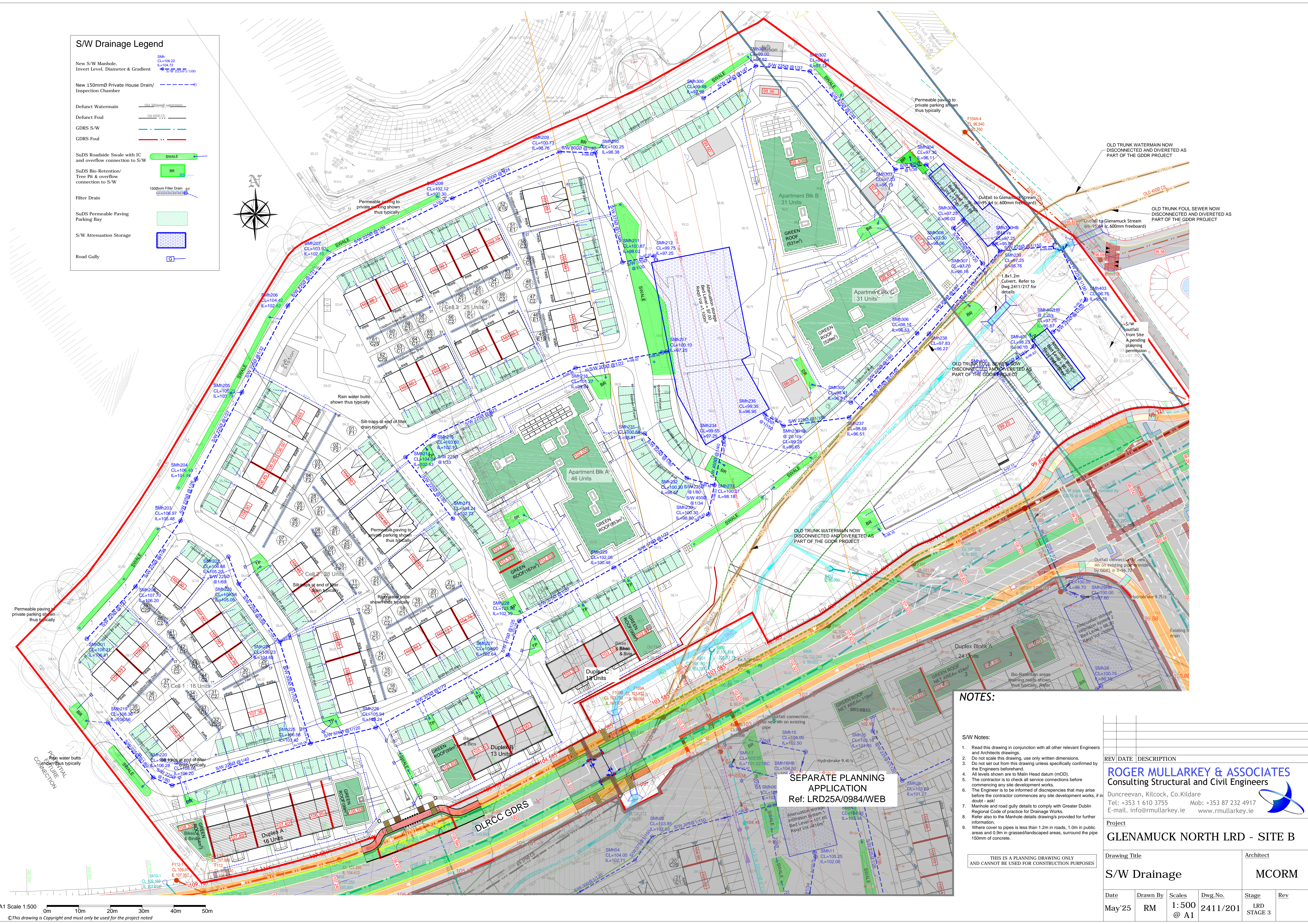


S/W Drainage Legend

New S/W Manhole, Invert Level, Diameter & Gradient	SMh CL=106.22 IL=104.72 S/W 225 @ 1/100
New 150mmØ Private House Drain/ Inspection Chamber	---
Defunct Watermain	---
Defunct Foul	---
GDRS S/W	---
GDRS Foul	---
SuDS Roadside Swale with IC and overflow connection to S/W	SWALE
SuDS Bio-Retention/ Tree Pit & overflow connection to S/W	BR
Filter Drain	1500mm Filter Drain ST
SuDS Permeable Paving Parking Bay	---
S/W Attenuation Storage	---
Road Gully	G



SEPARATE PLANNING
APPLICATION
Ref: LRD25A/0984/WEB

NOTES:

S/W Notes:

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- Do not scale this drawing, use only written dimensions.
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- All levels shown are to Main Head datum (mOD).
- The contractor is to check all service connections before commencing any site development works.
- The Engineer is to be informed of discrepancies that may arise before the contractor commences any site development works, if in doubt - ask!
- Manhole and road gully details to comply with Greater Dublin Regional Code of practice for Drainage Works.
- Refer also to the Manhole details drawings provided for further information.
- Where cover to pipes is less than 1.2m in roads, 1.0m in public areas and 0.9m in grassed/landscaped areas, surround the pipe 150mm of concrete.

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AND CANNOT BE USED FOR CONSTRUCTION PURPOSES

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Project
GLENAMUCK NORTH LRD - SITE B

Drawing Title
S/W Drainage
Architect
MCORM

Date	Drawn By	Scales	Dwg.No.	Stage	Rev
May'25	RM	1:500 @ A1	2411/201	LRD STAGE 3	

NTS

Scale 1:50

Scale: 1:20.

