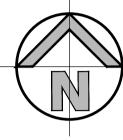
# LIGHT HORSE INTERCHANGE BUSINESS HUB EASTERN CREEK, NSW (SSD9667) STAGE 1 - CIVIL ENGINEERING WORKS





LOCALITY SKETCH

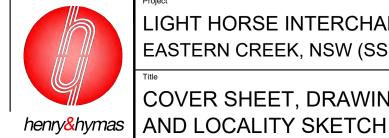
	DRAWING SCHEDULE
18652_SSDA_C000	COVER SHEET, DRAWING SCHEDULE AND LOCALITY SKETCH
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18652_SSDA_C103	DETAIL PLAN - SHEET 3 OF 9
18652_SSDA_C104	DETAIL PLAN - SHEET 4 OF 9
18652_SSDA_C105	DETAIL PLAN - SHEET 5 OF 9
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18652_SSDA_EX01	EXTERNAL WORKS PLAN - WALLGROVE ROAD

### ISSUED FOR APPROVAL

											Client
		06	ISSUED FOR APPROVAL	IK	NW	21.01.2020					WESTERN SYDNEY PARKLANDS TRUST
		05	ISSUED FOR APPROVAL	IK	NW	13.12.2019					WESTERN STBINETTY WILL, WINDS TROOT
	Western Sydney	04	ISSUED FOR APPROVAL	MS	NW	24.05.2019					Architect
NSW GOVERNMENT		03	ISSUED FOR APPROVAL	MS	NW	09.04.2019					NETTLETONTRIBE
GOVERNMENT	Parklands Trust	02	ISSUED FOR CO-ORDINATION	IK	NW	05.04.2019					THE THEE TOTAL THE
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ASTERN CREEK, NSW (SSD9667)	N.W
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Project	Drawn	Designed	Date	
LIGHT HORSE INTERCHANGE BUSINESS HUB	M.Stimova	L.Caha	FEB 20 <sup>-</sup>	19
EACTEDN CDEEK NOW (CCDCCC7)	Checked	Approved	Scale @A	
EASTERN CREEK, NSW (SSD9667)	N.Wetzlar	A.Francis	NTS	
Title	Drawing number	1		Revision
COVER SHEET, DRAWING SCHEDULE	18652	SSDA	C000	06

#### **GENERAL NOTES:**

- 1. ALL WORK TO BE CARRIED OUT IN ACCORDANCE WITH BLACKTOWN CITY COUNCIL SPECIFICATION. CONTRACTOR TO OBTAIN AND RETAIN A COPY ON SITE DURING THE COURSE OF THE WORKS.
- 2. ALL NEW WORKS ARE TO MAKE A SMOOTH JUNCTION WITH EXISTING CONDITIONS AND MARRY IN A 'WORKMANLIKE' MANNER.
- 3. THE CONTRACTOR IS TO VERIFY THE LOCATION OF ALL SERVICES WITH EACH RELEVANT AUTHORITY. ANY DAMAGE TO SERVICES SHALL BE RECTIFIED BY THE CONTRACTOR OR THE RELEVANT AUTHORITY AT THE CONTRACTOR'S EXPENSE. SERVICES SHOWN ON THESE PLANS ARE ONLY THOSE EVIDENT AT THE TIME OF SURVEY OR AS DETERMINED FROM SERVICE DIAGRAMS. H & H CONSULTING ENGINEERS PTY. LTD CANNOT GUARANTEE THE INFORMATION SHOWN NOR ACCEPT ANY RESPONSIBILITY FOR INACCURACIES OR INCOMPLETE DATA.
- 4. SERVICES & ACCESSES TO THE EXISTING PROPERTIES ARE TO BE MAINTAINED IN WORKING ORDER AT ALL TIMES DURING CONSTRUCTION.
- 5. ADJUST EXISTING SERVICE COVERS TO SUIT NEW FINISHED LEVELS TO RELEVANT AUTHORITY REQUIREMENTS WHERE NECESSARY.
- 6. REINSTATE AND STABILISE ALL DISTURBED LANDSCAPED AREAS.
- 7. MINIMUM GRADE OF SUBSOIL SHALL BE 0.5% (1:200) FALL TO OUTLETS.
- 8. ALL TEMPORARY SEDIMENT AND EROSION CONTROL DEVICES ARE TO BE CONSTRUCTED, PLACED AND MAINTAINED IN ACCORDANCE WITH THE TECHNICAL SPECIFICATIONS, EROSION AND SEDIMENTATION CONTROL PLAN AND BLACKTOWN CITY COUNCIL REQUIREMENTS WHERE APPLICABLE.
- 9. CONTRACTOR TO CHECK AND CONFIRM SITE DRAINAGE CONNECTIONS ACROSS THE VERGE PRIOR TO COMMENCEMENT OF SITE DRAINAGE WORKS.
- 10. PROPERTIES AFFECTED BY THE WORKS ARE TO BE NOTIFIED IN ADVANCE WHERE DISRUPTION TO EXISTING ACCESS IS LIKELY.

### **SURVEY NOTES**

- 1. THE EXISTING SITE CONDITIONS SHOWN ON THE FOLLOWING DRAWINGS HAVE BEEN INVESTIGATED BY THE SURVEYOR SPECIFIED IN THE TITLE BLOCK.
- 2. THE INFORMATION IS SHOWN TO PROVIDE A BASIS FOR DESIGN. HENRY AND HYMAS PTY. LTD. DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE SURVEY BASE OR ITS SUITABILITY AS A BASIS FOR CONSTRUCTION DRAWINGS.
- 3. SHOULD DISCREPANCIES BE ENCOUNTERED DURING CONSTRUCTION BETWEEN THE SURVEY DATA AND ACTUAL FIELD DATA, CONTACT HENRY AND HYMAS PTY. LTD. THE FOLLOWING NOTES HAVE BEEN TAKEN DIRECTLY FROM ORIGINAL SURVEY DOCUMENTS. GPS RTK
- ORIGIN OF LEVELS
- DATUM A.H.D. CONTOUR INTERVAL 1.0m

### SUBGRADE PREPARATION - SITEWORKS.

- THE EXISTING SURFACE IS TO BE STRIPPED OF ANY PAVEMENTS, TOPSOIL OR OBVIOUS UNSUITABLE MATERIAL.
- EXCAVATE TO ACHIEVE SUBGRADE LEVELS WHERE NECESSARY.
- THE EXPOSED SUBGRADE AFTER STRIPPING AND/ OR EXCAVATION IS TO BE PROOF ROLLED USING NOT FEWER THAN 5 PASSES OF A MINIMUM 8 TONNE DEAD WEIGHT STEEL SMOOTH-DRUM ROLLER UNDER THE SUPERVISION OF AN EXPERIENCED GEOTECHNICAL ENGINEER OR AN EXPERIENCED CIVIL ENGINEER. ANY AREAS ON THE SUBGRADE EXHIBITING EXCESSIVE DEFLECTION / MOVEMENT UNDER ROLLER TO BE EXCAVATED TO A MIN. DEPTH OF 0.5m AND REPLACED WITH APPROVED GRANULAR MATERIAL COMPACTED IN 250mm LOOSE LAYERS OR AS DIRECTED BY THE GEOTECHNICAL ENGINEER.
- ENGINEERED FILL FOR REPLACEMENT OF SOFT OR HEAVING AREAS OR FOR BULK FILLING TO COMPRISE ESSENTIALLY OF GRANULAR MATERIALS (EG. EXCAVATED SHALE), WITH A PARTICLE SIZE NOT GREATER THAN 75mm DIAMETER. ENGINEERED FILL TO BE PLACED IN LAYERS NOT EXCEEDING 250mm LOOSE THICKNESS AND COMPACTED TO BETWEEN 98% AND 102% OF STANDARD MAXIMUM DRY DENSITY (SMDD) WITHIN ± 2% OF OPTIMUM MOISTURE CONTENT (OMC).
- IMPORTED FILLING (IF REQUIRED) IS TO BE TO THE APPROVAL OF THE GEOTECHNICAL ENGINEER. THE CONTRACTOR IS TO NOMINATE THE SOURCE AND PROVIDE A SAMPLE FOR APPROVAL PRIOR TO IMPORTATION AND PLACEMENT ON SITE.
- ALL FILL MATERIAL SHALL BE FROM A SOURCE APPROVED BY THE SUPERINTENDENT AND SHALL COMPLY WITH THE FOLLOWING. FREE FORM ORGANIC AND PERISHABLE MATTER MAXIMUM PARTICLE SIZE = 75mm MAXIMUM PLASTICITY INDEX = 15%

#### SUBSOIL DRAINAGE NOTES

- 1. GENERALLY PROVIDE SUBSOIL DRAINS TO INTERCEPT GROUNDWATER SEEPAGE AND PREVENT WATER BUILD-UP BEHIND WALLS AND UNDER FLOORS AND PAVEMENTS. CONNECT SUBSOIL TO SURFACE DRAINS OR TO THE STORMWATER DRAINAGE SYSTEM AS APPLICABLE.
- 2. PIPE DEPTH: PROVIDE THE FOLLOWING MINIMUM CLEAR DEPTH, MEASURED TO THE CROWN OF THE PIPE, WHERE THE PIPE PASSES BELOW THE FOLLOWING ELEMENTS:
- 100mm BELOW FORMATION LEVEL OF THE PAVEMENT, KERB OR
- CHANNEL 100mm BELOW THE AVERAGE GRADIENT OF THE BOTTOM OF FOOTINGS.
- AT JUNCTIONS OF SUBSOIL PIPES PROVIDE TEES, COUPLINGS OR ADAPTORS TO AS2439.1.
- 4. TRENCH WIDTH MINIMUM 300mm.
- PIPE UNDERLAY

GENERAL: GRADE THE TRENCH FLOOR EVENLY TO THE GRADIENT OF THE PIPELINE. IF THE TRENCH FLOOR IS ROCK, CORRECT ANY IRREGULARITIES WITH COMPACTED BEDDING MATERIAL. BED PIPING ON A CONTINUOUS UNDERLAY OF BEDDING MATERIAL, AT LEAST 75mm THICK AFTER COMPACTION, LAY THE PIPE WITH ONE LINE OF PERFORATIONS AT THE BOTTOM.

CHASES: IF NECESSARY TO PREVENT PROJECTIONS SUCH AS SOCKETS AND FLANGES FROM BEARING ON THE TRENCH BOTTOM OR UNDERLAY.

- GENERAL: PLACE THE MATERIAL IN THE PIPE SURROUND IN LAYERS SMALLER THAN OR EQUAL TO 200mm LOOSE THICKNESS, AND COMPACT WITHOUT DAMAGING OR DISPLACING PIPING. DEPTH OF OVERLAY: TO THE UNDERSIDE OF THE BASE OF OVERLYING STRUCTURES SUCH AS PAVEMENTS, SLABS AND CHANNELS TO WITHIN 150mm OF THE FINISHED SURFACE OF UNPAVED OR LANDSCAPED AREAS.

PROVIDE POLYESTER PERMEABLE SOCKS CAPABLE OF RETAINING PARTICLES OF 0.25mm SIZES. SECURELY FIT OR JOIN THE SOCK AT EACH

### SITEWORKS NOTES

- 1. DATUM : A.H.D.
- 2. ORIGIN OF LEVELS: REFER TO BENCH OR STATE SURVEY MARKS WHERE SHOWN ON PLAN.
- CONTRACTOR MUST VERIFY ALL DIMENSIONS AND EXISTING LEVELS ON SITE PRIOR TO THE COMMENCEMENT OF WORK.
- 4. ALL WORKS TO BE UNDERTAKEN IN ACCORDANCE WITH THE DETAILS SHOWN ON THE DRAWINGS & THE DIRECTIONS OF THE SUPERINTENDENT.
- 5. EXISTING SERVICES UNLESS SHOWN ON THE SURVEY PLAN HAVE BEEN PLOTTED FROM SERVICES SEARCH PLANS AND AS SUCH THEIR ACCURACY CANNOT BE GUARANTEED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH THE LOCATION AND LEVEL OF ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY WORK. ANY DISCREPANCIES SHALL BE REPORTED TO THE SUPERINTENDENT. CLEARANCES SHALL BE OBTAINED FROM THE RELEVANT SERVICE AUTHORITY.
- 6. WHERE NEW WORKS ABUT EXISTING THE CONTRACTOR SHALL ENSURE THAT A SMOOTH EVEN PROFILE, FREE FROM ABRUPT CHANGES IS ACHIEVED.
- 7. THE CONTRACTOR SHALL ARRANGE ALL SURVEY SETOUT TO BE CARRIED OUT BY A REGISTERED SURVEYOR.
- 8. CARE IS TO BE TAKEN WHEN EXCAVATING NEAR EXISTING SERVICES. NO MECHANICAL EXCAVATION IS TO BE UNDERTAKEN OVER TELSTRA OR ELECTRICAL SERVICES. HAND EXCAVATE IN THESE AREAS.
- 9. CONTRACTOR TO OBTAIN AUTHORITY APPROVALS WHERE APPLICABLE.
- 10. MAKE SMOOTH TRANSITION TO EXISTING SURFACES AND MAKE GOOD.
- 11. THESE PLANS SHALL BE READ IN CONJUNCTION WITH APPROVED LANDSCAPE. ARCHITECTURAL, STRUCTURAL, HYDRAULIC AND MECHANICAL DRAWINGS AND
- 12. OR WRITTEN INSTRUCTIONS THAT MAY BE ISSUED RELATING
- 13. TO DEVELOPMENT AT THE SITE.
- TRENCHES THROUGH EXISTING ROAD AND CONCRETE PAVEMENTS SHALL BE SAWCUT TO FULL DEPTH OF CONCRETE AND A MINIMUM OF 50mm IN BITUMINOUS PAVING.
- 15. ALL BRANCH GAS AND WATER SERVICES UNDER DRIVEWAYS AND BRICK PAVING SHALL BE LOCATED IN Ø80 uPVC SEWER GRADE CONDUITS EXTENDING A MINIMUM OF 500mm BEYOND EDGE OF PAVING.
- 16. GRADES TO PAVEMENTS TO BE AS IMPLIED BY RL'S ON PLAN. GRADE EVENLY BETWEEN NOMINATED RL'S. AREAS EXHIBITING PONDING GREATER THAN 5mm DEPTH WILL NOT BE ACCEPTED UNLESS IN A DESIGNATED SAG POINT.
- 17. ALL COVERS AND GRATES ETC TO EXISTING SERVICE UTILITIES ARE TO BE ADJUSTED TO SUIT NEW FINISHED SURFACE LEVELS WHERE APPLICABLE.

#### **DRAINAGE NOTES:**

1. ALL STORMWATER WORK TO COMPLY WITH AS 3500 PART 3.

2. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE MINIMUM COVER OF 600mm ON ALL PIPES.

3. PROTECTION OF PIPES DUE TO LOADS EXCEEDING W7 WHEEL LOAD SHALL BE THE CONTRACTOR'S RESPONSIBILITY.

4. BEDDING TYPE SHALL BE TYPE H2 FOR RCP. WHERE NECESSARY THE OVERLAY ZONE SHALL BE REDUCED TO ACCOMMODATE PAVEMENT REQUIREMENTS. REFER TO THIS DRAWING FOR DETAILS.

5. MINIMUM COVER OVER EXISTING PIPES FOR PROTECTION DURING CONSTRUCTION SHALL BE 800mm.

6. NO CONSTRUCTION LOADS SHALL BE APPLIED TO PLASTIC PIPES.

7. FINISHED SURFACE LEVELS SHOWN ON LAYOUT PLAN DRGS TAKE PRECEDENCE OVER DESIGN DRAINAGE SURFACE LEVELS.

8. ALL PIPES UP TO AND INCLUDING 300 DIA. SHALL BE SOLVENT OR RUBBER RING JOINTED PVC CLASS SH PIPE TO AS1260. ALL OTHER PIPES TO BE RCP USING CLASS 2 RUBBER RING JOINTED PIPE. HARDIES FRC PIPE MAY BE USED IN LIEU OF RCP IF DESIRED IN GROUND. ALL AERIAL PIPES TO BE PVC

9. ALL PITS IN NON TRAFFICABLE AREAS TO BE PREFABRICATED POLYESTER CONCRETE "POLYCRETE" WITH "LIGHT DUTY" CLASS B GALV. MILD STEEL GRATING AND FRAME.

ALL PITS IN TRAFFICABLE AREAS (CLASS "D" LOADING MAX) TO HAVE 150mm THICK CONCRETE WALLS AND BASE CAST IN-SITU fc=32 MPa, REINFORCED WITH N12-200 BOTH LOADING WAYS CENTRALLY PLACE .U.N.O. ON SEPARATE DESIGN DRAWINGS IN THIS SET. GALV.MILD STEEL GRATING AND FRAME TO SUIT DESIGN LOADING. PRECAST PITS, RECTANGULAR OR CIRCULAR IN SHAPE, MAY BE USED IN LIEU AND SHALL COMPLY WITH RELEVANT AUSTRALIAN STANDARDS.

10. ALL PITS, GRATINGS AND FRAMES SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATION AND TO BE IN ACCORDANCE WITH AS3500.3 AND AS3996.

11. PIT CHAMBER DIMENSIONS ARE TO BE SELECTED TO SATISFY THE FOLLOWING:

- PIPE SIZE - DEPTH TO INVERT

- SKEW ANGLE

REFER TYPICAL PIT CHAMBER DETAILS BELOW

IF PIT LID SIZE IS SMALLER THAN THE PIT CHAMBER SIZE THEN THE PIT LID IS TO BE CONSTRUCTED ON THE CORNER OF THE PIT CHAMBER WITH THE STEP IRONS DIRECTLY BELOW. ALTERNATIVELY THE PIT LID TO BE USED, IS TO BE THE SAME SIZE AS THE PIT CHAMBER.

12. FOR PIPE SIZES GREATER THAN Ø300mm, PIT FLOOR IS TO BE BENCHED TO FACILITATE FLOW.

13. GALVANISED STEP IRONS SHALL BE PROVIDED AT 300 CTS FOR PITS HAVING A DEPTH EXCEEDING 1200mm. SUBSOIL DRAINAGE PIPE SHALL BE PROVIDED IN PIPE TRENCHES ADJACENT TO INLET PIPES. (MINIMUM LENGTH

14. ALL SUBSOIL PIPES SHALL BE 100mm SLOTTED PVC IN A FILTER SOCK, UNO, WITH 3m INSTALLED UPSTREAM OF ALL PITS.

15. ALL PIPEWORK SHALL HAVE MINIMUM DIAMETER 100.

16. MINIMUM GRADE FOR ROOFWATER DRAINAGE LINES SHALL BE 1%.

17. ALL PIPE JUNCTIONS AND TAPER UP TO AND INCLUDING 300 DIA. SHALL BE VIA PURPOSE MADE FITTINGS.

20. PITS IN EXCESS OF 1.5 m DEEP TO HAVE WALL AND FLOOR THICKNESS INCREASED TO 200mm. REINFORCED WITH N12@200 CTS CENTRALLY PLACED BOTH WAYS THROUGHOUT U.N.O.ON SEPARATE DESIGN DRAWINGS IN THIS SET. IF DEPTH EXCEEDS 5m CONTACT ENGINEER.

21. SUBSOIL DRAINAGE LINES FOR LANDSCAPE AREA NOT SHOWN ON THESE DRAWINGS. REFER TO LANDSCAPING PLANS FOR DETAILS.

22. ALL STORMWATER PITS TO HAVE Ø100 uPVC SLOTTED SUBSOIL PIPES CONNECTED TO THEM. THESE SUBSOILS TO EXTEND 3m UPSTREAM OF THE PIT AT A MINIMUM GRADE.

### ISSUED FOR APPROVAL

WESTERN SYDNEY PARKLANDS TRUST ISSUED FOR APPROVAL NW 21.01.2020 ISSUED FOR APPROVAL NW 13.12.2019 Western Sydney ISSUED FOR APPROVAL NW 09.04.2019 **NETTLETONTRIBE Parklands Trust** ISSUED FOR CO-ORDINATION 02 NW 05.04.2019 NW 29.03.2019 01 PRELIMINARY This drawing and design remains the property of Henry & Hymas and may not be copied in whole or in part without the prior written approval of Henry & Hymas. REVISION AMENDMENT DRAWN DESIGNED DATE REVISION AMENDMENT DRAWN DESIGNED DATE

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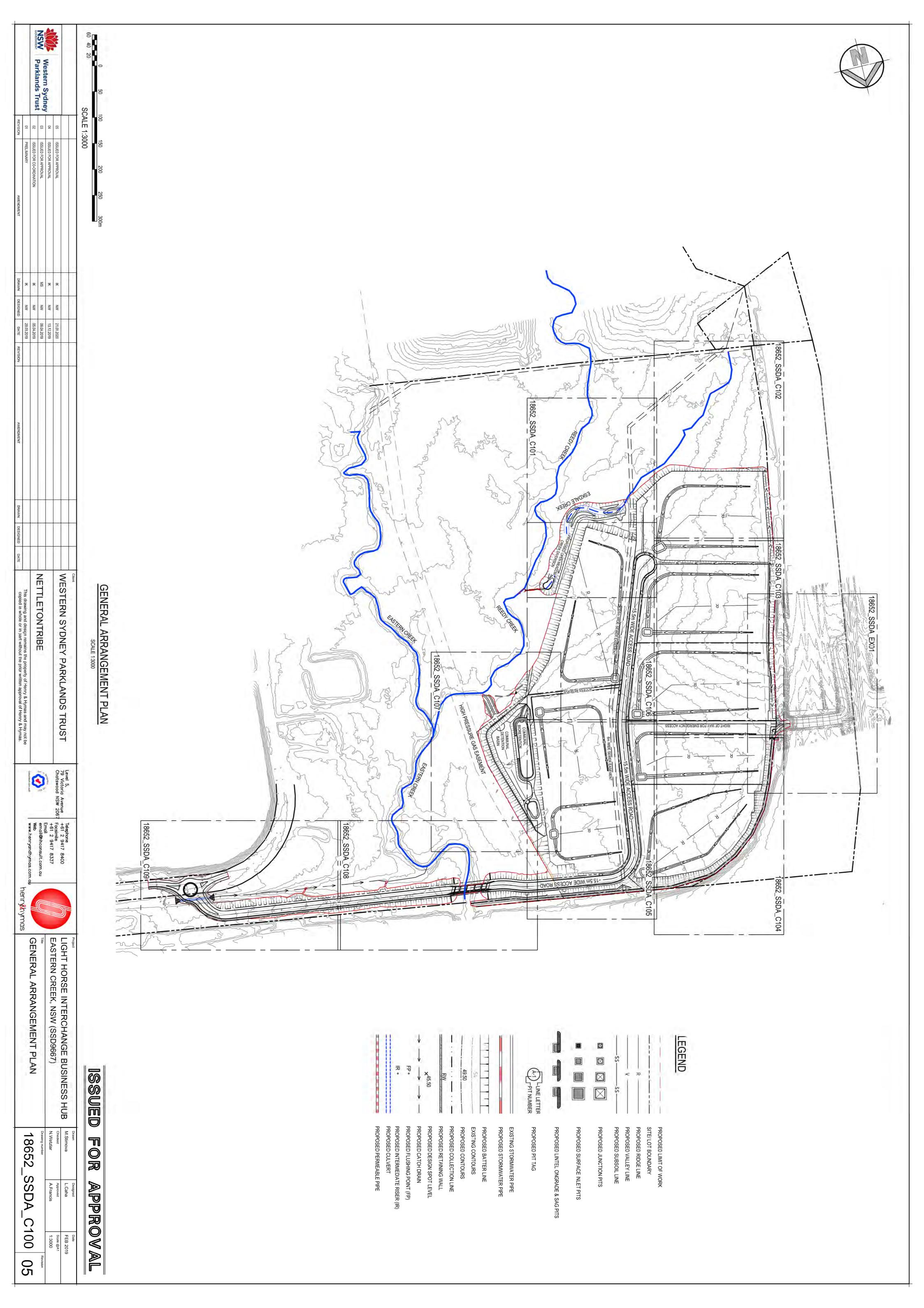


