

BEFORE INDEPENDENT HEARING COMMISSIONERS APPOINTED BY THE  
TASMAN DISTRICT COUNCIL

IN THE MATTER OF

The Resource Management Act 1991

AND

IN THE MATTER OF

Application for resource consent by  
**Māpua Community Boat Ramp Trust**

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STATEMENT OF EVIDENCE OF GARY NOEL STEVENSON  
ENGINEERING

Dated: 1 November 2024

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P O Box:  
DX:  
Phone:

Level 2, 241 Hardy Street  
Nelson  
656  
WC 70016  
+64 3 548 2154

Solicitor:

Nigel McFadden  
(nm@mmp.co.nz)

## **INTRODUCTION**

1. My full name is Gary Noel Stevenson. I am a Chartered Civil Engineer, and a Principal Civil Engineer of Davis Ogilvie & Partners Limited.
2. Davis Ogilvie is a multi-disciplinary consultancy covering structural, civil, and geotechnical engineering, land surveying, environmental, resource management and policy planning.
3. I hold a Bachelor of Natural Resource Engineering (Honours) from Canterbury University. I am a Chartered Professional Engineer and a Professional Member of Engineering New Zealand (ENZ).
4. I have 20 years of engineering experience including 9 years working at Waimakariri District Council, 3 years of which as Land Development Manager.
5. I specialise in design and contract management, construction supervision and delivery of three-waters infrastructure and land development projects.
6. I have overseen Civil projects for a variety of private and public entity clients, including the Buller District Council, Kainga Ora, and the Ministry of Business Innovation and Employment.
7. I have been involved with the Mapua Boat Ramp site since the project inception in 2021 and have worked on the overall servicing strategy.
8. I have visited and I am familiar with the Application Site.

## **EXPERT WITNESS CODE OF CONDUCT**

9. I have been provided with a copy of the Code of Conduct for Expert Witnesses contained in the Environment Court's 2023 Practice Note. While this is not an Environment Court hearing, I have read and agree to comply with that Code. This evidence is within my area of expertise, except where I state that I am relying upon the specified evidence of another person. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

## **SCOPE OF EVIDENCE**

10. I have been asked by the Applicant, Mapua Boat Ramp Trust (**Trust**) to provide evidence regarding the servicing requirements for the proposed Boat Ramp and trailer parking.
11. The structure of my evidence is set out as follows:
  - a) A summary of the application site and land contamination present;
  - b) The proposal;
  - c) My response to S42 officers report
  - d) My response to submissions received and specifically those that raised concerns
  - e) My response to the Council Evidence
12. My evidence pertaining to stormwater is reliant on work completed by my colleague Ross Charles Jennings, Senior Civil Engineer with Davis Ogilvie & Partners, whose qualification is Bachelor of Natural Resource Engineering (Honours) from Canterbury University.

#### **THE APPLICATION SITE AND ITS CONTEXT**

13. The application site and surrounding environment are detailed within the application document. For this reason, I will not provide a detailed description of the site or surrounding environment here.

#### **THE PROPOSAL**

14. The proposal is set out in detail in the application document and is summarised again in Council's Sec 42A Officer's report.
15. A brief description of the proposal is set out below:
  - 49m long and 11m wide two lane concrete boat ramp at 1 in 8 gradient with 5m long rock reno mattress off the end of the ramp.
  - 1.8m wide footpath across top of ramp and path down to the foreshore on the southern side of the boat ramp.
  - Access lane with barrier arm access to the top of boat ramp 7.2m wide at Tahi Street end widening to 11m with turn around area (R11.0m) just before the top of the ramp.
  - 4m wide Landscape plantings between boat ramp access land and waterfront park.

- Kerb cut outs and a 2m wide open vegetated swale to carry stormwater to existing SW outlet in south-eastern corner of the site.
  - Minor changes to existing carpark to allow for boat ramp access lane.
  - Relocation of Petanque court and BBQ are on the northern side of Landscape strip.
  - New sealed access to Trailer parking area on western side of Tahi Street.
  - 62 Trailer car parks on a grassed area with sports field marking to delineate parks and routes for trailers waiting to use ramp.
  - Safety line of buoys between south-eastern corner of wharf and waterfront edge, to stop drifting boats on outgoing tide.
16. The Sea Scout/Community building that was part of the original application, together with the new parking area on the western side of Tahi Street has been completely removed from the application and so will not form part of the assessment of this evidence.
17. The background and history of the proposal is set out in Andrew Butler's evidence.

### **ENVIRONMENTAL CONTROLS**

18. I defer to Mr Gareth Oddy regarding environmental controls matters as this sits outside my practice area.

### **TRANSPORTATION**

19. I defer to Mr Gary Clarke regarding transportation matters as this sits outside my practice area.

### **THE OFFICER'S REPORT AND CONSENT CONDITIONS**

20. I have reviewed Council officer/consultant's report and the proposed consent conditions.
21. Ms Woodbridge and Mr Pigott raise several points with respect to the proposal. In this section I summarise their point (and state S42) and

respond in the following paragraph. I identify the relevant section of the Section 42A Report and follow with my comments.

22. (S42, 14.11) Stantec raised concerns with swept paths of 10 parking spaces located in the western car park.

I comment: Annexed is a swept path analysis drawing that shows these parks can be utilised. I note that the parking is also provided for overflow parking and can be utilised for this purpose.

23. (S42, 14.12 & 14.13) Concerning the current use of the site for overflow parking from Grossi Point and the eastern car park.

I comment: The applicant has not observed damage to the grass surface. It is possible that rutting and loss of grass cover could occur. This can be managed by retiring damaged areas to reinstate grass cover, or placement of all weather surface at high use areas. In terms of line marking, this will be maintained or alternative can be provided such as inset painted concrete pavers or similar. It is not proposed to provide an all-weather surface for Kite Park, but to maintain grass coverage. We note that Council already line marks grass for overflow parking into the northern end of Kite Park as can be seen on F01 Amended Plans July 2024, Drawing P4-3 Carp. We recommend review and maintenance conditions of consent that will mitigate any concerns.

24. (s42, 14.23 & 14.24) Stantec have noted that tracking curves have not been provided for manoeuvring through the car park from the accessway barrier arm and on the ramp.

I comment: I annex tracking curves to show that this is achievable.

25. (S.42, 15.10) Regarding the blocking of public access across the ramp by boats and vehicles.

I comment: We agree that signage and/or hatched lines indicating no parking be incorporated as a condition of consent or be subject to engineering approval.

26. (s.42, 15.11) – footpath traffic

I comment: The gradient of the footpath has been carefully considered to meet the minimum gradient required and thus the least impact on 13 Tahi Street.

27. (S.42, 15.15) – footpath traffic

I comment: In terms of provision for foot traffic or a footpath along the boat ramp, it is intended due to the low-speed environment of 5 km/hr that this is essentially a shared space. This is emphasised by the width of the accessway.

28. (S.42, 15.16) – interruption of public access

I comment: In response to the interruption of public access during construction, it is highly likely that access through the construction site will be detoured/closed for a period of time. This is not unusual for an infrastructure project of this type and scale.

29. (S.42, 16.12 to 16.14) - there are concerns with propellor wash and lack of certainty of what is being built.

I comment: A Reno mattress has been provided to address the propellor wash, and preliminary design plans provided for the ramp and accessway. I consider that this is sufficient detail for this application noting that detailed design can be peer reviewed by a Chartered Professional Engineer as a condition of consent.

30. (S.42, 16.16) Ongoing maintenance requirements for the boat ramp structure were not included in the application.

