GENERAL NOTES

CONSTRUCTION NOTES:

- G1. THESE NOTES SHALL BE READ IN CONJUCTION WITH ALL ARCHITECTURAL AND OTHER CONSULTANTS DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTION AS ISSUED DURING THE COURSE OF THE CONTRACT. ALL DISCREPANCIES SHALL BE REFERED TO THE ARCHITECT OR ENGINEER BEFORE PROCEEDING WITH THEWORK
- G2. DIMENSIONS SHALL NOT BE OBTAINED BY SCALLING THE STRUCTURAL DRAWINGS
- G3. SETTING OUT DIMENSIONS SHOWN ON THE DRAWINGS SHALL BE VERIFIED BY ON-SITE MEASUREMENT
- DURING CONSTRUCTION THE STRUCTURE SHALL BE MAINTAINED IN A STABLE CONDITION AND NO PART SHALL BE OVERSTRESSED
- G5. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT CONDITIONS OF THE SAA CODE AND THE BY-LAWS AND ORFINANCES OF THE RELATIVE BUILDING AUTHORITY
- EXCAVATIONS SHALL NOT BE PERMITTED WITHIN 2 METRES OF AN EXISTING STRUCTURE WITHOUT PRIOR APPROVAL OR RECOMMENDATIONS FOR SHORING OR UNDERPINNING PROVIDED BY ENGINEER

<u>FOUNDATIONS</u>

- F1. FOOTINGS HAVE BEEN DESIGNED FOR AN ALLOWABLE INTENSITY BEARING PRESSURE OF 150 kPa WITH PIERS TO 500kPA SHALE/ROCK @ 1500C/S -REFER - GEOTECHNICAL REPORT FROM GEOTECHNICAL CONSULTANTS AUSTRALIA - G20267 REV D
- F2. THE BUILDER SHALL OBTAIN APPROVAL FROM THE SUPERVISING GEOTECHNICAL ENGINEER/BUILDING INSPECTOR AS TO THE SUITABILITY OF THE FOUNDATION MATERIAL PRIOR TO PLACING CONCRETE
- F3. FOOTINGS SHALL BE PLACED UNDER WALLS AND COLUMNS UNLESS OTHERWISE NOTED

SUBGRADE

SG1. UNDER ALL SLABS ON GRADE, WHETHER ON CUT OR FILL, REMOVE SOFT SPOTS AND REFILL BY COMPACTING CUT SURFACES OR FILL SURFACES IN LAYERS NOT EXCEEDING 150mm TO 98% DRY DENSITY, ENSURING MINIMUM SETTLEMENT TO SLABS

CONCRETE NOTES

- C1. ALL CONCRETE WORKS & MATERIALS ARE TO BE IN ACCORDANCE WITH AS3600 - CONCRETE STRUCTURES (CURRENT EDITION)
- C2. CONCRETE COMPRESSIVE STRENGTH SHALL BE AS FOLLOWS:

ELEMENT	f'c	SLUMP	MAX. AGG.
PIERS & FOOTINGS	25 MPa	80	20
SLABS ON GROUND	25 MPa	80	20
SUSPENDED SLABS	32 MPa	80	20
ADDITION OF MATER ON CITE TO CONCRETE CHAIL NOT BE DEDMITTED			

ADDITION OF WATER ON SITE TO CONCRETE SHALL NOT BE PERMITTED

C3. REINFORCEMENT IS TO BE FIXED SO AS TO ACHIEVE THE FOLLOWING CLEAR

COVERS					
ELEMENT	FORMED FINISH	SURFACES CAST AGAINST GROUND			
PIERS	50	50			
FOOTINGS	50	50			
INTERNAL SLABS & BAND BEAMS	20	30			
EXTERNAL SLABS & BAND BEAMS	40	65			
SLABS ON GROUND W/ MEMBRANE		30			
SLABS ON GROUND W/O MEMBRANE		50			
R.C. BLOCK WALLS	50	65			

1. SLABS POURED OVER A MEMBRANE ON THE GROUND ARE INCLUDED AS

- 2. SLABS EXPOSED TO CORROSIVE VAPOURS, CORROSIVE GROUND WATER, SEA WATER OR SPRAY ARE TO HAVE REINFORCEMENT COVER AS NOTED OR NOT LESS THAN REQUIRED FOR CONDITION 3
- C4. SIZES OF ELEMENTS DO NOT INCLUDE THICKNESS OF APPLIED FINISHES
- C5. CONSTRUCTION JOINTS WHERE NOT SHOWN SHALL BE TO BE APPROVAL OF
- C7. NO HOLES OR CHASES OTHER THAN THOSE SHOWN ON THE STRUCTURAL

DRAWINGS SHALL BE MADE IN CONCRETE ELEMENTS WITHOUT PRIOR

C6. BEAM DEPTHS ARE WRITTEN FIRST AND INCLUDE SLAB THICKNESS, IF ANY,

C8. REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY. IT IS NOT NECESSARILY SHOWN IN TRUE PROJECTION

APPROVAL OF THE ENGINEER

- C9. SPLICES IN REINFORCEMENT MADE IN POSITIONS OTHER THAN SHOWN SHALL BE TO THE APPROVAL OF THE ENGINEER. WHERE THE LAP LENGTH IS NOT SHOWN IT SHALL BE SUFFICIENT TO DEVELOP THE FULL STRENGTH OF THE REINFORCEMENT
- C10. WELDING OF REINFORCEMENT SHALL NOT BE PERMITTED UNLESS SHOWN ON THE STRUCTURAL DRAWINGS
- C11. PIPES OR CONDUITS SHALL NOT BE PLACED WITHIN THE CONCRETE COVER TO REINFORCEMENT WITHOUT THE APPROVAL OF THE ENGINEER
- C12. ALL REINFORCING BARS SHALL COMPLY WITH AS 1302. ALL FABRIC SHALL COMPLY WITH AS1303 AND AS 1304 AND SHALL BE SUPPLIED IN FLAT

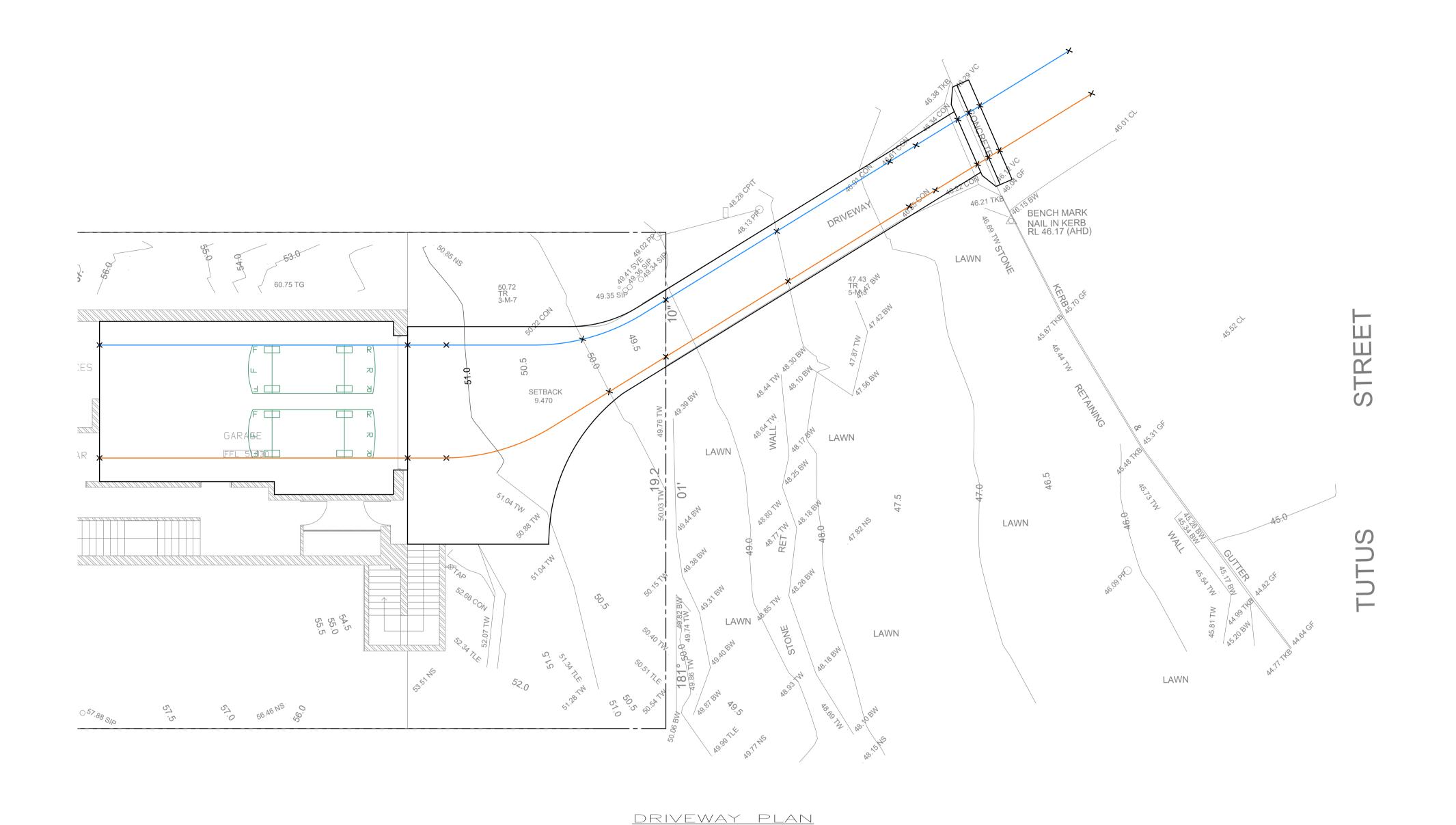
C13. REINFORCING SYMBOLS

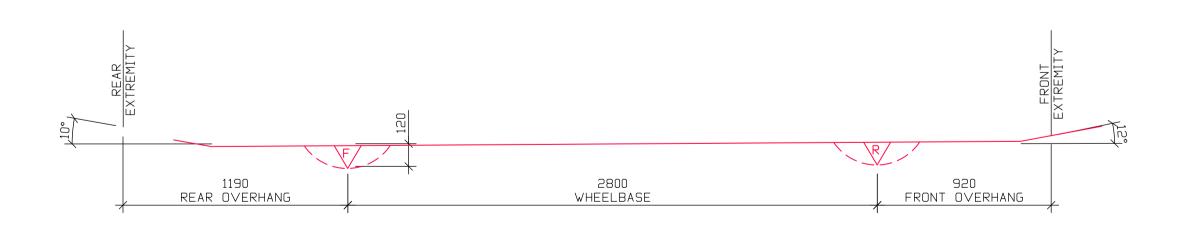
DIAMETER IN MILLIMETRES

S - GRADE 230S	DEFORMED BAR
C - GRADE 410C	COLD WORKED DEFORMED BA
Y - GRADE 410R	DEFORMED BAR
R - GRADE 230R	PLAIN BAR
F - GRADE 450	WELDED WIRE FABRIC
N - GRADE 500	DEFORMED BAR

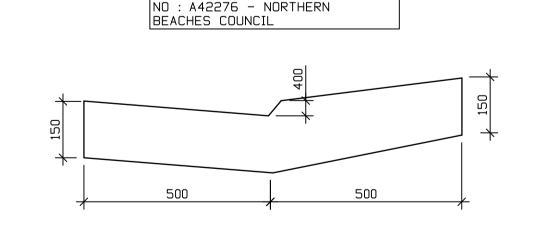
THE NUMBER IMMEDIATELY FOLLOWING THESE SYMBOLS IS THE BAR

