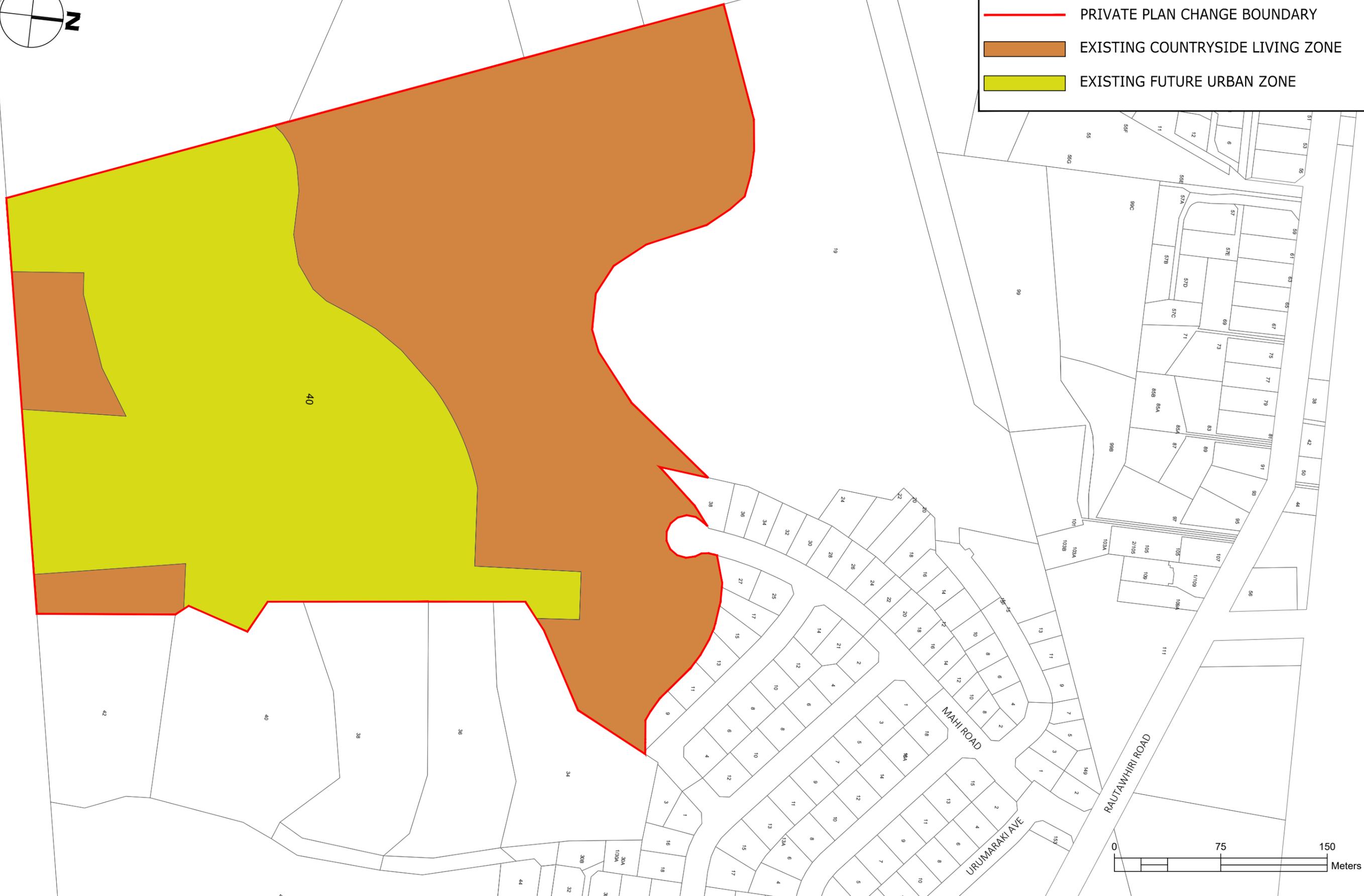




### LEGEND

- PRIVATE PLAN CHANGE BOUNDARY
- EXISTING COUNTRYSIDE LIVING ZONE
- EXISTING FUTURE URBAN ZONE



NO.	DATE	DESCRIPTION



40 MAHI ROAD  
HELENSVILLE

EXISTING ZONING  
PLAN

PRELIMINARY DESIGN			
EX-ZON-001			
SCALE	DATE	REVISION	DATE
1:1250	A3	A	27/01/25

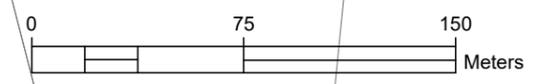
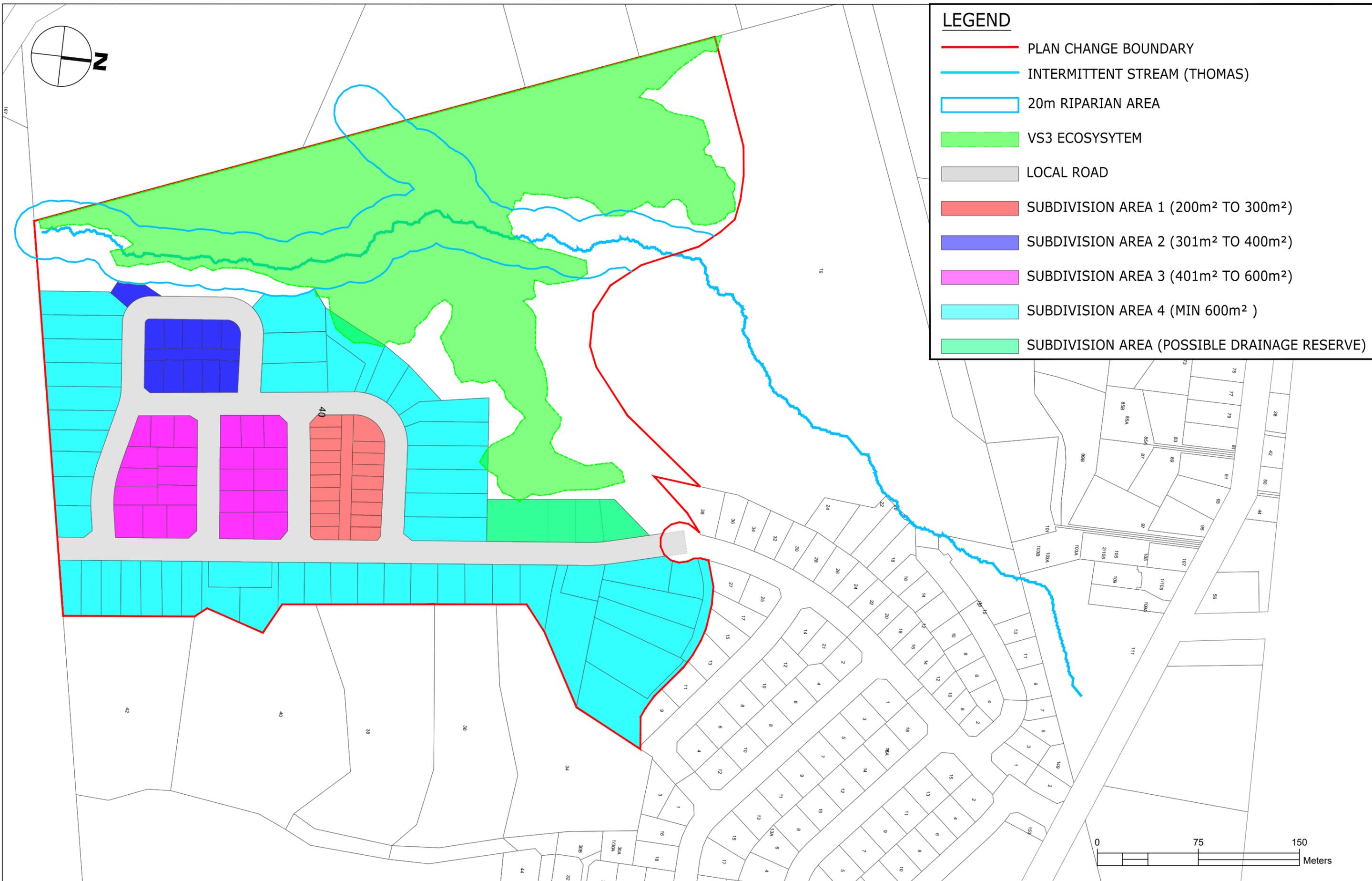
THIS DRAWING IN DESIGN IS THE PROPERTY OF CIVIX LIMITED. THIS DRAWING MAY NOT BE COPIED OR ALTERED WITHOUT WRITTEN APPROVAL FROM CIVIX LIMITED. NO LIABILITY IS ACCEPTED FOR UNAUTHORISED USE OF THIS DRAWING. LEVELS ARE IN TERMS OF LAND AND SURVEY DATUM. AREAS AND MEASUREMENTS ARE SUBJECT TO SURVEY





### LEGEND

- PLAN CHANGE BOUNDARY
- INTERMITTENT STREAM (THOMAS)
- 20m RIPARIAN AREA
- VS3 ECOSYSTEM
- LOCAL ROAD
- SUBDIVISION AREA 1 (200m<sup>2</sup> TO 300m<sup>2</sup>)
- SUBDIVISION AREA 2 (301m<sup>2</sup> TO 400m<sup>2</sup>)
- SUBDIVISION AREA 3 (401m<sup>2</sup> TO 600m<sup>2</sup>)
- SUBDIVISION AREA 4 (MIN 600m<sup>2</sup> )
- SUBDIVISION AREA (POSSIBLE DRAINAGE RESERVE)



