

In partnership with:

Medway Council

Level 2 Strategic Flood Risk Assessment **Medway Council**

Medway Council

Gun Wharf

Dock Road

Chatham

Kent

ME4 4TR





Level 2 Strategic Flood Risk Assessment Medway Council

Contents Amendment Record

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1 Scope and Summary of Appraisal

This report has been prepared to accompany the document entitled 'Medway Council Sequential and Exception Test' prepared by Medway Council in July 2021 and should be read in conjunction with this report.

Paragraph 160 of the National Planning Policy Framework (NPPF 2021) states that, if "following the application of the Sequential Test, it is not possible, consistent with wider sustainability objectives for the development to be located in zones with a lower probability of flooding, the Exception Test can be applied."

Paragraph 164 of the NPPF 2021 reads;

- **Exception Test Part B** - For the Exception Test to be passed it should be demonstrated that "the development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall."

Therefore, this document applies Part B of the Exception Test to the sites identified within the Medway Strategic Land Availability Assessment (SLAA) preferred development option, which did not pass the Sequential Test.

A high-level application of Part B of the Exception Test has been carried out for all sites within Flood Zone 2 and 3, and for sites in any Flood Zone where ≥ 40% of the site area is shown to be at risk of flooding from surface water flooding from either the 'high' and/or 'medium' risk scenarios. In total, **53 sites** were taken forward for the application of the Exception Test Part B, with the breakdown of the sites as follows:

- 5 sites within Flood Zone 1 with ≥ 40% of the site at risk of surface water flooding,
- 3 sites in Flood Zone 2, with 1 site where ≥ 40% of the site is also at risk of surface water flooding , and
- 45 sites in Flood Zone 3, with 11 sites where ≥ 40% of the site is also at risk of surface water flooding.

The aim of this appraisal is to inform the evidence base for the Sustainability Appraisal and Infrastructure Development Plan, to support the final allocation of sites within the Medway Local Plan and to inform 'Part A' of the Exception Test at a strategic level. The document will also be used to assist developers in undertaking site-specific application of 'Part B' of the Exception Test. Recommendations are made on the basis of the best available information at this time and in absence of detailed proposals or Site Investigation data. Therefore, the suitability of any proposals is subject to appropriate Flood Risk Assessment in the context of wider planning objectives.



2 Definition of Assessment Criteria

2.1 Assessment Criteria

This section outlines the information and datasets that have been referenced in the process of applying the Exception Test Part B to the individual sites:

Site Reference and Name – The assigned site reference and name, as provided by Medway Council.

Site Area - The area of the site in hectares (ha).

Existing Land Use – States whether the site is currently a brownfield site (i.e. previously developed), or a greenfield site (undeveloped).

Proposed Lane Use - States the proposed land use of the site (i.e. residential or commercial).

Flood Zone Classification – States the percentage of the site within each flood zone based on the Environment Agency's (EA) 'Flood Map for Planning'. The definition of each flood zone is as follows:

- **Zone 1** *Low probability of flooding* This zone is assessed as having less than a 1 in 1000 annual probability of river or sea flooding in any one year.
- **Zone 2** *Medium probability of flooding* This zone comprises land assessed as having between a 1 in 100 and 1 in 1000 annual probability of river flooding or between 1 in 200 and 1 in 1000 annual probability of sea flooding in any one year.
- Zone 3a High probability of flooding This zone comprises land assessed as having a 1 in 100 or greater annual probability of river flooding, or 1 in 200 or greater annual probability of sea flooding in any one year.
- Zone 3b The Functional Floodplain This zone comprises land where water has to flow or be stored in times of flood and can be defined as land which would flood during an event having an annual probability of 1 in 20 or greater. This zone can also represent areas that are designed to flood in an extreme event as part of a flood alleviation or flood storage scheme.

In some instances, a site is shown to be located within the functional floodplain, when in reality this is considered not to be the case, with this inaccuracy attributed to the outputs of the hydrodynamic flood modelling that is currently available. The North Kent Coast (NKC) Modelling Study (2018) was released *prior* to the completion of a number of defence upgrades, most recently at Jane's Creek and Strood Riverside. The impact that these defence upgrades will have is therefore not accounted for within the model and as a consequence, for the sites that are shown to be located within the functional floodplain that actually benefit from new defences. It is intended that further modelling



refinements are undertaken as part of the Council's forthcoming Strood Flood Strategy to determine the true flood zone classification, and ultimately, to determine whether the site would pass the Exception Test. Where this is the case, an * is located next to the Flood Zone 3b percentage stated. Further guidance is included in the 'Exception Test Required' and 'Required Actions / Recommended Mitigation Measures' sections.

This approach is applied in accordance with paragraph 015 of the National Planning Policy Guidance (NPPG) Flood and Coastal Change, which states that; "The area identified as functional floodplain should take into account the effects of defences and other flood risk management infrastructure. Areas which would naturally flood, but which are prevented from doing so by existing defences and infrastructure or solid buildings, will not normally be identified as functional floodplain".

In cases where less than ~10% of the site is shown to be located within the functional floodplain, the site is not considered to be wholly within Flood Zone 3b. Instead, it is recommended that for these sites the *Sequential Approach* is applied, and development within the area of site shown to be within Flood Zone 3b should be avoided. This is listed as a recommendation within the 'Required Actions / Recommended Mitigation Measures' section.

Development Lifetime – States the anticipated lifetime of the development. The NPPF and 'Flood and Coastal Change' Planning Practice Guidance states that residential development should be considered for a minimum of 100 years, and that the lifetime of non-residential development depends on the characteristics of that development. A 60 year lifetime is often used as a design threshold for consideration of commercial development in flood risk modelling and therefore is referred to in this report.

Exception Test Required – This section considers whether the development falls into a category that requires the Exception Test to be undertaken and is based on the flood zone classification and flood risk vulnerability classification. The application of the Exception Test has been summarised in Table 2.1 below.



Flood Risk Vulnerability Classification	Zone 1	Zone 2	Zone 3a	Zone 3b
Essential Infrastructure – Essential transport infrastructure, strategic utility infrastructure, including electricity generating power stations.	✓	✓	e	e
High Vulnerability – Emergency services, basement dwellings, caravans and mobile homes intended for permanent residential use.	✓	е	×	×
More Vulnerable – Hospitals, residential care homes, buildings used for dwelling houses, halls of residence, pubs, hotels, non-residential uses for health services, nurseries and education.	✓	✓	е	×
Less Vulnerable – Shops, offices, restaurants, general industry, agriculture, sewerage treatment plants.	✓	√	√	×
Water Compatible Development – Flood control infrastructure, sewerage infrastructure, docks, marinas, ship building, water-based recreation etc.	✓	✓	√	√
Key : ✓ Development is appropriate				

- x Development should not be permitted
- ${\boldsymbol \ell}$ Exception Test required

Table 2.1 - Flood risk vulnerability and flood zone compatibility.

Flood History – Based on historic flood records provided by Medway Council and the EA's 'Historic Flood Outlines' GIS layer, analysis was carried out for each site to identify if there were any recorded flood events from any source, both on site, or within 100m of the site. incidents were present, a brief description has been provided.

Watercourse/Rivers – Identifies any main rivers, ordinary or man-made watercourses near to the site. Based on the EA's 'Statutory Main River Map', OS mapping and satellite imagery.

Percentage of site at risk of flooding from tidal sources and/or surface water – For tidal flooding, analysis was undertaken using the NKC Modelling Study (2018 – provided by the EA) to identify the percentage of each site within the extent of flooding for a range of return period events. The analysis was carried out for both the 'defended' and 'undefended' scenarios. The maximum flood level on site was also extracted and is shown in brackets within the table.

In some instances, the 'defended' flood levels are shown to be higher than the modelled 'undefended' flood levels. In some cases, this is a result of water being contained within the channel



by the defences prior to water overtopping the defences, whereas when the defences are removed, the water level is reduced as floodwater is no longer contained within the channel during extreme events. In addition, it should be acknowledged that for sites where defences have recently been improved, these levels were modelled *prior* to the installation of new defences (particularly Jane's Creek and Strood Riverside), which may account for the anomalous values.

With regard to surface water flooding, the EA's 'Risk of Flooding from Surface Water' maps formed the basis of the analysis. The EA's mapping shows three modelled scenarios; 'low', 'medium' and 'high', and where an area is not shown to flood from surface water, this is classified as 'very low' risk (as described below). The percentage of the site at risk of flooding during each modelled scenario was extracted and recorded in the table of results.

- 'Very low' risk means that each year this area has less than 0.1% chance of flooding.
- 'Low' risk means that each year this area has between 0.1% and 1% chance of flooding.
- 'Medium' risk means that each year this area between 1% and 3.3% chance of flooding.
- 'High' risk means that each year this area has greater than 3.3% chance of flooding.

Description of surface water flow paths – Describes any surface water flow path or identifies areas where surface water could accumulate on site during the 'low', 'medium' and/or 'high' risk scenarios.

Existing Flood Defence Infrastructure – A summary of the existing defence infrastructure which is based on the Medway Flood Defence High Level Appraisal (2011) and the EA's 'Spatial Flood Defence Dataset' (last updated in May 2020). Where available, the Standard of Protection (SoP) as provided by Medway Council has been listed.

The Medway Estuary and Swale Flood and Erosion Risk Management Strategy (MEASS) Benefit Area and Policies – Lists the MEASS Benefit Area covering the flood and erosion cell within which the site is located. This section also states the Preferred Options across three epochs; 'Now – 2038', '2038 to 2068' and '2068 to 2118' as described within the MEASS Non-Technical Summary (2018).

High Level Indicative Defence Cost – Where consideration should be given to upgrading existing defences, a high-level estimation of the costs associated with carrying out the works has been provided. This section assesses the cost of upgrading all defences that have an impact on each individual site with the aim of providing an indication of the cost to be shared amongst beneficiaries or defence upgrades.

All estimates have been based on the information contained within 'Cost Estimation for Coastal Protection – Summary of Evidence – Report SC080039/R7' and 'Cost Estimation for fluvial defences – summary of evidence – Report SC080039/R2' previously provided by the EA. The



estimates do not account for inflation since the documents were published in March 2015, and the cost for the individual sites do include 'double counting' of defence costs where multiple sites benefit from the same defences. All figures are basic estimates based on available data, and further detailed analysis will be required to determine a more accurate cost to upgrade the defences. Further data on costs is available within MEASS which considers the costs of options throughout a Benefit Area, which may be referred to where a scheme is considered to benefit a wider area and multiple beneficiaries. It is advised that as well as obtaining pre-app advice from the Council, that applicants also seek pre-app advice from the Environment Agency who can provide further advice on their implementation plans for MEASS and how this may relate to development proposals.

Flood Warning Area – States whether the site is wholly or partially within a Flood Alert Area or Flood Warning Area based on the EA's 'Flood Warning Area's' dataset.

Hazard Rating – The hazard rating classification outputs, provided as part of the NKC Modelling Study (2018), have been analysed and the percentage of the site which falls within each classification has been listed. There are four hazard rating classifications, as defined in Table 2.2 below, and the dominant Hazard Rating has been coloured within each site summary table (in the corresponding hazard rating colour) to allow for ease of comparison between sites.

Hazard Rating (HR)	Degree of Flood Hazard	Description		
< 0.75	Low	Caution – shallow flowing water or deep standing water		
0.75 to 1.25	Moderate	Dangerous for some, i.e., children – deep or fast flowing water		
1.25 to 2.0	Significant	Dangerous for most people – deep fast flowing water		
> 2.0	Extreme	Dangerous for all – extreme danger with deep and fast flowing water		

Table 2.2 – Classification of Hazard Rating Thresholds.

Geology – The underlying bedrock geology and any overlying superficial deposits have been extracted from mapping provided by the British Geological Society (BGS) and recorded.

Required Actions / Recommended Mitigation Measures – The section highlights where a Flood Risk Assessment (FRA) and/or Surface Water Management Strategy (SWMS) would be required. In addition, this section summarises the recommendations and mitigation requirements to be considered as part of an FRA, and or SMWS.



2.2 Table of Individual Sites

Tables 2.3 below lists the sites that have been assessed as part of this appraisal alongside the flood zone classification. Appendix A.1 shows the location of these sites within Medway.



Site Reference	Site Name	Flood Zone
0781	218 Main Road, Hoo	1
0839	Former Alloy Wheels Priory Road	1
1088	Manor Farm, Parsonage Lane	1
1106	Miles Place, Delce Road, Rochester	1
1302	Rear of Angel Cottages, Station Road, Rainham	1
0243	Chatham-Comparison Retailing	2
0810	Junction of Pier Road and Medway Road, Gillingham	2
1315	Multi-storey car park, Rhode Street, Chatham	2
0090	Strood Riverside, Canal Road	3
0102	1-35 High Street, Chatham (Grays Garage)	3
0137	Civic Centre and Janes Creek	3
0213	352-356 Luton Road, Luton	3
0646	Grain Power Station, Grain Road	3
0647	ELNA Kingsnorth 1	3
0687	National Grid Property, Pier Road, Gillingham	3
0699	National Grid Property Holdings, Grain Road	3
0735	<u>Upnor Wharf</u>	3

Site Reference	Site Name	Flood Zone
1109	Steelfields, Danes Hill, Gillingham	3
1115	Car Park, Commercial Road, Strood	3
1133	247-253 High Street, Chatham	3
1141	325 High Street, Rochester	3
1147	18-20 Batchelor Street, Chatham	3
1188	Pier Approach Road Depot	3
1190	Acorn Wharf Shipyard	3
1216	Site 4 Land to north of Binney Farm	3
1251	Land to the west of Kingsnorth	3
1278	Land East of Pier Approach Rd, Gillingham	3
1297	Land bound by Commercial Rd, Knight Rd, Priory Rd and Smith St	3
1299	East of Ropers Lane, Hoo	3
1301	Temple Street Public Car Park, 151-175 High St, 1A-1 Cuxton Road	3
1306	Dagenham Motors, Pier Road, Gillingham	3
1308	B&M Bargains, Medway Street, Chatham	3
1309	Riverside Gardens, Chatham	3
1311	199 to 233 High Street, Chatham	3



Site Reference	Site Name	Flood Zone
0757	Between Cross Street & The Brook, Chatham	3
0760	Site bound by Cross Street, Upbury Way, High Street and Slicketts Hill	3
0818	J7, Chatham Maritime	3
0824	Chatham Docks, Chatham	3
0834	Halfords, The Brook, Chatham	3
0843	Tesco Site, Cuxton Road access point and Commercial Road works site	3
0866	Crown House, The Brook, Chatham	3
1039	National Tyre, Station Road, Strood	3
1057	North side, Priory Road	3
1105	Manor Farm, Marsh Road, Halling	3

Table 2.3 – List of sites assessed

Site Reference	Site Name	Flood Zone
1312	Pumping Station, The Brook, Chatham	3
1313	279 to 313a High Street, Chatham	3
1317	Railway arches (3) and adjacent land	3
1318	Sewage Pumping Station / Travelling Showpeople Site	3
1319	Kingswear Gardens	3
1320	McDonalds, Car Sales Garage and rear of High Street properties	3
1321	2 Station Road	3
0820a	Interface Land (northern parcel), Chatham Maritime	3
0820b	0820b <u>Interface Land, Chatham Maritime</u>	
-	-	-



3 Site Summary Tables

3.1 Flood Zone 1 Sites



781 - 218 Main Road,	Ноо								
	Site Area: 0.52ha	Existing Land Use: Brownfield				Proposed Land Use: Residential			
Flood Zone Classification	Flood Zone 1	Flood Zone 2		Flood Zone 3		Flood Zone 3b			
based on the EA's 'Flood Map for Planning'	100%		0%	0%		0%			
Development lifetime	100 years								
Exception Test required?	The Exception Test is not required to be applied for development classified as 'more vulnerable'.								
Flood History	Incidents within the site: None. Incidents within 100m of the site: Water-logging of fields.								
Watercourses/Rivers	The River Medway is located 900m to the south of the site. Ir	addition, there is an o	rdinary watercourse along the northern be	oundary of the site.					
Geology	Bedrock: London Clay Formation (Clay (Undifferentiated) and Silt (Undifferentiated)) Superficial: Head (Undifferentiated) (Clay (Undifferentiated) and Silt (Undifferentiated) and Sand(Undifferentiated) and Gravel (Undifferentiated); Clay (Undifferentiated) and Silt (Undifferentiated))								
	Percentage of site	at risk of flooding fro	m tidal sources during the defended s	cenario for key return period ever	nts. Maximum flood level on s	ite shown in brackets.			
	1 in 200-year return period event	1 in 200-ye	ar return period event - 2070	1 in 200-year return period event - 2115		1 in 1000-year return period event			
	0.0% (0.00m AODN)	0.	0% (0.00m AODN)	0.0% (0.00m AODN)		0.0% (0.00m AODN)			
Percentage of site at risk of flooding from tidal sources	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.								
and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-ye	ar return period event - 2070	1 in 200-year return period event - 2115		1 in 1000-year return period event			
EA	0.0% (0.00m AODN)	0.	0% (0.00m AODN)	0.0% (0.00m AODN)		0.0% (0.00m AODN)			
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'								
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario			
	31.3%	47.3%		79.7%					
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During all modelled scenarios, surface water flows across the	e centre of the site in an	easterly direction.						
Existing Flood Defence Infrastructure (inc. SoP):	The EA's Spatial Flood Defence dataset shows that there is high ground along the River Medway adjacent to the site. The crest levels of this defence vary between 4.67m to 6.00m AODN. Standard of Protection: Unknown								
	-								
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038	MEASS Policy 2038 - 2068			MEASS Policy 2068 - 2118				
High-Level Indication of Defence Costs	N/A - The site is predicted to remain unaffected by flooding from the River Medway for the lifetime of the development.								
Flood Warning Area?	Not available at this location.								



781 - 218 Main Road,	Ноо							
	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the respective colour – Refer to Table 2)							
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	'Extreme' Hazard Rating				
	0.0%	0.0%	0.0%	0.0%				
Required Actions /	The site is located partially in Flood Zone 3, and is at risk of flooding from surface water. As a result, a detailed FRA, including a comprehensive investigation into surface water flood risk, is required to be undertaken. SuDS should be considered to be included within the development where possible, in accordance with the NPPF and its planning practice guidance. All major development will require a SWMS to be produced to show how SuDS will be included to manage surface water runoff from the site. The SuDS proforma will be required to accompany any SWMS. The site is also identified by the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Medway Council LLFA may require a SWMS and SuDs proforma to be completed for non major development proposals. For major developments, or where there are historic sewer flooding incidents, developers should consult the relevant water authority at an early stage to ensure that there will be sufficient capacity in the wastewater system to accommodate the development and any upgrades are carried out where necessary.							
Recommended Mitigation Measures	Floor levels should be raised above the depth of flooding from surface water, including the Environment Agency's recommended additional freeboard requirements where practicable. Flood resistance and resilience measures should be considered for inclusion. Suitable mitigation (i.e. compensatory flood storage, floodable voids) should be provided where development would displace surface water and increase the risk of flooding to the surrounding area.							
	The Sequential Approach should be applied to the layout of the site by locating the most vulnerable elements in the lowest risk areas. The Sequential Approach should also be applied to the internal layout of buildings, in particular where floor levels cannot be raised.							
	Flood Hazard should be appraised against the proposed development layout to ensure that users and occupants of the site can achieve safe access and egress.							
	The LPA should be consulted prior to the commencement of any works to obtain consent for any development proposed within 8m of any ordinary watercourse. Where the watercourse falls within the LMIDB area, the LMIDB should be consulted to obtain consent.							



839 - Former Alloy Wi	heels Priory Road							
	Site Area: 3.01ha		Existing Land Use: Brownfie	eld		Proposed Land Use: Employment		
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1	Flood Zone 2		Flood Zone 3		Flood Zone 3b		
Map for Planning'	100%		0%	0%		0%		
Development lifetime	60 years							
Exception Test required?	The Exception Test is not required to be applied for any vuln	erability classification						
Flood History	Incidents within the site: None. Incidents within 100m of the site:. Public sewer flooding. Hig	hway flooding.						
Watercourses/Rivers	The River Medway is located 425m to the southeast of the s	ite.						
Geology	Bedrock: Lewes Nodular Chalk Formation, Seaford Chalk Formation and Newhaven Chalk Formation (Undifferentiated) (Chalk) Superficial: Head (Undifferentiated) (Clay (Undifferentiated) and Silt (Undifferentiated))							
	Percentage of site	e at risk of flooding fro	om tidal sources during the defended s	cenario for key return period even	ts. Maximum flood level on s	ite shown in brackets.		
	1 in 200-year return period event	1 in 200-ye	ar return period event - 2070	1 in 200-year return pe	eriod event - 2115	1 in 1000-year return period event		
	0.0% (0.00m AODN)	0.	0% (0.00m AODN)	0.3% (6.10m	AODN)	0.0% (0.00m AODN)		
Percentage of site at risk of flooding from tidal sources	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.							
and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-ye	ar return period event - 2070	1 in 200-year return period event - 2115		1 in 1000-year return period event		
EA	0.0% (0.00m AODN)	0.	.0% (0.00m AODN)	0.0% (6.02m AODN)		0.0% (0.00m AODN)		
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'							
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario		
	31.6%		41.7%			50.7%		
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During all modelled scenarios, surface water is shown to flow	v across the northern ha	alf of the site in an easterly direction.					
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall with minimum actual levels of 4.04m to 4.25m AODN and a condition rating of 3. Standard of Protection: Unknown	crest level of 3.67m to 4	1.67m AODN (as stated in the MedwayFlo	od Defence High Level Appraisal)a	nd has a condition rating of 2 (Good) to 3 (Fair). EA's Spatial Flood Defence dataset shows crest		
	BA2.1 Strood. Raise (sustain) embankments, walls, flood gates and revetments. This option involves improving the current SOP provided by the defences to 1% AEP SoP with sea level rise.							
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS Policy 2038 - 2068			MEASS Policy 2068 - 2118		
HTL Sustain HTL Sustain HTL Sustain								
High-Level Indication of Defence Costs	N/A - The site is predicted to remain unaffected by flooding from the River Medway for the lifetime of any development.							
Flood Warning Area?	Not available at this location.							



839 - Former Alloy Wheels Priory Road										
	Percentage of site in each Hazard Rating Classification during the design flood event (2070) (The dominant hazard rating on the subject site has been highlighted in the respective colour – Refer to Table 2)									
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Extreme' Hazard Rating							
	0.0%	0.0%	0.0%	0.0%						
	The site covers an area of greater than 1ha and is shown to be at risk of flooding from surface water. As a result, an FRA, including a comprehensive investigation into surface water flood risk, is required.									
	SuDS should be considered to be included within the development where possible, in accordance with the NPPF and its planning practice guidance. All major development will require a SWMS to be produced to show how SuDS will be included to manage surface water runoff from the site. The SuDS proforma will be required to accompany any SWMS.									
Required Actions / Recommended Mitigation	For major developments, or where there are historic sewer flooding incidents, developers should consult the relevant water authority at an early stage to ensure that there will be sufficient capacity in the wastewater system to accommodate the development and any upgrades are carried out where necessary.									
Measures	Floor levels should be raised above the design flood level and depth of flooding from surface water, including the Environment Agency's recommended additional freeboard requirements where practicable. Flood resistance and resilience measures should be considered for inclusion. Suitable mitigation (i.e. compensatory flood storage, floodable voids) should be provided where development would displace surface water and increase the risk of flooding to the surrounding area.									
	The Sequential Approach should be applied to the layout of raised.	the site by locating the most vulnerable elements in the lowest ris	k areas. The Sequential Approach should also be applied to the int	ernal layout of buildings, in particular where floor levels cannot be						
	Flood Hazard should be appraised against the proposed development layout to ensure that users and occupants of the site can achieve safe access and egress.									



1088 - Manor Farm, Parsonage Lane									
Site Area: 19.06ha Existing Land Use: Brownfield Proposed Land Use: Residential									
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1		Flood Zone 2	Flood Zo	one 3	Flood Zone 3b			
Map for Planning'	100%		0%	0%		0%			
Development lifetime	100 years								
Exception Test required?	The Exception Test is not required to be applied for developm	nent classified as 'more	vulnerable'.						
Flood History	Incidents within the site: None. Incidents within 100m of the site: Basement flooding and flooding recorded on Frindsbury Hill by Southern Water. No further information is provided.								
Watercourses/Rivers	The River Medway is located 725m to the east of the site. In a	addition, there is an ordi	nary watercourse 200m to the east of the	e site.					
Geology	Bedrock: Thanet Sand Formation; Lewes Nodular Chalk Formation, Seaford Chalk Formation and Newhaven Chalk Formation (Undifferentiated) (Sand(Undifferentiated) and Silt (Undifferentiated) and Clay (Undifferentiated); Chalk) Superficial: Head (Undifferentiated); River Terrace Deposits, 3; River Terrace Deposits, 2 (Clay (Undifferentiated) and Silt (Undifferentiated); Sand and Gravel)								
	Percentage of site	at risk of flooding from	n tidal sources during the defended s	cenario for key return period ever	nts. Maximum flood level on s	ite shown in brackets.			
	1 in 200-year return period event	1 in 200-yea	1 in 200-year return period event - 2070 1 in 200-year retu		eriod event - 2115	1 in 1000-year return period event			
	0.0% (0.00m AODN)	0.0	% (5.47m AODN)	0.1% (6.10m AODN)		0.0% (5.41m AODN)			
Percentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.								
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-yea	r return period event - 2070	1 in 200-year return period event - 2115		1 in 1000-year return period event			
EA	0.0% (0.00m AODN)	0.0	0% (5.43m AODN) 0.1% (6.05m AODN)			0.0% (0.00m AODN)			
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'								
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario			
	0.5%		2.5%						
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During the 'low' and 'medium' risk scenario surface water flow the topography.	s across the centre of the	ne site in an easterly direction. There is o	only localised surface water accumu	ılation on site during the 'high' r	isk scenario, which could be attributed to localised depressions in			
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of an embankment and high gr Flood Defence dataset shows crest levels of 3.58m to 7.14m. Standard of Protection: Unknown	ound with minimum act AODN and a condition r	ual crest level of <3.67m to 5.17m AODN rating of 2 to 3.	N (as stated in the MedwayFlood De	efence High Level Appraisal)a	nd has a condition rating of 2 (Good) to 3 (Fair). The EA's Spatial			
	-								
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118			
	-			-		-			
High-Level Indication of Defence Costs	N/A - The site is predicted to remain almost entirely unaffecte	d by flooding from the R	iver Medway for the lifetime of the devel	opment and therefore defence impre	ovements are not considered a	opropriate.			
Flood Warning Area?	Yes.								



1088 - Manor Farm, P	arsonage Lane								
	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the respective colour – Refer to Table 2)								
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Extreme' Hazard Rating						
	0.1%	0.0%	0.0%	0.0%					
	The site covers an area of greater than 1ha and is shown to be at risk of flooding from surface water. As a result, an FRA, including a comprehensive investigation into surface water flood risk, is required. SuDS should be considered to be included within the development where possible, in accordance with the NPPF and its planning practice guidance. All major development will require a SWMS to be produced to show how SuDS will be included to manage								
	surface water runoff from the site. The SuDS proforma will be required to accompany any SWMS.								
Required Actions / Recommended Mitigation	For major developments, or where there are historic sewer flooding incidents, developers should consult the relevant water authority at an early stage to ensure that there will be sufficient capacity in the wastewater system to accommodate the development and any upgrades are carried out where necessary.								
Measures	Floor levels should be raised above the depth of flooding from surface water, including the Environment Agency's recommended additional freeboard requirements where practicable. Flood resistance and resilience measures should be considered for inclusion. Suitable mitigation (i.e. compensatory flood storage, floodable voids) should be provided where development would displace surface water and increase the risk of flooding to the surrounding area.								
	The Sequential Approach should be applied to the layout of raised.	the site by locating the most vulnerable elements in the lowest ris	k areas. The Sequential Approach should also be applied to the int	ernal layout of buildings, in particular where floor levels cannot be					
	Flood Hazard should be appraised against the proposed de	evelopment layout to ensure that users and occupants of the site ca	an achieve safe access and egress.						



1106 - Miles Place, Delce Road, Rochester									
	Site Area: 0.31ha		Existing Land Use: Brownfie	ld		Proposed Land Use: Residential			
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1		Flood Zone 2	Flood Zo	ne 3	Flood Zone 3b			
Map for Planning'	100%		0%	0%		0%			
Development lifetime	100 years								
Exception Test required?	The Exception Test is not required to be applied for developm	nent classified as 'more	vulnerable'.						
Flood History	Incidents within the site: None. Incidents within 100m of the site: Highway flooding from private drain.								
Watercourses/Rivers	The nearest watercourse is the River Medway which is locate	ed over 800m away.							
Geology	Bedrock: Lewes Nodular Chalk Formation (Chalk) Superficial: Head (Undifferentiated) (Clay (Undifferentiated) and Silt (Undifferentiated) and Sand(Undifferentiated) and Gravel (Undifferentiated))								
	Percentage of site	at risk of flooding from	m tidal sources during the defended s	cenario for key return period even	nts. Maximum flood level on s	ite shown in brackets.			
	1 in 200-year return period event	1 in 200-yea	ar return period event - 2070	1 in 200-year return period event - 2115		1 in 1000-year return period event			
	0.0% (0.00m AODN)	0.0% (0.00m AODN) 0.0% (0.00m AODN) 0.0% (0.00m AODN)							
Percentage of site at risk of flooding from tidal sources	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.								
and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-yea	ar return period event - 2070	1 in 200-year return period event - 2115		1 in 1000-year return period event			
EA	0.0% (0.00m AODN)	0.0	0% (0.00m AODN)	0.0% (0.00m	AODN)	0.0% (0.00m AODN)			
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'								
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario			
	37.4%		47.	2%		59.9%			
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During all modelled scenarios, surface water is shown to flow	across the site in a nor	therly direction.						
Existing Flood Defence Infrastructure (inc. SoP):	There are no flood defences near to the site. Standard of Protection: Unknown								
	-								
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS Policy 2038 - 2068			MEASS Policy 2068 - 2118			
	-			-		-			
High-Level Indication of Defence Costs	N/A - There are no defences near to the site and the site is pr	redicted to remain unaff	ected by flooding from the River Medway	for the lifetime of any development.					
Flood Warning Area?	Not available at this location.								



