

Plans

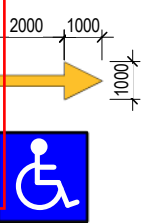
APPROVED

Landscaping to be updated in response to any changes required by Condition 19 - Stormwater Management (Quality)

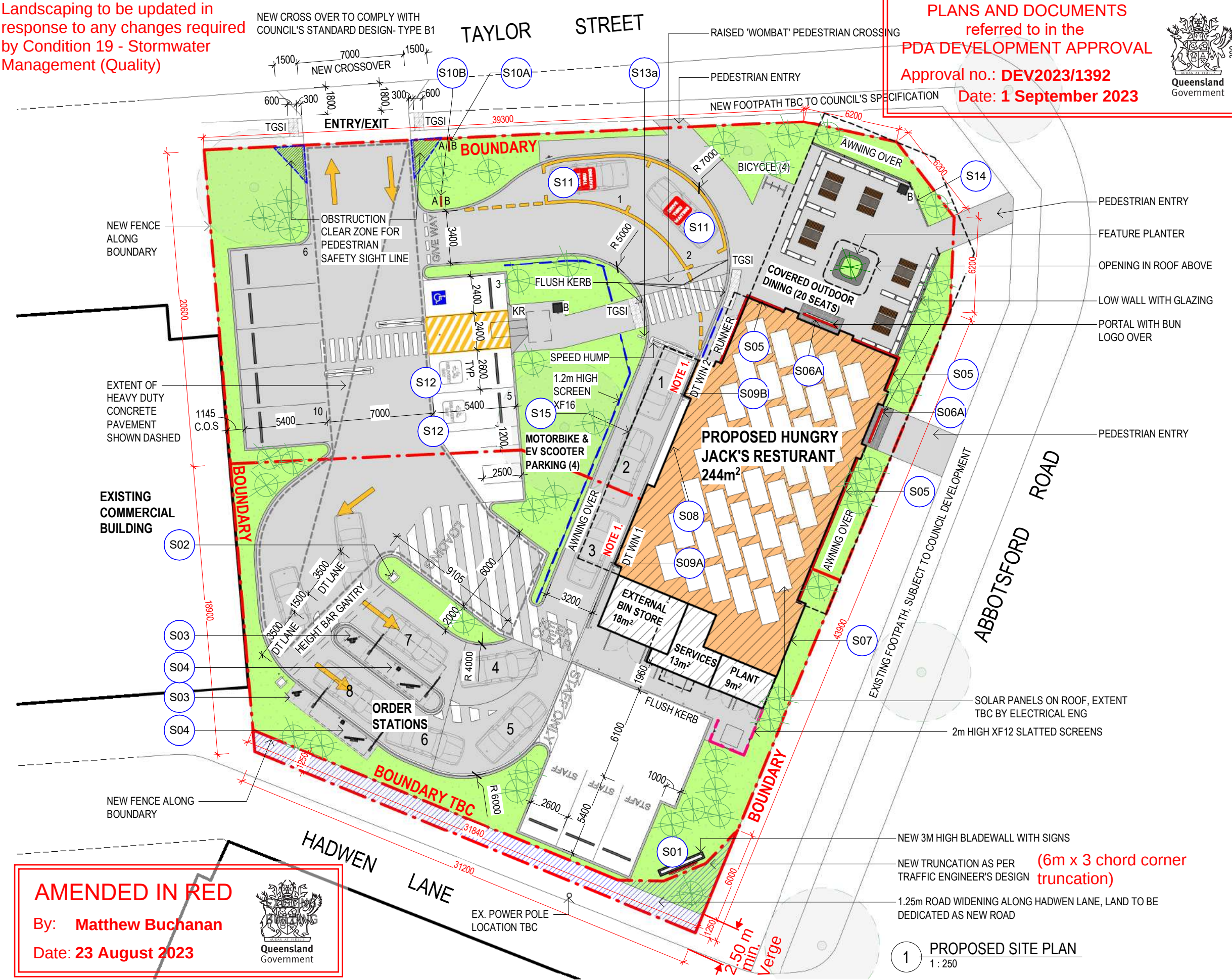
NEW CROSS OVER TO COMPLY WITH COUNCIL'S STANDARD DESIGN- TYPE B1

TAYLOR STREET

PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL
Approval no.: **DEV2023/1392**
Date: **1 September 2023**



- GENERAL KEY:**
- YELLOW PAINTED DIRECTIONAL ARROW
 - WHITE "SYMBOL OF ACCESS" 900mm ON BLUE SQUARE 1200mm SQ. TO COMPLY WITH AS1428.1
 - PROPRIETARY WHEEL STOPS
 - BLACK CONCRETE TO DRIVE-THRU LANE, DRIVE THRU ORDER STATION, ALL KERBS AND CHANNELS. 5% BLACK OXIDE, BORAL MINOX B100 OR EQUAL
 - BOUNDARY LINE
 - BIN WITH CONCRETE BASE
 - KRB KERB RAMP
 - SAFETY BOLLARDS, REFER TO EXTERNAL FINISHES SCHEDULE
 - ILLUMINATED RED LIGHTBOX
 - 1.2m HIGH PERFORATED SCREEN ALONG DRIVE THRU, REFER TO EXTERNAL FINISHES SCHEDULE
 - 2m HIGH XF12 SLATTED SCREENS, REFER TO EXTERNAL FINISHES SCHEDULE
 - LANDSCAPE - REFER TO LANDSCAPE DRAWINGS



AREA SCHEDULE	
LOT SIZE:	1925m ²
GFA	244 m ²
BIN ROOM	18 m ²
PLANT	9 m ²
ACCESSIBLE PARKING:	1 SPACES
CAR SPACES PROVIDED:	5 SPACES
DELIVERY PARKING:	2 SPACES
STAFF SPACES PROVIDED:	3 SPACES
CUSTOMER WAITING SPACE:	2 SPACES
TOTAL CAR PARKING	13 SPACES
MOTORBIKE/EV SCOOTER PARKING	4 SPACES
BICYCLE PARKING	4 SPACES
GFA (GROSS FLOOR AREA FOR QLD) - MEASURED FROM THE OUTSIDE OF EXTERNAL WALLS.	

NOTE 1: PAVEMENT LEVEL AT DRIVE-THRU SERVICE WINDOWS TO MATCH INTERNAL FFL FOR EASE OF OPERATIONS

NOTE: SITE PLAN IS DRAWN BASED ON CAD FROM OTHERS. THIS IS ONLY CONCEPT DESIGN. CHECK SURVEY DRAWINGS PRIOR TO COMMENCEMENT OF ANY SITE WORKS. EXTENT OF SOLAR PANELS ON ROOF TBC

NOT FOR CONSTRUCTION

AMENDED IN RED

By: **Matthew Buchanan**

Date: **23 August 2023**



CLIENT
HUNGRY JACK'S PTY. LTD.
L6 - 100 WILLIAM STREET
WOOLLOOMOOLOO NSW 2011

COPYRIGHT HUNGRY JACK'S PTY LTD.
COPYING, REPRODUCTION OR USE OF THIS DESIGN OR DRAWING IN WHOLE OR PART IS PROHIBITED WITHOUT THE WRITTEN CONSENT OF HUNGRY JACK'S PTY LTD

REV	DATE	AMENDMENT	DRW
1	21.07.23	ISSUE FOR DA	LW

VERIFY ALL DIMENSIONS AND LEVELS ON SITE AND REPORT ANY DISCREPANCIES PRIOR TO THE COMMENCEMENT OF WORK. DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL CONTRACT DOCUMENTS. USE FIGURED DIMENSIONS ONLY. DO NOT SCALE FROM DRAWINGS. THE COMPLETION OF THE ISSUE DETAILS CHECKED AND AUTHORISED SECTION IS CONFIRMATION OF THE STATUS OF THE DRAWING. THE DRAWING SHALL NOT BE USED FOR CONSTRUCTION UNLESS ENDORSED 'FOR CONSTRUCTION' AND AUTHORISED FOR ISSUE.



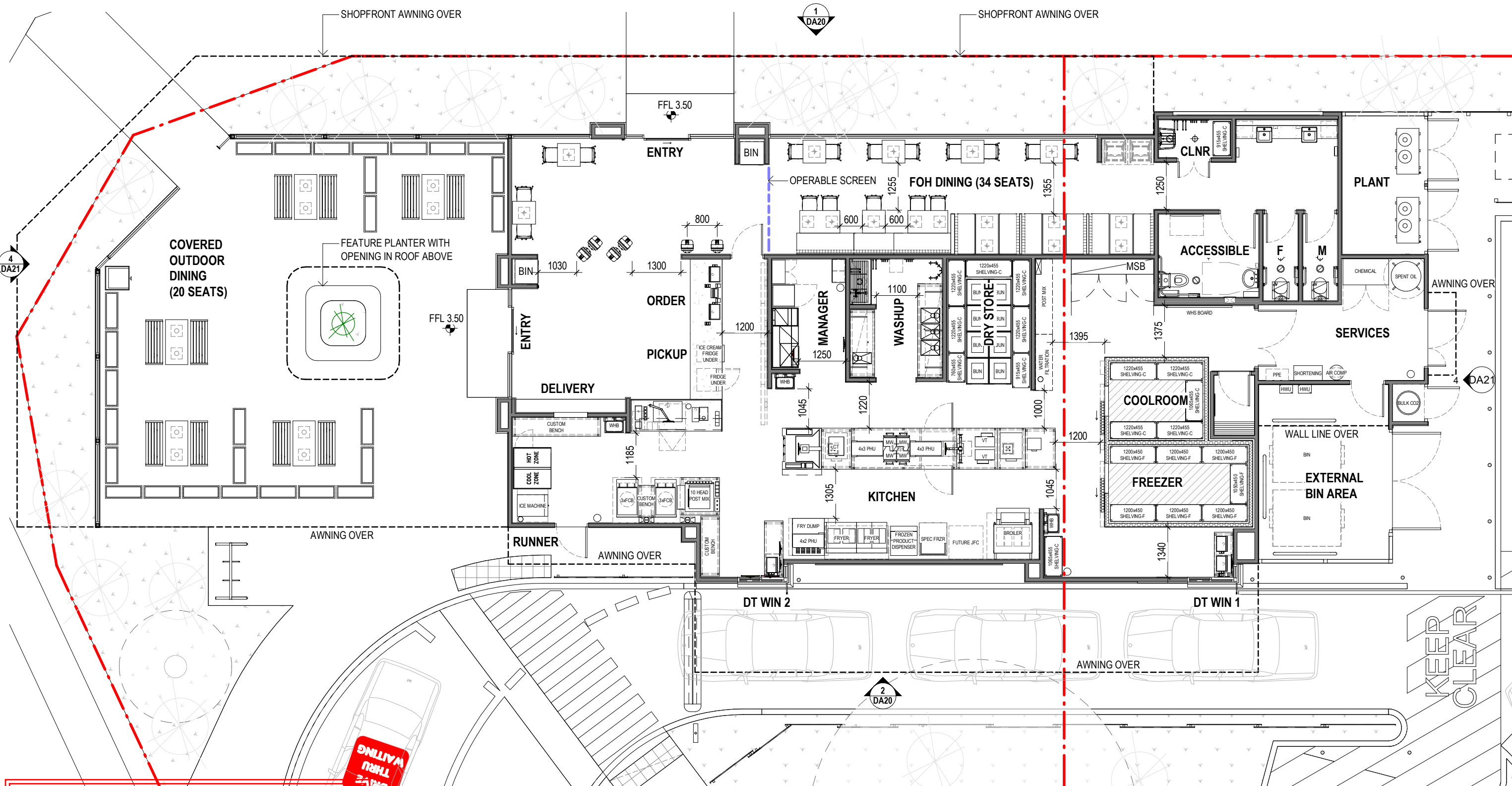
Suite 302/12 Ormonde Pde
Hurstville NSW 2220
ABN 48 602 616 925
PH : 02 9579 6292
info@kasarchitects.com.au

Nominated Architect: Ken Sonjes
Registered No. 7902 NSW | 2907 WA | 19823 VIC

- SKETCH
- PLANNING PERMIT
- AMENDED DA
- BA / CC
- TENDER
- CONSTRUCTION

PROJECT HUNGRY JACK'S
ALBION
254-270 ABBOTSFORD ROAD
BOWEN HILLS QLD 4006

DRAWING		
PROPOSED SITE & SIGNAGE LOCATION PLAN		
PROJECT NO.	211106	
SCALE	As indicated@A3	DRAWING NO.
		DA01
		REV.
		1



PLANS AND DOCUMENTS
referred to in the
PDA DEVELOPMENT APPROVAL
Approval no.: DEV2023/1392
Date: 1 September 2023



CLIENT
HUNGRY JACK'S PTY. LTD.
L6 - 100 WILLIAM STREET
WOOLLOOMOOLOO NSW 2011

REV	DATE	AMENDMENT	DRW
1	21.07.23	ISSUE FOR DA	LW

VERIFY ALL DIMENSIONS AND LEVELS ON SITE AND REPORT ANY DISCREPANCIES PRIOR TO THE COMMENCEMENT OF WORK. DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL CONTRACT DOCUMENTS. USE FIGURED DIMENSIONS ONLY. DO NOT SCALE FROM DRAWINGS. THE COMPLETION OF THE ISSUE DETAILS CHECKED AND AUTHORISED SECTION IS CONFIRMATION OF THE STATUS OF THE DRAWING. THE DRAWING SHALL NOT BE USED FOR CONSTRUCTION UNLESS ENDORSED 'FOR CONSTRUCTION' AND AUTHORISED FOR ISSUE.

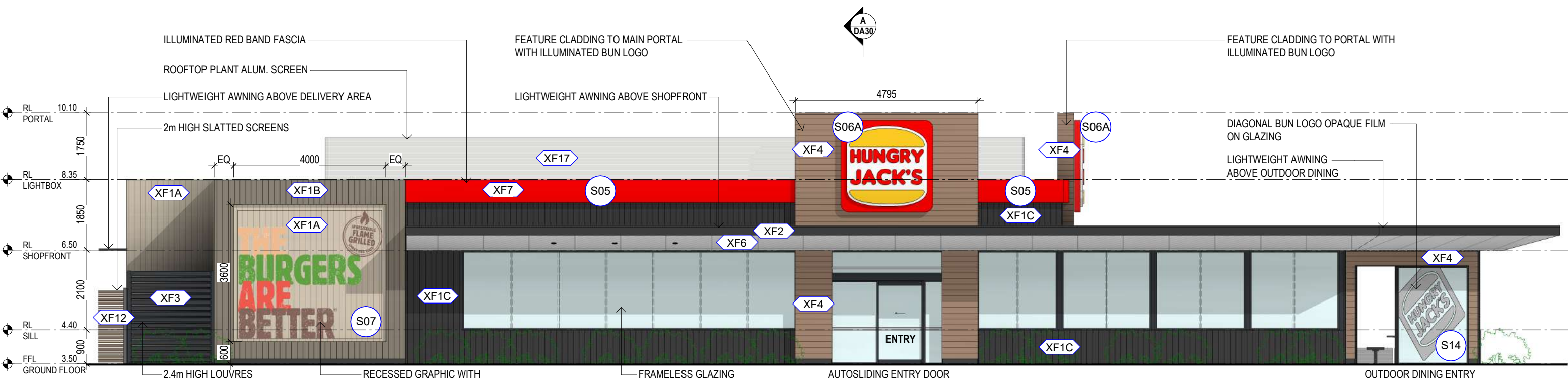


Suite 302/12 Ormonde Pde
Hurstville NSW 2220
ABN 48 602 616 926
PH : 02 9579 6292
info@kasarchitects.com.au
Nominated Architect: Ken Sonjes
Registered No.
7902 NSW | 2907 WA | 19823 VIC

- ☐ SKETCH
- ☒ PLANNING PERMIT
- ☐ AMENDED DA
- ☐ BA / CC
- ☐ TENDER
- ☐ CONSTRUCTION

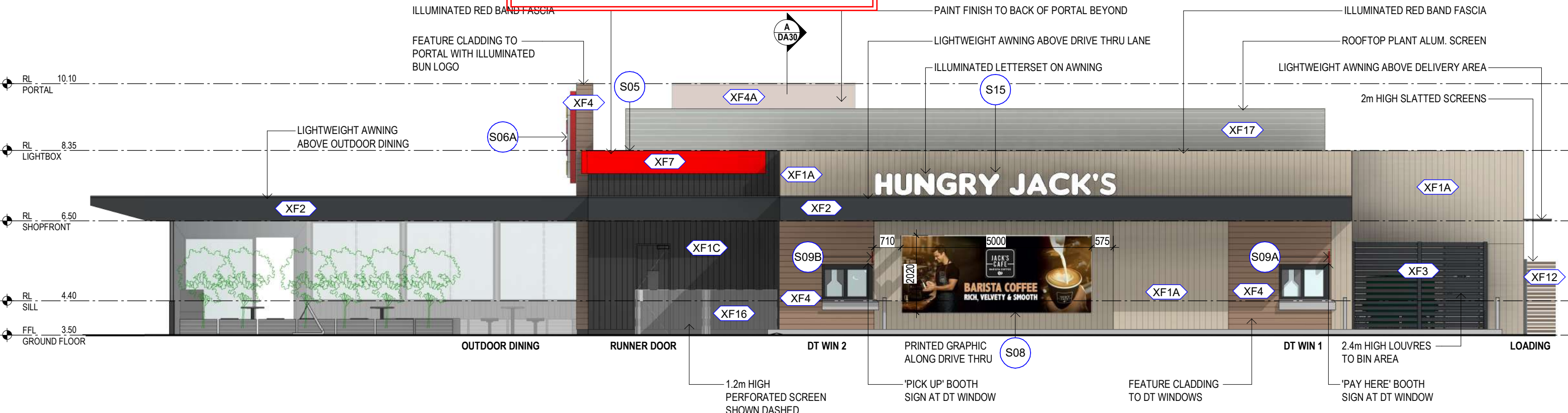
PROJECT HUNGRY JACK'S
ALBION
254-270 ABBOTSFORD ROAD
BOWEN HILLS QLD 4006

NOT FOR CONSTRUCTION		
N		
DRAWING PROPOSED FLOOR PLAN GROUND		
PROJECT NO. 211106		
SCALE N.T.S	DRAWING NO. DA10	REV. 1



1 BUILDING ELEVATION EAST
1 : 100

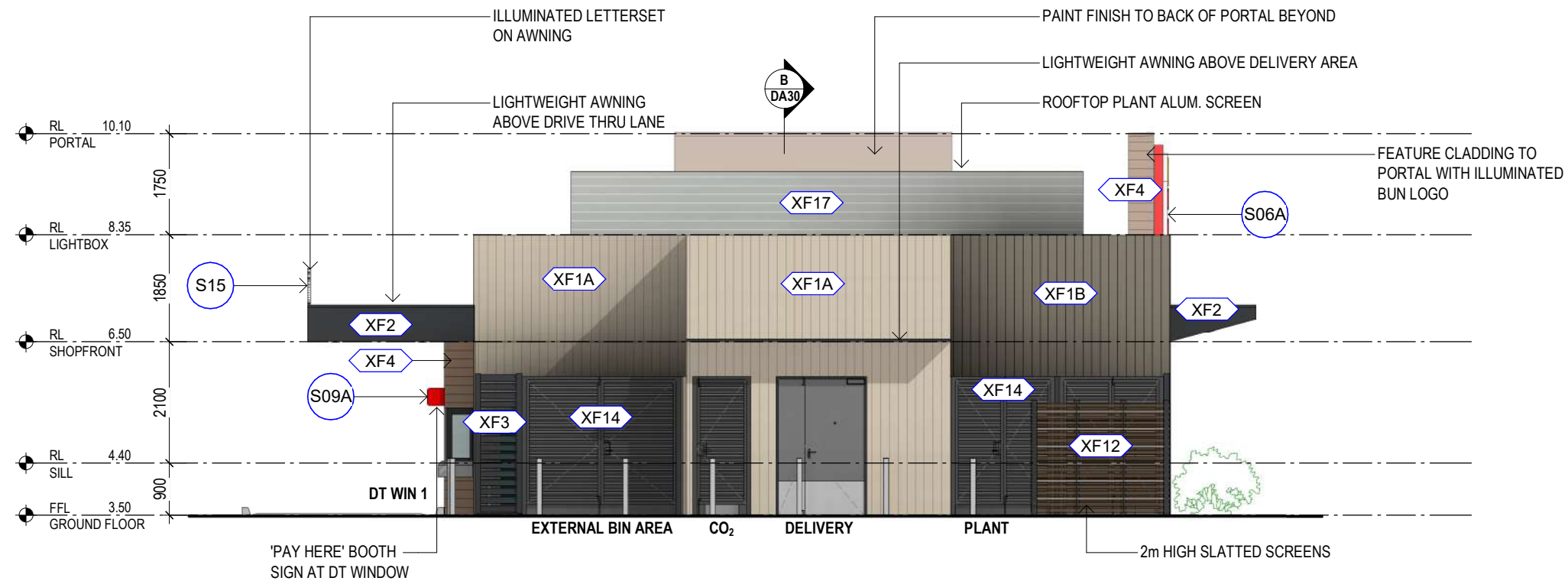
PLANS AND DOCUMENTS
referred to in the
PDA DEVELOPMENT APPROVAL
Approval no.: **DEV2023/1392**
Date: **1 September 2023**



2 BUILDING ELEVATION WEST
1 : 100

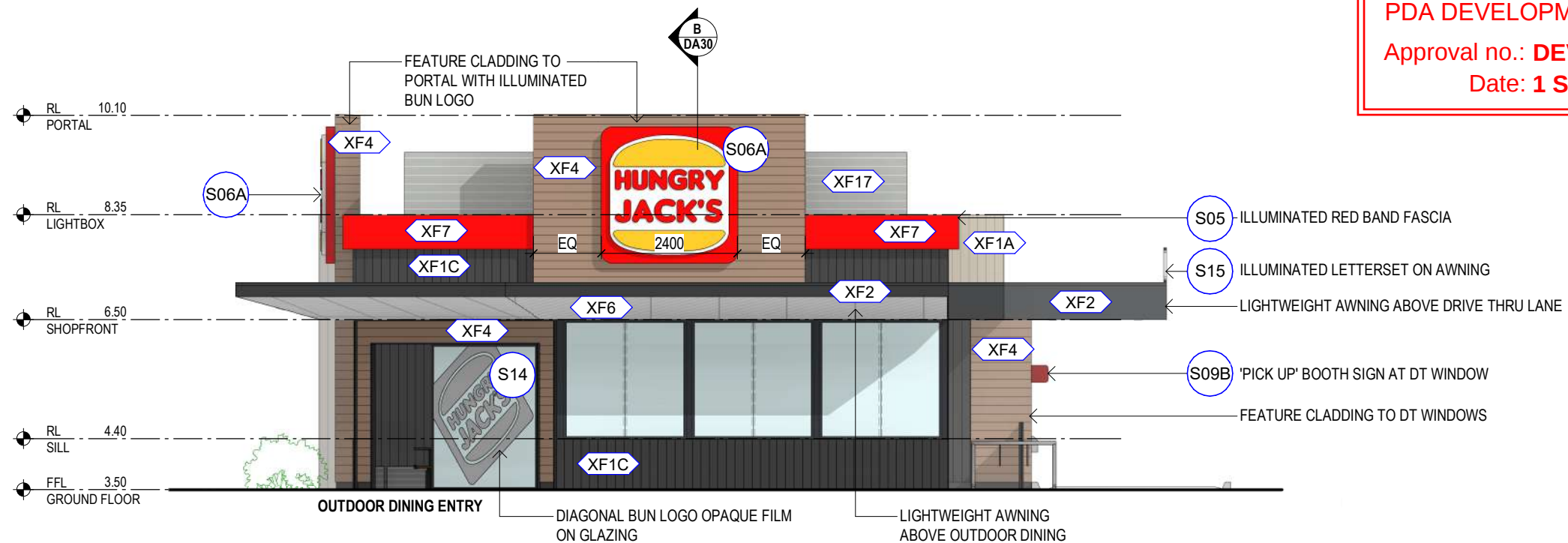
NOT FOR CONSTRUCTION

CLIENT		REV	DATE	AMENDMENT	DRW	VERIFY ALL DIMENSIONS AND LEVELS ON SITE AND REPORT ANY DISCREPANCIES PRIOR TO THE COMMENCEMENT OF WORK. DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL CONTRACT DOCUMENTS. USE FIGURED DIMENSIONS ONLY. DO NOT SCALE FROM DRAWINGS. THE COMPLETION OF THE ISSUE DETAILS CHECKED AND AUTHORISED SECTION IS CONFIRMATION OF THE STATUS OF THE DRAWING. THE DRAWING SHALL NOT BE USED FOR CONSTRUCTION UNLESS ENDORSED 'FOR CONSTRUCTION' AND AUTHORISED FOR ISSUE.  Suite 302/12 Ormonde Pde Hurstville NSW 2220 ABN 48 602 616 928 PH : 02 9579 6292 info@kasarchitects.com.au Nominated Architect: Ken Sonjes Registered No. 7902 NSW 2907 WA 19823 VIC ☐ SKETCH ☒ PLANNING PERMIT ☐ AMENDED DA ☐ BA / CC ☐ TENDER ☐ CONSTRUCTION	PROJECT HUNGRY JACK'S		DRAWING	
 HUNGRY JACK'S PTY. LTD. L6 - 100 WILLIAM STREET WOOLLOOMOOLOO NSW 2011		1	21.07.23	ISSUE FOR DA	LW		ALBION		PROPOSED ELEVATIONS 1 OF 2	
COPYRIGHT HUNGRY JACK'S PTY LTD COPYING, REPRODUCTION OR USE OF THIS DESIGN OR DRAWING IN WHOLE OR PART IS PROHIBITED WITHOUT THE WRITTEN CONSENT OF HUNGRY JACK'S PTY LTD							254-270 ABBOTSFORD ROAD		PROJECT NO. 211106	
							BOWEN HILLS QLD 4006		SCALE 1 : 100@A3	
									DRAWING NO. DA20	
									REV. 1	



3 BUILDING ELEVATION SOUTH
1 : 100

PLANS AND DOCUMENTS
referred to in the
PDA DEVELOPMENT APPROVAL
Approval no.: **DEV2023/1392**
Date: **1 September 2023**



4 BUILDING ELEVATION NORTH
1 : 100

NOT FOR CONSTRUCTION

CLIENT
HUNGRY JACK'S PTY. LTD.
L6 - 100 WILLIAM STREET
WOOLLOOMOOLOO NSW 2011

COPYRIGHT HUNGRY JACK'S PTY LTD
COPYING, REPRODUCTION OR USE OF THIS DESIGN OR DRAWING IN
WHOLE OR PART IS PROHIBITED WITHOUT THE WRITTEN CONSENT
OF HUNGRY JACK'S PTY LTD

REV	DATE	AMENDMENT	DRW
1	21.07.23	ISSUE FOR DA	LW

VERIFY ALL DIMENSIONS AND LEVELS ON SITE AND REPORT ANY DISCREPANCIES PRIOR TO THE COMMENCEMENT OF WORK.
DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL CONTRACT DOCUMENTS. USE FIGURED DIMENSIONS ONLY. DO NOT SCALE FROM DRAWINGS. THE COMPLETION OF THE ISSUE DETAILS CHECKED AND AUTHORISED SECTION IS CONFIRMATION OF THE STATUS OF THE DRAWING. THE DRAWING SHALL NOT BE USED FOR CONSTRUCTION UNLESS ENDORSED 'FOR CONSTRUCTION' AND AUTHORISED FOR ISSUE.



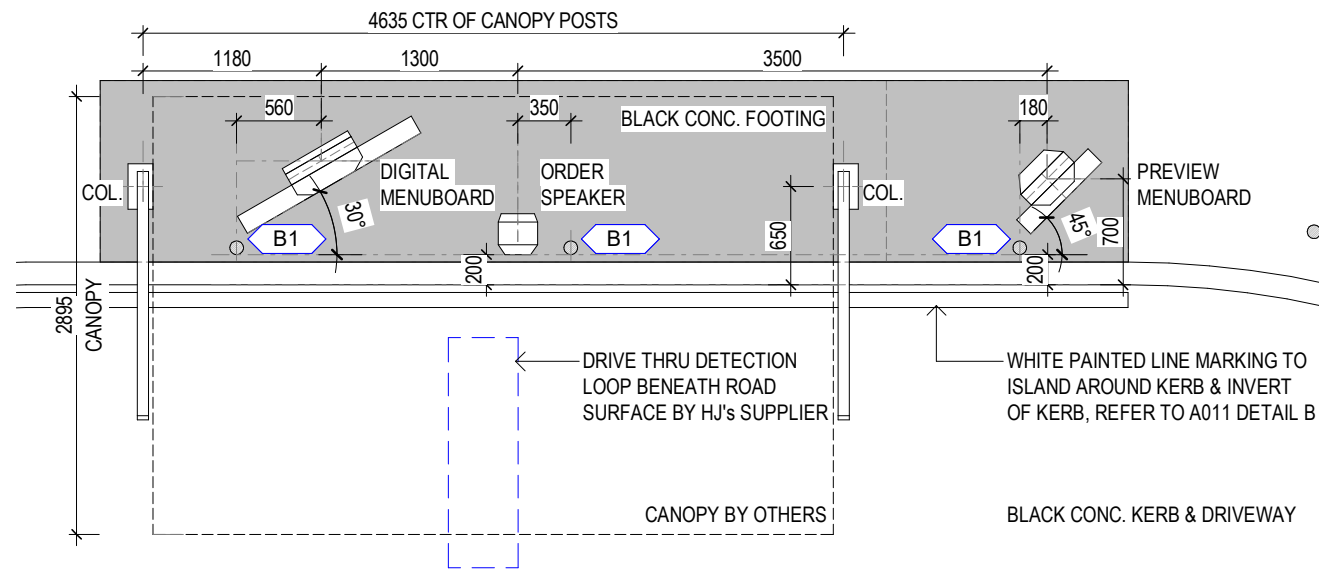
Suite 302/12 Ormonde Pde
Hurstville NSW 2220
ABN 48 602 616 926
PH : 02 9579 6292
info@kasarchitects.com.au

Nominated Architect: Ken Sonjes
Registered No.
7902 NSW | 2907 WA | 19823 VIC

- ☐ SKETCH
- ☒ PLANNING PERMIT
- ☐ AMENDED DA
- ☐ BA / CC
- ☐ TENDER
- ☐ CONSTRUCTION

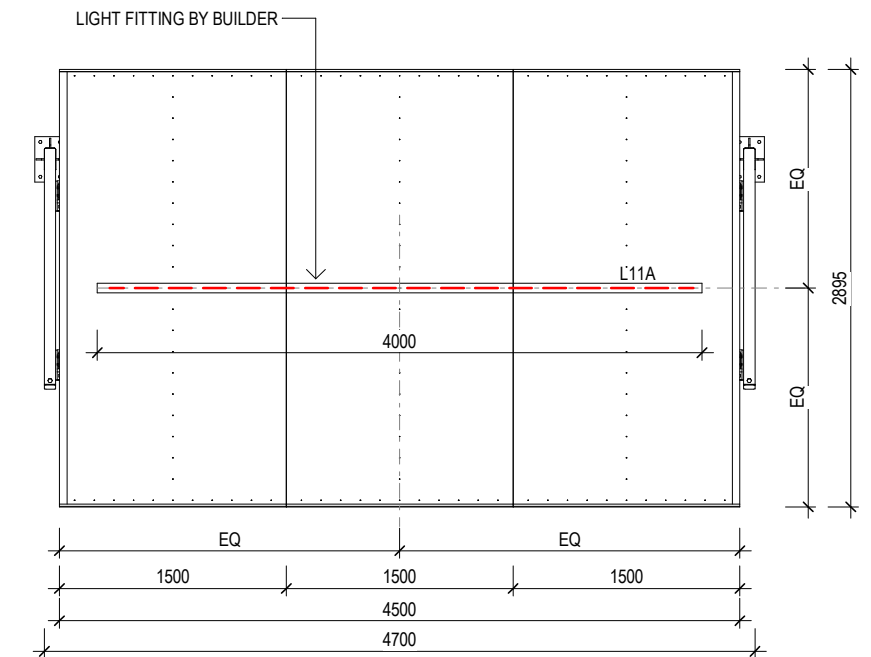
PROJECT HUNGRY JACK'S
ALBION
254-270 ABBOTSFORD
ROAD
BOWEN HILLS QLD 4006

DRAWING		
PROPOSED ELEVATIONS 2 OF 2		
PROJECT NO. 211106		
SCALE	DRAWING NO.	REV.
1 : 100@A3	DA21	1

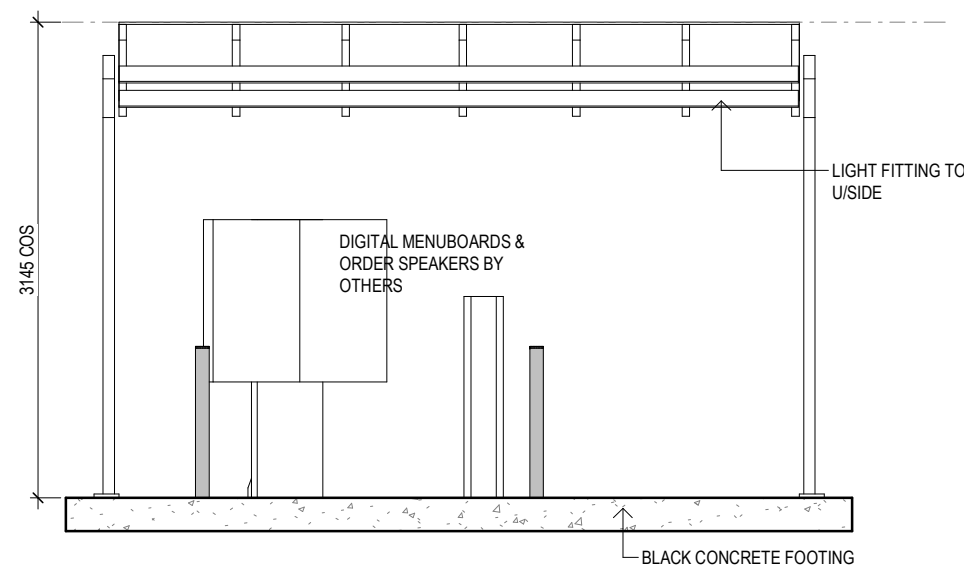


PLANS AND DOCUMENTS
referred to in the
PDA DEVELOPMENT APPROVAL

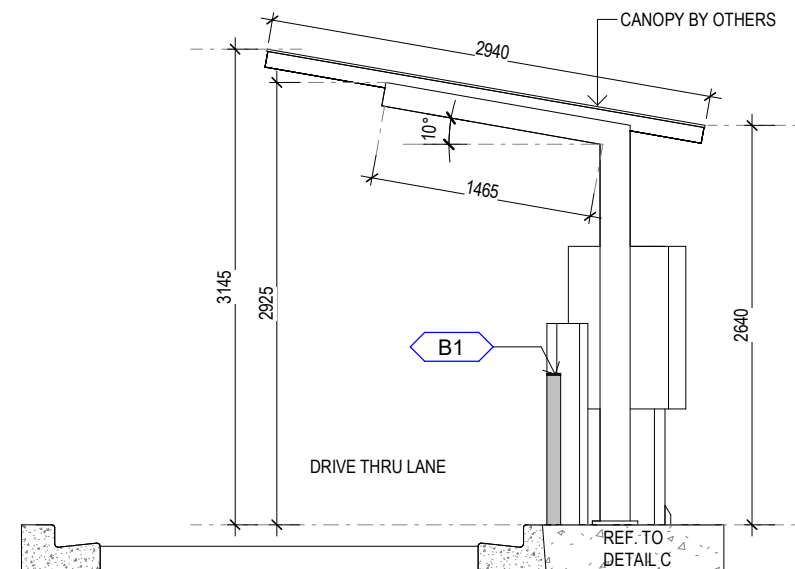
Approval no.: **DEV2023/1392**
Date: **1 September 2023**



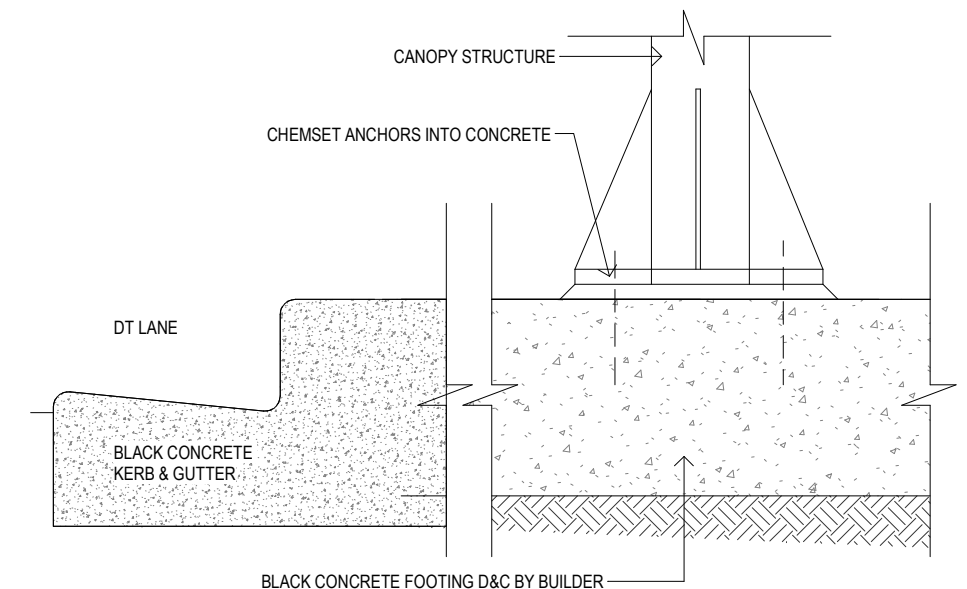
1 TYPICAL CEILING PLAN
1:50



2 ORDER STATION ELEVATION
1:50



B TYPICAL SIDE ELEVATION
1:50



C TYPICAL FOOTING DETAIL
1:10

NOT FOR CONSTRUCTION

CLIENT

HUNGRY JACK'S PTY. LTD.
L6 - 100 WILLIAM STREET
WOOLLOOMOOLOO NSW 2011

COPYRIGHT HUNGRY JACK'S PTY LTD
COPYING, REPRODUCTION OR USE OF THIS DESIGN OR DRAWING IN
WHOLE OR PART IS PROHIBITED WITHOUT THE WRITTEN CONSENT
OF HUNGRY JACK'S PTY LTD

REV	DATE	AMENDMENT	DRW
1	21.07.23	ISSUE FOR DA	LW

VERIFY ALL DIMENSIONS AND LEVELS ON SITE AND REPORT ANY DISCREPANCIES PRIOR TO THE COMMENCEMENT OF WORK.
DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL CONTRACT DOCUMENTS. USE FIGURED DIMENSIONS ONLY. DO NOT SCALE FROM DRAWINGS. THE COMPLETION OF THE ISSUE DETAILS CHECKED AND AUTHORISED SECTION IS CONFIRMATION OF THE STATUS OF THE DRAWING. THE DRAWING SHALL NOT BE USED FOR CONSTRUCTION UNLESS ENDORSED 'FOR CONSTRUCTION' AND AUTHORISED FOR ISSUE.



Suite 302/12 Ormonde Pde
Hurstville NSW 2220
ABN 48 602 616 926
PH : 02 9579 6292
info@kasarchitects.com.au

Nominated Architect: Ken Sonjes
Registered No.
7902 NSW | 2907 WA | 19823 VIC

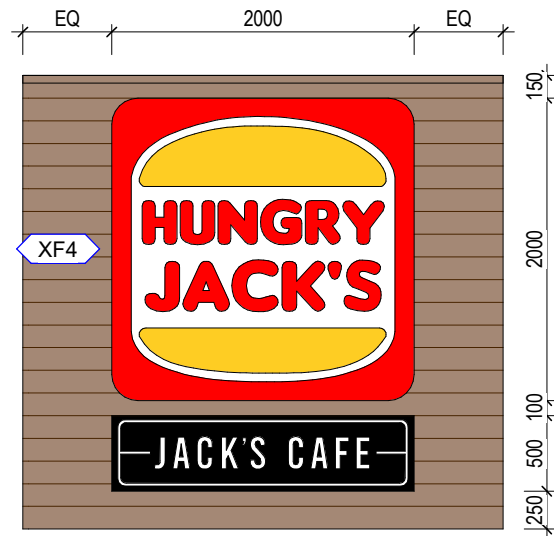
- ☐ SKETCH
- ☒ PLANNING PERMIT
- ☐ AMENDED DA
- ☐ BA / CC
- ☐ TENDER
- ☐ CONSTRUCTION

PROJECT HUNGRY JACK'S

ALBION

254-270 ABBOTSFORD ROAD
BOWEN HILLS QLD 4006

DRAWING		
ORDER STATION CANOPY DETAILS		
PROJECT NO. 211106		
SCALE	DRAWING NO.	REV.
As indicated@A3	DA40	1

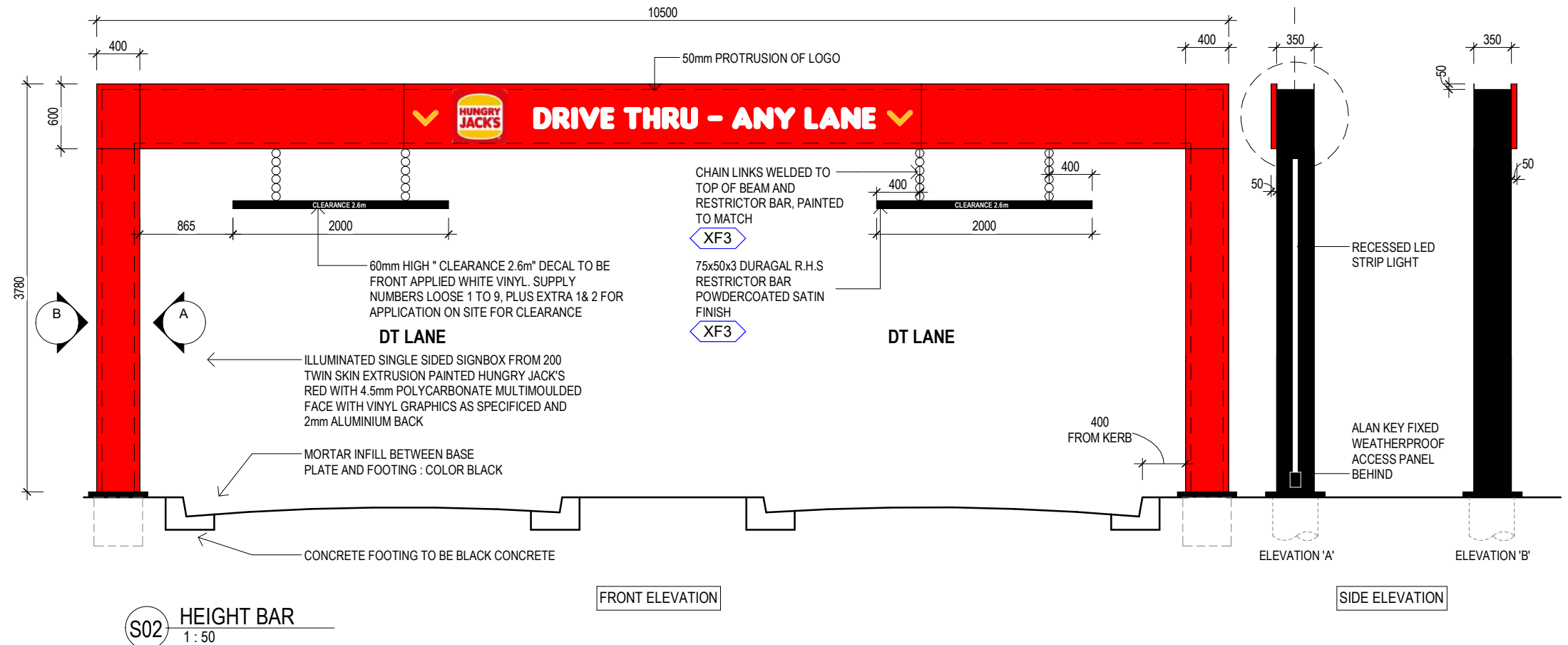


3M HIGH BLADE WALL WITH FEATURE CLADDING & ILLUMINATED 2m BUN LOGO & JACK'S CAFE SIGN

1 ILLUM. BUN LOGO & JACKS CAFE SIGN

1 : 50

S01	ILLUMINATED BUN LOGO & JACK'S CAFE	1
S02	ILLUMINATED HEIGHT BAR GANTRY	1
S03	DRIVE THRU PREVIEW MENUBOARD	2
S04	DRIVE THRU MENUBOARD AND SPEAKERS	2
S05	ILLUMINATED RED BAND FASCIA	5
S06A	2.4m ILLUMINATED SQUARE BUN LOGO	2
S07	EXTERNAL RECESSED PRINTED GRAPHIC	1
S08	DRIVE THRU PRINTED GRAPHIC	1
S09A	DT WINDOW BOOTH 'PAY HERE' SIGN	1
S09B	DT WINDOW BOOTH 'PICK-UP' SIGN	1
S10A	2.3m HIGH ILLUMINATED DIRECTIONAL SIGN	1
S10B	2.3m HIGH ILLUMINATED DIRECTIONAL SIGN	1
S11	WAITING BAY SIGN AND LINEMARKING	2
S12	DELIVERY LINEMARKING	2
S13a	PEDESTRIAN SIGN	1
S14	DIAGONAL BUN LOGO FILM GRAPHIC	1
S15	ILLUMINATED HUNGRY JACK'S LETTERSET	1



S02 HEIGHT BAR

1 : 50

PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL

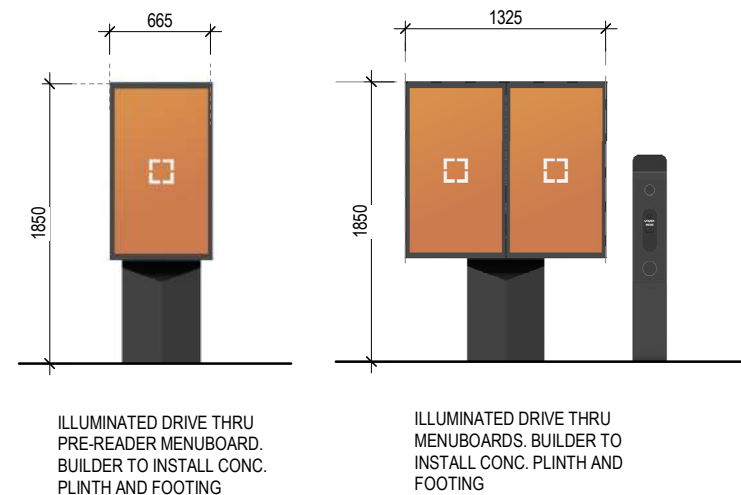
Approval no.: DEV2023/1392

Date: 1 September 2023



HEIGHT BAR NOTES:

- CLEARANCE HEIGHT NUMBERS TO BE APPLIED ON SITE ONCE THE AVAILABLE CLEARANCE IS DETERMINED.
- POSITION OF HEIGHT RESTRICTOR BAR IS TO BE 100mm BELOW THE LOWEST CLEARANCE POINT IN THE DRIVE THRU LANE
- HEIGHT BAR STRUCTURE TO ALSO BE AVAILABLE AS A MIRRORED OPTION
- BUILDER TO PROVIDE BLACK CONCRETE FOOTING FOR ALL NEW SIGNS AND POWER AS REQUIRED

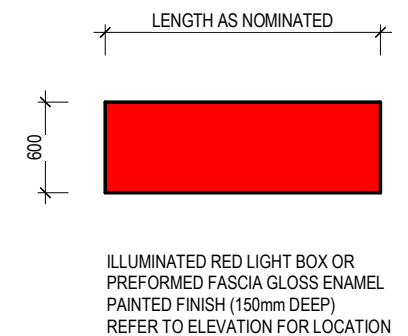


S03 PREVIEW MENUBOARD

1 : 50

S04 MENUBOARD & SPEAKER

1 : 50



S05 ILLUMINATED RED BAND FASCIA

1 : 50

- NOTES:**
- ALL HJs SIGNAGE BY HJ SIGNAGE SUPPLIER.
 - STEEL CAGE AND BOLTS FOR HJs BRANDING SIGNAGE SUPPLIED BY HJs SIGNAGE CONTRACTOR
 - ALL CONCRETE FOOTING D&C BY BUILDER - BLACK OXIDE
 - ALL POWER, DATA, CONDUIT FOR SIGNAGE BY BUILDER
 - ALL TRAFFIC SIGNS TO COMPLY WITH LOCAL TRAFFIC AUTHORITY BY BUILDER
 - ALL LINE MARKING BY BUILDER

CLIENT
HUNGRY JACK'S PTY. LTD.
L6 - 100 WILLIAM STREET
WOOLLOOMOOLOO NSW 2011

COPYRIGHT HUNGRY JACK'S PTY LTD
COPYING, REPRODUCTION OR USE OF THIS DESIGN OR DRAWING IN WHOLE OR PART IS PROHIBITED WITHOUT THE WRITTEN CONSENT OF HUNGRY JACK'S PTY LTD

REV	DATE	AMENDMENT	DRW
1	21.07.23	ISSUE FOR DA	LW

VERIFY ALL DIMENSIONS AND LEVELS ON SITE AND REPORT ANY DISCREPANCIES PRIOR TO THE COMMENCEMENT OF WORK. DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL CONTRACT DOCUMENTS. USE FIGURED DIMENSIONS ONLY. DO NOT SCALE FROM DRAWINGS. THE COMPLETION OF THE ISSUE DETAILS CHECKED AND AUTHORISED SECTION IS CONFIRMATION OF THE STATUS OF THE DRAWING. THE DRAWING SHALL NOT BE USED FOR CONSTRUCTION UNLESS ENDORSED 'FOR CONSTRUCTION' AND AUTHORISED FOR ISSUE.