NO.	DATE	DESCRIPTION

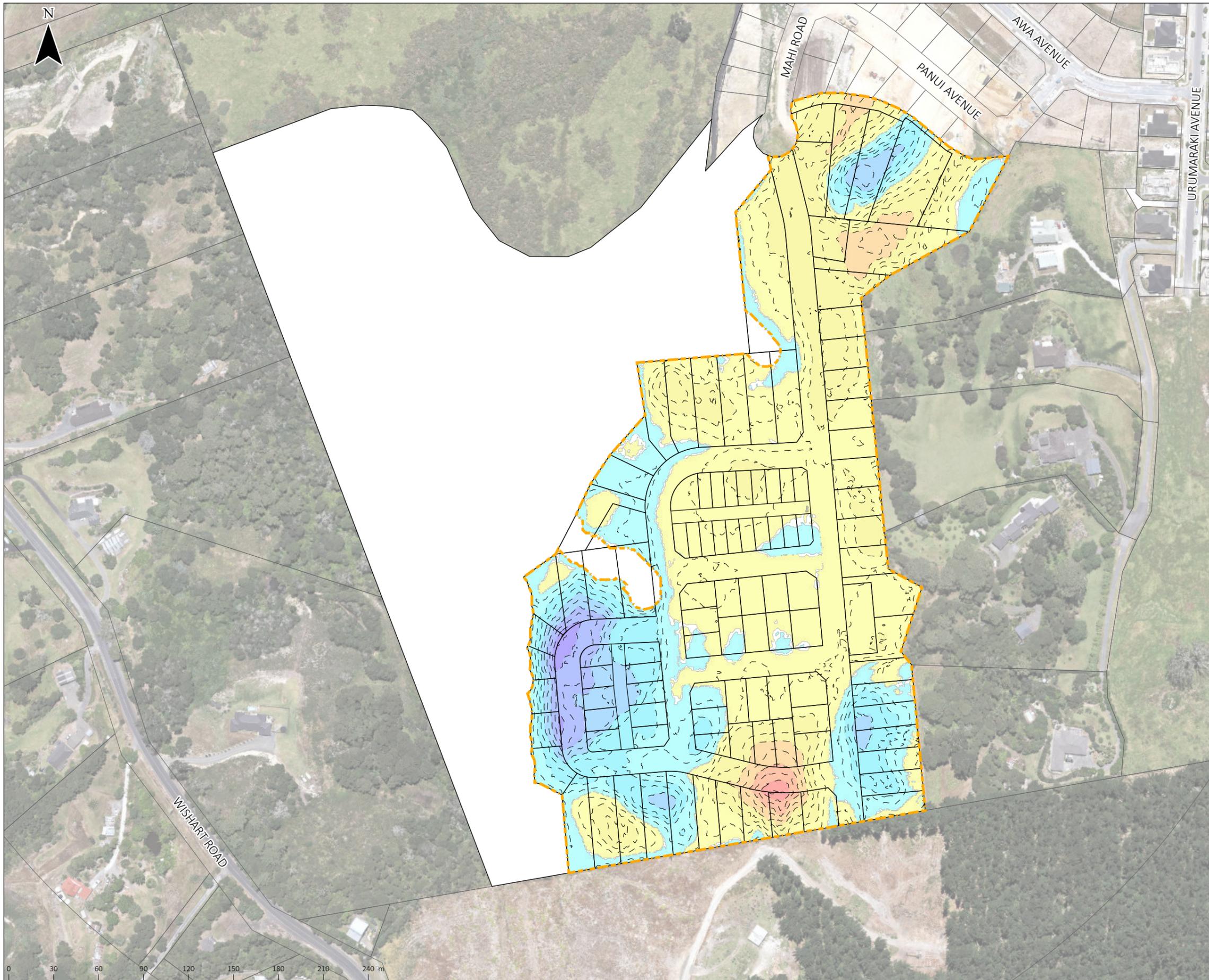


40 MAHI ROAD  
HELENSVILLE

PROPOSED CONCEPT  
MASTER PLAN

PRELIMINARY DESIGN			
PR-MP-001			
SCALE	DATE	REVISION	DATE
1:1250	A3	B	30/06/25

THIS DRAWING IN DESIGN IS THE PROPERTY OF CIVIX LIMITED. THIS DRAWING MAY NOT BE COPIED OR ALTERED WITHOUT WRITTEN APPROVAL FROM CIVIX LIMITED. NO LIABILITY IS ACCEPTED FOR UNAUTHORISED USE OF THIS DRAWING. LEVELS ARE IN TERMS OF LAND AND SURVEY DATUM. AREAS AND MEASUREMENTS ARE SUBJECT TO SURVEY



LEGEND:

RETAINING WALLS W DRAINAGE (H=HEIGHT, C=CHAINAGE, ARROWS SHOW FALL DIRECTION)

EARTHWORKS EXTENT

NEW PARCELS

EXISTING PARCELS

CUTFILL

-2.00m--0.05m	0.05-2.00m
-0.05-0.05m	2.00-4.00m
0.05-2.00m	4.00-6.00m
-10.00--8.00m	6.00-8.00m
-8.00--6.00m	8.00-10.00m
-6.00--4.00m	
-4.00--2.00m	

EW ID	UNITS	EW001	TOTAL
<b>AREA</b>	<b>m<sup>2</sup></b>	<b>88,968</b>	<b>88,968</b>
AREA OF FILL	m <sup>2</sup>	31,249	31,249
AREA OF CUT	m <sup>2</sup>	57,717	57,717
CUT	m <sup>3</sup>	96,415	96,415
<b>BULK TOTAL CUT</b>	<b>m<sup>3</sup></b>	<b>96,415</b>	<b>96,415</b>
<b>MAX CUT DEPTH</b>	<b>m</b>	<b>9.3</b>	<b>9.3</b>
BULK FILL	m <sup>3</sup>	69,658	69,658
FILL +15% BF.	m <sup>3</sup>	80,106	80,106
<b>BULK TOTAL FILL</b>	<b>m<sup>3</sup></b>	<b>69,658</b>	<b>69,658</b>
FILL IMPORT	m <sup>3</sup>	0	0
CUT TO FILL	m <sup>3</sup>	80,106	80,106
CUT TO WASTE	m <sup>3</sup>	16,309	16,309
<b>BULK TOTAL VOLUME</b>	<b>m<sup>3</sup></b>	<b>166,073</b>	<b>166,073</b>
MAX FILL HEIGHT	m	9.3	9.3
BULK IMPORT	Trucks	0	0
BULK TO WASTE	Trucks	2,718	2,718
BULK TOTAL	Trucks	2,718	2,718
<b>EARTHWORKS TOT. VOL.</b>	<b>m<sup>3</sup></b>	<b>166,073</b>	<b>166,073</b>
EARTHWORKS TOTAL TRUCKS	Trucks	2,718	2,718

Existing Surf. is finished ground level  
Proposed Surf. is Finished Surface

- NOTES:
- THIS DRAWING PROVIDES LOCATION AND HEIGHTS ONLY OF RETAINING WALLS. WALL TYPE(S) AND STRUCTURAL DETAILED DESIGN OF RETAINING WALL(S) BY OTHERS.
  - ALL WORK TO COMPLY WITH COUNCIL AND PUBLIC NETWORK OPERATOR STANDARDS. ANY AMBIGUITY BETWEEN DRAWINGS AND STANDARDS TO BE REPORTED TO THE ENGINEER FOR CLARIFICATION
  - THE CONTRACTOR IS TO PEG INFRASTRUCTURE LOCATIONS AND EARTHWORKS LEVELS PRIOR TO ORDERING MATERIALS.
  - UNDERFILL DRAINAGE IS TO BE INSTALLED AT THE DIRECTION OF THE ENGINEER. IF THE CONTRACTOR ENCOUNTERS SPRINGS OR OTHER SOURCES OF WATER, THEY ARE TO NOTIFY THE ENGINEER.
  - EARTHWORKS ARE NOT TO BE EXTENDED INTO ADJOINING SITES UNLESS THE ENGINEER HAS ISSUED SPECIFIC INSTRUCTIONS
  - THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING AND PROTECTING EXISTING SERVICES AND DRAINAGE ON SITE
  - THE CONTRACTOR SHALL CLARIFY THE AREAS AND EXTENT OF CLEARING WITH THE ENGINEER BEFORE COMMENCEMENT AND CONFIRM THAT ALL NECESSARY CONSENTS ARE IN PLACE.
  - EARTHWORKS TOLERANCES ARE TO BE +25mm
  - ALL VOLUMES ARE SOLID MEASURE, NO BULKING FACTOR APPLIED
  - RETAINING WALL SETOUT - EXACT SETTING OUT POSITION OF RETAINING WALLS IN RELATION TO LOT BOUNDARIES AND BUILDINGS TO BE OBTAINED FROM ARCHITECT OR STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION COMMENCING.

IMAGERY CREDITS  
Auckland Council, Maxar, Auckland Council, LINZ, LINZ, Stats NZ, Esri, TomTom, Garmin, Foursquare, METI/NASA, USGS

REV.	DATE	DESCRIPTION	DES.	REV.	REL.	LOGG.



