

# THE PATCH - STAGE 02, WOLLERT JINDING DEVELOPMENTS

## CITY OF WHITTLESEA

### CONSTRUCTION NOTES

#### GENERAL

- A1, All works to be carried out in accordance with plans & current City of Whittlesea & VPA current specifications & standard drawings approved by Council & satisfaction of the engineer.
- A2, Council to be notified 7 (seven) clear days prior to commencement of works.
- A3, The Contractor must arrange the requisite inspections of the works with the Chief Executive Officer for their representative as per the hold points in the Whittlesea City Council specifications
- A4, Before commencement of works on trenches in excess of 1.5m deep, the civil contractors construction supervisor must be given notice in writing of such proposals to Worksafe Victoria in accordance with Part 5.1, Division 4 of the Occupational Health & Safety Regulations (2007) & undertake safety precautions in trenching operations in accordance with Workover's Code of Practice (1988).
- A5, Where works are in the vicinity of existing services, these services are to be located & the various authorities notified prior to commencement of works.
- A6, All dimensions are in metres unless noted otherwise.
- A7, All levels are to be Australian Height Datum (AHD) & in MGA94 Zone 55 coordinates.
- A8, All TBM's & control points are to be maintained & protected at all times during construction. Should any marks be disturbed, the contractor will immediately notify the consultant to arrange reinstatement at the contractors expense.
- A9, Refer to landscape architect plans for details of vehicle exclusion fencing around the perimeter of works.
- A10, All fences adjoining all reserves (other than road reserves) are to be erected by the developer (or owner) at no cost to Council.
- A11, A building permit must be obtained by contractor for any structural / retaining wall exceed 1.0m in height prior to the commencement of construction in accordance with Building Code of Australia.

#### SITE MANAGEMENT

- B1, Prior to commencement of works on site, the contractor must ensure that all matters relating to the Occupational Health & Safety Act 2004, including all relevant regulations, have been addressed. In particular, the required notifications must be conveyed to the Victorian Workcover Authority - Health & Safety Division with respect to trenching operations. Details of the contractors occupational health & safety procedures must be lodged with the superintendent prior to commencement of works. Works to be undertaken in accordance with EPA & Melbourne Water guidelines.
- B2, Any infrastructure damage during the defects liability period is the responsibility of the Contractor or their representative and is to be reinstated to the satisfaction of the Chief Executive Officer for their representative.
- B3, At the completion of all works, all rubbish, debris and surplus spoil shall be removed and the site shall be cleared to the satisfaction of the Chief Executive Officer for their representative.
- B4, The contractor is responsible for ensuring that all imported fill material, including topsoil, satisfies the description for clean fill material in EPA Bulletin Publication No. 448 (September 1995) & subsequent revisions. The contractor shall provide verification including test certificates to the supervising engineer.
- B5, Prior to commencement of works, the contractor shall provide the following information:  
(a) Source of quarry material  
(b) N.A.T.A. approved test results for the F.C.R. that is to be used,  
(c) If the source of the quarry material is changed during the course of the works, then new test results shall be provided.
- B6, Prior to commencement of works, the contractor must submit a SMP to the consultant for approval. The contractor must comply with the recommendations of the Environmental Protection Authority Publication No. 275 "Construction Techniques for Sediment Pollution Control". Appropriate siltation control is to be maintained throughout the construction & maintenance period of the works. Works to abide by EPA Vic - Land preparation works on residential developments.
- B7, Prior to the commencement of works, Tree Protection Envelope fencing to be constructed as per River Red Gum Management plan by Treelogic (Ref. 011206).
- B8, Existing dam or watercourses to be excavated to a firm base & backfilled as specified. Consulting engineer to be notified when the dam or watercourses are excavated to a firm base. No filling is to be placed prior to dams being inspected & levels taken. Backfilling is to be carried out to the satisfaction of the Council's supervising engineer. Works to be approved by Melbourne Water.

#### ROADWORKS

- C1, Subsurface drains are to be placed behind all kerb & channel & buffer pitchers & where directed by the engineer (refer to VPA Standard Drawing EDCM 202). Where kerb & channel is located on title boundary AG's are to be placed beneath kerb & 750mm below top of kerb.
- C2, Batters shall be 1 in 6 for cut & fill unless otherwise shown.
- C3, Lots to be graded & left clean to the satisfaction of the engineer.
- C4, The water conduit offset from the lot boundary is given on the water reticulation plan. The contractor must construct conduits to accord with the given offset & ensure that the concrete marks the kerb & footpath exactly above the conduit.
- C5, All gas & water conduit types are PVC Class 12 for residential lots. 50mm diameter conduit for gas and 100mm diameter conduit for combined drinking and non-drinking water. All services to be constructed under the capping layer.
- C6, NBN to be notified 7 days prior to concrete being placed.
- C7, Conduits are to be extended 600mm behind back of kerb & to be referenced on face of kerb. All services to be constructed under the capping layer.
- C8, All driveways to be constructed in accordance with VPA standard drawing EDCM 501 & 502.
- C9, All kerbs are to be 600mm B2 Barrier kerb & channel unless noted otherwise.
- C10, Irrigation conduits are to be DN100 DWV PVC installed beneath the pavement and/or capping layer, if present. Locations are to be marked using a green dot spray painted on the top of kerb.
- C11, Fill areas are to be stripped of topsoil, filled & topsoil replaced to obtain final fill levels as shown on plans. Filling to be clean clay compacted to a dry density not less than 95% of the maximum dry density value determined by the standard compaction test in accordance with Australian Standard AS1289.5.2.1-2003. All filling to be carried out in accordance with AS3798-2007. Sampling and testing in fill areas less than 200mm to comply with AS3798-2007 Section 8.3 (Level 2). Level 1 supervision and testing to be carried out in accordance with AS3798-2007 Section 8.2 for all fill areas in excess of 200mm. A fill report must be submitted to the Consultant, showing from a NATA registered soil testing laboratory.
- C12, All fire hydrants are to be marked in accordance with "Identification of Street Hydrants for Fire-Fighting Purposes" publication (developed by C.F.A., M.F.E.S.B. & N.R.E.). Markings to be via blue pavement marker and a (red topped) white post.
- C13, All footpaths in roads to be offset 50mm from property boundary. Footpaths constructed above existing level to be constructed on approved fill (to AS3798) of FCR into natural ground. All footpaths to be constructed in accordance with standard drawing EDCM 401.
- C14, Where Concrete paving crosses service trenches, sewerage and drainage, trenches shall be backfilled with compacted fine crushed rock (FCR.)
- C15, All material surrounding service authority pits located in footpaths must be adequately compacted in 150mm layers and tested to the satisfaction of the City of Whittlesea, prior to the construction of the footpath bays adjacent to these pits.

#### DRAINAGE

- D1, Drainage & pits to be setout from offsets shown rather than from centerline pipe chainages.
- D2, All pipes to be Class 2 RCP unless otherwise specified & shall be RRJ up to & including 750mm diameter. All drains that cross under road pavements are to be RRJ Class 2 RCP.
- D3, Joining for curved pipe alignment shall conform to manufacturer's specifications (RRJ for minor deflections or complete RC bandages).
- D4, House drain connections are to be placed 5.5m from the low corner of lot unless otherwise shown. Property inlets are to be placed 1.0m from the low corner of lot unless otherwise shown.
- D5, All drains behind kerb and channel shall be backfilled to match pavement subgrade level with 20mm Class 3 F.C.R. compacted to 95% of the maximum dry density value determined by the modified compaction test in accordance with A.S. 1289.5.2.1-2003.
- D6, Approved granular backfill to be provided where pipe trenches encroach under roadway due to deep excavations in rock.
- D7, Shallow cut off drains are to be provided on subdivision boundary where necessary.
- D8, Ag drains are to be connected between kerbs on each side of the road at the limit of works where the natural surface falls towards the new construction.

#### PAVEMENT

- E1, All fill construction beneath capping layer and or subgrade to be Type A selected material, selected, placed and compacted in accordance with Clause 20.5 of the Whittlesea City Council specification. All other fill outside of proposed pavements (including beneath footpaths) is to be structural fill placed in accordance with Construction Note C11.
- E2, Pavement depth may be modified as directed by the engineer with the approval of Council.
- E3, The contractor is to organise & pay for testing of the pavement base course material & final layer of crushed rock. Tests to include nuclear densometer to ensure subgrade has reached optimum moisture content (OMC). A copy of the results is to be forwarded to the director of engineering or their representative. The results must meet the requirements of the City of Whittlesea specification before any works are required.
- E4, All joints for concrete pavements shall be located and spaced in accordance with "Cement and Concrete Association of Australia T51- Guide to Residential Street and Paths 2004".



#### SITE PLAN


NOT TO SCALE  
MELWAY REF: 388 K6

CITY OF WHITTLESEA

ENGINEERING PLANS & SPECIFICATIONS

APPROVED PURSUANT TO SECTION 15 OF THE SUBDIVISION ACT 1988

PLAN OF SUBDIVISION No. PS838326V



DEVELOPMENT ENGINEER

06/12/2021


DATE APPROVED

### DRAWING INDEX

BW DRAWING NO	C&W DRAWING NO	DESCRIPTION
1701289-02-001	3201-02-001	COVER SHEET
1701289-02-002	3201-02-002	TYPICAL ROAD CROSS SECTIONS
1701289-02-003	3201-02-003	PAVEMENT MAKEUP & GENERAL DETAILS
1701289-02-010	3201-02-010	LAYOUT PLAN
1701289-02-100	3201-02-100	ROAD LONGITUDINAL SECTIONS NOIR ROAD & NEON WAY
1701289-02-101	3201-02-101	ROAD LONGITUDINAL SECTIONS AQUA STREET & TEAGREEN STREET
1701289-02-102	3201-02-102	ROAD LONGITUDINAL SECTIONS AZURE ROAD
1701289-02-103	3201-02-103	ROAD LONGITUDINAL SECTIONS SERVICE ROAD NORTH & SOUTH
1701289-02-200	3201-02-200	ROAD CROSS SECTIONS NOIR ROAD
1701289-02-201	3201-02-201	ROAD CROSS SECTIONS NEON WAY
1701289-02-202	3201-02-202	ROAD CROSS SECTIONS AQUA STREET
1701289-02-203	3201-02-203	ROAD CROSS SECTIONS AZURE ROAD (SHEET 1 OF 2)
1701289-02-204	3201-02-204	ROAD CROSS SECTIONS AZURE ROAD (SHEET 2 OF 2)
1701289-02-205	3201-02-205	ROAD CROSS SECTIONS SERVICE ROAD NORTH (SHEET 1 OF 2)
1701289-02-206	3201-02-206	ROAD CROSS SECTIONS SERVICE ROAD NORTH & SOUTH (SHEET 2 OF 2)
1701289-02-300	3201-02-300	INTERSECTION DETAILS (SHEET 1 OF 4)
1701289-02-301	3201-02-301	INTERSECTION DETAILS (SHEET 2 OF 4)
1701289-02-302	3201-02-302	INTERSECTION DETAILS (SHEET 3 OF 4)
1701289-02-303	3201-02-303	INTERSECTION DETAILS (SHEET 4 OF 4)
1701289-02-350	3201-02-350	LINEMARKING & SIGNAGE PLAN (SHEET 1 OF 2)
1701289-02-351	3201-02-351	LINEMARKING & SIGNAGE PLAN (SHEET 2 OF 2)
1701289-02-400	3201-02-400	DRAINAGE LONGITUDINAL SECTIONS (SHEET 1 OF 4)
1701289-02-401	3201-02-401	DRAINAGE LONGITUDINAL SECTIONS (SHEET 2 OF 4)
1701289-02-402	3201-02-402	DRAINAGE LONGITUDINAL SECTIONS (SHEET 3 OF 4)
1701289-02-403	3201-02-403	DRAINAGE LONGITUDINAL SECTIONS (SHEET 4 OF 4)
1701289-02-450	NOT USED	PLAN OF SUBDIVISION

### TBM Schedule

TBM	Easting	Northing	Level	Description
BW8	325245.00	5838578.92	199.48	STL PIC
BW9	325045.35	5838601.28	199.80	STL PIC
BW15	325130.36	5838348.33	198.61	SPIKE

0	07.06.21	MHN		ISSUED FOR CONSTRUCTION	
P2	09.02.21	NI	-	JM	COUNCIL COMMENTS ADDRESSED
P1	30.09.20	AN	-	CD	ISSUED FOR COUNCIL SUBMISSION
REV	DATE	DRN	CKD	APP	AMENDMENT

NOTE: THIS ENGINEERING DRAWING HAS BEEN BASED UPON DESIGNS INITIALLY DOCUMENTED BY BEVERIDGE WILLIAMS. COSSILL & WEBLEY CONSULTING ENGINEERS HAS MADE MINOR AMENDMENTS TO THIS DRAWING FROM REVISION 0 ONWARDS. PLEASE DIRECT ALL DESIGN ENQUIRIES TO COSSILL & WEBLEY

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CLIENT

 JINDING

APPROVED

 08.06.21

DESIGNED

C&W

SCALE

AS SHOWN

PROJECT

THE PATCH - STAGE 2

TITLE

COVER SHEET

MUNICIPALITY

CITY OF WHITTLESEA

PP No.

717154

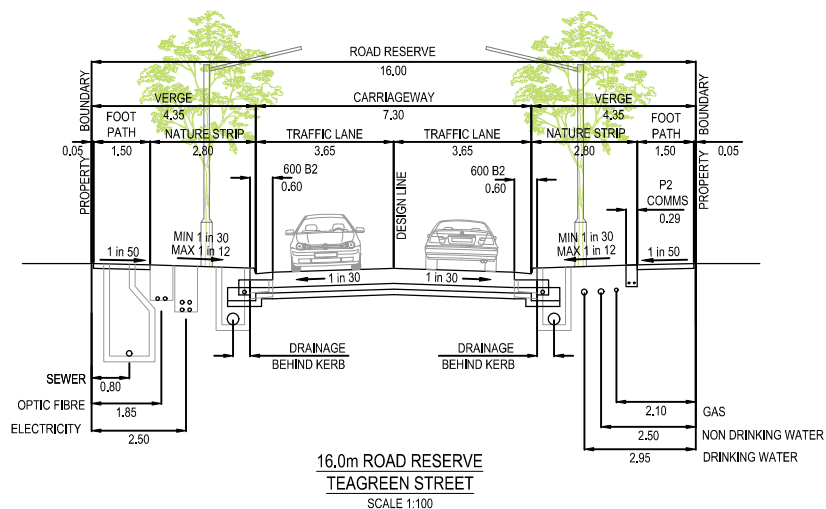
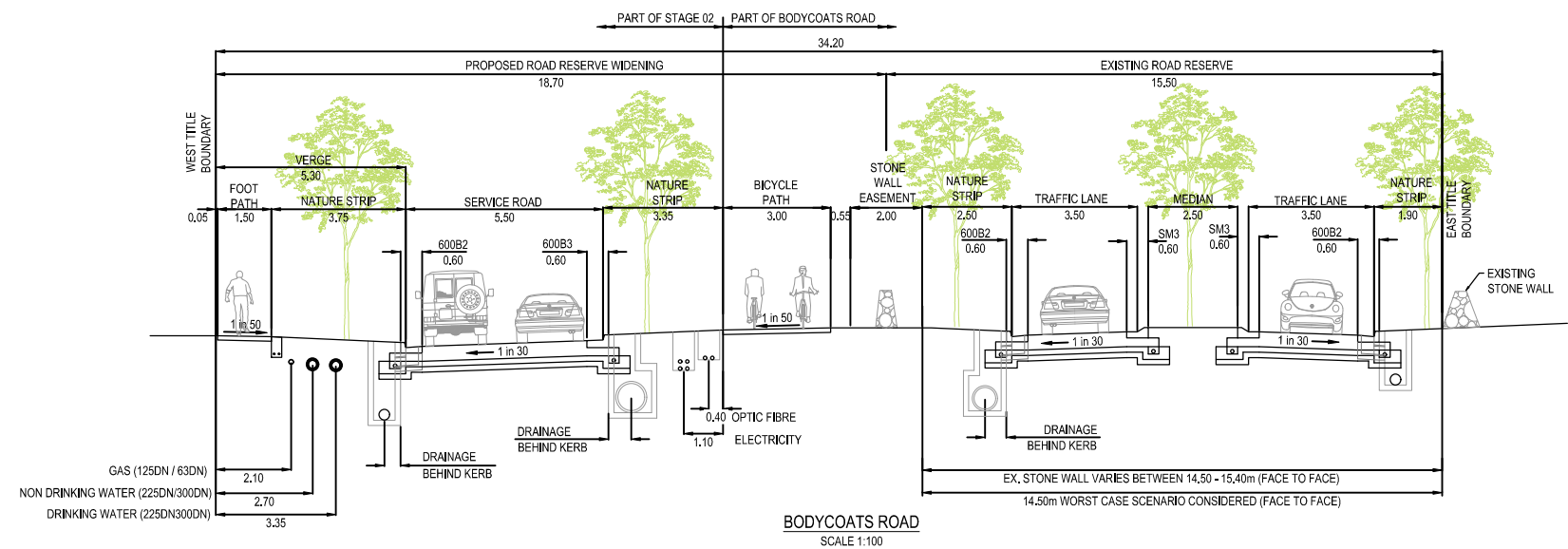
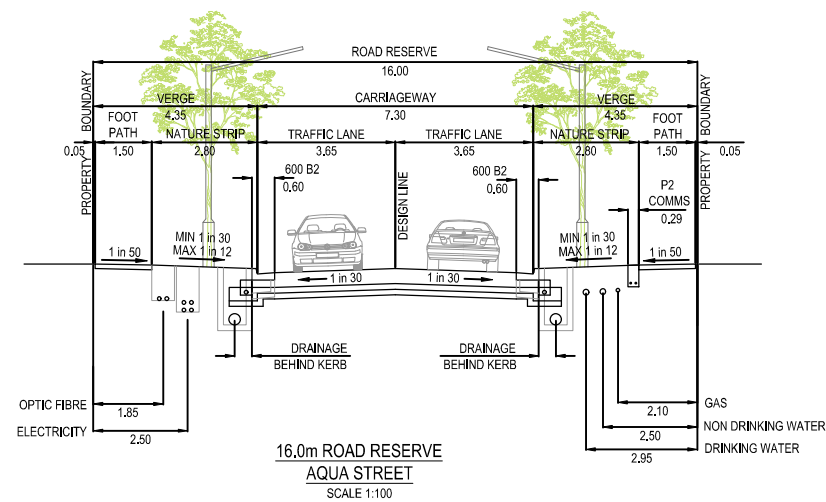
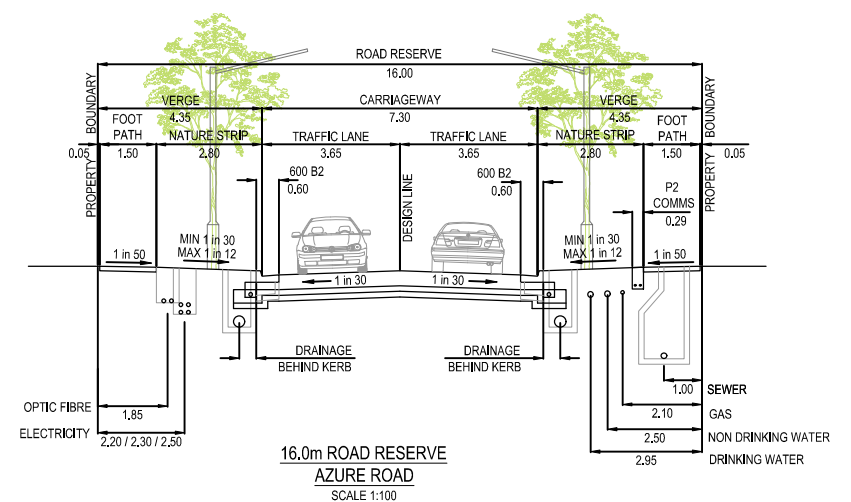
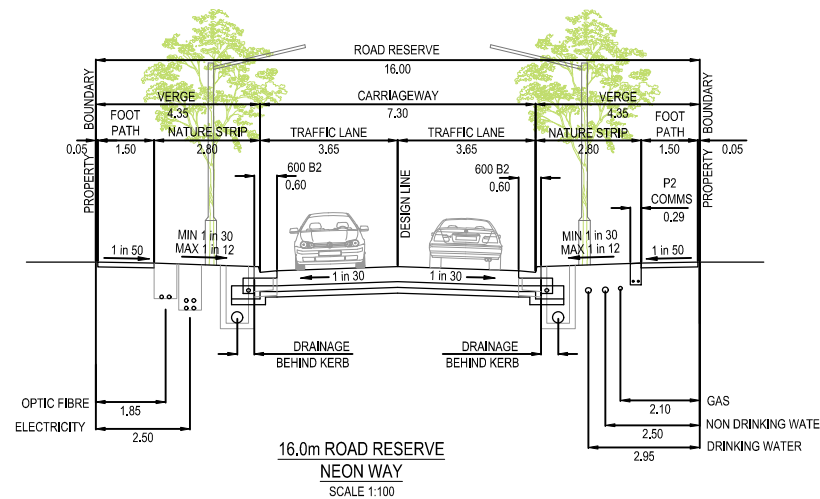
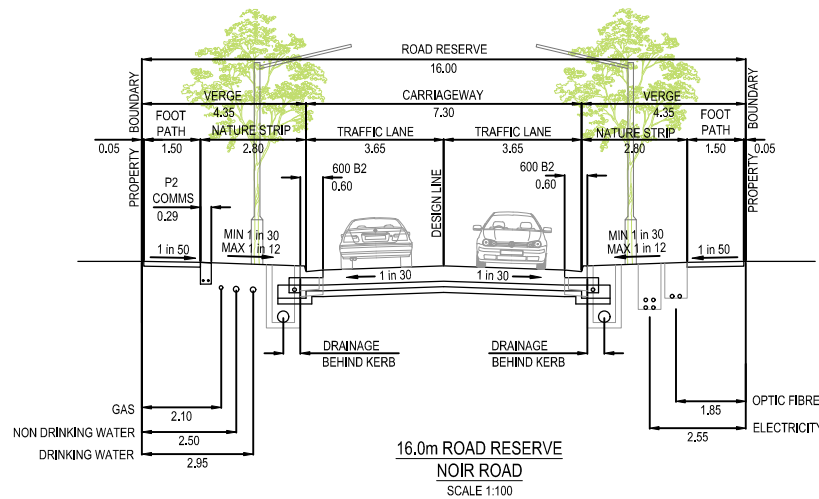
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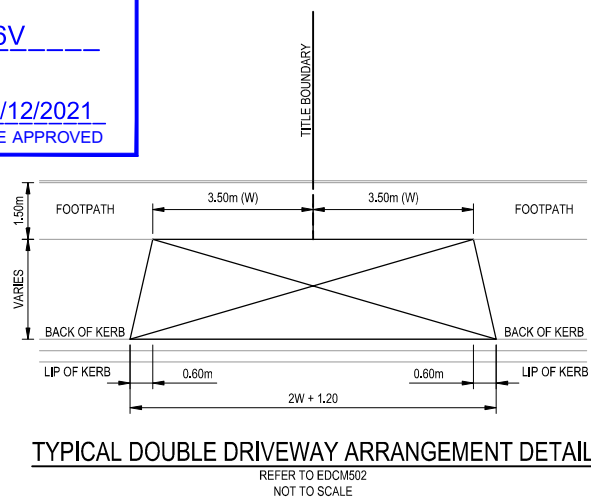
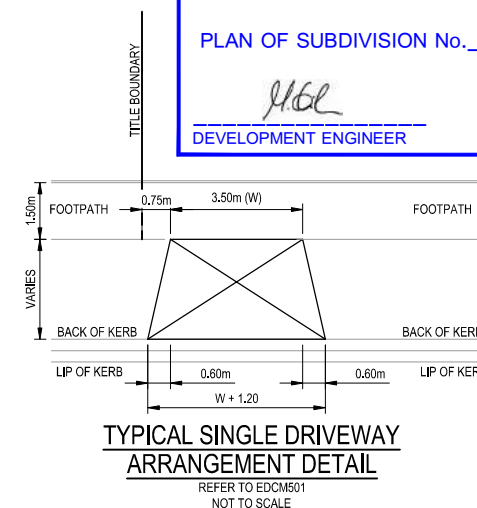
REVISION

0

ORIGINAL SIZE  
A1



**CITY OF WHITTLESEA**  
ENGINEERING PLANS & SPECIFICATIONS  
APPROVED PURSUANT TO SECTION 15 OF THE  
SUBDIVISION ACT 1988  
PLAN OF SUBDIVISION No. PS838326V  
*[Signature]* **DEVELOPMENT ENGINEER** **06/12/2021**  
**DATE APPROVED**



1	28.07.21	MHN	<i>[Signature]</i>	UPDATED DRIVEWAY DETAIL
0	07.06.21	MHN	KCL B. J.-MONCK	ISSUED FOR CONSTRUCTION
P2	09.02.21	NI	- JM	COUNCIL COMMENTS ADDRESSED
P1	30.09.20	AN	- CD	ISSUED FOR COUNCIL SUBMISSION
REV	DATE	DRN	CKD	APP

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H 1:100  
SCALE @ A1

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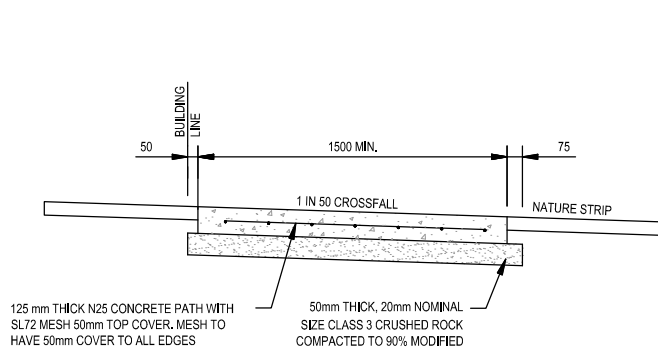
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**CLIENT**  
**JINDING**  
APPROVED  
*[Signature]*  
DESIGNED  
C&W  
SCALE  
AS SHOWN

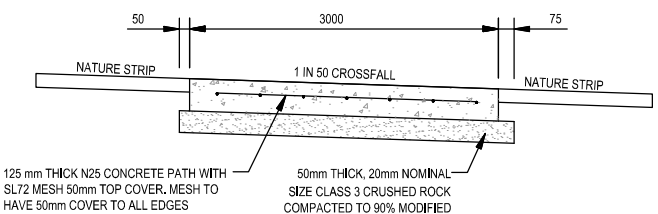
**PROJECT**  
THE PATCH - STAGE 2  
**TITLE**  
TYPICAL ROAD CROSS SECTIONS  
**MUNICIPALITY**  
CITY OF WHITTLESEA  
**PP No.**  
717154  
**DRAWING No.**  
3201-02-002  
**REVISION**  
1

**A1**  
ORIGINAL SIZE

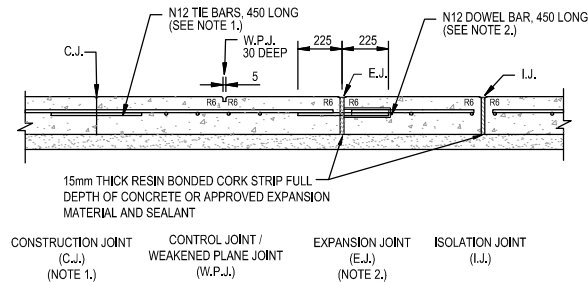




TYPICAL RESIDENTIAL FOOTPATH CROSS SECTION



TYPICAL SHARED PATH CROSS SECTION  
NOT TO SCALE

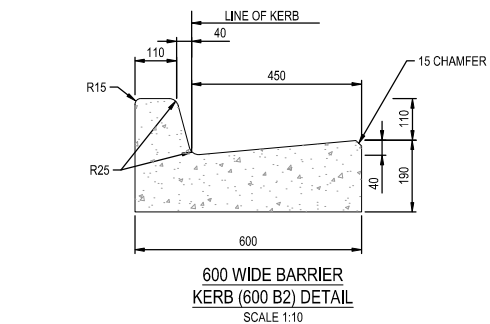


CONCRETE JOINT DETAILS

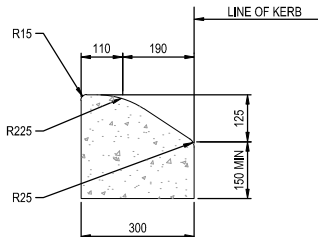
NOTE:  
FOOTPATHS TO BE  
CONSTRUCTED AS PER  
STANDARD DRAWING EDCM 401.

NOTES:

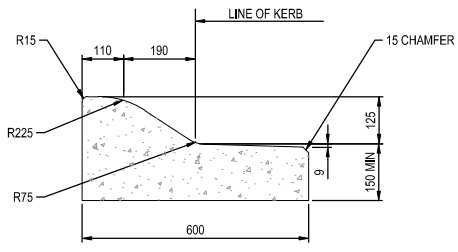
1. TIE BARS TO BE INSTALLED AT 400 MAXIMUM CENTRES COMMENCING 150 FROM EDGE.
2. DOWEL BARS TO BE INSTALLED AT 400 CENTRES COMMENCING AT A MINIMUM OF 100 AND A MAXIMUM OF 200 FROM THE EDGE OF PATH. 16 DIAMETER PVC SLEEVE WITH END CAP OR CLOSED END TO BE FITTED TO ONE END OF THE BAR, DOWEL BARS TO BE SECURELY TIED TO LONGITUDINAL REINFORCING MESH.
3. EXPANSION JOINTS (E.J.) LOCATED BOTH SIDE OF VEHICLE CROSSING AND AT A MAXIMUM OF 12m CENTRES.
4. WEAKENED PLANE JOINTS LOCATED AT SPACINGS EQUAL TO THE WIDTH OF THE PATH AND MADE WITH A T IRON OR CONCRETE SAW CUT.
5. IN SHARED PATHS WEAKENED PLANE JOINTS MUST BE MADE BY CONCRETE SAW CUTTING.
6. CONCRETE TO BE LIGHT BROOM FINISH WITH EDGE AND JOINTS NEATLY TOOLED AFTER THE BROOM IS APPLIED.
7. ALL FINISHED SURFACES TO COMPLY WITH AS 4586 SLIP RESISTANT CLASSIFICATION OF NEW PEDESTRIAN SURFACE MATERIAL.
8. THE USE OF COLOURED CONCRETE MUST BE APPROVED BY COUNCIL. MINIMUM STRENGTH OF COLOURED CONCRETE TO BE 32 MPa.
9. FORMWORK TIMBER TO BE MIN. 125mm DEEP.
10. ALL DIMENSIONS IN MILLIMETRES.
11. SHARED PATHS TO BE 2.5m IN WIDTH MINIMUM. REFER TO APPROVED CONSTRUCTION PLANS FOR ACTUAL WIDTH.



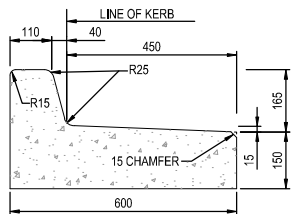
600 WIDE BARRIER  
KERB (600 B2) DETAIL  
SCALE 1:10



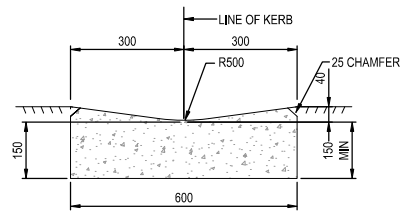
SM1 KERB DETAIL  
SCALE 1:10



SM3 KERB DETAIL  
SCALE 1:10

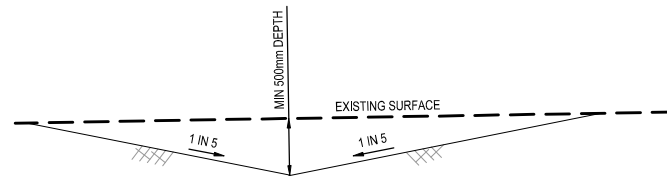


600 WIDE BARRIER KERB  
(600 B3) DETAIL  
SCALE 1:10



INVERT CHANNEL (INV)  
SCALE 1:10

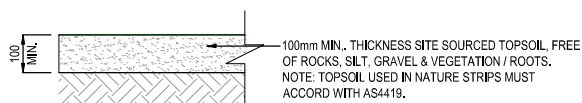
REFER STANDARD DRAWING  
EDCM 301 & 302 FOR DETAILS.



