



Essex County
Fire & Rescue Service

Securing Adequate Water Supply

DCFO Rick Hylton



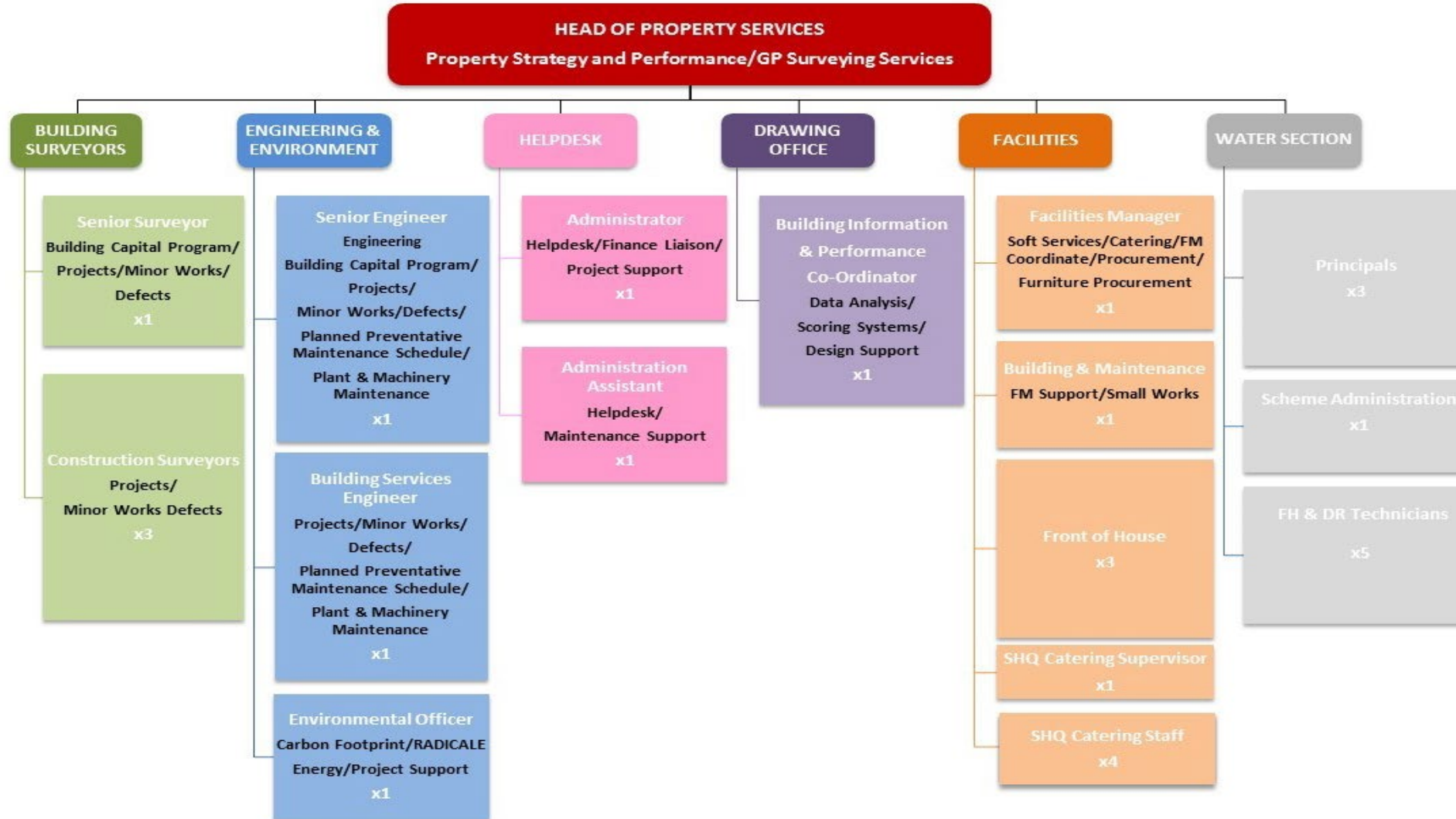
Essex County
Fire & Rescue Service

ECFRS Water Section Overview

Arrangements for the provision of a water supply for emergency uses of the Service are managed through this department. Routine day to day activities are focused on the testing and maintenance of some 33,000 statutory fire hydrants including the necessary updates of the related records which are used to populate the graphical and textual fire hydrant information on mobile data terminals installed on front line fire appliances.

