

**ANALYSIS OF DATA DENSITY AND STORAGE  
REQUIREMENTS FOR HIGH RESOLUTION RADAR  
SIMULATION SYSTEM DESIGN**

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## FOREWORD

The research reported here was initiated by the Training Research Division, Air Force Human Resources Laboratory, Wright-Patterson Air Force Base, Ohio, and conducted by Technology Incorporated, 7400 Colonel Glenn Highway, Dayton, Ohio, under Contract F33615-69-C-1363. Mr. Patrick D. Fligor, Principal Research Scientist, was the principal investigator for Technology Incorporated. Mr. William L. Foley of the Simulation Techniques Branch, Training Research Division, was contract monitor for the Air Force Human Resources Laboratory. The work was performed in support of Project Number 6114, "Simulation Techniques for Air Force Training," and Task Number 611414, "Radar Simulation for Aircrew Training." The research was started in February 1969 and was completed in February 1970. This report was submitted by Patrick D. Fligor during March, 1970.

Included among the personnel of Technology Incorporated who made significant contributions to this study were James Hawkins, image analyst, and Richard Papenbrock and James Meckstroth, engineering technicians.

This technical report has been reviewed and is approved.

JOHN G. DAILEY, Colonel, USAF  
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# *Contrails*

## ABSTRACT

The state-of-the-art was sampled to determine whether modern, commercially available computers with mass data storage units offered the potential for simulation of the performance of high-resolution radar systems. This effort was primarily concerned with the data storage for urban areas since such areas would place the severest burden upon the digital storage and computation system. Selected areas of New York City and San Francisco were analyzed from aerial photographs, and 74,000 dimensional readings were taken to form the basis for the conclusions given in this report. The analysis of results based upon extrapolations indicated the feasibility of system simulation from the standpoint of data storage and access time of modern computers.

## SUMMARY AND CONCLUSIONS

### PROBLEM

Design of high-resolution radar simulation systems requires a knowledge of intelligence data storage requirements. Such data would be prepared off-line and be used as input information to the simulator, whereupon all special effects associated with the display presentation could be computed.

### APPROACH

This program was initiated to analyze the data density requirements. Emphasis was placed upon storage requirements for cultural complexes, since this presents by far the most severe problem in terms of memory size and definition of quantity and type of information content therein. Aerial photography of San Francisco and New York City was examined and information content was identified as to types of building structures, size, and utilization. The total number of structures was determined for areas within photography. A table was obtained from the Bureau of Census which provided land area estimates for all urban complexes with a population of 50,000 or more. A survey was conducted to determine sizes of current computer memory systems.

### RESULTS

From analysis, the data densities for New York and San Francisco were determined, and from the total land area of all urban complexes, the results for New York and San Francisco were extrapolated to determine total storage requirements. Data densities were determined to be 18,775 pts/per square mile from analysis of New York and San Francisco and total computer storage for all urban complexes was estimated at about  $10^{11}$  bits.

### CONCLUSIONS

The estimate of total storage is based upon analysis of two very high density cultural complexes. Hence, the estimates for storage are considered an upper limit. A large number of complexes would be required to obtain a suitable cross-section that could give a more accurate estimate. Storage requirements, however, even for the upper limit, can be obtained with a computer memory size that is reasonable, based upon capacity of current disc packs and computer hardware.

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## I Introduction

The research reported here analyzed some of the problems in designing a digital simulator for high-resolution radar and other electromagnetic radiation sensors. The radar image requirements were a 10-foot resolution and fifteen shades of gray at the display. Side-looking radar was considered primarily and modern digital computer techniques were analyzed to effect the simulation. In a previous report (AFHRL TR-69-12) the author analyzed data sources for high-resolution radar simulation. This report describes some of the problems when designing a digital simulator to convert the ground truth data into a high-resolution radar image.

Three objectives were initially specified: (1) the calculation of radar imagery, (2) the determination of the digital computer state of the art, and (3) the analysis of the density of real-world urban ground truth data.

Calculation of radar imagery requires a detailed knowledge of the ground scene being simulated. Previous research by the author had developed a method to predict the imagery for a microwave radiometer by using ground scene geometry and materials. It was assumed that high-resolution radar imagery could be calculated if data could be stored at a 10-foot resolution. Emphasis was placed upon a determination of computer capacity and real-world data densities.

The digital computer state of the art for simulation purposes was examined by studying characteristics of such off-the-shelf digital computer systems and components as central processors, input/output (I/O) devices, and mass storage units. Although representative of the state of the art, the data presented in this report is a partial sample because of the large number of digital hardware manufacturers.

To determine the data density, aerial photographs of San Francisco and New York City were analyzed. This effort entailed counting every structure with a linear dimension of 10 feet or more and categorizing every building according to its apparent usage. Appendix II presents the results of this study.

## II High-Resolution Radar Simulation Considerations

### A. Analog Techniques

In the past radar imagery was simulated by analog methods. Early simulators used water tanks which acted as analogs for electromagnetic propagation and scaled model surfaces which reflected energy back to a simulated scaled receiver. Limitations in model size and requirements for long-range missions lead to the development of optical techniques. Optical simulation can utilize scale models of film transparencies to represent the ground truth. The T10 system presently in use by the Air Force uses color factor transparencies to represent radar reflectivity and surface contours for PPI radar

simulation. This system offers the best existing technique, but its physical capacities are not adequate for high-resolution simulator requirements.

The T10 system is approaching the theoretical limit of data storage for a factor transparency simulator. This limit is defined by the ratio of the transparency interrogation readout spot size to the total transparency size. Spot sizes for flying spot scanners have reached a practical minimum. Even with precise spot positioning, laser beam spots are not yet small enough to improve the resolution by the amount required for simulation of high-resolution side-looking radar systems. Another limit is the physical size which a single factor transparency can have and still be dimensionally stable and producible. Special materials and processors must be used to produce the present T10 plates, and significantly larger or more stable and precise transparencies are apparently beyond the state of the art.

Another limitation of factor transparencies is that they cannot be updated unless the entire transparency is regenerated. Because of the complexity required to provide the master artwork, this becomes extremely expensive in time and money.

## B. Digital Computer Characteristics

Digital computers have been rapidly and continuously improved since their inception in the early 1950's. At present digital computer systems can be leased as component sections, and the best central processor unit (CPU) can be selected with the capability of varying the core memory size over a broad range of values. Although peripheral attachments can be leased from the CPU manufacturer or from other sources, they will all be compatible with the hardware or software. Many components have been developed which are useful for radar land mass simulation: mass storage units, random access storage units, graphical output consoles with CRT's, graphical table or tablet input encoders, and graphical output plotting devices.

Digital computers are inherently more precise than analog devices because the number length can be chosen to exceed any desired level of precision. In addition, the digital computer performs checks of calculations, as they are made, to insure that the numbers calculated have been correctly formed within the machine. Digital data can easily be transferred from one mode of storage to another within a computer. Data can be exchanged between digital computers relatively easily through the exchange media such as magnetic tape, magnetic disc, paper tape, punched cards, or optically generated film records. Two computers can be connected electrically to exchange information directly via on-line communication devices. Digital data can easily be updated randomly, with any subset of data being modified precisely and conveniently with no effect upon neighboring data. Computation speeds have consistently increased. The present state of the art permits digital machines to compute many mathematical models faster than analog devices, although the latter still perform some functions faster but with less precision.

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A significant advantage of the digital computers is their programmability. Simply inserting a different software program can completely restructure the computation logic and the hardware elements used for a new calculation; thus the same machine can perform an essentially unlimited range of different functions at different times. Modern machines incorporate foreground/background execution logic so that multiple programs actually reside within the CPU processor. Although such machines perform the most important program first, they proceed instantly to the second program during any free time until the first is ready to resume. Some machines can process several programs almost simultaneously in this manner. Another expansion in the digital computer capability is the incorporation of parallel independent processors within the CPU. This permits one CPU to actually step through several programs simultaneously, using the hardware elements independently as they are required for each program. Software packages are readily available both to simplify programming work and to perform predesigned functions. Thus a package of programs can convert a scientific machine to a business machine for accounting, scheduling, and so on, during slack periods. This flexibility is not possible with analog computers as they are hard-wired for each function and do not normally process purely numerical data.

## C. Hybrid Computer Characteristics

The hybrid computer is an attempt to combine the best features of each system. Digital style programs can be used to set up analog functions for problem evaluation. The precision of analog computations is generally improved because many elemental calculations are performed digitally. However, if the essential precision limiting calculation is analog, the overall accuracy is still probably less than that of a digital machine, though probably more than that of an analog machine. The first digitally oriented radar simulator may be a hybrid machine, but the analog elements will probably only be used to yield real-time simulation speeds for functions such as integration and function generation, which require long digital computation times.

## D. Radar Characteristics

The first side-looking radar to be simulated may have resolutions in the range between 50 and 100 feet. However, the resolution may very quickly decrease to 10 feet or even less. Up to 15 gray shades may appear at the display. At these resolutions many fine details such as the following become significant: shadows between buildings, seasonal effects, cardinal point, selective enhancement, aspect angle effects, variations in material reflectivity, and radar system parameters. Aircraft flight altitudes to be included range from 500 to 40,000 feet with depression angles ranging from 0° to 85°. Clearly these parameters greatly exceed the performance of PPI forward-looking radars. Thus a high-resolution side-looking radar simulator must be significantly superior to a PPI radar simulator to produce the same image simulation fidelity.

## E. Functional Requirements of a High-Resolution Radar Simulator

A high-resolution radar simulator must have several functional units incorporated. A CPU would be the primary controller. Graphical input/output (I/O) devices would be used to enter and display the imagery. Real time I/O devices would let the subject select the flight trajectory and the computer drive the nongraphical simulator output channels. Mass data storage units would be used to store the records used to describe the land mass to be simulated. Standard electronic data processing (EDP) I/O units would be included as needed for programming and other calculations when radar simulation was not being performed. Figure 1 shows a functional block diagram of such a simulation computer. Note that this system would be a very powerful scientific computer, and possibly even a capable business computer, if time were available to use the system for these purposes.

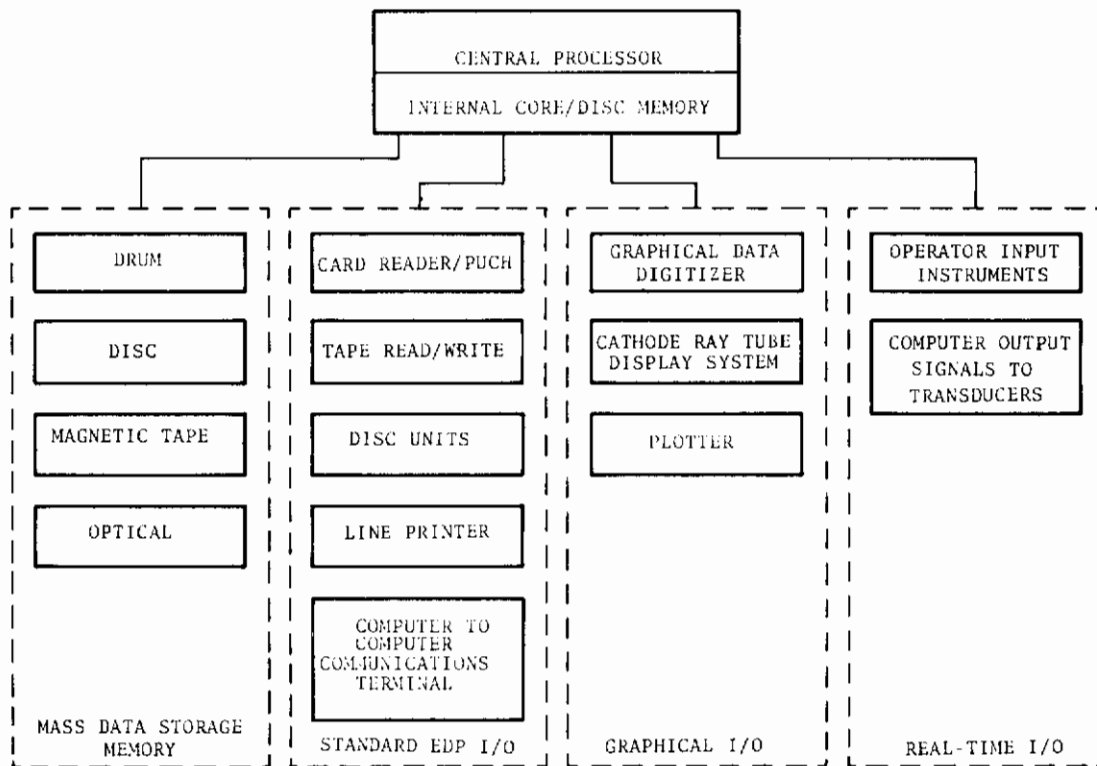


Figure 1. Functional Block Diagram of High-Resolution Radar Simulator

### III Digital Computer Subsystem State of the Art

#### A. Central Processor Unit

##### 1. Summary of Typical CPU Units

The characteristics of typical state-of-the-art CPU's are listed in Table 1. Although not exhaustive, this listing likely represents the present

hardware capability. Certain entries could not be completed from the available data. Likewise some of the listed manufacturers may have upgraded their systems since their literature was published. On the other hand, some systems may not meet their nominal specifications. In any event, those CPU's are listed which appear most appropriate for radar simulation. In general, these usually are among the larger and faster systems in use today.

TABLE 1

Characteristics of Typical State-of-the-Art Central Processor Units

		MEMORY SIZE (WORDS)	WORD SIZE (BITS)	MEMORY CYCLE TIME (Sec)	EXECUTION TIME (Sec)		CHANNELS	TRANSFER RATE Hz	ASSEMBLER	COMPILER	ANALOG INPUT	OTHER SOFTWARE (Limited X/Large Selection)	PERIPHERALS AVAILABLE			
					ADD	DIVIDE							LINE PRIN. Pk	CARD READER	OTHERS	
CONTROL DATA CORPORATION	1700	32 K	18	1.1 $\mu$	2.2 $\mu$	9.0 $\mu$	3	100 K	X	X	X	X	X	X	X	
	3300	262 K	24	1.25 $\mu$			8		X	X	X	X	X	X	X	
	3500	262 K	24	900 N			8		X	X	X	X	X	X	X	
	6090 series			Major Minor												
	6400 CPU	131K	60	1 $\mu$ 100N	500 N	5.7 $\mu$	480	done by PPU	X	X	X	X	done by PPU			
	6600 CPU	131K	60	1 $\mu$ 100N	300 N	2.9 $\mu$	480	done by PPU	X	X	X	X	done by PPU			
	6000 PPU	4K	12	1 $\mu$	done by CPU		24		done by CPU				X	X	X	
7000 series	7600 CPU*	65K	60	Major Minor 275N 27.5N	35N 1st	475N 1st	120	done by PPU	X	X	X	X	done by PPU			
	7000 PPU	512K	60	1.76 $\mu$	27.5N rest	560N rest										
		4K	12	275 N	done by CPU		8	4M words	done by CPU				X	X	X	
DIGITAL EQUIPMENT CORPORATION	PDP 8	32K	12	1.5m			7		X	X	X	X				
	PDP 10	262K	36	1 $\mu$			16		X	X	X	X				
	PDP 12	32K	12	1.6 $\mu$			40									
	PDP 15	131.K	18	800N								L				
ELECTRONIC ASSOCIATES	EAI 640	32K	16	1.6 $\mu$	3.3 $\mu$	19.2 $\mu$	2	93K words	X	X	X	L	X	X	X	
	2114	8K	16	2 $\mu$	4 $\mu$	387 $\mu$	8	300K words	X	X	X	X				
	2115	8K	16	2 $\mu$	4 $\mu$	26 $\mu$	8	300K words	X	X	X	X				
HEWLETT PACKARD	2116	16K	16	1.6 $\mu$	3.2 $\mu$	20.8 $\mu$	16	600K words (+12 channels)	X	X	X	X				
	H 316	32K	16	1.6 $\mu$	3.2 $\mu$	17.6 $\mu$	20	312K words	X	X	X	X	X	X	X	
	H 632	131K	32	800N	1.7 $\mu$	28.05 $\mu$	16	250K/1M words	X	X	X	X	X	X	X	
IBM	H 516	32K	16	.9 $\mu$	.96 $\mu$	13.56 $\mu$	20	1M words	X	X	X	X	X	X	X	
	1130	32K	16	2.2 or 3.6 $\mu$	4.9 $\mu$	46.4 $\mu$	2		X	X	X	X	X	X	X	
	1800	65K	16	2 or 4 $\mu$	4.5 $\mu$	42.8 $\mu$	15		X	X	X	X	X	X	X	
	360/195	1M	32	756N			8	1.3M Bytes	X	X	X	X	X	X	X	
INTERDATA	3	64K Bytes	V	1.5 $\mu$	34 $\mu$	101 $\mu$	7	500K Bytes	X	X	L	X	X	X	X	
	4	64K Bytes	V	1.3 $\mu$	6 $\mu$	38 $\mu$	7	500K Bytes	X	X	X	X	X	X	X	
INTERSTATE ELECTRONICS	IEC 1910	65.5K	18	1 $\mu$	2m	7m	32	900K	X	X					X	
NCR	Century 100	32F Bytes		800N			16	650K Bytes	X	X	X	X	X	X	X	
	Century 200	524K Bytes		800N			120	950K Bytes	X	X	X	X	X	X	X	
RAYTHEON COMPANY	R-11	131K	24	950N	1.9 $\mu$	7.9 $\mu$	16		X	X	L	X	X	X	X	
	R-25	655K	24	1 $\mu$	5.8 $\mu$	24 $\mu$			X	X	L	X	X	X	X	
RCA	Spectra 70/60	1,048K Bytes	16	765N for 4 bits			150		X	X	X	X	X	X	X	
STANDARD COMPUTER CORPORATION	IC - 4000	32K	37	2 $\mu$					X	X	X	X	X	X	X	
	IC - 6000F	32K	37	2 $\mu$					X	X	X	X	X	X	X	
UNIVAC	418/111	131.K	18	750 N	2.5 $\mu$	6.5 $\mu$	32	2.66M words	X	X	X	X	X	X	X	
	494	262K Bytes	30	750 N			24	555K Bytes	X	X	X	X	X	X	X	
	1108	262.K	36	750 N	750 $\mu$	19.25 $\mu$	16	1.33M words	X	X	X	X	X	X	X	
	9200	32K Bytes		1.2 $\mu$	104 $\mu$		64	85K Bytes	X	X	X	X	X	X	X	
	9400	131.K		600N	6 $\mu$		128	333K Bytes	X	X	X	X	X	X	X	
VARIAN DATA MACHINES	520/1	32.7K Bytes	18	1.5 $\mu$	4.5 $\mu$				X	X	X	X	X	X	X	
	620/1	32.7K	18	1.8 $\mu$	3.6 $\mu$	28.8 $\mu$		200K	X	X	X	X	X	X	X	
XEROX DATA SYSTEMS	Sigma 7	131.K	32	850 N	1.8 $\mu$	12.4 $\mu$	144	4M Bytes	X	X	X	X	X	X	X	
	Sigma 5	131.K	32	850 N	2.1 $\mu$	16 $\mu$	168	4M Bytes	X	X	X	X	X	X	X	
	Sigma 3	64K	16	950 N	1.9 $\mu$	8.12 $\mu$	28	2M Bytes	X	X	X	X	X	X	X	

V - Variable K - Kilo m - Milli  $\mu$  - Micro N - Nano M - Mega  
 - Dual Memory Computer

Some of the larger systems are extremely powerful, having parallel processing capabilities and flexible CPU configurations. These types of computers with hardware and software designed for parallel processing can make calculations which appear at the output several times faster than those made on a machine with only a single channel processor capability.

The comparison of CPU's is difficult. There are certain peculiarities which can be unique in the hardware and software design of one system which can work very effectively for a particular type of calculation, yet be inappropriate for another. Thus certain computers are generally organized to be used as business machines, whereas others are optimized for scientific calculations. Some machines have the capability of processing data in real time by incorporating an interrupt system and analog or digital I/O lines. Nearly any machine can be connected to a real-time process by using a small real-time computer as an interface, if the problem can be solved with this interface in the loop, which increases complexity and data turn-around times.

## 2. Radar Simulation Requirements of the CPU

The CPU must be capable of controlling the required number of peripheral units. As illustrated in Figure 1, this number could vary from a minimum of about eight to a maximum equal to the capacity of each unit. Thus one large disc might store the same quantity of data as three smaller discs. The CPU must be capable of operating in real time to accept the pilot's control inputs and present radar imagery on the display corresponding to the antenna position at any instant of time, with no perceptible delay between positional inputs and imagery outputs. Calculations may be quite involved if complete fidelity is required. A realistic image can probably be generated without complete fidelity; however, it would require further research to completely define the specific calculations which are adequate yet involve minimal computation in real time. Data compaction processes could greatly reduce the calculation load of the CPU.

### B. Mass Computer Memory Units

Table 2 lists representative mass computer memory units. Some of the manufacturers in this table do not build entire computer systems, but all supply memories to other companies. Five types of memory are included: magnetic disc, magnetic drum, magnetic core, magnetic card, and optical film on cards. These units are basically similar, being compatible with nearly all computer CPU's through interface circuitry. The magnetic units are erasable, whereas the optical unit is a permanent image.

All units function similarly as far as the CPU is concerned. The CPU specifies the address, and the memory begins accessing the specified address. When the data is located it is transferred to the CPU for use.

## TABLE 2

### Characteristics of Typical State-of-the-Art Mass Computer Memory Units

		TYPE	MAXIMUM CAPACITY (BITS)	WORD SIZE (BITS)	ACCESS TIME AVG. (SEC)	ACCESS TIME MAX. (SEC.)	TRANSFER RATE (Hz)	ERASABLE
APPLIED MAGNETICS CORPORATION	M-200*	DISC	3.4x10 <sup>6</sup>	8 or 16	16.9 m		1.6 M	X
	M-400*						120 K	X
BRYANT COMPUTER PRODUCTS	4000 Series*	Disc File	5.1 x 10 <sup>9</sup>	8-bit byte		265 m	1.08 M	X
	PhD-85	Drum	85 x 10 <sup>6</sup>			112 m	1.8 M	X
	PhD-170	Drum	170 x 10 <sup>6</sup>			112 m	1.8 M	X
	CPHD-7S	Drum	7.2 x 10 <sup>6</sup>				2.2 M	X
	CLC-1	Drum	1.2 x 10 <sup>6</sup>		8.9 m		2.2 M	X
	CD-145	Drum	145 x 10 <sup>6</sup>		17.7 m		2.2 M	X
	A75512	Drum	13.5 x 10 <sup>6</sup>		6.7 m		2.0 M	X
	A101024	Drum	38.5 x 10 <sup>6</sup>		8.9 m		2.2 M	X
	185384	Drum	7.6 x 10 <sup>6</sup>		17.7 m		600 K	X
	75256	Drum	6 x 10 <sup>6</sup>		10.5 m		1.1 M	X
	10512	Drum	16 x 10 <sup>6</sup>		17.7 m		.94 M	X
1851024	Drum	59.5 x 10 <sup>6</sup>		26.6 m		1.16 M	X	
CALIFORNIA COMPUTER PRODUCTS, INC.	CDL	Disc	58 x 10 <sup>6</sup>					
CALIFORNIA PERIPHERALS DIVISION, DATA TECHNOLOGY CORPORATION	588	Drum	.13 x 10 <sup>6</sup>		8.3 m		1 M	X
	688	Drum	.76 x 10 <sup>6</sup>		8.3 m		1.4 K	X
	788	Drum	2.24 x 10 <sup>6</sup>		8.3 m		2.1 K	X
CONTROL DATA CORPORATION	814	Disc	1.59 x 10 <sup>9</sup>	6		110 m	196 K	X
	821*	Disc	10. x 10 <sup>9</sup>	6		145 m	420 K	X
	813	Disc	7.98 x 10 <sup>6</sup>	6		110 m	196 K	X
	841	Disc	1.7 x 10 <sup>9</sup>	6		135 m	420 K	X
	853	Disc	24 x 10 <sup>6</sup>	6		165 m	208 K	X
	854	Disc	48 x 10 <sup>6</sup>	6		165 m	208 K	X
	Drum			6	17 m		1M	
DIGITAL DEVELOPMENT CORPORATION	7301	Disc	8.9 x 10 <sup>6</sup>		8.5 m		2Mbits	X
	7302	Disc	17.9 x 10 <sup>6</sup>		8.5 m		2Mbits	X
	7303	Disc	35.84 x 10 <sup>6</sup>		8.5 m		2.1M bits	X
DATA DISC	7200 Series*	Disc	6.4 x 10 <sup>6</sup>	16	16.7 m		3 M	X
	5200 & 5250* Series	Disc	7.2 x 10 <sup>6</sup>		353 Nano		216 M	X
	Video Disc File	Disc	600 Still pictures		16. m			X
	Video Disc Recorder	Disc			16.6 m			X
FOTO-MIM, INC.	FM 390*	Optical	7.50 x 10 <sup>8</sup>		40 m		100 K	
FOXBORO	97460A*	Drum	5.3 x 10 <sup>6</sup>	12	8.7 m	16.6 m	92Kwords	X
	SPECIAL	Drum	10.6 x 10 <sup>6</sup>	12	8.7 m	16.6 m	92Kwords	X
IBM	HIGH SPEED DISC	Disc	8.2 x 10 <sup>6</sup>	16	75 m	135 m		X
	DATA CELL	Mag Card	3.2 x 10 <sup>12</sup>	16		600 m		X
	2311	Disc	57.9 x 10 <sup>6</sup>		75 m			
INTER DATA	MODEL 4 MASS MEMORY	Core	.52 x 10 <sup>6</sup>	16 or 18	1.8μ		3.2 M	X
HONEYWELL	632-4000 SERIES 32	Disc	57.6 x 10 <sup>6</sup>	32	80-100m	165 m	99Kwords	X
NCR	Century 200	Disc	67.9 x 10 <sup>6</sup>	8-bit byte	43.7 m	70 m	180Kbits	X
	CRAM	Mag Card	1.16x10 <sup>9</sup>	8-bit byte	24 m		83Kbytes	X
RCA	70/564	Disc	58 x 10 <sup>6</sup>	8-bit byte	75 m	135 m	1.2 M	X
	70/567	Drum	66 x 10 <sup>6</sup>	8-bit byte	8.6 m		2.6 M	X
	70/568	Mag Card	4.29 x 10 <sup>9</sup>	8-bit byte	5sec/card		70K bytes	X
SANDERS ASSOCIATES, INCORPORATED	MEMCARD 418	Core	576,000	18	.4μ	1.5μ		X
XEROX DATA SYSTEMS INC.	7200 Series*	Radisc	23.6 x 10 <sup>6</sup>		17 m	34 m	1.5 M	X
	7231/7232	Rad	51. x 10 <sup>6</sup>		17 m	34 m	2.9 M	X
	7211/7212	Rad	43. x 10 <sup>6</sup>		17 m	34 m	32 M	X
STANDARD LOGIC INC.	File Store	Core	1024	4 to 32	600 (Nano)			X
UNIVAC	8411 System	Disc	1.9 x 10 <sup>9</sup>		60 m	130 m	2.4 M	X
	FH-432	Drum	81 x 10 <sup>6</sup>	36	4.3 m		8.6 M	X
	FH-880	Drum	302 x 10 <sup>6</sup>	36	17 m		2.8 M	X
	FH-1782	Drum	800 x 10 <sup>6</sup>	36	17 m		12.5 M	X
	Fastrand II	Mass Drum	792 x 10 <sup>6</sup>	36	92 m		.9 M	X
	Fastrand III	Mass Drum	1.18x10 <sup>9</sup>	36	92 m		1.4 M	X
PRECISION INSTRUMENT COMPANY	Unicon	Laser/Metal	1x10 <sup>12</sup> 2.9x10 <sup>9</sup> /strip		2.00 m on strip strip-to-strip 5 sec		4M	No

\*Maximum capacities and worst access and transfer rate for series

## C. Commercial Graphic CRT Units

Table 3 lists typical commercial graphic CRT units. These vary considerably. None are intended to generate the type of image that a high-resolution side-looking radar displays. Some are digital and some are analog. Many are intended to display primarily alphanumeric characters and contain a mask to facilitate electronic character generation. The CRT output which mimics a radar must be designed to interface with digital computer electrical signals and yet have the same optical parameters as a radar display. An interface unit could be designed to use an actual radar cathode ray tube. However, if this were done, then that output station would be useful only for simulation of one radar display. This may be quite practical as present simulators require a complete analog computer, although each can simulate only one radar.

