

# **BUILDING APPROVALS**

## **WESTERN AUSTRALIA**

### **January 1994**

#### **MAIN FEATURES**

The number of houses approved in January 1994 decreased by 32.9 per cent when compared with December 1993 and increased by 2.9 per cent when compared with January 1993.

The number of total dwelling units approved in January 1994 decreased by 32.6 per cent when compared with December 1993 and decreased by 3.3 per cent when compared with January 1993.

Comparisons with previous periods are:

#### **Month to month**

	<i>Jan. 1994</i>	<i>Dec. 1993</i>	<i>% change</i>	<i>Jan. 1993</i>	<i>% change</i>
Houses	1,104	1,645	-32.9	1,073	+2.9
Total dwelling units	1,543	2,289	-32.6	1,595	-3.3

#### **Three month moving average**

	<i>Jan. 1994</i>	<i>Dec. 1993</i>	<i>% change</i>	<i>Jan. 1993</i>	<i>% change</i>
Houses	1,498	1,651	-9.3	1,243	+20.5
Total dwelling units	2,064	2,245	-8.1	1,715	+20.3

**PHONE INQUIRIES**

Contact Ms Diane Braskic on (09) 323 5129 for further information about statistics in this publication and the availability of related unpublished statistics. Other inquiries, including copies of publications, contact Information Services on (09) 323 5140.

**MAIL INQUIRIES**

Write to Information Services, Australian Bureau of Statistics, Hyatt Centre, 30 Terrace Road, East Perth WA 6004.

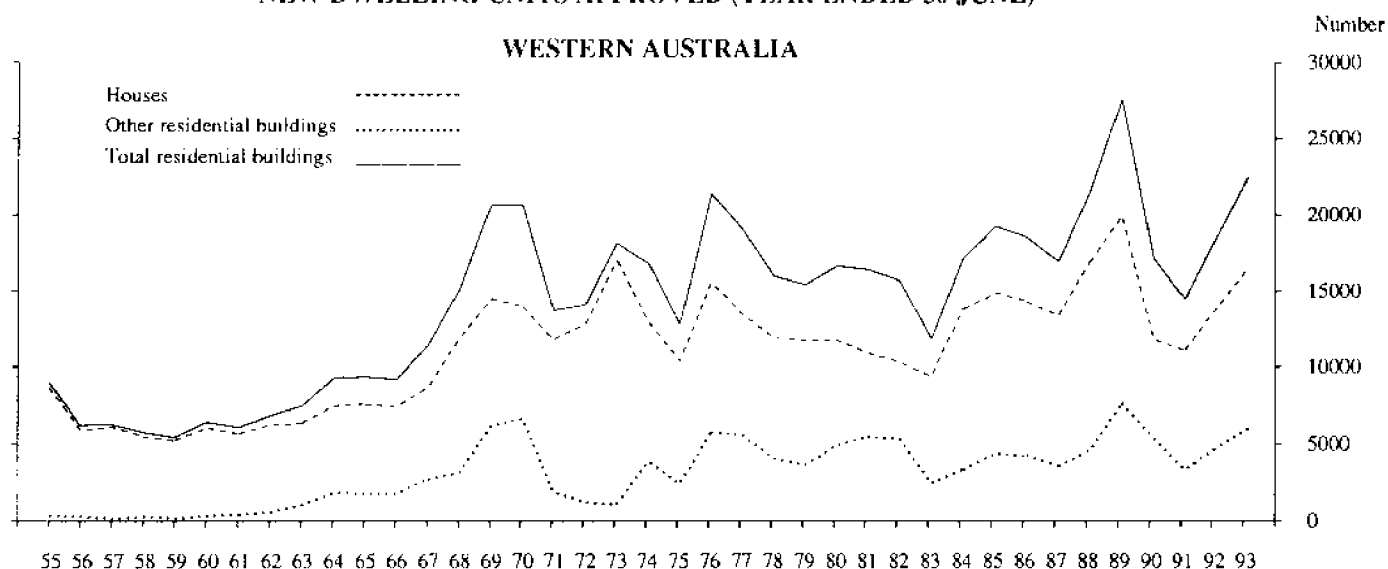
**ELECTRONIC SERVICES**

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- on Dial-A-Statistic phone 0055 86400

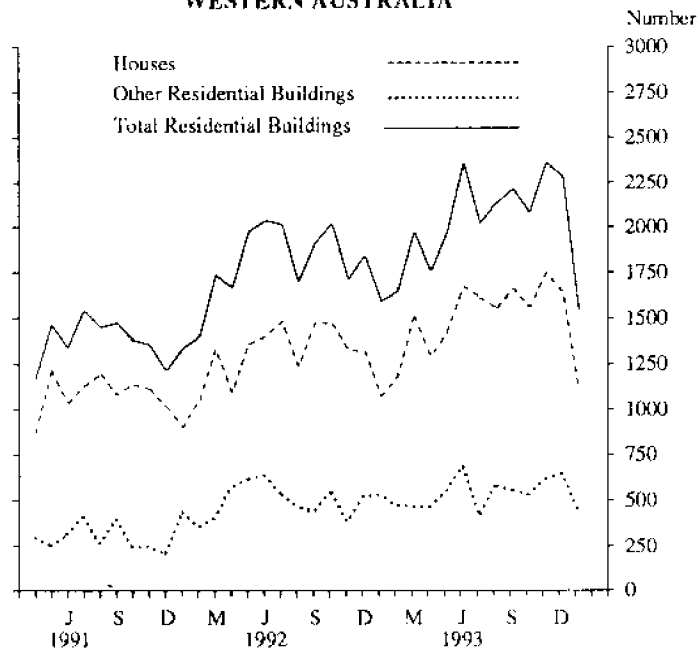
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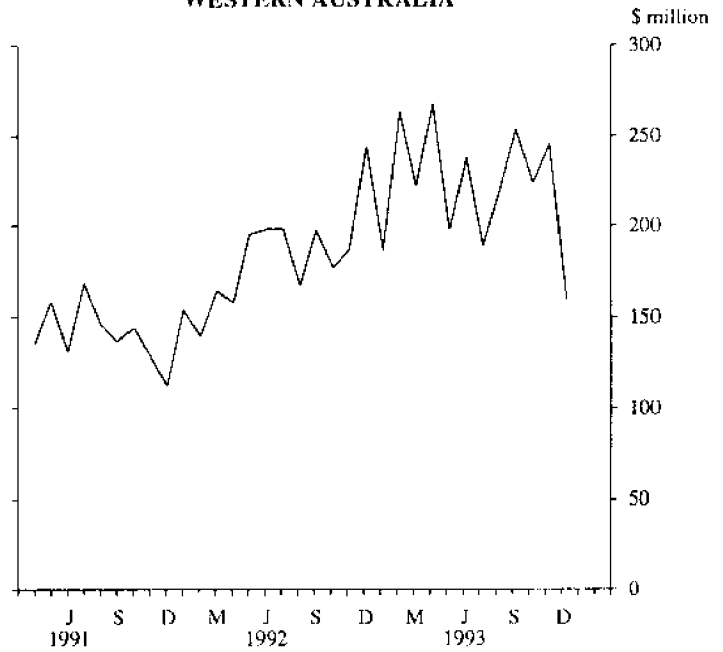
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**NEW DWELLING UNITS APPROVED (YEAR ENDED 30 JUNE)****WESTERN AUSTRALIA**

