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Proposed Development at
Parkhall Farm,Maddiston,
Falkirk FK2 0BN
Flood Risk Statement

Mcgregor McMahon(Scotland) Ltd were commissioned to assess the risk of flooding to a proposed development site at Parkhall Farm Maddiston Falkirk . The purpose of the assessment was in support of a Planning in Principle Application for housing on the site shown on the attached application site plan ref RMDL/366/LP/001

.A Study of a planning response in 2015 for a much larger site had revealed that SEPA had objected on flooding grounds .As this site forms only a small part of the original application site and is significantly elevated, the extent of this statement is limited at this stage due to the application being only planning in principle.,

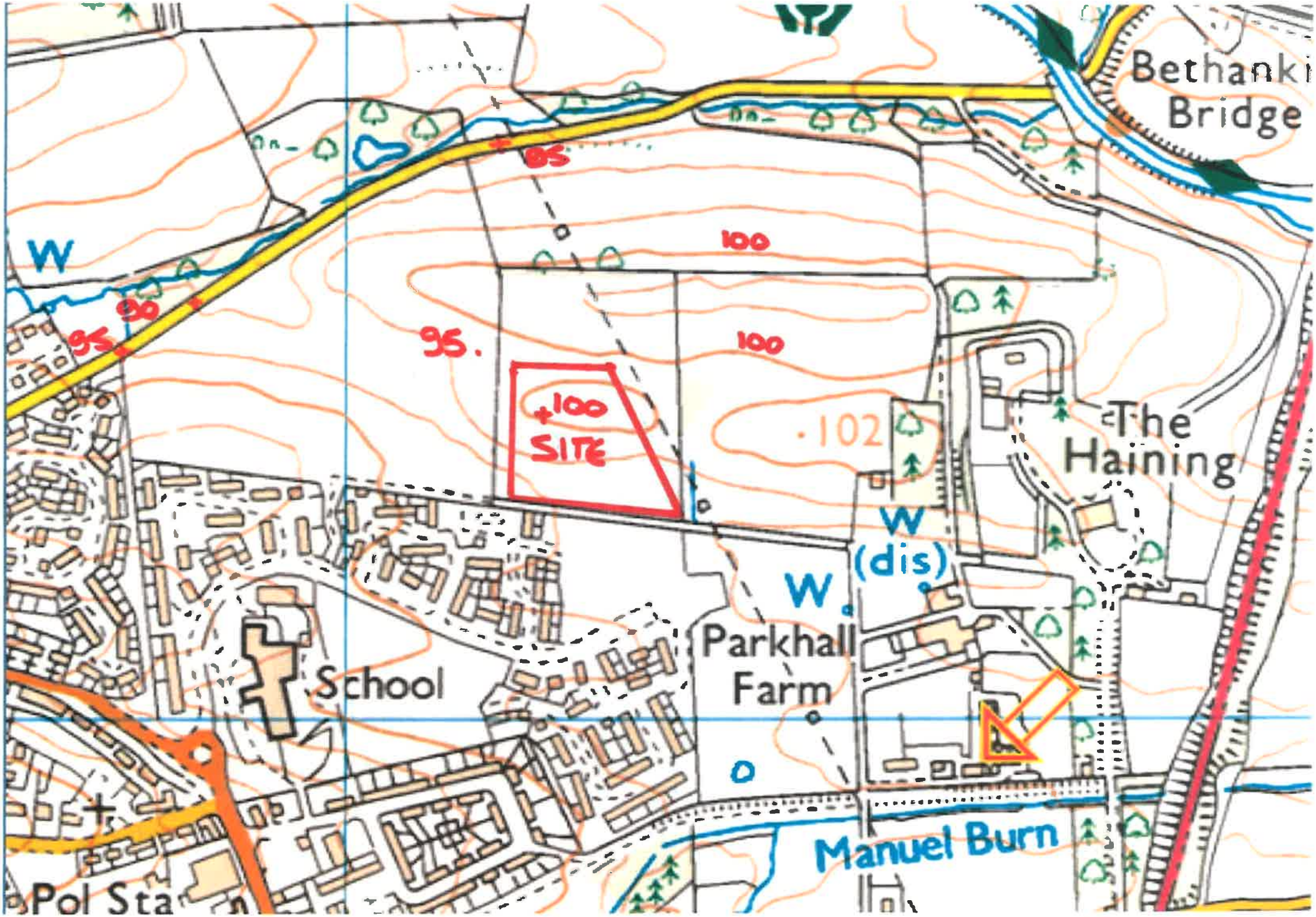
The SEPA flood map was studied and shows only very limited and very localised flooding adjacent to the site from surface water .It is intended that the site will be provided with a SUDS scheme which will, be developed fully at detailed planning stage so we do not see any issues relating to surface water flood risk .