## D. Computer Graphical Data Digitizers

Part of the I/O for a radar simulator would be a graphical data input digitizer. Table 4 contains a description of typical units designed to digitize large sheets of graphical data. These units are not designed to accept film transparencies, but they could process prints of aerial photographs if the prints were so enlarged that the resolution of the digitizer would be adequate. Film data digitizers are described in Technical Report AFHRL-TR-69-1.

## E. Digital Computer State-of-the-Art Summary

The state of the art of digital computers has significantly advanced in the past few years. Input and output devices to process graphical data have been developed and used sufficiently so that they are now fairly well refined. Central processors are available in a wide range of memory sizes, computing speeds, and hardware features. Each manufacturer's computer line is oriented toward a particular application and thus has hardware features geared to do particular functions most efficiently.

For the graphical processing, as we anticipate the requirements, it may be desirable to employ a multicomputer. This consists of a large CPU with smaller peripheral CPU's performing specific functions very rapidly and independently of the main CPU. These peripheral CPU's, called PPU's, can thus increase the total throughput computation rate of the system by working while the CPU is also making computations. This mode of operation could be used to increase the calculation rate of a CPU if it were inadequate for real-time image generation. Of course, this increased calculation rate can effect only a limited improvement in frame rate, and the amount of improvement is dependent upon the form of the simulation calculations.



TABLE 3  
 Characteristics of Typical State-of-the-Art Graphic CRT Units

MANUFACTURER	MODEL	TYPE	DISPLAY SIZE (INCH)	PHOSPHOR TYPE	CHARACTER SIZE (INCH)	CHARACTERS PER LINE	NUMBER OF LINES	REFRESH RATE (Hz)	BRIGHTNESS (FOOT-LAMBERTS)	CONTRAST	STABILITY	REPEATABILITY (INCHES)	RASTER COUNT	SPOT DIAMETER (INCH)	RESOLUTION	WRITING SPEED (1/2 SEC.)		VECTOR CAPABILITY	KEYBOARD	LIGHT PEN	SHADES OF GRAY	
																VECTOR	CHARACTER					
BETA INSTRUMENT CORPORATION	PD 900		4.25 circle						20:1					.0025								
BUNYER-RAWO CORPORATION	90		13.2x 13.2	P-4	.13x.10 .25x.18		60	20					1024x1024	20 Mil Spot				memory	X	X		
COMPUTER TERMINAL CORPORATION	BR-700		7x5 to 20x15	P-31	VAR		60							.015				memory	X			
DATAPOINT CORPORATION	3300		12x12 circle		.16x.11	72	25	60					4096x4096					memory	X	X	32	
CONTROL DATA CORPORATION	274 DISPLAY CONSOLE		20 circle				40											memory	X	X		
IBM	2250		12x12			74	52	30					1024x1024					memory	X	X		
DATA DISC		T.V.	5x7 7x10			85	48											memory	X	X		
DELTA DATA SYSTEMS CORPORATION	DELTA 1		12 DIAGONAL			40	24	60											X	X		
ELECTRONIC ASSOCIATES, INCORPORATED	MULTI-CLR DISPLAY STATION		10x10																X			
INFORMATION DISPLAYS INCORPORATED	E 1	DIGITAL	13x13 or 12x16	P-31 or Type J	VAR	128					±.5%	±.03	1024x1024	.015	.04" .1" 80mil: Col: 10"	20/3"	10		X	X	X	4
ARATOS	1117	DIGITAL	17x17	P-31 Stand.	VAR						±.5%	±.04	1024x1024	.015	.015"	20/3"		memory	X	X		
	M221	DIGITAL ANALOG	21x21	P-31 Stand.																		
NCR	795		7.5x9.5	Type X		64	32	46.5	30													
OPTIMATION, INC.			12x12	P-31					50	4:1												
RAYTILON	DIDS-400		12x12	P-31	.18 or .13	80	26															
TRASKES INSTRUMENTS CORPORATION	9200 & 9210	RANDOM SCAN	14x14	P-1	VAR	100	50	50	75	5:1	.2% of Format	±.03	2048x2048	.020				memory	X	X	4	
	9110	RANDOM SCAN	12x17.5	P-1	VAR	100	50	50	75	5:1		±.03	1400x2048	.020				memory	X		4	
TRC INCORPORATED	530		6x4	P-4	.375 x .25	16	8	63	5:1													
	540		8-3/4x 6-3/4	P-31	.28x.175	32	8	60														
	550		8-3/4x 6-3/4	P-4	.26x.175	32	16	60														
	560		8-3/4x 6-3/4	P-4	.18x.12	50	20	60														
ELEKTRONIX INCORPORATED	14002		6-1/2x 8-1/4	P-31	VAR	80	35															
	611		11	P-1																		
UNIVAC	601		5	P-1																		
	UNISCOPE 100		5x10		VAR	80	12	60														
	UNISCOPE 300		10x5		VAR	64	16	60														
BALL BROTHERS RESEARCH CORP.	THE MONITOR		17 or 21 DIAGONAL	Commercially Available Phosphors	VAR	64	16															

\*Using 9 inch circle as display area

TABLE 4

Characteristics of Typical State-of-the-Art  
Computer Graphical Data Digitizers

MANUFACTURER	MODEL	OUTPUT			CURSOR			IDENTIFICATION SWITCHES	BACK LIGHTING	READING AREA (INCHES)	RESOLUTION	ACCURACY	COUNTING RATE PER SECOND
		PUNCHED CARD	MAGNETIC TAPE	COMPUTER	KEYBOARD	CROSS-HAIRS	EYE-PIECES						
AUTO-TROL CORPORATION	3939	X	X	X	X	X		15		20 x 20 to 72 x 72	250,500, 750 or 1000 Counts	±.004" overall	100,000 Counts
	3400	X	X	X	X				X	24 x 36 36 x 48	.001"to .4"	± .004" Overall	10,000 Characters
	3800	X	X	X	X	X	X			36 x 60 50 x 60 20 x 20 60 x 120	.001" .0005" or .01 mm	±.004" overall	100,000 Counts
COMPUTER INDUSTRIES	LARR-V	X	X	X	X	X		X	12	48 x 60	100,200 400,1000 Counts per inch	+ .010" Point to Point	50,000 Counts
	LARR-M		X		X	X		X	12	48 x 60	250,500 or 1000 counts per inch	±.010" point to point	50,000 Counts
BENDIX ADVANCED PRODUCTS DIVISION	DATAGRID DIGITIZER	X	X	X	X	X				27 x 27 30 x 36 36 x 48 60 x 60	.001 inch	.002" RMS	300 Inches
THE MICROMETRIC CORPORATION	AB72111i	X	X	X						30 x 60	.002" least count of system	±1 Least Count RMS	45 measure- ments per minute
CALMA COMPANY	485		X		X	X				48 x 60	.005" or .010"	.1% Max. Error	1 inch
	303		X		X				X	18 x 24	.005"	.012"	2 inches
EDWIN INDUSTRIES CORPORATION	PF40		X		X			X	X	24 x 36 to 48 x 60	±.001"	±.004"	

## IV Basic Radar Simulation Requirements

To meet the data density and storage requirements in designing a high-resolution radar simulation system, the capacity of side-looking radar to produce imagery should first be evaluated. The simulated information should be calculated at a rate comparable to realistic radar scan rates, as related to ground coordinates. Let us assume that a radar is mapping a 25-mile swath at a 600-knot airspeed. Since these figures correspond to a velocity of 1012.7 feet per second and a swath width of 151,999 feet, the simulated information should cover 153,839,130 square feet in one second.

Preliminary calculations for data density indicate that there are 18,775 points per square statute mile, or per 27,878,400 square feet. Therefore, the simulated information should correspond to 103,598 points mapped each second.

## V Digital Data Storage Considerations

One of the key questions to be answered concerning the complexity of high-resolution radar simulation on digital computers is the size of the required data store. Digital data is very precise; for example, a straight line can be represented exactly by the two end points and the equation  $y = mx + b$  or a limiting equation  $c \leq x \leq d$  with the equation of the line after the coefficients have been determined. Moreover, the digital system is not limited in precision because of the capability of the digital computer to add bits of precision by calculating in double precision. Rather, the limit on a digital system is the storage capacity of the mass data store in bits. To operate efficiently, a line would be stored as two data points in the store and the computer could calculate all possible intermediate points of that line to the same precision, thus recovering all possible information while trading computing time for storage quantity. On the other hand, an analog storage system must represent the entire line, as on a factor transparency, by storing the entire line. Thus the analog store has to be designed to be either highly precise for a small landmass or less precise for a large landmass.

The effective use of having two points represent all data on a straight line is called data compaction. It exists in many forms for different purposes. The essential operation is forcing the data density to be directly related to the real-world information density. In this manner a city would have a much higher data density than a rural area, because the information content is much higher for cities. No information was available on the cultural density that would be commensurate with data storage requirements for high-resolution radar simulation for city areas. Hence, portions of two large city areas were analyzed in detail to determine data densities which could be used to obtain an estimate of the total storage requirements for all cultural areas of significant size.

## VI. Data Density Analysis

### A. Sample Data Areas

The Air Force selected three areas for analysis: the central section of San Francisco, northern San Francisco, and a part of Manhattan in New York City. Figure 2 shows the central area of San Francisco, designated SF1 for this analysis. As seen in this figure, this area is outlined on a reproduction of the "San Francisco South, Calif." map sheet of the 1:24,000 scale series published by the U. S. Geological Survey. All later maps are from this series. Figure 3 delineates the northern section of San Francisco on map sheet "San Francisco North, Calif." Figures 4, 5, 6, and 7 illustrate the area of Manhattan designated NY during this study. These areas appear on map sheets "Weehawken, N. J. — N. Y., Jersey City, N. J. — N. Y., Central Park, N. Y. — N. J., and Brooklyn, N. Y."

Seven aerial photographs were provided by the Air Force for analysis. Shown as Figures 8 through 14, these photographs are designated SF1-58, SF1-59, SF2-26, SF2-27, NY-1897, NY-1898, and NY-1899. For analysis, these photographs were enlarged to the maximum practical size on printing paper as shown in Figure 15.

### B. Sample Data Area Analysis Procedure

Each area to be analyzed was subdivided into sections and each section into city blocks. A section was intended to be an area rather homogeneous in land usage such as residential or commercial areas. Figures 16, 17, and 18 contain photographs of the map worksheets used to identify the sections and blocks. Each section and block was assigned a unique number which identified it throughout the data analysis. The map worksheets were drawn by hand to facilitate identification of the areas which were mapped to insure that each block was counted and counted only one time.

Sixteen land-usage categories proved adequate to describe the three areas selected for analysis. Table 5 describes the types of land usage considered.

Decisions to identify the use for each building were based upon a photo-interpretation of the enlarged photographs as shown in Figure 15. A sample data sheet, as recorded by the interpreter, is shown as Figure 19.

Every building or structure on a building was included if it had one linear dimension of 10 feet or longer. Large buildings have several types of smaller structures on their roofs which become significant radar reflectors for high-resolution systems. Among these are water tanks, stairwells, elevator shaft caps, penthouses, and walls or parapets.

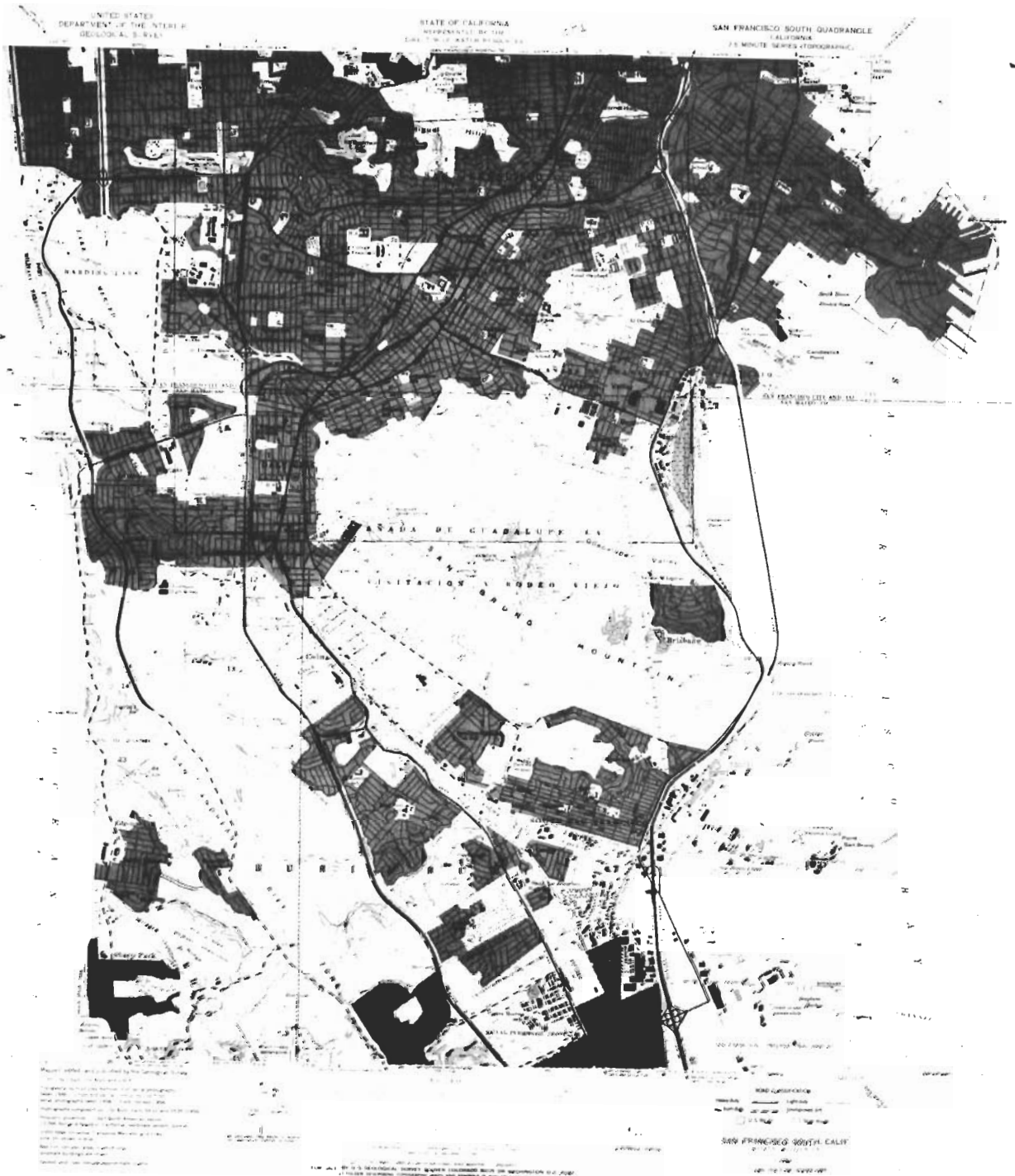


Figure 2. San Francisco South Quadrangle Map Sheet Designated SF1



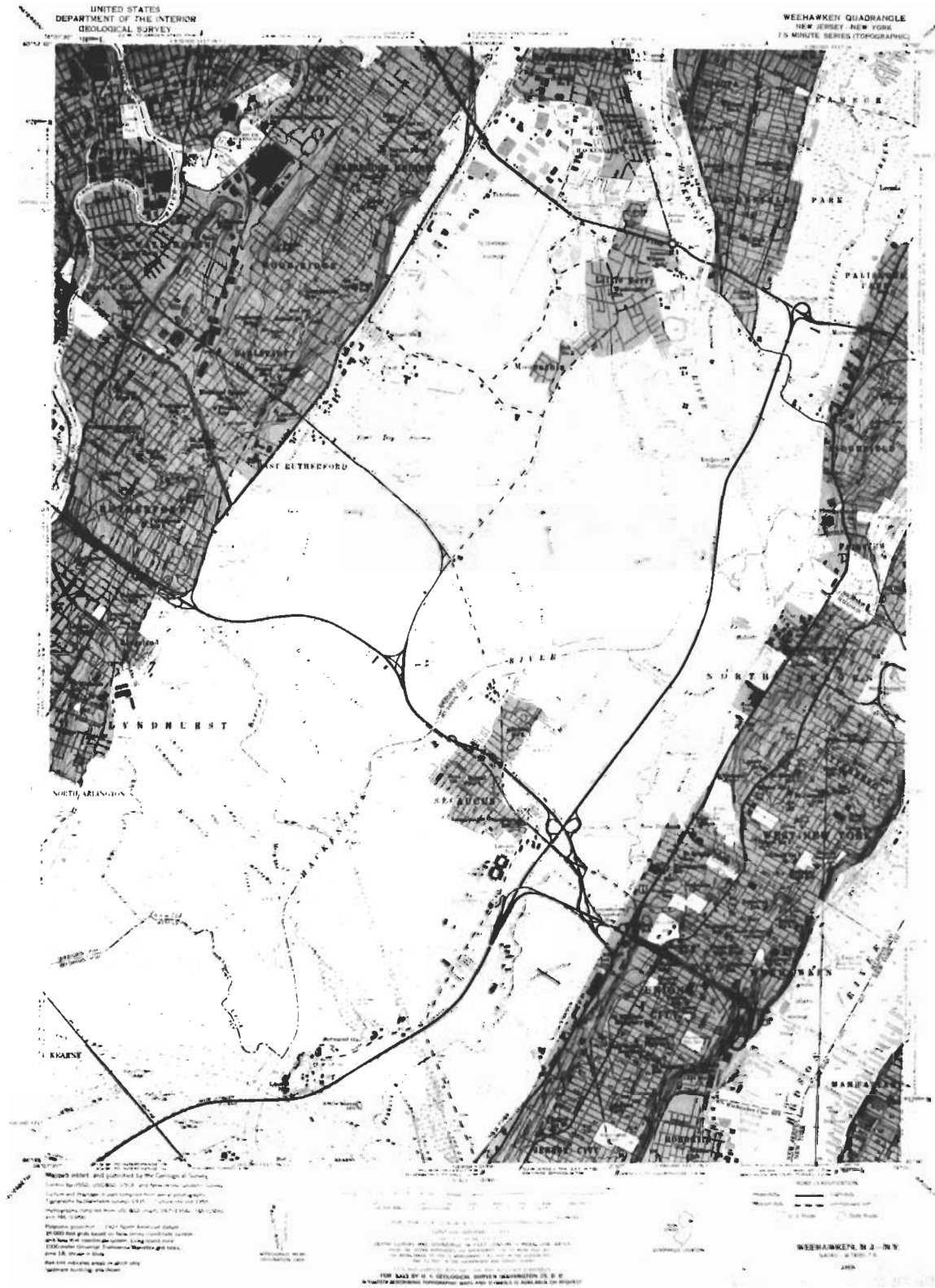


Figure 4. Weehawken Quadrangle (New Jersey-New York) Map Sheet



Figure 5. Jersey City Quadrangle (New Jersey-New York) Map Sheet

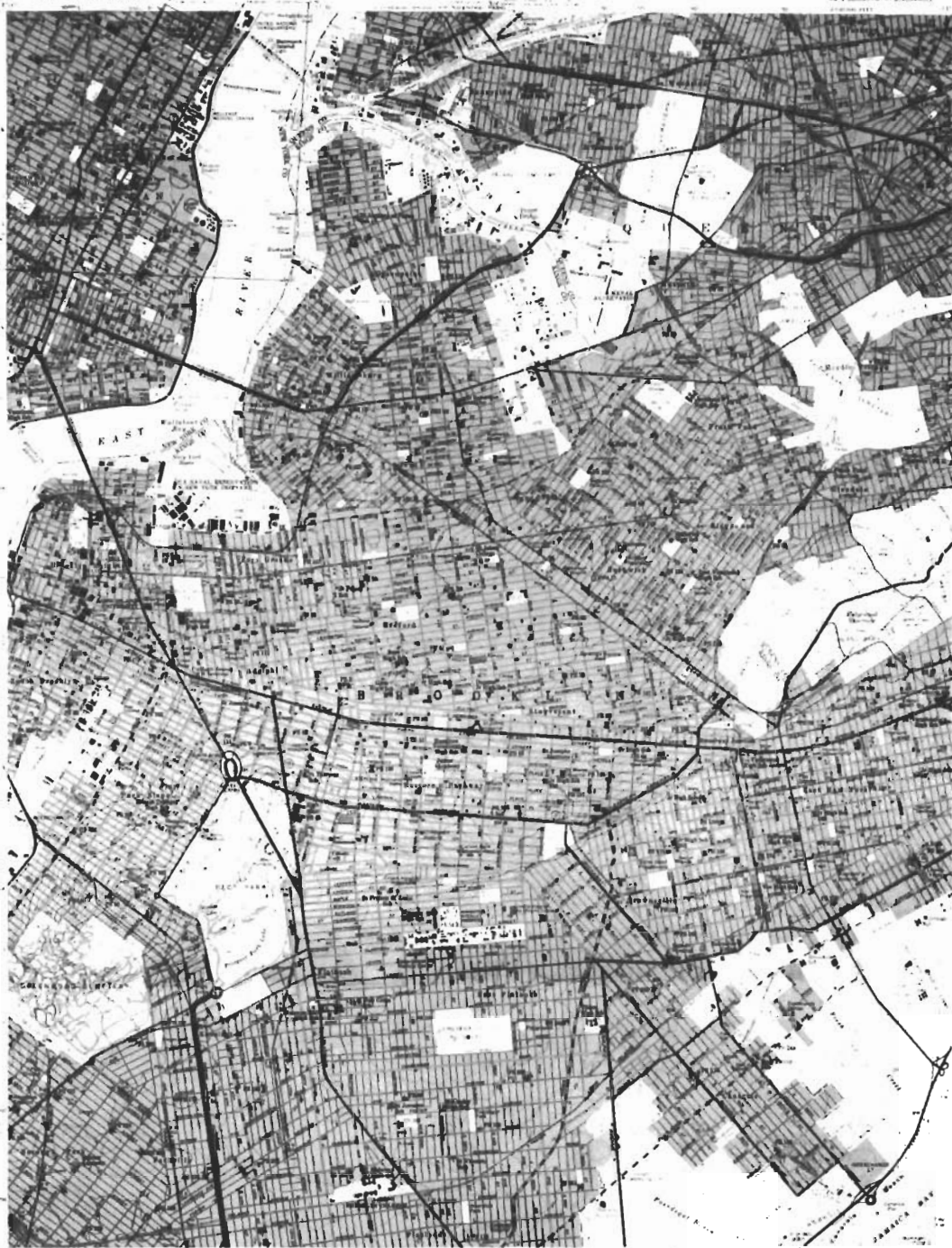




Figure 6. Central Park Quadrangle (New York-New Jersey) Map Sheet

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

BROOKLYN QUADRANGLE  
NEW YORK  
15-MINUTE SERIES (TOPOGRAPHIC)



Map published in 1908 by the Geological Survey.  
Scale 1:62,500.  
Projection: Mercator.  
Contour interval: 10 feet.  
Elevation: 100 feet above sea level.  
Map published in 1908 by the Geological Survey.  
Scale 1:62,500.  
Projection: Mercator.  
Contour interval: 10 feet.  
Elevation: 100 feet above sea level.

UNITED STATES GEOLOGICAL SURVEY  
DEPARTMENT OF THE INTERIOR  
WASHINGTON, D. C. 20540  
FOR SALE BY U.S. GOVERNMENT PRINTING OFFICE: 1967

BROOKLYN, N. Y.  
15-MINUTE SERIES (TOPOGRAPHIC)  
1908  
G. S. NO. 107 (SERIES 107)

