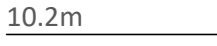
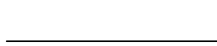
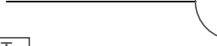
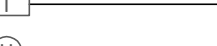
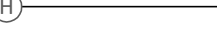


GENERAL NOTES

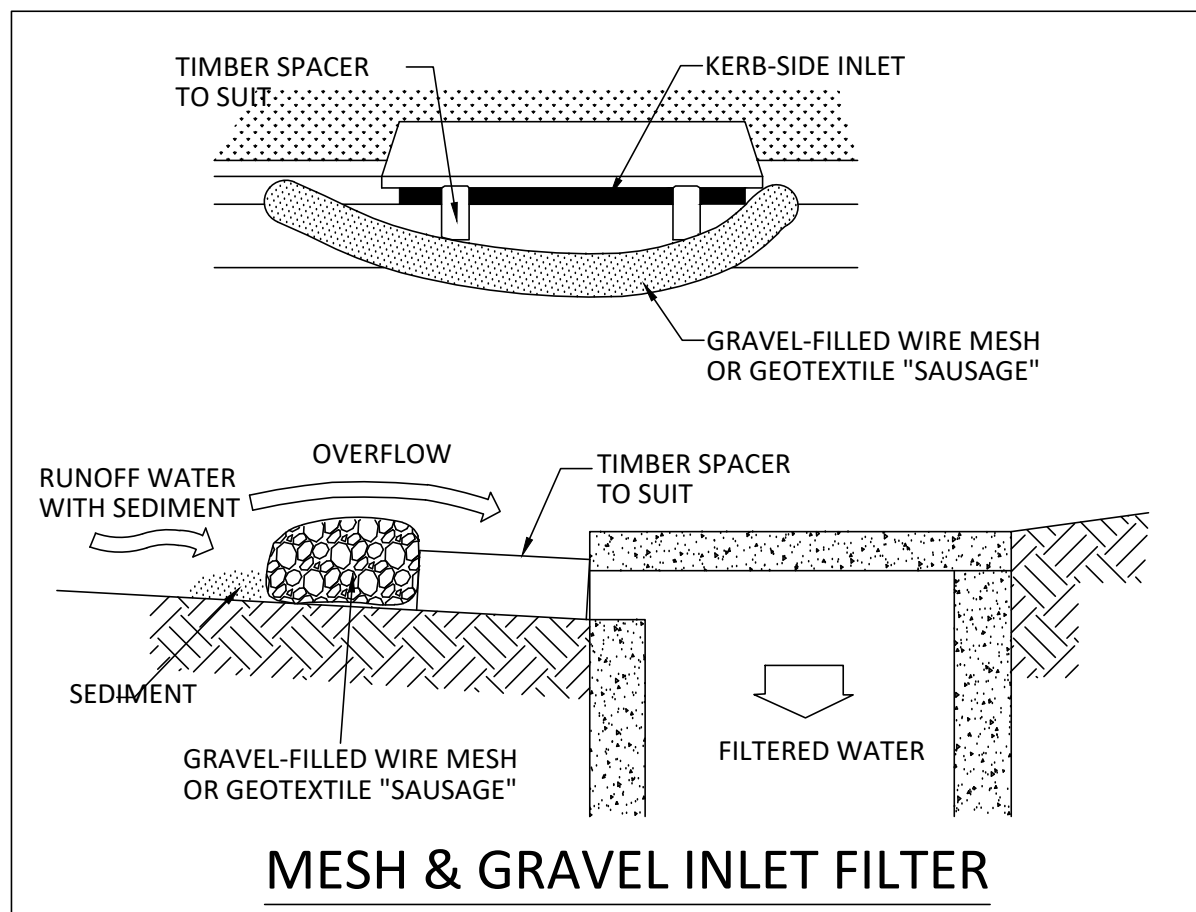
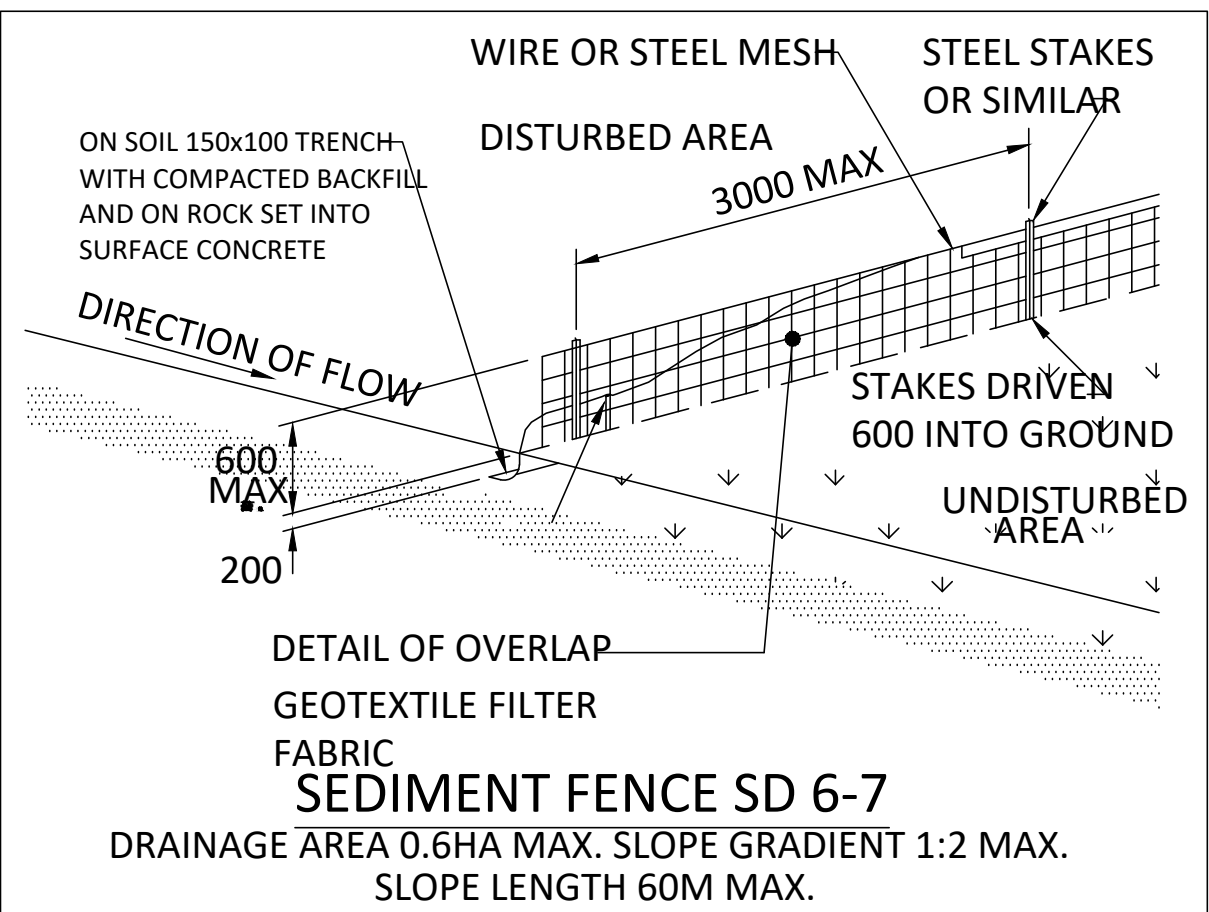
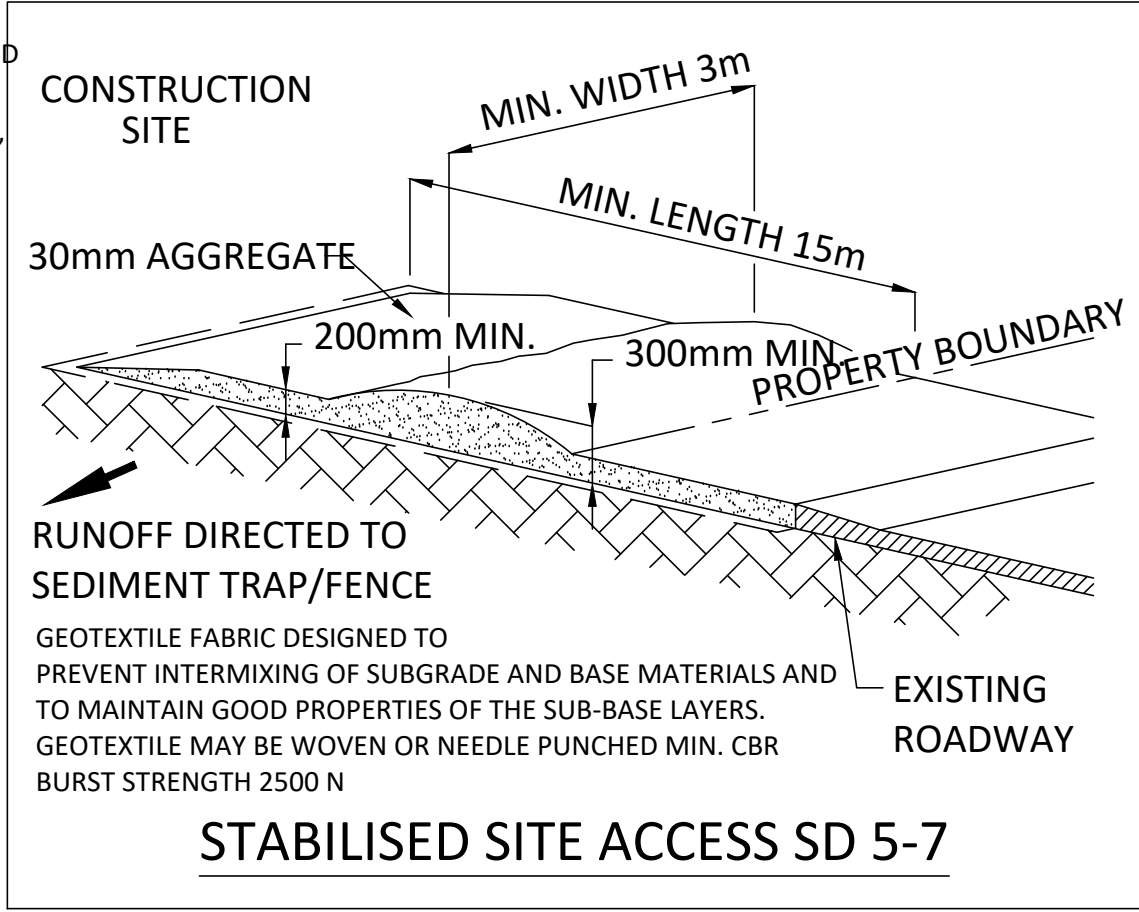
- 1) ALL WORK TO BE IN ACCORDANCE WITH PARRAMATTA CITY COUNCIL'S DEVELOPMENT CONTROL PLANS AND WORKS SPECIFICATION CIVIL
- 2) UTILITY ADJUSTMENTS ARE TO BE AT THE DEVELOPERS EXPENSE.
- 3) CONDUITS SHALL BE PLACED WHERE REQUIRED BY THE RELEVANT AUTHORITIES
- 4) TREES THAT ARE NOT TO BE REMOVED SHALL BE PRESERVED.
- 5) BENCHMARK, SSM'S PERMANENT MARKS TO BE AHD.
- 6) AGRICULTURAL LINES SHALL BE PLACED AS DIRECTED
- 7) PITS TO HAVE STEP IRONS IF DEEPER THAN 1.2m
- 8) STRUCTURAL CERTIFICATION REQUIRED FOR CONSTRUCTION OF MAJOR AND NON- STANDARD STRUCTURES
- 9) DRIVEWAYS/LAYBACKS TO HAVE MINIMUM 1m CLEARANCE FROM POWER AND LIGHT POLES, PIT LINTELS AND STORM WATER DRAINS, AND 6m CLEARANCE FROM KERB RETURN TANGENT POINT
- 10) SUBSOIL DRAINAGE SHALL BE PROVIDED WHERE DIRECTED BY COUNCIL'S ENGINEER.
- 11) ALL WORKMANSHIP AND MATERIALS SHALL COMPLY WITH THE RELEVANT SAA CODES.
- 12) CONTRACTOR SHALL VERIFY THE VALUE OF THE BM PRIOR TO COMMENCEMENT OF WORK.
- 13) MAKE SMOOTH JUNCTION WITH ALL EXISTING WORKS.
- 14) ALL STORMWATER PIPES AND PITS SHALL BE INSTALLED IN ACCORDANCE WITH AS 3500.3 NATIONAL PLUMBING AND DRAINAGE - STORMWATER DRAINAGE AND PARRAMATTA CITY COUNCIL DEVELOPMENT CONTROL PLANS
- 15) ALL STORMWATER PIPES UNDER TRAFFICABLE AREAS SHALL BE SEWER GRADE uPVC.
- 16) MINIMUM 300mm PIPE COVER TO PROPOSED SURFACE AND 150mm TO UNDERSIDE PAVEMENT.
- 17) ALL STORMWATER PIPES FROM DPs SHALL BE 100Ø uPVC LAID AT 1% MINIMUM U.N.O.
- 18) ALL STORMWATER PIPES FROM PITS SHALL BE 150Ø uPVC LAID AT 1% MINIMUM U.N.O.
- 19) ALL PITS SHALL BE PROVIDED WITH 100 Ø WEEP HOLES IN THE UPSTREAM WALL AND BE STREAMLINED WITH MASS CONCRETE BENCHING AND HAVE INTERNAL DIMENSIONS COMPLYING WITH THE FOLLOWING TABLE :-
- | | |
|-----------------------|---|
| DEPTH < 600 mm | - 450 mm SQUARE |
| 600 < DEPTH < 900 mm | - 600 mm SQUARE |
| 900 < DEPTH < 1800 mm | - 900 mm SQUARE WITH STEPS IRONS @ 300 Ctrs |
- 20) CLEANING EYES MUST BE PROVIDED AT ALL CHANGE IN GRADES AND BENDS IN PIPES
- 21) VEHICULAR CROSSINGS ARE TO BE 3m WIDE AT KERB AND GUTTER AND SHALL BE INSTALLED TO COUNCIL SPECIFICATIONS AND LEVELS.
- 22) ALL EXISTING SERVICES IN ROAD RESERVE SHALL BE IDENTIFIED PRIOR TO CONSTRUCTION AND RELOCATED AS REQUIRED AT THE DEVELOPERS EXPENSE.
- 23) ALL CONTROL MEASURES USED SHALL BE IN ACCORDANCE WITH THE DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT PUBLICATION DATED 1992, TITLED "URBAN EROSION AND SEDIMENT CONTROL".
- 24) SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE SET IN PLACE PRIOR TO ANY WORKS COMMENCING.
- 25) ALL CONTROL MEASURES SHALL ALSO BE INSTALLED TO THE SATISFACTION AND DIRECTION OF THE COUNCIL'S ENGINEER.
- 26) THE CONTRACTOR SHALL REGULARLY MAINTAIN ALL SEDIMENT AND EROSION CONTROL DEVICES AND REMOVE ACCUMULATED SILT FROM SUCH DEVICES BEFORE NO MORE THAN 60% OF THEIR CAPACITY IS LOST. NO SILT SHALL BE PLACED OUTSIDE THE LIMIT OF WORKS.
- 27) ALL DISTURBED AREAS SHALL BE STABILISED BY MEANS OF LANDSCAPING, TURF OR RE-VEGETATION SHALL AS SOON AS POSSIBLE.
- 28) THIS DRAWING OUTLINES THE MINIMUM MEASURES TO BE TAKEN TO CONTROL EROSION AND TO ARREST THE TRANSPORT OF SEDIMENT. ADDITIONAL MEASURES MAY BE REQUIRED TO SUIT STAGING OF WORKS OR AS DIRECTED BY THE SUPERINTENDENT OR COUNCIL ENGINEER.
- 29) THIS DRAWING SHALL BE READ IN CONJUNCTION WITH THE FOLLOWINGS:-
- ARCHITECTURAL PLANS by "DICKSON ROTHSCCHILD"
- 30) CAUTION NOTE: UNDERGROUND SERVICES ARE SHOWN IN PLAN POSITION ONLY FROM INFORMATION SUPPLIED BY THE RELEVANT AUTHORITY. DEPTH OF SERVICES WERE NOT INVESTIGATED AS PART OF THIS DESIGN. THE CONTRACTOR SHALL VERIFY LOCATION AND DEPTH PRIOR TO COMMENCEMENT OF ANY WORKS.

