University of Toronto TORONTO ONTARIO M5S 1A1

CAPITAL PROJECTS OFFICE

TO: Business Board

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DATE: September 17, 2002 for September 30, 2002

AGENDA ITEM: 4(b)

ITEM IDENTIFICATION:

Capital Project: University College Residence

JURISDICTIONAL INFORMATION:

Pursuant to Section 5.2 of its Terms of Reference, the Business Board approves expenditures for, and the execution of, capital projects. It is the Business Board's duty to ensure the financial plan, the extent to which full funding is committed and obtainable, and whether there are any significant outstanding and unresolved issues with respect to the project.

PREVIOUS ACTION TAKEN:

None. This is the first time this project has been presented to the Business Board.

HIGHLIGHTS:

The demand for residence places at the University of Toronto, especially places for first year students, has grown steadily over the last few years. University College has the most critical need for student housing of all colleges on the St. George campus, currently accommodating only 12% of its students. This compares unfavourably with similar colleges notably Victoria, St. Michael's and Trinity, where the corresponding numbers are 24%, 24% and 36% respectively. University College's current residences – Whitney Hall and the Sir Daniel Wilson residence – together accommodate approximately 450 students. The proposed University College Residence Expansion will significantly increase this number of student residence accommodations.

In January 2000, a Project Committee was established with the Principal of University College chairing the Committee comprising students, faculty and staff. Key alumni also formed an informal advisory group to the Principal. Over the past two years the College has examined a number of potential building sites. These have included the western edge of the back campus which was rejected, and more recently an investigation undertaken by Diamond and Schmitt Architects Inc. to add a north/south wing to complete the eastern edge of the Sir Daniel Wilson residence quadrangle in addition to building on an approved building site (Site 22).

This latter plan, presented as a formal Project Planning Report, was approved by the University Affairs Board in April, 2002 with the knowledge that the Sir Daniel Wilson residence quadrangle is currently zoned UOS (University Open Space) within the City of Toronto zoning by-laws and would have required re-zoning of the site. The Project Planning Report was also approved at both the Planning & Budget Committee and the Academic Board; at these meetings is was clearly stated that some revisions of the site were envisaged and that the subsequent re-approval could be required. This revised location was also unanimously approved by University College Council and the University College Alumni Association following numerous town hall meetings that extensively explored the various options.

Discussions were subsequently initiated with the City of Toronto about this proposed location. It was immediately clear that the City was reluctant to consider any rezoning of this site, but were receptive to the concept of increased massing on Site 22 to accommodate the proposed space program. To proceed required the appointment of consultants to explore massing options.

The proposed residence designed by Zeidler Grinnell Partnership Architects on Site 22 will be 11 storeys high and provide 292 beds.

The residence will be approximately 7,400 gross square meters and the total project cost is $22.0 million.

The target opening date is January 2005.

FINANCIAL AND/OR PLANNING IMPLICATIONS:

<u>Scope of Review:</u>
The University College residence expansion proposal requires the construction of a, 292 bed, dormitory style residence with a newly constructed kitchen. The residence is scheduled to open in 2004/05 and will be operated by the UC residence ancillary.

The model submitted by University College includes the following financial parameters:

1. The projected cost of the new residence is $22,000,000. This project cost includes approximately $500,000 for the construction of a kitchen, $1,015,000 for new furniture and equipment and $360,000 to maintain the current structural configuration of the drama facility.

2. Current funding for the project has been identified as, $2,500,000 in donations, of which, 60% has already been raised, and the assumption that

another $1,000,000 will be raised before the residence opening. Ancillary contributions consist of $1,485,000 from the UC residence ancillary and $800,000 from the UC food service ancillary. Academic Priorities Fund support of $ 70,000 for the drama facility. The remaining $17,145,000 funded externally.

3. The proposed monthly bed rates for the new residence are set at $597, with the existing residence at $570. The combined blended rate would be $581 per month.

