PROJECT: ENGINEERING SERVICES FOR DA

PLANSET: FLOOD ASSESSMENT

CLIENT: LOTUS PROJECT MANAGEMENT PTY LTD



LOCALITY PLAN NOT TO SCALE

LGA: NORTHERN BEACHES COUNCIL

1129-1131 PITTWATER ROAD, COLLAROY, NSW LOT 4 DP 7445 AND LOT 1 DP 859613

	NOT FOR CONOTRIBOTION
DEVELOPMENT APPLICATION -	- NOT FOR CONSTRUCTION.

REV DESCRIPTION DRAWN DESIGNED CHECKED APPRVD SCALE PROJECT MANAGER B CHECKED AND APPROVED 01/04/2020 PD PD/SL LOTUS PROJECT MANAGEMENT PTY LTD A INITIAL RELEASE 25/03/2020 RK PROJECT NAME/PLANSET TITLE DISCLAIMER & COPYRIGHT This plan must not be used for construction unless signed as approved by **ENGINEERING SERVICES FOR DA** principal certifying authority. All measurements in millimetres unless otherwise specified. FLOOD ASSESSMENT This drawing must not be reproduced in whole or part without prior written consent of Martens & Associates Pty Ltd. 1129-1131 PITTWATER ROAD, COLLAROY, NSW LOT 4 DP 7445 AND LOT 1 DP 859613 (C) Copyright Martens & Associates Pty Ltd

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Email: mail@martens.com.au Internet: www.martens.com.au

Consulting Engineers

DRAWING TITLE COVER SHEET RELEASE NO. DRAWING NO. REVISION 

DRAWING LIST

GENERAL PS02-A000 B

PS02-K000 B

DWG NO. REV DWG TITLE

COVER SHEET

CATCHMENT PLAN

EXISTING CONDITION

EXISTING CONDITION

EXISTING CONDITION

EXISTING CONDITION

EXISTING CONDITION

EXISTING CONDITION WATER VELOCITY (m/s)

EXISTING CONDITION

EXISTING CONDITION

PROPOSED CONDITION

PROPOSED CONDITION WATER VELOCITY (m/s)

PROPOSED CONDITION

PROPOSED CONDITION FLOOD HAZARD CATEGORIES PMF CRITICAL STORM DURATION

PROPOSED CONDITION

PROPOSED CONDITION WATER VELOCITY (m/s)

PROPOSED CONDITION

PROPOSED CONDITION FLOOD HAZARD CATEGORIES 1% AEP CRITICAL STORM DURATION

PROPOSED CONDITION WATER LEVEL AFFLUX (m) PMF CRITICAL STORM DURATION

PROPOSED CONDITION WATER LEVEL AFFLUX (m) PMF CRITICAL STORM DURATION

PROPOSED CONDITION VELOCITY IMPACT (m)

WATER VELOCITY (m/s)

1% AEP CRITICAL STORM DURATION

FLOOD HAZARD CATEGORIES PMF CRITICAL STORM DURATION

PMF CRITICAL STORM DURATION

PMF CRITICAL STORM DURATION

PMF CRITICAL STORM DURATION

FLOOD HAZARD CATEGORIES 1% AEP CRITICAL STORM DURATION

WATER LEVEL (mAHD) & WATER DEPTH (m)

PROVISIONAL HYDRAULIC HAZARD CATEGORIES

WATER LEVEL (mAHD) & WATER DEPTH (m)

PROVISIONAL HYDRAULIC HAZARD CATEGORIES

|WATER LEVEL (mAHD) & WATER DEPTH (m)

PROVISIONAL HYDRAULIC HAZARD CATEGORIES

WATER LEVEL (mAHD) & WATER DEPTH (m)