- # NOTES:
1. Read in conjunction with all relevant Architect's and Engineer's drawings.
 2. Do not set out from this drawing. Setting out to be done from Architect's drawings.
 3. Manhole and road gully depths to comply with Greater Dublin Regional Code of practice for Drainage Works.
 4. All pipes up to and including 150mm to be Wavin Tritec laid in accordance with IAB building products certification. Minimum fall 1/80 UNO. House drains to be laid a minimum of 5m from rear of house, UNO.
 5. All pipes 225mm and over to be S&S concrete with rubber rings, laid on a 150mm concrete bed and haunched or surrounded.
 6. Where cover to be less than 1.2m in public areas, 1.0m in public areas and 0.8m in grassed/landscaped areas, surround the pipe up to 150mm with 100mm concrete and larger pipes with 300mm Concrete.
 7. Back-fill trenches in depths to detail.
 8. Adjust foundation depths, as necessary, adjacent to sewers to avoid undermining of the foundations.
 9. Manhole covers and frames shall comply with the LA standard pattern with min opening of 600mm & with closed keyways, all Manholes covers to comply with IS EN 124:1994. Group 4 (min. class D400) manholes in all trafficked areas, Minimum Group 2 (min. class B125) to be used in footpaths, pedestrian areas and comparable areas, Class D400 should be used in footpaths where heavy vehicles have the potential to access or mount footpaths and these covers should be free of trip hazards, removable parts be lockable, an example of suitable cover type is a Cavanagh Bronze, supplied by Cavanagh Foundry Ltd.
 10. Group 1 (min. class A15) may be used in enclosed private gardens only.
 11. Manholes on house drains to be in private property. House drains shall not pass through property they do not serve.
 12. Downfall gullies, with covers to be constructed to main, to be provided at low points and at the ends of Cul de Sacs. Maximum run of pipe 15m. Minimum pipe diameter 150mm. Maximum gully spacing for roads up to 7m wide to be 50m UNO.
 13. All Road gullies to be closed in the direction of traffic flow.
 14. All Gully tops shall comply with the LA standard. Group 3 (min. class C250) where gully are located in the kerbside channels of roads when measured from the kerb, extend a maximum of 0.5m into the carriageway and a maximum of 0.2m into the footpath, Group 4 (min. class D400) to be used elsewhere.
 15. All gully covers to comply with IS EN 124:1994
 16. Record drawings of the as constructed work shall be made available to RMA at the end of the project.
 17. All connections to existing public services must be determined by the main contractor prior to any construction on site. All existing invert levels to be confirmed to the engineers and all discrepancies notified to RMA before any construction commences.

REFER TO DWG.No.2411/108 FOR MANHOLE DETAILS

Scale 1:20

Scale 1:100

Scale 1:10

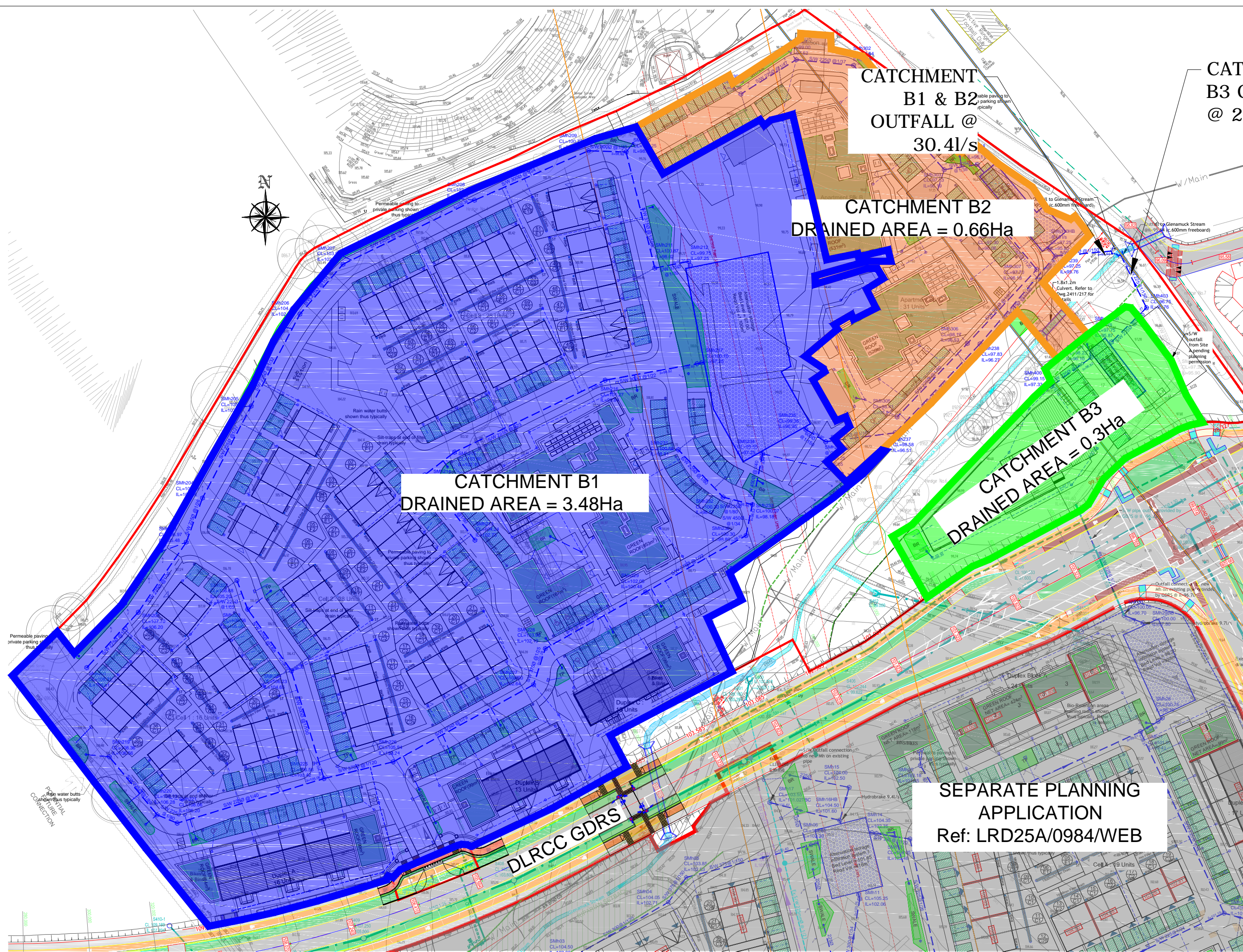
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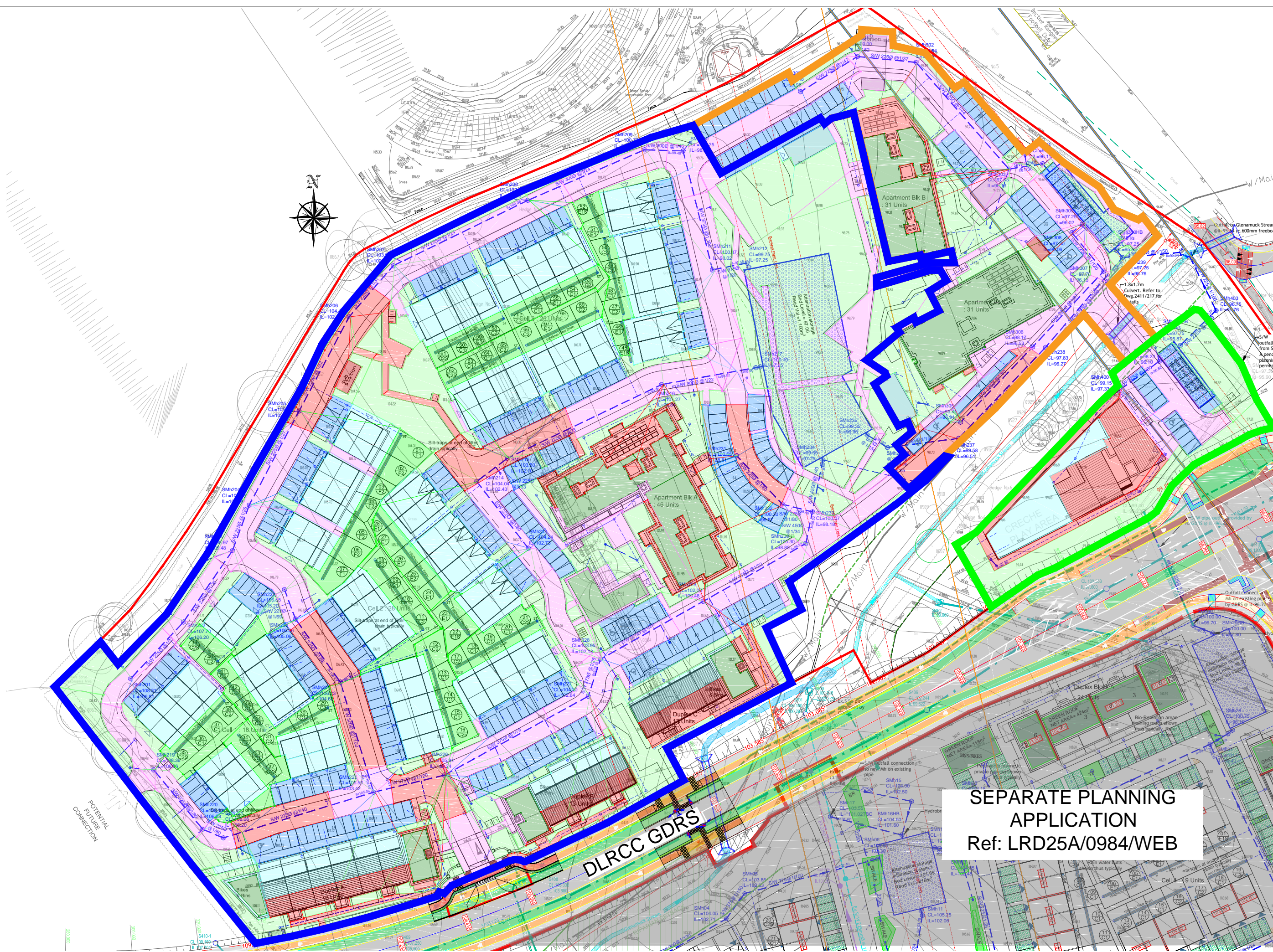
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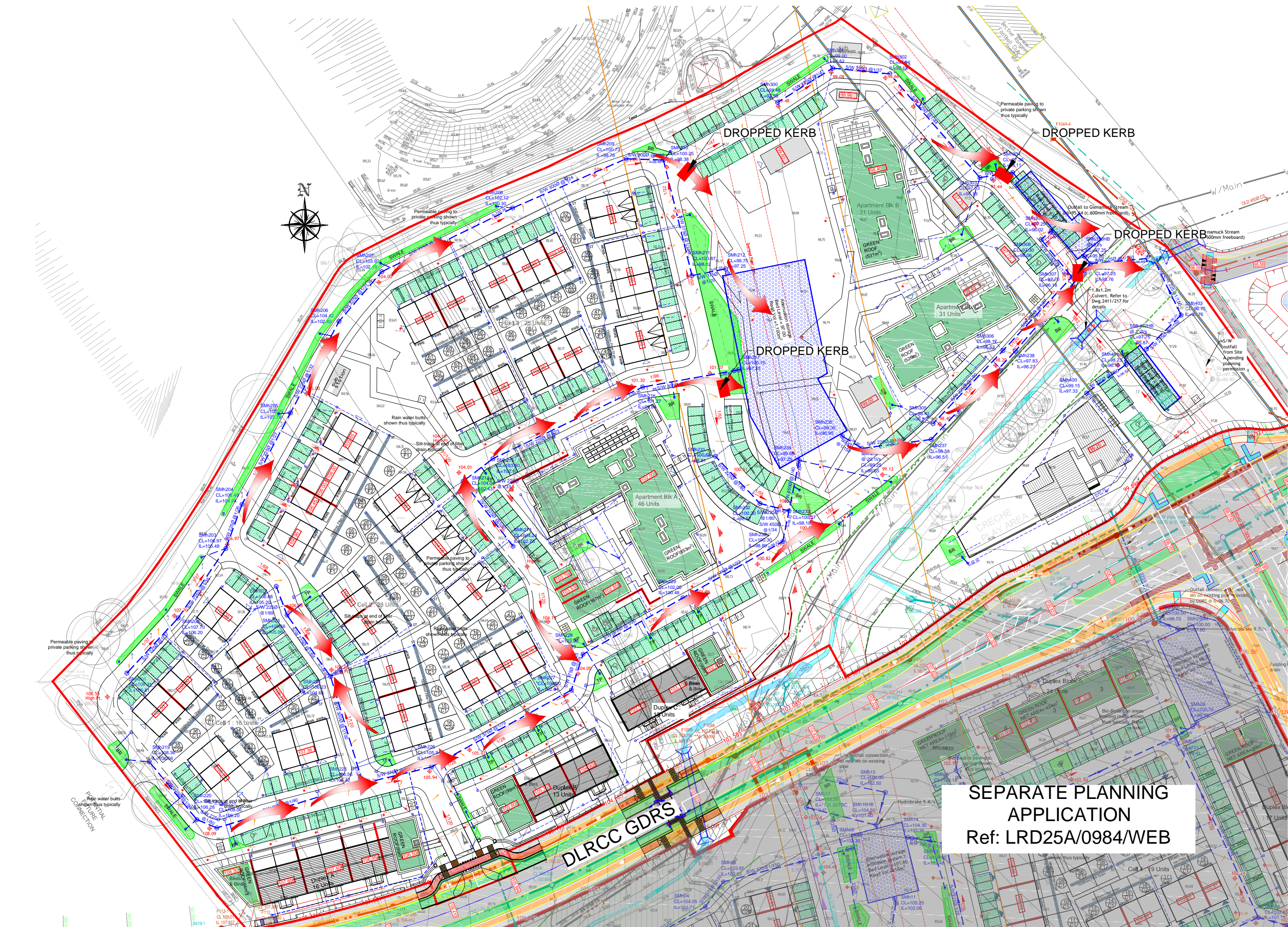


S/W Drainage Catchments Scale 1:1000



S/W Drained Areas

Scale 1:1000				
Surface Type	PAF	GROSS AREA (Ha)	NET AREA (Ha)	Colour
Impermeable to Drain	0.95	0.503	0.48	
Green Roof	0.83	0.269	0.22	
Roof to Suds	0.71	0.744	0.53	
Road/Paths to Suds	0.70	0.925	0.65	
Permeable Paving	0.60	0.557	0.33	
Grassland drained	0.37	1.438	0.58	
TOTAL		4.44	2.79	

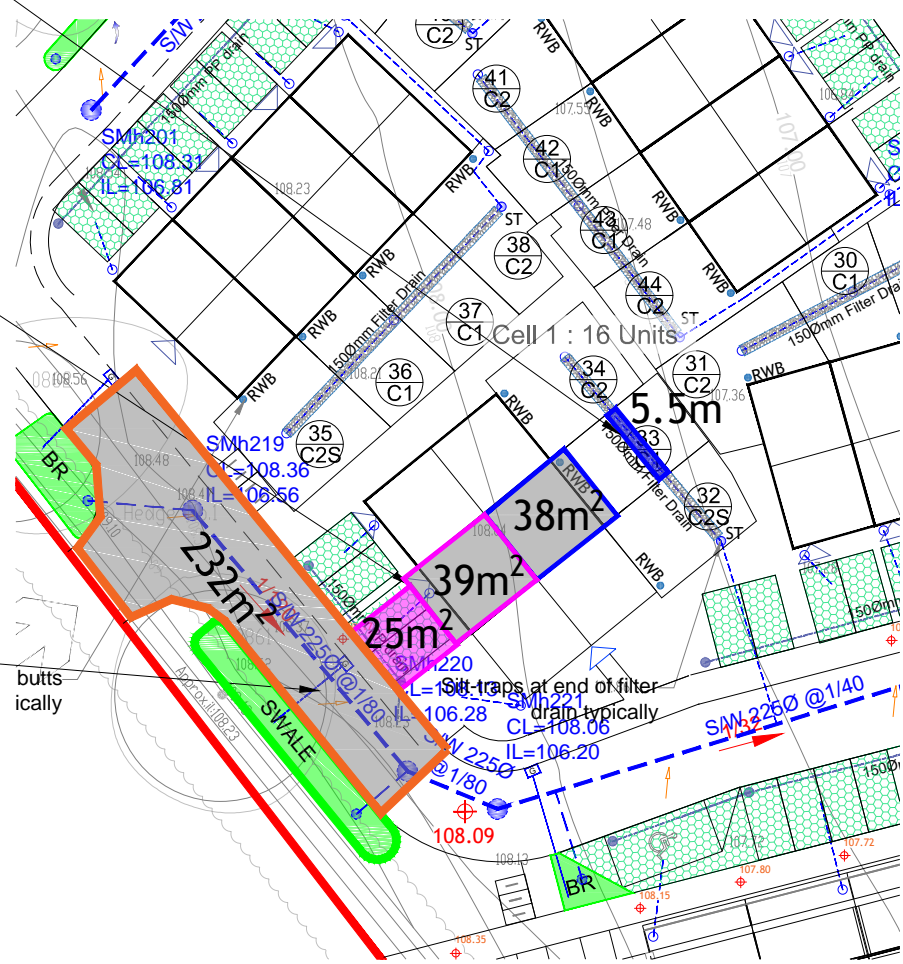


Exceedance Flow Path Scale 1:1000

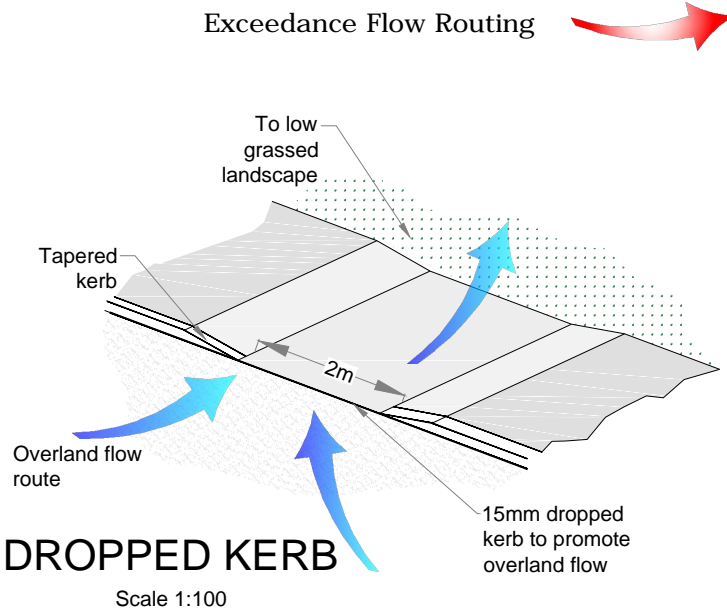
REAR ROOF AND PATH DRAINING TO FILTER DRAIN :
Area Roof/Path = 38m². Interception volume required as per GDSDS = 80% of impermeable area for 5mm rainfall, therefore: 38m² x 0.8 x 0.005 = 0.152m³ interception required.
Interception provided in the 150mm depth of 40% voids stone below the 5.5m long x 0.75m wide filter drain as follows:
5.5x0.75x0.15x0.4 = 0.248m³ interception volume provided.
As the 0.248m³ provided is greater than 0.152m³ required, the localised interception is deemed as sufficient.

FRONT ROOF AND PATH DRAINING TO PERMEABLE PAVING :
Area Roof/Path = 39m²
Area Permeable Paving = 25m²
CIRIA Table 4.6 notes 2 times permeable paved area is compliant for interception. Therefore 25m² x 2 = 50m² < 64m² and additional downstream interception is required. Noting that interception volume required as per GDSDS = 80% of impermeable area for 5mm rainfall, therefore: 64m² x 0.8 x 0.005 = 0.256m³ interception required.
Interception provided in 30% voids of 300mm stone below perforated drain = 0.3 x 25 x 0.3 = 2.25m³ interception volume provided.
As the 2.25m³ provided is greater than 0.256m³ required, the localised interception is deemed as sufficient.