I comment: A proposed Maintenance Schedule as per proposed consent condition 40 has been included which I consider is adequate to address ongoing maintenance requirements.

31. (S.42, 19.1) Existing wastewater infrastructure and the provision of new gravity and pressure wastewater pipes.

I comment: This has been previously agreed with Council and is anticipated to be a condition of consent.

32. (S.42, 19.8) Regarding stormwater design.

I comment: I agree that 10% AEP is the incorrect design criteria for secondary flow paths such as swales and open channels. I annex a stormwater modelling output of the 10 minute, 100 Year ARI rainfall event to HIRDS V4 RCP 8.5 Year 2080-2100 that shows contributing catchments and flow along Tahī Street and to the open drain to the south. A 2 mm/hr infiltration rate has been allowed for in the calculations. The 10 min rainfall intensity is 172 mm/hr.

33. Given the topography, approximately a third of the catchment falls to Tahī Street and discharges along the road to the south. The balance discharges south to the southern swale. It is intended to retain the status quo drainage catchments.

34. The 1% AEP event generates the highest instantaneous flow rate of 160 l/s at the west end of the southern open drain and 360 l/s at the outfall.

35. The approximate swale dimensions required to convey the 360 l/s is 0.4 m deep with a 0.5 m base width and sides at 1 in 4. The swale can be tapered smaller as it heads west, subject to detailed design, or confirmation by detailed survey and calculations that the existing swale has adequate capacity.

36. The boat ramp accessway is impermeable but in the 1% AEP 10 minute the rainfall event is so intensive over a short period that the surface has little effect. Therefore, the addition of the boat ramp accessway impermeable surface has a nominal effect on the swale to the south to which it drains. We have not assessed the capacity of the Tahī Road swales as these are existing elements.

37. The details of the stormwater disposal are set out in 7.0 of the preliminary Engineering Report set out in Appendix 12 with the original consent application which sets out the area that will be managed for stormwater runoff.

38. The change to the current application with the removal of the sea-scout/community building and the newly formed car parks on the western side of Tahī Street, has significantly reduced the stormwater effects of the proposed activity.
39. The reduction of developed areas discharging to the southern swale has been reduced from 4,880 m<sup>2</sup> to the 1,300 m<sup>2</sup> boat ramp access.
40. The stormwater from the boat ramp access is proposed to discharge to the existing drain to Waimea Inlet after passing through a vegetated swale to the south of the site which will provide pre-treatment within the swale before it discharges into the Coastal Marine Area (CMA).
41. All stormwater eventually discharges into the Coastal Marine Area (CMA). As I have mentioned above, the stormwater runoff effects should be minor in that there will be no wash down of boats allowed on the boat ramp and the vegetated stormwater swale along the southern boundary should provide for pre-treatment of stormwater before it enters the CMA.
42. Final design of the swale will be confirmed at the Engineering Plan approval stage.

## **SUBMISSIONS**

43. As stated in the officer's report, the proposal was publicly notified on 24 January 2024 with the submission period closing 26 February 2024.
44. A total of 328 submissions were received and according to the TDC website (Publicly notified Consents) two thirds of the submissions were in support and a third opposed.
45. Of those that opposed the boat ramp, those concerns specifically related to civil engineering were; scouring due to fast tides ebbing and flowing, and erosion and sediment control, especially of the contaminated land. These concerns can be mitigated through the detailed design process and good construction management, and is addresses in the evidence of Mr Gareth Oddy.



## COUNCIL EVIDENCE

46. Rosalind Squires, Contract Reserves Planner memorandum to Victoria Woodbridge 7 October 2024, point 11, recommends a short pathway, embedded into the beach at the base of the rock revetment adjoining the south side of the ramp be provided rather than extending the walkway parallel to the beach to the south.
47. I note that the ramp needs to be at a minimum 1 in 12 grade and provide rest refuges. The walkway is much flatter than the ramp which is 1 in 8 grade. As the foreshore beach grades away, the path would be even longer than the length shown on the drawings. Unless Council is willing to compromise on accessibility and allow the use of stairs or the walkway to be non-compliant to 1 in 8 grade then we consider the current design to be the best option.

## CONCLUSION

48. It is my opinion, having considered submissions and evidence from Ms Woodbridge and Mr Pigott that any concerns can be mitigated subject to appropriate conditions of consent and Engineering Approval.
49. It is my professional opinion that the application can be granted for resource consent subject to the conditions proposed in the Council's Section 42A report.



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**Gary Stevenson**  
01 November 2024

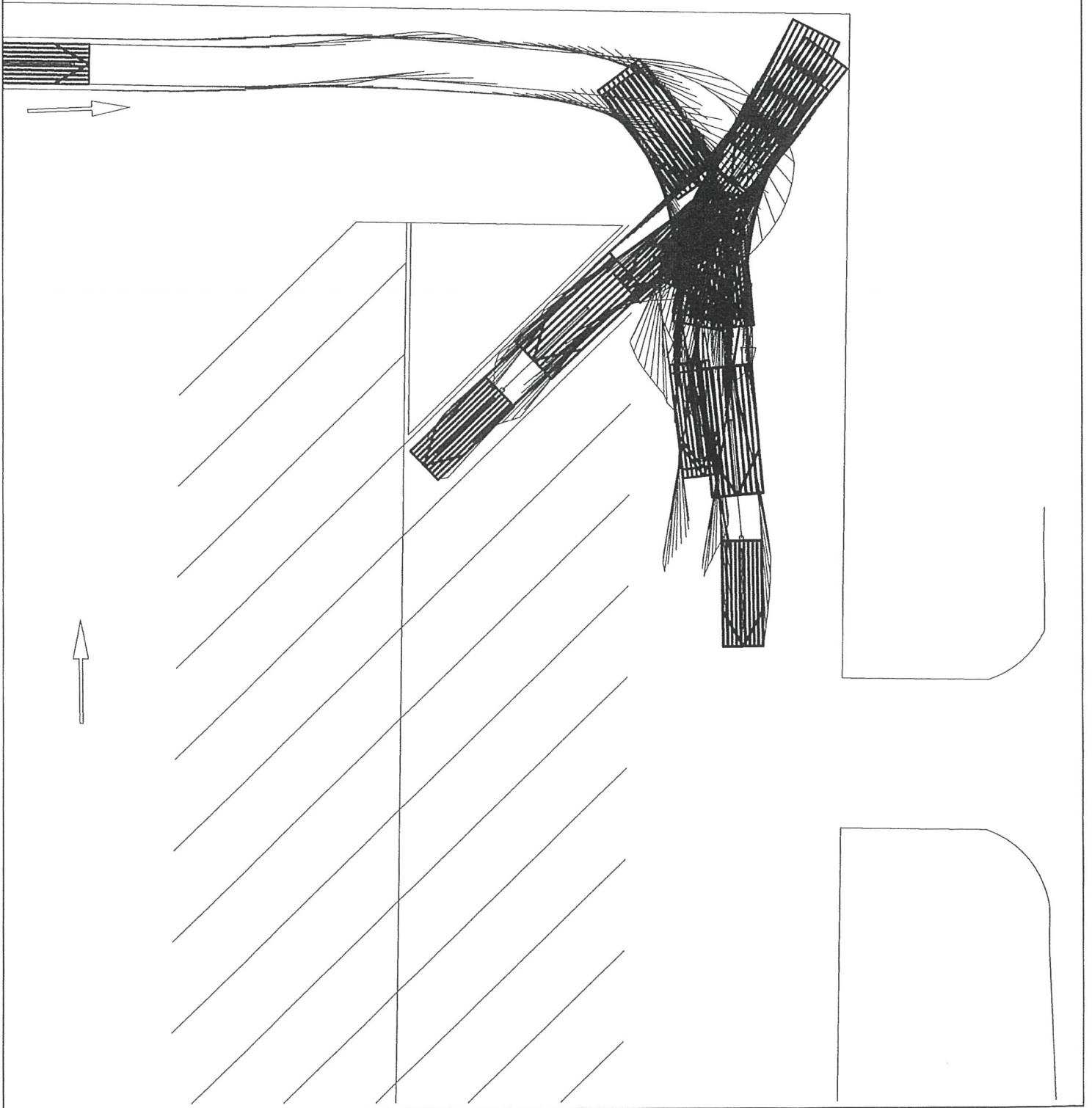
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Davis Ogilvie