As new developments of all types and magnitude are brought to notice consultation is arranged with water supply companies, building control officers, developers, architects, owners and other interested parties to ensure that fire hydrants or, where necessary other facilities, in line with relevant standards, are provided.

Additionally the team is able to test, as a chargeable special service, private firefighting facilities such as some 1,600 private fire hydrants and 205 dry rising fire mains annually, on behalf of owners or occupiers to verify that these facilities remain available to firefighters if required in an emergency.





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Fire & Rescue Service

Fire Hydrant & Dry-Riser Technicians

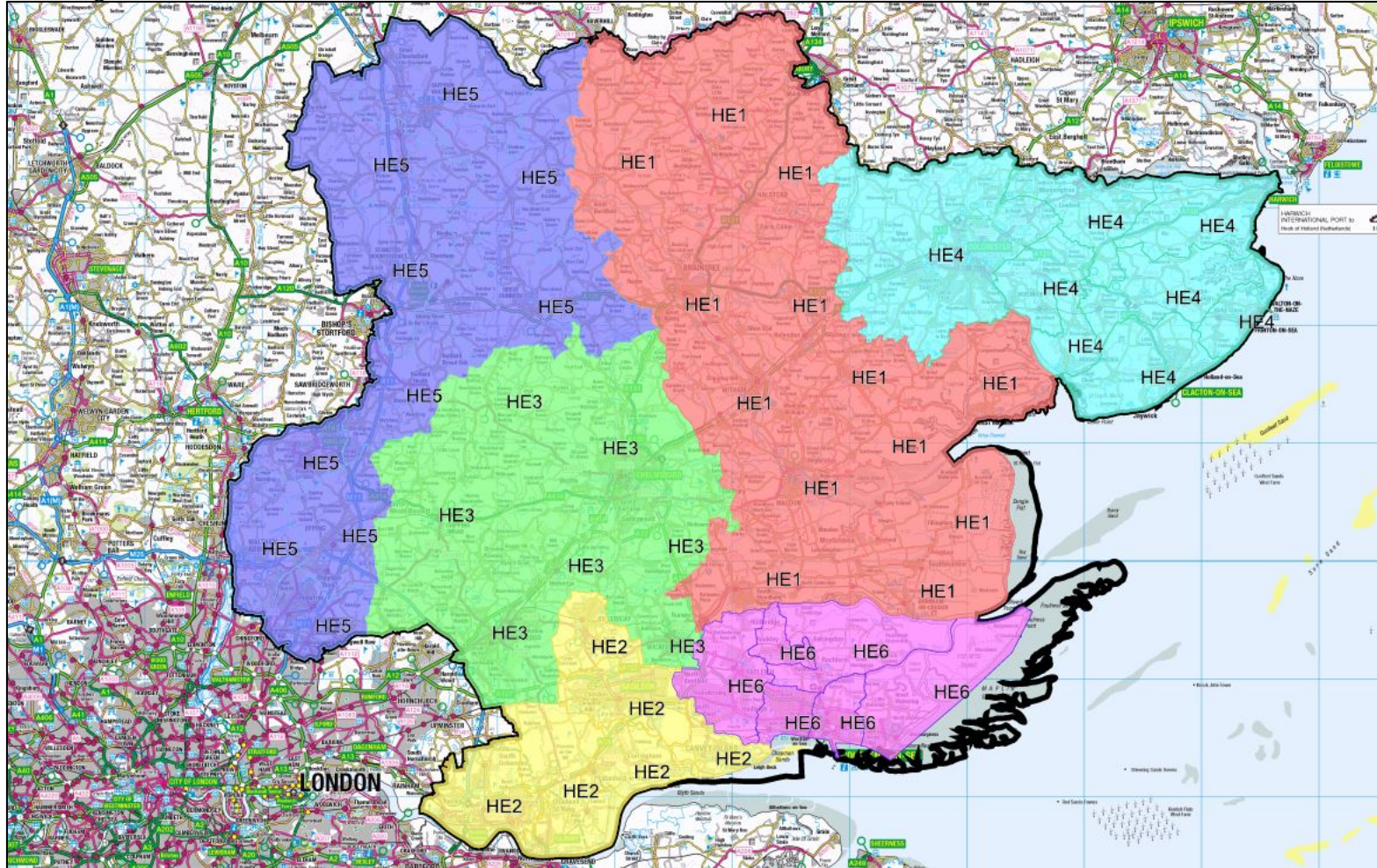


There are 6 Technicians strategically based at Fire Stations throughout the County, W78 Braintree, W55 Orsett, E34 Chelmsford, E21 Wivenhoe, W87 Gt Dunmow & W69 Wickford. Each Technician's vehicle carries a full complement of tools, equipment and mobile technology to conduct the maintenance and repair programme. The Service vehicles also provide a public reassurance and awareness of the importance of the work being undertaken.



