

AECOM Benchmark Social Infrastructure Standards

Education		Standard	Assumption Reference
Early Years	% of 0-1 year olds in formal Provision	9%	Previous Project Experience from Kent (Kent County Council Childcare Sufficiency Assessment April 2014)
	% of 1 year olds in formal Provision	18%	
	% of 2 year olds in formal Provision	40%	
	% of 3 year olds in formal Provision	77%	
	% of 4 year olds in formal Provision	60%	
	Places per Facility	50	Previous project Experience (Milton Keynes, Swindon, Exeter, East Hampshire, Huntingdonshire, Fareham)
	Sq.m per 50 place nursery	150	Previous project Experience (Milton Keynes, Swindon, Exeter, East Hampshire, Huntingdonshire, Fareham)
Primary schools	Children per FE	210	Department for Education
	% to Private school	5%	AECOM Rule of Thumb
Secondary schools	Children per FE	150	Department for Education
	% to Private school	5%	AECOM Rule of Thumb

Health & Social Care		Standard	Assumption Reference
Primary Health Care	People per GP	1,800	NHS
	Sq.m per GP	165	NHS
Dental Practices	People per Dentist	1,760	Existing ratio of Dentists to population across England 2015 (General Dental Council Data)
	Sq.m per Dentist	50	AECOM Standard from previous projects
Acute Hospitals	People per Bed	510	Existing ratio of Hospital Beds to population across England 2015 (based on NHS England Data)
	Sq.m per Acute Bed	160	NHS Healthy Urban Development Model
Library Space; based on branch	sq.m per 1,000 person	30	Arts Council (Previously Museums, Libraries and Archives Council (MLA))
Indoor Sports Facility (4 court hall)	facility per 1,000 person	0.072	Colchester SPG Provision of Open Space, Sport and Recreational Facilities 2006 (0.072 facilities per 1,000 persons)
Swimming Pool (4 lanes)	facility per 1,000 person	0.048	Colchester SPG Provision of Open Space, Sport and Recreational Facilities 2006 (0.048 facilities per 1,000 person)

Open Space		Standard	Assumption Reference
Natural Green Space	ha per 1,000 person	2.000	Recommend adoption of Braintree and Tendring standard - Colchester was 5ha
Outdoor Sports	ha per 1,000 person	1.530	Average of Braintree, Colchester and Tendring LPA
Parks and Gardens	ha per 1,000 person	1.320	
Amenity Green Space	ha. per 1,000 people	0.883	
Allotments	ha. per 1,000 people	0.227	
Childrens Playspace (Informal)	ha. per 1,000 people	0.208	
Childrens Playspace (formal)	ha. per 1,000 people	0.142	
Green Corridor	ha per 1,000 person	0.750	Tendring Open Space Strategy (2009)

Housing Assumptions - Tenure

Market Owned	65%
Affordable	35%

Intermediate Affordable Housing	65%
Social Rented Affordable Housing	35%

Housing Assumptions - Mix

	Flats (no. of bedrooms)				Houses (no. of bedrooms)			
	1	2	3	4+	1	2	3	4+
Market Housing	7%	6%	5%	2%	28%	24%	20%	8%
Intermediate Affordable Housing	7%	6%	6%	1%	29%	23%	24%	4%
Social Rented Affordable Housing	7%	8%	4%	2%	28%	32%	14%	6%

Average Household Size by Unit Type in Area of Study - Average using the total housing figures

Unit Type	Market Housing		Intermediate Affordable Housing		Social Rented Affordable Housing	
	Size	Average	Size	Average	Size	Average
Flat - 1 bed	1.27	1.27	1.27	1.27	1.18	1.18
Flat - 2 bed	1.59	1.59	1.59	1.59	2.18	2.18
Flat - 3 bed	2.03	2.03	2.03	2.03	2.78	2.78
Flat - 4 bed	2.83	2.83	2.83	2.83	2.39	2.39
House - 1 Bed	1.49	1.49	1.49	1.49	1.32	1.32
House - 2 Bed	1.75	1.75	1.75	1.75	2.04	2.04
House - 3 Bed	2.39	2.39	2.39	2.39	3.14	3.14
House - 4 Bed +	2.97	2.97	2.97	2.97	4.24	4.24

Age Profiles by Unit Type in Area of Study - Average using the total housing figures

