

PROPOSED DRIVEWAY

at: 44 KOOLOORA AVE, FRESHWATER

for: STEWART HOUSE

Architect: BREWSTER HJORTH ARCHITECTS

Prepared By:

NB Consulting Engineers
STRUCTURAL - CIVIL - STORMWATER - REMEDIAL
A.C.N. 076 121 616 A.B.N. 24 076 121 616

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Unit 8, 1726 Gold Coast Highway Burleigh Heads QLD 4220
E : nb@nbconsulting.com.au W : www.nbconsulting.com.au

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DRAWING SCHEDULE:

C01 - DRIVEWAY ACCESS PLAN - SHEET 1
C02 - DRIVEWAY ACCESS PLAN - SHEET 2
C03 - PROPOSED CONTOUR LAYOUT PLAN (APPROXIMATE)
C04 - LONGITUDINAL SECTIONS - SHEET 1
C05 - LONGITUDINAL SECTIONS - SHEET 2
C06 - LONGITUDINAL SECTIONS - SHEET 3
C07 - LONGITUDINAL SECTIONS - SHEET 4

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SUBMISSION ONLY
NOT FOR
CONSTRUCTION

NB Consulting Engineers

200273

ISSUE B - 08/09/2020

LEGEND:

- PROPOSED DRIVEWAY/FOOTPATH OUTLINE
- DRIVEWAY CHAINAGE

CIVIL NOTES:

- FOR EXISTING CONTOURS AND LEVELS. REFER SURVEY PLAN. ALL LEVELS AND DIMENSIONS TO BE CONFIRMED PRIOR TO CONSTRUCTION.
- PRIOR APPROVAL MAY BE REQUIRED WITH RELEVANT AUTHORITIES PRIOR TO RETAINING WALLS, SHORING, BATTERS & DRAINAGE IMPACTING NEIGHBOURING PROPERTIES AND INFRASTRUCTURE BEYOND BOUNDARIES.
- STORMWATER AND DRAINAGE REFER STORMWATER MANAGEMENT PLANS DRAWINGS BY NB CONSULTING PTY LTD.
- STORMWATER FLOOD ANALYSIS AND/OR FREEBOARD LEVELS REFER STORMWATER PLANS BY NB CONSULTING PTY LTD.
- ALL BATTERS, RETAINING WALLS AND BULK EARTHWORKS TO BE DESIGNED BY A QUALIFIED ENGINEER.
- EXISTING DRAINAGE ACROSS NATURE STRIP & KERBS IMPACTING PROPOSED WORKS TO BE RELOCATED OR UPGRADED AS REQUIRED BY OTHERS IN AN APPROVED MANNER. REFER ARCHITECT FOR SPECIFICATIONS AND DETAILS.
- NATURE STRIP PAVEMENT, GUTTER & FOOTWAY CROSSINGS TO COUNCIL SPECIFICATIONS.
- CONCRETE DRIVEWAY & JOINTING PLAN BY OTHERS.
- IMPACT OF PROPOSED WORKS ON EXISTING TREE/S. REFER ARCHITECT AND/OR ARBORIST REPORT FOR DETAILS AND SPECIFICATIONS.
- PRIOR APPROVAL REQUIRED PRIOR TO REMOVAL OF EXISTING TREE/S REFER ARCHITECT AND/OR ARBORIST REPORT FOR SPECIFICATIONS & DETAILS.
- CARPARKING REQUIREMENTS TO AS2890.1 BY OTHERS. REFER ARCHITECT FOR SPECIFICATIONS AND DETAILS.
- MINIMUM DRIVEWAY WIDTHS, CLEARANCES, INCLUDING HEAD CLEARANCES TO COMPLY WITH AS2890.1 REFER ARCHITECT FOR SPECIFICATIONS & DETAILS.
- GARAGE DOORWAY OPENING WIDTH BY OTHERS REFER ARCHITECT FOR SPECIFICATIONS AND DETAILS TO COMPLY WITH AS2890.1.
- TRAFFIC CONTROL SIGNAGE AND TRAFFIC CONTROL MEASURES BY OTHERS. REFER ARCHITECT FOR LATEST PLANS AND EXTENTS OF PROPOSED BUILDING WORKS & STRUCTURES. TO BE CONFIRMED PRIOR TO CONSTRUCTION.
- COUNCIL APPROVAL MAY BE REQUIRED PRIOR TO COMMENCING CONSTRUCTION.
- ANY VEHICLE PROFILE ANALYSIS SUCH AS THE B85 PROFILE IS NORMALLY UNDERTAKEN ALONG THE DETAILED LONGITUDINAL SECTIONS WHICH HAVE GENERALLY BEEN LOCATED IN ACCORDANCE WITH COUNCIL POLICY. UNLESS NOTED OTHERWISE. THIS MAY NOT NECESSARILY REPRESENT THE WORSE CASE ANALYSIS.
- NO SWEPT PATH ANALYSIS HAS BEEN UNDERTAKEN AND/OR HAS BEEN PROVIDED FOR THIS DEVELOPMENT.
- BARRIERS REQUIRED WHERE DRIVEWAY DROP EXCEEDS 600mm. WHEEL STOP REQUIRED WHERE DRIVEWAY DROP IS BETWEEN 150-600mm. REFER AS2890.1. REFER ARCHITECT & LANDSCAPE ARCHITECT FOR SPECIFICATIONS AND DETAILS.
- VEHICULAR SIGHT LINES TO COMPLY WITH AS2890.1.
- NOTICE PRIOR TO COMMENCEMENT OR WORKS: AT LEAST SEVEN (7) DAYS BEFORE COMMENCEMENT OF ANY EXCAVATION OR DEMOLITION WORKS, THE BUILDER OR CLIENT MUST GIVE NOTICE TO THE OWNER(S) OF THE ADJOINING PROPERTY(S) AND PROVIDE DETAILS OF THE PROPOSED WORKS. FURTHER, THE ADJOINING OWNER MUST BE MADE AWARE OF THE RISK OF MINOR CRACKING DUE TO VIBRATIONS DURING CONSTRUCTION. THE BUILDER OR CLIENT IS RESPONSIBLE TO RECTIFY ANY DAMAGE WHICH MAY OCCUR AT THEIR OWN COST.
- ANY EXCAVATION MUST NOT EXTEND BELOW NEIGHBOURING FOOTINGS. THE BUILDER MUST IMMEDIATELY NOTIFY THE STRUCTURAL AND GEOTECHNICAL ENGINEER IF, AT ANY TIME, EXCAVATION INADVERTENTLY EXTENDS BELOW NEIGHBOURING FOOTINGS. THE ENGINEERS WILL BOTH NEED TO COME OUT AND INSPECT AND IF NECESSARY PROVIDE UNDERPINNING OR ADDITIONAL SUPPORT DETAILS.

COUNCIL DRIVEWAY CROSSOVER PROFILE NOTES

COUNCIL: NORTHERN BEACHES COUNCIL
 PROFILE/TITLE: NORMAL HIGH STANDARD VEHICLE CROSSING PROFILE (WARRINGAH COUNCIL)
 DRAWING: PLAN No.: A4 3330/2 NH
 DATED: LAST AMENDED DEC 2006

CADASTRAL REFERENCE MARKS, SURVEY PMs OR SSMs

1) PURSUANT TO THE SURVEYING AND SPATIAL INFORMATION ACT, ANY CADASTRAL REFERENCE MARKS, SURVEY PMs OR SSMs THAT ARE ON KERBS, FOOTPATHS OR SIMILAR THAT MAY BE AFFECTED BY CONSTRUCTION OR MAINTENANCE, NEED TO BE IDENTIFIED AND SURVEYED BY A REGISTERED LAND SURVEYOR BEFORE THEY ARE DESTROYED OR DISTURBED, PERSONAL FINES APPLY FOR BREACHES OF THE ACT.

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NO INVESTIGATION OF UNDERGROUND SERVICES HAS BEEN MADE. ALL RELEVANT AUTHORITIES SHOULD BE NOTIFIED PRIOR TO ANY EXCAVATION ON OR NEAR THE SITE.

