Mondays to Fridays

	SN L									SN K			SN					SN			SN K					SN M			
Stratford		1425	1435	1445		1455	1505	1515	1521		1525	1535		1542	1550	1559	1605		1612	1620		1627	1635	1642	1650		1657	1705	1712
Hackney Wick		1428	1438	1448		1458	1508	1518	1526		1530	1540		1545	1553	1602	1608		1615	1625		1630	1638	1645	1653		1700	1708	1715
Homerton		1431	1441	1451		1501	1511	1521	1528		1533	1542		1548	1556	1605	1611		1618	1627		1633	1641	1648	1656		1703	1711	1718
Hackney Central		1433	1443	1453		1503	1513	1523	1530		1535	1544		1550	1558	1607	1613		1620	1629		1635	1643	1650	1658		1705	1713	1720
Dalston Kingsland		1435	1445	1455		1505	1515	1525	1532		1537	1546		1552	1600	1609	1615		1622	1631		1637	1645	1652	1700		1707	1715	1722
Canonbury		1437	1447	1457		1507	1517	1527	1534		1539	1548		1554	1602	1611	1617		1624	1633		1639	1647	1654	1702		1709	1717	1724
Highbury & Islington		1440	1449	1459		1510	1520	1529	1537		1542	1551		1557	1606	1613	1619		1626	1636		1641	1649	1656	1704		1711	1719	1726
Caledonian Road & Barnsbury		1442	1451	1501		1512	1522	1531	1539		1544	1553		1559	1608	1615	1621		1628	1638		1643	1651	1658	1706		1713	1721	1728
Camden Road		1446	1455	1505		1515	1525	1535	1542		1546	1556		1602	1610	1619	1624		1632	1641		1647	1655	1702	1710		1717	1725	1732
Kentish Town West		1449	1457	1507		1519	1529	1537	1544		1549	1559		1605	1613	1621	1628		1634	1643		1649	1658	1704	1713		1719	1727	1734
Gospel Oak		1451	1500	1510		1520	1531	1540	1546		1551	1601		1607	1616	1624	1630		1637	1645		1652	1703		1717		1723	1730	1737
Hampstead Heath		1453	1502	1512		1522	1533	1542	1548		1553	1603		1609	1618	1626	1632		1639	1647		1654	1705		1719		1725	1732	1739
Finchley Road & Frognal		1455	1504	1514		1524	1535	1544	1550		1555	1605		1611	1620	1628	1634		1641	1649		1656	1707	1712	1721		1727	1734	1741
West Hampstead		1457	1506	1516		1526	1537	1546	1552		1557	1607		1613	1622	1630	1636		1643	1651		1658	1709		1723		1729	1736	1743
Brondesbury		1458	1508	1518		1528	1539	1548	1554		1558	1608		1615	1624	1632	1637			1653		1700	1710	1716	1725		1730	1738	1745
Brondesbury Park		1500	1509	1519		1529	1540	1549	1555		1600	1610		1616	1625	1633	1639		1646	1654		1701	1712		1726		1732	1739	1746
Kensal Rise		1502	1511	1521		1531	1542	1551	1557		1602	1612		1618	1627	1635	1641		1648	1656		1703	1714	1719	1728		1734	1741	1748
Willesden Junction		1507	1515	1526	1531	1537	1546	1556	1601		1606	1617		1622	1631	1640	1646		1653	1701		1708	1719	1724	1732		1739	1746	1753
Shepherd's Bush	1522		1526		1538		1553		1607	1620		1625			1638		1653			1708	1719		1726		1739	1747		1754	
Kensington (Olympia)	1524		1528		1540		1555		1609	1623		1627	1635		1640		1655	1704		1711	1722		1728		1741	1749		1756	
West Brompton	1526		1531		1542		1558		1612	1626		1629	1637		1643		1657	1706		1713	1725		1730		1744	1752		1759	
Imperial Wharf	1529		1534		1545		1601		1615	1628		1632	1640		1646		1700	1709		1716	1728		1733		1747	1755		1802	
Clapham Junction	1533		1539		1551		1608		1621	1633		1638	1644		1653		1707	1713		1723	1732		1740		1753	1759		1808	
Acton Central		1512		1531		1542		1601			1612			1628		1645			1658			1713		1729			1744		1758
South Acton		1514		1534		1546		1604			1614			1630		1648			1700			1716		1734			1746		1800
Gunnersbury Θ	·	1518		1538		1549		1608			1618			1633		1651			1703			1719		1739			1749		1803
Kew Gardens ⊖	-	1521		1541		1552		1611			1621			1636		1654			1706			1722		1742			1752		1806
Richmond O		1526		1546		1556		1616			1627			1642		1700			1713			1728		1746			1758		1813

Mondays to Fridays

		SN	ΙK									SN N									SN P									SN P
Stratford	17	20		1727	1735	1742	1750	1757	1805	1812	1820		1827	1835	1842	1848	1857	1905	1915			1925	1935	1945		1955	2005	2015		
Hackney Wick	17	23		1730	1738	1745	1753	1800	1808	1815	1823		1830	1838	1845	1851	1900	1908	1918			1928	1938	1948		1958	2008	2018		
Homerton	17	26		1733	1741	1748	1756	1803	1811	1818	1826		1833	1841	1848	1854	1903	1911	1921			1931	1941	1951		2001	2011	2021		
Hackney Central	17	28		1735	1743	1750	1758	1805	1813	1820	1828		1835	1843	1850	1856	1905	1913	1923			1933	1943	1953		2003	2013	2023		
Dalston Kingsland	17	30		1737	1745	1752	1800	1807	1815	1822	1831		1837	1845	1852	1858	1907	1915	1925			1935	1945	1955		2005	2015	2025		
Canonbury	17	32		1739	1747	1754	1802	1809	1817	1824	1832		1839	1847	1854	1900	1909	1917	1927			1937	1947	1957		2007	2017	2027		
Highbury & Islington	17	35		1741	1749	1756	1804	1811	1819	1826	1834		1841	1850	1856	1902	1912	1919	1929			1939	1949	1959		2010	2019	2029		
Caledonian Road & Barnsbury	17	_	_	1743	1751	1758	1806	1813	1821	1828	1836		1843	1852	1858	1904	1914	1921	1931			1941	1951	2001		2012	2021	2031		
Camden Road	17			1747	1755	1802	1810	1817	1825	1832	1840		1847	1856	1902	1908	1917	1925	1934			1945	1955	2004		2016	2025	2034		
Kentish Town West	17			1749	1758	1805	1813	1819	1827	1834	1842		1849	1857	1905	1910	1919	1928	1937			1947	1957	2007		2017	2027	2037		
Gospel Oak	17			1752	1802	1808	1816	1822	1830	1837	1845		1852	1901	1909	1913	1924	1931	1940				2000	2010		2020	2030	2040		
Hampstead Heath	17	**	_	1754	1804	1810	1818	1824	1832	1839	1847		1854	1902	1911	1915	1926	1933	1942			1953		2012		2022	2032	2042		
Finchley Road & Frognal	17		_	1756	1806	1812		1826	1834	1841	1849		1856	1904	1913		1928	1935	1944				2004	2014		2024		2044		
West Hampstead	17	_	_	1758	1808	1814	1822	1828	1836	1843	1851		1858	1906	1915	1919	1930	1937	1946			1957	2006	2016		2026	2036	2046		
Brondesbury	17			1800	1809	1816	1823	1830	1838	1845	1853		1900	1907	1916		1932	1938	1947			-	2008			2028	2038	2048		
Brondesbury Park	17	_	_	1801	1811	1817	1825	1831	1839	1846	1854		1901	1909	1918	1922	1933	1940	1949			2000		2019		2029	2039	2049		
Kensal Rise	17	56		1803	1813	1819	1827	1833	1841	1848	1856		1903	1911	1920	1924	1935	1942	1951					2021		2031	-	2051		
Willesden Junction	18		_	1808	1818	1824	1831	1838	1846	1853	1901		1908	1916	1925	1931	1940	1946		2000		2007		2025	2031	2038	2046	2057	2101	
Shepherd's Bush	18	09 18	19		1824		1839		1853		1908	1919		1924		1938		1953			2021		2026		2038		2053		2107	2120
Kensington (Olympia)	18				1826		1841		1855		1910	1921		1926		1940		1956		2008	2023		2028		2040		2055			2122
West Brompton	18	-	24		1829		1844		1858		1913	1924		1928		1943		1958		2011	2026		2031		2042		2058		2112	
Imperial Wharf	18		27		1832		1847		1901		1916	1926		1931		1946		2001		2014	2028		2034		2045		2101		-	2127
Clapham Junction	18	24 18	33		1839		1853		1908		1923	1931		1937		1953		2009		2021	2033		2040		2052		2108		2122	2132
Acton Central				1813		1829		1843		1858			1913		1930		1945		2001			2012		2032		2044		2103		
South Acton				1816		1832		1846		1901			1916		1932		1948		2003			2015		2034		2047		2105		
	0			1819		1837		1849		1906			1919		1936		1951		2006			2018		2038		2050		2108		
	0			1822		1840		1852		1909			1922		1939		1954		2009			2021		2041		2053		2111		
Richmond	⊖			1828		1845		1858		1914			1927		1944		1959		2014			2026		2046		2057		2116	ı	(I

Mondays to Fridays

										SN P					SN J				SN K				SN J				
Stratford		2023	2035	2045		2100		2115			2130		2145			2200	2215			2230	2245			2300	2315	2330	2345
Hackney Wick		2026	2039	2048		2103		2118			2133		2148			2203	2218			2233	2248			2303	2318	2333	2348
Homerton		2029	2042	2051		2106		2121			2136		2151			2206	2221			2236	2251			2306	2321	2336	2351
Hackney Central		2031	2044	2053		2108		2123			2138		2153			2208	2223			2238	2253			2308	2323	2338	2353
Dalston Kingsland		2033	2046	2055		2110		2125			2140		2155			2210	2225			2240	2255			2310	2325	2340	2355
Canonbury		2035	2048	2057		2112		2127			2142		2157			2212	2227			2242	2257			2312	2327	2342	2357
Highbury & Islington		2037	2050	2059		2115		2129			2145		2159			2215	2229			2245	2300			2314	2330	2344	2359
Caledonian Road & Barnsbury		2039	2052	2101		2117		2131			2147		2201			2217	2231			2247	2302			2316	2332	2346	0002
Camden Road		2042				2120		2135			2151		2205			2220	2234			2250	2305			2320	2336	2350	0005
Kentish Town West		2045	2058	2107		2122		2137			2153		2207			2222	2237			2253	2307			2323	2337		0007
Gospel Oak			2100	-		2124		2140			2155		2210			2225	2240			2255	2310			2326	2340		0010
Hampstead Heath		2052	2102	2112		2127		2142			2157		2212			2227	2242			2257	2312			2328	2342		0012
Finchley Road & Frognal		2054	2104	2114		2129		2144			2159		2214			2229	2244			2259	2314			2330	2344		0014
West Hampstead		2056	2106			2131		2146			2201		2216			2231	2246			2302	2316			2332	2346		0016
Brondesbury		2057	2108	2118		2133		2148			2203		2218			2233	2248			2304	2318			2333	2348		0018
Brondesbury Park			2109			2134		2149			2204		2219			2234	2249			2305	2319			2335	2349		0019
Kensal Rise		2101	2111	2121		2136		2151			2206		2221			2236	2251			2307	2321			2337	2351		0021
Willesden Junction		2106	2116	-	2131	2141	2146	2157	2201		2211	2216	2227	2231		2241	2256	2301		2312	2325	2331		2341	2356		0030
Shepherd's Bush			2124		2138		2153		2207	2219		2225		2237	2252			2307	2322			2337	0005				
Kensington (Olympia)			2126		2140		2155		2209	2221		2227		2239	2254			2309	2334			2339	0007				
West Brompton			2129		2142		2158		2212	2224		2229		2242	2256			2312	2327			2342	0010				
Imperial Wharf			2132		2145		2201		2215	2227		2232		2245	2259			2315	2330			2345	0013				
Clapham Junction			2137		2152		2208		2222	2231		2238		2252	2305			2322	2335			2352	0017				
Acton Central		2111		2131		2146		2202			2216		2232			2246				2317	2331				0002		
South Acton	_	2113		2134		2149		2204			2219		2234			2249	2304			2320	2334				0005		
Gunnersbury	_	2118		2138		2152		2208			2222		2238			2252	2308			2323	2338			2352	0010		
Kew Gardens	0	2121		2141		2155		2211			2225		2241			2255	2311			2326	2341			2355	0013		
Richmond	0	2126		2146		2200		2216			2231		2246			2301	2316			2331	2346			2359	0019		

