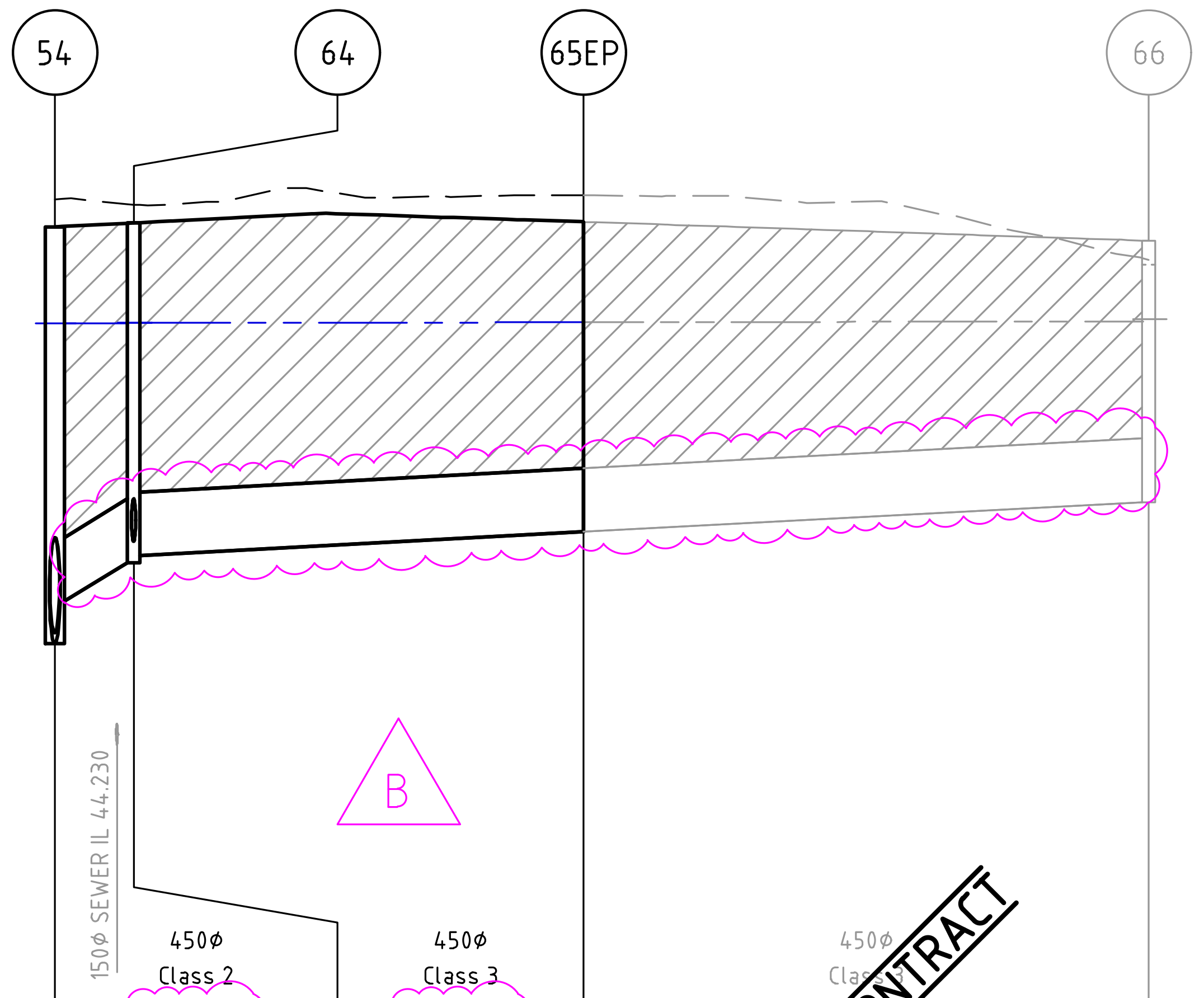


Pipe Diameter		450ø		375ø		375ø		
Pipe Class		Class 2		Class 2		Class 2		
Pipe Grade		1 in 90		1 in 200		1 in 200		
Velocity (m/s)		Vf=1.893		Vf=1.123		Vf=1.123		
Pipe Flow (m3/s)		Qa=0.134		Qa=0.099		Qa=0.099		
Pipe Capacity (m3/s)		Qcap=0.301		Qcap=0.124		Qcap=0.124		
DATUM		42.00						
DEPTH TO INVERT	2.873	2.723	2.603	2.528	2.528	2.528	2.528	
DESIGN INVERT LEVEL	45.176	45.326	45.545	45.620	45.630	45.630	45.869	
HYDRAULIC GRADE LEVEL	47.233	47.251	47.294	47.327	47.332		47.484	47.537
FINISHED SURFACE LEVEL	48.050		48.148		48.158		48.397	
EXISTING SURFACE LEVEL	48.038		47.902		47.896		47.194	
CHAINAGE	0.000	L=19.600m	19.600	L=2.000m	21.600	L=47.950m	69.550	

NOT IN CONTRACT

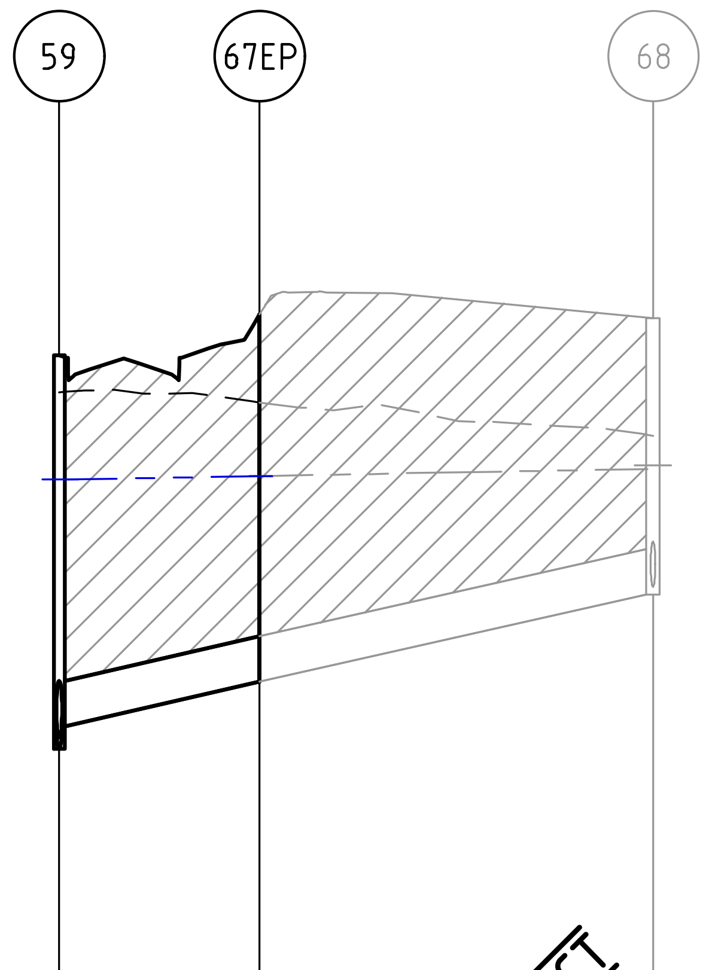


Pipe Diameter		300ø		300ø		
Pipe Class		Class 2		Class 3		
Pipe Grade		1 in 21		1 in 39		
Velocity (m/s)		Vf=3.017		Vf=2.198		
Pipe Flow (m3/s)		Qa=0.022		Qa=0.009		
Pipe Capacity (m3/s)		Qcap=0.213		Qcap=0.155		
DATUM		42.00				
DEPTH TO INVERT	2.929	2.479	2.070	2.020	1.602	
DESIGN INVERT LEVEL	44.914	45.364	45.777	45.827	46.301	
HYDRAULIC GRADE LEVEL	47.168	47.182	47.187	47.194	47.196	47.200
FINISHED SURFACE LEVEL	47.843		47.846		47.903	
EXISTING SURFACE LEVEL	48.081		48.037		48.156	
CHAINAGE	0.000	L=8.500m	8.500	L=18.400m	26.900	



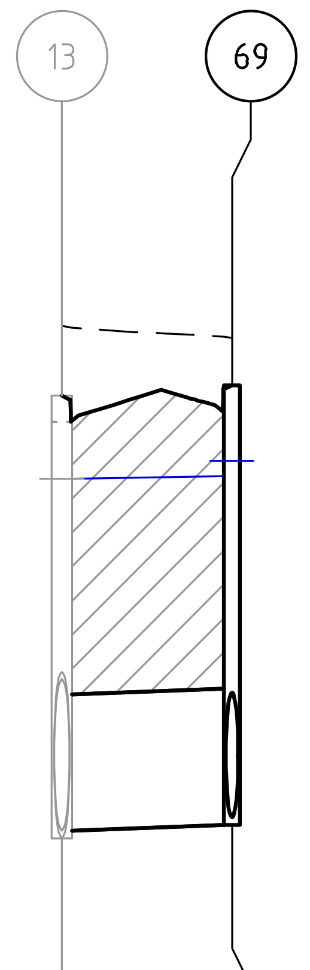
Pipe Diameter		450ø		450ø		450ø		
Pipe Class		Class 2		Class 3		Class 3		
Pipe Grade		1 in 21		1 in 190		1 in 190		
Velocity (m/s)		Vf=3.961		Vf=1.301		Vf=1.301		
Pipe Flow (m3/s)		Qa=0.044		Qa=0.037		Qa=0.037		
Pipe Capacity (m3/s)		Qcap=0.630		Qcap=0.207		Qcap=0.207		
DATUM		41.00						
DEPTH TO INVERT	2.946	2.646	2.402	2.352	2.192	2.192	1.849	
DESIGN INVERT LEVEL	44.948	45.248	45.520	45.570	45.737	45.737	45.948	
HYDRAULIC GRADE LEVEL	47.186	47.211	47.213	47.215	47.220		47.227	47.241
FINISHED SURFACE LEVEL	47.894		47.922		47.929		47.796	
EXISTING SURFACE LEVEL	48.088		48.052		48.119		47.660	
CHAINAGE	0.000	L=5.575m	5.575	L=31.825m	37.400	L=39.946m	77.346	

NOT IN CONTRACT



Pipe Diameter		300ø		300ø		
Pipe Class		Class 2		Class 2		
Pipe Grade		1 in 45		1 in 45		
Velocity (m/s)		Vf=2.040		Vf=2.040		
Pipe Flow (m3/s)		Qa=0.041		Qa=0.041		
Pipe Capacity (m3/s)		Qcap=0.144		Qcap=0.144		
DATUM		42.00				
DEPTH TO INVERT	2.603	2.453	2.430	2.430	1.829	
DESIGN INVERT LEVEL	45.545	45.695	45.989	45.989	46.567	
HYDRAULIC GRADE LEVEL	47.294	47.327	47.350		47.397	47.420
FINISHED SURFACE LEVEL	48.148		48.419		48.396	
EXISTING SURFACE LEVEL	47.902		47.837		47.616	
CHAINAGE	0.000	L=13.250m	13.250	L=26.000m	39.250	

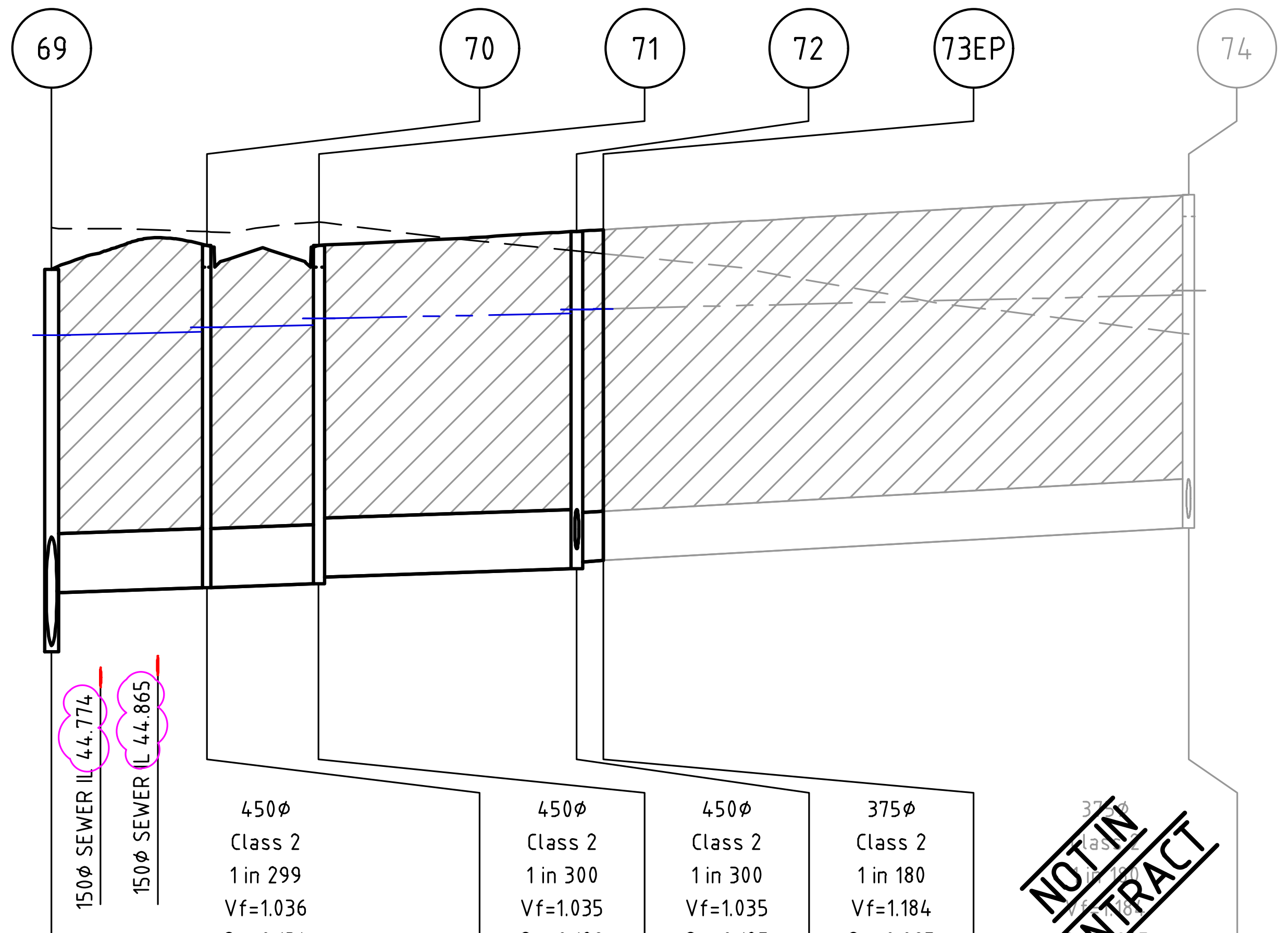
NOT IN CONTRACT



Pipe Diameter		900ø		
Pipe Class		Class 2		
Pipe Grade		1 in 300		
Velocity (m/s)		Vf=1.644		
Pipe Flow (m3/s)		Qa=0.698		
Pipe Capacity (m3/s)		Qcap=1.046		
DATUM		42.00		
DEPTH TO INVERT	2.928	2.878	2.907	
DESIGN INVERT LEVEL	44.955	45.005	45.042	
HYDRAULIC GRADE LEVEL	47.182	47.333	47.350	47.448
FINISHED SURFACE LEVEL	47.883		47.950	
EXISTING SURFACE LEVEL	48.342		48.265	
CHAINAGE	0.000	L=11.249m	11.249	

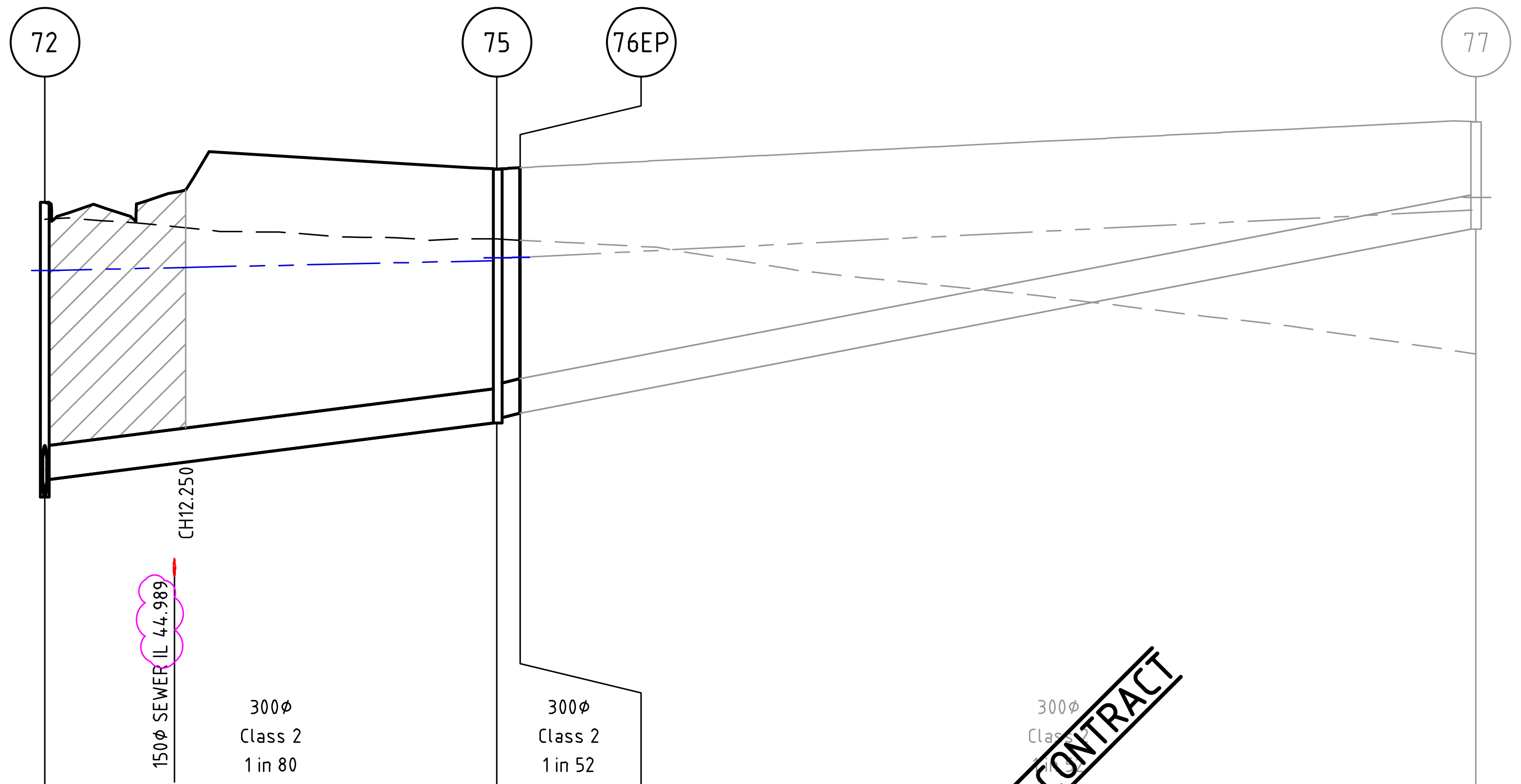
Planning and Environment Act 1987
Wyndham Planning Scheme

Approved Plan As Required
under Condition 63
Permit No WYP13902/22
Date 23/07/2025



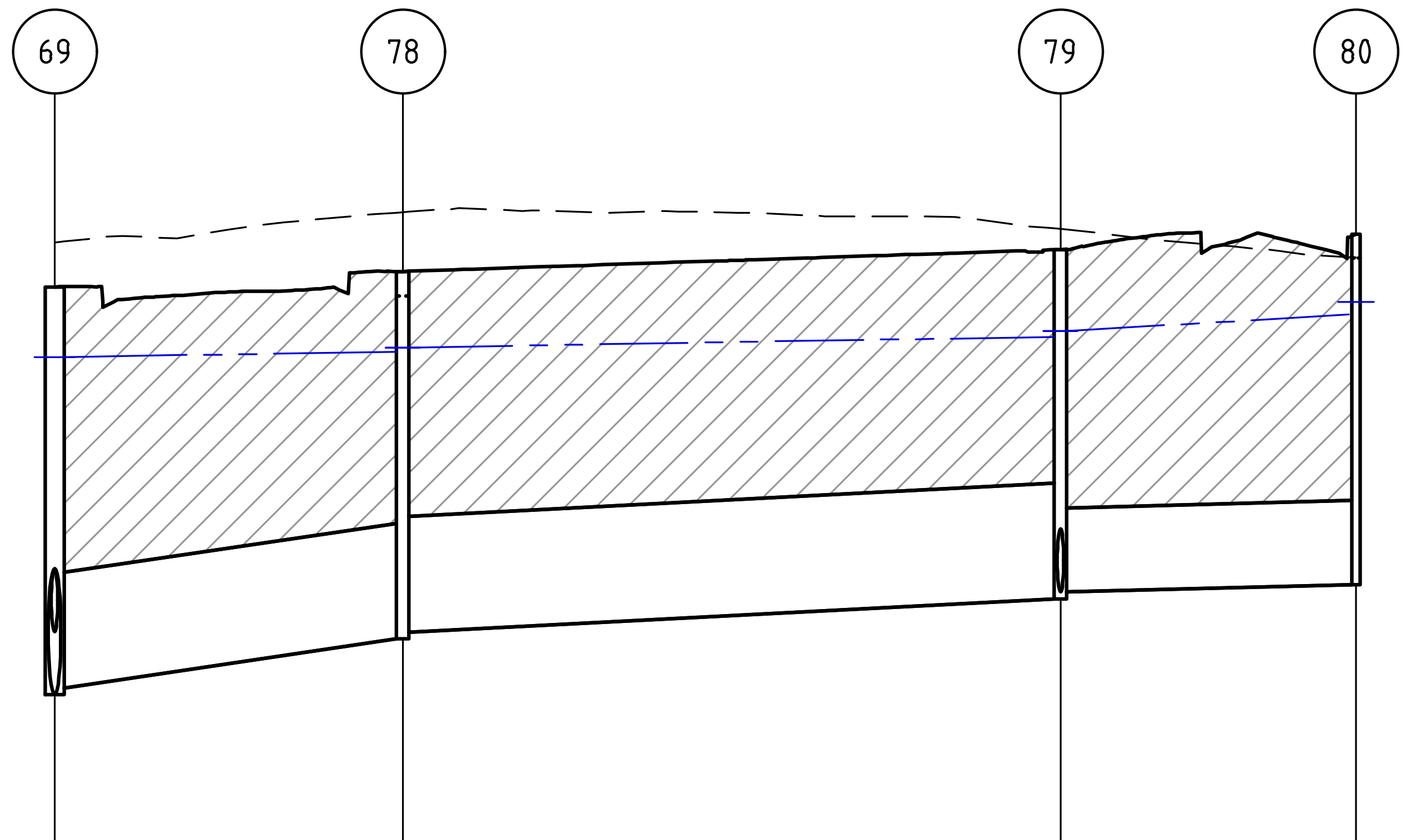
Pipe Diameter		450ø		450ø		450ø		375ø		375ø		
Pipe Class		Class 2		Class 2		Class 2		Class 2		Class 2		
Pipe Grade		1 in 299		1 in 300		1 in 300		1 in 180		1 in 180		
Velocity (m/s)		Vf=1.036		Vf=1.035		Vf=1.035		Vf=1.184		Vf=1.184		
Pipe Flow (m3/s)		Qa=0.134		Qa=0.129		Qa=0.125		Qa=0.085		Qa=0.085		
Pipe Capacity (m3/s)		Qcap=0.165		Qcap=0.165		Qcap=0.165		Qcap=0.131		Qcap=0.131		
DATUM		42.00										
DEPTH TO INVERT	2.907	2.457	2.599	2.599	2.570	2.520	2.561	2.511	2.512	2.512	2.532	
DESIGN INVERT LEVEL	45.042	45.492	45.532	45.532	45.560	45.610	45.675	45.725	45.736	45.736	45.983	
HYDRAULIC GRADE LEVEL	47.350	47.448	47.475	47.507	47.525	47.575	47.613	47.644	47.649		47.754	47.787
FINISHED SURFACE LEVEL	47.950		48.130		48.130		48.237		48.249		48.515	
EXISTING SURFACE LEVEL	48.265		48.235		48.307		48.088		48.067		47.455	
CHAINAGE	11.249	L=11.769m	23.018	L=8.500m	31.518	L=19.600m	51.118	L=2.000m	53.118	L=44.450m	97.568	

NOT IN CONTRACT



Pipe Diameter		300ø		300ø		300ø		
Pipe Class		Class 2		Class 2		Class 2		
Pipe Grade		1 in 80		1 in 52		1 in 52		
Velocity (m/s)		Vf=1.530		Vf=1.898		Vf=1.898		
Pipe Flow (m3/s)		Qa=0.045		Qa=0.046		Qa=0.046		
Pipe Capacity (m3/s)		Qcap=0.108		Qcap=0.134		Qcap=0.134		
DATUM		42.00						
DEPTH TO INVERT	2.561	2.411	2.208	2.158	2.131	2.131	0.933	
DESIGN INVERT LEVEL	45.675	45.825	46.316	46.366	46.405	46.405	48.001	
HYDRAULIC GRADE LEVEL	47.613	47.644	47.728	47.755	47.759		48.167	48.278
FINISHED SURFACE LEVEL	48.237		48.524		48.536		48.934	
EXISTING SURFACE LEVEL	48.088		47.916		47.906		46.919	
CHAINAGE	0.000	L=39.250m	39.250	L=2.000m	41.250	L=83.000m	124.250	

NOT IN CONTRACT



Pipe Diameter		825ø		825ø		600ø		
Pipe Class		Class 2		Class 2		Class 2		
Pipe Grade		1 in 71		1 in 200		1 in 400		
Velocity (m/s)		Vf=3.181		Vf=1.900		Vf=1.086		
Pipe Flow (m3/s)		Qa=0.576		Qa=0.577		Qa=0.456		
Pipe Capacity (m3/s)		Qcap=1.700		Qcap=1.015		Qcap=0.307		
DATUM		42.00						
DEPTH TO INVERT	2.907	2.857	2.619	2.569	2.491	2.441	2.499	
DESIGN INVERT LEVEL	45.042	45.092	45.440	45.490	45.724	45.774	45.827	
HYDRAULIC GRADE LEVEL	47.350	47.448	47.488	47.518	47.594	47.635	47.751	47.844
FINISHED SURFACE LEVEL	47.950		48.059		48.215		48.326	
EXISTING SURFACE LEVEL	48.265		48.482		48.362		48.158	
CHAINAGE	0.000	L=24.809m	24.809	L=46.850m	71.659	L=21.068m	92.727	

file name 309443CR600.dwg layout name CR601 plotted by Thanh Nguyen
file location G:\30\309443\Civil\ACAD plot date 30/05/2025 4:40 PM Sheet 16 of 22 Sheets

Rev	Amendments	Approved	Date
B	DRAINAGE LONG SECTIONS AMENDED	G.K	30/05/25
A	ISSUED TO COUNCIL	G.K	04/04/25

Scale
H 1:500
SCALE @ A1
V 1:50
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0 0.5 1 1.5 2 2.5

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L6 414 LA TROBE STREET PO BOX 16084 MELBOURNE
VICTORIA 8007 AUSTRALIA T 61 3 9993 7888
spiire.com.au ABN 55 050 029 635