(See Appendix 1 for Model Criteria & Summary)

Financial Analysis:

The proposed UC residence is very similar in size and style to the New College residence and the expectation is that operationally, they would be similar. The revenue and expense projections contained within the UC financial model were compared to those submitted by the New College residence operation as part of their request for a Capital Project appropriation increase.

The UC model was found to contain expenditures levels that were on average $252,000 lower than those contained within the New College submission. The difference mainly being attributed to lower staffing costs. The monthly bed rates were also compared and found to be slightly higher in the UC model then the NC model. The starting monthly bed rate at UC is $597 as opposed to $560 for New College. The rate difference of $37 per month reflects a 7% premium over New College, with this premium increasing to 8% by year 10. The average capital renewal provision in UC model exceeds the New College model by approximately $670,000 per year. This mainly attributed to the difference in age of the two buildings.

Ancillary contributions of $2,285,000 are comprised of $1,485,000 from the UC residence ancillary and $800,000 from the UC food ancillary. In both cases, these contributions will consume most of the unappropriated surplus anticipated in their current long-range plans. The residence ancillary expects to have $534,000 remaining in its capital renewal reserve at the beginning of the 2004-05 fiscal year. The low capital renewal reserve represents a risk factor in this proposal, particularly when combined with annual break-even for the combined ancillary in year 5 and cumulative break-even in year 8 and the deferral of capital renewal contributions on the new residence until year 6.

The current financial model yields a per bed cost of $71,370, based on the total project costs specifically related to the residence portion only. On an overall total project cost basis the cost per bed is $75,342. The annual cost of external financing is $1,587,935 based on the ancillary meeting its internal funding projections of $4,855,000.

Identified Risk Factors:

1. Outstanding donations of $1,000,000 will be raised by September 2004.
2. Ancillary contributions totalling $2,285,000 will be available for project funding.
3. Construction costs exceeding current project projections.

Sensitivity analysis:
Since the capital project contains multiple risk factors, a sensitivity analysis was prepared to account for the various possibilities. Medium-case and worst-case scenarios were modelled. The results of the financial analysis are summarized in Appendix 2.

Conclusion:
The financial plan submitted by University College will support the current level of construction costs and meet the required breakeven criteria of year 5 annually and year 8 cumulatively. However, this is contingent on three underlying risk factors. Firstly, the ancillary contributions, which are based on forecasted surpluses, actually materialize and are available in 2004. Secondly, the assumption that UC will be able to raise $1,000,000 in additional donations before the opening of the residence in 2004. Thirdly, construction costs do not exceed current project projections. The first risk factors is categorized as high, with the second and third categorized as low. Overall the project would be categorized as medium risk.

This financial model has been investigated and approved by the Financial Services Department and conforms to University policy guidelines.

RECOMMENDATION:

Subject to the understanding that the rates of the University College residence ancillary operation are increased sufficiently to ensure that the operation continues to recover its own costs,

THAT the Business Board concur with the following parts of the prospective recommendation of the Academic Board:

- THAT the project cost of $22,000,000 be approved, with the funding sources as follows:
    1. Donation from University College of $2,500,000
    2. University College Residence Ancillary allocation of $1,485,000
    3. University College Food Service allocation of $800,000
    4. University Infrastructure Investment Fund allocation of $70,000
    5. Financing in the amount of $17,145,000 to be repaid from the residence fee revenues over a 25
    6. -year amortization period at 8% per annum.

THAT the Vice-President, Business Affairs be authorized to execute the University College Residence project at a cost not to exceed $22,000,000 and to arrange such interim and long-term financing as required, from either internal or external sources.