Saturdays

		SN Q								SN Q									SN L									SN L	
Stratford				0542		0555	0605	0615			0625	0635	0645		0655	0705	0715			0725	0735	0745		0755	0805	0815			0825
Hackney Wick				0545		0558	0608	0618			0628	0638	0648		0658	0708	0718			0728	0738	0748		0758	8080	0818			0828
Homerton				0548		0601	0611	0621			0631	0641	0651		0701	0711	0721			0731	0741	0751		1080	0811	0821			0831
Hackney Central				0550		0603	0613	0623			0633	0643	0653		0703	0713	0723			0733	0743	0753		0803	0813	0823			0833
Dalston Kingsland				0552		0605	0615	0625			0635	0645	0655		0705	0715	0725			0735	0745	0755		0805	0815	0825			0835
Canonbury				0554		0607	0617				0637	0647	0657		0707	0717	0727			0737	0747	0757		0807	0817	0827			0837
Highbury & Islington				0556		0609	0619	0629			0639	0649	0659		0709	0719	0729			0739	0749	0759		0809	0819	0829			0839
Caledonian Road & Barnsbury				0558		0611	0621	0631			0641	0651	0701		0711	0721	0731			0741	0751	1080		1180	0821	0831			0841
Camden Road				0602		0615	0625	0635			0645	0655	0705		0715	0725	0735			0745	0755	0805		0815	0825	0835			0845
Kentish Town West				0607		0617	0627	0637			0647	0657	0707		0717	0727	0737			0747	0757	0807		0817	0827	0837			0847
Gospel Oak				0611		0620	0630	0640			0650	0700	0710		0720	0730	0740			0750	0800	0810		0820	0830	0840			0850
Hampstead Heath				0613		0622	0632				0652	0702	0712		0722		-			0752	0802	0812		0822	0832	0842			0852
Finchley Road & Frognal				0615		0624	0634	0644			0654	0704	0714		0724	0734	0744			0754	0804	0814		0824	0834	0844			0854
West Hampstead				0617		0626	0636				0656				0726						0806	0816		0826	0836	0846			0856
Brondesbury				0619		0628	0638	0648			0658	0708	0718		0728	0738	0748			0758	0808	0818		0828	0838	0848			0858
Brondesbury Park				0620		0629	0639	0649			0659	0709	0719		-	0739	0749			0759	0809	0819		0829	0839	0849			0859
Kensal Rise				0622		0631	0641	0651			0701	0711	0721		0731	0741	0751			1080	1180	0821		0831	0841	0851			0901
Willesden Junction	0602		0606	0626	0631	0636	0646	0656	0701		0706	0716	0726	0731	0736	0746	0756	1080		0806	0816	0826	0831	0836	0846	0856	0901		0906
Shepherd's Bush	0608	0620			0637		0653		0708	0721		0726		0738		0753		0808	0818		0824		0838		0853		0907	0919	
Kensington (Olympia)	0610	0623			0639		0656		0710	0724		0729		0740		0756		0810	0821		0826		0840		0856		0909	0922	
West Brompton	0613	0626			0642		0658		0712	0727		0732		0742		0758		0812	0824		0829		0842		0858		0912	0925	
Imperial Wharf	0616				0645		0701		0715	0729		0735		0745		1080		0815	0826		0832		0845		0901		0915	0927	
Clapham Junction	0622	0633			0652		0708		0722	0734		0741		0752		8080		0822	0832		0838		0852		0908		0922	0932	
Acton Central			0613	0631		0641		0701			0711		0731		0741		1080			1180		0831		0841		0901			0911
South Acton			0615	0634		0644		0704			0714		0734		0744		0804			0814		0834		0844		0904			0914
Gunnersbury			0618	0637		0647		0707			0717		0737		0748		8080			0818		0838		0848		0908			0918
Kew Gardens \varTheta			0621	0640		0650		0710			0720		0740		0751		1180			0821		0841		0851		0911			0921
Richmond			0629	0644		0656		0716			0726		0746		0756		0816			0826		0846		0856		0916			0926

Saturdays

								SN L									SN L									_	SN K		
Stratford	0835	0845		0855	0905	0915			0925	0935	0945		0955	1005	1015			1025	1035	1045		1055	1105	1115				1825	1835
Hackney Wick	0838	0848		0858	0908	0918			0928	0938	0948		0958	1008	1018			1028	1038	1048		1058	1108	1118				1828	1838
Homerton	0841	0851		0901	0911	0921			0931	0941	0951		1001	1011	1021			1031	1041	1051		1101	1111	1121				1831	1841
Hackney Central	0843	0853		0903	0913	0923			0933	0943	0953		1003	1013	1023			1033	1043	1053		1103	1113	1123				1833	1843
Dalston Kingsland	0845	0855		0905	0915	0925			0935	0945	0955		1005	1015	1025			1035	1045	1055		1105	1115	1125				1835	1845
Canonbury	0847	0857			0917	0927			0937	0947	0957		1007	1017	1027			1037	1047	1057		1107	1117	1127				1837	1847
Highbury & Islington	0849	0859		0909	0919	0929			0939	0949	0959		1009	1019	1029			1039	1049	1059		1109	1119	1129				1839	1849
Caledonian Road & Barnsbury	0851	0901		0911	0921	0931			0941	0951	1001		1011	1021	1031			1041	1051	1101		1111	1121	1131				1841	1851
Camden Road	0855	0905		0915	0925	0935			0945	0955	1005		1015	1025	1034			1044	1055	1105		1114	1125	1135				1845	1855
Kentish Town West	0857	0907		0917	0927	0937			0947	0957	1007		1017	1027	1037			1047	1057	1107		1117	1127	1137	then			1847	1857
Gospel Oak	0901	0910		0920	0930	0940			0950	1000	1010		1020	1030	1039			1050	1100	1110		1120	1130	1140	at			1850	1900
Hampstead Heath	0903	0912		0922	0932	0942			0952	1002	1012		1022	1032	1041			1052	1102	1112		1122	1132	1142	the			1852	1902
Finchley Road & Frognal	0905	0914		0924	0934	0944			0954	1004	1014		1024	1034	1043			1054	1104	1114		1124	1134	1144	same			1854	1904
West Hampstead	0907	0916			0936	0946			0956	1006	1016		1026	1036	1045			1056	1106	1116		1126	1136	1146	time			1856	1906
Brondesbury	0908	0918		0928	0938	0948			0958	1008	1018		1028	1038	1046			1058	1108	1118		1128	1138	1148	past			1858	1908
Brondesbury Park	0910	0919		0929	0939	0949			0959	1009	1019		1029	1039	1048			1059	1109	1119		1129	1139	1149	each			1859	1909
Kensal Rise	0912	0921		0931		0951			1001	1011	1021		1031	1041	1050			1101	1111	1121		1131	1141	1151	hour			1901	1911
Willesden Junction	-	0926	0931	0936	0946	0956	1001		1006	1016	1026	1031	1036	1046	1054	-		1106	1116	1126	1131	1136	1146	1156	until	1901		1906	1916
Shepherd's Bush	0924		0937		0953		1008	1019		1024		1038		1053		1107	1118		1123		1137		1153		untit	1908	1919		1924
Kensington (Olympia)	0927		0939		0955		1010	1022		1027		1040		1056		1109	1121		1126		1139		1156			1910	1921		1926
West Brompton	0930		0942		0958		1012			1030		1042		1058		1112			1129		1142		1158			1912	1924		1929
Imperial Wharf	0933		0945		1001		1015	1027		1033		1045		1101		1115			1132		1145		1201			1915	1927		1932
Clapham Junction	0939		0952		1008		1022	1032		1039		1052		1108		1122	1132		1139		1152		1208			1922	1932		1938
Acton Central		0931		0941		1001			1011		1031		1041		1101			1111		1131		1141		1201				1911	
South Acton		0934		0944		1004			1014		1034		1044		1104			1114		1134		1144		1204				1914	
Gunnersbury Θ		0938		0948		1008			1018		1038		1048		1108			1118		1138		1148		1208				1918	
Kew Gardens Θ		0941		0951		1011			1021		1041		1051		1111			1121		1141		1151		1211				1921	
Richmond O	·l	0946		0956		1016			1026		1046		1056		1116			1126		1146		1156		1217				1926	i I

Saturdays

						SN J			SN K							SN J									SN J					
Stratford	18	45		1855	1905		1915			1925	1935	1945		1955	2005		2015		2025	2035	2045		2100			2115		2130		2145
Hackney Wick	18	48		1858	1908		1918			1928	1938	1948		1958	2008		2018		2028	2038	2048		2103			2118		2133		2148
Homerton	18	51		1901	1911		1921			1931	1941	1951		2001	2011		2021		2031	2041	2051		2106			2121		2136		2151
Hackney Central	18	53		1903	1913		1923			1933	1943	1953		2003	2013		2023		2033	2043	2053		2108			2123		2138		2153
Dalston Kingsland	18	55		1905	1915		1925			1935	1945	1955		2005	2015		2025		2035	2045	2055		2110			2125		2140		2155
Canonbury	18	57		1907	1917		1927			1937	1947	1957		2007	2017		2027		2037	2047	2057		2112			2127		2142		2157
Highbury & Islington	18	59		1909	1919		1929			1939	1949	1959		2009	2019		2029		2039	2049	2059		2114			2129		2144		2159
Caledonian Road & Barnsbury	19	01		1911	1921		1931			1941	1951	2001		2011	2021		2031		2041	2051	2101		2116			2131		2146		2201
Camden Road	19	05		1915	1925		1935			1945	1955	2005		2015	2025		2035		2045	2055	2105		2120			2135		2150		2205
Kentish Town West	19	07		1917	1927		1937			1947	1957	2007		2017	2027		2037		2047	2057	2107		2122			2137		2152		2207
Gospel Oak	19	10		1920	1930		1940			1950	2000	2010		2020	2030		2040		2050	2100	2110		2125			2140		2155		2210
Hampstead Heath	19	12		1922	1932		1942			1952	2002	2012		2022	2032		2042		2052	2102	2112		2127			2142		2157		2212
Finchley Road & Frognal	19	14		1924	1934		1944			1954	2004	2014		2024	2034		2044		2054	2104	2114		2129			2144		2159		2214
West Hampstead	19	-		1926	1936		1946			1956	2006	2016		2026	2036		2046		2056	2106	_		2131			2146		2201		2216
Brondesbury	19	18		1928	1938		1948			1958	2008	2018		2028	2038		2048		2058	2108	2118		2133			2148		2203		2218
Brondesbury Park	19	19		1929	1939		1949			1959	2009	2019		2029	2039		2049		2059	2109			2134			2149		2204		2219
Kensal Rise	19	21		1931	1941		1951			2001	2011	2021		2031	2041		2051		2101	2111	2121		2136			2151		2206		2221
Willesden Junction	19	26 1	931	1936	1946		1956	2001		2006	2016	2026	2031	2036	2046		2056	2101	2106	2116	2126	2131	2141	2146		2156	2201		2216	2226
Shepherd's Bush		- 1	937		1953	1957		2008	2019		2024		2038			2108		2112		2123		2138		2153	2209		2212		2223	
Kensington (Olympia)		- 1	939		1956	2000		2010	2022		2027		2040		2056	2110		2114		2125		2140		2155	2211		2214		2225	
West Brompton		- 1	942		1958	2003		2012	2025		2029		2042			2113		2117		2127		2142		2157	2213		2217		2227	
Imperial Wharf		- 1	945		2001	2005		2015	2027		2032		2045		2101	2115		2120		2130		2145		2200	2216		2220		2230	
Clapham Junction		- 1	952		2008	2010		2022	2032		2039		2052		2108	2120		2126		2138		2152		2207	2220		2226		2237	
Acton Central	19	31		1941			2001			2011		2031		2041			2101		2111		2131		2146			2201		2216		2231
South Acton	19	34		1944			2004			2014		2034		2044			2104		2114		2134		2149			2204		2219		2234
Gunnersbury) 19	38		1948			2008			2018		2038		2048			2108		2118		2138		2152			2208		2222		2238
Kew Gardens €	9 19	41		1951			2011			2021		2041		2051			2111		2121		2141		2155			2211		2225		2241
Richmond	9 19	46		1956			2016			2026		2046		2055			2116		2125		2146		2201			2215		2231		2245