Suite 302/12 Ormonde Pde
Hurstville NSW 2220
ABN 48 602 616 926
PH : 02 9579 6292
info@kasarchitects.com.au
Nominated Architect: Ken Sonjes
Registered No.
7902 NSW | 2907 WA | 19823 VIC

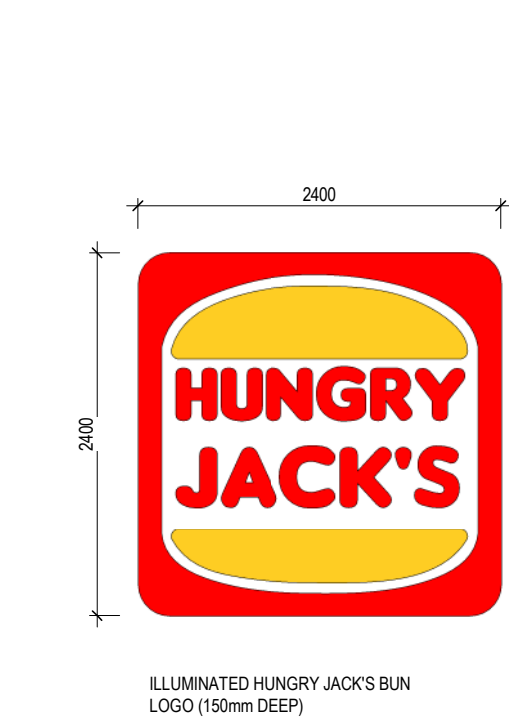
- SKETCH
- PLANNING PERMIT
- AMENDED DA
- BA / CC
- TENDER
- CONSTRUCTION

PROJECT HUNGRY JACK'S
ALBION
254-270 ABBOTSFORD ROAD
BOWEN HILLS QLD 4006

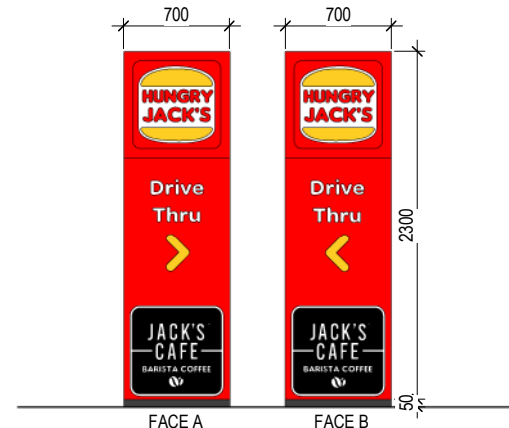
NOT FOR CONSTRUCTION

DRAWING
SIGNAGE DETAILS 1 OF 3

PROJECT NO. 211106	DRAWING NO. DA41	REV. 1
SCALE N.T.S.		



S06A 2.4m ILLUMINATED BUN LOGO
1 : 50

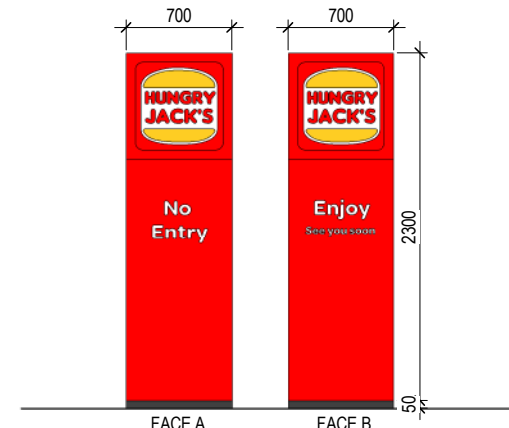


S10A 2.3m ILLUM. DIRECTIONAL SIGN
1 : 50

- NOTES:**
- ALL HJs SIGNAGE BY HJ SIGNAGE SUPPLIER.
 - STEEL CAGE AND BOLTS FOR HJs BRANDING SIGNAGE SUPPLIED BY HJs SIGNAGE CONTRACTOR
 - ALL CONCRETE FOOTING D&C BY BUILDER - BLACK OXIDE
 - ALL POWER, DATA, CONDUIT FOR SIGNAGE BY BUILDER
 - ALL TRAFFIC SIGNS TO COMPLY WITH LOCAL TRAFFIC AUTHORITY BY BUILDER
 - ALL LINE MARKING BY BUILDER

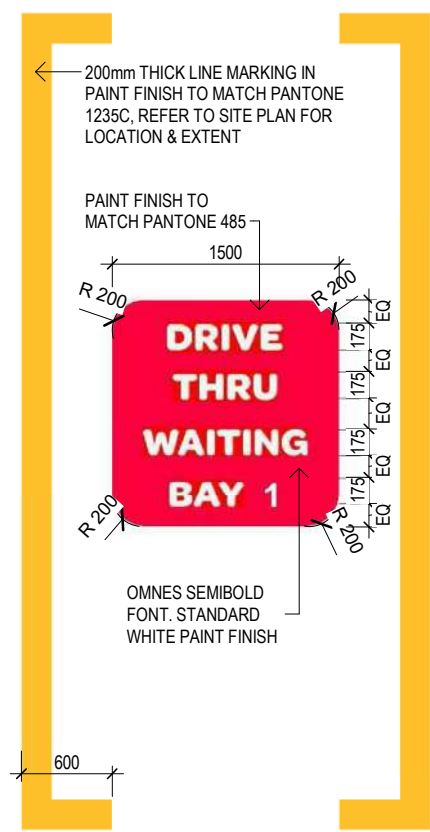


S07 EXTERNAL RECESSED GRAPHIC SIGN
1 : 50



S10B 2.3m ILLUM. DIRECTIONAL SIGN
1 : 50

S01	ILLUMINATED BUN LOGO & JACK'S CAFE	1
S02	ILLUMINATED HEIGHT BAR GANTRY	1
S03	DRIVE THRU PREVIEW MENUBOARD	2
S04	DRIVE THRU MENUBOARD AND SPEAKERS	2
S05	ILLUMINATED RED BAND FASCIA	5
S06A	2.4m ILLUMINATED SQUARE BUN LOGO	2
S07	EXTERNAL RECESSED PRINTED GRAPHIC	1
S08	DRIVE THRU PRINTED GRAPHIC	1
S09A	DT WINDOW BOOTH 'PAY HERE' SIGN	1
S09B	DT WINDOW BOOTH 'PICK-UP' SIGN	1
S10A	2.3m HIGH ILLUMINATED DIRECTIONAL SIGN	1
S10B	2.3m HIGH ILLUMINATED DIRECTIONAL SIGN	1
S11	WAITING BAY SIGN AND LINEMARKING	2
S12	DELIVERY LINEMARKING	2
S13a	PEDESTRIAN SIGN	1
S14	DIAGONAL BUN LOGO FILM GRAPHIC	1
S15	ILLUMINATED HUNGRY JACK'S LETTERSET	1



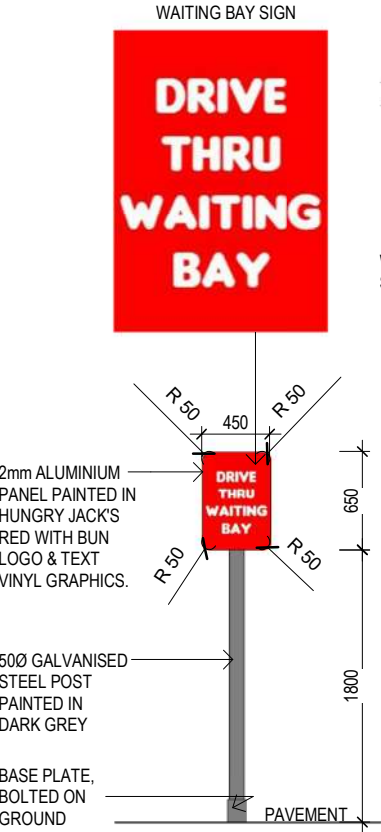
NOTE: USE HARD WEARING EPOXY PAINT FOR ALL LINE MARKING

CLEAN AND PREPARE SURFACE AS REQUIRED, APPLY MULTIPLE COATS FOR DURABILITY

S11 WAITING BAY SIGN AND LINEMARKING
1 : 50



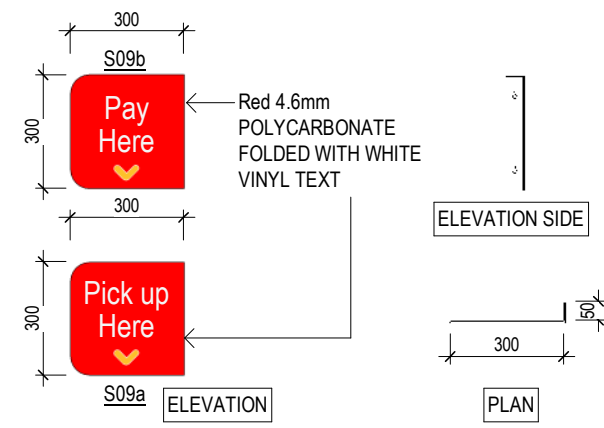
S08 DRIVE THRU GRAPHIC
1 : 50



NOTE: USE HARD WEARING EPOXY PAINT FOR ALL LINE MARKING

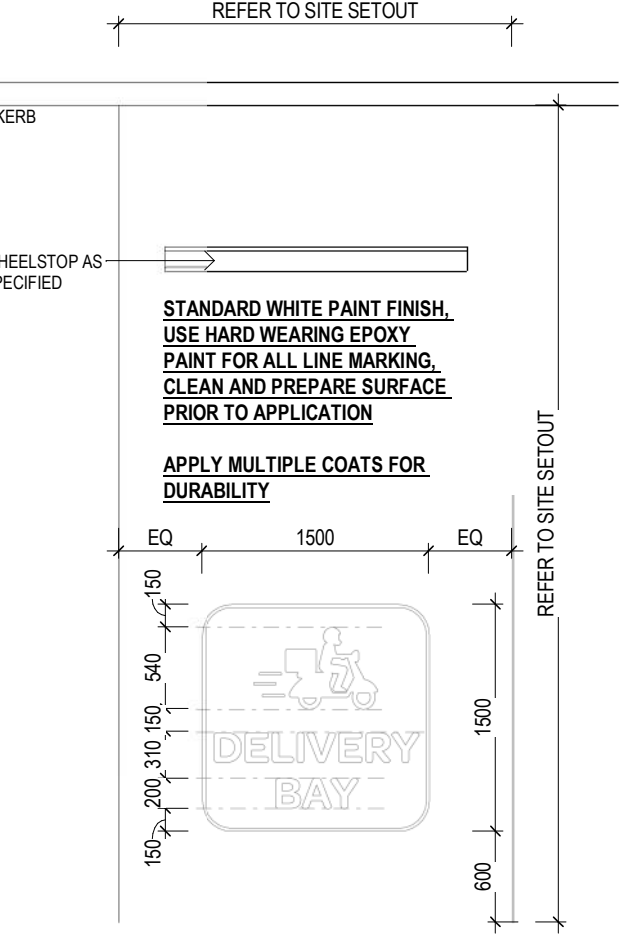
CLEAN AND PREPARE SURFACE AS REQUIRED, APPLY MULTIPLE COATS FOR DURABILITY

S12 DELIVERY LINEMARKING
1 : 50



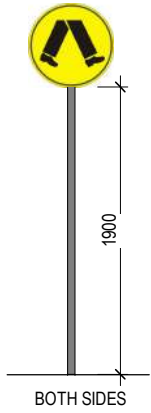
INSTALLED AT THE FRONT END OF THE WINDOWS - REFER DT WINDOW DETAILS FOR HEIGHT

S09 DRIVE THRU BOOTH SIGN
1 : 20



S12 DELIVERY LINEMARKING
1 : 50

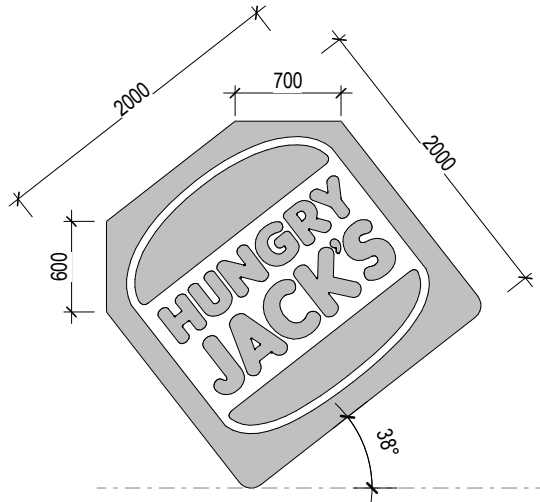
CLIENT HUNGRY JACK'S PTY. LTD. L6 - 100 WILLIAM STREET WOOLLOOMOOLOO NSW 2011		REV 1	DATE 21.07.23	AMENDMENT ISSUE FOR DA	DRW LW	VERIFY ALL DIMENSIONS AND LEVELS ON SITE AND REPORT ANY DISCREPANCIES PRIOR TO THE COMMENCEMENT OF WORK. DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL CONTRACT DOCUMENTS. USE FIGURED DIMENSIONS ONLY. DO NOT SCALE FROM DRAWINGS. THE COMPLETION OF THE ISSUE DETAILS CHECKED AND AUTHORISED SECTION IS CONFIRMATION OF THE STATUS OF THE DRAWING. THE DRAWING SHALL NOT BE USED FOR CONSTRUCTION UNLESS ENDORSED 'FOR CONSTRUCTION' AND AUTHORISED FOR ISSUE.		KAS ARCHITECTS Suite 302/12 Ormonde Pde Hurstville NSW 2220 ABN 48 602 616 925 PH : 02 9579 6292 info@kasarchitects.com.au Nominated Architect: Ken Sonjes Registered No. 7902 NSW 2907 WA 19823 VIC		☐ SKETCH ☒ PLANNING PERMIT ☐ AMENDED DA ☐ BA / CC ☐ TENDER ☐ CONSTRUCTION	PROJECT HUNGRY JACK'S ALBION 254-270 ABBOTSFORD ROAD BOWEN HILLS QLD 4006	DRAWING SIGNAGE DETAILS 2 OF 3 PROJECT NO. 211106 SCALE N.T.S. DRAWING NO. DA42 REV. 1
---	--	----------	------------------	---------------------------	-----------	--	--	---	--	---	---	--



BOTH SIDES

SIGNS TO COMPLY WITH
LOCAL TRAFFIC AUTHORITY

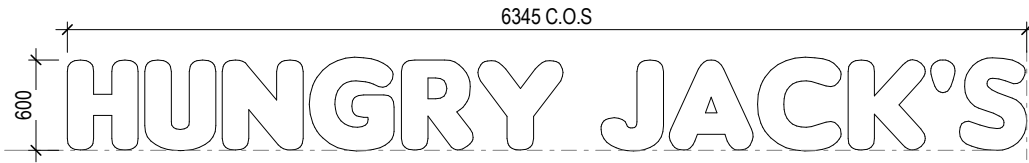
S13a **PEDESTRIAN SIGN**
1 : 50



DIAGONAL BUN LOGO, OPAQUE VINYL FILM TO SHOPFRONT
GLAZING, BY SIGNAGE SUPPLIER

REFER TO ELEVATIONS FOR SETOUT

S14 **DIAGONAL BUN LOGO FILM**
1 : 50



ILLUMINATED LETTERSET IN **OMNES SEMIBOLD FONT** BY SIGNAGE SUPPLIER

S15 **ILLUMINATED HUNGRY JACK'S LETTERSET**
1 : 50

PLANS AND DOCUMENTS
referred to in the
PDA DEVELOPMENT APPROVAL

Approval no.: **DEV2023/1392**

Date: **1 September 2023**



S01	ILLUMINATED BUN LOGO & JACK'S CAFE	1
S02	ILLUMINATED HEIGHT BAR GANTRY	1
S03	DRIVE THRU PREVIEW MENUBOARD	2
S04	DRIVE THRU MENUBOARD AND SPEAKERS	2
S05	ILLUMINATED RED BAND FASCIA	5
S06A	2.4m ILLUMINATED SQUARE BUN LOGO	2
S07	EXTERNAL RECESSED PRINTED GRAPHIC	1
S08	DRIVE THRU PRINTED GRAPHIC	1
S09A	DT WINDOW BOOTH 'PAY HERE' SIGN	1
S09B	DT WINDOW BOOTH 'PICK-UP' SIGN	1
S10A	2.3m HIGH ILLUMINATED DIRECTIONAL SIGN	1
S10B	2.3m HIGH ILLUMINATED DIRECTIONAL SIGN	1
S11	WAITING BAY SIGN AND LINEMARKING	2
S12	DELIVERY LINEMARKING	2
S13a	PEDESTRIAN SIGN	1
S14	DIAGONAL BUN LOGO FILM GRAPHIC	1
S15	ILLUMINATED HUNGRY JACK'S LETTERSET	1

NOTES:

- ALL HJs SIGNAGE BY HJ SIGNAGE SUPPLIER.
- STEEL CAGE AND BOLTS FOR HJs BRANDING SIGNAGE SUPPLIED BY HJs SIGNAGE CONTRACTOR
- ALL CONCRETE FOOTING D&C BY BUILDER - BLACK OXIDE
- ALL POWER, DATA, CONDUIT FOR SIGNAGE BY BUILDER
- ALL TRAFFIC SIGNS TO COMPLY WITH LOCAL TRAFFIC AUTHORITY BY BUILDER
- ALL LINE MARKING BY BUILDER

CLIENT
HUNGRY JACK'S PTY. LTD.
L6 - 100 WILLIAM STREET
WOOLLOOMOOLOO NSW 2011

COPYRIGHT HUNGRY JACK'S PTY LTD
COPYING, REPRODUCTION OR USE OF THIS DESIGN OR DRAWING IN
WHOLE OR PART IS PROHIBITED WITHOUT THE WRITTEN CONSENT
OF HUNGRY JACK'S PTY LTD

REV	DATE	AMENDMENT	DRW
1	21.07.23	ISSUE FOR DA	LW

VERIFY ALL DIMENSIONS AND LEVELS ON SITE AND REPORT ANY
DISCREPANCIES PRIOR TO THE COMMENCEMENT OF WORK.
DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL CONTRACT
DOCUMENTS. USE FIGURED DIMENSIONS ONLY. DO NOT SCALE FROM
DRAWINGS. THE COMPLETION OF THE ISSUE DETAILS CHECKED AND
AUTHORISED SECTION IS CONFIRMATION OF THE STATUS OF THE
DRAWING. THE DRAWING SHALL NOT BE USED FOR CONSTRUCTION
UNLESS ENDORSED 'FOR CONSTRUCTION' AND AUTHORISED FOR ISSUE.



Suite 302/12 Ormonde Pde
Hurstville NSW 2220
ABN 48 602 616 926
PH : 02 9579 6292
info@kasarchitects.com.au

Nominated Architect: Ken Sonjes
Registered No.
7902 NSW | 2907 WA | 19823 VIC

- ☐ SKETCH
☒ PLANNING PERMIT
☐ AMENDED DA
☐ BA / CC
☐ TENDER
☐ CONSTRUCTION

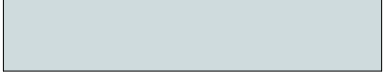
PROJECT HUNGRY JACK'S
ALBION
254-270 ABBOTSFORD
ROAD
BOWEN HILLS QLD 4006

NOT FOR CONSTRUCTION

DRAWING
SIGNAGE DETAILS 3 OF 3

PROJECT NO. 211106	DRAWING NO. DA43	REV. 1
--------------------	----------------------------	------------------

EXTERNAL FINISHES SCHEDULE

CODE	DESCRIPTION	FINISH SPECIFICATION	LOCATION	SAMPLE PICTURE FOR REFERENCE ONLY
XF1A	PAINT FC PANEL	COLOUR: BEIGE FINISH: SATIN APPLY CLEAR ANTI GRAFFITI COATING	EXTERNAL WALLS, SEE ELEVATIONS FOR LOCATION	
XF1B	PAINT FC PANEL	COLOUR: BROWN FINISH: SATIN APPLY CLEAR ANTI GRAFFITI COATING	EXTERNAL WALLS, SEE ELEVATIONS FOR LOCATION	
XF1C	PAINT FC PANEL	COLOUR: DARK GREY FINISH: SATIN APPLY CLEAR ANTI GRAFFITI COATING	EXTERNAL WALLS, SEE ELEVATIONS FOR LOCATION	
XF2	PAINT FINISH	COLOUR: DARK GREY FINISH: SATIN	POSTS AND METAL WORKS, DT WINDOW 3 AWNING	
XF3	POWDERCOAT FINISH	COLOUR: CHARCOAL FINISH: SATIN	DOOR & WINDOW FRAMES, LOUVERS SUN SHADING	
XF4	FEATURE CLADDING WALL	TIMBERLOOK CLADDING (WOODGRAIN)	EXTERNAL WALLS, PORTAL WALLS WHERE NOTED, DRIVE-THRU WINDOW WALLS	
XF6	PAINT COMPRESSED FIBRE CEMENT CLADDING	COLOUR: OFF WHITE FINISH: SATIN	EXTERIOR SOFFITS, ENTRY AND DELIVERY SOFFIT	
XF7	ILLUMINATED LIGHT BOX	INTERNALLY ILLUMINATED RED LIGHT BOX	BUILDING FASCIA, REFER TO ELEVATION	
XF8	PRE-FINISHED METAL	COLOURBOND COLOUR: DARK GREY TO MATCH XF2	GUTTERS/ FASCIA	
XF12	SLATTED COMPOSITE CLADDING - TIMBERLOOK	COLOUR: DARK BROWN	DELIVERY AREA SCREENS	

CODE	DESCRIPTION	FINISH SPECIFICATION	LOCATION	SAMPLE PICTURE FOR REFERENCE ONLY
XF14	METAL LOUVRE	BRAND: HOLOAKE OHL COLOUR: DARK GREY POWDERCOAT	CO² ENCLOSURE, PLANT ENCLOSURE	
XF15	ALUMINIUM COMPOSITE PANEL	COLOUR: DARK GREY	FRONT ENTRY AWNING	
XF16	PERFORATED SCREENS	COLOUR: DARK GREY	ALONG DRIVE THRU	
XF17	SLATTED ALUM. SCREENS	COLOUR: LIGHT GREY SLATTED ALUMINIUM SCREENS	ON ROOF MECHANICAL PLATFORM AND WHERE NOTED TO CONCEAL PLANTS	
WS	WHEEL STOP	PRODUCT: REPLAS WHEELSTOPS DIMENSION: 100mm X 135mm LENGHT: 1650 COLOR: YELLOW - MOD 3# BLACK WITH 4 DIAMOND REFLECTORS ON FRONT, 2 ROUND REFLECTORS ON BACK CONTACT: KIMBERLEY WILLIAMS 0459 269 692 kimberley.williams@replas.com.au	SEE SITE PLAN FOR LOCATION	
B1	VEHICLE BOLLARD	BRAND: SAFETY EXPRESS OR EQUAL PRODUCT: BELOW GROUND 90mm Ø GALVANISED BOLLARD COLOUR: SILVER WITH CLASS 1 RED REFLECTIVE TAPE HEIGHT: 1300mm (1000mm ABOVE GROUND AND 300mm BELOW GROUND) FIXING: ANCHOR ROD INCLUDED AT BASE WHICH CAN BE REMOVED WHEN CORE DRILLING INTO EXISTING CONCRETE OR INSERTED WHEN SETTING IN NEW CONCRETE	SEE SITE PLAN FOR LOCATION	

PLANS AND DOCUMENTS
referred to in the
PDA DEVELOPMENT APPROVAL

Approval no.: **DEV2023/1392**
Date: **1 September 2023**



Landscape concept plans

APPROVED

BRISBANE CITY COUNCIL

254 & 270 ABBOTSFORD ROAD, BOWEN HILLS

LOT 10 ON SP335757

PLANS AND DOCUMENTS
referred to in the
PDA DEVELOPMENT APPROVAL
Approval no.: **DEV2023/1392**
Date: **1 September 2023**



SITE LOCATION
NTS

DRAWING INDEX		
DRAWING No.	DRAWING TITLE	REVISION
2208-015-SK001	COVER SHEET & DRAWING INDEX	E
2208-015-SK002	PLANTING PLAN	E
2208-015-SK004	PLANT SPECIES SCHEDULE, IMAGES & NOTES	E

PRELIMINARY

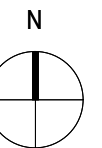
E	REVISED ISSUE	SX	14.07.23
D	REVISED ISSUE	SX	12.07.23
rev	description	drawn	date

HICKEY OATLEY
254 & 270 ABBOTSFORD ROAD, BOWEN HILLS
LANDSCAPE CONCEPT PLAN
COVER SHEET & DRAWING INDEX

LAUD ink
landscape architecture and urban design

Office 7, 915 Ann Street, Fortitude Valley, QLD 4006
E eleas@laudink.com.au / jane@laudink.com.au
W www.laudink.com.au

ABN 80 169 838 144



Conditions of Use: This document may only be used by LAUD ink's client (and any other person who LAUD ink has agreed can use this document) for the purpose for which it was prepared and must not be used by any other person or for any other purpose.

scale	NTS	for A1	job no.	2208-015
date	JULY 2023		rev no.	E

approved E. NICHOLAOU* **SK001**

Landscaping to be updated in response to any changes required by Condition 19 - Stormwater Management (Quality)



PLAN
SCALE 1:200

AMENDED IN RED

By: Matthew Buchanan

Date: 23 August 2023



ANNOTATION NOTES

- 1 DRIVEWAY ENTRY / EXIT
- 2 PEDESTRIAN ENTRY / EXIT
- 3 FEATURE PALM TREES WOD bnf TO DEFINE SITE ENTRANCE
- 4 SHADE TREE CUP ana TO BE KEPT WITH 1.8m CLEAR TRUNK. TREE TO BE UNDERPLANTED WITH LOW PLANTINGS, INCLUDING SHRUBS AGA att, CAL LJ, WES GB AND GROUNDCOVERS CAR gla, LIR JR, LOM SHA
- 5 SHADE TREES CUP ana TO PROVIDE AMENITY TO PARKING AREA, UNDERPLANTED WITH SHRUBS AGA att, COR RS AND GROUNDCOVERS AGA afr (B), AGA afr (W), LIR JR, LOM SHA
- 6 GARDEN BED AT FRONTAGE TO BE PLANTED WITH LOW FEATURE SHRUBS AGA att, COR sen, WES GB AND GROUNDCOVERS DIA ara, LOM sha AND PEN nat
- 7 PROPOSED GARDENBED TO BE FULLY PLANTED WITH FEATRE SHRUBS CAL LJ, COR RS, STR reg, WES GB AND GROUND COVER AGA afr (B), AGA afr (W), CAR gla, LIR JR
- 8 PROPOSED LOW MAINTENANCE SHRUBS AGA att, CAL LJ, WES GB TO REAR OF THE SITE, UNDERPLANTED WITH GROUNDCOVERS LIR JL, LOM SHA AND PEN NAF
- 9 PODIUM PLANTERS TO INCLUDE FEATURE SHRUBS AGA att, COR RS, STR reg AND GROUNDCOVERS AGA afr (B), AGA afr (W), LIR JR TO PROVIDE VISUAL AMENITY TO OUTDOOR SEATING AREA
- 10 PROPOSED TRUNCATION - REFER TO TRAFFIC ENGINEERS DRGS FOR DETAILS
- 11 LOW BUFFERING SHRUBS MUR MM TO BE USED ALONG PROPERTY BOUNDARY, SHRUBS TO BE UNDERPLANTED WITH GROUNDCOVERS LOM SHA AND LIR JR
- 12 PROPOSED 1.2m WIDE FOOTPATH TO BE INSTALLED IN ACCORDANCE WITH BBC STREETSCAPE HIERARCHY INDUSTRIAL STREET REQUIREMENT
- 13 PROPOSED 1.8m WIDE FOOTPATH TO BE INSTALLED IN ACCORDANCE WITH BBC STREETSCAPE HIERARCHY SUBTROPICAL BOULEVARD OUT OF CENTRE VERGE WIDTH 3.75m/4.25m (SBO3) REQUIREMENT
- 14 EXISTING STREET TREES TO BE RETAINED, MAKE GOOD IF DAMAGED DURING CONSTRUCTION
- 15 PROPOSED 1.2m HIGH PERFORATED SCREEN ALONG DT - REFER ARCHITECTS DRGS FOR DETAILS

LEGEND

- EXISTING TREE TO BE RETAINED
- PROPOSED FEATURE TREES
- PROPOSED SHADE TREES
- PROPOSED SHRUB AND LOW LEVEL PLANTING
- PROPOSED GROUNDCOVER PLANTING
- PROPOSED BUFFER PLANTING
- TURF
- HARDSTAND SURFACE FINISH TO PEDESTRIAN PRIORITY PATHWAY
- CONCRETE AREA - REFER CIVIL ENGINEERS DRGS FOR DETAILS
- OBSTRUCTION CLEAR ZONE FOR PEDESTRIAN SAFETY SIGHT LINE
- PYLON SIGNS
- ROOF LINE OVER
- PROPERTY BOUNDARY
- EXISTING LIGHTPOLES

NOTES

1. REFER TO DRG 2208-015-SK010 FOR PLANT SPECIES SCHEDULE, IMAGES AND GENERAL NOTES
2. REFER ARCHITECTS DRGS FOR ALL FENCE DETAILS
3. REFER CIVIL ENGINEERS DRGS FOR ALL DRIVEWAY CROSSOVER AND RETAINING WALL DETAILS



PRELIMINARY

E	REVISED ISSUE	SX	14.07.23
D	REVISED ISSUE	SX	12.07.23
rev	description	drawn	date

HICKEY OATLEY
254 & 270 ABBOTSFORD ROAD, BOWEN HILLS
LANDSCAPE CONCEPT PLAN
PLANTING PLAN

LAUD ink
landscape architecture and urban design

Office 7, 915 Ann Street, Fortitude Valley, QLD 4006
E: eleas@laudink.com.au / jane@laudink.com.au
W: www.laudink.com.au
ABN 80 169 838 144



Conditions of Use: This document may only be used by LAUD ink's client (and any other person who LAUD ink has agreed can use this document) for the purpose for which it was prepared and must not be used by any other person or for any other purpose.

scale 1:200 for A1 job no. 2208-015
date JULY 2023 rev no. E

approved E. NICHOLAOU* SK002

TREES



CUPANIOPSIS anacardioides



TRISTANIOPSIS laurina 'Luscious'



WATERHOUSEA floribunda



WODYETIA bifurcata

SHRUBS



AGAVE attenuata



CALLISTEMON viminalis 'Little John'



CORDYLINE australis 'Red Sensation'



MURRAYA paniculata Min-a-Min



STRELITZIA reginae



SYZYGIUM australe 'Straight and Narrow'



WESTRINGIA fruticosa 'Grey Box'

GROUNDCOVERS



AGAPANTHUS africanus



CARPOBROTUS glaucescens 'Aussie Rambler'



LIRIOPE muscari 'Just Right'



LOMANDRA fluviatilis 'Shara'



PENNISETUM alopecuroides 'Nafray'

PROPOSED PLANT SPECIES SCHEDULE

CODE	PLANT SPECIES	COMMON NAME	CENTRES (mm)	POT SIZE (AT INSTALL)	MATURE SIZE (HEIGHT x WIDTH)
TREE SPECIES					
CUP ana	CUPANIOPSIS anacardioides	Tuckeroo	AS SHOWN	25L	10 x 4 (HxW)
ELA eum	ELAEOCARPUS eumundii	Eumundii Quandong	AS SHOWN	25L	8-10 X 3-5 (HxW)
TRI LUS	TRISTANIOPSIS laurina 'Luscious'	Luscious	AS SHOWN	25L	7-12 x 5 (HxW)
WAT flo	WATERHOUSEA floribunda	Weeping Lilly Pilly	AS SHOWN	25L	10x8 (HxW)
WOD bif	WODYETIA bifurcata	Foxtail Palm	AS SHOWN	25L	15 x 3 (HxW)
SHRUB SPECIES					
AGA att	AGAVE attenuata	Century Plant	500mm	200mm	
CAL LJ	CALLISTEMON viminalis `Little John`	Dwarf Weeping bottlebrush	1500mm	200mm	
COR RS	CORDYLINE australis 'Red Sensation'	Red Sensation Cordyline	700mm	200mm	
MUR MM	MURRAYA paniculata 'Min-a-Min'	Dwarf Murraya	500mm	200mm	
STR reg	STRELITZIA reginae	Bird of Paradise	750mm	200mm	
SYZ SN	SYZYGIUM australe 'Straight & Narrow' -' SAN01'	Straight and Narrow	1000mm	25L	
WES GB	WESTRINGIA fruticosa 'Grey Box' - 'WES04'	Grey Box Costal Rosemary	400mm	200mm	
GROUNDCOVER SPECIES					
AGA afr (B)	AGAPANTHUS africanus	Blue African Lily	500mm	140mm	
AGA afr (W)	AGAPANTHUS africanus	White African Lily	500mm	140mm	
CAR gla	CARPOBROTUS glaucescens 'Aussie Rambler' - 'CAR10'	Pigface	350mm	140mm	
LIR JR	LIRIOPE muscari 'Just Right' - 'LIRJ'	Just Right	500mm	140mm	
LOM SHA	LOMANDRA fluviatilis 'Shara' - 'ABU7'	Shara Lomandra	300mm	140mm	
PEN NAF	PENNISETUM alopecuroides 'Nafray' - 'PA300'	Fountin Grass	750mm	140mm	
TURF					
CYN LEG	CYNODON dactylon 'Legend'	Green Couch			

NOTES

1. REFER TO LANDSCAPE CONCEPT PLAN 2208-015-SK002 FOR PROPOSED PLANTING DESIGN
2. REFER TO CIVIL ENGINEERS DRAWINGS FOR DRIVEWAY AND CROSSOVER DETAILS
3. REFER TO ARCHITECTS DRAWINGS FOR ALL FENCE DETAILS
4. LANDSCAPE DETAILED DESIGN IS TO BE COORDINATED WITH HYDRAULIC AND ENGINEERING DESIGN TO CONFIRM LOCATIONS OF UNDERGROUND SERVICES PRIOR TO CONSTRUCTION
- 5.LANDSCAPE GENERAL STANDARDS.
 - 5.1 CULTIVATION MINIMUM DEPTH 150mm FOR TURFED AREAS AND PLANTING AREAS
 - 5.2 IMPORTED TOPSOIL TO AS 4419. MINIMUM DEPTHS, GRASSED AREAS (TURF) 100mm, PLANTING AREAS 300mm.
 - 5.3 MULCH TO AS 4454 PROVIDE MULCH WHICH IS FREE OF DELETERIOUS AND EXTRANEIOUS MATTER SUCH AS SOIL, WEEDS AND STICKS.
 - 5.4 STAKE SIZES FOR PLANTS 1-2.5m HEIGHT TWO 50 x 50 x 1800mm STAKES PER PLANT PROVIDE TIES FIXED SECURELY TO THE STAKES, ONE TIE AT HALF THE HEIGHT OF THE MAIN STEM, OTHERS AS NECESSARY TO STABILISE PLANT. FOR PLANTS <2.5m HIGH 50mm HESSIAN WEBBING STAPLED TO THE STAKES.
6. FOR ALL STREETScape WORKS REFER TO THE FOLLOWING BRISBANE CITY COUNCIL STANDARD DRAWINGS FOR LANDSCAPE CONSTRUCTION DETAILS:
 - 6.1 SOFTWORKS:
 - 6.1.1 BSD-9051 PLANTING GENERAL NOTES SHEET 1
 - 6.1.2 BSD-9051 PLANTING GENERAL NOTES SHEET 2
 - 6.1.3 BSD-9052 PLANTING MEDIA PROFILES (TURF AND GARDEN)
 - 6.1.4 BSD-9053 PLANTING - TYPICAL TREE, SHRUB & TUBE STOCK
 - 6.1.5 BSD-9082 ROOT DEFLECTOR INSTALLATION ADJACENT TO EXISTING ROAD AND STRUCTURES
7. ALL BCC STANDARD DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE FOLLOWING BRISBANE CITY COUNCIL TECHNICAL REFERENCE SPECIFICATIONS:
 - 7.1 S190 LANDSCAPING

PRELIMINARY

E	REVISED ISSUE	SX	14.07.23
D	REVISED ISSUE	SX	12.07.23
rev	description	drawn	date

HICKEY OATLEY
254 & 270 ABBOTSFORD ROAD, BOWEN HILLS
LANDSCAPE CONCEPT PLAN
PLANT SPECIES SCHEDULE, IMAGES & NOTES

LAUD ink
landscape architecture and urban design

Office 7, 915 Ann Street, Fortitude Valley, QLD 4006
E elias@laudink.com.au / jane@laudink.com.au
W www.laudink.com.au
ABN 80 169 838 144

Conditions of Use: This document may only be used by LAUD ink's client (and any other person who LAUD ink has agreed can use this document) for the purpose for which it was prepared and must not be used by any other person or for any other purpose.

scale	NTS	for A1	job no.	2208-015
date	JULY 2023		rev no.	E

approved E. NICHOLAOU* SK010

Civil engineering assessment report

APPROVED

PLANS AND DOCUMENTS
referred to in the
PDA DEVELOPMENT APPROVAL

Approval no : **DEV2023/1392**
Date **1 September 2023**

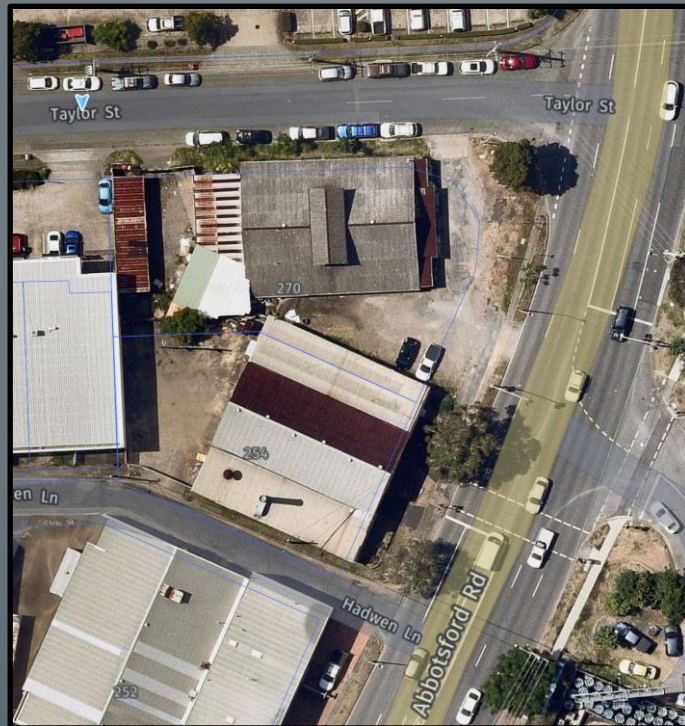


HCE Engineers

Ref. (22224)

**PROPOSED COMMERCIAL DEVELOPMENT
254 & 270 ABBOTSFORD ROAD, BOWEN HILLS**

***CIVIL ENGINEERING ASSESSMENT REPORT
REVISION 3***



Prepared For
HICKEY OATLEY PLANNING & DEVELOPMENT



HCE Engineers

PO Box 7214, Redland Bay Qld 4165
55-57 Jardine Dr, Redland Bay QLD
Tel: (07) **3829 1399**
Email: mail@hce-engineers.com.au
Web: www.hce-engineers.com.au

REPORT CONTROL SHEET

HCE Ref. No.:	22224
Site:	254 & 270 Abbotsford Road, Bowen Hills
Report Title:	Civil Engineering Assessment Report

Rev No.	Date	Written By	Reviewed By	Authorised By	Signed
3	20/07/23	MB	GH	GH	

DISTRIBUTION											
Destination	Date Sent	Revision Number									
		Draft	0	1	2	3	4	5	6	7	
HCE - File	-	☒	☒	☒	☒	☒					
Hickey Oatley Planning & Development	17/01/23	☒									
Hickey Oatley Planning & Development	09/02/23		☒								
Hickey Oatley Planning & Development	13/07/23			☒							
Hickey Oatley Planning & Development	14/07/23				☒						
Hickey Oatley Planning & Development	20/07/23					☒					

INDEX

1. Introduction
2. Verge Works
3. Stormwater Drainage
4. Sewerage
5. Water Reticulation
6. Earthworks
7. Conclusions

1. INTRODUCTION

This report has been prepared to support the development application for material change of use at 254 & 270 Abbotsford Road, Bowen Hills.

A general description of proposed works and items of particular note are contained within the body of this report.

Information presented in this report should not be applied to properties or developments other than the subject development. No responsibility is accepted for use of any part of this report in any other context or for any other purposes or by any third party.

Revision 3 of this report has been created to reflect the updated site layout. Refer to drawing 22224-SK01.

2. VERGE WORKS

An existing 1.20m wide concrete footpath exists along the Abbotsford Road frontage of the existing site. It is proposed to construct new footpaths to Brisbane City Council requirements along the Taylor Street and Hadwen Lane frontages. New footpaths are proposed to connect to the existing footpath on Abbotsford Road as shown on concept design drawings.

