First Wisconsin Plaza.

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FIRST WISCONSIN PLAZA

Landmark Research Inc.

2575 University Avenue, Madison, Wisconsin 53705

FIRST WISCONSIN PLAZA

Suite 202, 3240 University Avenue, Madison, Wisconsin 53705, 608-238-6873

December 15, 1980

James A. Graaskamp, Ph.D., SREA, CRE
Tim Warner, MS, MAI, SRPA
Jean B. Davis, MS

Mr. Richard C. Glesner
Ross & Stevens, S.C.
First Wisconsin Plaza
One South Pinckney
Madison, Wisconsin 53703

Dear Mr. Glesner:

With this letter we are transmitting to you the amended appraisal of the First Wisconsin Plaza at One South Pinckney Street, Madison, Wisconsin, requested as a measure of fair market value as of January 1, 1980, for the purpose of contesting the proposed assessment by the City of Madison Assessor.

The appraisal report dated August 4, 1980, was found to have a computer input error which understated the mortgage at the outset of new ownership. We regret our error as it understated our value conclusion by $600,000. You may refer to Exhibit 18 on pages 70-75 for the correct input and output from MRCAP. Specifically, the basis for our value conclusion can be found on page 72, line 34 of the report. The change in value necessitates changes on pages 69, 79, and 82, and on the BFCF test of investment yield on pages 76-78. We also took the opportunity to clarify our prose on pages 2, 51, 52, and 66.

My associate, Jean B. Davis, real estate appraiser and analyst, and I have inspected the building on several occasions. The staff of the Bank Properties Division of the First Wisconsin National Bank of Madison, headed by Tony Metro and assisted by Albert Geigel, Robin Selvaag, Tom Gunderson, and Bill Mann provided us with the necessary data to analyze the building operations. James Treptow, accounting officer, also provided us with needed information.

We were provided an annual accounting history, but it was necessary to reconstruct these records in accordance with appraisal methods. We were provided access to all leases; while many leases represent market rents for similar space, it was necessary to substitute market rents for contract rents that were below market. Market rents were assigned to bank occupied space, and to special features built for the original owner such as vaults and other unique leasehold improvements of little income value to a second owner purchasing the property for investment rather than prestige value. We were careful to distinguish between the real estate and the personal property such as banking counters, furniture, and horticultural displays; and to value only the real estate.

Our value assumes a cash sale of the property rather than sale at non-market financial terms extended by the present owner; this assumption is necessary to be consistent with Wisconsin Real Estate Tax law since the purpose of the appraisal is to serve as a basis for real estate tax assessment valuation as of January 1, 1980.

We have corrected for certain errors in land area allocation which exist on the tax records.

As further explained within the report, the market approach and the cost approach to value are inapplicable at the present time to this building. Therefore, our estimate is based on the income approach. We have combined somewhat optimistic cash revenue forecasts with conservative cash outlay forecasts, and we have used the mortgage equity approach as generally approved by Judge George R. Currie relative to the 1974 valuation of the James Wilson Plaza office building located in Madison (specific details are provided within this report).

Based upon the assumptions, limiting conditions, and property tax law as presented in the attached report, it is the opinion of the appraiser that the highest most probable price in dollars and fair market value of the subject property, more precisely described herein, which might be obtained as of January 1, 1980, is the amount of:

TWELVE MILLION TWO HUNDRED THOUSAND DOLLARS
($12,200,000)

We are pleased to have been of service, and Ms. Davis and I remain available to answer any specific questions you may have regarding this report. Please give us adequate notice to date, time, and location of presentations to the Madison Assessor, the Madison Appeal Board, or hearings related thereto.

Sincerely yours,

James A. Graaskamp, Ph.D., SREA, CRE
Urban Land Economist

Jean B. Davis, MS
Landmark Research, Inc.

FIRST WISCONSIN PLAZA

One South Pinckney Street
Madison, Wisconsin

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LIST OF EXHIBITS

I. PROBLEM ASSIGNMENT

The content of an appraisal report is determined by the decision for which it will serve as a benchmark and by the limiting assumptions inherent in the property, data base, or other factors in the decision context.

This appraisal is requested as a measure of fair market value as of January 1, 1980, to serve as a basis for assessment of land and buildings, known as the First Wisconsin Plaza, at 1 South Pinckney Street in the City of Madison, Dane County, Wisconsin.

A. The Appraisal Issue

The proposed assessment of the subject property as of January 1, 1980, by the City of Madison Assessor is $13,200,000.

1. Test for Investment Yield

To test the economic reasonableness of the assessed value of $13,200,000 of the subject property as of January 1, 1980, the income approach which utilizes the discounted cash flow methodology, is appropriate. (See Section III for a discussion of the discounted cash flow methodology). Using the assessor's assumptions regarding gross revenue, vacancy, operating expenses, financing terms and mill rate, the purchase of the subject property for $13,200,000 on January 1, 1980, would produce a cash-on-cash of less than 4 percent and an internal rate of return of 5.4 percent before taxes and 5.3 percent after taxes if held for five years and sold for the same generous price. (Exhibit 1).

2. Test for Market Value

Investors in major office buildings currently seek the largest feasible mortgage, given the strength of the net operating income, a 5 to 6 percent cash-on-cash return on equity, and an equity yield rate of 13 to 14 percent. Five percent cash-on-cash is adequate initially if old leases can soon be

renewed and rents escalated, but if rents are locked in by leases for a long period of time, 6 percent is the minimum return. The band of investment technique[1] is used to solve for the appropriate mortgage-equity capitalization rate. The net real estate tax mill rate is then added to the capitalization rate to become the denominator by which the net operating income before real estate tax is divided.

Using realistic investor requirements for financing and equity yield with net operating income before taxes and appreciation as projected by the appraiser (see Exhibits 16 and 18), the capitalization rate is calculated and the market value is estimated:

Band of Investment

where:

.75	=	Mortgage loan to value
.25	=	Equity contribution
.1234	=	Mortgage constant (12%, 30 years)
.13	=	Equity yield
.022	=	Estimated mill rate

then:

.75 x .1234	=	.0926	Mortgage loan (principal and interest)
.25 x .13	=	.0325	Equity contribution
		.1251	
		.0027	Less credit for equity build-up for five years
		.1224	
		.0108	Less adjustment for appreciation
		.1116	Base rate
		.0220	Estimated mill rate
		.1336	Capitalization Rate

Estimate of Market Value Using Capitalization Rate

where:

$1,618,700	N.O.I. before real estate tax	=	$12,116,018
.1336	Capitalization rate		

then: $12,100,000 Estimated market value

[1] Charles B. Akerson, MAI, Capitalization Theory and Techniques (American Institute of Real Estate Appraisers, 1977) pp. 54-58.

3. Analysis of Test Results

The most probable investor in a new, but already obsolete office building with many long-term leases, requires a cash-on-cash (equity dividend rate)[1] of 6 percent and an equity yield rate (internal rate of return to the equity investment)[2] of 13 percent.

If the purchase price of the subject property were $13,200,000, as proposed by the City of Madison Assessor, a cash-on-cash of less than 4 percent and an internal rate of return of 5.4 percent before income taxes and 5.3 percent after income taxes would be unacceptable even to the most unsophisticated investor. (Exhibit 1).

When investor requirements for cash-on-cash and financing are considered, the feasible purchase price must be far less than the proposed assessed value of $13,200,000.

4. Definition of Assessed Value

The controlling statute in Wisconsin is Section 70.32 for real property valuation, which provides in part the following definition:

> Real estate, how valued. (1) Real property shall be valued by the assessor from actual view or from the best information that the assessor can practicably obtain, at the full value which could ordinarily be obtained, therefore, at a private sale. Such a sale implies another user and not the original owner-builder. "Full value" as that term is used in the above-quoted statute means "Fair market value"; that is, the amount for which the property in question could be sold on the open market by an owner willing but not compelled to sell to a purchaser willing, but not obligated to buy.[3]

---

[1] Byrl N. Boyce, Real Estate Appraisal Terminology, (Ballinger Publishing Company, 1975) p. 78.

[2] Supra, p. 79

[3] State ex. rel. Lincoln F. Warehouse v. Board of Review (1973), 60 Wis., (2d) 84, 89.

EXHIBIT 1

BFCF TEST FOR ECONOMIC REASONABLENESS OF
ASSESSED VALUE OF SUBJECT PROPERTY--INPUT AND OUTPUT

```
BFCF        17:29CDT    07/09/80

VER 4/3/79
BFCF IS THE PROPERTY OF BENEDICT J FREDERICK JR MAI, SRPA

LATEST CHANGES & ADDITIONS:
1.) 1979 CAP GAINS LAW-40% INDV; 28% CORP TAXABLE.
2.) MTG INT MAY BE SELECTED IN PLACE OF AMORTZ IN PRINT OUT.
3.) EQUITY DIVIDEND FOR EACH YR ON ORG & CURRENT EQUITY-MODE E

1. ENTER PROJECT NAME? FIRST WISCONSIN PLAZA
2. PROJECTION PERIOD:? 5
   TO REPEAT PREV YRS NOI FOR BAL OF PROJ ENTER 0
3. ENTER N.O.I.:1
? 1155807,0
4. VALUE:? 13200000
5. MTG. RATIO, INT., TERM & NO. PAY/YR:2
? .615,.11,25,12
6. IMP./TOTAL VALUE RATIO & IMP. LIFE:? .86,323
7. DEPRECIATION METHOD? 14
   IS OWNER A TAXABLE CORPORATION, Y OR N? Y
8. CORP FED ORDINARY TAX RATE COULD BE FROM 17% TO 46% (1979 LAW)
   PLUS STATE RATE. ENTER 1.) ORDINARY RATE 2.) RATE ASSUMED IN
   YEAR OF SALE:? .46,.46
9. RESALE PRICE:? 132000005


I.R.R. BEFORE TAXES IS  5.40235 %.

AFTER TAX I.R.R. IS 5.25551 %.

AVERAGE DEBT SERVICE RATIO IS 1.21054
MODE:? P
PRINT MTG INTEREST IN PLACE OF AMTZ? Y OR N:? Y
```

EXHIBIT 1 (Continued)

NOTES TO BFCF INPUT FILE

Line 3:[1] The data reportedly used by the Assessor includes:

$2,866,079	Gross income
85,982	Less vacancy at 3 percent
1,333,890	Less operating expenses
$1,446,207	Net operating income before real estate tax

The assessed value of $13,200,000 and a net mill rate of .022 are used to calculate the real estate tax ($290,400) which is subtracted from the net operating income (NOI) before real estate tax.

Line 5:[2] A debt coverage ratio of 1.2 is used; this is the lower of the range of 1.2 to 1.35 suggested by the Assessor, which would allow for the most favorable financing. The resulting loan to value ratio is calculated using the assessed value of $13,200,000 as the denominator. The most favorable financing parameters of 11 percent interest and a 25-year mortgage term as suggested by the Assessor's office are used.

Line 6:[3] The Assessor's land and improvement values of $1,900,000 and $11,300,000 are used. A 32-year remaining life is used for the improvements as a proxy for component depreciation.

Line 7:[4] Straight line depreciation, allowed a second owner, is used.

Line 9:[5] Since appreciation or depreciation depends upon whether or not the cash income of the project is improved through marketing, management, and the rate of inflation, it is speculative to project a change in resale value.

EXHIBIT 1 (Continued)

AFTER TAX CASH FLOW PROJECTION
FIRST WISCONSIN PLAZA
07/09/80

DATA SUMMARY
****

VALUE:	$ 13200000	MTG. AMT.:	$ 8118000
NOI 1ST YR:	$ 1155807	MTG. INT.:	11. %
ORG. EQUITY:	$ 5082000	MTG. TERM:	25 YRS
IMP.VALUE:	$ 11352000	MTG. CONST.:	0.117614
INC. TAX RATE:	46. %	IMP. LIFE:	32 YRS
SALE YR RATE:	46. %	OWNER:	CORPORATION

YEAR	CASH FLOW	MTG. INT.	BOOK DEP	TAXABLE INCOME	INCOME TAX	AFTER TAX CASH FLOW
1	201020	889767	354750	-88711	-40808	241828
2	201020	882243	354750	-81187	-37347	238367
3	201020	873848	354750	-72792	-33485	234505
4	201020	864482	354750	-63426	-29177	230197
5	201020	854032	354750	-52976	-24370	225390
	$1005100	$4364372	$1773750	$-359092	$-165187	$1170287

DEP. METHOD: STRAIGHT LINE

1ST YR EQ. DIV: 3.95553 %

SALE PRICE	*$13,200,000
BASIS	11,426,250
CAPITAL GAINS	1,773,750
CAP GAINS TAX	228,459
EXCESS DEP TAX	0
MORTGAGE BALANCE	7,708,437
AFTER TAX EQ REV	$5,263,104

AVG DEBT SERV RATIO: 1.21

IF PURCHASED AS ABOVE, HELD 5 YEARS & SOLD FOR $ 13200000 THEN
I.R.R. IS 5.40235 % BEFORE TAXES; 5.25551 % AFTER TAXES.

NO REPRESENTATION IS MADE THAT THE ASSUMPTIONS RELATIVE TO
CURRENT TAX PROVISIONS USED IN THIS PROJECTION WILL BE ACCEPTABLE
TO TAXING AUTHORITIES. ALTERNATE MINIMUM TAXES ARE NOT INCLUDED.

YR	N.O.I.	YR END EQUITY	EQUITY DIVIDEND AMOUNT	YIELD ON ORG EQ	YIELD ON CUR EQ
1	*$1,155,807	*$5,147,020	$201,020	.0396	.0391
2	1,155,807	5,219,564	201,020	.0396	.0385
3	1,155,807	5,300,503	201,020	.0396	.0379
4	1,155,807	5,390,808	201,020	.0396	.0373
5	1,155,807	5,491,563	201,020	.0396	.0366

ORGINIAL EQUITY $ 5082000

The Ben Frederick Cash Flow (BFCF)[1] test for investment yield demonstrates that it is economic nonsense for the subject property to have an assessment of $13,200,000 because no investor would pay that price at a private sale. Tax exempt Madison municipal bonds yielding 7.6 percent as of January 1, 1980, would provide a better yield.

5. Conclusion

Since it is economically unreasonable for the assessed value as of January 1, 1980, to be $13,200,000, the appraisal issue is to estimate a proper fair market value of the subject property as of January 1, 1980.

B. Legal Interest to be Appraised

1. Property Identification

The subject property of this appraisal is the First Wisconsin Plaza in downtown Madison, Wisconsin, identified as 1 South Pinckney Street (see Exhibit 2 for location on the Capitol Square), and more specifically identified for tax purposes as tax parcel number 0709-133-2903-7.

2. Legal Description

The legal description of the subject property as provided by Attorney Richard C. Glesner of the law firm Ross & Stevens is as follows:

> For purposes of this appraisal, the legal description of the First Wisconsin Plaza shall be all of Block 102 in the Original Plat of the City of Madison, Dane County, Wisconsin except Lots 7 and 8 and the southeast 42 feet of Lot 6.

In addition the parcel enjoys the benefit of a forty-nine year lease of certain encroachments on City of Madison street right-of-ways further described as:

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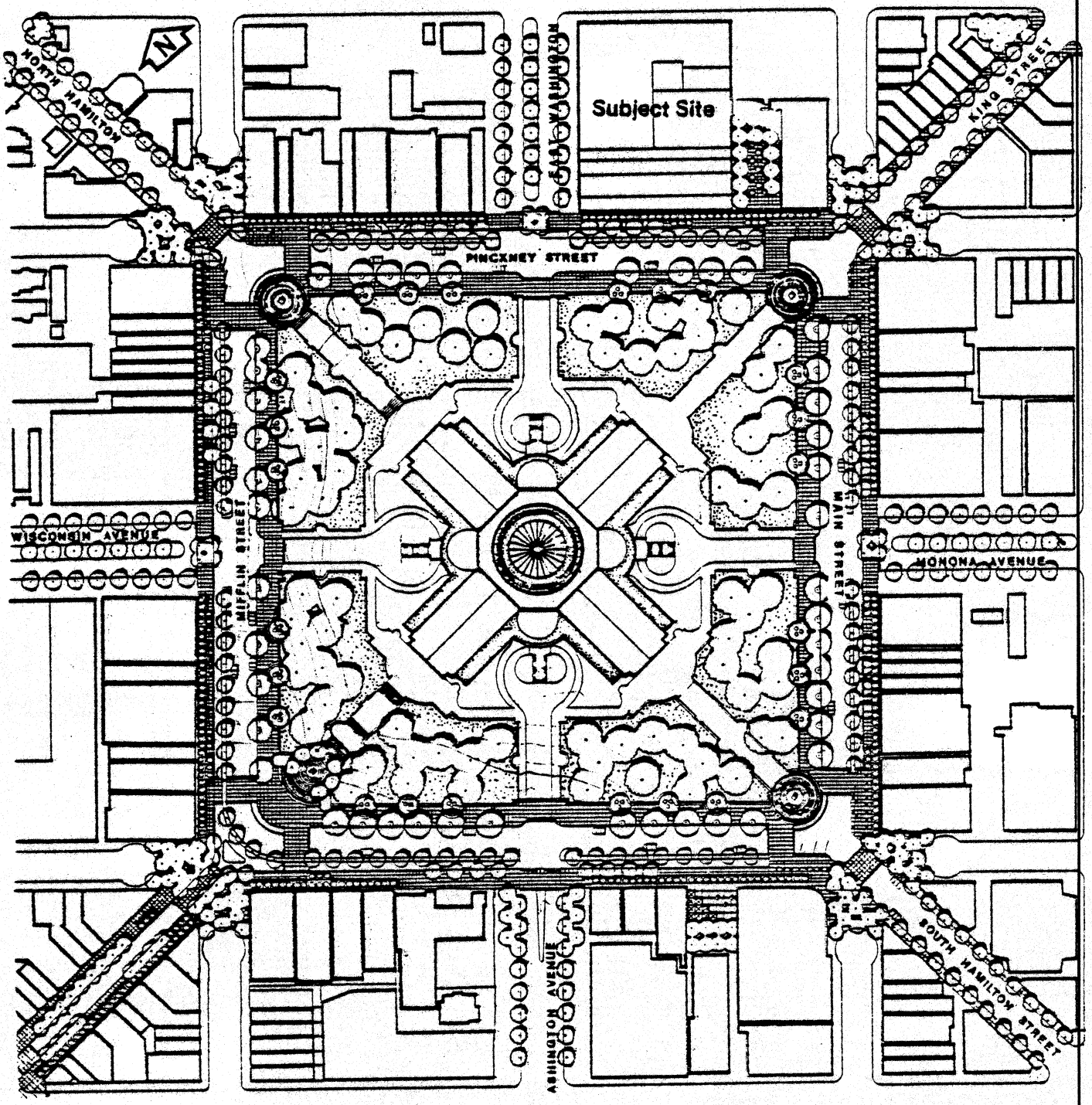
[1]BFCF is found in the library of progarms provided by EDUCARE Computer Network, Inc., on the General Electric Time Sharing Service.

EXHIBIT 2

LOCATION OF SUBJECT SITE



Part of South Pinckney Street, East Washington Avenue and South Webster Street adjacent to Block 102 of the Original Plat, City of Madison, Dane County, Wisconsin and being more fully described as follows: Beginning at the most Westerly corner of said Block 102; Thence South 45°-02'-30" East, along the Southwest line of said Block, 218.1 feet; Thence South 45°-00' West, 13.6 feet; Thence North 45°-02'-30" West, 218.1 feet; Thence North 0°-08'-37" East, 23.96 feet; Thence North 45°-00' East, 253.1 feet; Thence North 87°-50'-06" East, 23.05 feet; Thence South 45°-02'-30" East, 218.1 feet; Thence South 45°-00' West, 7.15 feet to the Northeast line of said Block 102; Thence North 45°-02'-30" West, along said Northeast line of Block, 218.1 feet to the most Northerly corner thereof; Thence South 45°-00' West, along the Northwest line of said Block 265.0 feet to the point of beginning. The top of the above-described encroachment will be 1.0 foot below existing sidewalk elevations and the bottom will be at elevation 40.75 based on Madison City datum.

3. Qualification of Legal Interests

The above legal description includes certain underground encroachments on City of Madison street right-of-ways according to the terms of a lease between the City of Madison and the First Wisconsin National Bank of Madison, which began on September 1, 1972, at an initial rent of $2,400 per year annually adjusted according to changes in the Consumer Price Index (CPI). These encroachments are identified in Exhibit 3, demarcating subject property lines and are shown in cross-section as subterranean parking vaults in Exhibit 4. A conditional use permit granted by the City of Madison gives the First Wisconsin Plaza the right to place the elevator housing and other superstructures above the Capitol View Preservation elevation limit.

4. Qualification of Property to be Appraised

The appraisal is to include only the real estate interests at the above location and will therefore exclude the value of all personalty subject to the personal property tax, whether utilized in general building operations or specialized for banking operations of the principal tenant of the building. The essence of the appraisal problem for assessment valuation is to consider only the value of the real estate should it be sold to a second user and

EXHIBIT 3

SUBJECT SITE DIMENSIONS

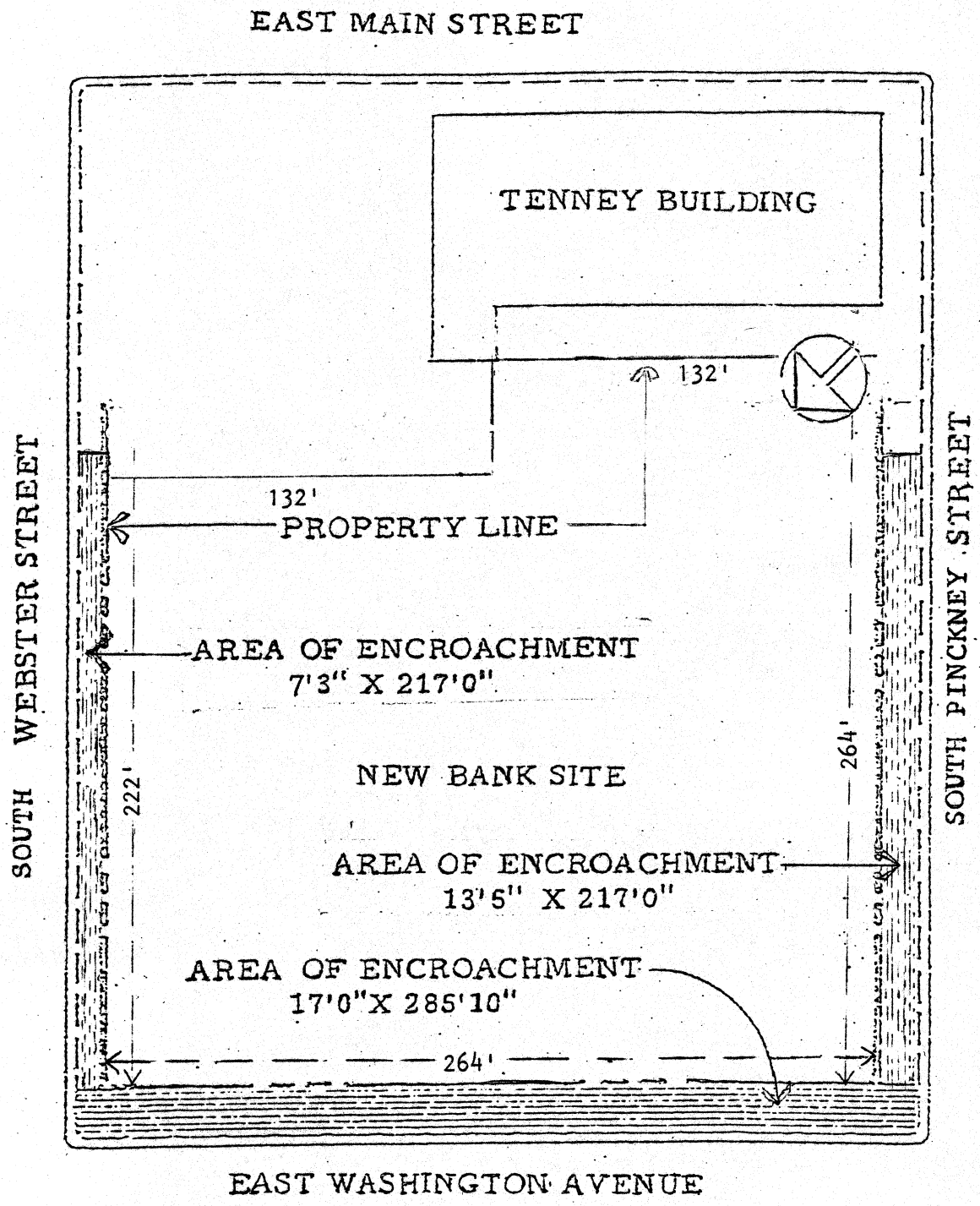
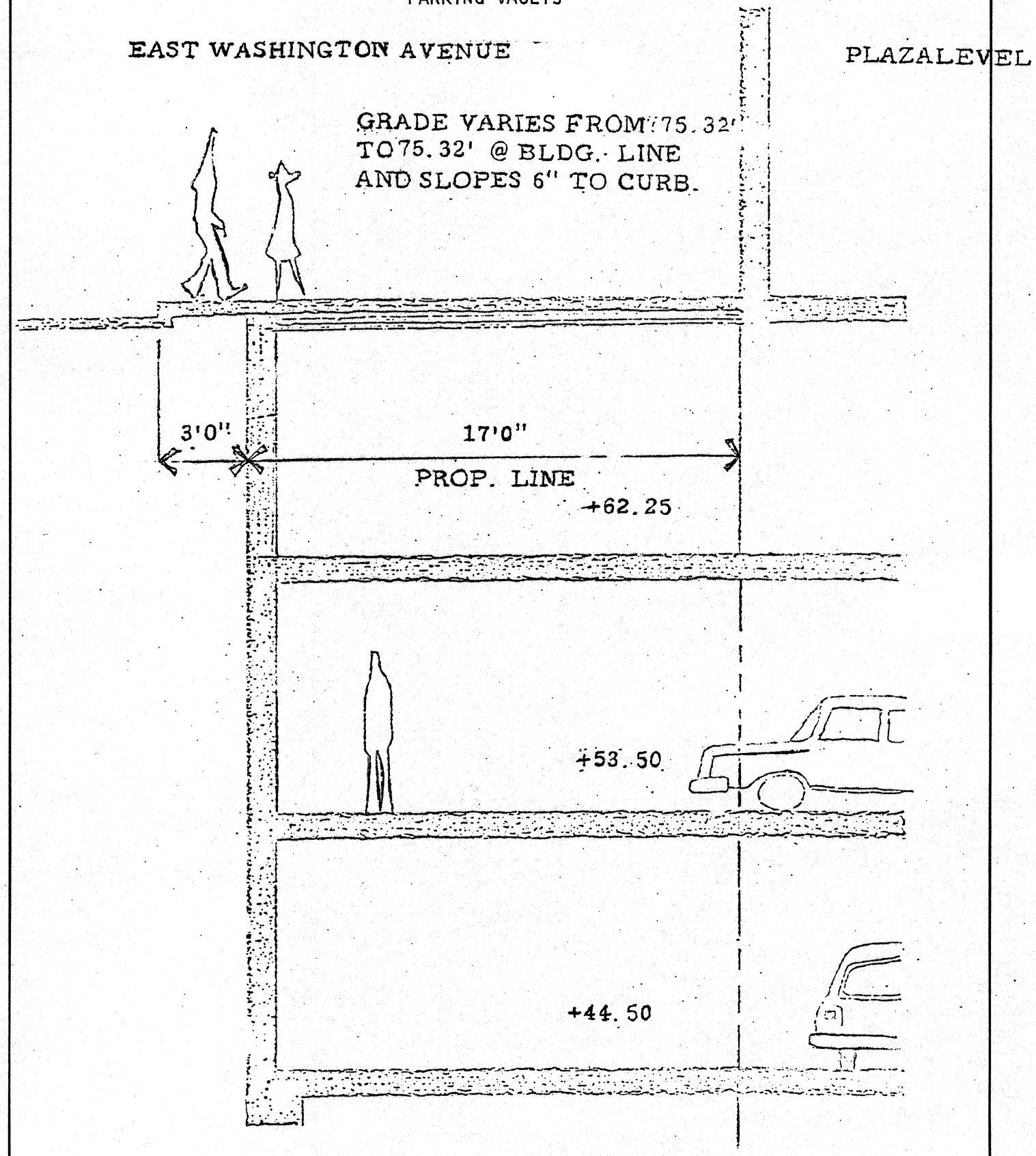


EXHIBIT 4

CROSS SECTION OF SUBTERRANEAN
PARKING VAULTS



SECTION

to disregard unique features of the building which probably have only subjective value to the original builder. (See State ex rel. Northwestern Mutual Life Insurance co. vs. V. Weiher (1922), 177 Wis. 445, pp. 449-450.