Saturdays

						SN R			SN J				
Stratford		2155	2215	2230			2245			2300	2315	2330	2345
Hackney Wick		2158	2218	2233			2248			2303	2318	2333	2348
Homerton		2201	2221	2236			2251			2306	2321	2336	2351
Hackney Central		2203	2223	2238			2253			2308	2323	2338	2353
Dalston Kingsland		2205	2225	2240			2255			2310	2325	2340	2355
Canonbury		2207	2227	2242			2257			2312	2327	2342	2357
Highbury & Islington		2209	2229	2244			2259			2314	2329	2344	2359
Caledonian Road & Barnsbury		2211	2231	2246			2301			2316	2331	2346	0002
Camden Road		2215	2235	2249			2305			2320	2335	2350	0005
Kentish Town West		2217	2237				2307			2322	2337		0007
Gospel Oak		2220	2240				2310			2325	2340		0010
Hampstead Heath		2222	2242				2312			2327	2342		0012
Finchley Road & Frognal		2224	2244				2314			2329	2344		0014
West Hampstead		2226	2246				2316			2331	2346		0016
Brondesbury		2228	2248				2318			2333	2348		8100
Brondesbury Park		2229	2249				2319			2334	2349		0019
Kensal Rise		2231	2251				2321			2336	2351		0021
Willesden Junction	2231	2236	2256		2301		2326	2331		2341	2356		0030
Shepherd's Bush	2238				2308	2314		2337	2350				
Kensington (Olympia)	2240				2310	2316		2339	2352				
West Brompton	2242				2312	2318		2342	2354				
Imperial Wharf	2245				2315	2321		2345	2357				
Clapham Junction	2252				2322	2326		2351	0002				
Acton Central		2242	2301				2331			2346	0002		
South Acton		2246	2304				2334			2349	0004		
Gunnersbury		2249	2308				2338			2352	8000		
Kew Gardens $igoplus$		2252	2311				2341			2355	0011		
Richmond O		2258	2316				2346			0002	0018		

Sundays

	SN		SN					SN J									SN J									SN J			
Stratford											0915		0927		0945			0957		1020			1035	1045			1055	1105	1115
Hackney Wick											0918		0930		0948			1000		1023			1038	1048			1058	1108	1118
Homerton											0921		0933		0951			1003		1026			1041	1051			1101	1111	1121
Hackney Central											0923		0935		0953			1005		1028			1043	1053			1103	1113	1123
Dalston Kingsland											0925		0937		0955			1007		1030			1045	1055			1105	1115	1125
Canonbury											0927		0939		0957			1009		1032			1047	1057			1107	1117	1127
Highbury & Islington											0929		0941		0959			1011		1034			1049	1059			1109	1119	1129
Caledonian Road & Barnsbury											0931		0943		1001			1013		1036			1051	1101			1111	1121	1131
Camden Road											0935		0947		1005			1017		1040			1055	1105			1115	1125	1135
Kentish Town West											0937		0949		1007			1019		1042			1057	1107			1117	1127	1137
Gospel Oak									0928		0940		0952		1010			1022		1045			1100	1110			1120	1130	1140
Hampstead Heath									0929		0942		0954		1012			1024		1047			1102	1112			1122	1132	1142
Finchley Road & Frognal									0930		0944		0956		1014			1026		1049			1104	1114			1124	1134	1144
West Hampstead									0931		0946		0958		1016			1028		1051			1106	1116			1126	1136	1146
Brondesbury									0933		0948		1000		1018			1030		1053			1108	1118			1128	1138	1148
Brondesbury Park									0934		0949		1001		1019			1031		1054			1109	1119			1129	1139	1149
Kensal Rise									0936		0951		1003		1021			1033		1056			1111	1121			1131	1141	1151
Willesden Junction		0832		0856	0902	0926			0940	0948	0956	1002	1008	1016	1026	1034		1038		1101		1115			1132		1136	1146	1156
Shepherd's Bush		0839	0851		0908		0939	0945		0954		1008		1024		1038	1045		1054		1110		1123		1139	1147		1153	
Kensington (Olympia)	-	0841	0853		0910			0947		0956		1010		1026		1040			1056		1112		1126		1141	1149		1156	
West Brompton	0751	0843	0856		0912		0943	0950		0957		1013		1027		1043	1050		1057		1114		1128		1143	1152		1157	
Imperial Wharf	0754	0846	0859		0915		0946	0953		1000		1016		1030		1046	1053		1100		1117		1131		1146	1154		1200	
Clapham Junction	0758	0853	0903		0923		0954	0958		1008		1026		1037		1054	1058		1107		1126		1140		1154	1200		1208	
Acton Central				0901		0931			0945		1001		1013		1031			1043		1106		1121		1131			1141		1201
South Acton				0903		0934			0947		1004		1016		1034			1046		1109		1124		1134			1144		1204
Gunnersbury	→			0908		0938			0950		1008		1019		1038			1049		1112		1128		1138			1148	. 1	1208
Kew Gardens	→			0911		0941			0953		1011		1022		1041			1052		1115		1131		1141			1151		1211
Richmond)			0919		0949			1003		1016		1026		1046			1056		1121		1138		1146			1156		1216

Sundays

				_			SN J								SN J						SN S		
Stratford		1125		2035	2045			2055	2105	2115		2130	2145			2200	2215		2230			2245	2305
Hackney Wick		1128		2038	2048			2058	2108	2118		2133	2148			2203	2218		2233			2248	2308
Homerton		1131		2041	2051			2101	2111	2121		2136	2151			2206	2221		2236			2251	2311
Hackney Central		1133		2043	2053			2103	2113	2123		2138	2153			2208	2223		2238			2253	2313
Dalston Kingsland		1135		2045	2055			2105	2115	2125		2140	2155			2210	2225		2240			2255	2315
Canonbury		1137		2047	2057			2107	2117	2127		2142	2157			2212	2227		2242			2257	2317
Highbury & Islington		1139		2049	2059			2109	2119	2129		2144	2159			2214	2229		2244			2259	2319
Caledonian Road & Barnsbury		1141		2051	2101			2111	2121	2131		2146	2201			2216	2231		2246			2301	2321
Camden Road		1145		2055	2105			2115	2125	2135		2150	2205			2220	2234		2250			2304	2325
Kentish Town West		1147	then	2057	2107			2117	2127	2137		2152	2207			2224			2252				2327
Gospel Oak		1150	at	2100	2110			2120	2130			2155	2210			2225			2255				2330
Hampstead Heath		1152	the	2102	2112			2122	2132	2142		2157	2212			2227			2257				2332
Finchley Road & Frognal		1154	same	2104	2114			2124	2134			2159	2214			2229			2259				2334
West Hampstead		1156	time	2106	2116			2126	2136			2201	2216			2231			2301				2336
Brondesbury		1158	past	2108	2118			2128	2138	-		2203	2218			2233			2303				2338
Brondesbury Park		1159	each	2109	2119			2129	2139	2149		2204	2219			2234			2304				2339
Kensal Rise		1201	hour	2111	2121			2131		2151		2206	2221			2236			2306				2341
Willesden Junction	120		until	2116	2126	2132		2139	2146	2157	2202	2211	2226	2232		2241		2246	2311	2318			2350
Shepherd's Bush	120		uncit	2123			2144		2153		2208			2238	2245			2253		2323	2342		
Kensington (Olympia)	1210			2126		2141	2147		2156		2210			2240	2247			2255		2325	2344		
West Brompton	1213			2128			2149		2158		2212			2243	2250			2257		2327	2347		
Imperial Wharf	121.			2131		2147	2152		2201		2215			2246	2252			2300		2330	2349		
Clapham Junction	122			2138		2153	2200		2208		2226			2253	2257			2309		2339	2354		
Acton Central		1211			2131			2144		2202		2216	2231			2246			2316				
South Acton		1214			2134			2147		2204		2219	2234			2249			2319				
Gunnersbury		1218			2138			2151		2208		2222	2238			2252			2322				
Kew Gardens		1221			2141			2154		2211		2225	2241			2255			2325				
Richmond	-	1227		J	2146			2159		2217		2231	2246			2302			2332				

APPENDIX B

PTAI Study Report File Details

Date 01/06/2015 17:09

Day of week M-F

Time period AM peak

Walk speed 4.8 kph

Walk file PLSQLTest

POI Name: 517909, 174904

Bus Services

Reliability factor for this mode is 2 Maximum walk time for this mode is 8 minutes Maximum walk distance for this mode is 640.0 metres

Stop RICHMOND HILL RISE

Walk time to stop from POI is 6.48 minutes

Walk distance to stop from POI is 518.16 metres

Route 65 Direction OUT Frequency 8.0 giving AWT of 3.75 minutes

Route 65 Direction OUT Frequency 8.0 giving AWT of 3.75 minutes

Stop RICHMOND GEORGE STREET

Walk time to stop from POI is 1.03 minutes

Walk distance to stop from POI is 82.04 metres

Route 419 Direction OUT Frequency 4.0 giving AWT of 7.5 minutes

Route H22 Direction OUT Frequency 5.0 giving AWT of 6.0 minutes

Route H22 Direction OUT Frequency 5.0 giving AWT of 6.0 minutes

Route H37 Direction OUT Frequency 10.0 giving AWT of 3.0 minutes

Route H37 Direction OUT Frequency 10.0 giving AWT of 3.0 minutes

Route R70 Direction OUT Frequency 6.0 giving AWT of 5.0 minutes

Route 33 Direction OUT Frequency 7.5 giving AWT of 4.0 minutes

Route 33 Direction OUT Frequency 7.5 giving AWT of 4.0 minutes

Route 65 Direction OUT Frequency 8.0 giving AWT of 3.75 minutes

Route 65 Direction OUT Frequency 8.0 giving AWT of 3.75 minutes

Route 391 Direction OUT Frequency 6.0 giving AWT of 5.0 minutes

Route 391 Direction OUT Frequency 6.0 giving AWT of 5.0 minutes

Route 337 Direction BACK Frequency 5.0 giving AWT of 6.0 minutes

Route 337 Direction BACK Frequency 5.0 giving AWT of 6.0 minutes

Route 493 Direction OUT Frequency 5.0 giving AWT of 6.0 minutes

Route 493 Direction OUT Frequency 5.0 giving AWT of 6.0 minutes Route R68 Direction BACK Frequency 4.0 giving AWT of 7.5 minutes Route 371 Direction OUT Frequency 7.0 giving AWT of 4.29 minutes Route 371 Direction OUT Frequency 7.0 giving AWT of 4.29 minutes Route 490 Direction BACK Frequency 5.0 giving AWT of 6.0 minutes Route 190 Direction OUT Frequency 4.0 giving AWT of 7.5 minutes Stop RICHMOND WAKEFIELD ROAD Walk time to stop from POI is 4.21 minutes Walk distance to stop from POI is 336.74 metres Route 419 Direction BACK Frequency 4.0 giving AWT of 7.5 minutes Route 419 Direction OUT Frequency 4.0 giving AWT of 7.5 minutes Route H22 Direction BACK Frequency 5.0 giving AWT of 6.0 minutes Route H22 Direction BACK Frequency 5.0 giving AWT of 6.0 minutes Route H37 Direction BACK Frequency 10.0 giving AWT of 3.0 minutes Route H37 Direction BACK Frequency 10.0 giving AWT of 3.0 minutes Route R70 Direction BACK Frequency 6.0 giving AWT of 5.0 minutes Route 33 Direction BACK Frequency 7.5 giving AWT of 4.0 minutes Route 33 Direction BACK Frequency 7.5 giving AWT of 4.0 minutes Route 65 Direction BACK Frequency 8.0 giving AWT of 3.75 minutes Route 65 Direction BACK Frequency 8.0 giving AWT of 3.75 minutes Route 391 Direction OUT Frequency 6.0 giving AWT of 5.0 minutes Route 391 Direction BACK Frequency 6.0 giving AWT of 5.0 minutes Route 391 Direction OUT Frequency 6.0 giving AWT of 5.0 minutes Route 391 Direction BACK Frequency 6.0 giving AWT of 5.0 minutes Route 337 Direction BACK Frequency 5.0 giving AWT of 6.0 minutes Route 337 Direction BACK Frequency 5.0 giving AWT of 6.0 minutes Route 337 Direction OUT Frequency 5.0 giving AWT of 6.0 minutes Route 337 Direction OUT Frequency 5.0 giving AWT of 6.0 minutes Route 493 Direction OUT Frequency 5.0 giving AWT of 6.0 minutes Route 493 Direction OUT Frequency 5.0 giving AWT of 6.0 minutes Route R68 Direction OUT Frequency 4.0 giving AWT of 7.5 minutes Route 371 Direction OUT Frequency 7.0 giving AWT of 4.29 minutes Route 371 Direction OUT Frequency 7.0 giving AWT of 4.29 minutes Route 490 Direction OUT Frequency 5.0 giving AWT of 6.0 minutes Route 190 Direction BACK Frequency 4.0 giving AWT of 7.5 minutes