No changes are proposed to existing verge gradients in Taylor Street or Abbotsford Road, with the exception of footpath construction. Widening of Hadwen Lane is proposed, and land dedicated as road reserve will be cleared from existing improvements, and finished at a gradient of 2.0% to the existing kerb and channel to Brisbane City Council requirements.

3. STORMWATER DRAINAGE

Existing discharge from the site currently discharges to Abbotsford Road, Hadwen Lane and Taylor Street as surface flow. Existing surface contours indicate that surface flows are ultimately conveyed to the existing sag gully in Taylor Street.

It is proposed to capture and convey on site stormwater to the existing stormwater gully in Taylor Street as shown on concept design drawings in accordance with Brisbane City Councils Infrastructure Design Planning Scheme Policy.

As the development will reduce peak flows, and discharge to existing stormwater drainage under control of the local authority, the discharge to the existing stormwater infrastructure in Taylor Street is considered lawful per Section 3.9.1 of the Queensland Urban Drainage Manual.

Water quality treatment on site is to be undertaken by implementation of best management practices. It is proposed to install gross pollutant traps on all inlets within carparking areas to capture pollutants prior to discharge. Refer to concept design drawings for additional information.

Refer to the Stormwater Management Plan prepared by HCE Engineers for further information.

4. SEWERAGE

The site is currently serviced by a twin property connection from the existing manhole within the Abbotsford Road verge. It is proposed to review the condition of the existing property connection and retain for the proposed use. The existing property connection will be modified to seal one of the existing branches of the twin connection in accordance with Urban Utilities requirements.

Refer to concept design drawings for additional information.

A Service Advice Notice has been requested to confirm the existing sewerage network has adequate capacity for the proposed development.

5. WATER RETICULATION

The existing site currently has two metered service connections from the existing 100mm reticulation main in Abbotsford Road. The existing water service connections are to be removed and plugged at the main, and a new water meter and service provided for the development as required. Concept design drawing show the indicative location of the future service and meter.

Refer to concept design drawings for additional information.

A Service Advice Notice has been requested to confirm the existing water supply network has adequate capacity for the proposed development.

6. EARTHWORKS

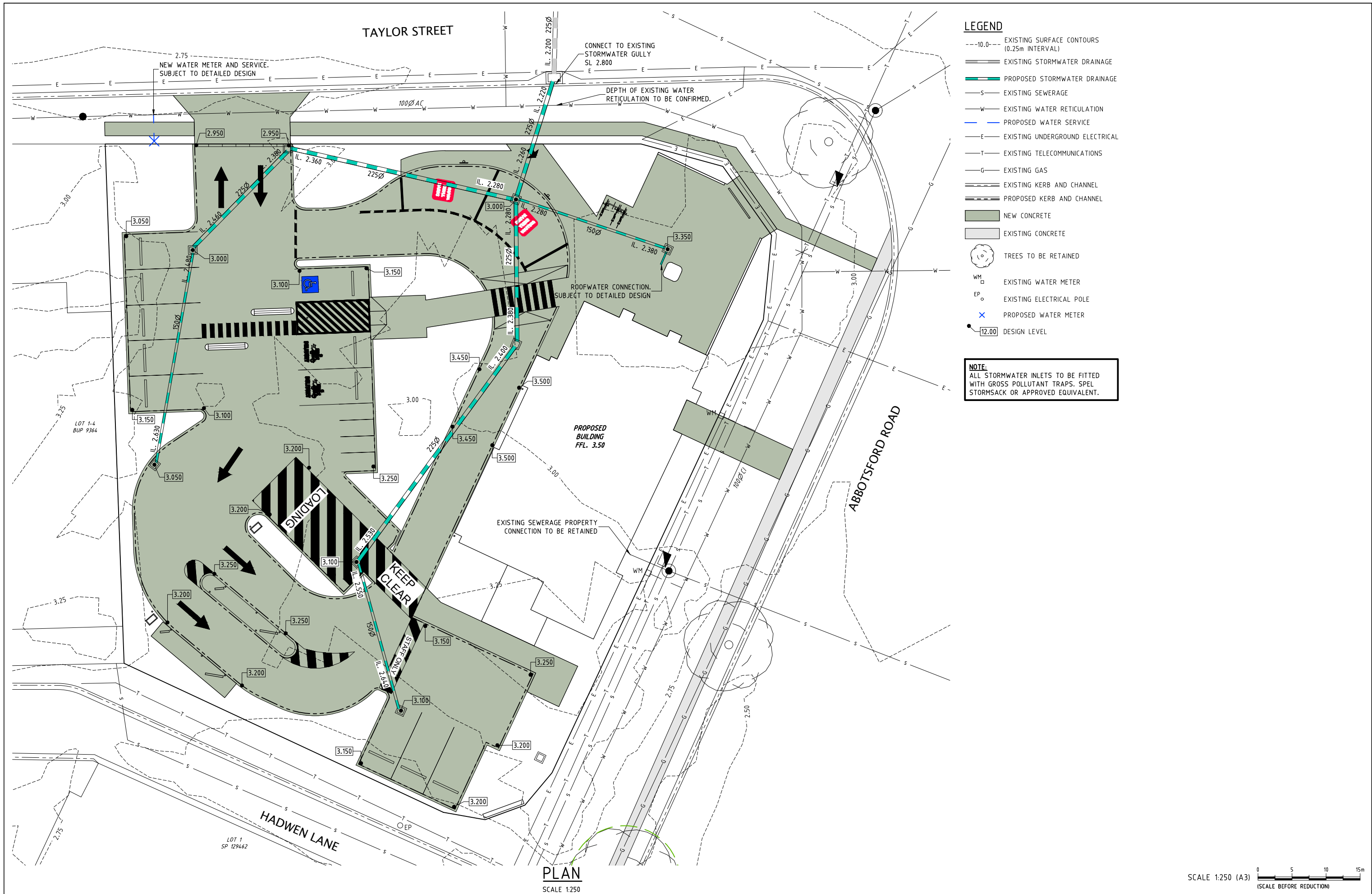
Existing site levels range from approximately 3.60m AHD to 2.40m AHD. It is proposed to undertake minor earthworks to suit the proposed building and carparking in coordination with the architectural design.

Changes in surface level up to 0.5m are expected on site to accommodate the architectural design. Battering within landscaped areas are proposed such that new retaining walls are not required.

7. CONCLUSIONS

The proposed commercial development at 254 & 270 Abbotsford Road, Bowen Hills can be adequately serviced with regards to sewerage, water reticulation and stormwater drainage.

Reasonable and relevant conditions can be applied to the development approval to achieve compliant and adequate servicing of the development.



Traffic Impact Assessment

SUPPORTING DOCUMENT



254-270 ABBOTSFORD ROAD, BOWEN HILLS TRAFFIC IMPACT ASSESSMENT

24 JULY 2023

PREPARED FOR
HICKEY OATLEY

DOCUMENT CONTROL RECORD

DOCUMENT						
Report Title:		254-270 Abbotsford Road, Bowen Hills – Traffic Impact Assessment				
Client:		Hickey Oatley on behalf of Hungry Jack's Pty Ltd				
Project Number:		23-114				
REV	PURPOSE	DATE	AUTHOR	REVIEWER	APPROVED	SIGNED
A	DRAFT	NOV-22	CJ/CB	AAP	AAP (RPEQ 5286)	
B	FINAL	NOV-22	CJ/CB	AAP	AAP (RPEQ 5286)	
C	FINAL	MAY-23	CJ/CB	AAP	AAP (RPEQ 5286)	
D	FINAL	JUL-12	CJ/CB	AAP	AAP (RPEQ 5286)	

COPYRIGHT

This work is copyright. Apart from any use permitted under the Copyright Act 1968, no part may be produced without prior permission. Requests and inquiries concerning reproduction and rights should be directed to:

The Director
Pekol Traffic and Transport
Level 2, 62 Astor Terrace
Spring Hill QLD 4000

DISCLAIMER

This document is produced solely for the benefit of and use by our client in accordance with the terms and conditions of our appointment. PTT does not accept liability to third parties arising from their use of or reliance upon the contents of this report.

CONTENTS

1.0 INTRODUCTION	1
1.1 Background	1
1.2 Aim	1
1.3 Scope of Report	1
2.0 EXISTING CONDITIONS	2
2.1 Subject Site	2
2.2 Access	3
2.3 Road Network	3
2.4 Traffic Volumes	4
2.5 Road Upgrades	4
2.6 Intersection Operations	5
2.7 Active and Public Transport	8
3.0 PROPOSED DEVELOPMENT	9
3.1 Site Layout	9
3.2 Access	10
3.3 Parking	11
3.4 Queuing	13
3.5 Servicing	13
3.6 Active Transport	15
4.0 TRAFFIC OPERATIONS	17
4.1 Development Staging	17
4.2 Traffic Generation	17
4.3 Directional Distribution	18
4.4 Intersection Operations	19
5.0 CONCLUSIONS	22
APPENDIX A	TRAFFIC COUNT DATA
APPENDIX B	INTERSECTION ANALYSES
APPENDIX C	PLANS OF DEVELOPMENT
APPENDIX D	SWEPT PATH ANALYSES
APPENDIX E:	TURNING MOVEMENT FORECASTS

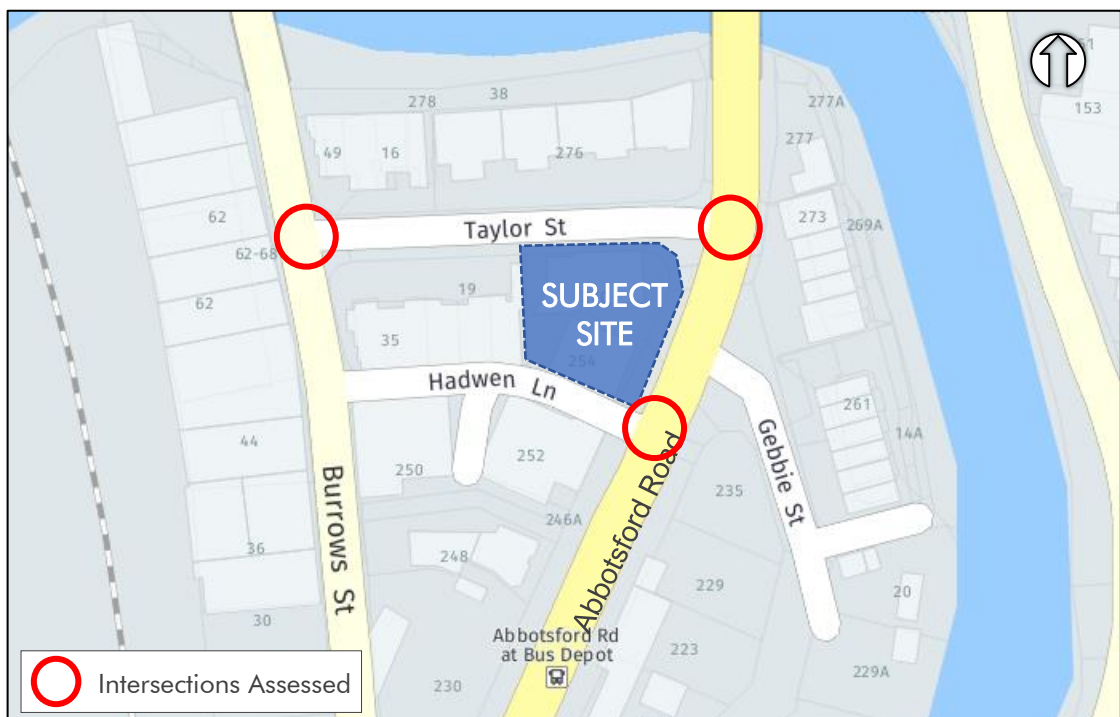
1.0 INTRODUCTION

1.1 BACKGROUND

In November 2022, PTT was commissioned by Hickey Oatley, on behalf of Hungry Jack's Pty Ltd, to undertake a traffic impact assessment for a proposed food and drink outlet, located at 254-270 Abbotsford Road, Bowen Hills. The location of the subject site is shown in Figure 1.1.

This version of the TIA has been amended in response to a revised development layout, with modifications to the on-site car parking and servicing arrangements.

Figure 1.1: SITE LOCALITY



1.2 AIM

The aim of this assessment is to evaluate the proposed development in terms of its access, parking and servicing arrangements, pedestrian / cyclist facilities, likely peak hour traffic generation and impact on the surrounding road network.

1.3 SCOPE OF REPORT

This report begins by summarising the characteristics of the existing road network (Chapter 2), followed by a description of the scope and scale of the proposed development, including the access, parking and servicing arrangements (Chapter 3). The predicted peak hour traffic generation of the development is estimated along with a consideration of its likely traffic impact on the surrounding road network (Chapter 4). The report concludes with a summary of key findings and recommendations (Chapter 5).

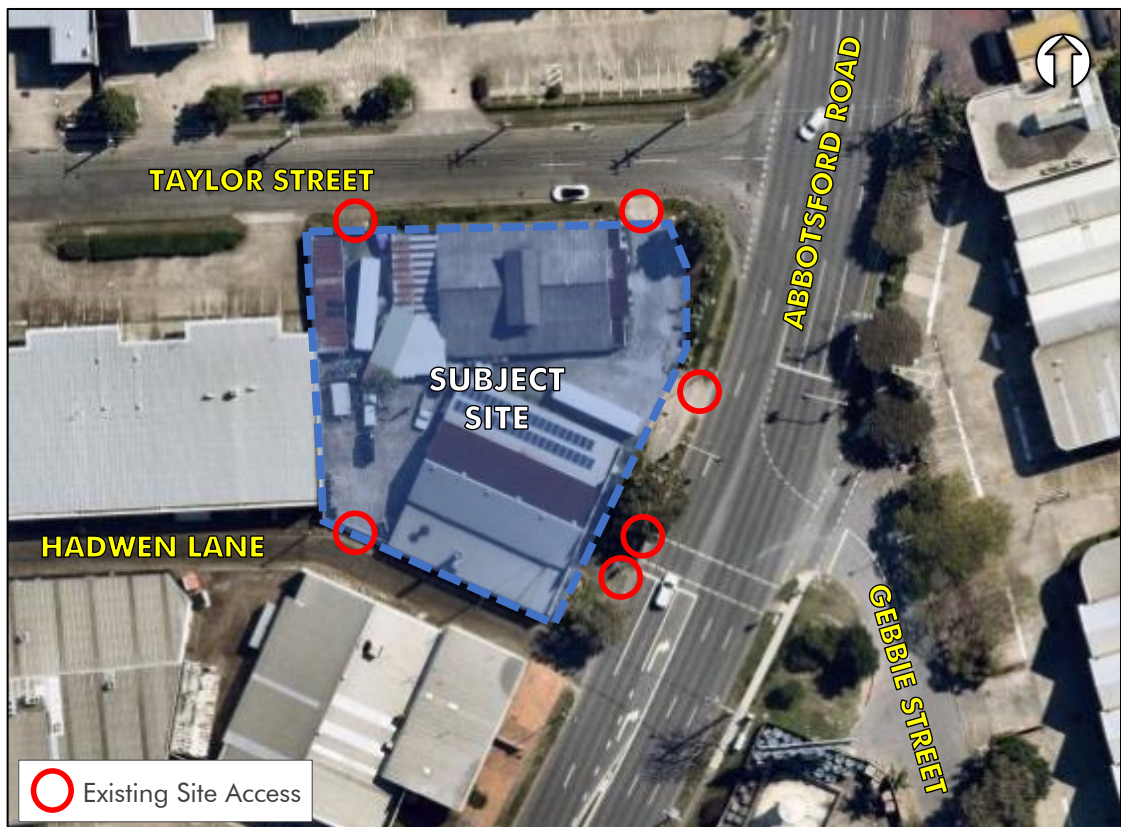
2.0 EXISTING CONDITIONS

2.1 SUBJECT SITE

The subject site is located at 254-270 Abbotsford Road, Bowen Hills and is formally identified as Lot 10 on SP335757. The site is currently vacant but previously accommodated commercial and low impact industry uses. Under the Brisbane City Council (Council) City Plan (2014), the site is zoned as Industry Investigation and is located within the City Frame. The site is also part of the Bowen Hills Priority Development Area (PDA) within which it is included in the Industrial zone.

The site is bounded to the north by Taylor Street, to the east by Abbotsford Road, to the south by Hadwen Lane and to the west by low impact industry uses. An aerial view of the site is shown in Figure 2.1.

Figure 2.1: SUBJECT SITE



2.2 ACCESS

Vehicular access to the site is currently provided via six driveway crossovers, as indicated in Figure 2.1 and outlined as follows:

- two crossovers on Taylor Street
- three crossovers on Abbotsford Road,
- one crossover on Hadwen Lane

2.3 ROAD NETWORK

Key attributes of the surrounding road network are summarised in Table 2.1.

Table 2.1: INTERSECTION ATTRIBUTES

ATTRIBUTE	ABBOTSFORD ROAD	TAYLOR STREET	HADWEN LANE
Road Hierarchy	Arterial	Neighbourhood	Neighbourhood
Cross-section	Five-lane undivided (two lanes northbound, three lanes southbound)	Two-lane undivided	Two-lane divided
Speed Limit	60 km/h	50 km/h	50 km/h
Jurisdiction	Council	Council	Council
Predominant Land Use	Commercial	Industrial	Industrial
Dedicated Parking	No	Both sides	No
Footpaths	Both Sides	Both Sides	No
Bicycle Lanes	No	No	No
Bus Route	No	No	No

At the north-east corner of the subject site, Taylor Street meets Abbotsford Road at a priority-controlled T-intersection where it forms the minor approach. This intersection accommodates all turn movements but has no auxiliary turn treatments on the major road.

Approximately 20m south of the Taylor Street intersection, Abbotsford Road meets Gebbie Street at a signal-controlled T-intersection. This intersection accommodates all turn movements. There is a pedestrian crossing on the southern Abbotsford Road approach to the intersection at the eastern frontage of the subject site.

The Abbotsford Road / Hadwen Lane T-intersection is located immediately south of the signal-controlled intersection of Abbotsford Road and Gebbie Street. The Abbotsford Road / Hadwen Lane intersection is priority-controlled and is limited to left-in / left-out operations by the double barrier centre-line on Abbotsford Road.

2.4 TRAFFIC VOLUMES

Turning movement surveys were conducted at the following intersections, on Tuesday 22 November 2022 from 7:00 to 9:00am and from 3:00pm to 5:00pm:

- Abbotsford Road / Gebbie Street signalised intersection
- Abbotsford Road / Taylor Street priority-controlled intersection
- Burrows Street / Taylor Street priority-controlled intersection

The peak periods and key operational attributes of the intersection are shown in Table 2.2, with raw survey data attached in Appendix A.

Table 2.2: INTERSECTION ATTRIBUTES

ATTRIBUTE	WEEKDAY MORNING	WEEKDAY EVENING
Abbotsford Road / Gebbie Street		
Peak Hour	7:00 – 8:00am	4:30 – 5:30pm
Volume (vph)	2,805 vehicles	2,840 vehicles
% Heavy Vehicles	2.5%	1.0%
Peak Flow Factor	95.6%	98.3%
Abbotsford Road / Taylor Street		
Peak Hour	7:00 – 8:00am	4:30 – 5:30pm
Volume (vph)	2,820 vehicles	2,835 vehicles
% Heavy Vehicles	2.6%	0.9%
Peak Flow Factor	95.6%	98.3%
Burrows Street / Taylor Street		
Peak Hour	7:15 – 8:15am	4:45 – 5:45pm
Volume (vph)	1,750 vehicles	2,040 vehicles
% Heavy Vehicles	2.0%	0.7%
Peak Flow Factor	97.6%	98.5%

2.5 ROAD UPGRADES

A review of Council's Local Government Infrastructure Plan (LGIP) has not identified any proposed upgrades to the surrounding road network in the vicinity of the subject site. However, in pre-lodgement advice, Council has advised there will be a widening requirement along the Hadwen Lane site frontage and a 6.0m by three chord truncation at the Abbotsford Road / Hadwen Lane intersection.

2.6 INTERSECTION OPERATIONS

2.6.1 Intersection Assessment Parameters

A series of SIDRA analyses were conducted to quantify the existing traffic operations on the adjacent external road network. The analyses were based on the traffic count data presented in Appendix A, with:

- peak flow factors (PFF) as detailed in Table 2.2
- the observed proportion of heavy vehicles (%HV) for each movement
- signal phasing data and cycle times sourced from Council
- level of reduction with opposing flow rate factor set to “medium”
- SIDRA default values for other parameters

The level of reduction with opposing flow rate factor is used to reflect the tendency of drivers to accept smaller gaps in circumstances where the opposing traffic volume is high. The application of a “medium” value is consistent with guidance published in the SIDRA User Manual (based on the surveyed through traffic volumes on Abbotsford Road and Burrows Street) and is expected to accurately reflect the intersection operations of these roads with Taylor Street under existing, pre and post development scenarios.

The results are presented in terms of the degree of saturation (DOS), 95th percentile vehicle queues and critical movement. The degree of saturation for a movement is defined as the ratio of traffic demand to the capacity of the movement. The critical movement relates to the approach or movement with the highest degree of saturation. Table 2.3 is an extract from the SIDRA manual and defines the operational rating and level of service for all intersection types.

Table 2.3: SIDRA INTERSECTION RATINGS

LEVEL OF SERVICE	DEGREE OF SATURATION		
	SIGNALS	ROUNDBABOUT	PRIORITY
LOS A	$x \leq 60\%$	$x \leq 60\%$	$x \leq 60\%$
LOS B	$60\% < x \leq 70\%$	$60\% < x \leq 70\%$	$60\% < x \leq 70\%$
LOS C	$70\% < x \leq 90\%$	$70\% < x \leq 85\%$	$70\% < x \leq 80\%$
LOS D	$90\% < x \leq 95\%$	$85\% < x \leq 95\%$	$80\% < x \leq 90\%$
LOS E	$95\% < x \leq 100\%$	$95\% < x \leq 100\%$	$90\% < x \leq 100\%$
LOS F	$100\% < x$	$100\% < x$	$100\% < x$

2.6.2 Abbotsford Road / Gebbie Street

Given their close proximity, the Abbotsford Road / Gebbie Street and Abbotsford Road / Taylor Street intersections have been modelled as a network, using the SIDRA representation shown in Figure 2.2. There is sufficient width on Taylor Street for a left-turning vehicle to pass a right-turning vehicle stopped at the give-way line. Therefore, the intersection has been modelled with a short left-turn lane on the western approach.

Figure 2.2: INTERSECTION LAYOUTS AND EQUIVALENT REPRESENTATION



The results of the analysis of the Abbotsford Road / Gebbie Street signalised intersection are summarised in Table 2.4 and included in Appendix B. The results indicate that the intersection currently experiences LOS A operations during the weekday morning and evening peak hours.

Table 2.4: ABBOTSFORD ROAD / GEBBIE STREET OPERATIONS

PEAK HOUR	DOS	CYCLE TIME	95% QUEUE	CRITICAL MOVEMENT
Weekday Morning	46%	120s	5.5 vehicles	Northern Approach Through
Weekday Evening	48%	120s	11.3 vehicles	Southern Approach Through

2.6.3 Abbotsford Road / Taylor Street

The results of the analysis of the Abbotsford Road / Taylor Street priority-controlled intersection are summarised in Table 2.5 and included in Appendix B. The results indicate that the intersection

currently experiences LOS A operations during the weekday morning hour and LOS C operations during the evening peak hour.

The analyses indicate that the average delay for the right-turn movement from Taylor Street is very high (ie more than five minutes) in both peak hours. The LOS A operation in the morning peak hour is achieved because only one vehicle was surveyed undertaking this right-turn. In practice, it is expected that the delay for this movement would be less than modelled (but still high), as some southbound through vehicles queued on approach to the Gebbie Street signalised intersection would leave a gap for vehicles to turn out of Taylor Street.

Table 2.5: ABBOTSFORD ROAD / TAYLOR STREET OPERATIONS

PEAK HOUR	DOS	AVG DELAY	95% QUEUE	CRITICAL MOVEMENT
Weekday Morning	37%	0.5s	9.7 vehicles	Northern Approach Through
Weekday Evening	73%	1.4s	3.3 vehicles	Western Approach Right Turn

2.6.4 Burrows Street / Taylor Street

The existing Burrows Street / Taylor Street priority-controlled intersection layout and equivalent SIDRA representation is shown in Figure 2.3. The results of the intersection analysis are summarised in Table 2.6 and included in Appendix B. The results indicate that the intersection currently experiences LOS A operations during the weekday morning and evening peak hours.

Figure 2.3: BURROWS STREET / TAYLOR STREET LAYOUT AND REPRESENTATION

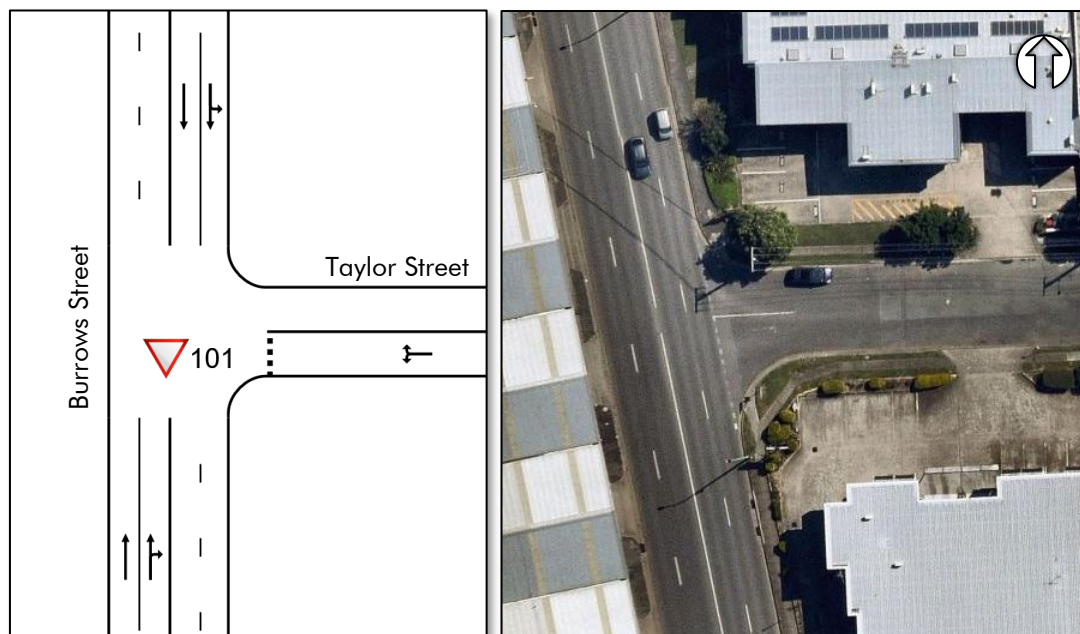


Table 2.5: BURROWS STREET / TAYLOR STREET OPERATIONS

PEAK HOUR	DOS	AVG DELAY	95% QUEUE	CRITICAL MOVEMENT
Weekday Morning	28%	0.8s	0.5 vehicles	Northern Approach Through
Weekday Evening	35%	0.6s	0.6 vehicles	Southern Approach Through

2.7 ACTIVE AND PUBLIC TRANSPORT

2.7.1 Active Transport

There are pedestrian footpaths on both sides of Abbotsford Road and Burrows Street in the vicinity of the subject site. A pedestrian footpath is also provided on the northern side of Taylor Street and on the southern side to the west of the site (but not along the site frontage). There are currently no pedestrian footpaths on either side of Hadwen Lane. There are signalised pedestrian crossings on the eastern and southern legs of the Abbotsford Road / Gebbie Street intersection along the site's eastern frontage.

There are no formal cycle facilities currently provided in the vicinity of the site, although Abbotsford Road is designated as a secondary cycle route.

2.7.2 Public Transport

There are public bus stops on both sides of Abbotsford Road around 130m south of the subject site. The stops are serviced by Translink routes 301 and 320, which operate approximately five times an hour in each direction between 6:00am and 8:00pm on weekdays. Accordingly, the site is well served by public transport.

3.2 ACCESS

3.2.1 Location

As indicated in Figure 3.1, access to the site is proposed via a single crossover on Taylor Street along the site's northern boundary. All existing crossovers are to be removed. Therefore, the development would result in a significant rationalisation of access points along the site frontage, with the six existing crossovers (including three on the Abbotsford Road frontage) consolidated to a single access driveway.

Council's Transport, Access, Parking and Serving (TAPS) Policy requires that access driveways on minor roads (ie Taylor Street) be located a minimum of 20m from the property boundary of an intersecting major road (ie Abbotsford Road). Council's TAPS policy also requires that access driveways on minor roads be located a minimum 3m from adjacent driveways. The proposed driveway achieves 40m separation from the Abbotsford Road / Taylor Street intersection and approximately 5m separation from the adjacent driveway to the west. Therefore, the proposed access location complies with Council's TAPS Policy requirements.

3.2.2 Design

The design vehicle for the proposed development is a refuse collection vehicle (RCV) and a medium rigid vehicle (MRV), as outlined in Section 3.5. Based on the design vehicle, Council's TAPS Policy requires a 7.0m wide Type B2 crossover, designed in accordance with Standard Drawing BSD-2021.

However, it is proposed to provide a 7.0m wide Type B1 driveway. This crossover type is expected to operate safely and efficiently because:

- it is sufficiently wide to facilitate simultaneous operations for passenger vehicles (ie a vehicle would be able to enter the site with a vehicle exiting at the same time)
- it is sufficient to facilitate design vehicle (ie RCV and MRV) access utilising the entire width of the driveway
- it minimises the driveway crossing distance for pedestrians

3.2.3 Sight Distance

Based on the posted speed limit of 50km/h on Taylor Street, Council's TAPS Policy specifies a desirable sight distance of 90m and minimum sight distance of 70m. On-site observations indicate the proposed access location achieves approximately 55m sight distance to the east (ie to / from the Taylor Street/ Abbotsford Road intersection) and 80m sight distance to the west (ie to / from the Taylor Street / Burrows Street intersection). However, vehicles entering Taylor Street from both Abbotsford Road and Burrows Street will need slow to around 20 – 30km/h in order to negotiate the tight turn radii. Accordingly, the available sight distance at the proposed access driveway location is sufficient.

3.3 PARKING

3.3.1 Requirement

Based on the location of the subject site within the City Frame, a maximum car parking rate of one space per 100m² GFA (for non-residential use) would be relevant as per Table 13 of Council's TAPS Policy. As shown in Table 3.1, the application of this rate would result in the proposed development being supported by a maximum of three on-site parking spaces.

Table 3.1: MAXIMUM CAR PARKING REQUIREMENT

USE	SCALE	PARKING RATE	REQUIRED
Food and drink outlet	244m ² GFA	1 space per 100m ² GFA	3 spaces

3.3.2 Provision

The proposed development layout provides a total of 17 on-site parking spaces including:

- eight standard car parking bays (including three spaces allocated for staff parking only)
- one person with disability (PWD) bay
- two dedicated delivery bays
- two drive-through customer waiting spaces
- four motorcycle bays

The proposed on-site parking provision equates to a rate of seven spaces per 100m² GFA. While the parking provision is above the maximum requirement from Council's TAPS Policy, it is:

- comparable with similar food and drink outlets in inner Brisbane
- appropriate for the location of the subject site which is right on edge of the City Frame
- reflective of current trends in parking at food and drink outlets in terms of:
 - high drive-through patronage and lower demand for a traditional dine-in experience
 - a much shorter duration of stay (typically less than five minutes) as customers (or their delivery representative) enter the store to pick-up orders only
 - a much higher proportion of motorcycle use with the majority of drivers of meal delivery services operating a scooter, motorbike or e-bike rather than a car
- expected to cater for the peak parking demand generated by the food and drink use

3.3.3 Persons with Disabilities (PWD) Parking

Council's TAPS Policy requires that PWD parking be provided at a rate of one space per 50 ordinary car parking spaces, with a minimum provision of one PWD space. Based on the on-site parking provision, one PWD space is required. Accordingly, the proposed development layout makes provision for a single PWD parking space and complies with the Council's TAPS Policy requirements.

3.4 QUEUING

3.4.1 Drive Through Facility

Council's TAPS Policy requires that drive-through facilities provide queuing space for a minimum 10 vehicles. The proposed drive-through provides queuing space for at least 10 vehicles, measured between the drive-through entry (ie parallel to the southern edge of the loading bay) and the pick-up window, and complies with the Council's TAPS policy requirements for queuing.

3.4.2 Site Access

Based on a total parking provision of 17 spaces, Council's TAPS Policy requires that queuing space for one vehicle (ie 6m) be provided. The effective available queuing space at the Taylor Street site access is approximately 7m, measured from the site entrance to the first car parking space within the site. Therefore, the queuing provision is expected to adequately cater for the proposed development in accordance with Council's TAPS Policy requirements.

3.5 SERVICING

3.5.1 Requirement

The design service vehicles specified in Council's TAPS Policy for the proposed food and drink outlet are outlined in Table 3.2. As shown, the largest vehicles required to service the development are a Refuse Collection Vehicle (RCV) and Medium Rigid Vehicle (MRV).

Table 3.2: SERVICE VEHICLE REQUIREMENTS

USE	SCALE	REGULAR VEHICLE	OCCASIONAL VEHICLE
Food and drink outlet	244m ² GFA	MRV	RCV

3.5.2 Provision

One RCV / MRV loading bay is proposed to cater for the servicing demands of the development. Servicing by the MRV and RCV is proposed to be accommodated in the dedicated loading bay, which is dimensioned 6.0m wide by 9.1m long and complies with Bowen Hills PDA Development scheme and Council's TAPS Policy requirements.

Vehicle swept paths showing a 10.24m long rear-lift RCV and an 8.8m long MRV entering the site, accessing the loading area and then exiting the site are shown in Figures 3.3 and 3.4 (and attached in PTT Drawings 23-114-001 and 23-114-002 at Appendix D) respectively. As shown, the design vehicles would be able to:

- enter and exit the site in a forward gear
- enter and exit the loading area with one reverse manoeuvre

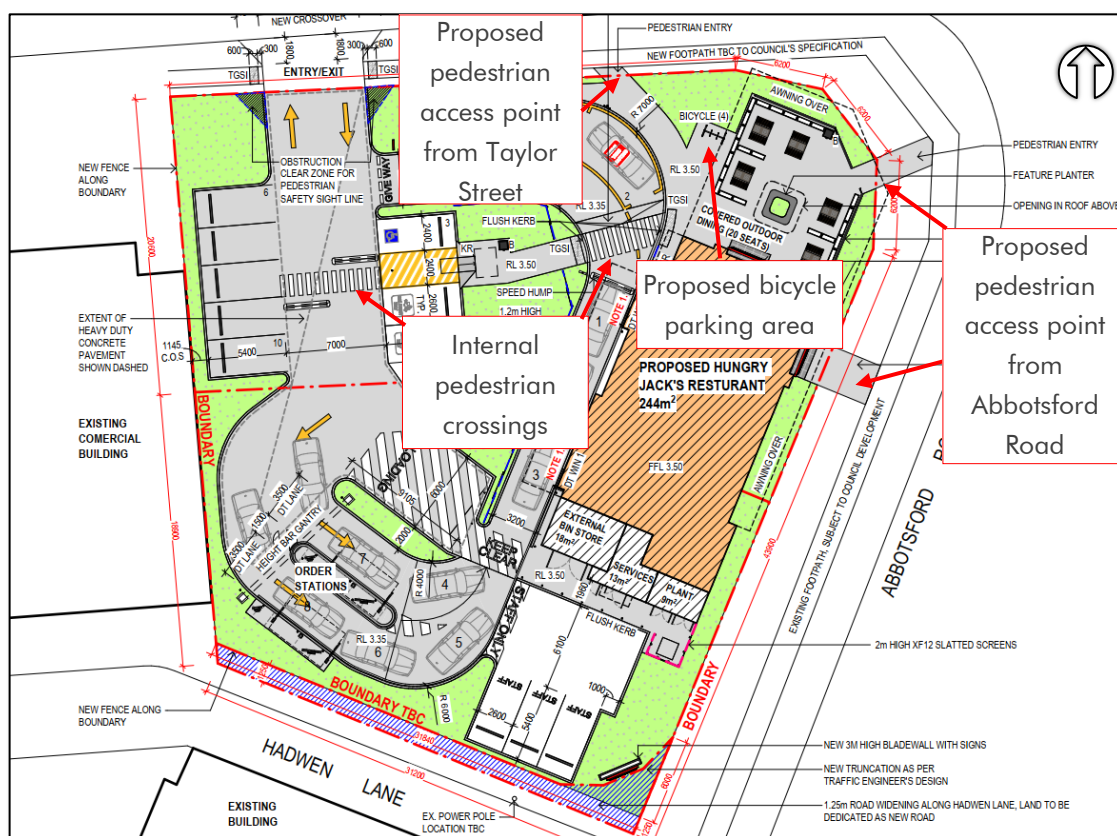
3.6 ACTIVE TRANSPORT

3.6.1 Pedestrians

Pedestrian access to the site from the external network is proposed at three separate locations; one at the on the northern frontage from Taylor Street, one on the eastern frontage from Abbotsford Road and the other on the north-east corner of the site from Abbotsford Road, as shown in Figure 3.5. A series of new pedestrian pathways and crossings are proposed within the site, which are expected to facilitate safe and convenient pedestrian movement between the proposed building and parking spaces.

As shown in Figure 3.5, 2.0m wide by 2.5m long pedestrian sight splays are provided on both side of the driveway to ensure adequate inter-visibility between vehicles egressing the development and pedestrians on the Taylor Street footpath. This is consistent with the requirements of AS2890.1². No permanent obstructions to sight distance should be constructed or installed within the identified sight splay area.

Figure 3.5: PROPOSED PEDESTRIAN / CYCLIST FACILITIES



² Standards Australia AS/NZS 2890.11:2004 "Parking Facilities Part 1: Off-street Car Parking"

3.6.2 Cyclists

Councils TAPS Policy does not specify a minimum bicycle parking provision for food and drink outlets. Nevertheless, given that the development is likely to generate some demand for bicycle parking, particularly in relation to meal delivery services, the development layout incorporates a total of four bicycle parking spaces for visitors and staff, adjacent to the building entrance, as shown in Figure 3.5. Bicycle rails / racks at this location would:

- be well-lit
- be conveniently located (ie close to building entry points)
- have a high level of casual surveillance

4.0 TRAFFIC OPERATIONS

4.1 DEVELOPMENT STAGING

4.1.1 *Timing*

It is standard practice to adopt a ten-year design horizon from the year of full occupation when analysing future year traffic operations on Council's road network. Therefore, the following development staging has been adopted:

— Traffic Data:	2022
— Development Application:	2023
— Construction and Operation:	2025
— Design Horizon:	2035

4.1.2 *Assessment Scenarios*

The following assessment scenarios have been considered:

- Opening year (2025) pre-development
- Opening year (2025) post-development
- Future year (2035) pre-development
- Future year (2035) post-development

4.1.3 *Background Traffic Growth*

The scenarios modelled reflect the development staging with detailed analysis undertaken on the existing conditions, opening year (2025) and a ten-year design horizon (2025-2035). According to QLD Government Statisticians Office the population of the Bowen Hills and the surrounding area is expected to grow at a rate of 1.1% per annum. While population growth is not equal to traffic growth, it is a useful proxy in the absence of site-specific historical traffic growth data or modelling. We have therefore conservatively adopted a background traffic growth rate of 1.1% per annum. The application of this rate equates to a 15.3% increase in background traffic volumes over the next 13 years (2022-2035).

4.2 TRAFFIC GENERATION

4.2.1 *Trip Generation*

The likely peak hour traffic generation associated with the proposed development has been determined based on the maximum trip rate for a lower-intensity food and drink outlet (eg KFC or similar) with a drive-through from the NSW RTA Guide to Traffic Generating Developments (2002). An in:out split of 50:50 has been adopted during the peak hours. As shown in Table 4.1, the proposed development is expected to generate an additional 120 trips (60 arrivals and 60 departures) during the weekday morning and evening peak hours.

Table 4.1: PREDICTED DEVELOPMENT PEAK HOUR TRAFFIC GENERATION

LAND USE	SCALE	TRIP GENERATION RATE	TRIPS (VPH)	IN : OUT SPLIT
Food and drink outlet	244m ² GFA	120 vehicle trips per hour per facility	120	60 : 60

4.2.2 New vs Undiverted Trips

It is standard practice to take into account undiverted (linked) trips for food and drink outlets (ie accounting for the proportion of passing trade that is already on the network. Consistent with accepted practice, we have assumed 30% of trips associated with the food and drink use would be undiverted drop-in trips. This is consistent with the recommendations of the NSW RTA Guide to Traffic Generation Developments. The segmentation of the traffic associated with the proposed development is summarised in Table 4.2.

Table 4.2: SEGMENTATION OF DEVELOPMENT TRAFFIC

LAND USE	TRIPS (VPH)	NEW OR UNDIVERTED DROP-IN TRIPS	DIVERTED DROP IN TRIPS
Food and drink outlet	120 (60:60)	84 (42:42)	36 (18:18)

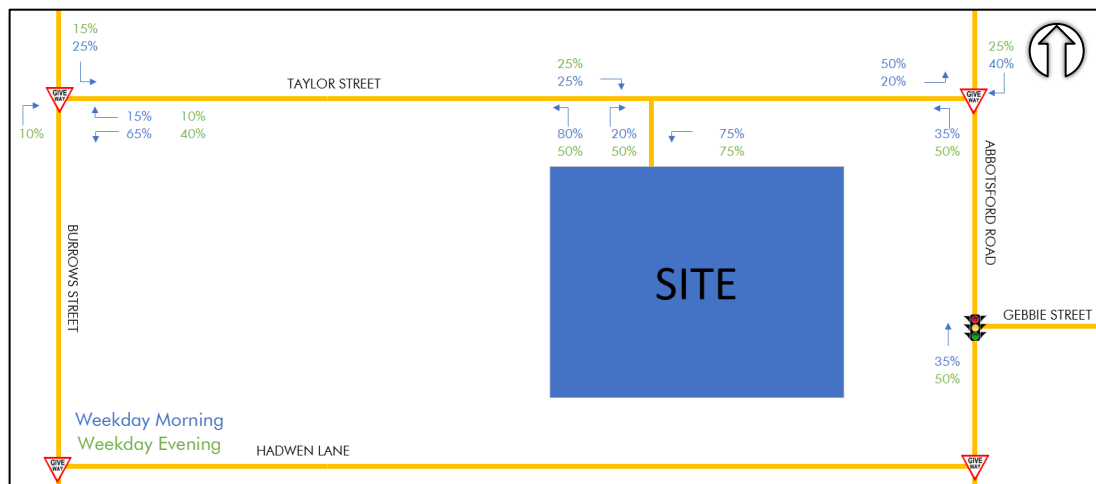
4.3 DIRECTIONAL DISTRIBUTION

The distribution of development traffic on the surrounding road network has been estimated based on the directional splits inherent in the traffic count surveys. The resulting distribution is shown in Figure 4.1 and Figure 4.2 for the weekday morning and evening peak hours and the diverted traffic for the weekday morning and evening peak hours, respectively.

Figure 4.1: DEVELOPMENT TRAFFIC DISTRIBUTION: NEW TRIPS



Figure 4.2: DEVELOPMENT TRAFFIC DISTRIBUTION: DIVERTED TRIPS



4.4 INTERSECTION OPERATIONS

The likely impact of the proposed development on the peak hour operation of the surrounding road network has been assessed using SIDRA. These analyses are based on the peak hour turning movement forecasts presented in Appendix E.

4.4.1 Abbotsford Road / Taylor Street

The analysis of the Abbotsford Road / Taylor Street priority-controlled intersection was undertaken using the SIDRA representation shown in Figure 2.2. The results of the analyses are summarised in Table 4.3 and attached in Appendix E. The results indicate that the intersection is expected to experience LOS A operations during the weekday morning peak hour and LOS F operations during the weekday evening peak hour, under 2025 and 2035 pre and post development conditions.

The high degree of saturation in the evening peak hour is due to the right turn movement from Taylor Street to Abbotsford Road. The right turn out of Taylor Street is a very difficult manoeuvre at peak times due to the high traffic flows on Abbotsford Road and the lack of any central median that would allow drivers to undertake a right turn in two distinct movements. The number of right turn vehicles currently making the turn is low, with no right turns recorded in the morning peak hour and eight movements in the evening peak hour. This suggests that the few drivers who perform the right turn movement from Taylor Street will be more aggressive and prepared to accept a much smaller gap than the typical gap acceptance parameters assumed by the SIDRA software. It is also possible that many of the vehicles turning right out of Taylor Street rely on the courtesy of drivers in Abbotsford Road to perform a "forced merge" in highly congested conditions where there is queuing in both directions.