C. Selection of Fair Market Value Appraisal Methodology

1. Value Definition

For purposes of this appraisal, the most appropriate definition of fair market value is:

> Fair market value is the most probable selling price that is likely to emerge from a transaction involving the subject property if it were exposed for sale in the current market for a reasonable time at terms of sale which are currently predominant for properties of the subject type. Both buyer and seller are assumed to be knowledgeable about the property, to act prudently, in his own best interests, to be typically motivated, and to be free of unusual duress.

2. Limitations of the Market Approach

Although the appraisal process would prefer to base valuations on actual sales of comparable property where buyer and seller were under no unusual duress and where no special financing, that is, financing not obtainable in the marketplace, was provided by the seller, there have been no such transactions for major, fully modern Class A office buildings (in excess of 200,000 square feet) in downtown Madison in the past few years.

The Lorraine Building with 138,000 square feet of net leasable area (NLA) is most comparable in size, but it was built in the 1920s as a hotel and was sold in 1968 to a group of Madison investors for conversion to office space. No on-site parking was provided. By 1975 almost the entire space was leased to the State of Wisconsin for offices. In 1978 the State, virtually the only tenant, purchased the property for $2,896,000; a land contract, structured to be payable in five annual installments, with interest at 4.4 percent tax exempt (equivalent to an 8.8 percent interest rate for a seller in the 50 percent tax bracket) produced certain income tax parameters to

the sellers. Though the sale was considered to be negotiated at arm's length, the State was in the advantageous position of choosing between a purchase and a long-term lease. The 1978 sale price of $21 per sq. ft. of NLA appears to be engineered and is far less than the $45.70 per sq. ft. of NLA purported by the assessor's office to be the fair market value of the subject property.

Though the 30 on the Square Building, constructed in 1965, lacks on-site parking, it has access to underground parking for its tenants at the adjacent Concourse Hotel. The building is less than a quarter the size of the subject property, but of all the comparable sales of downtown office buildings, 30 on the Square most closely approaches the criteria for Class A office space. Its most recent sale on December 30, 1977, was a restructuring of the partnership. A 90 percent interest was transferred from the 30 on the Square Associates to the Mifflin Associates, a partnership, based upon a negotiated price of $2,555,500 for the property. Favorable financing terms included a wrap around of the existing mortgage and a 30-year land contract at 8 percent interest. The sale price of $38.88 per NLA as of December 30, 1977, is apparently not recognized by the Madison Assessor as the fair market value because he has reduced it to $32.71 per NLA cash equivalent to adjust for the favorable financing and tax engineering which underlies the less than arm's length price.

The Class B office buildings in downtown Madison which have sold in the past few years include the Tenney Building, the Emporium, the Jackson Building, and the former Ray-O-Vac Building (now the Federal Center); all required extensive renovation by the buyer. None of these buildings have enclosed parking and are all less than half to a quarter the size of the subject property. Even if these sales, which range from $11.80 to $22 per sq. ft. of NLA were considered as comparable, the resulting fair market

value for the subject property would be far less than the 1980 assessment of $13,200,000.

Thus, only two sales, the 30 on the Square Building and the Lorraine Building, are somewhat comparable to the subject though questions can be raised regarding their exposure on the market for a reasonable time at terms currently predominant for similar properties. Even if these sales were used as comparables, the resulting fair market value for the subject would be less than the current assessed value of the First Wisconsin Plaza.

3. Limitations of the Cost Approach

While many appraisal textbooks still recommend the cost approach to value, it is only acceptable when the improvements are new and represent the optimum use of the property in question. While the subject property, built in 1974, is new the improvements are unique to the purposes of the owner, inefficient in terms of construction style and operation, and replete with features such as public spaces and exorbitant finishing details which have little value to a second user who seeks investment efficiency. Not only does the subject property miss the mark as the optimum improvement for the site required for the cost approach, but the cost approach has been discredited by Wisconsin courts where there is any other appropriate basis for valuation. Since the subject property will only be sold as an investment property to a second user, the income approach properly applied on a before tax basis is the only method appropriate to the valuation question at hand. The cost approach has not been used in this appraisal as it is irrelevant to the second user and inaccurate, in any case, due to the functional and economic obsolescence inherent in the structure today.

4. Relevance of the Income Approach

An office building is a vehicle for purchase of investment income and appreciation, not unlike any other cash cycle investment with a series of

returns. The relationship of outlays and receipts in time and quantity determines investment rate of return. Conversely, if the investment return desired is assumed and net receipts can be estimated, the relationship can be reversed to determine the maximum outlay, i.e., probable purchase price, which could be justified by the investor. (See Section III and Exhibit 17).

5. Legality of the Income Approach

The Wisconsin Supreme Court generally prefers the price determined from fair sale of comparable property as the best approach to fair market value, but where the fair market value is not established by comparable sales, the assessor is required to consider all the facts and circumstances which have a bearing on the property's fair market value including occupancy, rental conditions, and income.

a. The Supreme Court of Wisconsin has stated:

> If income be considered and the capitalization of income formula applied, net income not gross income should be considered.

b. More recently in Dane County Circuit Court, Judge George R. Currie instructed the City of Madison Board of Review in Case No. 140-201, Wild, Inc., the relator, relative to the office building VIP Plaza, now known as the James Wilson Plaza, as follows:

> The Property Assessment Manual for Wisconsin assessors published by the Wisconsin Department of Revenue states (pp. 6-16) that for "Apartment Buildings", "Office Buildings", and "Store Buildings", the "income approach", to valuation is the "most applicable" where actual sales data of the property or comparable property is unavailable. This manual is issued pursuant to Section 73.02 (2a, Statutues) and is for use of assessors in assessing real property.
>
> The use of an income approach to valuation in arriving at the fair market value of property has often been approved by the Wisconsin Supreme Court. State ex rel. Garton Toy Company vs. Mosel, supra, 259; State ex rel. IBM Corporation, supra, 311-313; Rahr Malting Company vs. Manitowoc, (1973) 225 Wisconsin 401, 405; State ex rel. Northwestern Mutual Life Insurance Company vs. Weiher, supra, 450.
>
> Moreover, it must always be kept in mind that in attempting to arrive at the fair market value of real property for tax assessment purposes, the yardstick is the amount for which the property could be sold in the open market by an owner willing but not compelled

to sell to a purchaser willing but not obligated to buy. In purchasing an investment property, such as the VIP Plaza or El Espanade, the prospective purchaser--investor will expect a fair return on his investment and is sure to be more interested in the potential income of the property than the cost of its brick and mortar. This is equally true whether he is purchasing a completed building or one only half completed.

II. PHYSICAL ANALYSIS OF SUBJECT PROPERTY

The market value of the property depends on its income investment productivity which can be attributed to the interrelationship of the physical site and the improvements.

In analyzing the subject property, it is useful to review the physical attributes and improvements, the legal attributes constraining use of the parcel, the linkages of the property location to generators of office and retail demand which will determine its revenue potential, and the dynamic attributes of the site, that is, how people perceive and behave relative to the property.

A. Physical Attributes of the Site

The subject property is located on Block 102 of the original Madison plat which is bordered by East Washington Avenue, South Webster Street, and South Pinckney Street (Exhibit 5), and is contiguous to the Tenney Building which is the only other property located on Block 102.

1. Area

The First Wisconsin Plaza site contains all of Block 102 less the area of the Tenney Building site or 87,120 square feet less 22,968 square feet for a total of 64,152 square feet.

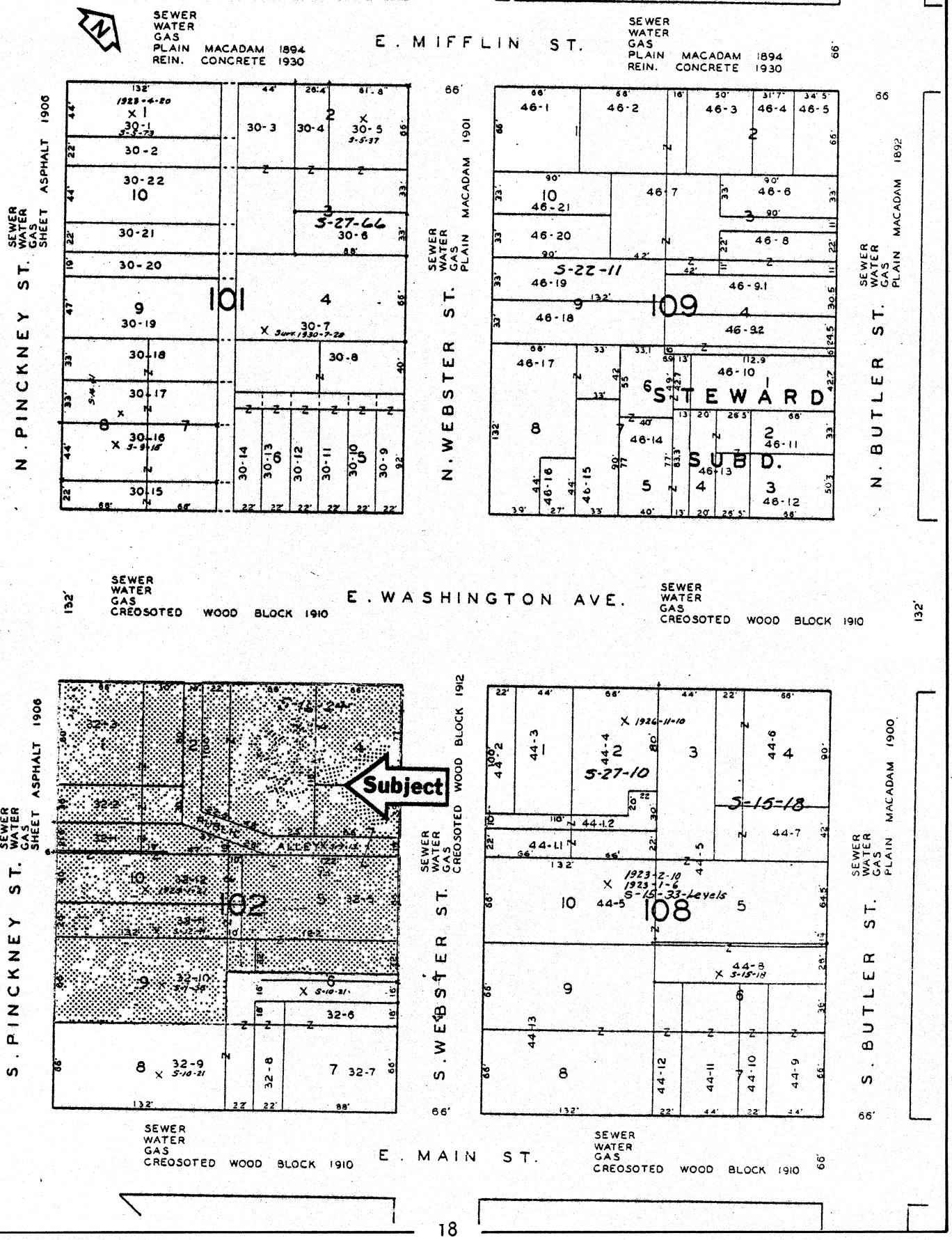
It should be noted that current City of Madison records correctly allocate 22,968 square feet to the Tenney Building site and incorrectly allocate 76,538 square feet to the First Wisconsin Plaza for a total of 99,506 square feet which is 12,386 square feet more than can be contained in Block 102 which measures 330 feet by 264 feet.

2. Topography

The Capitol Square area is a hill between Lake Mendota to the north and Lake Monona to the south. The hill drops sharply to almost lake level within two blocks of the Square, giving prominence to the Captiol and major

EXHIBIT 5

PARCEL MAP



business buildings at the City's center. Accent on this elevation is strengthened by controls on building height within a mile of the Capitol. (See Section II, B, 1, Capitol View Preservation).

Topography of the site is nearly flat relative to Pinckney Street and East Washington Avenue elevations, but slopes down from East Washington along Webster Street frontage almost 9 feet, providing convenient access to loading docks and parking ramps at the far corner of the site on Webster.

3. Soils

Soil conditions are essentially sandy loam and very suitable for high rise construction. No special foundation problems were encountered, and the lowest level of parking is at Madison datum 44.50 or 31 feet below first floor grade of 75.40.

4. Water and Sewer Service

A 10-inch water main is available on both Pinckney Street and East Washington Avenue, and the subject property takes an 8-inch fire main and a 4-inch domestic main off both streets. There are two 6-inch sewage connections from the subject property to the sewage main on East Washington Avenue.

5. Storm Sewer

The site is connected to a 12-foot storm sewer on Main Street via two connections to a feeder line on Webster Street.

6. Other City Services

City of Madison Fire and Police serve the site, with a central police station three blocks away and the central fire station seven blocks away. Maximum reach of city aerial ladders is 100 feet, i.e., eight of nine floors in the subject property. Sidewalks, curbs, and gutters were reconstructed around the subject property in 1974-75. Webster Street was also resurfaced, and Pinckney Street and East Washington Avenue were rebuilt in the latter 1970s as part of the downtown revitalization program called the Capitol Concourse Plan.

B. Legal-Political Attributes of the Site

The subject property is zoned C-4, central commercial district. This district is intended to accommodate uses which are of city-wide, regional, or governmental significance. In addition, retailing and specialized commercial activities such as restaurants are appropriate.

1. Capitol View Preservation

According to Section 28.04(14)B of the Madison General Ordinance:

> All buildings or structures erected, altered or enlarged shall be subject to the following regulation. No portion of any building or structure located within one mile of the center of the State Capitol building shall exceed the elevation of the base of the Capitol dome column, or one hundred eighty-seven and two tenths feet (187.2) from city datum of 0.00.

This subsection was established to preserve as well as to promote and enhance the view of the State Capitol building. The First Wisconsin Plaza roof is at a level of 186.74 feet, within the elevation limit, but elevator housings and other superstructures reach a maximum elevation of 201.66 feet, thus encroaching on the Capitol view zone as a result of a conditional use permit granted by the City of Madison. The elevations are given in reference to the city datum (0.00) which is approximately the top of the water on Lake Monona and is established as 845.6 feet above sea level.

2. Madison Plan Commission

All new construction and any major alteration of an exterior building face must be approved by the Madison Plan Commission because of the community's objective to develop and maintain this district as a community and state-wide center for business, service, and government.

To encourage pedestrian activity and movement on the completed Concourse, John Urich of the City of Madison Department of Planning and Development had in the past indicated his department would attempt to discourage by administrative review and, if possible, by new ordinances the use of the ground floor space for private office facilities. Restaurants, banking

tellers, retail stores, theaters, and the like would create the desired pedestrian activity over broader spans of day and night than office space. The Madison Department of Planning and Development has not been exercising this administrative review potential and as a result, offices have been established on the first floor of the Churchill Building and in the Center Seven Building. Space has just been rented in the Center Seven Building to an employment agency with no interference from the Madison Department of Planning and Development.

3. Capitol Concourse Project

The City of Madison has completed two phases of the Capitol Concourse/ State Street Mall Project designed to refurbish the retail core area of the central business district (CBD). The original plan targeted 1977 as the completion of all three phases. To date, Phase 3 has just started in the summer of 1980; city construction activity in 1978-79 had concentrated on the completion of the Madison Civic Center on the corner of Henry Street and State Street.

Originally, Concourse planners proposed the closing of the Capitol Square to private automobiles, but because downtown property owners were expected to finance the project through special assessments, many compromises were made; a final traffic pattern is detailed in Exhibit 6. The lack of parking in the CBD is the most serious and most frequently stated complaint about the downtown area. This deficiency has continued to plague investors in first-floor retail space in the CBD.

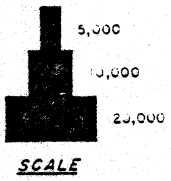
During the construction period prior to the reopening of the Concourse In November, 1977, many retail stores closed; as of January 1, 1980, only the larger retail spaces of 5,000 to 6,000 square feet are still vacant. (Exhibits 7 and 8).

The Capitol Concourse Project is being financed by a special assessment

EXHIBIT 6

TRAFFIC FLOW MAP AROUND THE CAPITOL SQUARE

	1979 CENTRAL BUSINESS & CAMPUS AREA TRAFFIC FLOW MAP	DWG. NO. TS 8001
SCALE NOTED	CITY OF MADISON, WISCONSIN DEPARTMENT OF TRANSPORTATION DIVISION OF TRAFFIC ENGINEERING	1 OF 1
		2-22-80
		J.E.L.



LEGEND

000	1979 TRAFFIC VOLUMES
000	1978 TRAFFIC VOLUMES
000*	1978 TRAFFIC VOLUMES AFFECTED BY CONSTRUCTION OR DETOUR
000[1]	PREVIOUS TRAFFIC VOLUMES
000[2]	ADJUSTED TRAFFIC VOLUMES

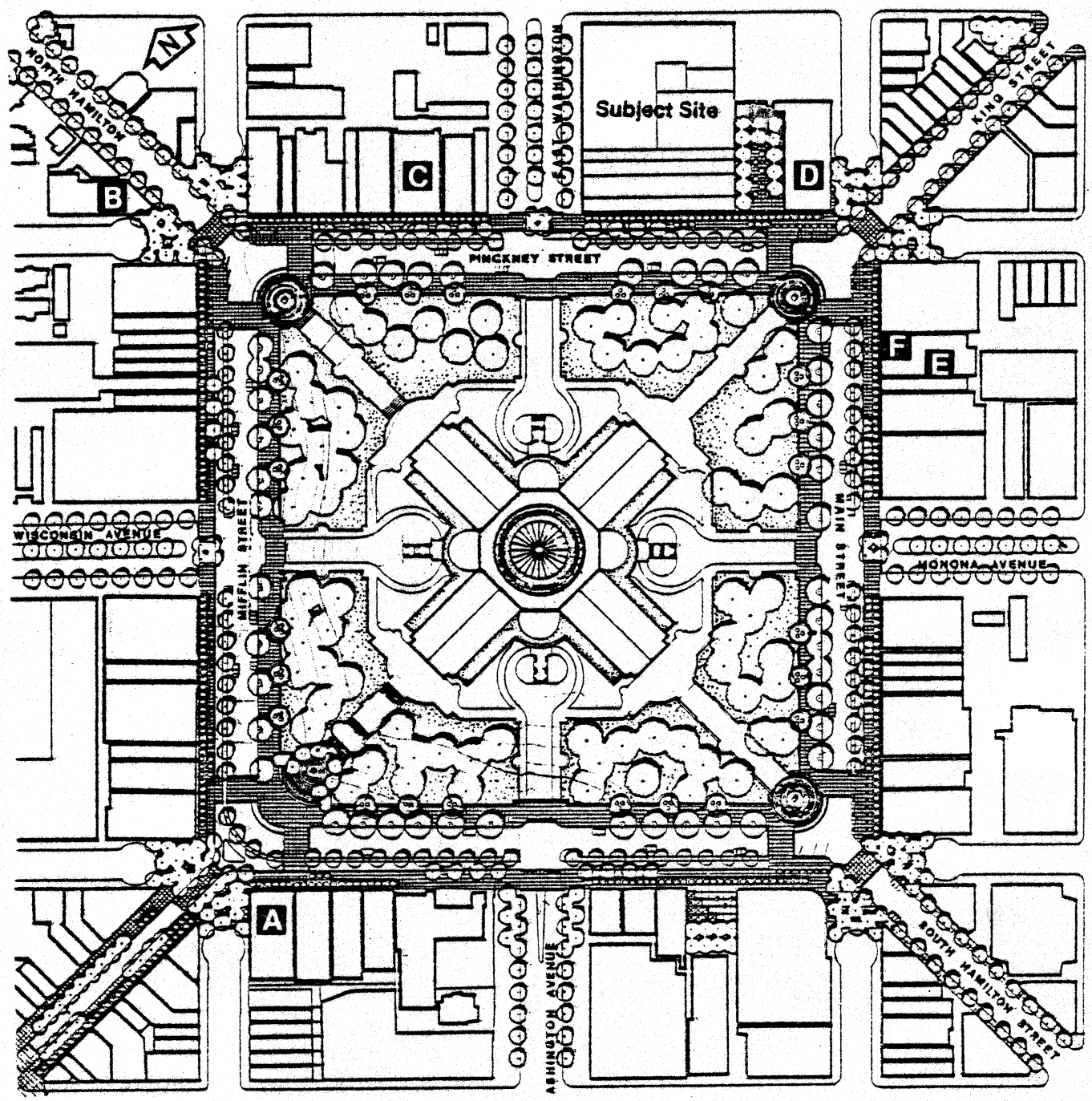
TRAFFIC VOLUMES SHOWN REPRESENT THE NUMBER OF VEHICLES PASSING IN BOTH DIRECTIONS UNLESS INDICATED BY ARROW AS ONE-WAY TRAFFIC DURING AN AVERAGE 24 HOUR WEEKDAY.

LAKE MENDOTA

LAKE MONONA

EXHIBIT 7

LOCATION OF RETAIL VACANCIES



A	Wolff Kubly	20 N. Carroll Street
B	Jackson	102 N. Hamilton Street
C	Centre Seven	7 N. Pinckney Street
D	Tenney	110 E. Main Street
E	Dartmouth Direct	17 E. Main Street
F	King Shoe Store	21 E. Main Street

FIRST FLOOR RETAIL VACANCIES ON THE SQUARE
EXISTING OR KNOWN TO BE AVAILABLE
AS OF JANUARY 1, 1980

Building	Address	Approximate Square Footage	Period of Vacancy
Wolff Kubly	20 N. Carroll St.	6,000	60 months
Jackson	102 N. Hamilton St.	6,000	52 months
Centre Seven (formerly Baskin O & V)	7 N. Pinckney St.	4,870	26 months (since Baskin O & V vacated)
Tenney	110 E. Main St.	5,500	7 months
Dartmouth Direct	17 E. Main St.	5,630	30 months
King Shoe Store	21 E. Main St.	2,550	32 months
		30,550	

EXHIBIT 8

prorated by land area and its proximity to the Capitol Square. The final special assessment for the subject property is detailed in Exhibit 9.

4. Regulation of Bank Locations

The establishment of new state chartered banks, and the branching of either state chartered or national banks is regulated by the State Banking Commission subject to State Statutes 221.04(j). The establishment of new national banks is regulated by the district Comptroller of the Currency. Both of these government agencies have no written regulations prohibiting the establishment of a new bank, but each agency has the power to deny a new charter if its believed a new bank cannot be economically supported and profitably operated in the area.

Branching, strictly controlled by State Statute, is not allowed in any municipality already served by a bank or branch and if a bank or branch is located within a radius of three miles from the proposed site of the branch.

Chapter 221.14(1) of the Wisconsin State Banking Laws also restricts the ratio of fixed assets (bank premises, furniture and fixtures) to capital stock plus surplus of no more than 60 percent. National banks must seek the special approval of the Regional Administration of the Comptroller of the Currency if fixed assets are more than 50 percent of equity capital (capital stock, surplus, undivided profit and contingency reserves). Each request is judged individually.

The State Commission of Savings and Loans has few written restrictions regarding the establishment of new and branch offices; any applicant will receive a hearing. The Commission bases its decision on economic conditions and the public interest. A branch cannot be established more than 100 miles from the home office. The only restriction regarding fixed assets is that a savings and loan cannot have more than its net worth in its real estate.

The First Wisconsin Bank Corporation is by far the largest holding operation in the State of Wisconsin so it is unreasonable to assume that a hypothetical sale of the First Wisconsin Plaza would require vacating banking floors.