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Fire Hydrant Technicians Areas

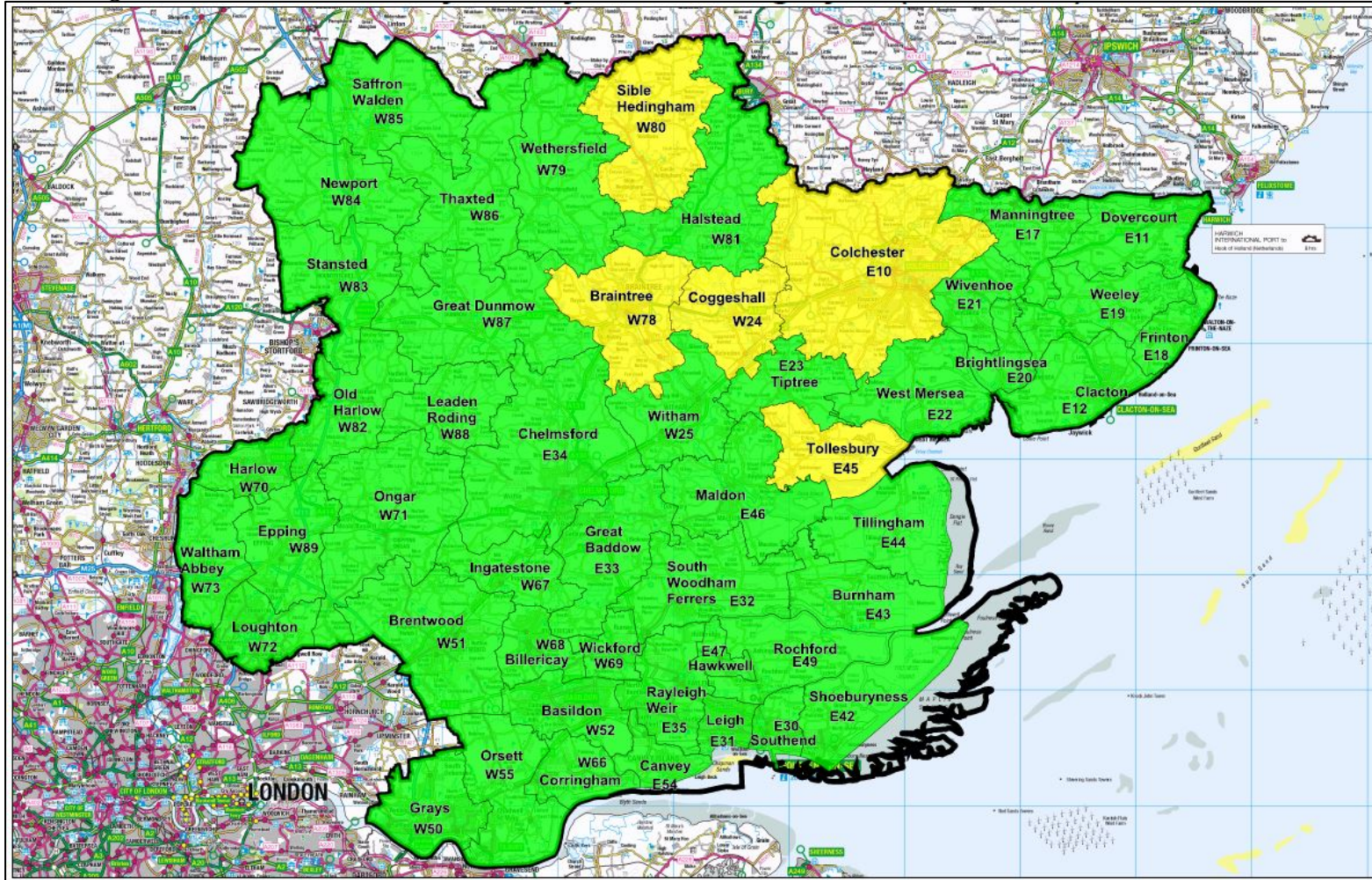


The County is divided into 6 areas and each Technician, is responsible for the maintenance and testing of approximately 5,000+ statutory fire hydrants on a rolling cycle. Each area is sub-divided into station grounds and each fire hydrant within each station ground is tested in a pre-defined geographically efficient route order. Each Technician is also responsible for the maintenance & testing of contracted private fire hydrants within their station grounds.