- C14. FABRIC REINFORCEMENT TO BE LAPPED 300 MINUMUM AT ENDS AND SIDES UNO. LAPS IN POSITION OF MAXIMUM MOMENT ARE NOT PERMITTED
- C15. ALL REINFORCEMENT SHALL BE FULLY SUPPORTED ON INSULATED STEEL, PLASTIC OR CONCRETE CHAIRS SPACED AT 900 AND 750 CENTRES BOTH WAYS UNDER ROD AND FABRIC REINFORCEMENT RESPECTIVELY. RODS SHALL BE TIED AT ALTERNATE INTERSECTIONS
- C16. MINIMUM STRIPPING TIMES FOR FORMWORK SHALL BE AS RECOMMENDED IN AS 1509 OR AS DIRECTED BY ENGINEER



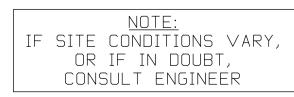






LAYBACK AS PER COUNCIL PLAN

COUNCIL LAYBACK 1:10





Α	DA CONCEPT	2021.07.08
ISSUE	REVISION DESCRIPTION	DATE

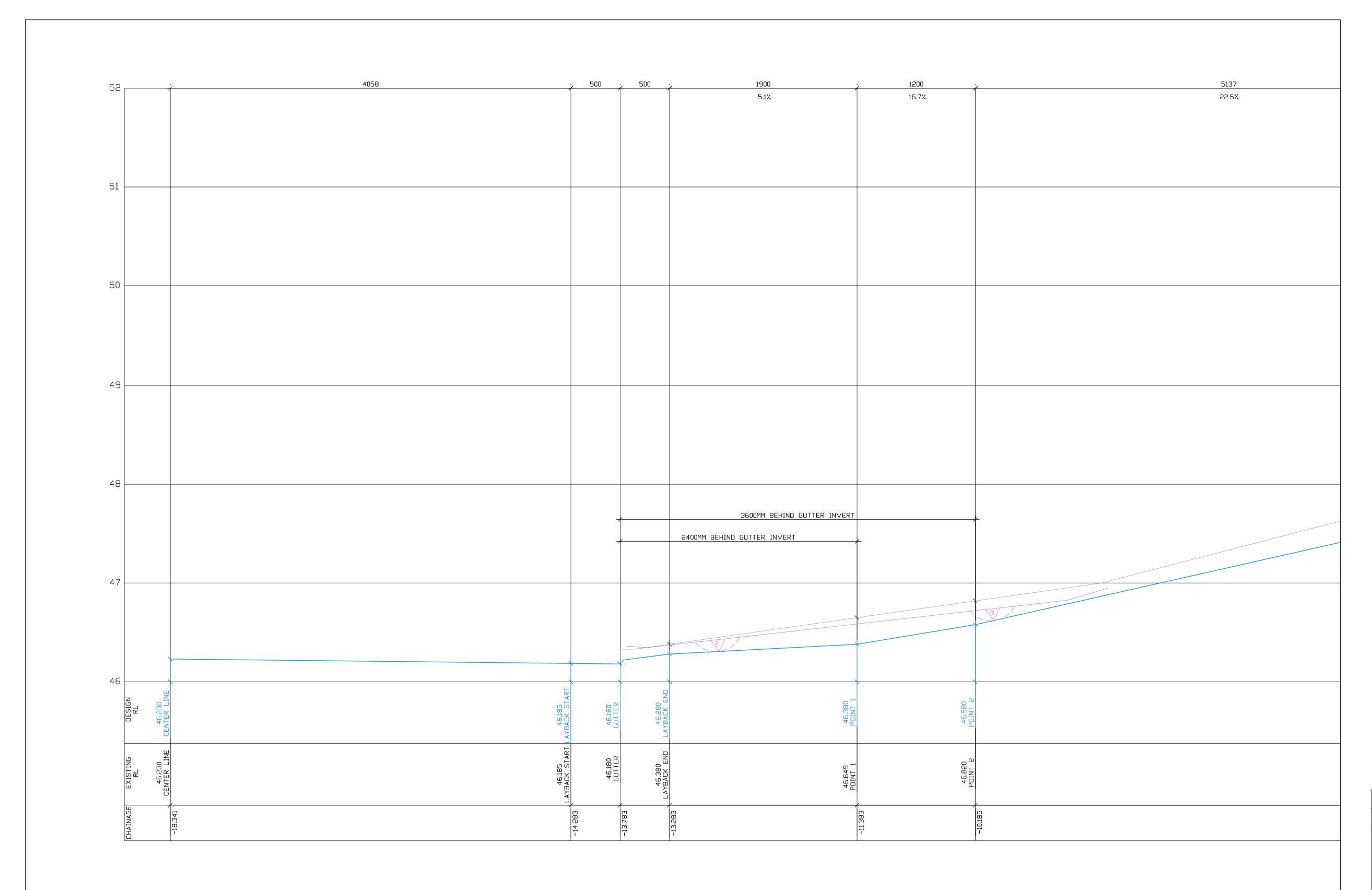


CLIENT: WINTER, ANGELA

PROJECT: DRIVEWAY DESIGN 1 TUTUS STREET, BALGOWLAH HEIGHTS MANLY, NSW 2095

PROPOSED DRIVEWAY DESIGN

Sheet No.	Drawn:	Designed:	Approved:
1 OF 9	JV	JK	JK
Drawing No:		Size:	Scale:
21-9092-DR		A1	_



RHS — 1 TUTUS STREET, BALGOWLAH HEIGHTS <u>CH — 18.341 TO — 10.185</u> 1:20

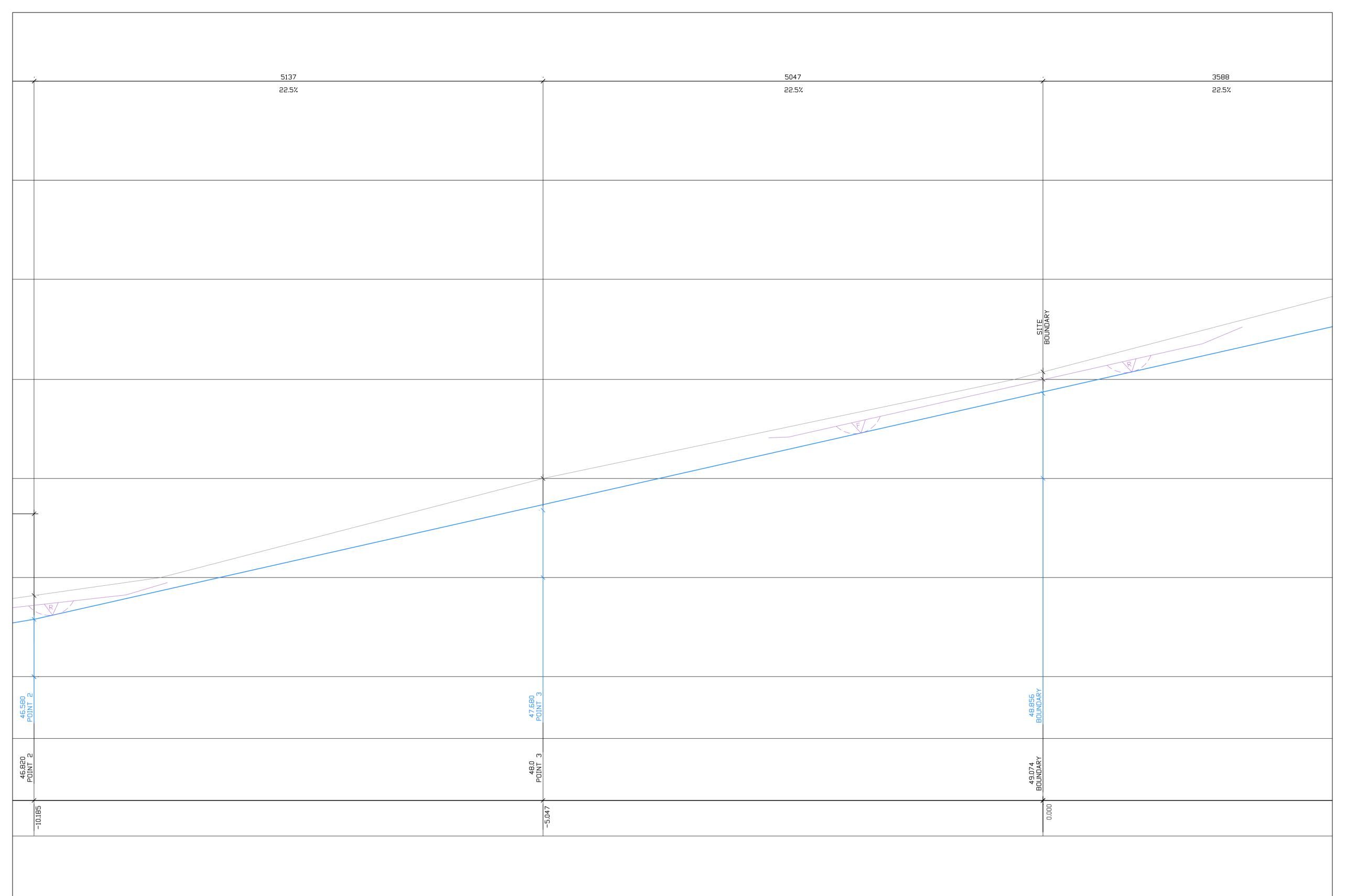




CLIENT: WINTER, ANGELA

PROJECT: DRIVEWAY DESIGN 1 TUTUS STREET,BALGOWLAH HEIGHTS MANLY, NSW 2095

Sheet No.	Drawn:	Designed:	Approved:
2 OF 9	JV	JK	JK
Drawing No:		Size:	Scale:
21-9092-DR		A1	_