1106 - Miles Place, Delce Road, Rochester										
	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the respective colour – Refer to Table 2)									
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Extreme' Hazard Rating							
	0.0%	0.0%	0.0%	0.0%						
	SuDS should be considered to be included within the development	Whilst the site is located in Flood Zone 1 and covers less than 1ha, the site is shown to be at risk of flooding from surface water. As a result, an FRA, including a comprehensive investigation into surface water flood risk, is recommended. SuDS should be considered to be included within the development where possible, in accordance with the NPPF and its planning practice guidance. All major development will require a SWMS to be produced to show how SuDS will be included to manage surface water runoff from the site. The SuDS proforma will be required to accompany any SWMS. The site is also identified by the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Medway Council LLFA may require a SWMS and SuDs proforma to be completed for non major development proposals.								
Required Actions / Recommended Mitigation	For major developments, or where there are historic sewer flooding incidents, developers should consult the relevant water authority at an early stage to ensure that there will be sufficient capacity in the wastewater system to accommodate the development and any upgrades are carried out where necessary.									
Measures	Floor levels should be raised above the depth of flooding from surface water, including the Environment Agency's recommended additional freeboard requirements where practicable. Flood resistance and resilience measures should be considered for inclusion. Suitable mitigation (i.e. compensatory flood storage, floodable voids) should be provided where development would displace surface water and increase the risk of flooding to the surrounding area.									
	The Sequential Approach should be applied to the layout of raised.	the site by locating the most vulnerable elements in the lowest ris	k areas. The Sequential Approach should also be applied to the interest of the interest of the sequential Approach should also be applied to the interest of the sequential Approach should also be applied to the interest of the sequential Approach should also be applied to the interest of the sequential Approach should also be applied to the interest of the sequential Approach should also be applied to the interest of the sequential Approach should also be applied to the interest of the sequential Approach should also be applied to the interest of the sequential Approach should also be applied to the interest of the sequential Approach should also be applied to the interest of the sequential Approach should also be applied to the interest of the sequential Approach should also be applied to the sequential Approach should be applied to the sequential	ernal layout of buildings, in particular where floor levels cannot be						
	Flood Hazard should be appraised against the proposed dev	relopment layout to ensure that users and occupants of the site ca	an achieve safe access and egress.							



1302 - Rear of Angel Cottages, Station Road, Rainham									
	Site Area: 0.62ha Existing Land Use: Greenfield Proposed Land Use: Residential								
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1	·	Flood Zone 2 Flood Zone 3		one 3	Flood Zone 3b			
Map for Planning'	100%		0%	0%		0%			
Development lifetime	100 years								
Exception Test required?	The Exception Test is not required to be applied for developm	ent classified as 'more	vulnerable'.						
Flood History	Incidents within the site: None. Incidents within 100m of the site: External property flooding on Station Road.								
Watercourses/Rivers	The Otterham Creek is located 400m to north of the site. The	Otterham Creek discha	rges into the River Medway further north						
Geology	Bedrock: Seaford Chalk Formation (Chalk) Superficial: Head (Undifferentiated) (Clay (Undifferentiated) and Silt (Undifferentiated))								
	Percentage of site	at risk of flooding from	m tidal sources during the defended s	cenario for key return period ever	nts. Maximum flood level on s	site shown in brackets.			
	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event			
	0.0% (0.00m AODN)	0.0% (0.00m AODN) 0.0% (0.00m AODN)				DN) 0.0% (0.00m AODN)			
Percentage of site at risk of flooding from tidal sources	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.								
and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return p	eriod event - 2115	1 in 1000-year return period event			
EA	0.0% (0.00m AODN)	0.0	0% (0.00m AODN)	0.0% (0.00m	n AODN)	0.0% (0.00m AODN)			
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'								
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario			
	35.1%		41.	6%		51.5%			
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps)</u>	During all modelled scenarios surface water is shown to flow i	n north-westerly direction	on across the centre of the site.						
Existing Flood Defence Infrastructure (inc. SoP):	The EA's Spatial Flood Defence dataset shows there is high g Standard of Protection: Unknown	ground defences to the	north of the site with crest levels of 4.90n	n to 5.10m AODN and a condition ra	ating of 3.				
	_								
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS Policy 2038 - 2068			MEASS Policy 2068 - 2118			
	-			-		-			
High-Level Indication of Defence Costs	N/A - The site is predicted to remain unaffected by flooding fro	om the River Medway fo	or the lifetime of any development.						
Flood Warning Area?	Not available at this location.								



1302 - Rear of Angel Cottages, Station Road, Rainham									
	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the respective colour – Refer to Table 2)								
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Extreme' Hazard Rating						
	0.0%	0.0%	0.0%	0.0%					
	SuDS should be considered to be included within the devel	opment where possible, in accordance with the NPPF and its plar	urface water. As a result, an FRA, including a comprehensive investining practice guidance. All major development will require a SWM the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Me	S to be produced to show how SuDS will be included to manage					
Required Actions / Recommended Mitigation	For major developments, or where there are historic sewer flooding incidents, developers should consult the relevant water authority at an early stage to ensure that there will be sufficient capacity in the wastewater system to accommodate the development and any upgrades are carried out where necessary.								
Measures	Floor levels should be raised above the depth of flooding from surface water, including the Environment Agency's recommended additional freeboard requirements where practicable. Flood resistance and resilience measures should be considered for inclusion. Suitable mitigation (i.e. compensatory flood storage, floodable voids) should be provided where development would displace surface water and increase the risk of flooding to the surrounding area.								
	The Sequential Approach should be applied to the layout of raised.	the site by locating the most vulnerable elements in the lowest risk	k areas. The Sequential Approach should also be applied to the interest.	ernal layout of buildings, in particular where floor levels cannot be					
	Flood Hazard should be appraised against the proposed development layout to ensure that users and occupants of the site can achieve safe access and egress.								



3.2 Flood Zone 2 Sites



243 - Chatham-Compa	arison Retailing								
	Site Area: 1.36ha		Existing Land Use: Brownfie	eld		Proposed Land Use: Residential			
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1		Flood Zone 2 Flood Zone 3		ne 3	Flood Zone 3b			
Map for Planning'	98.06%		1.94%	0%		0%			
Development lifetime	100 years								
Exception Test required?	The Exception Test is not required to be applied for development	nent classified as 'more	vulnerable'.						
Flood History	Incidents within the site: None. Incidents within 100m of the site: None.								
Watercourses/Rivers	The River Medway is 500m to the northwest of the site.								
Geology	Bedrock: Lewes Nodular Chalk Formation (Chalk) Superficial: Head (Undifferentiated) (Clay (Undifferentiated) and Silt (Undifferentiated) and Gravel (Undifferentiated))								
	Percentage of site	at risk of flooding from	m tidal sources during the defended s	cenario for key return period even	ts. Maximum flood level on	site shown in brackets.			
	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event			
	0.0% (0.00m AODN)	1.9	9% (5.46m AODN)	AODN)	1.9% (5.40m AODN)				
Percentage of site at risk of flooding from tidal sources	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.								
and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-yea	nr return period event - 2070	1 in 200-year return pe	eriod event - 2115	1 in 1000-year return period event			
EA	0.0% (0.00m AODN)	1.9	9% (5.45m AODN)	4.2% (6.07m AODN) 1.9% (5.39m AODN)					
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'								
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario			
	0.0%		2.0%			14.2%			
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During the 'low' risk scenario there are localised areas of surflow path remains during the 'medium' scenario, albeit it on a				ace water flows in a a northerl	y direction along the northwest boundary of the site. The northerly			
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall with minimum actual of 4.60m to 5.49m AODN and a condition rating of 3. Standard of Protection: Unknown	crest level of 4.67m to 5.	17m AODN (as stated in the Medway Flo	od Defence High Level Appraisal ar	nd has a condition rating of 2 (Good). The EA's Spatial Flood Defence dataset shows crest levels			
			n localised areas. Localised raising of the	e defences to protect properties and a	assets at risk of flooding aroun	d Rochester and Chatham against a 0.1% AEP with sea level rise.			
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118			
	HTL Sustain with localised NAI		HTL Sustair	with localised NAI		HTL Sustain with localised NAI			
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing de	efence wall, it is estimate	ed to cost in the region of £610,000 to up	grade the 400m of defences in order	to protect the site for the lifeti	me of any development.			
Flood Warning Area?	Yes.								



243 - Chatham-Comp	arison Retailing									
	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the respective colour – Refer to Table 2)									
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Extreme' Hazard Rating							
	0.8%	0.0%	2.3%	0.0%						
	surface water runoff from the site. The SuDS proforma will b	opment where possible, in accordance with the NPPF and its plane required to accompany any SWMS.		AS to be produced to show how SuDS will be included to manage eacity in the wastewater system to accommodate the development						
Required Actions / Recommended Mitigation Measures	The development should meet the requirements of the EA's Flood Risk Standing Advice, which applies for 'less vulnerable' and 'more vulnerable' development within Flood Zone 2. Suitable mitigation (i.e. compensatory flood storage, floodable voids) should be provided where development would displace surface water and increase the risk of flooding to the surrounding area.									
incusures	The Sequential Approach should be applied to the layout of the site by locating the most vulnerable elements in the lowest risk areas. The Sequential Approach should also be applied to the internal layout of buildings, in particular where floor levels cannot be raised.									
	Flood Hazard should be appraised against the proposed dev	Flood Hazard should be appraised against the proposed development layout to ensure that users and occupants of the site can achieve safe access and egress.								
	When developing a scheme, the condition of any adjacent of defence upgrades should be shared amongst beneficiaries.	When developing a scheme, the condition of any adjacent defences should be taking into account and consideration given to upgrading the defences to maintain, or further, the protection offered to the site and surrounding area. The costs associated with								



810 - Junction of Pier	Road and Medway Road, Gillingham							
	Site Area: 0.59ha		Existing Land Use: Brownfie	eld		Proposed Land Use: Residential		
Flood Zone Classification	Flood Zone 1	·	Flood Zone 2	Flood Zo	ne 3	Flood Zone 3b		
based on the EA's 'Flood Map for Planning'	97.67%		2.33%	0%		0%		
Development lifetime	100 years							
Exception Test required?	The Exception Test is not required to be applied for developr	ment classified as 'more	e vulnerable'.					
Flood History	Incidents within the site: None. Incidents within 100m of the site: Surface water flooding within highways due to tide locking and capacity within public sewer and pumping station.							
Watercourses/Rivers	The River Medway is located 450m to the north of the site.							
Geology	Bedrock: Thanet Sand Formation (Sand(Undifferentiated) and Silt (Undifferentiated) and Clay (Undifferentiated)) Superficial: Alluvium (Clay, Silty Peaty Sandy (Unconsolidated Deposits Classification Scheme))							
	Percentage of site	e at risk of flooding fro	om tidal sources during the defended s	cenario for key return period even	ts. Maximum flood level on s	ite shown in brackets.		
	1 in 200-year return period event	1 in 200-ye	ar return period event - 2070	1 in 200-year return period event - 2115		1 in 1000-year return period event		
	0.0% (0.00m AODN)	0.0% (0.00m AODN) 86.1% (6.07m AODN)			n AODN)	0.0% (0.00m AODN)		
Percentage of site at risk of flooding from tidal sources	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.							
and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event		
EA	0.0% (0.00m AODN)	3.0% (5.04m AODN)		85.2% (6.05m AODN)		2.3% (4.53m AODN)		
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'							
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario		
	53.7%		74.6%			92.4%		
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During all modelled scenarios, surface water flows across the	e centre of the site in a	northerly direction.					
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall with minimum actua condition rating of 3. Standard of Protection: Unknown	I crest level of 3.67m to	a 4.17m AODN (as stated in the Medway	Flood Defence High Level Appraisa	al). The EA's Spatial Flood Def	ence dataset shows crest levels of 3.63m to 5.53m AODN and a		
	BA2.3 St Mary's Island. Raise (sustain) embankments, walls	, flood gates and revetn	nents. This option involves improving the	SoP provided by the defences to 0.5	% AEP SoP with sea level rise			
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118		
	HTL Sustain		нт	'L Sustain		HTL Sustain		
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing de	efence wall, it is estima	ted to cost in the region of £2,750,000 to	upgrade the 1.8km of defences in ord	der to protect the site for the life	etime of any development.		
Flood Warning Area?	Yes.							



810 - Junction of Pier Road and Medway Road, Gillingham										
	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the respective colour – Refer to Table 2)									
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	'Extreme' Hazard Rating						
	3.3%	0.0%	65.0%	3.1%						
Required Actions / Recommended Mitigation Measures	SuDS should be considered to be included within the devel surface water runoff from the site. The SuDS proforma will be completed for non major development proposals. For major developments, or where there are historic sewer and any upgrades are carried out where necessary. The development should meet the requirements of the EA's be provided where development would displace surface wa The Sequential Approach should be applied to the layout of raised. Flood Hazard should be appraised against the proposed de	flooding from surface water. As a result, a FRA, including a compresopment where possible, in accordance with the NPPF and its plant be required to accompany any SWMS. The site is also identifed by flooding incidents, developers should consult the relevant water autorises. Flood Risk Standing Advice, which applies for 'less vulnerable' and ter and increase the risk of flooding to the surrounding area. The site by locating the most vulnerable elements in the lowest risk evelopment layout to ensure that users and occupants of the site can defence should be taking into account and consideration given to	ning practice guidance. All major development will require a SWMS the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Me thority at an early stage to ensure that there will be sufficient capad d'more vulnerable' development within Flood Zone 2. Suitable mit areas. The Sequential Approach should also be applied to the internachieve safe access and egress.	S to be produced to show how SuDS will be included to manage adway Council LLFA may require a SWMS and SuDs proforma to acity in the wastewater system to accommodate the development tigation (i.e. compensatory flood storage, floodable voids) should ernal layout of buildings, in particular where floor levels cannot be						



1315 - Multi-storey ca	r park, Rhode Street, Chatham								
	Site Area: 0.41ha		Existing Land Use: Brownfie	eld		Proposed Land Use: Residential			
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1		Flood Zone 2 Flood Zone 3		nne 3	Flood Zone 3b			
Map for Planning'	93.75%		6.25%	0%		0%			
Development lifetime	100 years								
Exception Test required?	The Exception Test is not required to be applied for developr	nent classified as 'more	vulnerable'.						
Flood History	Incidents within the site: None. Incidents within 100m of the site: . Public sewer flooding.								
Watercourses/Rivers	The River Medway is located 700m to the northwest of the si	te.							
Geology	Bedrock: Lewes Nodular Chalk Formation (Chalk) Superficial: Head (Undifferentiated) (Clay (Undifferentiated) and Silt (Undifferentiated) and Gravel (Undifferentiated))								
	Percentage of site	at risk of flooding fro	om tidal sources during the defended s	cenario for key return period ever	nts. Maximum flood level on s	site shown in brackets.			
	1 in 200 year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event			
	0.0% (0.00m AODN)	9.	6.3% (5.40m AODN)						
Percentage of site at risk of flooding from tidal sources	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.								
and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-ye	ar return period event - 2070	1 in 200-year return period event - 2115		1 in 1000-year return period event			
EA	0.0% (0.00m AODN)	9.	1% (5.46m AODN)	9.7% (6.07m	6.3% (5.40m AODN)				
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'								
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario			
	0.2%		0.6%			0.6%			
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	The entire site is almost entirely unaffected by flooding from	surface water during all	modelled scenarios.						
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of high ground with minimum a levels of 4.75m to 4.93m AODN and a condition rating of 3. Standard of Protection: Unknown	ctual crest level of 4.67	m to 5.17m AODN (as stated in the Medv	vayFlood Defence High Level Apprai	sal) and has a condition rating	of 2 (Good). The EA's Spatial Flood Defence dataset shows crest			
			in localised areas. Localised raising of the	e defences to protect properties and	assets at risk of flooding aroun	d Rochester and Chatham against a 0.1% AEP with sea level rise.			
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	Policy 2038 - 2068		MEASS Policy 2068 - 2118			
	HTL Sustain with localised NAI		HTL Sustain	n with localised NAI		HTL Sustain with localised NAI			
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing de	efence wall, it is estimat	ted to cost in the region of £610,000 to up	grade the 400m of defences in orde	r to protect the site for the lifeti	me of any development.			
Flood Warning Area?	Yes.								



1315 - Multi-storey car park, Rhode Street, Chatham								
Hazard Rating Required Actions / Recommended Mitigation Measures	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the respective colour – Refer to Table 2)							
	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	'Extreme' Hazard Rating				
	1.1%	0.0%	6.5%	0.0%				
	The site is located partially in Flood Zone 2, and therefore will required a Flood Risk Assessment. SuDS should be considered to be included within the development where possible, in accordance with the NPPF and its planning practice guidance. All major development will require a SWMS to be produced to show how SuDS will be included to manage surface water runoff from the site. The SuDS proforma will be required to accompany any SWMS. The site is also identified by the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Medway Council LLFA may require a SWMS and SuDs proforma to be completed for non major development proposals.							
	For major developments, or where there are historic sewer flooding incidents, developers should consult the relevant water authority at an early stage to ensure that there will be sufficient capacity in the wastewater system to accommodate the development and any upgrades are carried out where necessary.							
	The development should meet the requirements of the EA's Flood Risk Standing Advice, which applies for 'less vulnerable' and 'more vulnerable' development within Flood Zone 2. Suitable mitigation (i.e. compensatory flood storage, floodable voids) should be provided where development would displace surface water and increase the risk of flooding to the surrounding area.							
	The Sequential Approach should be applied to the layout of the site by locating the most vulnerable elements in the lowest risk areas. The Sequential Approach should also be applied to the internal layout of buildings, in particular where floor levels cannot be raised.							
	Flood Hazard should be appraised against the proposed development layout to ensure that users and occupants of the site can achieve safe access and egress.							



3.3 Flood Zone 3 Sites



90 - Strood Riverside, Canal Road										
Site Area: 7.17ha		Existing Land Use: Brownfield			Proposed Land Use: Residential					
Flood Zone Classification based on the EA's 'Flood Map for Planning'	Flood Zone 1		Flood Zone 2	Flood Zone 3		Flood Zone 3b				
	11.54%		3.53%		%	78.29% *refer to text below				
Development lifetime	100 years									
Exception Test required?	Development which has a 'more vulnerable' classification will be subject to the Exception Test. *Although the NKC modelling shows the site to be within the functional floodplain, the modelling study does not take into account the recently completed Strood Riverside defences. These defences would likely reduce the extent of flooding during a 1in20 year return period event, and further analysis is recommended to determine the true extent of the functional floodplain on site. Development classified as 'more vulnerable' use should not be permitted in Flood Zone 3b.									
Flood History	Incidents within the site: Internal flooding possibly caused by water overtopping the river wall. External flooding in yard. Internal flooding of cellar. Internal flooding of property. Incidents within 100m of the site: External flooding of areas around and adjacent to Watermill Wharf, caused by a small breach in the flood defences at Watermill Wharf. Re-occurring flooding following heavy rainfall due to tide locking. Public sewer flooding.									
Watercourses/Rivers	The River Medway is adjacent to the site.									
Geology	Bedrock: Lewes Nodular Chalk Formation, Seaford Chalk Formation and Newhaven Chalk Formation (Undifferentiated) (Chalk) Superficial: Head (Undifferentiated); Alluvium (Clay (Undifferentiated) and Silt (Undifferentiated); Clay, Silty Peaty Sandy (Unconsolidated Deposits Classification Scheme); Clay (Undifferentiated) and Silt (Undifferentiated) and Sand (Undifferentiated) and Gravel (Undifferentiated))									
	Percentage of site at risk of flooding from tidal sources during the defended scenario for key return period events. Maximum flood level on site shown in brackets.									
	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event				
	84.2% (5.07m AODN)	88.7% (5.49m AODN)		94.7% (6.13m AODN)		88.0% (5.43m AODN)				
Percentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.									
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event				
EA	84.9% (5.03m AODN)	88.	88.8% (5.47m AODN) 94.1% (6.06m AODN)		m AODN)	88.1% (5.43m AODN)				
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'									
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario				
	1.7%		4.8%			17.2%				
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During the 'low' risk scenario, there are localised areas of surface water accumulation and a flow path from the northwest corner of the site towards the centre of the site. During the 'high' and 'medium' risk scenarios there are localised areas where flood water is shown to accumulate, which could be attributed to localised depressions in the topography.									
Existing Flood Defence Infrastructure (inc. SoP):	Defences at Strood Riverside have recently been upgraded and now have a crest height of 6.1m AODN. The existing defences between Jane's Creek and Strood Riverside consist of a wall with minimum actual crest level of 4.17m to 4.67m AODN (as stated in the Medway Flood Defence High Level Appraisal) and has a condition rating of 2 (Good). The EA's Spatial Flood Defence dataset shows crest levels of 4.49m to 5.11m and a condition rating of 2. Standard of Protection: Variable									
MEASS Benefit Area and Preferred Option	BA2.1 Strood. Raise (sustain) embankments, walls, flood gates and revetments. This option involves improving the current SOP provided by the defences to 1% AEP SoP with sea level rise.									
	MEASS Policy Now - 2038	MEASS		olicy 2038 - 2068		MEASS Policy 2068 - 2118				
	Hold The Line (HTL) Sustain	l l		L Sustain		HTL Sustain				



90 - Strood Riverside, Canal Road									
High-Level Indication of Defence Costs	The Strood Riverside and Jane's Creek defences have recently been upgraded to improve the standard of protection. Notwithstanding this, further improvements should be considered to improve the defences between Strood Riverside and Jane's Creek. Based on an average cost of £1,526/m to raise an existing defence wall, it is estimated to cost in the region of £460,000 to upgrade the 300m of defences in order to protect the site for the lifetime of any development.								
Flood Warning Area?	Yes.								
Hazard Rating	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the respective colour – Refer to Table 2)								
	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	'Extreme' Hazard Rating					
	2.6%	1.2%	22.6%	64.5%					
Required Actions / Recommended Mitigation Measures	The site is located in Flood Zones 2 and 3. As a result, a detailed FRA, including further analysis to determine the extent of Flood Zone 3b on site, is required to be undertaken. SuDS should be considered to be included within the development where possible, in accordance with the NPPF and its planning practice guidance. All major development will require a SWMS to be produced to show how SuDS will be included to manage surface water runoff from the site. The SuDS proforma will be required to accompany any SWMS. For major developments, or where there are historic sewer flooding incidents, developers should consult the relevant water authority at an early stage to ensure that there will be sufficient capacity in the wastewater system to accommodate the development and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level, including the Environment Agency's recommended additional freeboard requirements where practicable. Flood resistance and resilience measures should be considered for inclusion. Suitable mitigation (i.e. compensatory flood storage, floodable voids) should be provided where development would displace surface water and increase the risk of flooding to the surrounding area. The Sequential Approach should be applied to the layout of the site by locating the most vulnerable elements in the lowest risk areas. The Sequential Approach should also be applied to the internal layout of buildings, in particular where floor levels cannot be raised. Flood Hazard should be appraised against the proposed development layout to ensure that users and occupants of the site can achieve safe access and egress. The EA should be consulted where development is proposed within 16m of a tidal waterbody or tidal defence infrastructure to obtain consent via a Flood Risk Activity Permit (FRAP). When developing a scheme, the condition of any adjacent defences should be taking into account and consideration given to upgrading the defences to maintain, or further, the p								



102 - 1-35 High Street, Chatham (Grays Garage)									
	Site Area: 0.59ha		Existing Land Use: Brownfie	eld		Proposed Land Use: Residential			
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1		Flood Zone 2	Flood Zo	one 3	Flood Zone 3b			
Map for Planning'	65.79%		6.26%	26.14	%	1.81% *refer to text below			
Development lifetime	100 years								
Exception Test required?	Development which has a 'more vulnerable' classification will	be subject to the Exce	ption Test. Development classified as 'mo	re vulnerable' use should not be per	mitted in Flood Zone 3b.				
Flood History	Incidents within the site: None. Incidents within 100m of the site: None.								
Watercourses/Rivers	The River Medway is adjacent to the site.								
Geology	Bedrock: Lewes Nodular Chalk Formation (Chalk) Superficial: Alluvium; Beach and Tidal Flat Deposits (Undiffer	Bedrock: Lewes Nodular Chalk Formation (Chalk) Superficial: Alluvium; Beach and Tidal Flat Deposits (Undifferentiated) (Clay, Silty Peaty Sandy (Unconsolidated Deposits Classification Scheme); Clay (Undifferentiated) and Silt (Undifferentiated) and Sand(Undifferentiated))							
	Percentage of site	at risk of flooding fro	om tidal sources during the defended s	cenario for key return period ever	nts. Maximum flood level on s	ite shown in brackets.			
	1 in 200-year return period event	1 in 200-ye	ar return period event - 2070	1 in 200-year return p	eriod event - 2115	1 in 1000-year return period event			
	5.4% (5.09m AODN)	23.1% (5.48m AODN) 56.6% (6.12n			n AODN)	23.1% (5.42m AODN)			
Percentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.								
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return p	eriod event - 2115	1 in 1000-year return period event			
EA	28.0% (5.02m AODN)	34.5% (5.49m AODN)		54.9% (6.08m AODN)		34.2% (5.43m AODN)			
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'								
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario			
	2.1%		6.4%			17.3%			
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During the 'low' risk scenario surface water flows across the depressions in the topography.	centre of the site in a	northerly direction. During the 'high' and	'medium' risk scenarios there are lo	ocalised areas where flood wat	er is shown to accumulate, which could be attributed to localised			
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall with minimum actual of 4.14m to 5.65m AODN and a varying condition rating of 3 to Standard of Protection: 200		67m AODN (as stated in the Medway Floo	od Defence High Level Appraisal) ar	nd has a condition rating of 2 (G	Good). The EA's Spatial Flood Defence dataset shows crest levels			
	BA2.2 Rochester. Raise (sustain) embankments, walls, flood The rest of the Benefit Area will have a No Active Intevention		in localised areas. Localised raising of the	e defences to protect properties and	assets at risk of flooding around	d Rochester and Chatham against a 0.1% AEP with sea level rise.			
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118			
	HTL Sustain with localised No Acitive Interventi	ion (NAI)	HTL Sustair	with localised NAI		HTL Sustain with localised NAI			
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing de	efence wall, it is estimat	ted to cost in the region of £725,000 to up	grade the 475m of defences in orde	r to protect the site for the lifeting	ne of any development.			
Flood Warning Area?	Yes.								



102 - 1-35 High Street	t, Chatham (Grays Garage)									
	Percentage of site in each Hazard Ra	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the respective colour – Refer to Table 2)								
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	'Extreme' Hazard Rating						
	6.8%	1.1%	32.1%	0.0%						
Required Actions / Recommended Mitigation Measures	surface water runoff from the site. The SuDS proforma will be completed for non major development proposals. For major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level, ir (i.e. compensatory flood storage, floodable voids) should be The Sequential Approach should be applied to the layout obuildings, in particular where floor levels cannot be raised. Flood Hazard should be appraised against the proposed destroyed the should be consulted where development is proposed.	elopment where possible, in accordance with the NPPF and its planning be required to accompany any SWMS. The site is also identified by the flooding incidents, developers should consult the relevant water autional including the Environment Agency's recommended additional freeboars are provided where development would displace surface water and incress of the site by locating the most vulnerable elements in the lowest risk evelopment layout to ensure that users and occupants of the site can end within 16m of a tidal waterbody or tidal defence infrastructure to obtain defences should be taking into account and consideration given to the site of the	nority at an early stage to ensure that there will be sufficient capa direquirements where practicable. Flood resistance and resilience tease the risk of flooding to the surrounding area. areas, and avoiding development within Flood Zone 3b*. The Secondary Secondar	edway Council LLFA may require a SWMS and SuDs proforma to acity in the wastewater system to accommodate the development of measures should be considered for inclusion. Suitable mitigation quential Approach should also be applied to the internal layout of						



137 - Civic Centre and Janes Creek									
	Site Area: 4.8ha		Existing Land Use: Brownfie	ld		Proposed Land Use: Residential			
Flood Zone Classification	Flood Zone 1		Flood Zone 2	Flood Zo	one 3	Flood Zone 3b			
based on the EA's 'Flood Map for Planning'	0.03%		2.02%	22.95	%	75% *refer to text below			
Development lifetime	100 years								
Exception Test required?	Development which has a 'more vulnerable' classification wi Creek defences. These defences would prevent the site floor	Il be subject to the Exceding during a 1in20 year	eption Test. *Although the NKC modelling return period event, therefore the site is a	shows the site to be within the fun not considered to be located within t	ctional floodplain, the modelling the functional floodplain and do	g study does not take into account the recently completed Jane's es not automatically fail the Exception Test.			
Flood History	Incidents within the site: None. Incidents within 100m of the site: Public sewer flooding.								
Watercourses/Rivers	The River Medway is adjacent to the site.								
Geology	Bedrock: Lewes Nodular Chalk Formation, Seaford Chalk Formation and Newhaven Chalk Formation (Undifferentiated) (Chalk) Superficial: Alluvium; Beach and Tidal Flat Deposits (Undifferentiated) (Clay, Silty Peaty Sandy (Unconsolidated Deposits Classification Scheme); Clay (Undifferentiated) and Silt (Undifferentiated) and Sand(Undifferentiated))								
	Percentage of site	e at risk of flooding fro	m tidal sources during the defended so	cenario for key return period even	nts. Maximum flood level on s	ite shown in brackets.			
	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event			
	96.8% (5.05m AODN)	100	0.0% (5.47m AODN)	100.0% (6.09)	m AODN)	100.0% (5.42m AODN)			
Percentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.								
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-yea	ar return period event - 2070	1 in 200-year return period event - 2115		1 in 1000-year return period event			
EA	97.5% (5.01m AODN)	100	0.0% (5.42m AODN)	100.0% (6.02m AODN)		100.0% (5.38m AODN)			
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'								
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario			
	4.4%		9.9	9%		35.0%			
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During the 'low' risk scenario, surface water flows along the e of the site towards the river.	astern boundary of the	site towards the River Medway, and towar	ds the centre of the site. During the '	'medium' and 'high' risk scenari	os surface water is shown to flow only along the eastern boundary			
Existing Flood Defence Infrastructure (inc. SoP):	Defences at St Jane's Creek have recently been upgraded a Standard of Protection: Variable	nd now have a crest he	ight of 6.1m AODN.						
	BA2.1 Strood. Raise (sustain) embankments,walls, flood gate	es and revetments. This	option involves improving the current SO	P provided by the defences to 1% A	AEP SoP with sea level rise.				
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS Po	olicy 2038 - 2068		MEASS Policy 2068 - 2118			
	HTL Sustain		нт	L Sustain		HTL Sustain			
High-Level Indication of Defence Costs	The Strood Riverside and Jane's Creek defences have rece Based on an average cost of £1,526/m to raise an existing de					prove the defences between Strood Riverside and Jane's Creek. ne of any development.			
Flood Warning Area?	Yes.								