Statutory Fire Hydrant Testing Cycle Heat Map

This map shows the frequency rate at which statutory fire hydrants are currently being tested within the station grounds.



Fire Hydrant Technician Station Grounds

HE1 Nicholas Rose		HE2 Alan Goulding		HE3 Mick Hockley	
Base :- W78 Braintree Station		Base :- W55 Orsett Station		Base :- E34 Chelmsford Station	
78	W Braintree	66	W Corringham	33	E Great Baddow
24	W Coggeshall	55	W Orsett	51	W Brentwood
45	E Tollesbury	52	W Basildon	67	W Ingatestone
80	W Sible Hedingham	54	E Canvey Island	69	W Wickford
25	W Witham	68	W Billericay	34	E Chelmsford
23	E Tiptree	50	W * Grays *	88	W * Leaden Roding *
81	W Halstead			71	W Ongar
46	E Maldon				
22	E West Mersea				
44	E Tillingham				
79	W Wethersfield				
32	E South Woodham Ferrers				
43	E * Burnham *				

HE4 Darren Kerr		HE5 Anthony Devenish		HE6 Peter Carter	
Base :- E21 Wivenhoe Station		Base :- W87 Dunmow Station		Base :- W69 Wickford Station	
10	E Colchester	87	W Dunmow	47	E Hawkwell
17	E Manningtree	72	W * Loughton *	49	E Rochford
19	E Weeley	73	W Waltham Abbey	30	E Southend
18	E Frinton	70	W Harlow	31	E Leigh
21	E Wivenhoe	82	W Old Harlow	42	E Shoeburyness
20	E Brightlingsea	85	W Saffron Walden	35	E * Rayleigh Weir *
11	E Dovercourt	84	W Newport		
12	E * Clacton *	83	W Stansted		
		86	W Thaxted		
		89	W Epping		

Information correct as of 19/10/2020 (* Indicates current route being worked on *)

- Assets being tested in under 3 years
- Assets being tested between 3-4 years
- Assets being tested over 4 years



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Statutory Fire Hydrant Maintenance Programme

Taking assets from unusable to usable status



Fire hydrant found unusable - Buried



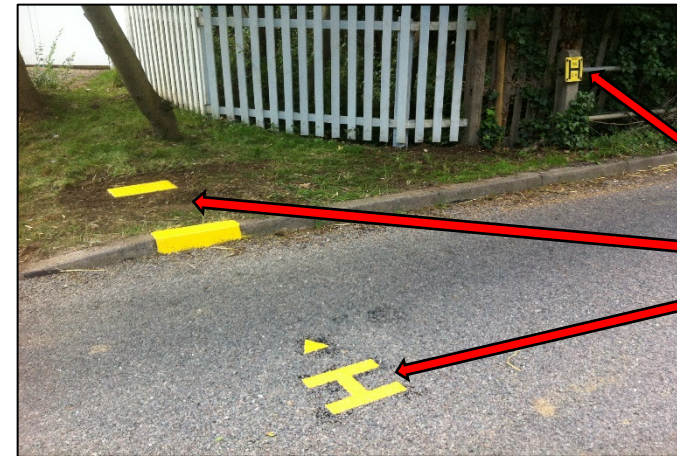
Located with metal detector then excavated



