

OFFSET STORAGE AREA 13.
REFER DWG CV-SW-129

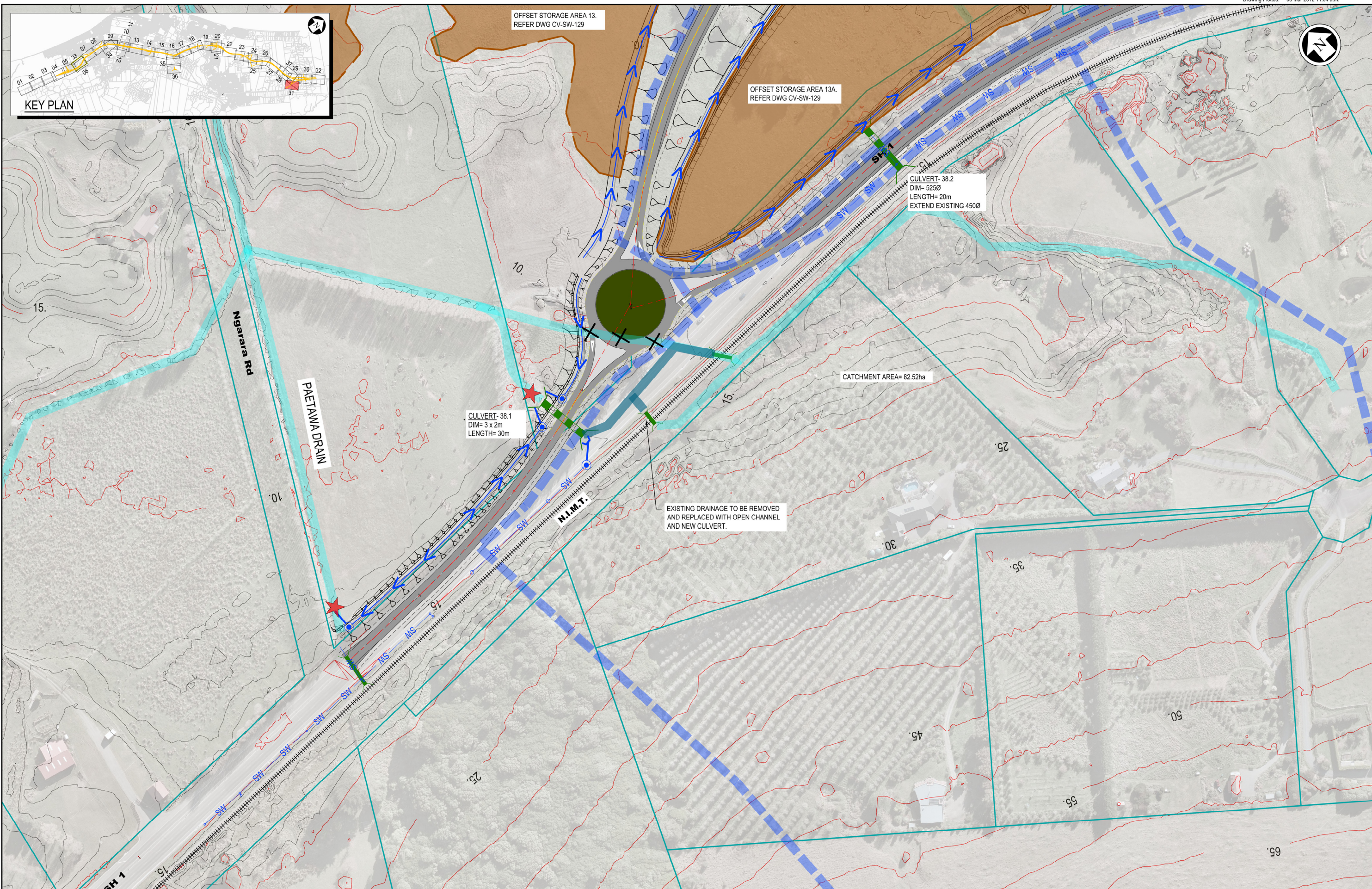
OFFSET STORAGE AREA 13A.
REFER DWG CV-SW-129

CULVERT- 38.2
DIM= 5250
LENGTH= 20m
EXTEND EXISTING 4500

CULVERT- 38.1
DIM= 3 x 2m
LENGTH= 30m

CATCHMENT AREA= 82.52ha

EXISTING DRAINAGE TO BE REMOVED
AND REPLACED WITH OPEN CHANNEL
AND NEW CULVERT.



- NOTES:
- REFER DRAWING CV-SW-100 FOR INDEX SHEET AND STORMWATER LEGEND
 - EXISTING DRAINAGE FROM KCDC GIS, GWRC GIS, NZTA RECORDS AND KIWI RAIL RECORDS.

