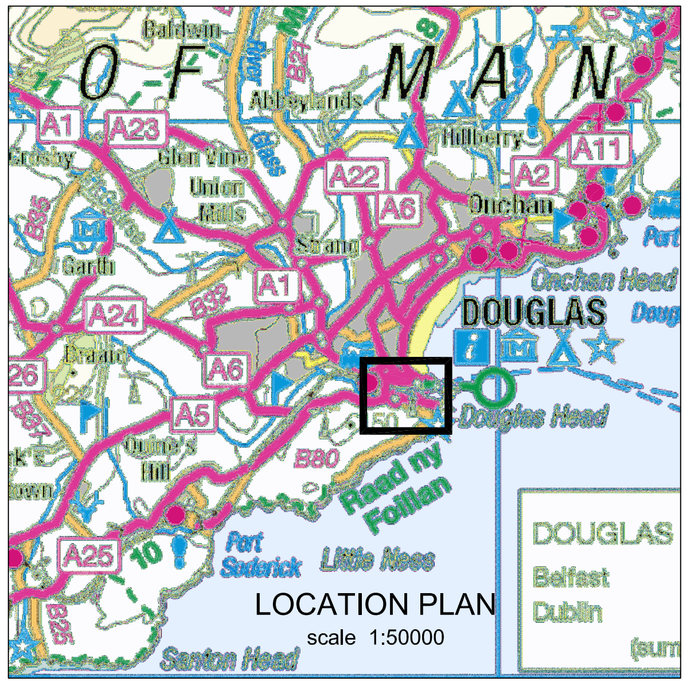

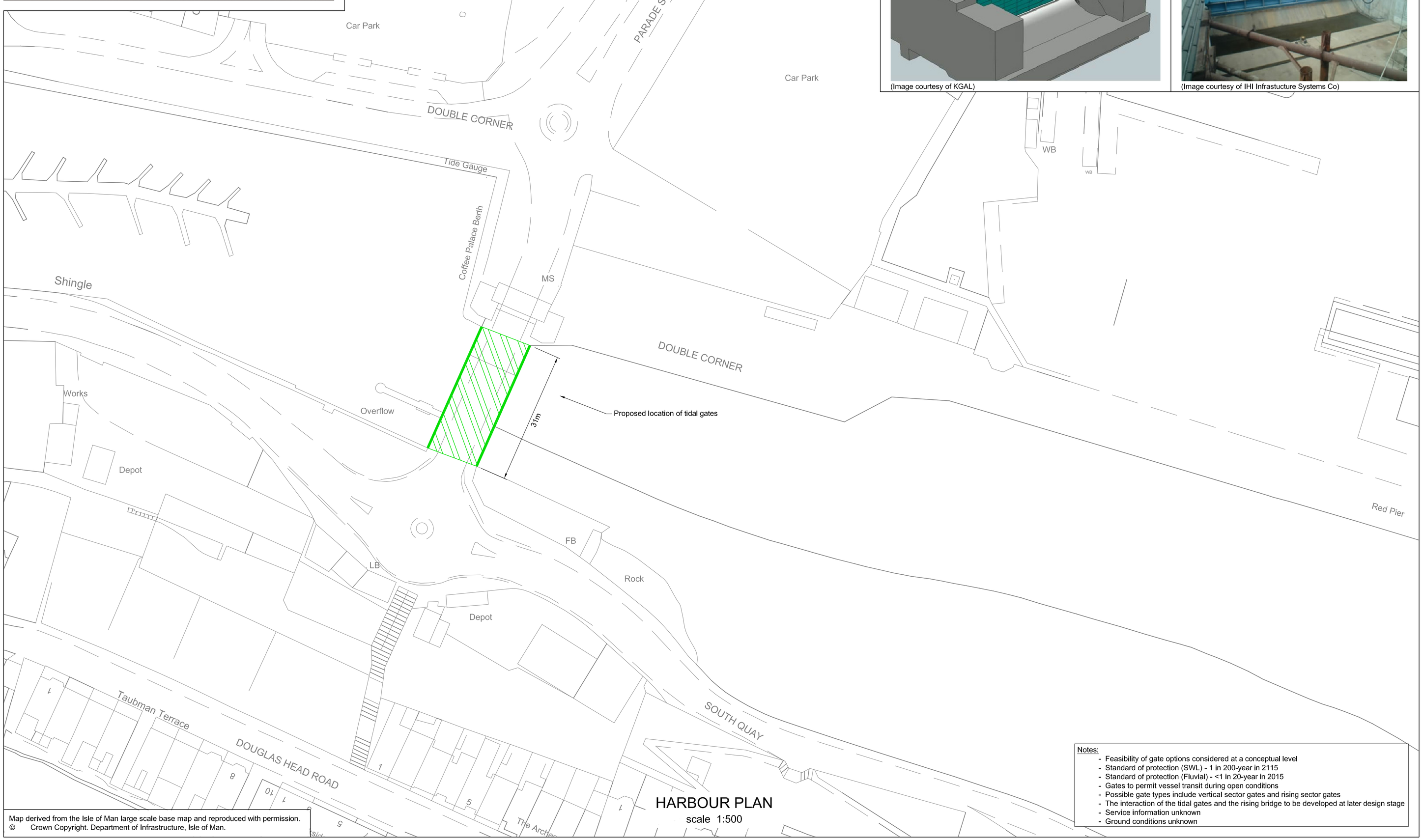

Map derived from the Isle of Man large scale base map and reproduced with permission.
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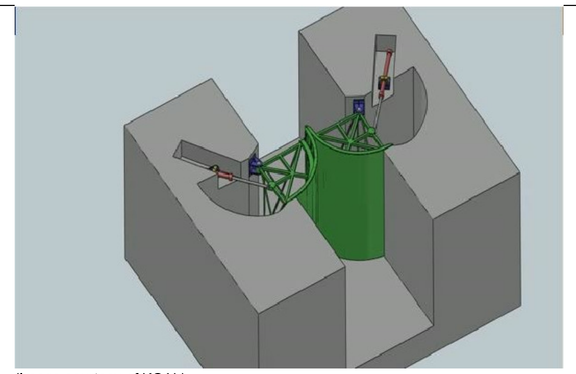
Notes:
- Feasibility of gate options considered at a conceptual level
- Standard of protection (SWL) - 1 in 200-year in 2115
- Standard of protection (Fluvial) - <1 in 20-year in 2015
- Gates to permit vessel transit during open conditions
- Possible gate types include vertical sector gates and rising sector gates
- The interaction of the tidal gates and the rising bridge to be developed at later design stage
- Service information unknown
- Ground conditions unknown

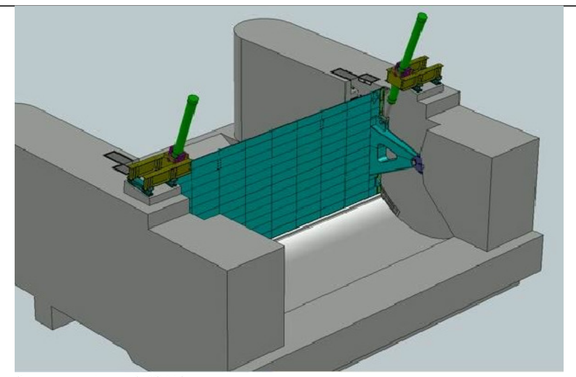
Gate option 1 - Sector Gates



(Image courtesy of KGAL)

(Image courtesy of U.S. Army Corps of Engineers)

Gate option 2 - Rising Sector Gates



(Image courtesy of KGAL)

(Image courtesy of IHI Infrastucture Systems Co)

Construction Risks	Public Risks	Environmental Risks
• Restricted access and egress through narrow streets around Douglas Harbour • Working in an exposed coastal environment • Working at height • Unknown ground conditions • Unknown condition and structural capacity of existing quay wall • Services information currently unknown	• Working adjacent to public right of way (promenade and harbour) • Minimum height of wall and handrail above ground level to be no less than 1100mm	• Pollution hazards associated with working near the sea • Pollution of harbour with construction debris • Risk of damage to flora and fauna

In addition to the hazards/risks normally associated with the types of work detailed on this drawing take note of the above.