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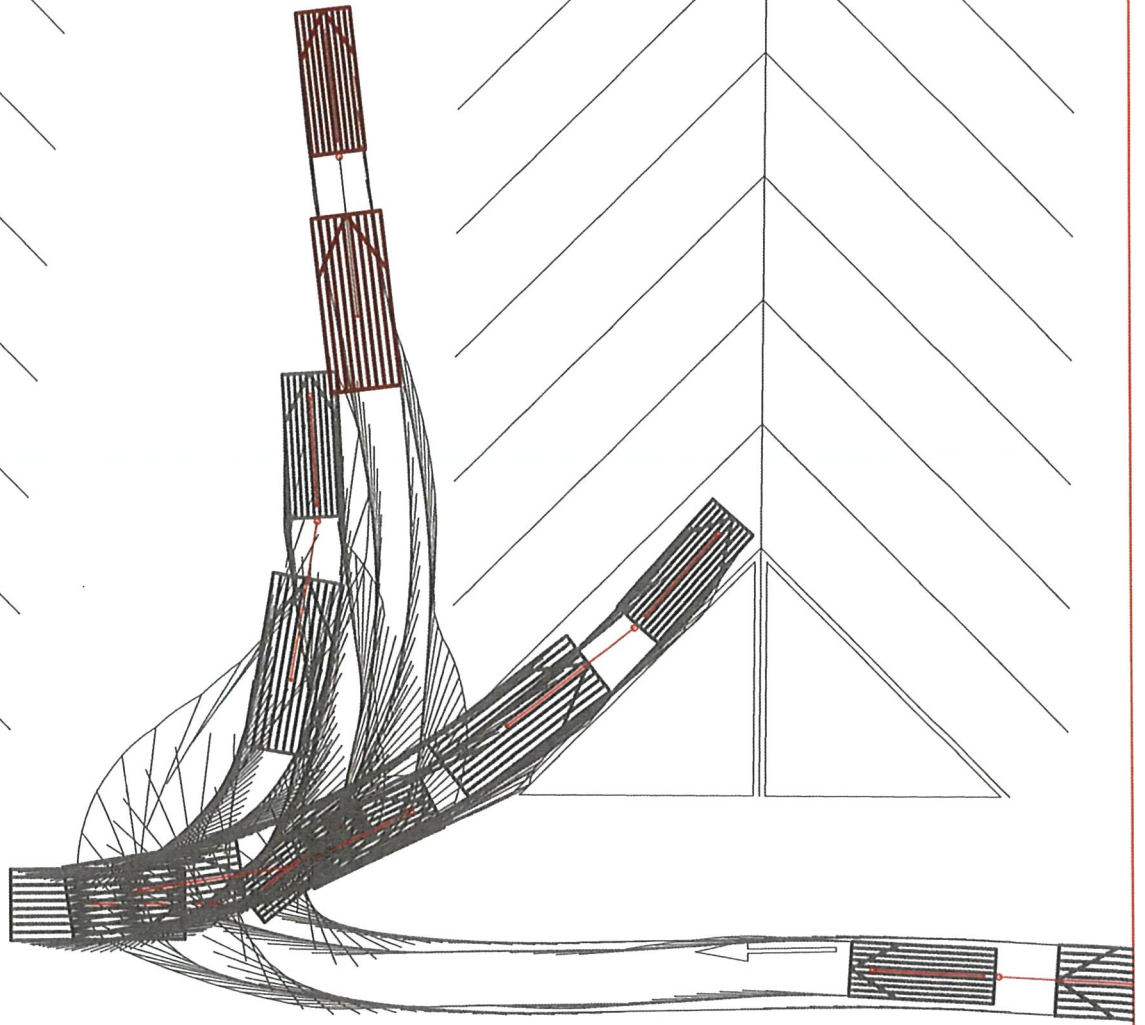
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Davis Ogilvie