PROVISIONAL HYDRAULIC HAZARD CATEGORIES

1% AEP CRITICAL STORM DURATION

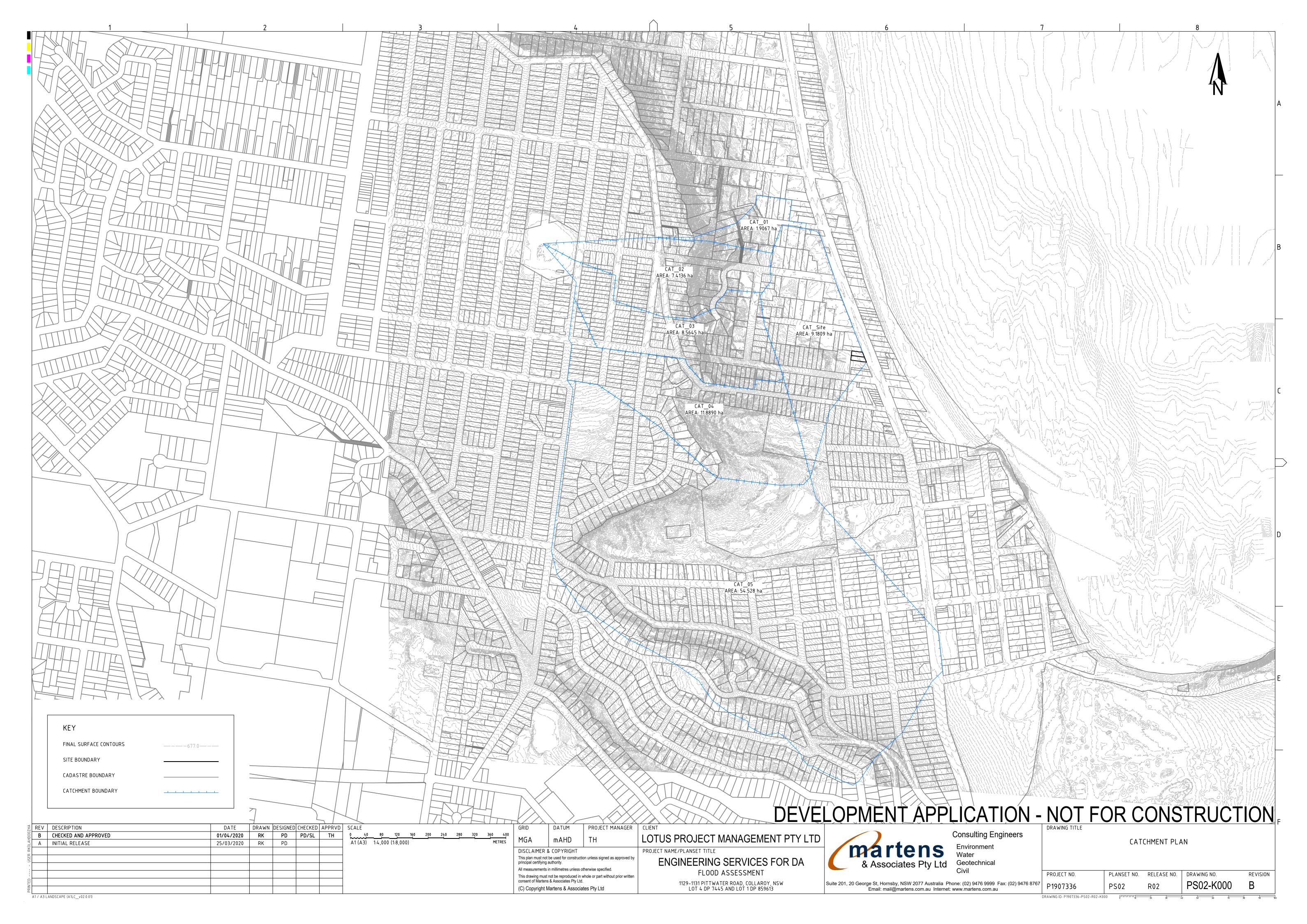
1% AEP CRITICAL STORM DURATION

1% AEP CRITICAL STORM DURATION

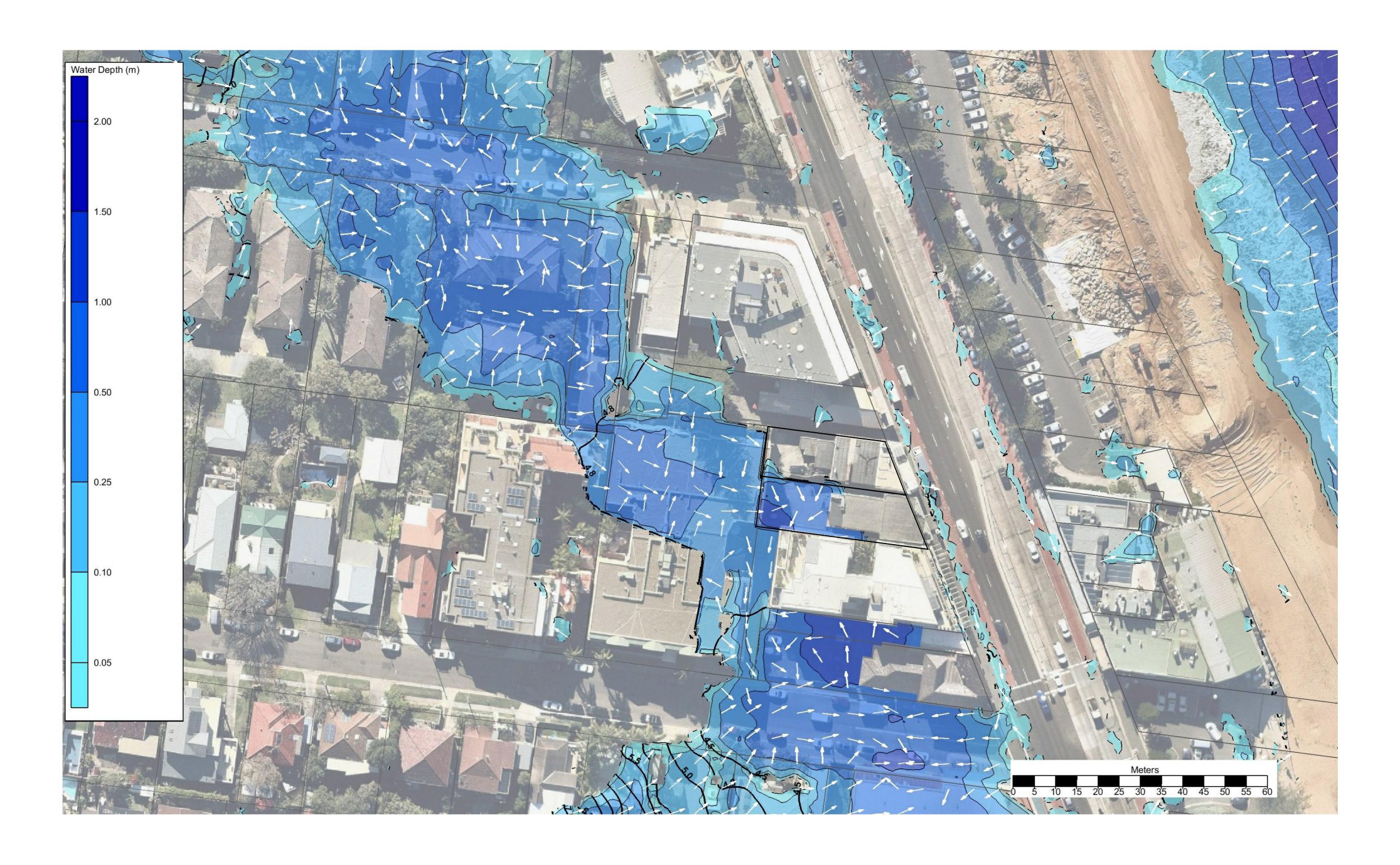
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PMF CRITICAL STORM DURATION

PMF CRITICAL STORM DURATION







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DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION FOR CONSTR

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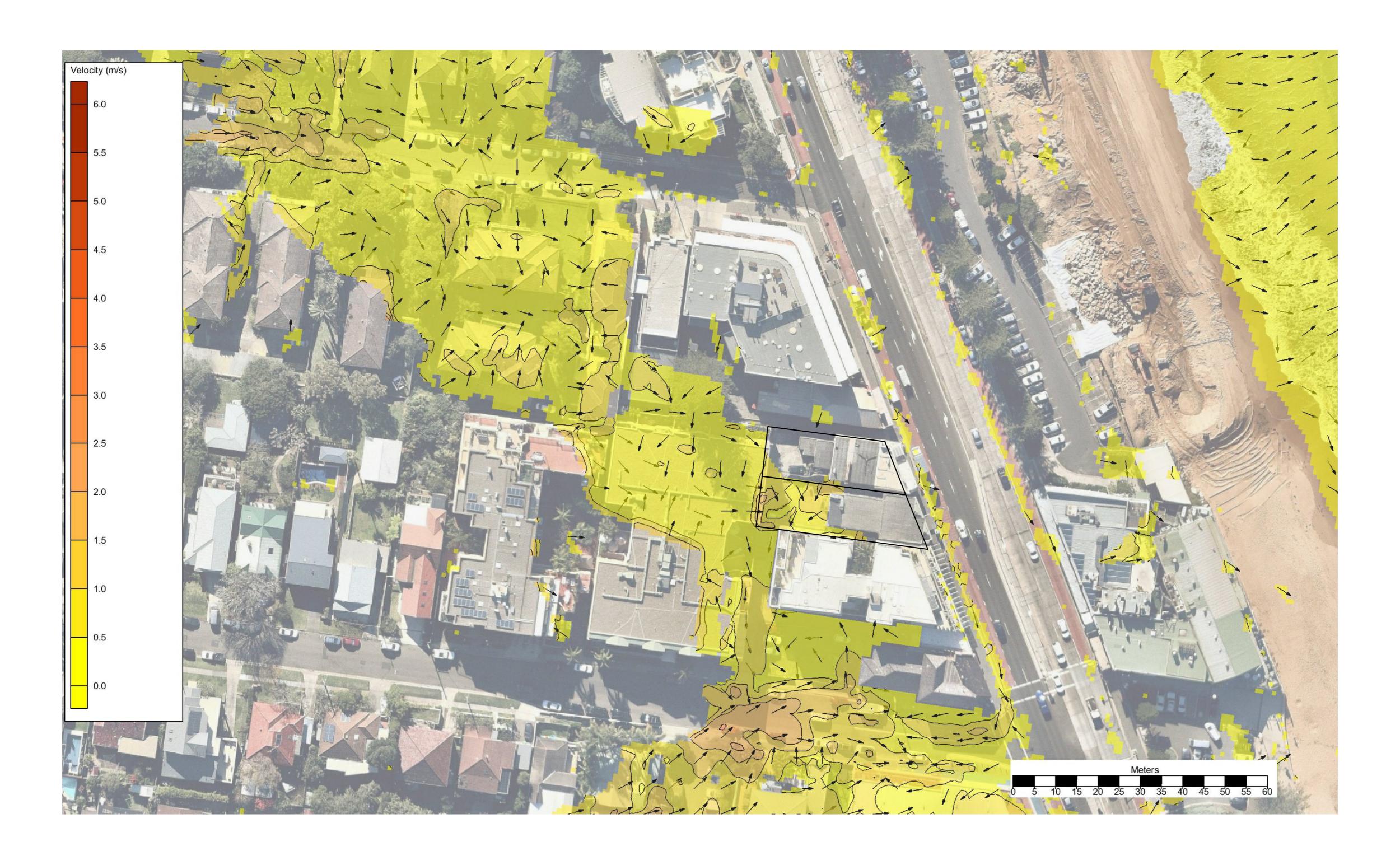
Consulting Engineers
Environment
Water
Geotechnical
Civil

1% AEP CRITICAL STORM DURATION
EXISTING CONDITION
WATER LEVEL (mAHD) & WATER DEPTH (m)

OJECT NO. PLANSET NO. RELEASE NO. DRAWING NO.

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A1 / A3 LANDSCAPE (A1LC\_v02.0.01)

DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION F

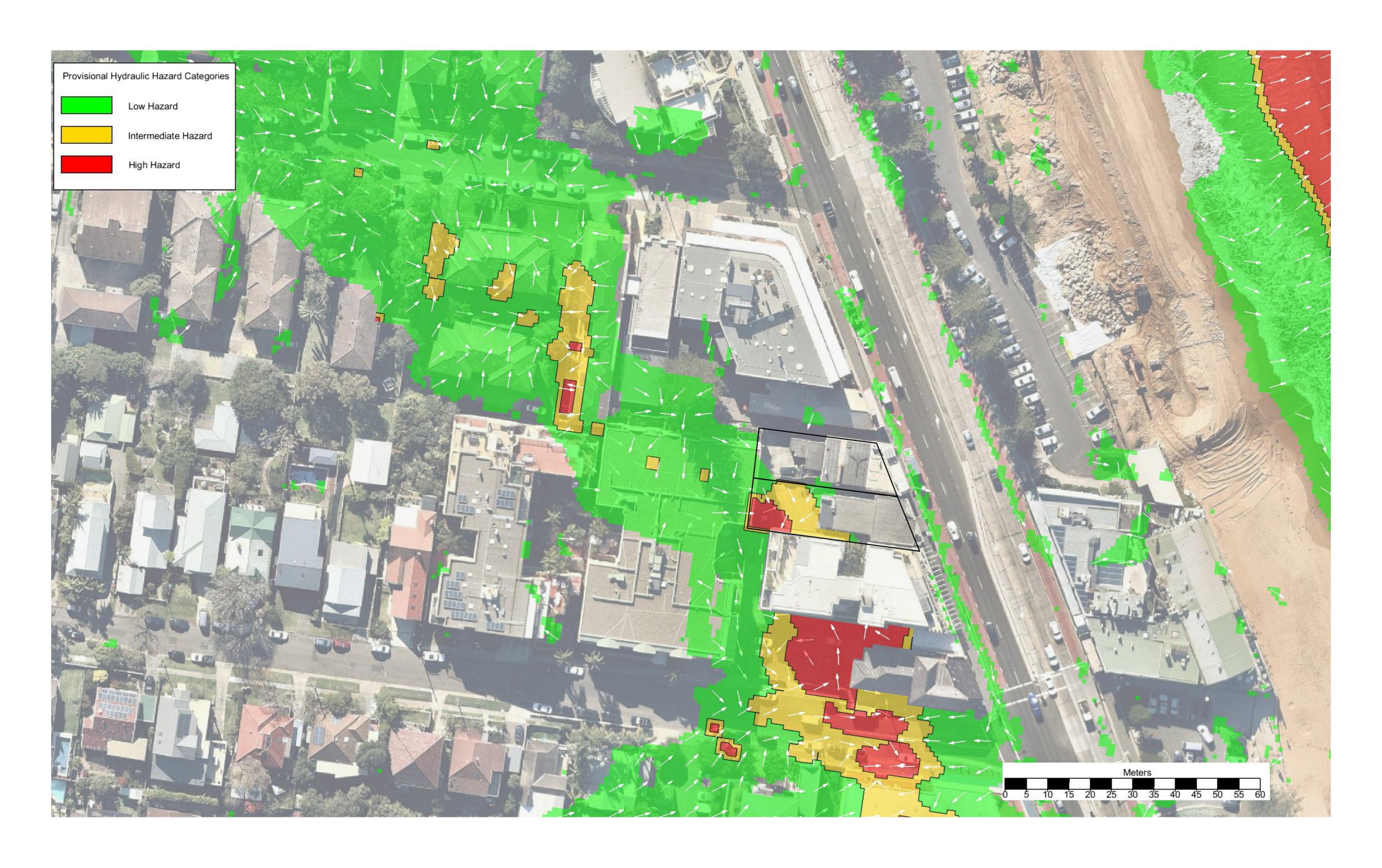
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1% AEP CRITICAL STORM DURATION														
EXISTING CONDITION														
	WATER VELOCITY (m/s)													
PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISI										
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– HYDRAULIC HAZARD BASED ON NSW GOVERNMENT (2005) FLOODPLAIN DEVELOPMENT MANUAL PROVISIONAL HYDRAULIC HAZARD CATEGORIES.

## DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION FOR CONSTR

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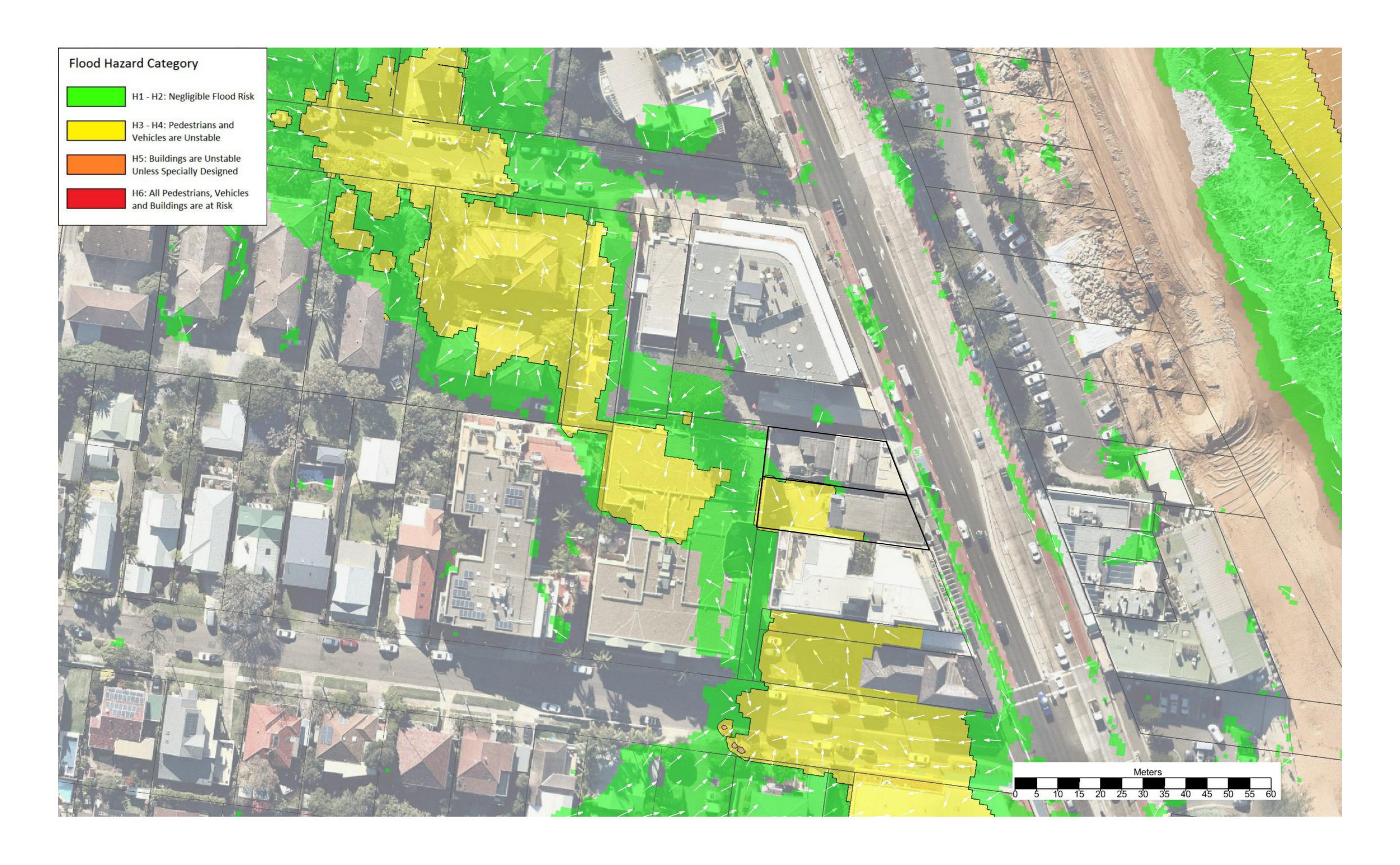
Consulting Engineers

1% AEP CRITICAL STORM DURATION EXISTING CONDITION PROVISIONAL HYDRAULIC HAZARD CATEGORIES

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REV DESCRIPTION

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A1 / A3 LANDSCAPE (A1LC\_v02.0.01)

B CHECKED AND APPROVED

- FLOOD HAZARD BASED ON AUSTRALIAN INSTITUTE FOR DISASTER RESILIENCE (2014) HAZARD CURVES

## DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION FOR CONSTR

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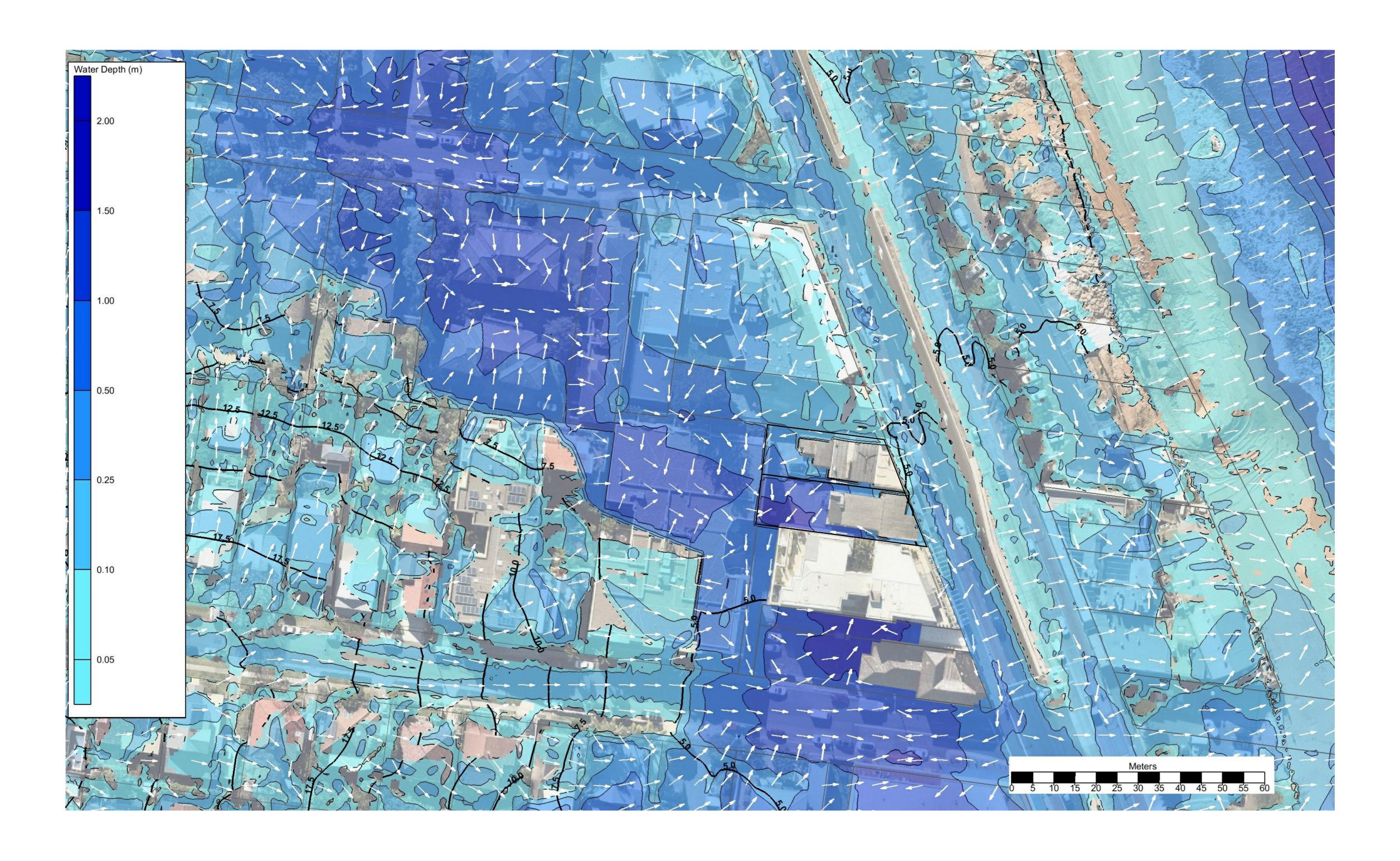
Consulting Engineers Environment Geotechnical

1% AEP CRITICAL STORM DURATION EXISTING CONDITION FLOOD HAZARD CATEGORIES PLANSET NO. RELEASE NO. DRAWING NO.