RHS - 1 TUTUS STREET, BALGOWLAH HEIGHTS <u>CH -10.185 TO 0.00</u> 1:20

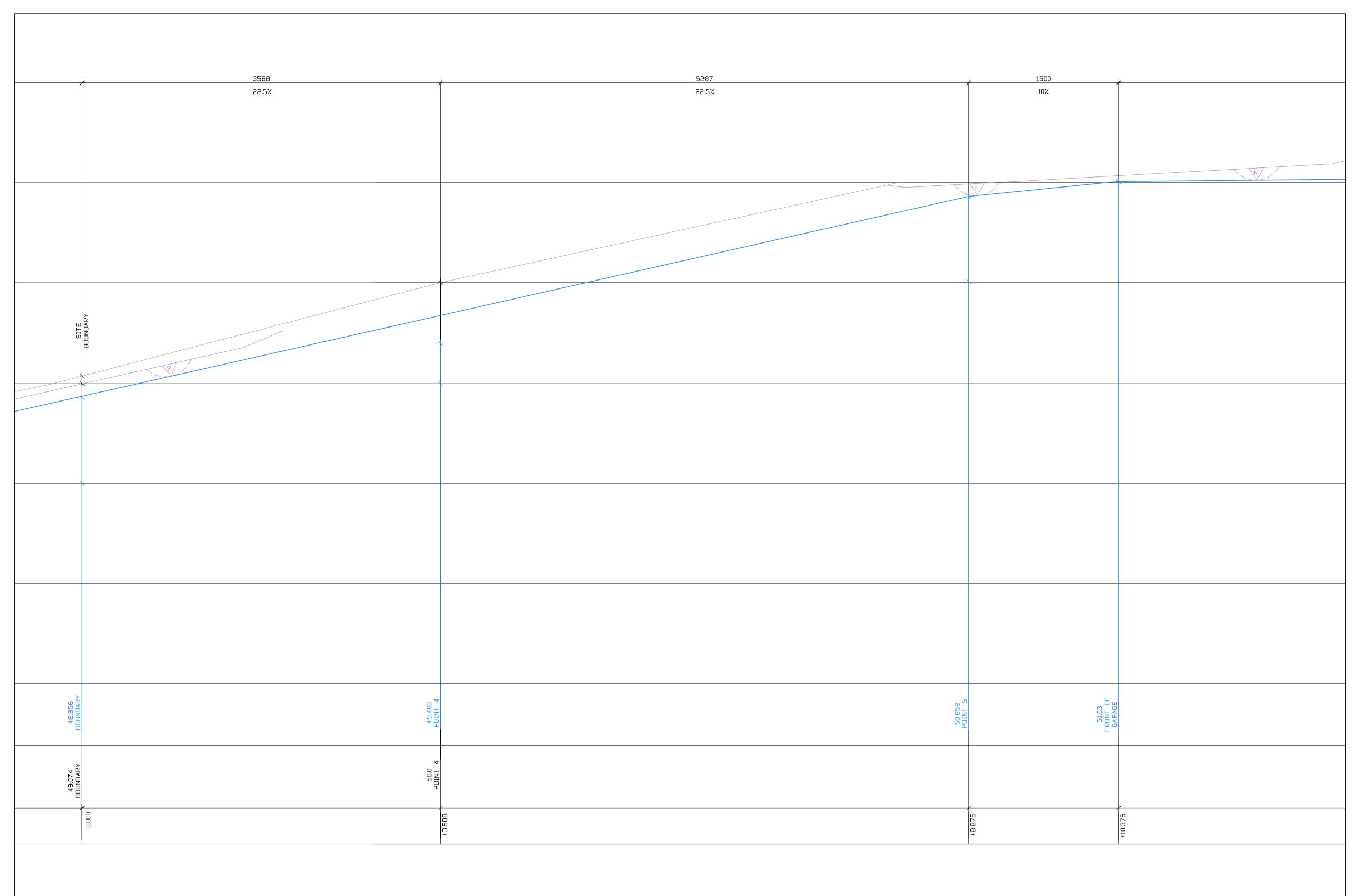




CLIENT: WINTER, ANGELA

PROJECT:
DRIVEWAY DESIGN
1 TUTUS STREET,BALGOWLAH HEIGHTS
MANLY, NSW 2095

	Sheet No.	Drawn:	Designed:	Approved:	
	3 OF 9	JV	JK	JK	
	Drawing No: 21-9092-DR		Size:	Scale:	
			A1	-	



RHS — 1 TUTUS STREET, BALGOWLAH HEIGHTS <u>CH 0.00 TO 10.375</u> 1:20

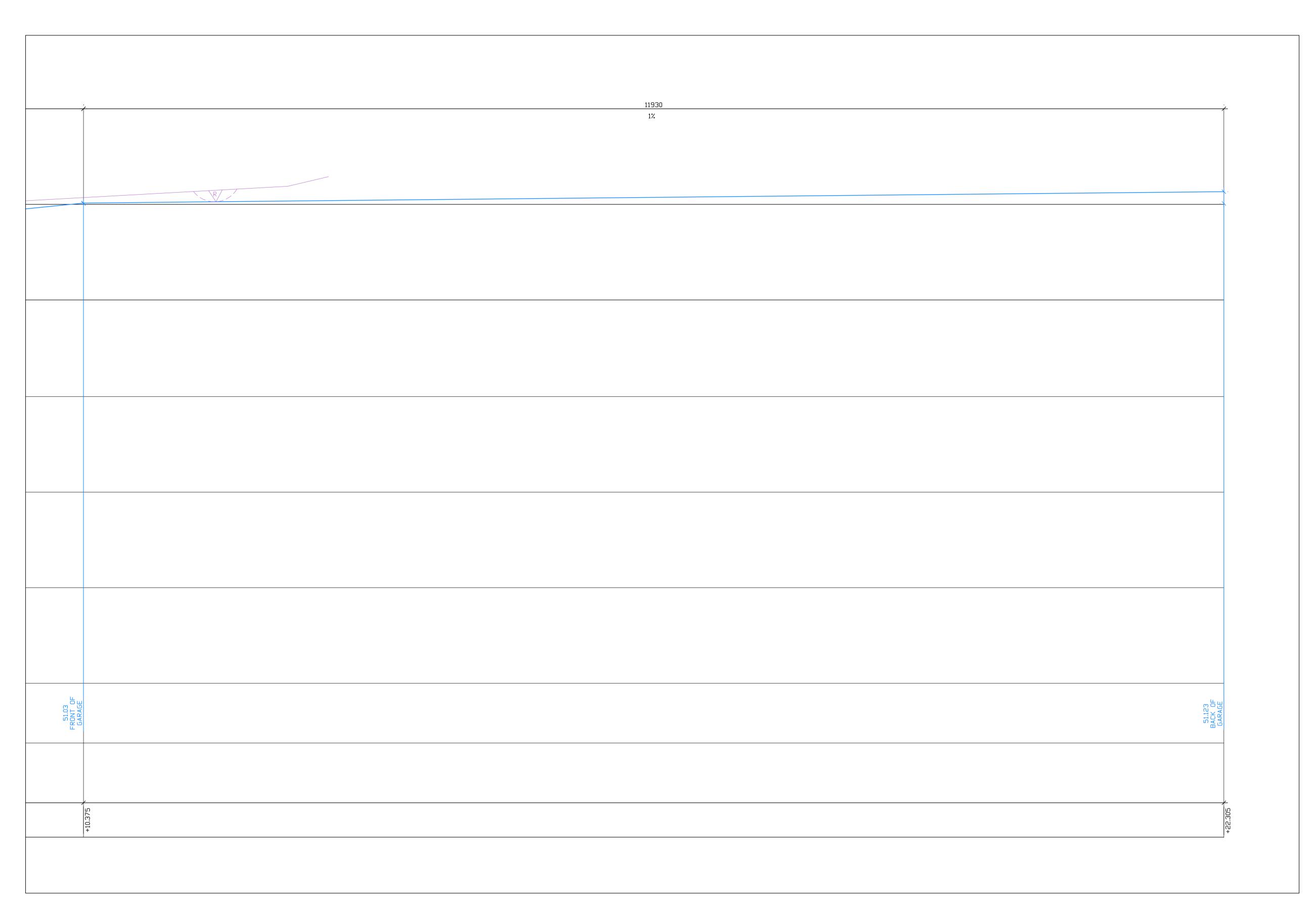
Α	DA CONCEPT	2021.07.08
ISSUE	REVISION DESCRIPTION	DATE



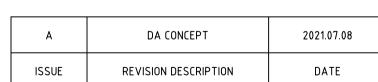
CLIENT: WINTER, ANGELA

PROJECT:
DRIVEWAY DESIGN
1 TUTUS STREET,BALGOWLAH HEIGHTS
MANLY, NSW 2095

	Sheet No.	Drawn:	Designed:	Approved:
	4 OF 9	JV	JK	JK
Drawing No:		Size:	Scale:	
	21-9092-DR		A1	-



RHS — 1 TUTUS STREET, BALGOWLAH HEIGHTS <u>10.375 TO 22.305</u> 1:20

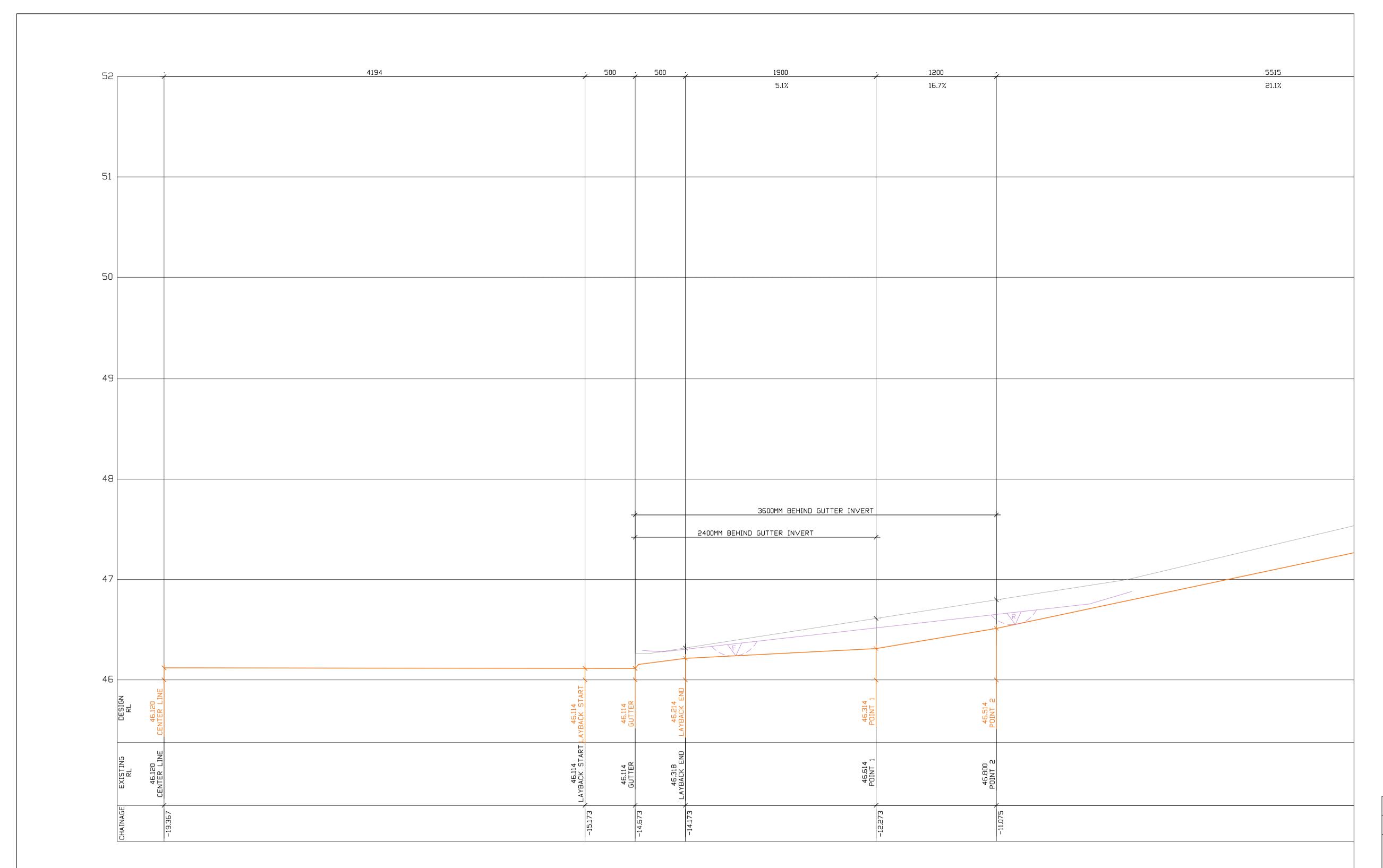




CLIENT: WINTER, ANGELA

PROJECT:
DRIVEWAY DESIGN
1 TUTUS STREET,BALGOWLAH HEIGHTS
MANLY, NSW 2095

	Sheet No.	Drawn:	Designed:	Approved:
	5 OF 9	JV	JK	JK
Drawing No:		Size:	Scale:	
21-9092-DR		A1	-	



