

Infrastructure Committee

25 August 2022

Report for Agenda Item | Rīpoata moto e Rāraki

Department: Property & Infrastructure

Title | Taitara Lakeview Temporary Carpark Parking Provisions

PURPOSE OF THE REPORT | TE TAKE MŌ TE PŪRONGO

- 1 The purpose of this report is to assist the Committee to determine proposed parking rates, means of collection and maximum times for parking in the temporary Lakeview Carpark.

EXECUTIVE SUMMARY | WHAKARĀOTOTANGA MATUA

- 1 The Queenstown Lakes District Council Traffic and Parking Bylaw 2018 (the bylaw) regulates parking and the use of roads and public spaces under Council's control.
- 2 The bylaw was adopted by Council at its 13 December 2018 meeting and came into effect on 1 March 2019.
- 3 The temporary carpark proposed in this report will be carried out in line with parameters and rules established within the bylaw.

RECOMMENDATION | NGĀ TŪTOHUNGA

- 4 Approve the parking restrictions for the Lakeview temporary carpark as detailed in this report and summarised below.
 - a Hourly Rate shall be \$3 per hour.
 - b Maximum time shall be 10 hours, i.e., 8:00 am – 18:00pm. This being such that people do not leave their vehicles for prolonged periods, nor overnight.
 - c Three carparks as identified within the attached layout will be restricted for use in accordance with Clause 16 b(vii) vehicles used by disabled persons.
 - d Means of collection will be by parking machines located within the carpark site and in line with current provisions outlined under Clause 16 c(ii) of the Queenstown Lakes District Council Traffic and Parking Bylaw 2018.

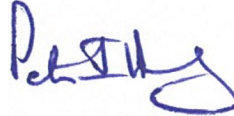
- 5 Additionally, Vehicles which exceed the length of usual carparking slots, i.e., Campervans will not be permitted into the carpark due to height and length restrictions. Entry will be prevented by installation of signage and barriers as permitted under clause 16.1 (b).

Prepared by:



Andrew Timms
External Project Manager –
Lakeview Infrastructure
15/06/2022

Reviewed and Authorised by:



Peter Hansby
Property & Infrastructure General
Manager
01/08/2022

CONTEXT | HOROPAKI

- 6 Due to the ongoing Town Centre Street Upgrades, Queenstown Town Centre Arterial - Stage 1, and Lakeview Subdivision works carparking around Queenstown has been disrupted and displaced. As part of the management of the disruption QLDC has constructed a temporary carpark on the Lakeview site.
- 7 The temporary carpark minimises disruption and serves to maintain parking space numbers throughout Queenstown during the above construction works and in the medium term.
- 8 This paper seeks to establish the parking charges and provisions for the Lakeview temporary carpark.

ANALYSIS AND ADVICE | TATĀRITANGA ME NGĀ TOHUTOHU

- 9 In reviewing the applicable rate for the Lakeview temporary carpark, the existing parking rates identified below have been used as a baseline.

ITEM 11:
Attachment A – MSI – Revised Parking Charges 2017/2018

Location	Monday- Sunday (Existing)	Monday – Sunday (Interim)	Monday- Sunday (Final)
Athol Street	9am - 9pm \$2/hr Max 4hrs	9am - 9pm \$4/hr Max 4hrs	9am - 9pm \$4/hr Max 4hrs
Camp Street	9am - 9pm \$2/hr Max 2hrs	9am - 9pm \$4/hr Max 2hrs	9am - 9pm \$4/hr Max 2hrs
Earl Street	9am - 9pm \$2/hr Max 2hrs	9am - 9pm \$4/hr Max 2hrs	9am - 9pm \$4/hr Max 2hrs
Marine Parade	9am - 9pm \$2/hr Max 2hrs	9am - 9pm \$4/hr Max 2hrs	9am - 9pm \$4/hr Max 2hrs
Memorial Street	8am - 9pm \$2/hr Max 1hr	8am - 9pm \$4/hr Max 1hr	8am - 9pm \$4/hr Max 1hr
Stanley Street	8am - 9pm \$2/hr Max 1hr	8am - 9pm \$4/hr Max 1hr	8am - 9pm \$4/hr Max 1hr
Coronation Drive	8am - 9pm Free Max 2hrs	8am - 9pm \$4/hr Max 2hrs	8am - 9pm \$4/hr Max 2hrs
Ballarat A	8am - 6pm \$1 Max 10 hrs \$40.00/Week, 7 Days	8am - 6pm \$2/hr Max 10 hrs \$80.00/Week, 7 Days	8am - 6pm \$2/hr Max 10 hrs
Ballarat B	8am - 6pm, \$1/hr Max 10 hrs \$40.00/Week, 7 Days	8am - 6pm \$2/hr Max 10 hrs \$80.00/Week, 7 Days	8am - 6pm \$2/hr Max 10 hrs
Ballarat C	Permit holders only	Permit holders only	8am - 6pm 2/hr Max 10 hrs
Ballarat Street	8am - 6pm, \$2/hr Max 1hr	8am - 6pm, \$4/hr Max 1hr	8am - 6pm, \$4/hr Max 1hr
Boundary Street	8am - 6pm, \$0.50/hr Max 5 Hrs \$2.50 All Day, Max 10 Hrs \$12.50/Week, 7 DAYS	8am - 6pm \$1/hr Max 10 Hrs \$5.00 All day, Max 10 hrs \$25.00 / Week, 7 Days	8am - 6pm \$1/hr Max 10 Hrs
Recreation Ground	8am - 6pm \$0.50/hr Max 5 Hrs \$2.50 All Day, Max 10 Hrs \$12.50/Week, 7 DAYS	8am - 6pm \$1/hr Max 10 Hrs \$5.00 All day, Max 10 hrs \$25.00 / Week, 7 Days	8am - 6pm \$1/hr Max 10 Hrs
Church Street (Covered)	\$2/hr \$5 Earlybird \$10 Maximum daily rate	\$4/hr \$10 Earlybird \$20 Maximum daily rate	\$4/hr

Figure 1 - Current Parking Provisions

- 10 The existing Ballarat carpark site was identified as the most similar option due to its proximity to town, provisions of spaces, and due to the intention for the Lakeview temporary carpark to supplement displacement due to the closure of areas of the Ballarat carpark. The current Ballarat A, B, and C carpark parking fees and restrictions have been used as the baseline for the Lakeview temporary carpark.

- 11 The Ballarat carpark rates were last adjusted in 2017/2018 at the rate of \$2/hr 8:00am – 6:00pm (max 10hrs). Noting that these have not been adjusted since that time and based on the current modelling rates used under the Queenstown Transport Business Case, which was endorsed by Council in January 2021, it is recommended that a rate of \$3/hr for the Lakeview site is reasonable.
- 12 In-line with current parking rates across the Queenstown area (included above, Figure 1) and factoring in the location of the carpark, we recommend the following for the Lakeview temporary carpark.
 - a Hourly Rate shall be \$3 per hour.
 - b Maximum time shall be 10 hours, i.e., 8:00 am – 18:00pm. This being such that people do not leave their vehicles for prolonged periods.
 - c Three carparks as identified within the attached layout will be restricted for use in accordance with Clause 16 b(vii) vehicles used by disabled persons.
 - d Means of collection will be by parking machines located within the carpark site and in line with current provisions outlined under Clause 16 c(ii) of the Queenstown Lakes District Council Traffic and Parking Bylaw 2018.
- 13 Additionally, vehicles which exceed the length of usual carparking slots, i.e., Campervans will not be permitted into the carpark due to height and length restrictions. Entry will be prevented by installation of signage and barriers as permitted under clause 16.1 (b).

Options

Option 1 – Approve the proposed parking rates and restrictions

14 *Advantages:*

- 15 Improves level of service for transport infrastructure.
- 16 Provides revenue stream to support the investment in the temporary carpark and enforcement and monitoring requirements.
- 17 Enables effective and lawful enforcement to maintain operability and consistent level of service for transport infrastructure.

18 Encourages off street parking within Queenstown.

19 *Disadvantages:*

- 20 Requires ongoing enforcement and monitoring.
- 21 May cause conflict with campervan users who are restricted from using the carpark.
However, there is appropriate alternative parking available for campervans.

Option 2 – Not approve the proposed parking rates and restrictions

22 *Advantages:*

23 Nil

24 *Disadvantages:*

25 Carpark is likely to be inefficiently utilised.

26 Level of service improvements are unlikely to be fully realised.

27 Unable to enforce parking restrictions for users of the carpark.

28 Financial benefit for construction of the carpark will not be realised and may impact QLDC's ability to undertake future transport upgrade investments.

CONSULTATION PROCESS | HĀTEPE MATAPAKI:

> SIGNIFICANCE AND ENGAGEMENT | TE WHAKAMAHI I KĀ WHAKAARO HIRAKA

29 This matter is of low significance, as determined by reference to the Council's Significance and Engagement policy because amended parking restrictions are based on council officer recommendations and outputs from master planning requirements. The proposed restrictions will directly impact a small number of residents and visitors who utilise parking facilities within Queenstown.

30 The proposed restrictions are aligned with information currently being utilised in QLDC's transport business cases and modelling exercises, based on recommendations from council officers.

> MĀORI CONSULTATION | IWI RŪNANGA

31 The Council has not sought the specific views of iwi for these parking restrictions.

RISK AND MITIGATIONS | NGĀ RARU TŪPONO ME NGĀ WHAKAMAURUTANGA

32 This matter relates to the Community & Wellbeing risk category. It is associated with RISK00012 Core Infrastructure is Insufficient – Poor Infrastructure Planning, RISK00013 Core Infrastructure is Insufficient – Delays in Capital Delivery Programme, RISK00056 – Ineffective Provision for the Future Planning and Development Needs of the District within the QLDC Risk Register. These risks have been assessed as having a moderate inherent risk rating.

33 The approval of the recommended option will support the Council by allowing us to provide services immediately to mitigate and implement additional controls for the identified risks.

FINANCIAL IMPLICATIONS | NGĀ RITENGA Ā-PŪTEA

- 34 The costs associated with implementing the parking restrictions will be met from current budgets in the current 2021/2022 Annual plan - Queenstown Parking Improvements.
- 35 An ongoing monitoring and enforcement cost will be required during the operation of the carpark.

COUNCIL EFFECTS AND VIEWS | NGĀ WHAKAAWEAWE ME NGĀ TIROHANUNIHERA

- 36 Alignment with and consideration of the principles of the Vision Beyond 2050; in particular ‘Our environment and services promote and support health, activity and wellbeing for all’

LEGAL CONSIDERATIONS AND STATUTORY RESPONSIBILITIES | KA TURE WHAIWHAKAARO ME KĀ TAKOHAKA WAETURE

- 37 No legal advice has yet been sought during the development of the parking restrictions, however the proposed restrictions are to be implemented in accordance with the Queenstown Lakes District Council Traffic and Parking Bylaw 2018.

LOCAL GOVERNMENT ACT 2002 PURPOSE PROVISIONS | TE WHAKATURETURE 2002 O TE KĀWANATAKA Ā-KĀIKA

- 38 The recommended option:
- 39 Will help meet the current and future needs of communities for good-quality local infrastructure, local public services, and performance of regulatory functions in a way that is most cost-effective for households and businesses by ensuring efficient and effective administration and enforcement activities.
- 40 Can be implemented through current funding under the Ten Year Plan and Annual Plan;
- 41 Is consistent with the Council's plans and policies; and
- 42 In isolation, as part of the Parking Strategy would not alter significantly the intended level of service provision for any significant activity undertaken by or on behalf of the Council, or transfer the ownership or control of a strategic asset to or from the Council.

ATTACHMENTS | NGĀ TĀPIRIHANGA

A	20220525 Lakeview Temporary Car Park Drawings_2
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**Kā Huanui
a Tāhuna**

3334066

**LAKEVIEW SUBDIVISION
INFRASTRUCTURE**

**TEMPORARY CAR PARK
FOR CONSTRUCTION**

www.beca.com

DRAWING LIST	
DRAWING NUMBER	DRAWING TITLE
3334066-CA-1400	COVER SHEET AND DRAWING INDEX
3334066-CA-1401	GENERAL ARRANGEMENT
3334066-CA-1402	EXISTING AND PROPOSED SERVICES
3334066-CA-1403	GRADING PLAN
3334066-CA-1404	EARTHWORKS PLAN
3334066-CA-1405	PAVEMENT PLAN
3334066-CA-1406	LIGHTING PLAN SHEET 1 OF 2
3334066-CA-1407	LIGHTING PLAN SHEET 2 OF 2
3334066-CA-1408	LIGHTING PLAN - ISOLUX LAYOUT
3334066-CA-1409	ROAD MARKING AND SIGNAGE PLAN
3334066-CA-1410	TRACKING PLAN
3334066-CA-1411	GENERAL DETAILS
3334066-CA-1412	PAVEMENT DETAILS
3334066-CA-1413	LIGHTING DETAILS
3334066-CA-1414	STORMWATER DETAILS
3334066-CA-1415	STRUCTURAL DETAILS
3334066-CA-1420	TYPICAL CROSS SECTIONS CH10 & CH50
3334066-CA-1421	TYPICAL CROSS SECTIONS CH90 & CH130
3334066-CA-1431	DETAILED CROSS SECTION - SHEET 1 OF 9
3334066-CA-1432	DETAILED CROSS SECTION - SHEET 2 OF 9
3334066-CA-1433	DETAILED CROSS SECTION - SHEET 3 OF 9
3334066-CA-1434	DETAILED CROSS SECTION - SHEET 4 OF 9

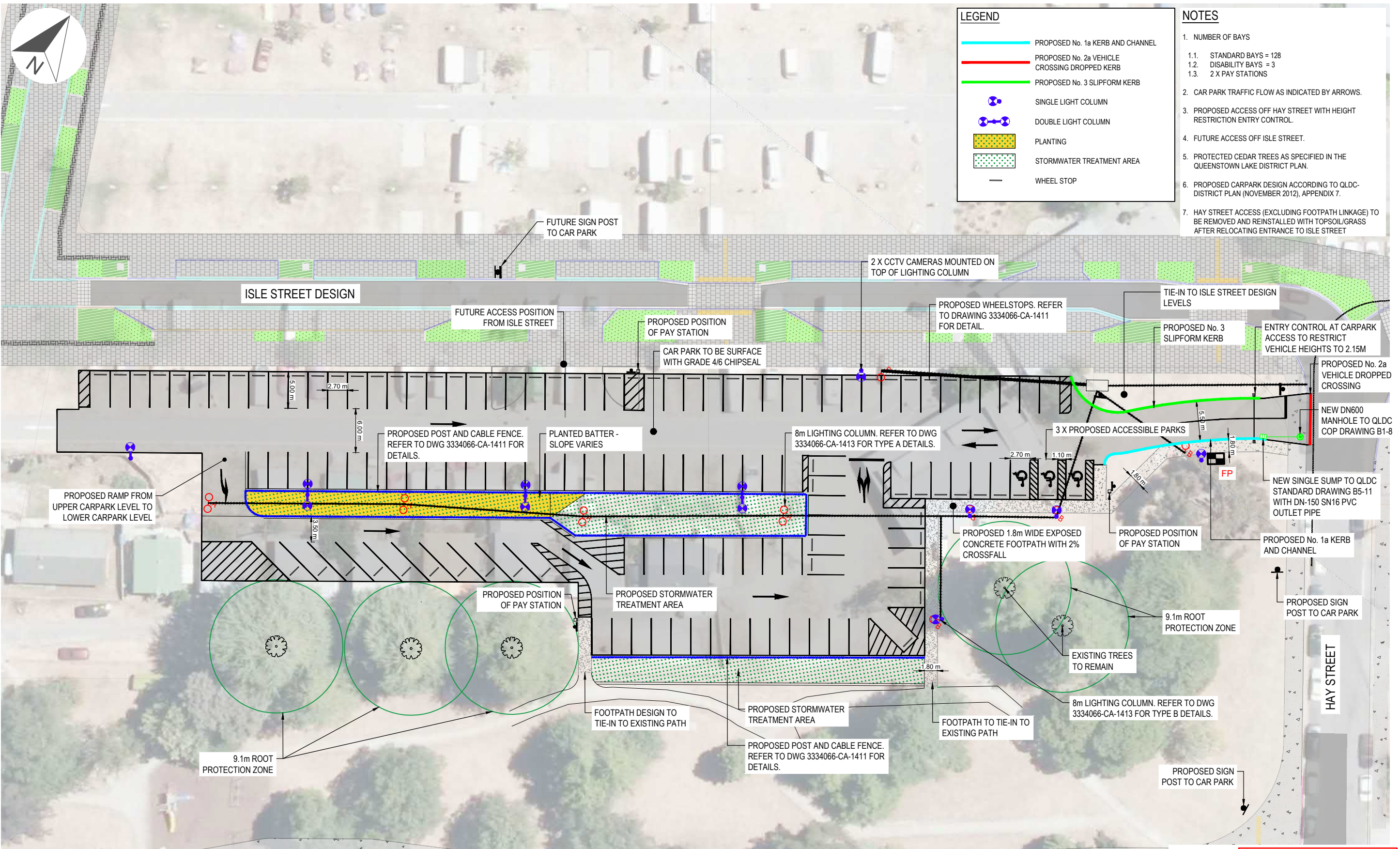
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3334066-CA-1436	DETAILED CROSS SECTION - SHEET 6 OF 9
3334066-CA-1437	DETAILED CROSS SECTION - SHEET 7 OF 9
3334066-CA-1438	DETAILED CROSS SECTION - SHEET 8 OF 9
3334066-CA-1439	DETAILED CROSS SECTION - SHEET 9 OF 9



11 MAY 2022

FOR CONSTRUCTION

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LEGEND

- PROPOSED No. 1a KERB AND CHANNEL
- PROPOSED No. 2a VEHICLE CROSSING DROPPED KERB
- PROPOSED No. 3 SLIPFORM KERB
- SINGLE LIGHT COLUMN
- DOUBLE LIGHT COLUMN
- PLANTING
- STORMWATER TREATMENT AREA
- WHEEL STOP

- ### NOTES
1. NUMBER OF BAYS
 - 1.1. STANDARD BAYS = 128
 - 1.2. DISABILITY BAYS = 3
 - 1.3. 2 X PAY STATIONS
 2. CAR PARK TRAFFIC FLOW AS INDICATED BY ARROWS.
 3. PROPOSED ACCESS OFF HAY STREET WITH HEIGHT RESTRICTION ENTRY CONTROL.
 4. FUTURE ACCESS OFF ISLE STREET.
 5. PROTECTED CEDAR TREES AS SPECIFIED IN THE QUEENSTOWN LAKE DISTRICT PLAN.
 6. PROPOSED CARPARK DESIGN ACCORDING TO QLDC-DISTRICT PLAN (NOVEMBER 2012), APPENDIX 7.
 7. HAY STREET ACCESS (EXCLUDING FOOTPATH LINKAGE) TO BE REMOVED AND REINSTALLED WITH TOPSOIL/GRASS AFTER RELOCATING ENTRANCE TO ISLE STREET

