

PLAN SET 9 STORMWATER

EAST WEST LINK DRAWING REGISTER		CURRENT REVISION	DATE AND REVISION				
DWG NUMBER	DRAWING TITLE		1/12/2016	14/12/2016	7/04/2017	23/05/2017	27/06/2017
	PLAN SET 9 - STORMWATER						
AEE-SW-001	STORMWATER - EAST WEST LINK - DRAWING INDEX, NOTES AND LEGEND	3	0	1	2		3
AEE-SW-100	STORMWATER - EAST WEST LINK - OVERVIEW PLAN	3	0	1	2		3
AEE-SW-101	STORMWATER - SH20/NEILSON STREET INTERCHANGE - SHEET 1	1	0				1
AEE-SW-102	STORMWATER - NEILSON STREET INTERCHANGE - SHEET 2	1	0				1
AEE-SW-103	STORMWATER - GALWAY STREET - SHEET 3	2	0	1			2
AEE-SW-104	STORMWATER - EMBANKMENT - SHEET 4	2	0	1			2
AEE-SW-105	STORMWATER - EMBANKMENT - SHEET 5	2	0	1			2
AEE-SW-106	STORMWATER - EMBANKMENT/ANNS CREEK - SHEET 6	2	0	1			2
AEE-SW-107	STORMWATER - ANNS CREEK - SHEET 7	2	0	1			2
AEE-SW-108	STORMWATER - ANNS CREEK/SYLVA PARK ROAD - SHEET 8	2	0	1			2
AEE-SW-109	STORMWATER - ANNS CREEK/SYLVA PARK RAMPS - SHEET 9	2	0	1			2
AEE-SW-110	STORMWATER - SH1/SYLVA PARK RAMPS - SHEET 10	2	0	1			2
AEE-SW-111	STORMWATER - SH1/PANAMA ROAD - SHEET 11	1	0				1
AEE-SW-112	STORMWATER - SH1/OTAHUHU CREEK - SHEET 12	1	0				1
AEE-SW-113	STORMWATER - PRINCES STREET INTERCHANGE - SHEET 13	1	0				1
AEE-SW-114	STORMWATER - NEILSON STREET INTERCHANGE - LOCAL ROADS - SHEET 14A AND 14B	2	0	1			2
AEE-SW-115	STORMWATER - CAPTAIN SPRINGS ROAD/ PORTS LINK - SHEET 15A AND 15B	1	0				1
AEE-SW-116	STORMWATER - EMBANKMENT - SHEET 16	2	0	1			2
AEE-SW-301	STORMWATER - TYPICAL WETLAND - PLAN AND SECTION	1	0				1
AEE-SW-311	STORMWATER - EMBANKMENT WETLAND - TYPICAL CROSS SECTION	2	0	1			2
AEE-SW-312	STORMWATER - FORESHORE TREATMENT AREA - TYPICAL SECTION	2	0	1			2

LEGEND: STORMWATER

PROPOSED FEATURES

- STORMWATER FOREBAY AREA
- STORMWATER WETLAND AREA
- STORMWATER BIOFILTRATION AREA
- STORMWATER MANHOLE
- STORMFILTER MANHOLE
- STORMFILTER VAULT
- STORMWATER MANHOLE WITH SCRUFFY DOME
- ONE WAY VALVE
- CATCHPIT
- LEACHATE MANHOLE
- CUT SLOPES
- ROAD ALIGNMENT
- FILL SLOPES
- ROCK
- STORMWATER OUTLET
- STORMWATER PIPE
- OVERLAND FLOW CHANNEL
- OPEN CHANNEL
- BOX CULVERT
- EMERGENCY OVERFLOW
- STORAGE TANK/ PUMP STATION
- PROPOSED LEACHATE COLLECTION PIPE
- PROPOSED LEACHATE WALL
- DESIGNATION BOUNDARY
- FORESHORE VEGETATION
- SHINGLE FORESHORE SLOPE
- BRIDGE STRUCTURE
- CYCLE/ PEDESTRIAN PATH
- RETAINING WALL

EXISTING FEATURES

- PROPERTY BOUNDARY
- EXISTING SHARED PATH TO REMAIN
- EXISTING COASTAL MARINE BOUNDARY
- STORMWATER PIPE TO REMAIN
- EXISTING CULVERT
- EXISTING SERVICES TO BE REMOVED/ABANDONED
- EXISTING OPEN CHANNEL TO BE REMOVED
- EXISTING OPEN CHANNEL

FOR BOI ISSUE

No.	Issued Status	Drawn	Check'd	App'd	Date
3	BOARD OF INQUIRY	RB	NN	JC	27/06/2017
2	EVIDENCE IN CHIEF	RB	NN*	JC*	07/04/2017
1	ISSUED FOR CONSENT - GSR GRADE SEPARATION	AR	NN*	PK*	14/12/2016
0	ISSUED FOR CONSENT	AR	NN*	PK*	01/12/2016

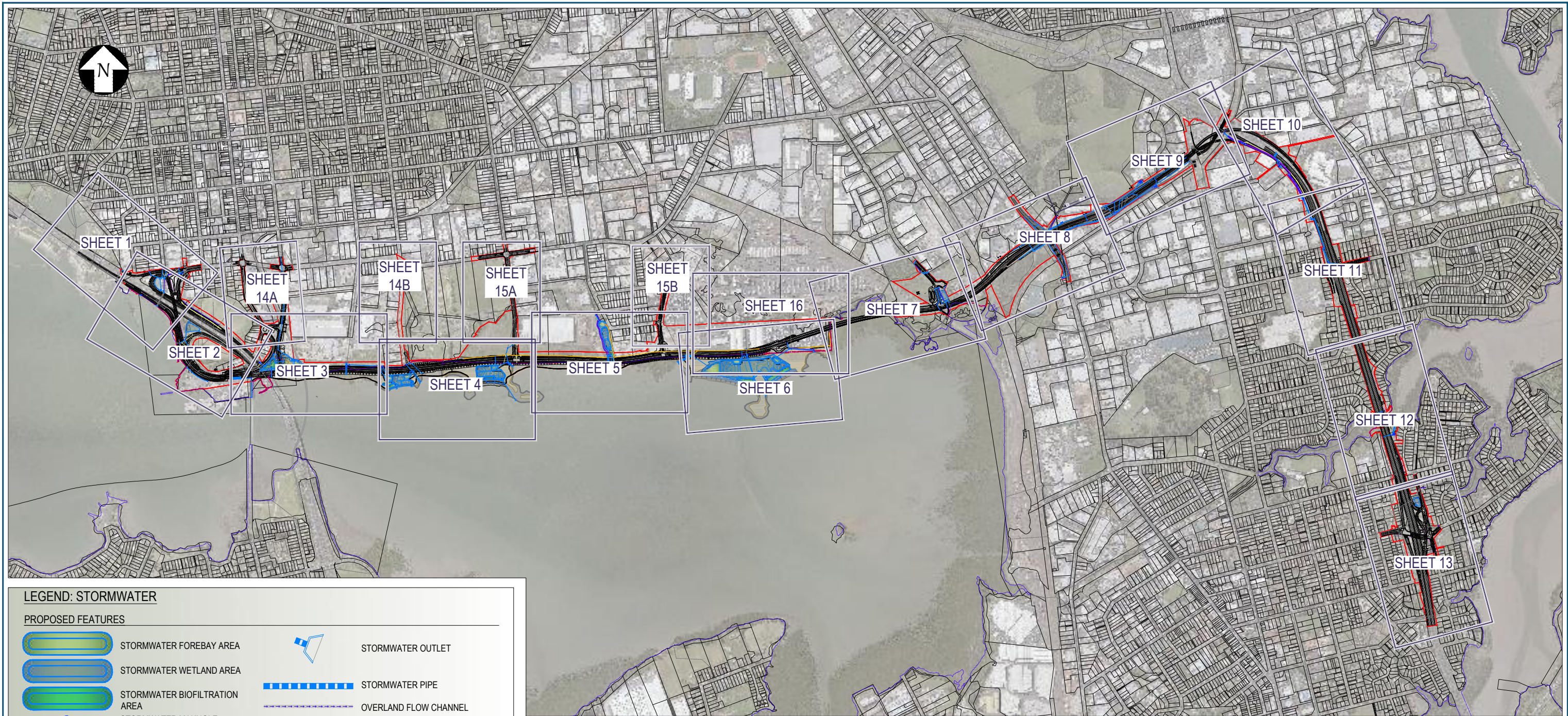
DISCLAIMER
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East West Link

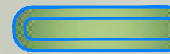

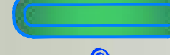












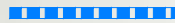

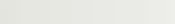

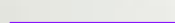
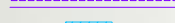








Drawn A RAM	Drafting Check J MURAHIDY	Reviewed Design Manager N NANCEKIVELL	Approved Alliance Manager J CALDWELL
Designed LB & TB	Design Check DP & TC	27/06/17	27/06/17
Scale: Original Scale (A1)	Reduced Scale (A3)	AS SHOWN	Contract No PA4014

Drawing Title STORMWATER EAST WEST LINK DRAWING INDEX, NOTES AND LEGEND	Drawing Number AEE-SW-001	Rev No. 3
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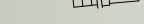

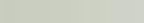

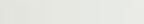

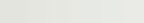


LEGEND: STORMWATER

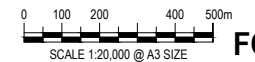
PROPOSED FEATURES

-  STORMWATER FOREBAY AREA
-  STORMWATER WETLAND AREA
-  STORMWATER BIOFILTRATION AREA
-  STORMWATER MANHOLE
-  STORMFILTER MANHOLE
-  STORMFILTER VAULT
-  STORMWATER MANHOLE WITH SCRUFFY DOME
-  ONE WAY VALVE
-  CATCHPIT
-  LEACHATE MANHOLE
-  CUT SLOPES
-  ROAD ALIGNMENT
-  FILL SLOPES
-  ROCK
-  STORMWATER OUTLET
-  STORMWATER PIPE
-  OVERLAND FLOW CHANNEL
-  OPEN CHANNEL
-  BOX CULVERT
-  EMERGENCY OVERFLOW
-  STORAGE TANK/ PUMP STATION
-  PROPOSED LEACHATE COLLECTION PIPE
-  PROPOSED LEACHATE WALL
-  DESIGNATION BOUNDARY
-  FRESHORE VEGETATION
-  SHINGLE FRESHORE SLOPE
-  BRIDGE STRUCTURE
-  CYCLE/ PEDESTRIAN PATH
-  RETAINING WALL

EXISTING FEATURES

-  PROPERTY BOUNDARY
-  EXISTING SHARED PATH TO REMAIN
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-  STORMWATER PIPE TO REMAIN
-  EXISTING CULVERT
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STORMWATER PLANS, REFER DRAWINGS AEE-SW-101 TO AEE-SW-116



FOR BOI ISSUE

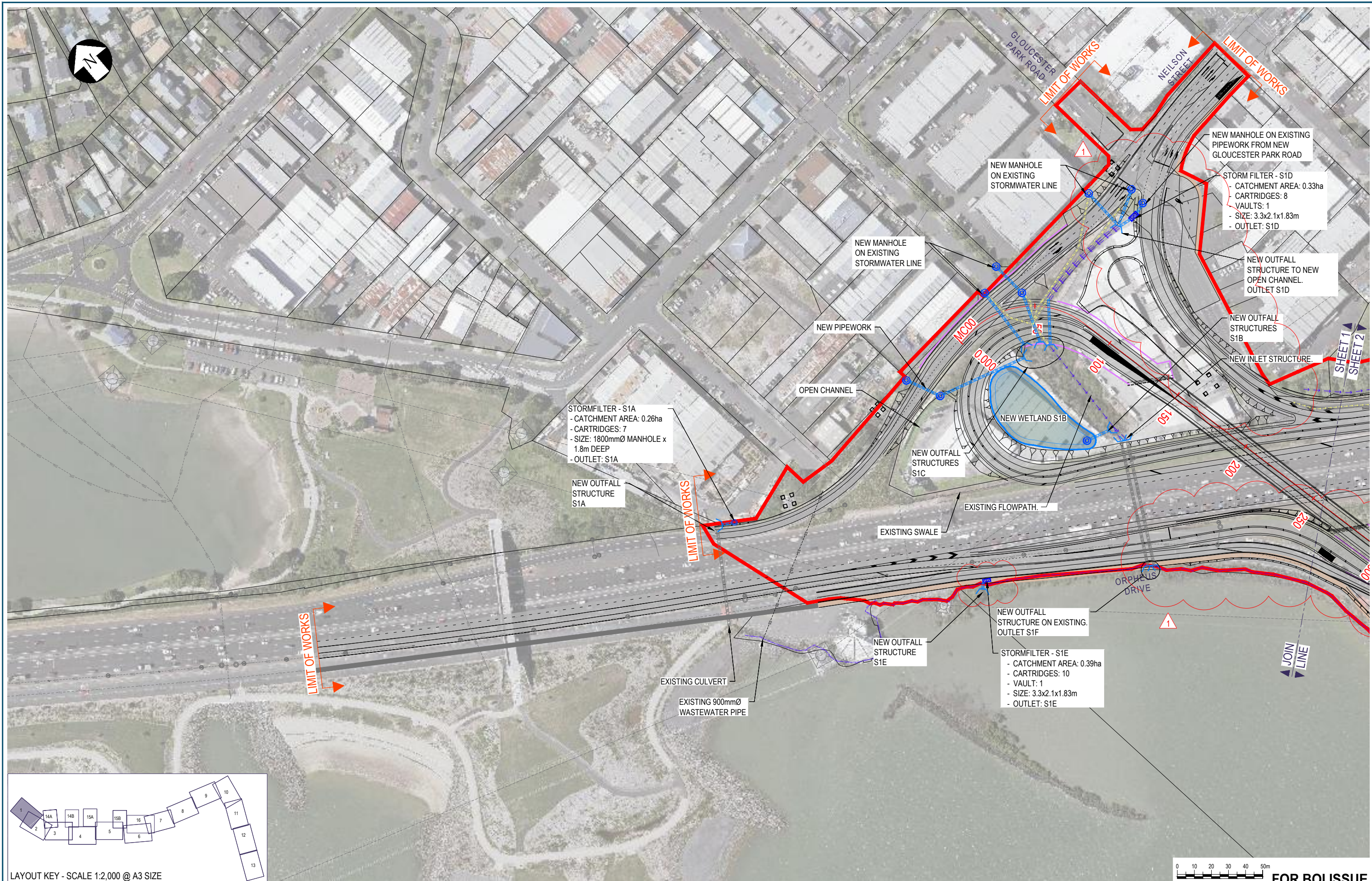
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2	EVIDENCE IN CHIEF	RB	NN*	JC*	07/04/2017
1	ISSUED FOR CONSENT - GSR GRADE SEPARATION	JM	NN*	PK*	14/12/2016
0	ISSUED FOR CONSENT	AR	NN*	PK*	01/12/2016
No.	Issued Status	Drawn	Check'd	App'd	Date

