



▪ CIVIL

Project No 3818705

## BEACH ROAD CYCLEWAY



Prepared for



By  
Beca

JUNE 2014

**FOR CONSTRUCTION**

Drawing No.	3818705-C-000	Rev.	A
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# BEACH ROAD CYCLEWAY SITE



**FOR CONSTRUCTION**

No.	Revision	By	Chk	Appd	Date
1	ISSUED FOR CONSTRUCTION	VDLT	SJP	JG	27.06.14



Original Scale (A1)	Design	SJP	APR '14	Approved For Construction*
NTS	VDLT		APR '14	
Reduced Scale (A3)	Day Checker	PMI	23.06.14	Date
NTS	Day Check	SJP	23.06.14	

\* Refer to Revision 1 for Original Signature



Client: Auckland Transport  
Project: BEACH ROAD CYCLEWAY

Title: SITE LOCALITY PLAN

Discipline	CIVIL
Drawing No.	3818705-C-001
Rev.	1

DRAWING LIST	
DRAWING No.	DRAWING TITLE
<b>GENERAL</b>	
3818705-C-000	COVER SHEET
3818705-C-001	SITE LOCALITY PLAN
3818705-C-002	DRAWING LIST
3818705-C-003	SHEET LAYOUT PLAN
<b>DETAIL PLAN</b>	
3818705-C-013	DETAIL PLAN - SHEET 4 OF 8
3818705-C-014	DETAIL PLAN - SHEET 5 OF 8
3818705-C-015	DETAIL PLAN - SHEET 6 OF 8
3818705-C-016	DETAIL PLAN - SHEET 7 OF 8
3818705-C-017	DETAIL PLAN - SHEET 8 OF 8
<b>UTILITIES AND TRAFFIC SIGNAL</b>	
3818705-C-023	MAHUHU CRESENT INTERSECTION - UTILITIES PLAN
3818705-C-024	MAHUHU CRESENT INTERSECTION - TRAFFIC SIGNALS - SHEET 1 OF 2
3818705-C-025	MAHUHU CRESENT INTERSECTION - TRAFFIC SIGNALS - SHEET 2 OF 2
3818705-C-026	TE TAOU WEST INTERSECTION - UTILITIES PLAN
3818705-C-027	TE TAOU WEST INTERSECTION - UTILITIES PLAN
3818705-C-028	TE TAOU EAST INTERSECTION - TRAFFIC SIGNALS - SHEET 1 OF 2
3818705-C-029	TE TAOU EAST INTERSECTION - TRAFFIC SIGNALS - SHEET 2 OF 2
3818705-C-030	RONAYNE STREET INTERSECTION - UTILITIES PLAN
3818705-C-031	CHURCHILL INTERSECTION - UTILITIES PLAN
3818705-C-032	QUAY STREET INTERSECTION - UTILITIES PLAN
3818705-C-033	QUAY STREET INTERSECTION - TRAFFIC SIGNALS - SHEET 1 OF 2
3818705-C-034	QUAY STREET INTERSECTION - TRAFFIC SIGNALS - SHEET 2 OF 2
<b>TYPICAL CROSS SECTION</b>	
3818705-C-035	TYPICAL CROSS SECTIONS, SHEET 1 OF 4, BEACH ROAD
3818705-C-036	TYPICAL CROSS SECTIONS, SHEET 2 OF 4, BEACH ROAD
3818705-C-037	TYPICAL CROSS SECTIONS, SHEET 3 OF 4, BEACH ROAD / CHURCHILL STREET
3818705-C-038	TYPICAL CROSS SECTIONS, SHEET 4 OF 4, BEACH ROAD / MAHUHU CRESENT

SIGNAGE AND MARKINGS	
3818705-C-040	SIGNAGE AND MARKING - GENERAL NOTES
3818705-C-044	SIGNAGE AND MARKING PLANS - SHEET 4 OF 8
3818705-C-045	SIGNAGE AND MARKING PLANS - SHEET 5 OF 8
3818705-C-046	SIGNAGE AND MARKING PLANS - SHEET 6 OF 8
3818705-C-047	SIGNAGE AND MARKING PLANS - SHEET 7 OF 8
3818705-C-048	SIGNAGE AND MARKING PLANS - SHEET 8 OF 8
<b>PAVEMENT</b>	
3818705-C-054	PAVEMENT PLANS - SHEET 4 OF 8
3818705-C-055	PAVEMENT PLANS - SHEET 5 OF 8
3818705-C-056	PAVEMENT PLANS - SHEET 6 OF 8
3818705-C-057	PAVEMENT PLANS - SHEET 7 OF 8
3818705-C-058	PAVEMENT PLANS - SHEET 8 OF 8
3818705-C-059	PAVEMENT DETAILS
<b>DRAINAGE</b>	
3818705-C-063	DRAINAGE PLANS - SHEET 4 OF 8
3818705-C-064	DRAINAGE PLANS - SHEET 5 OF 8
3818705-C-065	DRAINAGE PLANS - SHEET 6 OF 8
3818705-C-066	DRAINAGE PLANS - SHEET 7 OF 8
3818705-C-067	DRAINAGE PLANS - SHEET 8 OF 8
<b>LIGHTING</b>	
3818705-C-070	DRAWING KEY NOTES AND LUMINAIRE SCHEDULE
3818705-C-074	LIGHTING PLANS - SHEET 4 OF 8
3818705-C-075	LIGHTING PLANS - SHEET 5 OF 8
3818705-C-076	LIGHTING PLANS - SHEET 6 OF 8
3818705-C-077	LIGHTING PLANS - SHEET 7 OF 8
3818705-C-078	LIGHTING PLANS - SHEET 8 OF 8
<b>CIVIL WORKS</b>	
3818705-C-080	CIVIL WORKS DETAILS - CYCLEWAY SEPARATOR SHEET 1 OF 4
3818705-C-081	CIVIL WORKS DETAILS - SHEET 2 OF 4
3818705-C-082	CIVIL WORKS DETAILS - SHEET 3 OF 4
3818705-C-083	CIVIL WORKS DETAILS - SHEET 4 OF 4

No.	Revision	By	Chk	Appd	Date
1	ISSUED FOR CONSTRUCTION	VDLT	SJP	JG	27.06.14



Original Scale (A1)	Design	SJP	05.14	Approved For Construction*
NTS	Drawn	VDLT	05.14	-
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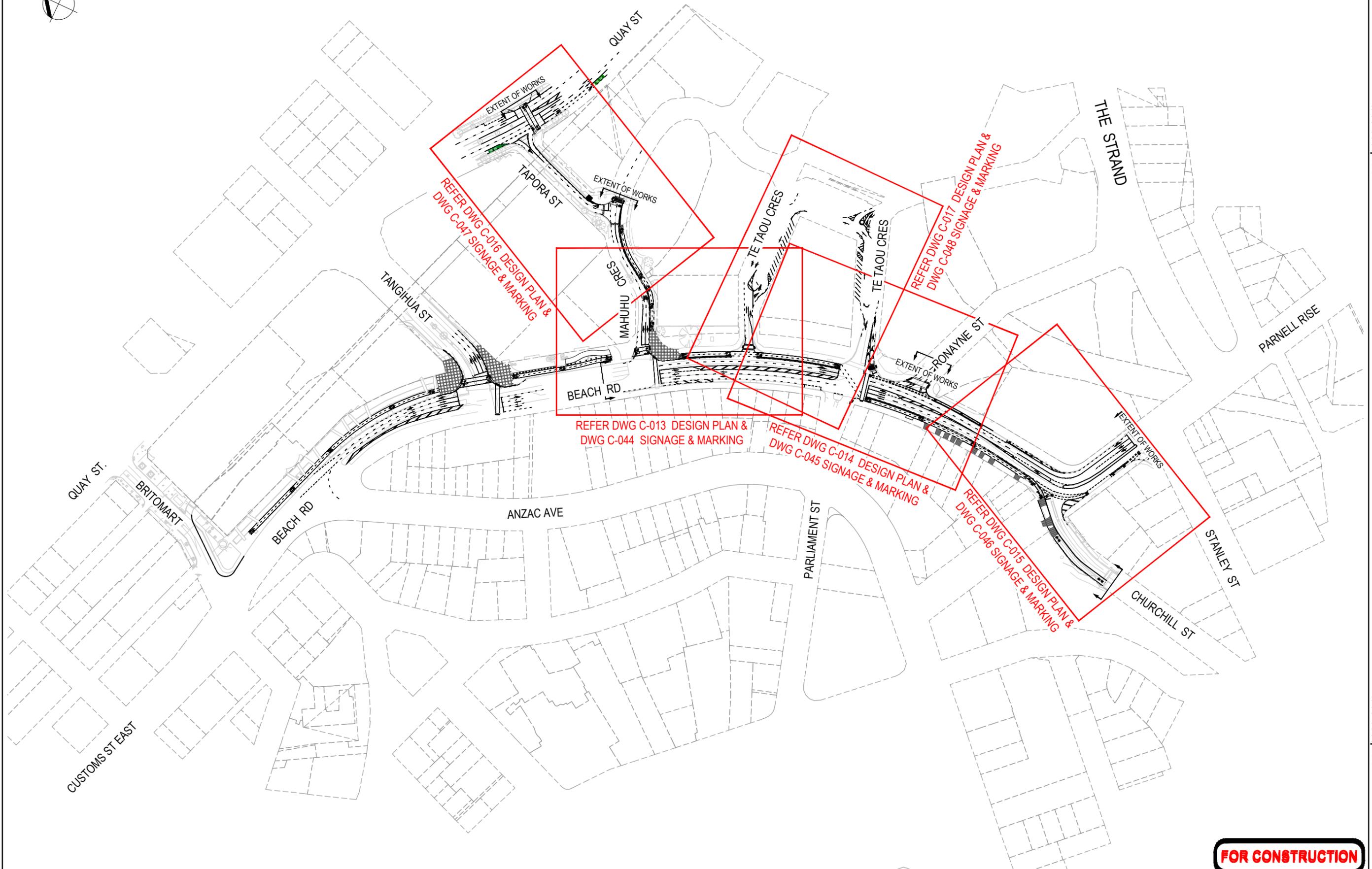


Client: **BEACH ROAD CYCLEWAY**

Title: **DRAWING LIST**

Discipline	CIVIL
Drawing No.	3818705-C-002
Rev.	1

**FOR CONSTRUCTION**



No.	Revision	By	Chk	Appd	Date
1	ISSUED FOR CONSTRUCTION	VDLT	SJP	JG	27.06.14

Drawing Originator:

Original Scale (A1)	Design	SJP	APR '14	Approved For Construction*
NTS	Drawn	VDLT	APR '14	-
Reduced Scale (A3)	Dwg Verifier	PMI	23.06.14	-
NTS	Dwg Check	SJP	23.06.14	Date -

\* Refer to Revision 1 for Original Signature

Client:

An Auckland Council Organisation

Project: BEACH ROAD CYCLEWAY

Title: SHEET LAYOUT PLAN

**FOR CONSTRUCTION**

Discipline: CIVIL

Drawing No: 3818705-C-003

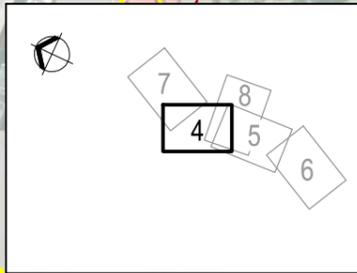
Rev: 1

**LEGEND:**

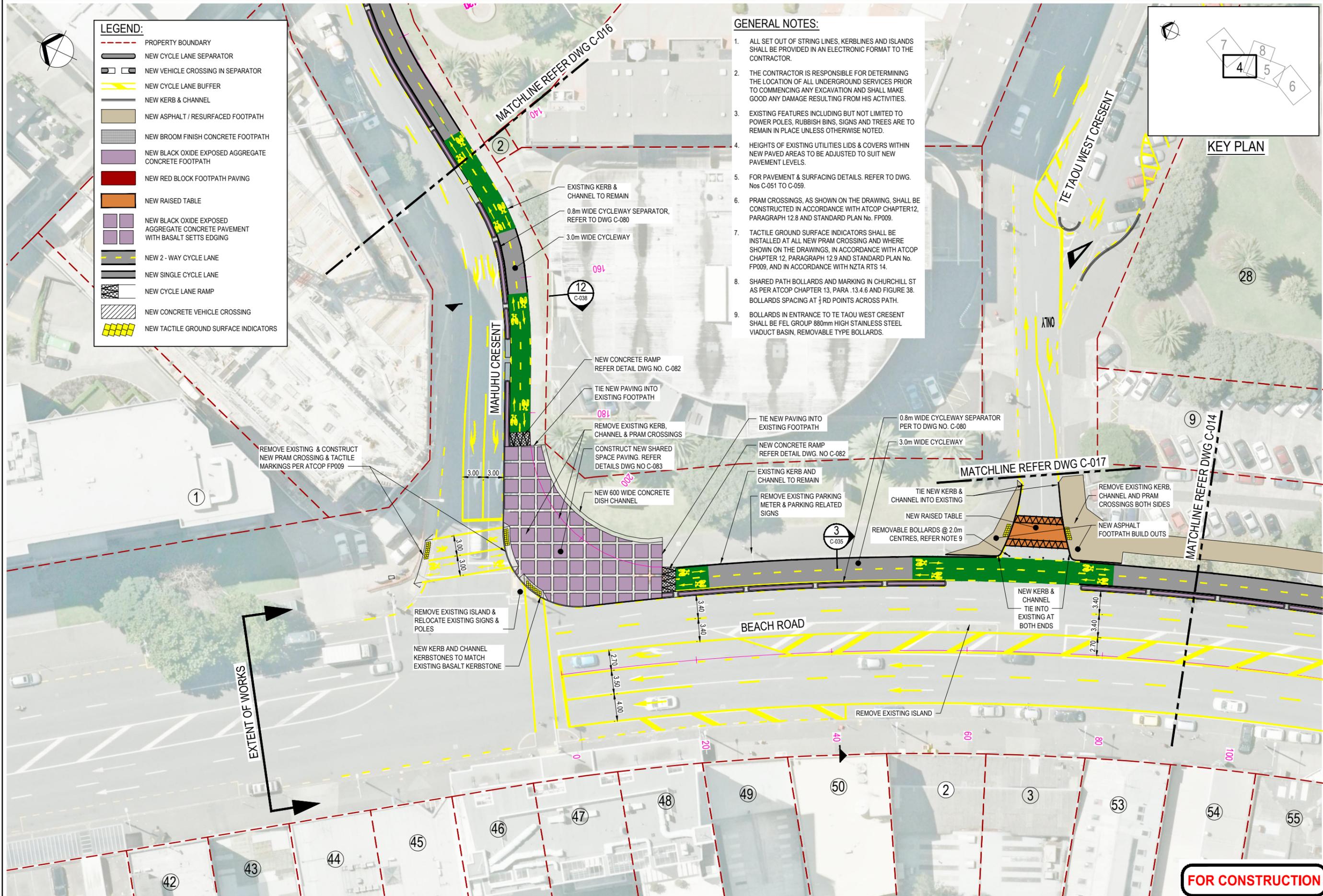
	PROPERTY BOUNDARY
	NEW CYCLE LANE SEPARATOR
	NEW VEHICLE CROSSING IN SEPARATOR
	NEW CYCLE LANE BUFFER
	NEW KERB & CHANNEL
	NEW ASPHALT / RESURFACED FOOTPATH
	NEW BROOM FINISH CONCRETE FOOTPATH
	NEW BLACK OXIDE EXPOSED AGGREGATE CONCRETE FOOTPATH
	NEW RED BLOCK FOOTPATH PAVING
	NEW RAISED TABLE
	NEW BLACK OXIDE EXPOSED AGGREGATE CONCRETE PAVEMENT WITH BASALT SETTS EDGING
	NEW 2-WAY CYCLE LANE
	NEW SINGLE CYCLE LANE
	NEW CYCLE LANE RAMP
	NEW CONCRETE VEHICLE CROSSING
	NEW TACTILE GROUND SURFACE INDICATORS

**GENERAL NOTES:**

1. ALL SET OUT OF STRING LINES, KERBLINES AND ISLANDS SHALL BE PROVIDED IN AN ELECTRONIC FORMAT TO THE CONTRACTOR.
2. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE LOCATION OF ALL UNDERGROUND SERVICES PRIOR TO COMMENCING ANY EXCAVATION AND SHALL MAKE GOOD ANY DAMAGE RESULTING FROM HIS ACTIVITIES.
3. EXISTING FEATURES INCLUDING BUT NOT LIMITED TO POWER POLES, RUBBISH BINS, SIGNS AND TREES ARE TO REMAIN IN PLACE UNLESS OTHERWISE NOTED.
4. HEIGHTS OF EXISTING UTILITIES LIDS & COVERS WITHIN NEW PAVED AREAS TO BE ADJUSTED TO SUIT NEW PAVEMENT LEVELS.
5. FOR PAVEMENT & SURFACING DETAILS, REFER TO DWG. Nos C-051 TO C-059.
6. PRAM CROSSINGS, AS SHOWN ON THE DRAWING, SHALL BE CONSTRUCTED IN ACCORDANCE WITH ATCOP CHAPTER 12, PARAGRAPH 12.8 AND STANDARD PLAN No. FP009.
7. TACTILE GROUND SURFACE INDICATORS SHALL BE INSTALLED AT ALL NEW PRAM CROSSING AND WHERE SHOWN ON THE DRAWINGS, IN ACCORDANCE WITH ATCOP CHAPTER 12, PARAGRAPH 12.9 AND STANDARD PLAN No. FP009, AND IN ACCORDANCE WITH NZTA RTS 14.
8. SHARED PATH BOLLARDS AND MARKING IN CHURCHILL ST AS PER ATCOP CHAPTER 13, PARA. 13.4.6 AND FIGURE 38. BOLLARDS SPACING AT 1/3 RD POINTS ACROSS PATH.
9. BOLLARDS IN ENTRANCE TO TE TAOU WEST CRESENT SHALL BE FEL GROUP 880mm HIGH STAINLESS STEEL VIADUCT BASIN, REMOVABLE TYPE BOLLARDS.



KEY PLAN



EXTENT OF WORKS

**FOR CONSTRUCTION**

No.	Revision	By	Chk	Appd	Date
1	ISSUED FOR CONSTRUCTION	VDLT	SJP	JG	27.06.14

Drawing Originator:	<b>Beca</b>
Original Scale (A1)	1:250
Reduced Scale (A3)	1:500
Design	SJP MAY '14
Drawn	VLDT MAY '14
Design Checker	PMI 23.06.14
Design Checker	SJP 23.06.14
* Refer to Revision 1 for Original Signature	

Client: **Auckland Transport**

An Auckland Council Organisation

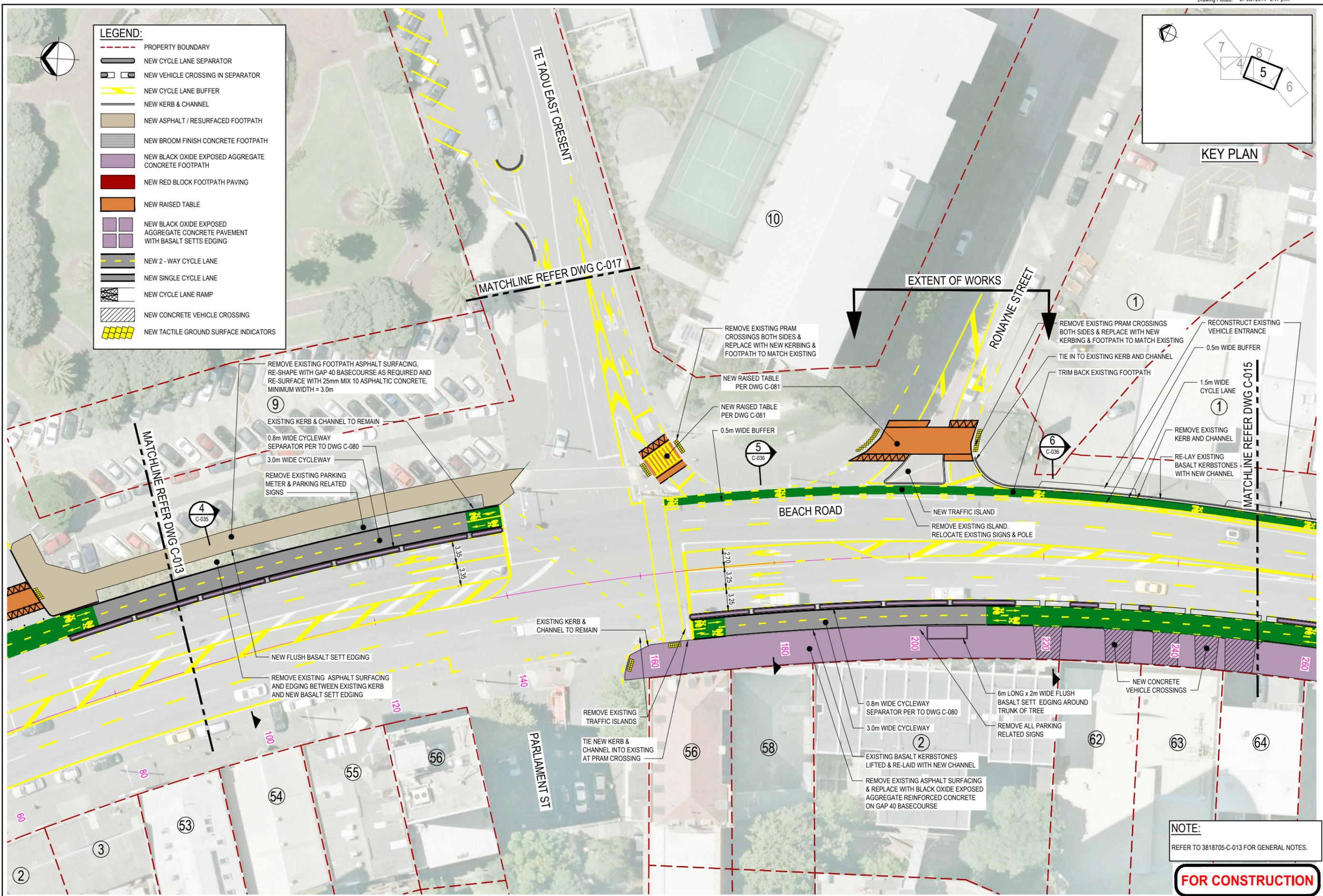
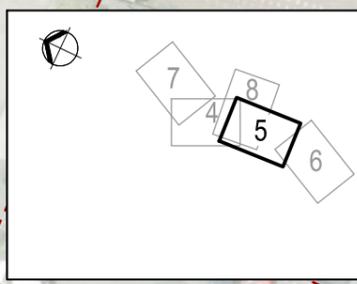
Project: **BEACH ROAD CYCLEWAY**

Title: **DETAIL PLANS SHEET 4 OF 8**

Discipline	CIVIL
Drawing No.	3818705-C-013
Rev.	1

**LEGEND:**

- PROPERTY BOUNDARY
- NEW CYCLE LANE SEPARATOR
- NEW VEHICLE CROSSING IN SEPARATOR
- NEW CYCLE LANE BUFFER
- NEW KERB & CHANNEL
- NEW ASPHALT / RESURFACED FOOTPATH
- NEW BROOM FINISH CONCRETE FOOTPATH
- NEW BLACK OXIDE EXPOSED AGGREGATE CONCRETE FOOTPATH
- NEW RED BLOCK FOOTPATH PAVING
- NEW RAISED TABLE
- NEW BLACK OXIDE EXPOSED AGGREGATE CONCRETE PAVEMENT WITH BASALT SETTS EDGING
- NEW 2-WAY CYCLE LANE
- NEW SINGLE CYCLE LANE
- NEW CYCLE LANE RAMP
- NEW CONCRETE VEHICLE CROSSING
- NEW TACTILE GROUND SURFACE INDICATORS



**NOTE:**  
REFER TO 3818705-C-013 FOR GENERAL NOTES.

**FOR CONSTRUCTION**

No.	Revision	By	Chk	Appd	Date
1	ISSUED FOR CONSTRUCTION	VDLT	SJP	JG	27.06.14

Original Scale (A1)	1:250	Design	SJP	MAY 14	Approved For Construction*
Reduced Scale (A3)	1:500	Drawn	VDLT	MAY 14	
		Dwg Verifier	PMI	23.06.14	Date
		Dwg Check	SJP	23.06.14	

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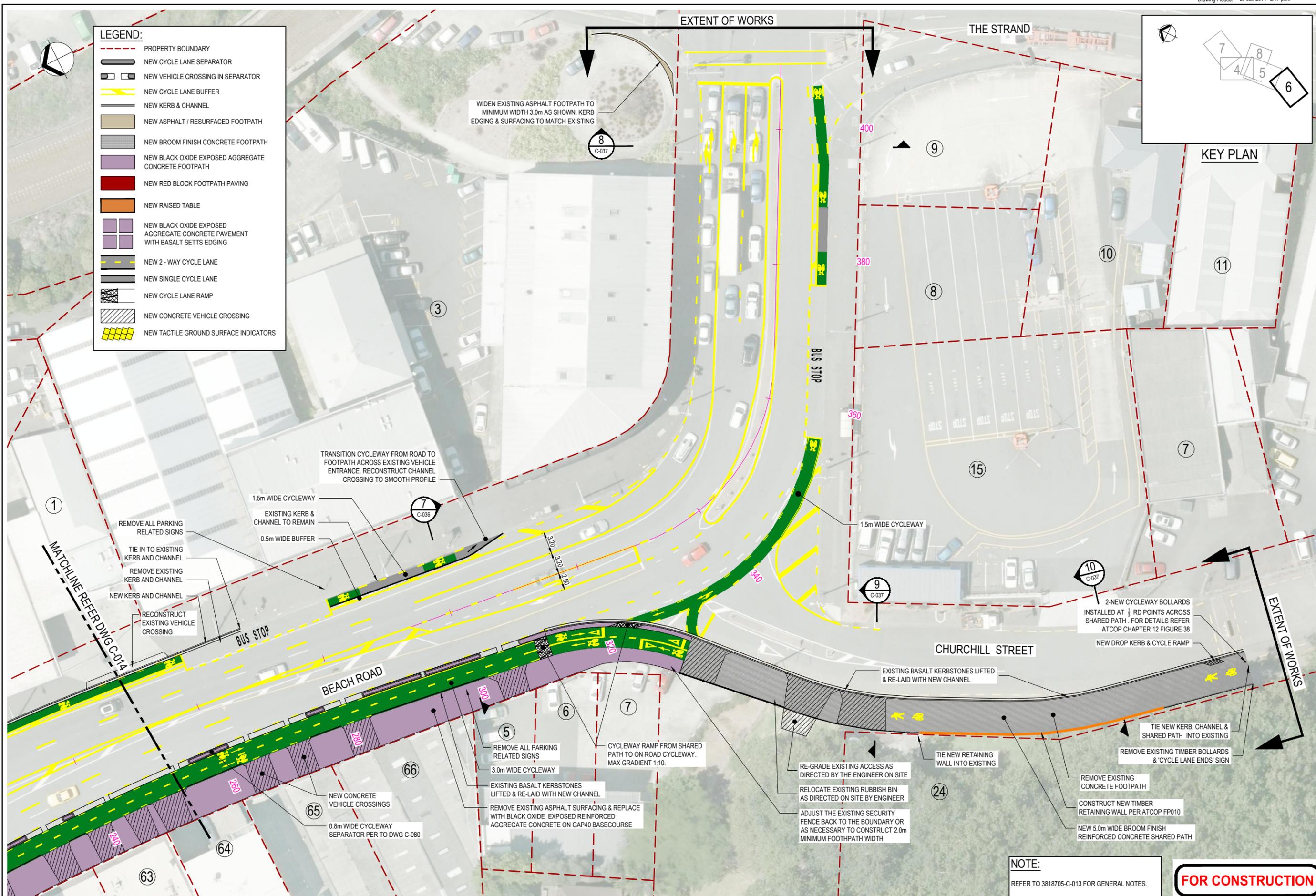
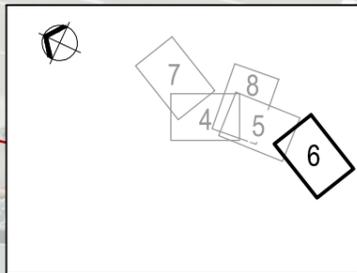
Client: **Auckland Transport** An Auckland Council Organisation

Project: **BEACH ROAD CYCLEWAY**

Title: **DETAIL PLANS SHEET 5 OF 8**

Discipline	CIVIL
Drawing No.	3818705-C-014
Rev.	1

- LEGEND:**
- PROPERTY BOUNDARY
  - NEW CYCLE LANE SEPARATOR
  - NEW VEHICLE CROSSING IN SEPARATOR
  - NEW CYCLE LANE BUFFER
  - NEW KERB & CHANNEL
  - NEW ASPHALT / RESURFACED FOOTPATH
  - NEW BROOM FINISH CONCRETE FOOTPATH
  - NEW BLACK OXIDE EXPOSED AGGREGATE CONCRETE FOOTPATH
  - NEW RED BLOCK FOOTPATH PAVING
  - NEW RAISED TABLE
  - NEW BLACK OXIDE EXPOSED AGGREGATE CONCRETE PAVEMENT WITH BASALT SETTS EDGING
  - NEW 2-WAY CYCLE LANE
  - NEW SINGLE CYCLE LANE
  - NEW CYCLE LANE RAMP
  - NEW CONCRETE VEHICLE CROSSING
  - NEW TACTILE GROUND SURFACE INDICATORS



**NOTE:**  
REFER TO 3818705-C-013 FOR GENERAL NOTES.

**FOR CONSTRUCTION**

1	ISSUED FOR CONSTRUCTION	VDLT	SJP	JG	27.06.14
No.	Revision	By	Chk	Appd	Date



Original Scale (A1)	1:250	Design	SJP	MAY 14	Approved For Construction*
Reduced Scale (A3)	1:500	Drawn	VLDT	MAY 14	
		Design Checker	PMI	23.06.14	
		Drawn	SJP	23.06.14	Date

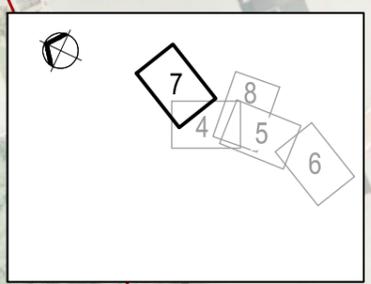
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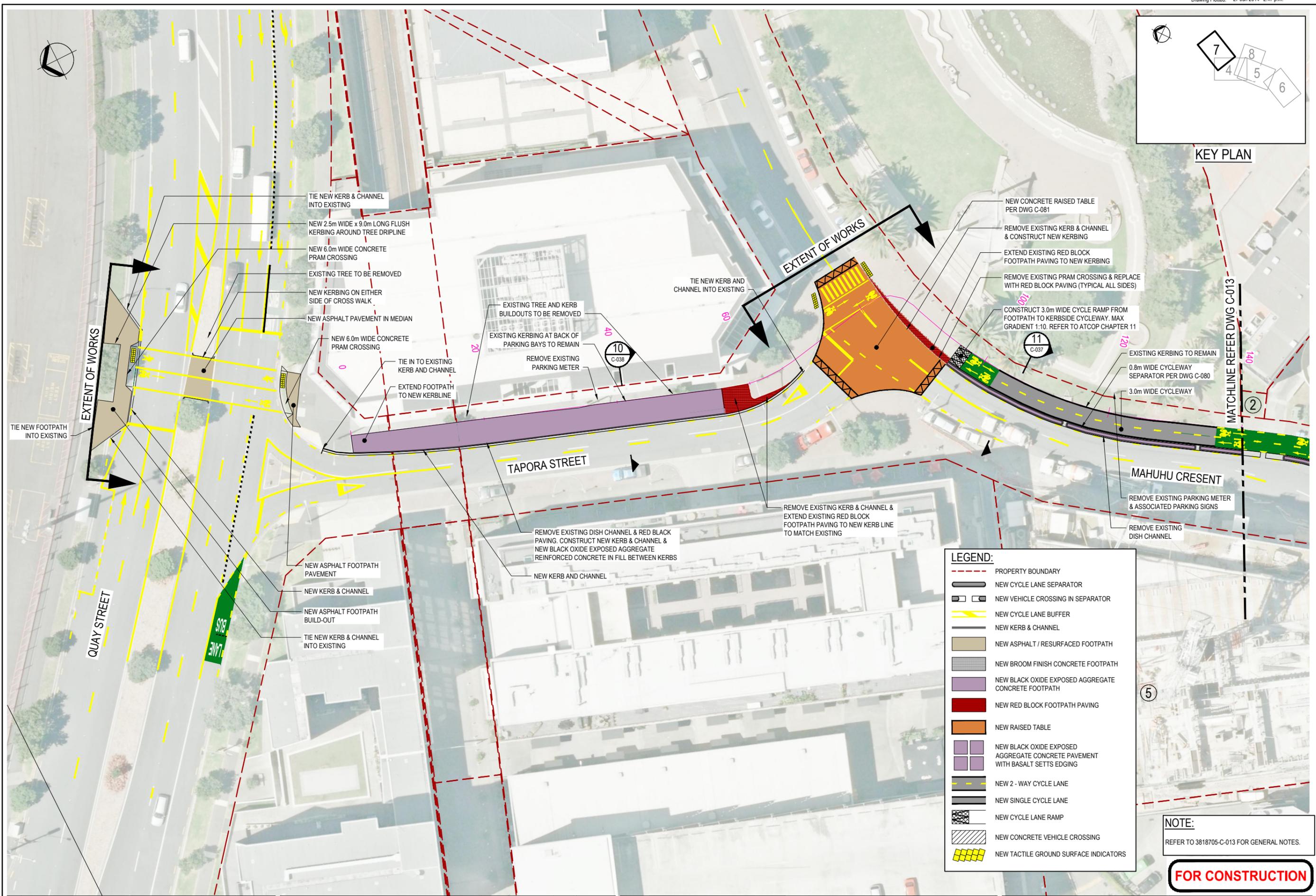
Client: **Auckland Transport**  
Project: **BEACH ROAD CYCLEWAY**

Title: **DETAIL PLANS SHEET 6 OF 8**

Discipline	CIVIL
Drawing No.	3818705-C-015
Rev.	1



KEY PLAN



**LEGEND:**

- PROPERTY BOUNDARY
- NEW CYCLE LANE SEPARATOR
- NEW VEHICLE CROSSING IN SEPARATOR
- NEW CYCLE LANE BUFFER
- NEW KERB & CHANNEL
- NEW ASPHALT / RESURFACED FOOTPATH
- NEW BROOM FINISH CONCRETE FOOTPATH
- NEW BLACK OXIDE EXPOSED AGGREGATE CONCRETE FOOTPATH
- NEW RED BLOCK FOOTPATH PAVING
- NEW RAISED TABLE
- NEW BLACK OXIDE EXPOSED AGGREGATE CONCRETE PAVEMENT WITH BASALT SETTS EDGING
- NEW 2 - WAY CYCLE LANE
- NEW SINGLE CYCLE LANE
- NEW CYCLE LANE RAMP
- NEW CONCRETE VEHICLE CROSSING
- NEW TACTILE GROUND SURFACE INDICATORS

**NOTE:**  
REFER TO 3818705-C-013 FOR GENERAL NOTES.

**FOR CONSTRUCTION**

No.	Revision	By	Chk	Appd	Date
1	ISSUED FOR CONSTRUCTION	VDLT	SJP	JG	27.06.14

Drawing Originator: **Beca**

Original Scale (A1)	1:250	Design	SJP	MAY 14	Approved For Construction*
Reduced Scale (A3)	1:500	Drawn	VDLT	MAY 14	
		Dwg Verifier	PMI	23.06.14	Date
		Dwg Check	SJP	23.06.14	

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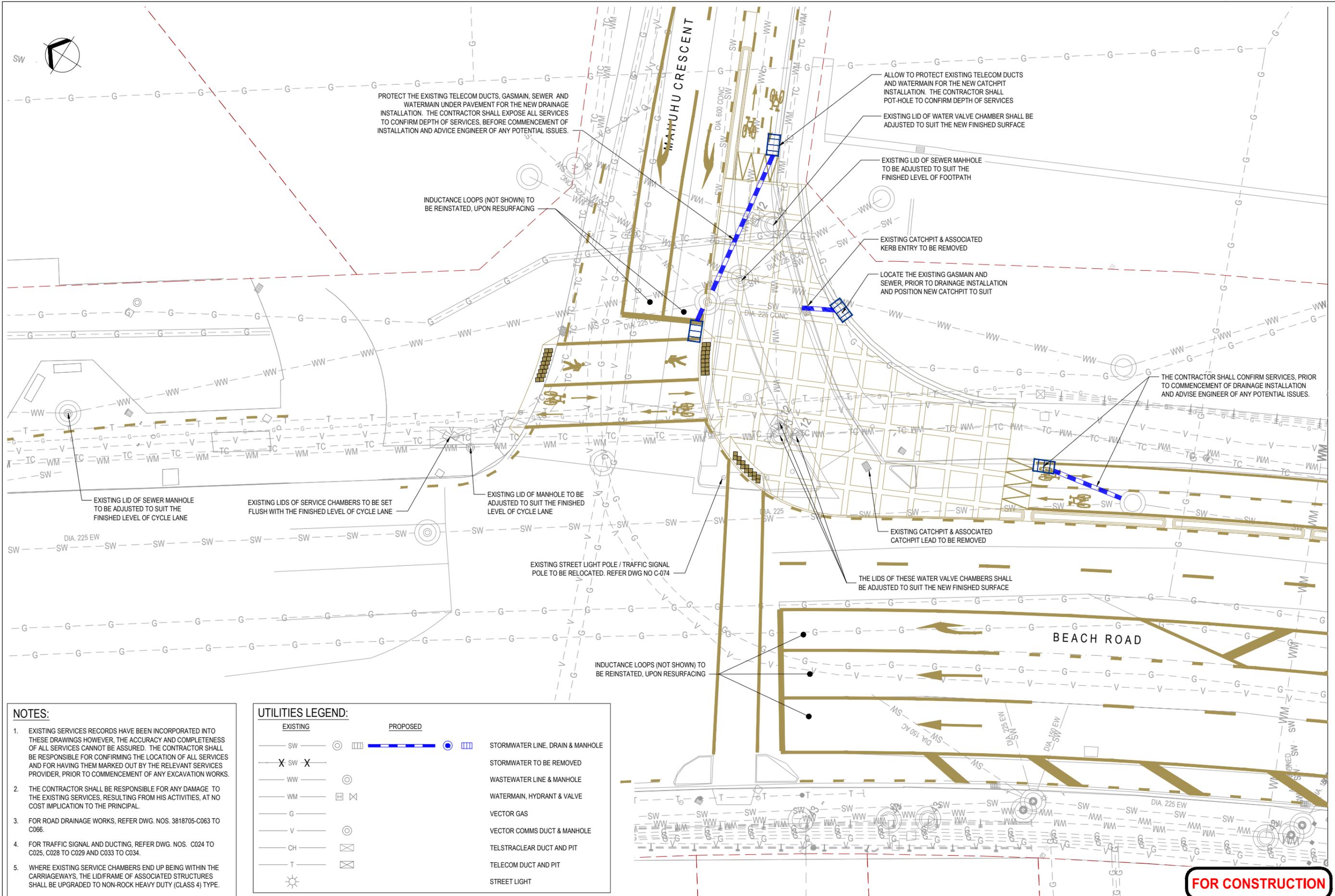
Client: **Auckland Transport**  
An Auckland Council Organisation

Project: **BEACH ROAD CYCLEWAY**

Title: **DETAIL PLANS SHEET 7 OF 8**

Discipline: **CIVIL**  
Drawing No. **3818705-C-016** Rev. **1**





- NOTES:**
- EXISTING SERVICES RECORDS HAVE BEEN INCORPORATED INTO THESE DRAWINGS HOWEVER, THE ACCURACY AND COMPLETENESS OF ALL SERVICES CANNOT BE ASSURED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFIRMING THE LOCATION OF ALL SERVICES AND FOR HAVING THEM MARKED OUT BY THE RELEVANT SERVICES PROVIDER, PRIOR TO COMMENCEMENT OF ANY EXCAVATION WORKS.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING SERVICES, RESULTING FROM HIS ACTIVITIES, AT NO COST IMPLICATION TO THE PRINCIPAL.
  - FOR ROAD DRAINAGE WORKS, REFER DWG. NOS. 3818705-C063 TO C066.
  - FOR TRAFFIC SIGNAL AND DUCTING, REFER DWG. NOS. C024 TO C025, C028 TO C029 AND C033 TO C034.
  - WHERE EXISTING SERVICE CHAMBERS END UP BEING WITHIN THE CARRIAGEWAYS, THE LID/FRAME OF ASSOCIATED STRUCTURES SHALL BE UPGRADED TO NON-ROCK HEAVY DUTY (CLASS 4) TYPE.

**UTILITIES LEGEND:**

EXISTING	PROPOSED	
— SW —	— SW —	STORMWATER LINE, DRAIN & MANHOLE
X SW X	— SW —	STORMWATER TO BE REMOVED
— WW —	— WW —	WASTEWATER LINE & MANHOLE
— WM —	— WM —	WATERMAIN, HYDRANT & VALVE
— G —	— G —	VECTOR GAS
— V —	— V —	VECTOR COMMS DUCT & MANHOLE
— CH —	— CH —	TELSTRACLEAR DUCT AND PIT
— T —	— T —	TELECOM DUCT AND PIT
☀	☀	STREET LIGHT

No.	Revision	By	Chk	Appd	Date
1	ISSUED FOR CONSTRUCTION	RTCH	CJQ	JG	27.06.14



Original Scale (A1)	Design	RTCH	JUNE '14	Approved For Construction*
1:125	Drawn	VDLT	JUNE '14	
Reduced Scale (A3)	Dwg Verifier	PI	JUNE '14	
1:250	Dwg Check	CJQ	JUNE '14	Date

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Client: **Auckland Transport**  
 Project: **BEACH ROAD CYCLEWAY**

Title: **MAHUHU CRESCENT INTERSECTION UTILITIES PLAN**

Discipline	CIVIL
Drawing No.	3818705-C-023
Rev.	1

**FOR CONSTRUCTION**

**GENERAL NOTES:**

1. TRAFFIC SIGNAL EQUIPMENT & INSTALLATION SHALL COMPLY WITH THE NATIONAL TRAFFIC SIGNALS SPECIFICATION (2013 REV 01) AND THE AUCKLAND TRAFFIC MANAGEMENT UNIT: TRAFFIC SIGNALS DESIGN GUIDELINES (VERSION 3.0 AUGUST 2010).
2. POLE POSITIONS, PRAM RAMPS AND PEDESTRIAN TACTILE PAVERS ARE INDICATIVE ONLY. FINAL POSITIONS TO BE DETERMINED ON SITE BY ENGINEER & CONTRACTOR.
3. REFER TO UTILITY SERVICE DRAWING FOR UTILITY SERVICES DETAILS. CONTRACTOR SHALL CONFIRM & LOCATE ALL SERVICES ON SITE PRIOR TO EXCAVATION & CONSTRUCTION.
4. CONTRACTOR TO ALLOW FOR THE INSTALLATION OF E-PROM DATA, TESTING AND CONNECTION TO THE SCATS SYSTEM TO JOINT TRAFFIC OPERATIONS CENTRE (JTOC).
5. NEW DUCTS BETWEEN CHAMBERS SHALL BE 100mm DIA. DUCTS TO POLES SHALL BE 100mm DIA. DUCTS TO TOBY BOX SHALL BE 32mm DIA.
6. CONTRACTOR TO ASSESS EXISTING DUCTS AND CHAMBERS AND UTILISE EXISTING INFRASTRUCTURE WHERE NECESSARY. IF EXISTING DUCTS ARE TO BE USED, A CONDITION SURVEY IS TO BE UNDERTAKEN WITH THE ENGINEER TO CONFIRM DUCTS ARE CLEAR AND SUITABLE FOR REUSE. IF NEW DUCT IS REQUIRED WHEN CROSSING A CARRIAGEWAY OR INSTALLING BY TRENCHING, ONE ADDITIONAL 100mm DIA. DUCT IS TO BE INSTALLED BEYOND THE NUMBER NECESSARY FOR CABLING REQUIREMENTS. REFER TO SIGNAL LAYOUT DRAWING FOR DETAILS.
7. POLES ARE SET BACK 0.6m TO 1m FROM KERB FACE.
8. CONTRACTOR WILL ENSURE THAT POWER SUPPLY & SIGNAL DUCTS ARE INSTALLED BEFORE FOOTPATHS ARE POURED.
9. ALL NEW PRAM RAMPS TO BE CONSTRUCTED WITH PEDESTRIAN TACTILE PAVERS PER AUCKLAND TRANSPORT CODE OF PRACTICE AND IN ACCORDANCE WITH NZ TRANSPORT AGENCY RTS14
10. REFER TO DRAWING 3818705-C-025 FOR SIGNAL GROUPS, DUCTING & CABLING DIAGRAMS.
11. CONTRACTOR SHALL INSTALL 2 No. CAT 5 ETHERNET CABLE SCREENED FOR EXTERNAL USE AND 1 No. POWER CABLE FOR FUTURE CCTV TO CARRY 24VDC. LOCATION AND EXTENTS TO BE DETERMINED BY AUCKLAND TRANSPORT AND JTOC SIGNAL ENGINEER ON SITE.
12. ALL PUSH BUTTON TO BE AUDIO TACTILE.
13. CYCLE LOOPS SHALL BE DIAGONAL QUADRUPLE. REFER DETAILS ON SHEET 3122794-CE-6512.
14. RG - 27' TURNING TRAFFIC GIVE WAY TO PEDESTRIANS' SIGN TO BE INSTALLED ON SIGNAL POLES 3 & 10 FACING TOWARDS APPROACHING TRAFFIC TO INTERSECTION.