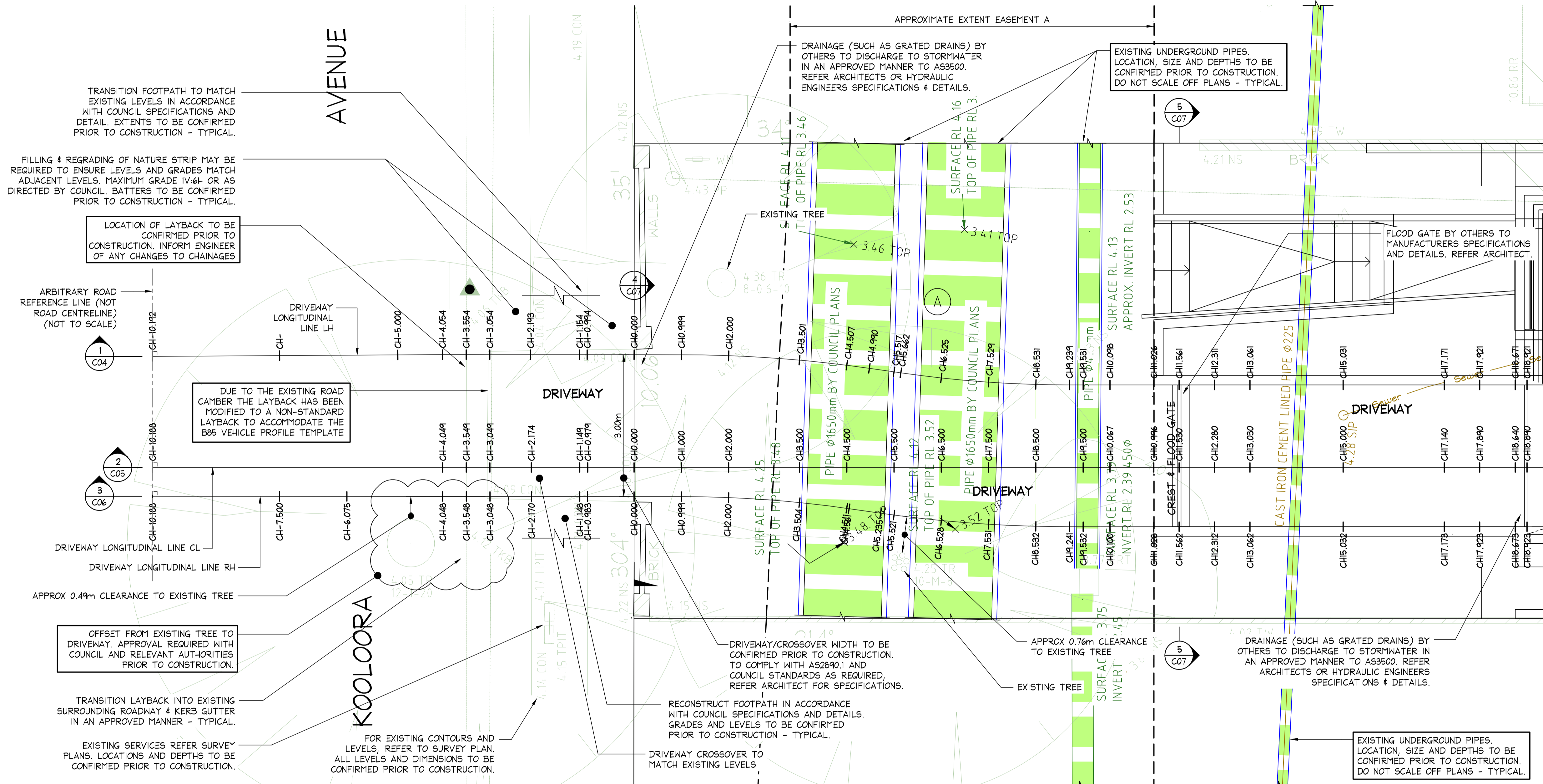
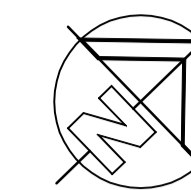
DEVELOPERS & EXCAVATORS MAY BE HELD FINANCIALLY RESPONSIBLE BY THE ASSET OWNER SHOULD THEY DAMAGE UNDERGROUND NETWORKS.

CARELESS DIGGING CAN:
 - CAUSE DEATH OR SERIOUS INJURY TO WORKERS AND THE GENERAL PUBLIC
 - INCONVENIENCE USERS OF ELECTRICITY, GAS, WATER AND COMMUNICATIONS
 - LEAD TO CRIMINAL PROSECUTION AND DAMAGES CLAIMS
 - CAUSE EXPENSIVE FINANCIAL LOSSES TO BUSINESS
 - CUT OFF EMERGENCY SERVICES
 - DELAY PROJECT COMPLETION TIMES WHILE THE DAMAGE IS REPAIRED

MINIMISE YOUR RISK AND DIAL BEFORE YOU DIG. - TEL. 1100

NOTES:

1. ALL DIMENSIONS TO BE VERIFIED ON SITE BY BUILDER BEFORE COMMENCING WITH WORK.



DRIVEWAY ACCESS PLAN

SCALE = 1 : 50

ISSUED FOR D.A. SUBMISSION ONLY NOT FOR CONSTRUCTION

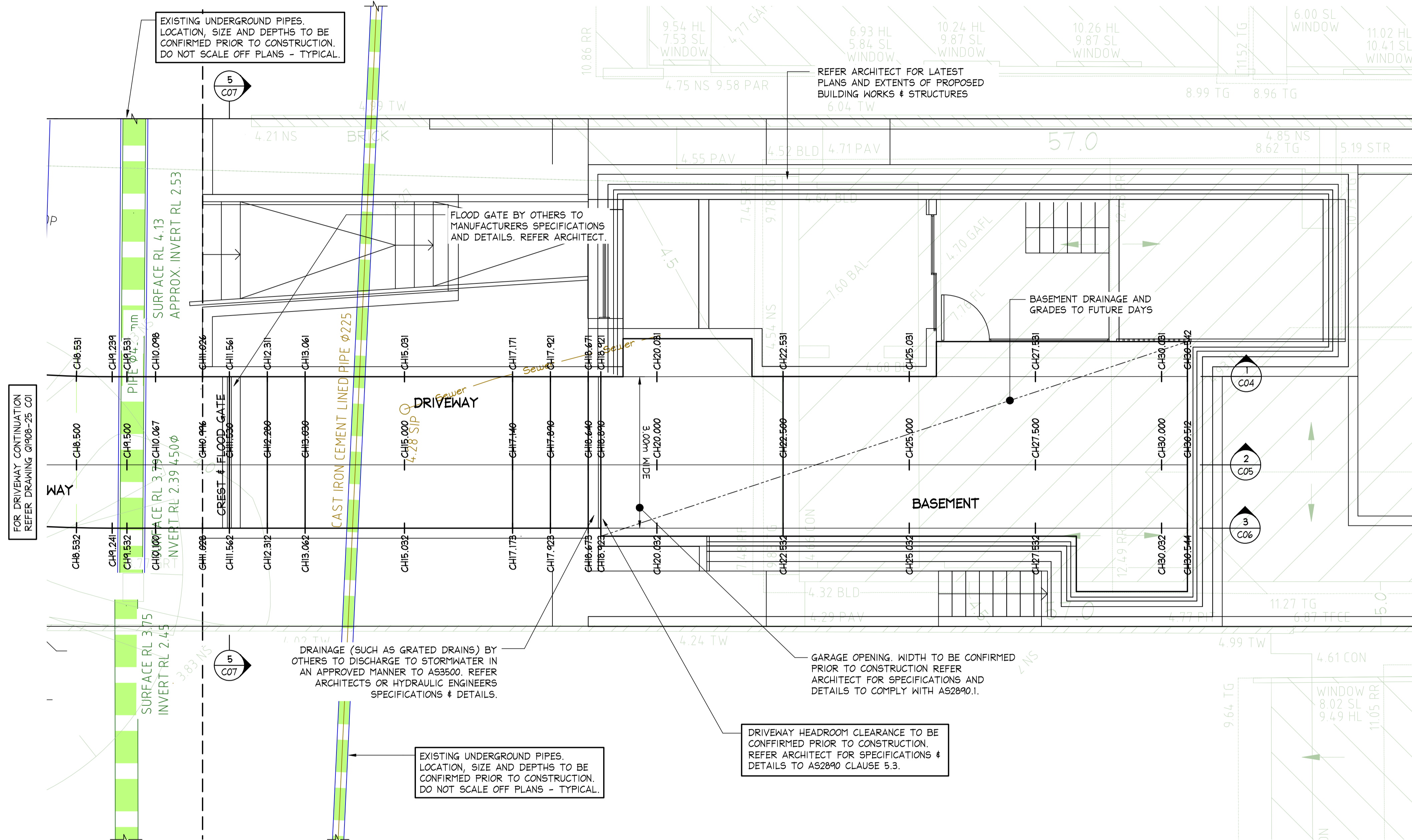
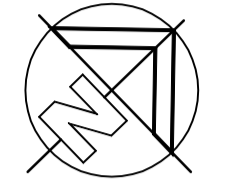
IF IN DOUBT ASK

AI		DOCUMENT CERTIFICATION		NB Consulting Engineers STRUCTURAL - CIVIL - STORMWATER - REMEDIAL A.C.N. 076 121 616 A.B.N. 24 076 121 616 Sydney: Ph: (02) 9984 7000 Fax: (02) 9984 7444 Suite 207, 30 Fisher Road Dee Why N.S.W. 2099 Gold Coast: Ph: (07) 5631 4744 Unit 8, 1726 Gold Coast Highway Burleigh Heads QLD 4220 E: nb@nbconsulting.com.au W: www.nbconsulting.com.au		Architect: BREWSTER HJORTH ARCHITECTS Client: STEWART HOUSE		Project: PROPOSED DRIVEWAY AT 44 KOOLOORA AVE, FRESHWATER Drawing Title: DRIVEWAY ACCESS PLANS - SHEET 1		Date: JAN 2020	Design: D.K.	Drawn: D.K.	
Date:	Issue:	Description:	By:	Review:							Job No: 200273	Drawing No: C01	Issue: B
06/09/2020	B	REVISED PLANS - GARAGE ENTRY	D.K.	M.W.	Rick G Wray								
04/09/2020	A	ISSUED FOR DA SUBMISSION ONLY - NOT FOR CONSTRUCTION	D.K.	M.W.	BE(Civil), CP(Eng, MIEAust., NER, RPEQ) 08293. (Director NB Consulting Engineers)								

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2. FOR GENERAL NOTES REFER TO DRAWING NUMBER: C01.