The site also sits elevated at a general level of 100 m whereas the source of out of bank river flooding would be from the Gardrum Burn which sits to the North of the site is significantly lower .A study of the burn levels shows it to fall West to East with the adjacent to the site falling from 95 m to 85 m .This gives a freeboard form the burn levels to the site levels of between 5m and 15 m (See attached overmarked plan)

On this basis the risk of Flooding to the site and the development is low and at detailed planning stage once final levels are known this statement can be extended to provide accurate freeboard values

[redacted]

K.D.Simpson
B.Sc.C.Eng .M.I.C.E.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roy mitchell DESIGN LIMITED
ARCHITECTURAL CONSULTANCY
Beechcroft
Cannonside Road
LARGHERT FK5 3LG
Telephone: 07880 722 676

LOCATION PLAN

PARKHALL, MADDISTON.

Area Outlined in RED = 1.994 ha; 4.927 acres.

27/02/18	1:2500@A3	RWM

MANORPORREST

PARKHALL, MADDISTON.

LOCATION PLAN

RMDL/M46L/001

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PO Box 2070, Livingston EH54 0EG

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Registered in Scotland No 414163

Residential Development on Land North of Kings Seat Place, Glendevon Drive, Maddiston

Transport Statement

August 2018

1. Introduction

1.1 Manor Forrest Limited have submitted an application (Ref P/18/0131/PPP) for Planning Permission in Principle for a residential development on land to the north of Glendevon Drive, Maddiston. Approximately 49 dwellings are proposed.

1.2 Falkirk Council considered the application under a Scheme of Delegation, and issued a Notice of Refusal of Planning Permission on 16 May 2018. The reasons for refusal include:

6. The proposal would result in a number of properties without appropriate access to bus service provision to the potential detriment of sustainability. The proposal is contrary to the terms of Policy INF08 'Bus Travel and New Development' of the Falkirk Local Development Plan.

7. The application does not accord with Policy INF10 'Transport Assessments' of the Falkirk Local Development Plan as it has not been demonstrated, by means of an appropriately scoped Transport Assessment, that the transport network impacts have been properly defined and that suitable mitigation measures have been identified to address road capacity, road safety and sustainable transport issues.

1.3 Manor Forrest Limited appointed ACTT in July 2018 to consider the transport impacts of the proposal, in particular the reasons for refusal.

2 History of Developments in the Area

2.1 The author of this Statement has been involved in the development of Parkhall Farm, Maddiston from the outset, in 1999, and prepared the first Traffic Impact Analysis for the first development, now known as Glendevon Drive. At that time, it was clear that those 200 dwellings could be served by a single point of access, in the form of a simple priority junction on the B805 Main Street, beside a public house known as the Four Ways. The first version of a Transportation Assessment, submitted to the Council at that time, proposed a priority junction access and demonstrated that would operate satisfactorily.

2.2 In subsequent discussions with the Council, however, it emerged that there was the possibility of further significant development, on land to the south of the canal, between Maddiston and the A801, served by a new link road through the area, linking the B805 Main Street to the A801. The Council therefore requested that the developer of Parkhall

Farm should take account of that possibility, and "future-proof" the design of the access road and its junction with Main Street, to cater for that possibility.