Stop RICHMOND SHEEN ROAD

Walk time to stop from POI is 2.52 minutes

Walk distance to stop from POI is 201.62 metres

Route 33 Direction BACK Frequency 7.5 giving AWT of 4.0 minutes Route 33 Direction BACK Frequency 7.5 giving AWT of 4.0 minutes Route 337 Direction OUT Frequency 5.0 giving AWT of 6.0 minutes Route 337 Direction OUT Frequency 5.0 giving AWT of 6.0 minutes Route 493 Direction OUT Frequency 5.0 giving AWT of 6.0 minutes Route 493 Direction OUT Frequency 5.0 giving AWT of 6.0 minutes Route 371 Direction OUT Frequency 7.0 giving AWT of 4.29 minutes Route 371 Direction OUT Frequency 7.0 giving AWT of 4.29 minutes Route 371 Direction OUT Frequency 7.0 giving AWT of 4.29 minutes Stop POOLS ON THE PARK

Route 190 Direction OUT Frequency 4.0 giving AWT of 7.5 minutes

Walk time to stop from POI is 7.95 minutes

Walk distance to stop from POI is 635.72 metres

Route 490 Direction BACK Frequency 5.0 giving AWT of 6.0 minutes Route 490 Direction OUT Frequency 5.0 giving AWT of 6.0 minutes Stop RICHMOND SHEEN ROAD

Walk time to stop from POI is 2.0 minutes

Walk distance to stop from POI is 160.14 metres

Route 33 Direction OUT Frequency 7.5 giving AWT of 4.0 minutes

Route 33 Direction OUT Frequency 7.5 giving AWT of 4.0 minutes

Route 337 Direction BACK Frequency 5.0 giving AWT of 6.0 minutes

Route 337 Direction BACK Frequency 5.0 giving AWT of 6.0 minutes

Route 493 Direction BACK Frequency 5.0 giving AWT of 6.0 minutes

Route 493 Direction BACK Frequency 5.0 giving AWT of 6.0 minutes

Route 371 Direction BACK Frequency 7.0 giving AWT of 4.29 minutes

Route 371 Direction BACK Frequency 7.0 giving AWT of 4.29 minutes

Stop RICHMOND THE QUADRANT Walk time to stop from POI is 1.46 minutes

Walk distance to stop from POI is 117.18 metres

Route 419 Direction OUT Frequency 4.0 giving AWT of 7.5 minutes

Route 419 Direction BACK Frequency 4.0 giving AWT of 7.5 minutes

Route H22 Direction OUT Frequency 5.0 giving AWT of 6.0 minutes

Route H22 Direction BACK Frequency 5.0 giving AWT of 6.0 minutes

Route H22 Direction OUT Frequency 5.0 giving AWT of 6.0 minutes

Route H22 Direction BACK Frequency 5.0 giving AWT of 6.0 minutes

Route H37 Direction OUT Frequency 10.0 giving AWT of 3.0 minutes

Route H37 Direction OUT Frequency 10.0 giving AWT of 3.0 minutes

Route H37 Direction BACK Frequency 10.0 giving AWT of 3.0 minutes

Route H37 Direction BACK Frequency 10.0 giving AWT of 3.0 minutes

Route R70 Direction BACK Frequency 6.0 giving AWT of 5.0 minutes

Route R70 Direction OUT Frequency 6.0 giving AWT of 5.0 minutes

Route 65 Direction BACK Frequency 8.0 giving AWT of 3.75 minutes

Route 65 Direction OUT Frequency 8.0 giving AWT of 3.75 minutes

Route 65 Direction BACK Frequency 8.0 giving AWT of 3.75 minutes

Route 65 Direction OUT Frequency 8.0 giving AWT of 3.75 minutes

Route 391 Direction OUT Frequency 6.0 giving AWT of 5.0 minutes

Route 391 Direction OUT Frequency 6.0 giving AWT of 5.0 minutes

Route 391 Direction BACK Frequency 6.0 giving AWT of 5.0 minutes

Route 391 Direction BACK Frequency 6.0 giving AWT of 5.0 minutes

Route 493 Direction BACK Frequency 5.0 giving AWT of 6.0 minutes

Route 493 Direction OUT Frequency 5.0 giving AWT of 6.0 minutes

Route 493 Direction OUT Frequency 5.0 giving AWT of 6.0 minutes

Route 493 Direction BACK Frequency 5.0 giving AWT of 6.0 minutes

Route R68 Direction OUT Frequency 4.0 giving AWT of 7.5 minutes

Route R68 Direction BACK Frequency 4.0 giving AWT of 7.5 minutes

Route 371 Direction OUT Frequency 7.0 giving AWT of 4.29 minutes

Route 371 Direction BACK Frequency 7.0 giving AWT of 4.29 minutes

Route 371 Direction BACK Frequency 7.0 giving AWT of 4.29 minutes

Route 371 Direction OUT Frequency 7.0 giving AWT of 4.29 minutes

Route 490 Direction BACK Frequency 5.0 giving AWT of 6.0 minutes

Route 490 Direction OUT Frequency 5.0 giving AWT of 6.0 minutes

Route 190 Direction OUT Frequency 4.0 giving AWT of 7.5 minutes Route 190 Direction BACK Frequency 4.0 giving AWT of 7.5 minutes Stop RICHMOND THE QUADRANT

Walk time to stop from POI is 2.52 minutes

Walk distance to stop from POI is 201.93 metres

Route 419 Direction OUT Frequency 4.0 giving AWT of 7.5 minutes Route H22 Direction OUT Frequency 5.0 giving AWT of 6.0 minutes Route H22 Direction OUT Frequency 5.0 giving AWT of 6.0 minutes Route H37 Direction OUT Frequency 10.0 giving AWT of 3.0 minutes Route H37 Direction OUT Frequency 10.0 giving AWT of 3.0 minutes Route R70 Direction OUT Frequency 6.0 giving AWT of 5.0 minutes Route 65 Direction OUT Frequency 8.0 giving AWT of 3.75 minutes Route 65 Direction OUT Frequency 8.0 giving AWT of 3.75 minutes Route 391 Direction OUT Frequency 6.0 giving AWT of 5.0 minutes Route 391 Direction OUT Frequency 6.0 giving AWT of 5.0 minutes Route R68 Direction BACK Frequency 4.0 giving AWT of 7.5 minutes Route 371 Direction OUT Frequency 7.0 giving AWT of 4.29 minutes Route 371 Direction OUT Frequency 7.0 giving AWT of 4.29 minutes Route 490 Direction BACK Frequency 5.0 giving AWT of 6.0 minutes Route 190 Direction OUT Frequency 4.0 giving AWT of 6.0 minutes

Stop RICHMOND STATION
Walk time to stop from POI is 4.04 minutes

Walk distance to stop from POI is 323.16 metres

Route 419 Direction OUT Frequency 4.0 giving AWT of 7.5 minutes Route 419 Direction BACK Frequency 4.0 giving AWT of 7.5 minutes Route H22 Direction OUT Frequency 5.0 giving AWT of 6.0 minutes Route H22 Direction BACK Frequency 5.0 giving AWT of 6.0 minutes Route H22 Direction OUT Frequency 5.0 giving AWT of 6.0 minutes Route H22 Direction BACK Frequency 5.0 giving AWT of 6.0 minutes Route H37 Direction OUT Frequency 10.0 giving AWT of 3.0 minutes Route H37 Direction OUT Frequency 10.0 giving AWT of 3.0 minutes Route H37 Direction BACK Frequency 10.0 giving AWT of 3.0 minutes Route H37 Direction BACK Frequency 10.0 giving AWT of 3.0 minutes Route R70 Direction BACK Frequency 6.0 giving AWT of 5.0 minutes Route R70 Direction OUT Frequency 6.0 giving AWT of 5.0 minutes Route 65 Direction BACK Frequency 8.0 giving AWT of 3.75 minutes Route 65 Direction OUT Frequency 8.0 giving AWT of 3.75 minutes Route 65 Direction BACK Frequency 8.0 giving AWT of 3.75 minutes Route 65 Direction OUT Frequency 8.0 giving AWT of 3.75 minutes Route 391 Direction OUT Frequency 6.0 giving AWT of 5.0 minutes Route 391 Direction OUT Frequency 6.0 giving AWT of 5.0 minutes Route 391 Direction BACK Frequency 6.0 giving AWT of 5.0 minutes Route 391 Direction BACK Frequency 6.0 giving AWT of 5.0 minutes Route 493 Direction BACK Frequency 5.0 giving AWT of 6.0 minutes Route 493 Direction OUT Frequency 5.0 giving AWT of 6.0 minutes Route 493 Direction OUT Frequency 5.0 giving AWT of 6.0 minutes Route 493 Direction BACK Frequency 5.0 giving AWT of 6.0 minutes Route R68 Direction OUT Frequency 4.0 giving AWT of 7.5 minutes Route R68 Direction BACK Frequency 4.0 giving AWT of 7.5 minutes

Route 371 Direction OUT Frequency 7.0 giving AWT of 4.29 minutes Route 371 Direction BACK Frequency 7.0 giving AWT of 4.29 minutes Route 371 Direction BACK Frequency 7.0 giving AWT of 4.29 minutes Route 371 Direction OUT Frequency 7.0 giving AWT of 4.29 minutes Route 490 Direction BACK Frequency 5.0 giving AWT of 6.0 minutes Route 490 Direction OUT Frequency 5.0 giving AWT of 6.0 minutes Route 190 Direction OUT Frequency 4.0 giving AWT of 7.5 minutes Route 190 Direction BACK Frequency 4.0 giving AWT of 7.5 minutes Stop RICHMOND STATION Walk time to stop from POI is 4.58 minutes Walk distance to stop from POI is 366.77 metres Route 419 Direction OUT Frequency 4.0 giving AWT of 7.5 minutes

Route H22 Direction OUT Frequency 5.0 giving AWT of 6.0 minutes Route H22 Direction OUT Frequency 5.0 giving AWT of 6.0 minutes Route H37 Direction OUT Frequency 10.0 giving AWT of 3.0 minutes Route H37 Direction OUT Frequency 10.0 giving AWT of 3.0 minutes Route R70 Direction OUT Frequency 6.0 giving AWT of 5.0 minutes Route 391 Direction OUT Frequency 6.0 giving AWT of 5.0 minutes Route 391 Direction OUT Frequency 6.0 giving AWT of 5.0 minutes Route R68 Direction BACK Frequency 4.0 giving AWT of 7.5 minutes Route 371 Direction OUT Frequency 7.0 giving AWT of 4.29 minutes Route 371 Direction OUT Frequency 7.0 giving AWT of 4.29 minutes Route 490 Direction BACK Frequency 5.0 giving AWT of 6.0 minutes Route 190 Direction OUT Frequency 4.0 giving AWT of 7.5 minutes

Stop CHURCH ROAD SHEEN ROAD

Walk time to stop from POI is 6.62 minutes

Walk distance to stop from POI is 529.58 metres

Route 371 Direction OUT Frequency 7.0 giving AWT of 4.29 minutes Route 371 Direction BACK Frequency 7.0 giving AWT of 4.29 minutes Route 371 Direction BACK Frequency 7.0 giving AWT of 4.29 minutes Route 371 Direction OUT Frequency 7.0 giving AWT of 4.29 minutes Stop SHEEN ROAD CHURCH ROAD