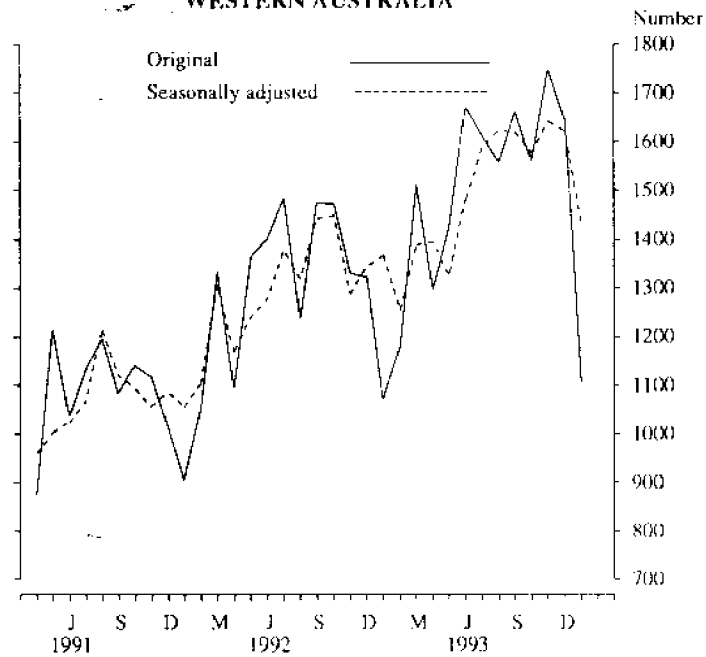
### NEW DWELLING UNITS APPROVED WESTERN AUSTRALIA



### TOTAL VALUE OF BUILDING APPROVED WESTERN AUSTRALIA



### NEW HOUSES APPROVED WESTERN AUSTRALIA



### NEW HOUSES APPROVED WESTERN AUSTRALIA

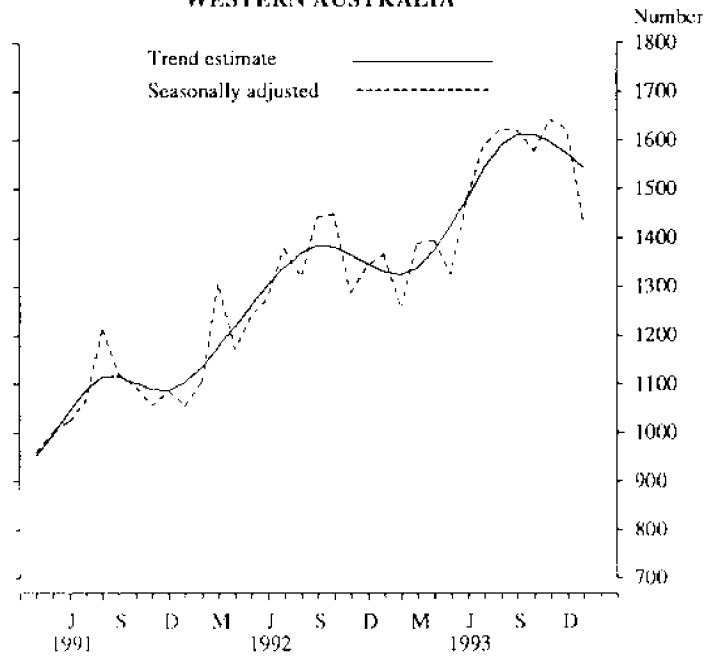


TABLE 1. NUMBER OF DWELLING UNITS APPROVED IN NEW RESIDENTIAL BUILDING

Period	Houses			Other residential buildings			Total		
	Private sector	Public sector	Total	Private sector	Public sector	Total	Private sector	Public sector	Total
PERTH STATISTICAL DIVISION									
1990-91	7,492	158	7,650	2,194	391	2,585	9,686	549	10,235
1991-92	9,969	194	10,163	2,505	1,434	3,939	12,474	1,628	14,102
1992-93	11,618	285	11,903	3,448	1,540	4,988	15,066	1,825	16,891
1992-93									
July-January	6,734	158	6,892	2,004	970	2,974	8,738	1,128	9,866
1993-94									
July-January	7,809	174	7,983	2,645	375	3,020	10,454	549	11,003
1992									
November	971	11	982	206	123	329	1,177	134	1,311
December	938	46	984	215	234	449	1,153	280	1,433
1993									
January	701	65	766	318	145	463	1,019	210	1,229
February	819	23	842	253	125	378	1,072	148	1,220
March	1,046	5	1,051	339	11	350	1,385	16	1,401
April	873	19	892	277	125	402	1,150	144	1,294
May	1,040	24	1,064	306	64	370	1,346	88	1,434
June	1,106	56	1,162	269	245	514	1,375	301	1,676
July	1,166	3	1,169	326	31	357	1,492	34	1,526
August	1,101	12	1,113	371	83	454	1,472	95	1,567
September	1,199	30	1,229	437	35	472	1,636	65	1,701
October	1,125	14	1,139	412	28	440	1,537	42	1,579
November	1,194	66	1,260	409	70	479	1,603	136	1,739
December	1,196	47	1,243	429	104	533	1,625	151	1,776
1994									
January	828	2	830	261	24	285	1,089	26	1,115
WESTERN AUSTRALIA									
1990-91	10,776	317	11,093	2,733	620	3,353	13,509	937	14,446
1991-92	13,474	362	13,836	3,078	1,663	4,741	16,552	2,025	18,577
1992-93	16,036	449	16,485	4,081	1,913	5,994	20,117	2,362	22,479
1992-93									
July-January	9,146	253	9,399	2,294	1,087	3,381	11,440	1,340	12,780
1993-94									
July-January	10,657	232	10,889	3,299	458	3,757	13,956	690	14,646
1992--									
November	1,319	13	1,332	252	125	377	1,571	138	1,709
December	1,263	60	1,323	251	267	518	1,514	327	1,841
1993									
January	978	95	1,073	362	160	522	1,340	255	1,595
February	1,155	25	1,180	283	182	465	1,438	207	1,645
March	1,489	24	1,513	435	23	458	1,924	47	1,971
April	1,261	36	1,297	319	140	459	1,580	176	1,756
May	1,392	34	1,426	375	170	545	1,767	204	1,971
June	1,593	77	1,670	375	311	686	1,968	388	2,356
July	1,595	18	1,613	375	34	409	1,970	52	2,022
August	1,537	21	1,558	479	98	577	2,016	119	2,135
September	1,626	36	1,662	515	35	550	2,141	71	2,212
October	1,546	15	1,561	483	42	525	2,029	57	2,086
November	1,677	69	1,746	531	82	613	2,208	151	2,359
December	1,585	60	1,645	518	126	644	2,103	186	2,289
1994--									
January	1,091	13	1,104	398	41	439	1,489	54	1,543

NOTE: The number of self-contained dwelling units approved as part of the construction of non-residential building and alterations and additions to existing buildings (including conversions to dwelling units) are excluded from this table. There were 17 such dwelling units approved in January 1994.

