

SHOALHAVEN CITY COUNCIL

PREPARED BY TECHNICAL SERVICES



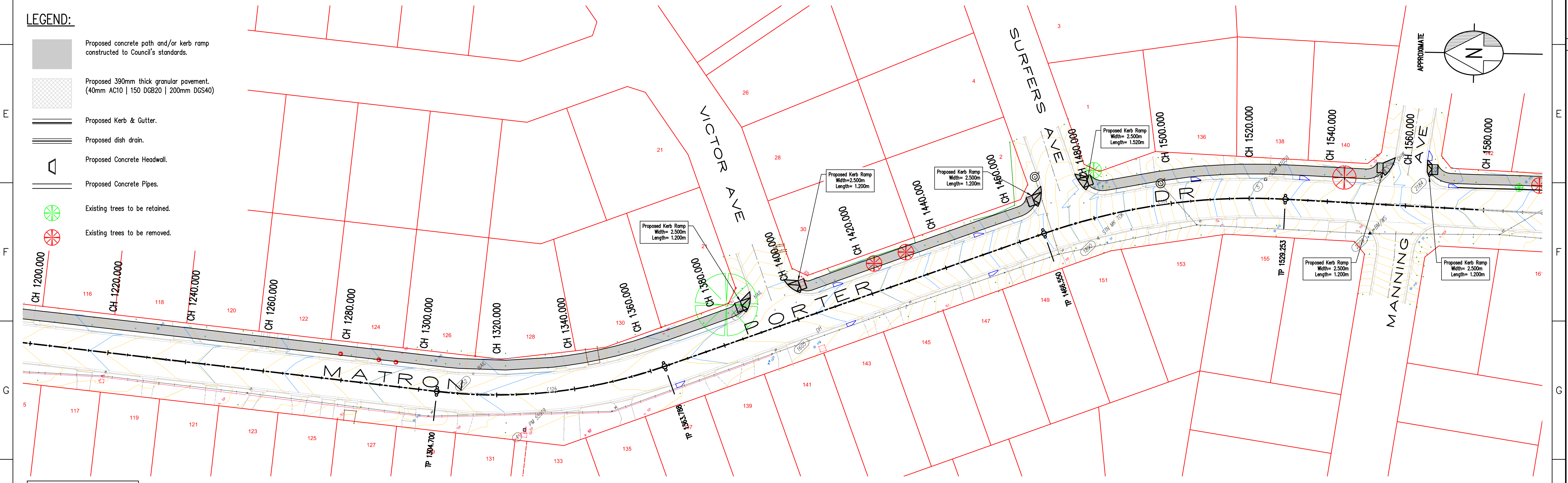
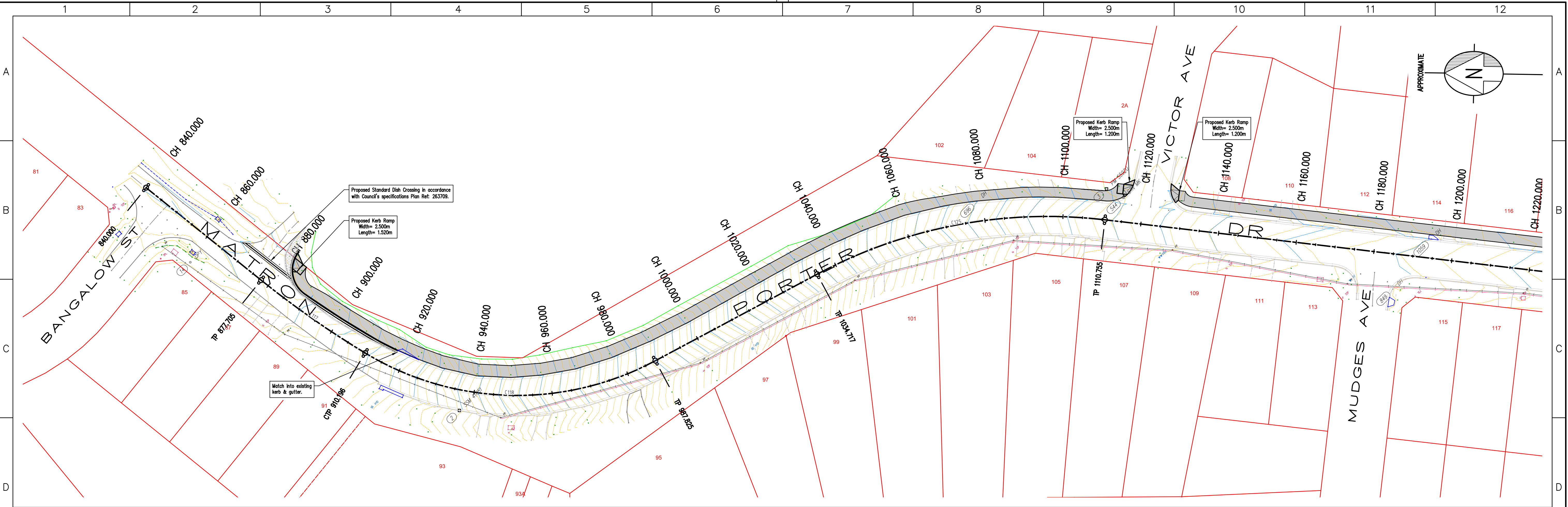
DRAWING No.	DESCRIPTION OF SHEET
01	LAYOUT PLAN (1 of 3)
02	LAYOUT PLAN (2 of 3)
03	LAYOUT PLAN (3 of 3) & SURVEY CONTROL
04	REFUGE LAYOUT & SETOUT PLAN
05	LAYOUT PLAN & KERB LONGITUDINAL SECTIONS (1 of 2)
06	LAYOUT PLAN & KERB LONGITUDINAL SECTIONS (2 of 2)
07	CROSS SECTIONS - CL_01 (1 of 7)
08	CROSS SECTIONS - CL_01 (2 of 7)
09	CROSS SECTIONS - CL_01 (3 of 7)
10	CROSS SECTIONS - CL_01 (4 of 7)
11	CROSS SECTIONS - CL_01 (5 of 7)
12	CROSS SECTIONS - CL_01 (6 of 7)
13	CROSS SECTIONS - CL_01 (7 of 7) & CONSTRUCTION NOTES
14	CONSTRUCTION DETAILS & TYPICAL SECTIONS
15	LANDSCAPE DETAILS
16	UTILITY SERVICES LOCATION PLAN (1 of 3)
17	UTILITY SERVICES LOCATION PLAN (2 of 3)
18	UTILITY SERVICES LOCATION PLAN (3 of 3)

SHARED USER PATH (SUP)

NARRAWALLEE INLET RESERVE TO GARSIDE ROAD

MATRON PORTER DRIVE, NARRAWALLEE

			AMENDMENT	DATE	CHECKED BY	CLIENT ACCEPTANCE	APPROVED				
					Matthew Apolo UNIT MANAGER ENGINEERING DESIGN SERVICES Matthew Apolo 16/04/2020	Blair Oliver TECHNICAL SERVICES BLAIR OLIVER 28/04/2020	SIGNED: Tom Dimec SM ASSET MANAGEMENT Tom Dimec DATE: 28/04/2020	PLAN No. 5247			



- LEGEND:**
- Proposed concrete path and/or kerb ramp constructed to Council's standards.
 - Proposed 390mm thick granular pavement. (40mm AC10 | 150 DGB20 | 200mm DGS40)
 - Proposed Kerb & Gutter.
 - Proposed dish drain.
 - Proposed Concrete Headwall.
 - Proposed Concrete Pipes.
 - Existing trees to be retained.
 - Existing trees to be removed.

Landscape planting to client satisfaction pending final budget following completion of civil works.

AMENDMENT		DATE

PH. (02) 4429 3111
FAX. (02) 4422 1816

DO NOT DOUBLE YOUR TROUBLE
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DO NOT SCALE

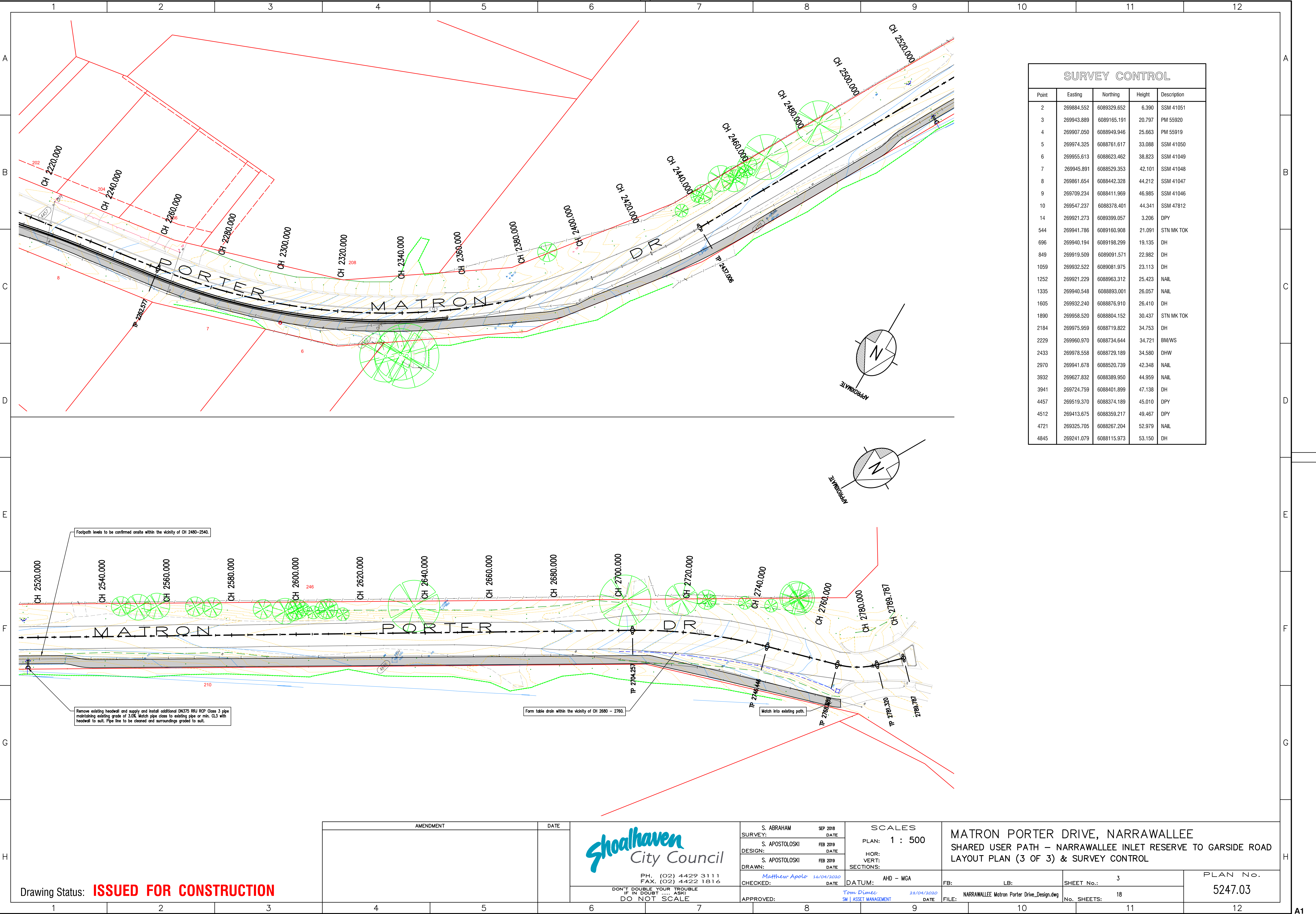
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SURVEY:	DATE
S. APOSTOLOSKI	FEB 2019
DESIGN:	DATE
S. APOSTOLOSKI	FEB 2019
DRAWN:	DATE
Matthew Apolo	26/04/2020
CHECKED:	DATE
APPROVED:	DATE

SCALES	
PLAN: 1 : 500	
HOR:	VERT:
SECTIONS:	
DATUM: AHD - MGA	

MATRON PORTER DRIVE, NARRAWALLEE SHARED USER PATH - NARRAWALLEE INLET RESERVE TO GARSIDE ROAD LAYOUT PLAN (1 OF 3)	
FB:	LB:
SHEET No.: 1	
No. SHEETS: 18	
PLAN No. 5247.01	

FILE: NARRAWALLEE Matron Porter Drive_Design.dwg	DATE: 28/04/2020
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Drawing Status: **ISSUED FOR CONSTRUCTION**



Drawing Status: **ISSUED FOR CONSTRUCTION**

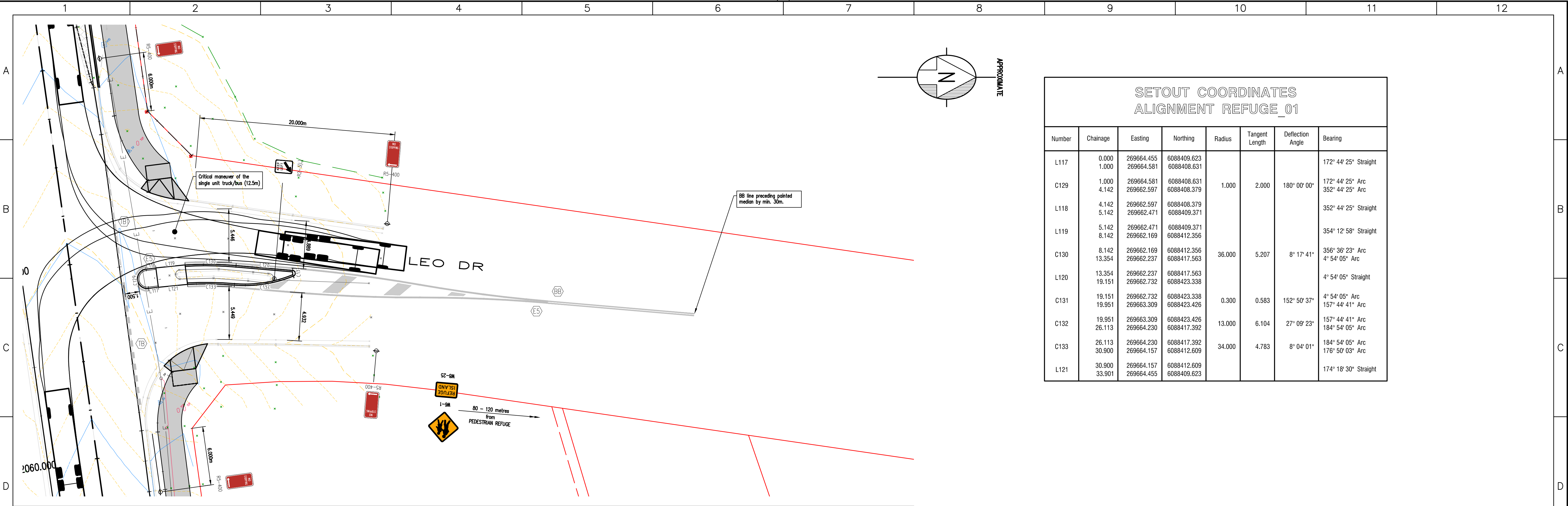


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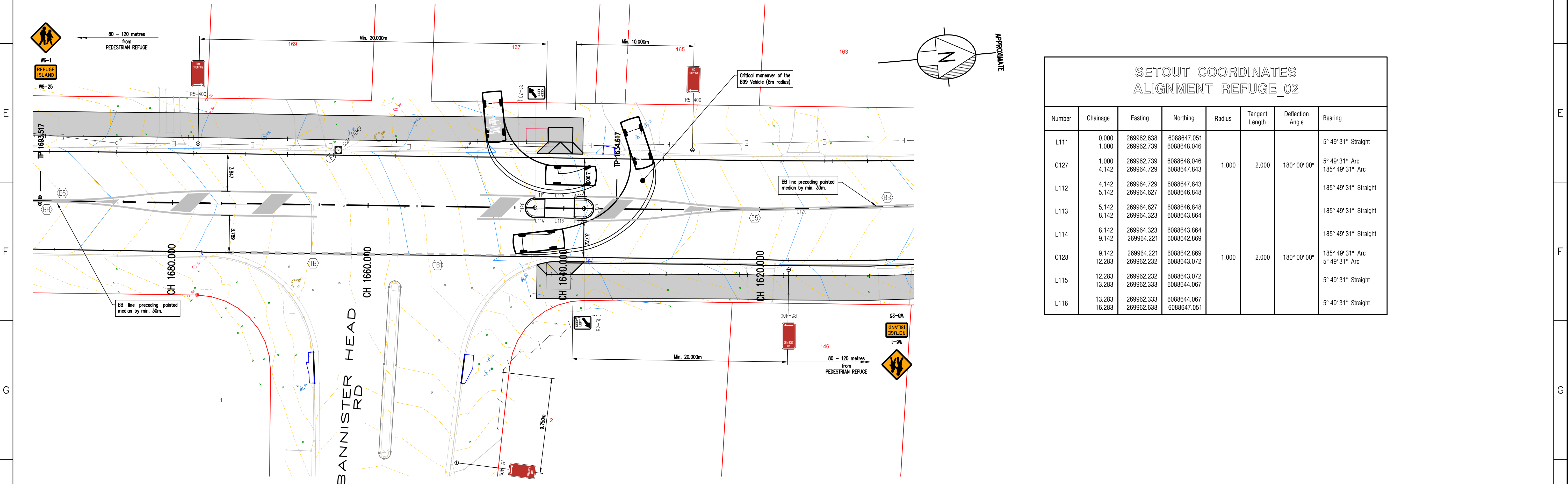
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SURVEY: DATE
S. APOSTOLOSKI FEB 2019
DESIGN: DATE
S. APOSTOLOSKI FEB 2019
DRAWN: DATE
Matthew Apolo 16/04/2020
CHECKED: DATE
APPROVED: DATE

SCALES
PLAN: 1 : 500
HOR:
VERT:
SECTIONS:
DATUM: AHD - MGA
Tom Dimes 28/04/2020
SM | ASSET MANAGEMENT DATE

MATRON PORTER DRIVE, NARRAWALLEE
SHARED USER PATH - NARRAWALLEE INLET RESERVE TO GARSIDE ROAD
LAYOUT PLAN (3 OF 3) & SURVEY CONTROL
FB: LB: SHEET No.: 3
FILE: NARRAWALLEE Matron Porter Drive_Design.dwg No. SHEETS: 18
PLAN No. 5247.03



SETOUT COORDINATES ALIGNMENT REFUGE_01							
Number	Chainage	Easting	Northing	Radius	Tangent Length	Deflection Angle	Bearing
L117	0.000	269664.455	6088409.623	1.000	2.000	180° 00' 00"	172° 44' 25" Straight
C129	1.000	269664.581	6088408.631				172° 44' 25" Arc
	4.142	269662.597	6088408.379				352° 44' 25" Arc
L118	4.142	269662.597	6088408.379				352° 44' 25" Straight
L119	5.142	269662.471	6088409.371	36.000	5.207	8° 17' 41"	354° 12' 58" Straight
	8.142	269662.169	6088412.356				356° 36' 23" Arc
C130	13.354	269662.237	6088417.563				4° 54' 05" Arc
L120	19.151	269662.732	6088423.338				4° 54' 05" Straight
C131	19.151	269662.732	6088423.338	0.300	0.583	152° 50' 37"	4° 54' 05" Arc
	19.951	269663.309	6088423.426				157° 44' 41" Arc
C132	19.951	269663.309	6088423.426	13.000	6.104	27° 09' 23"	157° 44' 41" Arc
	26.113	269664.230	6088417.392				184° 54' 05" Arc
C133	26.113	269664.230	6088417.392	34.000	4.783	8° 04' 01"	184° 54' 05" Arc
	30.900	269664.157	6088412.609				176° 50' 03" Arc
L121	30.900	269664.157	6088412.609				174° 18' 30" Straight



SETOUT COORDINATES ALIGNMENT REFUGE_02							
Number	Chainage	Easting	Northing	Radius	Tangent Length	Deflection Angle	Bearing
L111	0.000	269962.638	6088647.051	1.000	2.000	180° 00' 00"	5° 49' 31" Straight
C127	1.000	269962.739	6088648.046				5° 49' 31" Arc
	4.142	269964.729	6088647.843				185° 49' 31" Arc
L112	4.142	269964.729	6088647.843				185° 49' 31" Straight
L113	5.142	269964.627	6088646.848	1.000	2.000	180° 00' 00"	185° 49' 31" Straight
	8.142	269964.627	6088646.848				185° 49' 31" Arc
C128	12.283	269962.232	6088643.072				5° 49' 31" Arc
L115	12.283	269962.232	6088643.072				5° 49' 31" Straight
L116	13.283	269962.333	6088644.067				5° 49' 31" Straight

