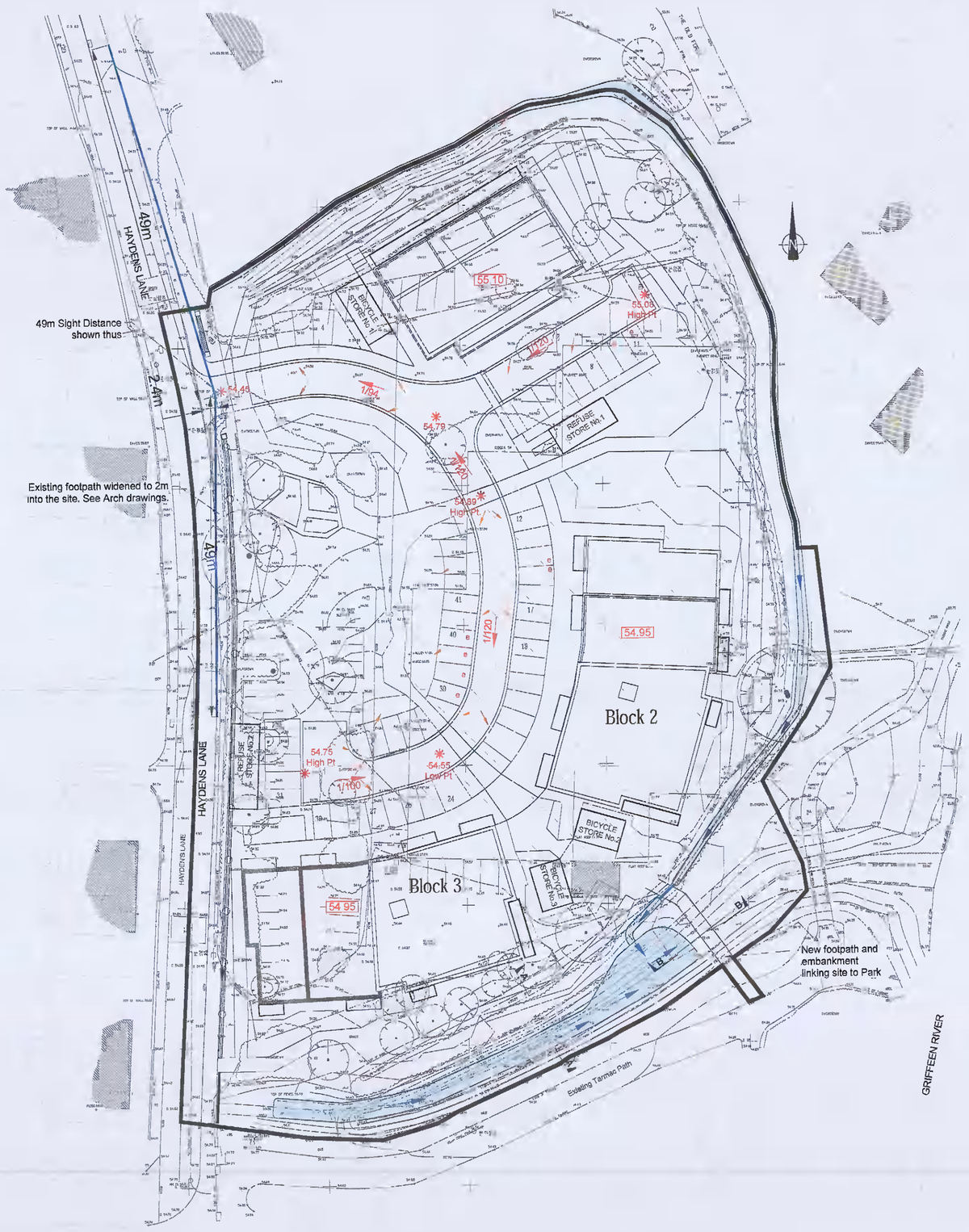


Proposed Levels & Sightlines

Scale 1:500

Existing dry ditch widened and re-graded to act as attenuation swale storage landscaped to CSRL details.
Q100 +20% = 255m³ (@735mm depth)
Q30 = 192m³ (@593mm depth)
Available Storage Volume @ 1m depth = 426m³