LEGEND

EXISTING	PROPOSED	DESCRIPTION	
		BENCH MARK - BM	
		CONTOURS	
		SPOT HEIGHT	
		PIPE & PIT	
		FLOOD EVACUATION PATH TO FIRST FLOOR EVACUATION ZONE	
		ELECTRICAL and POLE or PIT	
		GAS and VALVE or MARKER	
		SEWER and ACCESS CHAMBER	
		TELSTRA and PIT	
		WATER (HYDRANT & STOP VALVE)	
		STORMWATER NODE	
		COURTYARD FENCE	
AHD	AUSTRALIAN HEIGHT DATUM	JN	SLOPE JUNCTION
ARI	AVERAGE RECURRENCE INTERVAL	JP	JUNCTION PIT
CE	CLEANING EYE	K&G	KERB & GUTTER
DC	DIRECT CONNECTION	KO	KERB ONLY
DCP	DISCHARGE CONTROL PIT	KP	KERB INLET PIT
DD	DISH DRAIN	NS	NATURAL SURFACE
DP	DOWNPIPE	N.T.S.	NOT TO SCALE
EL	EXISTING SURFACE LEVEL	RW	RETAINING WALL
Ex	EXISTING FEATURE (PREFIX)	SL	PROPOSED SURFACE LEVEL
FFL	FINISHED FLOOR LEVEL	SP	SURCHARGE PIT
GL	GRATE LEVEL	TK	TOP OF KERB
GP	GRATED SURFACE INLET PIT	U.N.O.	UNLESS NOTED OTHERWISE
HW	HEADWALL	VC	VEHICULAR CROSSING
IL	INVERT LEVEL		
IP	INLET PIT		

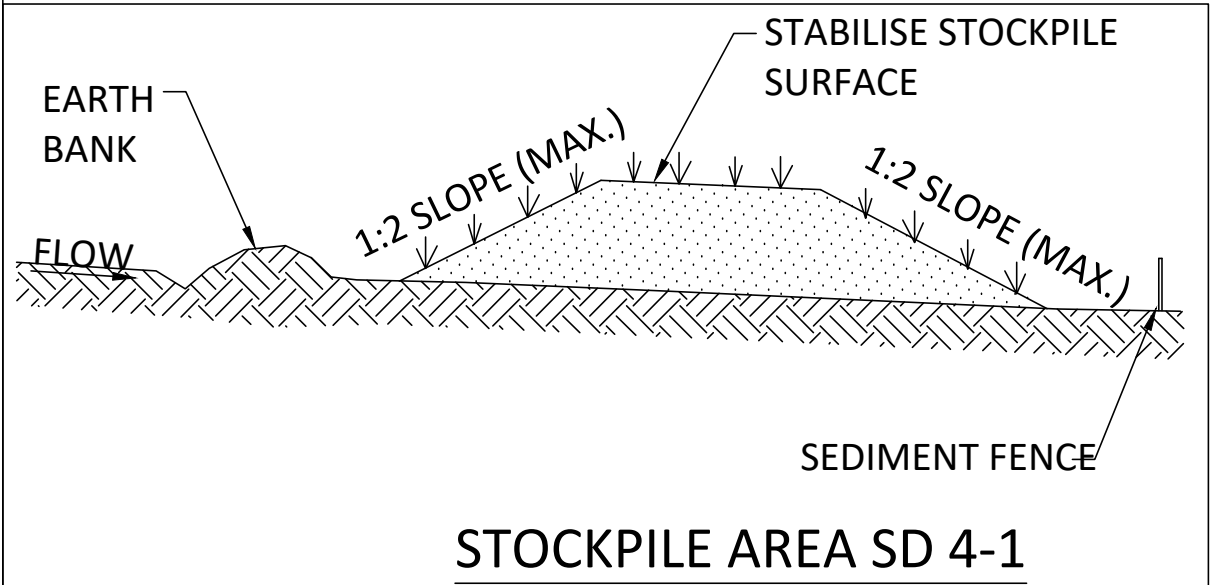
48-54 Beecroft Road & 52-54 Rawson St Epping NSW 2121