Original
Scale (A3)
1:2000

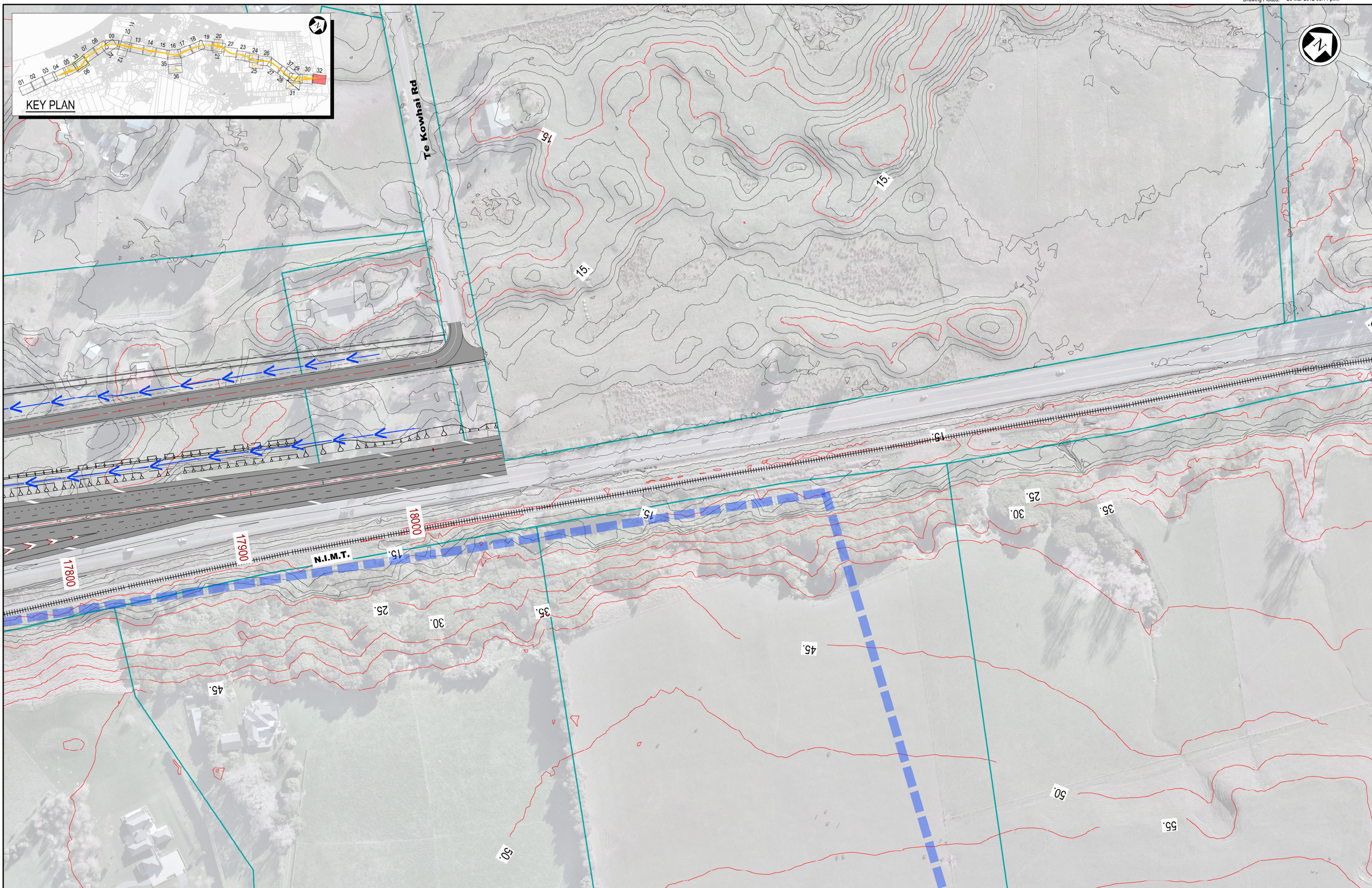
1	AEE LODGEMENT	NRN	15.03.12
Revision:	Amendment	Approved:	Date:



MACKAYS TO PEKA PEKA EXPRESSWAY

Project:
Title: DRAINAGE LAYOUT
SHEET 31 OF 37

Status:	FOR CONSENTING
Document ID:	M2PP-AEE-DWG
Drawing No:	CV-SW-131
Rev:	1



- NOTES:
1. REFER DRAWING CV-SW-100 FOR INDEX SHEET AND STORMWATER LEGEND
 2. EXISTING DRAINAGE FROM KCDC GIS, GWRC GIS, NZTA RECORDS AND KIWI RAIL RECORDS.

Original Scale (A3)
1:2000

1	AEE LODGEMENT	NRN	15.03.12
Revision:	Amendment	Approved:	Date:



MACKAYS TO PEKA PEKA EXPRESSWAY

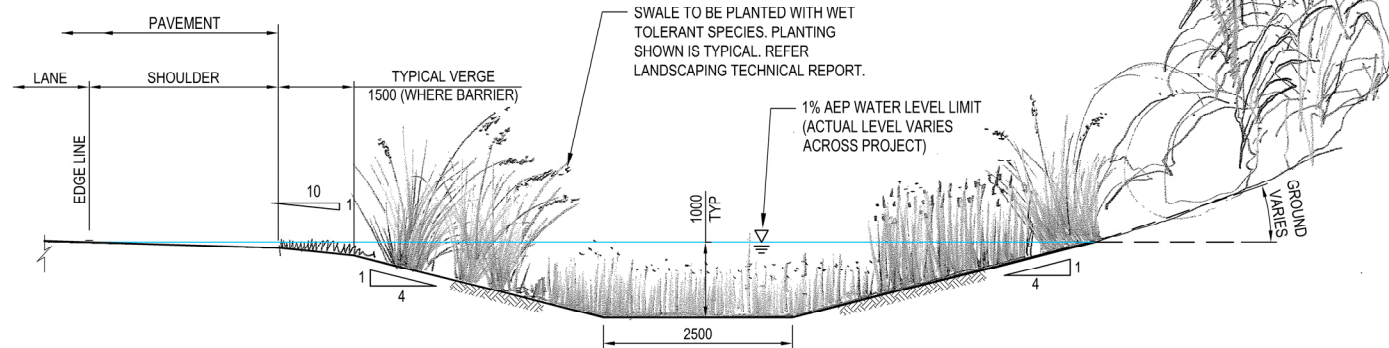
Title: DRAINAGE LAYOUT SHEET 32 OF 37

Status:	FOR CONSENTING
Document ID:	M2PP-AEE-DWG
Drawing No:	CV-SW-132
Rev:	1

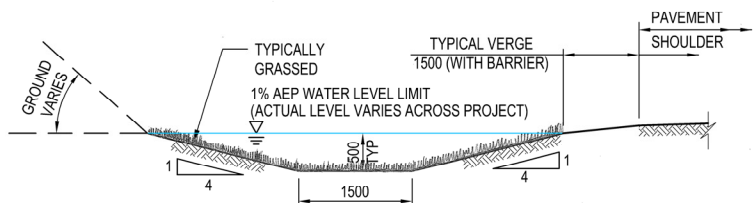
NOTES:

1. AT LOCATIONS WHERE THE VERGE AND SWALE FORM PART OF THE CLEAR ZONE A 4H:1V IS PROVIDED FROM THE BACK OF SHOULDER.

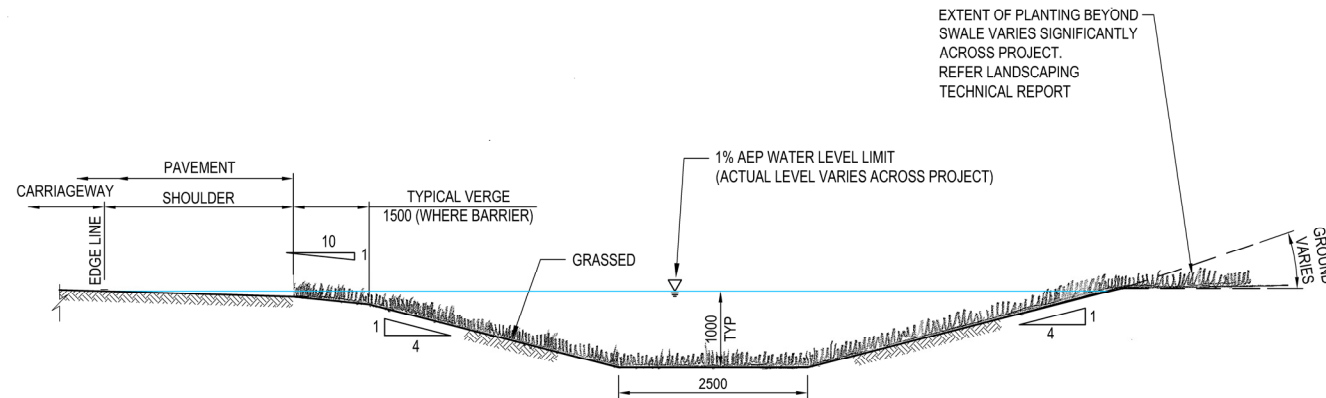
EXTENT OF PLANTING BEYOND SWALE VARIES SIGNIFICANTLY ACROSS PROJECT. REFER LANDSCAPING TECHNICAL REPORT



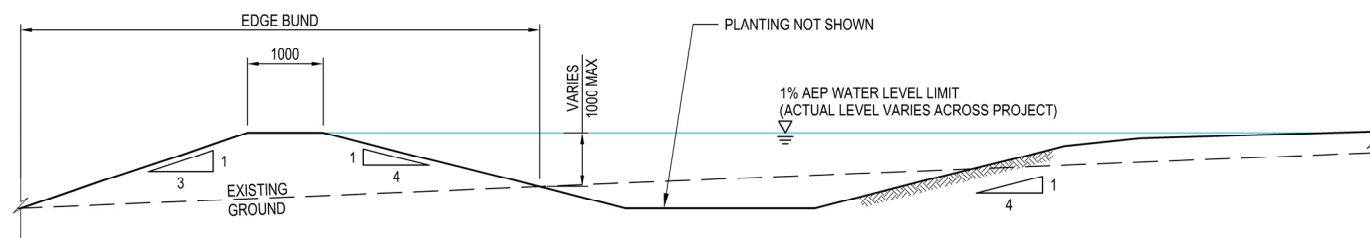
A TYPE 1 SWALE - IN PEAT AREAS
1:100



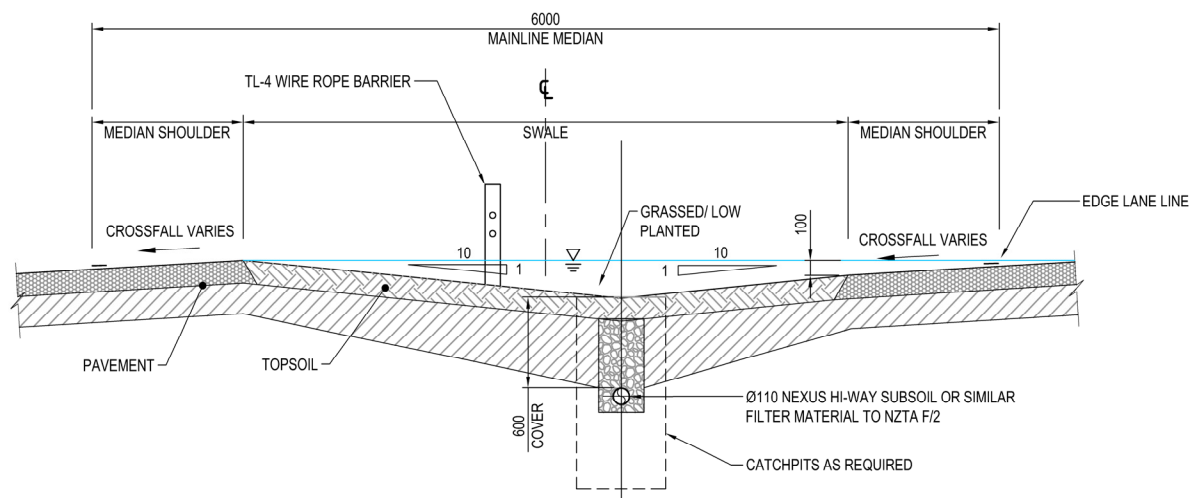
C TYPE 3 SHALLOW SWALE
1:50



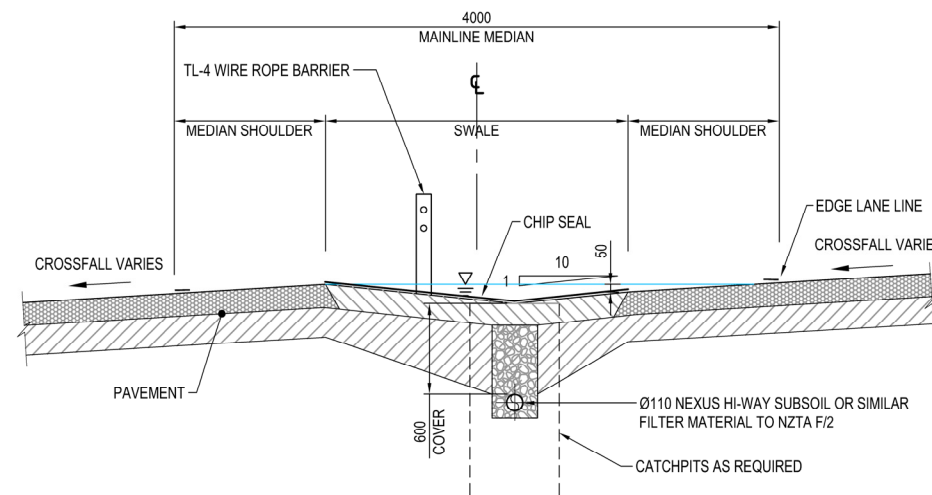
B TYPE 2 SWALE - IN SAND AREAS
1:100



D SWALE WITH EDGE BUND - FOR ALL SWALE TYPES
1:100



E TYPE 4A SWALE - 6m MEDIAN
1:50



F TYPE 4B SWALE - 4m MEDIAN
1:50

NOTES:

Original Scale (A3)
As Shown

Revision	Description	Approved	Date
1	AEE LODGEMENT	NRN	15.03.12
	Amendment		



Project: MACKAYS TO PEKA PEKA EXPRESSWAY

Title: SWALES TYPICAL CROSS-SECTIONS

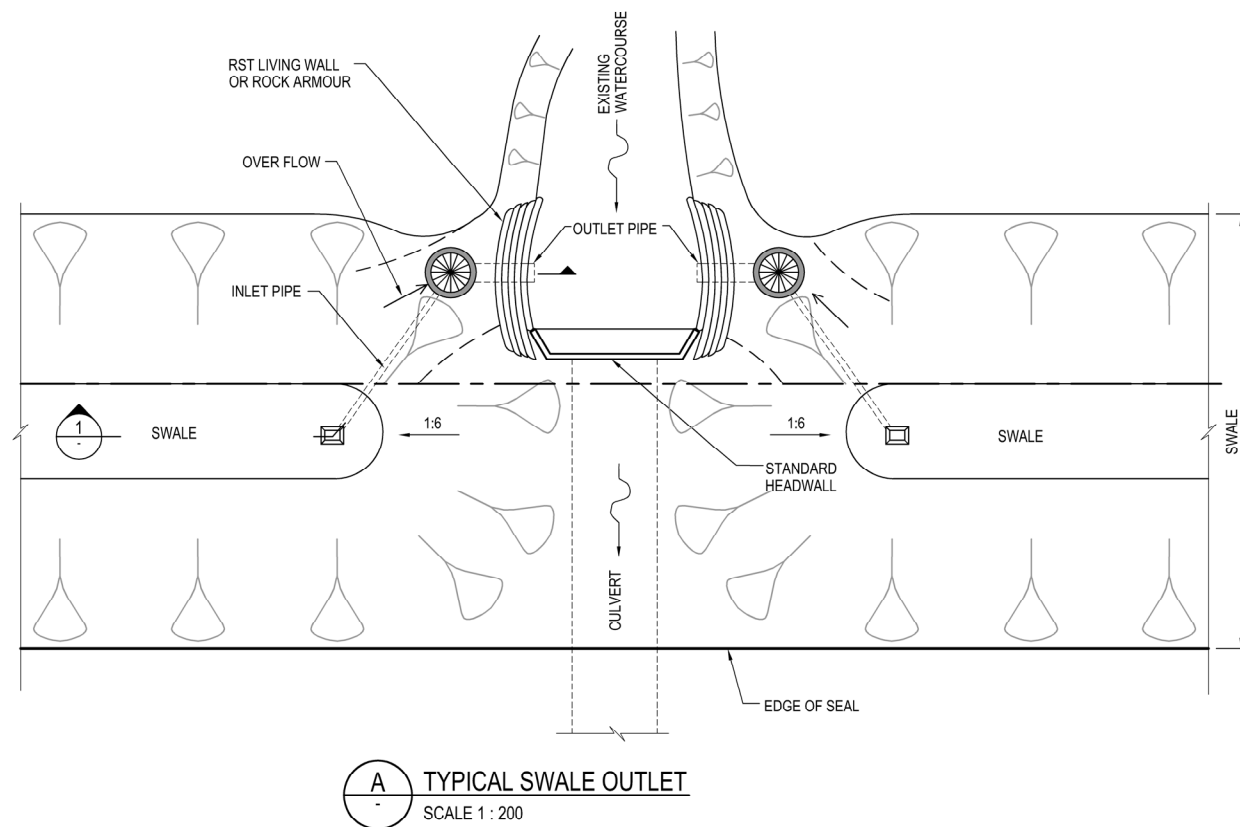
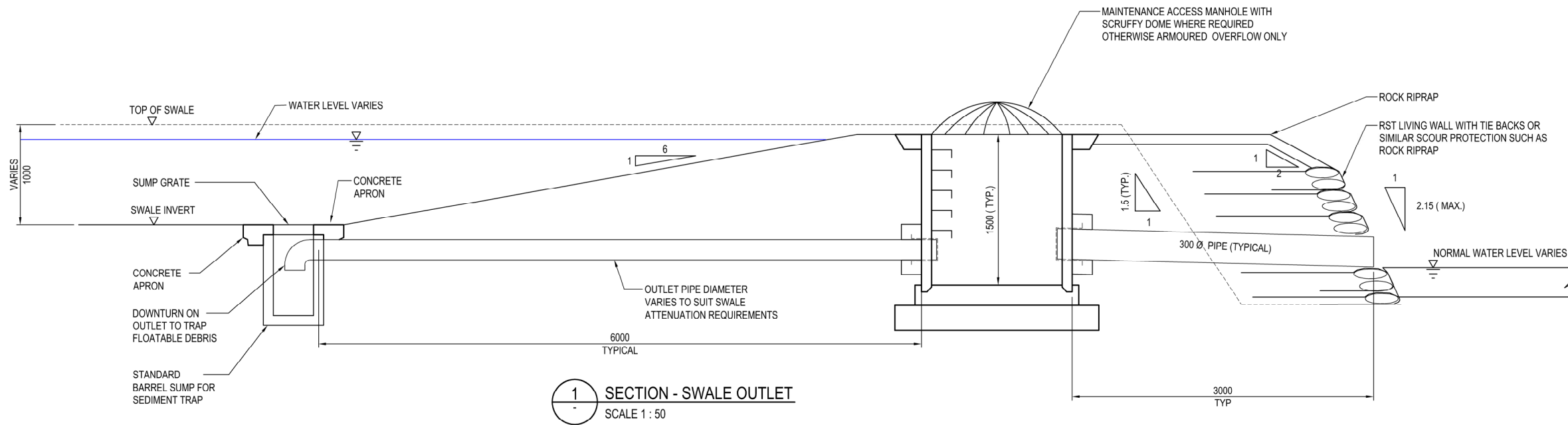
Status: FOR CONSENTING

Document ID: M2PP-SWR-DWG

Drawing No: CV-SW-201

Rev: 1

UNDER REVISION



- NOTES:
1. OULET STRUCTURES TO BE LOCATED OUTSIDE OF CLEARZONE OR PROTECTED.
 2. INLET PIPE TO BE PE OR UPVC.
 3. WHERE TRAFFIC NOT PARALLEL TO SWALE, SWALE END SLOPE CAN BE 1:4.
 4. RST LIVING WALL TO TIE INTO CULVERT HEADWALL.