The operation of the proposed development would not materially increase the demand for right turns out of Taylor Street because:

- the difficulty of performing this manoeuvre would deter most drivers and it would be largely self-enforcing
- an acceptable alternative route exists to enable motorists to avoid this difficult turn (eg via Burrows Street and the traffic signals at the Abbotsford Road / Burrows Street intersection)

TABLE 4.3: INTERSECTION OPERATIONS – ABBOTSFORD ROAD/ TAYLOR STREET

PEAK HOUR & SCENARIO	DOS	AVG DELAY	95% QUEUE	CRITICAL MOVEMENT
Weekday Morning				
2025 Pre Development	38%	0.6s	10.4 Vehicles	Northern Approach Through
2025 Post Development	39%	0.9s	10.4 Vehicles	Northern Approach Through
2035 Pre Development	43%	0.8s	13.3 Vehicles	Northern Approach Through
2035 Post Development	44%	1.2s	13.2 Vehicles	Northern Approach Through
Weekday Evening				
2025 Pre Development	86%	1.7s	3.7 Vehicles	Western Approach Right Turn
2025 Post Development	87%	2.1s	3.7 Vehicles	Western Approach Right Turn
2035 Pre Development	163%	3.7s	4.9 Vehicles	Western Approach Right Turn
2035 Post Development	163%	4.1s	4.9 Vehicles	Western Approach Right Turn

4.4.2 Abbotsford Road / Gibbie Street

The analysis of the Abbotsford Road / Gibbie Street signalised intersection was undertaken using the SIDRA representation shown in Figure 2.2. The results of the analyses are summarised in Table 4.4 and attached in Appendix E. The results indicate that the intersection is expected to experience LOS C operations during the weekday morning peak hour and LOS B operations during the weekday evening peak hour, under 2025 and 2035 pre and post development conditions. The addition of development generated traffic is not expected to have a significant adverse impact on the intersection operations.

Table 4.4: INTERSECTION OPERATIONS - ABBOTSFORD ROAD / GIBBIE STREET

PEAK HOUR & SCENARIO	DOS	CYCLE TIME	AVG DELAY	95% QUEUE	CRITICAL MOVEMENT
Weekday Morning					
2025 Pre Development	48%	120s	5.4s	5.7 Vehicles	Northern Approach Through
2025 Post Development	48%	120s	5.4s	5.9 Vehicles	Northern Approach Through
2035 Pre Development	53%	120s	5.7s	6.7 Vehicles	Northern Approach Through
2035 Post Development	53%	120s	5.7s	6.8 Vehicles	Northern Approach Through
Weekday Evening					
2025 Pre Development	49%	120s	4.6s	11.9 Vehicles	Southern Approach Through
2025 Post Development	50%	120s	4.6s	12.1 Vehicles	Southern Approach Through
2035 Pre Development	55%	120s	4.9s	14.5 Vehicles	Southern Approach Through
2035 Post Development	56%	120s	4.9s	14.8 vehicles	Southern Approach Through

4.4.3 Taylor Street / Burrows Street

The analysis of the Taylor Street / Burrows Street priority-controlled intersection was undertaken using the SIDRA representation shown in Figure 2.3. The results of the analyses are summarised in Table 4.5 and attached in Appendix E. The results indicate that the intersection is expected to experience LOS B (or better) operations during the weekday morning peak hour and LOS C operations during the weekday evening peak hour, under 2025 and 2035 pre and post development conditions. The addition of development generated traffic is not expected to have a significant adverse impact on the intersection operations.

Table 4.5: INTERSECTION OPERATIONS – TAYLOR STREET/ BURROWS STREET

PEAK HOUR & SCENARIO	DOS	AVG DELAY	95% QUEUE	CRITICAL MOVEMENT
Weekday Morning				
2025 Pre Development	29%	0.9s	0.6 vehicles	Northern Approach Through
2025 Post Development	32%	1.4s	1.2 vehicles	Eastern Approach Right Turn
2035 Pre Development	33%	1.1s	0.9 vehicles	Northern Approach Through
2035 Post Development	35%	1.4s	1.3 vehicles	Eastern Approach Right Turn
Weekday Evening				
2025 Pre Development	36%	0.6s	0.6 vehicles	Southern Approach Through
2025 Post Development	36%	1.0s	1.1 vehicles	Southern Approach Through
2035 Pre Development	40%	0.8s	0.8 vehicles	Southern Approach Through
2035 Post Development	46%	1.4s	1.8 vehicles	Eastern Approach Right Turn

5.0 CONCLUSIONS

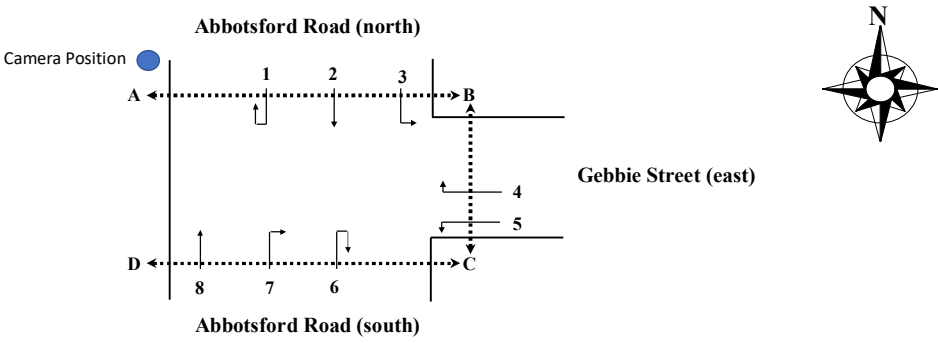
The proposed food and drink outlet at 254-270 Abbotsford Road, Bowen Hills has been evaluated in terms of its site access arrangements, parking provision and design, servicing arrangements, pedestrian / cyclist facilities and likely traffic impact. The main points to note are:

- the proposal involves a 244m² GFA food and drink outlet with a drive-through facility
- vehicle access is proposed via a 7.0m wide Type B1 crossover on Taylor Street, located and designed in accordance with Council's TAPS Policy requirements
- the available sight distance and on-site queuing provision at the site access driveway are consistent with the Council's TAPS Policy
- a total of 17 on-site parking spaces are proposed to support the development comprising:
 - eight standard car parking bays (including three allocated staff parking space)
 - one PWD bay
 - two dedicated delivery bays
 - two drive-through customer waiting spaces
 - four motorcycle bays
- the on-site parking provision is above the maximum requirement from Council's TAPS Policy but is comparable with similar food and drink outlets in inner Brisbane and expected to be adequate to accommodate peak parking demand
- the drive-through facility provides capacity for up to 10 vehicles to queue without adversely impacting car park operations
- the proposed development layout provides an on-site loading bay which is capable of accommodating a RCV and MRV
- the proposed pedestrian facilities are expected to facilitate safe and convenient pedestrian movement to / from the proposed food and drink outlet
- a total of four bicycle parking spaces are proposed for visitors and staff in the form of rails / racks, located adjacent to the building entrance
- the proposed development is expected to generate a net increase of 120 vehicle trips (comprising 42 new / diverted and 18 undiverted trips) during the weekday morning and evening peak hours
- the addition of development generated traffic is not expected to have a significant adverse impact on the operation of the surrounding road network

APPENDIX A TRAFFIC SURVEYS

AUSTRAFFIC VIDEO INTERSECTION COUNT

Site No.: 1 Weather: Fine
Location: Abbotsford Road/Gebbie Street, Bowen Hills
Day/Date: Tuesday, 22 November 2022
AM Peak: Hour ending - 8:00 AM
PM Peak: Hour ending - 5:30 PM

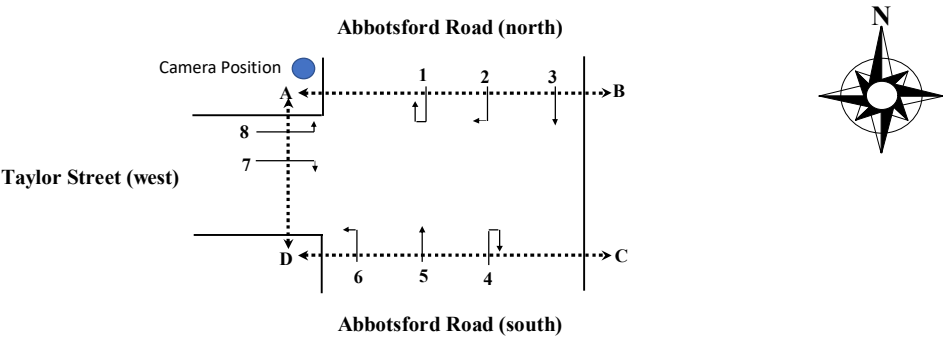


TIME (1/4 hr end)	Movement 1				Movement 2				Movement 3				Movement 4				Movement 5				Movement 6				Movement 7				Movement 8				Pedestrian Movements											
	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	A - B		B - A		B - C		C - B		C - D		D - C					
																													Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists		
7:15 AM	0	0	0	0	390	10	400	0	2	0	2	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	209	11	220	0	0	0	0	0	0	0	1	0	2	0			
7:30 AM	0	0	0	0	508	15	523	0	4	0	4	0	1	1	2	0	2	0	0	0	0	0	6	0	6	0	241	3	244	0	0	0	0	0	2	0	0	1	3	0	0	0		
7:45 AM	0	0	0	0	450	9	459	1	2	0	2	0	0	0	0	0	4	0	0	0	0	7	0	7	0	205	8	213	1	0	0	0	0	0	0	0	0	0	0	0	0			
8:00 AM	0	0	0	0	472	10	482	0	0	0	0	0	0	0	0	0	4	0	4	0	0	4	0	4	0	220	4	224	0	0	0	0	0	1	0	0	1	0	0	0	0			
8:15 AM	0	0	0	0	396	8	404	0	5	0	5	0	0	0	0	0	1	0	1	0	0	0	5	0	5	0	199	1	200	0	0	0	0	0	1	0	0	3	0	1	0	0		
8:30 AM	0	0	0	0	436	14	450	0	5	0	5	0	1	0	1	0	2	0	2	0	0	0	3	0	3	0	198	7	205	0	0	0	0	0	0	0	0	0	0	0	0	0		
8:45 AM	0	0	0	0	344	11	355	0	4	0	4	0	1	0	1	0	2	0	2	0	1	0	3	0	3	0	183	8	191	0	0	0	0	0	1	0	0	0	0	0	0	0		
9:00 AM	0	0	0	0	404	16	420	0	2	0	2	0	0	0	0	0	3	1	4	0	0	0	1	0	1	0	182	3	185	0	0	0	0	0	0	0	0	0	0	0	0	0		
2 hr Total	0	0	0	0	3400	93	3493	1	24	0	24	0	3	1	4	0	18	1	19	0	2	0	2	0	29	0	29	0	1637	45	1682	1	0	0	0	0	5	0	0	1	8	0	3	0
AM Peak	0	0	0	0	1820	44	1864	1	8	0	8	0	1	1	2	0	10	0	10	0	1	0	1	0	17	0	17	0	875	26	901	1	0	0	0	0	3	0	0	1	5	0	2	0

TIME (1/4 hr end)	Movement 1				Movement 2				Movement 3				Movement 4				Movement 5				Movement 6				Movement 7				Movement 8				Pedestrian Movements												
																													A - B		B - A		B - C		C - B		C - D		D - C						
	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists					
3:15 PM	0	0	0	0	274	4	278	0	0	0	0	0	0	0	0	0	6	0	6	0	1	0	1	0	5	0	5	0	253	5	258	0	0	0	0	0	0	0	0	0	0	0	0		
3:30 PM	0	0	0	0	275	9	284	0	0	0	0	0	0	0	0	0	5	0	5	0	0	0	0	0	3	0	3	0	308	6	314	0	0	0	0	0	0	0	1	0	0	0	0	0	
3:45 PM	0	0	0	0	306	5	311	0	1	0	1	0	1	0	1	0	3	0	3	0	0	0	0	0	3	0	3	0	341	6	347	0	0	0	0	0	0	0	0	0	0	0	0	0	
4:00 PM	0	0	0	0	303	5	308	0	0	0	0	0	4	0	4	0	5	0	5	0	1	0	1	0	2	0	2	0	316	11	327	0	0	0	0	0	0	1	0	0	0	0	0		
4:15 PM	0	0	0	0	255	6	261	1	0	0	0	0	4	0	4	0	6	0	6	0	0	0	0	0	7	0	7	0	305	5	310	0	0	0	0	0	0	0	0	0	0	1	0	0	
4:30 PM	0	0	0	0	261	7	268	0	2	1	3	0	3	0	3	0	4	0	4	0	0	0	0	0	2	0	2	0	408	6	414	0	0	0	0	0	0	1	0	0	0	0	0	0	
4:45 PM	0	0	0	0	308	5	313	0	3	0	3	0	1	0	1	0	3	0	3	0	0	0	0	0	0	2	0	2	0	364	4	368	0	0	0	0	0	1	0	0	2	0	0	0	0
5:00 PM	0	0	0	0	303	3	306	0	2	0	2	0	1	0	1	0	8	0	8	0	0	0	0	0	6	0	6	0	382	2	384	0	0	0	0	0	0	0	1	0	0	0	0	0	
5:15 PM	0	0	0	0	316	2	318	0	2	0	2	0	6	0	6	0	13	0	13	0	0	0	0	0	2	0	2	0	370	3	373	0	0	0	0	0	1	0	1	0	0	0	0	0	
5:30 PM	0	0	0	0	322	3	325	0	0	0	0	0	1	0	1	0	5	0	5	0	0	0	0	0	1	0	1	0	395	4	399	0	0	0	0	0	0	0	0	2	0	1	0	0	
5:45 PM	0	0	0	0	273	2	275	0	0	0	0	0	4	0	4	0	3	0	3	0	0	0	0	0	1	0	1	0	371	4	375	0	0	0	0	0	0	2	0	0	0	0	0	0	
6:00 PM	0	0	0	0	251	3	254	0	4	0	4	0	4	0	4	0	6	0	6	0	0	0	0	0	2	0	2	0	371	2	373	0	0	0	0	0	0	0	0	0	0	0	0	0	
3 hr Total	0	0	0	0	3447	54	3501	1	14	1	15	0	29	0	29	0	67	0	67	0	2	0	2	0	34	2	36	0	4184	58	4242	0	0	0	0	0	2	0	6	3	2	0	2	0	
PM Peak	0	0	0	0	1249	13	1262	0	7	0	7	0	9	0	9	0	29	0	29	0	0	0	0	0	9	2	11	0	1511	13	1524	0	0	0	0	0	2	0	2	2	0	1	0	0	

AUSTRAFFIC VIDEO INTERSECTION COUNT

Site No.: 2 Weather: Fine
Location: Abbotsford Road/Taylor Street, Bowen Hills
Day/Date: Tuesday, 22 November 2022
AM Peak: Hour ending - 8:00 AM
PM Peak: Hour ending - 5:30 PM

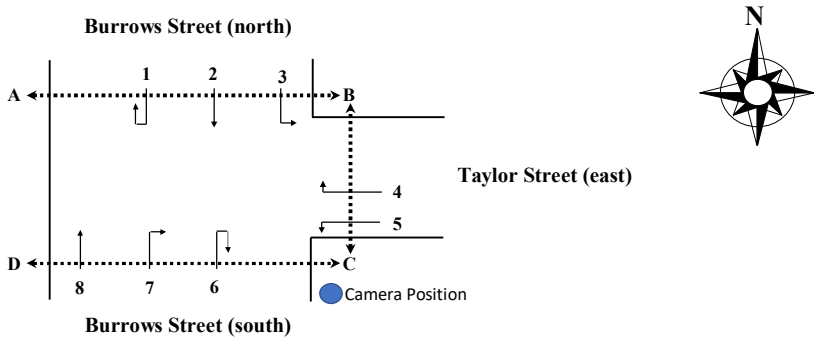


TIME (1/4 hr end)	Movement 1				Movement 2				Movement 3				Movement 4				Movement 5				Movement 6				Movement 7				Movement 8				Pedestrian Movements											
	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	A - B		B - A		C - D		D - C		D - A		A - D					
																													Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists		
7:15 AM	0	0	0	0	6	0	6	0	392	10	402	0	0	0	0	0	206	11	217	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1				
7:30 AM	0	0	0	0	9	1	10	0	512	15	527	0	0	0	0	0	239	3	242	0	3	1	4	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0			
7:45 AM	0	0	0	0	14	0	14	0	452	9	461	1	0	0	0	0	203	8	211	1	2	0	2	0	0	0	0	3	0	3	0	0	0	0	0	0	0	0	1	0	0			
8:00 AM	2	0	2	0	7	1	8	0	472	10	482	0	0	0	0	0	218	4	222	0	2	0	2	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0			
8:15 AM	0	0	0	0	4	0	4	0	399	8	407	0	0	0	0	0	197	1	198	0	2	0	2	0	2	0	3	0	3	0	0	0	1	0	0	0	0	0	0	0	0			
8:30 AM	0	0	0	0	13	1	14	0	440	14	454	0	0	0	0	0	195	7	202	0	4	0	4	0	1	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0			
8:45 AM	0	0	0	0	7	1	8	0	344	11	355	0	0	0	0	0	182	8	190	0	2	0	2	0	4	0	4	0	8	0	0	0	0	0	0	0	0	0	1	0	0			
9:00 AM	0	0	0	0	8	0	8	0	406	16	422	0	0	0	0	0	176	3	179	0	6	0	6	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0			
2 hr Total	2	0	2	0	68	4	72	0	3417	93	3510	1	0	0	0	0	1616	45	1661	1	24	1	25	0	7	0	7	0	23	0	23	0	0	0	1	0	0	0	0	3	1			
AM Peak	2	0	2	0	36	2	38	0	1828	44	1872	1	0	0	0	0	866	26	892	1	10	1	11	0	0	0	0	7	0	7	0	0	0	0	0	0	0	0	2	1				

TIME (1/4 hr end)	Movement 1				Movement 2				Movement 3				Movement 4				Movement 5				Movement 6				Movement 7				Movement 8				Pedestrian Movements											
																													A - B		B - A		C - D		D - C		D - A		A - D					
	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists				
3:15 PM	0	0	0	0	7	0	7	0	273	4	277	0	0	0	0	0	252	5	257	0	1	0	1	0	1	0	1	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0		
3:30 PM	0	0	0	0	8	0	8	0	274	8	282	0	0	0	0	0	307	5	312	0	1	1	2	0	1	1	2	0	6	0	6	0	0	0	0	0	0	0	0	0	0	0		
3:45 PM	0	0	0	0	4	0	4	0	304	5	309	0	0	0	0	0	338	6	344	0	4	0	4	0	3	0	3	0	9	0	9	0	0	0	0	0	0	0	0	0	0	0		
4:00 PM	1	0	1	0	6	0	6	0	301	5	306	0	0	0	0	0	312	10	322	0	8	1	9	0	2	0	2	0	4	0	4	0	0	0	0	0	0	0	0	0	0	0		
4:15 PM	0	0	0	0	3	0	3	0	253	6	259	1	0	0	0	0	306	5	311	0	3	0	3	0	2	0	2	0	12	0	12	0	0	0	0	0	0	0	0	0	0	0		
4:30 PM	0	0	0	0	3	0	3	0	260	8	268	0	0	0	0	0	407	6	413	0	4	0	4	0	3	0	3	0	5	0	5	0	0	0	0	0	0	0	0	0	0	0		
4:45 PM	0	0	0	0	2	0	2	0	307	5	312	0	0	0	0	0	364	4	368	0	1	0	1	0	4	0	4	0	4	0	4	0	0	0	0	0	0	0	1	0	0	0		
5:00 PM	0	0	0	0	3	0	3	0	304	3	307	0	0	0	0	0	381	2	383	0	2	0	2	0	1	0	1	0	5	0	5	0	0	0	0	0	0	0	0	1	0	0		
5:15 PM	0	0	0	0	5	0	5	0	317	2	319	0	0	0	0	0	370	3	373	0	6	0	6	0	1	0	1	0	5	0	5	0	0	0	0	0	0	3	0	0	0	0		
5:30 PM	0	0	0	0	5	0	5	0	320	3	323	0	0	0	0	0	396	4	400	0	0	0	0	0	2	0	2	0	2	0	2	0	0	0	0	0	0	2	0	0	0	0		
5:45 PM	0	0	0	0	2	0	2	0	273	2	275	0	0	0	0	0	374	4	378	0	1	0	1	0	0	0	0	0	3	0	3	0	0	0	0	0	0	1	0	0	0	0		
6:00 PM	0	0	0	0	5	0	5	0	253	3	256	0	0	0	0	0	375	2	377	0	0	0	0	0	2	0	2	0	1	0	1	0	0	0	0	0	2	0	0	0	0	0		
3 hr Total	1	0	1	0	53	0	53	0	3439	54	3493	1	0	0	0	0	4182	56	4238	0	31	2	33	0	22	1	23	0	58	0	58	0	0	0	0	0	8	2	1	0	0	0		
PM Peak	0	0	0	0	15	0	15	0	1248	13	1261	0	0	0	0	0	1511	13	1524	0	9	0	9	0	8	0	8	0	16	0	16	0	0	0	0	0	5	1	1	0	0	0		

AUSTRAFFIC VIDEO INTERSECTION COUNT

Site No.: 3 Weather: Fine
Location: Burrows Street/Taylor Street, Bowen Hills
Day/Date: Tuesday, 22 November 2022
AM Peak: Hour ending - 8:15 AM
PM Peak: Hour ending - 5:45 PM



TIME (1/4 hr end)	Movement 1				Movement 2				Movement 3				Movement 4				Movement 5				Movement 6				Movement 7				Movement 8				Pedestrian Movements											
																																	A - B		B - A		B - C		C - B		C - D		D - C	
	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists				
7:15 AM	0	0	0	0	229	3	232	0	4	0	4	0	1	0	1	0	3	0	3	0	1	0	1	0	0	0	0	0	118	3	121	0	1	0	2	0	4	0	1	0	0	0	0	0
7:30 AM	0	0	0	0	250	1	251	0	5	0	5	0	3	1	4	0	9	1	10	0	1	0	1	0	1	0	1	0	146	4	150	0	1	0	2	0	0	0	2	0	0	0	1	0
7:45 AM	0	0	0	0	259	3	262	0	4	0	4	0	5	0	5	0	8	0	8	0	2	0	2	0	2	0	2	0	159	4	163	0	1	0	3	0	1	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	268	5	273	0	5	0	5	0	4	0	4	0	6	1	7	0	1	0	1	0	3	0	3	0	154	5	159	0	1	0	0	0	0	0	1	0	0	0	0	0
8:15 AM	0	0	0	0	247	2	249	0	8	0	8	0	5	0	5	0	4	0	4	0	0	0	0	0	4	0	4	0	155	7	162	0	0	0	0	0	0	0	1	0	0	0	0	0
8:30 AM	0	0	0	0	228	5	233	0	3	0	3	0	8	0	8	0	7	0	7	0	2	0	2	0	7	0	7	0	146	1	147	0	0	0	0	0	0	1	0	0	0	0	0	0
8:45 AM	0	0	0	0	222	2	224	1	9	0	9	0	4	1	5	0	5	0	5	0	0	0	0	0	2	0	2	0	160	3	163	0	1	0	0	0	1	0	0	0	2	0	0	0
9:00 AM	0	0	0	0	223	7	230	1	2	0	2	0	4	0	4	0	7	1	8	0	1	0	1	0	0	0	0	151	2	153	0	1	0	1	0	2	0	1	0	0	0	0	0	
2 hr Total	0	0	0	0	1926	28	1954	2	40	0	40	0	34	2	36	0	49	3	52	0	8	0	8	0	19	0	19	0	1189	29	1218	0	6	0	8	0	8	1	7	0	2	0	1	0
AM Peak	0	0	0	0	1024	11	1035	0	22	0	22	0	17	1	18	0	27	2	29	0	4	0	4	0	10	0	10	0	614	20	634	0	3	0	5	0	1	0	5	0	0	0	1	0

TIME (1/4 hr end)	Movement 1				Movement 2				Movement 3				Movement 4				Movement 5				Movement 6				Movement 7				Movement 8				Pedestrian Movements												
																													A - B		B - A		B - C		C - B		C - D		D - C						
	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Light Vehicles	Heavy Vehicles	Total	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists	Pedestrians	Cyclists					
3:15 PM	0	0	0	0	129	2	131	1	4	0	4	0	4	0	4	0	8	0	8	0	1	0	1	0	3	0	3	0	214	2	216	1	0	0	0	0	0	0	0	0	0	0	0		
3:30 PM	0	0	0	0	136	3	139	0	3	0	3	0	5	0	5	0	7	0	7	0	0	0	0	0	2	1	3	0	176	3	179	0	0	0	0	0	0	0	1	0	0	0	1	0	
3:45 PM	0	0	0	0	152	3	155	0	1	0	1	0	3	0	3	0	6	1	7	0	1	0	1	0	7	0	7	0	241	6	247	0	0	0	0	0	0	0	1	1	0	0	0	0	
4:00 PM	0	0	0	0	137	6	143	0	2	0	2	0	2	1	3	0	10	0	10	0	1	0	1	0	3	0	3	0	249	5	254	0	1	0	0	0	0	0	1	0	0	0	0		
4:15 PM	0	0	0	0	142	3	145	0	5	0	5	0	7	0	7	0	7	0	7	0	1	0	1	0	9	0	9	0	268	5	273	0	1	0	0	1	0	0	1	1	0	0	0	0	
4:30 PM	0	0	0	0	146	3	149	0	4	0	4	0	7	0	7	0	10	0	10	0	0	0	0	0	5	0	5	0	284	2	286	0	0	0	0	0	0	0	1	0	0	0	0	0	
4:45 PM	0	0	0	0	159	0	159	0	0	0	0	0	2	0	2	0	4	0	4	0	1	0	1	0	4	0	4	0	262	2	264	0	1	0	0	0	0	0	1	0	0	0	0	0	
5:00 PM	0	0	0	0	173	0	173	0	5	0	5	0	0	0	0	0	5	0	5	0	0	0	0	0	1	0	1	0	330	4	334	0	0	0	0	0	0	0	2	0	0	0	0	0	
5:15 PM	0	0	0	0	163	0	163	0	1	0	1	0	10	0	10	0	13	0	13	0	1	0	1	0	4	0	4	0	299	3	302	3	0	0	0	0	1	0	0	0	1	0	0	0	
5:30 PM	0	0	0	0	201	2	203	0	1	0	1	0	2	0	2	0	4	0	4	0	0	0	0	0	2	0	2	0	327	1	328	0	0	0	0	0	0	0	1	1	0	0	0	0	0
5:45 PM	0	0	0	0	133	2	135	0	0	0	0	0	4	0	4	0	2	0	2	0	0	0	0	0	2	0	2	0	342	1	343	1	0	0	0	0	0	0	1	1	0	0	0	0	0
6:00 PM	0	0	0	0	173	1	174	0	1	0	1	0	6	0	6	0	1	0	1	0	0	0	0	0	2	0	2	0	276	1	277	0	0	0	0	0	0	0	1	0	0	0	0	0	
3 hr Total	0	0	0	0	1844	25	1869	1	27	0	27	0	52	1	53	0	77	1	78	0	6	0	6	0	44	1	45	0	3268	35	3303	5	3	0	0	2	0	0	8	8	0	0	1	0	
PM Peak	0	0	0	0	670	4	674	0	7	0	7	0	16	0	16	0	24	0	24	0	1	0	1	0	9	0	9	0	1298	9	1307	4	0	0	0	1	0	0	4	3	0	0	0	0	

APPENDIX B

INTERSECTION ANALYSES

SITE LAYOUT

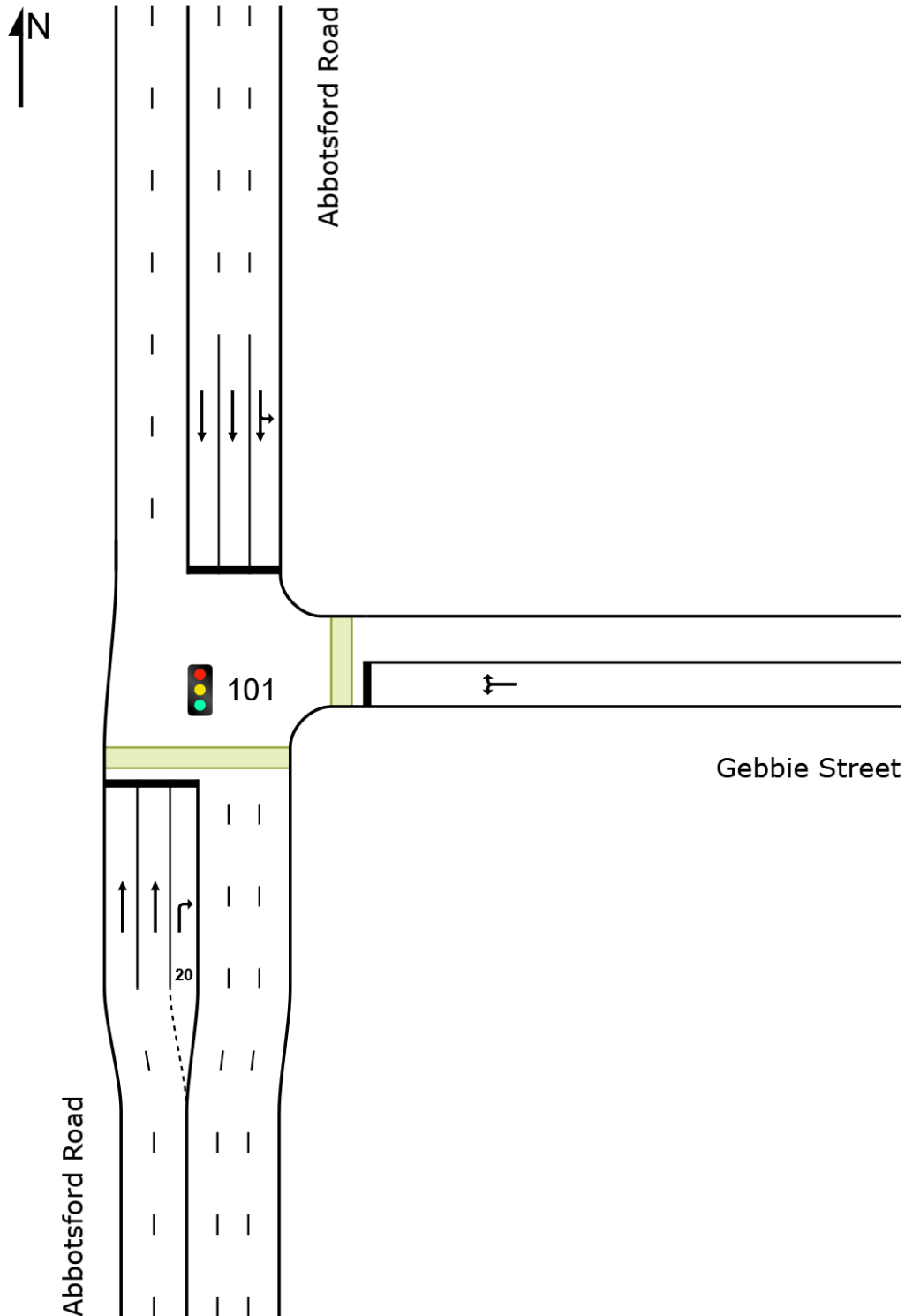
 **Site: 101 [AM 2022 Existing Conditions (Site Folder: General)]**

Abbotsford Road / Gebbie Street

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



PHASING SUMMARY

Site: 101 [AM 2022 Existing Conditions (Site Folder: General)]

Abbotsford Road / Gebbie Street

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Timings based on settings in the Site Phasing & Timing dialog

Phase Times determined by the program

Phase Sequence: Leading Right Turn

Reference Phase: Phase B

Input Phase Sequence: A, B, C

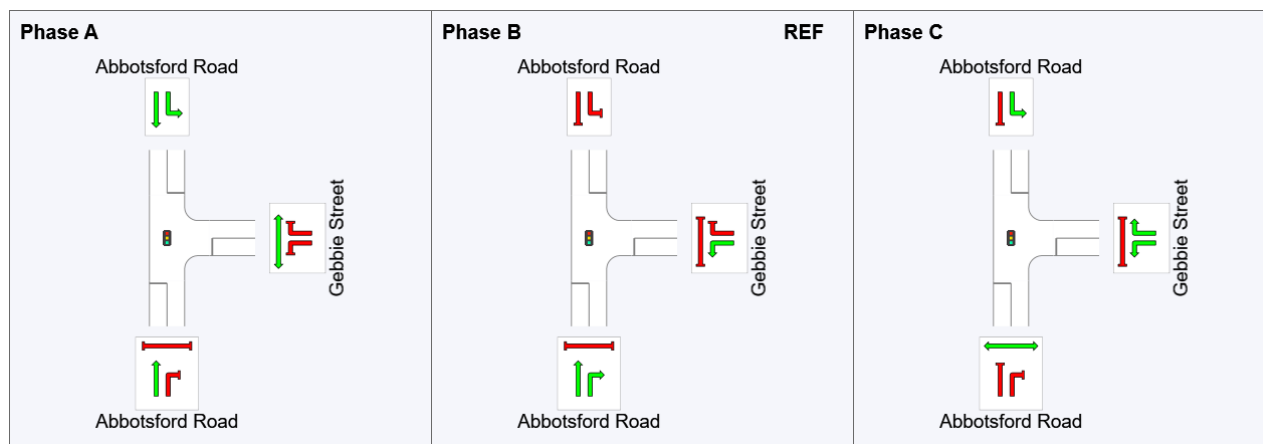
Output Phase Sequence: A, B, C

Phase Timing Summary

Phase	A	B	C
Phase Change Time (sec)	24	0	12
Green Time (sec)	90	6	6
Phase Time (sec)	96	12	12
Phase Split	80%	10%	10%

See the Timing Analysis report for more detailed information including input values of Yellow Time and All-Red Time, and information on any adjustments to Intergreen Time, Phase Time and Green Time values in cases of Pedestrian Actuation, Minor Phase Actuation and Phase Frequency values (user-specified or implied) less than 100%.

Output Phase Sequence



REF: Reference Phase

VAR: Variable Phase

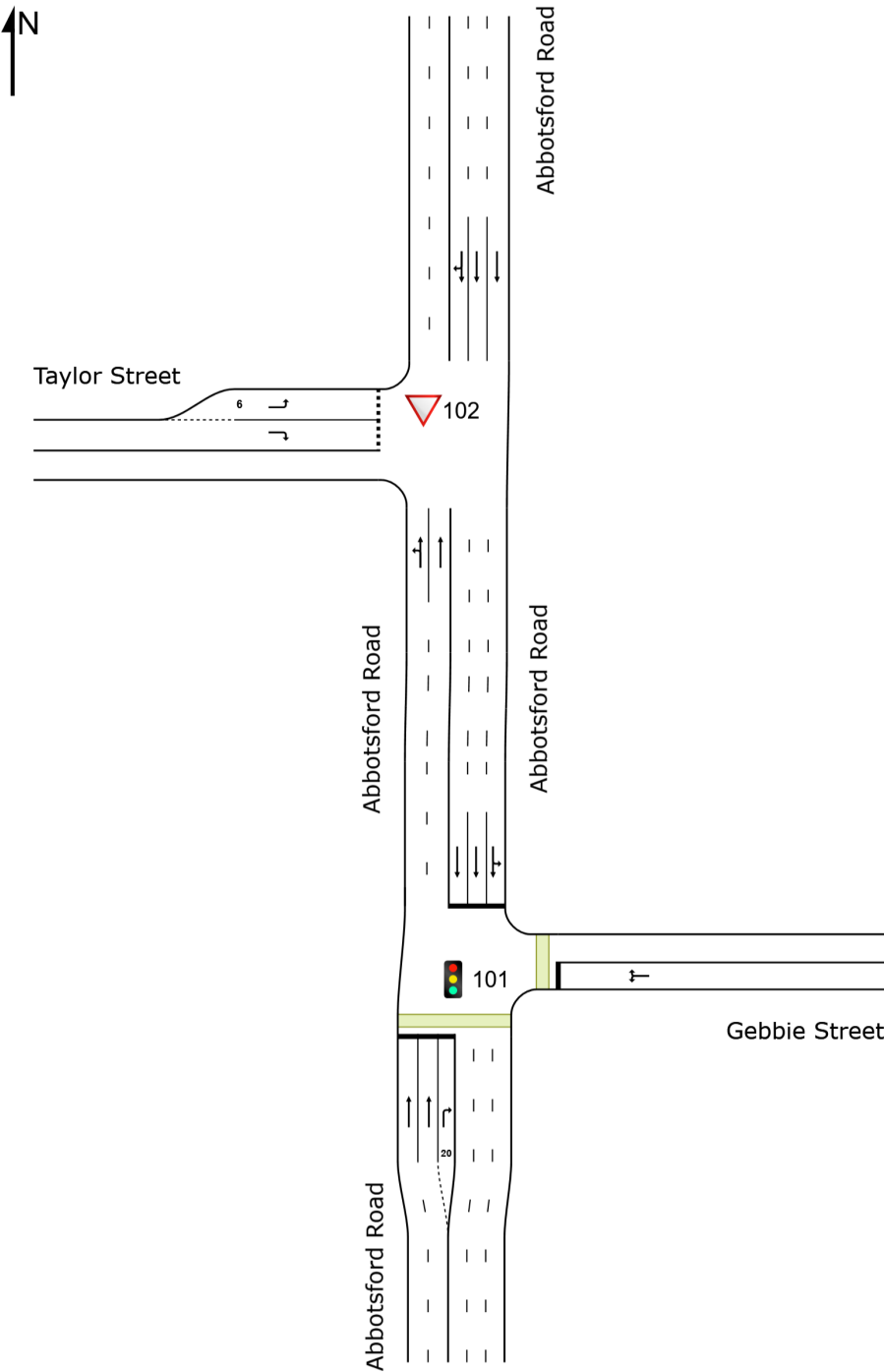
	Normal Movement		Permitted/Opposed
	Slip/Bypass-Lane Movement		Opposed Slip/Bypass-Lane
	Stopped Movement		Turn On Red
	Other Movement Class (MC) Running		Undetected Movement
	Mixed Running & Stopped MCs		Continuous Movement
	Other Movement Class (MC) Stopped		Phase Transition Applied

NETWORK LAYOUT

■ ■ Network: N101 [AM 2022 Existing Conditions (Network Folder: General)]

New Network
Network Category: (None)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



SITES IN NETWORK		
Site ID	CCG ID	Site Name
101	NA	AM 2022 Existing Conditions
102	NA	AM 2022 Existing Conditions

MOVEMENT SUMMARY

Site: 102 [AM 2022 Existing Conditions (Site Folder: General)]

Network: N101 [AM 2022 Existing Conditions (Network Folder: General)]

Abbotsford Road / Taylor Street
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
South: Abbotsford Road														
1	L2	12	9.1	12	9.1	0.245	2.7	LOS A	0.0	0.0	0.00	0.01	0.00	56.0
2	T1	933	2.9	933	2.9	0.245	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	59.8
Approach		945	3.0	945	3.0	0.245	0.0	NA	0.0	0.0	0.00	0.01	0.00	59.8
North: Abbotsford Road														
8	T1	1958	2.4	1958	2.4	0.363	0.4	LOS A	9.7	69.3	0.05	0.01	0.06	58.8
9	R2	42	5.3	42	5.3	0.363	12.4	LOS B	9.7	69.3	0.18	0.05	0.22	52.8
Approach		2000	2.5	2000	2.5	0.363	0.7	NA	9.7	69.3	0.05	0.01	0.07	58.5
West: Taylor Street														
10	L2	7	0.0	7	0.0	0.008	6.4	LOS A	0.0	0.2	0.44	0.55	0.44	48.6
12	R2	1	0.0	1	0.0	0.059	95.7	LOS F	0.1	0.5	0.97	0.99	0.97	14.0
Approach		8	0.0	8	0.0	0.059	17.6	LOS C	0.1	0.5	0.51	0.61	0.51	41.6
All Vehicles		2953	2.6	2953	2.6	0.363	0.5	NA	9.7	69.3	0.04	0.01	0.05	58.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SIDRA INTERSECTION 9.0 | Copyright © 2000-2020 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: PEKOL TRAFFIC AND TRANSPORT | Licence: PLUS / 1PC | Processed: Tuesday, 16 May 2023 9:03:12 AM

Project: P:\2022-23\23-114 254-270 Abbotsford Road, Bowen Hills\Calcs\Revised Abbotsford Road.sip9

MOVEMENT SUMMARY

Site: 101 [AM 2022 Existing Conditions (Site Folder: General)]

Network: N101 [AM 2022 Existing Conditions (Network Folder: General)]

Abbotsford Road / Gebbie Street
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist] m				km/h
South: Abbotsford Road														
2	T1	942	2.9	942	2.9	0.297	1.9	LOS A	5.5	39.4	0.22	0.19	0.22	56.5
3	R2	19	0.0	19	0.0	* 0.209	68.3	LOS E	1.1	7.9	0.99	0.70	0.99	26.9
Approach		961	2.8	961	2.8	0.297	3.2	LOS A	5.5	39.4	0.23	0.20	0.23	54.3
East: Gebbie Street														
4	L2	10	0.0	10	0.0	0.064	57.2	LOS E	0.7	5.0	0.93	0.68	0.93	29.0
6	R2	2	50.0	2	50.0	* 0.064	57.6	LOS E	0.7	5.0	0.93	0.68	0.93	19.7
Approach		13	8.3	13	8.3	0.064	57.2	LOS E	0.7	5.0	0.93	0.68	0.93	27.8
North: Abbotsford Road														
7	L2	8	0.0	8	0.0	0.461	8.7	LOS A	4.6	32.6	0.41	0.38	0.41	42.9
8	T1	1950	2.4	1950	2.4	* 0.461	6.0	LOS A	4.6	32.6	0.41	0.38	0.41	50.5
Approach		1958	2.4	1958	2.4	0.461	6.0	LOS A	4.6	32.6	0.41	0.38	0.41	50.4
All Vehicles		2932	2.6	2932	2.6	0.461	5.3	LOS A	5.5	39.4	0.35	0.32	0.35	51.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance											
Mov ID	Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Abbotsford Road											
P1	Full	11	54.2	LOS E	0.0	0.0	0.95	0.95	223.5	220.1	0.98
East: Gebbie Street											
P2	Full	11	54.2	LOS E	0.0	0.0	0.95	0.95	216.3	210.8	0.97
All Pedestrians		21	54.2	LOS E	0.0	0.0	0.95	0.95	219.9	215.5	0.98

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 101 [PM 2022 Existing Conditions (Site Folder: General)]

Network: N101 [PM 2022 Existing Conditions (Network Folder: General)]

Abbotsford Road / Gebbie Street
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist] m				km/h
South: Abbotsford Road														
2	T1	1550	0.9	1550	0.9	* 0.477	2.4	LOS A	11.3	79.4	0.27	0.25	0.27	55.7
3	R2	11	18.2	11	18.2	0.141	68.4	LOS E	0.7	5.4	0.98	0.68	0.98	26.9
Approach		1562	1.0	1562	1.0	0.477	2.8	LOS A	11.3	79.4	0.28	0.25	0.28	54.9
East: Gebbie Street														
4	L2	30	0.0	30	0.0	0.218	60.7	LOS E	2.2	15.2	0.96	0.73	0.96	28.2
6	R2	9	0.0	9	0.0	* 0.218	60.7	LOS E	2.2	15.2	0.96	0.73	0.96	19.0
Approach		39	0.0	39	0.0	0.218	60.7	LOS E	2.2	15.2	0.96	0.73	0.96	26.5
North: Abbotsford Road														
7	L2	7	0.0	7	0.0	0.301	7.8	LOS A	4.6	32.6	0.35	0.31	0.35	43.8
8	T1	1284	1.0	1284	1.0	0.301	5.1	LOS A	4.6	32.6	0.35	0.31	0.35	51.7
Approach		1291	1.0	1291	1.0	0.301	5.1	LOS A	4.6	32.6	0.35	0.31	0.35	51.7
All Vehicles		2891	1.0	2891	1.0	0.477	4.6	LOS A	11.3	79.4	0.32	0.29	0.32	52.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance											
Mov ID	Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Abbotsford Road											
P1	Full	11	54.2	LOS E	0.0	0.0	0.95	0.95	223.5	220.1	0.98
East: Gebbie Street											
P2	Full	11	54.2	LOS E	0.0	0.0	0.95	0.95	216.3	210.8	0.97
All Pedestrians		21	54.2	LOS E	0.0	0.0	0.95	0.95	219.9	215.5	0.98

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 102 [PM 2022 Existing Conditions (Site Folder: General)]

Network: N101 [PM 2022 Existing Conditions (Network Folder: General)]

Abbotsford Road / Taylor Street
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
South: Abbotsford Road														
1	L2	9	0.0	9	0.0	0.398	2.7	LOS A	0.0	0.0	0.00	0.01	0.00	56.7
2	T1	1550	0.9	1550	0.9	0.398	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.7
Approach		1560	0.9	1560	0.9	0.398	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.7
North: Abbotsford Road														
8	T1	1283	1.0	1283	1.0	0.238	0.7	LOS A	3.3	23.4	0.05	0.01	0.06	58.3
9	R2	15	0.0	15	0.0	0.238	20.8	LOS C	3.2	22.9	0.19	0.03	0.21	52.0
Approach		1298	1.0	1298	1.0	0.238	0.9	NA	3.3	23.4	0.05	0.01	0.06	58.1
West: Taylor Street														
10	L2	16	0.0	16	0.0	0.026	8.7	LOS A	0.1	0.6	0.57	0.72	0.57	47.2
12	R2	8	0.0	8	0.0	0.743	329.3	LOS F	1.0	7.1	0.99	1.04	1.19	5.1
Approach		24	0.0	24	0.0	0.743	115.5	LOS F	1.0	7.1	0.71	0.83	0.78	17.6
All Vehicles		2882	0.9	2882	0.9	0.743	1.4	NA	3.3	23.4	0.03	0.01	0.03	57.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SIDRA INTERSECTION 9.0 | Copyright © 2000-2020 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: PEKOL TRAFFIC AND TRANSPORT | Licence: PLUS / 1PC | Processed: Tuesday, 16 May 2023 9:03:14 AM