LHS - 1 TUTUS STREET, BALGOWLAH HEIGHTS - 19.367 TO - 11.075

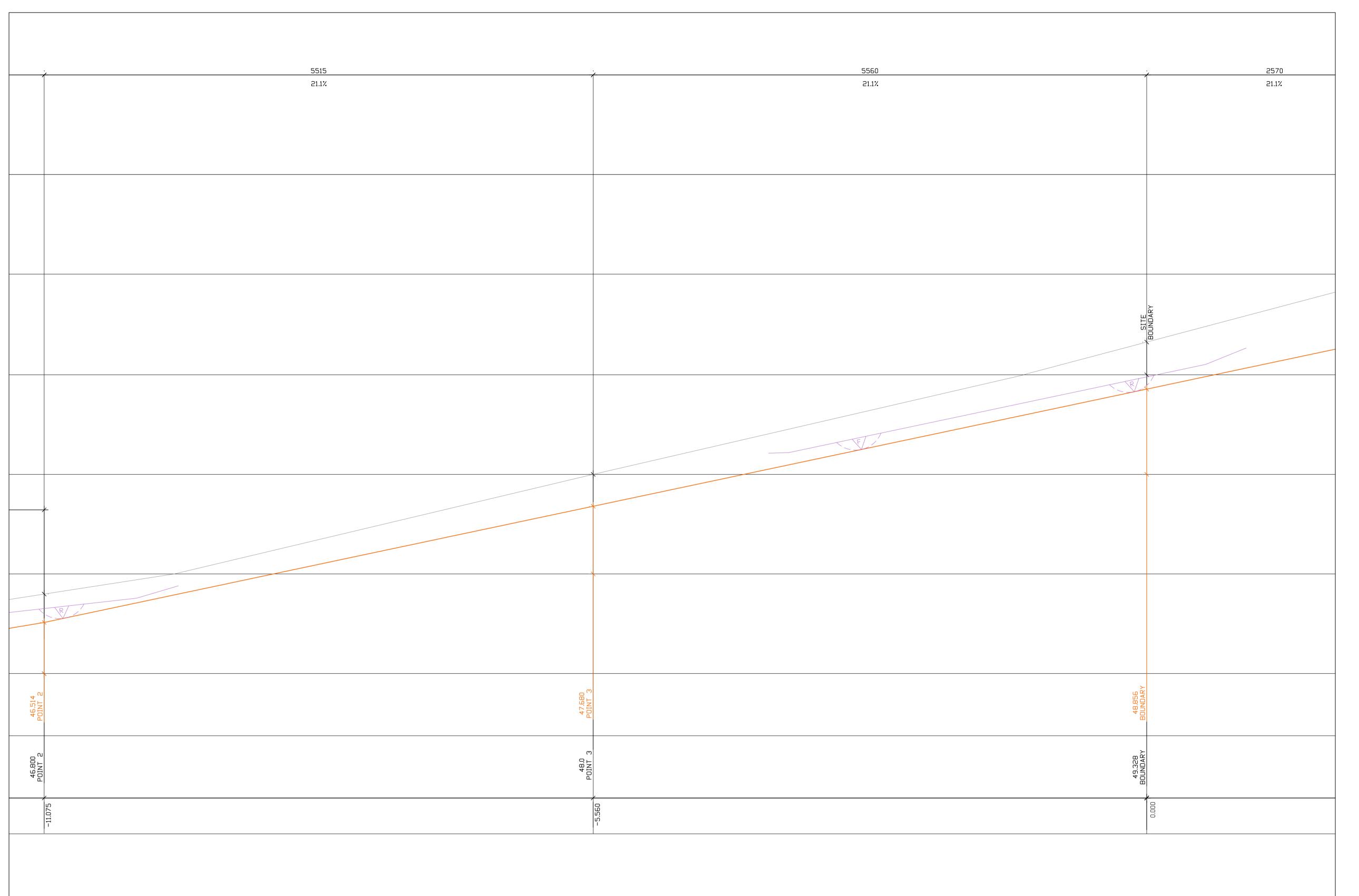




CLIENT: WINTER, ANGELA

PROJECT:
DRIVEWAY DESIGN
1 TUTUS STREET,BALGOWLAH HEIGHTS
MANLY, NSW 2095

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V	JK	JK		
	Size:	Scale:		
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		JV JK Size:		



LHS — 1 TUTUS STREET, BALGOWLAH HEIGHTS — 11.075 TO 0.000 1:20 A DA CONCEPT 2021.07.08

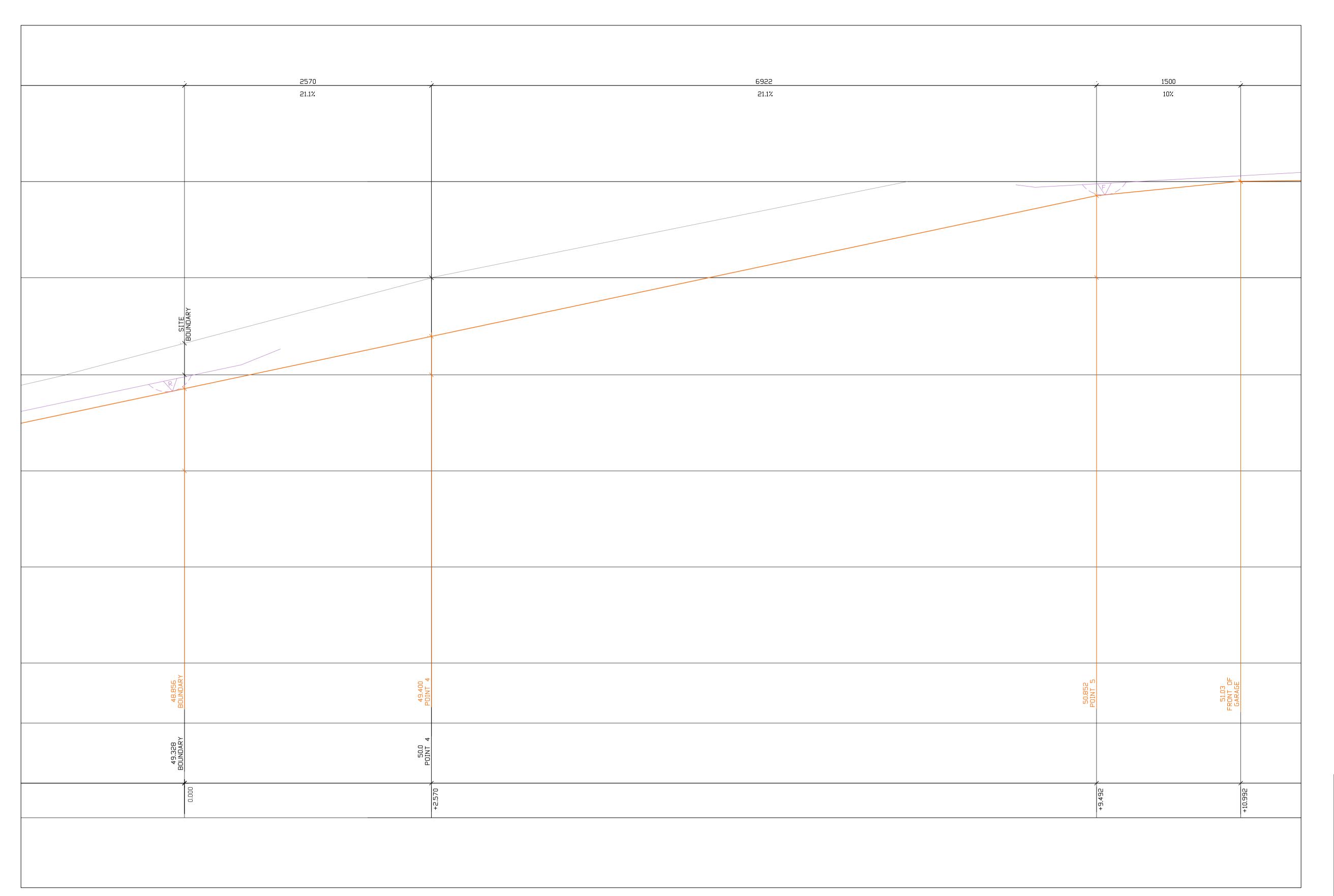
ISSUE REVISION DESCRIPTION DATE

ENGINEERS
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CLIENT: WINTER, ANGELA

PROJECT:
DRIVEWAY DESIGN
1 TUTUS STREET,BALGOWLAH HEIGHTS
MANLY, NSW 2095

	Sheet No.	Drawn:	Designed:	Approved:
	7 OF 9	JV	JK	JK
	Drawing No: 21-9092-DR		Size:	Scale:
			A1	-



LHS — 1 TUTUS STREET, BALGOWLAH HEIGHTS <u>0.000 TO 10.992</u> 1:20

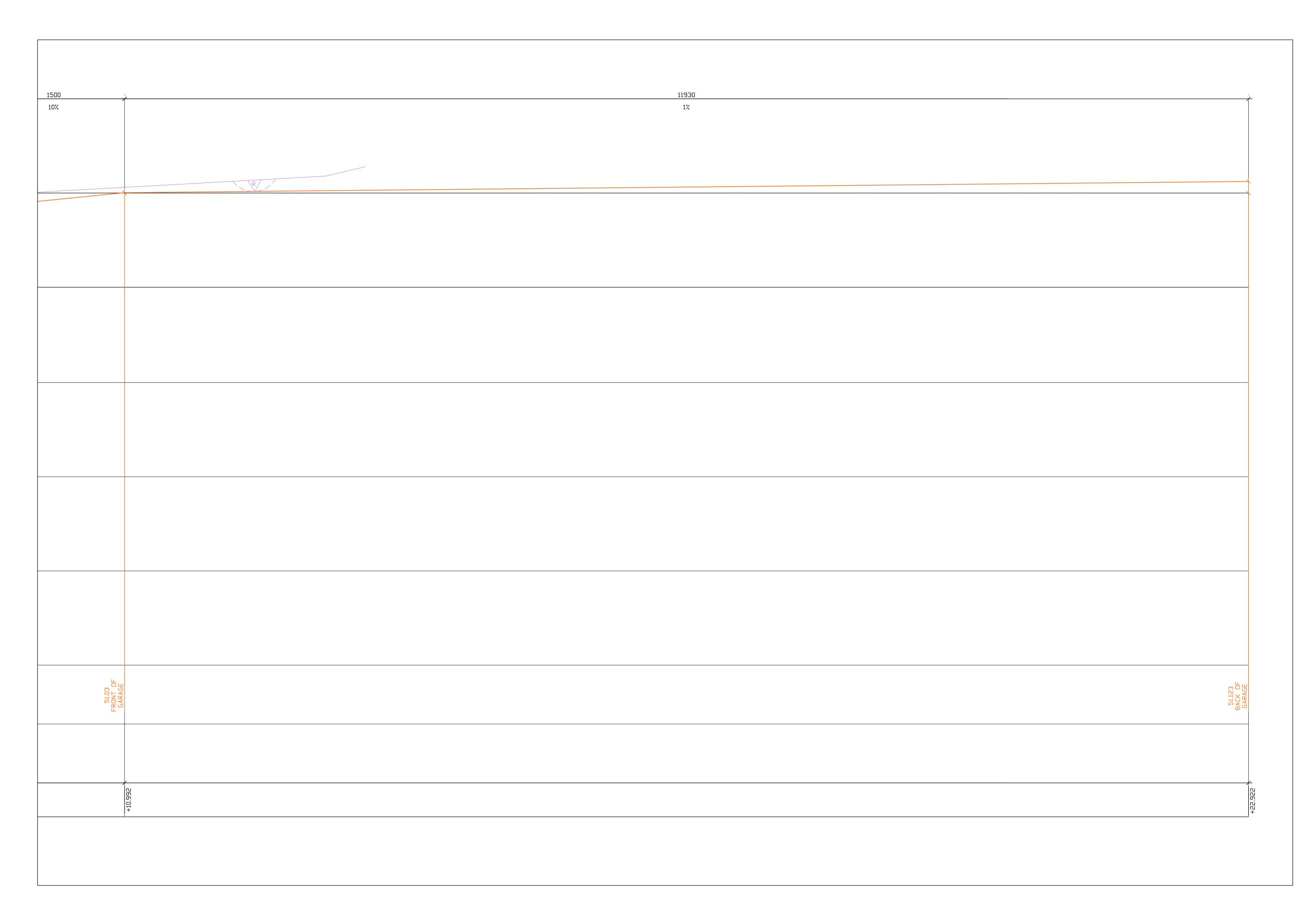




CLIENT: WINTER, ANGELA

PROJECT:
DRIVEWAY DESIGN
1 TUTUS STREET,BALGOWLAH HEIGHTS
MANLY, NSW 2095

Sheet No.	Drawn:	Designed:	Approved:
8 OF 9	JV	JK	JK
Drawing No:		Size:	Scale:
21-9092-DR		A1	-