TYPICAL SECTION OF TEMPORARY SWALE  
WITH OR WITHOUT DRAINAGE  
N.T.S.

NOTE:  
MINIMUM LONGITUDINAL GRADE OF 1 in 300.  
TEMPORARY SWALE TO BE CONSTRUCTED WITH  
ENVIRONMENTAL CONTROLS, SAFE BATTERS &  
FENCING, IF REQUIRED.

200mm EDGE STRIP DETAIL  
SCALE 1:10



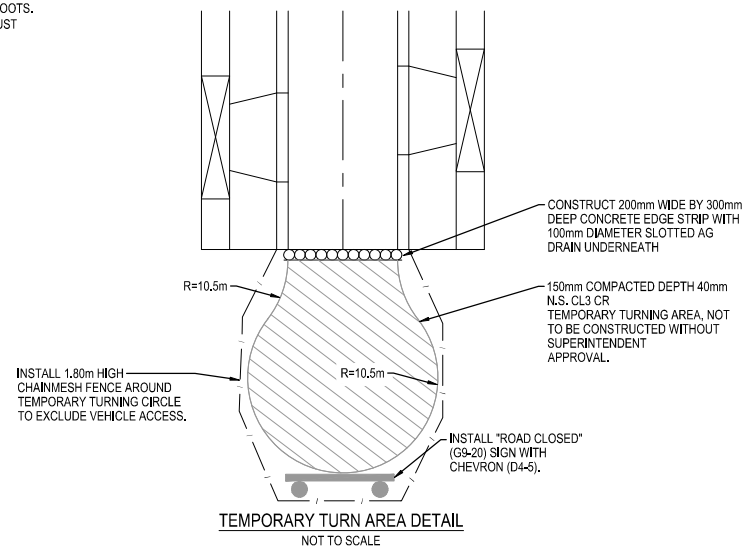
NATURE STRIPS



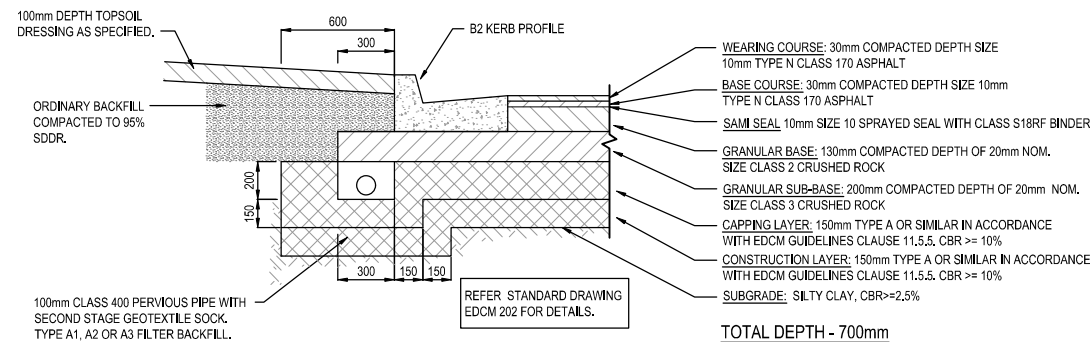
RESERVES



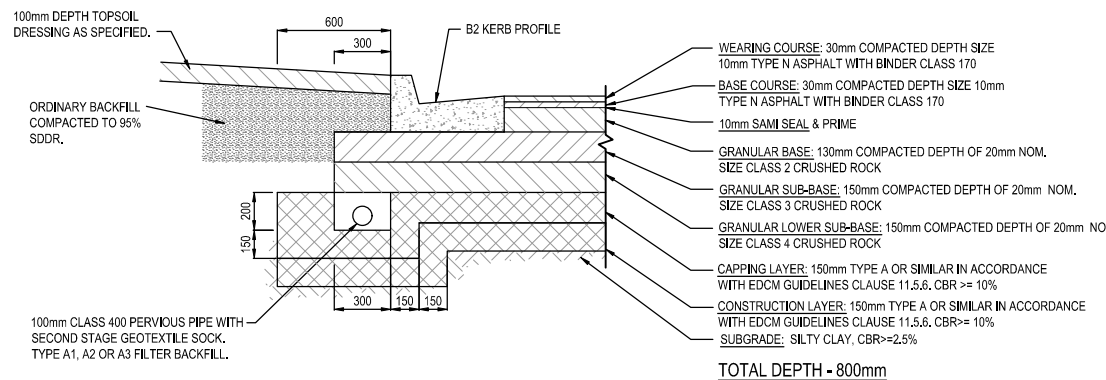
LOTS  
TOPSOIL  
NOT TO SCALE



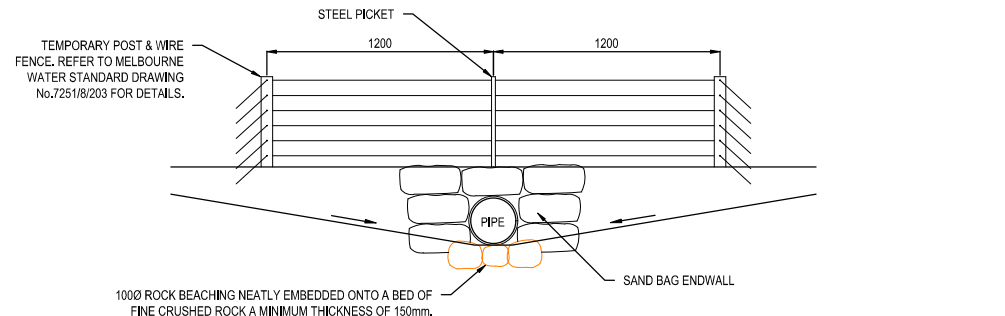
TEMPORARY TURN AREA DETAIL  
NOT TO SCALE



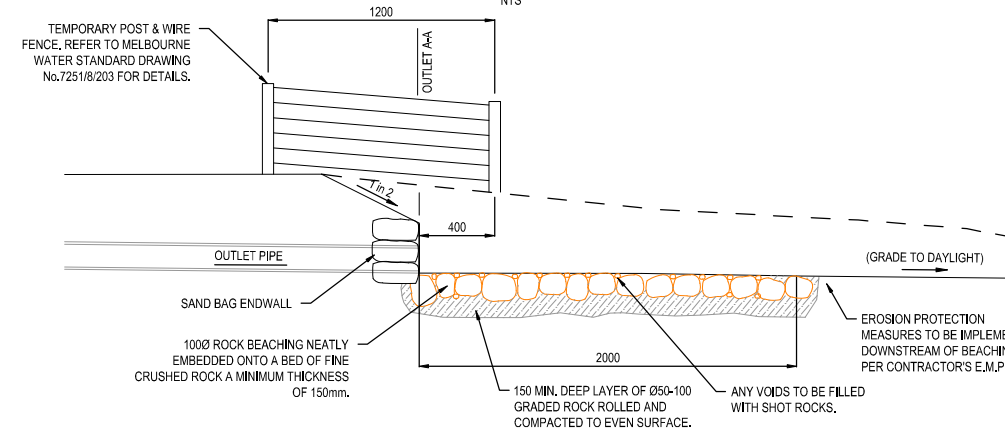
PAVEMENT COMPOSITION (CBR: 2.5%)  
BODYCOATS SERVICE ROAD



PAVEMENT COMPOSITION (CBR: 2.5%)  
NEON WAY, AQUA STREET, AZURE ROAD,  
TEAGREEN STREET, SERVICE ROAD (NORTH &  
SOUTH) AND NOIR ROAD



SECTION A-A  
NTS



OUTLET  
NTS  
TEMPORARY OUTLET WITH SANDBAG ENDWALL

**CITY OF WHITTLESEA**  
ENGINEERING PLANS & SPECIFICATIONS  
APPROVED PURSUANT TO SECTION 15 OF THE  
SUBDIVISION ACT 1988

PLAN OF SUBDIVISION No. **PS838326V**

*[Signature]*  
DEVELOPMENT ENGINEER

06/12/2021  
DATE APPROVED

1	28.07.21	MHN	<i>[Signature]</i>	UPDATED EDGE STRIP AND TEMP TURN AREA DETAIL
0	07.06.21	MHN	KCL B. J.-MONCK	ISSUED FOR CONSTRUCTION
P2	09.02.21	NI	- JM	COUNCIL COMMENTS ADDRESSED
P1	30.09.20	AN	- CD	ISSUED FOR COUNCIL SUBMISSION
REV	DATE	DRN	CKD	APP
				AMENDMENT

NOTE: THIS ENGINEERING DRAWING HAS BEEN BASED UPON  
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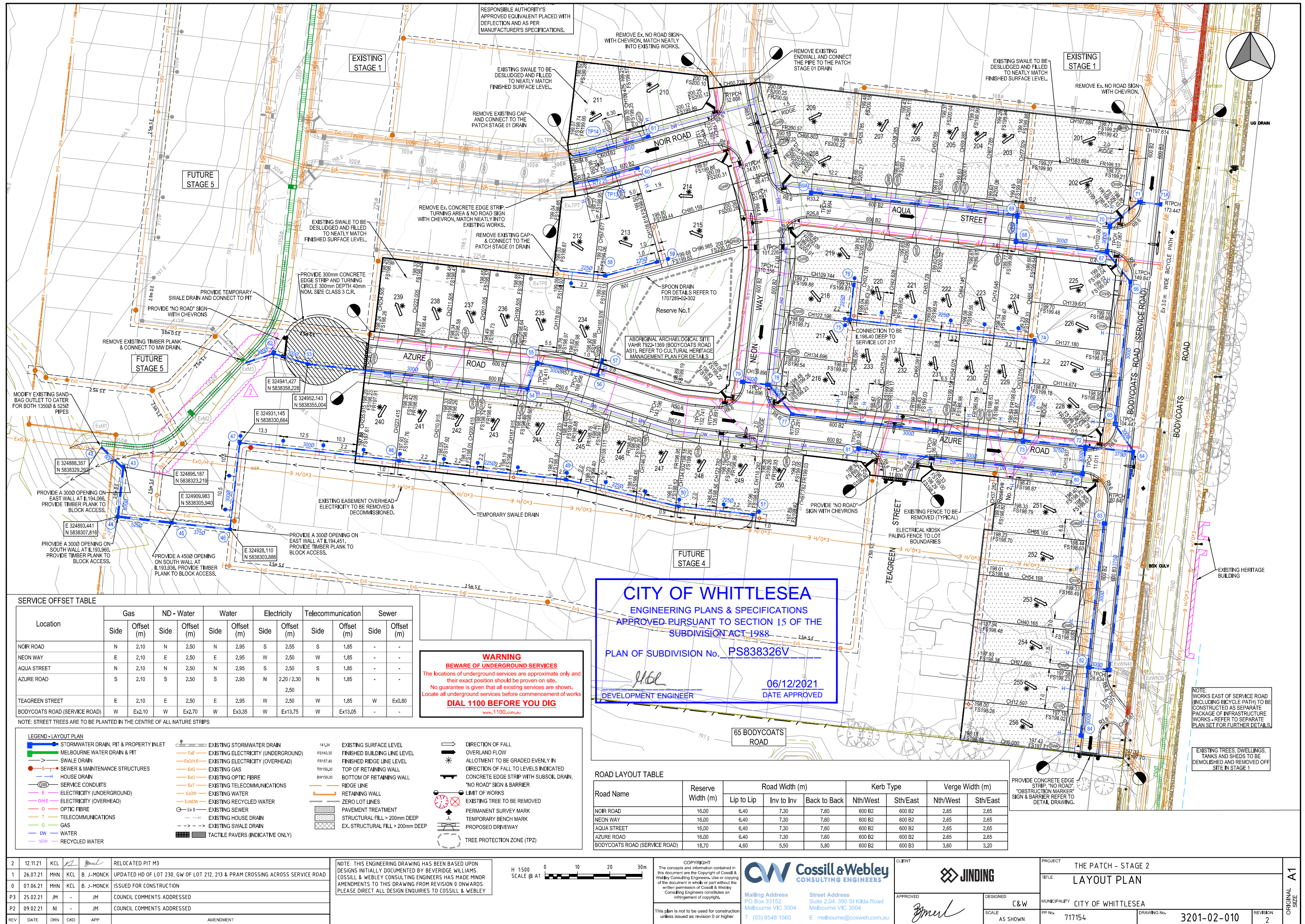
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Street Address  
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Melbourne VIC 3004  
E melbourne@cosweb.com.au

CLIENT  
**JINDING**  
APPROVED  
*[Signature]*  
DESIGNED  
C&W  
SCALE  
AS SHOWN

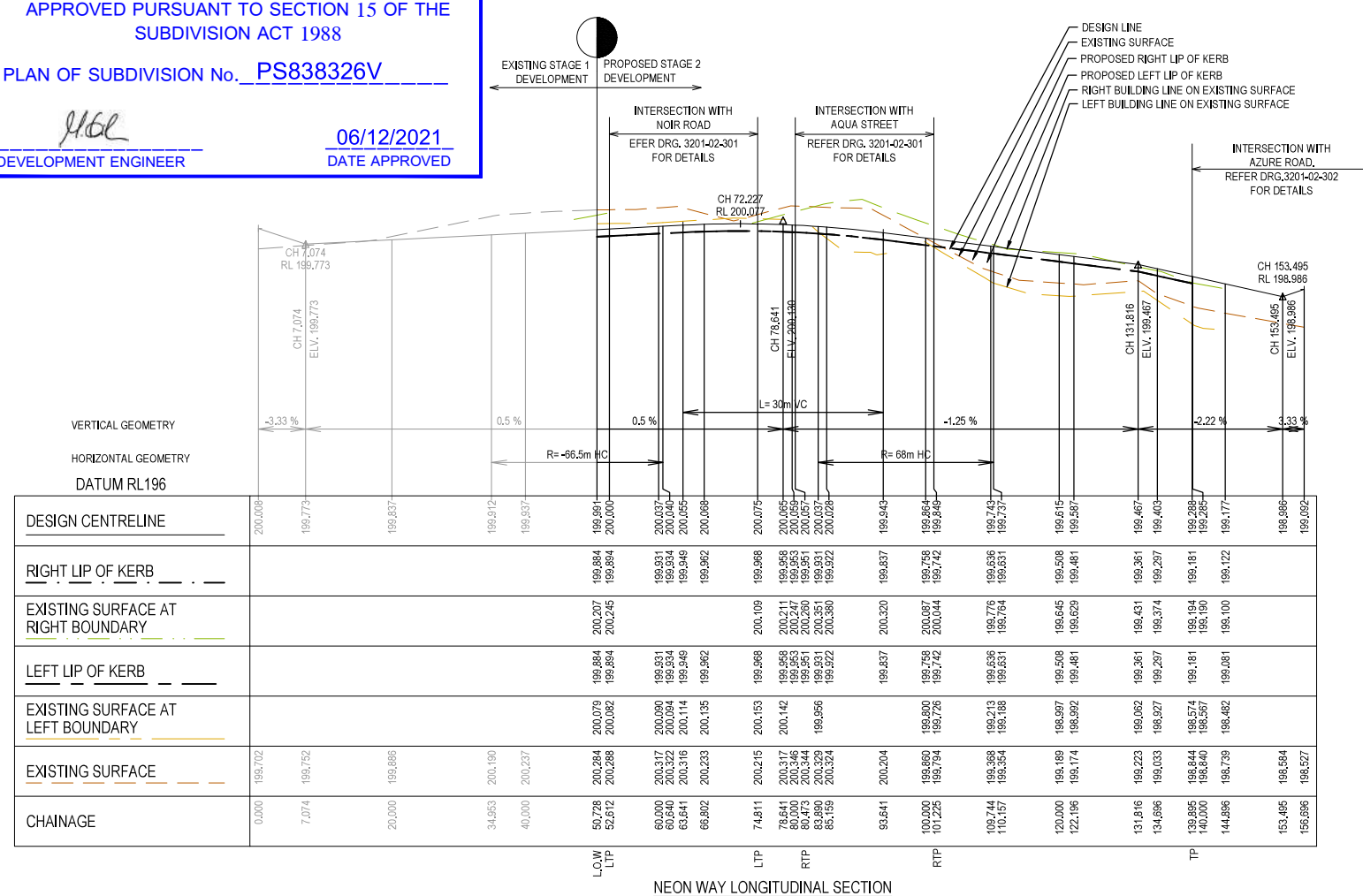
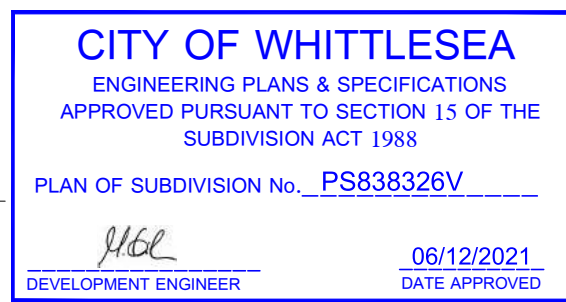
PROJECT  
THE PATCH - STAGE 2  
TITLE  
PAVEMENT MAKEUP & GENERAL DETAILS  
MUNICIPALITY  
CITY OF WHITTLESEA  
PP No.  
717154  
DRAWING No.  
3201-02-003  
REVISION  
1

ORIGINAL  
SIZE  
A1









ORIGINAL  
SIZE




LEGEND	
	EXISTING SURFACE
	DESIGN LINE
	FUTURE DESIGN LINE
	EXISTING SURFACE AT RIGHT BOUNDARY
	RIGHT LIP OF KERB
	EXISTING SURFACE AT LEFT BOUNDARY
	LEFT LIP OF KERB

CITY OF WHITTLESEA

ENGINEERING PLANS & SPECIFICATIONS

APPROVED PURSUANT TO SECTION 15 OF THE SUBDIVISION ACT 1988

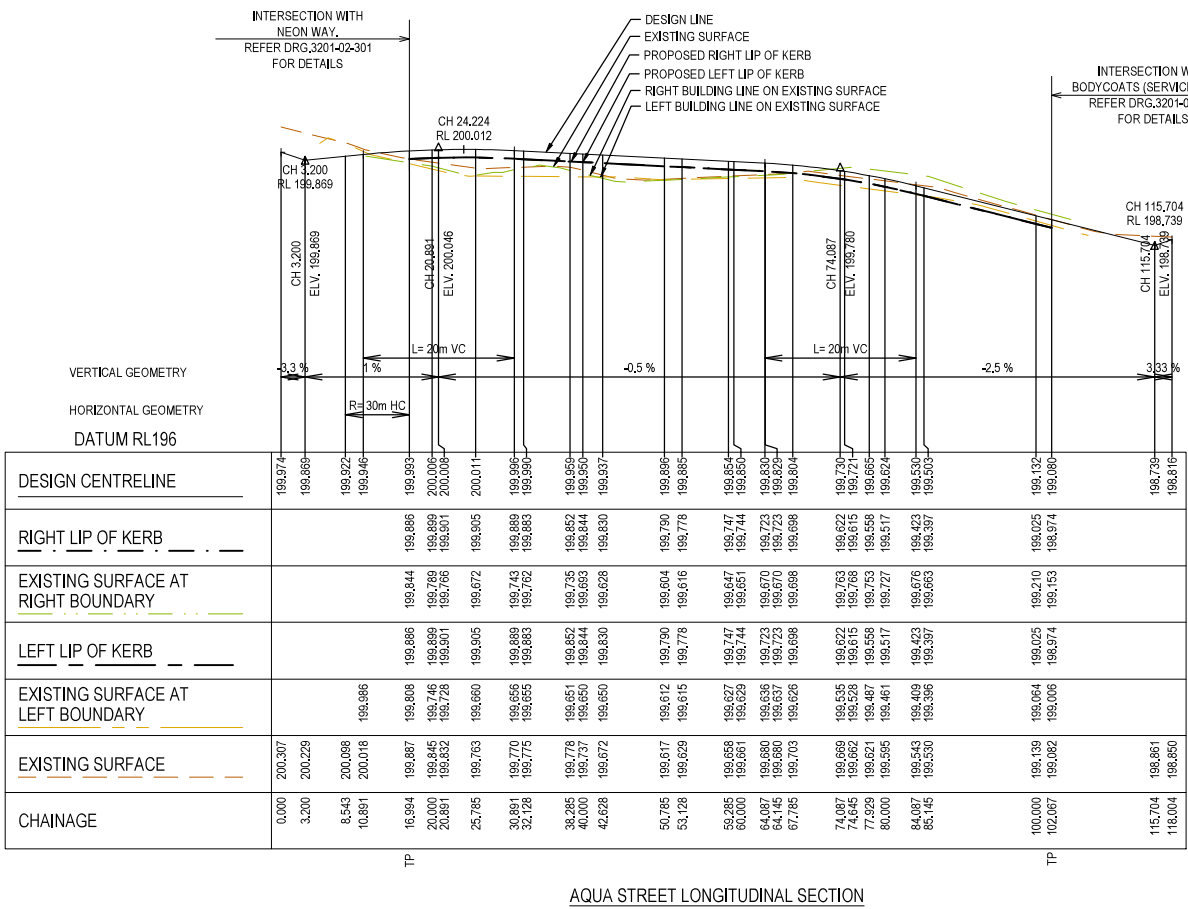
PLAN OF SUBDIVISION No. PS838326V



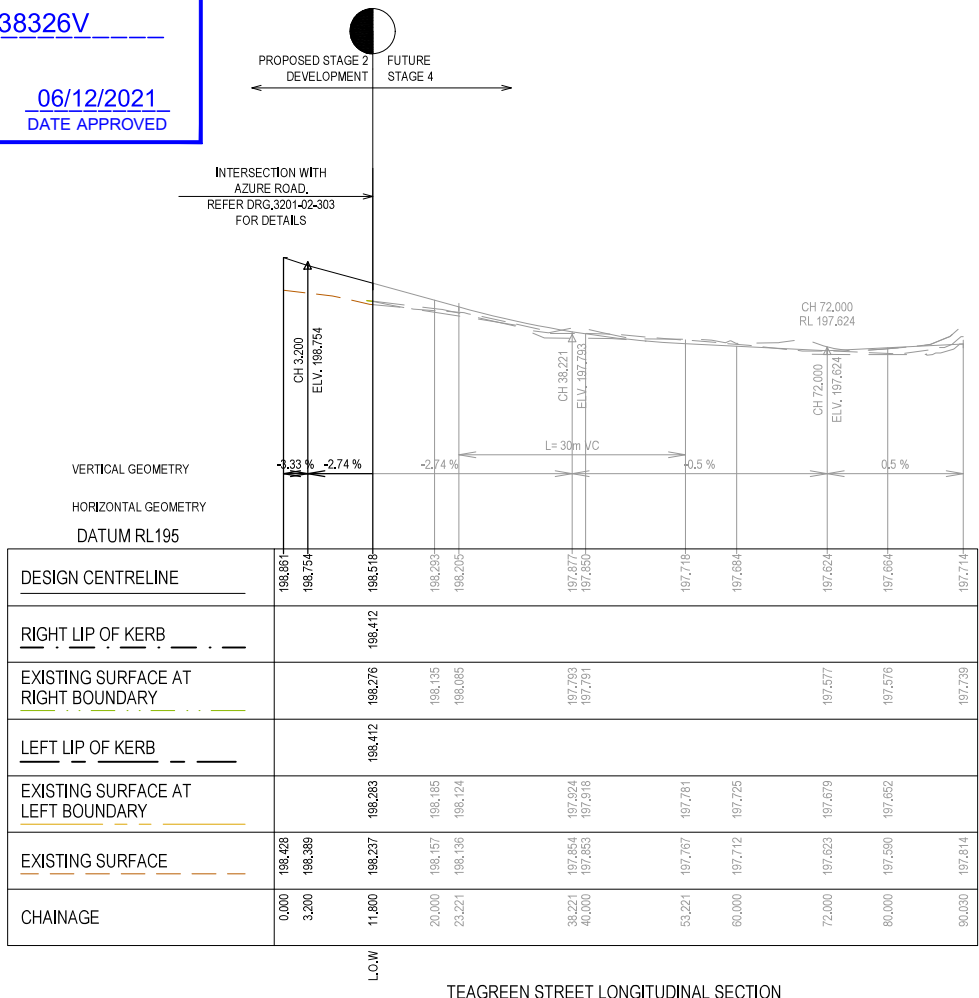
06/12/2021

DATE APPROVED



DEVELOPMENT ENGINEER



AQUA STREET LONGITUDINAL SECTION



TEAGREEN STREET LONGITUDINAL SECTION

0	07.06.21	MHN			ISSUED FOR CONSTRUCTION
P2	09.02.21	NI	-	JM	COUNCIL COMMENTS ADDRESSED
P1	30.09.20	AN	-	CD	ISSUED FOR COUNCIL SUBMISSION
REV	DATE	DRN	OKD	APP	AMENDMENT

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E melbourne@cosweb.com.au

CLIENT			
APPROVED	08.06.21	DESIGNED	C&W
		SCALE	AS SHOWN

PROJECT		THE PATCH - STAGE 2	
TITLE		ROAD LONGITUDINAL SECTIONS AQUA STREET & TEAGREEN STREET	
MUNICIPALITY		CITY OF WHITTLESEA	
PP No.	717154	DRAWING No.	3201-02-101
REVISION	0		

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ORIGINAL SIZE





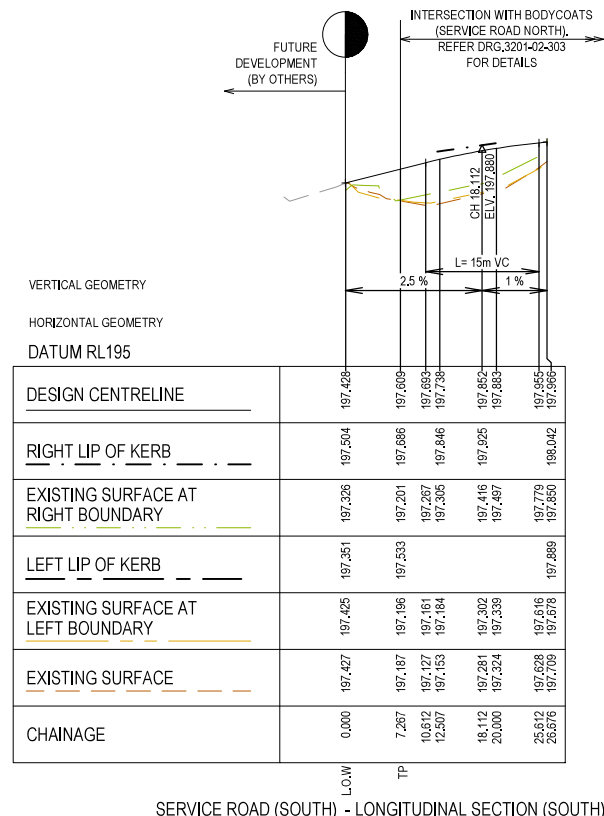
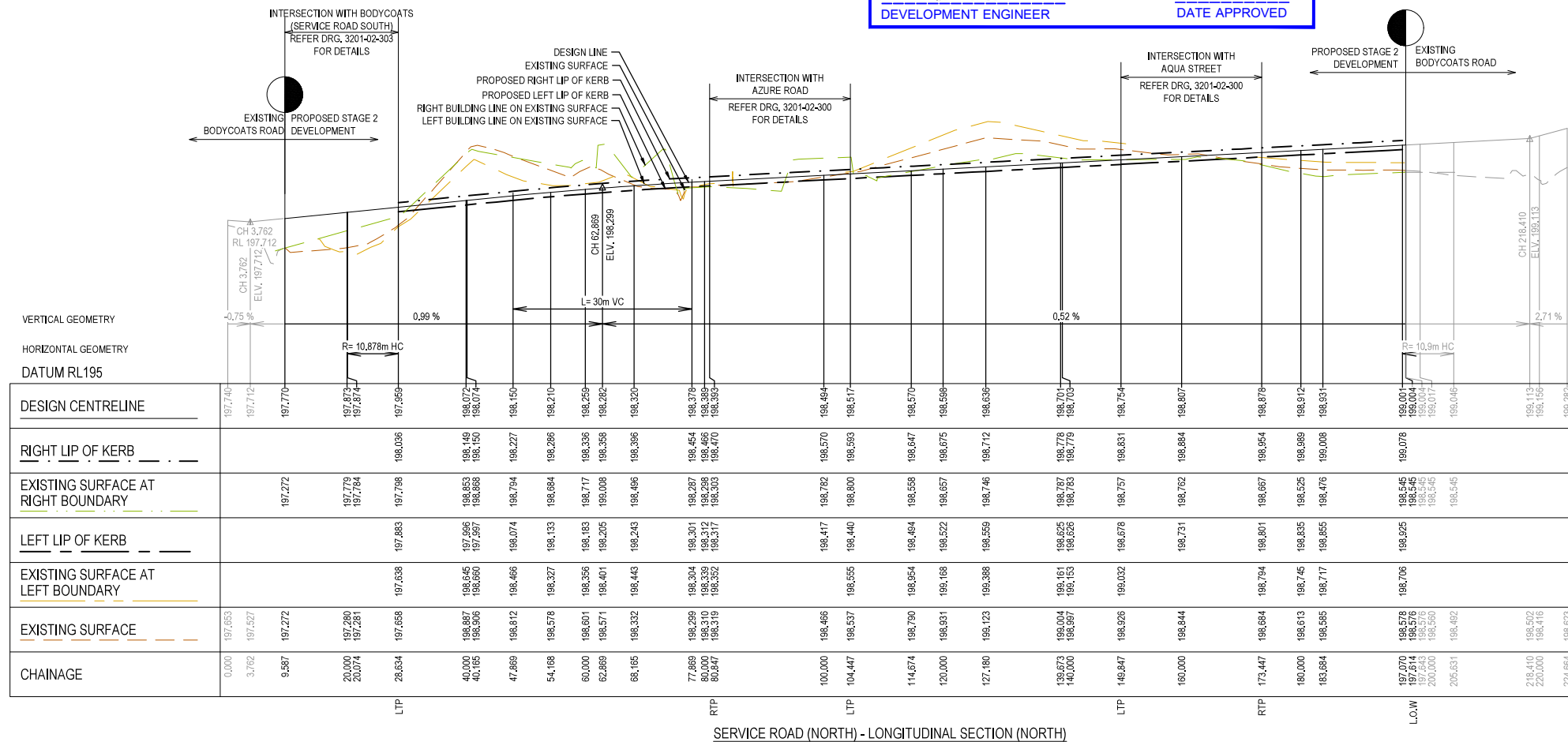




LEGEND	
	EXISTING SURFACE
	DESIGN LINE
	FUTURE DESIGN LINE
	EXISTING SURFACE AT RIGHT BOUNDARY
	RIGHT LIP OF KERB
	EXISTING SURFACE AT LEFT BOUNDARY
	LEFT LIP OF KERB

CITY OF WHITTLESEA  
ENGINEERING PLANS & SPECIFICATIONS  
APPROVED PURSUANT TO SECTION 15 OF THE  
SUBDIVISION ACT 1988

PLAN OF SUBDIVISION No. PS838326V

*JH62*  
DEVELOPMENT ENGINEER  
06/12/2021  
DATE APPROVED



0	07.06.21	MHN			ISSUED FOR CONSTRUCTION
P2	09.02.21	NI	-	JM	COUNCIL COMMENTS ADDRESSED
P1	30.09.20	AN	-	CD	ISSUED FOR COUNCIL SUBMISSION
REV	DATE	DRN	OKD	APP	AMENDMENT

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H 1:500  
SCALE @ A1  
V 1:50

0 10 20 30m  
0 1 2 3m

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**JINDING**  
APPROVED  
*J. J. J.* 08.06.21  
DESIGNED  
C & W  
SCALE  
AS SHOWN