DRIVEWAY ACCESS PLAN

SCALE = 1 : 50

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06/09/2020		B	REVISED PLANS - GARAGE ENTRY	D.K.	M.W.	DOCUMENT CERTIFICATION		NB Consulting Engineers STRUCTURAL - CIVIL - STORMWATER - REMEDIAL A.C.N. 076 121 616 A.B.N. 24 076 121 616 Sydney: Ph: (02) 9984 7000 Fax: (02) 9984 7444 Suite 207, 30 Fisher Road Dee Why N.S.W. 2099 Gold Coast: Ph: (07) 5631 4744 Unit 8, 1726 Gold Coast Highway Burleigh Heads QLD 4220 E : nb@nbconsulting.com.au W : www.nbconsulting.com.au	Architect:	BREWSTER HJORTH ARCHITECTS	Project:	PROPOSED DRIVEWAY AT 44 KOOLOORA AVE, FRESHWATER	Date:	JAN 2020	Design:	D.K.	Drawn:	D.K.
04/09/2020		A	ISSUED FOR DA SUBMISSION ONLY - NOT FOR CONSTRUCTION	D.K.	M.W.	Date: Rick G Wray By: BE(Civil), CP(Eng, MIEAust., NER, RPEQ) 08293. (Director NB Consulting Engineers) The copyright of this drawing remains with Northern Beaches Consulting Engineers Pty Ltd. Trading as NB Consulting Engineers			Client:	STEWART HOUSE	Drawing Title:	DRIVEWAY ACCESS PLANS - SHEET 2	Job No:	200273	Drawn:	C02	Issue:	B

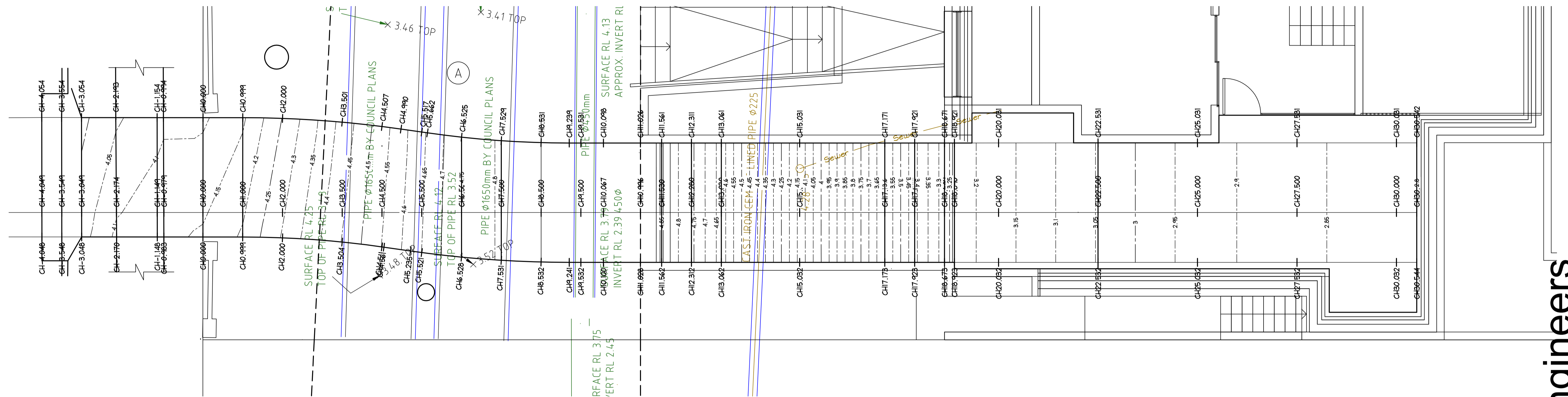
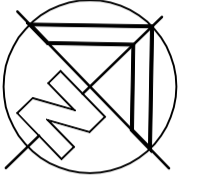
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NOTES:

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- 2. FOR GENERAL NOTES REFER TO DRAWING NUMBER: C01.



PROPOSED CONTOUR LEVELS ARE INDICATIVE ONLY. ALL LEVELS TO BE CONFIRMED PRIOR TO CONSTRUCTION. DO NOT SCALE.



PROPOSED CONTOUR & SPOT LEVELS LAYOUT PLAN (APPROXIMATE)

NOT TO SCALE

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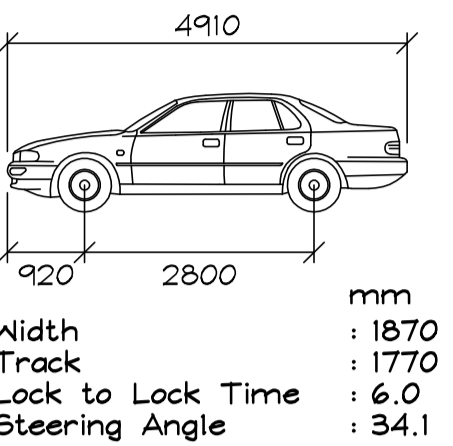
Date: 08/09/2020		Issue: B		Description: REVISED PLANS - GARAGE ENTRY		By: D.K.		M.W.		DOCUMENT CERTIFICATION Date: By: Rick G. Wray BE(Civil), CP(Eng, MIEAust.), NER, RPEQ: 08293. (Director NB Consulting Engineers) The copyright of this drawing remains with Northern Beaches Consulting Engineers Pty Ltd. Trading as NB Consulting Engineers		NB Consulting Engineers STRUCTURAL - CIVIL - STORMWATER - REMEDIAL A.C.N. 076 121 616 A.B.N. 24 076 121 616 Sydney: Ph: (02) 9984 7000 Fax: (02) 9984 7444 Suite 207, 30 Fisher Road Dee Why N.S.W. 2099 Gold Coast: Ph: (07) 5631 4744 Unit 8, 1726 Gold Coast Highway Burleigh Heads QLD 4220 E: nb@nbconsulting.com.au W: www.nbconsulting.com.au		Architect: BREWSTER HJORTH ARCHITECTS Client: STEWART HOUSE		Project: PROPOSED DRIVEWAY AT 44 KOOLOORA AVE, FRESHWATER Drawing Title: PROPOSED CONTOUR LAYOUT PLAN (APPROXIMATE)		Date: JAN 2020 Design: D.K. Drawn: D.K.		Job No: 200273 Drawing No: C03 Issue: B	
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NOTES:

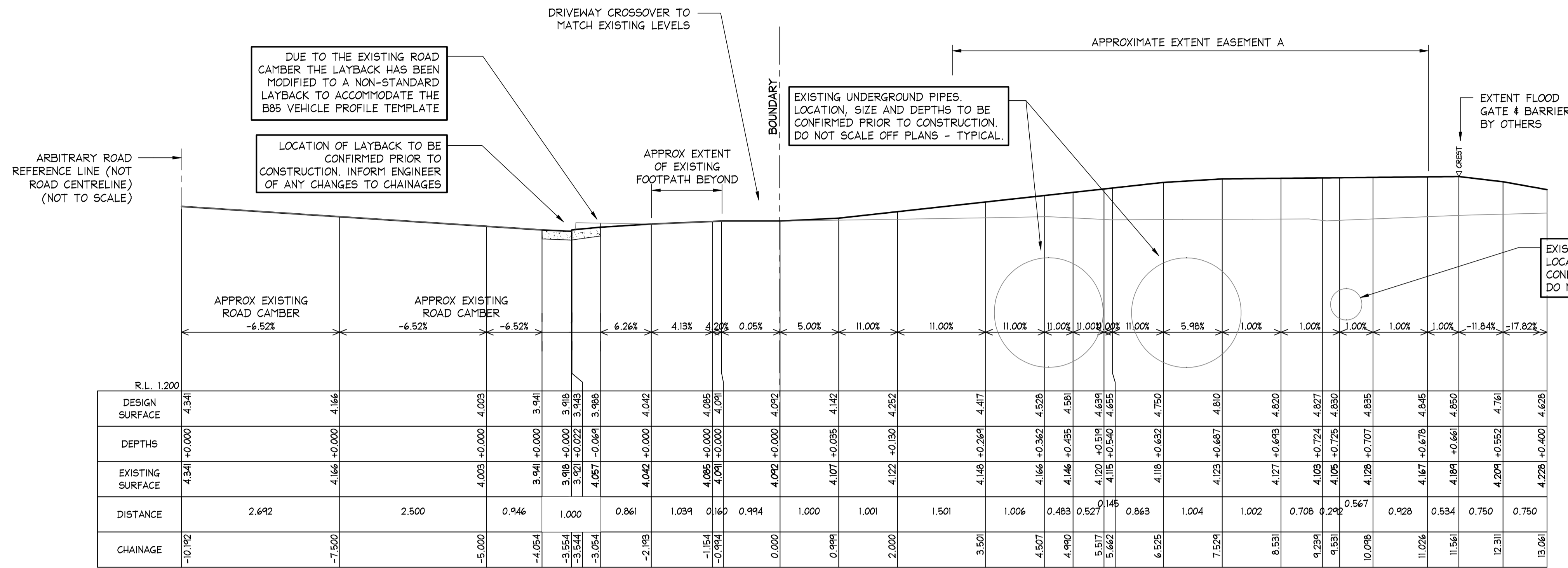
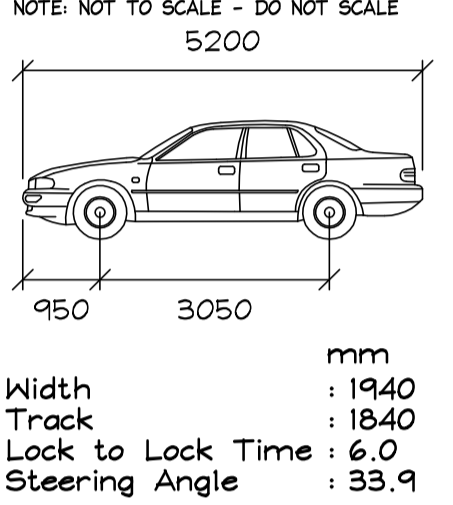
1. ALL DIMENSIONS TO BE VERIFIED ON SITE BY BUILDER BEFORE COMMENCING WITH WORK.
2. FOR GENERAL NOTES REFER TO DRAWING NUMBER: C01.