Pit sections installed to raise frame & cover



Frame & cover levelled with verge line



Completed maintenance

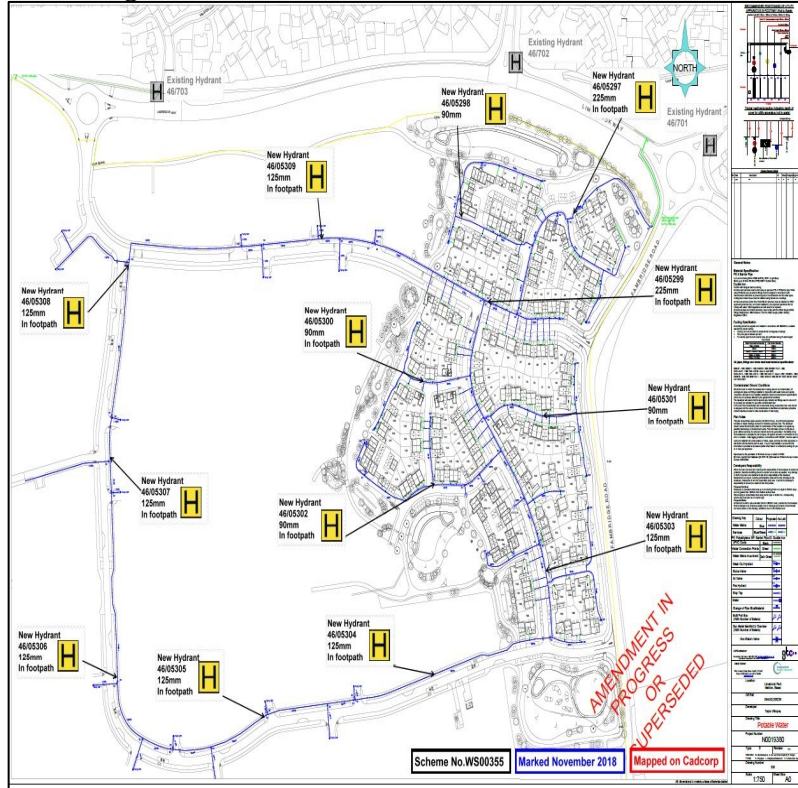
High level points of
indication to enable
operational crews to
easily locate water
supply



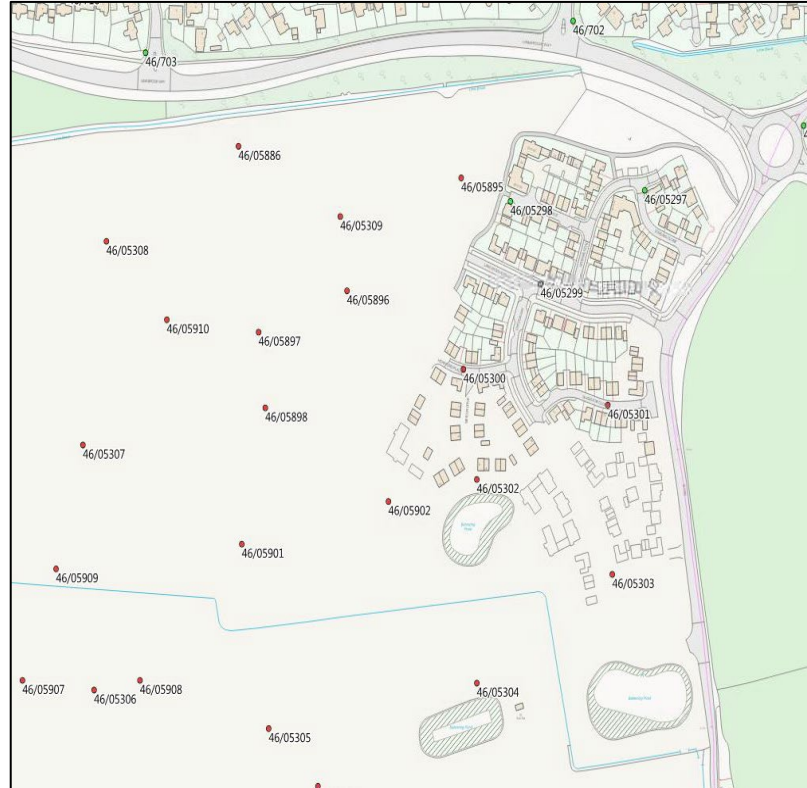
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New Water Main Scheme Arrangements