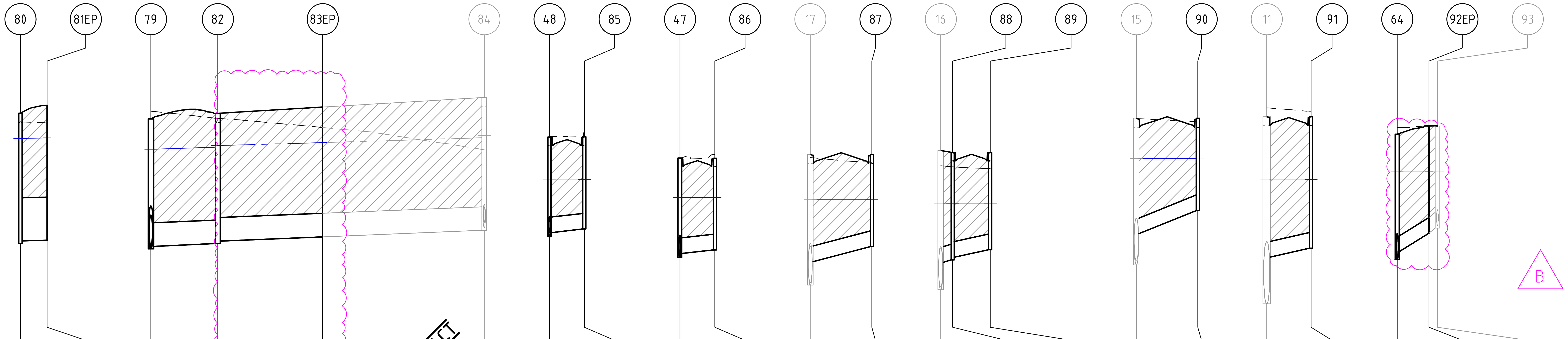
Harlow
TARNEIT

Designed
T. NGUYEN
Checked
G. KOHLMAN
Authorised
G. KOHLMAN
Date
04/04/25

HARLOW ESTATE
STAGE 7
ROAD AND DRAINAGE
DRAINAGE LONG SECTIONS - SHEET 2
WYNDHAM CITY COUNCIL
SIG GROUP

PRELIMINARY
Drg No 309443CR601
Rev B

▨ CRUSHED ROCK BACKFILL



	80	80	81EP
Pipe Diameter		825ø	
Pipe Class		Class 2	
Pipe Grade		1 in 400	
Velocity (m/s)		Vf=1.343	
Pipe Flow (m3/s)		Qa=0.452	
Pipe Capacity (m3/s)		Qcap=0.718	
DATUM		42.00	
DEPTH TO INVERT	2.499	2.449	2.586
DESIGN INVERT LEVEL	45.827	45.877	45.890
HYDRAULIC GRADE LEVEL	47.751	47.844	47.849
FINISHED SURFACE LEVEL	48.326		48.476
EXISTING SURFACE LEVEL	48.158		48.136
CHAINAGE	92.727	L=5.100m	97.827

	79	79	82	82	83EP	83EP	84	84
Pipe Diameter		450ø		450ø		450ø		
Pipe Class		Class 2		Class 2		Class 2		
Pipe Grade		1 in 250		1 in 250		1 in 250		
Velocity (m/s)		Vf=1.134		Vf=1.134		Vf=1.134		
Pipe Flow (m3/s)		Qa=0.155		Qa=0.154		Qa=0.154		
Pipe Capacity (m3/s)		Qcap=0.180		Qcap=0.180		Qcap=0.180		
DATUM		42.00						
DEPTH TO INVERT	2.491	2.441	2.496	2.446	2.486	2.486	2.548	
DESIGN INVERT LEVEL	45.724	45.774	45.826	45.876	45.956	45.956	46.080	
HYDRAULIC GRADE LEVEL	47.594	47.635	47.673	47.707	47.763		47.854	47.892
FINISHED SURFACE LEVEL	48.215		48.322		48.442		48.628	
EXISTING SURFACE LEVEL	48.362		48.226		48.051		47.623	
CHAINAGE	0.000	L=12.823m	12.823	L=20.122m	32.945	L=30.950m	63.895	

NOT IN CONTRACT

	48	48	85	85
Pipe Diameter		300ø		
Pipe Class		Class 3		
Pipe Grade		1 in 94		
Velocity (m/s)		Vf=1.409		
Pipe Flow (m3/s)		Qa=0.006		
Pipe Capacity (m3/s)		Qcap=0.100		
DATUM		43.00		
DEPTH TO INVERT	1.908	1.833	1.766	
DESIGN INVERT LEVEL	46.959	47.034	47.105	
HYDRAULIC GRADE LEVEL	47.962	48.048	48.048	48.050
FINISHED SURFACE LEVEL	48.867		48.871	
EXISTING SURFACE LEVEL	48.874		49.017	
CHAINAGE	0.000	L=6.700m	6.700	

	47	47	86	86
Pipe Diameter		300ø		
Pipe Class		Class 3		
Pipe Grade		1 in 100		
Velocity (m/s)		Vf=1.369		
Pipe Flow (m3/s)		Qa=0.006		
Pipe Capacity (m3/s)		Qcap=0.097		
DATUM		43.00		
DEPTH TO INVERT	1.904	1.829	1.756	
DESIGN INVERT LEVEL	46.562	46.637	46.704	
HYDRAULIC GRADE LEVEL	47.665	47.708	47.708	47.710
FINISHED SURFACE LEVEL	48.465		48.460	
EXISTING SURFACE LEVEL	48.455		48.537	
CHAINAGE	0.000	L=6.700m	6.700	

	17	17	87	87
Pipe Diameter		300ø		
Pipe Class		Class 3		
Pipe Grade		1 in 41		
Velocity (m/s)		Vf=2.137		
Pipe Flow (m3/s)		Qa=0.007		
Pipe Capacity (m3/s)		Qcap=0.151		
DATUM		43.00		
DEPTH TO INVERT	2.510	2.060	1.769	
DESIGN INVERT LEVEL	46.030	46.480	46.768	
HYDRAULIC GRADE LEVEL	47.625	47.664	47.665	47.667
FINISHED SURFACE LEVEL	48.540		48.537	
EXISTING SURFACE LEVEL	48.475		48.386	
CHAINAGE	0.000	L=11.800m	11.800	

	16	16	88	88	89
Pipe Diameter		300ø		300ø	
Pipe Class		Class 2		Class 2	
Pipe Grade		1 in 50		1 in 50	
Velocity (m/s)		Vf=1.936		Vf=1.936	
Pipe Flow (m3/s)		Qa=0.002		Qa=0.001	
Pipe Capacity (m3/s)		Qcap=0.137		Qcap=0.137	
DATUM		43.00			
DEPTH TO INVERT	2.664	2.139	2.054	2.004	1.857
DESIGN INVERT LEVEL	45.944	46.469	46.515	46.565	46.709
HYDRAULIC GRADE LEVEL	47.576	47.603	47.603		47.603
FINISHED SURFACE LEVEL	48.608		48.569		48.566
EXISTING SURFACE LEVEL	48.317		48.298		48.263
CHAINAGE	0.000	L=2.300m	2.300	L=7.200m	9.500

	15	15	90	90
Pipe Diameter		300ø		
Pipe Class		Class 3		
Pipe Grade		1 in 27		
Velocity (m/s)		Vf=2.650		
Pipe Flow (m3/s)		Qa=0.014		
Pipe Capacity (m3/s)		Qcap=0.187		
DATUM		42.00		
DEPTH TO INVERT	2.814	2.214	1.769	
DESIGN INVERT LEVEL	45.417	46.017	46.459	
HYDRAULIC GRADE LEVEL	47.433	47.454	47.457	47.467
FINISHED SURFACE LEVEL	48.231		48.228	
EXISTING SURFACE LEVEL	48.223		48.157	
CHAINAGE	0.000	L=11.800m	11.800	

	11	11	91
Pipe Diameter		300ø	
Pipe Class		Class 2	
Pipe Grade		1 in 50	
Velocity (m/s)		Vf=1.936	
Pipe Flow (m3/s)		Qa=0.003	
Pipe Capacity (m3/s)		Qcap=0.137	
DATUM		42.00	
DEPTH TO INVERT	3.587	2.687	2.517
DESIGN INVERT LEVEL	44.671	45.571	45.741
HYDRAULIC GRADE LEVEL	47.010	47.049	47.049
FINISHED SURFACE LEVEL	48.258		48.258
EXISTING SURFACE LEVEL	48.425		48.363
CHAINAGE	0.000	L=8.500m	8.500

	64	64	92EP	92EP	93	93
Pipe Diameter		300ø		300ø		
Pipe Class		Class 2		Class 2		
Pipe Grade		1 in 17		1 in 17		
Velocity (m/s)		Vf=3.319		Vf=3.319		
Pipe Flow (m3/s)		Qa=0.008		Qa=0.008		
Pipe Capacity (m3/s)		Qcap=0.235		Qcap=0.235		
DATUM		42.00				
DEPTH TO INVERT	2.402	2.252	2.052	2.052	1.954	
DESIGN INVERT LEVEL	45.520	45.670	46.028	46.028	46.124	
HYDRAULIC GRADE LEVEL	47.213	47.215	47.215		47.215	47.216
FINISHED SURFACE LEVEL	47.922		48.080		48.078	
EXISTING SURFACE LEVEL	48.052		48.081		48.085	
CHAINAGE	0.000	L=6.083m	6.083	L=1.636m	7.720	

NOT IN CONTRACT

Planning and Environment Act 1987
Wyndham Planning Scheme

Approved Plan As Required
under Condition 63
Permit No WYP13902/22
Date 23/07/2025

file name 309443CR600.dwg layout name CR602 plotted by Thanh Nguyen
file location G:\30\309443\Civil\ACAD plot date 30/05/2025 4:40 PM Sheet 17 of 22 Sheets

Rev	Amendments	Approved	Date
B	DRAINAGE LONG SECTIONS AMENDED	G.K	30/05/25
A	ISSUED TO COUNCIL	G.K	04/04/25

Scale
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SCALE @ A1
V 1:50 0 0.5 1 1.5 2 2.5

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Harlow
TARNEIT

Designed
T. NGUYEN
Checked
G. KOHLMAN
Authorised
G. KOHLMAN
Date
04/04/25

HARLOW ESTATE
STAGE 7
ROAD AND DRAINAGE
DRAINAGE LONG SECTIONS - SHEET 3
WYNDHAM CITY COUNCIL
SIG GROUP

PRELIMINARY
Drg No
309443CR602
Rev
B

DRAINAGE PIT SCHEDULE

PIT		INTERNAL		INLET		OUTLET		PIT		REMARKS
NAME	TYPE	WIDTH	LENGTH	DIA	INV LEVEL	DIA	INV LEVEL	FS LEVEL	DEPTH	
11	GRATED SIDE ENTRY PIT	1500	900	300	45.571	1200	44.671	48.258	3.587	CONVERT TO GSEP. REFER TO EDCM STANDARD DRAWING 601
12	JUNCTION PIT	1650	1500	750	44.812	1200	44.762	48.043	3.281	
13	GRATED SIDE ENTRY PIT	1650	1650	900	45.005	1050	44.955	47.883	2.928	CONVERT TO GSEP. REFER TO EDCM STANDARD DRAWING 601
14	GRATED SIDE ENTRY PIT	1350	900	900	45.170	1050	45.120	47.985	2.864	CONVERT TO GSEP. REFER TO EDCM STANDARD DRAWING 601
15	GRATED SIDE ENTRY PIT	1050	900	300	46.017	900	45.417	48.231	2.814	CONVERT TO GSEP. REFER TO EDCM STANDARD DRAWING 601
16	JUNCTION PIT	1050	900	300	46.469	825	45.944	48.608	2.664	
17	GRATED SIDE ENTRY PIT	1050	900	300	46.480	750	46.030	48.540	2.510	CONVERT TO GSEP. REFER TO EDCM STANDARD DRAWING 601
21	JUNCTION PIT	900	900	450	45.837	600	45.687	48.139	2.452	
22	GRATED SIDE ENTRY PIT	900	900	375	46.343	600	46.118	48.271	2.153	CONVERT TO GSEP. REFER TO EDCM STANDARD DRAWING 601
23	GRATED SIDE ENTRY PIT	750	900	525	46.274	600	46.199	48.271	2.072	CONVERT TO GSEP. REFER TO EDCM STANDARD DRAWING 601
24	GRATED SIDE ENTRY PIT	750	900	525	46.461	525	46.411	48.452	2.041	CONVERT TO GSEP. REFER TO EDCM STANDARD DRAWING 601
25	GRATED SIDE ENTRY PIT	750	900	525	46.743	525	46.693	48.799	2.106	CONVERT TO GSEP. REFER TO EDCM STANDARD DRAWING 601
2	GRATED SIDE ENTRY PIT	600	900	375	46.763	375	46.713	48.452	1.738	REFER TO EDCM STANDARD DRAWING 601 & 605
4	GRATED SIDE ENTRY PIT	600	900	300	47.155	375	47.080	48.778	1.698	REFER TO EDCM STANDARD DRAWING 601 & 605
5	GRATED SIDE ENTRY PIT	600	900			300	47.512	49.140	1.629	REFER TO EDCM STANDARD DRAWING 601 & 605
10	GRATED SIDE ENTRY PIT	900	900	450	45.935	450	45.885	48.409	2.525	REFER TO EDCM STANDARD DRAWING 601 & 607
				300	46.035					
45	GRATED SIDE ENTRY PIT	750	900	450	46.206	450	46.156	48.409	2.253	REFER TO EDCM STANDARD DRAWING 601 & 607
46	GRATED SIDE ENTRY PIT	750	900	375	46.503	450	46.428	48.558	2.130	REFER TO EDCM STANDARD DRAWING 601 & 607
47	JUNCTION PIT	750	900	375	46.612	375	46.562	48.465	1.904	REFER TO EDCM STANDARD DRAWING 607
				300	46.637					
48	GRATED SIDE ENTRY PIT	600	900	300	47.034	375	46.959	48.867	1.908	REFER TO EDCM STANDARD DRAWING 601 & 605
				300	47.034					
49	GRATED SIDE ENTRY PIT	600	900	300	47.634	300	47.584	49.462	1.879	REFER TO EDCM STANDARD DRAWING 601 & 605
50	GRATED SIDE ENTRY PIT	600	900			300	47.701	49.480	1.779	REFER TO EDCM STANDARD DRAWING 601 & 605
51	GRATED SIDE ENTRY PIT	600	900			300	46.964	48.562	1.598	REFER TO EDCM STANDARD DRAWING 601 & 605
52	GRATED SIDE ENTRY PIT	1350	1200	750	44.874	750	44.874	48.026	3.151	REFER TO EDCM STANDARD DRAWING 601 & 607. TO BE HAUNCHED UNDER ROAD
53	GRATED SIDE ENTRY PIT	1350	1050	750	44.914	750	44.914	47.843	2.929	REFER TO EDCM STANDARD DRAWING 601 & 607. TO BE HAUNCHED UNDER ROAD
				300	45.364					
54	GRATED SIDE ENTRY PIT	1050	1350	675	45.023	750	44.948	47.894	2.946	REFER TO EDCM STANDARD DRAWING 601 & 607
				450	45.248					
55	JUNCTION PIT	1350	900	600	45.114	675	45.064	47.940	2.876	REFER TO EDCM STANDARD DRAWING 607. TO BE HAUNCHED UNDER ROAD
56	GRATED SIDE ENTRY PIT	1200	900	600	45.266	600	45.176	48.050	2.873	REFER TO EDCM STANDARD DRAWING 601 & 607. TO BE HAUNCHED UNDER ROAD
				450	45.326					
57	GRATED SIDE ENTRY PIT	900	1200	600	45.255	600	45.255	48.050	2.795	REFER TO EDCM STANDARD DRAWING 601 & 607
58	JUNCTION PIT	900	1200			600	45.294	47.943	2.649	REFER TO EDCM STANDARD DRAWING 607
				600	45.344					
59	JUNCTION PIT	750	900	375	45.620	450	45.545	48.148	2.603	REFER TO EDCM STANDARD DRAWING 607
				300	45.695					
62	JUNCTION PIT	600	900	300	45.827	300	45.777	47.846	2.070	REFER TO EDCM STANDARD DRAWING 605
63	JUNCTION PIT	600	900			300	46.301	47.903	1.602	REFER TO EDCM STANDARD DRAWING 605
64	JUNCTION PIT	750	900	450	45.570	450	45.520	47.922	2.402	REFER TO EDCM STANDARD DRAWING 607. PROVIDE CLASS D HEAVY DUTY COVER. TO BE HAUNCHED UNDER ROAD
				300	45.670					
69	JUNCTION PIT	1050	1350	450	45.492	900	45.042	47.950	2.907	REFER TO EDCM STANDARD DRAWING 607. TO BE HAUNCHED UNDER ROAD
				825	45.092					
70	GRATED SIDE ENTRY PIT	600	900	450	45.532	450	45.532	48.130	2.599	REFER TO EDCM STANDARD DRAWING 601 & 605
71	GRATED SIDE ENTRY PIT	750	900	450	45.610	450	45.560	48.130	2.570	REFER TO EDCM STANDARD DRAWING 601 & 607
72	JUNCTION PIT	750	900	375	45.725	450	45.675	48.237	2.561	REFER TO EDCM STANDARD DRAWING 607
				300	45.825					
75	JUNCTION PIT	600	900	300	46.366	300	46.316	48.524	2.208	REFER TO EDCM STANDARD DRAWING 605
78	GRATED SIDE ENTRY PIT	1050	900	825	45.490	825	45.440	48.059	2.619	REFER TO EDCM STANDARD DRAWING 601 & 607
79	JUNCTION PIT	1050	900	600	45.774	825	45.724	48.215	2.491	REFER TO EDCM STANDARD DRAWING 607
				450	45.774					
80	GRATED SIDE ENTRY PIT	1050	900	825	45.877	600	45.827	48.326	2.499	REFER TO EDCM STANDARD DRAWING 601 & 607. PIT LID TO BE GRATED.
82	GRATED SIDE ENTRY PIT	600	900	450	45.876	450	45.826	48.322	2.496	REFER TO EDCM STANDARD DRAWING 601 & 605
85	GRATED SIDE ENTRY PIT	600	900			300	47.105	48.871	1.766	REFER TO EDCM STANDARD DRAWING 601 & 605
86	GRATED SIDE ENTRY PIT	600	900			300	46.704	48.460	1.756	REFER TO EDCM STANDARD DRAWING 601 & 605
87	GRATED SIDE ENTRY PIT	600	900			300	46.768	48.537	1.769	REFER TO EDCM STANDARD DRAWING 601 & 605
88	GRATED SIDE ENTRY PIT	600	900	300	46.565	300	46.515	48.569	2.054	REFER TO EDCM STANDARD DRAWING 601 & 605. PROVIDE CLASS D HEAVY DUTY COVER
89	GRATED SIDE ENTRY PIT	600	900			300	46.709	48.566	1.857	REFER TO EDCM STANDARD DRAWING 601 & 605
90	GRATED SIDE ENTRY PIT	600	900			300	46.459	48.228	1.769	REFER TO EDCM STANDARD DRAWING 601 & 605
91	GRATED SIDE ENTRY PIT	600	900			300	45.741	48.258	2.517	REFER TO EDCM STANDARD DRAWING 601 & 605

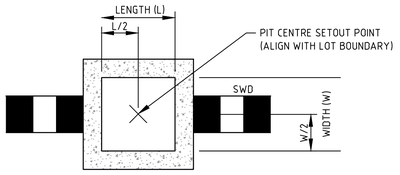
NOTE: ALL HAUNCHED PITS TO BE HAUNCHED UNDER NATURE STRIP UNLESS SPECIFIED IN PIT SCHEDULE

PIT SETOUT CO-ORDINATES

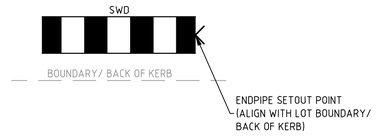
NAME	POINT	EASTING	NORTHING
60EP	B	298154.423	5812588.358
65EP	B	298174.870	5812624.998
67EP	B	298167.795	5812589.221
73EP	B	298078.699	5812594.836
75	A	298117.977	5812593.483
76EP	B	298117.807	5812591.490
81EP	B	298002.862	5812620.515
83EP	B	298018.071	5812600.023
92EP	B	298151.002	5812631.515

Planning and Environment Act 1987
Wyndham Planning Scheme

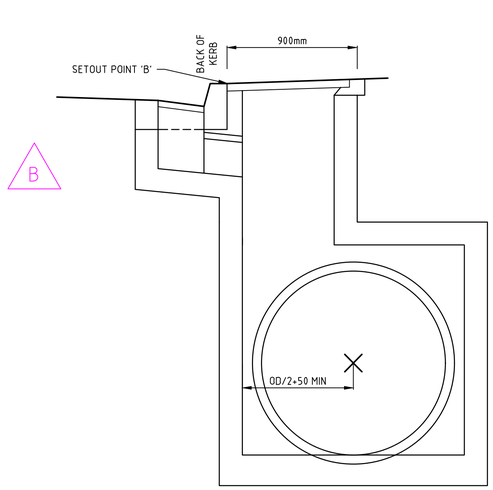
Approved Plan As Required under Condition 63
Permit No WYP13902/22
Date 23/07/2025



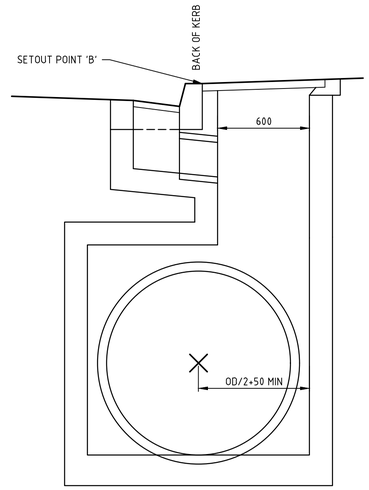
TYPICAL DRAINAGE PIT SETOUT POINT 'A'
JUNCTION PIT/ EASEMENT PIT
NOT TO SCALE



TYPICAL DRAINAGE SETOUT POINT 'B'
ENDPIPE
NOT TO SCALE



HAUNCHED PITS UNDER NATURE STRIP
NOT TO SCALE



HAUNCHED PITS UNDER PAVEMENT
NOT TO SCALE

Rev	Amendments	Approved	Date
B	DRAINAGE PIT SCHEDULE AMENDED	G.K	30/05/25
A	ISSUED TO COUNCIL	G.K	04/04/25

Scale
H 1:500 0 5 10 15 20 25
SCALE @ A1
V 1:50 0 0.5 1 1.5 2 2.5

dtcs ISO 9001 Certified ISO 45001 Certified ISO 14001 Certified
System Certified

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L6 414 LA TROBE STREET PO BOX 16084 MELBOURNE
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spiire.com.au ABN 55 050 029 635

Harlow TARNEIT

Designed T. NGUYEN
Checked G. KOHLMAN
Authorised G. KOHLMAN
Date 04/04/25

HARLOW ESTATE STAGE 7
ROAD AND DRAINAGE
DRAINAGE PIT SCHEDULE
WYNDHAM CITY COUNCIL
SIG GROUP

PRELIMINARY
Drg No **309443CR603**
Rev **B**

file name 309443CR600.dwg layout name CR603 plotted by Thanh Nguyen
file location G:\30\309443\Civil\ACAD\ plot date 30/05/2025 1:40 PM Sheet 18 of 22 Sheets

DESIGN PAVEMENT PROFILE

PAVEMENT LAYER	DESCRIPTION	DEPTH (mm)
		TYPE A
ASPHALT WEARING COURSE	SIZE 10 TYPE N C320	30
ASPHALT BASE COURSE	SIZE 10 TYPE N C320	30
PRIMECOAT	PRIME & 10mm SAMI (S 18RF)	10
BASE COURSE	VICROADS CLASS 2 FCR (20mm)	130
UPPER SUBBASE	VICROADS CLASS 3 FCR (20mm)	120
LOWER SUBBASE	VICROADS CLASS 4 FCR (20mm)	120
CAPPING LAYER	VICROADS TYPE A CAPPING LAYER OR APPROVED ALTERNATIVE AS PER TABLE 5 (CBR≥10%, SWELL<1.5%, K<5X10^{-9}m/sec)	150
CONSTRUCTION LAYER	VICROADS TYPE A CAPPING LAYER OR APPROVED ALTERNATIVE AS PER TABLE 5 (CBR≥10%, SWELL<1.5%, K<5X10^{-9}m/sec)	150
	TOTAL PAVEMENT DEPTH	740

ROAD NAME	TYPE
BOURNESIDE STREET	ACCESS STREET LEVEL 1
DAYLILIY ROAD	ACCESS STREET LEVEL 1
JIRA CRESCENT	ACCESS STREET LEVEL 1
LILIUM WAY	ACCESS STREET LEVEL 1
LUMPINI ROAD	ACCESS STREET LEVEL 1
SALVIAS ROAD	ACCESS STREET LEVEL 1
SPRINGFALL ROAD	ACCESS STREET LEVEL 1
TEASEL WAY	ACCESS STREET LEVEL 1

PAVEMENT DETAILS CBR 2.0%

NOTES:

1. SUBGRADE TO CONSIST OF UNIT 3 NATURAL RESIDUAL CLAYS OR CONTROLLED (ENGINEERED) FILL (CBR≥2.0%)

Planning and Environment Act 1987
Wyndham Planning Scheme

Approved Plan As Required
under Condition 63
Permit No WYP13902/22
Date 23/07/2025

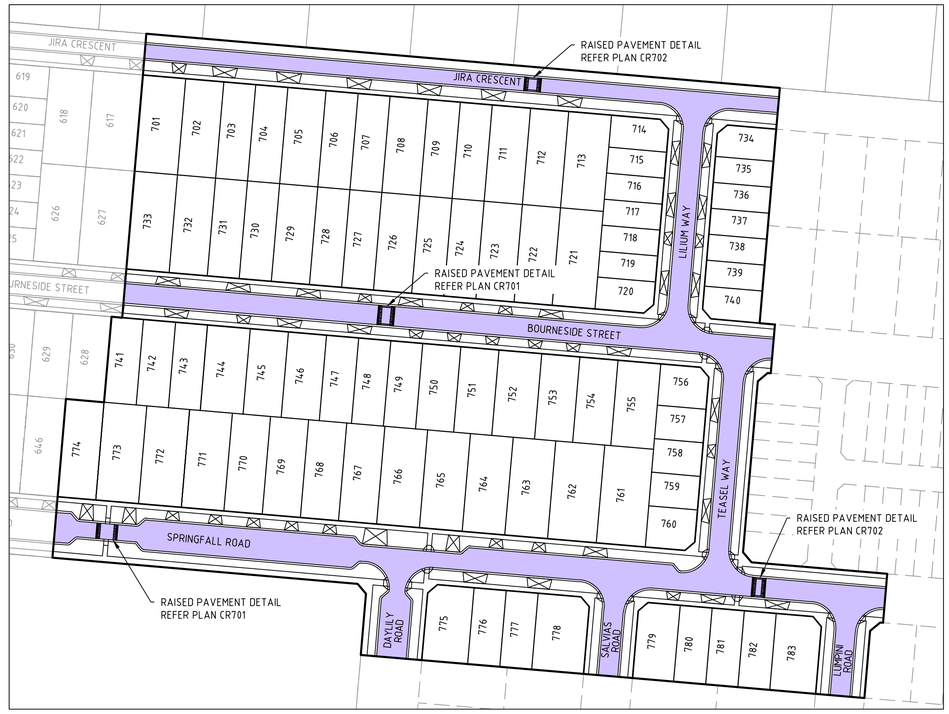
PAVEMENT DETAILS

THE PAVEMENT DESIGNS SHOWN HERE HAVE BEEN DESIGNED/PROVIDED BY GROUND SCIENCE PTY LTD WHO ARE RESPONSIBLE FOR THE GEOTECHNICAL WORK ON THIS PROJECT. SPIIRE IS NOT RESPONSIBLE FOR THE WORK OF GROUND SCIENCE PTY LTD.