Drawing Status: **ISSUED FOR CONSTRUCTION**

AMENDMENT

DATE



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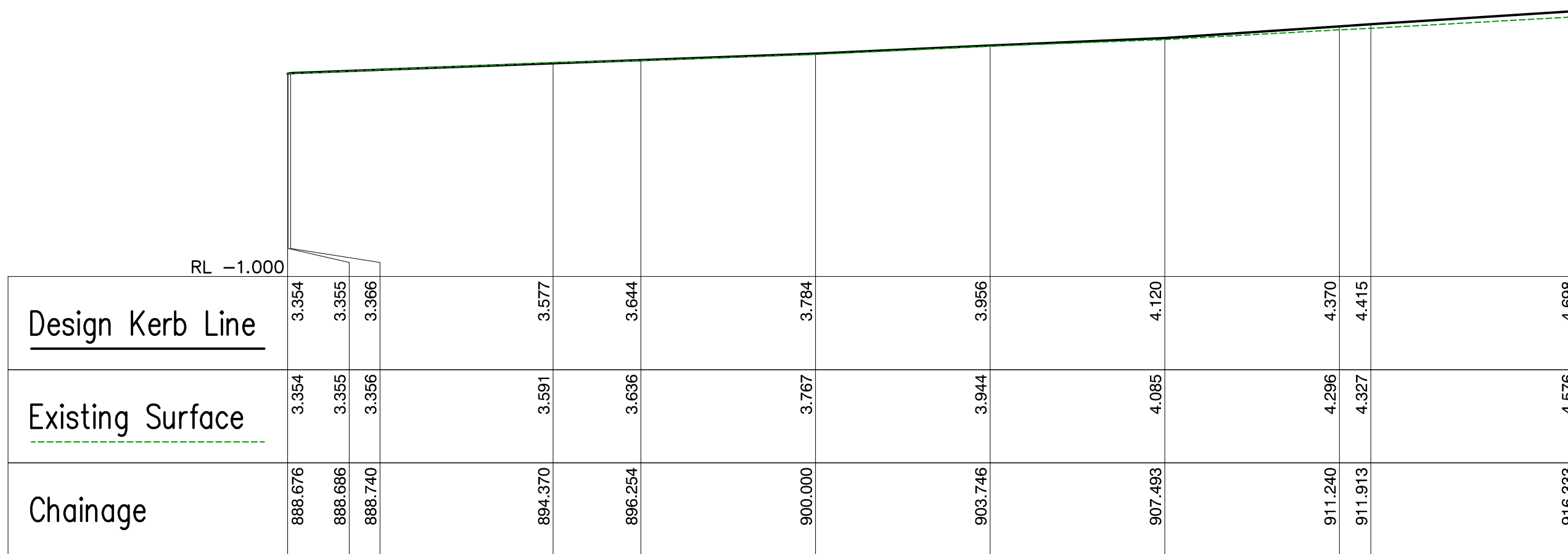
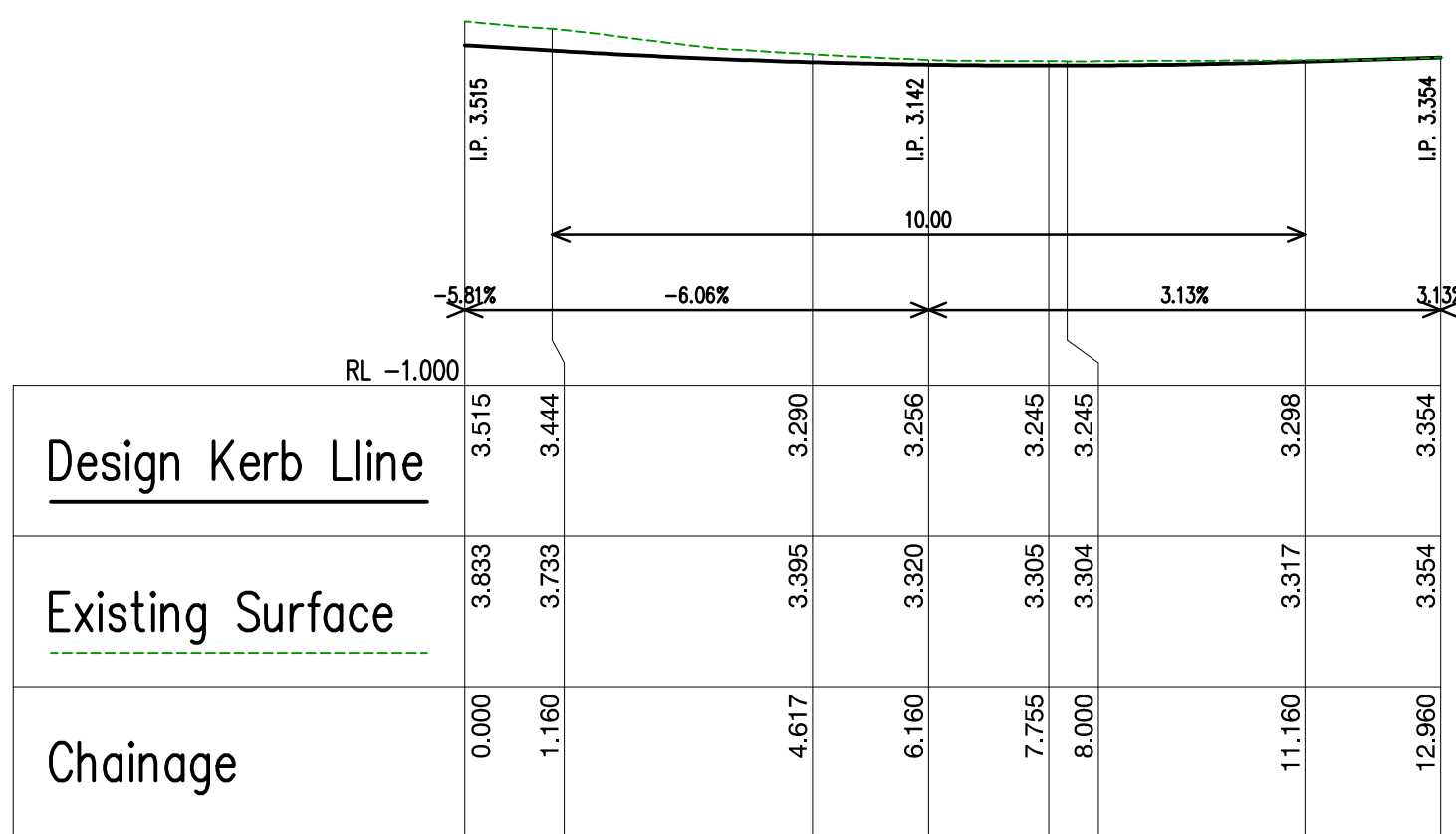
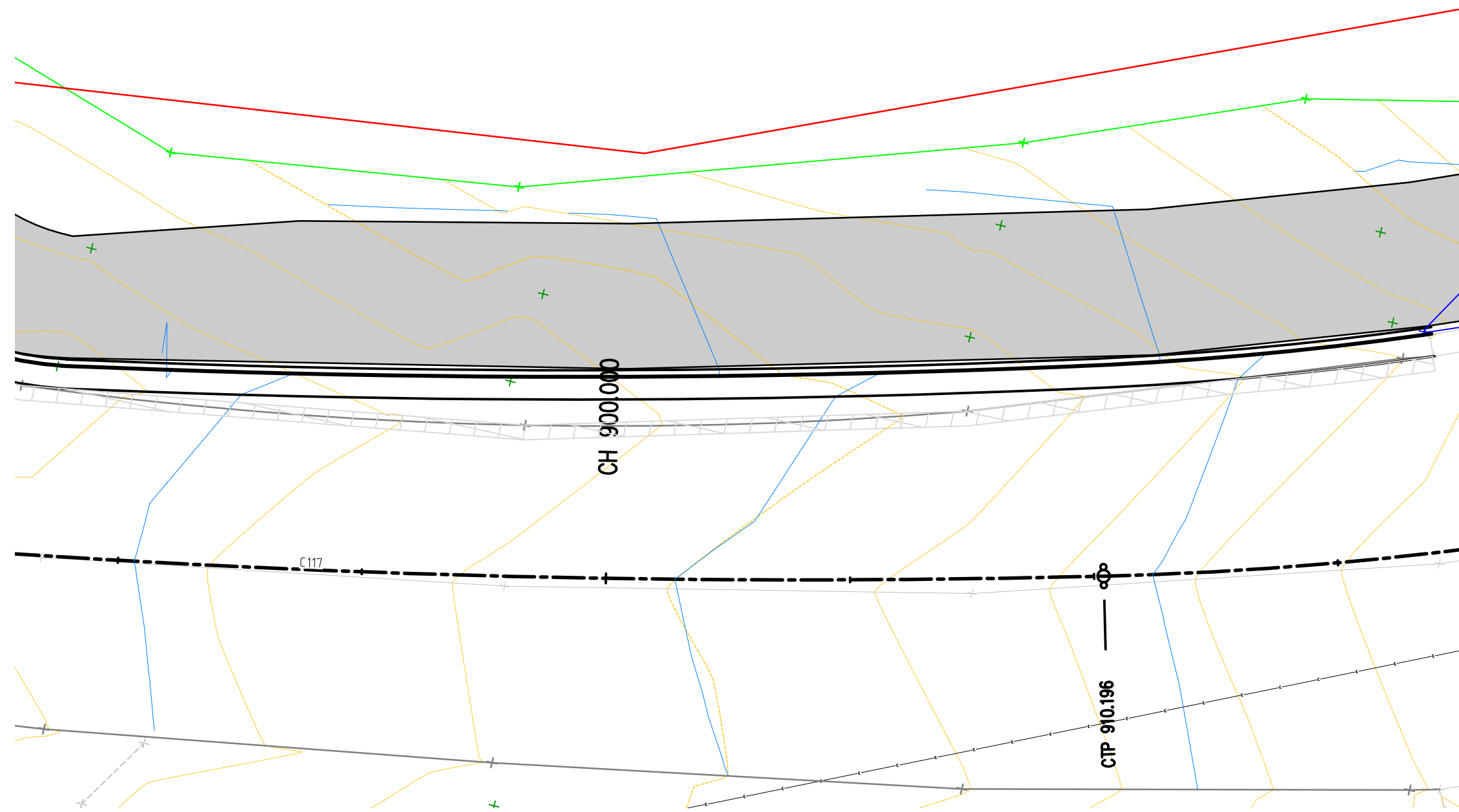
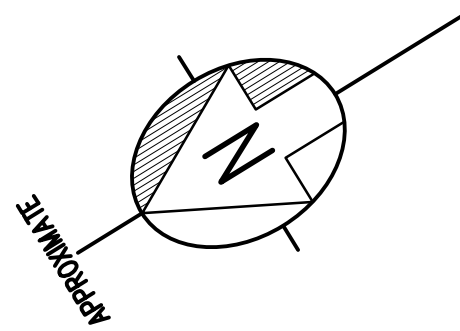
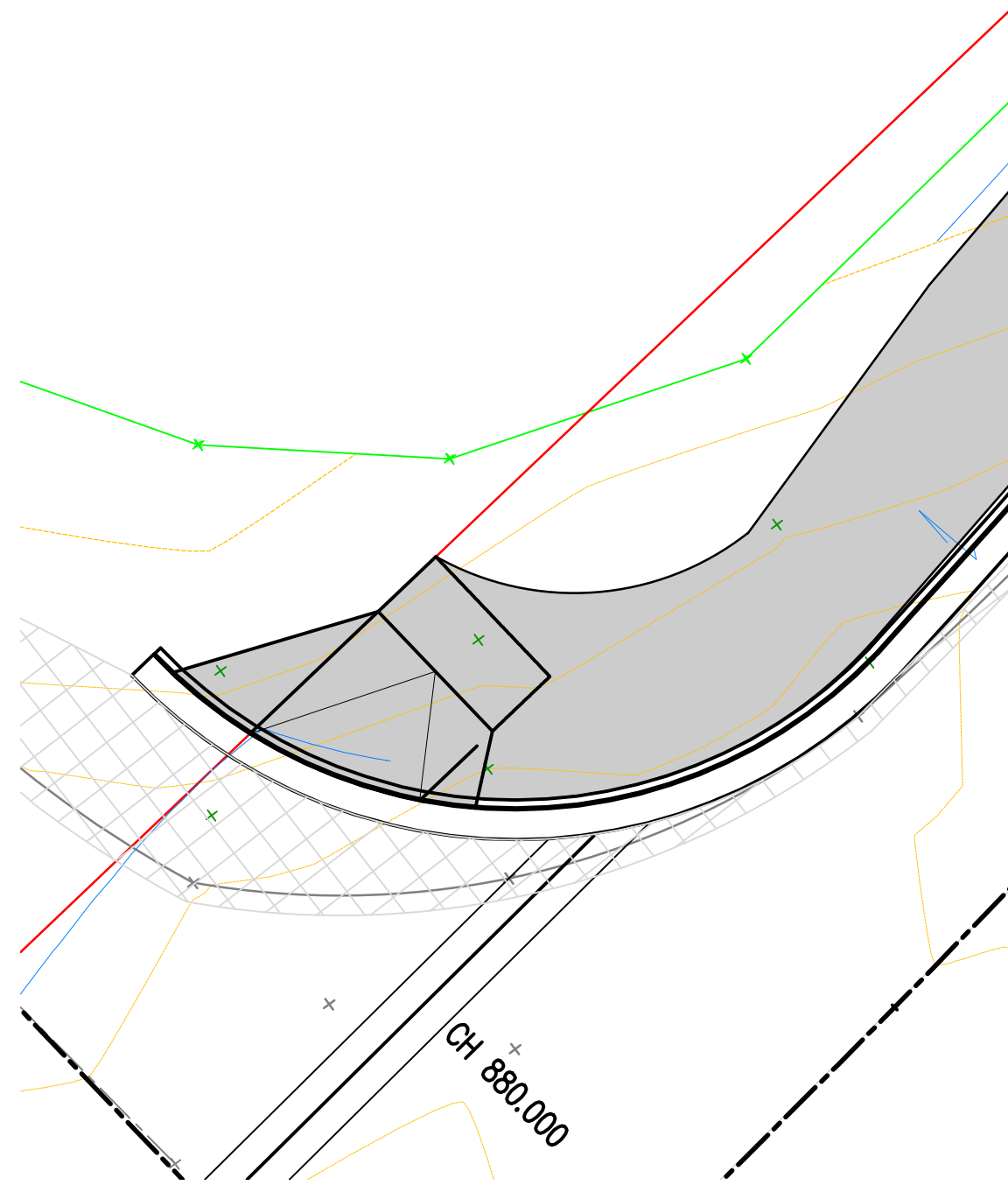
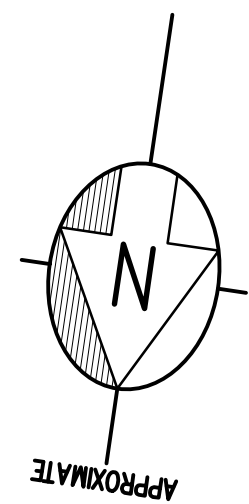
S. ABRAHAM
SURVEY: SEP 2018
DATE
S. APOSTOLOS
DESIGN: FEB 2019
DATE
S. APOSTOLOS
DRAWN: FEB 2019
DATE
Matthew Apolo
CHECKED: 26/04/2020
DATE
APPROVED:

SCALES
PLAN: 1 : 200
HOR:
VERT:
SECTIONS:
DATUM: AHD - MGA
DATE: 28/04/2020
FILE: NARRAWALLEE Matron Porter Drive_Design.dwg

MATRON PORTER DRIVE, NARRAWALLEE
SHARED USER PATH - NARRAWALLEE INLET RESERVE TO GARSIDE ROAD
REFUGE LAYOUT & SETOUT PLAN

FB: LB: SHEET No.: 4
No. SHEETS: 18

PLAN No.
5247.04



Drawing Status: **ISSUED FOR CONSTRUCTION**

AMENDMENT	DATE



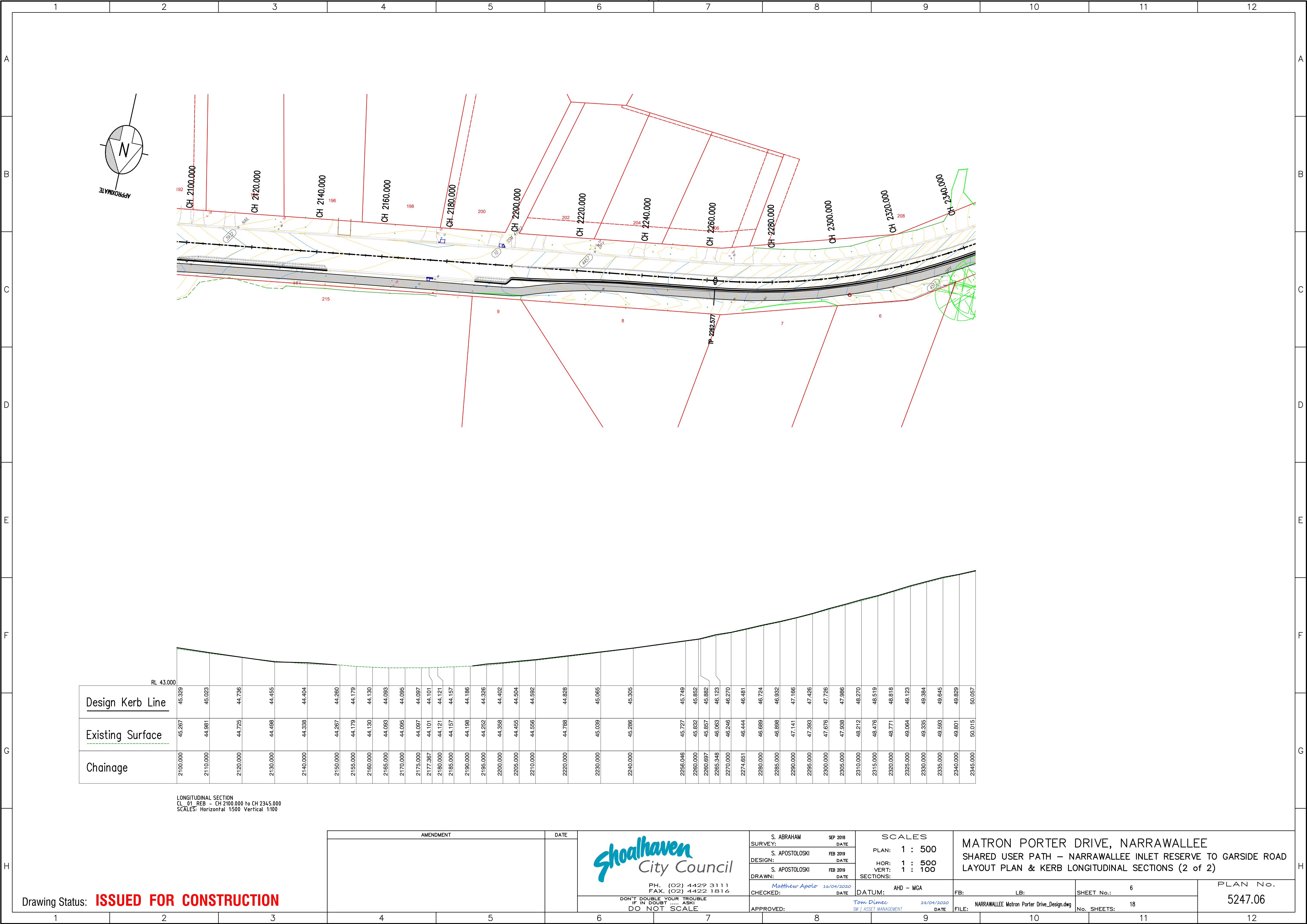
PH. (02) 4429 3111
FAX. (02) 4422 1816

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SURVEY:	S. ABRAHAM	SEP 2018
DESIGN:	S. APOSTOLOSKI	FEB 2019
DRAWN:	S. APOSTOLOSKI	FEB 2019
CHECKED:	Matthew Apolo	16/04/2020
APPROVED:	Tom Dimeo	28/04/2020

