

Drainage Strategy Design Assumptions and Recommendations
System 2 (West)

Proposed Discharge Rate 8.1 L/S
(based on QBAR for developable area as outlined within RSK Flood Risk Assessment subject to LLFA Approval)

Total impermeable area is calculated at 0.998ha (including 10% for Urban Creep)

Therefore, the following detention pond have been calculated:
Return Period Type Volume attenuated
1 in 100 years + 40% Pond 1 700 m³

Allowance to be made in costings for a pair of road gullies at every 15m change.

Basin 2
Bas Level 101.000
Max Water level
101.800
Min slope 1:5
Volume 700m³

Proposed "Village Green"

Proposed LEAP
Children's Play
Area

Proposed SUDs
Feature
Subject to Engineer's
detail and design.

Relocation / Rerouting
of existing footpath

Existing ditchcourse to be culverted
under proposed highway - subject to
LLFA approval

Existing water
bodies

Rising Main to be designed by Pumping
Station Manufacturer/Specialist.

STW S106 Approval required prior to
any connections works to public sewer.

Foul Outfall

Notes

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reproduced or used except by written permission.
Drawings must not be scaled. Work to figured dimensions only

- Due to a change in legislation on 1st October 2011, there could be formally private
sewers which have transferred over to the responsibility of the Sewerage
Undertaker. Such sewers are located on the drawing construction works are prepared to
divert these sewers.
- The survey information used in the preparation of this drawing is not warranted. The
contractor shall check all dimensions and levels on site.
- The drawing must be read in conjunction with the site investigation report. Before
work commences contractor should consult the engineer and the SI report
regarding any construction issues. All necessary Health and Safety measures to be
followed.
- Before work commences, the contractor shall liaise with all Statutory Authorities to
determine the exact location of all apparatus and take all precautions deemed
necessary to locate, protect and where necessary, divert such apparatus.
- All works are subject to approval by Local Authority, Building Control, Sewerage
Undertaker and the Environment Agency. Any works undertaken prior to the
starting of the works shall be in accordance with the Building Regulations Part H
and BS EN 752.
- Should any surplus excavated material require disposal off site, it should be taken to
a suitable licensed landfill site.
- The contractor shall check all dimensions and levels on site.
- Setting out to be confirmed by the Architect.
- Prior to commencing work on the drainage, all existing drains, sewers, manholes
and cables to remain shall be located, identified and a CCTV condition survey
carried out. Where necessary, protection to the existing drainage infrastructure shall
be provided.
- All existing drains and manholes adjacent to the proposed works are to be
either removed and suitably backfilled or grouted up.
- All proposed drainage works shall be constructed in accordance with all engineering
specification for the water industry and Design Construction Guidance for adoptable
drainage, for private drainage in accordance with the Building Regulations Part H
and BS EN 752.
- All existing drainage levels, diameters & locations need to be checked on site prior
to any drainage works, and any discrepancies need to be reported back to the
Engineer.
- Cover levels for manholes are approximate only and should be adjusted to match
surrounding levels.
- Manhole and drainage covers shall comply with BS 5911. Manhole covers
within block paved areas and buildings shall be recessed. Cover weights to be
as follows:
Class D400 in heavily trafficked areas (roads, service yards)
Class D500 in landscaped areas (grass, car park)
Class E125 in landscape and non trafficked areas (min. 100mm up frame)
Class E145 in 100mm diameter urban street side drains.
- Drainage pipes to be:
Class D400 in heavily trafficked areas (roads, service yards)
Class D500 in landscaped areas (grass, car park)
Class E125 in landscape and non trafficked areas (min. 100mm up frame)
Class E145 in 100mm diameter urban street side drains.
- Pipes to be:
Class D400 in heavily trafficked areas (roads, service yards)
Class D500 in landscaped areas (grass, car park)
Class E125 in landscape and non trafficked areas (min. 100mm up frame)
Class E145 in 100mm diameter urban street side drains.
- Where cover to pipe is less than 100mm under carparking - concrete bed and
around or concrete protection slab to be provided. Where cover is less than 300mm
at points adjacent to buildings to be BS EN 124 in concrete. Where cover is less than 300mm
the concrete is to be cast integrally with the floor slab.
- An opening is to be formed through walls to give pipes at least 50mm clearance all
round. Brickwork over shall be supported by a steel. Covering to be marked each
side with right hand material.
- Pipe embedded in walls shall have pipe formed within 150mm of either wall face.
Adopted rodder pipes of max 600mm length with flexible joints shall continue the
alignment.
- Pipe runs near Buildings:
A trench is to be formed through walls to give pipes at least 50mm clearance all
round. Brickwork over shall be supported by a steel. Covering to be marked each
side with right hand material.
- At all positions to be filled with concrete up to the lowest
level of the adjacent foundation. If a trench is greater than 1m from a building the
trench shall be filled with concrete up to a level below the building equal to the
depth from the foot of the wall and 100mm, see architect's layout.
- Thermal drainage is required where levels fall towards a building entrance.
Architect to confirm if required.
- Yard Only positions are indicative, should be adjusted on site to suit levels.
- At all positions to be filled with concrete up to the lowest
level of the adjacent foundation. If a trench is greater than 1m from a building the
trench shall be filled with concrete up to a level below the building equal to the
depth from the foot of the wall and 100mm, see architect's layout.
- Road gullies shall be spaced 400 diameter x 900mm deep with Class D 400 frame
in accordance with BS EN 124.
- Drainage channel channel design to be undertaken by manufacturer. Alternative
channels may be used, subject to Engineer approval.
- All concrete in drainage, manholes, sewers, surrounds etc. to be in accordance with
the BRE Special digest 1. Concrete in aggressive ground. Refer to site investigation
report for sulfate requirements.
- All manholes, pipe manholes etc. to be backfilled with imported granular fill to Class
4/5 after closing material to BS400. Take it is compacted in accordance with
Table 6/4.
- All pipelines shall be tested both before and after backfilling, using either an air test or
water test, in accordance with BS EN 1610.
- Drainage materials and jointing shall be constructed in accordance with
the relevant British Standard Construction Guidance.
- All works to sewers/manholes being offered for adoption or on existing public
sewers shall be in accordance with "Design Construction Guidance" and the
Adopting Water Authority's recommendations.
- Requirement for Land Drain to be assessed on site by the Site Manager.

KEY

- Existing Storm Drain
- Existing Storm Drain Abandoned
- Existing Foul Drain
- Existing Foul Drain Abandoned
- Storm Water Diversion
- Storm Drain
- Storm Manhole
- Storm Drainage Offered for Adoption
- Storm Manhole Offered for Adoption
- Proposed Sewer Easement
- Foul Rising Main subject to manufacturer's design
- Foul Water Diversion
- Foul Manhole Offered for Adoption

NOTE
Preliminary scheme only for comment & review.
Based upon information provided / available at
the time. Scheme will be subject to full review
and amendment as further information becomes
available.
Scheme will be subject to amendment following
receipt of comments from the Development
Control, LA Planning Authority, Environment
Agency, LA Highways department and the
Sewerage Undertaker.
Following receipt of further information and
comments, the scheme may require a re-design.

Any drainage within proximity of existing
or proposed trees is subject to STW and LA
approval, additional protection or relocation may
be required.

STW S106 Approval required prior to
any connections works to public sewer.

All sewer diversions and discharges to public
sewers are indicative only and are subject to
approval by the Sewerage Undertaker.

All existing public sewers are shown indicative
only. All locations and levels to be checked prior
to any detailed drainage design or on-site works.

Additional Public Sewers may now be available post October
2011 Transfer of Private Sewers. Further on-site investigation
required to ascertain suitability of making a Section 106
connection. Possible 3rd party land crossings required.

Invert Levels for existing manholes have been
taken from Sewer Records. Any difference
between actual and drawn details are to be
reported immediately to the Engineers prior to
any sewage diversion works.

All existing public sewers are shown indicative
only. All locations and levels to be checked prior
to any detailed drainage design or on-site works.

Trees Protection
1. In order to protect trees, a protection zone
should be set-up around each tree (i.e. fencing)
before starting construction work. Extent of
protection zone needs to be agreed with Local
Authority Tree Officer.
2. Careful planning and communication with LA
Tree Officer, landscape designers and
contractors prior to works, to reduce tree
damage.
3. Must adhere to British Standard BS5837: 2004.

A	24.10.2024	Updated to latest layout and levels	BPL
REV	DATE	AMENDMENT	BY



DRAWING STATUS: PRELIMINARY

CLIENT: Vistry Partnerships

PROJECT: Leicester Road, Earl Shilton

TITLE: Proposed Drainage Strategy Sheet 2 of 2

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