B85 PROFILE:

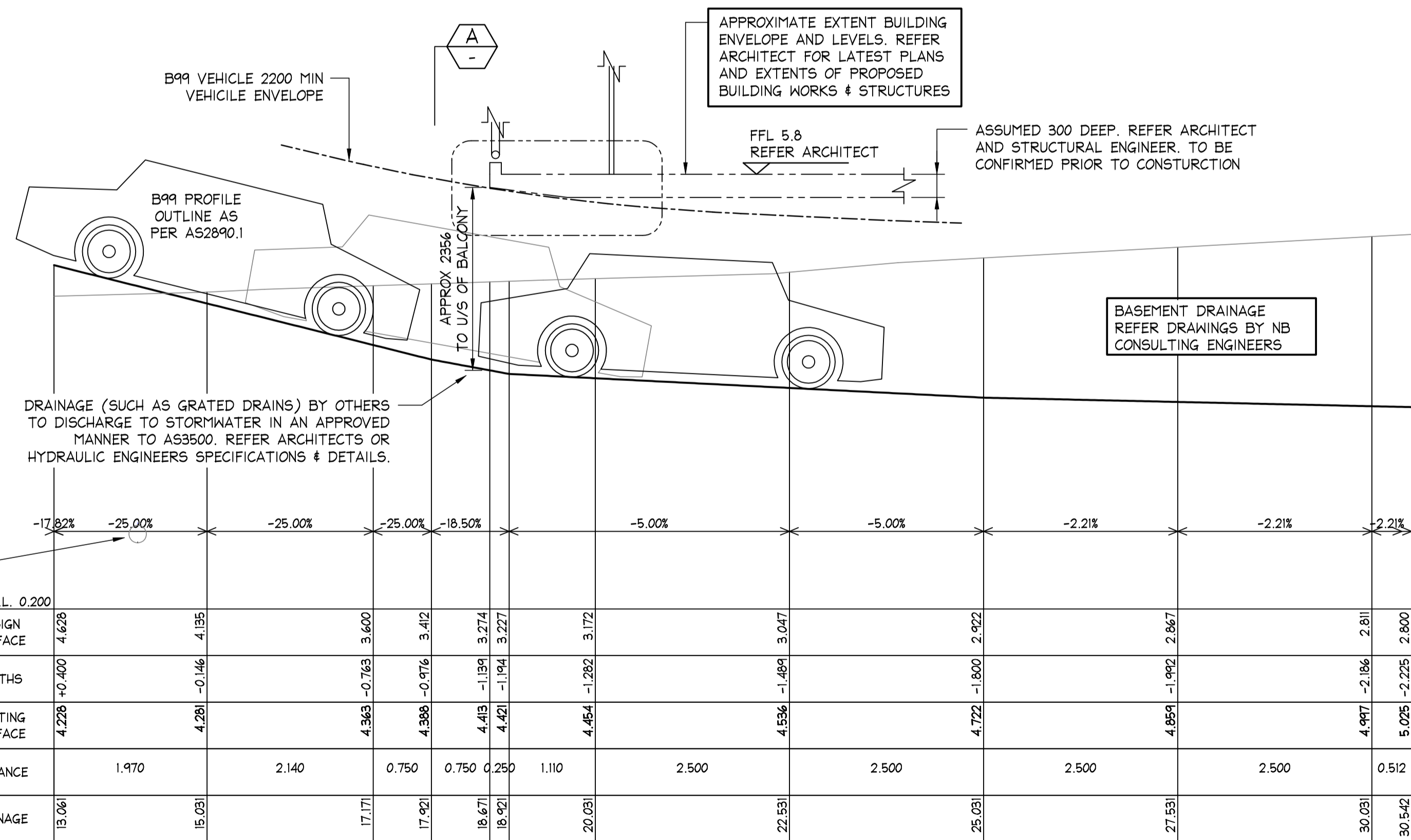


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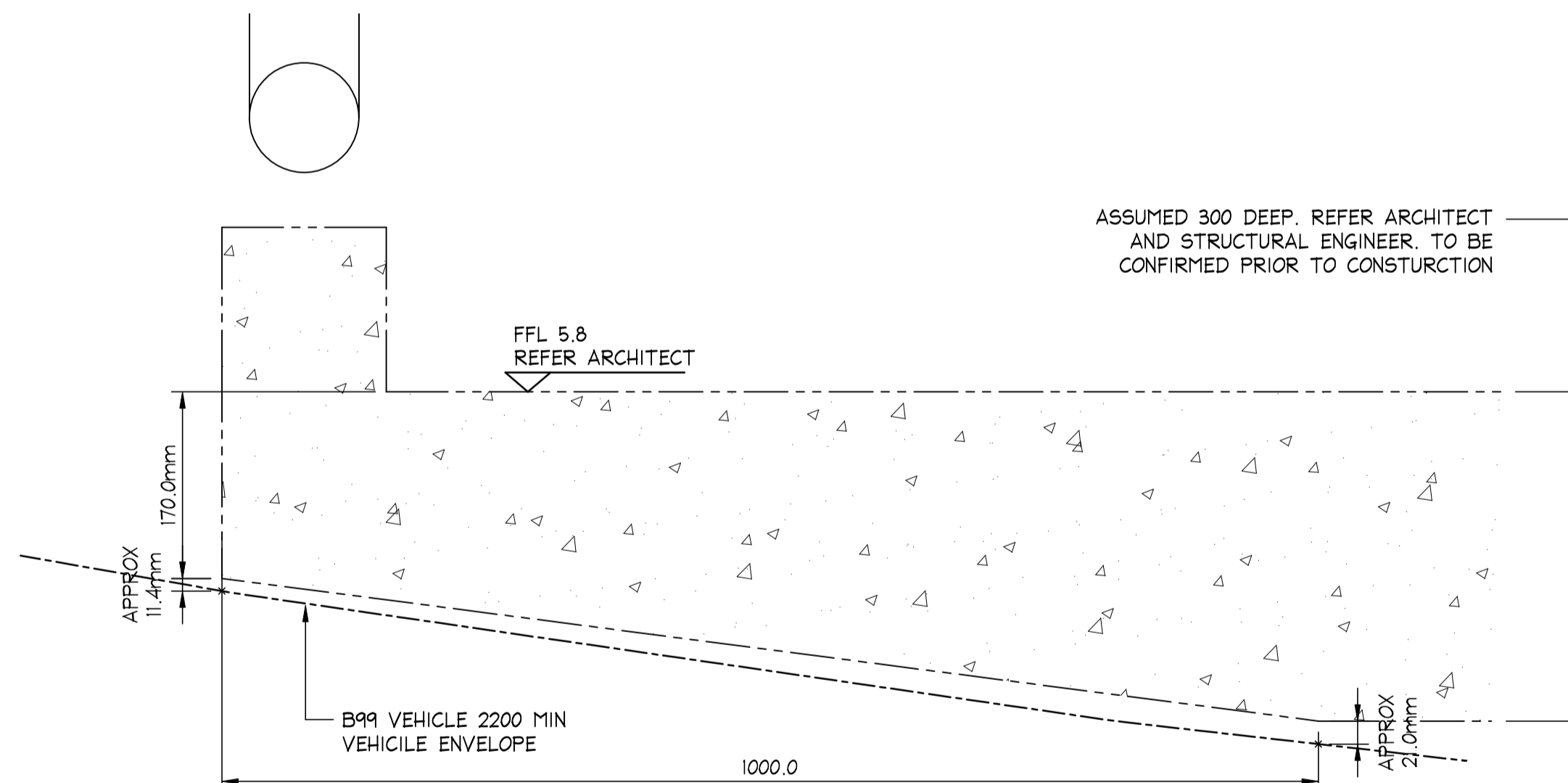
LONGITUDINAL SECTION DRIVEWAY LH FROM CH: -10.192 TO CH: 13.061 SCALES: HORIZONTAL 1:50 VERTICAL 1:50

SECTION 1 C01, C02



LONGITUDINAL SECTION DRIVEWAY LH FROM CH: 13.061 TO CH: 30.542 SCALES: HORIZONTAL 1:50 VERTICAL 1:50

SECTION 1 C01, C02



DETAIL A NOT TO SCALE

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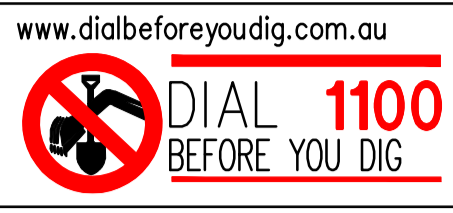
IF IN DOUBT ASK

AI		DOCUMENT CERTIFICATION		NB Consulting Engineers		Architect: BREWSTER HJORTH ARCHITECTS		Project: PROPOSED DRIVEWAY AT 44 KOOLOORA AVE, FRESHWATER		Date: JAN 2020		Design: D.K.		Drawn: D.K.	
08/09/2020		B REVISED PLANS - GARAGE ENTRY		D.K. M.W.		Rick G Wray		Sydney: Ph: (02) 9984 7000 Fax: (02) 9984 7444		Drawing Title: LONGITUDINAL SECTIONS - SHEET 1		Job No: 200273		Drawing No: C04	
04/09/2020		A ISSUED FOR DA SUBMISSION ONLY - NOT FOR CONSTRUCTION		D.K. M.W.		BE(Civil), CP(Eng, MIE Aust., NER, RPEQ) 08293. (Director NB Consulting Engineers)		Suite 207, 30 Fisher Road Dee Why N.S.W. 2099		Issue: B					
Date:		Issue:		Description:		By:		Review:		The copyright of this drawing remains with Northern Beaches Consulting Engineers Pty Ltd. Trading as NB Consulting Engineers		E: nb@nbconsulting.com.au W: www.nbconsulting.com.au		STEWART HOUSE	