REVISION

PROJECT NO. Suite 201, 20 George St, Hornsby, NSW 2077 Australia Phone: (02) 9476 9999 Fax: (02) 9476 8767 Email: mail@martens.com.au Internet: www.martens.com.au DRAWING ID: P1907336-PS02-R02-K103 0 0 50 60 70 50 90 100





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#### DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION F

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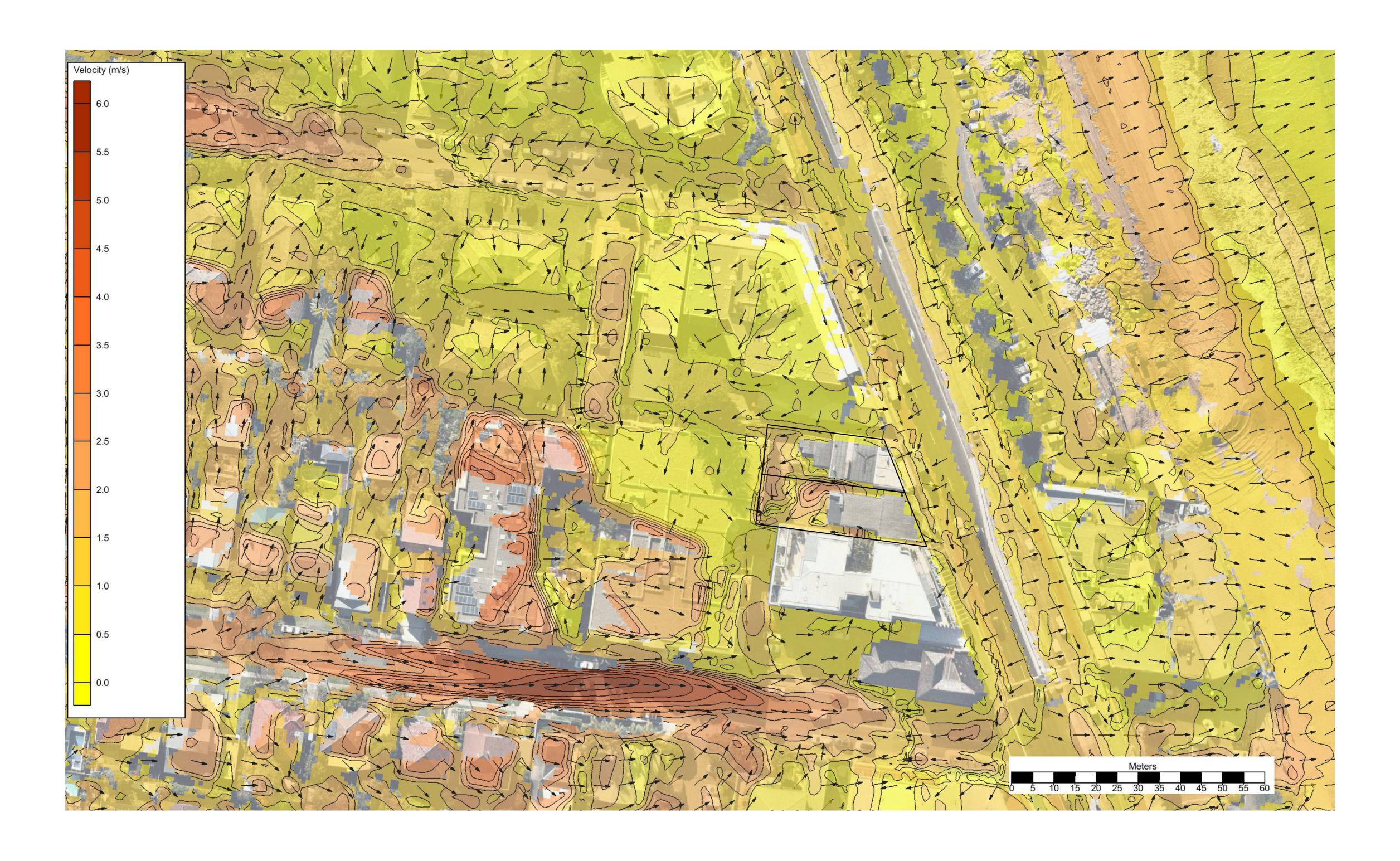
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Environment

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Geotechnical
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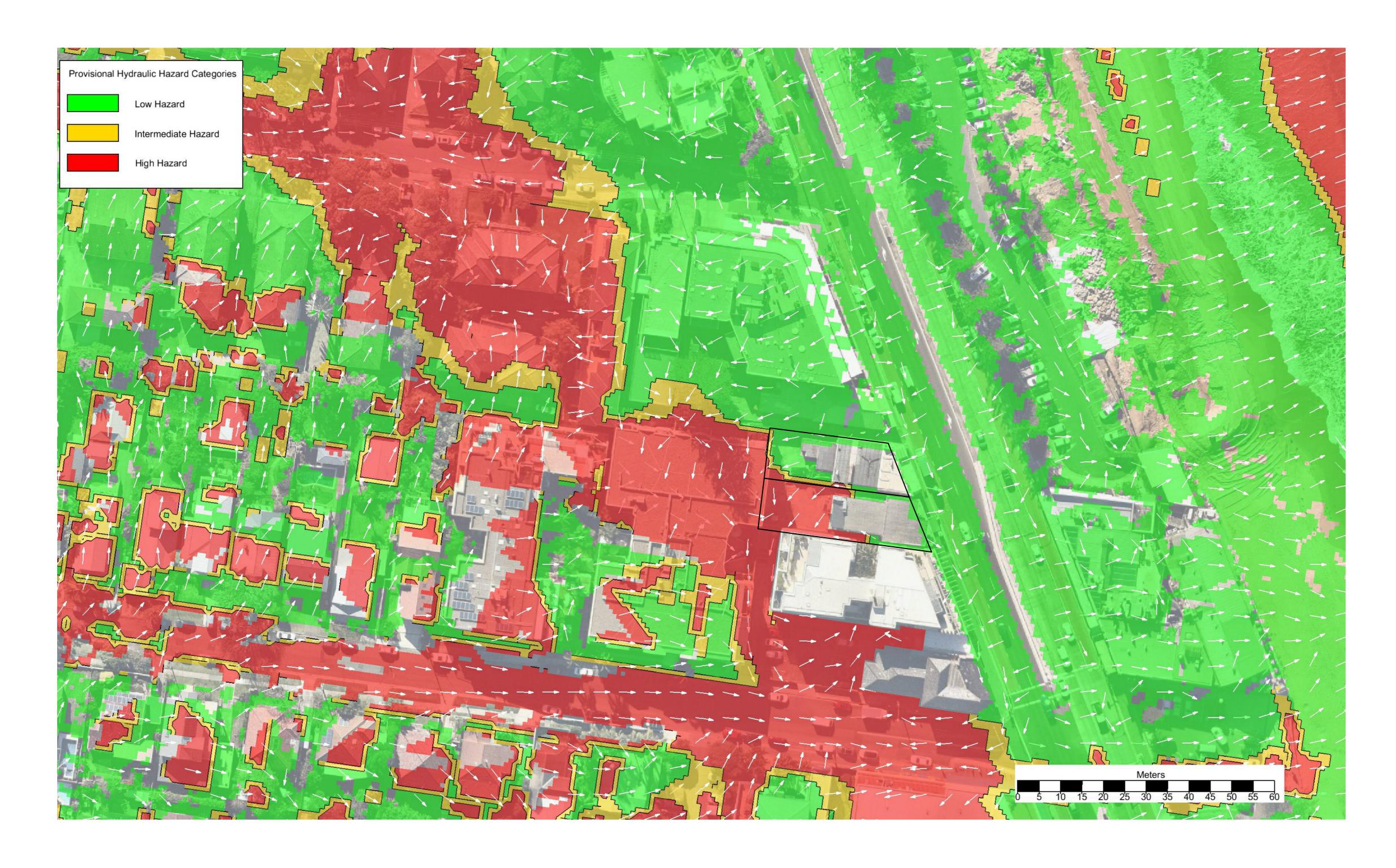
PMF CRITICAL STORM DURATION
EXISTING CONDITION
WATER VELOCITY (m/s)

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PS02 R02 PS02-K111 B





A1 / A3 LANDSCAPE (A1LC\_v02.0.01)

NOTES:
- HYDRAULIC HAZARD BASED ON NSW GOVERNMENT (2005) FLOODPLAIN
DEVELOPMENT MANUAL PROVISIONAL HYDRAULIC HAZARD CATEGORIES.

#### DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION FOR CONSTR

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PMF CRITICAL STORM DURATION
EXISTING CONDITION
PROVISIONAL HYDRAULIC HAZARD CATEGORIES

Civil

PROJECT NO.

PLANSET NO. RELEASE NO. DRAWING NO.