Walk time to stop from POI is 6.75 minutes

Walk distance to stop from POI is 539.92 metres

Route 33 Direction OUT Frequency 7.5 giving AWT of 4.0 minutes Route 33 Direction BACK Frequency 7.5 giving AWT of 4.0 minutes Route 33 Direction BACK Frequency 7.5 giving AWT of 4.0 minutes Route 33 Direction OUT Frequency 7.5 giving AWT of 4.0 minutes Route 337 Direction BACK Frequency 5.0 giving AWT of 6.0 minutes Route 337 Direction BACK Frequency 5.0 giving AWT of 6.0 minutes Route 337 Direction OUT Frequency 5.0 giving AWT of 6.0 minutes Route 337 Direction OUT Frequency 5.0 giving AWT of 6.0 minutes Route 493 Direction OUT Frequency 5.0 giving AWT of 6.0 minutes Route 493 Direction BACK Frequency 5.0 giving AWT of 6.0 minutes Route 493 Direction OUT Frequency 5.0 giving AWT of 6.0 minutes Route 493 Direction BACK Frequency 5.0 giving AWT of 6.0 minutes

TATs for this mode

Route 419 Stop RICHMOND GEORGE STREET TAT 10.53 minutes EDF 2.85 Route H22 Stop RICHMOND GEORGE STREET TAT 9.03 minutes EDF 3.32 Route H37 Stop RICHMOND GEORGE STREET TAT 6.03 minutes EDF 4.98 Route R70 Stop RICHMOND GEORGE STREET TAT 8.03 minutes EDF 3.74 Route 33 Stop RICHMOND GEORGE STREET TAT 7.03 minutes EDF 4.27 Route 391 Stop RICHMOND GEORGE STREET TAT 8.03 minutes EDF 3.74 Route 337 Stop RICHMOND GEORGE STREET TAT 9.03 minutes EDF 3.32 Route 493 Stop RICHMOND GEORGE STREET TAT 9.03 minutes EDF 3.32 Route R68 Stop RICHMOND GEORGE STREET TAT 10.53 minutes EDF 2.85 Route 371 Stop RICHMOND GEORGE STREET TAT 7.31 minutes EDF 4.1 Route 490 Stop RICHMOND GEORGE STREET TAT 9.03 minutes EDF 3.32 Route 190 Stop RICHMOND GEORGE STREET TAT 10.53 minutes EDF 3.32 Route 190 Stop RICHMOND GEORGE STREET TAT 10.53 minutes EDF 2.85

Best EDF is 4.98 Half of all other EDFs is 21.06

AI for this mode is 26.04

Underground Services

Reliability factor for this mode is .75 Maximum walk time for this mode is 12 minutes Maximum walk distance for this mode is 960.0 metres

Stop Richmond

Walk time to stop from POI is 4.01 minutes

Walk distance to stop from POI is 320.62 metres

Route District Line Richmond to Dagenham East Direction E/B Frequency 0.3 giving AWT of 100.0 minutes

Route District Line Richmond to Upminster Direction E/B Frequency 6.3 giving AWT of 4.76 minutes

Route District Line Tower Hill to Richmond Direction W/B Frequency 0.7 giving AWT of 42.86 minutes

Route District Line Barking to Richmond Direction W/B Frequency 0.3 giving AWT of 100.0 minutes

Route District Line Upminster to Richmond Direction W/B Frequency 5.7 giving AWT of 5.26 minutes

TATs for this mode

Route District Line Richmond to Dagenham East Stop Richmond TAT 104.76 minutes EDF 0.29

Route District Line Richmond to Upminster Stop Richmond TAT 9.52 minutes EDF 3.15

Route District Line Tower Hill to Richmond Stop Richmond TAT 47.61 minutes EDF 0.63

Route District Line Barking to Richmond Stop Richmond TAT 104.76 minutes EDF 0.29

Best EDF is 3.15 Half of all other EDFs is 0.6

Rail Services

Reliability factor for this mode is .75
Maximum walk time for this mode is 12 minutes
Maximum walk distance for this mode is 960.0 metres

Stop RICHMOND

Walk time to stop from POI is 4.01 minutes

Walk distance to stop from POI is 320.62 metres

Route LONDON WATERLOO BR to LONDON WATERLOO BR Direction T531-T531 Frequency 2.0 giving AWT of 15.0 minutes

Route READING to LONDON WATERLOO BR Direction T119-T531 Frequency 0.33 giving AWT of 90.91 minutes

Route RICHMOND to STRATFORD Direction T504-T750 Frequency 4.0 giving AWT of 7.5 minutes

Route WINDSOR AND ETON RIVERSIDE to LONDON WATERLOO BR Direction T573-T531 Frequency 2.0 giving AWT of 15.0 minutes

Route LONDON WATERLOO BR to READING Direction T531-T119 Frequency 2.3 giving AWT of 13.04 minutes

Route ALDERSHOT to LONDON WATERLOO BR Direction T547-T531 Frequency 0.67 giving AWT of 44.78 minutes

Route SHEPPERTON to LONDON WATERLOO BR Direction T538-T531 Frequency 1.0 giving AWT of 30.0 minutes

Route LONDON WATERLOO BR to LONDON WATERLOO BR Direction T531-T531 Frequency 2.0 giving AWT of 15.0 minutes

Route KINGSTON to LONDON WATERLOO BR Direction T500-T531 Frequency 0.33 giving AWT of 90.91 minutes

Route READING to LONDON WATERLOO BR Direction T119-T531 Frequency 0.67 giving AWT of 44.78 minutes

TATs for this mode

Route LONDON WATERLOO BR to LONDON WATERLOO BR Stop RICHMOND TAT 19.76 minutes EDF 1.52

Route READING to LONDON WATERLOO BR Stop RICHMOND TAT 95.67 minutes EDF 0.31

Route RICHMOND to STRATFORD Stop RICHMOND TAT 12.26 minutes EDF 2.45

Route WINDSOR AND ETON RIVERSIDE to LONDON WATERLOO BR Stop RICHMOND TAT 19.76 minutes EDF 1.52

Route LONDON WATERLOO BR to READING Stop RICHMOND TAT 17.8 minutes EDF 1.69

Route ALDERSHOT to LONDON WATERLOO BR Stop RICHMOND TAT 49.53 minutes EDF 0.61

Route SHEPPERTON to LONDON WATERLOO BR Stop RICHMOND TAT 34.76 minutes EDF 0.86

Route LONDON WATERLOO BR to LONDON WATERLOO BR Stop RICHMOND TAT 19.76 minutes EDF 1.52

Route KINGSTON to LONDON WATERLOO BR Stop RICHMOND TAT 95.67 minutes EDF 0.31

Route READING to LONDON WATERLOO BR Stop RICHMOND TAT 49.53 minutes EDF 0.61

Best EDF is 2.45 Half of all other EDFs is 4.47

AI for this mode is 6.92

Total AI for this POI is 36.71. X: 517909, Y: 174904.

PTAL Rating is 6a.

APPENDIX C

Environment Directorate

LONDON BOROUGH OF RICHMOND UPON THAMES

PLANNING

Civic Centre, 44 York Street, Twickenham TW1 3BZ tel: 08456 122660 text phone 020 8891 7120

fax: 020 8891 7789

email: envprotection@richmond.gov.uk

website: www.richmond.gov.uk

Our ref: 15/P0030/PREAPP

Contact: Mr Robert Naylor Telephone: 08456 122660

Email: r.naylor@richmond.gov.uk

Mr Paul Manning GL Hearn 280 High Holborn London

25th March 2015

Dear Mr Manning

TOWN AND COUNTRY PLANNING ACT 1990 (AS AMENDED)

LOCATION:

29 GEORGE STREET, RICHMOND, TW9 1HY

RE:

PRE-APPLICATION ADVICE IN RESPECT TO CHANGE OF USE OF TWO FLOORS FROM RETAIL (A1) TO RESIDENTIAL WITH NEW ENCLOSED WALKWAY, RESIDENTIAL ACCESS AND BIN STORE

I write in reference to your pre-application scheme received at the LPA on 3rd February 2015 and our subsequent meeting on Monday 23rd March 2015 at the Council Offices. On the basis of this information I have the following comments to make. Please note that all comments within this letter are made without the benefit of a site visit.

Site Description and History

The application site is a retail unit located on the south side of George Street, Richmond close to the where it meets Lower George Street and adjoining the pedestrian passageway of Church Court. The area is the main thoroughfare through Richmond Town Centre and is located at the end of a terrace of shops. The site is located within the Central Richmond Conservation Area (CA17) and the building has been designated a Building of Townscape Merit (BTM). The surrounding area is commercial in nature and the shop is located in a Key Shopping Frontage.

The most recent and relevant planning history at the site is as follows:

- Advert consent was granted for the non-illuminated delivery, fascia and ATM signage and window vinyls and internally illuminated bus stop signage (Ref: 14/2177/ADV) in August 2014.
- Advert consent was granted for various signs at the Tesco retail unit at 29 George Street, including three externally illuminated projecting signs; three fascia signs formed of individual letters in red and blue acrylic; and seven vinyl films (three including text) to be applied to the front, side and rear windows. (Ref: 11/3571/ADV)
- 11/1935/ADV Erection of internally illuminated fascia and projecting signs (signs 1, 5, 6, 7 REFUSED) vinyl graphics applied to shopfront windows (signs 8 16 REFUSED); high level vinyl panels (signs 3, 4, 20 APPROVED) and aluminium graphic panels fixed to walls (signs, 17, 18, 19 APPROVED).

- 08/2952/FUL Installation of combined heat and power (CHP) unit to provide a sustainable method of powering the store - Application Granted
- 05/1171/ADV Projecting sign and ground floor window and fascia signage -Application Granted
- 05/1170/FUL Erection of satellite dish and Air conditioning condenser unit -Application Granted
- 05/0569/ADV Relocation of externally illuminated projecting sign Application Granted
- 05/0510/COU Change of use from A1 retail to A2 of part of first floor and part of ground floor to form new access. Alterations to existing shopfront entrance doors -Application Granted
- 03/1912/FUL Installation Of Video Rental Dispenser Unit Within Existing Shop Front -Application Refused
- 03/0112/ADV Erection Of An Externally Illuminated Fascia Sign Application Granted

Proposal

The proposed development subject to this pre-application query seeks the change of use of 1st, 2nd and 3rd floors from ancillary retail space (A1) to form 9 flats with external alterations and enclosure of walkway at 1st floor, new residential access, bin stores and internal reconfiguration of food store at ground floor and offices at 1st floor.

Relevant Policies

All Core Strategy, Development Management Plan policies and Supplementary Guidance and Documents are available to view on the Council's website www.richmond.gov.uk. Consideration must also be given to policies in the London Plan and National Planning Policy Statements. Relevant local policies are summarised below.

Development Management Plan

- DM SD1 Sustainable construction
- DM SD2 Renewable energy and decentralised energy networks
- DM SD6 Flood Risk
- DM DC1 Design quality
- DM DC2 Layout and design of mixed use schemes
- DM DC5 Neighbourliness, Sunlighting and Daylighting
- DM DC6 Balconies and upper floor terraces
- DM HO1 Existing housing
- DM HO2 Infill Development
- DM HO3 Backland development
- DM HO4 Housing mix and standards
- DM HO6 Delivering affordable housing
- DM TC1 Larger Town Centres
- DM TC3 Mixed Use
- DM TC5 The Evening Economy
- DM TP1 Matching development to transport capacity
- DM TP2 Transport and new development
- DM TP6 Walk and the pedestrian environment
- DM TP7 Cycling
- DM TP8 Off street parking Retention and new provision

Core Strategy

- CP1 Sustainable development
- CP2 Reducing Carbon Emissions
- CP5 Sustainable Travel
- CP7 Maintaining and Improving the Local Environment
- CP8 Town and local centres
- CP14 Housing
- CP15 Affordable Housing
- CP19 Local business

Supplementary documents

- Central Richmond Conservation Area Statement
- Central Richmond Conservation Area Study
- SPD Design quality
- SPD Affordable Housing
- Sustainable Construction Checklist
- Residential Development Standards
- Small & Medium Housing Sites SPD
- Front Garden and Other Off Street Parking Standards SPD

Professional comments:

The following comments have been made in response to the following submitted material:

- (i) Letter dated 2nd February 2015
- (ii) Pre-Application Drawing Number 3341 000
- (iii) Pre-Application Drawing Number 3341 300 Rev A
- (iv) Pre-Application Drawing Number 3341 301
- (v) Pre-Application Drawing Number 3341 302
- (vi) Pre-Application Drawing Number 3341 303
- (vii) Existing site environment sheet
- (viii) Pre-Application Drawing Number 3341 201 Rev C
- (ix) Pre-Application Drawing Number 3341 110 Rev A
- (x) Pre-Application Drawing Number 3341 100 Rev A
- (xi) Pre-Application Drawing Number 3341 101 Rev C
- (xii) Pre-Application Drawing Number 3341 102 Rev C
- (xiii) Pre-Application Drawing Number 3341 103 Rev B
- (xiv) Pre-Application Drawing Number 3341 107 Rev A
- (xv) Pre-Application Drawing Number 3341 200 Rev B
- (xvi) Pre-Application Drawing Number 3341 202 Rev A

The Council considers that the main issues associated in this particular enquiry relate to the following: (a) principle of residential development; (b) the design of the scheme and impacts on conservation area and BTMs; (c) impacts on residential amenity; (d) traffic and parking issues; (e) sustainability; (f) financial contributions and (g) other matters. These shall be dealt with in turn.

a) Principle of the residential development

Policy CP8 of the Core Strategy 2009 states that the Borough's town and local centres have an important role, providing shops, services, employment opportunities, housing and being a focus for community life. In regard to Richmond Town Centre the key objectives are to maintain and reinforce the centre as the location for major offices, retail (particularly comparison goods and specialist retail) and service uses, arts, culture, and leisure and

tourism facilities. In terms of residential development the objective is to encourage higher density, including affordable and small units; and car free development.