2.3 It should be emphasised that this was not, at the time, an aspiration of the developers or owners of the land in question. It was the Council who specifically requested the developer of Parkhall Farm to "future-proof" the design of their access road so that it was capable of extension to serve that extent of development. That requirement, 15 years ago, carried three implications.

2.4 First, the Traffic Impact Analysis for the development had to take account of this potential additional development. A methodology for this assessment was discussed with the Council, and it was agreed that it should be assumed that the whole site, between Main Street, Maddiston and the A801, could accommodate up to 1,000 houses, with half of those using the proposed junction at Main Street to go in and out of the development.

2.5 While this figure of 1,000 houses may be seen as somewhat arbitrary, it was a "worst case", discussed and agreed with the Council at the time, to carry out the capacity test they required, to ensure that any junction arrangement would be adequate to cope with any future expansion to Parkhall Farm.

2.6 This additional analysis demonstrated that, if the proposed priority junction was upgraded to provide a right-turning lane, it would be able to accommodate the anticipated level of traffic if the whole area was developed.

2.7 Second, the Council advised that although this analysis demonstrated that a priority junction should suffice, either land should be reserved to permit construction of a roundabout to serve this possible future development, or the application be amended to put forward the option of constructing a roundabout at the B805/California Road junction at the outset to give access to the then-current application site.

2.8 It was agreed with the Council that the applicant would construct the roundabout instead of the simple priority junction (incurring signficant additional costs) to accommodate a far larger development. To meet the design criteria for visibility splays of this roundabout the local drinking establishment, The Four Way Inn was acquired by the applicant and subsequently demolished to provide adequate land take to facilitate this.

2.9 The size of the roundabout was determined not by capacity, but by the need to meet the requirements of the Council's Standards for Development Roads, and the national Design Manual for Roads and Bridges, and to accommodate larger turning vehicles including buses and construction traffic, and also by the need for signage on the roundabout itself. This meant that the roundabout was designed to meet geometric standards, which far exceeded the size required to provide sufficient capacity. In other words, the smallest roundabout permitted by design standards, is far bigger than it needs to be to provide sufficient capacity.

2.10 Capacity calculations carried out at that time, demonstrated that the roundabout would have more than enough capacity not only for the development then proposed, but also for the potential future development of land between Parkhall Farm and the A801. Even then the roundabout was predicted to operate at less than half of its calculated capacity.

2.11 With all of that in mind, the applicant at the time was reasonably confident that the roundabout as constructed would be able to serve future development, albeit with a very small risk that the roundabout might have to be altered to improve capacity should any future assessment for any larger future development show that the capacity would be exceeded.

2.12 The third implication of the requirement to "future-proof" the design related to the design and layout of Glendevon Drive itself. To serve a development of 200 houses, as was proposed at the time, Glendevon Drive would need only to be 5.5 metres wide, with 2 metre footways, to meet the standards for a General Access Road.

2.13 The Council's contemporaneous Guidelines for Development Roads indicated that a development of between 400 – 1000 dwellings should be served by a local distributor road, with a 7.3 metre wide carriageway, and 2 metre wide footways separated from the carriageway by a 2 metre wide grass verge.

2.14 Glendevon Drive was therefore constructed to these higher standards, and the access on to the B805 specifically upgraded to a roundabout, to cater for the possibility that the road would be extended in future, through to the A801.

2.15 It is accepted that this does not constitute an "approval in principle" for further development, but demonstrates the extent to which the Council agreed (and indeed, insisted) that the layout at the B805 was "future-proofed" in the event that such development did happen. The provision of a roundabout, its size, and indeed the requirement to construct Glendevon Drive to distributor road standards, with additional road width and additional verges, were required by the Council specifically to allow for future development to the east of Glendevon Drive, and the applicant occurred significant additional expense, at the time, in catering for that requirement.