Age Group	Market Owned							
	Flats (no. of bedrooms)				Houses (no. of bedrooms)			
	1	2	3	4+	1	2	3	4+
0-3	1.2%	3.4%	4.5%	3.4%	1.4%	2.8%	4.0%	3.5%
4-10'	0.4%	2.0%	3.9%	7.4%	1.1%	2.5%	7.1%	9.5%
11-15'	0.2%	1.3%	3.2%	6.1%	1.4%	1.6%	5.4%	8.6%
16-17	0.1%	0.6%	1.7%	3.0%	0.4%	0.7%	2.2%	3.7%
18-19	0.5%	0.6%	1.8%	1.7%	0.6%	0.6%	2.0%	2.9%
20 - 24	3.8%	5.2%	5.2%	10.1%	2.8%	2.3%	3.9%	5.1%
25 - 29	9.5%	12.0%	7.9%	5.7%	5.1%	4.9%	3.9%	2.8%
30 - 34	8.6%	9.1%	6.4%	6.7%	4.4%	5.2%	5.2%	3.2%
35 - 39	6.6%	5.5%	5.4%	6.7%	5.0%	4.9%	6.6%	6.0%
40 - 44	4.8%	4.8%	7.5%	8.8%	5.3%	5.1%	7.7%	8.9%
45 - 49	5.1%	5.1%	6.1%	7.4%	7.1%	5.4%	7.8%	9.7%
50 - 54	5.2%	5.3%	5.8%	8.4%	6.9%	5.8%	7.2%	8.3%
55 - 59	5.2%	5.2%	6.5%	5.1%	7.4%	6.9%	7.0%	7.4%
60 - 64	8.1%	7.4%	8.6%	5.4%	10.2%	10.5%	8.7%	7.5%
65 - 69	7.0%	7.6%	7.9%	6.7%	9.0%	10.2%	6.9%	5.2%
70 - 74	6.3%	6.9%	5.1%	4.0%	9.4%	9.4%	5.4%	3.2%
75 +	27.4%	17.8%	12.6%	3.4%	22.5%	21.2%	8.9%	4.5%

	Social Rented Affordable Housing							
	Flats (no. of bedrooms)				Houses (no. of bedrooms)			
	1	2	3	4+	1	2	3	4+
0-3	1.2%	3.4%	4.5%	3.4%	1.4%	2.8%	4.0%	3.5%
4-10'	0.4%	2.0%	3.9%	7.4%	1.1%	2.5%	7.1%	9.5%
11-15'	0.2%	1.3%	3.2%	6.1%	1.4%	1.6%	5.4%	8.6%
16-17	0.1%	0.6%	1.7%	3.0%	0.4%	0.7%	2.2%	3.7%
18-19	0.5%	0.6%	1.8%	1.7%	0.6%	0.6%	2.0%	2.9%
20 - 24	3.8%	5.2%	5.2%	10.1%	2.8%	2.3%	3.9%	5.1%
25 - 29	9.5%	12.0%	7.9%	5.7%	5.1%	4.9%	3.9%	2.8%
30 - 34	8.6%	9.1%	6.4%	6.7%	4.4%	5.2%	5.2%	3.2%
35 - 39	6.6%	5.5%	5.4%	6.7%	5.0%	4.9%	6.6%	6.0%
40 - 44	4.8%	4.8%	7.5%	8.8%	5.3%	5.1%	7.7%	8.9%
45 - 49	5.1%	5.1%	6.1%	7.4%	7.1%	5.4%	7.8%	9.7%
50 - 54	5.2%	5.3%	5.8%	8.4%	6.9%	5.8%	7.2%	8.3%
55 - 59	5.2%	5.2%	6.5%	5.1%	7.4%	6.9%	7.0%	7.4%
60 - 64	8.1%	7.4%	8.6%	5.4%	10.2%	10.5%	8.7%	7.5%
65 - 69	7.0%	7.6%	7.9%	6.7%	9.0%	10.2%	6.9%	5.2%
70 - 74	6.3%	6.9%	5.1%	4.0%	9.4%	9.4%	5.4%	3.2%
75 +	27.4%	17.8%	12.6%	3.4%	22.5%	21.2%	8.9%	4.5%