CIVIL & PUBLIC DOMAIN DRAWINGS



SEDIMENT & EROSION CONTROL DETAILS

DETAILS OBTAINED FROM MANAGING URBAN STORMWATER SOILS & CONSTRUCTION AUGUST 1998 - NSW DEPARTMENT OF HOUSING



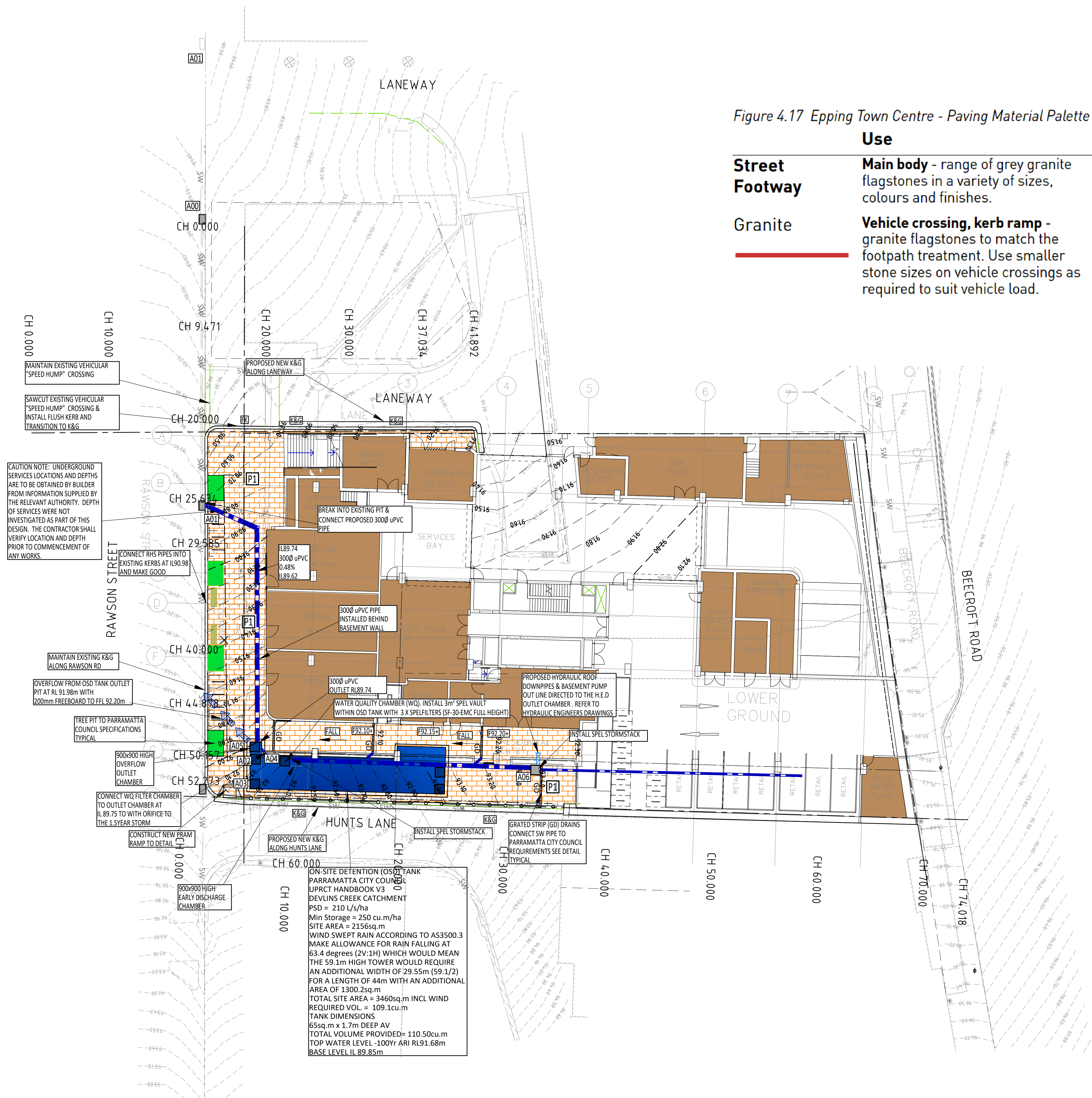


Figure 4.17 Epping Town Centre - Paving Material Palette

Use	Material
Street Footway	
Granite	
Main body	Product: "Sesame Grey" & "Adelaide Black (Veined)" or "Austral Black" Size: 600x300x50, 400x300x50mm Finish: exfoliated/bush hammered
Vehicle crossing, kerb ramp	Product: "Sesame Grey" & "Adelaide Black (Veined)" or "Austral Black" Size: 400x300x50, 200x300x50mm Finish: exfoliated
Kerb ramp	Product: "Sesame Grey" & "Adelaide Black (Veined)" or "Austral Black" Size: 600x300x50, 200x300x50mm Finish: exfoliated

LEGEND	EXISTING	PROPOSED	DESCRIPTION
10.2m	▲	5.1m	BENCH MARK - BM
+ 35.68	○	○ 35.20	CONTOURS
SW	□	■	PIPE & PIT
E	→	→	FLOOD EVACUATION PATH TO FIRST FLOOR EVACUATION ZONE
⊙	⊙	⊙	ELECTRICAL and POLE or PIT
⊙	⊙	⊙	GAS and VALVE or MARKER
⊙	⊙	⊙	SEWER and ACCESS CHAMBER
⊙	⊙	⊙	TELSTRA and PIT
⊙	⊙	⊙	WATER (HYDRANT & STOP VALVE)
⊙	⊙	⊙	STORMWATER NODE
⊙	⊙	⊙	COURTYARD FENCE
AHD	⊙	⊙	SLOPE JUNCTION
ARI	⊙	⊙	JUNCTION PIT
CE	⊙	⊙	K&G
DC	⊙	⊙	K&G
DCP	⊙	⊙	K&G
DD	⊙	⊙	K&G
DP	⊙	⊙	K&G
EL	⊙	⊙	K&G
Ex	⊙	⊙	K&G
FFL	⊙	⊙	K&G
GL	⊙	⊙	K&G
GP	⊙	⊙	K&G
HW	⊙	⊙	K&G
IL	⊙	⊙	K&G
IP	⊙	⊙	K&G
JN	⊙	⊙	K&G
JP	⊙	⊙	K&G
K&G	⊙	⊙	K&G
KO	⊙	⊙	K&G
KP	⊙	⊙	K&G
NS	⊙	⊙	K&G
N.T.S.	⊙	⊙	K&G
RW	⊙	⊙	K&G
SL	⊙	⊙	K&G
SP	⊙	⊙	K&G
TK	⊙	⊙	K&G
U.N.O.	⊙	⊙	K&G
VC	⊙	⊙	K&G

 WILSON CONSULTING ENGINEERS CIVIL - STORMWATER - FLOOD - STRUCTURAL WILSON SALVATORE PTY LTD - ABN 4861107412, 104-12 BLAKE AND RD FIVE SW 212 mail@wilsonengineers.com.au www.wilsonengineers.com.au M: +61 401 415 515	04	REVISED FOR APPROVAL	10.02.23	AL	COPYRIGHT OF ALL DETAILS EXIST ON THIS DRAWING WITH ALL RIGHTS BELONGING TO THE AUTHOR	Designed by	Approved by - date	File name	Date	Scale																
	03	REVISED FOR APPROVAL	09.12.22	AL		AL	AL - 05.10.22	210803 - C01	10.02.23	1:100 @ A1																
	02	REVISED FOR APPROVAL	05.10.22	AL		SITE PLAN - GROUND FLOOR 48-54 Beecroft Rd & 52-54 Rawson St Epping																				
	01	ISSUED FOR APPROVAL	17.06.21	AL																						
	Rev	Note	Date	Signature		Checked	Local Government Area:		PARRAMATTA																	
					Dwg No.		210803 - C01		Edition 04	Sheet 2/9																
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Material

Main body - range of grey granite flagstones in a variety of sizes, colours and finishes.

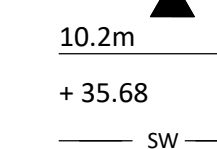
Vehicle crossing, kerb ramp - granite flagstones to match the footpath treatment. Use smaller stone sizes on vehicle crossings as required to suit vehicle load.



Main body
Product: "Sesame Grey" &
"Adelaide Black (Veined)" or
"Austral Black"
Size: 600x300x50,
400x300x50mm
Finish: exfoliated/bush
hammered

Vehicle crossing
Product: "Sesame Grey" &
"Adelaide Black (Veined)" or
"Austral Black"
Size: 400x300x50,
200x300x50mm
Finish: exfoliated

Kerb ramp
Product: "Sesame Grey" &
"Adelaide Black (Veined)" or
"Austral Black"
Size: 400x300x50, 200x300x50,
600x300x50mm
Finish: exfoliated