REVISION	AMENDMENT	APPROVED	DATE
A	UPDATED LAYOUT FOR CONSENT	MD	14/12/2021
B	UPDATED LAYOUT FOR CONSENT	MD	26/01/2022
C	FOR ENGINEERING PLAN APPROVAL	BM	23/02/2022
1	FOR CONSTRUCTION	BM	11/05/2022
2	FOR CONSTRUCTION	BM	24/05/2022



SCALES	DESIGNED	APPROVED	ORIGINAL SIZE
1:250	F ZIMMERMAN	B MILLS	A1
DRAWN	DESIGNED	APPROVED	
S TUTGUN	F ZIMMERMAN	B MILLS	
DRAWING VERIFIED	DESIGN VERIFIED	APPROVED DATE	
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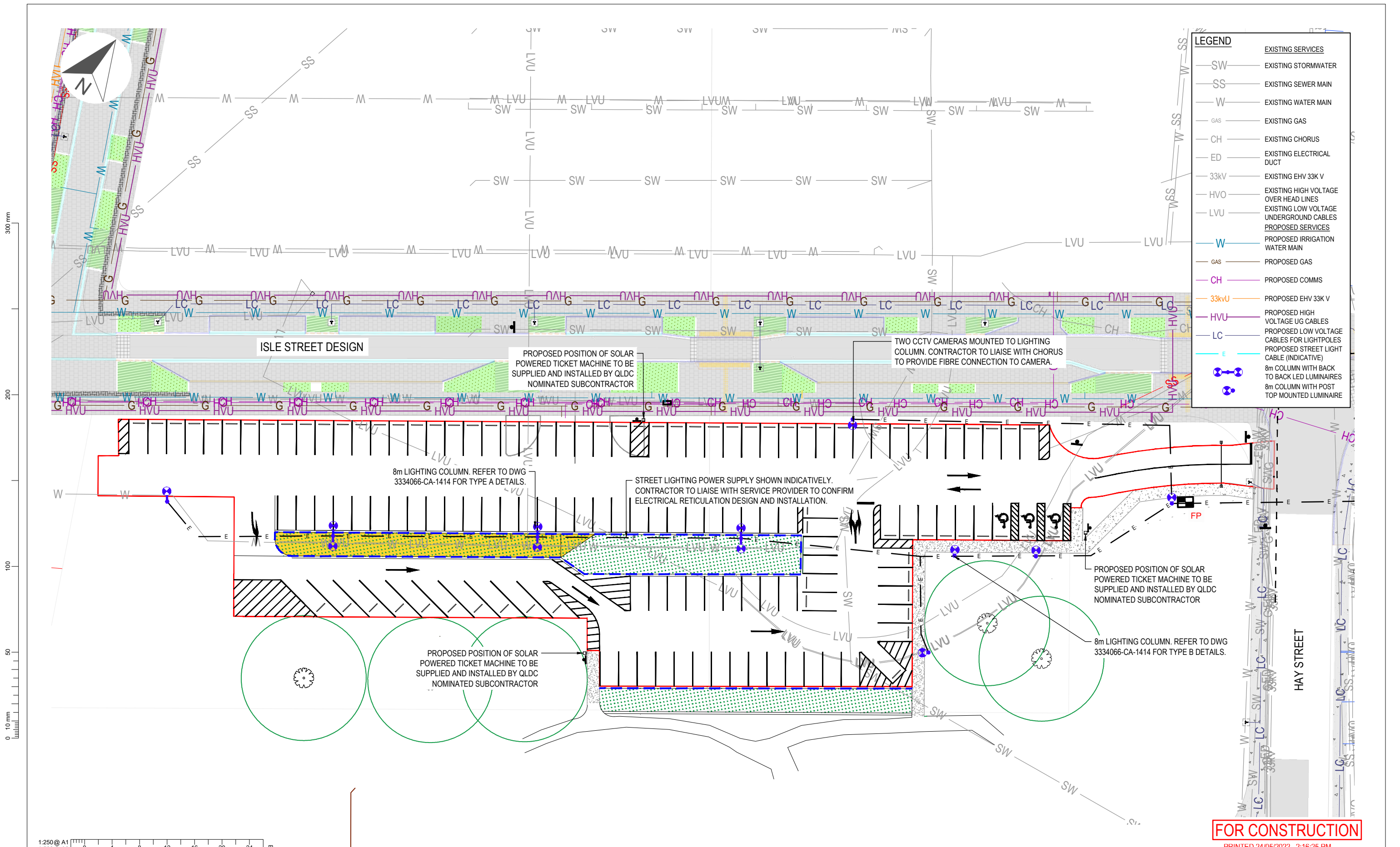
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PROJECT
LAKEVIEW SUBDIVISION INFRASTRUCTURE
TEMPORARY CARPARK

TITLE
GENERAL LAYOUT

DRAWING NUMBER
3334066-CA-1401

REVISION
2



LEGEND	
EXISTING SERVICES	
SW	EXISTING STORMWATER
SS	EXISTING SEWER MAIN
W	EXISTING WATER MAIN
GAS	EXISTING GAS
CH	EXISTING CHORUS
ED	EXISTING ELECTRICAL DUCT
33kV	EXISTING EHV 33K V
HVO	EXISTING HIGH VOLTAGE OVER HEAD LINES
LVU	EXISTING LOW VOLTAGE UNDERGROUND CABLES
PROPOSED SERVICES	
W	PROPOSED IRRIGATION WATER MAIN
GAS	PROPOSED GAS
CH	PROPOSED COMMS
33kV	PROPOSED EHV 33K V
HVU	PROPOSED HIGH VOLTAGE UG CABLES
LC	PROPOSED LOW VOLTAGE CABLES FOR LIGHTPOLES
E	PROPOSED STREET LIGHT CABLE (INDICATIVE)
⊕	8m COLUMN WITH BACK TO BACK LED LUMINAIRES
⊕	8m COLUMN WITH POST TOP MOUNTED LUMINAIRE

FOR CONSTRUCTION
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REVISION	AMENDMENT	APPROVED	DATE
A	UPDATED LAYOUT FOR CONSENT	MD	14/12/2021
B	FOR ENGINEERING PLAN APPROVAL	BM	23/02/2022
1	FOR CONSTRUCTION	BM	11/05/2022
2	FOR CONSTRUCTION	BM	24/05/2022



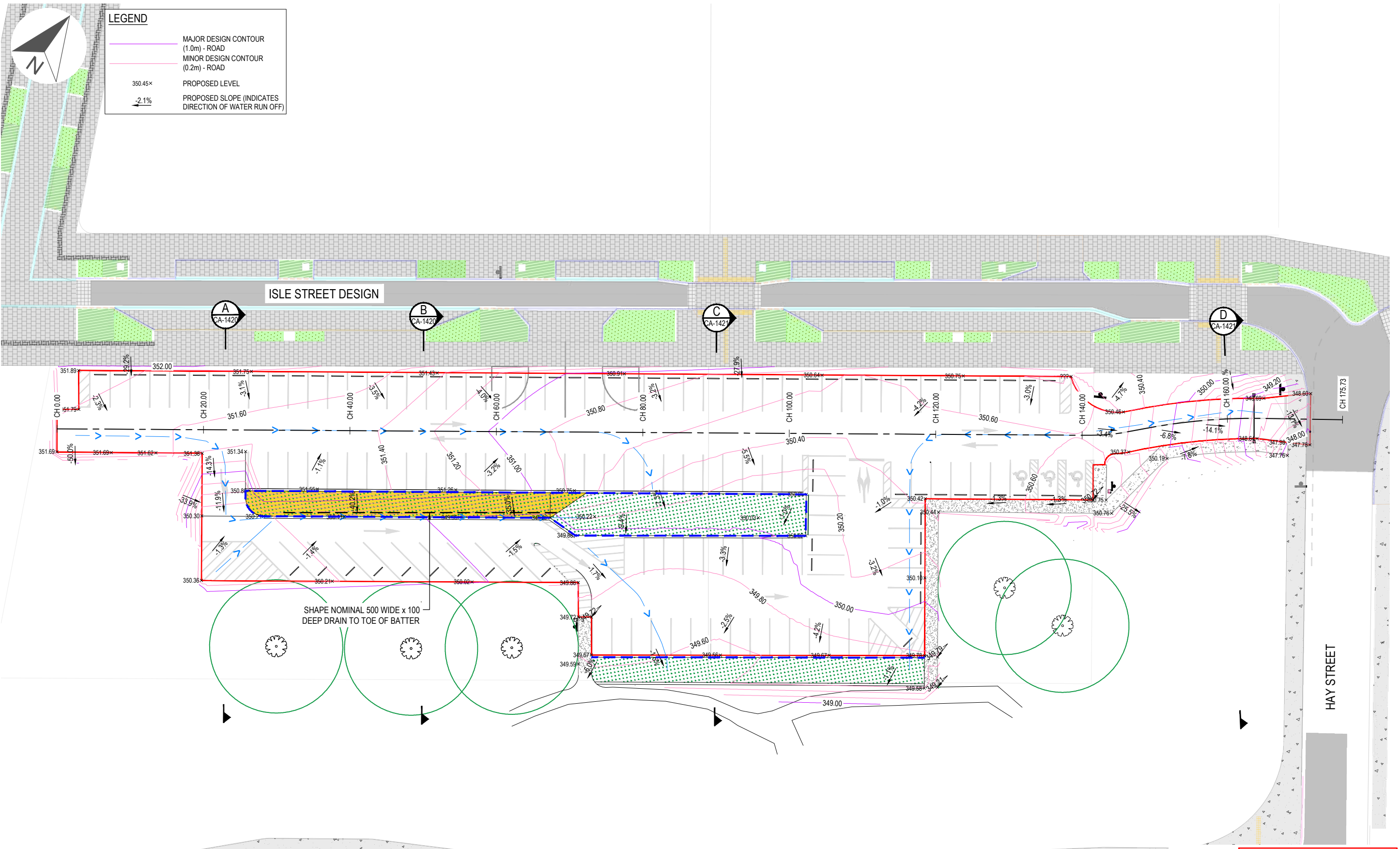
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S TUTGUN	F ZIMMERMAN	B MILLS	
DRAWING VERIFIED	DESIGN VERIFIED	APPROVED DATE	
F ZIMMERMAN	M DAVIES	14/12/2021	

DETAILED DESIGN

PROJECT	REVISION
LAKEVIEW SUBDIVISION INFRASTRUCTURE TEMPORARY CARPARK	2
TITLE	
EXISTING & PROPOSED UTILITY SERVICES	
DRAWING NUMBER	
3334066-CA-1402	

LEGEND	
	MAJOR DESIGN CONTOUR (1.0m) - ROAD
	MINOR DESIGN CONTOUR (0.2m) - ROAD
350.45x	PROPOSED LEVEL
	PROPOSED SLOPE (INDICATES DIRECTION OF WATER RUN OFF)

300 mm
200
100
50
0 - 10 mm
millimetre



FOR CONSTRUCTION

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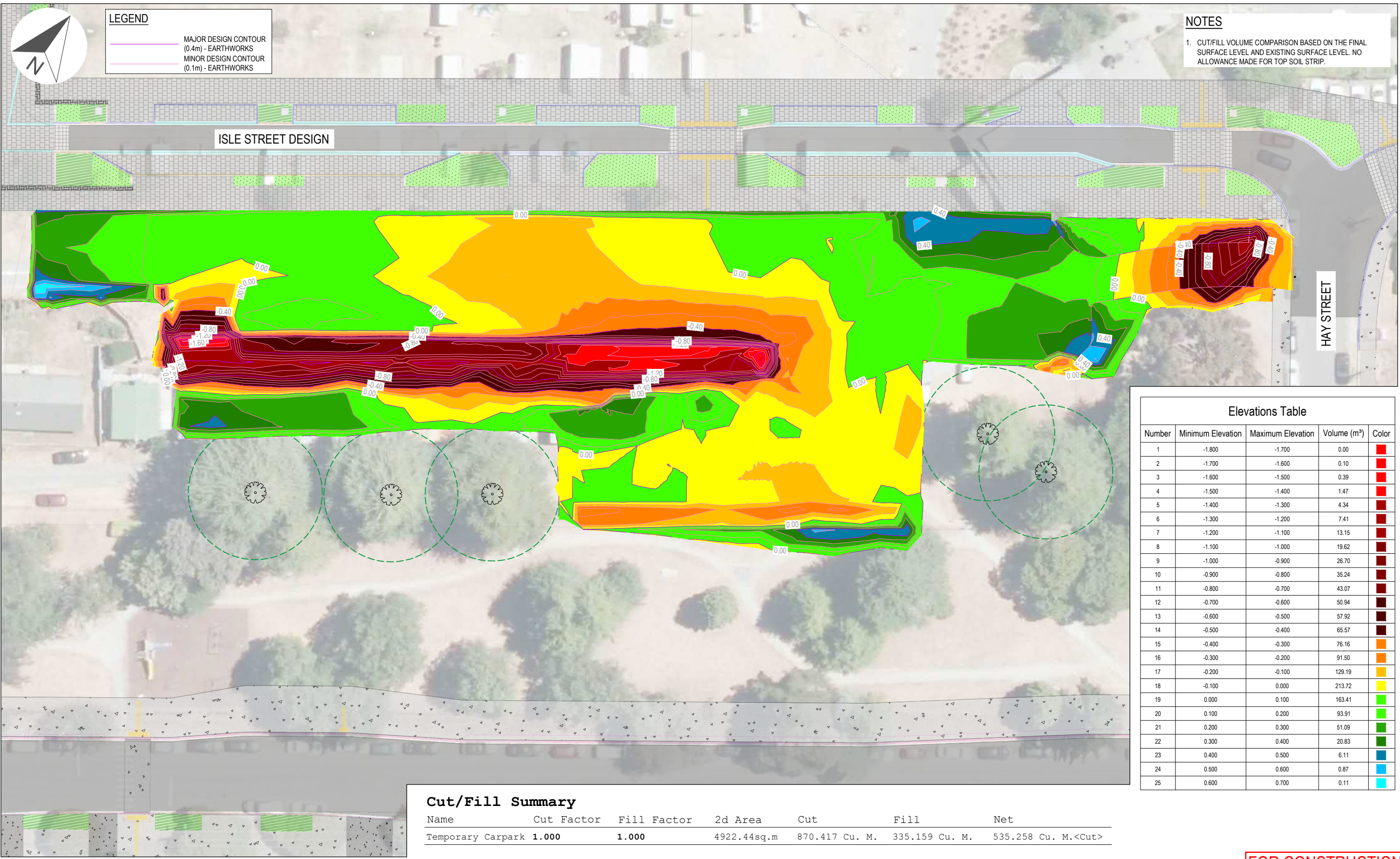
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DRAWING VERIFIED	DESIGN VERIFIED	APPROVED DATE
F ZIMMERMAN	M DAVIES	14/12/2021
DETAILED DESIGN		

PROJECT	
LAKEVIEW SUBDIVISION INFRASTRUCTURE TEMPORARY CARPARK	
TITLE	
GRADING PLAN	
DRAWING NUMBER	REVISION
3334066-CA-1403	1



LEGEND

- MAJOR DESIGN CONTOUR (0.4m) - EARTHWORKS
- MINOR DESIGN CONTOUR (0.1m) - EARTHWORKS

NOTES

- CUT/FILL VOLUME COMPARISON BASED ON THE FINAL SURFACE LEVEL AND EXISTING SURFACE LEVEL. NO ALLOWANCE MADE FOR TOP SOIL STRIP.

Number	Minimum Elevation	Maximum Elevation	Volume (m³)	Color
1	-1.800	-1.700	0.00	Red
2	-1.700	-1.600	0.10	Red
3	-1.600	-1.500	0.39	Red
4	-1.500	-1.400	1.47	Red
5	-1.400	-1.300	4.34	Red
6	-1.300	-1.200	7.41	Red
7	-1.200	-1.100	13.15	Red
8	-1.100	-1.000	19.62	Red
9	-1.000	-0.900	26.70	Red
10	-0.900	-0.800	35.24	Red
11	-0.800	-0.700	43.07	Red
12	-0.700	-0.600	50.94	Red
13	-0.600	-0.500	57.92	Red
14	-0.500	-0.400	65.57	Red
15	-0.400	-0.300	76.16	Orange
16	-0.300	-0.200	91.50	Orange
17	-0.200	-0.100	129.19	Yellow
18	-0.100	0.000	213.72	Yellow
19	0.000	0.100	163.41	Green
20	0.100	0.200	93.91	Green
21	0.200	0.300	51.09	Green
22	0.300	0.400	20.83	Green
23	0.400	0.500	6.11	Blue
24	0.500	0.600	0.87	Blue
25	0.600	0.700	0.11	Blue

Cut/Fill Summary

Name	Cut Factor	Fill Factor	2d Area	Cut	Fill	Net
Temporary Carpark	1.000	1.000	4922.44sq.m	870.417 Cu. M.	335.159 Cu. M.	535.258 Cu. M.<Cut>