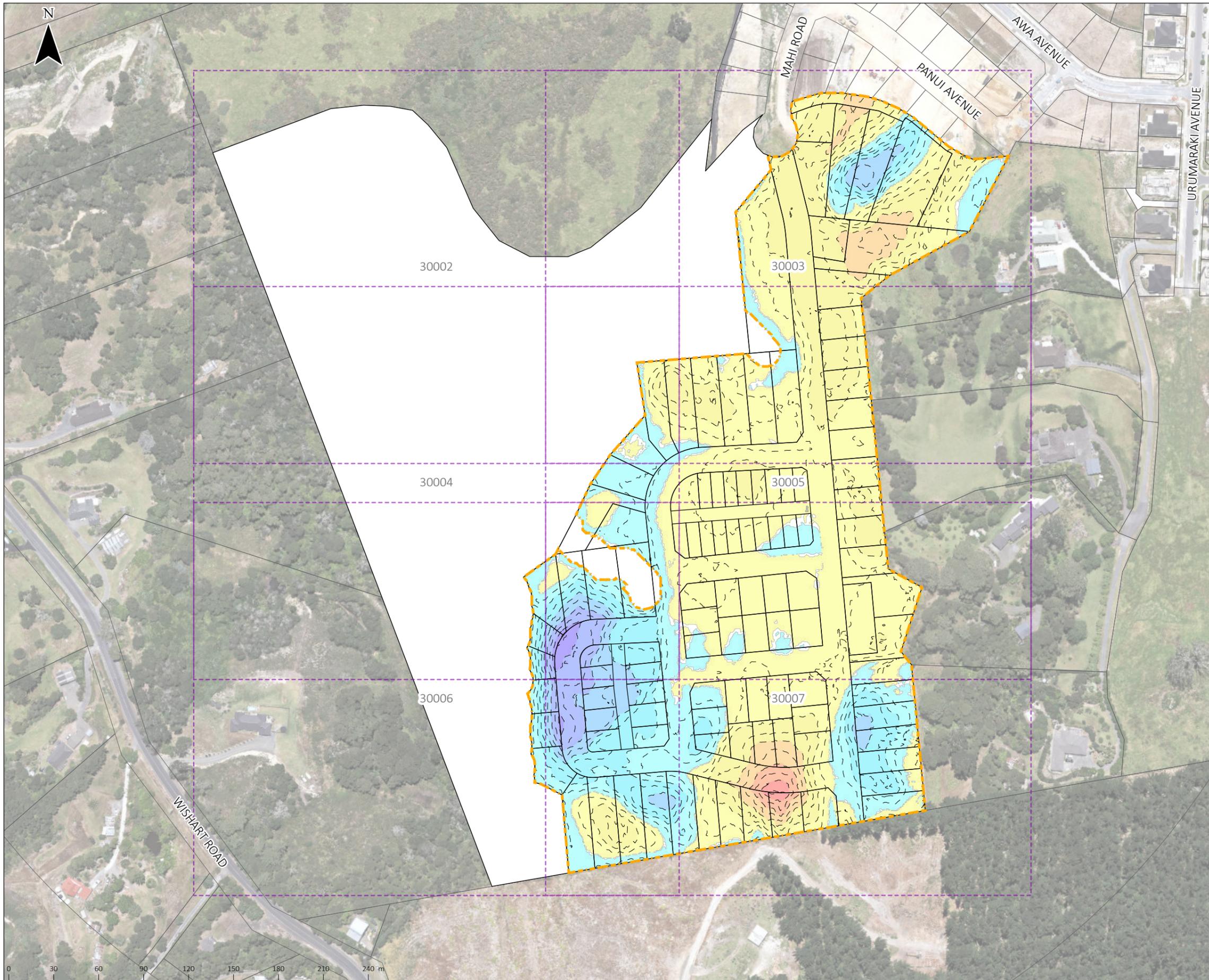
40 MAHI ROAD HELENSVILLE

CUT FILL PLAN

PRELIMINARY DESIGN

DRAWING NO: 30000

SCALE:	SIZE:	REVISION:	DATE:
1:2,500	A3	02/10/24	02/10/24



LEGEND:

RETAINING WALLS W DRAINAGE (H=HEIGHT, C=CHAINAGE, ARROWS SHOW FALL DIRECTION)

EARTHWORKS EXTENT

NEW PARCELS

EXISTING PARCELS

CUT/FILL

-2.00m--0.05m	0.05-0.05m
-0.05-0.05m	0.05-2.00m
2.00-4.00m	4.00-6.00m
6.00-8.00m	8.00-10.00m
-10.00--8.00m	
-8.00--6.00m	
-6.00--4.00m	
-4.00--2.00m	

EW ID	UNITS	EW001	TOTAL
<b>AREA</b>	<b>m<sup>2</sup></b>	<b>88,968</b>	<b>88,968</b>
AREA OF FILL	m <sup>2</sup>	31,249	31,249
AREA OF CUT	m <sup>2</sup>	57,717	57,717
CUT	m <sup>3</sup>	96,415	96,415
<b>BULK TOTAL CUT</b>	<b>m<sup>3</sup></b>	<b>96,415</b>	<b>96,415</b>
<b>MAX CUT DEPTH</b>	<b>m</b>	<b>9.3</b>	<b>9.3</b>
BULK FILL	m <sup>3</sup>	69,658	69,658
FILL +15% BF.	m <sup>3</sup>	80,106	80,106
<b>BULK TOTAL FILL</b>	<b>m<sup>3</sup></b>	<b>69,658</b>	<b>69,658</b>
FILL IMPORT	m <sup>3</sup>	0	0
CUT TO FILL	m <sup>3</sup>	80,106	80,106
CUT TO WASTE	m <sup>3</sup>	16,309	16,309
<b>BULK TOTAL VOLUME</b>	<b>m<sup>3</sup></b>	<b>166,073</b>	<b>166,073</b>
MAX FILL HEIGHT	m	9.3	9.3
BULK IMPORT	Trucks	0	0
BULK TO WASTE	Trucks	2,718	2,718
BULK TOTAL	Trucks	2,718	2,718
<b>EARTHWORKS TOT. VOL.</b>	<b>m<sup>3</sup></b>	<b>166,073</b>	<b>166,073</b>
EARTHWORKS TOTAL TRUCKS	Trucks	2,718	2,718

Existing Surf. is finished ground level  
Proposed Surf. is Finished Surface

- NOTES:
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  - ALL WORK TO COMPLY WITH COUNCIL AND PUBLIC NETWORK OPERATOR STANDARDS. ANY AMBIGUITY BETWEEN DRAWINGS AND STANDARDS TO BE REPORTED TO THE ENGINEER FOR CLARIFICATION
  - THE CONTRACTOR IS TO PEG INFRASTRUCTURE LOCATIONS AND EARTHWORKS LEVELS PRIOR TO ORDERING MATERIALS.
  - UNDERFILL DRAINAGE IS TO BE INSTALLED AT THE DIRECTION OF THE ENGINEER. IF THE CONTRACTOR ENCOUNTERS SPRINGS OR OTHER SOURCES OF WATER, THEY ARE TO NOTIFY THE ENGINEER.
  - EARTHWORKS ARE NOT TO BE EXTENDED INTO ADJOINING SITES UNLESS THE ENGINEER HAS ISSUED SPECIFIC INSTRUCTIONS
  - THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING AND PROTECTING EXISTING SERVICES AND DRAINAGE ON SITE
  - THE CONTRACTOR SHALL CLARIFY THE AREAS AND EXTENT OF CLEARING WITH THE ENGINEER BEFORE COMMENCEMENT AND CONFIRM THAT ALL NECESSARY CONSENTS ARE IN PLACE.
  - EARTHWORKS TOLERANCES ARE TO BE +25mm
  - ALL VOLUMES ARE SOLID MEASURE, NO BULKING FACTOR APPLIED
  - RETAINING WALL SETOUT - EXACT SETTING OUT POSITION OF RETAINING WALLS IN RELATION TO LOT BOUNDARIES AND BUILDINGS TO BE OBTAINED FROM ARCHITECT OR STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION COMMENCING.

IMAGERY CREDITS  
Auckland Council, Maxar, Auckland Council, LINZ, LINZ, Stats NZ, Esri, TomTom, Garmin, Foursquare, METI/NASA, USGS

REV.	DATE	DESCRIPTION	DES.	REV.	REL.	LOGG.



40 MAHI ROAD HELENSVILLE

CUT FILL PLAN

PRELIMINARY DESIGN

DRAWING NO: 30001

SCALE:	SIZE:	REVISION:	DATE:
1:2,500	A3	02/10/24	02/10/24



LEGEND:

	RETAINING WALLS W DRAINAGE (H=HEIGHT, C=CHAINAGE, ARROWS SHOW FALL DIRECTION)
	EARTHWORKS EXTENT -2.00m--0.05m
	NEW PARCELS -0.05-0.05m
	EXISTING PARCELS 0.05-2.00m
<b>CUTFILL</b>	
	-10.00--8.00m
	-8.00--6.00m
	-6.00--4.00m
	-4.00--2.00m
	2.00-4.00m
	4.00-6.00m
	6.00-8.00m
	8.00-10.00m

↓ 30003 ↓

EW ID	UNITS	EW001	TOTAL
<b>AREA</b>	<b>m<sup>2</sup></b>	<b>88,968</b>	<b>88,968</b>
AREA OF FILL	m <sup>2</sup>	31,249	31,249
AREA OF CUT	m <sup>2</sup>	57,717	57,717
CUT	m <sup>3</sup>	96,415	96,415
<b>BULK TOTAL CUT</b>	<b>m<sup>3</sup></b>	<b>96,415</b>	<b>96,415</b>
<b>MAX CUT DEPTH</b>	<b>m</b>	<b>9.3</b>	<b>9.3</b>
BULK FILL	m <sup>3</sup>	69,658	69,658
FILL +15% BF.	m <sup>3</sup>	80,106	80,106
<b>BULK TOTAL FILL</b>	<b>m<sup>3</sup></b>	<b>69,658</b>	<b>69,658</b>
FILL IMPORT	m <sup>3</sup>	0	0
CUT TO FILL	m <sup>3</sup>	80,106	80,106
CUT TO WASTE	m <sup>3</sup>	16,309	16,309
<b>BULK TOTAL VOLUME</b>	<b>m<sup>3</sup></b>	<b>166,073</b>	<b>166,073</b>
MAX FILL HEIGHT	m	9.3	9.3
BULK IMPORT	Trucks	0	0
BULK TO WASTE	Trucks	2,718	2,718
BULK TOTAL	Trucks	2,718	2,718
<b>EARTHWORKS TOT. VOL.</b>	<b>m<sup>3</sup></b>	<b>166,073</b>	<b>166,073</b>
EARTHWORKS TOTAL TRUCKS	Trucks	2,718	2,718

Existing Surf. is finished ground level  
Proposed Surf. is Finished Surface

- NOTES:
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  - ALL WORK TO COMPLY WITH COUNCIL AND PUBLIC NETWORK OPERATOR STANDARDS. ANY AMBIGUITY BETWEEN DRAWINGS AND STANDARDS TO BE REPORTED TO THE ENGINEER FOR CLARIFICATION
  - THE CONTRACTOR IS TO PEG INFRASTRUCTURE LOCATIONS AND EARTHWORKS LEVELS PRIOR TO ORDERING MATERIALS.
  - UNDERFILL DRAINAGE IS TO BE INSTALLED AT THE DIRECTION OF THE ENGINEER. IF THE CONTRACTOR ENCOUNTERS SPRINGS OR OTHER SOURCES OF WATER, THEY ARE TO NOTIFY THE ENGINEER.
  - EARTHWORKS ARE NOT TO BE EXTENDED INTO ADJOINING SITES UNLESS THE ENGINEER HAS ISSUED SPECIFIC INSTRUCTIONS
  - THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING AND PROTECTING EXISTING SERVICES AND DRAINAGE ON SITE
  - THE CONTRACTOR SHALL CLARIFY THE AREAS AND EXTENT OF CLEARING WITH THE ENGINEER BEFORE COMMENCEMENT AND CONFIRM THAT ALL NECESSARY CONSENTS ARE IN PLACE.
  - EARTHWORKS TOLERANCES ARE TO BE +25mm
  - ALL VOLUMES ARE SOLID MEASURE, NO BULKING FACTOR APPLIED
  - RETAINING WALL SETOUT - EXACT SETTING OUT POSITION OF RETAINING WALLS IN RELATION TO LOT BOUNDARIES AND BUILDINGS TO BE OBTAINED FROM ARCHITECT OR STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION COMMENCING.