Figure 7. Brooklyn Quadrangle (New York) Map Sheet

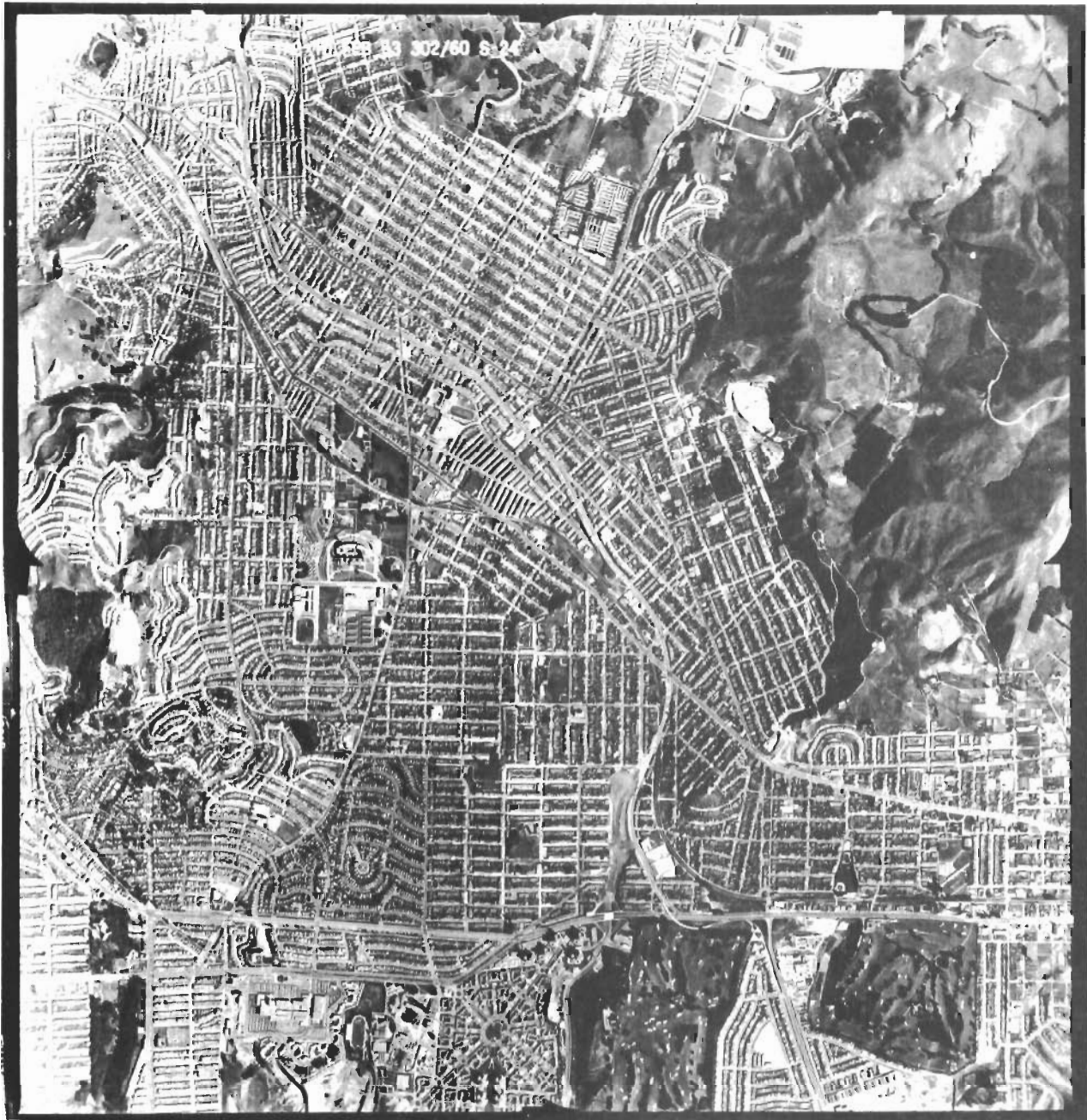


Figure 8. Print of Aerial Photograph SF1-58

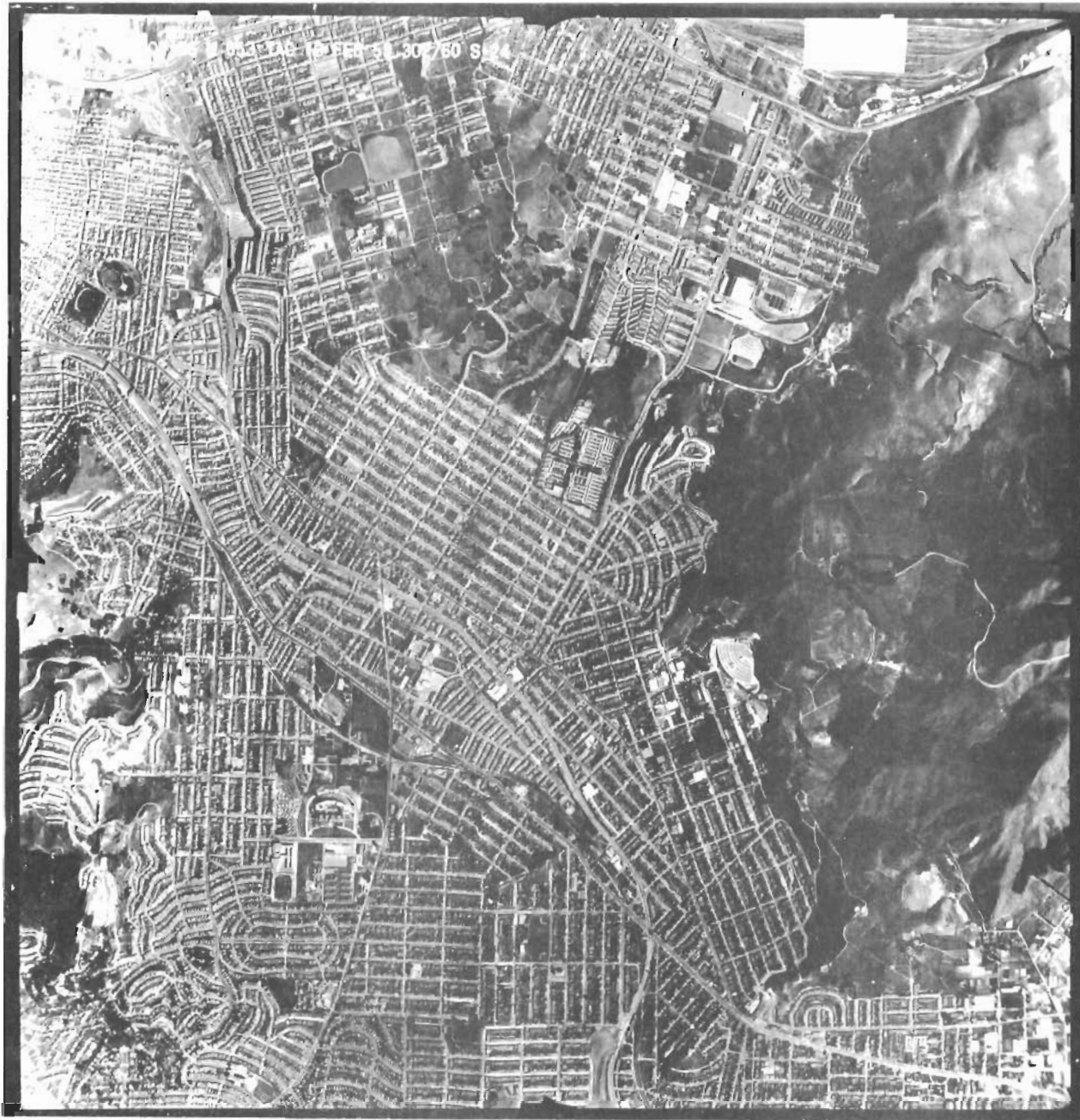


Figure 9. Print of Aerial Photograph SF1-59

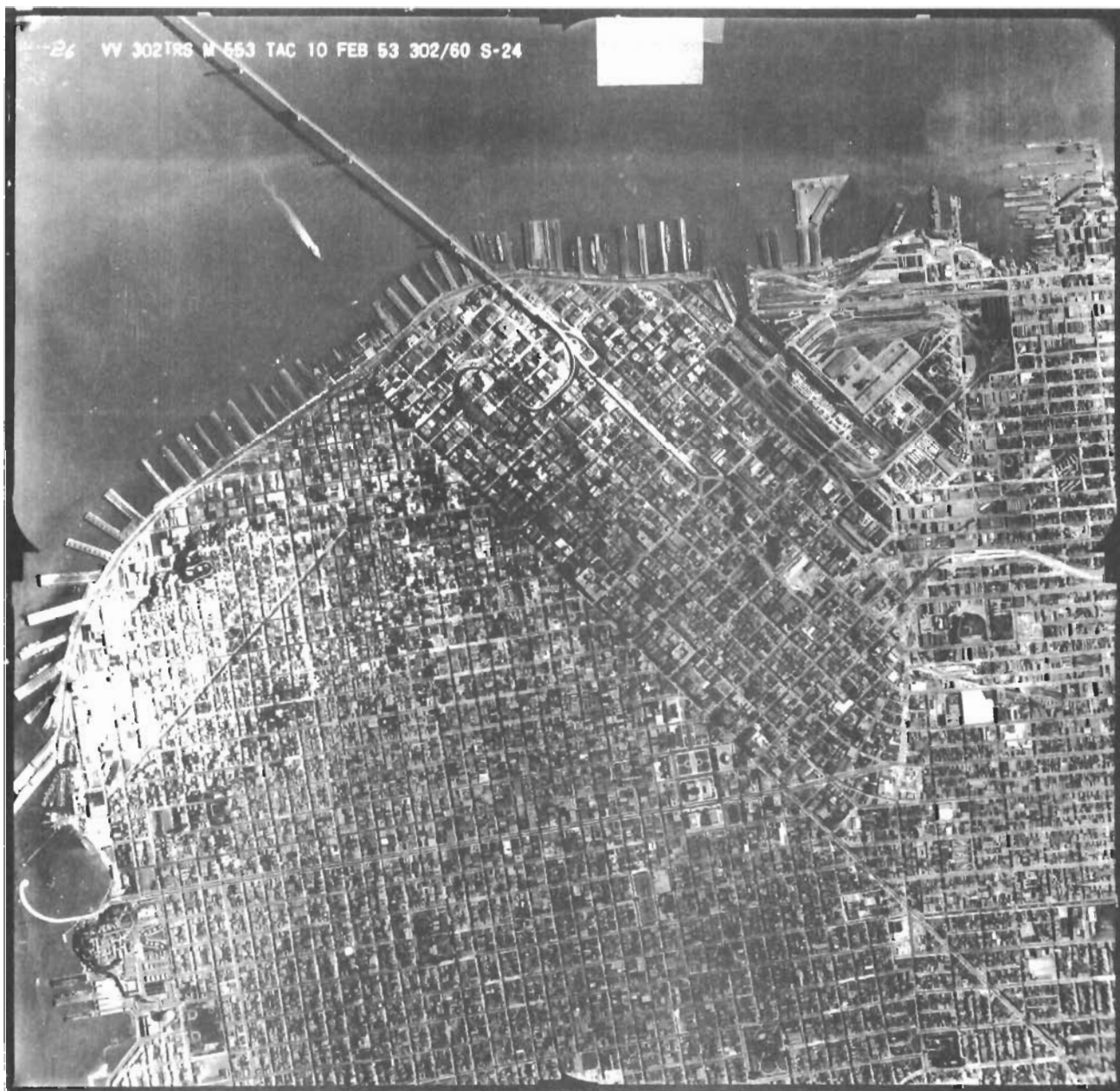


Figure 10. Print of Aerial Photograph SF2-26

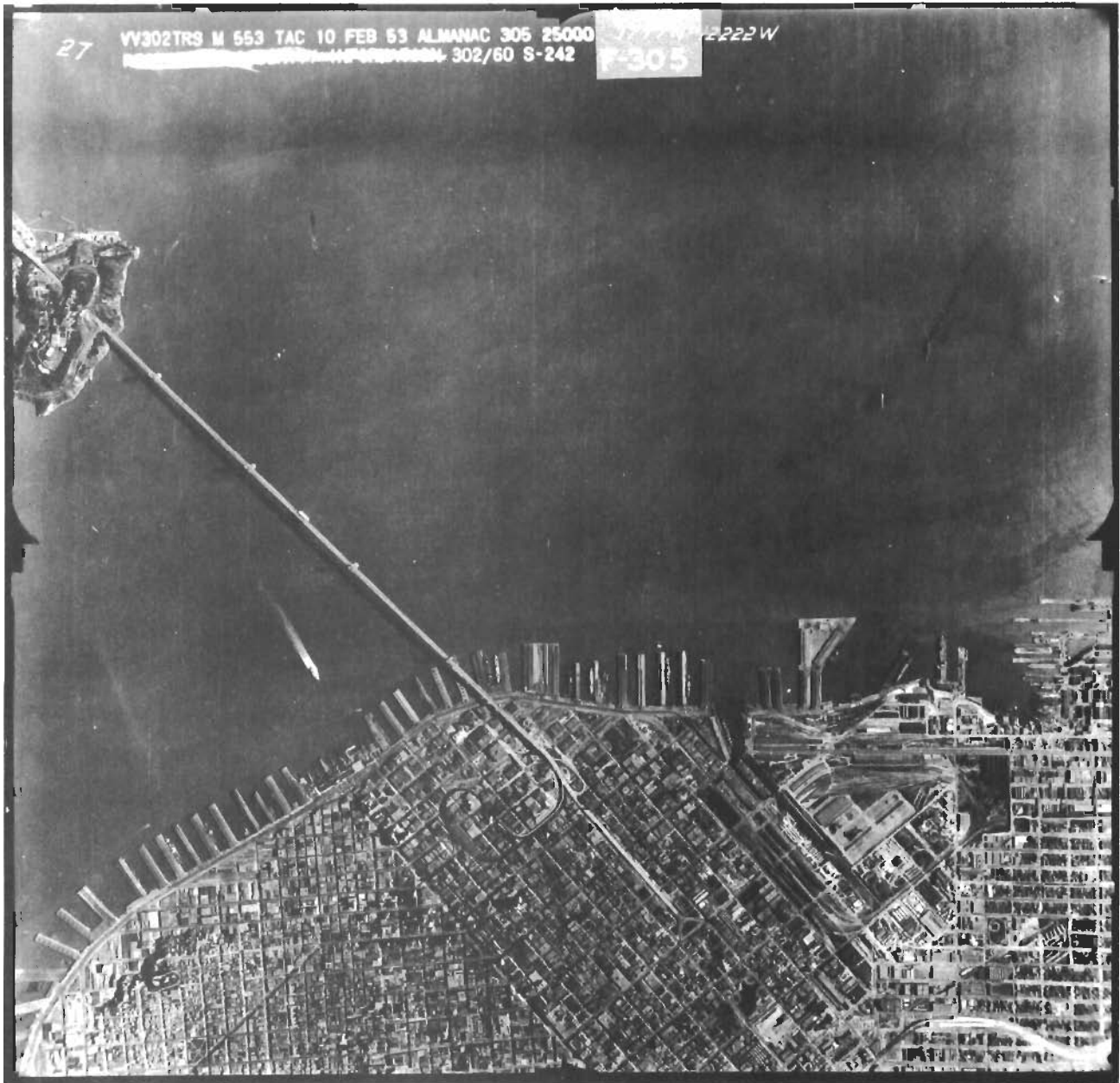


Figure 11. Print of Aerial Photograph SF2-27



Figure 12. Print of Aerial Photograph NY-1897



Figure 13. Print of Aerial Photograph NY-1898





Figure 14. Print of Aerial Photograph NY-1899

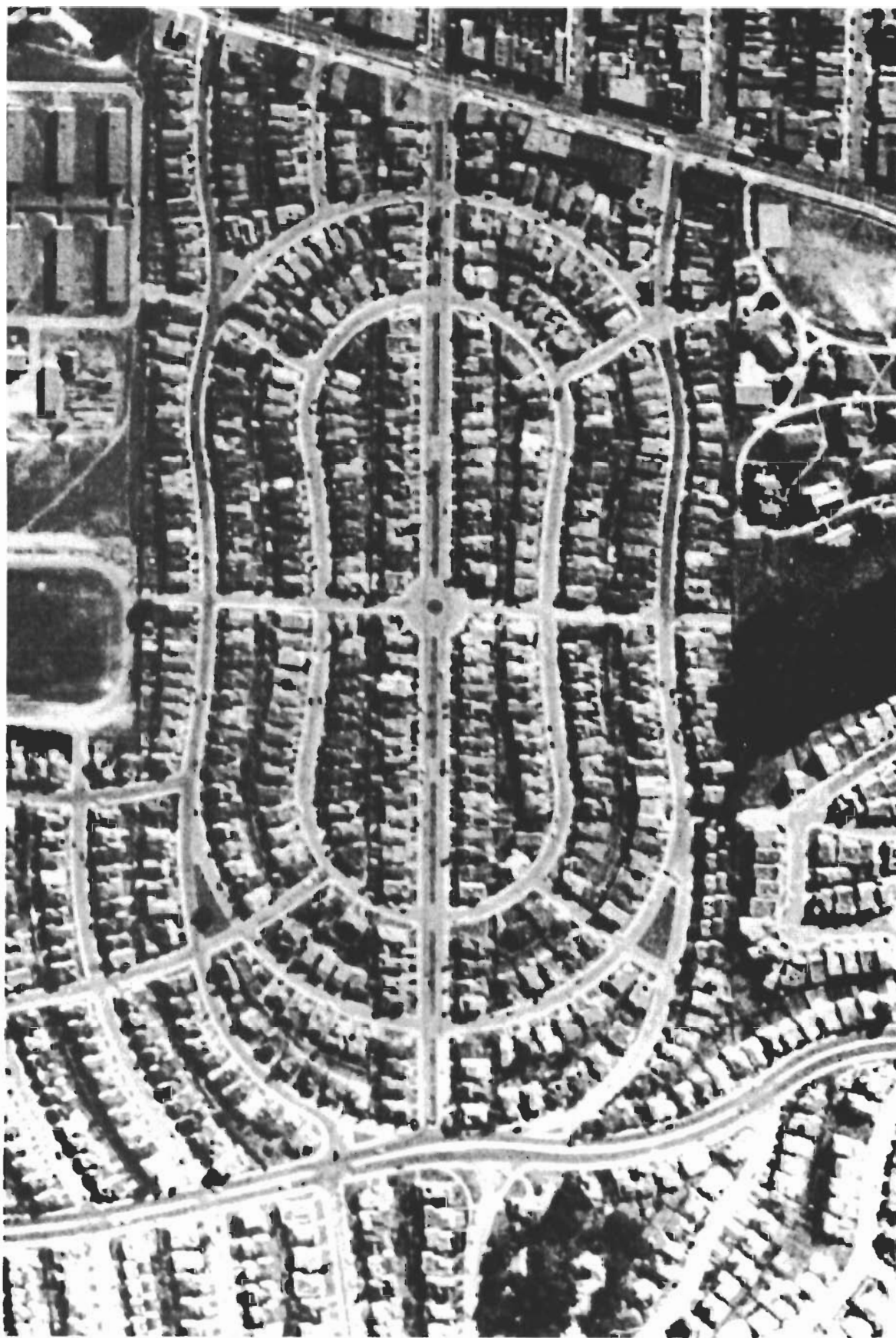


Figure 15. Sample of Aerial Photograph Enlarged to Maximum Practical Size for Data Analysis and Reading

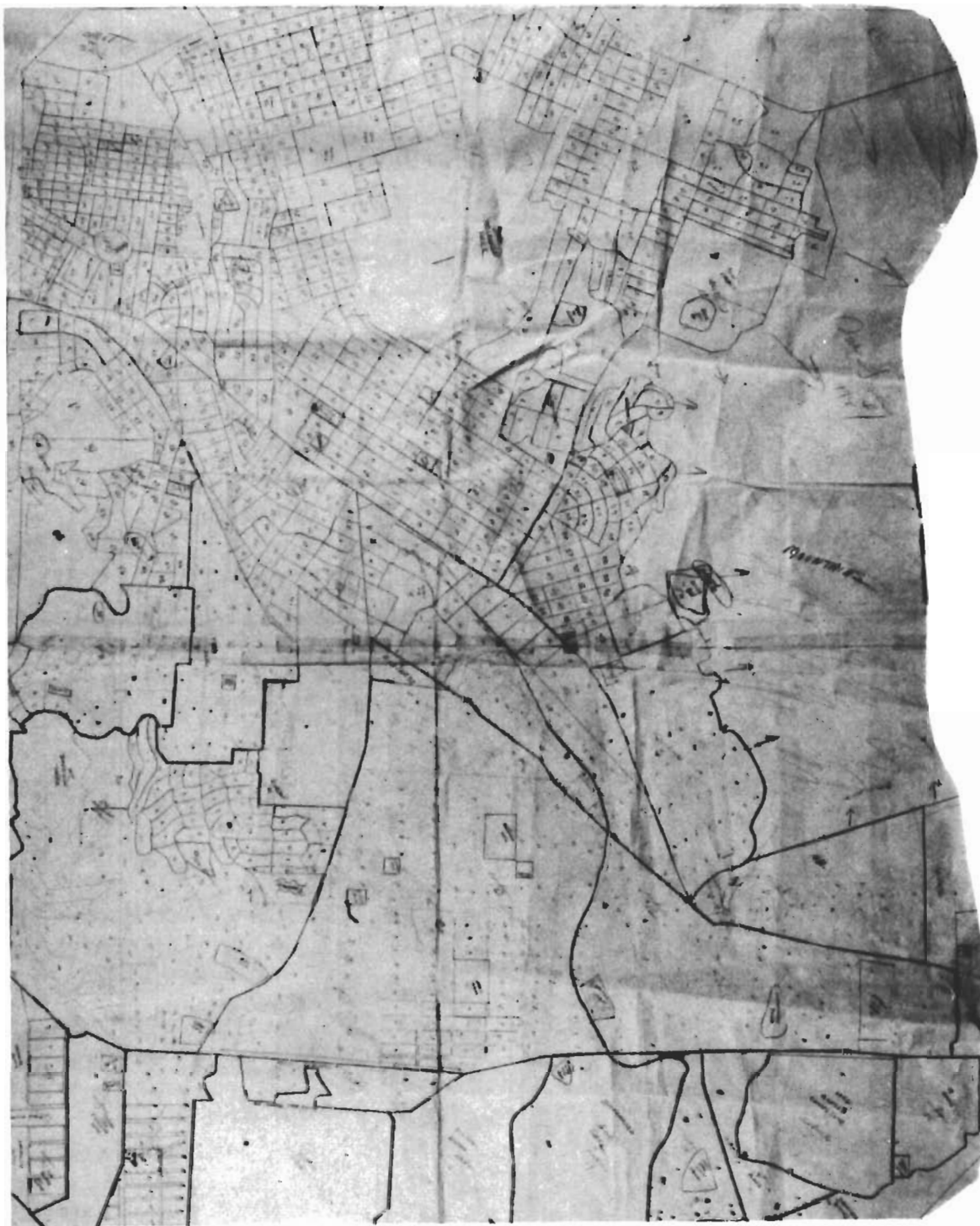


Figure 16. Photograph of Map Worksheet to Identify Sections and Blocks in SF1

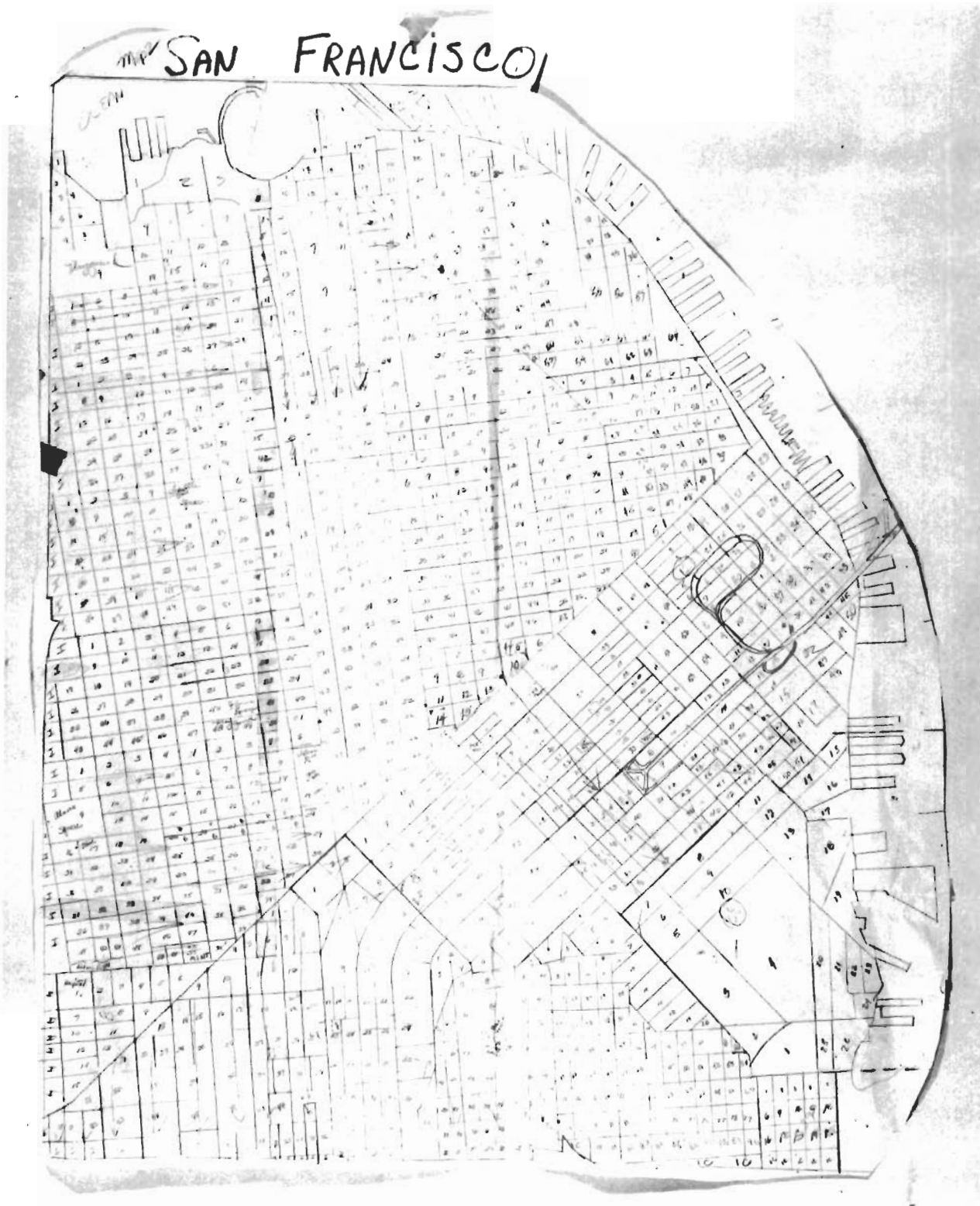


Figure 17. Photograph of Map Worksheet to Identify Sections and Blocks in SF2

# Contrails

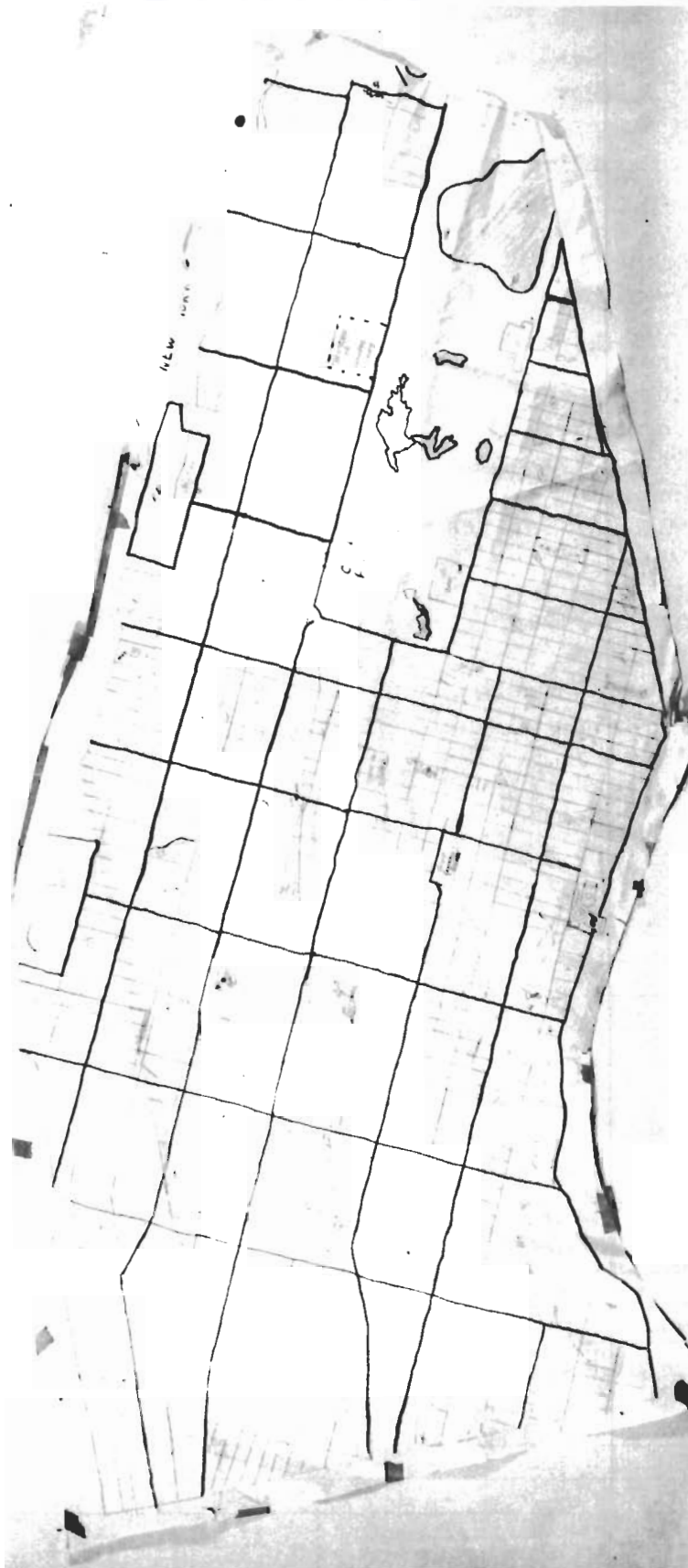


Figure 18. Photograph of Map Worksheet to Identify Sections and Blocks in NY

TABLE 5

Land Usage Types

<u>Symbol</u>	<u>Land Use</u>	<u>Area Classification</u>
R	Residence	Residential
S	School	"
A	Apartment	"
PK	Park	"
CH	Church	"
B	Business	Commercial
C	Commercial	"
P	Parking Lot	"
I	Industrial	"
MB	Military Barracks	"
M	Mountain	Other
RR	Railroad	"
BR	Bridge	"
W	Water	"
BL	Blurry object, unable to classify	"
X	Building, unable to classify	"

CITY New York

BLOCK 1,2

SECTION 14

BLOCK DIMENSIONS \_\_\_\_\_

Bldg#	Type	Dimensions	Small Structures (Shape)	Dimension
<u>Block 1</u>				
1	I		3@4	
2	I		None	
3	I		2@4	
4	I		3@4	
5	I		2@4	
6	I		4@4	
7	I		2@4	
8	I		2@4	
9	I		3@4	
10	I		5@4	
11	I		9@4	
12	I		None	
13	I		3@4	
14	I		PARK LOT	
15	I		2@4	
16	I		1@4	

Figure 19. Sample of Photointerpretation Data Sheet

# Contrails

Data was punched onto IBM cards from the handwritten data sheets. The format of Figure 20 was used.