Policy CP14 of the Core Strategy states that the density of residential developments should take in account the need to achieve the maximum intensity of use comparable with the local context, with particularly regard to the character, quality and amenity of the established area.

Policy DM TC1 of the DMP 2011 seeks to maintain and improve town centres through the provision of appropriate development within the five identified boundaries. Proposals should contribute to a suitable mix of retail, business, leisure, tourism, community uses, health and residential. Proposals need to enhance vibrancy and vitality of the centre; be more efficient or provide benefit than previous use; reduce need to travel and pressure on parking; in scale to enhance vibrancy and vitality; sites for modern retail needs including where appropriate larger floor-plates; maintain or enhance active frontage; develop leisure, cultural and tourism facilities and respect and enhance heritage and character of centre.

The site is located within a Key Shopping Frontage and thus policy DM TC3 would also need to be considered as any part of a potential application. The policy seeks to controlling changes of use from retail, will generally be resisted.

Richmond is the borough's main shopping centre, being a "major" centre in the London Plan's classification of town centres. The Core Strategy outlines the general location and amount of retail floorspace anticipated to be provided in the borough, and paragraph 6.1.14 indicates that most of the 8,000sqm required is expected to locate in and around Richmond. Richmond remains a relatively healthy town centre according to our latest Town Centre Health Checks and thus there may be room to consider other commercial uses which might also be acceptable.

However, at paragraph 4.2.29 it states that the frontages policy primarily protects the ground floor, street frontage part of a unit. Although the Council will seek to avoid the reduction of overall retail space, especially in Richmond town centre, it acknowledges that retail may not always be the most effective use of the upper floors of certain buildings. Providing that the viability of the ground floor unit to act in a retail capacity is not compromised (especially the case for anchor supermarkets in existing centres), changes of use away from retail on other floors would not be contrary to the frontage policy.

The pre-application query is described as reconfiguring the Tesco store slightly on the ground floor and converting the first, second and third floors to residential. First floor and second floor are described as ancillary office and training rooms and the third floor as vacant space, a void shell with limited access and thus is presumed as ancillary. The Council has previously not objected in principle to the loss of the ancillary space and therefore will take the same approach now.

If the loss of existing uses can be satisfactorily addressed, then the principle of a residential use could in principle be considered in accordance with Policies CP1 and CP14. However, its essential that any residential could only be considered acceptable provided it does not have any negative impact on the remaining commercial space. Thus further clarification would be required at application stage with particular regard to the ancillary arrangements and the superfluous nature. The proposed ground floor plan does not show much change in layout, and it is presumed the back office will need to go in here. An application would require confirmation of the existing and proposed retail sales area.

In principle additional residential use can add to the vitality and viability in such a town centre location where it is above commercial frontage, in accordance with Policies CP1 and CP14, provided it does not have any negative impact on the ground floor/adjacent commercial uses, such as impact on access and servicing etc. and there is a need to ensure there will not be future conflict given the close juxtaposition with the residential such as from noise, amenity

issues. It appears the proposal includes separate access to the residential and to the other existing commercial uses, which in principle appears to meet the requirements of Policy DM DC2.

The proposed mix is offering 66.7% small (studio or 1 bed) units, which is not reaching the significant proportion expected in a town centre location which should be above 75% as required by Policy CP14 and DM HO4 given this highly sustainable location. Any future application would need to justify the proposed mix, and whether alternative layouts with a higher proportion of small units could be incorporated.

The standards set out in Policy DM HO4 and the Residential Design Standards SPD for external and internal space standards should be addressed to ensure a satisfactory standard of accommodation is proposed wherever possible in a conversion. The internal unit sizes appear to exceed the Council's baseline standards. However it is noted there is limited external amenity space, however there are likely to be constraints with regard to a BTM regarding external alterations such as balconies.

Policy CP14 states that all new homes should be built to Lifetime Homes Standards and 10% to wheelchair standards. Details should be provided in an application of whether some criteria can be addressed, as while on upper floors a lift is not a requirement of the Lifetime Homes Standard and within the constraints of conversion it may be possible to address some criteria.

Policies CP15 and DM HO6 set out the framework to require contributions to affordable housing from all small sites. The Affordable Housing SPD sets out specific contributions sought from converted floorspace on all small sites. However, in light of the Ministerial Statement and recent NPPG update of 28 November 2014, in particular advising that contributions for affordable housing and tariff style planning obligations (section 106 planning obligations) should not be sought from small scale and self-build development, this Council will no longer seek affordable housing contributions from developments of 10-units or less and which have a maximum combined gross floorspace of no more than 1000sqm.

Nevertheless, any future application would need to justify that the site is not capable of a higher number of units, given concerns above whether there should be a higher proportion of small units and as the unit sizes do exceed by some way the Council's baseline standard. As it is close to the threshold in terms of the number of units proposed, the Council would need to be satisfied the site is not being under-utilised to avoid an affordable housing contribution if it is capable of more units.

b) Design impacts on BTM and the conservation area

Policy CP7 of the Core Strategy seeks to maintain and improve the local environment. Existing buildings and areas in the Borough of recognised high quality and historic interest will be protected from inappropriate development and enhanced sensitively. The policy indicates that any new development should recognise distinctive local character and contribute to creating places of a high architectural and urban design quality that are well used and valued, and that proposals should demonstrate an analysis and understanding of development patterns, features, views, scale and layout of the area.

Policy DM HD1 of the DMP 2011 has a presumption to protect areas of special significance by designating Conservation Areas. Impact of proposals within and affecting the setting of Conservation Area will be taken into account. Features that contribute to character and appearance of the area will be retained, whilst new development should conserve and enhance the character and appearance of the area.

Policy DM HD3 seeks to preserve and enhance Building of Townscape Merit (BTM) by protecting their significance, character and setting. Alterations and extensions should be

based on an accurate understanding of the structure and respect the architectural character and detailing of the original building.

Policy DM DC1 of the DMP 2011 states new development must be of a high architectural and urban design quality based on sustainable design principles. Development must be inclusive, respect local character including the nature of a particular road and connect with and contribute positively to its surroundings based on a thorough understanding of the site and its context. In assessing design quality this policy requires proposals to have regarded to:

- compatibility with local character including relationship to existing townscape and
- frontages, scale, height, massing, proportions and form
- sustainable development and adaptability, subject to aesthetic considerations
- layout and access
- space between buildings and relationship to the public realm
- detailing and materials

Schemes that are not of a high design quality, and do not result in the improvement of the area where they will be built or implemented, will not be acceptable, nor will schemes which depart from the coherent and predominant character of a road or neighbourhood.

In such locations the character and appearance of an area is the result of many aspects that contribute to its character. The quality of materials, detailing, scale, form and bulk are important elements in any assessment. Consequently one of the main issues in this preapplication request is whether or not the proposal preserves or enhances the conservation area, or at the worst have a neutral effect on such an area. In assessing such an application it is important to look at the character of the conservation area as a whole; the immediate streets and the host property itself.

The Central Richmond conservation area statement (CA17) states the area is mainly a commercial shopping area and the townscape is noteworthy for its variety, with a consistently high quality and many exuberant individual buildings. There are also residential areas of mainly terraced development. The area is threaded by several small lanes leading into the historic Richmond that lie behind the 19th century commercial redevelopment. These lanes, including Church Court provide a refuge from traffic and are spaces of a more intimate nature.

The character and appearance of the immediate surrounding conservation area contains the churchyard enclosure of St. Mary Magdalene Church (grade II listed building) including the Church Walk buildings whose scale relates to the Church, providing contrast to the commercial frontages on the east side of George Street, as does the Green to its west. Whilst the properties are generally plainer and more functional they nevertheless retain a degree of rhythm and character within the immediate area.

The Conservation Area Statement further indicates that one of the key problems and pressures on this area is the loss of traditional architectural features and materials due to unsympathetic alterations. The statement highlights applications should improve and protect the setting and reinstatement of architectural quality and unity. Generally the loss of traditional features and unsympathetic alterations should be avoided and the preservation and enhancement is encouraged within the surrounding area and throughout the Borough. In this particular case the visual impact of the proposed development on the public character of the general area would be extremely exposed, given that the majority of the works are at the rear of the building which are visual from public vantage points and the setting of a listed building.

The conservation team have been consulted as part of the proposed scheme and have raised no issues with the change of use of the upper floors to residential in principle. Given that there would be little in the way of any external changes to the host property. The main external change will mainly be to the Church Court façade incorporating the glazed walkway. This provision would work well with the existing building providing a lightweight feel and still

allowing views through the structure to the existing development. This may be acceptable but the LPA would require further details of materials, fenestration.

c) Impact on residential amenities

Policy DM DC5 seeks to protect residents from unacceptable noise disturbance, loss of privacy, light and visual intrusion potentially generated through development. Light issue is measured through BRE guidelines.

The adopted SPD 'Residential Development Standards states new dwellings which create an unacceptable sense of enclosure or appear overbearing when seen from neighbouring gardens or rooms or from the street will not be permitted. This could be due to the height, footprint or proximity of the proposal.

Policy DM DC6 indicates that purpose built, well designed and positioned balconies or terraces on new residential units can be encouraged. However they need to sufficiently deep to allow adequate access; located next to a dining or living space; receive direct sunlight; designed to provide some shelter and privacy to neighbouring properties; and designed for security and safety. The addition of balconies and upper floor terraces to existing properties will not generally be permitted unless they do not adversely affect neighbourliness.

The adopted SPD 'Residential Development Standards states new dwellings which create an unacceptable sense of enclosure or appear overbearing when seen from neighbouring gardens or rooms or from the street will not be permitted. This could be due to the height, footprint or proximity of the proposal.

Any development must protect adjoining properties from unreasonable loss of privacy, pollution, visual intrusion, noise and disturbance. To protect privacy, residential development should be sited a minimum of 20m between the main facing windows of habitable rooms. However, as recognised by the SPD 'Small and medium housing sites', where principal windows face a wall than contains no windows or these are occluded, separation distances can be reduced to 13.5m. Further, with respect to sunlight and daylight (for existing and future residents) the Council is guided by the BRE Site Layout, Planning for Sunlight and Daylight, and in Sun on Ground Indicators. (If applications are forthcoming, please incorporate sunlight / daylight analysis).

In respect to residential amenity it is considered that the proposal is unlikely to create any unacceptable potential increase in overlooking despite the extent of the glazing. Nevertheless the proposal would need to be fully assessed following a full application. However the Council acknowledges that in an urban area there tends to be a degree of common overlooking and that is a normal expectation.

The new units would require the provision private amenity space in accordance with the Councils Residential Development Standards SPD, and these should not be to the detriment of any loss privacy, both actual and perceived from neighbouring properties, although the limitations at the site are noted. The glazed walkway would be extremely visible from public vantage points this may have a visual impact on the amenities of the adjoining properties which is not in accordance with the SPG as a result. Again this would require further assessment should an application be submitted. Also information would be required in respect to the future occupiers and the servicing arrangements of the retail unit on the ground floor to ensure that disturbance is kept to a minimum.

d) Traffic and parking

Policy DM TP2 states that the impact of new development on the transport network will be assessed against other plan policies and transport standards. The policy indicates that it is necessary to consider the impact of any new development on the existing wider and local

transport network for all modes, how it links to the network, impacts on highway safety, the impact of parking and servicing, and with larger developments what provision has been made for the movement and parking of vehicles.