IMAGERY CREDITS  
Auckland Council, Maxar, Auckland Council, LINZ, Esri Community Maps Contributors, LINZ, Stats NZ, Esri, TomTom, Garmin, Foursquare, METI/NASA, USGS

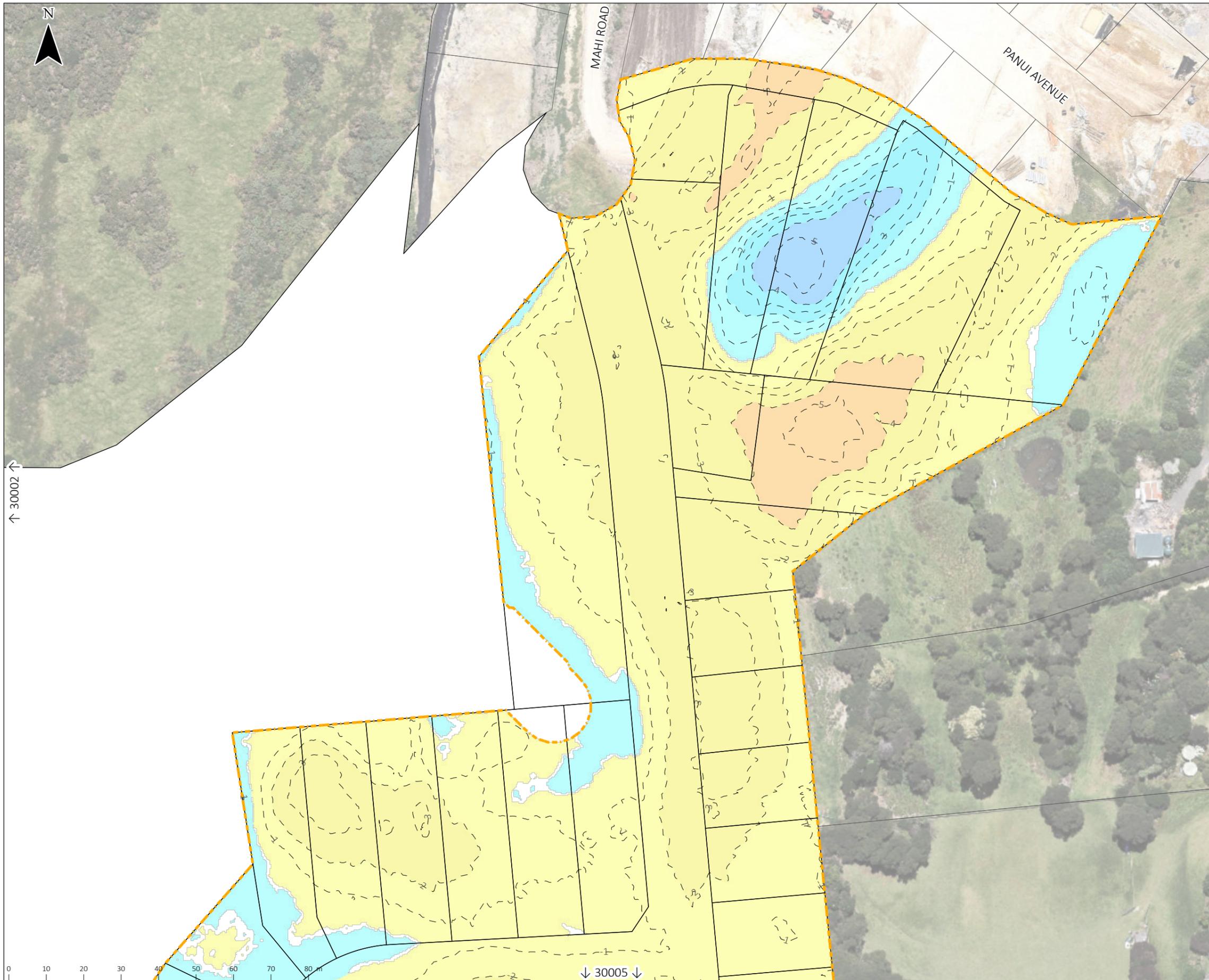
REV.	DATE	DESCRIPTION	DES.	REV.	REL.	LOGG.



PROJECT: 40 MAHI ROAD HELENSVILLE

TITLE: CUT FILL PLAN

STATUS: PRELIMINARY DESIGN			
DRAWING NO: 30002			
SCALE: 1:1,000	SIZE: A3	REVISION: 02/10/24	DATE: 02/10/24



LEGEND:

RETAINING WALLS W DRAINAGE (H=HEIGHT, C=CHAINAGE, ARROWS SHOW FALL DIRECTION)

EARTHWORKS EXTENT

NEW PARCELS

EXISTING PARCELS

CUTFILL

-2.00m--0.05m	0.05-2.00m
-0.05-0.05m	2.00-4.00m
-10.00--8.00m	4.00-6.00m
-8.00--6.00m	6.00-8.00m
-6.00--4.00m	8.00-10.00m
-4.00--2.00m	

EW ID	UNITS	EW001	TOTAL
<b>AREA</b>	<b>m<sup>2</sup></b>	<b>88,968</b>	<b>88,968</b>
AREA OF FILL	m <sup>2</sup>	31,249	31,249
AREA OF CUT	m <sup>2</sup>	57,717	57,717
CUT	m <sup>3</sup>	96,415	96,415
<b>BULK TOTAL CUT</b>	<b>m<sup>3</sup></b>	<b>96,415</b>	<b>96,415</b>
<b>MAX CUT DEPTH</b>	<b>m</b>	<b>9.3</b>	<b>9.3</b>
BULK FILL	m <sup>3</sup>	69,658	69,658
FILL +15% BF.	m <sup>3</sup>	80,106	80,106
<b>BULK TOTAL FILL</b>	<b>m<sup>3</sup></b>	<b>69,658</b>	<b>69,658</b>
FILL IMPORT	m <sup>3</sup>	0	0
CUT TO FILL	m <sup>3</sup>	80,106	80,106
CUT TO WASTE	m <sup>3</sup>	16,309	16,309
<b>BULK TOTAL VOLUME</b>	<b>m<sup>3</sup></b>	<b>166,073</b>	<b>166,073</b>
MAX FILL HEIGHT	m	9.3	9.3
BULK IMPORT	Trucks	0	0
BULK TO WASTE	Trucks	2,718	2,718
BULK TOTAL	Trucks	2,718	2,718
<b>EARTHWORKS TOT. VOL.</b>	<b>m<sup>3</sup></b>	<b>166,073</b>	<b>166,073</b>
EARTHWORKS TOTAL TRUCKS	Trucks	2,718	2,718

Existing Surf. is finished ground level  
Proposed Surf. is Finished Surface

- NOTES:
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  - THE CONTRACTOR IS TO PEG INFRASTRUCTURE LOCATIONS AND EARTHWORKS LEVELS PRIOR TO ORDERING MATERIALS.
  - UNDERFILL DRAINAGE IS TO BE INSTALLED AT THE DIRECTION OF THE ENGINEER. IF THE CONTRACTOR ENCOUNTERS SPRINGS OR OTHER SOURCES OF WATER, THEY ARE TO NOTIFY THE ENGINEER.
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  - THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING AND PROTECTING EXISTING SERVICES AND DRAINAGE ON SITE.
  - THE CONTRACTOR SHALL CLARIFY THE AREAS AND EXTENT OF CLEARING WITH THE ENGINEER BEFORE COMMENCEMENT AND CONFIRM THAT ALL NECESSARY CONSENTS ARE IN PLACE.
  - EARTHWORKS TOLERANCES ARE TO BE +25mm
  - ALL VOLUMES ARE SOLID MEASURE, NO BULKING FACTOR APPLIED
  - RETAINING WALL SETOUT - EXACT SETTING OUT POSITION OF RETAINING WALLS IN RELATION TO LOT BOUNDARIES AND BUILDINGS TO BE OBTAINED FROM ARCHITECT OR STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION COMMENCING.

