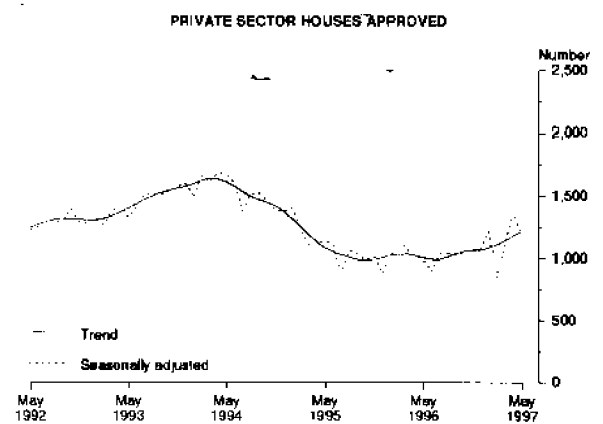
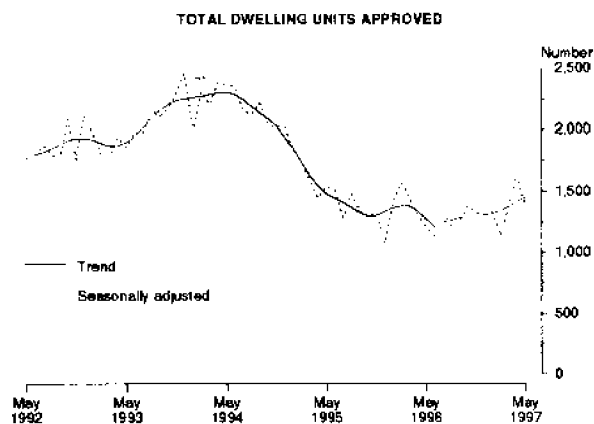


**BUILDING APPROVALS, WESTERN AUSTRALIA, MAY 1997**

**MAIN FEATURES**

**NUMBER OF DWELLING UNITS APPROVED**

	May 1996	April 1997	May 1997	May 1996 to May 1997 change	April 1997 to May 1997 change
Original series	1,420	1,626	1,576	11.0%	3.1%
Seasonally adjusted	1,213	1,634	1,396	15.1%	-14.6%
Trend estimate	1,274	1,414	1,453	14.1%	2.8%



**Residential**

- The trend for the total number of dwelling units approved in May continued the upward movement evident since mid 1996. The May 1997 level is nearly 20% above that of June 1996.
- The trend for the number of private sector houses also increased and exceeds the June 1996 level by more than 22%.
- In original terms, the number of dwellings approved in May remained high, at 1,576. This comprised mainly of 1,327 houses and 158 other residential units from the private sector.
- The value of new residential building approved was \$157.3 million and the value of alterations and additions to residential buildings was \$15.2 million.

**Non-residential**

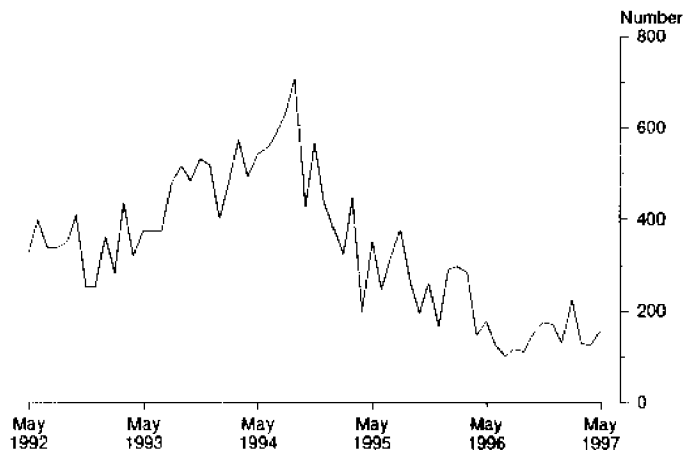
- The value of non-residential projects approved in May was \$146.4 million. Health accounted for \$45.1 million with one public sector project contributing most to the category. Similarly, one private sector shopping complex made up half the value of the Shop category (\$30.1 million) while Entertainment and Recreational was valued at \$21.8 million.
- There were 5 projects valued at more than \$5.0 million and 14 projects valued between \$1.0 million and \$5.0 million.

*From January 1997 onwards the method for the processing of government dwelling jobs has been changed. The series has been amended back to July 1996 and a series break has been made at 30 June 1996. This series break will be reviewed when further information is received and analysed.*

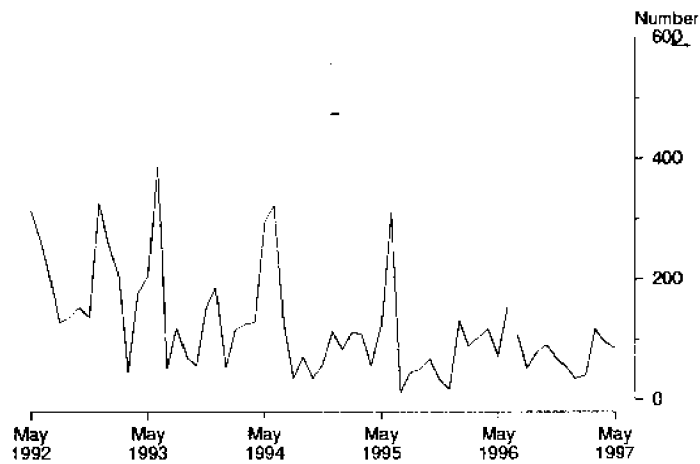
**INQUIRIES**

- for more information about statistics in this publication and the availability of related unpublished statistics, contact Merv Leaker on Adelaide (08) 8237 7585 or any ABS State Office.
- for information about other ABS statistics and services please contact Information Services on Perth (09) 360 5140, call at 2 The Esplanade, Perth or write to Information Services, ABS, GPO Box K881, Perth WA, 6001.

**NEW OTHER RESIDENTIAL BUILDINGS APPROVED  
PRIVATE SECTOR**



**TOTAL DWELLING UNITS APPROVED  
PUBLIC SECTOR**



**VALUE OF BUILDING WORK APPROVED**

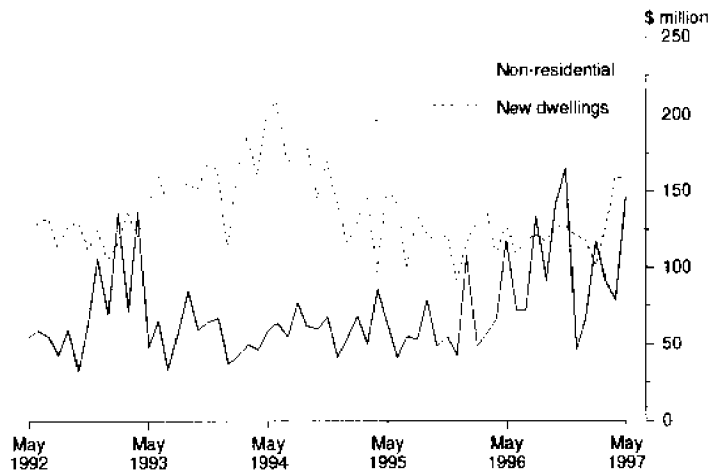


TABLE 1. NUMBER OF DWELLING UNITS APPROVED

Period	New houses			New other residential buildings			Conversions, etc.	Total (a)		
	Private sector	Public sector	Total	Private sector	Public sector	Total		Private sector	Public sector	Total
PERTH STATISTICAL DIVISION										
1993-94	13,899	321	14,220	4,924	929	5,853	177	18,986	1,264	20,250
1994-95	11,238	255	11,493	4,430	509	4,939	98	15,765	765	16,530
1995-96	8,237	149	8,386	2,376	451	2,827	80	10,693	600	11,293
1995-96 July-May	7,600	136	7,736	2,284	424	2,708	79	9,963	560	10,523
1996-97 July-May	8,322	238	8,560	1,368	192	1,560	67	9,751	436	10,187
1996—										
March	731	1	732	256	60	316	10	997	61	1,058
April	643	14	657	117	61	178	3	763	75	838
May	831	11	842	160	45	205	8	999	56	1,055
June	637	13	650	92	27	119	1	730	40	770
July	813	20	833	89	39	128	5	907	59	966
August	803	18	821	100	—	100	2	905	18	923
September	712	34	746	104	2	106	6	822	36	858
October	776	23	799	113	19	132	14	897	48	945
November	784	27	811	137	9	146	2	923	36	959
December	709	17	726	155	15	170	12	876	32	908
1997—										
January	647	18	665	114	5	119	6	767	23	790
February	538	24	562	222	4	226	5	765	28	793
March	672	24	696	105	36	141	11	788	60	848
April	939	13	952	90	36	126	4	1,033	49	1,082
May	929	20	949	139	27	166	—	1,068	47	1,115
WESTERN AUSTRALIA										
1993-94	18,966	471	19,437	5,938	1,206	7,144	195	25,085	1,691	26,776
1994-95	15,783	424	16,207	5,297	808	6,105	115	21,194	1,233	22,427
1995-96	11,945	266	12,211	2,900	627	3,527	115	14,960	893	15,853
1995-96 July-May	11,028	217	11,245	2,777	523	3,300	113	13,918	740	14,658
1996-97 July-May	11,962	520	12,482	1,595	315	1,910	97	13,648	841	14,489
1996—										
March	1,074	27	1,101	286	76	362	38	1,398	103	1,501
April	904	18	922	145	99	244	3	1,052	117	1,169
May	1,159	24	1,183	178	49	227	10	1,347	73	1,420
June	917	49	966	123	104	227	2	1,042	153	1,195
July	1,123	42	1,165	100	66	166	5	1,228	108	1,336
August	1,101	33	1,134	116	20	136	7	1,224	53	1,277
September	1,045	63	1,108	111	16	127	10	1,166	79	1,245
October	1,117	40	1,157	153	51	204	15	1,279	97	1,376
November	1,117	58	1,175	175	12	187	4	1,296	70	1,366
December	1,001	34	1,035	172	22	194	13	1,186	56	1,242
1997—										
January	1,003	31	1,034	130	5	135	13	1,146	36	1,182
February	773	30	803	226	12	238	6	1,005	42	1,047
March	958	81	1,039	129	36	165	12	1,099	117	1,216
April	1,397	59	1,456	125	38	163	7	1,529	97	1,626
May	1,327	49	1,376	158	37	195	5	1,490	86	1,576

(a) Includes Conversions, etc. See paragraphs 9-11 of the Explanatory Notes.

TABLE 2. VALUE OF BUILDING APPROVED  
(\$ million)

Period	New residential building									Alterations and additions to residential buildings	Non-residential building		Total building	
	Houses			Other residential buildings			Total				Private sector	Total	Private sector	Total
	Private sector	Public sector	Total	Private sector	Public sector	Total	Private sector	Public sector	Total					
PERTH STATISTICAL DIVISION														
1993-94	1,067.8	19.2	1,087.0	319.3	58.6	377.9	1,387.1	77.8	1,464.8	122.0	388.1	492.4	1,896.8	2,079.3
1994-95	928.5	17.9	946.4	302.5	31.6	334.1	1,231.0	49.5	1,280.6	126.1	438.5	555.5	1,795.5	1,962.2
1995-96	787.4	10.6	798.0	186.5	33.0	219.6	973.9	43.6	1,017.6	128.2	512.8	597.3	1,614.7	1,743.1
1995-96														
July-May	723.5	9.7	733.2	180.5	31.6	212.0	904.0	41.3	945.2	118.9	463.8	542.1	1,486.4	1,606.2
1996-97														
July-May	820.7	18.2	839.0	129.9	11.1	141.0	950.6	29.3	980.0	127.8	515.3	751.5	1,591.7	1,859.2
1996-														
March	67.9	0.1	67.9	25.4	4.7	30.2	93.3	4.8	98.1	11.6	26.9	41.8	131.8	151.5
April	64.2	0.9	65.0	9.1	3.2	12.3	73.2	4.1	77.4	11.4	47.7	51.6	132.3	140.4
May	80.9	0.7	81.6	10.7	2.4	13.1	91.6	3.1	94.7	9.0	96.4	109.0	196.9	212.7
June	63.9	0.9	64.8	6.1	1.5	7.5	-70.0	2.4	72.3	9.4	48.9	55.2	128.2	136.9
July	76.3	1.4	77.7	6.1	1.9	8.1	82.4	3.4	85.8	10.4	49.4	57.7	141.6	153.9
August	78.9	1.3	80.2	8.7	—	8.7	87.5	1.3	88.9	13.7	44.1	67.2	145.1	169.8
September	69.4	3.8	73.2	7.4	0.1	7.5	76.8	3.9	80.7	9.4	57.3	73.9	143.5	164.0
October	74.0	1.7	75.8	10.2	0.8	11.0	84.3	2.5	86.8	11.1	94.3	120.1	189.6	218.1
November	75.4	1.7	77.1	12.0	0.5	12.5	87.4	2.2	89.6	11.7	37.4	125.7	136.6	227.0
December	73.0	1.3	74.3	15.5	1.0	16.6	88.6	2.3	90.9	12.2	28.6	29.7	129.4	132.8
1997-														
January	65.2	1.2	66.4	14.2	0.3	14.4	79.4	1.5	80.8	11.4	25.3	45.4	116.0	137.7
February	55.0	1.6	56.6	19.8	0.3	20.1	74.9	1.9	76.7	9.8	31.5	35.5	116.2	122.0
March	69.3	1.8	71.1	12.6	2.8	15.4	81.8	4.6	86.5	12.6	56.4	62.6	150.8	161.7
April	90.5	1.0	91.5	10.2	1.9	12.2	100.7	2.9	103.7	14.0	42.1	43.8	156.4	161.5
May	93.7	1.3	95.0	13.1	1.5	14.6	106.8	2.8	109.7	11.3	48.8	89.8	166.7	210.8
WESTERN AUSTRALIA														
1993-94	1,469.3	34.4	1,503.7	382.5	78.5	461.0	1,851.8	112.9	1,964.7	150.0	513.1	667.0	2,513.8	2,781.7
1994-95	1,319.8	34.5	1,354.3	366.3	54.0	420.3	1,686.1	88.5	1,774.6	156.2	580.9	728.2	2,422.9	2,659.0
1995-96	1,123.8	24.6	1,148.3	225.5	46.9	272.3	1,349.2	71.4	1,420.7	162.9	692.0	803.1	2,203.6	2,386.6
1995-96														
July-May	1,034.1	20.2	1,054.3	217.5	39.6	257.1	1,251.6	59.8	1,311.4	150.9	629.9	731.0	2,032.0	2,193.3
1996-97														
July-May	1,177.3	51.2	1,228.5	145.4	20.6	166.0	1,322.8	71.8	1,394.5	158.6	727.9	1,150.3	2,206.0	2,703.4
1996														
March	100.8	3.7	104.5	27.6	6.1	33.7	128.4	9.9	138.2	14.8	35.5	56.9	178.7	210.0
April	89.5	1.4	90.9	11.2	6.1	17.3	100.7	7.5	108.1	13.6	60.8	66.5	175.1	188.2
May	111.9	2.3	114.3	12.1	2.9	15.0	124.0	5.3	129.2	11.1	103.4	117.4	238.5	257.8
June	89.7	4.3	94.0	8.0	7.3	15.3	97.7	11.6	109.3	12.0	62.1	72.1	171.6	193.4
July	104.1	3.3	107.3	6.8	4.1	10.9	110.8	7.4	118.2	13.3	63.9	72.6	187.5	204.2
August	107.5	2.8	110.4	9.7	1.4	11.1	117.2	4.2	121.4	16.2	71.7	133.4	204.4	271.0
September	101.0	7.2	108.2	7.8	1.2	9.0	108.8	8.4	117.2	12.6	74.1	91.9	195.3	221.6
October	107.4	3.6	111.0	12.1	3.7	15.9	119.5	7.3	126.9	14.3	114.6	141.0	248.2	282.1
November	107.6	5.0	112.6	14.5	0.7	15.2	122.1	5.8	127.8	14.2	54.9	165.0	191.1	307.0
December	99.3	3.1	102.4	16.7	1.3	18.1	116.0	4.4	120.5	14.0	39.0	46.4	169.1	180.8
1997-														
January	101.1	2.3	103.4	15.4	0.3	15.6	116.5	2.5	119.0	14.9	31.7	66.7	163.0	200.6
February	78.1	2.1	80.2	20.3	0.8	21.1	98.4	3.0	101.3	12.3	73.6	117.8	184.1	231.4
March	98.5	10.2	108.7	14.3	2.8	17.1	112.8	13.0	125.8	15.0	68.3	90.4	196.0	231.1
April	137.0	6.8	143.8	13.3	2.1	15.4	150.3	9.0	159.2	16.8	72.7	78.8	239.0	254.8
May	135.8	4.7	140.5	14.7	2.1	16.8	150.5	6.8	157.3	15.2	63.1	146.4	228.4	318.9

**TABLE 3. NUMBER OF DWELLING UNITS (a) APPROVED  
SEASONALLY ADJUSTED AND TREND ESTIMATES (b)(c)**

Period	Houses				Total			
	Private sector		Total		Private sector		Total	
	Seasonally adjusted	Trend estimate	Seasonally adjusted	Trend estimate	Seasonally adjusted	Trend estimate	Seasonally adjusted	Trend estimate
	1996—							
March	1,078	1,035	1,101	1,062	1,341	1,282	1,442	1,379
April	1,013	1,025	1,033	1,050	1,199	1,247	1,305	1,337
May	992	1,007	1,012	1,029	1,162	1,198	1,213	1,274
June	896	994	920	1,013	1,071	1,155	1,134	1,217
July	1,038	992	1,092	1,047	1,196	1,132	1,328	1,253
August	1,040	1,012	1,086	1,070	1,134	1,146	1,225	1,262
September	1,024	1,041	1,081	1,101	1,135	1,177	1,248	1,288
October	1,057	1,058	1,141	1,117	1,245	1,198	1,377	1,301
November	1,074	1,065	1,137	1,120	1,219	1,211	1,321	1,304
December	1,079	1,070	1,116	1,122	1,259	1,224	1,339	1,306
1997—								
January	1,223	1,085	1,263	1,133	1,287	1,242	1,331	1,318
February	848	1,111	882	1,159	1,096	1,270	1,141	1,341
March	1,133	1,145	1,197	1,194	1,263	1,304	1,372	1,376
April	1,374	1,183	1,442	1,233	1,544	1,341	1,634	1,414
May	1,192	1,219	1,231	1,271	1,336	1,377	1,396	1,453

(a) Includes Conversions, etc. See paragraphs 9-11 of the Explanatory Notes. (b) Seasonally adjusted series smoothed by application of a 13-term Henderson moving average. Trend estimates for the most recent months are provisional and can be revised as data for additional months become available. See Explanatory Notes for a more detailed explanation. (c) Series have been revised due to annual re-analysis of seasonal adjustment factors.

**TABLE 4. VALUE OF BUILDING APPROVED AT AVERAGE 1989-90 PRICES (a)  
(\$ million)**

Period	New residential building				Alterations and additions to residential buildings	Non-residential building		Total building	
	Houses		Other residential buildings	Total		Private sector	Total	Private sector	Total
	Private sector	Total							
1993-94	1,580.5	1,617.4	453.3	2,070.7	161.4	501.0	651.3	2,613.2	2,883.4
1994-95	1,356.8	1,391.9	407.6	1,799.5	160.5	559.2	701.2	2,427.5	2,661.3
1995-96	1,131.0	1,155.6	259.1	1,414.7	163.9	654.1	758.9	2,158.9	2,337.5
1995									
Dec. qtr.	271.3	274.9	53.2	328.1	40.6	120.3	138.3	478.2	506.9
1996—									
Mar. qtr.	285.2	293.7	87.7	381.3	39.7	154.3	201.6	545.8	622.6
June qtr.	293.3	301.5	44.9	346.4	37.0	212.9	240.8	571.5	624.3
Sept. qtr.	314.8	328.2	29.1	357.3	42.5	196.8	279.4	574.0	679.2
Dec. qtr.	316.2	328.0	46.3	374.3	42.8	194.9	329.2	593.0	746.3
1997—									
Mar. qtr.	279.7	294.4	50.5	344.8	42.4	161.7	256.0	528.8	643.2

(a) See paragraphs 16-26 of the Explanatory Notes. Constant price estimates are subject to revision each quarter as more up to date information on prices and commodity compositions becomes available.

**TABLE 5. VALUE OF BUILDING APPROVED, BY CLASS OF BUILDING AND OWNERSHIP**  
(\$ million)

Class of building	1994-95	1995-96	July-May		1997		
			1995-96	1996-97	March	April	May
<b>PRIVATE SECTOR</b>							
New houses	1,319.8	1,123.8	1,034.1	1,177.3	98.5	137.0	135.8
New other residential buildings	366.3	225.5	217.5	145.4	14.3	13.3	14.7
<i>Total new residential building</i>	<i>1,686.1</i>	<i>1,349.2</i>	<i>1,251.6</i>	<i>1,322.8</i>	<i>112.8</i>	<i>150.3</i>	<i>150.5</i>
Alterations and additions to residential buildings	155.9	162.4	150.5	155.4	14.9	16.0	14.8
Hotels, etc.	46.9	113.3	105.3	69.8	14.7	18.7	4.0
Shops	131.8	117.5	104.1	155.2	21.6	4.8	30.0
Factories	79.5	79.5	73.2	87.5	4.5	15.5	7.2
Offices	85.1	72.8	68.0	115.1	3.0	2.3	7.5
Other business premises	90.8	107.9	93.4	102.2	6.7	13.4	10.1
Educational	30.2	43.5	40.9	34.8	4.2	2.1	0.1
Religious	5.7	4.4	4.0	5.0	1.4	0.5	0.6
Health	32.2	31.6	27.6	92.3	10.0	8.5	0.8
Entertainment and recreational	28.3	34.1	31.2	34.6	0.7	5.7	2.0
Miscellaneous	50.2	87.3	82.2	31.5	1.5	1.2	0.9
<i>Total non-residential building</i>	<i>580.9</i>	<i>692.0</i>	<i>629.9</i>	<i>727.9</i>	<i>68.3</i>	<i>72.7</i>	<i>63.1</i>
<b>Total</b>	<b>2,422.9</b>	<b>2,203.6</b>	<b>2,032.0</b>	<b>2,206.0</b>	<b>196.0</b>	<b>239.0</b>	<b>228.4</b>
<b>PUBLIC SECTOR</b>							
New houses	34.5	24.6	20.2	51.2	10.2	6.8	4.7
New other residential buildings	54.0	46.9	39.6	20.6	2.8	2.1	2.1
<i>Total new residential building</i>	<i>88.5</i>	<i>71.4</i>	<i>59.8</i>	<i>71.8</i>	<i>13.0</i>	<i>9.0</i>	<i>6.8</i>
Alterations and additions to residential buildings	0.2	0.5	0.4	3.2	0.1	0.8	0.3
Hotels, etc.	1.6	—	—	—	—	—	—
Shops	4.4	1.5	0.5	1.4	0.1	0.8	0.1
Factories	0.7	0.9	0.1	6.4	—	0.1	0.1
Offices	30.9	33.6	30.5	39.1	4.5	2.4	5.3
Other business premises	6.8	4.1	4.1	45.6	5.8	0.1	0.3
Educational	52.1	37.0	37.0	113.2	—	0.1	12.9
Religious	—	—	—	0.2	—	—	0.2
Health	3.8	1.2	1.2	118.4	2.5	—	44.3
Entertainment and recreational	7.7	13.9	13.3	51.5	9.0	2.0	19.8
Miscellaneous	39.3	18.8	14.2	46.6	0.1	0.7	0.4
<i>Total non-residential building</i>	<i>147.3</i>	<i>111.1</i>	<i>101.0</i>	<i>422.4</i>	<i>22.0</i>	<i>6.1</i>	<i>83.3</i>
<b>Total</b>	<b>236.1</b>	<b>183.1</b>	<b>161.3</b>	<b>497.4</b>	<b>35.1</b>	<b>15.8</b>	<b>90.4</b>
<b>TOTAL</b>							
New houses	1,354.3	1,148.3	1,054.3	1,228.5	108.7	143.8	140.5
New other residential buildings	420.3	272.3	257.1	166.0	17.1	15.4	16.8
<i>Total new residential building</i>	<i>1,774.6</i>	<i>1,420.7</i>	<i>1,311.4</i>	<i>1,394.5</i>	<i>125.8</i>	<i>159.2</i>	<i>157.3</i>
Alterations and additions to residential buildings	156.2	162.9	150.9	158.6	15.0	16.8	15.2
Hotels, etc.	48.5	113.3	105.3	69.8	14.7	18.7	4.0
Shops	136.2	119.0	104.6	156.6	21.7	5.6	30.1
Factories	80.3	80.4	73.4	93.9	4.5	15.6	7.3
Offices	116.0	106.5	98.5	154.3	7.6	4.7	12.8
Other business premises	97.7	112.0	97.5	147.8	12.5	13.5	10.5
Educational	82.3	80.4	77.9	147.9	4.2	2.1	13.0
Religious	5.7	4.4	4.0	5.2	1.4	0.5	0.8
Health	36.0	32.8	28.9	210.7	12.5	8.5	45.1
Entertainment and recreational	36.0	48.0	44.6	86.1	9.7	7.6	21.8
Miscellaneous	89.5	106.2	96.5	78.1	1.6	2.0	1.3
<i>Total non-residential building</i>	<i>728.2</i>	<i>803.1</i>	<i>731.0</i>	<i>1,150.3</i>	<i>90.4</i>	<i>78.8</i>	<i>146.4</i>
<b>Total</b>	<b>2,659.0</b>	<b>2,386.6</b>	<b>2,193.3</b>	<b>2,703.4</b>	<b>231.1</b>	<b>254.8</b>	<b>318.9</b>

**TABLE 6. NON-RESIDENTIAL BUILDING JOBS APPROVED, BY CLASS OF BUILDING AND VALUE SIZE GROUPS**

Period	\$50,000 to less than \$200,000		\$200,000 to less than \$500,000		\$500,000 to less than \$1m		\$1m to less than \$5m		\$5m and over		Total	
	No.	Value (\$m)	No.	Value (\$m)	No.	Value (\$m)	No.	Value (\$m)	No.	Value (\$m)	No.	Value (\$m)
<b>HOTELS, ETC.</b>												
1997 March	4	0.4	1	0.3			2	6.5	1	7.6	8	14.7
April	8	1.0	2	0.7	1	0.9	4	6.7	1	9.4	16	18.7
May	6	0.7	1	0.4	4	2.9	—	—	—	—	11	4.0
<b>SHOPS</b>												
1997 March	18	1.6	16	4.9	3	2.1	2	4.6	1	8.5	40	21.7
April	23	2.0	4	1.2	2	1.3	1	1.1	—	—	30	5.6
May	16	1.4	10	2.9	7	5.4	4	5.3	1	15.1	38	30.1
<b>FACTORIES</b>												
1997 March	7	0.8	5	1.2	—	—	2	2.5	—	—	14	4.5
April	19	2.0	8	2.7	1	0.5	1	2.4	1	8.0	30	15.6
May	15	1.8	10	3.3	1	0.6	1	1.5	—	—	27	7.3
<b>OFFICES</b>												
1997 March	19	1.7	6	1.7	1	0.6	1	3.5	—	—	27	7.6
April	17	1.5	4	1.3	1	0.8	1	1.0	—	—	23	4.7
May	22	2.2	7	1.8	—	—	4	8.7	—	—	33	12.8
<b>OTHER BUSINESS PREMISES</b>												
1997 March	22	2.0	13	4.0	3	1.8	1	4.8	—	—	39	12.5
April	21	2.3	9	3.0	1	0.7	2	2.5	1	5.0	34	13.5
May	18	1.8	16	5.0	5	3.6	—	—	—	—	39	10.5
<b>EDUCATIONAL</b>												
1997 March	1	0.2	1	0.3	—	—	1	3.7	—	—	3	4.2
April	4	0.3	—	—	1	0.6	1	1.2	—	—	6	2.1
May	3	0.3	—	—	—	—	2	6.0	1	6.6	6	13.0
<b>RELIGIOUS</b>												
1997 March	—	—	1	0.2	2	1.2	—	—	—	—	3	1.4
April	2	0.3	1	0.2	—	—	—	—	—	—	3	0.5
May	3	0.4	1	0.3	—	—	—	—	—	—	4	0.8
<b>HEALTH</b>												
1997 March	3	0.3	1	0.4	—	—	2	3.9	1	8.0	7	12.5
April	3	0.2	1	0.5	2	1.4	1	1.5	1	5.0	8	8.5
May	3	0.4	2	0.5	—	—	2	6.0	1	38.2	8	45.1
<b>ENTERTAINMENT AND RECREATIONAL</b>												
1997 March	2	0.2	2	0.7	—	—	1	3.3	1	5.5	6	9.7
April	6	0.6	—	—	3	2.1	3	4.9	—	—	12	7.6
May	6	0.6	2	0.9	1	0.6	1	1.2	2	18.5	12	21.8
<b>MISCELLANEOUS</b>												
1997 March	6	0.6	—	—	1	1.0	—	—	—	—	7	1.6
April	7	0.7	2	0.7	1	0.6	—	—	—	—	10	2.0
May	12	1.1	1	0.2	—	—	—	—	—	—	13	1.3
<b>TOTAL NON-RESIDENTIAL BUILDING</b>												
1997 March	82	7.7	46	13.7	10	6.6	12	32.8	4	29.6	154	90.4
April	110	11.0	31	10.3	13	8.9	14	21.3	4	27.4	172	78.8
May	104	10.9	50	15.3	18	13.2	14	28.7	5	78.4	191	146.4