Policy DM TP7 seeks to maintain and improve conditions for cyclists, the Council will ensure that new development or schemes do not adversely impact on the cycling network or cyclists and provide appropriate cycle access and sufficient, secure cycle parking facilities. Policy DM TP8 indicates that developments, redevelopments, conversions and extensions will have to demonstrate that the new scheme provides an appropriate level of off street parking to avoid an unacceptable impact on on-street parking conditions and local traffic conditions.

The Councils Highways Team has been consulted in regard to the details submitted with the pre-application enquiry. They have indicated that the site is located within an area with a PTAL rating of 6a, and is located within a community parking zone. The Transport team have indicated any future application must address parking for the proposed residential units. Parking stress surveys are required if there is no off street parking offered. Parking surveys to the Richmond methodology both overnight and during the day will be required, (scoped with my colleagues in Transport). The Transport team will raise objections if the survey shows the area to be at 90% or more parking stress.

Subject to this being addressed satisfactorily a legal agreement will be required removing access to resident and visitors parking permits and contracts in council run car parks, and also requiring all units must be made members of a car club for 5 years.

Any cycle parking must be enclosed, secure, covered and weatherproof. The current proposed location appears to be within the service yard and is not ideal. The provision should be close to the pedestrian access and the A1 and C3 stores should be separate. At least 9 spaces are required and Sheffield type stands are recommended. This should be shown on any future planning application.

As the residential access is via an existing footpath and from the rear additional lighting may be required. Improvements to the street lighting in the footpath leading from Church Walk to Victoria Place estimated cost £3000.00 to increase public safety for pedestrians at night time which again could be secured through a legal agreement.

Refuse bins must hold 3 x 360 litres refuse and 4 x 240 litres recycling. Residents must not walk further than 30m from unit to store. In addition information would be required on how will the refuse be collected given that it will need to be left within 10m of the public highway for collection, and the Council operatives will not bring the refuse/recycling up from lower ground floors. These will need to be shown on a submitted plan. Also cycle storage must be shown on any submitted application and this will need to be secure and weatherproof.

Furthermore it should be noted that a Construction Management Statement Condition would be attached to the decision should planning permission be granted, given the importance of traffic system within this area and the tight nature of the site itself and the surrounding area.

e) Sustainability

Given that the proposal seeks the refurbishment of an existing building, it is considered that the proposal would generally complement the aims and objectives of the Core Strategy 2009 and Development Management Plan 2011 in providing a more sustainable environment. CP1 of the Core Strategy seeks appropriate uses of land whilst reducing the overall environmental impact, and in particular seeks the refurbishment of buildings rather than the redevelopment.

Policy CP2 states that the Borough will reduce its carbon dioxide emissions by requiring measures that minimise energy consumption in new development and that it will increase the use of renewable energy. These themes are continued in policies DM SD2 and DM SD3 of the

Development Management Plan 2011 stating that development in terms of materials, design, landscaping, standard of construction and operation should include measures capable of mitigating and adapting to climate change to meet future needs.

In particular the retention of existing developments will be supported wherever possible through retrofitting, with conversions encouraged to comply with the Sustainable Construction Checklist SPD and meeting the BREEAM Domestic Refurbishment "excellent" rating. As a result any full application would need to be accompanied by a Sustainable Construction Checklist, to ensure that the proposal meets the relevant sustainable ratings.

f) Financial Contributions (CIL)

As you are aware, the Mayor of London is empowered to charge a Community Infrastructure Levy (CIL) for strategic transport. The Mayor has formally approved a new charge, which takes effect on developments that are granted planning permission on or after 1 April 2012 for the funding of Crossrail. The Mayor is imposing a CIL charge of £50 per square metre in the London Borough of Richmond upon Thames against all but health, education and affordable housing floorspace. CIL will be calculated according to the amount of net additional floorspace a new development will produce, this would include the building of a dwelling even where this is below 100 square metres.

As from the 1st November 2014 the Borough CIL has come into effect, which will require most new development to make a financial contribution towards new or improved facilities required by this borough's development and growing population. These charges will apply to relevant development which is approved after this date. This will operate in conjunction with the revised Planning Obligations SPD and the Affordable Housing SPD; the former also came into effect on the 1st November 2014. For residential development there is a higher and lower band for the CIL (£250 per square metre – higher band and £190 per square metre – lower band) the current proposal would fall within the higher band.

g) Other Matters

Community Involvement.

At this stage neighbours have not been notified of this pre-application enquiry. However, the Council's encourages a statement of community involvement to be submitted with any submission. If you do decide to pursue this scheme, whether in the current or an amended version, prior to submission it is strongly advised that you should consult with neighbours.

Summary

To summarise further work is required to ensure that the site has been optimised in terms of small units and this needs to be satisfied first. Subject to that in principle no housing policy objection to conversion for residential unit in principle, providing assessed to be a satisfactory standard of accommodation and the acceptability of the proposed extension.

Further information should be submitted at application stage in regard to sustainability, construction method statement and impacts on neighbouring amenities. The above must be addressed and a parking survey is required. As such the current scheme would not receive a favourable recommendation, but subject to the above points being addressed and the parking survey results showing stress under 90% with the impact of the development and recently approved applications in the area, a formal application may be acceptable.

Without prejudice

Any given advice by Council Officers from pre-application enquiries does not constitute a formal response or decision of the Council with regard to future planning consents. Any views or opinions expressed are given in good faith and to the best of ability without prejudice to formal consideration of any planning application, which was subject to public consultation and ultimately decided by the Council. You should therefore be aware that officers cannot give

guarantees about the final form or decision that will be made on your planning or related applications.

Although the advice note will be brought to the attention of the Planning Committee or an officer acting under delegated powers, it cannot be guaranteed that it will be followed in the determination of future related planning applications and in any event circumstance may change or come to light that could alter the position. It should be noted that if there has been a material change in circumstances or new information has come to light after the date of the advice being issued then less weight may be given to the content of the Council's preapplication advice of schemes. You are also advised to refer to local and national validation checklist on the Council's website.

In the meanwhile should you have any further concerns or enquiries please do not hesitate in contacting me.

Yours sincerely

Robert Angus

Development Control Manager

APPENDIX D



Intelligent Data Collection Limited Richmond Town Centre

Client: i-Transport LLP Project Number: ID02266

Date of Survey: 24/03/2015 and 25/03/2015

Type of Survey: Parking Beat



Quality Assurance and Issue Record

Quality Assurance

Revision	Rev A		
Date	07.04.2015		
Prepared by	Sanjay Munigeti		
Signature			
Checked by	Luke Martin		
Signature			
Project Director	Paul O'Neill		
Signature			
Project number	ID02266		
	ID02266 Richmond		
File Ref	Town Centre - Parking		
	Beat		

Issue Sheet

		Da	ate	
Issued to	07.04.2015			
Jamie Narborough	E-mail			



Contents Page

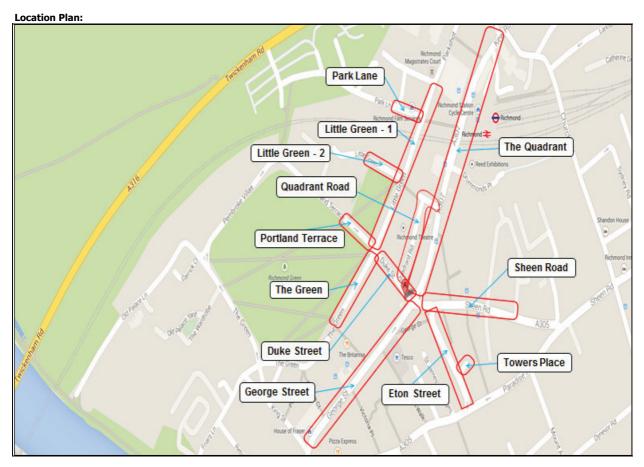
Location Plan
Parking Beat Summary
Duke Street
Eton Street
George Street
Little Green - 1
Little Green - 2
Park Lane
Portland Terrace
Quadrant Road
Sheen Road
The Green
The Quadrant
Towers Place



Client: i-Transport LLP
Project Number: ID02266

Date of Survey: 24/03/2015 and 25/03/2015

Type of Survey: Parking Beat



Weather Conditions:

AM Period: Dry and clear PM Period: Dry and clear

Parking Inventory Methodology:

Each unmarked space is based on an assumption 5.5 metres per vehicle. All measurements have been rounded down after being divided into 5.5 metre spaces.

If there is a single marked bay of less than 5.5 metres it has been included as a usable space.

The first 7.5m of kerb adjacent to any junction has been excluded from the calculation for safety reasons, as suggested in the Lambeth Methodology for parking surveys.

Parking Stress Calculations:

Parking stress values are stated using two separate methods.

Firstly, a 'Legal Parking Stress' is presented which compares the total number of legally parked vehicles to the total number of available legal spaces.

In addition, a 'Total Parking Stress' is also calculated. This compares the total number of parked vehicles (both legally and illegally parked) to the total number of available legal spaces. Vehicles parked illegally can therefore result in a total parking stress value of over 100%.

Additional Notes (fa	ctors which may impa	act on survey results	such as accidents, i	roadworks, special e	events):	



Client: i-Transport LLP
Project Number: ID02266

Date of Survey:
Survey Type:24/03/2015 and 25/03/2015Prepared by: Sanjay Munigeti
Checked by: Luke MartinParking BeatChecked by: Luke Martin

Legally Parked Vehicles

	Legal	P	arking Bea	it	Pa	rking Stre	ess
Road Name	Spaces	March	March	Max	March	March	Max
Duke Street	0	0	0	0	0%	0%	0%
Eton Street	0	0	0	0	0%	0%	0%
George Street	8	0	1	1	0%	13%	13%
Little Green - 1	36	5	3	3	14%	8%	8%
Little Green - 2	4	3	4	4	75%	100%	100%
Park Lane	8	2	0	0	25%	0%	0%
Portland Terrace	21	10	10	10	48%	48%	48%
Quadrant Road	13	4	4	4	31%	31%	31%
Sheen Road	29	2	5	5	7%	17%	17%
The Green	21	12	12	12	57%	57%	57%
The Quadrant	28	6	9	9	21%	32%	32%
Towers Place	4	0	0	0	0%	0%	0%
Total	172	44	48	48	26%	28%	28%

Total Parked Vehicles

	Legal	P	arking Bea	nt	Pa	rking Stre	ess
Road Name	Spaces	March	March	Max	March	March	Max
Duke Street	0	0	0	0	0%	0%	0%
Eton Street	0	0	0	0	0%	0%	0%
George Street	8	0	1	1	0%	13%	13%
Little Green - 1	36	5	3	3	14%	8%	8%
Little Green - 2	4	3	4	4	75%	100%	100%
Park Lane	8	2	0	0	25%	0%	0%
Portland Terrace	21	10	10	10	48%	48%	48%
Quadrant Road	13	4	4	4	31%	31%	31%
Sheen Road	29	2	5	5	7%	17%	17%
The Green	21	12	12	12	57%	57%	57%
The Quadrant	28	7	9	9	25%	32%	32%
Towers Place	4	0	0	0	0%	0%	0%
Total	172	45	48	48	26%	28%	28%

^{*}Maximum values are highlighted for each street, in each table, with a bold font.