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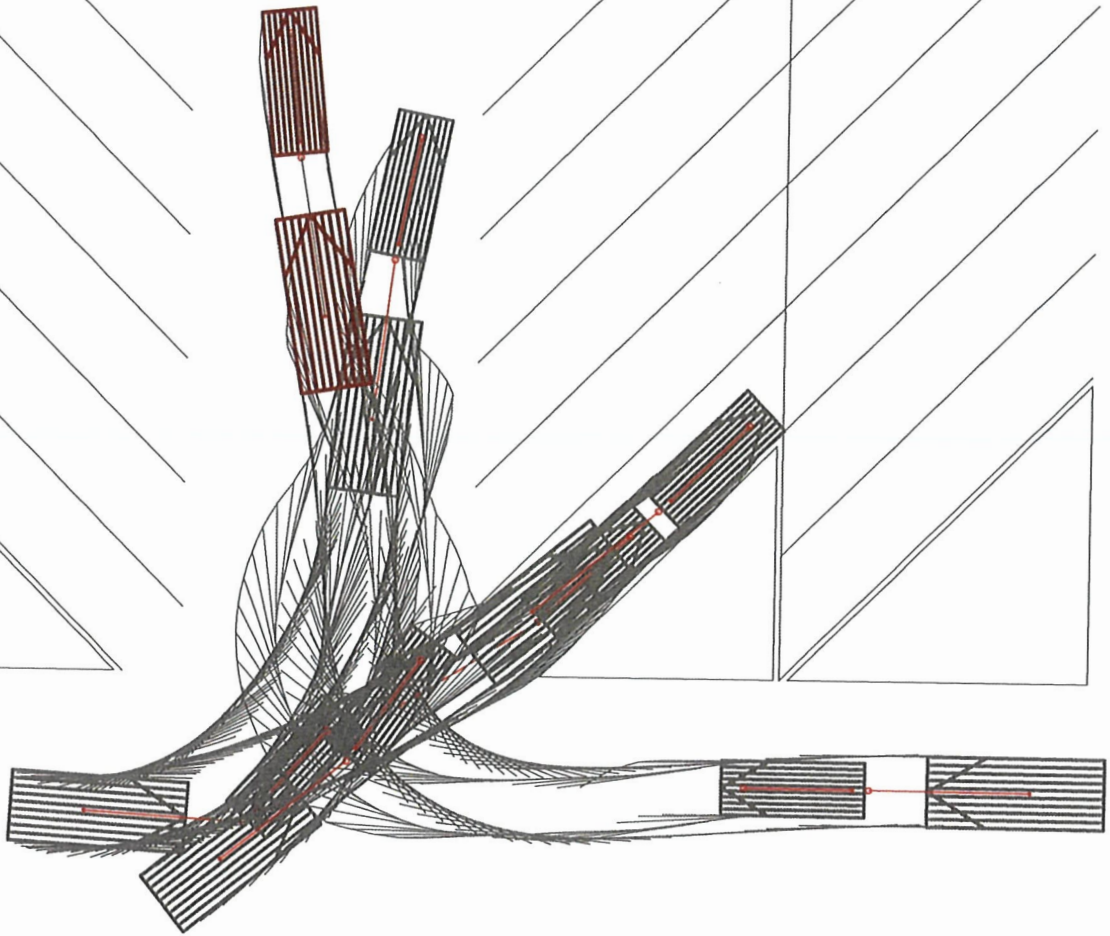
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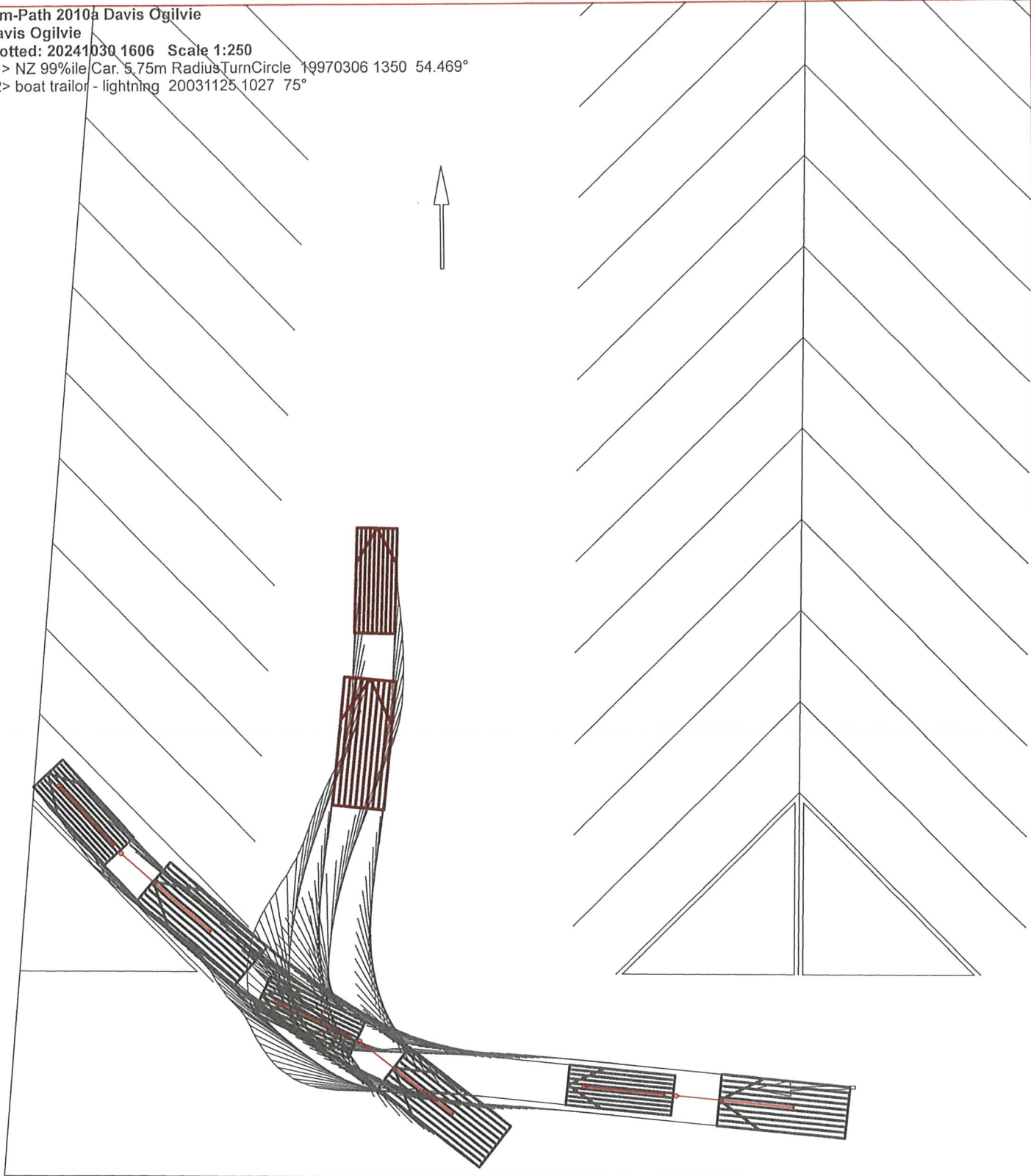
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Davis Ogilvie

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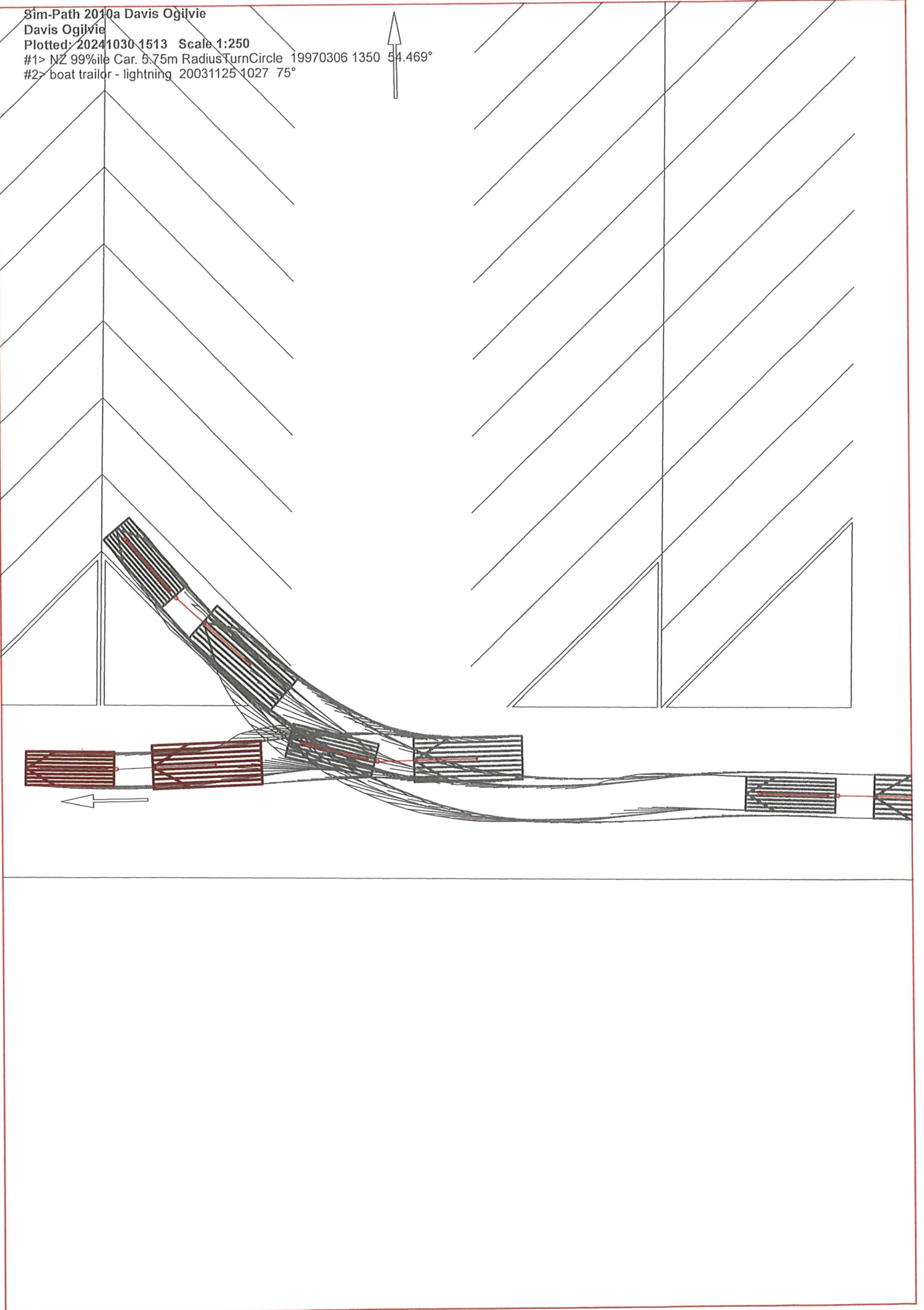
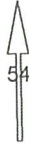
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Davis Ogilvie