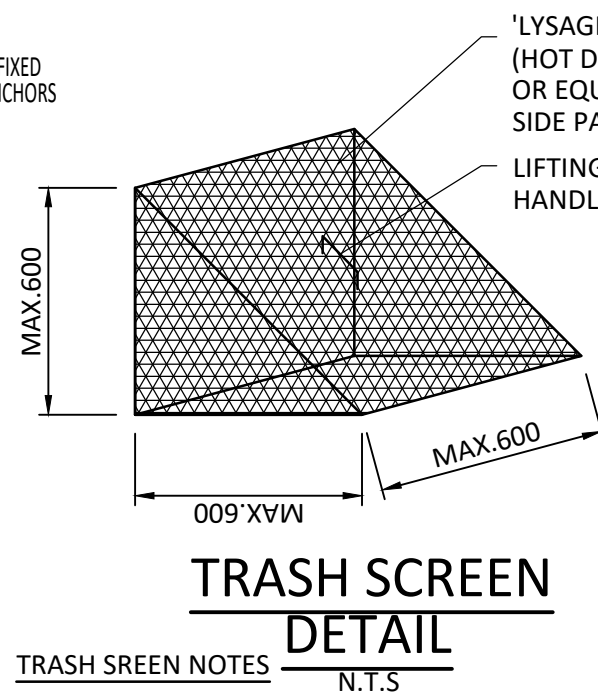
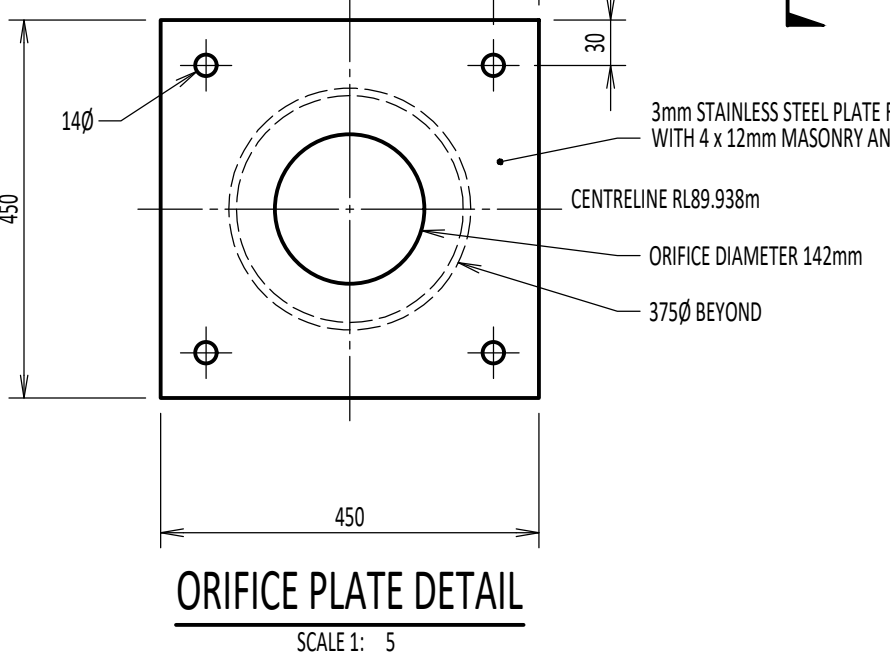
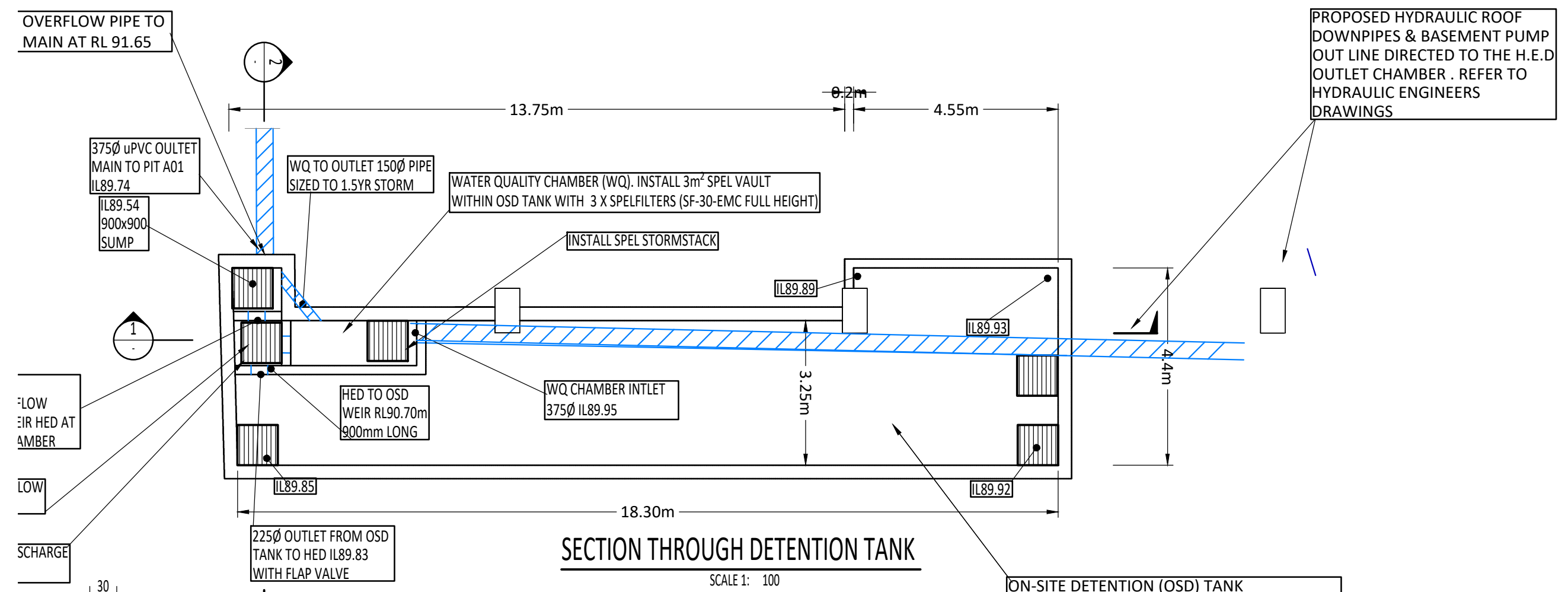
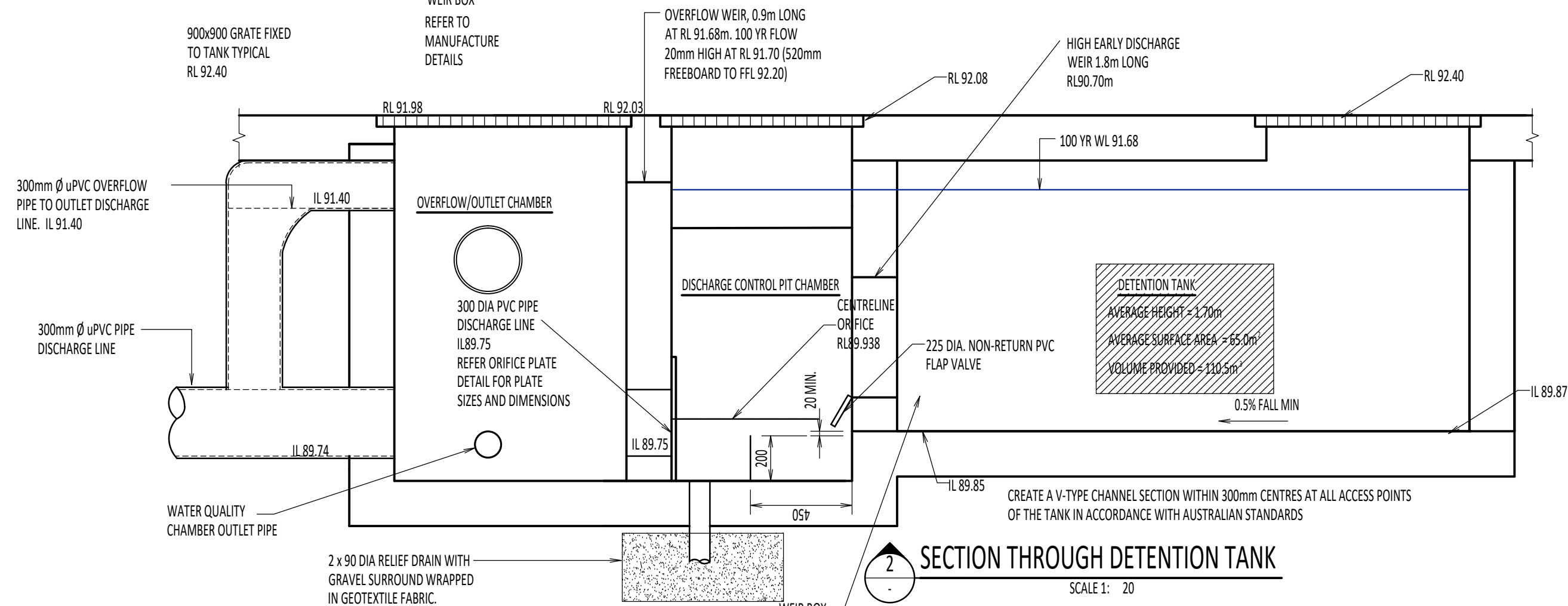
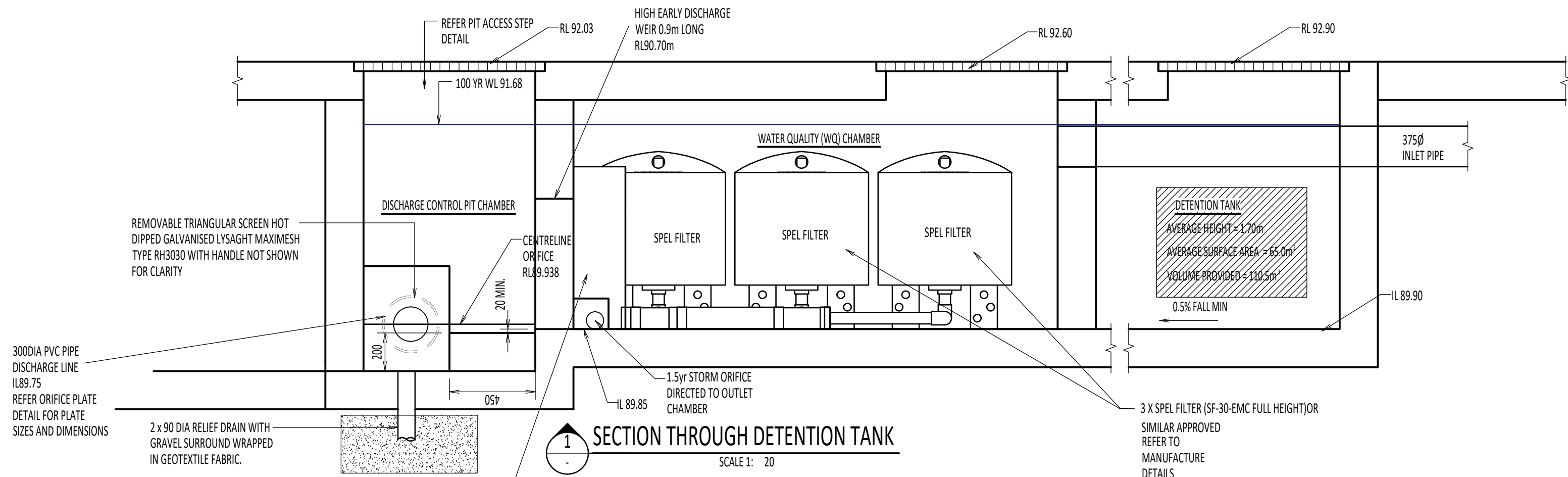
10.2m
+ 35.68
———— SW ————