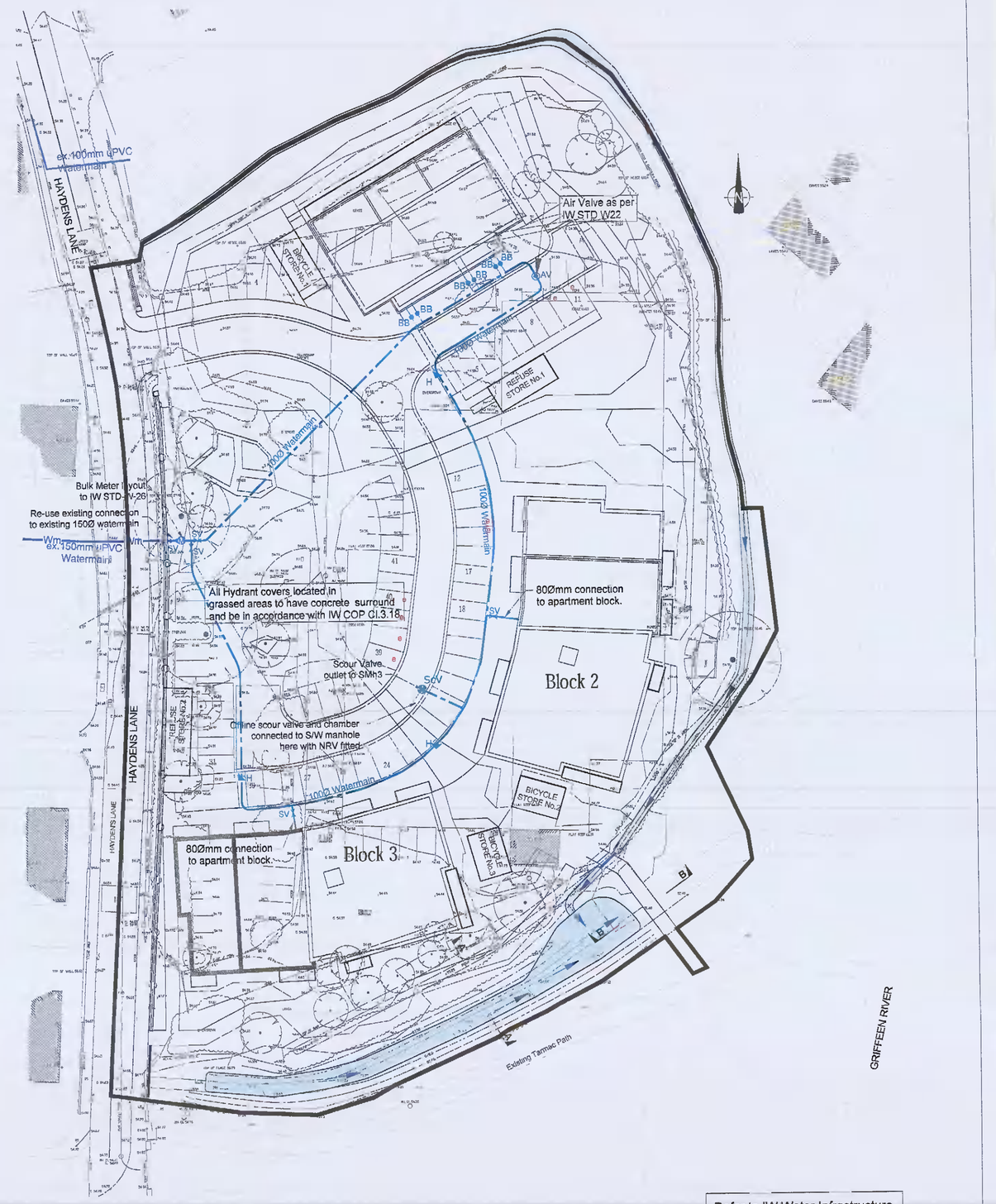
Proposed Drainage Layout

Scale 1:500

LEGEND

- Existing S/W Sewer & Mh's
- Existing Foul Sewer & Mh's
- Existing Watermain
- Proposed S/W & Mh's
- Proposed Foul & Mh's
- Proposed Watermain
- Watermain Hydrant
- Watermain Sluice Valve
- Watermain Scour Valve
- Watermeter
- Water Boundary Box & Connection Pipe
- S/W AJ
- Proposed Road Level
- Proposed Road Gradient
- Road Camber
- Permeable Paving
- S/W Filter drain
- S/W Bio-Retention
- S/W Tree Pit
- Foul Inspection Chamber

Refer to dwg.2031B/02 for SuDS & Drainage details



Proposed Watermain Layout

Scale 1:500

Refer to IW Water Infrastructure Standard Details

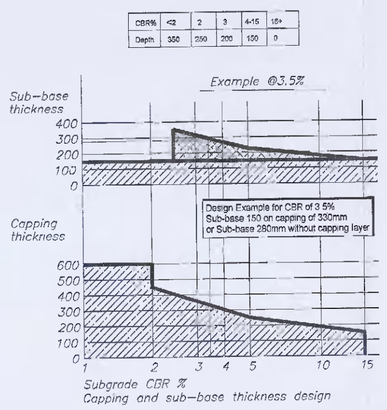
ROAD NOTES:

1. Read in conjunction with all relevant Architect's and Engineer's drawings and specification
2. All setting out to be done from the Architect's drawings. Do not scale the drawing.
3. The contractor shall establish, by all trenches, by liaison with the various utilities and by scanning, the location of the existing services, so that the work can be carried out in a safe and efficient manner
4. The contractor shall prepare a traffic management plan and agree it with the Local Authority, prior to commencement of work on site.
5. Soft areas and loose uncompacted areas to be excavated and replaced with stone capping layer. Class 6P1 or 2 to the TII Specification for Road Works, as amended by the specification, compacted in layers to clause 612.
6. All services, including manhole covers and gullies must be installed before the wearing course is placed. No patch work permitted.
7. Concrete in footpaths to be Mix E to specification and Mix F in kerb beds and haunch. Form A should be giv to the concrete supplier.
8. Sub base to be blinded with a thin layer of non plastic quarry screenings, where necessary, maximum thickness to be 20mm.
9. Double road gullies must be placed at low points to eliminate ponding. Close gullies in the direction of the traffic flow.

ROAD SPECIFICATION FOR ACCESS ROADS:

1. Surface Course - 40mm SMA in accordance with Cl.942 of SRW laid and compacted in accordance with Cl.903. Mixture designation/material: SMA 10mm chip only, surf PMB (IS EN13108-5) min polished stone value PSV 55, min.agg.abrasion value AAV12, binder penetration 40/60, Chips > 4mm in coloured aggregate of pigment 6% typically
2. Binder Course, 60mm of AC 20mm chip size (IS 13108-1) laid and compacted in accordance with Cl.903.
3. Base; 80mm AC 32 dense base (IS 13108-1), chip size 32mm laid and compacted in accordance with Cl.903.
4. Sub-Base - 200mm (min) crushed stone sub base to be to Cl.808 and grading to be in accordance with the TII Specification for Road Works - series 800. Class 6P2 and laid and compacted to clause 802. All stone to be certified for the end use for additional properties as per the requirements of SR21Annex E. Where no capping layer is required the depth shall be increased to 225mm minimum
5. Stone capping layer to be decided on completion of CBR tests. Capping layer should be to Class 6F 2 to the TII Specification for Road Works,compacted in layers to clause 612. Capping layer may be omitted, for CBR values between >5%.
6. Granular filling materia , to Class 6P2 certified for end use to the requirements of SR21 as above. It shall be used to make up levels below the hardcore. Each layer shall be compacted with approved mechanical equipment in accordance with clause 612 of the TII Specification. Generally the layers shall not exceed 150mm thick
7. Hardcore and granular fill shall be obtained from a independently tested and approved quarry. The stone shall be certified as being not subject to swelling.
8. CBR tests to be carried out at a maximum of 50 m c/c.
9. Terram may be required for low CBR values