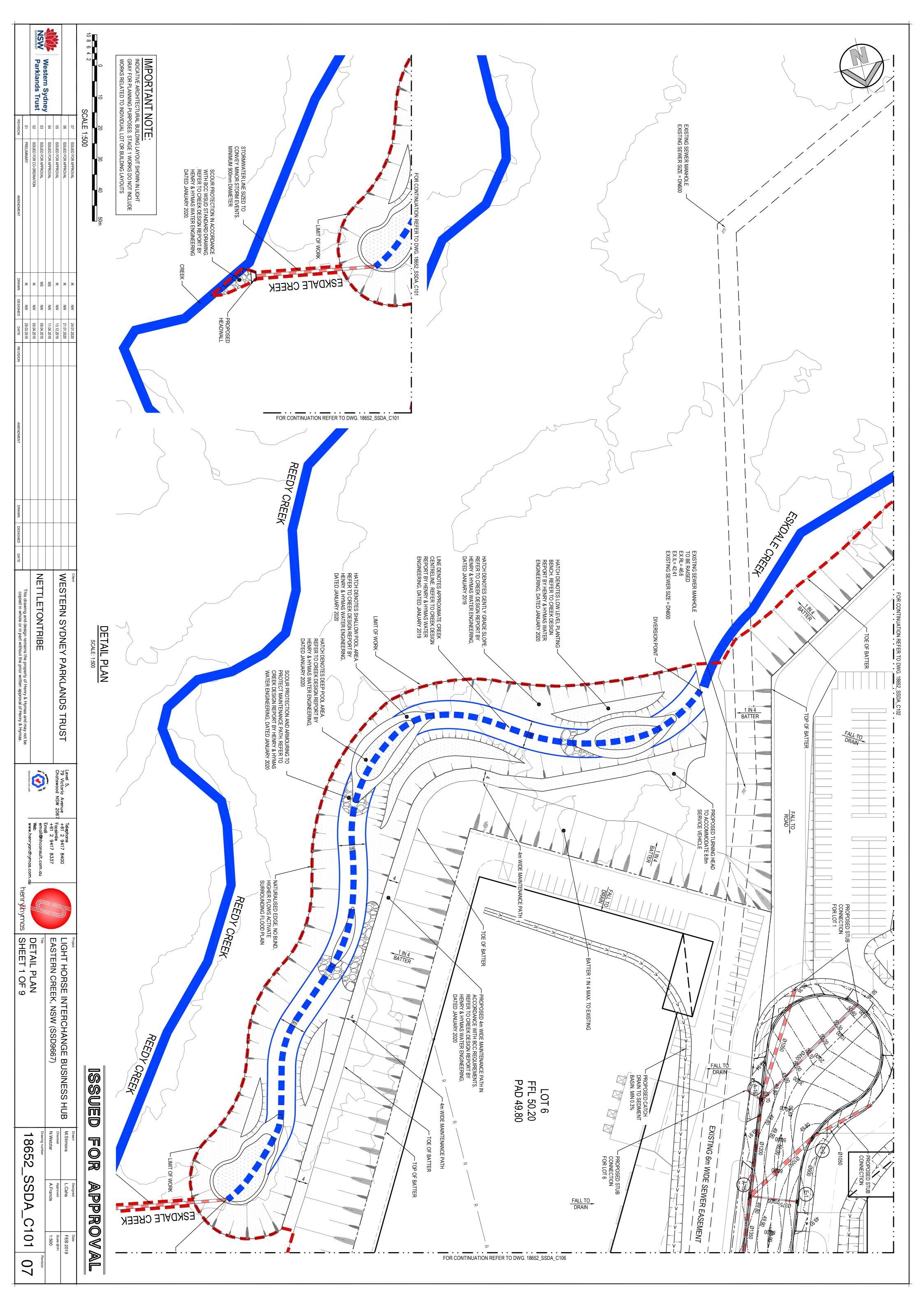
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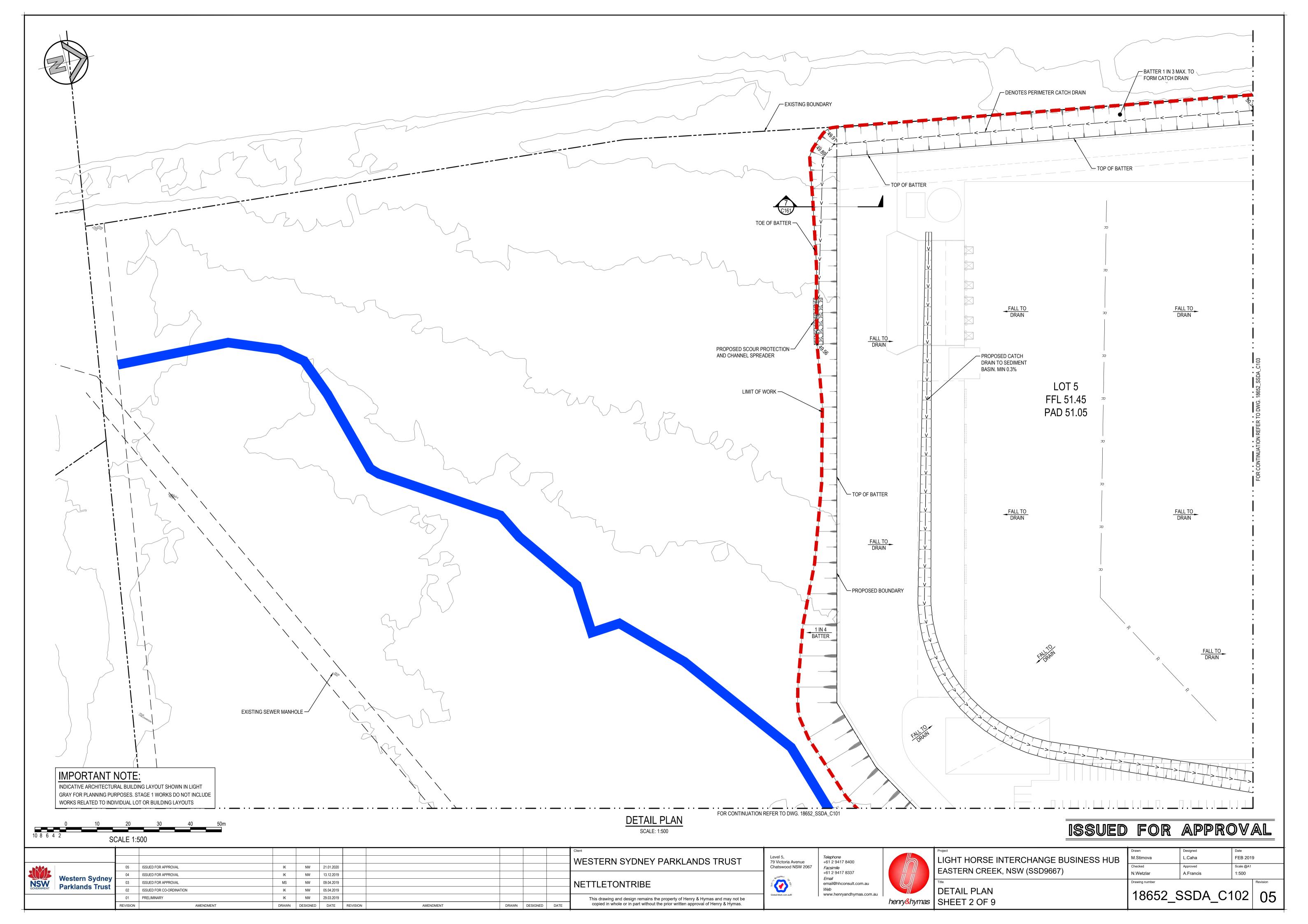
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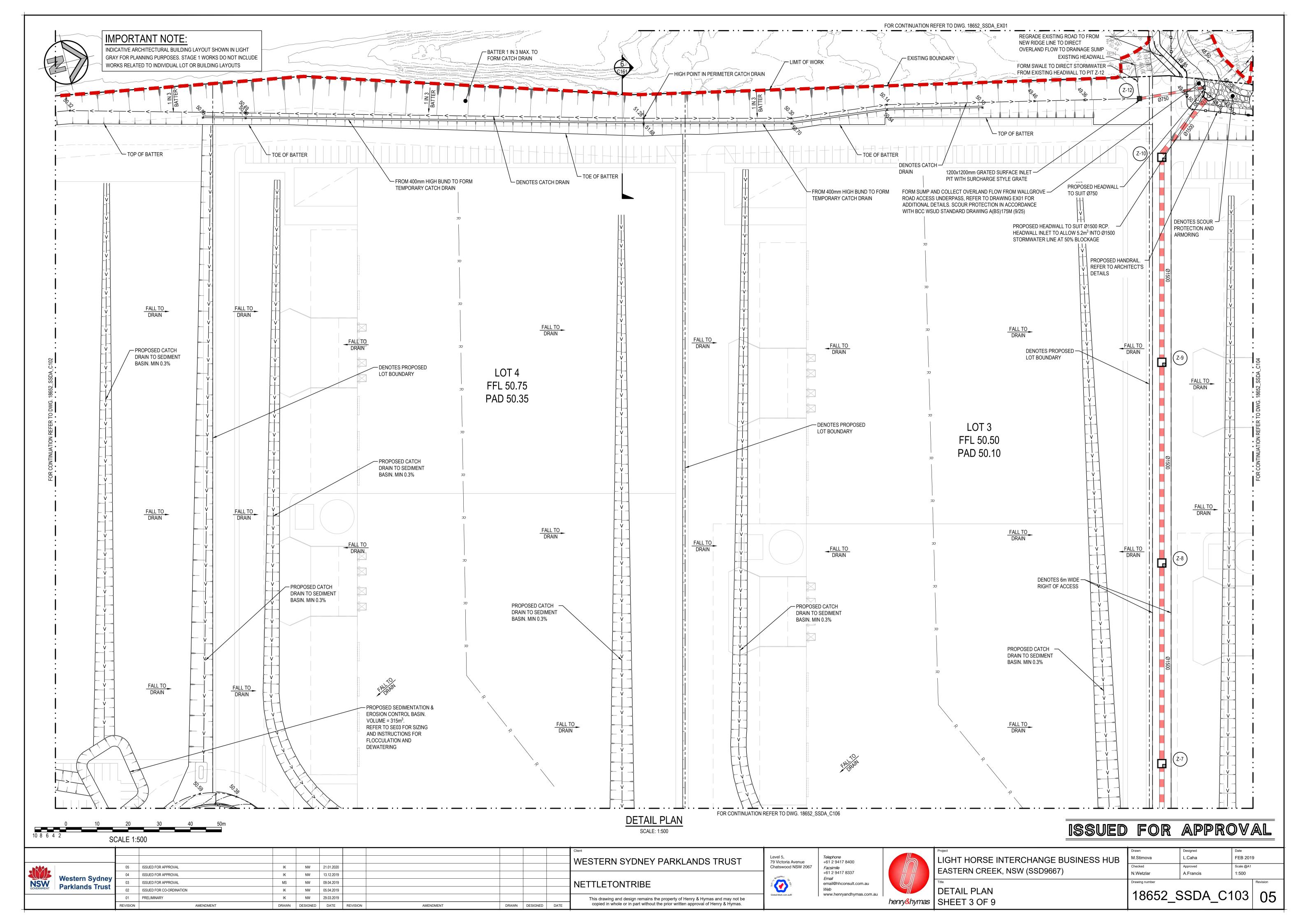
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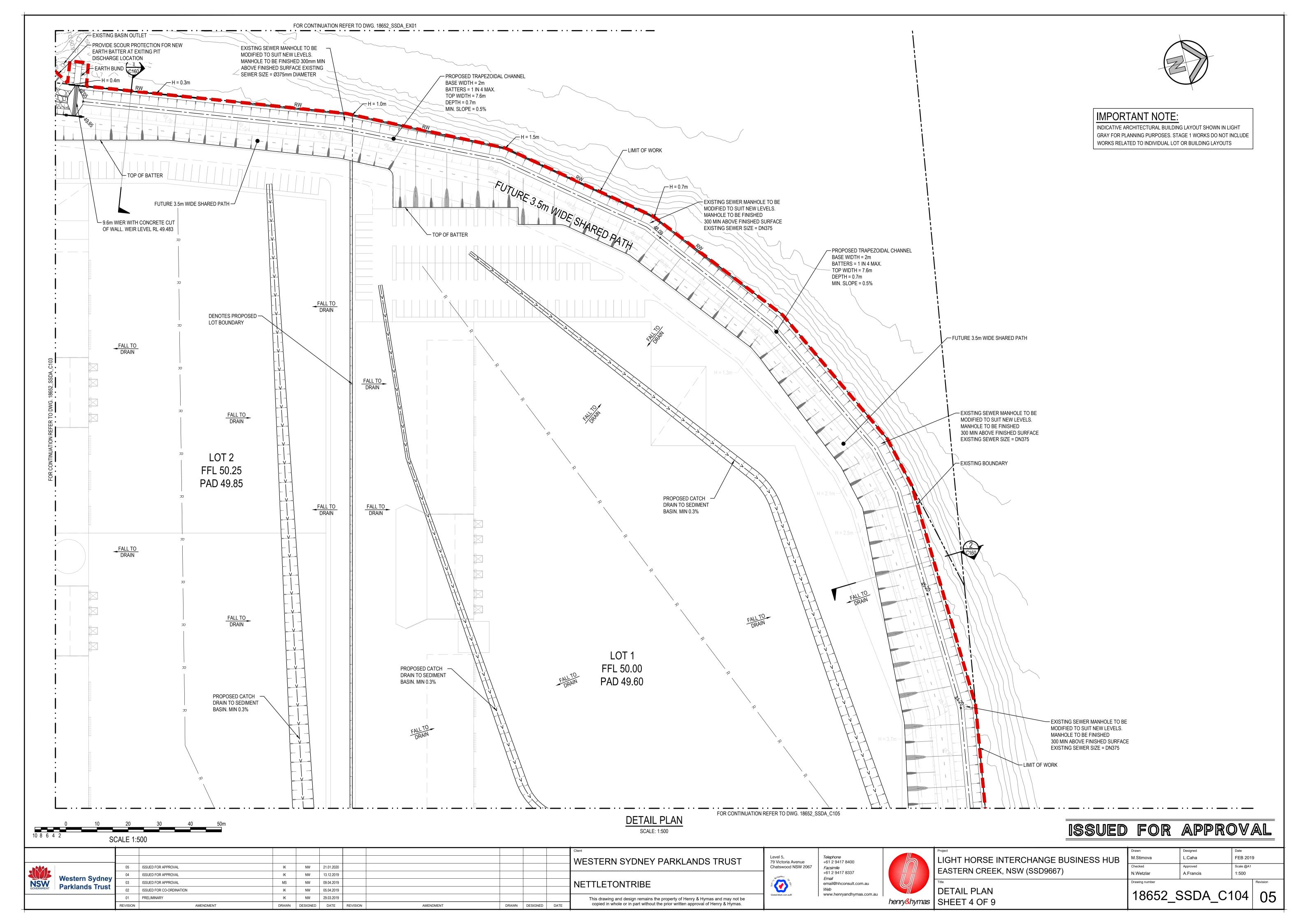
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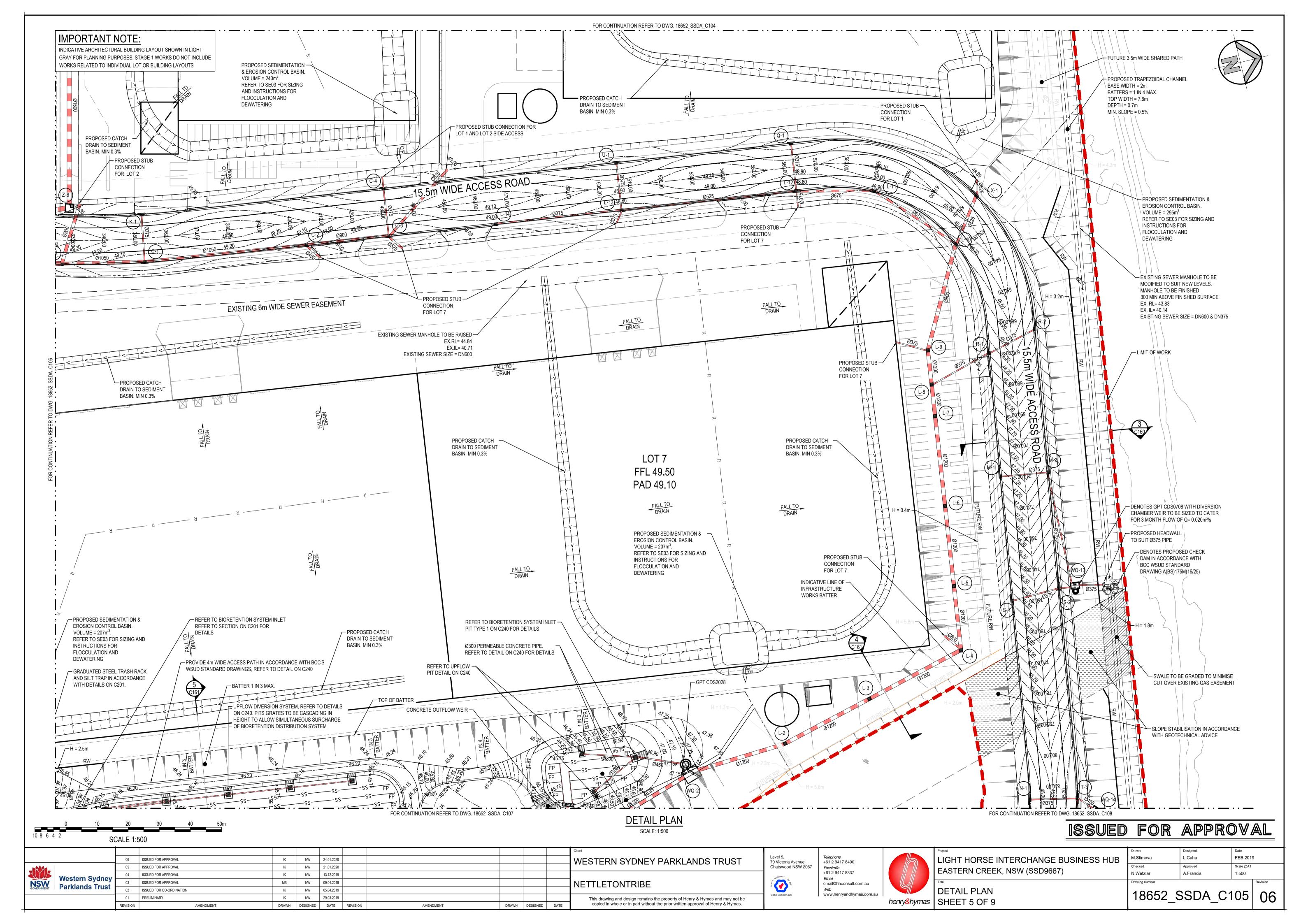