<u>Col.</u>	<u>1-4</u>	<u>5-8</u>	<u>9-12</u>	<u>13-16</u>	<u>17-18</u>	<u>19-20</u>
Data	City	Section	Block	Bldg. # (or Lot #)	Type	# 4's
Format	A4	I4	I4	I4	A2	I2
<u>Col.</u>	<u>21-22</u>	<u>23-24</u>	<u>25-26</u>	...	<u>49-50</u>	<u>51-80</u>
Data	# 0's	Code	#Corners	...	#Corners	Comments
Format	I2	A2	I2		I2	5A6

Figure 20. Format for Punching Photointerpretation Data on IBM Cards

Approximately 74,000 data cards were required to describe these three areas. The majority of cards contained several structures. To simplify the analysis of this large quantity of data, the cards were read into the IBM 7044/7094 computer at Wright-Patterson Air Force Base and the card images were then transferred onto tape. The tapes were then listed and the data tested for validity. Several hundred cards contained errors which had to be corrected prior to any further analysis. A sample of the listing of the data contents appears as Figure 21. These data tapes were used as inputs for two computer programs designed to analyze the numerical characteristics of each area.

The first computer program was designed to calculate the overall statistics of the total city areas. This program calculates the landmass area in square miles, the number of structures of each type, and the number of data points of each type for compacted data. Table 6 lists the results calculated by this program for the three areas. Note that area SF1 was divided into two groups for calculation because of the large number of data cards required. The methods of calculating each value will be discussed below to allow the reader to fully understand the numerical results.

The total area is evaluated by summing the areas for each section. The area of each section was measured by overlaying a grid on the map, counting the number of squares per section, and multiplying the number by the proper scale factor. Units for total area are square statute miles.

# Contrails

NY	1	1	1R	2	
NY	1	1	2R	2	
NY	1	1	3R	5	
NY	1	1	4S	1	
NY	1	2	1R	1	
NY	1	2	2R		
NY	1	2	3R		
NY	1	2	4R		
NY	1	2	5R		
NY	1	2	6R		
NY	1	2	7R		
NY	1	2	8R	3	
NY	1	2	9R	1	
NY	1	2	10R	1	
NY	1	2	11R		
NY	1	2	12R	1	
NY	1	2	13R	1	
NY	1	2	14R	1	
NY	1	3	1R	1	
NY	1	3	2R		
NY	1	3	3R		1
NY	1	3	4R	1	
NY	1	3	5R	1	
NY	1	3	6R	6	
NY	1	3	7R	4	
NY	1	3	8R		1
NY	1	3	9R		
NY	1	3	10R		
NY	1	4	1A	4	
NY	1	4	2A	4	
NY	1	4	3A		
NY	1	4	4A		
NY	1	4	5A	2	
NY	1	4	6A		
NY	1	4	7A		6 8
NY	1	4	8A	1	
NY	1	4	9A	2	
NY	1	4	10A	1	
NY	1	4	11A	1	
NY	1	4	12A	1	
NY	1	4	13A	1	
NY	1	5	1A	2	
NY	1	5	2A	1	
NY	1	5	3A		
NY	1	5	4A	2	
NY	1	5	5A		6
NY	1	5	6A	2	6
NY	1	5	7A		
NY	1	5	8A	1	
NY	1	5	9A	1	
NY	1	5	10A	1	
NY	1	5	11A	1	
NY	1	5	12A	1	
NY	1	5	13A		
NY	1	5	14A	2	
NY	1	6	1A	3	
NY	1	6	2A	3	
NY	1	6	3A		
NY	1	6	4A		
NY	1	6	5A		
NY	1	6	6A		

Figure 21. Sample of Data Card Images as Listed from Magnetic Tape



# Contrails

The total points is the sum of the number of points needed to represent structures of all buildings in a compacted format. It was assumed that each structure had vertical walls and therefore could be represented by the corners of the roof. Thus a cubic building would require four points, a square building with the roof ridgeline raised would require six points, and an L-shaped flat-roofed building would require six points. A cylindrical tank was assigned a value of three points. Basically it was assumed that the computer would have the capability of reconstructing the scene from compacted data. The data point density was calculated by dividing the total number of points by the total area.

The total structures is the sum of all structures, of any type, which had a dimension of approximately 10 feet or longer. Note that the structures are subdivided into base structures and top structures. A base structure is defined to be the structure built on the ground, the lowest structure of any building. All top structures rest upon either base structures or other top structures.

Units are either square statute miles for area, number of structures, or number of points. The density calculations develop either structures per square mile or data points per square mile.

## C. Total Data Densities

The data in Table 6 can be combined to yield average values for the entire area. Table 7 lists the resultant averages.

## D. Extrapolation of Census Data

Appendix A lists the population and land area of urbanized areas of the United States, based upon the 1950 and 1960 census tables. These tables consist of cities with populations of 50,000 or more. For the entire United States, in 1950 there were 157 urbanized areas with a population (revised) of 60 million and a land area of 12,804 square miles, and in 1960 there were 213 areas with a population of 96 million and a land area of 25,544 square miles. Over the 10 years, these urbanized area increases represent an area growth of 100% and a population growth of 60%.

In 1950 the total population of the U.S. was 150,697,361, in 1960 it was 179,323,175, and in 1970 it is estimated to be 203,000,000. These figures represent a total U.S. population growth of 19.0% between 1950 and 1960 and of 13.2% between 1960 and 1970. Since between 1950 and 1960, the population growth of the urban areas was 60% and that of the entire U.S. was 19.0%, the growth rate of the former was 3.16 times that of the latter. Assuming that this ratio between the two growth rates would prevail, the population growth between 1960 and 1970 of the urban areas would be 41.7% to correspond with

the 13.2% increase of the entire U.S. Then 141.7% of the 96 million for the 1960 urban population would give about 136.1 million for the 1970 urban population.

TABLE 6

Computer Listings of Calculated Data Values for Each City

CITY NAME	TOTAL AREA SQ MI	TOTAL POINTS PTS	DATA POINT DENSITY PTS/SQ MI	TOTAL STRUCTURES STRS	STRUCTURE DENSITY STR/SQ MI	TOTAL BASES STRS	BASE DENSITY STR/SQ MI	BASE POINT DENSITY PTS/SQ MI	TOTAL TOPS STRS	TOP POINT DENSITY PTS/SQ MI
SF1	3.04	50211	19148.4	14561	4789.8	12163	4001.0	16003.9	2398	3144.4
TOTAL BASE POINTS PTS		40652		TOTAL TOP POINTS PTS		9559				
SF1	8.71	105817	12148.9	26494	3041.8	23528	2701.3	10805.1	2966	1343.9
TOTAL BASE POINTS PTS		94112		TOTAL TOP POINTS PTS		11705				
SF2	8.48	175811	20732.4	44433	5239.7	15221	1794.9	7179.7	29212	13552.7
TOTAL BASE POINTS PTS		60884		TOTAL TOP POINTS PTS		114927				
NY1	8.75	204269	23445.0	51613	5899.0	17854	2040.5	8161.8	33759	15103.2
TOTAL BASE POINTS PTS		71416		TOTAL TOP POINTS PTS		132853				

TABLE 7

Overall Cumulative Data for Urban Areas

Total Area (sq mi.)	Total Points (pts.)	Data Point Density (pts/sq mi.)	Total Structures (strs.)	Structure Density str/sq mi.)	Total Bases (strs)
28.98	544,108	18775.3	137,101	4730.9	68,766
Base Density (str/sq mi.)	Base Point Density (pts/sq mi.)	Total Tops (strs.)	Top Point Density (pts/sq mi.)	Total Base Points (pts.)	Total Top Points (pts.)
2372.9	9491.5	68,335	9283.8	275,064	269,044

# Contrails

The rate of growth of urban land areas runs at 5.25 times that of population. On this basis, the urban area would increase by 69.4% between 1960 and 1970 and cover 43,264 square miles by 1970. These data are synopsized in Table 8 for comparison.

TABLE 8

Summary of Census Data

<u>Year</u>	<u>Total Population</u>	<u>Urban Population</u>	<u>Urban Land Area</u>
1950	150,697,361	69,252,234	12,804.6
1960	179,323,175	95,848,487	25,544.3
1970(est)	203,000,000	136,100,000	43,264.0

E. Estimate of Data Density for Urban Simulation

To estimate data density requires hypothesizing a plausible data storage technique. Accordingly, it will be assumed that each building is constructed of two materials: one for the roof and one for the side walls. Data density averages for the three test areas will be used. It will also be assumed that four roof corners define one structure. As indicated in Table 7, the average number of data points per square mile is 18,775, and the average number of structures per square mile is 4731. Each 4-cornered structure requires from nine to twelve numbers: the x and y components of each corner, and from one to four heights for the four corners. Since two heights will be assumed, 2.5 numbers are required for one corner. Thus 46,938 numbers are required to represent the coordinate geometry. For the 4731 structures per square mile, 9462 numbers are required to represent the two materials in each building. The total number density, therefore, would be 56,400 numbers per square mile.

The 1970 urban area is estimated to be 43,264 square miles. Numbers required to store this entire area would total 2,440,089,600  $\approx 2.44 \times 10^9$ . If every number were a 36-bit word, the data store would require a capacity of  $8.784 \times 10^{10}$  bits. As a frame of reference, a 36-bit word corresponds to 8 digits of precision in the IBM 7094.

The density used in the foregoing study was for a composite area within New York City and San Francisco. However, the average data density for the entire United States would be somewhat lower, as indicated by the SF1-2 area with 12,148.0 points per square mile. If data densities were somewhat less, the mass storage requirements might diminish by a factor of two to a total capacity of about  $4.5 \times 10^{10}$  bits.

## F. Block-by-Block Data Analysis

An extremely large and tedious job was completed when the perfect data tapes were finally generated with 74,000 card images. Since pertinent additional knowledge could be gained by extracting more detailed data while the tapes were available, a set of calculations was made for each block of the three areas analyzed. As computer printouts generated on the IBM 7044/7094 computer, the calculations appear in Appendix B in the form of a block-by-block analysis. Figure 22 shows a sample of the printouts in Appendix B. The left half of each printout describes the numerical data densities for various classes of building elements, and the right half lists the number of entries in each of the land-usage categories given in Table 5.

To permit calculating the data density for residential areas, commercial areas, industrial areas, and so on, these results could have been further processed to better stratify the data densities. Unfortunately, however, the available time on the contract did not allow this additional processing. Nevertheless, the essentially complete data in Appendix B offers sufficient information to yield many types of information.

## G. Area of Each Section

The areas for each section were measured from maps. These data are presented in Table 9. Areas for each block were not measured because this would have required a great expenditure of time. However, the sections are rather homogeneous and an average area for each block within a section would seem to be as meaningful for statistical density analyses.

## VII Feasible Mass Storage Devices

Table 2 lists the memory units of typical mass computer memory units. Units with adequate capacity would be as follows: 18 Bryant 4000 discs, 9 Control Data 821 discs, 12 Foto-Mem FM 390 optical storage units, one IBM Data Cell, 21 RCA 70/568 mass magnetic card units and one Precision Instrument Unicon laser/metal recorder. This assortment of storage devices can digitally store the data for all U. S. cities with populations of 50,000 or more in 1970. Most of these devices have proved their reliability by years of accumulated time with satisfactory performance. An assortment of types, that is, drum, magnetic card, optical card, and metal may be considered. Although Table 2 is a representative listing, it is not necessarily complete; there are possibly other manufacturers of mass storage devices incorporating other data storage techniques.

PAGE 1 CITY- SAN FRANCISCO

SECT	BLOCK	CLASS	NUMBER BLDG	NUMBER BASE PCINTS	NUMBER TOP PCINTS	TOTAL NUMBER POINTS	TOTAL NCN BLDGS	TOTAL NUMBER TOPS	TOTAL R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	OT
6	1	CCMH	2	8	4	12	0	1				2												
6	2	CCMH	27	108	178	286	0	47				27												
6	3	CCMH	22	88	103	191	0	27				22												
6	4	RESID	34	136	C	136	0	C	18	16														
6	5	RESID	24	88	C	88	0	U	7	15														
6	6	CCMH	3	12	8	20	0	2				3												
6	7	CCMH	32	128	32	160	0	8				20												
6	8	CCMH	7	28	8	36	0	2				4												
6	9	RESID	8	32	16	48	0	4				3												
6	10	RESID	13	52	16	68	0	4				3												
6	11	RESID	47	188	0	188	0	C	10	47														
6	12	RESID	21	84	4	84	0	1					4											
6	13	RESID	36	144	C	144	0	0																
6	14	RESID	36	144	C	144	0	C																
6	15	RESID	29	116	C	116	0	0																
6	16	RESID	22	88	C	88	0	0																
6	17	RESID	52	208	C	208	0	C																
6	18	RESID	44	176	C	176	0	0																
6	19	RESID	46	184	C	184	0	0																
6	20	RESID	37	148	C	148	0	0																
6	21	RESID	29	116	C	116	0	0																
6	22	RESID	23	92	C	92	0	0																
6	23	RESID	172	688	C	688	0	C																
6	24	RESID	137	548	78	626	0	21				15												
6	25	RESID	25	100	56	156	0	16				2												
6	26	RESID	87	348	C	348	0	0																
6	27	RESID	39	156	C	156	0	U																
6	28	RESID	36	144	C	144	0	C																
6	29	RESID	34	136	C	136	0	C																
6	30	RESID	39	156	C	156	0	0																
6	31	RESID	40	160	C	160	0	0																
6	32	RESID	25	100	24	124	0	6																
6	33	RESID	60	240	C	240	0	C																
6	34	RESID	25	100	12	112	0	3																
6	35	CCMH	13	52	52	104	0	13																
6	36	RESID	7	28	C	28	0	C																
6	37	RESID	18	72	C	72	0	C																
6	38	RESID	43	172	C	172	0	C																
6	39	RESID	47	188	C	188	0	C																
6	40	RESID	78	312	C	312	0	C																
6	41	RESID	32	128	C	128	0	C																
6	42	RESID	32	128	C	128	0	0																
6	43	RESID	35	140	C	140	0	C																
6	44	RESID	10	40	C	40	0	C																
6	45	RESID	20	80	C	80	0	C																
6	46	RESID	26	104	C	104	0	C																
6	47	RESID	35	140	C	140	0	C																
6	48	RESID	25	100	C	100	0	C																
6	49	RESID	34	136	C	136	0	C																
6	50	RESID	33	132	C	132	0	C																

Figure 22. Sample of Data Analysis for Each Block

TABLE 9

Landmass Area in Square Statute Miles for Each Section

<u>City</u>	<u>Section</u>	<u>Area</u> <u>(sq. mi.)</u>	<u>City</u>	<u>Section</u>	<u>Area</u> <u>(sq. mi.)</u>	<u>City</u>	<u>Section</u>	<u>Area</u> <u>(sq. mi.)</u>
SF1	1	0.53	SF2	8	0.15	NY1	17	0.08
SF1	2	1.37	SF2	9	0.27	NY1	18	0.15
SF1	3	0.01	SF2	10	0.53	NY1	19	0.06
SF1	4	0.93	SF2	11	0.26	NY1	20	0.06
SF1	5	0.35	SF2	12	0.07	NY1	21	0.07
SF1	6	0.60	SF2	13	0.42	NY1	22	0.13
SF1	7	0.22	SF2	14	0.37	NY1	23	0.15
SF1	8	0.27	SF2	15	0.20	NY1	24	0.15
SF1	9	0.55	SF2	16	0.12	NY1	25	0.17
SF1	10	0.29	SF2	17	0.30	NY1	26	0.13
SF1	11	0.28	SF2	18	0.08	NY1	27	0.14
SF1	12	0.64	SF2	19	0.35	NY1	28	0.15
SF1	13	1.28	SF2	20	0.23	NY1	29	0.18
SF1	14	1.00	SF2	21	0.40	NY1	30	0.13
SF1	15	0.12	SF2	22	0.16	NY1	31	0.21
SF1	16	0.24	SF2	23	0.41	NY1	32	0.19
SF1	17	0.10	SF2	24	0.32	NY1	33	0.09
SF1	18	0.12	SF2	25	0.46	NY1	34	0.14
SF1	19	0.32	SF2	26	0.24	NY1	35	0.21
SF1	20	0.25	SF2	27	0.44	NY1	36	0.22
SF1	21	0.10	SF2	28	0.57	NY1	37	0.24
SF1	22	0.05	SF2	29	0.07	NY1	38	0.18
SF1	23	0.18				NY1	39	0.14
SF1	24	0.13				NY1	40	0.05
SF1	25	0.10	NY1	1	0.15	NY1	41	0.10
SF1	26	0.01	NY1	2	0.20	NY1	42	0.11
SF1	27	0.06	NY1	3	0.14	NY1	43	0.16
SF1	28	0.41	NY1	4	0.20	NY1	44	0.19
SF1	29	0.45	NY1	5	0.99	NY1	45	0.16
SF1	30	0.31	NY1	6	0.01	NY1	46	0.29
SF1	31	0.33	NY1	7	0.04	NY1	47	0.24
			NY1	8	0.08	NY1	48	0.14
			NY1	9	0.09	NY1	49	0.13
SF2	1	0.29	NY1	10	0.12	NY1	50	0.16
SF2	2	0.13	NY1	11	0.19	NY1	51	0.26
SF2	3	0.19	NY1	12	0.11	NY1	52	0.09
SF2	4	0.30	NY1	13	0.15	NY1	53	0.19
SF2	5	0.39	NY1	14	0.13	NY1	54	0.11
SF2	6	0.36	NY1	15	0.17	NY1	55	0.11
SF2	7	0.35	NY1	16	0.07			

## VIII Summary and Conclusions

An urban data density analysis was performed by analyzing parts of the San Francisco and New York City areas. This analysis showed that an average of 18,775 data points per square statute mile are required to represent urban features, such as buildings, with one dimension of 10 feet or more, using a simple compaction scheme. This compaction uses two numbers for the x, y coordinates of each corner of a building roof, plus another number to represent the height for each pair of points.

The current total landmass of urban areas was estimated to be 43,264 square miles by extrapolating from the United States census data for 1950 and 1960. This data could be stored on computer digital mass storage devices presently made by six of the manufacturers sampled. Six memory configurations each appear to be adequate for storing all the urban radar data of the Continental U. S. at a resolution of 10 feet.

On the basis of the memory storage capacity of presently available digital computers, the storage of cultural data pertaining to all urban complexes is feasible. From the viewpoint of memory reading time, data acquisition rates would be compatible with a real-time presentation of simulated performance of high-resolution radar systems with resolutions as high as 10 feet.

# *Contrails*



APPENDIX A

UNITED STATES SUMMARY

POPULATION AND LAND AREA OF URBANIZED  
AREAS: 1960 AND 1950

## United States Summary

### POPULATION AND LAND AREA OF URBANIZED AREAS: 1960 AND 1950

[Minus sign (-) denotes decrease. Percent not shown where less than 0.1]

Urbanized area	1960				1950				Percent increase in population, 1950 to 1960
	Population		Land area in square miles	Population per square mile of land area	Population		Land area in square miles	Population per square mile of land area	
	Number	Percent distribution			Number	Percent distribution			
United States (1960, 213 areas; 1950, 137 areas).....	95,848,487	100.0	23,544.3	3,752	169,252,234	100.0	12,804.6	19,408	38.4
In central cities.....	37,975,132	60.5	10,437.7	3,349	48,377,240	69.9	16,213.2	17,706	19.8
In urban-fringe areas.....	37,873,355	39.5	14,706.6	2,775	120,874,994	30.1	16,591.4	11,707	81.4
Arlene, Texas.....	91,366	100.0	63.8	1,435	(?)	...	...	...	...
Arlene.....	90,368	98.9	62.3	1,446	...	...	...	...	...
In urban fringes.....	1,198	1.3	1.3	922	...	...	...	...	...
Akron, Ohio.....	458,253	100.0	141.3	3,243	366,783	100.0	98.3	3,731	24.9
Akron.....	290,331	63.4	53.9	5,387	274,605	74.9	51.7	5,114	5.7
In urban fringes.....	167,922	36.6	87.4	1,921	92,180	25.1	44.6	2,066	92.2
Albany, Ga.....	58,353	100.0	24.4	2,392	(?)	...	...	...	...
Albany.....	55,890	95.8	23.0	2,430	...	...	...	...	...
In urban fringes.....	2,463	4.2	1.4	1,799	...	...	...	...	...
Albany-Schenectady-Troy, N.Y.....	455,447	100.0	106.4	4,281	345,170	100.0	72.1	5,758	9.7
In central cities.....	278,900	61.2	38.6	7,225	299,091	72.0	38.2	7,780	-6.8
Albany.....	129,726	28.5	19.0	6,828	134,995	32.5	19.0	7,105	-3.9
Schenectady.....	81,482	17.9	10.3	7,930	91,785	22.1	10.2	8,999	-11.0
Troy.....	67,652	14.8	9.3	7,377	72,311	17.4	9.3	7,773	-6.7
In urban fringes.....	176,547	38.8	67.8	2,604	116,079	28.0	33.6	3,459	52.1
Albuquerque, N. Mex.....	241,216	100.0	76.0	3,174	(?)	...	...	...	...
Albuquerque.....	201,189	83.4	66.2	3,380	...	...	...	...	...
In urban fringes.....	40,027	16.6	19.8	2,022	...	...	...	...	...
Allentown-Bethlehem, Pa.....	254,014	100.0	60.1	4,260	223,942	100.0	49.3	4,583	13.3
In central cities.....	143,735	56.6	36.4	3,921	173,096	76.6	34.5	5,017	6.2
Allentown.....	108,347	42.3	17.6	6,136	108,736	47.2	15.9	6,714	1.3
Bethlehem.....	73,408	28.5	19.0	3,969	66,340	29.4	18.6	3,587	13.7
In urban fringes.....	78,261	28.2	23.3	3,075	52,866	23.4	14.8	3,992	34.7
Altoona, Pa.....	83,036	100.0	18.0	4,614	66,414	100.0	14.1	6,143	-4.1
Altoona.....	69,407	83.6	9.0	7,712	77,177	89.1	10.0	7,718	-10.1
In urban fringes.....	13,629	16.4	9.0	1,317	9,437	10.9	4.1	2,322	44.7
Amarillo, Texas.....	177,989	100.0	54.8	2,518	74,443	100.0	22.0	3,384	85.3
Amarillo.....	177,989	100.0	54.8	2,518	74,266	99.7	20.9	3,352	85.8
In urban fringes.....	...	...	...	...	177	0.3	1.1	179	...
Ann Arbor, Mich.....	113,282	100.0	27.9	4,132	(?)	...	...	...	...
Ann Arbor.....	67,540	59.6	13.7	4,913	...	...	...	...	...
In urban fringes.....	47,562	41.6	14.2	3,798	...	...	...	...	...
Ashville, N.C.....	68,392	100.0	32.3	2,124	58,437	100.0	18.1	3,229	17.4
Ashville.....	60,332	88.2	24.0	2,508	53,020	91.0	14.5	3,855	13.6
In urban fringes.....	8,060	11.8	8.3	1,012	5,437	9.3	3.6	1,510	34.3
Atlanta, Ga.....	788,123	100.0	245.8	3,123	907,887	100.0	103.9	4,814	31.2
Atlanta.....	487,435	61.8	122.2	3,822	331,314	63.2	34.5	8,979	47.1
In urban fringes.....	280,670	36.5	117.6	2,387	176,573	34.8	68.4	2,954	39.0
Atlantic City, N.J.....	124,902	100.0	60.0	2,082	103,083	100.0	59.0	1,911	18.9
Atlantic City.....	93,364	74.8	11.3	3,178	81,897	78.7	11.5	5,361	-3.4
In urban fringes.....	63,138	50.6	48.3	1,348	43,426	41.3	43.5	998	50.3
Augusta, Ga.-S.C.....	123,698	100.0	43.1	2,870	87,793	100.0	17.7	4,997	41.0
Augusta.....	70,626	57.1	15.0	4,708	71,408	81.5	9.4	7,297	-1.2
In urban fringes.....	53,072	42.9	28.1	1,889	16,225	18.5	7.9	2,054	227.1
Aurora, Ill.....	85,322	100.0	20.6	4,159	(?)	...	...	...	...
Aurora.....	61,713	72.3	10.8	5,900	...	...	...	...	...
In urban fringes.....	21,807	25.5	9.8	2,223	...	...	...	...	...
Austin, Texas.....	187,197	100.0	50.7	3,691	135,971	100.0	34.6	3,930	37.6
Austin.....	186,343	99.7	49.4	3,776	133,499	97.4	32.1	4,126	40.8
In urban fringes.....	612	0.3	1.3	471	3,512	2.6	2.9	1,405	-82.6
Bakersfield, Calif.....	141,763	100.0	34.3	3,701	(?)	...	...	...	...
Bakersfield.....	56,646	40.0	16.0	3,353	...	...	...	...	...
In urban fringes.....	84,913	59.9	22.1	3,808	...	...	...	...	...
Baltimore, Md.....	1,418,948	100.0	220.3	6,441	1,161,852	100.0	151.8	7,654	22.1
Baltimore.....	939,024	66.2	79.0	11,886	949,708	81.7	78.7	12,067	-1.1
In urban fringes.....	479,924	33.8	141.3	3,396	212,144	18.3	73.1	2,902	126.2
Baton Rouge, La.....	193,485	100.0	56.8	3,406	138,884	100.0	41.3	3,362	39.3
Baton Rouge.....	152,419	78.8	31.0	4,917	125,629	90.5	41.0	2,133	21.3
In urban fringes.....	41,066	21.2	25.8	1,792	13,235	9.5	11.1	1,192	210.3
Bay City, Mich.....	72,783	100.0	23.0	3,164	(?)	...	...	...	...
Bay City.....	53,604	73.7	9.6	5,384	...	...	...	...	...
In urban fringes.....	19,179	26.3	13.4	1,430	...	...	...	...	...
Beaumont, Texas.....	119,178	100.0	73.3	1,626	94,169	100.0	36.8	2,259	26.6
Beaumont.....	119,178	100.0	73.3	1,683	94,014	99.8	33.4	2,994	26.8
In urban fringes.....	3	0.003	2.3	1	133	0.2	5.4	29	-94.1
Billings, Mont.....	60,732	100.0	15.3	3,917	(?)	...	...	...	...
Billings.....	52,851	87.1	9.3	5,683	...	...	...	...	...
In urban fringes.....	7,881	12.9	6.2	1,268	...	...	...	...	...
Binghamton, N.Y.....	158,141	100.0	31.0	5,101	144,021	100.0	23.7	6,076	9.8
Binghamton.....	75,541	48.0	10.9	6,967	80,474	56.0	10.1	7,988	-3.9
In urban fringes.....	82,200	52.0	20.1	4,090	63,577	44.0	13.6	4,657	29.8
Birmingham, Ala.....	321,130	100.0	156.6	3,325	445,314	100.0	100.5	4,431	17.1
Birmingham.....	340,887	65.4	74.3	4,376	326,077	73.2	68.3	4,993	4.6
In urban fringes.....	180,443	34.6	82.3	2,193	119,277	26.8	35.2	3,369	31.3

See footnotes at end of table

# Contrails

## Number of Inhabitants

### POPULATION AND LAND AREA OF URBANIZED AREAS: 1960 AND 1950—Con.

[Minus sign (-) denotes decrease. Percent not shown where less than 0.1]