**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														
1990-91	566.3	9.3	575.6	144.3	20.5	164.8	710.6	29.8	740.4	104.9	417.8	769.5	1,232.7	1,614.8
1991-92	689.9	10.5	700.4	133.3	81.9	215.2	823.2	92.4	915.6	104.8	245.3	398.5	1,172.4	1,418.8
1992-93	822.1	17.7	839.7	188.9	92.3	281.2	1,010.9	109.9	1,120.9	113.3	463.2	715.9	1,585.3	1,950.1
1992-93 July-January	466.1	9.5	475.6	110.3	55.8	166.1	576.4	65.3	641.7	64.6	219.4	356.5	859.1	1,062.9
1993-94 July-January	584.2	10.4	594.6	161.8	23.3	185.1	746.0	33.8	779.7	68.3	227.7	297.4	1,041.7	1,145.4
1992 November	66.5	0.8	67.3	11.1	7.0	18.0	77.6	7.7	85.3	8.2	22.8	51.3	108.6	144.8
December	68.8	2.5	71.3	11.8	13.7	25.5	80.6	16.1	96.8	9.8	70.4	98.9	160.9	205.5
1993 January	47.4	3.9	51.3	18.9	9.4	28.2	66.3	13.3	79.6	9.7	17.5	57.1	92.4	146.4
February	60.4	1.5	61.9	13.0	11.9	24.8	73.4	13.4	86.7	8.3	108.8	130.8	190.4	225.8
March	74.5	0.3	74.8	17.9	0.6	18.5	92.4	0.9	93.3	12.6	25.4	58.2	129.6	164.0
April	65.7	1.0	66.7	13.7	7.2	20.9	79.4	8.2	87.7	8.8	62.0	88.0	150.2	184.5
May	77.3	1.5	78.8	18.1	3.5	21.6	95.4	5.0	100.4	10.0	13.9	33.3	119.3	143.7
June	78.0	3.8	81.9	15.9	13.3	29.2	93.9	17.1	111.0	9.1	33.6	49.1	136.6	169.2
July	87.3	0.2	87.5	20.4	1.4	21.8	107.7	1.5	109.3	9.1	15.4	22.1	132.2	140.5
August	80.5	0.9	81.4	20.6	6.2	26.8	101.1	7.2	108.3	9.1	28.9	39.7	139.1	157.0
September	85.5	2.2	87.7	28.1	2.4	30.5	113.6	4.6	118.2	9.7	56.6	57.9	179.9	185.9
October	85.5	0.8	86.3	27.1	1.8	28.9	112.6	2.6	115.2	11.3	47.0	50.7	170.9	177.2
November	89.7	3.5	93.2	25.2	4.2	29.4	114.9	7.7	122.6	10.4	35.4	43.1	160.8	176.2
December	91.6	2.7	94.4	24.9	6.3	31.2	116.5	9.0	125.5	9.8	20.7	56.4	147.0	191.8
1994 January	64.0	0.1	64.2	15.4	1.1	16.4	79.4	1.2	80.6	8.8	23.7	27.5	111.8	116.8
WESTERN AUSTRALIA														
1990-91	804.7	21.4	826.2	174.2	34.1	208.3	979.0	55.5	1,034.4	126.2	505.9	894.4	1,610.1	2,055.0
1991-92	931.4	23.9	955.3	166.1	96.5	262.6	1,097.5	120.4	1,217.9	124.2	306.6	504.9	1,527.0	1,847.0
1992-93	1,138.8	34.9	1,173.7	227.6	118.1	345.7	1,366.4	153.0	1,519.4	137.1	591.3	889.6	2,091.8	2,546.1
1992-93 July-January	636.1	19.3	655.4	127.4	64.2	191.6	763.5	83.5	847.0	77.9	266.3	432.0	1,105.7	1,356.8
1993-94 July-January	799.4	16.3	815.6	201.0	29.3	230.4	1,000.4	45.6	1,046.0	83.3	301.5	405.6	1,384.4	1,534.9
1992 - November	90.1	1.1	91.3	13.6	7.2	20.8	103.8	8.3	112.1	10.0	31.6	65.1	145.4	187.2
December	92.1	3.5	95.6	13.8	15.9	29.7	105.9	19.5	125.3	12.0	74.3	106.3	191.6	243.6
1993 January	67.5	6.1	73.6	21.7	10.3	32.0	89.1	16.4	105.5	11.2	21.6	69.6	120.6	186.3
February	84.1	1.6	85.7	14.8	16.3	31.1	98.8	17.9	116.8	10.4	112.9	135.9	222.2	263.1
March	108.1	2.4	110.5	23.4	1.5	24.9	131.5	3.9	135.4	14.7	37.2	71.9	182.6	222.1
April	93.7	2.7	96.3	16.4	8.2	24.6	110.1	10.9	121.0	10.7	104.5	136.3	225.1	268.0
May	103.3	2.5	105.8	22.6	10.3	32.9	125.8	12.8	138.6	11.6	22.3	48.0	159.7	198.3
June	113.7	6.3	120.0	23.0	17.7	40.7	136.7	24.0	160.7	11.7	48.1	65.4	196.5	237.8
July	118.6	1.6	120.2	22.9	1.6	24.5	141.5	3.2	144.7	10.5	21.9	33.6	173.9	188.7
August	113.4	2.1	115.5	27.2	7.1	34.3	140.6	9.1	149.8	11.0	47.0	58.9	198.5	219.7
September	118.4	3.0	121.4	32.3	2.4	34.7	150.6	5.4	156.1	12.7	66.7	84.8	230.1	253.7
October	116.4	0.9	117.2	31.4	2.8	34.3	147.8	3.7	151.5	14.0	53.0	58.9	214.6	224.4
November	126.5	3.7	130.3	32.6	5.0	37.5	159.1	8.7	167.8	13.0	54.0	64.9	225.6	245.7
December	121.3	3.7	125.0	31.2	8.1	39.3	152.5	11.8	164.3	11.7	25.8	67.2	190.0	243.2
1994 January	84.8	1.3	86.0	23.5	2.4	25.9	108.2	3.7	111.9	10.4	33.1	37.4	151.6	159.6