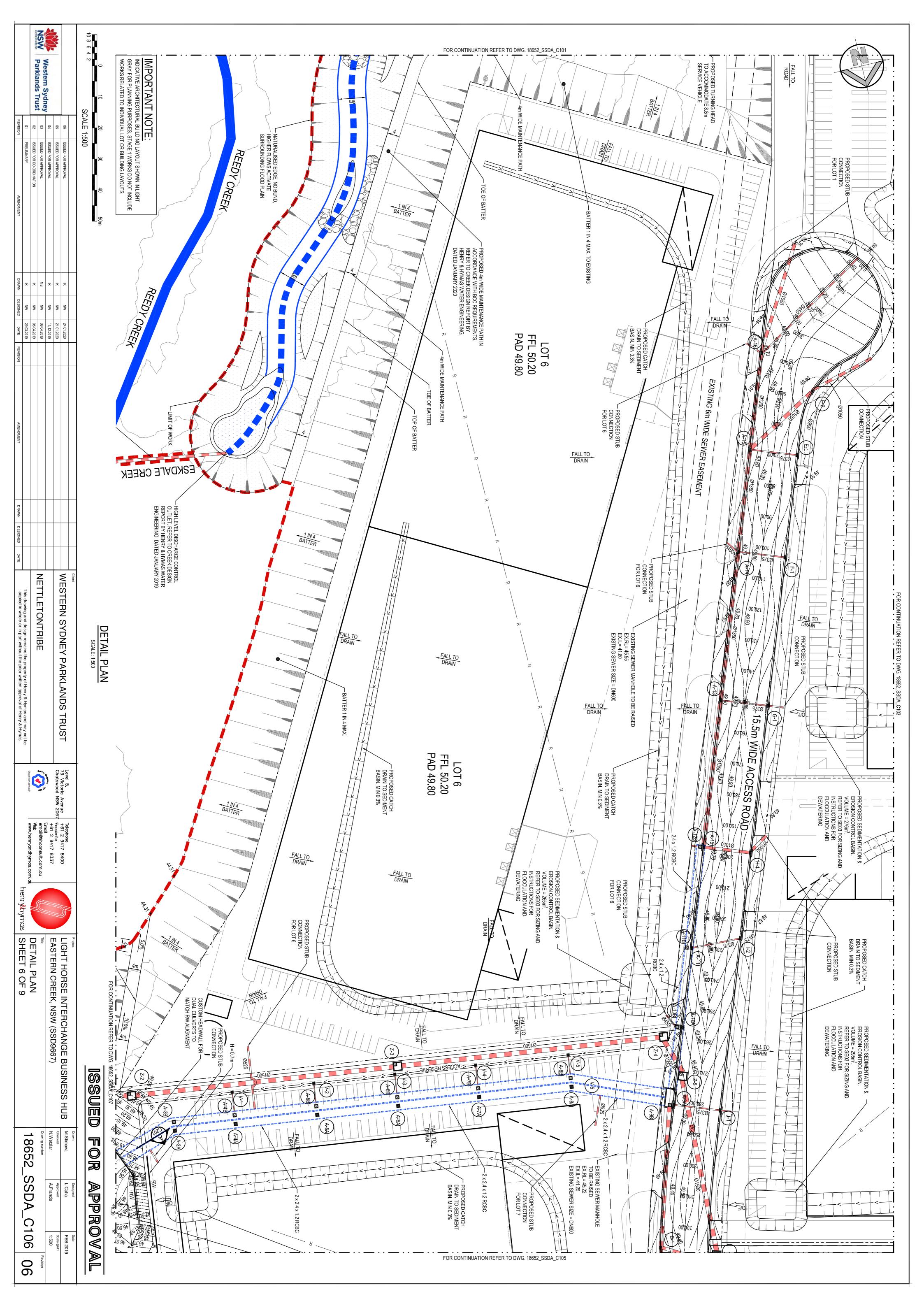


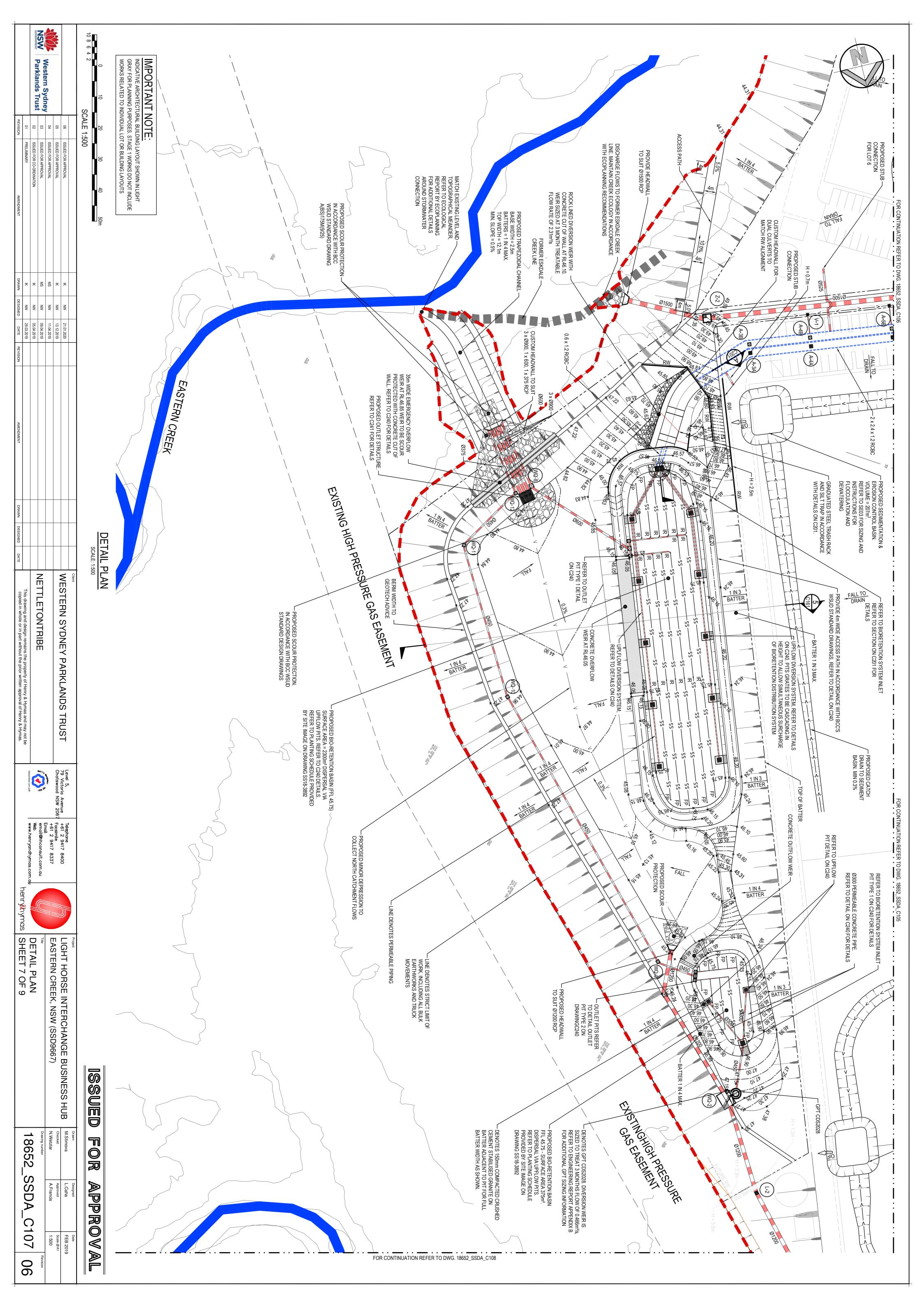


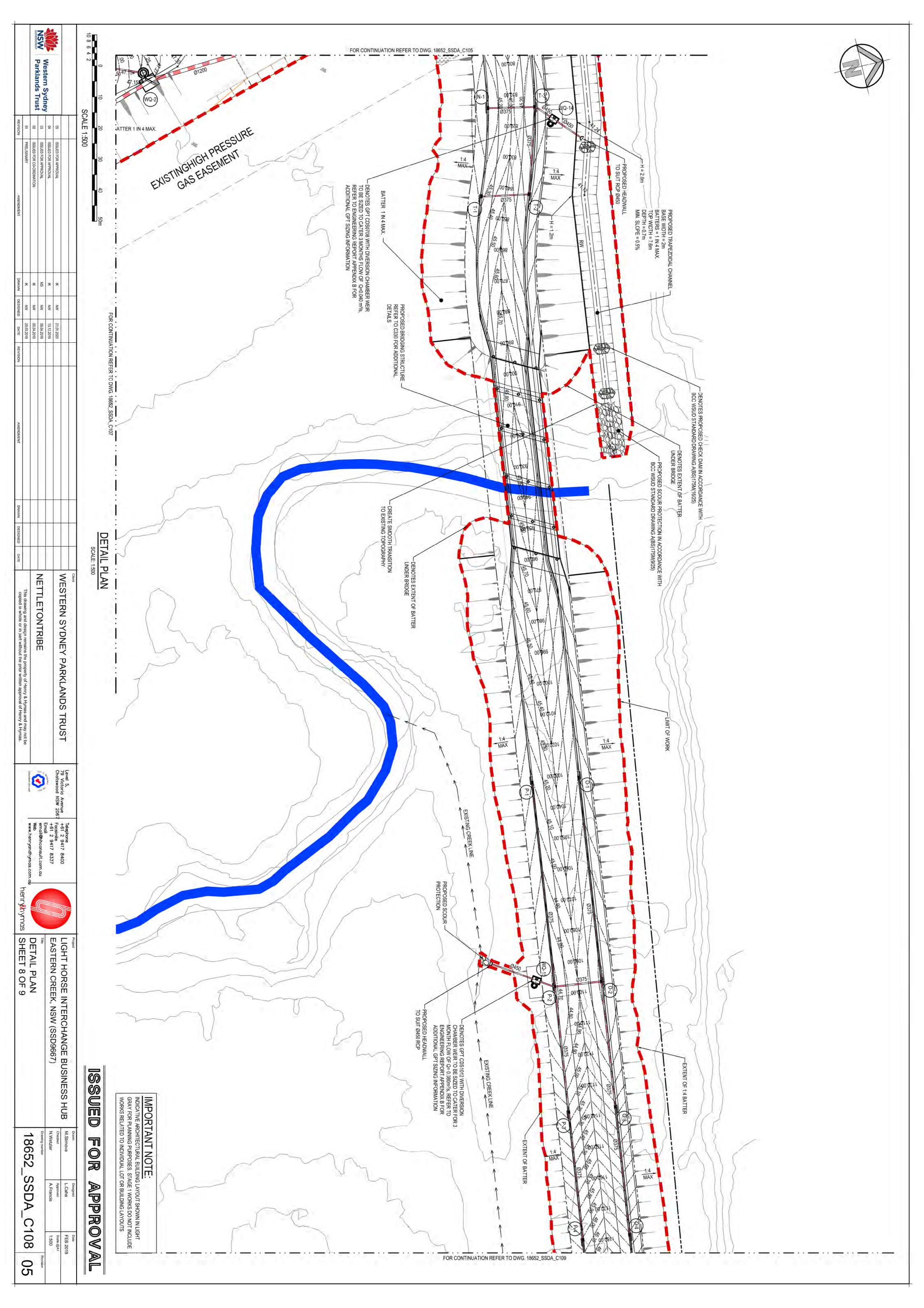


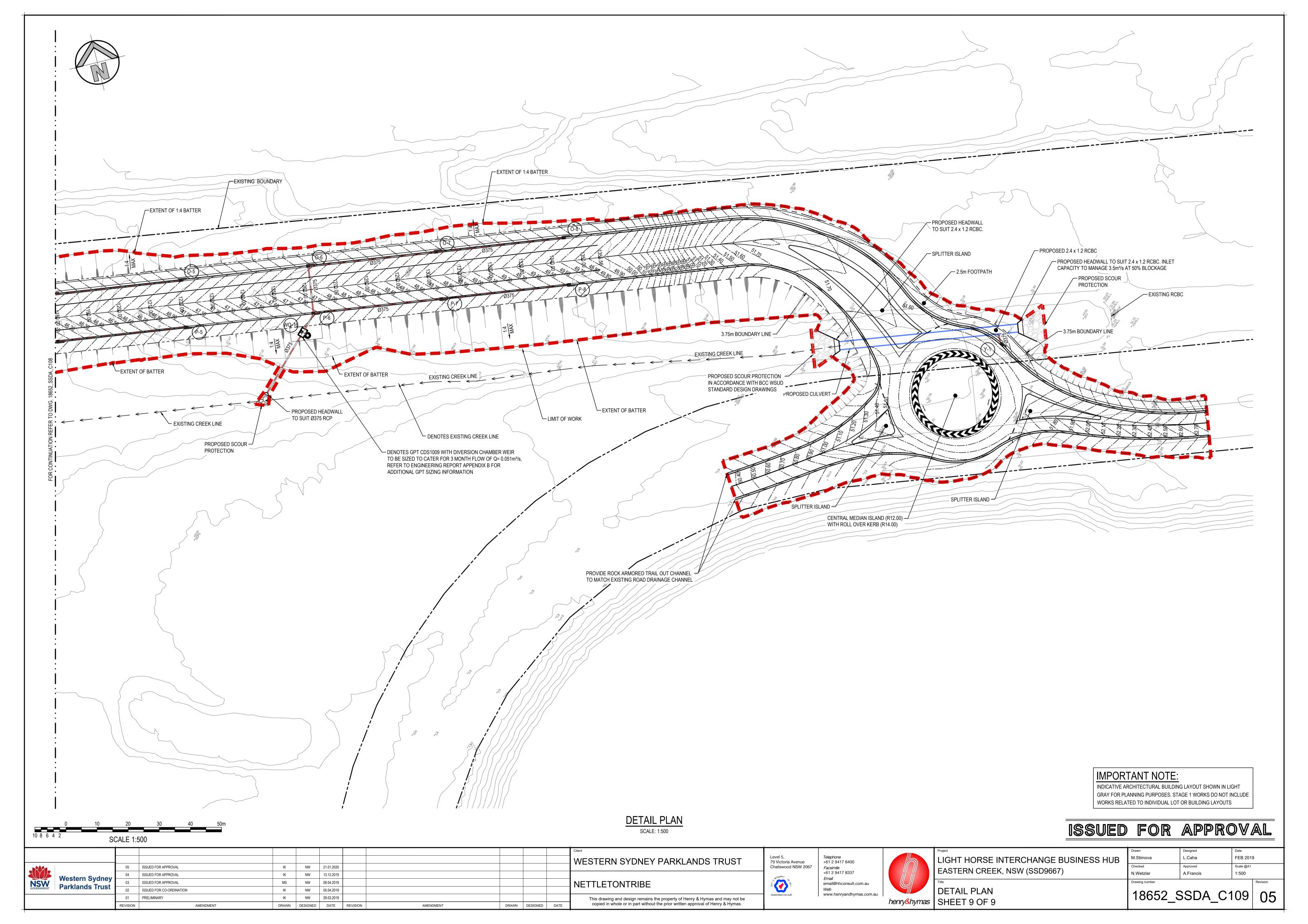


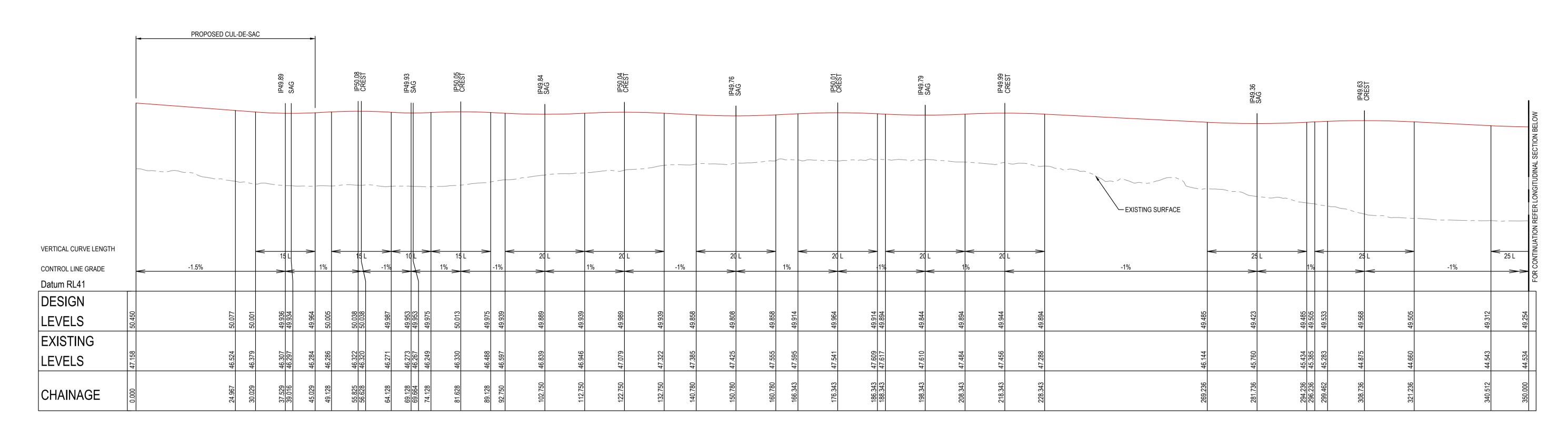






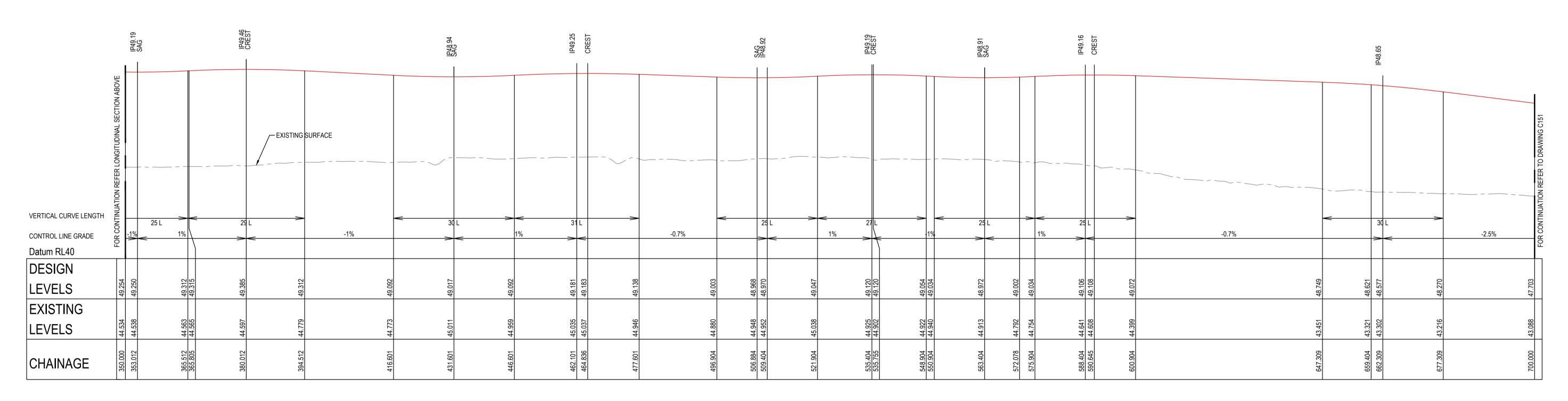




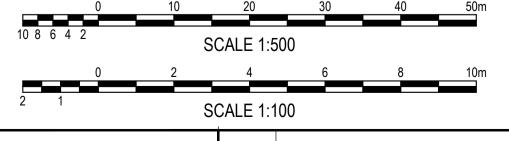


LONGITUDINAL SECTION ROAD 1

HORIZONTAL SCALE 1:500
VERTICAL SCALE 1:100



# LONGITUDINAL SECTION ROAD 1 - CONTINUATION HORIZONTAL SCALE 1:500 VERTICAL SCALE 1:100



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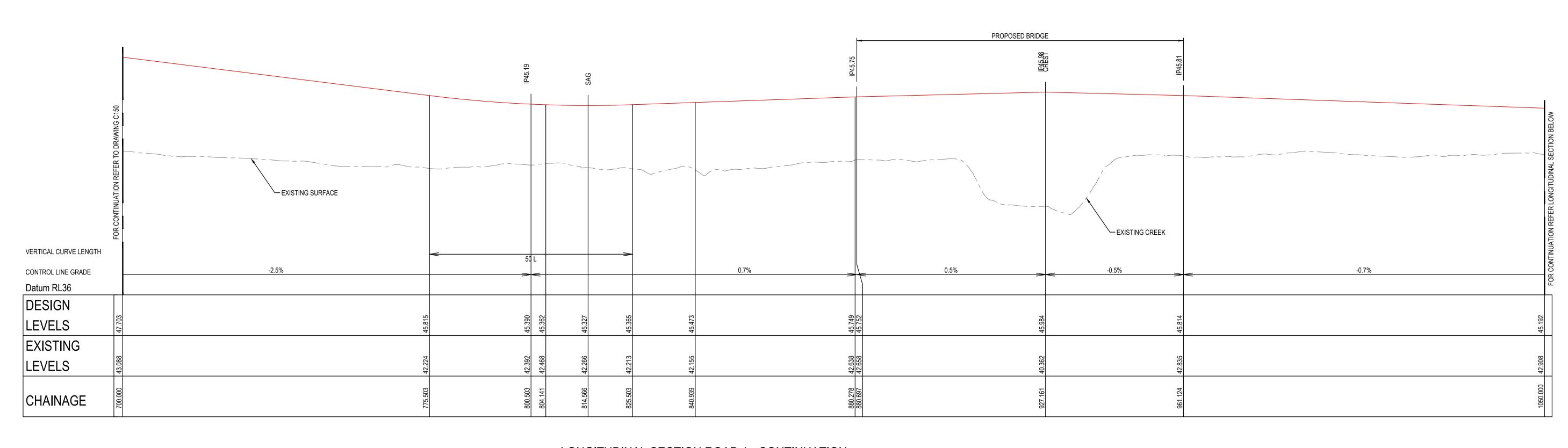
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NSW GOVERNMENT	Parklands Trust	03	ISSUED FOR APPROVAL	MS	NW	09.04.2019	9				NETTLETONTRIBE	J// One)//
	Western Sydney	04	ISSUED FOR APPROVAL	IK	NW	13.12.2019	9				Architect	wanagem
		05	ISSUED FOR APPROVAL	IK	NW	21.01.2020	20				WESTERN STEINETTAINE TROOT	Chats
											WESTERN SYDNEY PARKLAND TRUST	Level 79 Vic
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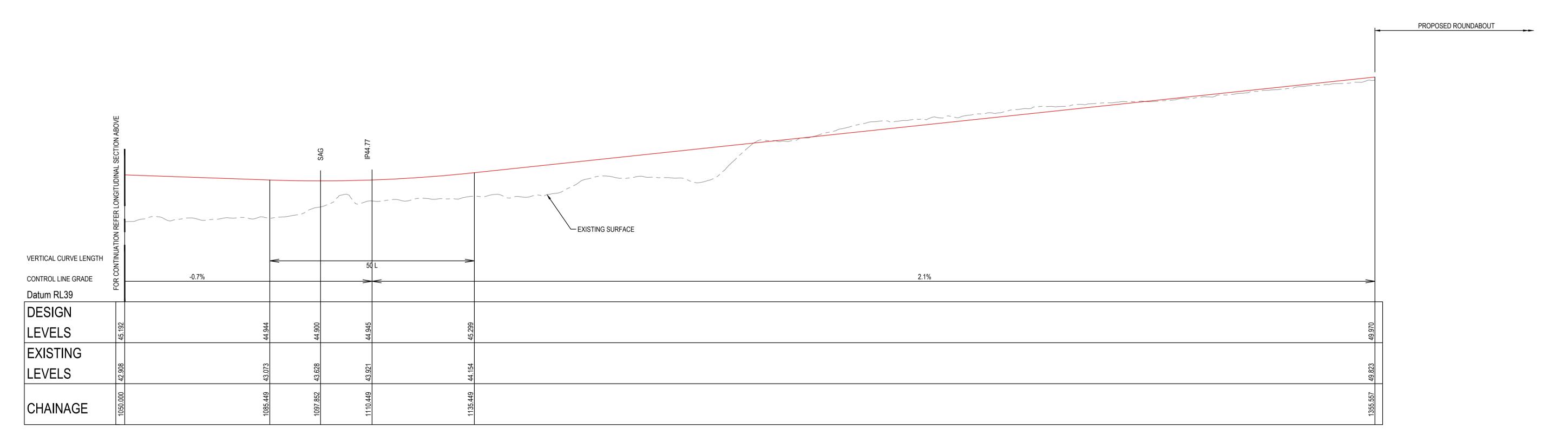


Project
LIGHT HORSE INTERCHANGE BUSINESS HUB
EASTERN CREEK, NSW (SSD9667)
Title
ROAD 1 LONGITUDINAL SECTION

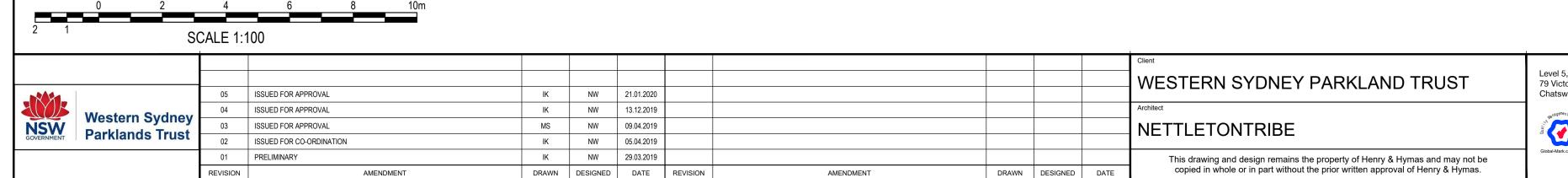
UB ——	Checked N.Wetzlar	Approved A.Francis	Scale AS SHO\	NN @ A1
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LONGITUDINAL SECTION ROAD 1 - CONTINUATION HORIZONTAL SCALE 1:500 VERTICAL SCALE 1:100