2.16 It is pertinent to note that although the current version of PAN75 was published in 2005, the previous version, published in 1999, also recommended that development should be located within 400 metres of public transport services. The Council raised no concerns at the time about the extent of development along what was to become Glendevon Drive,

2.17 The current proposal is contained within that same "envelope" in terms of bus services on Main Street.

2.18 A planning application was submitted in 2014 for a further residential development, of up to 200 houses, on land to the north of Glendevon Drive. That application partially encompassed the land subject of this current application.

2.19 A Transportation Assessment was submitted for that application, and demonstrated, again, that the roundabout on the A805 would still operate at around half of its capacity, for the reasons set out above.

2.20 That application proposed a secondary access on to Nicolton Road, and included a proposal to improve Nicolton Road to provide a standard road width and footway between the secondary site access and Craigs Crescent.

2.21 While that application was subsequently withdrawn, it was notable that the Council's Transportation Planning Unit had no real concerns on traffic impact etc, but were

concerned mainly that no further development should take place in the area until the through route to the A801, mentioned earlier, was completed. This would remove any requirement to upgrade Nicolton Road, and also facilitate bus penetration through the site between the B805 and the A801.

2.22 An application (P/14/0483/PPP) was subsequently submitted in 2014 for that link road, jointly with Land Options West, who propose a new roundabout on the A801, and further development to the east to finance and enable the first section of that road.

2.23 That application was refused in 2017 for reasons relating mainly to its route rather than its principle, since it did not accord with a Strategic Development Framework produced by the Council during the 3 years that the application was under consideration. The impacts on traffic were accepted.

2.24 It was pointed out at the time that the route for this link road, shown in the Strategic Development Framework, was somewhat arbitrary, and that a road could not be constructed on that route, and linked to the previously-approved roundabout on the A801, within the Council's own design standards for horizontal and vertical alignment.

2.25 The applicant is now faced with a scenario whereby the next phase of development, which the roads infrastructure was designed to include, can only now be accommodated via an alternative solution, with the use of Nicolton Road. This would provide the applicant further time to assess and design the proposed link road with the Council, and meanwhile meet the Council's shortfall in housing

