Essex County Fire & Rescue Service

Hawkwell Fire Station

Main Road | Hawkwell | Hockley | Essex | SS5 4EG

Design & Access Statement

Proposed Road Traffic Collision Training Compound &
Working at Heights Training Tower

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January 2012

Utilisation of part of the hard landscaped grounds of the existing Fire Station site to provide a Road Traffic Collision (RTC) training compound and a Working at Heights Training Tower at Hawkwell Fire Station Main Road Hawkwell Hockley Essex SS5 4EG for Essex Fire & Rescue Service.

1 The Proposal

1.1 The Vision

To make the people of Essex safer.

1.2 The Purpose

ECFRS Mission: To save and protect lives, property and the environment.

With an area covering almost 400,000 hectares and a population of more than 1.5 million, Essex is one of the largest County fire services in the UK.
This is why The Essex County Fire & Rescue Service continues to strive for operational excellence, doing more than they have ever done to keep Essex safe. With a modernisation agenda and a focus on providing an efficient, effective, value-for-money service, their efforts are firmly fixed on directing their resources in the areas where they can be best utilised.

This is why they are proposing these state of the art training aids.

Training

The personal development and on-going training of their employees is high on their management agenda and through significant change programmes currently underway, their aim is to provide an environment where their fire-fighters feel inspired to deliver and be part of the best fire and rescue service in the country.

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Road Traffic Collisions

Road safety and RTC reduction is an extremely high priority both nationally and locally. The majority of road accidents occur when a road user fails to cope with the environment, with 95% of all accidents involving some form of human error. Taking 2005 as an example, in the UK there were 2913 fatalities, 25029 serious injuries and 170793 slight injuries attributed to RTC's. The subsequent cost to society was estimated to be £13b. As awareness grows these statistics reduce and Essex Fire and Rescue remain dedicated to extend its ongoing work in the protection prevention and response to the road users in Essex.

The Essex Casualty Reduction Board

The ECRB is a wider partnership Board led by Essex County Council. Through agreements and membership of the ECRB Essex County Fire and Rescue Service has already committed to:

- Exploit their unique position to promote road safety.
- Extend their existing education programmes to include road safety.
- To continue supporting their partners in the delivery and development of road safety initiatives.
- Provide timely response to RTC's.
- Promote and carry out education, awareness and where appropriate, enforcement.
- Evaluate their performance and share information and intelligence with their partners.

With the provision of the RTC training compound, Essex County Fire and Rescue Service will not only be able to expand on their services, but will also be much better equipped to continue to honour their commitments above to ECRB

1.3 Description of the RTC training compound

The RTC Training Compound is a facility that will deliver up to date tactics and techniques for frontline Fire Service personnel to acquire the necessary skills to extricate casualties from road traffic collisions (RTCs) effectively and systematically. But more importantly safely for both the casualty and the fire-fighters conducting the task. The compound could have a multi-agency approach, where other emergency services could visit the Fire Station to take part in the training in order to provide best practise out on the regions roads. The vision of these type of training compounds is to promote this approach all over the county and to become an exemplar at national level. This is an innovative initiative and Essex aims to be one of the leading training organisations of its kind in the UK.

1.4 How can it contribute to reduce casualties?

The Essex County Fire and Rescue Service strategic objectives, which can be achieved through the proposed RTC Training Compound are:

- Preventing loss of life and injuries from emergency incidents.
- Reducing risk in our communities.
- Responding quickly and effectively to emergencies when requested.

The RTC Training Compound will not only provide state of the art training to the fire-fighters, it is an ideal medium to deliver education to at risk groups, primarily young drivers, through visits to the station where they could receive presentations and practical demonstrations by both the Police and Fire Service personnel.
It is believed that this will be a valuable addition to the education work of The Essex Casualty Reduction Board.

1.5 The RTC Training Compound will help drive casualties down in the future?

The additional training and knowledge the Compound will impart on personnel from many agencies can only add to and improve emergency response to road traffic collisions. By creating a more effective emergency response it will assist in reducing the severity of injuries to casualties.
Using the RTC Training Compound as a resource for educating at risk young drivers will also help to prevent the collisions happening in the first place.
Our primary means of engaging with young people is through presentations and whilst this is a highly successful scheme there is a need for a more hands on solution when engaging with kinaesthetic learners. The RTC Training Compound will allow for the possibility to establish a new means of engaging with young people.
This additional resource will allow Essex County Fire and Rescue Service to offer courses to select groups of education providers who have identified that their learners would benefit from a more interactive and practical means of road safety awareness.