SCALES	
PLAN:	1 : 100
HOR:	1 : 100
VERT:	1 : 100
DATUM: AHD - MGA	

MATRON PORTER DRIVE, NARRAWALLEE SHARED USER PATH - NARRAWALLEE INLET RESERVE TO GARSIDE ROAD LAYOUT PLAN & KERB LONGITUDINAL SECTIONS (1 of 2)			
FB:	LB:	SHEET No.:	5
FILE:	NARRAWALLEE Matron Porter Drive_Design.dwg	No. SHEETS:	18
PLAN No.			5247.05



Drawing Status: **ISSUED FOR CONSTRUCTION**

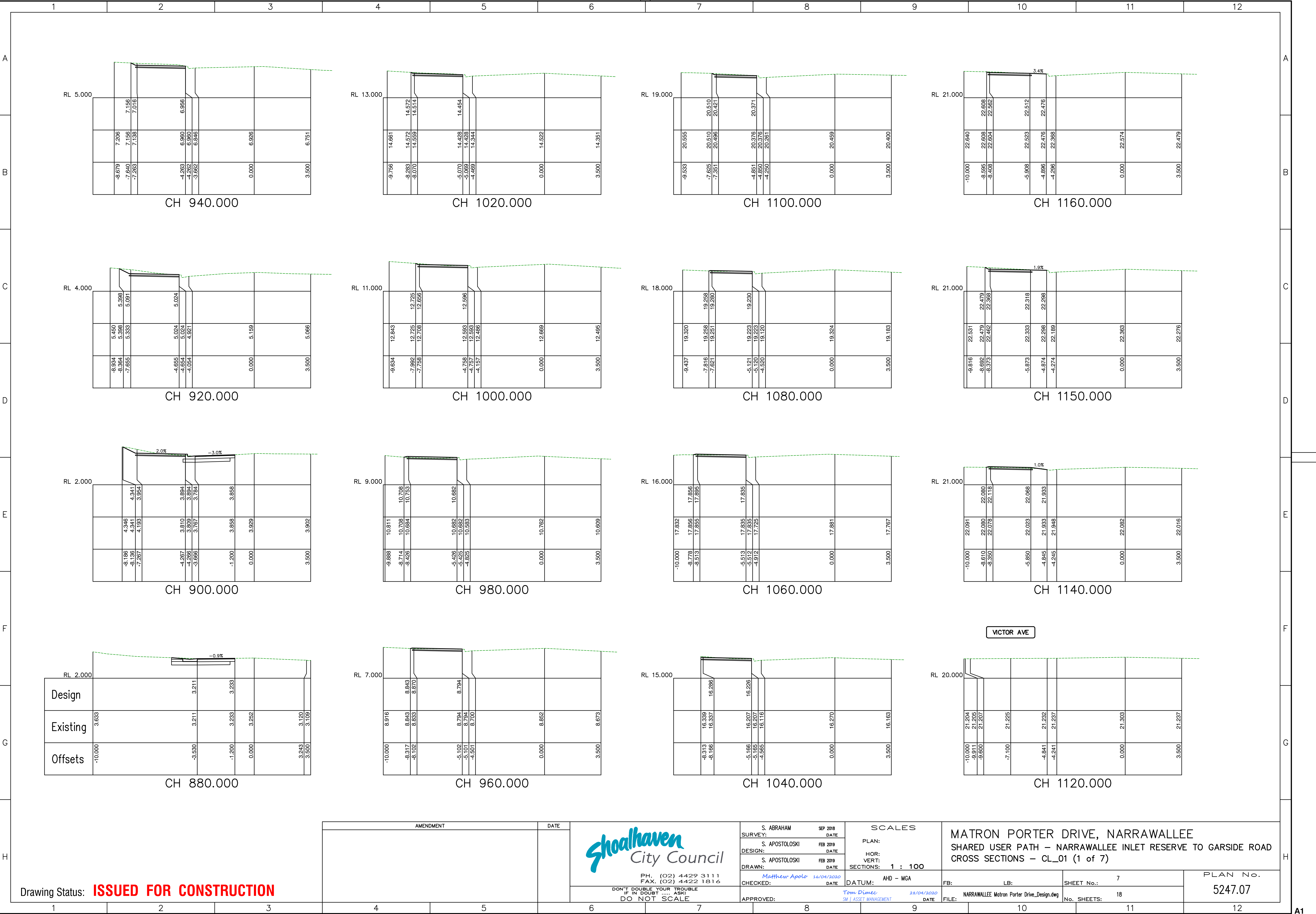


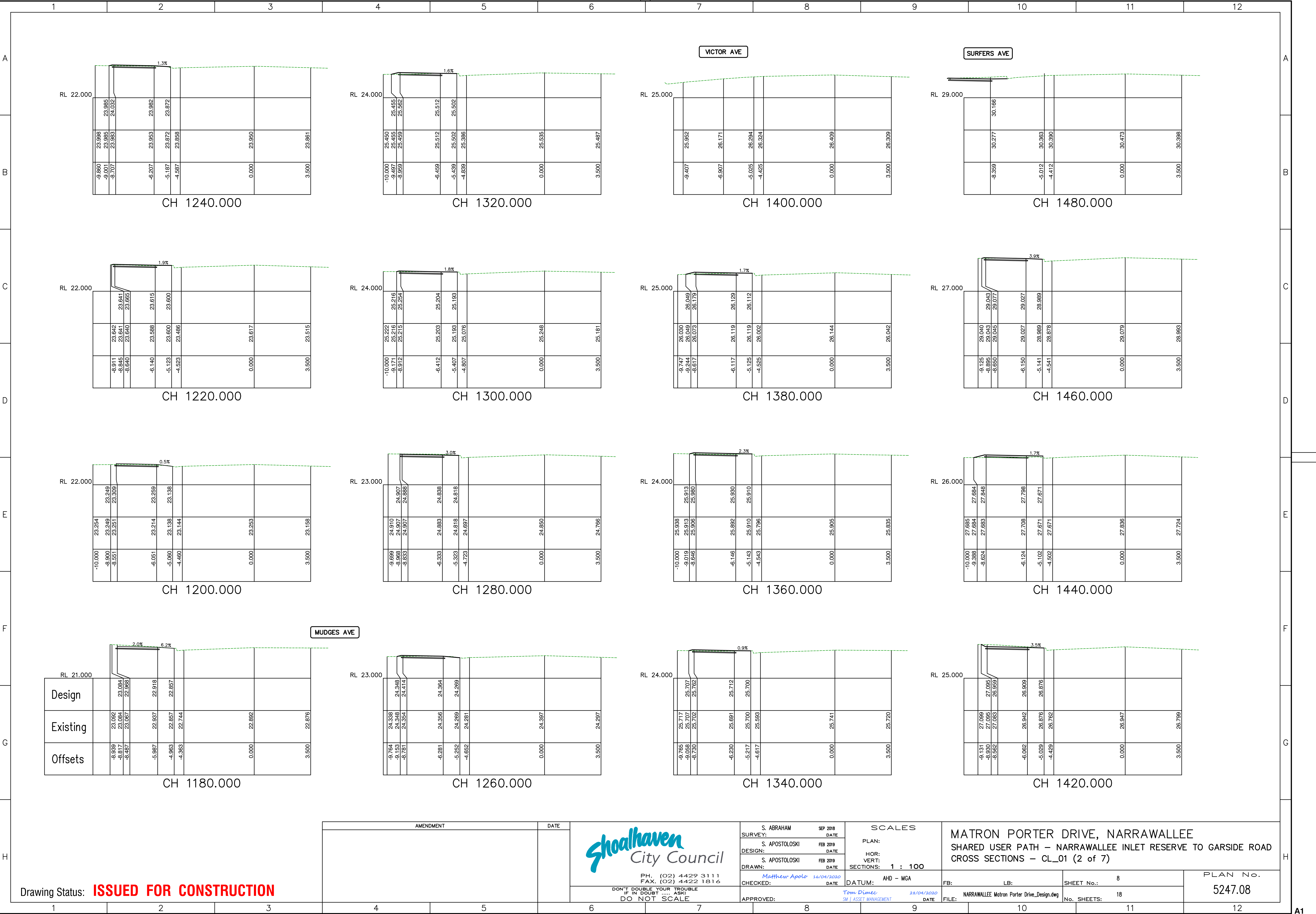
PH. (02) 4429 3111
FAX. (02) 4422 1816
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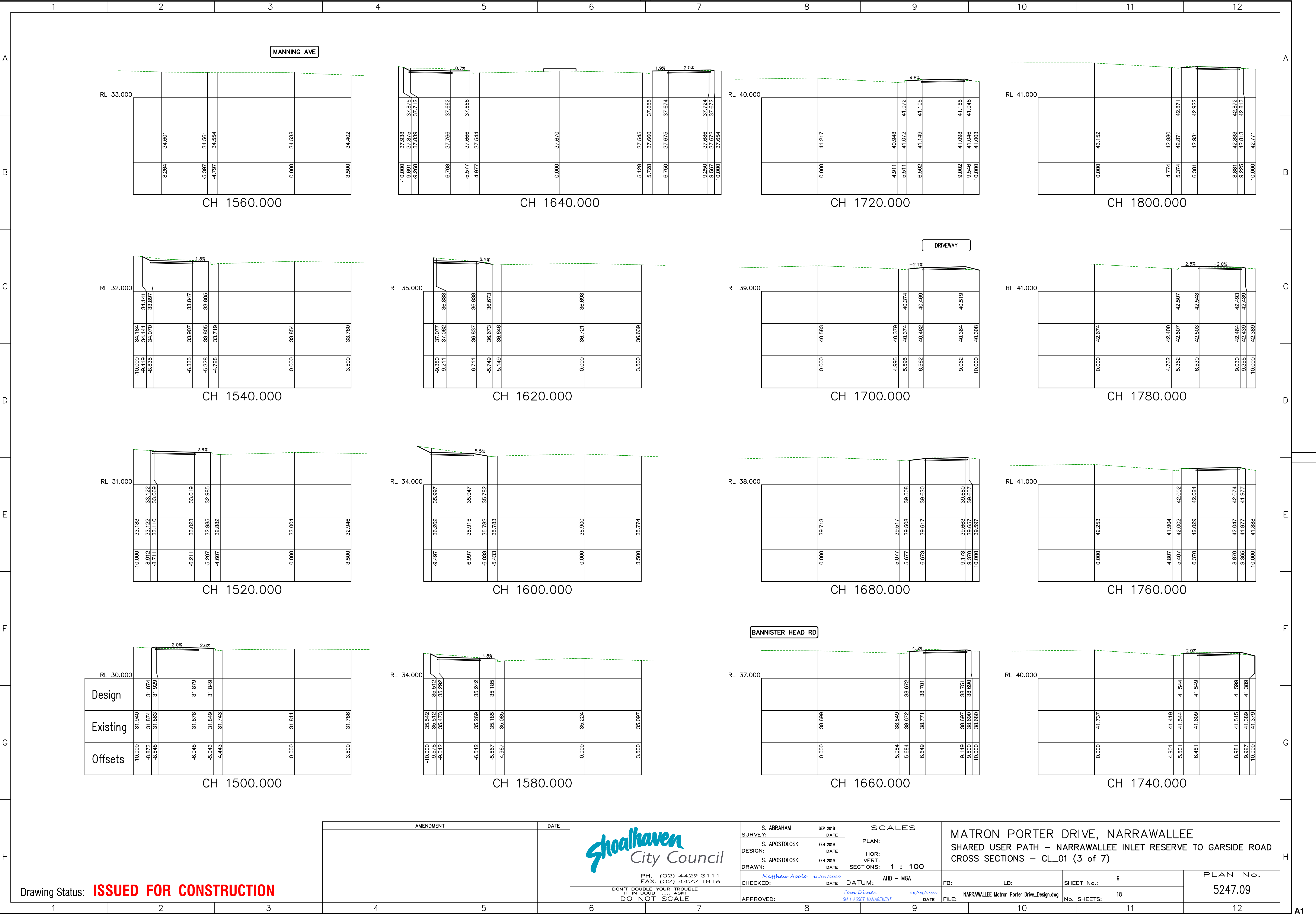
S. ABRAHAM
SURVEY: SEP 2018
S. APOSTOLOSKI
DESIGN: FEB 2019
S. APOSTOLOSKI
DRAWN: FEB 2019
Matthew Apolo 30/04/2020
CHECKED: DATE
APPROVED:

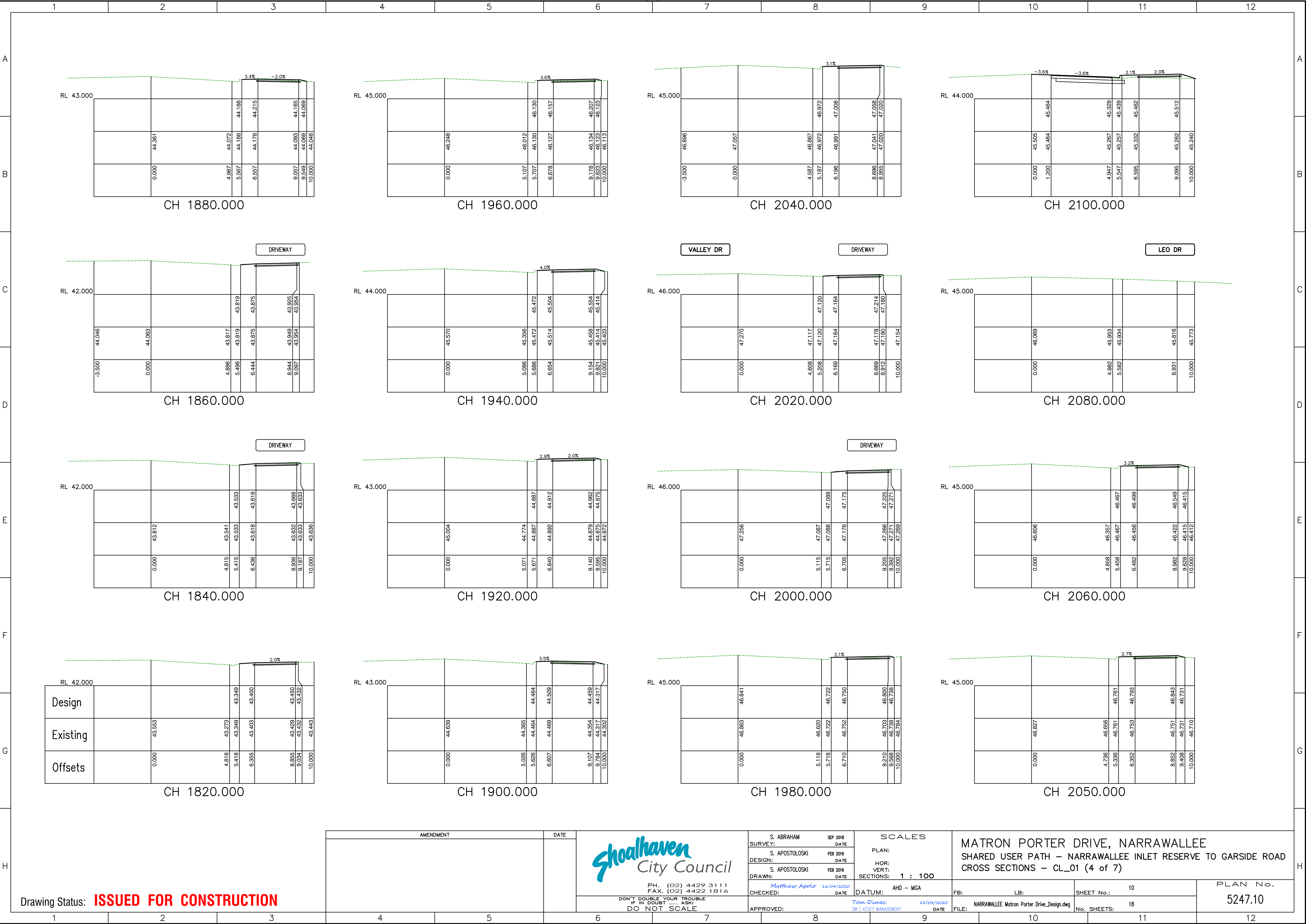
SCALES
PLAN: 1 : 500
HOR: 1 : 500
VERT: 1 : 100
SECTIONS:
DATUM: AHD - MGA
DATE

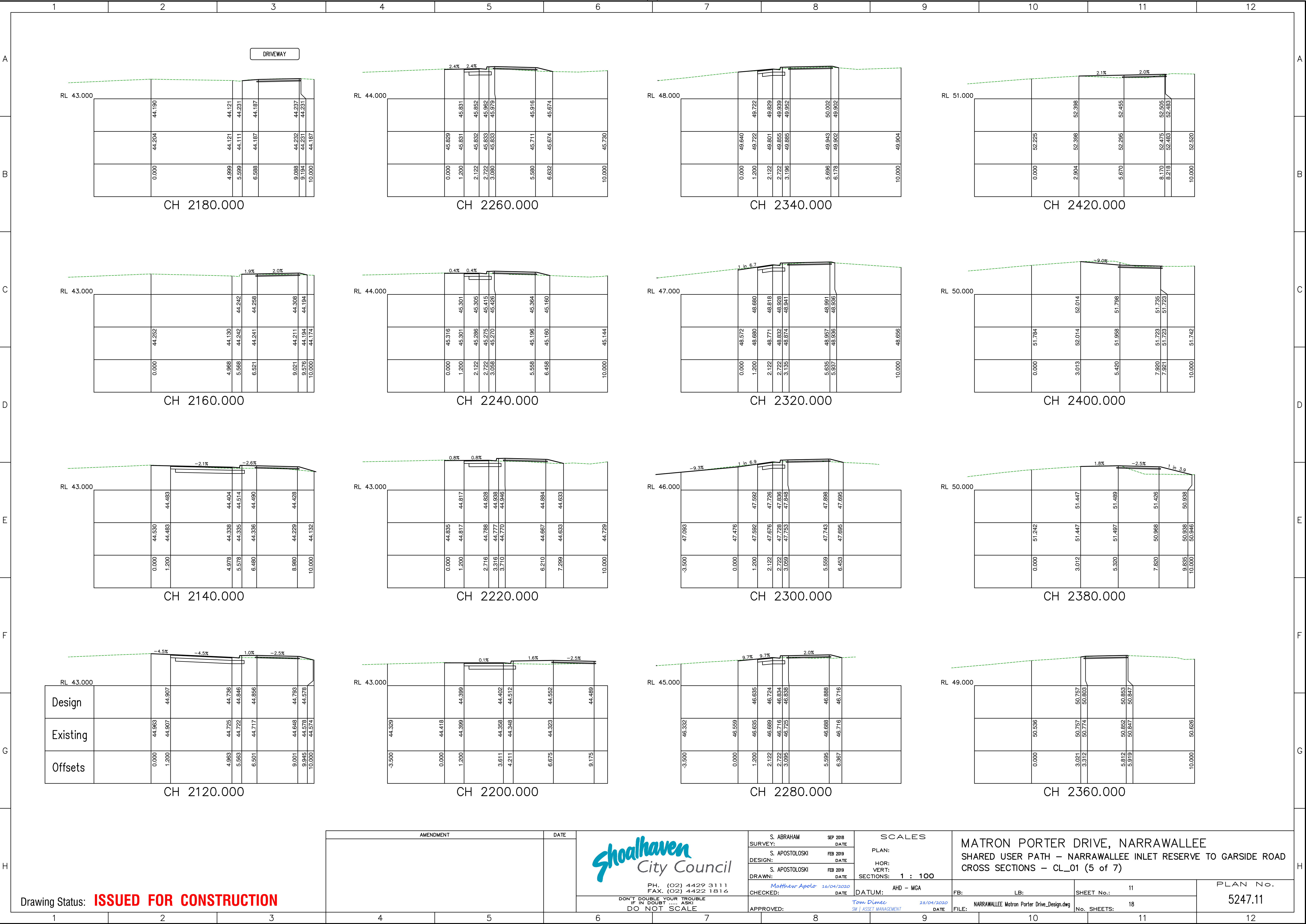
MATRON PORTER DRIVE, NARRAWALLEE
SHARED USER PATH - NARRAWALLEE INLET RESERVE TO GARSIDE ROAD
LAYOUT PLAN & KERB LONGITUDINAL SECTIONS (2 of 2)
SHEET No.: 6
No. SHEETS: 18
PLAN No. 5247.06

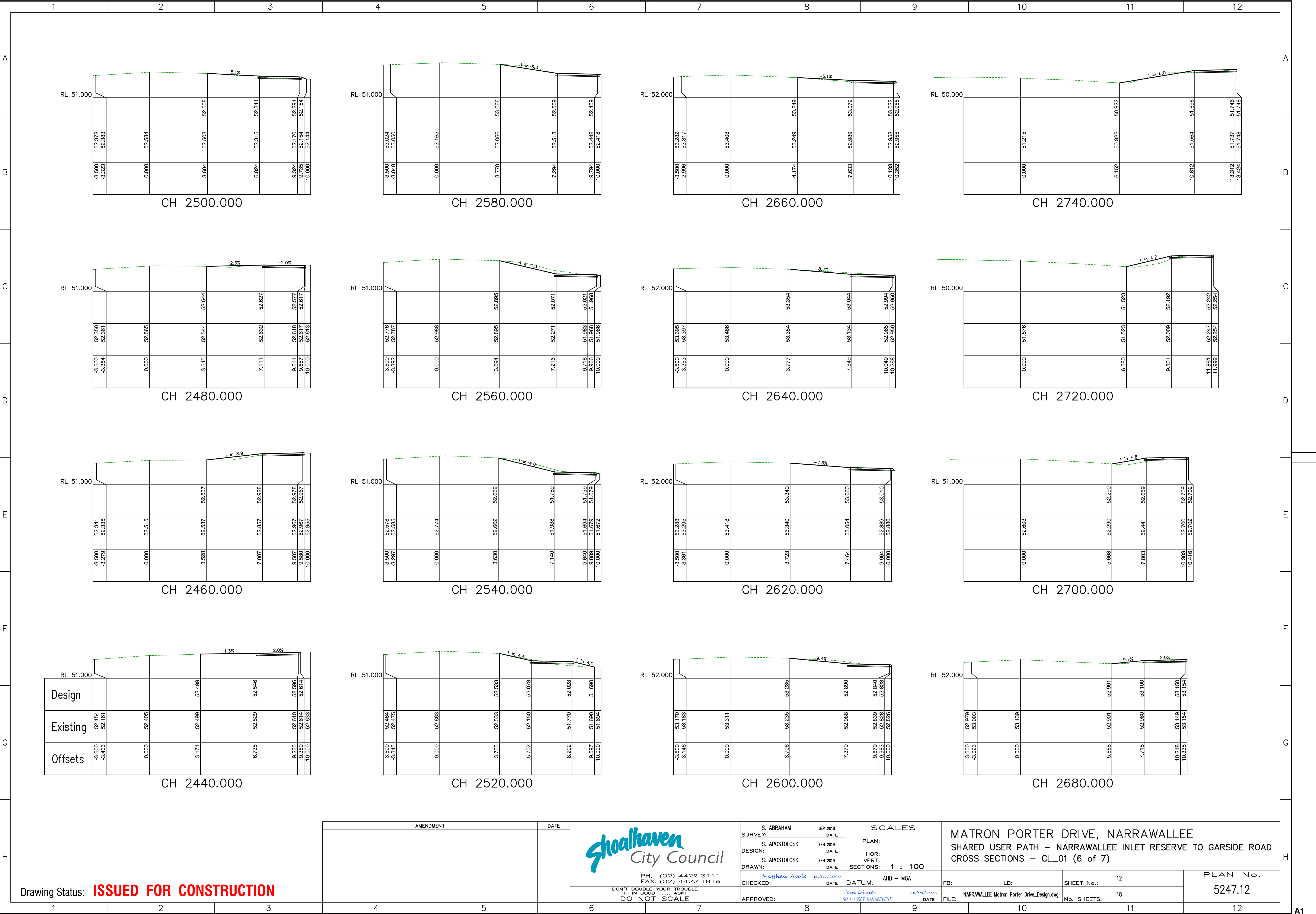












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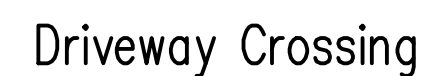
Typical Footpath Jointing Layout Plan

Scale 1:100_1

EJ - Expansion Joint
CJ - Contraction Joint



Scale 1:20



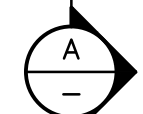
Scale 1:20



(EJ)



(CJ)

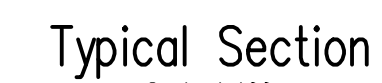


Kerb Ramp Detail

Scale 1:50

* Dimensions associated with a 1.520m long Kerb Ramp.

NOTE:
ALL Kerb Ramps lengths are
nominated on layout plans.