THE DESIGN HAS BEEN EXTRACTED FROM THE "GEOTECHNICAL INVESTIGATION" REPORT ON "GEOTECHNICAL INVESTIGATION FOR 860 DERRIMUT ROAD, TARNEIT (DATED 18 OCTOBER 2021, REPORT REFERENCE G4572.1 AA)" THIS DOCUMENT SHOULD BE REVIEWED TO ENSURE THAT THE DESIGN HAS BEEN ACCURATELY REPRODUCED.

A COPY OF THE DOCUMENT WILL BE PROVIDED ON REQUEST.

SPIIRE DOES NOT ACCEPT ANY RESPONSIBILITY FOR THE ACCURACY, ADEQUACY OR APPROPRIATENESS OF THE GEOTECHNICAL WORK AND PAVEMENT DESIGNS.
ANY QUERIES IN RESPECT TO THE GEOTECHNICAL WORK AND PAVEMENT DESIGNS SHOULD BE ADDRESSED TO GROUND SCIENCE PTY LTD AND COPIED TO SPIIRE.



N
MGA 94
ZONE 55

PAVEMENT PLAN

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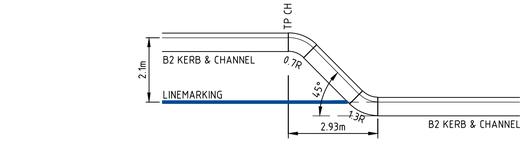
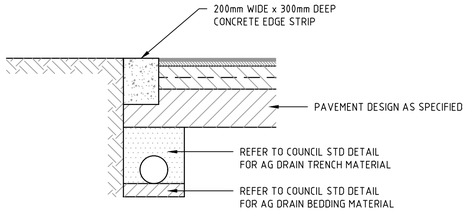
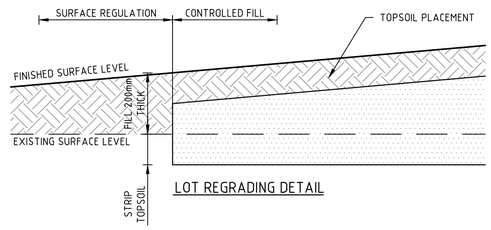


TYPICAL PARKING BAY DETAIL

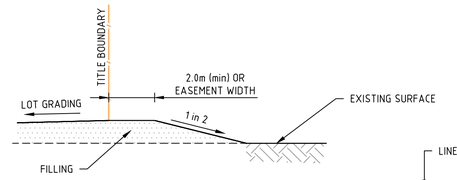
NOT TO SCALE



LIMIT OF WORKS CONCRETE EDGE STRIP & PAVEMENT INTERFACE DETAIL

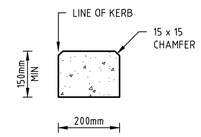


LOT REGRADING DETAIL

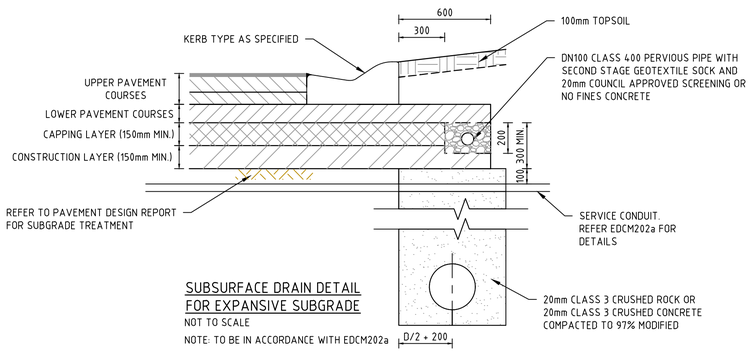


LOT FILLING AT STAGE BOUNDARY

NOT TO SCALE



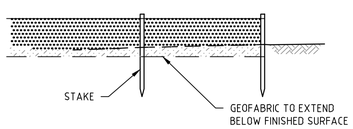
EDGESTRIP



SUBSURFACE DRAIN DETAIL FOR EXPANSIVE SUBGRADE

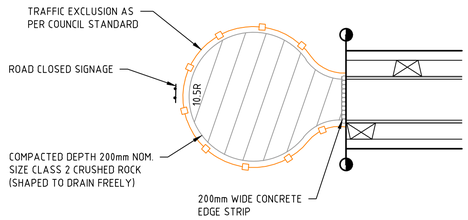
NOT TO SCALE

NOTE: TO BE IN ACCORDANCE WITH EDCM202a



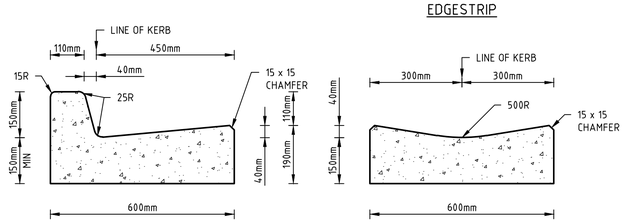
SILT CONTROL FOR LOTS

GEOFABRIC SILT FENCE



TEMPORARY TURNING AREA DETAIL

NOT TO SCALE



600 B2

INVERT CHANNEL
(FOR SM2 OR B2)

STANDARD KERB PROFILES

NOTE: ALL KERB & CHANNEL AS PER EDCM STD DRAWING EDCM 301

H 1:100
SCALE @ A1 0 1 2 3 4 5

Rev	Amendments	Approved	Date
A	ISSUED TO COUNCIL	G.K	04/04/25

Scale

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spiire.com.au ABN 55 050 029 635

Harlow TARNEIT

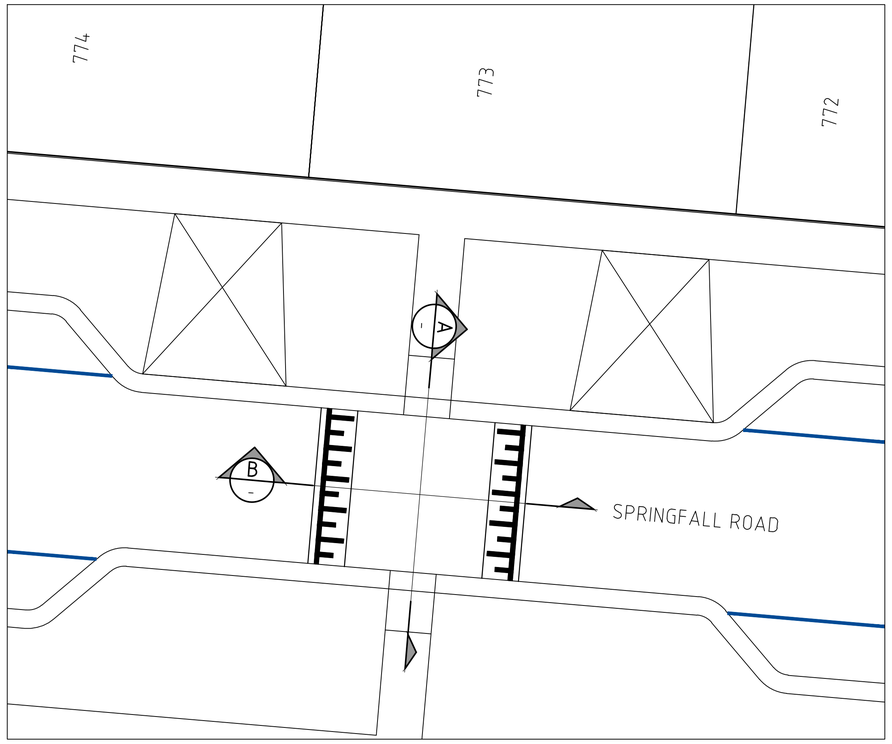
Designed T. NGUYEN
Checked G. KOHLMAN
Authorised G. KOHLMAN
Date 04/04/25

HARLOW ESTATE
STAGE 7
ROAD AND DRAINAGE
PAVEMENT AND TYPICAL DETAILS
WYNDHAM CITY COUNCIL
SIG GROUP

PRELIMINARY

Drg No 309443CR700 Rev A

file name:309443CR700.dwg layout name:CR700 plotted by:Thanh Nguyen
file location:\\spiire.mel.data\Data\301\309443\Civil\ACAD plot date:30/05/2025 4:40 PM Sheet 19 of 22 Sheets



RAISED PAVEMENT PEDESTRIAN CROSSING

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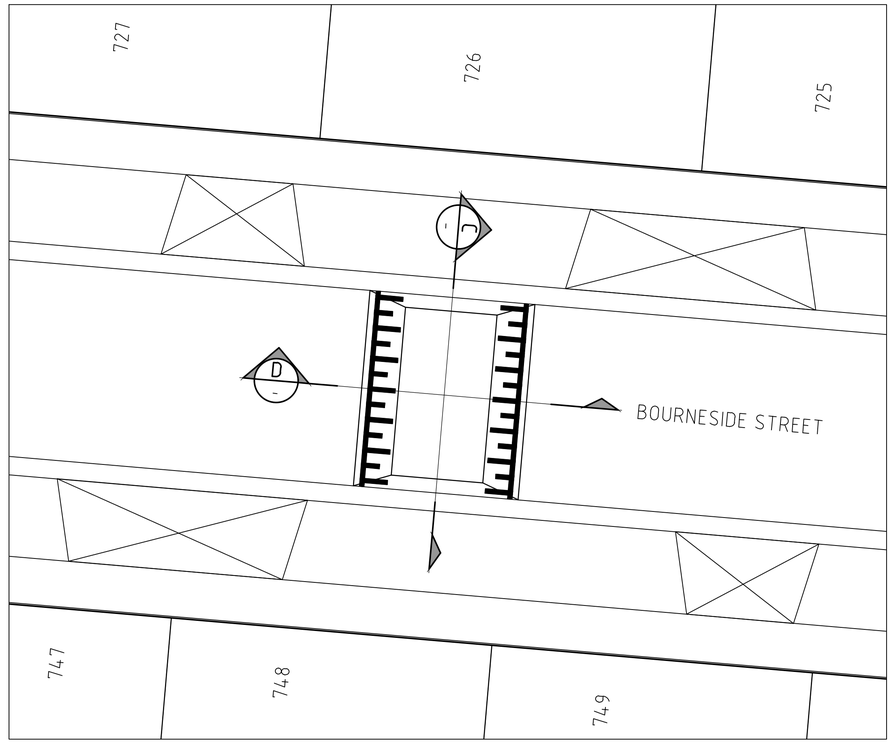

RAISED PAVEMENT FLAT TOP

H 1:100
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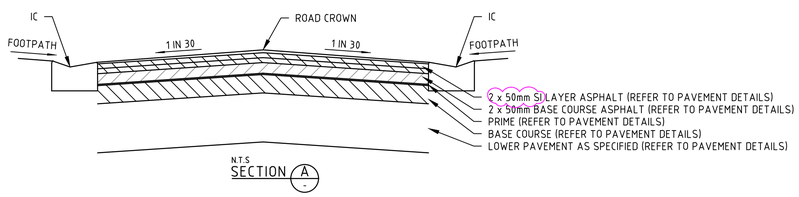
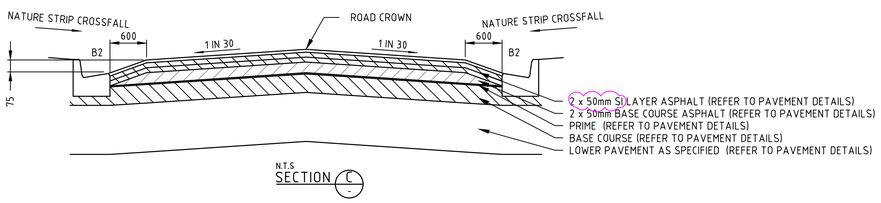


N.T.S
SECTION A -



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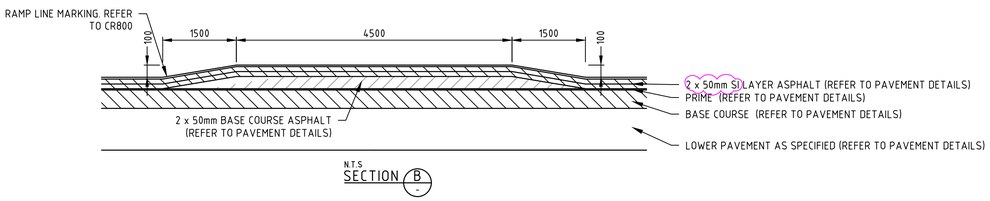
SECTION C -

B



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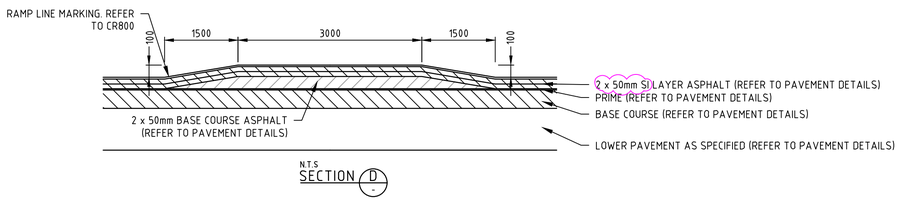
SECTION B -



N.T.S
SECTION D -

Rev	Amendments	Approved	Date
B	NOTES AMENDED	G.K	30/05/25
A	ISSUED TO COUNCIL	G.K	04/04/25

Scale

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spiire.com.au ABN 55 050 029 635

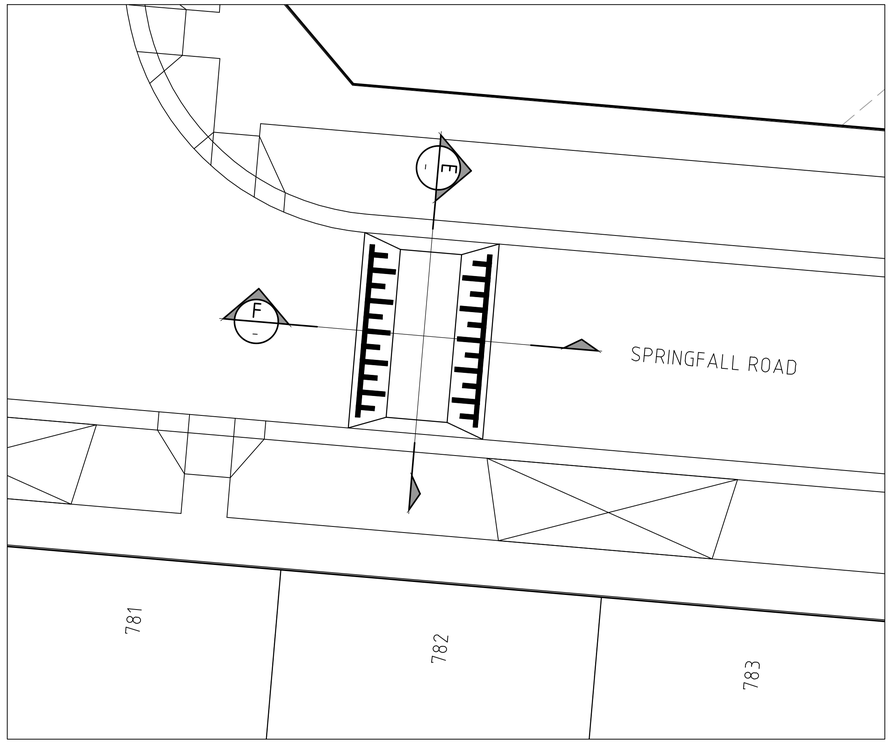
Harlow TARNEIT

Designed T. NGUYEN
Checked G. KOHLMAN
Authorised G. KOHLMAN
Date 04/04/25

HARLOW ESTATE
STAGE 7
ROAD AND DRAINAGE
RAISED PAVEMENT DETAILS - SHEET 1
WYNDHAM CITY COUNCIL
SIG GROUP

PRELIMINARY

Drg No **309443CR701**
Rev **B**



RAISED PAVEMENT FLAT TOP

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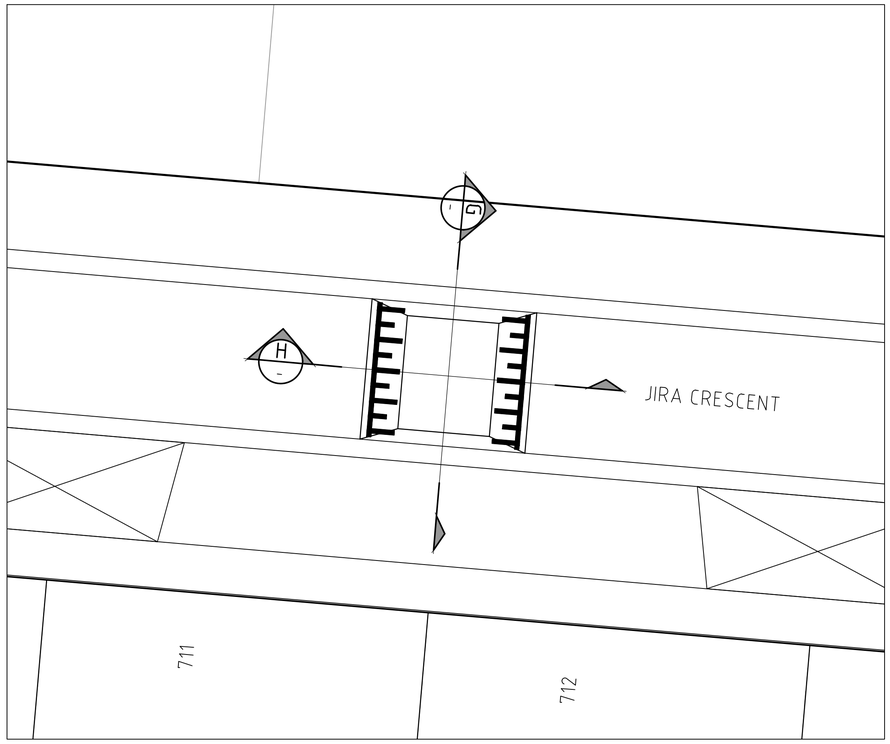

RAISED PAVEMENT FLAT TOP

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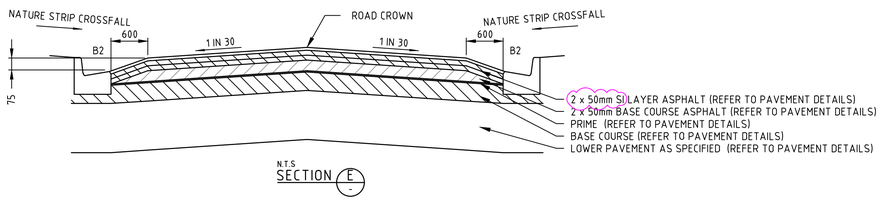

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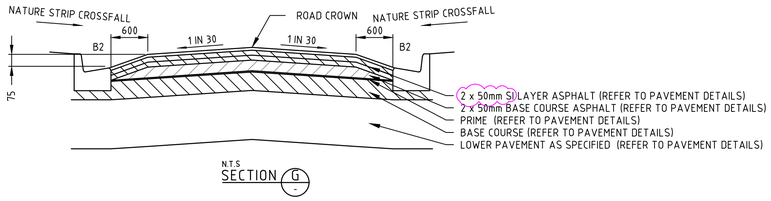
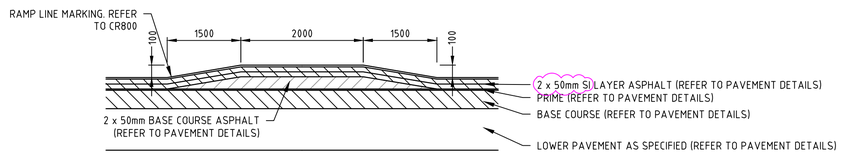
SECTION E

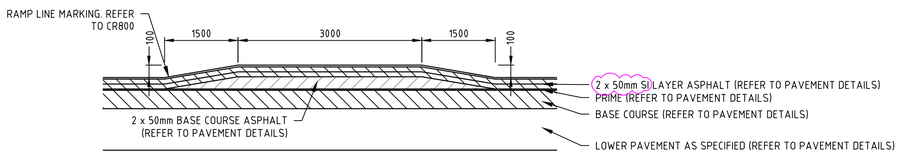


N.T.S
SECTION G

B



N.T.S
SECTION F



N.T.S
SECTION H

Planning and Environment Act 1987
Wyndham Planning Scheme

Approved Plan As Required under Condition 63
Permit No WYP13902/22
Date 23/07/2025

Rev	Amendments	Approved	Date
B	NOTES AMENDED	G.K	30/05/25
A	ISSUED TO COUNCIL	G.K	04/04/25

Scale

spiire
L6 414 LA TROBE STREET PO BOX 16084 MELBOURNE
VICTORIA 8007 AUSTRALIA T 61 3 9993 7888
spiire.com.au ABN 55 050 029 635

Harlow TARNEIT

Designed	Checked
T. NGUYEN	G. KOHLMAN
Authorised	**Date**
G. KOHLMAN	04/04/25

HARLOW ESTATE
STAGE 7
ROAD AND DRAINAGE
PAVEMENT AND TYPICAL DETAILS - SHEET 2
WYNDHAM CITY COUNCIL
SIG GROUP

PRELIMINARY Drg No **309443CR702** Rev **B**

file name: 309443CR700.dwg Layout name: CR702 plotted by: Thanh.Nguyen
file location: \\spiire.vmdata.local\Data\309443\Civil\ACAD plot date: 30/05/2025 4:40 PM Sheet 21 of 22 Sheets

EXISTING INDUSTRIAL ESTATE

JIRA CRESCENT

JIRA CRESCENT

BOURNESIDE STREET

BOURNESIDE STREET

EXISTING STAGE 6

LILIUM WAY

FUTURE STAGE 12

TEASEL WAY

FUTURE STAGE 10

SPRINGFALL ROAD

DAYLILY ROAD

SALVIAS ROAD

LUMPINI ROAD

FUTURE STAGE 16

FUTURE STAGE 8

FUTURE STAGE 9

SIGNAGE SCHEDULE

REFERENCE NO.	SIGN	COMMENTS
1	STREET NAME	STREET NAME PLATES TO BE IN ACCORDANCE WITH HCC SD408 & SD412, INCLUDING "NO THROUGH ROAD" NOMINATION WHERE APPLICABLE
2		D4-2-1
3	ROAD CLOSED	G9-20
4		D4-5
5		W3-4
6		W5-10
7	20 km / h	W8-2
8		R5-35

NOTE: STREET SIGNS ARE TO BE MOUNTED ON LIGHT POLES, WITH A COUNCIL APPROVED BRACKET, IN LIEU OF SIGN POLES WHERE THE TWO POLES ARE IN CLOSE PROXIMITY AND WHERE THE STREET SIGN WOULD NOT BE COMPROMISED IN ITS PURPOSE BY THE RELOCATION.

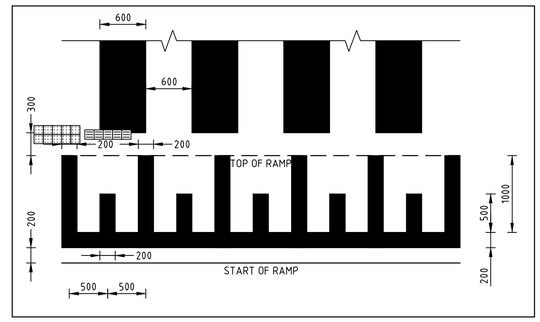
N

MGA 94
ZONE 55

LINEMARKING LEGEND

SYMBOL	DESCRIPTION	REMARK
	CONTINUOUS LANE LINE	100mm WIDE
	TACTILE GROUND SURFACE INDICATORS	SECTION 21.1 VICROADS TRAFFIC ENG. MANUAL VOL. 2

RAISED PAVEMENT LINEMARKING DETAIL



Planning and Environment Act 1987
Wyndham Planning Scheme

Approved Plan As Required
under Condition 63
Permit No WYP13902/22
Date 23/07/2025

Rev	Amendments	Approved	Date
B	SIGNAGE REMOVED, AMENDED & ADDED	G.K	30/05/25
A	ISSUED TO COUNCIL	G.K	04/04/25

Scale
H 1:500
SCALE @ A1
0 5 10 15 20 25

dtcs ISO 9001 certified ISO 45001 certified ISO 14001 certified
System Certified

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L6 414 LA TROBE STREET PO BOX 16084 MELBOURNE
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spiire.com.au ABN 55 050 029 635

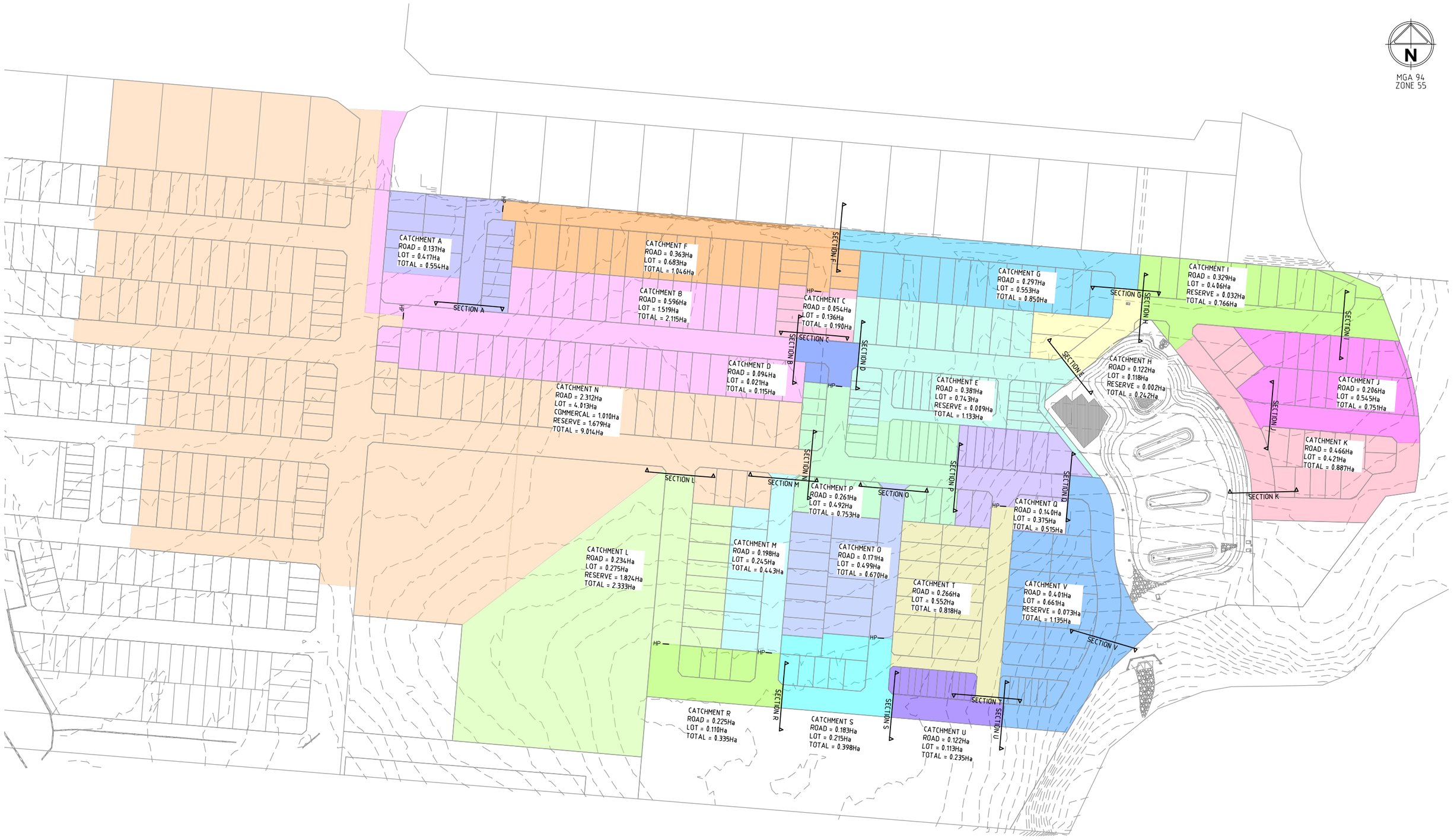
Harlow TARNEIT

Designed T. NGUYEN
Checked G. KOHLMAN
Authorised G. KOHLMAN
Date 04/04/25

HARLOW ESTATE
STAGE 7
ROAD AND DRAINAGE
SIGNAGE AND LINEMARKING
WYNDHAM CITY COUNCIL
SIG GROUP

PRELIMINARY
Drg No 309443CR800
Rev B

file name 309443CR800.dgn layout name CR800 plotted by Thanh Nguyen
file location \\spiire.media.data\data\309443\civil\ACAD plot date 30/05/2025 4:40 PM Sheet 22 of 22 Sheets



file name 309443CD500.dwg Layout name CD500 plotted by Thanh.Nguyen
file location G:\30\309443\Civil\ACAD plot date 30/05/2025 4:33 PM Sheet 1 of 1 Sheets