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Drawn	R BAILEY	Drafting Check	J MURAHIDY	Reviewed	N NANCEKIVELL	Approved	J CALDWELL
Designed	L BOLAM & T BLOUNT	Design Check	D PAICE & T CAIN	Design Manager	N NANCEKIVELL	Alliance Manager	J CALDWELL
Scale:	Original Scale (A1)	Reduced Scale (A3)	AS SHOWN	Contract No.	PA4014		

Drawing Title	STORMWATER EAST WEST LINK OVERVIEW PLAN AND LEGEND
Drawing Number	AEE-SW-100
Rev No.	3



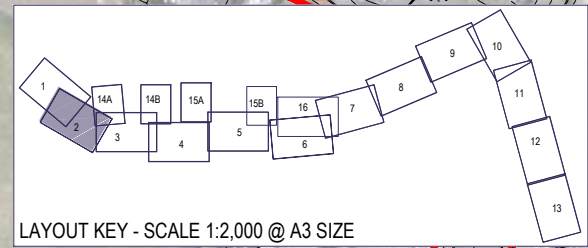
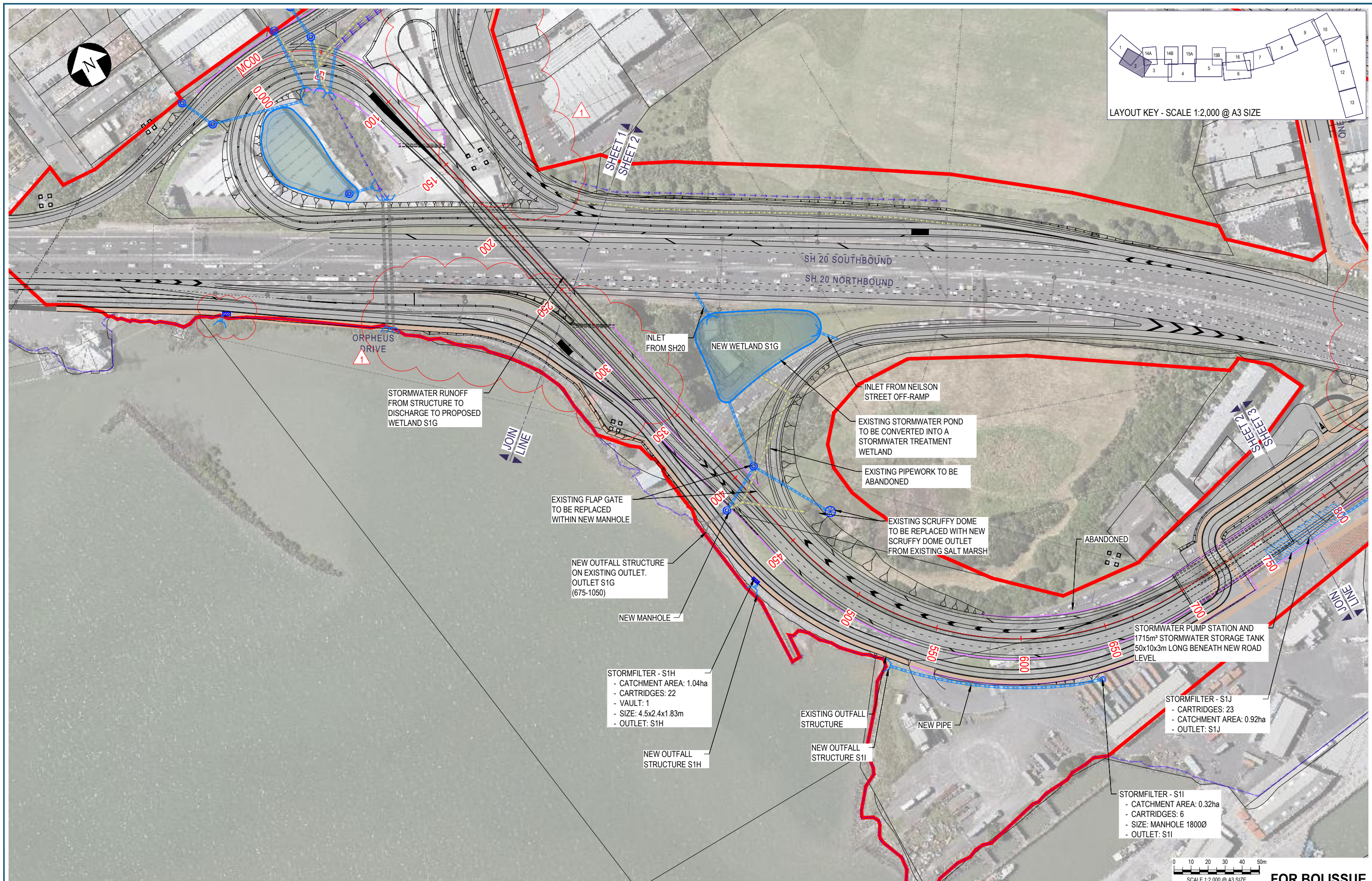
LAYOUT KEY - SCALE 1:2,000 @ A3 SIZE

No.	Issued Status	Drawn	Check'd	App'd	Date
2	BOARD OF INQUIRY	RB	NN	JC	27/06/2017
1	EVIDENCE IN CHIEF	RB	NN*	JC*	07/04/2017
0	ISSUED FOR CONSENT	AR	NN*	PK*	01/12/2016

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Drawn	R BAILEY	Drafting Check	J MURAHIDY	Reviewed Design Manager	N NANCEKIVELL	Approved Alliance Manager	J CALDWELL
Designed	L BOLAM & T BLOUNT	Design Check	D PAICE & T CAIN		27/06/17		27/06/17
Scale:	Original Scale (A1)	Reduced Scale (A3)	AS SHOWN	Contract No	PA4014		

Drawing Title	STORMWATER SH20/ NEILSON STREET INTERCHANGE SHEET 1		
Drawing Number	AEE-SW-101	Rev No.	2



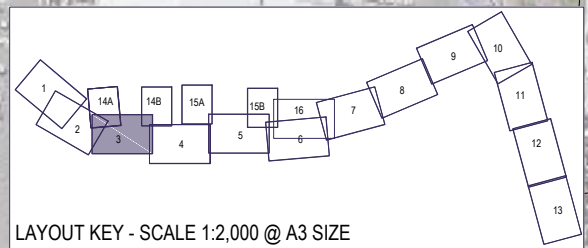
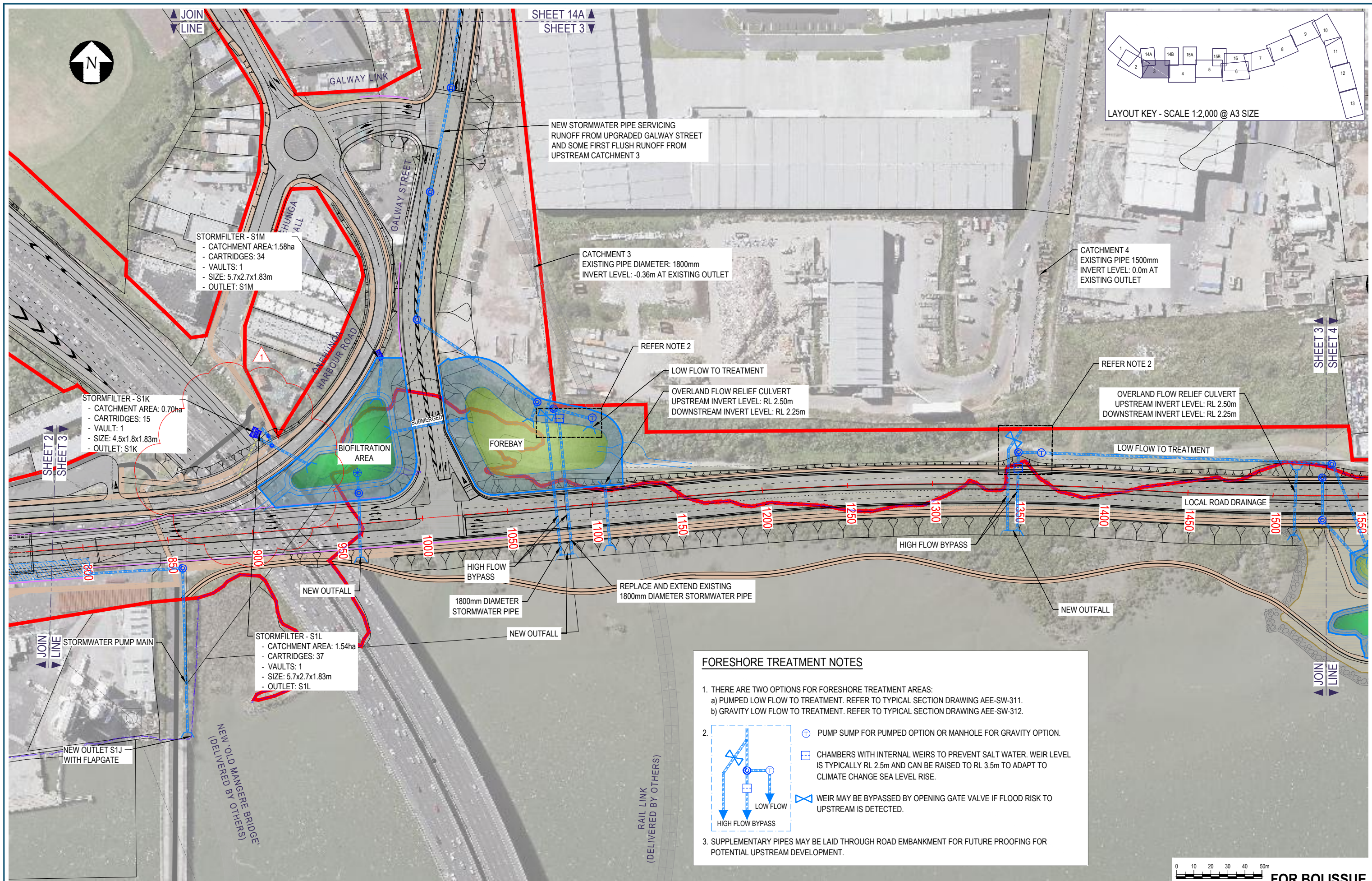
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2	BOARD OF INQUIRY	RB	NN	JC	27/06/2017
1	EVIDENCE IN CHIEF	RB	NN*	JC*	07/04/2017
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Designed	L BOLAM & T BLOUNT	Design Check	D PAICE & T CAIN				
Scale:	Original Scale (A1)	Reduced Scale (A3)	AS SHOWN	Contract No	PA4014		

Drawing Title	STORMWATER NEILSON STREET INTERCHANGE SHEET 2	
Drawing Number	AEE-SW-102	Rev No. 2



STORMFILTER - S1M
 - CATCHMENT AREA: 1.58ha
 - CARTRIDGES: 34
 - VAULTS: 1
 - SIZE: 5.7x2.7x1.83m
 - OUTLET: S1M

STORMFILTER - S1K
 - CATCHMENT AREA: 0.70ha
 - CARTRIDGES: 15
 - VAULT: 1
 - SIZE: 4.5x1.8x1.83m
 - OUTLET: S1K

STORMFILTER - S1L
 - CATCHMENT AREA: 1.54ha
 - CARTRIDGES: 37
 - VAULTS: 1
 - SIZE: 5.7x2.7x1.83m
 - OUTLET: S1L

NEW STORMWATER PIPE SERVICING
 RUNOFF FROM UPGRADED GALWAY STREET
 AND SOME FIRST FLUSH RUNOFF FROM
 UPSTREAM CATCHMENT 3

CATCHMENT 3
 EXISTING PIPE DIAMETER: 1800mm
 INVERT LEVEL: -0.36m AT EXISTING OUTLET

CATCHMENT 4
 EXISTING PIPE 1500mm
 INVERT LEVEL: 0.0m AT
 EXISTING OUTLET

OVERLAND FLOW RELIEF CULVERT
 UPSTREAM INVERT LEVEL: RL 2.50m
 DOWNSTREAM INVERT LEVEL: RL 2.25m

OVERLAND FLOW RELIEF CULVERT
 UPSTREAM INVERT LEVEL: RL 2.50m
 DOWNSTREAM INVERT LEVEL: RL 2.25m

REPLACE AND EXTEND EXISTING
 1800mm DIAMETER STORMWATER PIPE

FORESHORE TREATMENT NOTES

- THERE ARE TWO OPTIONS FOR FORESHORE TREATMENT AREAS:
 a) PUMPED LOW FLOW TO TREATMENT. REFER TO TYPICAL SECTION DRAWING AEE-SW-311.
 b) GRAVITY LOW FLOW TO TREATMENT. REFER TO TYPICAL SECTION DRAWING AEE-SW-312.
- PUMP SUMP FOR PUMPED OPTION OR MANHOLE FOR GRAVITY OPTION.
 - CHAMBERS WITH INTERNAL WEIRS TO PREVENT SALT WATER. WEIR LEVEL IS TYPICALLY RL 2.5m AND CAN BE RAISED TO RL 3.5m TO ADAPT TO CLIMATE CHANGE SEA LEVEL RISE.
 - WEIR MAY BE BYPASSED BY OPENING GATE VALVE IF FLOOD RISK TO UPSTREAM IS DETECTED.
- SUPPLEMENTARY PIPES MAY BE LAID THROUGH ROAD EMBANKMENT FOR FUTURE PROOFING FOR POTENTIAL UPSTREAM DEVELOPMENT.