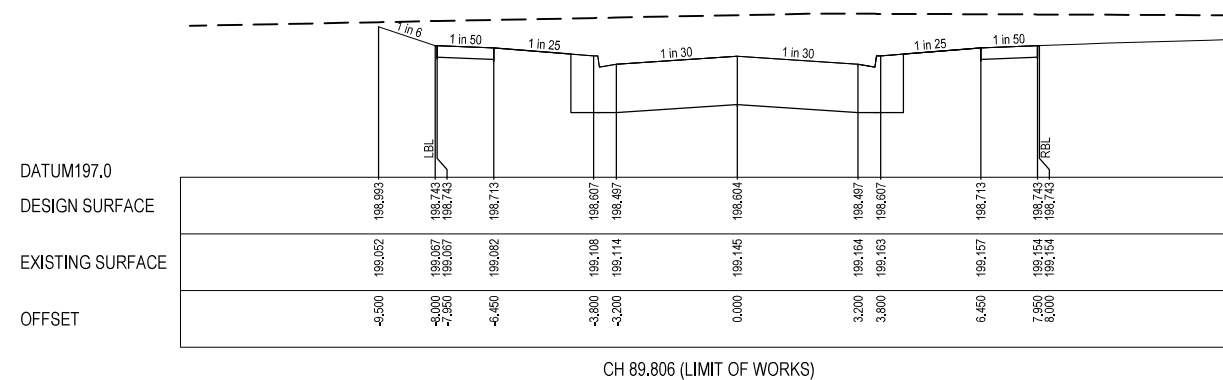
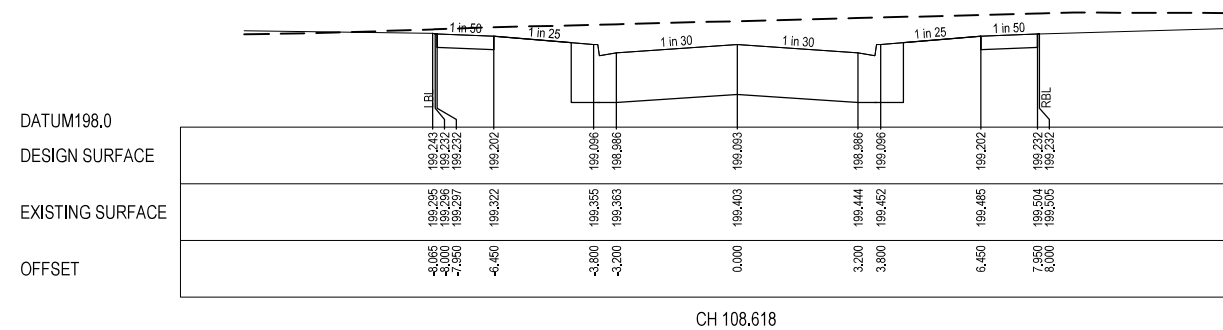
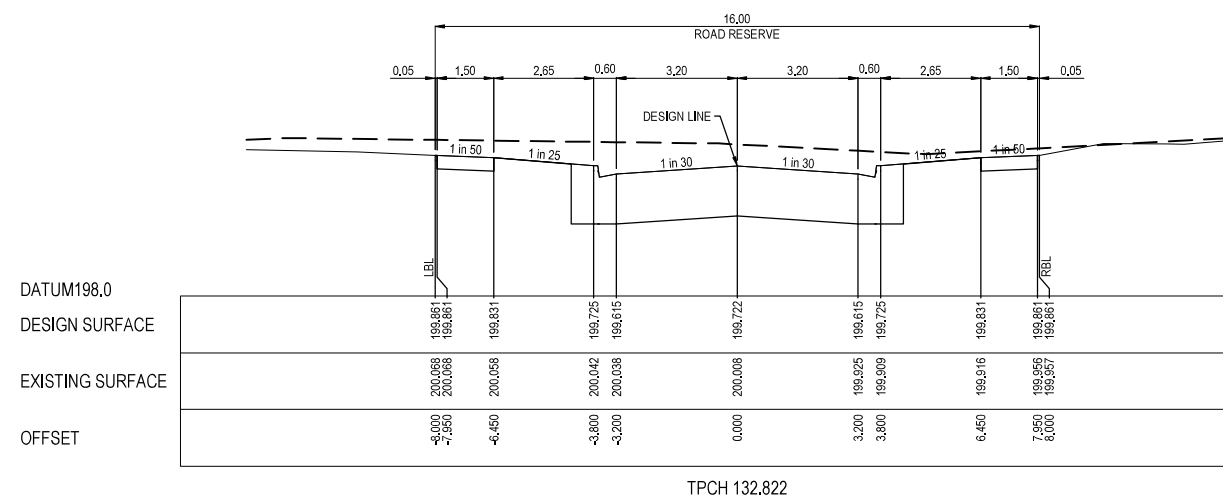
PROJECT  
THE PATCH - STAGE 2  
TITLE  
ROAD LONGITUDINAL SECTIONS SERVICE  
ROAD NORTH & SOUTH  
CITY OF WHITTLESEA  
MUNICIPALITY  
PP No. 717154  
DRAWING No. 3201-02-103  
REVISION  
0

A1  
ORIGINAL  
SIZE



STRUCTURAL FILL REQUIRED UNDER PAVEMENT  
AND FOOTPATHS WHERE CONSTRUCTED ABOVE  
NATURAL SURFACE, REFER GEOTECH REPORT  
FOR SPECIFICATION

LEGEND	
	EXISTING SURFACE
	DESIGN SURFACE
	STRUCTURAL FILL




CITY OF WHITTLESEA


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APPROVED PURSUANT TO SECTION 15 OF THE SUBDIVISION ACT 1988

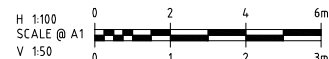
PLAN OF SUBDIVISION No. PS838326V

  
DEVELOPMENT ENGINEER

06/12/2021  
DATE APPROVED

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P3	25.02.21	JM	-	JM	STRUCTURAL FILL NOTE AMENDED
P2	09.02.21	NI	-	JM	COUNCIL COMMENTS ADDRESSED
P1	30.09.20	AN	-	CD	ISSUED FOR COUNCIL SUBMISSION
REV	DATE	DRN	OKD	APP	AMENDMENT

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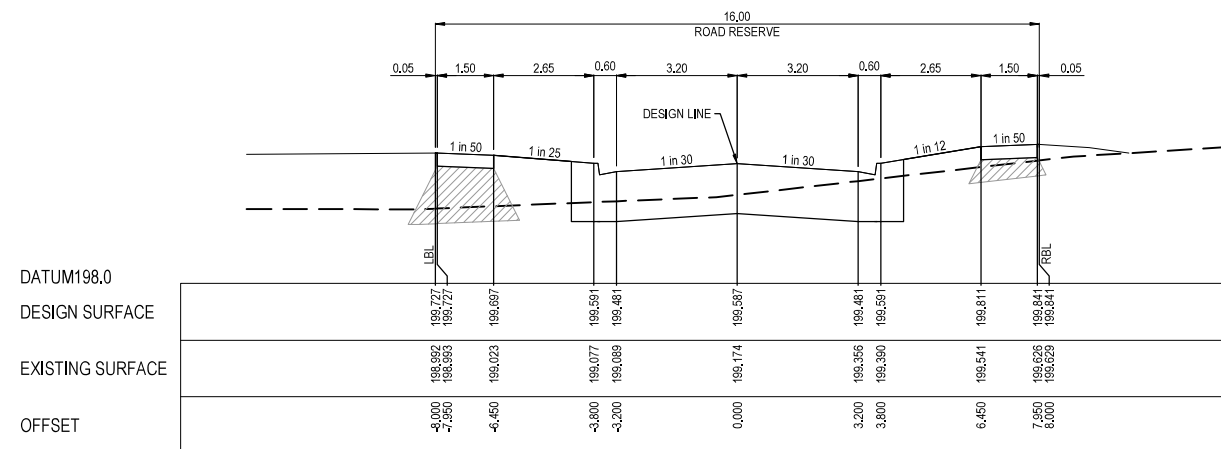
CLIENT	
	
APPROVED	08.06.21
DESIGNED	C&W
SCALE	AS SHOWN

PROJECT	
THE PATCH - STAGE 2	
TITLE	
ROAD CROSS SECTIONS NOIR ROAD	
MUNICIPALITY	CITY OF WHITTLESEA
PP No.	717154
DRAWING No.	3201-02-200
REVISION	0

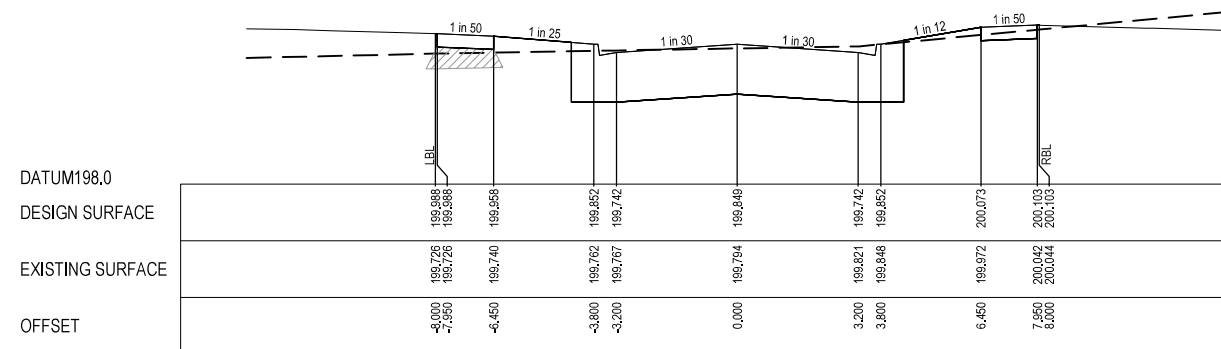
ORIGINAL  
SIZE  
A1

STRUCTURAL FILL REQUIRED UNDER PAVEMENT AND FOOTPATHS WHERE CONSTRUCTED ABOVE NATURAL SURFACE, REFER GEOTECH REPORT FOR SPECIFICATION

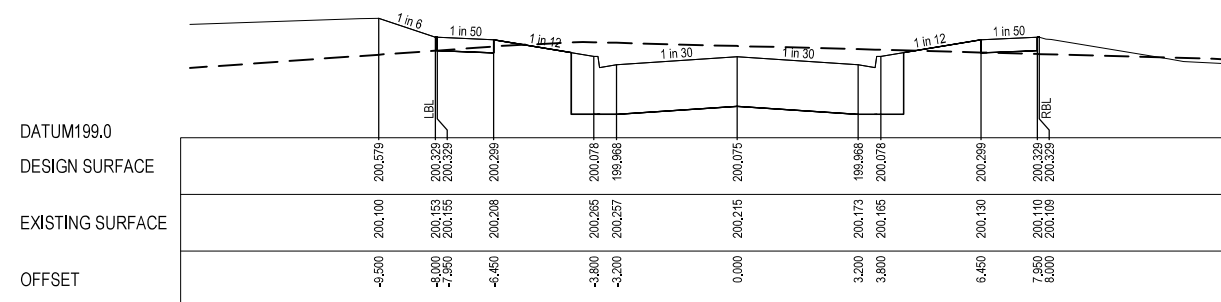
LEGEND	
	EXISTING SURFACE
	DESIGN SURFACE
	STRUCTURAL FILL



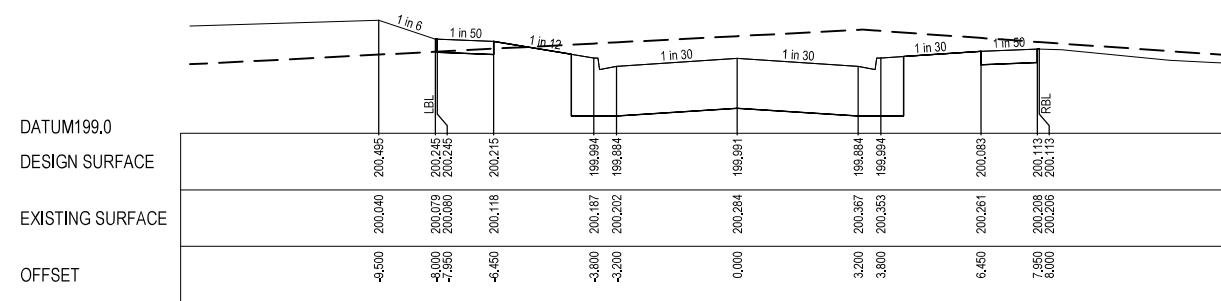
CH 122.196



LTPCH 101.225



RTPCH 74.811



CH 50.728

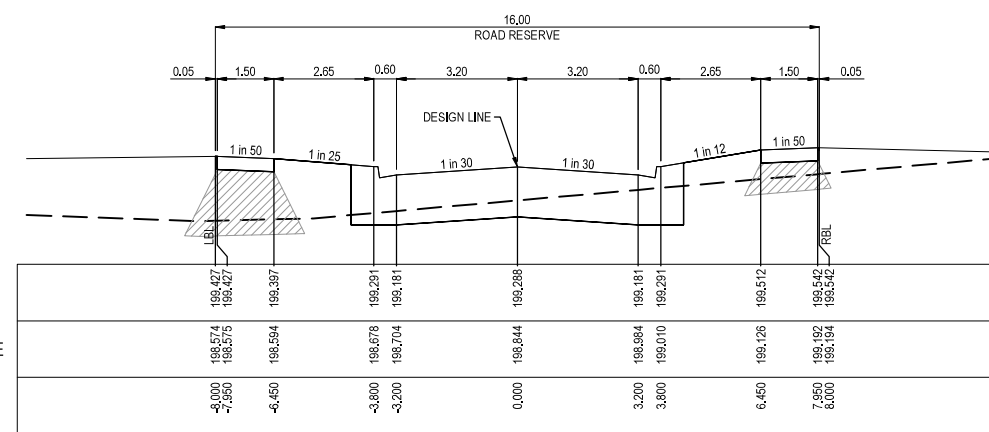
**CITY OF WHITTLESEA**  
ENGINEERING PLANS & SPECIFICATIONS  
APPROVED PURSUANT TO SECTION 15 OF THE  
SUBDIVISION ACT 1988

PLAN OF SUBDIVISION No. PS838326V

*HGL*  
DEVELOPMENT ENGINEER

06/12/2021  
DATE APPROVED

DATUM198.0  
DESIGN SURFACE  
EXISTING SURFACE  
OFFSET



TPCH 139.895

0	07.06.21	MHN	<i>R.</i>	<i>Goul</i>	ISSUED FOR CONSTRUCTION
P3	25.02.21	JM	-	JM	STRUCTURAL FILL NOTE AMENDED
P2	09.02.21	NI	-	JM	COUNCIL COMMENTS ADDRESSED
P1	30.09.20	AN	-	CD	ISSUED FOR COUNCIL SUBMISSION
REV	DATE	DRN	CKD	APP	AMENDMENT

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CLIENT  
**JINDING**  
APPROVED  
*Emel*  
08.06.21  
DESIGNED  
C&W  
SCALE  
AS SHOWN

PROJECT  
THE PATCH - STAGE 2  
TITLE  
ROAD CROSS SECTIONS NEON WAY  
MUNICIPALITY  
CITY OF WHITTLESEA  
PP No.  
717154  
DRAWING No.  
3201-02-201  
REVISION  
0

ORIGINAL  
SIZE  
A1



### LEGEND

	EXISTING SURFACE
	DESIGN SURFACE
	STRUCTURAL FILL

07.06.21					MHN	<i>CD</i>	<i>Jm</i>	ISSUED FOR CONSTRUCTION	
P2					25.02.21	JM	-	JM	STRUCTURAL FILL NOTE AMENDED
P3					09.02.21	NI	-	JM	COUNCIL COMMENTS ADDRESSED
P1					30.09.20	AN	-	CD	ISSUED FOR COUNCIL SUBMISSION
REV					DATE	DRN	CKD	APP	AMENDMENT

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H 1:100  
SCALE @ A1  
V 150

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<b>CLIENT</b>		<b>JINDING</b>		<b>PROJECT</b>		THE PATCH - STAGE 2	
<b>APPROVED</b>		08.06.21		<b>DESIGNED</b>		C&W	
				<b>SCALE</b>		AS SHOWN	
<b>PP No.</b>		717154		<b>DRAWING No.</b>		3201-02-202	
<b>MUNICIPALITY</b>		CITY OF WHITTLESEA		<b>REVISION</b>		0	

ORIGINAL SIZE

A1

CITY OF WHITTLESEA  
ENGINEERING PLANS & SPECIFICATIONS  
APPROVED PURSUANT TO SECTION 15 OF THE  
SUBDIVISION ACT 1988  
PLAN OF SUBDIVISION No. PS838326V  
*H6L*  
DEVELOPMENT ENGINEER

06/12/2021  
DATE APPROVED

STRUCTURAL FILL REQUIRED UNDER PAVEMENT  
AND FOOTPATHS WHERE CONSTRUCTED ABOVE  
NATURAL SURFACE. REFER GEOTECH REPORT  
FOR SPECIFICATION

LEGEND

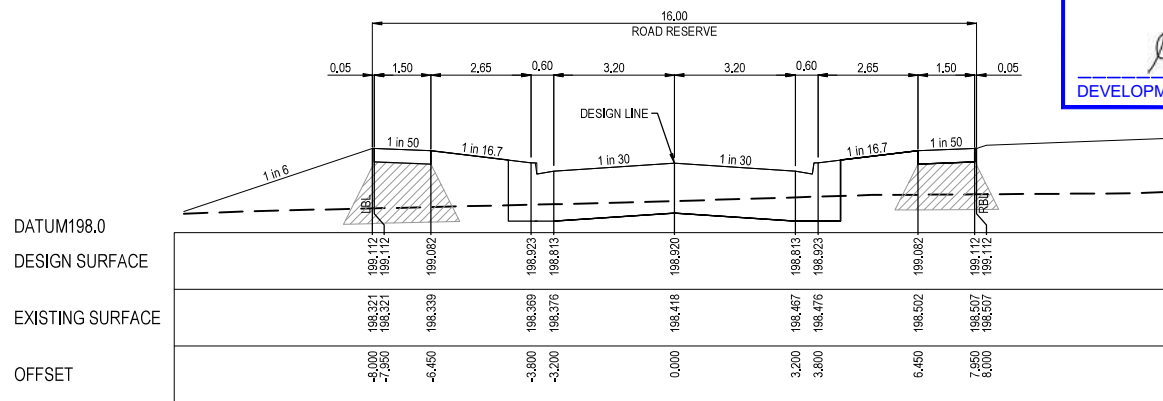
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EXISTING SURFACE

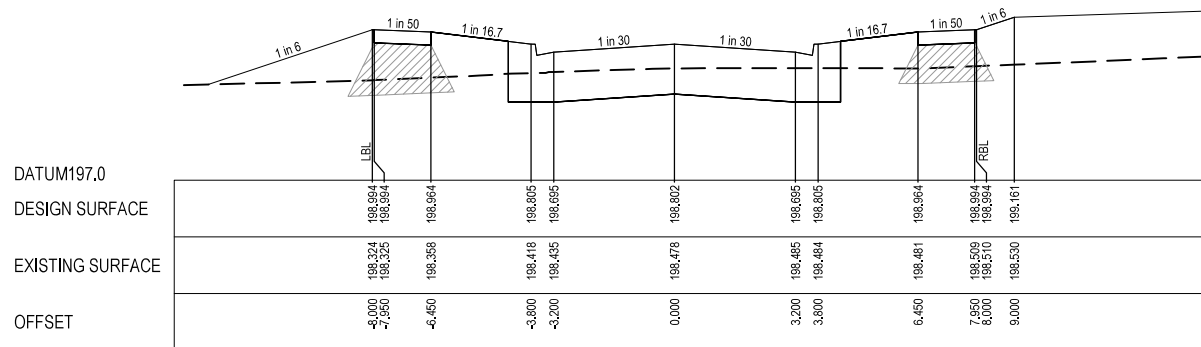
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DESIGN SURFACE

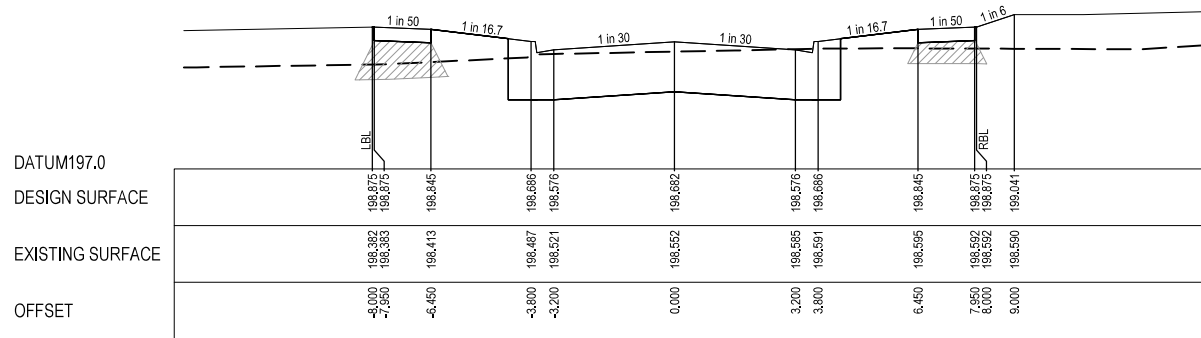
STRUCTURAL FILL



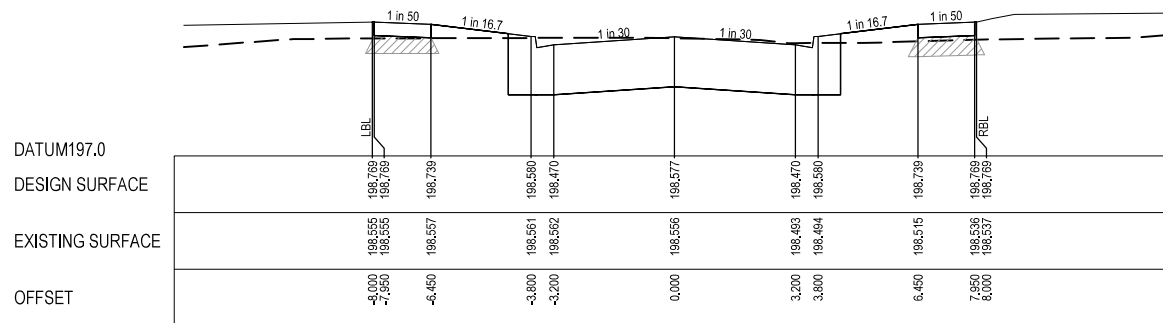
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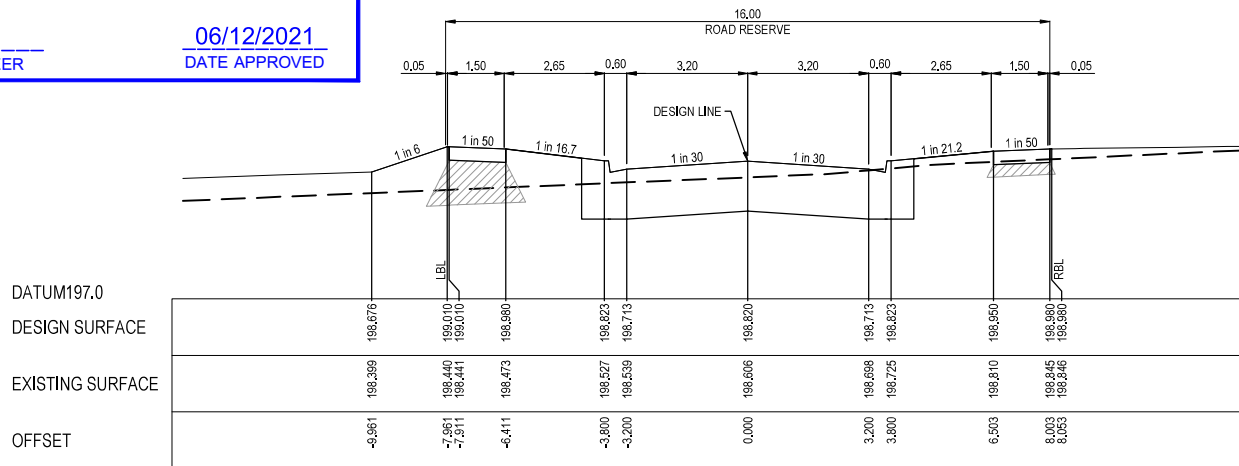
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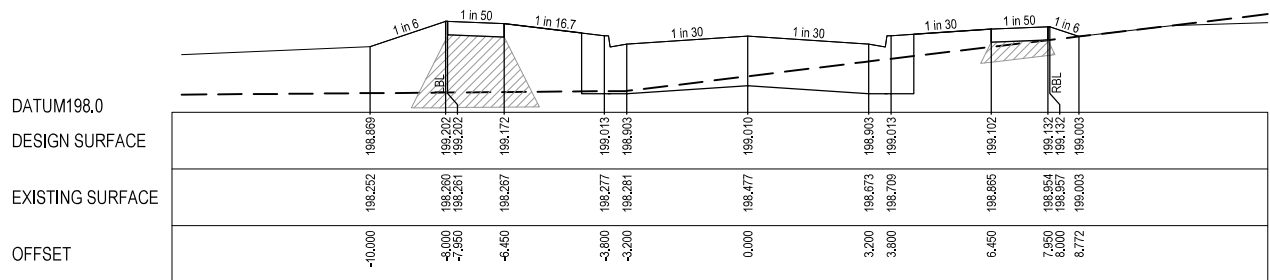
CH 33,075



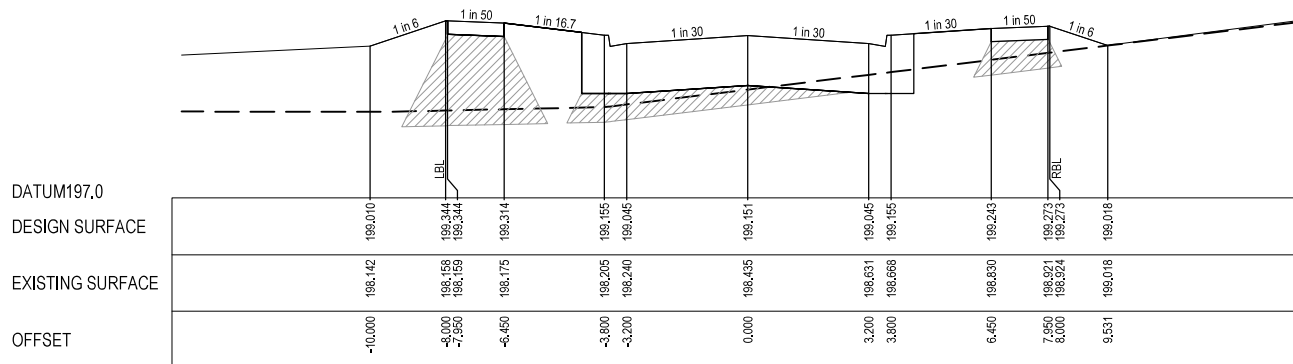
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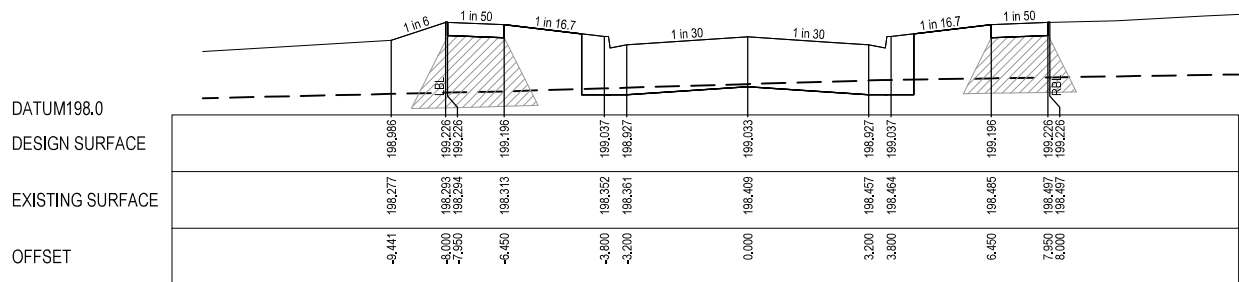
CH 172,233





CH 146,371



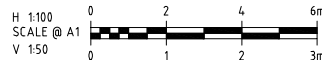
RTPCH 126,891



RTPCH 103,291

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P3	25.02.21	JM	-	JM	STRUCTURAL FILL NOTE AMENDED
P2	09.02.21	NI	-	JM	COUNCIL COMMENTS ADDRESSED
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REV	DATE	DRN	OKD	APP	AMENDMENT

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APPROVED  
*[Signature]* 08.06.21

DESIGNED  
C&W

SCALE  
AS SHOWN

PROJECT  
THE PATCH - STAGE 2

TITLE  
ROAD CROSS SECTIONS AZURE ROAD  
(SHEET 1 OF 2)  
CITY OF WHITTLESEA

MUNICIPALITY  
717154

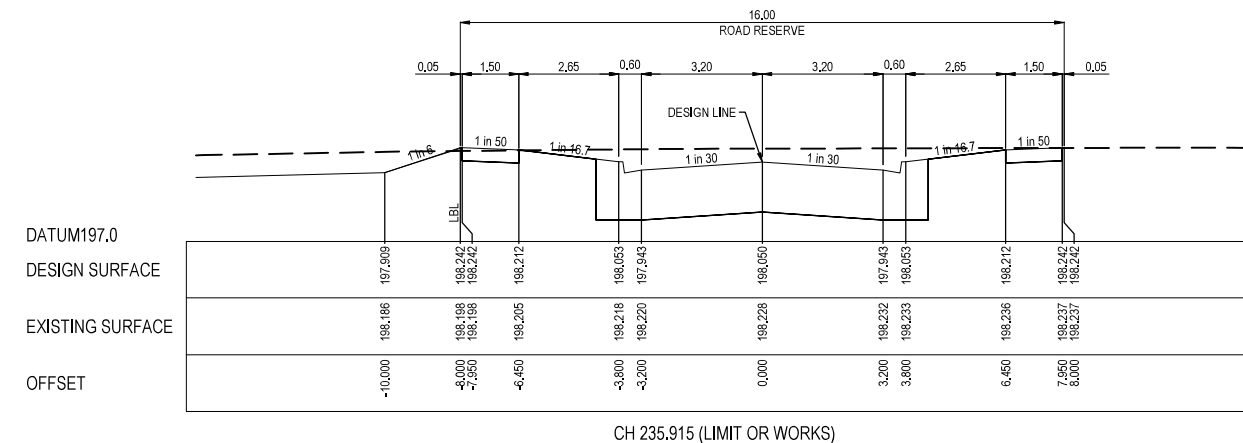
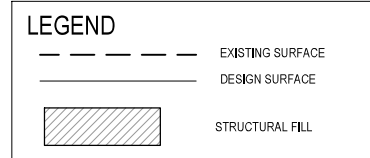
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3201-02-203