137 - Civic Centre and Janes Creek										
	Percentage of site in each Hazard Rat	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the respective colour – Refer to Table 2)								
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	'Extreme' Hazard Rating						
	0.0%	0.0%	27.9%	71.9%						
Required Actions / Recommended Mitigation Measures	SuDS should be considered to be included within the devel surface water runoff from the site. The SuDS proforma will be for major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level, in (i.e. compensatory flood storage, floodable voids) should be The Sequential Approach should be applied to the layout of raised. Flood Hazard should be appraised against the proposed de The EA should be consulted where development is propose	pe required to accompany any SWMS. flooding incidents, developers should consult the relevant water autorities and including the Environment Agency's recommended additional freeboar provided where development would displace surface water and incident the site by locating the most vulnerable elements in the lowest risk evelopment layout to ensure that users and occupants of the site cannot within 16m of a tidal waterbody or tidal defence infrastructure to defence should be taking into account and consideration given to	thority at an early stage to ensure that there will be sufficient capacitard requirements where practicable. Flood resistance and resilience recrease the risk of flooding to the surrounding area. areas. The Sequential Approach should also be applied to the internachieve safe access and egress.	ity in the wastewater system to accommodate the development measures should be considered for inclusion. Suitable mitigation nal layout of buildings, in particular where floor levels cannot be						



213 - 352-356 Luton R	load, Luton									
	Site Area: 0.31ha Existing Land Use: Brownfield Proposed Land Use: Residential									
Flood Zone Classification based on the EA's 'Flood			Flood Zone 2	Flood Zo	ne 3	Flood Zone 3b				
Map for Planning'	2.12%		3.29%	94.59	%	0%				
Development lifetime	100 years									
Exception Test required?	Development which has a 'more vulnerable' classification wil	I be subject to the Excep	otion Test.							
Flood History	Incidents within the site: None. Incidents within 100m of the site: None.									
Watercourses/Rivers	There are no watercourses near to the site.									
Geology	Bedrock: Lewes Nodular Chalk Formation (Chalk) Superficial: Head (Undifferentiated) (Clay (Undifferentiated) and Silt (Undifferentiated) and Sand(Undifferentiated) and Gravel (Undifferentiated))									
	Percentage of site	e at risk of flooding fro	m tidal sources during the defended s	cenario for key return period even	nts. Maximum flood level on s	ite shown in brackets.				
	1 in 200 year return period event	1 in 200-yea	ar return period event - 2070	1 in 200-year return period event - 2115		1 in 1000-year return period event				
	0.0% (0.00m AODN)	0.	0% (0.00m AODN)	0.0% (0.00m AODN) 0.0% (0.00m AODN		0.0% (0.00m AODN)				
Percentage of site at risk of flooding from tidal sources	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.									
and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-yea	ar return period event - 2070	1 in 200-year return period event - 2115		1 in 1000-year return period event				
EA	0.0% (0.00m AODN)	0.	0% (0.00m AODN)	0.0% (0.00m AODN)		0.0% (0.00m AODN)				
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'									
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario				
	1.1%		11	4%		38.2%				
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps)</u>	During the 'low' and 'medium' risk scenarios surface water flo	ows in a northwesterly d	irection across the northern part of the sit	e. During the 'high' risk scenario only	y a very small area along the ac	cess road is shown to flood.				
Existing Flood Defence Infrastructure (inc. SoP):	There are no flood defences near to the site. Standard of Protection: N/A									
	-									
MEASS Benefit Area and Preferred Option MEASS Policy Now - 2038 MEASS Policy 2038 - 2				·		MEASS Policy 2068 - 2118				
High-Level Indication of Defence Costs	N/A - There are no defences near to the site and the site is p	redicted to remain unaf	fected by flooding from the River Medway	for the lifetime of any development.		- -				
Flood Warning Area?	Not available at this location.									



213 - 352-356 Luton Road, Luton									
	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the respective colour – Refer to Table 2)								
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	'Extreme' Hazard Rating					
	0.0%	0.0%	0.0%	0.0%					
	SuDS should be considered to be included within the develo	pment where possible, in accordance with the NPPF and its plann	of flooding from surface water. As a result, a comprehensive investioning practice guidance. All major development will require a Surface ve Drainage Area' and therefore Medway Council LLFA may require.	e Water Management Strategy to be produced to show how SuDS					
Required Actions / Recommended Mitigation	For major developments, or where there are historic sewer f and any upgrades are carried out where necessary.	looding incidents, developers should consult the relevant water a	uthority at an early stage to ensure that there will be sufficient capa	acity in the wastewater system to accommodate the development					
Measures		Floor levels should be raised above the maximum depth of flooding from surface water, including an additional freeboard where practicable. Flood resistance and resilience measures should be considered for inclusion. Suitable mitigation (i.e. compen flood storage, floodable voids) should be provided where development would displace surface water and increase the risk of flooding to the surrounding area.							
	The Sequential Approach should be applied to the layout of raised.	the site by locating the most vulnerable elements in the lowest risk	k areas. The Sequential Approach should also be applied to the interest of the interest of the sequential Approach should also be applied to the interest of the sequential Approach should also be applied to the interest of the sequential Approach should also be applied to the interest of the sequential Approach should also be applied to the interest of the sequential Approach should also be applied to the interest of the sequential Approach should also be applied to the interest of the sequential Approach should also be applied to the interest of the sequential Approach should also be applied to the interest of the sequential Approach should also be applied to the interest of the sequential Approach should also be applied to the interest of the sequential Approach should also be applied to the sequential Approach should	ernal layout of buildings, in particular where floor levels cannot be					
	Flood Hazard should be appraised against the proposed dev	relopment layout to ensure that users and occupants of the site ca	an achieve safe access and egress.						



646 - Grain Power Station, Grain Road									
	Site Area: 101.02ha Existing Land Use: Brownfield Proposed Land Use: Employment								
Flood Zone Classification	Flood Zone 1	·	Flood Zone 2	Flood Zo	ne 3	Flood Zone 3b			
based on the EA's 'Flood Map for Planning'	20.35%		3.79%	73.929	%	1.94% *refer to text below			
Development lifetime	60 years								
Exception Test required?	exception Test. Development that is classified as 'water-com' o remain operational and safe for users in times of flood; o result in no net loss of floodplain storage; and								
Flood History	Incidents within the site: Overtopping of defences during the Incidents within 100m of the site: Overtopping of defences during the		od event.						
Watercourses/Rivers	The River Medway is adjacent to the site, and there are a nu	mber of ordinary water	courses in the surrounding area.						
Geology	Bedrock: London Clay Formation (Clay (Undifferentiated) and Silt (Undifferentiated)) Superficial: River Terrace Deposits, 2; Head (Undifferentiated); Beach and Tidal Flat Deposits (Undifferentiated); Alluvium (Sand and Gravel; Clay (Undifferentiated) and Silt (Undifferentiated) and Sand(Undifferentiated) and Gravel (Undifferentiated); Clay, Silty Peaty Sandy (Unconsolidated Deposits C)								
	Percentage of site at risk of flooding from tidal sources during the defended scenario for key return period events. Maximum flood level on site shown in brackets.								
	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event			
	2.6% (6.07m AODN)	6.1% (6.07m AODN)		35.1% (6.08m AODN)		3.8% (6.07m AODN)			
Percentage of site at risk of flooding from tidal sources	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.								
and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-ye	ear return period event - 2070	1 in 200-year return period event - 2115		1 in 1000-year return period event			
EA	75.9% (4.76m AODN)	7	7.7% (5.23m AODN)	80.3% (5.87n	n AODN)	77.6% (5.17m AODN)			
		Percentage of si	te at risk of flooding from surface water	based on the EA's 'Risk of Flood	ing from Surface Water Map'				
	'High' risk scenario		'Medium' ri	sk scenario		'Low' risk scenario			
	0.5%		2.0)%		11.0%			
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	There are localised areas of surface water accumulation duri	ing all three modelled s	scenarios, which could be attributed to loca	lised depressions in the topography.					
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall. The EA's Spatial Flor Standard of Protection: 1000	The existing defences consist of a wall. The EA's Spatial Flood Defence dataset shows crest levels of 5.3m to 5.7m AODN and a condition rating of 3. Standard of Protection: 1000							
	T2100 Action Zone 7, Policy 4: Take further action to keep up	p with climate and land	use change so that flood risk does not inc	rease.					
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118			
	n/a			n/a		n/a			



646 - Grain Power Sta	tion, Grain Road									
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing defence wall, it is estimated to cost in the region of £230,000 to upgrade the 150m of defences in order to protect the site for the lifetime of any development.									
Flood Warning Area?	Yes.	Yes.								
	Percentage of site in each Hazard Rating Classification during the design flood event (2070) (The dominant hazard rating on the subject site has been highlighted in the respective colour – Refer to Table 2)									
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	'Extreme' Hazard Rating						
	3.9% 1.6% O.3% The site is located in Flood Zones 2 and 3, and therefore will required a detailed Flood Risk Assessment.	0.7%								
Required Actions / Recommended Mitigation Measures	SuDS should be considered to be included within the devel surface water runoff from the site. The SuDS proforma will lead to major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level, in the Sequential Approach should be applied to the layout of buildings, in particular where floor levels cannot be raised. Flood Hazard should be appraised against the proposed deal the EA should be consulted where development is proposed obtain consent for any development proposed within 8m of	opment where possible, in accordance with the NPPF and its plate required to accompany any SWMS. flooding incidents, developers should consult the relevant water and including the Environment Agency's recommended additional freely fithe site by locating the most vulnerable elements in the lowest risk velopment layout to ensure that users and occupants of the site content of the site of the water of the site of the water of the site of the water output o	o obtain consent via a Flood Risk Activity Permit (FRAP). The LPA	acity in the wastewater system to accommodate the development ace measures should be considered for inclusion. quential Approach should also be applied to the internal layout of should be consulted prior to the commencement of any works to						



647 - ELNA Kingsnort	th 1								
	Site Area: 24.77ha		Existing Land Use: Greenfie	ld		Proposed Land Use: Employment			
Flood Zone Classification	Flood Zone 1		Flood Zone 2	Flood Zo	one 3	Flood Zone 3b			
based on the EA's 'Flood Map for Planning'	0%		0.14%	99.86	%	0%			
Development lifetime	60 years								
Exception Test required?	Development which is classified as 'essential infrastructure' a classified as 'water compatible' or 'less vulnerable'.	nd 'more vulnerable' wil	Il be subject to the Exception Test. Develo	pment classified as 'highly vulnerab	ole' use should not be permitted.	The Exception Test is not required to be applied for development			
Flood History	Incidents within the site: Overtopping of defences during the Incidents within 100m of the site: Overtopping of defences du		d event.						
Watercourses/Rivers	The site is located 800m from the River Medway. There are a	also ordinary watercours	ses along the northern and southern bord	ers of the site, and a small pond on	site.				
Geology	Bedrock: London Clay Formation (Clay (Undifferentiated) and Silt (Undifferentiated)) Superficial: Alluvium; River Terrace Deposits, 1 (Clay, Silty Peaty Sandy (Unconsolidated Deposits Classification Scheme); Clay (Undifferentiated) and Silt (Undifferentiated))								
	Percentage of site	at risk of flooding fro	om tidal sources during the defended s	cenario for key return period ever	nts. Maximum flood level on s	ite shown in brackets.			
	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event			
	0.0% (0.00m AODN)	34.3% (5.40m AODN)		99.9% (6.02r	m AODN)	29.0% (5.25m AODN)			
Percentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.								
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event			
EA	99.9% (5.03m AODN)	100.0% (5.43m AODN)		100.0% (6.03m AODN)		100.0% (5.37m AODN)			
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'								
	'High' risk scenario	'Medium' risk scenario		'Low' risk scenario					
	1.8%		4.	7%		16.2%			
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	There are localised areas of surface water accumulation duri	ng all three modelled so	cenarios, which could be attributed to loca	lised depressions in the topography	<i>r</i> .				
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall and embankment. The Standard of Protection: 200-1000	e EA's Spatial Flood De	efence dataset shows crest levels of 5.64r	n to 6.14m AODN and a condition ra	ating of 2 to 3.				
	BA1.2 Kingsnorth. Maintenance of the current defences (em 0.1% SoP in 100 years taking account of sea level rise.	bankment, seawall and	rock revetment) for the first 8 years to th	e current SoP offered. Following th	is, defences to be raised to 5.3	mAOD and then raised again in year 50 to 6.6mAOD to ensure a			
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118			
	HTL Maintain to Yr 5 then HTL Sustair	ı	нт	L Sustain		HTL Sustain			
High-Level Indication of Defence Costs	Based on an average cost of £1,152/m to raise an existing er	mbankment, it is estimat	ted to cost in the region of £115,000 to up	grade the 100m of defences in orde	er to protect the site for the lifeti	me of any development.			
Flood Warning Area?	Yes.								



647 - ELNA Kingsnorth 1									
	Percentage of site in each Hazard Rating Classification during the design flood event (2070) (The dominant hazard rating on the subject site has been highlighted in the respective colour – Refer to Table 2)								
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	'Extreme' Hazard Rating					
	5.2%	0.6%	2.0%	26.3%					
Required Actions / Recommended Mitigation Measures	surface water runoff from the site. The SuDS proforma will be For major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level, in The Sequential Approach should be applied to the layout of raised. Flood Hazard should be appraised against the proposed de The LPA should be consulted prior to the commencement consent.	opment where possible, in accordance with the NPPF and its plant of required to accompany any SWMS. flooding incidents, developers should consult the relevant water an including the Environment Agency's recommended additional freebout the site by locating the most vulnerable elements in the lowest risk velopment layout to ensure that users and occupants of the site case of any works to obtain consent for any development proposed with	oard requirements where practicable. Flood resistance and resilie areas. The Sequential Approach should also be applied to the in an achieve safe access and egress. The Sequential Approach should also be applied to the in an achieve safe access and egress.	MS to be produced to show how SuDS will be included to manage pacity in the wastewater system to accommodate the development once measures should be considered for inclusion. Iternal layout of buildings, in particular where floor levels cannot be within the LMIDB area, the LMIDB should be consulted to obtain					



687 - National Grid Property, Pier Road, Gillingham									
	Site Area: 2.12ha		Existing Land Use: Brownfie	eld		Proposed Land Use: Residential			
Flood Zone Classification	Flood Zone 1		Flood Zone 2	Flood Zo	ne 3	Flood Zone 3b			
based on the EA's 'Flood Map for Planning'	33.09%		17.43%	39.229	⁄6	10.26% *refer to text below			
Development lifetime	100 years								
Exception Test required?	Development which has a 'more vulnerable' classification wil	be subject to the Exce	eption Test. Development classified as 'mo	ore vulnerable' use should not be per	mitted in Flood Zone 3b.				
Flood History	Incidents within the site: None. Incidents within 100m of the site: Public sewer flooding and h	nighway flooding due to	o tide locking and pump capacity issues.						
Watercourses/Rivers	The River Medway is adjacent to the site.								
Geology	, , ,	Bedrock: Thanet Sand Formation (Sand(Undifferentiated) and Silt (Undifferentiated) and Clay (Undifferentiated)) Superficial: Beach and Tidal Flat Deposits (Undifferentiated); Alluvium (Clay (Undifferentiated) and Silt (Undifferentiated) and Sand(Undifferentiated); Clay, Silty Peaty Sandy (Unconsolidated Deposits Classification Scheme))							
	Percentage of site	at risk of flooding fr	om tidal sources during the defended s	cenario for key return period even	ts. Maximum flood level on s	ite shown in brackets.			
	1 in 200-year return period event	1 in 200-ye	ear return period event - 2070	1 in 200-year return pe	eriod event - 2115	1 in 1000-year return period event			
	43.6% (5.04m AODN)	68.3% (5.43m AODN)		88.7% (6.05m AODN)		60.0% (5.38m AODN)			
Percentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.								
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event			
EA	44.0% (4.99m AODN)	74.2% (5.46m AODN)		88.7% (6.05m AODN)		66.9% (5.41m AODN)			
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'								
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario			
	0.1%		1.	6%		8.4%			
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During all modelled scenarios surface water is shown to flow depressions in the topography.	in northerly direction a	along the eastern border of the site. During	the 'low' risk scenario there are also	localised areas where flood wa	ater is shown to accumulate, which could be attributed to localised			
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall with minimum actual and a condition rating of 2 to 3. Standard of Protection: Unknown	crest level of 3.67m to	o 4.67m AODN (as stated in the MedwayF	lood Defence High Level Appraisal).	The EA's Spatial Flood Defer	ice dataset shows effective crest levels of 3.09m to 5.38m AODN			
	BA2.3 St Mary's Island. Raise (sustain) embankments, walls	, flood gates and revet	ments. This option involves improving the	SoP provided by the defences to 0.5	% AEP SoP with sea level rise				
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118			
	HTL Sustain		нт	[*] L Sustain		HTL Sustain			
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing de	efence wall, it is estima	ated to cost in the region of £2,750,000 to	upgrade the 1.8km of defences in ord	ler to protect the site for the life	etime of any development.			
Flood Warning Area?	Yes.								



687 - National Grid Property, Pier Road, Gillingham									
	Percentage of site in each Hazard Rati	ng Classification during the design flood event (2115) (The dom	inant hazard rating on the subject site has been highlighted in	n the respective colour – Refer to Table 2)					
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	'Extreme' Hazard Rating					
	1.3%	0.0%	77.6%	2.8%					
Required Actions / Recommended Mitigation Measures	surface water runoff from the site. The SuDS proforma will be For major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level, in (i.e. compensatory flood storage, floodable voids) should be The Sequential Approach should be applied to the layout of buildings, in particular where floor levels cannot be raised. Flood Hazard should be appraised against the proposed development is proposed.	ppment where possible, in accordance with the NPPF and its planni	nority at an early stage to ensure that there will be sufficient capacital requirements where practicable. Flood resistance and resilience rease the risk of flooding to the surrounding area. Areas, and avoiding development within Flood Zone 3b*. The Sequenchieve safe access and egress. Itain consent via a Flood Risk Activity Permit (FRAP).	ity in the wastewater system to accommodate the development measures should be considered for inclusion. Suitable mitigation					



699 - National Grid Property Holdings, Grain Road									
	Site Area: 587.97ha		Existing Land Use: Brownfie	ld		Proposed Land Use: Employment			
Flood Zone Classification	Flood Zone 1	·	Flood Zone 2	Flood Zo	ne 3	Flood Zone 3b			
based on the EA's 'Flood Map for Planning'	4.66%		6.47%	88.36	%	0.51% *refer to text below			
Development lifetime	60 years								
Exception Test required?	exception Test. Development that is classified as 'water-com' o remain operational and safe for users in times of flood; o result in no net loss of floodplain storage; and								
Flood History	Incidents within the site: Overtopping of defences during the Incidents within 100m of the site: Surface water flooding due		d drainage ditches being unable to dischar	ge freely into Yantlett Creek and Tha	ames Estuary due to tide lockin	g. Overtopping of defences during the 1953 tidal flood event.			
Watercourses/Rivers	The River Medway is adjacent to the site. In addition, there a	re numerous ordinary	and man-made watercourses on site.						
Geology	Bedrock: London Clay Formation (Clay (Undifferentiated) and Silt (Undifferentiated)) Superficial: River Terrace Deposits, 2; Head (Undifferentiated); Beach and Tidal Flat Deposits (Undifferentiated); Alluvium (Sand and Gravel; Clay (Undifferentiated) and Silt (Undifferentiated) and Sand(Undifferentiated) and Gravel (Undifferentiated); Clay (Undifferentiated) and Silt (Undifferentiated) and Sand(Undifferentiated); Clay, Silty Peaty Sandy (Unconsolidated Deposits C)								
	Percentage of site at risk of flooding from tidal sources during the defended scenario for key return period events. Maximum flood level on site shown in brackets.								
	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event			
	1.7% (4.92m AODN)	6.1% (5.33m AODN)		38.5% (5.95m AODN)		4.6% (5.29m AODN)			
Percentage of site at risk of flooding from tidal sources	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.								
and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-ye	ear return period event - 2070	1 in 200-year return period event - 2115		1 in 1000-year return period event			
EA	88.9% (4.84m AODN)	9	3.6% (5.30m AODN)	95.7% (5.93m AODN)		93.3% (5.24m AODN)			
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'								
	'High' risk scenario		'Medium' ri	sk scenario		'Low' risk scenario			
	0.4%		1.9	5%		9.0%			
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	There are localised areas of surface water accumulation acro	There are localised areas of surface water accumulation across the site during all three modelled scenarios, in particular surrounding the watercourses on site.							
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall. The EA's Spatial Flor Standard of Protection: 1000	The existing defences consist of a wall. The EA's Spatial Flood Defence dataset shows crest levels of 3.94m to 6.08m AODN and a condition rating of 2 to 3. Standard of Protection: 1000							
	T2100 Action Zone 7, Policy 4: Take further action to keep u	p with climate and land	use change so that flood risk does not inc	rease					
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118			
	n/a			n/a		n/a			



699 - National Grid Pi	roperty Holdings, Grain Road								
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing defence wall, it is estimated to cost in the region of £230,000 to upgrade the 150m of defences in order to protect the site for the lifetime of any development.								
Flood Warning Area?	Yes.								
	Percentage of site in each Hazard Rati	minant hazard rating on the subject site has been highlighted	I in the respective colour – Refer to Table 2)						
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	'Extreme' Hazard Rating					
	1.5%	1.6%	2.9%	0.1%					
Required Actions / Recommended Mitigation Measures	surface water runoff from the site. The SuDS proforma will be For major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level, in The Sequential Approach should be applied to the layout of buildings, in particular where floor levels cannot be raised. Flood Hazard should be appraised against the proposed development is proposed obtain consent for any development proposed within 8m of a	opment where possible, in accordance with the NPPF and its plant e required to accompany any SWMS. flooding incidents, developers should consult the relevant water auticulating the Environment Agency's recommended additional freebothe site by locating the most vulnerable elements in the lowest risk velopment layout to ensure that users and occupants of the site cal	athority at an early stage to ensure that there will be sufficient cap pard requirements where practicable. Flood resistance and resilier areas, and avoiding development within Flood Zone 3b*. The Se an achieve safe access and egress. Obtain consent via a Flood Risk Activity Permit (FRAP). The LPA MIDB area, the LMIDB should be consulted to obtain consent.	acity in the wastewater system to accommodate the development nce measures should be considered for inclusion. Equential Approach should also be applied to the internal layout of a should be consulted prior to the commencement of any works to					



735 - Upnor Wharf										
	Site Area: 0.25ha		Existing Land Use: Brownfie	eld		Proposed Land Use: Residential				
Flood Zone Classification based on the EA's 'Flood			Flood Zone 2	Flood Zo	one 3	Flood Zone 3b				
Map for Planning'	0%		44.89%	54.66	%	0.45% *refer to text below				
Development lifetime	100 years									
Exception Test required?	Development which has a 'more vulnerable' classification will	be subject to the Excep	tion Test. Development classified as 'mo	re vulnerable' use should not be per	rmitted in Flood Zone 3b.					
Flood History	Incidents within the site: None. Incidents within 100m of the site: None.									
Watercourses/Rivers	The River Medway is located 500m to the northwest of the sit	e.								
Geology		Bedrock: Thanet Sand Formation (Sand(Undifferentiated) and Silt (Undifferentiated) and Clay (Undifferentiated)) Superficial: Beach and Tidal Flat Deposits (Undifferentiated) (Clay (Undifferentiated) and Silt (Undifferentiated) and Sand(Undifferentiated))								
	Percentage of site	at risk of flooding from	n tidal sources during the defended s	cenario for key return period ever	nts. Maximum flood level on s	ite shown in brackets.				
	1 in 200-year return period event	1 in 200-yea	r return period event - 2070	1 in 200-year return period event - 2115		1 in 1000-year return period event				
	0.6% (5.06m AODN)	100.0% (5.45m AODN) 100.0% (6.08m AODN)			m AODN)	100.0% (5.40m AODN)				
Percentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.									
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event				
EA	55.1% (5.01m AODN)	100.0% (5.49m AODN)		100.0% (6.06	100.0% (6.06m AODN) 100.0% (5.43m AODN)					
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'									
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario				
	0.0%		0.0%			0.1%				
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	The site is not predicted to flood from surface water during ar	ny of the modelled scena	rios.							
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall with a minimum actual crest levels of 5.03m to 6.13m AODN and a condition rating of Standard of Protection: <20		5.17m AODN (as stated in the MedwayF	lood Defence High Level Appraisal) and has a condition rating of 2	? (Good). The EA's Spatial Flood Defence dataset shows effective				
	BA2.3 St Mary's Island. Raise (sustain) embankments, walls,	flood gates and revetme	ents. This option involves improving the	SoP provided by the defences to 0.5	5% AEP SoP with sea level rise					
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118				
	HTL Sustain		нт	L Sustain		HTL Sustain				
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing de	efence wall, it is estimate	ed to cost in the region of £460,000 to up	grade the 300m of defences in orde	r to protect the site for the lifetin	ne of any development.				
Flood Warning Area?	Yes.									



735 - Upnor Wharf									
	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the respective colour – Refer to Table 2)								
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	'Extreme' Hazard Rating					
	0.0%	0.0%	99.3%	0.7%					
Required Actions / Recommended Mitigation Measures	surface water runoff from the site. The SuDS proforma will be completed for non major development proposals. For major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level, in The Sequential Approach should be applied to the layout of buildings, in particular where floor levels cannot be raised. Flood Hazard should be appraised against the proposed development.	Il require a detailed Flood Risk Assessment. opment where possible, in accordance with the NPPF and its planning required to accompany any SWMS. The site is also identifed by the flooding incidents, developers should consult the relevant water authorically the Environment Agency's recommended additional freeboard the site by locating the most vulnerable elements in the lowest risk and velopment layout to ensure that users and occupants of the site can a defences should be taking into account and consideration given to up	E Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Medverbrity at an early stage to ensure that there will be sufficient capacited requirements where practicable. Flood resistance and resilience reas, and avoiding development within Flood Zone 3b*. The Sequenchieve safe access and egress.	way Council LLFA may require a SWMS and SuDs proforma to by in the wastewater system to accommodate the development measures should be considered for inclusion. The system to accommodate the development measures should be considered for inclusion. The system to accommodate the development measures should be considered for inclusion.					



757 - Between Cross	Street & The Brook, Chatham								
	Site Area: 0.79ha		Existing Land Use: Brownfie	eld		Proposed Land Use: Residential			
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1		Flood Zone 2	Flood Zone 3		Flood Zone 3b			
Map for Planning'	81.9%		12.47%	5.63%		0%			
Development lifetime	100 years								
Exception Test required?	Development which has a 'more vulnerable' classification wil	be subject to the Excep	otion Test.						
Flood History	Incidents within the site: None. Incidents within 100m of the site: Public sewer flooding.								
Watercourses/Rivers	The River Medway is located 650m to the northwest of the si	te.							
Geology	Bedrock: Lewes Nodular Chalk Formation (Chalk) Superficial: Head (Undifferentiated) (Clay (Undifferentiated) and Silt (Undifferentiated) and Sand(Undifferentiated) and Gravel (Undifferentiated))								
	Percentage of site	at risk of flooding fro	m tidal sources during the defended s	cenario for key return period even	nts. Maximum flood level on s	site shown in brackets.			
	1 in 200-year return period event	1 in 200-yea	1 in 200-year return period event - 2070 1 in 200-year ret		eriod event - 2115	1 in 1000-year return period event			
	3.9% (4.48m AODN)	20.0% (5.47m AODN) 27.6% (6.12m AODN)			n AODN)	18.1% (5.40m AODN)			
Percentage of site at risk of flooding from tidal sources	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.								
and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event			
EA	3.9% (4.43m AODN)	20.	.0% (5.46m AODN)	27.6% (6.07m AODN) 18.1% (5.40m AODN)		18.1% (5.40m AODN)			
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'								
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario			
	0.0%		9.3%		23.8%				
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During the 'low' and 'medium' risk scenarios surface water is	shown to flow along par	rt of the southwest site boundary in a nort	h-easterly direction. The site is not p	predicted to flood from surface	water during the 'high' risk scenario.			
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall with minimum actual of 4.75m to 4.93m AODN and a condition rating of 3. Standard of Protection: Unknown	crest level of 4.67m to 5	.17m AODN (as stated in the MedwayFlo	od Defence High Level Appraisal) ar	nd has a condition rating of 2 (Good). The EA's Spatial Flood Defence dataset shows crest levels			
		d gates, and revetmentention Approach.	s in localised areas. Localised raising of	the defences to protect properties a	nd assets at risk of flooding ar	ound Rochester and Chatham against a 0.1% AEP with sea level			
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118			
	HTL Sustain with localised NAI		HTL Sustair	with localised NAI		HTL Sustain with localised NAI			
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing de	efence wall, it is estimat	ed to cost in the region of £610,000 to up	grade the 400m of defences in order	r to protect the site for the lifeti	me of any development.			
Flood Warning Area?	Yes.								



757 - Between Cross	Street & The Brook, Chatham							
	Percentage of site in each Hazard Ra	ting Classification during the design flood event (2115) (The domi	nant hazard rating on the subject site has been highlighted	in the respective colour – Refer to Table 2)				
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	'Extreme' Hazard Rating				
	1.6%	0.2%	18.5%	0.8%				
Required Actions / Recommended Mitigation Measures	SuDS should be considered to be included within the deve surface water runoff from the site. The SuDS proforma will be completed for non major development proposals. For major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level a considered for inclusion. Suitable mitigation (i.e. compensa The Sequential Approach should be applied to the layout or raised.	flooding from surface water. As a result, a detailed FRA, including a collopment where possible, in accordance with the NPPF and its planning be required to accompany any SWMS. The site is also identified by the flooding incidents, developers should consult the relevant water authorized and depth of flooding from surface water, including the Environment Agentory flood storage, floodable voids) should be provided where developed the site by locating the most vulnerable elements in the lowest risk are evelopment layout to ensure that users and occupants of the site can a	g practice guidance. All major development will require a SWM a Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Me prity at an early stage to ensure that there will be sufficient capa gency's recommended additional freeboard requirements where ment would displace surface water and increase the risk of flood eas. The Sequential Approach should also be applied to the interest.	IS to be produced to show how SuDS will be included to manage edway Council LLFA may require a SWMS and SuDs proforma to acity in the wastewater system to accommodate the development of practicable. Flood resistance and resilience measures should be ding to the surrounding area.				
	When developing a scheme, the condition of any adjacent defences should be taking into account and consideration given to upgrading the defences to maintain, or further, the protection offered to the site and surrounding area. The costs associated with defence upgrades should be shared amongst beneficiaries.							



760 - Site bound by C	ross Street, Upbury Way, High Street and Sli	cketts Hill								
	Site Area: 1.34ha		Existing Land Use: Brownfie	eld		Proposed Land Use: Residential				
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1	·	Flood Zone 2 Flood Zone 3		ne 3	Flood Zone 3b				
Map for Planning'	99.95%		0%	0.05%	6	0%				
Development lifetime	100 years									
Exception Test required?	Development which has a 'more vulnerable' classification wil	l be subject to the Excep	tion Test.							
Flood History	Incidents within the site: None. Incidents within 100m of the site: Public sewer flooding.									
Watercourses/Rivers	The River Medway is located 800m to the northwest of the si	te.								
Geology	Bedrock: Lewes Nodular Chalk Formation (Chalk) Superficial: Head (Undifferentiated) (Clay (Undifferentiated) a	Bedrock: Lewes Nodular Chalk Formation (Chalk) Superficial: Head (Undifferentiated) (Clay (Undifferentiated) and Silt (Undifferentiated) and Sand(Undifferentiated) and Gravel (Undifferentiated))								
	Percentage of site	at risk of flooding from	n tidal sources during the defended s	cenario for key return period ever	nts. Maximum flood level on s	ite shown in brackets.				
	1 in 200-year return period event	1 in 200-yea	r return period event - 2070	1 in 200-year return period event - 2115		1 in 1000-year return period event				
	0.0% (0.00m AODN)	0.0	% (0.00m AODN)	10.7% (6.12m AODN)		0.0% (0.00m AODN)				
Percentage of site at risk of flooding from tidal sources	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.									
and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-yea	r return period event - 2070	1 in 200-year return period event - 2115		1 in 1000-year return period event				
EA	0.0% (0.00m AODN)	0.0% (0.00m AODN)		9.0% (6.07m	AODN)	0.0% (0.00m AODN)				
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'									
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario				
	0.0%		0.1%		6.9%					
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps)</u>	During the 'low' risk scenario there are localised areas of surf	ace water accumulation	on site, which could be attributed to locali	sed depressions in the topography.	The site is not predicted to flood	from surface water during the ' medium' and 'high' risk scenarios.				
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall with minimum actual of 4.75m to 4.93m AODN and a condition rating of 3. Standard of Protection: Unknown	crest level of 4.67m to 5.	17m AODN (as stated in the MedwayFloo	od Defence High Level Appraisal)a	nd has a condition rating of 2 (C	Good). The EA's Spatial Flood Defence dataset shows crest levels				
	_									
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118				
	-			-		-				
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing d	efence wall, it is estimate	ed to cost in the region of £610,000 to up	grade the 400m of defences in orde	r to protect the site for the lifeting	ne of any development.				
Flood Warning Area?	Not available at this location.									