SCALE 1:2,000 @ A3 SIZE **FOR BOI ISSUE**

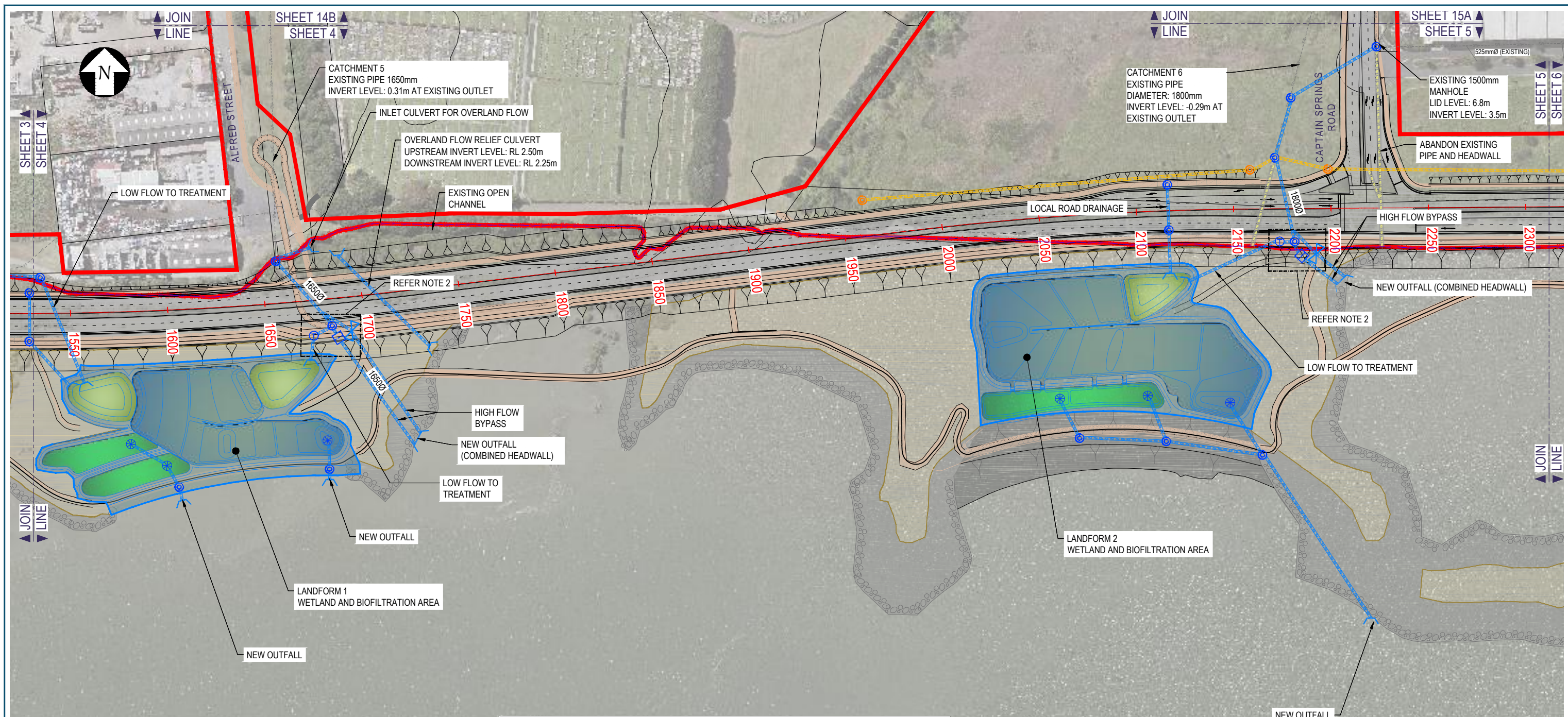
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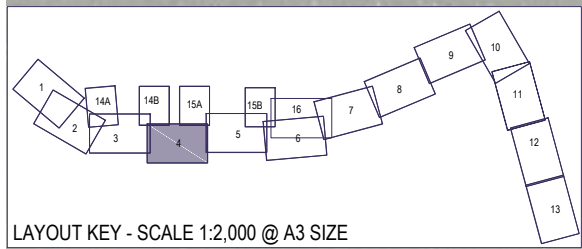
Drawn	A RAM	Drafting Check	J MURAHIDY	Reviewed	N NANCEKIVELL	Approved	J CALDWELL
Designed	L BOLAM & T BLOUNT	Design Check	D PAICE & T CAIN	Design Manager	27/06/17	Alliance Manager	27/06/17
Scale:	Original Scale (A1)	Reduced Scale (A3)	AS SHOWN	Contract No	PA4014		

Drawing Title	STORMWATER EAST WEST LINK/ GALWAY STREET SHEET 3		
Drawing Number	AEE-SW-103	Rev No.	2



FORESHORE TREATMENT NOTES

- THERE ARE TWO OPTIONS FOR FORESHORE TREATMENT AREAS:
 - PUMPED LOW FLOW TO TREATMENT. REFER TO TYPICAL SECTION DRAWING AEE-SW-311.
 - GRAVITY LOW FLOW TO TREATMENT. REFER TO TYPICAL SECTION DRAWING AEE-SW-312.
-
- SUPPLEMENTARY PIPES MAY BE LAID THROUGH ROAD EMBANKMENT FOR FUTURE PROOFING FOR POTENTIAL UPSTREAM DEVELOPMENT.



0 10 20 30 40 50m
SCALE 1:2,000 @ A3 SIZE **FOR BOI ISSUE**

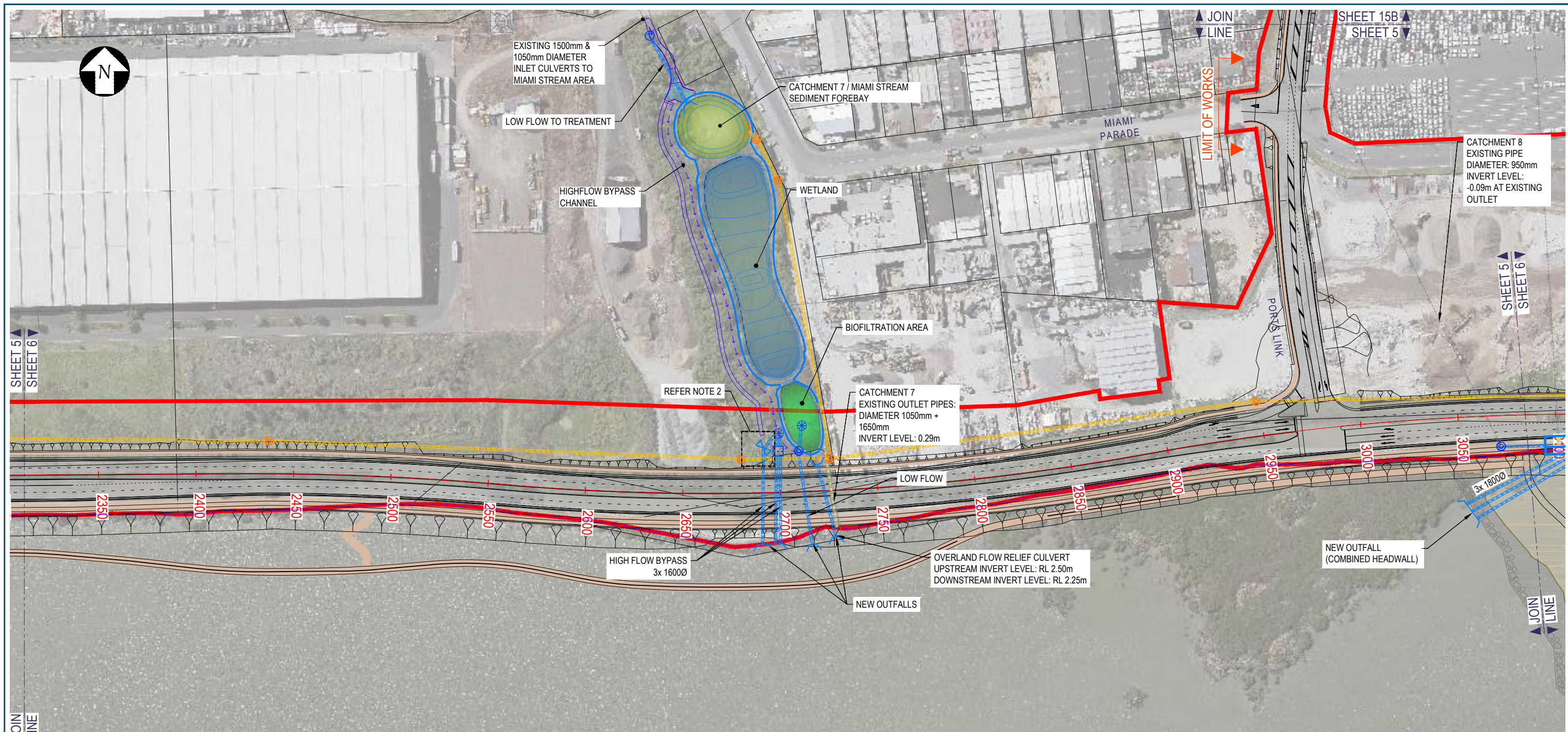
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2	BOARD OF INQUIRY	RB	NN	JC	27/06/2017
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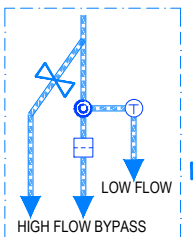


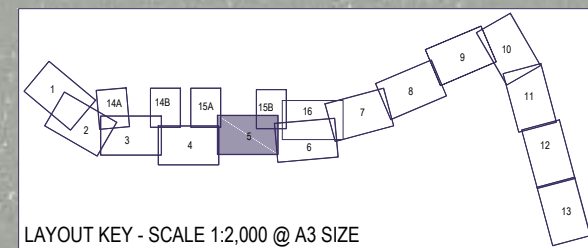
Drawn	R BAILEY	Drafting Check	J MURAHIDY	Reviewed	N NANCEKIVELL	Approved	J CALDWELL
Designed	L BOLAM & T BLOUNT	Design Check	D PAICE & T CAIN	Design Manager	N NANCEKIVELL	Alliance Manager	J CALDWELL
Scale:	Original Scale (A1)	Reduced Scale (A3)	AS SHOWN	Contract No	PA4014		

Drawing Title	STORMWATER EMBANKMENT SHEET 4	Rev No.	2
Drawing Number	AEE-SW-104		



FORESHORE TREATMENT NOTES

- THERE ARE TWO OPTIONS FOR FORESHORE TREATMENT AREAS:
 - PUMPED LOW FLOW TO TREATMENT. REFER TO TYPICAL SECTION DRAWING AEE-SW-311.
 - GRAVITY LOW FLOW TO TREATMENT. REFER TO TYPICAL SECTION DRAWING AEE-SW-312.
- 
 - PUMP SUMP FOR PUMPED OPTION OR MANHOLE FOR GRAVITY OPTION.
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 - WEIR MAY BE BYPASSED BY OPENING GATE VALVE IF FLOOD RISK TO UPSTREAM IS DETECTED.
- SUPPLEMENTARY PIPES MAY BE LAID THROUGH ROAD EMBANKMENT FOR FUTURE PROOFING FOR POTENTIAL UPSTREAM DEVELOPMENT.