CONTOURS
SPOT HEIGHT
PIPE & PIT

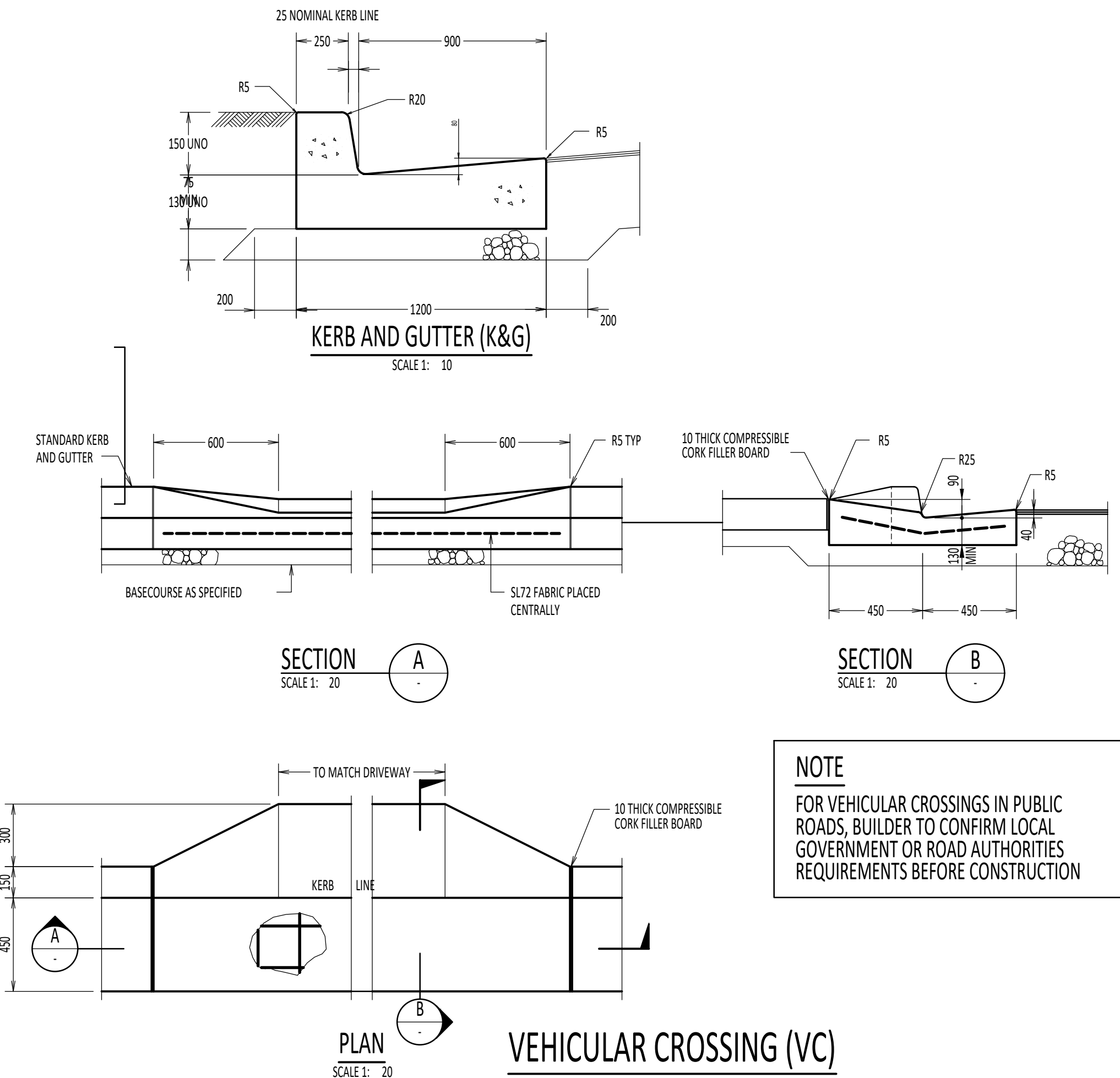
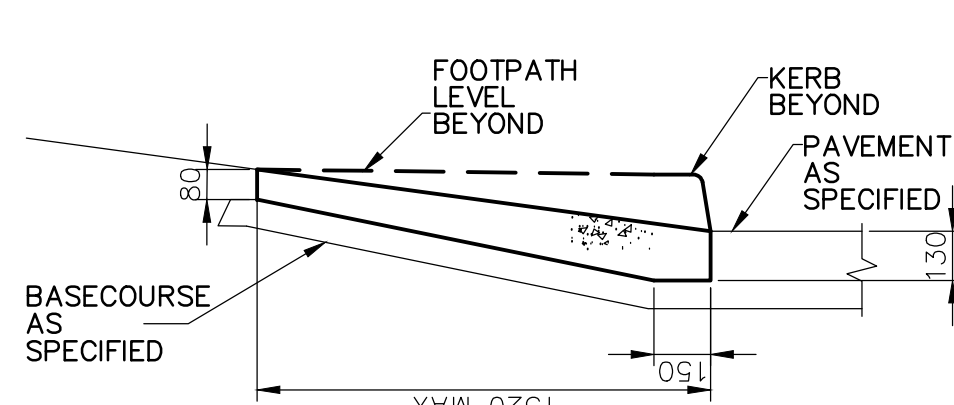
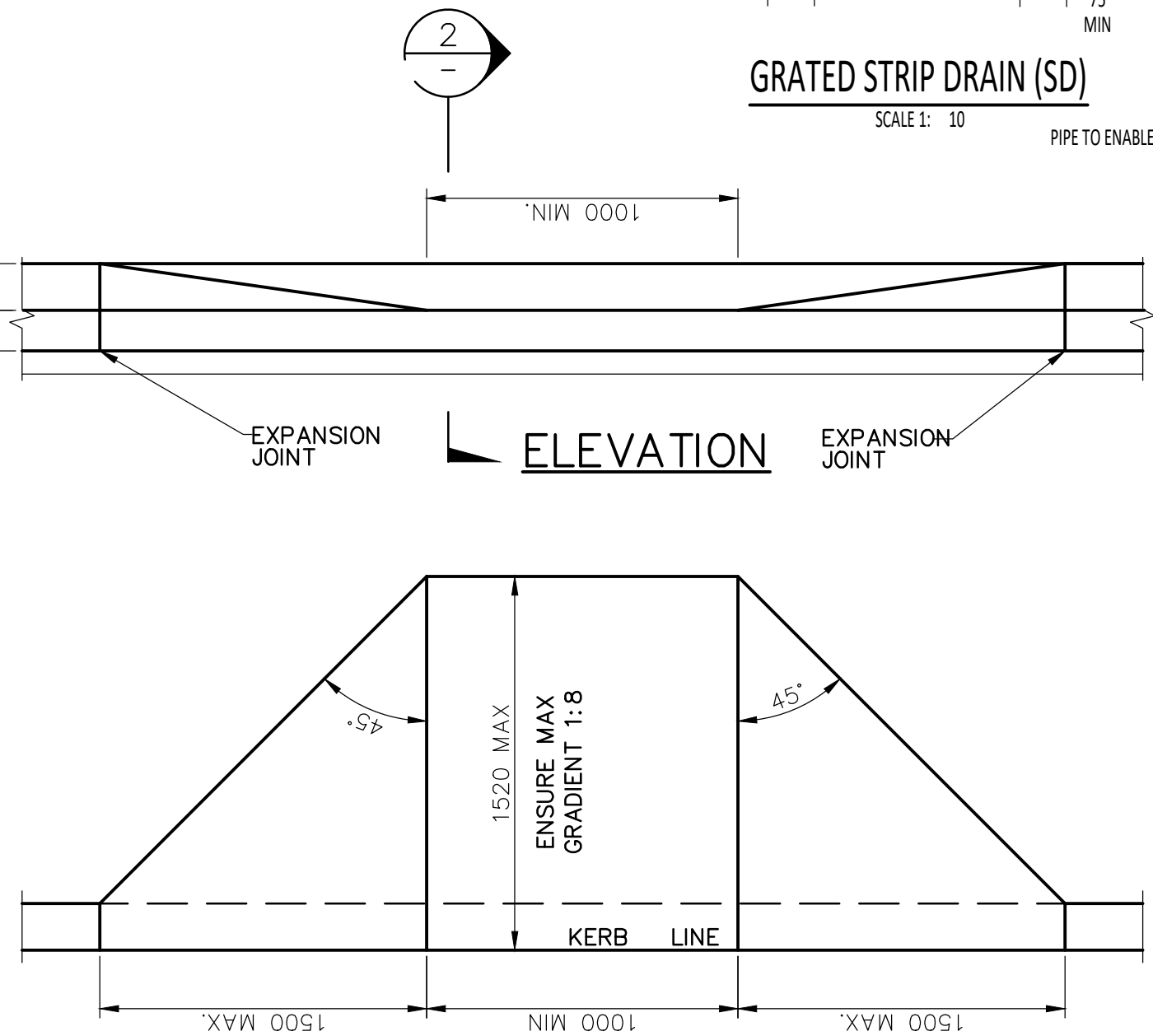
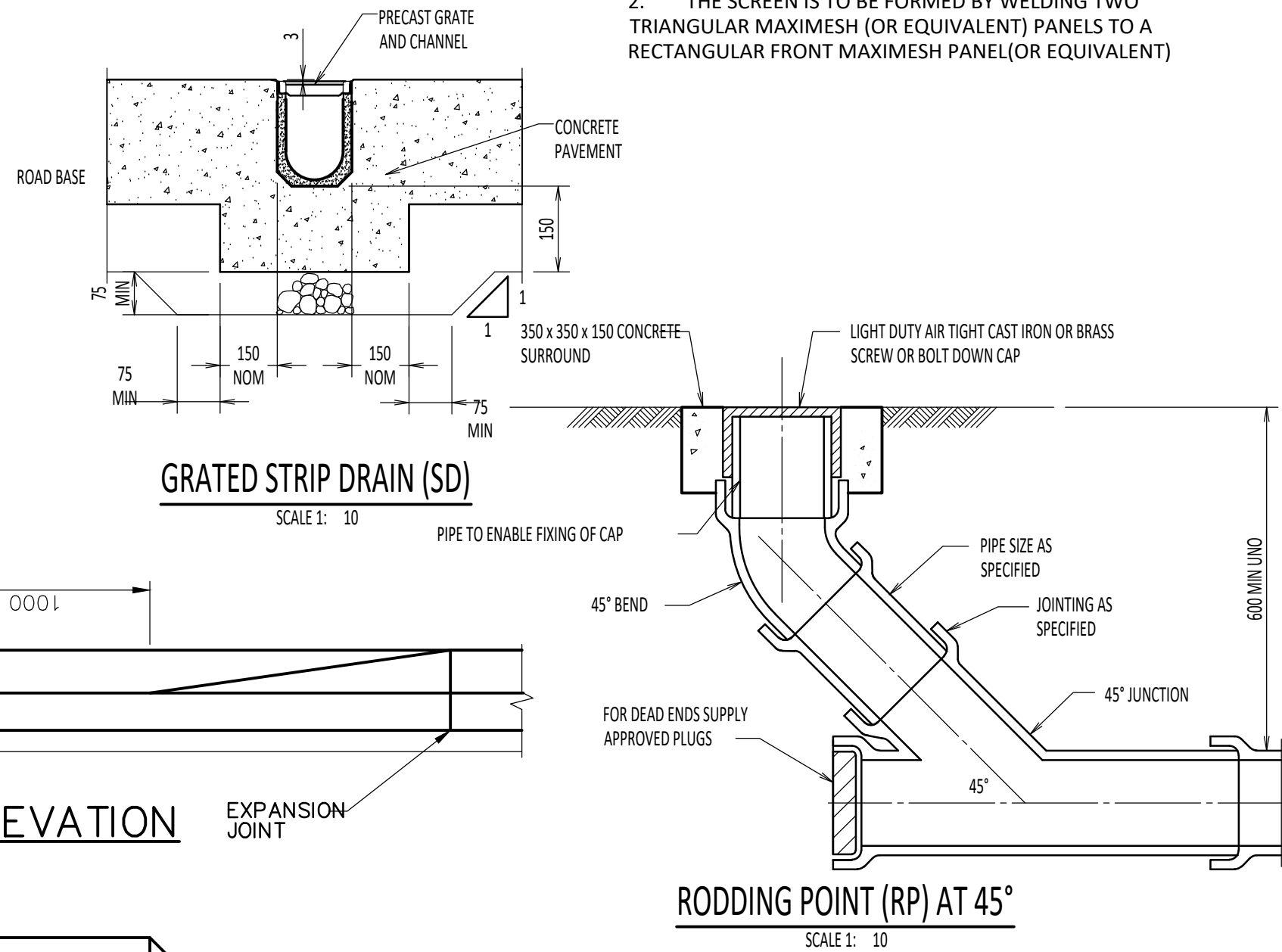
FLOOD EVACUATION PATH
TO FIRST FLOOR EVACUATION ZONE
ELECTRICAL and POLE or PIT
GAS and VALVE or MARKER
SEWER and ACCESS CHAMBER
TELSTRA and PIT
WATER (HYDRANT & STOP VALVE)
STORMWATER NODE
COURTYARD FENCE