REVISION  
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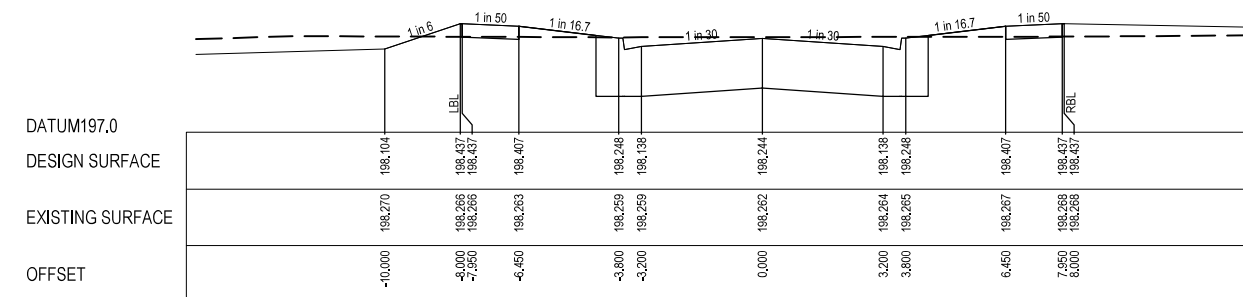
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SIZE  
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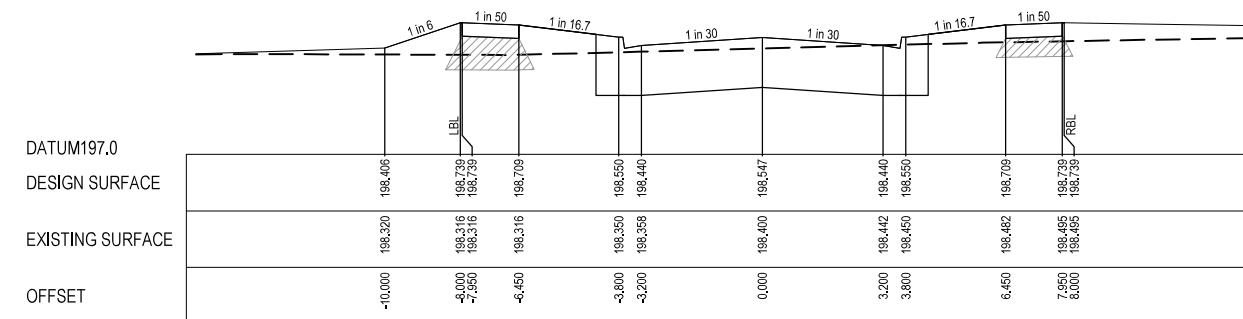
STRUCTURAL FILL REQUIRED UNDER PAVEMENT AND FOOTPATHS WHERE CONSTRUCTED ABOVE NATURAL SURFACE, REFER GEOTECH REPORT FOR SPECIFICATION



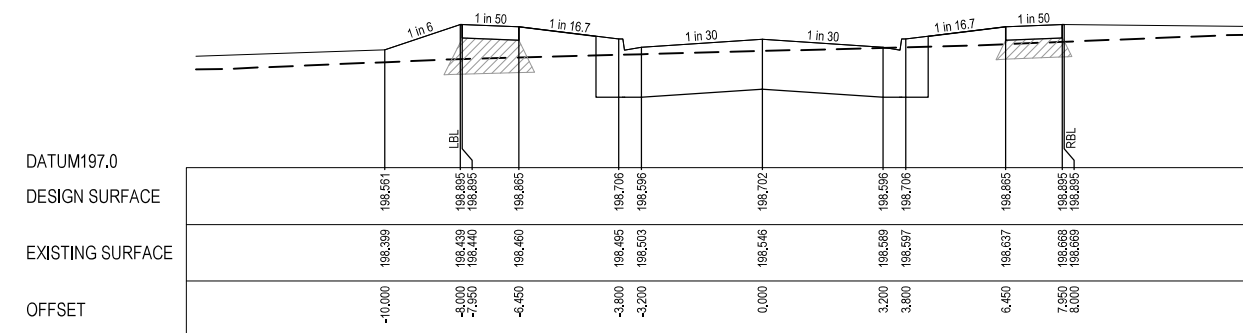
CH 235.915 (LIMIT OF WORKS)



CH 222.005



CH 200.415



CH 187.915



## CITY OF WHITTLESEA

ENGINEERING PLANS & SPECIFICATIONS  
APPROVED PURSUANT TO SECTION 15 OF THE  
SUBDIVISION ACT 1988

PLAN OF SUBDIVISION No. PS838326V

*[Signature]*  
DEVELOPMENT ENGINEER

06/12/2021  
DATE APPROVED

0	07.06.21	MHN			ISSUED FOR CONSTRUCTION
P3	25.02.21	JM	-	JM	STRUCTURAL FILL NOTE AMENDED
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REV	DATE	DRN	OKD	APP	AMENDMENT

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CLIENT  
**JINDING**

APPROVED  
*[Signature]* 08.06.21

DESIGNED  
C&W

SCALE  
AS SHOWN

PROJECT  
THE PATCH - STAGE 2

TITLE  
ROAD CROSS SECTIONS AZURE ROAD  
(SHEET 2 OF 2)

MUNICIPALITY  
CITY OF WHITTLESEA

PP No.  
717154

DRAWING No.  
3201-02-204

REVISION  
0

ORIGINAL SIZE  
A1

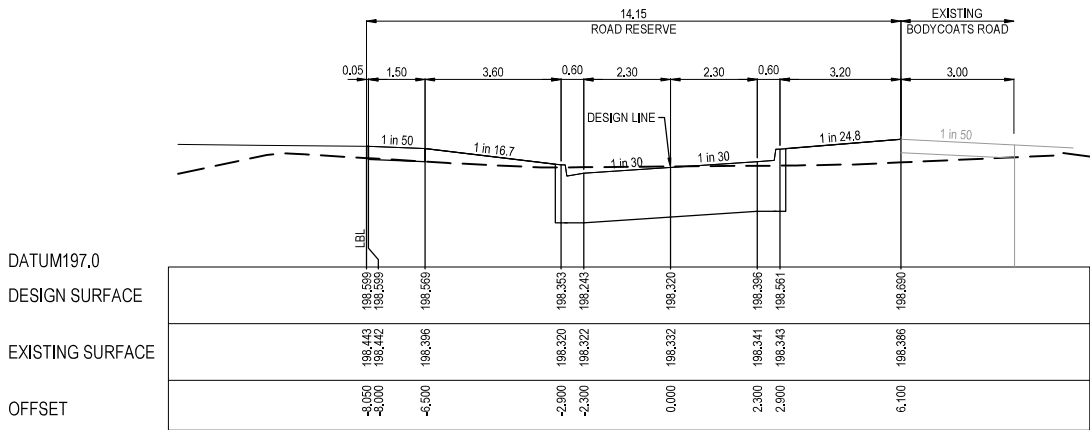
## CITY OF WHITTLESEA

ENGINEERING PLANS & SPECIFICATIONS  
APPROVED PURSUANT TO SECTION 15 OF THE  
SUBDIVISION ACT 1988PLAN OF SUBDIVISION No. PS838326V

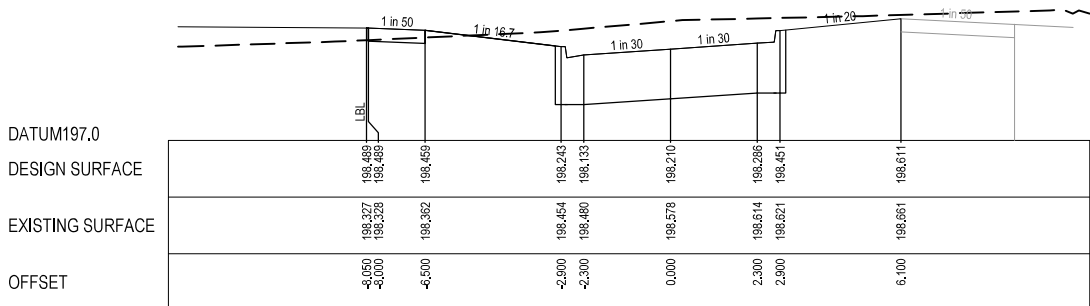
DEVELOPMENT ENGINEER

06/12/2021  
DATE APPROVEDSTRUCTURAL FILL REQUIRED UNDER PAVEMENT  
AND FOOTPATHS WHERE CONSTRUCTED ABOVE  
NATURAL SURFACE. REFER GEOTECH REPORT  
FOR SPECIFICATION

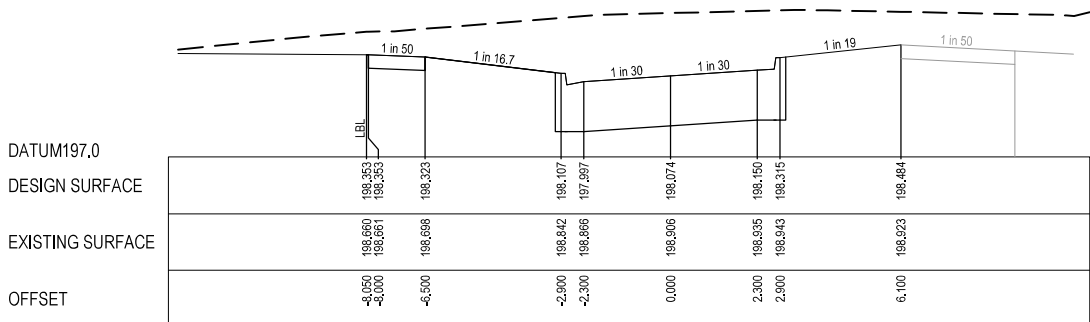
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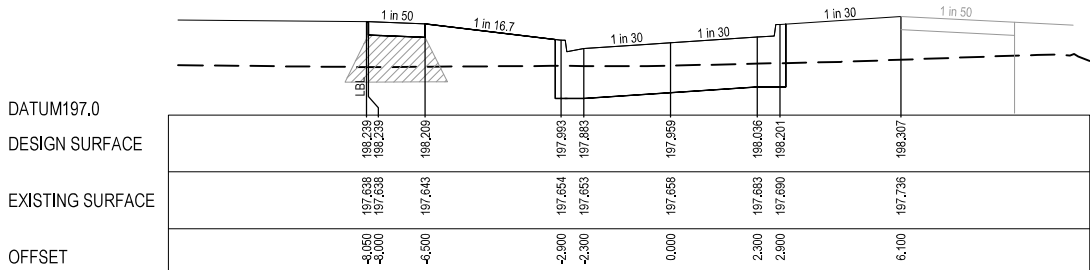
CH 68.165



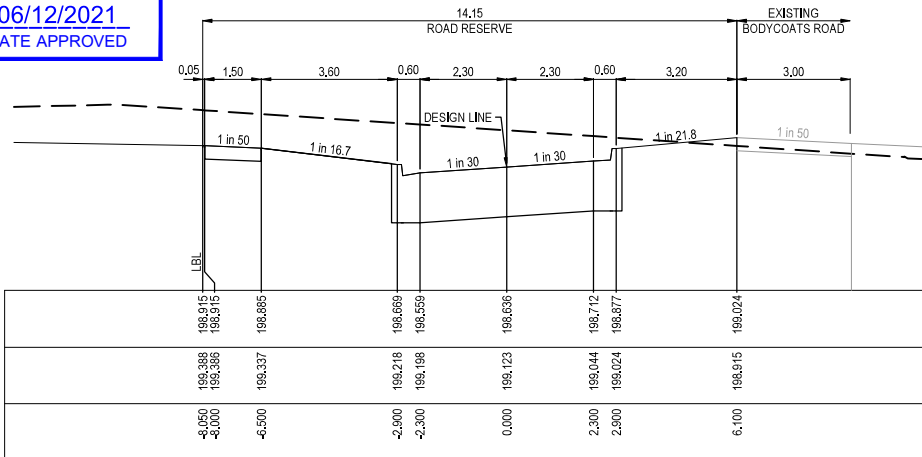
CH 54.168



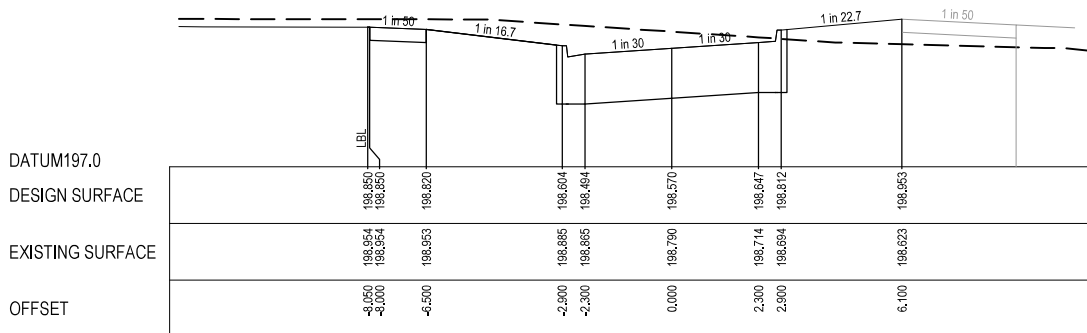
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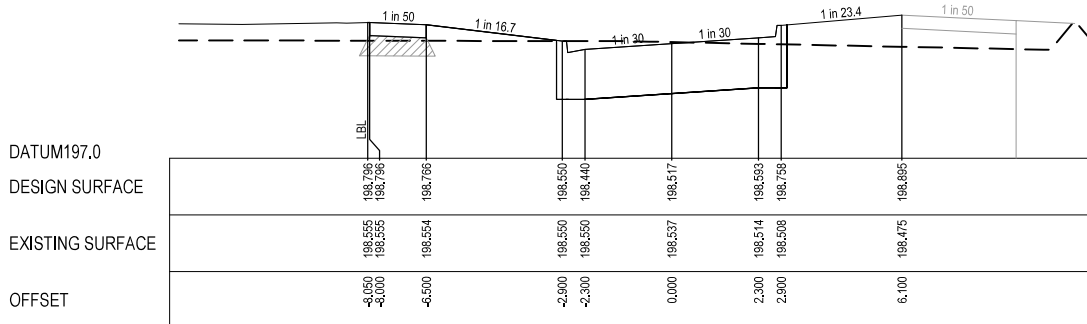
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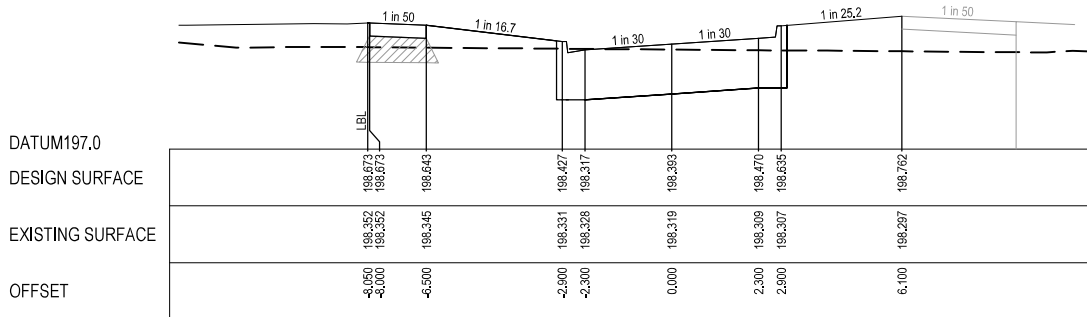
CH 127.180





CH 114.674



RTPCH 104.447



RTPCH 80.847

0	07.06.21	MHN			ISSUED FOR CONSTRUCTION
P3	25.02.21	JM	-	JM	STRUCTURAL FILL NOTE AMENDED
P2	09.02.21	NI	-	JM	COUNCIL COMMENTS ADDRESSED
P1	30.09.20	AN	-	CD	ISSUED FOR COUNCIL SUBMISSION
REV	DATE	DRN	OKD	APP	AMENDMENT

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SCALE @ A1  
V 1:50

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CONSULTING ENGINEERSMailing Address  
PO Box 33152  
Melbourne VIC 3004  
T (03) 8548 1560Street Address  
Suite 2.04, 390 St Kilda Road  
Melbourne VIC 3004  
E melbourne@cosweb.com.au

## CLIENT

JINDING

## APPROVED

*[Signature]* 08.06.21

## DESIGNED

C&W  
SCALE  
AS SHOWN

## PROJECT

THE PATCH - STAGE 2

## TITLE

ROAD CROSS SECTIONS SERVICE ROAD  
NORTH (SHEET 1 OF 2)  
CITY OF WHITTLESEA

## MUNICIPALITY

717154

## PP No.

3201-02-205

## DRAWING No.

3201-02-205

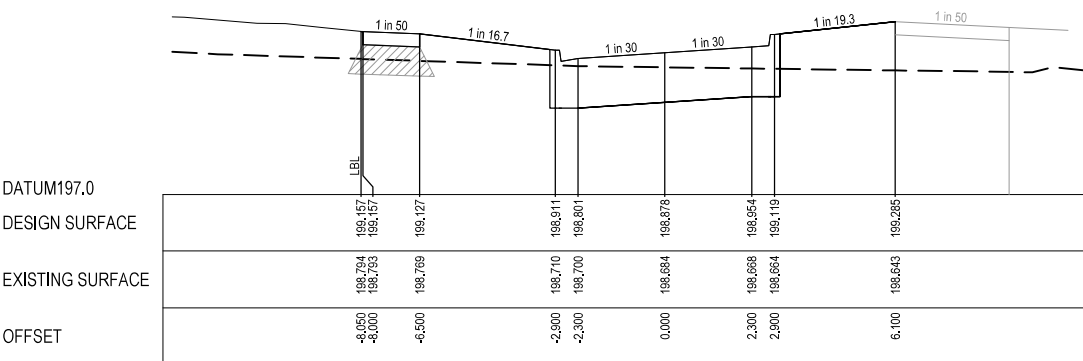
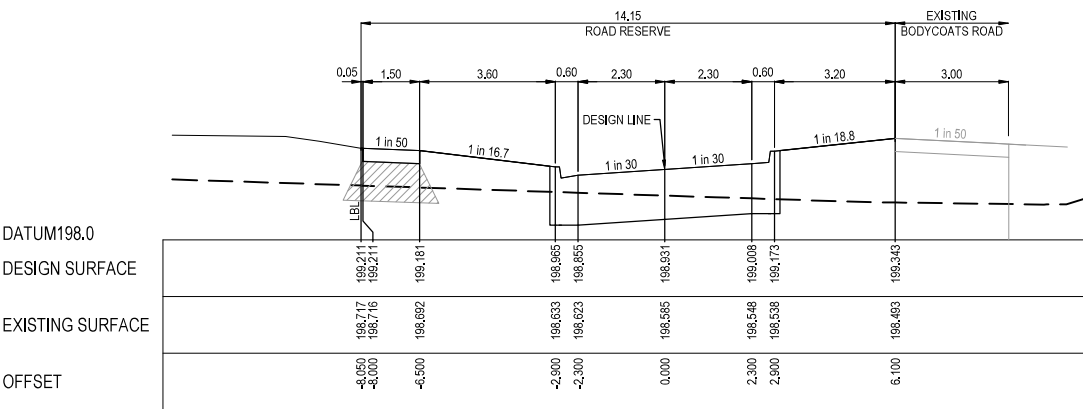
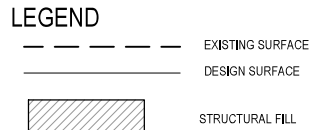
## REVISION

0

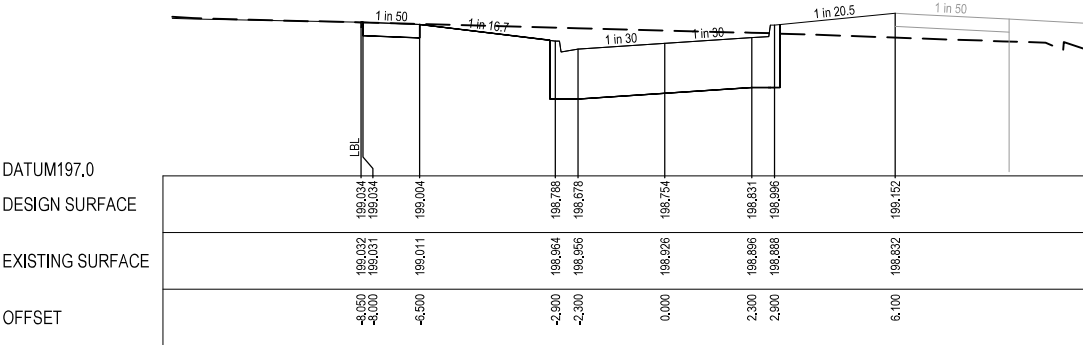
ORIGINAL  
SIZE  
A1



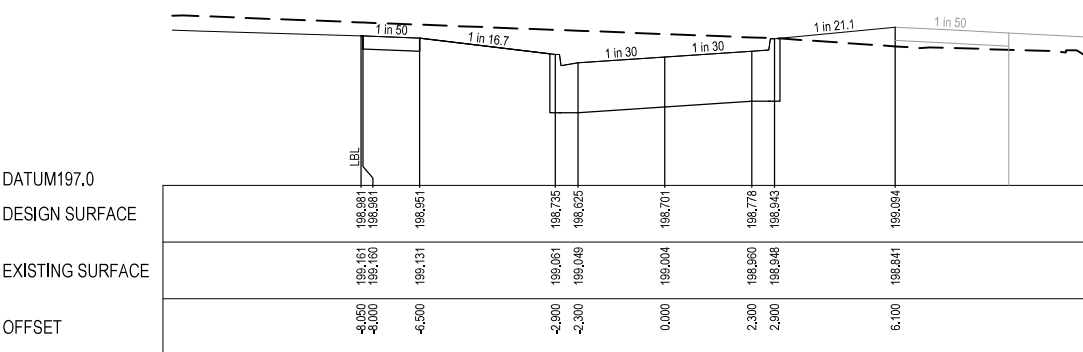
STRUCTURAL FILL REQUIRED UNDER PAVEMENT AND FOOTPATHS WHERE CONSTRUCTED ABOVE NATURAL SURFACE. REFER GEOTECH REPORT FOR SPECIFICATION



RTPCH 173.447



LTPCH 149.847



CH 139.673

SERVICE ROAD (NORTH)

## CITY OF WHITTLESEA

ENGINEERING PLANS & SPECIFICATIONS  
APPROVED PURSUANT TO SECTION 15 OF THE  
SUBDIVISION ACT 1988

PLAN OF SUBDIVISION No. PS838326V

DEVELOPMENT ENGINEER

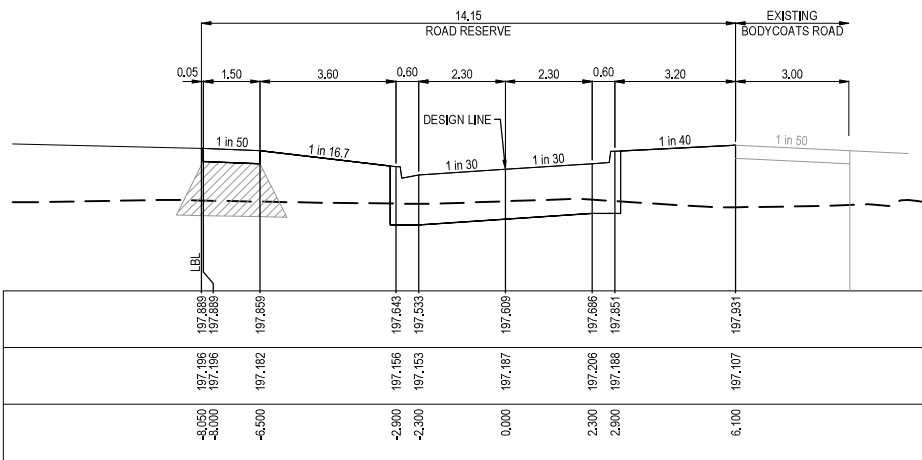
06/12/2021  
DATE APPROVED

DATUM 196.0

DESIGN SURFACE

EXISTING SURFACE

OFFSET



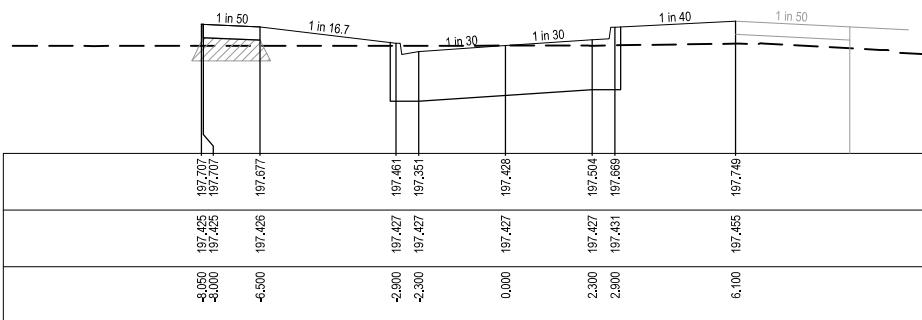
TPCH 7.267

DATUM 196.0

DESIGN SURFACE


EXISTING SURFACE

OFFSET



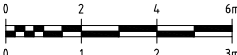
CH 0.000 (LIMIT OF WORKS)

SERVICE ROAD (SOUTH)

0	07.06.21	MHN		ISSUED FOR CONSTRUCTION	
P3	25.02.21	JM	-	JM	STRUCTURAL FILL NOTE AMENDED
P2	09.02.21	NI	-	JM	COUNCIL COMMENTS ADDRESSED
P1	30.09.20	AN	-	CD	ISSUED FOR COUNCIL SUBMISSION
REV	DATE	DRN	OKD	APP	AMENDMENT

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H 1:100  
SCALE @ A1  
V 1:50



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CONSULTING ENGINEERS

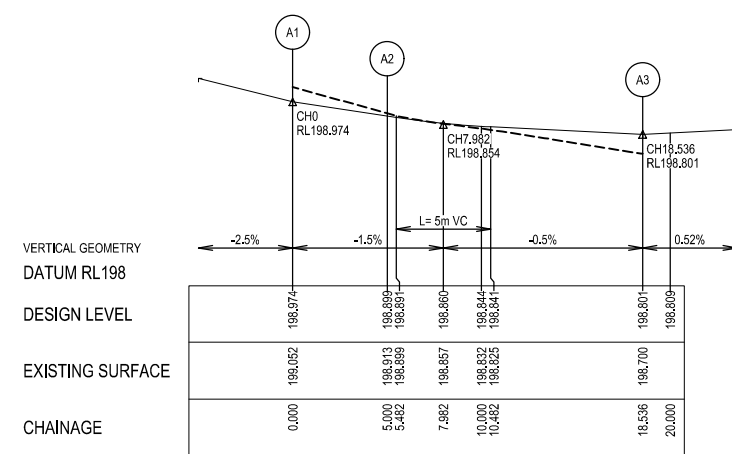
Mailing Address  
PO Box 33152  
Melbourne VIC 3004  
T (03) 8548 1560

Street Address  
Suite 2.04, 390 St Kilda Road  
Melbourne VIC 3004  
E melbourne@cosweb.com.au

CLIENT	<b>JINDING</b>
APPROVED	08.06.21 <i>[Signature]</i>
DESIGNED	C&W
SCALE	AS SHOWN

PROJECT	THE PATCH - STAGE 2
TITLE	ROAD CROSS SECTIONS SERVICE ROAD NORTH & SOUTH (SHEET 2 OF 2)
MUNICIPALITY	CITY OF WHITTLESEA
PP No.	717154
DRAWING No.	3201-02-206
REVISION	0

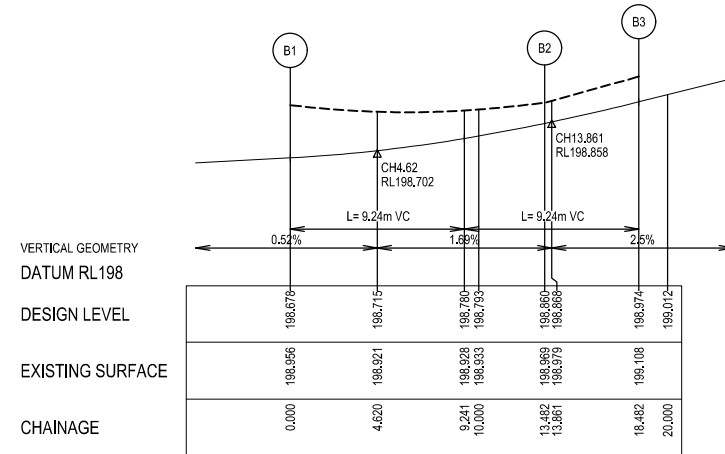
ORIGINAL  
SIZE  
A1



Alignment A

Point no	Easting	Northing	RL
A1	325195.523	5838397.313	198.974
A2	325200.492	5838396.750	198.899
A3	325210.008	5838404.353	198.801

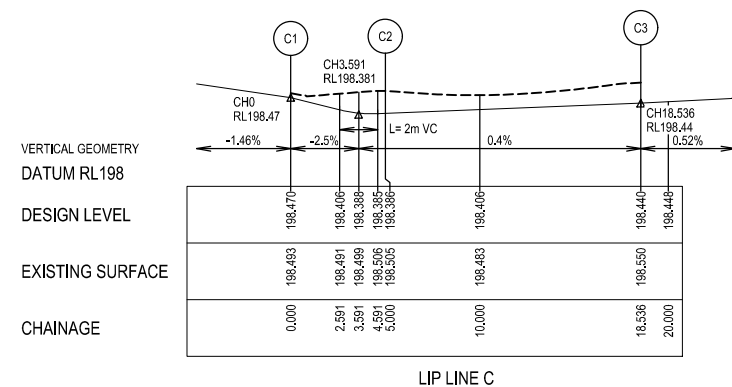
Curve no	I	Radius	Arc	A	B	X	Y	I	Mid point RL
A2 - A3	90.179	8.600	13.536	2.528	1.871	3.297	2.793	3.384	198.835



Alignment B

Point no	Easting	Northing	RL
B1	325207.424	5838380.895	198.678
B2	325199.844	5838390.382	198.860
B3	325194.876	5838390.945	198.974

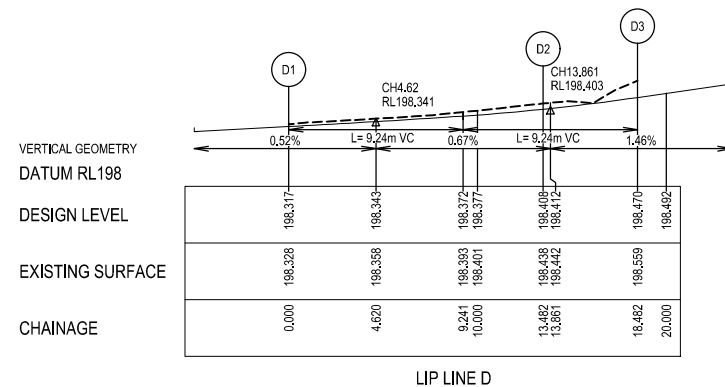
Curve no	I	Radius	Arc	A	B	X	Y	I	Mid point RL
B1 - B2	89.821	8.600	13.482	2.509	1.857	3.285	2.787	3.370	198.742



Alignment C

Point no	Easting	Northing	RL
C1	325187.967	5838328.727	198.470
C2	325192.935	5838328.164	198.386
C3	325202.452	5838335.768	198.440