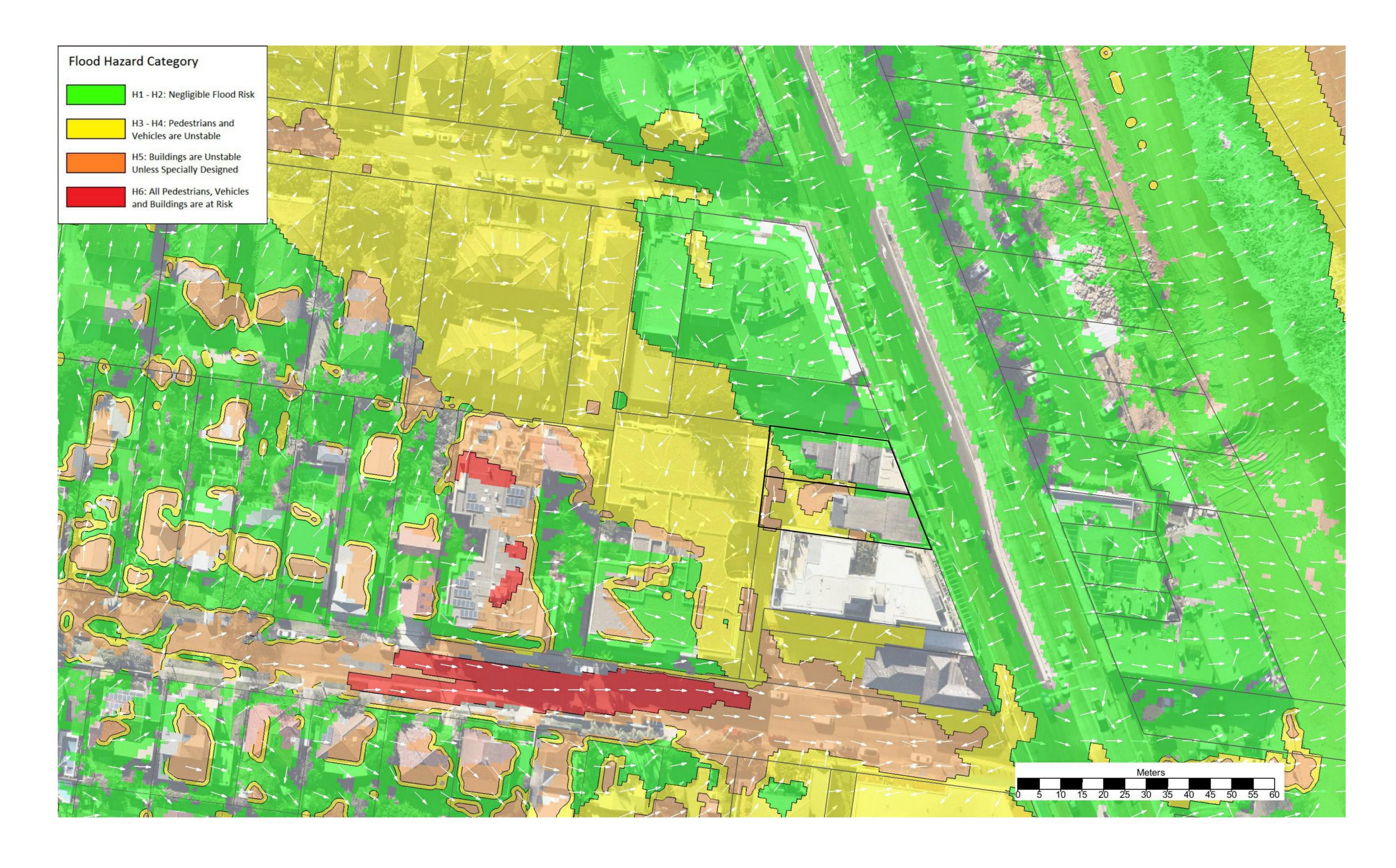
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NOTES:
- FLOOD HAZARD BASED ON AUSTRALIAN INSTITUTE FOR DISASTER RESILIENCE (2014) HAZARD CURVES

#### DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION FOR CONSTR

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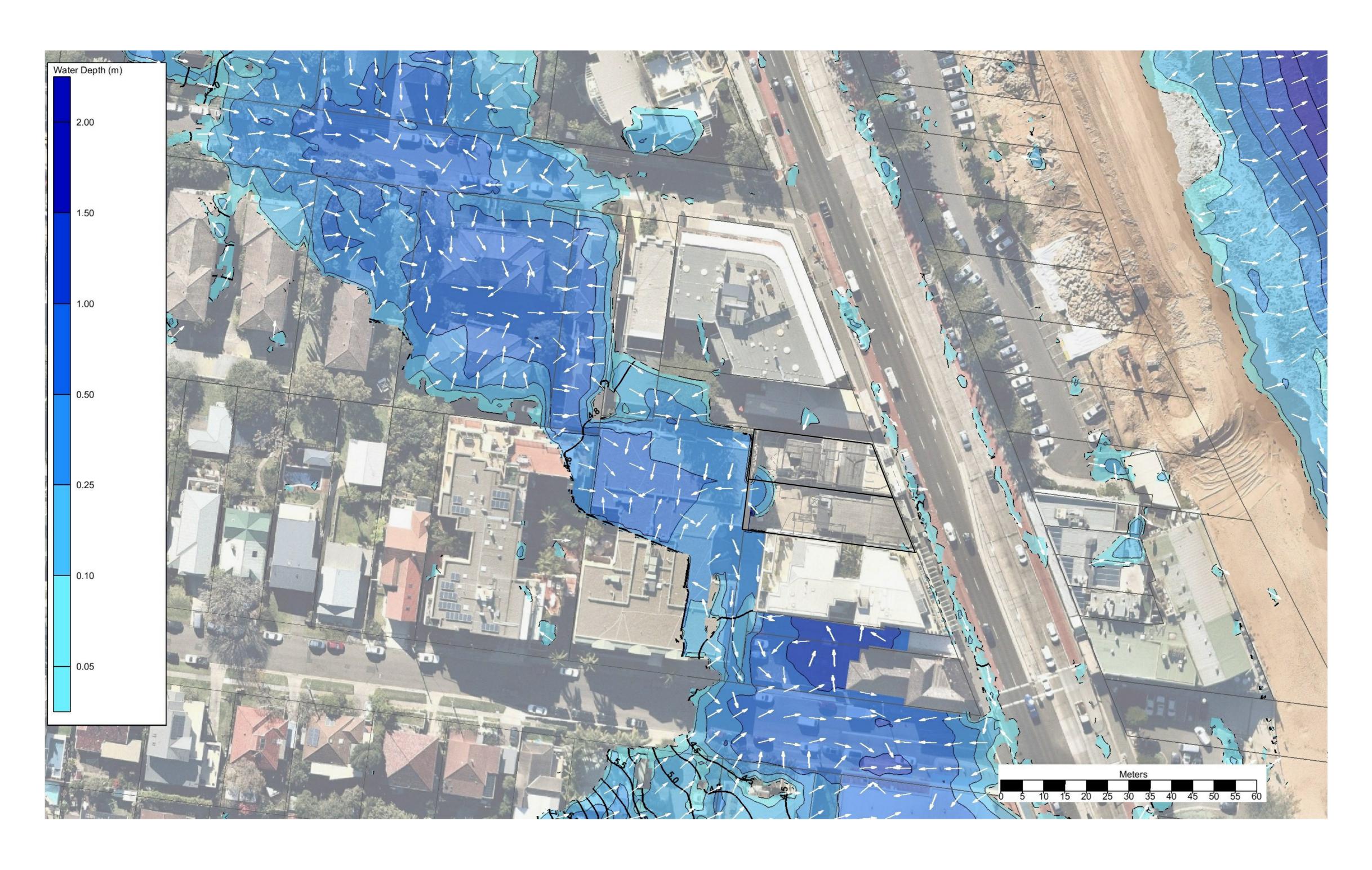
PMF CRITICAL STORM DURATION
EXISTING CONDITION
FLOOD HAZARD CATEGORIES

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PS02 R02 PS02-K113

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KEY	
SITE BOUNDARY	
PROPOSED LOT LAYOUT	

### DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION FOR CONSTR

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1% AEP CRITICAL STORM DURATION
PROPOSED CONDITION
WATER LEVEL (mAHD) & WATER DEPTH (m)

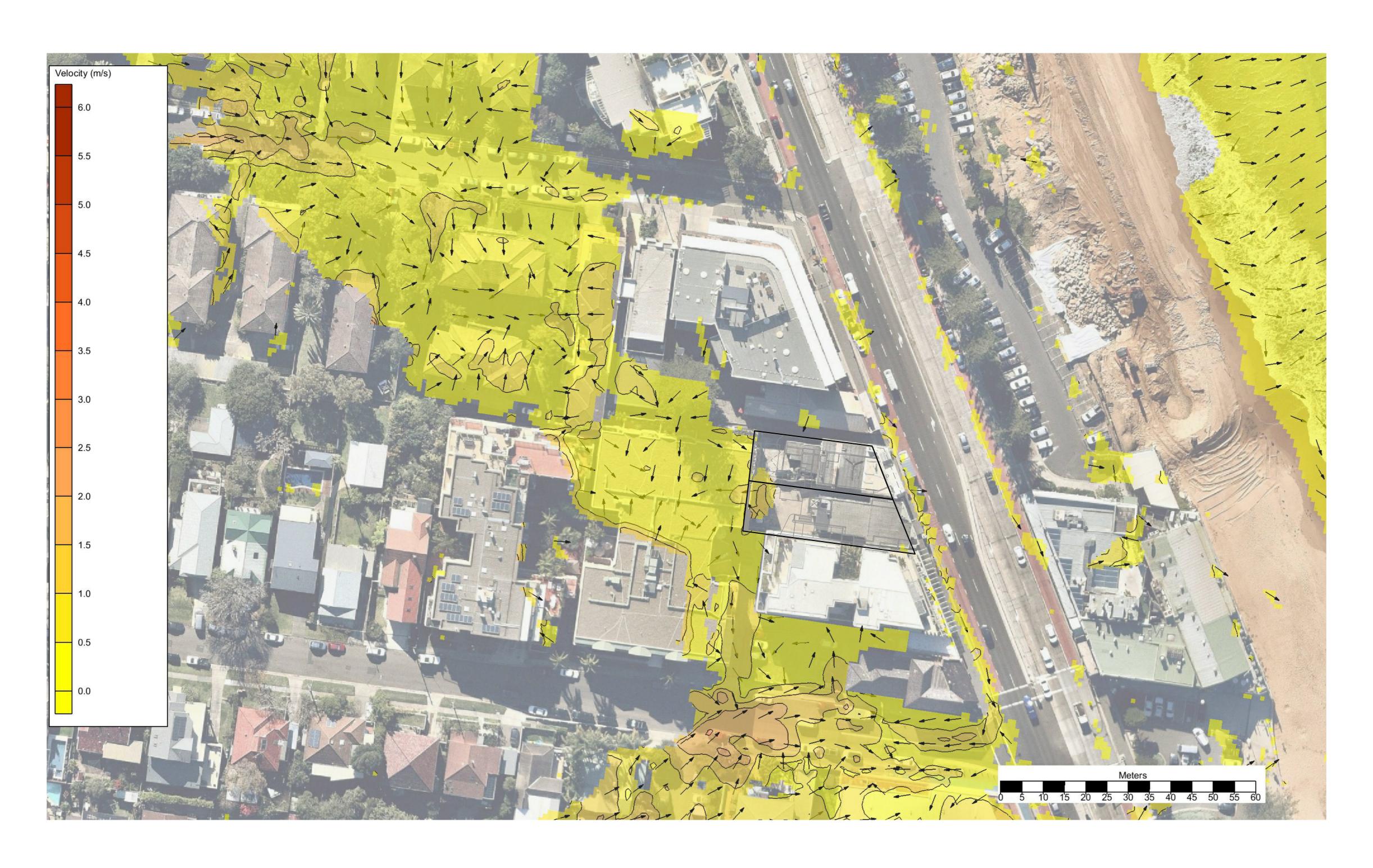
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Civil