AHD	AUSTRALIAN HEIGHT DATUM
ARI	AVERAGE RECURRENCE INTERVAL
CE	CLEANING EYE
DC	DIRECT CONNECTION
DCP	DISCHARGE CONTROL PIT
DD	DISH DRAIN
DP	DOWNPIPE
EL	EXISTING SURFACE LEVEL
Ex	EXISTING FEATURE (PREFIX)
FFL:	FINISHED FLOOR LEVEL
GL	GRATE LEVEL
GP	GRATED SURFACE INLET PIT
HW	HEADWALL
IL:	INVERT LEVEL
IP	INLET PIT

JN	SLOPE JUNCTION
JP	JUNCTION PIT
K&G	KERB & GUTTER
KO	KERB ONLY
KP	KERB INLET PIT
NS	NATURAL SURFACE
N.T.S.	NOT TO SCALE
RW	RETAINING WALL
SL	PROPOSED SURFACE LEVEL
SP	SURCHARGE PIT
TK	TOP OF KERB
U.N.O.	UNLESS NOTED OTHERWISE
VC	VEHICULAR CROSSING



- TRASH SCREEN NOTES**
N.T.S.
- MAXIMESH SCREENS MUST BE PLACED SUCH THAT THE LONG AXIS OF THE OVAL SHAPED HOLES ARE ORIENTATED HORIZONTALLY WITH THE PORTRUDING LIP ANGLED UPWARDS AND FACING TOWARDS THE OUTLET.
 - THE SCREEN IS TO BE FORMED BY WELDING TWO TRIANGULAR MAXIMESH (OR EQUIVALENT) PANELS TO A RECTANGULAR FRONT MAXIMESH PANEL (OR EQUIVALENT)

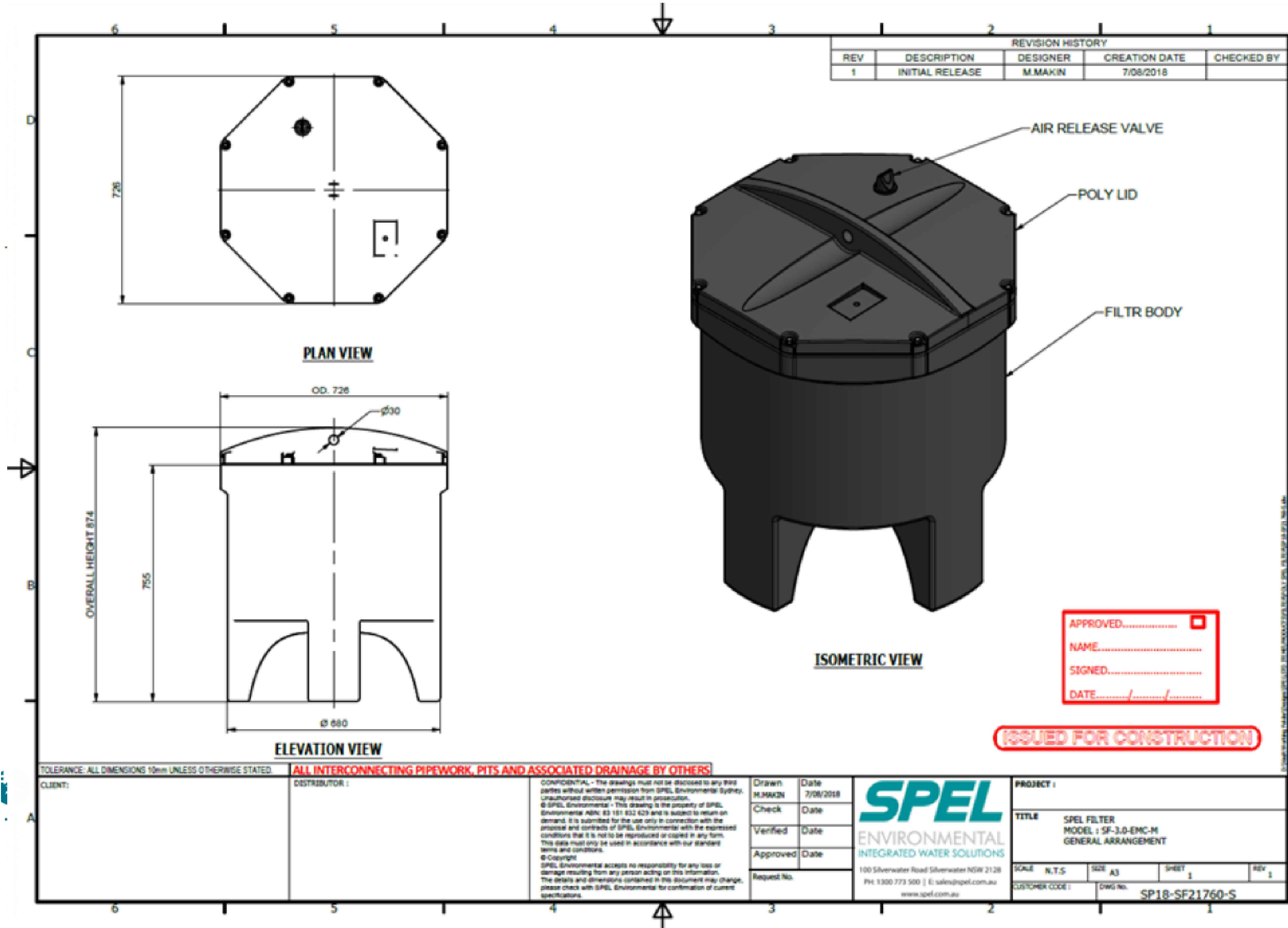


NOTE
FOR VEHICULAR CROSSINGS IN PUBLIC ROADS, BUILDER TO CONFIRM LOCAL GOVERNMENT OR ROAD AUTHORITIES REQUIREMENTS BEFORE CONSTRUCTION

Upper Parramatta River Catchment Trust				
On-site Detention Calculation Sheet - Drainage Design Summary				
Project :	EPPING TOWER			
Location :	48-54 Beecroft Rd & 52-54 Rawson Street, Epping			
Council :	PARRAMATTA - Devlins Creek			
Our Ref :	210803			
Designer :	WILSON CONSULTING ENGINEERS			
Site Area (INCL ADDITIONAL AREA FOR TOWER)	=	0.346 ha	[A]	
Minimum Site Storage	=	250 m³/ha	SSR	
Basic Storage Volume = SSRx[A]	=	86.4 m³	[B]	
Maximum Permissible Site Discharge	=	210 L/s/ha	PSD	
Basic Discharge = PSDx[A]	=	72.6 L/s	[C]	
Area of Site Drained to Storage	=	94.4 %	[E]	
(NOT Less than 85 % of TOTAL Site)	=	0.326 ha	[D]	
Storage per ha of contributing area = [B]/[D]	=	265 m³/ha	[F]	
Adjusted PSD per ha (based on [F])	=	176.9 L/s/ha	[G]	
(Refer Equation on Fig 5.1 in OSD Handbook)				
Determine PSD = [G]x[D]	=	57.7 L/s	[H]	
Maximum Head to Orifice centre	=	1.75 m	[K]	
Weir Flow to t	=	0.267 m	[I]	
Orifice Diameter = $(0.464 \times [H] / [K]^{0.5})^{0.5}$	=	142 mm	[J]	
Maximum Discharge	=	41.9 L/s	[L]	
Head for High Early Discharge	=	0.98 m	[M]	
High Early Discharge	=	41.9 L/s	[N]	
Approximate Mean Discharge = $([L] + [N]) / 2$	=	41.9 L/s	[P]	
Average Discharge per ha = [P]/[D]	=	128.6 L/s/ha	[Q]	
Final Storage Volume per ha (based on [Q])	=	334 m³/ha	[R]	
(Refer Equation on Fig 5.1 in OSD Handbook)				
ACTUAL Site Storage REQUIRED = [D]x[R]	=	109.1 m³	[S]	
HED Storage Proportion = [S] x %	=	2.2 m³	[T]	
HED Chamber Storage	=	2.0 %		
Above Ground Storage Proportion = [S] x %	=	0.0 m³	[U]	
Above Ground (Surface) Storage	=	0.0 %		
Below Ground Storage Proportion = [S] x %	=	106.9 m³	[V]	
Below Ground (Tank) Storage	=	98.0 %		
CHECK : [T] + [U] + [V] = [S]	=	109.1 m³	OKAY	
m AHD Outlet Level Details				
91.680	Peak Water RL			
90.700	HED RL (or if no HED, Grate RL if surface storage)			
0.900	HED Weir Length (Cw = 1.6)			
89.928	Centrelne Orifice			
0.142	Orifice Size			
89.740	Outlet Pipe Invert RL			
0.300	Outlet Pipe Diameter			
0.200	Nominal Sump Depth			
89.540	Sump RL (Maximum)			