Rev			
A	ISSUED TO COUNCIL	G.K	04/04/25
Rev	Amendments	Approved	Date

Scale
H 1:1250
SCALE @ A1
0 12.5 25 37.5 50 62.5

System Certified

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L6 414 LA TROBE STREET PO BOX 16084 MELBOURNE
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spiire.com.au ABN 55 050 029 635

Harlow TARNEIT

Designed	Checked
T. NGUYEN	G. KOHLMAN
Authorised	Date
G. KOHLMAN	04/04/25

HARLOW ESTATE STAGE 7

DRAINAGE COMPUTATIONS

100YR CATCHMENT PLAN

WYNDHAM CITY COUNCIL
SIG GROUP

PRELIMINARY

Drg No 309443CD500
Rev A

Fraction Impervious		C100	C5	C10
Road Runoff f =	0.6	0.709	0.561	0.591
Residential Lot Runoff f =	0.8	0.894	0.708	0.745
Commerical Runoff f =	0.9	0.987	0.782	0.823
Open Space Runoff f =	0.7	0.802	0.635	0.668

	AREA (Ha)					Fraction	Weighted Runoff	Weighted Runoff	Weighted Runoff
Catchment	Road	Lots	Commerical	Open Space	TOTAL	Impervious (f)	C100	C5	C10
A	0.14	0.42			0.55	0.75	0.849	0.672	0.707
B	0.60	1.52			2.12	0.74	0.842	0.667	0.702
C	0.05	0.14			0.19	0.74	0.842	0.666	0.701
D	0.09	0.02			0.12	0.64	0.743	0.588	0.619
E	0.38	0.74		0.009	1.13	0.73	0.831	0.658	0.693
F	0.36	0.68			1.05	0.73	0.830	0.657	0.692
G	0.30	0.55			0.85	0.73	0.830	0.657	0.691
H	0.12	0.12		0.002	0.24	0.70	0.800	0.633	0.667
I	0.33	0.41		0.032	0.77	0.71	0.811	0.642	0.676
J	0.21	0.55			0.75	0.75	0.844	0.668	0.703
K	0.47	0.42			0.89	0.69	0.797	0.631	0.664
L	0.23	0.28		1.82	2.33	0.70	0.803	0.636	0.669
M	0.20	0.25			0.44	0.71	0.811	0.642	0.676
N	2.31	4.01	1.01	1.68	9.01	0.74	0.840	0.665	0.700
O	0.17	0.50			0.67	0.75	0.847	0.671	0.706
P	0.26	0.49			0.75	0.73	0.830	0.657	0.692
Q	0.14	0.38			0.52	0.75	0.844	0.668	0.703
R	0.23	0.11			0.34	0.67	0.770	0.609	0.642
S	0.18	0.22			0.40	0.71	0.809	0.641	0.674
T	0.27	0.55			0.82	0.73	0.834	0.660	0.695
U	0.12	0.11			0.24	0.70	0.798	0.632	0.665
V	0.40	0.66		0.07	1.14	0.72	0.823	0.651	0.686

Annual Exceedance Probability (%)

ARI	1	2	5	10	20	50	100
C0	0.30852	0.44522	0.8061217	1.0110151	1.190063	1.4027599	1.5511954
C1	0.71811	0.70162	0.6798835	0.66928446	0.659043	0.6401919	0.6328916
C2	0.11054	0.12434	0.1372764	0.14462879	0.153391	0.1754506	0.18463588
C3	-0.09473	-0.09741	-0.096018	-0.0965306	-0.09872	-0.108387	-0.11294799
C4	0.02157	0.02135	0.0195062	0.01904607	0.019171	0.0212029	0.022312067
C5	-0.00209	-0.002	-0.001683	-0.0015911	-0.00158	-0.001782	-0.0019084
C6	7.37E-05	6.82E-05	5.25E-05	4.77E-05	4.64E-05	5.42E-05	5.95E-05

100yr URBAN ARI Drainage Calculations

DEVELOPED CATCHMENT

Catchment	Section	Additional Catchments				Area (ha)	∑A (ha)	C100	C5	Ae 100 (ha)	Ae 5 (ha)	∑C100	∑C5	∑Ae 100 (ha)	∑Ae 5 (ha)	Flow Length (m)	Velocity 100y (m/s)	Velocity 5y (m/s)	Tc 100 (mins)	Tc 5 (mins)	Int 100 (mm/hr)	Int 5 (mm/hr)	Q100 m3/s	Q5 m3/s	Q5gap m3/s	Comments
A	A					0.554	0.554	0.85	0.67	0.47	0.37	0.85	0.67	0.47	0.37	129	0.62	1.5	8.45	6.43	146.80	78.23	0.192	0.081	0.111	
B	B	A				2.115	2.669	0.84	0.67	1.78	1.41	0.84	0.67	2.25	1.78	436	0.87	1.5	13.37	9.84	117.78	64.95	0.737	0.322	0.415	Includes Catchment A
C	C					0.190	0.190	0.84	0.67	0.16	0.13	0.84	0.67	0.16	0.13	55	1.13	1.5	5.81	5.61	170.59	82.46	0.076	0.029	0.047	
D	D	B	C			0.115	2.974	0.74	0.59	0.09	0.07	0.84	0.66	2.50	1.98	44	0.74	1.5	14.37	10.33	113.40	63.46	0.786	0.348	0.438	Includes Catchments A-C
E	E	D				1.133	4.107	0.83	0.66	0.94	0.75	0.84	0.66	3.44	2.72	146	0.85	1.5	17.22	11.96	102.67	59.02	0.981	0.446	0.534	Includes Catchments A-D
F	F					1.046	1.046	0.83	0.66	0.87	0.69	0.83	0.66	0.87	0.69	272	0.73	1.5	11.18	8.02	128.96	71.33	0.311	0.136	0.175	
G	G	F				0.850	1.896	0.83	0.66	0.71	0.56	0.83	0.66	1.57	1.25	199	0.87	1.5	14.98	10.23	110.89	63.76	0.485	0.221	0.264	Includes Catchment F
H	H	E	G			0.242	6.245	0.80	0.63	0.19	0.15	0.83	0.66	5.21	4.12	89	0.64	1.5	19.53	12.94	95.54	56.65	1.381	0.648	0.733	Includes Catchments A-G
I	I	H				0.767	7.012	0.81	0.64	0.62	0.49	0.83	0.66	5.83	4.61	175	0.64	1.5	24.07	14.89	84.37	52.56	1.366	0.674	0.692	Includes Catchments A-H
J	J					0.751	0.751	0.84	0.67	0.63	0.50	0.84	0.67	0.63	0.50	151	0.67	1.5	8.75	6.68	144.56	77.07	0.254	0.107	0.147	
K	K	J				0.887	1.638	0.80	0.63	0.71	0.56	0.82	0.65	1.34	1.06	60	1.02	1.5	9.73	7.34	137.76	74.09	0.513	0.218	0.295	Includes Catchment J
L	L					2.333	2.333	0.80	0.64	1.87	1.48	0.80	0.64	1.87	1.48	274	0.94	1.5	9.88	8.04	136.77	71.24	0.712	0.294	0.418	
M	M					0.443	0.443	0.81	0.64	0.36	0.28	0.81	0.64	0.36	0.28	143	0.57	1.5	9.15	6.59	141.69	77.49	0.141	0.061	0.080	
N	N	L	M			9.014	11.790	0.84	0.66	7.57	5.99	0.83	0.66	9.80	7.76	796	0.68	1.5	24.42	13.84	83.61	54.67	2.277	1.179	1.099	Includes Catchments L & M
O	O					0.670	0.670	0.85	0.67	0.57	0.45	0.85	0.67	0.57	0.45	180	0.67	1.5	9.47	7.00	139.50	75.60	0.220	0.094	0.126	
P	P	N	O			0.753	13.213	0.83	0.66	0.63	0.49	0.83	0.66	11.00	8.71	105	0.62	1.5	27.25	15.01	78.15	52.33	2.387	1.266	1.122	Includes Catchments L-O
Q	Q	P				0.515	13.728	0.84	0.67	0.43	0.34	0.83	0.66	11.43	9.05	78	1.47	1.5	28.13	15.88	76.61	50.74	2.433	1.276	1.157	Includes Catchments L-P
R	R					0.335	0.335	0.77	0.61	0.26	0.20	0.77	0.61	0.26	0.20	108	0.57	1.5	8.14	6.20	149.24	79.38	0.107	0.045	0.062	
S	S	R				0.398	0.733	0.81	0.64	0.32	0.25	0.79	0.63	0.58	0.46	77	1.21	1.5	9.20	7.06	141.38	75.35	0.228	0.096	0.132	Includes Catchment R
T	T					0.818	0.818	0.83	0.66	0.68	0.54	0.83	0.66	0.68	0.54	183	1.72	1.5	6.77	7.03	160.96	75.45	0.305	0.113	0.192	
U	U	S	T			0.235	1.786	0.80	0.63	0.19	0.15	0.81	0.64	1.45	1.15	76	1.44	1.5	10.08	7.90	135.53	71.81	0.546	0.229	0.317	Includes Catchments R-T
V	V	Q	U			1.135	16.649	0.82	0.65	0.93	0.74	0.83	0.66	13.82	10.94	121	0.81	1.5	30.62	17.22	72.61	48.48	2.787	1.473	1.314	Includes Catchments L-U

Rev	Amendments	Approved	Date
A	ISSUED TO COUNCIL	G.K	04/04/25

Scale
H 1:1000 0 10 20 30 40 50
SCALE @ A1

spiire
L6 414 LA TROBE STREET PO BOX 16084 MELBOURNE
VICTORIA 8007 AUSTRALIA T 61 3 9993 7888
spiire.com.au ABN 55 050 029 635

Harlow TARNEIT

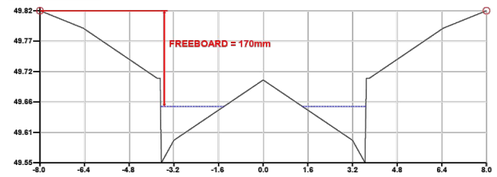
Designed T. NGUYEN
Checked G. KOHLMAN
Authorised G. KOHLMAN
Date 04/04/25

HARLOW ESTATE STAGE 7
DRAINAGE COMPUTATIONS
100YR CATCHMENT CALCULATIONS
WYNDHAM CITY COUNCIL
SIG GROUP

PRELIMINARY
Drg No 309443CD501
Rev A

PROJECT: SECTION A
JIRA CRESCENT (CH1084.77)
Print-out date: 18/03/2025 - Time: 9:44
Data File: G:\30\309442\Civil\12D\PC CONVEY\SECTION A.dat

1. CROSS-SECTION:



2. DISCHARGE INFORMATION:

100 year (1%) storm event

Total discharge = 0.111 cumecs

There is no pipe discharge
Overland / Channel / Watercourse discharge = 0.111 cumecs

3. RESULTS: Water surface elevation = 49.653m

High Flow Channel grade = 1 in 200, Main Channel / Low Flow Channel grade = 1 in 200.

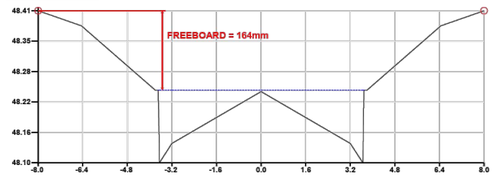
	LEFT OVERBANK	MAIN CHANNEL	RIGHT OVERBANK	TOTAL CROSS-SECTION
Discharge (cumecs):	0.00	0.11	0.00	0.11
D(Max) = Max. Depth (m):	0.00	0.10	0.00	0.10
D(Ave) = Ave. Depth (m):	0.00	0.04	0.00	0.04
V = Ave. Velocity (m/s):	0.00	0.62	0.00	0.62
D(Max) x V (cumecs/m):	0.00	0.06	0.00	0.06
D(Ave) x V (cumecs/m):	0.00	0.03	0.00	0.03
Froude Number:	0.00	0.99	0.00	N/A
Area (m^2):	0.00	0.18	0.00	0.18
Wetted Perimeter (m):	0.00	4.70	0.00	4.70
Flow Width (m):	0.00	4.54	0.00	4.54
Hydraulic Radius (m):	0.00	0.04	0.00	0.04
Composite Manning's n:	0.000	0.013	0.000	N/A
Split Flow?	-	-	-	Yes

4. CROSS-SECTION DATA:

SEGMENT NO.	LEFT HAND POINT CHAINAGE (m)	LEFT HAND POINT R.L. (m)	RIGHT HAND POINT CHAINAGE (m)	RIGHT HAND POINT R.L. (m)	MANNING'S N
1	-8.000	49.823	-7.950	49.822	0.035
2	-7.950	49.822	-6.450	49.792	0.013
3	-6.450	49.792	-3.800	49.703	0.035
4	-3.800	49.703	-3.690	49.703	0.013
5	-3.690	49.703	-3.650	49.553	0.013
6	-3.650	49.553	-3.200	49.593	0.013
7	-3.200	49.593	0.000	49.700	0.013
8	0.000	49.700	3.200	49.593	0.013
9	3.200	49.593	3.650	49.553	0.013
10	3.650	49.553	3.690	49.703	0.013
11	3.690	49.703	3.800	49.703	0.013
12	3.800	49.703	6.450	49.792	0.035
13	6.450	49.792	7.950	49.822	0.013
14	7.950	49.822	8.000	49.823	0.035

PROJECT: SECTION B
BOURNESIDE STREET (CH297.42)
Print-out date: 31/10/2024 - Time: 4:21
Data File: G:\30\309442\Civil\12D\PC CONVEY\SECTION B.dat

1. CROSS-SECTION:



2. DISCHARGE INFORMATION:

100 year (1%) storm event

Total discharge = 0.415 cumecs

There is no pipe discharge
Overland / Channel / Watercourse discharge = 0.415 cumecs

3. RESULTS: Water surface elevation = 48.245m

High Flow Channel grade = 1 in 200, Main Channel / Low Flow Channel grade = 1 in 200.

	LEFT OVERBANK	MAIN CHANNEL	RIGHT OVERBANK	TOTAL CROSS-SECTION
Discharge (cumecs):	0.00	0.42	0.00	0.42
D(Max) = Max. Depth (m):	0.00	0.15	0.00	0.15
D(Ave) = Ave. Depth (m):	0.00	0.07	0.00	0.07
V = Ave. Velocity (m/s):	0.00	0.87	0.00	0.87
D(Max) x V (cumecs/m):	0.00	0.13	0.00	0.13
D(Ave) x V (cumecs/m):	0.00	0.06	0.00	0.06
Froude Number:	0.00	1.08	0.00	1.08
Area (m^2):	0.00	0.48	0.00	0.48
Wetted Perimeter (m):	0.00	7.62	0.00	7.62
Flow Width (m):	0.00	7.38	0.00	7.38
Hydraulic Radius (m):	0.00	0.06	0.00	0.06
Composite Manning's n:	0.000	0.013	0.000	0.013
Split Flow?	-	-	-	No

4. CROSS-SECTION DATA:

SEGMENT NO.	LEFT HAND POINT CHAINAGE (m)	LEFT HAND POINT R.L. (m)	RIGHT HAND POINT CHAINAGE (m)	RIGHT HAND POINT R.L. (m)	MANNING'S N
1	-8.000	48.409	-7.950	48.408	0.035
2	-7.950	48.408	-6.450	48.378	0.013
3	-6.450	48.378	-3.800	48.245	0.035
4	-3.800	48.245	-3.690	48.245	0.013
5	-3.690	48.245	-3.650	48.095	0.013
6	-3.650	48.095	-3.200	48.135	0.013
7	-3.200	48.135	0.000	48.242	0.013
8	0.000	48.242	3.200	48.135	0.013
9	3.200	48.135	3.650	48.095	0.013
10	3.650	48.095	3.690	48.245	0.013
11	3.690	48.245	3.800	48.245	0.013
12	3.800	48.245	6.450	48.378	0.035
13	6.450	48.378	7.950	48.408	0.013
14	7.950	48.408	8.000	48.409	0.035

PROJECT: SECTION C
LILIUM WAY (CH11.80)
Print-out date: 14/01/2025 - Time: 4:55
Data File: G:\30\309443\Civil\12D\PC CONVEY\SECTION C.dat

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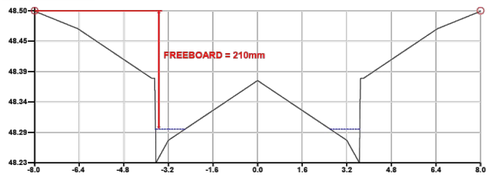


2. DISCHARGE INFORMATION:

100 year (1%) storm event

Total discharge = 0.047 cumecs

There is no pipe discharge
Overland / Channel / Watercourse discharge = 0.047 cumecs

3. RESULTS: Water surface elevation = 48.291m

High Flow Channel grade = 1 in 28.571, Main Channel / Low Flow Channel grade = 1 in 28.571.

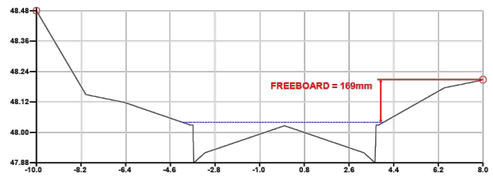
	LEFT OVERBANK	MAIN CHANNEL	RIGHT OVERBANK	TOTAL CROSS-SECTION
Discharge (cumecs):	0.00	0.06	0.00	0.06
D(Max) = Max. Depth (m):	0.00	0.06	0.00	0.06
D(Ave) = Ave. Depth (m):	0.00	0.02	0.00	0.02
V = Ave. Velocity (m/s):	0.00	1.13	0.00	1.13
D(Max) x V (cumecs/m):	0.00	0.07	0.00	0.07
D(Ave) x V (cumecs/m):	0.00	0.03	0.00	0.03
Froude Number:	0.00	2.38	0.00	N/A
Area (m^2):	0.00	0.05	0.00	0.05
Wetted Perimeter (m):	0.00	2.24	0.00	2.24
Flow Width (m):	0.00	2.14	0.00	2.14
Hydraulic Radius (m):	0.00	0.02	0.00	0.02
Composite Manning's n:	0.000	0.013	0.000	N/A
Split Flow?	-	-	-	Yes

4. CROSS-SECTION DATA:

SEGMENT NO.	LEFT HAND POINT CHAINAGE (m)	LEFT HAND POINT R.L. (m)	RIGHT HAND POINT CHAINAGE (m)	RIGHT HAND POINT R.L. (m)	MANNING'S N
1	-8.000	48.501	-7.950	48.499	0.035
2	-7.950	48.499	-6.450	48.469	0.013
3	-6.450	48.469	-3.800	48.381	0.035
4	-3.800	48.381	-3.690	48.381	0.013
5	-3.690	48.381	-3.650	48.231	0.013
6	-3.650	48.231	-3.200	48.271	0.013
7	-3.200	48.271	0.000	48.377	0.013
8	0.000	48.377	3.200	48.271	0.013
9	3.200	48.271	3.650	48.231	0.013
10	3.650	48.231	3.690	48.381	0.013
11	3.690	48.381	3.800	48.381	0.013
12	3.800	48.381	6.450	48.469	0.035

PROJECT: SECTION D
BOURNESIDE STREET (CH341.02)
Print-out date: 14/01/2025 - Time: 4:38
Data File: G:\30\309443\Civil\12D\PC CONVEY\SECTION D.dat

1. CROSS-SECTION:



2. DISCHARGE INFORMATION:

100 year (1%) storm event

Total discharge = 0.438 cumecs

There is no pipe discharge
Overland / Channel / Watercourse discharge = 0.438 cumecs

3. RESULTS: Water surface elevation = 48.037m

High Flow Channel grade = 1 in 200, Main Channel / Low Flow Channel grade = 1 in 200.

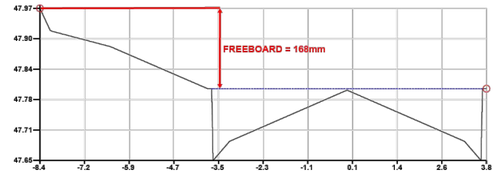
	LEFT OVERBANK	MAIN CHANNEL	RIGHT OVERBANK	TOTAL CROSS-SECTION
Discharge (cumecs):	0.00	0.44	0.00	0.44
D(Max) = Max. Depth (m):	0.00	0.16	0.00	0.16
D(Ave) = Ave. Depth (m):	0.00	0.07	0.00	0.07
V = Ave. Velocity (m/s):	0.00	0.77	0.00	0.77
D(Max) x V (cumecs/m):	0.00	0.12	0.00	0.12
D(Ave) x V (cumecs/m):	0.00	0.05	0.00	0.05
Froude Number:	0.00	0.94	0.00	0.94
Area (m^2):	0.00	0.56	0.00	0.56
Wetted Perimeter (m):	0.00	8.32	0.00	8.32
Flow Width (m):	0.00	8.08	0.00	8.08
Hydraulic Radius (m):	0.00	0.07	0.00	0.07
Composite Manning's n:	0.000	0.015	0.000	0.015
Split Flow?	-	-	-	No

4. CROSS-SECTION DATA:

SEGMENT NO.	LEFT HAND POINT CHAINAGE (m)	LEFT HAND POINT R.L. (m)	RIGHT HAND POINT CHAINAGE (m)	RIGHT HAND POINT R.L. (m)	MANNING'S N
1	-9.992	48.479	-8.000	48.147	0.013
2	-8.000	48.147	-7.950	48.146	0.035
3	-7.950	48.146	-6.450	48.116	0.013
4	-6.450	48.116	-3.800	48.027	0.035
5	-3.800	48.027	-3.690	48.027	0.013
6	-3.690	48.027	-3.650	47.877	0.013
7	-3.650	47.877	-3.200	47.917	0.013
8	-3.200	47.917	0.000	48.024	0.013
9	0.000	48.024	3.200	47.917	0.013
10	3.200	47.917	3.650	47.877	0.013
11	3.650	47.877	3.690	48.027	0.013
12	3.690	48.027	3.800	48.027	0.013
13	3.800	48.027	6.450	48.174	0.035
14	6.450	48.174	7.950	48.204	0.013
15	7.950	48.204	8.000	48.206	0.035

PROJECT: SECTION E
BOURNESIDE STREET (CH486.85)
Print-out date: 14/01/2025 - Time: 5:01
Data File: G:\30\309443\Civil\12D\PC CONVEY\SECTION E.dat

1. CROSS-SECTION:



2. DISCHARGE INFORMATION:

100 year (1%) storm event

Total discharge = 0.534 cumecs

There is no pipe discharge
Overland / Channel / Watercourse discharge = 0.534 cumecs

3. RESULTS: Water surface elevation = 47.798m

High Flow Channel grade = 1 in 200, Main Channel / Low Flow Channel grade = 1 in 200.

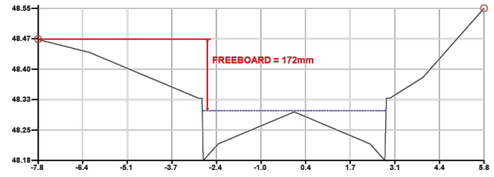
	LEFT OVERBANK	MAIN CHANNEL	RIGHT OVERBANK	TOTAL CROSS-SECTION
Discharge (cumecs):	0.00	0.42	0.00	0.42
D(Max) = Max. Depth (m):	0.00	0.15	0.00	0.15
D(Ave) = Ave. Depth (m):	0.00	0.07	0.00	0.07
V = Ave. Velocity (m/s):	0.00	0.87	0.00	0.87
D(Max) x V (cumecs/m):	0.00	0.13	0.00	0.13
D(Ave) x V (cumecs/m):	0.00	0.06	0.00	0.06
Froude Number:	0.00	1.08	0.00	1.08
Area (m^2):	0.00	0.48	0.00	0.48
Wetted Perimeter (m):	0.00	7.62	0.00	7.62
Flow Width (m):	0.00	7.38	0.00	7.38
Hydraulic Radius (m):	0.00	0.06	0.00	0.06
Composite Manning's n:	0.000	0.013	0.000	0.013
Split Flow?	-	-	-	No

4. CROSS-SECTION DATA:

SEGMENT NO.	LEFT HAND POINT CHAINAGE (m)	LEFT HAND POINT R.L. (m)	RIGHT HAND POINT CHAINAGE (m)	RIGHT HAND POINT R.L. (m)	MANNING'S N
1	-8.368	47.966	-8.089	47.920	0.013
2	-8.089	47.920	-8.035	47.918	0.035
3	-8.035	47.918	-6.450	47.886	0.013
4	-6.450	47.886	-3.800	47.798	0.035
5	-3.800	47.798	-3.690	47.798	0.013
6	-3.690	47.798	-3.650	47.648	0.013
7	-3.650	47.648	-3.200	47.688	0.013
8	-3.200	47.688	0.000	47.795	0.013
9	0.000	47.795	3.200	47.688	0.013
10	3.200	47.688	3.650	47.648	0.013
11	3.650	47.648	3.690	47.798	0.013
12	3.690	47.798	3.800	47.798	0.013

PROJECT: SECTION F
JIRA CRESCENT (CH771.21)
Print-out date: 04/02/2025 - Time: 4:07
Data File: G:\30\309443\Civil\12D\PC CONVEY\SECTION F.dat

1. CROSS-SECTION:



2. DISCHARGE INFORMATION:

100 year (1%) storm event

Total discharge = 0.175 cumecs

There is no pipe discharge
Overland / Channel / Watercourse discharge = 0.175 cumecs

3. RESULTS: Water surface elevation = 48.299m

High Flow Channel grade = 1 in 200, Main Channel / Low Flow Channel grade = 1 in 200.