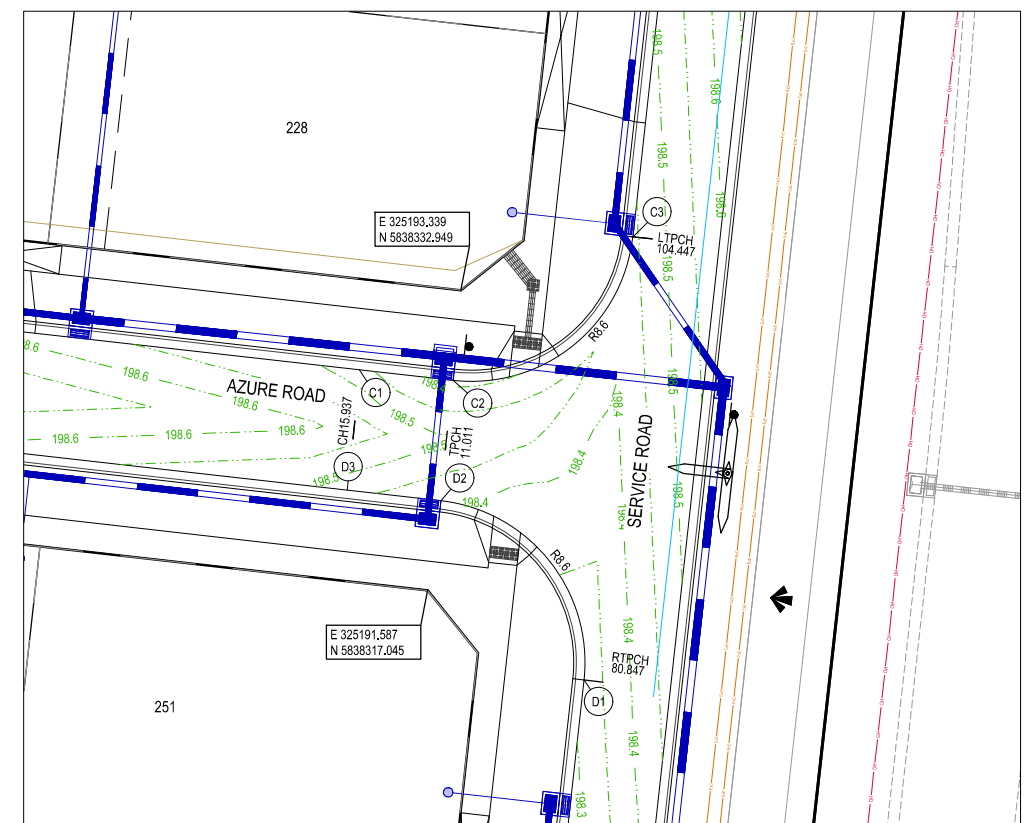
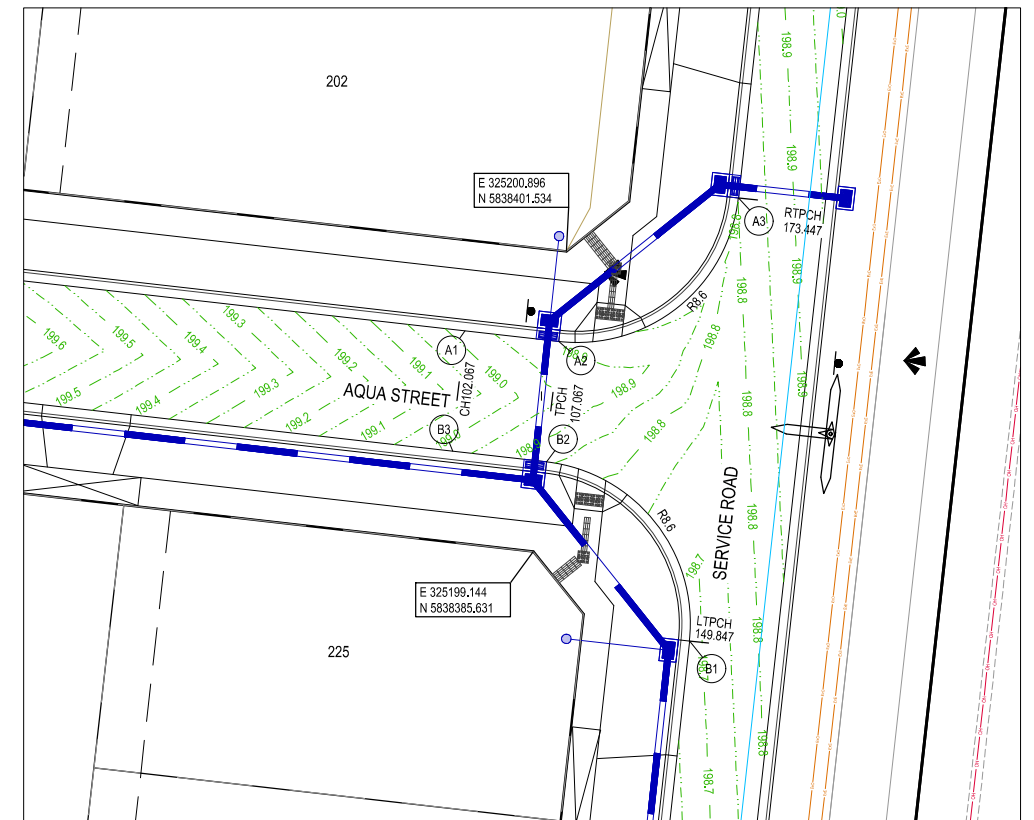
Curve no	I	Radius	Arc	A	B	X	Y	I	Mid point RL
C2 - C3	90.179	8.600	13.536	2.528	1.871	3.297	2.793	3.384	198.413



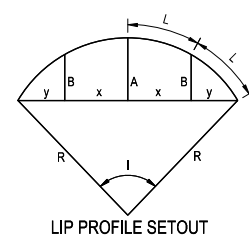
Alignment D

Point no	Easting	Northing	RL
D1	325199.867	5838312.309	198.317
D2	325192.287	5838321.797	198.408
D3	325187.319	5838322.360	198.470

Curve no	I	Radius	Arc	A	B	X	Y	I	Mid point RL
D1 - D2	89.821	8.600	13.482	2.509	1.857	3.285	2.787	3.370	198.356



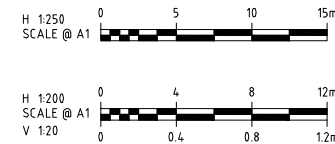
**CITY OF WHITTLESEA**  
ENGINEERING PLANS & SPECIFICATIONS  
APPROVED PURSUANT TO SECTION 15 OF THE  
SUBDIVISION ACT 1988  
PLAN OF SUBDIVISION No. PS838326V  
*[Signature]*  
DEVELOPMENT ENGINEER  
06/12/2021  
DATE APPROVED



- LEGEND**
- STORMWATER DRAIN, PIT & PROPERTY INLET
  - MELBOURNE WATER DRAIN & PIT
  - SWALE DRAIN
  - SEWER & MAINTENANCE STRUCTURES
  - HOUSE DRAIN
  - TACTILE PAVERS (INDICATIVE ONLY)
  - EXISTING HOUSE DRAIN
  - RETAINING WALL
  - PAVEMENT TREATMENT
  - CONCRETE EDGE STRIP WITH SUBSOIL DRAIN
  - "NO ROAD" SIGN & BARRIER
  - LIMIT OF WORKS
  - EXISTING TREE TO BE REMOVED
  - PERMANENT SURVEY MARK
  - TEMPORARY BENCH MARK
  - PROPOSED DRIVEWAY

REV	DATE	DRN	CKD	APP	AMENDMENT
1	26.07.21	MHN			REMOVED PRAM CROSSING ACROSS SERVICE ROAD
0	07.06.21	MHN	KCL	B. J-MONCK	ISSUED FOR CONSTRUCTION
P3	25.02.21	JM	-	JM	TGSI AMENDED TO SUIT CROSSING
P2	09.02.21	NI	-	JM	COUNCIL COMMENTS ADDRESSED
P1	30.09.20	AN	-	CD	ISSUED FOR COUNCIL SUBMISSION

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Street Address  
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Melbourne VIC 3004  
E melbourne@cosweb.com.au

CLIENT  
**JINDING**

APPROVED  
*[Signature]*

DESIGNED  
C&W

SCALE  
AS SHOWN

PROJECT  
THE PATCH - STAGE 2

TITLE  
INTERSECTION DETAILS (SHEET 1 OF 4)

MUNICIPALITY  
CITY OF WHITTLESEA

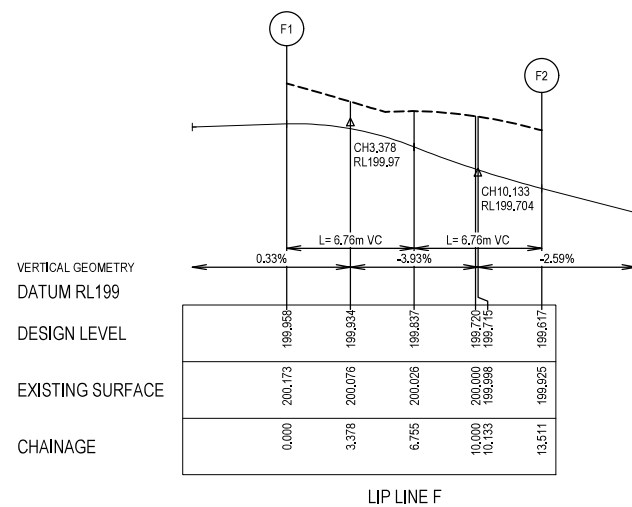
PP No.  
717154

DRAWING No.  
3201-02-300

REVISION  
1

ORIGINAL  
SIZE  
A1

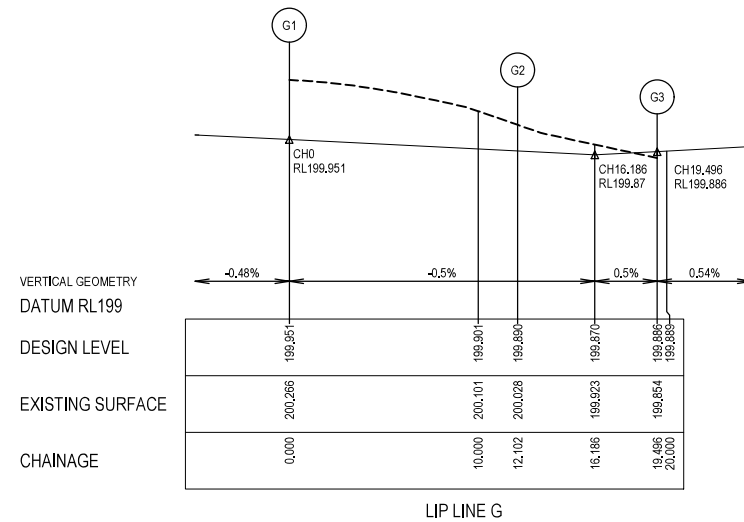




#### Alignment F

Point no	Easting	Northing	RL
F1	325086.698	5838416.855	199.958
F2	325076.094	5838422.813	199.617

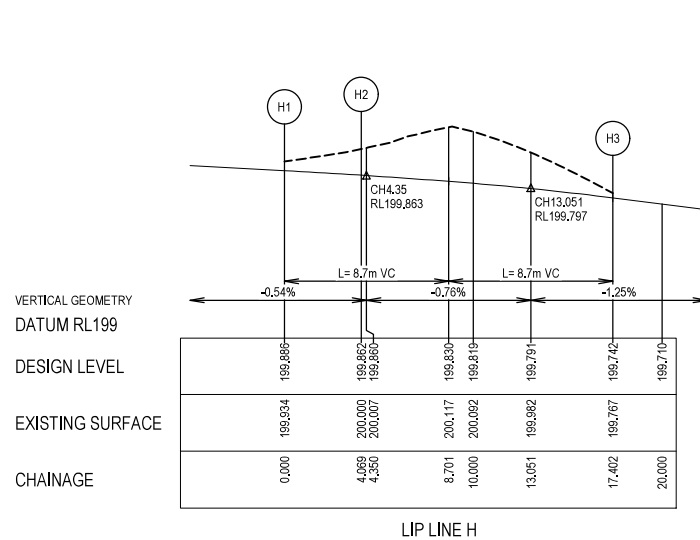
Curve no	I	Radius	Arc	A	B	X	Y	I	Mid point RL
F1 - F2	90.012	8.600	13.511	2.519	1.865	3.291	2.790	3.378	199.837



#### Alignment G

Point no	Easting	Northing	RL
G1	325094.389	5838413.131	199.951
G2	325103.613	5838406.905	199.890
G3	325110.991	5838406.894	199.886

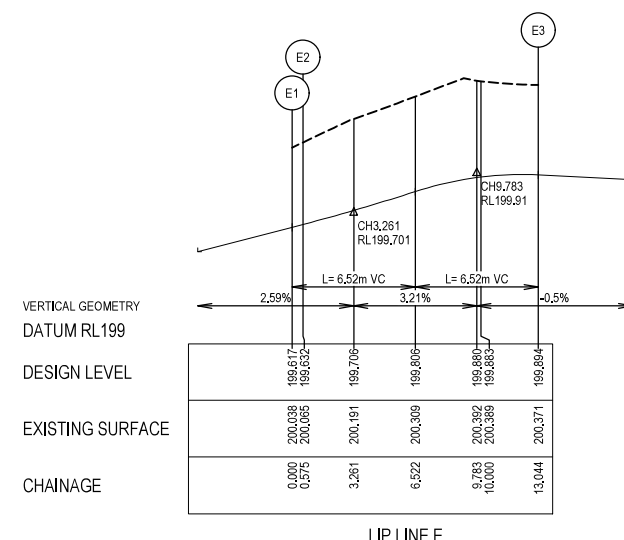
Curve no	I	Radius	Arc	A	B	X	Y	I	Mid point RL
G1 - G2	80.628	8.600	12.102	2.042	1.516	2.963	2.600	3.026	199.920
G2 - G3	12.760	33.200	7.394	0.206	0.154	1.847	1.842	1.848	199.872



#### Alignment H

Point no	Easting	Northing	RL
H1	325110.270	5838400.535	199.886
H2	325106.208	5838400.685	199.862
H3	325097.945	5838391.932	199.742

Curve no	I	Radius	Arc	A	B	X	Y	I	Mid point RL
H1 - H2	8.699	26.800	4.069	0.077	0.058	1.017	1.016	1.017	199.875
H2 - H3	88.827	8.600	13.333	2.457	1.819	3.250	2.768	3.333	199.813



#### Alignment E

Point no	Easting	Northing	RL
E1	325074.364	5838428.975	199.617
E2	325074.918	5838429.131	199.632
E3	325081.094	5838438.719	199.894

Curve no	I	Radius	Arc	A	B	X	Y	I	Mid point RL
E1 - E2	83.072	8.600	12.469	2.163	1.604	3.049	2.653	3.117	199.815

## CITY OF WHITTLESEA

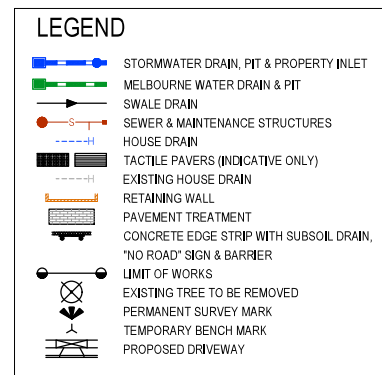
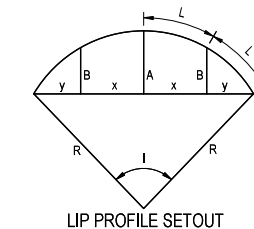
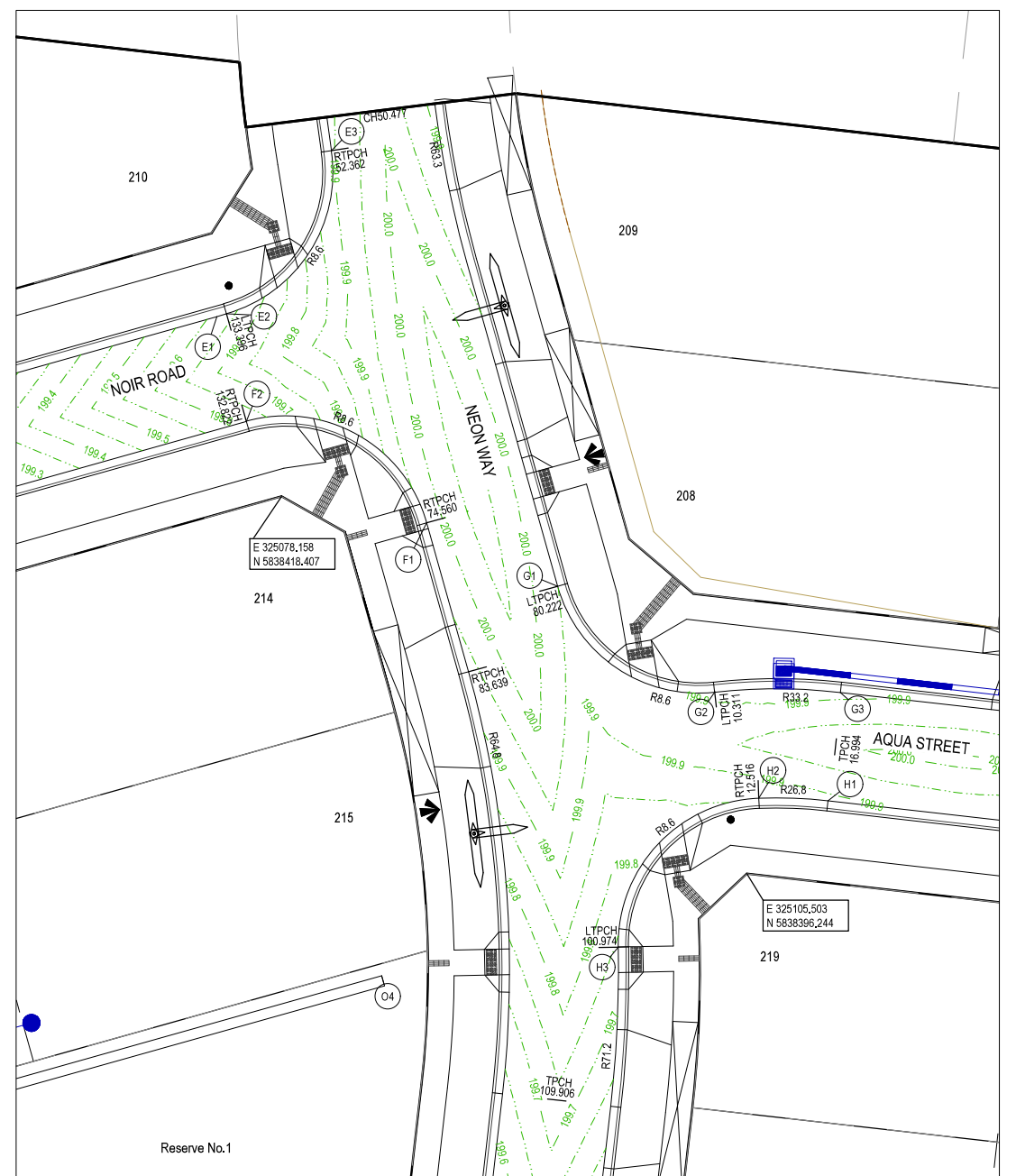
### ENGINEERING PLANS & SPECIFICATIONS

### APPROVED PURSUANT TO SECTION 15 OF THE SUBDIVISION ACT 1988

PLAN OF SUBDIVISION No. **PS838326V**

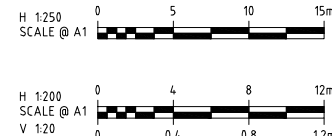
*H6L*  
DEVELOPMENT ENGINEER

06/12/2021  
DATE APPROVED



REV	DATE	DRN	OKD	APP	AMENDMENT
0	07.06.21	MHN			ISSUED FOR CONSTRUCTION
P2	09.02.21	NI	-	JM	COUNCIL COMMENTS ADDRESSED
P1	30.09.20	AN	-	CD	ISSUED FOR COUNCIL SUBMISSION

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Street Address  
Suite 2.04, 390 St Kilda Road  
Melbourne VIC 3004  
E melbourne@cosweb.com.au

CLIENT  
**JINDING**

APPROVED  
*[Signature]* 08.06.21

DESIGNED  
**C&W**

SCALE  
AS SHOWN

PROJECT  
**THE PATCH - STAGE 2**

TITLE  
**INTERSECTION DETAILS (SHEET 2 OF 4)**

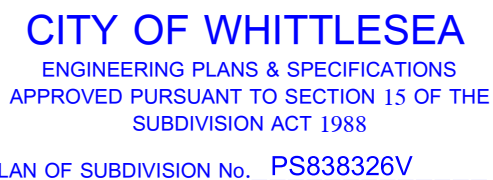
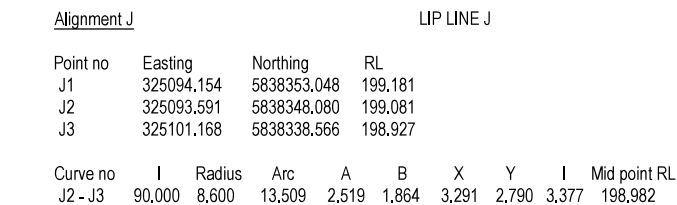
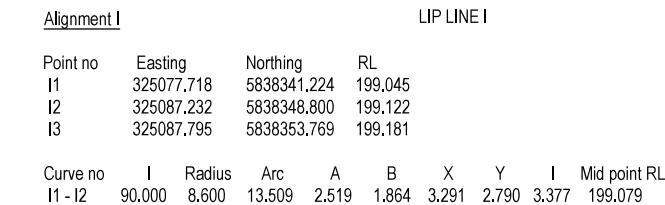
MUNICIPALITY  
**CITY OF WHITTLESEA**

PP No.  
**717154**

DRAWING No.  
**3201-02-301**

REVISION  
**0**

ORIGINAL SIZE  
**A1**



  
 DEVELOPMENT ENGINEER

















06/12/2021  
 DATE APPROVED

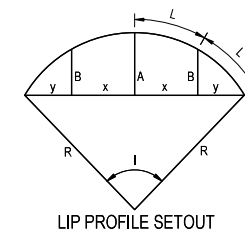


Point no	Easting	Northing	RL
O1	325042,906	5838356,724	198,963
O2	325045,212	5838377,071	199,156
O3	325047,762	5838380,067	199,237
O4	325084,047	5838390,251	199,965

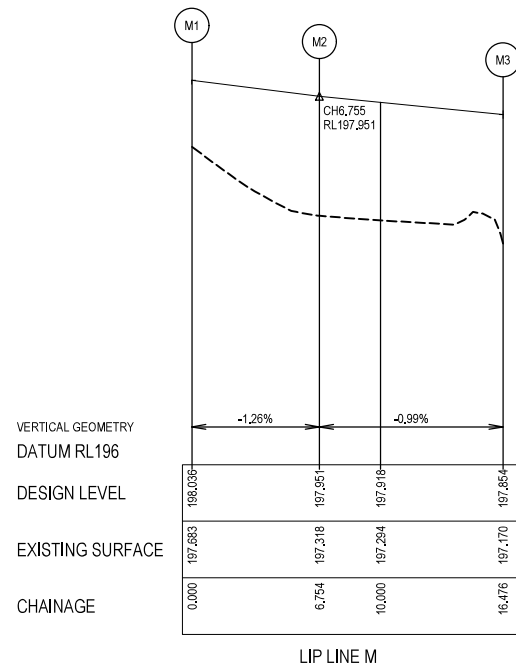
  

Curve no	I	Radius	Arc	A	B	X	Y	I	Mid point RL
Q2 - Q3	67.856	3.525	4.175	0.600	0.447	1.028	0.939	1.044	199,192

- ## LEGEND
- |   |  |
|---|--|
|  | STORMWATER DRAIN, PIT & PROPERTY INLET |
|  | MELBOURNE WATER DRAIN & PIT            |
|  | SWALE DRAIN                            |
|  | SEWER & MAINTENANCE STRUCTURES         |
|  | HOUSE DRAIN                            |
|  | TACTILE PAVERS (INDICATIVE ONLY)       |
|  | EXISTING HOUSE DRAIN                   |
|  | RETAINING WALL                         |
|  | PAVEMENT TREATMENT                     |
|  | CONCRETE EDGE STRIP WITH SUBSOIL DRAIN |
|  | "NO ROAD" SIGN & BARRIER               |
|  | LIMIT OF WORKS                         |
|  | EXISTING TREE TO BE REMOVED            |
|  | PERMANENT SURVEY MARK                  |
|  | TEMPORARY BENCH MARK                   |
|  | PROPOSED DRIVEWAY                      |



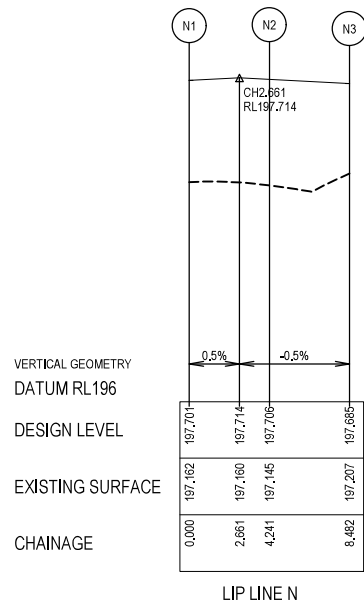
0	07.06.21	MHN	<i>RM</i>	<i>Emel</i>	ISSUED FOR CONSTRUCTION	<div>NOTE: THIS ENGINEERING DRAWING HAS BEEN BASED UPON DESIGNS INITIALLY DOCUMENTED BY BEVERIDGE WILLIAMS. COSSILL &amp; WEBLEY CONSULTING ENGINEERS HAS MADE MINOR AMENDMENTS TO THIS DRAWING FROM REVISION 0 ONWARDS. PLEASE DIRECT ALL DESIGN ENQUIRIES TO COSSILL &amp; WEBLEY</div>	<div>H 1:250 SCALE @ A1</div>	<div>COPYRIGHT</div> <div>The concepts and information contained in this document are the Copyright of Cossill &amp; Webley Consulting Engineers. Use or copying of the document in whole or part without the written permission of Cossill &amp; Webley Consulting Engineers constitutes an infringement of copyright.</div> <div>This plan is not to be used for construction unless issued as revision 0 or higher</div>	<div><b>Cossill &amp; Webley</b> CONSULTING ENGINEERS</div> <div>Mailing Address PO Box 33152 Melbourne VIC 3004 T (03) 8548 1560</div> <div>Street Address Suite 2.04, 390 St Kilda Road Melbourne VIC 3004 E melbourne@cossweb.com.au</div>	CLIENT		PROJECT THE PATCH - STAGE 2		ORIGINAL SIZE A1
P2	09.02.21	NI	-	JM	COUNCIL COMMENTS ADDRESSED					TITLE INTERSECTION DETAILS (SHEET 3 OF 4)				
P1	30.09.20	AN	-	CD	ISSUED FOR COUNCIL SUBMISSION					MUNICIPALITY CITY OF WHITTLESEA				
										APPROVED <i>Emel</i> 08.06.21				
										DESIGNED C & W				
REV	DATE	DRN	CKD	APP	AMENDMENT						SCALE AS SHOWN	PP No. 717154	DRAWING No. 3201-02-302	REVISION 0



Alignment M

Point no	Easting	Northing	RL
M1	325198.721	5838259.906	198.036
M2	325200.559	5838253.586	197.951
M3	325206.639	5838246.000	197.854

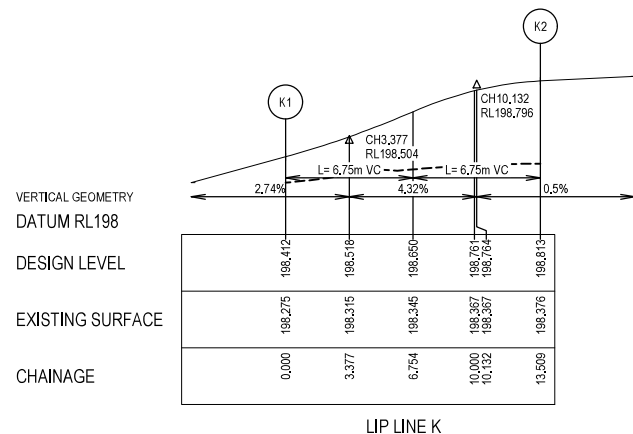
Curve no	I	Radius	Arc	A	B	X	Y	I	Mid point RL
M1 - M2	45.000	8.600	6.754	0.655	0.489	1.678	1.613	1.689	197.993



Alignment N

Point no	Easting	Northing	RL
N1	325203.054	5838243.118	197.701
N2	325199.240	5838244.323	197.706
N3	325196.666	5838241.260	197.685

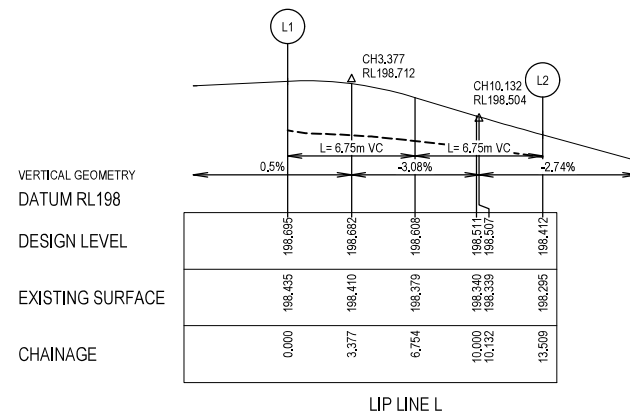
Curve no	I	Radius	Arc	A	B	X	Y	I	Mid point RL
N1 - N2	67.500	3.600	4.241	0.607	0.452	1.045	0.955	1.060	197.711
N2 - N3	67.500	3.600	4.241	0.607	0.452	1.045	0.955	1.060	197.696



Alignment K

Point no	Easting	Northing	RL
K1	325130.589	5838320.135	198.412
K2	325123.012	5838329.649	198.813

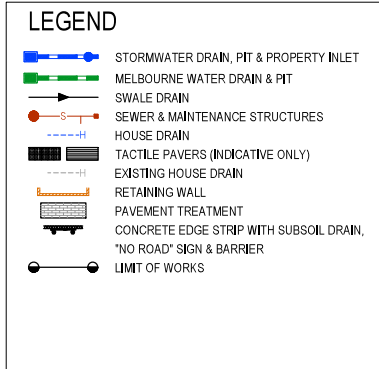
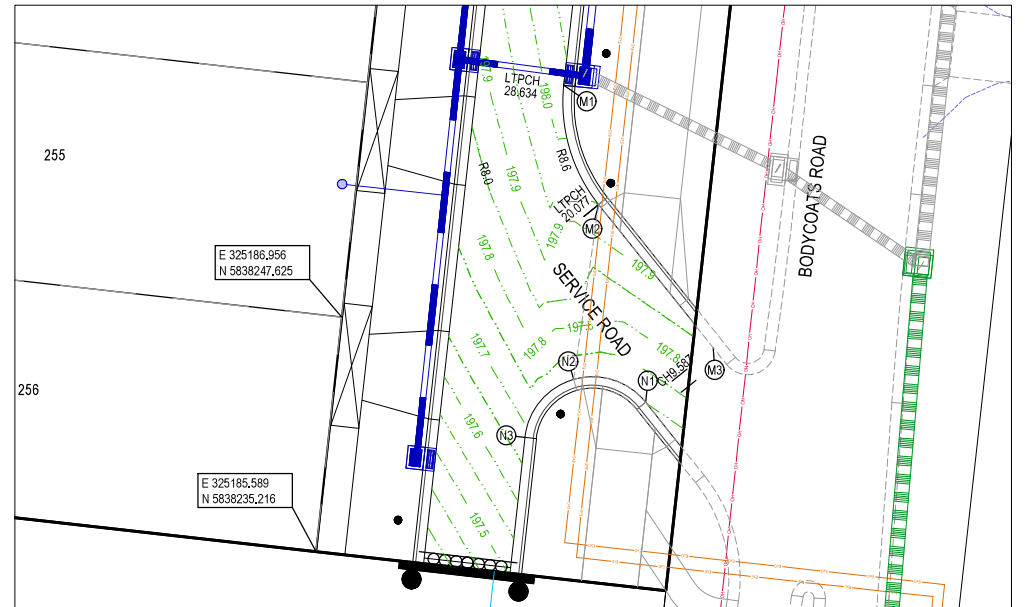
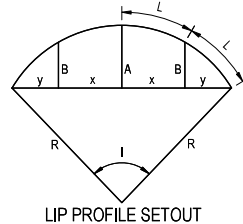
Curve no	I	Radius	Arc	A	B	X	Y	I	Mid point RL
K1 - K2	90.000	8.600	13.509	2.519	1.864	3.291	2.790	3.377	198.650



Alignment L

Point no	Easting	Northing	RL
L1	325146.462	5838326.991	198.695
L2	325136.948	5838319.414	198.412

Curve no	I	Radius	Arc	A	B	X	Y	I	Mid point RL
L1 - L2	90.000	8.600	13.509	2.519	1.864	3.291	2.790	3.377	198.608



**CITY OF WHITTLESEA**  
ENGINEERING PLANS & SPECIFICATIONS  
APPROVED PURSUANT TO SECTION 15 OF THE  
SUBDIVISION ACT 1988

PLAN OF SUBDIVISION No. PS838326V

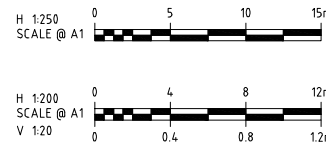
*H.66*  
DEVELOPMENT ENGINEER

06/12/2021  
DATE APPROVED



REV	DATE	DRN	OKD	APP	AMENDMENT
0	07.06.21	MHN			ISSUED FOR CONSTRUCTION
P2	09.02.21	NI	-	JM	COUNCIL COMMENTS ADDRESSED
P1	30.09.20	AN	-	CD	ISSUED FOR COUNCIL SUBMISSION