	04	REVISED FOR DA APPROVAL	10.02.23	AL	COPYRIGHT OF ALL DETAILS SHOWN ON THIS DRAWING WITH ALL RIGHTS BELONGING TO THE AUTHOR	Designed by	Approved by - date	File name	Date	Local Government Area: PARRAMATTA Dwg No. 210803 - C03 Edition 04 Sheet 4/9
	03	REVISED FOR DA APPROVAL	09.12.22	AL		AL	AL - 05.10.22	210803 - C03	10.02.23	
	02	REVISED FOR DA APPROVAL	05.10.22	AL		AL				
	01	ISSUED FOR DA APPROVAL	26.04.22	AL		AL				
	Rev	Note	Date	Signature		Checked				
DETAIL PLAN 1					48-54 Beecroft Rd & 52-54 Rawson St Epping					

Standard Drawings - Full Height



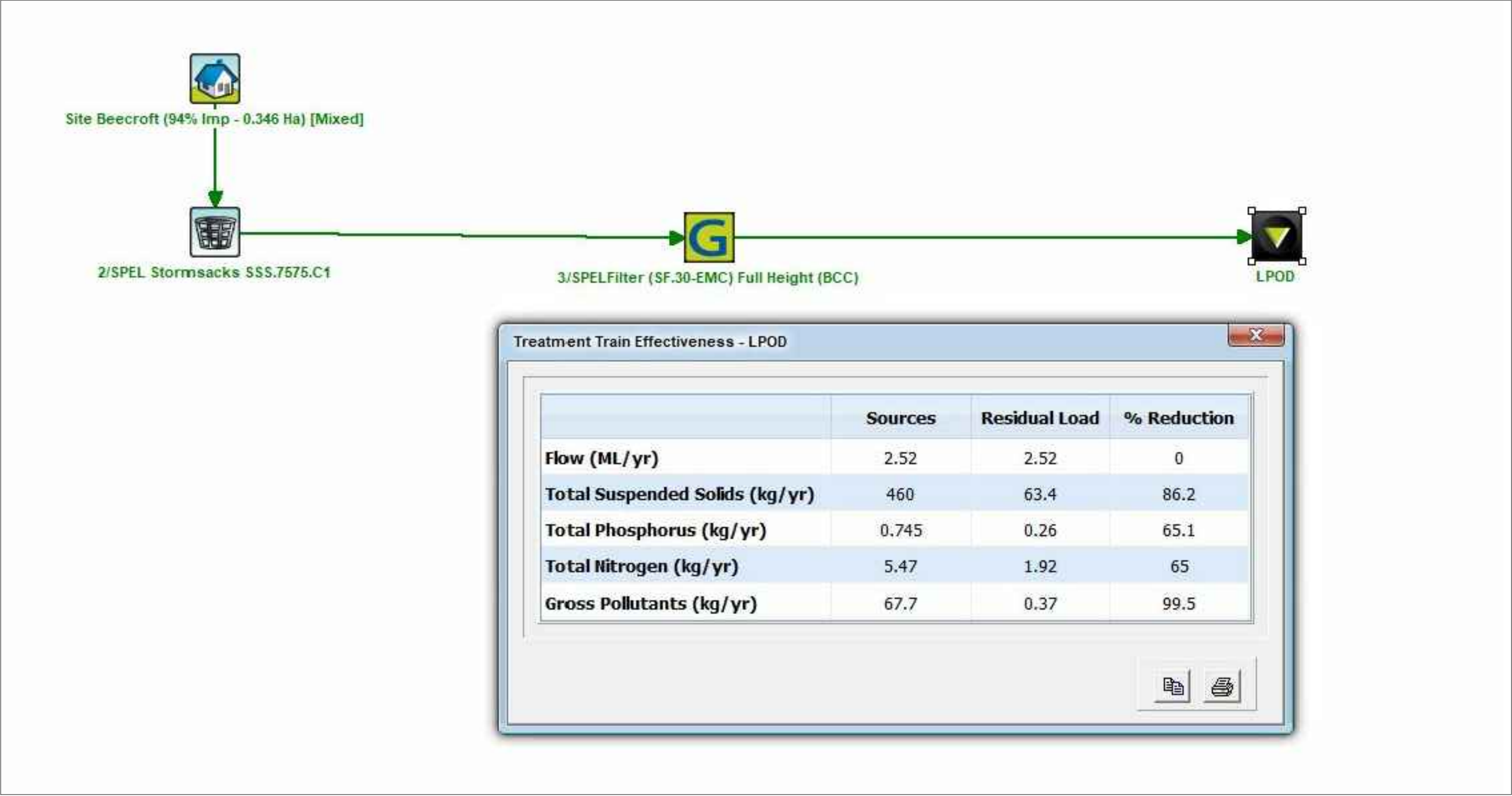
Parramatta Council Water Quality Requirements

The following stormwater quality targets for post development shall be adopted in accordance with modelling guideline developed by Sydney Metropolitan Catchment Management Authority (CMA).

- a) 90% reduction in the post development Average Annual Gross Pollutant load (greater than 5mm)
- b) 85% reduction in the post development Mean Annual Load of Total Suspended Solids (TSS)
- c) 65% reduction in the post development Mean Annual Load of Total Phosphorus (TP)
- d) 45% reduction in the post development Mean Annual Load of Total Nitrogen (TN)
- e) Water Quality requirements should be determined by modelling of the proposed development to meet the quality targets. Computer models like MUSIC (the Model for Urban Stormwater Improvement Conceptualisation) can be used to present default and proposed water quality parameters

Music Model Layout

A MUSIC model was created to simulate development scenario. The development model has been developed to estimate the mean annual runoff and pollutant loads under proposed post construction conditions and is based on the internal catchment area in an urban mixed catchment setting.