IMAGERY CREDITS  
Auckland Council, Maxar, Auckland Council, LINZ, Esri Community Maps Contributors, LINZ, Stats NZ, Esri, TomTom, Garmin, Foursquare, METI/NASA, USGS

REV.	DATE	DESCRIPTION	DES.	REV.	REL.	LOGO

SCAN FOR 3D:

allsite.ci



40 MAHI ROAD HELENSVILLE

CUT FILL PLAN

PRELIMINARY DESIGN

DRAWING NO: 30003

SCALE:	SIZE:	REVISION:	DATE:
1:1,000	A3	02/10/24	02/10/24



↑ 30002 ↑



LEGEND:

RETAINING WALLS W DRAINAGE (H=HEIGHT, C=CHAINAGE, ARROWS SHOW FALL DIRECTION)

EARTHWORKS EXTENT -2.00m--0.05m

NEW PARCELS -0.05-0.05m

EXISTING PARCELS 0.05-2.00m

CUTFILL

-10.00--8.00m

-8.00--6.00m

-6.00--4.00m

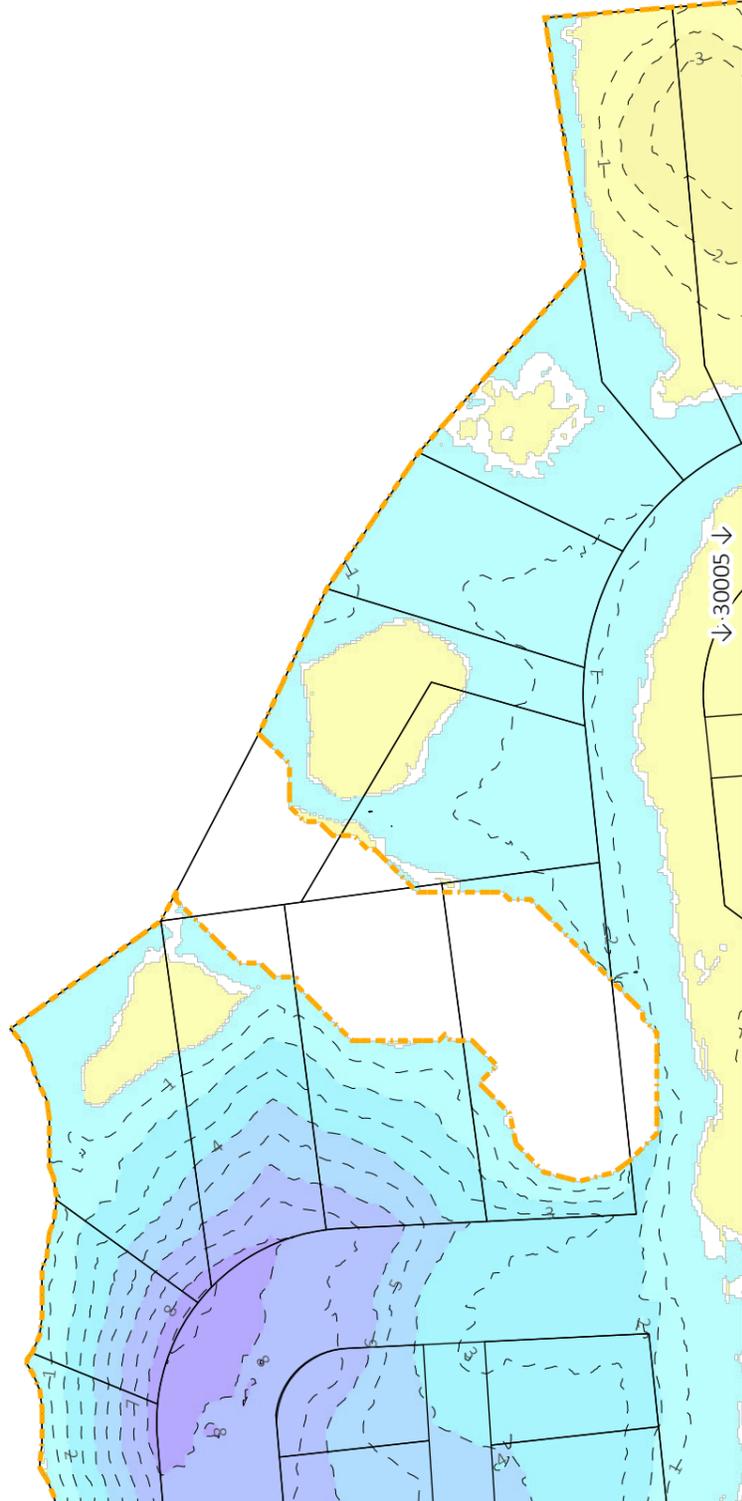
-4.00--2.00m

2.00-4.00m

4.00-6.00m

6.00-8.00m

8.00-10.00m



EW ID	UNITS	EW001	TOTAL
<b>AREA</b>	<b>m<sup>2</sup></b>	<b>88,968</b>	<b>88,968</b>
AREA OF FILL	m <sup>2</sup>	31,249	31,249
AREA OF CUT	m <sup>2</sup>	57,717	57,717
CUT	m <sup>3</sup>	96,415	96,415
<b>BULK TOTAL CUT</b>	<b>m<sup>3</sup></b>	<b>96,415</b>	<b>96,415</b>
<b>MAX CUT DEPTH</b>	<b>m</b>	<b>9.3</b>	<b>9.3</b>
BULK FILL	m <sup>3</sup>	69,658	69,658
FILL +15% BF.	m <sup>3</sup>	80,106	80,106
<b>BULK TOTAL FILL</b>	<b>m<sup>3</sup></b>	<b>69,658</b>	<b>69,658</b>
FILL IMPORT	m <sup>3</sup>	0	0
CUT TO FILL	m <sup>3</sup>	80,106	80,106
CUT TO WASTE	m <sup>3</sup>	16,309	16,309
<b>BULK TOTAL VOLUME</b>	<b>m<sup>3</sup></b>	<b>166,073</b>	<b>166,073</b>
MAX FILL HEIGHT	m	9.3	9.3
BULK IMPORT	Trucks	0	0
BULK TO WASTE	Trucks	2,718	2,718
BULK TOTAL	Trucks	2,718	2,718
<b>EARTHWORKS TOT. VOL.</b>	<b>m<sup>3</sup></b>	<b>166,073</b>	<b>166,073</b>
EARTHWORKS TOTAL TRUCKS	Trucks	2,718	2,718

Existing Surf. is finished ground level  
Proposed Surf. is Finished Surface

- NOTES:
1. THIS DRAWING PROVIDES LOCATION AND HEIGHTS ONLY OF RETAINING WALLS. WALL TYPE(S) AND STRUCTURAL DETAILED DESIGN OF RETAINING WALL(S) BY OTHERS.
  2. ALL WORK TO COMPLY WITH COUNCIL AND PUBLIC NETWORK OPERATOR STANDARDS. ANY AMBIGUITY BETWEEN DRAWINGS AND STANDARDS TO BE REPORTED TO THE ENGINEER FOR CLARIFICATION
  3. THE CONTRACTOR IS TO PEG INFRASTRUCTURE LOCATIONS AND EARTHWORKS LEVELS PRIOR TO ORDERING MATERIALS.
  4. UNDERFILL DRAINAGE IS TO BE INSTALLED AT THE DIRECTION OF THE ENGINEER. IF THE CONTRACTOR ENCOUNTERS SPRINGS OR OTHER SOURCES OF WATER, THEY ARE TO NOTIFY THE ENGINEER.
  5. EARTHWORKS ARE NOT TO BE EXTENDED INTO ADJOINING SITES UNLESS THE ENGINEER HAS ISSUED SPECIFIC INSTRUCTIONS
  6. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING AND PROTECTING EXISTING SERVICES AND DRAINAGE ON SITE
  7. THE CONTRACTOR SHALL CLARIFY THE AREAS AND EXTENT OF CLEARING WITH THE ENGINEER BEFORE COMMENCEMENT AND CONFIRM THAT ALL NECESSARY CONSENTS ARE IN PLACE.
  8. EARTHWORKS TOLERANCES ARE TO BE +25mm
  9. ALL VOLUMES ARE SOLID MEASURE, NO BULKING FACTOR APPLIED
  10. RETAINING WALL SETOUT - EXACT SETTING OUT POSITION OF RETAINING WALLS IN RELATION TO LOT BOUNDARIES AND BUILDINGS TO BE OBTAINED FROM ARCHITECT OR STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION COMMENCING.

IMAGERY CREDITS  
Auckland Council, Maxar, Auckland Council, LINZ, Esri Community Maps Contributors, LINZ, Stats NZ, Esri, TomTom, Garmin, Foursquare, METI/NASA, USGS

REV.	DATE	DESCRIPTION	DES.	REV.	REL.	LOGG.



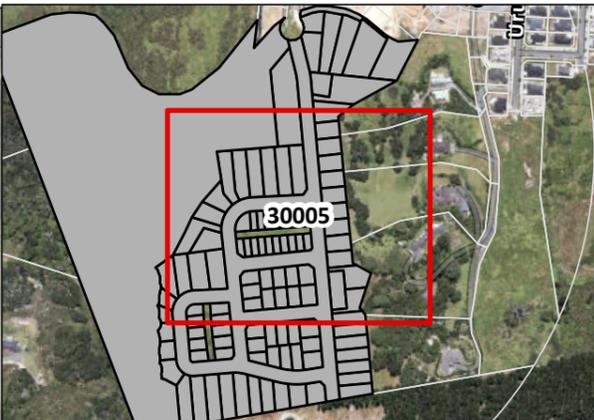
40 MAHI ROAD HELENSVILLE

CUT FILL PLAN

PRELIMINARY DESIGN

DRAWING NO: 30004

SCALE: 1:1,000 SIZE: A3 REVISION: 02/10/24 DATE: 02/10/24



LEGEND:

RETAINING WALLS W DRAINAGE (H=HEIGHT, C=CHAINAGE, ARROWS SHOW FALL DIRECTION)

EARTHWORKS EXTENT

NEW PARCELS

EXISTING PARCELS

CUTFILL

-2.00m--0.05m	0.05-2.00m
-0.05-0.05m	2.00-4.00m
-10.00--8.00m	4.00-6.00m
-8.00--6.00m	6.00-8.00m
-6.00--4.00m	8.00-10.00m
-4.00--2.00m	