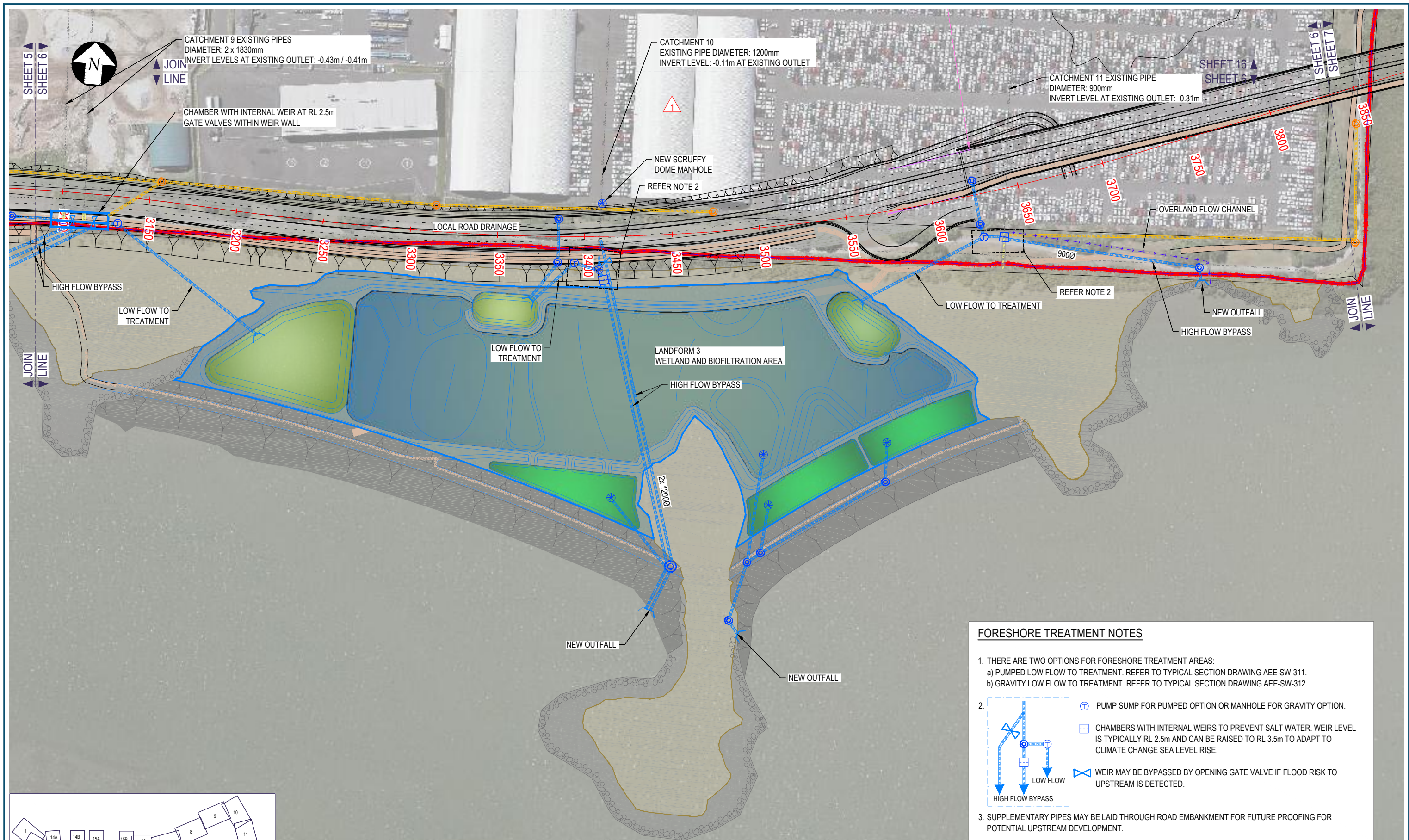
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SCALE 1:2,000 @ A3 SIZE **FOR BOI ISSUE**

2	BOARD OF INQUIRY	RB	NN	JC	27/06/2017
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No.	Issued Status	Drawn	Check'd	App'd	Date

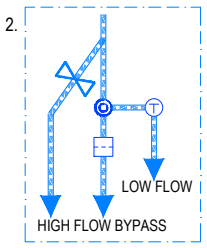
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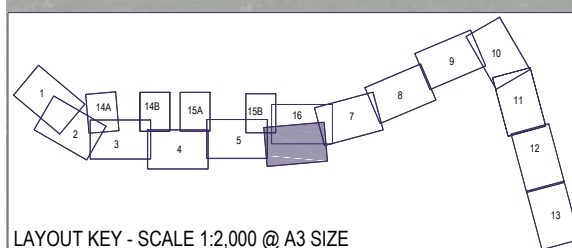
Drawn	R BAILEY	Drafting Check	J MURAHIDY	Reviewed Design Manager	N NANCEKIVELL	Approved Alliance Manager	J CALDWELL
Designed	L BOLAM & T BLOUNT	Design Check	D PAICE & T CAIN				
Scale:	Original Scale (A1)	Reduced Scale (A3)	AS SHOWN	Contract No	PA4014		

Drawing Title	STORMWATER EMBANKMENT SHEET 5	Rev No.	2
Drawing Number	AEE-SW-105		



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 - PUMPED LOW FLOW TO TREATMENT. REFER TO TYPICAL SECTION DRAWING AEE-SW-311.
 - GRAVITY LOW FLOW TO TREATMENT. REFER TO TYPICAL SECTION DRAWING AEE-SW-312.
- 
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LAYOUT KEY - SCALE 1:2,000 @ A3 SIZE

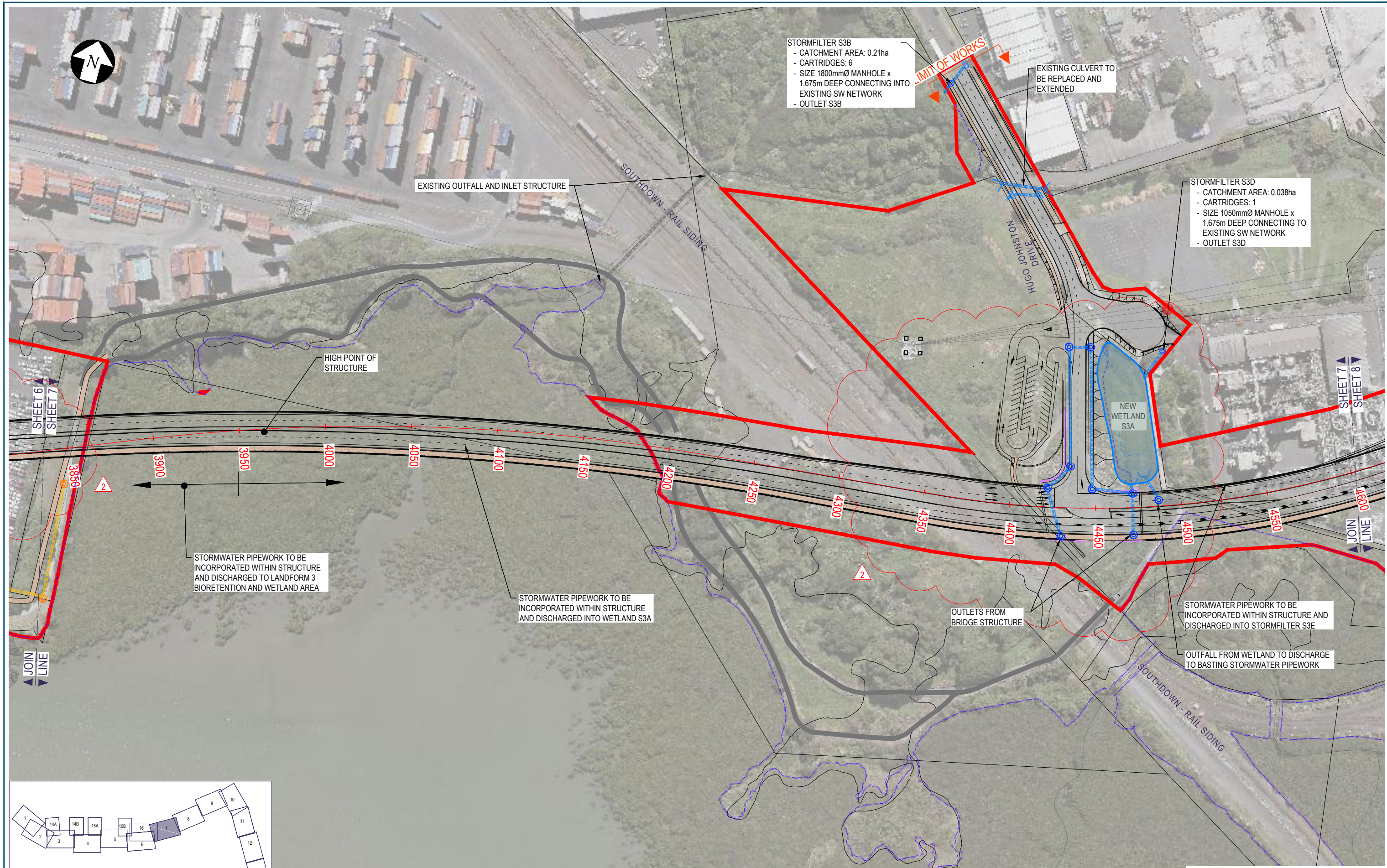
0 10 20 30 40 50m
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Designed	L BOLAM & T BLOUNT	Design Check	D PAICE & T CAIN		27/06/17		27/06/17
Scale:	Original Scale (A1)	Reduced Scale (A3)	AS SHOWN	Contract No	PA4014		

Drawing Title	STORMWATER EMBANKMENT/ ANNS CREEK SHEET 6		
Drawing Number	AEE-SW-106	Rev No.	2



STORMFILTER S3B
 - CATCHMENT AREA: 0.21ha
 - CARTRIDGES: 6
 - SIZE 1800mmØ MANHOLE x 1.675m DEEP CONNECTING INTO EXISTING SW NETWORK
 - OUTLET S3B

EXISTING CULVERT TO BE REPLACED AND EXTENDED

STORMFILTER S3D
 - CATCHMENT AREA: 0.038ha
 - CARTRIDGES: 1
 - SIZE 1050mmØ MANHOLE x 1.675m DEEP CONNECTING TO EXISTING SW NETWORK
 - OUTLET S3D

EXISTING OUTFALL AND INLET STRUCTURE

HIGH POINT OF STRUCTURE

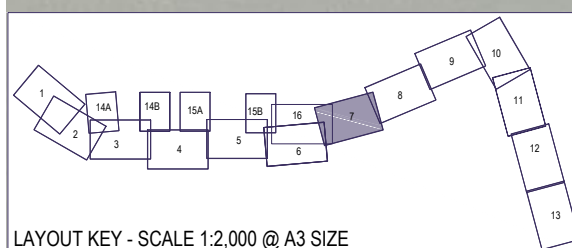
STORMWATER PIPEWORK TO BE INCORPORATED WITHIN STRUCTURE AND DISCHARGED TO LANDFORM 3 BIORETENTION AND WETLAND AREA

STORMWATER PIPEWORK TO BE INCORPORATED WITHIN STRUCTURE AND DISCHARGED INTO WETLAND S3A

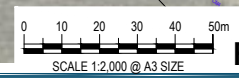
OUTLETS FROM BRIDGE STRUCTURE

STORMWATER PIPEWORK TO BE INCORPORATED WITHIN STRUCTURE AND DISCHARGED INTO STORMFILTER S3E

OUTFALL FROM WETLAND TO DISCHARGE TO BASTING STORMWATER PIPEWORK



LAYOUT KEY - SCALE 1:2,000 @ A3 SIZE



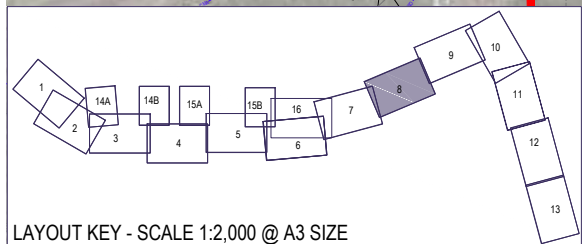
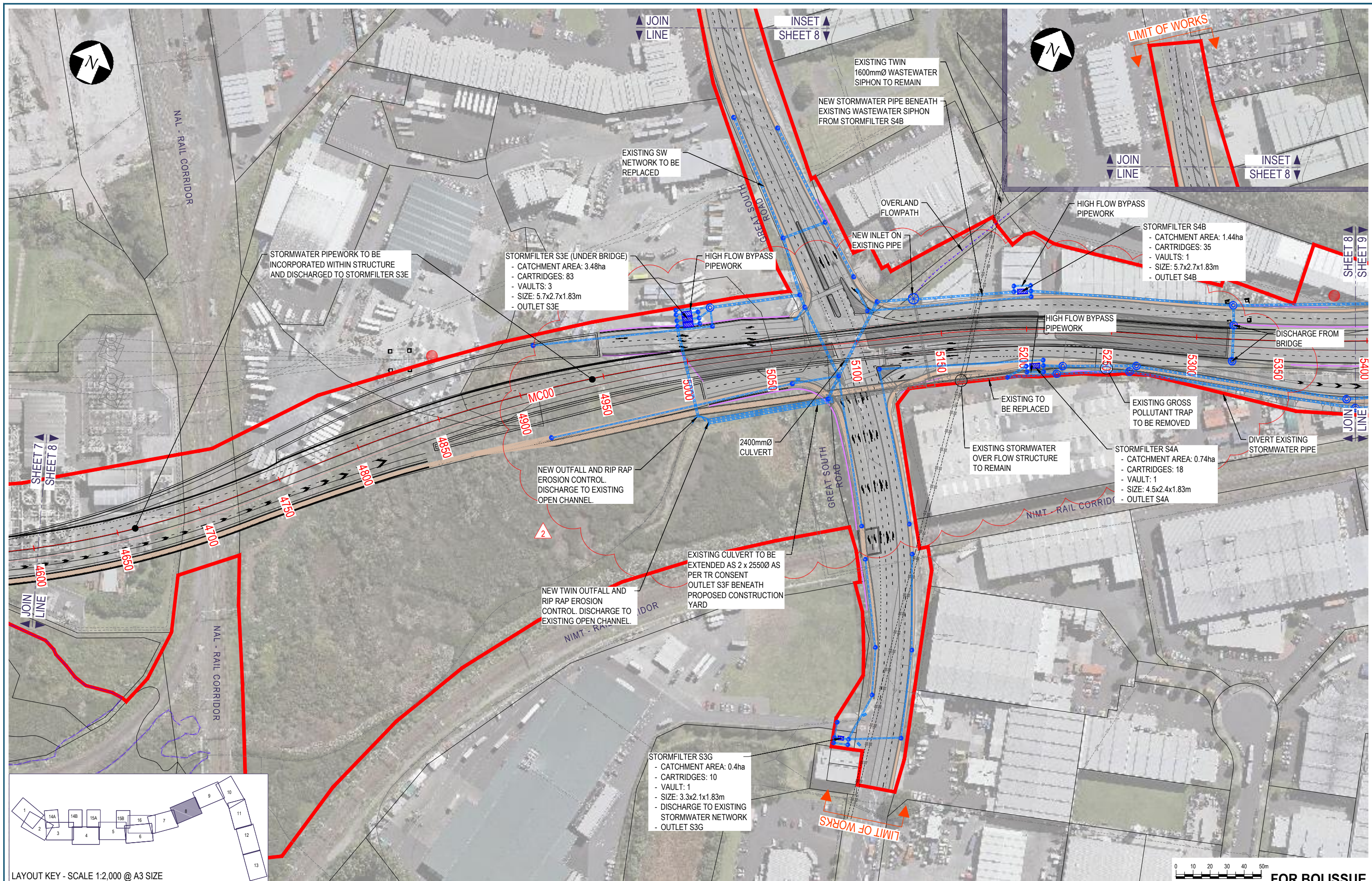
FOR BOI ISSUE

No.	Issued Status	Drawn	Check'd	App'd	Date
2	BOARD OF INQUIRY	RB	NN	JC	27/06/2017
1	EVIDENCE IN CHIEF	RB	NN*	JC*	07/04/2017
0	ISSUED FOR CONSENT	AR	NN*	PK*	01/12/2016

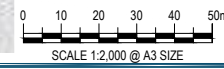
DISCLAIMER
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Drawn R BAILEY	Drafting Check J MURAHIDY	Reviewed Design Manager N NANCEKIVELL	Approved Alliance Manager J CALDWELL
Designed L BOLAM & T BLOUNT	Design Check D PAICE & T CAIN	27/06/17	27/06/17
Scale: Original Scale (A1)	Reduced Scale (A3)	AS SHOWN	Contract No PA4014

Drawing Title STORMWATER ANNS CREEK SHEET 7	Drawing Number AEE-SW-107	Rev No. 2
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LAYOUT KEY - SCALE 1:2,000 @ A3 SIZE



FOR BOI ISSUE

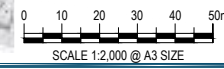
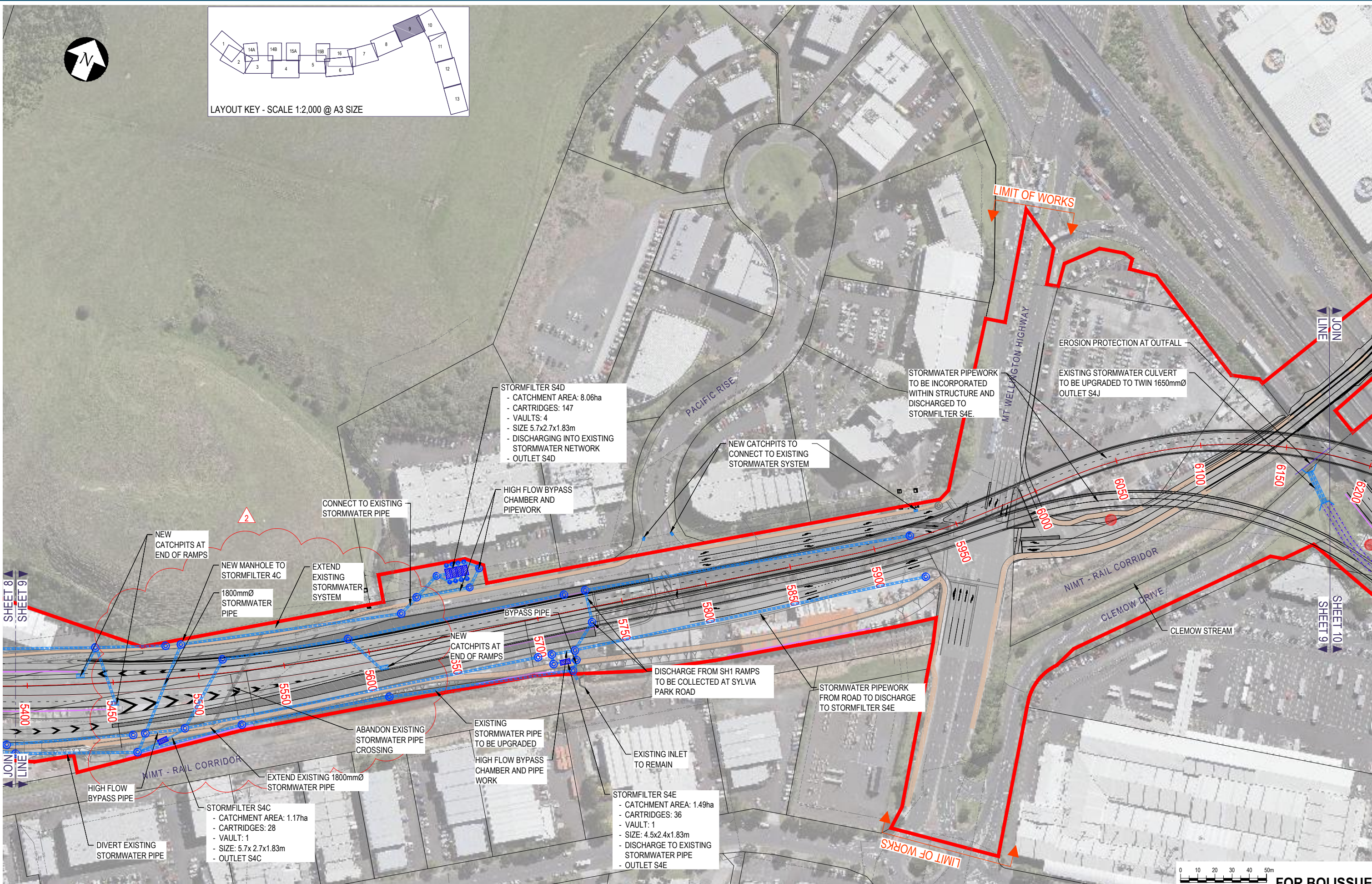
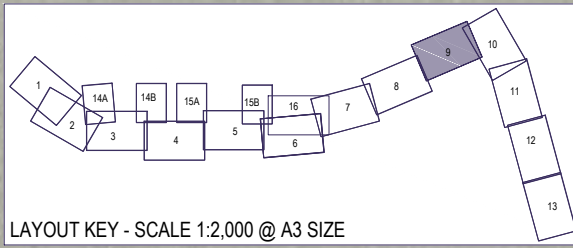
3	BOARD OF INQUIRY	RB	NN	JC	27/06/217
2	EVIDENCE IN CHIEF	RB	NN*	JC*	07/04/2017
1	ISSUED FOR CONSENT - GSR GRADE SEPARATION	AR	NN*	PK*	14/12/2016
0	ISSUED FOR CONSENT	AR	NN*	PK*	01/12/2016
No.	Issued Status	Drawn	Check'd	App'd	Date

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Drawn	A RAM	Drafting Check	J MURAHIDY	Reviewed	N NANCEKIVELL	Approved	J CALDWELL
Designed	L BOLAM & T BLOUNT	Design Check	D PAICE & T CAIN	Design Manager	27/06/17	Alliance Manager	27/06/17
Scale:	Original Scale (A1)	Reduced Scale (A3)	AS SHOWN	Contract No	PA4014		

Drawing Title	STORMWATER ANNS CREEK/SYLVA PARK ROAD SHEET 8		
Drawing Number	AEE-SW-108	Rev No.	3



FOR BOI ISSUE

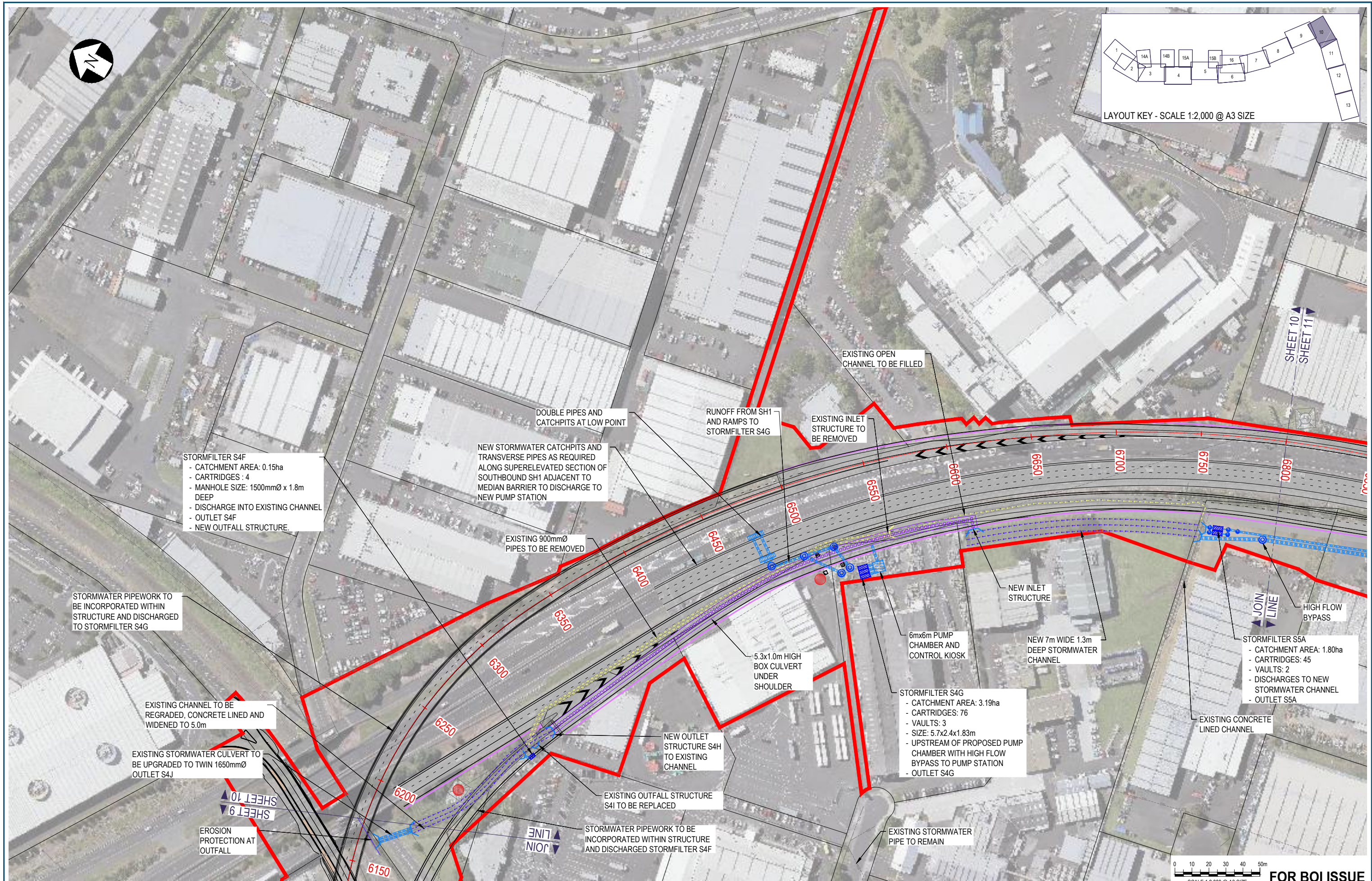
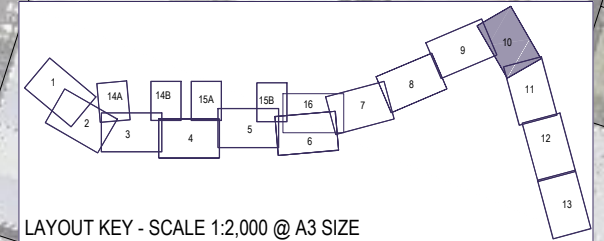
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2	EVIDENCE IN CHIEF	RB	NN*	JC*	07/04/2017
1	ISSUED FOR CONSENT - GSR GRADE SEPARATION	AR	NN*	PK*	14/12/2016
0	ISSUED FOR CONSENT	AR	NN*	PK*	01/12/2016
No.	Issued Status	Drawn	Check'd	App'd	Date

DISCLAIMER
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Drawn	A RAM	Drafting Check	J MURAHIDY	Reviewed	N NANCEKIVELL	Approved	J CALDWELL
Designed	L BOLAM & T BLOUNT	Design Check	D PAICE & T CAIN	Design Manager	27/06/17	Alliance Manager	27/06/17
Scale:	Original Scale (A1)	Reduced Scale (A3)	AS SHOWN	Contract No	PA4014		

Drawing Title	STORMWATER SH1/ SYLVIA PARK RAMPS SHEET 9		
Drawing Number	AEE-SW-109	Rev No.	3