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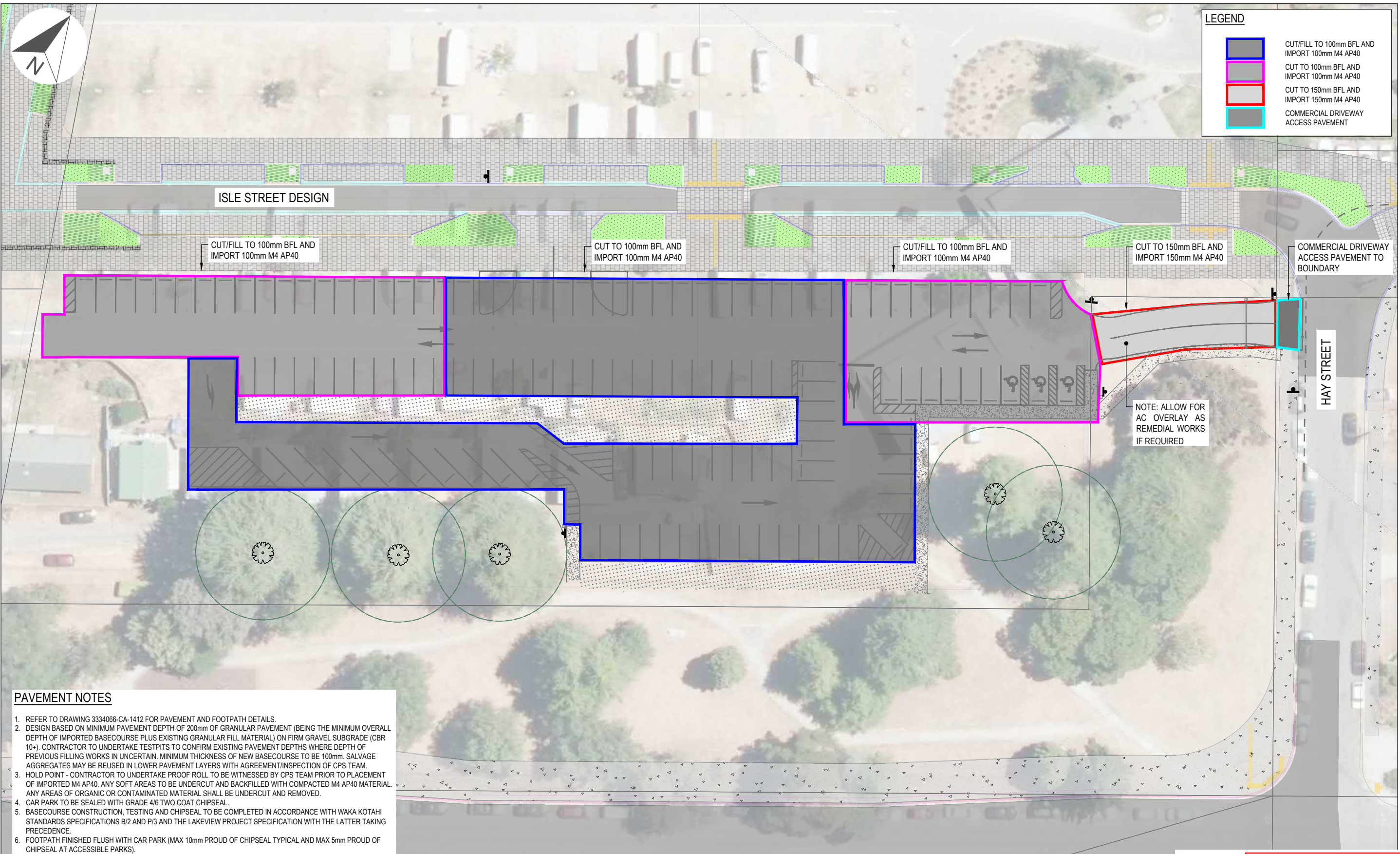
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REVISION	AMENDMENT	APPROVED	DATE
A	UPDATED LAYOUT FOR CONSENT	MD	14/12/2021
B	FOR ENGINEERING PLAN APPROVAL	BM	23/02/2022
1	FOR CONSTRUCTION	BM	11/05/2022



SCALES	ORIGINAL SIZE
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DRAWN S TUTGUN	DESIGNED F ZIMMERMAN
DRAWING VERIFIED F ZIMMERMAN	APPROVED B MILLS
	DESIGN VERIFIED M DAVIES
	APPROVED DATE 14/12/2021

PROJECT
LAKEVIEW SUBDIVISION INFRASTRUCTURE TEMPORARY CARPARK
TITLE
CUT / FILL PLAN
DRAWING NUMBER
3334066-CA-1404
REVISION
1



LEGEND

- CUT/FILL TO 100mm BFL AND IMPORT 100mm M4 AP40
- CUT TO 100mm BFL AND IMPORT 100mm M4 AP40
- CUT TO 150mm BFL AND IMPORT 150mm M4 AP40
- COMMERCIAL DRIVEWAY ACCESS PAVEMENT

PAVEMENT NOTES

- REFER TO DRAWING 3334066-CA-1412 FOR PAVEMENT AND FOOTPATH DETAILS.
- DESIGN BASED ON MINIMUM PAVEMENT DEPTH OF 200mm OF GRANULAR PAVEMENT (BEING THE MINIMUM OVERALL DEPTH OF IMPORTED BASECOURSE PLUS EXISTING GRANULAR FILL MATERIAL) ON FIRM GRAVEL SUBGRADE (CBR 10+). CONTRACTOR TO UNDERTAKE TESTPITS TO CONFIRM EXISTING PAVEMENT DEPTHS WHERE DEPTH OF PREVIOUS FILLING WORKS IN UNCERTAIN. MINIMUM THICKNESS OF NEW BASECOURSE TO BE 100mm. SALVAGE AGGREGATES MAY BE REUSED IN LOWER PAVEMENT LAYERS WITH AGREEMENT/INSPECTION OF CPS TEAM.
- HOLD POINT - CONTRACTOR TO UNDERTAKE PROOF ROLL TO BE WITNESSED BY CPS TEAM PRIOR TO PLACEMENT OF IMPORTED M4 AP40. ANY SOFT AREAS TO BE UNDERCUT AND BACKFILLED WITH COMPACTED M4 AP40 MATERIAL. ANY AREAS OF ORGANIC OR CONTAMINATED MATERIAL SHALL BE UNDERCUT AND REMOVED.
- CAR PARK TO BE SEALED WITH GRADE 4/6 TWO COAT CHIPSEAL.
- BASECOURSE CONSTRUCTION, TESTING AND CHIPSEAL TO BE COMPLETED IN ACCORDANCE WITH WAKA KOTAHĪ STANDARDS SPECIFICATIONS B/2 AND P/3 AND THE LAKEVIEW PROJECT SPECIFICATION WITH THE LATTER TAKING PRECEDENCE.
- FOOTPATH FINISHED FLUSH WITH CAR PARK (MAX 10mm PROUD OF CHIPSEAL TYPICAL AND MAX 5mm PROUD OF CHIPSEAL AT ACCESSIBLE PARKS).

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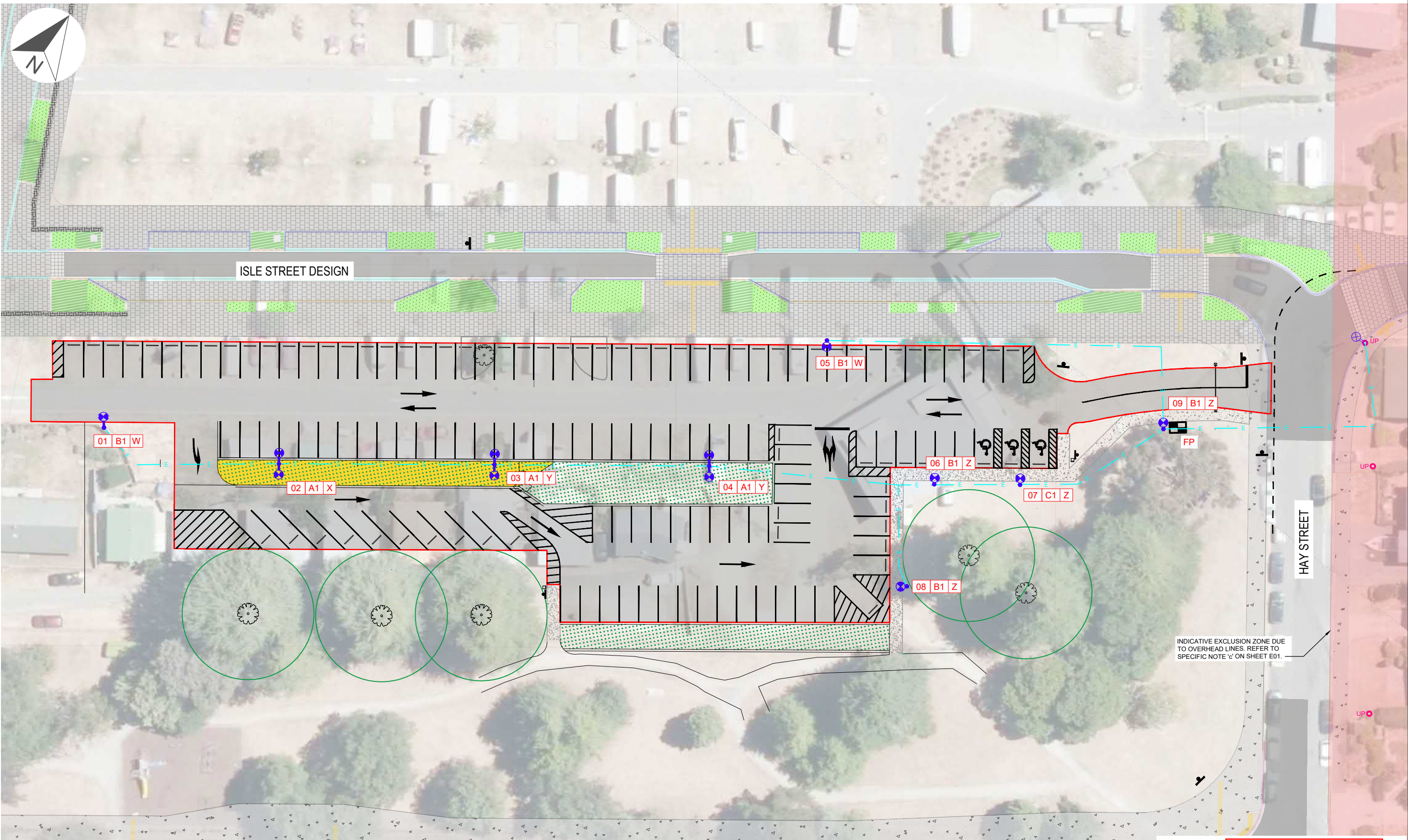
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SCALES	DESIGNED	APPROVED	ORIGINAL SIZE
1:250	F ZIMMERMAN	B MILLS	A1
DRAWN	DESIGNED	APPROVED	
S TUTGUN	F ZIMMERMAN	B MILLS	
DRAWING VERIFIED	DESIGN VERIFIED	APPROVED DATE	
F ZIMMERMAN	M DAVIES	14/12/2021	

DETAILED DESIGN

PROJECT	TITLE	DRAWING NUMBER	REVISION
LAKEVIEW SUBDIVISION INFRASTRUCTURE TEMPORARY CARPARK	PAVEMENT PLAN	3334066-CA-1405	1



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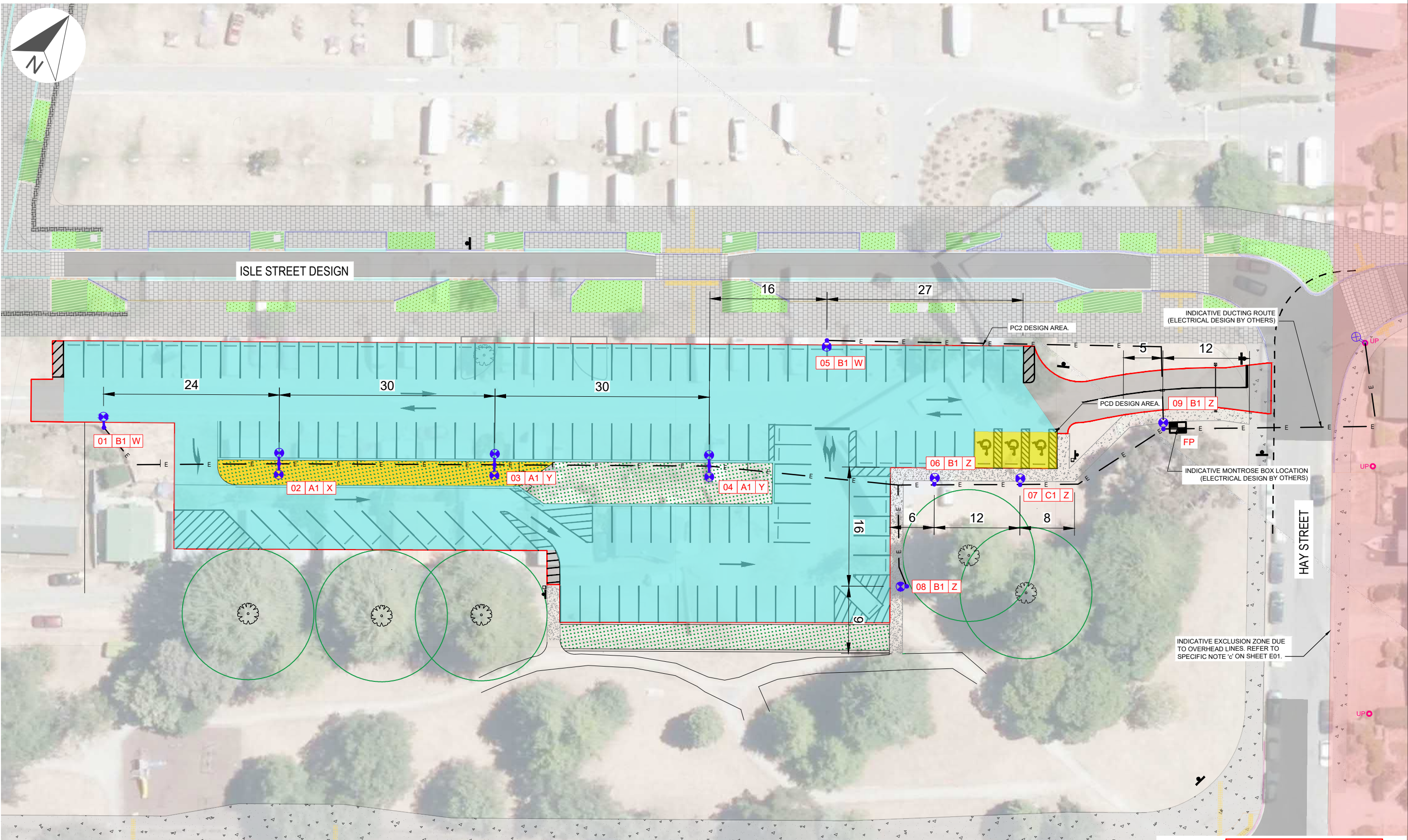
REVISION	AMENDMENT	APPROVED	DATE
A	DETAILED DESIGN	BM	23/02/2022
1	FOR CONSTRUCTION	BM	11/05/2022



SCALES	DESIGNED	APPROVED	ORIGINAL SIZE
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N INGRAM-TUNG	L STEGGLES	22/02/2022	
DRAWING VERIFIED			
TBC			

DETAILED DESIGN

PROJECT	TITLE	DRAWING NUMBER	REVISION
LAKEVIEW SUBDIVISION INFRASTRUCTURE TEMPORARY CARPARK	ROAD LIGHTING AERIAL LAYOUT SHEET 1 OF 2	3334066-CA-1406	1



0 - 10 mm
100
200
300 mm

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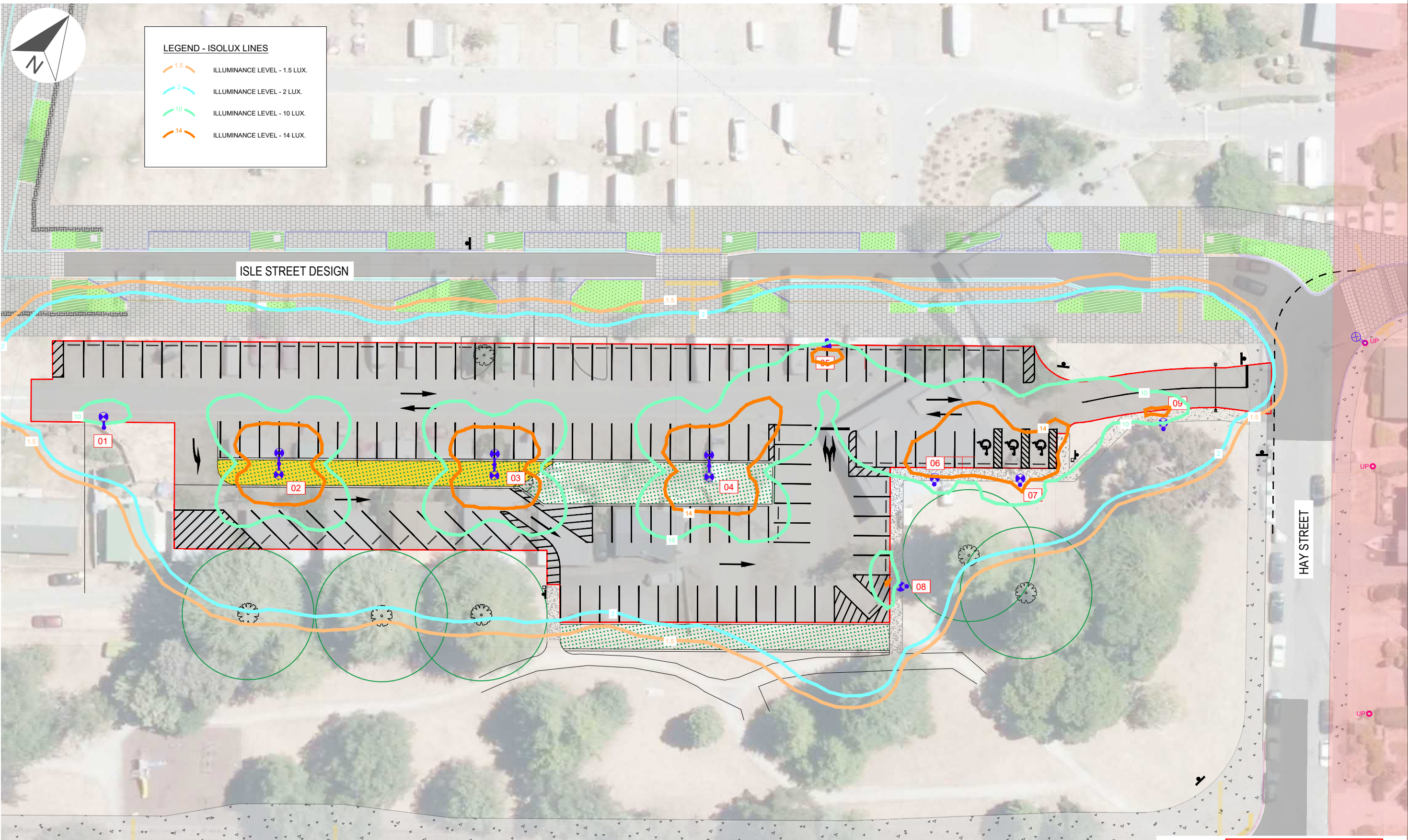
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A	DETAILED DESIGN	BM	23/02/2022
1	FOR CONSTRUCTION	BM	11/05/2022



SCALES	DESIGNED	APPROVED	ORIGINAL SIZE
1:250	N INGRAM-TUNG	B MILLS	A1
DRAWN	DESIGN VERIFIED	APPROVED DATE	
N INGRAM-TUNG	L STEGGLES	22/02/2022	
DRAWING VERIFIED			
TBC			

DETAILED DESIGN

PROJECT	TITLE	DRAWING NUMBER	REVISION
LAKEVIEW SUBDIVISION INFRASTRUCTURE TEMPORARY CARPARK	ROAD LIGHTING DESIGN LAYOUT SHEET 2 OF 2	3334066-CA-1407	1



LEGEND - ISOLUX LINES

	ILLUMINANCE LEVEL - 1.5 LUX.
	ILLUMINANCE LEVEL - 2 LUX.
	ILLUMINANCE LEVEL - 10 LUX.
	ILLUMINANCE LEVEL - 14 LUX.