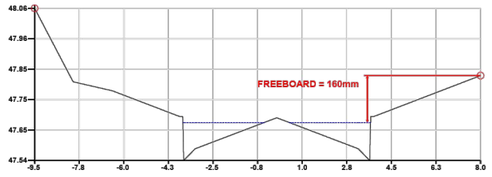
	LEFT OVERBANK	MAIN CHANNEL	RIGHT OVERBANK	TOTAL CROSS-SECTION
Discharge (cumecs):	0.00	0.21	0.00	0.21
D(Max) = Max. Depth (m):	0.00	0.12	0.00	0.12
D(Ave) = Ave. Depth (m):	0.00	0.05	0.00	0.05
V = Ave. Velocity (m/s):	0.00	0.73	0.00	0.73
D(Max) x V (cumecs/m):	0.00	0.09	0.00	0.09
D(Ave) x V (cumecs/m):	0.00	0.04	0.00	0.04
Froude Number:	0.00	1.03	0.00	1.03
Area (m^2):	0.00	0.28	0.00	0.28
Wetted Perimeter (m):	0.00	5.75	0.00	5.75
Flow Width (m):	0.00	5.56	0.00	5.56
Hydraulic Radius (m):	0.00	0.05	0.00	0.05
Composite Manning's n:	0.000	0.013	0.000	0.013
Split Flow?	-	-	-	No

4. CROSS-SECTION DATA:

SEGMENT NO.	LEFT HAND POINT CHAINAGE (m)	LEFT HAND POINT R.L. (m)	RIGHT HAND POINT CHAINAGE (m)	RIGHT HAND POINT R.L. (m)	MANNING'S N
1	-7.750	48.471	-7.700	48.469	0.035
2	-7.700	48.469	-6.200	48.439	0.013
3	-6.200	48.439	-2.900	48.329	0.035
4	-2.900	48.329	-2.790	48.329	0.013
5	-2.790	48.329	-2.750	48.179	0.013
6	-2.750	48.179	-2.300	48.219	0.013
7	-2.300	48.219	0.000	48.296	0.013
8	0.000	48.296	2.300	48.219	0.013
9	2.300	48.219	2.750	48.179	0.013
10	2.750	48.179	2.790	48.329	0.013
11	2.790	48.329	2.900	48.329	0.013
12	2.900	48.329	3.900	48.379	0.035

PROJECT: SECTION G
JIRA CRESCENT (CH557.41)
Print-out date: 04/02/2025 - Time: 4:27
Data File: G:\30\309443\Civil\12D\PC CONVEY\SECTION G.dat

1. CROSS-SECTION:



2. DISCHARGE INFORMATION:

100 year (1%) storm event

Total discharge = 0.264 cumecs

There is no pipe discharge
Overland / Channel / Watercourse discharge = 0.264 cumecs

3. RESULTS: Water surface elevation = 47.671m

High Flow Channel grade = 1 in 153.785, Main Channel / Low Flow Channel grade = 1 in 153.785.

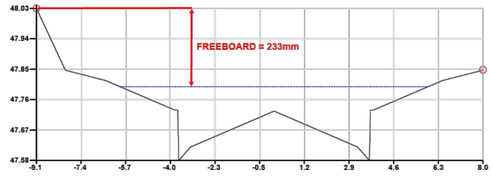
	LEFT OVERBANK	MAIN CHANNEL	RIGHT OVERBANK	TOTAL CROSS-SECTION
Discharge (cumecs):	0.00	0.30	0.00	0.30
D(Max) = Max. Depth (m):	0.00	0.13	0.00	0.13
D(Ave) = Ave. Depth (m):	0.00	0.05	0.00	0.05
V = Ave. Velocity (m/s):	0.00	0.87	0.00	0.87
D(Max) x V (cumecs/m):	0.00	0.11	0.00	0.11
D(Ave) x V (cumecs/m):	0.00	0.05	0.00	0.05
Froude Number:	0.00	1.19	0.00	N/A
Area (m^2):	0.00	0.35	0.00	0.35
Wetted Perimeter (m):	0.00	6.61	0.00	6.61
Flow Width (m):	0.00	6.40	0.00	6.40
Hydraulic Radius (m):	0.00	0.05	0.00	0.05
Composite Manning's n:	0.000	0.013	0.000	N/A
Split Flow?	-	-	-	Yes

4. CROSS-SECTION DATA:

SEGMENT NO.	LEFT HAND POINT CHAINAGE (m)	LEFT HAND POINT R.L. (m)	RIGHT HAND POINT CHAINAGE (m)	RIGHT HAND POINT R.L. (m)	MANNING'S N
1	-9.500	48.061	-8.000	47.811	0.013
2	-8.000	47.811	-7.950	47.809	0.035
3	-7.950	47.809	-6.450	47.779	0.013
4	-6.450	47.779	-3.800	47.691	0.035
5	-3.800	47.691	-3.690	47.691	0.013
6	-3.690	47.691	-3.650	47.541	0.013
7	-3.650	47.541	-3.200	47.581	0.013
8	-3.200	47.581	0.000	47.687	0.013
9	0.000	47.687	3.200	47.581	0.013
10	3.200	47.581	3.650	47.541	0.013
11	3.650	47.541	3.690	47.691	0.013
12	3.690	47.691	3.800	47.691	0.013

PROJECT: SECTION H
HELIOTROPE COURT (CH11.80)
Print-out date: 04/02/2025 - Time: 4:33
Data File: G:\30\309443\Civil\12D\PC CONVEY\SECTION H.dat

1. CROSS-SECTION:



2. DISCHARGE INFORMATION:

100 year (1%) storm event

Total discharge = 0.733 cumecs

There is no pipe discharge
Overland / Channel / Watercourse discharge = 0.733 cumecs

3. RESULTS: Water surface elevation = 47.799m

High Flow Channel grade = 1 in 200, Main Channel / Low Flow Channel grade = 1 in 200.

	LEFT OVERBANK	MAIN CHANNEL	RIGHT OVERBANK	TOTAL CROSS-SECTION
Discharge (cumecs):	0.00	0.75	0.00	0.75
D(Max) = Max. Depth (m):	0.00	0.22	0.00	0.22
D(Ave) = Ave. Depth (m):	0.00	0.10	0.00	0.10
V = Ave. Velocity (m/s):	0.00	0.64	0.00	0.64
D(Max) x V (cumecs/m):	0.00	0.14	0.00	0.14
D(Ave) x V (cumecs/m):	0.00	0.06	0.00	0.06
Froude Number:	0.00	0.65	0.00	0.65
Area (m^2):	0.00	1.16	0.00	1.16
Wetted Perimeter (m):	0.00	12.06	0.00	12.06
Flow Width (m):	0.00	11.82	0.00	11.82
Hydraulic Radius (m):	0.00	0.10	0.00	0.10
Composite Manning's n:	0.000	0.023	0.000	0.023
Split Flow?	-	-	-	No

4. CROSS-SECTION DATA:

SEGMENT NO.	LEFT HAND POINT CHAINAGE (m)	LEFT HAND POINT R.L. (m)	RIGHT HAND POINT CHAINAGE (m)	RIGHT HAND POINT R.L. (m)	MANNING'S N
1	-9.098	48.032	-8.000	47.849	0.013
2	-8.000	47.849	-7.950	47.847	0.035
3	-7.950	47.847	-6.450	47.817	0.013
4	-6.450	47.817	-3.800	47.729	0.035
5	-3.800	47.729	-3.690	47.729	0.013
6	-3.690	47.729	-3.650	47.579	0.013
7	-3.650	47.579	-3.200	47.619	0.013
8	-3.200	47.619	0.000	47.726	0.013
9	0.000	47.726	3.200	47.619	0.013
10	3.200	47.619	3.650	47.579	0.013
11	3.650	47.579	3.690	47.729	0.013
12	3.690	47.729	3.800	47.729	0.013
13	3.800	47.729	6.450	47.817	0.035
14	6.450	47.817	7.950	47.847	0.013
15	7.950	47.847	8.000	47.849	0.035

Rev			
A	ISSUED TO COUNCIL	G.K	04/04/25
Rev	Amendments	Approved	Date

Scale
H 1:1000
SCALE @ A1
0 10 20 30 40 50

spiire
L6 414 LA TROBE STREET PO BOX 16084 MELBOURNE
VICTORIA 8007 AUSTRALIA T 61 3 9993 7888
spiire.com.au ABN 55 050 029 635

Harlow TARNEIT

Designed: T. NGUYEN
Checked: G. KOHLMAN
Authorised: G. KOHLMAN
Date: 04/04/25

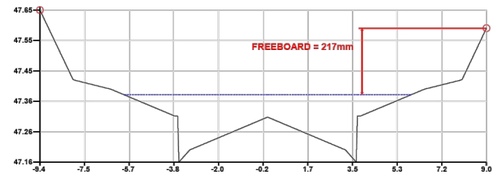
HARLOW ESTATE STAGE 7
DRAINAGE COMPUTATIONS
100YR PC CONVEY SECTIONS - SHEET 1
WYNDHAM CITY COUNCIL
SIG GROUP

PRELIMINARY
Drg No: 309443CD502
Rev: A

file name 309443CD500.dwg Layout name CD502 plotted by Thanh Nguyen
file location G:\30\309443\Civil\ACAD plot date 30/05/2025 4:34 PM Sheet 1 of 1 Sheets

PROJECT: SECTION I
HELIOTROPE COURT (CH154.38)
Print-out date: 04/02/2025 - Time: 4:35
Data File: G:\30\309443\Civil\12D\PC CONVEY\SECTION I.dat

1. CROSS-SECTION:



2. DISCHARGE INFORMATION:

100 year (1%) storm event

Total discharge = 0.692 cumecs

There is no pipe discharge
Overland / Channel / Watercourse discharge = 0.692 cumecs

3. RESULTS: Water surface elevation = 47.377m

High Flow Channel grade = 1 in 200, Main Channel / Low Flow Channel grade = 1 in 200.

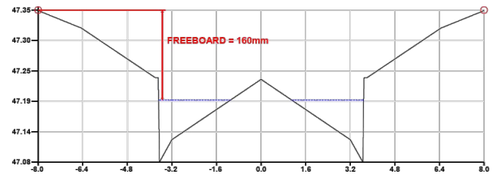
	LEFT OVERBANK	MAIN CHANNEL	RIGHT OVERBANK	TOTAL CROSS-SECTION
Discharge (cumecs):	0.00	0.75	0.00	0.75
D(Max) = Max. Depth (m):	0.00	0.22	0.00	0.22
D(Ave) = Ave. Depth (m):	0.00	0.10	0.00	0.10
V = Ave. Velocity (m/s):	0.00	0.64	0.00	0.64
D(Max) x V (cumecs/m):	0.00	0.14	0.00	0.14
D(Ave) x V (cumecs/m):	0.00	0.06	0.00	0.06
Froude Number:	0.00	0.65	0.00	0.65
Area (m^2):	0.00	1.16	0.00	1.16
Wetted Perimeter (m):	0.00	12.06	0.00	12.06
Flow Width (m):	0.00	11.82	0.00	11.82
Hydraulic Radius (m):	0.00	0.10	0.00	0.10
Composite Manning's n:	0.000	0.023	0.000	0.023
Split Flow?	-	-	-	No

4. CROSS-SECTION DATA:

SEGMENT NO.	LEFT HAND POINT CHAINAGE (m)	LEFT HAND POINT R.L. (m)	RIGHT HAND POINT CHAINAGE (m)	RIGHT HAND POINT R.L. (m)	MANNING'S N
1	-9.357	47.653	-8.000	47.427	0.013
2	-8.000	47.427	-7.950	47.425	0.035
3	-7.950	47.425	-6.450	47.395	0.013
4	-6.450	47.395	-3.800	47.307	0.035
5	-3.800	47.307	-3.690	47.307	0.013
6	-3.690	47.307	-3.650	47.157	0.013
7	-3.650	47.157	-3.200	47.197	0.013
8	-3.200	47.197	0.000	47.304	0.013
9	0.000	47.304	3.200	47.197	0.013
10	3.200	47.197	3.650	47.157	0.013
11	3.650	47.157	3.690	47.307	0.013
12	3.690	47.307	3.800	47.307	0.013
13	3.800	47.307	6.450	47.395	0.035
14	6.450	47.395	7.950	47.425	0.013
15	7.950	47.425	8.000	47.427	0.035
16	8.000	47.427	9.000	47.594	0.035

PROJECT: SECTION J
TOMATILLO CIRCUIT (CH19.132)
Print-out date: 14/10/2024 - Time: 12:45
Data File: G:\30\309442\Civil\12D\PC CONVEY\SECTION J.dat

1. CROSS-SECTION:



2. DISCHARGE INFORMATION:

100 year (1%) storm event

Total discharge = 0.147 cumecs

There is no pipe discharge
Overland / Channel / Watercourse discharge = 0.147 cumecs

3. RESULTS: Water surface elevation = 47.193m

High Flow Channel grade = 1 in 200, Main Channel / Low Flow Channel grade = 1 in 200.

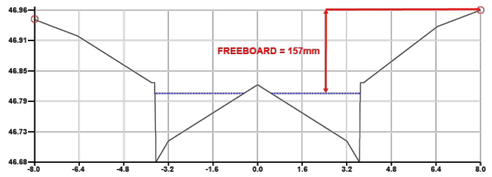
	LEFT OVERBANK	MAIN CHANNEL	RIGHT OVERBANK	TOTAL CROSS-SECTION
Discharge (cumecs):	0.00	0.15	0.00	0.15
D(Max) = Max. Depth (m):	0.00	0.11	0.00	0.11
D(Ave) = Ave. Depth (m):	0.00	0.04	0.00	0.04
V = Ave. Velocity (m/s):	0.00	0.67	0.00	0.67
D(Max) x V (cumecs/m):	0.00	0.07	0.00	0.07
D(Ave) x V (cumecs/m):	0.00	0.03	0.00	0.03
Froude Number:	0.00	1.01	0.00	N/A
Area (m^2):	0.00	0.23	0.00	0.23
Wetted Perimeter (m):	0.00	5.32	0.00	5.32
Flow Width (m):	0.00	5.15	0.00	5.15
Hydraulic Radius (m):	0.00	0.04	0.00	0.04
Composite Manning's n:	0.000	0.013	0.000	N/A
Split Flow?	-	-	-	Yes

4. CROSS-SECTION DATA:

SEGMENT NO.	LEFT HAND POINT CHAINAGE (m)	LEFT HAND POINT R.L. (m)	RIGHT HAND POINT CHAINAGE (m)	RIGHT HAND POINT R.L. (m)	MANNING'S N
1	-8.000	47.353	-7.950	47.351	0.035
2	-7.950	47.351	-6.450	47.321	0.013
3	-6.450	47.321	-3.800	47.233	0.035
4	-3.800	47.233	-3.690	47.233	0.013
5	-3.690	47.233	-3.650	47.083	0.013
6	-3.650	47.083	-3.200	47.123	0.013
7	-3.200	47.123	0.000	47.230	0.013
8	0.000	47.230	3.200	47.123	0.013
9	3.200	47.123	3.650	47.083	0.013
10	3.650	47.083	3.690	47.233	0.013
11	3.690	47.233	3.800	47.233	0.013
12	3.800	47.233	6.450	47.321	0.035
13	6.450	47.321	7.950	47.351	0.013
14	7.950	47.351	8.000	47.353	0.035

PROJECT: SECTION K
TOMATILLO CIRCUIT (CH262.50)
Print-out date: 01/11/2024 - Time: 9:05
Data File: G:\30\309442\Civil\12D\PC CONVEY\SECTION K.dat

1. CROSS-SECTION:



2. DISCHARGE INFORMATION:

100 year (1%) storm event

Total discharge = 0.295 cumecs

There is no pipe discharge
Overland / Channel / Watercourse discharge = 0.295 cumecs

3. RESULTS: Water surface elevation = 46.806m

High Flow Channel grade = 1 in 111.29, Main Channel / Low Flow Channel grade = 1 in 111.29.

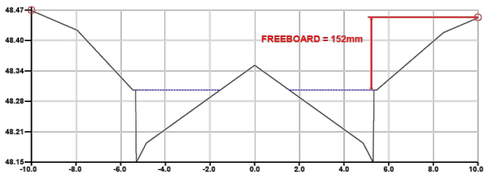
	LEFT OVERBANK	MAIN CHANNEL	RIGHT OVERBANK	TOTAL CROSS-SECTION
Discharge (cumecs):	0.00	0.36	0.00	0.36
D(Max) = Max. Depth (m):	0.00	0.13	0.00	0.13
D(Ave) = Ave. Depth (m):	0.00	0.05	0.00	0.05
V = Ave. Velocity (m/s):	0.00	1.02	0.00	1.02
D(Max) x V (cumecs/m):	0.00	0.13	0.00	0.13
D(Ave) x V (cumecs/m):	0.00	0.06	0.00	0.06
Froude Number:	0.00	1.40	0.00	N/A
Area (m^2):	0.00	0.35	0.00	0.35
Wetted Perimeter (m):	0.00	6.61	0.00	6.61
Flow Width (m):	0.00	6.40	0.00	6.40
Hydraulic Radius (m):	0.00	0.05	0.00	0.05
Composite Manning's n:	0.000	0.013	0.000	N/A
Split Flow?	-	-	-	Yes

4. CROSS-SECTION DATA:

SEGMENT NO.	LEFT HAND POINT CHAINAGE (m)	LEFT HAND POINT R.L. (m)	RIGHT HAND POINT CHAINAGE (m)	RIGHT HAND POINT R.L. (m)	MANNING'S N
1	-8.000	46.946	-7.950	46.944	0.035
2	-7.950	46.944	-6.450	46.914	0.013
3	-6.450	46.914	-3.800	46.826	0.035
4	-3.800	46.826	-3.690	46.826	0.013
5	-3.690	46.826	-3.650	46.676	0.013
6	-3.650	46.676	-3.200	46.716	0.013
7	-3.200	46.716	0.000	46.822	0.013
8	0.000	46.822	3.200	46.716	0.013
9	3.200	46.716	3.650	46.676	0.013
10	3.650	46.676	3.690	46.826	0.013
11	3.690	46.826	3.800	46.826	0.013
12	3.800	46.826	6.450	46.932	0.035
13	6.450	46.932	7.950	46.962	0.013
14	7.950	46.962	8.000	46.963	0.035

PROJECT: SECTION L
DAYLILY ROAD (CH1093.07)
Print-out date: 10/12/2024 - Time: 3:08
Data File: G:\30\309442\Civil\12D\PC CONVEY\SECTION L.dat

1. CROSS-SECTION:



2. DISCHARGE INFORMATION:

100 year (1%) storm event

Total discharge = 0.418 cumecs

There is no pipe discharge
Overland / Channel / Watercourse discharge = 0.418 cumecs

3. RESULTS: Water surface elevation = 48.300m

High Flow Channel grade = 1 in 166.667, Main Channel / Low Flow Channel grade = 1 in 166.667.

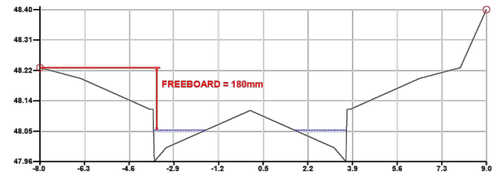
	LEFT OVERBANK	MAIN CHANNEL	RIGHT OVERBANK	TOTAL CROSS-SECTION
Discharge (cumecs):	0.00	0.45	0.00	0.45
D(Max) = Max. Depth (m):	0.00	0.15	0.00	0.15
D(Ave) = Ave. Depth (m):	0.00	0.06	0.00	0.06
V = Ave. Velocity (m/s):	0.00	0.94	0.00	0.94
D(Max) x V (cumecs/m):	0.00	0.14	0.00	0.14
D(Ave) x V (cumecs/m):	0.00	0.06	0.00	0.06
Froude Number:	0.00	1.18	0.00	N/A
Area (m^2):	0.00	0.49	0.00	0.49
Wetted Perimeter (m):	0.00	7.80	0.00	7.80
Flow Width (m):	0.00	7.57	0.00	7.57
Hydraulic Radius (m):	0.00	0.06	0.00	0.06
Composite Manning's n:	0.000	0.013	0.000	N/A
Split Flow?	-	-	-	Yes

4. CROSS-SECTION DATA:

SEGMENT NO.	LEFT HAND POINT CHAINAGE (m)	LEFT HAND POINT R.L. (m)	RIGHT HAND POINT CHAINAGE (m)	RIGHT HAND POINT R.L. (m)	MANNING'S N
1	-10.000	48.467	-9.950	48.465	0.035
2	-9.950	48.465	-7.950	48.425	0.013
3	-7.950	48.425	-5.450	48.300	0.035
4	-5.450	48.300	-5.340	48.300	0.013
5	-5.340	48.300	-5.300	48.150	0.013
6	-5.300	48.150	-4.850	48.190	0.013
7	-4.850	48.190	0.000	48.352	0.013
8	0.000	48.352	4.850	48.190	0.013
9	4.850	48.190	5.300	48.150	0.013
10	5.300	48.150	5.340	48.300	0.013
11	5.340	48.300	5.450	48.300	0.013
12	5.450	48.300	8.450	48.420	0.035
13	8.450	48.420	9.950	48.450	0.013
14	9.950	48.450	10.000	48.452	0.035

PROJECT: SECTION M
SALVIAS ROAD (CH148.29)
Print-out date: 20/01/2025 - Time: 10:38
Data File: G:\30\309443\Civil\12D\PC CONVEY\SECTION M.dat

1. CROSS-SECTION:



2. DISCHARGE INFORMATION:

100 year (1%) storm event

Total discharge = 0.08 cumecs

There is no pipe discharge
Overland / Channel / Watercourse discharge = 0.080 cumecs

3. RESULTS: Water surface elevation = 48.052m

High Flow Channel grade = 1 in 200, Main Channel / Low Flow Channel grade = 1 in 200.

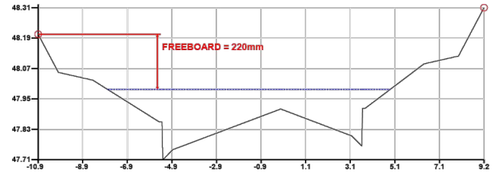
	LEFT OVERBANK	MAIN CHANNEL	RIGHT OVERBANK	TOTAL CROSS-SECTION
Discharge (cumecs):	0.00	0.08	0.00	0.08
D(Max) = Max. Depth (m):	0.00	0.09	0.00	0.09
D(Ave) = Ave. Depth (m):	0.00	0.04	0.00	0.04
V = Ave. Velocity (m/s):	0.00	0.57	0.00	0.57
D(Max) x V (cumecs/m):	0.00	0.05	0.00	0.05
D(Ave) x V (cumecs/m):	0.00	0.02	0.00	0.02
Froude Number:	0.00	0.97	0.00	N/A
Area (m^2):	0.00	0.14	0.00	0.14
Wetted Perimeter (m):	0.00	4.08	0.00	4.08
Flow Width (m):	0.00	3.94	0.00	3.94
Hydraulic Radius (m):	0.00	0.03	0.00	0.03
Composite Manning's n:	0.000	0.013	0.000	N/A
Split Flow?	-	-	-	Yes

4. CROSS-SECTION DATA:

SEGMENT NO.	LEFT HAND POINT CHAINAGE (m)	LEFT HAND POINT R.L. (m)	RIGHT HAND POINT CHAINAGE (m)	RIGHT HAND POINT R.L. (m)	MANNING'S N
1	-8.000	48.232	-7.950	48.231	0.035
2	-7.950	48.231	-6.450	48.201	0.013
3	-6.450	48.201	-3.800	48.112	0.035
4	-3.800	48.112	-3.690	48.112	0.013
5	-3.690	48.112	-3.650	47.962	0.013
6	-3.650	47.962	-3.200	48.002	0.013
7	-3.200	48.002	0.000	48.109	0.013
8	0.000	48.109	3.200	48.002	0.013
9	3.200	48.002	3.650	47.962	0.013
10	3.650	47.962	3.690	48.112	0.013
11	3.690	48.112	3.800	48.112	0.013
12	3.800	48.112	6.450	48.201	0.035
13	6.450	48.201	7.950	48.231	0.013
14	7.950	48.231	8.000	48.232	0.035

PROJECT: SECTION N
SPRINGFALL ROAD (CH314.29)
Print-out date: 10/12/2024 - Time: 3:21
Data File: G:\30\309442\Civil\12D\PC CONVEY\SECTION N.dat

1. CROSS-SECTION:



2. DISCHARGE INFORMATION:

100 year (1%) storm event

Total discharge = 1.1 cumecs

There is no pipe discharge
Overland / Channel / Watercourse discharge = 1.099 cumecs

3. RESULTS: Water surface elevation = 47.986m

High Flow Channel grade = 1 in 300, Main Channel / Low Flow Channel grade = 1 in 300.

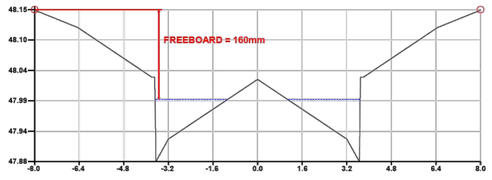
	LEFT OVERBANK	MAIN CHANNEL	RIGHT OVERBANK	TOTAL CROSS-SECTION
Discharge (cumecs):	0.00	1.11	0.00	1.11
D(Max) = Max. Depth (m):	0.00	0.28	0.00	0.28
D(Ave) = Ave. Depth (m):	0.00	0.13	0.00	0.13
V = Ave. Velocity (m/s):	0.00	0.68	0.00	0.68
D(Max) x V (cumecs/m):	0.00	0.19	0.00	0.19
D(Ave) x V (cumecs/m):	0.00	0.09	0.00	0.09
Froude Number:	0.00	0.61	0.00	0.61
Area (m^2):	0.00	1.63	0.00	1.63
Wetted Perimeter (m):	0.00	12.95	0.00	12.95
Flow Width (m):	0.00	12.71	0.00	12.71
Hydraulic Radius (m):	0.00	0.13	0.00	0.13
Composite Manning's n:	0.000	0.021	0.000	0.021
Split Flow?	-	-	-	No

4. CROSS-SECTION DATA:

SEGMENT NO.	LEFT HAND POINT CHAINAGE (m)	LEFT HAND POINT R.L. (m)	RIGHT HAND POINT CHAINAGE (m)	RIGHT HAND POINT R.L. (m)	MANNING'S N
1	-10.910	48.206	-10.000	48.054	0.013
2	-10.000	48.054	-9.950	48.053	0.035
3	-9.950	48.053	-8.450	48.023	0.013
4	-8.450	48.023	-5.450	47.856	0.035
5	-5.450	47.856	-5.340	47.856	0.013
6	-5.340	47.856	-5.300	47.706	0.013
7	-5.300	47.706	-4.850	47.746	0.013
8	-4.850	47.746	0.000	47.908	0.013
9	0.000	47.908	3.200	47.801	0.013
10	3.200	47.801	3.650	47.761	0.013
11	3.650	47.761	3.690	47.911	0.013
12	3.690	47.911	3.800	47.911	0.013
13	3.800	47.911	6.450	48.088	0.035
14	6.450	48.088	7.950	48.118	0.013
15	7.950	48.118	8.000	48.119	0.035
16	8.000	48.119	9.155	48.312	0.035

PROJECT: SECTION O
LUMPINI ROAD (CH148.29)
Print-out date: 10/12/2024 - Time: 3:24
Data File: G:\30\309442\Civil\12D\PC CONVEY\SECTION O.dat

1. CROSS-SECTION:



2. DISCHARGE INFORMATION:

100 year (1%) storm event

Total discharge = 0.126 cumecs

There is no pipe discharge
Overland / Channel / Watercourse discharge = 0.126 cumecs

3. RESULTS: Water surface elevation = 47.992m

High Flow Channel grade = 1 in 200, Main Channel / Low Flow Channel grade = 1 in 200.