EXHIBIT 9

FIRST WISCONSIN PLAZA
SPECIAL ASSESSMENT FOR
CAPITOL CONCOURSE

Year	Principal Balance	Annual Principal	Annual Interest	Total to Be On Tax Roll
1978	64,967.16	6,496.72	2,923.52	9,420.24
1979	58,470.44	6,496.72	3,508.23	10,004.95
1980	51,973.72	6,496.72	3,118.42	9,615.14
1981	45,477.00	6,496.72	2,728.62	9,225.34
1982	38,980.28	6,496.72	2,338.82	8,835.54
1983	32,483.56	6,496.72	1,949.01	8,445.73
1984	25,986.84	6,496.71	1,559.21	8,055.92
1985	19,490.13	6,496.71	1,169.41	7,666.12
1986	12,993.42	6,496.71	779.61	7,276.32
1987	6,496.71	6,496.71	389.80	6,886.51

But if this were the case, it is not clear that the State Commission of Banking or the Comptroller of the Currency would approve a new bank moving to the Capitol Square which is already saturated with banks and savings institutions. The most probable situation if the First Wisconsin, downtown Madison's only national bank, vacated the Square, is that the Comptroller would consider another national bank as a replacement.

Given the strong probability that an investor-purchaser would negotiate for the continued occupancy of the bank as a major tenant (currently 42.9 percent of the NLA), this appraisal will assume that the sale of First Wisconsin Plaza would be subject to a lease at market rate for space required to continue banking operations.

C. Linkage Attributes of the Site

1. Government Office Ties

The primary linkages of the site are those related to government functions dominating the Square. Directly to the west across the street is the State Capitol building; directly to the east of the First Wisconsin Plaza is the complex of new state office buildings, GEF I, II, and III, with more than 489,000 square feet of gross building area. Across East Washington Avenue to the north is the Federal Center, formerly the Ray-O-Vac Building, which now houses the local branch of the Internal Revenue Service. To the southwest of the subject property, three to four blocks away, are located both the City-County Building and the original State Office Building.

2. Pedestrian Linkages

The Mifflin Street side of the Square commencing at State Street is considered to be the stongest retailing area on the Square. On either side of the subject property there are still first floor vacancies in the Center Seven Building on North Pinckney, in the Tenney Building, in the former King Shoe Store and in Dartmouth Direct Building on East Main. There is a lack of

heavy pedestrian generators in the area of the First Wisconsin Plaza except for employees in nearby office buildings. Only Pinckney Street has good exposure to pedestrians on the Square. Due to poor visibility, there is little interface between the retail stores on the first floor of the subject property and the pedestrian traffic on the Capitol Square.

3. Automobile Linkages

Automobile access to the site is circuitous. If approaching from East Washington Avenue, a left turn on Butler Street and a right turn on East Main Street are required to approach the only entrance to the parking garage of the subject property on Webster Street, which is one-way in a northerly direction. If approaching from the west side of the Square, a driver must find Doty Street via Monona Avenue off the Square to enter Webster Street. Only public vehicles are allowed to exit the Square onto Main and King Streets. Only a driver familiar with the Capitol Square's traffic patterns can quickly locate First Wisconsin Plaza's parking garage. (Exhibit 6). The bank has found it necessary to locate important drive-in bank facilities on a cramped site on North Webster Street which is a half block away and is out of site of its main building.

4. Public Parking

The site is one block south of the McCormick city parking ramp on the northeast corner of Webster and Mifflin Streets. The three to ten hour meters were removed early in 1980, and parking is now controlled by a parking control arm and ticket system. The Doty city parking ramp, two blocks south of the subject's site, also has a similar conversion of meters to a traffic arm and ticket system, which were installed early in 1980 also. The pedestrian route from the McCormick parking ramp to the subject property is a tedious uphill trip; pedestrians walking to the subject site from the Doty Street ramp must pass through the King Street/East Main Street section, which is

reported to be the heart of the red-light district near the Capitol Square.

5. Business Linkages

The most important linkages in Madison, aside from the General Executive Facility complex and the Capitol building, are the Madison Club, the City-County building with its old Federal Post Office annex, and the original State Office Building. Though only three blocks away for pedestrians, these buildings are eight to ten blocks away by automobile due to the dictates of the one-way street pattern.

The center of gravity for financial institutions and office buildings is moving toward Carroll Street and West Washington Avenue with the purchase of the Lorraine Building by the State, the construction of the United Bank Building, the completion of a new addition on the James Wilson Plaza, the construction of the Investors Services Building, and a new addition to the Anchor Savings and Loan Building, with a new Federal Building to be erected soon on Henry Street between Mifflin Street and Dayton Street.

The Park Motor Inn and the Concourse Hotel are becoming convention centers and areas of political activity; these buildings are two long pedestrian blocks away from the subject property, or four blocks by car.

Thus, the site is some distance from recent new construction of private office space on and near the Square, and is at the diagonal opposite of the hub of the retail center on the Square near State Street, Mifflin Street, and Wisconsin Avenue. The site does not have convenient accessibility for the automobile. It does enjoy city bus service, including shuttle bus service around the Square with a stop at its front door. The site is dependent upon its identification with the Capitol Square and its topographic elevation for its marketing power.

D. Site Dynamics

Dynamic attributes have to do with how people perceive the location and behave relative to it.

1. Inconvenience of Access

Convenient access by foot and by car obviously contributes to how people favor or shun the site. Auto access requires careful planning of the approach by the driver seeking to leave a passenger at the front door or to park in the basement garage of the subject property. Such planning requires previous familiarity, as neither city nor private signage is adequate to guide a stranger through Madison.

2. Time Constraints upon Utilization

Since the subject property is surrounded by single-use office buildings, its general environment is abandoned after normal business hours so that many people would find it threatening. East Main Street contains several seedy bars, while East Webster is like a canyon between the GEF complex and the subject building.

E. Physical Attributes of the Building and the Site Improvements

The present First Wisconsin Bank Plaza replaced an earlier bank office building, a former city fire house, and miscellaneous low-rise structures. Site clearance and construction began in October, 1972, with substantial completion and initiation of bank office operations by April, 1974. Original plans called for the replacement of the Tenney Building with a wing similar to the facade on East Washington Avenue to enclose the plaza on the east, but these plans were shelved as non-economic. The only remaining link with the Tenney Building is an agreement with its purchaser to limit the building's uses to office, with first floor use limited to retail or to food service. Also, the Tenney Building must secure the First Wisconsin's approval to build a parking structure on the Tenney site.

1. Design of the Basic Structure

The basic structure of the nine-story First Wisconsin Plaza building is reinforced concrete, sheathed with a curtain wall of insulating glass set in a white anodized aluminum mullion grid system. Below grade is a sub-basement containing safe deposit vaults, cash vaults, storage, and office space. There are also two full levels of parking (G-1 and G-2) below the sub-basement. Small greenhouses front the Pinckney Street facade on the fourth floor plaza. A set of floorplans is provided in Appendix A, and newspaper articles critiquing the building when it opened are found in Appendix B. The first three floors cover the building site and include a glassed-in pavilion (the greenhouse along South Pinckney Street) which encloses major trees and other plantings. Floors four through nine are L-shaped around the landscaped plaza on the roof of the third floor. Pictures of the First Wisconsin Plaza building are found in Exhibit 10.

2. Design Conflicts

The building was designed by the nationally known architectural firm of Skidmore, Owings & Merrill (SOM) as an architecturally tour de force and the design concept has been highly controversial in Madison. No sooner had the building been completed than the initial energy crisis and concern for heating efficiency led to criticism of the building for its presumed heat loss attributed to its glass wall system. However, the opposite is true. The solar heat gain together with the heat generated by lights, equipment, and the body heat of the occupants necessitates the use of the air conditioning system on all but the coldest winter days. A special Mylar film was added to the sloped glass roofs in order to screen out 85 percent of the radiant heat which could build up to temperatures of 180° in one day to make desk tops, chairs, and the smallest items of equipment such as staplers too hot to touch. The Mylar film decomposed in a very short time; in 1979 at a

EXHIBIT 10

CURRENT PHOTOGRAPHS OF SUBJECT PROPERTY

VIEW FROM INTERSECTION OF S. PINCKNEY STREET AND
E. WASHINGTON AVENUE LOOKING EAST

VIEW FROM INTERSECTION OF E. MAIN STREET AND
S. PINCKNEY STREET LOOKING NORTHEAST

EXHIBIT 10 (Continued)

VIEW FROM INTERSECTION OF WEBSTER STREET AND
E. WASHINGTON AVENUE LOOKING SOUTH

Entry to Parking Garage from Webster Street

VIEW FROM INTERSECTION OF WEBSTER STREET AND
E. MAIN STREET LOOKING NORTHWEST

EXHIBIT 10 (Continued)

Comparison of First Wisconsin Plaza and GEF Complex

VIEW FROM E. WASHINGTON AVENUE
LOOKIN SOUTEAST ONTO WEBSTER STREET

Comparison of First Wisconsin Plaza and Tenney Building

VIEW FROM CORNER OF PINCKNEY STREET AND
E. WASHINGTON AVENUE LOOKING EAST SOUTHEAST

cost of $22,000, screens were placed four inches back from the glass on the fourth floor atrium to replace the Mylar film. The same correction was made in the sloping glass roof over the atrium of the main floor in January of 1980 at a cost of $32,000.

All vertical windows from floors two through nine are equiped with special Venetian blinds, which must be manually adjusted, to reflect considerable solar energy outward, thus wasting a potential heating resource. They are provided as standard equipment on all office floors to maintain uniform exterior appearance.

3. Basic HVAC System

The existing HVAC system, in part, consists of an air induction system which moves chilled or heated air, mixed with outside air, through a complicated computer-regulated system to induction units along all glass perimeter walls. Pushed out under pressure at the unit's top face, it sucks in room air at the side face to produce the desired room air temperature. In general, each 30 foot section of the air induction unit is regulated by an automatic thermostat. The internal zone of each floor, i.e., 15 feet in from the window, is regulated by a constant flow variable temperature distribution system through the ceiling lights. Room air is returned through ceiling lights that are not used as part of the distribution system. For the past year, engineering studies have been made to determine the cost effectiveness of a variable flow-constant temperature system. At this point in time, there has been no decision to make this expensive change on the already outdated HVAC system.

The two Kewanee steam boilers, series 300 horse power, are designed to have a maximum output of 12,554,000 BTUs per hour with an input of 12,554 cubic feet per hour of natural gas. These boilers also can be fired with No. 2 oil, but gas is the preferred fuel. Because the boilers can switch

from one fuel to the other, the First Wisconsin Plaza is eligible for a fuel discount from the Madison Gas & Electric Company. The boilers are supported with automatic controls and an exhaust system including a deaerating feed-water system. The control system is designed to use outside temperature and humidity information to provide the most efficient mix of natural, filtered, or mechanically conditioned air to reduce fuel costs. A list of the major heating, ventilating, and air conditioning equipment is found in Appendix C.

The original terminal reheat HVAC system was designed for year-round 24 hour operation of the boilers and the chillers. The discharge temperature of the air at 55° was designed to handle the hottest space in the building. The system kept the entire building at a constant, comfortable temperature of approximately 72°, but was extremely expensive to operate. The Federal Emergency Building Temperature Restriction Regulations, effective July 16, 1979, required thermostats in all public buildings to be set no lower than 78° F for cooling, and no higher than 65° F for heating, and no higher than 105° F for domestic hot water. Earlier, the Department of Industry, Labor, and Human Relations (DILHR) had reduced the requirements for the percentage of outside air required to be brought into the building. Management was given the clout it needed to increase the temperature of the discharge air to 65° F. Instead of blowing return heated air outside, it could be reused with a smaller percentage of outside air mixed with it. The elimination of the use of the preheat coils in all but the coldest temperatures was now possible. The end result was to greatly reduce the amount of energy needed to heat the building and even though there is a greater variance in temperatures throughout the building, the tenants who now have operating expense escalators in their leases are willing to sacrifice constant temperature for dollar savings.

One small chiller is needed even for the winter months for the southeast and southwest faces of the building. It is possible, currently, to have the Webster Street and East Washington Avenue sides of the building in need of heat to bring the temperature up to 68° F when the outside temperature is 0° F; at the same time the southeast and southwest sides of the building need air conditioning to counter the solar gain and to bring the temperature down to 78° F. The details of the ongoing energy savings management program instituted in the middle of 1975 are found in Appendix D.

4. Mechanical Control Systems

All mechanical systems are monitored by Johnson Controls JC 80 type display unit from a central security office, and a wide variety of secondary systems are provided including stand-by electrical generators on the ninth floor, a stand-by water pressure fire pump under the Pinckney Street sidewalk, and oil storage tanks located under G-2 below Webster Street. The No. 2 oil is used to fire the boilers when natural gas is in short supply. The building is completely sprinklered, and in addition, all plate glass interior walls and those overlooking the greenhouses feature a deluge system. Sprinklers in the above grade retail and office space are wet pipe systems, while the deluge system is a dry pipe system. Because of the danger of the pipes freezing, a dry sprinkling system is used in both garages. An air pressure of 50 pounds per square inch must be maintained in the pipes. Monitoring systems provide audible, visual, and teletype warnings and explanations of equipment status.

5. Plumbing Equipment

All plumbing pipes, fixtures, and valves are of the highest quality as required by SOM, as detailed in specifications of September 6, 1972, plans. Plumbing fixtures are of Kohler quality lines and carefully detailed for long-term attractiveness and service. All pipes are insulated to prevent heat loss or sweating, as appropriate, with all exposed pipes utilizing one-

piece, factory installed, insulation covers. Major items of plumbing equipment include:

Three steam hot water heaters, PK 403-18, utilizing the boiler steam generated during the heating season

Three seventy-five gallon gas hot water heaters manufactured by A. O. Smith used during cooling season

Two domestic water pressure booster pumps, 10 horsepower, by Synchro Flo

Two vertical, pedestal mounted in reinforced concrete pits, submerged type sump pumps, each with a capactiy of 200 gallons per minute

Two vertical, pedestal mounted, non-clog, heavy duty electric sewage ejectors each with a capacity of 100 gallons per minute

Two automatic water softeners, Bruner Model 224-BR2, each having an output of 22,500 gallons per tank regeneration and a service flow of 65 gallons per minute

The mechanical systems were designed to accommodate the original building design which would have occupied the entire city block. Given the building's actual size, the systems operate at 65 percent of total capacity. The excess capacity for out-of-service emergencies provides an added tenant convenience.

6. Elevator Equipment

Elevator service in the building is reasonably adequate but not of the same superior quality as other building fittings and equipment. The manufacturer has had to upgrade some of the maintenance and performance characteristics of the original equipment. The elevators are as follows:

One Armor 3,000 pound passenger-freight elevator, automatic doors, front and rear, cable traction at 500 feet per minute from savings deposit level to ninth floor

Three Armor 3,000 pound passenger elevators, cable traction, 500 feet per minute from street floor through ninth floor

Two Armor hydraulic 2,500 pound passenger elevators, 125 feet per minute from the lowest G-2 level to the first floor plaza

One Armor hydraulic 2,500 pound capacity restricted access passenger unit, 175 feet per minute, serving lowest G-2 level to the third floor

One Armor hydraulic security elevator, 2,500 pound capacity, 125 feet per minute, in bank area behind main teller counter, connecting savings deposit and bank plaza to the third floor

7. Interior Finishes

Interior partitions are generally steel studs 24 inches on center of no less than 20 gauge steel finished with dry wall appropriate to fire rating requirements. Walls may vary in height from lower side of drop ceiling to underside of slab depending on the function. Batt insulation is included as needed to meet required sound reduction classifications. In certain security areas solid concrete block walls have been used. Finished surfaces are in a special SOM white sand coat paint, or tile and stucco, as required. The first floor is finished in slate, which has proven difficult to clean; other rental areas are finished in composition tile or provided with carpeting by the tenant as part of the finishing allowance. Service area floors generally are finished in coated concrete. Parking ramp floors are specially sealed and coated to deter salt damage.

8. Ceiling System

A concealed grid acoustic tile ceiling is provided in all finished areas with a satin white factory finish. The deluxe suspension system is concealed with some removable 1 by 2 foot tiles approximately 5 to 10 feet apart to provide access to the concealed mechanical systems.

In the main lobby, the ceilings are 21 feet 6 inches in height, and in the mezzanine, the ceiling heights are 17 feet. The mezzanine was so structured to provide space below it for the air handling equipment that serves the lobby, the mezzanine, safe deposit area, the second floor, and one-half of the third floor.

9. Conclusion

The First Wisconsin Plaza is designed and operated to offer quality Class A office space to its tenants including enclosed parking, a cafeteria serving breakfast and lunch, and an athletic club for men.

The HVAC system combined with the double pane glass exterior constitute the building's biggest handicaps; as the energy crisis worsens, the system will become obsolete at an increasing rate in the future. To update the system, the following capital improvements must be considered:

a. The installation of a variable volume air handling system with variable volume control boxes located throughout the system will enable separate smaller spaces to control the amount of air required. The variable volume system uses smaller fans and horsepower motors which, in turn, use less energy; less air is moved through the existing duct system because not all building space users need the same amount of air at the same time.

b. The three temperature zones now existing incorporate too varied an area; currently, the worst case of temperature deficiency has to be dealt with even though much of the area in the zone does not need to be corrected. The building should be divided into smaller, more homogeneous areas.

c. A solar heat transfer system to trap and move heat generated through the exterior glass walls to colder parts of the building would have the added benefit of reducing chilling needs at the point of solar gain.

The first floor poses several problems if used for other than banking space. The high ceilings would make the cost of tenant improvements exorbitant if several smaller retail/office spaces are created. Merchandise retailing would be limited to those goods that would not be subject to fading from the exposure to sunlight coming through the glass walls and sloping roof of the greenhouse fronting on Pinckney Street. The space is overwhelming; it must be remembered that the plants, furniture, and bank fixtures are all personal property, and without these space filling items, the first floor would be cavernous. The mezzanine, used alone, would have poor access and would be difficult to rent as a separate space.

Though four hour fire walls are required in public buildings, the First Wisconsin Plaza was granted a variance to use glass walls and a deluge sprinkler system equivalent to a three hour fire wall because the entire building is protected by a multitude of sprinkler systems. Paul McCullum of the Madison Fire Prevention Bureau indicated that only a change to a more hazardous use of the space, such as the storage of flammable liquids, would change the fire rating classification of the subject property.

F. Dynamic Attributes of the Building

How people perceive the building depends upon their viewpoint: as a casual observer, a building tenant, or a professional critic.

1. Public Viewpoint

The First Wisconsin Plaza continues to receive mixed reviews. Some see it as a geometric intrusion upon the classic lines of the Capitol. Others see the building as progressive and visually striking. Most people still perceive it as a very difficult building to heat, not realizing that cooling it is the far greater consumer of energy.

2. Occupant Viewpoint

Once inside, the building receives good reception from both banking customers and tenants. The sunlit, open landscape greenery is a refreshing change in Madison's often dour climate. The bright white corridors, even in the safe deposit level, and the surprise vistas seen from varying viewpoints throughout the building are a pleasant change from government architecture or the new commercial concrete slab offices that dominate the downtown area.

3. Appraiser's Viewpoint

The garden terrace on the fourth floor has proven to be ineffective except as a view for the tenants. The architects' original plan for a high-grade restaurant did not take into consideration the lack of important marketing elements, such as visibility, linkages with the after-hour activity centers

such as theaters, convention centers, or high-income social areas (other than the kind found on East Main Street). None of these critical elements are present so the potential of the fourth floor plaza is wasted.

The high cost of liability insurance and the lack of adequate barriers, which if installed, would have an adverse effect on the clean lines of the building, prevent the use of the terrace as a casual recreational area.

The building design satisfies none of the traditional locational needs of enterprises such as the cafeteria on the second floor and the athletic club facility on the ninth floor, both of which offer their services to the public as well as to bank tenants. Currently, neither enterprise pays market rent and both are subsidized by the other building tenants. An investor would weigh the goodwill created by these amenities against the potential revenue lost from office use of the space.

The 18-inch thick walls for the safe deposit and cash vaults, large public spaces, and finishing details have little use to a second owner seeking investment efficiency.

4. Building Interface with Neighbors

The subject property offers a study in contrast when viewed in relationship to the aging Tenney Building, which had initially been slated for demolition to make way for the south wing of the First Wisconsin Plaza, which was intended to create a sense of balance in its overall design. To the east the complex of concrete mass which makes up the State General Executive Facilities, coupled with the counterpoint of the glass of the subject property, creates a canyon of Webster Street.

G. Market Demand Attributes

Effective demand for space in the First Wisconsin Plaza building can be subdivided among three submarkets: retail, Class A office space, and public parking. Retailing can be further subdivided between merchandise and recreational

services. Class A office space refers to the demand for modern buildings with central air conditioning and underground parking. Public parking refers to the hourly and monthly revenues generated by the parking facility; this submarket is referred to in the discussion of the demand for office space.

1. Retail Merchandise Space

Though the days of the large department store are gone for the Capitol Square, there has been a minor revival of smaller retail shops since the chaotic days of the construction of the Capitol Concourse in the mid-1970s.

As of January 1, 1980, the Wolff Kubly Building on the prime retail corner of State, Mifflin, and Carroll Streets had been vacant for five years. The former Manchester Store for Homes was purchased by a local investor and has been subdivided into several retail spaces, all of which are rented on the ground level. The Emporium was sold in 1977 to a developer for the renovation of office space and possible residential condominium construction; at that time the Emporium curtailed its retailing operation to the first floor and lower level of the building. Its survival today has been aided by the very favorable lease terms granted the seller (the Emporium operators). The recently renovated Atrium is now fully rented; Centre Seven, renovated by the same investors, began rent-up at about the time interest rates soared and retail rentals slowed. Its first floor was still vacant as of January 1, 1980. Dartmouth Direct and the King Shoe Store remain vacant, possibly due in part to the inactivity of the owner, Northwestern Mutual Life Insurance Company. The Tenney Building's first floor was still vacant as of January 1, 1980. (See Exhibits 7 and 8).

In the First Wisconsin Plaza, the Rennebohm-Walgreen Plaza Shop, with no pharmacy or food service, has a very favorable long-term lease with a fixed rent plus overage; to date no rent based on overage has been paid, but it appears this will occur in 1980. Two other merchandise retailers on the first floor, a jeweler and an optician, are paying market rent.

2. Retail Recreational Service Space

Retail recreational services such as travel agencies, specialty shops for art, books, or food, and restaurants remain active around the Square, with a concentration along State Street and on the first floor of office buildings. Several new luncheon oriented restaurants have recently opened on the southeast corner of the Square to pick up the new trade created by the GEF complex. The success of these restaurants will depend as much on managerial ability as on the traditional location value, given their concentration in one area. This importance of managerial expertise has been borne out by the success of the Library Lounge, first located in the basement of the James Wilson Plaza, and now located across the street in the lower level of the Investors Services Building. This is in contrast to the failure of Tio Pepe's in Madison, which had moved from rural Stoughton to the first floor of the United Bank Building.

The First Wisconsin Plaza has located its cafeteria facility on the second floor; the all-glass first floor design, banking operations, and a first floor restaurant were not mutually compatible. The cafeteria lease is on a percentage basis and though gross sales have increased on the average of 20 percent a year, the rent per square foot is currently below market at $4.24 a square foot. The net contract rent is even lower because the First Wisconsin Plaza has been carrying the maintenance expenses for the cafeteria. The receipts for 1980 to date show a decline in gross sales possibly due to the new competition for the luncheon trade. More managerial expertise is needed to compensate for the problem of low visibility. Thus, the location of the kitchen facilities on the second floor and the open glass walls on the first floor have created a doubling of functional obsolescence relative to the higher rent that could be obtained for office space on the second floor and the potential demand lost for restaurant service

on the first floor. A secondary loss is the traffic to the other retail stores that might be generated by a restaurant on the first floor.

The William Jon Salon, located on the first floor of the subject property, was able to negotiate a minimum fixed rental lease plus a percentage of gross for a long term; the overage feature has never become operative and is unlikely to do so in the near future, thus keeping the contract rent paid well below market rent.

Retail service tenants, in general, are able to demand and receive percentage leases with a relatively low fixed minimum rent from the office complex, hotel, and other building owners seeking service amenities to increase the convenience of their locations. Retail recreational services, specifically, depend upon high pedestrian count and high concentrations of nearby apartment residences, student groups, or employees. Pedestrian counts and employee concentration are the only advantages of the First Wisconsin Plaza from nine to five, and therefore, first floor retail service space is second rate relative to space closer to the Madison Area Technical College, hotels, or the after-hour night spots of State Street.

3. Class A Office Space

In the opinion of one Madison developer, Madison blew it years ago when the downtown parking problems were not solved. The real survivors of this error are the buildings which offer Class A office space complete with parking and other amenities. The availability of parking and the synergism of critical mass have created the demand for this quality space. Vacancies average a low of 1 percent. (See Exhibit 11 and 12).

4. Class B and C Office Space

The lack of parking, the State's move of many offices to the GEF complex, and the renovation of several downtown buildings have left this class of office space with a large inventory overhang. The Jackson Building with

EXHIBIT 11

MADISON DOWNTOWN OFFICE SPACE[1]
As of January 1, 1980

Building	Location	Total Square Feet Rentable	Vacant Space	Annual Rental Rate Per Square Foot	Services Provided
Class A					
United Bank	222 W. Washington Ave.	160,000	0	$9.50-10.00	Full Services
First Wisconsin Plaza	1 S. Pinckney St.	289,800	0	10.00-12.00	Full Services
Anchor Savings & Loan	25 W. Main St.	90,000	0	7.25	Full Services
				8.50 new bldg.	Full Services
James Wilson Plaza	131 W. Wilson St.	105,000	6,000	9.75	Full Services
Verex	150 E. Gilman St.	106,200	3,000	10.00-11.50	Full Services
National Guardian Life[2]	2 E. Gilman St.	66,400	0	9.50	Tenant pays Electricity
Total		817,400	9,000 (1.1%)		
Class B & C					
Churchill	16 N. Carroll St.	40,000	0	6.25	Tenant Pays Electricity
Tenney	110 E. Main St.	76,000	9,000	7.00-8.00	Tenant Pays Electricity
National Mutual Benefit	119 Monona Ave.	41,800	750	6.00-7.00	Full Services
30 on the Square	30 W. Mifflin St.	65,000	6,000	8.75	Full Services
Jackson	102 N. Hamilton St.	20,000	20,000	Negotiable	Some Services
Atrium	23 N. Pinckney St.	15,000	270	6.00-9.00	Includes Utilities
Centre Seven	7 N. Pinckney St.	21,000	18,000	7.25-8.75	Tenant Pays Electricity
14 West	14 W. Mifflin St.	30,000	1,850	8.00	Full Services
Jackman	111 S. Hamilton St.	12,000	3,000	6.00 and up	Full Services Except Air Conditioning
Emporium	44 E. Mifflin St.	25,000	10,000	10.00-10.50	Full Services
Total		345,800	68,870 (20%)		

[1] As reported to Joel Peterson, City Planning Department, City-County Building, Madison, and published in Office Space, as of January 1, 1980. For some buildings such as Churchill, Tenney, Centre Seven, Atrium, retail area has been included in the number of square feet rentable.