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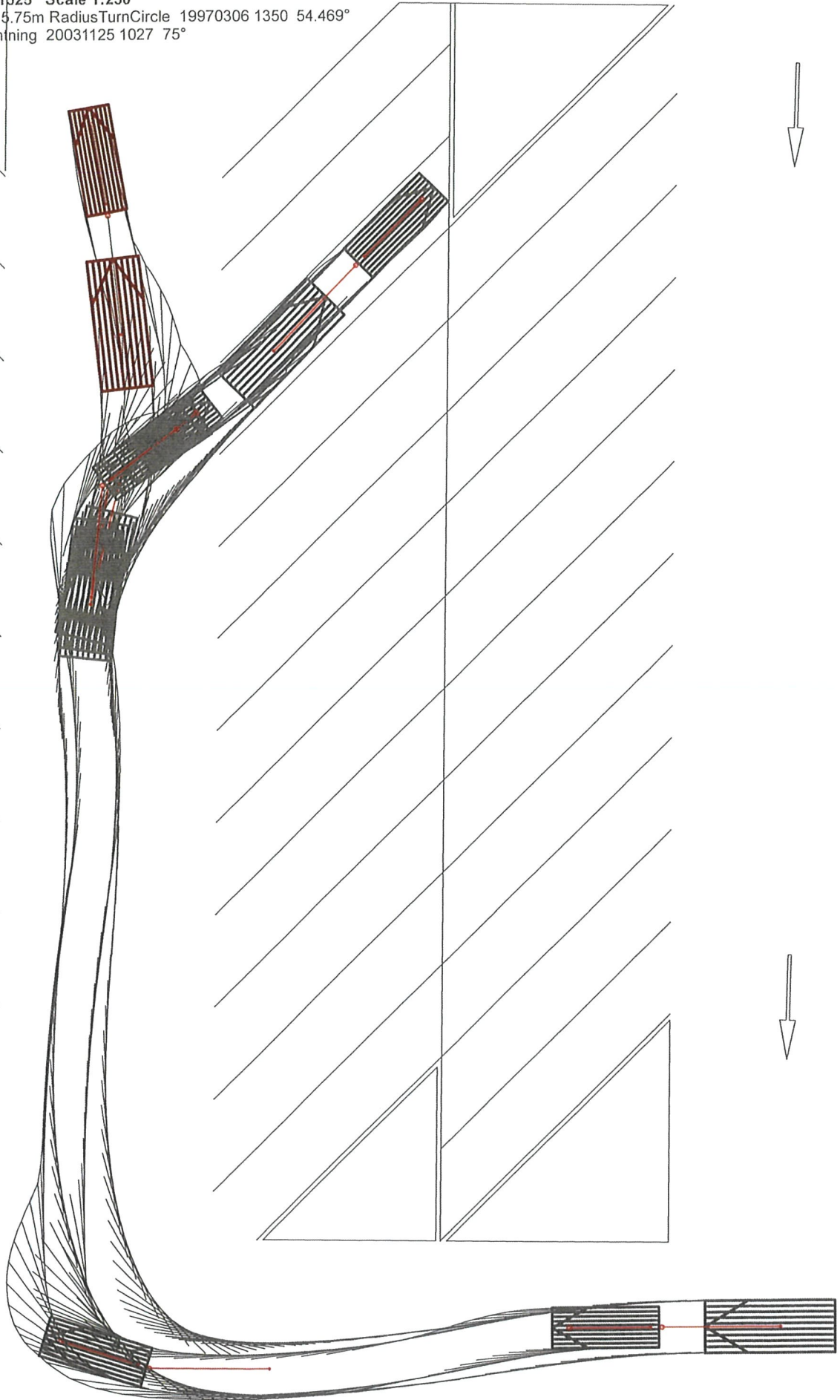
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Davis Ogilvie