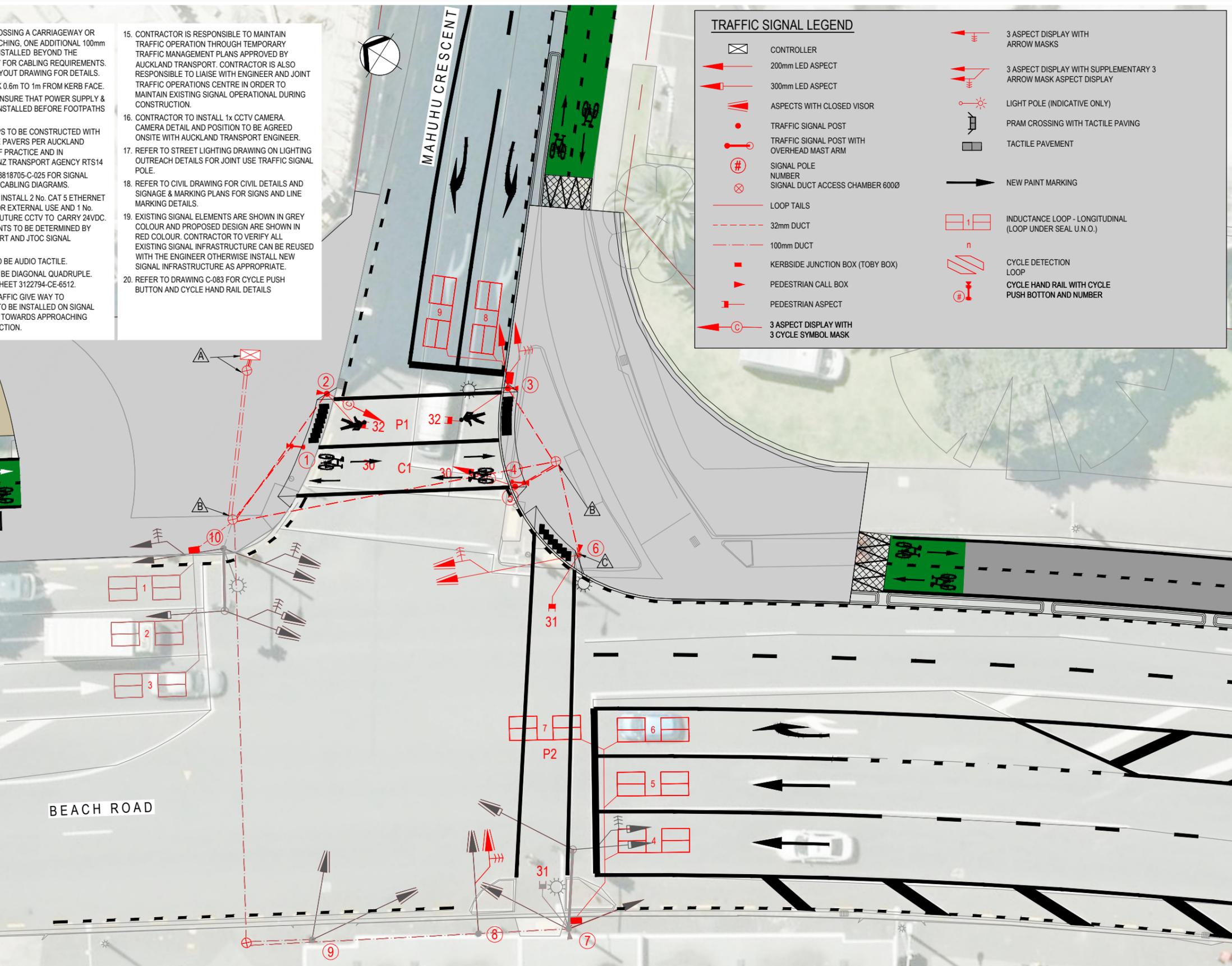
15. CONTRACTOR IS RESPONSIBLE TO MAINTAIN TRAFFIC OPERATION THROUGH TEMPORARY TRAFFIC MANAGEMENT PLANS APPROVED BY AUCKLAND TRANSPORT. CONTRACTOR IS ALSO RESPONSIBLE TO LIAISE WITH ENGINEER AND JOINT TRAFFIC OPERATIONS CENTRE IN ORDER TO MAINTAIN EXISTING SIGNAL OPERATIONAL DURING CONSTRUCTION.
16. CONTRACTOR TO INSTALL 1x CCTV CAMERA. CAMERA DETAIL AND POSITION TO BE AGREED ONSITE WITH AUCKLAND TRANSPORT ENGINEER.
17. REFER TO STREET LIGHTING DRAWING ON LIGHTING OUTREACH DETAILS FOR JOINT USE TRAFFIC SIGNAL POLE.
18. REFER TO CIVIL DRAWING FOR CIVIL DETAILS AND SIGNAGE & MARKING PLANS FOR SIGNS AND LINE MARKING DETAILS.
19. EXISTING SIGNAL ELEMENTS ARE SHOWN IN GREY COLOUR AND PROPOSED DESIGN ARE SHOWN IN RED COLOUR. CONTRACTOR TO VERIFY ALL EXISTING SIGNAL INFRASTRUCTURE CAN BE REUSED WITH THE ENGINEER OTHERWISE INSTALL NEW SIGNAL INFRASTRUCTURE AS APPROPRIATE.
20. REFER TO DRAWING C-083 FOR CYCLE PUSH BUTTON AND CYCLE HAND RAIL DETAILS

**TRAFFIC SIGNAL LEGEND**

	CONTROLLER		3 ASPECT DISPLAY WITH ARROW MASKS
	200mm LED ASPECT		3 ASPECT DISPLAY WITH SUPPLEMENTARY 3 ARROW MASK ASPECT DISPLAY
	300mm LED ASPECT		LIGHT POLE (INDICATIVE ONLY)
	ASPECTS WITH CLOSED VISOR		PRAM CROSSING WITH TACTILE PAVING
	TRAFFIC SIGNAL POST		TACTILE PAVING
	TRAFFIC SIGNAL POST WITH OVERHEAD MAST ARM		NEW PAINT MARKING
	SIGNAL POLE NUMBER		INDUCTANCE LOOP - LONGITUDINAL (LOOP UNDER SEAL U.N.O.)
	SIGNAL DUCT ACCESS CHAMBER 600Ø		CYCLE DETECTION LOOP
	LOOP TAILS		CYCLE HAND RAIL WITH CYCLE PUSH BUTTON AND NUMBER
	32mm DUCT		
	100mm DUCT		
	KERBSIDE JUNCTION BOX (TOBY BOX)		
	PEDESTRIAN CALL BOX		
	PEDESTRIAN ASPECT		
	3 ASPECT DISPLAY WITH 3 CYCLE SYMBOL MASK		

- RELOCATE AND REUSE CONTROLLER IF APPLICABLE. CONSTRUCT NEW DUG CHAMBER AND NEW DUCT CONNECTION TO CONNECT TO CONTROLLER (RELOCATED).
- CONTRACTOR TO VERIFY ALL EXISTING DUCTING NETWORK ON SITE, CONNECT NEW DUCTING AND CABLES TO EXISTING DUCTING AND CABLING NETWORK.
- REUSE AND RETAIN EXISTING SIGNAL POLE, WHERE APPLICABLE. INSTALL NEW SIGNAL POLE IF EXISTING POLE CANNOT BE REUSED.

TRAFFIC SIGNAL POLE NUMBER	TRAFFIC SIGNAL POLE TYPE
1	NEW ATCOP CYCLE HAND RAIL WITH CYCLE PUSH BUTTON
2	NEW 5m STANDARD SIGNAL POLE
3	NEW JOINT USE TRAFFIC SIGNAL POLE WITH STREET LIGHTING (JUSP)
4	NEW ATCOP CYCLE HAND RAIL WITH CYCLE PUSH BUTTON
5	NEW 5m STANDARD SIGNAL POLE
6	JOINT USE TRAFFIC SIGNAL POLE WITH STREET LIGHTING (JUSP)
7	EXISTING MULTIFUNCTIONAL MAST ARM POLE WITH STREET LIGHTING (JUMA)
8	EXISTING 5m STANDARD SIGNAL POLE
9	EXISTING 5m STANDARD SIGNAL POLE
10	EXISTING MULTIFUNCTIONAL MAST ARM POLE WITH STREET LIGHTING (JUMA)



No.	Revision	By	Chk	Appd	Date
1	ISSUED FOR CONSTRUCTION	JG	SDH	JG	27.06.14

Design Originator: **Beca**

Original Scale (A1)	Design	JG	MAY'14	Approved For Construction*
1:125	Drawn	JG	MAY'14	
Reduced Scale (A3)	Design Checker	SDH	23.06.14	
1:250	Design Checker	SJP	23.06.14	Date -

\*Refer to Revision 1 for Original Signature

Client: **Auckland Transport**  
An Auckland Council Organisation

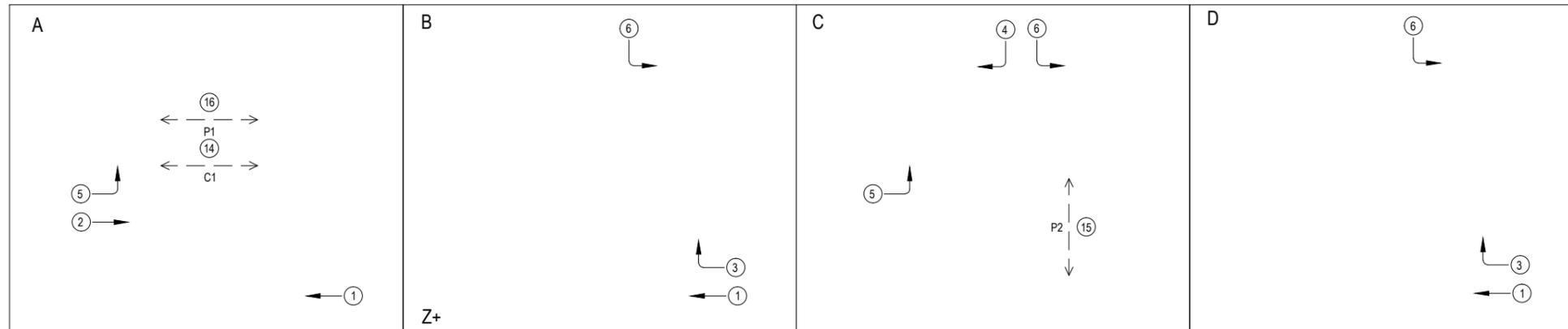
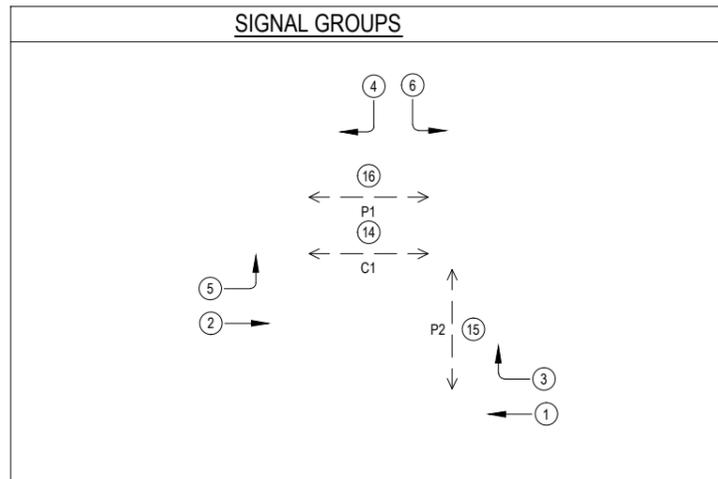
Project: BEACH ROAD CYCLEWAY

MAHUHU CRESENT INTERSECTION TRAFFIC SIGNALS SHEET 1 OF 2

**FOR CONSTRUCTION**

Discipline	CIVIL
Drawing No.	3818705-C-024
Rev.	1

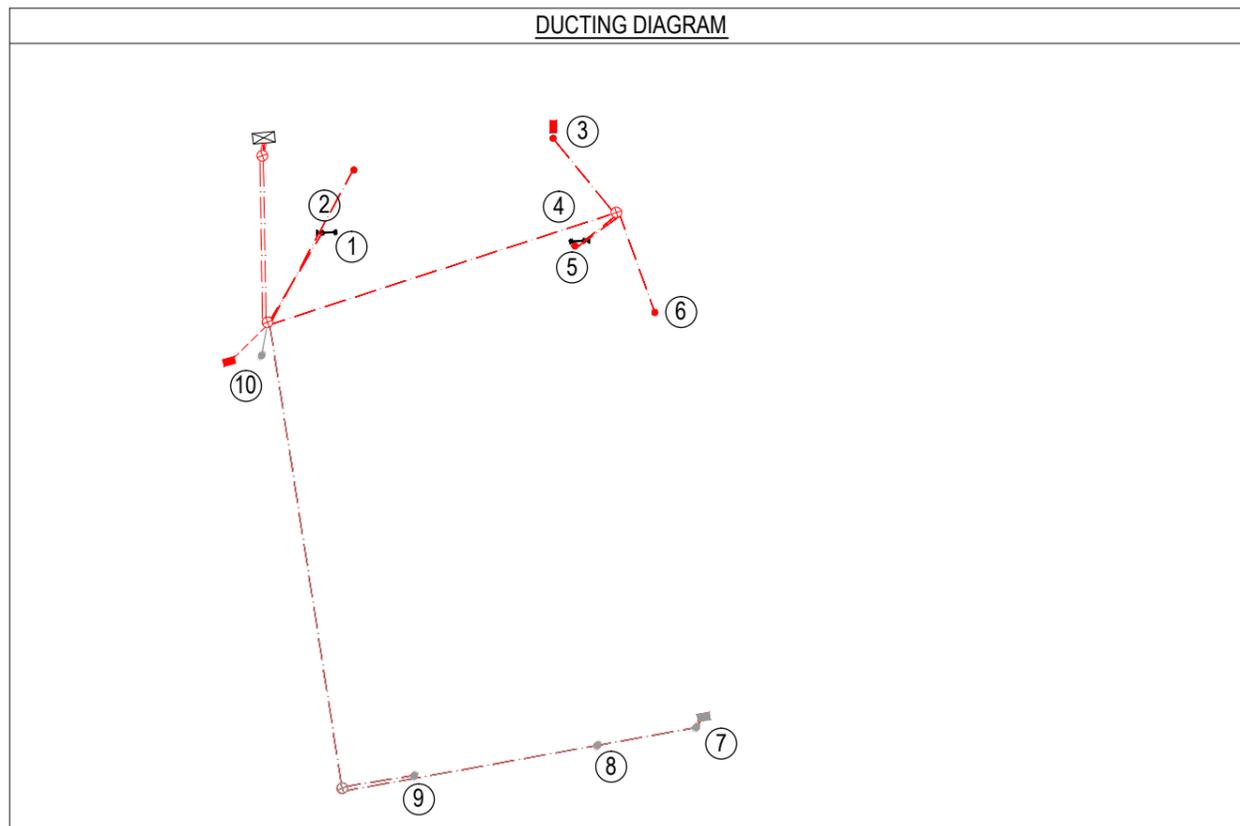
TYPICAL PHASING & SIGNAL GROUPS



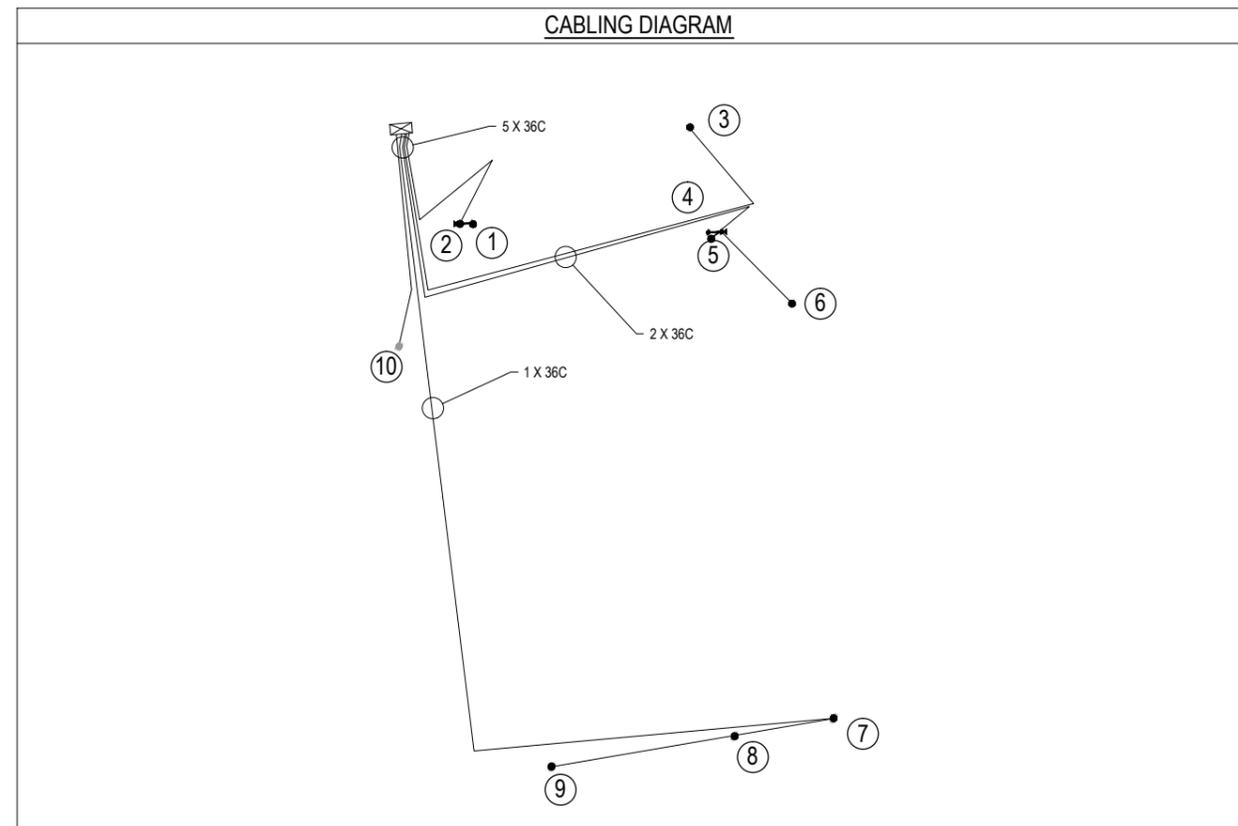
GENERAL NOTES:

1. REFER TO DRAWING 3818705-C-024 FOR SIGNAL LAYOUT DETAILS.
2. PARTIAL PEDESTRIAN PROTECTION FOR SIGNAL GROUP P1, P2 & C1 IN RESPECTIVE SIGNAL PHASES. TIMING DETAILS TO BE CONFIRMED BY AUCKLAND TRANSPORT SIGNAL ENGINEER.
3. PHASE SEQUENCE A : C : D. ALTERNATIVE PHASE SEQUENCE A:B:C:D
4. DUCTING AND CABLING DIAGRAM ARE SHOWN INDICATIVELY. CONTRACTOR TO VERIFY EXISTING DUCTING AND CABLING AND FINALISE AS BUILT INFORMATION TO AUCKLAND TRANSPORT.

DUCTING DIAGRAM



CABLING DIAGRAM



**FOR CONSTRUCTION**

No.	Revision	By	Chk	Appd	Date
1	ISSUED FOR CONSTRUCTION	JG	SDH	JG	27.06.14



Original Scale (A1)	Design	JG	MAY '14	Approved For Construction*
NTS	Drawn	JG	MAY '14	-
Reduced Scale (A3)	Design Verifier	SDH	23.06.14	-
NTS	Design Check	SJP	23.06.14	-

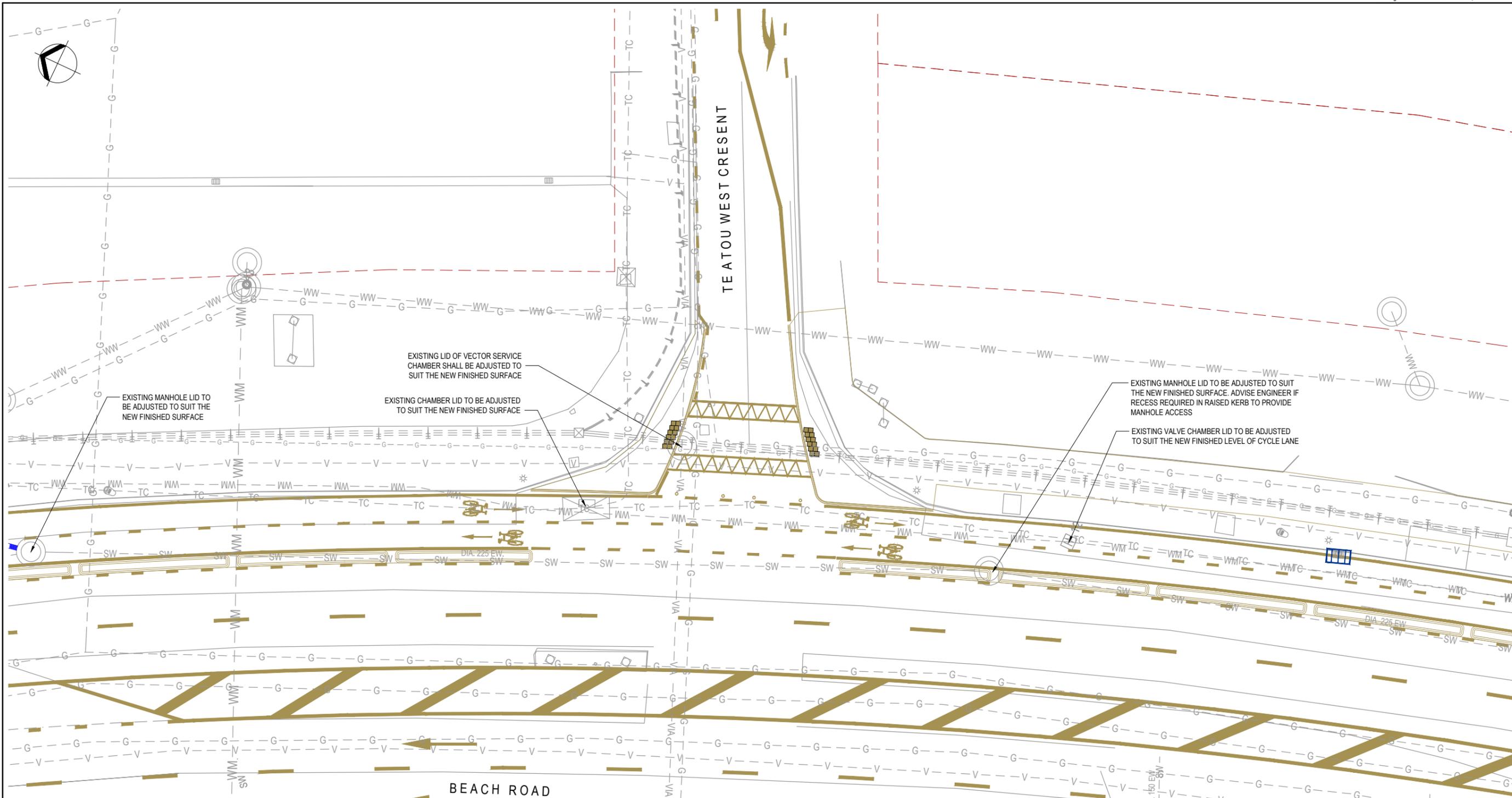
\* Refer to Revision 1 for Original Signature



Client: **BEACH ROAD CYCLEWAY**

Project: **MAHUHU CRESENT INTERSECTION TRAFFIC SIGNALS SHEET 2 OF 2**

Discipline	CIVIL
Drawing No.	3818705-C-025
Rev.	1



- NOTES:**
- EXISTING SERVICES RECORDS HAVE BEEN INCORPORATED INTO THESE DRAWINGS HOWEVER THE ACCURACY AND COMPLETENESS OF ALL SERVICES CANNOT BE ASSURED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFIRMING THE LOCATION OF ALL SERVICES AND FOR HAVING THEM MARKED OUT BY THE RELEVANT SERVICES PROVIDER, PRIOR TO COMMENCEMENT OF ANY EXCAVATION WORKS.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING SERVICES, RESULTING FROM HIS ACTIVITIES, AT NO COST IMPLICATION TO THE PRINCIPAL.
  - FOR ROAD DRAINAGE WORKS, REFER DWG. NOS. 3818705-C063 TO C066.
  - FOR TRAFFIC SIGNAL AND DUCTING, REFER DWG. NOS. C024 TO C025, C028 TO C029 AND C033 TO C034.
  - WHERE EXISTING SERVICE CHAMBERS END UP BEING WITHIN THE CARRIAGEWAYS, THE LID/FRAME OF ASSOCIATED STRUCTURES SHALL BE UPGRADED TO NON-ROCK HEAVY DUTY (CLASS 4) TYPE.

**UTILITIES LEGEND:**

EXISTING	PROPOSED	
— SW —	— SW —	STORMWATER LINE, DRAIN & MANHOLE
X SW X	— SW —	STORMWATER TO BE REMOVED
— WW —	— WW —	WASTEWATER LINE & MANHOLE
— WM —	— WM —	WATERMAIN, HYDRANT & VALVE
— G —	— G —	VECTOR GAS
— V —	— V —	VECTOR COMMS DUCT & MANHOLE
— CH —	— CH —	TELSTRACLEAR DUCT AND PIT
— T —	— T —	TELECOM DUCT AND PIT
☀	☀	STREET LIGHT

No.	Revision	By	Chk	Appd	Date
1	ISSUED FOR CONSTRUCTION	RTCH	CJQ	JG	27.06.14

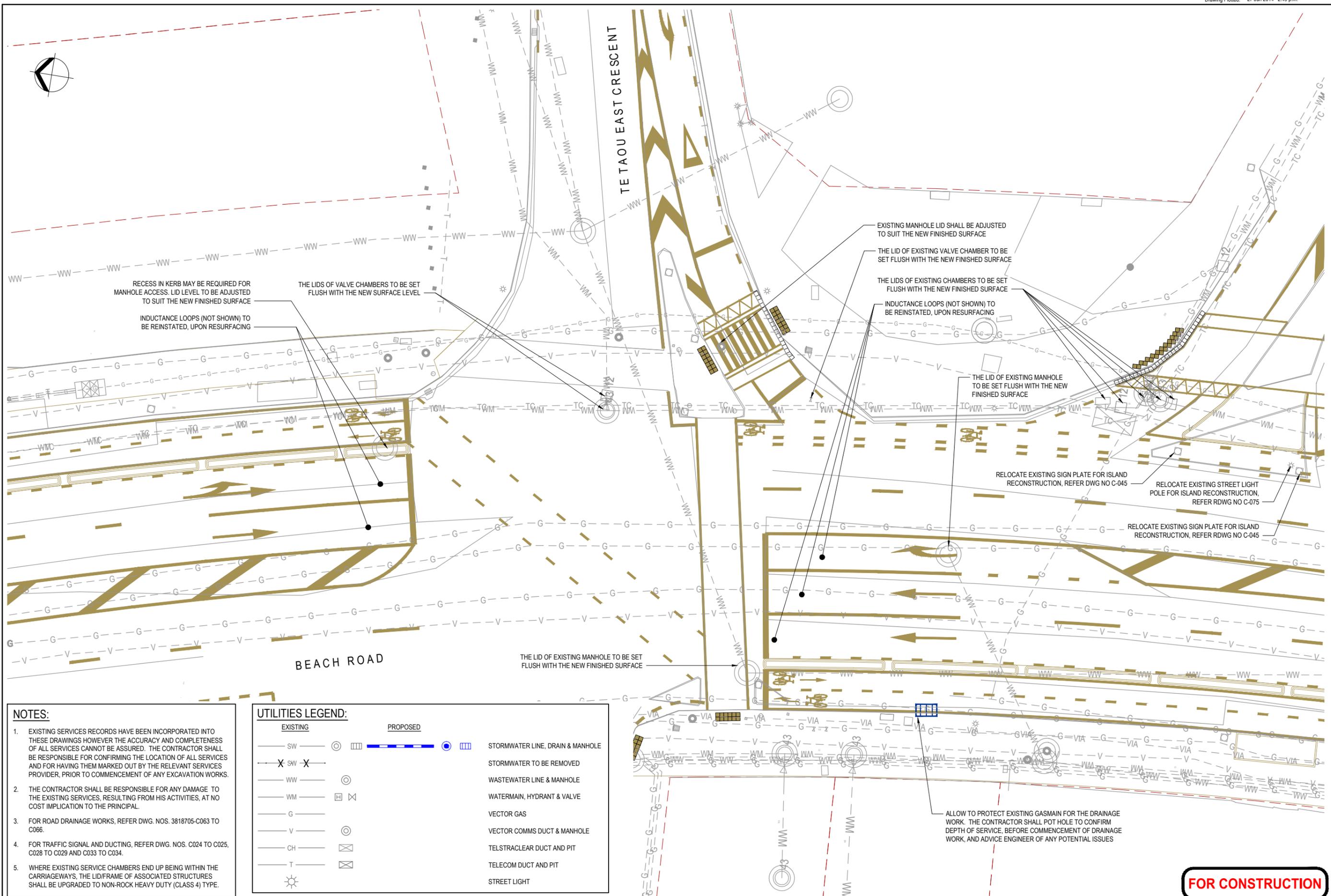
Drawing Originator: **Beca**  
 Original Scale (A1): 1:125  
 Design: RTCH JUNE '14  
 Drawn: VDLT JUNE '14  
 Reduced Scale (A3): 1:250  
 Design Checker: CJQ JUNE '14  
 Approved For Construction: [Signature]

Client: **Auckland Transport**  
 An Auckland Council Organisation

Project: **BEACH ROAD CYCLEWAY**

Title: **TE TAOU WEST CRESCENT INTERSECTION UTILITIES PLAN**

Discipline: **CIVIL**  
 Drawing No.: 3818705-C-026  
 Rev: 1



RECESS IN KERB MAY BE REQUIRED FOR MANHOLE ACCESS. LID LEVEL TO BE ADJUSTED TO SUIT THE NEW FINISHED SURFACE  
INDUCTANCE LOOPS (NOT SHOWN) TO BE REINSTATED, UPON RESURFACING

THE LIDS OF VALVE CHAMBERS TO BE SET FLUSH WITH THE NEW SURFACE LEVEL

EXISTING MANHOLE LID SHALL BE ADJUSTED TO SUIT THE NEW FINISHED SURFACE

THE LID OF EXISTING VALVE CHAMBER TO BE SET FLUSH WITH THE NEW FINISHED SURFACE

THE LIDS OF EXISTING CHAMBERS TO BE SET FLUSH WITH THE NEW FINISHED SURFACE

INDUCTANCE LOOPS (NOT SHOWN) TO BE REINSTATED, UPON RESURFACING

THE LID OF EXISTING MANHOLE TO BE SET FLUSH WITH THE NEW FINISHED SURFACE

RELOCATE EXISTING SIGN PLATE FOR ISLAND RECONSTRUCTION, REFER DWG NO C-045

RELOCATE EXISTING STREET LIGHT POLE FOR ISLAND RECONSTRUCTION, REFER RDWG NO C-075

RELOCATE EXISTING SIGN PLATE FOR ISLAND RECONSTRUCTION, REFER RDWG NO C-045

THE LID OF EXISTING MANHOLE TO BE SET FLUSH WITH THE NEW FINISHED SURFACE

ALLOW TO PROTECT EXISTING GASMAIN FOR THE DRAINAGE WORK. THE CONTRACTOR SHALL POT HOLE TO CONFIRM DEPTH OF SERVICE, BEFORE COMMENCEMENT OF DRAINAGE WORK, AND ADVISE ENGINEER OF ANY POTENTIAL ISSUES

- NOTES:**
- EXISTING SERVICES RECORDS HAVE BEEN INCORPORATED INTO THESE DRAWINGS HOWEVER THE ACCURACY AND COMPLETENESS OF ALL SERVICES CANNOT BE ASSURED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFIRMING THE LOCATION OF ALL SERVICES AND FOR HAVING THEM MARKED OUT BY THE RELEVANT SERVICES PROVIDER, PRIOR TO COMMENCEMENT OF ANY EXCAVATION WORKS.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING SERVICES, RESULTING FROM HIS ACTIVITIES, AT NO COST IMPLICATION TO THE PRINCIPAL.
  - FOR ROAD DRAINAGE WORKS, REFER DWG. NOS. 3818705-C063 TO C066.
  - FOR TRAFFIC SIGNAL AND DUCTING, REFER DWG. NOS. C024 TO C025, C028 TO C029 AND C033 TO C034.
  - WHERE EXISTING SERVICE CHAMBERS END UP BEING WITHIN THE CARRIAGEWAYS, THE LID/FRAME OF ASSOCIATED STRUCTURES SHALL BE UPGRADED TO NON-ROCK HEAVY DUTY (CLASS 4) TYPE.

**UTILITIES LEGEND:**

EXISTING	PROPOSED	
— SW —	— SW —	STORMWATER LINE, DRAIN & MANHOLE
X SW X	— SW —	STORMWATER TO BE REMOVED
— WW —	— WW —	WASTEWATER LINE & MANHOLE
— WM —	— WM —	WATERMAIN, HYDRANT & VALVE
— G —	— G —	VECTOR GAS
— V —	— V —	VECTOR COMMS DUCT & MANHOLE
— CH —	— CH —	TELSTRACLEAR DUCT AND PIT
— T —	— T —	TELECOM DUCT AND PIT
☀	☀	STREET LIGHT

No.	Revision	By	Chk	Appd	Date
1	ISSUED FOR CONSTRUCTION	RTCH	CJQ	JG	27.06.14

Design Originator: **Beca**

Original Scale (A1)	1:125	Design	RTCH	JUNE '14	Approved For Construction*
Reduced Scale (A3)	1:250	Drawn	VDLT	JUNE '14	
		Dwg Verifier	PI	JUNE '14	
		Dwg Check	CJQ	JUNE '14	

\* Refer to Revision 1 for Original Signature

Client: **Auckland Transport**  
An Auckland Council Organisation

Project: **BEACH ROAD CYCLEWAY**

Title: **TE TAOU EAST CRESCENT INTERSECTION UTILITIES PLAN**

Discipline: **CIVIL**

Drawing No. **3818705-C-027**

Rev. **1**

**FOR CONSTRUCTION**

**GENERAL NOTES:**

- TRAFFIC SIGNAL EQUIPMENT & INSTALLATION SHALL COMPLY WITH THE NATIONAL TRAFFIC SIGNALS SPECIFICATION (2013 REV 01) AND THE AUCKLAND TRAFFIC MANAGEMENT UNIT: TRAFFIC SIGNALS DESIGN GUIDELINES (VERSION 3.0 AUGUST 2010).
- POLE POSITIONS, PRAM RAMP AND PEDESTRIAN TACTILE PAVERS ARE INDICATIVE ONLY. FINAL POSITIONS TO BE DETERMINED ON SITE BY ENGINEER & CONTRACTOR.
- REFER TO UTILITY SERVICE DRAWING FOR UTILITY SERVICES DETAILS. CONTRACTOR SHALL CONFIRM & LOCATE ALL SERVICES ON SITE PRIOR TO EXCAVATION & CONSTRUCTION.
- CONTRACTOR TO ALLOW FOR THE INSTALLATION OF E-PROM DATA, TESTING AND CONNECTION TO THE SCATS SYSTEM TO JOINT TRAFFIC OPERATIONS CENTRE (JTOC).
- NEW DUCTS BETWEEN CHAMBERS SHALL BE 100mm DIA. DUCTS TO POLES SHALL BE 100mm DIA. DUCTS TO TOBY BOX SHALL BE 32mm DIA.
- CONTRACTOR TO ASSESS EXISTING DUCTS AND CHAMBERS AND UTILISE EXISTING INFRASTRUCTURE WHERE NECESSARY. IF EXISTING DUCTS ARE TO BE

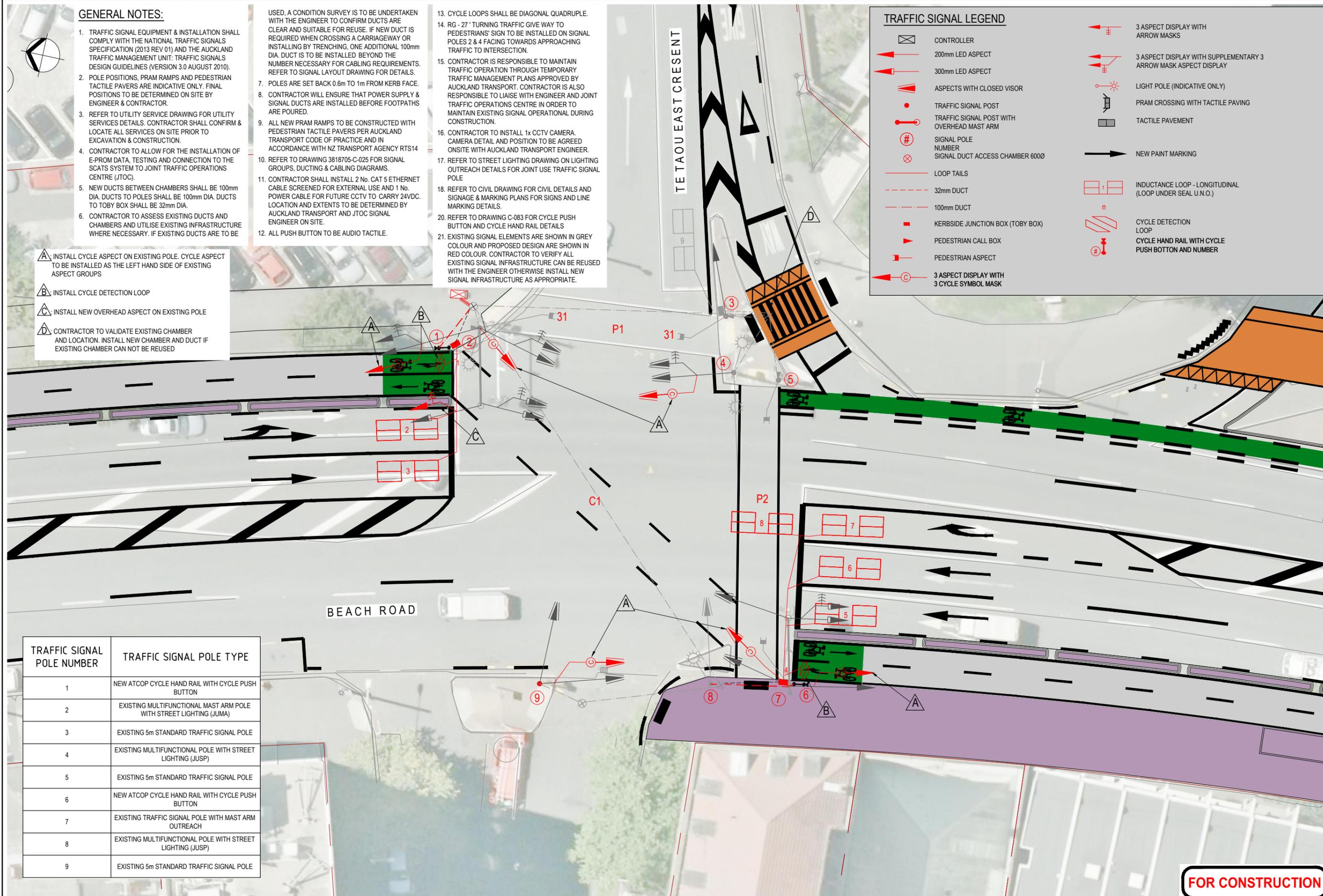
- USED, A CONDITION SURVEY IS TO BE UNDERTAKEN WITH THE ENGINEER TO CONFIRM DUCTS ARE CLEAR AND SUITABLE FOR REUSE. IF NEW DUCT IS REQUIRED WHEN CROSSING A CARRIAGEWAY OR INSTALLING BY TRENCHING, ONE ADDITIONAL 100mm DIA. DUCT IS TO BE INSTALLED BEYOND THE NUMBER NECESSARY FOR CABLING REQUIREMENTS. REFER TO SIGNAL LAYOUT DRAWING FOR DETAILS.
- POLES ARE SET BACK 0.6m TO 1m FROM KERB FACE.
- CONTRACTOR WILL ENSURE THAT POWER SUPPLY & SIGNAL DUCTS ARE INSTALLED BEFORE FOOTPATHS ARE POURED.
- ALL NEW PRAM RAMP TO BE CONSTRUCTED WITH PEDESTRIAN TACTILE PAVERS PER AUCKLAND TRANSPORT CODE OF PRACTICE AND IN ACCORDANCE WITH NZ TRANSPORT AGENCY RTS14
- REFER TO DRAWING 3818705-C-025 FOR SIGNAL GROUPS, DUCTING & CABLING DIAGRAMS.
- CONTRACTOR SHALL INSTALL 2 No. CAT 5 ETHERNET CABLE SCREENED FOR EXTERNAL USE AND 1 No. POWER CABLE FOR FUTURE CCTV TO CARRY 24VDC. LOCATION AND EXTENTS TO BE DETERMINED BY AUCKLAND TRANSPORT AND JTOC SIGNAL ENGINEER ON SITE.
- ALL PUSH BUTTON TO BE AUDIO TACTILE.

- CYCLE LOOPS SHALL BE DIAGONAL QUADRUPLE.
- RG - 27' TURNING TRAFFIC GIVE WAY TO PEDESTRIANS' SIGN TO BE INSTALLED ON SIGNAL POLES 2 & 4 FACING TOWARDS APPROACHING TRAFFIC TO INTERSECTION.
- CONTRACTOR IS RESPONSIBLE TO MAINTAIN TRAFFIC OPERATION THROUGH TEMPORARY TRAFFIC MANAGEMENT PLANS APPROVED BY AUCKLAND TRANSPORT. CONTRACTOR IS ALSO RESPONSIBLE TO LIAISE WITH ENGINEER AND JOINT TRAFFIC OPERATIONS CENTRE IN ORDER TO MAINTAIN EXISTING SIGNAL OPERATIONAL DURING CONSTRUCTION.
- CONTRACTOR TO INSTALL 1x CCTV CAMERA. CAMERA DETAIL AND POSITION TO BE AGREED ONSITE WITH AUCKLAND TRANSPORT ENGINEER.
- REFER TO STREET LIGHTING DRAWING ON LIGHTING OUTREACH DETAILS FOR JOINT USE TRAFFIC SIGNAL POLE
- REFER TO CIVIL DRAWING FOR CIVIL DETAILS AND SIGNAGE & MARKING PLANS FOR SIGNS AND LINE MARKING DETAILS.
- REFER TO DRAWING C-083 FOR CYCLE PUSH BUTTON AND CYCLE HAND RAIL DETAILS
- EXISTING SIGNAL ELEMENTS ARE SHOWN IN GREY COLOUR AND PROPOSED DESIGN ARE SHOWN IN RED COLOUR. CONTRACTOR TO VERIFY ALL EXISTING SIGNAL INFRASTRUCTURE CAN BE REUSED WITH THE ENGINEER OTHERWISE INSTALL NEW SIGNAL INFRASTRUCTURE AS APPROPRIATE.