[2] Building not listed in Office Space; information gathered from interviews with lessors or from other sources.

EXHIBIT 12

LOCATION OF DOWNTOWN OFFICE SPACE

A	United Bank	I	National Mutual Benefit
B	First Wisconsin Plaza	J	30 on the Square
C	Anchor Savings & Loan	K	Jackson
D	James Wilson Plaza	L	Atrium
E	Verex	M	Centre Seven
F	National Guardian Life	N	14 West
G	Churchill	O	Jackman
H	Tenney	P	Emporium

20,000 square feet of unremodeled vacant office space accounts for a large percentage of this supply. Even so, the vacancies have increased from 14 percent to 20 percent in the last year.

5. Conclusions

The retail demand, highest on the State, Carroll, and Mifflin Street side of the Square, weakens upon approaching the South Pinckney, East Wilson, and King Streets area. The Webster Street and East Washington Avenue sides of the First Wisconsin Plaza are traveled by office employees, but are out of the way of the Square's retail customers.

The terms of recent retail leases on the Square are detailed in Exhibit 13. These rental rates represent the current market rents as of January 1, 1980, for first floor space on the Square.

Class A office space is experiencing an extremely high occupancy rate with excellent tenants who make substantial leasehold improvements in anticipation of long-term occupancy. Class B and C office space is suffering from an oversupply, from inadequate parking facilities and from an uncertainty of the future space needs of the State. (See Exhibits 11 and 12).

H. Most Probable Use Summary and Critical Assumptions

Given the physical characteristics of the site and the existing, contemporary improvements of the First Wisconsin Plaza, it is reasonable to conclude that the building will operate as a commercial office center for many years to come. Given the most probable use of the property, the appraisal scenario requires that the building and the land be sold to another owner as of January 1, 1980, in an arm's length transaction. Buildings of this scale, complexity, and sophistication are sold to investors who purchase for cash income, for protection of capital value against erosion of purchasing power due to inflation, and for the opportunity to increase value through creative enterprise management and marketing. The

EXHIBIT 13

RECENT RETAIL RENTAL RATES IN DOWNTOWN MADISON 1980

Building	Address	Rental Rate/Sq. Ft. (1st Quarter of 1980)	Rent Escalators	Term	Services Provided
Atrium	23 N. Pinckney	$9.18	8% annual increase with tax increase pass through	5 year First right of refusal on lessor term	None
Centre Seven	7 N. Pinckney	$9.75	40-50% of annual CPI increase	2 year Renewal option	Utilities
14 West	14 W. Mifflin	$9.00	CPI increase each year or % of gross or operating expense pass through	5-10 year No renewal option	Heat
First Wisconsin Plaza	1 S. Pinckney	$9.30-10.00	Pass through of operating expenses or % of gross or none	5 year Renewal option	Heat

Sunlan Basement 14 West

14 W. Mifflin Basement - Indoor Tanning Inc. $632

Inn on the Park 22 S. Carroll

Barber Shop

real estate tax pass through, CPI increase, plus $15 electricity charge.

2 year Renewal Option

Heat

100% annual CPI increase plus real tax R.E. tax increase

5 years

Heat

Indoor Tanning, Inc $300 - 632/sq. ft + taxes 2 yr lease heat included not elec.

economic context within which such a buyer would prepare a five year forecast from January 1, 1980, through December 31, 1984, would probably include the following assumptions:

1. Bank as Major Tenant

For lack of retail support, any investor in the First Wisconsin Plaza would insist that the banking operation remain as the dominant first floor tenant and the building remain as a multiple tenant facility with amenities and services justifying the premium office rents in the Madison downtown market.

2. Continuation of Service Amenities

A second owner would insist upon more aggressive management of the second floor cafeteria, by extending hours and improving the marketing program. Maintenance expenses must be passed through to the tenant/operator. The fourth floor greenhouses would be rented at half the rent of the contiguous office space, and the athletic club would pay market rent for clubs of this kind. The better long-term payoff might be to scrap the club, demolish the attached fixtures and renovate it for office space at double the rent of an athletic club. An investor must be mindful of the high cost of demolition on the ninth floor of a building with glass exterior walls and the possible loss of goodwill of tenant users of the club.

3. Office Vacancy Ratio

Office space of this quality will continue to have high demand and vacancies will be minimal at the allowable rate of 3 percent over the five year projection period. Ray-O-Vac, the second single largest tenant (25.7 percent of the NLA) has long desired to build its own corporate headquarters and when its lease expires as of December 31, 1984, just beyond the appraisal project period, it it possible that Ray-O-Vac will vacate the 74,085 square feet it now occupies. This change in occupancy will greatly

affect the net operating income generated from the First Wisconsin Plaza during the rent-up period even though the Ray-O-Vac lease terms require a twelve month notice of its renewal intentions.

4. Demand for Retail Space

Retailing is centralized near the State Street Mall with government and private offices concentrated west, east, and south of the Capitol Square. Although merchandise retailing is especially weak near the subject property, there has been a rapid growth of food service retailing in this area. Given the lack of retailing potential, those retailing tenants who have negotiated long-term percentage leases will continue to pay less than market rent for first floor space in the First Wisconsin Plaza.

5. Forecast of Utility Costs

Electricity costs have increased 17 percent from 1978 to 1979, and are projected to increase 11 percent in 1980 even though the twelve month moving average kilowatt useage has remained stable for the past three years. The main cause of this increase is the utility companys' rate schedule change; large users are now penalized for daytime and peak demand use. Peak demand rates have increased 20 to 30 percent in the last few years. In years previous there were economies of scale for large users, but with the time of use rates the large office building which must function during on-peak hours pay more for electricity. The management staff of the First Wisconsin Plaza has instituted many energy saving practices. From January 1, 1975, to January 1, 1980, the twelve month moving average total BTU consumption per square foot has been reduced from more than 29,000 BTUs per square foot to 10,220 BTUs per square foot. The greatest savings have been in gas and oil consumption. (See Appendix D for Energy Saving Practices).

6. Rent Escalators

Current Class A office building leases are now being written to pass operating expenses through to the tenants. Current rents assigned to the

subject property are at the top of the market and are projected to remain there with the anticipated heavy increases in utility and maintenance material expenses. (See Exhibit 15 for subject property rental rates). Therefore, it is difficult to increase base rents to counter the loss of the bargaining power of the dollar.

Even so, in this appraisal the projected net operating income has an average increase of 1.7 percent per year, which converts to an increase of 8.5 percent to the base rent for the 20 percent of the leases renegotiated each year.

7. Forecasts of Rental Income

The operating expense pass through is beginning to replace the Consumer Price Index rent escalator in Madison leases, but on January 1, 1980, this was not the market pattern. The First Wisconsin Plaza has been escalating rents on the average of 6 percent annually. This corresponds to the pattern of average annual rent increase of 5.6 percent in Madison as determined from a comparison of rents in 1975 and 1980 for similar buildings as found in Office Space, the City of Madison Planning Department's annual publication.

This historical trend of 6 percent average rent increases is reinforced by 1974-78 data from Building Owners and Managers Association International (BOMA).[1]

8. Operating Expense Forecast

Wage and salary increases were estimated to increase a modest 8 percent per annum. Service contractors use 10 to 12 percent as the annual increase and material suppliers estimated between 15 and 20 percent increases for 1980. The five-year annual rate in the CPI is 9.4 percent (Exhibit 14). For most operating expenses, except utilities and some 1980 material increases, the more conservative 9.4 percent annual increase is used to project expenses.

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[1] 1979 Downtown and Suburban Office Building Experience Exchange Report, published by BOMA, 1978, pp. 15-17.

EXHIBIT ~~14~~ U

AVERAGE RATE OF INCREASE IN
CONSUMER PRICE INDEX--ALL ITEMS 1974 to 1979

2.10 NONFINANCIAL BUSINESS ACTIVITY Selected Measures

1967 = 100; monthly and quarterly data are seasonally adjusted. Exceptions noted.

Measure	1977	1978	1979	1979				1980			
				Sept.	Oct.	Nov.	Dec.	Jan.r	Feb.r	Mar.r	Apr.
1 **Industrial production**[1]	**138.2**	**146.1**	**152.2**	**152.4**	**152.2**	**152.1**	**152.2**	**152.6**	**152.3**	**151.3**	**148.5**
Market groupings											
2 Products, total	137.9	144.8	149.7	149.9	149.6	149.4	149.7	150.0	150.2	149.1	146.9
3 Final, total	135.9	142.2	147.0	147.2	146.8	146.6	147.0	147.0	147.7	147.1	145.3
4 Consumer goods	145.3	149.1	150.5	149.7	149.7	148.9	148.5	148.2	149.0	148.1	145.1
5 Equipment	123.0	132.8	142.2	143.9	142.9	143.6	145.0	145.4	145.9	145.7	145.4
6 Intermediate	145.1	154.1	160.0	159.8	159.8	159.8	159.9	160.8	159.4	156.6	153.2
7 Materials	138.6	148.3	156.0	156.3	156.3	156.4	156.2	156.7	155.5	154.6	151.0
Industry groupings											
8 Manufacturing	138.4	146.8	153.2	153.5	153.2	153.0	152.8	153.4	152.9	151.7	148.6
Capacity utilization (percent)[1,2]											
9 Manufacturing	81.9	84.4	85.7	85.3	84.9	84.6	84.3	84.4	83.9	83.0	81.0
10 Industrial materials industries	82.7	85.6	87.2	86.7	86.6	86.4	87.2	86.0	85.2	84.5	82.2
11 Construction contracts[3]	160.5	174.3	.....	185.0	171.0	156.0	183.0	190.0	171.0	155.0	n.a.
12 Nonagricultural employment, total[4]	125.3	131.4	136.0	136.5	136.8	136.9	137.2	137.8	138.1	138.0	137.3
13 Goods-producing, total	104.5	109.8	114.0	114.1	114.0	113.8	114.4	114.9	114.7	114.1	112.4
14 Manufacturing, total	101.2	105.3	107.9	107.7	107.5	107.1	107.4	107.4	107.4	107.4	106.0
15 Manufacturing, production-worker	98.8	102.8	104.9	104.5	104.1	103.6	103.9	103.8	103.6	103.6	101.7
16 Service-producing	136.7	143.2	148.1	148.8	149.3	149.6	149.7	150.3	150.9	151.1	150.9
17 Personal income, total[5]	244.4	274.1	306.9	312.8	316.2	320.1	323.7	326.6	327.8	330.3	n.a.
18 Wages and salary disbursements	230.2	258.1	287.1	291.9	294.1	297.4	300.1	302.4	304.3	306.4	n.a.
19 Manufacturing	198.3	222.4	246.8	248.7	250.6	251.7	254.7	256.5	258.4	259.4	n.a.
20 Disposable personal income	194.8	217.7	242.5r	.....	.....	251.3	.....	.....	259.3	.....	.....
21 Retail sales[6]	229.8	253.8	280.9	293.9	288.8r	292.0	294.8	303.6	298.0	291.3	287.8
Prices[7]											
22 Consumer	181.5	195.4	217.4	223.4	225.4	227.5	229.9	233.2	236.4	239.8	n.a.
23 Producer finished goods	180.6	194.6	.....	220.7	224.2	226.3r	228.1r	232.1	235.4	238.2	240.0

1. The industrial production and capacity utilization series have been revised. For a description of the changes see the August 1979 BULLETIN, pp. 603–07.
2. Ratios of indexes of production to indexes of capacity. Based on data from Federal Reserve, McGraw-Hill Economics Department, and Department of Commerce.
3. Index of dollar value of total construction contracts, including residential, nonresidential, and heavy engineering, from McGraw-Hill Information Systems Company, F. W. Dodge Division.
4. Based on data in *Employment and Earnings* (U.S. Department of Labor). Series covers employees only, excluding personnel in the Armed Forces.
5. Based on data in *Survey of Current Business* (U.S. Department of Commerce). Series for disposable income is quarterly.
6. Based on Bureau of Census data published in *Survey of Current Business* (U.S. Department of Commerce).
7. Data without seasonal adjustment, as published in *Monthly Labor Review* (U.S. Department of Labor). Seasonally adjusted data for changes in the price indexes may be obtained from the Bureau of Labor Statistics, U.S. Department of Labor.

NOTE: Basic data (not index numbers) for series mentioned in notes 4, 5, and 6, and indexes for series mentioned in notes 3 and 7 may also be found in the *Survey of Current Business* (U.S. Department of Commerce).

Figures for industrial production for the last two months are preliminary and estimated, respectively.

[1] Federal Reserve Bulletin, Volume 66, Number 5, May 1980

EXHIBIT 14 (Continued) 4

2.10 SELECTED MEASURES OF NONFINANCIAL BUSINESS ACTIVITY

1967 = 100 except as noted; monthly and quarterly data are seasonally adjusted

Measure	1973	1974	1975	1976							
				May	June	July	Aug.	Sept.	Oct.	Nov.[p]	Dec.[e]
1 Industrial production, total	129.8	129.3	117.8	129.6	130.1	130.7	131.3	130.8	130.4	131.9	132.8
Market groupings:											
2 *Products, total*	*127.1*	*129.3*	*119.3*	*128.9*	*129.5*	*129.8*	*130.3*	*129.7*	*129.7*	*131.6*	*133.1*
3 Final, total	124.4	125.1	118.2	127.3	127.6	127.6	128.3	127.4	127.3	129.5	131.2
4 Consumer goods	131.5	128.9	124.0	137.4	137.8	136.8	137.5	136.2	136.9	138.7	141.1
5 Equipment	114.5	120.0	110.2	113.5	113.8	114.9	115.7	115.2	114.4	116.7	117.7
6 Intermediate	137.2	135.3	123.1	135.0	135.9	137.6	137.8	138.7	138.4	139.3	140.4
7 Materials	133.9	132.4	115.5	130.6	131.1	132.2	133.0	132.5	131.6	132.3	132.3
Industry groupings:											
8 Manufacturing	129.8	129.4	116.3	129.6	130.2	131.0	131.6	130.7	130.0	131.8	132.6
Capicity utilization (per cent)[1] in—											
9 Manufacturing	87.5	84.2	73.6	80.3	80.5	80.9	81.1	80.4	79.7	80.7	.....
10 Industrial materials industries	92.4	87.7	73.6	80.8	80.8	81.2	81.6	81.0	80.4	81.0	
11 Construction contracts[2]	179.5	169.7	166.0	205.0	187.0	186.0	186.0	182.0	237.0	186.0	.....
Nonagricultural employment:[3]											
12 Total	116.8	119.1	116.9	119.8	119.9	120.2	120.4	120.8	120.7	121.0	121.4
13 Goods-producing, total	106.3	106.2	96.9	99.4	99.2	99.3	99.2	99.9	99.4	.....	.....
14 Manufacturing, total	103.2	103.1	94.3	97.5	97.4	97.4	97.6	98.2	97.4	98.0	98.2
15 Manufacturing, production-worker	103.1	102.1	91.3	95.4	95.2	95.2	95.2	96.1	94.9	95.6	95.8
16 Service-producing	122.5	126.1	127.8	131.0	131.1	131.7	132.1	132.2	132.4	.....	.....
Personal income:[4]											
17 Total	168.0	184.1	199.4	217.5	218.7	220.4	221.1	222.1	223.9	226.3	.....
Wages and salary disbursements:											
18 Total	164.0	178.9	188.7	206.6	206.6	208.8	209.9	211.3	213.2	215.6	.....
19 Manufacturing	146.3	157.6	157.9	175.8	176.1	177.5	178.1	178.9	179.1	182.5	.....
20 Disposable personal income[4]	165.6	180.5	198.5	217.2	.....	.....	217.0	.....	.....	.....	.....
21 Retail sales[5]	160.2	171.2	186.1	202.0	206.3	205.4	208.8	206.7	208.8	212.7	219.2
Prices:[6]											
22 Consumer	133.1	147.7	161.2	169.2	170.1	171.1	171.9	172.6	173.3	173.8	.....
23 Wholesale	134.7	160.1	174.1	181.8	183.1	184.3	183.7	184.7	185.2	185.6	187.1

[1] Ratios of indexes of production to indexes of capacity. Based on data from Federal Reserve, McGraw-Hill Economics Department and Department of Commerce.

[2] Index of dollar value of total construction contracts, including residential, nonresidential, and heavy engineering, from McGraw-Hill Informations Systems Company, F. W. Dodge Division.

[3] Based on data in *Employment and Earnings* (U.S. Dept. of Labor). Series covers employees only, excluding personnel in the Armed Forces.

[4] Based on data in *Survey of Current Business* (U.S. Dept. of Commerce). Series for disposable income is quarterly.

[5] Based on Bureau of Census data published in *Survey of Current Business* (U.S. Dept. of Commerce).

[6] Data without seasonal adjustment, as published in *Monthly Labor Review* (U.S. Dept. of Labor). Seasonally adjusted data for changes in the price indexes may be obtained from the Bureau of Labor Statistics, U.S. Dept. of Labor.

NOTE.—Basic data (not index numbers) for series mentioned in notes 3, 4, and 5, and indexes for series mentioned in notes 2 and 6 may also be found in the *Survey of Current Business* (U.S. Dept. of Commerce).

where: Average 1974 CPI = 147.7
Average 1979 CPI = 217.4

then:
$$\frac{\frac{217 - 147.7}{147.7}}{5 \text{ years}} = \frac{.4719}{5} = .09438$$

or: 9.4% Annual Rate of Price Increase 1974-79

[1] Federal Reserve Bulletin, Number 1, Volume 63, January 1977

III. THE INCOME APPROACH TO VALUE

For lack of arm's length sales of comparable properties in Madison, it is the opinion of the appraiser that the only correct approach to valuation in the present instance is the Income Approach to Value as previously discussed in this report and approved for use in the City of Madison in Case No. 140-201, Dane County Circuit Court before the Honorable Judge George R. Currie, relative to the James Wilson Plaza Building.

A. The Selection of the Income Approach Methodology

The Income Approach assumes the fair market value of the property is the most probable price the subject will bring if offered in the marketplace as an investment property for a reasonable period of time and sold subject to financing terms typically available for such an investor at the time of the sale. Both buyer and seller are assumed to have full knowledge of the property and neither is under duress.

1. Cash Flow Characteristics

The investor will purchase the project for cash income as a return to his own cash invested and for a deferred cash return to be realized upon sale from equity accumulation which is attributed to debt amortization, to an increase in cash earnings from the building due to effective management and marketing, and possibly to general inflationary price increases. Cash returns are therefore not level but will vary from year to year, hopefully increasing as certain current problems in building management and marketing are corrected. A variety of assumptions will need to be made for revenues and expenses as well as future resale values.

2. Income Parameters by Institutional Lenders

Sophisticated lenders place more emphasis on a property's net income producing ability than its resale potential; therefore, the debt cover ratio

is the primary determinant of the amount of debt a property can successfully carry, rather than the loan to value ratio.

The subject property is a modern office building that has minimal vacancy, a majority of long-term leases with operating expense pass through clauses, stable tenants who have made a large investment in tenant improvements, and is located in Madison which has a short supply of Class A office space. A lender would allow the lower range of debt cover ratio of 1.2.

3. Impact of Income Tax and Equity Requirements

A private investor is influenced by his income tax status, but not to the degree supposed by the layman. For office buildings such as the subject property, the Internal Revenue Service (IRS) code limits second owners to a straight line depreciation method only; moreover, there is full recapture of depreciation shelters in excess of straight line for new capital improvements made by the second owner.

Investors today seek the largest mortgage, based on the smallest acceptable debt cover ratio, with the remaining contribution from equity. Cash-on-cash requirements are determined by the goals of the investor and the type of investor vehicle. If the goal is tax shelter, the cash-on-cash requirement is very low or even negative. On the other hand, a fast food investment with a short life would require a high cash-on-cash of 13 percent. For major office buildings, an investor would require 5 to 6 percent cash-on-cash depending upon the terms of the existing leases. If leases are new and no overage is expected for a while, the requirement would be as high as 6.5 percent, but if leases are short term so the investor can be assured market rents in the near future, 5 percent cash-on-cash is acceptable.

The before tax present value of the project at the end of the five-year holding period is determined by the discount factor (the overall rate of return to equity) and is the cumulative sum of the present value of each

year's cash throw off, the present value of the net worth of the property left before taxes due at the time of the sale, and the original amount of any outstanding mortgages.

As will be seen in this case, the after tax present value is less than the before tax value at the end of five years which further substantiates the contention that the tax shelter is not that advantageous in this type of investment.

4. Computerized Appraisal System Selected

To discount the cash flows from earnings and resale to both a tax exempt and taxable purchaser, a computerized system has been selected called MRCAP. The MRCAP system is an advanced discounted cash flow program designed to provide for the simulation of a wide array of investment strategies associated with real estate ownership; in this case the program solves for justified project value. This system is available in the library of the National EDUCARE Network, a computer time sharing service operated for and under the control of the three leading appraisal organizations: the American Institute of Real Estate Appraisers, the International Society of Real Estate Appraisers, and the American Society of Real Estate Counselors. As another check on the most probable price a discounted cash flow system from the EDUCARE Network library called BFCF which stands for Ben Frederick Cash Flow is used. These systems utilize a discounted cash flow system which will reflect the proportionate interest of those financing the purchase, the municipality seeking its pro rata share of economic productivity, and the cash and reversion returns to the ownership position after prior claims of real estate taxes and mortgage lenders have been met. The systems provide values on both a before and after tax basis to the ownership position.

B. Implementation of Discounted Cash Flow Methodology

To determine the present value of a series of possible negative and positive cash flows before income tax to an investor/purchaser of the First Wisconsin

Plaza as of January 1, 1980, a projection is made of the revenue and expenses.

1. Identification of Revenue Producing Units

All spaces in the First Wisconsin Plaza are identified floor by floor as to square footage and use to determine net leasable areas (Exhibit 15).

2. Projection of Revenues

Assignable areas and market rents are then combined to produce a schedule of revenues with supporting footnotes in Exhibit 15. It is assumed that the bank will pay the top market rent that could be expected for each type of space occupied.

3. Pro Forma Income Statement

The projection of gross potential revenues for five fiscal years are combined with allowable vacancy losses and operating expenses to produce Exhibit 16, a Schedule of Projected Revenues and Expenses for the five fiscal years starting January 1, 1980, through 1984. The pro forma income statement provides a statement of net cash income before payment of real estate taxes, debt service, income taxes, and the yield on investment plus recovery of the equity capital necessary to justify the capital investment of the buyer.

4. Conversion of Net Income to Present Value

The MRCAP program for the National EDUCARE library of programs, previously described, is used to convert net income to a present value before taxes and after taxes as of January 1, 1980, for the First Wisconsin Plaza at the end of a five-year holding period.