ROAD DRAINING TO SWALE:
Area Road = 232m²
Area Swale = 48m²
CIRIA Table 4.6 notes 5 times drained area is allowable. Therefore 5 x 48 = 240m² > 232m² is deemed compliant

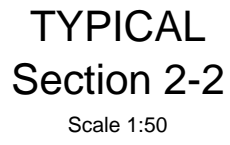
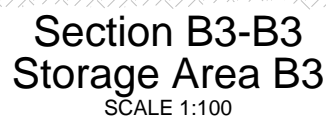


Sample Localised Interception Scale 1:500



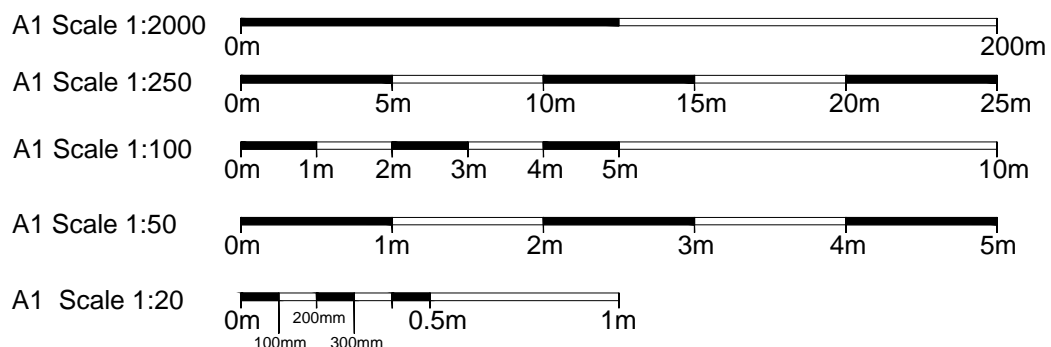
DROPPED KERB Scale 1:100


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Project GLENAMUCK NORTH LRD - Site B	
Drawing Title Drainage Catchments & Exceedance Flow	
Architect MCORM	
Date Mar'25	Drawn By RM
Scales As Shown @ A1	Dwg.No. 2411/206
Stage LRD Stage 3	Rev

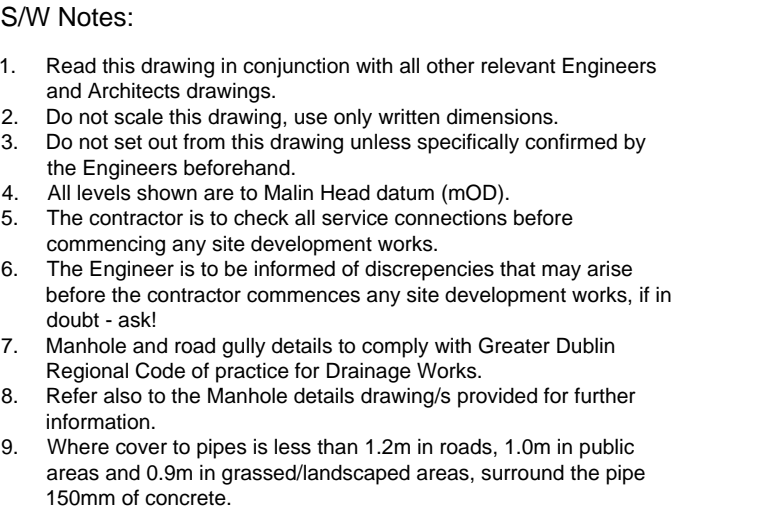
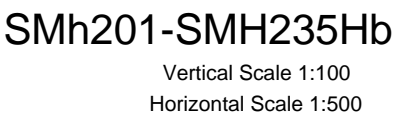


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3. Manhole and road gully details to comply with Greater Dublin Regional Code of practice for Drainage Works.
4. All attenuation storage details to be agreed with specialist contractor before construction commences and be strictly in accordance with the manufacturers specifications.

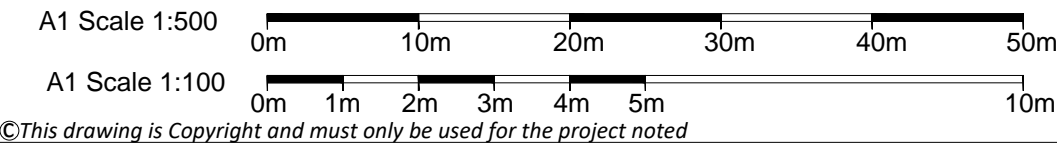
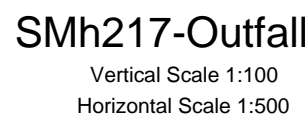
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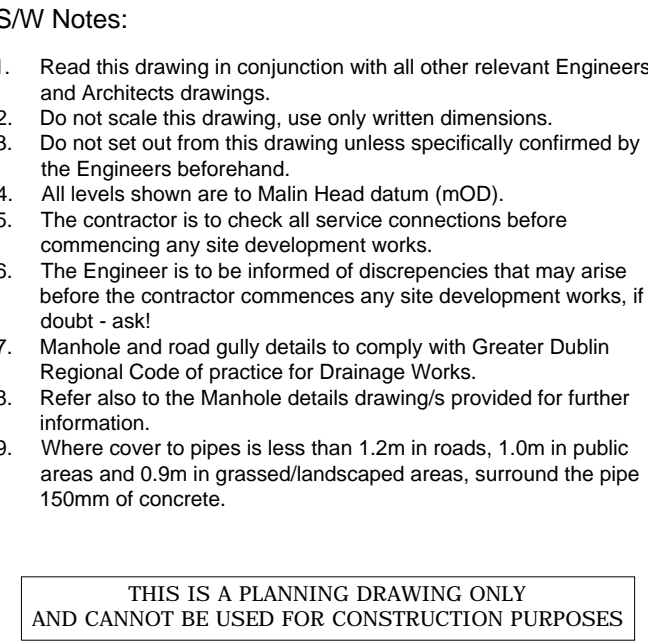
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<u>Project</u>					
GLENAMUCK NORTH					
<u>Drawing Title</u>				<u>Architect</u>	
ATTENUATION STORAGE DETAILS				MCORM Architects	
<u>Date</u>	<u>Drawn By</u>	<u>Scales</u> As Shown	<u>Dwg.No.</u>	<u>Stage</u> LRD Stage 3	<u>Rev</u>
May'25	RM	A1	2411/208		