760 - Site bound by C	Pross Street, Upbury Way, High Street and S	licketts Hill							
	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the respective colour – Refer to Table 2)								
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	'Extreme' Hazard Rating					
	6.8%	0.0%	0.0%	0.0%					
Required Actions / Recommended Mitigation Measures	surface water runoff from the site. The SuDS proforma will for major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level a considered for inclusion. Suitable mitigation (i.e. compensation)	lopment where possible, in accordance with the NPPF and its plan be required to accompany any SWMS. flooding incidents, developers should consult the relevant water and depth of flooding from surface water, including the Environmentory flood storage, floodable voids) should be provided where developers.	uthority at an early stage to ensure that there will be sufficient capa t Agency's recommended additional freeboard requirements where lopment would displace surface water and increase the risk of floor	practicable. Flood resistance and resilience measures should be ling to the surrounding area.					
	The Sequential Approach should be applied to the layout of the site by locating the most vulnerable elements in the lowest risk areas. The Sequential Approach should also be applied to the internal layout of buildings, in particular where floor levels cannot be raised.								
	Flood Hazard should be appraised against the proposed de	evelopment layout to ensure that users and occupants of the site ca	an achieve safe access and egress.						
	When developing a scheme, the condition of any adjacent defences should be taking into account and consideration given to upgrading the defences to maintain, or further, the protection offered to the site and surrounding area. The costs associated with defence upgrades should be shared amongst beneficiaries.								



818 - J7, Chatham Ma	ritime									
	Site Area: 0.51ha		Existing Land Use: Brownfie	eld		Proposed Land Use: Residential				
Flood Zone Classification			one 3	Flood Zone 3b						
based on the EA's 'Flood Map for Planning'	0%		0%	1009	6	0%				
Development lifetime	100 years									
Exception Test required?	Development which has a 'more vulnerable' classification will	be subject to the Excep	tion Test.							
Flood History	Incidents within the site: None. Incidents within 100m of the site: None.									
Watercourses/Rivers	The River Medway is located 150m to the west of the site. In	addition, the site is locat	ed adjacent to the Chatham Maritime Mar	arina.						
Geology	Bedrock: Seaford Chalk Formation (Chalk) Superficial: Alluvium (Clay, Silty Peaty Sandy (Unconsolidate	Bedrock: Seaford Chalk Formation (Chalk) Superficial: Alluvium (Clay, Silty Peaty Sandy (Unconsolidated Deposits Classification Scheme))								
	Percentage of site	at risk of flooding from	n tidal sources during the defended s	cenario for key return period ever	nts. Maximum flood level on s	ite shown in brackets.				
	1 in 200-year return period event	1 in 200-yea	1 in 200-year return period event - 2070 1 in 200-year return period event		eriod event - 2115	1 in 1000-year return period event				
	0.0% (0.00m AODN)	100.0% (4.61m AODN) 100.0% (6.08)			8m AODN) 25.4% (4.20m AODN)					
Percentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.									
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return p	eriod event - 2115	1 in 1000-year return period event				
EA	100.0% (5.01m AODN)	100.0% (5.49m AODN)		100.0% (6.06m AODN)		100.0% (5.44m AODN)				
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'									
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario				
	0.0%		0.0% 0.1%			0.1%				
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	The site is not predicted to flood from surface water during an	y of the modelled scena	rios.							
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall with minimum actual c of 5.60m to 6.00m AODN and a condition rating of 2. Standard of Protection: 200-1000	rest level of 5.17m to 5.6	67m AODN (as stated in the Medway Flo	ood Defence High Level Appraisal) a	nd has a condition rating of 2 (0	Good). The EA's Spatial Flood Defence dataset shows crest levels				
	BA2.3 St Mary's Island. Raise (sustain) embankments, walls,	flood gates and revetme	ents. This option involves improving the	SoP provided by the defences to 0.5	5% AEP SoP with sea level rise					
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118				
	HTL Sustain		нт	L Sustain		HTL Sustain				
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing de	efence wall, it is estimate	d to cost in the region of £5,800,000 to u	upgrade the 3.8km of defences in or	der to protect the site for the life	etime of any development.				
Flood Warning Area?	Yes.									



818 - J7, Chatham Ma	ritime			
	Percentage of site in each Hazard Rati	ng Classification during the design flood event (2115) (The do	ninant hazard rating on the subject site has been highlighted in	the respective colour – Refer to Table 2)
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	'Extreme' Hazard Rating
	0.0%	0.0%	2.6%	97.4%
Required Actions / Recommended Mitigation Measures	surface water runoff from the site. The SuDS proforma will be completed for non major development proposals. For major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level, in The Sequential Approach should be applied to the layout of raised. Flood Hazard should be appraised against the proposed details. The EA should be consulted where development is propose	opment where possible, in accordance with the NPPF and its planne required to accompany any SWMS. The site is also identified by the flooding incidents, developers should consult the relevant water authorized the Environment Agency's recommended additional freebouthe site by locating the most vulnerable elements in the lowest risk relopment layout to ensure that users and occupants of the site cand within 16m of a tidal waterbody or tidal defence infrastructure to o		way Council LLFA may require a SWMS and SuDs proforma to try in the wastewater system to accommodate the development measures should be considered for inclusion. In all layout of buildings, in particular where floor levels cannot be



824 - Chatham Docks	, Chatham									
	Site Area: 29.45ha		Existing Land Use: Brownfie	eld		Proposed Land Use: Residential				
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1		Flood Zone 2	Flood Zo	one 3	Flood Zone 3b				
Map for Planning'	29.7%		15.81%	51.84	%	2.65% *refer to text below				
Development lifetime	100 years									
Exception Test required?	Development which has a 'more vulnerable' classification will	be subject to the Excep	tion Test. Development classified as 'mo	re vulnerable' use should not be per	rmitted in Flood Zone 3b.					
Flood History	Incidents within the site: None. Incidents within 100m of the site: None.									
Watercourses/Rivers	The site is located adjacent to the River Medway and the Cha	atham Maritime Marina.								
Geology		Bedrock: Seaford Chalk Formation; Thanet Sand Formation (Chalk;Sand(Undifferentiated) and Silt (Undifferentiated) and Clay (Undifferentiated)) Superficial: Beach and Tidal Flat Deposits (Undifferentiated); Alluvium (Clay (Undifferentiated) and Silt (Undifferentiated) and Sand(Undifferentiated); Clay, Silty Peaty Sandy (Unconsolidated Deposits Classification Scheme))								
	Percentage of site	at risk of flooding from	n tidal sources during the defended s	cenario for key return period ever	nts. Maximum flood level on s	ite shown in brackets.				
	1 in 200-year return period event	1 in 200-yea	1 in 200-year return period event - 2070		eriod event - 2115	1 in 1000-year return period event				
	28.6% (5.04m AODN)	52.9	9% (5.43m AODN)	76.9% (6.19m AODN)		49.7% (5.38m AODN)				
Percentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.									
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-yea	r return period event - 2070	1 in 200-year return period event - 2115		1 in 1000-year return period event				
EA	54.5% (5.01m AODN)	71.2% (5.53m AODN)		77.2% (6.08m AODN)		70.3% (5.49m AODN)				
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'									
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario				
	1.8%		4.1%			12.3%				
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	There are localised areas of surface water accumulation during	ng all three modelled sce	enarios, which could be attributed to loca	lised depressions in the topography	'.					
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall with minimum actual of 4.6m AODN and a condition rating of 3. Standard of Protection: Variable	crest level of 4.17m to 4.	67m AODN (as stated in the MedwayFlo	ood Defence High Level Appraisal)	and has a condition rating of 2 (Good). The EA's Spatial Flood Defence dataset shows crest level				
	BA2.3 St Mary's Island. Raise (sustain) embankments, walls,	flood gates and revetme	ents. This option involves improving the	SoP provided by the defences to 0.5	5% AEP SoP with sea level rise					
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118				
	HTL Sustain		нт	L Sustain		HTL Sustain				
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing de	efence wall, it is estimate	ed to cost in the region of £1,070,000 to u	upgrade the 750m of defences in ord	der to protect the site for the life	time of any development.				
Flood Warning Area?	Yes.									



824 - Chatham Docks, Chatham									
	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the respective colour – Refer to Table 2)								
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	'Extreme' Hazard Rating					
	3.5%	0.0%	36.8%	33.2%					
	The site is located in Flood Zones 2 and 3, and therefore wil	Il require a detailed Flood Risk Assessment.							
	SuDS should be considered to be included within the development where possible, in accordance with the NPPF and its planning practice guidance. All major development will require a SWMS to be produced to show how SuDS will be included to manage surface water runoff from the site. The SuDS proforma will be required to accompany any SWMS.								
	For major developments, or where there are historic sewer flooding incidents, developers should consult the relevant water authority at an early stage to ensure that there will be sufficient capacity in the wastewater system to accommodate the development and any upgrades are carried out where necessary.								
Required Actions / Recommended Mitigation		cluding the Environment Agency's recommended additional freeboar provided where development would displace surface water and inc	·	e measures should be considered for inclusion. Suitable mitigation					
Measures	The Sequential Approach should be applied to the layout of buildings, in particular where floor levels cannot be raised.	the site by locating the most vulnerable elements in the lowest risk	c areas, and avoiding develpoment within Flood Zone 3b*. The Se	quential Approach should also be applied to the internal layout of					
	Flood Hazard should be appraised against the proposed development layout to ensure that users and occupants of the site can achieve safe access and egress.								
	The EA should be consulted where development is propose	d within 16m of a tidal waterbody or tidal defence infrastructure to	obtain consent via a Flood Risk Activity Permit (FRAP).						
	When developing a scheme, the condition of any adjacent defences should be taking into account and consideration given to upgrading the defences to maintain, or further, the protection offered to the site and surrounding area. The costs associated with defence upgrades should be shared amongst beneficiaries.								



834 - Halfords, The Bi	rook, Chatham									
	Site Area: 0.25ha		Existing Land Use: Brownfie	eld		Proposed Land Use: Residential				
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1		Flood Zone 2	Flood Zone 3		Flood Zone 3b				
Map for Planning'	0%		0%	100%	Ó	0%				
Development lifetime	100 years									
Exception Test required?	Development which has a 'more vulnerable' classification wil	be subject to the Excep	otion Test.							
Flood History	Incidents within the site: None. Incidents within 100m of the site: Public sewer flooding.									
Watercourses/Rivers	The River Medway is located 500m to the northwest of the si	te.								
Geology	Bedrock: Lewes Nodular Chalk Formation (Chalk) Superficial: Head (Undifferentiated) (Clay (Undifferentiated) and Silt (Undifferentiated) and Sand(Undifferentiated) and Gravel (Undifferentiated))									
	Percentage of site	at risk of flooding fro	m tidal sources during the defended s	cenario for key return period even	nts. Maximum flood level on s	site shown in brackets.				
	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return pe	eriod event - 2115	1 in 1000-year return period event				
	100.0% (4.48m AODN)	100.0% (5.47m AODN) 100.0% (6.12m AODN)			m AODN)	100.0% (5.40m AODN)				
Percentage of site at risk of flooding from tidal sources	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.									
and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event				
EA	100.0% (4.43m AODN)	100	0.0% (5.46m AODN)	100.0% (6.07m AODN) 100.0% (5.40m AODN)						
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'									
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario				
	18.3%		100.0%		100.0%					
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps)</u>	During the 'low' and 'medium' risk scenario surface water flow	vs across the entire site	in a northwesterly direction. During the 'h	igh' risk scenario, surface water flov	vs across the eastern boundary	of the site only.				
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall with minimum actual of 4.75m to 4.93m AODN and a condition rating of 3. Standard of Protection: Unknown	crest level of 4.67m to 5	.17m AODN (as stated in the MedwayFlo	od Defence High Level Appraisal) a	nd has a condition rating of 2 (Good). The EA's Spatial Flood Defence dataset shows crest levels				
		d gates, and revetment	s in localised areas. Localised raising of	the defences to protect properties a	nd assets at risk of flooding ar	ound Rochester and Chatham against a 0.1% AEP with sea level				
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118				
	HTL with Sustain with localised NAI		HTL Sustain	with localised NAI		HTL Sustain with localised NAI				
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing de	efence wall, it is estimat	ed to cost in the region of £610,000 to up	grade the 400m of defences in order	r to protect the site for the lifeting	me of any development.				
Flood Warning Area?	Yes.									



834 - Halfords, The Brook, Chatham										
	Percentage of site in each Hazard Rat	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the respective colour – Refer to Table 2)								
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	'Extreme' Hazard Rating						
	0.0%	0.0%	82.5%	17.5%						
Required Actions / Recommended Mitigation	SuDS should be considered to be included within the devel surface water runoff from the site. The SuDS proforma will be completed for non major development proposals. For major developments, or where there are historic sewer and any upgrades are carried out where necessary.	flooding from surface water. As a result, a detailed FRA, including a lopment where possible, in accordance with the NPPF and its plant be required to accompany any SWMS. The site is also identifed by flooding incidents, developers should consult the relevant water au and depth of flooding from surface water, including the Environment	ning practice guidance. All major development will require a SWM the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Motherity at an early stage to ensure that there will be sufficient capa	IS to be produced to show how SuDS will be included to manage edway Council LLFA may require a SWMS and SuDs proforma to acity in the wastewater system to accommodate the development						
Measures	The Sequential Approach should be applied to the layout of raised. Flood Hazard should be appraised against the proposed de	tory flood storage, floodable voids) should be provided where devel- the site by locating the most vulnerable elements in the lowest risk evelopment layout to ensure that users and occupants of the site cal defences should be taking into account and consideration given to	areas. The Sequential Approach should also be applied to the int	ternal layout of buildings, in particular where floor levels cannot be						



843 - Tesco Site, Cuxt	on Road access point and Commercial Road	d works site							
	Site Area: 1.21ha		Existing Land Use: Brownfie	eld		Proposed Land Use: Residential			
Flood Zone Classification based on the EA's 'Flood			Flood Zone 2	Flood Zo	one 3	Flood Zone 3b			
Map for Planning'	8.89%		2.32%	14.61	%	74.18% *refer to text below			
Development lifetime	100 years								
Exception Test required?	Development which has a 'more vulnerable' classification will be subject to the Exception Test. *Although the NKC modelling shows the site to be within the functional floodplain, the modelling study does not take into account the recently completed Jane's Creek defences. These defences would likely reduce the extent of flooding during a 1in20 year return period event, and further analysis is recommended to determine the true extent of the functional floodplain on site. Development classified as 'more vulnerable' use should not be permitted in Flood Zone 3b.								
Flood History	Incidents within the site: None. Incidents within 100m of the site:Highway flooding. Public	Incidents within the site: None. Incidents within 100m of the site:Highway flooding. Public sewer flooding. Highway flooding.							
Watercourses/Rivers	The River Medway is located 475m to the southeast of the s	ite.							
Geology	Bedrock: Lewes Nodular Chalk Formation, Seaford Chalk Formation and Newhaven Chalk Formation (Undifferentiated) (Chalk) Superficial: Head (Undifferentiated) (Clay (Undifferentiated) and Silt (Undifferentiated))								
	Percentage of site	e at risk of flooding t	rom tidal sources during the defended s	cenario for key return period ever	nts. Maximum flood level on s	ite shown in brackets.			
	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event			
	87.8% (5.00m AODN)	91.1% (5.47m AODN)		93.6% (6.10m AODN)		91.1% (5.42m AODN)			
Percentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.								
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event			
EA	88.8% (5.01m AODN)	91.1% (5.42m AODN)		92.9% (6.02m AODN)		91.1% (5.38m AODN)			
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'								
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario			
	37.2%		49.0%		91.8%				
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During the 'medium' and 'high' scenarios, surface water is sh	nown to accumulate ar	ound the existing buildings on site. During t	he 'low' scenario, the majority of the	site is shown to flood from surf	ace water.			
Existing Flood Defence Infrastructure (inc. SoP):	Dat Strood Riverside and Jane's Creek have recently been upgraded and now have a crest height of 6.1m AODN. The existing defences to the southwest of Jane's Creek consist of a wall and high ground with minimum actual crest level of 3.67m to 5.17m AODN (as stated in the MedwayFlood Defence High Level Appraisal) and has a condition rating of 2 (Good) to 4 (Poor). EA's Spatial Flood Defence dataset shows crest levels of 4.04m to 4.99m AODN and a condition rating of 2 to 4.								
	Standard of Protection: Variable								
	BA2.1 Strood. Raise (sustain) embankments,walls, flood gat	es and revetments. Ti	nis option involves improving the current SC	P provided by the defences to 1% A	AEP SoP with sea level rise.				
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118			
	HTL Sustain		нт	'L Sustain		HTL Sustain			
High-Level Indication of Defence Costs	The Jane's Creek defences have recently been upgraded to to construct a defence wall, it is estimated to cost in the region					southwest of Jane's Creek. Based on an average cost of £2,984/m			



843 - Tesco Site, Cuxton Road access point and Commercial Road works site										
Flood Warning Area?	Yes.									
	Percentage of site in each Hazard Rati	ing Classification during the design flood event (2115) (The de	ominant hazard rating on the subject site has been highlighted	in the respective colour – Refer to Table 2)						
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	'Extreme' Hazard Rating						
	0.3%	0.3%	21.5%	70.6%						
	required to be undertaken.		a comprehensive investigation into surface water flood risk and fu	•						
	SuDS should be considered to be included within the development where possible, in accordance with the NPPF and its planning practice guidance. All major development will require a SWMS to be produced to show how SuDS will be included to manage surface water runoff from the site. The SuDS proforma will be required to accompany any SWMS.									
Required Actions /	For major developments, or where there are historic sewer and any upgrades are carried out where necessary.	flooding incidents, developers should consult the relevant water a	uthority at an early stage to ensure that there will be sufficient capa	acity in the wastewater system to accommodate the development						
Recommended Mitigation Measures			t Agency's recommended additional freeboard requirements where lopment would displace surface water and increase the risk of floor							
	The Sequential Approach should be applied to the layout of the site by locating the most vulnerable elements in the lowest risk areas. The Sequential Approach should also be applied to the internal layout of buildings, in particular where floor levels cannot be raised.									
	Flood Hazard should be appraised against the proposed de	velopment layout to ensure that users and occupants of the site ca	an achieve safe access and egress.							
	When developing a scheme, the condition of any adjacent defence upgrades should be shared amongst beneficiaries.		o upgrading the defences to maintain, or further, the protection off	ered to the site and surrounding area. The costs associated with						



866 - Crown House, T	he Brook, Chatham								
	Site Area: 0.68ha		Existing Land Use: Brownfie	eld		Proposed Land Use: Residential			
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1		Flood Zone 2	Flood Zo	one 3	Flood Zone 3b			
Map for Planning'	73.3%		16.44%	10.26	%	0%			
Development lifetime	100 years								
Exception Test required?	Development which has a 'more vulnerable' classification wil	be subject to the Exce	eption Test.						
Flood History	Incidents within the site: None. Incidents within 100m of the site: None.								
Watercourses/Rivers	The River Medway is located 450m to the northwest of the si	te.							
Geology	Bedrock: Lewes Nodular Chalk Formation (Chalk) Superficial: None								
	Percentage of site	at risk of flooding fro	om tidal sources during the defended s	cenario for key return period ever	nts. Maximum flood level on s	site shown in brackets.			
	1 in 200-year return period event	1 in 200-ye	ear return period event - 2070	1 in 200-year return p	eriod event - 2115	1 in 1000-year return period event			
	9.9% (4.48m AODN)	26	3.3% (5.46m AODN)	34.9% (6.11m AODN)		26.3% (5.40m AODN)			
Percentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.								
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event			
EA	9.9% (4.43m AODN)	26.3% (5.45m AODN)		34.9% (6.07m AODN)		26.3% (5.39m AODN)			
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'								
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario			
	6.2%		11.5%			16.5%			
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During all three modelled scenarios, surface water is shown	to flow along part of the	e southwest site boundary in a north-weste	erly direction.					
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall with minimum actual of 4.75m to 4.93m AODN and a condition rating of 3. Standard of Protection: Unknown	crest level of 4.67m to 5	5.17m AODN (as stated in the MedwayFlo	od Defence High Level Appraisal)a	nd has a condition rating of 2 (0	Good). The EA's Spatial Flood Defence dataset shows crest levels			
		d gates, and revetmen	ts in localised areas. Localised raising of	the defences to protect properties a	and assets at risk of flooding are	ound Rochester and Chatham against a 0.1% AEP with sea level			
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118			
	HTL Sustain with localised NAI		HTL Sustair	with localised NAI		HTL Sustain with localised NAI			
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing de	efence wall, it is estima	ited to cost in the region of £610,000 to up	grade the 400m of defences in orde	r to protect the site for the lifeting	me of any development.			
Flood Warning Area?	Yes.								



866 - Crown House, The Brook, Chatham										
	Percentage of site in each Hazard Rat	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the respective colour – Refer to Table 2)								
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	'Extreme' Hazard Rating						
	1.7%	2.2%	16.3%	10.9%						
Required Actions / Recommended Mitigation Measures	SuDS should be considered to be included within the devel surface water runoff from the site. The SuDS proforma will be completed for non major development proposals. For major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level a considered for inclusion. Suitable mitigation (i.e. compensal The Sequential Approach should be applied to the layout of raised. Flood Hazard should be appraised against the proposed de	flooding from surface water. As a result, a detailed FRA, including a opment where possible, in accordance with the NPPF and its plann be required to accompany any SWMS. The site is also identifed by the flooding incidents, developers should consult the relevant water author and depth of flooding from surface water, including the Environment plant flood storage, floodable voids) should be provided where developed the site by locating the most vulnerable elements in the lowest risk avelopment layout to ensure that users and occupants of the site can defence should be taking into account and consideration given to	ing practice guidance. All major development will require a SWMs ne Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Me hority at an early stage to ensure that there will be sufficient capa Agency's recommended additional freeboard requirements where pment would displace surface water and increase the risk of flood areas. The Sequential Approach should also be applied to the interactions achieve safe access and egress.	S to be produced to show how SuDS will be included to manage adway Council LLFA may require a SWMS and SuDs proforma to acity in the wastewater system to accommodate the development practicable. Flood resistance and resilience measures should be ling to the surrounding area.						



1039 - National Tyre,	Station Road, Strood								
	Site Area: 0.14ha		Existing Land Use: Brownfie	eld		Proposed Land Use: Residential			
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1	·	Flood Zone 2	Flood Zone 3		Flood Zone 3b			
Map for Planning'	0%		0%	0%		100% *refer to text below			
Development lifetime	100 years								
Exception Test required?	Development which has a 'more vulnerable' classification will be subject to the Exception Test. *Although the NKC modelling shows the site to be within the functional floodplain, the modelling study does not take into account the recently completed Strood Riverside and Jane's Creek defences. These defences would likely reduce the extent of flooding during a 1in20 year return period event, and further analysis is recommended to determine the true extent of the functional floodplain on site. Development classified as 'more vulnerable' use should not be permitted in Flood Zone 3b.								
Flood History	Incidents within the site: None. Incidents within 100m of the site: None.								
Watercourses/Rivers	The River Medway is located 250m to the southeast of the si	te.							
Geology	Bedrock: Lewes Nodular Chalk Formation, Seaford Chalk Formation and Newhaven Chalk Formation (Undifferentiated) (Chalk) Superficial: Alluvium (Clay, Silty Peaty Sandy (Unconsolidated Deposits Classification Scheme))								
	Percentage of site	at risk of flooding f	rom tidal sources during the defended s	cenario for key return period ever	nts. Maximum flood level on s	ite shown in brackets.			
	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event			
	100.0% (5.00m AODN)	1	00.0% (5.47m AODN)	100.0% (6.12m AODN)		100.0% (5.42m AODN)			
Percentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.								
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return p	eriod event - 2115	1 in 1000-year return period event			
EA	100.0% (5.02m AODN)	100.0% (5.43m AODN)		100.0% (6.05m AODN)		100.0% (5.38m AODN)			
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'								
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario			
	45.4%		79	0%		100.0%			
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During all modelled scenarios, surface water is shown to acc	umulate on the northe	ast part of the site. During the 'low' risk sce	nario, the entire site is shown to floo	od from surface water.				
Existing Flood Defence Infrastructure (inc. SoP):	Defences at Strood Riverside and Jane's Creek have recentl AODN (as stated in the Medway Flood Defence High Level A Standard of Protection: Variable					onsist of a wall with minimum actual crest level of 4.17m to 4.67m a condition rating of 2.			
	BA2.1 Strood. Raise (sustain) embankments,walls, flood gate	es and revetments. Th	is option involves improving the current SC	P provided by the defences to 1% A	AEP SoP with sea level rise.				
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118			
-	HTL Sustain		нт	L Sustain		HTL Sustain			
High-Level Indication of Defence Costs	The Strood Riverside and Jane's Creek defences have rece Based on an average cost of £1,526/m to raise an existing de	ently been upgraded to efence wall, it is estim	o improve the standard of protection. Notwated to cost in the region of £460,000 to up	ithstanding this, further improvement grade the 300m of defences in orde	nts should be considered to imer to protect the site for the lifeti	prove the defences between Strood Riverside and Jane's Creek. ne of any development.			



1039 - National Tyre,	Station Road, Strood									
Flood Warning Area?	Yes.									
	Percentage of site in each Hazard Rate	ing Classification during the design flood event (2115) (The de	ominant hazard rating on the subject site has been highlighted	in the respective colour – Refer to Table 2)						
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	'Extreme' Hazard Rating						
	0.0%	0.0%	0.0%	100.0%						
	required to be undertaken. SuDS should be considered to be included within the devel surface water runoff from the site. The SuDS proforma will be	The site is located in Flood Zones 2 and 3, and is at risk of flooding from surface water. As a result, a detailed FRA, including a comprehensive investigation into surface water flood risk and further analysis to determine the extent of Flood Zone 3b on site, is required to be undertaken. SuDS should be considered to be included within the development where possible, in accordance with the NPPF and its planning practice guidance. All major development will require a SWMS to be produced to show how SuDS will be included to manage surface water runoff from the site. The SuDS proforma will be required to accompany any SWMS. The site is also identified by the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Medway Council LLFA may require a SWMS and SuDs proforma to								
Required Actions /	be completed for non major development proposals. For major developments, or where there are historic sewer flooding incidents, developers should consult the relevant water authority at an early stage to ensure that there will be sufficient capacity in the wastewater system to accommod and any upgrades are carried out where necessary.									
Recommended Mitigation Measures	· ·	, ,	t Agency's recommended additional freeboard requirements where lopment would displace surface water and increase the risk of flood	•						
	The Sequential Approach should be applied to the layout of raised.	the site by locating the most vulnerable elements in the lowest risk	c areas. The Sequential Approach should also be applied to the inte	ernal layout of buildings, in particular where floor levels cannot be						
	Flood Hazard should be appraised against the proposed de	velopment layout to ensure that users and occupants of the site ca	n achieve safe access and egress.							
	When developing a scheme, the condition of any adjacent defence upgrades should be shared amongst beneficiaries.	defences should be taking into account and consideration given t	o upgrading the defences to maintain, or further, the protection offe	ered to the site and surrounding area. The costs associated with						



1057 - North side, Pric	ory Road									
	Site Area: 0.26ha		Existing Land Use: Brownfie	eld		Proposed Land Use: Residential				
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1		Flood Zone 2	Flood Zone 3		Flood Zone 3b				
Map for Planning'	97.19%		2.8%	0.019	6	0%				
Development lifetime	100 years									
Exception Test required?	Development which has a 'more vulnerable' classification will	be subject to the Excep	tion Test.							
Flood History	Incidents within the site: None. Incidents within 100m of the site: Internal flooding of property	ncidents within the site: None. ncidents within 100m of the site: Internal flooding of property. Highway flooding.								
Watercourses/Rivers	The River Medway is located 425m to the southeast of the sit	e.								
Geology		Bedrock: Lewes Nodular Chalk Formation, Seaford Chalk Formation and Newhaven Chalk Formation (Undifferentiated) (Chalk) Superficial: Head (Undifferentiated) (Clay (Undifferentiated) and Silt (Undifferentiated))								
	Percentage of site	at risk of flooding from	n tidal sources during the defended s	cenario for key return period ever	nts. Maximum flood level on s	ite shown in brackets.				
	1 in 200-year return period event	1 in 200-yea	r return period event - 2070	1 in 200-year return period event - 2115		1 in 1000-year return period event				
	0.0% (5.00m AODN)	2.8	% (5.47m AODN)	12.0% (6.10m AODN)		2.8% (5.42m AODN)				
Percentage of site at risk of flooding from tidal sources	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.									
and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event				
EA	0.0% (5.01m AODN)	2.8% (5.42m AODN)		12.0% (6.02m AODN)		2.8% (5.38m AODN)				
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'									
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario				
	0.0%		0.0%							
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During the 'low' risk scenario there are areas of localised surf	ace water accumulation	, which could be attributed to localised d	epressions in the topography. The si	ite is not predicted to flood duri	ng the 'medium' and 'high' risk scenarios.				
Existing Flood Defence Infrastructure (inc. SoP):	Defences at Strood Riverside and Jane's Creek have recentl 5.17m AODN (as stated in the MedwayFlood Defence High L Standard of Protection: Unknown	y been upgraded and no evel Appraisal) and has	ow have a crest height of 6.1m AODN. T is a condition rating of 2 (Good) to 4 (Poo	ne existing defences to the southwer). EA's Spatial Flood Defence datas	st of Jane's Creek consist of a set shows crest levels of 4.04m	wall and high ground with minimum actual crest level of 3.67m to to 4.99m AODN and a condition rating of 2 to 4.				
	BA2.1 Strood. Raise (sustain) embankments,walls, flood gate	es and revetments. This	option involves improving the current SC	P provided by the defences to 1% A	AEP SoP with sea level rise.					
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118				
	HTL Sustain		нт	L Sustain		HTL Sustain				
High-Level Indication of Defence Costs	The Jane's Creek defences have recently been upgraded to it to construct a defence wall, it is estimated to cost in the region					southwest of Jane's Creek. Based on an average cost of £2,984/m				
Flood Warning Area?	Yes.									