C. Assumptions Used in MRCAP

The MRCAP discounted cash flow program can solve for a justified project value by specifying the ratio of net income to debt service acceptable to an institutional mortgage lender. Given the interest rate and term available as of January 1, 1980, the program will solve for the justified amount of mortgage

FIRST WISCONSIN PLAZA

Schedule of Rental Revenues[1] for the Period of January 1, 1980 Through December 31, 1984

Occupancy as of January 1, 1980	Space Sq. Ft. NLA	Annual Rent per Sq. Ft.[2]	Lease Terms as of 1/1/80[3]	ANNUALIZED GROSS RENTAL REVENUES 1980	1981	1982	1983	1984
Lower Level B-1								
Ray-O-Vac Corp.[4]	7,325	$4.05	2/1/75 - 12/31/84	$ 29,667	$ 31,446	$ 33,333	$ 35,333	$ 37,453
Ross & Stevens	156	4.05	Month to Month	632	670	710	752	798
Michael, Best & Friedrich	186	4.05	Month to Month	753	798	846	897	951
Foley & Lardner	201	4.05	Month to Month	814	862	915	969	1,028
Bank Occupancy[5]								
Leasehold Improvements	10,223	7.50	1/1/80 - 12/31/84	76,673	81,273	86,149	91,318	96,797
Bank Storage	16,861	4.05	1/1/80 - 12/31/84	68,287	72,384	76,727	81,330	86,210
Bank Training Area & Print Shop	6,642	7.00	1/1/80 - 12/31/84	46,494	49,284	52,241	55,376	58,698
	41,594			$223,320	$236,717	$250,921	$265,975	$281,935
First Floor								
William Jon Salon[6]	4,067	10.00	9/1/74 - 9/1/84	$ 40,670	$ 43,110	$ 45,697	$ 48,439	$ 51,345
Rennebohm Plaza Shop[7]	3,520	10.00	11/1/75 - 11/1/85	35,200	37,312	39,550	41,924	44,439
Hemispheric Travel	1,450	10.00	1/1/76 - 1/1/81	14,500	15,370	16,292	17,270	18,306
Glancy Optical[8]	785	10.00	4/1/76 - 4/1/80	8,262	8,862	9,394	9,957	10,555
William Wiesner, Jeweler	300	10.00	1/1/76 - 1/1/81	3,000	3,180	3,371	3,573	3,787
Center Ring Storage	658	4.50	Month to Month	2,961	3,139	3,327	3,527	3,738
Chez Vous Storage	304	4.50	Month to Month	1,368	1,450	1,537	1,629	1,727
Bank Occupancy								
Mezzanine	8,100	10.50	1/1/80 - 12/31/84	85,050	90,153	95,562	101,296	107,374
Banking	16,833	11.00	1/1/80 - 12/31/84	185,163	196,272	208,049	220,532	233,764
Storage	641	4.50	1/1/80 - 12/31/84	2,885	3,058	3,241	3,435	3,642
Maintenance Shop[9]	(981)							
	36,658			$379,059	$401,906	$426,020	$451,582	$478,677
Second Floor								
Center Ring Cafeteria[10]	7,700	8.50	4/1/78 - 3/31/81	65,450	69,377	73,540	77,952	82,629
Bank Occupancy[5]								
Trust Division	12,675	11.50	1/1/80 - 12/31/84	145,763	154,508	163,778	173,605	184,021
	20,375			$211,213	$223,885	$237,318	$251,557	$266,650

EXHIBIT 15

FIRST WISCONSIN PLAZA

Schedule of Rental Revenues[1] for the Period of January 1, 1980 Through December 31, 1984

Occupancy as of January 1, 1980	Space Sq. Ft. NLA	Annual Rent per Sq. Ft.[2]	Lease Terms as of 1/1/80[3]	ANNUALIZED GROSS RENTAL REVENUES 1980	1981	1982	1983	1984
Third Floor								
FWNB Milw. Computer Center	6,156	$11.50	1/15/76 - 1/15/81	$ 70,794	$ 75,042	$ 79,544	$ 84,317	$ 89,376
Bank Occupancy[5]								
Operations	44,022	11.50	1/1/80 - 12/31/84	506,253	536,628	568,826	602,955	639,133
	50,178			$577,047	$611,670	$648,370	$687,272	$728,509
Fourth Floor								
Boardman, Suhr[11]	15,061	11.55	4/1/78 - 4/1/88	$173,955	$184,392	$195,455	$207,183	$219,614
Atrium[12]	1,859	5.75		10,689	11,330	12,010	12,731	13,495
Consumer Communications Resources	880	11.55	2/1/80 - 5/25/83	10,164	10,774	11,420	12,105	12,832
Ted Gunhel & Co.	1,161	11.55	10/9/78 - 5/25/83	13,410	14,214	15,067	15,971	16,929
Vacant	1,941	11.55	--	22,419	23,764	25,189	26,700	28,303
Bank Occupancy[5]								
Executive Division	4,213	11.55	1/1/80 - 12/31/84	48,660	51,580	54,674	57,955	61,432
Atrium	2,745	5.75	1/1/80 - 12/31/84	15,784	16,731	17,735	18,799	19,927
	27,860			$295,081	$312,785	$331,550	$351,444	$372,532
Fifth Floor								
Ray-O-Vac[4]	25,258	11.55	2/1/75 - 12/31/84	$291,730	$309,234	$327,788	$347,455	$368,302
Sixth Floor								
Ray-O-Vac[4]	25,258	12.05	2/1/75 - 12/31/84	$304,359	$322,620	$341,978	$362,496	$384,246
Seventh Floor								
Ray-O-Vac[4]	9,426	12.05	2/1/75 - 12/31/84	113,583	120,398	127,622	135,280	143,396
Ray-O-Vac	6,818	12.05	2/1/75 - 12/31/84	82,157	87,086	92,311	97,850	103,721
Foley & Lardner	7,281	12.05	9/1/75 - 9/1/80	87,736	93,000	98,580	104,495	110,765
	23,525			$283,476	$300,484	$318,513	$337,625	$357,882
Eighth Floor								
Ross & Stevens	8,685	12.05	9/1/79 - 8/31/84	$104,654	$110,934	$117,590	$124,645	$132,124
Ross & Stevens[13]	174	5.95	9/1/79 - 8/31/84	1,035	1,097	1,163	1,233	1,307
Milwaukee Co.	2,294	12.05	10/3/79 - 10/3/84	27,643	29,301	31,059	32,923	34,898
Federal Deposit Insurance Corp.	11,659	12.05	10/15/79 - 10/15/84	140,490	148,919	157,855	167,326	177,365
	22,812			$273,822	$290,251	$307,667	$326,127	$345,694
Ninth Floor								
Vacant	638	12.05	--	7,688	8,149	8,638	9,156	9,706
Robert W. Baird & Co.	3,349	12.05	7/2/79 - 7/2/84	40,355	42,777	45,343	48,064	50,948
Michael, Best & Friedrich	4,397	12.05	10/1/79 - 12/31/84	52,984	56,163	59,533	63,105	66,891
Merrill Lynch Pierce, et.al.	2,495	12.05	9/1/79 - 9/1/82	30,065	31,869	33,781	35,808	37,956
Oscar G. Mayer	670	12.05	5/10/77 - 5/10/82	8,074	8,558	9,071	9,616	10,193
Plaza Health Club[14]	3,760	6.25	--	23,500	24,910	26,405	27,989	29,668
	15,309			$162,666	$172,426	$182,771	$193,738	$205,362
Annual Totals for First Wisconsin Plaza	288,827 sq. ft.			$3,001,773	$3,181,978	$3,372,896	$3,575,271	$3,789,789

EXHIBIT 15 (Continued)

FIRST WISCONSIN PLAZA

Notes to Schedule of Rental Revenues for the
Period of January 1, 1980 Through December 31, 1984

[1]The annualized gross revenues for 1980 represent the market rental rates for each space as of January 1, 1980. Yearly increases in rents occur at an annual rate of 6 percent, a pattern confirmed over the past several years in the Madison Planning Department's publication, Office Space, and in the 1979 edition of BOMA's Office Exchange Report.

[2]The annual rental rate is given as of January 1, 1980.

[3]Of the Plaza's 288,827 square feet of NLA, only 17,225 square feet are leased with no option for renewal. These leases expire between January 15, 1981 and May 25, 1983. This represents less than 6 percent of the total NLA. All other leases have at least one five-year renewal option; most can renew at the then current building rate for similar space, but some renewals are locked in at contract rents below market for one or two five-year terms.

[4]Ray-O-Vac (ROV) is the single largest tenant in the First Wisconsin Plaza (25.7 percent of the NLA) beside the First Wisconsin National Bank. Unlike most tenants, ROV has not invested in many leasehold improvements; for example, its offices are separated by movable partitions instead of permanent walls. This gives further credence to the probability that ROV will not renew its leases at the end of the term which is December 31, 1984. Current rents average $9.40/sq. ft. for the fifth, sixth, and seventh floors with the basement rent at $4.05/sq. ft. Market rent for the fifth floor is $11.55/sq. ft. and $12.05 for the sixth and seventh floors.

[5]As discussed in the text, the bank is assumed to occupy the same space it does now (42.9 percent of the NLA) at current market rents. See Exhibit 13 for Current Retail Leases on the Square and Exhibit 11 for Office Space on the Square. Market rent for below grade space is assigned to areas occupied by the bank; the amount of the rent is dependent upon the degree of standard finish of each space.

[6]The William Jon Salon has a ten-year lease extending to September 1, 1984 with two successive five-year options upon the same terms and conditions as those in the initial ten-year lease, except for a minimum gross sales requirement which has already been met. Rent is an annual fixed minimum of $24,402 including utilities plus 7 percent of the gross sales over the fixed minimum. Gross sales required to equal the fixed minimum would be $348,600. To date gross annual sales have been between $231,385 to $222,563 per year. Therefore, no overage has been paid.

[7]The Rennebohm-Walgreen Plaza Shoppe's lease expires November 1, 1980, but the lessee has the option for renewal at the same terms and conditions for another five years. The $9,645 annual fixed minimum rent equates to $2.47 a square foot; a rent escalator of 3 percent of gross sales over the fixed minimum rent has yet to become operative, but may do so in 1980.

Notes to Schedule of Rental Revenues (Continued)

[8]Glancy Opticals' five-year lease expired April 1, 1980; up to that time, the $10.70/sq. ft. rent paid included the five-year amortization of leasehold improvements. The lease was renewed at the same $10.70/sq. ft. which is a 7 percent increase over the market rent of $10/sq. ft.

[9]The maintenance shop is included in the Bank Operations' calculations of the building's NLA, but another owner would also need to use this 981 square feet for maintenance operations. Therefore, this space is not included in the NLA for the purposes of this appraisal.

[10]Center Ring Cafeteria, an operation of Rennebohm-Walgreen Drug Stores, Inc., paid a contract rent of $4.25 per square foot in 1979 based upon 9 percent of annual gross sales. The maintenance of the kitchen equipment is a heavy expense for the lessor; when the lease expires March 31, 1981, the lessor should shift this burden to the lessee. Also, the lessor will want to insist upon improved management to assure an increase in gross sales.

[11]Boardman, Suhr, et. at., pay a contract rent that averages $9.32 per square foot with a lease extending to April 1, 1988. The atrium area is not included in this contract rent calculation.

[12]The atriums for both Boardman, Suhr, et. al., and for the bank's executive division are assigned a rent equal to one-half the market rate for office space on that floor.

[13]Ross Stevens rents a small room that is used as an employee lounge; it is not of the same decor and finish as the rest of the Ross Stevens' space and is located away from the main office complex.

[14]The Plaza Health Club currently pays no rent to the lessor but is gradually assuming the cost of its operating expenses. Other Health Clubs were contacted to establish a market rent for the Plaza Health Club; $5.47 to $6.25/sq. ft. is the current range of market rents for this management intensive operation. The maximum rent was imputed to this space; it is assumed long-range planning by management will determine the most profitable use of this space.

EXHIBIT 15 (Continued)

EXHIBIT 16

FIRST WISCONSIN PLAZA

Schedule of Projected Revenues and Expenses from
January 1, 1980 Through December 31, 1984

	1980	1981	1982	1983	1984
Revenues:					
Gross Office & Retail Rent	$3,001,800	$3,182,000	$3,372,900	$3,575,300	$3,790,000
Less: Vacancies[1]	(90,100)	(91,500)	(101,200)	(107,300)	(113,700)
Effective Office & Retail Rent	2,911,700	3,090,500	3,271,700	3,468,000	3,676,300
Parking Revenue[2]	174,000	184,400	195,500	207,200	219,700
Total Revenue (rounded)	$3,085,700	$3,274,900	$3,467,200	$3,675,200	$3,896,000
Expenses:					
Personnel[3]					
Salaries	$ 405,557	$ 438,002	$ 473,042	$ 510,885	$ 551,756
Fringe Benefits	81,508	88,028	95,070	102,676	110,890
	$ 487,065	$ 526,030	$ 568,112	$ 613,561	$ 662,646
Maintenance[4]					
Cleaning	$ 228,591	$ 250,078	$ 273,586	$ 299,303	$ 327,438
Electrical	1,494	1,635	1,789	1,957	2,141
HVAC	20,067	21,954	24,017	26,275	28,745
Plumbing	449	537	587	642	703
Elevator/Escalator	32,141	35,162	38,467	42,083	46,039
General Building	15,854	17,345	18,975	20,759	22,710
Security	5,960	6,520	7,133	7,803	8,537
	$ 304,556	$ 333,231	$ 364,554	$ 398,822	$ 436,313
Materials[5]					
Cleaning	$ 37,585	$ 41,118	$ 44,984	$ 49,212	$ 53,838
Electrical	14,352	15,701	17,177	18,792	20,558
Heating & Air Conditioning	14,465	15,825	17,313	18,940	20,720
Plumbing	3,954	4,325	4,732	5,177	5,663
Elevator	388	425	465	509	566
General Building	18,636	20,388	22,305	24,401	26,695
Security	1,500	1,641	1,795	1,964	2,148
	$ 90,880	$ 99,423	$ 108,771	$ 118,995	$ 130,188
Utilities[6]					
Electrical	$ 420,499	$ 466,754	$ 518,097	$ 575,087	$ 638,347
Gas	56,923	67,169	79,260	93,526	110,361
Water	8,940	9,780	10,700	11,705	12,806
	$ 486,362	$ 543,703	$ 608,057	$ 680,318	$ 761,514
Other[7]					
Concourse Assessment	$ 9,615	$ 9,225	$ 8,836	$ 8,446	$ 8,056
Insurance	57,052	61,616	66,546	71,869	77,619
Rent	3,864	4,227	4,625	5,059	5,535
General Office-Administrative	23,906	26,153	28,612	31,301	34,243
Miscellaneous-Other Real Estate	3,734	4,085	4,469	4,889	5,348
	$ 98,171	$ 105,306	$ 113,088	$ 121,564	$ 130,801
Total Expenses Before Real Estate Taxes (rounded)	$1,467,000	$1,607,700	$1,762,600	$1,933,300	$2,121,500
Net Income Before Real Estate Taxes, Income Taxes, & Debt Service	$1,618,700	$1,667,200	$1,704,600	$1,741,900	$1,774,500

FIRST WISCONSIN PLAZA

Notes to Schedule of Projected Revenues and Expenses
From January 1, 1980 Through December 31, 1984

[1]Vacancies are calculated as a conservative 3 percent of the gross office and retail revenue; all revenues are at market rent, not contract rent.

[2]Parking revenue is a sum of the rents from stalls leased to tenants plus the revenue collected from the tenants for validated tickets, and from the public paying the hourly parking rate. It is assumed that of the 320 stalls available, 62 are kept open for the public; 3 percent vacancy is assumed for the leased stalls.

[3]Salaries have been increasing at approximately 8 percent a year; this is more conservative than the 9.4 percent annual CPI increase over the past five years.

[4]The majority of the maintenance expenses are for service contracts, or job specific contracts for maintenance which cannot be handled by the in-house engineering staff. Service contracts with D & S Janitorial Service, Johnson Controls, City Disposal, Madison Window Cleaning are anticipated to increase approximately 10 percent over the next year. This estimate was confirmed by a spokesman for each of these firms. Therefore, the CPI annual average increase of 9.4 percent for the past five years is used as the more conservative estimator of future expenses.

The elimination of security expenses which relate to the bank operation and the reduction in the number of service contracts for security maintenance have greatly reduced these expenses. After 1980 the expenses are increased at the CPI average rate of 9.4 percent.

[5]Material expenses have increased dramatically since 1979. Cleaning materials have already had 12 to 15 percent increase in the first six months of 1980 with more anticipated. Also, building management reports a more intensive use of rentable space by tenants (increased ratio of tenants per square foot) has greatly increased the 1980 expenses; the first six months' operation in 1980 has borne out this projection. Cleaning materials expenses are assumed to increase in 1980 by 18 percent over 1979. It is assumed cleaning expenses increases will plateau and level to an average CPI rate of increase of 9.4 percent over the five year projection period. Horticulture materials are paid by tenants and are not included in operating expenses.

Electrical material expenses include the cost of light bulbs and fuses. Due to faulty building design that calls for non-standard 2 by 3 foot fluorescent tubes, replacement costs are high. The standard 2 by 4 foot fluorescent tube costs $1.80; the non-standard 3 foot tube costs $3.60 each. The building has 2,000 bulbs which must be replaced periodically; it is estimated change to 4 foot tubes would pay back the cost in seven years.

The security material expenses are reduced by $1,500 for 1980 to eliminate all bank related security expenses.

A change in accounting methods from capitalizing to expensing the cost of maintaining the glass walls and the painting of the south side of the building explains the sharp increase in the general building materials expenses from 1979 to 1980 found in the Bank Operations projected 1980 budget.

6 Though management has instituted many energy saving programs to reduce and stablize fuel consumption, the cost of fuel plus the change in the method of charging for electricity have caused fuel expenses to continue to escalate. Albert Imm, Madison Gas and Electric, estimates that the cost of natural gas will increase 21 percent in 1980 and 18 percent in 1981; since 1976, natural gas has increased an average of 17.6 percent per year. Though he reports the overall cost of electricity has escalated an average of 6 percent over the past five years, buildings, such as the First Wisconsin Plaza, on the time of use and peak demand rate schedule have been increasing at a much higher rate. From 1979 to 1980 demand charges per KW in the winter increased 28 percent and in the summer increased 10.7 percent. The maximum monthly 15 minute demand increased almost 60 percent for winter and summer. Off peak KWh usage increased 23.7 percent for both summer and winter, but on peak charges decreased 2 percent for winter and increased 11 percent for summer. Overall utility increases are projected at an average of 18 percent per year for natural gas and a modest 11 percent per year for electricity.

The Madison Water Utility rates have been increasing approximately at the average annual CPI increase of 9.4 percent according to Bob Roeske.

7 The Concourse Assessment is a known amount and is detailed in Exhibit 9.

Insurance costs are escalated at 8 percent per year.

Rent for the subterranean space paid to the City of Madison is escalated annually by the change in the CPI according to the lease terms.

and for the justified cash equity, assuming typical before tax cash-on-cash investor requirements for office buildings, with potential inflation sensitive rents. Exhibit 17 is a simplified flow chart depicting the steps in solving for the justified project budget.

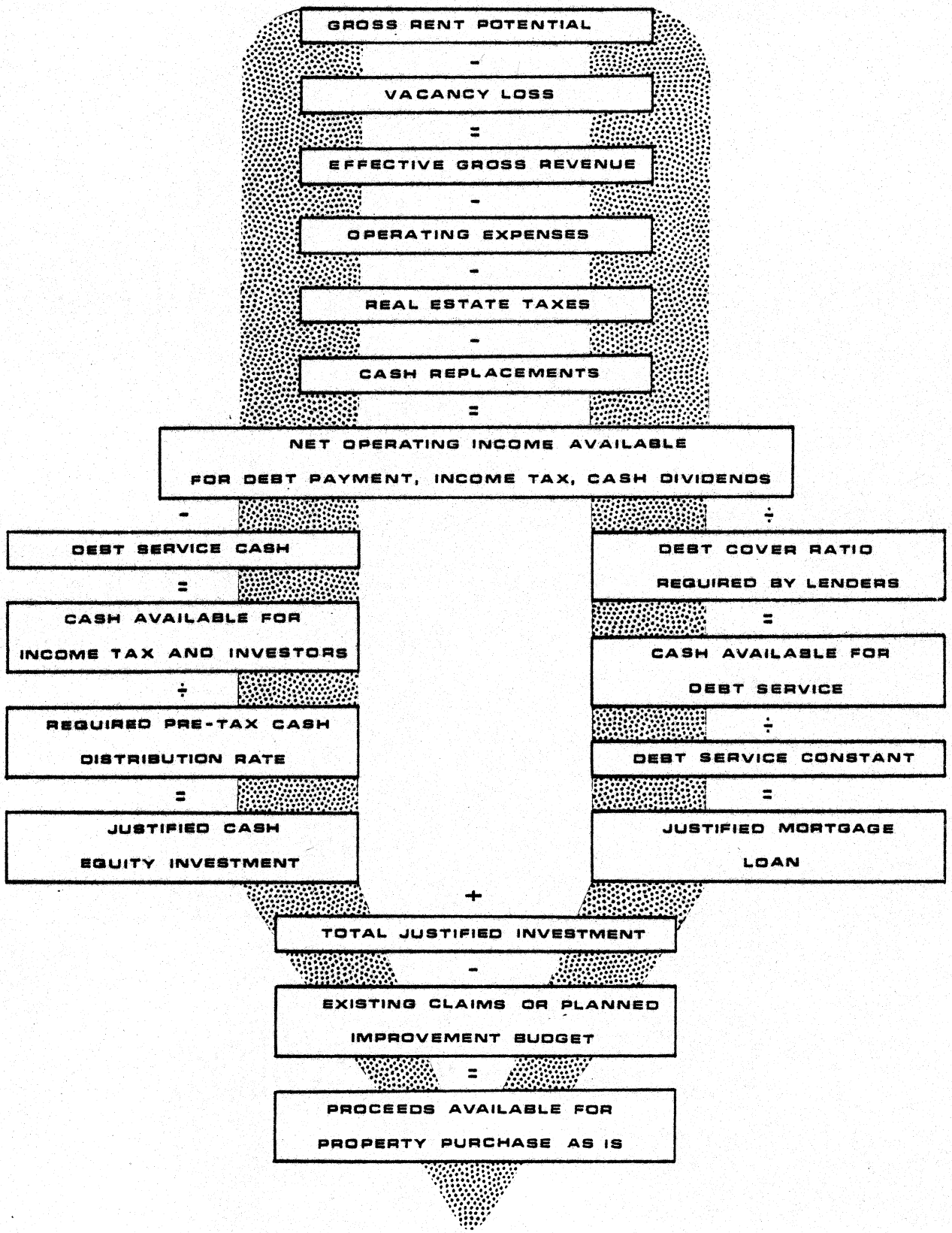
On January 1, 1980, prudent lenders will require a minimum debt cover ratio of 1.2 and equity investors expect no less than 6 percent cash-on-cash for a Class A office building with a majority of the leases extending to the end of or beyond the five year projection period.

1. Inputs into MRCAP program (See Exhibit 18).
   a. Debt cover ratio = 1.2
   b. Before tax cash-on-cash requirement = 6 percent
   c. Project holding period = 5 years
   d. Vacancy = 3 percent allowable
   e. Real estate taxes = tested at 8 percent, 8.4 percent, 9 percent and 9.5 percent of first year's gross office and retail rent with an annual inflation factor of 5 percent (see assumptions discussed in Section III, C, 2)
   f. Discount rate = 13 percent (present value factor used to discount cash flow). This is the threshold yield expected by institutional investors[1]
   g. Reinvestment rate = .10 percent after tax rate applied to after tax cash flow
   h. Resale price = only a slight increase in the five year forecast because pass through of operating expenses keeps NOI fairly stable for the projection period; most of the slight average increase in the NOI of 1.7 percent will be needed to offset rapid obsolescence

[1]Reference: John Kellogg, Prudential Life Insurance Company and Vincent E. Adamo, Chase Manhattan Bank.

EXHIBIT 17

REVENUE JUSTIFIED CAPITAL BUDGET
DEBT COVER RATIO APPROACH



of the HVAC system caused, in part, by escalating utility costs, in part, by the inept planning of the architects

i. Resale cost rate = 3 percent of sale price

j. Equity reserves = $132,000 to cover one month's expenses

k. Investor marginal income tax rate = 46 percent

l. Land = $1,500,000, as of most recent appraisal done for test of tax assessment in 1975

m. Building = 100 percent of total improvement value

n. Mortgage = Principal amount determined by NOI and debt cover ratio with interest rate a minimum of 12 percent with a 30-year term paid monthly. These are very conservative terms for January 1, 1980, when lenders were asking at least 14 percent interest.

2. Real Estate Tax Assumptions

The real estate tax is a function of assessed value and the net mill rate. Assessed value, at 100 percent of market value, is a function of the property's ability to generate revenue measured by the gross rental income. Assessed value is the appraisal issue, therefore, the real estate tax is estimated as a function of gross rental revenue. During the past two years, the real estate tax has been between 9.3 to 8.9 percent of the First Wisconsin Plaza's potential gross rental income; a range of values from 8 percent to 9.5 percent are tested. The lower the real estate tax, the higher the NOI and the greater will be the estimated value. MRCAP is programmed to use a percentage of the first year's gross rental income with a conservative 5 percent growth factor in real estate taxes thereafter.

D. Analysis of MRCAP Results

Four runs of the MRCAP were completed using differnt assumptions about the amount of the real estate tax that would be levied on the subject property.

Madison's net mill rates and taxes on the subject property for the past two years have been:

	Year	
	1978	1979
Net Mill Rate/$1,000	24.153	22.036
Real Estate Taxes	$248,776	$253,414

Real estate taxes estimated at various percentages of the first year's projected gross and inflated at 5 percent a year gave these results in the four MRCAP runs:

Percentages of First Year's Gross Rental Revenue	Real Estate Taxes				
	1980	1981	1982	1983	1984
8.0	$240,144	$252,151	$264,759	$277,997	$291,897
8.4	252,151	264,759	277,997	291,897	306,491
9.0	270,162	283,670	297,854	312,746	328,384
9.5	285,171	299,430	314,401	330,121	346,627

Real estate taxes at 8.4 percent of gross rent best approximate the pattern of taxes paid in 1978 and 1979; the real estate taxes paid in these years reflect the generous State aids received by Madison, but the State will no longer be in a position to grant such relief to municipalities in the near future. Though the mill rate is expected by city administrators to be stable in 1980, future rising costs of local government can be expected to be borne by the local taxpayers.

The input and output for the MRCAP program with real estate taxes at 8.4 percent of gross rental revenue are found in Exhibit 18.

GIVEN THE ABOVE ASSUMPTIONS, MRCAP CALCULATES A BEFORE TAX PRESENT VALUE OF THE SUBJECT PROPERTY TO BE $12,237,142 AS OF JANUARY 1, 1980. THE ESTIMATED FAIR MARKET VALUE, USING THE INCOME APPROACH, IS $12,200,000 AS OF JANUARY 1, 1980.

EXHIBIT 18

MRCAP INPUT AND OUTPUT--JUSTIFIED CAPITAL BUDGET
WITH REAL ESTATE TAX AT 8.4% OF FIRST YEAR'S GROSS RENT

```
MRCAP        16:33CST     12/16/80


ENTER INPUT FILE NAME?FIRST


THE PROGRAM MRCAP IS THE PROPERTY OF
MICHAEL L. ROBBINS
C/O REAL ESTATE DYNAMICS INC.
4701 WINNEQUAH RD.
MONONA, WISC.

USER NO. 66

(608)-221-1120


NO REPRESENTATION IS MADE THAT THE ASSUMPTIONS OR
COMPUTATIONAL FORMAT USED IN THIS PROJECTION WILL
BE ACCEPTABLE TO TAXING AUTHORITIES.

 $.50 LIB CHG APPLIED
                              P R O   F O R M A
                            INVESTMENT ANALYSIS OF

                            FIRST WISCONSIN PLAZA

                                     FOR

                                   GLESNER

  R E P O R T   S E C T I O N   N U M B E R    1          PAGE 1
  ================================================

 * GROSS RENT     $3580560.  * RATE OF GROWTH OF GROSS RENT  0.0600
 * EXPENSES       $1778420.  * RATE OF GROWTH OF EXPENSES    0.0966
 * R E TAXES      $ 278659.  * RATE OF GROWTH OF R E TAXES   0.0500
   INCOME TAX RATE   0.4600    PROJECT VALUE GROWTH OF       5.0000
 * VACANCY RATE      0.0284    WORKING CAPITAL LOAN RATE     0.1400
   EQUITY DISCOUNT   0.1300    EXTRAORDINARY EXPENSES     $      0.
   RESALE COST       0.0300    REINVESTMENT RATE             0.1000
   WKG CAPITAL RS $ 132000.    CAPITAL RESER INTEREST RATE   0.
   INITIAL COST $ 13022349.    INITIAL EQUITY REQUIRED   $ 3928097.

   ALL '*' VALUES ARE AVERAGE AMOUNTS FOR HOLDING PERIOD. OF  5 YRS.


   INITIAL COST DERIVED THROUGH BACKDOOR TYPE 3 USING 1 MORTGAGES
```

EXHIBIT 18 (Continued)

REPORT SECTION NUMBER 2 PAGE 1

COMPONENT SUMMARY

TITLE	PCT. DEPR	BEGIN USE	USEFUL LIFE	DEPR METHOD	COST	SCH
LAND	0.00	1	30.	0	$ 1500000.	0
BUILDING	0.80	1	32.	2	$ 11522349.	0

MORTGAGE SUMMARY

TITLE	INTR RATE	BEGIN YR.	END YR.	TERM	ORIG BALC	PCT VALUE
MORTGAGE	0.1200	1	30	30	$ 9226252.	0.708

REPORT SECTION NUMBER 3 PAGE 1

CASH FLOW ANALYSIS

		1980	1981	1982	1983	1984
1	GROSS RENT	3175800.	3366400.	3568400.	3782500.	4009700.
2	LESS VACANCY	90054.	95460.	101187.	107259.	113700.
3	LESS REAL ESTAE TAXES	252151.	264759.	277997.	291897.	306491.
4	LESS EXPENSES	1467000.	1607700.	1762600.	1933300.	2121500.
5	NET INCOME	1366595.	1398481.	1426616.	1450045.	1468009.
6	LESS DEPRECIATION	288059.	288059.	288059.	288059.	288059.
7	LESS INTEREST PMTS	1105349.	1101103.	1096318.	1090927.	1084851.
8	TAXABLE INCOME	-26813.	9320.	42240.	71059.	95099.
9	PLUS DEPRECIATION	288059.	288059.	288059.	288059.	288059.
10	LESS PRINCIPAL PMTS	33480.	37726.	42511.	47902.	53977.
11	CASH THROW-OFF	227766.	259653.	287788.	311216.	329180.
12	LESS INCOME TAXES	0.	1584.	8448.	21318.	38040.
13	LESS RESERVES	0.	0.	0.	0.	0.
14	CASH FROM OPERATIONS	227766.	258068.	279340.	289898.	291141.
15	WORKING CAPITAL LOAN	0.	0.	0.	0.	0.
16	DISTRIBUTABLE CASH AFTER TAX	227766.	258068.	279340.	289898.	291141.
17	TAX SAVINGS ON OTHER INCOME	4558.	0.	0.	0.	0.
18	SPENDABLE CASH AFTER TAXES	232324.	258068.	279340.	289898.	291141.