# LONGITUDINAL SECTION ROAD 1 - CONTINUATION HORIZONTAL SCALE 1:500 VERTICAL SCALE 1:100



SCALE 1:500

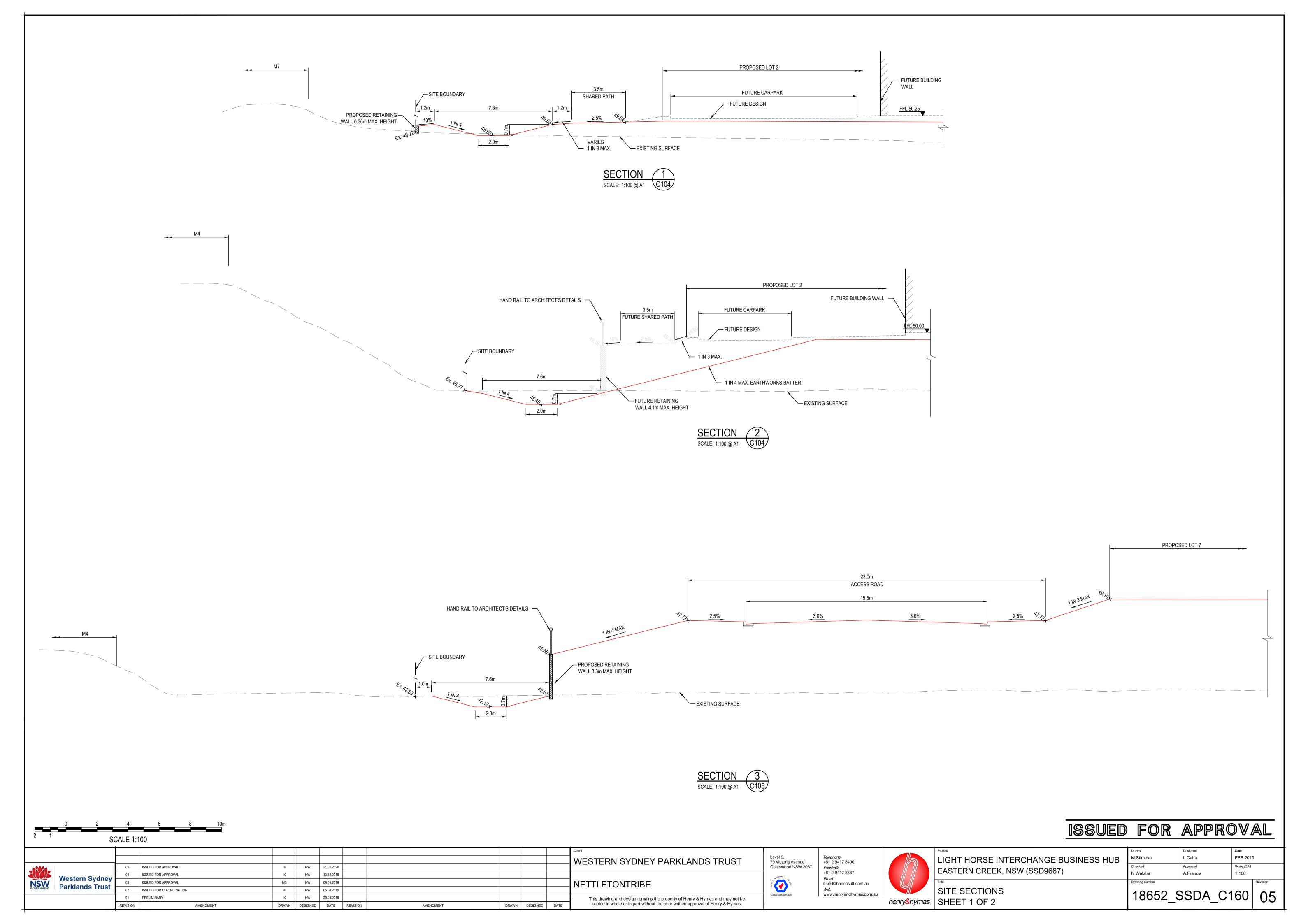
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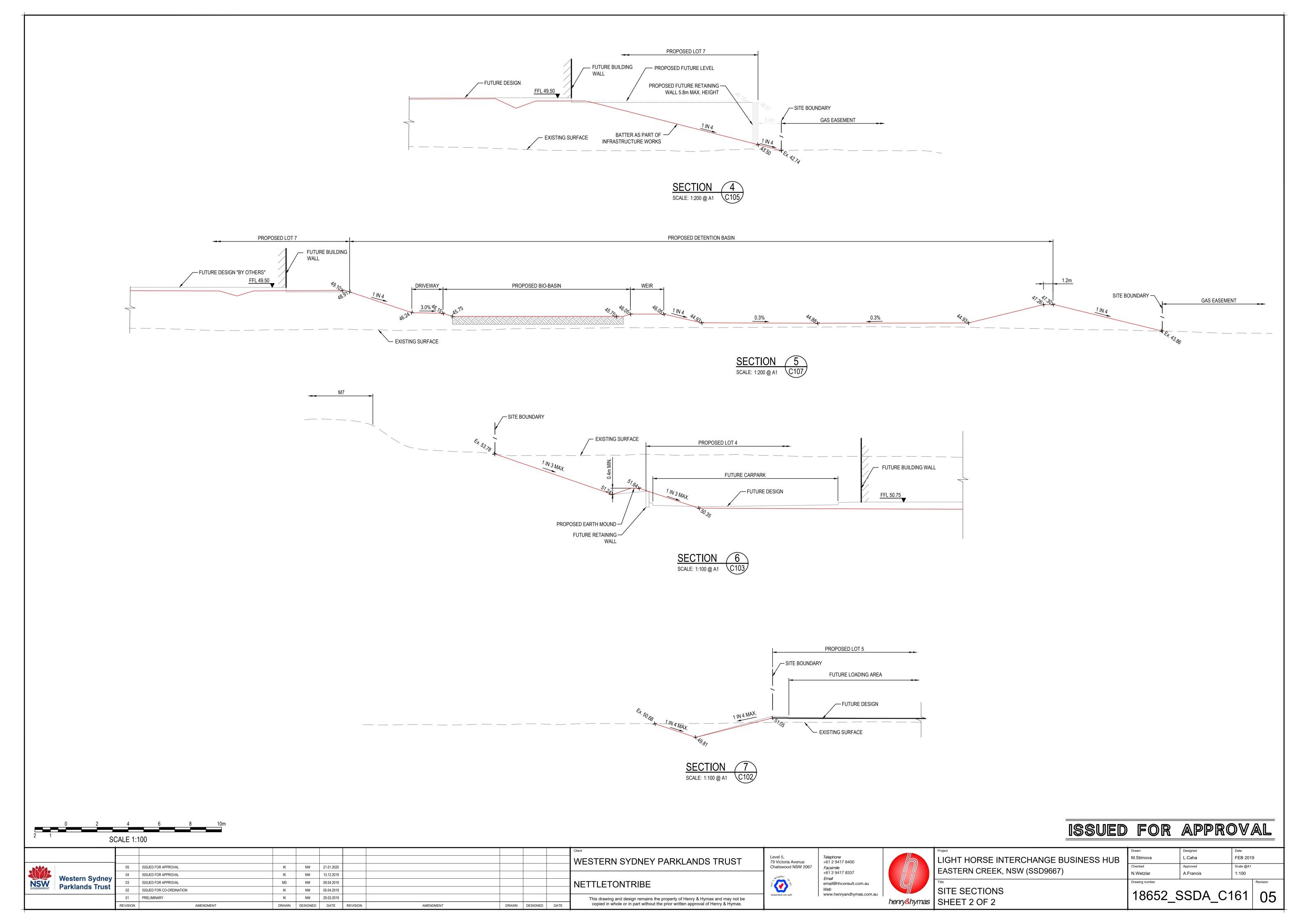


	Project
	LIGHT HORSE II
	EASTERN CREEK
	Title
	<b>ROAD 1 LONGI</b>
henry&hymas	SHEET 2 OF 2

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HT HORSE INTERCHANGE BUSIN	ESS HUB	Drawn M.Stimova	Designed L.Caha	Date FEB 2019
STERN CREEK. NSW (SSD9667)		Checked	Approved	Scale

EASTERN CREEK, NSW (SSD9667) AS SHOWN @ A1 18652\_SSDA\_C151 05 ROAD 1 LONGITUDINAL SECTION





#### TYPICAL PIT CHAMBER SIZES IT IS THE CONTRACTORS RESPONSIBILITY TO SELECT PIT CHAMBER SIZE WITH REGARDS TO PIPE SIZE, DEPTH TO INVERT AND SKEW ANGLE. REFER SKETCHES BELOW. (1) SELECT PIT CHAMBER USING THE STEPS BELOW: SELECT PIT CHAMBER SIZE DEPENDING ON THE PIPE DIAMETERS. FOR B = 600mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 225mm

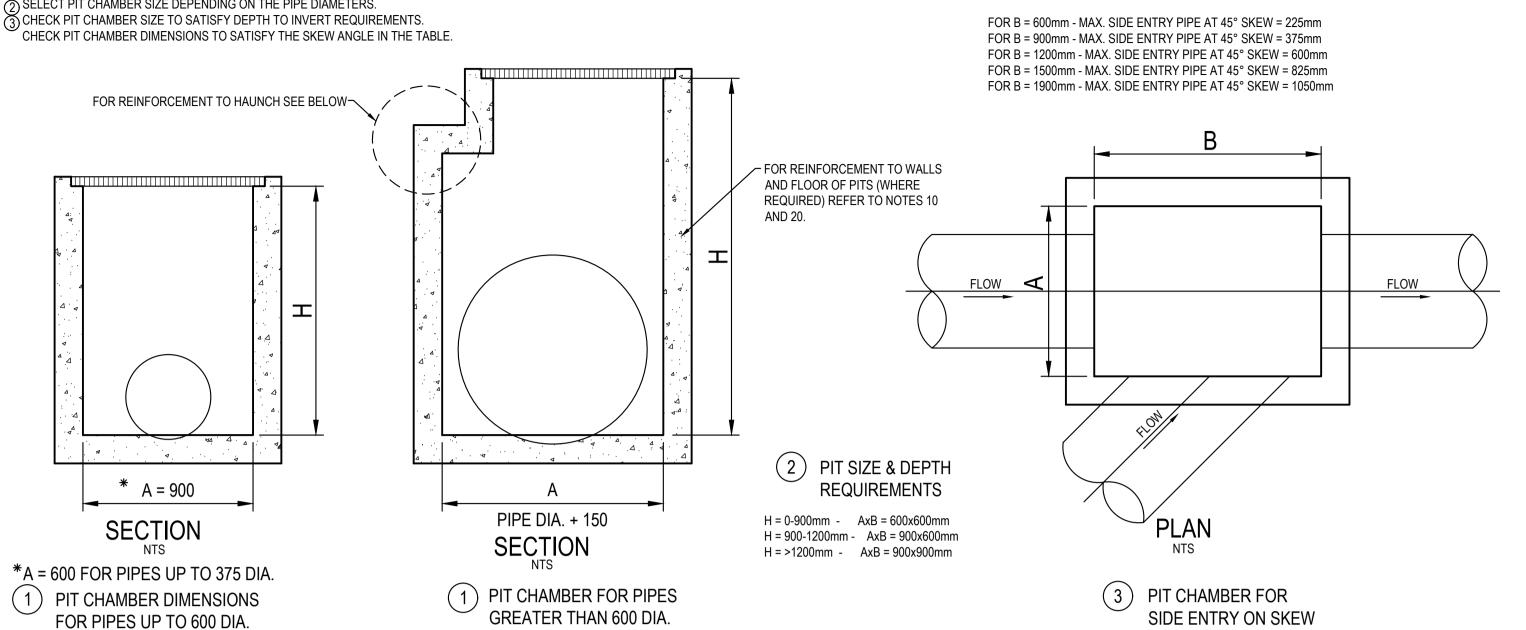
TABLE 1						
SIEVE SIZE (MM)	WEIGHT PASISNG (%)					
75.0	100					
9.5	100 TO 50					
2.36	100 TO 30					
0.60	50 TO 15					
0.075	25 TO 0					

TABLE 2						
SIEVE SIZE (MM)	WEIGHT PASISNG (%)					
19.0	100					
2.36	100 TO 50					
0.60	90 TO 20					
0.30	60 TO 10					
0.15	25 TO 0					
0.075	10 TO 0					

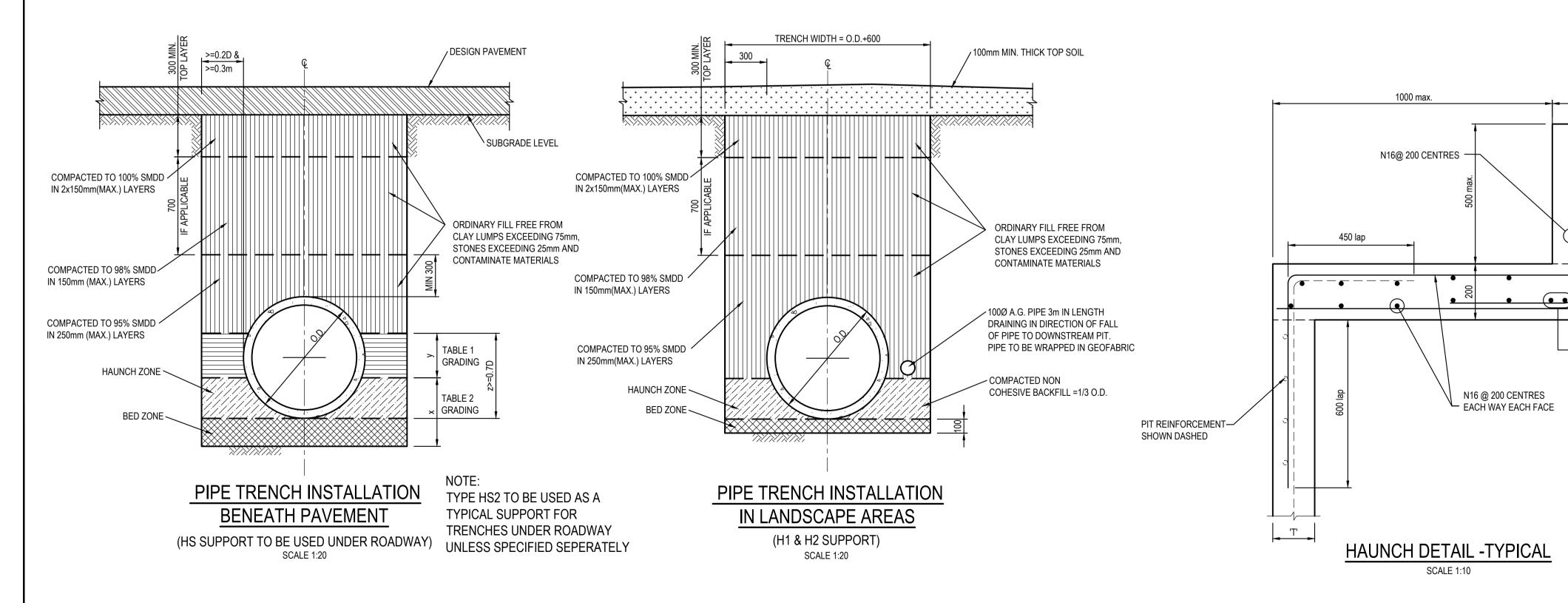
		TABLE 3		
SUPPORT TYPE	BED ZONE X	HAUNCH ZONE Y	BED AND HAUNCH ZONES COMPACTION	MAX BEDDING FACTOR
HS1		0.1D	50	2.0
HS2	100 IF D<=1500, OR 150 IF D>=1500	0.3D	60	2.5
HS3		0.3D	70	4.0

## FOR B = 900mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 375mm FOR B = 1200mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 600mm FOR B = 1500mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 825mm FOR B = 1900mm - MAX. SIDE ENTRY PIPE AT 45° SKEW = 1050mm

0.60			90 TO 20		
0.30			60 TO 10		
0.15			25 TO 0		
0.075			10 TO 0		
			TABLE 3		
SUPPORT TYPE	BED ZO	NE X	HAUNCH ZONE Y	BED AND HAUNCH	MAX BEDD



### - R20 GALV. STEEL M.S. @ 300 CTRS 220 150 WALL - CORNER DETAIL 200 WALL - CORNER DETAIL **ELEVATION** PLAN SECTION TYPICAL STEP IRON DETAIL



### PIT LID SCHEDULE

PIT/STRUCTURE NUMBER	LID DESCRIPTION
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	ON GRADE KERB INLET PIT WITH 1.8m LINTEL AND HEAVY DUTY GRATED LID CLASS "D" IN ACCORDANCE WITH BLACKTOWN CITY COUNCIL REQUIREMENTS.
$ \begin{array}{c c}                                   $	SAG KERB INLET PIT WITH 1.8m LINTEL AND HEAVY
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	DUTY GRATED LID CLASS "D" IN ACCORDANCE WITH BLACKTOWN CITY COUNCIL REQUIREMENTS.
Z-2 Z-4 Z-5 Z-6 Z-10 A-3B A-4B A-10B A-11B A-1 A-12B  A-5B A-6B A-7B A-8B A-9B	SEALED JUNCTION PIT WITH 900 X 900 HINGED HEAVY DUTY CLASS "D"" CONCRETE LID IN ACCORDANCE WITH BLACKTOWN CITY COUNCIL REQUIREMENTS.
(WQ-9)(WQ-11)(WQ-12)(WQ-8) (M-3)	SEALED JUNCTION PIT WITH 900 X 900 HINGED LIGHT DUTY CLASS "B"" CONCRETE LID IN ACCORDANCE WITH BLACKTOWN CITY COUNCIL REQUIREMENTS.
(A-3A) (A-4A) (A-5A) (A-6A) (A-7A) (A-8A) (L-7) (L-8)	SURFACE INLET PIT WITH 900 X 900 HINGED HEAVY DUTY CLASS "D"" GRATED ACCESS LID IN ACCORDANCE WITH BLACKTOWN CITY COUNCIL REQUIREMENTS.
(WQ-1)	STORMWATER QUALITY IMPROVEMENT DEVICE: GPT UNIT - ROCLA CDS 3030. CUSTOM TRASH RACK AND SILT TRAP. REFER C201
(WQ-2)	STORMWATER QUALITY IMPROVEMENT DEVICE: GPT UNIT - ROCLA CDS 2028
Z-12)	SURFACE INLET PIT WITH 1200x1200 LIGHT DUTY SURCHARGE STYLE GRATE IN ACCORDANCE WITH BLACKTOWN CITY COUNCIL REQUIREMENTS.
$\overline{(z-3)}$ $\overline{(z-7)}$ $\overline{(z-8)}$ $\overline{(z-9)}$	SEALED SADDLE PIT WITH 900 x 900 HINGED HEAVY DUTY CLASS "D"" CONCRETE LID. PIT RISERS TO BE CONNECTED TO Ø1500 STORMWATER LINE. PIT TO BE FINISHED IN ACCORDANCE WITH BLACKTOWN CITY COUNCIL REQUIREMENTS.
(VQ-13)	SURFACE INLET PIT WITH 1200x1200 HINGED LIGHT DUTY CLASS "B" SURCHARGE STYLE LID IN ACCORDANCE WITH BLACKTOWN CITY COUNCIL REQUIREMENTS. REFER TO CREEK DESIGN REPORT FROM H&H WATER ENGINEERING
(L-5) $(L-6)$ $(L-3)$ $(L-4)$ $(L-2)$	SURFACE INLET PIT TO BE FINISHED AT BULK EARTHWORKS LEVEL. PITS TO BE RAISED AND FINISHED UNDER LOT 7 WORKS. PIT TO BE FINISHED WITH 900 X 900 HEAVY DUTY CLASS "D" LID
(V-1) $(V-2)$ $(V-3)$ $(V-4)$ $(V-5)$	SURFACE INLET PIT WITH 450 x 450 HEAVY DUTY "CLASS D" GRADED LID IN ACCORDANCE WITH BLACKTOWN CITY COUNCIL REQUIREMENTS.
(VQ-13) (VQ-14) (VQ-18) (VQ-16)	STORMWATER QUALITY IMPROVEMENT DEVICE: REFER NOTE ON PLAN
L	1

### **IMPORTANT NOTES:**

- 1. FOR SPECIFICATION OF PIT LIDS WITHIN OSD AND BIO-RETENTION BASINS, REFER TO DRAWING C101-C109 & C240-C241
- 2. ALL PIT LIDS TO BE CONSTRUCTED IN ACCORDANCE WITH BLACKTOWN CITY COUNCIL REQUIREMENTS AND WSUD STANDARD DRAWINGS.

### ISSUED FOR APPROVAL

		REVISION	AMENDMENT	DRAWN	DESIGNED	DATE	REVISION	AMENDMENT	DRAWN	DESIGNED	DATE	copied in whole or in part without the prior written approval of Henry & Hymas.	
		01	PRELIMINARY	IK	NW	29.03.2019						This drawing and design remains the property of Henry & Hymas and may not be copied in whole or in part without the prior written approval of Henry & Hymas.	Global-Mark
GOVERNMENT PAIKI	ianus irust	02	ISSUED FOR CO-ORDINATION	IK	NW	05.04.2019						112112213111132	
	lands Trust	03	ISSUED FOR APPROVAL	MS	NW	09.04.2019						NETTLETONTRIBE	Dual//
West	tern Sydney	04	ISSUED FOR APPROVAL	IK	NW	13.12.2019							, Na na geme
		05	ISSUED FOR APPROVAL	IK	NW	21.01.2020						TWESTERN STERNET TRANSCRIVES TROOT	Chatsv
												WESTERN SYDNEY PARKLANDS TRUST	Level : 79 Vic
												Client	







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GHT HORSE INTERCHANGE BUSINESS HUB	ı
ASTERN CREEK, NSW (SSD9667)	I

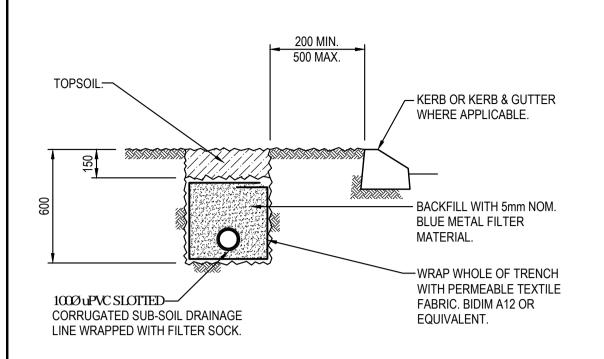
Scale @A1 AS NOTED N.Wetzlar A.Francis STORMWATER MISCELLANEOUS DETAILS

M.Stimova

18652\_SSDA\_C200 05

L.Caha

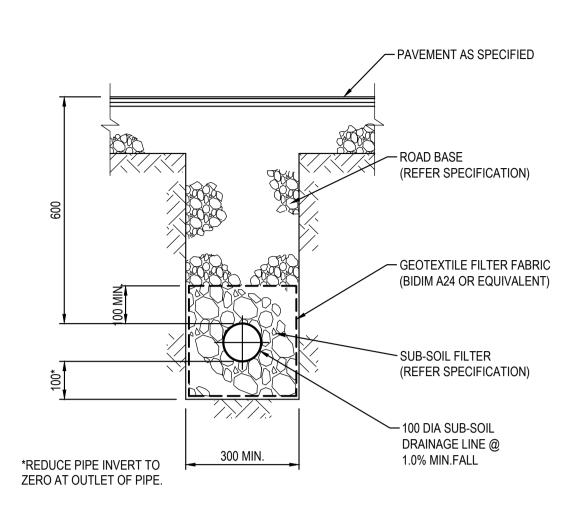
FEB 2019



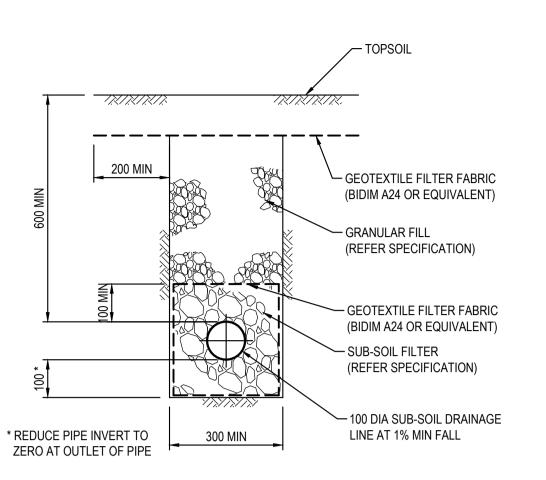
### SUB-SOIL DRAIN DETAIL SCALE 1:20

NOTE

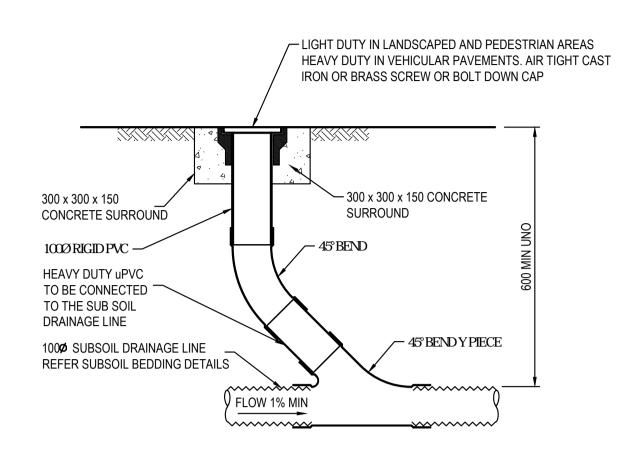
UNLESS SPECIFICALLY NOTED SUBSOIL DRAIN TO BE PROVIDED AROUND ALL KERB WITH SURFACE GRADING TOWARDS THE ROAD