EW ID	UNITS	EW001	TOTAL
<b>AREA</b>	<b>m<sup>2</sup></b>	<b>88,968</b>	<b>88,968</b>
AREA OF FILL	m <sup>2</sup>	31,249	31,249
AREA OF CUT	m <sup>2</sup>	57,717	57,717
CUT	m <sup>3</sup>	96,415	96,415
<b>BULK TOTAL CUT</b>	<b>m<sup>3</sup></b>	<b>96,415</b>	<b>96,415</b>
<b>MAX CUT DEPTH</b>	<b>m</b>	<b>9.3</b>	<b>9.3</b>
BULK FILL	m <sup>3</sup>	69,658	69,658
FILL +15% BF.	m <sup>3</sup>	80,106	80,106
<b>BULK TOTAL FILL</b>	<b>m<sup>3</sup></b>	<b>69,658</b>	<b>69,658</b>
FILL IMPORT	m <sup>3</sup>	0	0
CUT TO FILL	m <sup>3</sup>	80,106	80,106
CUT TO WASTE	m <sup>3</sup>	16,309	16,309
<b>BULK TOTAL VOLUME</b>	<b>m<sup>3</sup></b>	<b>166,073</b>	<b>166,073</b>
MAX FILL HEIGHT	m	9.3	9.3
BULK IMPORT	Trucks	0	0
BULK TO WASTE	Trucks	2,718	2,718
BULK TOTAL	Trucks	2,718	2,718
<b>EARTHWORKS TOT. VOL.</b>	<b>m<sup>3</sup></b>	<b>166,073</b>	<b>166,073</b>
EARTHWORKS TOTAL TRUCKS	Trucks	2,718	2,718

Existing Surf. is finished ground level  
Proposed Surf. is Finished Surface

- NOTES:
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  - ALL WORK TO COMPLY WITH COUNCIL AND PUBLIC NETWORK OPERATOR STANDARDS. ANY AMBIGUITY BETWEEN DRAWINGS AND STANDARDS TO BE REPORTED TO THE ENGINEER FOR CLARIFICATION
  - THE CONTRACTOR IS TO PEG INFRASTRUCTURE LOCATIONS AND EARTHWORKS LEVELS PRIOR TO ORDERING MATERIALS.
  - UNDERFILL DRAINAGE IS TO BE INSTALLED AT THE DIRECTION OF THE ENGINEER. IF THE CONTRACTOR ENCOUNTERS SPRINGS OR OTHER SOURCES OF WATER, THEY ARE TO NOTIFY THE ENGINEER.
  - EARTHWORKS ARE NOT TO BE EXTENDED INTO ADJOINING SITES UNLESS THE ENGINEER HAS ISSUED SPECIFIC INSTRUCTIONS
  - THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING AND PROTECTING EXISTING SERVICES AND DRAINAGE ON SITE
  - THE CONTRACTOR SHALL CLARIFY THE AREAS AND EXTENT OF CLEARING WITH THE ENGINEER BEFORE COMMENCEMENT AND CONFIRM THAT ALL NECESSARY CONSENTS ARE IN PLACE.
  - EARTHWORKS TOLERANCES ARE TO BE +25mm
  - ALL VOLUMES ARE SOLID MEASURE, NO BULKING FACTOR APPLIED
  - RETAINING WALL SETOUT - EXACT SETTING OUT POSITION OF RETAINING WALLS IN RELATION TO LOT BOUNDARIES AND BUILDINGS TO BE OBTAINED FROM ARCHITECT OR STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION COMMENCING.

IMAGERY CREDITS  
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REV.	DATE	DESCRIPTION	DES.	REV.	REL.	LOGO



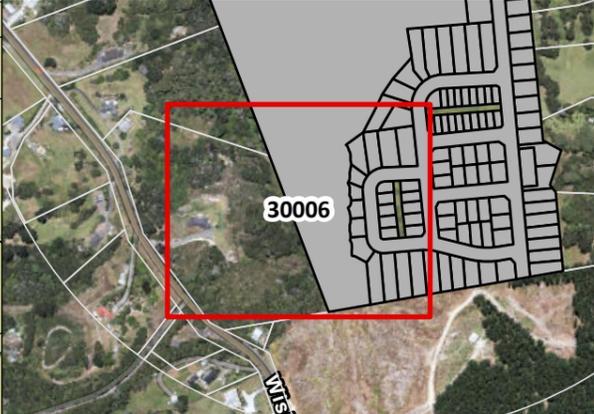
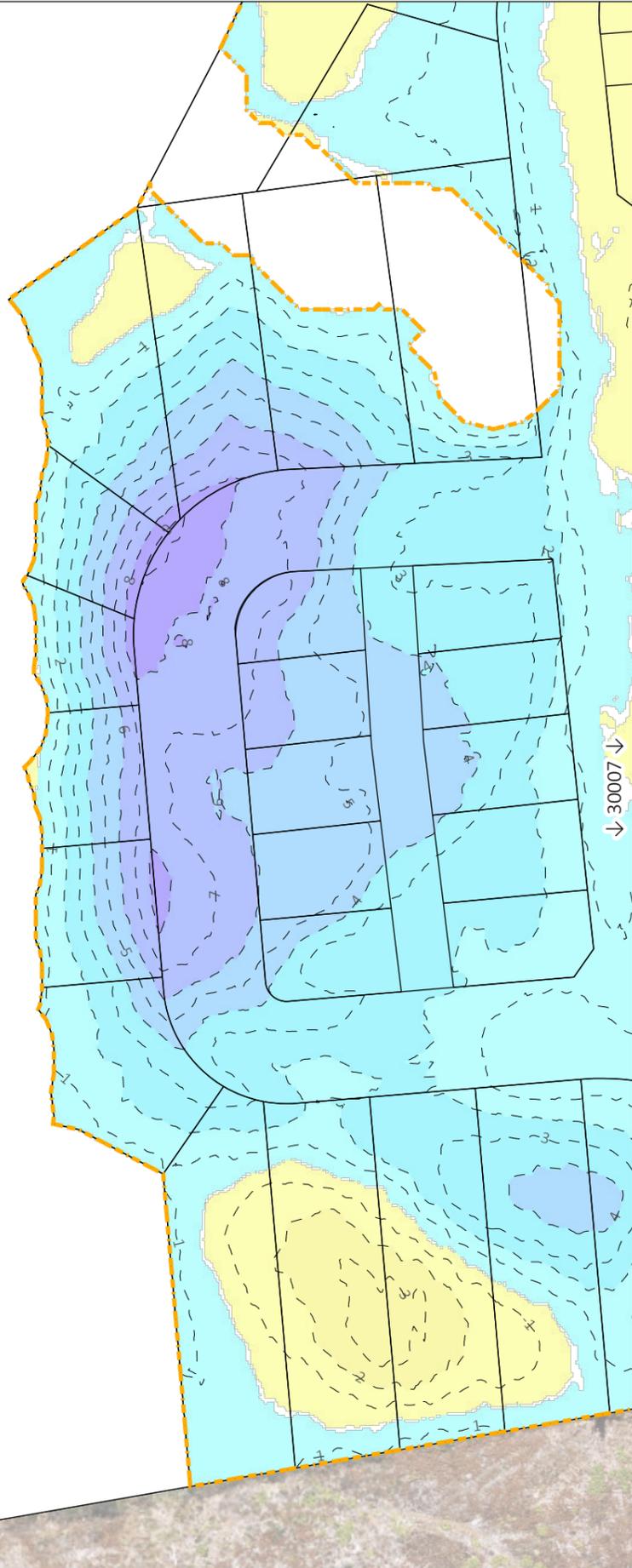
40 MAHI ROAD HELENSVILLE

CUT FILL PLAN

STATUS: PRELIMINARY DESIGN			
DRAWING NO: 30005			
SCALE: 1:1,000	SIZE: A3	REVISION: 02/10/24	DATE: 02/10/24



↑ 30004 ↑



LEGEND:

RETAINING WALLS W DRAINAGE (H=HEIGHT, C=CHAINAGE, ARROWS SHOW FALL DIRECTION)

EARTHWORKS EXTENT

NEW PARCELS

EXISTING PARCELS

CUT/FILL

-2.00m--0.05m	Yellow
-0.05-0.05m	White
0.05-2.00m	Light Cyan
2.00-4.00m	Cyan
4.00-6.00m	Blue
6.00-8.00m	Dark Blue
8.00-10.00m	Purple
-10.00--8.00m	Red
-8.00--6.00m	Orange
-6.00--4.00m	Light Orange
-4.00--2.00m	Yellow

EW ID	UNITS	EW001	TOTAL
<b>AREA</b>	<b>m<sup>2</sup></b>	<b>88,968</b>	<b>88,968</b>
AREA OF FILL	m <sup>2</sup>	31,249	31,249
AREA OF CUT	m <sup>2</sup>	57,717	57,717
CUT	m <sup>3</sup>	96,415	96,415
<b>BULK TOTAL CUT</b>	<b>m<sup>3</sup></b>	<b>96,415</b>	<b>96,415</b>
<b>MAX CUT DEPTH</b>	<b>m</b>	<b>9.3</b>	<b>9.3</b>
BULK FILL	m <sup>3</sup>	69,658	69,658
FILL +15% BF.	m <sup>3</sup>	80,106	80,106
<b>BULK TOTAL FILL</b>	<b>m<sup>3</sup></b>	<b>69,658</b>	<b>69,658</b>
FILL IMPORT	m <sup>3</sup>	0	0
CUT TO FILL	m <sup>3</sup>	80,106	80,106
CUT TO WASTE	m <sup>3</sup>	16,309	16,309
<b>BULK TOTAL VOLUME</b>	<b>m<sup>3</sup></b>	<b>166,073</b>	<b>166,073</b>
MAX FILL HEIGHT	m	9.3	9.3
BULK IMPORT	Trucks	0	0
BULK TO WASTE	Trucks	2,718	2,718
BULK TOTAL	Trucks	2,718	2,718
<b>EARTHWORKS TOT. VOL.</b>	<b>m<sup>3</sup></b>	<b>166,073</b>	<b>166,073</b>
EARTHWORKS TOTAL TRUCKS	Trucks	2,718	2,718

Existing Surf. is finished ground level  
Proposed Surf. is Finished Surface

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REV.	DATE	DESCRIPTION	DES.	REV.	REL.	LOGG.



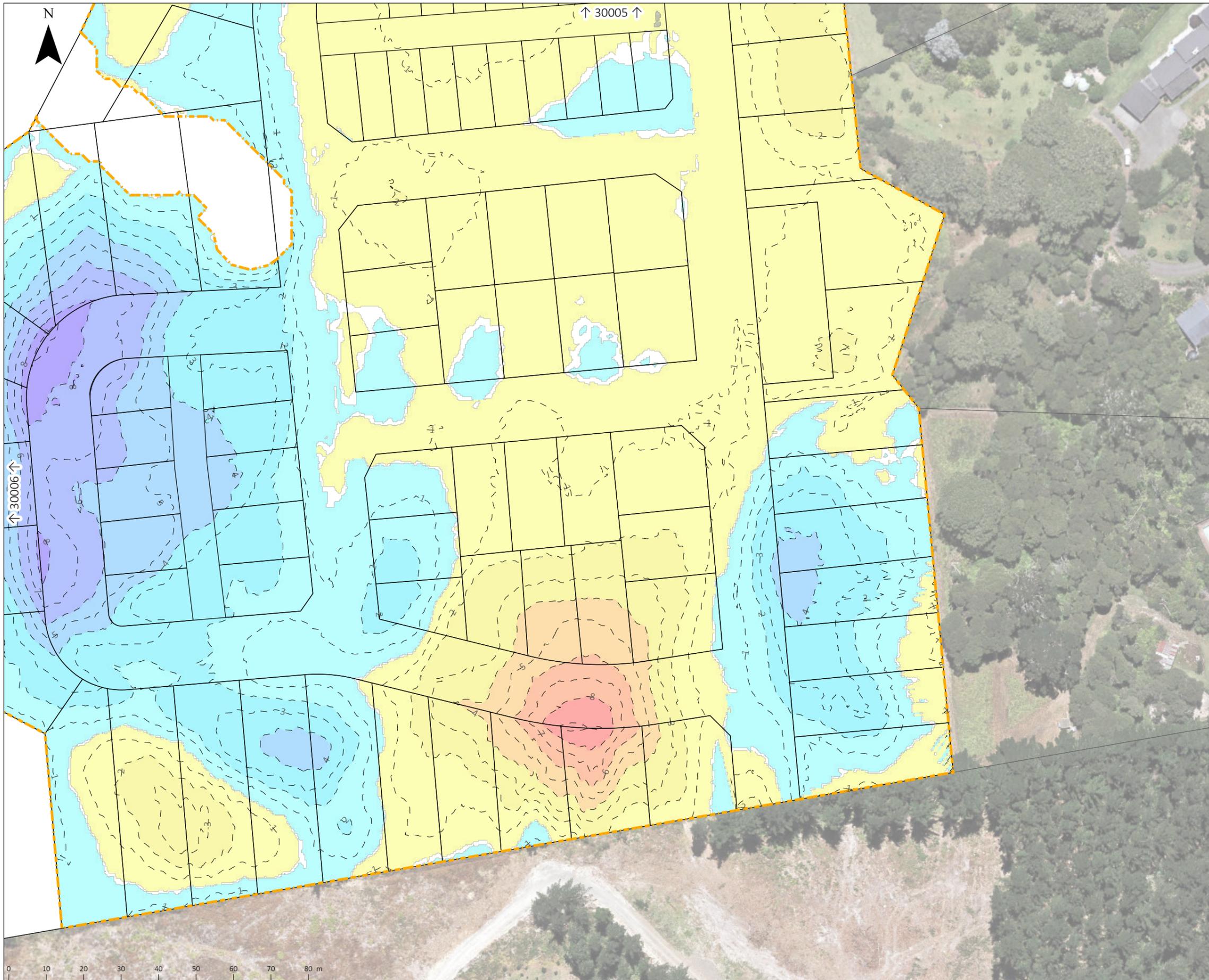
40 MAHI ROAD HELENSVILLE

CUT FILL PLAN

PRELIMINARY DESIGN

DRAWING NO: 30006

SCALE:	SIZE:	REVISION:	DATE:
1:1,000	A3	02/10/24	02/10/24



LEGEND:

	RETAINING WALLS W DRAINAGE (H=HEIGHT, C=CHAINAGE, ARROWS SHOW FALL DIRECTION)
	EARTHWORKS EXTENT
	NEW PARCELS
	EXISTING PARCELS
	CUTFILL
	-2.00m--0.05m
	0.05-2.00m
	2.00-4.00m
	4.00-6.00m
	6.00-8.00m
	8.00-10.00m
	-10.00--8.00m
	-8.00--6.00m
	-6.00--4.00m
	-4.00--2.00m

EW ID	UNITS	EW001	TOTAL
<b>AREA</b>	<b>m<sup>2</sup></b>	<b>88,968</b>	<b>88,968</b>
AREA OF FILL	m <sup>2</sup>	31,249	31,249
AREA OF CUT	m <sup>2</sup>	57,717	57,717
CUT	m <sup>3</sup>	96,415	96,415
<b>BULK TOTAL CUT</b>	<b>m<sup>3</sup></b>	<b>96,415</b>	<b>96,415</b>
<b>MAX CUT DEPTH</b>	<b>m</b>	<b>9.3</b>	<b>9.3</b>
BULK FILL	m <sup>3</sup>	69,658	69,658
FILL +15% BF.	m <sup>3</sup>	80,106	80,106
<b>BULK TOTAL FILL</b>	<b>m<sup>3</sup></b>	<b>69,658</b>	<b>69,658</b>
FILL IMPORT	m <sup>3</sup>	0	0
CUT TO FILL	m <sup>3</sup>	80,106	80,106
CUT TO WASTE	m <sup>3</sup>	16,309	16,309
<b>BULK TOTAL VOLUME</b>	<b>m<sup>3</sup></b>	<b>166,073</b>	<b>166,073</b>
MAX FILL HEIGHT	m	9.3	9.3
BULK IMPORT	Trucks	0	0
BULK TO WASTE	Trucks	2,718	2,718
BULK TOTAL	Trucks	2,718	2,718
<b>EARTHWORKS TOT. VOL.</b>	<b>m<sup>3</sup></b>	<b>166,073</b>	<b>166,073</b>
EARTHWORKS TOTAL TRUCKS	Trucks	2,718	2,718