UC Residence Proposal - September 2002 Submission

Model Criteria & Summary

Standard criteria:

New Residence scheduled to open September 2004 (2004-05)

Number of beds		
existing	452	
new-original	292	
new-additional beds	0	
Total	744	
Occupancy rates	98.00%	
Mortgage terms:		
rate	8%	
amortization-years	25	
compounding (monthly)	12	
Capital renewal to start in year:		
existing	1	
new	6	
and to be calculated at a rate of	1.50%	
Breakeven target for total ancillary operation:		
annual (year)	2008-9	5
cumulative (year)	2011-12	8

Variables within various models:

Project costs:	Building	Furn & Equip	Total
Residence -original cost for 292beds	$20,125,000	$715,000	$20,840,000
Kitchen: Food Service	$500,000	$300,000	$800,000
Drama	$360,000		$360,000
Construction costs for total project	$20,985,000	$1,015,000	$22,000,000
Max construction cost borne by operations	$20,985,000	$1,015,000	$22,000,000
Shortfall			

Cost per bed (based on projects attributable to residence only):		Annual cost of external financing based on total cost (1):	
Residence	$71,370	$1,587,935	-net of $3.695 mil funding
Residence (total)	$71,370	$1,587,935	

Sources of funding:	Residence	Food Service	Drama	Total
Donations-original submission	$2,210,000.00		$290,000.00	$2,500,000.00
APF Support			$70,000.00	$70,000.00
Departmental contributions	$1,485,000.00	$800,000.00		$2,285,000.00
Net funding (excl. financing)	$3,695,000.00	$800,000.00	$360,000.00	$4,855,000.00
External financing (1)	$17,145,000.00			$17,145,000.00
	$20,840,000.00	$800,000.00	$360,000.00	$22,000,000.00

Monthly bed rates in year 1 and year 5:

	2004-05	avg annual incr to Yr 5	2008-09
existing	$570	6.25%	$726
new	$597	5.00%	$726
Blended rate*	$581	5.63%	$726

*using weighted average calculation

Appendix 2

UC Residence Proposal - September 2002 Submission

Sensitivity Analysis on Opening Rates if Project Costs Increase and Funding Shortfall Occurs

	Model 1	Model 2	Model 3	Model 4
	UC Submission	Medium Case	Worst Case	Original Policies UC Submission
Project Cost Overrun of 10%	$0	$0	$2,150,000	$0
Donation Shortfall	$0	$0	$1,000,000	$0
Ancillary Contribution Shortfall	$0	$2,285,000	$2,285,000	$0
Monthly Residence Rate Required				
New Residence Opening Rate	$597	$605	$640	$682
Existing Residence Opening Rate	$570	$577	$611	$651
Blended Residence Opening Rate	$581	$588	$622	$663
Monthly Rate Change from Submitted Model				
New Residence	N/A	$8.00	$43.00	$85.00
Existing Residence	N/A	$7.00	$41.00	$81.00
Percentage Change from Submitted Model				
New Residence	N/A	1%	7%	14%
Existing Residence	N/A	1%	7%	14%
IRR - Combined Operations	9.04%	9.34%	9.69%	12.11%
IRR - New Residence	3.36%	3.56%	3.57%	5.25%
NPV - Combined Operations (Cashflows before financing costs and net of capital cost)	$2,755,458	$3,588,506	$4,940,321	$11,610,875

Appendix 3

UNIVERSITY COLLEGE, Total Residence Ancillary

Variables:		2004-05												
# of beds		744	744	744	744	744	744	744	744	744	744	744	744	744
avg rate/bed (cal'd based on bed rev)		583	621	658	694	722	744	766	789	813	837	862	888	915
occupancy-winter		98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
capital cost		22,000,000												
downpayment from ancillary		4,785,000												
downpayment -subsidy		70,000												
mortgage rate	various	various	various	various	various	various	various	various	various	various	various	various	various	