SUB-SOIL IN PAVED AREAS

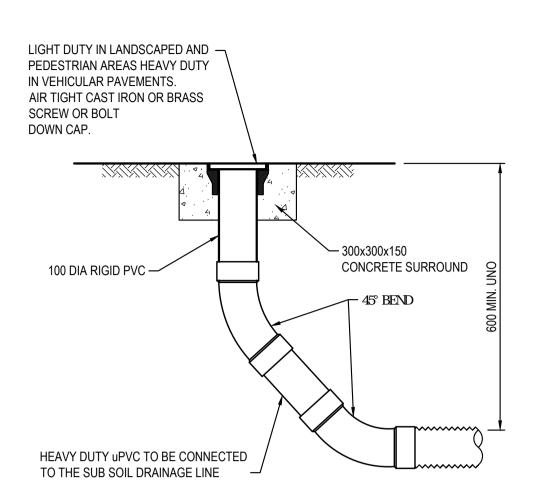


SUB-SOIL IN LANDSCAPED AREAS SCALE 1:10



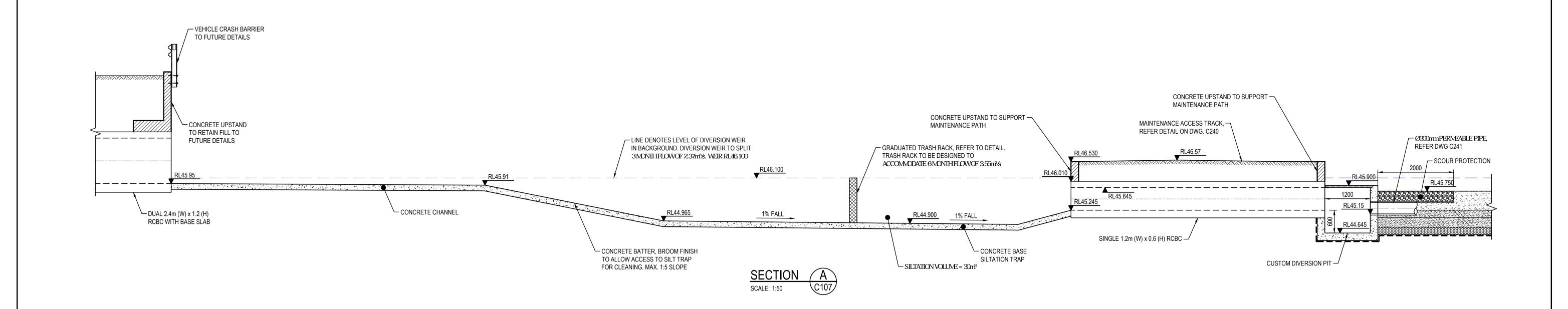
INTERMEDIATE RISER (IR)

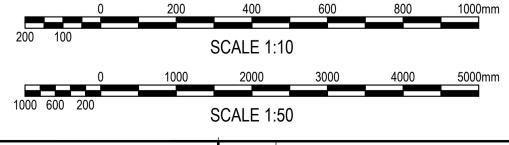
SCALE 1:10 NOTE: SLOTTED RIGID PVC PIPE AND FITTINGS MAY BE USED



FLUSHING POINT (FP)

NOTE: SLOTTED RIGID PVC PIPE AND FITTINGS MAY BE USED





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					$\overline{}$		
GOVERNMENT PARKIAITUS ITUST 02	18	ISSUED FOR CO-ORDINATION	IK	NW	05.04.2019		
Western Sydney Parklands Trust	18	ISSUED FOR APPROVAL	MS	NW	09.04.2019	NETTLETONTRIBE	Qualifit
Western Sydney 04	18	ISSUED FOR APPROVAL	IK	NW	13.12.2019		<b>Ja</b> ∩age#
05	18	ISSUED FOR APPROVAL	IK	NW	21.01.2020		Chats
						WESTERN SYDNEY PARKLANDS TRUST	Level 79 Vic
						Client	

Victoria Avenue hatswood NSW 2067

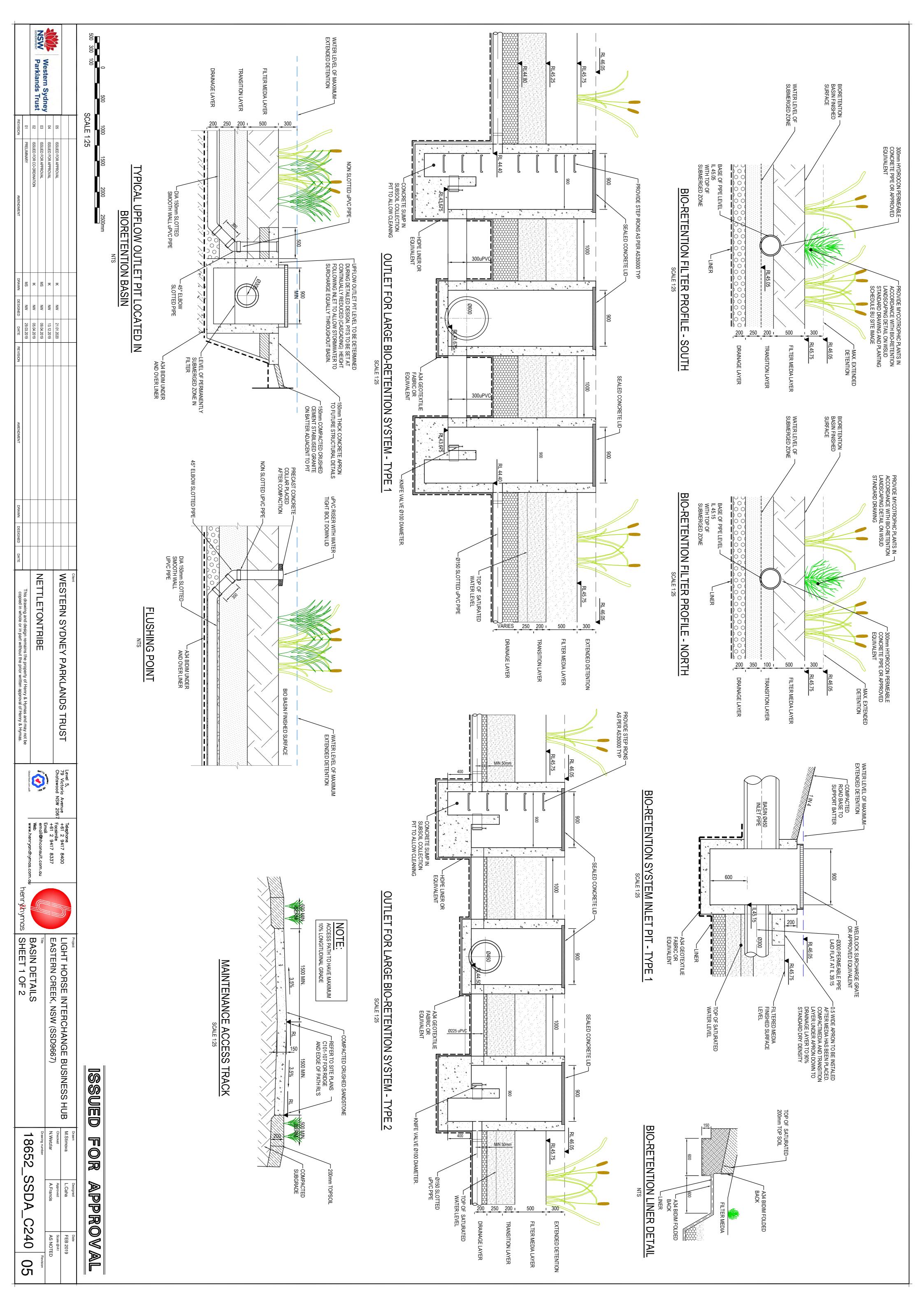
*Telephone* +61 2 9417 8400 Facsimile +61 2 9417 8337 email@hhconsult.com.au www.henryandhymas.com.au

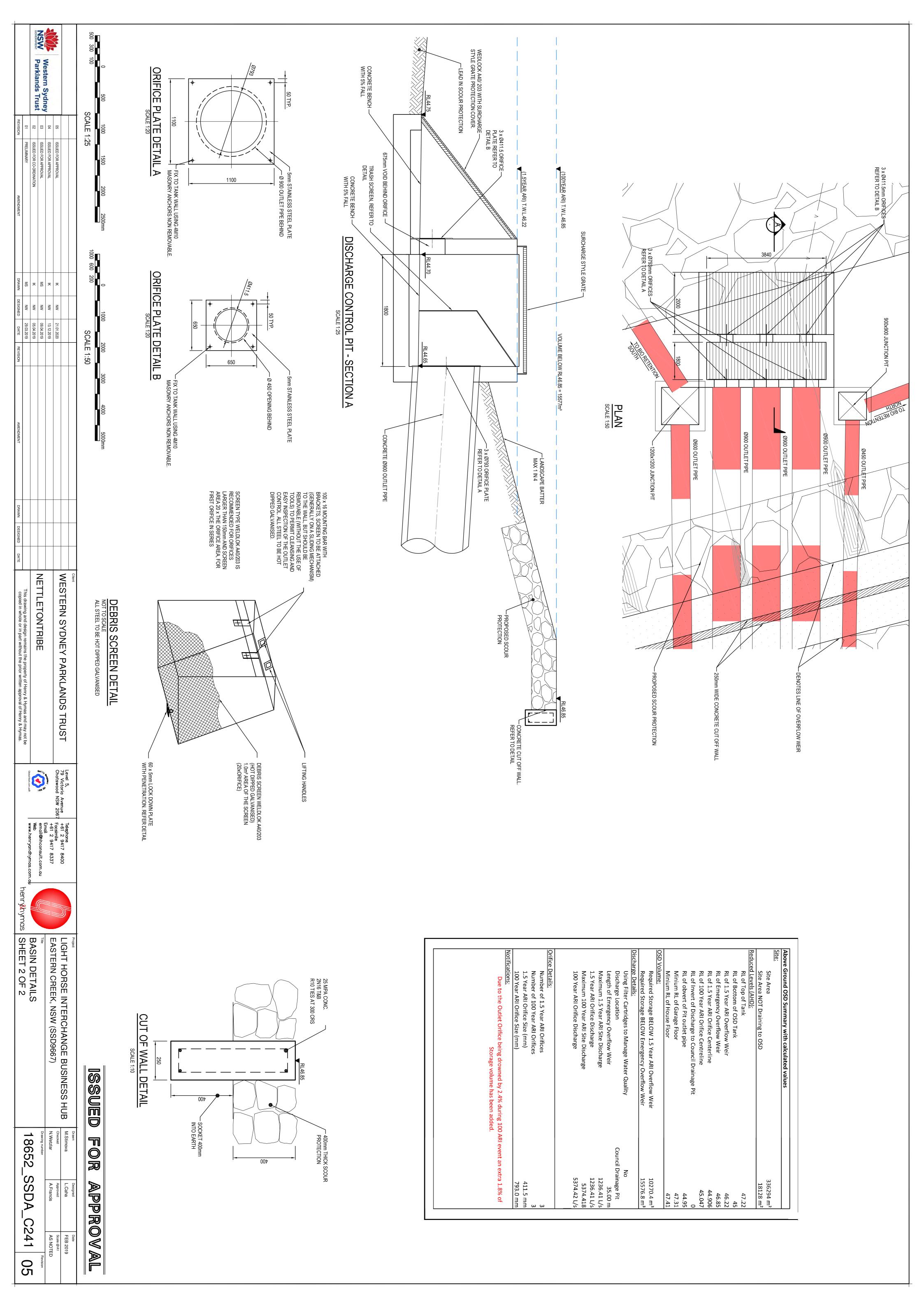


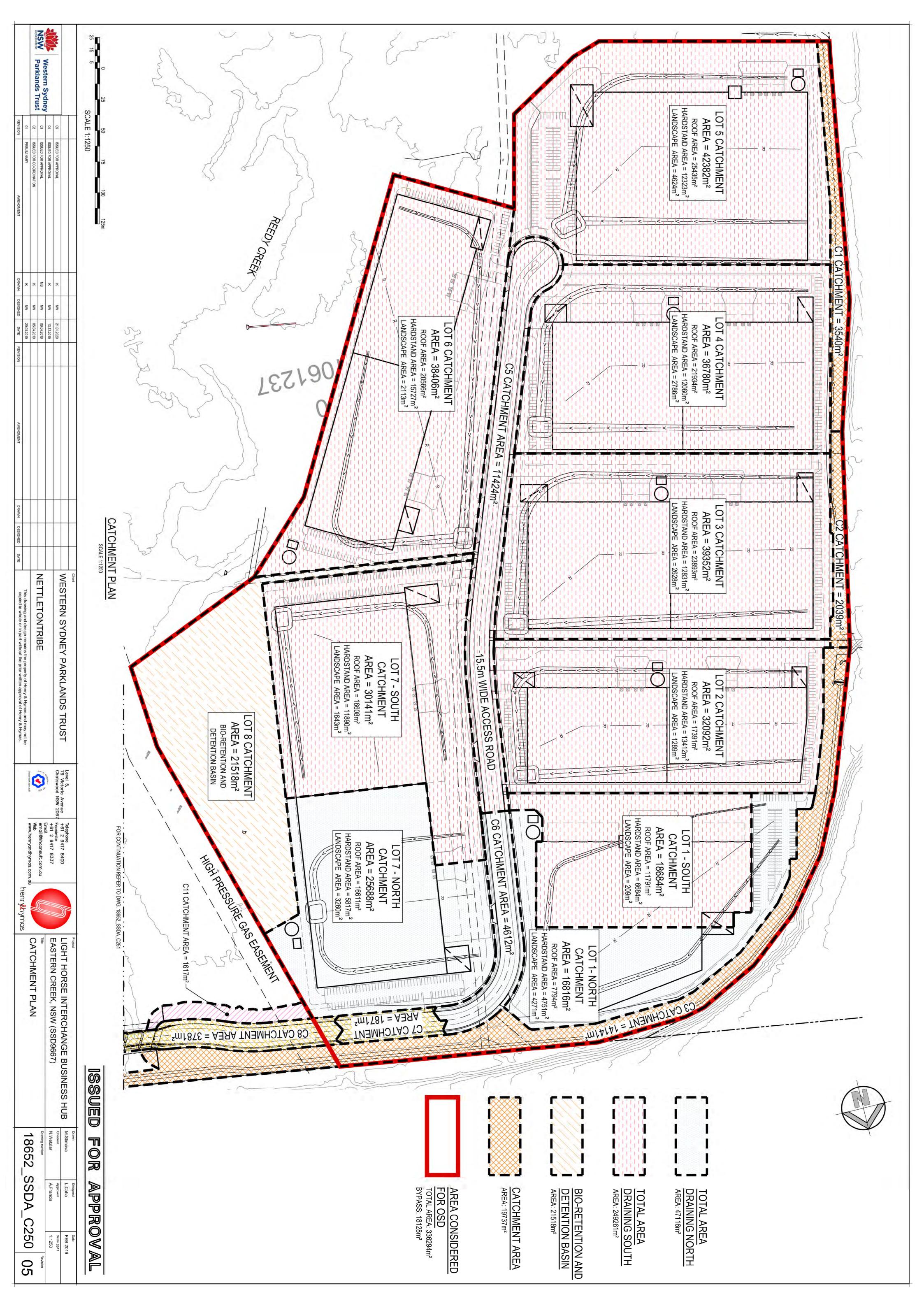
LIGHT HORSE INTERCHANGE BUSINESS HUB EASTERN CREEK, NSW (SSD9667)

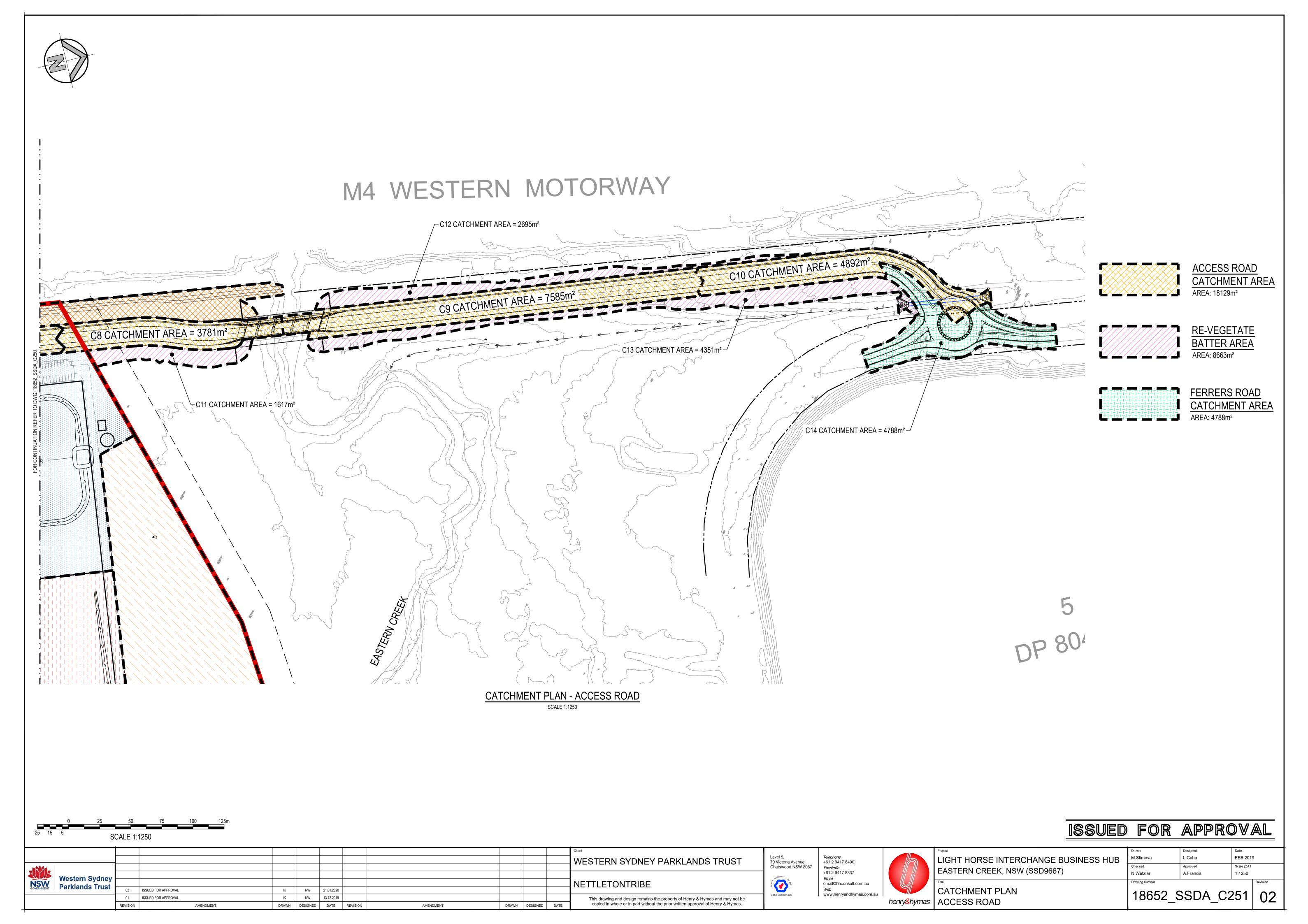
L.Caha FEB 2019 A.Francis AS NOTED N.Wetzlar STORMWATER MISCELLANEOUS DETAILS

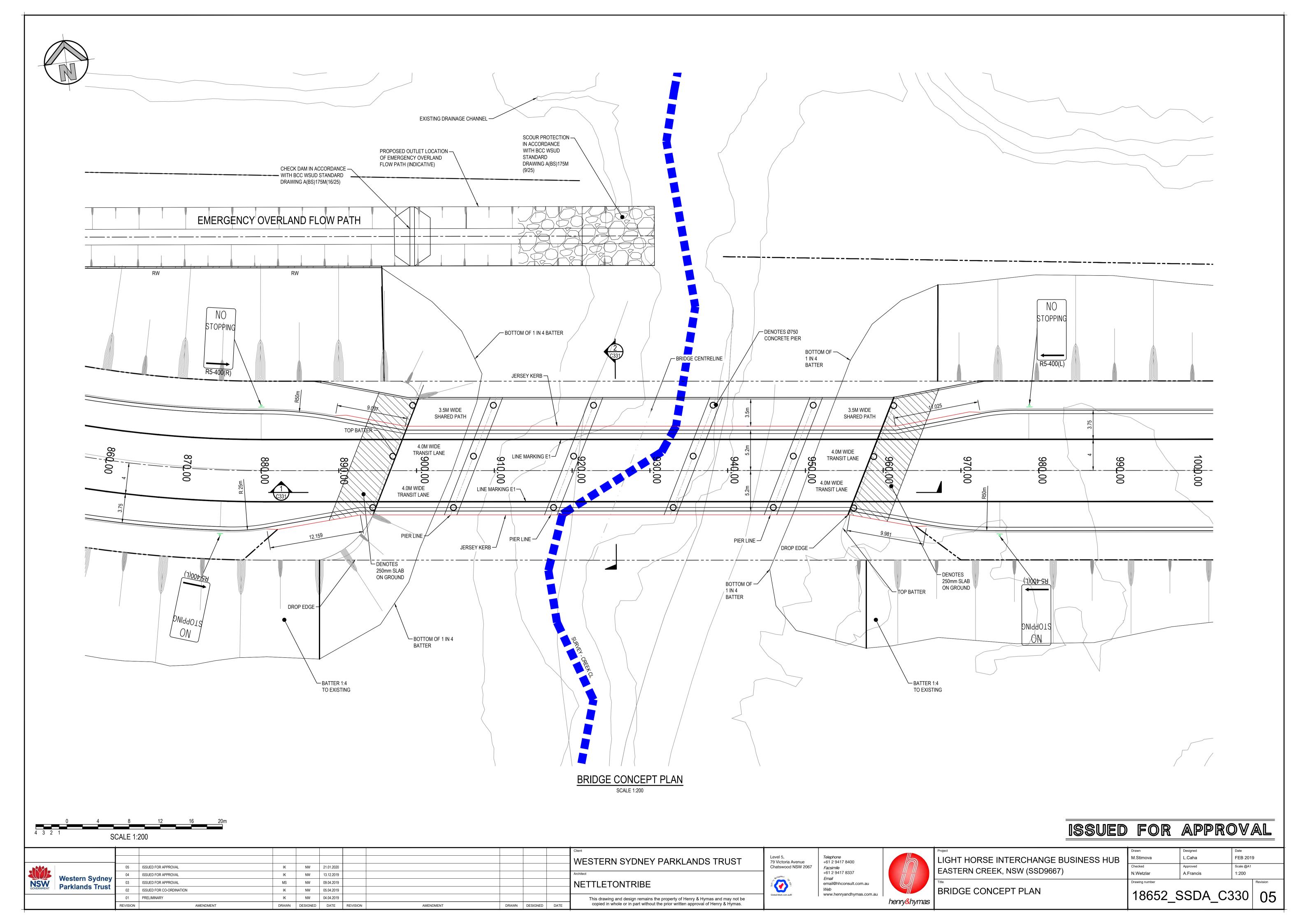
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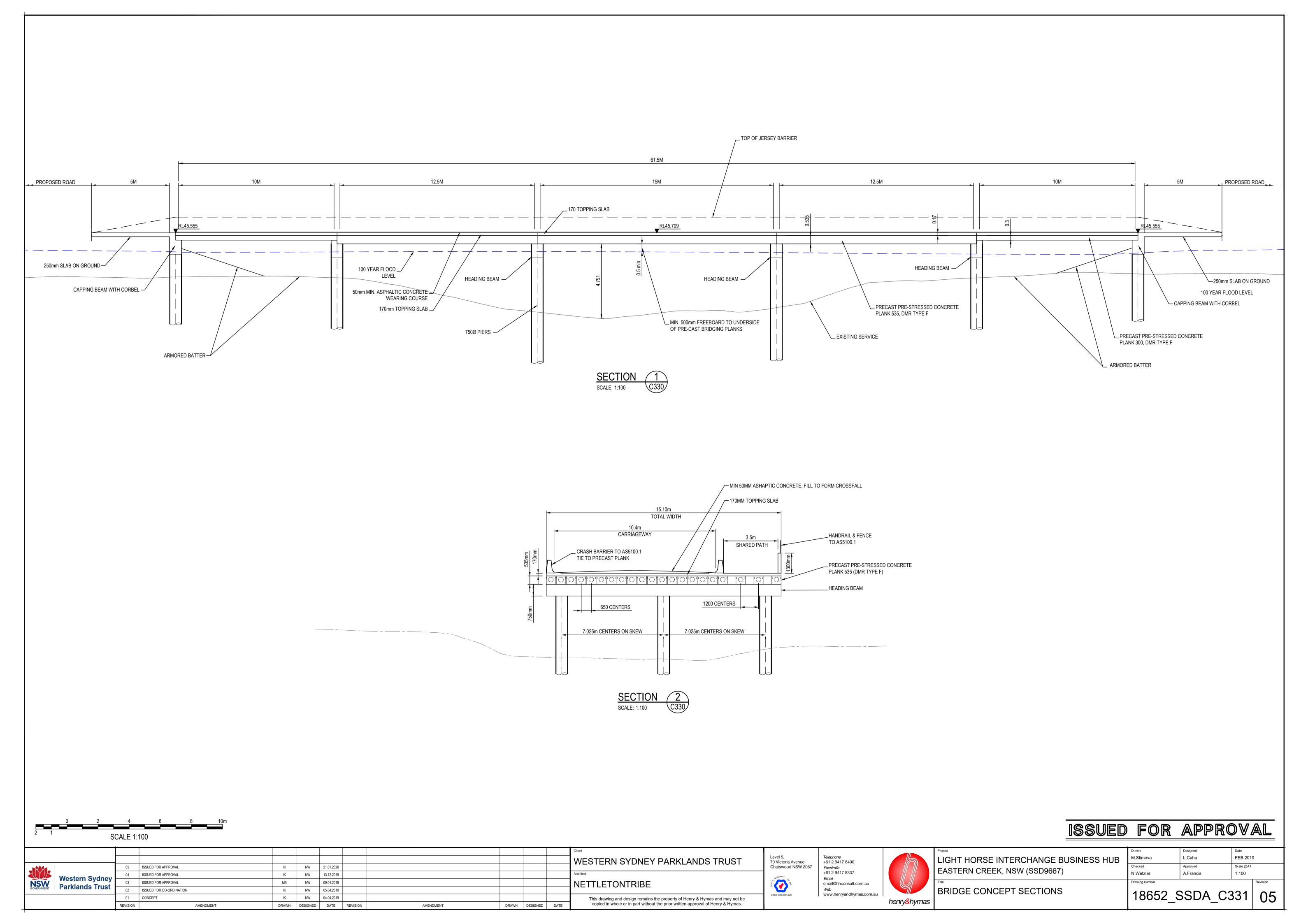