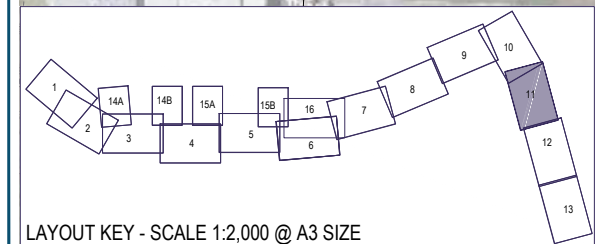
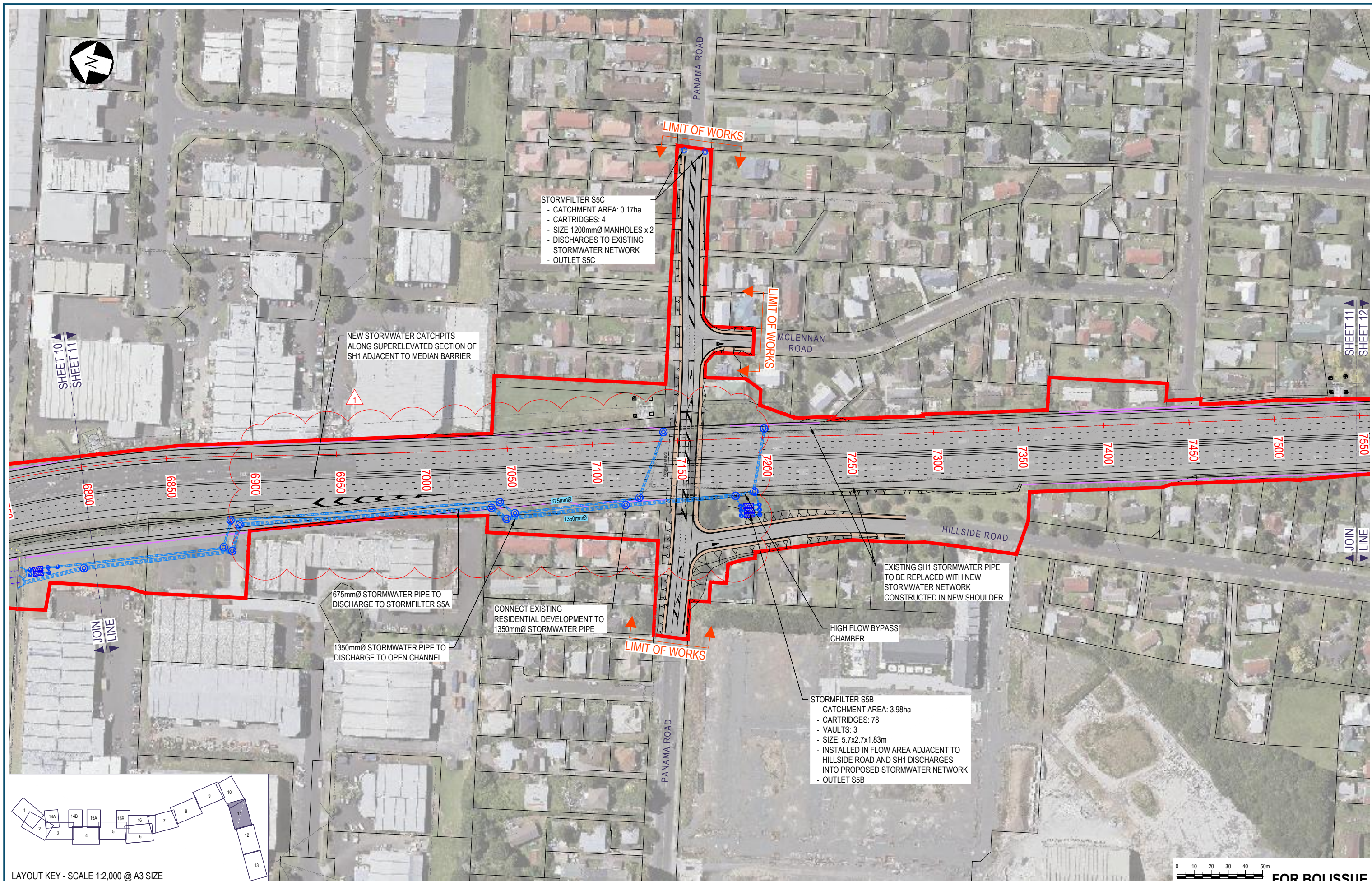


3	BOARD OF INQUIRY	RB	NN	JC	27/06/2017
2	EVIDENCE IN CHIEF	RB	NN*	JC*	07/04/2017
1	ISSUED FOR CONSENT - GSR GRADE SEPARATION	AR	NN*	PK*	14/12/2016
0	ISSUED FOR CONSENT	AR	NN*	PK*	01/12/2016
No.	Issued Status	Drawn	Check'd	App'd	Date

DISCLAIMER
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Drawn	A RAM	Drafting Check	J MURAHIDY	Reviewed	N NANCEKIVELL	Approved	J CALDWELL
Designed	L BOLAM & T BLOUNT	Design Check	D PAICE & T CAIN	Design Manager	27/06/17	Alliance Manager	27/06/17
Scale:	Original Scale (A1)	Reduced Scale (A3)	AS SHOWN	Contract No	PA4014		

Drawing Title	STORMWATER SH1/ SYLVIA PARK RAMPS SHEET 10		
Drawing Number	AEE-SW-110	Rev No.	3

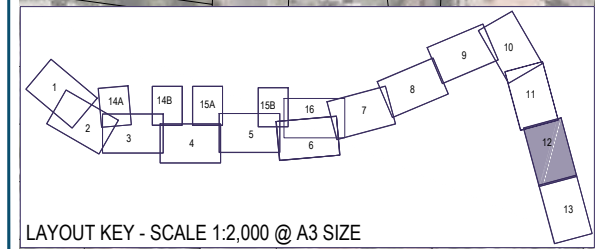
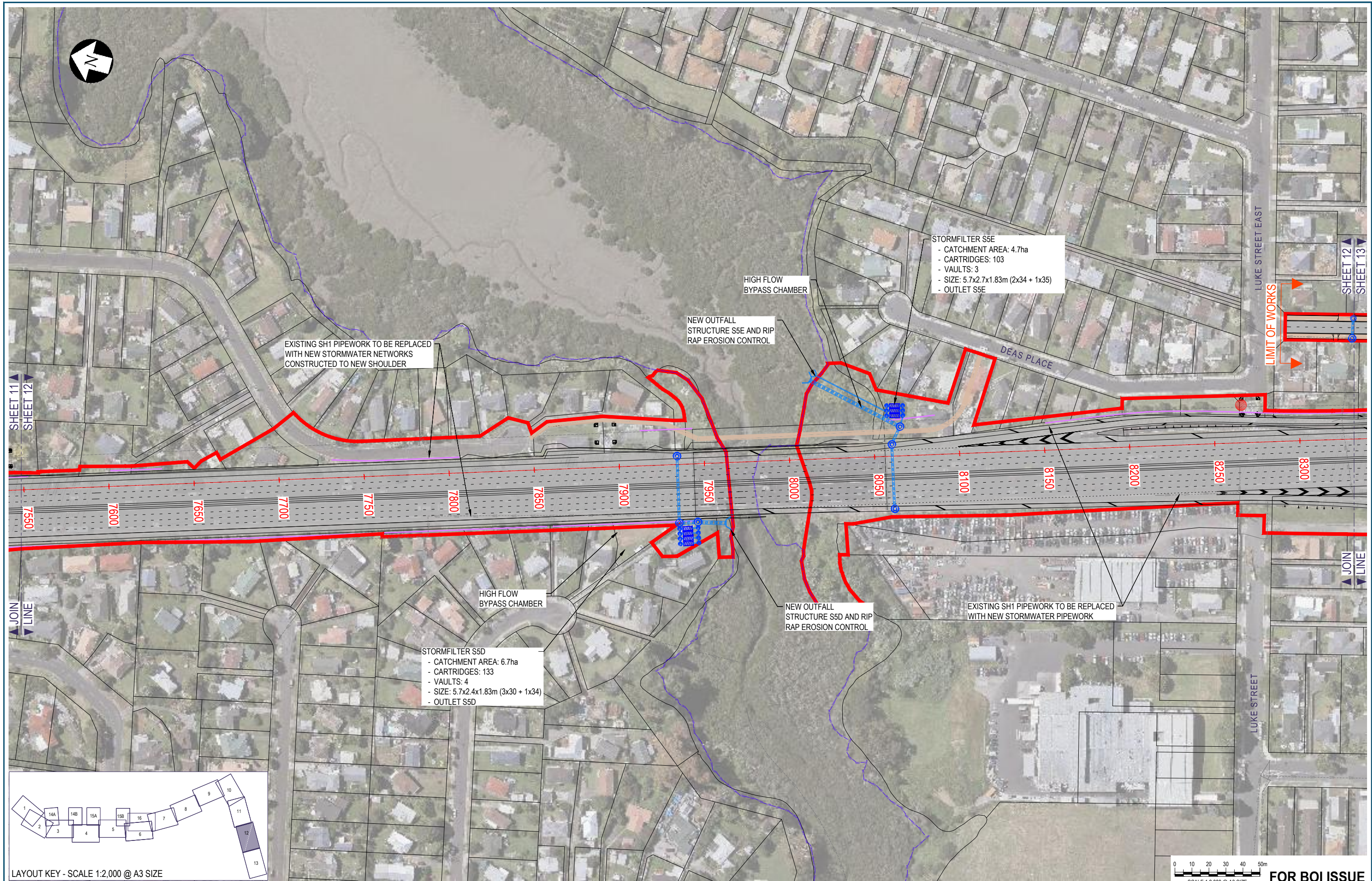


No.	Issued Status	Drawn	Check'd	App'd	Date
2	BOARD OF INQUIRY	RB	NN	JC	27/06/2017
1	EVIDENCE IN CHIEF	RB	NN*	JC*	07/04/2017
0	ISSUED FOR CONSENT	AR	NN*	PK*	01/12/2016

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Drawn	A RAM	Drafting Check	J MURAHIDY	Reviewed	N NANCEKIVELL	Approved	J CALDWELL
Designed	L BOLAM & T BLOUNT	Design Check	D PAICE & T CAIN	Design Manager	27/06/17	Alliance Manager	27/06/17
Scale:	Original Scale (A1)	Reduced Scale (A3)	AS SHOWN	Contract No	PA4014		

Drawing Title	STORMWATER SH1/ PANAMA ROAD SHEET 11		
Drawing Number	AEE-SW-111	Rev No.	2

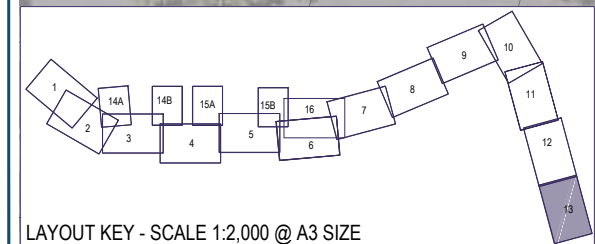
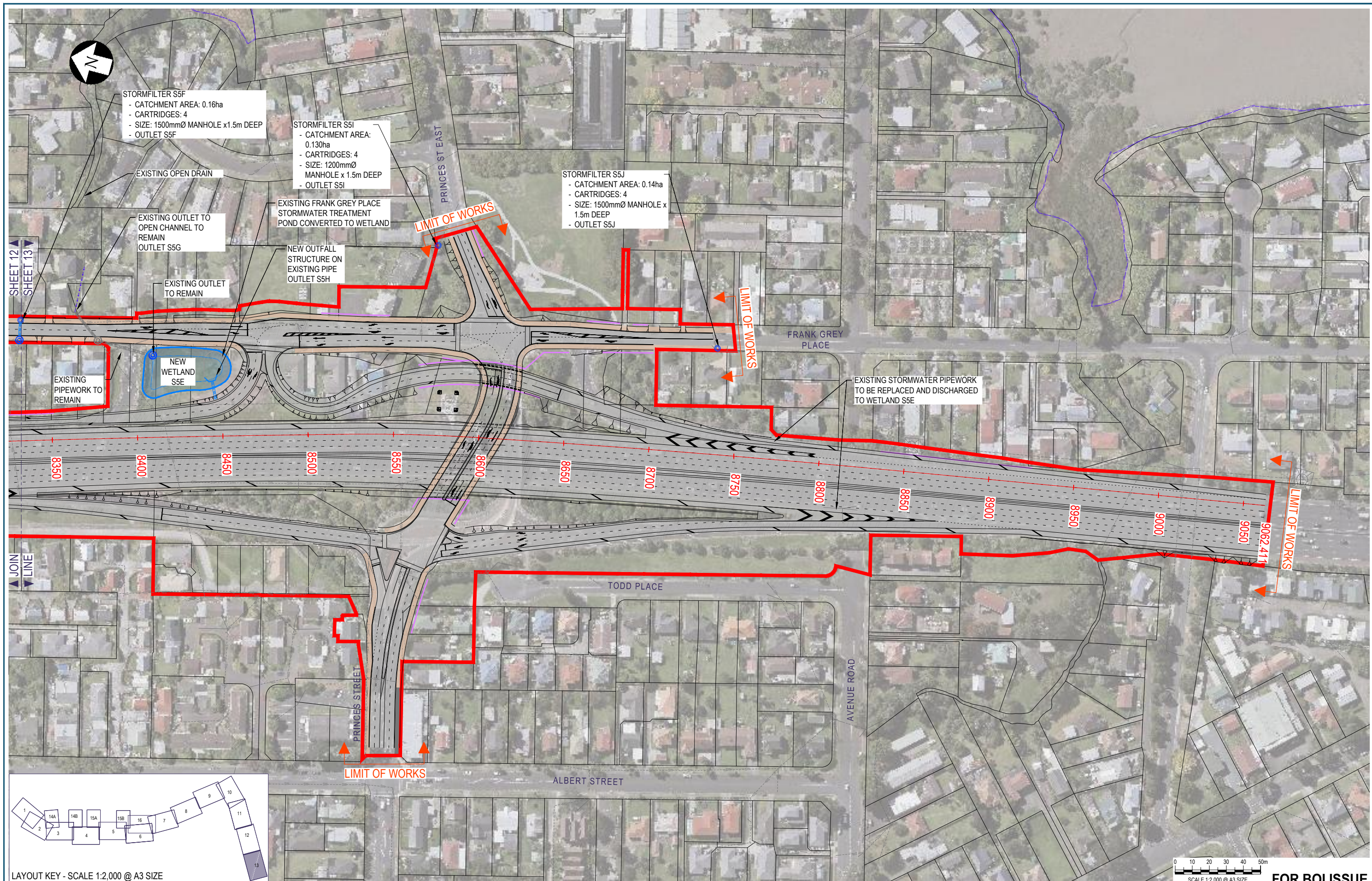