Urbanized area	1960				1950				Percent increase in population, 1950 to 1960
	Population		Land area in square miles	Population per square mile of land area	Population		Land area in square miles	Population per square mile of land area	
	Number	Percent distribution			Number	Percent distribution			
Boston, Mass.	2,433,236	100.0	515.8	4,479	2,235,468	100.0	344.8	6,478	8.0
Boston	697,197	28.9	47.8	14,586	803,444	35.9	47.8	16,787	-13.0
In urban fringe	1,716,039	71.1	468.0	3,667	1,432,024	64.1	297.0	4,822	19.8
Bridgeport, Conn.	366,654	100.0	171.3	2,140	237,433	100.0	42.6	5,974	54.4
Bridgeport	156,748	42.8	17.9	8,757	158,709	66.8	14.6	10,870	-1.2
In urban fringe	209,906	57.2	153.4	1,368	78,726	33.2	28.0	2,812	166.6
Brockton, Mass.	111,315	100.0	40.8	2,728	92,116	100.0	30.3	3,020	20.8
Brockton	72,813	65.4	21.5	3,387	63,860	68.2	21.4	2,937	13.8
In urban fringe	38,502	34.6	19.3	1,995	29,256	31.8	9.1	1,215	31.6
Buffalo, N.Y.	1,034,370	100.0	160.2	6,382	495,663	100.0	122.7	7,300	17.7
In central cities	512,759	50.5	39.4	13,322	671,004	74.9	52.1	12,879	-20.6
Buffalo	512,759	50.5	39.4	13,322	580,130	64.8	39.4	14,724	-4.2
Niagara Falls	(1)	...	...	...	90,872	10.1	12.7	7,159	...
In urban fringe	521,611	49.5	120.8	4,318	224,639	25.1	70.8	3,142	132.2
Canton, Ohio	213,974	100.0	30.7	4,213	173,917	100.0	33.1	5,254	22.8
Canton	113,631	53.2	14.3	7,946	116,912	67.2	14.1	8,680	-2.8
In urban fringe	99,343	46.8	36.4	2,746	57,005	32.8	19.0	3,000	75.3
Cedar Rapids, Iowa	105,118	100.0	40.4	2,602	78,212	100.0	28.8	2,718	34.4
Cedar Rapids	92,035	87.6	31.0	2,789	72,096	92.4	25.4	2,846	27.3
In urban fringe	13,083	12.4	7.4	1,768	5,916	7.6	3.4	1,740	121.1
Chicago-Northwestern Indiana	78,014	100.0	12.4	6,291	(2)	...	...	...	...
In central cities	78,877	101.4	13.4	6,744	(2)	...	...	...	...
Chicago	49,583	63.6	6.4	7,747	...	...	...	...	...
Urban	27,294	35.0	3.0	3,459	...	...	...	...	...
In urban fringe	1,137	1.5	1.0	1,137	...	...	...	...	...
Charleston, S.C.	160,113	100.0	30.8	5,198	120,289	100.0	18.4	6,537	33.1
Charleston	65,925	41.2	5.1	12,926	70,174	58.3	5.1	13,760	-6.1
In urban fringe	94,188	58.8	25.7	3,665	50,115	41.7	13.3	3,768	87.9
Charleston, W.V.	169,300	100.0	55.9	3,032	130,934	100.0	29.1	4,499	29.3
Charleston	85,796	50.6	28.4	3,021	73,303	56.1	9.6	7,654	36.7
In urban fringe	83,704	49.4	27.5	3,044	57,431	43.9	19.5	2,844	45.8
Charlotte, N.C.	209,551	100.0	73.9	2,836	340,930	100.0	34.3	4,083	48.7
Charlotte	201,364	96.2	64.8	3,111	134,042	95.1	30.0	4,468	30.4
In urban fringe	7,987	3.8	9.1	878	5,888	4.9	4.3	3,331	16.0
Chattanooga, Tenn.-Ga.	205,143	100.0	89.1	2,302	167,764	100.0	30.4	3,329	22.3
Chattanooga	130,009	63.4	36.7	3,542	131,041	78.1	28.0	4,680	-2.8
In urban fringe	75,134	36.6	52.4	1,434	36,723	21.9	22.4	1,630	124.6
Chicago-Northwestern Indiana	5,939,213	100.0	939.8	6,209	4,920,816	100.0	707.8	6,954	21.1
In central cities	3,898,091	65.7	320.8	12,099	3,680,862	74.8	207.5	17,438	7.7
Chicago	3,350,426	56.4	224.2	15,834	3,620,862	73.6	207.5	17,430	-1.9
Gary	178,320	3.0	41.6	4,287	(1)	...	...	...	...
Hammond	111,698	1.9	23.9	4,731	(1)	...	...	...	...
East Chicago	97,689	1.6	11.0	5,015	(1)	...	...	...	...
In urban fringe	2,081,122	34.6	690.0	3,128	1,299,854	26.4	500.1	2,999	36.6
Cincinnati, Ohio-Ky.	993,368	100.0	242.1	4,101	813,292	100.0	146.1	5,287	22.2
Cincinnati	502,350	50.6	77.3	6,301	303,998	37.4	78.1	6,713	-6.3
In urban fringe	491,018	49.4	165.0	2,976	509,294	62.6	71.0	4,356	30.8
Cleveland, Ohio	1,784,991	100.0	946.7	3,042	1,383,999	100.0	300.1	4,430	29.0
Cleveland	876,050	49.1	81.0	7,789	914,828	66.1	75.0	12,197	-4.2
In urban fringe	908,941	50.9	905.5	1,798	468,791	33.9	225.1	2,083	93.9
Colorado Springs, Colo.	100,220	100.0	79.3	3,420	(2)	...	...	...	...
Colorado Springs	70,194	70.0	16.7	4,203	...	...	...	...	...
In urban fringe	30,026	30.0	12.6	2,383	...	...	...	...	...
Columbia, S.C.	142,401	100.0	52.3	3,109	120,808	100.0	28.7	4,289	34.4
Columbia	97,433	68.5	18.4	5,295	86,914	71.9	12.8	6,790	12.1
In urban fringe	61,168	43.0	33.9	1,922	33,894	28.1	15.9	2,132	92.3
Columbus, Ga.-Ala.	154,382	100.0	53.8	2,944	116,485	100.0	35.1	3,376	33.7
Columbus	116,779	75.7	26.4	4,423	79,611	68.4	12.0	6,634	66.7
In urban fringe	41,603	26.3	27.4	1,518	36,874	31.6	23.1	1,683	7.0
Columbus, Ohio	418,743	100.0	144.8	4,239	437,707	100.0	64.3	6,786	40.9
Columbus	471,318	76.4	89.0	5,296	375,801	85.9	39.4	9,341	25.4
In urban fringe	145,427	23.6	55.8	2,606	61,806	14.1	25.1	2,442	131.3
Corpus Christi, Texas	177,380	100.0	53.1	3,340	122,856	100.0	31.0	3,946	44.3
Corpus Christi	167,690	94.5	37.8	4,436	108,287	88.1	21.3	5,039	54.9
In urban fringe	9,690	5.5	15.3	633	14,669	11.9	9.5	1,344	-33.9
Dallas, Texas	932,344	100.0	647.0	1,441	536,924	100.0	142.7	1,777	73.0
Dallas	679,684	72.9	279.9	2,428	434,462	80.6	132.0	3,879	36.4
In urban fringe	252,660	27.1	367.1	688	104,462	19.4	30.7	1,403	141.9
Davenport-Keokuk Island-Moline, Iowa-Ill.	227,176	100.0	93.9	2,369	194,925	100.0	34.8	3,397	16.5
In central cities	183,549	80.8	66.8	2,748	160,636	82.4	35.7	4,528	14.2
Davenport	88,981	39.2	46.7	1,933	74,549	38.2	18.1	4,119	19.4
Keokuk Island	51,863	22.8	10.9	4,798	48,710	25.0	10.3	4,639	6.3
Moline	42,705	18.8	9.2	4,642	37,397	19.2	7.1	5,267	14.2
In urban fringe	43,627	19.2	29.2	1,499	34,369	17.4	18.1	1,794	29.3
Dayton, Ohio	301,664	100.0	124.5	4,079	346,866	100.0	62.6	3,841	44.6
Dayton	262,332	87.1	131.6	7,808	243,872	70.3	25.0	9,758	7.4
In urban fringe	239,332	79.3	90.9	2,633	102,992	29.7	37.6	2,739	132.4
Decatur, Ill.	86,536	100.0	27.6	3,243	73,713	100.0	15.3	4,818	21.4
Decatur	78,004	89.9	19.7	3,960	66,269	89.9	9.3	7,124	17.7
In urban fringe	11,532	13.3	7.9	1,457	7,444	10.1	8.0	1,442	34.6

See footnotes at end of table

United States Summary

POPULATION AND LAND AREA OF URBANIZED AREAS: 1960 AND 1950—Con.

[Minus sign (-) denotes decrease    Percent not shown where less than 0.1]

Censused area	1960				1950				Percent increase in population, 1950 to 1960
	Population		Land area in square miles	Population per square mile of land area	Population		Land area in square miles	Population per square mile of land area	
	Number	Percent distribution			Number	Percent distribution			
Denver, Colo.	803,624	100.0	166.6	4,824	498,743	100.0	105.2	4,763	61.1
Denver.....	493,887	61.5	71.0	6,936	415,786	83.4	66.8	6,224	18.8
In urban fringe.....	309,737	38.5	95.6	1,240	62,957	12.6	38.4	2,160	27.4
Des Moines, Iowa	241,115	100.0	97.2	2,486	199,934	100.0	67.6	2,938	20.6
Des Moines.....	208,982	86.7	64.9	3,260	177,065	88.0	56.9	1,242	17.4
In urban fringe.....	32,133	13.3	32.5	969	21,969	11.0	12.7	1,730	46.3
Detroit, Mich.	3,377,709	100.0	731.9	4,834	2,751,971	100.0	432.7	6,510	28.6
In central cities.....	1,670,164	47.2	139.6	11,964	1,923,269	69.9	159.4	12,066	-13.2
Detroit.....	1,670,164	47.2	139.6	11,964	1,849,968	67.2	139.6	13,269	-9.7
Pontiac.....	(1)	...	...	...	73,681	2.7	19.8	3,721	129.4
In urban fringe.....	1,807,545	52.8	592.3	3,153	828,722	30.1	263.3	3,147	...
Dubuque, Iowa-Ill.	59,447	100.0	15.8	3,762	(?)	...	...	...	...
Dubuque.....	56,606	95.2	13.6	4,162	...	...	...	...	...
In urban fringe.....	2,841	4.8	2.2	1,291	...	...	...	...	...
Duluth-Superior, Minn.-Wis.	164,763	100.0	104.4	1,387	143,028	100.0	105.0	1,362	1.2
In central cities.....	140,447	97.0	99.9	1,402	139,636	97.6	98.9	1,414	0.4
Duluth.....	106,864	73.8	62.6	1,707	104,514	72.1	62.3	1,678	2.3
Superior.....	33,583	23.2	37.7	900	35,323	24.7	36.6	965	-5.0
In urban fringe.....	4,316	3.0	4.1	959	3,192	2.2	6.1	923	35.2
Durham, N.C.	84,642	100.0	27.0	3,133	73,268	100.0	14.8	4,937	15.4
Durham.....	78,312	92.5	22.0	3,539	71,311	97.2	13.2	5,402	9.8
In urban fringe.....	6,330	7.5	25.0	1,268	2,097	2.8	1.6	1,286	208.2
El Paso, Texas	277,128	100.0	115.0	2,410	136,918	100.0	27.4	4,997	102.4
El Paso.....	276,687	99.8	114.6	2,414	130,485	95.3	23.6	5,097	112.0
In urban fringe.....	441	0.2	0.4	1,103	6,433	4.7	1.8	3,974	-93.1
Erie, Pa.	177,433	100.0	56.7	3,129	151,710	100.0	29.8	5,091	17.0
Erie.....	138,440	78.0	18.8	7,364	130,803	86.2	18.8	6,958	5.8
In urban fringe.....	38,993	22.0	37.9	1,029	20,907	13.8	11.0	1,901	66.5
Eugene, Oreg.	95,686	100.0	38.2	2,505	(?)	...	...	...	...
Eugene.....	90,977	53.3	14.3	3,516	...	...	...	...	...
In urban fringe.....	44,709	46.7	23.7	1,888	...	...	...	...	...
Evansville, Ind.	143,660	100.0	34.1	4,213	137,973	100.0	22.2	6,197	4.4
Evansville.....	141,543	98.5	32.0	4,423	128,636	93.5	18.0	7,146	10.0
In urban fringe.....	2,117	1.5	2.1	1,008	8,937	6.5	4.2	2,128	-76.3
Fall River, Mass.-R.I.	123,951	100.0	47.6	2,604	118,120	100.0	35.3	3,346	4.9
Fall River.....	99,942	80.6	33.9	2,948	111,963	94.8	33.9	3,303	-10.7
In urban fringe.....	24,009	19.4	13.7	1,752	6,157	5.2	1.4	4,198	289.9
Fargo-Moorhead, N. Dak.-Minn.	72,730	100.0	20.2	3,600	(?)	...	...	...	...
In central cities.....	69,596	95.7	15.1	4,609	...	...	...	...	...
Fargo.....	46,862	64.2	8.0	5,185	...	...	...	...	...
Moorhead.....	22,734	31.5	6.1	3,760	...	...	...	...	...
In urban fringe.....	3,134	4.3	5.1	615	...	...	...	...	...
Fitchburg-Leominster, Mass.	72,347	100.0	57.7	1,254	(?)	...	...	...	...
In central cities.....	70,930	98.1	56.9	1,247	...	...	...	...	...
Fitchburg.....	43,021	59.5	27.4	1,570	...	...	...	...	...
Leominster.....	27,929	38.6	29.5	947	...	...	...	...	...
In urban fringe.....	1,397	1.9	0.8	1,746	...	...	...	...	...
Flint, Mich.	277,786	100.0	75.2	3,694	197,611	100.0	44.8	4,411	40.6
Flint.....	196,940	70.9	29.9	6,267	163,143	82.5	29.3	5,568	20.7
In urban fringe.....	80,846	29.1	45.3	1,795	34,468	17.5	15.5	2,223	134.4
Fort Lauderdale-Hollywood, Fla.	319,951	100.0	123.9	2,582	(?)	...	...	...	...
In central cities.....	118,885	37.2	39.4	3,017	...	...	...	...	...
Fort Lauderdale.....	81,648	26.1	21.8	3,891	...	...	...	...	...
Hollywood.....	37,237	11.6	17.9	1,969	...	...	...	...	...
In urban fringe.....	201,066	62.8	84.5	2,795	...	...	...	...	...
Fort Smith, Ark.-Okla.	61,640	100.0	29.3	2,104	56,046	100.0	28.3	1,980	10.0
Fort Smith.....	52,991	86.0	24.7	2,145	47,942	85.5	25.1	1,910	10.5
In urban fringe.....	8,649	14.0	4.6	1,880	8,104	14.5	3.2	2,933	6.7
Fort Wayne, Ind.	179,971	100.0	48.6	3,695	140,314	100.0	22.4	6,264	28.0
Fort Wayne.....	161,776	90.1	36.8	4,396	133,077	95.2	18.8	7,107	21.1
In urban fringe.....	17,795	9.9	11.8	1,508	6,707	4.8	3.6	1,863	163.3
Fort Worth, Texas	502,682	100.0	272.6	1,844	315,978	100.0	119.0	2,652	59.3
Fort Worth.....	356,268	70.9	140.5	2,536	278,778	88.3	93.7	2,973	27.8
In urban fringe.....	146,414	29.1	132.1	1,108	36,800	11.7	25.3	1,455	297.9
Fresno, Calif.	213,444	100.0	60.6	3,522	130,292	100.0	30.5	4,281	63.4
Fresno.....	133,929	62.7	28.6	4,683	81,666	70.2	15.0	6,111	46.1
In urban fringe.....	79,515	37.3	32.0	2,485	38,923	29.8	15.5	2,511	104.3
Gadsden, Ala.	68,944	100.0	47.0	1,467	(?)	...	...	...	...
Gadsden.....	58,088	84.3	30.7	1,892	...	...	...	...	...
In urban fringe.....	10,856	15.7	16.3	666	...	...	...	...	...
Odessa-Texas City, Texas	116,482	100.0	153.3	773	71,327	100.0	14.5	4,993	85.6
In central cities.....	95,240	82.8	129.2	708	66,968	93.1	8.1	8,228	49.1
Odessa.....	67,175	56.7	84.2	798	66,508	93.1	8.1	8,228	0.9
Texas City.....	32,065	27.1	45.0	713	(?)	...	...	...	...
In urban fringe.....	19,242	16.2	24.1	798	4,999	6.9	6.4	775	288.0
Grand Rapids, Mich.	294,230	100.0	91.2	3,326	226,817	100.0	46.7	4,887	29.7
Grand Rapids.....	177,313	60.3	24.4	7,267	176,515	77.8	23.4	7,941	0.5
In urban fringe.....	116,917	39.7	66.8	1,750	30,302	22.2	23.3	2,159	132.4

See footnotes at end of table

## Number of Inhabitants

### POPULATION AND LAND AREA OF URBANIZED AREAS: 1960 AND 1950—Con.

[Minus sign (-) denotes decrease. Percent not shown where less than 0.1]

Urbanized area	1960			1950			Percent increase in population, 1950 to 1960
	Population		Land area in square miles	Population		Land area in square miles	
	Number	Percent distribution		Number	Percent distribution		
Great Falls, Mont.	57,629	100.0	12.9	4,467	( <sup>2</sup> )	...	...
Great Falls	55,357	96.1	11.4	4,856	...	...	...
In urban fringe	2,272	3.9	1.5	1,515	...	...	...
Green Bay, Wis.	97,162	100.0	46.6	2,085	( <sup>2</sup> )	...	...
Green Bay	62,888	64.7	16.8	3,743	...	...	...
In urban fringe	34,274	35.3	29.8	1,150	...	...	...
Greensboro, N.C.	123,334	100.0	50.8	2,428	83,412	100.0	24.0
Greensboro	119,574	97.0	48.6	2,460	74,389	89.2	18.2
In urban fringe	3,760	3.0	2.2	1,709	9,023	10.8	5.8
Greenville, S.C.	126,887	100.0	52.6	2,412	( <sup>2</sup> )	...	...
Greenville	86,188	68.2	24.3	2,724	...	...	...
In urban fringe	60,699	47.8	28.3	2,143	...	...	...
Hamilton, Ohio	89,778	100.0	34.1	2,633	63,270	100.0	9.2
Hamilton	72,354	80.6	12.2	5,951	57,951	91.6	7.6
In urban fringe	17,424	19.4	21.9	796	5,319	8.4	1.6
Harlingen-San Benito, Texas	61,658	100.0	51.1	1,207	( <sup>2</sup> )	...	...
In central cities	57,628	93.3	36.7	1,570	...	...	...
Harlingen	41,807	67.8	31.0	1,329	...	...	...
San Benito	16,422	26.6	5.7	2,881	...	...	...
In urban fringe	4,029	6.5	14.4	280	...	...	...
Harrisburg, Pa.	209,501	100.0	48.2	4,346	169,646	100.0	29.3
Harrisburg	199,697	95.3	7.6	10,486	89,544	52.8	6.3
In urban fringe	129,804	62.0	40.6	3,797	80,102	47.2	23.0
Hartford, Conn.	381,619	100.0	131.2	2,909	300,788	100.0	52.9
Hartford	162,178	42.5	17.4	9,321	177,397	59.0	17.4
In urban fringe	219,441	57.5	113.8	1,928	123,391	41.0	35.5
High Point, N.C.	66,543	100.0	33.7	1,975	( <sup>2</sup> )	...	...
High Point	62,063	93.3	30.3	2,048	...	...	...
In urban fringe	4,480	6.7	3.4	1,316	...	...	...
Honolulu, Hawaii	351,336	100.0	99.8	3,520	( <sup>2</sup> )	...	...
Honolulu	294,194	83.7	83.9	3,506	...	...	...
In urban fringe	57,142	16.3	15.9	3,594	...	...	...
Houston, Texas	1,139,678	100.0	430.5	2,647	700,508	100.0	270.1
Houston	938,219	82.3	328.1	2,860	596,163	85.1	160.0
In urban fringe	201,459	17.7	102.4	1,967	104,345	14.9	94.8
Huntington-Ashland, W.Va.-Ky.-Ohio	165,732	100.0	42.3	3,927	156,288	100.0	37.1
In central cities	114,310	69.3	22.0	5,223	117,484	75.2	22.0
Huntington	83,627	50.5	8.0	10,453	86,353	55.3	14.0
Ashland	31,283	18.9	14.0	2,235	31,131	19.9	8.0
In urban fringe	50,822	30.7	20.2	2,516	38,804	24.8	15.1
Huntsville, Ala.	74,970	100.0	53.0	1,409	( <sup>2</sup> )	...	...
Huntsville	72,365	96.5	50.7	1,427	...	...	...
In urban fringe	2,605	3.5	2.5	1,042	...	...	...
Indianapolis, Ind.	639,340	100.0	144.9	4,412	502,375	100.0	90.6
Indianapolis	476,256	74.5	71.2	6,689	427,173	85.0	55.2
In urban fringe	163,082	25.5	23.7	2,213	75,202	15.0	15.4
Jackson, Mich.	71,412	100.0	22.1	3,231	( <sup>2</sup> )	...	...
Jackson	50,720	71.0	10.5	4,830	...	...	...
In urban fringe	20,692	29.0	11.6	1,784	...	...	...
Jackson, Miss.	147,480	100.0	49.7	2,967	100,261	100.0	28.1
Jackson	144,422	97.9	46.5	3,106	98,271	98.0	27.0
In urban fringe	3,058	2.1	3.2	936	1,990	2.0	1.1
Jacksonville, Fla.	372,569	100.0	111.4	3,344	242,909	100.0	50.8
Jacksonville	201,030	54.0	30.2	6,637	204,517	84.2	30.2
In urban fringe	171,539	46.0	81.2	2,113	38,392	15.8	20.6
Johnstown, Pa.	96,474	100.0	21.0	4,594	93,334	100.0	14.7
Johnstown	53,949	55.9	5.6	9,634	63,232	67.7	5.6
In urban fringe	42,525	44.1	15.4	2,761	30,122	32.3	9.1
Joliet, Ill.	116,585	100.0	36.9	3,159	( <sup>2</sup> )	...	...
Joliet	66,780	57.3	14.2	4,733	...	...	...
In urban fringe	49,805	42.7	22.7	2,194	...	...	...
Kalamazoo, Mich.	112,659	100.0	42.1	2,747	83,332	100.0	21.2
Kalamazoo	82,089	71.0	24.1	3,406	57,704	69.2	8.8
In urban fringe	33,570	29.0	18.0	1,865	25,628	30.8	12.4
Kansas City, Mo.-Kans.	921,121	100.0	282.4	3,262	698,350	100.0	149.0
Kansas City	475,539	51.6	129.8	3,684	456,622	85.4	80.6
In urban fringe	445,582	48.4	152.6	2,920	241,728	34.6	68.4
Kenoa, Wis.	72,852	100.0	13.2	5,519	( <sup>2</sup> )	...	...
Kenoa	67,899	93.2	10.1	6,723	...	...	...
In urban fringe	4,953	6.8	3.1	1,598	...	...	...
Knoxville, Tenn.	172,734	100.0	59.7	2,893	148,186	100.0	35.6
Knoxville	111,827	64.7	25.4	4,023	126,769	84.2	25.4
In urban fringe	60,907	35.3	34.3	1,776	23,397	15.8	10.2
Lake Charles, La.	89,115	100.0	24.8	3,393	( <sup>2</sup> )	...	...
Lake Charles	61,192	68.6	16.3	3,839	...	...	...
In urban fringe	27,923	31.4	8.5	3,026	...	...	...

See footnotes at end of table

## United States Summary

### POPULATION AND LAND AREA OF URBANIZED AREAS: 1960 AND 1950—Con.

[Minus sign (-) denotes decrease. Percent not shown where less than 0.1]

Urbanized area	1960			1950			Percent increase in population, 1950 to 1960		
	Population		Land area in square miles	Population		Land area in square miles			
	Number	Percent distribution		Number	Percent distribution				
Lancaster, Pa.	93,851	100.0	29.2	3,214	76,280	100.0	6.2	9,302	25.0
Lancaster.....	63,053	65.1	7.3	8,364	83,774	83.6	4.3	14,811	+4.3
In urban fringe.....	30,800	34.9	21.9	1,446	12,506	16.4	3.9	3,207	162.3
Lansing, Mich.	169,329	100.0	47.2	3,587	134,032	100.0	30.8	4,352	26.3
Lansing.....	107,807	63.7	21.2	5,085	92,129	68.7	14.1	6,534	37.0
In urban fringe.....	61,518	36.3	26.0	2,566	41,903	31.3	16.7	2,510	46.7
Laredo, Texas	60,678	100.0	13.5	4,495	( <sup>1</sup> )	...	...	...	...
Laredo.....	60,678	100.0	13.5	4,495	...	...	...	...	...
Las Vegas, Nev.	89,427	100.0	34.3	2,607	( <sup>1</sup> )	...	...	...	...
Las Vegas.....	64,405	72.0	24.7	2,607	...	...	...	...	...
In urban fringe.....	25,022	28.0	9.6	2,606	...	...	...	...	...
Lawrence-Haverhill, Mass.-N.H.	166,325	100.0	70.5	2,356	112,309	100.0	16.1	6,976	47.9
In central cities.....	117,279	70.6	30.2	2,992	80,536	71.7	6.7	12,020	45.6
Lawrence.....	70,939	42.7	7.2	9,850	80,536	71.7	6.7	12,020	-11.9
Haverhill.....	46,346	27.9	32.0	1,448	( <sup>1</sup> )	...	...	...	...
In urban fringe.....	48,646	29.4	31.3	1,563	31,775	28.3	9.4	3,380	53.7
Lexton, Ohio	61,941	100.0	13.2	4,693	( <sup>1</sup> )	...	...	...	...
Lexton.....	61,697	99.6	12.0	5,143	...	...	...	...	...
In urban fringe.....	244	0.4	1.2	203	...	...	...	...	...
Leviston-Albany, Maine	65,253	100.0	93.9	680	( <sup>1</sup> )	...	...	...	...
In central cities.....	65,253	100.0	93.9	680	...	...	...	...	...
Leviston.....	40,804	62.5	35.0	1,166	...	...	...	...	...
Albany.....	24,449	37.5	60.9	401	...	...	...	...	...
Lexington, Ky.	111,940	100.0	27.2	4,133	( <sup>1</sup> )	...	...	...	...
Lexington.....	62,810	56.1	13.0	4,832	...	...	...	...	...
In urban fringe.....	49,130	43.9	14.2	3,460	...	...	...	...	...
Lima, Ohio	62,943	100.0	13.1	4,808	( <sup>1</sup> )	...	...	...	...
Lima.....	31,077	49.4	8.3	6,148	...	...	...	...	...
In urban fringe.....	11,926	18.9	4.8	2,485	...	...	...	...	...
Lincoln, Neb.	136,220	100.0	33.0	3,892	99,309	100.0	26.4	3,769	36.8
Lincoln.....	128,521	94.3	23.4	5,060	94,884	99.4	23.8	4,155	30.0
In urban fringe.....	7,699	5.7	9.6	802	625	0.6	2.6	240	1,131.4
Little Rock-North Little Rock, Ark.	185,017	100.0	62.2	2,975	153,643	100.0	36.3	4,032	20.4
In central cities.....	165,845	89.6	48.2	3,441	146,310	95.2	34.4	4,253	13.4
Little Rock.....	107,813	58.2	28.3	3,810	102,213	66.5	21.0	4,847	5.5
North Little Rock.....	58,032	31.4	39.9	2,926	44,097	28.7	13.4	3,252	31.6
In urban fringe.....	19,172	10.4	14.0	1,369	7,333	4.8	3.9	1,880	161.4
Lorain-Elyria, Ohio	142,880	100.0	81.4	1,755	( <sup>1</sup> )	...	...	...	...
In central cities.....	112,714	78.9	32.3	3,490	...	...	...	...	...
Lorain.....	68,932	48.3	16.0	3,830	...	...	...	...	...
Elyria.....	43,782	30.6	14.3	3,062	...	...	...	...	...
In urban fringe.....	30,146	21.1	49.1	614	...	...	...	...	...
Los Angeles-Long Beach, Calif.	6,488,791	100.0	1,370.0	4,736	3,996,946	100.0	871.3	4,387	62.3
In central cities.....	2,823,183	43.5	300.7	5,634	1,970,358	49.3	430.9	4,370	43.3
Los Angeles.....	2,479,013	38.2	434.6	5,451	1,970,358	49.3	430.9	4,370	23.8
Long Beach.....	344,168	5.3	45.9	7,498	( <sup>1</sup> )	...	...	...	...
In urban fringe.....	3,665,608	56.5	869.3	4,217	2,026,588	50.7	420.4	4,621	80.9
Louisville, Ky.-Ind.	606,639	100.0	135.6	4,474	472,736	100.0	66.6	7,098	28.3
Louisville.....	390,639	64.4	27.1	6,841	369,128	78.1	30.9	9,231	5.8
In urban fringe.....	216,000	35.6	78.5	2,752	103,607	21.9	26.7	3,880	108.5
Lowell, Mass.	118,547	100.0	30.0	3,932	106,641	100.0	16.6	6,425	11.1
Lowell.....	94,107	77.7	13.1	7,031	97,249	91.2	12.9	7,239	-5.3
In urban fringe.....	26,440	22.3	16.9	1,564	9,412	8.8	3.7	2,544	180.9
Lubbock, Texas	129,289	100.0	76.2	1,697	( <sup>1</sup> )	...	...	...	...
Lubbock.....	128,601	99.5	75.0	1,716	...	...	...	...	...
In urban fringe.....	598	0.5	1.2	498	...	...	...	...	...
Lynchburg, Va.	99,319	100.0	27.6	2,149	( <sup>1</sup> )	...	...	...	...
Lynchburg.....	54,790	55.2	23.0	2,382	...	...	...	...	...
In urban fringe.....	4,529	4.6	4.5	985	...	...	...	...	...
Macon, Ga.	114,161	100.0	33.2	1,439	93,489	100.0	22.0	4,290	22.1
Macon.....	69,764	61.1	15.0	4,651	70,232	75.1	12.0	5,494	-0.7
In urban fringe.....	44,397	38.9	18.2	2,439	23,247	24.9	10.0	2,325	91.0
Madison, Wis.	197,814	100.0	94.3	2,908	130,111	100.0	24.3	4,494	45.3
Madison.....	126,706	64.1	33.7	3,340	96,096	73.7	13.4	6,237	31.9
In urban fringe.....	31,108	15.7	18.6	1,672	14,055	10.8	9.1	1,543	121.3
Manchester, N.H.	91,698	100.0	34.6	2,650	84,918	100.0	34.3	2,476	8.0
Manchester.....	68,282	74.5	32.0	2,759	82,732	97.4	32.1	2,377	6.7
In urban fringe.....	5,416	5.9	2.6	1,314	2,186	2.6	2.2	994	56.3
Memphis, Tenn.	544,505	100.0	155.7	3,497	406,034	100.0	109.6	3,703	34.1
Memphis.....	497,524	91.4	128.2	3,881	396,000	97.5	104.2	3,800	23.6
In urban fringe.....	46,981	8.6	27.5	1,708	10,034	2.5	5.4	1,908	368.2
Meriden, Conn.	51,850	100.0	23.8	2,206	( <sup>1</sup> )	...	...	...	...
Meriden.....	51,850	100.0	23.8	2,206	...	...	...	...	...
Miami, Fla.	892,705	100.0	183.1	4,657	458,647	100.0	116.5	3,937	85.9
Miami.....	291,688	32.7	34.2	6,529	249,276	34.4	34.2	7,289	17.0
In urban fringe.....	561,017	62.5	148.9	3,768	209,371	45.6	82.3	2,544	168.0