- A** INSTALL CYCLE ASPECT ON EXISTING POLE. CYCLE ASPECT TO BE INSTALLED AS THE LEFT HAND SIDE OF EXISTING ASPECT GROUPS
- B** INSTALL CYCLE DETECTION LOOP
- C** INSTALL NEW OVERHEAD ASPECT ON EXISTING POLE
- D** CONTRACTOR TO VALIDATE EXISTING CHAMBER AND LOCATION. INSTALL NEW CHAMBER AND DUCT IF EXISTING CHAMBER CAN NOT BE REUSED

**TRAFFIC SIGNAL LEGEND**

	CONTROLLER		3 ASPECT DISPLAY WITH ARROW MASKS
	200mm LED ASPECT		3 ASPECT DISPLAY WITH SUPPLEMENTARY 3 ARROW MASK ASPECT DISPLAY
	300mm LED ASPECT		LIGHT POLE (INDICATIVE ONLY)
	ASPECTS WITH CLOSED VISOR		PRAM CROSSING WITH TACTILE PAVING
	TRAFFIC SIGNAL POST		TACTILE PAVEMENT
	TRAFFIC SIGNAL POST WITH OVERHEAD MAST ARM		NEW PAINT MARKING
	SIGNAL POLE NUMBER		INDUCTANCE LOOP - LONGITUDINAL (LOOP UNDER SEAL U.N.O.)
	SIGNAL DUCT ACCESS CHAMBER 6000		CYCLE DETECTION LOOP
	LOOP TAILS		CYCLE HAND RAIL WITH CYCLE PUSH BUTTON AND NUMBER
	32mm DUCT		
	100mm DUCT		
	KERBSIDE JUNCTION BOX (TOBY BOX)		
	PEDESTRIAN CALL BOX		
	PEDESTRIAN ASPECT		
	3 ASPECT DISPLAY WITH 3 CYCLE SYMBOL MASK		



TRAFFIC SIGNAL POLE NUMBER	TRAFFIC SIGNAL POLE TYPE
1	NEW ATCOP CYCLE HAND RAIL WITH CYCLE PUSH BUTTON
2	EXISTING MULTIFUNCTIONAL MAST ARM POLE WITH STREET LIGHTING (JUMA)
3	EXISTING 5m STANDARD TRAFFIC SIGNAL POLE
4	EXISTING MULTIFUNCTIONAL POLE WITH STREET LIGHTING (JUSP)
5	EXISTING 5m STANDARD TRAFFIC SIGNAL POLE
6	NEW ATCOP CYCLE HAND RAIL WITH CYCLE PUSH BUTTON
7	EXISTING TRAFFIC SIGNAL POLE WITH MAST ARM OUTREACH
8	EXISTING MULTIFUNCTIONAL POLE WITH STREET LIGHTING (JUSP)
9	EXISTING 5m STANDARD TRAFFIC SIGNAL POLE

**FOR CONSTRUCTION**

No.	Revision	By	Chk	Appd	Date



Original Scale (A1)	Design	JG	Approved For Construction*
1:125	Drawn	JG	Date
Reduced Scale (A3)	Dwg Verifier		
1:250	Dwg Check		
	* Refer to Revision 1 for Original Signature		



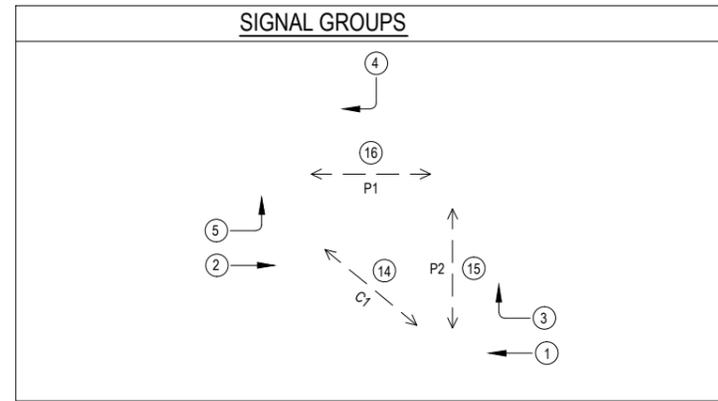
Client: **Auckland Transport**  
 Project: **BEACH ROAD CYCLEWAY**

Title: **TE TAOU EAST TRAFFIC SIGNALS SHEET 1 OF 2**

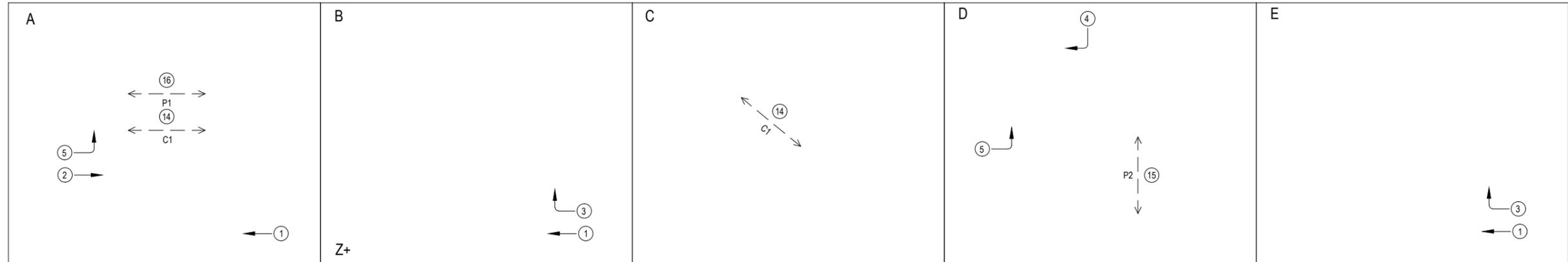
Discipline	CIVIL
Drawing No.	3818705-C-028
Rev.	1

**GENERAL NOTES:**

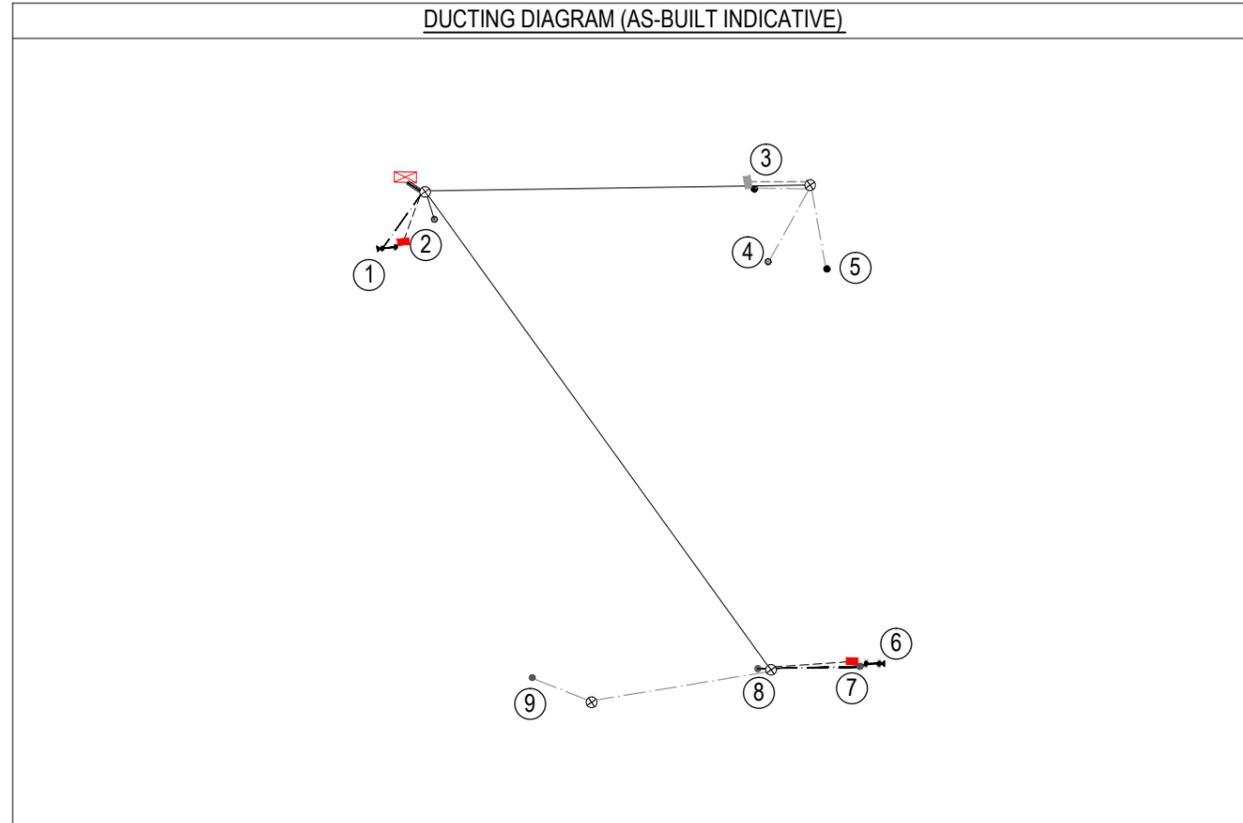
1. REFER TO DRAWING 3818705-C-028 FOR SIGNAL LAYOUT DETAILS.
2. PARTIAL PEDESTRIAN PROTECTION FOR SIGNAL GROUP P1 AND EXCLUSIVE PEDESTRIAN SIGNAL GROUP P2 IN RESPECTIVE SIGNAL PHASES. TIMING DETAILS TO BE CONFIRMED BY AUCKLAND TRANSPORT SIGNAL ENGINEER.
3. CYCLE SIGNAL GROUP C1 TO OPERATE IN PHASE C TRIGGERED BY DEMAND VIA CYCLE PUSH BUTTON AND CYCLE DETECTORS. TIMING DETAILS OF PHASE C AND SPECIFIC ALL RED TIME CLEARANCE ARE TO BE CONFIRMED WITH AUCKLAND TRANSPORT AND JTOC SIGNAL ENGINEER.
4. PHASE SEQUENCE A:C:D:E. ALTERNATIVE PHASE SEQUENCE A:B:C:D:E



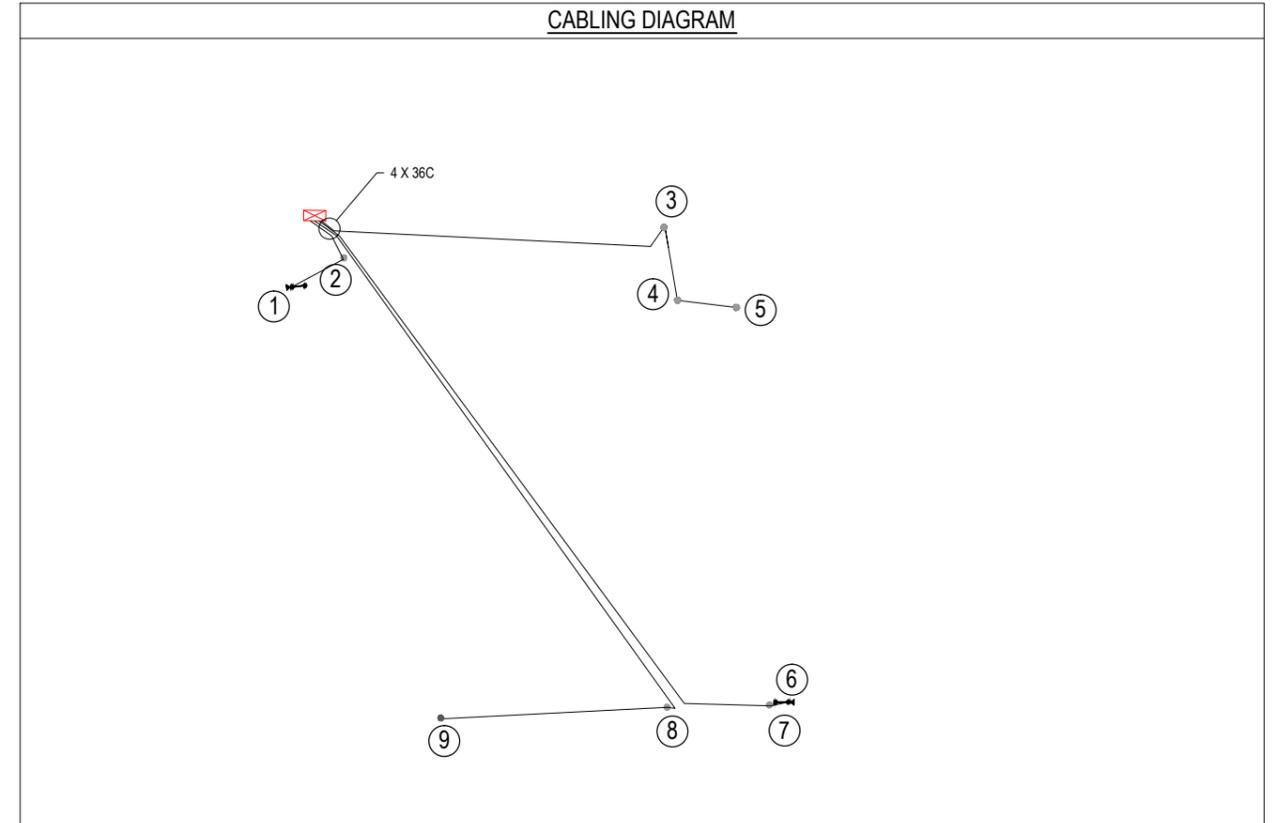
**TYPICAL PHASING & SIGNAL GROUPS**



**DUCTING DIAGRAM (AS-BUILT INDICATIVE)**



**CABLING DIAGRAM**



No.	Revision	By	Chk	Appd	Date
1	ISSUED FOR CONSTRUCTION	JG	SDH	JG	27.06.14



Original Scale (A1)	Design	JG	MAY '14	Approved For Construction*
Reduced Scale (A3)	Drawn	JG	MAY '14	Date
	Dwg Verifier			
	Dwg Check			

\* Refer to Revision 1 for Original Signature



Client: **Auckland Transport**  
Project: **BEACH ROAD CYCLEWAY**

Title: **TE TAOU EAST TRAFFIC SIGNALS SHEET 2 OF 2**

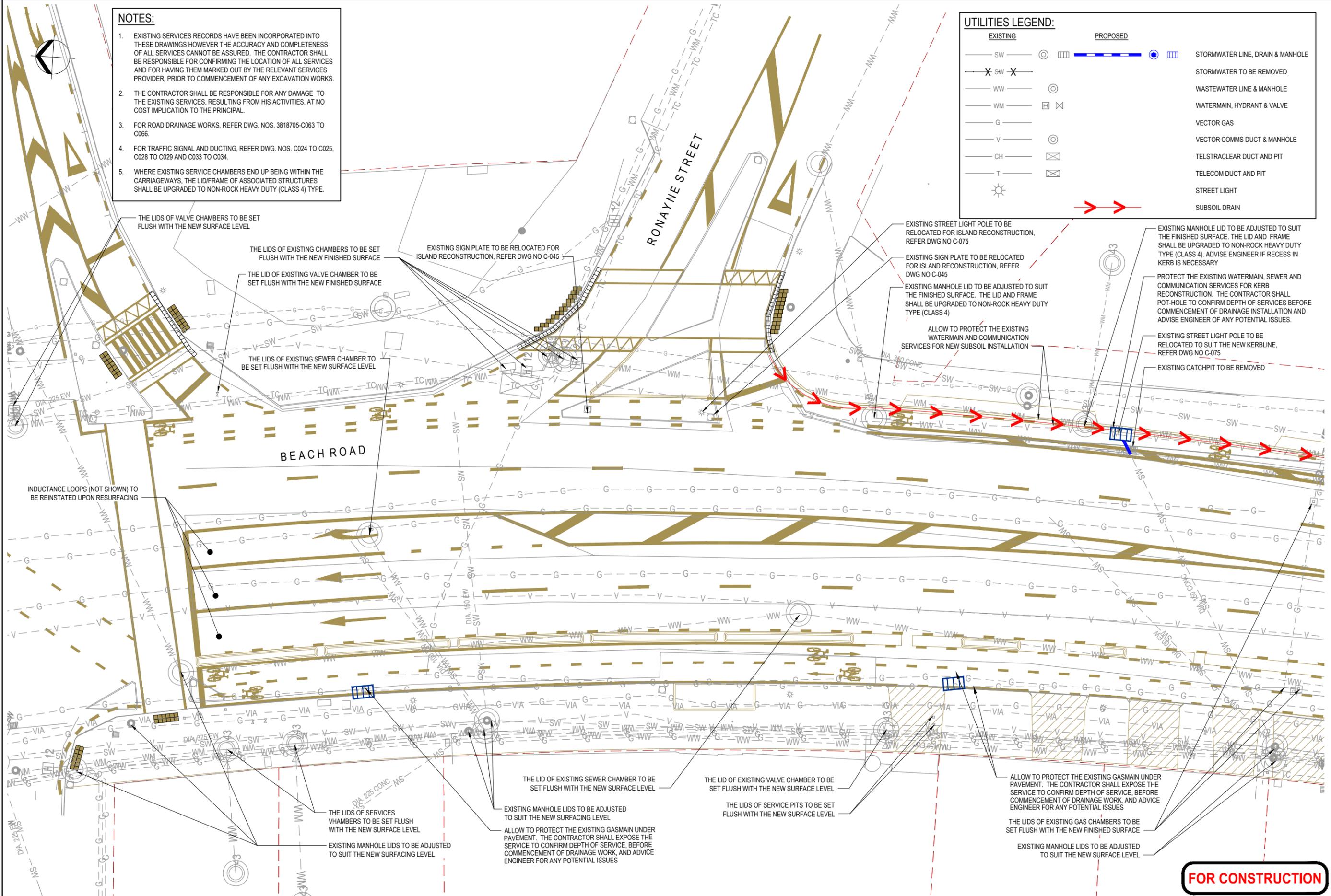
**FOR CONSTRUCTION**

Discipline	CIVIL
Drawing No.	3818705-C-029
Rev.	1

- NOTES:**
- EXISTING SERVICES RECORDS HAVE BEEN INCORPORATED INTO THESE DRAWINGS HOWEVER THE ACCURACY AND COMPLETENESS OF ALL SERVICES CANNOT BE ASSURED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFIRMING THE LOCATION OF ALL SERVICES AND FOR HAVING THEM MARKED OUT BY THE RELEVANT SERVICES PROVIDER, PRIOR TO COMMENCEMENT OF ANY EXCAVATION WORKS.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING SERVICES, RESULTING FROM HIS ACTIVITIES, AT NO COST IMPLICATION TO THE PRINCIPAL.
  - FOR ROAD DRAINAGE WORKS, REFER DWG. NOS. 3818705-C063 TO C066.
  - FOR TRAFFIC SIGNAL AND DUCTING, REFER DWG. NOS. C024 TO C025, C028 TO C029 AND C033 TO C034.
  - WHERE EXISTING SERVICE CHAMBERS END UP BEING WITHIN THE CARRIAGEWAYS, THE LID/FRAME OF ASSOCIATED STRUCTURES SHALL BE UPGRADED TO NON-ROCK HEAVY DUTY (CLASS 4) TYPE.

**UTILITIES LEGEND:**

EXISTING	PROPOSED	
— SW —	— SW —	STORMWATER LINE, DRAIN & MANHOLE
— WW —	— WW —	STORMWATER TO BE REMOVED
— WM —	— WM —	WASTEWATER LINE & MANHOLE
— G —	— G —	WATERMAIN, HYDRANT & VALVE
— V —	— V —	VECTOR GAS
— CH —	— CH —	VECTOR COMMS DUCT & MANHOLE
— T —	— T —	TELSTRACLEAR DUCT AND PIT
☀	☀	TELECOM DUCT AND PIT
	☀	STREET LIGHT
	—	SUBSOIL DRAIN



**FOR CONSTRUCTION**

No.	Revision	By	Chk	Appd	Date
1	ISSUED FOR CONSTRUCTION	RTCH	CJO	JG	27.06.14



Original Scale (A1)	Design	RTCH	JUNE '14	Approved For Construction*
1:125	Drawn	VDLT	JUNE '14	
Reduced Scale (A3)	Dwg Verifier	PI	JUNE '14	
1:250	Dwg Check	CJO	JUNE '14	

\* Refer to Revision 1 for Original Signature

Client: **Auckland Transport**

An Auckland Council Organisation

Project: **BEACH ROAD CYCLEWAY**

**RONAYNE STREET INTERSECTION UTILITIES PLAN**

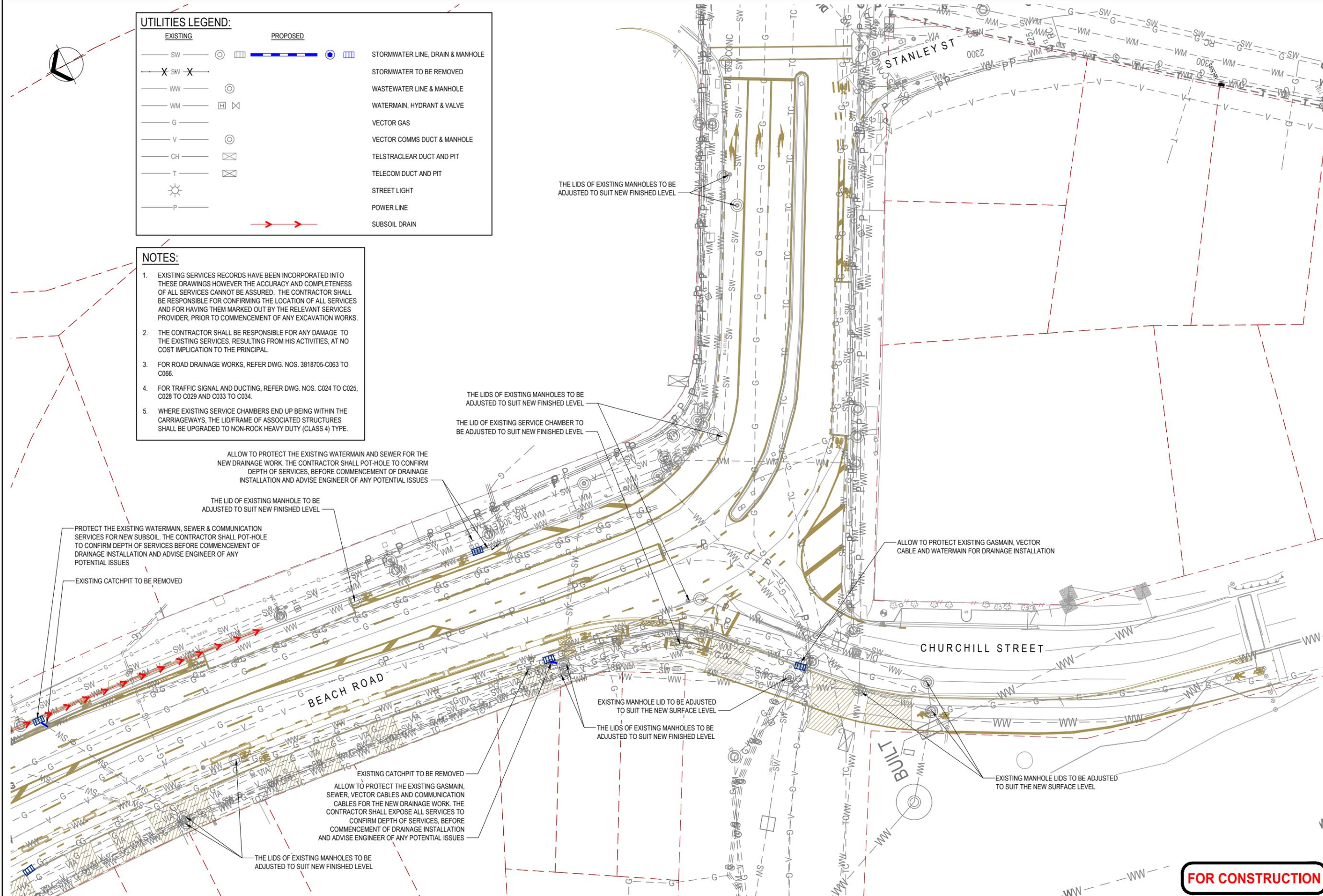
Discipline	CIVIL
Drawing No.	3818705-C-030
Rev.	1

**UTILITIES LEGEND:**

EXISTING	PROPOSED	
— SW —	— SW —	STORMWATER LINE, DRAIN & MANHOLE
X SW X	— SW —	STORMWATER TO BE REMOVED
— WW —	— WW —	WASTEWATER LINE & MANHOLE
— WM —	— WM —	WATERMAIN, HYDRANT & VALVE
— G —	— G —	VECTOR GAS
— V —	— V —	VECTOR COMMS DUCT & MANHOLE
— CH —	— CH —	TELSTRACLEAR DUCT AND PIT
— T —	— T —	TELECOM DUCT AND PIT
☀	☀	STREET LIGHT
— P —	— P —	POWER LINE
	→ → →	SUBSOIL DRAIN

**NOTES:**

- EXISTING SERVICES RECORDS HAVE BEEN INCORPORATED INTO THESE DRAWINGS HOWEVER THE ACCURACY AND COMPLETENESS OF ALL SERVICES CANNOT BE ASSURED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFIRMING THE LOCATION OF ALL SERVICES AND FOR HAVING THEM MARKED OUT BY THE RELEVANT SERVICES PROVIDER, PRIOR TO COMMENCEMENT OF ANY EXCAVATION WORKS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING SERVICES, RESULTING FROM HIS ACTIVITIES, AT NO COST IMPLICATION TO THE PRINCIPAL.
- FOR ROAD DRAINAGE WORKS, REFER DWG. NOS. 3818705-C063 TO C066.
- FOR TRAFFIC SIGNAL AND DUCTING, REFER DWG. NOS. C024 TO C025, C028 TO C029 AND C033 TO C034.
- WHERE EXISTING SERVICE CHAMBERS END UP BEING WITHIN THE CARRIAGEWAYS, THE LID/FRAME OF ASSOCIATED STRUCTURES SHALL BE UPGRADED TO NON-ROCK HEAVY DUTY (CLASS 4) TYPE.



No.	Revision	By	Chk	Appd	Date
1	ISSUED FOR CONSTRUCTION	RTCH	CJO	JG	27.06.14

Design Originator:

Original Scale (A1)	Design	RTCH	JUNE '14	Approved For Construction*
1:250	Drawn	VDLT	JUNE '14	
Reduced Scale (A3)	Design Checker	PI	JUNE '14	
1:500	Design Check	CJO	JUNE '14	Date -

\* Refer to Revision 1 for Original Signature

Client:

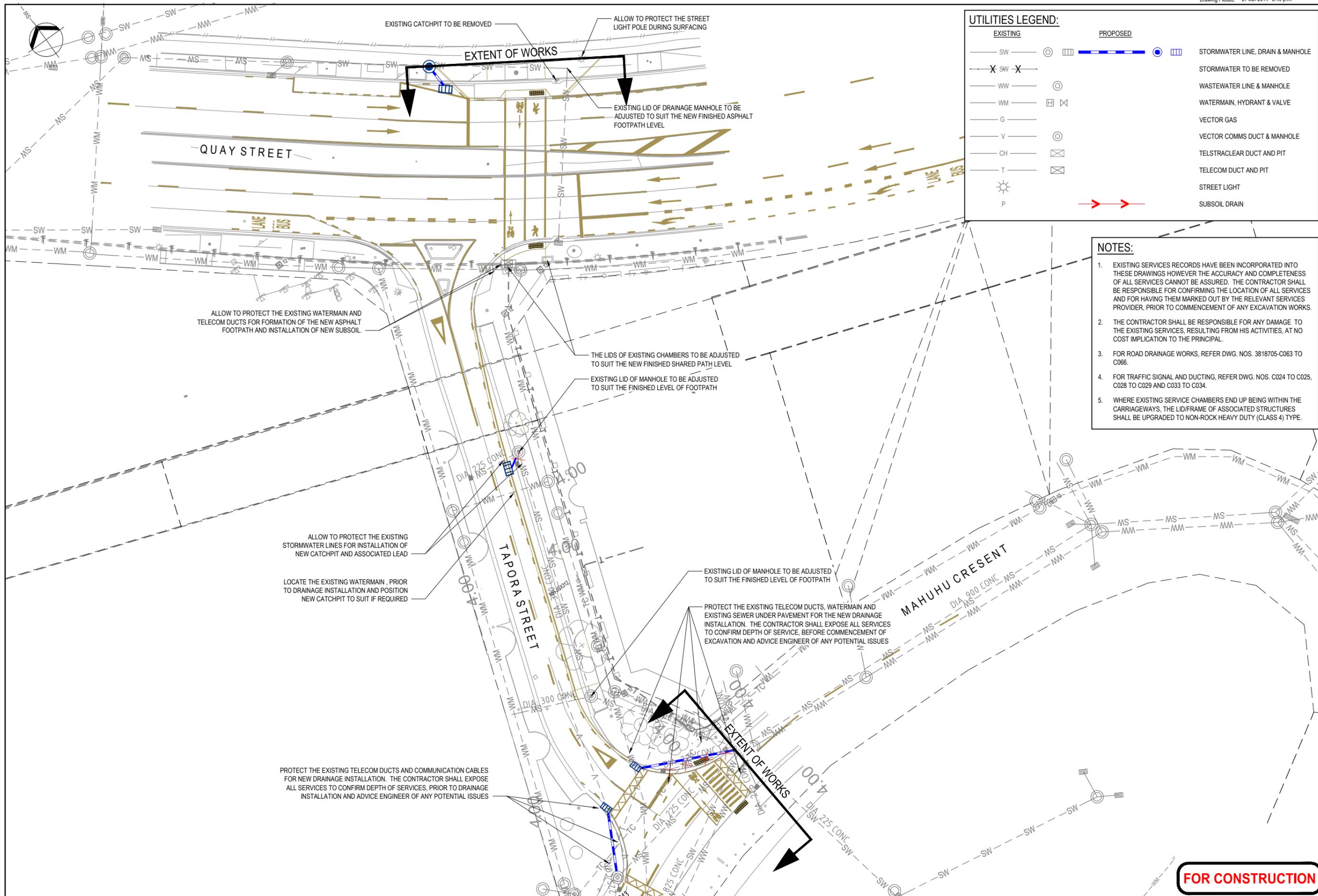
An Auckland Council Organisation

Project: BEACH ROAD CYCLEWAY

Title: CHURCHILL INTERSECTION UTILITIES PLAN

**FOR CONSTRUCTION**

Discipline	CIVIL
Drawing No.	3818705-C-031
Rev.	1



**UTILITIES LEGEND:**

EXISTING	PROPOSED	DESCRIPTION
SW	Blue dashed line with circle	STORMWATER LINE, DRAIN & MANHOLE
X SW X	Blue dashed line with circle	STORMWATER TO BE REMOVED
WW	Blue dashed line with circle	WASTEWATER LINE & MANHOLE
WM	Blue dashed line with circle	WATERMAIN, HYDRANT & VALVE
G	Blue dashed line with circle	VECTOR GAS
V	Blue dashed line with circle	VECTOR COMMS DUCT & MANHOLE
CH	Blue dashed line with circle	TELSTRACLEAR DUCT AND PIT
T	Blue dashed line with circle	TELECOM DUCT AND PIT
Sun symbol	Blue dashed line with circle	STREET LIGHT
P	Blue dashed line with circle	SUBSOIL DRAIN

- NOTES:**
- EXISTING SERVICES RECORDS HAVE BEEN INCORPORATED INTO THESE DRAWINGS HOWEVER THE ACCURACY AND COMPLETENESS OF ALL SERVICES CANNOT BE ASSURED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONFIRMING THE LOCATION OF ALL SERVICES AND FOR HAVING THEM MARKED OUT BY THE RELEVANT SERVICES PROVIDER, PRIOR TO COMMENCEMENT OF ANY EXCAVATION WORKS.
  - THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING SERVICES, RESULTING FROM HIS ACTIVITIES, AT NO COST IMPLICATION TO THE PRINCIPAL.
  - FOR ROAD DRAINAGE WORKS, REFER DWG. NOS. 3818705-C063 TO C066.
  - FOR TRAFFIC SIGNAL AND DUCTING, REFER DWG. NOS. C024 TO C025, C028 TO C029 AND C033 TO C034.
  - WHERE EXISTING SERVICE CHAMBERS END UP BEING WITHIN THE CARRIAGEWAYS, THE LID/FRAME OF ASSOCIATED STRUCTURES SHALL BE UPGRADED TO NON-ROCK HEAVY DUTY (CLASS 4) TYPE.

**FOR CONSTRUCTION**

No.	Revision	By	Chk	Appd	Date
1	ISSUED FOR CONSTRUCTION	RTCH	CJQ	JG	27.06.14



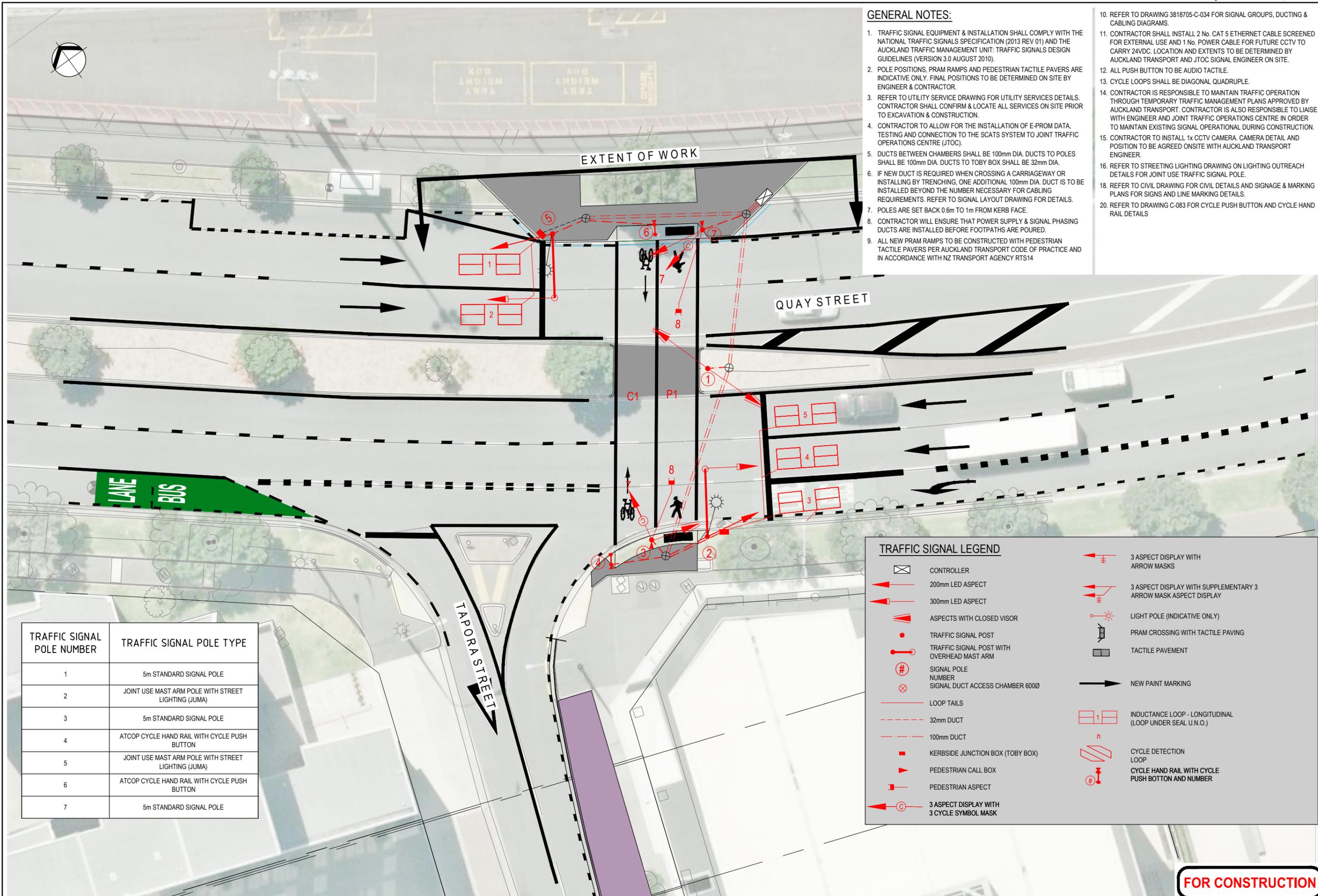
Original Scale (A1)	1:250	Design	RTCH	JUNE '14	Approved For Construction
Reduced Scale (A3)	1:500	Drawn	VDLT	JUNE '14	
		Dwg Verifier	PI	JUNE '14	
		Dwg Check	CJQ	JUNE '14	



Project: BEACH ROAD CYCLEWAY

Title: QUAY STREET INTERSECTION UTILITIES PLAN

Discipline	CIVIL
Drawing No.	3818705-C-032
Rev.	1



**GENERAL NOTES:**

1. TRAFFIC SIGNAL EQUIPMENT & INSTALLATION SHALL COMPLY WITH THE NATIONAL TRAFFIC SIGNALS SPECIFICATION (2013 REV 01) AND THE AUCKLAND TRAFFIC MANAGEMENT UNIT: TRAFFIC SIGNALS DESIGN GUIDELINES (VERSION 3.0 AUGUST 2010).
2. POLE POSITIONS, PRAM RAMPS AND PEDESTRIAN TACTILE PAVERS ARE INDICATIVE ONLY. FINAL POSITIONS TO BE DETERMINED ON SITE BY ENGINEER & CONTRACTOR.
3. REFER TO UTILITY SERVICE DRAWING FOR UTILITY SERVICES DETAILS. CONTRACTOR SHALL CONFIRM & LOCATE ALL SERVICES ON SITE PRIOR TO EXCAVATION & CONSTRUCTION.
4. CONTRACTOR TO ALLOW FOR THE INSTALLATION OF E-PROM DATA, TESTING AND CONNECTION TO THE SCATS SYSTEM TO JOINT TRAFFIC OPERATIONS CENTRE (JTOC).
5. DUCTS BETWEEN CHAMBERS SHALL BE 100mm DIA. DUCTS TO POLES SHALL BE 100mm DIA. DUCTS TO TOBY BOX SHALL BE 32mm DIA.
6. IF NEW DUCT IS REQUIRED WHEN CROSSING A CARRIAGEWAY OR INSTALLING BY TRENCHING, ONE ADDITIONAL 100mm DIA. DUCT IS TO BE INSTALLED BEYOND THE NUMBER NECESSARY FOR CABLING REQUIREMENTS. REFER TO SIGNAL LAYOUT DRAWING FOR DETAILS.
7. POLES ARE SET BACK 0.6m TO 1m FROM KERB FACE.
8. CONTRACTOR WILL ENSURE THAT POWER SUPPLY & SIGNAL PHASING DUCTS ARE INSTALLED BEFORE FOOTPATHS ARE POURED.
9. ALL NEW PRAM RAMPS TO BE CONSTRUCTED WITH PEDESTRIAN TACTILE PAVERS PER AUCKLAND TRANSPORT CODE OF PRACTICE AND IN ACCORDANCE WITH NZ TRANSPORT AGENCY RTS14
10. REFER TO DRAWING 3818705-C-034 FOR SIGNAL GROUPS, DUCTING & CABLING DIAGRAMS.
11. CONTRACTOR SHALL INSTALL 2 No. CAT 5 ETHERNET CABLE SCREENED FOR EXTERNAL USE AND 1 No. POWER CABLE FOR FUTURE CCTV TO CARRY 24VDC. LOCATION AND EXTENTS TO BE DETERMINED BY AUCKLAND TRANSPORT AND JTOC SIGNAL ENGINEER ON SITE.
12. ALL PUSH BUTTON TO BE AUDIO TACTILE.
13. CYCLE LOOPS SHALL BE DIAGONAL QUADRUPLE.
14. CONTRACTOR IS RESPONSIBLE TO MAINTAIN TRAFFIC OPERATION THROUGH TEMPORARY TRAFFIC MANAGEMENT PLANS APPROVED BY AUCKLAND TRANSPORT. CONTRACTOR IS ALSO RESPONSIBLE TO LIAISE WITH ENGINEER AND JOINT TRAFFIC OPERATIONS CENTRE IN ORDER TO MAINTAIN EXISTING SIGNAL OPERATIONAL DURING CONSTRUCTION.
15. CONTRACTOR TO INSTALL 1x CCTV CAMERA. CAMERA DETAIL AND POSITION TO BE AGREED ONSITE WITH AUCKLAND TRANSPORT ENGINEER.
16. REFER TO STREETING LIGHTING DRAWING ON LIGHTING OUTREACH DETAILS FOR JOINT USE TRAFFIC SIGNAL POLE.
18. REFER TO CIVIL DRAWING FOR CIVIL DETAILS AND SIGNAGE & MARKING PLANS FOR SIGNS AND LINE MARKING DETAILS.
20. REFER TO DRAWING C-083 FOR CYCLE PUSH BUTTON AND CYCLE HAND RAIL DETAILS

TRAFFIC SIGNAL POLE NUMBER	TRAFFIC SIGNAL POLE TYPE
1	5m STANDARD SIGNAL POLE
2	JOINT USE MAST ARM POLE WITH STREET LIGHTING (JUMA)
3	5m STANDARD SIGNAL POLE
4	ATCOP CYCLE HAND RAIL WITH CYCLE PUSH BUTTON
5	JOINT USE MAST ARM POLE WITH STREET LIGHTING (JUMA)
6	ATCOP CYCLE HAND RAIL WITH CYCLE PUSH BUTTON
7	5m STANDARD SIGNAL POLE

**TRAFFIC SIGNAL LEGEND**

	CONTROLLER		3 ASPECT DISPLAY WITH ARROW MASKS
	200mm LED ASPECT		3 ASPECT DISPLAY WITH SUPPLEMENTARY 3 ARROW MASK ASPECT DISPLAY
	300mm LED ASPECT		LIGHT POLE (INDICATIVE ONLY)
	ASPECTS WITH CLOSED VISOR		PRAM CROSSING WITH TACTILE PAVING
	TRAFFIC SIGNAL POST		TACTILE PAVEMENT
	TRAFFIC SIGNAL POST WITH OVERHEAD MAST ARM		NEW PAINT MARKING
	SIGNAL POLE NUMBER		INDUCTANCE LOOP - LONGITUDINAL (LOOP UNDER SEAL U.N.O.)
	SIGNAL DUCT ACCESS CHAMBER 600Ø		CYCLE DETECTION LOOP
	LOOP TAILS		CYCLE HAND RAIL WITH CYCLE PUSH BUTTON AND NUMBER
	32mm DUCT		
	100mm DUCT		
	KERBSIDE JUNCTION BOX (TOBY BOX)		
	PEDESTRIAN CALL BOX		
	PEDESTRIAN ASPECT		
	3 ASPECT DISPLAY WITH 3 CYCLE SYMBOL MASK		

No.	1	ISSUED FOR CONSTRUCTION	JG	SDH	JG	27.6.14
By						
Appd						
Date						



Original Scale (A1)	1:125	Design	JG	MAY '14	Approved For Construction
Reduced Scale (A3)	1:250	Drawn	JG	MAY '14	
		Dwg Verifier	SDH	23.06.14	
		Dwg Check	SJP	23.06.14	



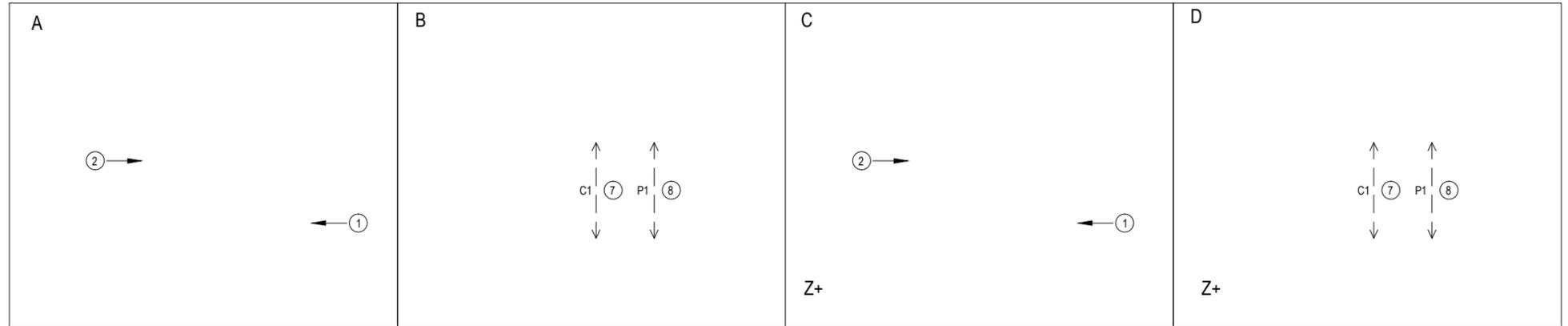
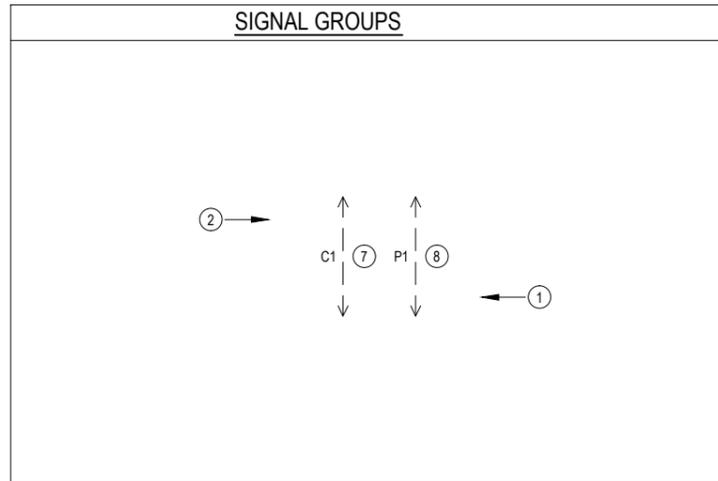
Project: BEACH ROAD CYCLEWAY