It is assumed that all works detailed on this drawing will be carried out by a competent contractor working, where appropriate, to an appropriate method statement.

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION BOX

General Notes

1. All dimensions shown are in metres unless otherwise stated and levels are in metres to Douglas02 Datum.
2. Do not scale from this drawing. All dimensions must be checked/verified on site.
3. Drawing to be read in conjunction with IoM-JBA-D-H-DR-C-01
4. All works in watercourses will be carried out with care to minimise the risk of pollution adhering to Pollution Prevention Guidelines.
5. All works affecting flood defences, main watercourses and/or ordinary watercourses will be subject to Consent for Permanent and Temporary Works under the Land Drainage Act 1991.
6. The locations of any known services shown on drawing are approximate and for guidance only. The Contractor will confirm the location of any services prior to the commencement of any works.
7. The electronic model of this drawing is not to be used for setting out.

Rev.:	Comments	Date	Drawn	Designed	Checked	Approved

Client Approval

A - Approved
B - Approved with Revisions
C - Do Not Use

Purpose of Issue: Concept

Status

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ISLE OF MAN GOVERNMENT - SEA DEFENCE OPTIONS

DOUGLAS
TIDAL GATE OPTION

for

ISLE OF MAN GOVERNMENT
DEPARTMENT OF INFRASTRUCTURE

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Scale:			
As shown @ A1	Drawn:	M.J. Skinner	20/10/14
	Designed:	A. Dane	10/10/14
	Checked:	G. Kenn	26/11/14
	Approved:	G. Kenn	27/11/14

Digital File Name: 2014s1358

Drawing Number: IoM-JBA-D-H-DR-C-03

Revision