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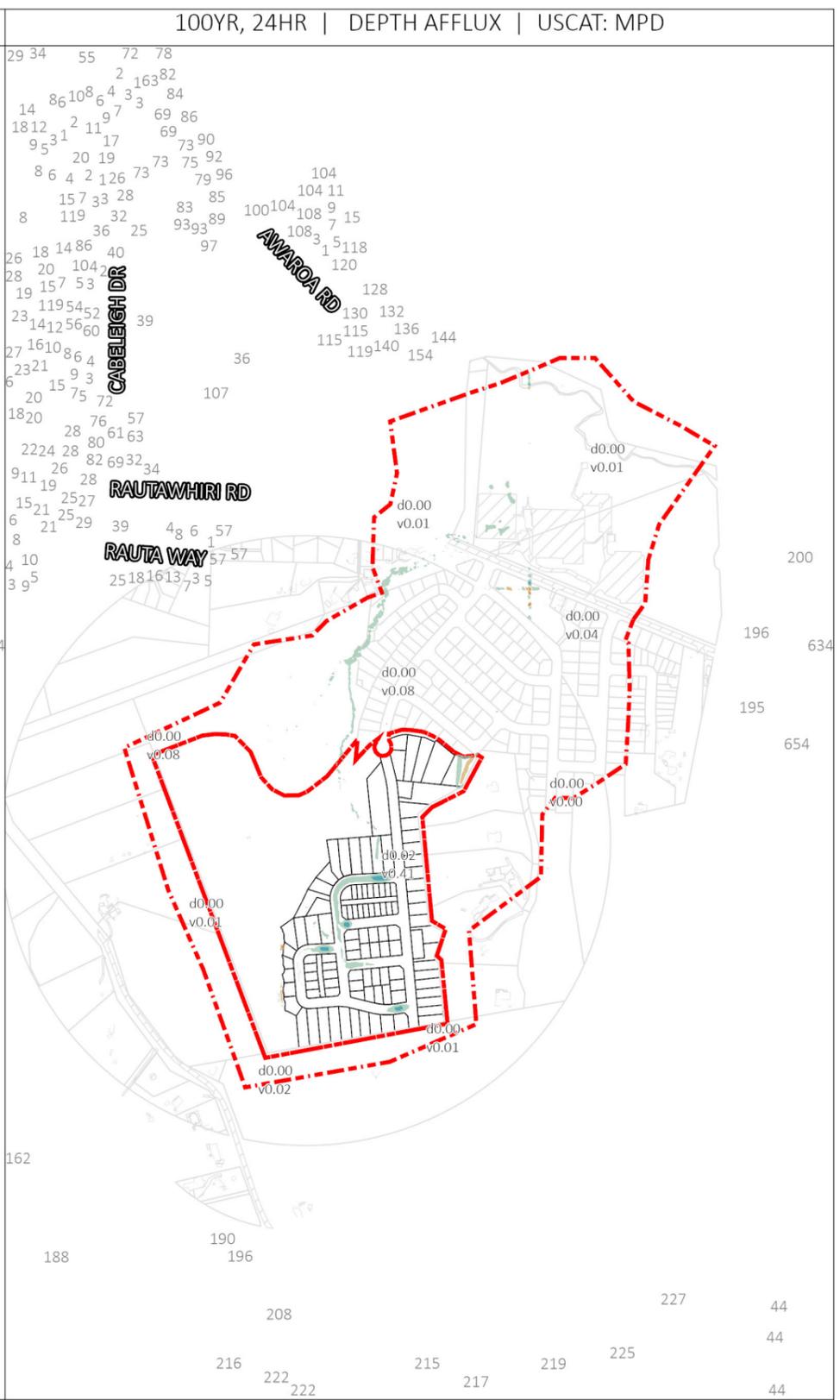
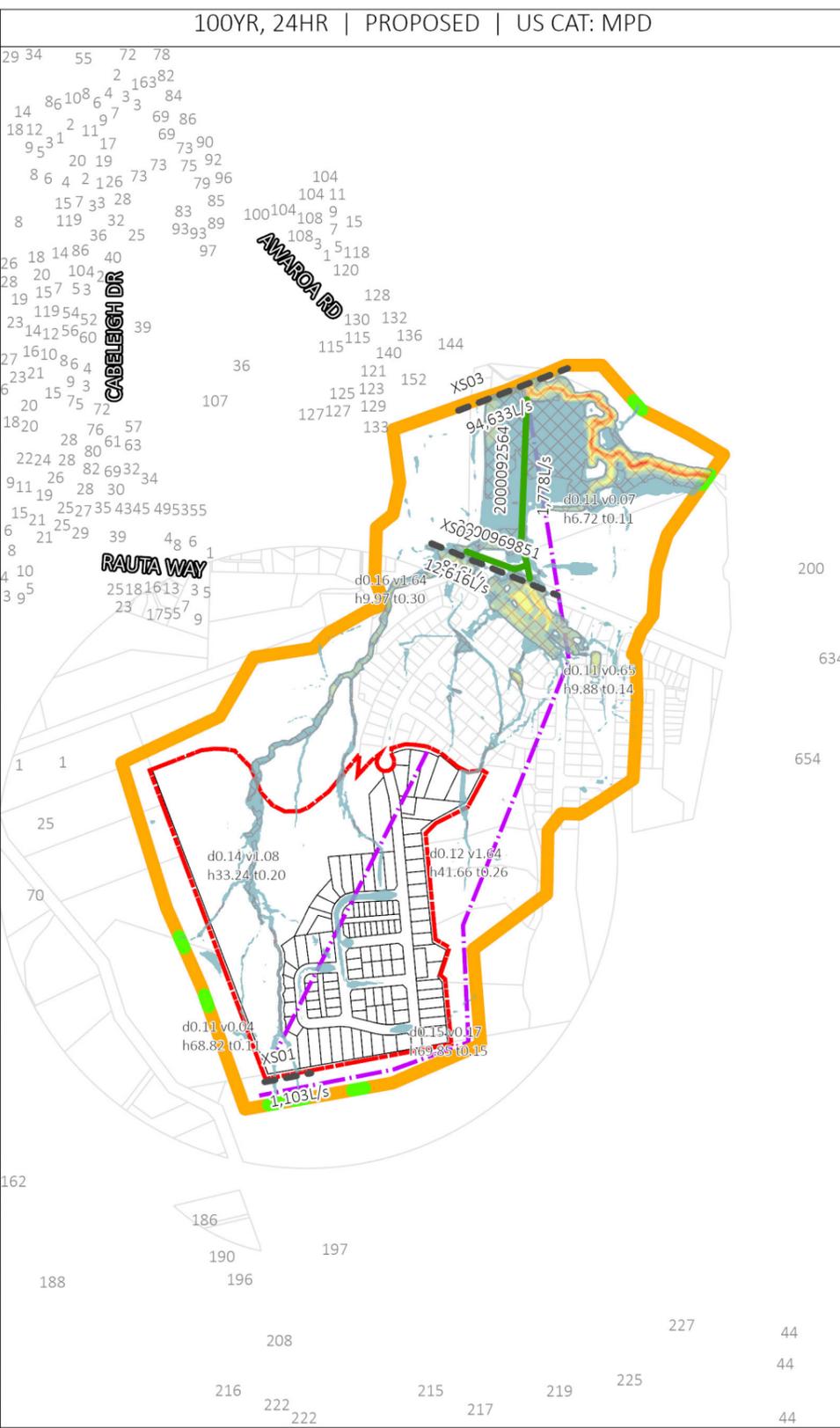
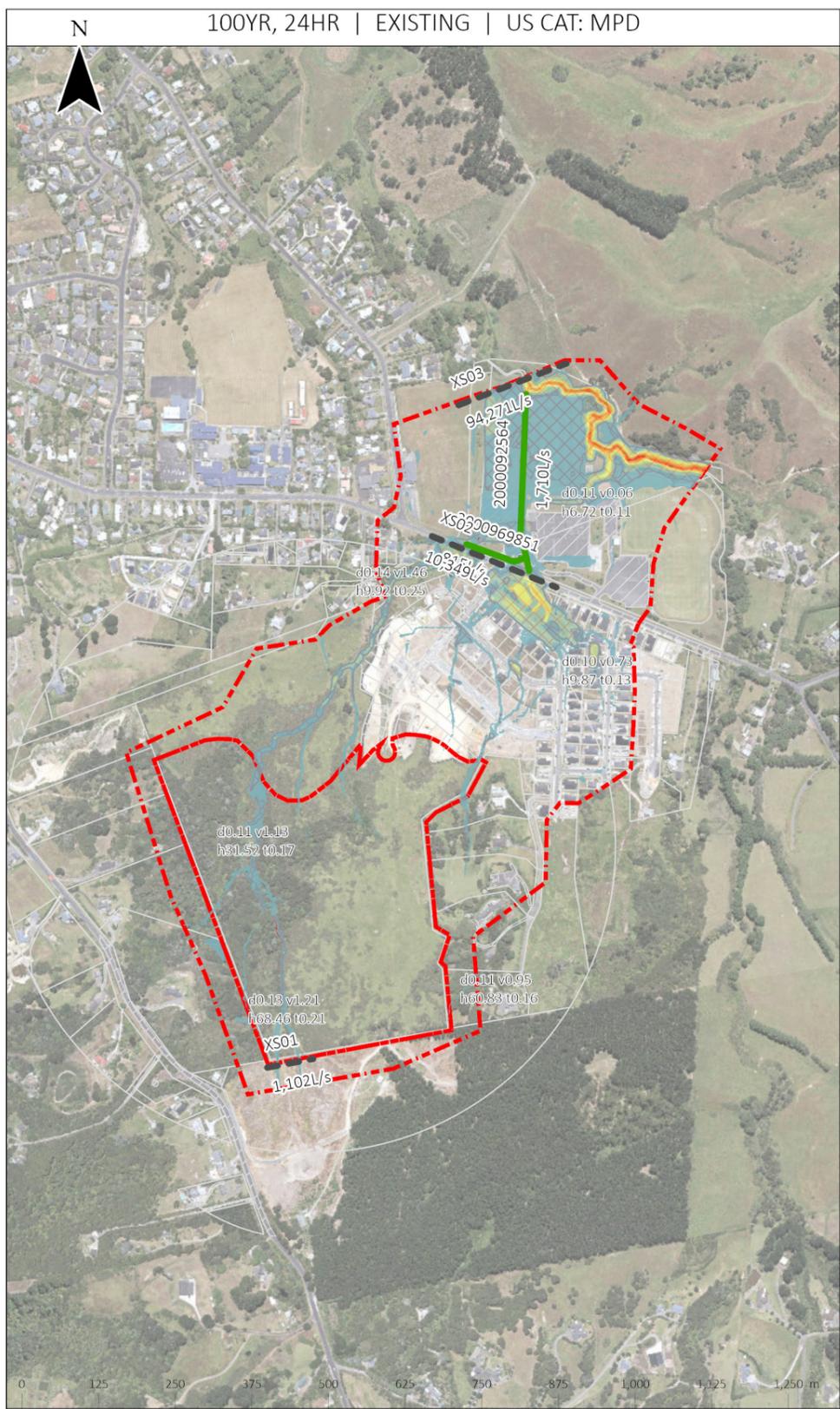
REV.	DATE	DESCRIPTION	DES.	REV.	REL.	LOGG.



PROJECT: 40 MAHI ROAD HELENSVILLE

TITLE: CUT FILL PLAN

STATUS: PRELIMINARY DESIGN			
DRAWING NO: 30007			
SCALE: 1:1,000	SIZE: A3	REVISION: 02/10/24	DATE: 02/10/24



<p>GENERAL NOTES:</p> <ol style="list-style-type: none"> <li>MODELLING CARRIED OUT IN TUFLOW</li> <li>FLOW DEPTHS SHOW IN FLOOD DEPTH PLANS EXCLUDE DEPTHS &lt; 0.05M</li> <li>AFFLUX DEPTH CHANGES EXCLUDE CHANGES WITHIN -0.05M TO 0.05M.</li> </ol>		<p>LEGEND:</p> <p>MODEL IN &amp; OUT</p> <ul style="list-style-type: none"> <li>Auto_QvsH</li> <li>TP108_QvsT</li> <li>MODEL EXTENT</li> <li>TuFlow Catchment Lengths</li> <li>PR. PARCELS</li> <li>EX. PARCELS</li> </ul>		<p>02_Pr100yr LINKS</p> <p>02_Pr100yr SECTIONS</p> <p>02_Pr100yr DEPTH</p> <p>MAX DEPTH (m)</p> <ul style="list-style-type: none"> <li>0.00-0.05m</li> <li>0.05-0.50m</li> <li>0.50-1.00m</li> </ul>		<p>1.00-1.50m 02_Pr100yr SAFETY</p> <p>1.50-2.00m HAZARDS</p> <p>2.00-2.50m PEDESTRIAN</p> <p>2.50-3.00m VEHICLE+PEDESTRIAN</p> <p>3.00-3.50m 02_Pr100yr REVIEW</p> <p>3.50-4.00m REV_TYPE</p> <p>LOW</p>		<p>MEDIUM</p> <p>HIGH</p> <p>02_Pr100yr LABELS</p>		<p>MAX DEPTH CHANGE (m)</p> <ul style="list-style-type: none"> <li>-0.40--0.20m</li> <li>-0.05--0.20m</li> <li>-0.05-0.05m</li> </ul>		<p>0.05-0.20m</p> <p>0.20-0.40m</p> <p>02_Pr100yr AFFLUX LABELS</p>	
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<p>SCAN FOR 3D:</p> <p>allsite.ci</p>	<p>REV: DATE: DESCRIPTION:</p>	<p>DES: REV: REL: LOGG:</p>	<p>PROJECT:</p> <p>40 MAHI ROAD HELENSVILLE</p>	<p>TITLE:</p> <p>FLOODING MODEL RESULTS SCENARIO A1</p>	<p>STATUS:</p> <p>PRELIMINARY DESIGN</p>
	<p>DRAWING NO:</p> <p>58000</p>		<p>SCALE:</p> <p>1:10,000</p>		<p>SIZE:</p> <p>A3</p>
				<p>REVISION:</p> <p>02/10/24</p>	<p>DATE:</p> <p>02/10/24</p>

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