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E melbourne@cosweb.com.au

CLIENT  
**JINDING**

APPROVED  
*H.66*  
08.06.21

DESIGNED  
C&W

SCALE  
AS SHOWN

PROJECT  
THE PATCH - STAGE 2

TITLE  
INTERSECTION DETAILS (SHEET 4 OF 4)

MUNICIPALITY  
CITY OF WHITTLESEA

PP No.  
717154

DRAWING No.  
3201-02-303

REVISION  
0

ORIGINAL SIZE  
A1



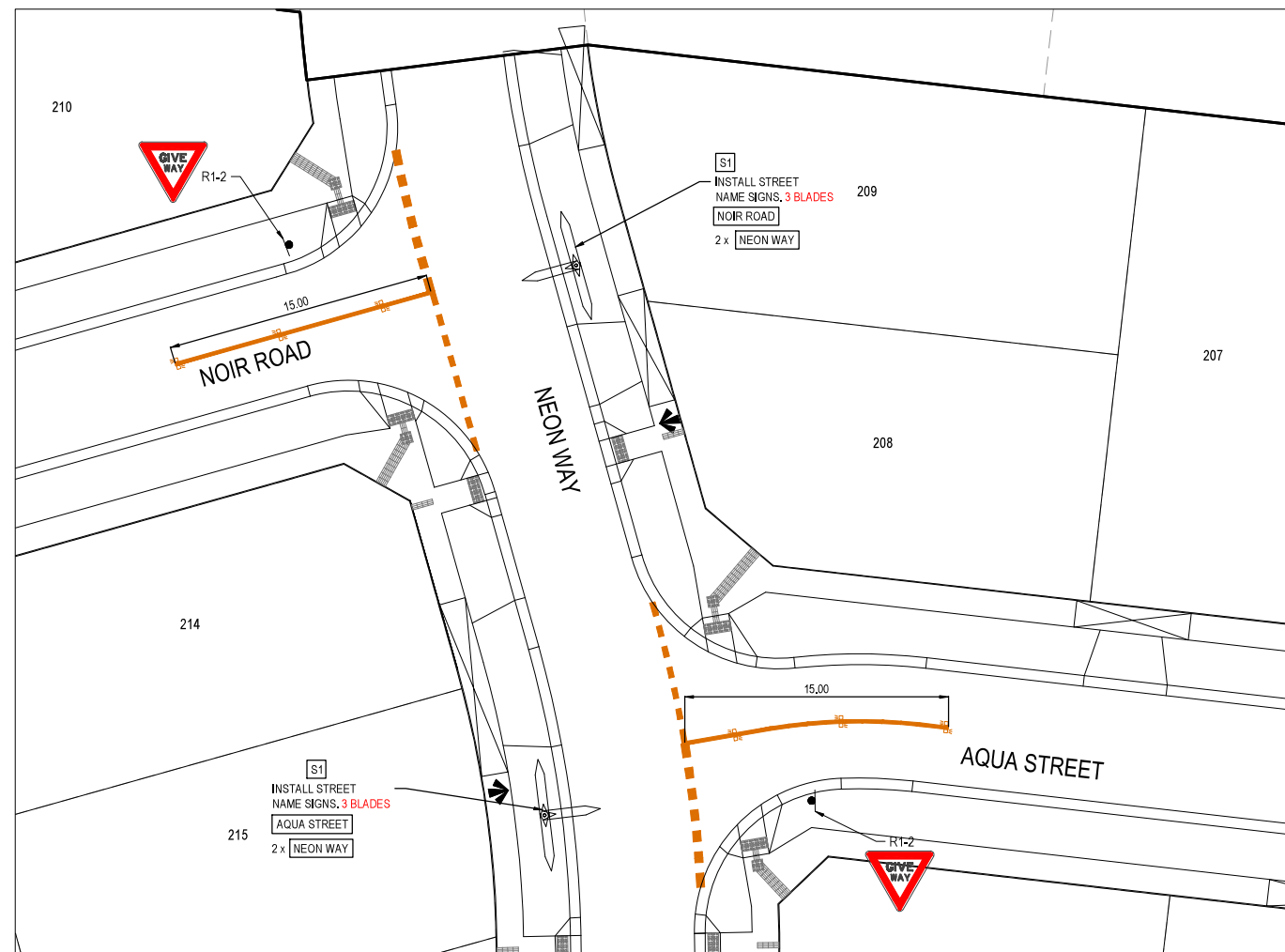
# CITY OF WHITTLESEA

ENGINEERING PLANS & SPECIFICATIONS  
APPROVED PURSUANT TO SECTION 15 OF THE  
SUBDIVISION ACT 1988

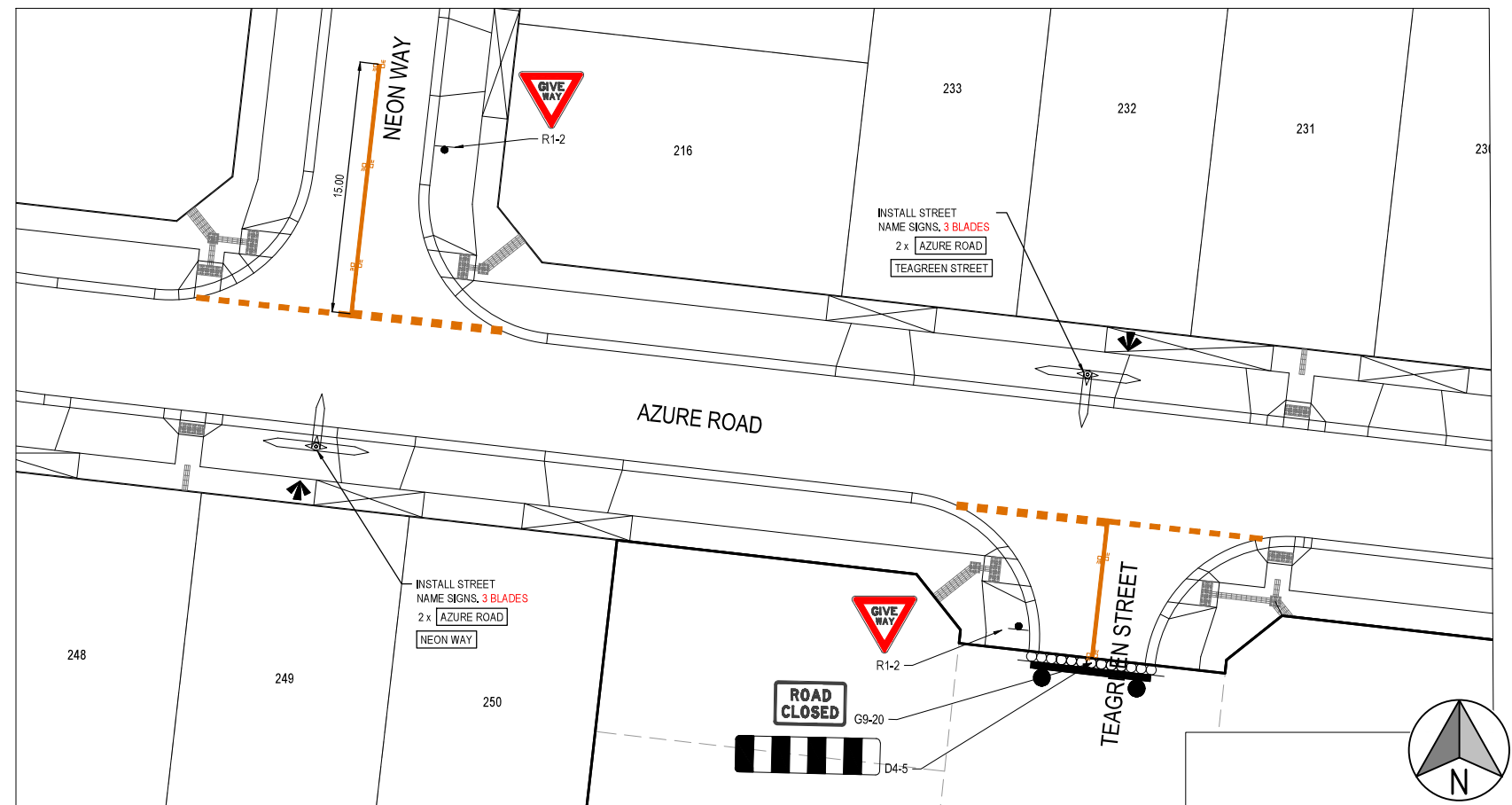
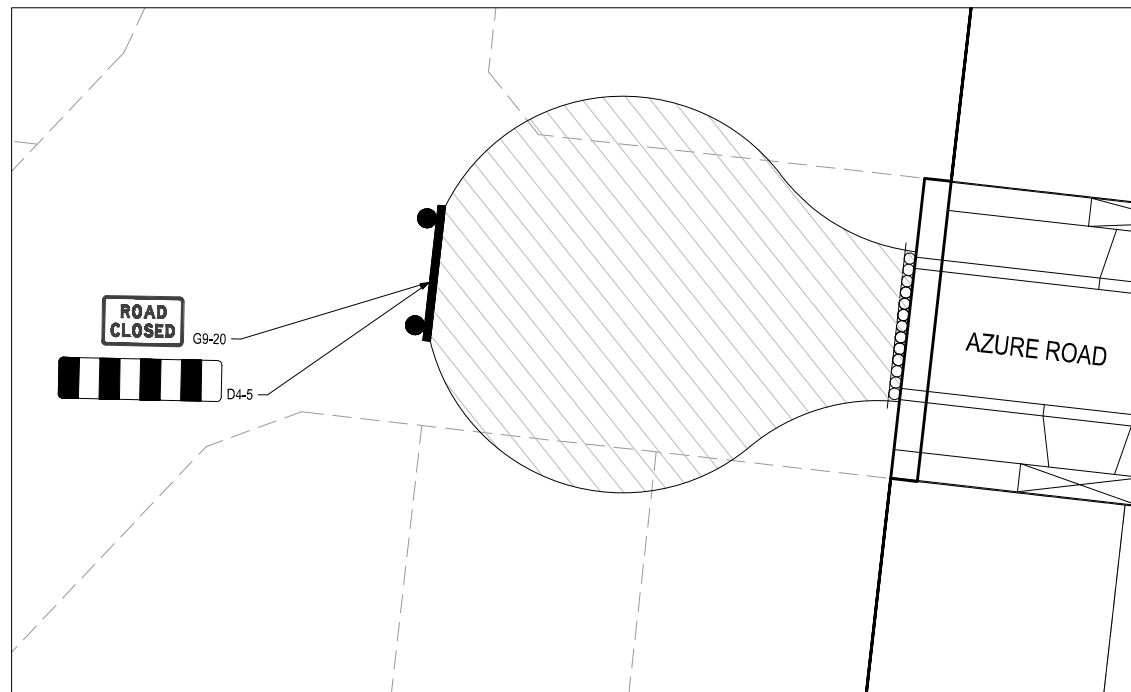
PLAN OF SUBDIVISION No. PS838326V

*H.66*  
DEVELOPMENT ENGINEER

06/12/2021  
DATE APPROVED



- NOTES
1. RRPM'S AT MAX 6m SPACING.
  2. LINEMARKING TO BE EXTENDED AT LEAST 6m FROM THE TANGENT POINT
  3. LINEMARKING IN ACCORDANCE WITH AS1742.
  4. TGS1 TO BE INSTALLED IN ACCORDANCE WITH VICROADS RDN 06-06 - JULY 2010
  5. ALL STREET NAME SIGNS AT INTERSECTIONS TO INCLUDE RELEVANT STREET NUMBERING.
  6. ALL LINE MARKING PAINT SHALL BE LONG LIFE TYPE, LATERAL WORKS AND ARROWS BEING COLD APPLIED PLASTIC TROWELLED INTO PLACE (MATERIAL DEGADUR PLASTELINE) AND LONGITUDINAL LINES BEING EXTRUDED THERMOPLASTIC MATERIAL.



0	07.06.21	MHN	<i>H.66</i>	<i>Small</i>	ISSUED FOR CONSTRUCTION
P2	09.02.21	NI	-	JM	COUNCIL COMMENTS ADDRESSED
P1	30.09.20	AN	-	CD	ISSUED FOR COUNCIL SUBMISSION
REV	DATE	DRN	OKD	APP	AMENDMENT

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H 1:200  
SCALE @ A1

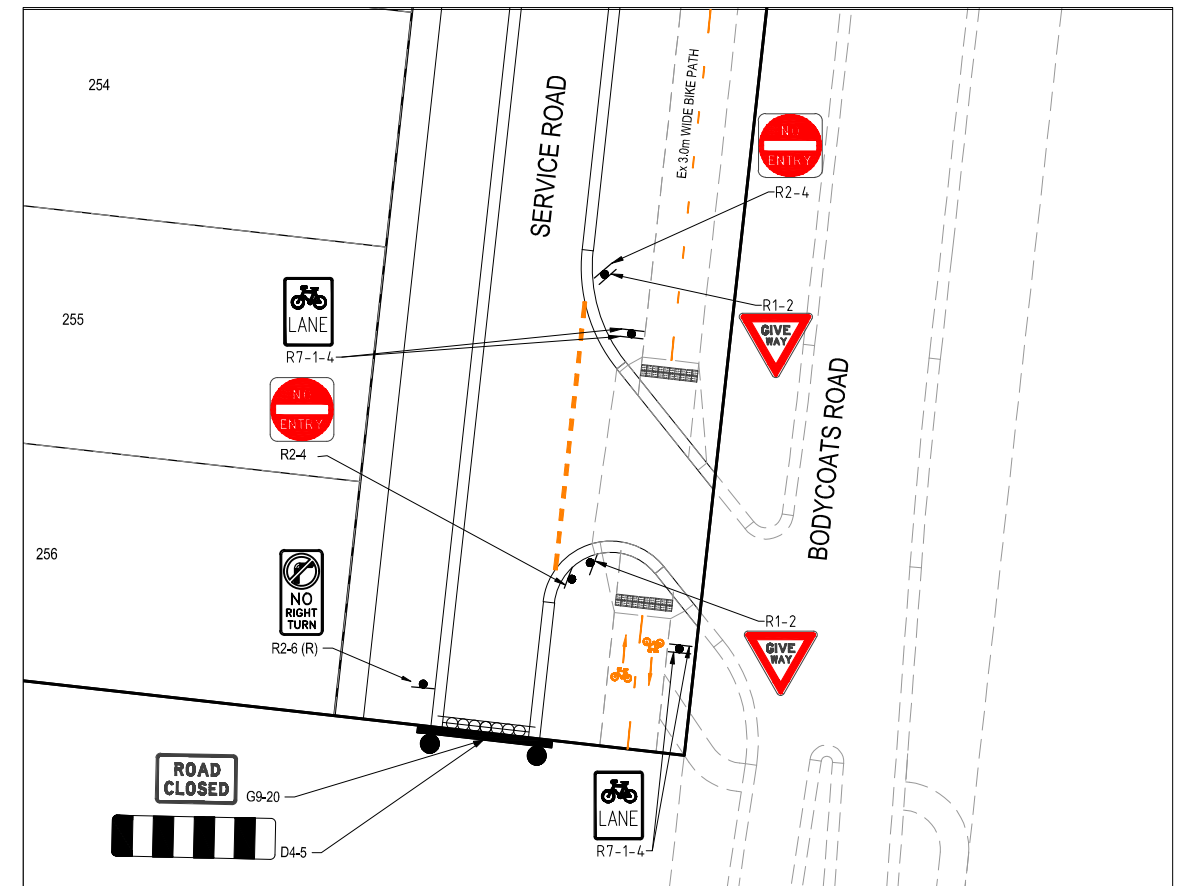
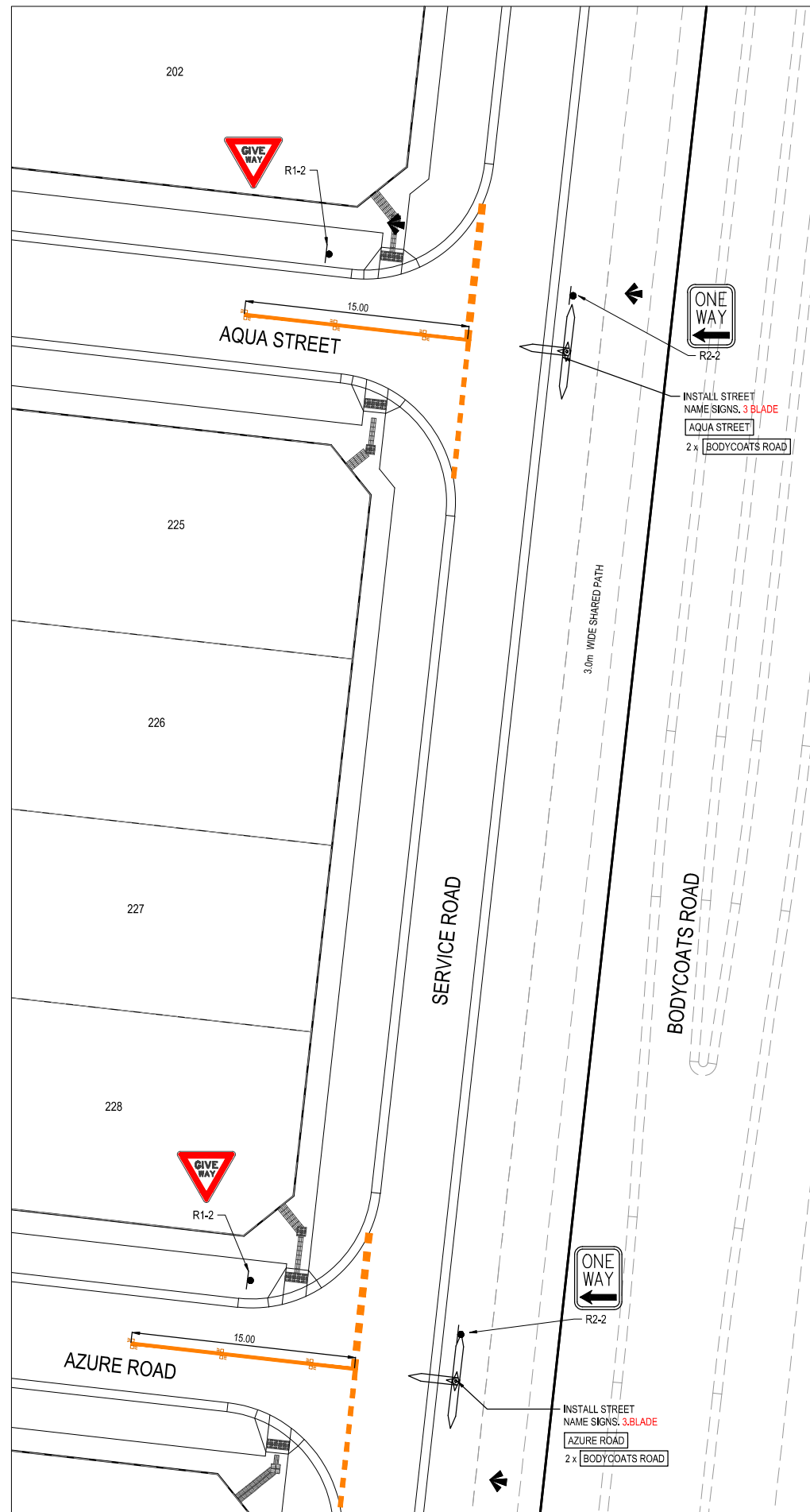
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08.06.21  
DESIGNED  
C&W  
SCALE  
AS SHOWN

PROJECT  
THE PATCH - STAGE 2  
TITLE  
LINEMARKING & SIGNAGE PLAN (SHEET 1 OF 2)  
MUNICIPALITY  
CITY OF WHITTLESEA  
PP No.  
717154  
DRAWING No.  
3201-02-350  
REVISION  
0

ORIGINAL SIZE  
A1



- NOTES
1. RRPM'S AT MAX 6m SPACING.
  2. LINEMARKING TO BE EXTENDED AT LEAST 6m FROM THE TANGENT POINT
  3. LINEMARKING IN ACCORDANCE WITH AS1742.
  4. TGS1 TO BE INSTALLED IN ACCORDANCE WITH VICROADS RDN 06-06 - JULY 2010
  5. ALL STREET NAME SIGNS AT INTERSECTIONS TO INCLUDE RELEVANT STREET NUMBERING.
  6. ALL LINE MARKING PAINT SHALL BE LONG LIFE TYPE, LATERAL WORKS AND ARROWS BEING COLD APPLIED PLASTIC TROWELLED INTO PLACE



**CITY OF WHITTLESEA**  
ENGINEERING PLANS & SPECIFICATIONS  
APPROVED PURSUANT TO SECTION 15 OF THE  
SUBDIVISION ACT 1988

PLAN OF SUBDIVISION No. PS838326V

*[Signature]*  
DEVELOPMENT ENGINEER

06/12/2021  
DATE APPROVED



1	26.07.21	MHN			UPDATED PRAM CROSSING ACROSS SERVICE RD & SIGNAGE ON SOUTH SERVICE RD
0	07.06.21	MHN	KCL	B. J-MONCK	ISSUED FOR CONSTRUCTION
P2	09.02.21	NI	-	JM	COUNCIL COMMENTS ADDRESSED
P1	30.09.20	AN	-	CD	ISSUED FOR COUNCIL SUBMISSION
REV	DATE	DRN	CKD	APP	AMENDMENT

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E melbourne@cossweb.com.au

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**JINDING**

APPROVED  
*[Signature]*

DESIGNED  
C&W

SCALE  
AS SHOWN

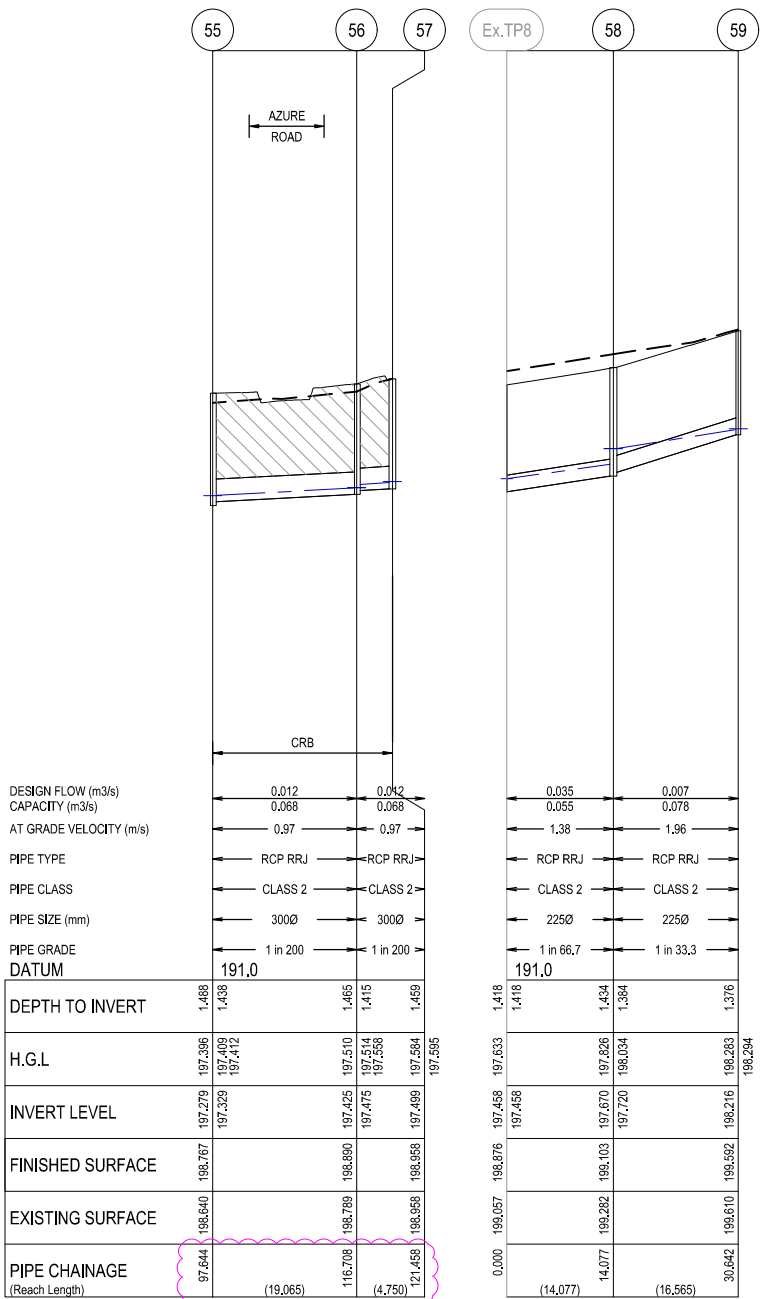
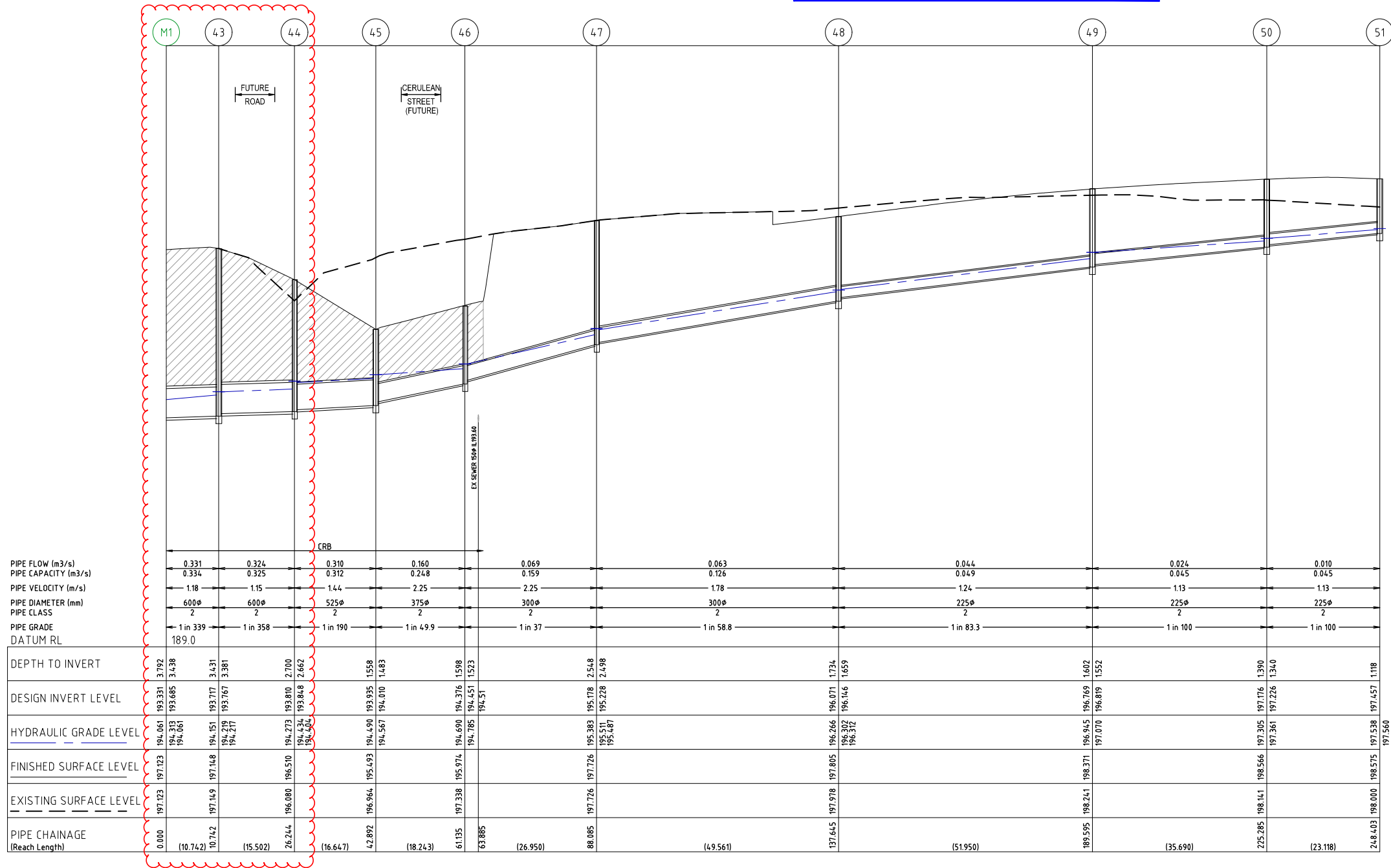
PROJECT	THE PATCH - STAGE 2
TITLE	LINEMARKING & SIGNAGE PLAN (SHEET 2 OF 2)
MUNICIPALITY	CITY OF WHITTLESEA
PP No.	717154
DRAWING No.	3201-02-351
REVISION	1

ORIGINAL SIZE  
A1

CITY OF WHITTLESEA  
ENGINEERING PLANS & SPECIFICATIONS  
APPROVED PURSUANT TO SECTION 15 OF THE  
SUBDIVISION ACT 1988  
PLAN OF SUBDIVISION No. PS838326V  
HGL  
06/12/2021  
DEVELOPMENT ENGINEER DATE APPROVED

NOTES:  
ALL STORMWATER DRAINS UP TO AND  
INCLUDING 750mm DIA, ARE TO BE CLASS 2  
RCP R.R.J. PIPES UNLESS NOTED OTHERWISE.

LEGEND	
	EXISTING SURFACE
	DESIGN SURFACE
	DRAINAGE PIPE/PIT
	EXISTING DRAINAGE PIPE/PIT
	HYDRAULIC GRADE LINE
	DENOTES 20mm CLASS 3 FCR BACKFILL.



2	12.11.21	KCL	B. J-MONCK	RELOCATED PIT M3
1	26.07.21	KCL	B. J-MONCK	UPDATED DRAINAGE LONGITUDINAL SECTIONS
0	07.06.21	MHN	B. J-MONCK	ISSUED FOR CONSTRUCTION
P2	09.02.21	NI	JM	COUNCIL COMMENTS ADDRESSED
P1	30.09.20	AN	CD	ISSUED FOR COUNCIL SUBMISSION
REV	DATE	DRN	CKD	APP

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JINDING  
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DESIGNED  
C&W  
SCALE  
AS SHOWN

PROJECT  
THE PATCH - STAGE 2  
TITLE  
DRAINAGE LONGITUDINAL SECTIONS  
(SHEET 1 OF 4)  
CITY OF WHITTLESEA  
MUNICIPALITY  
PP No.  
717154  
DRAWING No.  
3201-02-400  
REVISION  
2

A1  
ORIGINAL  
SIZE



NOTES:  
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LEGEND	
	EXISTING SURFACE
	DESIGN SURFACE
	DRAINAGE PIPE/PIT
	EXISTING DRAINAGE PIPE/PIT
	HYDRAULIC GRADE LINE
	DENOTES 20mm CLASS 3 FCR BACKFILL.