Scale 1:100

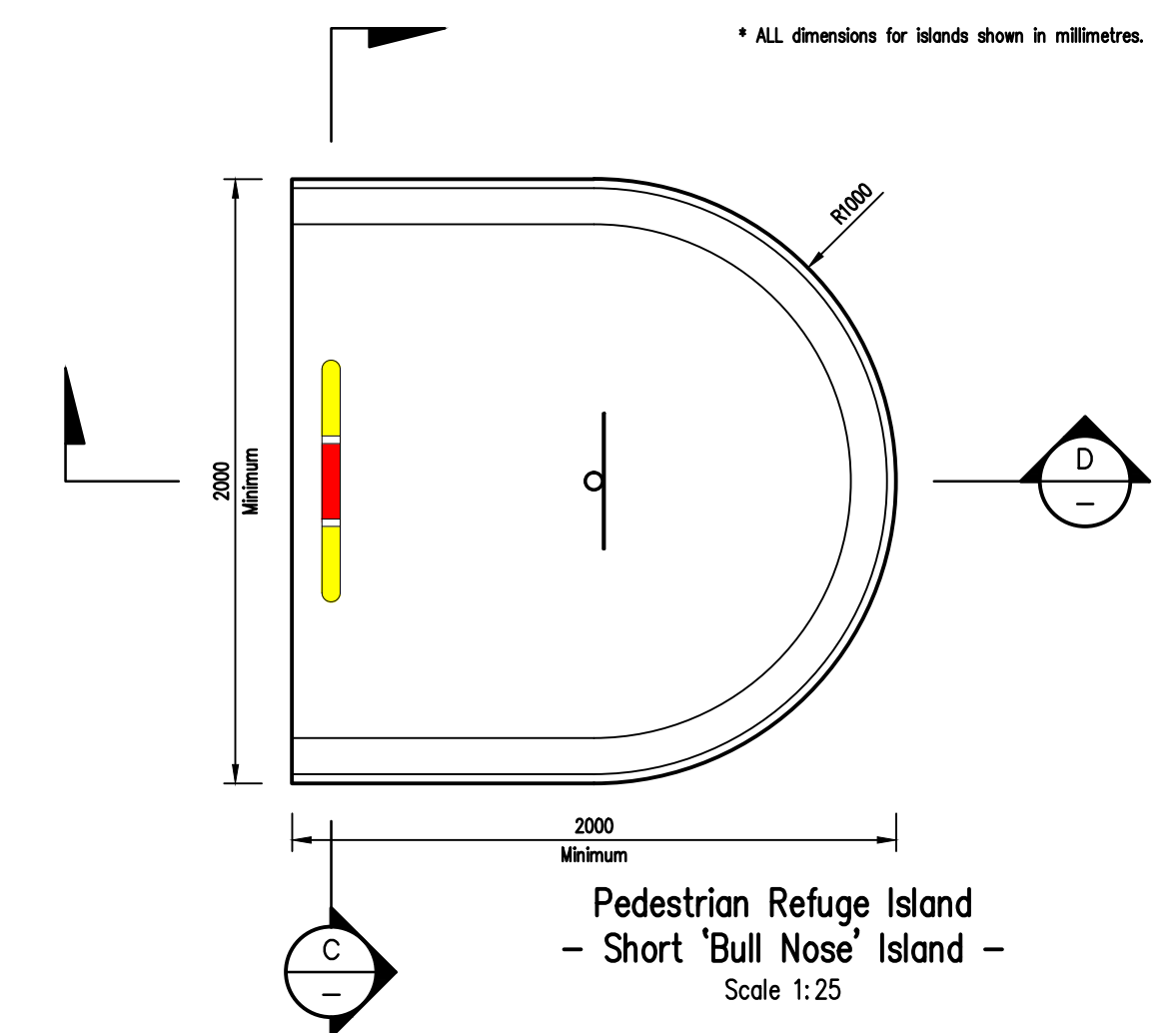


Scale 1:25



Scale 1:25

* ALL dimensions for islands shown in millimetres.

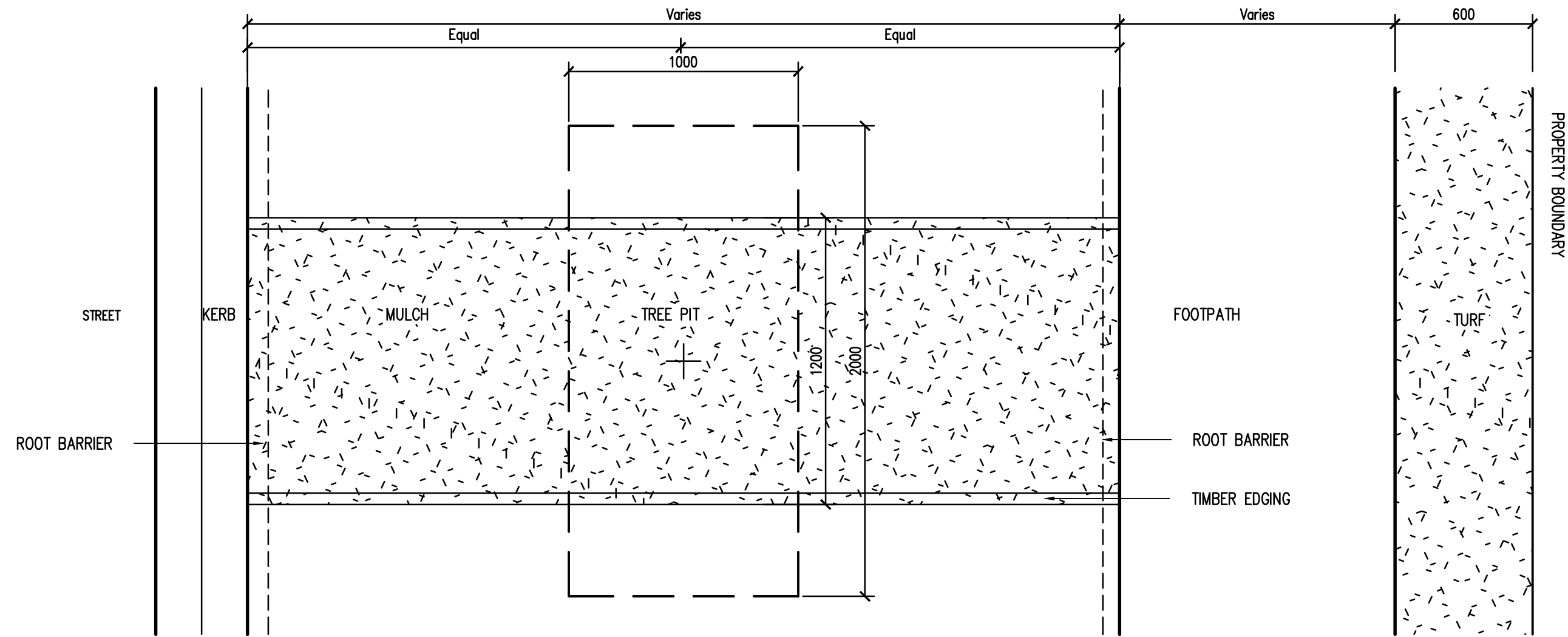


Pedestrian Refuge Island
- Short 'Bull Nose' Island -
Scale 1:25

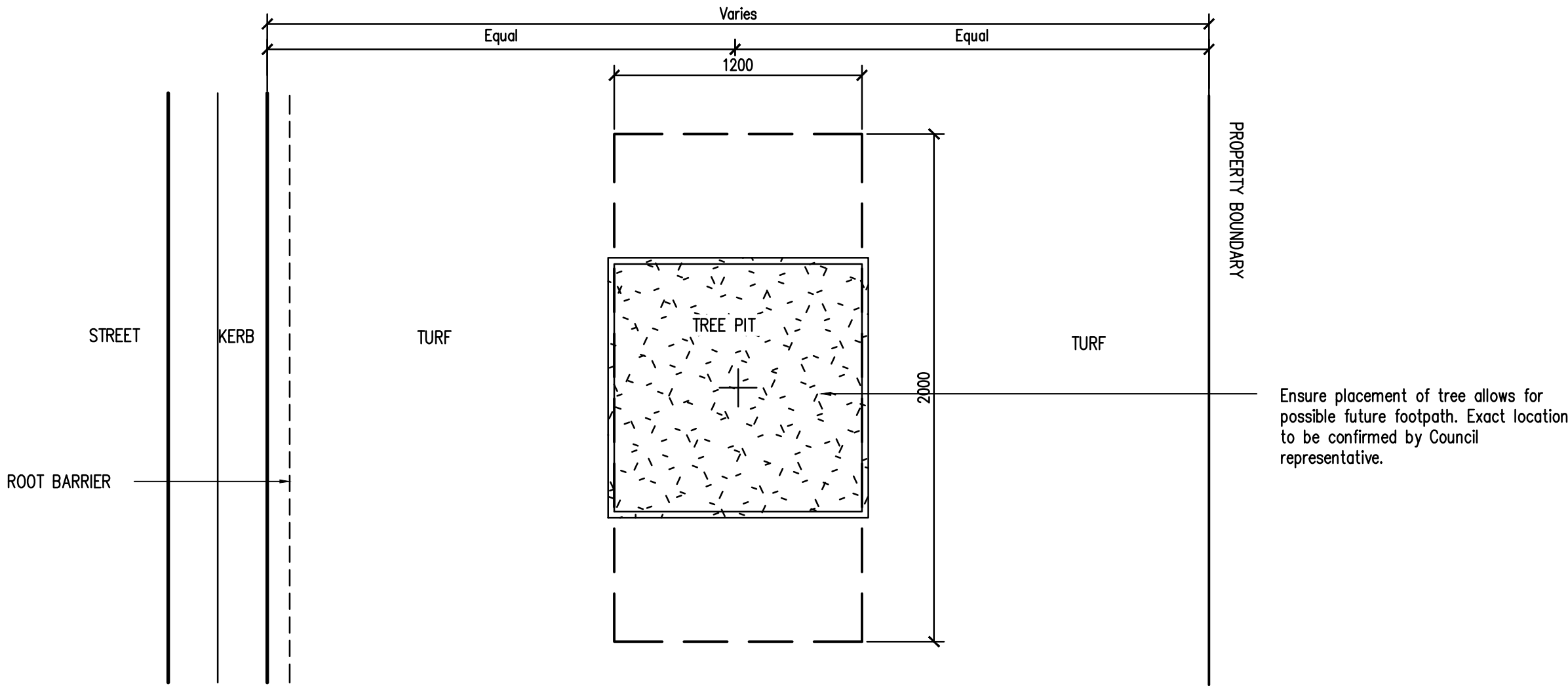
Drawing Status: **ISSUED FOR CONSTRUCTION**

AMENDMENT	DATE	 PH. (02) 4429 3111 FAX. (02) 4422 1816	S. ABRAHAM SURVEY: SEP 2018 DATE	SCALES	MATRON PORTER DRIVE, NARRAWALLEE SHARED USER PATH – NARRAWALLEE INLET RESERVE TO GARSIDE ROAD CONSTRUCTION DETAILS & TYPICAL SECTIONS		
			S. APOSTOLOSKI DESIGN: FEB 2019 DATE	PLAN:	HOR:	VERT:	SECTIONS: AS NOTED
			S. APOSTOLOSKI DRAWN: FEB 2019 DATE	DATUM: AHD – MGA	FB: LB:	SHEET No.: 14	PLAN No.
		DON'T DOUBLE YOUR TROUBLE IF IN DOUBT ASK DO NOT SCALE	Matthew Apolo 16/04/2020 CHECKED: DATE	Tom Dineen 28/04/2020 94 ASSET MANAGEMENT DATE	FILE: NARRAWALLEE Matron Porter Drive_Design.dwg	No. SHEETS: 18	5247.14

Notify Councils Landscape Architect of all soil or drainage conditions encountered during planting operations which the contractor considers detrimental to plant growth