FOR CONSTRUCTION
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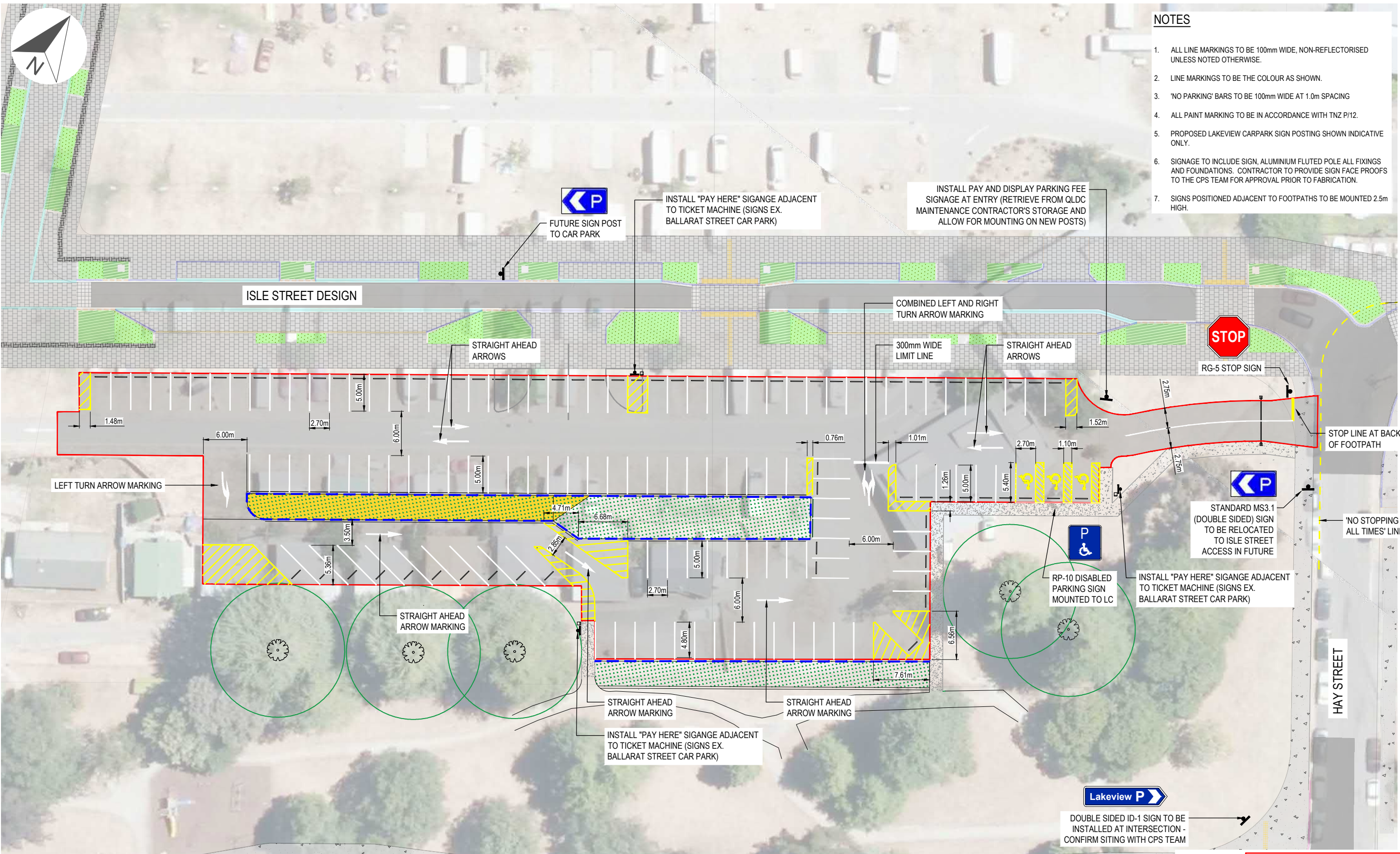
1:250@A1
 1:500@A3

REVISION	AMENDMENT	APPROVED	DATE
A	DETAILED DESIGN	BM	23/02/2022
1	FOR CONSTRUCTION	BM	11/05/2022



SCALES	DESIGNED	APPROVED	ORIGINAL SIZE
1:250	N INGRAM-TUNG	B MILLS	A1
DRAWN	DESIGN VERIFIED	APPROVED DATE	
N INGRAM-TUNG	L STEGGLES	22/02/2022	
DRAWING VERIFIED			
TBC			

PROJECT	TITLE	DRAWING NUMBER	REVISION
LAKEVIEW SUBDIVISION INFRASTRUCTURE TEMPORARY CARPARK	ROAD LIGHTING ISOLUX LAYOUT SHEET	3334066-CA-1408	1



- NOTES**
1. ALL LINE MARKINGS TO BE 100mm WIDE, NON-REFLECTORISED UNLESS NOTED OTHERWISE.
 2. LINE MARKINGS TO BE THE COLOUR AS SHOWN.
 3. 'NO PARKING' BARS TO BE 100mm WIDE AT 1.0m SPACING
 4. ALL PAINT MARKING TO BE IN ACCORDANCE WITH TNZ P/12.
 5. PROPOSED LAKEVIEW CARPARK SIGN POSTING SHOWN INDICATIVE ONLY.
 6. SIGNAGE TO INCLUDE SIGN, ALUMINIUM FLUTED POLE ALL FIXINGS AND FOUNDATIONS. CONTRACTOR TO PROVIDE SIGN FACE PROOFS TO THE CPS TEAM FOR APPROVAL PRIOR TO FABRICATION.
 7. SIGNS POSITIONED ADJACENT TO FOOTPATHS TO BE MOUNTED 2.5m HIGH.

FOR CONSTRUCTION
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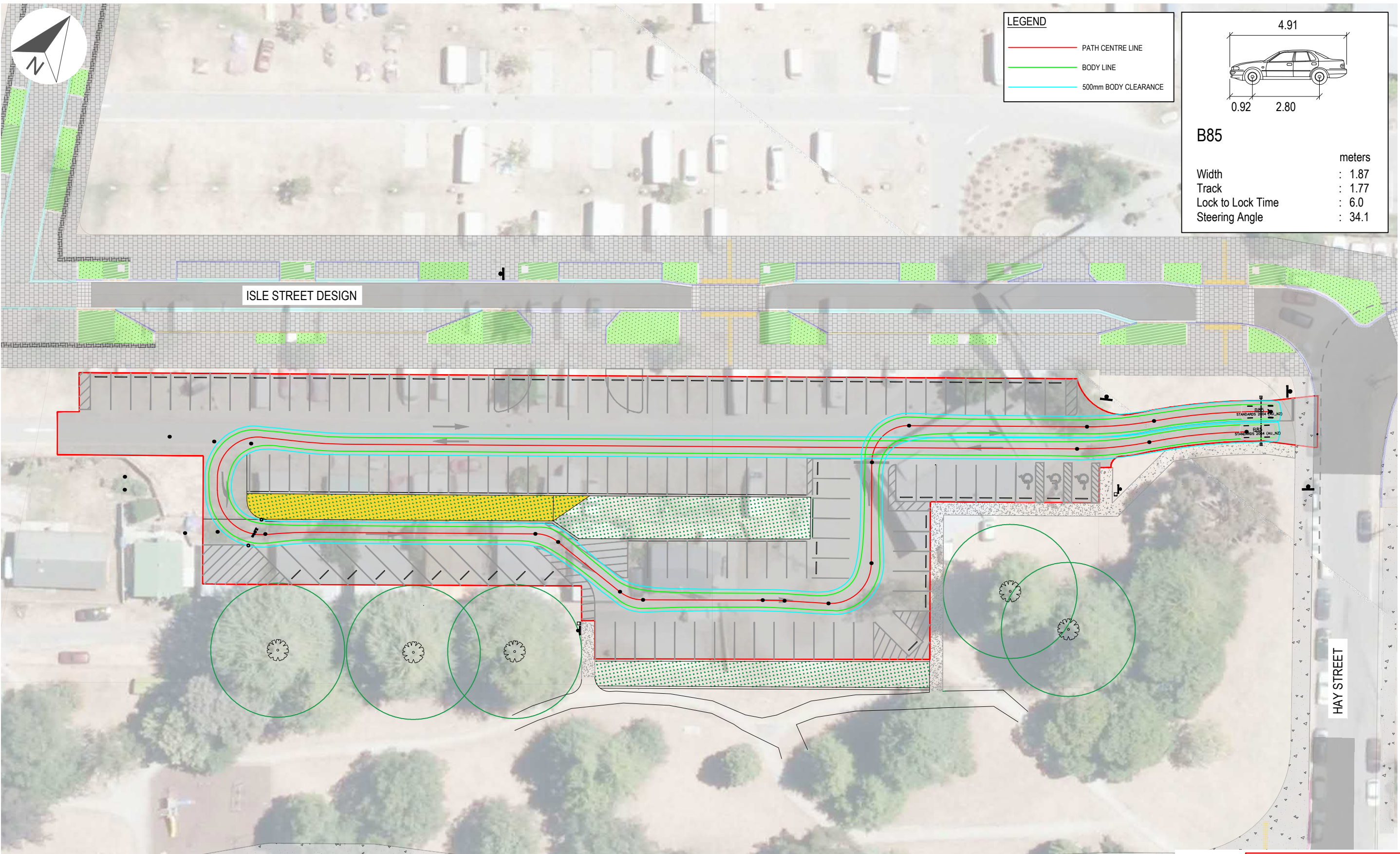
1:250 @ A1
 1:500 @ A3

REVISION	AMENDMENT	APPROVED	DATE
A	FOR ENGINEERING PLAN APPROVAL	BM	23/02/2022
B	FOR ENGINEERING PLAN APPROVAL - SIGNAGE AND NOTE CHANGES	BM	03/03/2022
1	FOR CONSTRUCTION	BM	11/05/2022
2	FOR CONSTRUCTION	BM	25/05/2022



SCALES	DESIGNED	APPROVED	ORIGINAL SIZE
1:250	A STONE	B MILLS	A1
DRAWN	DESIGNED	APPROVED	
A STONE	A STONE	B MILLS	
DRAWING VERIFIED	DESIGN VERIFIED	APPROVED DATE	
F ZIMMERMAN	M DAVIES	11/02/2022	

PROJECT	TITLE	DRAWING NUMBER	REVISION
LAKEVIEW SUBDIVISION INFRASTRUCTURE TEMPORARY CARPARK	MARKING AND SIGNAGE LAYOUT	3334066-CA-1409	2



FOR CONSTRUCTION
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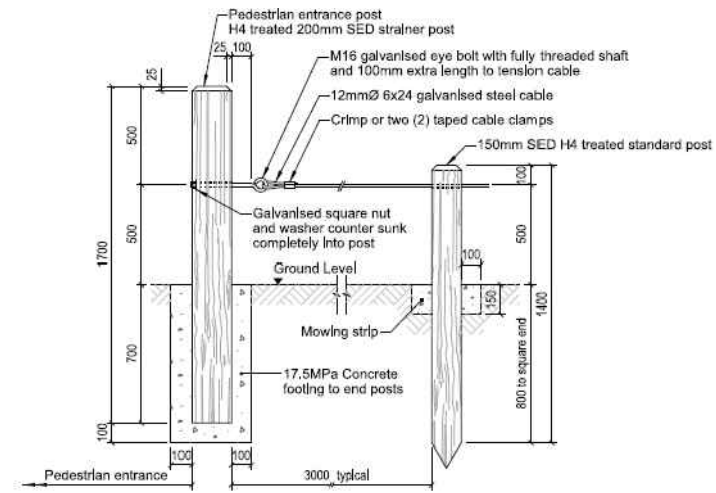
REVISION	AMENDMENT	APPROVED	DATE
A	FOR ENGINEERING PLAN APPROVAL	BM	23/02/2022
1	FOR CONSTRUCTION	BM	11/05/2022



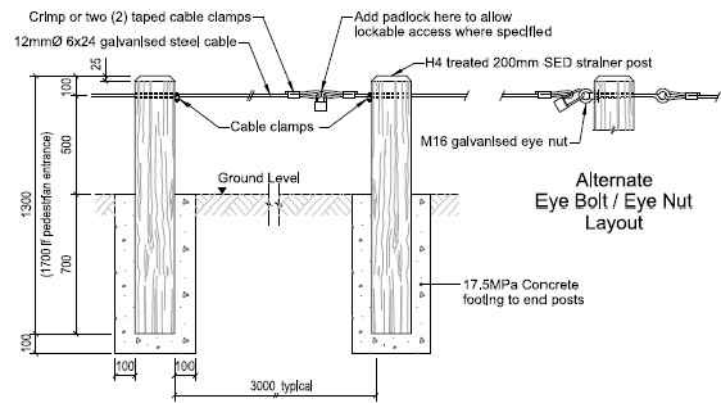
SCALES	DESIGNED	APPROVED	ORIGINAL SIZE
1:250	F ZIMMERMAN	B MILLS	A1
DRAWN	DESIGNED	APPROVED	
S TUTGUN	F ZIMMERMAN	B MILLS	
DRAWING VERIFIED	DESIGN VERIFIED	APPROVED DATE	
F ZIMMERMAN	M DAVIES	11/02/2021	

DETAILED DESIGN

PROJECT	TITLE	DRAWING NUMBER	REVISION
LAKEVIEW SUBDIVISION INFRASTRUCTURE TEMPORARY CARPARK	B85 TRACKING PLAN	3334066-CA-1410	1

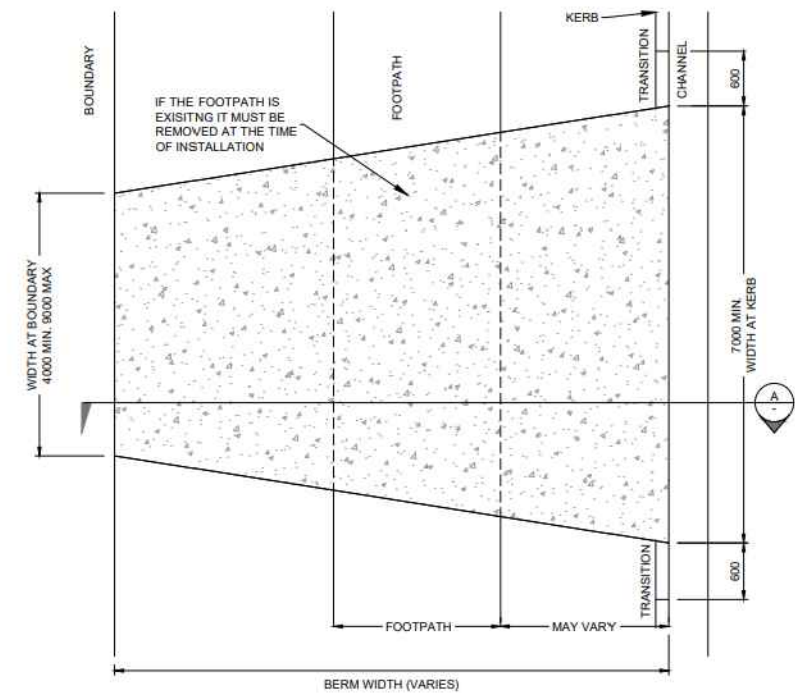


Pedestrian Entrance

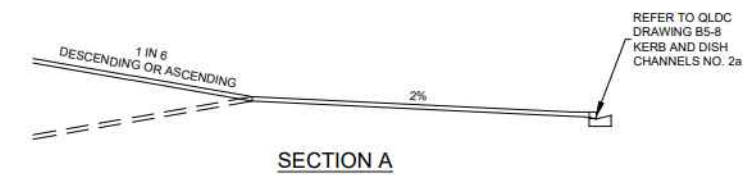


Vehicle Entrance

A CCC POST AND CABLE FENCE
SCALE 1:20 AT A1

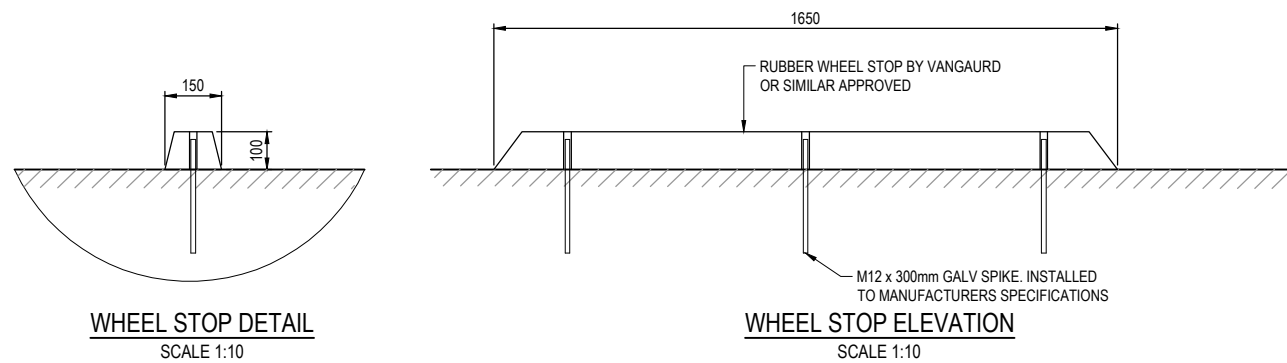


PLAN



SECTION A

B QLDG STANDARD VEHICLE CROSSING DETAIL
SCALE 1:40 AT A1



WHEEL STOP DETAIL
SCALE 1:10

WHEEL STOP ELEVATION
SCALE 1:10

1:125 @ A1
1:250 @ A3

FOR CONSTRUCTION
PRINTED 11/05/2022 6:43:49 PM

REVISION	AMENDMENT	APPROVED	DATE
A	UPDATED LAYOUT FOR CONSENT	MD	14/12/2021
B	FOR ENGINEERING PLAN APPROVAL	BM	23/02/2022
1	FOR CONSTRUCTION	BM	11/05/2022

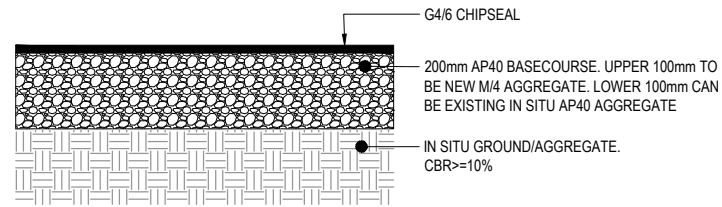


SCALES	DESIGNED	APPROVED	ORIGINAL SIZE
1:125	F ZIMMERMAN	B MILLS	A1
DRAWN	DESIGNED	APPROVED	
S TUTGUN	F ZIMMERMAN	B MILLS	
DRAWING VERIFIED	DESIGN VERIFIED	APPROVED DATE	
F ZIMMERMAN	M DAVIES	14/12/2021	

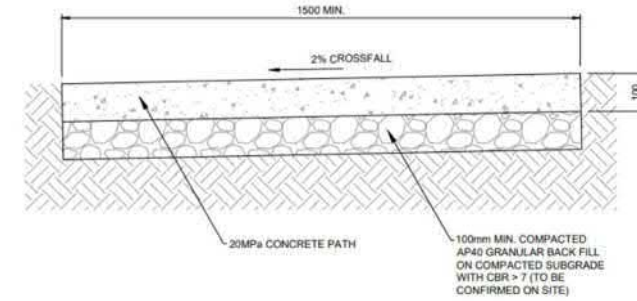
PROJECT	TITLE	DRAWING NUMBER	REVISION
LAKEVIEW SUB DIVISION INFRASTRUCTURE TEMPORARY CARPARK	GENERAL DETAILS	3334066-CA-1411	1

NOTE:

FOOTPATH FINISHED FLUSH WITH CAR PARK (MAX 10mm PROUD OF CHIPSEAL TYPICAL AND MAX 5mm PROUD CHIPSEAL AT ACCESSIBLE PARKS).