WORKING SCHEDULE

Projected Income Statement:		1	2	3	4	5	6	7	8	9	10	11	12	13
Revenues - inflation rate used yr 4+ =		5.00%												
Revenues-winter		3,264,227	3,485,569	3,701,702	3,909,179	4,065,547	4,187,513	4,313,138	4,442,532	4,575,808	4,713,083	4,854,475	5,000,109	5,150,113
Revenues-summer		484,425	871,392	998,550	1,054,076	1,096,239	1,129,126	1,163,000	1,197,890	1,233,827	1,270,841	1,308,967	1,348,236	1,388,683
Revenues-other		79,400	95,652	101,718	107,490	111,790	115,143	118,598	122,155	125,820	129,595	133,483	137,487	141,612
Dean's & dons		146,641	177,380	188,587	199,267	207,238	213,455	219,859	226,455	233,248	240,246	247,453	254,877	262,523
Amount of subsidy needed		0	0	0	0	0	0	0	0	0	0	0	0	0
	Net revenues	3,974,693	4,629,994	4,990,558	5,270,013	5,480,813	5,645,238	5,814,595	5,989,033	6,168,704	6,353,765	6,544,378	6,740,709	6,942,930
Expenses- inflation rate used yr 4+ =		2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%
Operating (general)		1,899,021	2,189,001	2,232,781	2,277,437	2,322,985	2,369,445	2,416,834	2,465,171	2,514,474	2,564,764	2,616,059	2,668,380	2,721,748
Dons		334,613	336,843	343,580	350,452	357,461	364,610	371,902	379,340	386,927	394,666	402,559	410,610	418,822
Major Maintenance		1,200,000	1,275,000	1,275,000	1,280,500	786,110	801,832	817,869	834,226	850,911	867,929	885,288	902,993	921,053
		3,433,634	3,800,844	3,851,361	3,908,388	3,466,556	3,535,887	3,606,605	3,678,737	3,752,312	3,827,358	3,903,905	3,981,983	4,061,623
Mortgage principal & Interest		1,058,623	1,587,935	1,587,935	1,587,935	1,587,935	1,587,935	1,587,935	1,587,935	1,587,935	1,587,935	1,587,935	1,587,935	1,587,935
Building depr'n (based on Provost Subsidy)		1,867	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800
Building depr'n (based on downpayment)		127,600	191,400	191,400	191,400	191,400	191,400	191,400	191,400	191,400	191,400	191,400	191,400	191,400
Expenses before finance charges		4,621,723	5,582,979	5,633,496	5,690,523	5,248,691	5,318,022	5,388,740	5,460,872	5,534,447	5,609,493	5,686,040	5,764,118	5,843,758
Operating financing charges		(12,514)	25,401	62,013	84,887	83,294	59,907	29,959	(7,618)	(53,472)	(108,313)	(172,896)	(248,032)	(334,585)
	Net expenses	4,609,209	5,608,380	5,695,509	5,775,410	5,331,984	5,377,929	5,418,699	5,453,254	5,480,975	5,501,180	5,513,144	5,516,086	5,509,172
Surplus (Deficit) before transfers & reserve		(634,516)	(978,386)	(704,951)	(505,397)	148,829	267,309	395,896	535,778	687,729	852,584	1,031,234	1,224,623	1,433,758
transfer to operating		0	0	0	0	0	0	0	0	0	0	0	0	0
(Incr)/decr in investment in cap assets		129,467	194,200	194,200	194,200	194,200	194,200	194,200	194,200	194,200	194,200	194,200	194,200	194,200
(Incr)/decr in major mtnce reserve		250,000	250,000	250,000	250,000	(250,000)	(278,168)	(262,131)	(245,774)	(229,089)	(212,071)	(194,712)	(177,007)	(158,947)
Surplus (Deficit) after transfers & reserve		(255,050)	(534,186)	(260,751)	(61,197)	93,029	183,341	327,965	484,205	652,840	834,713	1,030,722	1,241,817	1,469,011

Projected Balance sheet:		1	2	3	4	5	6	7	8	9	10	11	12	13
Cash		(37,698)	(821,883)	(1,332,635)	(1,643,832)	(1,300,803)	(839,295)	(249,198)	480,780	1,362,709	2,409,494	3,634,928	5,053,751	6,681,709
Residence		29,012,486	28,953,086	28,893,686	28,834,286	28,774,886	28,715,486	28,656,086	28,596,686	28,537,286	28,477,886	28,418,486	28,359,086	28,299,686
Accumulated Depreciation		(5,394,132)	(5,528,932)	(5,663,732)	(5,798,532)	(5,933,332)	(6,068,132)	(6,202,932)	(6,337,732)	(6,472,532)	(6,607,332)	(6,742,132)	(6,876,932)	(7,011,732)
		23,580,657	22,602,271	21,897,320	21,391,922	21,540,751	21,808,060	22,203,956	22,739,735	23,427,464	24,280,048	25,311,282	26,535,905	27,969,663
Mortgage payable & Equity in Res		18,630,000	18,630,000	18,630,000	18,630,000	18,630,000	18,630,000	18,630,000	18,630,000	18,630,000	18,630,000	18,630,000	18,630,000	18,630,000
Funds committed for major maintenance		283,593	33,593	(216,407)	(466,407)	(216,407)	61,761	323,892	569,666	798,755	1,010,826	1,205,538	1,382,545	1,541,492
Surplus (contributed)		4,725,533	4,531,333	4,337,133	4,142,933	3,948,733	3,754,533	3,560,333	3,366,133	3,171,933	2,977,733	2,783,533	2,589,333	2,395,133
Surplus		(58,470)	(592,655)	(853,407)	(914,604)	(821,575)	(638,234)	(310,269)	173,935	826,775	1,661,489	2,692,210	3,934,027	5,403,038
Net fund balance		4,950,657	3,972,271	3,267,320	2,761,922	2,910,751	3,178,060	3,573,956	4,109,735	4,797,464	5,650,048	6,681,282	7,905,905	9,339,663
	0	23,580,657	22,602,271	21,897,320	21,391,922	21,540,751	21,808,060	22,203,956	22,739,735	23,427,464	24,280,048	25,311,282	26,535,905	27,969,663
												0		

The depreciation expensed via the "principle proxy" is captured as part of the "Mortgage payable & equity in Res" line.

UNIVERSITY COLLEGE, Total Residence Ancillary		1	2	3	4	5	6	7	8	9	10	11	12	13
Calculate cash flows used in finance charge calculation:														
Surplus (Deficit) before reserve		(634,516)	(978,386)	(704,951)	(505,397)	148,829	267,309	395,896	535,778	687,729	852,584	1,031,234	1,224,623	1,433,758
deduct transfer to operating		0	0	0	0	0	0	0	0	0	0	0	0	0
add back depr'n		127,600	191,400	191,400	191,400	191,400	191,400	191,400	191,400	191,400	191,400	191,400	191,400	191,400
add back increase in mtnce reserve														
Net Annual Cash Flows		(506,916)	(786,986)	(513,551)	(313,997)	340,229	458,709	587,296	727,178	879,129	1,043,984	1,222,634	1,416,023	1,625,158
Cumulative cash flows			(1,293,902)	(1,807,453)	(2,121,451)	(1,781,222)	(1,322,513)	(735,217)	(8,039)	871,090	1,915,075	3,137,709	4,553,732	6,178,890
calculation of finance charges: @ 6%														
Opening cash balance		467,352	(52,078)	(801,205)	(1,278,342)	(1,569,839)	(1,231,762)	(797,194)	(240,808)	447,613	1,279,474	2,266,959	3,423,089	4,761,781
net cash flows (not incl fin chrge)		(519,430)	(761,585)	(451,538)	(229,110)	423,522	518,616	617,255	719,561	825,657	935,672	1,049,738	1,167,991	1,290,572
finance charges (prior period)			12,458	(25,599)	(62,386)	(85,445)	(84,048)	(60,869)	(31,140)	6,204	51,813	106,393	170,701	245,546
Closing cash balance		(52,078)	(801,205)	(1,278,342)	(1,569,839)	(1,231,762)	(797,194)	(240,808)	447,613	1,279,474	2,266,959	3,423,089	4,761,781	6,297,900
Finance charge on average bal		12,458	(25,599)	(62,386)	(85,445)	(84,048)	(60,869)	(31,140)	6,204	51,813	106,393	170,701	245,546	331,790
Calculate cash flows to be used in analysis: (Should include only operating revenues & expenses including capital renewal)														
Cash flw befre mtge pmts & fin chrg		789,193	1,076,350	1,386,396	1,608,824	1,761,457	1,828,383	1,943,059	2,061,722	2,184,502	2,311,536	2,442,960	2,578,919	2,719,560
Cumulative cash before mtge pmts			1,865,542	3,251,939	4,860,763	6,622,220	8,450,603	10,393,661	12,455,383	14,639,885	16,951,421	19,394,381	21,973,300	24,692,860
		0		0 rate incr										
Payback period:		13												13
Breakeven annual		5				5	6	7	8	9	10	11	12	13
Breakeven cumulative		8							8	9	10	11	12	13

