

LLOYD AVENUE, MARCHWOOD – DRAINAGE IMPROVEMENTS**1. INTRODUCTION**

- 1.1 Between 24th December 1999 and 1st December 2003 there were eleven incidents of properties flooding in Lloyd Avenue and Long Lane, Marchwood from nearby watercourses and ditches. Watercourse maintenance works have reduced the severity of flooding to some extent but more substantial works are needed to alleviate it significantly.
- 1.2 This report seeks approval for the use of developer's contributions to fund the construction of suitable drainage works to alleviate property flooding.

2. THE CURRENT SITUATION

- 2.1 A watercourse collects water from a catchment southwest of the Marchwood bypass, flows through Southampton Football Club's training ground at Park's Farm and discharges to a roadside ditch in Long Lane. Two separate pipe and watercourse systems collect water from this ditch, one flowing through the Lloyd Avenue estate. They combine again to cross under the railway in a culvert. Beyond the railway the watercourse is designated as main-river and dealt with by Environment Agency. (See attached map).
- 2.2 Between 24 December 1999 and 1 December 2003 internal flooding occurred on eleven occasions, affecting five properties in Lloyd Avenue and one in Long Lane. A local television station reported the flooding on 1 December 2003. Most of the flooding incidents affected Council properties and privately owned ex-Council property.
- 2.3 A number of meetings have been held with residents who have suffered flooding, and with Southampton Football Club, to collect information and discuss the way forward. There is strong pressure from the residents for a rapid solution to the problem. Hampshire County Council's highway engineers have also been involved because part of the system is culverted beneath the highway.
- 2.4 In 2001 New Forest District Council and Hampshire County Council cooperated to clear the ditch in Long Lane and construct a linking culvert between the two systems to balance flows. Though this brought about some improvements flooding of property still continues during severe storm events.

3. REASONS FOR FLOODING

- 3.1 The piped drainage system immediately downstream of the Long Lane ditch does not have sufficient capacity to carry the volume of water that flows off the saturated upstream catchment when there is heavy rainfall. Blockages at the inlet of the road culverts frequently add to the problem. Water overtops the ditch and flows across Long Lane into the Lloyd Avenue estate.

- 3.2 Southampton Football Club has improved the drainage of its training ground which may have contributed to the flooding problem, but hasn't caused it. In any event the club, like any landowner, has riparian rights that allow it to improve the drainage of its land and increase the rate of discharge to an adjacent watercourse. Under the Land Drainage Act 1991 the Council does not have powers to make the club, or other upstream landowners, regulate the water flow off their land. The only solution is to improve the capacity of the existing system to store and discharge floodwater.

4. OPTIONS TO REDUCE FLOODING

- 4.1 Several options were investigated including:
- a) A water storage structure upstream of the bypass or near Lloyd Avenue.
 - b) Additional highway drainage to remove flood water from Long Lane.
 - c) Raising the height of the watercourse bank along Long Lane.
 - d) Laying a larger diameter or additional pipe between Long Lane and the railway.
- 4.2 A feasibility study showed that, on their own, none of these options would provide a satisfactory solution, but by combining (a) and (b) the risk of flooding could be substantially reduced.
- 4.3 The proposed scheme involves the construction of a storage tank in the wide verge at the corner of Long Lane and Lloyd Avenue, which will store excess floodwater and release it into the watercourse in a controlled manner when flood flows have abated. Additional highway drains will be installed to collect floodwater from the road and discharge it into the storage tank. This design offers the most cost effective solution to the problem and minimises disturbance of roads and gardens.
- 4.4 The verge in which the tank would be built is owned by the Council and maintained by the Housing section. The tank would be of cellular high-density plastic construction with a predicted life of 30 years before any maintenance is needed. The Housing section has agreed that the tank can be installed at this location.
- 4.5 Hampshire County Council has agreed to take responsibility for maintenance of the highway drainage section of the proposed works.

5. FINANCIAL IMPLICATIONS

- 5.1 The estimated cost of the alleviation works is £60,000, which includes a contingency sum and employee costs for design and site supervision. The Land Drainage revenue budget cannot support this level of expenditure and the scheme does not meet Defra's priority score for grant aided capital projects.
- 5.2 Hampshire County Council has agreed to contribute £10,000 for the highway drainage improvements provided by the scheme, leaving NFDC to fund the balance of £50,000.
- 5.3 Over the years contributions have been taken from a number of developers for drainage improvements in Marchwood. The value of land drainage contributions for Marchwood currently totals £152,300.

- 5.4 The balance of the scheme cost (£50,000) could, therefore, be met from the developers' contributions fund for land drainage improvements in Marchwood.

6. ENVIRONMENTAL IMPLICATIONS

- 6.1 The grass verge will be disturbed by installation of the new tank and some reprofiling will be needed but care will be taken to ensure that verge maintenance is not adversely affected.
- 6.2 There are no other environmental impacts associated with this scheme.

7. CRIME AND DISORDER IMPLICATIONS

- 7.1 Flooding of property in Lloyd Avenue will be reduced.

8. PORTFOLIO HOLDER COMMENTS

- 8.1 The Portfolio Holder supports the recommendations in this report.