Project: P:\2022-23\23-114 254-270 Abbotsford Road, Bowen Hills\Calcs\Revised Abbotsford Road.sip9

MOVEMENT SUMMARY

Site: 101 [AM 2025 Pre Development (Site Folder: General)]

Network: N101 [AM 2025 Pre Development (Network Folder: General)]

Abbotsford Road / Gebbie Street
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total HV] veh/h	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Abbotsford Road														
2	T1	974	2.9	974	2.9	0.307	1.9	LOS A	5.7	41.2	0.22	0.20	0.22	56.5
3	R2	20	0.0	20	0.0	* 0.221	68.4	LOS E	1.2	8.3	0.99	0.70	0.99	26.9
Approach		994	2.8	994	2.8	0.307	3.2	LOS A	5.7	41.2	0.23	0.21	0.23	54.2
East: Gebbie Street														
4	L2	10	0.0	10	0.0	0.064	57.2	LOS E	0.7	5.0	0.93	0.68	0.93	29.0
6	R2	2	50.0	2	50.0	* 0.064	57.6	LOS E	0.7	5.0	0.93	0.68	0.93	19.7
Approach		13	8.3	13	8.3	0.064	57.2	LOS E	0.7	5.0	0.93	0.68	0.93	27.8
North: Abbotsford Road														
7	L2	8	0.0	8	0.0	0.476	8.8	LOS A	4.6	32.6	0.42	0.39	0.42	42.8
8	T1	2015	2.4	2015	2.4	* 0.476	6.1	LOS A	4.6	32.6	0.42	0.39	0.42	50.3
Approach		2023	2.4	2023	2.4	0.476	6.1	LOS A	4.6	32.6	0.42	0.39	0.42	50.3
All Vehicles		3029	2.6	3029	2.6	0.476	5.4	LOS A	5.7	41.2	0.36	0.33	0.36	51.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance											
Mov ID	Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Abbotsford Road											
P1	Full	11	54.2	LOS E	0.0	0.0	0.95	0.95	223.5	220.1	0.98
East: Gebbie Street											
P2	Full	11	54.2	LOS E	0.0	0.0	0.95	0.95	216.3	210.8	0.97
All Pedestrians		21	54.2	LOS E	0.0	0.0	0.95	0.95	219.9	215.5	0.98

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

▼ Site: 102 [AM 2025 Pre Development (Site Folder: General)]

■ Network: N101 [AM 2025 Pre Development (Network Folder: General)]

Abbotsford Road / Taylor Street
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist] m				
South: Abbotsford Road														
1	L2	12	9.1	12	9.1	0.253	2.7	LOS A	0.0	0.0	0.00	0.01	0.00	56.0
2	T1	964	2.9	964	2.9	0.253	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	59.8
Approach		976	3.0	976	3.0	0.253	0.0	NA	0.0	0.0	0.00	0.01	0.00	59.8
North: Abbotsford Road														
8	T1	2023	2.4	2023	2.4	0.379	0.5	LOS A	10.4	74.6	0.06	0.01	0.08	58.5
9	R2	43	5.3	43	5.3	0.379	14.3	LOS B	10.4	74.6	0.22	0.05	0.28	52.4
Approach		2066	2.5	2066	2.5	0.379	0.8	NA	10.4	74.6	0.07	0.01	0.08	58.2
West: Taylor Street														
10	L2	7	0.0	7	0.0	0.008	6.6	LOS A	0.0	0.2	0.45	0.58	0.45	48.5
12	R2	1	0.0	1	0.0	0.097	149.7	LOS F	0.1	0.8	0.98	0.99	0.98	9.9
Approach		8	0.0	8	0.0	0.097	24.5	LOS C	0.1	0.8	0.51	0.63	0.51	38.4
All Vehicles		3050	2.6	3050	2.6	0.379	0.6	NA	10.4	74.6	0.05	0.01	0.06	58.6

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [AM 2025 Post Development (Site Folder: General)]

Network: N101 [AM2025
Post Development (Network
Folder: General)]

Abbotsford Road / Gebbie Street

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist] m				
South: Abbotsford Road														
2	T1	992	2.9	992	2.9	0.313	1.9	LOS A	5.9	42.2	0.22	0.20	0.22	56.5
3	R2	20	0.0	20	0.0	* 0.221	68.4	LOS E	1.2	8.3	0.99	0.70	0.99	26.9
Approach		1012	2.8	1012	2.8	0.313	3.2	LOS A	5.9	42.2	0.23	0.21	0.23	54.2
East: Gebbie Street														
4	L2	10	0.0	10	0.0	0.064	57.2	LOS E	0.7	5.0	0.93	0.68	0.93	29.0
6	R2	2	50.0	2	50.0	* 0.064	57.6	LOS E	0.7	5.0	0.93	0.68	0.93	19.7
Approach		13	8.3	13	8.3	0.064	57.2	LOS E	0.7	5.0	0.93	0.68	0.93	27.8
North: Abbotsford Road														
7	L2	8	0.0	8	0.0	0.474	8.8	LOS A	4.6	32.6	0.42	0.38	0.42	42.8
8	T1	2007	2.4	2007	2.4	* 0.474	6.1	LOS A	4.6	32.6	0.42	0.38	0.42	50.4
Approach		2016	2.4	2016	2.4	0.474	6.1	LOS A	4.6	32.6	0.42	0.38	0.42	50.3
All Vehicles		3040	2.6	3040	2.6	0.474	5.4	LOS A	5.9	42.2	0.36	0.33	0.36	51.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance											
Mov ID	Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	sec		[Ped ped	Dist] m					
South: Abbotsford Road											
P1	Full	11	54.2	LOS E	0.0	0.0	0.95	0.95	223.5	220.1	0.98
East: Gebbie Street											
P2	Full	11	54.2	LOS E	0.0	0.0	0.95	0.95	216.3	210.8	0.97
All Pedestrians		21	54.2	LOS E	0.0	0.0	0.95	0.95	219.9	215.5	0.98

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 102 [AM 2025 Post Development (Site Folder: General)]

Network: N101 [AM2025 Post Development (Network Folder: General)]

Abbotsford Road / Taylor Street

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist] m				km/h
South: Abbotsford Road														
1	L2	36	9.1	36	9.1	0.258	2.7	LOS A	0.0	0.0	0.00	0.04	0.00	55.8
2	T1	957	2.9	957	2.9	0.258	0.0	LOS A	0.0	0.0	0.00	0.02	0.00	59.7
Approach		993	3.1	993	3.1	0.258	0.1	NA	0.0	0.0	0.00	0.02	0.00	59.5
North: Abbotsford Road														
8	T1	2016	2.4	2016	2.4	0.391	0.8	LOS A	10.4	74.0	0.08	0.02	0.11	58.0
9	R2	64	5.3	64	5.3	0.391	14.5	LOS B	10.3	74.0	0.33	0.08	0.43	51.4
Approach		2079	2.5	2079	2.5	0.391	1.2	NA	10.4	74.0	0.09	0.02	0.12	57.5
West: Taylor Street														
10	L2	24	0.0	24	0.0	0.027	6.5	LOS A	0.1	0.7	0.44	0.61	0.44	48.5
12	R2	1	0.0	1	0.0	0.105	161.4	LOS F	0.1	0.9	0.99	0.99	0.99	9.3
Approach		25	0.0	25	0.0	0.105	13.0	LOS B	0.1	0.9	0.47	0.63	0.47	44.5
All Vehicles		3097	2.7	3097	2.7	0.391	0.9	NA	10.4	74.0	0.07	0.03	0.08	57.9

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SIDRA INTERSECTION 9.0 | Copyright © 2000-2020 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: PEKOL TRAFFIC AND TRANSPORT | Licence: PLUS / 1PC | Processed: Tuesday, 16 May 2023 9:03:20 AM

Project: P:\2022-23\23-114 254-270 Abbotsford Road, Bowen Hills\Calcs\Revised Abbotsford Road.sip9

MOVEMENT SUMMARY

 **Site: 101 [PM 2025 Pre Development (Site Folder: General)]**

 **Network: N101 [PM2025 Pre Development (Network Folder: General)]**

Abbotsford Road / Gebbie Street
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total HV] veh/h	%	v/c	sec		[Veh. veh	Dist] m				km/h
South: Abbotsford Road														
2	T1	1602	0.9	1602	0.9	* 0.493	2.4	LOS A	11.9	83.9	0.28	0.26	0.28	55.6
3	R2	11	18.2	11	18.2	0.141	68.4	LOS E	0.7	5.4	0.98	0.68	0.98	26.9
Approach		1613	1.0	1613	1.0	0.493	2.9	LOS A	11.9	83.9	0.28	0.26	0.28	54.8
East: Gebbie Street														
4	L2	31	0.0	31	0.0	0.221	59.8	LOS E	2.2	15.5	0.96	0.73	0.96	28.4
6	R2	9	0.0	9	0.0	* 0.221	59.8	LOS E	2.2	15.5	0.96	0.73	0.96	19.2
Approach		40	0.0	40	0.0	0.221	59.8	LOS E	2.2	15.5	0.96	0.73	0.96	26.7
North: Abbotsford Road														
7	L2	7	0.0	7	0.0	0.311	7.8	LOS A	4.6	32.6	0.35	0.32	0.35	43.7
8	T1	1327	1.0	1327	1.0	0.311	5.1	LOS A	4.6	32.6	0.35	0.31	0.35	51.7
Approach		1334	1.0	1334	1.0	0.311	5.1	LOS A	4.6	32.6	0.35	0.31	0.35	51.6
All Vehicles		2987	1.0	2987	1.0	0.493	4.6	LOS A	11.9	83.9	0.32	0.29	0.32	52.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance											
Mov ID	Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Abbotsford Road											
P1	Full	11	54.2	LOS E	0.0	0.0	0.95	0.95	223.5	220.1	0.98
East: Gebbie Street											
P2	Full	11	54.2	LOS E	0.0	0.0	0.95	0.95	216.3	210.8	0.97
All Pedestrians		21	54.2	LOS E	0.0	0.0	0.95	0.95	219.9	215.5	0.98

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 102 [PM 2025 Pre Development (Site Folder: General)]

Network: N101 [PM2025 Pre Development (Network Folder: General)]

Abbotsford Road / Taylor Street

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist] m				
South: Abbotsford Road														
1	L2	9	0.0	9	0.0	0.411	2.7	LOS A	0.0	0.0	0.00	0.01	0.00	56.7
2	T1	1602	0.9	1602	0.9	0.411	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.7
Approach		1611	0.9	1611	0.9	0.411	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.7
North: Abbotsford Road														
8	T1	1326	1.0	1326	1.0	0.248	0.8	LOS A	3.7	25.8	0.06	0.01	0.07	58.0
9	R2	16	0.0	16	0.0	0.248	22.1	LOS C	3.6	25.3	0.21	0.03	0.24	51.6
Approach		1342	1.0	1342	1.0	0.248	1.1	NA	3.7	25.8	0.06	0.01	0.07	57.9
West: Taylor Street														
10	L2	17	0.0	17	0.0	0.029	8.9	LOS A	0.1	0.7	0.59	0.74	0.59	47.0
12	R2	8	0.0	8	0.0	0.861	430.9	LOS F	1.2	8.6	0.99	1.07	1.31	4.0
Approach		25	0.0	25	0.0	0.861	143.9	LOS F	1.2	8.6	0.72	0.84	0.82	15.2
All Vehicles		2979	0.9	2979	0.9	0.861	1.7	NA	3.7	25.8	0.03	0.01	0.04	56.6

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SIDRA INTERSECTION 9.0 | Copyright © 2000-2020 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: PEKOL TRAFFIC AND TRANSPORT | Licence: PLUS / 1PC | Processed: Tuesday, 16 May 2023 9:03:18 AM

Project: P:\2022-23\23-114 254-270 Abbotsford Road, Bowen Hills\Calcs\Revised Abbotsford Road.sip9

MOVEMENT SUMMARY

Site: 101 [PM 2025 Post Development (Site Folder: General)]

Network: N101 [PM2025
Post Development (Network
Folder: General)]

Abbotsford Road / Gebbie Street
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist] m				km/h
South: Abbotsford Road														
2	T1	1620	0.9	1620	0.9	* 0.498	2.4	LOS A	12.1	85.5	0.28	0.26	0.28	55.6
3	R2	11	18.2	11	18.2	0.141	68.4	LOS E	0.7	5.4	0.98	0.68	0.98	26.9
Approach		1631	1.0	1631	1.0	0.498	2.9	LOS A	12.1	85.5	0.29	0.26	0.29	54.8
East: Gebbie Street														
4	L2	31	0.0	31	0.0	0.221	59.8	LOS E	2.2	15.5	0.96	0.73	0.96	28.4
6	R2	9	0.0	9	0.0	* 0.221	59.8	LOS E	2.2	15.5	0.96	0.73	0.96	19.2
Approach		40	0.0	40	0.0	0.221	59.8	LOS E	2.2	15.5	0.96	0.73	0.96	26.7
North: Abbotsford Road														
7	L2	7	0.0	7	0.0	0.311	7.8	LOS A	4.6	32.6	0.35	0.32	0.35	43.7
8	T1	1327	1.0	1327	1.0	0.311	5.1	LOS A	4.6	32.6	0.35	0.31	0.35	51.7
Approach		1334	1.0	1334	1.0	0.311	5.1	LOS A	4.6	32.6	0.35	0.31	0.35	51.6
All Vehicles		3004	1.0	3004	1.0	0.498	4.6	LOS A	12.1	85.5	0.32	0.29	0.32	52.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance											
Mov ID	Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Abbotsford Road											
P1	Full	11	54.2	LOS E	0.0	0.0	0.95	0.95	223.5	220.1	0.98
East: Gebbie Street											
P2	Full	11	54.2	LOS E	0.0	0.0	0.95	0.95	216.3	210.8	0.97
All Pedestrians		21	54.2	LOS E	0.0	0.0	0.95	0.95	219.9	215.5	0.98

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 102 [PM 2025 Post Development (Site Folder: General)]

Network: N101 [PM2025
Post Development (Network
Folder: General)]

Abbotsford Road / Taylor Street
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
South: Abbotsford Road														
1	L2	26	0.0	26	0.0	0.416	2.7	LOS A	0.0	0.0	0.00	0.02	0.00	56.6
2	T1	1602	0.9	1602	0.9	0.416	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	59.6
Approach		1629	0.9	1629	0.9	0.416	0.1	NA	0.0	0.0	0.00	0.01	0.00	59.6
North: Abbotsford Road														
8	T1	1326	1.0	1326	1.0	0.262	1.3	LOS A	3.7	25.8	0.09	0.01	0.10	57.0
9	R2	28	0.0	28	0.0	0.262	22.1	LOS C	3.6	25.1	0.37	0.06	0.44	49.5
Approach		1354	1.0	1354	1.0	0.262	1.7	NA	3.7	25.8	0.09	0.02	0.11	56.7
West: Taylor Street														
10	L2	30	0.0	30	0.0	0.048	8.9	LOS A	0.2	1.2	0.59	0.76	0.59	47.0
12	R2	8	0.0	8	0.0	0.872	440.7	LOS F	1.3	8.8	0.99	1.08	1.32	3.9
Approach		38	0.0	38	0.0	0.872	102.3	LOS F	1.3	8.8	0.67	0.83	0.74	19.9
All Vehicles		3020	0.9	3020	0.9	0.872	2.1	NA	3.7	25.8	0.05	0.02	0.06	56.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [AM 2035 Pre Development (Site Folder: General)]

Network: N101 [AM2035 Pre Development (Network Folder: General)]

Abbotsford Road / Gebbie Street
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist] m				km/h
South: Abbotsford Road														
2	T1	1087	2.9	1087	2.9	0.343	2.0	LOS A	6.7	48.0	0.23	0.21	0.23	56.4
3	R2	22	0.0	22	0.0	* 0.244	68.5	LOS E	1.3	9.2	0.99	0.71	0.99	26.9
Approach		1109	2.8	1109	2.8	0.343	3.3	LOS A	6.7	48.0	0.24	0.22	0.24	54.1
East: Gebbie Street														
4	L2	13	0.0	13	0.0	0.071	56.2	LOS E	0.8	5.8	0.92	0.69	0.92	29.2
6	R2	2	50.0	2	50.0	* 0.071	56.6	LOS E	0.8	5.8	0.92	0.69	0.92	19.9
Approach		15	7.1	15	7.1	0.071	56.3	LOS E	0.8	5.8	0.92	0.69	0.92	28.2
North: Abbotsford Road														
7	L2	9	0.0	9	0.0	0.531	9.2	LOS A	4.6	32.6	0.45	0.41	0.45	42.4
8	T1	2248	2.4	2248	2.4	* 0.531	6.5	LOS A	4.6	32.6	0.45	0.41	0.45	49.8
Approach		2257	2.4	2257	2.4	0.531	6.5	LOS A	4.6	32.6	0.45	0.41	0.45	49.8
All Vehicles		3381	2.6	3381	2.6	0.531	5.7	LOS A	6.7	48.0	0.38	0.35	0.38	50.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance											
Mov ID	Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Abbotsford Road											
P1	Full	11	54.2	LOS E	0.0	0.0	0.95	0.95	223.5	220.1	0.98
East: Gebbie Street											
P2	Full	11	54.2	LOS E	0.0	0.0	0.95	0.95	216.3	210.8	0.97
All Pedestrians		21	54.2	LOS E	0.0	0.0	0.95	0.95	219.9	215.5	0.98

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

▼ Site: 102 [AM 2035 Pre Development (Site Folder: General)]

■ Network: N101 [AM2035 Pre Development (Network Folder: General)]

Abbotsford Road / Taylor Street
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist] m				
South: Abbotsford Road														
1	L2	14	9.1	14	9.1	0.282	2.7	LOS A	0.0	0.0	0.00	0.01	0.00	56.0
2	T1	1075	2.9	1075	2.9	0.282	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	59.8
Approach		1089	3.0	1089	3.0	0.282	0.0	NA	0.0	0.0	0.00	0.01	0.00	59.7
North: Abbotsford Road														
8	T1	2257	2.4	2257	2.4	0.427	0.7	LOS A	13.3	95.3	0.07	0.01	0.10	58.1
9	R2	48	5.3	48	5.3	0.427	16.6	LOS C	13.3	95.3	0.27	0.05	0.36	51.8
Approach		2305	2.5	2305	2.5	0.427	1.1	NA	13.3	95.3	0.08	0.01	0.10	57.8
West: Taylor Street														
10	L2	8	0.0	8	0.0	0.010	6.9	LOS A	0.0	0.2	0.47	0.60	0.47	48.3
12	R2	1	0.0	1	0.0	0.166	270.5	LOS F	0.2	1.4	0.99	1.00	1.00	6.0
Approach		9	0.0	9	0.0	0.166	36.2	LOS E	0.2	1.4	0.53	0.65	0.53	34.1
All Vehicles		3404	2.6	3404	2.6	0.427	0.8	NA	13.3	95.3	0.05	0.01	0.07	58.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: 101 [AM 2035 Post Development (Site Folder: General)]

Network: N101 [AM 2035 Post Development (Network Folder: General)]

Abbotsford Road / Gebbie Street
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist] m				km/h
South: Abbotsford Road														
2	T1	1104	2.9	1104	2.9	0.348	2.0	LOS A	6.8	49.0	0.23	0.21	0.23	56.3
3	R2	22	0.0	22	0.0	* 0.244	68.5	LOS E	1.3	9.2	0.99	0.71	0.99	26.9
Approach		1126	2.8	1126	2.8	0.348	3.3	LOS A	6.8	49.0	0.24	0.22	0.24	54.1
East: Gebbie Street														
4	L2	13	0.0	13	0.0	0.071	56.2	LOS E	0.8	5.8	0.92	0.69	0.92	29.2
6	R2	2	50.0	2	50.0	* 0.071	56.6	LOS E	0.8	5.8	0.92	0.69	0.92	19.9
Approach		15	7.1	15	7.1	0.071	56.3	LOS E	0.8	5.8	0.92	0.69	0.92	28.2
North: Abbotsford Road														
7	L2	9	0.0	9	0.0	0.529	9.2	LOS A	4.6	32.6	0.45	0.41	0.45	42.4
8	T1	2241	2.4	2241	2.4	* 0.529	6.5	LOS A	4.6	32.6	0.45	0.41	0.45	49.8
Approach		2250	2.4	2250	2.4	0.529	6.5	LOS A	4.6	32.6	0.45	0.41	0.45	49.8
All Vehicles		3390	2.6	3390	2.6	0.529	5.7	LOS A	6.8	49.0	0.38	0.35	0.38	50.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

Pedestrian Movement Performance											
Mov ID	Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Abbotsford Road											
P1	Full	11	54.2	LOS E	0.0	0.0	0.95	0.95	223.5	220.1	0.98
East: Gebbie Street											
P2	Full	11	54.2	LOS E	0.0	0.0	0.95	0.95	216.3	210.8	0.97
All Pedestrians		21	54.2	LOS E	0.0	0.0	0.95	0.95	219.9	215.5	0.98

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)
Pedestrian movement LOS values are based on average delay per pedestrian movement.
Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 102 [AM 2035 Post Development (Site Folder: General)]

Network: N101 [AM 2035 Post Development (Network Folder: General)]

Abbotsford Road / Taylor Street

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %	v/c	sec		[Veh. veh	Dist m				km/h
South: Abbotsford Road														
1	L2	38	9.1	38	9.1	0.287	2.7	LOS A	0.0	0.0	0.00	0.04	0.00	55.8
2	T1	1069	2.9	1069	2.9	0.287	0.0	LOS A	0.0	0.0	0.00	0.02	0.00	59.7
Approach		1107	3.1	1107	3.1	0.287	0.1	NA	0.0	0.0	0.00	0.02	0.00	59.5
North: Abbotsford Road														
8	T1	2250	2.4	2250	2.4	0.441	1.0	LOS A	13.2	94.6	0.10	0.02	0.13	57.5
9	R2	69	5.3	69	5.3	0.441	16.7	LOS C	13.2	94.7	0.39	0.09	0.53	50.6
Approach		2319	2.5	2319	2.5	0.441	1.5	NA	13.2	94.7	0.10	0.02	0.14	57.1
West: Taylor Street														
10	L2	25	0.0	25	0.0	0.030	6.9	LOS A	0.1	0.7	0.47	0.64	0.47	48.3
12	R2	1	0.0	1	0.0	0.184	309.3	LOS F	0.2	1.5	0.99	1.00	1.00	5.4
Approach		26	0.0	26	0.0	0.184	19.0	LOS C	0.2	1.5	0.49	0.65	0.49	41.4
All Vehicles		3452	2.7	3452	2.7	0.441	1.2	NA	13.2	94.7	0.07	0.03	0.10	57.5

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SIDRA INTERSECTION 9.0 | Copyright © 2000-2020 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: PEKOL TRAFFIC AND TRANSPORT | Licence: PLUS / 1PC | Processed: Tuesday, 16 May 2023 9:03:26 AM

Project: P:\2022-23\23-114 254-270 Abbotsford Road, Bowen Hills\Calcs\Revised Abbotsford Road.sip9

MOVEMENT SUMMARY

Site: 101 [PM 2035 Pre Development (Site Folder: General)]

Network: N101 [PM 2035 Pre Development (Network Folder: General)]

Abbotsford Road / Gebbie Street

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total HV] veh/h	%				[Veh. veh	Dist] m				
South: Abbotsford Road														
2	T1	1787	0.9	1787	0.9	* 0.550	2.6	LOS A	14.5	102.3	0.30	0.28	0.30	55.2
3	R2	13	18.2	13	18.2	0.166	68.7	LOS E	0.8	6.4	0.99	0.69	0.99	26.8
Approach		1801	1.0	1801	1.0	0.550	3.1	LOS A	14.5	102.3	0.31	0.29	0.31	54.4
East: Gebbie Street														
4	L2	34	0.0	34	0.0	0.244	60.9	LOS E	2.5	17.2	0.97	0.74	0.97	28.2
6	R2	10	0.0	10	0.0	* 0.244	60.9	LOS E	2.5	17.2	0.97	0.74	0.97	19.0
Approach		44	0.0	44	0.0	0.244	60.9	LOS E	2.5	17.2	0.97	0.74	0.97	26.5
North: Abbotsford Road														
7	L2	8	0.0	8	0.0	0.346	8.0	LOS A	4.6	32.6	0.36	0.33	0.36	43.5
8	T1	1480	1.0	1477	1.0	0.346	5.3	LOS A	4.6	32.6	0.36	0.33	0.36	51.4
Approach		1488	1.0	1486 ^N ₁	1.0	0.346	5.3	LOS A	4.6	32.6	0.36	0.33	0.36	51.4
All Vehicles		3333	1.0	3330 ^N ₁	1.0	0.550	4.9	LOS A	14.5	102.3	0.34	0.31	0.34	51.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Pedestrian Movement Performance											
Mov ID	Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Abbotsford Road											
P1	Full	11	54.2	LOS E	0.0	0.0	0.95	0.95	223.5	220.1	0.98
East: Gebbie Street											
P2	Full	11	54.2	LOS E	0.0	0.0	0.95	0.95	216.3	210.8	0.97
All Pedestrians		21	54.2	LOS E	0.0	0.0	0.95	0.95	219.9	215.5	0.98

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

▼ Site: 102 [PM 2035 Pre Development (Site Folder: General)]

■ Network: N101 [PM 2035 Pre Development (Network Folder: General)]

Abbotsford Road / Taylor Street
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist] m				
South: Abbotsford Road														
1	L2	10	0.0	10	0.0	0.459	2.7	LOS A	0.0	0.0	0.00	0.01	0.00	56.7
2	T1	1787	0.9	1787	0.9	0.459	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	59.6
Approach		1798	0.9	1798	0.9	0.459	0.0	NA	0.0	0.0	0.00	0.00	0.00	59.6
North: Abbotsford Road														
8	T1	1479	1.0	1479	1.0	0.281	1.2	LOS A	4.9	34.9	0.07	0.01	0.08	57.3
9	R2	17	0.0	17	0.0	0.281	27.5	LOS D	4.9	34.3	0.25	0.03	0.30	50.4
Approach		1496	1.0	1496	1.0	0.281	1.5	NA	4.9	34.9	0.07	0.01	0.08	57.1
West: Taylor Street														
10	L2	18	0.0	18	0.0	0.034	9.9	LOS A	0.1	0.8	0.64	0.79	0.64	46.5
12	R2	9	0.0	9	0.0	1.633	1077.7	LOS F	4.2	29.5	1.00	1.35	2.47	1.5
Approach		27	0.0	27	0.0	1.633	365.8	LOS F	4.2	29.5	0.76	0.97	1.25	6.7
All Vehicles		3321	0.9	3321	0.9	1.633	3.7	NA	4.9	34.9	0.04	0.01	0.05	53.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

 Site: 101 [PM 2035 Post Development (Site Folder: General)]

 Network: N101 [PM 2035 Post Development (Network Folder: General)]

Abbotsford Road / Gebbie Street

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Isolated Cycle Time = 120 seconds (Site User-Given Cycle Time)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total HV] veh/h	%				[Veh. veh	Dist] m				
South: Abbotsford Road														
2	T1	1805	0.9	1805	0.9	* 0.555	2.7	LOS A	14.8	104.1	0.31	0.29	0.31	55.2
3	R2	13	18.2	13	18.2	0.166	68.7	LOS E	0.8	6.4	0.99	0.69	0.99	26.8
Approach		1818	1.0	1818	1.0	0.555	3.1	LOS A	14.8	104.1	0.31	0.29	0.31	54.4
East: Gebbie Street														
4	L2	34	0.0	34	0.0	0.244	60.9	LOS E	2.5	17.2	0.97	0.74	0.97	28.2
6	R2	10	0.0	10	0.0	* 0.244	60.9	LOS E	2.5	17.2	0.97	0.74	0.97	19.0
Approach		44	0.0	44	0.0	0.244	60.9	LOS E	2.5	17.2	0.97	0.74	0.97	26.5
North: Abbotsford Road														
7	L2	8	0.0	8	0.0	0.346	8.0	LOS A	4.6	32.6	0.36	0.33	0.36	43.5
8	T1	1480	1.0	1477	1.0	0.346	5.3	LOS A	4.6	32.6	0.36	0.33	0.36	51.4
Approach		1488	1.0	1486 ^N ₁	1.0	0.346	5.3	LOS A	4.6	32.6	0.36	0.33	0.36	51.4
All Vehicles		3350	1.0	3347 ^N ₁	1.0	0.555	4.9	LOS A	14.8	104.1	0.34	0.31	0.34	51.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)

N1 Arrival Flow value is reduced due to capacity constraint at oversaturated upstream lanes.

Pedestrian Movement Performance											
Mov ID	Crossing	Dem. Flow	Aver. Delay	Level of Service	AVERAGE BACK OF QUEUE		Prop. Que	Effective Stop Rate	Travel Time	Travel Dist.	Aver. Speed
		ped/h	sec		[Ped ped	Dist] m			sec	m	m/sec
South: Abbotsford Road											
P1	Full	11	54.2	LOS E	0.0	0.0	0.95	0.95	223.5	220.1	0.98
East: Gebbie Street											
P2	Full	11	54.2	LOS E	0.0	0.0	0.95	0.95	216.3	210.8	0.97
All Pedestrians		21	54.2	LOS E	0.0	0.0	0.95	0.95	219.9	215.5	0.98

Level of Service (LOS) Method: SIDRA Pedestrian LOS Method (Based on Average Delay)

Pedestrian movement LOS values are based on average delay per pedestrian movement.

Intersection LOS value for Pedestrians is based on average delay for all pedestrian movements.

MOVEMENT SUMMARY

Site: 102 [PM 2035 Post Development (Site Folder: General)]

Network: N101 [PM 2035 Post Development (Network Folder: General)]

Abbotsford Road / Taylor Street

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	DEMAND FLOWS		ARRIVAL FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist m				
South: Abbotsford Road														
1	L2	27	0.0	27	0.0	0.464	2.7	LOS A	0.0	0.0	0.00	0.02	0.00	56.6
2	T1	1787	0.9	1787	0.9	0.464	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	59.6
Approach		1815	0.9	1815	0.9	0.464	0.1	NA	0.0	0.0	0.00	0.01	0.00	59.5
North: Abbotsford Road														
8	T1	1479	1.0	1479	1.0	0.301	1.9	LOS A	4.9	34.9	0.10	0.02	0.12	56.0
9	R2	31	0.0	31	0.0	0.301	27.3	LOS D	4.9	34.2	0.46	0.07	0.55	47.4
Approach		1510	1.0	1510	1.0	0.301	2.4	NA	4.9	34.9	0.11	0.02	0.13	55.6
West: Taylor Street														
10	L2	32	0.0	32	0.0	0.058	9.9	LOS A	0.2	1.4	0.64	0.82	0.64	46.5
12	R2	9	0.0	9	0.0	1.631	1076.3	LOS F	4.2	29.4	1.00	1.35	2.48	1.5
Approach		41	0.0	41	0.0	1.631	249.8	LOS F	4.2	29.4	0.72	0.94	1.05	9.7
All Vehicles		3365	0.9	3365	0.9	1.631	4.1	NA	4.9	34.9	0.06	0.02	0.07	52.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Network Data dialog (Network tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SIDRA INTERSECTION 9.0 | Copyright © 2000-2020 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: PEKOL TRAFFIC AND TRANSPORT | Licence: PLUS / 1PC | Processed: Tuesday, 16 May 2023 9:03:31 AM

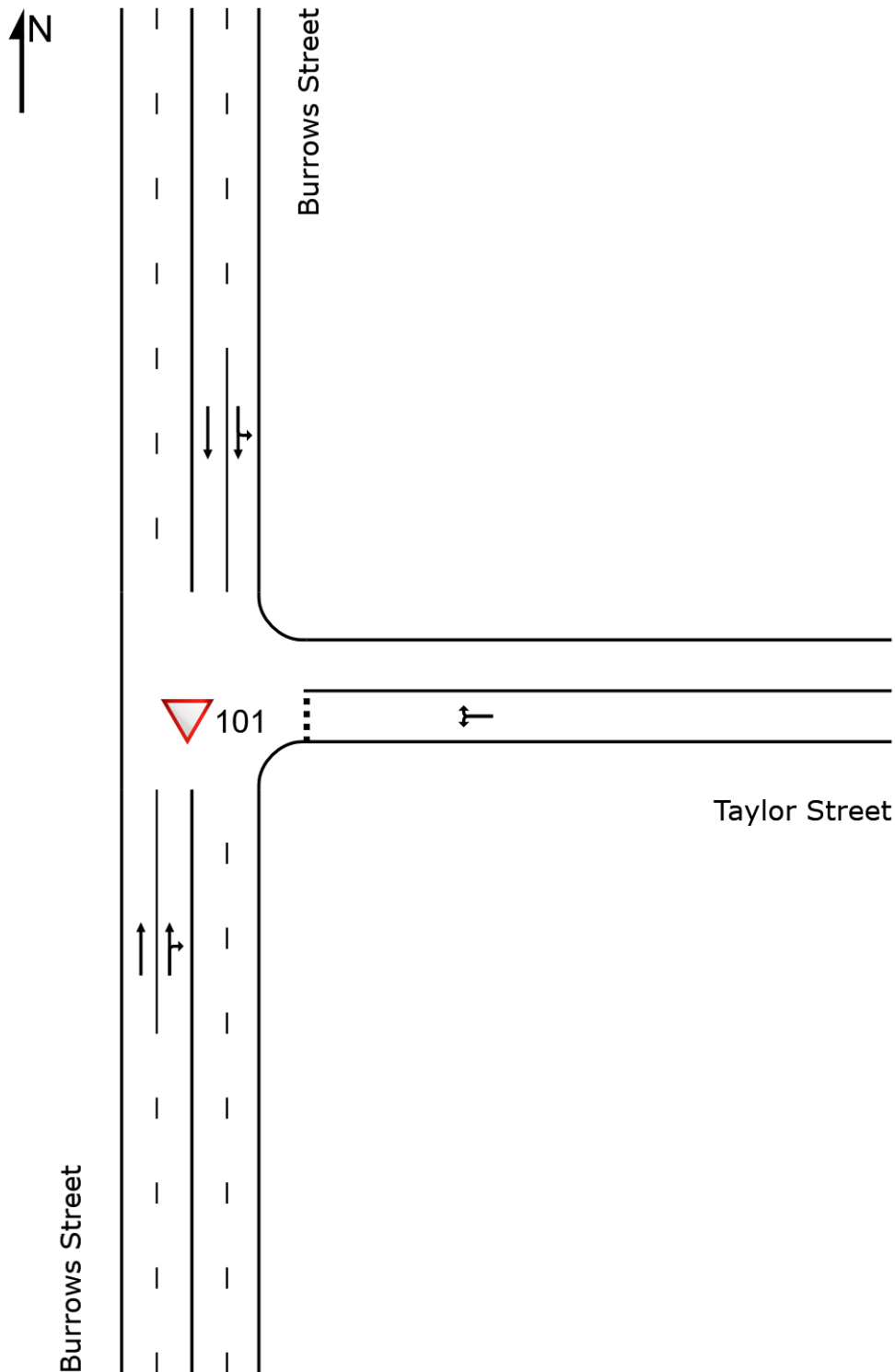
Project: P:\2022-23\23-114 254-270 Abbotsford Road, Bowen Hills\Calcs\Revised Abbotsford Road.sip9

SITE LAYOUT

▽ Site: 101 [AM 2022 Existing Conditions (Site Folder: General)]

Burrows Street / Taylor Street
Site Category: (None)
Give-Way (Two-Way)

Layout pictures are schematic functional drawings reflecting input data. They are not design drawings.



MOVEMENT SUMMARY

▼ Site: 101 [AM 2022 Existing Conditions (Site Folder: General)]

Burrows Street / Taylor Street
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Burrows Street														
2	T1	634	3.2	650	3.2	0.183	0.4	LOS A	0.3	2.3	0.06	0.01	0.06	59.4
3	R2	14	0.0	14	0.0	0.183	12.6	LOS B	0.3	2.3	0.12	0.03	0.12	52.9
Approach		648	3.1	664	3.1	0.183	0.7	NA	0.3	2.3	0.06	0.01	0.06	59.2
East: Taylor Street														
4	L2	29	6.9	30	6.9	0.170	7.2	LOS A	0.5	4.0	0.71	0.82	0.71	42.7
6	R2	18	5.6	18	5.6	0.170	31.6	LOS D	0.5	4.0	0.71	0.82	0.71	42.7
Approach		47	6.4	48	6.4	0.170	16.5	LOS C	0.5	4.0	0.71	0.82	0.71	42.7
North: Burrows Street														
7	L2	22	0.0	23	0.0	0.282	5.6	LOS A	0.0	0.0	0.00	0.03	0.00	58.0
8	T1	1035	1.1	1060	1.1	0.282	0.1	LOS A	0.0	0.0	0.00	0.01	0.00	59.7
Approach		1057	1.1	1083	1.1	0.282	0.2	NA	0.0	0.0	0.00	0.01	0.00	59.7
All Vehicles		1752	2.0	1795	2.0	0.282	0.8	NA	0.5	4.0	0.04	0.03	0.04	58.9

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Minor Road Approach LOS values are based on average delay for all vehicle movements.
NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

▼ Site: 101 [AM 2025 Pre Development (Site Folder: General)]

Burrows Street / Taylor Street

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Burrows Street														
2	T1	655	3.2	671	3.2	0.189	0.4	LOS A	0.3	2.5	0.06	0.01	0.06	59.3
3	R2	14	0.0	14	0.0	0.189	13.1	LOS B	0.3	2.5	0.13	0.03	0.13	52.8
Approach		669	3.1	685	3.1	0.189	0.7	NA	0.3	2.5	0.06	0.01	0.06	59.2
East: Taylor Street														
4	L2	30	6.9	31	6.9	0.191	7.3	LOS A	0.6	4.5	0.74	0.84	0.74	42.1
6	R2	19	5.6	19	5.6	0.191	33.9	LOS D	0.6	4.5	0.74	0.84	0.74	42.1
Approach		49	6.4	50	6.4	0.191	17.6	LOS C	0.6	4.5	0.74	0.84	0.74	42.1
North: Burrows Street														
7	L2	23	0.0	24	0.0	0.292	5.6	LOS A	0.0	0.0	0.00	0.03	0.00	58.0
8	T1	1070	1.1	1096	1.1	0.292	0.1	LOS A	0.0	0.0	0.00	0.01	0.00	59.7
Approach		1093	1.1	1120	1.1	0.292	0.2	NA	0.0	0.0	0.00	0.01	0.00	59.7
All Vehicles		1811	2.0	1856	2.0	0.292	0.9	NA	0.6	4.5	0.04	0.04	0.04	58.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SIDRA INTERSECTION 9.0 | Copyright © 2000-2020 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: PEKOL TRAFFIC AND TRANSPORT | Licence: PLUS / 1PC | Processed: Friday, 17 February 2023 12:50:42 PM

Project: P:\2022-23\23-114 254-270 Abbotsford Road, Bowen Hills\Calcs\Burrows Street.sip9

MOVEMENT SUMMARY

▼ Site: 101 [AM 2025 Post Development (Site Folder: General)]

Burrows Street / Taylor Street

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist] m				
South: Burrows Street														
2	T1	655	3.2	671	3.2	0.194	0.6	LOS A	0.5	3.4	0.08	0.02	0.08	59.1
3	R2	19	0.0	19	0.0	0.194	13.2	LOS B	0.5	3.4	0.17	0.04	0.17	52.4
Approach		674	3.1	691	3.1	0.194	0.9	NA	0.5	3.4	0.08	0.02	0.08	58.9
East: Taylor Street														
4	L2	63	6.9	65	6.9	0.323	9.4	LOS A	1.2	9.1	0.72	0.92	0.89	41.7
6	R2	30	5.6	31	5.6	0.323	37.8	LOS E	1.2	9.1	0.72	0.92	0.89	41.7
Approach		93	6.5	95	6.5	0.323	18.6	LOS C	1.2	9.1	0.72	0.92	0.89	41.7
North: Burrows Street														
7	L2	36	0.0	37	0.0	0.294	5.6	LOS A	0.0	0.0	0.00	0.04	0.00	57.9
8	T1	1065	1.1	1091	1.1	0.294	0.1	LOS A	0.0	0.0	0.00	0.02	0.00	59.7
Approach		1101	1.1	1128	1.1	0.294	0.3	NA	0.0	0.0	0.00	0.02	0.00	59.6
All Vehicles		1868	2.1	1914	2.1	0.323	1.4	NA	1.2	9.1	0.06	0.06	0.07	58.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SIDRA INTERSECTION 9.0 | Copyright © 2000-2020 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: PEKOL TRAFFIC AND TRANSPORT | Licence: PLUS / 1PC | Processed: Friday, 17 February 2023 12:51:41 PM

Project: P:\2022-23\23-114 254-270 Abbotsford Road, Bowen Hills\Calcs\Burrows Street.sip9

MOVEMENT SUMMARY

▼ Site: 101 [AM 2035 Pre Development (Site Folder: General)]

Burrows Street / Taylor Street

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Burrows Street														
2	T1	731	3.2	749	3.2	0.214	0.6	LOS A	0.5	3.6	0.07	0.01	0.07	59.1
3	R2	16	0.0	16	0.0	0.214	15.0	LOS B	0.5	3.6	0.15	0.03	0.16	52.5
Approach		747	3.1	765	3.1	0.214	0.9	NA	0.5	3.6	0.07	0.01	0.08	59.0
East: Taylor Street														
4	L2	33	6.9	34	6.9	0.269	9.7	LOS A	0.9	6.6	0.80	0.94	0.91	39.4
6	R2	21	5.6	22	5.6	0.269	45.8	LOS E	0.9	6.6	0.80	0.94	0.91	39.4
Approach		54	6.4	55	6.4	0.269	23.8	LOS C	0.9	6.6	0.80	0.94	0.91	39.4
North: Burrows Street														
7	L2	25	0.0	26	0.0	0.325	5.6	LOS A	0.0	0.0	0.00	0.02	0.00	58.0
8	T1	1193	1.1	1222	1.1	0.325	0.1	LOS A	0.0	0.0	0.00	0.01	0.00	59.7
Approach		1218	1.1	1248	1.1	0.325	0.2	NA	0.0	0.0	0.00	0.01	0.00	59.7
All Vehicles		2019	2.0	2069	2.0	0.325	1.1	NA	0.9	6.6	0.05	0.04	0.05	58.6

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

▼ Site: 101 [AM 2035 Post Development (Site Folder: General)]

Burrows Street / Taylor Street

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Burrows Street														
2	T1	731	3.2	749	3.2	0.216	0.6	LOS A	0.5	3.9	0.08	0.02	0.08	59.1
3	R2	20	0.0	20	0.0	0.216	14.0	LOS B	0.5	3.9	0.18	0.04	0.19	52.3
Approach		751	3.1	769	3.1	0.216	1.0	NA	0.5	3.9	0.08	0.02	0.09	58.9
East: Taylor Street														
4	L2	66	6.9	68	6.9	0.348	10.2	LOS B	1.3	9.9	0.76	0.96	0.96	41.3
6	R2	32	5.6	33	5.6	0.348	38.5	LOS E	1.3	9.9	0.76	0.96	0.96	41.3
Approach		98	6.5	100	6.5	0.348	19.5	LOS C	1.3	9.9	0.76	0.96	0.96	41.3
North: Burrows Street														
7	L2	38	0.0	39	0.0	0.328	5.6	LOS A	0.0	0.0	0.00	0.04	0.00	57.9
8	T1	1189	1.1	1218	1.1	0.328	0.1	LOS A	0.0	0.0	0.00	0.02	0.00	59.6
Approach		1227	1.1	1257	1.1	0.328	0.3	NA	0.0	0.0	0.00	0.02	0.00	59.6
All Vehicles		2076	2.1	2127	2.1	0.348	1.4	NA	1.3	9.9	0.07	0.06	0.08	58.1

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SIDRA INTERSECTION 9.0 | Copyright © 2000-2020 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: PEKOL TRAFFIC AND TRANSPORT | Licence: PLUS / 1PC | Processed: Friday, 17 February 2023 12:53:04 PM

Project: P:\2022-23\23-114 254-270 Abbotsford Road, Bowen Hills\Calcs\Burrows Street.sip9

MOVEMENT SUMMARY

▼ Site: 101 [PM 2022 Existing Conditions (Site Folder: General)]

Burrows Street / Taylor Street
Site Category: (None)
Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Burrows Street														
2	T1	1307	0.7	1327	0.7	0.348	0.1	LOS A	0.2	1.5	0.02	0.00	0.02	59.8
3	R2	10	0.0	10	0.0	0.348	10.2	LOS B	0.2	1.5	0.03	0.01	0.04	53.7
Approach		1317	0.7	1337	0.7	0.348	0.2	NA	0.2	1.5	0.02	0.00	0.02	59.7
East: Taylor Street														
4	L2	24	0.0	24	0.0	0.178	5.9	LOS A	0.6	3.9	0.68	0.75	0.68	41.4
6	R2	16	0.0	16	0.0	0.178	40.0	LOS E	0.6	3.9	0.68	0.75	0.68	41.3
Approach		40	0.0	41	0.0	0.178	19.5	LOS C	0.6	3.9	0.68	0.75	0.68	41.4
North: Burrows Street														
7	L2	7	0.0	7	0.0	0.179	5.6	LOS A	0.0	0.0	0.00	0.01	0.00	58.2
8	T1	674	0.6	684	0.6	0.179	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	59.9
Approach		681	0.6	691	0.6	0.179	0.1	NA	0.0	0.0	0.00	0.01	0.00	59.8
All Vehicles		2038	0.6	2069	0.6	0.348	0.6	NA	0.6	3.9	0.02	0.02	0.03	59.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SIDRA INTERSECTION 9.0 | Copyright © 2000-2020 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: PEKOL TRAFFIC AND TRANSPORT | Licence: PLUS / 1PC | Processed: Friday, 17 February 2023 12:58:08 PM