Internal rate of return:														
Cash flow discounted at 8.8154%		725,258	909,018	1,076,010	1,147,485	1,154,570	1,101,349	1,075,606	1,048,835	1,021,267	993,109	964,545	935,736	906,826
Sum of discounted cash flow		22,342,788												
Net capital cost		22,000,000												
	difference	342,788												
Internal rate of return		8.82%	= Interpolated rate of interest; rate of interest at which future operating cash flows can be discounted to equal original cost of project.											

Net Present value calculations of :		8.00%	=using the opportunity cost of capital as a discount factor											
Of annual net income figures	11,864,794	(236,157)	(457,978)	(206,993)	(44,982)	63,314	115,536	191,364	261,601	326,582	386,634	442,059	493,142	540,152
Of cash flows before mortgage financing net of capital costs:	2,523,001	730,734	922,796	1,100,566	1,182,534	1,198,818	1,152,191	1,133,756	1,113,884	1,092,795	1,070,688	1,047,744	1,024,124	999,977
Of operating costs excluding mortgage	40,935,683	3,287,580	3,446,884	3,260,725	3,077,919	2,548,137	2,388,339	2,235,214	2,088,312	1,947,489	1,812,590	1,683,455	1,559,923	1,441,831
Of operating costs including mortgage	57,467,991	4,267,786	4,808,282	4,521,279	4,245,099	3,628,859	3,389,007	3,161,759	2,946,224	2,741,852	2,548,111	2,364,493	2,190,513	2,025,711
Of operating costs excluding all financing costs (internal & external)	43,106,850	2,947,809	3,044,277	2,858,877	2,689,025	2,529,426	2,403,502	2,257,370	2,120,291	1,991,692	1,871,037	1,757,827	1,651,592	1,551,895

Note 1 Fixed asset balance for residence represents "undepreciated value" of building only accounting for straightline depreciation.
The depreciation expensed via the "principle proxy" is captured as part of the "Mortgage payable & equity in Res" line.

744	744	744	744	744	744	744	744	744	744	744	744	744
942	971	1,000	1,030	1,061	1,092	1,125	1,159	1,194	1,230	1,266	1,304	1,370
98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
various	various	various	various	various	various	various	various	various	various	various	various	various

14	15	16	17	18	19	20	21	22	23	24	25	26	Net 26 year
	)												
5,304,616	5,463,755	5,627,667	5,796,497	5,970,392	6,149,504	6,333,989	6,524,009	6,719,729	6,921,321	7,128,960	7,342,829	7,563,114	138,509,378
1,430,343	1,473,254	1,517,451	1,562,975	1,609,864	1,658,160	1,707,905	1,759,142	1,811,916	1,866,273	1,922,262	1,979,930	2,039,327	36,884,052
145,860	150,236	154,743	159,385	164,167	169,092	174,164	179,389	184,771	190,314	196,024	201,904	207,961	3,797,952
270,399	278,511	286,866	295,472	304,336	313,466	322,870	332,556	342,533	352,809	363,393	374,295	385,524	7,040,263
0	0	0	0	0	0	0	0	0	0	0	0	0	0
7,151,218	7,365,755	7,586,727	7,814,329	8,048,759	8,290,222	8,538,928	8,795,096	9,058,949	9,330,718	9,610,639	9,898,958	10,195,927	186,231,646
2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	
2,776,183	2,831,706	2,888,340	2,946,107	3,005,029	3,065,130	3,126,432	3,188,961	3,252,740	3,317,795	3,384,151	3,451,834	3,520,871	72,013,379
427,199	435,743	444,458	453,347	462,414	471,662	481,095	490,717	500,531	510,542	520,753	531,168	541,791	11,123,803
939,474	958,264	977,429	996,978	1,016,917	1,037,255	1,058,001	1,079,161	1,100,744	1,122,759	1,145,214	1,168,118	1,191,480	26,490,504
4,142,855	4,225,713	4,310,227	4,396,431	4,484,360	4,574,047	4,665,528	4,758,839	4,854,015	4,951,096	5,050,118	5,151,120	5,254,142	109,627,686
1,587,935	1,587,935	1,587,935	1,587,935	1,587,935	1,587,935	1,587,935	1,587,935	1,587,935	1,587,935	1,587,935	1,587,935	529,312	39,698,367
2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	2,800	933	70,000
191,400	191,400	191,400	191,400	191,400	191,400	191,400	191,400	191,400	191,400	191,400	191,400	63,800	4,785,000
5,924,990	6,007,847	6,092,362	6,178,566	6,266,495	6,356,182	6,447,663	6,540,973	6,636,150	6,733,230	6,832,252	6,933,255	5,848,187	154,181,054
(433,478)	(545,696)	(672,291)	(814,387)	(973,180)	(1,149,948)	(1,346,053)	(1,562,947)	(1,802,176)	(2,065,391)	(2,354,346)	(2,670,913)	(3,048,842)	(20,031,615)
5,491,512	5,462,152	5,420,070	5,364,179	5,293,315	5,206,234	5,101,610	4,978,027	4,833,974	4,667,840	4,477,907	4,262,342	2,799,346	134,149,438
1,659,706	1,903,603	2,166,657	2,450,150	2,755,444	3,083,988	3,437,318	3,817,069	4,224,975	4,662,878	5,132,732	5,636,616	7,396,581	52,082,208
0	0	0	0	0	0	0	0	0	0	0	0	0	0
194,200	194,200	194,200	194,200	194,200	194,200	194,200	194,200	194,200	194,200	194,200	194,200	64,733	4,855,000
(140,526)	(121,736)	(102,571)	(83,022)	(63,083)	(42,745)	(21,999)	(839)	20,744	42,759	65,214	88,118	111,480	(1,256,106)
1,713,380	1,976,067	2,258,286	2,561,327	2,886,561	3,235,443	3,609,519	4,010,430	4,439,919	4,899,836	5,392,146	5,918,934	7,572,795	55,681,102

14	15	16	17	18	19	20	21	22	23	24	25	26	Net 26 year
8,535,615	10,633,418	12,994,275	15,638,625	18,588,269	21,866,456	25,497,975	29,509,244	33,928,420	38,785,497	44,112,430	49,943,246	57,404,561	
28,240,286	28,180,886	28,121,486	28,062,086	28,002,686	27,943,286	27,883,886	27,824,486	27,765,086	27,705,686	27,646,286	27,586,886	27,567,086	
(7,146,532)	(7,281,332)	(7,416,132)	(7,550,932)	(7,685,732)	(7,820,532)	(7,955,332)	(8,090,132)	(8,224,932)	(8,359,732)	(8,494,532)	(8,629,332)	(8,674,265)	
29,629,369	31,532,972	33,699,629	36,149,779	38,905,223	41,989,211	45,426,529	49,243,599	53,468,574	58,131,452	63,264,184	68,900,800	76,297,382	
18,630,000	18,630,000	18,630,000	18,630,000	18,630,000	18,630,000	18,630,000	18,630,000	18,630,000	18,630,000	18,630,000	18,630,000	18,630,000	
1,682,018	1,803,754	1,906,325	1,989,348	2,052,430	2,095,175	2,117,174	2,118,014	2,097,270	2,054,511	1,989,298	1,901,180	1,789,699	
2,200,933	2,006,733	1,812,533	1,618,333	1,424,133	1,229,933	1,035,733	841,533	647,333	453,133	258,933	64,733	0	
7,116,418	9,092,485	11,350,771	13,912,098	16,798,659	20,034,102	23,643,621	27,654,051	32,093,970	36,993,807	42,385,953	48,304,887	55,877,682	
10,999,369	12,902,972	15,069,629	17,519,779	20,275,223	23,359,211	26,796,529	30,613,599	34,838,574	39,501,452	44,634,184	50,270,800	57,667,382	
29,629,369	31,532,972	33,699,629	36,149,779	38,905,223	41,989,211	45,426,529	49,243,599	53,468,574	58,131,452	63,264,184	68,900,800	76,297,382	

14	15	16	17	18	19	20	21	22	23	24	25	26	
1,659,706	1,903,603	2,166,657	2,450,150	2,755,444	3,083,988	3,437,318	3,817,069	4,224,975	4,662,878	5,132,732	5,636,616	7,396,581	52,082,208
0	0	0	0	0	0	0	0	0	0	0	0	0	0
191,400	191,400	191,400	191,400	191,400	191,400	191,400	191,400	191,400	191,400	191,400	191,400	63,800	4,785,000
													0
													0
1,851,106	2,095,003	2,358,057	2,641,550	2,946,844	3,275,388	3,628,718	4,008,469	4,416,375	4,854,278	5,324,132	5,828,016	7,460,381	56,867,208
8,029,996	10,124,999	12,483,056	15,124,605	18,071,450	21,346,837	24,975,556	28,984,025	33,400,401	38,254,678	43,578,811	49,406,827	56,867,208	
6,297,900	8,047,318	10,026,982	12,254,977	14,750,599	17,534,431	20,628,421	24,055,973	27,842,027	32,013,166	36,597,709	41,625,822	47,129,632	
1,417,628	1,549,307	1,685,766	1,827,163	1,973,664	2,125,440	2,282,666	2,445,523	2,614,199	2,788,887	2,969,787	3,157,104	4,411,540	
331,790	430,357	542,229	668,459	810,167	968,551	1,144,886	1,340,532	1,556,940	1,795,656	2,058,326	2,346,706	2,662,664	
8,047,318	10,026,982	12,254,977	14,750,599	17,534,431	20,628,421	24,055,973	27,842,027	32,013,166	36,597,709	41,625,822	47,129,632	54,203,835	
430,357	542,229	668,459	810,167	968,551	1,144,886	1,340,532	1,556,940	1,795,656	2,058,326	2,346,706	2,662,664	3,040,004	

2,865,037	3,015,506	3,171,129	3,332,075	3,498,516	3,670,630	3,848,601	4,032,618	4,222,877	4,419,580	4,622,935	4,833,156	5,052,332
27,557,897	30,573,403	33,744,532	37,076,607	40,575,124	44,245,754	48,094,354	52,126,972	56,349,850	60,769,430	65,392,366	70,225,522	75,277,854
14	15	16	17	18	19	20	21	22	23	24	25	26
14	15	16	17	18	19	20	21	22	23	24	25	26
14	15	16	17	18	19	20	21	22	23	24	25	26
877,941	849,190	820,669	792,462	764,641	737,265	710,388	684,053	658,295	633,144	608,624	584,752	561,749

583,339	622,939	659,172	692,247	722,359	749,691	774,416	796,695	816,681	834,517	850,338	864,270	1,023,855
975,433	950,613	925,622	900,556	875,500	850,529	825,710	801,103	776,758	752,722	729,034	705,727	683,084
1,329,016	1,221,315	1,118,564	1,020,602	927,268	838,404	753,853	673,461	597,078	524,555	455,747	390,511	306,913
1,869,646	1,721,898	1,582,067	1,449,771	1,324,647	1,206,347	1,094,541	988,914	889,164	795,004	706,163	622,378	378,476
1,458,324	1,370,497	1,288,054	1,210,657	1,137,993	1,069,766	1,005,701	945,537	889,034	835,965	786,116	739,289	695,297

4 September 2002

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