LHS — 1 TUTUS STREET, BALGOWLAH HEIGHTS 10.992 TO 22.922 1:20

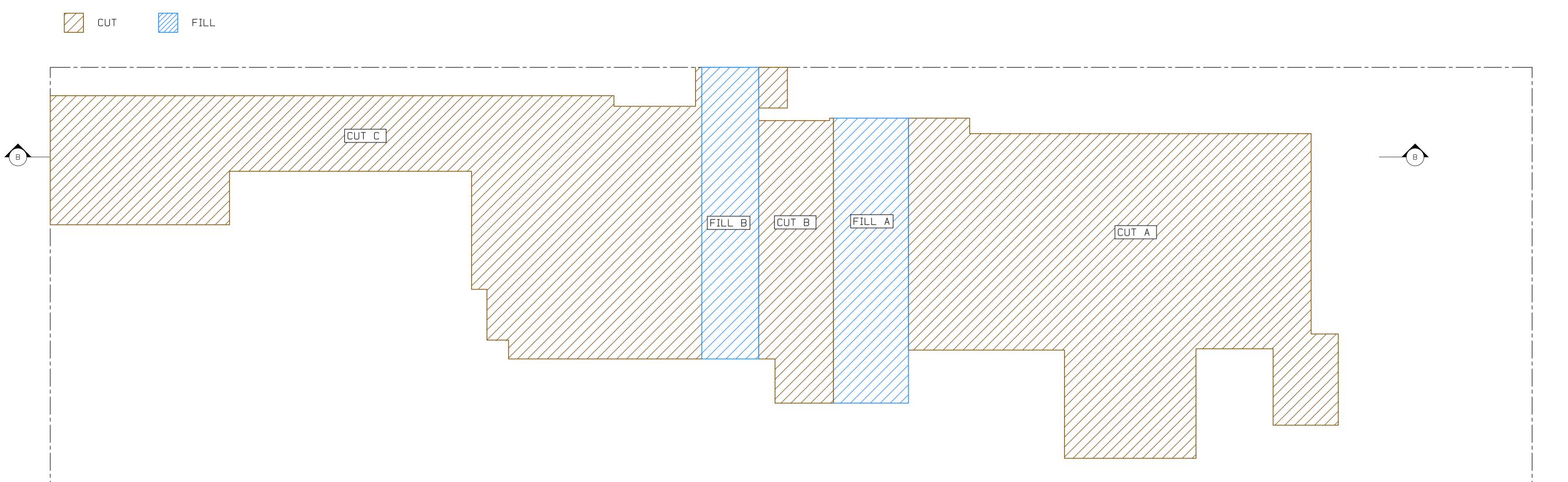




CLIENT: WINTER, ANGELA

PROJECT:
DRIVEWAY DESIGN
1 TUTUS STREET,BALGOWLAH HEIGHTS
MANLY, NSW 2095

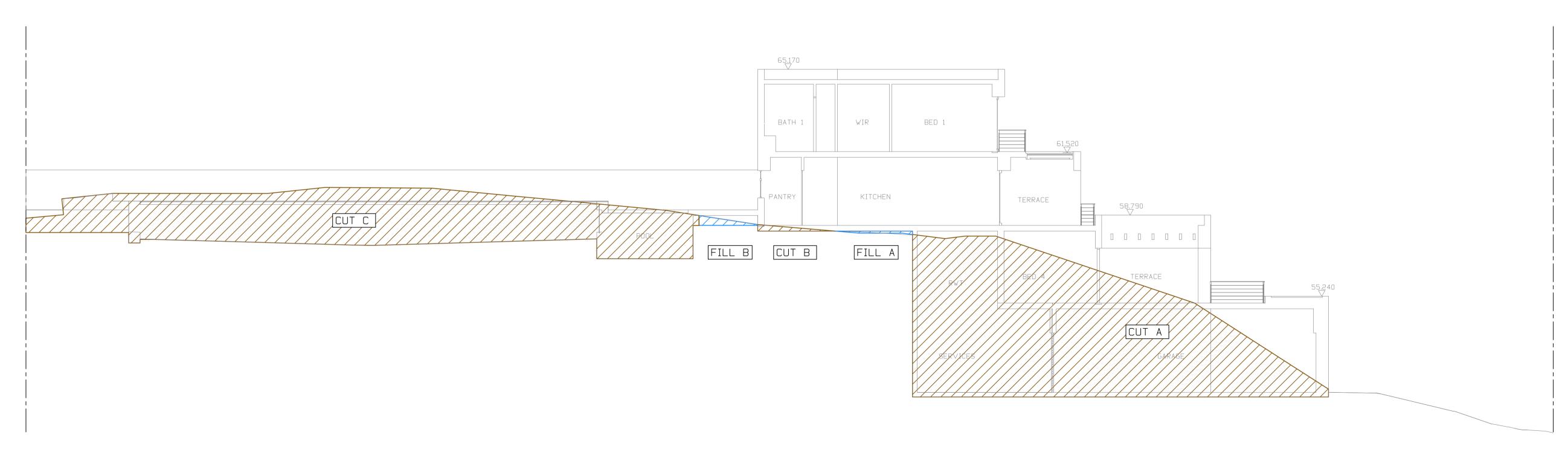
Sheet No.	Drawn:	Designed:	Approved:
9 OF 9	JV	JK	JK
Drawing No:		Size:	Scale:
21-9092-DR		A1	-



CUT A : 1020m³ CUT B : 10m³ CUT C : 450m³ TOTAL CUT : 1480m³

FILL A : 6m³ FILL B : 7m³ TOTAL FILL : 13m3

<u>Plan view</u>



SECTION VIEW

CUT & FILL DESIGN 1:100

<u>note:</u> if site conditions vary, OR IF IN DOUBT, CONSULT ENGINEER



DA CONCEPT 2021.07.07 REVISION DESCRIPTION



CLIENT: WINTER, ANGELA

PROJECT: STORMWATER DESIGN 1 TUTUS STREET, BALGOWLAH HEIGHTS MANLY, NSW 2095

EXCAVATION - CUT AND FILL

Sheet No.	Drawn:	Designed:	Approved:
1 OF 1	JV	JK	JK
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21-9092-EX		A1	_

CONSTRUCTION NOTES

- G1. THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH THE SPECIFICATION, ARCHITECTURAL DRAWINGS, OTHER CONTRACT DOCUMENTATION AND, THE REQUIREMENTS OF THE RELEVANT
- G2. VERIFY ALL SETTING OUT DIMENSIONS WITH ARCHITECT.
- G3. DO NOT OBTAIN DIMENSIONS BY SCALING THE STRUCTURAL ELEMENTS.
- G4. SHOULD ANY AMBIGUITY, ERROR, OMISSION, DISCREPANCY, INCONSISTENCY, OR OTHER FAULT EXIST OR SEEM TO EXIST IN THE CONTRACT DOCUMENTS, IMMEDIATELY NOTIFY IN WRITING TO THE SUPERINTENDENT.
- G5. MAINTAIN THE STRUCTURE IN A STABLE CONDITION DURING CONSTRUCTION.

 NO PART SHALL BE OVERSTRESSED. TEMPORARY BRACING SHALL BE
 PROVIDED BY THE CONTRACTOR TO KEEP THE WORKS & EXCAVATIONS
 STABLE AT ALL TIMES.
- G6. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT SAA CODES AND THE BY-LAWS, ORDINACES, OR OTHER REQUIREMENTS OF THE RELEVANT BUILDING AUTHORITIES.
- G7. WHERE NOTES REFER TO THE SPECIFICATION, COMPLY WITH THE REQUIREMENTS OF NATSPEC BUILDING SPECIFICATION AS A MINIMUM UNLESS MODIFIED BY THE CONTRACT DOCUMENT.
- G8. ABBREVATIONS USED GENERALLY:

U.N.O -UNLESS NOTED OTHERWISE

TYP. -TYPICALLY

N.S.O.P. -NOT SHOWN ON PLAN

N.S.O.E. -NOT SHOWN ON ELEVATION

170 -INDICATES SLAB OR BAND THICKNESS VARIATION

G9. ALL PROPRIETARY CHEMICAL & MECHANICAL ANCHORS ARE TO BE INSTALLED AT SPACINGS, EDGE DISTANCES, & DEPTHS AS INDICATED ON THE DRAWINGS. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS INCLUDING DRILLING METHOD, HOLE DIAMETER, CLEANING, CURING, & TIGHTENING.

PLAN SPECIFIC NOTES

- P1. ROOF DRAINAGE NOTE: AS 3500 ROOF DRAINAGE REQUIRES EAVES
- GUTTERS SLOPE 1:500 OR STEPPER.

 a) OVERFLOW METHOD FOR FIGURE G1 OF AS AS3500.3:2003
 IT IS THE RESPONSIBILITY OF THE PLUMBER AND/OR BUILDER TO COMPLY
 WITH THIS. THIS DRAWING SHOWS PRELIMINARY LOCATIONS / NUMBERS OF
 DOWNPIPES ONLY WHICH ARE TO BE VERIFIED BY BUILDER / PLUMBER.
- P2. TREE PRESERVATION: IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ANY PRIOR APPROVAL REQUIRED FROM COUNCIL WITH RESPECT TO POTENTIAL IMPACT ON TREES FOR ANY WORKS SHOWN ON THIS DRAWING PRIOR TO THE COMMENCEMENT OF THOSE WORKS.
- P3. ALL ROOF GUTTERS TO HAVE OVERFLOW PROVISION IN ACCORDANCE WITH AS 3500.3:2003 AND SECTIONS 3.5.3, 3.7.5 AND APPENDIX G OF AS 3500.3:2003
- P4. THIS DRAWING IS NOT TO BE USED FOR SET-OUT PURPOSES REFER TO ARCHITECTURAL DRAWINGS.
- P5. LOCATION OF SURFACE STORMWATER GRATED INLET PITS MAY BE VARIED OR NEW PITS INSTALLED AT THE CONSTRUCTION STAGE PROVIDED DESIGN

INTENT OF THIS DRAWING IS MAINTAINED.