1057 - North side, Priory Road									
	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the respective colour – Refer to Table 2)								
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Extreme' Hazard Rating						
	4.2%	1.8%	1.0%	0.0%					
Required Actions / Recommended Mitigation Measures	surface water runoff from the site. The SuDS proforma will be completed for non major development proposals. For major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level, in the Sequential Approach should be applied to the layout of raised.	opment where possible, in accordance with the NPPF and its plar be required to accompany any SWMS. The site is also identifed by flooding incidents, developers should consult the relevant water an including the Environment Agency's recommended additional freeboard.	nning practice guidance. All major development will require a SWM the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Me uthority at an early stage to ensure that there will be sufficient capa coard requirements where practicable. Flood resistance and resilien k areas. The Sequential Approach should also be applied to the interesting the sequential Approach should also be applied to the interesting the sequential Approach should also be applied to the interesting the sequential Approach should also be applied to the interesting the sequential Approach should also be applied to the interesting the sequential Approach should also be applied to the interesting the sequential Approach should also be applied to the interesting the sequential Approach should also be applied to the interesting the sequential Approach should also be applied to the interesting the sequential Approach should also be applied to the interesting the sequential Approach should also be applied to the interesting the sequential Approach should also be applied to the interesting the sequential Approach should also be applied to the interesting the sequential Approach should also be applied to the interesting the sequential Approach should also be applied to the interesting the sequential approach should also be applied to the interesting the sequential approach should also be applied to the interesting the sequential approach should also be applied to the interesting the sequential approach should also be applied to the interesting the sequential approach should also be applied to the interesting the sequential approach should also be applied to the interesting the sequential approach should also be applied to the sequential approach should also be applied to the sequential approach should also be applied to the sequential approach applied to the sequential approach applied to the sequential approach applied to the sequential applie	edway Council LLFA may require a SWMS and SuDs proforma to acity in the wastewater system to accommodate the development ace measures should be considered for inclusion.					



1105 - Manor Farm, Marsh Road, Halling									
	Site Area: 1.1ha		Existing Land Use: Brownfie	eld		Proposed Land Use: Residential			
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1	·	Flood Zone 2	Flood Zone 3		Flood Zone 3b			
Map for Planning'	84.76%		10.27%	4.859	%	0.12% *refer to text below			
Development lifetime	100 years								
Exception Test required?	Development which has a 'more vulnerable' classification will	be subject to the Exce	ption Test. Development classified as 'mo	re vulnerable' use should not be per	rmitted in Flood Zone 3b.				
Flood History	Incidents within the site: None. Incidents within 100m of the site: Overtopping of defences du	uring the 1953 tidal flood	d event.						
Watercourses/Rivers	The River Medway is 500m to the east of the site, and there	is an ordinary watercou	rse 200m to the east.						
Geology	Bedrock: West Melbury Marly Chalk Formation and Zig Zag Chalk Formation (Undifferentiated) (Chalk) Superficial: Head (Undifferentiated); Alluvium (Clay (Undifferentiated) and Silt (Undifferentiated) and Sand(Undifferentiated) and Gravel (Undifferentiated); Clay, Silty Peaty Sandy (Unconsolidated Deposits Classification Scheme))								
	Percentage of site	at risk of flooding fro	om tidal sources during the defended s	cenario for key return period ever	nts. Maximum flood level on s	site shown in brackets.			
	1 in 200-year return period event	1 in 200-ye	year return period event - 2070 1 in 200-year return period event - 2115		eriod event - 2115	1 in 1000-year return period event			
	5.0% (4.96m AODN)	17.3% (5.47m AODN)		37.9% (6.13m AODN)		15.2% (5.43m AODN)			
Percentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.								
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return p	eriod event - 2115	1 in 1000-year return period event			
EA	5.0% (4.97m AODN)	14.3% (5.36m AODN)		32.7% (5.95m AODN)		12.8% (5.32m AODN)			
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'								
	'High' risk scenario		'Medium' risk scenario		'Low' risk scenario				
	0.9%		1.1%		3.2%				
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	There are localised areas of surface water accumulation duri	ng all three modelled so	cenarios, which could be attributed to loca	lised depressions in the topography	' .				
Existing Flood Defence Infrastructure (inc. SoP):	The EA's Spatial Flood Defence dataset shows that there is a Standard of Protection: Unknown	an embankment to the e	east of the site with crest levels of 3.33m t	o 3.58m AODN and a condition ration	ng of 3.				
MEASS Benefit Area and	BA 3.2 Halling. Construct new setbak embankments at Halli 5%AEP with sea level rise. The rest of the Benefit Area will hembankments to be constructed to manage tifdal water and a	ave a NAI approach an	d management will cease on the defence	es in localised areas. Localised rais s. Additionally, construction of a MR	sing of the defences to protect site at Halling marsh to help co	properties and assets at risk of flooding around Halling against a mpensate for the strategy wide coastal squeexe impacts. Setback			
Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118			
	HTL Sustain and MR with localised NA	ıl	HTL Sustain and	d MR with localised NAI		HTL Sustain and MR with localised NAI			
High-Level Indication of Defence Costs	Based on an average cost of £1,152/m to raise an existing en	mbankment, it is estima	ted to cost in the region of £1,400,000 to	upgrade the 1200m of defences in o	order to protect the site for the li	fetime of any development.			
Flood Warning Area?	Yes.								



1105 - Manor Farm, Marsh Road, Halling									
	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the respective colour – Refer to Table 2)								
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	'Extreme' Hazard Rating					
	6.7%	0.1%	20.2%	0.0%					
Required Actions / Recommended Mitigation Measures	surface water runoff from the site. The SuDS proforma will b For major developments, or where there are historic sewer f and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level ar considered for inclusion. Suitable mitigation (i.e. compensate The Sequential Approach should be applied to the layout of buildings, in particular where floor levels cannot be raised.	opment where possible, in accordance with the NPPF and its plant e required to accompany any SWMS. Illooding incidents, developers should consult the relevant water and depth of flooding from surface water, including the Environment ory flood storage, floodable voids) should be provided where developers the site by locating the most vulnerable elements in the lowest risk	uthority at an early stage to ensure that there will be sufficient capate that there will be sufficient capate that the sufficien	acity in the wastewater system to accommodate the development practicable. Flood resistance and resilience measures should be ling to the surrounding area.					
	Flood Hazard should be appraised against the proposed development layout to ensure that users and occupants of the site can achieve safe access and egress. When developing a scheme, the condition of any adjacent defences should be taking into account and consideration given to upgrading the defences to maintain, or further, the protection offered to the site and surrounding area. The costs associated with defence upgrades should be shared amongst beneficiaries.								



1109 - Steelfields, Danes Hill, Gillingham									
	Site Area: 2.41ha		Existing Land Use: Brownfie	eld		Proposed Land Use: Residential			
Flood Zone Classification	Flood Zone 1		Flood Zone 2	Flood Zo	one 3	Flood Zone 3b			
based on the EA's 'Flood Map for Planning'	54.99%		19.96%	18.36	%	6.69% *refer to text below			
Development lifetime	100 years								
Exception Test required?	Development which has a 'more vulnerable' classification will	be subject to the Exce	eption Test. Development classified as 'mo	re vulnerable' use should not be pe	rmitted in Flood Zone 3b.				
Flood History	Incidents within the site: None. Incidents within 100m of the site: None.								
Watercourses/Rivers	The River Medway is adjacent to the site.								
	Bedrock: Thanet Sand Formation (Sand(Undifferentiated) and	d Silt (Undifferentiated) and Clay (Undifferentiated))						
Geology	Superficial: Beach and Tidal Flat Deposits (Undifferentiated); Alluvium; Head (Undifferentiated) and Silt (Undifferentiated) and Silt (Undifferentiated); Clay, Silty Peaty Sandy (Unconsolidated Deposits Classification Scheme); Clay (Undifferentiated) and Silt (Undifferentiated))								
	Percentage of site	at risk of flooding fr	om tidal sources during the defended s	cenario for key return period evel	nts. Maximum flood level on s	site shown in brackets.			
	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event			
	22.4% (5.03m AODN)	45.0% (5.42m AODN) 50.5% (6.05m AODN			m AODN)	DDN) 45.0% (5.38m AODN)			
Percentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.								
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-ye	ear return period event - 2070	1 in 200-year return period event - 2115		1 in 1000-year return period event			
EA	20.5% (4.98m AODN)	4:	5.0% (5.45m AODN)	50.2% (6.04m AODN)		45.0% (5.39m AODN)			
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'								
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario			
	0.0%		0.	0%		2.1%			
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During the 'low' risk scenario there is localised surface water	accumulation on site,	which could be attributed to localised depr	essions in the topography. The site	is not predicted to flood during	the 'medium' and 'high' risk scenarios.			
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of high ground with minimum a a condition rating of 3 to 4.	actual crest level of <3.	67m to 4.17m AODN (as stated in the Med	wayFlood Defence High Level Appr	aisal). The EA's Spatial Flood	Defence dataset shows crest levels of 3.99m to 4.33m AODN and			
illiastructure (ilic. 30F).	Standard of Protection: Unknown								
	BA2.3 St Mary's Island. Raise (sustain) embankments, walls,	, flood gates and revet	ments. This option involves improving the	SoP provided by the defences to 0.5	5% AEP SoP with sea level rise				
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118			
	HTL Sustain		нт	L Sustain		HTL Sustain			
High-Level Indication of Defence Costs	Based on an average cost of £2,984/m to construct a defence	e wall, it is estimated to	o cost in the region of £1,350,000 to upgra	de the 450m of defences in order to	protect the site for the lifetime	of any development.			



1109 - Steelfields, Danes Hill, Gillingham										
Flood Warning Area?	Yes.									
	Percentage of site in each Hazard Ratin	ng Classification during the design flood event (2115) (The do	minant hazard rating on the subject site has been highlighted	in the respective colour – Refer to Table 2)						
Hazard Rating	'Extreme' Hazard Rating									
	2.1%	0.6%	43.4%	1.0%						
Required Actions / Recommended Mitigation Measures	surface water runoff from the site. The SuDS proforma will be For major developments, or where there are historic sewer fl and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level, inc (i.e. compensatory flood storage, floodable voids) should be The Sequential Approach should be applied to the layout of buildings, in particular where floor levels cannot be raised. Flood Hazard should be appraised against the proposed dev The EA should be consulted where development is proposed.	pment where possible, in accordance with the NPPF and its planr	thority at an early stage to ensure that there will be sufficient capard requirements where practicable. Flood resistance and resilience crease the risk of flooding to the surrounding area. areas, and avoiding development within Flood Zone 3b*. The Section achieve safe access and egress. btain consent via a Flood Risk Activity Permit (FRAP).	e measures should be considered for inclusion. Suitable mitigation quential Approach should also be applied to the internal layout of						



1115 - Car Park, Comi	mercial Road, Strood								
	Site Area: 0.29ha		Existing Land Use: Brownfie	eld		Proposed Land Use: Residential			
Flood Zone Classification	Flood Zone 1	<u>'</u>	Flood Zone 2	Flood Zo	one 3	Flood Zone 3b			
based on the EA's 'Flood Map for Planning'	0%		0%	3.02	%	96.98% *refer to text below			
Development lifetime	100 years								
Exception Test required?	Development which has a 'more vulnerable' classification will be subject to the Exception Test. *Although the NKC modelling shows the site to be within the functional floodplain, the modelling study does not take into account the recently completed Strood Riverside and Jane's Creek defences. These defences would likely reduce the extent of flooding during a 1in20 year return period event, and further analysis is recommended to determine the true extent of the functional floodplain on site. Development classified as 'more vulnerable' use should not be permitted in Flood Zone 3b.								
Flood History	Incidents within the site: None. Incidents within 100m of the site: Public sewer flooding.								
Watercourses/Rivers	The River Medway is located 400m to the southeast of the si	te.							
Geology	Bedrock: Lewes Nodular Chalk Formation, Seaford Chalk Formation and Newhaven Chalk Formation (Undifferentiated) (Chalk) Superficial: Head (Undifferentiated); Alluvium (Clay (Undifferentiated) and Silt (Undifferentiated); Clay, Silty Peaty Sandy (Unconsolidated Deposits Classification Scheme))								
	Percentage of site	at risk of flooding	rom tidal sources during the defended s	cenario for key return period eve	nts. Maximum flood level on s	ite shown in brackets.			
	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event			
	100.0% (5.00m AODN)	1	00.0% (5.47m AODN)	100.0% (6.10m AODN)		100.0% (5.42m AODN)			
Percentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.								
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event			
EA	100.0% (5.01m AODN)	1	00.0% (5.42m AODN)	100.0% (6.02m AODN)		100.0% (5.37m AODN)			
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'								
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario			
	64.3%		97	4%		100.0%			
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During all modelled scenarios, surface water is shown to flow	vacross the site in an	easterly direction.						
Existing Flood Defence Infrastructure (inc. SoP):	Defences at Strood Riverside and Jane's Creek have recentl 5.17m AODN (as stated in the MedwayFlood Defence High L					wall and high ground with minimum actual crest level of 3.67m to to 4.99m AODN and a condition rating of 2 to 4.			
ilinastructure (ilic. cor).	Standard of Protection: Variable								
	BA2.1 Strood. Raise (sustain) embankments,walls, flood gate	es and revetments. T	nis option involves improving the current SC	P provided by the defences to 1%	AEP SoP with sea level rise.				
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118			
	HTL Sustain		НТ	L Sustain		HTL Sustain			
High-Level Indication of Defence Costs	The Jane's Creek defences have recently been upgraded to i to construct a defence wall, it is estimated to cost in the region					southwest of Jane's Creek. Based on an average cost of £2,984/m			



1115 - Car Park, Commercial Road, Strood										
Flood Warning Area?	Yes.									
	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the respective colour – Refer to Table 2)									
Hazard Rating	ng 'Low' Hazard Rating 'Moderate' Hazard Rating 'Significant' Hazard Rating 'Extreme' Haz									
	0.0%	0.0%	0.2%	99.8%						
	The site is located in Flood Zones 2 and 3, and is at risk of required to be undertaken.	flooding from surface water. As a result, a detailed FRA, including	a comprehensive investigation into surface water flood risk and full	ther analysis to determine the extent of Flood Zone 3b on site, is						
			nning practice guidance. All major development will require a SWM the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Me							
Required Actions /	For major developments, or where there are historic sewer and any upgrades are carried out where necessary.	flooding incidents, developers should consult the relevant water a	uthority at an early stage to ensure that there will be sufficient capa	acity in the wastewater system to accommodate the development						
Recommended Mitigation Measures		1 7 9	t Agency's recommended additional freeboard requirements where lopment would displace surface water and increase the risk of flood	'						
	The Sequential Approach should be applied to the layout of the site by locating the most vulnerable elements in the lowest risk areas. The Sequential Approach should also be applied to the internal layout of buildings, in particular where floor leve raised.									
	Flood Hazard should be appraised against the proposed de	velopment layout to ensure that users and occupants of the site ca	an achieve safe access and egress.							
	When developing a scheme, the condition of any adjacent defence upgrades should be shared amongst beneficiaries.		o upgrading the defences to maintain, or further, the protection off	ered to the site and surrounding area. The costs associated with						



1133 - 247-253 High S	treet, Chatham									
	Site Area: 0.08ha		Existing Land Use: Brownfie	eld		Proposed Land Use: Residential				
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1		Flood Zone 2	Flood Zo	ne 3	Flood Zone 3b				
Map for Planning'	0%		4.27%	95.73	%	0%				
Development lifetime	100 years									
Exception Test required?	Development which has a 'more vulnerable' classification wil	be subject to the Exce	ption Test.							
Flood History	Incidents within the site: None. Incidents within 100m of the site:									
Watercourses/Rivers	The River Medway is located 500m to the northwest of the si	te.								
Geology	Bedrock: Lewes Nodular Chalk Formation (Chalk) Superficial: Head (Undifferentiated) (Clay (Undifferentiated) a	Bedrock: Lewes Nodular Chalk Formation (Chalk) Superficial: Head (Undifferentiated) (Clay (Undifferentiated) and Silt (Undifferentiated) and Sand(Undifferentiated) and Gravel (Undifferentiated))								
	Percentage of site	at risk of flooding fro	om tidal sources during the defended s	cenario for key return period even	nts. Maximum flood level on s	site shown in brackets.				
	1 in 200-year return period event	1 in 200-ye	ar return period event - 2070	1 in 200-year return pe	eriod event - 2115	1 in 1000-year return period event				
	95.7% (4.48m AODN)	100.0% (5.46m AODN) 100.0% (6.12m AODN)			m AODN)	100.0% (5.40m AODN)				
Percentage of site at risk of flooding from tidal sources	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.									
and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event				
EA	95.7% (4.43m AODN)	100	0.0% (5.46m AODN)	100.0% (6.07m AODN) 100.0% (5.40m AODI		100.0% (5.40m AODN)				
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'									
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario				
	48.7%		95.8%			100.0%				
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps)</u>	During the 'low' risk scenario, surface water flows across the	entire site in a northwes	sterly direction. During the 'medium' and 'h	gh' risk scenarios, surface water is s	hown to accumulate on site, wl	nich could be attributed to localised depressions in the topography.				
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of high ground with minimum a levels of 4.75m to 4.93m AODN and a condition rating of 3. Standard of Protection: Unknown	actual crest level of 4.67	m to 5.17m AODN (as stated in the Medw	ayFlood Defence High Level Apprai	sal) and has a condition rating	of 2 (Good). The EA's Spatial Flood Defence dataset shows crest				
	BA2.2 Rochester. Raise (sustain) embankments, walls, flood The rest of the Benefit Area will have a No Active Intevention		in localised areas. Localised raising of the	e defences to protect properties and	assets at risk of flooding aroun	d Rochester and Chatham against a 0.1% AEP with sea level rise.				
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118				
	HTL Sustain with localises NAI	HTL Sustain with localises NAI HTL Sustain with localised NAI HTL Sustain with localised NAI HTL Sustain with localised NAI								
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing d	efence wall, it is estimat	ted to cost in the region of £610,000 to up	grade the 400m of defences in order	r to protect the site for the lifeti	me of any development.				
Flood Warning Area?	Yes.									



1133 - 247-253 High Street, Chatham									
	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the respective colour – Refer to Table 2)								
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	'Extreme' Hazard Rating					
	0.0%	0.0%	64.2%	35.8%					
Required Actions / Recommended Mitigation Measures	SuDS should be considered to be included within the devel surface water runoff from the site. The SuDS proforma will be completed for non major development proposals. For major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level a considered for inclusion. Suitable mitigation (i.e. compensal The Sequential Approach should be applied to the layout of raised. Flood Hazard should be appraised against the proposed de	flooding from surface water. As a result, a detailed FRA, including a dependent where possible, in accordance with the NPPF and its plant be required to accompany any SWMS. The site is also identifed by flooding incidents, developers should consult the relevant water author of flooding from surface water, including the Environment tory flood storage, floodable voids) should be provided where developed the site by locating the most vulnerable elements in the lowest risk evelopment layout to ensure that users and occupants of the site can defence should be taking into account and consideration given to	ning practice guidance. All major development will require a SWM: the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Methority at an early stage to ensure that there will be sufficient capa. Agency's recommended additional freeboard requirements where opment would displace surface water and increase the risk of flood areas. The Sequential Approach should also be applied to the internaction achieve safe access and egress.	S to be produced to show how SuDS will be included to manage adway Council LLFA may require a SWMS and SuDs proforma to acity in the wastewater system to accommodate the development practicable. Flood resistance and resilience measures should be ing to the surrounding area.					



1141 - 325 High Street	t, Rochester									
	Site Area: 0.03ha		Existing Land Use: Brownfie	eld		Proposed Land Use: Residential				
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1		Flood Zone 2	Flood Zo	ne 3	Flood Zone 3b				
Map for Planning'	11.11%		33.42%	0%		55.47%				
Development lifetime	100 years									
Exception Test required?	Development classified as 'more vulnerable' use should not b	e permitted**.								
Flood History	Incidents within the site: None. Incidents within 100m of the site: Highway flooding following h	nigh tides due to tide lo	ocking.							
Watercourses/Rivers	The River Medway is 100m to the north of the site.									
Geology	Bedrock: Lewes Nodular Chalk Formation (Chalk) Superficial: None									
	Percentage of site	at risk of flooding fro	om tidal sources during the defended s	cenario for key return period even	nts. Maximum flood level on s	site shown in brackets.				
	1 in 200-year return period event	1 in 200-ye	ar return period event - 2070	1 in 200-year return pe	eriod event - 2115	1 in 1000-year return period event				
	55.5% (5.09m AODN)	88.9% (5.47m AODN) 89.7% (6.12m AODN)			n AODN)	88.9% (5.42m AODN)				
Percentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.									
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event				
EA	55.5% (5.02m AODN)	88.9% (5.50m AODN)		89.7% (6.08m AODN)		88.9% (5.44m AODN)				
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'									
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario				
	32.6%		34.6%			39.3%				
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	There are localised areas of surface water accumulation during	ng all three modelled so	cenarios, which could be attributed to loca	lised depressions in the topography.						
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall with minimum actual corest levels of 4.14m to 4.5m AODN and a condition rating of Standard of Protection: Unknown		4.67m AODN (as stated in the MedwayFl	ood Defence High Level Appraisal)	and has a condition rating of 2	(Good) to 3(Fair). The EA's Spatial Flood Defence dataset shows				
		gates, and revetments Approach.	in localised areas. Localised raising of the	e defences to protect properties and	assets at risk of flooding around	d Rochester and Chatham against a 0.1% AEP with sea level rise.				
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118				
	HTL Sustain with localised NAI	HTL Sustain with localised NAI HTL Sustain with localised NAI HTL Sustain with localised NAI								
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing de	fence wall, it is estima	ted to cost in the region of £575,000 to up	grade the 375m of defences in order	r to protect the site for the lifeting	me of any development.				
Flood Warning Area?	Yes.									



1141 - 325 High Street, Rochester									
	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the respective colour – Refer to Table 2)								
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Moderate' Hazard Rating 'Significant' Hazard Rating						
	0.8%	21.5%	51.5%	8.2%					
	The site is located in Flood Zone 3B (i.e. the functional flood	dplain) and therefore, normally, 'more vulnerable' development sho	uld not be permitted.						
	**The site is currently 'brownfield' and in accordance with Paragraph 015 of NPPG: Flood and Coastal Change is an area prevented from acting as a functional floodplain by existing defences and infrastructure or solid buildings and would therefore not normally be identified as functional floodplain.								
	Therefore, if a development proposal is progressed for this site, a detailed FRA, including a comprehensive investigation into surface water flood risk, is required to be undertaken.								
	SuDS should be considered to be included within the development where possible, in accordance with the NPPF and its planning practice guidance. All major development will require a SWMS to be produced to show how SuDS will be included to manage surface water runoff from the site. The SuDS proforma will be required to accompany any SWMS. The site is also identified by the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Medway Council LLFA may require a SWMS and SuDs proforma to be completed for non major development proposals.								
Required Actions / Recommended Mitigation Measures	For major developments, or where there are historic sewer and any upgrades are carried out where necessary.	e completed for non major development proposals. or major developments, or where there are historic sewer flooding incidents, developers should consult the relevant water authority at an early stage to ensure that there will be sufficient capacity in the wastewater system to accomm							
	Floor levels should be raised above the design flood level and depth of flooding from surface water, including the Environment Agency's recommended additional freeboard requirements where practicable. Flood resistance and resilience measures should be considered for inclusion. Suitable mitigation (i.e. compensatory flood storage, floodable voids) should be provided where development would displace surface water and increase the risk of flooding to the surrounding area.								
	The Sequential Approach should be applied to the layout of the site by locating the most vulnerable elements in the lowest risk areas. The Sequential Approach should also be applied to the internal layout of buildings, in particular where floor levels cannot be raised.								
	Flood Hazard should be appraised against the proposed de	velopment layout to ensure that users and occupants of the site ca	n achieve safe access and egress.						
	When developing a scheme, the condition of any adjacent defence upgrades should be shared amongst beneficiaries.	defences should be taking into account and consideration given to	upgrading the defences to maintain, or further, the protection of	fered to the site and surrounding area. The costs associated with					



1147 - 18-20 Batchelor Street, Chatham								
Site Area: 0.03ha Existing Land Use: Brownfield Proposed Land Use: Residential								
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1		Flood Zone 2	Flood Zone 2 Flood Zone 3		Flood Zone 3b		
Map for Planning'	0%		0%	100%	6	0%		
Development lifetime	100 years							
Exception Test required?	Development which has a 'more vulnerable' classification will	be subject to the Exce	ption Test.					
Flood History	Incidents within the site: None. Incidents within 100m of the site:. Public sewer flooding.							
Watercourses/Rivers	The River Medway is located 550m to the northwest of the si	te.						
Geology	Bedrock: Lewes Nodular Chalk Formation (Chalk) Superficial: Head (Undifferentiated) (Clay (Undifferentiated) a	and Silt (Undifferentiate	d) and Sand(Undifferentiated) and Gravel	(Undifferentiated))				
	Percentage of site	at risk of flooding fro	om tidal sources during the defended s	cenario for key return period ever	nts. Maximum flood level on s	ite shown in brackets.		
	1 in 200-year return period event	1 in 200-ye	ar return period event - 2070	1 in 200-year return p	eriod event - 2115	1 in 1000-year return period event		
	100.0% (4.48m AODN)	100.0% (5.47m AODN) 100.0% (6.12m AODN)			m AODN)	100.0% (5.40m AODN)		
Percentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.							
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event		
EA	100.0% (4.43m AODN)	100.0% (5.46m AODN)		100.0% (6.07m AODN)		100.0% (5.40m AODN)		
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'							
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario		
	7.0%		100.0%		100.0%			
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During the 'low' and 'medium' risk scenario surface water flow	s across the entire site	in a northwesterly direction. The site is n	ot predicted to flood from surface wa	ater during the 'high' risk scenar	io.		
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall with minimum actual of 4.75m to 4.93m AODN and a condition rating of 3. Standard of Protection: Unknown	crest level of 4.67m to 5	5.17m AODN (as stated in the MedwayFlo	od Defence High Level Appraisal)a	nd has a condition rating of 2 (0	Good). The EA's Spatial Flood Defence dataset shows crest levels		
			in localised areas. Localised raising of the	e defences to protect properties and	assets at risk of flooding around	d Rochester and Chatham against a 0.1% AEP with sea level rise.		
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118		
	HTL Sustain with localised NAI	HTL Sustain with localised NAI HTL Sustain with localised NAI HTL Sustain with localised NAI HTL Sustain with localised NAI						
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing de	efence wall, it is estima	ted to cost in the region of £610,000 to up	grade the 400m of defences in orde	r to protect the site for the lifeting	ne of any development.		
Flood Warning Area?	Yes.							



1147 - 18-20 Batchelor Street, Chatham									
	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the respective colour – Refer to Table 2)								
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	'Extreme' Hazard Rating					
	0.0%	0.0%	0.4%	99.6%					
Required Actions /	SuDS should be considered to be included within the deve surface water runoff from the site. The SuDS proforma will be completed for non major development proposals. For major developments, or where there are historic sewer and any upgrades are carried out where necessary.	elopment where possible, in accordance with the NPPF and its plan be required to accompany any SWMS. The site is also identified by flooding incidents, developers should consult the relevant water a	a comprehensive investigation into surface water flood risk, is requining practice guidance. All major development will require a SWM the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Meuthority at an early stage to ensure that there will be sufficient capa	IS to be produced to show how SuDS will be included to manage edway Council LLFA may require a SWMS and SuDs proforma to acity in the wastewater system to accommodate the development					
Recommended Mitigation Measures Floor levels should be raised above the considered for inclusion. Suitable mitigation The Sequential Approach should be approach	considered for inclusion. Suitable mitigation (i.e. compensa	tory flood storage, floodable voids) should be provided where deve	t Agency's recommended additional freeboard requirements where clopment would displace surface water and increase the risk of flood k areas. The Sequential Approach should also be applied to the inte	ding to the surrounding area.					
	Flood Hazard should be appraised against the proposed development layout to ensure that users and occupants of the site can achieve safe access and egress. When developing a scheme, the condition of any adjacent defences should be taking into account and consideration given to upgrading the defences to maintain, or further, the protection offered to the site and surrounding area. The costs associated with defence upgrades should be shared amongst beneficiaries.								



1188 - Pier Approach Road Depot									
	Site Area: 0.93ha		Existing Land Use: Brownfie	eld		Proposed Land Use: Residential			
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1		Flood Zone 2	Flood Zone 3		Flood Zone 3b			
Map for Planning'	1.24%		13.29%	41.39	%	44.17% *refer to text below			
Development lifetime	100 years								
Exception Test required?	Development which has a 'more vulnerable' classification will be subject to the Exception Test. *Although the NKC modelling shows the site to be within the functional floodplain, the EA's 'Spatial Flood Defence' dataset shows that the site benefits from defences with a 1in200 year SoP. Paragraph 015 in the NPPG Flood and Coastal Change states 'Areas which would naturally flood, but which are prevented from doing so by existing defences and infrastructure or solid buildings, will not normally be identified as functional floodplain'. Therefore, further analysis is recommended to determine the true extent of the functional floodplain on site. Development classified as 'more vulnerable' use should not be permitted in Flood Zone 3b.								
Flood History	Incidents within the site: None. Incidents within 100m of the site: None.								
Watercourses/Rivers	The River Medway is 200m to the north of the site.								
Geology	Bedrock: Thanet Sand Formation (Sand(Undifferentiated) and Silt (Undifferentiated) and Clay (Undifferentiated)) Superficial: Alluvium (Clay, Silty Peaty Sandy (Unconsolidated Deposits Classification Scheme))								
	Percentage of site	at risk of flooding t	rom tidal sources during the defended s	cenario for key return period ever	nts. Maximum flood level on s	ite shown in brackets.			
	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event			
	85.5% (5.05m AODN)		98.8% (5.42m AODN)	100.0% (6.06m AODN)		98.8% (5.37m AODN)			
Percentage of site at risk of	Percentage of site a	t risk of flooding fr	om tidal sources during the undefended	scenario for key return period eve	ents. Maximum flood level on	site shown in brackets.			
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event			
EA	77.1% (4.99m AODN)	99.7% (5.47m AODN)		100.0% (6.05m AODN)		98.8% (5.41m AODN)			
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'								
	'High' risk scenario	'High' risk scenario		'Medium' risk scenario		'Low' risk scenario			
	0.0%		12	9%		65.3%			
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During the 'low' and 'medium' risk scenarios surface water flow	ws across the site in	a north-easterly direction. The site is not pre	edicted to flood during the 'high' risk	scenario.				
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall with minimum actual of 4.6m AODN and a condition rating of 3.	rest level of 4.17m to	o 4.67m AODN (as stated in the Medway Flo	ood Defence High Level Appraisal) a	and has a condition rating of 2 (Good). The EA's Spatial Flood Defence dataset shows crest level			
imastructure (inc. cor).	Standard of Protection: Variable								
	BA2.3 St Mary's Island. Raise (sustain) embankments, walls,	flood gates and reve	tments. This option involves improving the	SoP provided by the defences to 0.5	5% AEP SoP with sea level rise				
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118			
	HTL Sustain		нт	L Sustain		HTL Sustain			
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing de	fence wall, it is estim	nated to cost in the region of £2,750,000 to u	pgrade the 1.8km of defences in or	der to protect the site for the life	etime of any development.			



1188 - Pier Approach Road Depot										
Flood Warning Area?	Yes.									
	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the respective colour – Re									
Hazard Rating	'Extreme' Hazard Rating									
	0.0%	0.0%	33.1%	66.9%						
Required Actions / Recommended Mitigation Measures	The site is located in Flood Zones 2 and 3, and is at risk of flooding from surface water. As a result, a detailed FRA, including a comprehensive investigation into surface water flood risk and further analysis to determine the extent of Flood Zone 3b on site, is required to be undertaken. SuDS should be considered to be included within the development where possible, in accordance with the NPPF and its planning practice guidance. All major development will require a SWMS to be produced to show how SuDS will be included to manage surface water runoff from the site. The SuDS proforma will be required to accompany any SWMS. The site is also identifed by the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Medway Council LLFA may require a SWMS and SuDs proforma to be completed for non major development proposals. For major developments, or where there are historic sewer flooding incidents, developers should consult the relevant water authority at an early stage to ensure that there will be sufficient capacity in the wastewater system to accommodate the development and any upgrades are carried out where necessary.									
The Sequential Approach should be applied to the layout of the site by locating the most vulnerable elements in the lowest risk areas. The Sequential Approach should also be applied to the internal layout of buildings, in raised. Flood Hazard should be appraised against the proposed development layout to ensure that users and occupants of the site can achieve safe access and egress. When developing a scheme, the condition of any adjacent defences should be taking into account and consideration given to upgrading the defences to maintain, or further, the protection offered to the site and surrou defence upgrades should be shared amongst beneficiaries.										