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

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
1992--								
November r	1,254	1,315	1,288	1,366	1,568	1,666	1,800	1,920
December r	1,262	1,293	1,345	1,347	1,589	1,650	2,045	1,907
1993 -								
January r	1,290	1,280	1,367	1,331	1,692	1,642	1,909	1,880
February r	1,230	1,282	1,256	1,325	1,562	1,644	1,698	1,846
March r	1,340	1,303	1,388	1,338	1,724	1,660	1,871	1,826
April r	1,413	1,343	1,395	1,374	1,735	1,693	1,828	1,833
May r	1,292	1,396	1,325	1,424	1,695	1,742	1,809	1,870
June r	1,416	1,452	1,483	1,481	1,758	1,799	2,045	1,925
July r	1,565	1,506	1,588	1,541	1,853	1,872	1,865	2,008
August r	1,579	1,547	1,623	1,588	1,999	1,949	2,183	2,098
September r	1,592	1,566	1,620	1,611	1,999	2,015	2,145	2,178
October r	1,568	1,567	1,577	1,612	2,131	2,063	2,197	2,235
November r	1,523	1,555	1,642	1,597	2,067	2,092	2,351	2,264
December r	1,574	1,536	1,622	1,573	2,171	2,106	2,551	2,267
1994--								
January r	1,460	1,513	1,431	1,544	2,000	2,106	1,881	2,257

(a) 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.

**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							
1990-91	884.2	907.7	204.4	1,112.1	138.4	495.1	875.0	1,681.3	2,125.5
1991-92	1,052.4	1,079.3	256.1	1,335.5	140.3	298.3	491.3	1,645.5	1,967.2
1992-93	1,261.4	1,300.1	341.2	1,641.4	151.7	579.6	872.0	2,207.3	2,665.1
1992—									
Sept. qtr.	320.3	328.0	79.2	407.2	34.9	108.0	154.8	518.2	596.9
Dec. qtr.	314.7	321.8	78.0	399.8	39.5	131.7	200.0	530.8	639.3
1993									
Mar. qtr.	285.9	297.1	87.0	384.2	40.0	168.5	272.2	549.7	696.4
June qtr.	340.6	353.2	97.0	450.2	37.3	171.4	244.9	608.7	732.4
Sept. qtr.	381.7	389.0	92.2	481.2	37.2	132.8	173.6	631.5	692.1
Dec. qtr.	393.7	402.7	109.6	512.3	41.8	129.9	186.8	657.2	740.9

(a) See paragraphs 20-25 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	1993						1994
	1991-92	1992-93	July-January 1992-93	1993-94	November	December	January
PRIVATE SECTOR							
New houses	931.4	1,138.8	636.1	799.4	126.5	121.3	84.8
New other residential buildings	166.1	227.6	127.4	201.0	32.6	31.2	23.5
Total new residential building	1,097.5	1,366.4	763.5	1,000.4	159.1	152.5	108.2
Alterations and additions to residential buildings	122.9	134.1	75.9	82.5	12.6	11.7	10.3
Hotels, etc.	14.6	10.7	7.1	12.6	3.4	0.9	0.6
Shops	84.2	212.8	49.4	98.6	6.2	3.3	4.3
Factories	21.0	41.2	27.2	25.6	5.3	4.0	3.0
Offices	40.7	44.4	28.9	32.9	6.8	3.4	4.1
Other business premises	49.6	100.3	34.2	49.5	17.7	5.2	6.9
Educational	27.2	28.8	21.0	22.9	5.6	3.0	5.0
Religious	11.1	4.2	2.4	5.1	0.6	0.5	0.8
Health	22.9	79.8	54.0	23.8	3.8	4.2	6.4
Entertainment and recreational	8.7	24.4	16.5	11.1	2.6	1.2	1.0
Miscellaneous	26.6	44.7	25.5	19.4	1.9	0.1	1.2
Total non-residential building	306.6	591.3	266.3	301.5	54.0	25.8	33.1
Total	1,527.0	2,091.8	1,105.7	1,384.4	225.6	190.0	151.6
PUBLIC SECTOR							
New houses	23.9	34.9	19.3	16.3	3.7	3.7	1.3
New other residential buildings	96.5	118.1	64.2	29.3	5.0	8.1	2.4
Total new residential building	120.4	153.0	83.5	45.6	8.7	11.8	3.7
Alterations and additions to residential buildings	1.3	3.0	2.0	0.8	0.5	-	0.1
Hotels, etc.	0.2	0.2	0.1	-	-	-	-
Shops	2.2	2.0	0.7	1.6	-	-	-
Factories	0.1	4.6	3.9	0.9	0.2	0.1	0.1
Offices	28.7	67.6	50.1	22.9	2.2	14.3	3.3
Other business premises	12.6	12.2	5.7	13.0	3.3	5.9	0.5
Educational	94.5	98.6	52.0	30.9	2.7	19.5	-
Religious	-	-	-	-	-	-	-
Health	17.9	22.1	1.4	23.4	-	-	-
Entertainment and recreational	24.2	49.7	22.0	7.4	1.8	0.7	0.4
Miscellaneous	18.0	41.3	29.7	4.2	0.8	0.9	0.1
Total non-residential building	198.3	298.3	165.7	104.1	10.9	41.3	4.3
Total	320.0	454.3	251.2	150.6	20.0	53.2	8.1
TOTAL							
New houses	955.3	1,173.7	655.4	815.6	130.3	125.0	86.0
New other residential buildings	262.6	345.7	191.6	230.4	37.5	39.3	25.9
Total new residential building	1,217.9	1,519.4	847.0	1,046.0	167.8	164.3	111.9
Alterations and additions to residential buildings	124.2	137.1	77.9	83.3	13.0	11.7	10.4
Hotels, etc.	14.8	10.8	7.2	12.6	3.4	0.9	0.6
Shops	86.4	214.8	50.2	100.2	6.2	3.3	4.3
Factories	21.1	45.8	31.1	26.5	5.5	4.1	3.0
Offices	69.4	112.0	79.1	55.8	9.0	17.7	7.3
Other business premises	62.1	112.5	39.9	62.4	21.0	11.1	7.3
Educational	121.6	127.4	73.1	53.8	8.3	22.5	5.0
Religious	11.1	4.2	2.4	5.1	0.6	0.5	0.8
Health	40.8	101.9	55.4	47.1	3.8	4.2	6.4
Entertainment and recreational	33.0	74.0	38.5	18.5	4.4	1.9	1.4
Miscellaneous	44.6	86.0	55.2	23.6	2.7	1.0	1.2
Total non-residential building	504.9	889.6	432.0	405.6	64.9	67.2	37.4
Total	1,847.0	2,546.1	1,356.8	1,534.9	245.7	243.2	159.6