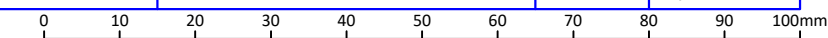


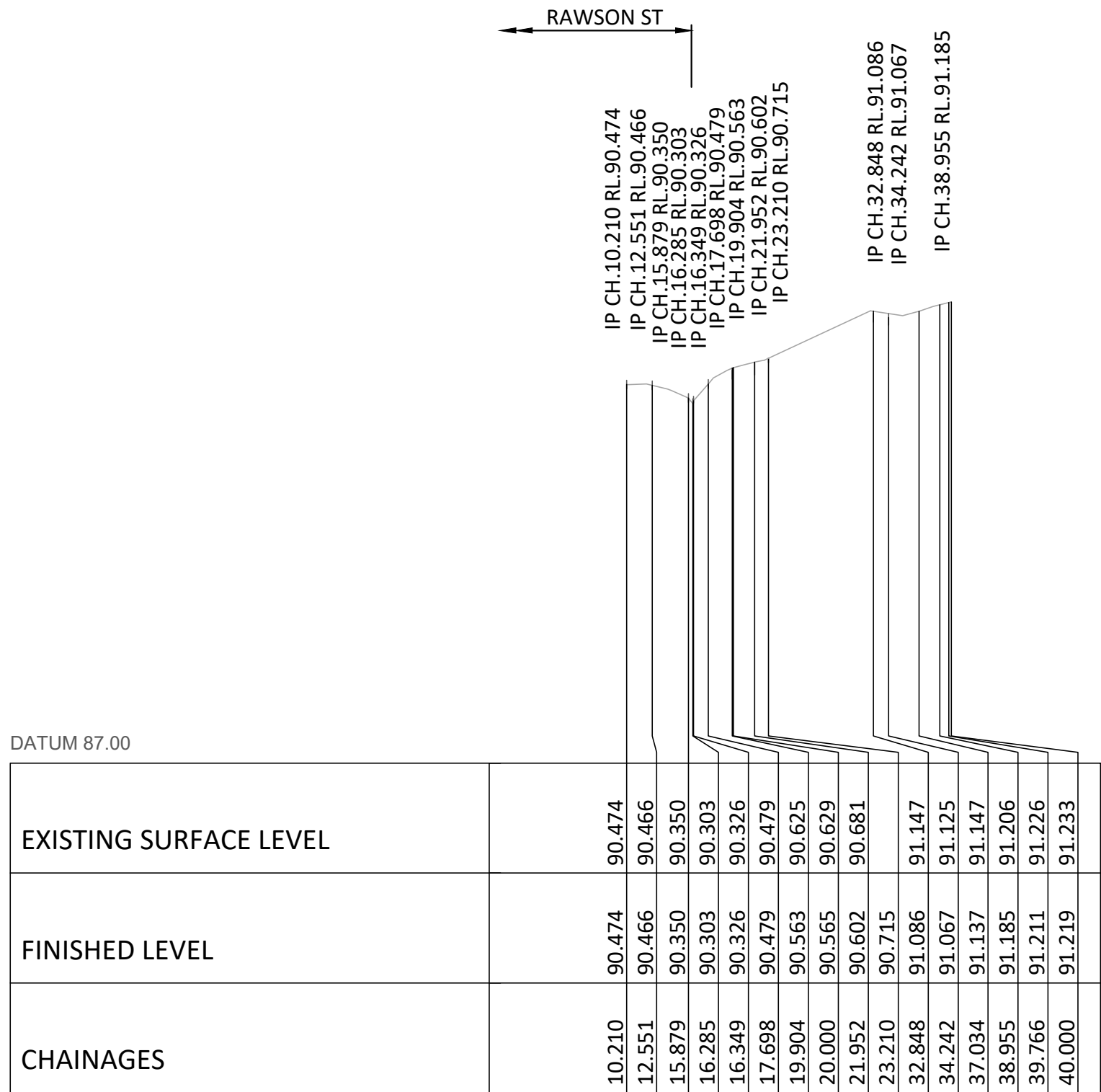


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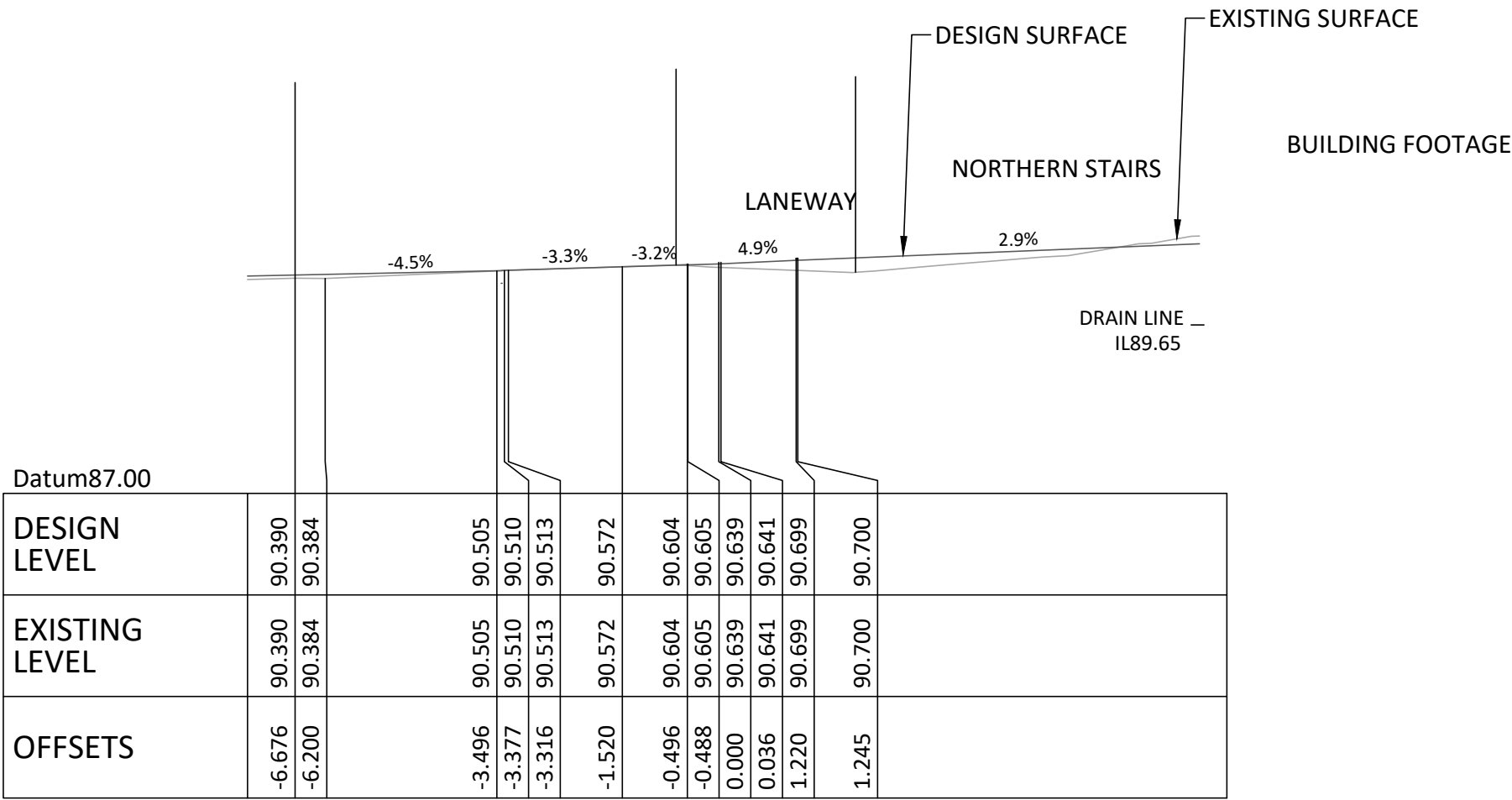
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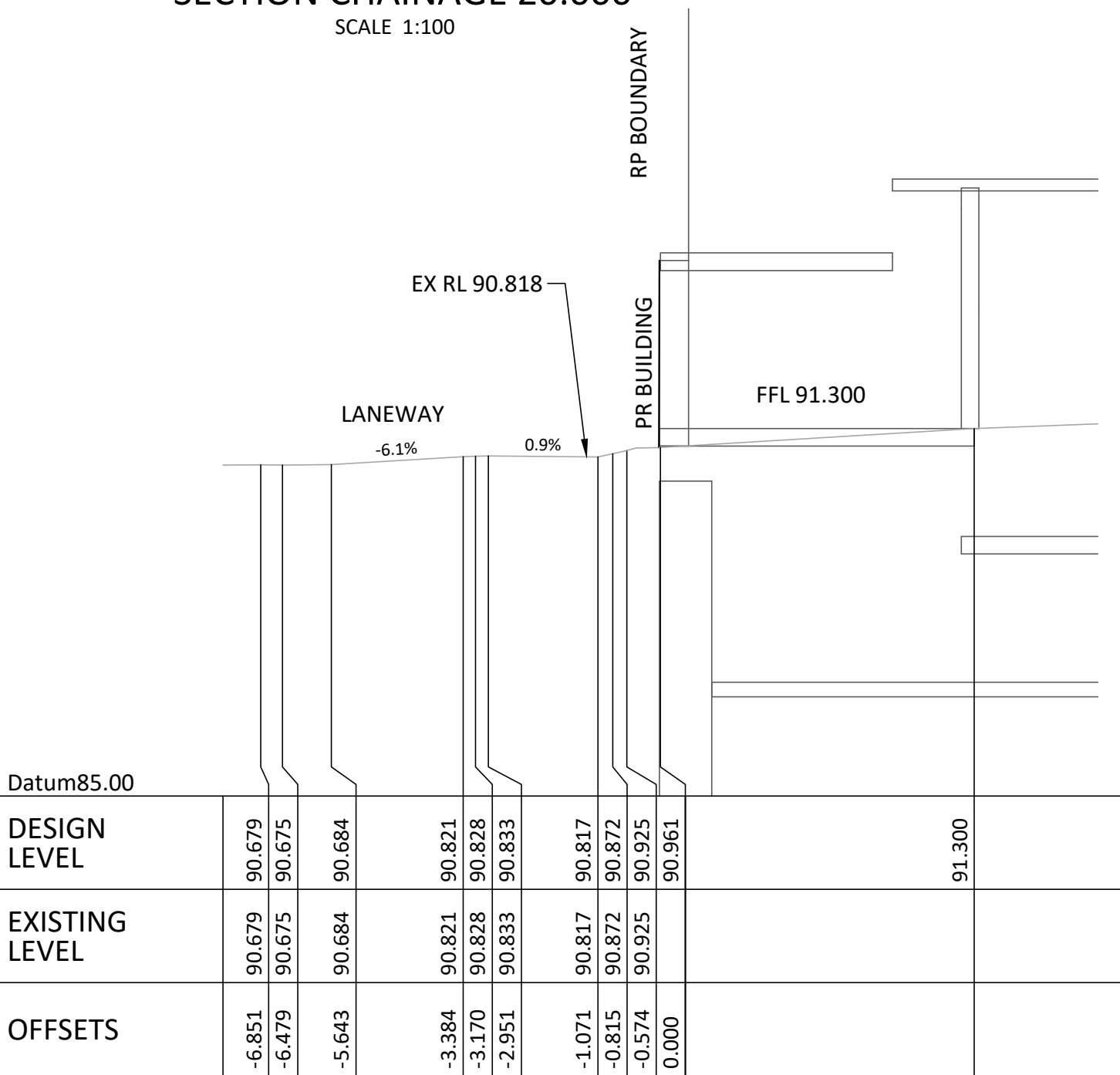
NORTHERN LANEWAY LONGSECTION

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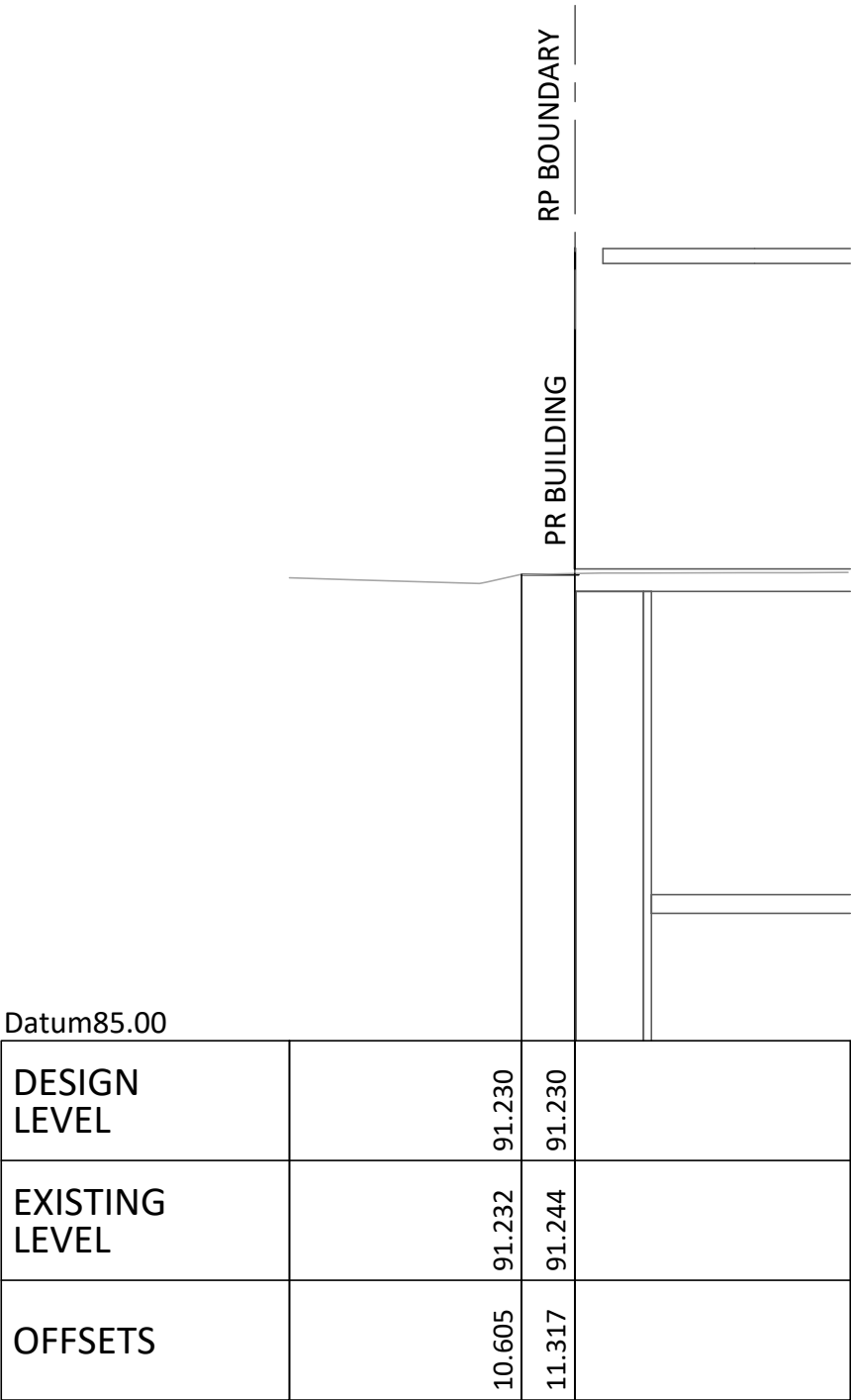
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SECTION CHAINAGE 30.000

SCALE 1:100



SECTION CHAINAGE 40.000

SCALE 1:100

