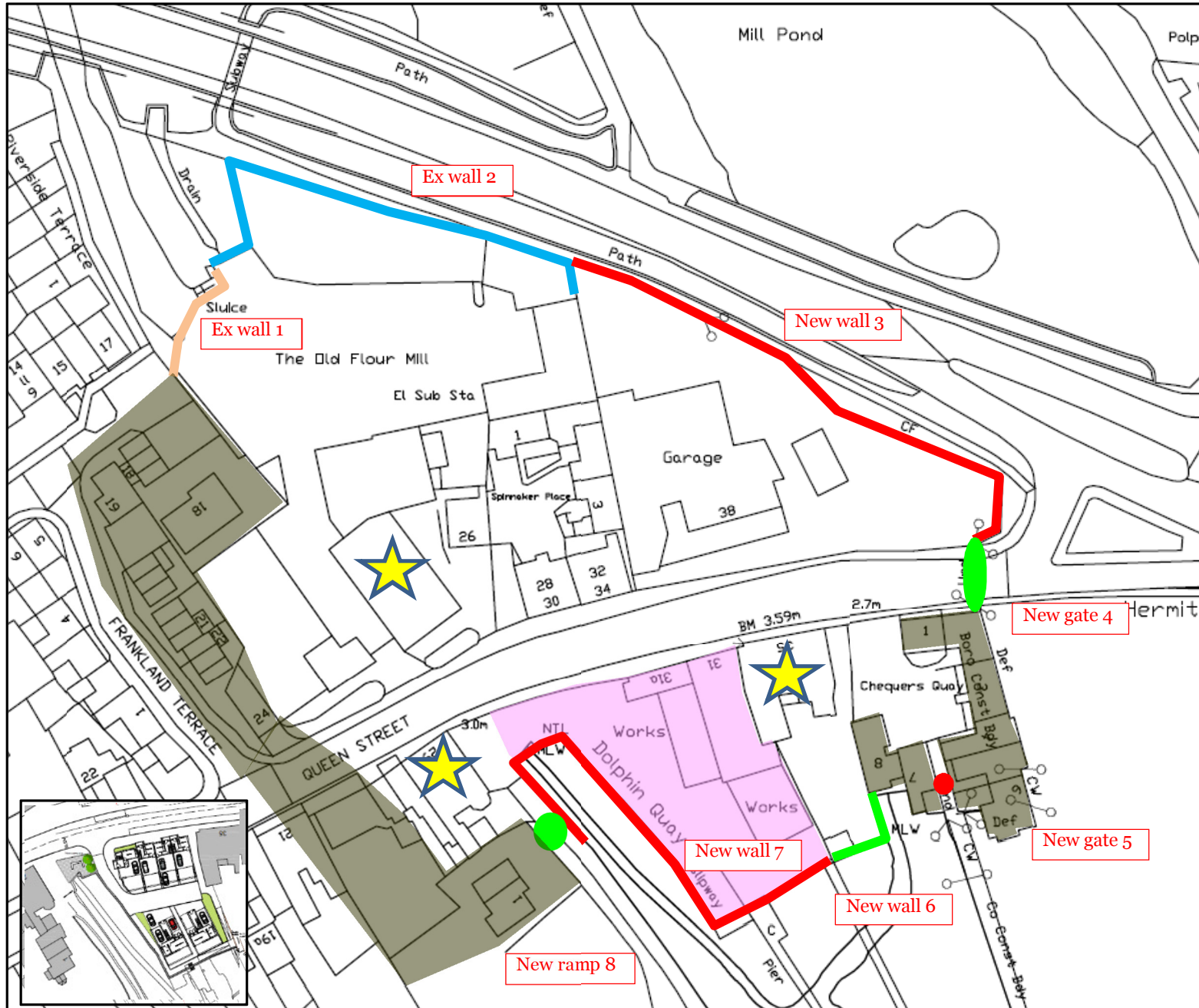




29 January 2014

DOLPHIN QUAY, QUEEN STREET, EMSWORTH

Defence concept notes:

At risk area is defined by 2115_{AD} flood outline shown on NSSMP policy unit diagram 5a16. This includes 3 important heritage sites and conservation area. The SMP unit policy is to hold the line for all 3 Epochs to 2105_{AD}. The key policy drivers for maintaining the line of defence will provide flood protection residential, community facilities/infrastructure, commercial properties and heritage and historically important sites. The NSSMP policy unit 5a16 has been further considered in the Portchester Castle to Emsworth Coastal Flood & Erosion Risk Management Strategy in which Emsworth is covered by Reach 7. This concludes that:

- the preferred option is to Improve defence to 1.3% AEP by year 10
- External contribution required

This strategy has been accepted by the LPA and forms local policy.

The applicant seeks to redevelop Dolphin Quay for residential use and as part of the development would install frontage defences to that site. He would also be willing to contribute to a wider area defences, subject to cost viability. The level of contribution that could be accepted is fundamentally dictated by the value of residential development. Pre-application consultation with the LPA has indicated a desire to put a significant constraint on scale and massing of development. The proposed residential development would have no ground floor habitable space but use this for storage and parking. This however dictates habitable floor levels well above FZ3 2115_{AD} flood levels and consequently necessitates greater ridge heights etc.

The differing demands being placed upon the redevelopment lead to the following conclusion:

- Lower ground level parking bays at the southern end of the site
- This enables scale and massing considerations to be addressed
- This in turn enables a sufficient value to the development in terms of unit quantity and value
- This then enables a contribution to be made to wider defences
- Implementation of the wider defences will locally deliver adopted SMP and defence policy protecting existing residential, commercial and heritage assets

A concept layout for local defensive strategy is attached. The starred sites are important heritage assets and the brown shaded areas indicate existing defence by virtue of ground topography or existing elevated new build. Flood pathway is currently tidal overtopping from the south but similar pathways would develop from the East and North if only the southern frontage were defended.

EF1286 defence concept notes 140129 addendum 160728.docx

The other elements of a defensive perimeter are briefly outlined below:

- Ex wall 1: Existing headwall behind trash screen needs investigation but may already be of suitable height to defend 1.3% AEP flood levels
- Ex wall 2: existing wall needs investigation. It is clearly of sufficient height but structural competence to resist 1.3% AEP flood levels needs investigation.
- Ex wall 3: A short boundary wall on level ground would be required to provide defence for 1.3%AEP flood levels.
- New gate 4: Either flood gate (similar to gates in Old Portsmouth) required or ramp highway up then down again at end of the street to provide passive defence to 1.3% AEP flood levels
- New gate 5: Either small pedestrian flood gate or ramp footway up then down again in passageway to provide passive defence to 1.3% AEP flood levels
- New wall 6: Infill gateway in existing boundary wall and provide stairs up from either side of the wall. Structural competence to resist 1.3% AEP flood levels needs investigation
- New wall 7: New wall construction as part of development site works. This would also need to wrap around the far side of the channel end for a short distance.
- New ramp 8: existing channel side footway to be ramped up and down to wall crest level to attain 1.3% AEP flood level.

A P Traves

for Opus International Consultants (UK) Ltd

Enc concept layout

28 July 2016 Addendum

- New ramp 8: there are alternatives to ramping the access up and down. The existing vehicular gate has been little used, if at all in the last 3 years and could be replaced with a flood gate which is closed and only opened when occasional access is required. The pedestrian access is separate to the vehicular gate and an impermeable kissing gate could be installed. This would allow the current grades to be maintained:

