ALL MANHOLES AND DRAINAGE COMPONENTS TO COMPLY WITH UNITED UTILITIES CURRENT STANDARD DETAILS. ANY DEVIATION BETWEEN THESE AND THE CURENT DESIGN TO BE CLARIFIED PRIOR TO CONSTRUCTION.

with BSEN124 and shall have a 600x600mm clear opening D400. 1:3 cement mortar bed 2No 225x225mm surface box D400 for access to penstock spindle and haunch to cover and frame and hydrobrake pull rope 2-4 course class B engineering bricks 150mm deep frame CL82.03 600x750mm Heavy duty reinforced precast SRC concrete cover slab to BS5911 bedded on mortar Precast concrete manhole 675x675mm access opening rings, bedded on mortar PCC rings to be kitemarked lifting eyes to be pointed 2700mm 150mm Concrete surround Penstock spindle support bracket as manufacturers recommendations 100year storm 80.546 1100mm long rocker pipe 150mm Concrete surround D1050mm 30year storm 79.864 2year storm 79.333 D225mm 78.968 78.918

12 BERRY HOLME CLOSE SHEFFIELD S35 1AB

High Grange Developments Ltd

ENGINEERING DESIGN LTD

REV C

Mill Hill, Cleator Moor Plots 15-64 & 80-82 S63 Manhole detail

DRAWN BY rab

SCALE H1:500 V1:100 DATE Apr17 DRAWING No 1083-12-7

A. Details/revisions for section 104 submission B. Manhole relevant to phase 2A UU number added 1-8-20C Full redesign following layout changes and implementation of surface water storage basin

UU REF 4200029492 - PHASE 2A

Manhole S63

Benching formed with GEN3 SRC concrete with a high strength topping min 40mm

Cover and frame to be in accordance

CL82.23 D2700mm

300mm thick cast insitu concrete base slab formed in sulphate resistant RC40 concrete with two layers of A393 mesh in both top and bottom faces. Minimum cover to reinforcment 50mm. On 50mm concrete blinding.

450mm

S63 control manhole Hydrobrake Optimum with bypass door from Hydro International UK Shearwater House Clevedon Hall Estate Victoria Road Clevedon BS21 7RD Tel 01275 878371

MD-SHE-0182-1700-1200-1700 Head 1.20m Flow 171/s

S63 225mm penstock Everyvalve Ltd 19 Station Close Potters Bar Herts EN6 1TL Tel 01707 642018 Handle to be operable from access cover Handle be hung from cover slab adjacent opening