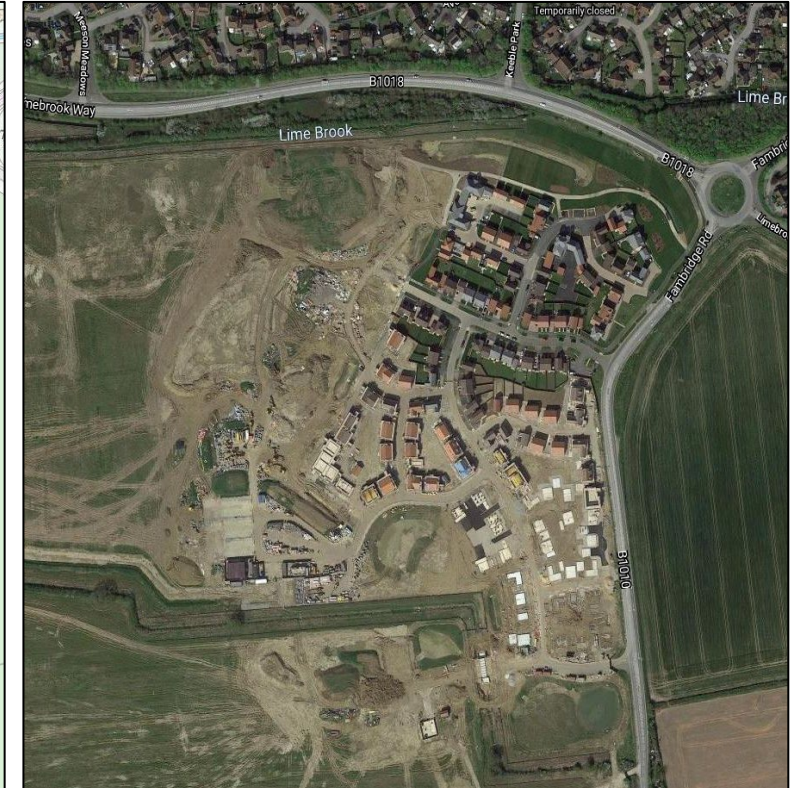
Limebrook Way Maldon



New water main design scheme received from the Local Water Authority. Plans evaluated and fire hydrants strategically mapped by Water Section then assets ordered to serve the new development



New fire hydrant provisions mapped and installation progress monitored. Fire hydrant availability information promulgated daily to front line mobile data terminals

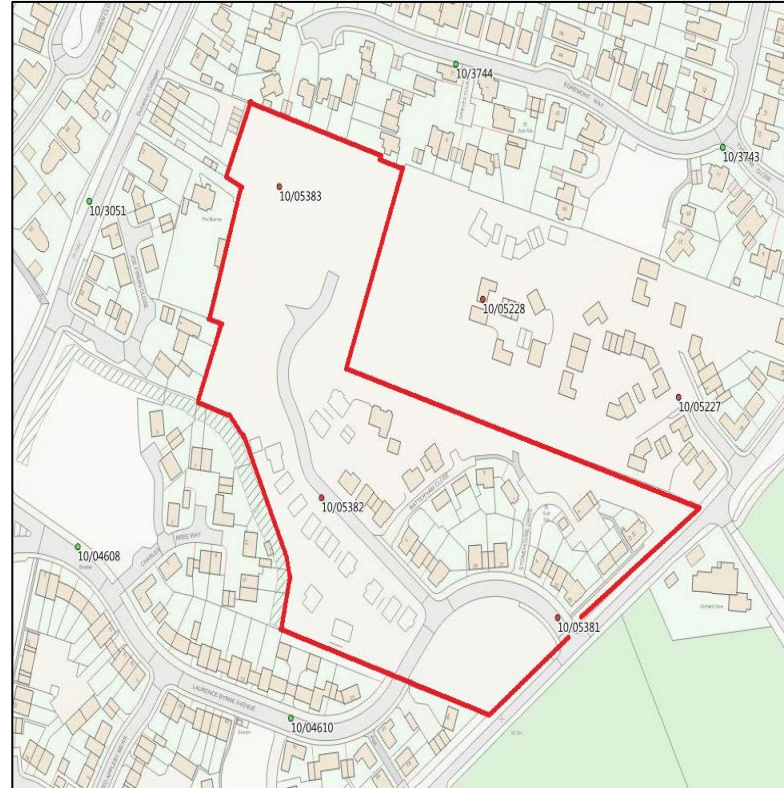
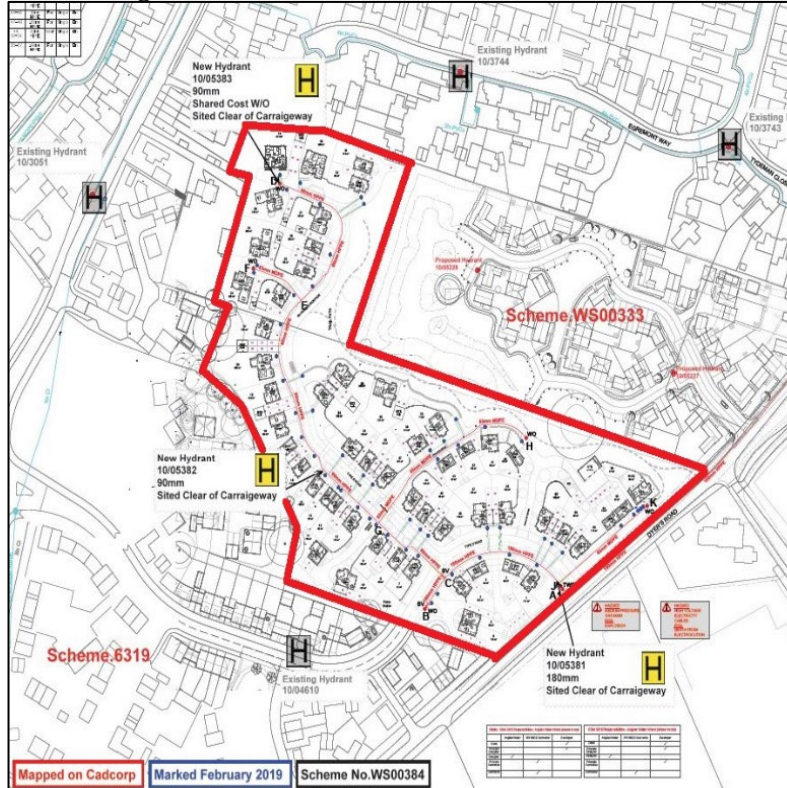