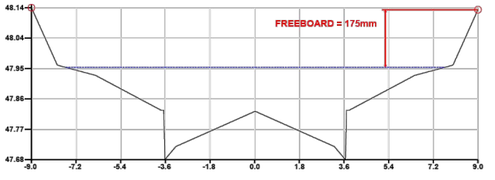
	LEFT OVERBANK	MAIN CHANNEL	RIGHT OVERBANK	TOTAL CROSS-SECTION
Discharge (cumecs):	0.00	0.16	0.00	0.16
D(Max) = Max. Depth (m):	0.00	0.11	0.00	0.11
D(Ave) = Ave. Depth (m):	0.00	0.04	0.00	0.04
V = Ave. Velocity (m/s):	0.00	0.67	0.00	0.67
D(Max) x V (cumecs/m):	0.00	0.07	0.00	0.07
D(Ave) x V (cumecs/m):	0.00	0.03	0.00	0.03
Froude Number:	0.00	1.01	0.00	N/A
Area (m^2):	0.00	0.23	0.00	0.23
Wetted Perimeter (m):	0.00	5.36	0.00	5.36
Flow Width (m):	0.00	5.19	0.00	5.19
Hydraulic Radius (m):	0.00	0.04	0.00	0.04
Composite Manning's n:	0.000	0.013	0.000	N/A
Split Flow?	-	-	-	Yes

4. CROSS-SECTION DATA:

SEGMENT NO.	LEFT HAND POINT CHAINAGE (m)	LEFT HAND POINT R.L. (m)	RIGHT HAND POINT CHAINAGE (m)	RIGHT HAND POINT R.L. (m)	MANNING'S N
1	-8.000	48.152	-7.950	48.150	0.035
2	-7.950	48.150	-6.450	48.120	0.013
3	-6.450	48.120	-3.800	48.032	0.035
4	-3.800	48.032	-3.690	48.032	0.013
5	-3.690	48.032	-3.650	47.882	0.013
6	-3.650	47.882	-3.200	47.922	0.013
7	-3.200	47.922	0.000	48.028	0.013
8	0.000	48.028	3.200	47.922	0.013
9	3.200	47.922	3.650	47.882	0.013
10	3.650	47.882	3.690	48.032	0.013
11	3.690	48.032	3.800	48.032	0.013
12	3.800	48.032	6.450	48.120	0.035
13	6.450	48.120	7.950	48.150	0.013
14	7.950	48.150	8.000	48.152	0.035

PROJECT: SECTION P
SPRINGFALL ROAD (CH415.00)
Print-out date: 15/01/2025 - Time: 9:00
Data File: G:\30\309443\Civil\12D\PC CONVEY\SECTION P.dat

1. CROSS-SECTION:



2. DISCHARGE INFORMATION:

100 year (1%) storm event

Total discharge = 1.12 cumecs

There is no pipe discharge
Overland / Channel / Watercourse discharge = 1.122 cumecs

3. RESULTS: Water surface elevation = 47.955m

High Flow Channel grade = 1 in 300, Main Channel / Low Flow Channel grade = 1 in 300.

	LEFT OVERBANK	MAIN CHANNEL	RIGHT OVERBANK	TOTAL CROSS-SECTION
Discharge (cumecs):	0.00	1.18	0.00	1.18
D(Max) = Max. Depth (m):	0.00	0.28	0.00	0.28
D(Ave) = Ave. Depth (m):	0.00	0.12	0.00	0.12
V = Ave. Velocity (m/s):	0.00	0.62	0.00	0.62
D(Max) x V (cumecs/m):	0.00	0.17	0.00	0.17
D(Ave) x V (cumecs/m):	0.00	0.08	0.00	0.08
Froude Number:	0.00	0.56	0.00	0.56
Area (m^2):	0.00	1.91	0.00	1.91
Wetted Perimeter (m):	0.00	15.54	0.00	15.54
Flow Width (m):	0.00	15.30	0.00	15.30
Hydraulic Radius (m):	0.00	0.12	0.00	0.12
Composite Manning's n:	0.000	0.023	0.000	0.023
Split Flow?	-	-	-	No

4. CROSS-SECTION DATA:

SEGMENT NO.	LEFT HAND POINT CHAINAGE (m)	LEFT HAND POINT R.L. (m)	RIGHT HAND POINT CHAINAGE (m)	RIGHT HAND POINT R.L. (m)	MANNING'S N
1	-9.035	48.136	-8.000	47.963	0.013
2	-8.000	47.963	-7.950	47.961	0.035
3	-7.950	47.961	-6.450	47.931	0.013
4	-6.450	47.931	-3.800	47.825	0.035
5	-3.800	47.825	-3.690	47.825	0.013
6	-3.690	47.825	-3.650	47.675	0.013
7	-3.650	47.675	-3.200	47.715	0.013
8	-3.200	47.715	0.000	47.822	0.013
9	0.000	47.822	3.200	47.715	0.013
10	3.200	47.715	3.650	47.675	0.013
11	3.650	47.675	3.690	47.825	0.013
12	3.690	47.825	3.800	47.825	0.013
13	3.800	47.825	6.450	47.931	0.035
14	6.450	47.931	7.950	47.961	0.013
15	7.950	47.961	8.000	47.963	0.035
16	8.000	47.963	9.003	48.130	0.035

file name 309443CD503.dwg layout name CD503 plotted by Thanh Nguyen
file location G:\30\309443\Civil\ACAD plot date 30/05/2025, 4:34 PM Sheet 1 of 1 Sheets

Rev	Amendments	Approved	Date
A	ISSUED TO COUNCIL	G.K	04/04/25

Scale
H 1:1000
SCALE @ A1
0 10 20 30 40 50

dics ISO 9001 certified ISO 45001 certified ISO 14001 certified
System Certified

spiire
L6 414 LA TROBE STREET PO BOX 16084 MELBOURNE
VICTORIA 8007 AUSTRALIA T 61 3 9993 7888
spiire.com.au ABN 55 050 029 635

Harlow TARNEIT

Designed: T. NGUYEN
Checked: G. KOHLMAN
Authorised: G. KOHLMAN
Date: 04/04/25

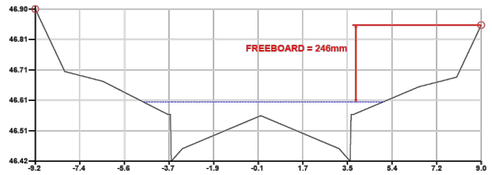
HARLOW ESTATE STAGE 7
DRAINAGE COMPUTATIONS
100YR PC CONVEY SECTIONS - SHEET 2
WYNDHAM CITY COUNCIL
SIG GROUP

PRELIMINARY

Drg No: 309443CD503
Rev: A

PROJECT: SECTION Q
SPRINGFALL ROAD (CH492.72)
Print-out date: 15/01/2025 - Time: 9:04
Data File: G:\30\309443\Civil\12D\PC CONVEY\SECTION Q.dat

1. CROSS-SECTION:



2. DISCHARGE INFORMATION:

100 year (1%) storm event

Total discharge = 1.16 cumecs

There is no pipe discharge
Overland / Channel / Watercourse discharge = 1.157 cumecs

3. RESULTS: Water surface elevation = 46.607m

High Flow Channel grade = 1 in 41.667, Main Channel / Low Flow Channel grade = 1 in 41.667.

	LEFT OVERBANK	MAIN CHANNEL	RIGHT OVERBANK	TOTAL CROSS-SECTION
Discharge (cumecs):	0.00	1.23	0.00	1.23
D(Max) = Max. Depth (m):	0.00	0.19	0.00	0.19
D(Ave) = Ave. Depth (m):	0.00	0.09	0.00	0.09
V = Ave. Velocity (m/s):	0.00	1.47	0.00	1.47
D(Max) x V (cumecs/m):	0.00	0.28	0.00	0.28
D(Ave) x V (cumecs/m):	0.00	0.13	0.00	0.13
Froude Number:	0.00	1.61	0.00	1.61
Area (m^2):	0.00	0.84	0.00	0.84
Wetted Perimeter (m):	0.00	10.04	0.00	10.04
Flow Width (m):	0.00	9.80	0.00	9.80
Hydraulic Radius (m):	0.00	0.08	0.00	0.08
Composite Manning's n:	0.000	0.020	0.000	0.020
Split Flow?	-	-	-	No

4. CROSS-SECTION DATA:

SEGMENT NO.	LEFT HAND POINT CHAINAGE (m)	LEFT HAND POINT R.L. (m)	RIGHT HAND POINT CHAINAGE (m)	RIGHT HAND POINT R.L. (m)	MANNING'S N
1	-9.200	46.904	-8.000	46.704	0.013
2	-8.000	46.704	-7.950	46.703	0.035
3	-7.950	46.703	-6.450	46.673	0.013
4	-6.450	46.673	-3.800	46.567	0.035
5	-3.800	46.567	-3.690	46.567	0.013
6	-3.690	46.567	-3.650	46.417	0.013
7	-3.650	46.417	-3.200	46.457	0.013
8	-3.200	46.457	0.000	46.563	0.013
9	0.000	46.563	3.200	46.457	0.013
10	3.200	46.457	3.650	46.417	0.013
11	3.650	46.417	3.690	46.567	0.013
12	3.690	46.567	3.800	46.567	0.013
13	3.800	46.567	6.450	46.655	0.035
14	6.450	46.655	7.950	46.685	0.013
15	7.950	46.685	8.000	46.687	0.035
16	8.000	46.687	9.000	46.853	0.035

PROJECT: SECTION R
HUMMELO ROAD (CH867.89)
Print-out date: 10/12/2024 - Time: 3:39
Data File: G:\30\309442\Civil\12D\PC CONVEY\SECTION R.dat

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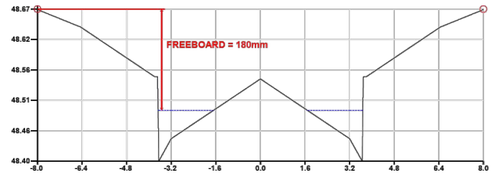

2. DISCHARGE INFORMATION:

100 year (1%) storm event

Total discharge = 0.062 cumecs

There is no pipe discharge
Overland / Channel / Watercourse discharge = 0.062 cumecs

3. RESULTS: Water surface elevation = 48.491m

High Flow Channel grade = 1 in 200, Main Channel / Low Flow Channel grade = 1 in 200.

	LEFT OVERBANK	MAIN CHANNEL	RIGHT OVERBANK	TOTAL CROSS-SECTION
Discharge (cumecs):	0.00	0.08	0.00	0.08
D(Max) = Max. Depth (m):	0.00	0.09	0.00	0.09
D(Ave) = Ave. Depth (m):	0.00	0.04	0.00	0.04
V = Ave. Velocity (m/s):	0.00	0.57	0.00	0.57
D(Max) x V (cumecs/m):	0.00	0.05	0.00	0.05
D(Ave) x V (cumecs/m):	0.00	0.02	0.00	0.02
Froude Number:	0.00	0.97	0.00	N/A
Area (m^2):	0.00	0.14	0.00	0.14
Wetted Perimeter (m):	0.00	4.11	0.00	4.11
Flow Width (m):	0.00	3.97	0.00	3.97
Hydraulic Radius (m):	0.00	0.03	0.00	0.03
Composite Manning's n:	0.000	0.013	0.000	N/A
Split Flow?	-	-	-	Yes

4. CROSS-SECTION DATA:

SEGMENT NO.	LEFT HAND POINT CHAINAGE (m)	LEFT HAND POINT R.L. (m)	RIGHT HAND POINT CHAINAGE (m)	RIGHT HAND POINT R.L. (m)	MANNING'S N
1	-8.000	48.671	-7.950	48.669	0.035
2	-7.950	48.669	-6.450	48.639	0.013
3	-6.450	48.639	-3.800	48.551	0.035
4	-3.800	48.551	-3.690	48.551	0.013
5	-3.690	48.551	-3.650	48.401	0.013
6	-3.650	48.401	-3.200	48.441	0.013
7	-3.200	48.441	0.000	48.547	0.013
8	0.000	48.547	3.200	48.441	0.013
9	3.200	48.441	3.650	48.401	0.013
10	3.650	48.401	3.690	48.551	0.013
11	3.690	48.551	3.800	48.551	0.013
12	3.800	48.551	6.450	48.639	0.035
13	6.450	48.639	7.950	48.669	0.013
14	7.950	48.669	8.000	48.671	0.035

PROJECT: SECTION S
HUMMELO ROAD (CH791.89)
Print-out date: 20/01/2025 - Time: 10:54
Data File: G:\30\309443\Civil\12D\PC CONVEY\SECTION S.dat

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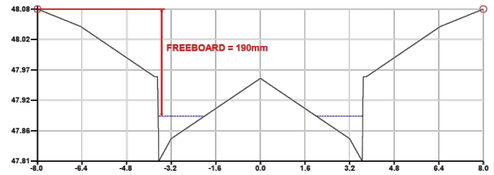

2. DISCHARGE INFORMATION:

100 year (1%) storm event

Total discharge = 0.132 cumecs

There is no pipe discharge
Overland / Channel / Watercourse discharge = 0.132 cumecs

3. RESULTS: Water surface elevation = 47.888m

High Flow Channel grade = 1 in 37.6598, Main Channel / Low Flow Channel grade = 1 in 37.6598.

	LEFT OVERBANK	MAIN CHANNEL	RIGHT OVERBANK	TOTAL CROSS-SECTION
Discharge (cumecs):	0.00	0.13	0.00	0.13
D(Max) = Max. Depth (m):	0.00	0.08	0.00	0.08
D(Ave) = Ave. Depth (m):	0.00	0.03	0.00	0.03
V = Ave. Velocity (m/s):	0.00	1.21	0.00	1.21
D(Max) x V (cumecs/m):	0.00	0.10	0.00	0.10
D(Ave) x V (cumecs/m):	0.00	0.04	0.00	0.04
Froude Number:	0.00	2.19	0.00	N/A
Area (m^2):	0.00	0.10	0.00	0.10
Wetted Perimeter (m):	0.00	3.46	0.00	3.46
Flow Width (m):	0.00	3.34	0.00	3.34
Hydraulic Radius (m):	0.00	0.03	0.00	0.03
Composite Manning's n:	0.000	0.013	0.000	N/A
Split Flow?	-	-	-	Yes

4. CROSS-SECTION DATA:

SEGMENT NO.	LEFT HAND POINT CHAINAGE (m)	LEFT HAND POINT R.L. (m)	RIGHT HAND POINT CHAINAGE (m)	RIGHT HAND POINT R.L. (m)	MANNING'S N
1	-8.000	48.078	-7.950	48.077	0.035
2	-7.950	48.077	-6.450	48.047	0.013
3	-6.450	48.047	-3.800	47.958	0.035
4	-3.800	47.958	-3.690	47.958	0.013
5	-3.690	47.958	-3.650	47.808	0.013
6	-3.650	47.808	-3.200	47.848	0.013
7	-3.200	47.848	0.000	47.955	0.013
8	0.000	47.955	3.200	47.848	0.013
9	3.200	47.848	3.650	47.808	0.013
10	3.650	47.808	3.690	47.958	0.013
11	3.690	47.958	3.800	47.958	0.013
12	3.800	47.958	6.450	48.047	0.035
13	6.450	48.047	7.950	48.077	0.013
14	7.950	48.077	8.000	48.078	0.035

PROJECT: SECTION T
ROMANESCO ROAD (CH11.80)
Print-out date: 14/10/2024 - Time: 3:18
Data File: G:\30\309442\Civil\12D\PC CONVEY\SECTION T.dat

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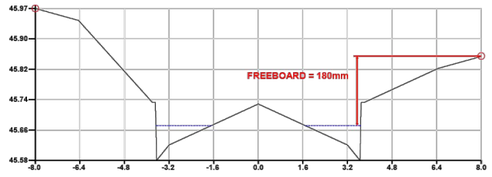

2. DISCHARGE INFORMATION:

100 year (1%) storm event

Total discharge = 0.192 cumecs

There is no pipe discharge
Overland / Channel / Watercourse discharge = 0.192 cumecs

3. RESULTS: Water surface elevation = 45.671m

High Flow Channel grade = 1 in 22.222, Main Channel / Low Flow Channel grade = 1 in 22.222.

	LEFT OVERBANK	MAIN CHANNEL	RIGHT OVERBANK	TOTAL CROSS-SECTION
Discharge (cumecs):	0.00	0.24	0.00	0.24
D(Max) = Max. Depth (m):	0.00	0.09	0.00	0.09
D(Ave) = Ave. Depth (m):	0.00	0.04	0.00	0.04
V = Ave. Velocity (m/s):	0.00	1.72	0.00	1.72
D(Max) x V (cumecs/m):	0.00	0.15	0.00	0.15
D(Ave) x V (cumecs/m):	0.00	0.06	0.00	0.06
Froude Number:	0.00	2.92	0.00	N/A
Area (m^2):	0.00	0.14	0.00	0.14
Wetted Perimeter (m):	0.00	4.11	0.00	4.11
Flow Width (m):	0.00	3.97	0.00	3.97
Hydraulic Radius (m):	0.00	0.03	0.00	0.03
Composite Manning's n:	0.000	0.013	0.000	N/A
Split Flow?	-	-	-	Yes

4. CROSS-SECTION DATA:

SEGMENT NO.	LEFT HAND POINT CHAINAGE (m)	LEFT HAND POINT R.L. (m)	RIGHT HAND POINT CHAINAGE (m)	RIGHT HAND POINT R.L. (m)	MANNING'S N
1	-8.000	45.974	-7.950	45.973	0.035
2	-7.950	45.973	-6.450	45.943	0.013
3	-6.450	45.943	-3.800	45.731	0.035
4	-3.800	45.731	-3.690	45.731	0.013
5	-3.690	45.731	-3.650	45.581	0.013
6	-3.650	45.581	-3.200	45.621	0.013
7	-3.200	45.621	0.000	45.727	0.013
8	0.000	45.727	3.200	45.621	0.013
9	3.200	45.621	3.650	45.581	0.013
10	3.650	45.581	3.690	45.731	0.013
11	3.690	45.731	3.800	45.731	0.013
12	3.800	45.731	6.450	45.819	0.035
13	6.450	45.819	7.950	45.849	0.013
14	7.950	45.849	8.000	45.851	0.035

PROJECT: SECTION U
HUMMELO ROAD (CH715.89)
Print-out date: 10/12/2024 - Time: 3:49
Data File: G:\30\309442\Civil\12D\PC CONVEY\SECTION U.dat

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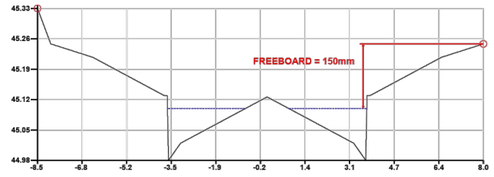

2. DISCHARGE INFORMATION:

100 year (1%) storm event

Total discharge = 0.317 cumecs

There is no pipe discharge
Overland / Channel / Watercourse discharge = 0.317 cumecs

3. RESULTS: Water surface elevation = 45.098m

High Flow Channel grade = 1 in 50, Main Channel / Low Flow Channel grade = 1 in 50.

	LEFT OVERBANK	MAIN CHANNEL	RIGHT OVERBANK	TOTAL CROSS-SECTION
Discharge (cumecs):	0.00	0.41	0.00	0.41
D(Max) = Max. Depth (m):	0.00	0.12	0.00	0.12
D(Ave) = Ave. Depth (m):	0.00	0.05	0.00	0.05
V = Ave. Velocity (m/s):	0.00	1.44	0.00	1.44
D(Max) x V (cumecs/m):	0.00	0.17	0.00	0.17
D(Ave) x V (cumecs/m):	0.00	0.07	0.00	0.07
Froude Number:	0.00	2.06	0.00	N/A
Area (m^2):	0.00	0.29	0.00	0.29
Wetted Perimeter (m):	0.00	5.94	0.00	5.94
Flow Width (m):	0.00	5.75	0.00	5.75
Hydraulic Radius (m):	0.00	0.05	0.00	0.05
Composite Manning's n:	0.000	0.013	0.000	N/A
Split Flow?	-	-	-	Yes

4. CROSS-SECTION DATA:

SEGMENT NO.	LEFT HAND POINT CHAINAGE (m)	LEFT HAND POINT R.L. (m)	RIGHT HAND POINT CHAINAGE (m)	RIGHT HAND POINT R.L. (m)	MANNING'S N
1	-8.491	45.330	-8.000	45.248	0.013
2	-8.000	45.248	-7.950	45.247	0.035
3	-7.950	45.247	-6.450	45.217	0.013
4	-6.450	45.217	-3.800	45.128	0.035
5	-3.800	45.128	-3.690	45.128	0.013
6	-3.690	45.128	-3.650	44.978	0.013
7	-3.650	44.978	-3.200	45.018	0.013
8	-3.200	45.018	0.000	45.125	0.013
9	0.000	45.125	3.200	45.018	0.013
10	3.200	45.018	3.650	44.978	0.013
11	3.650	44.978	3.690	45.128	0.013
12	3.690	45.128	3.800	45.128	0.013
13	3.800	45.128	6.450	45.217	0.035
14	6.450	45.217	7.950	45.247	0.013

PROJECT: SECTION V
TUMERIC ROAD (CH640.44)
Print-out date: 20/01/2025 - Time: 10:42
Data File: G:\30\309443\Civil\12D\PC CONVEY\SECTION V.dat

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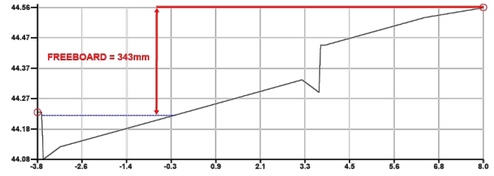

2. DISCHARGE INFORMATION:

100 year (1%) storm event

Total discharge = 1.31 cumecs

There is no pipe discharge
Overland / Channel / Watercourse discharge = 1.314 cumecs

3. RESULTS: Water surface elevation = 44.220m

High Flow Channel grade = 1 in 200, Main Channel / Low Flow Channel grade = 1 in 200.

	LEFT OVERBANK	MAIN CHANNEL	RIGHT OVERBANK	TOTAL CROSS-SECTION
Discharge (cumecs):	0.00	0.17	0.00	0.17
D(Max) = Max. Depth (m):	0.00	0.14	0.00	0.14
D(Ave) = Ave. Depth (m):	0.00	0.06	0.00	0.06
V = Ave. Velocity (m/s):	0.00	0.81	0.00	0.81
D(Max) x V (cumecs/m):	0.00	0.11	0.00	0.11
D(Ave) x V (cumecs/m):	0.00	0.05	0.00	0.05
Froude Number:	0.00	1.06	0.00	1.06
Area (m^2):	0.00	0.21	0.00	0.21
Wetted Perimeter (m):	0.00	3.62	0.00	3.62
Flow Width (m):	0.00	3.51	0.00	3.51
Hydraulic Radius (m):	0.00	0.06	0.00	0.06
Composite Manning's n:	0.000	0.013	0.000	0.013
Split Flow?	-	-	-	No

4. CROSS-SECTION DATA:

SEGMENT NO.	LEFT HAND POINT CHAINAGE (m)	LEFT HAND POINT R.L. (m)	RIGHT HAND POINT CHAINAGE (m)	RIGHT HAND POINT R.L. (m)	MANNING'S N
1	-3.800	44.230	-3.690	44.230	0.013
2	-3.690	44.230	-3.650	44.080	0.013
3	-3.650	44.080	-3.200	44.120	0.013
4	-3.200	44.120	0.000	44.226	0.013
5	0.000	44.226	3.200	44.333	0.013
6	3.200	44.333	3.650	44.293	0.013
7	3.650	44.293	3.690	44.443	0.013
8	3.690	44.443	3.800	44.443	0.013
9	3.800	44.443	6.450	44.531	0.035
10	6.450	44.531	7.950	44.561	0.013
11	7.950	44.561	8.000	44.563	0.035

Rev			
A	ISSUED TO COUNCIL	G.K	04/04/25
Rev	Amendments	Approved	Date

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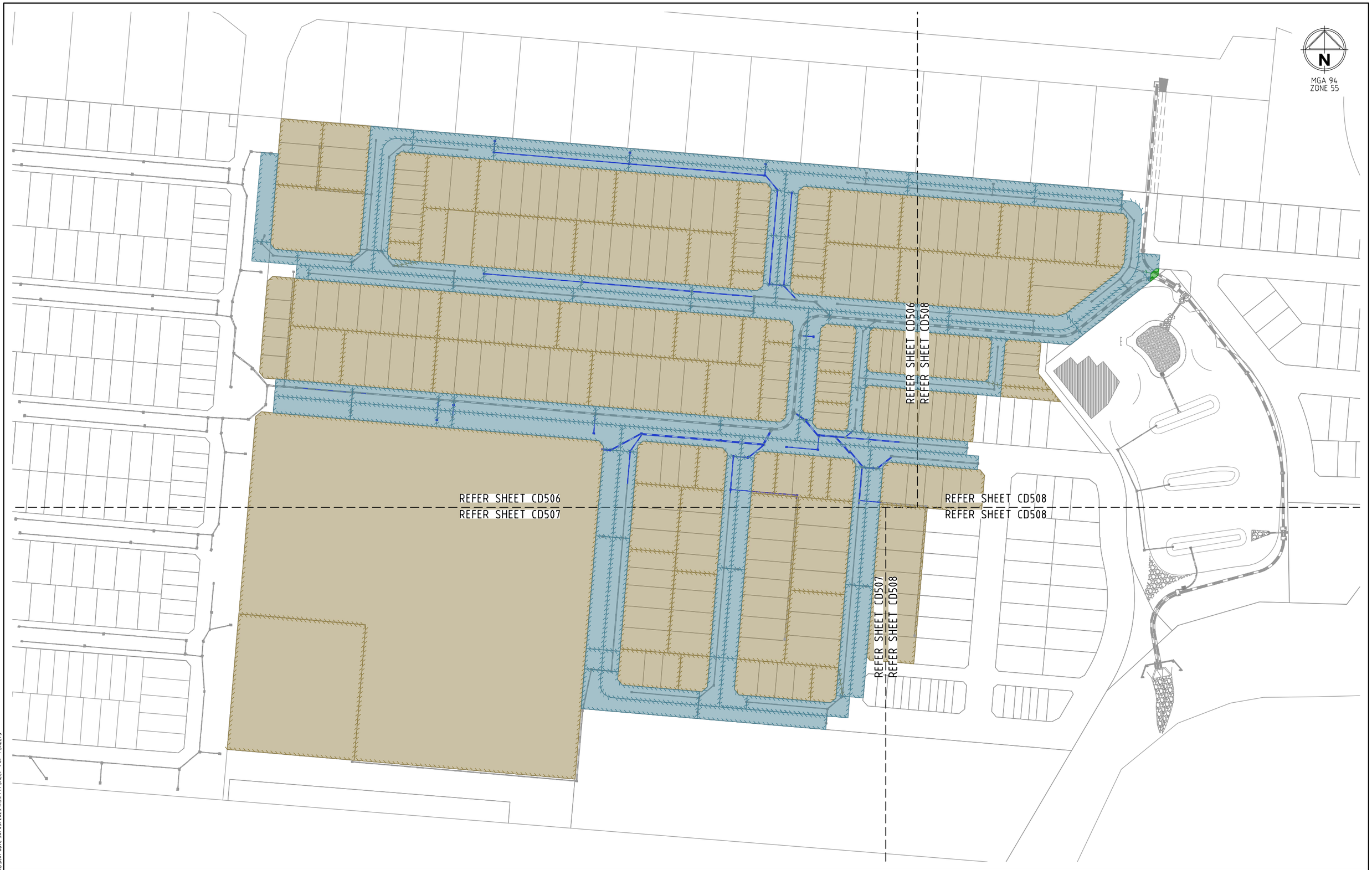
L6 414 LA TROBE STREET PO BOX 16084 MELBOURNE
VICTORIA 8007 AUSTRALIA T 61 3 9993 7888
spiire.com.au ABN 55 050 029 635