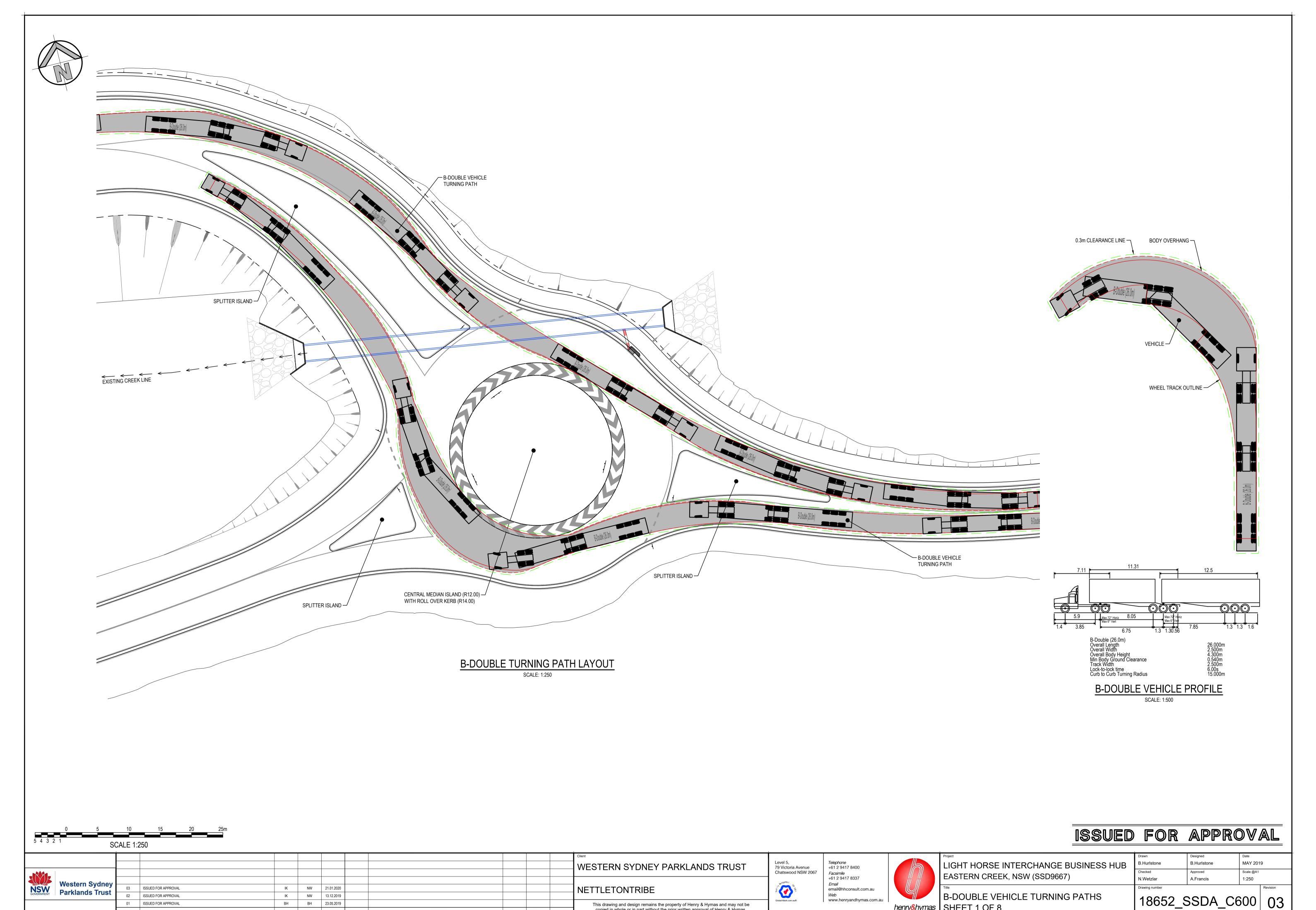












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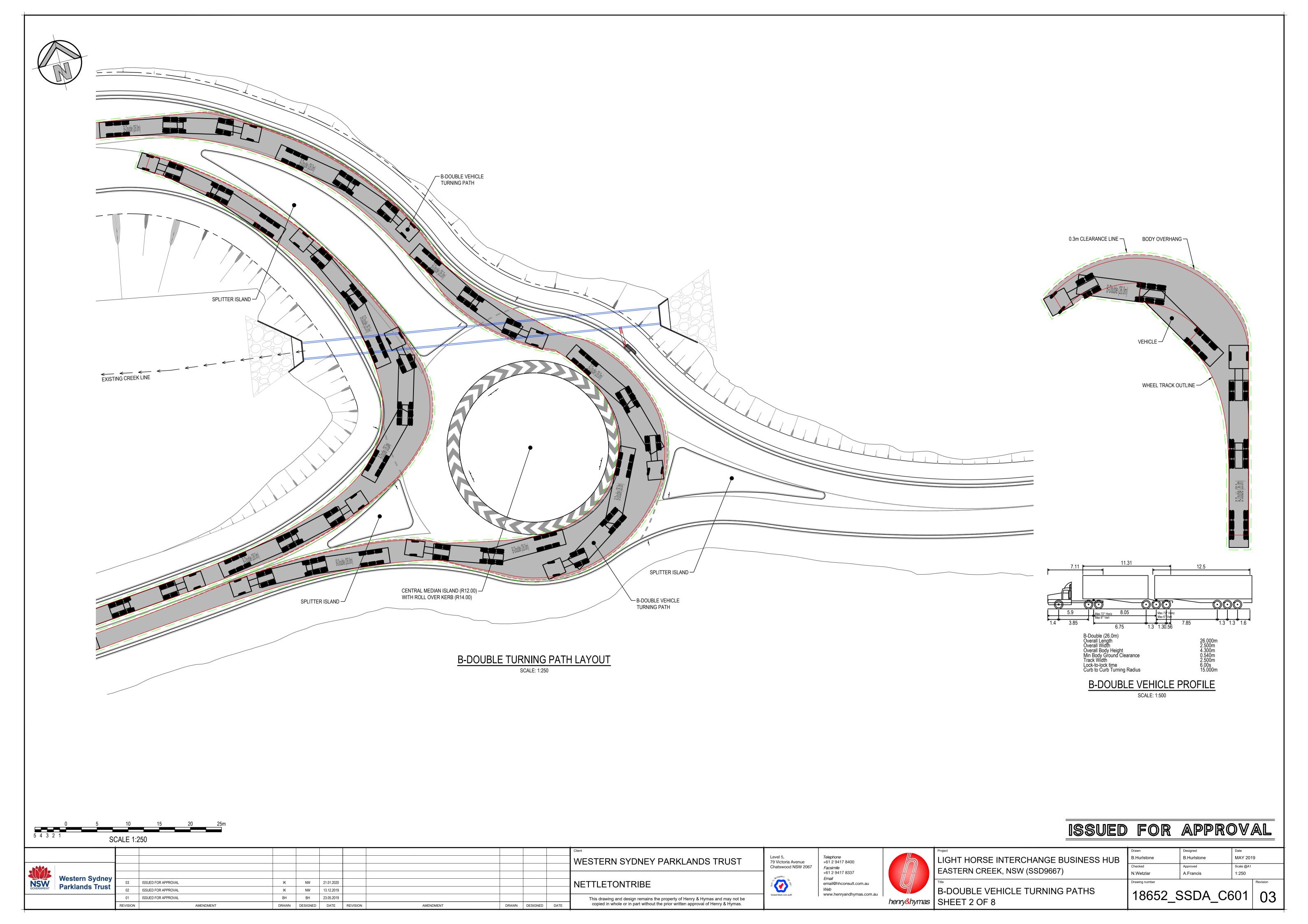
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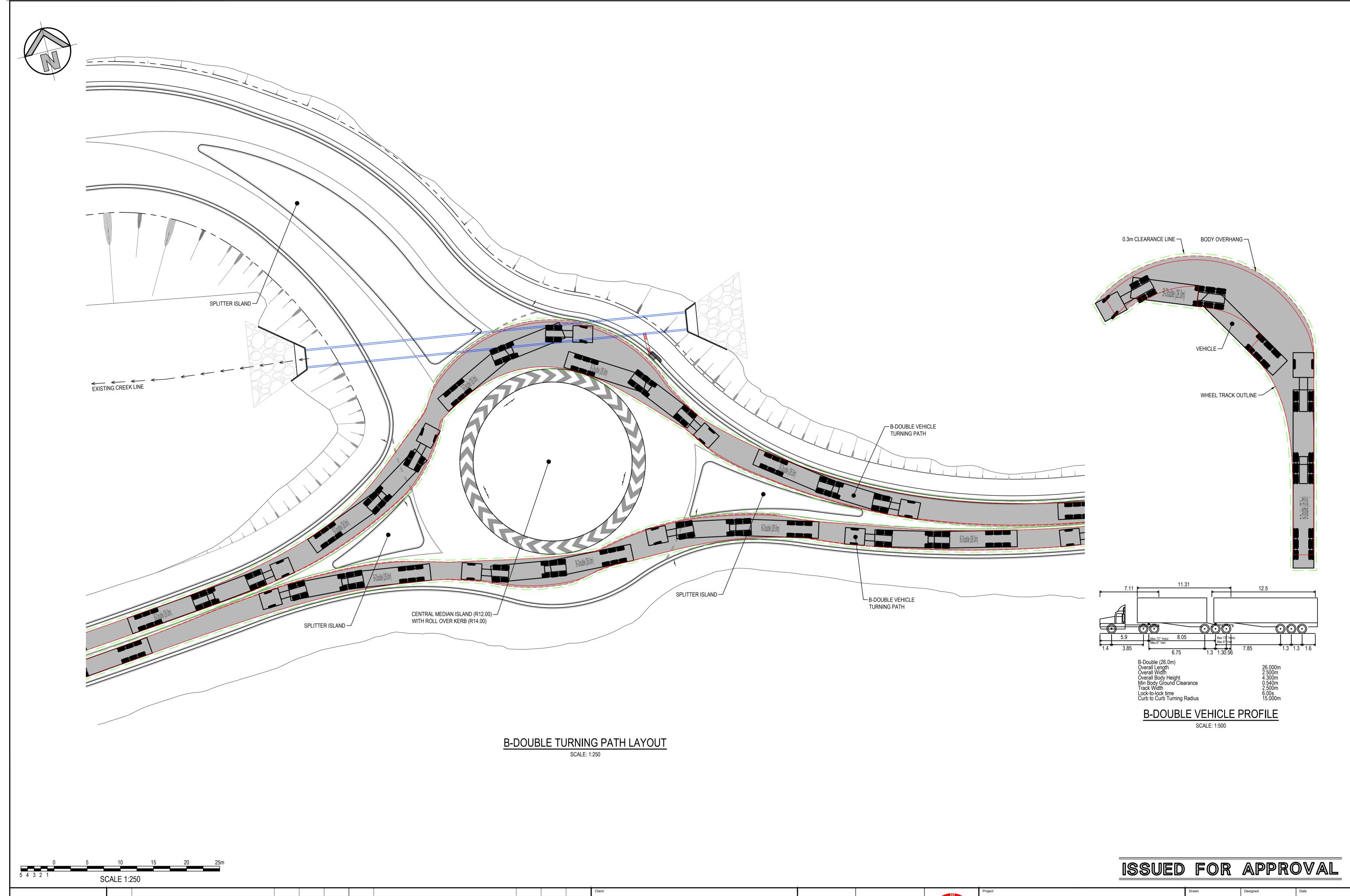
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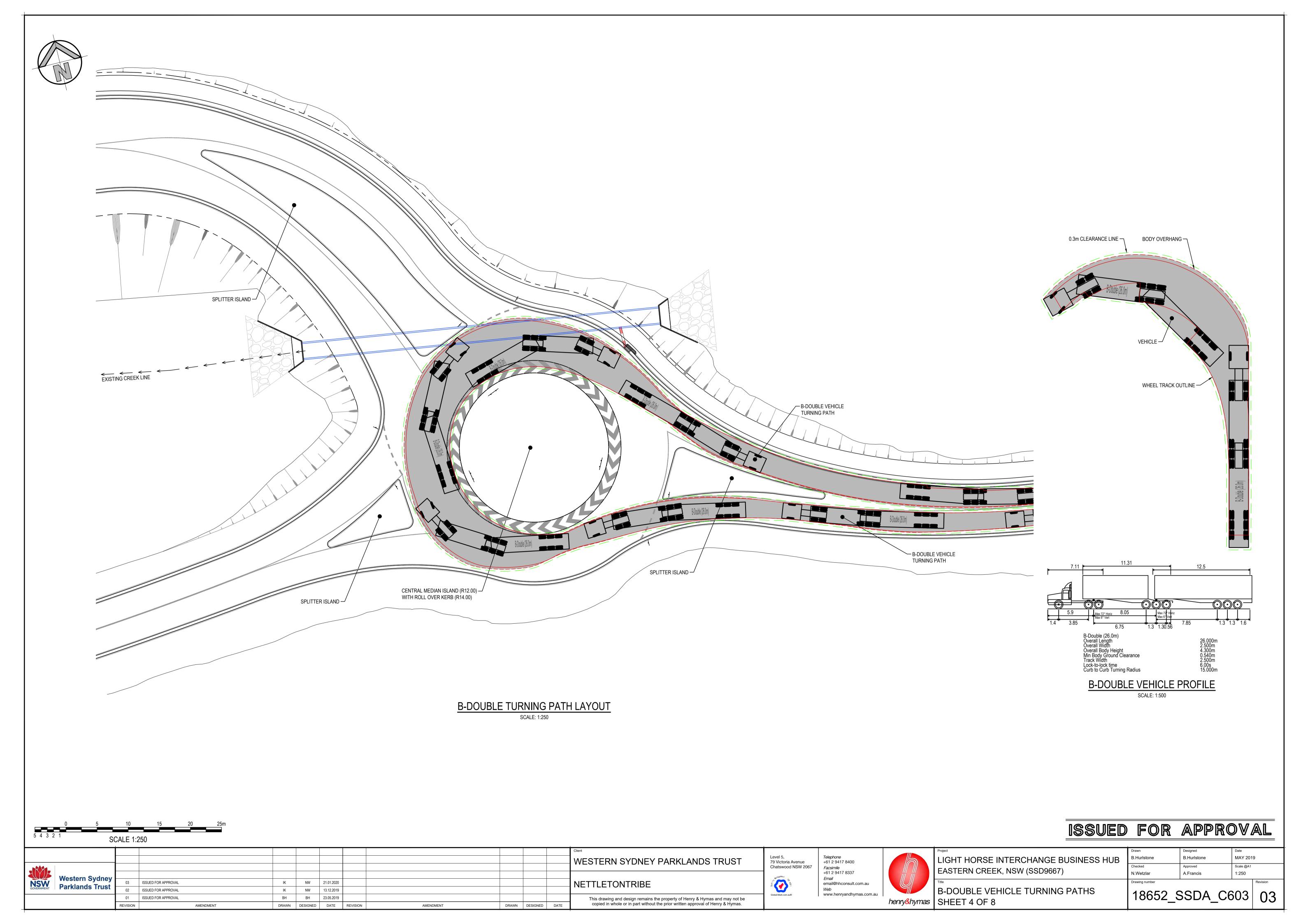
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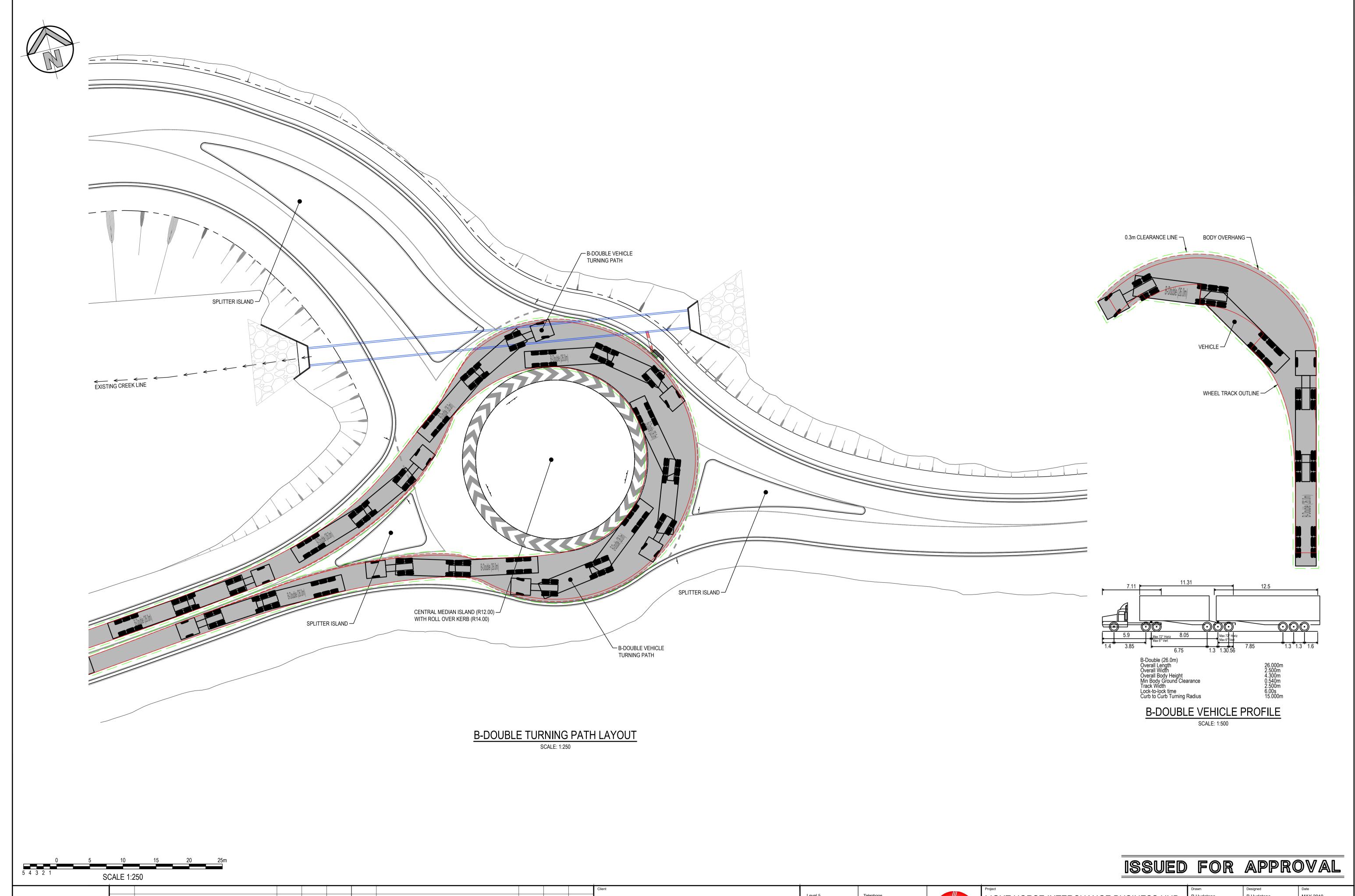
henry&hymas SHEET 1 OF 8