Site under construction



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New Water Main Scheme Arrangements Stanway Colchester



New water main design scheme received from the Local Water Authority. Plans evaluated and fire hydrants strategically mapped by Water Section then assets ordered to serve the new development

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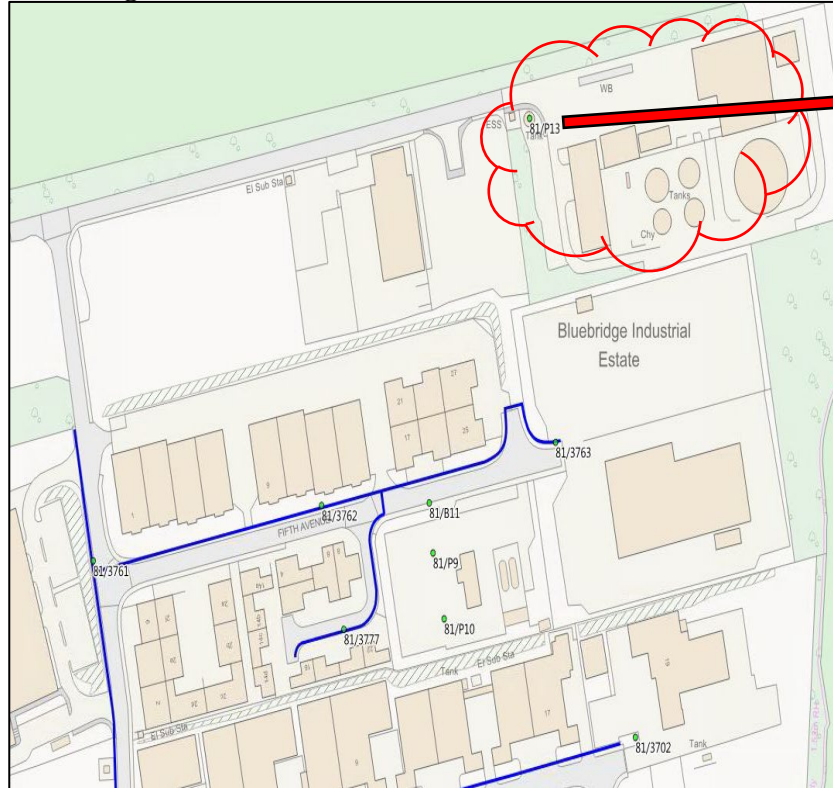
Site under construction



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Alternative Water Supply Provisions