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Project					
GLENAMUCK NORTH - Site B					
Drawing Title				Architect	
S/W Longitudinal Sections - Sheet 1				MCORM	
Date	Drawn By	Scales As Shown @ A1	Dwg.No.	Stage	Rev
May'25	RM		2411/209	LRD Stage 3	



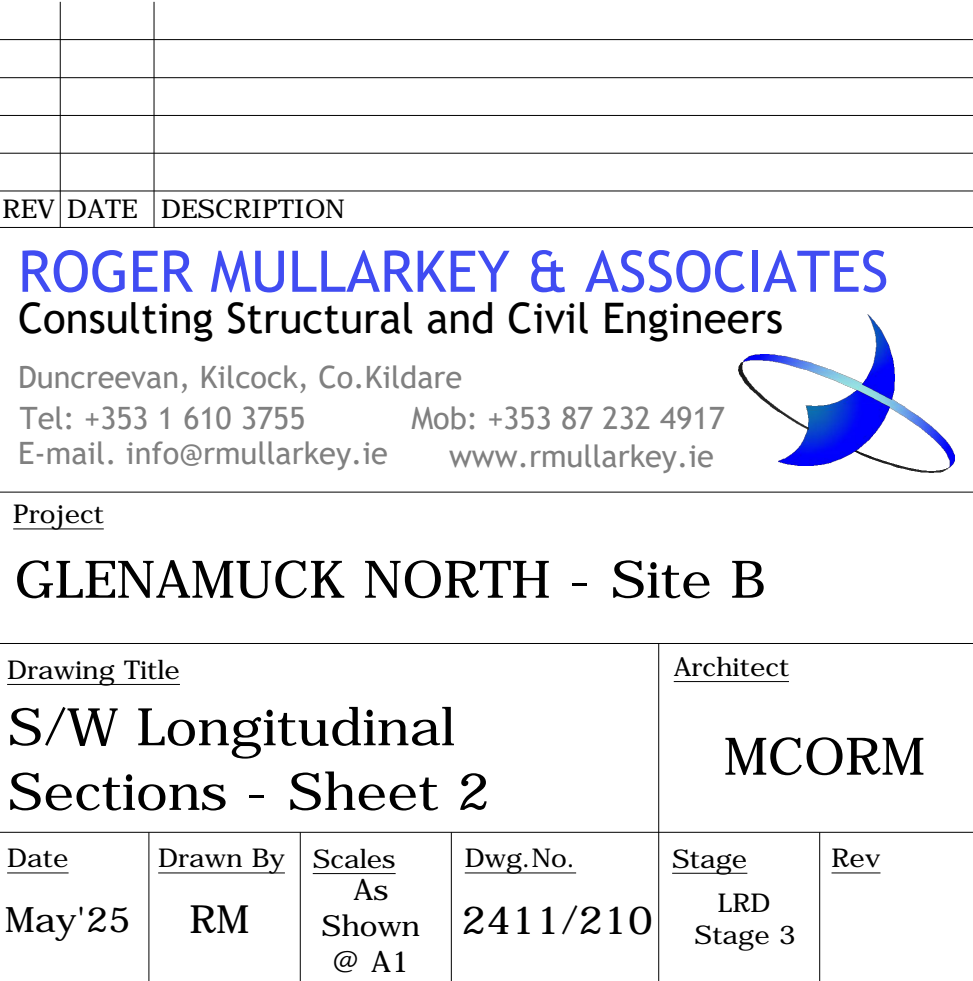
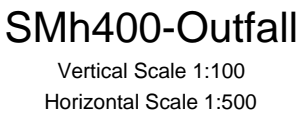
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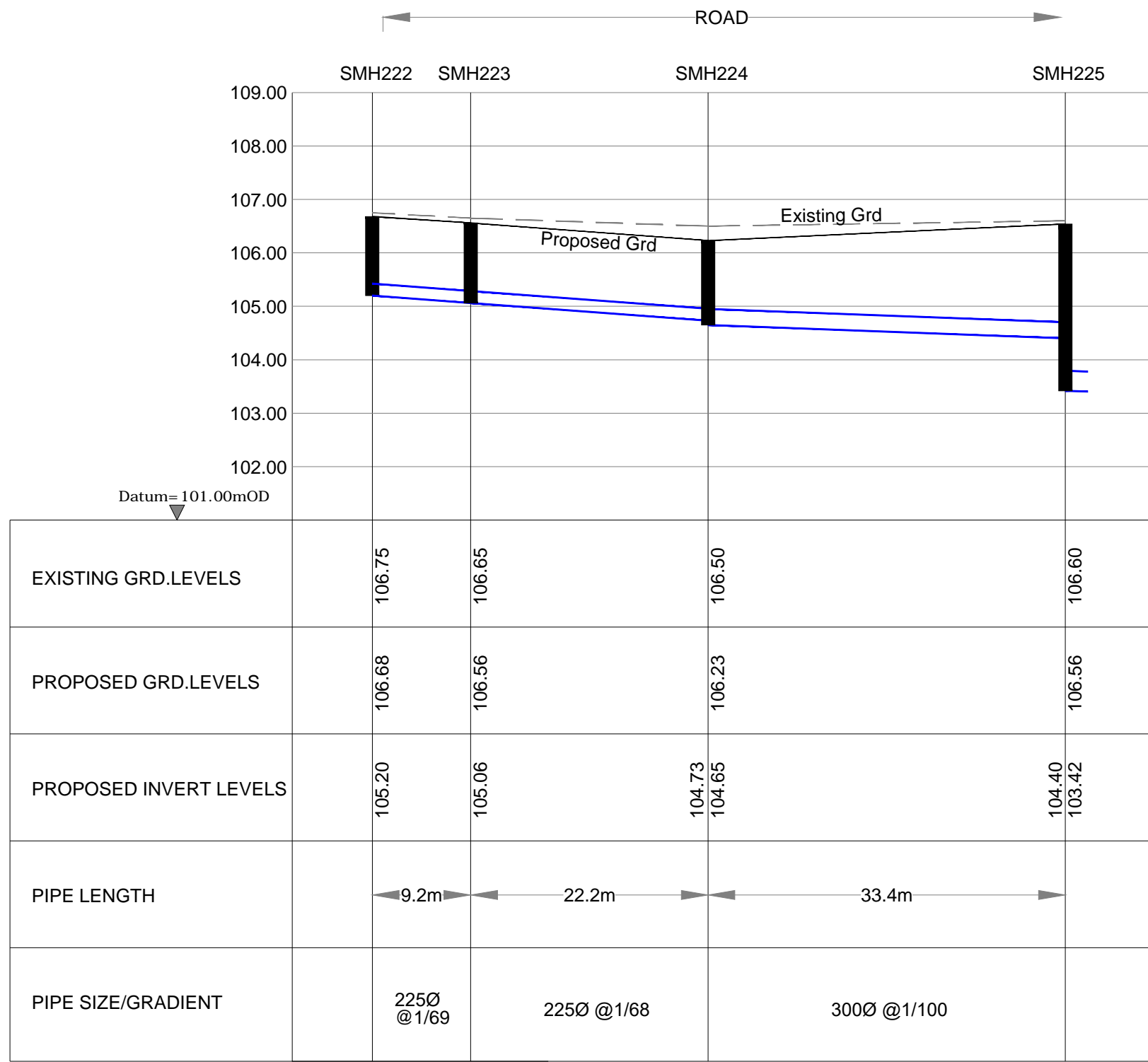