A CARPARK PAVEMENT
SCALE 1:10



B QLDC STANDARD FOOTPATH DETAIL
SCALE 1:10

300 mm
200
100
50
0 - 10 mm

1:125 @ A1
1:250 @ A3

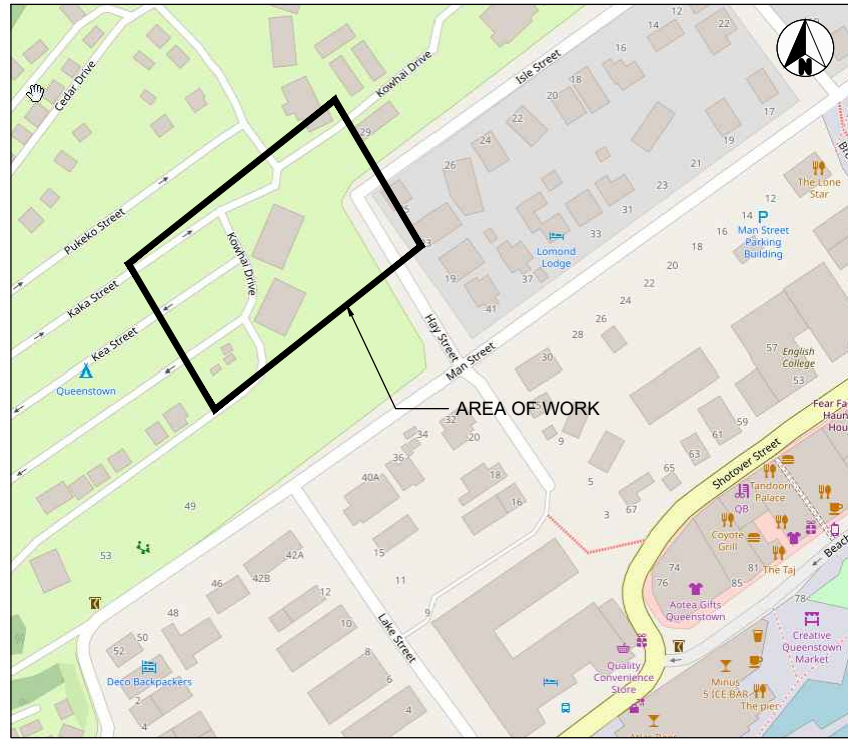
REVISION	AMENDMENT	APPROVED	DATE
A	UPDATED LAYOUT FOR CONSENT	MD	14/12/2021
B	FOR ENGINEERING PLAN APPROVAL	BM	23/02/2022
1	FOR CONSTRUCTION	BM	11/05/2022



SCALES		ORIGINAL SIZE
1:125		A1
DRAWN	DESIGNED	APPROVED
S TUTGUN	F ZIMMERMAN	B MILLS
DRAWING VERIFIED	DESIGN VERIFIED	APPROVED DATE
F ZIMMERMAN	M DAVIES	14/12/2021

PROJECT	
LAKEVIEW SUB DIVISION INFRASTRUCTURE TEMPORARY CARPARK	
TITLE	
PAVEMENT DETAILS	
DRAWING NUMBER	REVISION
3334066-CA-1412	1

FOR CONSTRUCTION
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LOCATION MAP - HAY STREET, QUEENSTOWN

LEGEND

- A1 SUPPLY AND INSTALL A GROUND PLANTED OCTAGONAL GALVANISED STEEL COLUMN WITH A SIDE ENTRY BACK TO BACK ARRANGEMENT WITH HORIZONTAL 90mm x 60mmØ LUMINAIRE MOUNTING SPIGOTS COMPLETE WITH TWO (2) NEW AEC ITALO1 OF2H1 SO5 3.7-3M 58W 3000K LED LUMINAIRE (6540 LUMENS). THE LUMINAIRES SHALL BE MOUNTED AT A HEIGHT OF 8m AND BE TILTED AT AN ANGLE OF 0° TO THE HORIZONTAL.
- B1 SUPPLY AND INSTALL A GROUND PLANTED OCTAGONAL GALVANISED STEEL COLUMN WITH POST TOP MOUNTED VERTICAL 90mm x 60mmØ LUMINAIRE MOUNTING SPIGOT COMPLETE WITH NEW AEC ITALO1 OF2H1 SO5 3.7-2M 40W 3000K LED LUMINAIRE (4390 LUMENS). THE LUMINAIRE SHALL BE MOUNTED AT A HEIGHT OF 8m AND BE TILTED AT AN ANGLE OF 0° TO THE HORIZONTAL.
- C1 SUPPLY AND INSTALL A GROUND PLANTED OCTAGONAL GALVANISED STEEL COLUMN WITH POST TOP MOUNTED VERTICAL 90mm x 60mmØ LUMINAIRE MOUNTING SPIGOT COMPLETE WITH NEW AEC ITALO1 OF2H1 SO5 3.7-4M 76W 3000K LED LUMINAIRE (8360 LUMENS). THE LUMINAIRE SHALL BE MOUNTED AT A HEIGHT OF 8m AND BE TILTED AT AN ANGLE OF 0° TO THE HORIZONTAL.
- FP INDICATIVE AURORA SUPPLY CABINET LOCATION.
- E INDICATIVE SUPPLY DUCTING ROUTE. SIZE TO BE CONFIRMED.

LIGHTING EQUIPMENT SCHEDULE		
EQUIPMENT	QUANTITY	COLUMN / LUMINAIRE TYPE REFERENCE
AEC ITALO1 OF2H1 SO5 3.7-3M 58W 3000K LED LUMINAIRE (6540 LUMENS)	8	A1
AEC ITALO1 OF2H1 SO5 3.7-2M 40W 3000K LED LUMINAIRE (4390 LUMENS)	4	B1
AEC ITALO1 OF2H1 SO5 3.7-4M 76W 3000K LED LUMINAIRE (8360 LUMENS)	1	C1
8m GROUND PLANTED OCTAGONAL GALVANISED STEEL COLUMN WITH BACK TO BACK ARRANGEMENT WITH HORIZONTAL 90mm x 60mmØ LUMINAIRE MOUNTING SPIGOTS	4	A1
8m GROUND PLANTED OCTAGONAL GALVANISED STEEL COLUMN WITH POST TOP MOUNTED VERTICAL 90mm x 60mmØ LUMINAIRE MOUNTING SPIGOT	5	B1,C1

GENERAL NOTES

- ALL DISTANCES ARE IN METRES UNLESS STATED OTHERWISE.
- THE ELECTRICAL SUPPLY FOR THE WHOLE OF THE WORKS IS TO BE METERED.
- ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF QUEENSTOWN LAKES DISTRICT COUNCIL SOUTHERN LIGHT - PART TWO TECHNICAL SPECIFICATIONS 2017 DOCUMENT, AS/NZS 1158, NZTA M30 SPECIFICATION AND GUIDELINES FOR ROAD LIGHTING DESIGN AND AS/NZS3000:2007.
- ENSURE THAT ALL COLUMNS ARE CLEAR OF UNDERGROUND SERVICES. IF NECESSARY POSITIONS MAY BE ALTERED BY UP TO 1m WHILE RETAINING GENERAL POLE ARRANGEMENT TO AVOID CLASHES WITH UNDERGROUND SERVICES, CONFIRM WITH THE ENGINEER FIRST.
- INSTALL A DRIVEN EARTH AT EVERY NEW LIGHTING COLUMN.
- ENSURE THE RAMM DATABASE IS ACCURATELY UPDATED FOR EVERY NEW OR MODIFIED ROAD LIGHT LOCATION, AND LIAISE WITH QLDC TO ENSURE RECORDS ARE APPROPRIATELY COMPLETED.
- THE INTERNAL WIRING BETWEEN THE TERMINAL BLOCKS AND THE LUMINAIRE SHALL BE CIRCULAR 2C 2.5mm² NEUTRAL SCREEN CABLE.
- ALL LUMINAIRES SHALL BE FITTED WITH A 7 CONTACT NEMA SOCKET (COMPLIANT WITH ANSI C136.41:2013) AND ZODIAN SS6 (VARIANT) PHOTOCELLS.
- ALL NEW ROAD LIGHTING COLUMNS SHALL BE IN ACCORDANCE WITH THE NZ TRANSPORT AGENCY M26:2012 ROAD LIGHTING COLUMN SPECIFICATION, MANUFACTURED TO NZS 4676 AND GALVANIZED TO AS/NZS 4680:2006.
- LUMINAIRE TILT SHALL BE 0° TO THE HORIZONTAL FOR ALL NEW LUMINAIRES INSTALLED UNLESS STATED OTHERWISE.
- ALL NEW LUMINAIRES SHALL HAVE LABELS AS PER THE REQUIREMENTS OF SECTION 27.8 OF NZ TRANSPORT AGENCY M30:2014 SPECIFICATION AND GUIDELINES FOR ROAD LIGHTING DESIGN.
- ALL COLUMNS ARE TO BE LOCATED AT LEAST 1.0m FROM PRIVATE DRIVEWAYS.
- ALL NEW LIGHTING COLUMNS SHALL BE ERECTED WITH THEIR INSPECTION DOORS BEING COMFORTABLY AND SAFELY ACCESSIBLE FOR AN OPERATIVE OF EITHER HANDEDNESS.
- ALL WORK SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE SAFETY IN DESIGN RECORD PF-PR-119(NZ) 03/15 FOR THIS PROJECT.
- IT IS ASSUMED THAT COLUMN MANUFACTURER STANDARD FOUNDATION SOLUTIONS SHALL BE PROVIDED BY THE CONTRACTOR. THE ASSOCIATED DESIGN AND PRODUCER STATEMENT DOCUMENTATION IS TO BE BY OTHERS.

SPECIFIC NOTES

- THIS CARPARK HAS BEEN DESIGNED TO THE PC2 AND PCD SUB-CATEGORIES OF AS/NZS 1158.3.1:2020.
- NEW COLUMNS #06 AND #08 SHALL BE INSTALLED OUTSIDE THE DRIPLINE OF EXISTING TREES.
- ERECTION OF LIGHTING COLUMNS SHALL BE IN ACCORDANCE WITH ECP34 AND SPECIFIC AURORA CLEARANCES (CONFIRMATION BY OTHERS) CLEARANCE SHALL BE CONFIRMED BY OTHERS PRIOR TO WORKS START.
- A METERED QLDC OWNED ELECTRICAL CABLE NETWORK IS TO BE PROVIDED TO SERVICE THE CARPARK LIGHTING AS PER QLDC REQUIREMENTS. ELECTRICAL RETICULATION DESIGN TO BE COMPLETED IN FUTURE STAGES OF DESIGN. UNMETERED UTILITY SUPPLIES SHALL NOT BE PROVIDED TO THIS LOCATION.

LEGEND CONTINUED

TYPICAL COLUMN DESIGNATION: **XX A1 Z**

SETBACKS:

- W 0.7m BEHIND THE FACE OF THE KERB.
- X 1.7m BEHIND THE FACE OF THE KERB.
- Y 2.8m BEHIND THE FACE OF THE KERB.
- Z 0.7m BEHIND THE FOOTPATH.

ILLUMINANCE DESIGN AREA:

- PC2 OUTDOOR CARPARK ILLUMINANCE LEVEL - 1.5 LUX.
- PCD OUTDOOR CARPARK ILLUMINANCE LEVEL - 14 LUX.

1	2	3	4	5
LIGHTING SUBCATEGORY	LIGHT TECHNICAL PARAMETERS (LTP)			
	AVERAGE HORIZONTAL ILLUMINANCE (\bar{E}_h)	POINT HORIZONTAL ILLUMINANCE (E_{ph})	ILLUMINANCE (HORIZONTAL) UNIFORMITY ^c CAT.P (U_{Ez})	POINT VERTICAL ILLUMINANCE ^{a,b} (E_{pv})
PC2	7	1.5	8	1
PCD ^d	-	≥ 14 and $\geq (\bar{E}_h)^d$	-	-

- THESE VALUES ARE MAINTAINED.
- CONFORMANCE IS ACHIEVED BY BEING GREATER THAN OR EQUAL TO THE APPLICABLE TABLE VALUE.
- CONFORMANCE IS ACHIEVED BY BEING LESS THAN OR EQUAL TO THE APPLICABLE TABLE VALUE.
- E_{ph} SHALL BE DETERMINED FOR EACH PCD AREA IN THE CAR PARK AND, IN EACH CASE, IT SHALL BE GREATER THAN THE VALUE STATED AND GREATER THAN THE AVERAGE FOR THE OVERALL CAR PARK.
- THIS LEVEL SHALL BE USED FOR ANY MARKED AREAS FOR PEDESTRIANS TO CROSS.

CALCULATION RESULTS

ILLUMINATION CALCULATION SUMMARY

SUB-CATEGORY PC2 - HAYES STREET CARPARK, QUEENSTOWN

LABEL	CALC TYPE	UNITS	E_{ph} AVG.	E_{ph} MAX.	E_{ph} MIN.	U_{E1}	E_{pv}
PC2 CARPARK	ILLUMINANCE	LUX	10.34	31.4	1.6	3.03	1.0
PCD CARPARK	ILLUMINANCE	LUX	N/A	N/A	15.0	N/A	N/A

FOR CONSTRUCTION
PRINTED 11/05/2022 6:44:09 PM

1:125@A1
1:250@A3

REVISION	AMENDMENT	APPROVED	DATE
A	DETAILED DESIGN	BM	23/02/2022
1	FOR CONSTRUCTION	BM	11/05/2022



SCALES	DESIGNED	APPROVED
NTS	N INGRAM-TUNG	B MILLS
ORIGINAL SIZE	DESIGN VERIFIED	APPROVED DATE
A1	L STEGGLES	14/12/2021

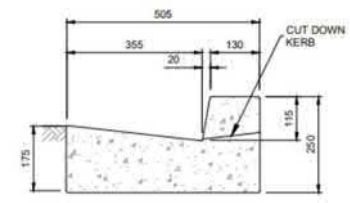
PROJECT
LAKEVIEW SUB DIVISION INFRASTRUCTURE
TEMPORARY CARPARK

TITLE
LIGHTING DETAILS

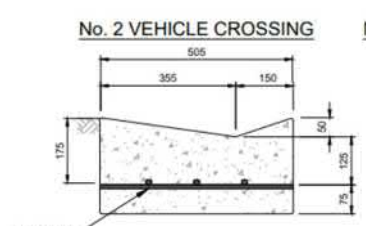
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3334066-CA-1413

REVISION
1

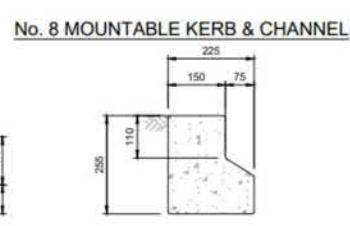
0 - 10 mm
50
100
200
300 mm



No. 1a KERB & CHANNEL

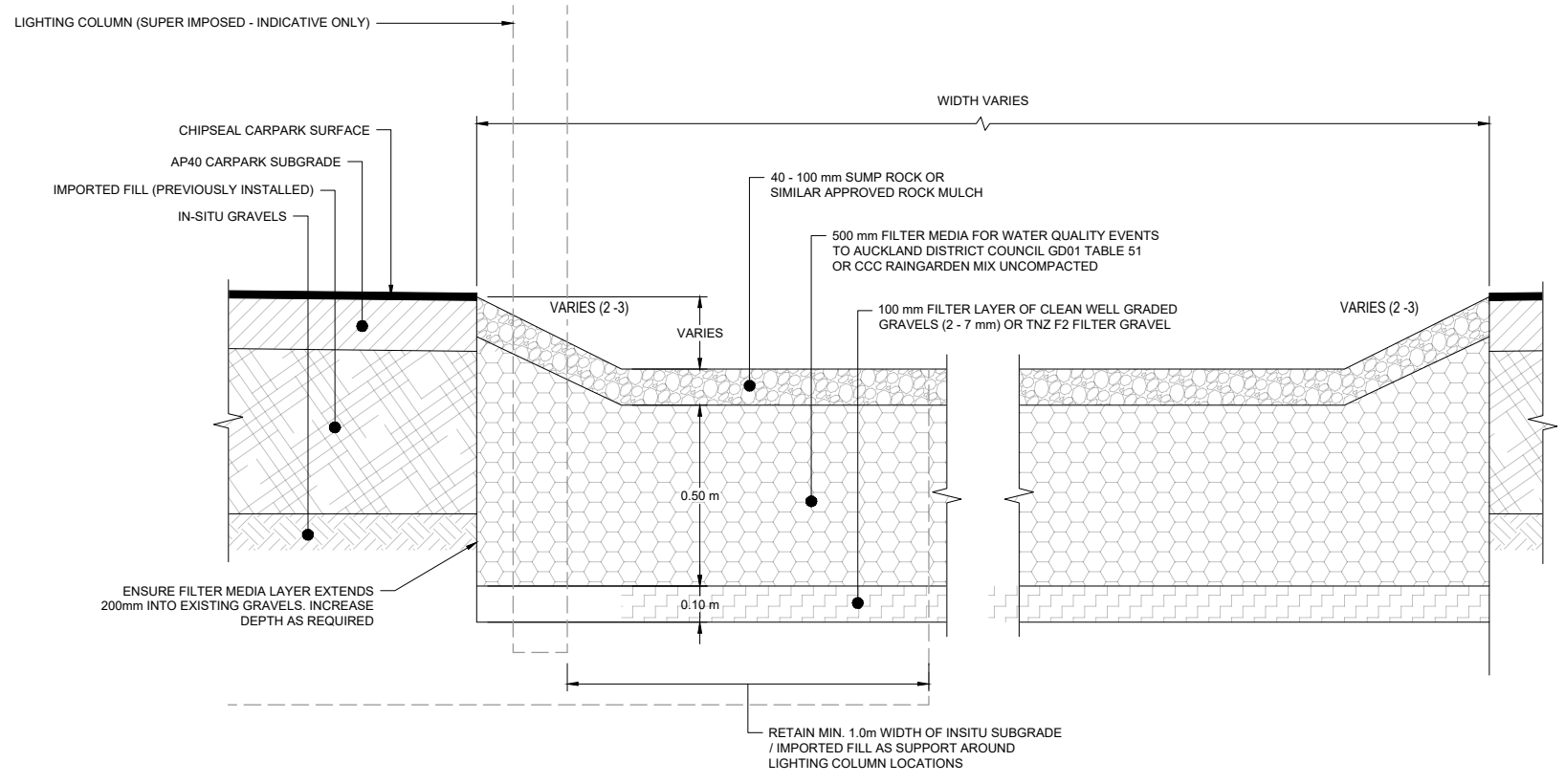


No. 2a COMMERCIAL VEHICLE CROSSING

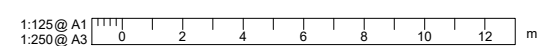


No. 8 MOUNTABLE KERB & CHANNEL

A QLDC STANDARD KERB DETAILS
SCALE 1:10 AT A1



B WATER INFILTRATION DETAIL
SCALE 1:10 AT A1



FOR CONSTRUCTION

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REVISION	AMENDMENT	APPROVED	DATE
A	UPDATED LAYOUT FOR CONSENT	MD	14/12/2021
B	FOR ENGINEERING PLAN APPROVAL	BM	23/02/2022
1	FOR CONSTRUCTION	BM	11/05/2022