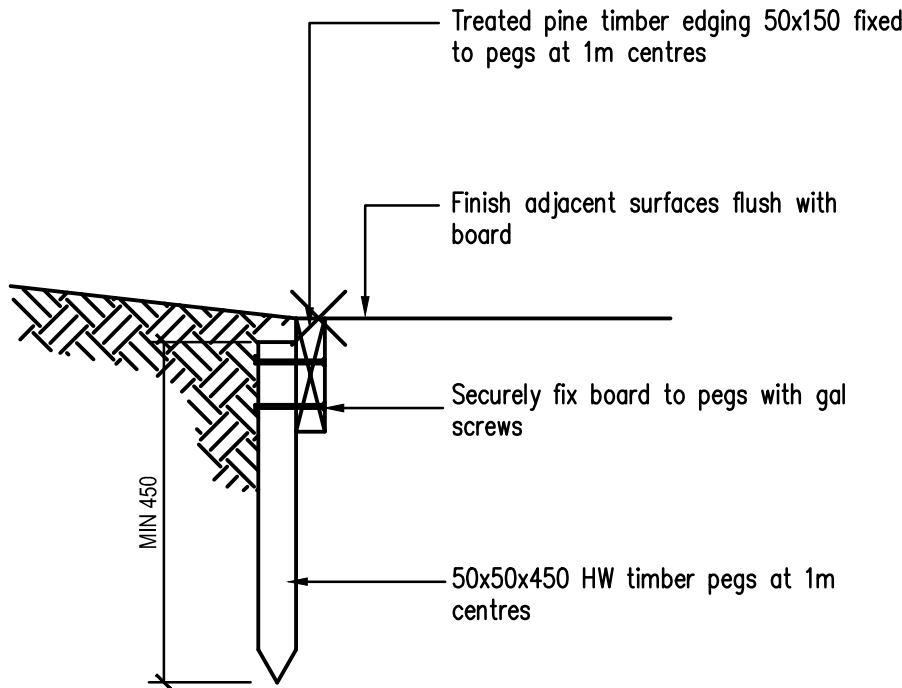


1 TYPICAL DETAIL: TREE PLANTING LAYOUT WITH PATH AND KERB
N.T.S

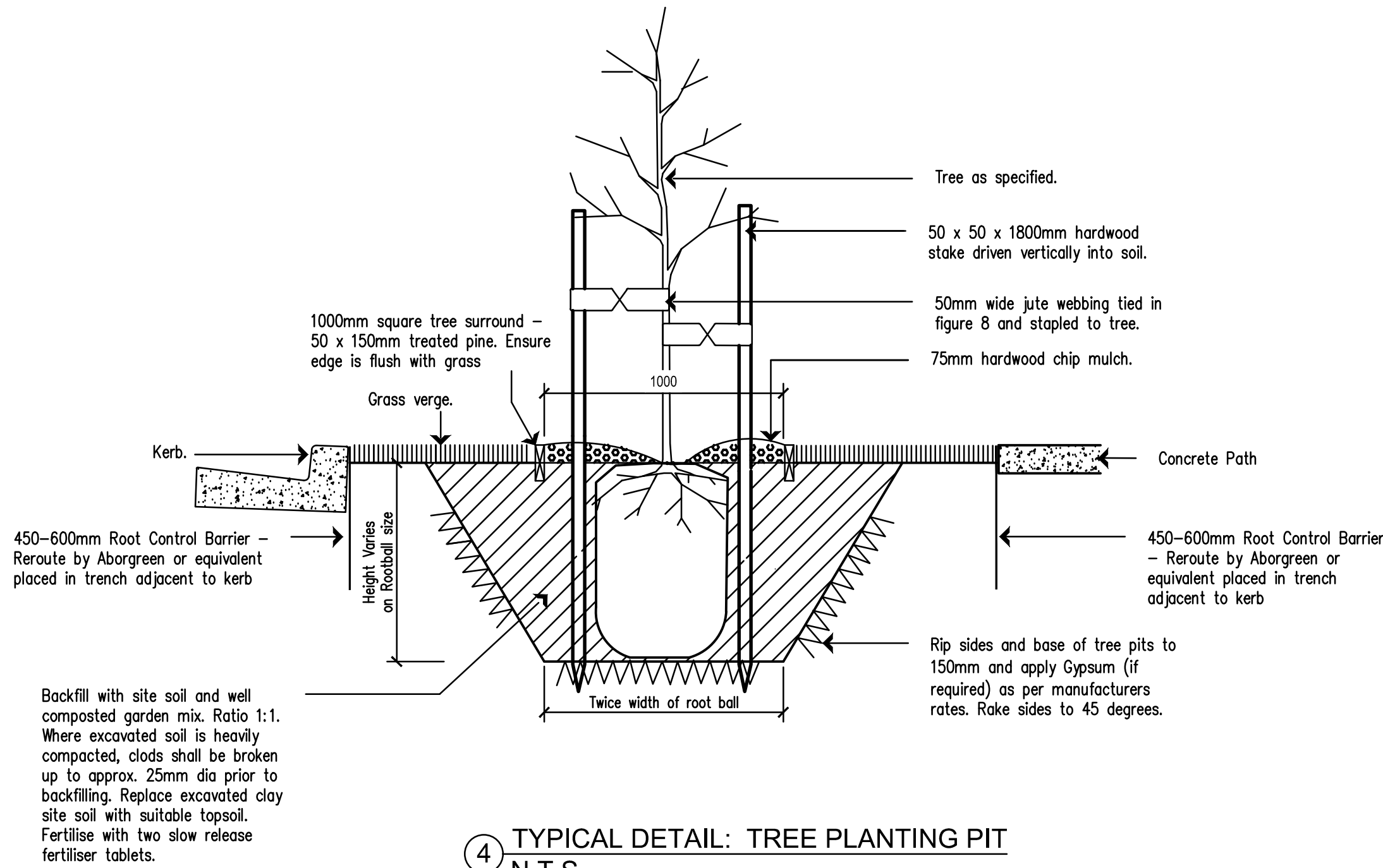


2 TYPICAL DETAIL: TREE PLANTING LAYOUT (NO FOOTPATH)
N.T.S

TREE SCHEDULE				
SYMBOL	PLANT NAME	POT SIZE	NUMBER	SPACING
	Banksia Integrifolia	45-75 Litre	As Required	7-9m
	Tristaniopsis 'Luschiou'	45-75 Litre	As Required	7-9m



3 TYPICAL DETAIL: TIMBER EDGING
N.T.S



4 TYPICAL DETAIL: TREE PLANTING PIT
N.T.S

NOTES

- Prior to planting, contact shall be made with the relevant service authorities to check all relevant services plans in order to determine the location of any underground services. If any such services interfere with the proposed location of the tree, the Supervising Officer shall be advised and an alternative location determined.
- Where the base of walls within the planting hole are glazed or compacted, it shall be fractured prior to planting. The base of the planting hole shall be slightly mounded.
- Prior to planting tree stock, the root ball or root system shall be moist. On balled and hessian stock, the hessian shall be removed from the root ball. Tree roots shall not be exposed to the drying influences of the sun, wind or frost, before or after planting. Planting shall occur in the appropriate season.
- The top of the root ball or root system of the planted tree shall be level with the surrounding soil level.
- The backfill shall consist of the soil excavated from the planting hole with well composted garden mix Ratio 1:1. Where the excavated soil is heavily compacted, clods shall be broken up to approximately a 25mm diameter prior to backfilling. The backfill shall be lightly firmed to ensure good contact between root mass and the soil. If backfill other than the indigenous soil is required, the soil texture shall be consistent with that of the indigenous soil.
- Work Gypsum (as per manufacturer's instruction) into the subgrade and excavated soil prior to backfilling.
- All stock shall be thoroughly watered immediately after planting. The soil moisture within the basins shall be regularly monitored to ensure that the trees retain a healthy appearance and do not become stressed.
- All newly planted trees shall be watered appropriately to ensure health and vigorous establishment. Water in initially with Seasol or similar root stimulating fertiliser and again at 4 & 8 weeks from planting as per manufacturers instruction.
- Fertilise each tree with 2 slow release fertiliser tablets 'Agriform' or equivalent.
- Trees shall be staked using two 50 x 50 x 1800mm straight stakes (unless otherwise specified) driven into the ground to a depth of approximately 400mm. Stakes shall not be driven through the root ball. The tree shall be fastened to the stakes by two suitable ties which shall be securely fastened to the stakes. The tree shall be allowed sufficient freedom of movement after staking. The trees shall be staked at or below one third of their height. Stakes shall be adjusted or replaced as required.
- Planting holes on non cultivated sites, ie, in paved areas, shall be approximately 2 times the diameter of the root ball and the soil area around the tree shall not be more than 50mm below the paved area. A tree management system by 'Aborgreen' or similar is preferred in these circumstances to ensure the trees future potential.
- Branching shall not occur under 1.2 metres above ground level.
- Weak limb structures shall be attended to (e.g. included bark).
- Pruning of all trees shall meet Australian Standard AS 4373.1996 - Pruning of Amenity Trees.
- The essential points on the standard of pruning which must be observed include:
 - Avoid bark tearing by using undercut, top cut and final cut.
 - All final cuts shall be 'natural target' pruning cuts.
 - Prune with reference to the branch bark ridge or stem bark ridge.
 - Do not leave a stub.
 - Do not make flush cut.
 - Prune as close as possible to branch collar but do not cut branch collar.
 - Do not pollard tree.
 - Do not paint pruning wounds.
- Young trees (ie, trees planted for a period of less than five (5) years) shall undergo formative pruning to improve structure and to form a sturdy single tree trunk. No more than 25% of a tree's canopy shall be removed.
- Branch clearances shall be maintained as follows:
 - Footpaths - 2000mm
 - Driveways - 1000mm
 - Roads - 4300mm

Drawing Status: **ISSUED FOR CONSTRUCTION**

Shoalhaven
City Council

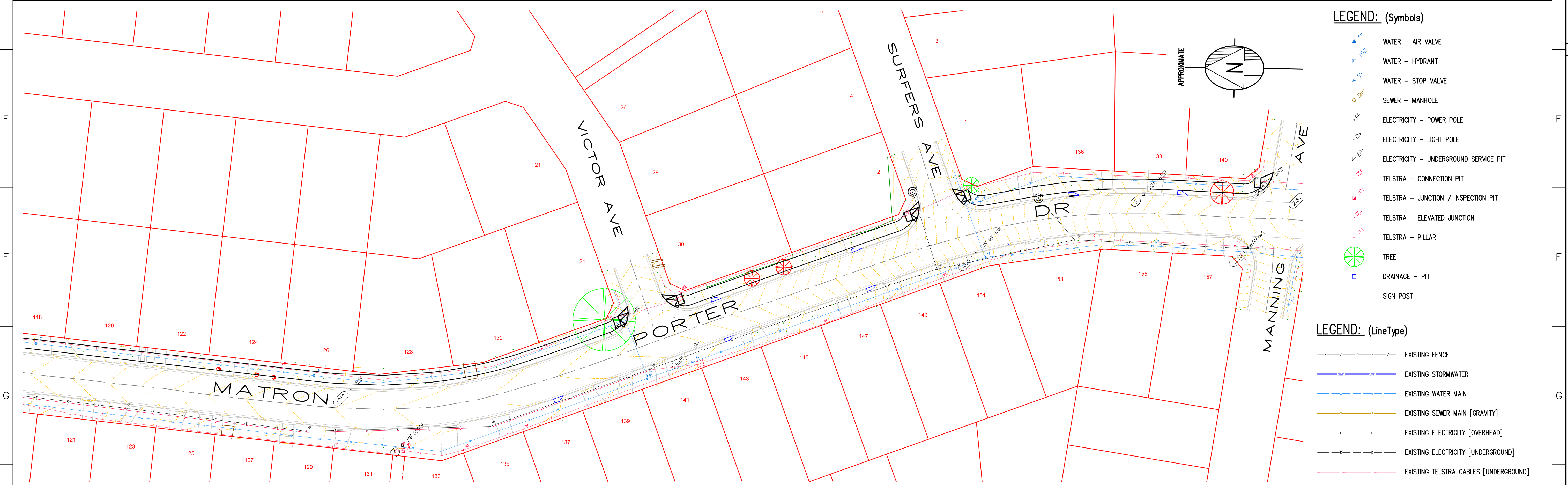
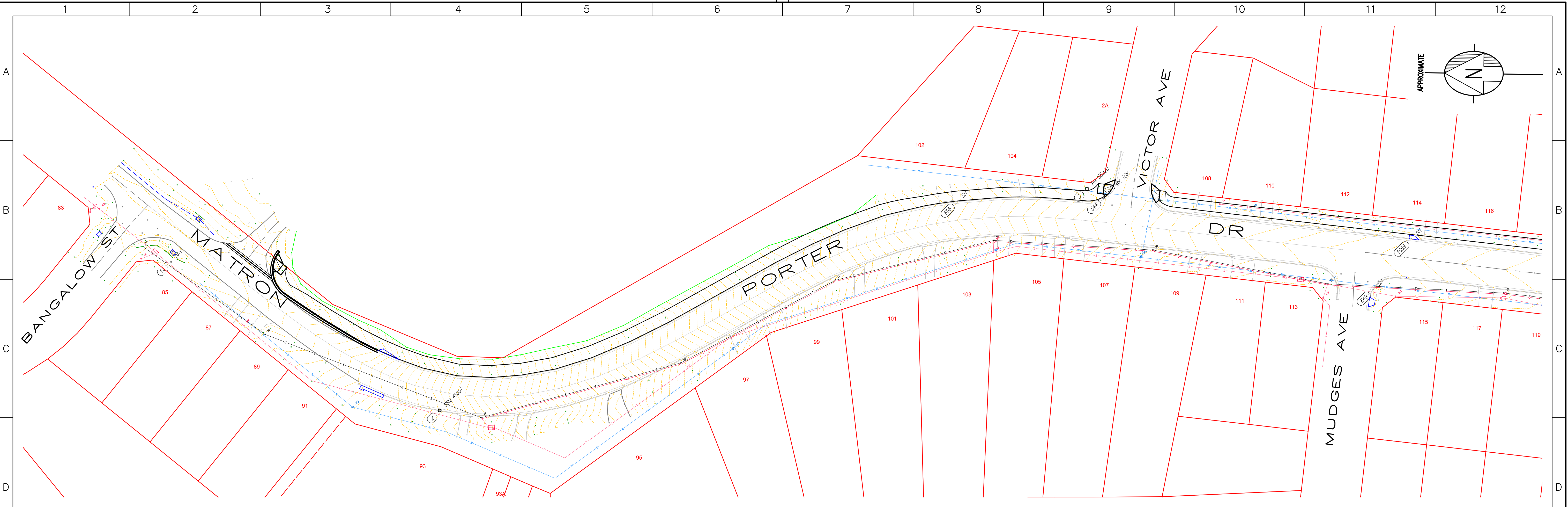
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S. ABRAHAM SEP 2018
SURVEY: DATE
K. MURRAY FEB 2019
DESIGN: DATE
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DRAWN: DATE
Matthew Apolo 26/04/2020
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APPROVED:

SCALES
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SECTIONS: AS NOTED
DATUM: AHD - MGA
Tom Dimec 28/04/2020
SM | ASSET MANAGEMENT DATE

MATRON PORTER DRIVE, NARRAWALLEE
SHARED USER PATH - NARRAWALLEE INLET RESERVE TO GARSIDE ROAD
LANDSCAPE DETAILS

FB: LB: SHEET No.: 15
NARRAWALLEE Matron Porter Drive_Design.dwg No. SHEETS: 18
PLAN No. 5247.15



- LEGEND: (Symbols)**
- Water - Air Valve
 - Water - Hydrant
 - Water - Stop Valve
 - Sewer - Manhole
 - Electricity - Power Pole
 - Electricity - Light Pole
 - Electricity - Underground Service Pit
 - Telstra - Connection Pit
 - Telstra - Junction / Inspection Pit
 - Telstra - Elevated Junction
 - Telstra - Pillar
 - Tree
 - Drainage - Pit
 - Sign Post

- LEGEND: (LineType)**
- Existing Fence
 - Existing Stormwater
 - Existing Water Main
 - Existing Sewer Main [Gravity]
 - Existing Electricity [Overhead]
 - Existing Electricity [Underground]
 - Existing Telstra Cables [Underground]



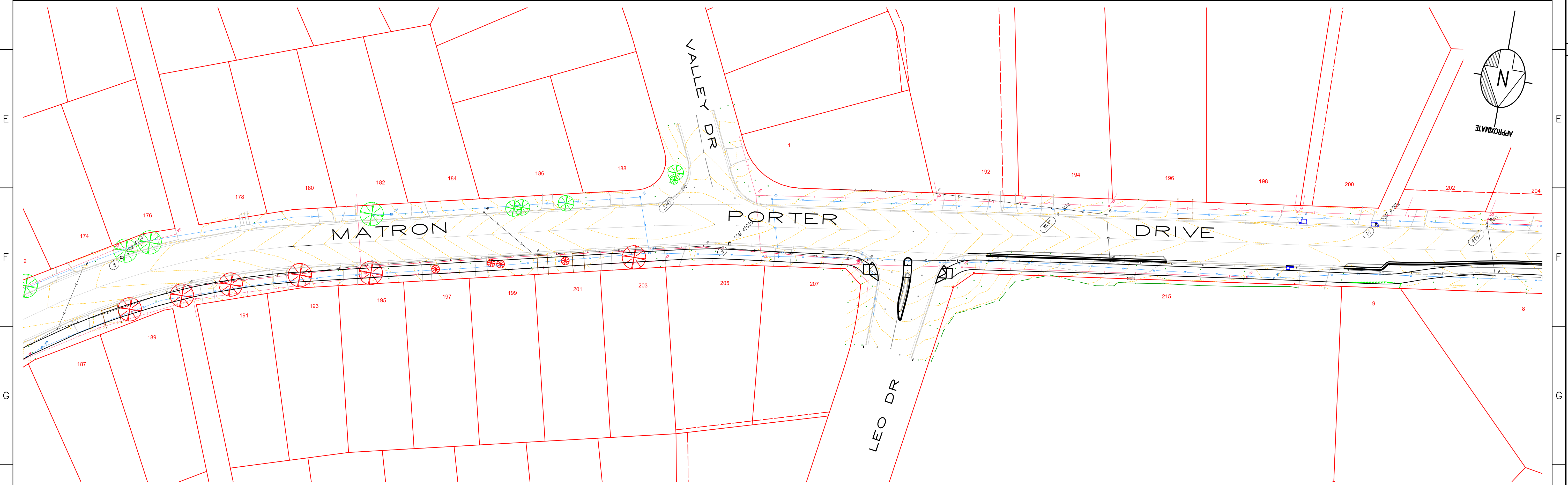
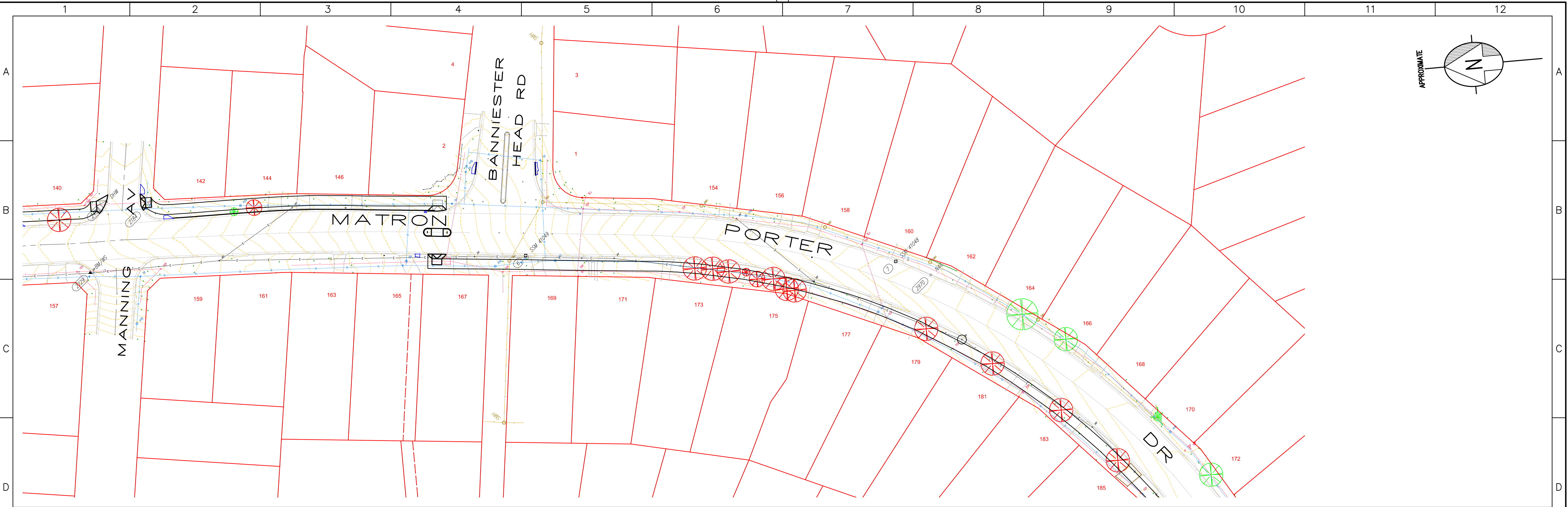
BEWARE:
The contractor is to verify the location of ALL existing services prior to commencement of construction. Any repairs to damage caused during construction shall be at the contractor's expense.

Drawing Status: **ISSUED FOR CONSTRUCTION**

Shoalhaven City Council
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SURVEY:	S. ABRAHAM	SEP 2018
DESIGN:	S. APOSTOLOSKI	FEB 2019
DRAWN:	S. APOSTOLOSKI	FEB 2019
CHECKED:	Matthew Apolo	26/04/2020
APPROVED:	Tom Dineen	28/04/2020

SCALES		PLAN: 1 : 500	
HORIZONTAL: AHD - MGA		VERTICAL: AHD - MGA	
DATE: 28/04/2020		DATE: 28/04/2020	
FILE: NARRAWALLEE Matron Porter Drive_Design.dwg		SHEET No.: 16	
No. SHEETS: 18		PLAN No. 5247.16	





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AMENDMENT	DATE



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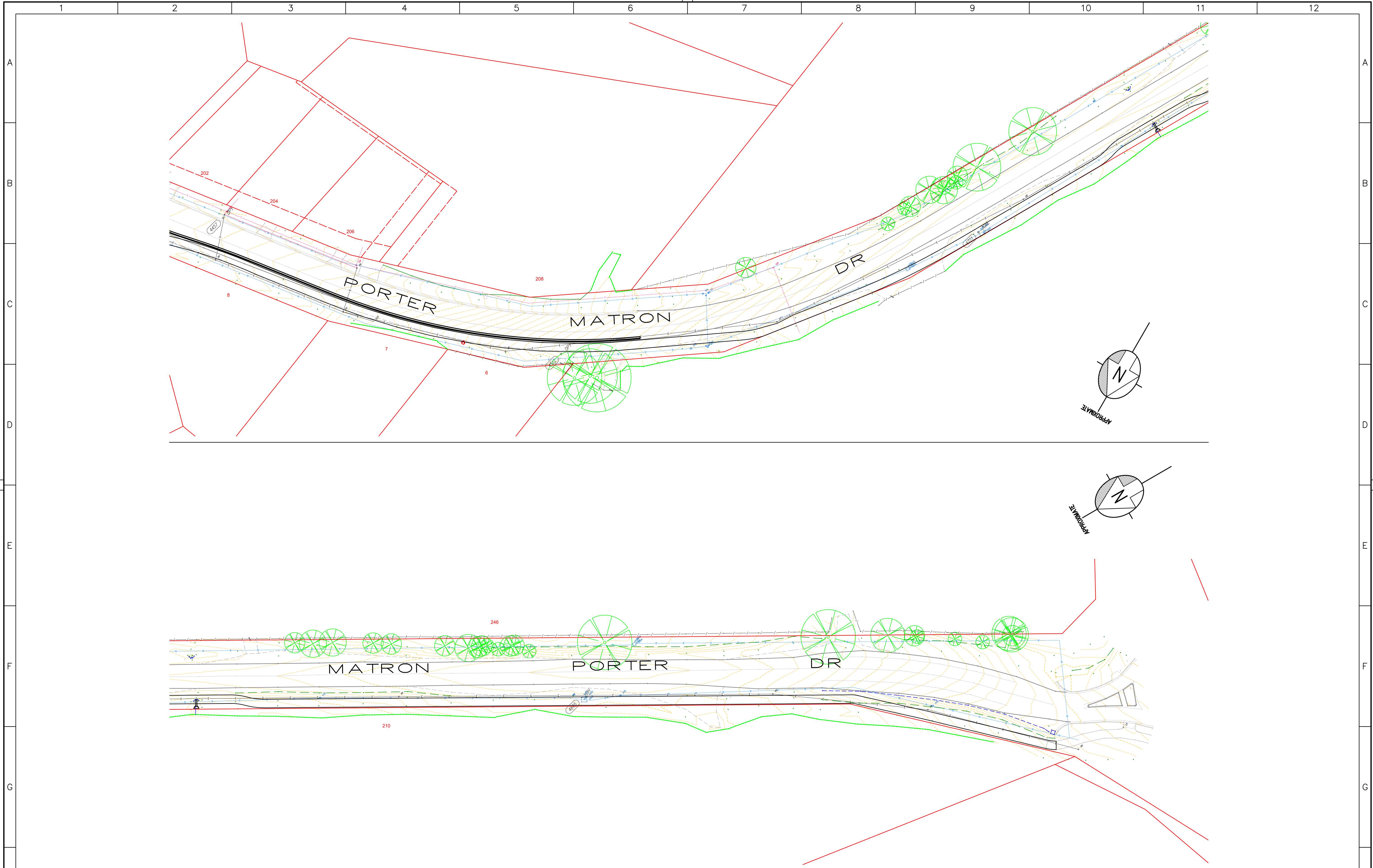
SURVEY:	S. ABRAHAM	SEP 2018
DESIGN:	S. APOSTOLOSKI	FEB 2019
DRAWN:	S. APOSTOLOSKI	FEB 2019
CHECKED:	Matthew Apolo	26/04/2020
APPROVED:	Tom Dimeo	28/04/2020

SCALES	
PLAN:	1 : 500
HOR:	
VERT:	
SECTIONS:	

MATRON PORTER DRIVE, NARRAWALLEE SHARED USER PATH – NARRAWALLEE INLET RESERVE TO GARSIDE ROAD UTILITY SERVICES PLAN (2 OF 3)	
DATUM:	AHD – MGA
FB:	LB:
FILE:	NARRAWALLEE Matron Porter Drive_Design.dwg

SHEET No.:	17
No. SHEETS:	18

PLAN No.	5247.17
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BEWARE:
The contractor is to verify the location of ALL existing services prior to commencement of construction. Any repairs to damage caused during construction shall be at the contractor's expense.

Drawing Status: **ISSUED FOR CONSTRUCTION**

AMENDMENT	DATE

PH. (02) 4429 3111
FAX. (02) 4422 1816

DON'T DOUBLE YOUR TROUBLE
IF IN DOUBT ASK!
DO NOT SCALE

SURVEY:	S. ABRAHAM	SEP 2018
DESIGN:	S. APOSTOLOSKI	FEB 2019
DRAWN:	S. APOSTOLOSKI	FEB 2019
CHECKED:	Matthew Apolo	16/04/2020
APPROVED:	Tom Dimec	28/04/2020

SCALES	
PLAN:	1 : 500
HOR:	
VERT:	
SECTIONS:	
DATUM:	AHD - MGA

MATRON PORTER DRIVE, NARRAWALLEE SHARED USER PATH - NARRAWALLEE INLET RESERVE TO GARSIDE ROAD UTILITY SERVICES PLAN (3 OF 3)			
FB:	LB:	SHEET No.:	18
FILE:	NARRAWALLEE Matron Porter Drive_Design.dwg	No. SHEETS:	18
PLAN No.			5247.18