TABLE 7. BUILDING APPROVALS BY STATISTICAL LOCAL AREAS (a), MAY 1997

Statistical local area, statistical subdivision and statistical division	New residential building (b)						Alterations and additions to residential buildings (\$'000)	Non-residential building		Total building (\$'000)
	Houses			Other residential buildings				Private sector (\$'000)	Total (\$'000)	
	Private sector (number)	Public sector (number)	Total value (\$'000)	Private sector (number)	Public sector (number)	Total value (\$'000)				
<b>PERTH STATISTICAL DIVISION</b>										
Cambridge (T)	13	—	2,865	5	—	250	631	—	—	3,746
Claremont (T)	6	—	422	—	—	—	70	285	285	777
Cottesloe (T)	7	—	1,390	—	—	—	170	110	110	1,670
Mosman Park (T)	5	—	1,047	—	—	—	84	—	—	1,131
Nedlands (C)	8	—	2,334	—	—	—	1,140	70	4,385	7,859
Peppermint Grove (S)	1	—	276	—	—	—	13	—	—	289
Perth (C) — Inner	—	—	—	—	—	—	—	1,771	2,331	2,331
Perth (C) — Remainder	2	—	347	24	—	3,300	—	1,406	1,656	5,304
Subiaco (C)	3	—	500	—	—	—	689	460	460	1,649
Vincent (T)	8	—	744	—	—	—	351	—	—	1,095
<i>Central Metropolitan (SSD)</i>	<i>53</i>	<i>—</i>	<i>9,926</i>	<i>29</i>	<i>—</i>	<i>3,550</i>	<i>3,147</i>	<i>4,103</i>	<i>9,228</i>	<i>25,851</i>
Bassendean (T)	4	2	380	—	6	304	56	250	250	990
Bayswater (C)	20	—	1,553	2	—	120	248	2,790	11,290	13,211
Kalamunda (S)	15	—	1,567	—	—	—	411	185	355	2,333
Mundaring (S)	23	—	1,950	—	—	—	81	213	213	2,244
Swan (S)	112	—	9,348	—	—	—	267	845	3,995	13,611
<i>East Metropolitan (SSD)</i>	<i>174</i>	<i>2</i>	<i>14,797</i>	<i>2</i>	<i>6</i>	<i>424</i>	<i>1,064</i>	<i>4,253</i>	<i>16,103</i>	<i>32,388</i>
Stirling (C) — Central	33	—	3,195	9	—	597	399	4,210	4,210	8,401
Stirling (C) — Coastal	36	7	4,964	12	7	1,597	946	15,350	15,562	23,069
Stirling (C) — South-Eastern	6	—	665	8	—	850	1,005	—	—	2,520
Wanneroo (C) — Central Coastal	63	—	6,635	—	—	—	165	1,050	7,684	14,484
Wanneroo (C) — North-East	32	—	2,854	—	—	—	64	—	74	2,992
Wanneroo (C) — North-West	61	—	5,455	10	14	1,253	—	400	400	7,109
Wanneroo (C) — South-East	26	—	2,006	—	—	—	71	520	520	2,597
Wanneroo (C) — South-West	19	—	3,372	22	—	1,877	841	2,160	2,160	8,250
<i>North Metropolitan (SSD)</i>	<i>276</i>	<i>7</i>	<i>29,146</i>	<i>61</i>	<i>21</i>	<i>6,174</i>	<i>3,491</i>	<i>23,690</i>	<i>30,610</i>	<i>69,422</i>
Cockburn (C)	52	—	4,148	29	—	2,228	321	2,800	2,800	9,497
East Fremantle (T)	3	—	576	—	—	—	240	—	129	945
Fremantle (C) — Inner	—	—	—	6	—	1,100	60	70	70	1,230
Fremantle (C) — Remainder	14	5	2,121	—	—	—	673	624	624	3,417
Kwinana (T)	16	—	1,251	—	—	—	12	259	259	1,522
Melville (C)	43	1	5,215	—	—	—	524	1,104	13,030	18,770
Rockingham (C)	109	—	10,406	2	—	153	42	4,350	8,599	19,200
<i>South West Metropolitan (SSD)</i>	<i>237</i>	<i>6</i>	<i>23,717</i>	<i>37</i>	<i>—</i>	<i>3,481</i>	<i>1,872</i>	<i>9,206</i>	<i>25,511</i>	<i>54,581</i>
Armadale (C)	12	—	1,432	—	—	—	265	840	840	2,537
Belmont (C)	5	—	485	—	—	—	220	3,057	3,057	3,762
Canning (C)	57	5	5,459	10	—	1,000	305	1,754	1,754	8,518
Gosnells (C)	79	—	6,162	—	—	—	191	1,575	1,850	8,203
Serpentine-Jarrahdale (S)	6	—	569	—	—	—	40	—	50	659
South Perth (C)	23	—	2,784	—	—	—	649	50	50	3,482
Victoria Park (T)	7	—	562	—	—	—	33	300	763	1,357
<i>South East Metropolitan (SSD)</i>	<i>189</i>	<i>5</i>	<i>17,452</i>	<i>10</i>	<i>—</i>	<i>1,000</i>	<i>1,702</i>	<i>7,576</i>	<i>8,364</i>	<i>28,517</i>
<b>Total</b>	<b>929</b>	<b>20</b>	<b>95,038</b>	<b>139</b>	<b>27</b>	<b>14,629</b>	<b>11,275</b>	<b>48,828</b>	<b>89,816</b>	<b>210,759</b>

For footnote, see end of table.



TABLE 7. BUILDING APPROVALS BY STATISTICAL LOCAL AREAS (a), MAY 1997 *continued*

Statistical local area, statistical subdivision and statistical division	New residential building (b)						Alterations and additions to residential buildings (\$'000)	Non-residential building		Total building (\$'000)
	Houses			Other residential buildings				Private sector (\$'000)	Total (\$'000)	
	Private sector (number)	Public sector (number)	Total value (\$'000)	Private sector (number)	Public sector (number)	Total value (\$'000)				
<b>SOUTH WEST STATISTICAL DIVISION</b>										
Boddington (S)	—	—	—	—	—	—	—	90	90	90
Mandurah (C)	52	—	4,645	7	—	375	494	2,660	40,872	46,387
Murray (S)	5	—	1,540	—	—	—	50	—	—	1,590
Waroona (S)	4	—	514	—	—	—	20	—	—	534
Dale (SSD)	61	—	6,699	7	—	375	564	2,750	40,962	48,601
Bunbury (C)	31	13	3,801	—	—	—	231	2,041	2,041	6,073
Capel (S)	6	—	515	—	—	—	25	140	140	680
Collie (S)	1	—	55	—	—	—	25	—	—	80
Dardanup (S)	10	—	771	—	—	—	20	100	100	891
Donnybrook-Balingup (S)	3	—	252	—	—	—	20	—	—	272
Harvey (S)	23	1	2,554	—	—	—	88	125	125	2,766
Preston (SSD)	74	14	7,948	—	—	—	408	2,405	2,405	10,762
Augusta-Margaret River (S)	25	1	2,252	—	—	—	275	76	76	2,603
Busselton (S)	47	—	5,193	—	—	—	69	1,696	1,696	6,958
Vasse (SSD)	72	1	7,445	—	—	—	344	1,772	1,772	9,561
Boyan Brook (S)	—	—	—	—	—	—	—	—	—	—
Bridgetown-Greenbushes (S)	—	—	—	—	—	—	—	—	—	—
Manjimup (S)	5	—	567	—	—	—	31	—	620	1,218
Nannup (S)	—	—	—	—	—	—	—	362	362	362
Blackwood (SSD)	5	—	567	—	—	—	31	362	982	1,580
<b>Total</b>	<b>212</b>	<b>15</b>	<b>22,659</b>	<b>7</b>	<b>—</b>	<b>375</b>	<b>1,348</b>	<b>7,290</b>	<b>46,122</b>	<b>70,504</b>
<b>LOWER GREAT SOUTHERN STATISTICAL DIVISION</b>										
Broomehill (S)	—	—	—	—	—	—	—	—	—	—
Gnowangerup (S)	—	—	—	—	—	—	—	—	—	—
Jerramungup (S)	2	—	193	—	—	—	—	—	—	193
Katanning (S)	—	—	—	—	—	—	13	—	—	13
Kent (S)	—	—	—	—	—	—	—	—	—	—
Kojonup (S)	—	—	—	—	—	—	—	—	—	—
Tambellup (S)	—	—	—	—	—	—	—	—	—	—
Woodanilling (S)	—	—	—	—	—	—	—	—	—	—
Pallinup (SSD)	2	—	193	—	—	—	13	—	—	206
Albany (T)	5	—	537	—	—	—	113	—	—	650
Albany (S)	7	—	906	—	—	—	142	—	—	1,048
Cranbrook (S)	—	—	—	—	—	—	—	90	90	—
Denmark (S)	5	—	607	—	—	—	60	—	—	757
Plantagenet (S)	1	—	140	—	—	—	28	—	—	169
King (SSD)	18	—	2,190	—	—	—	343	90	90	2,624
<b>Total</b>	<b>20</b>	<b>—</b>	<b>2,383</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>356</b>	<b>90</b>	<b>90</b>	<b>2,829</b>

For footnote, see end of table.