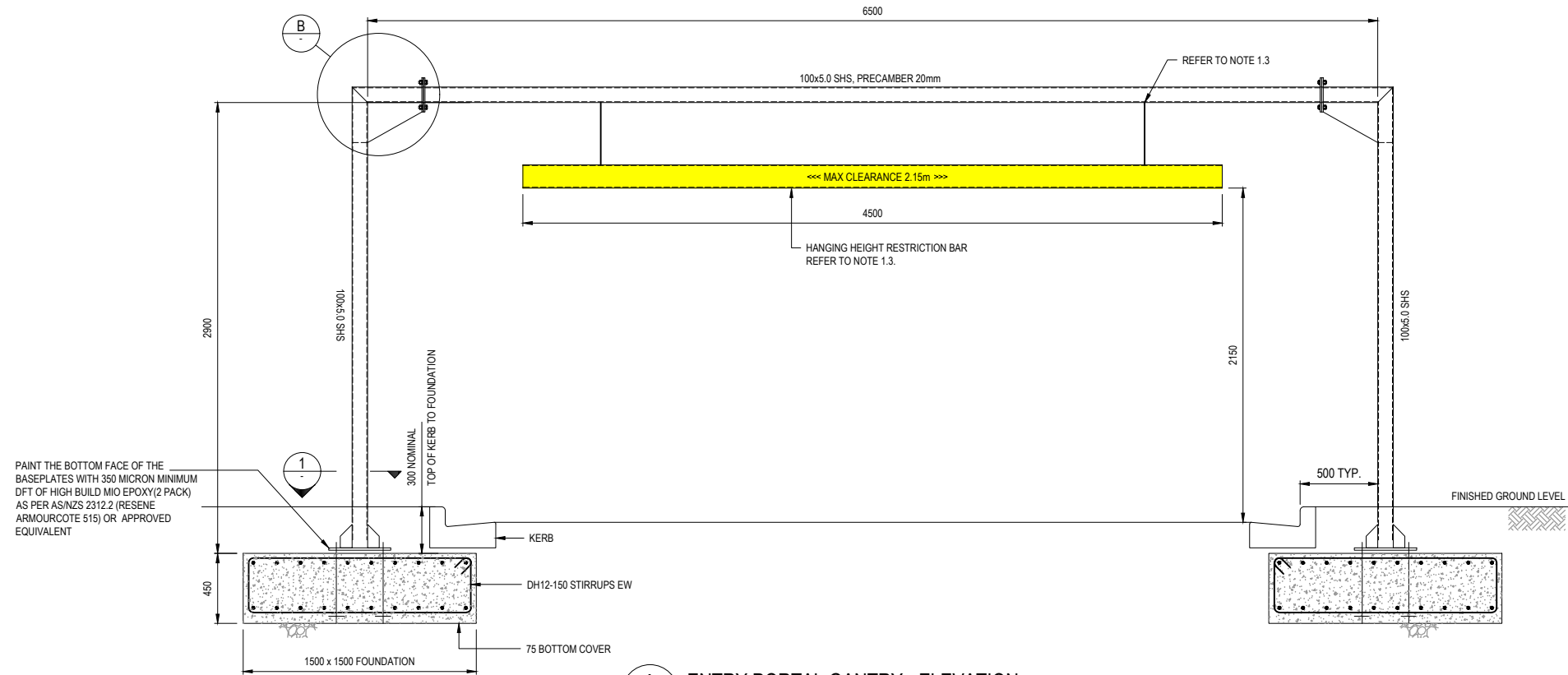


SCALES	DESIGNED	APPROVED
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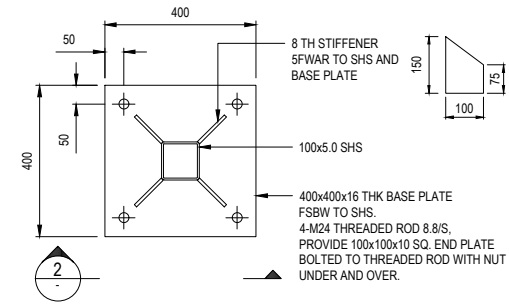
DETAILED DESIGN

PROJECT	TITLE	DRAWING NUMBER	REVISION
LAKEVIEW SUB DIVISION INFRASTRUCTURE TEMPORARY CARPARK	STORMWATER DETAILS	3334066-CA-1414	1

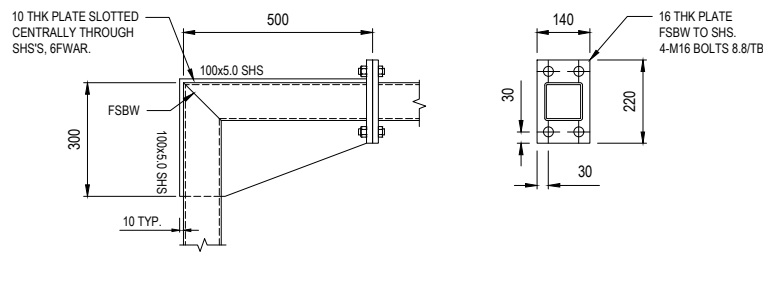
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0 - 10 mm



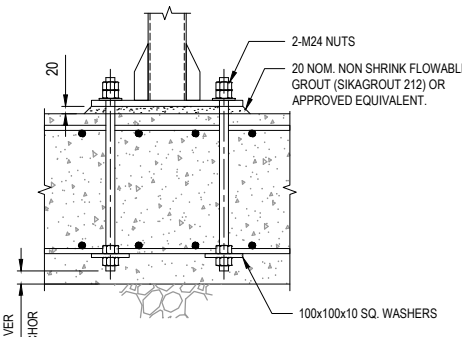
A ENTRY PORTAL GANTRY - ELEVATION
1:20



1 BASE PLATE DETAIL
1:10



B PORTAL KNEE DETAIL
1:10



2 SECTION
1:10

1:20 @ A1
1:40 @ A3

REVISION	AMENDMENT	APPROVED	DATE
1	FOR CONSTRUCTION	BM	14/04/22



SCALES	DESIGNED	APPROVED	ORIGINAL SIZE
1:20, 1:10	D GOODWIN	J SHAW	A1
DRAWN	DESIGNED	APPROVED	
Y SU	D GOODWIN	J SHAW	
DRAWING VERIFIED	DESIGN VERIFIED	APPROVED DATE	
T DOWN	J SHAW	16/02/2022	

1.0 GENERAL NOTES

- THE STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE SPECIFICATION AND ALL OTHER PROJECT DRAWINGS. ANY DISCREPANCIES SHALL BE REFERRED TO THE ENGINEER FOR RESOLUTION.
- SETOUT LOCATION IN TEMPORARY CARPARK TO BE CONFIRMED BY THE CONSTRUCTION TEAM. GANTRY ORIENTATION SHALL BE PERPENDICULAR TO TRAFFIC.
- CONSTRUCTION TEAM TO PROPOSE DESIRED HEIGHT RESTRICTION BAR AND PROVIDE SHOP DRAWINGS PRIOR TO COMMENCEMENT OF FABRICATION

2.0 DIMENSIONS

- VERIFY ALL DIMENSIONS WITH SERVICES, CIVIL AND ALL OTHER PROJECT DRAWINGS PRIOR TO CONSTRUCTION COMMENCING. ANY DISCREPANCIES SHALL BE REFERRED TO THE ENGINEER FOR RESOLUTION.
- DO NOT SCALE THE DRAWINGS.
- ALL DIMENSIONS ARE IN MILLIMETRES, UNLESS NOTED OTHERWISE.

3.0 CONCRETE

- CONCRETE PRODUCTION SHALL COMPLY WITH NZS3104.
- MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 40MPa IN ACCORDANCE WITH NZS3109 & NZS3101.
- MINIMUM REINFORCING COVER TO BE 30mm UNO.
- FOUNDING MATERIAL SHALL BE INSPECTED BY GEOTECHNICAL ENGINEER TO CONFIRM A ULS BEARING CAPACITY >300KPa.
- ALL REINFORCEMENT SHALL COMPLY WITH AS/NZS4671 AND BE GRADE 500E.
- ALL REINFORCEMENT SHALL BE IN ACCORDANCE WITH NZS3109 AND RELATED DOCUMENTS.

4.0 STEEL

- ALL BOLTS, NUTS AND WASHERS ETC. SHALL BE HOT DIP GALVANISED TO HDG600.
- ALL RHS AND SHS MEMBERS SHALL BE GRADE 350MPa UNO. ALL OTHER STEEL TO BE GRADE 350MPa UNO.
- GANTRY AND ALL STEEL TO BE HOT DIPPED AND GALVANISED TO HD600 IN ACCORDANCE WITH AS/NZS2312.
- FABRICATION SHALL COMPLY WITH 'NZS 3404', AS MODIFIED BELOW:
 - STRAIGHTNESS OF MEMBERS AFTER FABRICATION AND BEFORE ERECTION UNO SHALL NOT DEVIATE MORE THAN:
 - STRUTS, COLUMNS = L/1000
 - OTHER MEMBERS = L/600
 - LENGTH SHALL NOT DEVIATE FROM THE TRUE LENGTH BY:
 - STRUTS WITH END BEARING = +1mm, -1mm
 - OTHER MEMBERS UP TO L = 9.0m = +0mm, -3mm
 - OTHER MEMBERS OVER L = 9.0m = +0mm, -5mm

- ERECTION:
 - ALL ERECTION WORK SHALL COMPLY WITH 'NZS 3404' AND 'AS1400'.
 - PLUMBNESS STRUTS / COLUMNS SHALL BE WITHIN 1/1000 OF TRUE VERTICAL.
 - STEEL BEAMS SHALL BE PLACED WITH NATURAL HOG UPWARDS.
 - PADDED SLINGS SHALL BE USED TO HANDLE ALL CORROSION-PROTECTED STEELWORK.
 - NON-SHRINK GROUT SHALL BE USED TO FILL ALL SPACES BETWEEN CONCRETE OR MASONRY, AND STEEL STEEL BEARING PLATES. GROUT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 50MPa AT 28 DAYS.

- BOLTING
 - ALL HOLES SHALL BE DRILLED AND SHALL BE 2mm LARGER THAN THE BOLT DIAMETER FOR BOLTS UNDER 30mm DIA. 3mm LARGER FOR M30 BOLTS AND LARGER UNO. HOLES IN BASEPLATES MAY BE 6mm LARGER THAN THE BOLT DIAMETER UNO.
 - ALL BOLTS SHALL HAVE AT LEAST ONE THREAD PROJECTING THROUGH BOTH SIDES OF NUT.
 - ALL BOLTS SHALL BE M20-8.8/8 UNO.
 - ALL BOLTS, NUTS AND WASHERS SHALL BE HOT DIP GALVANISED BY THE MANUFACTURER TO CONFORM TO 'AS 1214'.
 - TIGHTENING PROCEDURE SHALL COMPLY WITH 'NZS 3404'. BOLTING ABBREVIATIONS ARE TO 'NZS 3404' PROCEDURES.

- WELDING SHALL COMPLY WITH 'AS/NZS 1554.1'.
 - MINIMUM WELD SIZE SHALL BE:
 - 5mm CONTINUOUS FILLET UNLESS NOTED: FOR 12mm PLATE & UNDER
 - 6mm CONTINUOUS FILLET UNLESS NOTED: FOR 16mm PLATE & OVER
 - ALL WELDS TO BE CATEGORY 'SP' TO 'AS/NZS 1554.1' UNO.
 - WELDING ELECTRODES SHALL BE 'E48XX' TO 'AS 1553' UNO.
 - FOR WORK EXPOSED TO THE WEATHER, SEAL WELDS SHALL BE MADE WHETHER SHOWN ON THE DRAWINGS OR NOT, UNLESS SPECIFICALLY NOT REQUIRED.
 - ALL WELDING SHALL BE SUBJECT TO NON DESTRUCTIVE EXAMINATION (NDE) TO THE MAXIMUM LEVEL AS SUGGESTED IN 'AS/NZS 1554.1, TABLE 7.4'.
 - THE CONTRACTOR SHALL EMPLOY AN INDEPENDENT WELDING INSPECTOR HOLDING QUALIFICATIONS AS SPECIFIED IN 'AS/NZS 1554.1'. THE WELDING INSPECTOR'S SCOPE OF WORK SHALL BE AS DEFINED IN 'AS/NZS 1554.1' AND THIS SPECIFICATION. THE ENGINEER RESERVES THE RIGHT TO APPROVE OR REJECT THE PROPOSED WELDING INSPECTOR.

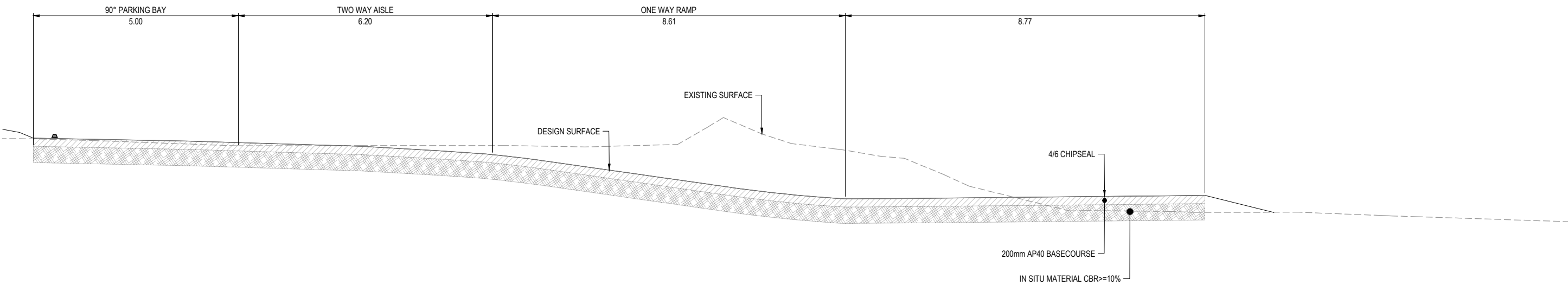
5.0 DESIGN

- DESIGN BASIS:
 - DESIGN LIFE: 10 Years
 - IMPORTANCE LEVEL: 1
 - Z FACTOR: 0.32
 - SOIL TYPE: C
- ULTIMATE WIND PRESSURE: 0.95KPa.

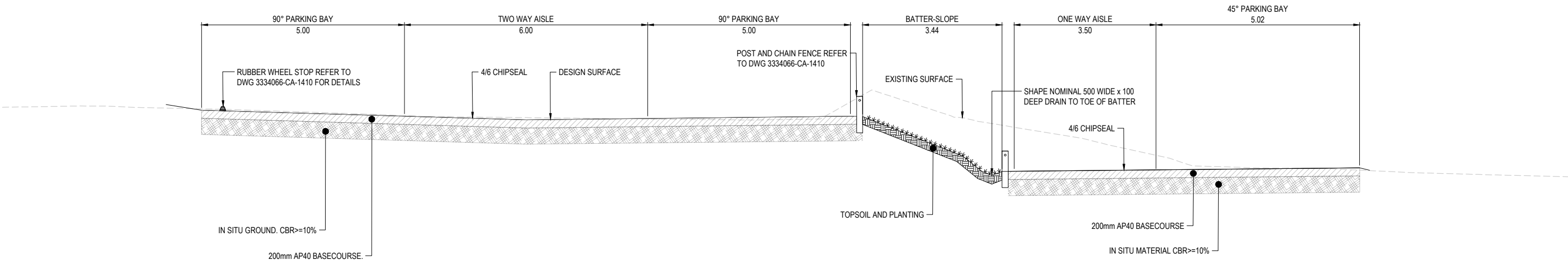
FOR CONSTRUCTION
PRINTED 11/05/2022 6:44:27 PM

PROJECT	ORIGINAL SIZE
LAKEVIEW SUB DIVISION INFRASTRUCTURE TEMPORARY CARPARK	A1
TITLE	
ENTRY PORTAL GANTRY - STRUCTURAL DETAILS	
DRAWING NUMBER	REVISION
3334066-CA-1415	1

300 mm
200
100
50
0 - 10 mm



A TYPICAL CROSS SECTION CH:10
CA-1403 SCALE 1:50



B TYPICAL CROSS SECTION CH:50
CA-1403 SCALE 1:50

1:125 @ A1
1:250 @ A3

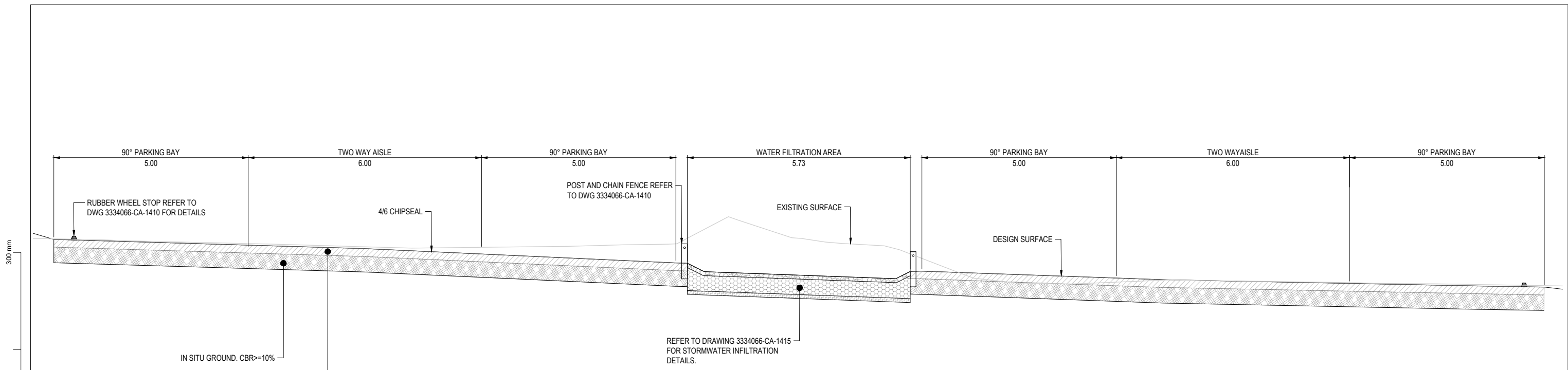
REVISION	AMENDMENT	APPROVED	DATE
A	UPDATED LAYOUT FOR CONSENT	MD	14/12/2021
B	FOR ENGINEERING PLAN APPROVAL	BM	23/02/2022
1	FOR CONSTRUCTION	BM	11/05/2022