Title: QUAY STREET INTERSECTION TRAFFIC SIGNALS SHEET 1 OF 2

Discipline	CIVIL
Drawing No.	3818705-C-033
Rev.	1

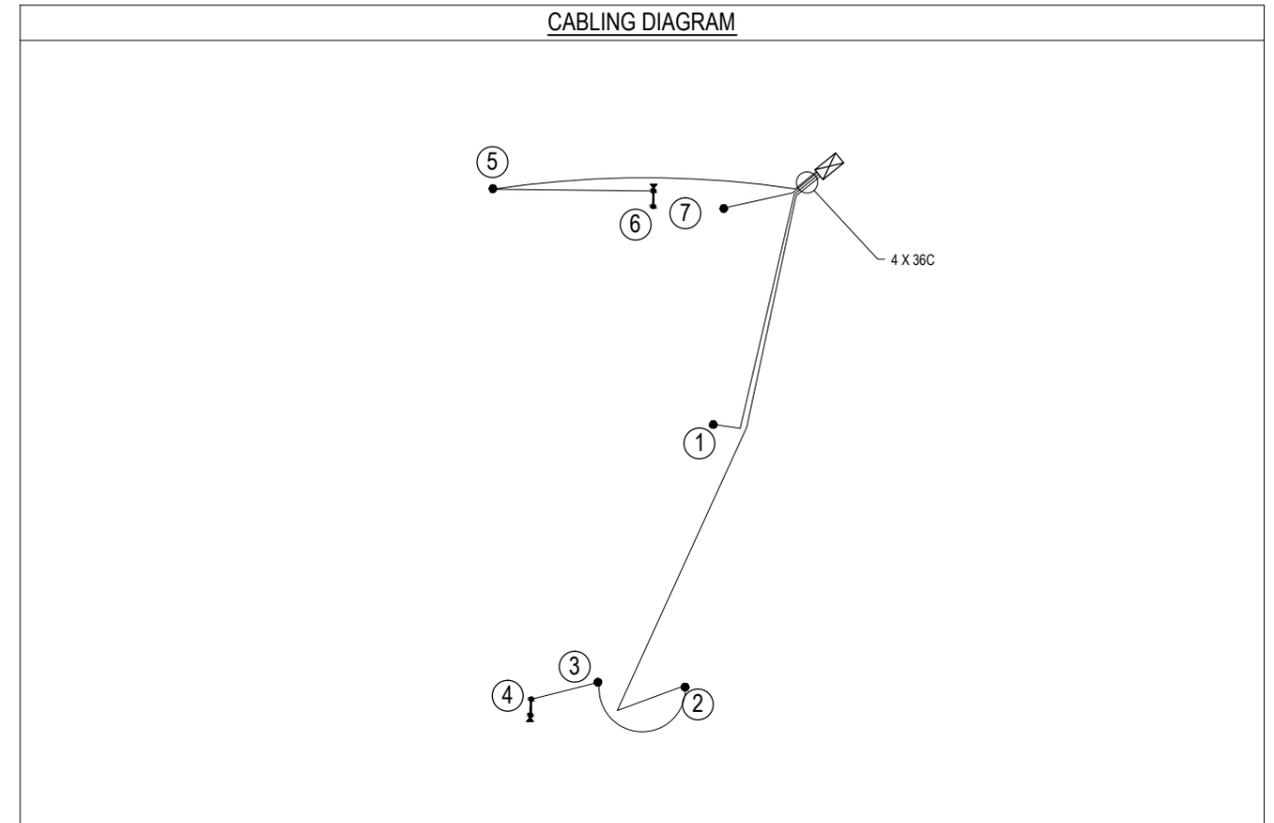
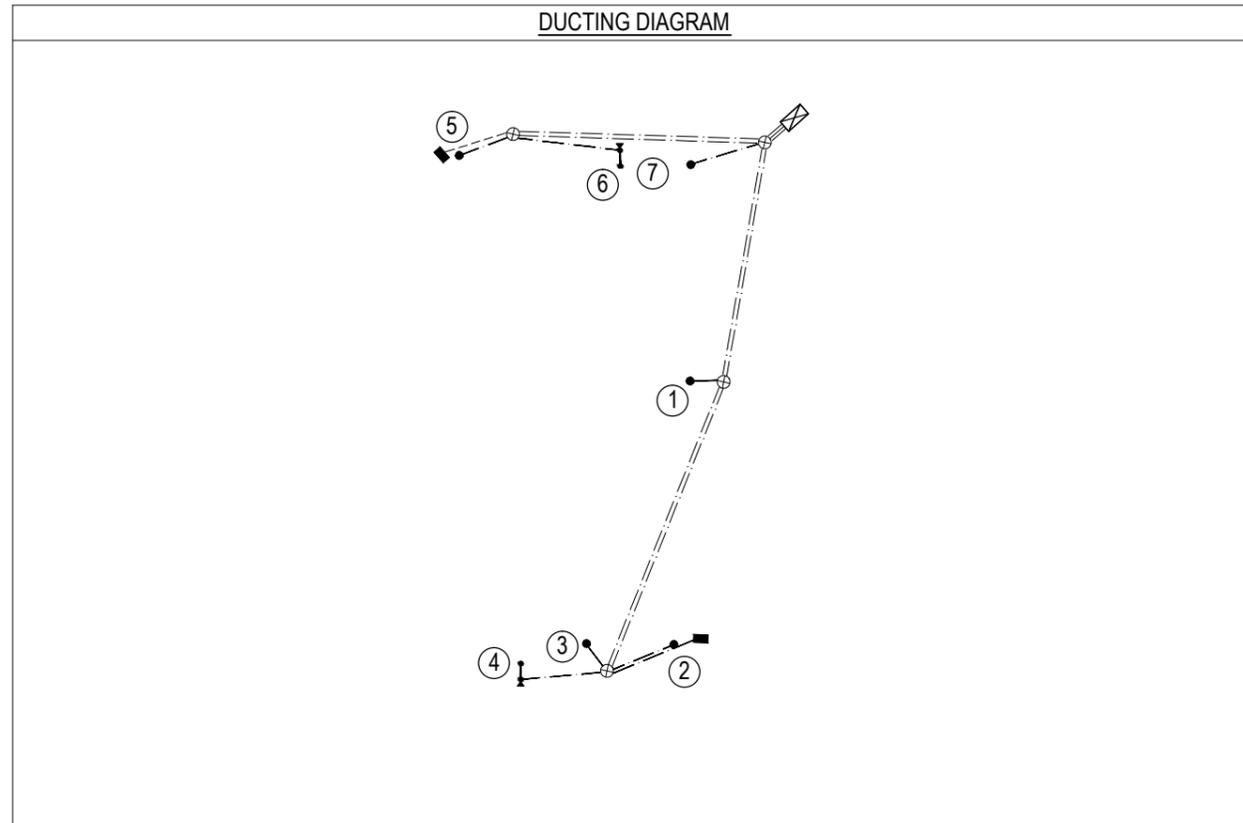
**FOR CONSTRUCTION**

TYPICAL PHASING & SIGNAL GROUPS



**GENERAL NOTES:**

1. REFER TO DRAWING 3818705-C-033 FOR SIGNAL LAYOUT DETAILS.
2. EXCLUSIVE PEDESTRIAN PROTECTION FOR SIGNAL GROUP P1 & C1 IN RESPECTIVE SIGNAL PHASES. TIMING DETAILS TO BE CONFIRMED BY AUCKLAND TRANSPORT SIGNAL ENGINEER.
3. PHASE SEQUENCE A : B. ALTERNATIVE PHASE SEQUENCE A:B:C:D



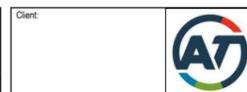
**FOR CONSTRUCTION**

No.	Revision	By	Chk	Appd	Date
1	ISSUED FOR CONSTRUCTION	JG	SDH	JG	27.06.14



Original Scale (A1)	Design	JG	MAY '14	Approved For Construction*
NTS	Drawn	JG	MAY '14	-
Reduced Scale (A3)	Design Checker	SDH	23.06.14	-
NTS	Design Check	SJP	23.06.14	Date -

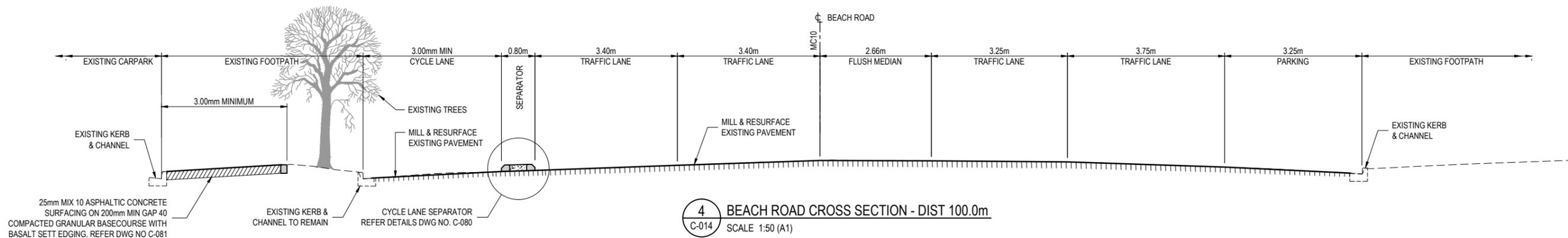
\* Refer to Revision 1 for Original Signature



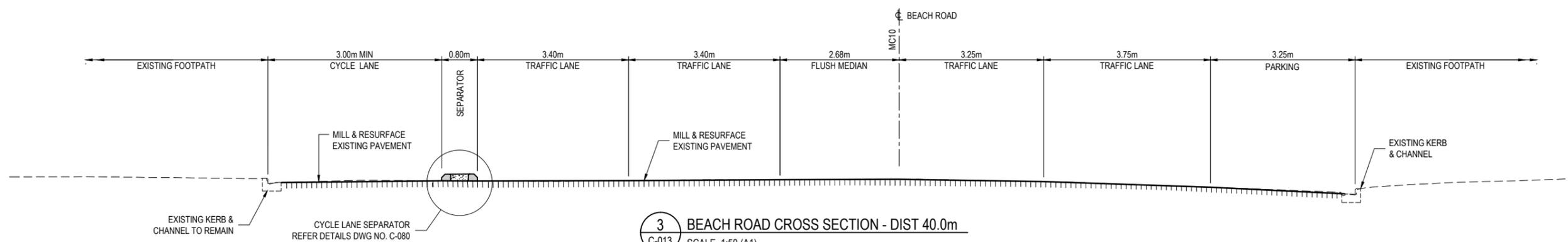
Client: **BEACH ROAD CYCLEWAY**

Title: **QUAY STREET INTERSECTION TRAFFIC SIGNALS SHEET 2 OF 2**

Discipline	CIVIL
Drawing No.	3818705-C-034
Rev.	1



**4** BEACH ROAD CROSS SECTION - DIST 100.0m  
C-014 SCALE 1:50 (A1)



**3** BEACH ROAD CROSS SECTION - DIST 40.0m  
C-013 SCALE 1:50 (A1)

**FOR CONSTRUCTION**

No.	Revision	By	Chk	Appd	Date
1	ISSUED FOR CONSTRUCTION	VDLT	SJP	JG	27.06.14

Drawing Originator:  
**Beca**

Original Scale (A1)	Design	SJP	MAY 14	Approved For Construction*
1:50	Drawn	VDLT	MAY 14	-
Reduced Scale (A3)	Design Checker	PMI	23.06.14	-
1:100	Design Check	SJP	23.06.14	-

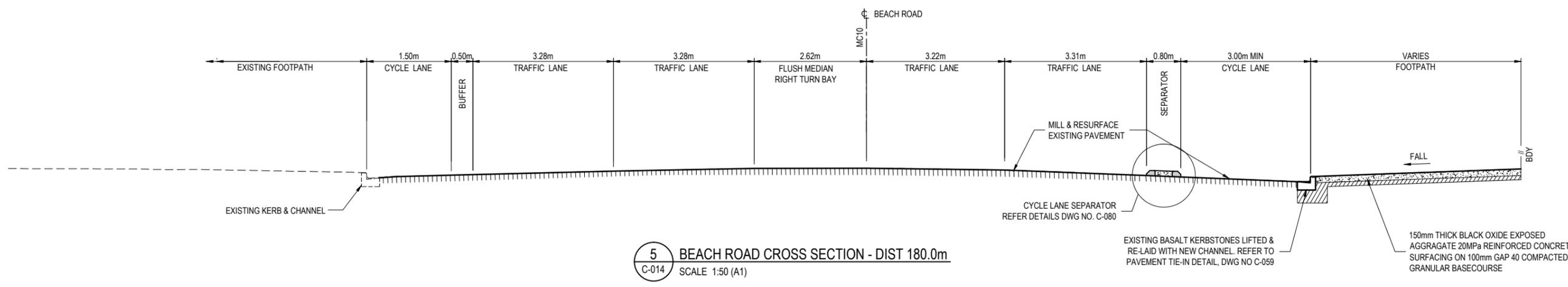
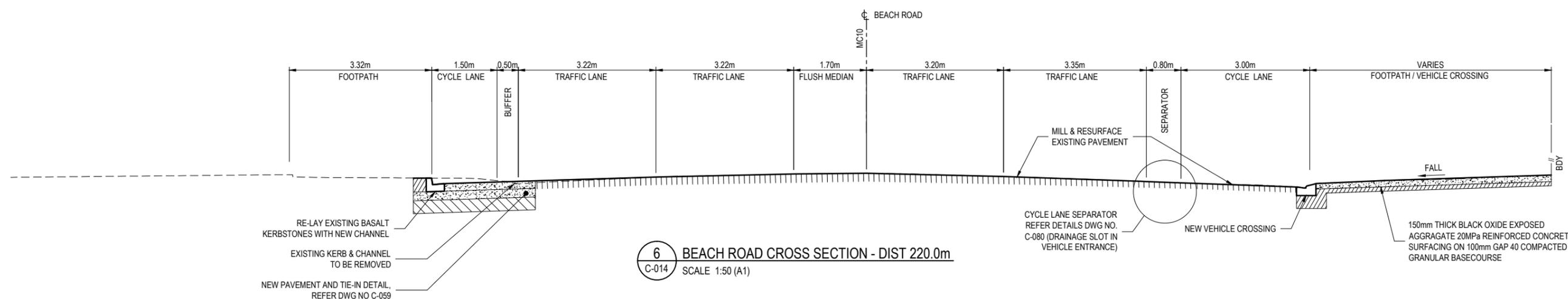
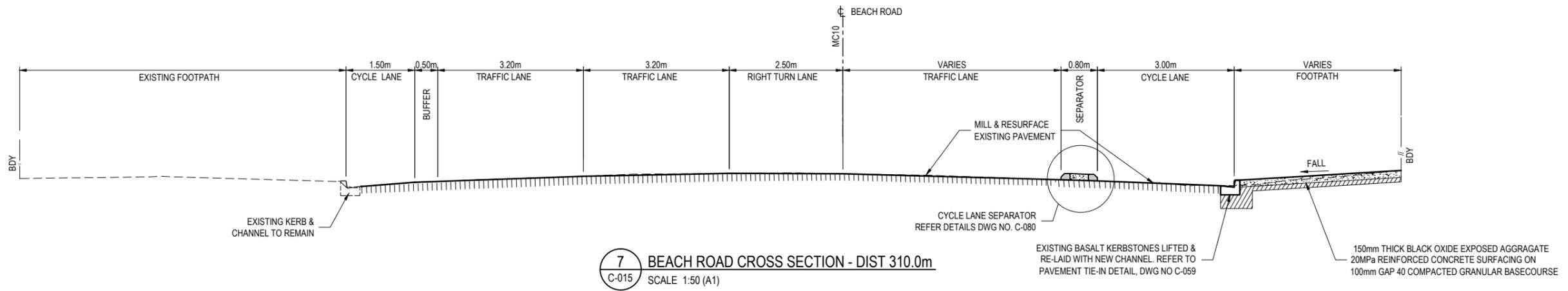
\* Refer to Revision 1 for Original Signature

Client: **Auckland Transport**  
An Auckland Council Organisation

Project: **BEACH ROAD CYCLEWAY**

Title: **TYPICAL CROSS SECTIONS SHEET 1 OF 4 BEACH ROAD**

Discipline	CIVIL
Drawing No.	3818705-C-035
Rev.	1



**FOR CONSTRUCTION**

No.	Revision	By	Chk	Appd	Date
1	ISSUED FOR CONSTRUCTION	VDLT	SJP	JG	27.06.14



Original Scale (A1)	Design	SJP	MAY 14	Approved For Construction*
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Reduced Scale (A3)	Dwg Verifier	PMI	23.06.14	
1:100	Dwg Check	SJP	23.06.14	Date -

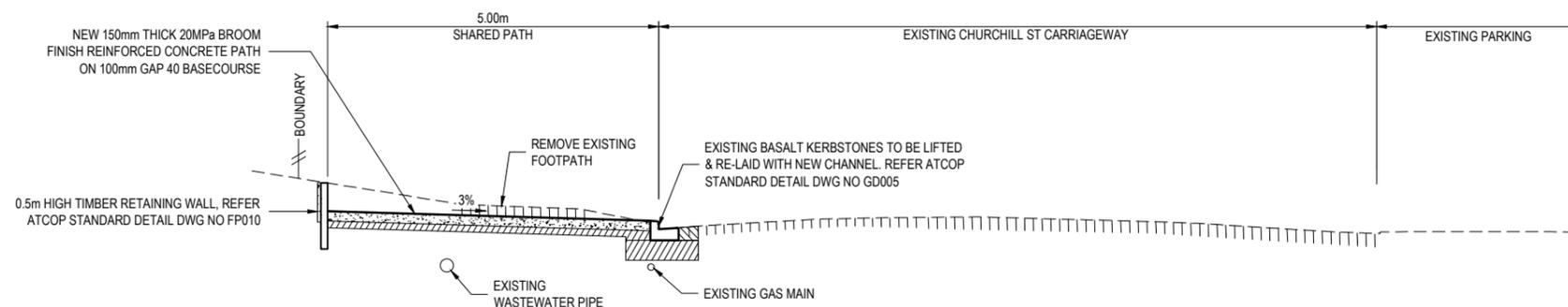
\* Refer to Revision 1 for Original Signature



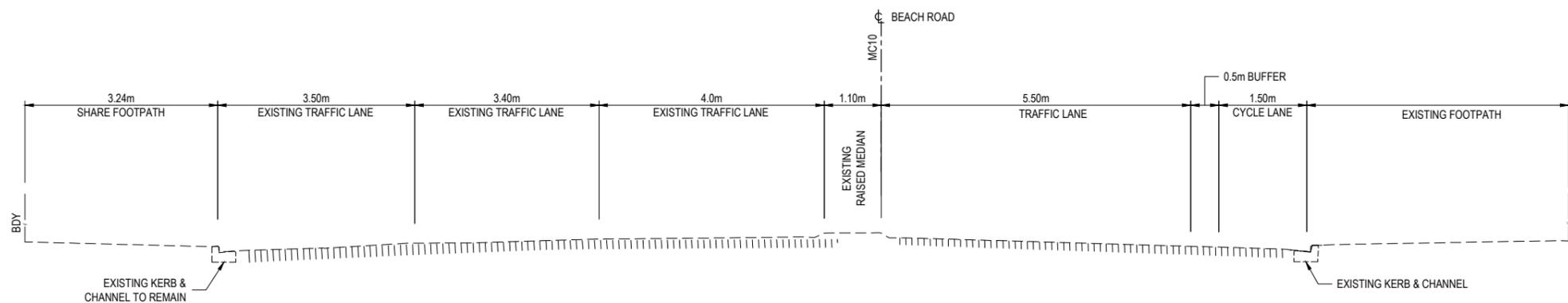
Client: **Auckland Transport**  
Project: **BEACH ROAD CYCLEWAY**

Title: **TYPICAL CROSS SECTIONS SHEET 2 OF 4 BEACH ROAD**

Discipline	CIVIL
Drawing No.	3818705-C-036
Rev.	1



**9** CHURCHILL STREET CROSS SECTION - DIST 40.0m  
C-015 SCALE 1:50 (A1)



**8** BEACH ROAD CROSS SECTION - DIST 390.0m  
C-015 SCALE 1:50 (A1)

**FOR CONSTRUCTION**

No.	Revision	By	Chk	Appd	Date
1	ISSUED FOR CONSTRUCTION	VDLT	SJP	JG	27.06.14



Original Scale (A1)	Design	SJP	MAY 14	Approved For Construction*
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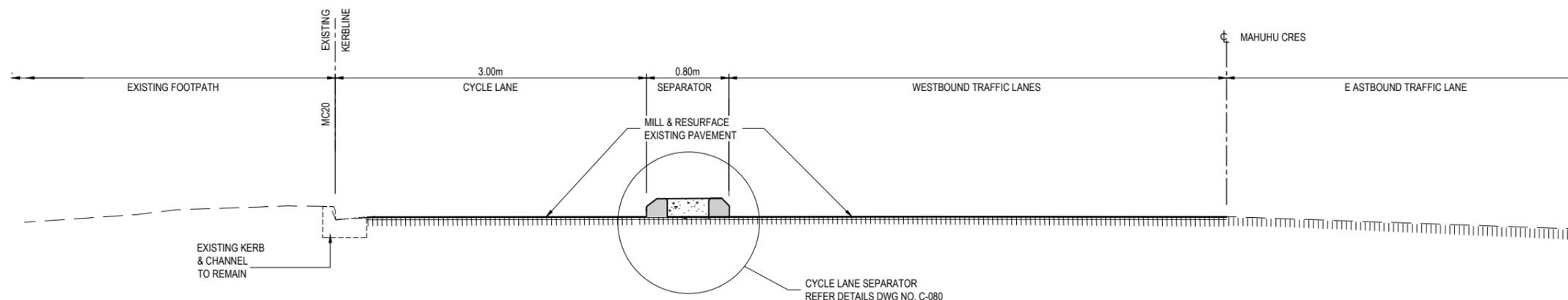
\* Refer to Revision 1 for Original Signature



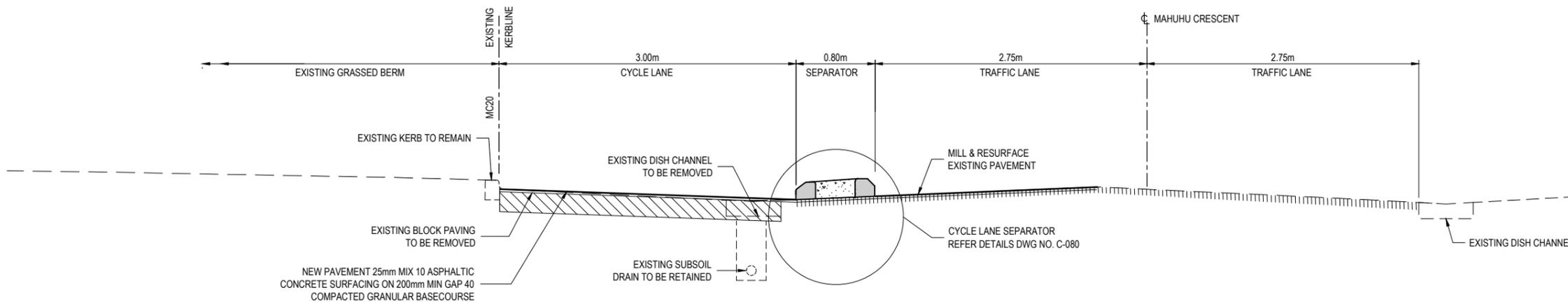
Client: **BEACH ROAD CYCLEWAY**

Title: TYPICAL CROSS SECTIONS  
SHEET 3 OF 4  
BEACH ROAD / CHURCHILL STREET

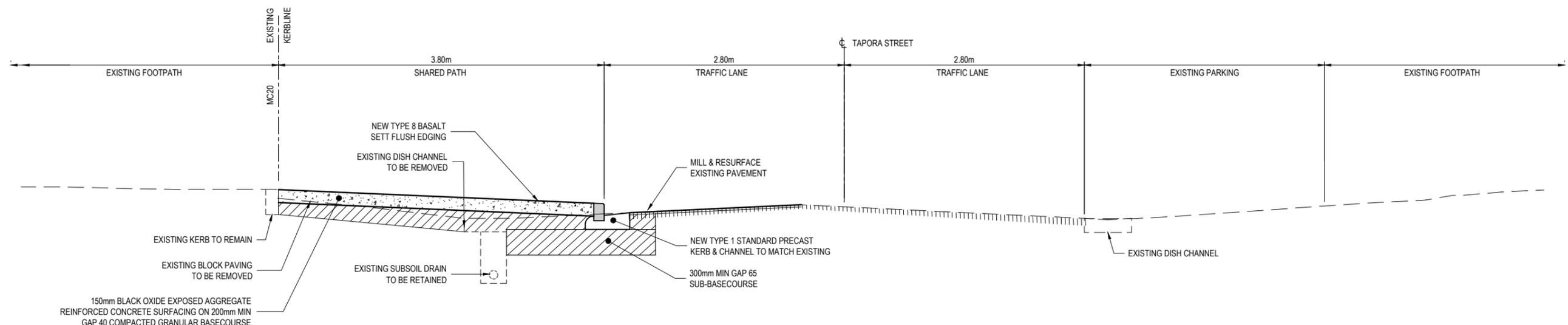
Discipline	CIVIL
Drawing No.	3818705-C-037
Rev.	1



**12** MAHUHU CRESCENT CROSS SECTION - DIST 165.0m  
C-013 SCALE 1:25 (A1)



**11** MAHUHU CRESCENT CROSS SECTION - DIST 110.0m  
C-016 SCALE 1:25 (A1)



**10** TAPORA STREET CROSS SECTION - DIST 40.0m  
C-016 SCALE 1:25 (A1)

**FOR CONSTRUCTION**

No.	Revision	By	Chk	Appd	Date
1	ISSUED FOR CONSTRUCTION	VDLT	SJP	JG	27.06.14



Original Scale (A1)	Design	SJP	MAY 14	Approved For Construction*
1:25	Drawn	VDLT	MAY 14	-
Reduced Scale (A3)	Design Checker	PMI	23.06.14	-
1:50	Design Check	SJP	23.06.14	-

\* Refer to Revision 1 for Original Signature



Client: **BEACH ROAD CYCLEWAY**

Title: **TYPICAL CROSS SECTIONS SHEET 4 OF 4 TAPORA ST. / MAHUHU CRES**

Discipline	CIVIL
Drawing No.	3818705-C-038
Rev.	1

**PAINT MARKINGS**

- BUS STOP** - 2.5m MIN WIDE BAY EXTENT MARKED USING 100mm WIDE REFLECTORISED YELLOW LINE PERPENDICULAR TO KERB. 100mm WIDE REFLECTORISED YELLOW LINE, 1m STRIP, 1m GAP (2m GAP FOR LONG LENGTHS). 'BUS STOP' MESSAGE IN 1.2m HIGH YELLOW LETTERS - REFER TO DETAIL D.
- CENTRE LINE** - 100mm WIDE REFLECTORISED WHITE LONG LIFE CONTINUOUS LINE, WITH BI-DIRECTIONAL WHITE RAISED REFLECTIVE MARKERS @ 10m CENTRES.
- DIAGONAL MARKINGS** - 600mm WIDE REFLECTORISED WHITE BARS, 2:1 BAR SLOPE 6m SPACING WITHIN 100mm WIDE REFLECTORISED WHITE BORDER.
- CONTINUITY LINE** - 100mm WIDE REFLECTORISED WHITE LINE, 1m STRIPE, 3m GAP.
- CROSSWALK** - 2x 100mm WIDE REFLECTORISED WHITE CONTINUOUS LINE, REFER TO DRAWINGS FOR SPACING BETWEEN LINES.
- ON ROAD-CYCLE LANE** - WIDTH AND LENGTH AS SHOWN ON DRAWINGS. SHADE OF GREEN COLOURING SHALL BE AS SPECIFIED HUNTER L.A.B. COLOUR DEFINITION. REFER TO DETAIL C.
- EDGE LINE** - 100mm WIDE REFLECTORISED WHITE CONTINUOUS LINE.
- FLUSH MEDIAN** - 600mm WIDE REFLECTORISED WHITE BARS, 2:1 BAR SLOPE 6m SPACING WITHIN 100mm WIDE REFLECTORISED WHITE BORDER, REFER DETAIL B.
- LANE ARROWS** - REFLECTORISED WHITE, URBAN SIZES TO BE UTILISED. REFER TO MOTSAM PART 2: SECTION 3.05.
- LANE LINE TYPE 1** - 100mm WIDE REFLECTORISED WHITE CONTINUOUS LINE.
- LANE LINE TYPE 2** - 100mm WIDE REFLECTORISED WHITE LINE. 1m STRIPE, 2m GAP.
- LANE LINE TYPE 3** - REFER DETAIL A, BELOW.
- RAMP ZIG-ZAG** - 150mm WIDE REFLECTORISED WHITE LINE
- ZEBRA CROSSING** - TO BE INSTALLED AS PER MOTSAM PART 2. ASSUME ALL CROSSING BARS ARE 3.0m WIDE UNLESS STATED OTHERWISE. INCLUDE PROVISION OF ADVANCED WARNING DIAMOND.

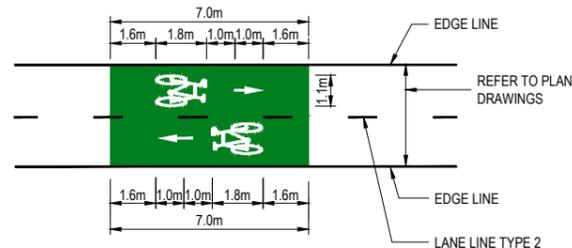
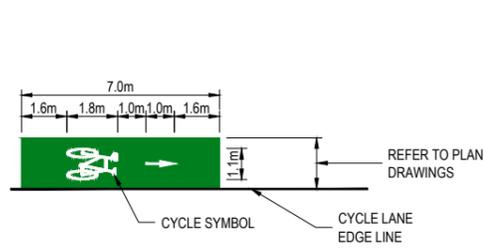
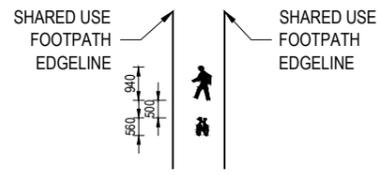
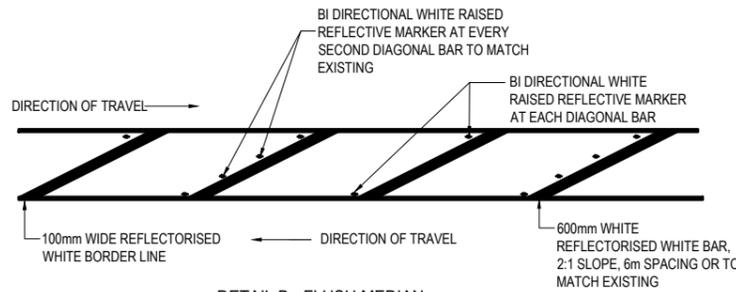
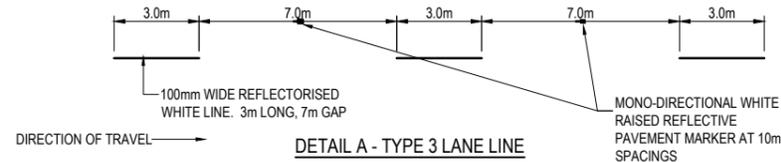
- LIMIT LINE** - 1x 300mm WIDE REFLECTORISED WHITE CONTINUOUS LINE
- NO STOPPING AT ALL TIMES (NSAAT)** - 100mm WIDE REFLECTORISED YELLOW LINE, 1m STRIPE, 1m GAP. WHERE RESTRICTION IS LESS THAN 30m, 2m GAP WHERE RESTRICTION IS GREATER THAN 30m
- TURNING GUIDELINE** - 100mm WIDE REFLECTORISED WHITE LINE, 1m STRIPE, 1m GAP
- SHARED (USE FOOTPATH SYMBOL)** - REFER TO DETAIL E.
- CYCLE WAY** - WIDTH AND LENGTH AS SHOWN ON DRAWINGS. SHAPE OF GREEN COLOURING SHALL BE SPECIFIED HUNTER LAB COLOUR DEFINITION. REFER TO DETAIL F.
- PARKING BAYS** - 2.0-2.5m WIDE BAYS MARKED USING 100mm WIDE REFLECTORISED WHITE LINE PERPENDICULAR TO KERB. 100mm WIDE REFLECTORISED WHITE LINE, 500mm STRIPE AT BAY ENDS.

**GENERAL NOTES**

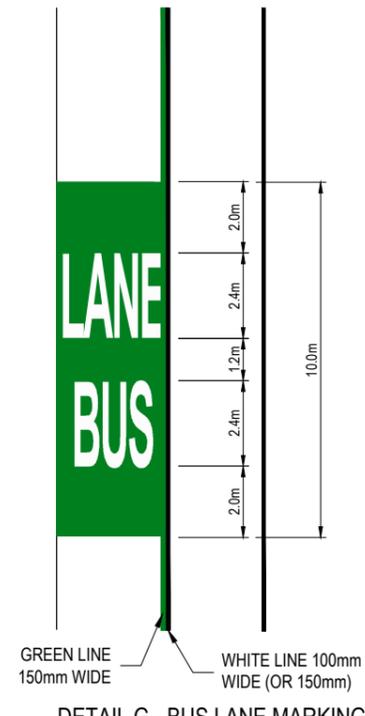
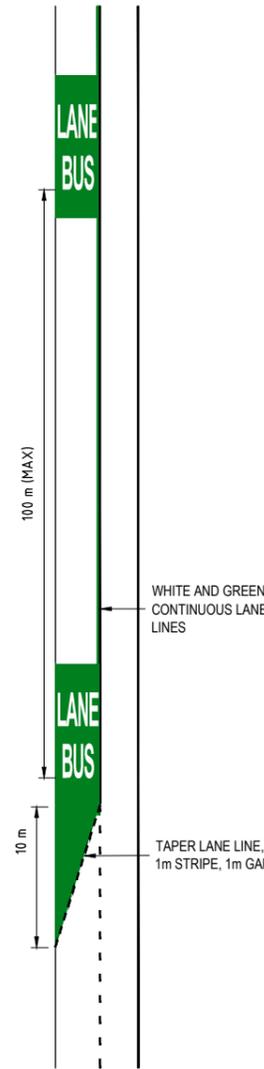
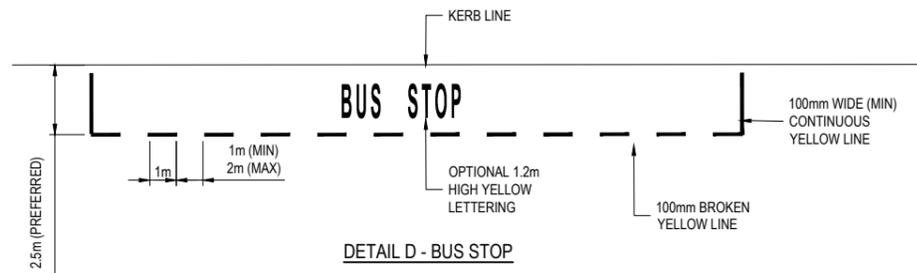
- THE CIVIL CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL TEMPORARY PAINT MARKINGS REQUIRED TO MAINTAIN TRAFFIC OPERATIONS DURING CONSTRUCTION.
- FOLLOWING COMPLETION OF EACH SEPARABLE PORTION AUCKLAND TRANSPORT ROAD CORRIDOR MAINTENANCE WILL MILL AND RESURFACE THE FULL CARRIAGEWAY AND PROVIDE WATERBORNE PAINT MARKINGS AND RRPMS IN ACCORDANCE WITH THE SIGNAGE AND MARKING DRAWINGS.
- ONE MONTH FOLLOWING RESURFACING THE CIVIL CONTRACTOR IS RESPONSIBLE FOR REPAINTING ALL LINE MARKING IN LONG LIFE THERMOPLASTIC PAINT AND INSTALLING GREENING FOR BUS LANES, CYCLE LANES AND BOXES IN ACCORDANCE WITH THE SIGNAGE AND MARKING DRAWINGS.

**COMPLIANCE NOTES:**

- ALL SIGNS AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH NZTA MANUAL OF TRAFFIC SIGNS AND MARKINGS (MOTSAM): PART 1 - SIGNS, AND PART 2 - MARKINGS. TNZ P/24, ATCOP AND THE RSMA COMPLIANCE STANDARD FOR TRAFFIC SIGNS.
- BUS STOP MARKINGS AND SIGNAGE ARE TO FULLY COMPLY WITH ATCOP STANDARDS FOR SPECIAL VEHICLE LANES.
- ALL CYCLE PAVEMENT MARKING IN ACCORDANCE WITH NEW ZEALAND SUPPLEMENT TO AUSTRROAD GUIDE TO TRAFFIC ENGINEERING PRACTICE PART 14 CYCLES, MOTSAM PART 2, AND ATCOP.
- RAISED REFLECTIVE PAVEMENT MARKER (RRPM) TO COMPLY WITH TNZ P/14 AND TNZ M/12.
- TRAFFIC ISLAND KERBING TO BE PAINTED WHITE IN ACCORDANCE WITH MOTSAM, PART2, RAISED ISLANDS.
- NO TEMPORARY ROAD MARKING SHALL BE APPLIED TO THE FINAL TOP WEARING COURSE OF ANY PAVEMENT.
- EXISTING ROAD MARKING TO BE REPLACED WHERE NOTED TO TIE INTO NEW MARKING.
- ANY EXISTING SIGNS NOT IDENTIFIED AS BEING RETAINED OR UPLIFTED AND RE-USED, MAY BE RE-USED PROVIDING THE GENERAL CONDITION OF THE SIGN IS ACCEPTABLE AND THE REMAINING LIFE OF THE RETRO-REFLECTIVE SHEETING WILL COMPLY WITH THE SPECIFIED DESIGN LIFE REQUIREMENTS. THE CONTRACTOR SHALL ADVISE THE ENGINEER WHERE AN EXISTING SIGN IS TO BE RE-USED PRIOR TO ITS RE-INSTALLMENT. THE ENGINEER SHALL INSPECT THE SIGN AND ADVISE ON THE APPROPRIATENESS OF RE-INSTALLING THE SIGN.
- EXISTING SIGNAGE POLE SOCKET AND POLES SHOULD BE REUSED WHERE THEY COMPLY WITH ATCOP.
- ALL STREET NAME BLADES ARE TO COMPLY WITH THE ATCOP.
- THE PLACEMENT OF SIGNAGE SHALL NOT OBSCURE TRAFFIC SIGNALS. PRIOR TO INSTALLATION OF SIGNAGE, THE CONTRACTOR SHALL CHECK THAT SIGNS DO NOT OBSCURE SIGNAL ASPECTS. IF THE CONTRACTOR IDENTIFIES POSSIBLE CONFLICTS THEY ARE TO BE REVIEWED ON SITE WITH THE ENGINEER.
- ALL SIGN POSTS SHALL BE GROUND PLANTED AS PER ATCOP SM003.
- ALL SIGNS, POSTS, FOUNDATIONS AND RELEVANT CONNECTIONS TO COMPLY WITH TNZ P/24:2008 AND RSMA COMPLIANCE STANDARD FOR TRAFFIC SIGNS UNLESS SPECIFIED OTHERWISE ON THE DRAWING AND IN THE SPECIFICATION.
- AS A GENERAL GUIDELINE ALL SIGNAGE TO BE INSTALLED ON 60mm DIAMETER STEEL CHS POSTS U.N.O. EXCEPTIONS APPLY TO BUS LANE AND DESTINATION SIGNAGE AND SIGNS OCCURRING NEAR GROUND LEVEL.
- FOR CIRCULAR HOLLOW SECTION (CHS) POSTS SIZED GREATER THAN 76mm "SIGNIFIX LTD" PROPRIETARY SIGN SOCKET OR SIMILAR APPROVED SYSTEM, SHALL BE USED. SOCKET DEPTH SELECTED TO COMPLY WITH "RSMA".
- ALL PROPRIETARY SIGNS, POSTS, FOUNDATIONS AND FITTINGS TO COMPLY WITH MANUFACTURER SPECIFICATIONS.
- ALL PEDESTRIAN CROSSING REQUIREMENTS IN ACCORDANCE WITH NZTA MOTSAM PT 1 SIGNS, AND PART 2 MARKINGS AND IN ACCORDANCE WITH LAND TRANSPORT NZ TRAFFIC NOTE1 REVISION 1 (DEC 04) AND TRAFFIC CONTROL DEVICES RULE 2004.