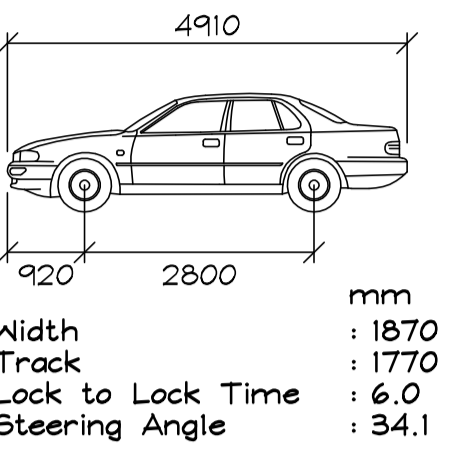
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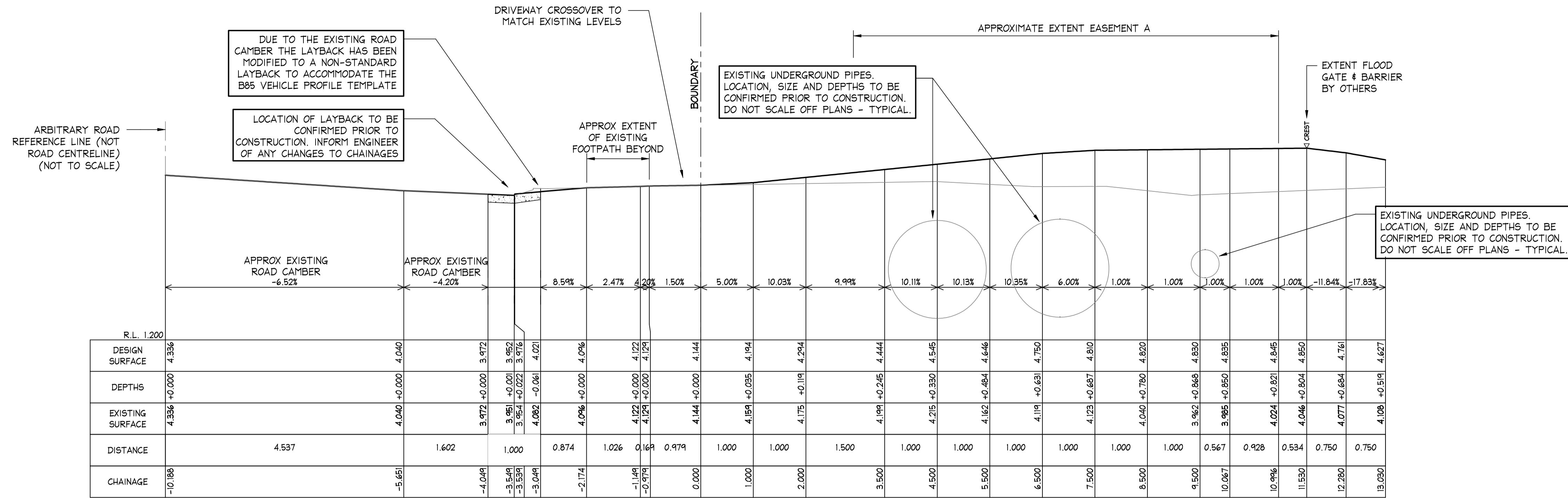
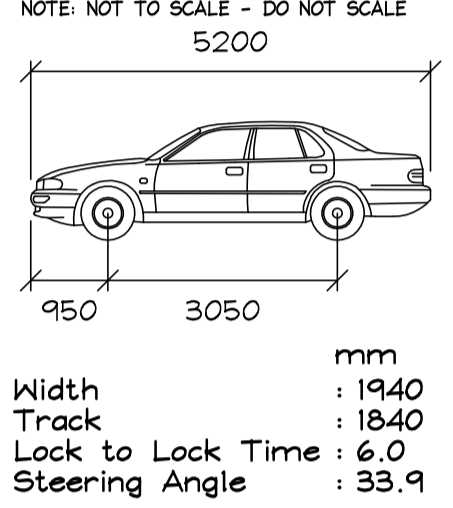
1. ALL DIMENSIONS TO BE VERIFIED ON SITE BY BUILDER BEFORE COMMENCING WITH WORK.
2. FOR GENERAL NOTES REFER TO DRAWING NUMBER: C01.



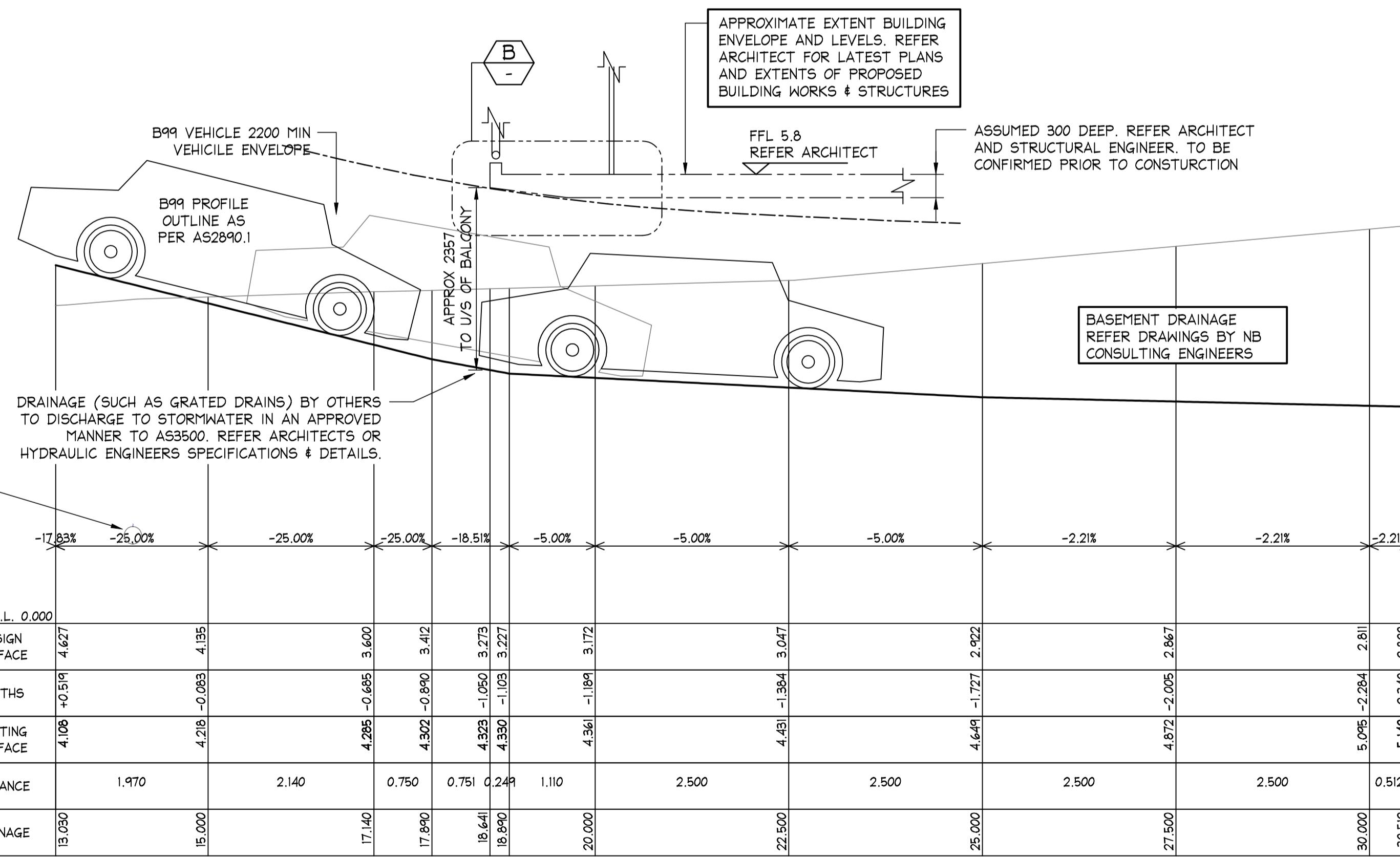
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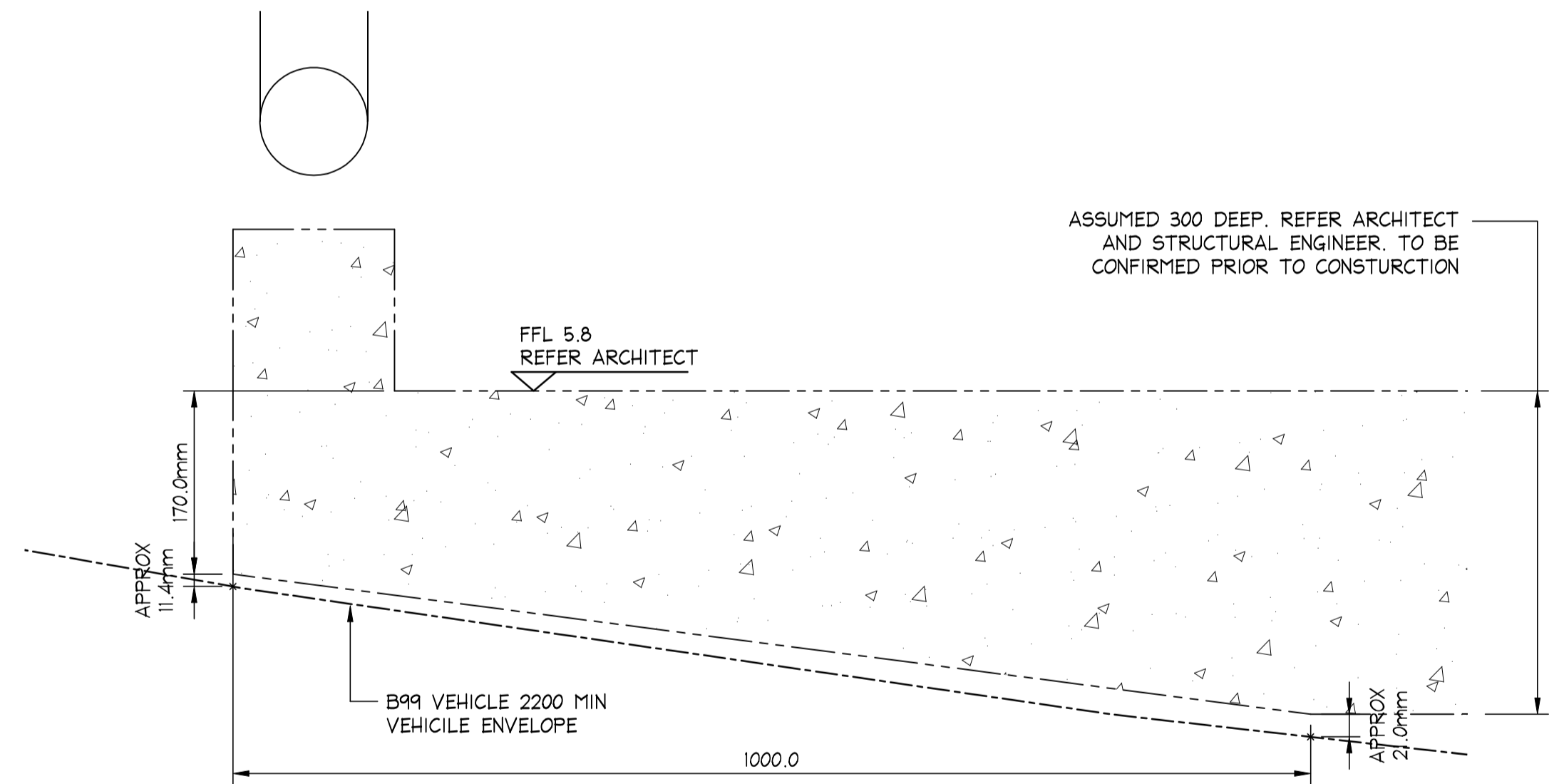
B99 PROFILE:



LONGITUDINAL SECTION DRIVEWAY CL FROM CH: -10.188 TO CH: 13.030 SCALES: HORIZONTAL 1:50 VERTICAL 1:50 SECTION 2



LONGITUDINAL SECTION DRIVEWAY CL FROM CH: 13.030 TO CH: 30.512 SCALES: HORIZONTAL 1:50 VERTICAL 1:50 SECTION 2



DETAIL B NOT TO SCALE

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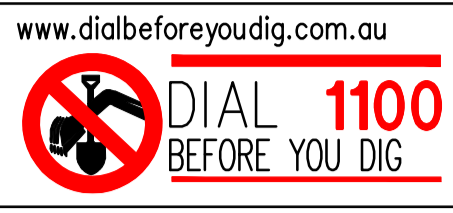
AI

06/09/2020 B REVISED PLANS - GARAGE ENTRY		D.K.	M.W.	DOCUMENT CERTIFICATION		NB Consulting Engineers		Architect:	Project: PROPOSED DRIVEWAY AT 44 KOOLOORA AVE, FRESHWATER		Date:	Design:	Drawn:
04/09/2020 A ISSUED FOR DA SUBMISSION ONLY - NOT FOR CONSTRUCTION		D.K.	M.W.	Date: Rick G Wray		STRUCTURAL - CIVIL - STORMWATER - REMEDIAL		BREWER HJORTH ARCHITECTS		JAN 2020		D.K.	D.K.
Date:	Issue:	Description:	By:	Review:	The copyright of this drawing remains with Northern Beaches Consulting Engineers Pty Ltd. Trading as NB Consulting Engineers		Sydney: Ph: (02) 9984 7000 Fax: (02) 9984 7444		Client: STEWART HOUSE		Job No: 200273		Issue: B
						Suite 207, 30 Fisher Road Dee Why N.S.W. 2099		LONGITUDINAL SECTIONS - SHEET 2		Drawing No: C05			
						Gold Coast: Ph: (07) 5631 4744							
						Unit 8, 1726 Gold Coast Highway Burleigh Heads QLD 4220							
						E: nb@nbconsulting.com.au W: www.nbconsulting.com.au							

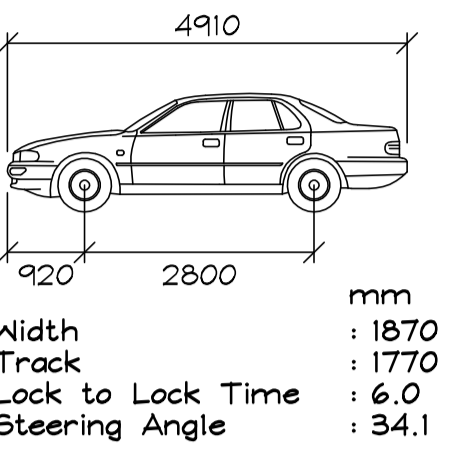
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NOTES:

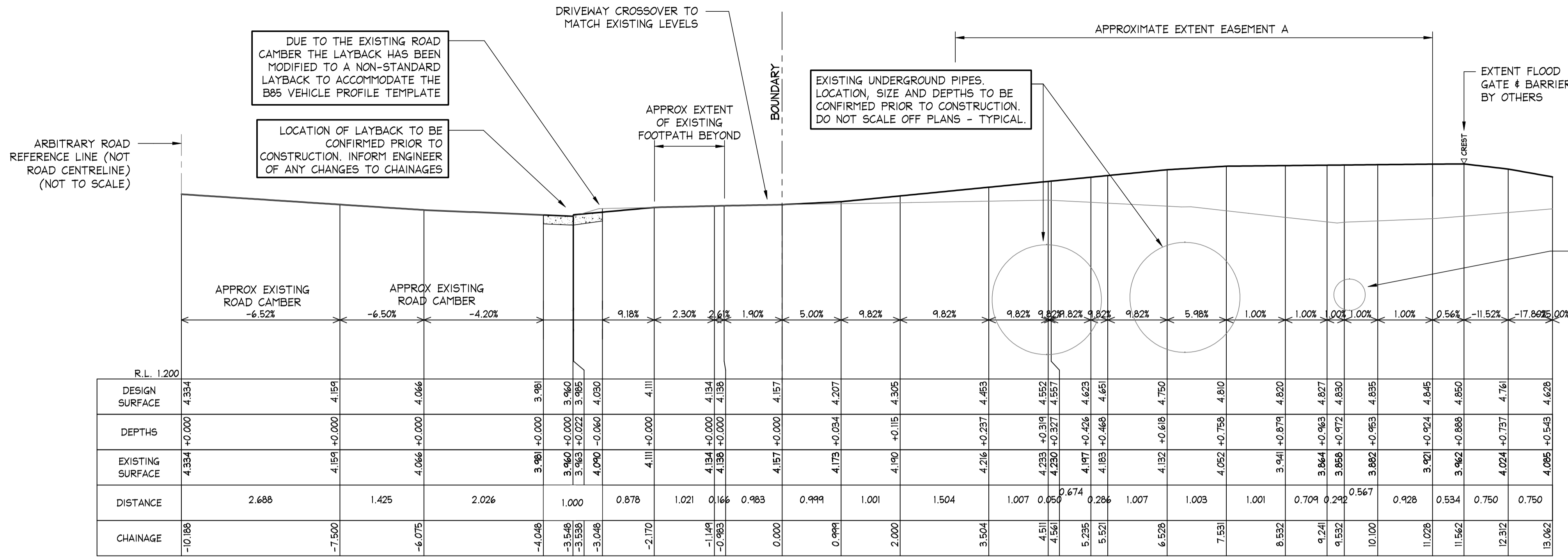
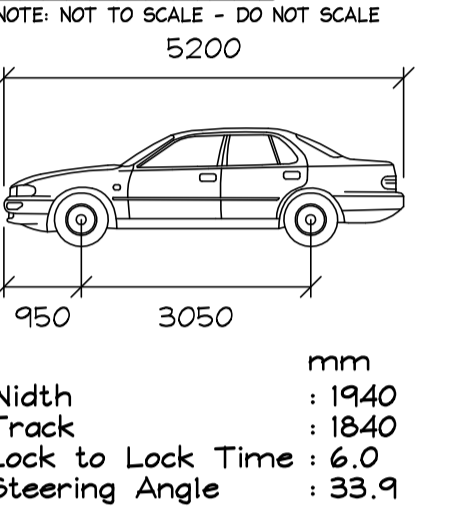
1. ALL DIMENSIONS TO BE VERIFIED ON SITE BY BUILDER BEFORE COMMENCING WITH WORK.
2. FOR GENERAL NOTES REFER TO DRAWING NUMBER: C01.