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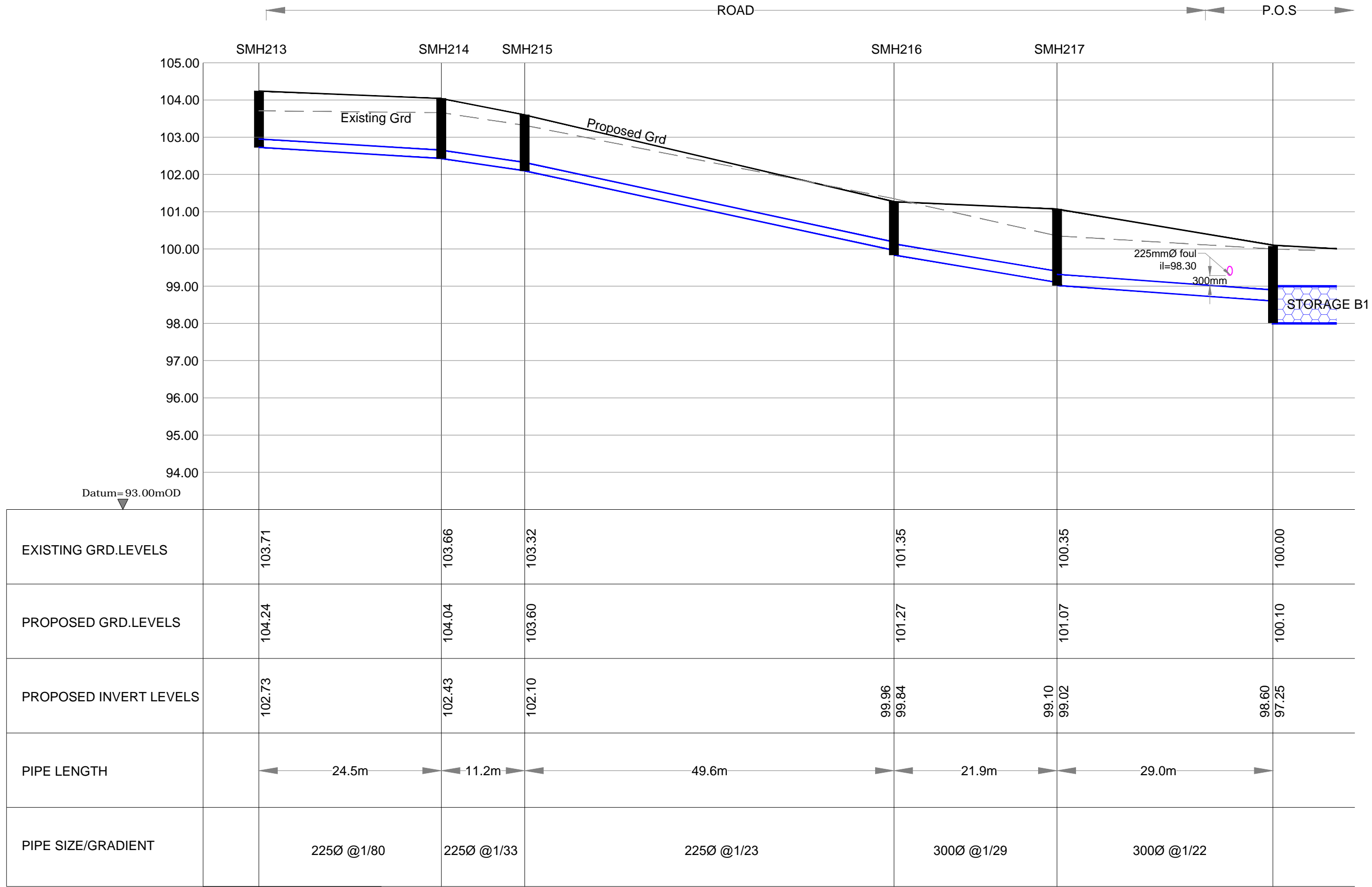
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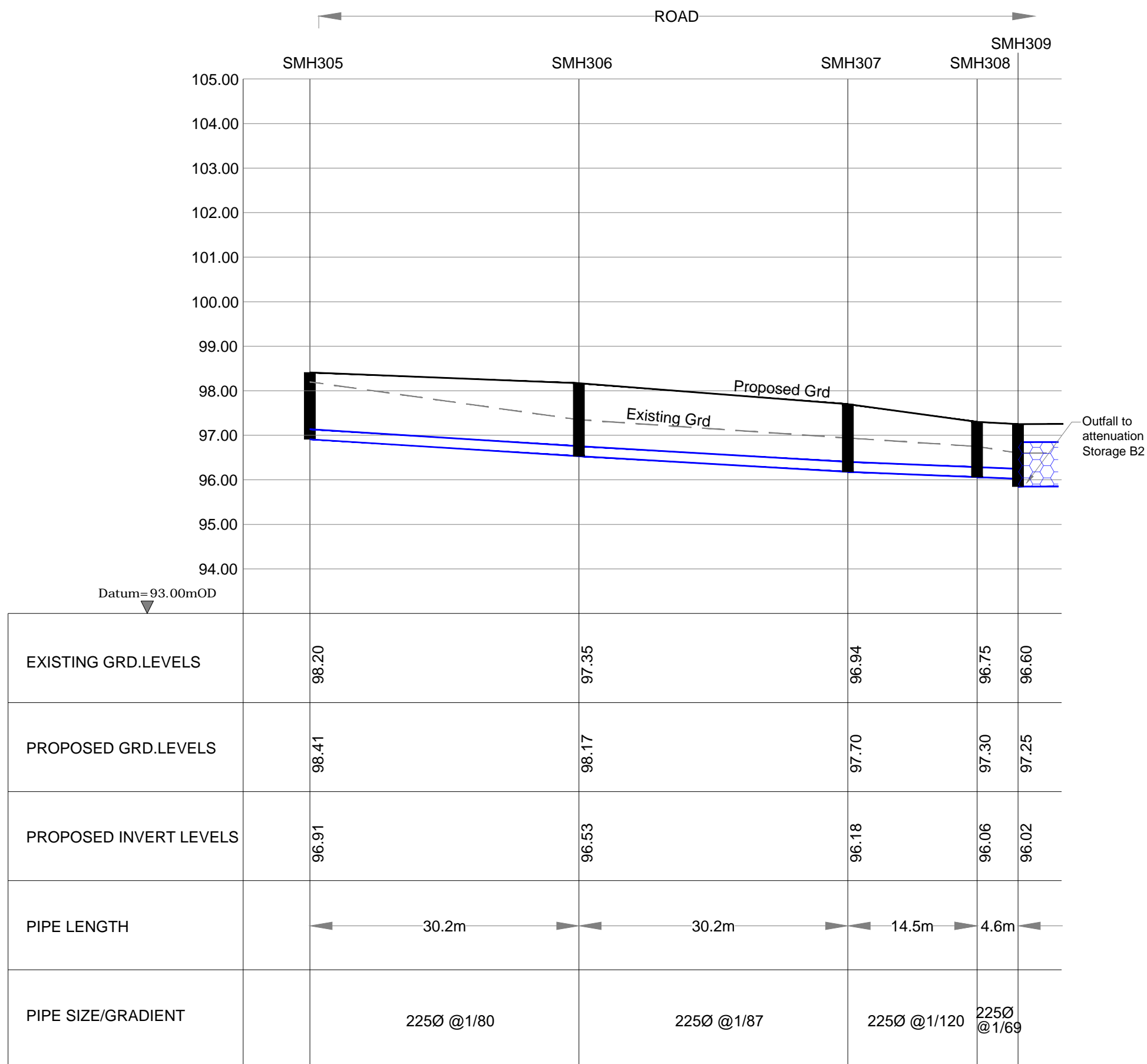
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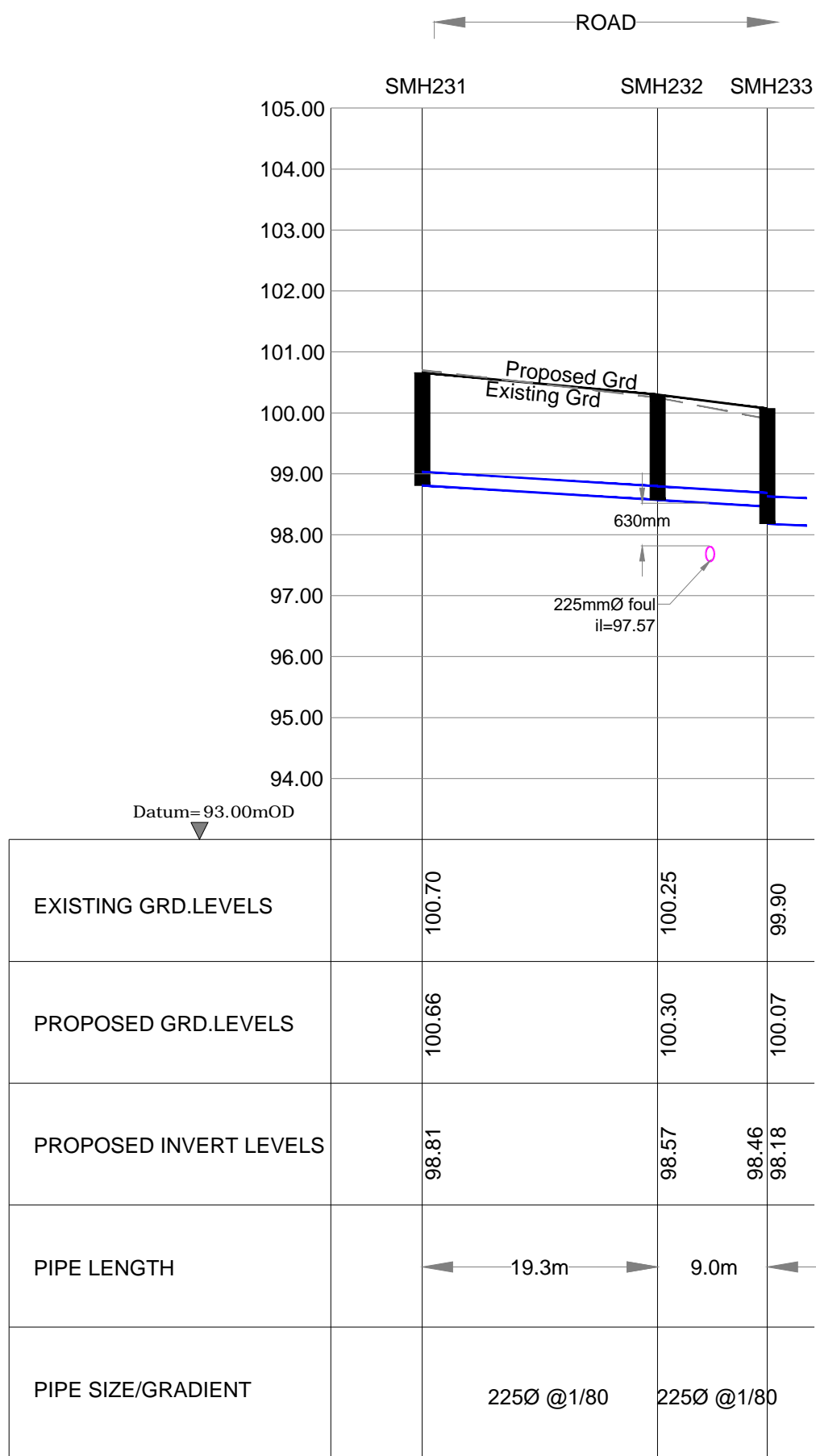
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Vertical Scale 1:100
Horizontal Scale 1:500



SMh305-SMh309

Vertical Scale 1:100
Horizontal Scale 1:500



SMh231-SMh233

Vertical Scale 1:100
Horizontal Scale 1:500

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Project GLENAMUCK NORTH - Site B					
Drawing Title S/W Longitudinal Sections - Sheet 3				Architect MCORM	
Date May'25	Drawn By RM	Scales As Shown @ A1	Dwg.No. 2411/211	Stage LRD Stage 3	Rev