Project: P:\2022-23\23-114 254-270 Abbotsford Road, Bowen Hills\Calcs\Burrows Street.sip9

MOVEMENT SUMMARY

▼ Site: 101 [PM 2025 Pre Development (Site Folder: General)]

Burrows Street / Taylor Street

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Burrows Street														
2	T1	1351	0.7	1372	0.7	0.360	0.1	LOS A	0.2	1.5	0.02	0.00	0.02	59.8
3	R2	10	0.0	10	0.0	0.360	10.5	LOS B	0.2	1.5	0.03	0.01	0.04	53.7
Approach		1361	0.7	1382	0.7	0.360	0.2	NA	0.2	1.5	0.02	0.00	0.02	59.7
East: Taylor Street														
4	L2	25	0.0	25	0.0	0.204	6.1	LOS A	0.6	4.4	0.71	0.77	0.71	40.6
6	R2	17	0.0	17	0.0	0.204	43.6	LOS E	0.6	4.4	0.71	0.77	0.71	40.5
Approach		42	0.0	43	0.0	0.204	21.3	LOS C	0.6	4.4	0.71	0.77	0.71	40.6
North: Burrows Street														
7	L2	7	0.0	7	0.0	0.185	5.6	LOS A	0.0	0.0	0.00	0.01	0.00	58.2
8	T1	696	0.6	707	0.6	0.185	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	59.9
Approach		703	0.6	714	0.6	0.185	0.1	NA	0.0	0.0	0.00	0.01	0.00	59.8
All Vehicles		2106	0.6	2138	0.6	0.360	0.6	NA	0.6	4.4	0.02	0.02	0.03	59.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SIDRA INTERSECTION 9.0 | Copyright © 2000-2020 Akcelik and Associates Pty Ltd | sidrasolutions.com

Organisation: PEKOL TRAFFIC AND TRANSPORT | Licence: PLUS / 1PC | Processed: Friday, 17 February 2023 12:58:25 PM

Project: P:\2022-23\23-114 254-270 Abbotsford Road, Bowen Hills\Calcs\Burrows Street.sip9

MOVEMENT SUMMARY

▼ Site: 101 [PM 2025 Post Development (Site Folder: General)]

Burrows Street / Taylor Street

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist] m				
South: Burrows Street														
2	T1	1351	0.7	1372	0.7	0.363	0.2	LOS A	0.3	2.3	0.02	0.01	0.03	59.7
3	R2	15	0.0	15	0.0	0.363	10.6	LOS B	0.3	2.3	0.05	0.01	0.06	53.5
Approach		1366	0.7	1387	0.7	0.363	0.3	NA	0.3	2.3	0.03	0.01	0.03	59.6
East: Taylor Street														
4	L2	46	0.0	47	0.0	0.313	8.8	LOS A	1.1	7.9	0.68	0.82	0.82	39.9
6	R2	25	0.0	25	0.0	0.313	48.4	LOS E	1.1	7.9	0.68	0.82	0.82	39.9
Approach		71	0.0	72	0.0	0.313	22.8	LOS C	1.1	7.9	0.68	0.82	0.82	39.9
North: Burrows Street														
7	L2	16	0.0	16	0.0	0.188	5.6	LOS A	0.0	0.0	0.00	0.03	0.00	58.1
8	T1	696	0.6	707	0.6	0.188	0.0	LOS A	0.0	0.0	0.00	0.01	0.00	59.8
Approach		712	0.6	723	0.6	0.188	0.2	NA	0.0	0.0	0.00	0.01	0.00	59.7
All Vehicles		2149	0.6	2182	0.6	0.363	1.0	NA	1.1	7.9	0.04	0.04	0.05	58.7

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

▼ Site: 101 [PM 2035 Pre Development (Site Folder: General)]

Burrows Street / Taylor Street

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV] %	[Total veh/h	HV] %				[Veh. veh	Dist] m				
South: Burrows Street														
2	T1	1507	0.7	1530	0.7	0.403	0.2	LOS A	0.3	2.2	0.02	0.00	0.03	59.7
3	R2	12	0.0	12	0.0	0.403	11.8	LOS B	0.3	2.2	0.04	0.01	0.06	53.6
Approach		1519	0.7	1542	0.7	0.403	0.3	NA	0.3	2.2	0.02	0.00	0.03	59.7
East: Taylor Street														
4	L2	28	0.0	28	0.0	0.297	10.3	LOS B	1.0	6.8	0.78	0.87	0.90	36.6
6	R2	18	0.0	18	0.0	0.297	63.5	LOS F	1.0	6.8	0.78	0.87	0.90	36.6
Approach		46	0.0	47	0.0	0.297	31.1	LOS D	1.0	6.8	0.78	0.87	0.90	36.6
North: Burrows Street														
7	L2	8	0.0	8	0.0	0.207	5.6	LOS A	0.0	0.0	0.00	0.01	0.00	58.2
8	T1	777	0.6	789	0.6	0.207	0.1	LOS A	0.0	0.0	0.00	0.01	0.00	59.8
Approach		785	0.6	797	0.6	0.207	0.1	NA	0.0	0.0	0.00	0.01	0.00	59.8
All Vehicles		2350	0.6	2386	0.6	0.403	0.8	NA	1.0	6.8	0.03	0.02	0.04	59.0

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

▼ Site: 101 [PM 2035 Post Development (Site Folder: General)]

Burrows Street / Taylor Street

Site Category: (None)

Give-Way (Two-Way)

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES		DEMAND FLOWS		Deg. Satn	Aver. Delay	Level of Service	95% BACK OF QUEUE		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed
		[Total veh/h	HV %	[Total veh/h	HV %				[Veh. veh	Dist] m				
South: Burrows Street														
2	T1	1507	0.7	1530	0.7	0.405	0.2	LOS A	0.4	3.0	0.03	0.01	0.04	59.7
3	R2	16	0.0	16	0.0	0.405	11.9	LOS B	0.4	3.0	0.06	0.01	0.08	53.5
Approach		1523	0.7	1546	0.7	0.405	0.4	NA	0.4	3.0	0.03	0.01	0.04	59.6
East: Taylor Street														
4	L2	49	0.0	50	0.0	0.458	16.9	LOS C	1.8	12.5	0.77	0.96	1.11	34.6
6	R2	27	0.0	27	0.0	0.458	72.8	LOS F	1.8	12.5	0.77	0.96	1.11	34.6
Approach		76	0.0	77	0.0	0.458	36.8	LOS E	1.8	12.5	0.77	0.96	1.11	34.6
North: Burrows Street														
7	L2	16	0.0	16	0.0	0.209	5.6	LOS A	0.0	0.0	0.00	0.02	0.00	58.1
8	T1	777	0.6	789	0.6	0.209	0.1	LOS A	0.0	0.0	0.00	0.01	0.00	59.8
Approach		793	0.6	805	0.6	0.209	0.2	NA	0.0	0.0	0.00	0.01	0.00	59.7
All Vehicles		2392	0.6	2428	0.6	0.458	1.4	NA	1.8	12.5	0.04	0.04	0.06	58.3

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

APPENDIX C DEVELOPMENT LAYOUT PLANS



GENERAL KEY:

2000 1000
300 1000
→

WHITE "SYMBOL OF ACCESS" 900mm ON BLUE SQUARE 1200mm SQ. TO COMPLY WITH AS1428.1

PROPRIETARY WHEEL STOPS

BLACK CONCRETE TO DRIVE-THRU LANE, DRIVE THRU ORDER STATION, ALL KERBS AND CHANNELS. 5% BLACK OXIDE, BORAL MINOX B100 OR EQUAL

BOUNDARY LINE

BIN WITH CONCRETE BASE

KR KERB RAMP

SAFETY BOLLARDS, REFER TO EXTERNAL FINISHES SCHEDULE

ILLUMINATED RED LIGHTBOX

1.2m HIGH PERFORATED SCREEN ALONG DRIVE THRU, REFER TO EXTERNAL FINISHES SCHEDULE

2m HIGH XF12 SLATTED SCREENS, REFER TO EXTERNAL FINISHES SCHEDULE

LANDSCAPE - REFER TO LANDSCAPE DRAWINGS

AREA SCHEDULE	
LOT SIZE:	1925m ²
GFA	244 m ²
BIN ROOM	18 m ²
PLANT	9 m ²
ACCESSIBLE PARKING:	1 SPACES
CAR SPACES PROVIDED:	5 SPACES
DELIVERY PARKING:	2 SPACES
STAFF SPACES PROVIDED:	3 SPACES
CUSTOMER WAITING SPACE:	2 SPACES
TOTAL CAR PARKING	13 SPACES
MOTORBIKE/EV SCOOTER PARKING	4 SPACES
BICYCLE PARKING	4 SPACES
GFA (GROSS FLOOR AREA FOR QLD) - MEASURED FROM THE OUTSIDE OF EXTERNAL WALLS.	

NOTE 1:
PAVEMENT LEVEL AT DRIVE-THRU SERVICE WINDOWS TO MATCH INTERNAL FFL FOR EASE OF OPERATIONS

NOTE: SITE PLAN IS DRAWN BASED ON CAD FROM OTHERS. THIS IS ONLY CONCEPT DESIGN. CHECK SURVEY DRAWINGS PRIOR TO COMMENCEMENT OF ANY SITE WORKS.

NOT FOR CONSTRUCTION

1 PROPOSED SITE PLAN
1 : 250

HUNGRY JACK'S PTY. LTD.
L6 - 100 WILLIAM STREET
WOOLLOOMOOLOO NSW 2011

REV	DATE	AMENDMENT	DRW
I	19.07.23	ISSUE FOR CONSULTANT REVIEW	LW

COPYRIGHT HUNGRY JACK'S PTY LTD.
COPYING, REPRODUCTION OR USE OF THIS DESIGN OR DRAWING IN WHOLE OR PART IS PROHIBITED WITHOUT THE WRITTEN CONSENT OF HUNGRY JACK'S PTY LTD

VERIFY ALL DIMENSIONS AND LEVELS ON SITE AND REPORT ANY DISCREPANCIES PRIOR TO THE COMMENCEMENT OF WORK. DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL CONTRACT DOCUMENTS. USE FIGURED DIMENSIONS ONLY. DO NOT SCALE FROM DRAWINGS. THE COMPLETION OF THE ISSUE DETAILS CHECKED AND AUTHORISED SECTION IS CONFIRMATION OF THE STATUS OF THE DRAWING. THE DRAWING SHALL NOT BE USED FOR CONSTRUCTION UNLESS ENDORSED 'FOR CONSTRUCTION' AND AUTHORISED FOR ISSUE.

Suite 302/12 Ormonde Pde
Hurstville NSW 2220
ABN 48 602 616 925
PH : 02 9579 6292
info@kasarchitects.com.au

Nominated Architect: Ken Sonjes
Registered No.
7902 NSW | 2907 WA | 19823 VIC

○ SKETCH
● PLANNING PERMIT
○ AMENDED DA
○ BA / CC
○ TENDER
○ CONSTRUCTION

PROJECT HUNGRY JACK'S
ALBION
254-270 ABBOTSFORD ROAD
BOWEN HILLS QLD 4006

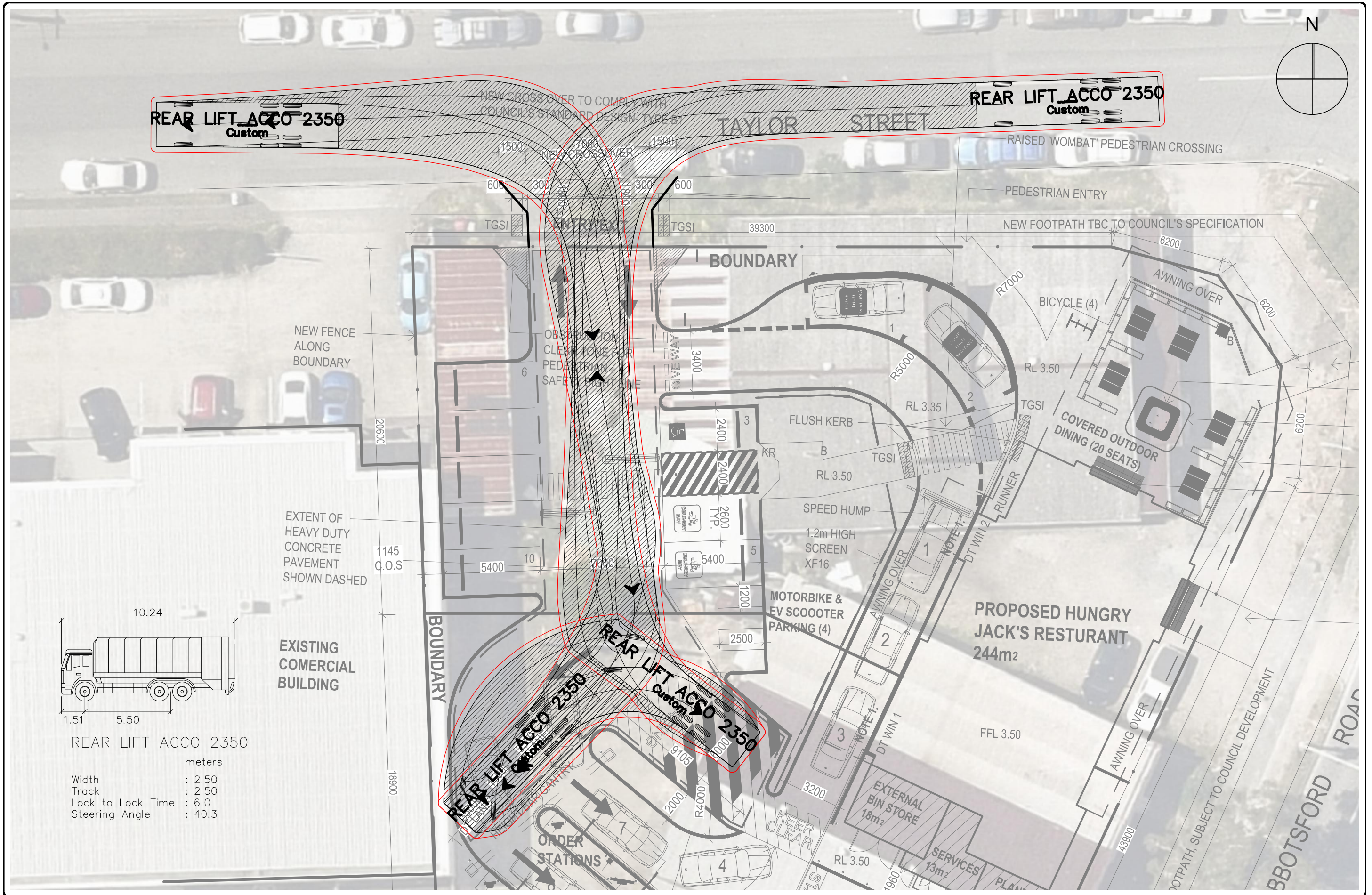
DRAWING
PROPOSED SITE & SIGNAGE LOCATION PLAN

PROJECT NO. 211106

SCALE	DRAWING NO.	REV.
As indicated@A3	DA01	I

APPENDIX D

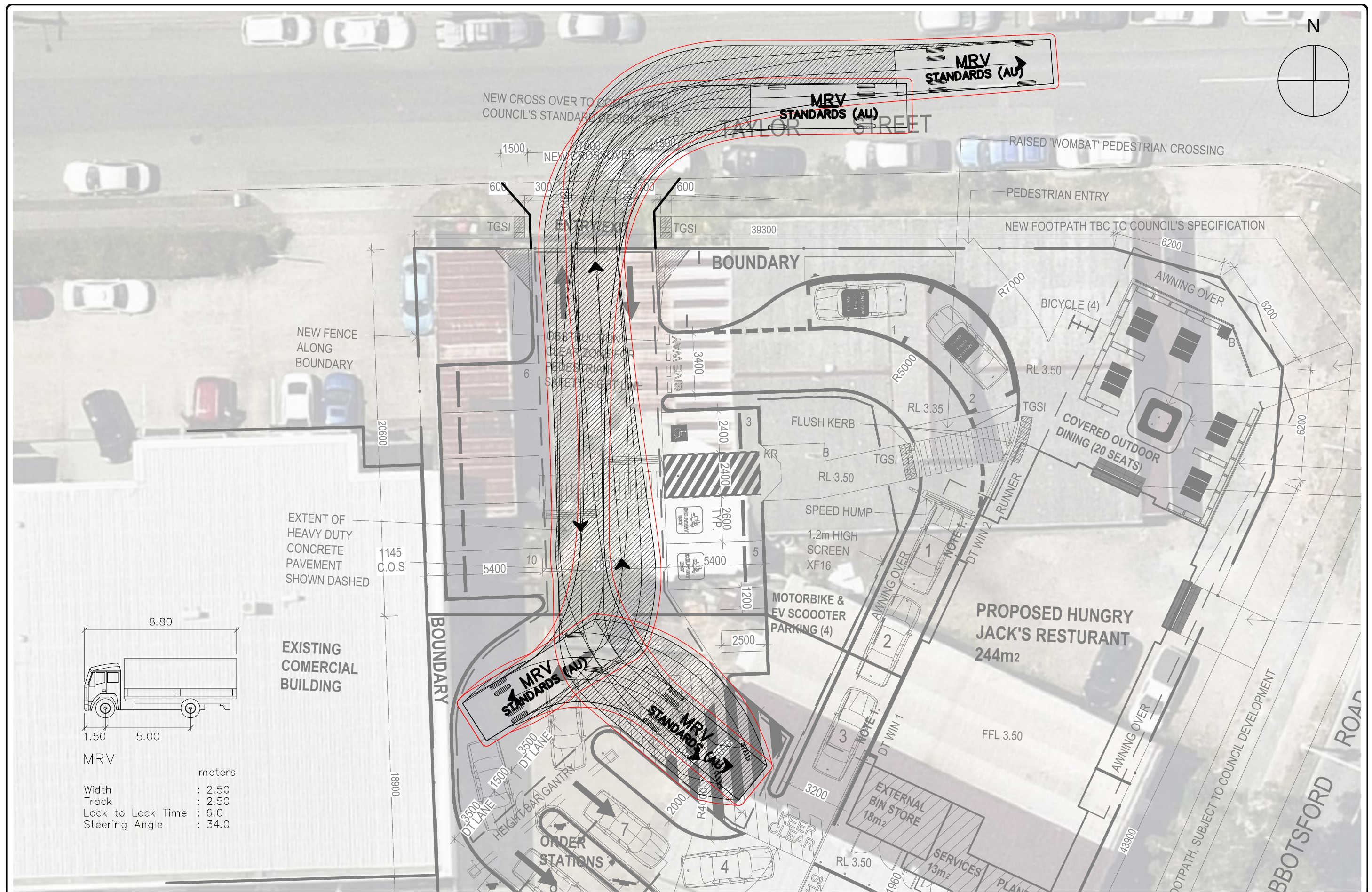
VEHICLE SWEEP PATHS



REV.	AMENDMENTS	DRN	DATE

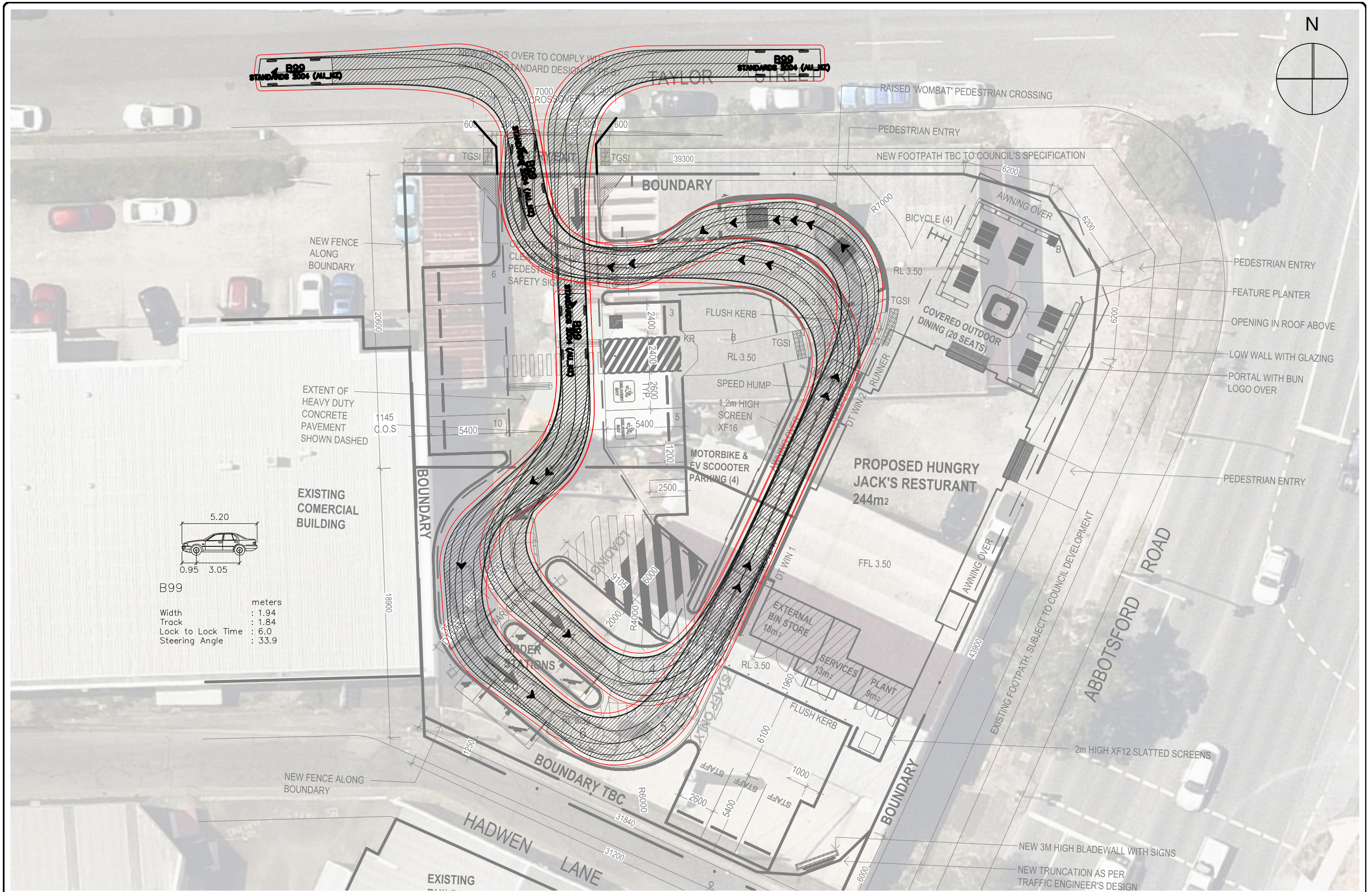
PROJECT TITLE:	254-270 ABBOTSFORD ROAD, BOWEN HILLS
DRAWING TITLE:	RCV SWEEP PATHS

CLIENT:				HICKEY OATLEY			
DATE: 20/07/2023		SCALE: 1:200@A3		DRAWN: CB		APPROVED: JG	
DRAWING NO. 23-114-001			REV		JOB NO. 23-114		



REV.	AMENDMENTS	DRN	DATE

CLIENT:			
HICKEY OATLEY			
DATE: 20/07/2023	SCALE: 1:200@A3	DRAWN: CB	APPROVED: JG
DRAWING NO. 23-114-002	REV	JOB NO. 23-114	



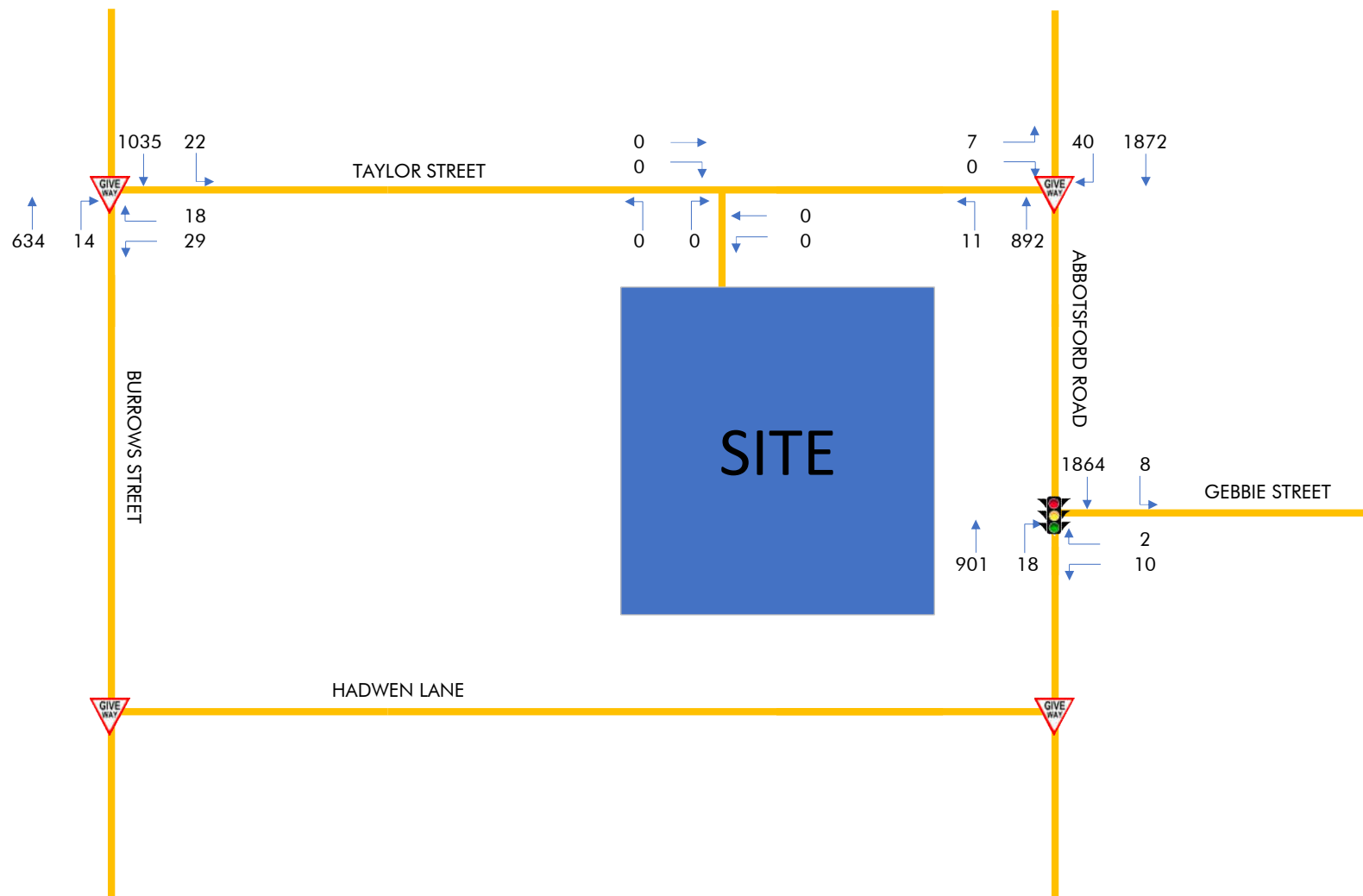
REV.	AMENDMENTS	DRN	DATE

PROJECT TITLE:	254-270 ABBOTSFORD ROAD, BOWEN HILLS
DRAWING TITLE:	B99 SWEPT PATHS

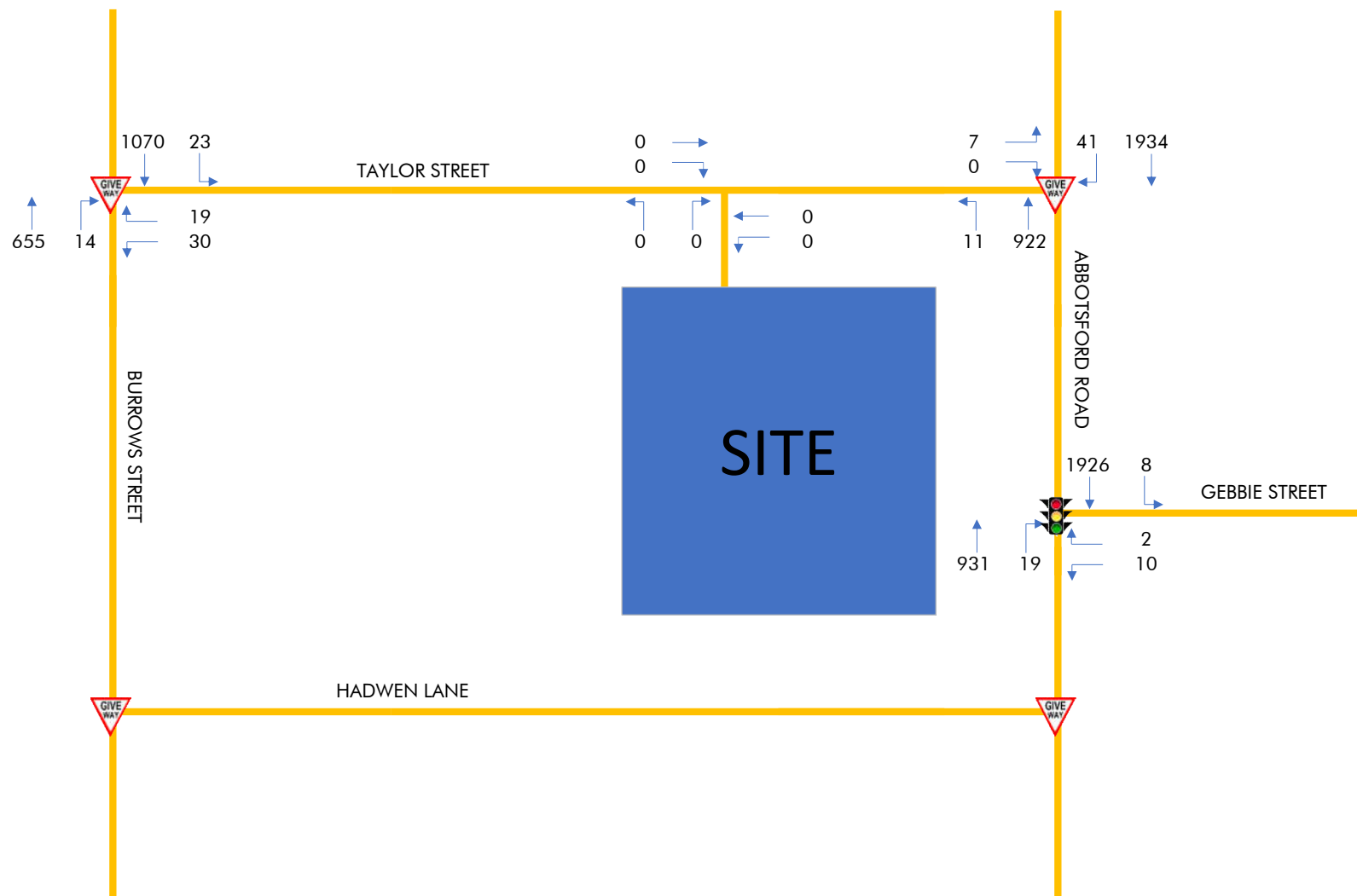
CLIENT:				HICKEY OATLEY	
DATE: 20/07/2023		SCALE: 1:250@A3		DRAWN: CB	APPROVED: JG
DRAWING NO. 23-114-003		REV	JOB NO. 23-114		

APPENDIX E

TURNING MOVEMENT FORECASTS



Client		Project	
Hickey Oatley		254-270 Abbotsford Road, Bowen Hills	
Date	17/02/2023	Figure	Figure 1
		Job No.	23-114
2022 Existing Morning Peak Hour			

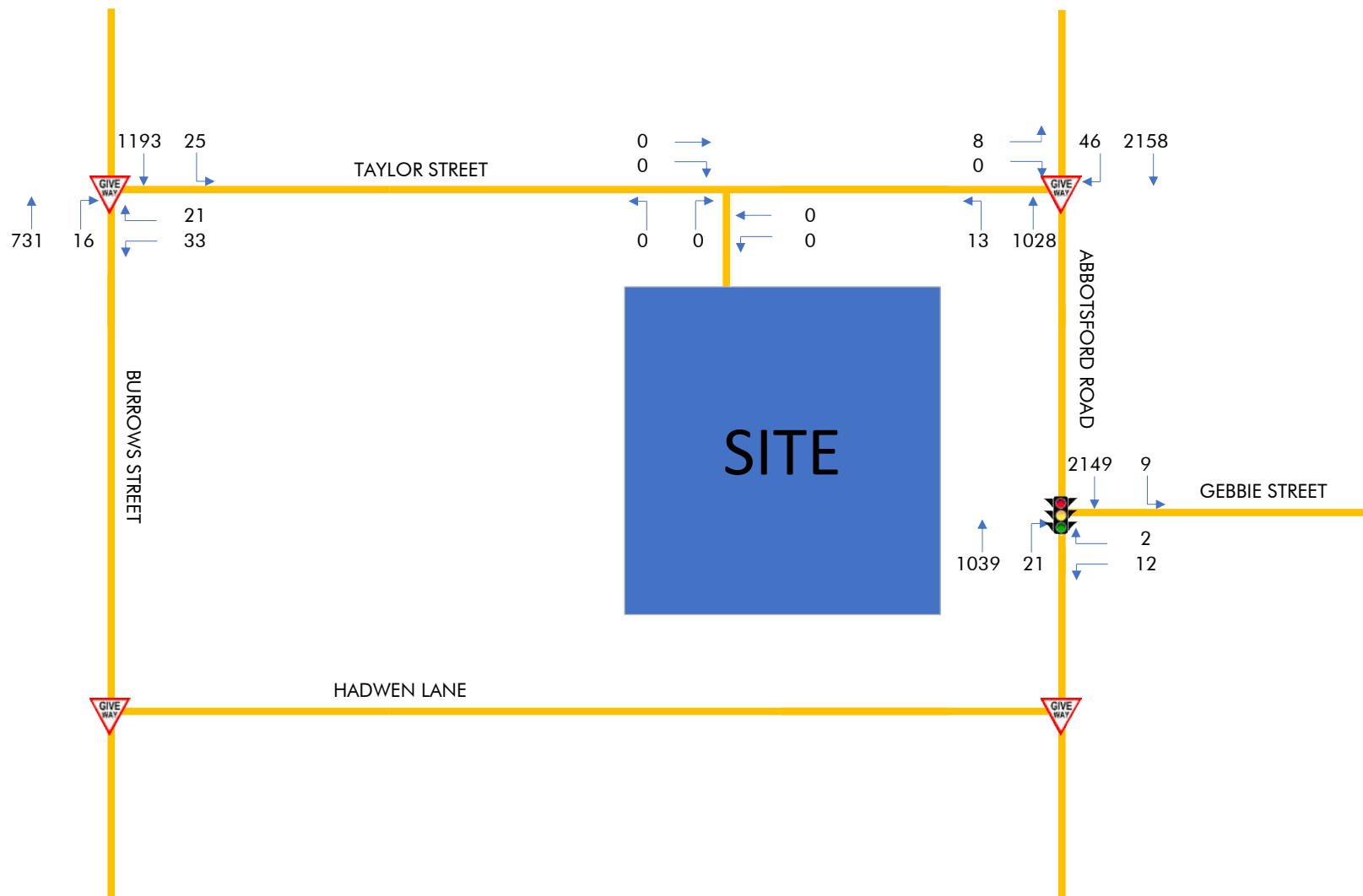


PTT
 ABN 96 067 593 962
 P 07 3839 6771 WWW.PTT.COM.AU
 Level 2, 62 Astor Tce, Spring Hill QLD 4000

Client		Hickey Oatley	Project		254-270 Abbotsford Road, Bowen Hills
Date		17/02/2023	Figure		Figure 3
			Job No.		23-114
2025 Pre-Development Morning Peak Hour					



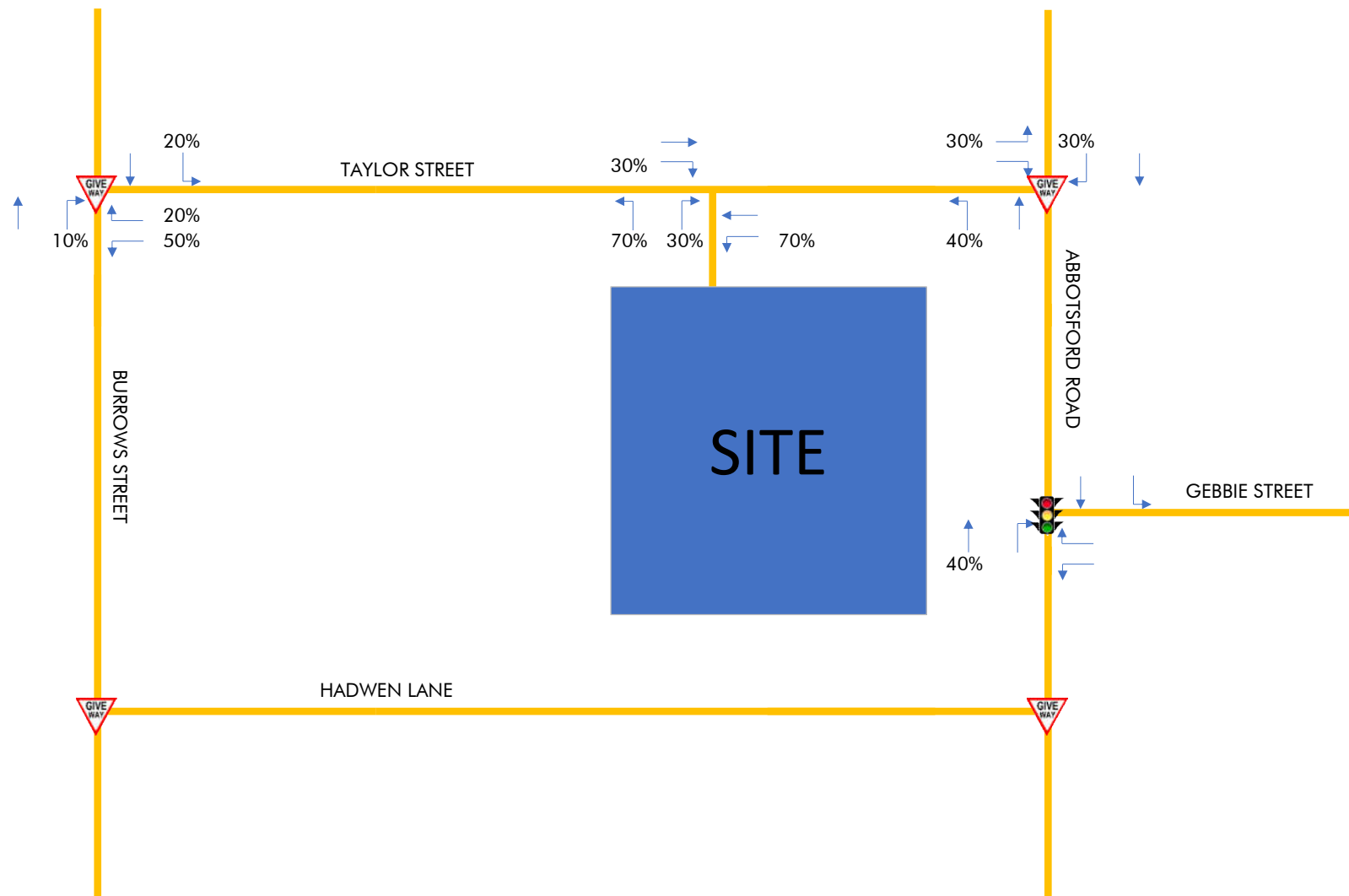
Client	Hickey Oatley	Project	254-270 Abbotsford Road, Bowen Hills
Date	17/02/2023	Figure	Figure 4
		Job No.	23-114
2025 Pre-Development Evening Peak Hour			



Client		Hickey Oatley	Project		254-270 Abbotsford Road, Bowen Hills
Date	17/02/2023	Figure	Figure 5	Job No.	23-114
2035 Pre-Development Morning Peak Hour					



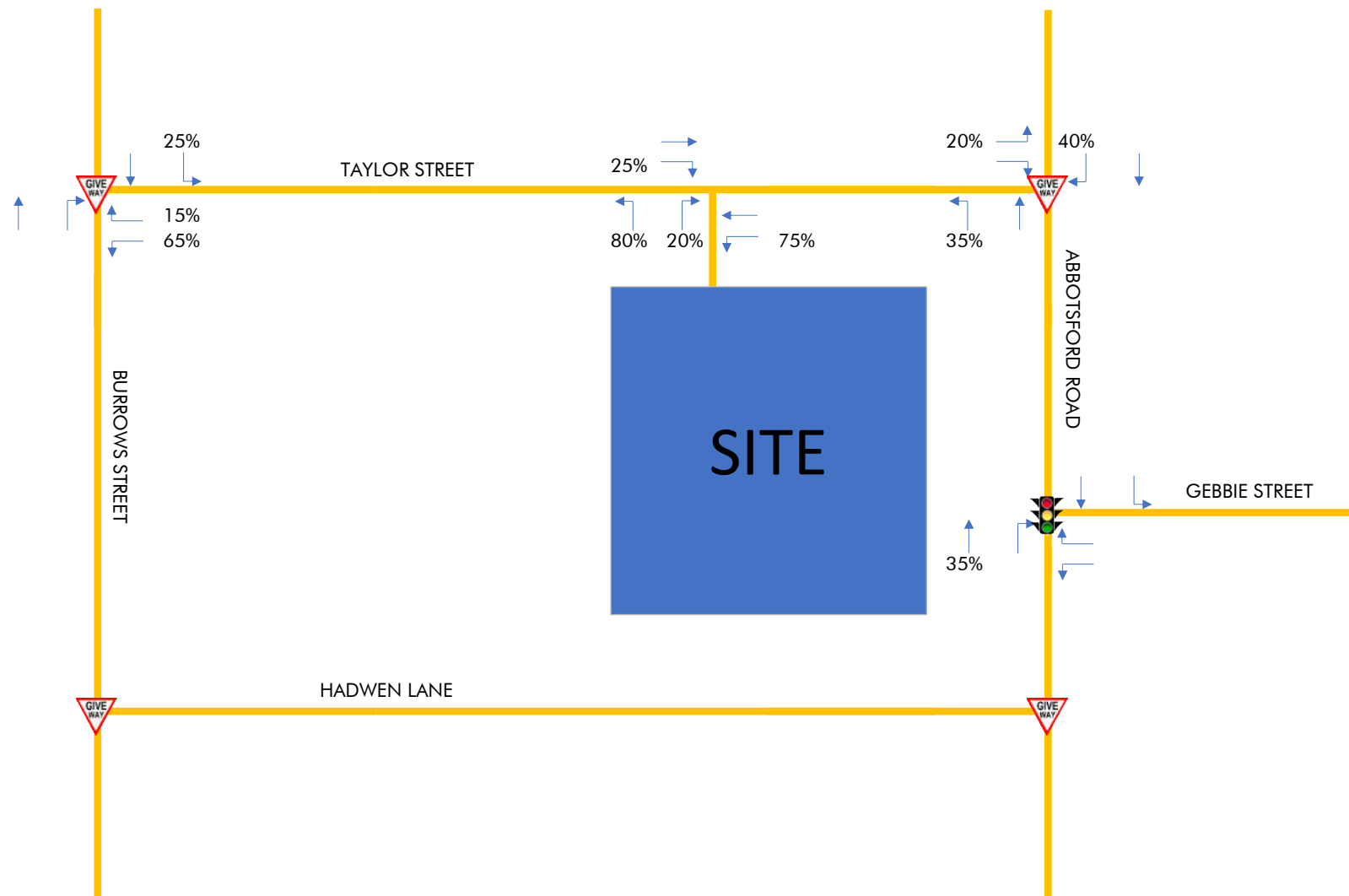
Client	Hickey Oatley	Project	254-270 Abbotsford Road, Bowen Hills
Date	17/02/2023	Figure	Figure 6
		Job No.	23-114
2035 Pre-Development Evening Peak Hour			



Client		Hickey Oatley	Project		254-270 Abbotsford Road, Bowen Hills
Date		17/02/2023	Figure		Figure 7
			Job No.		23-114
Development Traffic Distribution (New Trips) - Morning Peak Hour					



Client	Hickey Oatley	Project	254-270 Abbotsford Road, Bowen Hills
Date	17/02/2023	Figure	Figure 8
		Job No.	23-114
Development Traffic Distribution (New Trips) - Evening Peak Hour			



Client		Hickey Oatley	Project		254-270 Abbotsford Road, Bowen Hills
Date	17/02/2023	Figure	Figure 9	Job No.	23-114
Development Traffic Distribution (Undiverted Trips) - Morning Peak Hour					



Client	Hickey Oatley	Project	254-270 Abbotsford Road, Bowen Hills
Date	17/02/2023	Figure	Figure 11
		Job No.	23-114
Development Traffic Generation - Morning Peak Hour			

Stormwater Management Plan

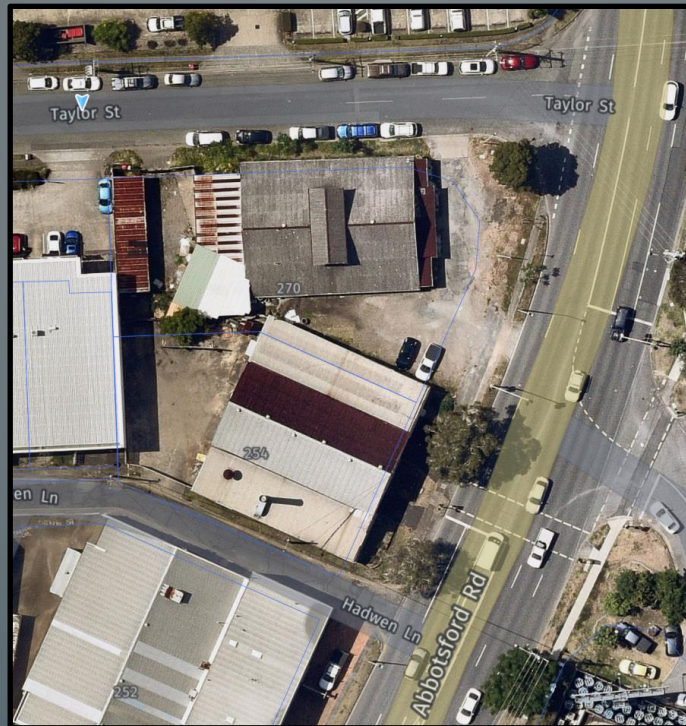
SUPPORTING DOCUMENT

HCE Engineers

Ref. (22224)

**PROPOSED COMMERCIAL DEVELOPMENT
254 & 270 ABBOTSFORD ROAD, BOWEN HILLS**

***STORMWATER MANAGEMENT PLAN
REVISION 3***



**Prepared For
HICKEY OATLEY PLANNING & DEVELOPMENT**



HCE Engineers

PO Box 7214, Redland Bay Qld 4165
55-57 Jardine Dr, Redland Bay QLD
Tel: (07) **3829 1399**
Email: mail@hce-engineers.com.au
Web: www.hce-engineers.com.au

REPORT CONTROL SHEET

HCE Ref. No.:	22224
Site:	254 & 270 Abbotsford Road, Bowen Hills
Report Title:	Stormwater Management Plan

Rev No.	Date	Written By	Reviewed By	Authorised By	Signed
3	20/07/23	MB	GH	GH	

DISTRIBUTION										
Destination	Date Sent	Revision Number								
		Draft	0	1	2	3	4	5	6	7
HCE - File	-	☒	☒	☒	☒	☒				
Hickey Oatley Planning & Development	17/01/23	☒								
Hickey Oatley Planning & Development	09/02/23		☒							
Hickey Oatley Planning & Development	13/07/23			☒						
Hickey Oatley Planning & Development	14/07/23				☒					
Hickey Oatley Planning & Development	20/07/23					☒				

INDEX

1. Introduction
2. Existing Site and Catchment Description
3. Water Quantity Management
4. Water Quality Management
5. Flooding
6. Conclusions

Appendix A – Flood Overlay Code

Appendix B – Coastal Hazard Overlay Code

1. INTRODUCTION

HCE Engineers have been engaged to prepare a Stormwater Management Plan to accompany the development application for the commercial development at 254 & 270 Abbotsford Road, Bowen Hills.