B85 PROFILE:

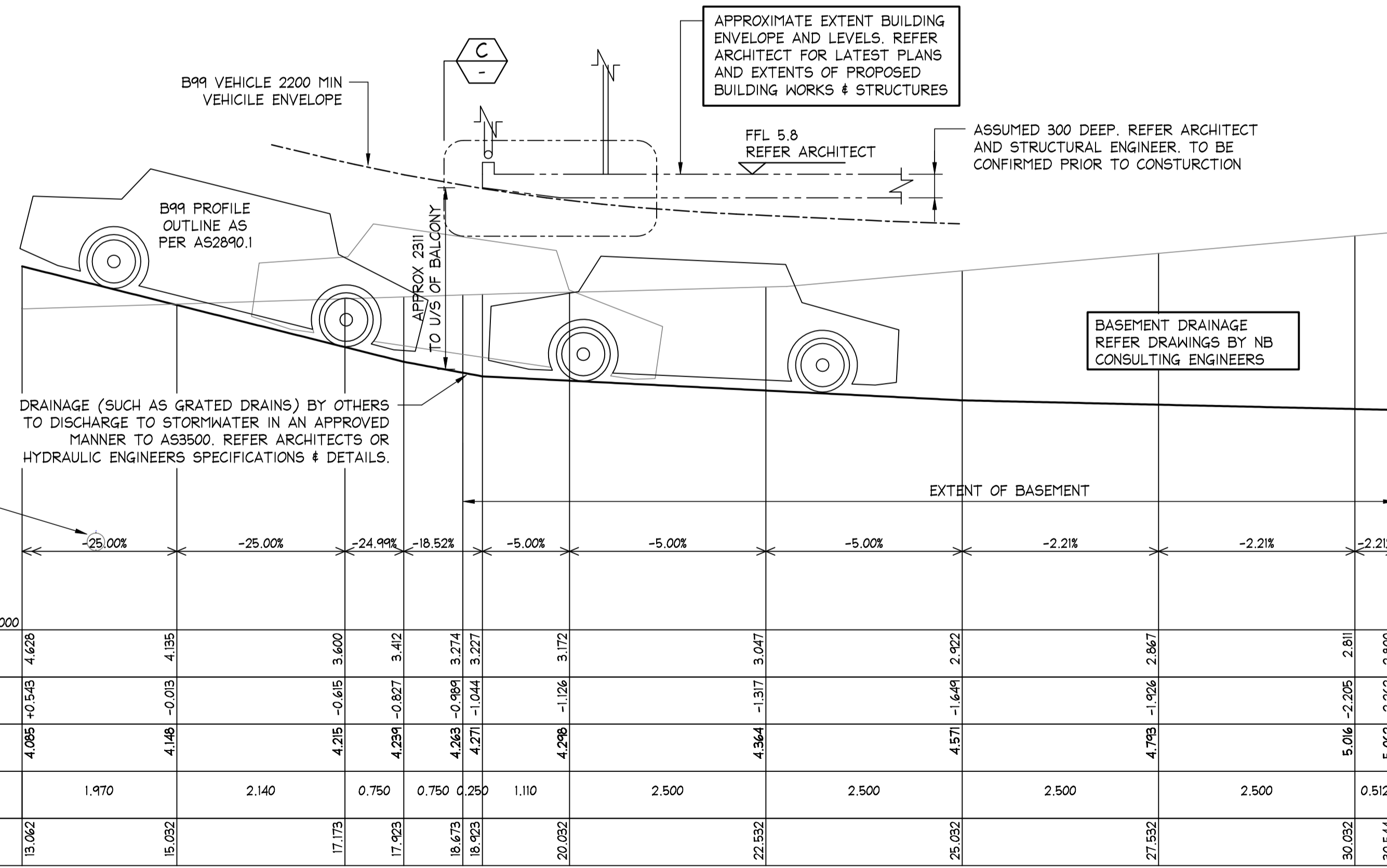


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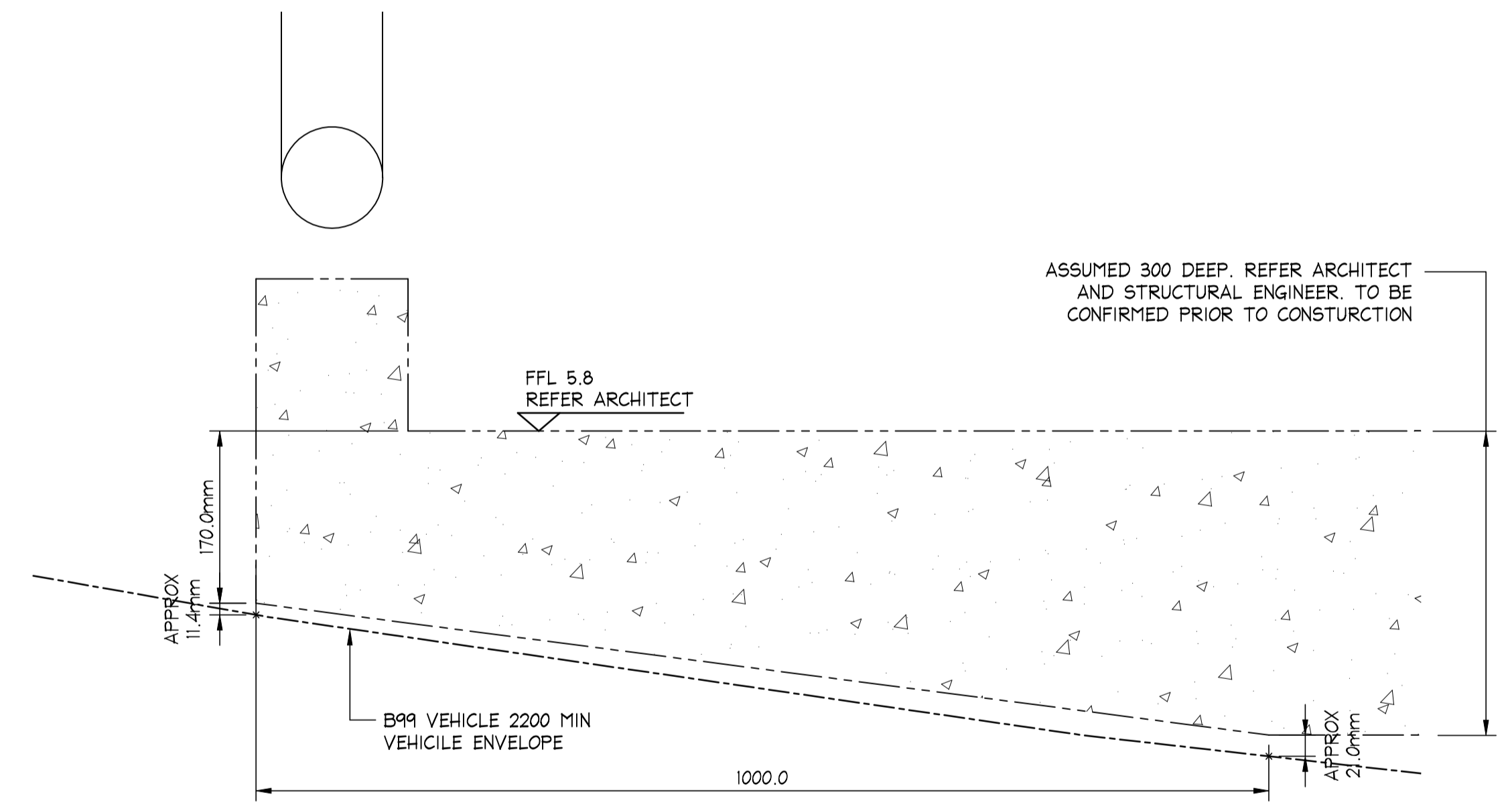
LONGITUDINAL SECTION DRIVEWAY RH
FROM CH: -10.188 TO CH: 13.062
SCALES: HORIZONTAL 1:50 VERTICAL 1:50