**DETAIL F - CYCLE WAY**  
NOTE: USE 100mm INTERMITTED REFLECTIVE WHITE CONTINUITY LINE AS EDGE LINE (1.0m STRIPE x 2.0m GAP) AT DRIVEWAY CROSSINGS AND INTERSECTIONS



**DETAIL G - BUS LANE MARKING**

No.	Revision	By	Chk	Appd	Date
1	ISSUED FOR CONSTRUCTION	VDLT	SJP	JG	27.06.14



Original Scale (A1)	Design	RD / JG	MAY '14	Approved For Construction*
NTS	Drawn	VDLT	MAY '14	-
Reduced Scale (A3)	Design Checker	SDH	23.06.14	-
NTS	Design Check	SJP	23.06.14	Date -

\* Refer to Revision 1 for Original Signature

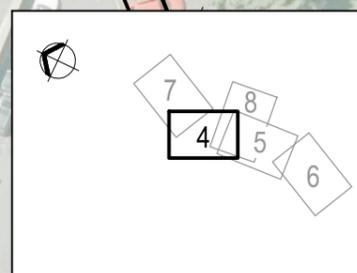
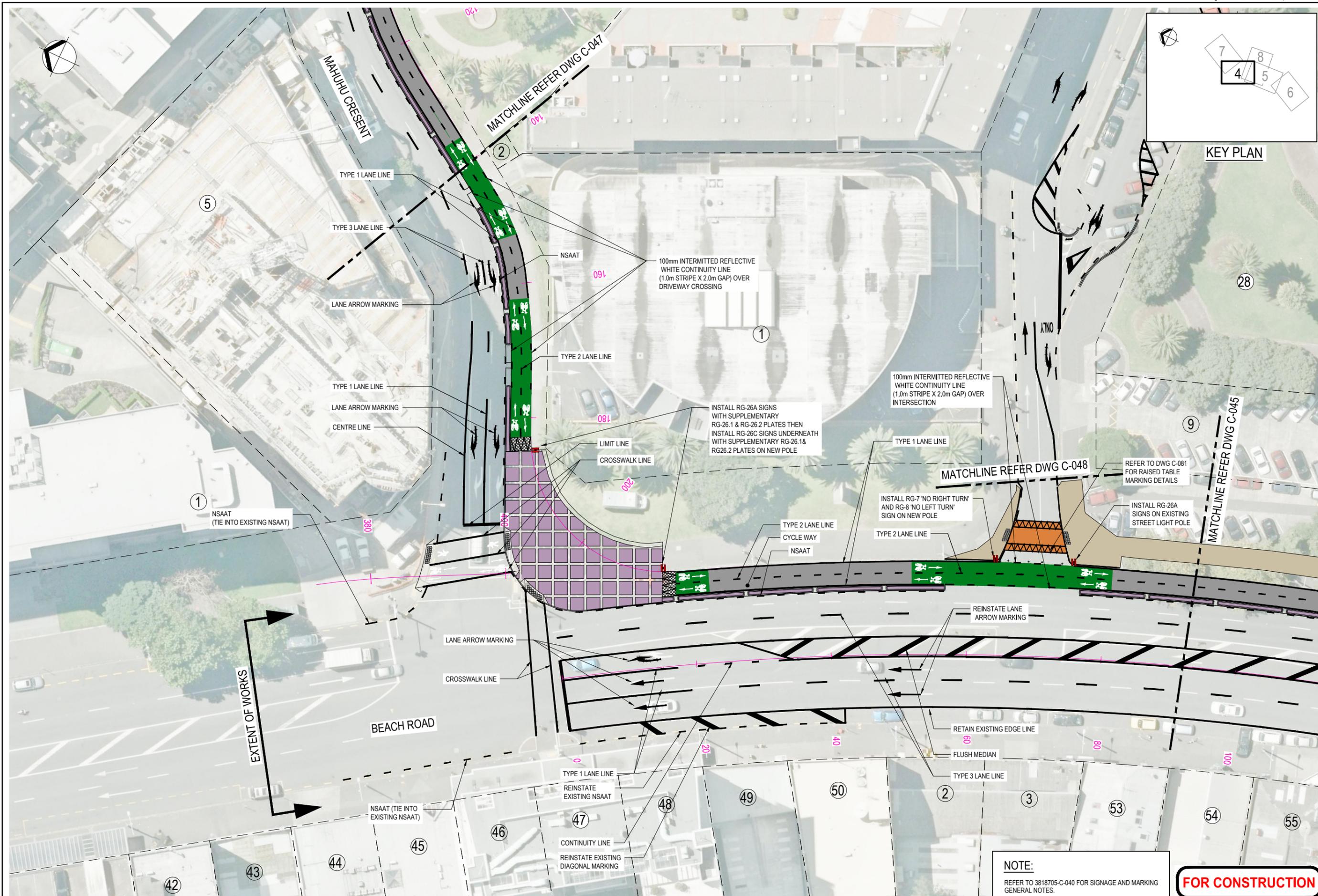


Client: **Auckland Transport**  
Project: **BEACH ROAD CYCLEWAY**

Title: **SIGNAGE & MARKING GENERAL NOTES**

**FOR CONSTRUCTION**

Discipline	CIVIL
Drawing No.	3818705-C-040
Rev.	1



KEY PLAN

**NOTE:**  
REFER TO 3818705-C-040 FOR SIGNAGE AND MARKING GENERAL NOTES.

**FOR CONSTRUCTION**

No.	Revision	By	Chk	Appd	Date
1	ISSUED FOR CONSTRUCTION	VDLT	RB	JG	27.06.14

Design Originator: **Beca**

Original Scale (A1)	Design	RD / JG	MAY '14	Approved For Construction
1:250	VDLT		MAY '14	
Reduced Scale (A3)	Design Checker	SDH	JUNE '14	
1:500	Design Checker	SJP	JUNE '14	

\* Refer to Revision 1 for Original Signature

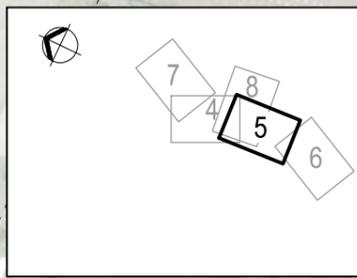
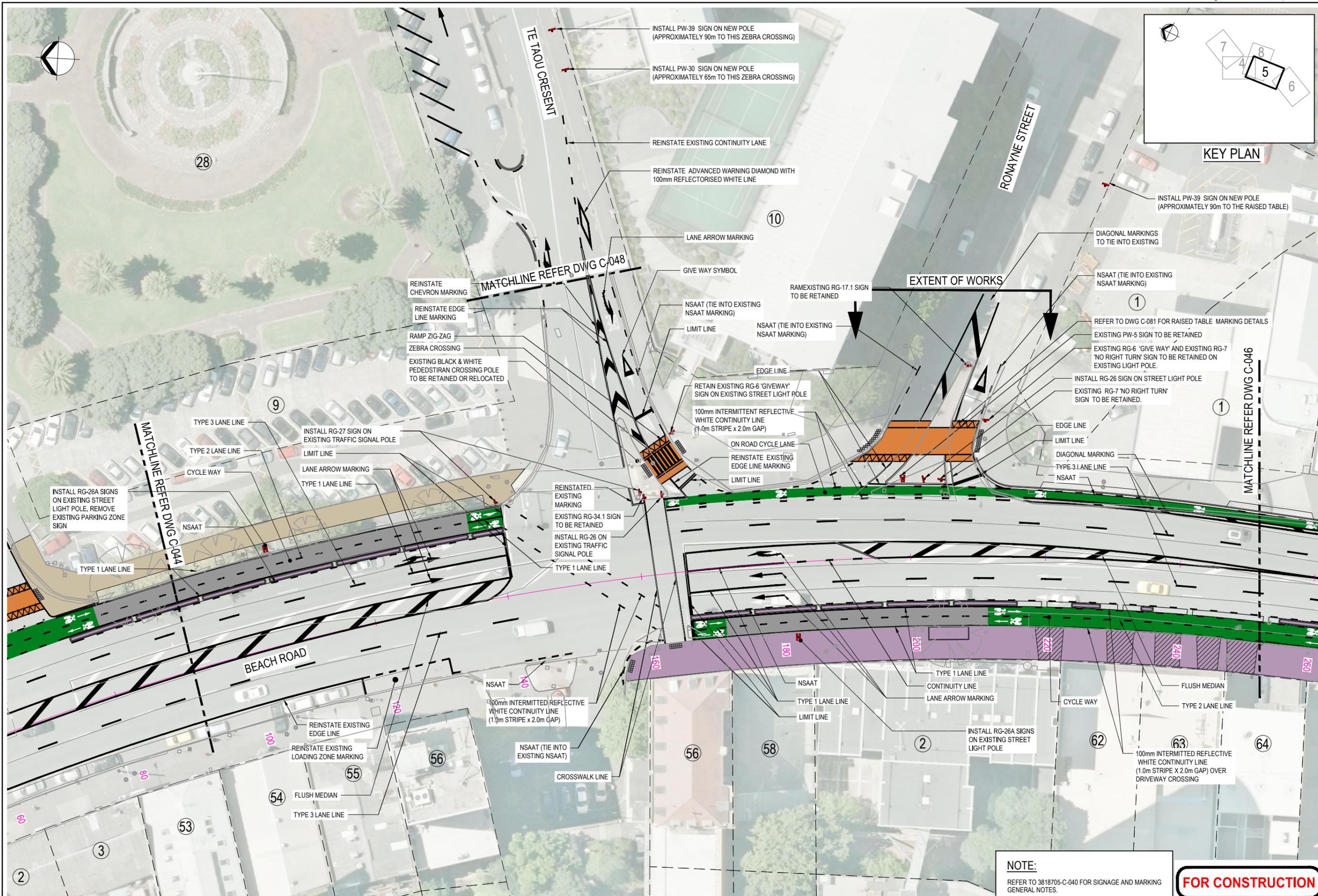
Client: **Auckland Transport**

An Auckland Council Organisation

Project: **BEACH ROAD CYCLEWAY**

Title: **SIGNAGE & MARKING PLANS SHEET 4 OF 8**

Discipline	TRANSPORTATION
Drawing No.	3818705-C-044
Rev.	1



**NOTE:**  
REFER TO 3818705-C-040 FOR SIGNAGE AND MARKING GENERAL NOTES.

**FOR CONSTRUCTION**

No.	Revision	By	Chk	Appd	Date
1	ISSUED FOR CONSTRUCTION	VDLT	RB	JG	27.06.14

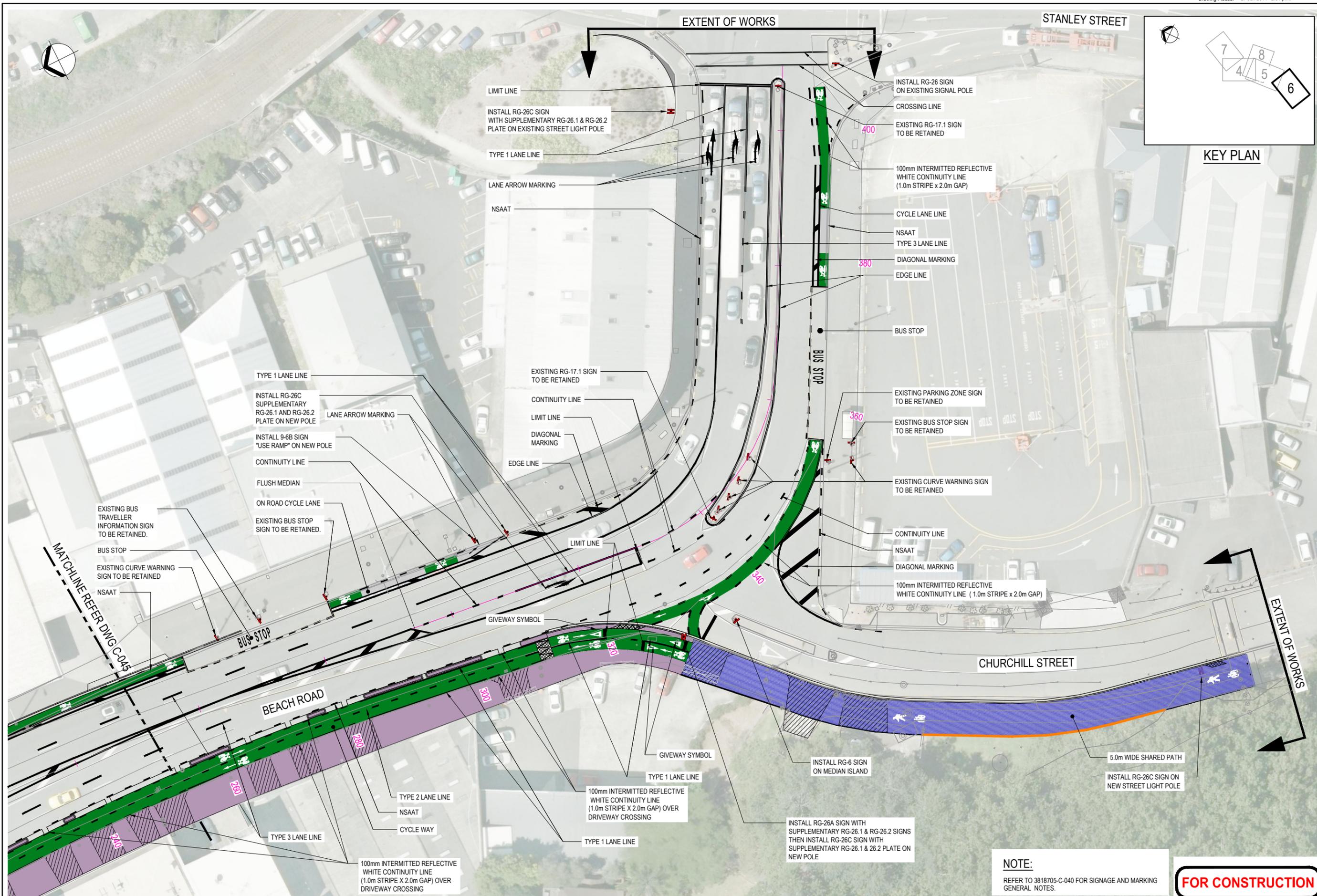
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		Design Checker	SDH	JUNE '14	-
		Design Checker	SJP	JUNE '14	-

Client: **Auckland Transport**   
An Auckland Council Organisation

Project: **BEACH ROAD CYCLEWAY**

Title: **SIGNAGE & MARKING PLANS**  
**SHEET 5 OF 8**

Discipline	TRANSPORTATION
Drawing No.	3818705-C-045
Rev.	1



**NOTE:**  
REFER TO 3818705-C-040 FOR SIGNAGE AND MARKING GENERAL NOTES.

**FOR CONSTRUCTION**

No.	Revision	By	Chk	Appd	Date
1	ISSUED FOR CONSTRUCTION	VDLT	SJP	JG	27.06.14

Design Originator:  
**Beca**

Original Scale (A1)	Design	RD / JG	MAY '14	Approved For Construction*
1:250	Drawn	VDLT	MAY '14	-
Reduced Scale (A3)	Design Checker	SDH	23.06.14	-
1:500	Drawn	SJP	23.06.14	-

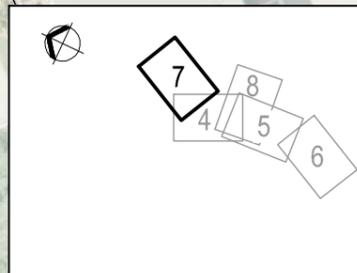
\* Refer to Revision 1 for Original Signature

Client:  
**Auckland Transport**  
 An Auckland Council Organisation

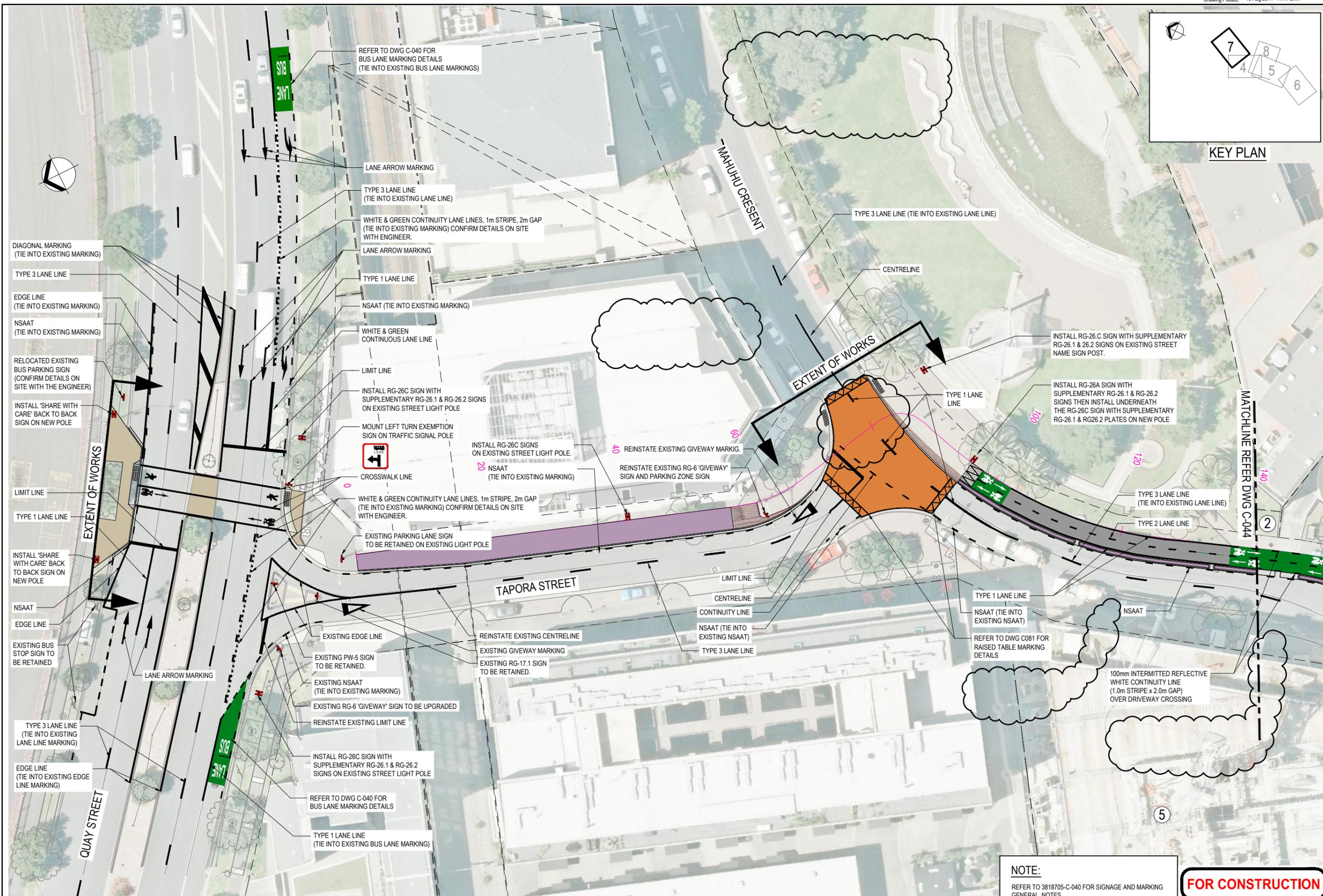
Project:  
**BEACH ROAD CYCLEWAY**

Title:  
**SIGNAGE & MARKING PLANS  
 SHEET 6 OF 8**

Discipline	TRANSPORTATION
Drawing No.	3818705-C-046
Rev.	1



KEY PLAN



**NOTE:**  
REFER TO 3818705-C-040 FOR SIGNAGE AND MARKING GENERAL NOTES.

**FOR CONSTRUCTION**

No.	Revision	By	Chk	Appd	Date
2	RE-ISSUED FOR CONSTRUCTION	VLDT	SJP	JG	19.08.14
1	ISSUED FOR CONSTRUCTION	VLDT	RB	JG	27.06.14



Original Scale (A1)	Design	RD / JG	MAY '14	Approved For Construction
1:250	Drawn	VDLT	MAY '14	
Reduced Scale (A3)	Dwg Verifier	SDH	JUNE '14	
1:500	Dwg Check	SJP	JUNE '14	

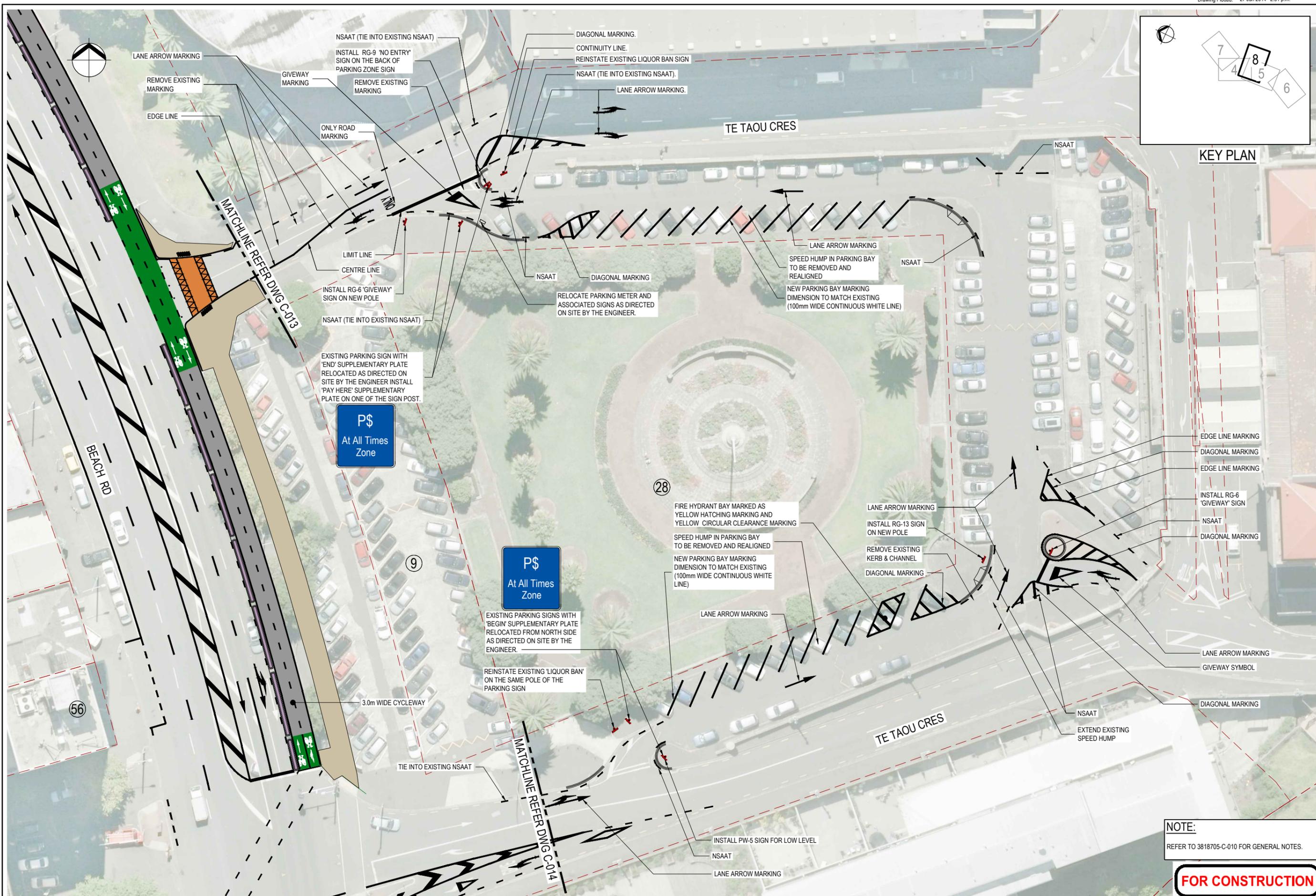
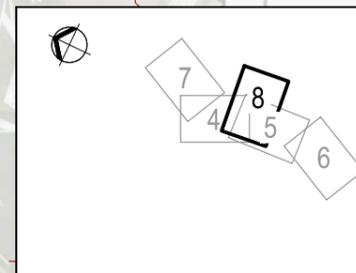
\* Refer to Revision 1 for Original Signature



Project: BEACH ROAD CYCLEWAY

Title: SIGNAGE & MARKING PLANS  
SHEET 7 OF 8

Discipline	TRANSPORTATION
Drawing No.	3818705-C-047
Rev.	2



KEY PLAN

**P\$**  
At All Times Zone

**P\$**  
At All Times Zone

**NOTE:**  
REFER TO 3818705-C-010 FOR GENERAL NOTES.

**FOR CONSTRUCTION**

No.	Revision	By	Chk	Appd	Date
1	ISSUED FOR CONSTRUCTION	VDLT	SJP	JG	27.06.14



Original Scale (A1)	Design	JG	MAY '14	Approved For Construction*
1:250	Drawn	VDLT	MAY '14	-
Reduced Scale (A3)	Design Checker	SDH	JUNE '14	-
1:500	Design Checker	SJP	JUNE '14	-



Project: BEACH ROAD CYCLEWAY

Title: SIGNAGE & MARKING PLANS  
SHEET 8 OF 8

Discipline	TRANSPORTATION
Drawing No.	3818705-C-048
Rev.	1

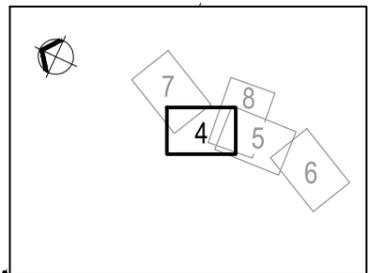


**NOTES:**

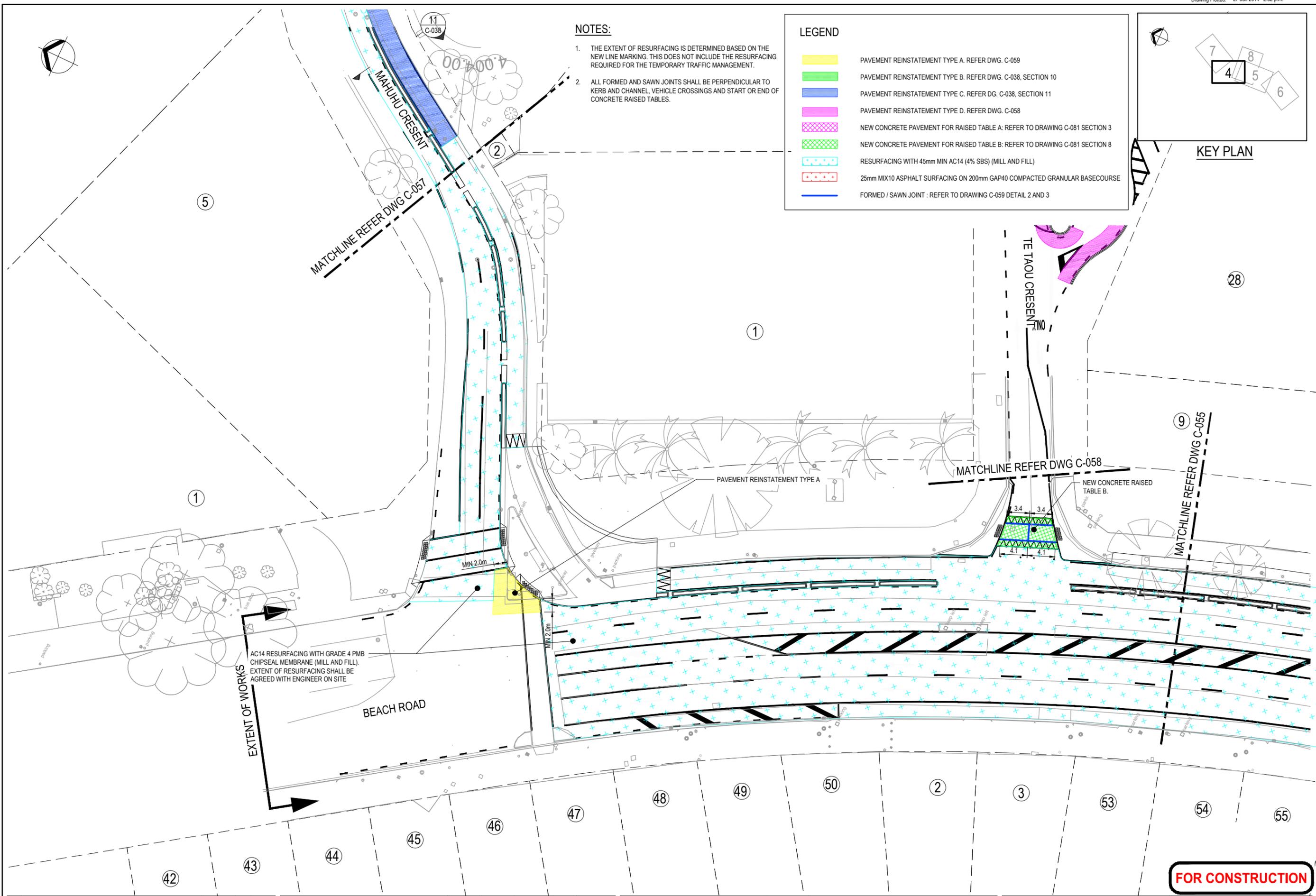
1. THE EXTENT OF RESURFACING IS DETERMINED BASED ON THE NEW LINE MARKING. THIS DOES NOT INCLUDE THE RESURFACING REQUIRED FOR THE TEMPORARY TRAFFIC MANAGEMENT.
2. ALL FORMED AND SAWN JOINTS SHALL BE PERPENDICULAR TO KERB AND CHANNEL, VEHICLE CROSSINGS AND START OR END OF CONCRETE RAISED TABLES.

**LEGEND**

- PAVEMENT REINSTATEMENT TYPE A. REFER DWG. C-059
- PAVEMENT REINSTATEMENT TYPE B. REFER DWG. C-038, SECTION 10
- PAVEMENT REINSTATEMENT TYPE C. REFER DG. C-038, SECTION 11
- PAVEMENT REINSTATEMENT TYPE D. REFER DWG. C-058
- NEW CONCRETE PAVEMENT FOR RAISED TABLE A: REFER TO DRAWING C-081 SECTION 3
- NEW CONCRETE PAVEMENT FOR RAISED TABLE B: REFER TO DRAWING C-081 SECTION 8
- RESURFACING WITH 45mm MIN AC14 (4% SBS) (MILL AND FILL)
- 25mm MIX10 ASPHALT SURFACING ON 200mm GAP40 COMPACTED GRANULAR BASECOURSE
- FORMED / SAWN JOINT : REFER TO DRAWING C-059 DETAIL 2 AND 3



**KEY PLAN**



**FOR CONSTRUCTION**

1	ISSUED FOR CONSTRUCTION	MC	YHA	JG	27.06.14
No.	Revision	By	Chk	Appd	Date



Original Scale (A1)	1:250	Design	WC	MAY 14	Approved For Construction*
Reduced Scale (A3)	1:500	Drawn	MC	MAY 14	
		Dwg Verifier	SL	20.06.14	
		Dwg Check	JGS	20.06.14	

\* Refer to Revision 1 for Original Signature



Client: **BEACH ROAD CYCLEWAY**

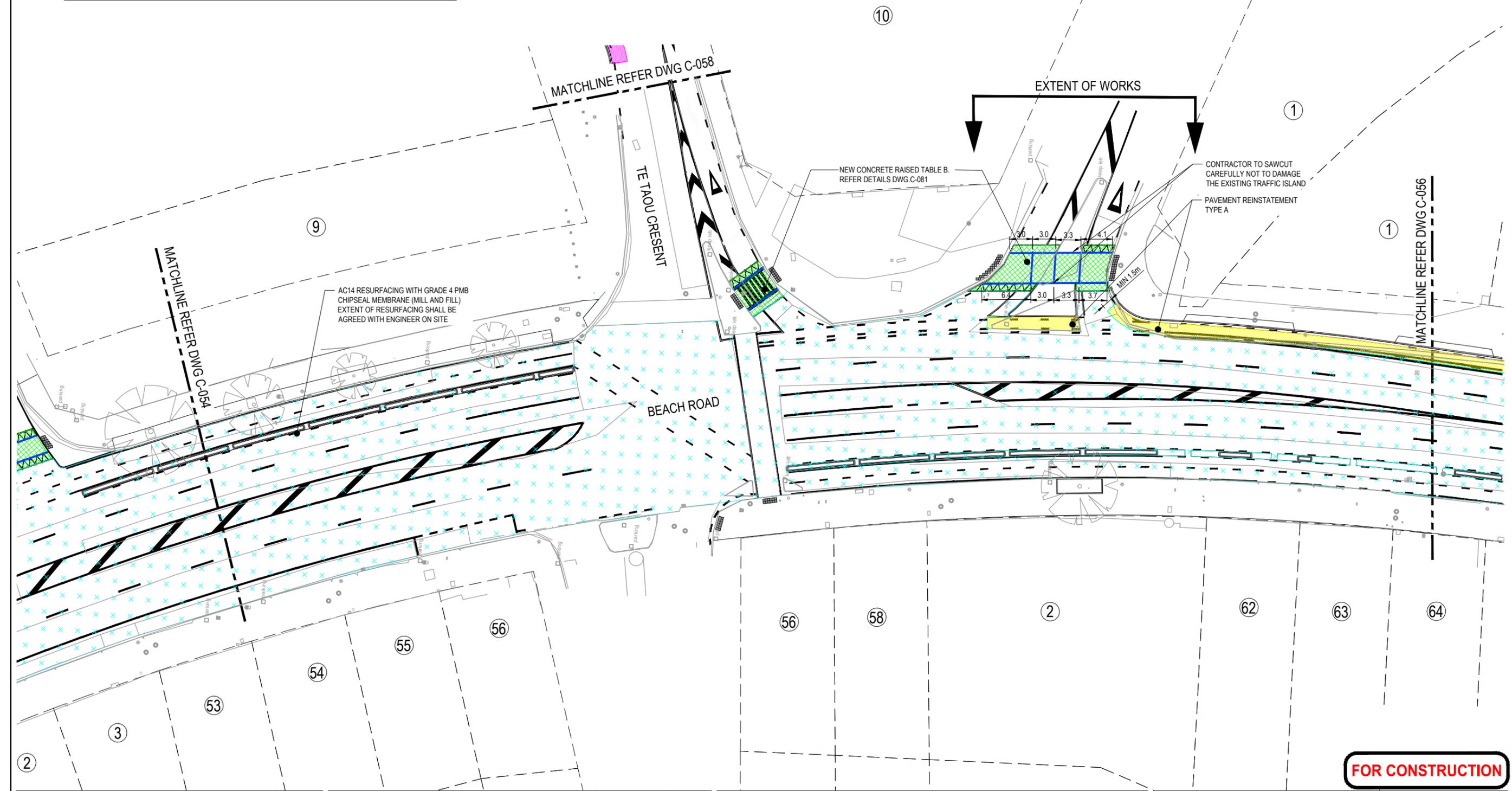
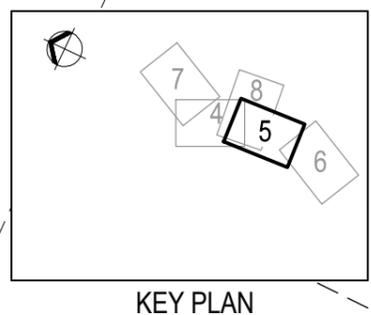
Title: **PAVEMENT PLANS SHEET 4 OF 8**

Discipline	CIVIL
Drawing No.	3818705-C-054
Rev.	1

**LEGEND**

	PAVEMENT REINSTATEMENT TYPE A. REFER DWG. C-059
	PAVEMENT REINSTATEMENT TYPE B. REFER DWG. C-038, SECTION 10
	PAVEMENT REINSTATEMENT TYPE C. REFER DG. C-038, SECTION 11
	PAVEMENT REINSTATEMENT TYPE D. REFER DWG. C-058
	NEW CONCRETE PAVEMENT FOR RAISED TABLE A: REFER TO DRAWING C-081 SECTION 3
	NEW CONCRETE PAVEMENT FOR RAISED TABLE B: REFER TO DRAWING C-081 SECTION 8
	RESURFACING WITH 45mm MIN AC14 (4% SBS) (MILL AND FILL)
	25mm MIX10 ASPHALT SURFACING ON 200mm GAP40 COMPACTED GRANULAR BASECOURSE
	FORMED / SAWN JOINT : REFER TO DRAWING C-059 DETAIL 2 AND 3

- NOTES:**
1. THE EXTENT OF RESURFACING IS DETERMINED BASED ON THE NEW LINE MARKING. THIS DOES NOT INCLUDE THE RESURFACING REQUIRED FOR THE TEMPORARY TRAFFIC MANAGEMENT.
  2. ALL FORMED AND SAWN JOINTS SHALL BE PERPENDICULAR TO KERB AND CHANNEL, VEHICLE CROSSINGS AND START OR END OF CONCRETE RAISED TABLES.



No.	Revision	By	Chk	Appd	Date



Original Scale (A1)	1:250	Design	WC	MAY 14	Approved For Construction*
Reduced Scale (A3)	1:500	Drawn	MC	MAY 14	-
		Design Checker	SL	20.06.14	-
		Design Check	JGS	20.06.14	-

\* Refer to Revision 1 for Original Signature



Client: **Beach Road Cycleway**

Title: **PAVEMENT PLANS SHEET 5 OF 8**

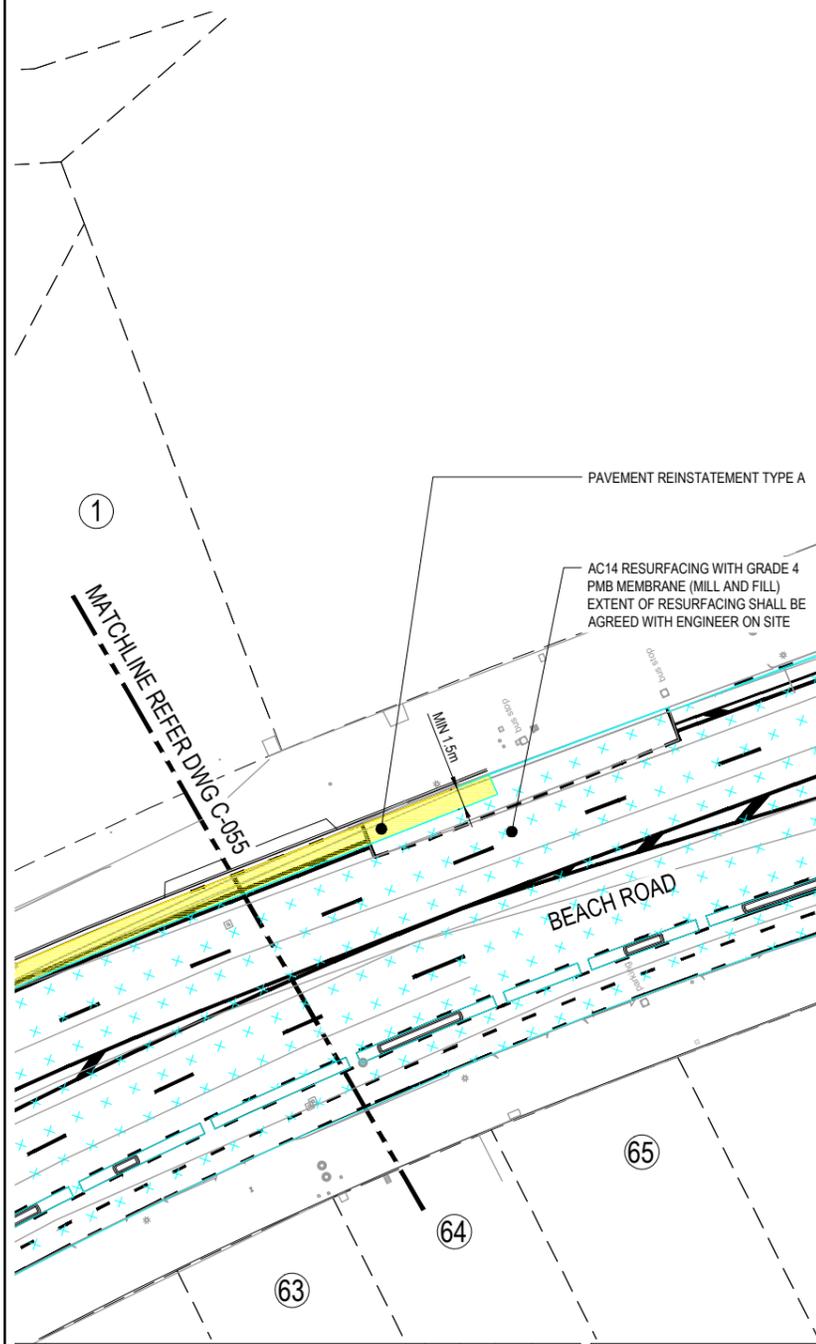
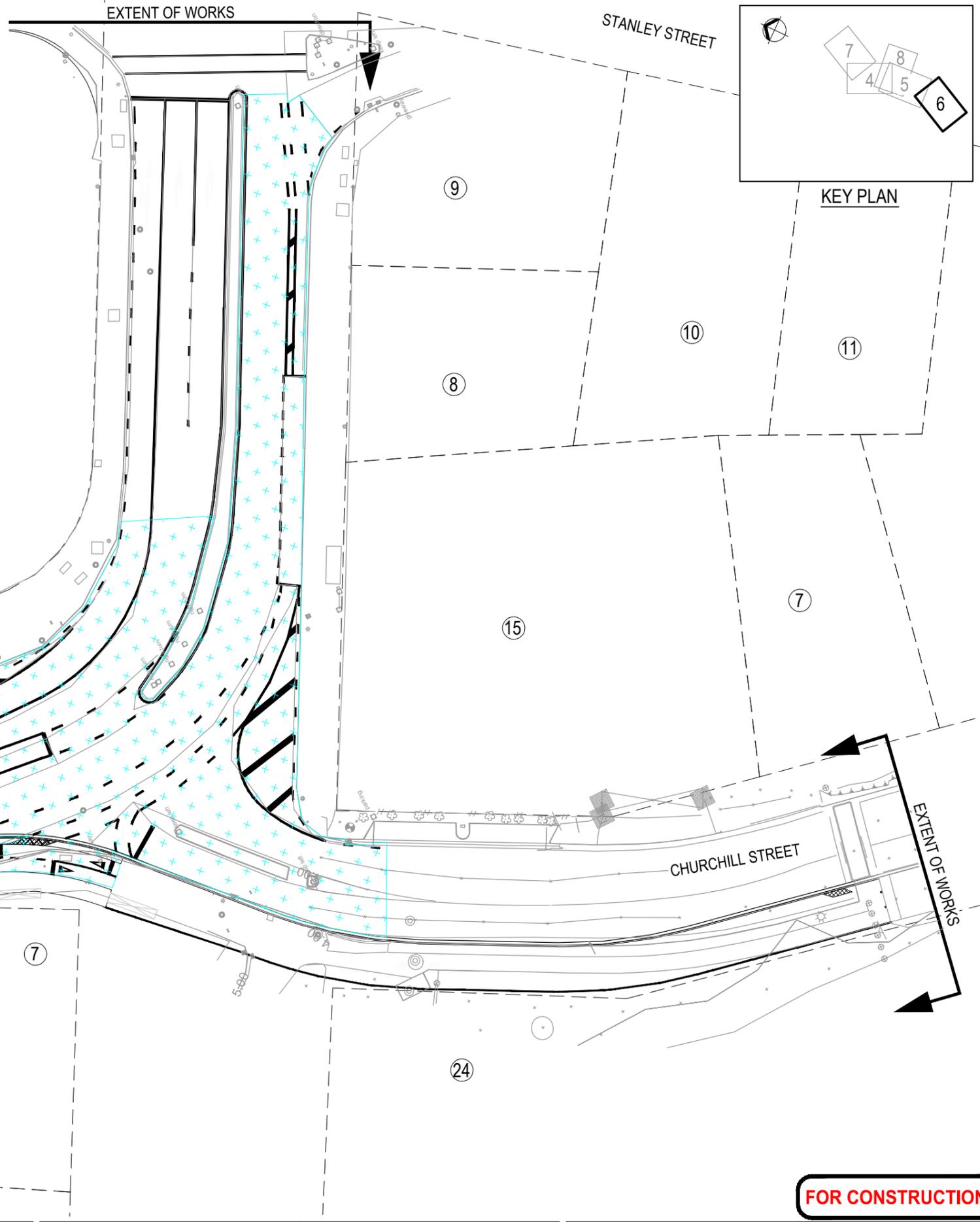
Discipline	CIVIL
Drawing No.	3818705-C-055
Rev.	1

**FOR CONSTRUCTION**

**LEGEND**

	PAVEMENT REINSTATEMENT TYPE A. REFER DWG. C-059
	PAVEMENT REINSTATEMENT TYPE B. REFER DWG. C-038, SECTION 10
	PAVEMENT REINSTATEMENT TYPE C. REFER DG. C-038, SECTION 11
	PAVEMENT REINSTATEMENT TYPE D. REFER DWG. C-058
	NEW CONCRETE PAVEMENT FOR RAISED TABLE A: REFER TO DRAWING C-081 SECTION 3
	NEW CONCRETE PAVEMENT FOR RAISED TABLE B: REFER TO DRAWING C-081 SECTION 8
	RESURFACING WITH 45mm MIN AC14 (4% SBS) (MILL AND FILL)
	25mm MIX10 ASPHALT SURFACING ON 200mm GAP40 COMPACTED GRANULAR BASECOURSE
	FORMED / SAWN JOINT : REFER TO DRAWING C-059 DETAIL 2 AND 3

- NOTES:**
1. THE EXTENT OF RESURFACING IS DETERMINED BASED ON THE NEW LINE MARKING. THIS DOES NOT INCLUDE THE RESURFACING REQUIRED FOR THE TEMPORARY TRAFFIC MANAGEMENT.
  2. ALL FORMED AND SAWN JOINTS SHALL BE PERPENDICULAR TO KERB AND CHANNEL, VEHICLE CROSSINGS AND START OR END OF CONCRETE RAISED TABLES.