Bluebridge Industrial Estate Halstead



Approved Document B Volume 2 – 15.8

Where no piped water supply is available, or there is insufficient pressure and flow in the water main, an alternative source of supply should be provided in accordance with the following recommendations:

- a. a charged static water tank of at least 45,000 litre capacity

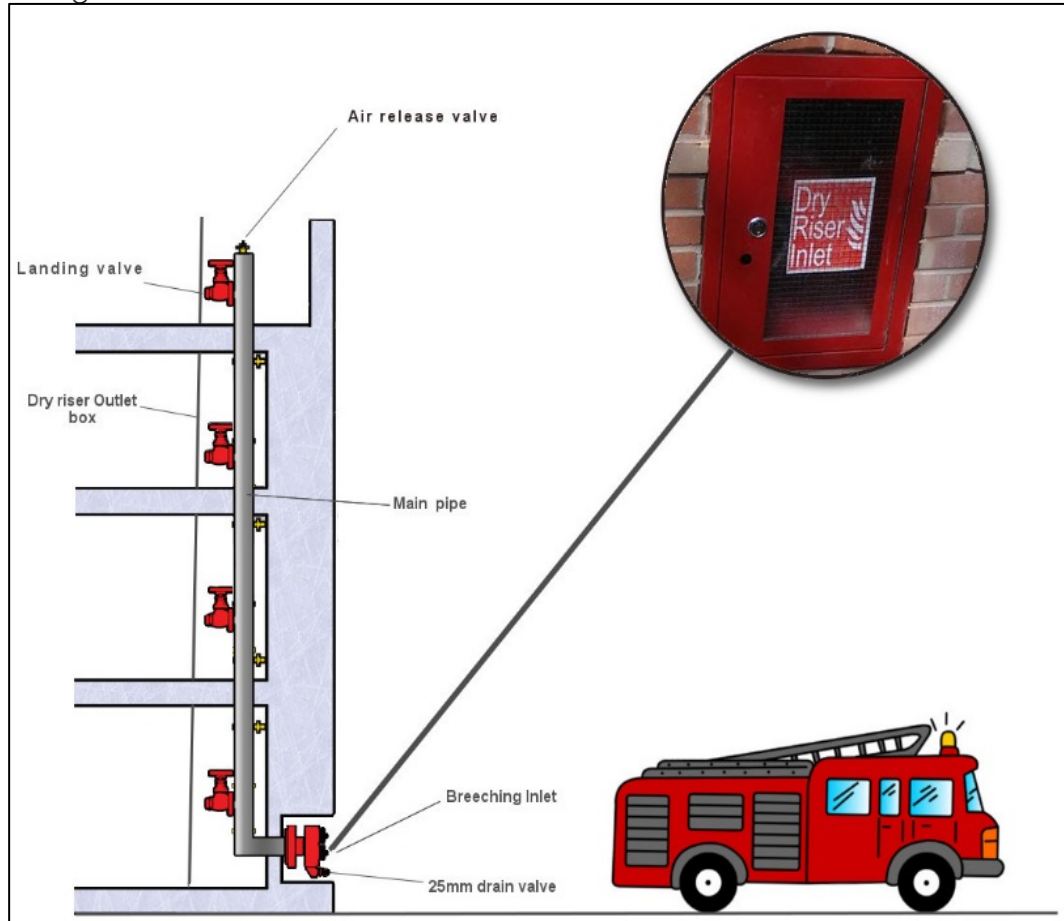
Following Building Regulations consultations, new installation of a dedicated 90,000ltr EWS (emergency water supply) above ground tank with hard suction hose connection for firefighting

Tank capability testing by operational crews



Essex County
Fire & Rescue Service

Dry-Riser Testing



Essex County Fire and Rescue Service Water Section is dedicated to ensuring that fire fighters have a ready supply of water available to deal with any incident. Where facilities provided for this purpose are in private ownership we are able to offer our specialist testing and maintenance expertise to ensure that the apparatus is available for emergency use at all times.

All inlets, outlets, landing wheel valves, and washers are checked to ensure they are in a satisfactory working condition, and that the inlets and outlets are compatible with Fire Service equipment and readily accessible. Where necessary, washers and blank caps will be supplied and fitted at the time of the test.

A wet pressure test in accordance with BS9990:2015 ensures that no fractures or leaks are apparent in the pipe work, and that all valves not in use when the main is charged, remain watertight.