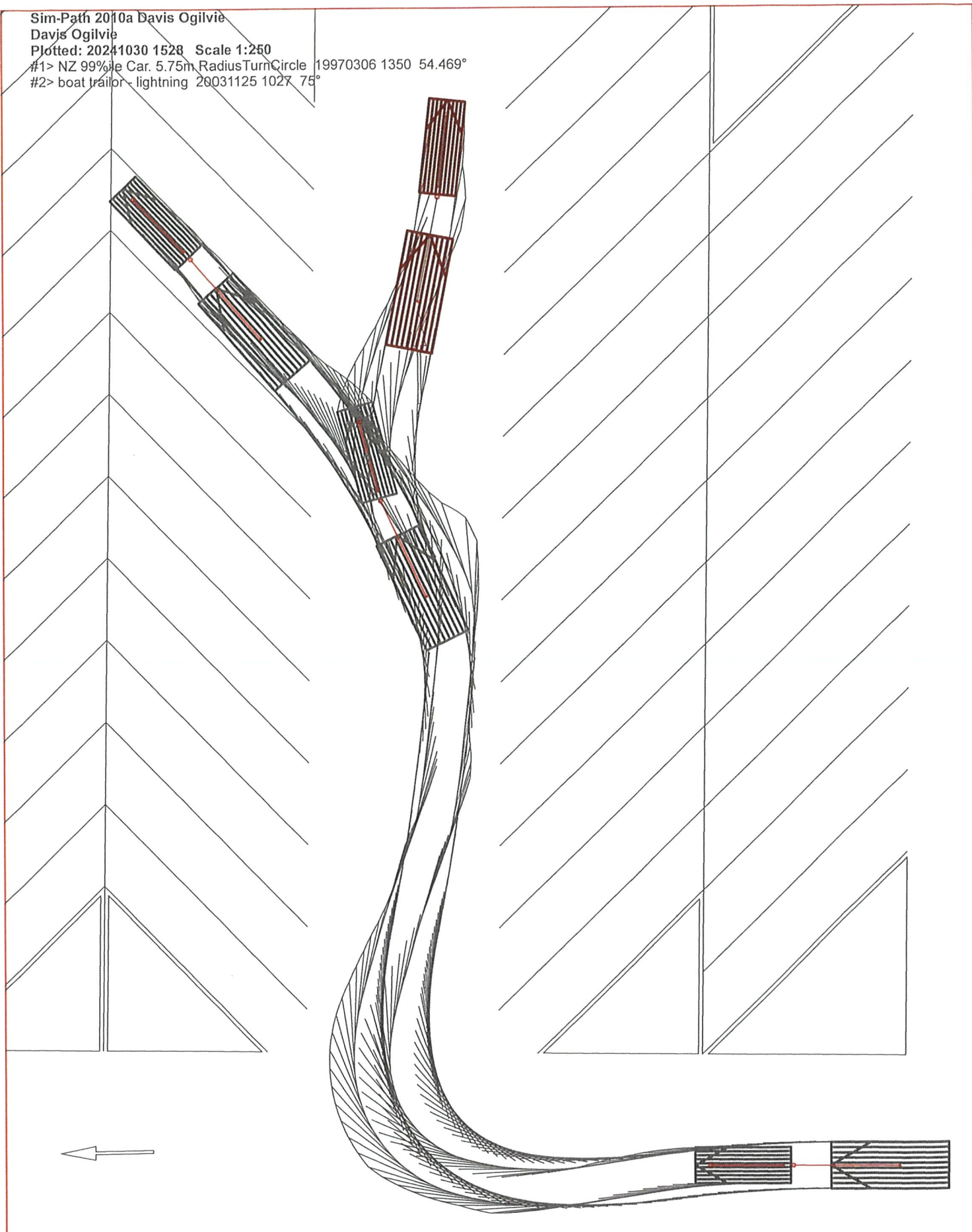
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Sim-Path 2010a Davis Ogilvie  
Davis Ogilvie  
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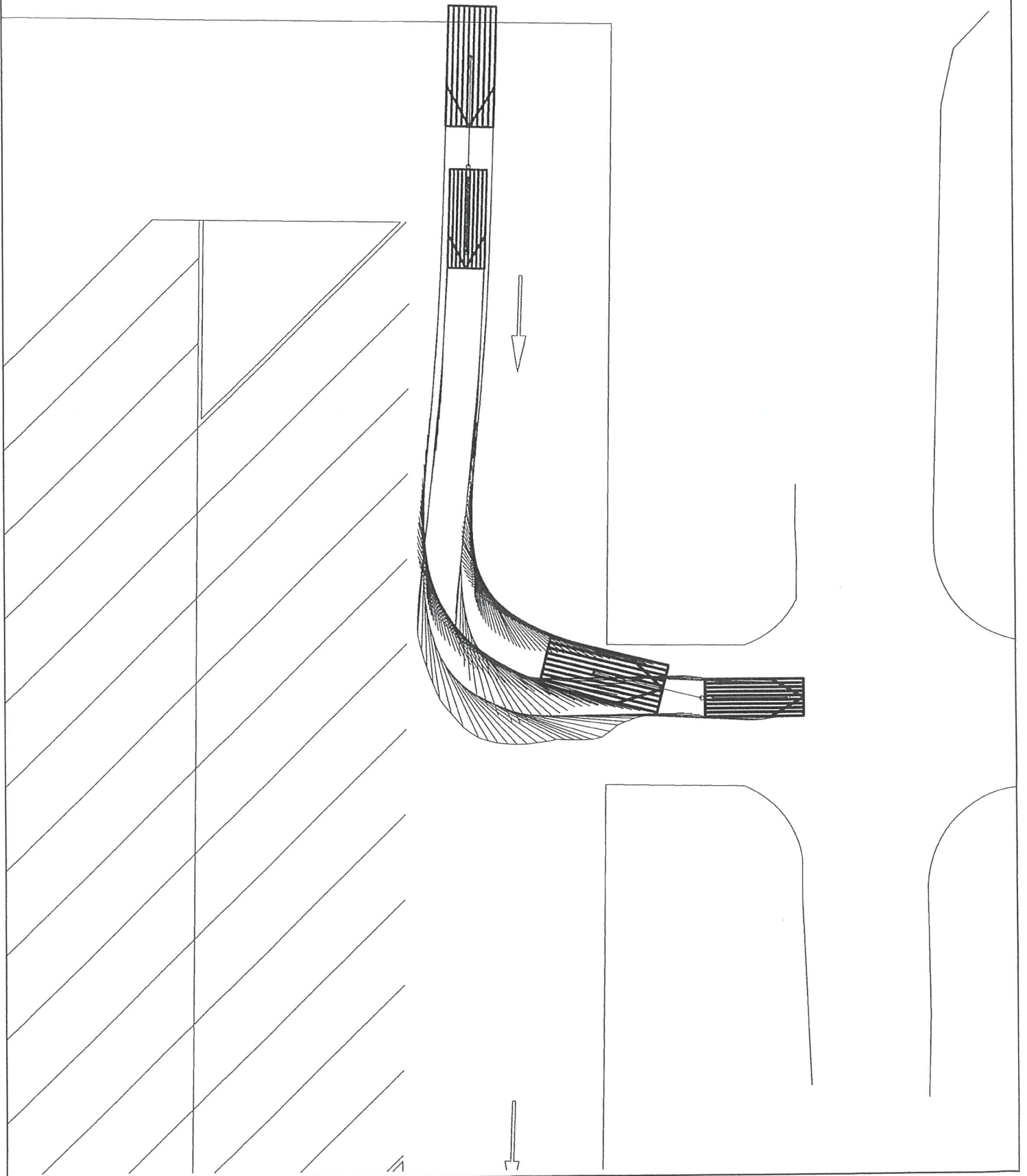
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Davis Ogilvie

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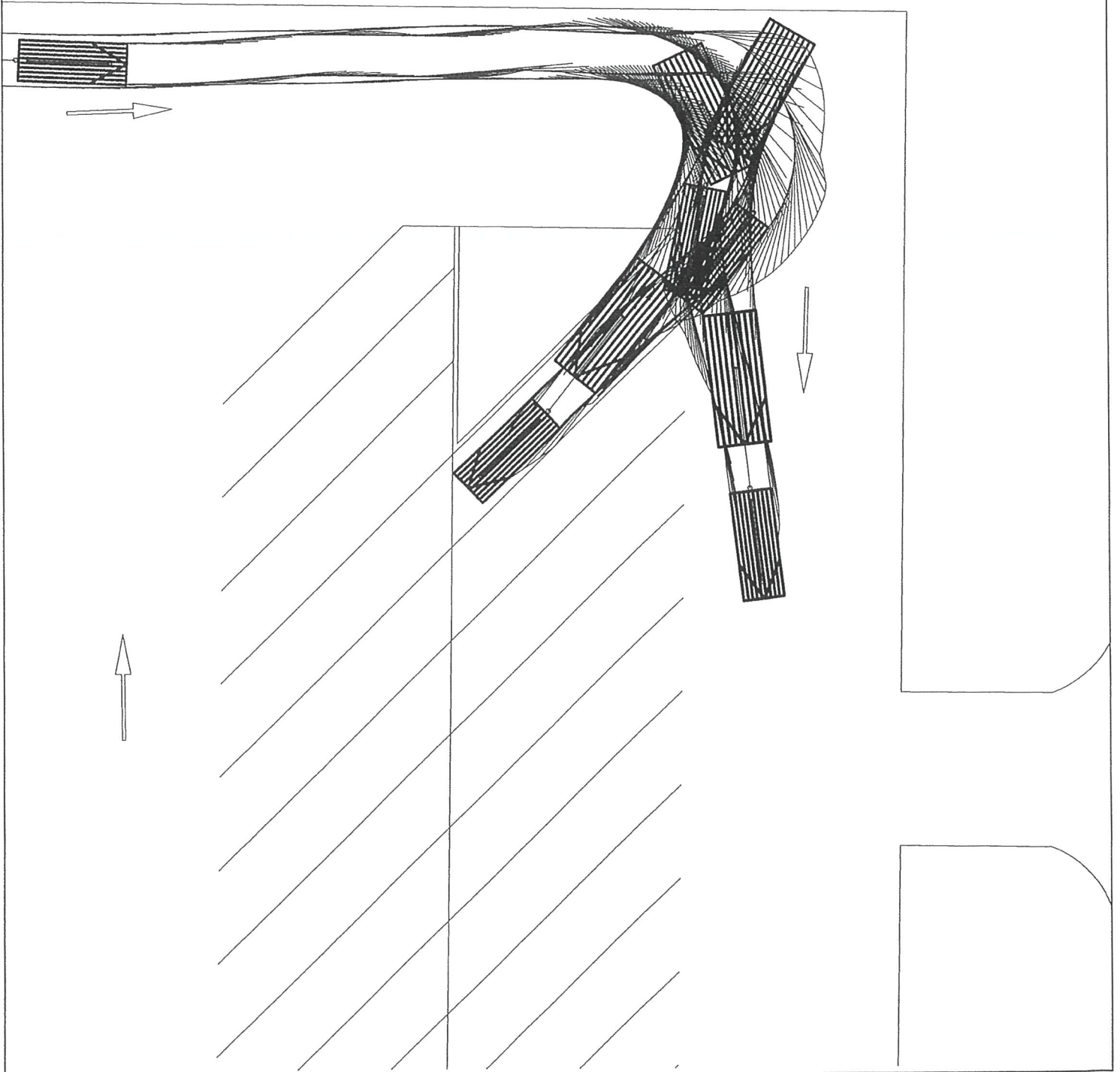
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Davis Ogilvie

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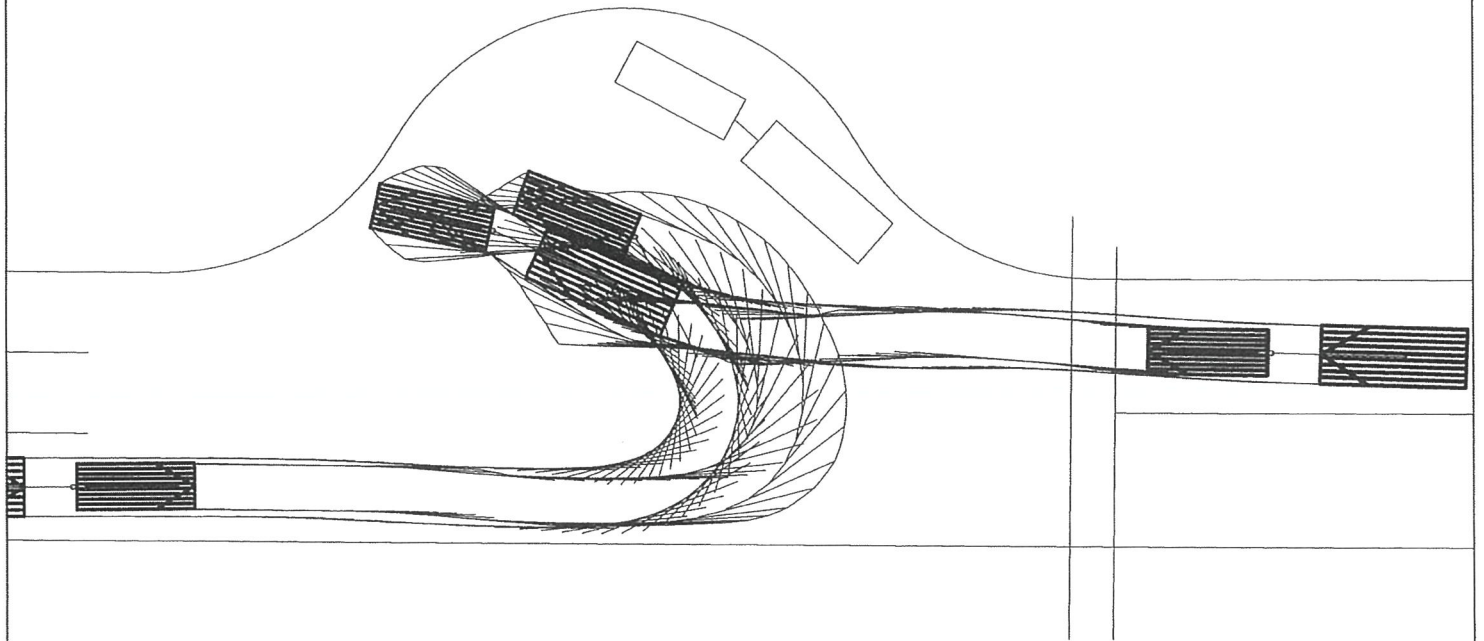
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Davis Ogilvie

Plotted: 20241031 1249 Scale 1:300

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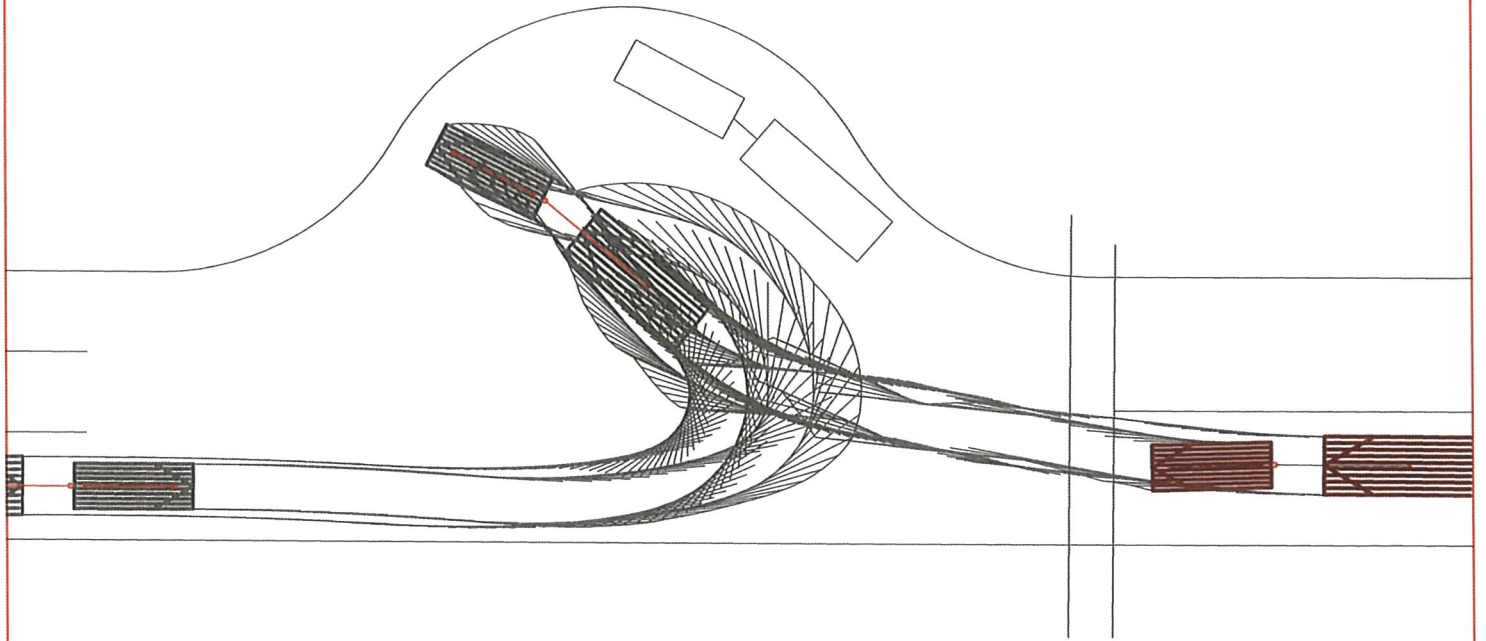
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Davis Ogilvie