No.	Revision	By	Chk	Appd	Date
1	ISSUED FOR CONSTRUCTION	MC	YHA	JG	27.06.14



Original Scale (A1)	1:250	Design	WC	MAY 14	Approved For Construction*
Reduced Scale (A3)	1:500	Drawn	MC	MAY 14	
		Dwg Verifier	SL	20.06.14	
		Dwg Check	JGS	20.06.14	

\* Refer to Revision 1 for Original Signature

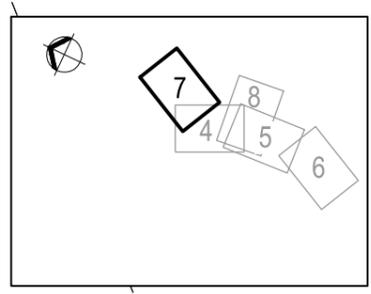
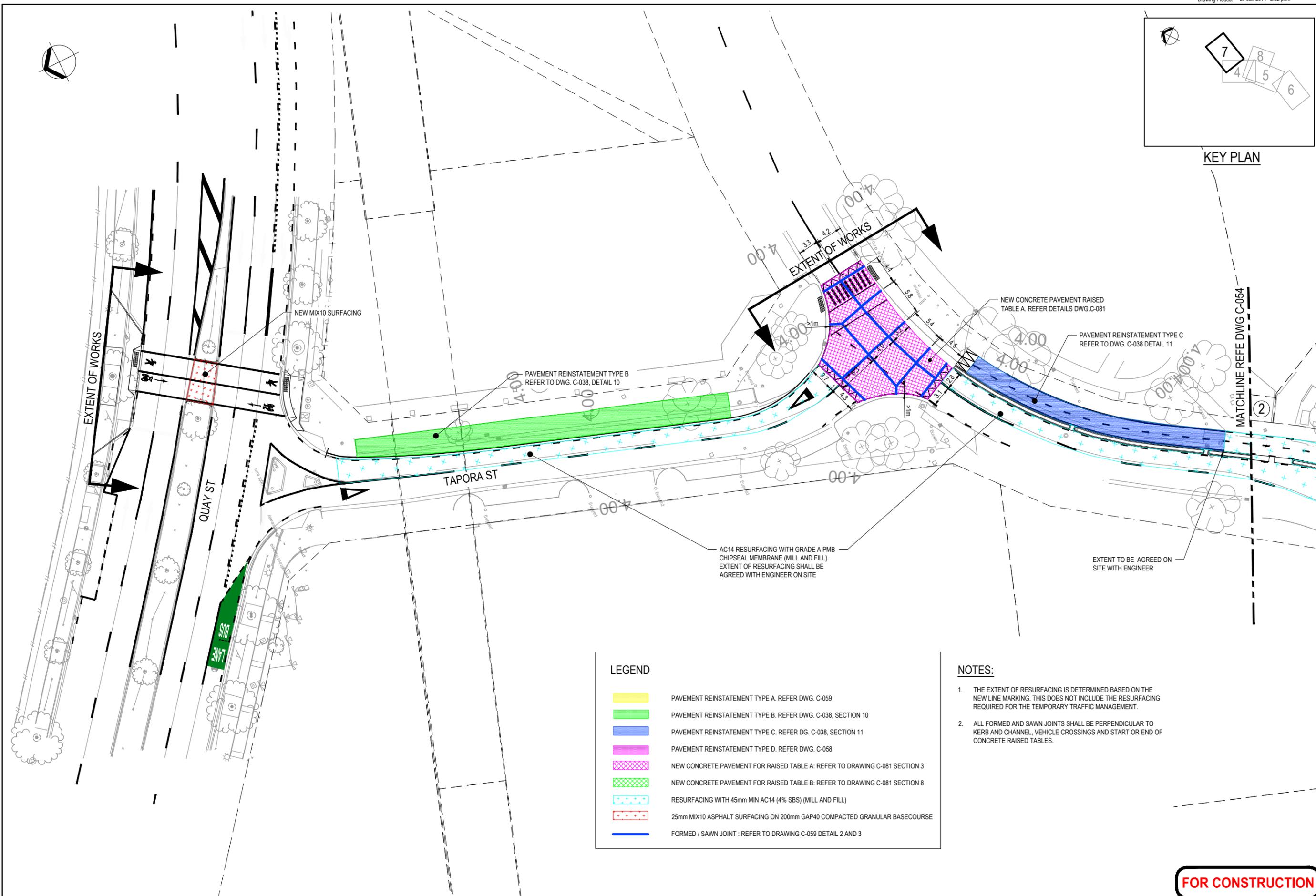


Client: **Auckland Transport**  
 Project: **BEACH ROAD CYCLEWAY**

Title: **PAVEMENT PLANS SHEET 6 OF 8**

**FOR CONSTRUCTION**

Discipline	CIVIL
Drawing No.	3818705-C-056
Rev.	1



KEY PLAN

LEGEND	
	PAVEMENT REINSTATEMENT TYPE A. REFER DWG. C-059
	PAVEMENT REINSTATEMENT TYPE B. REFER DWG. C-038, SECTION 10
	PAVEMENT REINSTATEMENT TYPE C. REFER DG. C-038, SECTION 11
	PAVEMENT REINSTATEMENT TYPE D. REFER DWG. C-058
	NEW CONCRETE PAVEMENT FOR RAISED TABLE A: REFER TO DRAWING C-081 SECTION 3
	NEW CONCRETE PAVEMENT FOR RAISED TABLE B: REFER TO DRAWING C-081 SECTION 8
	RESURFACING WITH 45mm MIN AC14 (4% SBS) (MILL AND FILL)
	25mm MIX10 ASPHALT SURFACING ON 200mm GAP40 COMPACTED GRANULAR BASECOURSE
	FORMED / SAWN JOINT : REFER TO DRAWING C-059 DETAIL 2 AND 3

NOTES:

1. THE EXTENT OF RESURFACING IS DETERMINED BASED ON THE NEW LINE MARKING. THIS DOES NOT INCLUDE THE RESURFACING REQUIRED FOR THE TEMPORARY TRAFFIC MANAGEMENT.
2. ALL FORMED AND SAWN JOINTS SHALL BE PERPENDICULAR TO KERB AND CHANNEL. VEHICLE CROSSINGS AND START OR END OF CONCRETE RAISED TABLES.

No.	Revision	By	Chk	Appd	Date
1	ISSUED FOR CONSTRUCTION	MC	YHA	JG	27.06.14

Drawing Originator:

Original Scale (A1)	Design	WC	MAY 14	Approved For Construction*
1:250	Drawn	MC	MAY 14	-
Reduced Scale (A3)	Dwg Verifier	SL	20.06.14	-
1:500	Dwg Check	JGS	20.06.14	Date -

\* Refer to Revision 1 for Original Signature

Client:

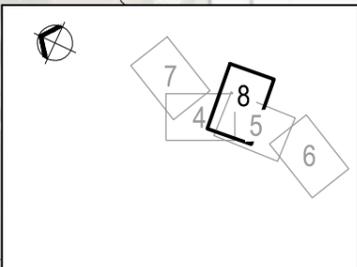
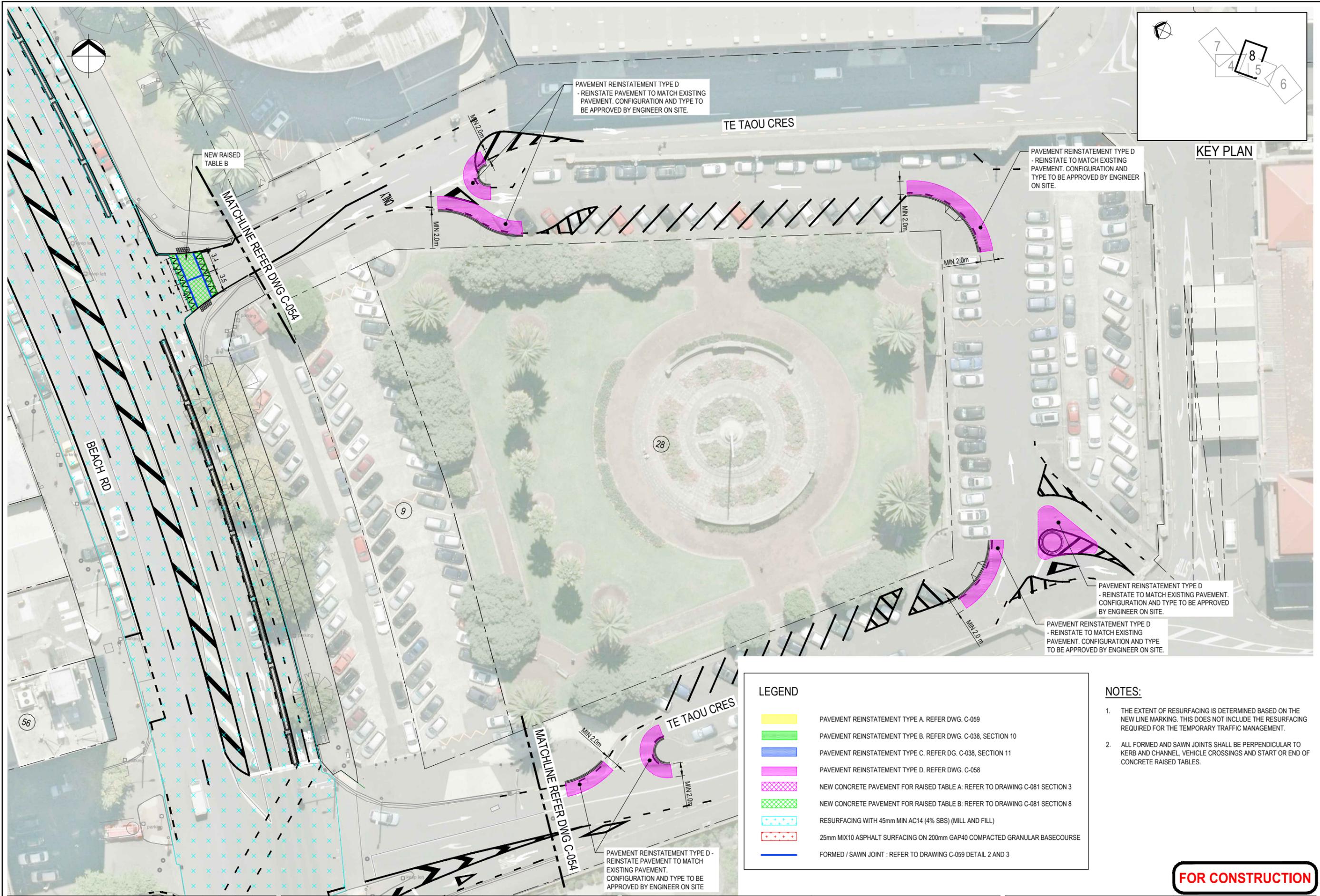
An Auckland Council Organisation

Project: BEACH ROAD CYCLEWAY

Title: PAVEMENT PLANS SHEET 7 OF 8

Discipline	CIVIL
Drawing No.	3818705-C-057
Rev.	1

**FOR CONSTRUCTION**



PAVEMENT REINSTATEMENT TYPE D  
- REINSTATE PAVEMENT TO MATCH EXISTING PAVEMENT. CONFIGURATION AND TYPE TO BE APPROVED BY ENGINEER ON SITE.

PAVEMENT REINSTATEMENT TYPE D  
- REINSTATE TO MATCH EXISTING PAVEMENT. CONFIGURATION AND TYPE TO BE APPROVED BY ENGINEER ON SITE.

PAVEMENT REINSTATEMENT TYPE D  
- REINSTATE TO MATCH EXISTING PAVEMENT. CONFIGURATION AND TYPE TO BE APPROVED BY ENGINEER ON SITE.

PAVEMENT REINSTATEMENT TYPE D  
- REINSTATE TO MATCH EXISTING PAVEMENT. CONFIGURATION AND TYPE TO BE APPROVED BY ENGINEER ON SITE.

PAVEMENT REINSTATEMENT TYPE D -  
REINSTATE PAVEMENT TO MATCH EXISTING PAVEMENT. CONFIGURATION AND TYPE TO BE APPROVED BY ENGINEER ON SITE

**LEGEND**

- PAVEMENT REINSTATEMENT TYPE A. REFER DWG. C-059
- PAVEMENT REINSTATEMENT TYPE B. REFER DWG. C-038, SECTION 10
- PAVEMENT REINSTATEMENT TYPE C. REFER DG. C-038, SECTION 11
- PAVEMENT REINSTATEMENT TYPE D. REFER DWG. C-058
- NEW CONCRETE PAVEMENT FOR RAISED TABLE A: REFER TO DRAWING C-081 SECTION 3
- NEW CONCRETE PAVEMENT FOR RAISED TABLE B: REFER TO DRAWING C-081 SECTION 8
- RESURFACING WITH 45mm MIN AC14 (4% SBS) (MILL AND FILL)
- 25mm MIX10 ASPHALT SURFACING ON 200mm GAP40 COMPACTED GRANULAR BASECOURSE
- FORMED / SAWN JOINT : REFER TO DRAWING C-059 DETAIL 2 AND 3

**NOTES:**

1. THE EXTENT OF RESURFACING IS DETERMINED BASED ON THE NEW LINE MARKING. THIS DOES NOT INCLUDE THE RESURFACING REQUIRED FOR THE TEMPORARY TRAFFIC MANAGEMENT.
2. ALL FORMED AND SAWN JOINTS SHALL BE PERPENDICULAR TO KERB AND CHANNEL, VEHICLE CROSSINGS AND START OR END OF CONCRETE RAISED TABLES.

1	ISSUED FOR CONSTRUCTION	MC	YHA	JG	27.06.14
No.	Revision	By	Chk	Appd	Date



Original Scale (A1)	Design	WC	JUN '14	Approved For Construction*
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Reduced Scale (A3)	Dwg Verifier	SL	20.06.14	-
1:500	Dwg Check	JGS	20.06.14	Date -

\* Refer to Revision 1 for Original Signature

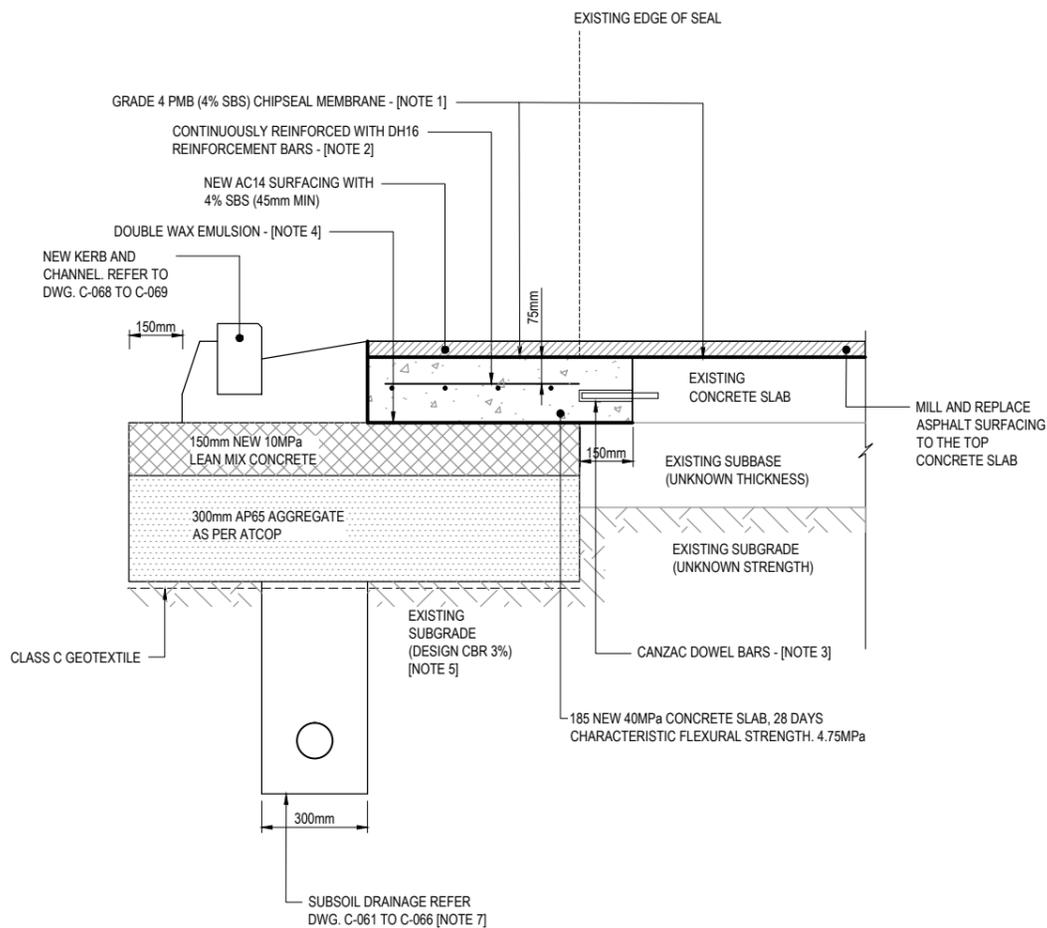


Project: BEACH ROAD CYCLEWAY

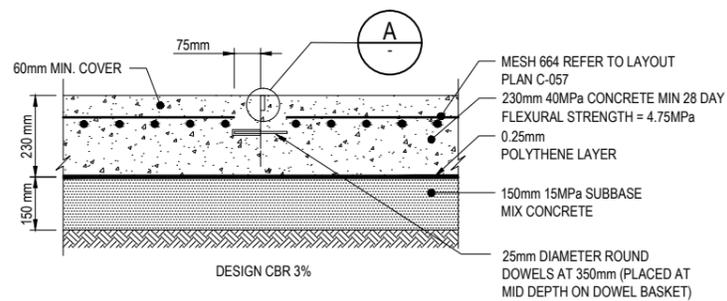
Title: PAVEMENT PLANS SHEET 8 OF 8

Discipline	CIVIL
Drawing No.	3818705-C-058
Rev.	1

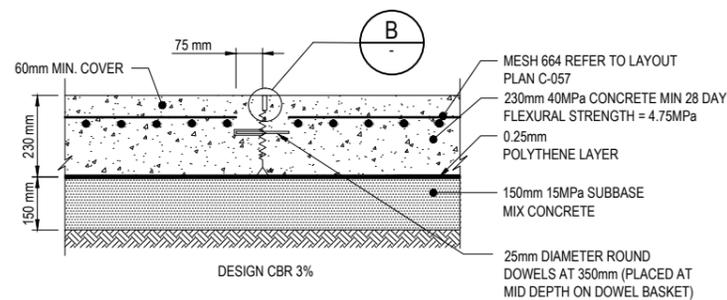
**FOR CONSTRUCTION**



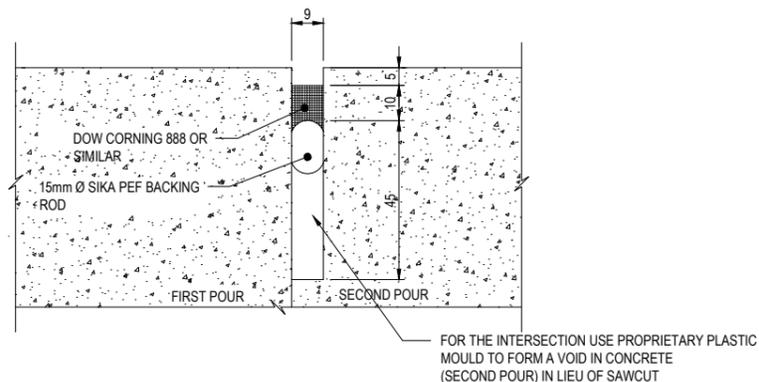
**1 PAVEMENT WIDENING TREATMENT A**  
**CONCRETE BASECOURSE OVER LEAN MIX CONCRETE**  
 1:10 @ A1



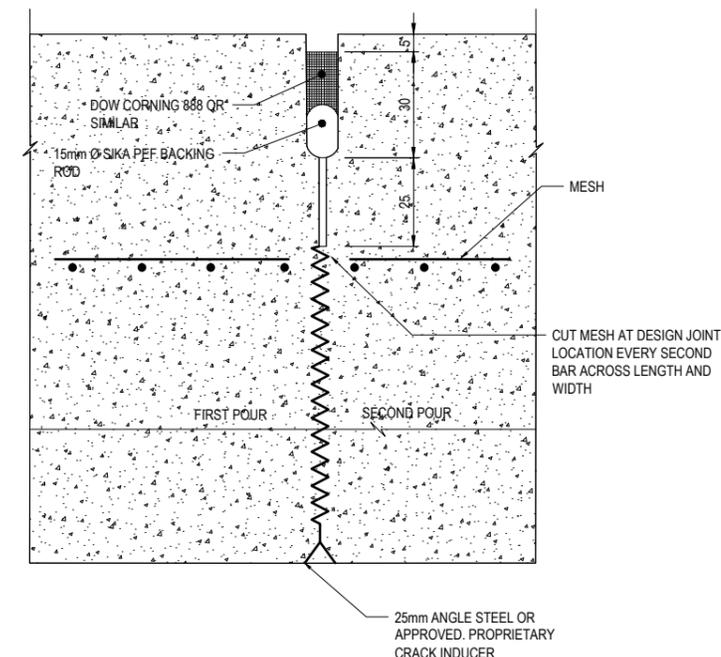
**2 SECTION JOINT TYPE 1: FORM JOINT**  
 1:10 (A1) 1:20 (A3)



**3 SECTION JOINT TYPE 2: SAWN JOINT**  
 1:10 (A1) 1:20 (A3)



**A DETAIL JOINT TYPE 1: FORM JOINT**  
 1:1 (A1) 1:2 (A3)



**B DETAIL JOINT TYPE 2: SAWN JOINT**  
 1:1 (A1) 1:2 (A3)

**NOTES:**

- GRADE 4 PMB (4% SBS) CHIPSEAL MEMBRANE (1.2-1.4L/m<sup>2</sup> RESIDUAL RATE) WITH EMULSION PRIME COAT (0.2-0.4 L/m<sup>2</sup> RESIDUAL RATE). IF THE BASECOURSE IS EXPOSED, INCREASE THE RESIDUAL RATE OF EMULSION PRIME COAT TO A MINIMUM 0.6L/m<sup>2</sup>.
- CONTINUOUSLY REINFORCED WITH DH16 REINFORCEMENT BARS AT 150mm CRS IN THE LONGITUDINAL DIRECTION AND DH10 REINFORCEMENT BARS AT 1000mm CRS IN THE TRANSVERSE DIRECTION. TIE LONGITUDINAL AND TRANSVERSE BARS TOGETHER. BARS TO BE SUPPORTED IN PROPRIETARY PLASTIC REBAR CHAIRS BEFORE POURING CONCRETE. ALL REINFORCEMENT TO BE GRADE 500 WITH 75mm MIN. COVER.
- CANZAC 20mm SMOOTH ROUND DOWEL (400mm LONG) WITH 20mm SQUARE DOWEL SLEEVE (230mm LONG) AT 350mm SPACING OR EQUIVALENT AS APPROVED BY ENGINEER. PLACE AND EPOXY 175mm INTO THE EXISTING SLAB
- DOUBLE WAX EMULSION AS A BOND BRAKER ( BASF MASTERKURE 100WB OR SIMILAR EQUIVALENT AS APPROVED BY ENGINEER)
- UNDERTAKE SCALA PENETROMETER TEST TO 1m DEEP AT 10m INTERVALS. IF POSSIBLE, UNDERTAKE A PROOF-ROLLING WITH AN 8-10 TONNE ROLLER ON STATIC MODE. IF MEASURED CBR IS
  - ≥ CBR 3% AND NO VISUAL MOVEMENT IS OBSERVED UNDER STATIC ROLLING - PROCEED WITH CONSTRUCTION.
  - < CBR 3% AND / OR VISUAL MOVEMENT IS OBSERVED UNDER STATIC ROLLING - CONTACT ENGINEER WHO WILL INSTRUCT THE APPROPRIATE FOR CONTINGENCY ACTIONS.
- 2.0m MINIMUM EXCAVATION WIDTH TO ALLOW FOR STATIC ROLLER ACCESS. SAWCUT & REMOVE EXISTING CONCRETE SLAB AS NECESSARY TO ACHIEVE MINIMUM WIDTH.
- NEW 110Ø SUBSOIL PIPE WITH TNZ F/2 MATERIAL AS PER ATCOP IN THE LOCATION OF THE EXISTING SUBSOIL DRAIN ONLY. CONTRACTOR TO CONFIRM THE DEPTH OF THE EXISTING SUBSOIL DRAIN AND THE OUTLET PIPE AT THE DOWNSTREAM CATCHPIT AND NOTIFY ENGINEER. REFER DWG C-061 TO C-066 FOR SUB DISCHARGE AND LOCATIONS.
- FOR KERB AND CHANNEL, REFER DWG. C-068 TO C-069.

**FOR CONSTRUCTION**

No.	Revision	By	Chk	Appd	Date
1	ISSUED FOR CONSTRUCTION	MC	YHA	JG	27.06.14

Original Scale (A1)	Design	WC	JUN 14	Approved For Construction*
1:10	MC	MC	JUN 14	-
Reduced Scale (A3)	Design Verifier	SL	20.06.14	-
1:20	Design Check	JGS	20.06.14	-

\* Refer to Revision 1 for Original Signature

Client: **Auckland Transport**  
 An Auckland Council Organisation

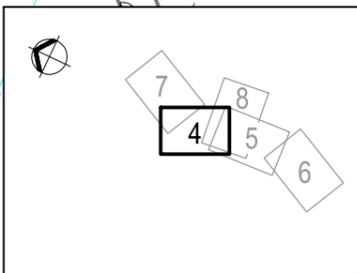
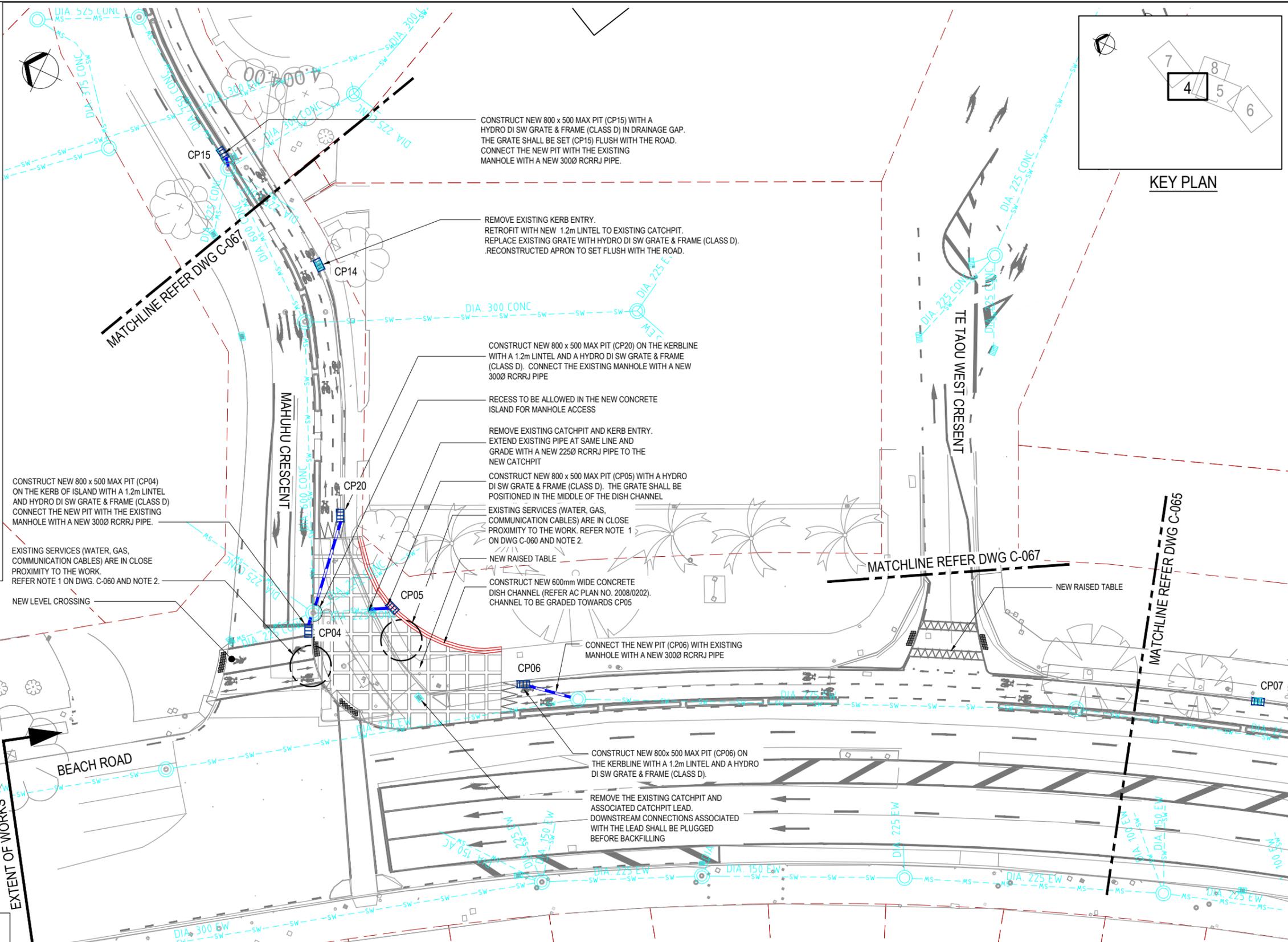
Project: **BEACH ROAD CYCLEWAY**

Title: **PAVEMENT DETAILS**

Discipline	CIVIL
Drawing No.	3818705-C-059
Rev.	1

**GENERAL DRAINAGE NOTES:**

- IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL SERVICES ON SITE PRIOR TO WORK COMMENCING AND TO PROTECT SERVICES DURING CONSTRUCTION. THE CONTRACTOR SHALL BE EXTRA CAREFUL WHEN WORKING IN CLOSE PROXIMITY TO SERVICES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGE TO THE SERVICES DUE TO HIS WORKS AT NO EXTRA COST IMPLICATION TO THE PRINCIPAL.
- ANY AFFECTED SERVICE LIDS SHALL BE ADJUSTED TO SUIT THE NEW FINISHED SURFACE. WHERE PAVEMENT FOR THE ACCOMMODATION OF THE NEW CYCLE LANE, SERVICES CHAMBERS ENDING UP WITHIN NEW ROAD PAVEMENT SHALL BE RETROFITTED WITH HEAVY DUTY FRAMES AND LIDS (CLASS 4).
- THE CATCHPITS AND MANHOLES ARE NOT SHOWN TO ACTUAL SCALE. THE CONTRACTOR SHALL CONFIRM THE POSITIONS, CONNECTIVITY AND LEVELS OF THE CATCHPITS AND MANHOLES WITH THE ENGINEER, BEFORE COMMENCING THE INSTALLATION.
- ALL NEW CATCHPITS TO BE IN ACCORDANCE WITH ATCOP RD039 WITH 1.2m LINTELS SHOWN ON RD040 AND RD041, UNLESS STATED OTHERWISE.
- ALL GRATES & FRAMES ON THE AFFECTED CATCHPITS TO BE REPLACED WITH CYCLE FRIENDLY GRATES & FRAMES (HYGRADE DI, CLASS D, OR APPROVED ALTERNATIVE UNLESS STATED OTHERWISE), RECONSTRUCTED APRONS TO BE SET FLUSH WITH THE ROAD.
- ALL NEW CATCHPITS SHALL BE FITTED WITH TETRA TRAPS IN ACCORDANCE WITH ATCOP RD042.
- ALL NEW CATCHPIT LEADS TO BE DIA. 300 RCRRJ (CLASS 4), UNLESS STATED OTHERWISE, AND SHALL BE BACKFILLED WITH COMPACTED HARDFILL TO SUBGRADE LEVEL. THE CATCHPIT LEAD SHALL BE LAID AT 1% (NOM) TO NEAREST MANHOLE.
- PIPE TRENCH BACKFILL AS DETAILED IN AUCKLAND COUNCIL STORMWATER STANDARD DETAILS DRAWING NOS. SW01 AND SW03.
- REPLACE ANY EXISTING KERB DISCHARGES ALONG THE AFFECTED PATHWAY IN ACCORDANCE WITH ATCOP RD060.
- REFER DRAWING C-058 FOR PAVEMENT SUBSOIL DETAIL.
- ALL NEW CONCRETE MANHOLES TO BE IN ACCORDANCE WITH AC PLAN NO. 12908/202.
- REFER DRAWING C-023 FOR SERVICES INFORMATION AT MAHUHU CRESCENT INTERSECTION.
- REFER DRAWING C-026 FOR SERVICES INFORMATION AT TE TAOU WEST CRESCENT INTERSECTION.



**KEY PLAN**

**UTILITIES LEGEND:**

- EXISTING STORMWATER LINE: ---SW---SW--- (with manhole symbol)
- EXISTING SW TO BE ABANDONED: -X-SW-X-SW-X- (with manhole symbol)
- PROPOSED STORMWATER LINE: ---SW---SW--- (with manhole symbol)
- NEW SUBSOIL DRAIN: --->>>---

No.	Revision	By	Chk	Appd	Date
1	ISSUED FOR CONSTRUCTION	RTCH	CJQ	JG	27.06.14

Design Originator: **Beca**

Original Scale (A1)	Design	RTCH	MAY '14	Approved For Construction*
1:250	VDLT		MAY '14	
Reduced Scale (A3)	Dwg Verifier	PMJ	JUNE '14	
1:500	Dwg Check	CJQ	JUNE '14	Date -

\* Refer to Revision 1 for Original Signature

Client: **Auckland Transport**

Project: **BEACH ROAD CYCLEWAY**

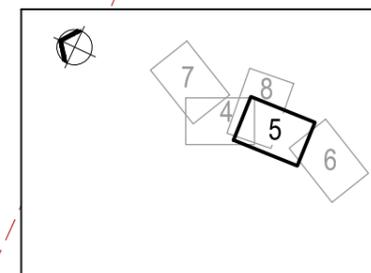
Title: **DRAINAGE PLANS SHEET 4 OF 7**

Discipline: **CIVIL**

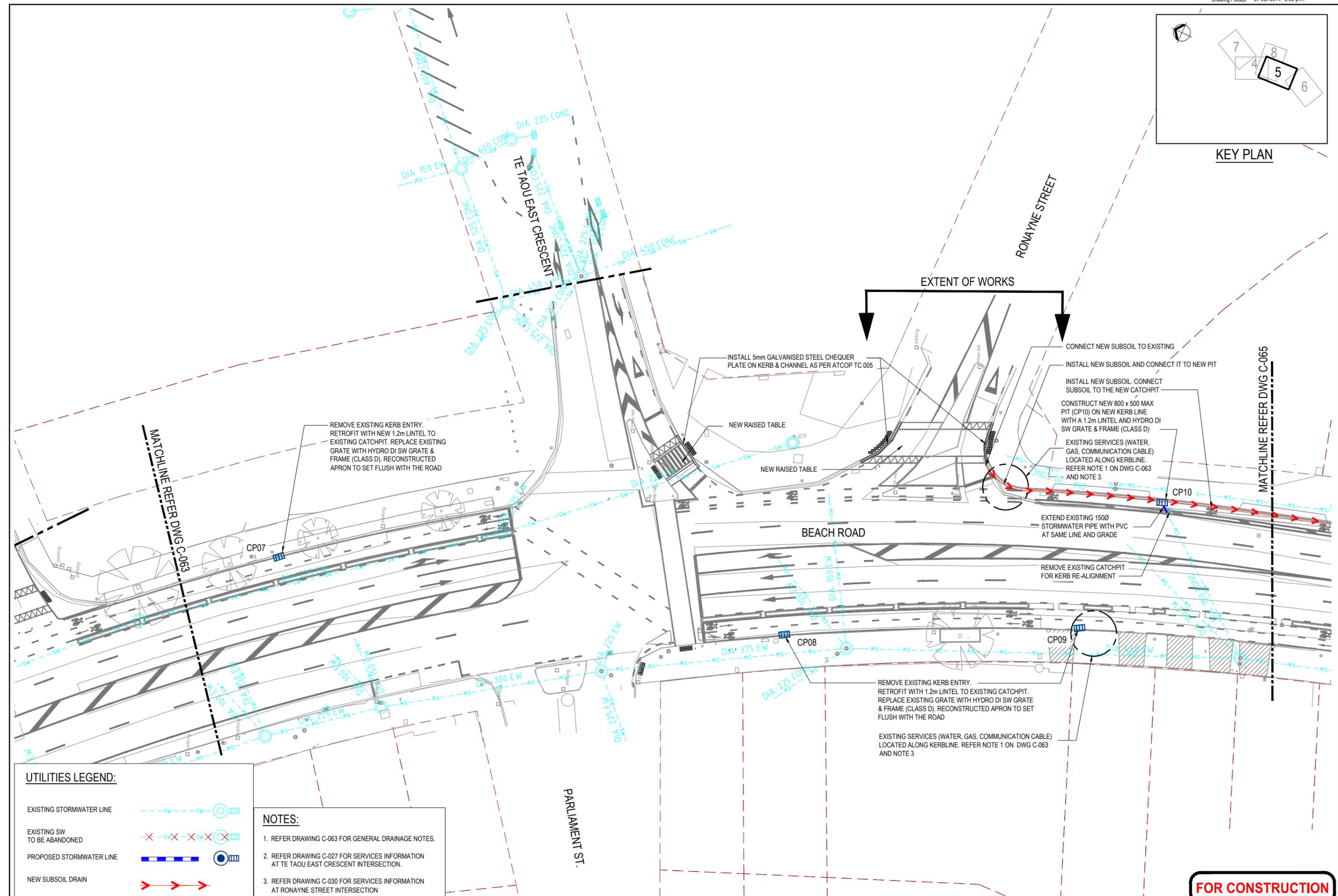
Drawing No: **3818705-C-063**

Rev: **1**

**FOR CONSTRUCTION**



KEY PLAN



**UTILITIES LEGEND:**

- EXISTING STORMWATER LINE --- SW --- SW
- EXISTING SW TO BE ABANDONED -X- SW -X- SW -X- SW
- PROPOSED STORMWATER LINE --- SW --- SW
- NEW SUBSOIL DRAIN --> --> -->

**NOTES:**

- REFER DRAWING C-063 FOR GENERAL DRAINAGE NOTES.
- REFER DRAWING C-027 FOR SERVICES INFORMATION AT TE TAOU EAST CRESCENT INTERSECTION.
- REFER DRAWING C-030 FOR SERVICES INFORMATION AT RONAYNE STREET INTERSECTION

No.	Revision	By	Chk	Appd	Date
1	ISSUED FOR CONSTRUCTION	RTCH	CJQ	JG	27.06.14



Original Scale (A1)	1:250	Design	RTCH	MAY '14	Approved For Construction
Reduced Scale (A3)	1:500	Drawn	VDLT	MAY '14	
		Design Checker	PMI	JUNE '14	
		Design Checker	CJQ	JUNE '14	

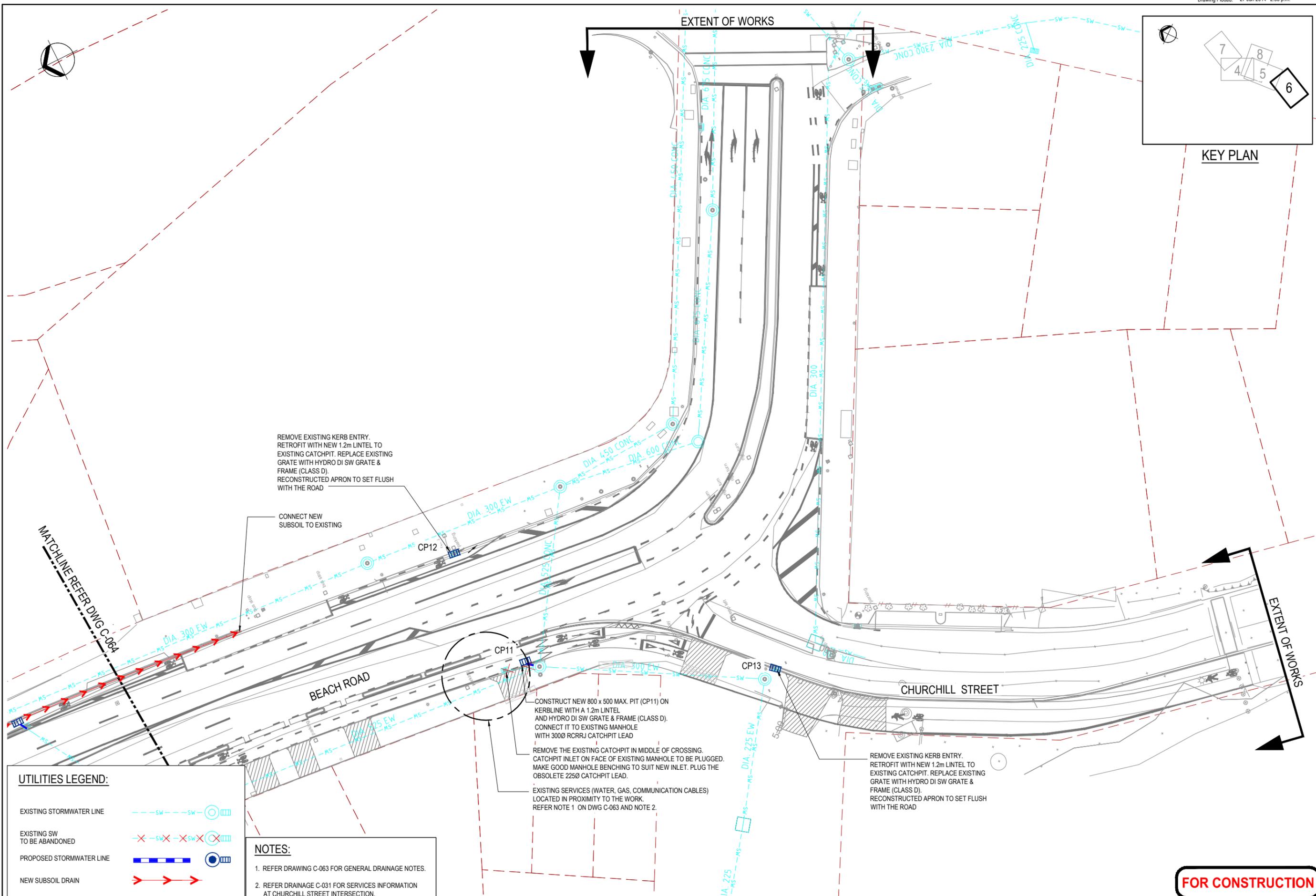


Client: **Auckland Transport**  
 Project: **BEACH ROAD CYCLEWAY**

Title: **DRAINAGE PLANS SHEET 5 OF 7**

Discipline	CIVIL
Document No.	3818705-C-064
Rev.	1

**FOR CONSTRUCTION**



**FOR CONSTRUCTION**

No.	Revision	By	Chk	Appd	Date
1	ISSUED FOR CONSTRUCTION	RTCH	CJO	JG	27.06.14

Drawing Originator:

Original Scale (A1)	1:250	Design	RTCH	MAY '14	Approved For Construction*
Reduced Scale (A3)	1:500	Drawn	VDLT	MAY '14	
		Dwg Verifier	PMI	JUNE '14	
		Dwg Check	CJO	JUNE '14	Date

\* Refer to Revision 1 for Original Signature

Client:

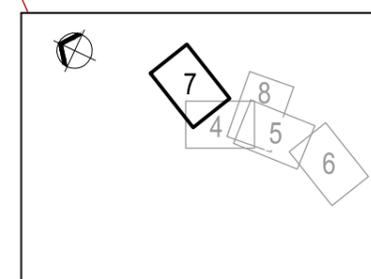
Project:

**BEACH ROAD CYCLEWAY**

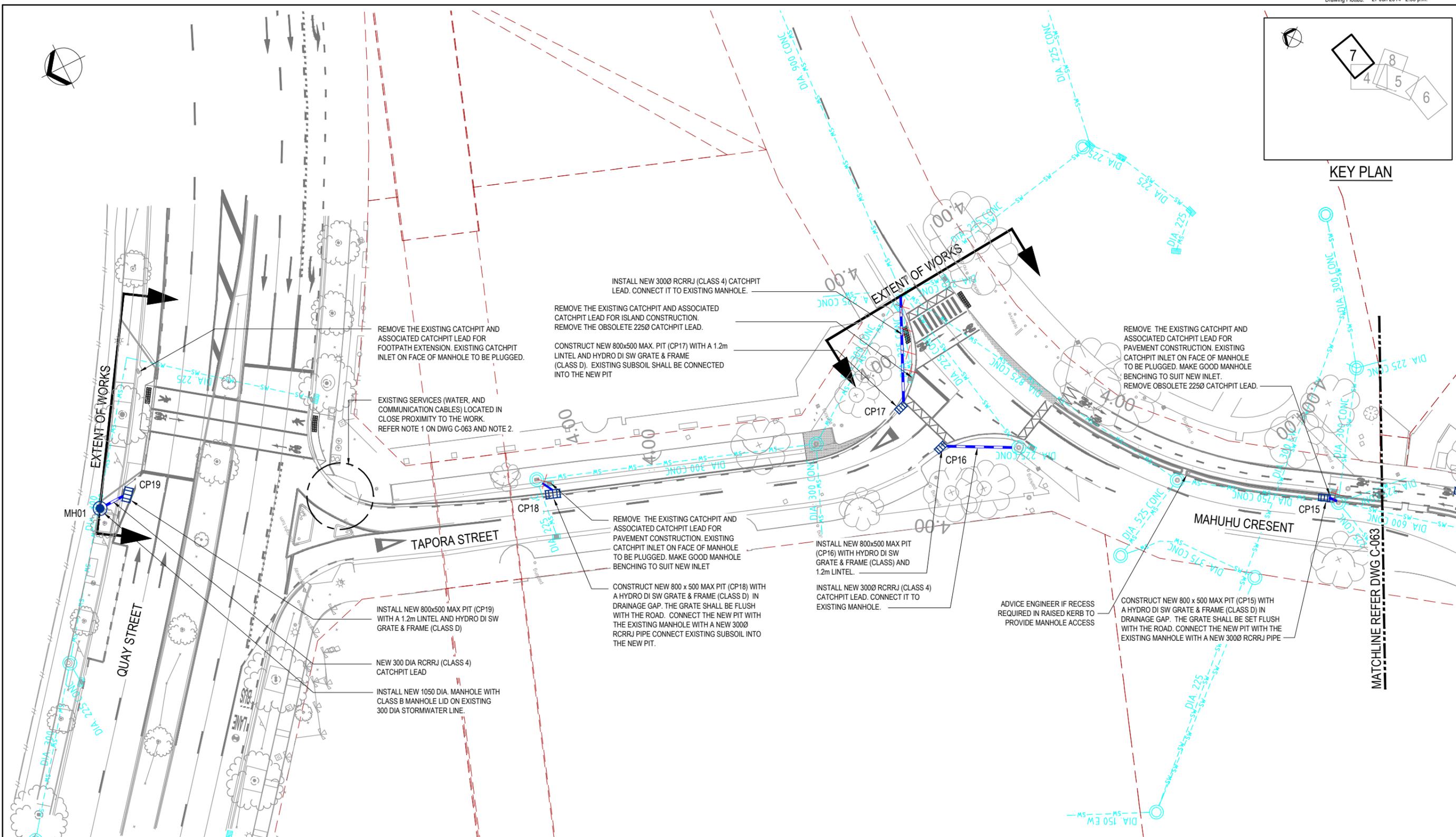
Title:

**DRAINAGE PLANS SHEET 6 OF 7**

Discipline	CIVIL
Drawing No.	3818705-C-065
Rev.	1



KEY PLAN



**UTILITIES LEGEND:**

EXISTING STORMWATER LINE	
EXISTING SW TO BE ABANDONED	
PROPOSED STORMWATER LINE	
NEW SUBSOIL DRAIN	

- NOTES:**
- REFER DRAWING C-063 FOR GENERAL DRAINAGE NOTES.
  - REFER DRAWING C-032 FOR SERVICES INFORMATION AT QUAY STREET INTERSECTION.
  - REFER DRAWING C-023 FOR SERVICES INFORMATION AT MAHUHU CRESCENT INTERSECTION.