See footnotes at end of table

## Number of Inhabitants

### POPULATION AND LAND AREA OF URBANIZED AREAS: 1960 AND 1950—Con.

(Minus sign (-) denotes decrease. Percent not shown where less than 0.1)

Urbanized area	1960				1950				Percent increase in population, 1950 to 1960
	Population		Land area in square miles	Population per square mile of land area	Population		Land area in square miles	Population per square mile of land area	
	Number	Percent distribution			Number	Percent distribution			
Midland, Texas.....	63,274	100.0	23.5	2,693	(*)	...	...	...	
Midland.....	62,625	99.0	22.9	2,735	...	...	...	...	
In urban fringe.....	649	1.0	0.6	1,082	...	...	...	...	
Milwaukee, Wis.....	1,149,997	100.0	392.0	2,934	629,495	100.0	101.7	8,156	
Milwaukee.....	741,324	64.5	91.1	8,137	637,392	76.8	20.0	12,748	
In urban fringe.....	408,673	35.5	300.9	1,398	192,103	23.2	31.7	3,716	
Minneapolis-St. Paul, Minn.....	1,377,143	100.0	637.3	2,095	987,380	100.0	231.0	4,274	
In central cities.....	796,283	57.8	108.7	7,308	833,087	84.4	106.0	7,899	
Minneapolis.....	482,872	35.1	36.5	8,546	321,738	32.8	23.8	9,897	
St. Paul.....	313,411	22.8	32.2	6,004	311,349	31.5	32.2	5,965	
In urban fringe.....	580,860	42.2	546.6	1,059	154,313	15.6	125.0	1,235	
Mobile, Ala.....	268,139	100.0	171.5	1,563	182,963	100.0	41.0	4,463	
Mobile.....	232,779	75.6	132.9	1,328	129,000	70.5	25.4	5,079	
In urban fringe.....	65,360	24.4	18.6	3,234	53,964	29.5	15.6	3,499	
Monroe, La.....	80,546	100.0	40.4	1,994	(*)	...	...	...	
Monroe.....	52,219	64.8	18.1	2,885	...	...	...	...	
In urban fringe.....	28,327	35.2	22.3	1,270	...	...	...	...	
Montgomery, Ala.....	142,893	100.0	39.2	3,645	109,468	100.0	28.7	3,814	
Montgomery.....	134,393	94.1	31.8	4,228	106,525	97.3	28.1	4,081	
In urban fringe.....	8,500	5.9	7.4	1,149	2,943	2.7	2.6	1,132	
Muncie, Ind.....	77,904	100.0	17.6	4,404	(*)	...	...	...	
Muncie.....	68,603	88.2	12.3	5,777	...	...	...	...	
In urban fringe.....	9,301	11.8	5.3	1,679	...	...	...	...	
Washington-Washington Heights, Mich.....	95,320	100.0	24.1	3,956	85,245	100.0	21.7	3,928	
In central cities.....	66,037	69.3	12.3	5,369	48,429	56.8	8.9	5,441	
Washington.....	46,485	48.8	9.2	5,053	48,429	56.8	8.9	5,441	
Washington Heights.....	19,552	20.5	3.1	6,307	(*)	...	...	...	
In urban fringe.....	29,313	30.7	11.8	2,484	36,816	43.2	12.8	2,876	
Nashville, Tenn.....	346,729	100.0	129.3	2,682	258,887	100.0	53.7	4,881	
Nashville.....	170,874	49.3	29.0	5,892	174,307	67.3	22.0	7,923	
In urban fringe.....	175,855	50.7	100.3	1,753	84,580	32.7	31.7	3,668	
New Bedford, Mass.....	126,637	100.0	29.7	4,265	123,445	100.0	23.5	5,340	
New Bedford.....	102,477	80.9	19.1	5,263	109,189	87.0	19.1	5,717	
In urban fringe.....	24,160	19.1	10.6	2,283	14,256	11.0	4.4	3,706	
New Britain, Conn.....	99,894	100.0	22.6	4,420	123,079	100.0	45.9	2,481	
In central cities.....	62,203	62.3	13.7	6,000	109,687	89.1	40.3	2,722	
New Britain.....	82,201	82.3	13.7	6,000	75,726	59.9	13.7	3,381	
Britain.....	(*)	...	...	...	15,963	29.2	28.6	1,352	
In urban fringe.....	17,693	17.7	8.9	1,988	13,392	10.9	5.6	4,291	
New Haven, Conn.....	278,794	100.0	83.8	3,327	244,836	100.0	46.8	5,232	
New Haven.....	152,048	54.5	17.9	8,494	164,443	67.2	17.9	9,187	
In urban fringe.....	126,746	45.5	65.9	1,921	80,393	32.8	28.9	2,782	
New Orleans, La.....	645,237	100.0	266.5	3,172	679,768	100.0	222.1	2,971	
New Orleans.....	627,525	74.2	198.8	3,197	570,445	86.5	199.4	2,861	
In urban fringe.....	217,712	25.8	67.7	3,216	89,323	13.5	22.7	3,935	
Newport News-Hampton, Va.....	208,874	100.0	149.1	1,401	(*)	...	...	...	
In central cities.....	202,920	97.1	132.0	1,337	...	...	...	...	
Newport News.....	113,862	54.4	73.0	1,515	...	...	...	...	
Hampton.....	89,238	42.7	37.0	1,866	...	...	...	...	
In urban fringe.....	5,954	2.9	17.1	368	...	...	...	...	
New York-Northeastern New Jersey.....	14,114,927	100.0	1,891.5	7,462	12,296,117	100.0	1,253.4	9,810	
In central cities.....	8,743,013	61.9	374.9	23,321	8,629,790	70.2	391.7	24,337	
New York City.....	7,781,984	55.1	315.1	24,697	7,891,937	64.2	315.1	25,046	
Newark.....	429,230	2.9	23.6	17,170	438,776	3.6	23.6	18,592	
Jersey City.....	276,101	2.0	13.0	21,239	299,017	2.4	13.0	23,001	
Harrison.....	143,663	1.0	8.4	17,103	(*)	...	...	...	
Cifton.....	82,084	0.6	11.7	7,016	(*)	...	...	...	
Jamaica.....	53,963	0.4	3.1	17,407	(*)	...	...	...	
In urban fringe.....	5,379,312	38.1	1,316.6	3,542	3,666,367	29.8	901.7	4,066	
Norfolk-Portsmouth, Va.....	507,825	100.0	108.6	4,676	385,111	100.0	62.4	6,172	
In central cities.....	420,645	82.8	68.0	6,186	293,532	76.2	38.4	7,845	
Norfolk.....	439,972	86.6	90.0	6,117	213,513	55.4	28.2	7,971	
Portsmouth.....	114,773	22.6	18.0	6,376	80,039	20.8	10.2	7,847	
In urban fringe.....	87,180	17.2	40.6	2,147	91,559	23.8	24.0	3,815	
Norwalk, Conn.....	82,290	100.0	38.8	2,120	102,420	100.0	28.6	1,938	
Norwalk.....	67,773	82.4	24.7	2,744	49,460	69.2	24.7	2,002	
In urban fringe.....	14,493	17.6	14.1	1,028	5,960	10.8	5.9	1,528	
Odessa, Texas.....	84,385	100.0	19.4	4,345	(*)	...	...	...	
Odessa.....	80,136	95.3	15.7	5,117	...	...	...	...	
In urban fringe.....	3,947	4.7	3.7	1,087	...	...	...	...	
Ogden, Utah.....	121,327	100.0	66.7	1,828	(*)	...	...	...	
Ogden.....	70,197	57.6	18.9	3,724	...	...	...	...	
In urban fringe.....	51,730	42.4	47.8	1,082	...	...	...	...	
Oklahoma City, Okla.....	429,186	100.0	385.2	1,114	275,091	100.0	67.0	4,106	
Oklahoma City.....	324,253	75.6	321.5	1,009	243,504	88.5	50.8	4,793	
In urban fringe.....	104,933	24.4	63.7	1,647	31,587	11.5	16.2	1,930	
Omaha, Neb.-Iowa.....	199,891	100.0	89.0	4,381	310,291	100.0	66.3	4,666	
Omaha.....	101,998	51.0	31.2	5,891	251,137	80.9	40.7	6,170	
In urban fringe.....	58,283	29.0	37.8	2,136	59,174	19.1	25.8	2,294	

\*The revised population total for New York City is 304,869. The figure in the table includes population for an area misclassified as inside, rather than outside, the city limits. This error was discovered subsequent to publication in the detailed distributions. See other footnotes at end of table.

## United States Summary

### POPULATION AND LAND AREA OF URBANIZED AREAS: 1960 AND 1950—Con.

[Minus sign (-) denotes decrease. Percent not shown where less than 0.1]

Urbanized area	1960			1950			Percent increase in population, 1950 to 1960		
	Population		Land area in square miles	Population		Land area in square miles			
	Number	Percent distribution		Number	Percent distribution				
Orlando, Fla.....	200,995	100.0	76.8	2,617	73,163	100.0	24.9	2,938	174.7
Orlando.....	88,135	43.8	21.1	4,177	52,267	71.6	14.1	3,716	68.2
In urban fringe.....	112,860	56.2	55.7	2,028	20,796	28.4	10.8	1,506	42.7
Pensacola, Fla.....	128,569	100.0	45.8	2,798	(?)	...	...	...	...
Pensacola.....	56,752	44.3	20.1	2,823	...	...	...	...	...
In urban fringe.....	71,897	55.7	25.7	2,774	...	...	...	...	...
Peoria, Ill.....	181,432	100.0	90.4	3,600	154,939	100.0	33.2	4,655	17.4
Peoria.....	103,162	56.9	15.2	5,787	111,856	72.4	12.9	8,973	-7.8
In urban fringe.....	78,270	43.1	35.2	2,224	42,883	27.6	20.3	2,103	83.4
Philadelphia, Pa.—N.J.....	3,635,228	100.0	598.7	6,092	2,922,470	100.0	311.6	9,379	24.4
Philadelphia.....	2,002,512	55.1	127.2	15,743	2,071,425	70.9	127.2	16,266	-3.3
In urban fringe.....	1,632,716	44.9	469.5	3,478	850,865	29.1	184.4	4,614	91.9
Phoenix, Ariz.....	552,543	100.0	246.4	2,222	216,038	100.0	55.1	3,921	155.5
Phoenix.....	439,370	79.6	187.4	2,343	106,818	49.4	17.1	6,247	311.1
In urban fringe.....	113,173	20.4	61.0	1,850	109,220	50.6	36.0	2,874	3.3
Pittsburgh, Pa.....	1,804,400	100.0	523.0	3,437	1,532,953	100.0	253.6	8,045	17.7
Pittsburgh.....	604,232	33.5	36.1	11,271	54,271	3.5	12.2	12,487	-10.7
In urban fringe.....	1,200,068	66.5	470.9	2,548	856,247	55.8	199.4	4,294	40.2
Pittsfield, Mass.....	62,306	100.0	42.2	1,442	(?)	...	...	...	...
Pittsfield.....	37,879	60.9	40.9	1,412	...	...	...	...	...
In urban fringe.....	4,427	7.1	2.3	1,925	...	...	...	...	...
Pomona-Ontario, Calif.....	186,347	100.0	71.3	2,618	(?)	...	...	...	...
In central cities.....	113,774	61.1	36.2	3,143	...	...	...	...	...
Pomona.....	67,157	36.0	18.4	3,650	...	...	1.1	...	...
Ontario.....	46,617	25.0	17.8	2,619	...	...	...	...	...
In urban fringe.....	72,773	39.0	35.1	2,073	...	...	...	...	...
Port Arthur, Texas.....	116,365	100.0	79.5	1,464	82,150	100.0	31.6	2,600	43.6
Port Arthur.....	66,676	57.3	43.7	1,459	37,930	70.0	12.2	4,716	15.9
In urban fringe.....	49,689	42.7	33.8	1,470	24,220	30.0	19.4	1,269	103.8
Portland, Maine.....	111,701	100.0	51.2	2,182	113,499	100.0	51.2	2,217	1.6
Portland.....	72,566	65.0	21.6	3,360	77,634	68.4	21.6	3,394	-6.3
In urban fringe.....	39,135	35.0	29.6	1,322	35,865	31.6	29.6	1,212	9.1
Portland, Oreg.—Wash.....	651,685	100.0	192.4	3,387	512,643	100.0	113.3	4,317	27.1
Portland.....	372,676	57.2	87.2	5,546	373,628	72.9	64.1	3,829	-0.3
In urban fringe.....	279,009	42.8	125.2	2,229	139,215	27.1	49.4	2,614	100.7
Providence-Pawtucket, R.I.—Mass.....	659,542	100.0	189.0	3,508	583,346	100.0	142.6	4,091	13.1
In central cities.....	288,499	43.7	26.5	10,887	248,674	42.6	17.9	11,832	16.0
Providence.....	207,498	31.5	17.9	13,292	248,674	42.6	17.9	11,892	-16.6
Pawtucket.....	81,001	12.3	8.6	9,419	(?)	...	...	...	...
In urban fringe.....	371,043	56.3	161.5	2,297	334,672	57.4	124.7	2,684	10.9
Provo-Orem, Utah.....	60,793	100.0	42.4	1,434	(?)	...	...	...	...
In central cities.....	24,641	39.5	34.8	1,564	...	...	...	...	...
Provo.....	36,047	59.3	19.2	1,877	...	...	...	...	...
Orem.....	18,394	30.3	15.6	1,179	...	...	...	...	...
In urban fringe.....	6,354	10.5	7.6	636	...	...	...	...	...
Pueblo, Colo.....	103,336	100.0	25.3	4,052	73,547	100.0	15.8	4,636	41.1
Pueblo.....	91,181	88.2	17.1	5,332	63,685	86.9	10.6	6,038	43.2
In urban fringe.....	12,155	11.8	8.4	1,442	9,562	13.1	5.2	1,839	27.1
Racine, Wis.....	95,862	100.0	14.6	6,366	76,377	100.0	12.1	6,323	25.2
Racine.....	89,164	93.0	11.2	7,959	71,193	93.0	9.2	7,738	25.2
In urban fringe.....	6,718	7.0	3.4	1,976	5,344	7.0	2.9	1,643	23.7
Raleigh, N.C.....	93,931	100.0	33.3	2,804	68,743	100.0	12.3	3,369	36.6
Raleigh.....	93,931	100.0	33.3	2,804	65,079	94.5	11.0	3,971	43.0
In urban fringe.....	...	...	...	...	3,064	4.5	1.3	2,397	...
Reading, Pa.....	160,297	100.0	53.1	4,843	154,931	100.0	26.4	5,869	3.5
Reading.....	98,177	61.2	31.6	10,227	109,320	70.6	8.8	12,429	-10.2
In urban fringe.....	62,120	38.8	23.3	2,643	45,611	29.4	17.6	2,992	36.2
Reno, Nev.....	70,189	100.0	16.3	4,306	(?)	...	...	...	...
Reno.....	51,470	73.3	11.8	4,362	...	...	...	...	...
In urban fringe.....	18,719	26.7	4.5	4,160	...	...	...	...	...
Richmond, Va.....	333,438	100.0	88.5	3,798	257,995	100.0	48.4	3,130	29.2
Richmond.....	219,958	66.0	37.0	5,945	230,210	89.3	37.1	6,208	-4.5
In urban fringe.....	113,480	34.0	51.5	2,203	27,685	10.7	11.3	2,430	309.9
Roanoke, Va.....	124,732	100.0	40.4	3,088	106,682	100.0	34.7	3,074	16.9
Roanoke.....	97,110	77.8	26.0	3,735	91,921	86.2	26.3	3,469	5.6
In urban fringe.....	27,622	22.2	14.4	1,920	14,761	13.8	8.2	1,800	87.3
Rochester, N.Y.....	493,402	100.0	133.3	4,355	409,149	100.0	64.6	6,134	20.6
Rochester.....	318,611	64.6	36.4	8,753	332,488	81.3	36.0	9,236	-4.2
In urban fringe.....	174,791	35.4	76.9	2,273	76,661	18.7	28.0	2,680	128.0
Rockford, Ill.....	171,681	100.0	43.2	3,974	122,226	100.0	26.0	4,701	40.5
Rockford.....	126,706	73.8	26.0	4,873	92,927	76.0	14.0	6,638	36.4
In urban fringe.....	44,975	26.2	17.2	2,615	29,299	24.0	12.0	2,462	53.5
Sacramento, Calif.....	451,920	100.0	134.0	3,773	211,777	100.0	41.6	5,091	113.4
Sacramento.....	191,667	42.4	45.1	4,230	137,972	65.0	16.9	6,140	39.3
In urban fringe.....	260,253	57.6	88.9	2,927	74,205	35.0	24.7	3,004	250.7
Saginaw, Mich.....	129,215	100.0	31.1	4,155	105,939	100.0	24.0	4,414	22.0
Saginaw.....	98,265	76.0	16.6	5,920	92,918	87.7	16.6	5,997	5.8
In urban fringe.....	30,950	24.0	14.5	2,134	13,021	12.3	7.5	1,760	137.7

See footnotes at end of table.



## Number of Inhabitants

### POPULATION AND LAND AREA OF URBANIZED AREAS: 1960 AND 1950—Con.

[Minus sign (-) denotes decrease    Percent not shown where less than 0.1]

Urbanized area	1960			1950			Percent increase in population, 1950 to 1960		
	Population		Land area in square miles	Population		Land area in square miles			
	Number	Percent distribution		Number	Percent distribution				
St. Joseph, Mo.—Kans.	81,187	100.0	28.8	2,419	82,390	100.0	17.2	4,766	-1.3
St. Joseph, Mo.	79,673	98.1	27.7	2,476	78,288	93.5	24.1	5,374	1.4
In urban fringe	1,514	1.9	1.1	1,776	3,702	4.5	3.3	1,328	-59.1
St. Louis, Mo.—Ill.	1,697,693	100.0	323.2	5,180	1,400,845	100.0	227.8	6,130	19.6
St. Louis, Mo.	730,026	43.0	63.0	12,394	836,796	60.0	61.0	16,066	-12.5
In urban fringe	917,667	55.0	262.2	3,200	564,049	40.2	166.8	3,262	69.7
St. Petersburg, Fla.	124,842	100.0	115.2	2,820	114,396	100.0	69.8	1,642	183.7
St. Petersburg, Fla.	121,280	97.5	54.0	3,277	96,738	84.4	52.2	1,853	87.1
In urban fringe	143,544	42.5	61.2	2,345	17,658	15.6	17.6	1,015	703.8
Salt Lake City, Utah	246,641	100.0	131.7	2,647	227,366	100.0	76.1	2,988	53.2
Salt Lake City, Utah	195,134	79.1	54.1	3,277	182,121	80.1	53.9	3,299	4.5
In urban fringe	159,477	45.7	75.6	2,106	45,247	19.9	22.2	2,038	251.9
San Angelo, Texas	36,415	100.0	39.7	1,980	(?)	...	...	...	...
San Angelo, Texas	36,415	100.0	39.7	1,980	...	...	...	...	...
San Antonio, Texas	641,965	100.0	192.4	3,137	449,323	100.0	89.7	3,011	42.8
San Antonio, Texas	387,718	60.4	140.3	3,682	408,442	90.9	89.2	5,877	43.9
In urban fringe	54,247	8.5	31.9	1,701	41,079	6.1	20.2	2,034	32.1
San Bernardino-Riverside, Calif.	377,531	100.0	169.4	2,228	135,770	100.0	60.5	2,364	178.1
San Bernardino-Riverside, Calif.	176,256	46.7	65.9	2,875	83,038	61.2	18.5	3,226	179.5
San Bernardino-Riverside, Calif.	91,922	24.3	25.1	6,413	53,024	39.0	18.3	3,238	43.3
San Bernardino-Riverside, Calif.	84,332	22.3	40.8	2,077	(?)	...	...	...	...
In urban fringe	231,277	61.3	103.5	1,845	72,732	53.6	41.0	1,773	176.8
San Diego, Calif.	436,175	100.0	275.7	3,033	432,976	100.0	132.6	3,385	93.1
San Diego, Calif.	373,224	85.6	192.4	2,978	334,387	77.2	99.4	3,384	71.4
In urban fringe	262,931	60.1	83.3	3,197	98,589	22.8	33.2	2,969	164.7
San Francisco-Oakland, Calif.	2,430,663	100.0	771.5	4,233	2,022,078	100.0	287.3	7,038	20.2
San Francisco-Oakland, Calif.	1,107,864	45.6	100.6	11,013	1,159,932	57.4	11,885	11,885	-4.2
San Francisco-Oakland, Calif.	740,316	30.5	47.6	13,223	775,327	38.3	44.6	17,389	-4.2
Oakland	367,548	15.1	53.0	6,925	384,775	19.0	53.0	9,226	-4.4
In urban fringe	1,322,799	54.4	470.9	2,809	862,144	42.6	189.7	4,545	53.4
San Jose, Calif.	602,465	100.0	223.1	2,708	178,473	100.0	80.6	2,912	261.4
San Jose, Calif.	326,136	54.1	54.3	3,387	95,280	53.4	17.6	5,625	116.3
In urban fringe	386,409	64.1	168.6	2,364	81,193	45.6	43.6	1,862	380.9
Santa Barbara, Calif.	72,740	100.0	39.7	2,649	(?)	...	...	...	...
Santa Barbara, Calif.	38,768	53.3	19.7	2,823	...	...	...	...	...
In urban fringe	13,972	19.2	10.0	1,387	...	...	...	...	...
Savannah, Ga.	169,887	100.0	61.1	2,780	128,234	100.0	22.5	5,498	32.5
Savannah, Ga.	149,245	87.8	62.5	2,796	119,628	93.3	14.6	6,184	24.7
In urban fringe	20,642	12.2	19.6	1,053	8,998	6.7	7.9	1,073	141.2
Sermon, Pa.	210,476	100.0	104.8	2,010	236,076	100.0	103.9	2,272	-10.8
Sermon, Pa.	111,443	52.9	25.3	4,405	125,536	53.2	24.9	5,042	-11.2
In urban fringe	99,233	47.1	79.5	1,248	110,540	46.8	79.0	1,399	-10.2
Seattle, Wash.	964,108	100.0	238.3	3,426	621,329	100.0	122.9	5,077	39.0
Seattle, Wash.	577,087	60.0	88.5	6,293	487,291	78.2	70.8	6,604	19.1
In urban fringe	307,022	31.8	149.8	2,030	133,938	21.6	52.1	2,954	99.5
Stoweyport, Ia.	238,583	100.0	52.4	3,981	150,228	100.0	30.4	4,941	38.9
Stoweyport, Ia.	184,272	77.3	34.0	4,366	127,226	84.7	24.0	5,310	29.2
In urban fringe	44,231	18.6	18.4	2,696	23,002	15.3	6.4	2,394	92.2
Stout City, Iowa-Mo., S. Dak.	97,926	100.0	34.3	1,803	90,101	100.0	49.3	1,428	6.7
Stout City, Iowa-Mo., S. Dak.	89,129	91.0	49.4	1,800	83,991	93.2	45.0	1,866	6.2
In urban fringe	8,797	9.0	4.9	1,789	6,110	6.8	4.3	1,422	43.5
Stout Falls, S. Dak.	64,382	100.0	17.4	3,427	(?)	...	...	...	...
Stout Falls, S. Dak.	65,466	98.3	17.0	3,821	...	...	...	...	...
In urban fringe	1,116	1.7	0.4	2,790	...	...	...	...	...
Stout Falls, S. Dak.	216,933	100.0	64.0	3,421	166,165	100.0	37.2	4,322	30.2
Stout Falls, S. Dak.	132,443	60.5	23.8	5,365	115,911	69.9	20.2	5,738	14.3
In urban fringe	86,488	39.5	40.2	2,151	52,254	31.1	17.0	3,074	63.5
Spokane, Wash.	226,938	100.0	64.1	3,340	176,004	100.0	31.1	3,444	28.9
Spokane, Wash.	161,608	71.2	43.0	4,223	161,721	91.9	41.5	3,897	12.3
In urban fringe	49,100	21.8	21.1	2,148	14,283	8.1	9.6	1,488	217.4
Springfield, Ill.	111,403	100.0	32.4	3,417	97,371	100.0	17.2	5,661	14.4
Springfield, Ill.	83,271	74.7	21.4	3,891	81,628	83.8	10.4	7,849	2.0
In urban fringe	28,132	25.3	11.2	2,512	15,743	16.2	6.8	2,315	78.7
Springfield, Mo.	97,224	100.0	39.6	2,731	75,549	100.0	17.8	4,264	28.7
Springfield, Mo.	95,865	98.6	34.7	2,763	64,731	85.3	13.6	4,977	43.7
In urban fringe	1,359	1.4	0.9	2,510	8,824	11.7	4.2	2,100	-84.6
Springfield, Ohio	90,127	100.0	20.4	4,777	82,284	100.0	13.2	6,234	9.6
Springfield, Ohio	82,723	91.8	15.7	5,389	78,308	93.4	12.1	6,488	5.4
In urban fringe	7,404	8.2	4.9	1,317	3,776	4.6	1.1	3,435	96.9
Springfield-Chicopee-Holyoke, Mass.—Conn.	449,777	100.0	238.8	1,883	336,808	100.0	167.3	2,113	26.0
Springfield-Chicopee-Holyoke, Mass.—Conn.	288,705	64.2	74.3	3,886	217,080	60.8	52.7	4,119	73.2
Springfield-Chicopee-Holyoke, Mass.—Conn.	174,463	38.8	33.1	5,271	162,399	45.5	33.7	5,123	7.4
Springfield-Chicopee-Holyoke, Mass.—Conn.	61,293	13.6	18.4	3,345	(?)	...	...	...	...
Springfield-Chicopee-Holyoke, Mass.—Conn.	52,689	11.7	22.8	2,711	54,661	15.3	21.0	2,803	-3.0
In urban fringe	161,072	35.8	104.5	999	139,848	39.2	114.6	1,220	15.2
Stamford, Conn.	166,990	100.0	38.1	1,702	111,116	100.0	53.3	2,216	41.4
Stamford, Conn.	92,713	55.7	16.4	2,434	74,293	66.9	37.6	1,976	24.8
In urban fringe	74,277	44.5	19.7	1,264	43,823	39.1	15.7	2,791	69.9

