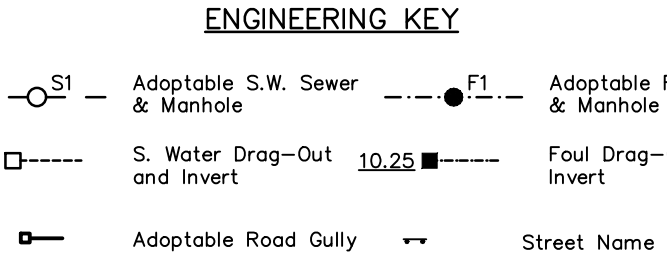




KEY

- PROPOSED 6 METRE NOMINAL HEIGHT TUBULAR LIGHTING COLUMN
- PAINTED AIRCRAFT GREY (BS381693), COMPLETE POST TOP MOUNTED LANTERN (AIRCRAFT GREY), (WRTL PHILIPS SS CHIP, MICRO LUMA 4.2x, 20 W/L EDS WITH DMS REFLECTOR AT 0 DEGREE TILT (20W)) - ORDER CODE - MC158204.20W50NWD/CP/TFM/N6M1.5
- INSTALL SMARTSCAPE NEW ROOT MOUNTED ZETALED SOLAR BOLLARDS IN EXTENDED ALUMINUM FINISH, ORIENTATE OPTICS TOWARDS SHARED DRIVEWAY
- 8 METRE NOMINAL HEIGHT TUBULAR GALVANISED STEEL LIGHTING COLUMNS INSTALLED DURING PFI WORKS, MOVE UNIT 3M TO
- LOCATION SHOWN BY SYMBOL DUE TO NEW DRIVEWAY, RETAIN EXISTING LANTERN AND OPTIC SETTING, TRANSFER EXISTING DNO SUPPLY
- EXISTING DEEMED TO COMPLY COLUMN (FOR INFORMATION ONLY)
- PROPOSED 6 METRE NOMINAL HEIGHT TUBULAR LIGHTING COLUMN
- PAINTED AIRCRAFT GREY (BS381693), COMPLETE POST TOP MOUNTED LANTERN (AIRCRAFT GREY), (WRTL PHILIPS SS CHIP, MICRO LUMA 2.2xL 12 W/L EDS WITH DMS REFLECTOR AT 0 DEGREE TILT (14W)) - ORDER CODE - MC155122.20M10NWD/CP/TFM/N6M1.5
- EXISTING COLUMN TO BE REMOVED

- ALL COLUMNS TO BE TUBULAR GALVANISED STEEL PAINTED AIRCRAFT GREY (BS381693) INSTALLED AT BACK EDGE OF PATH UNLESS STATED OTHERWISE
- ALL LANTERNS TO BE PAINTED AIRCRAFT GREY (BS381693)
- ALL NON-ILLUMINATED SIGNS TO BE MOUNTED ON NEW 78MM ROUND POST UNLESS STATED OTHERWISE, SIGN TO BE INSTALLED TO GIVE 2.1M HEIGHT CLEARANCE
- ALL NEW ILLUMINATED SIGNS TO BE INSTALLED ON NEW 3M WIDE BASED POLE SIGN TO BE INSTALLED TO GIVE 2.1M HEIGHT CLEARANCE
- ALL ILLUMINATED EQUIPMENT TO BE FED VIA DNO LOW VOLTAGE MAINS NETWORK (UNLESS OTHERWISE STATED)
- ALL PRIVATE CABLE TO BE INSTALLED IN 100MM ORANGE DUCTING
- ALL PRIVATE CABLE ROUTES TO BE SHOWN ON AS-BUILT DRAWING
- ALL PRIVATE BOLLARDS TO BE FED FROM PLOTS AND TO BE THE RESPONSIBILITY OF THE DEVELOPER
- LIGHTING COLUMNS TO BE INSTALLED AS PER STANDARD DETAILS SSEL/SD01, SSEL/SD02, SSEL/SD01H & SSEL/SD01T AND IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS
- ALL COLUMNS & LANTERNS (IN ADOPTED AREA) TO BE TUBULAR GALVANISED STEEL, PAINTED AIRCRAFT GREY (BS381693) INSTALLED AT BACK EDGE OF PATH UNLESS STATED OTHERWISE
- ALL COLUMNS TO BE INSTALLED MINIMUM 800MM FROM CARRIAGEWAY UNLESS STATED OTHERWISE
- ALL COLUMNS TO BE NEW SCOTTISH POWER DNO CONNECTION UNLESS STATED OTHERWISE
- ALL PRIVATE CABLE TO BE INSTALLED IN 100MM ORANGE DUCTING
- ALL PRIVATE CABLE ROUTES TO BE SHOWN ON AS-BUILT DRAWING
- LIGHTING COLUMNS TO BE INSTALLED AS PER STANDARD DETAILS SSEL/SD01, SSEL/SD02, SSEL/SD01H & SSEL/SD01T AND IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS



ENGINEERING LAYOUT NOTES

- All adoptable drainage works have been designed and are to be constructed in accordance with 'Sewers for Adoption, 6th Edition', and United Utilities 'Guidelines for Sewer for adoption 6th Edition'. Where specification conflicts, UU guidelines shall take precedence.
- United Utilities Standard details to be used are:
 - STND/19/001A Manhole Type 1
 - STND/19/002A Manhole Type 2 and Invert Access Detail
 - STND/19/003A Shallow Manhole Detail for Small Diameter Pipes (Type 4)
 - STND/19/004A Shallow Surface Water Manhole Detail - Restricted Headroom (less than 2.0m) - For Pipe Sizes 450mm and Above
 - STND/19/005A Flow Control Manhole Detail
 - STND/19/007A External Borehole Detail
 - STND/19/008A Pipe Bedding Detail
 - STND/19/010A Variable Manhole - Guidance Notes
 - STND/19/011A Headwall Type 1 and Typical Outlet Grille Detail
 - STND/19/012A Typical Outlet Details Type 2 & Type 3
- All clay pipe work shall be Extra Strength Clayware to BS 295 and BS 65 (SW pipes only).
- All precast concrete pipework shall be to Class 120 in accordance with BS5911 Part 1, BS EN 1916 and bear the BS kilmark.
- All adoptable drainage to be bedded in Class 5 granular surround unless otherwise stated.
- All concrete manholes and soakaway rings, concrete cover slabs and can to be manufactured to BS EN 1917 and BS 5911:Part 3.
- Rising Mains to be Black Polyethylene Pipes complying to BS EN 13244-2. Polyethylene fittings, including fusion joints, and electro-fusion fittings shall comply with BS EN 13244-2.
- All levels relate to Ordnance Datum. Contractor to ensure that this drawing is read in conjunction with the site specific Topographical Survey provided by Barratt Manchester and the Benchmark information provided.
- This drawing is to be read in accordance with all other relevant drawings.
- The contractor shall be responsible for ensuring that any existing invert levels indicated on the drawings are correct before work commences.
- All proposed connections to the sewer shall be 150W unless stated otherwise.
- All private house drainage shall be 100W and all drag-out connections shall be 150W at a minimum gradient of 1:80 unless otherwise stated and laid in accordance with Part H of the Building Regulations.
- Runoff from private surfaces shall not discharge across the highway. Gullies or channels shall be provided as appropriate to prevent this.
- From crossings shall be provided at the inner tangent points of all junctions.
- Pipes shall be protected from concentrated loading by construction traffic during the construction period when insufficient cover to the pipe may make them vulnerable to damage.
- Initial CBR tests of the road formation level are to be carried out to determine the depth of pavement construction required. This is to be approved by the adopting authority prior to construction of the road pavements.
- Groundwater to ensure that plot drainage be within the curtilage of the plot they serve where possible and inspection covers kept within hardstandings where possible.
- Contractor to provide United Utilities with sufficient notice prior to commencement of Sewer works on their Inspections telephone number. Tel 0845 602 0406.
- Contractor to obtain all necessary Highway opening notices from the relevant Local Authority, obtain approval to work on United Utilities Sewerage System, obtain approval to method statement from the Environment Agency for any works affecting a watercourse.

WARNING TO HOUSE-PURCHASERS
Property Misdescriptions Act 1991

Buyers are warned that this is a working drawing and is not intended to be treated as descriptive material describing, in relation to any particular property or development, any of the Specified matters prescribed by any Order made under the above Act. The contents of this drawing may be subject to change at any time and alterations and variations can occur during the progress of the works without revision of the drawing. Consequently the layout, form, content and dimensions of the finished construction may differ materially from those shown. Nor do the contents of this drawing constitute a contract, part of any contract or warranty.

27	Bollard added outside plot 18.	11.06.19	FB
Z	Polystorm crates moved away from turning head.	05.02.19	DK
Y	Driveway splays added to adoptable extents for plots 1-5.	29.11.18	LB
X	Polystorm crates amended to be outside 8m standoff to watercourse.	20.09.18	DK
W	Plot drainage routes changed on plots 7-8, 25-28, 53 & 56 to suit architect drawing.	28.08.18	LB
V	Overflow Area levels revised. Culvert 8m stand-off added. Lighting Bollards O/s plot 18-18 repositioned to avoid culvert Standoff.	27.07.18	SPG
U	Planning Layout updated to Rev Q	28.06.18	SPG
T	Dragout levels for F1,F2,F10,F12,F13 amended to avoid clashes with SW.	07.06.18	DK
S	Street lighting column (number 8) relocated. R&L column added to footpath access way to the north east of the site. Existing columns to be removed also shown - private street lighting key updated to suit.	17.04.18	FB
R	Dragout to plot 79 from F3 removed. Plot drainage amended to suit.	22.03.18	DK
Q	Overflow areas amended. Planning layout rev P used.	12.03.18	DK
P	Culvert diversion removed. Overflow area added to POS. Drainage revised to suit.	16.02.18	SPG
N	Street lighting bollards added to the south of the site.	11.01.18	FB
M	Staggered Barriers added. Plot 24 FFL amended to 24.45.	10.01.18	DK
L	Road & drainage lifted 100mm to suit higher surveyed invert than originally designed.	02.01.18	DK
K	Driveway splays added & gully positions revised to suit LA Highways comments.	13.11.17	DK
J	Street lighting & street lighting key added.	08.11.17	DK
H	ACO drains added to driveways where they fall towards adoptable highway. Plot drainage for plots 44-46 corrected.	05.10.17	DK
G	Plot Garages 19, 30, 76 FFLs changed.	05.07.17	DK
F	Plot drainage amended for plots 01-05, 28 garage, 29-43 & 71-72.	28.06.17	BM
E	SW outfalls amended to tie in with Betts watercourse modelling.	27.06.17	FB
D	Road & Sewer design amended to suit latest planning layout.	21.06.17	DK
C	Plot 25-26 FFL raised 150mm to tie in with road contour level. Drainage levels amended to suit.	09.05.17	DK
B	Private drainage added for whole site.	22.03.17	FB
A		24.02.17	FB

BARRATT HOMES

MANCHESTER

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Job			
Waterpark Drive Knowsley			
Title			
Engineering Layout			
Design By DK	Date 17.01.17	Drawing Number	Rev
C.A.D By DK	Scale @ A1 1:500	463/ED/02	27