No.	Issued Status	Drawn	Check'd	App'd	Date
2	BOARD OF INQUIRY	RB	NN	JC	27/06/2017
1	EVIDENCE IN CHIEF	RB	NN*	JC*	07/04/2017
0	ISSUED FOR CONSENT	AR	NN*	PK*	01/12/2016

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Drawn	A RAM	Drafting Check	J MURAHIDY	Reviewed	N NANCEKIVELL	Approved	J CALDWELL
Designed	L BOLAM & T BLOUNT	Design Check	D PAICE & T CAIN	Design Manager	27/06/17	Alliance Manager	27/06/17
Scale:	Original Scale (A1)	Reduced Scale (A3)	AS SHOWN	Contract No	PA4014		

Drawing Title	STORMWATER SH1/ OTAHUHU CREEK SHEET 12		
Drawing Number	AEE-SW-112	Rev No.	2



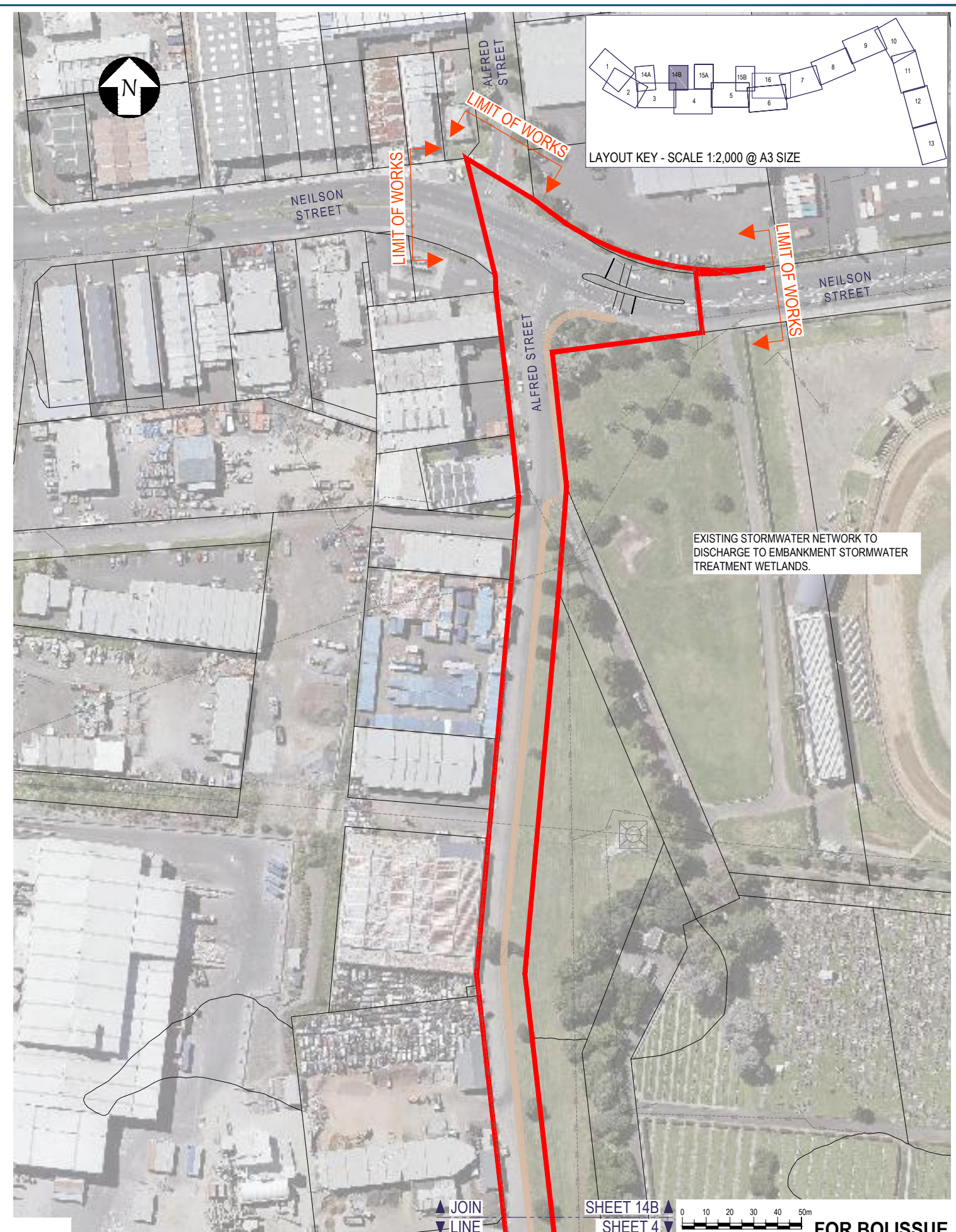
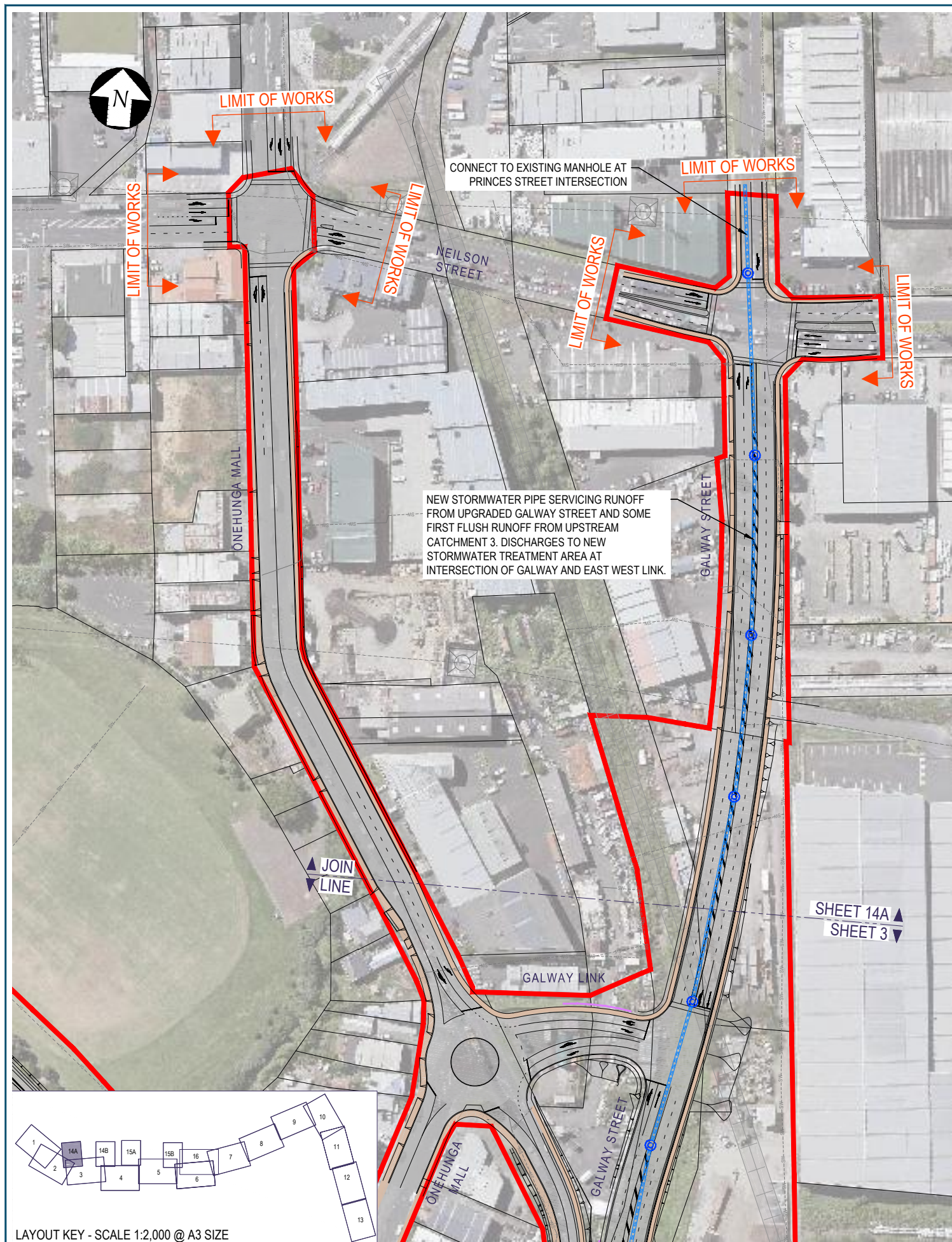
No.	Issued Status	Drawn	Check'd	App'd	Date
2	BOARD OF INQUIRY	RB	NN	JC	27/06/2017
1	EVIDENCE IN CHIEF	RB	NN*	JC*	07/04/2017
0	ISSUED FOR CONSENT	AR	NN*	PK*	01/12/2016

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Drawn	A RAM	Drafting Check	J MURAHIDY	Reviewed	N NANCEKIVELL	Approved	J CALDWELL
Designed	L BOLAM & T BLOUNT	Design Check	D PAICE & T CAIN	27/06/17			
Scale:	Original Scale (A1)	Reduced Scale (A3)	AS SHOWN	Contract No	PA4014		

Drawing Title	STORMWATER PRINCES STREET INTERCHANGE SHEET 13		
Drawing Number	AEE-SW-113		
Rev No.	2		



LAYOUT KEY - SCALE 1:2,000 @ A3 SIZE

2	BOARD OF INQUIRY	RB	NN	JC	27/06/2017
1	EVIDENCE IN CHIEF	RB	NN*	JC*	07/04/2017
0	ISSUED FOR CONSENT	AR	NN*	PK*	01/12/2016
No.	Issued Status	Drawn	Check'd	App'd	Date

DISCLAIMER
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Drawn	A RAM	Drafting Check	J MURAHIDY	Reviewed Design Manager	N NANCEKIVELL	Approved Alliance Manager	J CALDWELL
Designed	L BOLAM & T BLOUNT	Design Check	D PAICE & T CAIN		27/06/17		27/06/17
Scale:	Original Scale (A1)	Reduced Scale (A3)	AS SHOWN	Contract No	PA4014		

Drawing Title	STORMWATER NEILSON STREET INTERCHANGE - LOCAL ROAD SHEET 14A AND 14B		
Drawing Number	AEE-SW-114	Rev No.	2



No.	Issued Status	Drawn	Check'd	App'd	Date
2	BOARD OF INQUIRY	RB	NN	JC	27/06/2017
1	EVIDENCE IN CHIEF	RB	NN*	JC*	07/04/2017
0	ISSUED FOR CONSENT	AR	NN*	PK*	01/12/2016

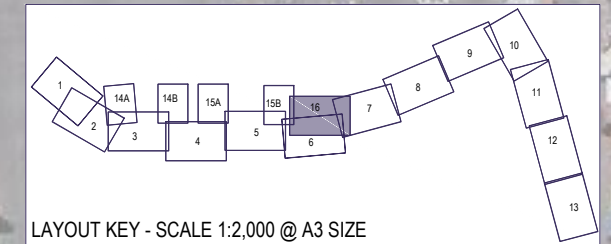
DISCLAIMER
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NZ TRANSPORT AGENCY
 WAIKA KOTAHU

East West Link

Drawn	A RAM	Drafting Check	J MURAHIDY	Reviewed	N NANCKEIVELL	Approved	J CALDWELL
Designed	L BOLAM & T BLOUNT	Design Check	D PAICE & T CAIN	27/06/17	27/06/17	27/06/17	
Scale:	Original Scale (A1)	Reduced Scale (A3)	AS SHOWN	Contract No	PA4014		

Drawing Title	STORMWATER CAPTAIN SPRINGS ROAD/ PORTS LINK SHEET 15A AND 15B	
Drawing Number	AEE-SW-115	Rev No. 2