	Private rented							
	Flats (no. of bedrooms)				Houses (no. of bedrooms)			
	1	2	3	4+	1	2	3	4+
0-3	2.6%	15.6%	6.6%	5.3%	0.8%	7.9%	5.5%	5.2%
4-10'	1.2%	10.6%	13.9%	1.2%	1.3%	8.7%	14.0%	15.1%
11-15'	0.3%	3.9%	9.3%	2.9%	0.8%	4.9%	12.2%	16.3%
16-17	0.7%	2.1%	5.8%	1.2%	0.6%	1.8%	5.1%	7.2%
18-19	2.1%	2.8%	5.8%	19.4%	0.4%	2.1%	4.4%	6.2%
20 - 24	7.0%	12.4%	8.7%	30.6%	2.3%	6.1%	6.0%	8.1%
25 - 29	5.2%	10.4%	4.1%	7.6%	1.1%	6.1%	4.8%	3.3%
30 - 34	4.7%	6.6%	4.8%	5.9%	1.3%	4.8%	5.5%	4.6%
35 - 39	5.2%	4.9%	6.2%	5.9%	1.4%	4.8%	6.5%	6.6%
40 - 44	5.7%	5.3%	8.3%	1.2%	3.2%	5.4%	8.3%	7.7%
45 - 49	6.2%	4.9%	7.5%	5.3%	3.1%	5.4%	7.0%	6.3%
50 - 54	6.0%	4.0%	3.9%	2.9%	3.8%	4.7%	5.1%	4.2%
55 - 59	6.8%	3.5%	4.3%	1.8%	6.6%	4.5%	3.8%	2.6%
60 - 64	8.9%	3.3%	2.9%	3.5%	12.2%	6.2%	3.7%	2.4%
65 - 69	7.2%	2.4%	3.5%	1.8%	10.7%	6.1%	2.4%	1.7%
70 - 74	6.6%	2.3%	1.2%	0.6%	13.6%	6.3%	2.0%	0.9%
75 +	23.8%	5.2%	3.1%	2.9%	36.9%	14.2%	3.6%	1.6%

SIF Population Outputs - Informed by Housing Assumptions

Population from Scheme	
Total Units	480
Total Population	920

Population Age Profile	
0-3	34
4-10	46
11-15	36
16-17	16
18-19	15
20 - 24	47
25 - 29	57
30 - 34	59
35 - 39	57
40 - 44	64
45 - 49	69
50 - 54	61
55 - 59	59
60 - 64	70
65 - 69	61
70 - 74	49
75 +	121
Total Population	920

Social Infrastructure Requirements

Healthcare Facilities	SI Output	M2 Built Area	Cost / m2	Total	Notes
General Practitioners	1				
Primary Care Centre Floorspace (sq.m)	84	84	£2,200	£185,558	
Dental Surgeons	1			-	
Dental Surgery Floorspace (sq.m)	26	26	£1,700	£44,438	
Acute Healthcare Beds	2			-	
Acute Healthcare Floorspace (sq.m)	289	289	£2,700	£779,397	
Total Healthcare				£1,009,393	
Total Healthcare / Unit				£2,102	

Leisure and Community Facilities	SI Output	M2 Built Area	Cost / m2	Total	Notes
Swimming Pool Facility (4 lane)	0.045	9	£2,100	£19,079	Parlington ; 35m2 for 1,850 units therefore say 9m2
Sports Centres (4 court Hall)	0.066	18	£1,400	£24,712	Parlington ; 68m2 for 1,850 units therefore say 18m2
Library Space (sq.m)	28	28	£1,400	£38,645	
Total Community & Leisure				£82,436	
Total Community & Leisure / Unit				£172	

Total Community & Leisure + Health / Unit				£2,274	Say 2,250
--	--	--	--	---------------	------------------

Green Infrastructure	SI Output	M2 Built Area	Cost / m2	Total	Notes
Outdoor Sports (ha.)	1.4	14,078	£35	£492,725	
Children's play (ha.)	0.32	3,200	£50	£160,000	
Semi Natural Open Space (ha.)	1.84	18,402	£10	£184,024	
Parks and Gardens (ha.)	1.21	12,146	£25	£303,640	
Amenity Green Space (ha.)	0.81	8,128	£13	£101,597	
Allotments (ha.)	0.21	2,086	£30	£62,568	
Total Open Space				£1,304,555	
Total Open Space / Unit				£2,717	Say 2,750

Early Year (0-4)	SI Output	Cost Per Pupil	Total	Notes
Child Yield	14.04			
Total Child Yield	14.04			
Nursery Facilities	0.3			
Nursery sq.m	42.13			
Nursery		£16,875	£236,976	

Primary (4-11)	SI Output	Cost Per Pupil	Total	Notes
Child Yield	43.51			
Total Child Yield	43.51			
Primary FE	0.2			
Primary Cost Assumptions		£15,250	£663,490	
Playing Fields / School			£0	

Secondary (11-16)	SI Output	Cost Per Pupil	Total	Notes
Child Yield	34.09			
Total Child Yield	34.09			
Secondary FE	0.2			
Secondary Cost Assumptions		£23,125	£788,330	
Playing Fields / School			£0	

Total Education			£1,688,796	
Total Education / Unit			£3,517	Say 3,750