See footnotes at end of table

United States Summary

**POPULATION AND LAND AREA OF URBANIZED AREAS: 1960 AND 1950—Con.**

(Minus sign (-) denotes decrease. Percent not shown where less than 0.1)

Urbanized area	1960				1950				Percent increase in population, 1950 to 1960
	Population		Land area in square miles	Population per square mile of land area	Population		Land area in square miles	Population per square mile of land area	
	Number	Percent distribution			Number	Percent distribution			
Steubenville-Weirton, Ohio-W.Va.	81,613	100.0	36.8	2,218	(2)	...	...	...	
In central cities	60,696	74.4	24.4	2,488	...	...	...	...	
Steubenville	32,495	39.8	5.8	5,603	...	...	...	...	
Martinsburg	28,201	34.6	18.6	1,916	...	...	...	...	
In urban fringe	20,917	25.6	12.4	1,687	...	...	...	...	
Stockton, Calif.	143,404	100.0	38.4	3,688	112,834	100.0	33.0	4,721	23.5
Stockton	86,321	60.2	22.9	3,769	70,853	62.0	38.3	7,927	21.8
In urban fringe	55,283	39.0	15.5	3,567	41,981	37.2	12.1	3,470	31.7
Syracuse, N.Y.	333,266	100.0	67.7	4,922	285,288	100.0	43.6	6,085	23.6
Syracuse	216,038	64.8	25.0	8,642	220,583	77.1	25.3	8,719	-2.1
In urban fringe	117,228	35.2	42.7	2,746	64,705	22.7	18.3	2,463	162.3
Tacoma, Wash.	214,930	100.0	82.8	2,596	167,667	100.0	62.2	2,696	28.2
Tacoma	147,079	68.4	47.3	3,115	143,879	85.7	47.9	2,999	3.0
In urban fringe	66,951	31.2	35.3	1,897	23,994	14.3	14.3	1,678	179.0
Tampa, Fla.	301,790	100.0	103.4	2,919	179,235	100.0	40.8	4,395	68.3
Tampa	274,970	91.1	83.0	3,235	126,661	69.5	19.0	6,362	120.5
In urban fringe	26,820	8.9	18.4	1,458	54,654	30.5	21.8	2,307	-80.9
Terre Haute, Ind.	81,415	100.0	31.7	2,568	78,028	100.0	18.6	4,195	4.3
Terre Haute	72,300	88.7	24.7	2,935	64,214	82.3	12.2	5,263	12.9
In urban fringe	8,915	11.0	7.0	1,274	13,814	17.7	6.4	2,138	-35.5
Texasarkana, Texas-Ark.	51,420	100.0	26.7	2,001	(2)	...	...	...	
In central cities	30,006	58.4	21.9	2,283	...	...	...	...	
Texasarkana, Texas	30,218	58.8	15.9	1,901	...	...	...	...	
Texasarkana, Ark.	15,788	30.7	6.8	2,798	...	...	...	...	
In urban fringe	3,414	6.6	4.8	711	...	...	...	...	
Toledo, Ohio	438,283	100.0	134.9	3,249	364,344	100.0	66.8	5,220	20.3
Toledo	318,053	72.6	48.2	4,996	303,634	69.3	38.3	7,927	4.7
In urban fringe	120,230	27.4	86.7	1,387	60,728	16.7	31.5	1,958	96.1
Topka, Kans.	119,900	100.0	36.2	3,301	89,104	100.0	17.1	5,211	34.1
Topka	119,484	100.0	36.1	3,310	78,791	88.4	12.5	6,303	31.6
In urban fringe	16	(1)	0.1	160	10,313	11.6	4.6	2,242	-99.8
Trenton, N.J.-Pa.	242,401	100.0	75.3	3,219	189,321	100.0	26.0	7,282	28.0
Trenton	114,167	47.1	7.4	15,428	128,009	67.6	7.2	17,779	-10.8
In urban fringe	128,234	52.9	67.9	1,899	61,312	32.4	16.8	1,261	109.1
Tucson, Ariz.	227,433	100.0	86.4	2,432	(2)	...	...	...	
Tucson	212,891	93.6	92.4	3,033	...	...	...	...	
In urban fringe	14,541	6.4	15.5	938	...	...	...	...	
Tulsa, Okla.	298,922	100.0	70.2	4,298	206,311	100.0	37.7	5,472	44.9
Tulsa	261,685	87.5	47.8	5,475	182,740	88.6	26.7	6,844	43.2
In urban fringe	37,237	12.5	22.4	1,662	23,571	11.4	11.0	2,143	58.0
Tuscaloosa, Ala.	76,815	100.0	30.5	2,519	(2)	...	...	...	
Tuscaloosa	63,370	82.5	21.0	3,018	...	...	...	...	
In urban fringe	13,445	17.5	9.5	1,415	...	...	...	...	
Tyler, Texas	51,739	100.0	18.4	2,782	(2)	...	...	...	
Tyler	51,230	99.0	18.3	2,789	...	...	...	...	
In urban fringe	509	1.0	0.3	1,697	...	...	...	...	
Utica-Rome, N.Y.	187,779	100.0	112.4	1,671	117,424	100.0	20.2	5,813	59.9
In central cities	152,036	80.5	94.1	1,616	101,331	86.3	15.8	6,426	49.8
Utica	100,410	53.5	17.0	5,906	101,331	86.5	15.8	6,426	-1.1
Rome	51,646	27.5	77.1	870	(2)	...	...	...	
In urban fringe	35,723	19.0	18.3	1,952	13,093	11.2	4.4	3,422	124.8
Waco, Texas	116,163	100.0	64.9	1,790	92,834	100.0	30.1	3,084	23.1
Waco	97,808	84.2	27.3	2,622	84,706	91.2	26.0	3,258	15.5
In urban fringe	18,355	15.8	27.6	665	8,128	8.8	4.1	1,962	129.8
Washington, D.C.-Md.-Va.	1,808,423	100.0	340.7	5,308	1,287,333	100.0	178.4	7,216	40.5
Washington	763,956	42.2	61.4	12,442	822,278	64.2	61.4	13,065	-4.8
In urban fringe	1,044,467	57.8	279.3	3,760	465,155	35.7	117.0	4,147	113.3
Waterbury, Conn.	141,626	100.0	50.4	2,810	131,707	100.0	47.0	2,802	7.5
Waterbury	107,130	75.6	27.6	3,882	124,477	79.3	29.6	3,785	2.5
In urban fringe	34,496	24.4	22.8	1,513	27,230	20.7	19.4	1,404	28.7
Waterloo, Iowa	102,827	100.0	49.5	2,077	84,386	100.0	40.9	2,073	21.9
Waterloo	71,755	69.8	33.8	2,123	65,198	77.3	31.3	2,083	10.1
In urban fringe	31,072	30.2	15.7	1,979	19,188	22.7	9.4	2,041	61.9
West Palm Beach, Fla.	172,833	100.0	96.6	1,753	(2)	...	...	...	
West Palm Beach	96,208	55.7	18.7	3,006	...	...	...	...	
In urban fringe	118,627	68.5	78.9	1,460	...	...	...	...	
Wheeling, W.Va.-Ohio	98,931	100.0	27.1	3,485	106,650	100.0	23.1	4,617	-7.2
Wheeling	53,400	54.0	10.4	4,984	18,891	17.7	10.4	5,563	-9.3
In urban fringe	45,531	46.0	16.5	2,781	47,759	44.8	12.7	3,761	-4.4
Wichita, Kans.	291,138	100.0	79.7	3,665	194,047	100.0	37.5	5,175	30.6
Wichita	254,698	87.5	31.9	4,907	168,279	86.7	25.7	6,568	51.4
In urban fringe	37,440	12.8	27.8	1,347	25,768	13.3	11.8	2,184	45.3
Wichita Falls, Texas	102,104	100.0	37.4	2,730	(2)	...	...	...	
Wichita Falls	101,724	99.6	37.3	2,727	...	...	...	...	
In urban fringe	380	0.4	0.1	3,800	...	...	...	...	
Wilkes-Barre, Pa.	233,932	100.0	74.1	3,157	271,989	100.0	67.4	4,030	-13.9
Wilkes-Barre	63,531	27.2	8.9	9,210	76,826	28.3	6.9	11,134	-17.3
In urban fringe	170,381	72.8	67.2	2,555	194,763	71.7	60.5	3,219	-12.5

See footnotes at end of table

## Number of Inhabitants

### POPULATION AND LAND AREA OF URBANIZED AREAS: 1960 AND 1950—Con.

[Minus sign (-) denotes decrease. Percent not shown where less than 0.1]

Urbanized area	1960				1950				Percent increase in population, 1950 to 1960
	Population		Land area in square miles	Population per square mile of land area	Population		Land area in square miles	Population per square mile of land area	
	Number	Percent distribution			Number	Percent distribution			
Wilmington, Del.—N.J.	263,667	100.0	90.0	3,132	187,398	100.0	46.7	4,012	91.4
Wilmington	95,877	36.4	15.8	6,061	120,398	64.5	9.8	11,261	-13.2
In urban fringe	167,840	64.2	74.2	2,532	77,000	41.1	36.9	2,087	143.9
Winston-Salem, N.C.	128,176	100.0	43.0	2,981	92,477	100.0	23.1	4,003	36.6
Winston-Salem	111,135	86.7	31.1	3,273	67,513	73.0	38.8	4,671	26.6
In urban fringe	17,041	13.3	11.9	1,432	4,666	5.0	4.3	1,082	265.2
Worcester, Mass.	225,446	100.0	61.3	3,678	219,330	100.0	43.6	5,031	2.8
Worcester	120,267	53.4	37.0	5,043	203,466	92.8	37.0	5,300	-8.3
In urban fringe	38,839	17.2	24.3	1,999	15,864	7.2	6.6	2,401	145.3
York, Pa.	100,872	100.0	10.4	9,689	76,796	100.0	9.1	8,459	28.0
York	54,304	54.0	4.7	11,397	59,853	78.1	4.2	14,275	-9.1
In urban fringe	46,368	46.0	5.7	8,135	16,943	22.9	4.9	3,846	146.1
Youngstown-Warren, Ohio-Pa.	372,748	100.0	308.0	3,451	396,051	100.0	76.9	3,778	25.1
In central city	259,337	69.7	44.1	5,132	166,330	42.0	32.8	5,132	34.3
Youngstown	166,689	44.7	33.2	5,021	168,330	42.5	32.8	5,132	-1.0
Warren	99,648	26.8	10.9	5,472	(*)	...	...	...	...
In urban fringe	166,411	44.7	63.9	2,291	129,721	32.7	66.1	2,814	22.9
<b>MUNICIPALITIES</b>									
Nayagies	26,697	100.0	1.9	15,099	(*)	...	...	...	...
Nayagies	20,147	75.5	2.1	19,267	...	...	...	...	...
In urban fringe	8,940	34.0	1.3	6,723	...	...	...	...	...
Panama	114,286	100.0	12.7	8,999	(*)	...	...	...	...
Panama	114,286	100.0	12.7	8,999	...	...	...	...	...
San Juan	543,136	100.0	36.7	9,236	(*)	...	...	...	...
San Juan	432,377	79.6	29.8	16,441	...	...	...	...	...
In urban fringe	109,779	20.2	26.8	3,812	...	...	...	...	...

<sup>1</sup> Revised since publication of 1950 reports.  
<sup>2</sup> There was no urbanized area delineated for the 1950 Census.  
<sup>3</sup> There were separate urbanized areas delineated for Schuylkill and Albany-Troy for the 1950 Census. Figures are for the combined areas.  
<sup>4</sup> There were separate urbanized areas delineated for Buffalo and Niagara Falls for the 1950 Census. Figures are for the combined areas.  
<sup>5</sup> Not a central city in the 1950 Census.  
<sup>6</sup> Not a central city in the 1960 Census.  
<sup>7</sup> There were separate urbanized areas delineated for Detroit and Pontiac for the 1950 Census. Figures are for the combined areas.  
<sup>8</sup> Not in the area in 1950.  
<sup>9</sup> Not in the area in 1960.  
<sup>10</sup> Norwalk and Stamford Urbanized Areas reported in 1950 as the Stamford-Norwalk Urbanized Area. 1950 figures allocated to each area as defined in 1960.  
<sup>11</sup> Less than 0.1 percent.

# *Contrails*

APPENDIX B

COMPUTER LISTINGS WITH  
BLOCK-BY-BLOCK ANALYSIS  
OF SELECTED AREAS IN SAN FRANCISCO  
AND NEW YORK CITY

## Detailed Data Analysis for SF1

PAGE 1		CITY- SAN FRANCISCO										TOTAL												
SECT	BLOCK	CLASS	NUMBER BLDGS	NUMBER BASE POINTS	NUMBER TOP POINTS	TOTAL NUMBER POINTS	TOTAL NUMBER NON BLDGS	TOTAL NUMBER TOPS	R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	M	DT
1	1	COMM	1	4	0	4	0	0	0	0	1													
1	1	COMM	11	44	136	180	0	34	45		11													
1	1	RESID	45	180	0	180	0	0	23															
1	1	RESID	24	96	0	96	0	0	50															
1	1	RESID	50	200	0	200	0	0	31															
1	1	RESID	31	124	0	124	0	0	6															
1	1	RESID	6	24	4	28	0	1	30															
1	1	RESID	31	124	4	128	0	1	39															
1	1	RESID	39	156	0	156	0	0	36															
1	1	RESID	36	144	0	144	0	0	24															
1	1	RESID	24	96	0	96	0	0																
1	1	RESID	0	0	0	0	1	0																
1	1	RESID	4	16	56	72	0	12	37															
1	1	RESID	37	148	0	148	0	0	31															
1	1	RESID	31	124	0	124	0	0	29															
1	1	RESID	29	116	0	116	0	0	4															
1	1	RESID	17	68	0	68	0	0	13															
1	1	RESID	13	52	0	52	0	0	13															
1	1	RESID	21	84	0	84	0	0	10															
1	1	RESID	5	20	0	20	0	0	5															
1	1	RESID	9	36	0	36	0	0	5															
1	1	RESID	10	40	0	40	0	0	10															
1	1	RESID	5	20	0	20	0	0	5															
1	1	RESID	5	20	0	20	0	0																
1	1	COMM	1	4	0	4	0	0																
1	1	COMM	1	4	0	4	0	0																
2	1	RESID	0	0	250	250	87	63	22															
2	2	RESID	39	156	52	208	0	13																
2	2	RESID	4	16	0	16	0	0	4															
2	2	RESID	7	28	0	28	0	0	7															
2	2	RESID	6	24	0	24	0	0	6															
2	2	RESID	9	36	0	36	0	0	9															
2	2	RESID	13	52	24	76	0	6	13															
2	2	RESID	9	36	0	36	0	0	9															
2	2	RESID	9	36	0	36	0	0	9															
2	2	RESID	14	56	16	72	0	4	14															
2	2	RESID	7	28	0	28	0	0	7															
2	2	RESID	31	124	140	264	0	35	27															
2	2	RESID	52	208	0	208	0	0	52															
2	2	RESID	37	148	0	148	0	0	37															
2	2	RESID	37	148	0	148	0	0	37															
2	2	RESID	37	148	0	148	0	0	37															
2	2	RESID	32	128	0	128	0	0	32															
2	2	RESID	40	160	0	160	0	0	40															
2	2	RESID	39	156	0	156	0	0	36															
2	2	RESID	80	320	20	340	0	5	18															
2	2	COMM	10	40	28	68	0	7	10															
2	2	COMM	10	40	0	40	0	0	10															
2	2	COMM	2	8	24	32	0	6	2															
2	2	COMM	2	8	0	8	0	0	2															
2	2	RESID	15	60	0	60	0	0	14															

Detailed Data Analysis for SF1 (continued)

PAGE	SECT	BLOCK	CLASS	CITY-- SAN FRANCISCO																				
				NUMBER BASE BLDGS	NUMBER TOP PNTS	NUMBER TOTAL PNTS	NUMBER NON BLDGS	TOTAL NUMBER TOPS	TOTAL	R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W
2	26	RESID	17	68	0	68	0	0	0	15	2													
2	27	COMM	6	24	4	28	0	0	1	42		6												
2	29	RESID	51	204	28	232	0	0	7	37		2	7											
2	29	RESID	46	184	72	256	0	0	18	33			9											
2	30	RESID	33	132	8	140	0	0	2	10		8												
2	31	RESID	18	72	0	72	0	0	0	10		9												
2	32	RESID	19	76	0	76	0	0	0	10		9												
2	33	RESID	53	212	44	256	0	0	21	31		3	22											
2	34	RESID	50	200	16	216	0	0	4	47		3												
2	35	RESID	43	172	0	172	0	0	0	35		8												
2	36	RESID	23	92	0	92	0	0	0	23		9												
2	37	RESID	9	36	0	36	0	0	0	10		10												
2	38	RESID	10	40	0	40	0	0	0	7		7												
2	39	RESID	7	28	0	28	0	0	0	11		4												
2	40	RESID	11	44	0	44	0	0	0	4		4												
2	41	RESID	4	16	0	16	0	0	0	7		7												
2	42	RESID	7	28	0	28	0	0	0	36		4												
2	43	RESID	40	160	0	160	0	0	0	39		12												
2	44	RESID	39	156	0	156	0	0	0	5		6												
2	45	COMM	17	68	40	108	0	10	2	26		6												
2	46	RESID	32	128	8	136	0	0	0	38		6												
2	47	RESID	38	152	0	152	0	0	0	29		6												
2	48	RESID	35	140	20	160	0	5	0	38		5												
2	49	RESID	38	152	0	152	0	0	0	37		7												
2	50	RESID	37	148	0	148	0	0	0	35		5												
2	51	RESID	35	140	0	140	0	0	0	31		7												
2	52	RESID	36	144	24	168	0	6	0	46		11												
2	53	RESID	46	184	0	184	0	0	0	14		11												
2	54	RESID	21	84	44	128	0	11	0	13		19												
2	55	COMM	11	44	60	104	0	15	0	27		8												
2	56	COMM	19	76	64	140	0	16	0	29		16												
2	57	RESID	21	84	95	179	0	24	0	15		19												
2	58	RESID	21	84	32	116	0	8	0	27		8												
2	59	COMM	13	52	76	128	0	14	0	25		6												
2	60	RESID	27	108	0	108	0	0	0	12		16												
2	61	RESID	29	116	0	116	0	0	0	16		16												
2	62	RESID	26	104	16	120	0	4	0	12		16												
2	63	RESID	12	48	0	48	0	0	0	27		16												
2	64	COMM	16	64	108	172	0	27	0	26		16												
2	65	COMM	20	80	104	184	0	26	0	44		6												
2	66	RESID	20	80	72	152	0	18	0	21		15												
2	67	RESID	53	212	48	260	0	12	0	36		7												
2	68	COMM	15	60	130	190	0	33	0	36		6												
2	69	RESID	28	112	84	196	0	21	0	37		6												
2	70	RESID	36	144	0	144	0	0	0	24		15												
2	71	RESID	36	144	0	144	0	0	0	37		6												
2	72	RESID	30	120	60	180	0	15	0	43		6												
2	73	RESID	30	120	0	120	0	0	0	29		0												
2	74	RESID	43	172	0	172	0	0	0	116		0												
2	75	RESID	29	116	0	116	0	0	0	116		0												

Detailed Data Analysis for SFI (continued)

PAGE	SECT	BLOCK	CLASS	CITY- SAN FRANCISCO				TOTAL NUMBER TOPS	TOTAL NUMBER NON BLDGS	TOTAL NUMBER POINTS	TOTAL NUMBER POINTS	TOTAL NUMBER TOPS	R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	DT
				NUMBER BLDGS	RASE POINTS	NUMBER TOP POINTS	NUMBER POINTS																					
2	76	RESID	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	77	RESID	48	192	0	192	0	0	0	0	0	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	78	RESID	34	136	0	136	0	0	0	0	0	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	79	RESID	30	120	0	120	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	80	RESID	33	132	0	132	0	0	0	0	0	33	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	81	RESID	34	136	0	136	0	0	0	0	0	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	82	RESID	27	108	0	108	0	0	0	0	0	25	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	83	RESID	43	172	0	172	0	0	0	0	0	43	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	84	RESID	32	128	0	128	0	0	0	0	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	85	RESID	31	124	109	233	0	0	0	0	28	14	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	86	RESID	16	64	0	64	0	0	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	87	RESID	1	4	0	4	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	88	COMM	7	28	24	52	1	1	7	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	1	RESID	26	104	24	128	0	0	6	0	6	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	2	RESID	25	100	20	120	0	0	5	0	5	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	3	RESID	29	116	24	140	0	0	6	0	6	26	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	4	RESID	26	104	20	124	0	0	5	0	5	22	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	5	RESID	20	80	28	108	0	0	7	0	7	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	6	RESID	19	76	12	88	0	0	3	0	3	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	7	COMM	10	40	60	100	0	0	15	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	8	COMM	10	40	88	128	0	0	23	0	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	9	COMM	10	40	84	124	0	0	21	0	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	10	RESID	17	68	0	68	0	0	0	0	0	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	11	RESID	15	60	32	92	0	0	8	0	8	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	12	RESID	3	12	8	20	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	13	RESID	23	92	0	92	0	0	0	0	0	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	14	RESID	29	116	0	116	0	0	0	0	0	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	15	RESID	28	112	0	112	0	0	0	0	0	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	16	RESID	31	124	0	124	0	0	0	0	0	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	17	RESID	30	120	0	120	0	0	0	0	0	30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	18	RESID	16	64	23	87	0	0	6	0	6	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	19	RESID	34	136	0	136	0	0	0	0	0	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	20	RESID	41	164	0	164	0	0	0	0	0	41	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	21	RESID	48	192	0	192	0	0	0	0	0	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	22	RESID	42	168	0	168	0	0	0	0	0	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	23	RESID	37	148	0	148	0	0	0	0	0	37	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	24	RESID	40	160	0	160	0	0	0	0	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	25	RESID	36	144	0	144	0	0	0	0	0	36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	26	RESID	38	152	0	152	0	0	0	0	0	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	27	RESID	25	100	8	108	0	0	2	0	2	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	28	RESID	28	112	0	112	0	0	0	0	0	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	29	RESID	39	156	0	156	0	0	0	0	0	39	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	30	RESID	38	152	0	152	0	0	0	0	0	38	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	31	RESID	36	144	8	152	0	0	2	0	2	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	32	RESID	45	180	0	180	0	0	0	0	0	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	33	RESID	43	172	8	180	0	0	2	0	2	42	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	34	RESID	43	172	28	200	0	0	7	0	7	36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	35	RESID	40	160	16	176	2	2	4	0	4	29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	36	RESID	46	184	0	184	0	0	0	0	0	45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	37	RESID	44	176	56	232	0	0	14	0	14	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Detailed Data Analysis for SF1 (continued)

PAGE	SECT	BLOCK	CLASS	CITY- SAN FRANCISCO																				
				NUMBER BASE POINTS	NUMBER TOP POINTS	TOTAL NUMBER POINTS	TOTAL NON BLOGS	TOTAL NUMBER TOPS	TOTAL	R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W
3	38	RESID	35	140	48	188	0	12	23															
3	39	COMM	31	124	183	307	0	25	11															
3	40	RESID	46	184	60	244	0	15	46															
3	41	RESID	42	168	72	240	0	12	29															
3	42	RESID	35	140	154	294	0	12	15	5														
3	43	RESID	42	168	24	192	0	6	42															
3	44	COMM	36	144	165	309	0	42																
3	45	COMM	33	132	302	434	0	33	33															
3	46	RESID	35	140	121	261	0	31	19	4														
3	47	RESID	18	72	7	79	1	2	11	7														
3	48	RESID	49	196	80	276	0	20	26	23														
3	49	RESID	45	180	0	180	0	0	45															
3	50	COMM	38	152	60	212	1	15																
3	51	COMM	34	136	123	259	0	31	34															
3	52	COMM	38	152	69	221	0	18	16															
3	53	RESID	55	220	0	220	0	0	55															
3	54	COMM	38	152	71	223	1	18	8															
3	55	RESID	21	84	44	128	2	11	19	1														
3	56	RESID	37	148	28	176	0	7	30															
3	57	RESID	39	156	16	172	0	4	35															
3	58	RESID	39	156	20	176	0	5	33															
3	59	RESID	38	152	56	208	0	14	31															
3	60	RESID	34	136	28	164	0	7	29															
3	61	RESID	42	168	0	168	0	0	42															
3	62	RESID	36	144	40	184	0	10	28															
3	63	COMM	23	92	203	295	0	38																
3	64	RESID	44	176	0	176	0	0	44															
3	65	RESID	42	168	0	168	0	0	42															
3	66	RESID	36	144	0	144	0	0	36															
3	67	RESID	43	172	0	172	0	0	43															
3	68	RESID	42	168	16	184	0	4	38															
3	69	RESID	39	156	28	184	0	7	32															
3	70	RESID	37	148	69	217	0	18	27															
3	71	RESID	40	160	39	199	0	10	36															
3	72	RESID	43	172	0	172	0	0	43															
3	73	RESID	35	140	87	227	0	22	22															
3	74	COMM	30	120	304	424	0	44																
3	75	RESID	58	232	8	240	0	2	56	2														
3	76	RESID	35	140	0	140	0	0	35															
3	77	RESID	39	156	0	156	0	0	39															
3	78	RESID	35	140	8	148	0	2	34															
3	79	RESID	35	140	20	160	0	5	33															
3	80	RESID	46	184	16	200	0	4	45															
3	81	RESID	1	4	28	32	0	7																
3	82	RESID	36	144	68	212	0	17	25															
3	83	RESID	14	56	32	88	0	8	8															
3	84	COMM	22	88	148	236	0	27																
3	85	RESID	18	72	0	72	0	0	18															
3	86	RESID	56	224	0	224	0	0	56															
3	87	RESID	24	96	0	96	0	0	24															

Detailed Data Analysis for SF1 (continued)