EXHIBIT 18 (Continued)

MARKET VALUE & REVERSION

CASH FLOW ANALYSIS

		1980	1981	1982	1983	1984
19	END OF YEAR MARKET VALUE	13022349.	13022349.	13022349.	13022349.	13022349.
20	LESS RESALE COST	390670.	390670.	390670.	390670.	390670.
21	LESS LOAN BALANCES	9192772.	9155046.	9112535.	9064633.	9010656.
22	PLUS CUM. CASH RESERVES	132000.	132000.	132000.	132000.	132000.
23	BEFORE TAX NET WORTH	3570907.	3608633.	3651143.	3699046.	3753023.
24	CAPITAL GAIN (IF SOLD)	-102611.	185447.	473506.	761565.	1049624.
25	CAPITAL GAINS TAX	-28731.	51925.	132582.	213238.	293895.
26	MINIMUM PREF. TAX	7478.	3760.	22785.	39837.	55231.
27	INCOME TAX ON EXCESS DEP.	0.	0.	0.	0.	0.
28	TOTAL TAX ON SALE	2594.	55686.	155367.	253075.	349126.
29	AFTER TAX NET WORTH	3568312.	3552947.	3495777.	3445970.	3403897.

BEFORE TAX RATIO ANALYSIS

CASH FLOW ANALYSIS

		1980	1981	1982	1983	1984
30	RETURN ON NET WORTH B/4 TAX	-0.0329	0.0833	0.0915	0.0984	0.1036
31	CHANGE IN NET WORTH B/4 TAX	-357191.	37726.	42511.	47902.	53977.
32	ORIG EQUITY CASH RTNB/4 TAX	0.0580	0.0661	0.0733	0.0792	0.0838
33	ORIG EQUITY PAYBACK B/4 TAX	0.0580	0.1237	0.1948	0.2686	0.3427
34	B/4 TAX PRESENT VALUE	12587909.	12457249.	12361038.	12290181.	12237142.

AFTER TAX RATIO ANALYSIS

CASH FLOW ANALYSIS

		1980	1981	1982	1983	1984
35	RETURN ON NET WORTH AFR TAX	-0.0324	0.0680	0.0625	0.0687	0.0723
36	CHANGE IN NET WORTH AFR TAX	-352306.	-19084.	-38146.	-32755.	-26680.
37	ORIG EQUITY CASH RTNAFR TAX	0.0591	0.0657	0.0711	0.0738	0.0741
38	ORIG EQUITY PAYBACK AFR TAX	0.0591	0.1248	0.1960	0.2698	0.3439
39	AFTER TAX PRESENT VALUE	12589647.	12416433.	12250299.	12118828.	12010868.

CASH FLOW ANALYSIS

		1980	1981	1982	1983	1984
40	NET INCOME-MARKET VALUE RTO	0.1049	0.1074	0.1096	0.1114	0.1127
41	LENDER BONUS INTEREST RATE	0.0000	0.0000	0.0000	0.0000	0.0000
42	DEFAULT RATIO	0.8999	0.8945	0.8910	0.8894	0.8895

EXHIBIT 18 (Continued)

```
READY
LIST


FIRST        16:20CST    12/16/80

100 1,FIRST WISCONSIN PLAZA,      GLESNER
110 10,1980,3,1,1.0,5,289808
120 20,3,1,1.2,.06,1,1
130 40,3001800,3182000,3372900,3575300,3790000
140 50,174000,184400,195500,207200,219700
150 60,.03,*
160 70,.084,.05,*
170 80,1467000,1607700,1762600,1933300,2121500
180 100,.13,.46,.10
190 101,0,.0,5
200 102,.14,3,.03,0
210 103,0,132000,0,0
220 200,1,LAND
230 201,1,1500000,0,0
240 202,1,1,30,0
250 200,2,BUILDING
260 201,2,1.0,.80,2
270 202,2,1,32,0
280 300,1,MORTGAGE
290 301,1,1.0,.12,0,30
300 302,1,12,1,30,0
310 400,9
320 403,99,1,2,3,4,5
330 999
340 70,.08,.05,*
350 999
360 70,.09,.05,*
370 999
380 70,.095,.05,*
390 999
```

EXHIBIT 18 (Continued)

1.	First Wisconsin Plaza Project Title	(Davis) Richard C. Glesner User Name				
10.	1980 Starting Year	3 Data Sets	1 Classification	1.0 % Owned Yr. 1	5 Holding Period	289808 Units/Year
40.	3001800 Fixed Income	3182000 2	3372900 3	3575300 4	3790000 5	
60.	.03 Vacancy Rate	* 2	3	4	5	
70.	.084 Real Estate Tax	.05 2	* 3	4	5	
80.	1467000 Fixed Expenses	1607700 2	1762600 3	1933300 4	2121500 5	
100.	.13 Discount Rate	.46 Income Tax Rate	.10 Reinvestment Rate			
101.	0 Extraordinary Exp.	.0 Project Growth Rate	5 Project Growth Type			
102.	.14 Working Capital Loan	3 Ownership	.03 Resale Cost Rate	0 Change New Capital		

COMPONENT ENTRIES

200. 1.	Land Title(20 character maximum)			
201. 1.	1500000 Original Cost	0 % Depreciable	0 Depreciation Method	
202. 1.	1 Starting Year	30 Useful Life	0 Switching	
200. 2.	Building Title			
201. 2.	1.0 Original Cost	.80 % Depreciable	2 Depreciation Method	
202. 2.	1 Starting Year	32 Useful Life	0 Switching	
200. 3.	 Title			
201. 3.	 Original Cost	 % Depreciable	 Depreciation Method	
202. 3.	 Starting Year	 Useful Life	 Switching	

MORTGAGE ENTRIES

300. 1.	Mortgage Title(20 character maximum)			
301. 1.	1.0 Principal Amount	.12 Annual Interest	0 Payment Period	30 Term
302. 1.	12 Payments/Year	1 Year Begun	30 Year End	0 Refinanced by #
303. 1.	 Bonus Interest	 Base Amount	 Base Type	 Mortgage Factor
300. 2.	 Title			
301. 2.	 Principal Amount	 Annual Interest	 Payment Period	 Term
302. 2.	 Payments/Year	 Year Begun	 Year End	 Refinanced by #
303. 2.	 Bonus Interest	 Base Amount	 Base Type	 Mortgage Factor

400 9 . . . . . .
1 2 3 4 5 6 7 8 9 10

403 99 . 1 . 2 . 3 . 4 . 5 . . . . .

999

70,.08,.05,*
999
70,.09,.05,*
999
70,.095,.05,*
999

EXHIBIT 18 (Continued)

50.	174000	184400	195500	207200	219700	
20.	3	1	1.2	.06	1	1
	Back-Door	Back-Door Loans	Investment Default	E/4 Tax	Beginning Year	End Year

= Back Door

0 = Do Not process through Back Door
1 = Derive value based on Default Ratio
2 = Derive value based on Loan-to-Value Mortgage
3 = Derive value based on Debt Coverage Ratio

30.						
	Default Ratio	Cash-On-Cash	Year	% Change	Equity E/4 Tax	Reserve E/4 Tax
103.	0	132000	0	0		
	Reserves Withheld	Equity Reserves	Equity Reserve Rate	Reserve Maximum		

Field #5 = Depreciation Method

0 = no depreciation
1 = sum of the years digits
2 = straight line
3 = 125% declining balance
4 = 150% declining balance
5 = 200% declining balance
6 = reverse sum of years digits
9 = equity modification
"-" = remove equity
"+" = add equity

= Bonus Basis Type

1 = fixed income - base amount
2 = gross rent - base amount
3 = effective gross rent - base amount
4 = fixed income - fixed expense - base amount
5 = net income - base amount
6 = cash throw - base amount * bonus interest rate
7 = market value - base amount * bonus interest rate
8 = E/4 net worth - base amount * bonus interest rate
9 = after tax net worth - base amount * bonus interest rate

Report Field Identifiers

Field #	Report Title	Field #	Report Title
1.	Summary of Income & Expense	6.	After Tax Ratios
2.	Component Summary	7.	Modified Internal Rate of Return
3.	Cash Flow	8.	Mortgage Amortization
4.	Market Value	9.	Depreciation Schedules
5.	Before Tax Ratios	10.	Partnership Report

* = Position #1 of Card 400

5 = Auto 1, 2, 3, 4, 5, 6, 7, 10

9 = Auto All

3 = Select Specific Line #'s (10 maximum)

PRINT YEARS (Enter any year number 1-25, in any order)

403	99	1	2	3	4	5			

99 = first entry line 403 means 10 year wide carriage output option.

E. Test for Investment Yield at Estimated Fair Market Value

To define the appraisal problem initially, the BFCF discounted cash flow program was used. An initial test of the proposed assessment of $13,200,000 on BFCF produced an unrealistic internal rate of return of 5.4 percent before taxes and 5.3 percent after taxes; the cash-on-cash was less than 4 percent.

When the intial test is repeated, using the estimated fair market value of $12,200,000 with cash flow and financing assumptions employed in the appraisal process and a generous resale price of $13,022,349 used in MRCAP, the cash-on-cash is an acceptable 7.7 percent; the internal rate of return or investment yield is 14.5 percent before taxes and 11.4 percent after taxes which is an acceptable overall return. Therefore $12,200,000 is confirmed by BFCF as the highest price, i.e. estimated fair market value under Wisconsin law, as calculated by MRCAP, that a knowledgeable investor would pay for the subject property as of January 1, 1980. (See Exhibit 19).

These conclusions include the following assumptions:

Loan to value ratio	=	75.6 percent
Interest	=	12 percent
Mortgage term	=	30 years
Net operating income	=	As used in MRCAP

EXHIBIT 19

BFCF TEST OF INVESTMENT YIELD AT
ESTIMATED FAIR MARKET VALUE

```
BFCF        14:11CST    12/16/80

VER 12/9/80
BFCF IS THE PROPERTY OF BENEDICT J. FREDERICK, JR. MAI

LATEST CHANGES & ADDITIONS:
1.) 1979 CAP GAINS LAW-60% INDIVIDUAL EXCLUSION; 28% MAX ON CORP.
2.) MTG INT MAY BE SELECTED IN PLACE OF AMORTZ IN PRINT OUT.
3.) EQUITY DIVIDEND FOR EACH YR ON ORG & CURRENT EQUITY-MODE E

 1. ENTER PROJECT NAME? FIRST WISCONSIN PLAZA
 2. PROJECTION PERIOD:? 5
    TO REPEAT PREV YRS NOI FOR BAL OF PROJ ENTER 0
 3. ENTER N.O.I.:
 ? 1366595,1398481,1426616,1450045,1468009
 4. VALUE:? 12200000
 5. MTG. RATIO, INT., TERM & NO. PAY/YR:
 ? .756,.12,30,12
 6. IMP./TOTAL VALUE RATIO & IMP. LIFE:? .88,32
 7. DEPRECIATION METHOD? 1
    IS OWNER A TAXABLE CORPORATION, Y OR N? Y
 8. CORP FED ORDINARY TAX RATE COULD BE FROM 17% TO 46% (1979 LAW)
    PLUS STATE RATE. ENTER 1.) ORDINARY RATE 2.) RATE ASSUMED IN
    YEAR OF SALE:? .46,.46
 9. RESALE PRICE:? 13022349


 I.R.R. BEFORE TAXES IS  14.513 %.

 AFTER TAX I.R.R. IS 11.387 %.

 AVERAGE DEBT SERVICE RATIO IS 1.24902
 MODE:? P
 PRINT MTG INTEREST IN PLACE OF AMTZ? Y OR N:? Y
```

EXHIBIT 19 (Continued)

AFTER TAX CASH FLOW PROJECTION
FIRST WISCONSIN PLAZA
12/16/80

DATA SUMMARY
****

VALUE:	$ 12200000	MTG. AMT.:	$ 9223200
NOI 1ST YR:	$ 1366595	MTG. INT.:	12. %
ORG. EQUITY:	$ 2976800	MTG. TERM:	30 YRS
IMP.VALUE:	$ 10736000	MTG. CONST.:	0.123434
INC. TAX RATE:	46. %	IMP. LIFE:	32 YRS
SALE YR RATE:	28. %	OWNER:	CORPORATION

YEAR	CASH FLOW	MTG. INT.	BOOK DEP	TAXABLE INCOME	INCOME TAX	AFTER TAX CASH FLOW
1	228143	1104983	335500	-73889	-33990	262133
2	260029	1100738	335500	-37758	-17370	277399
3	288164	1095955	335500	-4840	-2227	290391
4	311593	1090565	335500	23980	11031	300562
5	329557	1084492	335500	48017	22088	307469
	$1417486	$5476733	$1677500	$ -44490	$ -20468	$1437954

DEP. METHOD: STRAIGHT LINE

1ST YR EQ. DIV: 7.66404 %

SALE PRICE	*$13,022,349	AVG DEBT SERV RATIO:	1.25
BASIS	10,522,500		
CAPITAL GAINS	2,499,849		
CAP GAINS TAX	699,958		
EXCESS DEP TAX	0		
MORTGAGE BALANCE	9,007,672		
AFTER TAX EQ REV	$3,314,718		

IF PURCHASED AS ABOVE, HELD 5 YEARS & SOLD FOR $ 13022349 THEN
I.R.R. IS 14.513 % BEFORE TAXES; 11.387 % AFTER TAXES.

NO REPRESENTATION IS MADE THAT THE ASSUMPTIONS RELATIVE TO
CURRENT TAX PROVISIONS USED IN THIS PROJECTION WILL BE ACCEPTABLE
TO TAXING AUTHORITIES. ALTERNATE MINIMUM TAXES ARE NOT INCLUDED.

YR	N.O.I.	YR END EQUITY	EQUITY DIVIDEND AMOUNT	YIELD ON ORG EQ	YIELD ON CUR EQ
1	*$1,366,595	*$3,010,269	$228,143	.0766	.0758
2	1,398,481	3,047,983	260,029	.0874	.0853
3	1,426,616	3,090,480	288,164	.0968	.0932
4	1,450,045	3,138,367	311,593	.1047	.0993
5	1,468,009	3,192,327	329,557	.1107	.1032

ORGINIAL EQUITY $ 2976800

IV. VALUE CONCLUSION

Since the Market Approach offers no transactions of comparable properties in Madison exposed for sale in the current market for a reasonable time at terms of sale which are currently predominant for properties of the subject type. . .

Since the Cost Approach is inappropriate to the subject property which represents an over improvement relative to prudent investment, and a significant risk of functional obsolescence due to rising utility costs. . .

It is necessary to base fair market value of the subject property on the Income Approach. Based upon the assumptions, limiting conditions, and property tax estimates as presented, it is the opinion of the appraiser that the highest probable price in dollars and fair market value of the subject property herein described as of January 1, 1980, is:

TWELVE MILLION TWO HUNDRED THOUSAND DOLLARS

($12,200,000)

assuming cash to the seller with a debt cover ratio of 1.2 (75.6 percent financing) at 12 percent interest for a 30-year term.

STATEMENT OF LIMITING CONDITIONS

1. Contributions of Other Professionals

   . The appraiser did not conduct any engineering analysis of the structure components or of the site, of costs to replace, or of other engineering factors.

   . Annual operating accounting data was provided, but all income and expense estimates were reconstructed to include imputed rents to areas occupied by the owner and expenses deemed to be appropriate for skillful management of the property.

   . Sketches in this report are included to assist the reader in visualizing the property. These drawings are for illustrative purposes only and do not represent an actual survey of the property.

   . The appraiser assumes no responsibility for matters which are legal in nature nor is any attempt made to render an opinion on the title. The property has been appraised as if title to the subject property were in fee simple, legal ownership with no regard for mortgage loans or other liens or encumbrances.

   . Though the legal description of the subject site provided by Attorney Richard Glesner conforms with the legal description presently recorded on the Madison Assessor's tax roll, the computation of the total area in the tax records is incorrect and this appraisal assumes the city record of the site area to be obsolete and in need of updating.

2. Facts and Forecasts Under Condition of Uncertainty

   . Information furnished by others in this report, while believed to be reliable, is in no sense guaranteed by this appraiser. Although before-tax arithmetic of BFCF model has been handchecked for accuracy, no guarantee of program infallibility can be made by EDUCARE Network, Inc., or by the appraiser.

- All information furnished regarding property sales and rentals, financing, or projections of income and expense is from sources deemed reliable. No warranty or representation is made regarding the accuracy thereof, and it is submitted subject to errors, omissions, change of price, rental or other conditions, prior sale, lease, financing, or withdrawal without notice.
- Forecasts of effective demand of retail and office space are based upon the best available data concerning the downtown Madison market, but are projected under conditons of uncertainty. The varied impacts of the completion of the State's GEF complex upon retailing and office demand; of the continuing parking problem; of the increasing social problems in the East Main Street and King Street area; of the fuel crisis upon automobile travel; and of the volatile money market are all unpredictable.

3. Controls on Use of Appraisal

- Values for various components of the subject parcel and improvements as contained within the report are valid only when making a summation and are not to be used independently for any purpose and must be considered invalid if so used.
- Possession of this report or any copy thereof does not carry with it the right of publication nor may the same be used for any other purpose by anyone without the previous writted consent of the appraiser or the applicant and, in any event, only in its entirety.
- Neither all nor any part of the contents of this report shall be conveyed to the public through advertising, public relations, news, sales, or other media without the written consent and approval of the author, particularly regarding the valuation conclusions, and the identity of the appraiser, or of the firm with which he is connected or any of his associates.

CERTIFICATE OF APPRAISAL

I
We hereby certify that I have no interest, present or contemplated, in the property and that neither the employment to make the appraisal nor the compensation is contingent on the value of the property. I We certify that I have personally inspected the property and that according to ~~our~~ MY knowledge and belief, all statements and information in the report are true and correct, subject to the underlying assumptions and limiting conditions.

Based upon the information and subject to the limiting conditions contained in this report, it is ~~our~~ MY opinion that the Fair Market Value, as defined herein, of this property as of January 1, 1981 1980, is:

SEVEN HUNDRED FIFTY THOUSAND DOLLARS
TWELVE MILLION TWO HUNDRED THOUSAND DOLLARS
($750,000)
($12,200,000)

James A. Graaskamp, Ph.D., SREA, CRE

DATE

NO

Jean B. Davis

Jean B. Davis, MS

December 18, 1980

Date

QUALIFICATIONS OF APPRAISERS

J A M E S A. G R A A S K A M P

PROFESSIONAL DESIGNATIONS

SREA, Senior Real Estate Analyst, Society of Real Estate Appraisers

CRE, Counselor of Real Estate, American Society of Real Estate Counselors

CPCU, Certified Property Casualty Underwriter, College of Property Underwriters

EDUCATION

Ph.D., Urban Land Economics and Risk Managment - University of Wisconsin
Master of Business Administration - Marquette University
Bachelor of Arts - Rollins College

ACADEMIC HONORS

Chairman, Department of Real Estate and Urban Land Economics, School of Business, University of Wisconsin
Urban Land Institute Research Fellow
University of Wisconsin Fellow, Omicron Delta Kappa
Lambda Alpha - Ely Chapter
Beta Gamma Sigma, William Kiekhofer Teaching Award (1966)

PROFESSIONAL EXPERIENCE

Dr. Graaskamp is the President and founder of Landmark Research, Inc., which was established in 1968. He is also co-founder of a general contracting firm, a land development company and a farm investment corporation. He is a member of the Board of Directors of the Wisconsin Housing Finance Agency and the co-designer and instructor of the EDUCARE teaching program for computer applications in the real estate industry. His work includes substantial and varied consulting and valuation assignments to include investment counseling to insurance companies and banks, court testimony as expert witness and the market/financial analysis of various projects, both nationally and locally and for private and corporate investors and municipalities.

J E A N B. D A V I S

EDUCATION

Master of Science - Real Estate Appraisal and Investment Analysis, University of Wisconsin

Master of Arts - Elementary Education, Stanford University

Bachelor of Arts - Stanford University (with distinctions)

Additional graduate and undergraduate work at Columbia Teachers College and the University of Wisconsin

PROFESSIONAL EDUCATION AND MEMBERSHIPS

Society of Real Estate Appraisers

Appraising Real Property Course 101
Appraising Income Producing Property Course 201

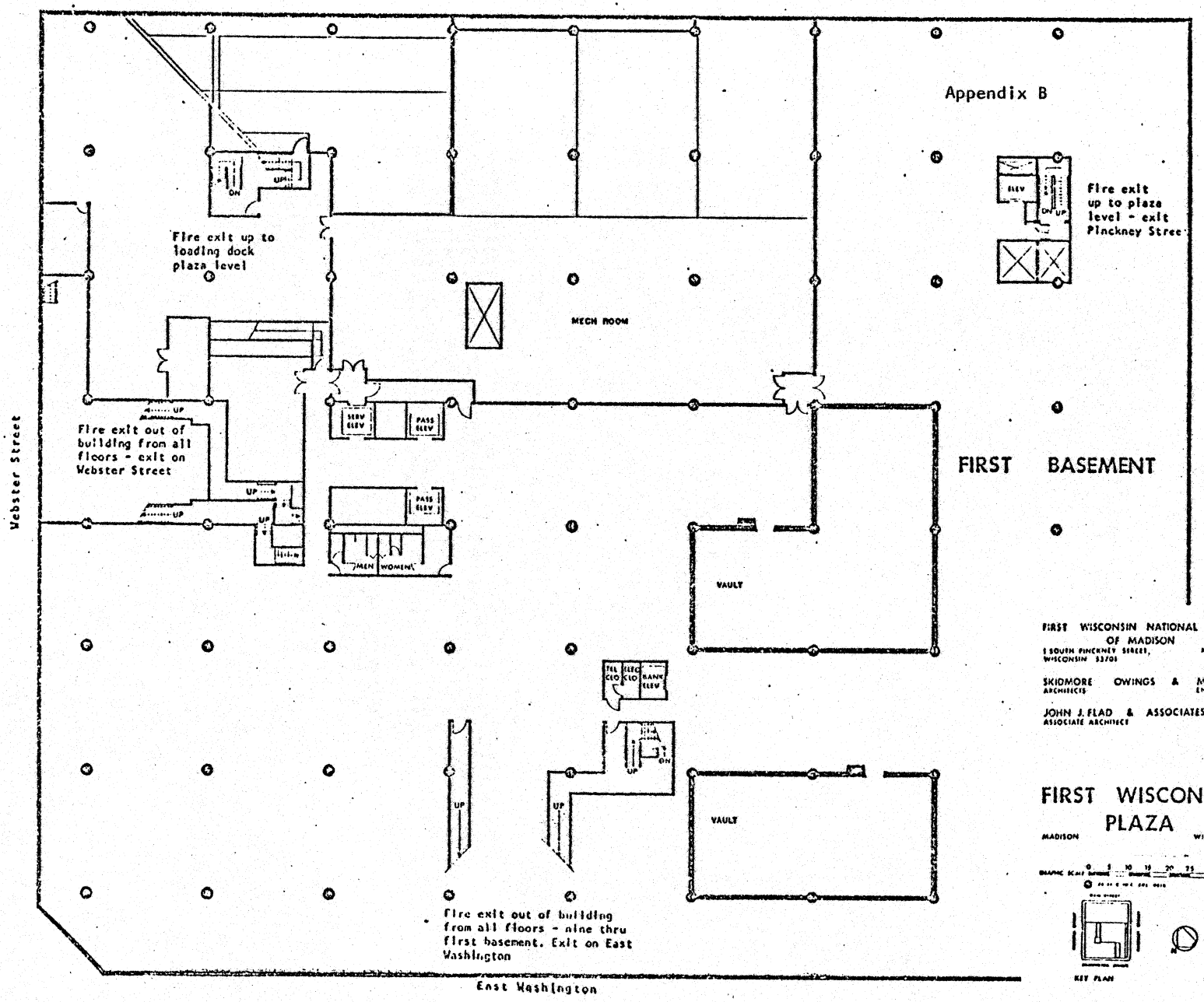
Certified as Assessor I, Department of Revenue, State of Wisconsin