CBR%	<2	2	3	4-15	15+
Depth	550	550	300	150	0



S/W DRAINAGE 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 details 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. Where cover to pipes is less than 1.2m in roads, 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 150mm Concrete.
6. Back-fill trenches in roads to detail.
7. Adjust foundation depths, as necessary, adjacent to sewers to avoid undermining of the foundations.
8. Manhole covers and frames shall comply with the LA standard pattern and detail with min opening of 600mm & with closed keyways, all Manholes covers to comply with IS EN 124:1994, class E600 manholes in all trafficked areas.
   Minimum Group 2 (min. class B125) to be used in footways, 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 and be lockable, an example of suitable cover type is a Cavanagh Bronza, supplied by Cavanagh Foundry Ltd.
   Group 1 (min. class A15) may be used in enclosed private gardens only.
9. Manholes on house drains are in private property. House drains shall not pass through property they do not serve.
10. Double gullies, with separate connections 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.
11. All Road gullies to be closed in the direction of traffic flow.
12. All Gully tops shall comply with the LA standard. Group 3 (min. class C250) where gully are located in the kerbside channels of roads which when measured from the kerb, extend a maximum of 0.5m into the carriageway and a maximum of 0.2m into the footway, Class E600 to be used elsewhere.
    All gully covers to comply with IS EN 124:1994
13. Record drawings of the as constructed work shall be made available to RMA at the end of the project.
14. 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.2031B/04 FOR MANHOLE DETAILS

FOUL DRAINAGE NOTES:-

1. Read this drawing in conjunction with all other relevant Engineers and Architects drawings
2. Do not scale this drawing, use only written dimensions.
3. Do not set out from this drawing unless specifically confirmed by the Engineers beforehand
4. All levels shown are to Malin Head datum (mOD).
5. The contractor is to check all service connections before commencing any site development works.
6. The Engineer is to be informed of discrepancies that may arise before the contractor commences any site development works, if in doubt - ask!
7. Manhole details and materials specification to comply Irish Water Wastewater Infrastructure Standard Details document and Code of Practice.
8. Foul gravity sewers to be concrete in accordance with IW CoP section 3.13.
9. Refer also to the Manhole details drawing/s provided for further information.
10. 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

REFER TO IRISH WATER CONNECTION AND DEVELOPER SERVICES WATER INFRASTRUCTURE STANDARD DETAILS DOCUMENT

THIS IS A PLANNING DRAWING ONLY AND CANNOT BE USED FOR CONSTRUCTION PURPOSES

GENERAL NOTES:

1. Read this drawing in conjunction with all other relevant Engineers and Architects drawings
2. Do not scale this drawing, use only written dimensions
3. Do not set out from this drawing unless specifically confirmed by the Engineers beforehand
4. All levels shown are to Malin Head datum (mOD).
5. The contractor is to check all service connections before commencing any site development works.
6. The Engineer is to be informed of discrepancies that may arise before the contractor commences any site development works, if in doubt - ask!
7. All watermains to be in accordance with the Irish Water Water Infrastructure Code of Practice (IW CoP) for water infrastructure and in accordance with the Irish Water Water Infrastructure Standard Details (Rev.3)
8. All pipe materials to be in accordance with Section 3.9 the IW CoP as follows;
   Pipe Ø 100-150mm - HDPE, MDPE (PE80) and DI
   Pipe Ø 200-300mm - HPPE(PE-100), HDPE, MDPE(PE-80) and DI
   PE pipes to have an SDR rating of 11 or 17 and be compliant with ISEN 1220 Part 1,2 and 3 for plastic pipes and fittings under pressure.
   DI pipes to have a C40 pressure rating, with 16 bar fittings and be in compliance with IS EN 545.
9. Bulk meter and chamber to be agreed with IW before construction commences.
10. Domestic and non-domestic meters will be supplied and installed by Irish Water

TYPICAL DETAIL REFERENCES	
DETAIL TYPE	IW STANDARD DETAILS (Rev03)
Hydrant Chambers	STD-W-16
Thrust Blocks	STD-W-28
Bulk Water Meter	STD-W-26
Air Valve	STD-W-22
Sluice Valve	STD-W-15
Bedding/backfilling	STD-W-13
Boundary/Connection	STD-W-03
Marker Plates	STD-W-27
Scour Valve	STD-W-30

A1 Scale 1:500 0m 10m 20m 30m 40m 50m

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REV	DATE	DESCRIPTION

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Project
HAYDENS LANE

Drawing Title
Levels, Sightlines, Drainage & Watermain GA's

Architect
Oppermann Associates

Date	Drawn By	Scales	Dwg.No.	Stage	Rev
Dec'21	RM	As Shown	2031B/01	PLANNING-ADDITIONAL INFORMATION	