PROJECT NO.
PLANSET NO. RELEASE NO.
DRAWING NO.
REVIS

PS02 R02 PS02-K200 B





KEY	
SITE BOUNDARY	
PROPOSED LOT LAYOUT	

#### DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION FOR CONSTR

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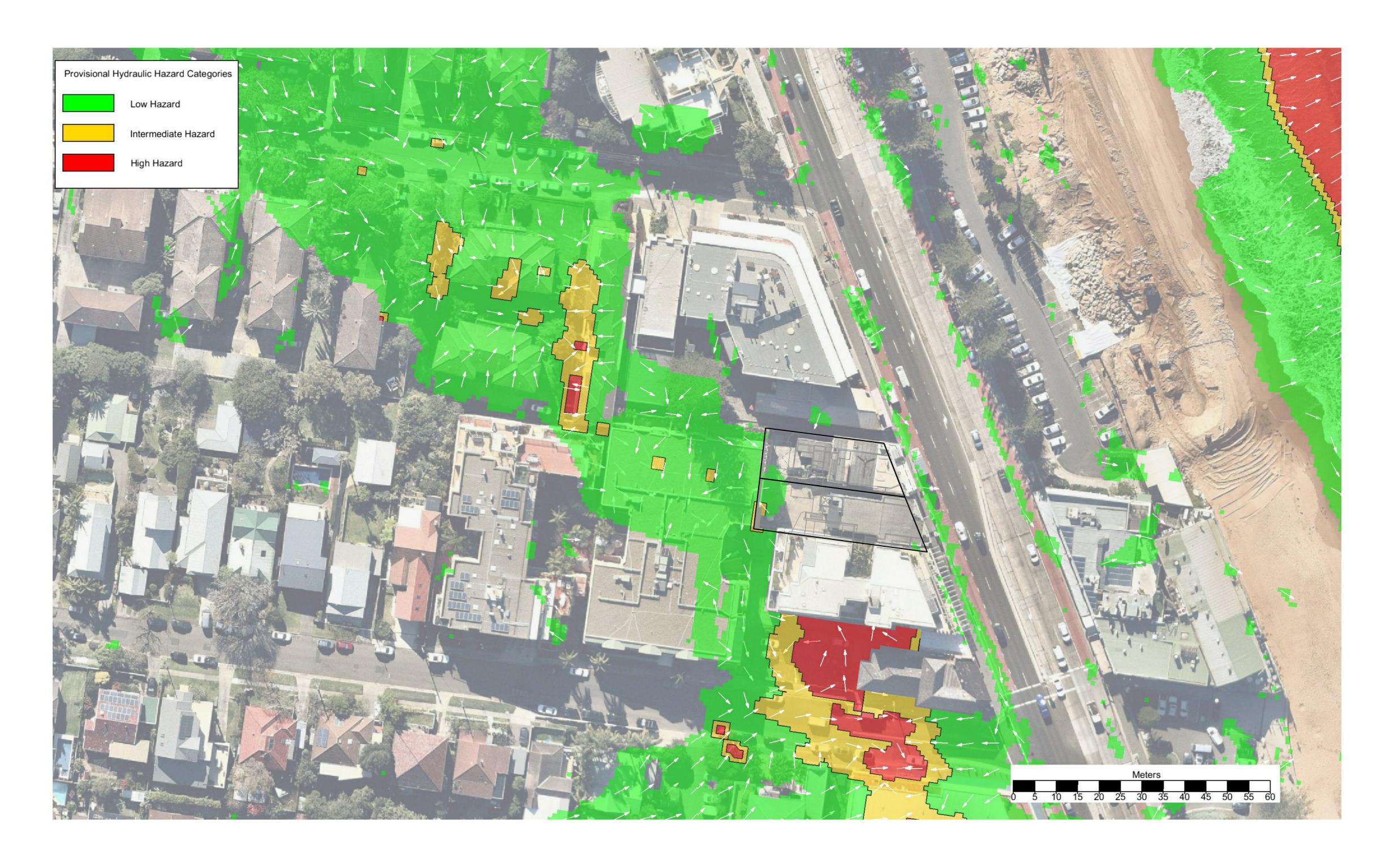
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1% AEP CRITICAL STORM DURATION PROPOSED CONDITION WATER VELOCITY (m/s) PLANSET NO. RELEASE NO. DRAWING NO.

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REVISION





SITE BOUNDARY PROPOSED LOT LAYOUT – HYDRAULIC HAZARD BASED ON NSW GOVERNMENT (2005) FLOODPLAIN DEVELOPMENT MANUAL PROVISIONAL HYDRAULIC HAZARD CATEGORIES.

## DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION FOR CONSTR

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ΕV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED APPRVD	SCALE	GRID	DATUM	PROJECT MANAGER	CLIENT
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1% AEP CRITICAL STORM DURATION PROPOSED CONDITION PROVISIONAL HYDRAULIC HAZARD CATEGORIES

PROJECT NO. PLANSET NO. RELEASE NO. DRAWING NO. REVISION Suite 201, 20 George St, Hornsby, NSW 2077 Australia Phone: (02) 9476 9999 Fax: (02) 9476 8767 Email: mail@martens.com.au Internet: www.martens.com.au 

A1 / A3 LANDSCAPE (A1LC\_v02.0.01)

SITE BOUNDARY	
PROPOSED LOT LAYOUT	

- FLOOD HAZARD BASED ON AUSTRALIAN INSTITUTE FOR DISASTER RESILIENCE (2014) HAZARD CURVES

DRAWN DESIGNED CHECKED APPRVD SCALE

A1 (A3) 1:500 (1:1,000)

PD PD/SL

PD

01/04/2020

25/03/2020 RK

DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION

PROJECT NAME/PLANSET TITLE **ENGINEERING SERVICES FOR DA** FLOOD ASSESSMENT 1129-1131 PITTWATER ROAD, COLLAROY, NSW LOT 4 DP 7445 AND LOT 1 DP 859613

PROJECT MANAGER | CLIENT

mAHD

All measurements in millimetres unless otherwise specified.

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LOTUS PROJECT MANAGEMENT PTY LTD