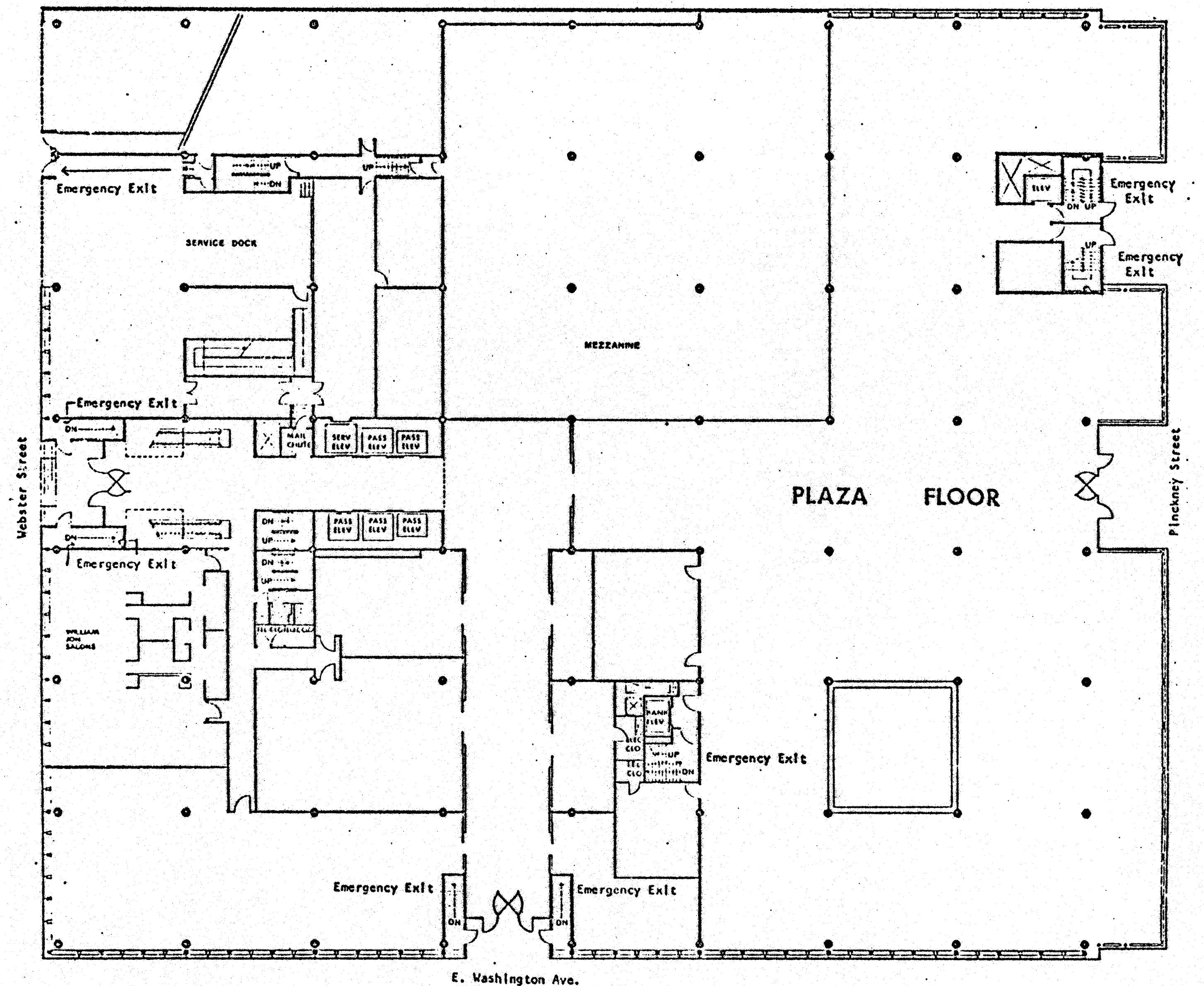
PROFESSIONAL EXPERIENCE

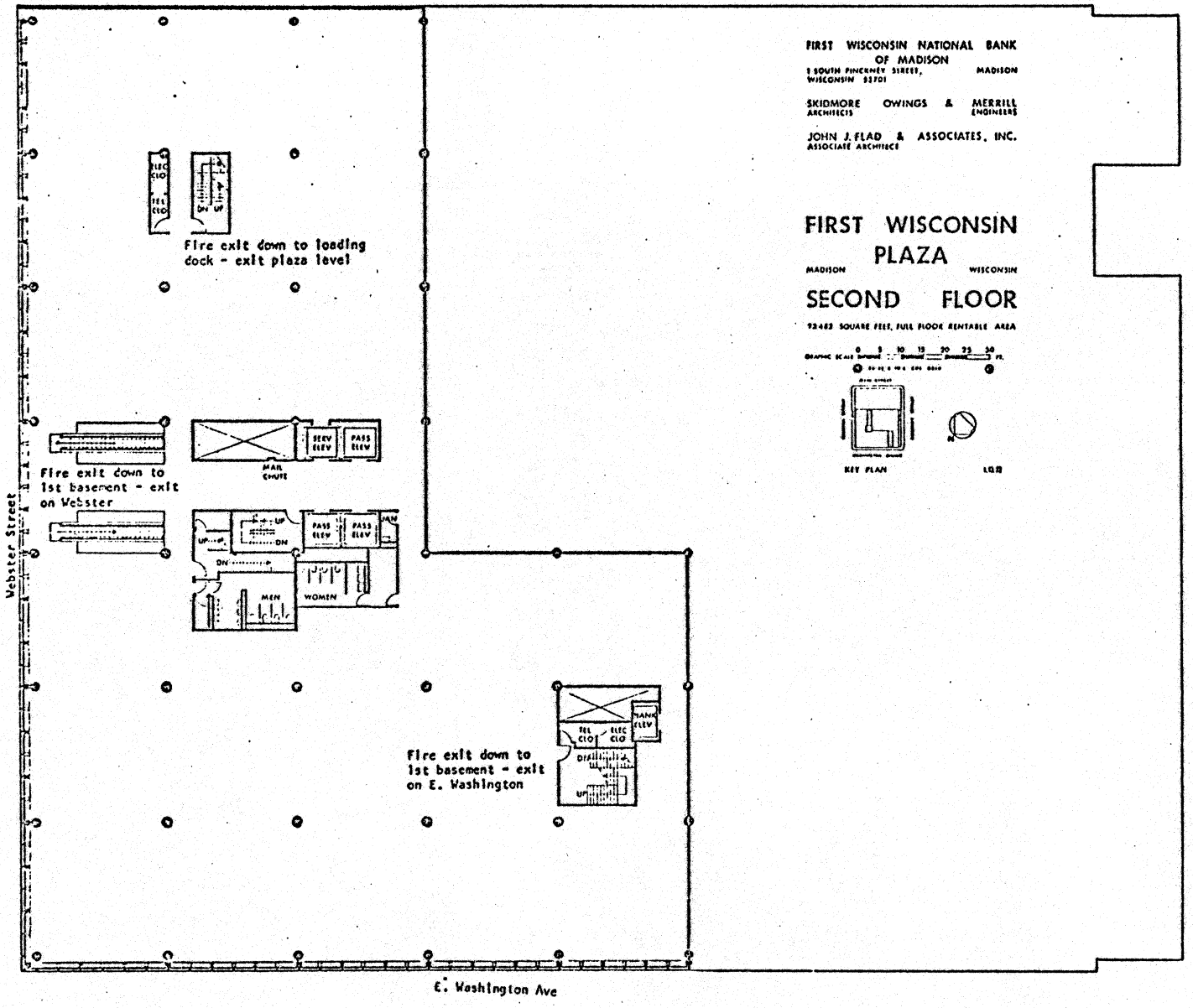
With a significant background in education, practiced in California, Hawaii and Wisconsin, Ms. Davis is currently associated with Landmark Research, Inc. Her experience includes the appraisal and analysis of commercial and residential properties, significant involvement in municipal assessment practices and market and survey research to determine demand potentials.

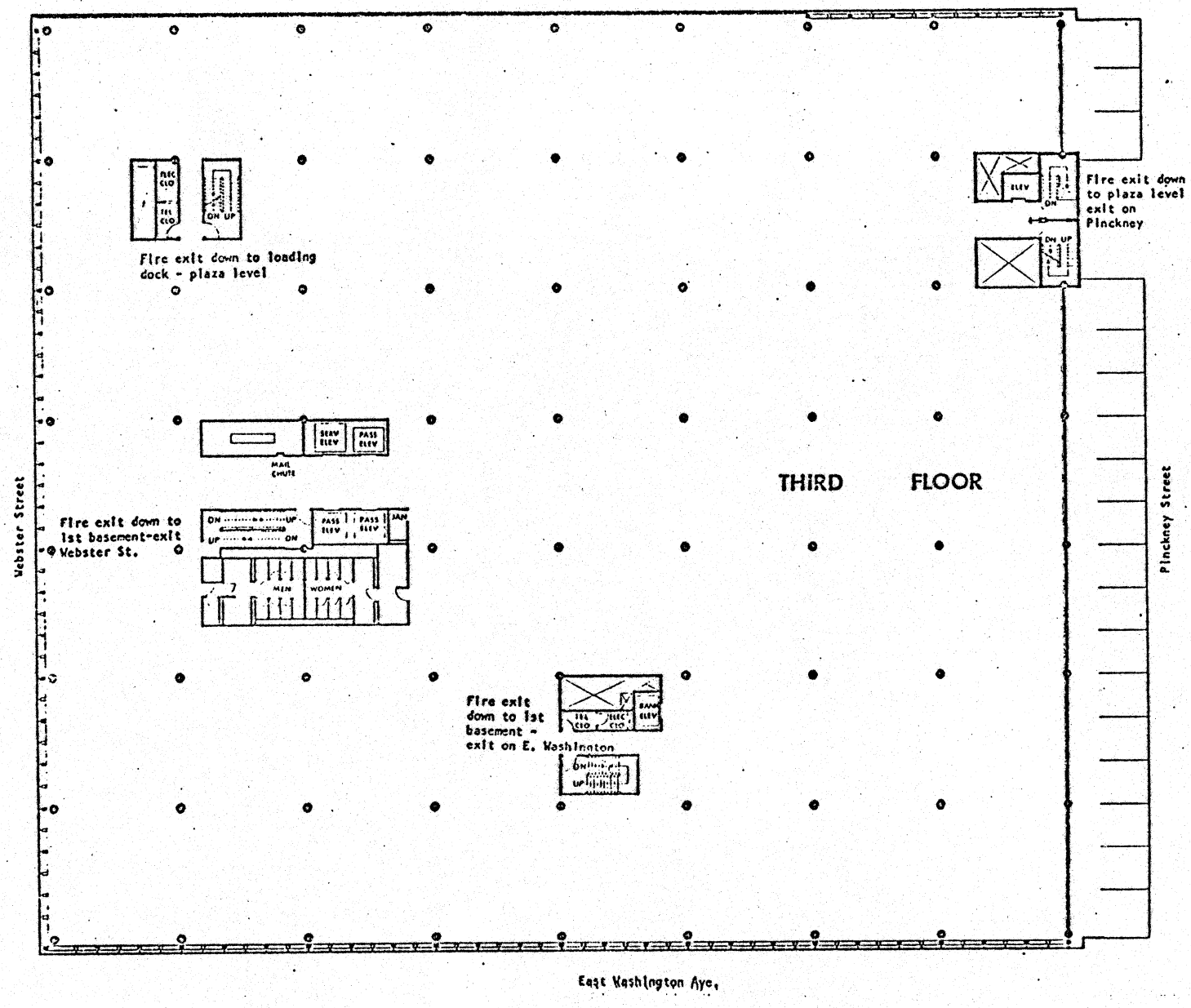
APPENDICES

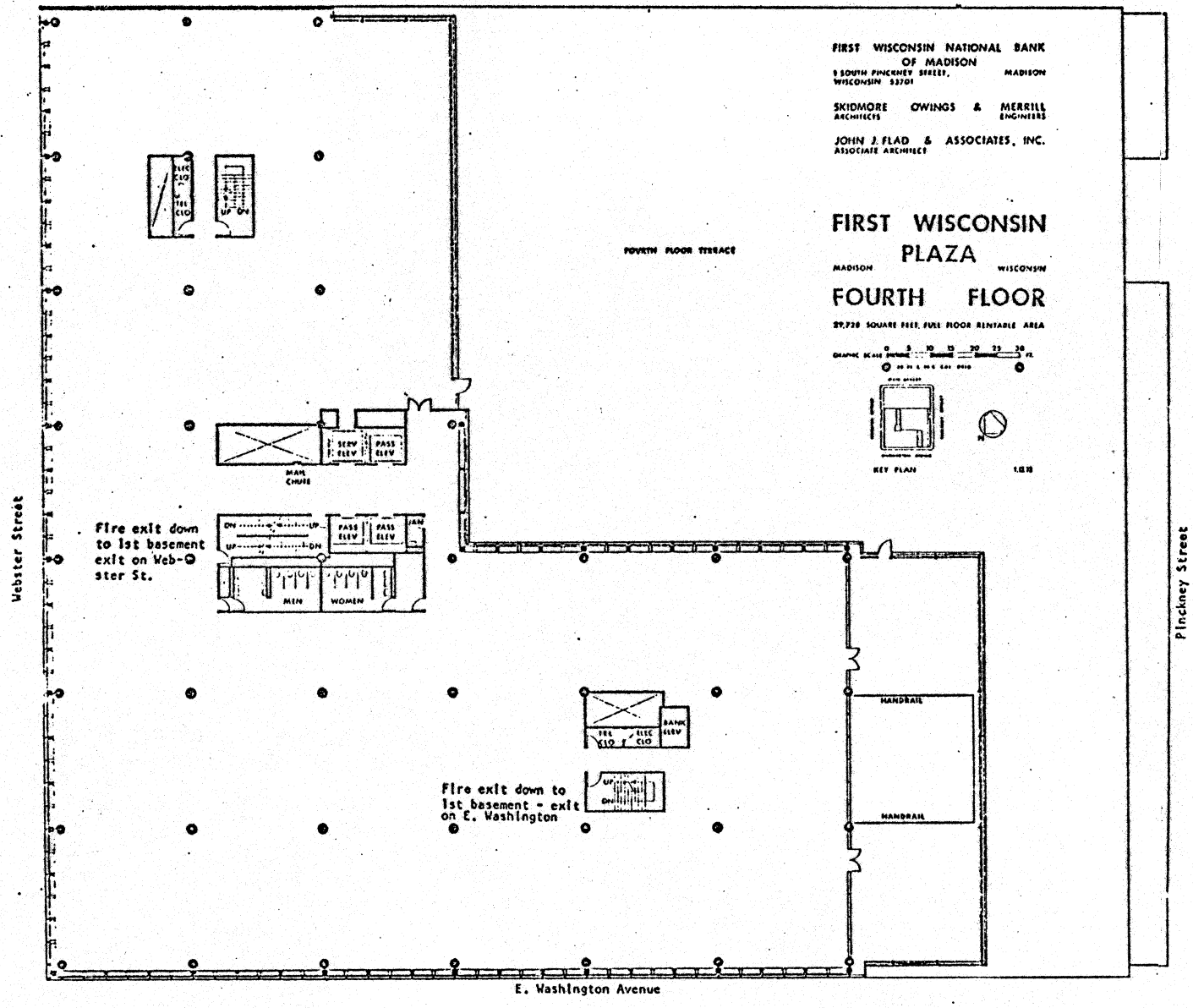
FIRST WISCONSIN PLAZA FLOOR PLANS

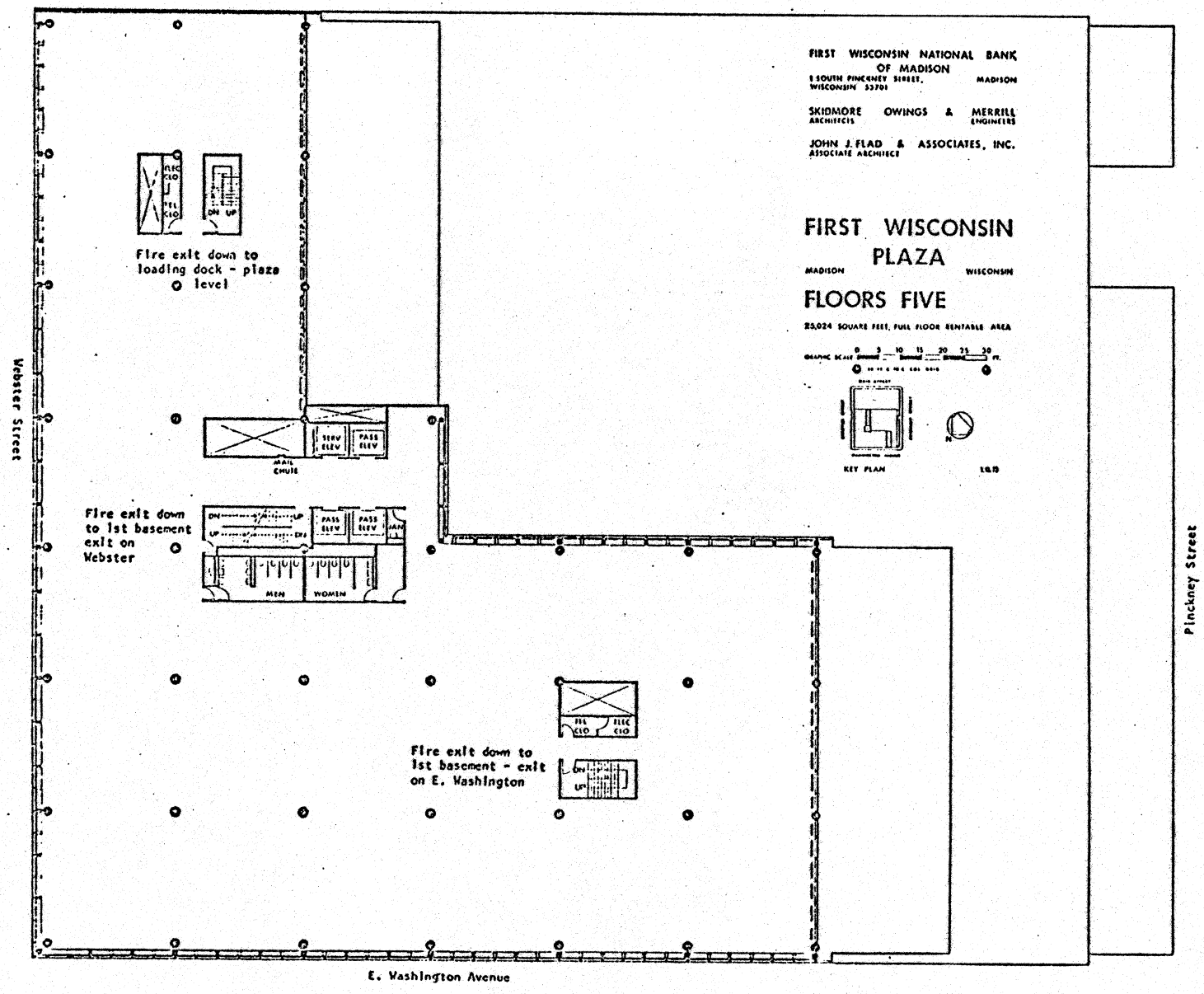


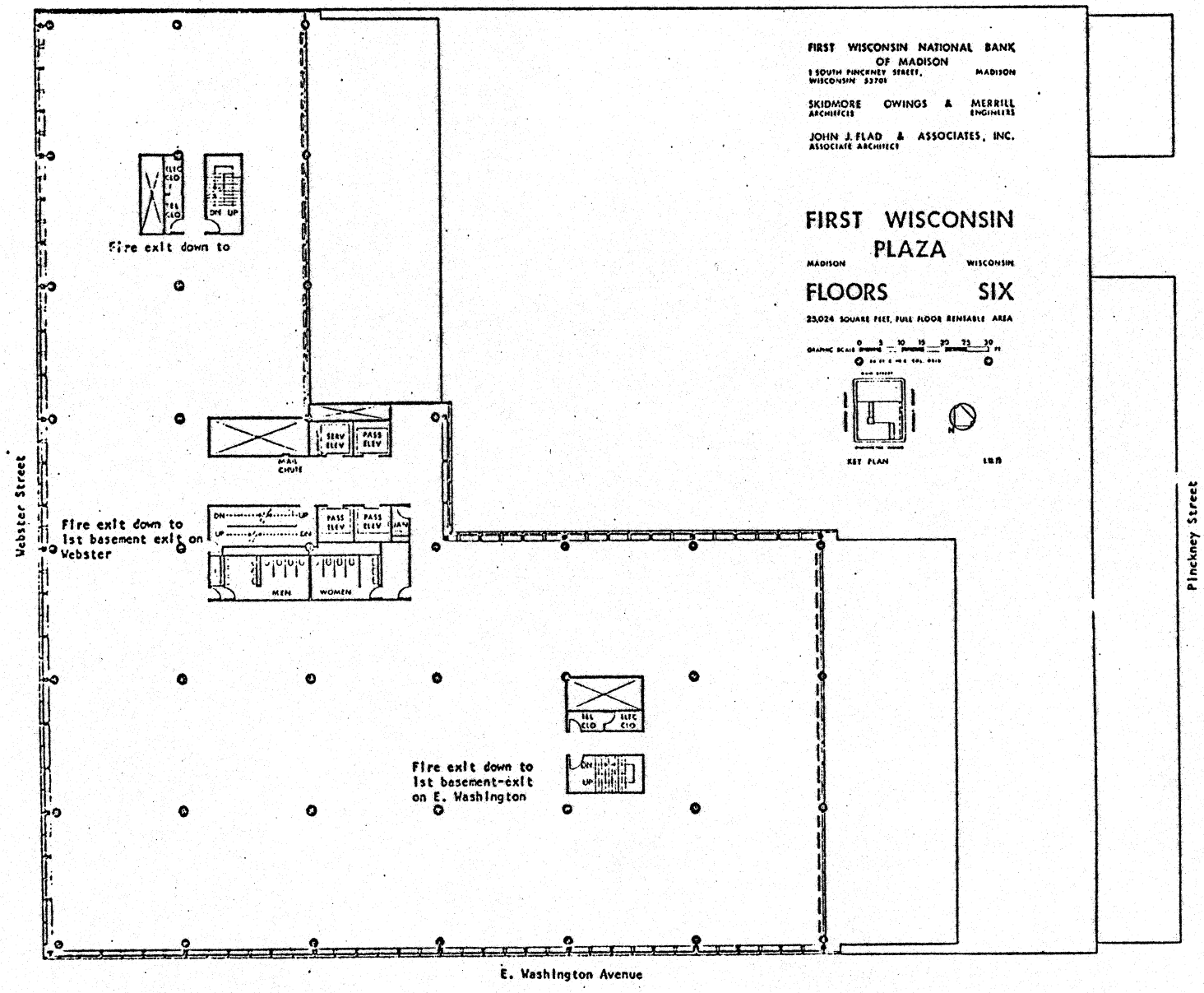

Emergency Exit
SERVICE DOCK
MEZZANINE
Emergency Exit
Emergency Exit
Emergency Exit
Emergency Exit
MAIL CHUTE
SERV ELEV
PASS ELEV
PASS ELEV
PASS ELEV
PASS ELEV
PASS ELEV
Webster Street
PLAZA FLOOR
Pinckney Street
Emergency Exit
WILLIAM JON SALONS
BANK ELEV
Emergency Exit
Emergency Exit
Emergency Exit
E. Washington Ave.