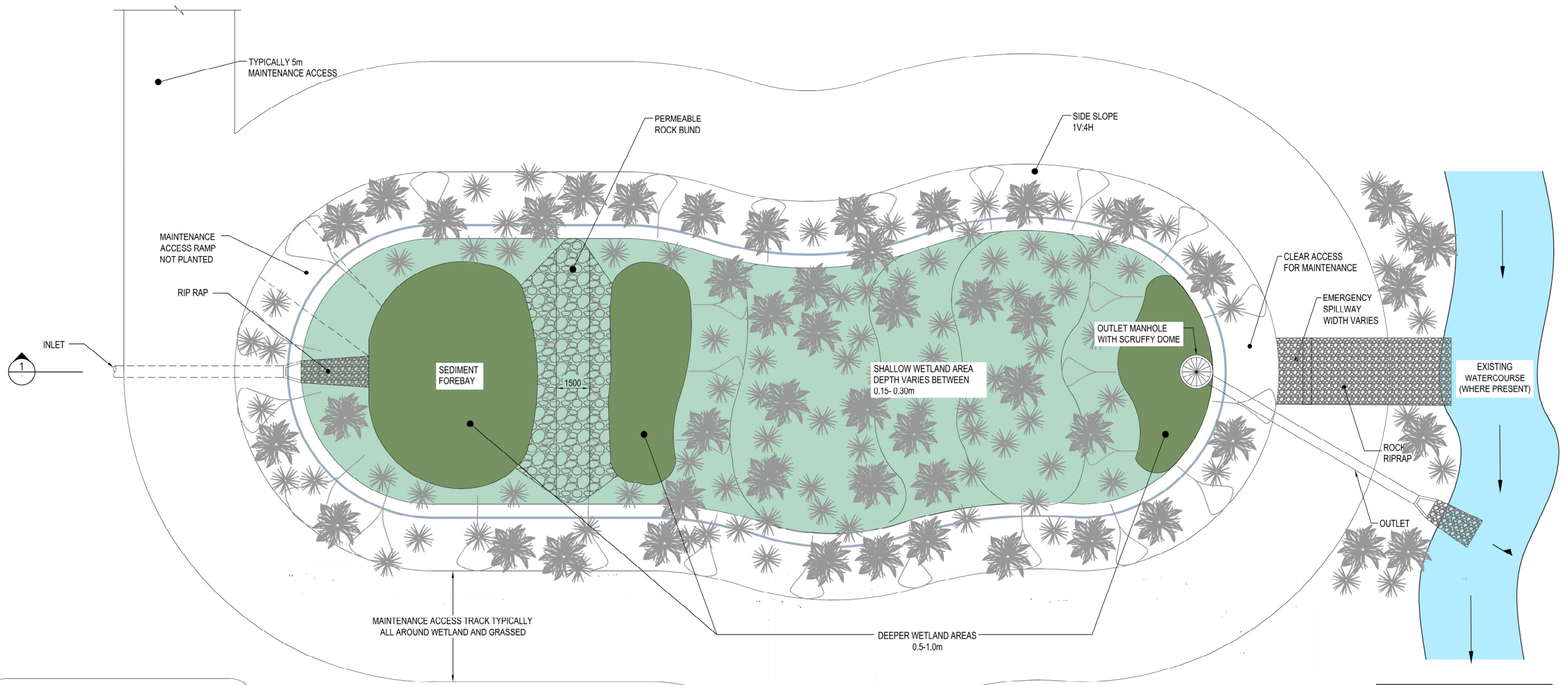
Original
Scale (A3)

As Shown

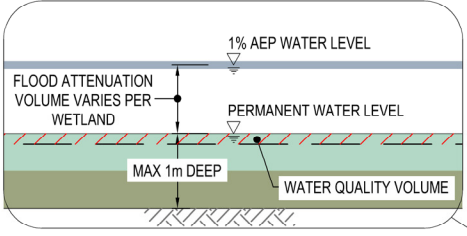
Revision	Amendment	Approved	Date
1	AEE LODGEMENT	NRN	15.03.12



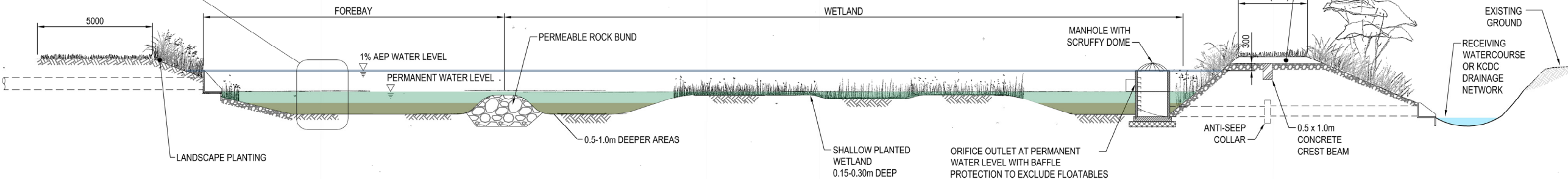
Project: MACKAYS TO PEKA PEKA EXPRESSWAY	
Title: SWALE OUTLET DETAIL	
Status: FOR CONSENTING	Rev. 1
Document ID: M2PP-SAR-DWG	Drawing No: CV-SW-203



NOTE:
WETLAND 60% PLANTED, 40% OPEN WATER.
60% 150mm TO 300mm DEEP AND 40% 1m DEEP INCLUDING FOREBAY.



A TYPICAL WETLAND
SCALE 1:200



1 TYPICAL WETLAND SECTION
SCALE 1:200

NOTES:
1. FOR PLANTING REFER LANDSCAPE TECHNICAL REPORT.