Consulting Engineers

1% AEP CRITICAL STORM DURATION PROPOSED CONDITION FLOOD HAZARD CATEGORIES

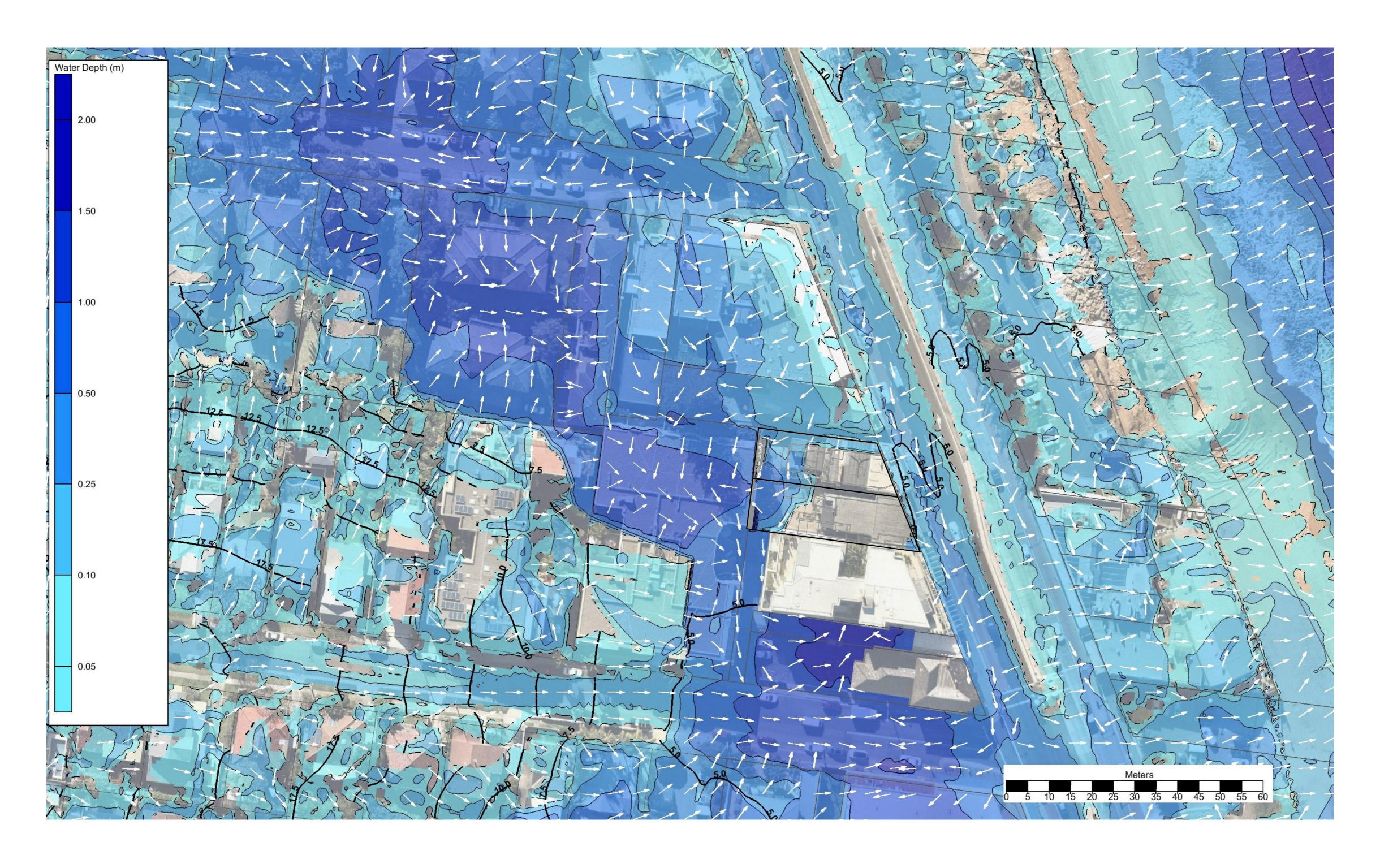
PLANSET NO. RELEASE NO. DRAWING NO. PROJECT NO. REVISION Suite 201, 20 George St, Hornsby, NSW 2077 Australia Phone: (02) 9476 9999 Fax: (02) 9476 8767 Email: mail@martens.com.au Internet: www.martens.com.au PS02-K203 

A1 / A3 LANDSCAPE (A1LC\_v02.0.01)

REV DESCRIPTION

A INITIAL RELEASE

B CHECKED AND APPROVED



KEY	
SITE BOUNDARY	
PROPOSED LOT LAYOUT	

DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION FOR CONSTR

REV DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD	SCALE	GRID	DATUM	PROJECT MANAGER	CLIENT	
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)A	<b>Martens</b> & Associates Pty Ltd	Envi Wate Geof Civil

PMF CRITICAL STORM DURATION
PROPOSED CONDITION
WATER LEVEL (mAHD) & WATER DEPTH (m)

Civil

PROJECT NO.

PLANSET NO. RELEASE NO.

DRAWING NO.

REVISION

PS02 R02

PS02-K210

PS02-K210

PROJECT NO.

PS02-K210

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PROJECT NO.

PLANSET NO. RELEASE NO.

PS02-K210

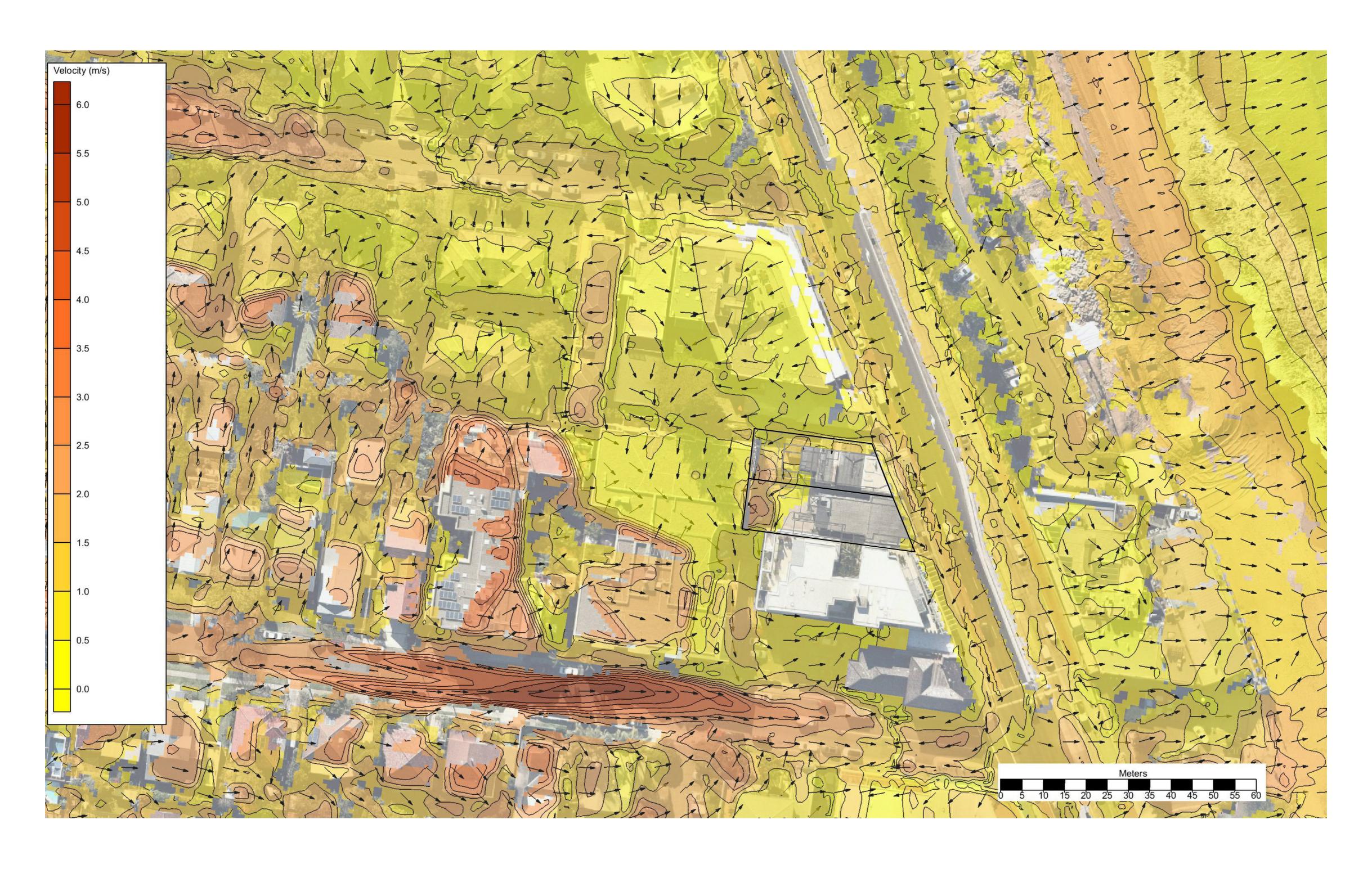
PROJECT NO.

PS02-K210

PROJECT NO.

PS02-K210





KEY	
SITE BOUNDARY	
PROPOSED LOT LAYOUT	

## DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION FOR CONSTR

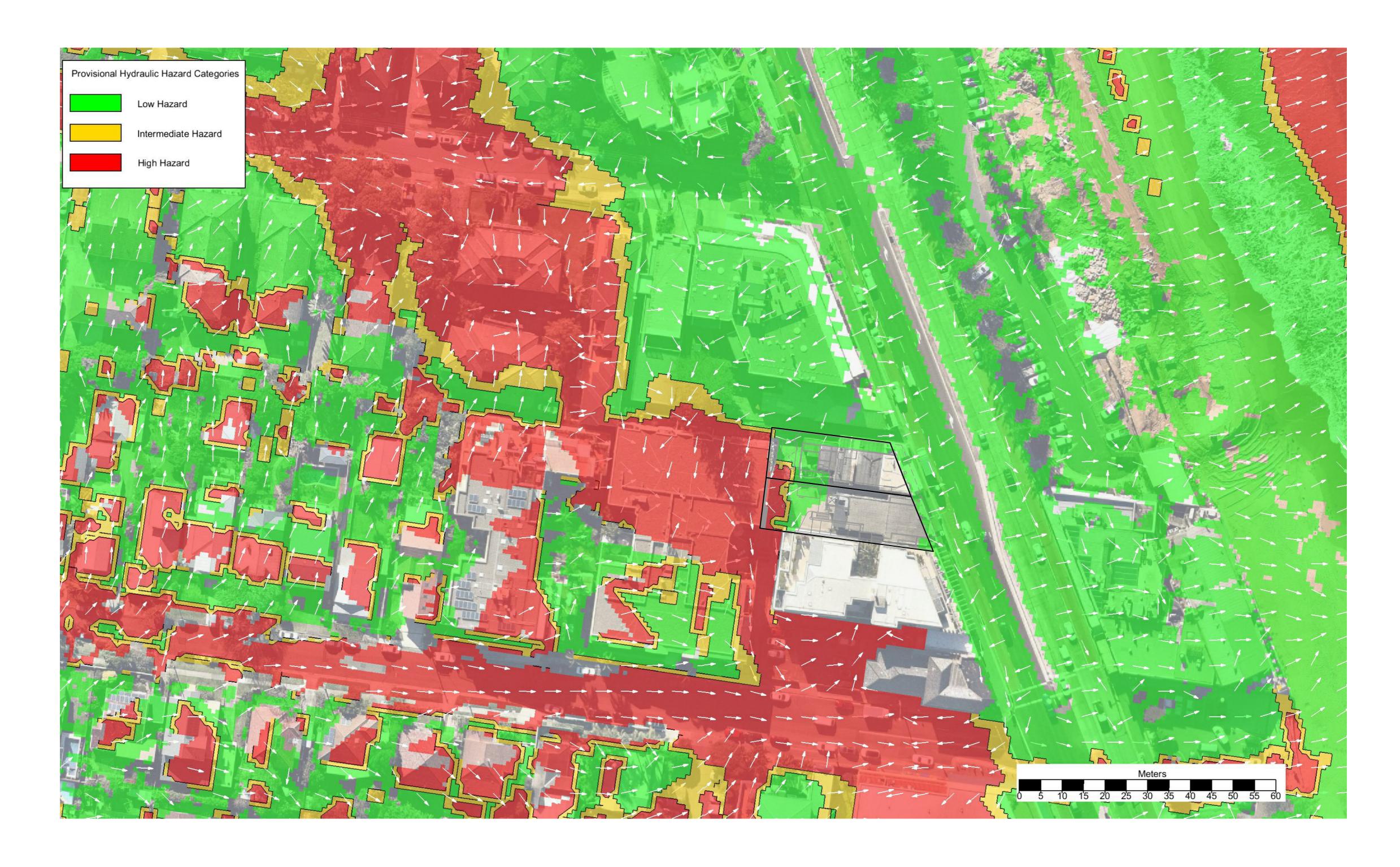
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	<b>martens</b> & Associates Pty Ltd	Enviro Water Geote Civil