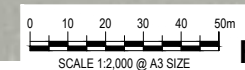


LAYOUT KEY - SCALE 1:2,000 @ A3 SIZE

STORMWATER FROM ANNE'S CREEK VIADUCT
TO BE DISCHARGED TO LANDFORM 3
WETLAND AND BIOFILTRATION AREA

JOIN
LINE

JOIN
LINE



SCALE 1:2,000 @ A3 SIZE

FOR BOI ISSUE

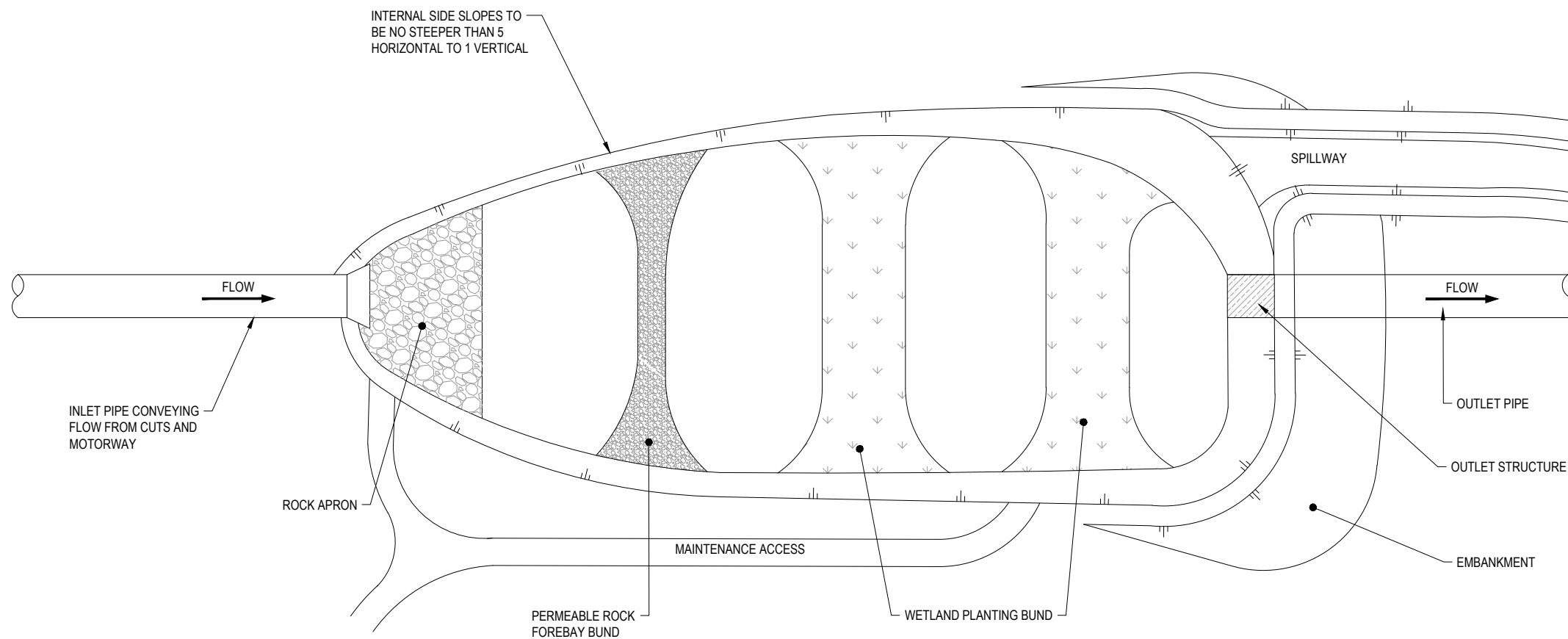
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1	EVIDENCE IN CHIEF	RB	NN*	JC*	07/04/2017
0	ISSUED FOR CONSENT	AR	NN*	PK*	01/12/2016
No.	Issued Status	Drawn	Check'd	App'd	Date

DISCLAIMER
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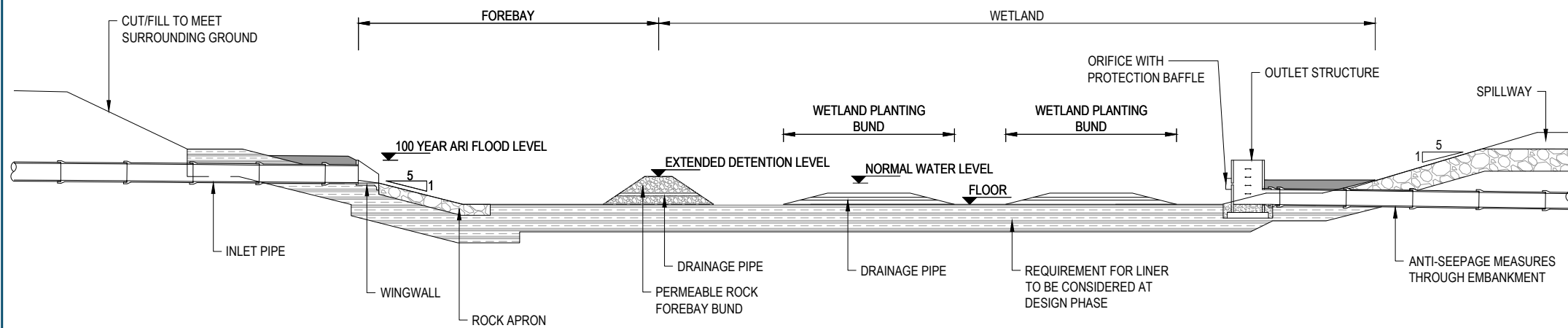


Drawn	A RAM	Drafting Check	J MURAHIDY	Reviewed	N NANCEKIVELL	Approved	J CALDWELL
Designed	L BOLAM & T BLOUNT	Design Check	D PAICE & T CAIN	Design Manager	27/06/17	Alliance Manager	27/06/17
Scale:	Original Scale (A1)	Reduced Scale (A3)	AS SHOWN	Contract No	PA4014		

Drawing Title	STORMWATER EMBANKMENT SHEET 16		
Drawing Number	AEE-SW-116		
Rev No.	2		



PLAN - TYPICAL WETLAND
NOT TO SCALE



SECTION - TYPICAL WETLAND
NOT TO SCALE

FOR BOI ISSUE

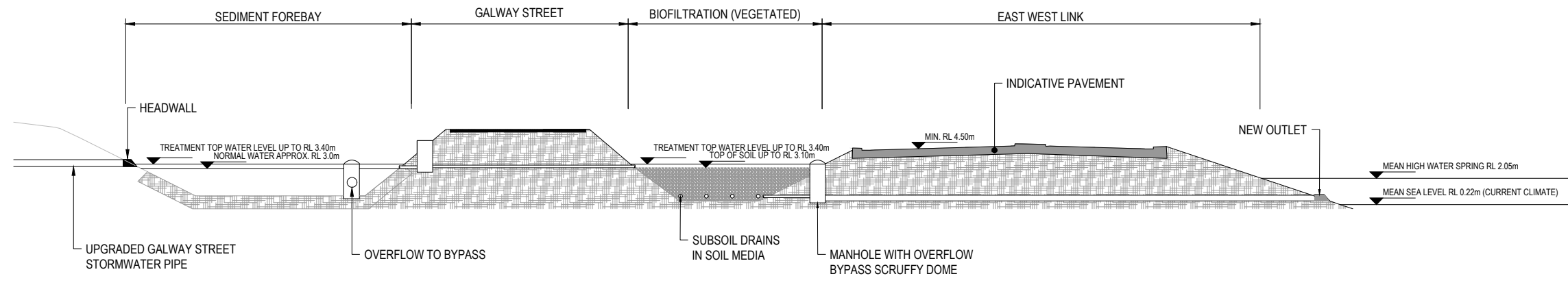
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2	BOARD OF INQUIRY	RB	NN	JC	27/06/2017
1	EVIDENCE IN CHIEF	RB	NN*	JC*	07/04/2017
0	ISSUED FOR CONSENT	AR	NN*	PK*	01/12/2016

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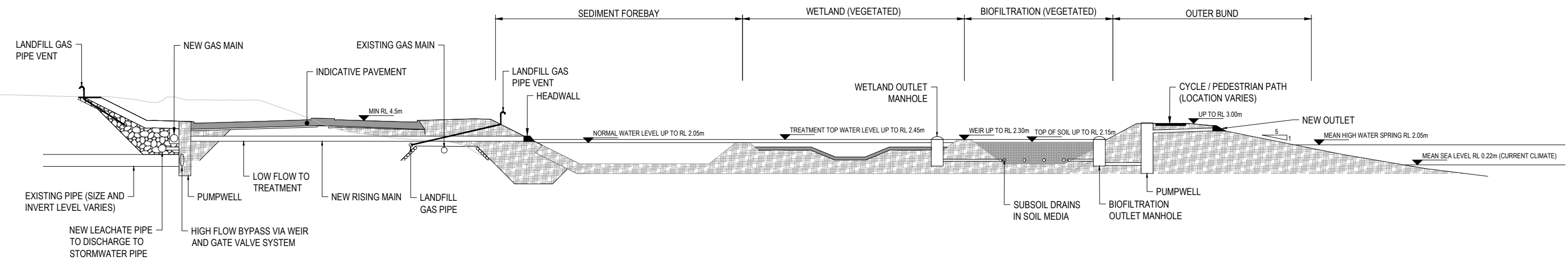


Drawn	A RAM	Drafting Check	J MURAHIDY	Reviewed	N NANCEKIVELL	Approved	J CALDWELL
Designed	L BOLAM & T BLOUNT	Design Check	D PAICE & T CAIN	Design Manager	N NANCEKIVELL	Alliance Manager	J CALDWELL
Scale:	Original Scale (A1)	Reduced Scale (A3)	AS SHOWN	Contract No.	PA4014		

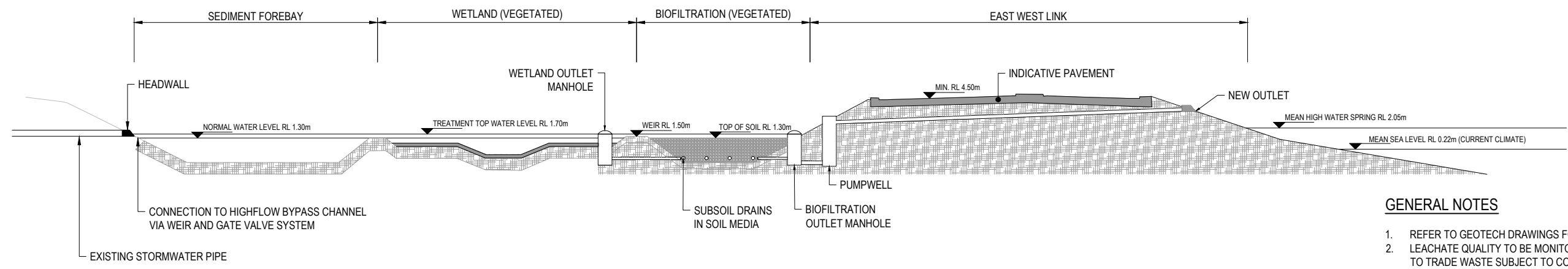
Drawing Title	STORMWATER WETLAND PLAN AND TYPICAL CROSS SECTION		
Drawing Number	AEE-SW-301		
Rev No.	2		



TYPICAL GALWAY STREET TRIANGLES TREATMENT AREA SECTION
GRAVITY TO TREATMENT AREA
NOT TO SCALE



TYPICAL LANDFORM 1,2,3 TREATMENT AREA SECTION
PUMP TO TREATMENT AREA & PUMP TO OUTFALL
NOT TO SCALE



TYPICAL MIAMI STREAM TREATMENT AREA SECTION
GRAVITY TO TREATMENT AREA & PUMP TO OUTFALL
NOT TO SCALE

GENERAL NOTES

1. REFER TO GEOTECH DRAWINGS FOR MATERIAL TYPES.
2. LEACHATE QUALITY TO BE MONITORED SO THAT LEACHATE MAY BE DIVERTED TO TRADE WASTE SUBJECT TO CONTAMINATION LEVELS.
3. OUTER BUND CAN BE RAISED BY UP TO 1m TO ADAPT TO SEA LEVEL RISE.
4. ALL LEVELS AND DIMENSIONS ARE CONCEPT ONLY AND SUBJECT TO CHANGE.
5. FOR GALWAY STREET, ALTERNATIVES MAY INCLUDE PUMPING FROM EXISTING STORMWATER PIPE TO FOREBAY AND/OR PUMPING FROM FOREBAY TO BIOFILTRATION.

FOR BOI ISSUE

No.	Issued Status	Drawn	Check'd	App'd	Date
2	BOARD OF INQUIRY	RB	NN	JC	27/06/2017
1	EVIDENCE IN CHIEF	RB	NN*	JC*	07/04/2017
0	ISSUED FOR CONSENT	AR	NN*	PK*	01/12/2016

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Drawn A RAM	Drafting Check J MURAHIDY	Reviewed Design Manager N NANCEKIVELL	Approved Alliance Manager J CALDWELL
Designed L BOLAM & T BLOUNT	Design Check D PAICE & T CAIN	27/06/17	27/06/17
Scale: Original Scale (A1)	Reduced Scale (A3)	Contract No PA4014	

Drawing Title STORMWATER EMBANKMENT WETLAND TYPICAL CROSS SECTION - SHEET 1	Rev No. 2
Drawing Number AEE-SW-311	

PAGE
LEFT
INTENTIONALLY
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FOR BOI ISSUE

2	BOARD OF INQUIRY	RB	NN	JC	27/06/2017
1	EVIDENCE IN CHIEF	RB	NN*	JC*	07/04/2017
0	ISSUED FOR CONSENT	AR	NN*	PK*	01/12/2016
No.	Issued Status	Drawn	Check'd	App'd	Date

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East West Link

Drawn	A RAM	Drafting Check	J MURAHIDY	Reviewed	N NANCEKIVELL	Approved	J CALDWELL
Designed	L BOLAM & T BLOUNT	Design Check	D PAICE & T CAIN	27/06/17		27/06/17	
Scale:	Original Scale (A1)	Reduced Scale (A3)	AS SHOWN	Contract No	PA4014		

Drawing Title	STORMWATER EAST WEST LINK	
Drawing Number	AEE-SW-312	Rev No. 2