Essex County Fire and Rescue Service will aim to give learners a chance to experience extricating a casualty from a car, learn first aid, experience a crashed car simulation and overall learn why the emergency services place such a great emphasis on reducing the number of people killed and seriously injured on the roads.

Description of The Working at Heights Tower

1.6 The proposed tower will provide a facility to simulate various working at height scenarios that might be encountered by the fire service during rescue operations. Training drills will be carried out on the platform to practice safe manoeuvring onto and through high structures.

This proposal forms one of a number of similar projects for implementing "Working at Height" training at fire stations throughout Essex, therefore the design has been standardised to satisfy the Essex County Fire & Rescue's requirements but taking into account the physical constraints governing each site and its environment.

2.0 Site & Design Context

Location Of Station

The area of the site is approximately 1970m2 and is accessed directly off of Main Road.

Rochford District Local Plan indicates that the site is within an area of Existing Residential Development.

The site is surrounded by mainly two storey detached residential buildings to the east and west and what appears to be an allotment or garden area beyond the north boundary. The fire station is set back behind the defined building line and therefore partially obscured in the street scene by the residential properties and trees on Main Road when approaching the site.

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The site comprises of:

- Fire station
- Brick Built Drill Training Tower
- Appliance parking (including washing down area)
- Car parking
- Open Hard standing areas

2.1 Layout

RTC Training Compound

The compound will be located in the North West corner of the existing site and will comprise of the following:

- Proposed training ditch, with access to 3 sides.
- The dedicated enclosure will be some 15000 long x 10000mm (approx).
- The enclosure will be formed from palisade fencing 1.800 high with 102 x 44mm galvanized steel posts (set into concrete bases 600min into ground), 3mm thick w profile round top pales with 50 x50 mm galvanized steel angle rails.
- Double leaf palisade gates, 1.800 high within 150 x 150 x 5mm shs galvanized steel posts. 3mm thick w profile round top pales, 50 x 50mm galvanized steel angle rails and gate frame. 450 x 450 x 1000min concrete pads to gate posts (posts to be set into ground 760mm min). Overall opening to be 8.000 wide. With the allowance for jockey wheels to each gate.
- All rivets, collars, nuts to be snap off anti vandal.
- Galvanized steel palisade fencing to BS172 part 12 2006 security (sp)
- The proposed training ditch will be formed within the existing ground and will have access to 3 sides.
- The overall width of the training ditch will be some 3000mm wide with a length of some 8000mm and a depth, to the drainage channel of some 900mm, refer to section A-A on drawing 11.163/01, for ditch details.

- 5000mm high base hinged lighting column(non illuminated) flange plate mount fixed on concrete bases 700 x 800mm via metal threaded studs *(refer to fig 1).*
- Removable sections of Armco barrier.
- There will be 3 lanes for different options of vehicle locations (some 9000mm combined depth)
- An area, some 2.400 depth x 10.000 long will be formed for proposed car storage area.

Working at Heights Training Tower

It is proposed to construct the "Working at Height" training facility for Essex County Fire and Rescue Service in the north east corner of the site between the existing drill tower and the rear boundary of the site.

The design consists of a two storey open steel frame structure with a 2m x 8m rectangular footprint at a maximum height of 6.55m. the roof of which will be formed of two sections: a flat open steel grate and the other, a further but pitched open steel grate that shall be used collectively for working at height exercises by fire personnel.

The structure will be 52m from the front boundary, partially hidden behind the existing drill tower and the space currently being utilised as an area for holding cars used for training purposes.

The tower will be at least 1m from the site boundaries and approximately 3.4m from the rear of the drill tower.

The "Working at Height" facility will need to be floodlit during certain times of the evening, especially in winter. The proposed lights have been positioned so as to be discretely shielded by the privacy screen and oriented to avoid any disturbance to neighbouring properties. The facility is strictly for the use of the fire service and will not to be used by any groups or members of the public. The fire service would require that the proposed training tower would be used at any one time for a maximum duration of 3 hours at any time between 9am & 9pm up to 7 days a week.

Having regard to the distance of the tower from the street frontage of the site and that the proposal will be mostly concealed by the existing buildings, it is not considered that there will be any detrimental effect on the street scene or the character of the area.

It is quite apparent that should the tower stand alone it would partly overlook the far ends of the neighbouring gardens of 238 Main Road, 9 Helena Close and various other properties and therefore a privacy screen is proposed beside the North and East elevations of the platform to eliminate the risk of loss of privacy. Although there is an argument that left to stand on its own the proposed structure is more open, we feel that the screening is less obtrusive visually and as it does eliminate the Overlooking factor it means that the proposal conforms with Policy HP6 (viii) of the Rochford District Replacement Local Plan which deals with Overlooking, Privacy and Visual Amenity. (For details of the privacy screening refer to the application drawings).