TABLE 7. BUILDING APPROVALS BY STATISTICAL LOCAL AREAS (a), MAY 1997 -continued

Statistical local area, statistical subdivision and statistical division	New residential building (b)						Alterations and additions to residential buildings (\$'000)	Non-residential building		Total building (\$'000)
	Houses			Other residential buildings				Private sector (\$'000)	Total (\$'000)	
	Private sector (number)	Public sector (number)	Total value (\$'000)	Private sector (number)	Public sector (number)	Total value (\$'000)				
<b>UPPER GREAT SOUTHERN STATISTICAL DIVISION</b>										
Brookton (S)	1	—	50	—	—	—	—	—	—	50
Cuballing (S)	2	—	133	—	—	—	24	—	—	157
Dumbleyung (S)	—	—	—	—	—	—	—	—	—	—
Narrogin (T)	1	—	120	—	—	—	40	—	—	160
Narrogin (S)	—	—	—	—	—	—	—	—	—	—
Pingelly (S)	—	—	—	—	—	—	—	—	—	—
Wagin (S)	—	1	70	—	—	—	20	—	—	90
Wandering (S)	—	—	—	—	—	—	—	—	—	—
West Arthur (S)	—	—	—	—	—	—	—	—	—	—
Wickepin (S)	—	—	—	—	—	—	—	—	—	—
Williams (S)	—	—	—	—	—	—	—	—	—	—
Hotham (SSD)	4	1	373	—	—	—	84	—	—	457
Corrigin (S)	—	—	—	—	—	—	—	—	—	—
Kondinin (S)	—	—	—	—	—	—	—	—	—	—
Kulin (S)	—	—	—	—	—	—	—	—	—	—
Lake Grace (S)	—	—	—	—	—	—	—	—	—	—
Lakes (SSD)	—	—	—	—	—	—	—	—	—	—
<b>Total</b>	<b>4</b>	<b>1</b>	<b>373</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>84</b>	<b>—</b>	<b>—</b>	<b>457</b>
<b>MIDLANDS STATISTICAL DIVISION</b>										
Chittering (S)	3	—	211	—	—	—	33	—	—	244
Dandaragan (S)	3	—	295	—	—	—	—	—	—	295
Gingin (S)	13	—	968	—	—	—	49	—	—	1,017
Moora (S)	3	—	292	—	—	—	15	—	—	307
Victoria Plains (S)	—	—	—	—	—	—	—	—	—	—
Moore (SSD)	22	—	1,766	—	—	—	97	—	—	1,863
Beverley (S)	4	—	214	—	—	—	45	—	—	259
Cunderdin (S)	1	—	130	—	—	—	89	—	—	219
Dalwallinu (S)	3	—	178	—	—	—	—	—	—	178
Dowerin (S)	2	—	221	—	—	—	—	119	119	340
Goomalling (S)	2	—	140	—	—	—	27	—	—	167
Koorda (S)	—	—	—	—	—	—	—	—	—	—
Northam (T)	3	—	302	—	—	—	35	—	—	337
Northam (S)	—	—	—	—	—	—	14	—	—	14
Quairading (S)	—	—	—	—	—	—	—	—	—	—
Tammin (S)	—	—	—	—	—	—	—	—	—	—
Toodyay (S)	2	—	170	—	—	—	10	440	440	620
Wongan-Ballidu (S)	—	—	—	—	—	—	—	—	—	—
Wyalkatchem (S)	—	—	—	—	—	—	—	—	—	—
York (S)	5	—	405	—	—	—	43	—	—	448
Avon (SSD)	22	—	1,761	—	—	—	263	559	559	2,583
Bruce Rock (S)	—	—	—	—	—	—	—	—	—	—
Kellerberrin (S)	—	—	—	—	—	—	—	—	—	—
Merredin (S)	2	—	300	—	—	—	—	60	60	360
Mount Marshall (S)	—	—	—	—	—	—	—	—	—	—
Mukinbudin (S)	1	—	67	—	—	—	—	—	—	67
Narembeen (S)	—	—	—	—	—	—	—	—	—	—
Nungarin (S)	—	—	—	—	—	—	—	—	—	—
Trayning (S)	—	—	—	—	—	—	—	—	—	—
Westonia (S)	—	—	—	—	—	—	—	—	—	—
Yilgarn (S)	—	—	—	—	—	—	—	—	—	—
Campion (SSD)	3	—	367	—	—	—	—	60	60	427
<b>Total</b>	<b>47</b>	<b>—</b>	<b>3,893</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>360</b>	<b>619</b>	<b>619</b>	<b>4,872</b>

For footnote, see end of table.

TABLE 7. BUILDING APPROVALS BY STATISTICAL LOCAL AREAS (s), MAY 1997—continued

Statistical local area, statistical subdivision and statistical division	New residential building (b)						Alterations and additions to residential buildings (\$'000)	Non-residential building		
	Houses			Other residential buildings				Private sector (\$'000)	Total (\$'000)	Total building (\$'000)
	Private sector (number)	Public sector (number)	Total value (\$'000)	Private sector (number)	Public sector (number)	Total value (\$'000)				
<b>SOUTH EASTERN STATISTICAL DIVISION</b>										
Coolgardie (S)	1	—	35	—	—	—	33	—	—	68
Kalgoorlie/Boulder (C)	35	—	4,459	6	—	580	151	1,618	1,718	6,908
Laverton (S)	—	—	—	—	—	—	—	—	—	—
Leonora (S)	—	—	—	—	—	—	—	—	—	—
Menzies (S)	—	—	—	—	—	—	—	—	—	—
Ngaanyatjarraku (S)	3	—	340	—	—	—	—	700	700	1,040
Lefroy (SSD)	39	—	4,834	6	—	580	184	2,318	2,418	8,016
Dundas (S)	—	—	—	—	—	—	—	—	—	—
Esperance (S)	14	—	1,448	—	—	—	221	136	311	1,980
Ravensthorpe (S)	—	—	—	—	—	—	—	—	—	—
Johnston (SSD)	14	—	1,448	—	—	—	221	136	311	1,980
<b>Total</b>	<b>53</b>	<b>—</b>	<b>6,282</b>	<b>6</b>	<b>—</b>	<b>580</b>	<b>406</b>	<b>2,454</b>	<b>2,729</b>	<b>9,997</b>
<b>CENTRAL STATISTICAL DIVISION</b>										
Carnarvon (S)	2	—	295	—	—	—	30	—	—	325
Exmouth (S)	2	—	236	—	—	—	80	—	—	316
Shark Bay (S)	—	—	—	—	—	—	—	—	—	—
Upper Gascoyne (S)	—	—	—	—	—	—	—	—	—	—
Gascoyne (SSD)	4	—	531	—	—	—	110	—	—	641
Cue (S)	—	—	—	—	—	—	—	—	—	—
Meekatharra (S)	—	—	—	—	—	—	—	—	79	79
Mount Magnet (S)	1	—	156	—	—	—	—	600	600	756
Murchison (S)	—	—	—	—	—	—	—	—	—	—
Sandstone (S)	—	—	—	—	—	—	—	—	—	—
Wiluna (S)	—	—	—	—	—	—	—	—	—	—
Yaigoo (S)	—	—	—	—	—	—	—	—	—	—
Carnegie (SSD)	1	—	156	—	—	—	—	600	679	835
Carnamah (S)	—	—	—	—	—	—	—	—	—	—
Chapman Valley (S)	—	—	—	—	—	—	—	—	—	—
Coorow (S)	—	—	—	—	—	—	—	—	—	—
Geraldton (C)	5	—	976	—	10	582	445	125	125	2,128
Greenough (S)	12	—	1,220	—	—	—	70	150	200	1,489
Irwin (S)	10	—	694	—	—	—	—	—	2,809	3,503
Mingenew (S)	—	—	—	—	—	—	—	—	—	—
Morawa (S)	—	—	—	—	—	—	—	—	—	—
Mullewa (S)	—	—	—	—	—	—	—	190	289	289
Northampton (S)	1	—	100	—	—	—	32	300	300	432
Perenjori (S)	—	—	—	—	—	—	—	—	—	—
Three Springs (S)	—	—	—	—	—	—	—	—	—	—
Greenough River (SSD)	28	—	2,990	—	10	582	636	765	3,723	7,931
<b>Total</b>	<b>33</b>	<b>—</b>	<b>3,677</b>	<b>—</b>	<b>10</b>	<b>582</b>	<b>746</b>	<b>1,365</b>	<b>4,402</b>	<b>9,406</b>

For footnote, see end of table.