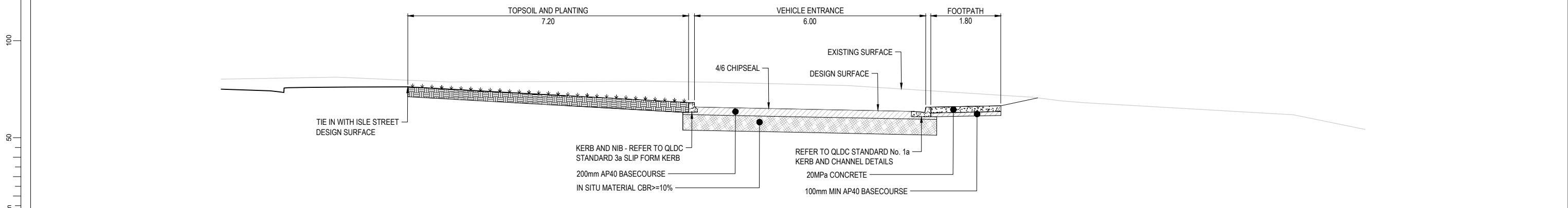
SCALES	DESIGNED	APPROVED
1:50	F ZIMMERMAN	B MILLS
DRAWN	DESIGN VERIFIED	APPROVED DATE
N. STORM	M DAVIES	14/12/2021
DRAWING VERIFIED	DESIGN VERIFIED	APPROVED DATE
F ZIMMERMAN	M DAVIES	14/12/2021

PROJECT	TITLE	DRAWING NUMBER	REVISION
LAKEVIEW SUB DIVISION INFRASTRUCTURE TEMPORARY CARPARK	TYPICAL CROSSSECTIONS CH10 & CH50	3334066-CA-1420	1

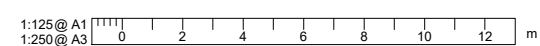
FOR CONSTRUCTION
PRINTED 11/05/2022 6:44:50 PM



C TYPICAL CROSS SECTION CH:90
 CA-1403 SCALE 1:50



D TYPICAL CROSS SECTION CH:160
 CA-1403 SCALE 1:50



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REVISION	AMENDMENT	APPROVED	DATE
A	UPDATED LAYOUT FOR CONSENT	MD	14/12/2021
B	FOR ENGINEERING PLAN APPROVAL	BM	23/02/2022
1	FOR CONSTRUCTION	BM	11/05/2022



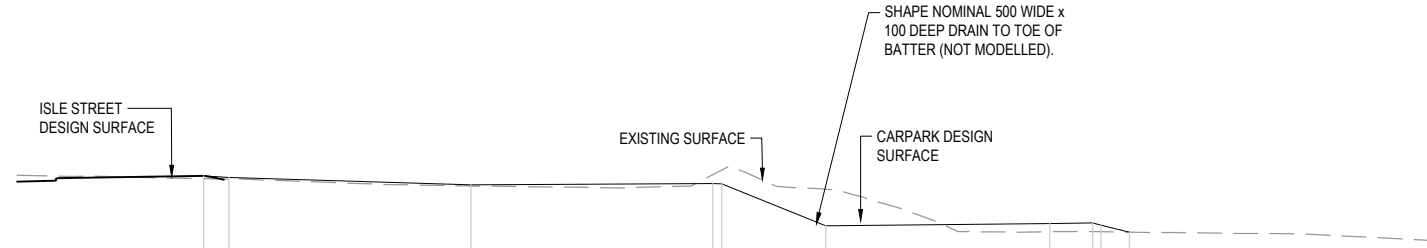
SCALES	DESIGNED	APPROVED	ORIGINAL SIZE
1:50	F ZIMMERMAN	B MILLS	A1
DRAWN	DESIGNED	APPROVED	
N STORM	F ZIMMERMAN	B MILLS	
DRAWING VERIFIED	DESIGN VERIFIED	APPROVED DATE	
F ZIMMERMAN	M DAVIES	14/12/2021	

DETAILED DESIGN

PROJECT	TITLE	DRAWING NUMBER	REVISION
LAKEVIEW SUB DIVISION INFRASTRUCTURE TEMPORARY CARPARK	TYPICAL CROSSSECTIONS CH90 & CH160	3334066-CA-1421	1

NOTES:

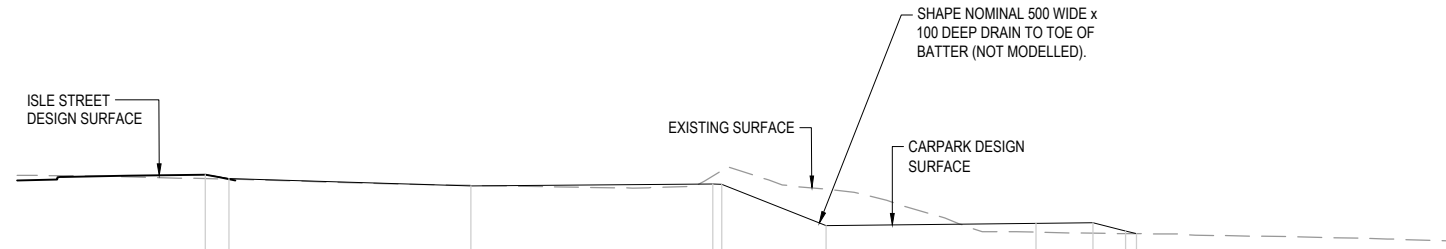
REFER SHEET 1403 FOR CHAINAGE LOCATIONS.



Datum: 345.000

CUT/FILL		0.096	0.050	0.041	-0.283	-1.203	0.274	0.288	0.002
DESIGN LEVELS		351.749	351.692	351.452	351.491	350.100	350.174	350.188	349.884
EXISTING LEVELS		351.653	351.643	351.411	351.794	351.302	349.900	349.900	349.882
DESIGN OFFSETS		-8.829	-8.000	0.000	8.000	11.745	19.151	20.585	21.782

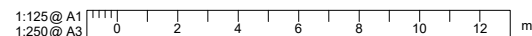
CHAINAGE: 40.00



Datum: 345.000

CUT/FILL		0.132	0.012	-0.017	-0.282	-1.196	0.286	0.345	0.087	0.000
DESIGN LEVELS		351.878	351.745	351.505	351.567	350.196	350.286	350.285	350.015	349.926
EXISTING LEVELS		351.746	351.733	351.522	351.829	351.392	349.980	349.940	349.929	349.926
DESIGN OFFSETS		-8.781	-8.000	0.000	8.000	11.752	18.691	20.572	21.649	22.008

CHAINAGE: 30.00



FOR CONSTRUCTION

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REVISION	AMENDMENT	APPROVED	DATE
A	UPDATED LAYOUT FOR CONSENT	MD	14/12/2021
B	FOR ENGINEERING PLAN APPROVAL	BM	23/02/2022
1	FOR CONSTRUCTION	BM	11/05/2022



SCALES	DESIGNED	APPROVED
1:125	F ZIMMERMAN	B MILLS
DRAWN	DESIGN VERIFIED	APPROVED DATE
S TUTGUN	M DAVIES	14/12/2021
F ZIMMERMAN	M DAVIES	14/12/2021

PROJECT
LAKEVIEW SUB DIVISION INFRASTRUCTURE
TEMPORARY CARPARK

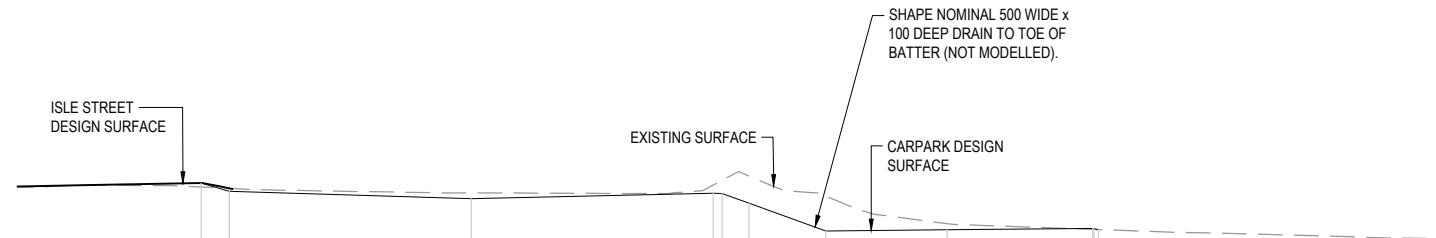
TITLE
CROSS SECTIONS
SHEET 2 OF 9

DRAWING NUMBER
3334066-CA-1432

REVISION
1

NOTES:

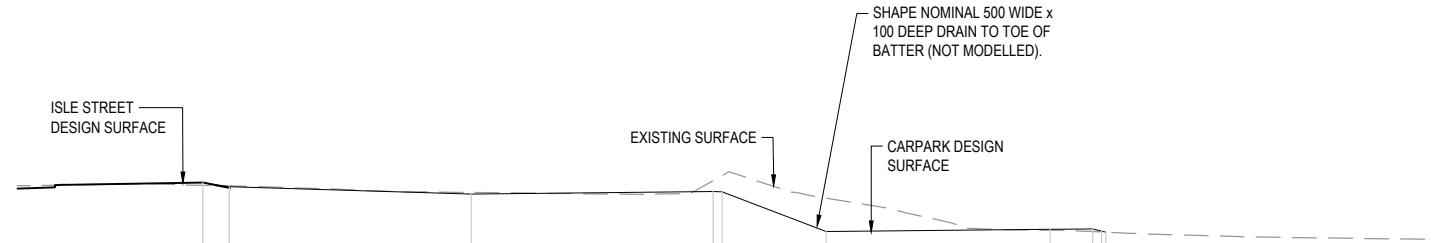
REFER SHEET 1403 FOR CHAINAGE LOCATIONS.



Datum: 345.000

CUT/FILL		0.133	-0.103		-0.191		-0.266	-0.894	-1.153		-0.203	0.033	-0.008
DESIGN LEVELS		351.490	351.210		350.970		351.152	350.827	349.902		349.942	349.990	349.942
EXISTING LEVELS		351.357	351.313		351.161		351.418	351.721	351.055		350.145	349.957	349.950
DESIGN OFFSETS		-8.924	-8.000		0.000		8.000	9.188	11.732		15.740	20.552	20.742

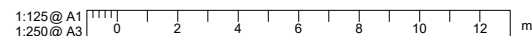
CHAINAGE: 60.00



Datum: 345.000

CUT/FILL		0.087	-0.032		-0.055		-0.352	-1.106		0.027	0.090	0.003
DESIGN LEVELS		351.620	351.482		351.242		351.331	350.003	350.077		350.091	349.985
EXISTING LEVELS		351.532	351.514		351.297		351.683	351.109	350.050		350.002	349.982
DESIGN OFFSETS		-8.876	-8.000		0.000		8.000	11.739	19.144		20.559	20.983

CHAINAGE: 50.00



FOR CONSTRUCTION
PRINTED 11/05/2022 6:46:05 PM

REVISION	AMENDMENT	APPROVED	DATE
A	UPDATED LAYOUT FOR CONSENT	MD	14/12/2021
B	FOR ENGINEERING PLAN APPROVAL	BM	23/02/2022
1	FOR CONSTRUCTION	BM	11/05/2022

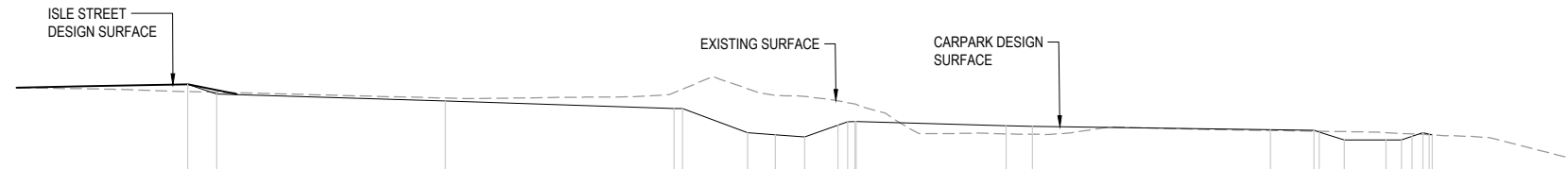


SCALES		ORIGINAL SIZE
1:125		A1
DRAWN	DESIGNED	APPROVED
S TUTGUN	F ZIMMERMAN	B MILLS
DRAWING VERIFIED	DESIGN VERIFIED	APPROVED DATE
F ZIMMERMAN	M DAVIES	14/12/2021

PROJECT	
LAKEVIEW SUB DIVISION INFRASTRUCTURE TEMPORARY CARPARK	
TITLE	
CROSS SECTIONS SHEET 3 OF 9	
DRAWING NUMBER	REVISION
3334066-CA-1433	1

NOTES:

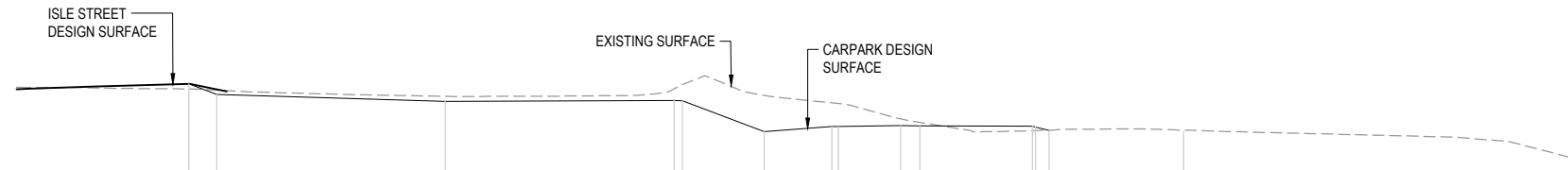
REFER SHEET 1403 FOR CHAINAGE LOCATIONS.



Datum: 345.000

CUT/FILL	351.232	350.888	350.648	350.388	349.536	349.464	349.386	349.802	349.930	349.785	349.762	349.646	349.624	349.279	349.540	349.411	349.483	349.463	349.458	349.458
DESIGN LEVELS	351.232	350.888	350.648	350.388	349.536	349.464	349.386	349.802	349.930	349.785	349.762	349.646	349.624	349.279	349.540	349.411	349.483	349.463	349.458	349.458
EXISTING LEVELS	350.977	350.951	350.751	350.941	351.076	350.848	350.806	350.657	350.539	349.497	349.482	349.614	349.591	349.279	349.540	349.493	349.463	349.458	349.458	349.458
DESIGN OFFSETS	-9.020	-8.000	0.000	8.000	10.576	11.542	12.576	13.736	14.333	19.625	20.538	28.867	30.391	31.450	32.911	33.828	34.428	34.529	34.529	0.000

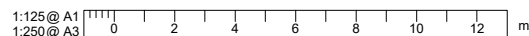
CHAINAGE: 80.00



Datum: 345.000

CUT/FILL	351.361	350.993	350.753	350.763	349.684	349.867	349.874	349.893	349.876	349.849	349.742
DESIGN LEVELS	351.361	350.993	350.753	350.763	349.684	349.867	349.874	349.893	349.876	349.849	349.742
EXISTING LEVELS	351.182	351.146	350.925	351.186	350.959	350.698	350.576	350.012	349.720	349.722	349.742
DESIGN OFFSETS	-8.972	-8.000	0.000	8.000	11.161	13.529	13.755	16.604	20.545	20.654	25.836

CHAINAGE: 70.00



FOR CONSTRUCTION
PRINTED 11/05/2022 6:46:22 PM

REVISION	AMENDMENT	APPROVED	DATE
A	UPDATED LAYOUT FOR CONSENT	MD	14/12/2021
B	FOR ENGINEERING PLAN APPROVAL	BM	23/02/2022
1	FOR CONSTRUCTION	BM	11/05/2022



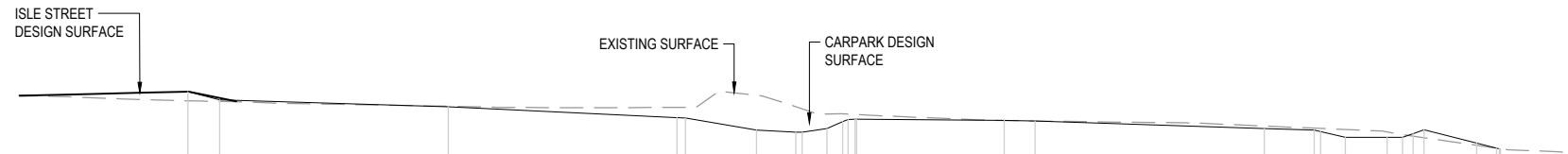
SCALES	DESIGNED	APPROVED
1:125	F ZIMMERMAN	B MILLS
DRAWN	S TUTGUN	F ZIMMERMAN
DESIGN VERIFIED	F ZIMMERMAN	M DAVIES
APPROVED DATE	14/12/2021	

ORIGINAL SIZE: A1
DETAILED DESIGN

PROJECT	TITLE	DRAWING NUMBER	REVISION
LAKEVIEW SUB DIVISION INFRASTRUCTURE TEMPORARY CARPARK	CROSS SECTIONS SHEET 4 OF 9	3334066-CA-1434	1

NOTES:

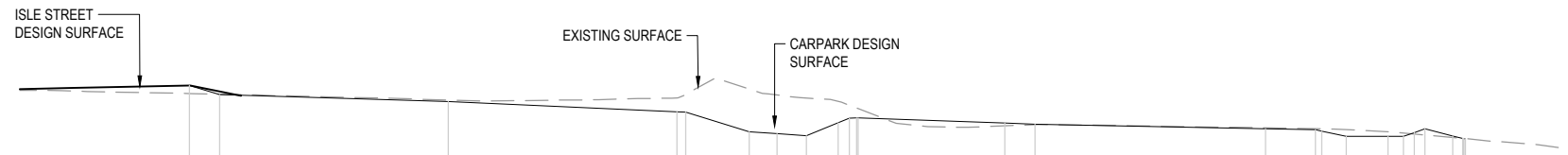
REFER SHEET 1403 FOR CHAINAGE LOCATIONS.