1190 - Acorn Wharf Shipyard								
	Site Area: 1.5ha		Existing Land Use: Brownfie	eld		Proposed Land Use: Residential		
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1		Flood Zone 2	Flood Zone 3		Flood Zone 3b		
Map for Planning'	0.07%		0.05%	43.29	⁄6	56.68%		
Development lifetime	100 years							
Exception Test required?	Development classified as 'more vulnerable' use should not b	e permitted.**						
Flood History	Incidents within the site: None. Incidents within 100m of the site: None.							
Watercourses/Rivers	The River Medway is adjacent to the site.							
Geology	Bedrock: Lewes Nodular Chalk Formation (Chalk) Superficial: Alluvium (Clay, Silty Peaty Sandy (Unconsolidate	d Deposits Classificatio	n Scheme))					
	Percentage of site	at risk of flooding fro	m tidal sources during the defended s	cenario for key return period ever	nts. Maximum flood level on s	site shown in brackets.		
	1 in 200-year return period event	1 in 200-yea	1 in 200-year return period event - 2070 1 in 200-year return period event		eriod event - 2115	1 in 1000-year return period event		
	57.4% (5.02m AODN)	99.3% (5.45m AODN) 100.0% (6.08m AODN)			m AODN)	99.2% (5.40m AODN)		
Percentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.							
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return p	eriod event - 2115	1 in 1000-year return period event		
EA	99.9% (4.99m AODN)	100.0% (5.40m AODN)		100.0% (6.03m AODN)		99.9% (5.35m AODN)		
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'							
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario		
	0.0%		0.0%			9.8%		
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During the 'low' risk scenario surface water flows in a northea	sterly direction along th	e southern boundary of the site. The site	is not predicted to flood from surfac	e water during the 'medium' an	d 'high' risk scenarios.		
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall with minimum actual of 5.4m to 6.9m AODN and a condition rating of 2 to 4. Standard of Protection: 200-1000	rest level of 4.67m to 6	17m AODN (as stated in the Medway Flo	ood Defence High Level Appraisal) a	nd has a condition rating of 2 (Good). The EA's Spatial Flood Defence dataset shows crest levels		
			in localised areas. Localised raising of the	e defences to protect properties and	assets at risk of flooding around	d Rochester and Chatham against a 0.1% AEP with sea level rise.		
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118		
	HTL Sustain with localised NAI		HTL Sustair	n with localised NAI		HTL Sustain with localised NAI		
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing de	efence wall, it is estimat	ed to cost in the region of £650,000 to up	grade the 425m of defences in orde	r to protect the site for the lifeting	me of any development.		
Flood Warning Area?	Yes.							



1190 - Acorn Wharf Shipyard									
	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the respective colour – Refer to Table 2)								
Hazard Rating	'Low' Hazard Rating	'Low' Hazard Rating 'Moderate' Hazard Rating 'Significant' Hazard Rating							
	0.3%	0.5%	28.1%	69.6%					
	The site is located in Flood Zone 3B (i.e. the functional flood	dplain) and therefore, 'more vulnerable' development should not be	permitted.						
	**The site is currently 'brownfield' and in accordance with Paragraph 015 of NPPG: Flood and Coastal Change is an area prevented from acting as a functional floodplain by existing defences and infrastructure or solid buildings and would therefore not normally be identified as functional floodplain.								
	Therefore, if a development proposal is progressed for this site, a detailed FRA, including a comprehensive investigation into surface water flood risk, is required to be undertaken.								
	SuDS should be considered to be included within the development where possible, in accordance with the NPPF and its planning practice guidance. All major development will require a SWMS to be produced to show how SuDS will be included to manage surface water runoff from the site. The SuDS proforma will be required to accompany any SWMS. The site is also identified by the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Medway Council LLFA may require a SWMS and SuDs proforma to be completed for non major development proposals.								
Required Actions / Recommended Mitigation Measures	For major developments, or where there are historic sewer and any upgrades are carried out where necessary.	flooding incidents, developers should consult the relevant water at	uthority at an early stage to ensure that there will be sufficient capa	acity in the wastewater system to accommodate the development					
		and depth of flooding from surface water, including the Environment tory flood storage, floodable voids) should be provided where devel							
	The Sequential Approach should be applied to the layout of raised.	the site by locating the most vulnerable elements in the lowest risk	areas. The Sequential Approach should also be applied to the int	ernal layout of buildings, in particular where floor levels cannot be					
	Flood Hazard should be appraised against the proposed de	evelopment layout to ensure that users and occupants of the site ca	n achieve safe access and egress.						
	When developing a scheme, the condition of any adjacent defences should be taking into account and consideration given to upgrading the defences to maintain, or further, the protection offered to the site and surrounding area. The costs associated with defence upgrades should be shared amongst beneficiaries.								



1216 - Site 4 Land to north of Binney Farm									
	Site Area: 1.69ha Existing Land Use: Brownfield Proposed Land Use: Residential								
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1		Flood Zone 2	Flood Zo	one 3	Flood Zone 3b			
Map for Planning'	85.02%		8.54%	6.449	⁄6	0%			
Development lifetime	100 years								
Exception Test required?	Development which has a 'more vulnerable' classification will	be subject to the Excep	otion Test.						
Flood History	Incidents within the site: None. Incidents within 100m of the site: Overtopping of defences du	Incidents within the site: None. Incidents within 100m of the site: Overtopping of defences during the 1953 tidal flood event.							
Watercourses/Rivers	The River Thames Estuary is located 1km to the north of the	site. There are a number	er of ordinary watercourses to the east of	the site.					
Geology	Bedrock: London Clay Formation (Clay (Undifferentiated) and Silt (Undifferentiated)) Superficial: Head (Undifferentiated) (Clay (Undifferentiated) and Silt (Undifferentiated) and Sand(Undifferentiated) and Gravel (Undifferentiated))								
	Percentage of site	at risk of flooding fro	m tidal sources during the defended so	cenario for key return period ever	nts. Maximum flood level on s	ite shown in brackets.			
	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event			
	0.0% (0.00m AODN)	0.0	0% (0.00m AODN)	n AODN)	0.0% (0.00m AODN)				
Percentage of site at risk of flooding from tidal sources	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.								
and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event			
EA	6.4% (4.81m AODN)	16.2% (5.24m AODN)		32.4% (5.88m AODN)		15.0% (5.19m AODN)			
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'								
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario			
	0.5%		6.3	1%		38.6%			
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps)</u>	During the 'low' risk scenario, surface water flows across the	site in an easterly direc	tion. There is localised surface water accu	umulation on site during the 'mediun	n' risk scenario, and the site is i	not predicted to flood during the 'high' risk scenario.			
Existing Flood Defence Infrastructure (inc. SoP):	The EA's Spatial Flood Defence dataset shows a number of e Standard of Protection: Unknown	embankments to the no	rtheast and east of the site with crest leve	ls of 3.62m to 6.4m AODN and a co	ondition rating of 3.				
	-								
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118			
High-Level Indication of Defence Costs	N/A - the cost of improving the defences is not considered co	mmensurate with the si	ze of the site and extent of flooding on sit	e.		<u>-</u>			
Flood Warning Area?	Yes.								



1216 - Site 4 Land to north of Binney Farm									
	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the respective colour – Refer to Table 2)								
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Extreme' Hazard Rating						
	4.5%	0.0%	2.2%	0.0%					
	The site is located in Flood Zones 2 and 3, and is at risk of flooding from surface water. As a result, a detailed FRA, including a comprehensive investigation into surface water flood risk, is required to be undertaken. SuDS should be considered to be included within the development where possible, in accordance with the NPPF and its planning practice guidance. All major development will require a SWMS to be produced to show how SuDS will be included to manage surface water runoff from the site. The SuDS proforms will be required to accompany any SWMS.								
Required Actions /	For major developments, or where there are historic sewer and any upgrades are carried out where necessary.	For major developments, or where there are historic sewer flooding incidents, developers should consult the relevant water authority at an early stage to ensure that there will be sufficient capacity in the wastewater system to accommodate the develop							
Recommended Mitigation Measures		Floor levels should be raised above the design flood level and depth of flooding from surface water, including the Environment Agency's recommended additional freeboard requirements where practicable. Flood resistance and resilience measures should be considered for inclusion. Suitable mitigation (i.e. compensatory flood storage, floodable voids) should be provided where development would displace surface water and increase the risk of flooding to the surrounding area.							
	The Sequential Approach should be applied to the layout of raised.	the site by locating the most vulnerable elements in the lowest ris	k areas. The Sequential Approach should also be applied to the int	ernal layout of buildings, in particular where floor levels cannot be					
	Flood Hazard should be appraised against the proposed de	evelopment layout to ensure that users and occupants of the site ca	an achieve safe access and egress.						



1251 - Land to the we	st of Kingsnorth								
	Site Area: 65ha		Existing Land Use: Greenfie	eld		Proposed Land Use: Employment			
Flood Zone Classification	Flood Zone 1		Flood Zone 2	Flood Zo	one 3	Flood Zone 3b			
based on the EA's 'Flood Map for Planning'	77.62%		4.05%	18.33	%	0%			
Development lifetime	60 years								
Exception Test required?	Development which is classified as 'essential infrastructure' at classified as 'water compatible' or 'less vulnerable'.	Development which is classified as 'essential infrastructure' and 'more vulnerable' will be subject to the Exception Test. Development classified as 'highly vulnerable' use should not be permitted. The Exception Test is not required to be applied for development classified as 'water compatible' or 'less vulnerable'.							
Flood History	Incidents within the site: None. Incidents within 100m of the site: Highway flooding. Overtopp	ing of defences during t	he 1953 tidal flood event.						
Watercourses/Rivers	The River Medway is located 1.3km to the southeast of the si	te.							
Geology	Bedrock: London Clay Formation (Clay (Undifferentiated) and Silt (Undifferentiated)) Superficial: Head (Undifferentiated); Alluvium; River Terrace Deposits, 1 (Clay (Undifferentiated) and Silt (Undifferentiated) and Gravel (Undifferentiated); Clay, Silty Peaty Sandy (Unconsolidated Deposits Classification Scheme); Clay (Undifferentiated) and Silt (Undifferentiated))								
	Percentage of site	at risk of flooding from	n tidal sources during the defended s	cenario for key return period eve	nts. Maximum flood level on s	ite shown in brackets.			
	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event			
	0.0% (0.00m AODN)	7.0% (5.42m AODN) 14.8% (6.03m AODN)				6.3% (5.26m AODN)			
Percentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.								
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-yea	r return period event - 2070	1 in 200-year return period event - 2115		1 in 1000-year return period event			
EA	5.1% (5.03m AODN)	8.6	% (5.44m AODN)	14.9% (6.03m AODN)		8.2% (5.38m AODN)			
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'								
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario			
	2.8%		5.	0%		15.1%			
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During all modelled scenarios, surface water is shown to flow along the southeast boundary of the site during the 'medium'				s from the centre of the site towa	ards the southeast boundary of the site. There is localised flooding			
Existing Flood Defence Infrastructure (inc. SoP):	The EA's Spatial Flood Defence dataset shows a number of 6 4.54m to 5.63m AODN and a condition rating of 3. Standard of Protection: Unknown	embankments to the sou	oth of the site with crest levels of 5.03m to	5.12m AODN and a condition ration	ng of 3. In addition, there are a	number of embankments to the east of the site with crest levels of			
	BA1.2 Kingsnorth. Maintenance of the current defences (emb 0.1% SoP in 100 years taking account of sea level rise.	bankment, seawall and	rock revetment) for the first 8 years to th	e current SoP offered. Following th	is, defences to be raised to 5.3	mAOD and then raised again in year 50 to 6.6mAOD to ensure a			
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118			
	HTL Maintain until year 5 and then HTL Su	stain	-н1	L Sustain		HTL Sustain			
High-Level Indication of Defence Costs	Based on an average cost of £1,152/m to raise an existing en	nbankment, it is estimat	ed to cost in the region of £1,610,000 to	upgrade the 1.4km of defences in o	rder to protect the site for the lif	etime of any development.			



1251 - Land to the west of Kingsnorth										
Flood Warning Area?	Yes.									
	Percentage of site in each Hazard Rat	ting Classification during the design flood event (2070) (The do	minant hazard rating on the subject site has been highlighted	in the respective colour – Refer to Table 2)						
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	'Extreme' Hazard Rating						
	1.0%	1.2%	4.7%	0.1%						
	The site is located partially in Flood Zones 2 and 3, and is at risk of flooding from surface water. As a result, a detailed FRA, including a comprehensive investigation into surface water flood risk, is required to be undertaken. SuDS should be considered to be included within the development where possible, in accordance with the NPPF and its planning practice guidance. All major development will require a SWMS to be produced to show how SuDS will be included to manage surface water runoff from the site. The SuDS proforms will be required to accompany any SWMS.									
	For major developments, or where there are historic sewer and any upgrades are carried out where necessary.	flooding incidents, developers should consult the relevant water au	thority at an early stage to ensure that there will be sufficient capa	acity in the wastewater system to accommodate the development						
Required Actions / Recommended Mitigation Measures		and depth of flooding from surface water, including the Environment tory flood storage, floodable voids) should be provided where devel								
	The Sequential Approach should be applied to the layout of raised.	the site by locating the most vulnerable elements in the lowest risk	areas. The Sequential Approach should also be applied to the int	ernal layout of buildings, in particular where floor levels cannot be						
	Flood Hazard should be appraised against the proposed de	evelopment layout to ensure that users and occupants of the site ca	n achieve safe access and egress.							
	When developing a scheme, the condition of any adjacent defence upgrades should be shared amongst beneficiaries.	defences should be taking into account and consideration given to	upgrading the defences to maintain, or further, the protection off	ered to the site and surrounding area. The costs associated with						



1278 - Land East of P	ier Approach Rd, Gillingham									
	Site Area: 0.35ha		Existing Land Use: Brownfi	eld		Proposed Land Use: Residential				
Flood Zone Classification	Flood Zone 1	'	Flood Zone 2 Flood Zone 3			Flood Zone 3b				
based on the EA's 'Flood Map for Planning'	93.16%		6.19%	0.65%	6	0%				
Development lifetime	100 years									
Exception Test required?	Development which has a 'more vulnerable' classification will	I be subject to the Excep	tion Test.							
Flood History	Incidents within the site: None. Incidents within 100m of the site: None.									
Watercourses/Rivers	The River Medway is 400m to the north of the site.									
Geology	Bedrock: Thanet Sand Formation (Sand(Undifferentiated) an Superficial: ()	Bedrock: Thanet Sand Formation (Sand(Undifferentiated) and Silt (Undifferentiated) and Clay (Undifferentiated)) Superficial: ()								
	Percentage of site	e at risk of flooding from	m tidal sources during the defended s	scenario for key return period ever	nts. Maximum flood level on s	ite shown in brackets.				
	1 in 200-year return period event	1 in 200-yea	r return period event - 2070	1 in 200-year return p	eriod event - 2115	1 in 1000-year return period event				
	0.7% (5.04m AODN)	6.8	8% (5.42m AODN)	96.7% (6.06m AODN)		6.8% (5.37m AODN)				
Percentage of site at risk of flooding from tidal sources	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.									
and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event				
EA	0.0% (0.00m AODN)	6.8% (5.47m AODN)		96.7% (6.05m AODN)		6.8% (5.41m AODN)				
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'									
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario				
	0.0%		0	.0%		40.6%				
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps)</u>	During the 'low' risk scenario surface water flows across the	site in an easterly directi	on. The site is not predicted to flood dur	ing the 'medium' and 'high' risk scena	ario.					
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall with minimum actual condition rating of 2 to 3. Standard of Protection: Unknown	I crest level of 3.67m to	4.67m AODN (as stated in the Medway	/Flood Defence High Level Appraisa	l). The EA's Spatial Flood Defe	ence dataset shows crest levels of 3.63m to 5.67m AODN and a				
	BA2.3 St Mary's Island. Raise (sustain) embankments, walls.	, flood gates and revetme	ents. This option involves improving the	SoP provided by the defences to 0.5	% AEP SoP with sea level rise.					
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS I	Policy 2038 - 2068		MEASS Policy 2068 - 2118				
	HTL Sustain		н	TL Sustain		HTL Sustain				
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing de	efence wall, it is estimate	ed to cost in the region of £2,750,000 to	upgrade the 1.8km of defences in or	der to protect the site for the life	time of any development.				
Flood Warning Area?	Yes.									



1278 - Land East of Pier Approach Rd, Gillingham									
	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the respective colour – Refer to Table 2)								
Hazard Rating	'Low' Hazard Rating	w' Hazard Rating 'Moderate' Hazard Rating 'Significant' Hazard Rating							
	25.9%	0.0%	24.1%	0.6%					
Required Actions / Recommended Mitigation Measures	SuDS should be considered to be included within the devel surface water runoff from the site. The SuDS proforma will be completed for non major development proposals. For major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level a considered for inclusion. Suitable mitigation (i.e. compensal The Sequential Approach should be applied to the layout of raised. Flood Hazard should be appraised against the proposed de	opment where possible, in accordance with the NPPF and its plar be required to accompany any SWMS. The site is also identifed by flooding incidents, developers should consult the relevant water a nd depth of flooding from surface water, including the Environmentory flood storage, floodable voids) should be provided where development layout to ensure that users and occupants of the site categories should be taking into account and consideration given to	a comprehensive investigation into surface water flood risk, is requining practice guidance. All major development will require a SWM the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Meuthority at an early stage to ensure that there will be sufficient capate Agency's recommended additional freeboard requirements where lopment would displace surface water and increase the risk of floods areas. The Sequential Approach should also be applied to the integral achieve safe access and egress.	S to be produced to show how SuDS will be included to manage edway Council LLFA may require a SWMS and SuDs proforma to acity in the wastewater system to accommodate the development practicable. Flood resistance and resilience measures should be ding to the surrounding area. ernal layout of buildings, in particular where floor levels cannot be					



1297 - Land bound by Commercial Rd, Knight Rd, Priory Rd and Smith St									
	Site Area: 3.23ha		Existing Land Use: Brownfie	eld		Proposed Land Use: Residential			
Flood Zone Classification	Flood Zone 1		Flood Zone 2	Flood Zo	one 3	Flood Zone 3b			
based on the EA's 'Flood Map for Planning'	7.93%		4.32%	16.27	%	71.48% *refer to text below			
Development lifetime	100 years								
Exception Test required?	Development which has a 'more vulnerable' classification will be subject to the Exception Test. *Although the NKC modelling shows the site to be within the functional floodplain, the modelling study does not take into account the recently completed Jane's Creek defences. These defences would likely reduce the extent of flooding during a 1in20 year return period event, and further analysis is recommended to determine the true extent of the functional floodplain on site. Development classified as 'more vulnerable' use should not be permitted in Flood Zone 3b.								
Flood History	Incidents within the site: Public sewer flooding. Incidents within 100m of the site:. Highway flooding.								
Watercourses/Rivers	The River Medway is 350m to the southeast of the site.								
Geology	· ·	Bedrock: Lewes Nodular Chalk Formation, Seaford Chalk Formation and Newhaven Chalk Formation (Undifferentiated) (Chalk) Superficial: Head (Undifferentiated); Alluvium (Clay (Undifferentiated) and Silt (Undifferentiated); Clay, Silty Peaty Sandy (Unconsolidated Deposits Classification Scheme))							
	Percentage of site	e at risk of flooding f	rom tidal sources during the defended s	cenario for key return period ever	nts. Maximum flood level on s	ite shown in brackets.			
	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200 year return period event - 2115		1 in 1000-year return period event			
	87.8% (5.00m AODN)	92.1% (5.47m AODN)		94.1% (6.10m AODN)		92.1% (5.42m AODN)			
Percentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.								
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return p	eriod event - 2115	1 in 1000-year return period event			
EA	87.8% (5.01m AODN)	Ş	2.1% (5.42m AODN)	94.1% (6.02m AODN)		91.0% (5.38m AODN)			
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'								
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario			
	29.4%		38	38.6%		78.7%			
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During the 'low' risk scenario, surface water accumulates on	the majority of the site	e. During the 'medium' and 'high' risk scena	rios surface water accumulates in th	ne centre of the site, which could	d be attributed to a localised depression in the topography.			
Existing Flood Defence Infrastructure (inc. SoP):	Defences at Strood Riverside and Jane's Creek have recently been upgraded and now have a crest height of 6.1m AODN. The existing defences to the southwest of Jane's Creek consist of a wall and high ground with minimum actual crest level of 3.67m to 5.17m AODN (as stated in the Medway Flood Defence High Level Appraisal) and has a condition rating of 2 (Good) to 4 (Poor). EA's Spatial Flood Defence dataset shows crest levels of 4.04m to 4.99m AODN and a condition rating of 2 to 4.								
imastructure (inc. cor).	Standard of Protection: Unknown								
	BA2.1 Strood. Raise (sustain) embankments,walls, flood gate	es and revetments. Th	nis option involves improving the current SC	P provided by the defences to 1% /	AEP SoP with sea level rise.				
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118			
	HTL Sustain		н	L Sustain		HTL Sustain			
High-Level Indication of Defence Costs	The Jane's Creek defences have recently been upgraded to it to construct a defence wall, it is estimated to cost in the region					southwest of Jane's Creek. Based on an average cost of £2,984/m			



1297 - Land bound by Commercial Rd, Knight Rd, Priory Rd and Smith St										
Flood Warning Area?	Yes.									
	Percentage of site in each Hazard Rati	ing Classification during the design flood event (2115) (The d	ominant hazard rating on the subject site has been highlighted	in the respective colour – Refer to Table 2)						
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	'Extreme' Hazard Rating						
	0.7%	0.2%	32.0%	59.3%						
	The site is located in Flood Zones 2 and 3, and is at risk of flooding from surface water. As a result, a detailed FRA, including a comprehensive investigation into surface water flood risk and further analysis to determine the extent of Flood Zone 3b on site, is required to be undertaken.									
	SuDS should be considered to be included within the development where possible, in accordance with the NPPF and its planning practice guidance. All major development will require a SWMS to be produced to show how SuDS will be included to manage surface water runoff from the site. The SuDS proforms will be required to accompany any SWMS.									
Required Actions /	For major developments, or where there are historic sewer and any upgrades are carried out where necessary.	flooding incidents, developers should consult the relevant water a	authority at an early stage to ensure that there will be sufficient capa	city in the wastewater system to accommodate the development						
Recommended Mitigation Measures			nt Agency's recommended additional freeboard requirements where elopment would displace surface water and increase the risk of flood							
	The Sequential Approach should be applied to the layout of raised.	the site by locating the most vulnerable elements in the lowest ris	k areas. The Sequential Approach should also be applied to the inte	ernal layout of buildings, in particular where floor levels cannot be						
	Flood Hazard should be appraised against the proposed dev	velopment layout to ensure that users and occupants of the site ca	an achieve safe access and egress.							
	Where new defences are present which were completed after	er the NKC modelling, further analysis should be undertaken to de	etermine the extent of Flood Zone 3b on site.							



1299 - East of Ropers Lane, Hoo									
Site Area: 80.76ha Existing Land Use: Greenfield Proposed Land Use: Residential									
Flood Zone Classification based on the EA's 'Flood			one 3	Flood Zone 3b					
Map for Planning'	92.39%		0.66%	6.959	%	0%			
Development lifetime	100 years								
Exception Test required?	Development which has a 'more vulnerable' classification will	be subject to the Excep	tion Test.						
Flood History	Incidents within the site: None. Incidents within 100m of the site: Highway flooding.								
Watercourses/Rivers	The River Medway is located 1.8km to the southeast of the si	te. In addition, there are	numerous ordinary watercourses on site) .					
Geology	Superficial: Head (Undifferentiated); River Terrace Deposits,	Bedrock: London Clay Formation (Clay (Undifferentiated) and Silt (Undifferentiated)) Superficial: Head (Undifferentiated); River Terrace Deposits, 2; Alluvium (Clay (Undifferentiated) and Silt (Undifferentiated) and Sand(Undifferentiated) and Gravel (Undifferentiated); Clay (Undifferentiated) and Silt (Undifferentiated); Sand and Gravel; Clay, Silty Peaty Sandy (Unconsolidated Deposits Classification Scheme))							
	Percentage of site	at risk of flooding from	m tidal sources during the defended s	cenario for key return period ever	nts. Maximum flood level on s	ite shown in brackets.			
	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event			
	0.0% (0.00m AODN)	0.0% (0.00m AODN) 0.0% (0.00m A			n AODN)	ODN) 0.0% (0.00m AODN)			
Percentage of site at risk of flooding from tidal sources	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.								
and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event			
EA	0.0% (0.00m AODN)	0.0	0% (0.00m AODN)	0.0% (0.00m AODN)		0.0% (0.00m AODN)			
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'								
	'High' risk scenario		'Medium' n	'Medium' risk scenario		'Low' risk scenario			
	3.2%		5.	5%		11.4%			
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During the 'low' risk scenario, surface water flows across the northeast boundary.	centre of the site in an	easterly direction and along the northeas	st border of the site in a southeaster	rly direction. During the 'mediur	n' and 'high' risk scenarios the flow path is only present along the			
Existing Flood Defence Infrastructure (inc. SoP):	The EA's Spatial Flood Defence dataset shows a number of e Standard of Protection: Unknown	embankments 1.4km to	the south of the site with crest levels of 5	.03m to 5.12m AODN and a condition	on rating of 3.				
	BA1.3 Hoo. Maintenance (patch and repair) of the current de	fences (earth embankm	ents and rock revetment) for the first 25 y	vears. After this all maintenance will	be ceased with the site become	ng No Active Intevention.			
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118			
	HTL Maintain with MR		NA	I with MR		NAI with MR			
High-Level Indication of Defence Costs	N/A - The site is predicted to remain unaffected by flooding fr	om the River Medway fo	or the lifetime of any development.						
Flood Warning Area?	Not available at this location.								



1299 - East of Ropers Lane, Hoo									
	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the respective colour – Refer to Table 2)								
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating 'Significant' Hazard Rating		'Extreme' Hazard Rating					
	0.0%	0.0%	0.0%	0.0%					
	SuDS should be considered to be included within the devel surface water runoff from the site. The SuDS proforma will be	flooding from surface water. As a result, a detailed FRA, including a opment where possible, in accordance with the NPPF and its plan be required to accompany any SWMS. flooding incidents, developers should consult the relevant water au	ning practice guidance. All major development will require a SWMS	S to be produced to show how SuDS will be included to manage					
Required Actions / Recommended Mitigation Measures		m surface water, including the Environment Agency's recommende ole voids) should be provided where development would displace so							
mousures	The Sequential Approach should be applied to the layout of the site by locating the most vulnerable elements in the lowest risk areas. The Sequential Approach should also be applied to the internal layout of buildings, in particular where floor levels cannot be raised.								
	Flood Hazard should be appraised against the proposed de	velopment layout to ensure that users and occupants of the site car	n achieve safe access and egress.						
	The LPA should be consulted prior to the commencement consent.	The LPA should be consulted prior to the commencement of any works to obtain consent for any development proposed within 8m of any ordinary watercourse. Where the watercourse falls within the LMIDB area, the LMIDB should be consulted to obtain							



1301 - Temple Street Public Car Park, 151-175 High St, 1A-1 Cuxton Road								
	Site Area: 0.72ha		Existing Land Use: Brownfie	eld		Proposed Land Use: Residential		
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1	·	Flood Zone 2	Flood Zo	one 3	Flood Zone 3b		
Map for Planning'	65.36%		20.35%	12.68	%	1.61% *refer to text below		
Development lifetime	100 years							
Exception Test required?	Development which has a 'more vulnerable' classification will	be subject to the Excep	tion Test. Development classified as 'mo	re vulnerable' use should not be pe	rmitted in Flood Zone 3b.			
Flood History	Incidents within the site: None. Incidents within 100m of the site: Public sewer flooding.							
Watercourses/Rivers	The River Medway is located 475m to the southeast of the si	te.						
Geology	Bedrock: Lewes Nodular Chalk Formation, Seaford Chalk Fo Superficial: Head (Undifferentiated) (Clay (Undifferentiated) a			k)				
	Percentage of site	at risk of flooding from	n tidal sources during the defended s	cenario for key return period ever	nts. Maximum flood level on s	ite shown in brackets.		
	1 in 200 year return period event	1 in 200-yea	1 in 200-year return period event - 2070		eriod event - 2115	1 in 1000-year return period event		
	14.3% (5.00m AODN)	34.0	6% (5.47m AODN)	44.2% (6.10m AODN)		34.6% (5.42m AODN)		
Percentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.							
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-yea	r return period event - 2070	1 in 200-year return p	eriod event - 2115	1 in 1000-year return period event		
EA	14.3% (5.01m AODN)	34.6	6% (5.42m AODN)	43.7% (6.02m AODN)		34.6% (5.38m AODN)		
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'							
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario		
	8.3%		14.8%			45.0%		
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During all modelled scenarios, surface water is shown to flow	across the site in a sou	theasterly direction.					
Existing Flood Defence Infrastructure (inc. SoP):	Defences at Strood Riverside and Jane's Creek have recentl 5.17m AODN (as stated in the Medway Flood Defence High Standard of Protection: Unknown	y been upgraded and no Level Appraisal) and has	ow have a crest height of 6.1m AODN. T is a condition rating of 2 (Good) to 4 (Poo	he existing defences to the southwer). EA's Spatial Flood Defence datas	est of Jane's Creek consist of a set shows crest levels of 4.04m	wall and high ground with minimum actual crest level of 3.67m to to 4.99m AODN and a condition rating of 2 to 4.		
	BA2.1 Strood. Raise (sustain) embankments,walls, flood gate	es and revetments. This	option involves improving the current SC	P provided by the defences to 1% A	AEP SoP with sea level rise.			
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118		
	HTL Sustain		нт	L Sustain		HTL Sustain		
High-Level Indication of Defence Costs	The Jane's Creek defences have recently been upgraded to i to construct a defence wall, it is estimated to cost in the region					southwest of Jane's Creek. Based on an average cost of £2,984/m		
Flood Warning Area?	Yes.							