TABLE 7. BUILDING APPROVALS BY STATISTICAL LOCAL AREAS (a), MAY 1997 *continued*

Statistical local area, statistical subdivision and statistical division	New residential building (b)						Alterations and additions to residential buildings (\$'000)	Non-residential building		
	Houses			Other residential buildings				Private sector (\$'000)	Total (\$'000)	Total building (\$'000)
	Private sector (number)	Public sector (number)	Total value (\$'000)	Private sector (number)	Public sector (number)	Total value (\$'000)				
<b>PILBARA STATISTICAL DIVISION</b>										
East Pilbara (S)	—	—	—	2	—	200	161	690	690	1,051
Port Hedland (T)	18	—	2,652	—	—	—	52	300	300	3,004
<i>De Grey (SSD)</i>	18	—	2,652	2	—	200	213	990	990	4,055
Ashburton (S)	1	—	300	—	—	—	10	—	—	310
Rochourne (S)	5	10	2,216	4	—	387	96	312	362	3,061
<i>Fortescue (SSD)</i>	6	10	2,516	4	—	387	106	312	362	3,371
<b>Total</b>	<b>24</b>	<b>10</b>	<b>5,169</b>	<b>6</b>	<b>—</b>	<b>587</b>	<b>319</b>	<b>1,302</b>	<b>1,352</b>	<b>7,426</b>
<b>KIMBERLEY STATISTICAL DIVISION</b>										
Halls Creek (S)	—	—	—	—	—	—	—	—	—	—
Wyndham-East Kimberley (S)	4	—	545	—	—	—	47	400	547	1,139
<i>Ord (SSD)</i>	4	—	545	—	—	—	47	400	547	1,139
Broome (S)	1	3	480	—	—	—	213	770	770	1,463
Derby-West Kimberley (S)	—	—	—	—	—	—	—	—	—	—
<i>Fitzroy (SSD)</i>	1	3	480	—	—	—	213	770	770	1,463
<b>Total</b>	<b>5</b>	<b>3</b>	<b>1,025</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>260</b>	<b>1,170</b>	<b>1,317</b>	<b>2,602</b>
<b>WESTERN AUSTRALIA</b>										
<b>Western Australia</b>	<b>1,327</b>	<b>49</b>	<b>140,500</b>	<b>158</b>	<b>37</b>	<b>16,753</b>	<b>15,153</b>	<b>63,118</b>	<b>146,447</b>	<b>318,853</b>

(a) City councils are marked (C), Town councils (T), Shire councils (S), and Statistical Subdivisions (SSD). (b) Excludes Conversions, etc.

**TABLE 8. NUMBER OF NEW HOUSES (a) APPROVED BY MATERIAL OF OUTER WALLS, FLOOR AREA AND VALUE PER SQUARE METRE BY STATISTICAL DIVISION MAY 1997**

Statistical division	Material of outer walls					Total	Floor area (sq m)	Average floor area (sq m)	Average value per square metre (\$)
	Double brick(b)	Brick veneer	Fibre cement	Timber	Other and not stated				
Perth	915	4	—	6	24	949	194,371	223	437
South-West	166	3	4	3	51	227	30,831	222	447
Lower Great Southern	9	4	2	1	4	20	1,217	203	452
Upper Great Southern	2	—	3	—	—	5	934	187	400
Midlands	19	4	9	9	6	47	5,596	215	376
South-Eastern	12	28	6	—	7	53	3,748	268	386
Central	24	2	1	—	6	33	3,765	209	585
Pilbara	1	4	—	—	29	34	1,369	137	956
Kimberley	—	—	—	—	8	8	1,320	165	776
<b>Western Australia</b>	<b>1,148</b>	<b>49</b>	<b>25</b>	<b>19</b>	<b>135</b>	<b>1,376</b>	<b>243,151</b>	<b>222</b>	<b>443</b>

(a) Excludes Conversions, etc. (b) Includes houses constructed with outer walls of stone and concrete.

**TABLE 9. NEW DWELLING UNITS (a) APPROVED, BY TYPE AND STATISTICAL DIVISION MAY 1997**

Statistical division	New other residential building								Total new residential building	
	New houses	Semi-detached, row or terrace houses, townhouses, etc. of			Flats, units or apartments in a building of			Total		
		1 storey	2 or more storeys	Total	1-2 storeys	3 storeys	4 or more storeys			
NUMBER OF DWELLING UNITS										
Perth	949	136	5	141	—	25	—	25	166	1,115
South West	227	7	—	7	—	—	—	—	7	234
Lower Great Southern	20	—	—	—	—	—	—	—	—	20
Upper Great Southern	5	—	—	—	—	—	—	—	—	5
Midlands	47	—	—	—	—	—	—	—	—	47
South Eastern	53	6	—	6	—	—	—	—	6	59
Central	33	10	—	10	—	—	—	—	10	43
Pilbara	34	6	—	6	—	—	—	—	6	40
Kimberley	8	—	—	—	—	—	—	—	—	8
<b>Western Australia</b>	<b>1,376</b>	<b>165</b>	<b>5</b>	<b>170</b>	<b>—</b>	<b>25</b>	<b>—</b>	<b>25</b>	<b>195</b>	<b>1,571</b>
VALUE (\$'000)										
Perth	95,038	11,402	427	11,829	—	2,800	—	2,800	14,629	109,667
South West	22,659	375	—	375	—	—	—	—	375	23,034
Lower Great Southern	2,383	—	—	—	—	—	—	—	—	2,383
Upper Great Southern	373	—	—	—	—	—	—	—	—	373
Midlands	3,893	—	—	—	—	—	—	—	—	3,893
South Eastern	6,282	580	—	580	—	—	—	—	580	6,862
Central	3,677	582	—	582	—	—	—	—	582	4,259
Pilbara	5,169	587	—	587	—	—	—	—	587	5,755
Kimberley	1,025	—	—	—	—	—	—	—	—	1,025
<b>Western Australia</b>	<b>140,500</b>	<b>13,526</b>	<b>427</b>	<b>13,953</b>	<b>—</b>	<b>2,800</b>	<b>—</b>	<b>2,800</b>	<b>16,753</b>	<b>157,252</b>

(a) Excludes Conversions, etc.

## EXPLANATORY NOTES

### Introduction

This publication contains monthly details of building work approved.

### Factors affecting comparability

2. For purposes of comparison, it should be noted that statistics of building approvals are affected from month to month by large projects (e.g. blocks of flats, multi storey office buildings) approved in particular months and also by the administrative arrangements of government authorities.

### Scope and Coverage

3. Statistics of building work approved are compiled from:

- (a) permits issued by local government authorities in areas subject to building control by those authorities;
- (b) approvals issued by the Rural Housing Authority in areas not subject to building control by local government authorities;
- (c) contracts let or day labour work authorised by Commonwealth, State, semi-government and local government authorities;
- (d) major building activity which takes place in areas not subject to the normal administrative approval processes (e.g. buildings on remote mine sites).

4. The statistics relate to building activity which includes construction of new buildings, and alterations and additions to existing buildings. Construction activity not defined as building (e.g. construction of roads, bridges, railways, earthworks etc.) is excluded from this publication, but can be found in the ABS publication *Engineering Construction Survey* (8762.0).

5. In relation to work carried out on existing buildings, the statistics include details of non-structural renovation and refurbishment work and the installation of integral building fixtures for which building approval was obtained.

6. From July 1990, the statistics cover:

- (a) all approved new residential building jobs valued at \$10,000 or more (previously \$5,000 or more);
- (b) approved alterations and additions to residential buildings valued at \$10,000 or more;
- (c) all approved non-residential building jobs valued at \$50,000 or more (previously \$30,000 or more).

These changes in coverage do not have a statistically significant effect on broad building approvals aggregate data. However, care should be taken in interpreting data for specific classes of non-residential building.

### Definitions

7. A *building* is defined as a rigid, fixed and permanent structure which has a roof. Its intended purpose is primarily to house people, plant, machinery, vehicles, goods or livestock. An integral feature of a building's

design, to satisfy its intended use, is the provision for regular access by persons.

8. A *dwelling unit* is defined as a self-contained suite of rooms, including cooking and bathing facilities and intended for *long term* residential use. Units, whether self-contained or not, within buildings offering institutional care (such as hospitals) or temporary accommodation (such as motels, hostels and holiday apartments) are not defined as dwelling units. The value of units of this type is included in the appropriate category of *non-residential buildings* approved.