This report identifies stormwater quality and quantity management measures that should be incorporated into the proposed site in order to satisfy Brisbane City Council's Planning Scheme Policy, the Queensland Urban Drainage Manual and items outlined in Economic Development Queensland's pre-lodgement meeting minutes dated 13th July 2022.

Information presented in this report should not be applied to properties or developments other than the subject development. No responsibility is accepted for use of any part of this report in any other context or for any other purposes or by any third party.

Revision 3 of this report has been created to reflect the updated site layout. Refer to drawing 22224-SK01.

2. EXISTING SITE AND CATCHMENT DESCRIPTION

The site is bound by Abbotsford Road to the east, Taylor Street to the north, Hadwen Lane to the south and existing light industrial to the west. The site is currently developed with light industrial buildings, and generally falls towards Abbotsford Road.

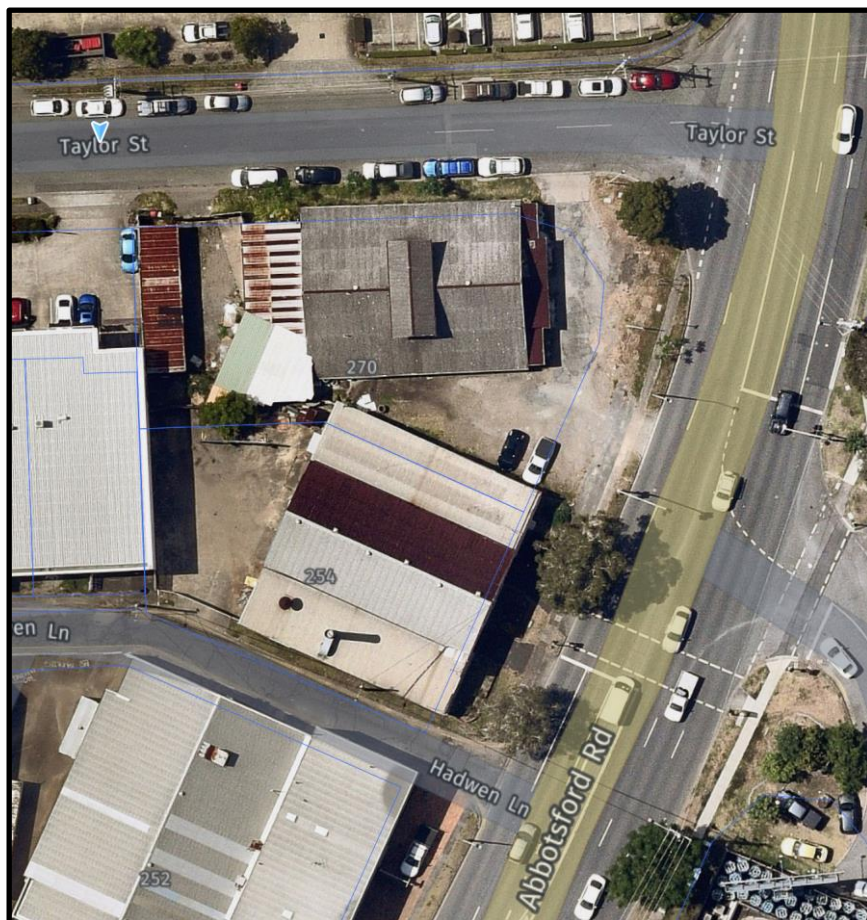


Image 1: Site Location (image from Nearmap.com)

3. WATER QUANTITY MANAGEMENT

Existing discharge from the site currently discharges to Abbotsford Road, Hadwen Lane and Taylor Street as surface flow. Existing surface contours indicate that surface flows are ultimately conveyed to the existing sag gully in Taylor Street.

It is proposed to capture and convey on site stormwater to the existing stormwater gully in Taylor Street as shown on concept design drawings in accordance with Brisbane City Councils Infrastructure Design Planning Scheme Policy.

The site is currently developed with light industrial buildings and hardstand areas with a fraction impervious of between 90-100%. The proposed development is expected to have an impervious area of 80% per the architectural drawings. The proposed reduction in impervious area is expected to reduce the total peak discharge from the proposed development site.

The capture and conveyance of runoff from the proposed development to the existing stormwater network will reduce surface flow to Hadwen Lane, Abbotsford Road and Taylor Street. This reduction of surface flow to the existing road network will reduce any nuisance ponding that may occur in the existing road network.

As the development will reduce peak flows, and discharge to existing stormwater drainage under control of the local authority, the discharge to the existing stormwater infrastructure in Taylor Street is considered lawful per Section 3.9.1 of the Queensland Urban Drainage Manual.

4. WATER QUALITY MANAGEMENT

The State Planning Policy (SPP) requires on site treatment to comply with the Water Quality Objectives where the development site is:

- a. a material change of use for an urban purpose which involves greater than 2,500m² of land that:
 - i. will result in an impervious area greater than 25% of the net developable area; or
 - ii. will result in 6 or more dwellings.
- b. reconfiguring a lot for an urban purpose that involves greater than 2,500m² of land and will result in 6 or more lots;
- c. operational work for an urban purpose which involves disturbing greater than 2,500m² of land.

The site has a development area of 1875m², and therefore is not required to meet the Water Quality Objectives outlined in the SPP.

Water quality treatment on site is to be undertaken by implementation of best management practices. It is proposed to install gross pollutant traps on all inlets within carparking areas to capture pollutants prior to discharge. Refer to concept design drawings for additional information.

5. FLOODING

Review of Brisbane City Plan 2014 indicates the site is subject to the Brisbane River Flood Planning Area sub-categories 4 and 5, and the Creek/waterway Flood Planning Area sub-category 5. The site is also in the Coastal Hazard Overlay, medium storm-site inundation area sub-category.

As outlined in Economic Development Queensland's Pre-lodgement meeting minutes dated 13th July 2022, the minimum floor level for the development is to be 3.0m AHD, with essential electrical services being raised to 3.50m AHD.

It is proposed the minimum floor level for the proposed building is 3.50m AHD, meeting the requirements of Brisbane City Councils Flood Overlay Code.

Code Response to Councils Flood Overlay Code and Coastal Hazard Overlay Code are attached as appendices.

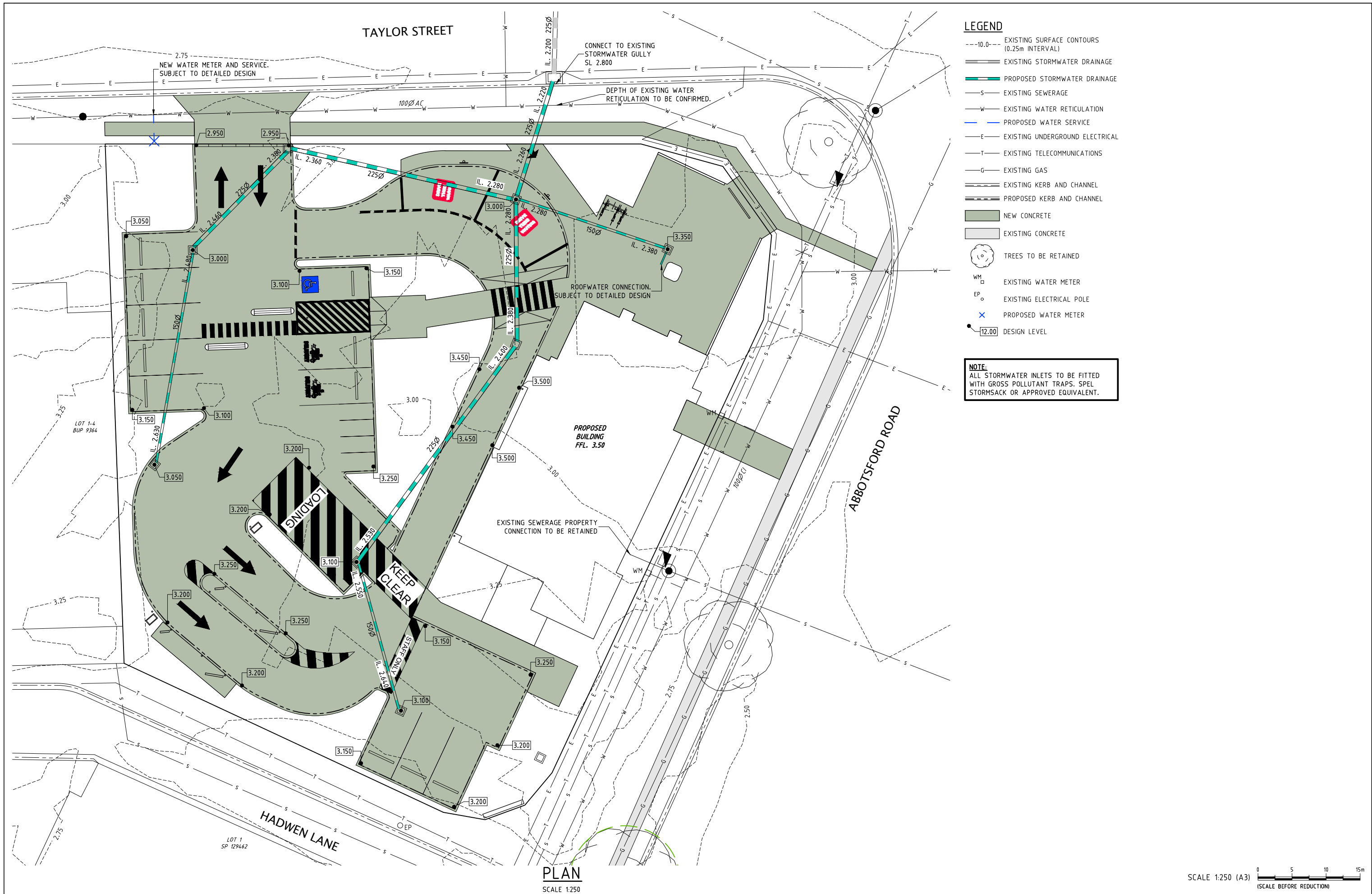
6. CONCLUSIONS

The proposed commercial development at 254 & 270 Abbotsford Road, Bowen Hills can lawfully discharge stormwater to the existing stormwater drainage in Taylor Street in accordance with the concept design drawings.

The development of the site will reduce the overall impervious area of the development site, ensuing peak flow is reduced, and the development will cause actionable nuisance to surrounding properties or the existing road network.

A best management approach to stormwater quality treatment is proposed, and new stormwater drainage inlets are to be fitted with Gross Pollutant Traps to reduce contaminants discharging into receiving waterways.

It is proposed the minimum floor level for the proposed building is 3.50m AHD, meeting the requirements of Brisbane City Councils Flood Overlay Code.



		HCE Engineers Phone: (07) 3829 1399 mail@hce-engineers.com.au P.O. Box 7214 Redland Bay Level 1 55-57 Jardine Drive Redland Bay QLD 4165	PROJECT	TITLE	CLIENT	NOT FOR CONSTRUCTION. CONCEPT ONLY.	REVISION	AMENDMENT	DATE	DO NOT SCALE. CONFIRM ALL DIMENSIONS ON SITE. Copyright ©			
			252-270 ABBOTSFORD ROAD BOWEN HILLES QLD 4006	CIVIL ENGINEERING CONCEPT DESIGN PLAN	HICKLEY OATLEY PLANNING & DEVELOPMENT		A	ISSUED FOR COMMENT	16/01/23	Designed	Drawn	Date	
							B	MINOR LAYOUT CHANGES	09/02/23	MB	JW	09/01/2022	
							C	LAYOUT CHANGES	13/07/23	Approval No.		Scale	
							D	LAYOUT CHANGES	14/07/23	-		AS SHOWN	
							E	PIT LOCATIONS AND LEVELS AMENDED	20/07/23	Drawing No.		Rev.	
										22224-SK01		E	

APPENDIX A – FLOOD OVERLAY CODE

8.2.11 Flood overlay code

8.2.11.1 Application

1. This code applies to assessing development in the Flood overlay, if:
 - a. accepted development subject to compliance with identified requirements, where acceptable outcomes of this code are identified requirements in a table of assessment for an overlay (section 5.10); or
 - b. assessable development where this code is an applicable code identified in the assessment benchmarks column of a table of assessment for an overlay (section 5.10); or
 - c. impact assessable development.
2. Land in the Flood overlay is identified on the Flood overlay map and is included in the following sub-categories:
 - a. Brisbane River flood planning area 1 sub-category;
 - b. Brisbane River flood planning area 2a sub-category;
 - c. Brisbane River flood planning area 2b sub-category;
 - d. Brisbane River flood planning area 3 sub-category;
 - e. Brisbane River flood planning area 4 sub-category;
 - f. Brisbane River flood planning area 5 sub-category;
 - g. Creek/waterway flood planning area 1 sub-category;
 - h. Creek/waterway flood planning area 2 sub-category;
 - i. Creek/waterway flood planning area 3 sub-category;
 - j. Creek/waterway flood planning area 4 sub-category;
 - k. Creek/waterway flood planning area 5 sub-category;
 - l. Overland flow flood planning area sub-category.

Editor's note—For the purposes of the overlay, the Pine and South Pine rivers are treated as Creek/waterway flood planning area sub-categories.

Note—The Flood overlay is a 'natural hazard area' for the purpose of the State Planning Policy. Within this area, susceptibility to flooding has been identified. The natural hazard area identified on the Flood overlay map may not reflect the full extent of the flood affected area.

3. When using this code, reference should be made to section 1.5 and section 5.3.3.

Note—The following purpose, overall outcomes, performance outcomes and acceptable outcomes comprise the assessment benchmarks of this code.

Note—Where this code includes performance outcomes or acceptable outcomes that relate to:

- management of flood hazard or hydraulic hazard, guidance is provided in the Flood planning scheme policy;
- filling or excavation within the Creek/waterway flood planning area sub-categories, guidance is provided in the Compensatory earthworks planning scheme policy;
- handling or storage of hazardous materials, guidance is provided in the Management of hazardous chemicals in flood affected areas planning scheme policy;
- standards and specifications for public assets in a park, guidance is provided in the Infrastructure design planning scheme policy;
- standards and specifications for stormwater drainage assets, guidance is provided in the Infrastructure design planning scheme policy.

Editor's note—For a proposal to be accepted development subject to compliance with identified requirements, it must meet all the identified acceptable outcomes of this code that relate to the applicable sub-category

and any other applicable code. Where it does not meet all identified acceptable outcomes, the proposal becomes assessable development and a development application is required. Where a development application is required, only the specific acceptable outcomes that the proposal fails to meet need to be assessed against the corresponding assessable acceptable outcomes or performance outcomes and relevant overall outcomes. Other identified acceptable outcomes that are met are not assessed as part of the development application.

8.2.11.2 Purpose

1. The purpose of the Flood overlay code is to:
 - a. Implement the policy direction in the Strategic framework, in particular:
 - i. Theme 2: Brisbane's outstanding lifestyle, and Element 2.3 – Brisbane's healthy and safe communities;
 - ii. Theme 4: Brisbane's highly effective transport and infrastructure networks, and Element 4.3 – Brisbane's coordinated infrastructure planning and delivery.
 - b. Provide for the assessment of the suitability of development in the Flood overlay.
2. The purpose of the Flood overlay code will be achieved through the following overall outcomes:
 - a. Development minimises exposure of people and property to unacceptable risk from flood hazard in all flood events.
 - b. Development and infrastructure mitigates the flood risk through its location, siting, design, construction and operation whilst maintaining amenity.
 - c. Development does not unduly burden the city's counter-disaster response capacity, including emergency services access during a flood emergency.
 - d. Development provides for efficient evacuation and access for evacuation resources including emergency services during flood events, or otherwise plans for the prospect and impact of isolation or hindered evacuation during flooding.
 - e. Development involving essential community infrastructure remains functional during and immediately after flood events.
 - f. Development ensures that emergency management plans respond to the number and capacity of future users of the development to safely participate in emergency measures such as evacuation.
 - g. Development ensures that essential building services or services essential for the development are designed, located and operated to minimise the flood risk to people, minimise damage to property, disruption to building function, and re-establishment time after a flood event.
 - h. Development involving hazardous materials manufactured, handled or stored in bulk does not adversely impact on public safety and the environment as a result of the impacts of floodwater.
 - i. Development does not, directly or cumulatively, cause or increase adverse impacts on other properties or land within the floodplain from flooding.
 - j. Development and infrastructure mitigates the impacts of hydraulic hazard due to predictable future increases in rainfall intensity on flooding.
 - k. Development prioritises, in order, the safety of people, protection of public infrastructure and protection of private property, in the management of the economic, social and environmental impacts of flooding.

8.2.11.3 Performance outcomes and acceptable outcomes

Table 8.2.11.3.A—Performance outcomes and acceptable outcomes

Performance outcomes	Acceptable outcomes	Comments
Section A—If for accepted development subject to compliance with identified requirements (acceptable		

outcomes only) or assessable development for a dwelling house including any secondary dwelling Note—Development for a dwelling house does not require assessment against any other sections of this code.		
PO1 Development involving any habitable or non-habitable part of a dwelling house, including any secondary dwelling, is located and designed to: a. minimise the risk to people from flood hazard; b. achieve acceptable flood immunity; c. minimise property impacts from a flood event up to and including the defined flood event; d. minimise disruption to residents, recovery time and rebuilding or restoration costs after a flood event up to and including the defined flood event.	AO1.1 Development for a dwelling house including any secondary dwelling: a. is not located in the Brisbane River flood planning area 1, 2a or 2b sub-categories or the Creek/waterway flood planning area 1 or 2 sub-categories; or b. is only located in these sub-categories, if a Registered Professional Engineer Queensland certifies that the dwelling house and any secondary dwelling are structurally designed to be able to resist hydrostatic and hydrodynamic loads associated with flooding up to and including the defined flood event.	Not applicable to this development.
	AO1.2 Development for a dwelling house and any secondary dwelling complies with the minimum flood planning levels in Table 8.2.11.3.B. Note—If located in an area that has no flood level information available from the Council such as an overland flow path, a Registered Professional Engineer of Queensland with expertise in undertaking flood studies is to certify that the flood level and development levels for the dwelling house and any secondary dwelling achieve the required flood planning levels in Table 8.2.11.3.B.	
	AO1.3 Development involving a building undercroft complies with the minimum clearance requirements in Table 8.2.11.3.E. Editor's note—For creek/waterway, storm-tide and river flooding, applicable flood planning information is available from Council's FloodWise Property Report. Note—The Flood planning scheme policy provides guidance on undercroft design.	

PO2 Development within the Creek/waterway flood planning area sub-categories or Overland flow flood planning area sub-category: a. maintains the conveyance of flood waters to allow flow and debris to pass predominantly unimpeded through the site; b. does not concentrate, intensify or divert floodwater onto upstream, downstream or adjacent properties; c. will not result in a material increase in flood levels or flood hazard on upstream, downstream or adjacent properties.	AO2 Development: a. is not located within the Creek/waterway flood planning area 1, 2 or 3 sub-categories or the Overland flow flood planning area sub-category; or b. provides an open undercroft area from natural ground level to habitable floor level for any area inundated by the defined flood event; or Note—This undercroft area is not suitable for providing non-habitable rooms, secure storage of valuables, or future enclosing for storage or car parking. The clear area may include structural elements such as columns and floor substructure. The Flood planning scheme policy provides guidance on undercroft design. Editor's note—An open undercroft design may be achieved through a 'valance' treatment around the perimeter of an otherwise internally clear undercroft. Editor's note—For Creek/waterway, storm-tide and river flooding, applicable flood planning information is available from Council's FloodWise Property Report. c. a report from a Registered Professional Engineer Queensland certifies that the development in the Creek/waterway flood planning area or Overland flow flood planning area sub-categories will not result in a material increase in flood level or flood hazard on upstream, downstream or adjacent properties. Note—Flood studies demonstrate that the development and engineering design methods conform to the principles within the Flood planning scheme policy and the Infrastructure design planning scheme policy.	Not applicable to this development.
Section B—If accepted development subject to compliance with identified requirements (acceptable outcomes only) or assessable development other than for a dwelling house or reconfiguring a lot Note—If development that is accepted development subject to compliance with identified requirements complies with the acceptable outcomes of this part, no further assessment against this code is required.		
PO3 Development: a. is compatible with flood hazard in a defined flood event;	AO3 Development for a material change of use is identified in Table 8.2.11.3.C as compatible with the flood hazard in the relevant flood planning area.	The Acceptable Outcome can be and is proposed to be met, as identified on the accompanying drawings.

b. minimises the risk to people from flood hazard; c. does not reduce the ability of evacuation resources including emergency services to access and evacuate the site in a flood emergency, with consideration to the scale of the development; d. minimises impacts on property from flooding; e. minimises disruption to residents, business or site operations and recovery time due to flooding; f. minimises the need to rebuild structures after a flood event greater than the defined flood event. Note—Where Table 8.2.11.3.C identifies that a flood risk assessment is required, compliance with this performance outcome can be achieved by submitting a flood risk assessment, which may be included within a flood study, addressing the criteria within this performance solution. Preparing flood risk assessments and flood studies is required to be in accordance with the Flood planning scheme policy. Note—An emergency management plan prepared in accordance with the Flood planning scheme policy, which sets out procedures for evacuation due to flooding may be used to demonstrate compliance with this performance outcome.		
PO4 Development for a park ensures that the design of a park and location of structures and facilities responds to the flood hazard and balances the safety of intended users with: a. maintaining continuity of operations; b. impacts of flooding on asset life and ongoing maintenance costs; c. efficient recovery after flood events; d. recreational benefits to the city; e. availability of suitable land within the park.	AO4.1 Development involving a building or structure in a park complies with the flood planning levels specified in Table 8.2.11.3.D. AO4.2 Development involving a building or structure in a park where Table 8.2.11.3.D does not apply: a. is not located within the 20% AEP flood extent of any creek/waterway or overland flow path; or b. is located above the 20% AEP flood level of any creek/waterway or overland flow path.	Not applicable to this development.
Section C—If for assessable development other than for a dwelling house		
PO5 Development is located and designed to: a. minimise the risk to people from flood hazard on the	AO5.1 Development complies with the flood planning levels specified in Table 8.2.11.3.D.	The Acceptable Outcome can be and is proposed to be met, as identified on the accompanying drawings.

site; b. minimise flood damage to the development and contents of buildings up to the defined flood event; c. provide suitable amenity; d. minimise disruption to residents, recovery time and the need to rebuild structures after a flood event up to and including the defined flood event.	Note—If located in an area with no Council-derived flood levels such as an overland flow path, a Registered Professional Engineer Queensland with expertise in undertaking flood studies is to derive the applicable flood level and certify that the development meets the required flood planning levels in Table 8.2.11.3.D. The study is to demonstrate that the development and engineering design methods conform to the principles within the Flood planning scheme policy and the Infrastructure design planning scheme policy. AO5.2 Development is: a. not located in the: i. Brisbane River flood planning area 1, 2a, or 2b sub-categories; ii. Creek/waterway flood planning area 1 or 2 sub-categories; iii. Overland flow flood planning area sub-category; or b. only located in these sub-categories if a Registered Professional Engineer Queensland with expertise in undertaking flood studies certifies that: i. the development design, siting and any mitigation measures will ensure the development is structurally adequate to resist hydrostatic, hydrodynamic and debris impact loads associated with flooding up to the defined flood event; and ii. the risk to people is managed to an acceptable level.	
PO6 Development involving essential electrical services or a basement storage area is suitably located and designed to ensure public safety and minimise flood recovery and economic consequences of damage during a flood.	AO6.1 Development ensures that: a. all areas containing essential electrical services comply with the flood planning levels in Table 8.2.11.3.D; or b. if a basement contains essential electrical services or a private basement storage area, the basement is a waterproof structure with walls and floors	The Acceptable Outcome can be and is proposed to be met, as identified on the accompanying drawings.

	impermeable to the passage of water with all entry points and services located at or above the relevant flood planning level in Table 8.2.11.3.D. Note—A basement storage area does not include a bike storage room, change room, building maintenance storage and non-critical electrical services. AO6.2 Development involving a basement that relies on a pumping solution to manage floodwater ingress or for dewatering after a flood provides a secondary pump system with a backup power source for the pump.	
PO7 Development does not directly or indirectly create a material adverse impact on flood behaviour or drainage on properties that are upstream, downstream or adjacent to the development.	AO7.1 Development: a. does not block, or divert floodwaters for any area affected by creek/waterway or overland flow flooding, excluding storm-tide flooding and Brisbane River flooding sources; or b. does not result in a material increase in flood level or hydraulic hazard on upstream, downstream or adjacent properties. Note—Compliance with this acceptable solution can be demonstrated by the submission of a flood study by a Registered Professional Engineer of Queensland with expertise in undertaking flood studies demonstrating that the development and engineering design methods conform to the principles within the Flood planning scheme policy and the Infrastructure design planning scheme policy. AO7.2 Development retains existing overland flow paths and does not rely wholly on piped solutions to manage major flows. AO7.3 Development which creates a new overland flow path or significantly modifies an existing overland flow path via earthworks does not materially worsen hydraulic hazard on the site from existing conditions.	The Acceptable Outcome can be and is proposed to be met, as identified on the accompanying drawings.

	Note—Compliance with this acceptable solution can be demonstrated by the submission of a flood study by a Registered Professional Engineer of Queensland with expertise in undertaking flood studies demonstrating that the development and engineering design methods conform to the principles within the Flood planning scheme policy and the Infrastructure design planning scheme policy.	
PO8 Development for filling or excavation in an area affected by creek/waterway flooding does not directly, indirectly or cumulatively cause any material increase in flooding or hydraulic hazard or involve significant redistribution of flood storage from high to lower areas in the floodplain. Note—This can be demonstrated by undertaking earthworks in compliance with the Compensatory earthworks planning scheme policy. Note—This part of the code applies to all development other than a dwelling house and any secondary dwelling which involves filling or excavation, whether or not the development application comprises a separate development application for operational work involving filling or excavation.	AO8 Development ensures that no filling or excavation greater than 100mm is located in the Creek/waterway flood planning area 1, 2 or 3 sub-categories if contained in the 5% AEP flood extent of any Creek/waterway flood planning area sub-category for which no waterway corridor has been mapped in the Waterway corridors overlay.	The Acceptable Outcome can be and is proposed to be met, as identified on the accompanying drawings.
PO9 Development ensures that the building and site design: - maintains the conveyance capacity of existing overland flow paths and creek/waterways; - ensures floodwaters and flood debris can pass predominantly unimpeded under a structure or building to minimise property or building damage, including for a flood larger than the defined flood event; - mitigates flood impacts by ensuring that filling, excavation and location of services are designed to allow for the conveyance of floodwater across the site. Note—The Flood planning scheme policy provides guidance on relevant considerations in determining minimum undercroft clearances and treatment of ground level in undercroft areas where floodwater conveyance is required underneath development.	AO9.1 Development involving a building undercroft in the Creek/waterway flood planning area sub-categories or the Overland flow flood planning area sub-category: - complies with the minimum building undercroft clearance requirements in Table 8.2.11.3.E; - not located directly above any part of a waterway corridor as mapped in the Waterway corridors overlay. AO9.2 Development involving a building undercroft in the Creek/waterway flood planning area sub-categories or the Overland flow flood planning area sub category: - has a ground level within the undercroft area that is free draining; - does not involve excavation below ground level of more than 300mm within the undercroft area.	Not applicable to this development.

PO10 Development for vulnerable uses, difficult to evacuate uses or assembly uses optimises vehicular access and efficient evacuation from the development to parts of the road network unaffected by flood hazard, in order to: - protect safety of users and emergency services personnel; - support efficient emergency services access and site evacuation with consideration to the scale of development. Note—A flood risk assessment may be required to address the performance outcomes or acceptable solutions which deal with evacuation and isolation arrangements, and the ability to take refuge. The Flood planning scheme policy provides information for undertaking flood risk assessments.	AO10 Development for vulnerable uses, difficult to evacuate uses or assembly uses: - is not isolated in any event up to the relevant flood planning level specified in Table 8.2.11.3.L; or - has direct vehicle access to a critical route or interim critical route in the Critical infrastructure and movement network overlay for evacuation in a flood; or - can achieve vehicular evacuation to a suitable flood-free location. Note—A suitable flood-free location is of a size and nature sufficient to provide for the size and characteristics of the population likely to need evacuation to that area.	Not applicable to this development.
PO11 Development has access which, having regard to hydraulic hazard, provides for safe vehicular and pedestrian movement and emergency services access to adjoining roads.	AO11.1 Development provides an access or driveway into the site which is: - trafficable during the defined flood event; - not located in the Creek/waterway flood planning area 1 sub-category; - not located in the Overland flow flood planning area sub-category if the hydraulic hazard is unsafe in the defined flood event; - the access or driveway is not inundated by a 10% AEP flood. AO11.2 Development located in the Creek/waterway flood planning area 1, 2, 3 or 4 sub-categories locates any disabled access in the highest part of the site. Note—explanation of hydraulic hazard provided in the Flood planning scheme policy.	The Acceptable Outcome can be and is proposed to be met, as identified on the accompanying drawings.
PO12 Development involving a new road, a bridge or culvert is designed to minimise impacts to flood behaviour,	AO12 Development involving a new road complies with the flood planning levels in Table 8.2.11.3.F.	Not applicable to this development.

minimise disruption to traffic during a flood and allow for emergency access.		
PO13 Development for pedestrian and cyclist paths: a. provides a suitable level of trafficability; b. manages the impacts of flooding on asset life and ongoing maintenance costs; c. balances route availability with recreational and transport connectivity benefits to the city.	AO13.1 Development for cyclist and pedestrian facilities other than on public roads, including those traversing through a park and adjacent to a watercourse and overland flow path, are located above the 39% AEP (2 year ARI) flood immunity from all flooding sources. Note—If the site is subject to more than one type of flooding, the requirement that affords the greatest level of protection will apply. AO13.2 All new on-road cyclist and pedestrian facilities comply with the flood planning levels and trafficability standards for the applicable category of road in Table 8.2.11.3.F or Table 8.2.11.3.K.	Not applicable to this development.
PO14 Development which increases the residential population within the Brisbane River flood planning area sub-categories minimises the risk to people in all flood events with consideration to flood hazard, including warning time.	AO14 Development in the Brisbane River flood planning area sub-categories in areas where the residential flood level is greater than 12.8m AHD involving: a. an increase in the number of residential dwellings; - or b. additional residential lots is not subject to an unsafe hydraulic hazard in the 0.2% AEP flood event. Note—Explanation of a hydraulic hazard is provided in the Flood planning scheme policy.	Not applicable to this development.
Additional performance outcomes and acceptable outcomes for essential community infrastructure		
PO15 Development involving essential community infrastructure: a. remains functional to serve community need during and immediately after a flood event, or is part of a network that is able to maintain the function of the	AO15 Development involving essential community infrastructure: a. is ancillary to and not relied upon for the provision of the essential service during a flood; or b. is located above the flood planning levels in Table	Not applicable to this development.

essential community infrastructure when parts of the development are unable to function during or after a flood; b. is designed, sited and operated to avoid adverse impacts on the community or the environment due to the impacts of flooding on infrastructure, facilities or access and egress routes; c. is able to remain functional or is part of a network which is able to remain functional even when other infrastructure or services (such as electricity supply) may be compromised in a flood event; d. contains mitigation measures which are not entirely dependent on human activation to respond to a flood event. Note—Protection of function is required up to and including the flood event in Table 8.2.11.3.G.	8.2.11.3.G; c. has access to or provides the necessary back-up emergency electricity and communications supply in times of flood; d. is designed and constructed to resist hydrostatic and hydrodynamic forces as a result of inundation by the flood event listed for the development type in Table 8.2.11.3.G; e. that services a local area: i. is able to be accessed in times of flood to service local community needs up to the event listed for that development type in Table 8.2.11.3.G; or ii. has a service continuity plan that demonstrates the continued provision of service during the relevant flood event.	
Additional performance outcomes and acceptable outcomes if development involves the processes in Table 8.2.11.3.H		
PO16 Development involving the storage and handling of hazardous materials avoids or minimises risks to public health and safety and the environment, by: a. protecting underground tanks for hazardous materials against the forces of buoyancy, velocity flow and debris impacts; b. securing above-ground tanks for hazardous materials against flotation and lateral movement; c. preventing damage to hazardous materials pipework or entry of floodwater into hazardous materials pipework; d. preventing damage to or off-site release of packages, drums or containers storing hazardous materials. Note—A chemical hazards flood risk report prepared in accordance with the Management of hazardous chemicals in flood affected areas	AO16 a. Development does not include the storage or handling of hazardous chemicals that exceed the hazardous chemicals flood hazard threshold quantities in Table 8.2.11.3.M. b. Development involving the processes listed in Table 8.2.11.3.H: i. where located in the Flood overlay area, occurs only in the Creek/waterway flood planning area 5 sub-category or the Brisbane River flood planning area 5 sub-category; or ii. is consistent with the standards contained in the Management of hazardous chemicals in flood affected areas planning scheme policy and can operate without risk of environmental harm during a flood event.	Not applicable to this development.

planning scheme policy can assist in demonstrating achievement of this performance outcome. Note—A pump drainage system is not an acceptable measure to meet the performance outcome.	Note—The Management of hazardous chemicals in flood affected areas planning scheme policy sets out further information and processes including risk assessment for the management of hazardous chemicals in flood planning areas.	
Additional performance outcomes and acceptable outcomes for reconfiguring a lot		
PO17 Development locates and designs all lots resulting from reconfiguring a lot to: - minimise the risk to people from flood hazard; - minimise damage to property from flood hazard; - facilitate safe and efficient evacuation. Note— - Consideration of all floods up to the probable maximum flood is relevant to minimising the risk to people. - Flood warning time is not considered sufficient in the Creek/waterway planning area sub-categories or the Overland flow flood planning area sub-category. - Filling above the flood planning level for a flood event greater than the defined flood event cannot be assumed to mitigate the flood hazard.	AO17.1 Development creating new lots is identified in Table 8.2.11.3.I as suitable within the relevant flood planning area. AO17.2 Development provides for reconfiguring a lot design that achieves a road and lot layout which: - provides trafficable vehicular egress for evacuation during a defined flood event; - optimises hazard-free movement away from sources of flood hazard within the development. Note—Further advice on road and lot layout is contained in the Flood planning scheme policy. AO17.3 Development which creates a new residential lot in an area subject to Brisbane River flooding, if the residential flood level is greater than 12.8m AHD is not subject to a hydraulic hazard greater than 0.6m²/s DV or 0.6m deep in a 0.2% AEP flood. Note—Refer to the Flood planning scheme policy for further explanation on the 0.2% AEP flood.	Not applicable to this development.
PO18 Development involving reconfiguring a lot: - minimises the risk to people from flood hazard; - creates safe evacuation routes or avoids isolation of the development during a flood greater than the defined flood event; - minimises damage to property and services;	AO18.1 Development involving reconfiguring a lot ensures: - all lots comply with the flood planning levels in Table 8.2.11.3.J; - a new road complies with the flood planning levels in Table 8.2.11.3.F. AO18.2	Not applicable to this development.

d. provides lots and roads that are not frequently flooded or subject to nuisance ponding or seepage; e. ensures lots created for park or private open space minimise the risk to people from flood hazard and are fit for purpose; f. provides a lot that is not substantially burdened by flood mitigation infrastructure.	Development involving reconfiguring a lot creating more than 6 residential lots or a lot for industry ensures the flood planning levels of a dedicated road fronting the development or providing primary access within 200m of the development: a. complies with Table 8.2.11.3.K; or b. has acceptable trafficability in accordance with the requirements in the Flood planning scheme policy and the Queensland Urban Drainage Manual. Note—The Flood planning scheme policy contains supporting information about trafficability on existing roads and serviceability during floods.	
	AO18.3 Development protects the conveyance of flood hazard area by providing an easement over the: a. 2% AEP flood extent for overland flow flooding; b. 1% AEP flood extent for creek/waterway flooding.	

Table 8.2.11.3.B—Flood planning levels for a dwelling house (BCA building classification 1a)

Flooding source	Minimum habitable floor level	Minimum non-habitable floor level (i.e. utility areas, garage, laundry, storage room and basement entries)
Brisbane River	RFL + 500mm	2% AEP flood level + 300mm
Creek/ waterway	1% AEP flood level + 500mm	1% AEP flood level + 300mm
Overland flow	2% AEP flood level + 500mm	2% AEP level + 300mm
	Note—Where no detailed flood level information is available from the Council such as an overland flow path, a Registered Professional Engineer Queensland with expertise in flood studies is to derive the relevant flood level and certify that the development level for the dwelling house, including any secondary dwelling, meets the required flood immunity standards.	

- Note—
- Where the site is subject to more than one flooding source, the minimum flood planning level is the highest level determined from these flooding sources.
 - Flood planning levels for a dwelling house from storm-tide inundation are located in the Coastal hazard overlay code.
 - A flood event with an AEP of 1% is the equivalent of a 100 year ARI flood event.

- A flood event with an AEP of 2% is the equivalent of a 50 year ARI flood event.

Table 8.2.11.3.C—Land use compatibility with flood hazard

C – Land use is compatible with the flood hazard subject to meeting all other relevant requirements.

– Flood risk assessment in accordance with requirements of the Flood planning scheme policy is required to demonstrate the use is compatible with the flood hazard.

Accommodation activities	Brisbane River flood planning area sub-category						Creek/waterway flood planning area sub-category					Overland flow flood planning area sub-category
	5	4	3	2B	2A	1	5	4	3	2	1	
Community residence	C	#	#	#	#	#	C	#	#	#	#	#
Dual occupancy	C	C	#	#	#	#	C	#	#	#	#	C
Dwelling unit	C	C	#	#	#	#	C	#	#	#	#	C
Multiple dwelling (1–3 storeys)	C	C	#	#	#	#	C	#	#	#	#	C
Multiple dwelling (4+ storeys)	C	C	C	#	#	#	C	#	#	#	#	C
Nature-based tourism	C	C	C	#	#	#	C	#	#	#	#	C
Relocatable home park	C	#	#	#	#	#	C	#	#	#	#	C
Residential care facility	#	#	#	#	#	#	#	#	#	#	#	#
Resort complex	C	C	C	#	#	#	C	#	#	#	#	C
Retirement facility	C	#	#	#	#	#	#	#	#	#	#	C
Rooming	C	C	#	#	#	#	C	#	#	#	#	C

accommodation, short-term accommodation or hotel where including accommodation (1–3 storeys)												
Rooming accommodation, short-term accommodation or hotel where including accommodation (4+ storeys)	C	C	C	#	#	#	C	#	#	#	#	C
Tourist park	C	C	#	#	#	#	C	C	#	#	#	C
Commercial land uses	Brisbane River flood planning area sub-category						Creek/waterway flood planning area sub-category					Overland flow flood planning area sub-category
	5	4	3	2B	2A	1	5	4	3	2	1	
Agricultural supplies store	C	C	#	#	#	#	C	#	#	#	#	C
Animal husbandry	C	C	#	#	#	#	C	#	#	#	#	C
Animal keeping	C	C	#	#	#	#	C	#	#	#	#	C
Aquaculture	C	C	#	#	#	#	C	#	#	#	#	C
Bulk landscape supplies	C	C	C	C	C	C	C	C	C	#	#	C

Car park ancillary to another use	C	C	C	C	C	#	C	C	#	#	#	C
Car wash	C	C	C	C	C	#	C	C	#	#	#	C
Food and drink outlet	C	C	#	#	#	#	C	C	#	#	#	C
Function facility	C	C	#	#	#	#	C	#	#	#	#	C
Garden centre	C	C	C	#	#	#	C	C	#	#	#	C
Hardware and trade supplies	C	C	#	#	#	#	C	C	#	#	#	C
Home-based business	C	C	#	#	#	#	C	#	#	#	#	C
Hotel (where not including accommodation)	C	C	#	#	#	#	C	#	#	#	#	C
Market	C	C	C	#	#	#	C	C	#	#	#	C
Nightclub entertainment facility	C	C	#	#	#	#	C	#	#	#	#	C
Office	C	C	#	#	#	#	C	#	#	#	#	C
Outdoor sales	C	C	#	#	#	#	C	C	#	#	#	C
Parking station	C	C	C	C	C	#	C	C	#	#	#	C
Roadside stalls	C	C	C	#	#	#	C	C	#	#	#	C
Sales office	C	C	#	#	#	#	C	C	#	#	#	C
Shop, Adult store	C	C	#	#	#	#	C	#	#	#	#	C
Shopping centre	C	#	#	#	#	#	C	#	#	#	#	C
Showroom	C	C	#	#	#	#	C	C	#	#	#	C

Theatre	C	C	#	#	#	#	C	#	#	#	#	C
Tourist attraction	C	C	C	#	#	#	C	C	#	#	#	C
Veterinary service	C	C	#	#	#	#	C	#	#	#	#	C
Wholesale nursery	C	C	C	C	C	C	C	C	C	#	#	C
Community land uses	Brisbane River flood planning area sub-category						Creek/waterway flood planning area sub-category					Overland flow flood planning area sub-category
	5	4	3	2B	2A	1	5	4	3	2	1	
Childcare centre	C	#	#	#	#	#	C	#	#	#	#	#
Club	C	C	#	#	#	#	C	C	#	#	#	C
Community care centre	C	#	#	#	#	#	C	#	#	#	#	C
Community use	C	#	#	#	#	#	C	C	#	#	#	C
Educational establishment (and outdoor education centre)	C	#	#	#	#	#	C	#	#	#	#	C
Environment facility	C	C	C	C	C	C	C	C	C	C	C	C
Health care service	C	#	#	#	#	#	C	#	#	#	#	C
Hospital	#	#	#	#	#	#	#	#	#	#	#	#
Indoor sport and recreation	C	C	#	#	#	#	C	C	#	#	#	C

Major sport, recreation and entertainment facility	C	#	#	#	#	#	C	C	#	#	#	C
Motor sport facility	C	C	C	#	#	#	C	C	C	#	#	C
Outdoor sport and recreation	C	C	C	#	#	#	C	C	#	#	#	C
Park	C	C	C	C	C	C	C	C	C	C	C	C
Place of worship	C	#	#	#	#	#	C	C	#	#	#	C
Special purpose land uses	Brisbane River flood planning area sub-category						Creek/waterway flood planning area sub-category					Overland flow flood planning area sub-category
	5	4	3	2B	2A	1	5	4	3	2	1	
Air service	C	#	#	#	#	#	C	#	#	#	#	C
Cemetery	C	C	C	#	#	#	C	C	#	#	#	C
Crematorium	C	#	#	#	#	#	C	#	#	#	#	C
Detention facility	#	#	#	#	#	#	#	#	#	#	#	C
Emergency services	#	#	#	#	#	#	#	#	#	#	#	#
Funeral parlour	C	#	#	#	#	#	C	#	#	#	#	C
Landing	C	C	C	C	C	C	C	C	C	C	#	C
Major electricity infrastructure	#	#	#	#	#	#	#	#	#	#	#	#

Port service	C	C	C	#	#	#	C	C	C	C	#	C
Substation	C	#	#	#	#	#	C	#	#	#	#	#
Telecommunications facility	C	#	#	#	#	#	C	#	#	#	#	#
Utility installation	C	#	#	#	#	#	#	#	#	#	#	#
Industry land uses	Brisbane River flood planning area sub-category						Creek/waterway flood planning area sub-category				Overland flow flood planning area sub-category	
	5	4	3	2B	2A	1	5	4	3	2	1	
Extractive industry	C	C	C	#	#	#	C	C	C	#	#	C
High impact industry	C	C	#	#	#	#	C	C	#	#	#	C
Intensive animal industry	C	C	#	#	#	#	C	#	#	#	#	C
Intensive horticulture	C	C	C	#	#	#	C	C	#	#	#	C
Low impact industry	C	C	#	#	#	#	C	C	#	#	#	C
Marine industry	C	C	C	#	#	#	C	C	#	#	#	C
Medium impact industry	C	C	#	#	#	#	C	C	#	#	#	C
Research and technology industry	C	#	#	#	#	#	C	#	#	#	#	C
Rural industry	C	C	C	C	C	C	C	C	C	#	#	C

Service industry	C	C	#	#	#	#	C	C	#	#	#	C
Service station	C	#	#	#	#	#	C	#	#	#	#	C
Special industries	C	#	#	#	#	#	#	#	#	#	#	C
Transport depot	C	#	#	#	#	#	C	#	#	#	#	C
Warehouse	C	C	#	#	#	#	C	#	#	#	#	C

Note—Caretaker's accommodation and home-based business are considered ancillary to the dominant land use.