No.	Revision	By	Chk	Appd	Date
1	ISSUED FOR CONSTRUCTION	RTCH	CJQ	JG	27.06.14



Original Scale (A1)	1:250	Design	RTCH	MAY '14	Approved For Construction*
Reduced Scale (A3)	1:500	Drawn	VDLT	MAY '14	
		Dwg Verifier	PMI	JUNE '14	
		Dwg Check	CJQ	JUNE '14	Date

\*Refer to Revision 1 for Original Signature

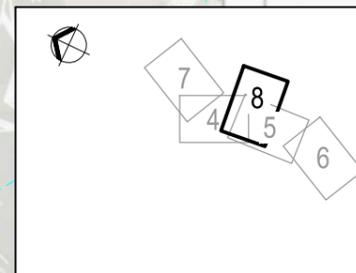


Client: **BEACH ROAD CYCLEWAY**

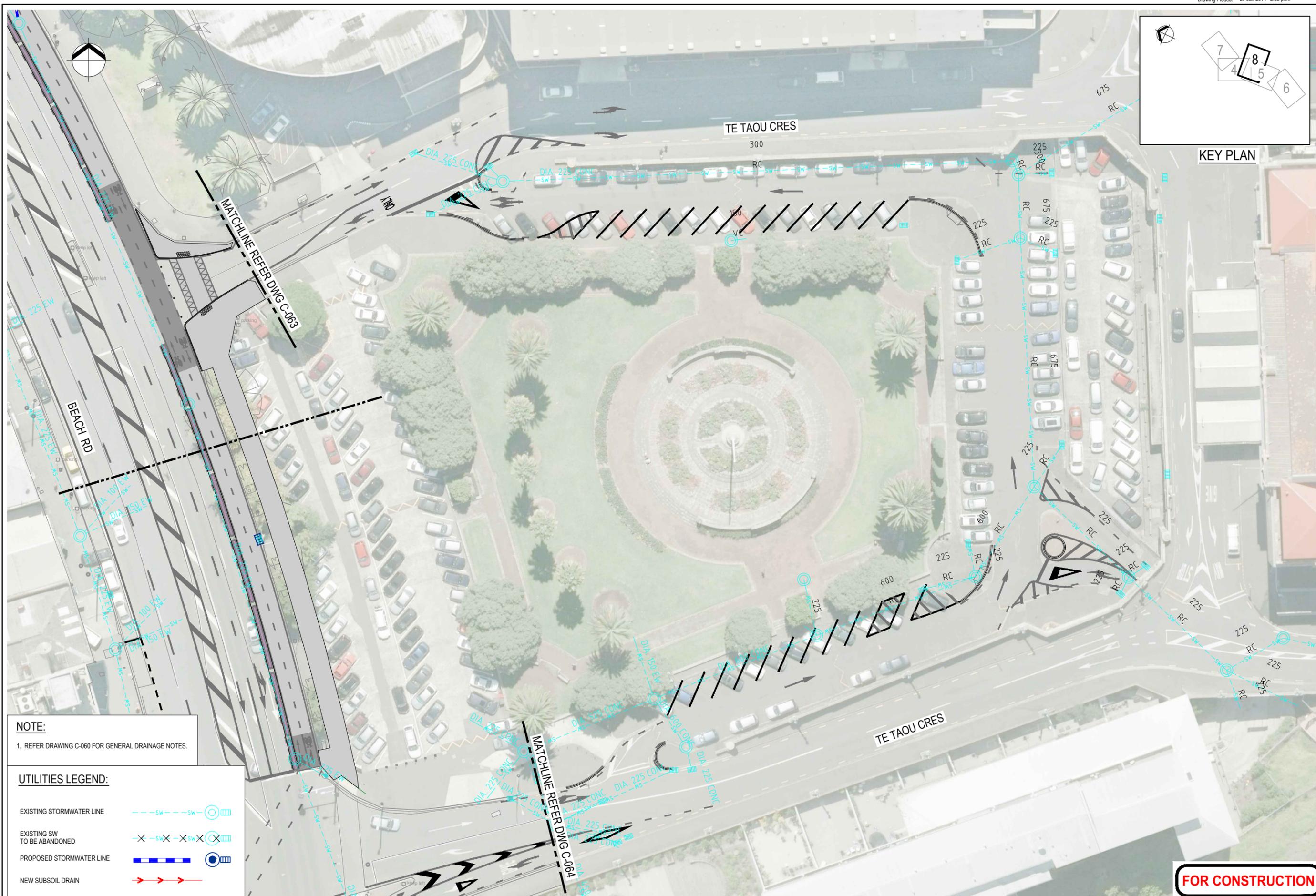
Title: **DRAINAGE PLANS SHEET 7 OF 7**

**FOR CONSTRUCTION**

Discipline	CIVIL
Drawing No.	3818705-C-066
Rev.	1



KEY PLAN



**NOTE:**  
1. REFER DRAWING C-060 FOR GENERAL DRAINAGE NOTES.

**UTILITIES LEGEND:**

EXISTING STORMWATER LINE	
EXISTING SW TO BE ABANDONED	
PROPOSED STORMWATER LINE	
NEW SUBSOIL DRAIN	

No.	Revision	By	Chk	Appd	Date
1	ISSUED FOR CONSTRUCTION	RTCH	CJQ	JG	27.06.14

Original Scale (A1)	1:250
Reduced Scale (A3)	1:500
Design	RTCH
Drawn	VDLT
Design Verifier	PMI
Design Check	CJQ
Date	JUNE '14

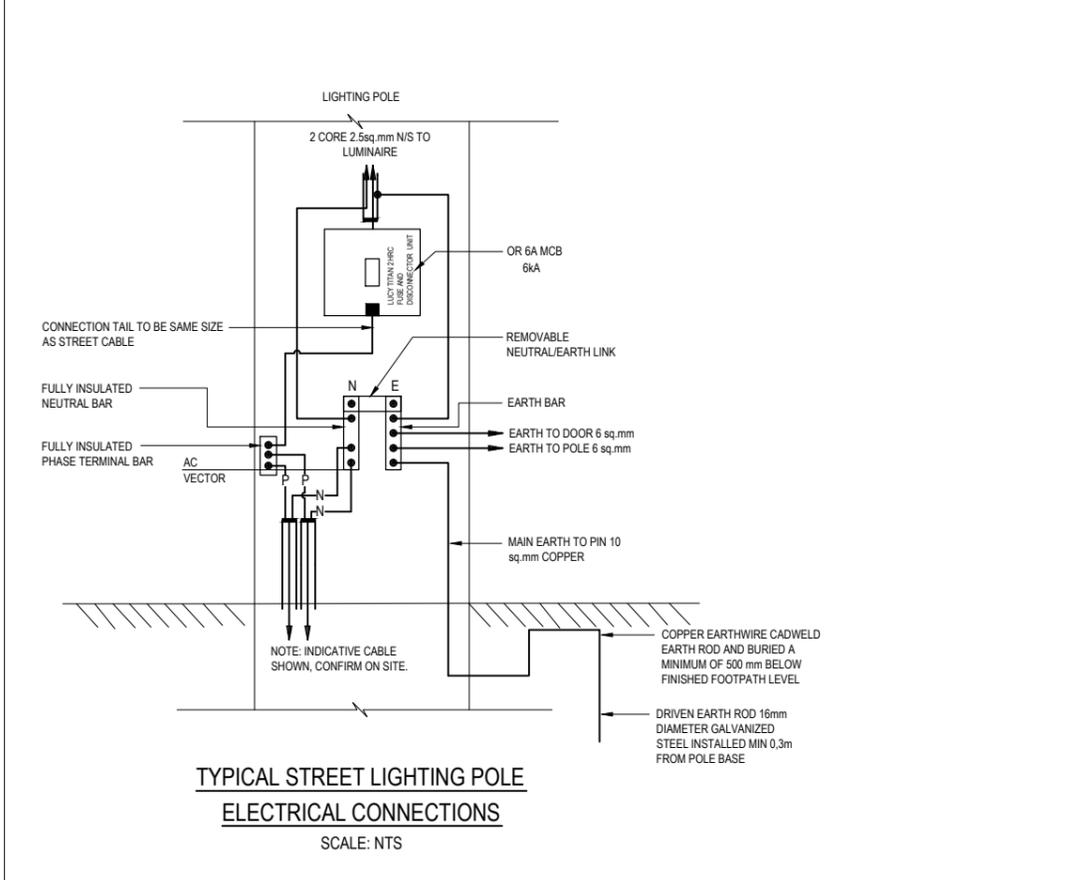
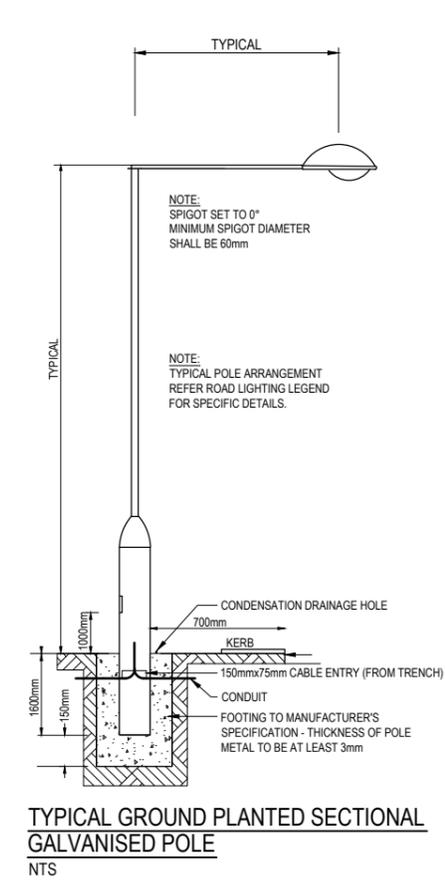
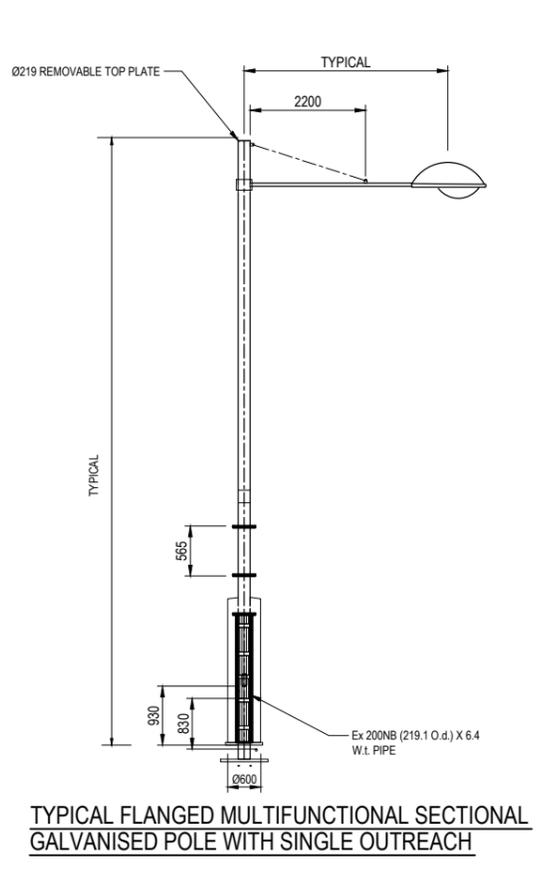
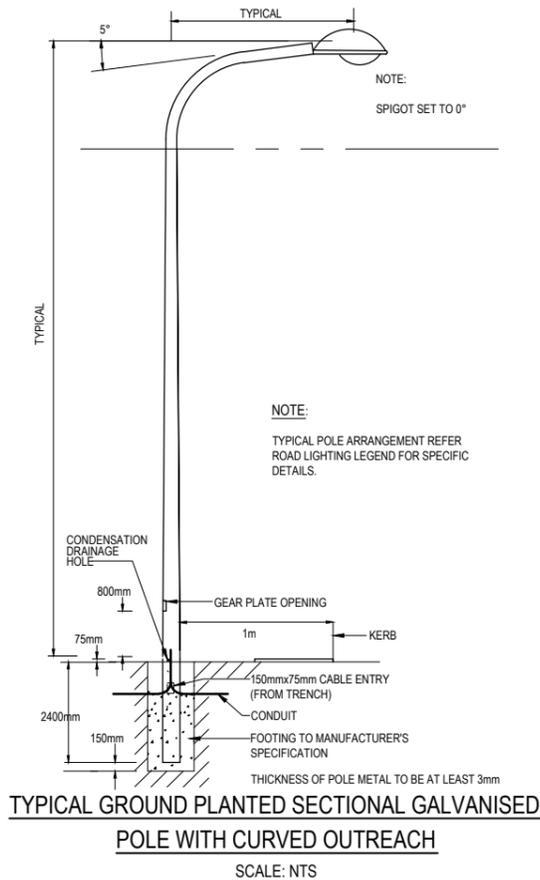
Client: **Auckland Transport** An Auckland Council Organisation

Project: BEACH ROAD CYCLEWAY

Title: DRAINAGE PLANS SHEET 8 OF 8

Discipline	CIVIL
Drawing No.	3818705-C-067
Rev.	1

**FOR CONSTRUCTION**



**TYPICAL COLUMN DESIGNATION:**

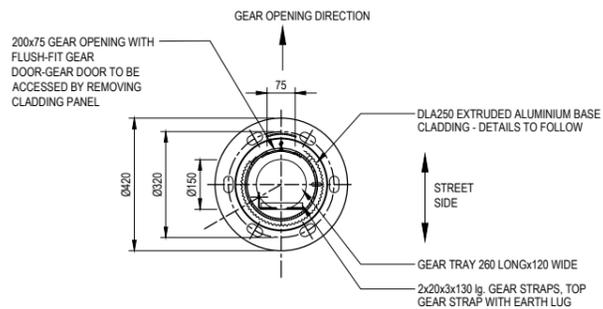


**LUMINAIRE AND COLUMN TYPE LEGEND:**

- A EXISTING STREET LIGHT, NO CHANGE
- B ADD A NEW STREET LIGHT, PLACE A NEW STEEL COLUMN WITH A KAOS OPSX-002-LHD 150W MH (METAL HALIDE) WITH A NEW OUTREACH OF 1m ON A NEW MULTIFUNCTIONAL STEEL COLUMN.
- C REPLACE LUMINAIRE WITH AN AEC ITALO 3 STW 4.7-9M LED LUMINAIRE.
- D ADD A NEW STREET LIGHT AT A NEW JOINT USE STREET LIGHTING POLE (JUSP) WITH AN AEC ITALO 3 STW 4.7-9M LED LUMINAIRE WITH A NEW STRAIGHT OUTREACH OF 1m.
- E ADD A NEW STREET LIGHT, PLACE A ROUND BLACK GESS GROUND PLANTED STEEL COLUMN WITH A KAOS OPSX-002-LHD 150W MH (METAL HALIDE) WITH A NEW CURVED OUTREACH OF 1m.
- F RELOCATE STEEL COLUMN AND LUMINAIRE.
- G ADD A NEW STREET LIGHT, PLACE A ROUND BLACK GESS GROUND PLANTED STEEL COLUMN WITH A BLACK LEDWAY T2M 4300K 525mA 30 LED SERIES E WITH A STRAIGHT OUTREACH OF 1m.
- H REMOVE EXISTING STREET LIGHT
- J ADD A NEW STREET LIGHT, PLACE A NEW STEEL COLUMN WITH AN AEC ITALO 3 STW 4.7-9M LED LUMINAIRE WITH A NEW CURVED OUTREACH OF 1m.
- K ADD A NEW STREET LIGHT, PLACE A NEW STEEL COLUMN WITH AN AEC ITALO 3 STW 4.7-9M LED LUMINAIRE WITH A NEW OUTREACH OF 1m ON A NEW MULTIFUNCTIONAL STEEL COLUMN.

**MOUNTING HEIGHT, SETBACKS AND LUMINAIRE TILT**

- T MOUNTING HEIGHT 8m, SETBACK TO EXISTING POLE LOCATION, TILT 0°.
- U MOUNTING HEIGHT 6m, SETBACK 0.3m FROM THE KERB, TILT 0°.
- V MOUNTING HEIGHT 6m, SETBACK 1m FROM THE KERB, TILT 0°.
- W MOUNTING HEIGHT 8m, SETBACK 1m FROM THE KERB, TILT 0°.
- X MOUNTING HEIGHT 12m, SETBACK 1m FROM THE KERB, TILT 0°.
- Y REMOVE EXISTING STREET LIGHT.
- Z EXISTING COLUMN, NO CHANGE.



**GENERAL NOTES:**

1. LIAISE WITH VECTOR WITH REGARDS TO EXTENDING THE EXISTING STREET LIGHTING CIRCUIT TO SUPPLY THE NEW INSTALLATION.
2. ALL WORK SHALL CONFORM TO THE REQUIREMENTS OF VECTOR, AUCKLAND TRANSPORT AND THE REQUIREMENTS OF AS/NZS 3000, AS/NZS 3008 AND AS/NZS 1158.
3. THE CONTRACTOR SHALL BE A VECTOR ACCREDITED CONTRACTOR AND VECTOR APPROVED TO INSTALL ASSETS ON THE VECTOR NETWORK.
4. ENSURE THE RAMM AND SLIM DATABASE IS ACCURATELY UPDATED FOR EVERY NEW OR MODIFIED STREETLIGHT LOCATION, AND LIAISE WITH AUCKLAND TRANSPORT TO ENSURE RECORDS ARE APPROPRIATELY COMPLETED.
5. THESE WORKS SHALL INCLUDE THE REMOVAL AND DISPOSAL OF OLD LUMINAIRES/MOUNTING BRACKETS AND LAMPS. REMOVE ALL EXISTING CONCRETE COLUMNS AND LUMINAIRES.
6. ALL LUMINAIRES SHALL BE TILTED AT AN ANGLE OF 0° TO THE HORIZONTAL UNLESS STATED OTHERWISE.

**EQUIPMENT QUANTITIES:**

EQUIPMENT	QUANTITY
GROUND PLANTED STEEL COLUMN OF 6m HIGH AND A CURVED OUTREACH OF 1m LONG	2
MULTIFUNCTIONAL GALVANISED COLUMN OF 6m HIGH AND A STRAIGHT OUREACH OF 1m LONG.	1
JOINT USE STREET LIGHTING POLE OF 12m HIGH AND A STRAIGHT OUTREACH OF 1m LONG	6
GESS 6m BLACK GROUND PLANTED ROUND STEEL COLUMN WITH A STRAIGHT OUTREACH OF 1m.	2
GESS 8m BLACK GROUND PLANTED ROUND STEEL COLUMN WITH A STRAIGHT OUTREACH OF 1m.	4
MULTIFUNCTIONAL GALVANISED COLUMN OF 12m HIGH AND A STRAIGHT OUREACH OF 1m LONG.	1
KAOS OPSX-004-LHD 150W MH (METAL HALIDE) LUMINAIRE	3
AEC ITALO 3 STW 4.7-9M LED LUMINAIRE	23
LEDWAY T2M 4300K 525mA 30 LED SERIES E BLACK LUMINAIRE	4

**NOTES:**

1. THE QUANTITIES GIVEN IN THE EQUIPMENT QUANTITIES TABLE ARE FOR INFORMATION ONLY. THIS DOES NOT EXCLUDE THE CONTRACTOR FROM CONFIRMING EXACT QUANTITIES VIA FULL SET OF DRAWINGS.

**INSTALLATION NOTES:**

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FIXING OF OUTREACHES TAKING INTO ACCOUNT WORK ON OR NEAR EXISTING SERVICES. THE CONTRACTOR SHALL LIAISE WITH THE APPROPRIATE SERVICE PROVIDER IN RELATION TO WORKING ON OR NEAR SERVICES, GIVING APPROPRIATE NOTICE PERIOD.
2. THE INTERNAL WIRING BETWEEN THE TERMINAL BLOCKS AND THE LUMINAIRE SHALL BE CIRCULAR 20 2.5mm<sup>2</sup> NEUTRAL SCREEN CABLE.
3. CABLE PROTECTION SHALL BE IMPLEMENTED AS PER VECTOR REQUIREMENTS.
4. ALL METAL COLUMNS, OUTREACH ARMS AND LUMINAIRES ARE TO BE EFFECTIVELY EARTHED. EARTHING IS TO BE DESIGNED TO CONFORM TO THE REQUIREMENTS OF THE NZ ELECTRICITY REGULATIONS AND AS/NZS3000:2007.
5. THE CONTRACTOR IS RESPONSIBLE FOR ALL CABLE DESIGN, LIAISON WITH VECTOR AND UPDATING OF VECTOR AND AUCKLAND TRANSPORT RECORDS.
6. FINAL POLE LOCATIONS ARE TO BE CONFIRMED ON SITE PRIOR TO INSTALLATION.
7. MOUNTING HEIGHTS ARE TO BE MEASURED WITH RESPECT TO THE LUMINAIRES ABOVE THE CARRIAGEWAY. FINAL LOCATION TO BE COORDINATED ON SITE.
8. WHERE A POLE IS WITHIN FIVE METERS OF A TREE, ASSESS WHETHER THE TREE REQUIRES TRIMMING TO MINIMISE SHADOWING, AND NOTIFY THE ENGINEER FOR FURTHER ACTION IF REQUIRED.
9. A MINIMUM TEN (10) YEAR WARRANTY FROM DATE OF ON SITE INSTALLATION SHALL BE PROVIDED FOR HOUSING/GLASS/SEAL AND REFLECTOR OF THE LUMINAIRE AND A FIVE (5) YEAR WARRANTY FOR THE ELECTRONIC CONTROL GEAR.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FINAL LOCATION OF LIGHTING POLES TAKING INTO ACCOUNT
  - a. LOCATION OF EXISTING SERVICES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND SERVICES AND LAND INFORMATION NEW ZEALAND MARKERS BEFORE WORK COMMENCES. ANY DAMAGE CAUSED TO UNDERGROUND SERVICES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
  - b. WORK ON OR NEAR EXISTING SERVICES. THE CONTRACTOR SHALL LIAISE WITH THE APPROPRIATE SERVICE PROVIDER IN RELATION TO WORKING ON OR NEAR SERVICES, GIVING APPROPRIATE NOTICE PERIOD.
  - c. PERMITTED LOCATION TOLERANCE
    - 0.5m PARALLEL TO THE CARRIAGEWAY
    - 0.2m PERPENDICULAR TO THE CARRIAGEWAY
    - 0.2m VERTICALLY
 IF THE FINAL POLE LOCATION EXCEEDS THE PERMITTED TOLERANCE THE CONTRACTOR SHALL CONTACT THE ENGINEER.
11. POLE DETAILS SHALL BE AS PER AUCKLAND TRANSPORT ENGINEERING STANDARDS. DEPARTING FROM THE STANDARD INSTALLATION DUE TO GROUND CONDITIONS SHALL BE CONFIRMED BY A WRITTEN APPROVAL PRIOR TO INSTALLATION.
12. EACH LUMINAIRE SHALL BE PROVIDED WITH A ZODION SS12A PHOTOCELL TO PROVIDE ON-OFF LIGHT SWITCHING.
13. NEW LUMINAIRES SHALL BE PROVIDED WITH ELECTRONIC CONTROL GEAR. THE CONTRACTOR SHALL CONFIRM THIS REQUIREMENT WITH AUCKLAND TRANSPORT FOR LUMINAIRES ABOVE 150W.
14. EACH AEC ITALO AND CREE LEDWAY LUMINAIRE SHALL BE PROVIDED WITH THE FOLLOWING:
  - A ZODION SS12A PHOTOCELL TO PROVIDE ON-OFF LIGHT SWITCHING.
  - 42mm ADAPTOR
  - SAFETY LANYARD ON HINGED GEAR COMPARTMENT DOOR.
  - 4300K LED
  - PHILIPS ADVANCED DIMMABLE DRIVER CONFIGURED TO 525mA
  - COLOURED SILVER

No.	Revision	By	Chk	Appd	Date
1	ISSUED FOR CONSTRUCTION	CS	HS	JG	27.06.14

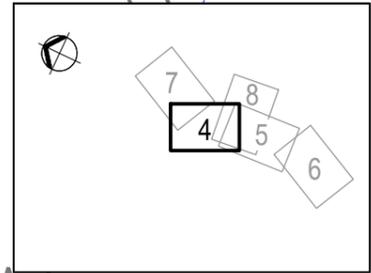
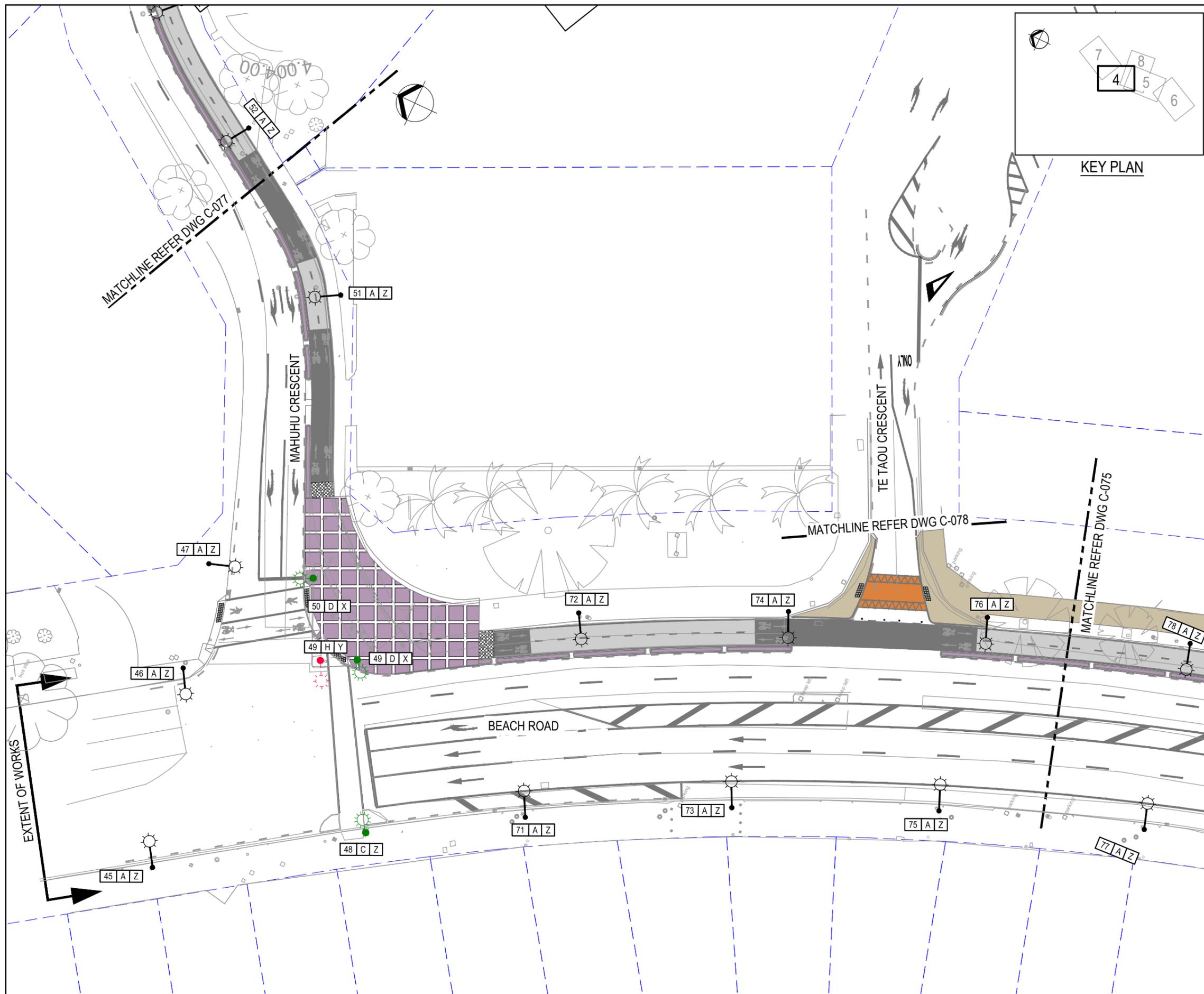
Drawing Originator: **Beca**  
 Original Scale (A1): NTS  
 Design: NYK MAY '14  
 Drawn: JDT MAY '14  
 Reduced Scale (A3): NTS  
 Design Verifier: HS JUN '14  
 Design Check: JG JUN '14

Client: **Auckland Transport**  
 Project: **BEACH ROAD CYCLEWAY**

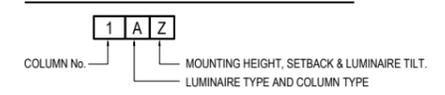
Title: **DRAWING KEY NOTES AND LUMINAIRE SCHEDULE**

Discipline: **CIVIL**  
 Drawing No.: **3818705-C-070**  
 Rev: **1**

**FOR CONSTRUCTION**



**TYPICAL COLUMN DESIGNATION:**



**LUMINAIRE AND COLUMN TYPE LEGEND:**

- A EXISTING STREET LIGHT, NO CHANGE
- B ADD A NEW STREET LIGHT, PLACE A NEW STEEL COLUMN WITH A KAOS OPSX-002-LHD 150W MH (METAL HALIDE) WITH A NEW OUTREACH OF 1m ON A NEW MULTIFUNCTIONAL STEEL COLUMN.
- C REPLACE LUMINAIRE WITH AN AEC ITALO 3 STW 4.7-9M LED LUMINAIRE.
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- X MOUNTING HEIGHT 12m, SETBACK 1m FROM THE KERB, TILT 0°.
- Y REMOVE EXISTING STREET LIGHT.
- Z EXISTING COLUMN, NO CHANGE.

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**FOR CONSTRUCTION**

No.	Revision	By	Chk	Appd	Date
1	ISSUED FOR CONSTRUCTION	CS	HS	JG	27.06.14

Design Originator:

Original Scale (A1)	Design	NYK	MAY '14	Approved For Construction*
1:250	Drawn	JDT	MAY '14	
Reduced Scale (A3)	Design Checker	HS	JUN '14	
1:500	Design Check	JG	JUN '14	

\* Refer to Revision 1 for Original Signature

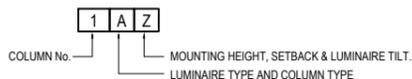
Client:

Project: BEACH ROAD CYCLEWAY

Title: LIGHTING PLANS SHEET 4 OF 8

Discipline	CIVIL
Drawing No.	3818705-C-074
Rev.	1

**TYPICAL COLUMN DESIGNATION:**

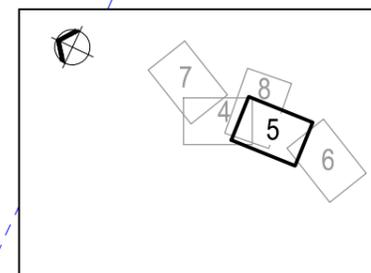


**LUMINAIRE AND COLUMN TYPE LEGEND:**

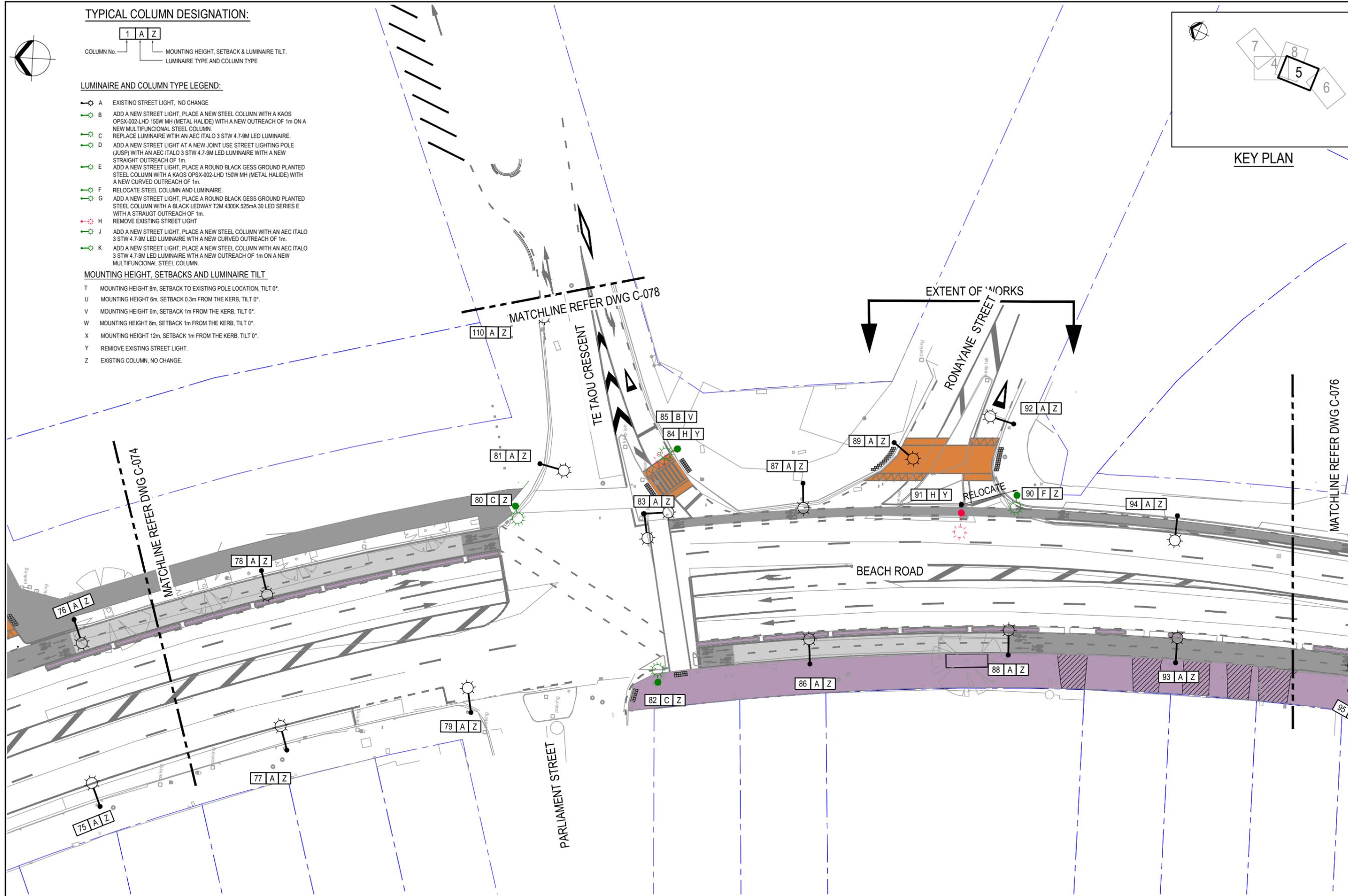
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- W MOUNTING HEIGHT 8m, SETBACK 1m FROM THE KERB, TILT 0°.
- X MOUNTING HEIGHT 12m, SETBACK 1m FROM THE KERB, TILT 0°.
- Y REMOVE EXISTING STREET LIGHT.
- Z EXISTING COLUMN, NO CHANGE.



**KEY PLAN**



**FOR CONSTRUCTION**

No.	Revision	By	Chk	Appd	Date
1	ISSUED FOR CONSTRUCTION	CS	HS	JG	27.06.14

Drawing Originator:

Original Scale (A1)	Design	NYK	MAY '14	Approved For Construction*
1:250	Drawn	JDT	MAY '14	
Reduced Scale (A3)	Design Checker	HS	JUN '14	
1:500	Design Checker	JGS	JUN '14	

\* Refer to Revision 1 for Original Signature

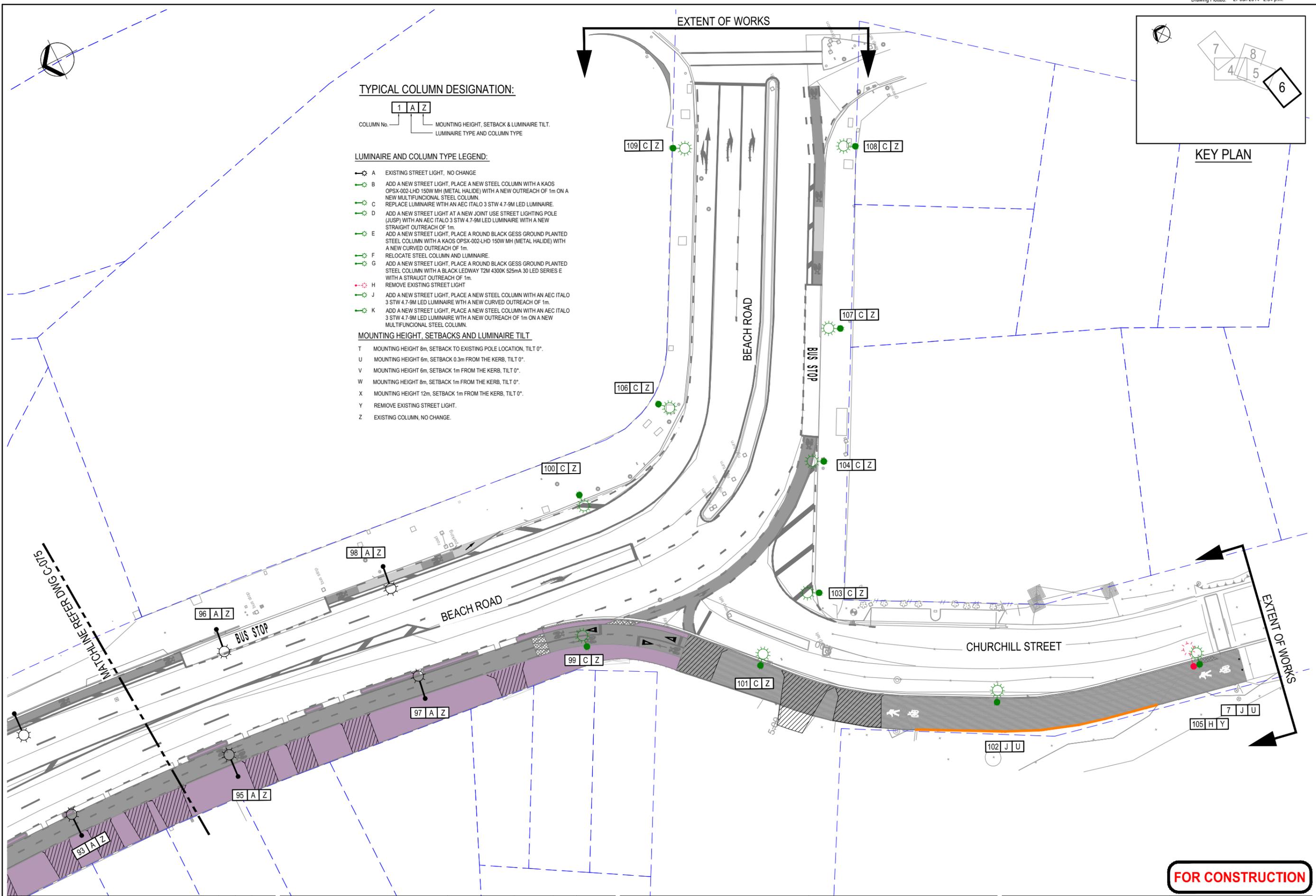
Client:

An Auckland Council Organisation

Project: **BEACH ROAD CYCLEWAY**

Title: **LIGHTING PLANS SHEET 5 OF 8**

Discipline	CIVIL
Drawing No.	3818705-C-075
Rev.	1



**TYPICAL COLUMN DESIGNATION:**

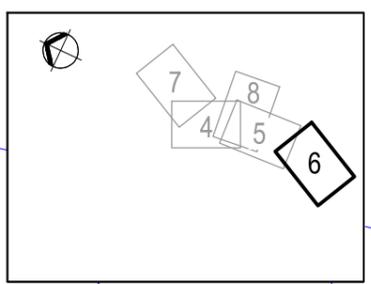


**LUMINAIRE AND COLUMN TYPE LEGEND:**

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- W MOUNTING HEIGHT 8m, SETBACK 1m FROM THE KERB, TILT 0°.
- X MOUNTING HEIGHT 12m, SETBACK 1m FROM THE KERB, TILT 0°.
- Y REMOVE EXISTING STREET LIGHT.
- Z EXISTING COLUMN, NO CHANGE.



KEY PLAN

**FOR CONSTRUCTION**

No.	Revision	By	Chk	Appd	Date
1	ISSUED FOR CONSTRUCTION	CS	HS	JG	27.06.14



Original Scale (A1)	Design	NYK	MAY '14	Approved For Construction
1:250	Drawn	JDT	MAY '14	
Reduced Scale (A3)	Design Checker	HS	JUN '14	
1:500	Day Check	JG	JUN '14	

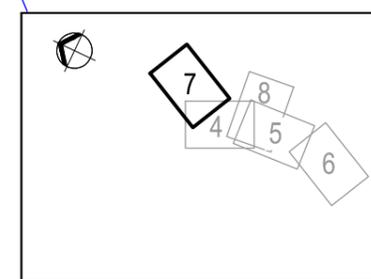
\* Refer to Revision 1 for Original Signature



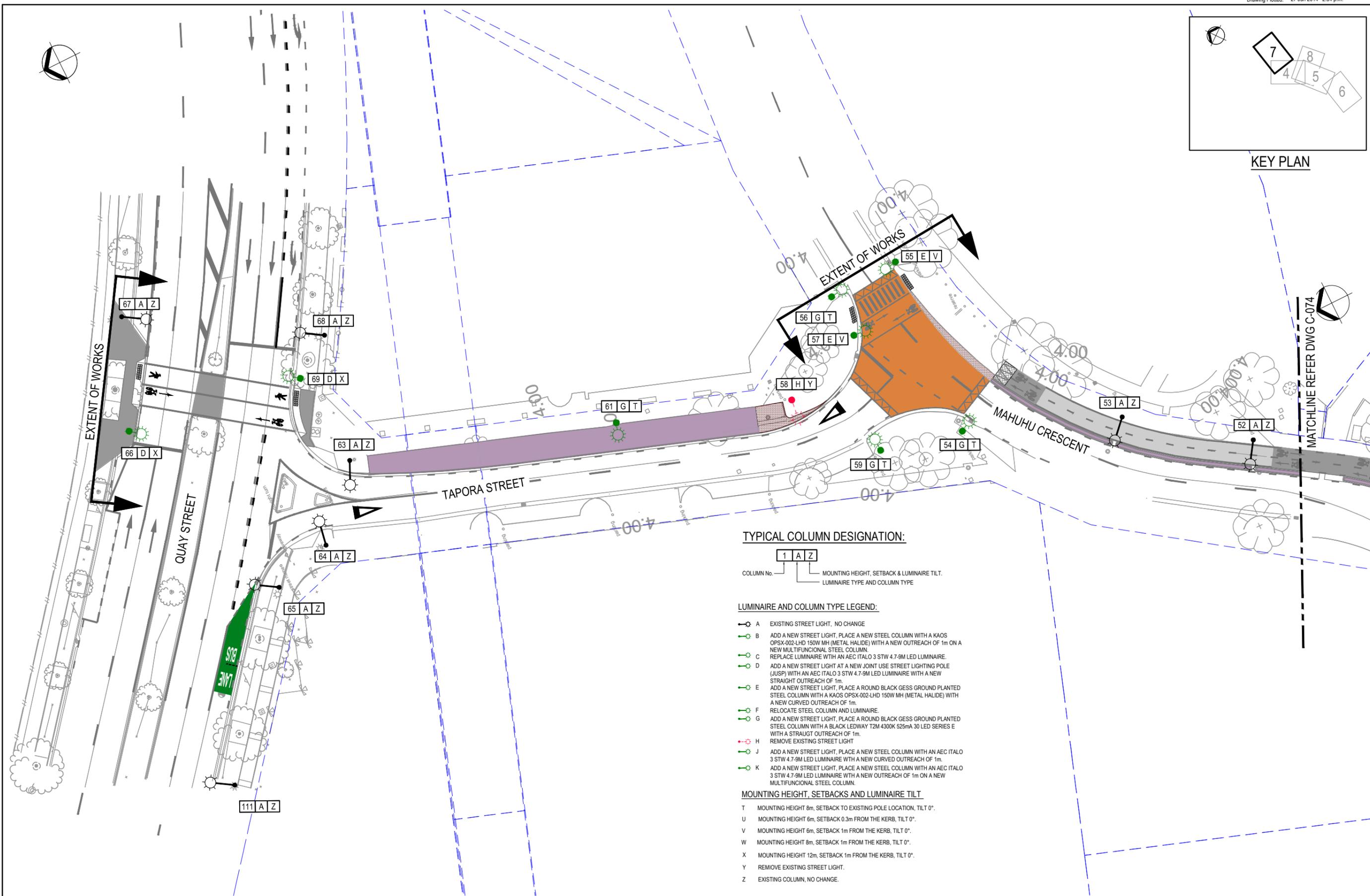
Client: **Auckland Transport**  
 Project: **BEACH ROAD CYCLEWAY**

Title: **LIGHTING PLANS SHEET 6 OF 8**

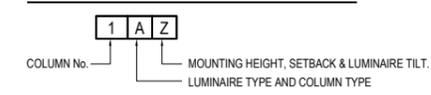
Discipline	CIVIL
Document No.	3818705-C-076
Rev.	1



KEY PLAN



TYPICAL COLUMN DESIGNATION:



LUMINAIRE AND COLUMN TYPE LEGEND:

- ⊙ A EXISTING STREET LIGHT, NO CHANGE
- ⊙ B ADD A NEW STREET LIGHT, PLACE A NEW STEEL COLUMN WITH A KAOS OPSX-002-LHD 150W MH (METAL HALIDE) WITH A NEW OUTREACH OF 1m ON A NEW MULTIFUNCTIONAL STEEL COLUMN.
- ⊙ C REPLACE LUMINAIRE WITH AN AEC ITALO 3 STW 4.7-9M LED LUMINAIRE.
- ⊙ D ADD A NEW STREET LIGHT AT A NEW JOINT USE STREET LIGHTING POLE (JUSP) WITH AN AEC ITALO 3 STW 4.7-9M LED LUMINAIRE WITH A NEW STRAIGHT OUTREACH OF 1m.
- ⊙ E ADD A NEW STREET LIGHT, PLACE A ROUND BLACK GESS GROUND PLANTED STEEL COLUMN WITH A KAOS OPSX-002-LHD 150W MH (METAL HALIDE) WITH A NEW CURVED OUTREACH OF 1m.
- ⊙ F RELOCATE STEEL COLUMN AND LUMINAIRE.
- ⊙ G ADD A NEW STREET LIGHT, PLACE A ROUND BLACK GESS GROUND PLANTED STEEL COLUMN WITH A BLACK LEDWAY T2M 4300K 525mA 30 LED SERIES E WITH A STRAIGHT OUTREACH OF 1m.
- ⊙ H REMOVE EXISTING STREET LIGHT
- ⊙ J ADD A NEW STREET LIGHT, PLACE A NEW STEEL COLUMN WITH AN AEC ITALO 3 STW 4.7-9M LED LUMINAIRE WITH A NEW CURVED OUTREACH OF 1m.
- ⊙ K ADD A NEW STREET LIGHT, PLACE A NEW STEEL COLUMN WITH AN AEC ITALO 3 STW 4.7-9M LED LUMINAIRE WITH A NEW OUTREACH OF 1m ON A NEW MULTIFUNCTIONAL STEEL COLUMN.