(refer to figs 3-8. for sketch visuals of the proposed tower)

2.2 Landscaping

All of the existing hard landscaping will be retained.

The existing on site car parking provision is already adequate and the proposal will have no impact in this respect.

Access and egress from the site and the existing buildings will not be altered by the proposal.

2.3 Proposed De-Brief Shelter

A preformed lightweight aluminium framed shelter with 6mm scratch resistant co-polymer acrylic glazing is to be erected on a concrete base with suitable fixings (to manufacturers details), shelter size is 2.000 x 1.600 x 2.250 high, to top of curved toughened fibreglass roof, manufacturer to be agreed *(style as fig. 2).*

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3.0 Reference Images

Fig. 1

Fig. 2

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Fig 3.

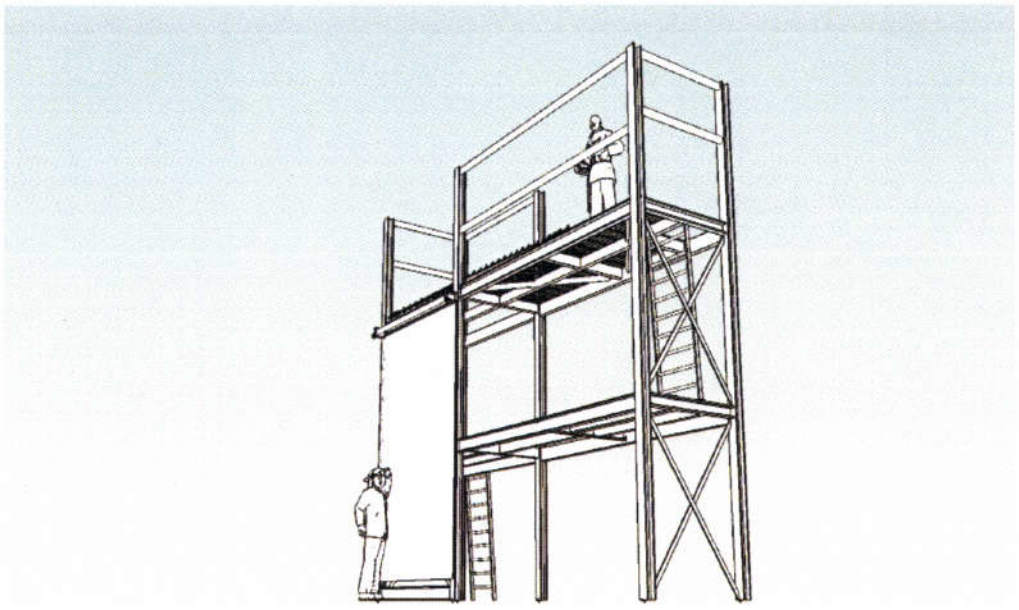

Fig 4.

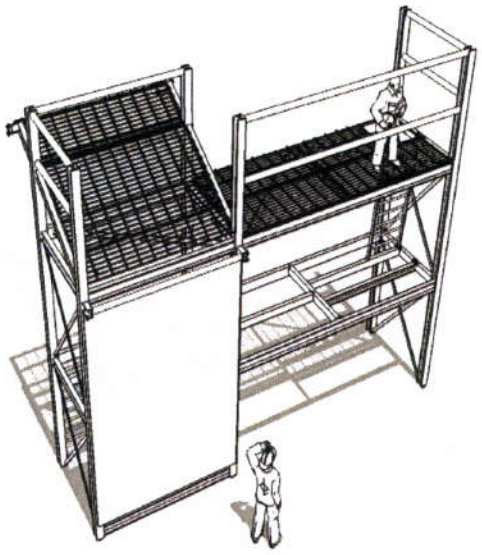

Fig 5.