9. A *residential building* is defined as a building predominantly consisting of one or more dwelling units. Residential buildings can be either *houses* or *other residential buildings*:

- (a) A *house* is defined as a detached building predominantly used for long term residential purposes and consisting of only one dwelling unit. Thus, detached 'granny flats' and detached dwelling units (such as caretaker's residences) associated with non-residential buildings are defined as houses for the purpose of these statistics;
- (b) An *other residential building* is defined as a building which is predominantly used for long term residential purposes and which contains (or has attached to it) more than one dwelling unit (e.g. includes townhouses, duplexes, apartment buildings etc).

10. From the January 1995 issue of this publication, the number of dwelling units approved as part of alterations and additions to, or conversions of, existing residential or non-residential buildings and as part of the construction of non-residential building is shown separately in Table 1 under the heading of 'Conversions, etc.', and is included in the total number of dwelling units shown in these tables. Previously, such dwellings were only included as a footnote.

11. In addition, from the January 1995 issue, the seasonally adjusted and trend estimates for the number of dwelling units approved, shown in Table 3, include these conversions etc. Previously, only dwelling units approved as part of the construction of new residential buildings were included in these estimates.

12. The value of new residential building approved continues to exclude the value of dwelling units approved as part of alterations and additions to, or conversions of, existing residential or non-residential buildings and as part of the construction of non-residential building. Approved building work represented by these conversions, etc. jobs continues to be included in the value of alterations and additions to residential buildings or in the value of non-residential building as appropriate.

13. *Value* data are derived by aggregation of the estimated value (when completed) of building work (excluding value of land and landscaping but including site preparation) as reported on approval documents. For 'houses', these estimates are usually a reliable indicator of the completed value of the building. However, for 'other residential buildings' and 'non-residential buildings' these

estimates can differ significantly from the completed value of the building.

#### **Building Classification**

14. *Ownership* of a building is classified as either Public Sector or Private Sector according to the sector of the intended owner of the completed building as evident at the time of approval. Residential buildings being constructed by private sector builders under government housing authority schemes whereby the authority has contracted, or intends to contract, to purchase the buildings on or before completion, are classified as public sector.

15. *Functional classification of buildings*: a building is classified according to its intended major function. Hence a building which is ancillary to other buildings or forms part of a group of related buildings is classified to the function of the building and not to the function of the group as a whole. An example of this can be seen in the treatment of building work approved for a factory complex. In this case a detached administration building would be classified to Offices, a detached cafeteria building to Shops, while factory buildings would be classified to Factories. An exception to this rule is the treatment of group accommodation buildings e.g. a student accommodation building on a university campus would be classified to Educational.

#### **Seasonal Adjustment**

16. Seasonal adjustment is a means of removing the estimated effects of normal seasonal variation from the series so that the effects of other influences on the series may be more clearly recognised.

17. Table 3 shows seasonally adjusted estimates for both private and total dwellings. For the four series shown, account has been taken of normal seasonal factors and 'trading day' effects (arising from the varying numbers of Sundays, Mondays, Tuesdays etc. in the month) and the effect of movement in the date of Easter which may, in successive years, affect figures for different months.

18. Seasonal adjustment procedures do not aim to remove the irregular or non-seasonal influences which may be present in any particular month, such as the effect of the approval of large projects or as a consequence of the administrative arrangements of approving authorities. These irregular influences that are highly volatile can make it difficult to interpret the movement of the series even after adjustment for seasonal variation.

19. Most of the component series have been seasonally adjusted independently. Therefore, the adjusted components may not add to the adjusted totals. Further, the difference between independently seasonally adjusted series does not necessarily produce series which are optimum or even adequate adjustments of the similarly derived original series. Thus the figures which can be derived by subtracting seasonally adjusted private sector dwelling units from the seasonally adjusted total should not be used to represent seasonally adjusted public sector dwelling units.

20. As happens with all seasonally adjusted series, the seasonal factors are reviewed annually to take account of each additional year's data. For Building Approvals, the results of the latest review are shown in the July issue each year. Further information about seasonal adjustment can be obtained from the Assistant Director of Time Series Analysis, Canberra, on (06) 252 6345.

#### **Trend Estimates**

21. Seasonally adjusted series can be smoothed to reduce the impact of the irregular component in the adjusted series. This smoothed seasonally adjusted series is called a trend estimate.

22. Table 3 shows trend estimates for both private and total dwellings. These are obtained by applying a 13-term Henderson-weighted moving average to all months of the respective seasonally adjusted series except the last six months. Trend series are created for the last six months by applying surrogates of the Henderson moving average to the seasonally adjusted time series. For further information, see *A Guide to Interpreting Time Series - Monitoring Trends: an Overview* (1348.0).

23. While the smoothing technique described in paragraphs 21 and 22 enables trend estimates to be produced for the latest few months, it does result in revisions to the trend estimates as new data become available. Generally, revisions become smaller over time and, after three months, usually have a negligible impact on the series. Revisions to the original data and re-analysis of seasonal factors may also lead to revisions to the trend.

#### **Estimates at Constant Prices**

24. Estimates of the quarterly value of building approvals at average 1989-90 prices are presented in Table 4. (Note: monthly value data at constant prices are not available.)

25. Constant price estimates measure changes in value after the direct effects of price changes have been eliminated. The deflators used to revalue the current price estimates are derived from the same price data underlying the deflators compiled for the dwellings and non-dwelling construction components of the national accounts aggregate 'Gross fixed capital expenditure'.

26. Estimates at constant prices are subject to a number of approximations and assumptions. Further information on the nature and concepts of constant price estimates is contained in Chapter 4 of *Australian National Accounts: Concepts, Sources and Methods* (5216.0).

#### **Australian Standard Geographical Classification (ASGC)**

27. Area statistics are now being classified to the Australian Standard Geographical Classification, 1996 Edition (1216.0), effective from 1 July 1996, and ASGC terminology has been adopted in the presentation of building statistics:

(a) The Central Metropolitan SSD (Perth SD) now excludes the SLA of Victoria Park (T) and the South East Metropolitan SSD (Perth SD) now includes Victoria Park (T);

(b) The Central Statistical Division (Carnegie SSD) now excludes the SLA of Ngaanyatjarraku (S) and the South Eastern Statistical Division (Lefroy SSD) now includes Ngaanyatjarraku (S);

(c) The existing SLA of Wanneroo (C) has been split into five smaller SLAs. These new SLAs are: Wanneroo (C) - Central Coastal, Wanneroo (C) - North-East, Wanneroo (C) - North-West, Wanneroo (C) - South-East and Wanneroo (C) - South-West;

(d) There have been minor changes to the boundaries of the SLAs within the LGA of Stirling (C). This resulted in Stirling (C) - West being renamed Stirling (C) - Coastal.

### Unpublished Data and Related Publications

28. The ABS can also make available certain building approvals data which are not published. Where it is not practicable to provide the required information by telephone, data can be provided in the following forms: microfiche, photocopy, computer printout and clerically extracted tabulation. A charge may be made for providing unpublished information in these forms.

29. Other ABS publications which may be of interest include:

<b>WESTERN AUSTRALIA</b>	<b>Catalogue No.</b>
Building Activity (quarterly)	8752.5
Dwelling Unit Commencements (monthly)	8741.5
<b>AUSTRALIA</b>	
Price Index of Materials Used in	
House Building (monthly)	6408.0
Building Approvals (monthly)	8731.0
Building Activity, Australia: Dwelling Unit Commencements, Preliminary (quarterly)	8750.0
Building Activity (quarterly)	8752.0
Engineering Construction Survey (quarterly)	8762.0
Housing Finance for Owner Occupation: Australia	5609.0

30. Current publications produced by the ABS are listed in the *Catalogue of Publications and Products, Australia* (1101.0). The ABS also issues, on Tuesdays and Fridays, a *Release Advice* (1105.0) which lists publications to be released in the next few days. The Catalogue and Release Advice are available from any ABS office.

### Symbols and Other Usages

31. The following symbols, where shown in columns of figures or elsewhere in tables, mean:

- nil or rounded to zero (including null cells)
- r figure or series revised since previous issue.
- n.a. not available

32. Where figures have been rounded, discrepancies may occur between sums of the component items and totals.

**M.A.KONRATH**  
Acting Regional Director, Western Australia

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