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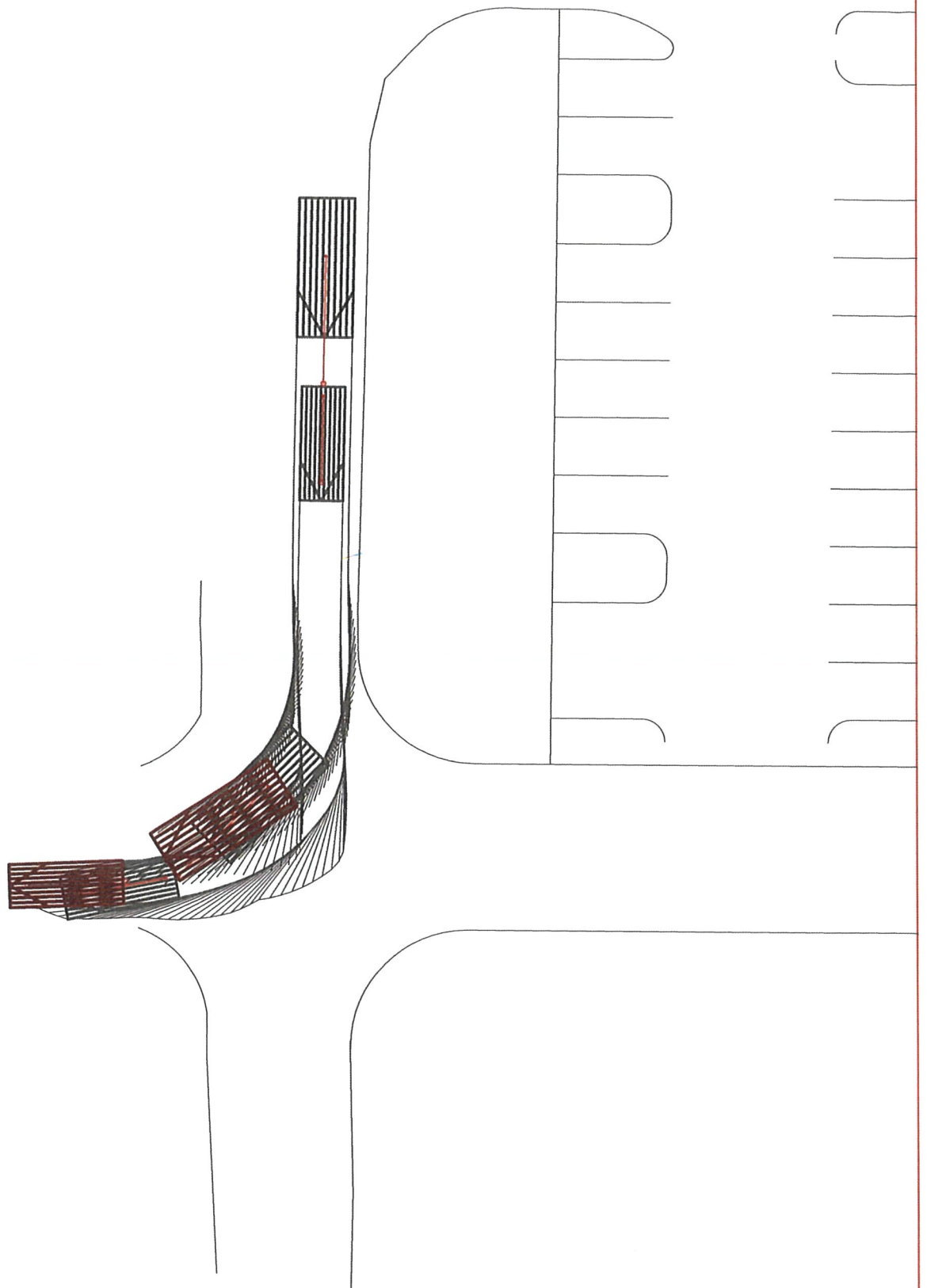
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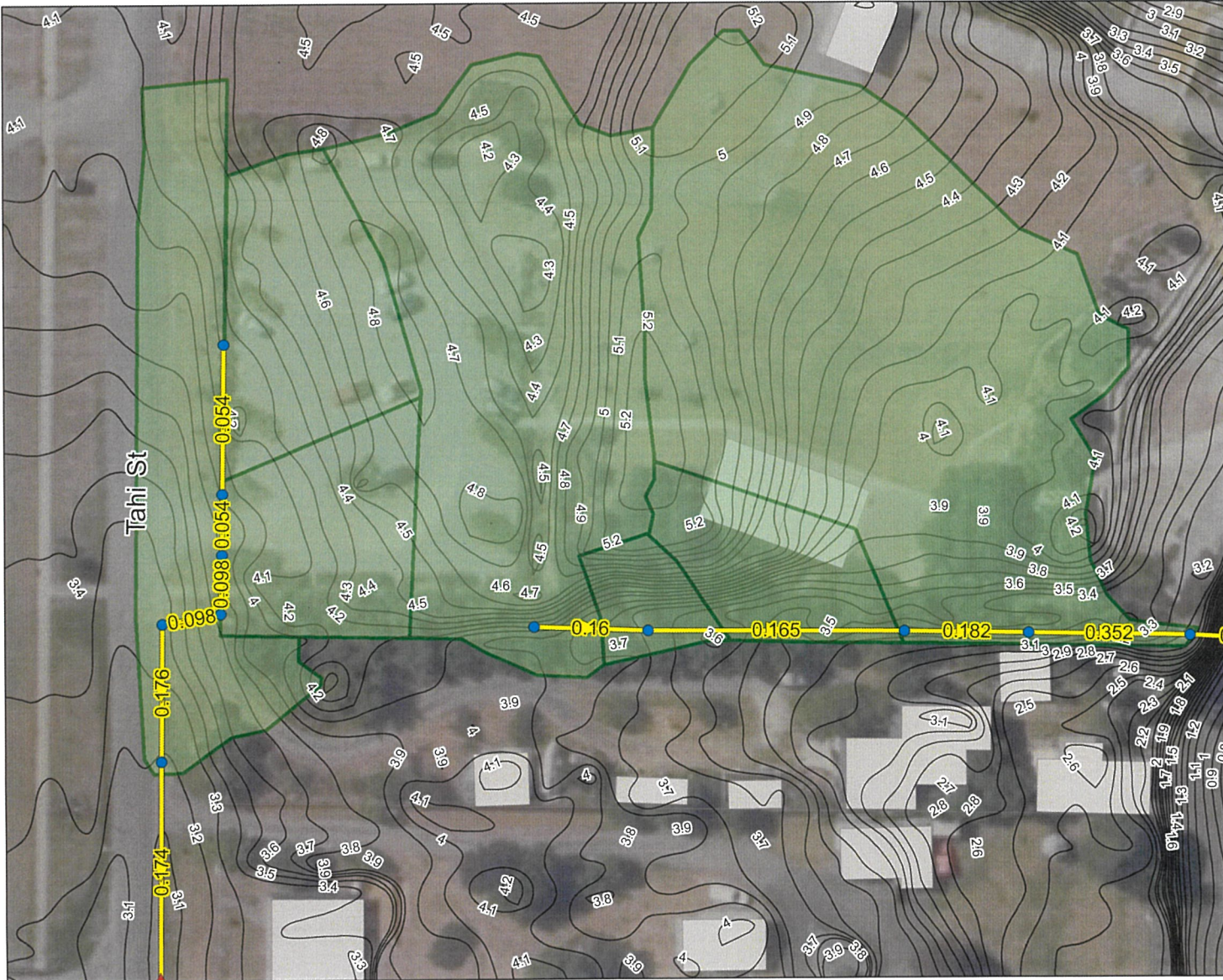
Davis Ogilvie

Plotted: 20241031 1254 Scale 1:250





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#2> boat trailer - lightning 20031125 1027 75°





## Legend

-  Outfalls
-  Subcatchments
-  Contours
-  Property Boundaries

100 Year ARI  
Rainfall

HIRDS V4, RCP8.5,  
Year 2080-2100