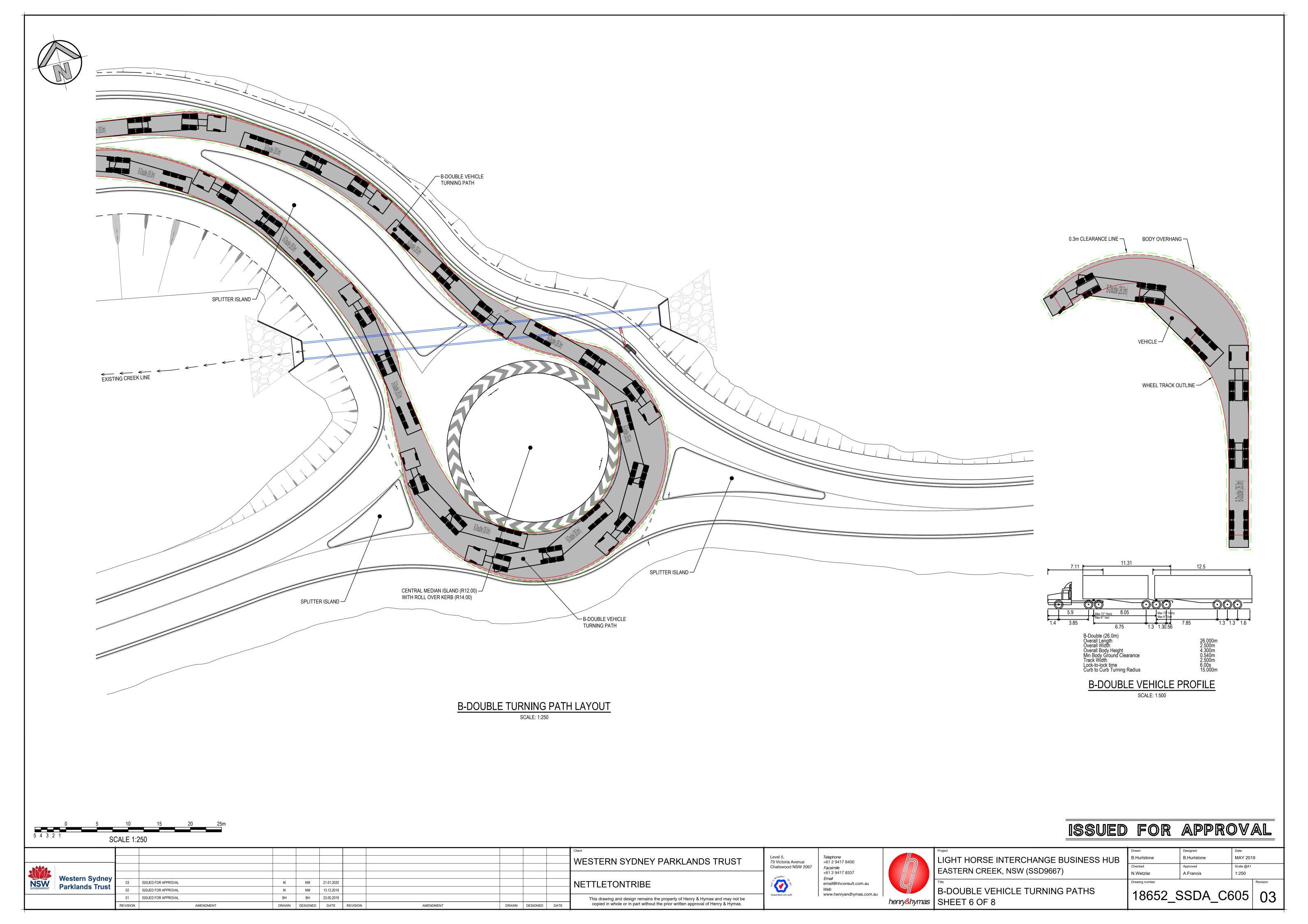


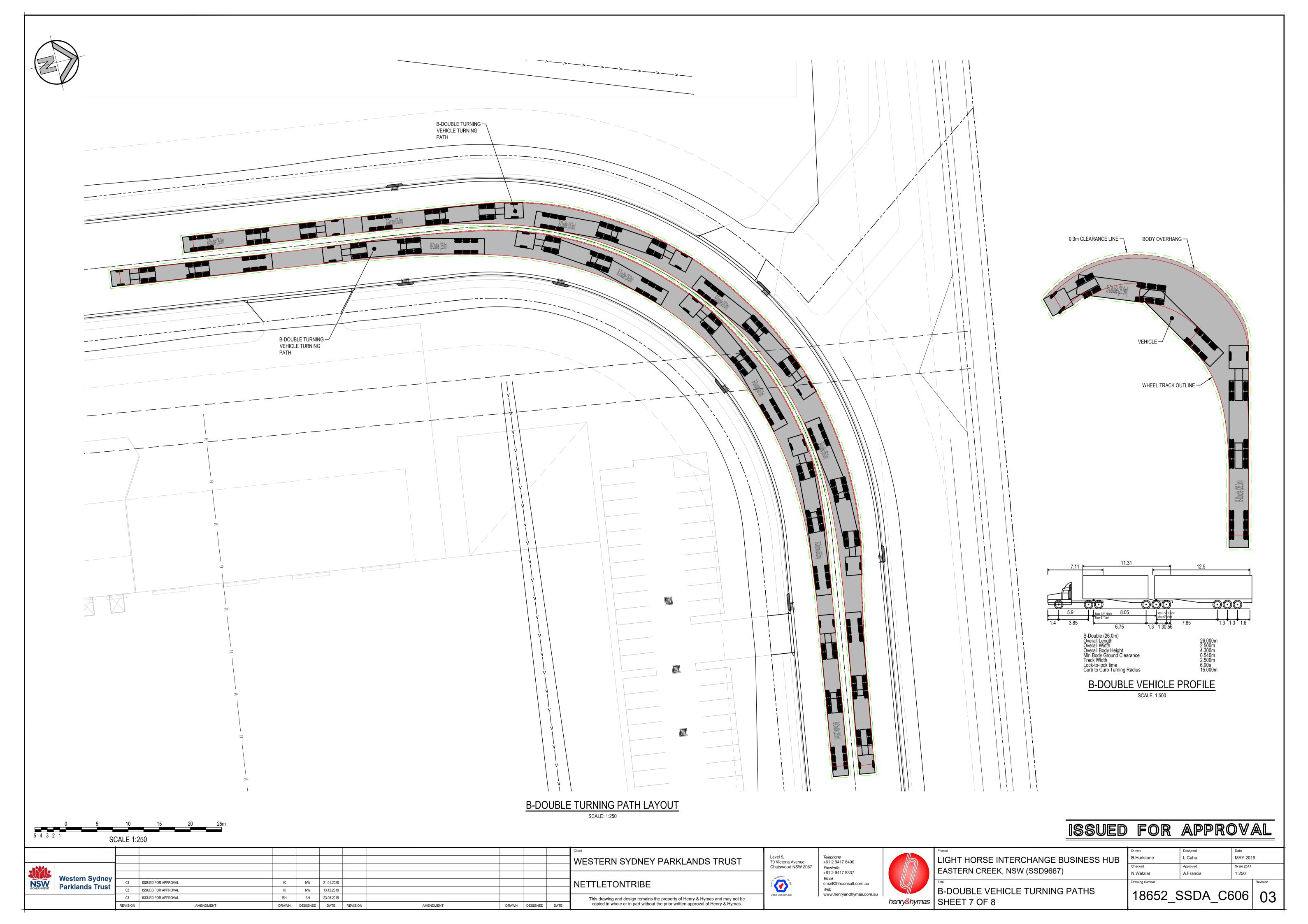
#### Level 5, 79 Victoria Avenue Chatswood NSW 2067 *Telephone* +61 2 9417 8400 LIGHT HORSE INTERCHANGE BUSINESS HUB MAY 2019 B.Hurlstone WESTERN SYDNEY PARKLANDS TRUST B.Hurlstone Scale @A1 Facsimile +61 2 9417 8337 EASTERN CREEK, NSW (SSD9667) N.Wetzlar A.Francis 1:250 Western Sydney Parklands Trust Global-Mark.com.au® NETTLETONTRIBE NW 21.01.2020 email@hhconsult.com.au NW 13.12.2019 Web www.henryandhymas.com.au B-DOUBLE VEHICLE TURNING PATHS ISSUED FOR APPROVAL 18652\_SSDA\_C602 03 BH 23.05.2019 01 ISSUED FOR APPROVAL This drawing and design remains the property of Henry & Hymas and may not be copied in whole or in part without the prior written approval of Henry & Hymas. henry&hymas | SHEET 3 OF 8 AMENDMENT DRAWN DESIGNED DATE REVISION AMENDMENT DRAWN DESIGNED DATE

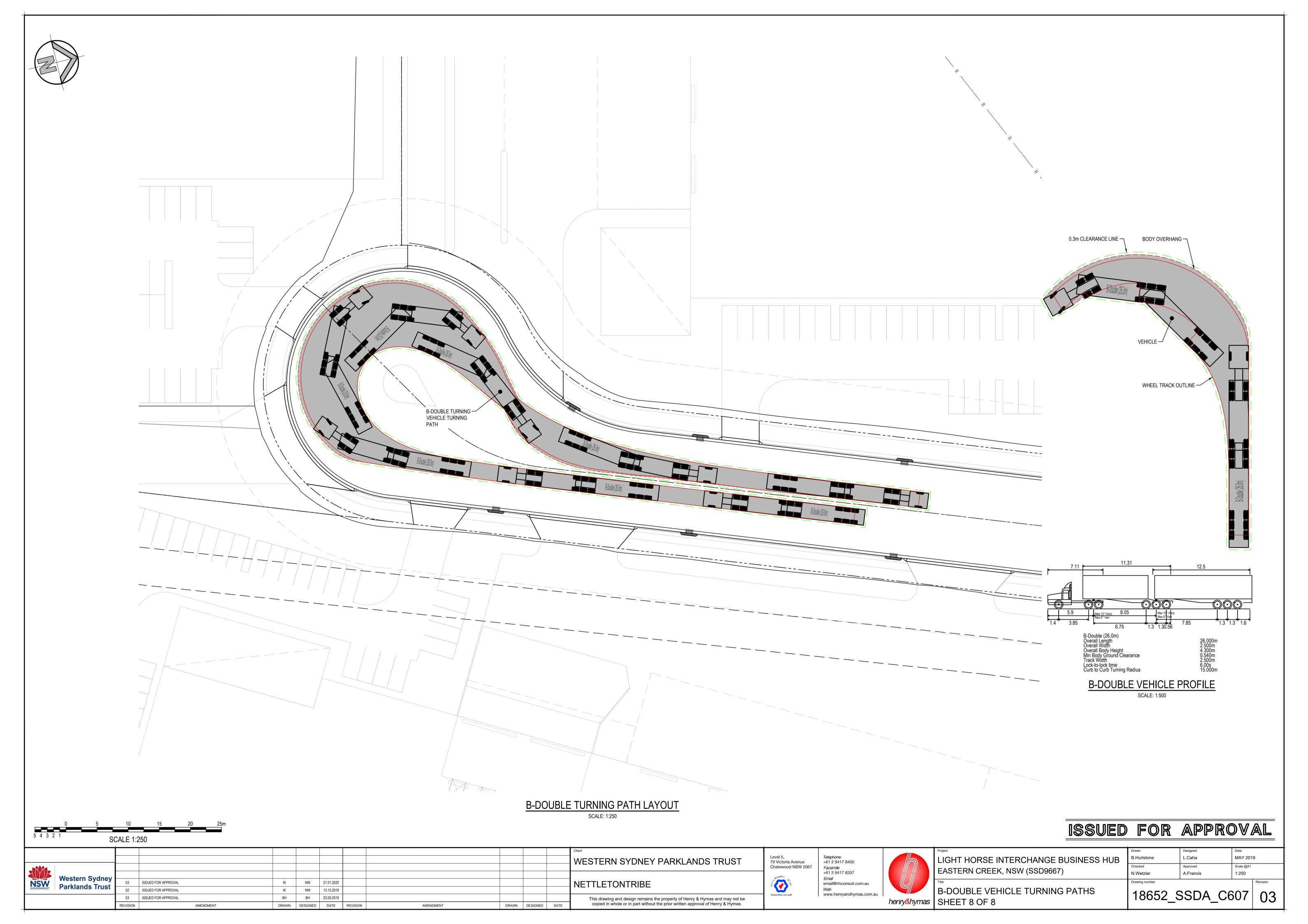


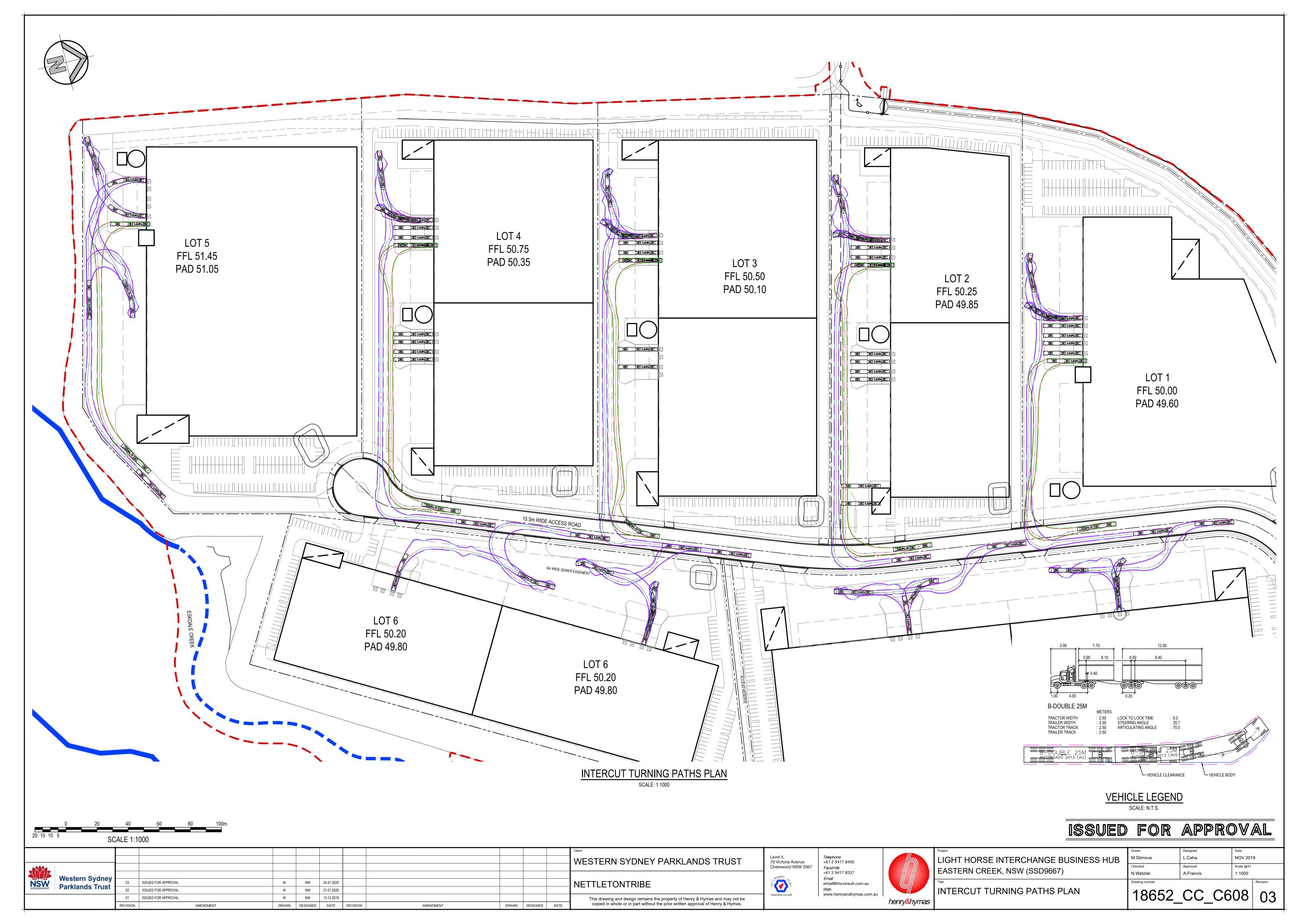


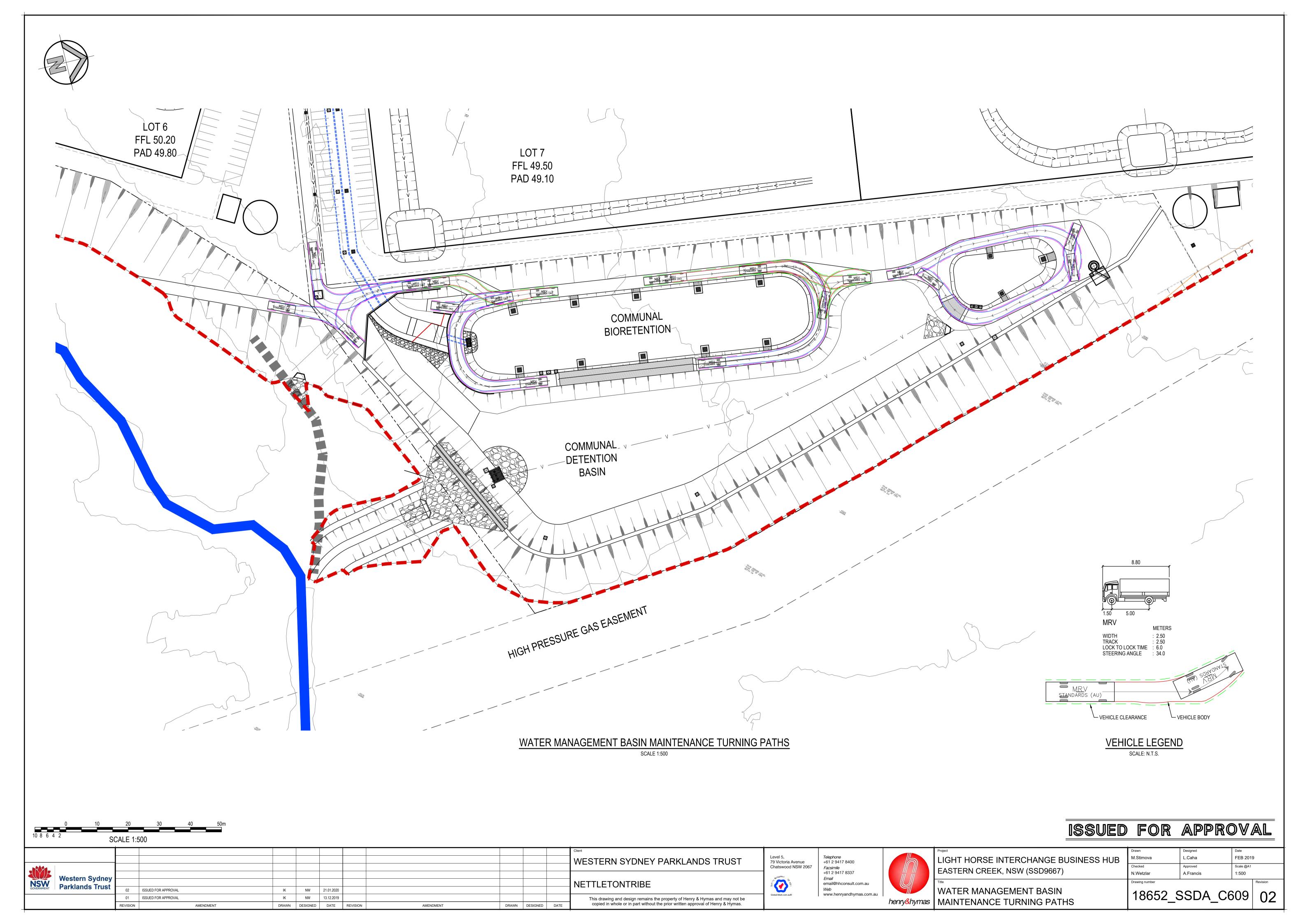
#### Level 5, 79 Victoria Avenue Chatswood NSW 2067 *Telephone* +61 2 9417 8400 LIGHT HORSE INTERCHANGE BUSINESS HUB MAY 2019 B.Hurlstone WESTERN SYDNEY PARKLANDS TRUST B.Hurlstone Scale @A1 Facsimile +61 2 9417 8337 EASTERN CREEK, NSW (SSD9667) N.Wetzlar A.Francis 1:250 Western Sydney Parklands Trust Global-Mark.com.au® NETTLETONTRIBE NW 21.01.2020 email@hhconsult.com.au B-DOUBLE VEHICLE TURNING PATHS NW 13.12.2019 Web www.henryandhymas.com.au ISSUED FOR APPROVAL 18652\_SSDA\_C604 03 BH 23.05.2019 01 ISSUED FOR APPROVAL This drawing and design remains the property of Henry & Hymas and may not be copied in whole or in part without the prior written approval of Henry & Hymas. henry&hymas SHEET 5 OF 8 AMENDMENT DRAWN DESIGNED DATE REVISION AMENDMENT DRAWN DESIGNED DATE