HYDRAULIC NOTES

- H1. DRAINAGE PIPE SIZES ARE Ø100 mm U.P.V.C @ MIN. 1% GRADE UNLESS NOTED OTHERWISE. CHARGED LINES TO BE SEWER GRADE & SEALED.
- H2. ALL SERVICES ARE TO BE LOCATED IN THE FIELD IN CONJUNCTION WITH A RESPONSIBLE OFFICER OF EACH RELEVANT AUTHORITY PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- H3. DRAINAGE PITS ARE TO BE 450 mm SQUARE OR LARGER AND FITTED WITH A GALVANISED GRATE.
- H4. DRAINAGE PIPES SHALL BE SEWER GRADE PVC UNLESS NOTED.
- H5. PITS LESS THAN 600 DEEP MAY BE BRICK, PRECAST OR CONCRETE.
- H6. ALL BALCONIES AND ROOFS TO BE DRAINED AND HAVE SAFETY OVERFLOW IN ACCORDANCE WITH RELEVANT AUSTRALIAN STANDARD.
- H7. GRATES TO HAVE CHILD PROOF LOCKS.
- H8. DRAINAGE WORKS TO AVOID TREE ROOTS.
- H9. DOWNPIPES TO HAVE LEAF GARDS.
- H10. EXISTING LEVELS TO BE CONFIRMED BY BUILDER PRIOR TO CONSTRUCTION.
- H11. WORK WITHIN COUNCIL RESERVE TO BE INSPECTED BY COUNCIL.
- H12. EXISTING STORMWATER PIPE LOCATIONS HAVE BEEN ASSUMED. PLUMBER TO INSOPECT PRIOR TO WORKS AND UPGRADE AS NECESSARY.

SUB SURFACE DRAINAGE

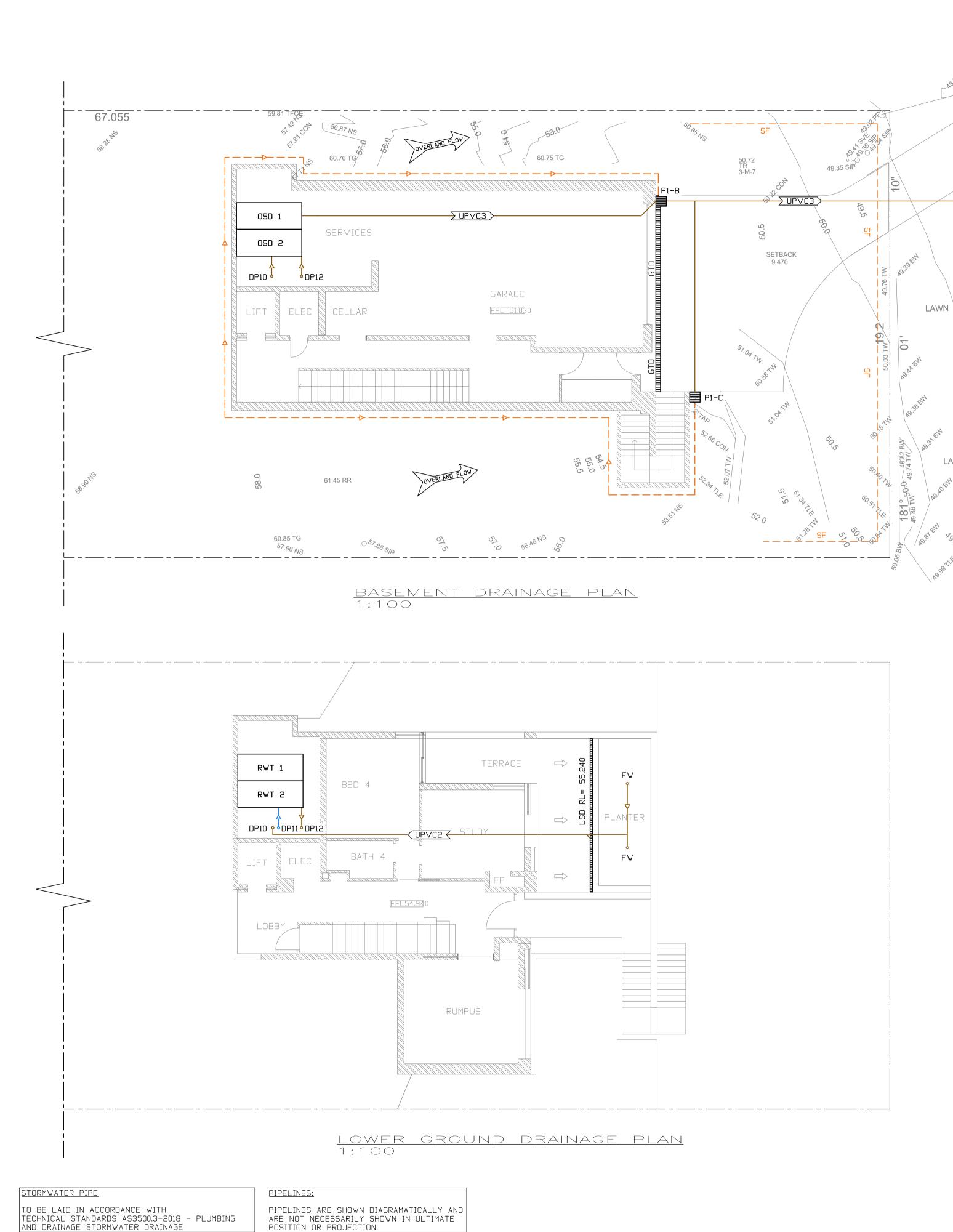
- SS1. THE GROUND BENEATH A SUSPENDED TIMBER FLOOR MUST BE GRADED SO
 THAT THE AREA BENEATH THE BUILDING IS ABOVE THE ADJACENT
 FINISHED GROUND LEVEL TO PREVENT PONDING.
- SS2. AGRICULTURAL (AG) CUT-OFF DRAINS MUST BE INSTALLED AT THE BASE OF ALL EXCAVATIONS AND ALONG THE HIGH SIDE OF A SLOPING SITE AND BE CONNECTED TO THE STORM WATER DRAINAGE SYSTEM VIA A 300mm X 300mm SILT PIT;
- SS3. AG DRAINS MUST BE LAID A MINIMUM OF 400mm INTO SOIL AND 100mm BELOW ANY ADJACENT FOOTING OR PAVEMENT.

SURFACE DRAINAG

- 51. INSTALLATION OF THE STORM WATER DRAINAGE SYSTEM MUST COMPLY WITH AS/NZS 3500.5 DOMESTIC INSTALLATIONS;
- S2. SURFACE WATER DRAINAGE MUST BE GRADED AWAY FROM A BUILDING WITH A MINIMUM GRADIENT OF 1 IN 20 OVER THE FIRST METRE;
- S3. THE FINISHED SLAB HEIGHT (MEASURED AT THE SLAB EDGE) MUST BE NOT LESS THAN 50mm ABOVE ADJACENT PAVING OR CONCRETE OR 100mm ABOVE SANDY WELL DRAINED AREAS;
- S4. INSPECTION OPENINGS (DN 150) SHALL BE INSTALLED AT NOT MORE THAN 30m CENTRES; AND AT LOW POINTS IN CHARGED SYSTEM

EROSION AND SEDIMENT CONTROL NOTES

- E1. ALL BARE SOIL AREAS ARE TO BE PROTECTED FROM EROSION BY TEMPORARY MEASURES AND RE-VEGETATED AT CESSATION OF CONSTRUCTION.
- E2. A SEDIMENT CATCHMENT POND IS TO BE PROVIDED AT THE RATE OF 120 m3 CAPACITY PER HECTARE DRAINED. THE DETENTION TANKS MAY BE USED FOR THIS PURPOSE, PROVIDED SUFFICIENT WATER IS RETAINED AS A POOL DURING CONSTRUCTION & ADEQUATE SAFETY FENCING IS PROVIDED.
- E3. THE DOWNHILL BOUNDARY OF THE SITE IS TO BE PROTECTED BY HAY BALE OR FILTER FABRIC FENCE DURING CONSTRUCTION AS SHOWN IN ATTACHED DETAIL.
- E4. THE STREET DRAINAGE PIT LOCATED DOWNHILL OF THE SITE SHALL BE PROTECTED FROM SEDIMENT WITH HAY BALES.
- E5. A SINGLE CONSTRUCTION ENTRANCE SHALL BE ESTABLISHED IN THE MANNER SHOWN IN ATTACHED DETAIL.
- 6. ALL EROSION PROTECTION MEASURES TO MEET THE REQUIREMENTS OF THE DEPT. OF CONSERVATION AND LAND MANAGEMENT AS OUTLINED IN 'URBAN EROSION & SEDIMENT CONTROL', SCS TECH. HANDBOOK №2 1978 UNLESS SPECIFIED BY COUNCIL.



MEMBER SCHEDULE DOWNPIPES & SPREADERS DP1-DP9 | Ø100 DOWNPIPE • DP10−12 Ø150 DOWNPIPE GROUND/FLOOR LEVEL DRAINAGE Ø100 FLOOR WASTE • FW 200 GRATED TRENCH DRAIN 100 LINEAR STRIP DRAIN SUBSURFACE DRAINAGE Ø100 UP∨C STORMWATER PIPE → UPVC1 (DRAINING ROOF AREAS INTO RWT) Ø100 UPVC STORMWATER PIPE \rightarrow UPVC2 \rightarrow (DRAINING ROOF AREAS INTO Ø150 UPVC STORMWATER PIPE → UPVC3 > (DRAINING INTO KERB) ----- ø100 AG LINE 150 × 100 RHS GAL∨. INTO KERB TANKS & PITS 2/6227L RAINWATER TANK 1150 RWT1&2 $(w) \times 2800 (l) \times 2020 (h)$ 2/6227L RAINWATER TANK 1150 OSD1&2 (w) \times 2800 (l) \times 2020 (h) REFER TO STORMWATER PIT DETAIL REFER TO SEDIMENT FENCE DETAIL

EXISTING STORMWATER

— PIPÉ TO KERB

BENCH MARK

NAIL IN KERB RL 46.17 (AHD)

LAWN

LAWN

RAINFALL CALCULATIONS				
	EAVES GUTTER	BOX GUTTER		
CO-ORDINATES	-33.80391788559865, 151.26730127189256			
DURATION	5min			
AEP	5%	1%		
RAINFALL INTENSITY	208mm/hr	274mm/hr		

NOTE: IF SITE CONDITIONS VARY, OR IF IN DOUBT, CONSULT ENGINEER



LAWN

А	DA CONCEPT	2021.07.07
ISSUE	REVISION DESCRIPTION	DATE

ENGINEERS

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CLIENT:
WINTER, ANGELA

PROJECT:
STORMWATER DESIGN
1 TUTUS STREET,BALGOWLAH HEIGHTS
MANLY, NSW 2093

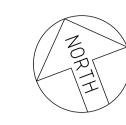
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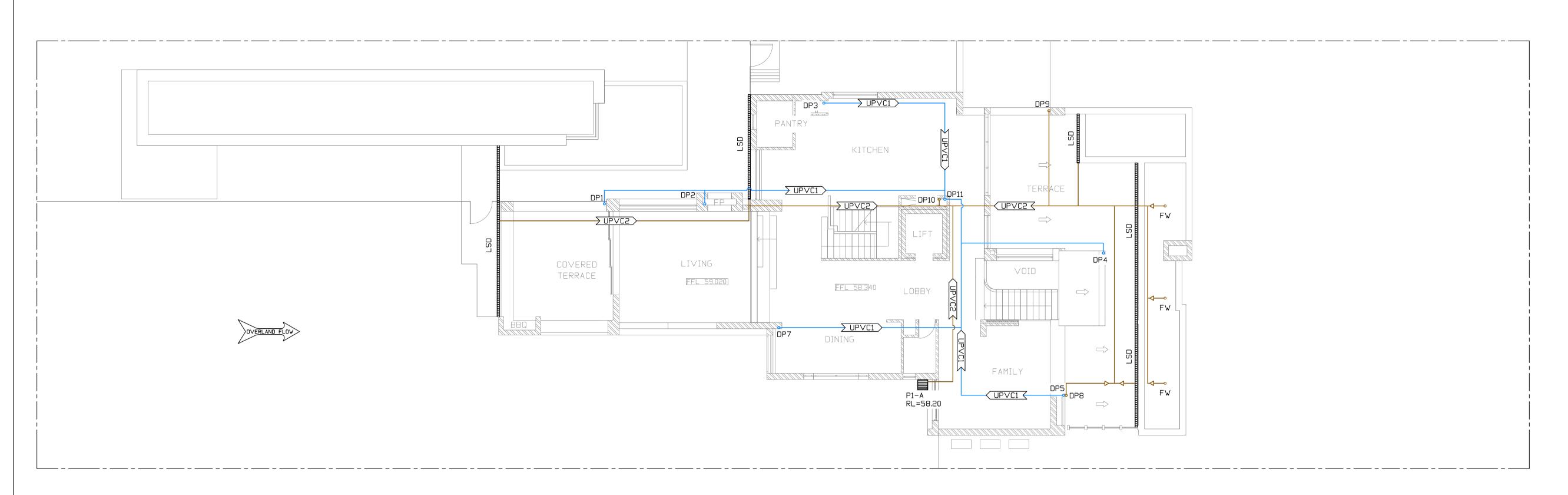
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 Drawn:
 Designed:
 Approved:

 1 OF 4
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 JK
 JK

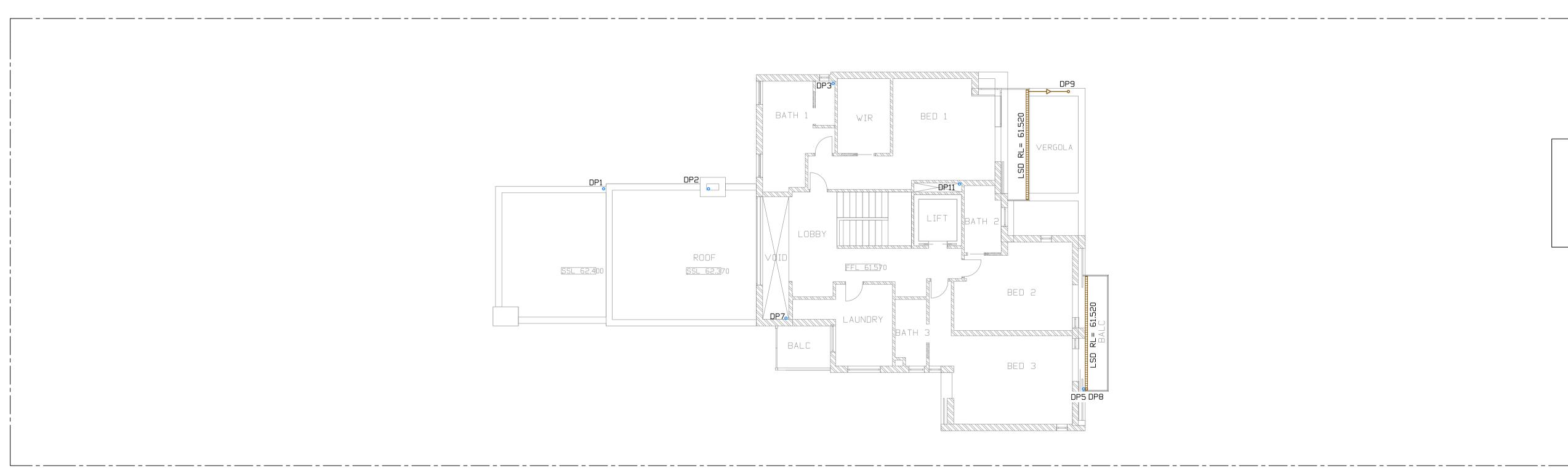
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 Scale:

 21-9092-SW
 A1





GROUND FLOOR DRAINAGE PLAN 1:100



FIRST FLOOR DRAINAGE PLAN 1:100

STORMWATER PIPE

TO BE LAID IN ACCORDANCE WITH
TECHNICAL STANDARDS AS3500.3-2018 - PLUMBING
AND DRAINAGE STORMWATER DRAINAGE

PIPELINES:

PIPELINES ARE SHOWN DIAGRAMATICALLY AND ARE NOT NECESSARILY SHOWN IN ULTIMATE POSITION OR PROJECTION.

NOTE:

IF SITE CONDITIONS VARY,

OR IF IN DOUBT,

CONSULT ENGINEER



А	DA CONCEPT	2021.07.07
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CLIENT:
WINTER, ANGELA

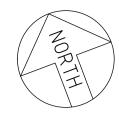
PROJECT:
STORMWATER DESIGN
1 TUTUS STREET, BALGOWLAH HEIGHTS

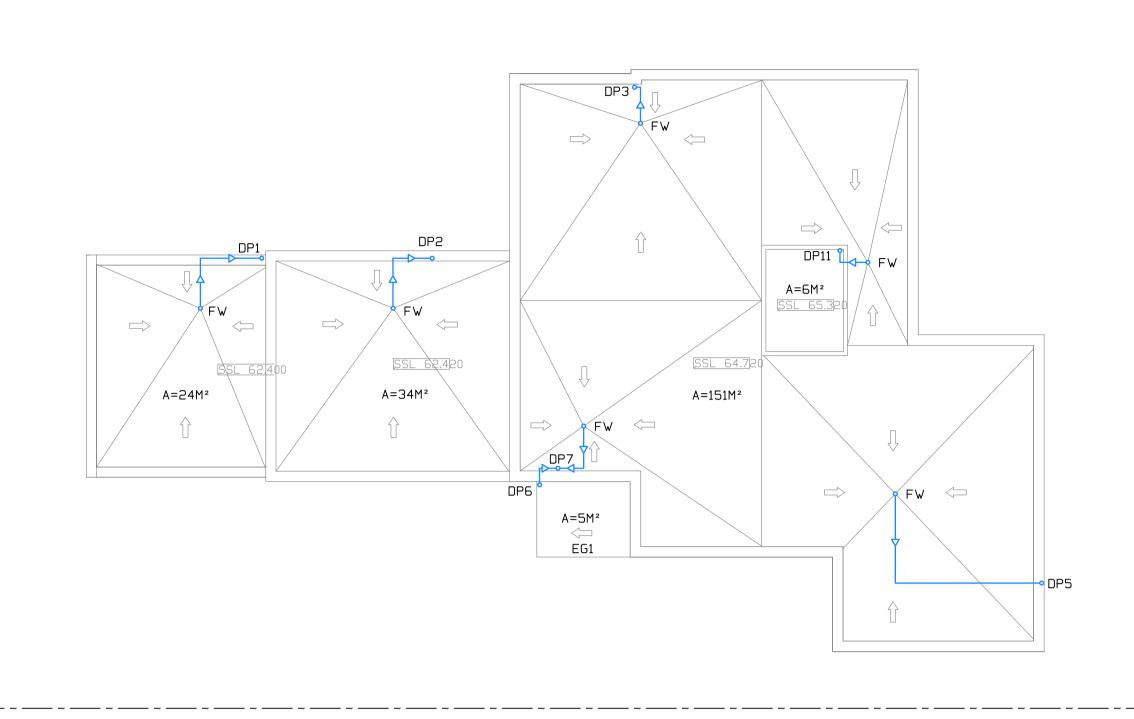
LE:

MANLY, NSW 2093

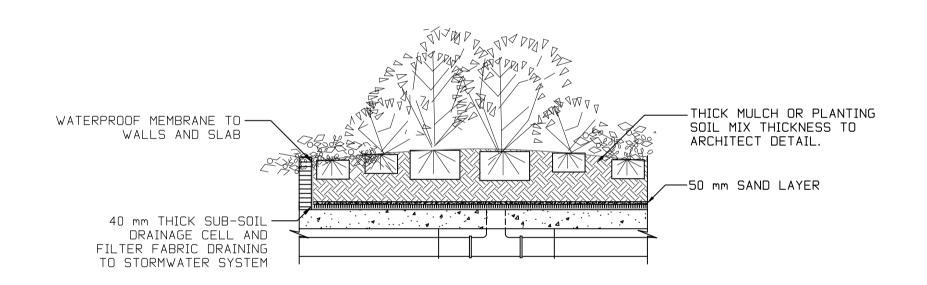
PROPOSED STORMWATER DESIGN

	Sheet No.	Drawn:	Designed:	Approved:
	2 OF 4	JV	JK	JK
	Drawing No:		Size:	Scale:
	21-9092-SW		A1	-

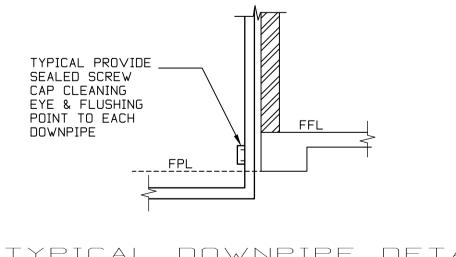




ROOF PLAN DRAINAGE PLAN 1:100



<u>typical planter box detail</u> Nts



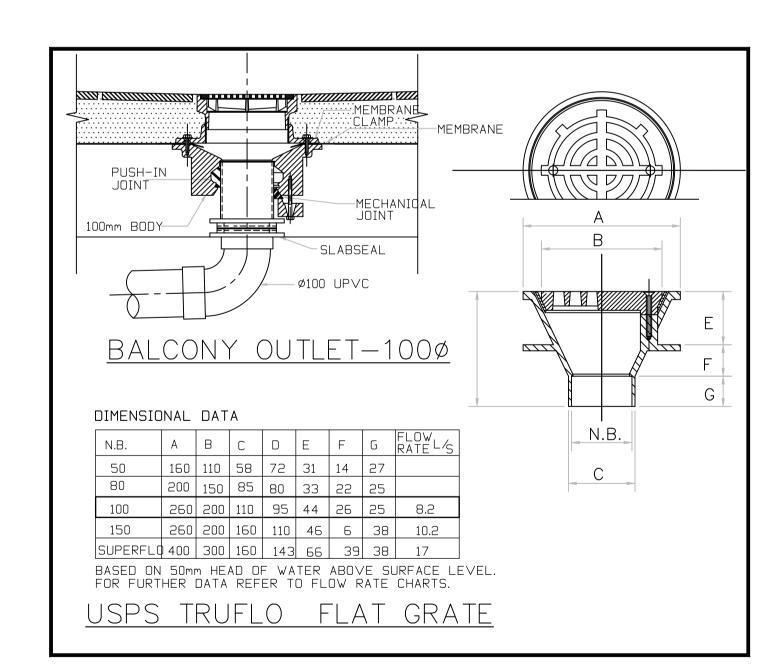
TYPICAL DOWNPIPE DETAIL N.T.S

STORMWATER PIPE

TO BE LAID IN ACCORDANCE WITH
TECHNICAL STANDARDS AS3500.3-2018 - PLUMBING
AND DRAINAGE STORMWATER DRAINAGE

PIPELINES:

PIPELINES ARE SHOWN DIAGRAMATICALLY AND ARE NOT NECESSARILY SHOWN IN ULTIMATE POSITION OR PROJECTION.