sulting Engineers PROPOSED CONDITION technical

& Associates Pty Ltd	Water Geotechnical	PROPOSED CONDITION WATER VELOCITY (m/s)									
	Civil	PROJECT NO.	PLANSET NO.	RELEASE NO.	DRAWING NO.	REVISION					
Suite 201, 20 George St, Hornsby, NSW 2077 Australia Ph Email: mail@martens.com.au Internet:		P1907336	PS02	R02	PS02-K211	В					
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SITE BOUNDARY PROPOSED LOT LAYOUT – HYDRAULIC HAZARD BASED ON NSW GOVERNMENT (2005) FLOODPLAIN DEVELOPMENT MANUAL PROVISIONAL HYDRAULIC HAZARD CATEGORIES.

## DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION FOR CONSTR

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Consulting Engineers Environment Geotechnical

PMF CRITICAL STORM DURATION PROPOSED CONDITION PROVISIONAL HYDRAULIC HAZARD CATEGORIES PLANSET NO. RELEASE NO. DRAWING NO.

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A1 / A3 LANDSCAPE (A1LC\_v02.0.01)

REV DESCRIPTION

A INITIAL RELEASE

B CHECKED AND APPROVED

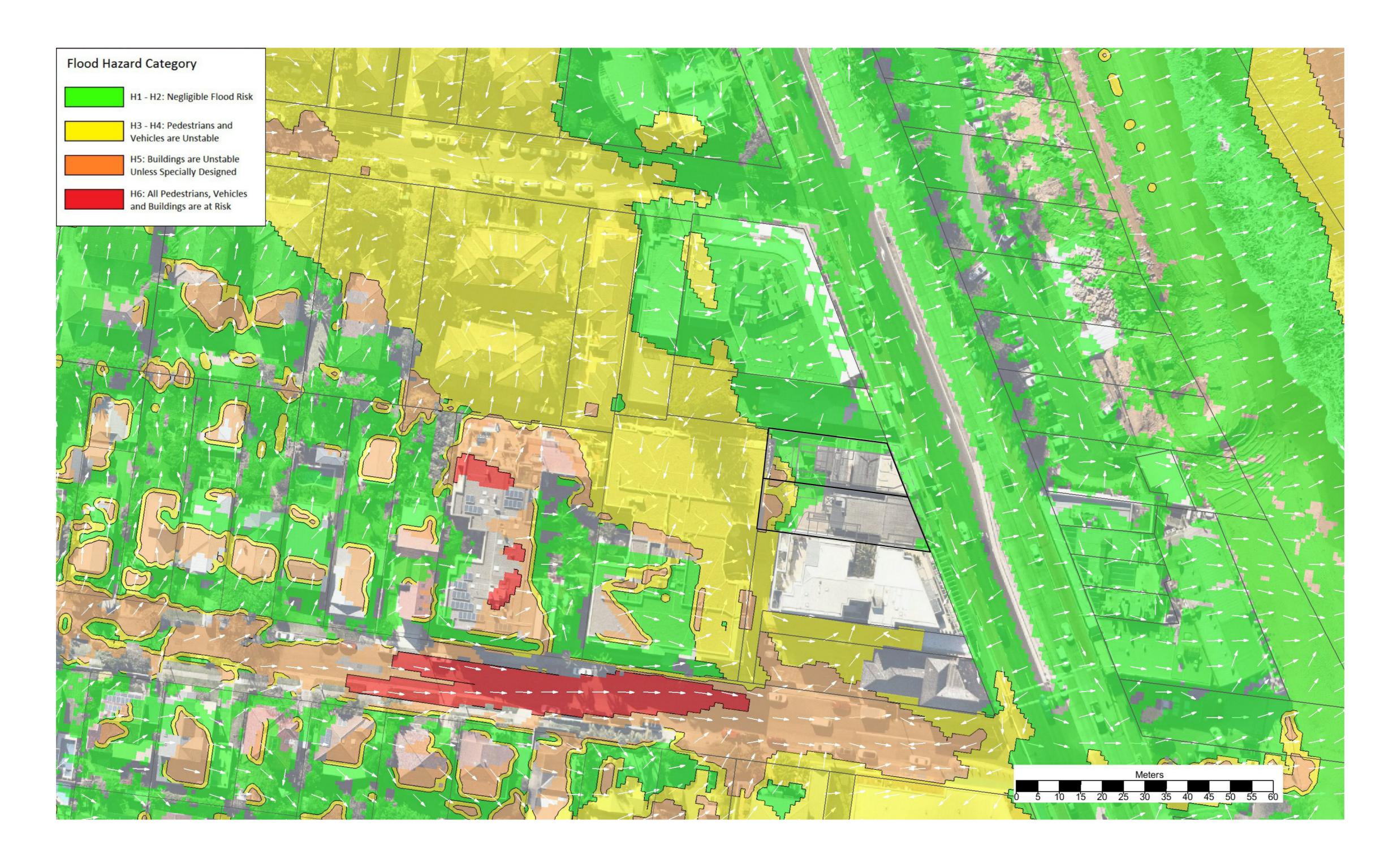
25/03/2020 RK PD

01/04/2020

DRAWN DESIGNED CHECKED APPRVD SCALE

RK PD PD/SL





KEY

SITE BOUNDARY

PROPOSED LOT LAYOUT

A1 / A3 LANDSCAPE (A1LC\_v02.0.01)

NOTES:
- FLOOD HAZARD BASED ON AUSTRALIAN INSTITUTE FOR DISASTER RESILIENCE (2014) HAZARD CURVES

## DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION FOR CONSTR

REV	DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD	SCALE	GRID	DATUM	PROJECT MANAGER	CLIENT
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PMF CRITICAL STORM DURATION
PROPOSED CONDITION
FLOOD HAZARD CATEGORIES

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PSO PROPOSED CONDITION
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KEY	
SITE BOUNDARY	
PROPOSED LOT LAYOUT	

NOTES:
- AREAS COLOURED WHITE REPRESENT NEGLIGIBLE CHANGE.
- AREAS COLOURED BLUE REPRESENT WATER LEVEL REDUCTION.
- AREAS COLOURED YELLOW / RED REPRESENT WATER LEVEL INCREASE.

### DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION FOR CONSTR

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PROJECT NO. PLANSET NO. RELEASE NO. DRAWING NO. REVISION
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DRAWING ID: P1907336-PS02-R02-K300

PS04-K300
PS05-K300
PS





KEY

SITE BOUNDARY

PROPOSED LOT LAYOUT

A1 / A3 LANDSCAPE (A1LC\_v02.0.01)

# NOTES: - AREAS COLOURED WHITE REPRESENT NEGLIGIBLE CHANGE. - AREAS COLOURED BLUE REPRESENT WATER LEVEL REDUCTION. - AREAS COLOURED YELLOW / RED REPRESENT WATER LEVEL INCREASE.

#### DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION FOR CONSTR

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	& Associates Pty Ltd	G Ci

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PMF CRITICAL STORM DURATION
PROPOSED CONDITION
WATER LEVEL AFFLUX (m)





KEY

SITE BOUNDARY

PROPOSED LOT LAYOUT

A1 / A3 LANDSCAPE (A1LC\_v02.0.01)

NOTES:
- AREAS COLOURED WHITE REPRESENT NEGLIGIBLE CHANGE.
- AREAS COLOURED YELLOW / RED REPRESENT WATER LEVEL INCREASE.

## DEVELOPMENT APPLICATION - NOT FOR CONSTRUCTION FOR CONSTR

RE\	V DESCRIPTION	DATE	DRAWN	DESIGNED	CHECKED	APPRVD	SCALE	GRID	DATUM	PROJECT MANAGER	CLIENT
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