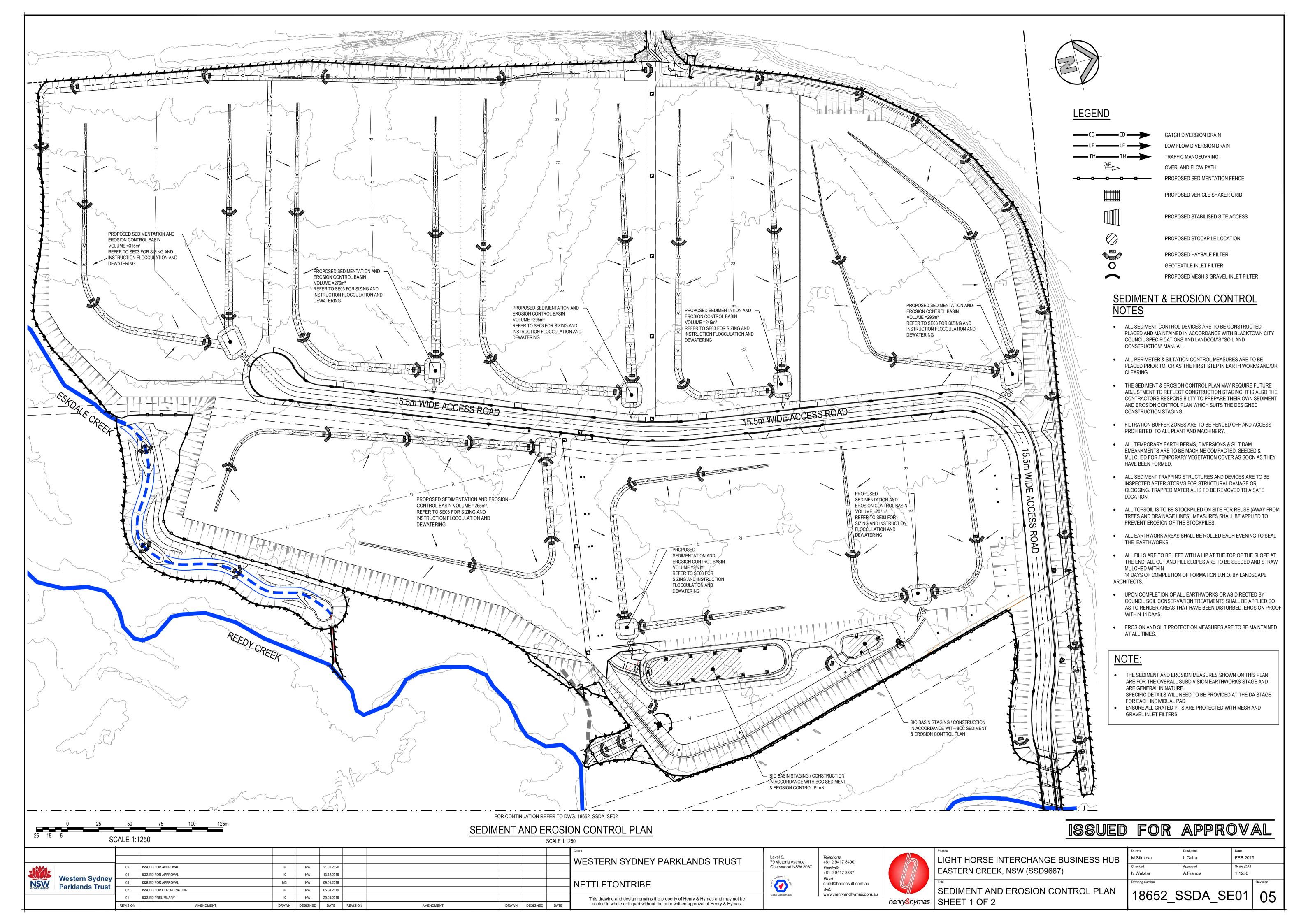


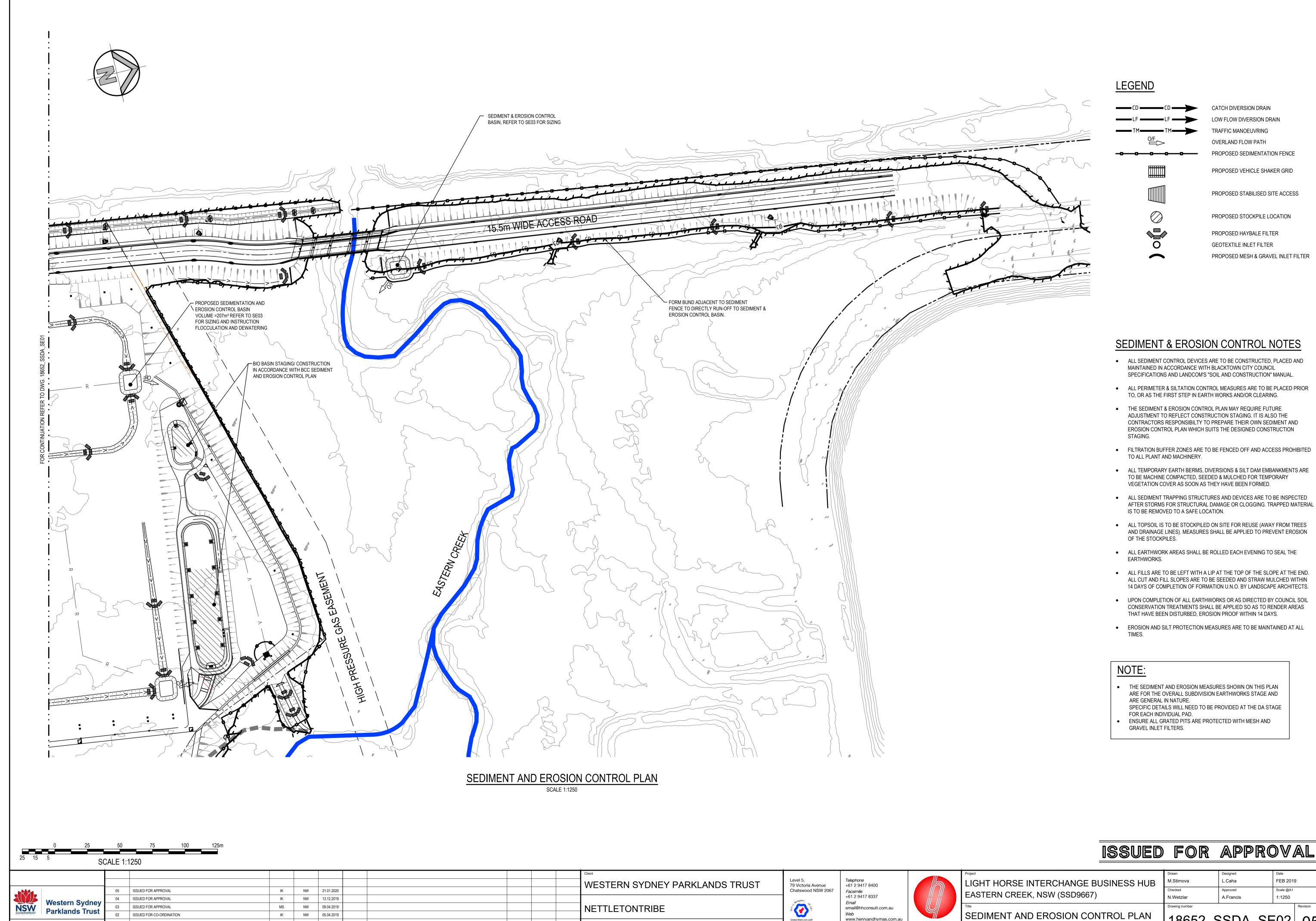












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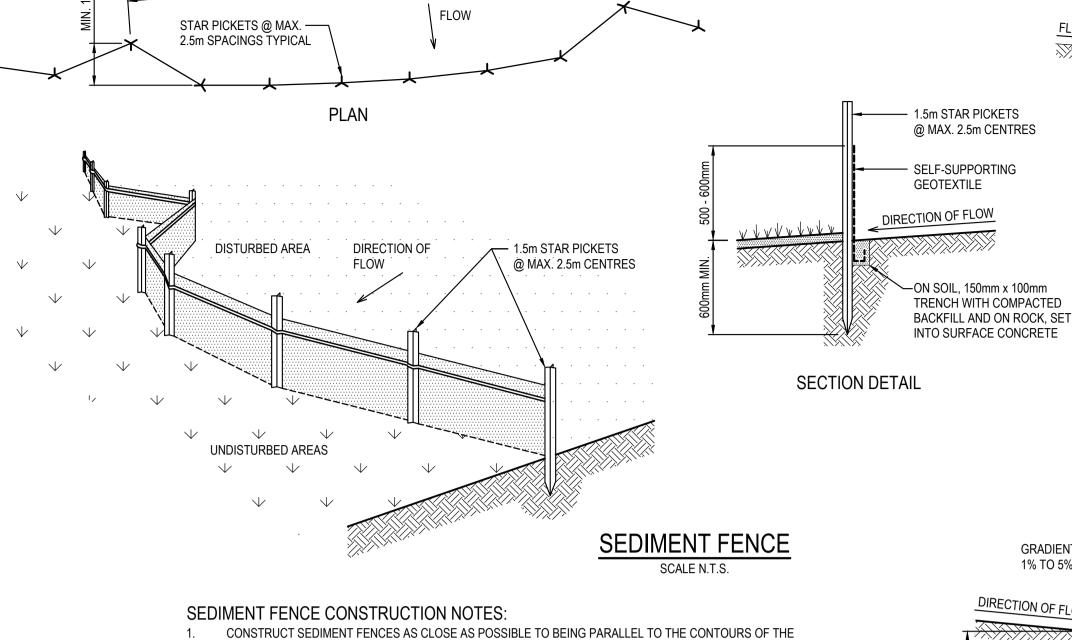
01 ISSUED PRELIMINARY

NW 05.04.2019

NW 29.03.2019

DRAWN DESIGNED DATE REVISION

18652\_SSDA\_SE02 05



20m MAX.

- SITE, BUT WITH SMALL RETURNS AS SHOWN IN THE DRAWING TO LIMIT THE CATCHMENT AREA OF ANY ONE SECTION. THE CATCHMENT AREA SHOULD BE SMALL ENOUGH TO LIMIT WATER FLOW IF CONCENTRATED AT ONE POINT TO 50 LITRES PER SECOND IN THE DESIGN STORM EVENT, USUALLY THE 10-YEAR EVENT.
- 2. CUT A 150mm DEEP TRENCH ALONG THE UPSLOPE LINE OF THE FENCE FOR THE BOTTOM OF THE FABRIC TO BE ENTRENCHED.
- 3. DRIVE 1.5m LONG STAR PICKETS INTO GROUND @ 2.5m INTERVALS (MAX.) AT THE DOWNSLOPE EDGE OF THE TRENCH. ENSURE ANY STAR PICKETS ARE FITTED WITH SAFETY CAPS.
- 4. 4. FIX SELF-SUPPORTING GEOTEXTILE TO THE UPSLOPE SIDE OF THE POSTS ENSURING IT GOES TO THE BASE OF THE TRENCH. FIX THE GEOTEXTILE WITH WIRE TIES OR AS RECOMMENDED BY THE MANUFACTURER. ONLY USE GEOTEXTILE SPECIFICALLY PRODUCED FOR SEDIMENT FENCING. THE USE OF SHADE CLOTH FOR THIS PURPOSE IS NOT SATISFACTORY.
- 5. JOIN SECTIONS OF FABRIC AT A SUPPORT POST WITH A 150mm OVERLAP. 6. BACKFILL THE TRENCH OVER THE BASE OF THE FABRIC AND COMPACT IT THOROUGHLY OVER THE GEOTEXTILE.

—KERB-SIDE INLET

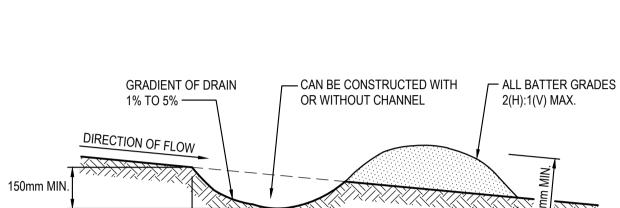
GRAVEL-FILLED WIRE MESH

OR GEOTEXTILE "SAUSAGE"

- TIMBER SPACER

FILTERED WATER

TO SUIT



STOCKPILE CONSTRUCTION NOTES:

SEDIMENT FENCES 1 TO 2 METRES DOWNSLOPE.

CONCENTRATED WATER FLOW, ROADS AND HAZARD AREAS.

2. CONSTRUCT ON THE CONTOUR AS LOW, FLAT, ELONGATED MOUNDS.

E.S.C.P. OR S.W.M.P. TO REDUCE THE C-FACTOR TO LESS THAN 0.10.

NOTE: ONLY TO BE USED AS TEMPORARY BANK WHERE MAXIMUM UPSLOPE LENGTH IS 80 METRES.

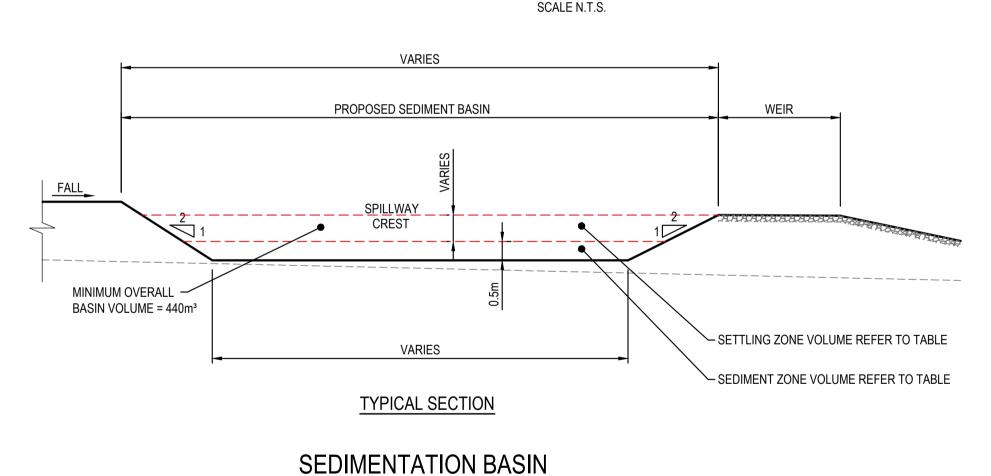
2 METRES MIN.

#### **EARTH BANK CONSTRUCTION NOTES:**

EARTH BANK -

- 1. BUILD WITH GRADIENTS BETWEEN 1% AND 5%. 2. AVOID REMOVING TREES AND SHRUBS IF POSSIBLE - WORK AROUND THEM.
- 3. ENSURE THE STRUCTURES ARE FREE OF PROJECTIONS OR OTHER IRREGULARITIES THAT COULD IMPEDE WATER FLOW.
- 4. BUILD THE DRAINS WITH CIRCULAR, PARABOLIC OR TRAPEZOIDAL CROSS-
- SECTIONS, NOT "V" SHAPED.
- 5. ENSURE BANKS ARE PROPERLY COMPACTED TO PREVENT FAILURE. 6. COMPLETE PERMANENT OR TEMPORARY STABILISATION WITHIN 10 DAYS
- OF CONSTRUCTION.

### EARTH BANK (LOW FLOW)



### MESH & GRAVEL INLET FILTER CONSTRUCTION NOTES:

TIMBER SPACER—

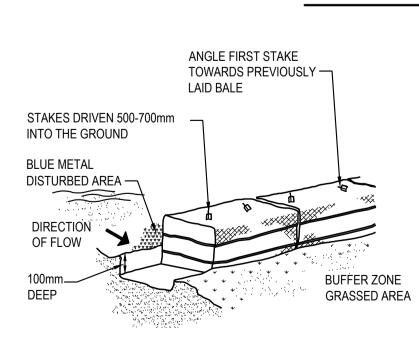
- 1. FABRICATE A SLEEVE MADE FROM GEOTEXTILE OR WIRE MESH LONGER THAN THE LENGTH OF THE INLET
- PIT AND FILL IT WITH 25mm TO 50mm GRAVEL 2. FORM AN ELLIPTICAL CROSS-SECTION ABOUT 150mm HIGH x 400mm WIDE.

GRAVEL-FILLED WIRE MESH-OR GEOTEXTILE "SAUSAGE"

WITH SEDIMENT

- 3. PLACE THE FILTER AT THE OPENING LEAVING AT LEAST A 100mm SPACE BETWEEN IT AND THE KERB INLET. MAINTAIN THE OPENING WITH SPACER BLOCKS.
- 4. FORM A SEAL WITH THE KERB TO PREVENT SEDIMENT BYPASSING THE FILTER.
- 5. SANDBAGS FILLED WITH GRAVEL CAN SUBSTITUTE FOR THE MESH OR GEOTEXTILE PROVIDING THEY ARE PLACED SO THAT THEY CAN FIRMLY ABUT EACH OTHER AND SEDIMENT / LADEN WATERS CANNOT PASS

#### MESH & GRAVEL INLET FILTER SCALE N.T.S.



### HAYBALE BARRIERS

### CONSTRUCTION SEQUENCE

#### WORKS SHALL BE UNDERTAKEN IN THE FOLLOWING SEQUENCE:

- INSTALL SEDIMENT FENCING AND CUT DRAINS TO MEET THE REQUIREMENTS OF THE SEDIMENT AND EROSION CONTROL PLAN. WASTE COLLECTION BINS SHALL BE INSTALLED ADJACENT TO SITE
- CONSTRUCT STABILISED SITE ACCESS IN ACCORDANCE WITH BLACKTOWN CITY COUNCIL'S REQUIREMENTS.
- REDIRECT CLEAN WATER AROUND THE CONSTRUCTION SITE.
- INSTALL SEDIMENT CONTROL PROTECTION MEASURES AT ALL NATURAL AND MAN-MADE DRAINAGE STRUCTURES. MAINTAIN UNTIL ALL THE DISTURBED AREAS ARE STABILISED.
- CLEAR AND STRIP THE WORK AREAS. MINIMISE THE DAMAGE TO THE GRASS AND LOW GROUND COVER OF NON-DISTURBED AREAS.
- ANY DISTURBED AREAS, OTHER THAN BUILDING PAD AREAS, SHALL IMMEDIATELY BE COVERED WITH SITE TOPSOIL WITHIN 7 DAYS OF CLEARING. BUILDING PAD AREAS SHALL BE COVERED WITH BITUMEN EMULSION AS SPECIFIED.
- 7. APPLY PERMANENT STABILISATION TO SITE (LANDSCAPING).



1. THE SEDIMENT BASIN SHALL BE CONSTRUCTED ON A RATE PER HECTARE BASIS AND HAS BEEN IN ACCORDANCE WITH THE REQUIREMENTS OF THE LANDCOM MANUAL "MANAGING URBAN STORMWATER - SOILS AND CONSTRUCTION", FOR SEDIMENTATION TYPE D SOILS. THE DISTURBED AREA WITHIN THIS CATCHMENT AT ANY ONE TIME SHOULD BE LIMITED TO AN AREA FOR WHICH EACH SEDIMENT BASIN CAN HANDLE. EACH BASIN SHALL BE SIZED IN ACCORDANCE WITH THE TABLE BELOW.

SEDIMENT BASIN SIZING TYPE D SOILS					
VOLUMETRIC RUNOFF COEFFICIENT, CV	0.25 (APPENDIX F - TABLE F2)				
85TH PERCENTILE 5 DAY TOTAL RAINFALL DEPTH, R	32.2 mm				
CATCHMENT AREA, A	1 Ha (UNIT AREA)				
SETTLING ZONE VOLUME (PER HECTARE) 10 CV A R	80.5 m³				
DISTURBED CATCHMENT AREA	1 Ha (UNIT AREA)				
RKLSPC	110.87m³				
SEDIMENT ZONE VOLUME (0.17 A (R K LS P C)/1.3	14.5m³ < 50% SETTLING VOL				
TOTAL SEDIMENT BASIN VOLUME REQUIRED :	120.75 m³/Ha				

#### \* (LANDCOM MANAGING URBAN STORMWATER MANUAL REFERENCE)

2. THE FOLLOWING DESIGN PARAMETERS HAVE BEEN ASSESSED FOR THE SITE

CONSTRAINT	VALUE	(SOURCE)*	
RAINFALL EROSIVITY (R-FACTOR)	2350	APPENDIX B	
LENGTH/SLOPE GRADIENT FACTOR, LS	0.955	APPENDIX A - TABLE A1	
SOIL ERODIBILITY (K-FACTOR)	0.038	( TABLE C20 - BLACKTOWN)	
EROSION CONTROL PRACTICE FACTOR (P-FACTOR)	1.3 (COMPACTED)	APPENDIX A - TABLE A2	
COVER FACTOR (C-FACTOR)	1.0 (DURING EARTHWORKS)	APPENDIX A - FIGURE A5	
CALCULATED SOIL LOSS, A (RUSLE EQUATION)	110.87t/Ha/YR	A = R K LS P C	
SOIL HYDROLOGIC GROUP	GROUP C	APPENDIX C TABLE 20	
SEDIMENT TYPE	TYPE D	APPENDIX C TABLE 4	
S5TH PERCENTILE 5-DAY RAINFALL EVENT	32.2mm (BLACKTOWN)	TABLE 6.3A	

\* (LANDCOM MANAGING URBAN STORMWATER MANUAL REFERENCE)

### BASIN MANAGEMENT

**EXISTING ROADWAY** 

GEOTEXTILE MAY BE A WOVEN OR NEEDLE

PUNCHED PRODUCT WITH A MINIMUM CBR

BURST STRENGTH (AS3706.4-90) OF 2500 N

- PERIMETER SECURITY FENCE WITH WIND BARRIER

TIE TO FENCE AT 1m INTERVAL

- 1. THE CAPTURED STORMWATER IN THE SETTLING ZONE SHOULD BE DRAINED TO MEET THE MINIMUM STORAGE CAPACITY REQUIRED WITHIN A FIVE (5) DAY PERIOD FOLLOWING RAINFALL, PROVIDED THE ACCEPTABLE WATER QUALITY (NFR) AND TURBIDITY HAVE BEEN ACHIEVED.
- 2. CHEMICAL FLOCCULENT SUCH AS GYPSUM MAY BE DOSED TO AID SETTLING WITHIN 24 HOURS OF CONCLUSION OF EACH STORM. THE APPLIED DOSING RATES SHOULD ACHIEVE THE TARGET QUALITY WITHIN 36 TO 72 HOURS OF THE STORM EVENT.
- 3. INSPECT THE SEDIMENT BASINS AFTER EACH RAINFALL EVENT AND/OR WEEKLY. ENSURE THAT ALL SEDIMENT IS REMOVED ONCE THE SEDIMENT STORAGE ZONE IS FULL (REFER TO PEGS INSTALLED IN BASINS IN ACCORDANCE WITH THE SWMP). ENSURE THAT OUTLET AND EMERGENCY SPILLWAY WORKS ARE MAINTAINED IN A FULLY OPERATIONAL CONDITION AT ALL TIMES.

SOWING SEASON	SEED MIX
AUTUMN/WINTER	OATS@40KG/Ha + JAPANESE MILLET@10kg/Ha
SPRING/SUMMER	OATS@20kg/Ha + JAPANESE MILLET@20kg/Ha

NOTE: THESE PLANT SPECIES ARE FOR TEMPORARY REVEGETATION ONLY. THEY WILL ONLY PROVIDE PROTECTION FROM EROSION FOR SIX MONTHS. WHERE THE PADS ARE TO BE LEFT UNDEVELOPED FOR A LONGER PERIOD, THE CONTRACTOR SHALL SEEK ADVICE FROM THE SITE SUPERINTENDENT AS TO MORE APPROPRIATE REVEGETATION METHODS.

REVEGETATION IN ACCORDANCE WITH THE ABOVE TABLE WILL BE ENHANCED BY ADDING LIME AT A RATE OF 4kg/TONNE OF TOPSOIL AND 7.5kg/TONNE OF SUBSOIL.

4. THE LONG TERM GROUND COVER FACTORS FOR THE CONSTRUCTION WORKS IS NOT TO EXCEED THE FOLLOWING LIMITS:

LAND	MAXIMUM C-FACTOR	REMARKS		
WATERWAYS AND OTHER AREAS OF CONCENTRATED FLOWS, POST CONSTRUCTION	0.05	APPLIES AFTER TEN WORKING DAYS OF COMPLETION OF FORMATION AND BEFORE CONCENTRATED FLOWS ARE APPLIED. FOOT AND VEHICULAR TRAFFIC IS PROHIBITED IN THIS AREA AND 70% GROUND COVER IS REQUIRED.		
STOCKPILES, POST CONSTRUCTION	0.10	APPLIES AFTER TEN WORKING DAYS FROM COMPLETION OF FORMATION. 60% GROUND COVER IS REQUIRED.		
ALL LANDS, INCLUDING WATERWAYS AND STOCKPILES, DURING CONSTRUCTION.	0.15	APPLIES AFTER 20 DAYS OF INACTIVITY, EVEN THOUGH WORKS MAY BE INCOMPLETE. 50% GROUND COVER IS REQUIRED.		

### ISSUED FOR APPROVAL

WESTERN SYDNEY PARKLANDS TRUST ISSUED FOR APPROVAL NW 13.12.2019 ISSUED FOR APPROVAL **Western Sydney** ISSUED FOR APPROVAL NW 09.04.2019 **NETTLETONTRIBE Parklands Trust** ISSUED FOR CO-ORDINATION NW 05.04.2019 NW 29.03.2019 PRELIMINAR This drawing and design remains the property of Henry & Hymas and may not be copied in whole or in part without the prior written approval of Henry & Hymas. AMENDMENT DRAWN DESIGNED DATE REVISION DRAWN DESIGNED DATE AMENDMENT

79 Victoria Avenue Chatswood NSW 2067

PERIMETER SECURITY FENCE WITH

WIND BARRIER & SILT FENCE

SHAKER RAMP

OF TIMBER OR

STEEL SLATS

CONSTRUCTION SITE

DGB 20 ROAD BASE OR

30mm AGGREGATE, 150mm

THICK MIN TO BE PLACED OVER GEOTEXTILE FABRIC

150mm THICK 40-70mm \_\_

RUNOFF DIRECTED TO

SEDIMENT TRAP/ FENCE

INTERMIXING OF SUB GRADE AND BASE

PROPERTIES OF THE SUB-BASE LAYERS.

APPLY.

MATERIALS AND TO MAINTAIN GOOD

NOTES:

GEOTEXTILE FABRIC DESIGNED TO PREVENT

AGGREGATE

STABILISED SITE ACCESS WITH SHAKER RAMP

STABILISED SITE ACCESS WITH SHAKER RAMP

THIS DEVICE IS TO BE REGULARLY CLEANED OF DEPOSITED MATERIAL SO AS

ANY UNSEALED ROAD BETWEEN THIS DEVICE AND NEAREST ROADWAY IS TO BE

MANUFACTURED BY "HUMES CONCRETE MAY BE USED. 1, 2 & 3 ABOVE ALSO

1. THIS DEVICE IS TO BE LOCATED AT ALL EXITS FROM CONSTRUCTION SITE.

ALTERNATIVELY, THREE(3) PRECAST CONCRETE CATTLE GRIDS (AS

TO MAINTAIN A 50mm DEEP SPACE BETWEEN PLANKS.

TOPPED WITH 100mm THICK 40-70mm SIZE AGGREGATE.

N.T.S.

STABILISE STOCKPILE SURFACE

SEDIMENT FENCE -

1. PLACE STOCKPILES MORE THAN 2 (PREFERABLY 5) METRES FROM EXISTING VEGETATION,

3. WHERE THERE IS SUFFICIENT AREA, TOPSOIL STOCKPILES SHALL BE LESS THAN 2 METRES IN HEIGHT.

4. WHERE THEY ARE TO BE PLACED FOR MORE THAN 10 DAYS, STABILISE FOLLOWING THE APPROVED

5. CONSTRUCT EARTH BANKS ON THE UPSLOPE SIDE TO DIVERT WATER AROUND STOCKPILES AND

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LIGHT HORSE INTERCHANGE BUSINESS HUB M.Stimova EASTERN CREEK, NSW (SSD9667) N.Wetzlar

SEDIMENT AND EROSION CONTROL TYPICAL SECTIONS AND DETAILS

18652\_SSDA\_SE03 | 05

L.Caha

A.Francis

FEB 2019

Scale @A1

N.T.S.