**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>												
1993 November	2	0.2	3	1.0			1	2.3			6	3.4
December	3	0.4	2	0.5			—	—			5	0.9
1994 January	6	0.6									6	0.6
<b>SHOPS</b>												
1993 November	20	1.7	8	2.4	1	1.0	1	1.1			30	6.2
December	10	0.8	5	1.3	2	1.2					17	3.3
1994 January	15	1.6	4	1.2	—	—	1	1.5	—	—	20	4.3
<b>FACTORIES</b>												
1993 November	16	2.1	10	2.8	1	0.6					27	5.5
December	13	1.5	4	1.1	1	0.6	1	1.0			19	4.1
1994 January	10	0.9	4	1.1			1	1.0			15	3.0
<b>OFFICES</b>												
1993 November	22	2.1	9	2.4	1	0.5	1	4.0			33	9.0
December	10	1.2	5	1.5	3	1.9	5	13.2	—	—	23	17.7
1994 January	19	2.0	4	1.3	—	—	2	4.1			25	7.3
<b>OTHER BUSINESS PREMISES</b>												
1993 November	23	2.1	10	2.5	3	1.8	4	6.0	1	8.5	41	21.0
December	19	1.8	6	1.9	2	1.4	3	6.0			30	11.1
1994 January	12	1.2	12	3.6	4	2.5		—	—	—	28	7.3
<b>EDUCATIONAL</b>												
1993 November	11	1.3	6	2.2	3	1.8	2	3.0	—	—	22	8.3
December	6	0.8	4	1.2	4	2.3	3	5.2	1	13.0	18	22.5
1994 January	2	0.1	1	0.4	1	0.5	2	4.0		—	6	5.0
<b>RELIGIOUS</b>												
1993 November	3	0.3	1	0.3	—	—		—	—	—	4	0.6
December	4	0.5					—	—	—	—	4	0.5
1994 January		—	1	0.2	1	0.6		—	—	—	2	0.8
<b>HEALTH</b>												
1993 November	1	0.2	2	0.5		—	2	3.2	—	—	5	3.8
December	3	0.3	1	0.4	1	0.5	1	3.0		—	6	4.2
1994 January	3	0.3	3	0.9	—	—	2	5.2		—	8	6.4
<b>ENTERTAINMENT AND RECREATIONAL</b>												
1993 November	6	0.6	2	0.7	—	—	2	3.1	—	—	10	4.4
December	6	0.6	1	0.4	1	0.9		—	—	—	8	1.9
1994 January	5	0.6	1	0.2	1	0.6		—	—	—	7	1.4
<b>MISCELLANEOUS</b>												
1993 November	9	0.7	1	0.2	1	0.7	1	1.1	—	—	12	2.7
December	8	0.6	1	0.4	—	—		—	—	—	9	1.0
1994 January	5	0.6	3	0.7	—	—	—	—	—	—	8	1.2
<b>TOTAL NON-RESIDENTIAL BUILDING</b>												
1993 November	113	11.3	52	15.0	10	6.3	14	23.7	1	8.5	190	64.9
December	82	8.4	29	8.8	14	8.6	13	28.4	1	13.0	139	67.2
1994 January	77	7.8	33	9.6	7	4.2	8	15.7	—	—	125	37.4

TABLE 7. BUILDING APPROVALS BY STATISTICAL LOCAL AREAS (a), JANUARY 1994

Statistical local area, statistical subdivision and statistical division	New residential building						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)				
PERTH STATISTICAL DIVISION										
Claremont (T)	—	—	—	—	—	—	297	518	518	815
Cottesloe (T)	6	—	840	2	—	160	146	—	—	1,146
Mosman Park (T)	3	—	729	5	—	293	75	150	150	1,247
Nedlands (C)	7	—	1,530	—	—	—	582	—	—	2,112
Peppermint Grove (S)	—	—	—	—	—	—	193	—	—	193
Perth (C) — Inner	—	—	—	—	—	—	—	2,772	5,610	5,610
Perth (C) — North	5	—	342	14	—	1,003	342	—	70	1,756
Perth (C) — Outer	1	—	80	3	—	250	112	409	409	851
Perth (C) — South	3	—	160	31	—	1,854	97	530	530	2,641
Perth (C) — Wembley-Coastal	5	—	521	—	—	—	427	—	—	947
Subiaco (C)	2	—	250	—	—	—	347	475	535	1,132
Central Metropolitan (SSD)	32	—	4,451	55	—	3,560	2,618	4,855	7,823	18,451
Bassendean (T)	4	—	249	5	—	251	395	896	896	1,791
Bayswater (C)	11	—	809	7	—	423	127	—	355	1,715
Kalamunda (S)	33	—	2,537	—	—	—	267	148	148	2,952
Mundaring (S)	16	—	1,401	—	—	—	276	440	440	2,117
Swan (S)	137	1	7,711	—	—	—	115	3,060	3,060	10,886
East Metropolitan (SSD)	201	1	12,707	12	—	675	1,180	4,544	4,899	19,461
Stirling (C) — Central	35	—	3,664	73	—	4,062	676	652	652	9,054
Stirling (C) — West	5	—	377	19	—	1,217	643	275	275	2,512
Stirling (C) — South-Eastern	2	—	95	—	—	—	212	—	—	307
Wanneroo (C)	216	—	15,495	61	22	3,815	698	2,464	2,464	22,473
North Metropolitan (SSD)	258	—	19,632	153	22	9,094	2,229	3,391	3,391	34,346
Cockburn (C)	55	—	4,500	—	2	119	140	65	65	4,824
East Fremantle (T)	—	1	81	—	—	—	70	—	—	151
Fremantle (C) — Inner	—	—	—	—	—	—	—	180	180	180
Fremantle (C) — Remainder	14	—	1,439	—	—	—	255	473	473	2,167
Kwinana (T)	32	—	1,622	—	—	—	79	74	74	1,775
Melville (C)	38	—	4,611	12	—	1,053	759	—	—	6,423
Rockingham (C)	66	—	4,397	6	—	410	165	660	660	5,632
South West Metropolitan (SSD)	205	1	16,650	18	2	1,582	1,468	1,452	1,452	21,152
Armadale (C)	33	—	1,966	—	—	—	93	275	275	2,334
Belmont (C)	7	—	395	—	—	—	—	1,098	1,098	1,493
Canning (C)	44	—	4,082	2	—	160	272	4,461	4,461	8,974
Gosnells (C)	27	—	1,805	9	—	368	207	430	430	2,810
Serpentine-Jarrahdale (S)	12	—	1,273	—	—	—	—	—	—	1,273
South Perth (C)	9	—	1,208	12	—	983	710	3,195	3,647	6,548
South East Metropolitan (SSD)	132	—	10,728	23	—	1,510	1,283	9,459	9,911	23,432
Total	828	2	64,167	261	24	16,421	8,778	23,700	27,475	116,842
SOUTH WEST STATISTICAL DIVISION										
Boddington (S)	1	—	68	—	—	—	—	—	—	68
Mandurah (C)	49	—	3,990	46	—	3,635	107	425	425	8,157
Murray (S)	3	—	148	—	—	—	12	110	269	429
Warroona (S)	3	—	208	—	—	—	—	—	—	208
Dale (SSD)	56	—	4,414	46	—	3,635	119	535	694	8,862
Bunbury (C)	10	2	1,007	12	—	658	35	872	1,072	2,772
Capel (S)	7	—	434	—	—	—	—	—	—	434
Collie (S)	2	—	200	—	—	—	44	—	—	244
Dardanup (S)	6	—	446	—	—	—	84	—	—	530
Dannybrook-Balingup (S)	1	—	65	—	—	—	—	160	160	225
Harvey (S)	14	—	1,197	—	—	—	127	65	65	1,389
Preston (SSD)	40	2	3,349	12	—	658	290	1,097	1,297	5,594

For footnote, see end of table.