Harlow TARNEIT

Designed: T. NGUYEN
Checked: G. KOHLMAN
Authorised: G. KOHLMAN
Date: 04/04/25

HARLOW ESTATE
STAGE 7
DRAINAGE COMPUTATIONS
100YR PC CONVEY SECTIONS - SHEET 3
WYNDHAM CITY COUNCIL
SIG GROUP

PRELIMINARY
Drg No: 309443CD504
Rev: A



Rev	Amendments	Approved	Date
A	ISSUED TO COUNCIL	G.K	04/04/25

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System Certified

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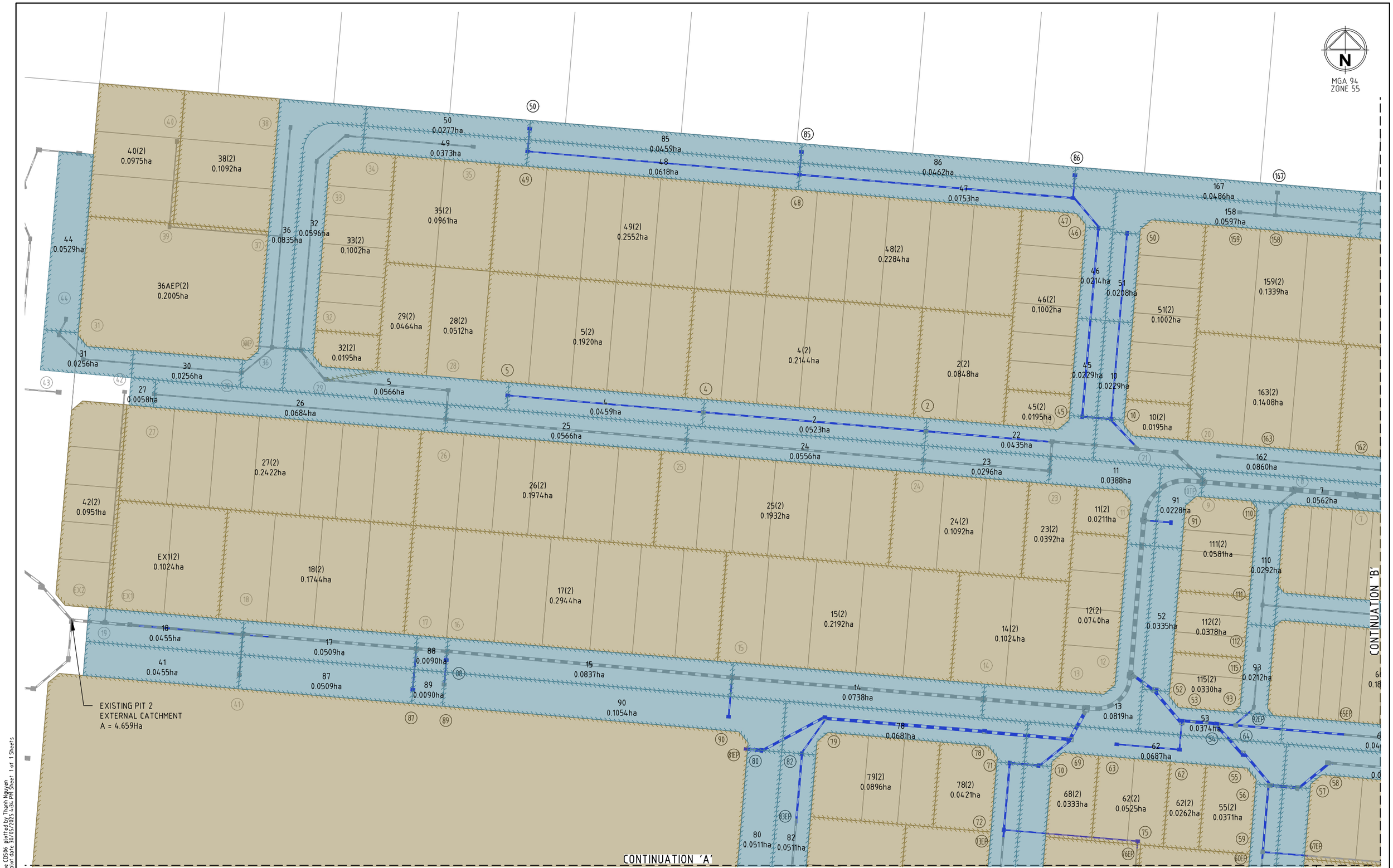
Harlow TARNEIT

Designed T. NGUYEN
Checked G. KOHLMAN
Authorised G. KOHLMAN
Date 04/04/25

HARLOW ESTATE STAGE 7
DRAINAGE COMPUTATIONS
5YR CATCHMENT PLAN - SHEET 1
WYNDHAM CITY COUNCIL
SIG GROUP

PRELIMINARY
Drg No 309443CD505
Rev A

file name 309443CD500.dwg layout name CD505 plotted by Thanh Nguyen
file location G:\301\309443\civil\ACAD plot date 30/05/2025 4:34 PM Sheet 1 of 1 Sheets



Rev	Amendments	Approved	Date
A	ISSUED TO COUNCIL	G.K	04/04/25

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Harlow TARNEIT

Designed	Checked
T. NGUYEN	G. KOHLMAN
Authorised	Date
G. KOHLMAN	04/04/25

HARLOW ESTATE STAGE 7

DRAINAGE COMPUTATIONS

5YR CATCHMENT PLAN - SHEET 2

WYNDHAM CITY COUNCIL
SIG GROUP

PRELIMINARY

Drg No 309443CD506
Rev A

file name 309443CD506.dwg Layout name CD506 plotted by Thanh Nguyen
file location G:\30\309443\Civil\ACAD plot date 30/05/2025 4:34 PM Sheet 1 of 1 Sheets

N

MGA 94
ZONE 55

CONTINUATION 'A'

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190(2)
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84(2)
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74(2)
0.1237ha

71
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70
0.0528ha

56
0.0556ha

57
0.0556ha

61(2)
0.1760ha

77(2)
0.2746ha

102
0.0666ha

84
0.0666ha

100(2)
0.1654ha

94(2)
0.1215ha

74
0.0421ha

100
0.0421ha

103(2)
0.1379ha

61
0.0526ha

109
0.0526ha

98
0.0120ha

97
0.0120ha

96(2)
0.0751ha

95(2)
0.0352ha

94
0.0272ha

105
0.0299ha

105(2)
0.0940ha

104(2)
0.0310ha

95
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101
0.0718ha

104
0.0521ha

109
0.0608ha

CONTINUATION 'C'

Rev	Amendments	Approved	Date
A	ISSUED TO COUNCIL	G.K	04/04/25

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Harlow TARNEIT

Designed
T. NGUYEN

Checked
G. KOHLMAN

Authorised
G. KOHLMAN

Date
04/04/25

HARLOW ESTATE STAGE 7

DRAINAGE COMPUTATIONS
5YR CATCHMENT PLAN - SHEET 3

WYNDHAM CITY COUNCIL
SIG GROUP

PRELIMINARY

Drg No 309443CD507

Rev A

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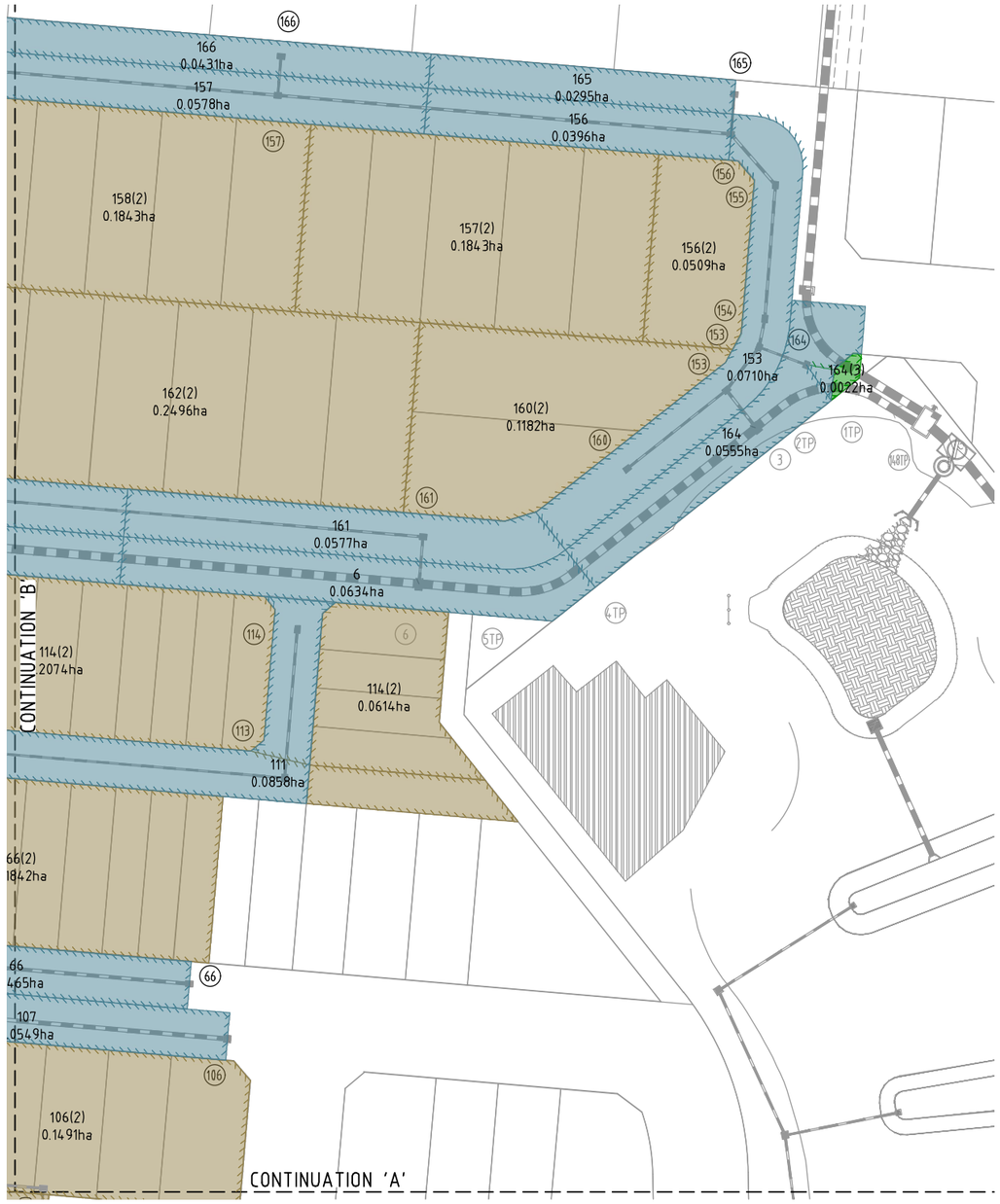

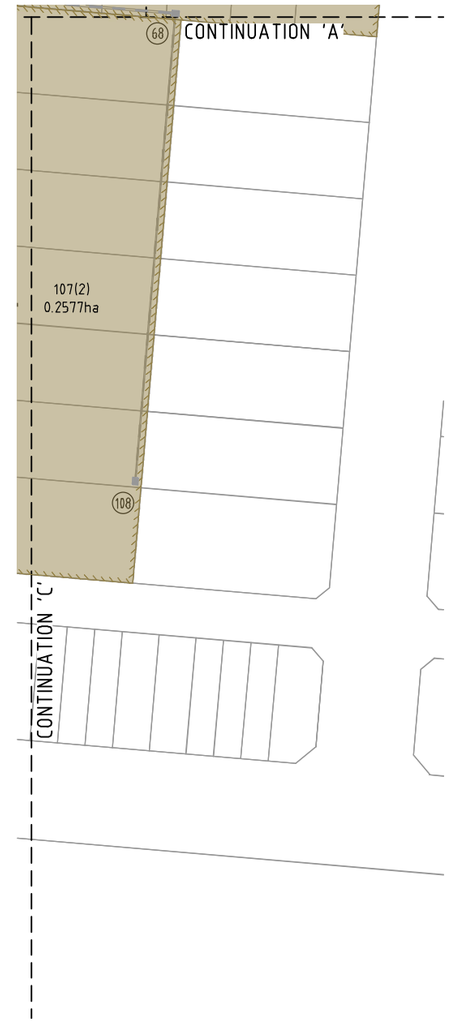

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MGA 94
ZONE 55

Rev	Amendments	Approved	Date
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spiire.com.au ABN 55 050 029 635

Harlow TARNEIT

Designed: T. NGUYEN
Checked: G. KOHLMAN
Authorised: G. KOHLMAN
Date: 04/04/25

HARLOW ESTATE STAGE 7

DRAINAGE COMPUTATIONS
5YR CATCHMENT PLAN - SHEET 4
WYNDHAM CITY COUNCIL
SIG GROUP

PRELIMINARY

Drg No: 309443CD508
Rev: A

file name:309443CD508.dwg layout name:CD508 plotted by:Thanh Nguyen
file location:G:\30\309443\Civil\ACAD plot date:30/05/2025 4:34 PM Sheet 1 of 1 Sheets

			SUB-CATCHMENT RUNOFF						DRAIN DESIGN														HEADLOSSES							PART FULL		DESIGN LEVELS				
			C	A	C	A	C	A	Q	tc	i	A	C	CA	Qp	L	S	T	Qcap	Qa/Qcap	Vcap		V2/2g	Ku	hu	Kw	hw	Sf	hf							
STRUCTURE No.	DOWNSTREAM STRUCTURE No.	PIT TYPE	CO-EFFICIENT OF RUNOFF	SUB-CATCHMENT AREA (ROAD)	CO-EFFICIENT OF RUNOFF	SUB-CATCHMENT AREA (LOT)	CO-EFFICIENT OF RUNOFF	SUB-CATCHMENT AREA (MISC)	SUB-CATCHMENT DISCHARGE	CRITICAL TIME OF CONCENTRATION	RAINFALL INTENSITY	CUMULATIVE CATCHMENT AREA	EFFECTIVE CO-EFFICIENT OF RUNOFF	TOTAL (C x A)	PIPE FLOW	REACH LENGTH	PIPE GRADE	PIPE DIAMETER	PIPE GRADE CAPACITY	Q(actual) / Q(capacity)	CAPACITY VELOCITY (Qcap/AREA)	TIME IN PIPE	PIPE VELOCITY HEAD	U/S PIT HEADLOSS COEFF	U/S PIT PRESSURE HEADLOSS	W.S.E. COEFF	CHAINGE IN W.S.E.	PIPE FRICTION SLOPE	PIPE FRICTION (HEADLOSS L*Sf)	NORMAL DEPTH	NORMAL DEPTH VELOCITY	UPSTREAM PIPE H.G.L	DOWNSTREAM PIPE H.G.L	PIT GRATE LEVEL	CALCULATED FREEBOARD	STRUCTURE
				ha		ha		ha	l/s	min	mm/hr	ha		ha	l/s	m	(1 in)	mm	l/s	%	m/s	min.	m		m		m	%	m	m	m/s	m	m	m	m	
148TP	1	TANGENT POINT								12.03	59.589	17.828	0.642	11.453	1896	4.57	500	1350	2388	80	1.668	0.046	0.090	0.00	0.000		0.000	0.126	0.006	0.909	1.85	46.499	46.493	47.741	1.242	
1TP	148TP	TANGENT POINT								12.00	59.652	17.828	0.642	11.453	1898	2.61	500	1350	2388	80	1.668	0.026	0.090	0.00	0.000		0.000	0.126	0.003	0.909	1.85	46.502	46.499	47.693	1.190	
2TP	1TP	TANGENT POINT								11.83	60.065	17.828	0.642	11.453	1911	17.09	500	1350	2388	81	1.668	0.171	0.091	0.00	0.000		0.000	0.128	0.022	0.914	1.85	46.524	46.502	47.478	0.954	
3	2TP	JUNCTION PIT							0	11.77	60.212	17.828	0.642	11.453	1916	6.07	500	1350	2388	81	1.668	0.061	0.091	0.50	0.046		0.046	0.129	0.008	0.916	1.85	46.532	46.524	47.564	0.986	
4TP	3	TANGENT POINT								11.37	61.176	16.750	0.642	10.750	1827	39.87	500	1350	2388	77	1.668	0.398	0.083	0.00	0.000		0.000	0.117	0.047	0.885	1.84	46.625	46.578	47.739	1.115	
5TP	4TP	TANGENT POINT								11.27	61.431	16.750	0.642	10.750	1834	10.57	500	1350	2388	78	1.668	0.106	0.084	0.00	0.000		0.000	0.118	0.012	0.887	1.84	46.637	46.625	47.756	1.119	
6	5TP	JUNCTION PIT	0.561	0.063					8	11.11	61.812	16.750	0.642	10.750	1846	15.76	500	1350	2388	78	1.668	0.157	0.085	0.50	0.042		0.042	0.119	0.019	0.891	1.84	46.656	46.637	47.523	0.824	
7	6	JUNCTION PIT	0.561	0.056					8	10.36	63.626	16.152	0.641	10.358	1831	75.00	500	1350	2388	78	1.668	0.749	0.083	0.50	0.042		0.042	0.118	0.088	0.886	1.84	46.787	46.699	47.648	0.819	
8	7	JUNCTION PIT							0	10.18	64.067	16.096	0.642	10.326	1838	18.28	500	1350	2388	78	1.668	0.183	0.084	0.50	0.042		0.042	0.118	0.022	0.888	1.84	46.851	46.829	47.926	1.033	
9	8	JUNCTION PIT							0	9.91	64.889	15.616	0.641	10.004	1803	26.95	500	1350	2388	77	1.668	0.269	0.081	0.70	0.057		0.057	0.114	0.031	0.877	1.83	46.924	46.893	48.049	1.069	
10TP	9	TANGENT POINT								13.14	56.904	13.705	0.631	8.650	1367	4.65	500	1200	1744	79	1.542	0.050	0.075	0.00	0.000		0.000	0.123	0.006	0.800	1.71	46.986	46.981	47.975	0.989	
11	10TP	GRATED SIDE ENTRY PIT	0.561	0.039	0.708	0.021			9	12.94	57.397	13.705	0.631	8.650	1379	18.86	500	1200	1744	80	1.542	0.204	0.076	0.50	0.038		0.038	0.125	0.024	0.805	1.71	47.010	46.986	48.093	1.044	
12	11	JUNCTION PIT			0.708	0.074			13	9.16	68.112	11.789	0.632	7.456	1411	45.85	500	1200	1744	82	1.542	0.495	0.079	0.50	0.040		0.040	0.131	0.060	0.819	1.72	47.109	47.049	48.043	0.894	
12ATP	12	TANGENT POINT								12.27	58.998	11.748	0.627	7.365	1207	15.73	400	1050	1366	89	1.577	0.166	0.099	0.00	0.000		0.000	0.195	0.031	0.767	1.78	47.180	47.149	47.914	0.735	
13	12ATP	GRATED SIDE ENTRY PIT	0.561	0.082					11	12.26	59.031	11.748	0.627	7.365	1208	1.28	400	1050	1366	89	1.578	0.014	0.099	1.50	0.149		0.149	0.195	0.002	0.768	1.78	47.182	47.180	47.708	0.375	
14	13	GRATED SIDE ENTRY PIT	0.561	0.074	0.708	0.102			27	12.65	58.096	6.121	0.585	3.579	578	30.47	263	1050	1683	34	1.944	0.261	0.023	0.50	0.011		0.011	0.045	0.014	0.424	1.76	47.347	47.333	47.810	0.451	
15	14	GRATED SIDE ENTRY PIT	0.561	0.084	0.708	0.219			48	11.90	59.907	5.945	0.583	3.465	577	73.83	300	900	1046	55	1.644	0.749	0.042	0.50	0.021		0.021	0.101	0.075	0.477	1.68	47.433	47.358	48.056	0.602	
16	15	JUNCTION PIT							0	11.19	61.617	5.536	0.579	3.204	548	83.72	185	825	1056	52	1.975	0.706	0.054	0.50	0.027		0.027	0.146	0.122	0.422	1.99	47.576	47.454	48.608	1.005	
17	16	GRATED SIDE ENTRY PIT	0.561	0.051	0.708	0.294			57	11.10	61.845	5.518	0.579	3.194	549	9.03	250	750	704	78	1.594	0.094	0.079	0.50	0.039		0.039	0.243	0.022	0.498	1.76	47.625	47.603	48.365	0.701	
18	17	GRATED SIDE ENTRY PIT	0.561	0.046	0.708	0.174			36	10.57	63.130	5.122	0.572	2.928	513	50.92	249	750	706	73	1.598	0.531	0.069	0.50	0.034		0.034	0.213	0.108	0.475	1.74	47.773	47.664	48.535	0.728	
EX1	18	JUNCTION PIT			0.708	0.102			17	10.33	63.710	4.856	0.567	2.754	487	33.19	104	675	826	59	2.308	0.240	0.095	0.50	0.047		0.047	0.336	0.111	0.373	2.40	47.918	47.807	48.820	0.854	
19	EX1	JUNCTION PIT							0	10.25	63.894	4.754	0.564	2.681	476	7.31	213	675	576	83	1.611	0.076	0.090	0.50	0.045		0.045	0.320	0.023	0.468	1.80	47.989	47.966	48.845	0.810	
EX2	19	JUNCTION PIT	0.561	4.659					466	10.15	64.137	4.659	0.561	2.614	466	9.72	213	675	576	81	1.611	0.101	0.086	0.43	0.037		0.037	0.307	0.030	0.460	1.79	48.064	48.034	48.874	0.773	
20	9	JUNCTION PIT							0	8.80	69.655	3.641	0.667	2.428	470	12.55	63	675	1063	44	2.970	0.070	0.088	0.90	0.079		0.079	0.312	0.039	0.314	2.88	47.020	46.981	48.083	0.984	
21	20	JUNCTION PIT							0	8.71	70.029	3.641	0.667	2.428	472	11.34	100	600	614	77	2.173	0.087	0.142	1.40	0.199		0.199	0.591	0.067	0.395	2.40	47.166	47.099	48.139	0.774	
22	21	GRATED SIDE ENTRY PIT	0.561	0.044					6	8.70	70.108	2.561	0.671	1.719	335	24.80	65	600	761	44	2.691	0.154	0.072	1.80	0.129		0.129	0.297	0.074	0.279	2.60	47.439	47.365	48.098	0.531	
23	22	GRATED SIDE ENTRY PIT	0.561	0.030	0.708	0.039			11	8.66	70.273	1.882	0.673	1.267	247	8.50	276	600	370	67	1.307	0.108	0.039	1.50	0.059		0.059	0.162	0.014	0.359	1.40	47.581	47.568	48.098	0.458	
24	23	GRATED SIDE ENTRY PIT	0.561	0.056	0.708	0.109			26	8.15	72.469	1.813	0.674	1.222	246	37.06	270	525	262	94	1.209	0.511	0.066	0.50	0.033		0.033	0.327	0.121	0.405	1.37	47.761	47.640	48.284	0.489	
25	24	GRATED SIDE ENTRY PIT	0.561	0.057	0.708	0.193			40	7.57	74.962	1.690	0.676	1.143	238	69.54	300	525	248	96	1.147	1.010	0.062	0.50	0.031		0.031	0.306	0.213	0.412	1.31	48.007	47.794	48.631	0.594	
26	25	GRATED SIDE ENTRY PIT	0.561	0.068	0.708	0.197			43	6.54	79.378	1.441	0.676	0.974	215	70.70	300	525	248	86	1.147	1.027	0.050	2.00	0.100		0.100	0.249	0.176	0.377	1.29	48.214	48.038	49.095	0.781	
27	26	GRATED SIDE ENTRY PIT	0.561	0.006	0.708	0.242			42	5.00	86.000	0.248	0.705	0.175	42	85.50	89	300	103	41	1.454	0.980	0.018	5.00	0.089		0.089	0.186	0.159	0.133	1.38	48.473	48.314	49.605	1.043	
28	26	JUNCTION PIT			0.708	0.051			9	6.85	78.025	0.955	0.670	0.640	139	8.50	300	450	165	84	1.035	0.137	0.039	1.30	0.050		0.050	0.237	0.020	0.317	1.16	48.334	48.314	49.263	0.878	
29	28	JUNCTION PIT			0.708	0.046			8	6.36	80.163	0.908	0.668	0.607	135	35.90	300	450	165	82	1.035	0.578	0.037	0.60	0.022		0.022	0.224	0.081	0.310	1.16	48.465	48.385	49.514	1.027	
32	29	GRATED SIDE ENTRY PIT	0.561	0.060	0.708	0.020			11	6.17	80.979	0.861	0.666	0.574	129	11.79	300	450	165	78	1.035	0.190	0.034	1.80	0.060		0.060	0.205	0.024	0.300	1.15	48.512	48.487	49.556	0.984	
33	32	JUNCTION PIT			0.708	0.100			17	5.90	82.125	0.196	0.708	0.139	32	55.35	89	300	103	31	1.452	0.635	0.010	0.60	0.006		0.006	0.107	0.059	0.115	1.28	48.631	48.572	49.998	1.360	
34	33	JUNCTION PIT							0	5.69	83.054	0.096	0.708	0.068	16	11.70	230	300	64	25	0.902	0.216	0.003	0.60	0.002		0.002	0.026	0.003	0.101	0.75	48.641	48.638	50.129	1.487	
35	34	JUNCTION PIT			0.708	0.096			16	5.00	86.000	0.096	0.708	0.068	16	37.10	230	300	64	25	0.902	0.685	0.003	5.00	0.013		0.013	0.023	0.010	0.103	0.75	48.651	48.642	49.718	1.054	
36	32	GRATED SIDE ENTRY PIT	0.561	0.070					9	5.95	81.908	0.591	0.662	0.391	89	8.50	230	375	116	77	1.048	0.135	0.033	1.80	0.060		0.060	0.257	0.022	0.247	1.15	48.594	48.572	49.556	0.903	
37	36	JUNCTION PIT							0	5.71	82.965	0.207	0.708	0.146	34	32.60	68	300	118	29	1.664	0.327	0.012	1.50	0.017		0.017	0.122	0.040	0.110	1.44	48.693	48.653	49.884	1.174	
38	37	JUNCTION PIT			0.708	0.109			18	5.00	86.000	0.109	0.708	0.077	18	32.00	78	300	110	17	1.553	0.343	0.003	5.00	0.017		0.017	0.032	0.011	0.083	1.15	48.721	48.710	50.267	1.528	
30	36	GRATED SIDE ENTRY PIT	0.561	0.040					5	6.01	81.662	0.118	0.561	0.066	15	11.79	180	300	72	21	1.019	0.193	0.002	0.90	0.002		0.002	0.024	0.003	0.093	0.80	48.656	48.653	49.481	0.823	
31	30	GRATED SIDE ENTRY PIT	0.561	0.026					3	5.25	84.925	0.079	0.561	0.044	10	46.45	180	300	72	14	1.020	0.759	0.001	0.80	0.001		0.001	0.012	0.005	0.077	0.73	48.684	48.658	49.575	0.910	
43	31	JUNCTION PIT							0	5.08	85.646	0.053	0.561	0.030	7	10.26	180	300	72	10	1.020	0.168	0.001	1.00	0.001		0.001	0.005	0.001	0.063	0.65	48.665	48.665	49.890	1.224	
44	43	GRATED SIDE ENTRY PIT	0.561	0.053					7	5.00	86.000	0.053	0.561	0.030	7	5.04	180	300	72	10	1.020	0.082	0.001	5.00	0.003		0.003	0.005	0.000	0.064	0.65	48.666	48.666	49.698	1.030	
39	37	JUNCTION PIT							0	5.45	84.058	0.097	0.708	0.069	16	32.75	28	225	85	19	2.148	0.254	0.008	1.30	0.011		0.011	2.028	0.696	0.066	1.65	49.373	48.710	50.179	0.795	
40	39	JUNCTION PIT			0.708	0.097			16	5.00	86.000	0.097	0.708	0.069	16	25.00	150	225	37	45	0.922	0.452	0.009	5.00	0.044		0.044	0.667	0.167	0.106	0.90	49.591	49.424	50.349	0.714	
41	18	GRATED SIDE ENTRY PIT	0.561	0.046					6	5.00	86.000	0.046	0.561	0.026	6	11.80	100	300	97	6	1.369	0.144	0.000	5.00	0.002		0.002	0.004	0.000	0.051	0.76	47.807	47.807	48.535	0.725	
42	19	JUNCTION PIT			0.708	0.095			16	5.00	86.000	0.095	0.708	0.067	16	67.85	60	225	58	28	1.455	0.777	0.008	5.00	0.042		0.042	0.538	0.397	0.081	1.25	48.394	48.034	49.804	1.369	
36AEP	36	ENDPIPE			0.708	0.201			34	5.00	86.000	0.201	0.708	0.142	34	4.75	100	225	45	75	1.130	0.070	0.037	0.00	0.000		0.000	0.570	0.027	0.146	1.24	48.681	48.653	49.822	1.142	
2	22	GRATED SIDE ENTRY PIT	0.561	0.052	0.708	0.085			21	6.87	77.952	0.646	0.673	0.435	94	37.06	100	375	175	54	1.587	0.389	0.037	0.50	0.019		0.019	0.288	0.107	0.196	1.61	47.674	47.568	48.284	0.591	
4	2	GRATED SIDE ENTRY PIT	0.561	0.046	0.708	0.214			42	5.89	82.187	0.509	0.678	0.345	79	65.34	206	375	122	65	1.106	0.985	0.026	2.10	0.055		0.055	0.202	0.132	0.219	1.17	47.825	47.693	48.610	0.731	
5	4	GRATED SIDE ENTRY PIT	0.561	0.057	0.708	0.192			40	5.00	86.000	0.249	0.675	0.168	40	57.40	161	300	76	53	1.079	0.887	0.016	5.45	0.089		0.089	0.171	0.098	0.154	1.09	47.978	47.879	48.972	0.905	
10	21	GRATED SIDE ENTRY PIT	0.561	0.023	0.708	0.020			6	8.49	70.996	1.105	0.657	0.726	143	11.81	250	450	180	79	1.134	0.174	0.041	0.90	0.037		0.037	0.252	0.030	0.303	1.26	47.395	47.365	48.244	0.812	
45	10	GRATED SIDE ENTRY PIT	0.561	0.023	0.708	0.020			6	8.44	71.206	0.941	0.655	0.617	122	8.50	38	450	461	26	2.897	0.049	0.030	1.50	0.045		0.045	0.183	0.016	0.158	2.45	47.448	47.432	48.244	0.752	
46	45	GRATED SIDE ENTRY PIT	0.561	0.021	0.708	0.100			20	7.63	74.703	0.899	0.656	0.590	122	55.35	250	450	180	68	1.134	0.813	0.030	0.90	0.027		0.027	0.184	0.102	0.272	1.22	47.595	47.493	48.393	0.771	
47	46	JUNCTION PIT	0.561	0.075					10	7.45	75.455	0.777	0.652	0.507	106	11.78	200	375	124	86	1.123	0.175	0.047	0.90	0.043		0.043	0.367	0.043	0.267	1.26	47.665	47.622	48.465	0.758	
48	47	GRATED SIDE ENTRY PIT	0.561	0.062	0.708	0.228			47	6.17	80.964	0.656	0.669	0.439	99	80.30	231	375	115	86	1.045	1.281	0.041	2.10	0.086		0.086	0.317	0.254	0.267	1.17	47.962	47.708	48.702	0.654	
49	48	GRATED SIDE ENTRY PIT	0.561	0.037	0.708	0.255			48	5.00	86.000	0.320	0.678	0.217	52	79.80	145	300	80	65	1.136	1.171	0.027	1.50	0.041		0.041	0.287	0.229	0.175	1.21	48.277	48.048	49.297	0.980	
50	49	GRATED SIDE ENTRY PIT	0.561	0.028					4	5.00	86.000	0.028	0.561	0.016	4	6.70	100	300	97	4	1.369	0.082	0.000	5.00	0.001		0.001	0.001	0.000	0.040	0.66	48.318	48.318	49.297	0.979	
51	10	GRATED SIDE ENTRY PIT	0.561	0.021	0.708	0.100			20	5.00	86.000	0.121	0.683	0.083	20	54.60	59	300	126	16	1.785	0.510	0.004	5.00	0.020		0.020	0.042	0.023	0.080	1.30	47.455	47.432	48.397	0.922	
52	12	GRATED SIDE ENTRY PIT	0.561	0.034					4	7.13	76.828	1.746	0.657	1.148	245	9.32	150	750	909	27	2.058	0.075	0.016	0.60	0.009		0.009	0.048	0.005	0.266	1.75	47.153	47.149	47.861	0.698	
53	52	GRATED SIDE ENTRY PIT	0.561	0.037					5	7.00	77.411	1.713	0.659	1.129	243	11.86	300	750	643	38	1.455	0.136	0.015	0.90	0.014		0.014	0.048	0.006	0.319	1.35	47.168	47.163	47.675	0.493	
54	53	GRATED SIDE ENTRY PIT							0	6.88	77.914	1.528	0.664	1.014	219	10.20	300	750	643	34	1.455	0.117	0.013	2.00	0.025		0.025	0.039	0.004	0.302	1.32	47.186	47.182	47.726	0.515	
55	54	JUNCTION PIT			0.708	0.037			6	7.08	77.037	1.272	0.661	0.841	180	12.31	300	675	485	37	1.357	0.151	0.013	0.50	0.006		0.006	0.046	0.006	0.285	1.26	47.217	47.211	47.940	0.717	
56	55	GRATED SIDE ENTRY PIT	0.561	0.056					7	6.96	77.571	1.234	0.660	0.815	176	11.79	188	600	448	39	1.583	0.124	0.020	0.90	0.018		0.018	0.082	0.010	0.261	1.49	47.233	47.223	47.885	0.634	
57	56	GRATED SIDE ENTRY PIT	0.561	0.056					7	5.84	82.401	0.260	0.645	0.168	38	8.50	300	600	355	11	1.254	0.113	0.001	0.90	0.001		0.001	0.004	0.000	0.133	0.82	47.251	47.251	47.885	0.633	
58	57	JUNCTION PIT							0	5.68	83.074	0.204	0.668	0.136	31	11.79	300	600	355	9	1.254	0.157	0.001	0.90	0.001		0.001	0.003	0.000	0.121	0.77	47.252	47.252	47.943	0.690	
59	56	JUNCTION PIT							0	6.79	78.313	0.919	0.670	0.616	134	19.60	90	450	301	45	1.893	0.173	0.036	0.90	0.033		0.033	0.221	0.043	0.210	1.84	47.294	47.251	48.148	0.821	
60EP	59	ENDPIPE							0	6.94	77.652	0.671	0.655	0.440	99	2.00	200	375	124	76	1.123	0.030	0.038	0.00	0.000		0.000	0.292	0.006	0.246	1.24	47.332	47.327	48.158	0.825	
61	60EP	GRATED SIDE ENTRY PIT	0.561	0.053	0.708	0.176			37	6.23	80.712	0.671	0.655	0.440	99	47.95	200	375	124	79	1.123	0.712	0.041	1.30	0.053		0.053	0.316	0.151	0.253	1.25	47.484	47.332	48.232	0.696	
62	53	GRATED SIDE ENTRY PIT	0.561	0.069	0.708	0.026			14	5.14	85.400	0.147	0.639	0.094	22	8.50	21	300	213	10	3.017	0.047	0.005	1.50	0.008		0.008	0.053	0.005	0.066	1.96	47.187	47.182	47.675	0.481	
63	62	JUNCTION PIT			0.708	0.052			9	5.00	86.000	0.052	0.708	0.037	9	18.40	39	300	155	6	2.198	0.140	0.001	5.00	0.004		0.004	0.008	0.002	0.049	1.19	47.196	47.194	47.903	0.703	
64	54	JUNCTION PIT							0	5.92	82.047	0.285	0.673	0.192	44	5.58	21	450	630	7	3.961	0.023	0.004	0.50	0.002		0.002	0.023	0.001	0.080	2.27	47.213	47.211	47.922	0.707	
65EP	64	ENDPIPE							0	5.51	83.800	0.231	0.678	0.157	37	31.82	190	450	207	18	1.301	0.408	0.003	0.00	0.000		0.000	0.016	0.005	0.128	0.98	47.220	47.215	47.929	0.710	
66	65EP	GRATED SIDE ENTRY PIT	0.561	0.047	0.708	0.184			37	5.00	86.000	0.231	0.678	0.157	37	39.95	190	450	207	18	1.301	0.512	0.003	5.00	0.014		0.014	0.017	0.007	0.130	0.99	47.227	47.220	47.626	0.387	
67EP	59	ENDPIPE							0	6.32	80.305	0.258	0.708	0.182	41	13.25	45	300	144	28	2.040	0.108	0.017	0.00	0.000		0.000	0.177	0.023	0.109	1.75	47.350	47.327	48.419	1.069	
68	67EP	JUNCTION PIT							0	6.11	81.218	0.258	0.708	0.182	41	26.00	45	300	144	29	2.040	0.212	0.017	1.30	0.022		0.022	0.181	0.047	0.110	1.76	47.397	47.350	48.396	0.976	
69	13	JUNCTION PIT			0.708	0.033			6	8.93	69.111	5.522	0.659	3.637	698	11.25	300	900	1046	67	1.644	0.114	0.061	1.60	0.098		0.098	0.149	0.017	0.538	1.76	47.350	47.333	47.950	0.501	
70	69	GRATED SIDE ENTRY PIT	0.561	0.053					7	7.04	77.226	0.955	0.656	0.627	134	11.77	299	450	165	82	1.036	0.189	0.036	0.90	0.033		0.033	0.222	0.026	0.309	1.16	47.475	47.448	47.965	0.458	
71	70	GRATED SIDE ENTRY PIT	0.561	0.053					7	6.90	77.814	0.902	0.662	0.597	129	8.50	300	450	165	78	1.035	0.137	0.034	1.50	0.050		0.050	0.205	0.017	0.300	1.15	47.525	47.507	47.965	0.390	
72	71	JUNCTION PIT							0	6.59	79.171	0.849	0.668	0.568	125	19.60	300	450	165	76	1.035	0.316	0.031	1.00	0.031		0.031	0.191	0.038	0.293	1.14	47.613	47.575	48.237	0.592	
73EP	72	ENDPIPE							0	6.74	78.503	0.583	0.649	0.379