## CITY OF WHITTLESEA

ENGINEERING PLANS & SPECIFICATIONS  
APPROVED PURSUANT TO SECTION 15 OF THE  
SUBDIVISION ACT 1988

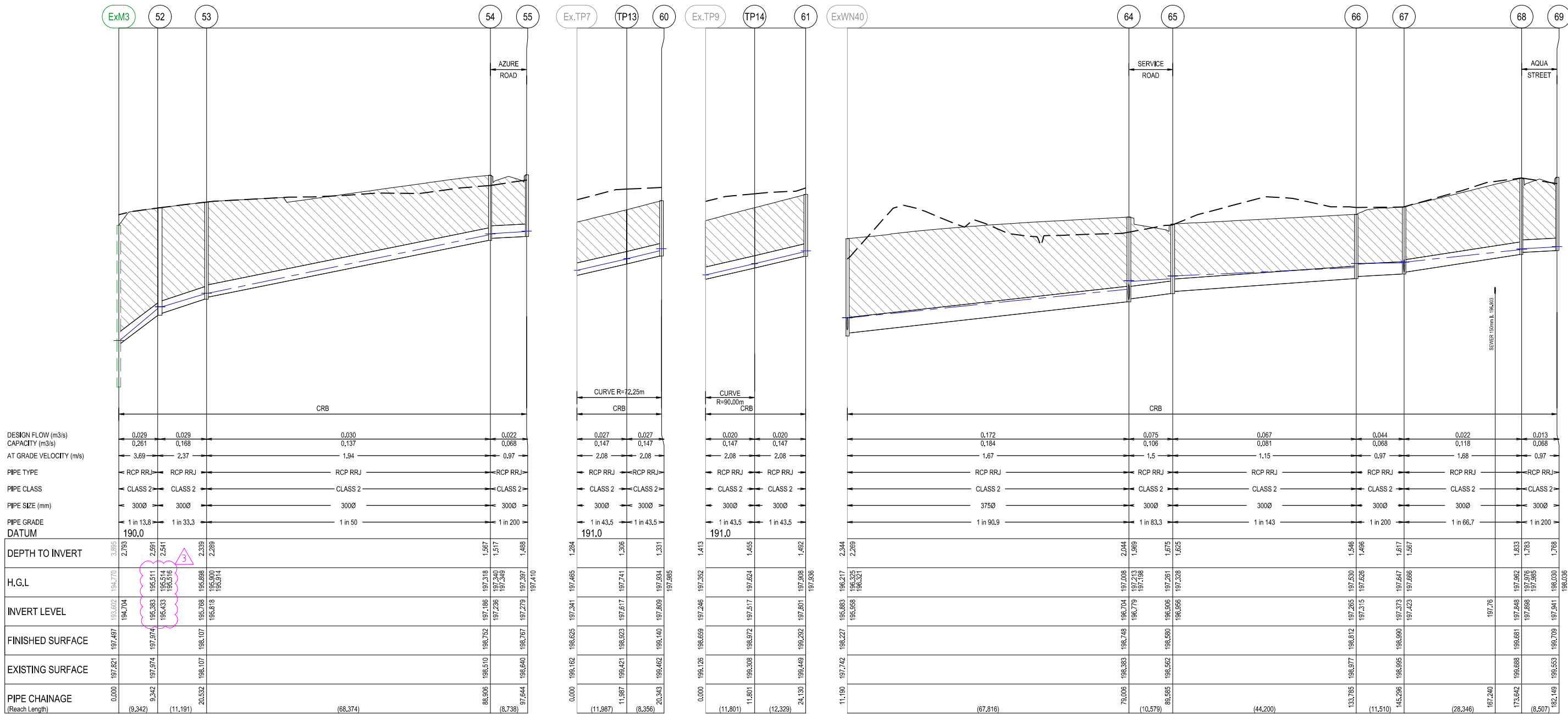
PLAN OF SUBDIVISION No. PS838326V

*HGL*  
DEVELOPMENT ENGINEER

06/12/2021  
DATE APPROVED

### CURVED SWD PIPE

HUME'S DRAINAGE PIPE OR THE RESPONSIBLE  
AUTHORITY'S APPROVED EQUIVALENT PLACED  
WITH DEFLECTION AND AS PER  
MANUFACTURER'S SPECIFICATIONS.



3	01.12.21	TP	<i>B. J-MONCK</i>	HGL LEVELS AMENDED
2	12.11.21	KCL	KCL	B. J-MONCK
1	26.07.21	KCL	KCL	B. J-MONCK
0	07.06.21	MHN	KCL	B. J-MONCK
REV	DATE	DRN	CKD	APP

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BROCK J-MONCK  
DESIGNED  
C&W  
SCALE  
AS SHOWN

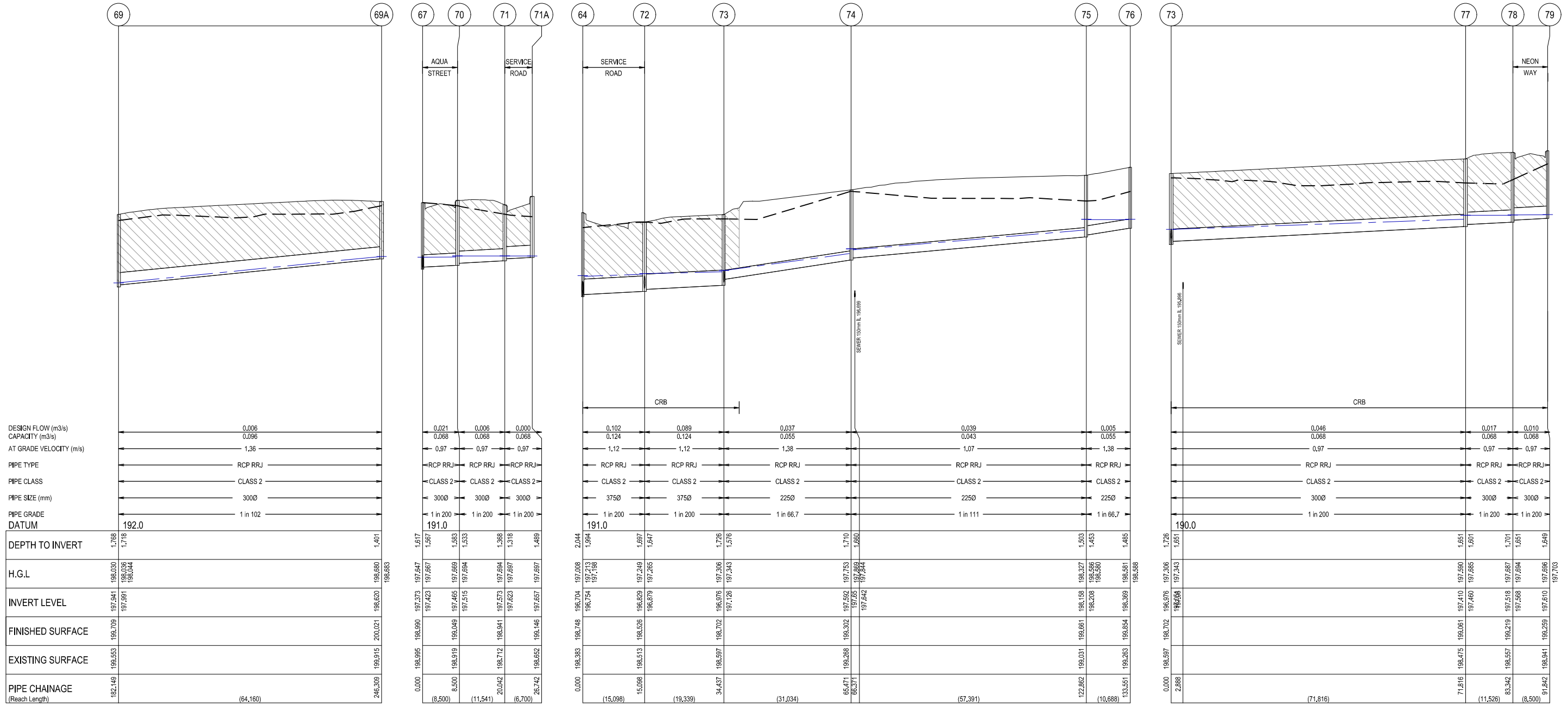
PROJECT  
THE PATCH - STAGE 2  
TITLE  
DRAINAGE LONGITUDINAL SECTIONS  
(SHEET 2 OF 4)  
MUNICIPALITY  
CITY OF WHITTLESEA  
PPN No.  
717154  
DRAWING No.  
3201-02-401  
REVISION  
3

ORIGINAL  
SIZE  
A1

CITY OF WHITTLESEA  
ENGINEERING PLANS & SPECIFICATIONS  
APPROVED PURSUANT TO SECTION 15 OF THE  
SUBDIVISION ACT 1988  
PLAN OF SUBDIVISION No. PS838326V  
HGL  
06/12/2021  
DEVELOPMENT ENGINEER DATE APPROVED

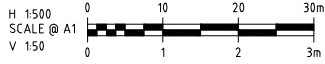
NOTES:  
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RCP R.R.J. PIPES UNLESS NOTED OTHERWISE.

LEGEND	
	EXISTING SURFACE
	DESIGN SURFACE
	DRAINAGE PIPE/PIT
	EXISTING DRAINAGE PIPE/PIT
	HYDRAULIC GRADE LINE
	DENOTES 20mm CLASS 3 FCR BACKFILL.



1	26.07.21	KCL	B. J. MONCK	UPDATED DRAINAGE LONGITUDINAL SECTIONS
0	07.06.21	MHN	KCL	ISSUED FOR CONSTRUCTION
P2	09.02.21	NI	-	COUNCIL COMMENTS ADDRESSED
P1	30.09.20	AN	-	ISSUED FOR COUNCIL SUBMISSION
REV	DATE	DRN	CKD	APP

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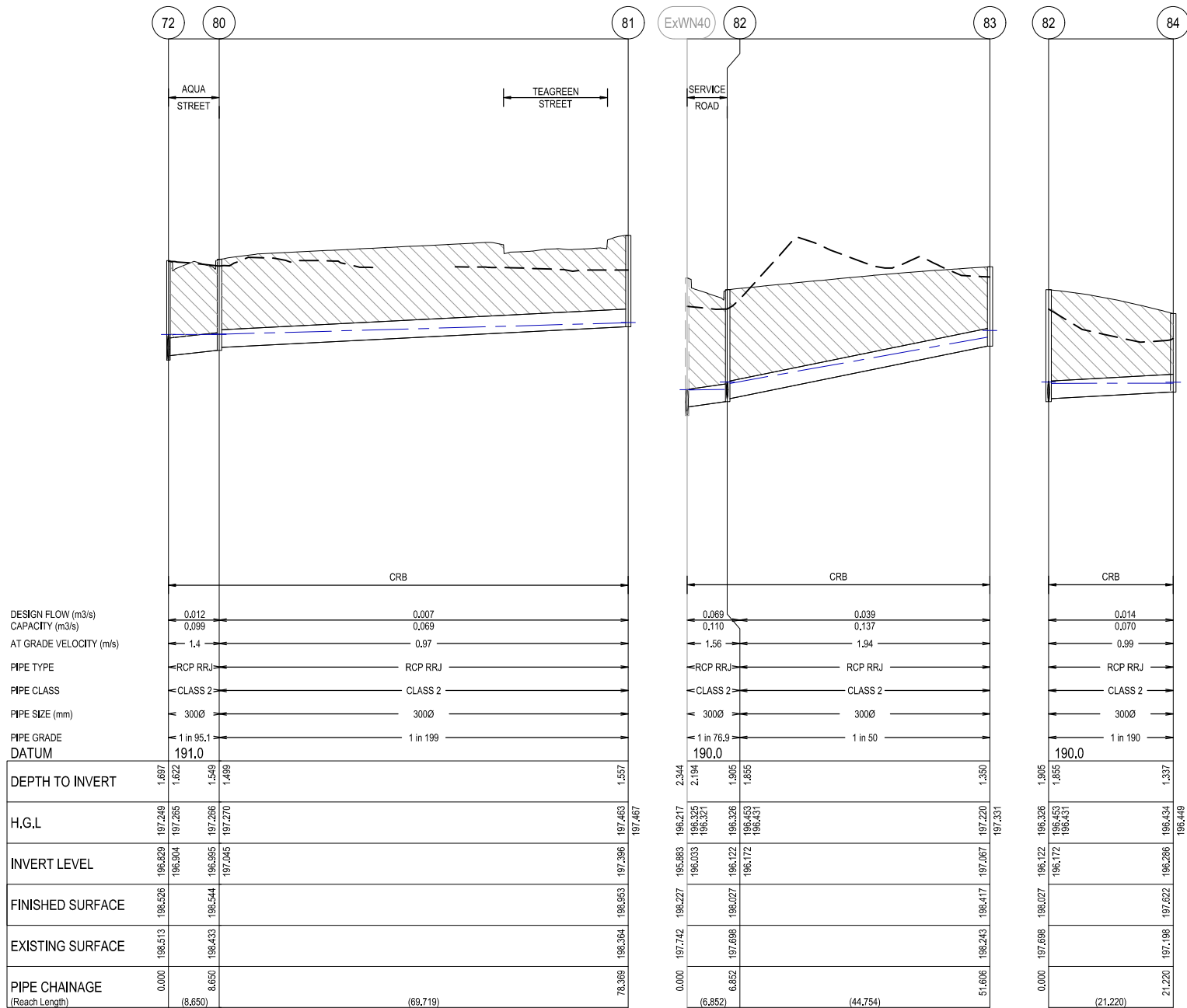
PROJECT  
THE PATCH - STAGE 2  
TITLE  
DRAINAGE LONGITUDINAL SECTIONS  
(SHEET 3 OF 4)  
MUNICIPALITY  
CITY OF WHITTLESEA  
PPN No.  
717154  
DRAWING No.  
3201-02-402  
REVISION  
1

ORIGINAL  
SIZE  
A1

CITY OF WHITTLESEA  
ENGINEERING PLANS & SPECIFICATIONS  
APPROVED PURSUANT TO SECTION 15 OF THE  
SUBDIVISION ACT 1988  
PLAN OF SUBDIVISION No. PS838326V  
06/12/2021  
DEVELOPMENT ENGINEER

NOTES:  
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RCP R.R.J. PIPES UNLESS NOTED OTHERWISE.

LEGEND  
--- EXISTING SURFACE  
--- DESIGN SURFACE  
--- DRAINAGE PIPE/PIT  
--- EXISTING DRAINAGE PIPE/PIT  
--- HYDRAULIC GRADE LINE  
DENOTES 20mm CLASS 3  
FCR BACKFILL.



PIT SCHEDULE											
PIT NAME	TYPE	INTERNAL WIDTH	LENGTH	INLET DIA	INV RL	OUTLET DIA	INV RL	PIT SETOUT RL	DEPTH	STD DWG	REMARKS
ExM3	EXISTING JUNCTION PIT	EX 900	EX 1650	EX 1350	194.704	EX 1350	193.602	197.497	3.895	-	CONNECT INTO EXISTING PIT
ExM3	EXISTING JUNCTION PIT	EX 900	EX 1650	EX 1350	194.704	EX 1350	193.602	197.497	3.895	-	CONNECT INTO EXISTING PIT
EXTP7	EXISTING END PIPE	-	-	300	197.341	300	197.341	198.625	1.284	-	CONNECT INTO EXISTING END PIPE
EXTP8	EXISTING END PIPE	-	-	300	197.458	300	197.458	198.876	1.418	-	CONNECT INTO EXISTING END PIPE
EXTP9	EXISTING END PIPE	-	-	300	197.246	300	197.246	198.659	1.413	-	CONNECT INTO EXISTING END PIPE
EXWN40	GRADED SIDE ENTRY PIT	600	900	300	196.033	525	195.883	198.227	3.760	REFER TO EDCM 601, 605	CONSTRUCT GRADED SIDE ENTRY PIT OVER EXISTING END PIPE.
43	TEMP HAUNCHED JUNCTION PIT	900	900	600	193.767	600	193.710	197.148	3.431	REFER TO EDCM 606 & 608	TEMP. HAUNCHED JUNCTION PIT FOR FUTURE GRADED SIDE INLET UPGRADE.
44	HAUNCHED JUNCTION PIT	900	900	525	193.848	600	193.810	196.510	2.700	REFER TO EDCM 605 & 607	-
45	TEMP HAUNCHED JUNCTION PIT	900	900	375	194.010	525	193.935	195.493	1.558	REFER TO EDCM 605 & 607	TEMP. HAUNCHED JUNCTION PIT FOR FUTURE GRADED SIDE INLET UPGRADE.
46	JUNCTION PIT	600	900	300	194.451	375	194.376	195.974	1.598	REFER TO EDCM 605	-
47	JUNCTION PIT	600	900	300	195.700	300	195.650	197.726	2.076	REFER TO EDCM 605	-
48	JUNCTION PIT	600	900	225	196.300	300	196.220	197.806	1.586	REFER TO EDCM 605	-
49	JUNCTION PIT	600	900	225	196.950	225	196.900	198.372	1.472	REFER TO EDCM 605	-
50	JUNCTION PIT	600	900	225	197.276	225	197.226	198.567	1.340	REFER TO EDCM 605	-
51	JUNCTION PIT	600	900	225	197.507	225	197.507	198.575	1.068	REFER TO EDCM 605	-
52	TEMP GRADED PIT	600	900	300	195.433	300	195.383	197.974	2.591	REFER TO EDCM 605	TEMP. GRADED PIT FOR SWALE DRAIN CONNECTION. FOR FUTURE GRADED SIDE ENTRY UPGRADE.
53	TEMP JUNCTION PIT	600	900	300	195.818	300	195.768	198.107	2.339	REFER TO EDCM 605	TEMP. JUNCTION PIT FOR FUTURE GRADED SIDE INLET UPGRADE.
54	GRADED SIDE ENTRY PIT	600	900	300	197.236	300	197.186	198.752	1.567	REFER TO EDCM 601	-
55	GRADED SIDE ENTRY PIT	600	900	300	197.329	300	197.279	198.767	1.488	REFER TO EDCM 601	-
56	JUNCTION PIT	600	900	300	197.475	300	197.425	198.890	1.465	REFER TO EDCM 605	-
57	GRADED PIT	600	900	-	-	300	197.499	198.958	1.459	REFER TO EDCM 605 & WHITTLESEA COUNCIL SD208	FOR SPOON DRAIN CONNECTION
58	JUNCTION PIT	600	900	225	197.720	225	197.670	199.103	1.434	REFER TO EDCM 605	-
59	JUNCTION PIT	600	900	-	-	225	198.216	199.592	1.376	REFER TO EDCM 605	-
60	JUNCTION PIT	600	900	-	-	300	197.809	199.140	1.331	REFER TO EDCM 605	-
61	JUNCTION PIT	600	900	-	-	300	197.801	199.292	1.492	REFER TO EDCM 605	-
64	JUNCTION PIT	600	900	300	196.779	375	196.704	198.748	2.044	REFER TO EDCM 605	-
65	GRADED SIDE ENTRY PIT	600	900	300	196.956	300	196.906	198.580	1.675	REFER TO EDCM 601	-
66	JUNCTION PIT	600	900	300	197.315	300	197.265	198.812	1.546	REFER TO EDCM 605	-
67	GRADED SIDE ENTRY PIT	600	900	300	197.423	300	197.373	198.990	1.617	REFER TO EDCM 601	-
68	GRADED SIDE ENTRY PIT	600	900	300	197.898	300	197.848	199.681	1.833	REFER TO EDCM 601	-
69	GRADED SIDE ENTRY PIT	600	900	300	197.991	300	197.941	199.709	1.768	REFER TO EDCM 601	-
69A	GRADED SIDE ENTRY PIT	600	900	-	-	300	198.620	200.021	1.401	REFER TO EDCM 601	-
70	GRADED SIDE ENTRY PIT	600	900	300	197.515	300	197.465	199.049	1.583	REFER TO EDCM 601	-
71	GRADED SIDE ENTRY PIT	600	900	300	197.623	300	197.573	198.941	1.368	REFER TO EDCM 601	-
71A	JUNCTION PIT	600	900	-	-	300	197.657	199.146	1.489	REFER TO EDCM 605	-
72	GRADED SIDE ENTRY PIT	600	900	375	196.879	375	196.829	198.526	1.697	REFER TO EDCM 601	-
73	GRADED SIDE ENTRY PIT	600	900	225	197.126	375	196.976	198.702	1.726	REFER TO EDCM 601	-
74	JUNCTION PIT	600	900	225	197.642	225	197.592	199.302	1.710	REFER TO EDCM 605	-
75	JUNCTION PIT	600	900	225	198.208	225	198.158	199.661	1.503	REFER TO EDCM 605	-
76	JUNCTION PIT	600	900	-	-	225	198.369	199.854	1.485	REFER TO EDCM 605	-
77	JUNCTION PIT	600	900	300	197.460	300	197.410	199.061	1.651	REFER TO EDCM 605	-
78	GRADED SIDE ENTRY PIT	600	900	300	197.568	300	197.518	199.219	1.701	REFER TO EDCM 601	-
79	GRADED SIDE ENTRY PIT	600	900	-	-	300	197.610	199.259	1.649	REFER TO EDCM 601	-
80	GRADED SIDE ENTRY PIT	600	900	300	197.045	300	196.995	198.544	1.549	REFER TO EDCM 601	-
81	GRADED SIDE ENTRY PIT	600	900	-	-	300	197.396	198.953	1.557	REFER TO EDCM 601	-
82	GRADED SIDE ENTRY PIT	600	900	300	196.172	300	196.122	198.027	1.905	REFER TO EDCM 601	-
83	GRADED SIDE ENTRY PIT	600	900	-	-	300	197.067	198.417	1.350	REFER TO EDCM 601	-
84	GRADED SIDE ENTRY PIT	600	900	-	-	300	196.286	197.622	1.337	REFER TO EDCM 601	-

2	12.11.21	KCL	B. J-MONCK	RELOCATED PIT M3
1	26.07.21	KCL	B. J-MONCK	UPDATED DRAINAGE LONGITUDINAL SECTIONS
0	07.06.21	MHN	KCL	ISSUED FOR CONSTRUCTION
P2	09.02.21	NI	-	COUNCIL COMMENTS ADDRESSED
P1	30.09.20	AN	-	ISSUED FOR COUNCIL SUBMISSION
REV	DATE	DRN	CKD	APP

NOTE: THIS ENGINEERING DRAWING HAS BEEN BASED UPON DESIGNS INITIALLY DOCUMENTED BY BEVERIDGE WILLIAMS. COSSILL & WEBLEY CONSULTING ENGINEERS HAS MADE MINOR AMENDMENTS TO THIS DRAWING FROM REVISION 0 ONWARDS. PLEASE DIRECT ALL DESIGN ENQUIRIES TO COSSILL & WEBLEY



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This plan is not to be used for construction unless issued as revision 0 or higher

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Melbourne VIC 3004  
E melbourne@cosweb.com.au

CLIENT  
JINDING  
APPROVED  
DESIGNED  
C&W  
SCALE  
AS SHOWN

PROJECT  
THE PATCH - STAGE 2  
TITLE  
DRAINAGE LONGITUDINAL SECTIONS  
(SHEET 4 OF 4)  
CITY OF WHITTLESEA  
MUNICIPALITY  
PP No.  
717154  
DRAWING No.  
3201-02-403  
REVISION  
2

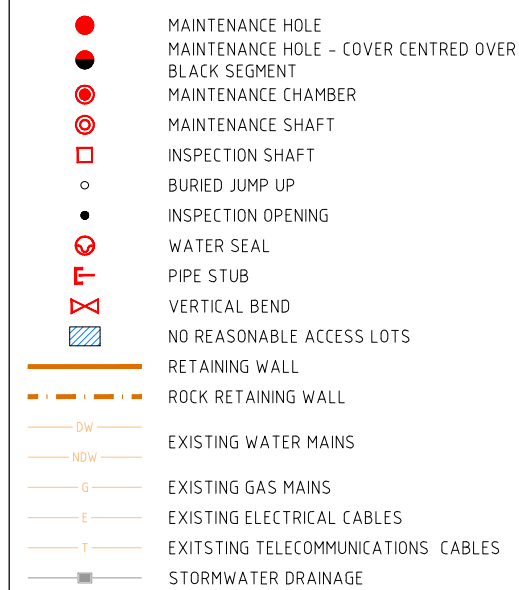
ORIGINAL SIZE  
A1







# SYMBOLS LEGEND



# COLOURS LEGEND

RED 10	SEWERAGE (NEW) INCLUDING NOTES
GREEN 94	PROPERTY CONNECTION TEXT
MAGENTA 210	EXISTING SEWERAGE

# PROPERTY SERVICE TYPES

TY1a	NO JUMP UP & 45° JUNCTION FITTING
TY1b	NO JUMP UP & 60° JUNCTION FITTING
TY2	JUMP UP ADJACENT TO MAIN
TY4a	OFFSET JUMP UP & 45° JUNCTION FITTING
TY4b	OFFSET JUMP UP & 60° JUNCTION FITTING
TY4S	OFFSET JUMP UP CONNECTED TO SHAFT
TY4B	OFFSET JUMP UP CONNECTED TO BASE
TYB	NO JUMP UP & CONNECTED TO BASE
TYS	NO JUMP UP & CONNECTED TO SHAFT
F	INCLUDING FLEXIBLE COUPLING ATTACHMENT

# ABBREVIATIONS LEGEND

FS	FINISHED SURFACE LEVEL
ES	EXISTING SURFACE LEVEL
IL	INVERT LEVEL
TW	TOP OF RETAINING WALL
EP	END PIPE
TP	TANGENT POINT
TY	PROPERTY CONNECTION TYPE
BT	BOUNDARY TRAP
TYS	NO JUMP UP & CONNECTED TO SHAFT
F	INCLUDING FLEXIBLE COUPLING ATTACHMENT
BT	BOUNDARY TRAP LOT
AC	AS CONSTRUCTED

# WARNING

BEWARE OF UNDERGROUND/OVERHEAD SERVICES  
THE LOCATION OF SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN. SPECIAL CONSIDERATION SHOULD BE GIVEN TO CONSTRUCTION PROCEDURES UNDER OVERHEAD ELECTRICITY TRANSMISSION LINES.



CITY OF WHITTLESEA

DEVELOPMENT ENGINEER

06/12/2021  
DATE ACCEPTED

DETAIL PLAN

FOR CONSTRUCTION

1:1000 @ A3  
HORIZONTAL  
1:500 @ A1

DESIGNED	R.WILSON	PROJECT NUMBER	3844/4413
DRAWN	R.WILSON	MELWAY REFERENCE	388 K6
CHECKED	K. LEE		

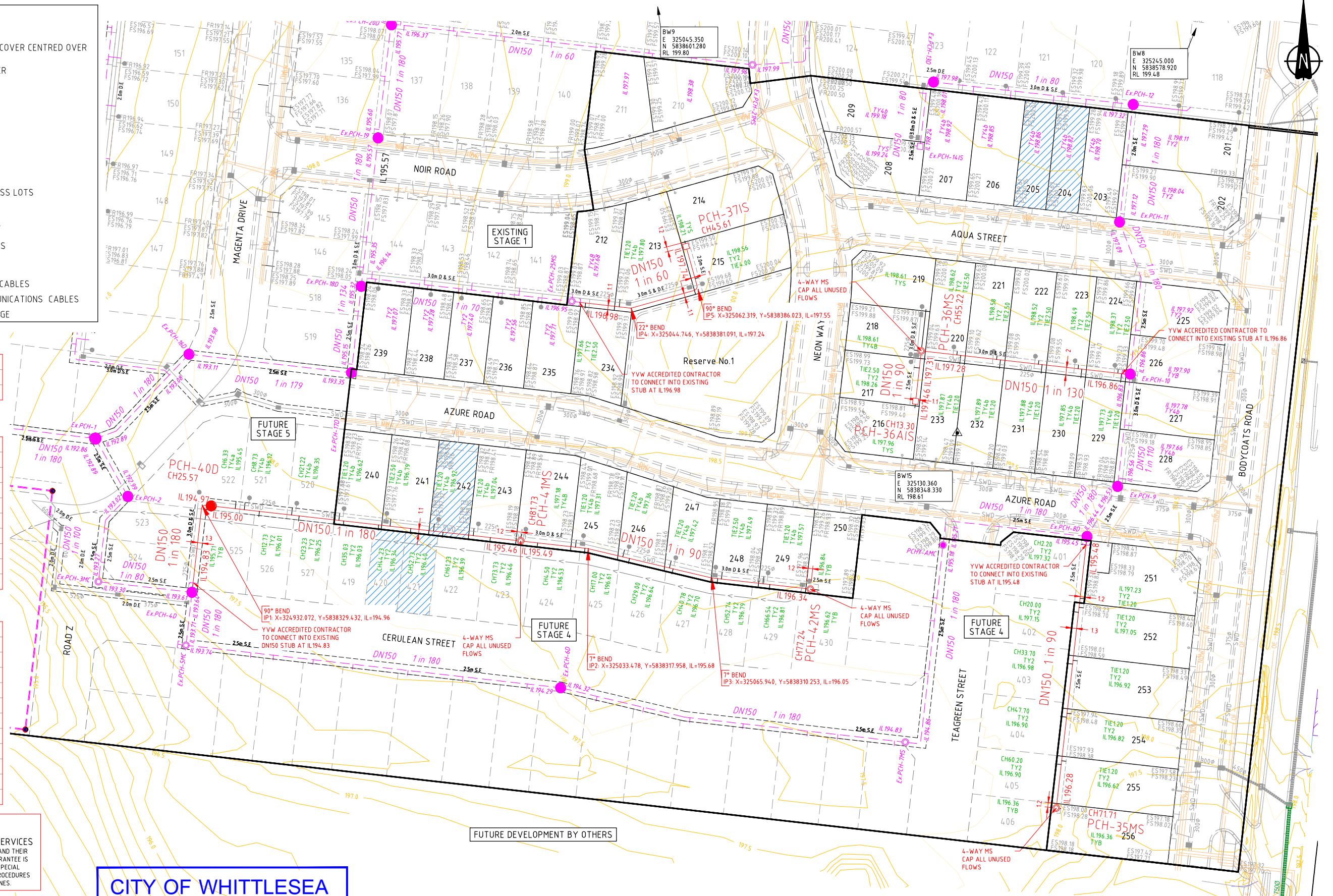
**Cossill & Webley**  
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Street Address  
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Melbourne VIC 3004  
E melbourne@cossweb.com.au

**JINDING**  
AUTHORISED



**YARRA VALLEY WATER**  
CITY OF WHITTLESEA  
THE PATCH - STAGE 2  
SEWERAGE RETICULATION EXT.NO. 3844/4413  
DETAILED PLAN

SCALE: AS SHOWN @A3  
SHEET: 02 OF 03  
DRAWING No.: 3201-02-610  
REV: 1



EMBEDMENT AND BACKFILL DETAILS:

- EMBEDMENT SHALL BE TYPE A UNLESS STATED OTHERWISE
- BACKFILL TYPE 0 IS ORDINARY FILL, TO BE SELECTED AND INSTALLED AS PER MRWA BACKFILL SPECIFICATION 04-03.1
- TYPE F IS TO BE INSTALLED AS PER FIGURE 1.
- TYPE R IS TO BE INSTALLED AS PER FIGURE 2.
- TYPE R BACKFILL IS TO BE USED UNDER ALL ROAD PAVEMENT.