TABLE 7. BUILDING APPROVALS BY STATISTICAL LOCAL AREAS (a), JANUARY 1994 *continued*

Statistical local area, statistical subdivision and statistical division	New residential building						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)				
SOUTH WEST STATISTICAL DIVISION (continued)										
Augusta-Margaret River (S)	11	---	583	2	---	168	101	290	290	1,142
Busseton (S)	21	---	1,875	6	---	337	188	260	260	2,660
Vasse (SSD)	32	---	2,458	8	---	505	288	550	550	3,801
Boyup Brook (S)	---	---	---	---	---	---	---	---	---	---
Bridgetown-Greenbushes (S)	2	---	192	---	---	---	30	130	130	352
Manjimup (S)	8	---	605	---	---	---	160	---	---	764
Nannup (S)	1	---	108	---	---	---	---	80	80	188
Blackwood (SSD)	11	---	904	---	---	---	190	210	210	1,304
Total	139	2	11,125	66	---	4,798	887	2,392	2,751	19,561
LOWER GREAT SOUTHERN STATISTICAL DIVISION										
Broomehill (S)	---	---	---	---	---	---	---	---	---	---
Gnowangerup (S)	---	---	---	---	---	---	---	---	---	---
Jerramungup (S)	---	---	---	---	---	---	---	---	---	---
Katanning (S)	1	---	50	---	---	---	---	---	---	50
Kent (S)	---	---	---	---	---	---	---	---	---	---
Kojonup (S)	---	---	---	---	---	---	---	---	---	---
Tambellup (S)	---	---	---	---	---	---	---	---	---	---
Woodanilling (S)	---	---	---	---	---	---	---	---	---	---
Pallinup (SSD)	1	---	50	---	---	---	---	---	---	50
Albany (T)	6	---	634	---	9	666	25	642	642	1,966
Albany (S)	12	---	936	---	---	---	61	---	---	997
Cranbrook (S)	---	---	---	---	---	---	---	---	---	---
Denmark (S)	5	---	370	---	---	---	---	---	---	370
Plantagenet (S)	---	---	---	---	---	---	---	---	---	---
King (SSD)	23	---	1,940	---	9	666	86	642	642	3,334
Total	24	---	1,990	---	9	666	86	642	642	3,384
UPPER GREAT SOUTHERN STATISTICAL DIVISION										
Brookton (S)	---	---	---	---	---	---	---	---	---	---
Cuballing (S)	3	---	161	---	---	---	---	---	---	161
Dumbleyung (S)	---	---	---	---	---	---	---	---	---	---
Narrogin (T)	---	---	---	---	---	---	---	55	55	55
Narrogin (S)	---	---	---	---	---	---	---	---	---	---
Pingelly (S)	---	---	---	---	---	---	---	---	---	---
Wagin (S)	---	---	---	---	---	---	---	---	---	---
Wandering (S)	---	---	---	---	---	---	---	---	---	---
West Arthur (S)	---	---	---	---	---	---	---	---	---	---
Wickepin (S)	---	---	---	---	---	---	---	---	---	---
Williams (S)	---	---	---	---	---	---	---	---	---	---
Hotham (SSD)	3	---	161	---	---	---	---	55	55	216
Corrigin (S)	---	---	---	---	4	253	---	---	---	253
Kondinin (S)	---	---	---	---	---	---	---	---	---	---
Kulin (S)	---	---	---	---	---	---	---	---	---	---
Lake Grace (S)	---	---	---	---	---	---	---	---	---	---
Lakes (SSD)	---	---	---	---	4	253	---	---	---	253
Total	3	---	161	---	4	253	---	55	55	469

For footnote, see end of table.

TABLE 7. BUILDING APPROVALS BY STATISTICAL LOCAL AREAS (a), JANUARY 1994 *continued*

Statistical local area, statistical subdivision and statistical division	New residential building						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)				
MIDLANDS STATISTICAL DIVISION										
Chittering (S)	2	—	127	—	—	—	—	—	—	127
Dandaragan (S)	2	—	107	—	—	—	40	—	—	147
Gingin (S)	4	—	268	—	—	—	64	—	—	332
Moora (S)	—	—	—	—	—	—	—	—	—	—
Victoria Plains (S)	—	—	—	—	—	—	—	—	—	—
Moore (SSD)	8	—	502	—	—	—	104	—	—	605
Beverley (S)	—	—	—	—	—	—	—	—	—	—
Cunderdin (S)	—	1	109	—	—	—	—	—	—	109
Dalwallinu (S)	1	—	73	—	—	—	—	—	—	73
Dowerin (S)	—	—	—	—	—	—	—	—	—	—
Goomalling (S)	—	—	—	—	—	—	—	—	—	—
Knorda (S)	—	—	—	—	—	—	—	—	—	—
Northam (T)	2	—	126	—	—	—	—	2,460	2,460	2,586
Northam (S)	12	—	770	—	—	—	—	—	—	770
Quairading (S)	—	—	—	—	—	—	—	—	—	—
Tammin (S)	—	—	—	—	—	—	—	—	—	—
Toodyay (S)	9	1	734	—	—	—	53	—	—	788
Wongan-Ballidu (S)	—	1	113	—	—	—	—	—	—	113
Wyalkatchem (S)	—	—	—	—	—	—	—	—	—	—
York (S)	1	—	80	—	—	—	—	—	—	80
Avon (SSD)	25	3	2,005	—	—	—	53	2,460	2,460	4,518
Bruce Rock (S)	1	—	43	—	—	—	—	—	—	43
Kellerberrin (S)	—	—	—	—	—	—	—	—	50	50
Merredin (S)	1	—	20	—	—	—	18	—	—	38
Mount Marshall (S)	—	—	—	—	—	—	—	—	—	—
Mukinbudin (S)	—	—	—	—	—	—	—	—	—	—
Narembeen (S)	1	—	63	—	—	—	41	—	—	104
Nungarin (S)	1	—	54	—	—	—	—	—	—	54
Trayning (S)	—	—	—	—	—	—	—	—	—	—
Westonia (S)	—	—	—	—	—	—	—	—	—	—
Yilgarn (S)	—	—	—	—	—	—	—	—	—	—
Campion (SSD)	4	—	181	—	—	—	59	—	50	289
Total	37	3	2,688	—	—	—	215	2,460	2,510	5,413
SOUTH EASTERN STATISTICAL DIVISION										
Coolgardie (S)	2	—	116	—	—	—	—	—	—	116
Kalgoorlie/Boulder (C)	16	—	1,504	11	—	719	150	164	164	2,537
Laverton (S)	—	—	—	—	—	—	—	—	—	—
Leonora (S)	—	—	—	—	—	—	—	—	—	—
Menzies (S)	—	—	—	—	—	—	—	—	—	—
Lefroy (SSD)	18	—	1,619	11	—	719	150	164	164	2,652
Dundas (S)	—	—	—	—	—	—	—	—	—	—
Esperance (S)	4	—	446	—	—	—	12	—	—	458
Ravensthorpe (S)	—	—	—	—	—	—	—	—	—	—
Johnston (SSD)	4	—	446	—	—	—	12	—	—	458
Total	22	—	2,066	11	—	719	162	164	164	3,111

For footnote, see end of table.

TABLE 7. BUILDING APPROVALS BY STATISTICAL LOCAL AREAS (a), JANUARY 1994 *continued*

Statistical local area, statistical subdivision and statistical division	New residential building						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)				
CENTRAL STATISTICAL DIVISION										
Carnarvon (S)	4	—	374	—	—	—	—	150	150	524
Exmouth (S)	—	—	—	—	—	—	—	—	—	—
Shark Bay (S)	3	—	230	—	—	—	—	—	—	230
Upper Gascoyne (S)	—	—	—	—	—	—	—	—	—	—
Gascoyne (SSD)	7	—	604	—	—	—	—	150	150	754
Cue (S)	—	—	—	—	—	—	—	—	—	—
Meekatharra (S)	—	1	123	—	—	—	—	—	—	123
Mount Magnet (S)	—	1	127	—	—	—	—	—	—	127
Murchison (S)	—	—	—	—	—	—	—	—	—	—
Ngaanyatjaraku (S)	—	—	—	—	—	—	—	—	—	—
Sandstone (S)	—	—	—	—	—	—	—	—	—	—
Wiluna (S)	—	—	—	—	—	—	—	—	—	—
Yalgoo (S)	—	—	—	—	—	—	—	—	—	—
Carnegie (SSD)	—	2	250	—	—	—	—	—	—	250
Carnamah (S)	—	—	—	—	—	—	—	—	—	—
Chapman Valley (S)	—	—	—	—	—	—	—	—	—	—
Coorow (S)	—	—	—	—	—	—	—	—	—	—
Geraldton (C)	2	—	150	57	—	2,456	12	3,523	3,610	6,228
Greenough (S)	18	—	1,572	—	—	—	27	—	—	1,599
Irwin (S)	4	—	225	—	—	—	—	—	—	225
Mingenew (S)	—	—	—	—	—	—	—	—	—	—
Morawa (S)	—	—	—	—	—	—	—	—	—	—
Mullewa (S)	—	—	—	—	—	—	—	—	—	—
Northampton (S)	5	—	308	—	—	—	28	—	—	336
Perenjori (S)	—	—	—	—	—	—	—	—	—	—
Three Springs (S)	—	—	—	—	—	—	—	—	—	—
Greenough River (SSD)	29	—	2,255	57	—	2,456	67	3,523	3,610	8,388
Total	36	2	3,109	57	—	2,456	67	3,673	3,760	9,392
PILBARA STATISTICAL DIVISION										
East Pilbara (S)	—	—	—	—	4	404	—	—	—	404
Port Hedland (T)	1	—	150	—	—	—	91	—	—	241
De Grey (SSD)	1	—	150	—	4	404	91	—	—	645
Ashburton (S)	—	—	—	3	—	136	35	—	—	171
Roebourne (S)	1	—	141	—	—	—	48	—	—	189
Fortescue (SSD)	1	—	141	3	—	136	83	—	—	360
Total	2	—	291	3	4	540	174	—	—	1,005
KIMBERLEY STATISTICAL DIVISION										
Flatts Creek (S)	—	—	—	—	—	—	—	—	—	—
Wyndham-East Kimberley (S)	—	4	449	—	—	—	—	—	—	449
Ord (SSD)	—	4	449	—	—	—	—	—	—	449
Broome (S)	—	—	—	—	—	—	—	—	—	—
Derby-West Kimberley (S)	—	—	—	—	—	—	—	—	—	—
Fitzroy (SSD)	—	—	—	—	—	—	—	—	—	—
Total	—	4	449	—	—	—	—	—	—	449
WESTERN AUSTRALIA										
Western Australia	1,091	13	86,047	398	41	25,853	10,369	33,087	37,358	159,625

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

**TABLE 8. NUMBER OF NEW HOUSES APPROVED BY MATERIAL OF OUTER WALLS, FLOOR AREA  
AND VALUE PER SQUARE METRE BY STATISTICAL DIVISION  
JANUARY 1994**

Statistical division	Material of outer walls					Total	Floor area (sq m)	Average floor area (sq m)	Average value per square metre (\$)
	Double brick(a)	Brick veneer	Fibre cement	Timber	Other and not stated				
Perth	814	3	3	8	2	830	178,618	215	359
South-West	108	8	4	11	10	141	29,700	211	375
Lower Great Southern	5	11	1	4	3	24	5,380	224	370
Upper Great Southern	1			1	1	3	724	241	223
Midlands	10	4	13	9	4	40	7,697	192	349
South-Eastern	4	15	3	—		22	4,478	204	461
Central	23	5	5	—	5	38	7,191	189	432
Pilbara	—	2	—	—	—	2	627	314	464
Kimberley	—	4	—	—	—	4	480	120	935
<b>Western Australia</b>	<b>965</b>	<b>52</b>	<b>29</b>	<b>33</b>	<b>25</b>	<b>1,104</b>	<b>234,895</b>	<b>213</b>	<b>366</b>

(a) Includes houses constructed with outer walls of stone and concrete.

**TABLE 9. NEW DWELLING UNITS APPROVED, BY TYPE AND STATISTICAL DIVISION  
JANUARY 1994**

Statistical division	Other residential building								Total residential building
	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	830	267	18	285	—	—	—	285	1,115
South West	141	66	—	66	—	—	—	66	207
Lower Great Southern	24	—	9	9	—	—	—	9	33
Upper Great Southern	3	4	—	4	—	—	—	4	7
Midlands	40	—	—	—	—	—	—	—	40
South Eastern	22	8	3	11	—	—	—	11	33
Central	38	57	—	57	—	—	—	57	95
Pilbara	2	7	—	7	—	—	—	7	9
Kimberley	4	—	—	—	—	—	—	—	4
<b>Western Australia</b>	<b>1,104</b>	<b>409</b>	<b>30</b>	<b>439</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>439</b>	<b>1,543</b>
VALUE (\$'000)									
Perth	64,167	14,705	1,716	16,421	—	—	—	16,421	80,589
South West	11,125	4,798	—	4,798	—	—	—	4,798	15,923
Lower Great Southern	1,990	—	666	666	—	—	—	666	2,656
Upper Great Southern	161	253	—	253	—	—	—	253	414
Midlands	2,688	—	—	—	—	—	—	—	2,688
South Eastern	2,066	519	200	719	—	—	—	719	2,785
Central	3,109	2,456	—	2,456	—	—	—	2,456	5,565
Pilbara	291	540	—	540	—	—	—	540	831
Kimberley	449	—	—	—	—	—	—	—	449
<b>Western Australia</b>	<b>86,047</b>	<b>23,271</b>	<b>2,582</b>	<b>25,853</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>25,853</b>	<b>111,899</b>

## EXPLANATORY NOTES

### Introduction

This publication contains monthly details of building work approved. 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.