1301 - Temple Street Public Car Park, 151-175 High St, 1A-1 Cuxton Road									
	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the respective colour – Refer to Table 2)								
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	'Extreme' Hazard Rating					
	4.0%	0.7%	32.6%	0.3%					
Required Actions / Recommended Mitigation Measures	surface water runoff from the site. The SuDS proforma will be completed for non major development proposals. For major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level, in (i.e. compensatory flood storage, floodable voids) should be The Sequential Approach should be applied to the layout of buildings, in particular where floor levels cannot be raised. Flood Hazard should be appraised against the proposed de	opment where possible, in accordance with the NPPF and its planning required to accompany any SWMS. The site is also identifed by the flooding incidents, developers should consult the relevant water auticulating the Environment Agency's recommended additional freeboar provided where development would displace surface water and increase the site by locating the most vulnerable elements in the lowest risk evelopment layout to ensure that users and occupants of the site can defences should be taking into account and consideration given to the site of the	nority at an early stage to ensure that there will be sufficient capal direction or the result of requirements where practicable. Flood resistance and resilience ease the risk of flooding to the surrounding area. The Section of the surrounding area areas, and avoiding development within Flood Zone 3b*. The Section of the surrounding area achieve safe access and egress.	dway Council LLFA may require a SWMS and SuDs proforma to city in the wastewater system to accommodate the development measures should be considered for inclusion. Suitable mitigation quential Approach should also be applied to the internal layout of					



1306 - Dagenham Motors, Pier Road, Gillingham									
	Site Area: 4.66ha		Existing Land Use: Brownfie	eld		Proposed Land Use: Residential			
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1		Flood Zone 2	Flood Zone	3	Flood Zone 3b			
Map for Planning'	6.14%		6.47%	69.53%		17.86%			
Development lifetime	100 years								
Exception Test required?	Development classified as 'more vulnerable' use should not	be permitted**.							
Flood History	Incidents within the site: Public sewer flooding. Public sewer Incidents within 100m of the site: None.	Incidents within the site: Public sewer flooding. Public sewer flooding related to capacity issues with nearby pump. Incidents within 100m of the site: None.							
Watercourses/Rivers	The River Medway is located 250m to the north of the site.								
Geology		Bedrock: Thanet Sand Formation (Sand(Undifferentiated) and Silt (Undifferentiated) and Clay (Undifferentiated)) Superficial: Beach and Tidal Flat Deposits (Undifferentiated); Alluvium (Clay (Undifferentiated) and Silt (Undifferentiated) and Sand(Undifferentiated); Clay, Silty Peaty Sandy (Unconsolidated Deposits Classification Scheme))							
	Percentage of site	e at risk of flooding fro	m tidal sources during the defended s	cenario for key return period events	. Maximum flood level on s	site shown in brackets.			
	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event			
	85.6% (5.04m AODN)	94.1% (5.43m AODN) 98.3% (6.05m AODN)			AODN)	93.0% (5.38m AODN)			
Percentage of site at risk of flooding from tidal sources	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.								
and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000 year return period event			
EA	87.4% (4.99m AODN)	95.	2% (5.46m AODN)	98.3% (6.05m AODN)		93.9% (5.41m AODN)			
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'								
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario			
	19.4%		33.0%			62.8%			
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During all modelled scenarios, surface water is shown to flow	v across the site in a nor	therly direction.						
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of high ground and a wall with 5.59m AODN and a condition rating of 2 to 4. Standard of Protection: Unknown	minimum actual crest le	evel of 3.67m to 4.67m AODN (as stated in	n the Medway Flood Defence High Lev	rel Appraisal). The EA's Spat	ial Flood Defence dataset shows effective crest levels of 4.00m to			
	BA2.3 St Mary's Island. Raise (sustain) embankments, walls	, flood gates and revetm	nents. This option involves improving the	SoP provided by the defences to 0.5%	AEP SoP with sea level rise				
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118			
	HTL Sustain		нт	L Sustain		HTL Sustain			
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing d	efence wall, it is estimat	ed to cost in the region of £2,750,000 to u	pgrade the 1.8km of defences in order	r to protect the site for the life	etime of any development.			
Flood Warning Area?	Yes.								



1306 - Dagenham Motors, Pier Road, Gillingham									
	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the respective colour – Refer to Table 2)								
Hazard Rating	'Low' Hazard Rating	ting 'Moderate' Hazard Rating 'Significant' Hazard Rating		'Extreme' Hazard Rating					
	0.3%	0.1%	69.0%	27.6%					
	The site is located in Flood Zone 3B (i.e. the functional flo	oodplain) and therefore, 'more vulnerable' development should not be	permitted.						
	**The site is currently 'brownfield' and in accordance with Paragraph 015 of NPPG: Flood and Coastal Change is an area prevented from acting as a functional floodplain by existing defences and infrastructure or solid buildings and would therefore not normally be identified as functional floodplain.								
	Therefore, if a development proposal is progressed for this site, a detailed FRA, including a comprehensive investigation into surface water flood risk, is required to be undertaken.								
	SuDS should be considered to be included within the development where possible, in accordance with the NPPF and its planning practice guidance. All major development will require a SWMS to be produced to show how SuDS will be included to manage surface water runoff from the site. The SuDS proforma will be required to accompany any SWMS. The site is also identified by the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Medway Council LLFA may require a SWMS and SuDs proforma to be completed for non major development proposals.								
Required Actions / Recommended Mitigation Measures	For major developments, or where there are historic sew and any upgrades are carried out where necessary.	er flooding incidents, developers should consult the relevant water au	uthority at an early stage to ensure that there will be sufficient cap	pacity in the wastewater system to accommodate the development					
		I and depth of flooding from surface water, including the Environment satory flood storage, floodable voids) should be provided where devel							
	The Sequential Approach should be applied to the layout raised.	of the site by locating the most vulnerable elements in the lowest risk	areas. The Sequential Approach should also be applied to the in	ternal layout of buildings, in particular where floor levels cannot be					
	Flood Hazard should be appraised against the proposed	development layout to ensure that users and occupants of the site car	n achieve safe access and egress.						
	When developing a scheme, the condition of any adjace defence upgrades should be shared amongst beneficiaries	nt defences should be taking into account and consideration given to es.	upgrading the defences to maintain, or further, the protection of	ffered to the site and surrounding area. The costs associated with					



1308 - B&M Bargains, Medway Street, Chatham									
	Site Area: 0.31ha		Existing Land Use: Brownfie	eld		Proposed Land Use: Residential			
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1		Flood Zone 2	Flood Zo	nne 3	Flood Zone 3b			
Map for Planning'	0%		1.06%	98.94	%	0%			
Development lifetime	100 years								
Exception Test required?	Development which has a 'more vulnerable' classification wil	be subject to the Excep	otion Test.						
Flood History	Incidents within the site: None. Incidents within 100m of the site: None.								
Watercourses/Rivers	The River Medway is located adjacent to the site.								
Geology	Bedrock: Lewes Nodular Chalk Formation (Chalk) Superficial: Alluvium (Clay, Silty Peaty Sandy (Unconsolidate	Bedrock: Lewes Nodular Chalk Formation (Chalk) Superficial: Alluvium (Clay, Silty Peaty Sandy (Unconsolidated Deposits Classification Scheme))							
	Percentage of site	at risk of flooding fro	m tidal sources during the defended s	cenario for key return period ever	nts. Maximum flood level on	site shown in brackets.			
	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return pe	eriod event - 2115	1 in 1000-year return period event			
	98.9% (5.07m AODN)	100.0% (5.46m AODN) 100.0% (6.11m AODN)			m AODN)	100.0% (5.41m AODN)			
Percentage of site at risk of flooding from tidal sources	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.								
and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event			
EA	98.9% (5.01m AODN)	100	0.0% (5.47m AODN)	100.0% (6.07m AODN) 100.0% (5.41m AODN)		100.0% (5.41m AODN)			
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'								
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario			
	0.0%		1.7%			49.5%			
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During the 'low' risk scenario, floodwater flows across the we	stern half of the site in a	a northerly direction. The site is not predic	ted to flood from surface water durin	ng the 'medium' and 'high' risk s	scenarios.			
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of high ground with minimum a levels of 4.75m to 4.93m AODN and a condition rating of 3. Standard of Protection: Unknown	octual crest level of 4.60	m to 5.17m AODN (as stated in the Medw	rayFlood Defence High Level Apprai	sal) and has a condition rating	of 2 (Good). The EA's Spatial Flood Defence dataset shows crest			
			in localised areas. Localised raising of the	defences to protect properties and	assets at risk of flooding aroun	d Rochester and Chatham against a 0.1% AEP with sea level rise.			
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118			
	HTL Sustain with localised NAI		HTL Sustair	with localised NAI		HTL Sustain with localised NAI			
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing d	efence wall, it is estimat	ed to cost in the region of £610,000 to up	grade the 400m of defences in orde	r to protect the site for the lifeti	me of any development.			
Flood Warning Area?	Yes.								



1308 - B&M Bargains, Medway Street, Chatham									
	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the respective colour – Refer to Table 2)								
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	'Extreme' Hazard Rating					
	0.0%	0.0%	96.9%	3.1%					
Required Actions / Recommended Mitigation Measures	SuDS should be considered to be included within the devel surface water runoff from the site. The SuDS proforma will be completed for non major development proposals. For major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level a considered for inclusion. Suitable mitigation (i.e. compensat The Sequential Approach should be applied to the layout of raised. Flood Hazard should be appraised against the proposed development.	clooding from surface water. As a result, a detailed FRA, including a component where possible, in accordance with the NPPF and its planning be required to accompany any SWMS. The site is also identified by the flooding incidents, developers should consult the relevant water authorized depth of flooding from surface water, including the Environment Agory flood storage, floodable voids) should be provided where developed the site by locating the most vulnerable elements in the lowest risk are velopment layout to ensure that users and occupants of the site can a defences should be taking into account and consideration given to upone the site of the site of the site can also defences should be taking into account and consideration given to upone the site of the site	g practice guidance. All major development will require a SWMS to Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Medwority at an early stage to ensure that there will be sufficient capacity gency's recommended additional freeboard requirements where prament would displace surface water and increase the risk of flooding eas. The Sequential Approach should also be applied to the international freeboard access and egress.	to be produced to show how SuDS will be included to manage way Council LLFA may require a SWMS and SuDs proformated by in the wastewater system to accommodate the development acticable. Flood resistance and resilience measures should be go to the surrounding area. all layout of buildings, in particular where floor levels cannot be					



1309 - Riverside Gardens, Chatham								
	Site Area: 0.41ha		Existing Land Use: Brownfie	eld		Proposed Land Use: Residential		
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1		Flood Zone 2	Flood Zo	one 3	Flood Zone 3b		
Map for Planning'	14.2%		16.47%	69.33	%	0%		
Development lifetime	100 years							
Exception Test required?	Development which has a 'more vulnerable' classification will	be subject to the Exce	eption Test.					
Flood History	Incidents within the site: None. Incidents within 100m of the site: None.							
Watercourses/Rivers	The River Medway is located adjacent to the site.							
Geology	Bedrock: Lewes Nodular Chalk Formation (Chalk) Superficial: Alluvium (Clay, Silty Peaty Sandy (Unconsolidated	d Deposits Classificati	ion Scheme))					
	Percentage of site	at risk of flooding fr	om tidal sources during the defended s	cenario for key return period ever	nts. Maximum flood level on s	ite shown in brackets.		
	1 in 200-year return period event	1 in 200-ye	ear return period event - 2070	2070 1 in 200-year return period event - 2115		1 in 1000-year return period event		
	67.4% (5.07m AODN)	83.8% (5.46m AODN) 96.3% (6.11m AODN			n AODN)	83.8% (5.41m AODN)		
Percentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.							
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return p	eriod event - 2115	1 in 1000-year return period event		
EA	68.4% (5.01m AODN)	85.7% (5.47m AODN)		98.5% (6.07r	n AODN)	85.7% (5.41m AODN)		
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'							
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario		
	0.0%		65.2%			77.9%		
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During the 'low' and 'medium' risk scenarios, surface water is	shown to flow across	the majority of the site in a northwesterly o	direction. The site is not predicted to	flood from surface water during	the 'high' risk scenario.		
Existing Flood Defence Infrastructure (inc. SoP):	levels of 4.75m to 4.93m AODN and a condition rating of 3.	ctual crest level of 4.6	7m to 5.17m AODN (as stated in the Medv	vayFlood Defence High Level Apprai	sal) and has a condition rating	of 2 (Good). The EA's Spatial Flood Defence dataset shows crest		
	Standard of Protection: Unknown BA2.2 Rochester. Raise (sustain) embankments, walls, flood The rest of the Benefit Area will have a No Active Intevention	gates, and revetments Approach.	s in localised areas. Localised raising of the	e defences to protect properties and	assets at risk of flooding around	d Rochester and Chatham against a 0.1% AEP with sea level rise.		
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	Policy 2038 - 2068		MEASS Policy 2068 - 2118		
	HTL Sustain with localised NAI		HTL Sustain	n with localised NAI		HTL Sustain with localised NAI		
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing de	efence wall, it is estima	ated to cost in the region of £610,000 to up	grade the 400m of defences in orde	r to protect the site for the lifeting	ne of any development.		
Flood Warning Area?	Yes.							



1309 - Riverside Gard	ens, Chatham								
	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the respective colour – Refer to Table 2)								
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	'Extreme' Hazard Rating					
	4.7%	4.9%	47.0%	30.1%					
Required Actions / Recommended Mitigation Measures	SuDS should be considered to be included within the devel surface water runoff from the site. The SuDS proforma will be completed for non major development proposals. For major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level a considered for inclusion. Suitable mitigation (i.e. compensal The Sequential Approach should be applied to the layout of raised. Flood Hazard should be appraised against the proposed de	flooding from surface water. As a result, a detailed FRA, including a co- lopment where possible, in accordance with the NPPF and its planning the required to accompany any SWMS. The site is also identifed by the flooding incidents, developers should consult the relevant water author and depth of flooding from surface water, including the Environment Ag- tory flood storage, floodable voids) should be provided where developed the site by locating the most vulnerable elements in the lowest risk are evelopment layout to ensure that users and occupants of the site can accept within 16m of a tidal waterbody or tidal defence infrastructure to obtain	g practice guidance. All major development will require a SWMS Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Medivity at an early stage to ensure that there will be sufficient capacitiency's recommended additional freeboard requirements where princent would displace surface water and increase the risk of floodingers. The Sequential Approach should also be applied to the intersective safe access and egress.	to be produced to show how SuDS will be included to manage way Council LLFA may require a SWMS and SuDs proforma to ity in the wastewater system to accommodate the development racticable. Flood resistance and resilience measures should be go to the surrounding area.					



1311 - 199 to 233 High Street, Chatham								
	Site Area: 0.53ha		Existing Land Use: Brownfie	eld		Proposed Land Use: Residential		
Flood Zone Classification based on the EA's 'Flood			Flood Zone 2	Flood Zo	one 3	Flood Zone 3b		
Map for Planning'	0%		26.35%	73.65	%	0%		
Development lifetime	100 years							
Exception Test required?	Development which has a 'more vulnerable' classification will	be subject to the Excep	tion Test.					
Flood History	Incidents within the site: None. Incidents within 100m of the site:							
Watercourses/Rivers	The River Medway is located 575m to the northwest of the si	te.						
Geology	Bedrock: Lewes Nodular Chalk Formation (Chalk) Superficial: Head (Undifferentiated) (Clay (Undifferentiated) a	and Silt (Undifferentiated) and Sand(Undifferentiated) and Gravel	(Undifferentiated))				
	Percentage of site	at risk of flooding from	m tidal sources during the defended s	cenario for key return period ever	nts. Maximum flood level on s	site shown in brackets.		
	1 in 200-year return period event	1 in 200-yea	r return period event - 2070	1 in 200-year return p	eriod event - 2115	1 in 1000-year return period event		
	69.0% (4.48m AODN)	100.0% (5.46m AODN) 100.0% (6.12m AODN)			m AODN)	100.0% (5.40m AODN)		
Percentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.							
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return p	eriod event - 2115	1 in 1000-year return period event		
EA	61.8% (4.43m AODN)	100.0% (5.46m AODN)		100.0% (6.07m AODN)		100.0% (5.39m AODN)		
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'							
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario		
	17.8%		47	47.5%		100.0%		
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During the 'low' risk scenario, surface water is shown to flow site, which could be attributed to localised depressions in the		a northwesterly direction, and during the	'medium' risk scenario in the same o	direction to a lesser extent. Dur	ing the 'high' risk scenario, there is only localised accumulation on		
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of high ground with minimum a levels of 4.75m to 4.93m AODN and a condition rating of 3. Standard of Protection: Unknown	actual crest level of 4.67r	n to 5.17m AODN (as stated in the Medw	rayFlood Defence High Level Apprai	isal) and has a condition rating	of 2 (Good). The EA's Spatial Flood Defence dataset shows crest		
			n localised areas. Localised raising of the	e defences to protect properties and	assets at risk of flooding aroun	d Rochester and Chatham against a 0.1% AEP with sea level rise.		
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118		
	HTL Sustain with localised NAI		HTL Sustair	with localised NAI		HTL Sustain with localised NAI		
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing de	efence wall, it is estimate	ed to cost in the region of £610,000 to up	grade the 400m of defences in orde	r to protect the site for the lifeting	me of any development.		
Flood Warning Area?	Yes.							



1311 - 199 to 233 High Street, Chatham									
	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the respective colour – Refer to Table 2)								
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	'Extreme' Hazard Rating					
	0.0%	0.0%	75.9%	24.1%					
	SuDS should be considered to be included within the development	opment where possible, in accordance with the NPPF and its plan	a comprehensive investigation into surface water flood risk, is requining practice guidance. All major development will require a SWN the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Months.	IS to be produced to show how SuDS will be included to manage					
Required Actions / Recommended Mitigation	For major developments, or where there are historic sewer and any upgrades are carried out where necessary.	flooding incidents, developers should consult the relevant water a	authority at an early stage to ensure that there will be sufficient capa	acity in the wastewater system to accommodate the development					
Measures	ded initigation								
	The Sequential Approach should be applied to the layout of raised.	the site by locating the most vulnerable elements in the lowest ris	k areas. The Sequential Approach should also be applied to the int	ternal layout of buildings, in particular where floor levels cannot be					
	Flood Hazard should be appraised against the proposed de	velopment layout to ensure that users and occupants of the site ca	an achieve safe access and egress.						



1312 - Pumping Station, The Brook, Chatham										
	Site Area: 0.2ha		Existing Land Use: Brownfie	eld		Proposed Land Use: Residential				
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1		Flood Zone 2	Flood Zone 3		Flood Zone 3b				
Map for Planning'	56.06%		23.06%	20.88	%	0%				
Development lifetime	100 years									
Exception Test required?	Development which has a 'more vulnerable' classification will	be subject to the Exce	eption Test.							
Flood History	Incidents within the site: None. Incidents within 100m of the site: None.									
Watercourses/Rivers	The River Medway is located 500m to the northwest of the sit	e.								
Geology	Bedrock: Lewes Nodular Chalk Formation (Chalk) Superficial: Head (Undifferentiated) (Clay (Undifferentiated) a	Bedrock: Lewes Nodular Chalk Formation (Chalk) Superficial: Head (Undifferentiated) (Clay (Undifferentiated) and Silt (Undifferentiated) and Gravel (Undifferentiated))								
	Percentage of site	at risk of flooding fr	om tidal sources during the defended s	cenario for key return period ever	nts. Maximum flood level on s	ite shown in brackets.				
	1 in 200-year return period event	1 in 200-ye	1 in 200-year return period event - 2070 1 in 200-year return period e		eriod event - 2115	1 in 1000-year return period event				
	9.2% (4.48m AODN)	47.2% (5.46m AODN) 60.			60.2% (6.12m AODN) 43.4% (5.40m AODN)					
Percentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.									
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return p	eriod event - 2115	1 in 1000-year return period event				
EA	7.9% (4.43m AODN)	47.2% (5.46m AODN)		60.2% (6.07r	m AODN)	43.4% (5.39m AODN)				
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'									
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario				
	0.0%		18.8%			39.7%				
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During the 'low' and 'medium' risk scenarios surface water is	shown to flow along pa	art of the southwest site boundary in a nort	h-easterly direction. The site is not p	predicted to flood from surface v	water during the 'high' risk scenario.				
Existing Flood Defence Infrastructure (inc. SoP):	levels of 4.75m to 4.93m AODN and a condition rating of 3.	ctual crest level of 4.6	7m to 5.17m AODN (as stated in the Medw	ayFlood Defence High Level Appra	isal) and has a condition rating	of 2 (Good). The EA's Spatial Flood Defence dataset shows crest				
	BA2.2 Rochester. Raise (sustain) embankments, walls, flood The rest of the Benefit Area will have a No Active Intervention	gates, and revetments Approach.	s in localised areas. Localised raising of the	e defences to protect properties and	assets at risk of flooding around	d Rochester and Chatham against a 0.1% AEP with sea level rise.				
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118				
	HTL Sustain with localised NAI		HTL Sustair	with localised NAI		HTL Sustain with localised NAI				
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing de	efence wall, it is estima	ated to cost in the region of £610,000 to up	grade the 400m of defences in orde	r to protect the site for the lifeting	ne of any development.				
Flood Warning Area?	Yes.									



1312 - Pumping Station, The Brook, Chatham									
	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the respective colour – Refer to Table 2)								
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	'Extreme' Hazard Rating					
	0.5%	3.8%	37.9%	6.8%					
	SuDS should be considered to be included within the development	opment where possible, in accordance with the NPPF and its plar	a comprehensive investigation into surface water flood risk, is requining practice guidance. All major development will require a SWM the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Ma	S to be produced to show how SuDS will be included to manage					
Required Actions / Recommended Mitigation	For major developments, or where there are historic sewer and any upgrades are carried out where necessary.	flooding incidents, developers should consult the relevant water a	uthority at an early stage to ensure that there will be sufficient capa	acity in the wastewater system to accommodate the development					
Measures		ory flood storage, floodable voids) should be provided where deve	t Agency's recommended additional freeboard requirements where lopment would displace surface water and increase the risk of floor						
	The Sequential Approach should also be applied to the inter	rnal layout of buildings, in particular where floor levels cannot be ra	aised.						
	Flood Hazard should be appraised against the proposed de	velopment layout to ensure that users and occupants of the site ca	an achieve safe access and egress.						



1313 - 279 to 313a Hig	gh Street, Chatham								
Site Area: 0.46ha Existing Land Use: Brownfield Proposed Land Use: Residential						Proposed Land Use: Residential			
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1		Flood Zone 2 Flood Zone 3		ne 3	Flood Zone 3b			
Map for Planning'	0%		36.54%	63.46	%	0%			
Development lifetime	100 years								
Exception Test required?	Development which has a 'more vulnerable' classification will	be subject to the Excep	otion Test.						
Flood History	Incidents within the site: Public sewer flooding. Incidents within 100m of the site:								
Watercourses/Rivers	The River Medway is located 700m to the northwest of the si	te.							
Geology	Bedrock: Lewes Nodular Chalk Formation (Chalk) Superficial: Head (Undifferentiated) (Clay (Undifferentiated) a	Bedrock: Lewes Nodular Chalk Formation (Chalk) Superficial: Head (Undifferentiated) (Clay (Undifferentiated) and Silt (Undifferentiated) and Sand(Undifferentiated) and Gravel (Undifferentiated))							
	Percentage of site	at risk of flooding from	m tidal sources during the defended s	cenario for key return period even	nts. Maximum flood level on s	ite shown in brackets.			
	1 in 200-year return period event	1 in 200-yea	ar return period event - 2070	1 in 200-year return pe	eriod event - 2115	1 in 1000-year return period event			
	53.3% (4.48m AODN)	100.0% (5.47m AODN) 100.0% (6.12m AODN)			m AODN)	100.0% (5.40m AODN)			
Percentage of site at risk of flooding from tidal sources	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.								
and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event			
EA	43.5% (4.43m AODN)	100	.0% (5.46m AODN)	100.0% (6.07)	100.0% (6.07m AODN) 100.0% (5.40m AODN)				
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'								
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario			
	19.2%		39.7%			100.0%			
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps)</u>	During the 'low' risk scenario, surface water is shown to flow site, which could be attributed to localised depressions in the		a northwesterly direction, and during the	'medium' risk scenario in the same o	lirection to a lesser extent. Dur	ing the 'high' risk scenario, there is only localised accumulation on			
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of high ground with minimum a levels of 4.75m to 4.93m AODN and a condition rating of 3. Standard of Protection: -Unknown	ctual crest level of 4.67r	n to 5.17m AODN (as stated in the Medw	rayFlood Defence High Level Apprai	sal) and has a condition rating	of 2 (Good). The EA's Spatial Flood Defence dataset shows crest			
			n localised areas. Localised raising of the	defences to protect properties and a	assets at risk of flooding aroun	d Rochester and Chatham against a 0.1% AEP with sea level rise.			
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118			
	HTL Sustain with localised NAI		HTL Sustain	with localised NAI		HTL Sustain with localised NAI			
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing de	efence wall, it is estimate	ed to cost in the region of £610,000 to up	grade the 400m of defences in order	r to protect the site for the lifeting	me of any development.			
Flood Warning Area?	Yes.								



1313 - 279 to 313a High Street, Chatham									
	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the respective colour – Refer to Table 2)								
Hazard Rating	'Low' Hazard Rating	g 'Moderate' Hazard Rating 'Significant' Hazard Rating 'Extrem							
	0.0%	0.0%	83.7%	16.3%					
	SuDS should be considered to be included within the development	opment where possible, in accordance with the NPPF and its plar		ired to be undertaken. 1S to be produced to show how SuDS will be included to manage edway Council LLFA may require a SWMS and SuDs proforma to					
Required Actions / Recommended Mitigation	For major developments, or where there are historic sewer and any upgrades are carried out where necessary.	flooding incidents, developers should consult the relevant water a	uthority at an early stage to ensure that there will be sufficient cap-	acity in the wastewater system to accommodate the development					
Measures	Floor levels should be raised above the design flood level and depth of flooding from surface water, including the Environment Agency's recommended additional freeboard requirements where practicable. Flood resistance and resilience measures should be considered for inclusion. Suitable mitigation (i.e. compensatory flood storage, floodable voids) should be provided where development would displace surface water and increase the risk of flooding to the surrounding area.								
	The Sequential Approach should be applied to the layout of raised.	the site by locating the most vulnerable elements in the lowest risk	k areas. The Sequential Approach should also be applied to the int	ternal layout of buildings, in particular where floor levels cannot be					
	Flood Hazard should be appraised against the proposed dev	velopment layout to ensure that users and occupants of the site ca	an achieve safe access and egress.						



1317 - Railway arches (3) and adjacent land									
Site Area: 0.48ha Existing Land Use: Brownfield Proposed Land Use: Residential									
Flood Zone Classification based on the EA's 'Flood			Flood Zone 2	Flood Zo	ne 3	Flood Zone 3b			
Map for Planning'	97.2%		1.57%	1.23%	6	0%			
Development lifetime	100 years								
Exception Test required?	Development which has a 'more vulnerable' classification will	be subject to the Excep	tion Test.						
Flood History	Incidents within the site: None. Incidents within 100m of the site: None.								
Watercourses/Rivers	The River Medway is located 650m to the southeast of the sit	te.							
Geology	Bedrock: Lewes Nodular Chalk Formation, Seaford Chalk Formation and Newhaven Chalk Formation (Undifferentiated) (Chalk) Superficial: Head (Undifferentiated) (Clay (Undifferentiated) and Silt (Undifferentiated))								
	Percentage of site	at risk of flooding from	n tidal sources during the defended s	cenario for key return period ever	nts. Maximum flood level on s	ite shown in brackets.			
	1 in 200-year return period event	1 in 200-yea	1 in 200-year return period event - 2070		eriod event - 2115	1 in 1000-year return period event			
	1.2% (4.99m AODN)	2.8	% (5.47m AODN)	7.0% (6.10m AODN)		2.8% (5.42m AODN)			
Percentage of site at risk of flooding from tidal sources	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.								
and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event			
EA	1.2% (5.01m AODN)	2.8% (5.42m AODN)		5.0% (6.02m AODN)		2.8% (5.37m AODN)			
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'								
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario			
	2.3%		5.0	5%		19.3%			
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps)</u>	During the 'low' and 'medium' risk scenarios, surface water flo	ows along the eastern bo	oundary of the site in a southeasterly dire	ction. The site is not predicted to flo	od from surface water during th	ne 'high' risk scenario.			
Existing Flood Defence Infrastructure (inc. SoP):	Defences at Strood Riverside and Jane's Creek have recently AODN (as stated in the MedwayFlood Defence High Level Application of Protection: Unknown	/ been upgraded and no opraisal) and has a cond	w have a crest height of 6.1m AODN. Th dition rating of 2 (Good) to 4 (Poor). EA's	e existing defences to the south of J Spatial Flood Defence dataset sho	ane's Creek consist of a wall an ws crest levels of 4.04m to 4.99	and high ground with minimum actual crest level of 3.67m to 5.17m and a condition rating of 2 to 4.			
	BA2.1 Strood. Raise (sustain) embankments,walls, flood gate	es and revetments. This	option involves improving the current SC	P provided by the defences to 1% A	AEP SoP with sea level rise.				
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118			
	HTL Sustain		нт	L Sustain		HTL Sustain			
High-Level Indication of Defence Costs	N/A - The site is predicted to remain unaffected by flooding fr	om the River Medway fo	or the lifetime of any development.						
Flood Warning Area?	Yes.								



1317 - Railway arches (3) and adjacent land									
	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the respective colour – Refer to Table 2)								
Hazard Rating	'Low' Hazard Rating	'Extreme' Hazard Rating							
	2.2%	0.0%	2.8%	0.0%					
	SuDS should be considered to be included within the devel	opment where possible, in accordance with the NPPF and its plan	A, including a comprehensive investigation into surface water floor nning practice guidance. All major development will require a SWN the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore M	IS to be produced to show how SuDS will be included to manage					
Required Actions / Recommended Mitigation	For major developments, or where there are historic sewer and any upgrades are carried out where necessary.	flooding incidents, developers should consult the relevant water a	uthority at an early stage to ensure that there will be sufficient cap	acity in the wastewater system to accommodate the development					
Measures	Floor levels should be raised above the design flood level and depth of flooding from surface water, including the Environment Agency's recommended additional freeboard requirements where practicable. Flood resistance and resilience measures should be considered for inclusion. Suitable mitigation (i.e. compensatory flood storage, floodable voids) should be provided where development would displace surface water and increase the risk of flooding to the surrounding area.								
	The Sequential Approach should be applied to the layout of raised.	the site by locating the most vulnerable elements in the lowest ris	k areas. The Sequential Approach should also be applied to the int	ernal layout of buildings, in particular where floor levels cannot be					
	Flood Hazard should be appraised against the proposed de	velopment layout to ensure that users and occupants of the site ca	an achieve safe access and egress.						