MOUNTING HEIGHT, SETBACKS AND LUMINAIRE TILT

- T MOUNTING HEIGHT 8m, SETBACK TO EXISTING POLE LOCATION, TILT 0°.
- U MOUNTING HEIGHT 6m, SETBACK 0.3m FROM THE KERB, TILT 0°.
- V MOUNTING HEIGHT 6m, SETBACK 1m FROM THE KERB, TILT 0°.
- W MOUNTING HEIGHT 8m, SETBACK 1m FROM THE KERB, TILT 0°.
- X MOUNTING HEIGHT 12m, SETBACK 1m FROM THE KERB, TILT 0°.
- Y REMOVE EXISTING STREET LIGHT.
- Z EXISTING COLUMN, NO CHANGE.

**FOR CONSTRUCTION**

No.	Revision	By	Chk	Appd	Date
1	ISSUED FOR CONSTRUCTION	CS	HS	JG	27.06.14

Original Scale (A1) 1:250  
 Reduced Scale (A3) 1:500

**Beca**

Design	NYK	MAY '14	Approved For Construction*
Drawn	JDT	MAY '14	
Design Checker	HS	JUN '14	
Design Checker	JGS	JUN '14	

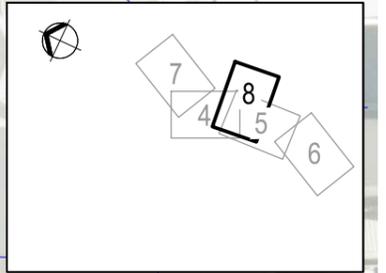
\*Refer to Revision 1 for Original Signature

Client: **Auckland Transport**  
 An Auckland Council Organisation

Project: BEACH ROAD CYCLEWAY

Title: LIGHTING PLANS  
 SHEET 7 OF 8

Discipline	CIVIL
Document No.	3818705-C-077
Rev.	1



KEY PLAN

TYPICAL COLUMN DESIGNATION:

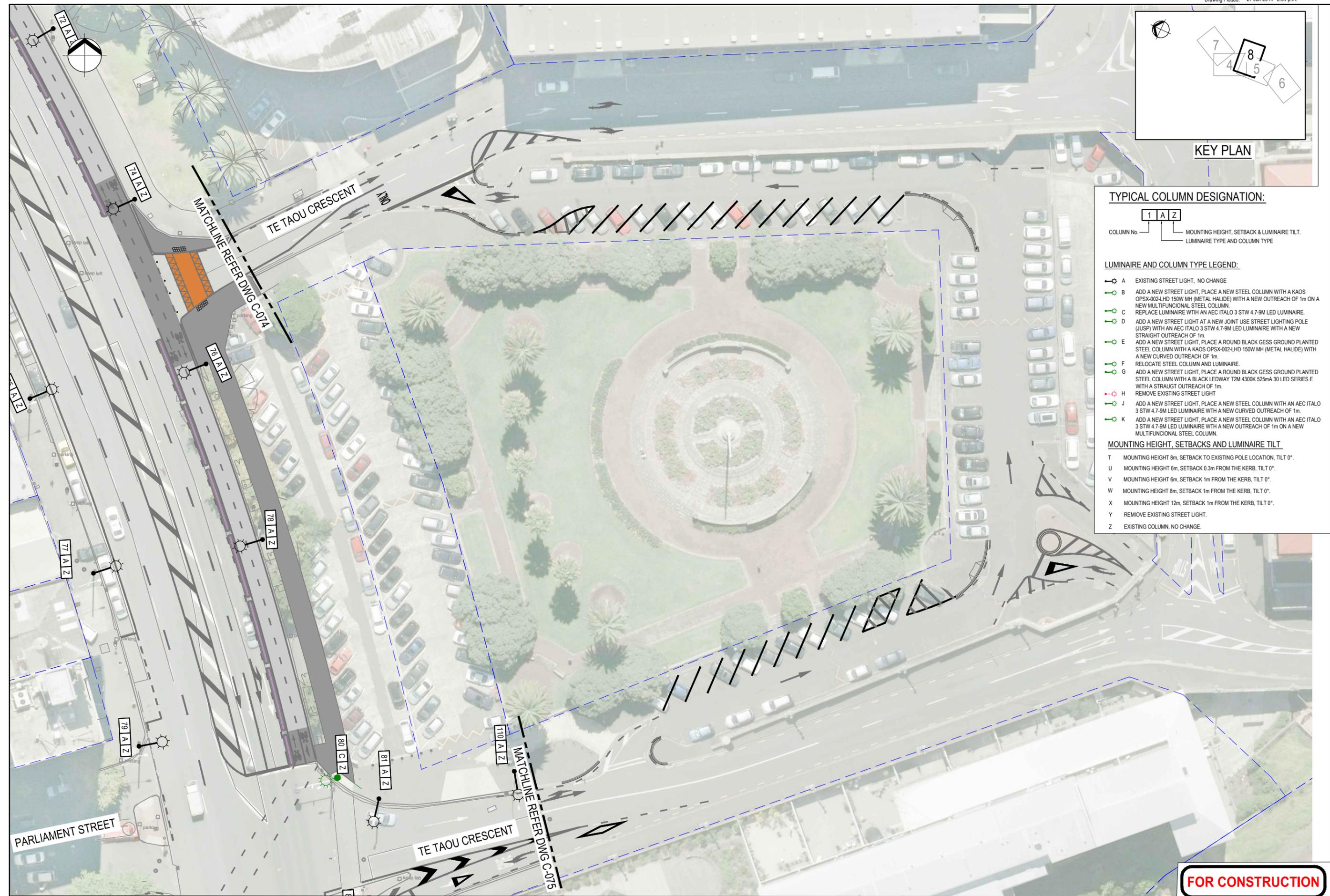


LUMINAIRE AND COLUMN TYPE LEGEND:

- A EXISTING STREET LIGHT, NO CHANGE
- B ADD A NEW STREET LIGHT, PLACE A NEW STEEL COLUMN WITH A KAOS OPSX-002-LHD 150W MH (METAL HALIDE) WITH A NEW OUTREACH OF 1m ON A NEW MULTIFUNCTIONAL STEEL COLUMN.
- C REPLACE LUMINAIRE WITH AN AEC ITALO 3 STW 4.7-9M LED LUMINAIRE.
- D ADD A NEW STREET LIGHT AT A NEW JOINT USE STREET LIGHTING POLE (JUSP) WITH AN AEC ITALO 3 STW 4.7-9M LED LUMINAIRE WITH A NEW STRAIGHT OUTREACH OF 1m.
- E ADD A NEW STREET LIGHT, PLACE A ROUND BLACK GESS GROUND PLANTED STEEL COLUMN WITH A KAOS OPSX-002-LHD 150W MH (METAL HALIDE) WITH A NEW CURVED OUTREACH OF 1m.
- F RELOCATE STEEL COLUMN AND LUMINAIRE.
- G ADD A NEW STREET LIGHT, PLACE A ROUND BLACK GESS GROUND PLANTED STEEL COLUMN WITH A BLACK LEDWAY T2M 4300K 525mA 30 LED SERIES E WITH A STRAIGHT OUTREACH OF 1m.
- H REMOVE EXISTING STREET LIGHT
- J ADD A NEW STREET LIGHT, PLACE A NEW STEEL COLUMN WITH AN AEC ITALO 3 STW 4.7-9M LED LUMINAIRE WITH A NEW CURVED OUTREACH OF 1m.
- K ADD A NEW STREET LIGHT, PLACE A NEW STEEL COLUMN WITH AN AEC ITALO 3 STW 4.7-9M LED LUMINAIRE WITH A NEW OUTREACH OF 1m ON A NEW MULTIFUNCTIONAL STEEL COLUMN.

MOUNTING HEIGHT, SETBACKS AND LUMINAIRE TILT

- T MOUNTING HEIGHT 8m, SETBACK TO EXISTING POLE LOCATION, TILT 0°.
- U MOUNTING HEIGHT 6m, SETBACK 0.3m FROM THE KERB, TILT 0°.
- V MOUNTING HEIGHT 6m, SETBACK 1m FROM THE KERB, TILT 0°.
- W MOUNTING HEIGHT 8m, SETBACK 1m FROM THE KERB, TILT 0°.
- X MOUNTING HEIGHT 12m, SETBACK 1m FROM THE KERB, TILT 0°.
- Y REMOVE EXISTING STREET LIGHT.
- Z EXISTING COLUMN, NO CHANGE.



1	ISSUED FOR CONSTRUCTION	CS	HS	JG	27.06.14
No.	Revision	By	Chk	Appd	Date

Drawing Originator:  
**Beca**

Original Scale (A1)	Design	NYK	MAY '14	Approved For Construction*
1:250	Drawn	JDT	MAY '14	
Reduced Scale (A3)	Design Checker	HS	JUN '14	
1:500	Design Checker	JGS	JUN '14	

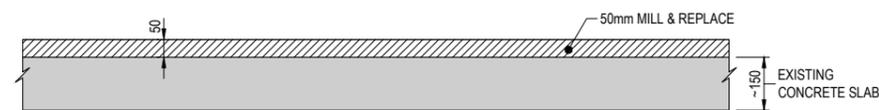
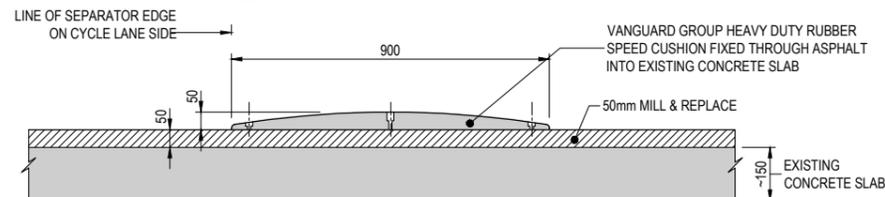
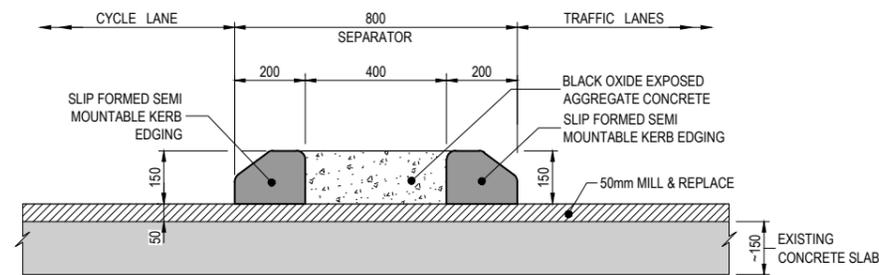
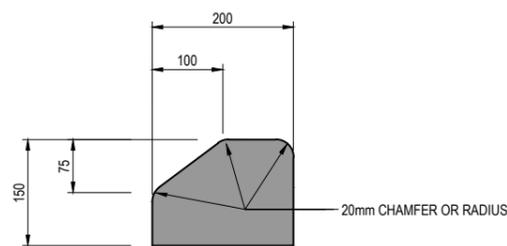
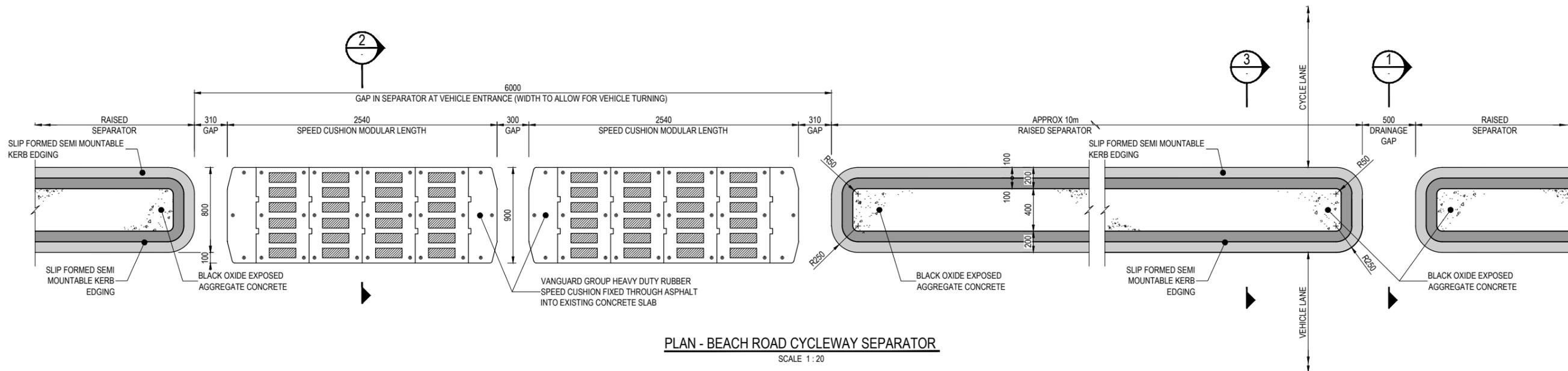
\* Refer to Revision 1 for Original Signature

Client:  
**Auckland Transport**  
 An Auckland Council Organisation

Project:  
 BEACH ROAD CYCLEWAY

Title:  
 LIGHTING PLANS  
 SHEET 8 OF 8

Discipline	CIVIL
Drawing No.	3818705-C-078
Rev.	1



**SECTION THROUGH BEACH ROAD CYCLEWAY SEPARATOR**  
SCALE 1 : 10

No.	Revision	By	Chk	Appd	Date
1	ISSUED FOR CONSTRUCTION	VDLT	SJP	JG	27.06.14



Original Scale (A1)	Design	SJP	MAY 14	Approved For Construction*
1:10 & 1:20	Drawn	VDLT	MAY 14	
Reduced Scale (A3)	Design Checker	PMI	23.06.14	
1:20 & 1:40	Design Checker	SJP	23.06.14	

\* Refer to Revision 1 for Original Signature

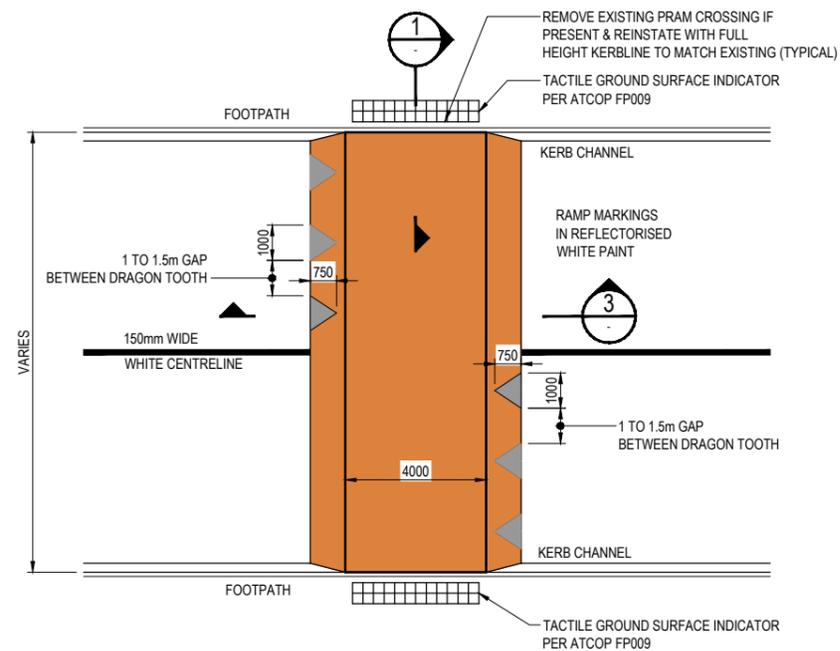


Client: **BEACH ROAD CYCLEWAY**

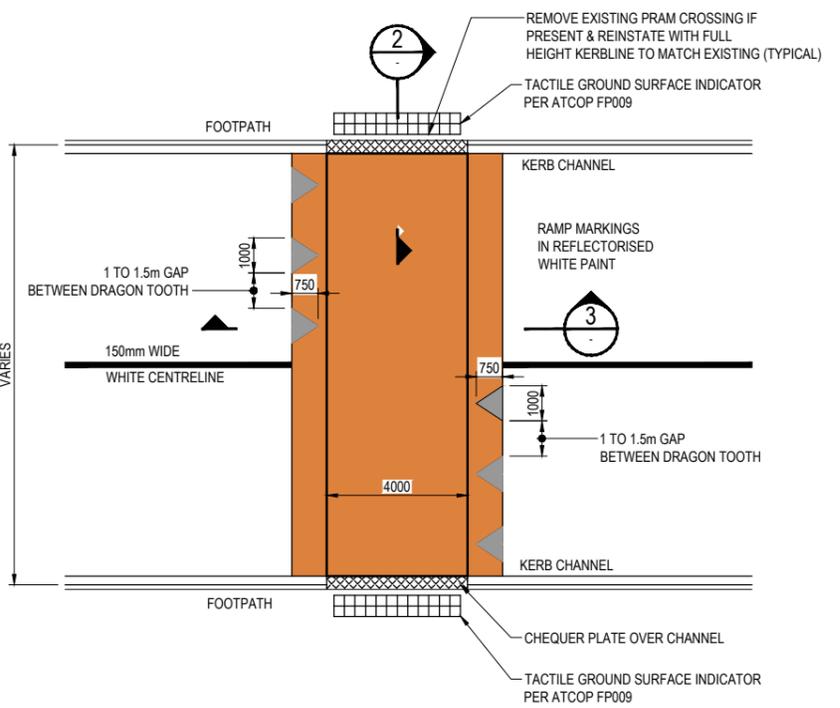
Title: **CIVIL WORKS DETAILS  
CYCLEWAY SEPARATOR  
SHEET 1 OF 4**

**FOR CONSTRUCTION**

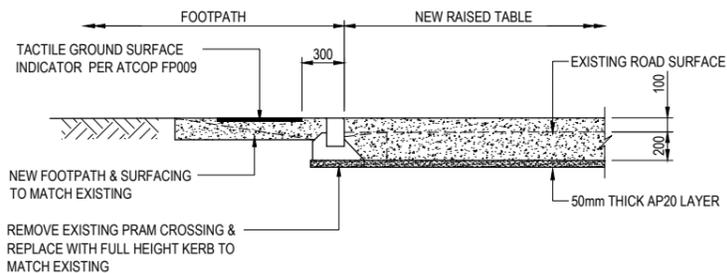
Discipline: **CIVIL**  
Drawing No: **3818705-C-080**  
Rev: **1**



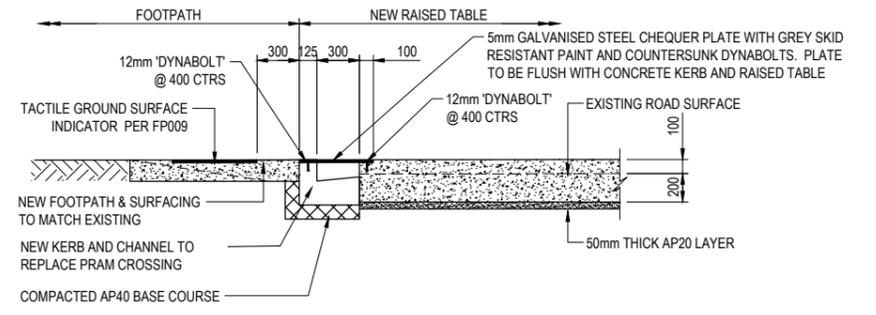
**PLAN - RAISED TABLE**  
SCALE 1 : 100 (A1)



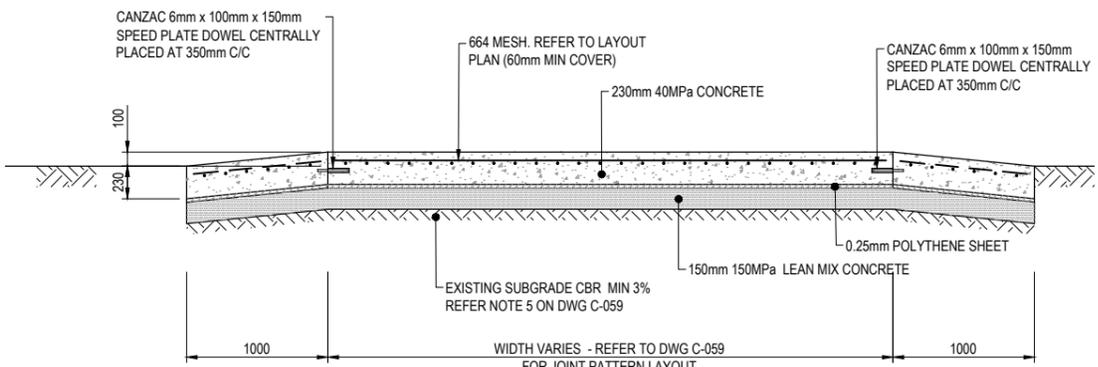
**PLAN - RAISED TABLE WITH CHEQUER PLATE**  
SCALE 1 : 100 (A1)



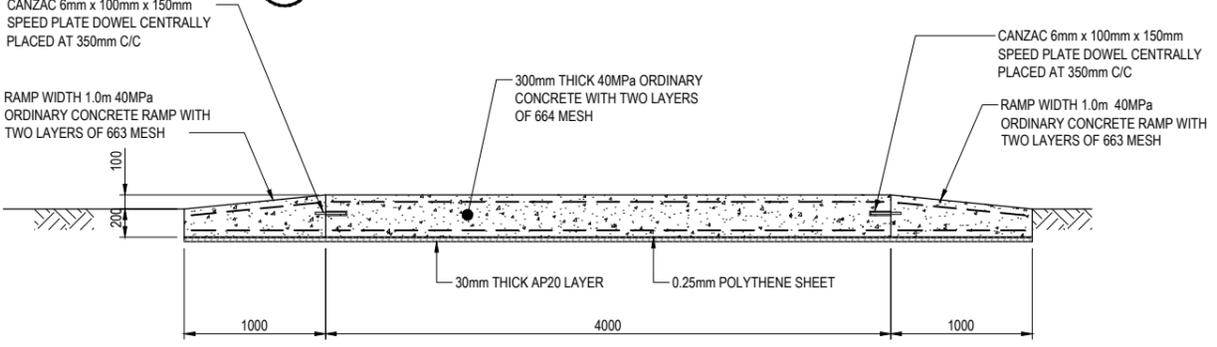
**1 SECTION - PRAM CROSSING/ RAISED TABLE**  
SCALE 1 : 25 (A1)



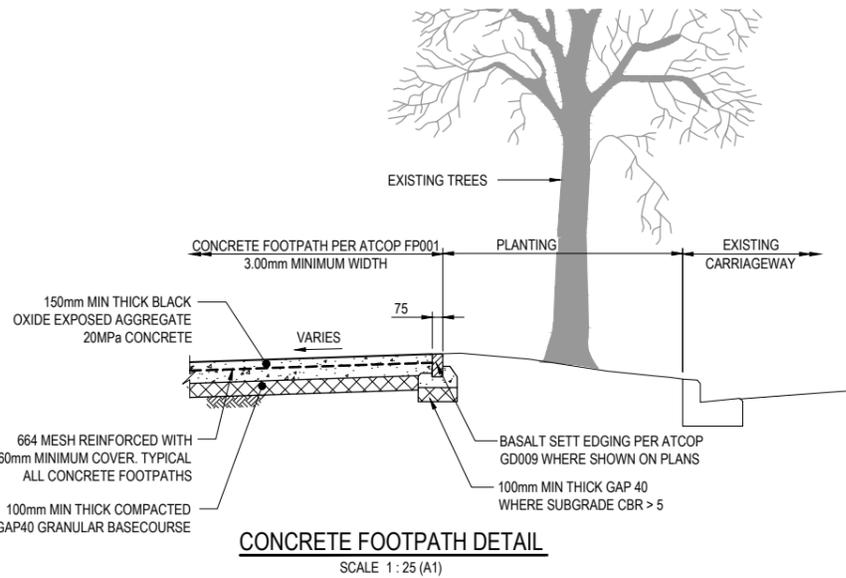
**2 SECTION-PRAM CROSSING/RAISED TABLE WITH CHEQUER PLATE OVER CHANNEL**  
SCALE 1 : 25 (A1)



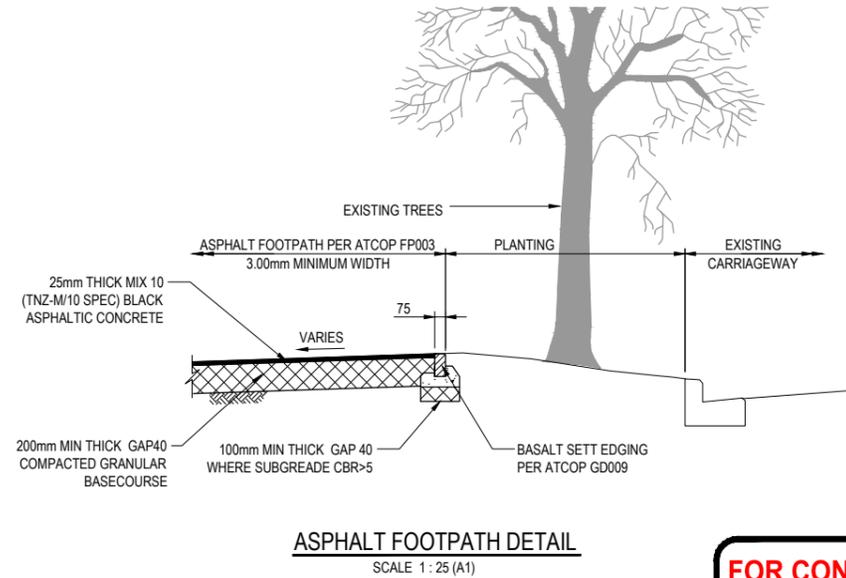
**3 SECTION - RAISED TABLE A (TAPORA / MAHUHU INTERSECTION)**  
SCALE 1 : 25 (A1)



**8 SECTION - RAISED TABLE B**  
SCALE 1 : 25 (A1)



**CONCRETE FOOTPATH DETAIL**  
SCALE 1 : 25 (A1)



**ASPHALT FOOTPATH DETAIL**  
SCALE 1 : 25 (A1)

1	ISSUED FOR CONSTRUCTION	VDLT	SJP	JG	27.06.14
No.	Revision	By	Chk	Appd	Date



Original Scale (A1)	Design	SJP	MAY '14	Approved For Construction*
AS SHOWN	Drawn	VDLT	MAY '14	
Reduced Scale (A3)	Design Checker	PMI	23.06.14	
HALF SIZE	Design Checker	SJP	23.06.14	Date

\* Refer to Revision 1 for Original Signature



Client: **BEACH ROAD CYCLEWAY**

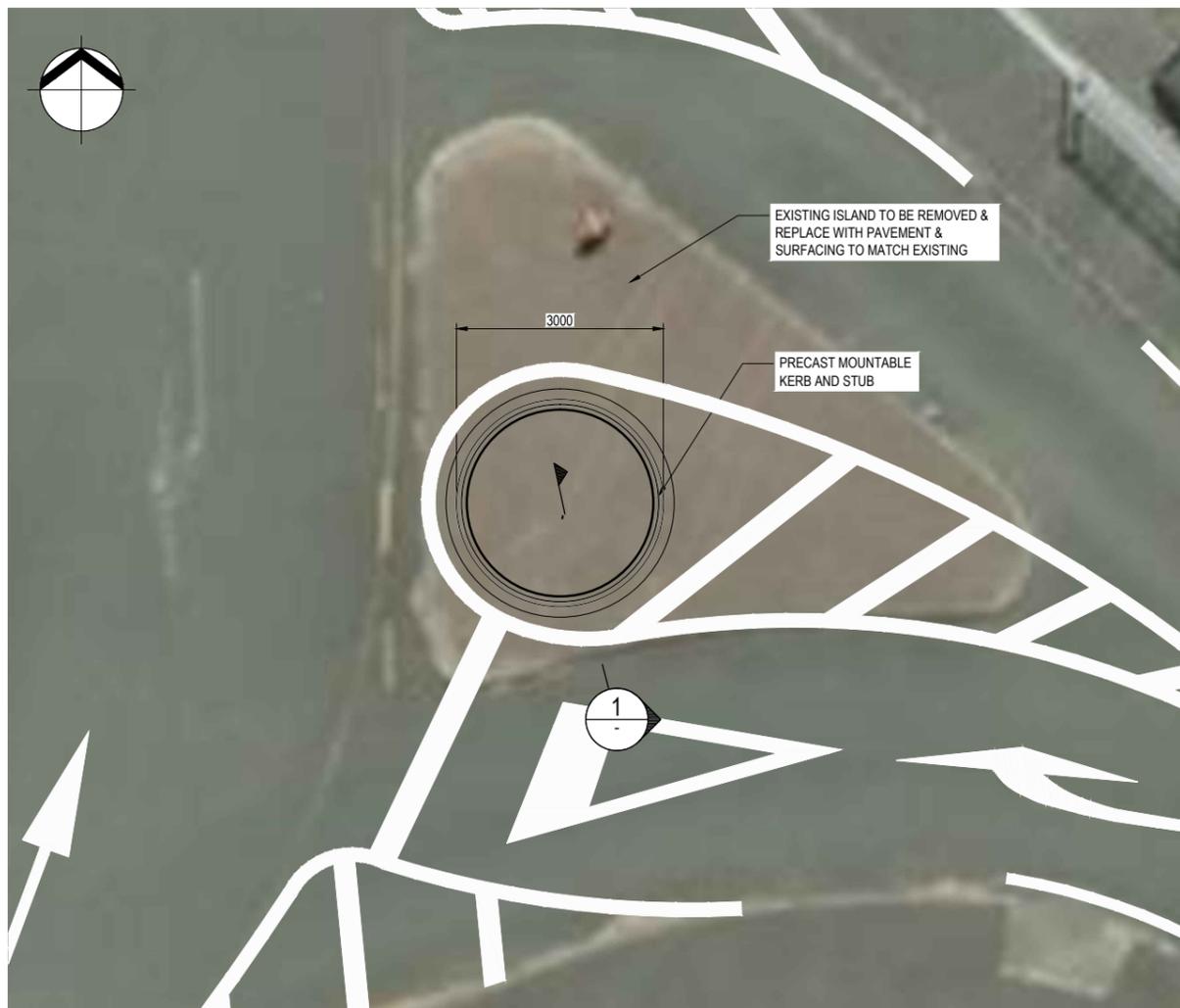
Title: **CIVIL WORKS DETAILS SHEET 2 OF 4**

**FOR CONSTRUCTION**

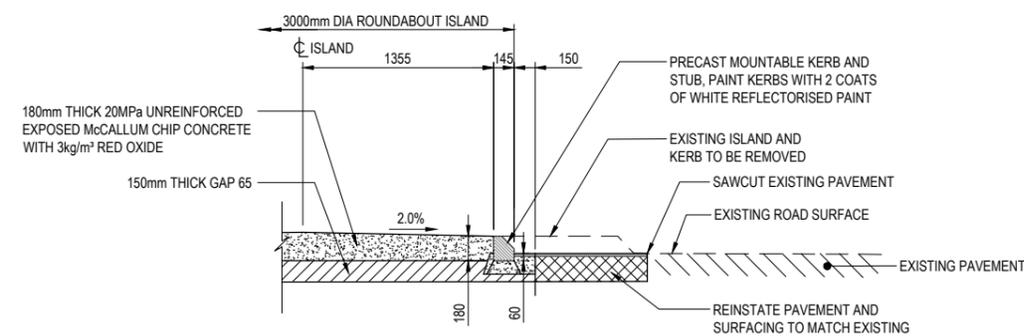
Discipline: **CIVIL**

Document No.: **3818705-C-081**

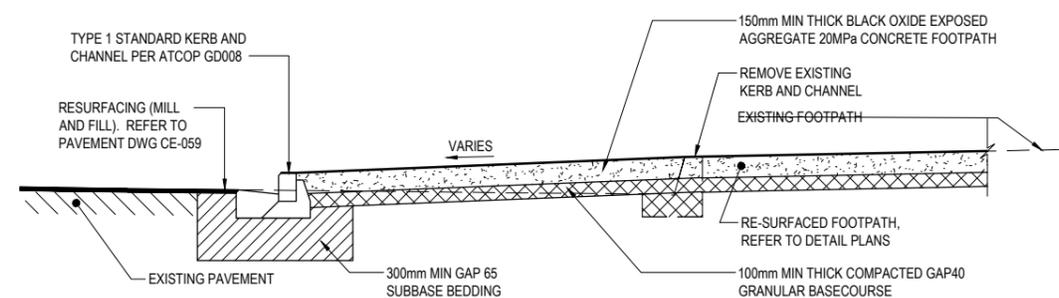
Rev: **1**



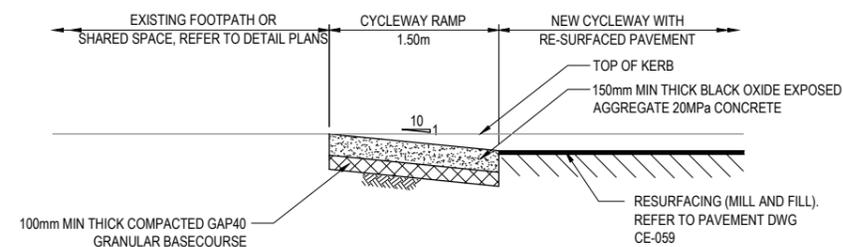
**PLAN - TE TAOU CRESCENT ROUNDABOUT**  
SCALE 1:100 (A1)



**1 SECTION-TE TAOU CRESCENT ROUNDABOUT**  
SCALE 1:25 (A1)



**2 KERB BUILDOUT DETAIL**  
SCALE 1:25 (A1)



**3 CYCLEWAY RAMP DETAIL**  
SCALE 1:25 (A1)

**FOR CONSTRUCTION**

No.	Revision	By	Chk	Appd	Date
1	ISSUED FOR CONSTRUCTION	VDLT	SJP	JG	27.06.14



Original Scale (A1)	AS SHOWN	Design	SJP	MAY 14	Approved For Construction*
Reduced Scale (A3)	HALF SIZE	Drawn	VDLT	MAY 14	
		Dwg Verifier	PMI	23.06.14	
		Dwg Check	SJP	23.06.14	

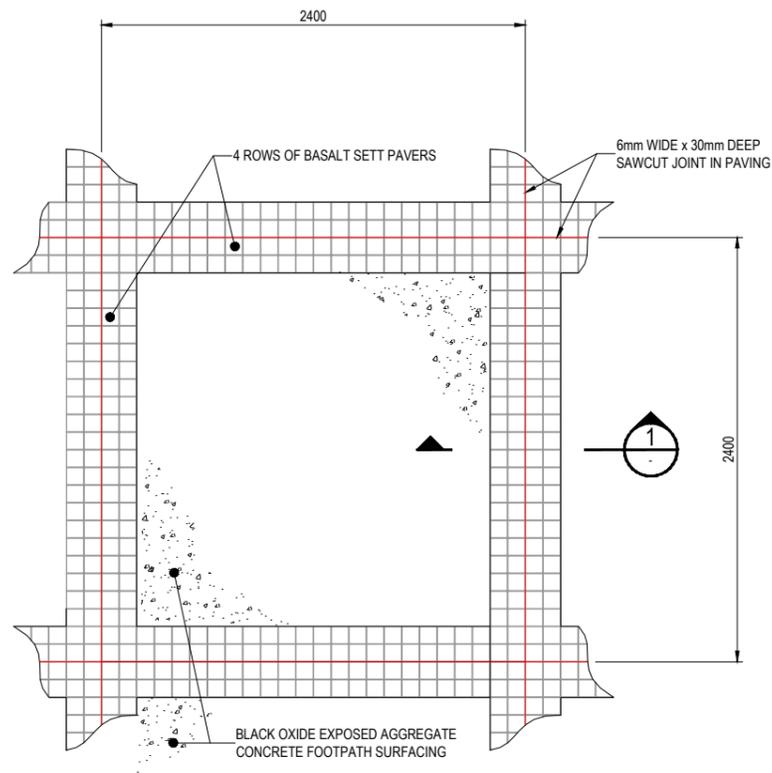
\* Refer to Revision 1 for Original Signature



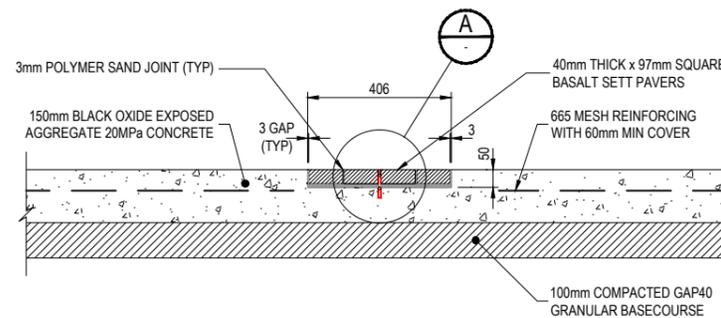
Client: **Auckland Transport**  
Project: **BEACH ROAD CYCLEWAY**

Title: **CIVIL WORKS DETAILS SHEET 2 OF 4**

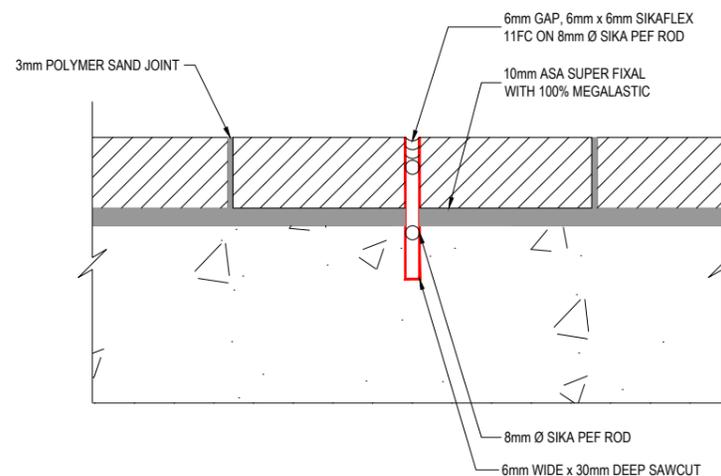
Discipline	CIVIL
Drawing No.	3818705-C-082
Rev.	1



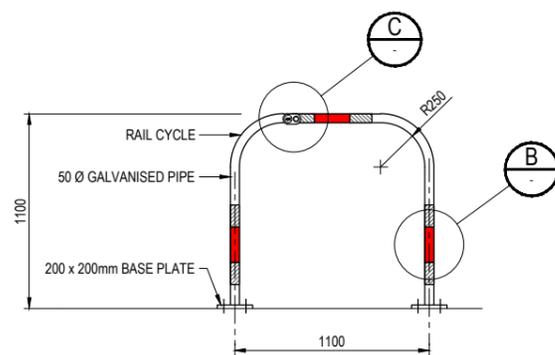
**PLAN - SHARED SPACE FOOTPATH WITH BASALT PAVERS PATTERN**  
SCALE 1 : 20 (A1)



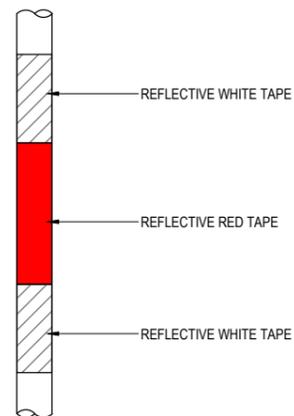
**1 SECTION THROUGH BASALT PAVERS**  
SCALE 1 : 10 (A1)



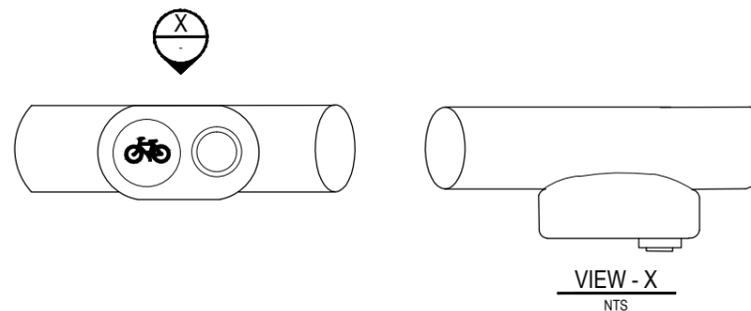
**A DETAIL - SAWCUT JOINT IN PAVING**  
SCALE 1 : 2 (A1)



**CYCLE RAIL DETAIL**  
SCALE 1 : 20 (A1)



**B REFLECTIVE TAPE TYPICAL DETAIL**  
SCALE 1 : 5 (A1)



**C PUSH BUTTON DETAIL**  
NTS

**NOTE:**

1. BASALT PAVERS TO BE ADHERED TO THE CONCRETE SLAB WITH 10mm ASA SUPER FIXAL WITH 100% MEGALASTIC AND THE 3mm JOINTS GROUTED WITH POLYMER SAND.

**FOR CONSTRUCTION**

No.	Revision	By	Chk	Appd	Date
1	ISSUED FOR CONSTRUCTION	VDLT	SJP	JG	27.06.14



Original Scale (A1)	Design	SJP	MAY 14	Approved For Construction*
AS SHOWN	Drawn	VDLT	MAY 14	
Reduced Scale (A3)	Design Checker	PMI	23.06.14	
HALF SCALE	Design Check	SJP	23.06.14	Date -

\* Refer to Revision 1 for Original Signature



Client: **Auckland Transport**  
Project: **BEACH ROAD CYCLEWAY**

Title: **CIVIL WORKS DETAILS SHEET 4 OF 4**

Discipline	CIVIL
Drawing No.	3818705-C-083
Rev.	1