3 Local Development Plan

3.1 The Local Development Plan includes the allocation of 4 sites in this area, as shown in Figure 1.

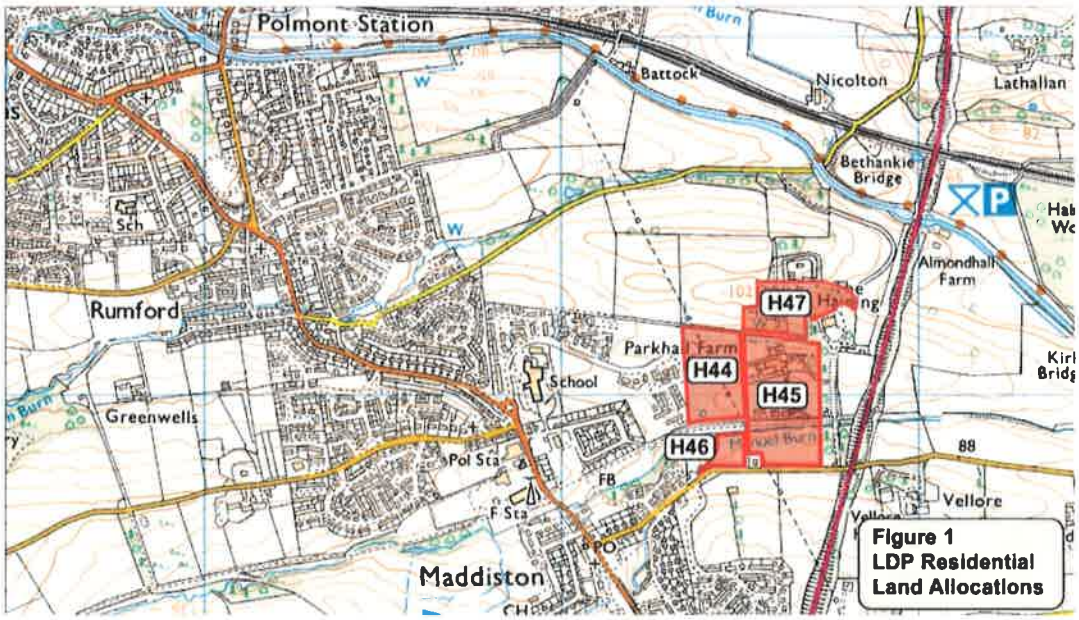

Figure 1
LDP Residential Land Allocations

3.2 The capacities of the 4 sites, and the opportunities / constraints for access are set out below:

H44	40 Dwellings	Access by continuation of Glendevon Drive, but would exceed limit in Falkirk Council's Standards for Development Roads, of 200 houses from a single point of access. – needs second access point. Site separated from Vellore Road by dismantled railway line, which is in separate ownership.
H45	80 dwellings	Part frontage on to Vellore Road, majority of site separated from Vellore Road by dismantled railway line, which is in separate ownership.
H46	34 Dwellings	Granted Planning Permission in Principle for 34 houses, subject to conditions. Accessed from Vellore Road.
H47	20 Dwellings	Depends on access through H44 or H45, both of which require a second point of access.

3.3 The ongoing development of the allocated sites H44, H45 and H47 are therefore dependent on a second point of access, either on to Vellore Road, which connects Main Street to the west, through Whitecross to Linlithgow to the east, or by construction of the new distributor road between Glendevon Drove and the A801.

3.4 Figure 2 below shows, in red, the land allocated in the LDP, and in blue, land within the control of third parties. Site H46, and part of H45, can be accessed from Vellore Road. The remainder of H45, and all of H44 and H47, are separated from Vellore Road by land in the ownership of third parties, who therefore hold a ransom over development of those areas. The developers cannot promote further development while such ransom potential exists.

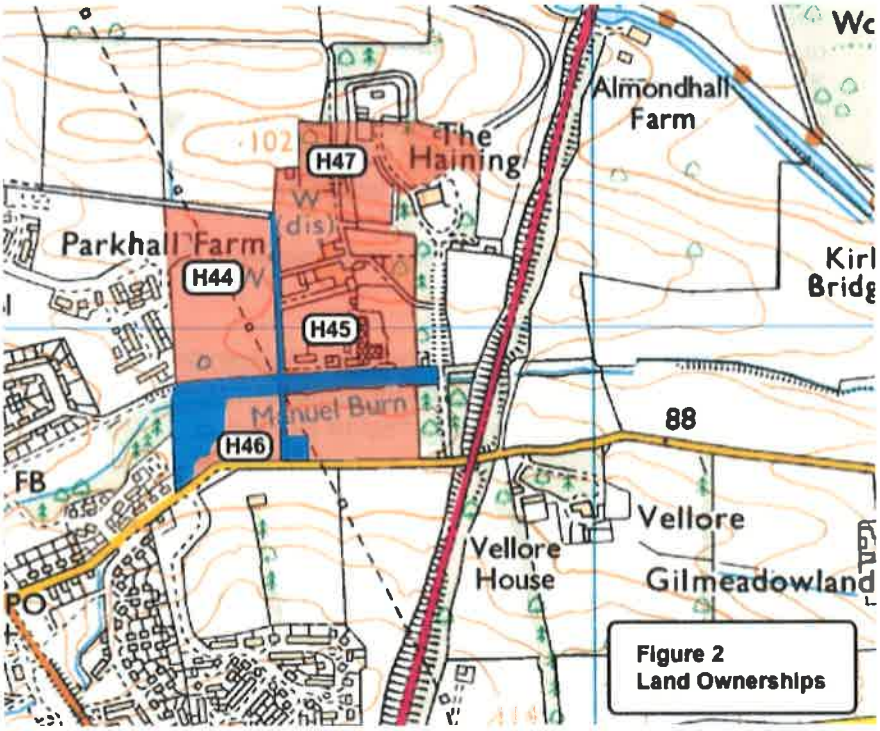

Figure 2
Land Ownerships

3.5 This potential for ransom means that realistically, the new distributor route is necessary to serve the allocated developments.

3.6 In addition, while not its primary purpose, this road offers a potential to act as a "relief road", facilitating traffic movement between Maddiston and the A801, and onwards to Junction 4 of the M9, Linlithgow etc, as well as to West Lothian via Bowhouse roundabout to the south. This will provide some relief to existing routes including Station Road, where peak hour delays are already substantial, and where other developers have been required to incorporate improvements.

3.7 It is perhaps not unreasonable to expect the Council to welcome a proposal which, as a secondary consequence, relieves existing traffic problems in the area, at least to some extent, and all at no cost to the Council.

4 Traffic Impact

4.1 The Council have refused the current application on the grounds that "The application does not accord with Policy INF10 'Transport Assessments' of the Falkirk Local Development Plan as it has not been demonstrated, by means of an appropriately scoped Transport Assessment, that the transport network impacts have been properly defined and that suitable mitigation measures have been identified to address road capacity, road safety and sustainable transport issues."

4.2 As set out earlier, a number of Transportation Assessments have been carried out for developments in this area, all of which have demonstrated, consistently, that the roundabout at the B805 / Glendevon Drive junction can adequately cater for significantly more development than is proposed here.

4.3 There is little merit in continually carrying out Transportation Assessments, at some cost, when the likely results are obvious, having been tested extensively on previous occasions. The Report on Handling suggests that "This transport assessment is not up to date however and does not take account of current guidelines or the specific site circumstances including the proposed link to Nicolton Road." It is not clear what "current guidelines" are referred to here, since the previous TA was prepared in accordance with relevant guidance, which has not changed since that time.

4.4 At least one of the previous Transport Assessments also took account of a similar link to Nicolton Road.

4.5 It is accepted that the last of the previous Assessments was prepared in 2016. It is not clear what circumstances have changed (in terms of traffic flows or traffic patterns etc) that would render that assessment "out of date".

5 Public Transport Availability

5.1 A second ground for refusal of the current application is that "The proposal would result in a number of properties without appropriate access to bus service provision to the potential detriment of sustainability. The proposal is contrary to the terms of Policy INF08 'Bus Travel and New Development' of the Falkirk Local Development Plan."

5.2 Policy INF08 "Bus Travel and New Development" states:

1. *New development will be required to provide appropriate levels of bus infrastructure or suitable links to existing bus stops or services, as identified within travel plans, taking account of the 400m maximum walking distance required by SPP. This provision will be delivered through direct funding of infrastructure and/ or the provision of sums to support the delivery of bus services serving the development.*

2. *Bus infrastructure should be provided at locations and to phasing agreed with the Council, and designed in accordance with the standards set out in current Council guidelines.*

3. *New development, where appropriate, should incorporate routes suitable for the provision of bus services. Bus facilities within new developments should offer appropriate links to existing pedestrian networks in surrounding areas. Alternatively, new development should be linked to existing bus infrastructure via pedestrian links as described in Policy INF07.*

5.3 The Report on Handling suggests that *"Without improvements to the existing bus services which presently operate along the B805; some parts of the proposed site will be outwith the maximum of 400m which is permitted for dwellings to be from an existing bus stop. In order to overcome this it would be necessary for bus services to be diverted into the site. This is not considered to be feasible until the distributor road is completed through to the A801 and therefore the existing proposal is premature as it would result in a significant number of properties without appropriate access to bus provision."*

5.4 It is recognised that the proposed development area currently lies outwith the recommended walking distance of 400m as set out in PAN 75. It is important to note, however, that PAN 75 is a "guideline" and as such the distances are not mandatory. In any urban expansion area, outside major conurbations, there are limitation and restrictions which will require a level of compromise, and this is the case in Maddiston.

5.5 Most of the small towns and villages around Falkirk, including Maddiston, typically have one main transport corridor connecting the village to the external local road network. In the case of Maddiston, this is of course the B805 Main Street. This corridor is therefore the main route for bus services and indeed private cars and other services.