Major building activity which takes place in areas not subject to the normal administrative approval processes (e.g. buildings on remote mine sites) is also included.

### Factors affecting comparability

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

### Scope and coverage

3. 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.

4. 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.

5. From July 1990, the statistics cover:

- (a) all approved new residential building jobs valued at \$10,000 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.

From July 1988 to June 1990, the statistics covered:

- (d) all approved new residential building jobs valued at \$5,000 or more (previously all new residential building jobs were included regardless of value);
- (e) approved alterations and additions to residential buildings valued at \$10,000 or more;
- (f) all approved non-residential building jobs valued at \$30,000 or more (previously \$10,000 or more).

These changes in scope mainly affect non-residential building data and 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

6. 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 humans.

7. 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 building* approved.

8. 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* as follows:

- (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 flats, home units, townhouses, duplexes, apartment buildings, etc.).

9. The number of dwelling units created by alterations and additions to existing buildings and through the construction of new *non-residential buildings* is not included in the tables but is shown as a footnote to Table 1.

10. *Values* 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, and often do, differ significantly from the completed value of the building.

### Building classification

11. *Ownership*. The 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.

12. *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 a 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 in the treatment of group accommodation buildings where, for example, a student accommodation building on a university campus would be classified to Educational.

13. From July 1992, an expanded functional classification of buildings based on the *Dwelling Structure Classification (DSC)* has been introduced by the ABS to provide more detailed information on residential building approvals.

14. The DSC has been developed by the ABS to provide a standard classification of the different types of dwelling structures (houses, flats, townhouses, etc.). The DSC will be implemented across all major collections of housing data in the ABS. The DSC has the same overall scope as the classification used in previous collections but provides more detail than previously available to reflect the current interest in medium to high density housing.

15. In particular, for Building Approvals, DSC allows new *other residential building* to be classified as follows:

- (a) *Semi-detached, row or terrace houses, townhouses, etc.* (dwellings having their own private grounds and no other dwellings above or below) with
  - one storey;
  - two or more storeys.
- (b) *Flats, units or apartments, etc.* (dwellings not having their own private grounds and usually sharing a common entrance, foyer or stairwell) in a building of:
  - one or two storeys;
  - three storeys;
  - four or more storeys.

16. More details on the DSC are contained in the ABS Information Paper, *Dwelling Structure Classification (DSC)* (1296.0).

#### Seasonal adjustment

17. Seasonally adjusted dwelling unit statistics are shown in Table 3. In these series, 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. Revision of figures results from annual re-analysis, details of which, together with information regarding the methods used in seasonally adjusting the series, are available on request.

18. Each of the component series shown has been seasonally adjusted independently. As a consequence,

while the unadjusted components in the original series shown add to the totals, 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 optimal 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.

19. Seasonal adjustment may be carried out by various methods and the results may vary slightly according to the procedure adopted. Accordingly, seasonally adjusted statistics should not be regarded as in any way definitive. In interpreting particular seasonally adjusted statistics it is important to bear in mind the methods by which they have been derived and the limitations to which the methods used are subject.

20. 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. 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. Irregular influences that are highly volatile can make it difficult to interpret the movement of the series even after adjustment for seasonal variation.

21. The seasonally adjusted series can, however, be smoothed to reduce the impact of the irregular component in the adjusted series. This smoothed seasonally adjusted series is called a trend estimate. There are a number of ways of accomplishing this, depending on the intended uses of the trend estimate. If importance is attached to measuring the underlying change in the most recent periods, moving averages employing appropriate weighting patterns should be adopted; the choice of averaging technique will determine in part the degree of smoothness of the derived series. For example, a 23-term moving average will generally even out more of the short term fluctuation in a series (and therefore appear 'smoother') than will a 13-term moving average. However, the longer the term of the moving average the longer the time series affected by revisions resulting from more recent data. In order to ensure that the underlying trend-cycle of a series is reflected in the trend estimate, the degree of smoothness alone cannot always be used as the sole criterion in determining which moving average is appropriate.

22. Trend estimates of dwelling unit statistics are shown in Table 3. The trend estimates (often referred to as trend-cycle estimates) have been derived by applying a 13-term Henderson-weighted moving average to the series.

23. While this technique enables trend estimates for the latest period to be produced, it does result in revisions to the trend estimates for the most recent months as additional observations become available. There may also be revisions as a result of changes in the original data, and as a result of the re-estimation of the seasonal

factors. Details of other trend-cycle weighting patterns can be found in *A Guide to Smoothing Time Series - Estimates of Trend* (1316.0).

#### Estimates at constant prices

24. The base year of constant price estimates of building approvals, contained in this issue, has been changed to 1989-90.

25. Periodic rebasing of constant price estimates is necessary to take account of changed price relativities and structural relationships in the economy. The choice of the base year influences the movement in the constant price series and the usefulness of such series is diminished if the relative price weights of the base year differ significantly from the price relationships in the other periods included in the series. The more remote a base year is from the current period, the less likely that its relative prices will reflect the current situation.

26. A more detailed discussion of the need for rebasing constant price estimates and factors affecting the choice of base year is contained in the information paper *Change in Base Year of Constant Price Estimates from 1984-85 to 1989-90* (5227.0) released on 10 December 1992.

27. 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).

28. 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 in this publication 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'.

29. 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

30. Area statistics are classified according to the Australian Standard Geographical Classification. Figures previously published for local government areas and statistical divisions are directly comparable with this classification except for the cities of Perth, Fremantle and

Stirling which are obtained by aggregating the component statistical local areas.

#### Unpublished data and related publications

31. The ABS also makes 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.

32. Users may also wish to refer to the following related publications which are available on request:

WESTERN AUSTRALIA	Catalogue No.
Building Approvals - Private Sector, Perth Statistical Division (monthly)	8732.5
Building Activity (quarterly)	8752.5
Dwelling Unit Commencements (monthly)	8741.5
<b>AUSTRALIA</b>	
Building Approvals (monthly)	8731.0
Building Activity (quarterly)	8752.0
Engineering Construction Survey (quarterly)	8762.0
Housing Finance for Owner Occupation: Australia	5609.0

33. All publications produced by the ABS are listed in *Catalogue of Publications and Products* (1101.0) which is available from any ABS Office.

#### Symbols and other usages

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

- nil, or rounded to zero
- r figure or series revised since previous issue.

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

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