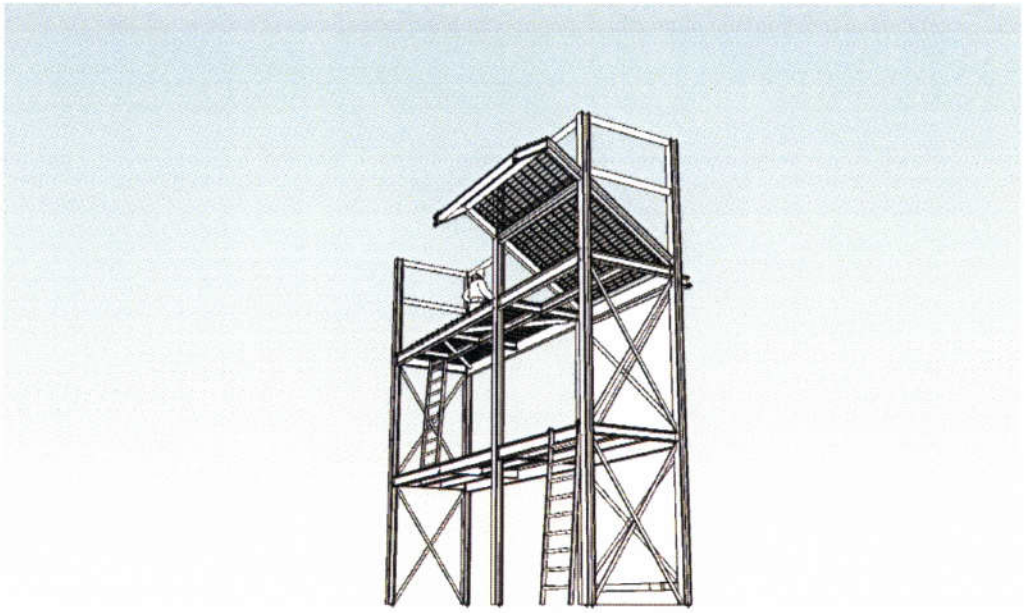

Fig 6.

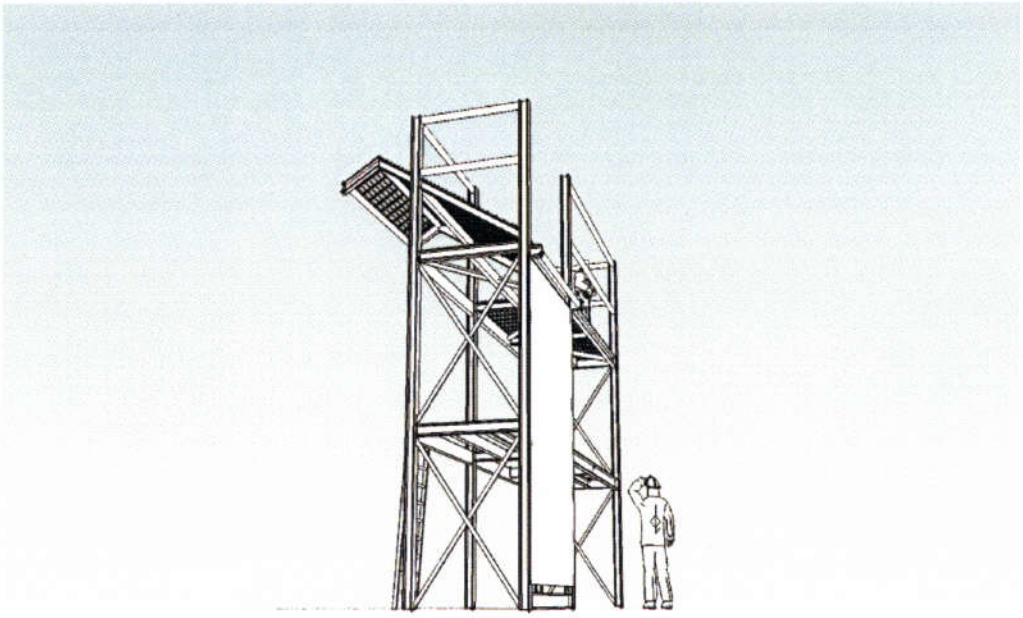

Fig 7.

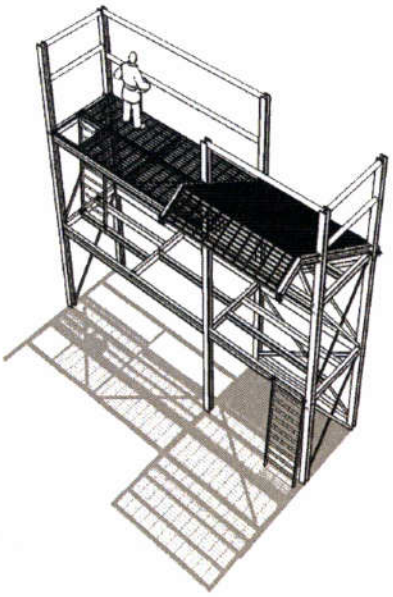

Fig 8.