5.6 The compromise with such a transport network is that existing local residents are required to walk slightly further to access public transport than those who live adjacent to the transport corridor. It could be argued however that the benefit to those who live slightly beyond the 400m walking distance from the transport corridor is that they are not affected as much by the traffic movements and therefore potentially live in a nicer environment.

5.7 The footways on Glendevon Drive are of a good quality and well lit and therefore provide an excellent pedestrian route to the existing bus stops. The proposed Nicolton Road improvement will also provide a good quality walking corridor between the development and the bus routes.

5.8 Internally, the proposed development will also provide high quality footways which will link into the existing route and provide a safe route for residents to walk to the bus stops. Having to walk slightly further than the "guideline" distance as set out in PAN 75 is not unreasonable in the circumstances.

5.9 Setting that aside, the comments in the Report of Handling again illustrate the conundrum inherent in the Council's approach, whereby further development is considered premature until the distributor road is completed, and yet the distributor road is considered unacceptable, as outlined earlier, unless it follows exactly the alignment sketched indicatively in the Strategic Development Framework: an alignment that cannot be constructed and connected to the previously-approved roundabout at the A801 within the constraints of the Council's own road design standards.

5.10 In practice, it is extremely unlikely that any developer would be prepared to promote and build the road as a stand-alone entity, without the reassurance that supporting enabling development will be approved. The current application, and others in the past, have proposed a means of constructing the distributor road in sections, with temporary measures to facilitate that overall objective.

6. Conclusions

6.1 First, this report examines the history of development in the area, and demonstrates that, although the first development, now known as Glendevon Drive, was approved for 200 houses (subsequently increased to around 280), the new road infrastructure, including Glendevon Drive and its roundabout junction with the B805 Main Street, was designed to accommodate further development, and to be capable of being extended to form a distributor road linking through to the A801 to the east.

6.2 Subsequently, Land Options West submitted a planning application for a limited canal side development, accessed from the A801. Again, the smallest roundabout permitted by design standards, is far bigger than it needs to be to provide sufficient capacity.

6.3 The current Local Development Planinclu des the allocation of 4 sites in this area, which together are dependent on two points of access. In practical terms, that second point of access can be taken by a connection on to Vellore Road, although in practice, only site H46, and part of H45, can be accessed from Vellore Road.

6.4 The remainder of H45, and all of H44 and H47, are separated from Vellore Road by land in the ownership of third parties, who therefore hold a ransom over development of those areas. Those allocated sites are therefore dependent on the provision of a new distributor road, linking the end of Glendevon Drive, to the proposed roundabout on the A801.

6.5 In considering another proposal in the area, the Council have acknowledged the need for this through route to the A801 to serve further development in the area, and indeed, are clear in resisting further development until that road is provided.

6.6 The Council have refused the current application, partly on the grounds that no Transportation Assessment has been submitted. A number of Transportation Assessments have been carried out for developments in this area, all of which have demonstrated, consistently, that the roundabout at the B805 / Glendevon Drive

junction can adequately cater for significantly more development than is proposed here.

6.7 There is little merit in continually carrying out Transportation Assessments, at some cost, when the likely results are obvious, having been tested extensively on previous occasions. The last of the previous Assessments was prepared in 2016, and there is no reason to suppose that circumstances have changed (in terms of traffic flows or traffic patterns etc) that would render that assessment "out of date".

6.8 A second ground for refusal of the current application is that the development is too far from bus routes. The Report on Handling suggests that diversion of bus services into the site is not considered to be feasible until the distributor road is completed through to the A801, so the current proposal is premature.

6.9 The recommended walking distance of 400m as set out in PAN 75 is a "guideline" and as such the distances are not mandatory. In reality, there are limitation and restrictions which will require a level of compromise, and most of the small towns and villages around Falkirk, including Maddiston, typically have one main transport corridor connecting the village to the external local road network. Outwith major conurbations, the compromise is that existing local residents are required to walk slightly further to access public transport than those who live adjacent to the transport corridors.

6.10 There are good footway connections to the public transport network. Having to walk slightly further than the "guideline" distance as set out in PAN 75 is not unreasonable in the circumstances.