Original Scale (A3)
As Shown

1	AEE LODGEMENT	NRN	15.03.12
Revision:	Amendment	Approved:	Date:



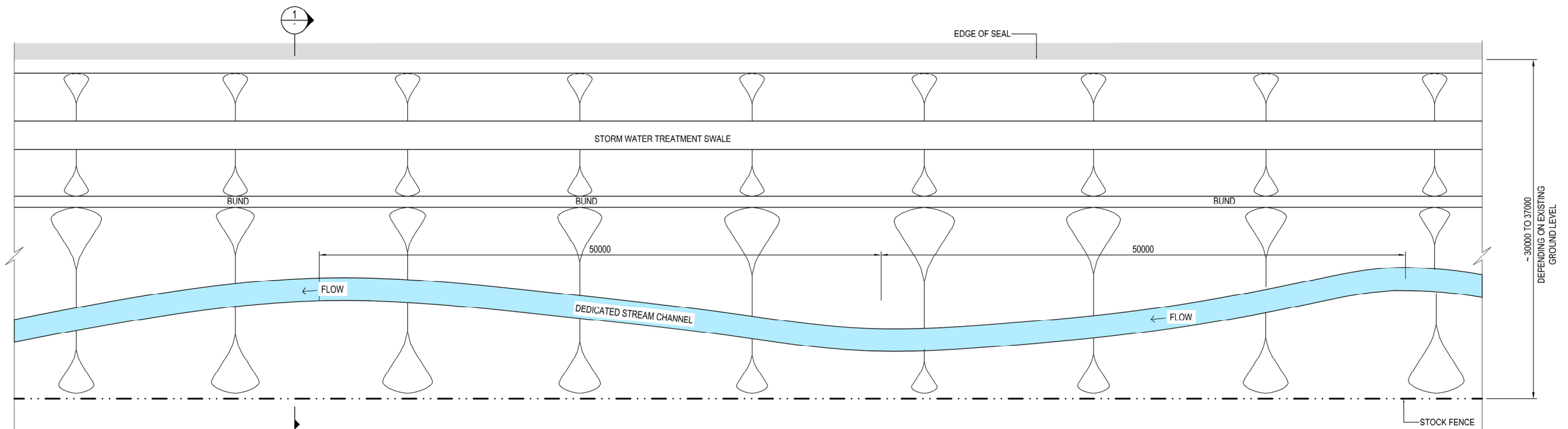
Project: **MACKAYS TO PEKA PEKA EXPRESSWAY**

Title: **WETLAND TYPICAL LONGSECTION**

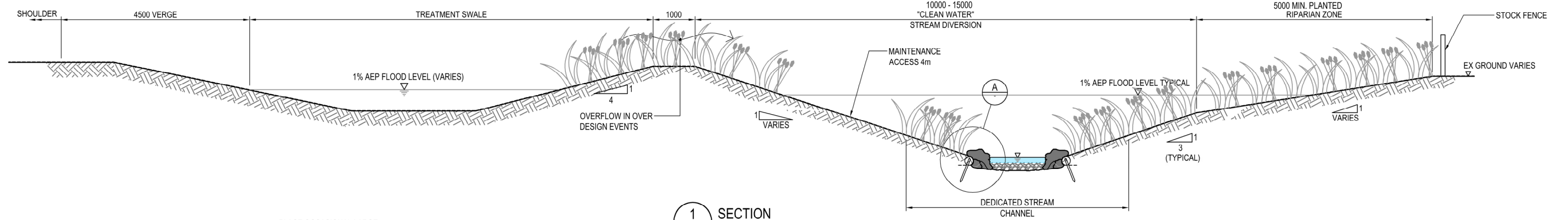
Status: **FOR CONSENTING**

Document ID: M2PP-AEE-DWG
Drawing No: **CV-SW-212**

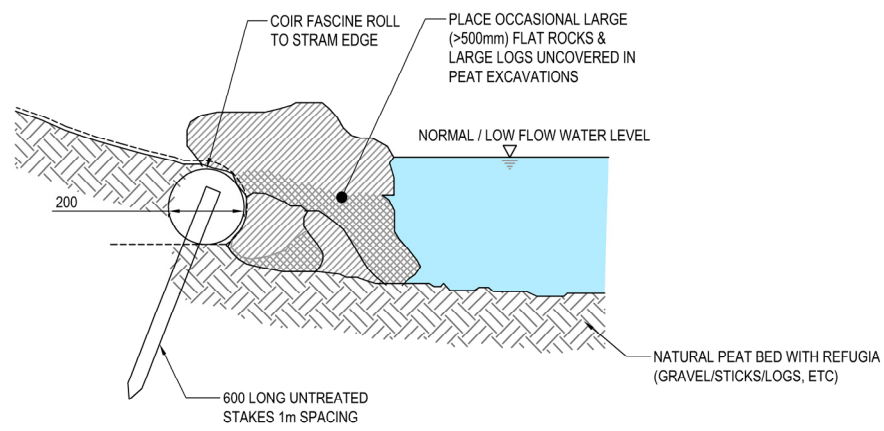
Rev: 1



A SMITHFIELD STREAM REALIGNMENT PLAN
1:400



1 SECTION
1:100



A STREAM EDGE DETAIL
1:20

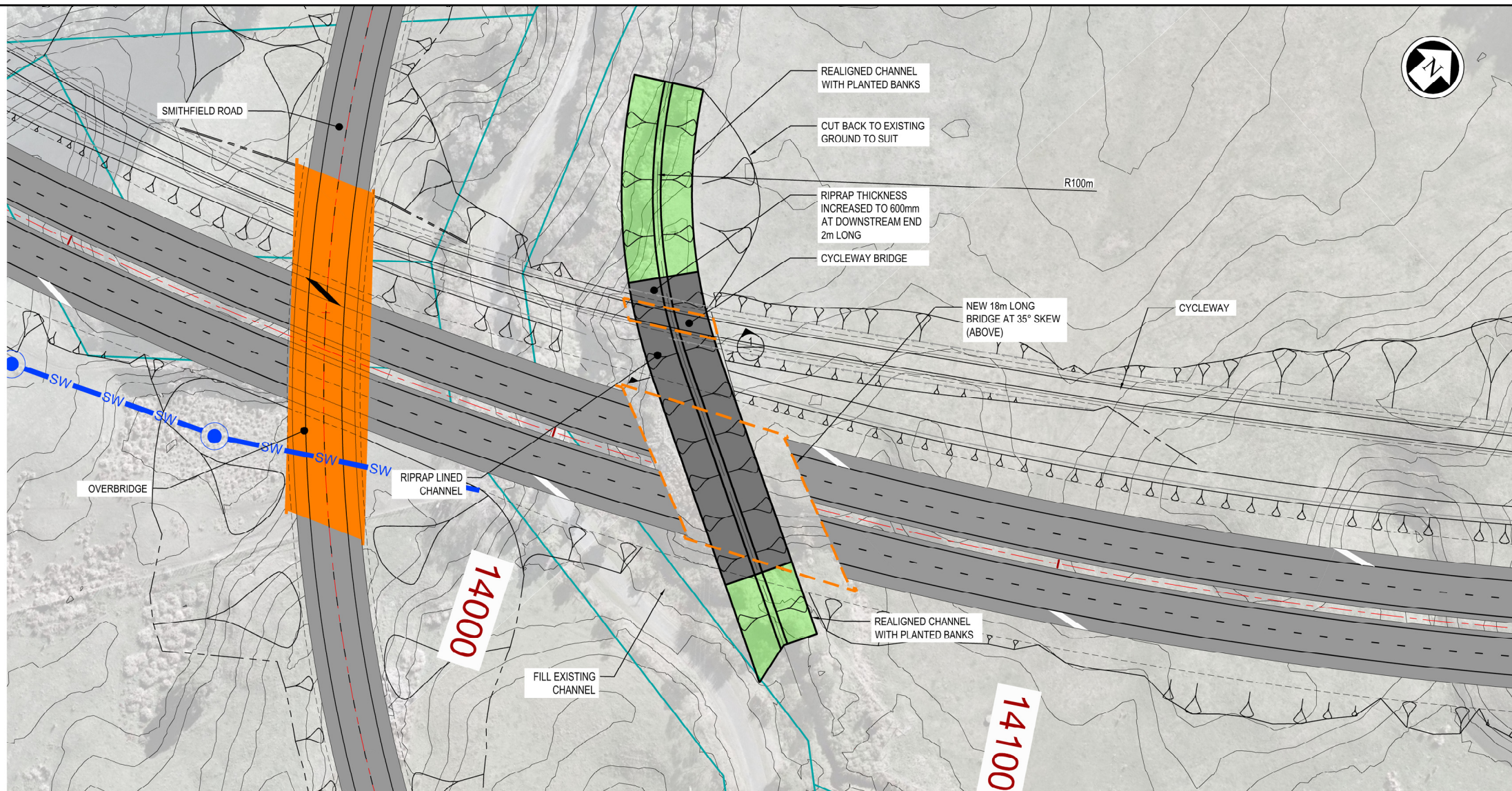
NOTES:

Original Scale (A3)
As Shown

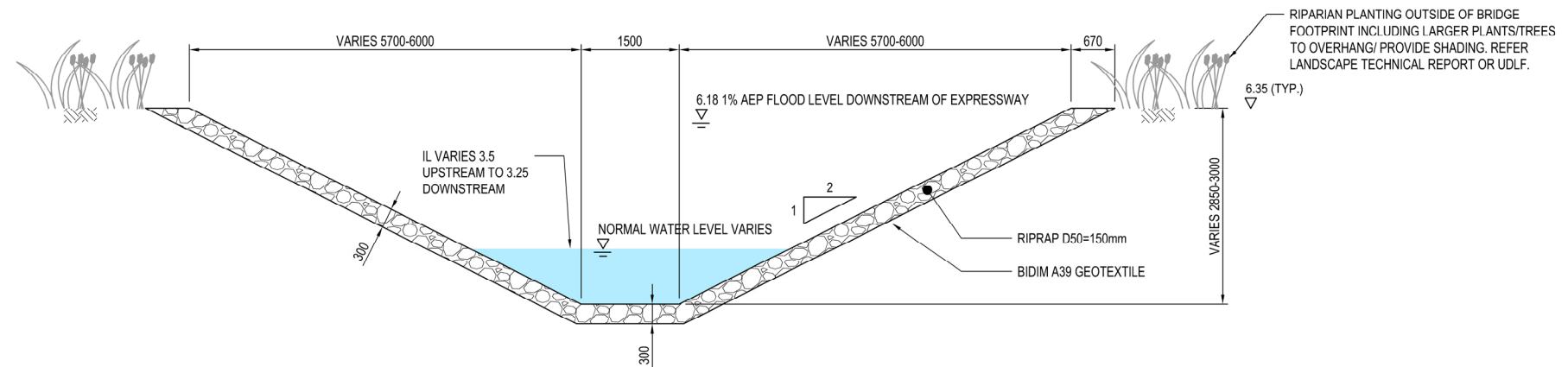
1	AEE LODGEMENT	NRN	15.03.12
Revision:	Amendment	Approved:	Date:



Project: MACKAYS TO PEKA PEKA EXPRESSWAY	
Title: SMITHFIELD STREAM REALIGNMENT	
Status: FOR CONSENTING	Rev. 1
Document ID: M2PP-AEE-DWG	Drawing No: CV-SW-231



A KAKARIKI STREAM DIVERSION
SCALE 1:1000



1 CROSS SECTION
1:100

NOTES:

Original Scale (A3)
As Shown

1	AEE LODGEMENT	NRN	15.03.12
Revision:	Amendment	Approved:	Date:



Project: **MACKAYS TO PEKA PEKA EXPRESSWAY**

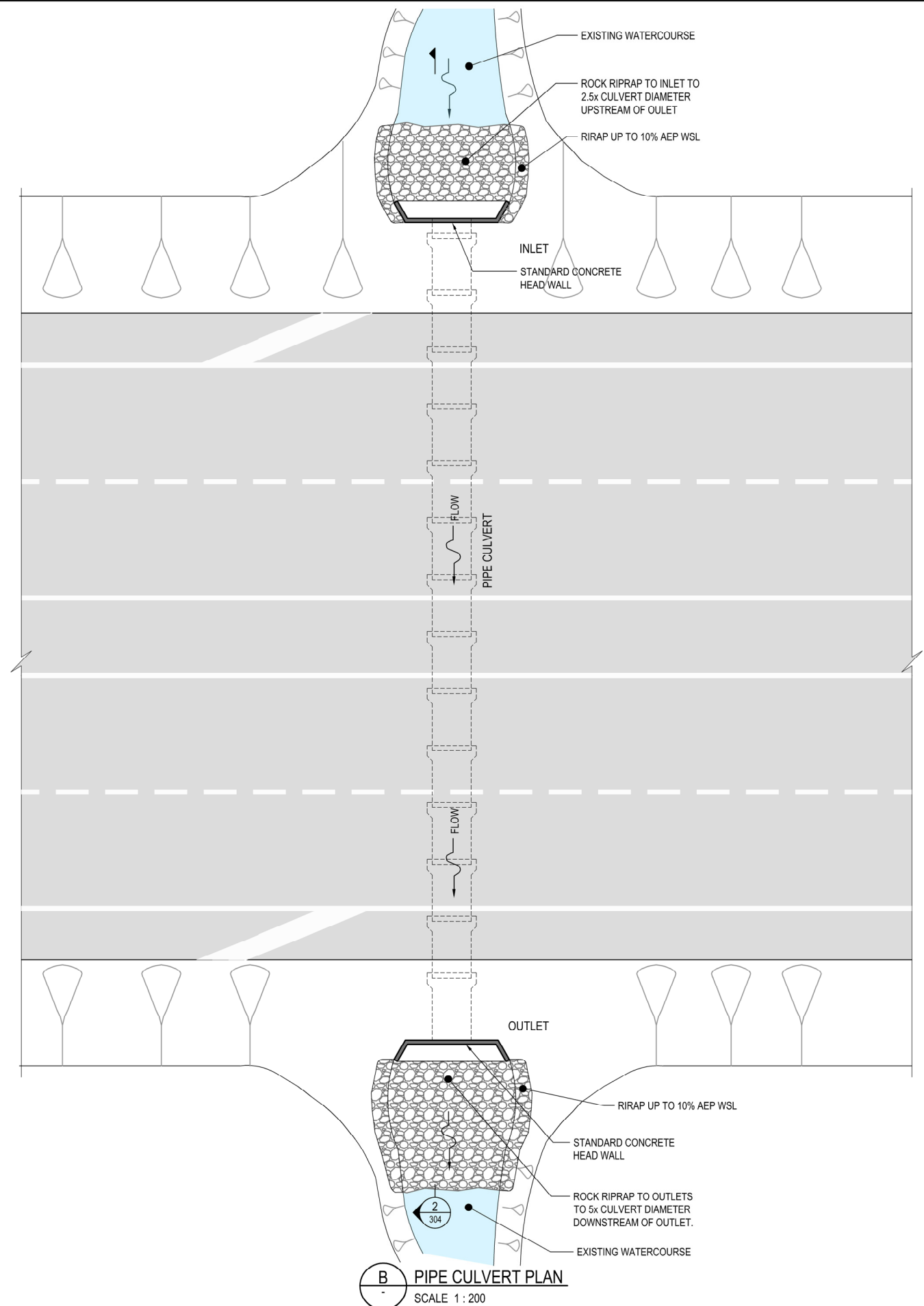
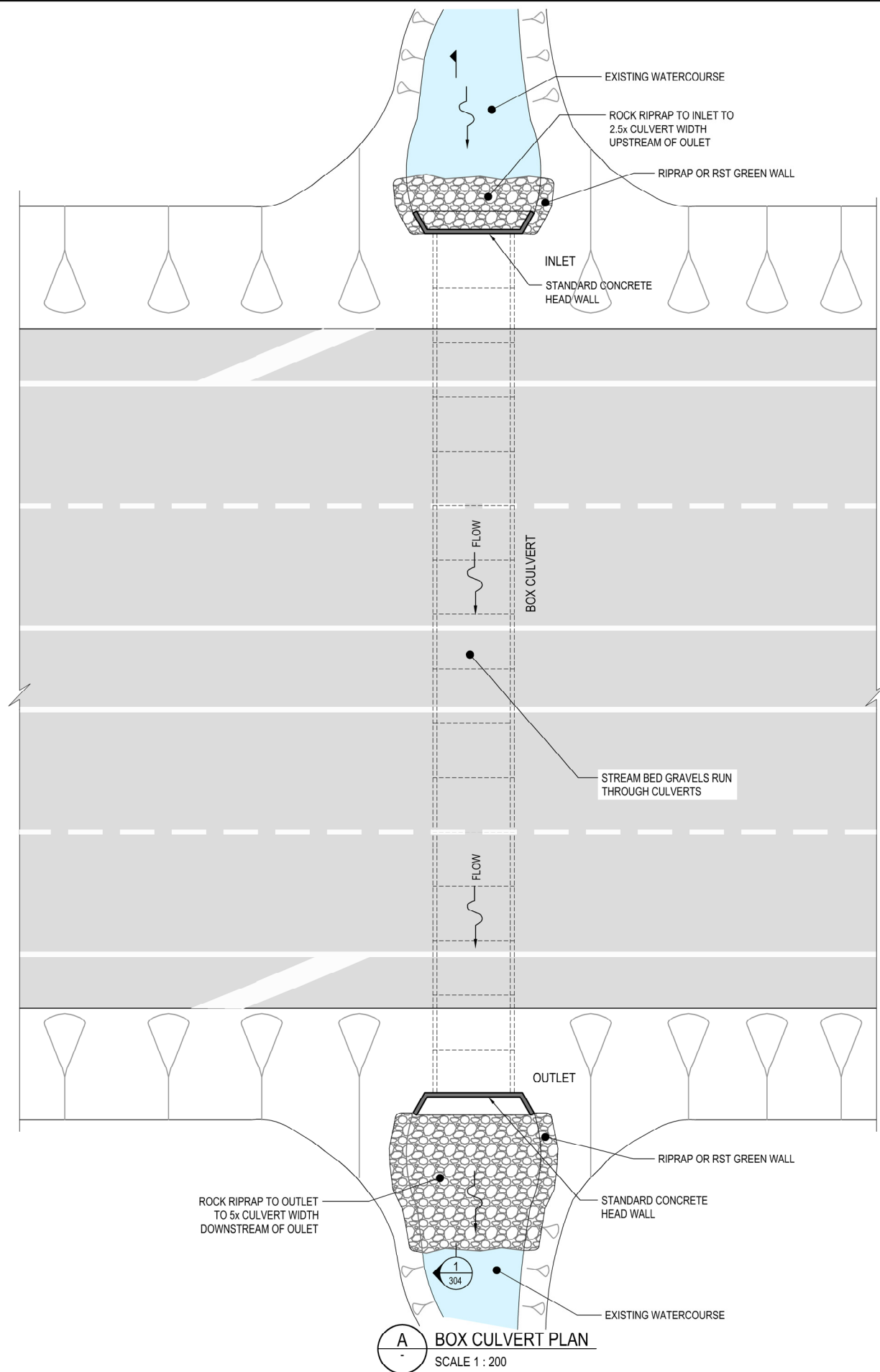
Title: **KAKARIKI STREAM DIVERSION**

Status: FOR CONSENTING

Document ID: M2PP-AEE-DWG

Drawing No: CV-SW-232

1



NOTES:

- CLEARWAY & BARRIERS NOT SHOWN.
- WHERE SWALES OUTLET AT CULVERTS REFER DRAWING CV-SW-203.

Original Scale (A3)			
As Shown			
1	AEE LODGEMENT	NRN	15.03.12
Revision:	Amendment	Approved:	Date:



Project: MACKAYS TO PEKA PEKA EXPRESSWAY

Title: TYPICAL CULVERT ARRANGEMENT

Status: FOR CONSENTING

Document ID: M2PP-SAR-DWG

Drawing No: CV-SW-303

Rev: 1