




Form Ref: HSI-10	Independent Health & Safety Inspection – Blue Star Item	Version: 2.0 Jun 2015
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	Awarded for Exceptional Performance or New Initiative not widely used on other sites
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Project	Principal Contractor (PC)	Date of Inspection
M1 16-13 Tranche 3	Costain Galliford Try JV	N/A
Site Contact	Email Address	Telephone Number
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Description of Blue Star Item	<p>'Survey Giraffe'</p> <p>A survey/engineering tool made and designed in house with the purpose to eliminate working from height and any additional cost associated with working safely at height i.e MEWP, Scaffolding, Ropes Access, Podiums.</p> <p>It is made from few pieces of 25mm aircraft grade square aluminium machined down and calibrated to survey tolerances. The pieces are fused together to form Z, with the purpose of allowing Surveyors/Engineers to survey assets high up accurately and without the need to work at height. The system utilises the Standard Pogos Level to accurately level up the GPS or Prism at height. When the Pogo is Level at ground Level the Prism/GPS is then Level at whatever Height the asset is at, it can currently adapt the system to work up to a maximum height of 5m. The 'Giraffe' can also be used for lower items by using other survey equipment that can be bolted on or off, working much like a "Swiss Army Knife", one item with multiple uses</p> <p>The CGT Surveyor purchased the materials required online from EBAY, made the design on CAD, then with a friend they went to the their garage and used a lathe to machine down and profile the box sections. Then a pillar drill and a few tap/die sets to fit the pieces together and acquire the correct thread and pitch for our current Pogos in use on this site.</p>
Benefits of Blue Star Item	<p>The idea came when the surveying team were struggling to carry out as-built surveys on the sheet pile walls that were 2-3m in the air with no means to access the edges safely due to height restrictions and fencing. CGT Surveyor came up with the solution, passed the idea by his line Manager, and he was given permission to proceed to build his prototype. Once this was built the results were compared against something that had already been surveyed.</p> <p>Due to the width of the working areas, using a scanner or total station would not acquire the best results due to the angle and some of the assets material, a Prism on the edge of the sheet is the only answer to achieve high accuracy.</p> <p>Key benefits</p> <ul style="list-style-type: none"> *No Working at height *Cost Savings *No Scaffolding *No Podiums *No Ropes Access *Higher Accuracy than Scanning/Reflector less *multipurpose/multi use

	<ul style="list-style-type: none"> *Low Cost *Less setups on initial survey *Faster
<p>Details and Cost of any Specific Product</p>	<p>£36 in materials from Ebay 2h in time on a weekend for Machining and fixing the materials A used car Radio (£40) in exchange for use of a Friends Garage and Equipment</p>

<p>Photograph</p>	 <div data-bbox="406 1451 853 1579" style="border: 1px solid black; padding: 5px;"> <p>3m High surveying Environmental Barrier with GPS Head Unit Attached</p> </div>	 <div data-bbox="933 1451 1380 1579" style="border: 1px solid black; padding: 5px;"> <p>3.2m High Surveying Sheet-piles using standard Prism</p> </div>
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Photograph



'The Giraffe'

Fitted with an extension Piece on the top for additional surveys. And fitted with a mini spike and Level in order to survey assets that are too tall for normal surveys, but too short to use the Pogo, this setup allows rapid safe surveys of Assets between 1.3m and 2m high assets