9. CONCLUSION

- 9.1 Flooding of properties in Lloyd Avenue and Long Lane occurs whenever heavy rain falling upstream on saturated ground to the southwest causes the watercourse in Long Lane to overflow. Maintenance and minor improvement works have failed to bring about a significant improvement.
- 9.2 The Council does not have the powers under the Land Drainage Act 1991 to require upstream landowners to control water flow from their land that feeds into the Long Lane watercourse. If flooding is to be alleviated the only viable solution is to improve the capacity of the drainage system to collect, store and discharge floodwater more effectively.
- 9.3 The estimated cost of a suitable alleviation scheme is £60,000. The work would not qualify for a grant from Defra as it cannot meet the current national priority score, and the Land Drainage revenue budget cannot support this level of expenditure.
- 9.4 Hampshire County Council has agreed to contribute £10,000 to the scheme, leaving £50,000 to be funded by NFDC. The value of developers' contributions for land drainage improvements in Marchwood currently stands at £152,300. The balance of the cost (£50,000) could, therefore, be funded from this source.

10. RECOMMENDATION

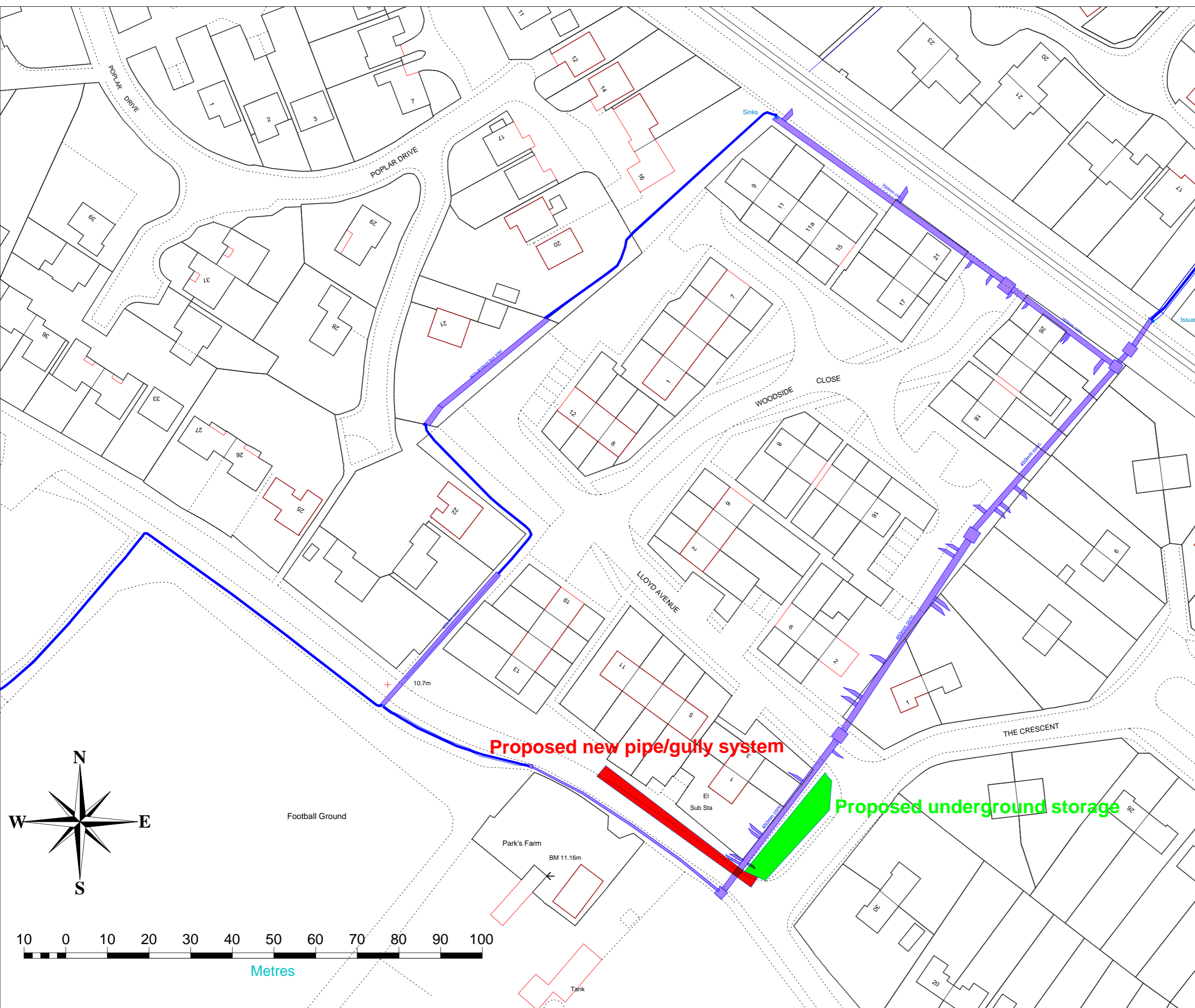
- 10.1 It is recommended that Members approve a supplementary capital estimate of £50,000 for the construction of land drainage improvement works to reduce the risk of flooding to properties in Lloyd Avenue and Long Lane, Marchwood, which would be funded by the use of developers' contributions.

Further Information

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Background Papers

Scheme File: 11586



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REVISIONS

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SCHEME

**Lloyd Avenue Flood
Alleviation Scheme**

TITLE

Area of Proposed Work

DATE June 2006	SCALE 1:1250
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