1318 - Sewage Pumpi	ng Station / Travelling Showpeople Site								
	Site Area: 0.87ha		Existing Land Use: Brownfie	eld		Proposed Land Use: Residential			
Flood Zone Classification	Flood Zone 1		Flood Zone 2	Flood Zo	one 3	Flood Zone 3b			
based on the EA's 'Flood Map for Planning'	0.1%		0%	1.13	%	98.77% *refer to text below			
Development lifetime	100 years								
Exception Test required?	Development which has a 'more vulnerable' classification will be subject to the Exception Test. *Although the NKC modelling shows the site to be within the functional floodplain, the modelling study does not take into account the recently completed Strood Riverside and Jane's Creek defences. These defences would likely reduce the extent of flooding during a 1in20 year return period event, and further analysis is recommended to determine the true extent of the functional floodplain on site. Development classified as 'more vulnerable' use should not be permitted in Flood Zone 3b.								
Flood History	Incidents within the site: None. Incidents within 100m of the site: Sewer flooding.								
Watercourses/Rivers	The River Medway is located 275m to the southeast of the si	te.							
Geology	Bedrock: Lewes Nodular Chalk Formation, Seaford Chalk Formation and Newhaven Chalk Formation (Undifferentiated) (Chalk) Superficial: Head (Undifferentiated); Alluvium (Clay (Undifferentiated) and Silt (Undifferentiated); Clay, Silty Peaty Sandy (Unconsolidated Deposits Classification Scheme))								
	Percentage of site	at risk of flooding fi	om tidal sources during the defended s	cenario for key return period ever	nts. Maximum flood level on s	ite shown in brackets.			
	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event			
	99.9% (5.00m AODN)	9	9.9% (5.47m AODN)	100.0% (6.12m AODN)		99.9% (5.43m AODN)			
Percentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.								
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event			
EA	99.9% (5.02m AODN)	9	9.9% (5.43m AODN)	100.0% (6.05m AODN)		99.9% (5.38m AODN)			
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'								
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario			
	18.6%		73	9%		99.7%			
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During the 'low' and 'medium' risk scenarios, surface water is attributed to localised depressions in the topography.	s shown to accumulate	e across the majority of the site. During the	'high' risk scenario, surface water a	accumulates in the southeast p	art of the site only. The accumulation of surface water is could be			
Existing Flood Defence Infrastructure (inc. SoP):	Defences at Strood Riverside and Jane's Creek have recentl AODN (as stated in the MedwayFlood Defence High Level A Standard of Protection: Unknown					onsist of a wall with minimum actual crest level of 4.17m to 4.67m a condition rating of 2.			
	BA2.1 Strood. Raise (sustain) embankments,walls, flood gate	es and revetments. Th	is option involves improving the current SC	P provided by the defences to 1% A	AEP SoP with sea level rise.				
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118			
	HTL Sustain		н	L Sustain		HTL Sustain			
High-Level Indication of Defence Costs	The Strood Riverside and Jane's Creek defences have rece Based on an average cost of £1,526/m to raise an existing de	ently been upgraded to efence wall, it is estim	o improve the standard of protection. Notwated to cost in the region of£460,000 to up	ithstanding this, further improvements	nts should be considered to im to protect the site for the lifetin	prove the defences between Strood Riverside and Jane's Creek. ne of any development.			



1318 - Sewage Pumping Station / Travelling Showpeople Site									
Flood Warning Area?	Yes.								
	Percentage of site in each Hazard Rat	ing Classification during the design flood event (2115) (The d	ominant hazard rating on the subject site has been highlighted	in the respective colour – Refer to Table 2)					
Hazard Rating	Hazard Rating 'Low' Hazard Rating 'Moderate' Hazard Rating 'Significant' Hazard Rating								
	0.0%	0.0%	1.4%	98.6%					
Required Actions /	SuDS should be considered to be included within the devel surface water runoff from the site. The SuDS proforma will be completed for non major development proposals.	lopment where possible, in accordance with the NPPF and its plan be required to accompany any SWMS. The site is also identifed by	g a comprehensive investigation into surface water flood risk, is requirening practice guidance. All major development will require a SWM the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Menuthority at an early stage to ensure that there will be sufficient capa	IS to be produced to show how SuDS will be included to manage edway Council LLFA may require a SWMS and SuDs proforma to					
Recommended Mitigation Measures			nt Agency's recommended additional freeboard requirements where elopment would displace surface water and increase the risk of flood						
	The Sequential Approach should be applied to the layout of the site by locating the most vulnerable elements in the lowest risk areas. The Sequential Approach should also be applied to the internal layout of buildings, in particular where floor levels cannot be raised.								
	Flood Hazard should be appraised against the proposed de	Flood Hazard should be appraised against the proposed development layout to ensure that users and occupants of the site can achieve safe access and egress.							
	When developing a scheme, the condition of any adjacent defence upgrades should be shared amongst beneficiaries.		to upgrading the defences to maintain, or further, the protection off	ered to the site and surrounding area. The costs associated with					



1319 - Kingswear Gardens								
	Site Area: 1.76ha		Existing Land Use: Brownfie	eld		Proposed Land Use: Residential		
Flood Zone Classification	Flood Zone 1	·	Flood Zone 2	Flood Zo	one 3	Flood Zone 3b		
based on the EA's 'Flood Map for Planning'	1.4%		2.96%	4.229	%	91.42% *refer to text below		
Development lifetime	100 years							
Exception Test required?	Development which has a 'more vulnerable' classification will be subject to the Exception Test. *Although the NKC modelling shows the site to be within the functional floodplain, the modelling study does not take into account the recently completed Strood Riverside and Jane's Creek defences. These defences would likely reduce the extent of flooding during a 1in20 year return period event, and further analysis is recommended to determine the true extent of the functional floodplain on site. Development classified as 'more vulnerable' use should not be permitted in Flood Zone 3b.							
Flood History	Incidents within the site: None. Incidents within 100m of the site: External flooding of areas a External flooding in yard.	Incidents within 100m of the site: External flooding of areas around and adjacent to Watermill Wharf, caused by a small breach in the flood defences at Watermill Wharf. Re-occurring flooding following heavy rainfall due to highway drainage and tide locking.						
Watercourses/Rivers	The River Medway is located 75m to the southeast of the site) .						
Geology	Bedrock: Lewes Nodular Chalk Formation, Seaford Chalk Fo Superficial: Alluvium (Clay, Silty Peaty Sandy (Unconsolidate		, , , , , , , , , , , , , , , , , , , ,	k)				
	Percentage of site	at risk of flooding fro	om tidal sources during the defended s	cenario for key return period ever	nts. Maximum flood level on s	ite shown in brackets.		
	1 in 200 year return period event	1 in 200 year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event		
	95.5% (5.05m AODN)	99.0% (5.48m AODN)		99.2% (6.12m AODN)		98.5% (5.43m AODN)		
Percentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.							
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event		
EA	95.4% (5.02m AODN)	98	3.6% (5.46m AODN)	99.1% (6.05m AODN)		98.6% (5.41m AODN)		
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'							
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario		
	1.2%		3.4	5%		21.1%		
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	There are localised areas of surface water accumulation acro	oss the site, during all t	hree modelled scenarios. The accumulation	n of surface water could be attribute	ed to localised depressions in th	ne topography and surface water backing up on site.		
Existing Flood Defence Infrastructure (inc. SoP):	Defences at Strood Riverside and Jane's Creek have recently AODN (as stated in the MedwayFlood Defence High Level A) Standard of Protection: Unknown					onsist of a wall with minimum actual crest level of 4.17m to 4.67m a condition rating of 2.		
	BA2.1 Strood. Raise (sustain) embankments,walls, flood gate	es and revetments. Thi	s option involves improving the current SC	P provided by the defences to 1% A	AEP SoP with sea level rise.			
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118		
	HTL Sustain		нт	L Sustain		HTL Sustain		
High-Level Indication of Defence Costs	The Strood Riverside and Jane's Creek defences have rece Based on an average cost of £1,526/m to raise an existing de					prove the defences between Strood Riverside and Jane's Creek. ne of any development.		



1319 - Kingswear Gardens										
Flood Warning Area?	Yes.									
	Percentage of site in each Hazard Rat	ing Classification during the design flood event (2115) (The d	ominant hazard rating on the subject site has been highlighted	in the respective colour – Refer to Table 2)						
Hazard Rating	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	'Extreme' Hazard Rating						
	0.4%	0.7%	11.6%	85.5%						
Required Actions / Recommended Mitigation Measures	SuDS should be considered to be included within the devel surface water runoff from the site. The SuDS proforma will be for major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level a considered for inclusion. Suitable mitigation (i.e. compensat The Sequential Approach should be applied to the layout of raised. Flood Hazard should be appraised against the proposed de	opment where possible, in accordance with the NPPF and its plant of required to accompany any SWMS. flooding incidents, developers should consult the relevant water and depth of flooding from surface water, including the Environment ory flood storage, floodable voids) should be provided where developers the site by locating the most vulnerable elements in the lowest riscontinuous velopment layout to ensure that users and occupants of the site can defence should be taking into account and consideration given the site of the site	a comprehensive investigation into surface water flood risk, is required in a comprehensive investigation into surface water flood risk, is required in a comprehensive guidance. All major development will require a SWM authority at an early stage to ensure that there will be sufficient capable at Agency's recommended additional freeboard requirements where elopment would displace surface water and increase the risk of floods at a reas. The Sequential Approach should also be applied to the integral and achieve safe access and egress. It is upgrading the defences to maintain, or further, the protection of the comprehensive investigation into surface water flood risk, is required in the su	IS to be produced to show how SuDS will be included to manage acity in the wastewater system to accommodate the development a practicable. Flood resistance and resilience measures should be ding to the surrounding area. ernal layout of buildings, in particular where floor levels cannot be						



1320 - McDonalds, Ca	r Sales Garage and rear of High Street prope	erties							
Site Area: 0.59ha Existing Land Use: Brownfield Proposed Land Use: Residential					Proposed Land Use: Residential				
Flood Zone Classification	Flood Zone 1	·	Flood Zone 2	Flood Zo	one 3	Flood Zone 3b			
based on the EA's 'Flood Map for Planning'	4.3%		9.7%	21.46	%	64.54% *refer to text below			
Development lifetime	100 years								
Exception Test required?	Development which has a 'more vulnerable' classification will be subject to the Exception Test. *Although the NKC modelling shows the site to be within the functional floodplain, the modelling study does not take into account the recently completed Strood Riverside and Jane's Creek defences. These defences would likely reduce the extent of flooding during a 1in20 year return period event, and further analysis is recommended to determine the true extent of the functional floodplain on site. Development classified as 'more vulnerable' use should not be permitted in Flood Zone 3b.								
Flood History	Incidents within the site: None. Incidents within 100m of the site: Public sewer flooding.								
Watercourses/Rivers	The River Medway is located 400m to the southeast of the s	ite.							
Geology	Bedrock: Lewes Nodular Chalk Formation, Seaford Chalk Formation and Newhaven Chalk Formation (Undifferentiated) (Chalk) Superficial: Head (Undifferentiated); Alluvium (Clay (Undifferentiated) and Silt (Undifferentiated); Clay, Silty Peaty Sandy (Unconsolidated Deposits Classification Scheme))								
	Percentage of site	e at risk of flooding f	rom tidal sources during the defended s	cenario for key return period ever	nts. Maximum flood level on s	ite shown in brackets.			
	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event			
	86.0% (5.00m AODN)	97.4% (5.47m AODN)		100.0% (6.10m AODN)		95.7% (5.42m AODN)			
Percentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.								
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return p	eriod event - 2115	1 in 1000-year return period event			
EA	86.0% (5.01m AODN)	95.3% (5.42m AODN)		100.0% (6.02m AODN)		95.0% (5.38m AODN)			
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'								
	'High' risk scenario	'High' risk scenario		'Medium' risk scenario		'Low' risk scenario			
	14.4%		43	3%		85.6%			
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	During the 'low' and 'medium' risk scenarios, surface water is	s shown to flow in an e	asterly direction across the southern half o	f the site. During the 'high' risk scen	ario, surface water flows along	the southern boundary of the site only.			
Existing Flood Defence Infrastructure (inc. SoP):	Defences at Strood Riverside and Jane's Creek have recent 5.17m AODN (as stated in the MedwayFlood Defence High Standard of Protection: Unknown					wall and high ground with minimum actual crest level of 3.67m to to 4.99m AODN and a condition rating of 2 to 4.			
	BA2.1 Strood. Raise (sustain) embankments,walls, flood ga	tes and revetments. T	his option involves improving the current S0	OP provided by the defences to 1%	AEP SoP with sea level rise.				
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118			
• • •	HTL Sustain		нт	L Sustain		HTL Sustain			
High-Level Indication of Defence Costs	The Jane's Creek defences have recently been upgraded to to construct a defence wall, it is estimated to cost in the region					southwest of Jane's Creek. Based on an average cost of £2,984/m			



1320 - McDonalds, Car Sales Garage and rear of High Street properties										
Flood Warning Area?	Yes.									
	Percentage of site in each Hazard Ra	ting Classification during the design flood event (2115) (The d	ominant hazard rating on the subject site has been highlighted	in the respective colour – Refer to Table 2)						
Hazard Rating	'Low' Hazard Rating 'Moderate' Hazard Rating 'Significant' Hazard Rating 'Extreme' Hazard Rating									
	0.0%	0.0%	38.5%	59.7%						
Required Actions /	SuDS should be considered to be included within the deve surface water runoff from the site. The SuDS proforma will be completed for non major development proposals.	elopment where possible, in accordance with the NPPF and its plan be required to accompany any SWMS. The site is also identifed by	a comprehensive investigation into surface water flood risk, is requining practice guidance. All major development will require a SWM the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Meuthority at an early stage to ensure that there will be sufficient capa	IS to be produced to show how SuDS will be included to manage edway Council LLFA may require a SWMS and SuDs proforma to						
Recommended Mitigation Measures	considered for inclusion. Suitable mitigation (i.e. compensation)	atory flood storage, floodable voids) should be provided where deve	It Agency's recommended additional freeboard requirements where slopment would displace surface water and increase the risk of flood k areas. The Sequential Approach should also be applied to the interpretation of the surface of th	ding to the surrounding area.						
	raised.	evelopment layout to ensure that users and occupants of the site ca		ornaria, para or para ornaria. Informe a carmot po						
	When developing a scheme, the condition of any adjacen defence upgrades should be shared amongst beneficiaries		o upgrading the defences to maintain, or further, the protection off	ered to the site and surrounding area. The costs associated with						



1321 - 2 Station Road	, Strood								
	Site Area: 0.19ha		Existing Land Use: Brownfie	eld		Proposed Land Use: Residential			
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1		Flood Zone 2	Flood Zo	one 3	Flood Zone 3b			
Map for Planning'	0%		0%	0%		100% *refer to text below			
Development lifetime	100 years								
Exception Test required?	Development which has a 'more vulnerable' classification will be subject to the Exception Test. *Although the NKC modelling shows the site to be within the functional floodplain, the modelling study does not take into account the recently completed Strood Riverside and Jane's Creek defences. These defences would likely reduce the extent of flooding during a 1in20 year return period event, and further analysis is recommended to determine the true extent of the functional floodplain on site. Development classified as 'more vulnerable' use should not be permitted in Flood Zone 3b.								
Flood History	Incidents within the site: None. Incidents within 100m of the site: None.								
Watercourses/Rivers	The River Medway is located 275m to the southeast of the si	te.							
Geology	Bedrock: Lewes Nodular Chalk Formation, Seaford Chalk Formation and Newhaven Chalk Formation (Undifferentiated) (Chalk) Superficial: Alluvium (Clay, Silty Peaty Sandy (Unconsolidated Deposits Classification Scheme))								
	Percentage of site	at risk of flooding fr	om tidal sources during the defended s	cenario for key return period ever	nts. Maximum flood level on s	ite shown in brackets.			
	1 in 200-year return period event	1 in 200-year return period event - 2070		1 in 200-year return period event - 2115		1 in 1000-year return period event			
	100.0% (4.99m AODN)	10	00.0% (5.47m AODN)	100.0% (6.10m AODN)		100.0% (5.42m AODN)			
Percentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.								
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-y	ear return period event - 2070	1 in 200-year return p	eriod event - 2115	1 in 1000-year return period event			
EA	100.0% (5.01m AODN)	100.0% (5.42m AODN)		100.0% (6.02m AODN)		100.0% (5.37m AODN)			
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'								
	'High' risk scenario	'Medium' risk scenario			'Low' risk scenario				
	78.2%		81	0%		100.0%			
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	Surface water is shown to flow across the site in an easterly	direction during all mo	delled scenarios.						
Existing Flood Defence Infrastructure (inc. SoP):	Defences at Strood Riverside and Jane's Creek have recently AODN (as stated in the Medway Flood Defence High Level A Standard of Protection: Unknown					onsist of a wall with minimum actual crest level of 4.17m to 4.67m a condition rating of 2.			
	BA2.1 Strood. Raise (sustain) embankments,walls, flood gate	es and revetments. Th	is option involves improving the current SC	P provided by the defences to 1% A	AEP SoP with sea level rise.				
MEASS Benefit Area and Preferred Option	MEASS Policy Now - 2038		MEASS P	olicy 2038 - 2068		MEASS Policy 2068 - 2118			
	HTL Sustain		н	L Sustain		HTL Sustain			
High-Level Indication of Defence Costs	The Strood Riverside and Jane's Creek defences have rece Based on an average cost of £1,526/m to raise an existing de	ently been upgraded to efence wall, it is estima	improve the standard of protection. Notwated to cost in the region of £460,000 to up	ithstanding this, further improvement grade the 300m of defences in orde	nts should be considered to im	prove the defences between Strood Riverside and Jane's Creek. me of any development.			



1321 - 2 Station Road, Strood										
Flood Warning Area?	Yes.									
	Percentage of site in each Hazard Rat	ing Classification during the design flood event (2115) (The d	ominant hazard rating on the subject site has been highlighted	in the respective colour – Refer to Table 2)						
Hazard Rating	Rating 'Low' Hazard Rating 'Moderate' Hazard Rating 'Significant' Hazard Rating 'Extrem									
	0.0%	0.0%	0.0%	100.0%						
Required Actions / Recommended Mitigation Measures	SuDS should be considered to be included within the devel surface water runoff from the site. The SuDS proforma will be completed for non major development proposals. For major developments, or where there are historic sewer and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level a	opment where possible, in accordance with the NPPF and its plant of required to accompany any SWMS. The site is also identified by flooding incidents, developers should consult the relevant water and depth of flooding from surface water, including the Environment	orehensive investigation into surface water flood risk, is required to be noting practice guidance. All major development will require a SWM of the Level 1 SFRA as a 'Sensitive Drainage Area' and therefore Meanthority at an early stage to ensure that there will be sufficient capa at Agency's recommended additional freeboard requirements where elopment would displace surface water and increase the risk of flood	IS to be produced to show how SuDS will be included to manage edway Council LLFA may require a SWMS and SuDs proforma to acity in the wastewater system to accommodate the development a practicable. Flood resistance and resilience measures should be						
	The Sequential Approach should be applied to the layout of the site by locating the most vulnerable elements in the lowest risk areas. The Sequential Approach should also be applied to the internal layout of buildings, in particular where floor levels cannot be raised.									
	Flood Hazard should be appraised against the proposed de	velopment layout to ensure that users and occupants of the site ca	an achieve safe access and egress.							
	When developing a scheme, the condition of any adjacent defence upgrades should be shared amongst beneficiaries.		to upgrading the defences to maintain, or further, the protection off	ered to the site and surrounding area. The costs associated with						



0820a - Interface Land	d (northern parcel), Chatham Maritime							
	Site Area: 2.8ha	Existing Land Use: Brownfield				Proposed Land Use: Residential		
Flood Zone Classification based on the EA's 'Flood	Flood Zone 1	'	Flood Zone 2	Flood Zo	one 3	Flood Zone 3b		
Map for Planning'	0.25%		2.15%	94.53%		3.07% *refer to text below		
Development lifetime	100 years							
Exception Test required?	Development which has a 'more vulnerable' classification will be subject to the Exception Test. Development classified as 'more vulnerable' use should not be permitted in Flood Zone 3b.							
Flood History	Incidents within the site: None. Incidents within 100m of the site: Highway flooding within both carriageways following heavy rainfall.							
Watercourses/Rivers	The River Medway is adjacent to the site.							
Geology	Bedrock: Seaford Chalk Formation (Chalk) Superficial: Alluvium (Clay, Silty Peaty Sandy (Unconsolidated Deposits Classification Scheme))							
	Percentage of site at risk of flooding from tidal sources during the defended scenario for key return period events. Maximum flood level on site shown in brackets.							
	1 in 200-year return period event	1 in 200-yea	ar return period event - 2070	1 in 200-year return p	eriod event - 2115	1 in 1000-year return period event		
	3.1% (5.06m AODN)	3.1	% (5.46m AODN)	100.0% (6.09	m AODN)	3.1% (5.40m AODN)		
Percentage of site at risk of	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.							
flooding from tidal sources and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-yea	ar return period event - 2070	1 in 200-year return period event - 2115		1 in 1000-year return period event		
EA	97.6% (5.01m AODN)	99.8% (5.49m AODN)		100.0% (6.06m AODN)		99.8% (5.44m AODN)		
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'							
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario		
	0.4%	2.4%		8.5%				
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	There are localised areas of surface water accumulation during all three modelled scenarios , which could be attributed to localised depressions in the topography.							
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall with minimum actual crest level of 5.17m to 5.67m AODN (as stated in the Medway Flood Defence High Level Appraisal) and has a condition rating of 2 (Good). The EA's Spatial Flood Defence dataset shows crest levels of 5.60m to 6.17m AODN and a condition rating of 2. Standard of Protection: 200-1000							
MEASS Benefit Area and Preferred Option	BA2.3 St Mary's Island. Raise (sustain) embankments, walls, flood gates and revetments. This option involves improving the SoP provided by the defences to 0.5% AEP SoP with sea level rise.							
	MEASS Policy Now - 2038	MEASS Policy 2038 - 2068		MEASS Policy 2068 - 2118				
	HTL Sustain	HTL Sustain			HTL Sustain			
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing defence wall, it is estimated to cost in the region of £1,530,000 to upgrade the 1km of defences in order to protect the site for the lifetime of any development.							
Flood Warning Area?	Yes.							



0820a - Interface Land (northern parcel), Chatham Maritime								
Hazard Rating	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the respective colour – Refer to Table 2)							
	'Low' Hazard Rating	'Moderate' Hazard Rating	'Significant' Hazard Rating	'Extreme' Hazard Rating				
	0.0%	0.0%	26.5%	73.3%				
The site is located in Flood Zones 2 and 3, and therefore will require a detailed Flood Risk Assessment. SuDS should be considered to be included within the development where possible, in accordance with the NPPF and its planning practice guidance. All major development will require a SWMS to be produced to show is surface water runoff from the site. The SuDS proforma will be required to accompany any SWMS. For major developments, or where there are historic sewer flooding incidents, developers should consult the relevant water authority at an early stage to ensure that there will be sufficient capacity in the wastewater syst and any upgrades are carried out where necessary. Floor levels should be raised above the design flood level, including the Environment Agency's recommended additional freeboard requirements where practicable. Flood resistance and resilience measures should be consi (i.e. compensatory flood storage, floodable voids) should be provided where development would displace surface water and increase the risk of flooding to the surrounding area. The Sequential Approach should be applied to the layout of the site by locating the most vulnerable elements in the lowest risk areas, and avoiding development within Flood Zone 3b*. The Sequential Approach should a buildings, in particular where floor levels cannot be raised. Flood Hazard should be appraised against the proposed development layout to ensure that users and occupants of the site can achieve safe access and egress. The EA should be consilted where development is proposed within 16m of a tidal waterbody or tidal defence infrastructure to obtain consent via a Flood Risk Activity Permit (FRAP). When developing a scheme, the condition of any adjacent defences should be taking into account and consideration given to upgrading the defences to maintain, or further, the protection offered to the site and surround defence upgrades should be shared amongst beneficiaries.								



0820b - Interface Land, Chatham Maritime							
	Site Area: 2.23ha	Existing Land Use: Brownfield			Proposed Land Use: Residential		
Flood Zone Classification based on the EA's 'Flood Map for Planning'	Flood Zone 1		Flood Zone 2	Flood Zone 3		Flood Zone 3b	
	71.86%		10.21%	17.93%		0%	
Development lifetime	100 years						
Exception Test required?	Development which has a 'more vulnerable' classification will be subject to the Exception Test.						
Flood History	Incidents within the site: None. Incidents within 100m of the site: None.						
Watercourses/Rivers	The River Medway is 275m to the west of the site.						
Geology	Bedrock: Seaford Chalk Formation (Chalk) Superficial: Alluvium; River Terrace Deposits, 1 (Clay, Silty Peaty Sandy (Unconsolidated Deposits Classification Scheme); Sand and Gravel)						
	Percentage of site at risk of flooding from tidal sources during the defended scenario for key return period events. Maximum flood level on site shown in brackets.						
	1 in 200-year return period event	1 in 200-yea	1 in 200-year return period event - 2070 1 in 200-year return period event - 2115		eriod event - 2115	1 in 1000-year return period event	
	0.0% (0.00m AODN)	0.0	% (0.00m AODN)	39.7% (6.09n	n AODN)	0.0% (0.00m AODN)	
Percentage of site at risk of flooding from tidal sources	Percentage of site at risk of flooding from tidal sources during the undefended scenario for key return period events. Maximum flood level on site shown in brackets.						
and surface water, based off mapping available from the	1 in 200-year return period event	1 in 200-yea	r return period event - 2070	1 in 200-year return po	eriod event - 2115	1 in 1000-year return period event	
EA	17.9% (5.00m AODN)	28.8% (5.49m AODN)		38.8% (6.06n	n AODN)	28.1% (5.43m AODN)	
	Percentage of site at risk of flooding from surface water based on the EA's 'Risk of Flooding from Surface Water Map'						
	'High' risk scenario		'Medium' risk scenario			'Low' risk scenario	
	0.6%		1.5%			7.8%	
Description of Surface Water Flow Paths (<u>EA's</u> <u>RoFSW Maps</u>)	There are localised areas of surface water accumulation during all three modelled scenarios, which could be attributed to localised depressions in the topography.						
Existing Flood Defence Infrastructure (inc. SoP):	The existing defences consist of a wall with minimum actual crest level of 5.17m to 5.67m AODN (as stated in the Medway Flood Defence High Level Appraisal) and has a condition rating of 2 (Good). The EA's Spatial Flood Defence dataset shows crest levels of 5.60m to 6.17m AODN and a condition rating of 2. Standard of Protection: 200-1000						
MEASS Benefit Area and Preferred Option	BA2.3 St Mary's Island. Raise (sustain) embankments, walls, flood gates and revetments. This option involves improving the SoP provided by the defences to 0.5% AEP SoP with sea level rise.						
	MEASS Policy Now - 2038	MEASS Policy 2038 - 2068		MEASS Policy 2068 - 2118			
	HTL Sustain	HTL Sustain		HTL Sustain			
High-Level Indication of Defence Costs	Based on an average cost of £1,526/m to raise an existing defence wall, it is estimated to cost in the region of £1,530,000 to upgrade the 1km of defences in order to protect the site for the lifetime of any development.						
Flood Warning Area?	Yes.						



0820b - Interface Land, Chatham Maritime								
Hazard Rating Required Actions / Recommended Mitigation Measures	Percentage of site in each Hazard Rating Classification during the design flood event (2115) (The dominant hazard rating on the subject site has been highlighted in the respective colour – Refer to Table 2)							
	'Low' Hazard Rating 'Moderate' Hazard Rating		'Significant' Hazard Rating	'Extreme' Hazard Rating				
	2.8%	0.0%	29.1%	2.0%				
	The site is partially located in Flood Zones 2 and 3, and therefore will required a detailed Flood Risk Assessment. SuDS should be considered to be included within the development where possible, in accordance with the NPPF and its planning practice guidance. All major development will require a SWMS to be produced to show how SuDS will be included to manage surface water runoff from the site. The SuDS proforma will be required to accompany any SWMS. For major developments, or where there are historic sewer flooding incidents, developers should consult the relevant water authority at an early stage to ensure that there will be sufficient capacity in the wastewater system to accommodate the development and any upgrades are carried out where necessary.							
	Floor levels should be raised above the design flood level and depth of flooding from surface water, including the Environment Agency's recommended additional freeboard requirements where practicable. Flood resistance and resilience measures should be considered for inclusion. Suitable mitigation (i.e. compensatory flood storage, floodable voids) should be provided where development would displace surface water and increase the risk of flooding to the surrounding area.							
	The Sequential Approach should be applied to the layout of the site by locating the most vulnerable elements in the lowest risk areas. The Sequential Approach should also be applied to the internal layout of buildings, in particular where floor levels cannot be raised.							
	Flood Hazard should be appraised against the proposed development layout to ensure that users and occupants of the site can achieve safe access and egress.							
	When developing a scheme, the condition of any adjacent defences should be taking into account and consideration given to upgrading the defences to maintain, or further, the protection offered to the site and surrounding area. The costs associated with defence upgrades should be shared amongst beneficiaries.							



4 Appendices

Appendix A.1 – Site Location Map



Appendix A.1 – Site Location Map



Drawn: NW Checked: TV Approved: SMB

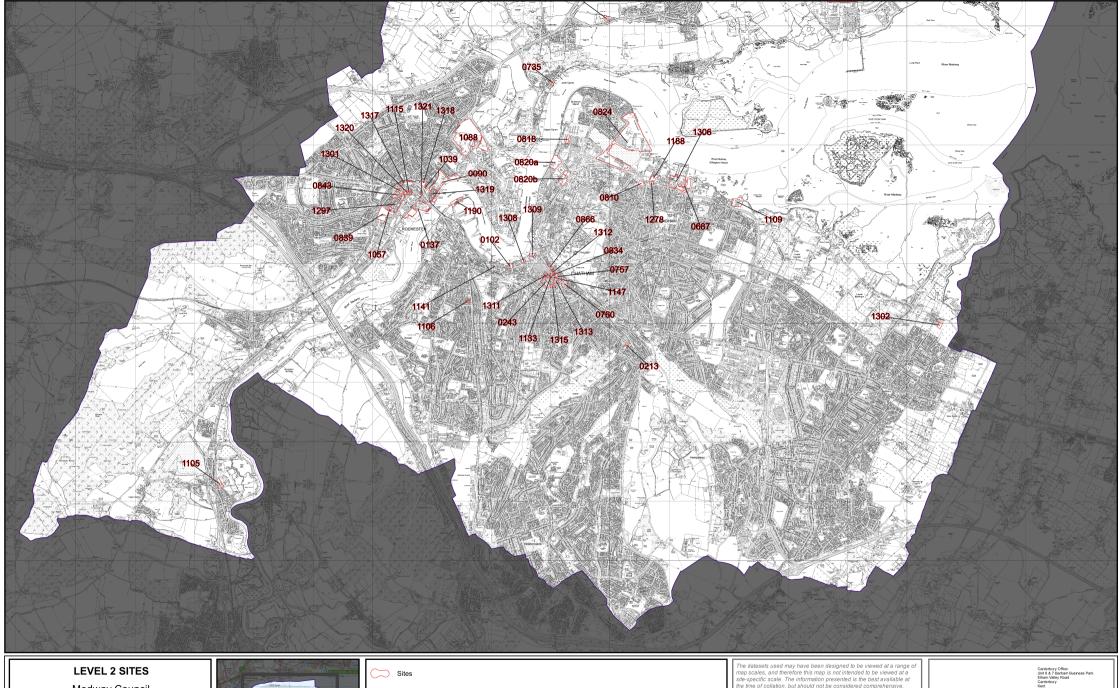
Date: 17/09/2021 Date: 17/09/2021 Date: 17/09/2021 Scale: 1: 50,000 Original: A3 Sheet: 1 of 2

Drawing Number: Revision No: Status: Appendix A.1 - North

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Medway Council Strategic Flood Risk Assessment

Drawn: NW Checked: TV Approved: SMB

Date: 17/09/2021 Date: 17/09/2021 Date: 17/09/2021 Scale: 1: 45,000 Original: A3 Sheet: 2 of 2

Drawing Number: Revision No: Status: Appendix A.1 - South



The datasets used may have been designed to be viewed at a range of map scales, and therefore this map is not intended to be viewed at a site-specific scale. The information presented is the best available at the time of collation, but should not be considered comprehensive. Queries with regard to the adminstrative boundaries should be directed to the LPA.

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