Datum: 345.000

CUT/FILL	0.315	0.315	0.055	-0.013	-0.361	-1.218	-0.888	-0.513	-0.274	-0.160	0.001	0.001	-0.087	-0.089	-0.273	-0.189	0.093	0.079	0.005	-0.010
DESIGN LEVELS	350.973	350.973	350.692	350.452	350.066	349.628	349.563	349.684	349.927	350.017	349.967	349.952	349.684	349.629	349.379	349.379	349.510	349.177	349.002	348.968
EXISTING LEVELS	350.658	350.637	350.637	350.465	350.427	350.846	350.451	350.197	350.200	350.176	349.966	349.951	349.771	349.698	349.652	349.568	349.417	349.098	348.998	348.978
DESIGN OFFSETS	-9.115	-8.000		0.000	8.000	10.782	12.161	13.243	13.800	14.285	19.451	20.525	28.551	30.294	31.381	32.843	33.759	35.975	36.675	36.814

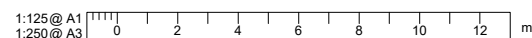
CHAINAGE: 100.00



Datum: 345.000

CUT/FILL	0.279	-0.012	-0.050	-0.490	-1.493	-1.354	-1.321	-0.747	-0.451	0.094	0.011	-0.035	-0.037	-0.234	-0.157	0.050	0.055	-0.016
DESIGN LEVELS	351.103	350.790	350.550	350.183	349.486	349.421	349.349	349.805	349.965	349.790	349.751	349.592	349.560	349.329	349.329	349.460	349.344	349.235
EXISTING LEVELS	350.823	350.802	350.600	350.673	350.979	350.775	350.670	350.552	350.416	349.696	349.741	349.627	349.597	349.563	349.486	349.410	349.280	349.250
DESIGN OFFSETS	-9.068	-8.000	0.000	8.000	10.531	11.497	12.531	13.640	14.031	19.464	20.532	28.591	30.342	31.415	32.877	33.793	35.145	35.584

CHAINAGE: 90.00



FOR CONSTRUCTION
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REVISION	AMENDMENT	APPROVED	DATE
A	UPDATED LAYOUT FOR CONSENT	MD	14/12/2021
B	FOR ENGINEERING PLAN APPROVAL	BM	23/02/2022
1	FOR CONSTRUCTION	BM	11/05/2022

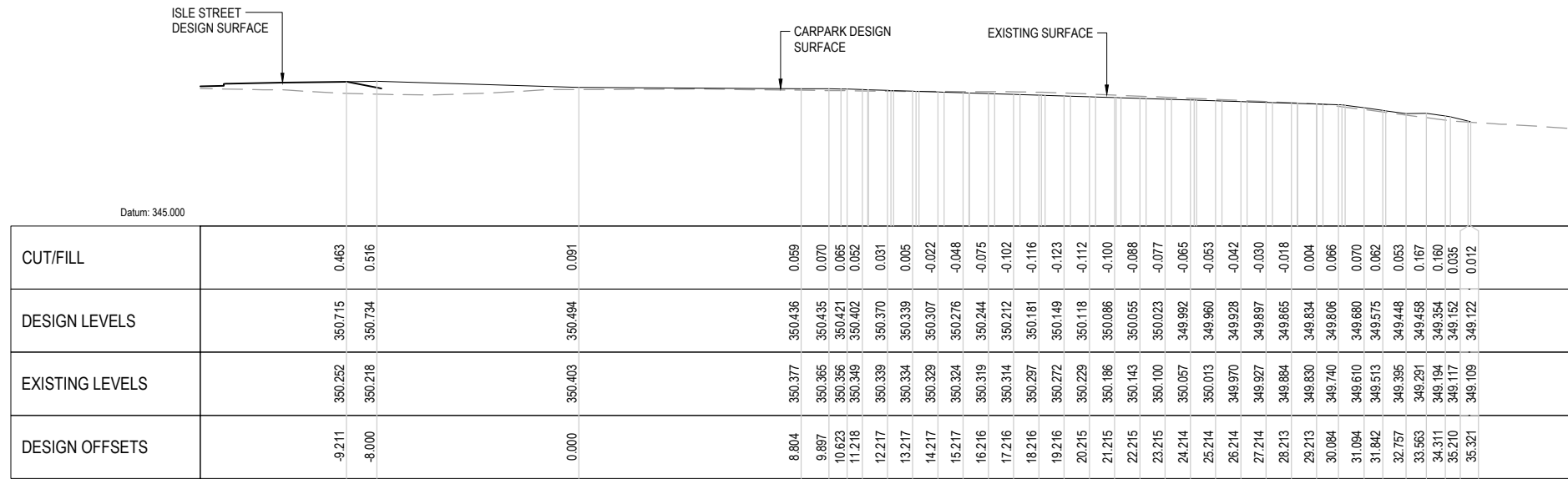


SCALES	DESIGNED	APPROVED
1:125	F ZIMMERMAN	B MILLS
ORIGINAL SIZE A1		
DRAWN	DESIGN VERIFIED	APPROVED DATE
S TUTGUN	M DAVIES	14/12/2021
DRAWING VERIFIED	DESIGN VERIFIED	APPROVED DATE
F ZIMMERMAN	M DAVIES	14/12/2021

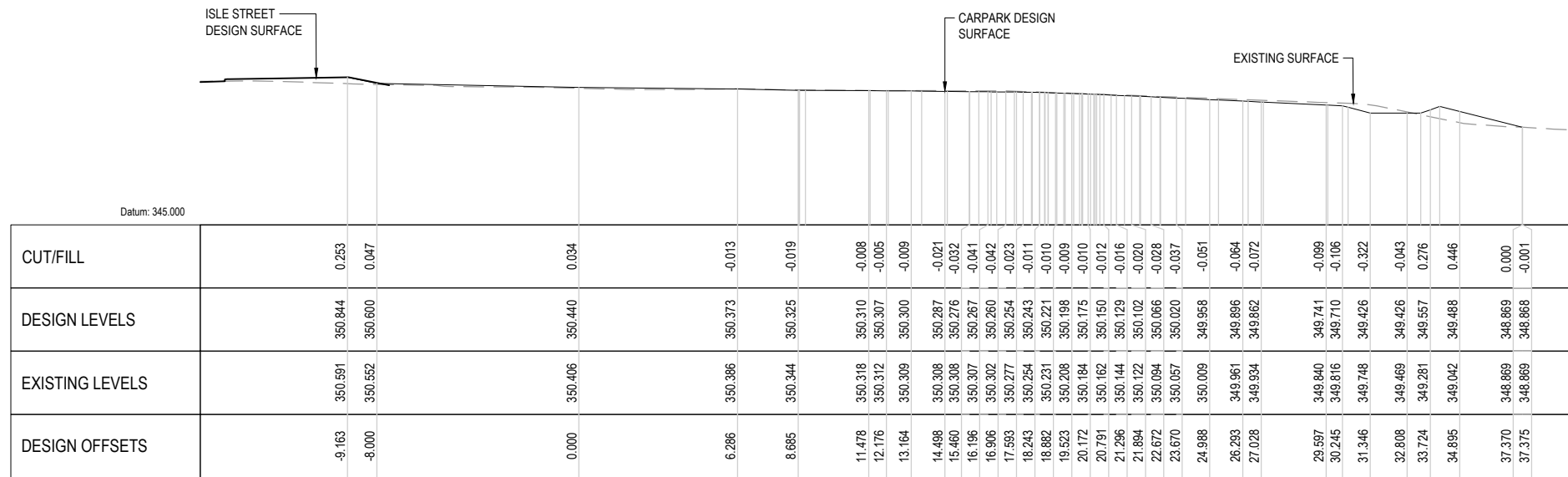
PROJECT	TITLE	DRAWING NUMBER	REVISION
LAKEVIEW SUB DIVISION INFRASTRUCTURE TEMPORARY CARPARK	CROSS SECTIONS SHEET 5 OF 9	3334066-CA-1435	1

NOTES:

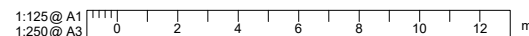
REFER SHEET 1403 FOR CHAINAGE LOCATIONS.



CHAINAGE: 120.00



CHAINAGE: 110.00



FOR CONSTRUCTION
PRINTED 11/05/2022 6:46:58 PM

REVISION	AMENDMENT	APPROVED	DATE
A	UPDATED LAYOUT FOR CONSENT	MD	14/12/2021
B	FOR ENGINEERING PLAN APPROVAL	BM	23/02/2022
1	FOR CONSTRUCTION	BM	11/05/2022

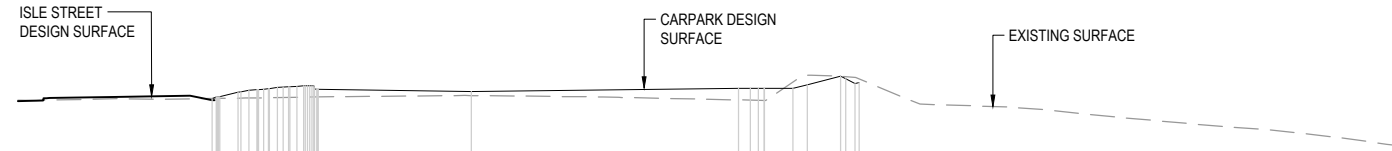


SCALES		ORIGINAL SIZE	
1:125		A1	
DRAWN	DESIGNED	APPROVED	
S TUTGUN	F ZIMMERMAN	B MILLS	
DRAWING VERIFIED	DESIGN VERIFIED	APPROVED DATE	
F ZIMMERMAN	M DAVIES	14/12/2021	

PROJECT	
LAKEVIEW SUB DIVISION INFRASTRUCTURE TEMPORARY CARPARK	
TITLE	
CROSS SECTIONS SHEET 6 OF 9	
DRAWING NUMBER	
3334066-CA-1436	
REVISION	
1	

NOTES:

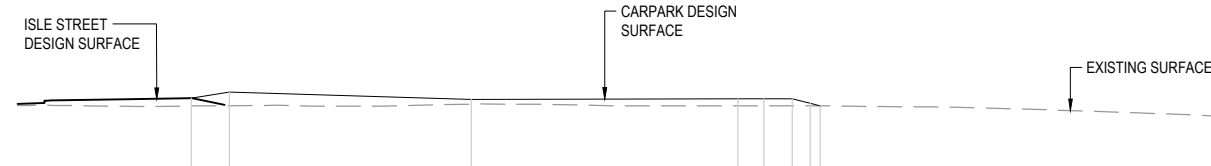
REFER SHEET 1403 FOR CHAINAGE LOCATIONS.



Datum: 345.000

CUT/FILL		0.001		0.133		0.385	0.399	-0.197	0.000	-0.127
DESIGN LEVELS		350.363	350.424	350.581	350.661	350.731	350.769	350.664	350.594	350.461
EXISTING LEVELS		350.363	350.366	350.376	350.386	350.397	350.409	350.417	350.461	350.594
DESIGN OFFSETS		-8.578	-8.325	-7.622	-7.038	-6.417	-5.765	-5.071	0.000	0.000

CHAINAGE: 140.00

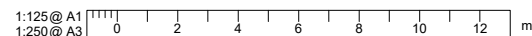


Datum: 345.000

CUT/FILL		0.255	0.448	0.157	0.236	0.233	0.230	0.081	-0.001
DESIGN LEVELS		350.566	350.769	350.549	350.570	350.569	350.568	350.420	350.339
EXISTING LEVELS		350.331	350.341	350.392	350.334	350.336	350.338	350.339	350.340
DESIGN OFFSETS		-9.259	-8.000	0.000	8.817	9.679	10.617	11.208	11.532

CHAINAGE: 130.00

0 - 10 mm
50
100
200
300 mm



FOR CONSTRUCTION

PRINTED 11/05/2022 6:47:16 PM

REVISION	AMENDMENT	APPROVED	DATE
A	UPDATED LAYOUT FOR CONSENT	MD	14/12/2021
B	FOR ENGINEERING PLAN APPROVAL	BM	23/02/2022
1	FOR CONSTRUCTION	BM	11/05/2022



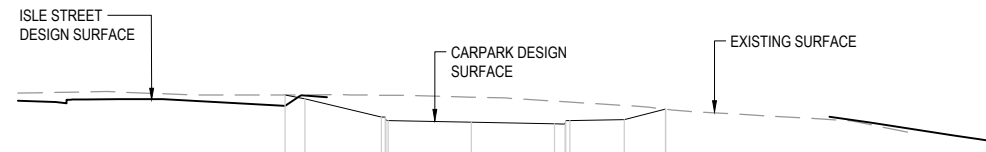
SCALES	DESIGNED	APPROVED
1:125	F ZIMMERMAN	B MILLS
DRAWN	DESIGN VERIFIED	APPROVED DATE
S TUTGUN	M DAVIES	14/12/2021

DETAILED DESIGN

PROJECT	TITLE	DRAWING NUMBER	REVISION
LAKEVIEW SUB DIVISION INFRASTRUCTURE TEMPORARY CARPARK	CROSS SECTIONS SHEET 7 OF 9	3334066-CA-1437	1

NOTES:

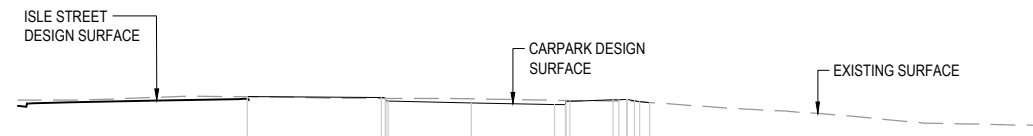
REFER SHEET 1403 FOR CHAINAGE LOCATIONS.



Datum: 345.000

CUT/FILL			0.000	-0.127	-0.836	-0.830	-0.754	-0.614	-0.463	0.000	0.000
DESIGN LEVELS		350.154	350.028	349.305	349.250	349.195	349.302	349.338	349.680	349.680	349.680
EXISTING LEVELS		350.154	350.155	350.141	350.079	349.948	349.916	349.802	349.680	349.680	349.680
DESIGN OFFSETS		-6.159	-5.508	-2.750	0.000	2.750	3.255	5.055	6.426	6.426	0.000

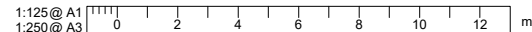
CHAINAGE: 160.00



Datum: 345.000

CUT/FILL		0.000	-0.094	-0.136	-0.141	-0.027	0.034	0.017	-0.007		
DESIGN LEVELS		350.373	350.225	350.170	350.115	350.223	350.268	350.237	350.176		
EXISTING LEVELS		350.373	350.318	350.305	350.266	350.249	350.234	350.220	350.183		
DESIGN OFFSETS		-7.409	-2.750	0.000	2.750	3.255	4.681	5.388	5.894		

CHAINAGE: 150.00



FOR CONSTRUCTION
PRINTED 11/05/2022 6:47:34 PM

REVISION	AMENDMENT	APPROVED	DATE
A	UPDATED LAYOUT FOR CONSENT	MD	14/12/2021
B	FOR ENGINEERING PLAN APPROVAL	BM	23/02/2022
1	FOR CONSTRUCTION	BM	11/05/2022



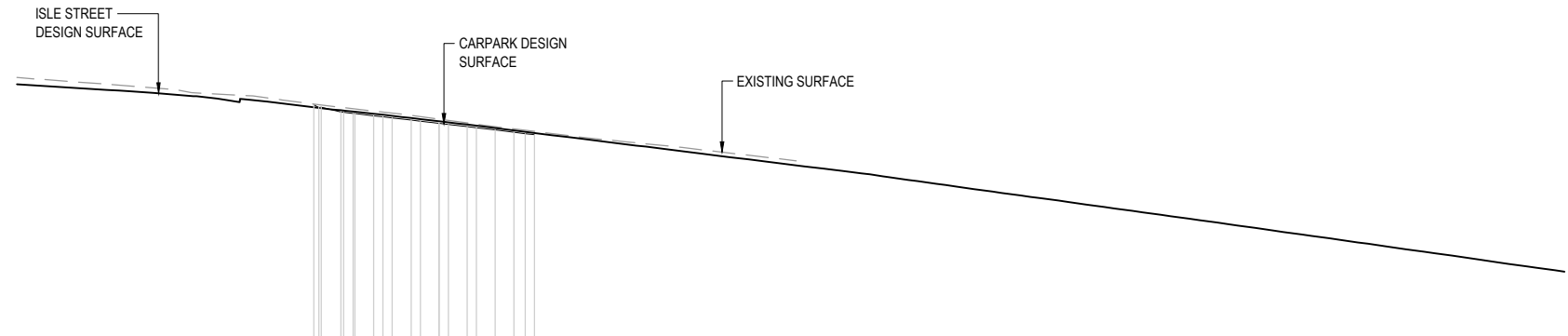
SCALES	DESIGNED	APPROVED	ORIGINAL SIZE
1:125	F ZIMMERMAN	B MILLS	A1
DRAWN	DESIGNED	APPROVED	
S TUTGUN	F ZIMMERMAN	B MILLS	
DRAWING VERIFIED	DESIGN VERIFIED	APPROVED DATE	
F ZIMMERMAN	M DAVIES	14/12/2021	

PROJECT	TITLE	DRAWING NUMBER	REVISION
LAKEVIEW SUB DIVISION INFRASTRUCTURE TEMPORARY CARPARK	CROSS SECTIONS SHEET 8 OF 9	3334066-CA-1438	1

NOTES:

REFER SHEET 1403 FOR CHAINAGE LOCATIONS.

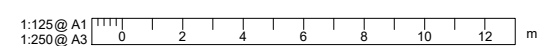
300 mm
200
100
50
0 - 10 mm



Datum: 340.000

CUT/FILL													
DESIGN LEVELS		348.904	348.819	348.649	348.596	348.516	348.443	348.329	348.254	348.134	348.014	347.935	347.846
EXISTING LEVELS		348.934	348.900	348.815	348.760	348.685	348.613	348.487	348.397	348.260	348.132	348.050	347.961
DESIGN OFFSETS		-4.451	-1.181	-3.489	-2.989	-2.317	-1.660	-0.660	0.000	1.005	1.999	2.867	3.397

CHAINAGE: 170.00



FOR CONSTRUCTION
PRINTED 11/05/2022 6:47:46 PM

REVISION	AMENDMENT	APPROVED	DATE
A	UPDATED LAYOUT FOR CONSENT	MD	14/12/2021
B	FOR ENGINEERING PLAN APPROVAL	BM	23/02/2022
1	FOR CONSTRUCTION	BM	11/05/2022



SCALES		ORIGINAL SIZE
1:125		A1
DRAWN	DESIGNED	APPROVED
S TUTGUN	F ZIMMERMAN	B MILLS
DRAWING VERIFIED	DESIGN VERIFIED	APPROVED DATE
F ZIMMERMAN	M DAVIES	14/12/2021

PROJECT	TITLE	DRAWING NUMBER	REVISION
LAKEVIEW SUB DIVISION INFRASTRUCTURE TEMPORARY CARPARK	CROSS SECTIONS SHEET 9 OF 9	3334066-CA-1439	1