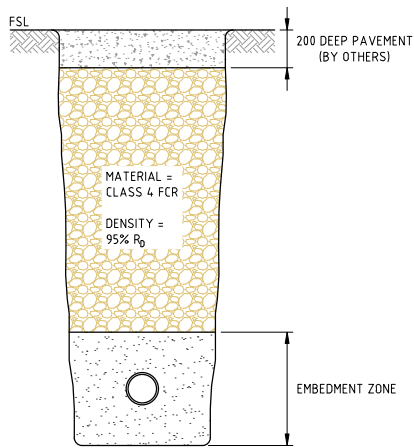


FIGURE 1: TYPE F BACKFILL

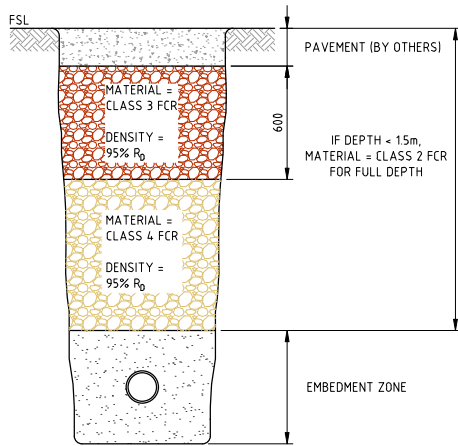
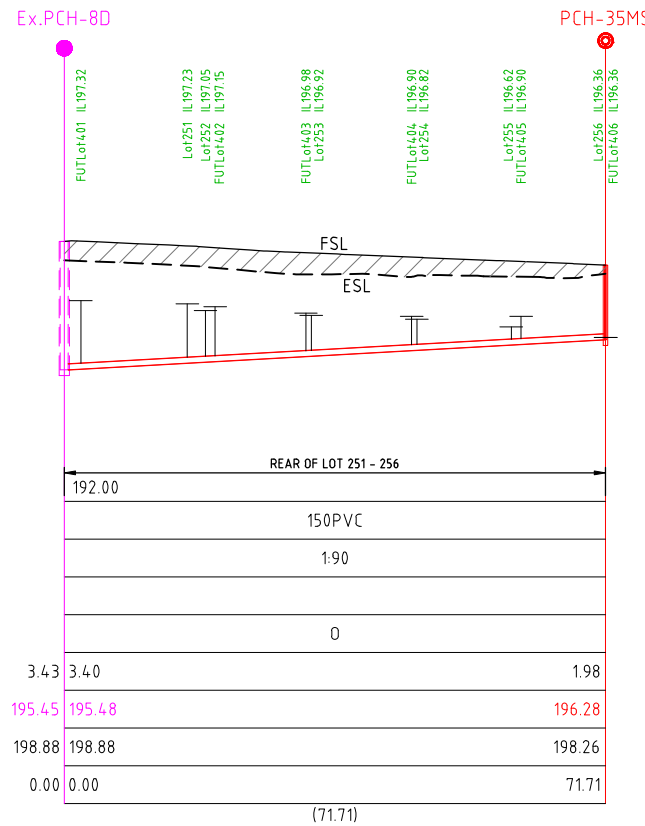
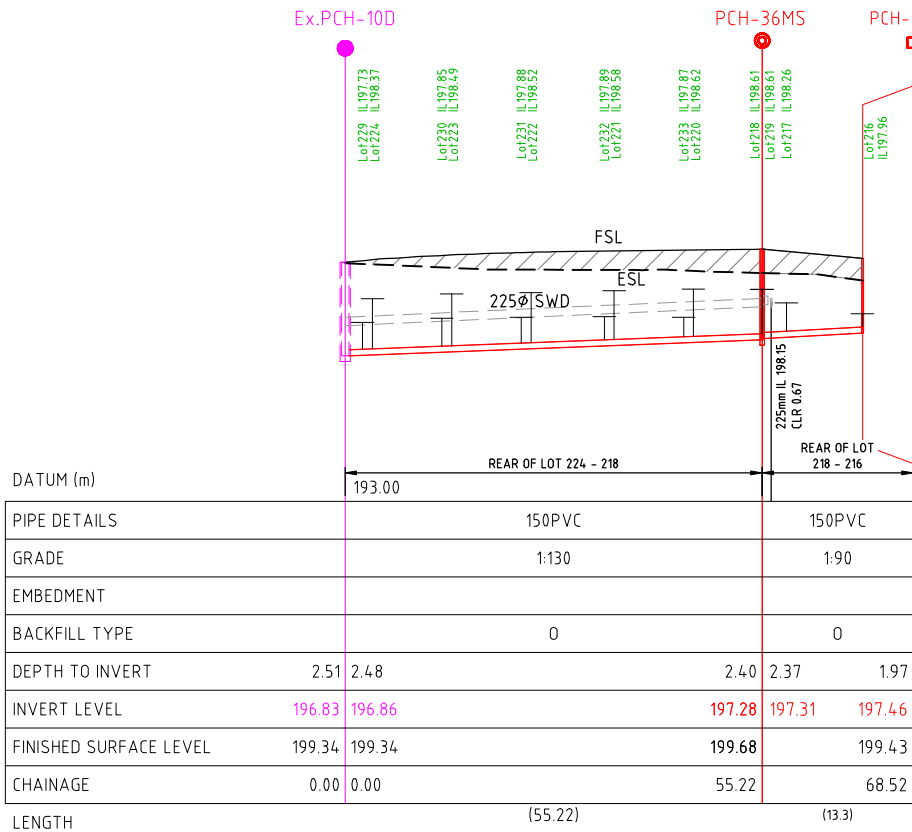
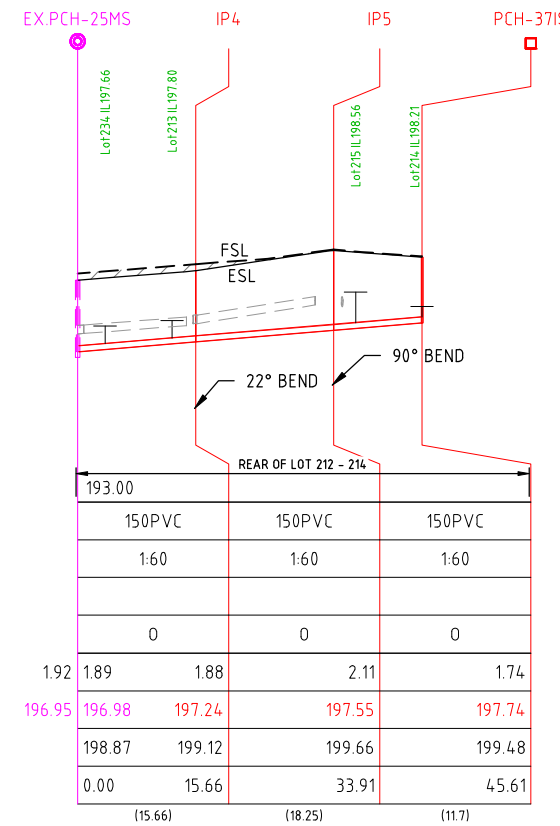
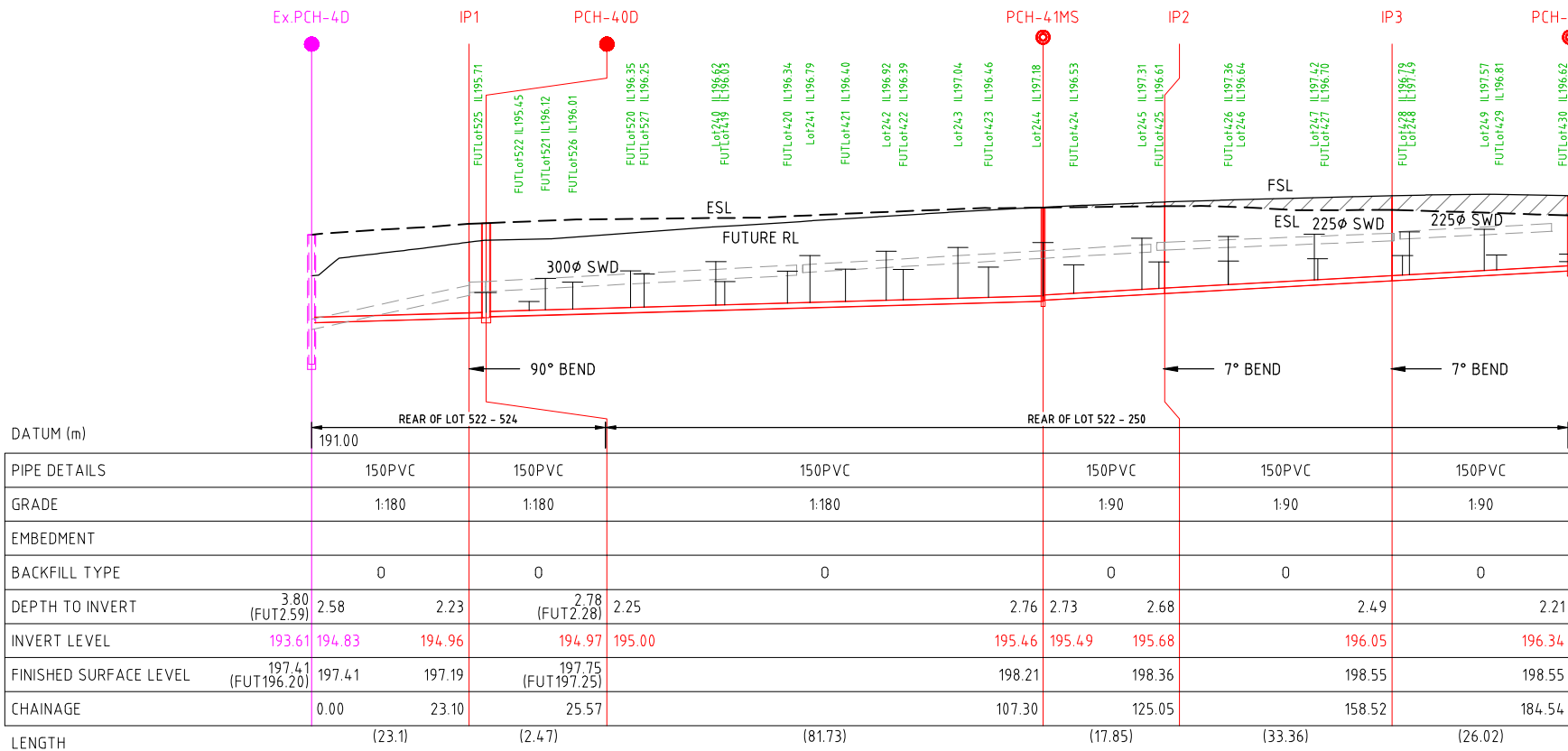


FIGURE 2: TYPE R BACKFILL

FILL SHOWN THUS:  TENDERS SHOULD BE PREPARED ON THE BASIS THAT EARTHWORKS SHOWN SHADED SHOULD BE COMPLETED PRIOR TO THE COMMENCEMENT OF WORKS.



CITY OF WHITTLESEA  
DEVELOPMENT ENGINEER  
06/12/2021  
DATE ACCEPTED

0	15.07.21	MHN	<i>[Signature]</i>	ISSUED FOR CONSTRUCTION
REV	DATE	DRN	CKD	APP
				AMENDMENT



DESIGNED	R.WILSON	DATE:	06/04/2021
DRAWN	R.WILSON	DATE:	06/04/2021
CHECKED	K. LEE	DATE:	25/05/2021

PROJECT NUMBER	3844/4413
MELWAY REFERENCE	388 K6

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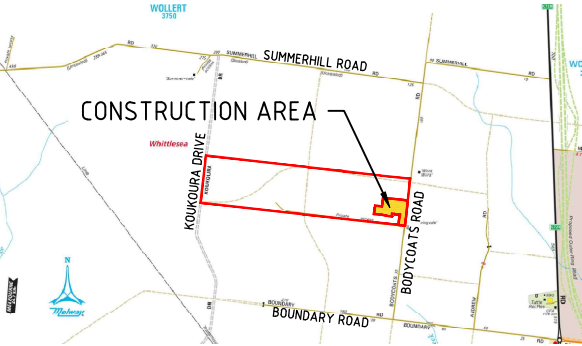
JINDING  
AUTHORISED  
*[Signature]*  
16.07.21

YARRA VALLEY WATER  
CITY OF WHITTLESEA  
THE PATCH - STAGE 2  
SEWERAGE RETICULATION EXT.NO. 3844/4413  
LONGITUDINAL SECTIONS

SCALE: AS SHOWN @A3
SHEET: 03 OF 03
DRAWING No.: 3201-02-620
REV: 0



	DRINKING WATER	NON-DRINKING WATER
DESIGN HEAD:	108m	103m
ZONE:	RESIDENTIAL	
TEST PRESSURE:	1400kPa	1400kPa



LOCALITY PLAN

NOT TO SCALE  
MELWAYS REF: 388 K6

SCHEDULE 8: DRAWING SCHEDULE

DRAWING NO.	SHEET NO.	TITLE
3201-02-700	01	LOCALITY PLAN, SCHEDULES & NOTES
3201-02-710	02	DETAIL PLAN



### WARNING

BEWARE OF UNDERGROUND/OVERHEAD SERVICES  
THE LOCATION OF SERVICES ARE APPROXIMATE ONLY AND THEIR EXACT POSITION SHOULD BE PROVEN ON SITE. NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES ARE SHOWN. SPECIAL CONSIDERATION SHOULD BE GIVEN TO CONSTRUCTION PROCEDURES UNDER OVERHEAD ELECTRICITY TRANSMISSION LINES.

FOR THE DURATION OF THE PROCLAIMED WATER RESTRICTIONS, THE CONTRACTOR SHALL CONFORM WITH THE RESTRICTIONS AND ANY OTHER WATER CONSERVATION REQUIREMENTS IMPOSED BY THE WATER AGENCY.

#### GENERAL NOTES

- ONLY CONTRACTORS ACCREDITED BY YARRA VALLEY WATER TO WC1 SHALL BE ELIGIBLE TO CONSTRUCT THESE WORKS.
- ONLY PRODUCTS APPROVED AND CATALOGUED BY THE WATER AGENCY SHALL BE USED.
- WORKS MUST BE CONSTRUCTED ACCORDING TO WSA 03-2011 MRWA EDITION. THE CONTRACTOR SHALL ENSURE THAT THEY ARE CONVERSANT WITH ALL CURRENT REVISIONS, AMENDMENTS AND UPDATES THAT THE RELEVANT WATER AGENCY HAS MADE TO THEIR STANDARDS.
- DW AND NDW ASSETS SHALL ONLY BE CONSTRUCTED AFTER DEEPER ASSETS AFFECTING THE WATER MAINS HAVE BEEN CONSTRUCTED (E.G. SEWER & DRAINAGE ASSETS).
- THIS DESIGN IS TO BE READ IN CONJUNCTION WITH ROAD AND DRAINAGE PLANS.
- THE CONTRACTOR SHALL OBTAIN A ROAD OPENING PERMIT FOR ANY WORKS WITHIN THE ROAD RESERVE AND COMPLY WITH ALL REQUIREMENTS OF THE ROAD OWNER.

#### SURVEY, SET OUT AND ASSET RECORDING

- TEMPORARY BENCH MARKS (TBM) FOR THE SET-OUT OF WORKS TO THE AUSTRALIAN HEIGHT DATUM (AHD) ARE PROVIDED IN THE DESIGN DRAWINGS.
- ALL LEVELS ARE IN METRES TO AHD.
- ALL CO-ORDINATES ARE IN METRES TO THE MAP GRID OF AUSTRALIA (MGA 55-94).
- THE CONTRACTOR IS DIRECTLY RESPONSIBLE FOR ENSURING THE PROJECT SET-OUT IS CONSISTENT WITH THE DESIGN. SHOULD ACTUAL SITE CONDITIONS CONFLICT IN ANY WAY WITH THAT DOCUMENTED, THE CONTRACTOR SHALL CONTACT THE SUPERINTENDENT FOR CLARIFICATION BEFORE PROCEEDING.
- THE CONTRACTOR IS TO ENGAGE A SUITABLY QUALIFIED AND EXPERIENCED SURVEYOR TO UNDERTAKE ASSET RECORDING OF THE WORK. ALL SURVEYOR WORKS AND DATA RECORDING SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE MRWA SURVEY MANUAL.
- ALL SPECIFIC PIPE MATERIALS (EG: PVC-O) SHALL BE INDICATED IN THE AS CONSTRUCTED INFORMATION.

#### PRODUCTS AND MATERIALS (REFER TABLE 1 & 2)

- DW AND NDW SYSTEM COMPONENTS SHALL BE DIFFERENTIATED AS PER SECTION 4.2 OF WSA03-2011, MRWA EDITION.

#### APPURTENANCES (FITTINGS - REFER TABLE 3)

- ALL VALVES AND HYDRANTS SHALL BE MARKED ACCORDING TO DRAWINGS MRWA-W-300 AND MRWA-W-301.
- VALVE SURROUNDS, COVERS AND SPINDLES SHALL BE CONSTRUCTED IN ACCORDANCE WITH DRAWING MRWA-W-302.
- HYDRANT SURFACE ARRANGEMENTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DRAWINGS MRWA-W-303.
- FLANGE AND FLANGE BOLTS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DRAWINGS MRWA-W-306A AND MRWA-W-300B.
- FOR THE HYDRANT AND WASHOUT SCHEDULE, REFER TO TABLE 3.
- ALL VALVES SHALL BE LOCATED DIRECTLY OUT FROM THE APEX OF THE SPLAY CORNER (UNLESS OTHERWISE INDICATED).

#### WATER MAIN ALIGNMENT, TRENCHING & COVER (REFER TABLE 5)

- OFFSETS OF MAINS FROM PROPERTY BOUNDARIES SHALL BE; MIN 600mm (MAINS < DN100) AND MIN 1m (MAINS ≥ DN100).
- ALL WATER MAINS SHALL PASS OVER DRAINS AND SEWERS UNLESS SHOWN OTHERWISE IN THE DESIGN DRAWINGS.

#### EMBEDMENT

- EMBEDMENT SHALL BE PLACED AS PER DRAWINGS MRWA-W-201 AND MRWA-W-202.
- EMBEDMENT MATERIAL SHALL BE SAND AND COMPLY WITH WSA PS 360 OR 361.
- THE DESIGNER SHALL BE CONSULTED IF AN ALTERNATE EMBEDMENT MATERIAL IS PROPOSED.

#### BACKFILL

- WATER MAINS UNDER ROADS, FOOTPATHS AND VEHICLE CROSSINGS, EXTENDING 1.0m EACH SIDE OF PAVING, SHALL BE BACKFILLED WITH 20mm CLASS 3 CRUSHED ROCK IN 150mm LAYERS TO 95% MODIFIED DRY DENSITY IN ACCORDANCE WITH MRWA-W-201.
- NON-TRAFFICABLE BACKFILL SHALL BE COMPLETED AS PER MRWA-W-201 AND THE CURRENT VERSION OF THE MRWA BACKFILL SPECIFICATION.

#### THRUST RESTRAINT (REFER TABLE 6)

- THRUST RESTRAINTS HAVE BEEN DESIGNED ON THE BASIS OF THE AHBP (GROUND STRENGTH) NOMINATED IN TABLE 6. THE CONTRACTOR SHALL CONFIRM THE ACTUAL GROUND CONDITIONS AND DISCUSS WITH THE SUPERINTENDENT ANY GROUND CONDITIONS WHICH ARE FOUND TO BE DIFFERENT TO THAT NOMINATED.

#### PROPERTY SERVICES

- NDW PROPERTY SERVICES SHALL ALWAYS BE LOCATED ON THE LEFT OF THE DW PROPERTY SERVICE AS YOU LOOK FROM THE ROAD TO THE FRONT OF THE PROPERTY.
- SKWEDED TAPPING TO BE LAID WITHIN DETECTABLE MARKING TAPE/TRACER WIRE IN ACCORDANCE WITH CLAUSE 15.12 WSA03\_2011 MRWA EDITION.

#### CONNECTIONS (ALL TYPES)

- ALL PROPERTY SERVICE CONNECTIONS TO NEW RESIDENTIAL RRJ RETICULATION MAINS ARE TO BE COMPLETED USING PRETAPPED CONNECTORS.

#### OTHER SERVICES (REFER - TABLE 5 & 7)

- TO RECEIVE THE MOST UP TO DATE INFORMATION PRIOR TO CONSTRUCTION, "DIAL BEFORE YOU DIG" SHALL BE UNDERTAKEN TO AID IN THE LOCATION OF OTHER SERVICES.  
OTHER SERVICES SHALL BE CAREFULLY LOCATED PRIOR TO FULL EXCAVATION AT THE CONTRACTOR'S COST.  
ANY CLASHES OF PROPOSED NEW WORKS WITH OTHER ASSETS SHALL BE REPORTED TO THE SUPERINTENDENT IMMEDIATELY FOR CLARIFICATION.
- CLEARANCES TO OTHER SERVICES SHALL BE AS PER TABLE 7 AND TABLE 5.5 OF WSA03-2011 MRWA EDITION. THESE CLEARANCES SHALL APPLY TO SURFACE COVERS AS WELL AS UNDERGROUND ASSETS.

#### EARTHWORKS AND RETAINING WALLS

- IN AREAS SUBJECT TO EARTHWORKS, CONSTRUCTION OF WATER ASSETS SHALL NOT COMMENCE UNTIL EARTHWORKS AND RETAINING WALLS HAS BEEN COMPLETED UNLESS WRITTEN APPROVAL HAS BEEN GIVEN BY THE WATER AUTHORITY.

#### TESTING, ASSET ACCEPTANCE AND LIVE CONNECTIONS

- POST CONSTRUCTION ACTIVITIES (OF BOTH DW & NDW) SUCH AS SWABBING, WATER QUALITY TESTING, PRESSURE TESTING AND CHLORINATION SHALL BE CARRIED OUT IN ACCORDANCE WITH WSA03-2011 MRWA EDITION AND THE MRWA WATER QUALITY COMPLIANCE SPECIFICATION.  
ALL TEST RESULTS SHALL BE DOCUMENTED AND REPORTED TO THE SUPERINTENDENT.
- THE WATER AGENCY SHALL BE NOTIFIED IN WRITING 2 FULL WORKING DAYS IN ADVANCE OF TESTING BEING UNDERTAKEN.
- BOTH ENDS OF DW AND NDW MAIN TO METER PROPERTY SERVICES SHALL BE INSPECTED BY THE WATER AGENCY.  
THE WATER AGENCY SHALL BE NOTIFIED IN WRITING 2 FULL WORKING DAYS IN ADVANCE OF THIS INSPECTION BEING CARRIED OUT.  
BOTH ENDS OF DW-NDW MAIN TO METER PROPERTY SERVICES ARE TO REMAIN EXPOSED UNTIL INSPECTED BY THE WATER AGENCY COMPLIANCE OFFICER.

EACH PROPERTY SERVICE SHALL BE "SQUIRT TESTED". THIS TEST INVOLVES PLACING EACH NETWORK UNDER PRESSURE SEPARATELY AND ENSURING THAT ONLY THE END OF THE CORRECT PROPERTY SERVICE DISCHARGES WATER.

- THE CONTRACTOR'S ITP SHALL INCLUDE PROVISION FOR EACH NDW CONNECTION TO BE SIGNED OFF AS CORRECTLY INSTALLED.
- THE WATER AGENCY SHALL BE NOTIFIED IN WRITING 9 FULL WORKING DAYS IN ADVANCE OF CONNECTION TO THE LIVE NETWORK BEING UNDERTAKEN.  
SHUT DOWN WORK SHALL BE AS SHORT AS PRACTICAL AND SCHEDULED TO COMMENCE AT 9AM ON WORKING DAYS WITH COMPLETION TO OCCUR NO LATER THAN 4PM.

SHUT DOWNS SHALL BE LIMITED TO 4 HOURS IN DURATION. ARRANGE FOR ALTERNATE SUPPLIES SHOULD THE SHUT DOWN DURATION EXCEED 4 HOURS.

- VALVES CONNECTING NEW ASSETS TO THE WATER AGENCY'S LIVE SYSTEM SHALL NOT BE OPERATED BY THE CONTRACTOR.

CITY OF WHITTLESEA

*JHG*  
DEVELOPMENT ENGINEER

06/12/2021  
DATE ACCEPTED

SCHEDULE 1: NEW PIPE SCHEDULE

NEW WORK			DRINKING MAIN	NON-DRINKING MAIN
SIZE (DN)	TYPE	CLASS	LENGTH	LENGTH
DN100	PVC-M	16	317m	318m
DN125	PE100	16	196m	196m
DN25	PE100	16	PROPERTY SERVICES	PROPERTY SERVICES

SCHEDULE 2: PIPE MATERIAL SCHEDULE

MATERIAL	REFERENCE	MATERIAL	REFERENCE
PVC-M	WSA-PS-209	PE (RETIC & SUBMAIN)	WSA-PS-207
PVC-O	WSA-PS-210	PE (PROPERTY SERVICES)	WSA-PS-215

SCHEDULE 3: HYDRANT & WASHOUT SCHEDULE

MAIN SIZE	FITTING TYPE	OWNERSHIP	LOCATION	STREET	LOCATION
DN100	HYDRANT	NDW - COUNCIL	END OF LINE	AZURE ROAD	0.2M W OF STAGE BOUNDARY
DN100	HYDRANT	DW	END OF LINE	AZURE ROAD	0.4M E OF STAGE BOUNDARY
DN100	DUCKFOOT	NDW - YVW	END OF LINE	TEAGREEN STREET	1.0M S OF STAGE BOUNDARY
DN100	DUCKFOOT	DW	END OF LINE	TEAGREEN STREET	1.0M S OF STAGE BOUNDARY
DN100	HYDRANT	NDW - COUNCIL	IN LINE	AQUA STREET	10M W OF EBL LOT 208
DN100	HYDRANT	DW	IN LINE	AQUA STREET	10.6M W OF EBL LOT 208
DN100	HYDRANT	NDW - COUNCIL	IN LINE	NEON WAY	3.5M N OF LOT 216 SPLAY
DN100	HYDRANT	DW	IN LINE	NEON WAY	3.5M N OF LOT 216 SPLAY

SCHEDULE 4: CURVED PIPE & DEFLECTION SCHEDULE

LOCATION	METHOD	OFFSET / RADIUS (m)	TOTAL LENGTH (m)	PIPE LENGTHS (m)
1	NOT USED	-	-	-
2	NOT USED	-	-	-
3	COLD BEND PE	3M RADIUS	-	-
4	CURVED PE PIPE (NDW)	61M RADIUS	12m	-
5	CURVED PE PIPE (DW)	61.45M RADIUS	12m	-
6	CURVED PE PIPE (NDW)	62.5M RADIUS	7m	-
7	CURVED PE PIPE (DW)	62.95M RADIUS	7m	-

SCHEDULE 5: SERVICE ALIGNMENT SCHEDULE

STREET	GAS		NDW		DW		COMMS	ELEC	LIGHTING	
AZURE ROAD	S	2.10	S	2.50	S	2.95	N 1.85	N 2.2, 2.3, 2.5	0.90	BOK
TEAGREEN STREET	E	2.10	E	2.50	E	2.95	W 1.85	W 2.50	0.90	BOK
NEON WAY	E	2.10	E	2.50	E	2.95	W 1.85	W 2.50	0.90	BOK
AQUA STREET	E	2.10	E	2.50	E	2.95	W 1.85	W 2.50	0.90	BOK
NOIR ROAD	N	2.10	N	2.50	N	2.95	S 1.85	S 2.55	0.90	BOK

SCHEDULE 6: THRUST RESTRAINT SCHEDULE

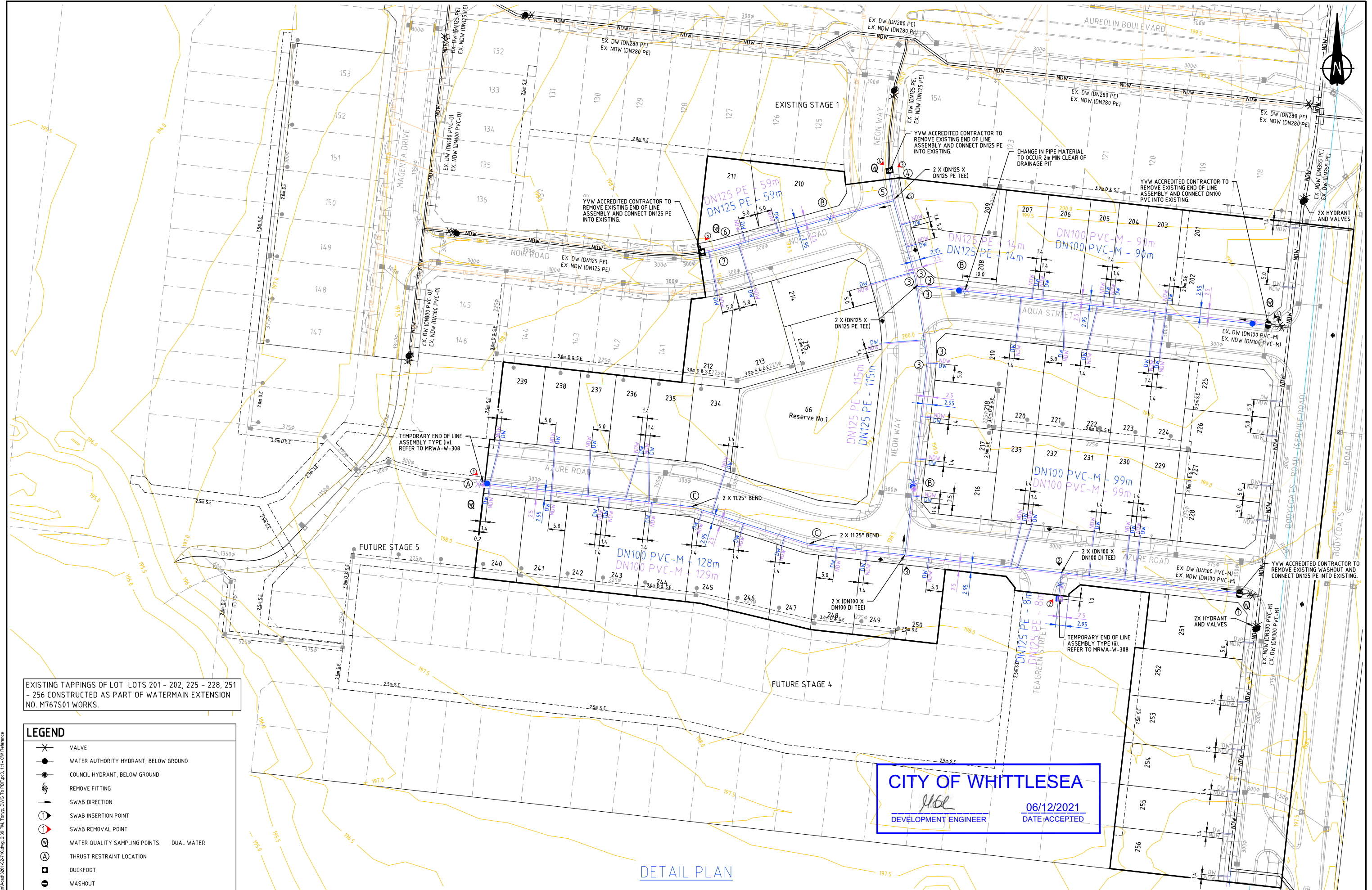
LOCATION	TYPE	THRUST	AHBP (kPa) USED	AREA (m2), OR W (m) x Y(m)	NUMBER OF LOCATIONS
A	IN LINE	2 X DN100 VALVE	50	0.64 m2	1
B	IN LINE	2 X (PE SHRINKAGE + DN100 VALVE)	50	1.40 m2	3
C	PLAIN	2 X DN100 11.25° BEND	50	0.30 m2	2

SCHEDULE 7: VERTICAL CLEARANCES

EXISTING OR PROPOSED SERVICE	MINIMUM VERTICAL CLEARANCE (mm)	EXISTING OR PROPOSED SERVICE	MINIMUM VERTICAL CLEARANCE (mm)
WATER MAINS ≤ DN375	150	ELEC CONDUITS & CABLES	225
WATER MAINS > DN375	300	STORMWATER DRAINS & PITS	150
GAS MAINS	150	SEWERS - GRAVITY	500
TELCO CONDUITS & CABLES	150	SEWERS - PRESSURE & VACUUM	300

- VERTICAL CLEARANCE BETWEEN WATER MAINS SHALL DEPEND ON THE LARGER MAIN DIAMETER.
- WATER MAINS SHALL CROSS OVER SEWERS AND DRAINS UNLESS SHOWN OTHERWISE.
- MAINTAIN ADDITIONAL CLEARANCE FROM HIGH VOLTAGE ELECTRICAL CABLES TO ALLOW FOR A PROTECTIVE BARRIER AND MARKING.





EXISTING TAPPINGS OF LOT LOTS 201 - 202, 225 - 228, 251 - 256 CONSTRUCTED AS PART OF WATERMAIN EXTENSION NO. M767S01 WORKS.

LEGEND

VALVE

WATER AUTHORITY HYDRANT, BELOW GROUND

COUNCIL HYDRANT, BELOW GROUND

REMOVE FITTING

SWAB DIRECTION

SWAB INSERTION POINT

SWAB REMOVAL POINT

WATER QUALITY SAMPLING POINTS: DUAL WATER

THRUST RESTRAINT LOCATION

DUCKFOOT

WASHOUT

CITY OF WHITTLESEA

06/12/2021

DATE ACCEPTED

DETAIL PLAN

1	01.12.21	TP		HYDRANT ADDED
A	25.05.21	NW	FP	B. JMONCK
				ISSUED FOR TENDER
REV	DATE	DRN	CKD	APP
				AMENDMENT

1:1000 @ A3

0 10 20 30m

SCALE

1:500 @ A1

FOR CONSTRUCTION

DESIGNED	M. H. NGUYEN	PROJECT NUMBER	3844/4413				YARRA VALLEY WATER CITY OF WHITTLESEA THE PATCH - STAGE 2 WATER RETICULATION EXT. NO. 3844/4413 DETAIL PLAN	SCALE: N.T.S. SHEET: 02 OF 02 DRAWING No.: 3201-02-710 REV: B
DRAWN	M. H. NGUYEN	MELWAY REFERENCE	388 K6					
CHECKED	F. PANG	DATE	25/05/2021					

01.12.21

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