Table 8.2.11.3.D—Flood planning categories for development types

BCA building classification ⁽¹⁾	Development types and design levels, assigned design floor or pavement levels	Category – refer to Table 8.2.11.3.L for flood planning levels
Class 1–4	Habitable room ⁽²⁾	Category A
	Non-habitable room including patio and courtyard	Category B
	Non-habitable part of a Class 2 or Class 3 building excluding the essential services ⁽²⁾ control room	Category B Risk management approach to Brisbane River flooding is permitted (refer to Flood planning scheme policy)
	Parking located in the building undercroft of a multiple dwelling	Category C
	Carport ⁽⁴⁾ , unroofed car park; vehicular manoeuvring area	Category D
	Essential electrical services ⁽²⁾ of a Class 2 or Class 3 building only	Category A ⁽⁶⁾
	Basement parking entry ⁽³⁾	Category C + 300mm
Class 5, Class 6, or Class 8	Building floor level	Category C Risk management approach to Brisbane River flooding is permitted (refer to Flood planning scheme policy)
	Garage or car park located in the building undercroft ⁽³⁾	Category C

	Carport ⁽⁴⁾ or unroofed car park	Category D
	Vehicular access and manoeuvring areas	Category D
	Basement parking entry ⁽³⁾	Category C
	Essential electrical services ⁽²⁾	Class 8 – Category C ⁽⁶⁾ Class 5 & 6 – Category A ⁽⁶⁾
Class 7a	Refer to the relevant building class specified in this table	
Class 7b	Building floor level	Category C Risk management approach to Brisbane River flooding is permitted (refer to Flood planning scheme policy)
	Vehicular access and manoeuvring area	Category D
	Essential electrical services ⁽²⁾	Category C
Class 9	Building floor level	Category A
	Building floor level for habitable rooms in Class 9a or 9c where for a residential care facility	0.2% AEP flood
	Building floor level for habitable rooms in Class 9b where involving children, such as a childcare centre	0.2% AEP flood
	Garage or car park located in the building undercroft ⁽³⁾	Category C
	Carport ⁽⁵⁾ or unroofed car park	Category D
	Vehicular access and manoeuvring areas	Category D
	Essential electrical services ⁽²⁾	Category A
Class 10a	Car parking facility	Refer to the relevant building class specified in this table
	Shed ⁽⁵⁾ or the like	Category D

Class 10b	Swimming pool	Category E
	Associated mechanical and electrical pool equipment	Category C
	Other structures	Flood planning levels do not apply

Notes—

(1) Refer to the Building Code of Australia for definitions of building classifications.

(2) Essential electrical services include any area or room used for fire control panel, telephone PABX, sensitive substation equipment including transformers, low voltage switch gear, high voltage switch gear, battery chargers, protection control and communication equipment, low voltage cables, high voltage cables, and lift or pump controls.

(3) Basement car parks must be suitably waterproofed and all air vents, air-conditioning ducts, pedestrian access and entry and exit ramps into the basement must comply with the applicable flood planning levels in this table.

(4) A shelter for a motor vehicle, which has a roof and one or more open sides, and which can be built against the side of a building.

(5) A slight or rough structure built for shelter and storage; or a large strongly built structure, often open at the sides or end.

(6) Where essential electrical services are proposed in a basement below the specified flood planning level, the flood immunity of all air vents, air-conditioning ducts, pedestrian access, lift shafts and entry/exit ramps at the basement entrance and any other openings into that basement must conform with the flood planning levels for Category A for Residential development, and the relevant basement entry level of all other uses. To ensure flood immunity, basements require a waterproof basement design to prevent flood waters entering the basement.

- A flood event with an AEP of 2% is the equivalent of a 50 year ARI flood event.
- A flood event with an AEP of 0.2% is the equivalent of a 500 year ARI flood event.
- Where a building has a combination of uses that includes a component of classes 2, 3 or 9, the essential services for that building shall comply with the requirements of the building class with the greatest flood planning level requirement.
- Use classes for residential development also include basement storage.

Table 8.2.11.3.E— Building undercroft clearances

Flooding source	Minimum clearance requirement ⁽¹⁾⁽³⁾
Overland flow— Hydraulic Hazard (DV <0.6 m ² /s and depth <600mm in 2% AEP flood event)	Lowest floor level is to be 1.5m ⁽²⁾ above the highest ground elevation in undercroft area
Overland flow— Hydraulic Hazard (DV >0.6 m ² /s or depth >600mm in 2% AEP flood event)	Lowest floor level is to be 2.5m ⁽²⁾ above the highest ground elevation in undercroft area
Creek/waterway (Flood planning area 1, 2 or 3 sub-categories)	Lowest floor level is to be 2.5m ⁽²⁾ above the highest ground elevation in undercroft area
Creek/waterway (Flood planning area 4 sub-category)	Lowest floor level is to be 1.5m ⁽²⁾ above the highest ground elevation in undercroft area

Notes—

(1) The minimum undercroft only relates to the minimum clearance requirements from ground level to the finished floor level and not minimum flood planning levels. Where the flood planning level requirement with freeboard results in a higher finished floor level that higher level needs to be adopted.

(2) Refer to the Flood planning scheme policy for explanatory material regarding clearances and considerations.

(3) The minimum undercroft clearance only applies to the area of undercroft above the relevant flood extent or flood planning area sub-category.

Table 8.2.11.3.F—Flood planning levels for a new road

Flooding source ⁽¹⁾	Minimum design levels at the crown of the road (m AHD) ⁽²⁾	
	Residential development	Industrial or commercial development
Brisbane River ⁽³⁾	Defined flood level	5% AEP flood level
Creek/waterway	1% AEP flood level	2% AEP flood level
Overland flow	2% AEP flood level	2% AEP flood level

Notes—

(1) Where the road is subject to more than one flooding source, the minimum flood planning level is the highest level determined from these sources.

(2) Where flood levels are not available from Council's FloodWise Property Report, such as for overland flow flooding, a suitably qualified Registered Professional Engineer Queensland with expertise in undertaking flood studies is required to estimate the relevant flood level.

(3) A risk management approach determining flood planning levels of roads for Brisbane River flooding can be applied as an alternative to Table 8.2.11.3.F. Typically such roads would have a flood immunity no worse than the surrounding roads that support a similar land use, otherwise a Flood Risk Assessment which complies with the relevant requirements of the Flood planning scheme policy is provided.

Table 8.2.11.3.G—Flood planning levels for essential community infrastructure

Type of essential community infrastructure	Minimum design levels
Emergency services	0.2% AEP flood
Emergency services, where for an emergency shelter	0.5% AEP flood
Emergency services, where for police facilities	0.5% AEP flood
Hospital and health care service where associated with a hospital	0.2% AEP flood
Community facility where involving storage of valuable records or items of historic or cultural significance (e.g. galleries and libraries)	0.5% AEP flood

State-controlled roads Major or minor electricity infrastructure not otherwise listed in this table Utility installation where for rail transport services Air service Telecommunications facility	No specific recommended level but development proponents should ensure that the infrastructure is optimally located and designed to achieve suitable levels of service, having regard to the processes and policies of the administering government agency.
Power stations (as defined in the <i>Electricity Act 1994</i>) or renewable energy facility.	0.2% AEP flood
Major electricity infrastructure where a major switch yard	0.2% AEP flood
Substations	0.5% AEP flood
Utility installation where for a sewage treatment plant	Defined flood event
Utility installation where for a water treatment plant	0.5% AEP flood

Note—A flood event with an AEP of 0.2% is the equivalent of a 500 year ARI flood event.

Note—A flood event with an AEP of 0.5% is the equivalent of a 200 year ARI flood event.

Table 8.2.11.3.H—Table of processes requiring additional assessment in a flood planning area

Process
(1) Oil refining or processing
(2) Producing, refining or processing gas or fuel gas
(3) Power station, including the activity of generating electricity by using fuel
(4) Producing, quenching, cutting, crushing or grading coke
(5) Waste incinerator, including thermal treatment of waste
(6) Pulp or paper manufacturing
(7) Tannery or works for curing animal skins, hides or finishing leather
(8) Textile manufacturing, including carpet manufacturing, wool scouring or carbonising, cotton milling, or textile bleaching, dyeing or finishing
(9) Rendering plant, including meat processing

(10) Manufacturing chemicals, poisons and explosives
(11) Manufacturing fertilisers involving ammonia
(12) Manufacturing polyvinyl chloride plastic
(13) Major hazard facilities for the storage and handling of dangerous goods
(14) Storage of hazardous chemicals in quantities that would exceed the hazardous chemicals flood hazard threshold set out in Table 8.2.11.3.M
(15) Manufacturing medium-density fibreboard, chipboard, particle board, plywood, laminated board or wood veneer products
(16) Manufacturing or processing plaster
(17) Enamelling workshop
(18) Galvanising works
(19) Anodising or electroplating workshop
(20) Powder coating workshop
(21) Treating timber for preservation using chemicals including copper, chromium, arsenic, borax and creosote
(22) Manufacturing soil conditioners by receiving, blending, storing, processing, drying or composting organic material or organic waste, including animal manures, sewage, septic sludges and domestic waste
(23) Manufacturing tyres, asbestos products, asphalt, cement, glass or glass fibre, mineral wool or ceramic fibre
(24) Abattoir, including meat processing
(25) Recycling chemicals, oils or solvents
(26) Waste disposal activity (other than waste incinerator), including waste transfer station operation
(27) Recycling, storing or reprocessing regulated waste, including regulated waste treatment
(28) Manufacturing batteries and battery recycling
(29) Drum and container reconditioning

(30) Water treatment
(31) Sewage treatment

Table 8.2.11.3.I—Suitability of reconfiguring a lot within a flood planning area

C – Reconfiguring a lot is suitable within a flood planning area

– Flood risk assessment in accordance with the requirements of the Flood planning scheme policy is required to demonstrate the mitigation of risk from flood hazard

Flood planning area	Creek/waterway flood planning area sub-categories			Brisbane River flood planning area sub-categories		
	Residential	Industrial	Other	Residential	Industrial	Other
1	#	#	#	#	#	#
2/2a;2b	#	#	#	#	C	#
3	#	#	#	#	C	C
4	C	C	C	C	C	C
5	C	C	C	C	C	C

Notes—

- A flood risk assessment is required for residential reconfiguring a lot development where creating more than two new lots in the overland flow flood planning area sub-category.
- Additional requirements apply for the Brisbane River flood planning area sub-category if the residential flood level is greater than 12.8m AHD.
- Minimum site levels, requirements for no adverse off site impacts and other provisions in the planning scheme still apply.

Table 8.2.11.3.J—Flood planning levels for reconfiguring a lot

Flooding source ⁽¹⁾	Minimum lot levels (m AHD) ⁽²⁾		
	Residential (creating 6 or less lots with no new road)	Residential (creating more than 6 lots), or a new road	Other than residential
Brisbane River	2% AEP flood level + 300mm	RFL + 0.3m	1% AEP flood level

Creek/waterway	Minimum 300m ² area at the 1% AEP flood level + 300mm ⁽³⁾	1% AEP flood level + 300mm	2% AEP flood level
Overland flow	Minimum 300m ² area at the 2% AEP flood level + 300mm ⁽³⁾	2% AEP flood level + 300mm	2% AEP flood level

Notes—

⁽¹⁾ Where the site is subject to more than one flooding source, the minimum flood planning level is the highest level determined from these sources.

⁽²⁾ Where flood levels are not available from Council's FloodWise Property Report such as for overland flow flooding, a suitably qualified Registered Professional Engineer Queensland with expertise in undertaking flood studies is required to estimate the relevant flood level.

⁽³⁾ The 300m² area is considered suitable for siting a dwelling house with open space area at or above the nominated flood planning level.

Table 8.2.11.3.K—Flood planning levels for existing road providing access to or fronting a development

Flooding source ⁽¹⁾	Minimum design levels at the crown of the road (m AHD) ⁽²⁾⁽³⁾		
	Local road	Neighbourhood road	District road, suburban road, arterial road
Brisbane River	5% AEP flood level	2% AEP flood level	2% AEP flood level
Creek/waterway	5% AEP flood level	2% AEP flood level	2% AEP flood level
Overland flow	5% AEP flood level	5% AEP flood level	5% AEP flood level

Notes—

⁽¹⁾ Where the site is subject to more than one flooding source, the minimum flood planning level is the highest level determined from these sources.

⁽²⁾ Where flood levels are not available from Council's FloodWise Property Report such as overland flow flooding a suitably qualified Registered Professional Engineer in Queensland with expertise in undertaking flood studies is required to estimate the relevant flood level. The Flood planning scheme policy sets out the requirements for a flood risk assessment process.

⁽³⁾ The design standard for industry access is the 5% AEP flood level for all flooding sources.

Table 8.2.11.3.L—Categories of flood planning levels

Flooding source ⁽¹⁾	Minimum design floor or pavement levels (m AHD) ⁽²⁾ (refer to Table 8.2.11.3.D for assignment of these categories)				
	Category A	Category B	Category C	Category D	Category E

Brisbane River	RFL + 500mm	RFL + 300mm	DFL	5% AEP flood level	5% AEP flood level
Creek/ waterway	1% AEP flood level + 500mm	1% AEP flood level + 300mm	1% AEP flood level	1% AEP flood level	5% AEP flood level
Overland flow	2% AEP flood level + 500mm	2% AEP flood level + 300mm	2% AEP flood level	2% AEP flood level	5% AEP flood level

Notes—

(1) Where the site is subject to more than one type of flooding that is overland flow flooding, creek or waterway flooding or river flooding, the minimum flood immunity level is the highest level determined from these sources.

(2) Where flood levels are not available from Council's FloodWise Property Report such as overland flow flooding, the applicant will need to engage a suitably qualified Registered Professional Engineer Queensland with expertise in undertaking flood studies required to estimate the relevant flood level. The Flood planning scheme policy sets out the requirements for a flood risk assessment process.

- A flood event with an AEP of 1% is the equivalent of a 100 year ARI flood event.
- A flood event with an AEP of 2% is the equivalent of a 50 year ARI flood event.
- A flood event with an AEP of 5% is the equivalent of a 20 year ARI flood event.

Table 8.2.11.3.M—Hazardous chemicals flood hazard threshold

Hazardous chemicals flood hazard threshold means any of the following:
A hazardous chemical listed in schedule 11 of the Work Health and Safety Regulation 2011 in a quantity that exceeds a threshold quantity stated in column 5 of schedule 11
A chemical classified as hazardous to the aquatic environment under the Australian Dangerous Goods Code in the Acute I or Chronic I category that exceeds 2500 litres or kilograms
A chemical classified as hazardous to the aquatic environment under the Australian Dangerous Goods Code in the Chronic II category that exceeds 10,000 litres or kilograms
A chemical classified as hazardous to the aquatic environment under the Australian Dangerous Goods Code and assigned to Packing Group III that exceeds 10,000 litres or kilograms
A chemical classified as hazardous to the aquatic environment under the Globally Harmonised System of Classification and Labelling of Chemicals that exceeds 10,000 litres or kilograms

APPENDIX B – COASTAL HAZARD OVERLAY CODE

8.2.6 Coastal hazard overlay code

8.2.6.1 Application

1. This code applies to assessing development in the Coastal hazard overlay, if:
 - a. accepted development subject to compliance with identified requirements, where acceptable outcomes of this code are identified requirements in a table of assessment for an overlay (section 5.10); or
 - b. assessable development where this code is an applicable code identified in the assessment benchmarks column of a table of assessment for an overlay (section 5.10); or
 - c. impact assessable development.
2. Land in the Coastal hazard overlay is identified on the Coastal hazard overlay map and is included in the following sub-categories:
 - a. Erosion prone area – coastal erosion sub-category;
 - b. Erosion prone area – permanent inundation due to sea-level rise at 2100 sub-category;
 - c. High storm-tide inundation area sub-category;
 - d. Medium storm-tide inundation area sub-category;
 - e. Coastal management district sub-category.
3. When using this code, reference should be made to section 1.5 and section 5.3.3.

Note—The following purpose, overall outcomes, performance outcomes and acceptable outcomes comprise the assessment benchmarks of this code.

Editor's note—Where land is identified within a flood planning area on the Flood overlay map, and is identified within a storm-tide inundation area on the Coastal hazard overlay map, the assessment benchmark that provides the highest level of protection from any source of flooding applies.

Note—Where this code includes performance outcomes or acceptable outcomes that relate to:

- coastal hazard assessment or evacuation, guidance is provided in the Coastal hazard planning scheme policy;
- flood risk assessment and flood immunity for reconfiguring a lot, guidance is provided in the Flood planning scheme policy;
- handling or storage of hazardous materials, guidance is provided in the Management of hazardous chemicals in flood affected areas planning scheme policy.
- standards and specifications for public assets in a park, guidance is provided in the Infrastructure design planning scheme policy.

Editor's note—For a proposal to be accepted development subject to compliance with identified requirements, it must meet all the identified acceptable outcomes of this code that relate to the applicable sub-category and any other applicable code. Where it does not meet all identified acceptable outcomes, the proposal becomes assessable development and a development application is required. Where a development application is triggered, only the specific acceptable outcomes that the proposal fails to meet need to be assessed against the corresponding assessable acceptable outcomes or performance outcomes and relevant overall outcomes. Other identified acceptable outcomes that are met are not assessed as part of the development application.

8.2.6.2 Purpose

1. The purpose of the Coastal hazard overlay code is to:
 - a. Implement the policy direction in the Strategic framework, in particular:
 - i. Theme 2: Brisbane's outstanding lifestyle, and Element 2.3 – Brisbane's healthy and safe communities;
 - ii. Theme 3: Brisbane's clean and green leading environmental performance, and Element 3.3 – Brisbane's adaptation approaches;

- iii. Theme 4: Brisbane's highly effective transport and infrastructure networks, and Element 4.3 – Brisbane's coordinated infrastructure planning and delivery.
- b. Provide for the assessment of the suitability of development in the Coastal hazard overlay.
- 2. The purpose of the code will be achieved through the following overall outcomes:
 - a. Development minimises exposure of people and property to unacceptable risks from coastal hazards including storm-tide and permanent tidal inundation.
 - b. Development and infrastructure mitigates the risk of impacts from coastal hazard through its location, siting, design, construction and operation whilst maintaining amenity.
 - c. Development does not compromise the ability of the city's counter-disaster response capacity during a coastal hazard emergency.
 - d. Development provides for efficient evacuation and access for evacuation resources including emergency services during coastal hazard events or otherwise plans for the prospect and impact of isolation or hindered evacuation due to flooding from storm-tide and tidal inundation.
 - e. Development involving essential community infrastructure remains functional during and immediately after a coastal hazard event.
 - f. Development ensures that essential building services or services essential for the development are designed, located and operated to minimise the coastal hazard risk to people, minimise damage to property, disruption to building function and the re-establishment time after a storm-tide or tidal inundation event.
 - g. Development ensures that emergency management plans respond to the number and capacity of future users of the development to safely participate in emergency measures such as evacuation.
 - h. Development involving hazardous materials manufactured, handled or stored in bulk does not adversely impact on public safety and the environment as a result of the impacts of storm-tide and tidal inundation.
 - i. Development does not cause or increase adverse impacts on other premises from coastal hazard.
 - j. Development does not impact adversely on the ability of adjoining sites to implement future coastal hazard mitigation measures.
 - k. Development and infrastructure avoids or mitigates the impacts of predictable future coastal hazard due to increases in sea-level rise and cyclonic intensity.
 - l. Development in areas subject to coastal hazards protects biodiversity, the integrity of environmental networks and coastal resources.
 - m. Development prioritises, in order, the safety of people, protection of public infrastructure and protection of private property, in the management of the economic, social and environmental impacts of coastal hazards.
 - n. Development is designed and operated to withstand coastal hazards in order to avoid or defer the need for emergency assistance.
 - o. Development does not rely on Council undertaking specific coastal hazard mitigation actions or uncommitted future provision of services or infrastructure to ensure the protection of people, property or infrastructure, unless identified through an adaption strategy.

8.2.6.3 Performance outcomes and acceptable outcomes

Table 8.2.6.3.A—Performance outcomes and acceptable outcomes

Performance outcomes	Acceptable outcomes	Comments
Section A—If for accepted development subject to compliance with identified requirements (acceptable outcomes only) or assessable development for a dwelling house including a secondary dwelling		

PO1 Development involving any habitable or non-habitable part of the dwelling house, including any secondary dwelling, is: a. located and designed to minimise the risk to people and structures from coastal hazards; b. located to minimise amenity impacts, disruption to residents, recovery time and rebuilding and restoration costs after a coastal hazard event.	AO1 Development for a dwelling house including, any secondary dwelling, complies with the flood planning levels in Table 8.2.6.3.B. Editor's note—Information about flooding from storm tide is provided in Council's FloodWise Property Report.	Not applicable to this development.
Section B—If for accepted development subject to compliance with identified requirements (acceptable outcomes only) or assessable development other than for a dwelling house		
PO2 Development other than for a park is located and designed to: a. minimise the risk to all persons from coastal hazards; b. minimise flood damages to the development and contents of buildings; c. provide suitable amenity; d. minimise disruption to residents, recovery time, and rebuilding or restoration costs after coastal hazard events.	AO2 Development achieves minimum flood planning levels consistent with Table 8.2.6.3.C. Editor's note—Information about flooding from storm tide is provided in Council's FloodWise Property Report.	The Acceptable Outcome can be and is proposed to be met, as identified on the accompanying drawings.
PO3 Development for a park ensures that the design of the park and location of structures and facilities responds to coastal hazards and balances the safety of intended users with: a. maintaining continuity of operations; b. impacts of flooding on asset life and ongoing maintenance costs; c. efficient recovery after flood events; d. recreational benefits to the city; e. availability of suitable land within the park. Note—The Infrastructure design planning scheme policy provides more	AO3 Development involving a building or structure in a park: a. complies with the minimum flood planning levels in Table 8.2.6.3.C; or b. is not located below the 20% AEP storm-tide level if Table 8.2.6.3.C does not apply to the type of structure.	Not applicable to this development.

detail on standards and specifications for public assets.		
Section C—If assessable development other than for a dwelling house		
General		
PO4 Development has access which provides for safe vehicular and pedestrian movement in the development, including emergency services access during and after a coastal hazard event.	AO4 Development locates access points and driveways in the flood free area (or the area of the lowest flood risk) of the site.	The Acceptable Outcome can be and is proposed to be met, as identified on the accompanying drawings.
PO5 Development for pedestrian and cyclist paths: a. provides a suitable level of trafficability; b. manages the impacts of flooding on asset life and ongoing maintenance costs; c. balances route availability with recreational and transport connectivity benefits to the city.	AO5.1 Development for off-road pedestrian and cyclist paths: a. is not located in the Erosion prone area – coastal erosion subcategory; or b. complies with the minimum flood planning levels in Table 8.2.6.3.H. Note—If the site is subject to more than 1 type of flooding, the requirement that affords the highest flood planning level will apply. AO5.2 All new on-road cyclist and pedestrian facilities comply with the road flood immunity and trafficability standards for the applicable category of road in Table 8.2.6.3.H or Table 8.2.6.3.I	Not applicable to this development.
PO6 Development does not: a. impact adversely on the safety or amenity of an adjoining site; b. impact adversely on the ability of others to implement future coastal hazard adaptation actions.	AO6 Development does not concentrate, intensify or divert floodwater, erosion impacts or cause nuisance ponding onto other premises.	The Acceptable Outcome can be and is proposed to be met, as identified on the accompanying drawings.
PO7 Development involving essential electrical services or a basement storage area is suitably located and designed to ensure public safety and minimise the need for flood	AO7.1 Development ensures that: a. all essential electrical services comply with the flood planning levels in Table 8.2.6.3.C; or	The Acceptable Outcome can be and is proposed to be met, as identified on the accompanying drawings.

recovery and economic consequences of damage during a flood.	b. if a basement contains essential electrical services or a private basement storage area, the basement is a waterproof structure with walls and floors impermeable to the passage of water and all entry points and services are located at or above the relevant flood immunity level in Table 8.2.6.3.C. Note—A basement storage area is a basement-level area for private storage, other than a bike storage room, change room, building maintenance storage and non-critical electrical services. AO7.2 Development involving a basement that relies on a pumping solution to manage floodwater ingress or for dewatering after a flood, provides an appropriately flood protected backup power source for those pumps.	
PO8 Development involving the storage and handling of hazardous materials avoids or minimises risks to public health and safety and the environment, by: a. protecting underground tanks for hazardous materials against the forces of buoyancy, velocity flow and debris impacts; b. securing above-ground tanks against flotation and lateral movement; c. preventing damage to pipework or entry of floodwater into pipework; d. preventing damage to or off-site release of packages, drums or containers. Note—A chemical hazards flood risk report prepared in accordance with the Management of hazardous chemicals in flood affected areas planning scheme policy can assist in demonstrating achievement of this performance outcome. Note—A pump drainage system is not an acceptable measure to meet the performance outcome.	AO8.1 Development does not include the storage or handling of hazardous chemicals that exceed the hazardous chemicals flood hazard threshold quantities in Table 8.2.6.3.J. AO8.2 Development involving the processes listed in Table 8.2.6.3.F is consistent with the standards contained in the Management of hazardous chemicals in flood affected areas planning scheme policy and can operate without risk of environmental harm during a coastal hazard. Note—The Management of hazardous chemicals in flood affected areas planning scheme policy sets out further information and processes including risk assessment for the management of hazardous chemicals in coastal hazard areas.	Not applicable to this development.
Additional performance outcomes and acceptable outcomes for essential community infrastructure		
PO9	AO9	

Development involving essential community infrastructure: a. maintains function during and immediately after a coastal hazard event or is part of a network that is able to maintain the function of the essential community infrastructure without parts of the development which are unable to function during a coastal hazard event; b. is designed and sited to avoid adverse impacts on the community or the environment due to the impacts of coastal hazard on infrastructure, facilities or access and egress routes; c. retains site access necessary to maintain function of the development during a coastal hazard event; d. maintains function or is part of a network which is able to remain functional even when other infrastructure may be compromised in a flood event; e. contains mitigation measures which are not entirely dependent on human activation to respond to a flood event.	Development involving essential community infrastructure: a. is ancillary and is not relied upon for the provision of the essential service during a coastal hazard event; or b. is located above the flood immunity levels set out in Table 8.2.6.3.E; c. has access to, or provides, the necessary backup emergency electricity and communications supply in times of flood; d. if the essential community infrastructure has a city-wide emergency function, that part of the development is not located in an area that becomes isolated by a flood up to the event listed for that development type in Table 8.2.6.3.E.	
Additional performance outcomes and acceptable outcomes for vulnerable uses, difficult to evacuate uses or assembly uses		
PO10 Development for vulnerable or difficult to evacuate uses and assembly uses optimises vehicular access and efficient evacuation from the development to parts of the road network unaffected by coastal hazard. Note—A coastal hazard risk assessment may be required to address the performance outcome or acceptable outcome that deals with evacuation and isolation arrangements, and the ability to take refuge in place. Editor's note—Further guidance for risk assessment is contained in the Coastal hazard planning scheme policy and the Flood planning scheme policy.	AO10 Development for vulnerable uses, difficult to evacuate uses or assembly uses: a. is not isolated in any event up to the relevant flood planning level as specified in Table 8.2.6.3.D; or b. is supported by a critical route or interim critical route identified in the Critical infrastructure and movement network overlay; or c. can achieve vehicular evacuation to a suitable coastal hazard-free location. Note—A suitable coastal hazard-free location is of a size and nature appropriate to provide for the size and characteristics of the population	Not applicable to this development.

	likely to need evacuation to that area.	
Section D—If for reconfiguring a lot		
General		
PO11 Development locates and designs all lots and roads resulting from reconfiguring a lot to: - ensure the safety of people; - minimise damage to property and services; - facilitate safe and efficient evacuation; - avoid isolation during a coastal hazard event; - provide suitable amenity in that it is not frequently flooded or subject to tidal inundation, or nuisance ponding. Note— - Consideration of the 0.2% AEP flood is relevant to determining an acceptable level of safety for development. - Flood warning time is available for storm-tide flooding. - Filling for flood immunity cannot be assumed to mitigate the flood hazard for a flood event greater than the defined flood event.	AO11.1 Development ensures that the road and lot layout does not create new lots isolated by storm-tide flooding at the defined flood event. AO11.2 Development involving reconfiguring a lot ensures flood immunity for all lots is provided in compliance with Table 8.2.6.3.G.	Not applicable to this development.
PO12 Development that results in 6 lots or less and no new road provides: - land with sufficient flood immunity to construct a dwelling house; - an open space area that is safe and has suitable amenity in that it is not frequently flooded or subject to tidal inundation, nuisance ponding or seepage; - a lot that is not substantially burdened by a stormwater easement or flood mitigation infrastructure; - appropriate amenity for any adjoining residential area.	AO12 Development for reconfiguring a lot that results in 6 lots or less and no new road in the High storm-tide inundation area sub-category or the Medium storm-tide inundation area sub-category provides at least 80% of each new lot at or above the flood planning levels in Table 8.2.6.3.G. Note—This is to ensure that each new lot will not be affected by tidal influences up to the highest astronomical tide event with an allowance for 800mm of sea level increase through climate change. The development will still need to meet the relevant flood immunity standards.	Not applicable to this development.
PO13	AO13	

Development provides acceptable flood immunity for its purpose that minimises the risk to people from coastal hazard, creates safe access and evacuation routes, minimises damage to property and services, and provides suitable amenity.	Development involving reconfiguring a lot that results in more than 6 lots or a new road provides flood immunity for: a. all lots in compliance with Table 8.2.6.3.G; b. a new road in compliance with Table 8.2.6.3.H; c. an existing road fronting the development, or providing primary access within 200m of the development, in compliance with Table 8.2.6.3.I. Note—The Flood planning scheme policy contains supporting information about existing roads and serviceability during floods.	
PO14 Development involving a new road, bridge or culvert is designed to minimise impacts to flood behaviour, minimise disruption to traffic during storm-tide inundation and allow for emergency access and evacuation.	AO14 Development for a new road provides flood immunity in compliance with Table 8.2.6.3.H.	Not applicable to this development.
PO15 Development for pedestrian and cyclist paths: a. provides a suitable level of trafficability; b. manages the impacts of flooding on asset life and ongoing maintenance costs; c. balances route availability with recreational and transport connectivity benefits to the city.	AO15.1 Development for off-road pedestrian and cyclist paths: a. are not located in the Erosion prone area – coastal erosion subcategory; or b. complies with the minimum flood planning levels in Table 8.2.6.3.H. Note—If the site is subject to more than 1 type of flooding, the requirement that affords the highest flood planning level will apply. AO15.2 All new on-road cyclist and pedestrian facilities comply with the road flood immunity and trafficability standards for the applicable category of road in Table 8.2.6.3.H or Table 8.2.6.3.I.	Not applicable to this development.
Section E—If for a material change of use, reconfiguration of a lot or operational works on a premises in an erosion prone area in a coastal management district where the chief executive is not identified as a referral agency under the Regulation Editor's note—Examples of development where the chief executive is not identified as a referral agency under the Regulation include operational work for: • interfering with quarry material, as defined under the Coastal Act, on State coastal land above high-water mark; or		

• disposing of dredge spoil, or other solid waste material, in tidal water; or • constructing an artificial waterway; or • removing or interfering with coastal dunes on land other than State coastal land, where that operational work only involves: • prescribed tidal works in a canal; or • tidal works that is for the installation, maintenance or repair of overhead cables or lines that extend over tidal water; or • for tidal works that is boring or tunnelling under the bed of tidal water, works that do not disturb the bed of the tidal water.		
PO16 Development does not occur in an erosion prone area within a coastal management district unless the development cannot be feasible located elsewhere and is: a. coastal dependant development; or b. temporary, readily relocatable or able to be abandoned development; or c. essential community infrastructure; or d. minor redevelopment (as defined in the SPP) of an existing permanent building or structure that cannot be relocated or abandoned. The development mitigates the risks to people and property to an acceptable or tolerable level.	AO16 No acceptable outcome is prescribed.	Not applicable to this development.

Table 8.2.6.3.B—Flood planning levels for a dwelling house

Flooding Source	Minimum ground level for house pad after filling (where filling permitted)	Minimum habitable floor level	Minimum non-habitable floor level – utility areas, garage, laundry and storage room
Storm-tide flooding within the: High storm-tide inundation area sub-category; or Medium storm-tide inundation area sub-category	2.5m AHD (1% AEP)	2.5m AHD + 500mm (1% AEP + 0.5m)	2.5m AHD + 300mm (1% AEP + 0.3m)

Note—Where subject to more than one flooding source, the highest immunity level as determined for each case applies.

Table 8.2.6.3.C—Categories of flood planning levels

Flooding Source	Minimum design floor or pavement levels (m, AHD) (refer Table 8.2.6.3.D for assignment of these categories)				
	Category A	Category B	Category C	Category D	Category E
Storm-tide flooding within the: High storm-tide inundation area sub-category; or Medium storm-tide inundation area sub-category	3.1m AHD + 0.5m (1% AEP level at 2100 + 0.5m)	3.1m AHD + 0.3m (1% AEP level at 2100 + 0.3m)	3.1m AHD (1% AEP level at 2100)	2% AEP level	2% AEP level

Note—

- Where the site is subject to more than one flooding source that is storm-tide flooding, overland flow flooding, creek/waterway flooding or river flooding, the minimum flood immunity level is the highest level determined from these sources.
- The Coastal hazard planning scheme policy and Flood planning scheme policy set out the flood risk assessment process for coastal hazards.

Table 8.2.6.3.D—Flood planning level categories for development types

BCA building classification ⁽¹⁾	Development types and design levels, assigned design floor or pavement levels	Category refer to Table 8.2.6.3.C
Class 1-4 ⁽⁷⁾	Habitable room ⁽¹⁾	Category A
	Non-habitable room including patio and courtyard	Category B
	Non-habitable part of a Class 2 or Class 3 building excluding the essential services ⁽²⁾ control room	Category B
	Parking located in the building undercroft of a multiple dwelling	Category C
	Carport ⁽⁴⁾ ; unroofed car park; vehicular manoeuvring area	Category D
	Essential electrical services ⁽²⁾ of a Class 2 or Class 3 building only	Category A ⁽⁶⁾
	Basement parking entry ⁽³⁾	Category C + 300mm
Class 5,	Building floor level	Category C

Class 6, or Class 8	Garage or car park located in the building undercroft ⁽³⁾	Category C
	Carport ⁽⁴⁾ or unroofed car park	Category D
	Vehicular access and manoeuvring area	Category D
	Basement parking entry ⁽³⁾	Category C
	Essential electrical services ⁽²⁾	Class 8 – Category C ⁽⁶⁾ Class 5 and 6 – Category A ⁽⁶⁾
Class 7a	Refer to the relevant building class specified in this table	
Class 7b	Building floor level	Category C
	Vehicular access and manoeuvring area	Category D
	Essential electrical services ⁽²⁾	Category C
Class 9 ⁽⁷⁾	Building floor level	Category A
	Building floor level in Class 9a or 9c where for a residential care facility	0.2% AEP flood
	Garage or car park located in the building undercroft ⁽³⁾	Category C
	Carport ⁽⁴⁾ or unroofed car park	Category D
	Vehicular access and manoeuvring area	Category D
	Essential electrical services ⁽²⁾	Category A
Class 10a	Car parking facility	Refer to the relevant building class specified in this table
	Shed ⁽⁵⁾ or the like	Category D
Class 10b	Swimming pool	Category E
	Associated mechanical and electrical pool equipment	Category C

	Other structures	Flood planning levels do not apply
--	------------------	------------------------------------

Note—

(1) Refer to Building Code of Australia for definitions of building classifications and habitable rooms.

(2) Essential services include any room used for fire control panel, telephone PABX, sensitive substation equipment, including transformers, low voltage switch gear, high voltage switch gear, battery chargers, protection control and communication equipment, low voltage cables, high voltage cables, and lift controls. (3) Basement car parks must be suitably waterproofed and all air vents, air-conditioning ducts, pedestrian access and entry and exit ramps into the basement must comply with the applicable flood planning levels in this table.

(4) A shelter for a motor vehicle, which has a roof and one or more open sides, and which can be built against the side of a building.

(5) A slight or rough structure built for shelter and storage; or a large strongly built structure, often open at the sides or end.

(6) Where essential electrical services are proposed in a basement below the specified flood immunity level, the flood immunity of all air vents, air-conditioning ducts, pedestrian access, lift shafts and entry and exit ramps at the basement entrance and any other openings into that basement are to conform with the flood planning levels for Category A for residential development, and the relevant basement entry level of all other uses. To ensure flood immunity, basements require a waterproof design to prevent flood waters entering the basement.

(7) Where a building includes a combination of uses that includes a component of classes 2, 3 or 9, the essential services for that building shall comply with the requirements of the building class with the greatest flood planning level.

Table 8.2.6.3.E—Flood planning levels for essential community infrastructure

Type of essential community infrastructure	Recommended planning levels for storm tide
Community facility where involving storage of valuable records or items of historic or cultural significance, such as galleries and libraries	0.5% AEP level
Educational establishment	0.5% AEP level
Emergency services where for an emergency shelter	0.5% AEP level or per Design Guidelines for Queensland Public Cyclone Shelters
Emergency services where for police facilities ⁽¹⁾	0.5% AEP level
Emergency services ⁽¹⁾	0.2% AEP level
Hospitals and health care service where supporting a hospital	0.2% AEP level
Major electricity infrastructure and substations ⁽¹⁾	0.5% AEP level
Major or minor electricity infrastructure not otherwise listed in this table. Telecommunications facilities	No specific recommended level but infrastructure is to be optimally located and designed to achieve suitable levels of service, having regard to the processes and policies of the relevant administering public sector entity.
Power stations as defined in the <i>Electricity Act 1994</i> or renewable energy facility	0.2% AEP level

School facilities	0.5% AEP level
Utility installation where for a sewage treatment plant	0.01% AEP level
Utility installation where for a water treatment plant ⁽¹⁾	0.5% AEP level

Note—
(1) This only applies to the electrical and other equipment that if damaged by floodwaters or debris, would prevent the infrastructure from functioning.

Table 8.2.6.3.F—Table of processes requiring additional assessment in a coastal hazard area

Process
(1) Oil refining or processing
(2) Producing, refining or processing gas or fuel gas
(3) Power station, including the activity of generating electricity by using fuel
(4) Producing, quenching, cutting, crushing or grading coke
(5) Waste incinerator, including thermal treatment of waste
(6) Pulp or paper manufacturing
(7) Tannery or works for curing animal skins, hides or finishing leather
(8) Textile manufacturing, including carpet manufacturing, wool scouring or carbonising, cotton milling, or textile bleaching, dyeing or finishing
(9) Rendering plant, including meat processing
(10) Manufacturing chemicals, poisons and explosives
(11) Manufacturing fertilisers involving ammonia
(12) Manufacturing polyvinyl chloride plastic
(13) Major hazard facilities for the storage and handling of dangerous goods
(14) Storage of hazardous chemicals in quantities exceeding the hazardous chemicals flood hazard threshold in Table 8.2.6.3.J.

(15) Manufacturing medium-density fibreboard, chipboard, particle board, plywood, laminated board or wood veneer products
(16) Manufacturing or processing plaster
(17) Enamelling workshop
(18) Galvanising works
(19) Anodising or electroplating workshop
(20) Powder-coating workshop
(21) Treating timber for preservation using chemicals including copper, chromium, arsenic, borax and creosote
(22) Manufacturing soil conditioners by receiving, blending, storing, processing, drying or composting organic material or organic waste, including animal manures, sewage, septic sludges and domestic waste
(23) Manufacturing tyres, asbestos products, asphalt, cement, glass or glass fibre, mineral wool or ceramic fibre
(24) Abattoir, including meat processing
(25) Recycling chemicals, oils or solvents
(26) Waste disposal activity (other than waste incinerator), including waste transfer station operation
(27) Recycling, storing or reprocessing regulated waste, including regulated waste treatment
(28) Manufacturing batteries and battery recycling
(29) Drum and container reconditioning
(30) Water treatment
(31) Sewage treatment

Note—Further information and risk assessment concerning hazardous chemicals in coastal management areas is contained in Management of hazardous chemicals in flood affected areas planning scheme policy.

Table 8.2.6.3.G—Flood planning levels for reconfiguring a lot

Flooding type	Minimum lot levels (m AHD)
---------------	----------------------------

	Residential (creating 6 or less lots with no new road)	Residential (creating more than 6 lots), or a new road	Other than residential
Storm-tide flooding within the: High storm-tide inundation area sub-category; or Medium storm-tide inundation area sub-category	80% of each new lot at 2.5m AHD ⁽¹⁾ (1% AEP level)	3.1m AHD + 0.3m (1% AEP flood level at 2100 + 0.3m)	3.1m AHD 1% AEP flood level at 2100

Note—
(1) In addition to providing suitable flood immunity for a dwelling house to be constructed, this will ensure that each new lot will not be affected by tidal influences with an allowance for 800mm of sea level increase to 2100. The minimum area must have direct frontage to a road that will be used for accessing the lot.
Note—Where the site is subject to more than one flooding source the minimum flood planning level is the highest level determined from these sources.

Table 8.2.6.3.H—Flood planning levels for a new road and off-road paths

Flooding type	Minimum design levels at crown of road (m AHD)		Off-road pedestrian and cyclist paths
	Residential development	Industrial or commercial development	
Storm-tide flooding within the: High storm-tide inundation area sub-category; or Medium storm-tide inundation area sub-category	3.1m AHD 1% AEP level at 2100	3.1m AHD 1% AEP level at 2100	HAT + 0.3m ⁽¹⁾

Note—
(1) This is to ensure that new off-road paths will not be affected by highest astronomical tide (HAT) with an allowance for 300mm of sea level increase by 2050.
Note—Where the site is subject to more than one flooding source, the minimum flood planning level is the highest level determined from these sources.

Table 8.2.6.3.I—Flood planning levels for existing road providing access to or fronting a development

Flooding type	Minimum design levels at the crown of the road (m AHD)		
	Local road	Neighbourhood road	District road, suburban road, arterial road
Storm-tide flooding within the: High storm-tide inundation area sub-category; or	5% AEP	2% AEP	2% AEP

Medium storm-tide inundation area sub-category			
--	--	--	--

Note—Where the site is subject to more than 1 flooding source the minimum flood planning level is the highest level determined from these sources.

Note—The design standard for an industrial access is the 5% AEP storm-tide level.

Table 8.2.6.3.J – Hazardous chemicals flood hazard threshold

Hazardous chemicals flood hazard threshold means any of the following:
A hazardous chemical listed in schedule 11 of the <i>Work Health and Safety Regulation 2011</i> in a quantity that exceeds a threshold quantity stated in column 5 of schedule 11
A chemical classified as hazardous to the aquatic environment under the Australian Dangerous Goods Code in the Acute I or Chronic I category that exceeds 2500 litres or kilograms
A chemical classified as hazardous to the aquatic environment under the Australian Dangerous Goods Code in the Chronic II category that exceeds 10,000 litres or kilograms
A chemical classified as hazardous to the aquatic environment under the Australian Dangerous Goods Code and assigned to Packing Group III that exceeds 10,000 litres or kilograms
A chemical classified as hazardous to the aquatic environment under the Globally Harmonised System of Classification and Labelling of Chemicals that exceeds 10,000 litres or kilograms