SECTION 3
C01, C02



LONGITUDINAL SECTION DRIVEWAY RH
FROM CH: 13.062 TO CH: 30.544
SCALES: HORIZONTAL 1:50 VERTICAL 1:50

SECTION 3
C01, C02



DETAIL C
NOT TO SCALE

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A1

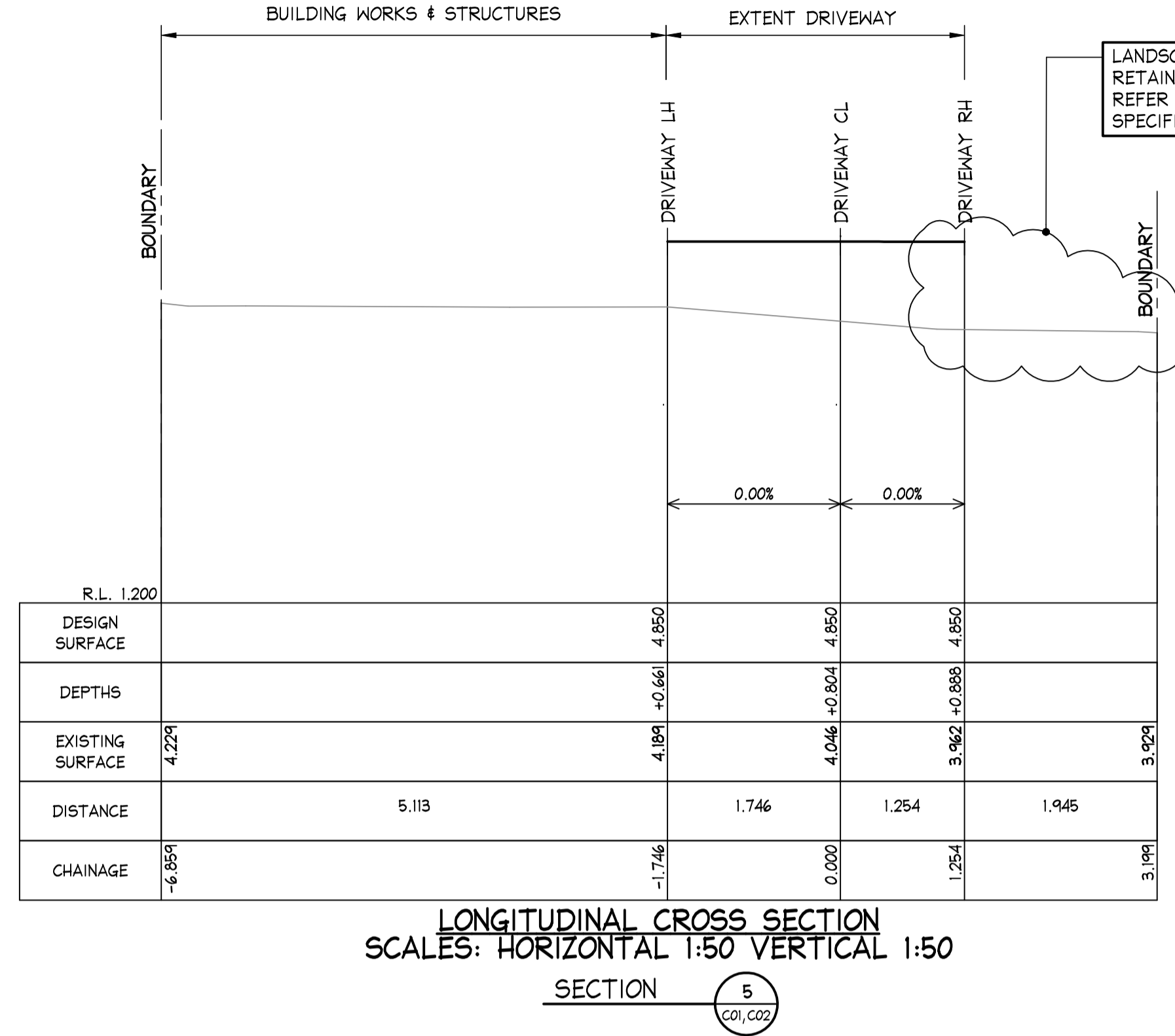
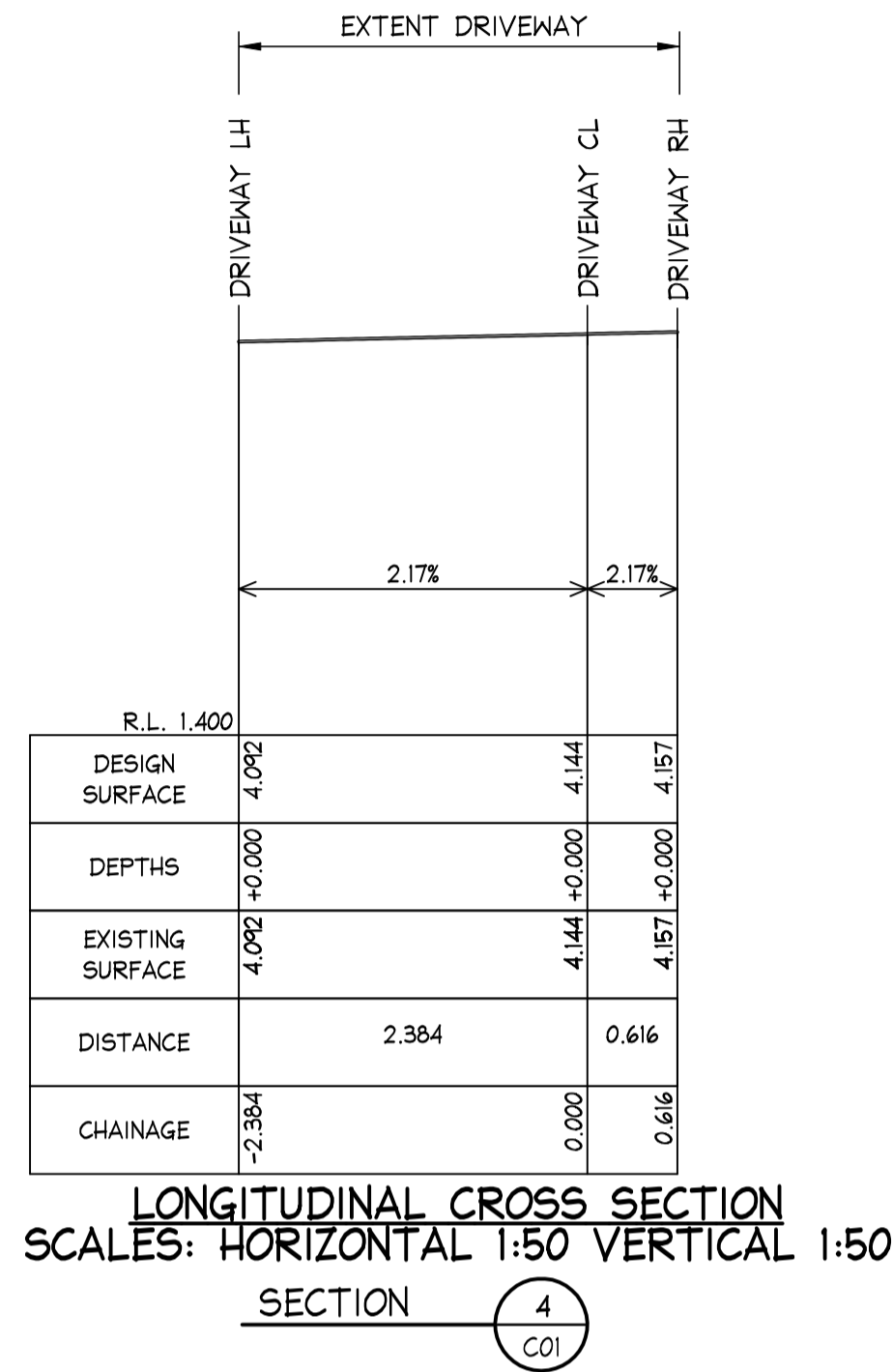
06/09/2020		B	REVISED PLANS - GARAGE ENTRY	D.K.	M.W.	DOCUMENT CERTIFICATION Date: <i>[Signature]</i> Rick G Wray BE(Civil), CP(Eng, MIEAust., NER, RPEQ) 08293. (Director NB Consulting Engineers) The copyright of this drawing remains with Northern Beaches Consulting Engineers Pty Ltd. Trading as NB Consulting Engineers	NB Consulting Engineers STRUCTURAL - CIVIL - STORMWATER - REMEDIAL A.C.N. 076 121 616 A.B.N. 24 076 121 616 Sydney: Ph: (02) 9984 7000 Fax: (02) 9984 7444 Suite 207, 30 Fisher Road Dee Why N.S.W. 2099 Gold Coast: Ph: (07) 5631 4744 Unit 8, 1726 Gold Coast Highway Burleigh Heads QLD 4220 E: nb@nbconsulting.com.au W: www.nbconsulting.com.au	Architect: BREWSTER HJORTH ARCHITECTS	Project: PROPOSED DRIVEWAY AT 44 KOOLOORA AVE, FRESHWATER	Date: JAN 2020	Design: D.K.	Drawn: D.K.
04/09/2020		A	ISSUED FOR DA SUBMISSION ONLY - NOT FOR CONSTRUCTION	D.K.	M.W.			Client: STEWART HOUSE	Drawing Title: LONGITUDINAL SECTIONS - SHEET 3	Job No: 200273	Drawing No: C06	Issue: B

NB Consulting Engineers

PRIOR APPROVAL REQUIRED WITH RELEVANT AUTHORITIES PRIOR TO RETAINING WALLS, BATTERS, SHORING & DRAINAGE BEYOND BOUNDARIES

REFER ARCHITECT FOR LATEST PLANS AND EXTENTS OF PROPOSED BUILDING WORKS & STRUCTURES

LANDSCAPING, BATTERS AND RETAINING WALLS BY OTHERS REFER ARCHITECT FOR SPECIFICATIONS AND DETAILS



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A1

		DOCUMENT CERTIFICATION		NB Consulting Engineers STRUCTURAL - CIVIL - STORMWATER - REMEDIAL A.C.N. 076 121 616 A.B.N. 24 076 121 616		Architect: BREWSTER HJORTH ARCHITECTS		Project: PROPOSED DRIVEWAY AT 44 KOOLOORA AVE, FRESHWATER		Date: JAN 2020	Design: D.K.	Drawn: D.K.		
08/09/2020		B	NO CHANGES TO THIS SHEET	D.K.	M.W.	Rick G Wray		Client: STEWART HOUSE		Drawing Title: LONGITUDINAL SECTIONS - SHEET 4		Job No: 200273	Drawn: C07	Issue: B
04/09/2020		A	ISSUED FOR DA SUBMISSION ONLY - NOT FOR CONSTRUCTION	D.K.	M.W.	BE(Civil), CP(Eng, MIE Aust.), NER, RPEQ: 08293. (Director NB Consulting Engineers)		Unit 8, 1726 Gold Coast Highway Burleigh Heads QLD 4220 E: nb@nbconsulting.com.au W: www.nbconsulting.com.au						
Date:	Issue:	Description:		By:	Review:	The copyright of this drawing remains with Northern Beaches Consulting Engineers Pty Ltd. Trading as NB Consulting Engineers								

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