Client: i-Transport LLP

Project Number: ID02266

 Date of Survey:
 24/03/2015 and 25/03/2015
 Prepared by: Sanjay Munigeti

 Survey Type:
 Parking Beat
 Checked by: Luke Martin

 Road Name:
 Duke Street

Parking Restrictions:

Shared User: No restrictions
Pay and Display: No restrictions
Permit Holders: No restrictions
Resident Permits: No restrictions
Loading Bays: No restrictions
Single Yellow: No restrictions

Notes (reasons for any overstress and details of 'Other' parking types):

Narrow Road			

Aerial View:



Street View:



Parking Inventory

							Legal Parl	king Areas										Illegal Par	king Areas			
		Parking	Shared	Pay and	Permit	Resident			Disabled		Loading		Single	Other		Driveway	Single	Double		Double	Keep	
Parking Type	No Lines															/ SYL	Yellow	Yellow	Single Red	Red	Clear	Bus Stop
Number of Spaces	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0	0	0	0
												Total Le	gal Spaces	0						Total Ille	gal Spaces	14

							Legal Park	ing Areas										Illegal Par	king Areas							
		Parking	Shared	Pay and	Permit	Resident			Disabled		Loading		Single	Other		Driveway	Single	Double		Double	Keep		Legally Parked	Legal Parking	Total Parked	Total Parking
Time	No Lines	Bays	User	Display	Holders	Permits	Free Bays	Car Club	Bays	Taxi Bays	Bays	M/C Bays	Yellow	(Specify)	Driveway	/ SYL	Yellow	Yellow	Single Red	Red	Clear	Bus Stop	Vehicles	Stress	Vehicles	Stress
24th March	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0%
25th March	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0%



Client: i-Transport LLP

Project Number: ID02266

Date of Survey: 24/03/2015 and 25/03/2015 Prepared by: Sanjay Munigeti Survey Type: Parking Beat Checked by: Luke Martin Road Name: Eton Street

Parking Restrictions:

Shared User: No restrictions
Pay and Display: No restrictions
Permit Holders: No restrictions
Resident Permits: No restrictions
Loading Bays: No restrictions
Single Yellow: No restrictions

Notes (reasons for any overstress and details of 'Other' parking types):

Narrow Road			

Aerial View:



Street View:



Parking Inventory

							Legal Park	ing Areas										Illegal Pa	rking Areas			
		Parking	Shared	Pay and	Permit	Resident			Disabled		Loading		Single	Other		Driveway	Single	Double		Double	Keep	
Parking Type	No Lines	Bays	User	Display	Holders	Permits	Free Bays	Car Club	Bays	Taxi Bays	Bays	M/C Bays	Yellow	(Specify)	Driveway	/ SYL	Yellow	Yellow	Single Red	Red	Clear	Bus Stop
Number of Spaces	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	0	4	0
												Total Le	gal Spaces	0						Total Ille	gal Spaces	16

							Legal Park	king Areas										Illegal Par	king Areas							
		Parking	Shared	Pay and	Permit	Resident			Disabled		Loading		Single	Other		Driveway	Single	Double		Double	Keep		Legally Parked	Legal Parking	Total Parked	Total Parking
Time	No Lines	Bays	User	Display	Holders	Permits	Free Bays	Car Club	Bays	Taxi Bays	Bays	M/C Bays	Yellow	(Specify)	Driveway	/ SYL	Yellow	Yellow	Single Red	Red	Clear	Bus Stop	Vehicles	Stress	Vehicles	Stress
24th March	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0%
25th March	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0%



Client: i-Transport LLP

Project Number: ID02266

Date of Survey: 24/03/2015 and 25/03/2015 Prepared by: Sanjay Munigeti Survey Type: Parking Beat Checked by: Luke Martin

Road Name: George Street

Parking Restrictions:

Shared User: Business Permit & Loading Mon-Sat 0830-1800
Pay and Display: No restrictions
Permit Holders: No restrictions
Resident Permits: No restrictions
Loading Bays: No restrictions
Single Yellow: No restrictions

Notes (reasons for any overstress and details of 'Other' parking types):

4 parking spaces from DYL's are deducted due to construction work

Aerial View:



Street View:



Parking Inventory

							Legal Park	ing Areas										Illegal Pa	rking Areas			
		Parking	Shared	Pay and	Permit	Resident			Disabled		Loading		Single	Other		Driveway	Single	Double		Double	Keep	
Parking Type	No Lines	Bays	User	Display	Holders	Permits	Free Bays	Car Club	Bays	Taxi Bays	Bays	M/C Bays	Yellow	(Specify)	Driveway	/ SYL	Yellow	Yellow	Single Red	Red	Clear	Bus Stop
Number of Spaces	0	0	5	0	0	0	0	0	1	2	0	0	0	0	0	0	0	40	0	0	9	14
												Total Le	gal Spaces	8						Total Ille	gal Spaces	63

							Legal Parl	king Areas										Illegal Par	king Areas							
																							Legally	Legal	Total	Total
		Parking	Shared	Pay and	Permit	Resident			Disabled		Loading		Single	Other		Driveway	Single	Double		Double	Keep		Parked	Parking	Parked	Parking
Time	No Lines	Bays	User	Display	Holders	Permits	Free Bays	Car Club	Bays	Taxi Bays	Bays	M/C Bays	Yellow	(Specify)	Driveway	/ SYL	Yellow	Yellow	Single Red	Red	Clear	Bus Stop	Vehicles	Stress	Vehicles	Stress
24th March	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0%
25th March	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	13%	1	13%



Client: i-Transport LLP

Project Number: ID02266

 Date of Survey:
 24/03/2015 and 25/03/2015
 Prepared by: Sanjay Munigeti

 Survey Type:
 Parking Beat
 Checked by: Luke Martin

 Road Name:
 Little Green - 1

Parking Restrictions:

Shared User: No restrictions

Pay and Display: Mon - Sat 8:30 - 6:30PM Sundays & Bank Holidays 11AM - 5PM
Permit Holders: No restrictions
Resident Permits: Loading Bays: No restrictions
Single Yellow: No restrictions

Notes (reasons for any overstress and details of 'Other' parking types):

Add comments here. Write 'None' if there are no comments to report.

Aerial View:



Street View:



Parking Inventory

							Legal Park	ing Areas										Illegal Pa	rking Areas			
		Parking	Shared	Pay and	Permit	Resident			Disabled		Loading		Single	Other		Driveway	Single	Double		Double	Keep	
Parking Type	No Lines	Bays	User	Display	Holders	Permits	Free Bays	Car Club	Bays	Taxi Bays	Bays	M/C Bays	Yellow	(Specify)	Driveway	/ SYL	Yellow	Yellow	Single Red	Red	Clear	Bus Stop
Number of Spaces	0	0	0	20	0	0	0	0	0	0	0	11	5	0	0	1	0	32	0	0	0	0
												Total Le	gal Spaces	36						Total Ille	gal Spaces	33

							Legal Parl	king Areas										Illegal Par	king Areas							
		Parking	Shared	Pay and	Permit	Resident			Disabled		Loading		Single	Other		Driveway	Single	Double		Double	Keep		Legally Parked	Legal Parking	Total Parked	Total Parking
Time	No Lines	Bays	User	Display	Holders	Permits	Free Bays	Car Club	Bays	Taxi Bays	Bays	M/C Bays	Yellow	(Specify)	Driveway	/ SYL	Yellow	Yellow	Single Red	Red	Clear	Bus Stop	Vehicles	Stress	Vehicles	Stress
24th March	0	0	0	3	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	5	14%	5	14%
25th March	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3	8%	3	8%



Client: i-Transport LLP

Project Number: ID02266

 Date of Survey:
 24/03/2015 and 25/03/2015
 Prepared by: Sanjay Munigeti

 Survey Type:
 Parking Beat
 Checked by: Luke Martin

 Road Name:
 Little Green - 2

Parking Restrictions:

Shared User: No restrictions
Pay and Display: No restrictions
Permit Holders: No restrictions
Resident Permits: No restrictions
Loading Bays: No restrictions
Single Yellow: No restrictions

Notes (reasons for any overstress and details of 'Other' parking types):

Narrow Road			

Aerial View:



Street View:



Parking Inventory

							Legal Park	ing Areas										Illegal Par	king Areas			
		Parking	Shared	Pay and	Permit	Resident			Disabled		Loading		Single	Other		Driveway	Single	Double		Double	Keep	
Parking Type	No Lines	Bays	User	Display	Holders	Permits	Free Bays	Car Club	Bays	Taxi Bays	Bays	M/C Bays	Yellow	(Specify)	Driveway	/ SYL	Yellow	Yellow	Single Red	Red	Clear	Bus Stop
Number of Spaces	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0
												Total Le	gal Spaces	4						Total Ille	gal Spaces	5

							Legal Parl	king Areas										Illegal Par	king Areas							
		Parking	Shared	Pay and	Permit	Resident			Disabled		Loading		Single	Other		Driveway	Single	Double		Double	Keep		Legally Parked	Legal Parking	Total Parked	Total Parking
Time	No Lines	Bays	User	Display	Holders	Permits	Free Bays	Car Club	Bays	Taxi Bays	Bays	M/C Bays	Yellow	(Specify)	Driveway	/ SYL	Yellow	Yellow	Single Red	Red	Clear	Bus Stop	Vehicles	Stress	Vehicles	Stress
24th March	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	75%	3	75%
25th March	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	100%	4	100%



Client: i-Transport LLP

Project Number: ID02266

 Date of Survey:
 24/03/2015 and 25/03/2015
 Prepared by: Sanjay Munigeti

 Survey Type:
 Parking Beat
 Checked by: Luke Martin

 Road Name:
 Park Lane

Parking Restrictions:

Shared User: No restrictions
Pay and Display: No restrictions
Permit Holders: No restrictions
Resident Permits: No restrictions
Loading Bays: No restrictions
Single Yellow: Mon - Fri 08:30 AM - 06:30 PM, Sunday 11AM - 5PM

Notes (reasons for any overstress and details of 'Other' parking types):



Aerial View:



Street View:



Parking Inventory

							Legal Parl	ing Areas										Illegal Pai	rking Areas			
		Parking	Shared	Pay and	Permit	Resident			Disabled		Loading		Single	Other		Driveway	Single	Double		Double	Keep	
Parking Type	No Lines	Bays	User	Display	Holders	Permits	Free Bays	Car Club	Bays	Taxi Bays	Bays	M/C Bays	Yellow	(Specify)	Driveway	/ SYL	Yellow	Yellow	Single Red	Red	Clear	Bus Stop
Number of Spaces	0	0	0	3	0	0	0	0	0	0	0	0	5	0	0	2	0	2	0	0	0	0
												Total Le	gal Spaces	8						Total Ille	gal Spaces	4

							Legal Parl	king Areas										Illegal Pa	rking Areas							
																							Legally	Legal	Total	Total
		Parking	Shared	Pay and	Permit	Resident			Disabled		Loading		Single	Other		Driveway	Single	Double		Double	Keep		Parked	Parking	Parked	Parking
Time	No Lines	Bays	User	Display	Holders	Permits	Free Bays	Car Club	Bays	Taxi Bays	Bays	M/C Bays	Yellow	(Specify)	Driveway	/ SYL	Yellow	Yellow	Single Red	Red	Clear	Bus Stop	Vehicles	Stress	Vehicles	Stress
24th March	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	25%	2	25%
25th March	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0%	0	0%



Client: i-Transport LLP

Project Number: ID02266

Date of Survey: 24/03/2015 and 25/03/2015 Prepared by: Sanjay Munigeti Survey Type: Parking Beat Checked by: Luke Martin

Road Name: Portland Terrace

Parking Restrictions:

Shared User: Res & PD Mon-Sat 0830-1800, Sun & Bank Holidays 1100-1700
Pay and Display: No restrictions
Permit Holders: No restrictions
Resident Permits: No restrictions
Loading Bays: No restrictions
Single Yellow: No restrictions

Notes (reasons for any overstress and details of 'Other' parking types):

None			

Aerial View:



Street View:



Parking Inventory

							Legal Parl	king Areas										Illegal Par	king Areas			
		Parking	Shared	Pay and	Permit	Resident			Disabled		Loading		Single	Other		Driveway	Single	Double		Double	Keep	
Parking Type														(Specify)	Driveway	/ SYL	Yellow	Yellow	Single Red	Red	Clear	Bus Stop
Number of Spaces	0	0	19	0	0	0	0	2	0	0	0	0	0	0	0	0	0	9	0	0	0	0
·												Total Le	gal Spaces	21						Total Ille	gal Spaces	9

							Legal Parl	king Areas										Illegal Par	king Areas							
		Parking	Shared	Pay and	Permit	Resident			Disabled		Loading		Single	Other		Driveway	Single	Double		Double	Keep		Legally Parked	Legal Parking	Total Parked	Total Parking
Time	No Lines	Bays	User				Free Bays	Car Club		Taxi Bays		M/C Bays			Driveway	/ SYL	Yellow		Single Red		Clear	Bus Stop	Vehicles		Vehicles	Stress
24th March	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	48%	10	48%
25th March	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	48%	10	48%