			SUB-CATCHMENT RUNOFF						DRAIN DESIGN														HEADLOSSES							PART FULL		DESIGN LEVELS				
			C	A	C	A	C	A	Q	tc	i	A	C	CA	Qp	L	S	T	Qcap	Qa/Qcap	Vcap		V2/2g	Ku	hu	Kw	hw	Sf	hf							
STRUCTURE No.	DOWNSTREAM STRUCTURE No.	PIT TYPE	CO-EFFIECIENT OF RUNOFF	SUB-CATCHMENT AREA (ROAD)	CO-EFFIECIENT OF RUNOFF	SUB-CATCHMENT AREA (LOT)	CO-EFFIECIENT OF RUNOFF	SUB-CATCHMENT AREA (MISC)	SUB-CATCHMENT DISCHARGE	CRITICAL TIME OF CONCENTRATION	RAINFALL INTENSITY	CUMULATIVE CATCHMENT AREA	EFFECTIVE CO-EFFICIENT OF RUNOFF	TOTAL (C x A)	PIPE FLOW	REACH LENGTH	PIPE GRADE	PIPE DIAMETER	PIPE GRADE CAPACITY	Q(actual) / Q(capacity)	CAPACITY VELOCITY (Qcap/AREA)	TIME IN PIPE	PIPE VELOCITY HEAD	U/S PIT HEADLOSS COEFF	U/S PIT PRESSURE HEADLOSS	W.S.E. COEFF	CHAINGE IN W.S.E.	PIPE FRICTION SLOPE	PIPE FRICTION (HEADLOSS L*Sf)	NORMAL DEPTH	NORMAL DEPTH VELOCITY	UPSTREAM PIPE H.G.L.	DOWNSTREAM PIPE H.G.L.	PIT GRATE LEVEL	CALCULATED FREEBOARD	STRUCTURE
				ha		ha		ha	l/s	min	mm/hr	ha		ha	l/s	m	(1 in)	mm	l/s	%	m/s	min.	m		m		m	%	m	m	m/s	m	m	m	m	
81EP	80	ENDPIPE			0.635	3.503			452	8.00	73.100	3.503	0.635	2.225	452	5.10	400	825	718	63	1.343	0.063	0.036	0.00	0.000		0.000	0.099	0.005	0.475	1.42	47.849	47.844	48.476	0.627	
82	79	GRATED SIDE ENTRY PIT	0.561	0.051					7	11.41	61.095	1.083	0.842	0.911	155	12.82	250	450	180	86	1.134	0.188	0.048	0.70	0.034		0.034	0.294	0.038	0.321	1.27	47.673	47.635	48.154	0.447	
83EP	82	ENDPIPE							0	11.11	61.810	1.032	0.855	0.883	154	20.12	250	450	180	84	1.134	0.296	0.046	0.00	0.000		0.000	0.282	0.057	0.316	1.27	47.763	47.707	48.442	0.679	
84	83EP	GRATED SIDE ENTRY PIT	0.561	0.067	0.708	0.109			27	10.66	62.911	1.032	0.855	0.883	154	30.95	250	450	180	86	1.134	0.455	0.048	0.80	0.038		0.038	0.292	0.091	0.320	1.27	47.854	47.763	48.460	0.568	
85	48	GRATED SIDE ENTRY PIT	0.561	0.046					6	5.00	86.000	0.046	0.561	0.026	6	6.70	94	300	100	6	1.409	0.079	0.000	5.00	0.002		0.002	0.004	0.000	0.051	0.78	48.048	48.048	48.702	0.652	
86	47	GRATED SIDE ENTRY PIT	0.561	0.046					6	5.00	86.000	0.046	0.561	0.026	6	6.70	100	300	97	6	1.369	0.082	0.000	5.00	0.002		0.002	0.004	0.000	0.051	0.77	47.708	47.708	48.300	0.590	
87	17	GRATED SIDE ENTRY PIT	0.561	0.051					7	5.00	86.000	0.051	0.561	0.029	7	11.80	41	300	151	5	2.137	0.092	0.000	5.00	0.002		0.002	0.005	0.001	0.043	1.08	47.665	47.664	48.365	0.698	
88	16	GRATED SIDE ENTRY PIT	0.561	0.009					1	5.06	85.733	0.018	0.561	0.010	2	2.30	50	300	137	2	1.936	0.020	0.000	0.50	0.000		0.000	0.001	0.000	0.028	0.74	47.603	47.603	48.411	0.808	
89	88	GRATED SIDE ENTRY PIT	0.561	0.009					1	5.00	86.000	0.009	0.561	0.005	1	7.20	50	300	137	1	1.936	0.062	0.000	5.00	0.000		0.000	0.000	0.000	0.020	0.60	47.603	47.603	48.411	0.808	
90	15	GRATED SIDE ENTRY PIT	0.561	0.105					14	5.00	86.000	0.105	0.561	0.059	14	11.80	27	300	187	8	2.650	0.074	0.002	5.00	0.010		0.010	0.021	0.003	0.056	1.56	47.457	47.454	48.056	0.589	
91	11	GRATED SIDE ENTRY PIT	0.561	0.023					3	5.00	86.000	0.023	0.561	0.013	3	8.50	50	300	137	2	1.936	0.073	0.000	5.00	0.000		0.000	0.001	0.000	0.031	0.79	47.049	47.049	48.093	1.043	
92EP	64	ENDPIPE							0	5.09	85.592	0.054	0.650	0.035	8	6.08	17	300	235	4	3.319	0.031	0.001	0.00	0.000		0.000	0.007	0.000	0.039	1.56	47.215	47.215	48.080	0.865	
93	92EP	JUNCTION PIT	0.561	0.021					3	5.09	85.627	0.054	0.650	0.035	8	1.64	17	300	235	4	3.319	0.008	0.001	1.37	0.001		0.001	0.007	0.000	0.039	1.56	47.215	47.215	48.078	0.862	
94	74	GRATED SIDE ENTRY PIT	0.561	0.027	0.708	0.121			24	5.32	84.614	0.380	0.649	0.246	58	69.24	123	300	87	66	1.235	0.934	0.034	1.70	0.058		0.058	0.358	0.248	0.179	1.32	48.035	47.787	48.579	0.485	
95	94	GRATED SIDE ENTRY PIT	0.561	0.053	0.708	0.035			13	5.46	84.035	0.236	0.630	0.148	35	11.53	230	375	116	30	1.047	0.183	0.005	1.90	0.010		0.010	0.039	0.004	0.141	0.91	48.098	48.094	48.444	0.336	
96	95	GRATED SIDE ENTRY PIT			0.708	0.075			13	5.00	86.000	0.075	0.708	0.053	13	39.60	90	300	102	12	1.444	0.457	0.002	0.90	0.001		0.001	0.017	0.007	0.071	0.98	48.114	48.108	48.678	0.563	
97	84	GRATED SIDE ENTRY PIT	0.561	0.012	0.708	0.165			30	9.39	67.118	0.789	0.925	0.731	136	78.61	300	450	165	83	1.035	1.265	0.037	1.50	0.056		0.056	0.228	0.179	0.312	1.16	48.072	47.892	48.810	0.682	
98	97	GRATED SIDE ENTRY PIT	0.561	0.012					2	9.20	67.935	0.612	0.991	0.607	114	11.80	300	450	165	70	1.035	0.190	0.026	1.60	0.042		0.042	0.161	0.019	0.276	1.12	48.147	48.128	48.810	0.621	
99	98	JUNCTION PIT							0	8.80	69.646	0.600	1.000	0.600	116	24.73	300	450	165	70	1.035	0.398	0.027	0.30	0.008		0.008	0.166	0.041	0.279	1.12	48.230	48.189	49.140	0.902	
100	74	GRATED SIDE ENTRY PIT	0.561	0.042					6	5.00	86.000	0.042	0.561	0.024	6	8.50	180	300	72	8	1.020	0.139	0.000	5.00	0.002		0.002	0.003	0.000	0.057	0.61	47.788	47.787	48.350	0.561	
101	95	GRATED SIDE ENTRY PIT	0.561	0.072					10	5.00	86.000	0.072	0.561	0.040	10	8.50	180	300	72	13	1.020	0.139	0.001	5.00	0.005		0.005	0.010	0.001	0.074	0.71	48.108	48.108	48.444	0.331	
102	84	GRATED SIDE ENTRY PIT	0.561	0.067					9	5.00	86.000	0.067	0.561	0.037	9	11.80	19	300	224	4	3.167	0.062	0.001	5.00	0.004		0.004	0.009	0.001	0.041	1.54	47.893	47.892	48.460	0.563	
103	61	GRATED SIDE ENTRY PIT			0.708	0.138			23	5.76	82.727	0.406	0.656	0.266	61	65.74	230	375	116	53	1.047	1.046	0.016	1.70	0.027		0.027	0.122	0.080	0.194	1.06	47.617	47.537	48.236	0.593	
104	103	GRATED SIDE ENTRY PIT	0.561	0.052	0.708	0.031			12	5.58	83.516	0.268	0.630	0.169	39	11.53	230	375	116	34	1.047	0.183	0.006	1.90	0.012		0.012	0.050	0.006	0.150	0.95	47.649	47.643	48.064	0.403	
105	104	GRATED SIDE ENTRY PIT	0.561	0.030	0.708	0.094			20	5.00	86.000	0.124	0.673	0.083	20	47.80	99	300	97	20	1.379	0.578	0.004	5.00	0.020		0.020	0.042	0.020	0.092	1.08	47.681	47.661	48.303	0.601	
106	58	GRATED SIDE ENTRY PIT	0.561	0.055	0.708	0.149			33	5.00	86.000	0.204	0.668	0.136	33	51.20	300	600	355	9	1.254	0.680	0.001	5.00	0.003		0.003	0.003	0.001	0.123	0.78	47.254	47.253	47.602	0.344	
107	68	JUNCTION PIT			0.708	0.258			44	5.00	86.000	0.258	0.708	0.182	44	76.50	142	300	81	54	1.147	1.112	0.019	5.00	0.097		0.097	0.203	0.155	0.157	1.17	47.575	47.420	48.056	0.384	
108	61	GRATED SIDE ENTRY PIT	0.561	0.053					7	5.00	86.000	0.053	0.561	0.030	7	8.50	12	300	275	3	3.896	0.036	0.001	5.00	0.003		0.003	0.005	0.000	0.033	1.66	47.537	47.537	48.232	0.693	
109	104	GRATED SIDE ENTRY PIT	0.561	0.061					8	5.00	86.000	0.061	0.561	0.034	8	8.50	100	300	97	8	1.369	0.104	0.001	5.00	0.003		0.003	0.007	0.001	0.059	0.83	47.662	47.661	48.064	0.399	
110	8	GRATED ENTRY PIT	0.561	0.029					4	6.11	81.229	0.475	0.672	0.319	72	9.24	50	450	403	18	2.536	0.061	0.010	0.90	0.009		0.009	0.064	0.006	0.129	1.92	46.899	46.893	48.143	1.235	
111	110	GRATED ENTRY PIT	0.561	0.086	0.708	0.058			21	5.92	82.048	0.446	0.680	0.303	69	27.40	56	450	381	18	2.398	0.190	0.010	1.60	0.015		0.015	0.059	0.016	0.130	1.82	46.924	46.908	48.280	1.340	
112	111	JUNCTION PIT			0.708	0.038			6	5.00	86.000	0.038	0.708	0.027	6	13.00	12	375	513	1	4.647	0.047	0.000	5.00	0.001		0.001	0.001	0.000	0.029	1.59	46.940	46.940	48.304	1.364	
113	111	JUNCTION PIT			0.708	0.207			35	5.00	86.000	0.264	0.708	0.187	45	79.95	120	375	160	28	1.450	0.919	0.008	1.50	0.012		0.012	0.065	0.052	0.135	1.24	46.992	46.940	48.044	1.040	
114	113	JUNCTION PIT			0.708	0.061			10	5.00	86.000	0.061	0.708	0.043	10	25.00	230	375	116	9	1.047	0.398	0.000	5.00	0.002		0.002	0.004	0.001	0.076	0.65	47.005	47.004	47.917	0.910	
115	93	JUNCTION PIT			0.708	0.033			6	5.00	86.000	0.033	0.708	0.023	6	11.00	64	300	121	5	1.709	0.107	0.000	3.62	0.001		0.001	0.003	0.000	0.044	0.87	47.216	47.216	48.243	1.025	
152	3	JUNCTION PIT							0	7.95	73.299	1.075	0.652	0.701	143	8.50	100	450	285	50	1.793	0.079	0.041	1.90	0.078		0.078	0.250	0.021	0.225	1.79	46.599	46.578	47.624	0.947	
153	152	GRATED SIDE ENTRY PIT	0.561	0.071					10	7.90	73.546	0.956	0.645	0.617	126	9.05	37	375	290	43	2.624	0.057	0.066	0.70	0.047		0.047	0.516	0.047	0.173	2.53	46.724	46.677	47.423	0.653	
154	153	JUNCTION PIT							0	7.83	73.814	0.828	0.659	0.545	112	4.85	150	375	143	78	1.297	0.062	0.052	0.20	0.010		0.010	0.406	0.020	0.249	1.43	46.790	46.770	47.607	0.807	
155	154	JUNCTION PIT							0	7.58	74.927	0.828	0.659	0.545	113	22.51	120	375	160	71	1.450	0.259	0.054	0.60	0.032		0.032	0.419	0.094	0.233	1.57	46.895	46.800	47.758	0.831	
156	155	GRATED SIDE ENTRY PIT	0.561	0.040	0.708	0.051			14	7.41	75.649	0.828	0.659	0.545	115	11.32	200	375	124	92	1.123	0.168	0.055	0.90	0.049		0.049	0.427	0.048	0.285	1.27	46.975	46.927	47.747	0.722	
157	156	GRATED SIDE ENTRY PIT	0.561	0.058	0.708	0.184			39	6.19	80.867	0.708	0.665	0.471	106	76.25	230	375	116	91	1.047	1.214	0.047	1.10	0.051		0.051	0.363	0.277	0.282	1.19	47.301	47.025	47.878	0.525	
158	157	GRATED SIDE ENTRY PIT	0.561	0.060	0.708	0.184			39	5.10	85.564	0.426	0.671	0.286	68	75.00	230	375	116	59	1.047	1.194	0.019	1.30	0.025		0.025	0.150	0.113	0.207	1.09	47.465	47.353	48.003	0.513	
159	158	JUNCTION PIT			0.708	0.134			23	5.00	86.000	0.134	0.708	0.095	23	10.49	63	300	122	19	1.723	0.102	0.005	5.00	0.026		0.026	0.055	0.006	0.088	1.32	47.496	47.491	48.236	0.713	
160	152	JUNCTION PIT			0.708	0.118			20	5.00	86.000	0.118	0.708	0.084	20	21.22	50	300	137	15	1.936	0.183	0.004	5.00	0.020		0.020	0.043	0.009	0.078	1.38	46.686	46.677	47.730	1.024	
161	6	GRATED SIDE ENTRY PIT	0.561	0.058					8	6.12	81.190	0.486	0.665	0.323	73	8.50	100	300	97	75	1.369	0.104	0.054	1.50	0.081		0.081	0.567	0.048	0.194	1.50	46.747	46.699	47.523	0.695	
162	161	GRATED SIDE ENTRY PIT	0.561	0.086	0.708	0.250			54	5.00	86.000	0.428	0.678	0.291	69	75.00	150	300	79	88	1.117	1.119	0.049	2.00	0.098		0.098	0.515	0.386	0.218	1.26	47.215	46.828	47.648	0.335	
163	162	JUNCTION PIT			0.708	0.141			21	7.00	77.400	0.141	0.708	0.100	21	41.08	59	300	126	17	1.784	0.384	0.005	5.00	0.023		0.023	0.049	0.020	0.084	1.33	47.333	47.313	48.018	0.662	
164	153	GRATED SIDE ENTRY PIT	0.561	0.056			0.304	0.002	8	5.00	86.000	0.058	0.551	0.032	8	8.49	50	300	137	6	1.936	0.073	0.001	5.00	0.003		0.003	0.006	0.001	0.048	1.04	46.771	46.770	47.423	0.650	
165	156	GRATED SIDE ENTRY PIT	0.561	0.029					4	5.00	86.000	0.029	0.561	0.017	4	6.70	16	300	245	2	3.461	0.032	0.000	5.00	0.001		0.001	0.002	0.000	0.027	1.28	47.025	47.025	47.747	0.721	
166	157	GRATED SIDE ENTRY PIT	0.561	0.043					6	5.00	86.000	0.043	0.561	0.024	6	6.55	23	300	203	3	2.867	0.038	0.000	5.00	0.002		0.002	0.004	0.000	0.035	1.26	47.353	47.353	47.878	0.523	
167	158	GRATED SIDE ENTRY PIT	0.561	0.049					7	5.00	86.000	0.049	0.561	0.027	7	6.70	180	300	72	9	1.020	0.109	0.000	5.00	0.002		0.002	0.005	0.000	0.061	0.63	47.491	47.491	48.003	0.510	
189	99	JUNCTION PIT							0	8.13	72.529	0.600	1.000	0.600	121	41.64	300	450	165	73	1.035	0.670	0.029	1.30	0.038		0.038	0.180	0.075	0.287	1.13	48.313	48.238	49.542	1.190	
190	189	JUNCTION PIT			1.000	0.600			136	6.00	81.700	0.600	1.000	0.600	136	132.50	300	450	165	83	1.035	2.133	0.037	5.00	0.187		0.187	0.228	0.302	0.312	1.16	48.653	48.351	49.847	1.007	

file name 309443CD510.dwg, layout name CD510, plotted by Thanh Nguyen
file location G:\30\309443\Civil\ACAD plot date 30/05/2025 4:31 PM Sheet 1 of 1 Sheets

Rev	Amendments	Approved	Date
B	DRAINAGE CALCS AMENDED	G.K	30/05/25
A	ISSUED TO COUNCIL	G.K	04/04/25

Scale
H 1:500 0 5 10 15 20 25
SCALE @ A1

System Certified

spiire
L6 414 LA TROBE STREET PO BOX 16084 MELBOURNE
VICTORIA 8007 AUSTRALIA T 61 3 9993 7888
spiire.com.au ABN 55 050 029 635

Harlow TARNEIT

Designed T. NGUYEN
Checked G. KOHLMAN
Authorised G. KOHLMAN
Date 04/04/25

HARLOW ESTATE
STAGE 7
DRAINAGE COMPUTATIONS
5YR CATCHMENT CALCULATIONS - SHEET 2
WYNDHAM CITY COUNCIL
SIG GROUP

PRELIMINARY
Drg No 309443CD510
Rev B