NOTE:

IF SITE CONDITIONS VARY,

OR IF IN DOUBT,

CONSULT ENGINEER



А	DA CONCEPT	2021.07.07
ISSUE	REVISION DESCRIPTION	DATE



CLIENT: WINTER, ANGELA

21-9092-SW

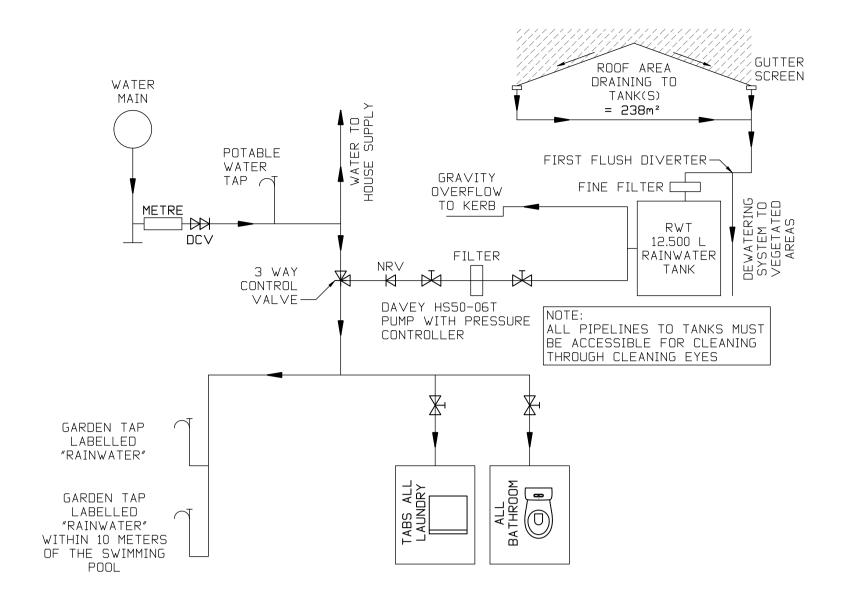
PROJECT:
STORMWATER DESIGN

1 TUTUS STREET,BALGOWLAH HEIGHTS MANLY, NSW 2093

PROPOSED STORMWATER DESIGN &

STORMWATER DETAILS					
heet No.	Drawn:	Designed:	Approved:		
3 OF 4	JV	JK	JK		
rawing No:		Size:	Scale:		

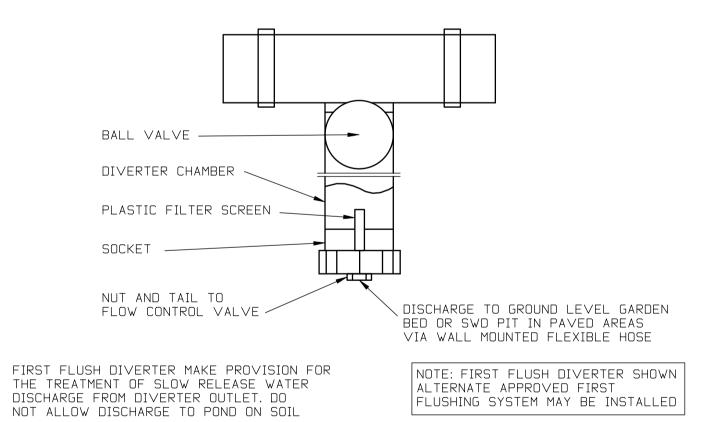
A1



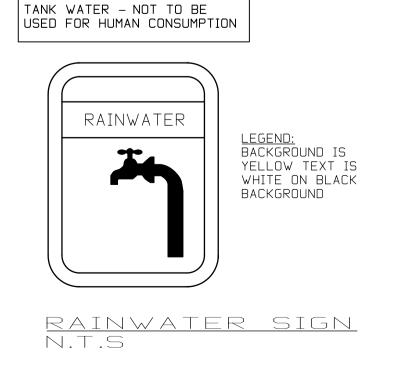
GREYWATER OR RAINWATER RE-USE FLOW SCHEMATIC DIAGRAM

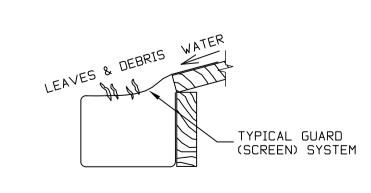
FOR RETENTION WATER TO BE USED IN THE GREY WATER SYSTEM, GUTTERS MUST BE FITTED WITH GUTTER GUARDS AND DOWNPIPES FITTED WITH FIRST FLUSH DIVERTER

ALL PIPELINES MUST BE ACCESSIBLE FOR CLEANING THROUGH CLEANING EYES. CONNECTION INTO THE GREY WATER SYSTEM MUST COMPLY WITH SYDNEY WATER GUIDELINES.

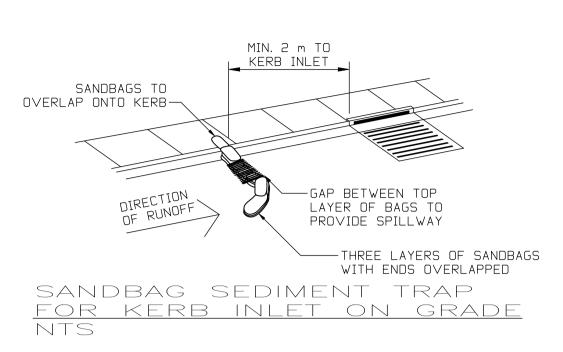


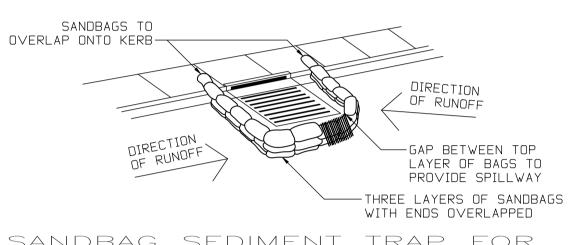
FIRST FLUSH DIVERTER DETAIL





TYPICAL DETAIL OF <u>Gutter protection</u> N.T.S





SANDBAG SEDIMENT TRAP FOR KERB INLET AT LOW POINT NTS

LOGHT DUTY. HINGED

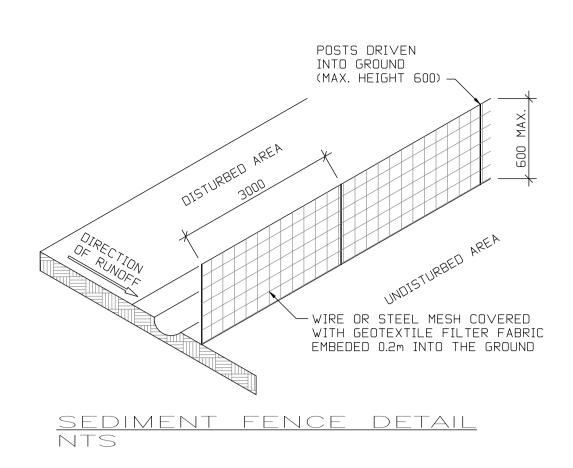
GALVANISED (TYPE A)

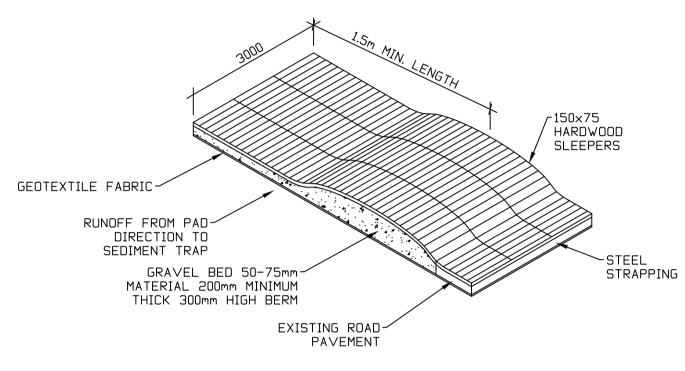
PIPE

OUTLET

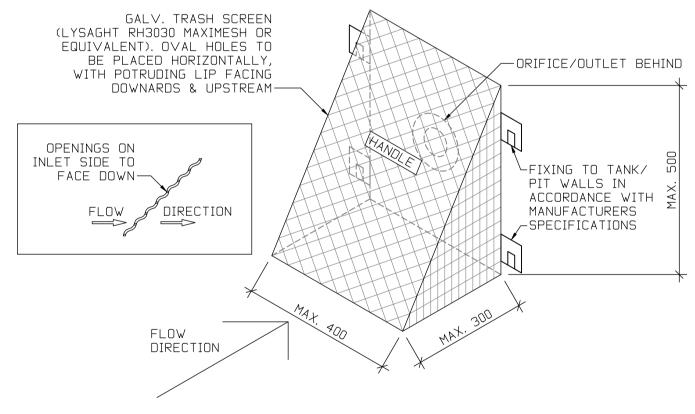
PIPE

PLAN





TEMPORARY CONSTRUCTION EXIT



TRIANGULAR MESH SCREEN DETAIL

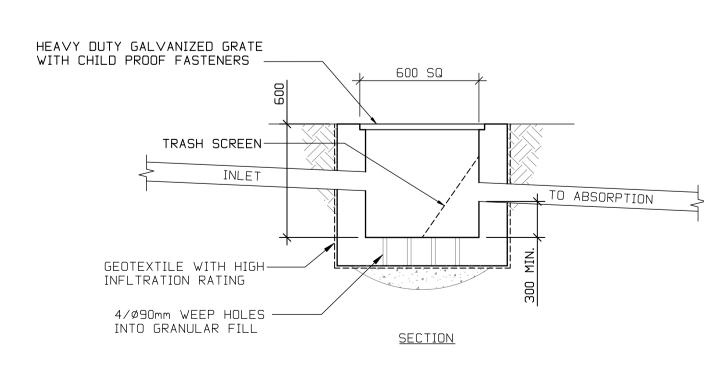
STORMWATER PITS			
SIZE	SIZE	DEPTH	
TYP1	300 SQ.	300	
TYP2	450 SQ.	450	
TYP3	600 SQ.	600	

PITS GREATER THAN 900 DEEP TO HAVE STEP RUNGS AT 300 CTS IN ACCORDANCE WITH AUSTRALIAN STANDARDS



WINTER, ANGELA

Drawing No: 21-9092-SW



PRECAST	PIT
OR PROPE	RIETARY

P1 —	TYPICAL.	SAP 1
1:20		

А	DA CONCEPT	2021.07.07				
ISSUE	REVISION DESCRIPTION	DATE				
ENGINEERS CONSULTING STRUCTURAL ENGINEERS 357 GLEBE POINT ROAD, GLEBE NSW 2037 PHONE (02) 9518 9373 EMAIL info@rossengineers.com.au WEB www.rossengineers.com.au						

IF SITE CONDITIONS VARY,

OR IF IN DOUBT,

PROJECT:
STORMWATER DESIGN 1 TUTUS STREET,BALGOWLAH HEIGHTS
MANLY, NSW 2093

STORMWATER DETAILS					
Sheet No.	Drawn:	Designed:	Арргоче		
4 OF 4	JV	JK	JK		