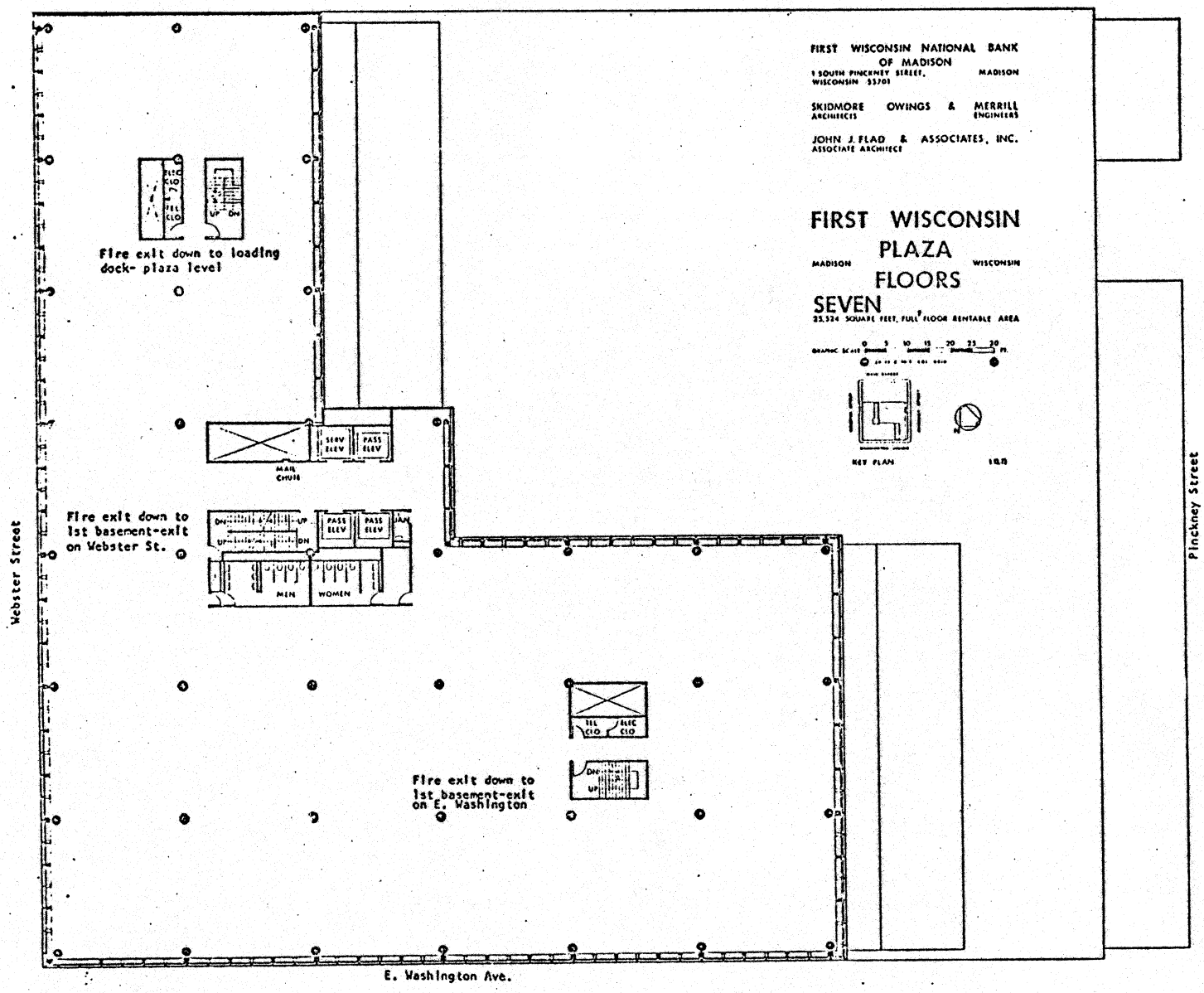

Fire exit down to loading dock - exit plaza level
Fire exit down to 1st basement - exit on Webster
Fire exit down to 1st basement - exit on E. Washington
MAIL CHUTE
SERV ELEV
PASS ELEV
PASS ELEV
PASS ELEV
MEN
WOMEN
TEL CLO
ELEC CLO
TEL CLO
ELEC CLO
FIRST WISCONSIN NATIONAL BANK OF MADISON
1 SOUTH PINCKNEY STREET, MADISON WISCONSIN 53701
SKIDMORE OWINGS & MERRILL ARCHITECTS ENGINEERS
JOHN J. FLAD & ASSOCIATES, INC. ASSOCIATE ARCHITECT
FIRST WISCONSIN PLAZA
MADISON WISCONSIN
SECOND FLOOR
92483 SQUARE FEET, FULL FLOOR RENTABLE AREA
KEY PLAN
LOR
Webster Street
Pinckney Street
E. Washington Ave

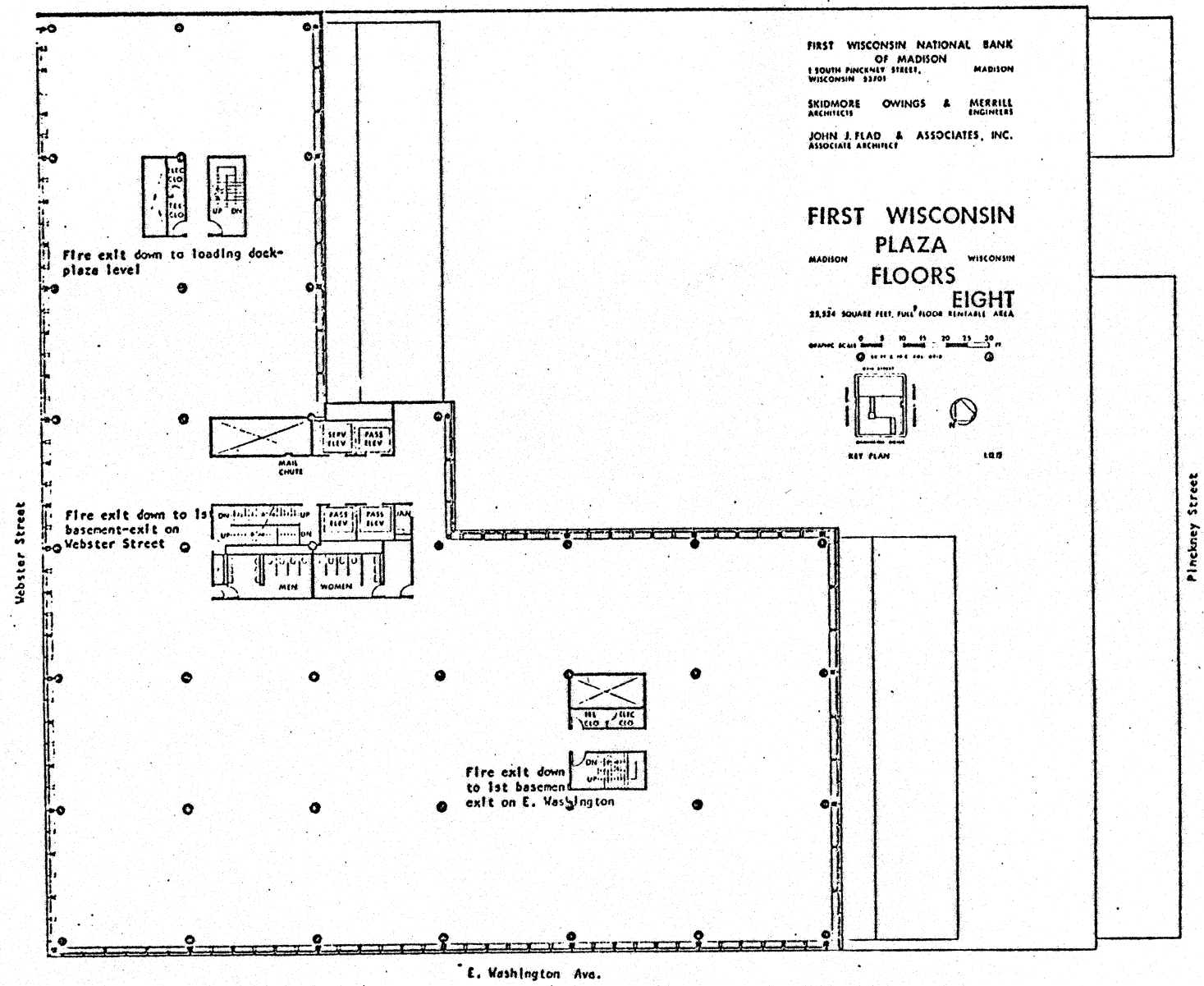

Fire exit down to loading dock - plaza level
Fire exit down to plaza level exit on Pinckney
Fire exit down to 1st basement-exit Webster St.
Fire exit down to 1st basement - exit on E. Washington
THIRD FLOOR
Webster Street
Pinckney Street
East Washington Ave.

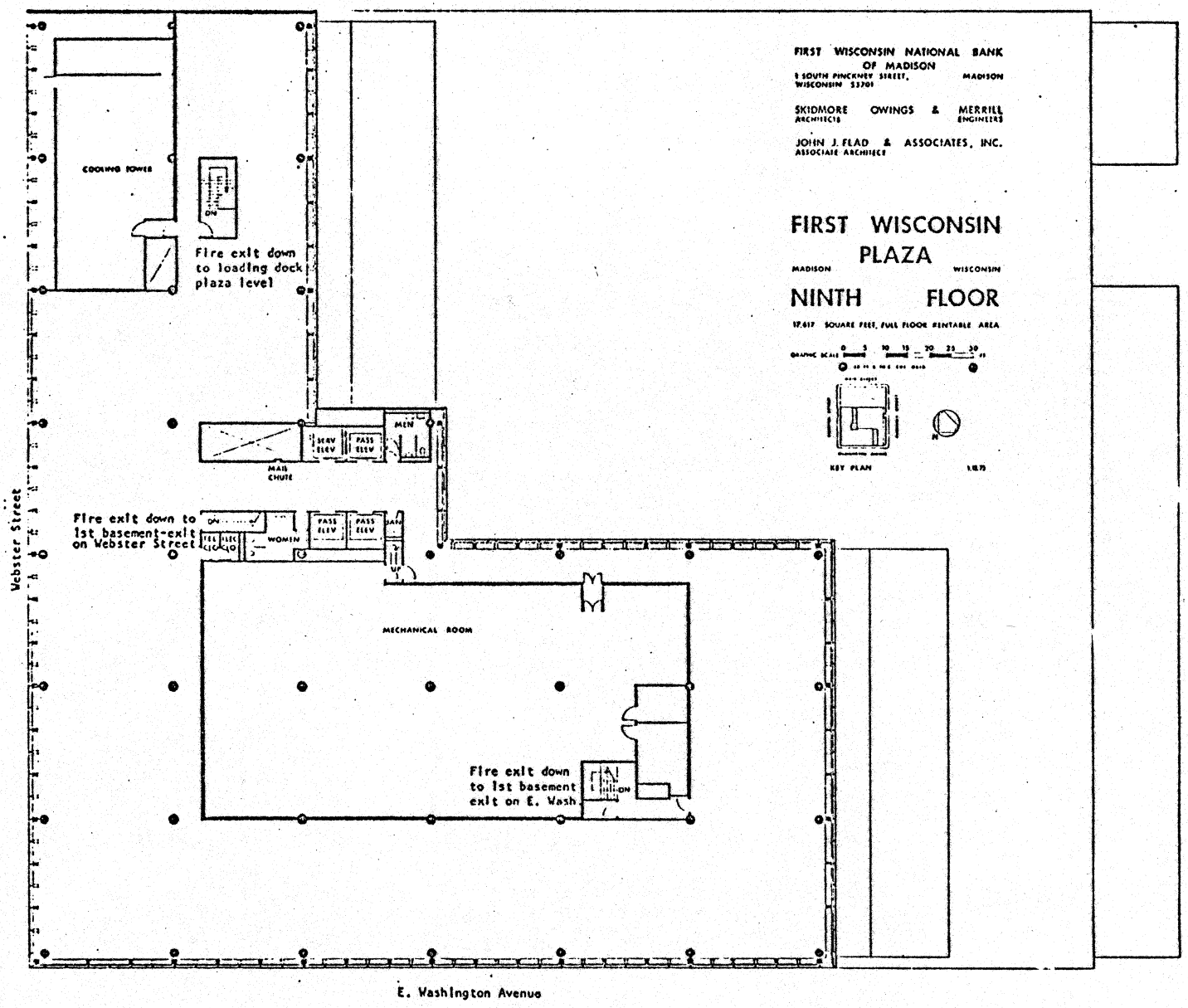

FIRST WISCONSIN NATIONAL BANK OF MADISON
1 SOUTH PINCKNEY STREET, MADISON WISCONSIN 53701
SKIDMORE OWINGS & MERRILL ARCHITECTS ENGINEERS
JOHN J. FLAD & ASSOCIATES, INC. ASSOCIATE ARCHITECT
FIRST WISCONSIN PLAZA
MADISON WISCONSIN
FOURTH FLOOR
39,720 SQUARE FEET, FULL FLOOR RENTABLE AREA
FOURTH FLOOR TERRACE
KEY PLAN
Webster Street
Pinckney Street
E. Washington Avenue
Fire exit down to 1st basement exit on Webster St.
Fire exit down to 1st basement - exit on E. Washington
MEN
WOMEN
HANDRAIL
HANDRAIL


FIRST WISCONSIN NATIONAL BANK
OF MADISON
1 SOUTH PINCKNEY STREET, MADISON
WISCONSIN 53701
SKIDMORE OWINGS & MERRILL
ARCHITECTS ENGINEERS
JOHN J. FLAD & ASSOCIATES, INC.
ASSOCIATE ARCHITECT
FIRST WISCONSIN PLAZA
MADISON WISCONSIN
FLOORS FIVE
25,024 SQUARE FEET, FULL FLOOR RENTABLE AREA
KEY PLAN
Fire exit down to loading dock - plaza level
Fire exit down to 1st basement exit on Webster
Fire exit down to 1st basement - exit on E. Washington
MEN
WOMEN
Webster Street
Pinckney Street
E. Washington Avenue


FIRST WISCONSIN NATIONAL BANK OF MADISON
1 SOUTH PINCKNEY STREET, MADISON WISCONSIN 53703
SKIDMORE OWINGS & MERRILL ARCHITECTS ENGINEERS
JOHN J. FLAD & ASSOCIATES, INC. ASSOCIATE ARCHITECT
FIRST WISCONSIN PLAZA
MADISON WISCONSIN
FLOORS SIX
23,024 SQUARE FEET, FULL FLOOR RENTABLE AREA
KEY PLAN
Fire exit down to
Fire exit down to 1st basement exit on Webster
Fire exit down to 1st basement-exit on E. Washington
MEN
WOMEN
Webster Street
Pinckney Street
E. Washington Avenue


FIRST WISCONSIN NATIONAL BANK OF MADISON
1 SOUTH PINCKNEY STREET, MADISON WISCONSIN 53701
SKIDMORE OWINGS & MERRILL ARCHITECTS ENGINEERS
JOHN J. FLAD & ASSOCIATES, INC. ASSOCIATE ARCHITECT
FIRST WISCONSIN PLAZA
MADISON WISCONSIN
FLOORS
SEVEN
23,524 SQUARE FEET, FULL FLOOR RENTABLE AREA
KEY PLAN
Fire exit down to loading dock- plaza level
Fire exit down to 1st basement-exit on Webster St.
Fire exit down to 1st basement-exit on E. Washington
MEN
WOMEN
Webster Street
Pinckney Street
E. Washington Ave.


FIRST WISCONSIN NATIONAL BANK OF MADISON
1 SOUTH PINCKNEY STREET, MADISON WISCONSIN 53703
SKIDMORE OWINGS & MERRILL ARCHITECTS ENGINEERS
JOHN J. FLAD & ASSOCIATES, INC. ASSOCIATE ARCHITECT
FIRST WISCONSIN PLAZA
MADISON WISCONSIN
FLOORS EIGHT
22,524 SQUARE FEET, FULL FLOOR RENTABLE AREA
KEY PLAN
Fire exit down to loading dock-plaza level
MAIL CHUTE
Fire exit down to 1st basement-exit on Webster Street
MEN
WOMEN
Fire exit down to 1st basement exit on E. Washington
Webster Street
Pinckney Street
E. Washington Ave.


FIRST WISCONSIN NATIONAL BANK OF MADISON
1 SOUTH PINCKNEY STREET, MADISON WISCONSIN 53703
SKIDMORE OWINGS & MERRILL ARCHITECTS ENGINEERS
JOHN J. FLAD & ASSOCIATES, INC. ASSOCIATE ARCHITECT
FIRST WISCONSIN PLAZA
MADISON WISCONSIN
NINTH FLOOR
17,617 SQUARE FEET, FULL FLOOR RENTABLE AREA
KEY PLAN
COOLING TOWER
Fire exit down to loading dock plaza level
MEN
SERV ELEV
PASS ELEV
MAIL CHUTE
Fire exit down to 1st basement-exit on Webster Street
WOMEN
MECHANICAL ROOM
Fire exit down to 1st basement exit on E. Wash.
Webster Street
E. Washington Avenue

APPENDIX B

NEWSPAPER ARTICLES

Nov. 30, 1973 ☆☆ FINAL 10¢

VIEW FROM S. PINCKNEY STREET 1980 PHOTOGRAPH

That All-Glass Building: How Much Loss of Heat?

By HOWARD COSGROVE
(Of The Capital Times Staff)

Everyone knows a greenhouse is warm, so a giant greenhouse, like the new First Wisconsin Bank building on the square ought to be the perfect building for an energy shortage, right?

Wrong.

As anyone knows who has sat near a window on a cold day, glass gets cold. In fact, it allows heat to escape many times faster than a normally insulated wall.

Heat loss through the walls accounts for less than half the heating demand of a building such as the bank's, according to George J. Jarik, in charge of the First Wisconsin building for architects Skidmore, Owings and Merrill, one of the foremost office building design firms in the nation.

• More fuel goes into heating outside air that is sucked into the ventilators, Jarik said. About two-thirds of the air in the building will be changed each hour during cold weather. That compares with between one and one and a half air changes per hour in the average home.

Bank vice president Jack Slater added that solar heat will be gained through the windows, somewhat reducing the heating demand on the boilers.

All of the glass in the building is clear, double-pane, to let sunlight in, while providing as much insulation as possible. Double-pane glass holds in twice as much heat as the single pane glass found in most office buildings, including the state's new office building GEF I, the City-County Building, the Madison Newspapers Building and the former bank building.

Many office buildings with only half the window area of the new bank building could lose as much or more heat, Jarik said.

However, if the bank had chosen to use only half window and half masonry wall, a 35 per cent saving in through-the-wall heat loss could have been

(Continued on Page 4, Col. 1)

Glass Building

(Continued from Page 1)

So, does that mean that the new bank building will use more than its share of fuel for heating in the winter (and electricity for cooling in the summer?)

To some extent, yes.

Windows make up 85.2 per cent of the wall area of the nine-story building that fills nearly the entire block bounded by East Washington Avenue, South Webster Street, and South Pinckney Street. The Tenney Building still stands on the East Main Street end of the block, though that, too is slated for destruction.

Calculations show that about 97.3 per cent of the heat that will be lost through the bank's walls will seep through that 85 per cent glass area. Masonry walls make up the other 15 per cent of the bank's surface, but will account for only 2.7 per cent of the heat lost.

On a day when the outside temperature is zero and the inside temperature 70 degrees, the walls will lose a total of 2,796,850 British Thermal Units of heat per hour. That is roughly equivalent to 2,796 cubic feet of natural gas (which will be used to heat the building) or 19.5 gallons of fuel oil.

Bank officials cautioned that that figure (arrived at by The Capital Times, not the bank) is extremely rough and does not represent the total heating demand.

achieved. The saving would amount to 944,475 BTUs per hour on a zero degree day. That amounts to approximately 945 cubic feet of gas (equivalent of 6.75 gallons of fuel oil) per hour.

In an average Wisconsin winter, that's 2,433,168 cubic feet of gas or more than 17,000 gallons of oil. That's not the total heating bill for the building, just the amount that could be saved with reduction in window area. That figure does not count reduced solar heat gain from the reduced glass area.

The saving would be enough to heat about 16 average homes with gas, if there were such a thing as an average home.

Jarik, however, pointed out that it is not possible to build a high-rise building with a heavy masonry wall, because the weight is too much for the frame. Lighter, insulated panels are normally used between windows in a half-glass building, and those panels have less insulation than a wall.

A great number of new buildings use dark colored panels at the top and bottom of windows, giving them all an identical vertical-striped look. The masonry in those buildings rises in solid vertical columns, unbroken by windows.

Slater said the bank chose an all-glass approach "**as an open expression of curselves and an expression of honesty to the City of Madison.**" More was considered than heat conservation when the building was designed. "That was not something that we thought about that much back in 1970-71," Slater said.

Of greater importance was the effect of the building on the appearance of the Square. An ugly, though heat-efficient, building in that spot "would have had an absolutely dreadful effect on the Square," Slater said.

"If we did it today, we might do the same thing."

He pointed out that the new building will replace one with leaky windows and inefficient heating, a charge true of many current office buildings.

That's why the windows in this and most other new buildings don't open, Jarik said, to let the heating and cooling systems work as efficiently as possible. Of course, that means that everyone in the building must like the same temperature and no one can have any direct contact with the world outside.

Slater said the clear glass used in the building will let more solar heat in during the winter than tinted glass would. In the summer, white blinds will be provided to reflect as much light as possible, thus reducing air conditioner power needs.

Blinds or some similar device will even be used on the sloping surfaces, he added, "**or else our people would have to wear sunglasses to work.**"

Heating figures used for calculations by The Capital Times were taken from a University of Wisconsin Extension bulletin circular and confirmed by Jarik.

Bank on the Square

BY ELLO BRINK

This column is an expression of opinion by The Journal's architectural critic.

Recently, I took a long overdue look at the First Wisconsin National Bank of Madison. Long overdue, because this new multiuse complex for banking facilities, office and retail space was officially dedicated in May, 1974.

Since then, I had heard contradictory comments on the building, which was erected on the original site of the 123 year old bank at the corner of E. Washington and S. Pinckney, directly across from the Capitol.

People described it in glowing terms, or they dismissed it as an "energy wasting monster" because of its all glass enclosure. A national professional magazine headlined it as a "Greenhouse for Greenbacks."

It also was characterized as a crystal palace, presumably reminiscent of William Paxton's spectacular and innovative Crystal Palace, a revolutionary design for the 1851 International Exposition in London. I really did not know what to expect, but thought the Crystal Palace a hard act to follow by any standards.

Since nobody seemed apathetic toward the building, I concluded that any piece of architecture drawing such strong reactions, held the promise of something exciting. I was not disappointed. And I was glad that I had postponed this review.

One reason was the fact that the First Wisconsin Plaza, as it is called, became controversial even before it was completed. Just when the first outside glass wall was being installed, the Arabs decided to turn off their oil faucets, creating an overnight, worldwide energy crisis.

So, the Plaza, in planning for some five years and well on its way to completion, came under fire for its all glass exterior. People just assumed that the Plaza was an oversized energy consumer.

Not so, according to John G. Slater, executive vice president of construction. The Plaza is a building of great depth and large floor areas. The insulating value of its glass walls, juxtaposed to its total 500,000 square footage, compares favorably with most recent construction in Madison.

The Plaza walls have the same insulating properties as a three foot solid concrete wall, or an eight inch masonry wall. This may reassure those who worried when they read in 1974 that the United States wastes more energy than highly industrialized Japan.

Anyway, at this point, the value of the Plaza's design can be as-

Turn to Page 2

Delightful Asset to Square

Ingeniously, the mechanical system becomes a design element. Air risers and induction units are painted in bright blue, water risers in bright yellow. They give a strong vertical emphasis and are placed at each first row of structural columns.

'Open' Interior

The external form of the building is a low, three story elevation on the Capitol Square side. From there, the building literally steps up six floors, forming an L shape overlooking a large garden terrace on the fourth floor. By sloping the glass surfaces between the stepped portions, ths architects achieved a smooth visual transition.

The spatial relationship established with the Capitol and its gardens is carried right into the building, which has profuse plantings on the banking floor.

The bank interiors are based on the open concept, with as few separation walls as possible for maximum flexibilty. Work stations are of bright red lacquered furnishings, complementing the basic primary color scheme throughout.

Valerio Adami's ballet theme murals round out this unusual banking environment.

The bank itself occupies the first three floors and has some executive offices on the fourth floor. Here is the most spectacular board room I have ever seen. A glass enclosed room literally extends into the fourth floor terrace.

'Much to Praise'

There are too many other considerations — facilities, retail shops, cafeterias, underground parking, etc. — to list or describe. So let it suffice to say that the Plaza is an excellent building from every aspect.

If it were possible, one would wish that the Capitol Square would be surrounded by buildings of the nature and quality of the Plaza. One shudders at the State Office Building, a dreary bunker directly northeast of the Plaza, which edges its heavy-handed presence toward the Capitol.

Only if one compares the design of the First Wisconsin Plaza with that of the State Office Building does one really come to grips with the realization of how important architecture really is as an environmental element.

The Plaza architects did their job with exceptional skill and sensitivity. The bank executives showed great responsibility toward their own building, as well as displaying healthy concern for their environment and the people of Madison, whom they have served well.

THE MILWAUKEE JOURNAL Sunday, July 25, 1976

APPENDIX C

FIRST WISCONSIN PLAZA

Major Heating Ventilating and
Air Conditioning Equipment (HVAC)

Condensate Return Pumps

2 each - Weinman Pump Manufacturing Co.
Model 6ADV - 15 Hp.

2 each - Weinman Pump Manufacturing Co.
Model 6ADV - 1 Hp.

HVAC Pumps

Allis Chalmers - Models C16 & C17

1 each - Pump 1 - 40 Hp.
Pump 2 - 40 Hp.
Pump 3 - 15 Hp.
Pump 4 - 60 Hp.
Pump 5 - 15 Hp.
Pump 6 - 50 Hp.
Pump 7 - 50 Hp.
Pump 8 - 15 Hp.
Pump 9 - 25 Hp.
Pump 10 - 25 Hp.
Pump 11 - 30 Hp.
Pump 12 - 30 Hp.

Cooling Towers

2 - Marley - Model #2-8614; 96 H5-4 fan motors - 25 Hp. 427 rpm;
2875 gpm, 97.5° F water in - 85° F water out at 75° wet bulb

Chillers

3 - Trane CentraVac

2 each - Model PCV-5F; 500 Ton

1 each - Model PCV-1F; 150 Ton

Boilers

2 - Kewaunee - 300 Hp; input - 12,554 ft^3/hr. (natural gas);
output - 12,554,000 BTU/hr.; Model KF10-1562; also operates on
#2 oil

De-aerators

1 - Model 6D5-P

Heat Exchangers

Bell & Gossett

1 - model SU143-2 - transfer - 2,500,000 BTU/hr.

1 - model SU165-2 - transfer - 6,500,000 BTU/hr.

Air Handling Units

4 - Trane Centrifugal

AC1 supply - 150 Hp, Model 82
return - 75 Hp, Model 81

AC2 supply - 125 Hp, Model 83
return - 60 Hp, model 82

AC3 supply - 75 Hp (2) Model
return - 75 Hp, Model 81

AC4 supply - 40 Hp, Model 82
return - 20 Hp, Model 81

Garage Exhaust Fans

4 Trane Centrifugal

20 Hp,Model 81
20 Hp, Model 81
20 Hp, Model 1
20 Hp, Model 1

APPENDIX D

FIRST WISCONSIN PLAZA

ENERGY SAVING CHANGES
From Mid-1975 to Present

. Addition of blinds to all windows to block out unneeded solar gain in summer and winter

. Addition of solar screens on all atrium windows to block out unwanted solar gain

. Time clocks to control lighting

. Photo cells to turn off lights when outside light is adequate

. Use of energy saving lamps (lamps that provide the same lighting level at a reduced wattage)

. Use of lower wattage lamps where feasible

. Removal of lamps and ballasts where feasible (hallways)

. Replacing incandescent fixtures with fluorescent fixtures

. Addition of more light switches in order to control smaller areas

. Reduction of equipment operating hours (pumps, fans, etc. are turned off at night and weekends)

. Addition of three small A. O. Smith gas hot-water heaters to replace 300 hp boilers in summer (also allows condensate return pumps, deaerators and feed pumps to remain off)

. Using heat normally rejected in cooling towers for re-heat (also reduces load on cooling towers)

. Reduction of domestic hot water temperature to 110° F

. Thermostat settings lowered to 65° F in winter and raised to 78° F in summer

. Added electric coils in "cold" areas to allow boilers to be shut down earlier in spring and started later in fall

. Installation of automatic blowdown controls on cooling towers to save water usage

. Chemical treatment and analysis of water to keep heat transfer surfaces clean (steam converters, boilers, chillers, cooling towers)

. Installation of lead-lag controls on boilers to equalize run time and thus keep boilers running more efficiently

. Installation of a large weather curtain at loading dock

FIRST WISCONSIN PLAZA

ENERGY SAVING CHANGES (Continued)

- Use of higher efficiency filters to keep heating and cooling coils cleaner
- Split SE-SW zone into two zones (eliminates the need of simultaneous heating and cooling of two sides of building, eliminates the use of AC-2 reheat coil)
- Addition of mixed air reset controls (allows air handler discharges to be controlled according to outside air temperature and allows cool outside air to be used for "free" cooling)
- Because of mixed air reset, discharge air temperatures have been raised from the design temperature of 55° F to approximately 65° F which almost eliminates the need for re-heat
- Reduced perimeter water temperatures during heating season (from 170° F to 100° F)
- Keep minimum dampers closed to eliminate unnecessary heating and cooling of outside air. Intake of outside air can be just 5 percent instead of 25 percent outside air due to code change
- Steam humidifiers are turned off during unoccupied hours
- Installation of automatic controls on spill air dampers to allow them to remain open and vent excess heat to the outside during summer weekends
- Elimination of the use of pre-heat coils, except for extremely cold outside temperatures