PAGE	SECT	BLOCK	CLASS	NUMBER BLDGS	NUMBER BASE POINTS	NUMBER TOP POINTS	CITY-- SAN FRANCISCO			TOTAL MON BLDGS	TOTAL NUMBER TOPS	TOTAL R	A	8	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	DT		
							NUMBER POINTS	TOTAL NUMBER POINTS	TOTAL BLDGS																				
5	3	88	RESID	28	112	0	112	0	0	0	28																		
	3	89	RESID	33	132	0	132	0	0	0	33																		
	3	90	RESID	42	168	0	168	0	0	0	42																		
	3	91	RESID	41	164	68	232	0	17	0	42			14															
	3	92	RESID	27	108	24	132	0	6	0	20			7															
	3	93	RESID	1	4	48	52	0	12	0	12																		
	3	94	RESID	21	84	60	144	0	15	0	13			8															
	3	95	RESID	25	100	0	100	1	0	0	25																		
	3	96	RESID	53	212	12	224	0	3	0	50			3															
	3	97	RESID	34	136	0	136	0	0	0	34																		
	3	98	RESID	29	116	16	132	0	4	0	27			2															
	3	99	RESID	23	92	43	135	0	11	0	17			6															
	3	100	COMM	11	44	56	100	0	14	0	11			11															
	3	101	RESID	19	76	42	118	0	9	0	14			4															
	3	102	RESID	24	96	0	96	0	0	0	24																		
	3	103	RESID	25	100	0	100	0	0	0	25																		
	3	104	RESID	27	108	0	108	0	0	0	27																		
	3	105	RESID	7	28	0	28	0	0	0	7																		
	3	106	RESID	26	104	0	104	0	0	0	26																		
	3	107	RESID	36	144	6	150	0	1	0	35			1															
	3	108	RESID	20	80	0	80	0	0	0	20																		
	3	109	RESID	17	68	0	68	0	0	0	17																		
	3	110	RESID	0	0	0	0	1	0	0	0																		
	3	111	RESID	0	0	0	0	0	1	0	0																		
	3	112	RESID	12	48	8	56	0	0	0	11			1															
	3	113	RESID	28	112	0	112	0	0	0	28			2															
	3	114	RESID	23	92	12	104	0	3	0	26			2															
	3	115	RESID	39	156	0	156	0	0	0	39			1															
	3	116	RESID	8	32	0	32	0	0	0	8																		
	4	1	RESID	36	144	0	144	0	0	0	36																		
	4	2	RESID	27	108	84	192	0	21	0	15																		
	4	3	COMM	50	200	70	270	0	18	0	18																		
	4	4	COMM	14	56	56	112	0	14	0	14																		
	4	5	RESID	31	124	194	318	0	3	0	29																		
	4	6	RESID	28	112	0	112	0	0	0	28																		
	4	7	RESID	23	92	0	92	0	0	0	23																		
	4	8	RESID	30	120	0	120	0	0	0	30																		
	4	9	RESID	29	116	0	116	0	0	0	29																		
	4	10	COMM	20	80	116	196	0	29	0	29																		
	4	11	RESID	57	228	108	336	0	27	0	57																		
	4	12	RESID	64	256	0	256	0	0	0	64																		
	4	13	RESID	28	112	0	112	0	0	0	28																		
	4	14	RESID	29	116	0	116	0	0	0	29																		
	4	15	RESID	32	128	8	136	0	2	0	30																		
	4	16	RESID	40	160	60	220	0	15	0	33			7															
	4	17	RESID	51	204	0	204	0	0	0	51																		
	4	18	RESID	35	140	96	236	0	24	0	11			24															
	4	19	RESID	34	136	0	136	0	0	0	34																		
	4	20	RESID	28	112	36	148	0	9	0	26																		
	4	21	RESID	21	84	16	100	0	4	0	18																		

Detailed Data Analysis for SF1 (continued)

PAGE 6 CITY- SAN FRANCISCO

SECT	BLOCK	CLASS	NUMBER BLDG	NUMBER BASE POINTS	NUMBER TDP POINTS	TOTAL NUMBER POINTS	TOTAL NON BLDG	TOTAL NUMBER TOPS	TOTAL	R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	M	OT
4	22	COMM	26	104	100	204	0	25					26												
4	23	COMM	13	52	122	174	0	31					13												
4	24	COMM	23	92	440	532	0	44					21												
4	25	COMM	31	124	144	268	0	36					22		1										
4	26	RESID	34	136	100	236	0	25					9												
4	27	RESID	79	316	0	316	0	0					15												
4	28	RESID	15	60	60	120	0	15					72												
4	29	RESID	38	152	0	152	0	0					15												
4	30	RESID	14	56	20	76	0	5					8												
4	31	RESID	15	60	16	76	0	4					2												
4	32	RESID	36	144	43	187	0	11					13												
4	33	RESID	16	64	60	124	0	11					25												
4	34	RESID	40	160	28	188	0	7					3												
4	35	RESID	34	136	0	136	0	0					5												
4	36	RESID	38	152	84	236	0	21					12												
4	37	RESID	17	68	0	68	0	0					17												
4	38	RESID	32	128	0	128	0	0					32												
4	39	RESID	42	168	20	188	0	5					39												
4	40	RESID	37	148	0	148	0	0					3												
4	41	RESID	28	112	4	116	0	1					28												
4	42	RESID	17	68	32	100	0	8					14												
4	43	RESID	44	176	16	192	0	4					43												
4	44	RESID	33	132	20	152	0	5					29												
4	45	RESID	16	64	0	64	0	0					16												
4	46	RESID	13	52	48	100	0	12					11												
4	47	RESID	12	48	60	108	0	15					12												
4	48	RESID	36	144	0	144	0	0					36												
4	49	RESID	29	116	0	116	0	0					29												
4	50	RESID	40	160	0	160	0	0					40												
4	51	RESID	45	180	0	180	0	0					45												
4	52	RESID	44	176	16	192	0	6					40												
4	53	RESID	51	204	0	204	0	0					51												
4	54	COMM	7	28	4	32	0	1					7												
4	55	RESID	7	28	0	28	0	0					7												
4	56	RESID	40	160	0	160	0	0					40												
4	57	COMM	1	4	36	40	0	9					1												
4	58	RESID	32	128	0	128	0	0					32												
4	59	RESID	22	88	0	88	0	0					22												
4	60	RESID	22	88	8	96	0	2					21												
4	61	RESID	34	136	20	156	0	5					27												
4	62	RESID	24	96	40	136	0	10					17												
4	63	COMM	46	184	120	304	0	30					19												
4	64	COMM	3	12	8	20	0	2					3												
4	65	RESID	31	124	36	160	0	9					24												
4	66	COMM	24	96	64	160	0	16					11												
4	67	COMM	6	24	20	44	0	5					6												
4	68	COMM	6	24	71	95	0	18					6												
4	69	COMM	8	32	8	40	0	2					8												
4	70	RESID	0	0	0	0	1	0					0												
4	71	RESID	6	24	0	24	0	0					6												

Detailed Data Analysis for SF1 (continued)

PAGE	7	CITY- SAN FRANCISCO																								
		SECT	BLOCK	CLASS	NUMBER BLDGS	NUMBER BASE POINTS	NUMBER TOP POINTS	TOTAL NUMBER POINTS	TOTAL NON BLDGS	TOTAL NUMBER TOPS	TOTAL R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	DT
4	72	RESID	11	44	0	44	0	0	0	0	11															
4	73	RESID	20	80	0	80	0	0	0	0	20															
4	74	RESID	24	96	0	96	0	0	0	0	24															
4	75	RESID	25	100	10	110	0	0	2	1	24															
4	76	RESID	29	116	12	128	0	0	3	5	24															
4	77	RESID	7	28	0	28	0	0	0	0	7															
4	78	RESID	7	28	0	28	0	0	0	2	5															
4	79	RESID	6	24	0	24	0	0	0	4	2															
4	81	RESID	13	52	32	84	0	0	8	13	4															
4	81	RESID	22	88	0	88	0	0	0	22	0															
4	82	RESID	26	104	0	104	0	0	0	26	0															
4	83	RESID	23	92	0	92	0	0	0	23	0															
4	84	RESID	13	52	4	56	0	0	1	11	2															
4	85	COMM	27	108	28	136	0	0	7	13	14															
4	86	RESID	23	92	0	92	0	0	0	23	0															
4	87	RESID	24	96	0	96	0	0	0	24	0															
4	88	RESID	24	96	4	100	0	0	1	21	3															
4	89	RESID	20	80	20	100	0	0	5	20	8															
4	90	RESID	21	84	28	112	0	0	7	13	8															
4	91	RESID	24	96	0	96	0	0	0	24	0															
4	92	COMM	21	84	50	134	0	0	13	21	14															
4	93	RESID	53	212	28	240	0	0	7	41	21															
4	94	RESID	47	188	31	219	0	0	8	39	12															
4	95	COMM	25	100	64	164	0	0	16	11	14															
4	96	RESID	13	52	4	56	0	0	1	12	1															
4	97	RESID	18	72	0	72	0	0	0	18	0															
4	98	RESID	25	100	4	104	0	0	1	24	1															
4	99	RESID	26	104	4	108	0	0	1	22	4															
4	100	RESID	23	92	12	104	0	0	3	18	5															
4	101	RESID	25	100	0	100	0	0	0	25	0															
4	102	RESID	19	76	16	92	0	0	4	13	6															
4	103	RESID	65	260	20	280	0	0	5	61	4															
4	104	RESID	44	176	18	194	0	0	5	39	5															
4	105	RESID	48	192	48	240	0	0	12	36	12															
4	106	RESID	40	160	34	194	0	0	9	31	2															
4	107	COMM	12	48	47	95	0	0	12	12	12															
4	108	COMM	1	4	16	20	0	0	4	1	1															
4	109	RESID	25	100	0	100	0	0	0	25	0															
4	110	RESID	25	100	0	100	0	0	0	25	0															
4	111	RESID	15	60	8	68	0	0	2	14	1															
4	112	RESID	26	104	4	108	0	0	1	26	0															
4	113	RESID	30	120	4	124	0	0	1	30	0															
4	114	RESID	26	104	16	120	0	0	4	23	3															
4	115	COMM	17	68	68	136	0	0	17	17	17															
4	116	COMM	17	68	48	116	0	0	12	17	17															
4	117	RESID	20	80	20	100	0	0	5	11	9															
4	118	RESID	12	48	0	48	0	0	0	12	0															
4	119	RESID	23	92	0	92	0	0	0	13	10															
4	120	RESID	17	68	0	68	0	0	0	16	1															
4	121	RESID	14	56	52	108	0	0	13	14	14															

Detailed Data Analysis for SF1 (continued)

PAGE	SECT	BLOCK	CLASS	NUMBER BLOGS	NUMBER BASE POINTS	NUMBER TOP POINTS	CITY- SAN FRANCISCO			TOTAL NUMBER TOPS	TOTAL R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	DT	
							TOTAL NUMBER POINTS	TOTAL NON BLOGS	TOTAL POINTS																		
4	122	COMM	21	84	99	183	0	25	0	21																	
4	123	RESID	36	144	0	144	0	0	36																		
4	124	RESID	47	188	0	188	0	0	47																		
4	125	RESID	34	136	32	168	0	8	27	7																	
4	126	COMM	21	84	0	84	0	0	0																		
4	127	RESID	67	268	0	268	0	0	39					9													
4	128	RESID	26	104	0	104	0	0	16																		
4	129	RESID	33	132	0	132	0	0	33																		
4	130	RESID	27	108	0	108	0	0	26						1												
4	131	RESID	16	64	0	64	0	0	16																		
4	132	RESID	9	36	0	36	0	0	8																		
4	133	COMM	6	24	0	24	0	0	0					6													
4	134	RESID	5	20	8	28	0	2	4					1													
4	135	COMM	5	20	0	20	0	0	2					3													
4	136	COMM	24	96	0	96	0	0	0	24																	
4	137	RESID	17	68	12	80	0	3	11	6																	
4	139	RESID	0	0	0	0	1	0	0																		
4	139	RESID	0	0	0	0	1	0	0																		
4	140	RESID	36	144	0	144	0	0	36																		
4	141	RESID	0	0	0	0	1	0	0																		
4	142	RESID	28	112	0	112	0	0	28																		
4	143	RESID	0	0	0	0	1	0	0																		
4	144	RESID	0	0	0	0	1	0	0																		
4	145	RESID	36	144	0	144	0	0	36																		
4	146	RESID	35	140	0	140	0	0	31					5													
4	147	COMM	25	100	12	112	0	3	7	4																	
4	148	RESID	31	124	184	308	0	2	29	18																	
4	149	RESID	26	104	22	126	0	5	18	8																	
4	150	RESID	22	88	44	132	0	11	5	10																	
4	151	RESID	23	92	8	100	0	2	20	3																	
4	152	COMM	14	56	36	92	0	9	6	8																	
4	153	RESID	26	104	0	104	0	0	17	9																	
4	154	RESID	28	112	0	112	0	0	24	4																	
4	155	RESID	33	132	24	156	0	6	30	3																	
4	156	RESID	33	132	8	140	0	2	29	4																	
4	157	RESID	0	0	0	0	1	0	0																		
4	158	RESID	0	0	0	0	1	0	0																		
4	159	RESID	27	108	0	108	0	0	27																		
4	160	RESID	23	92	0	92	0	0	23																		
4	161	RESID	30	120	0	120	0	0	30																		
4	162	RESID	27	108	0	108	0	0	25	2																	
4	163	RESID	22	88	0	88	0	0	22																		
4	164	RESID	30	120	0	120	0	0	26	4																	
4	165	COMM	13	52	0	52	0	0	6	7																	
4	166	RESID	0	0	0	0	1	0	0																		
4	167	RESID	0	0	0	0	1	0	0																		
4	168	RESID	0	0	0	0	1	0	0																		
4	169	RESID	0	0	0	0	1	0	0																		
4	170	RESID	0	0	0	0	1	0	0																		
4	171	RESID	0	0	0	0	1	0	0																		

Detailed Data Analysis for SF1 (continued)

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CITY- SAN FRANCISCO

SECT	BLOCK	CLASS	NUMBER BLDGS	NUMBER BASE POINTS	NUMBER TOP POINTS	NUMBER TOTAL POINTS	TOTAL NON BLDGS	TOTAL NUMBER TOPS	TOTAL	R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	OT		
4	172	RESID	0	0	0	0	0	0	0																		
4	173	RESID	0	0	0	0	0	0	0																		
4	174	RESID	0	0	0	0	0	0	0																		
4	175	RESID	0	0	0	0	0	0	0																		
4	176	RESID	0	0	0	0	0	0	0																		
4	177	COMM	1	4	0	4	0	0	0																		
4	178	COMM	28	112	12	124	0	3	3																		
4	179	COMM	26	104	7	111	0	2	2																		
4	180	RESID	27	108	0	108	0	0	11	11																	
4	181	RESID	36	144	68	212	0	17	19	17																	
4	182	RESID	37	148	20	168	0	3	34	3																	
5	1	COMM	2	8	0	8	0	0	0																		
5	2	RESID	13	52	0	52	0	0	13																		
5	3	RESID	20	80	0	80	0	0	20																		
5	4	RESID	6	24	0	24	0	0	6																		
5	5	RESID	11	44	0	44	0	0	11																		
5	6	RESID	38	152	0	152	0	0	38																		
5	7	RESID	31	124	0	124	0	0	31																		
5	9	RESID	23	92	0	92	0	0	23																		
5	9	RESID	5	20	0	20	0	0	5																		
5	10	RESID	37	148	0	148	0	0	37																		
5	11	RESID	30	120	0	120	0	0	30																		
5	12	RESID	39	156	0	156	0	0	39																		
5	13	RESID	7	28	4	32	0	1	6																		
5	14	RESID	20	80	0	80	0	0	20																		
5	15	COMM	5	20	0	20	0	0	5																		
5	16	RESID	39	156	0	156	0	0	38																		
5	17	RESID	8	32	0	32	0	0	8																		
5	18	RESID	35	140	0	140	0	0	35																		
5	19	RESID	43	172	0	172	0	0	43																		
5	20	RESID	46	184	0	184	0	0	46																		
5	21	RESID	34	136	0	136	0	0	34																		
5	22	RESID	38	152	0	152	0	0	38																		
5	23	RESID	31	124	0	124	0	0	31																		
5	24	RESID	28	112	0	112	0	0	28																		
5	25	RESID	28	112	0	112	0	0	28																		
5	26	RESID	18	72	0	72	0	0	18																		
5	27	RESID	23	92	0	92	0	0	23																		
5	28	RESID	33	132	0	132	0	0	33																		
5	29	RESID	35	140	0	140	0	0	35																		
5	30	RESID	23	92	0	92	0	0	23																		
5	31	COMM	1	4	60	64	0	15	0																		
5	32	RESID	31	124	10	134	0	2	30																		
5	33	RESID	35	140	0	140	0	0	35																		
5	34	RESID	39	156	4	160	0	1	38																		
5	35	RESID	50	200	0	200	0	0	50																		
5	36	RESID	44	176	0	176	0	0	44																		
5	37	RESID	25	100	0	100	0	0	25																		
5	38	RESID	19	76	0	76	0	0	19																		
5	39	RESID	20	80	0	80	0	0	20																		

Detailed Data Analysis for SF1 (continued)

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SECT	BLOCK	CLASS	NUMBER BLDGS	NUMBER BASE POINTS	NUMBER TOP POINTS	TOTAL NUMBER POINTS	TOTAL NON BLDGS	TOTAL NUMBER TOPS	TOTAL R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	DT
5	40	RESID	35	140	0	140	0	0	35															
5	41	RESID	47	188	0	188	0	0	47															
5	42	RESID	41	164	0	164	0	0	41															
5	43	RESID	31	124	52	176	0	13	22	9														
5	44	RESID	45	180	0	180	0	0	45															
5	45	RESID	40	160	0	160	0	0	40															
5	46	RESID	24	96	40	136	0	10	20	4														
5	47	RESID	40	160	0	160	0	0	40															
5	49	RESID	33	132	0	132	0	0	33															
5	49	RESID	33	132	0	132	0	0	26	7														
5	50	RESID	25	100	0	100	0	0	25															
5	51	RESID	38	152	0	152	0	0	38															
5	52	RESID	35	140	72	212	0	18	24	11														
5	53	RESID	31	124	12	136	0	3	28	3														
5	54	COMM	3	12	0	12	0	0	3	3														
5	55	RESID	55	220	0	220	0	0	55															
5	56	RESID	43	172	520	692	0	130	42	1														

Detailed Data Analysis for SFI (continued)

PAGE	1	SECT	BLOCK	CLASS	NUMBER BLDG	NUMBER BASE PCNTS	NUMBER TOP POINTS	CITY- SAN FRANCISCO			TOTAL NUMBER TOPS	TOTAL R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	M	DT
								NUMBER	TOTAL NUMBER	TOTAL BLDGS																	
6	1	CCMM	8	4	12	0	0	0	1	2																	
6	2	CCMM	108	178	286	0	0	0	47	27																	
6	3	CCMM	188	103	191	0	0	0	27	22																	
6	4	RESID	136	136	136	0	0	0	0	0	18	16															
6	5	RESID	88	8	88	0	0	0	0	3	7	15															
6	6	CCMM	12	8	20	0	0	0	2	0																	
6	7	CCMM	126	32	160	0	0	0	8	20																	
6	8	CCMM	28	8	36	0	0	0	2	4																	
6	9	RESID	32	16	48	0	0	0	4	6																	2
6	10	RESID	52	16	68	0	0	0	4	10																	
6	11	RESID	188	188	188	0	0	0	0	47																	
6	12	RESID	84	4	84	0	0	0	1	16																	4
6	13	RESID	144	144	144	0	0	0	0	36																	
6	14	RESID	144	144	144	0	0	0	0	36																	
6	15	RESID	116	116	116	0	0	0	0	29																	
6	16	RESID	88	8	88	0	0	0	0	22																	
6	17	RESID	208	192	208	0	0	0	0	52																	
6	18	RESID	192	192	192	0	0	0	0	48																	
6	19	RESID	184	184	184	0	0	0	0	46																	
6	20	RESID	148	148	148	0	0	0	0	37																	
6	21	RESID	112	112	112	0	0	0	0	28																	
6	22	RESID	92	92	92	0	0	0	0	23																	
6	23	RESID	688	688	688	0	0	0	0	172																	
6	24	RESID	548	78	626	0	0	0	21	76																	
6	25	RESID	100	56	156	0	0	0	16	22																	
6	26	RESID	87	348	348	0	0	0	0	80																	
6	27	RESID	156	156	156	0	0	0	0	39																	
6	28	RESID	144	144	144	0	0	0	0	36																	
6	29	RESID	136	136	136	0	0	0	0	34																	
6	30	RESID	156	156	156	0	0	0	0	39																	
6	31	RESID	160	160	160	0	0	0	0	40																	
6	32	RESID	100	24	124	0	0	0	6	23																	
6	33	RESID	240	240	240	0	0	0	0	51																	
6	34	RESID	100	12	112	0	0	0	3	17																	
6	35	CCMM	52	52	104	0	0	0	13	13																	
6	36	RESID	28	28	28	0	0	0	0	7																	
6	37	RESID	72	72	72	0	0	0	0	15																	
6	38	RESID	172	172	172	0	0	0	0	43																	
6	39	RESID	188	188	188	0	0	0	0	47																	
6	40	RESID	312	312	312	0	0	0	0	78																	
6	41	RESID	128	128	128	0	0	0	0	32																	
6	42	RESID	128	128	128	0	0	0	0	32																	
6	43	RESID	140	140	140	0	0	0	0	35																	
6	44	RESID	64	64	64	0	0	0	0	16																	
6	45	RESID	80	80	80	0	0	0	0	20																	
6	46	RESID	104	104	104	0	0	0	0	26																	
6	47	RESID	140	140	140	0	0	0	0	21																	
6	48	RESID	100	100	100	0	0	0	0	13																	
6	49	RESID	136	136	136	0	0	0	0	34																	
6	50	RESID	132	132	132	0	0	0	0	33																	



Detailed Data Analysis for SF1 (continued)

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CITY- SAN FRANCISCO

SECT	BLOCK	CLASS	NUMBER BLDGS	NUMBER BASE POINTS	NUMBER TOP POINTS	TOTAL NUMBER POINTS	TOTAL NOA BLDGS	TOTAL NUMBER TOPS	TOTAL R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	DT
6	51	RESID	23	92	20	112	0	5	12	9	2													
6	52	RESID	41	164		164	0	C	41															
6	53	RESID	30	120		120	0	C	30															
6	54	RESID	43	172		172	0	C	43															
6	55	RESID	40	160		160	0	C	40															
6	56	COMM	1	4	20	24	0	5			1													
6	57	COMM	1	4		4	0	C			1													
6	58	RESID	39	156	8	164	0	2	35		4													
6	59	RESID	53	212		212	0	C	50	3														
6	60	RESID	47	188		188	0	C	44	3														
6	61	RESID	28	112	16	128	0	4	27		1													
6	62	RESID	13	52	60	112	0	20	8		5													
6	63	COMM	2	8	12	20	0	4			2													
6	64	COMM	5	20	30	50	0	8			5													
6	65	RESID	8	32		32	0	C	8															
6	66	RESID	11	44		44	0	C	11															
6	67	RESID	67	268		268	0	C	67															
6	68	COMM	4	16	4	20	0	1					4											
7	1	RESID	1	4	68	72	0	17						1										
7	2	RESID	2	8	43	51	0	11						2										
7	3	RESID	4	16	48	64	0	16						4										
7	4	RESID	2	8		8	0	0						2										
7	5	RESID	6	24	8	32	0	2						6										
7	6	RESID	3	12	0	12	0	0						3										
7	7	RESID	0	0	0	0	1	0						0										
7	8	RESID	1	4	0	4	0	0						1										
8	1	RESID	26	104	0	104	0	0																
8	2	RESID	25	100	0	100	0	0	26															
8	3	RESID	32	128	0	128	0	0	25															
8	4	RESID	16	64	0	64	0	0	32															
8	5	RESID	44	176	0	176	0	0	16															
8	6	RESID	27	108	4	112	0	1	44															
8	7	RESID	34	136	216	352	0	4	27		3													
8	8	RESID	1	4		4	0	0	31															
8	9	RESID	29	116	0	116	0	0	1															
8	10	RESID	43	172	0	172	0	0	29															
8	11	RESID	36	144	0	144	0	0	43															
8	12	RESID	26	104	0	104	0	0	36															
8	13	RESID	54	216	0	216	0	0	43															
8	14	RESID	44	176	0	176	0	0	26															
8	15	RESID	41	164	0	164	0	0	54															
8	16	RESID	45	180	0	180	0	0	44															
8	17	RESID	43	172	0	172	0	0	41															
8	18	RESID	35	140	28	168	0	7	45		6													
8	19	RESID	30	120	16	136	0	4	43		5													
8	20	COMM	3	12	0	12	0	0	21		3													
8	21	RESID	37	148	0	148	0	0	6															
8	22	RESID	47	188	0	188	0	0	5															
8	23	RESID	45	180	0	180	0	0	3															
8	24	RESID	21	84	12	96	0	3	21		2													

Detailed Data Analysis for SFI (continued)

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CITY- SAN FRANCISCO

SECT	BLOCK	CLASS	NUMBER BLDGS	NUMBER BASE PCINTS	NUMBER TOP POINTS	TOTAL NUMBER POINTS	TOTAL NCA BLDGS	TOTAL TOPS	TOTAL R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	OT
8	25	RESID	42	160	160	0	0	0	40															
8	26	RESID	42	168	168	0	0	0	42															
8	27	RESID	4	16	16	0	0	0	4															
8	28	RESID	44	176	176	0	0	0	44															
8	29	RESID	42	168	168	0	0	0	42															
8	30	RESID	46	184	184	0	0	0	46															
8	31	RESID	43	172	172	0	0	0	43															
8	32	RESID	25	100	100	0	0	0	25															
8	33	RESID	27	108	108	0	0	0	27															
8	34	RESID	43	172	172	0	0	0	43															
8	35	RESID	47	188	188	0	0	0	47															
8	36	RESID	44	176	176	0	0	0	44															
8	37	RESID	16	64	64	0	0	0	16															
8	38	RESID	21	84	84	0	0	0	21															
8	39	RESID	46	184	184	0	0	0	46															
8	40	RESID	20	80	80	0	0	0	20															
9	1	RESID	1	4	4	0	0	3	4															
9	2	RESID	53	212	212	0	0	12	46	4														
9	3	RESID	65	260	260	0	0	9	56															
9	4	RESID	54	216	216	0	0	22	36															
9	5	RESID	38	152	152	0	0	0	24															
9	6	CCMH	26	104	104	0	0	0	11															
9	7	CCMH	16	64	64	0	0	4	4															
9	8	CCMH	16	64	64	0	0	6	4															
9	9	RESID	35	140	140	0	0	13	28															
9	10	RESID	29	116	116	0	0	15	20	2														
9	11	RESID	53	212	212	0	0	0	40															
9	12	CCMH	3	12	12	0	0	0	3															
9	13	RESID	32	128	128	0	0	3	27															
9	14	RESID	28	112	112	0	0	0	28															
9	15	RESID	59	236	236	0	0	0	59															
9	16	RESID	26	104	104	0	0	3	19															
9	17	RESID	27	108	108	0	0	0	27															
9	19	RESID	21	84	84	0	0	0	20															
9	20	RESID	35	140	140	0	0	0	30															
9	21	RESID	27	108	108	0	0	0	27															
9	22	RESID	13	52	52	0	0	4	13															
9	23	RESID	40	160	160	0	0	0	40															
9	24	RESID	39	156	156	0	0	0	39															
9	25	RESID	29	116	116	0	0	4	25	4														
9	26	RESID	14	56	56	0	0	2	11															
9	27	CCMH	8	32	32	0	0	3	4															
9	28	RESID	26	104	104	0	0	11	14															
9	29	CCMH	7	28	28	0	0	6	7															
9	30	RESID	22	88	88	0	0	26	20	2														
9	31	RESID	10	40	40	0	0	0	10															
9	32	RESID	44	176	176	0	0	0	44															
9	33	RESID	30	120	120	0	0	1	30															
9	34	CCMH	16	64	64	0	0	4	6															
9	35	CCMH	16	64	64	0	0	1	16															

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Detailed Data Analysis for SFI (continued)

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SECT	BLOCK	CLASS	NUMBER BLDGS	NUMBER BASE PCINTS	TOTAL NUMBER POINTS	TOTAL ACN	TOTAL NUMBER TOPS	TOTAL R	A	B	C	C	I	CH	S	MB	X	P	M	PK	RR	BR	M	W	OT
9	36	RESID	24	96	4	100	0	23	1																
9	37	COMM	6	24	44	68	0	11																	
9	38	RESID	29	116	4	120	0	29							1										
9	39	COMM	16	64	20	84	0	7																	
9	40	RESID	57	228		228	0	57																	
9	41	RESID	54	216		216	0	54																	
9	42	RESID	41	164		164	0	41																	
9	43	RESID	39	152		152	0	38																	
9	44	RESID	23	92		92	0	23																	
9	45	RESID	22	88		88	0	22																	
9	46	RESID	37	148		148	0	37																	
9	47	RESID	17	68		68	0	17																	
9	48	RESID	20	80		80	0	20																	
9	49	RESID	29	116		116	0	29																	
9	50	RESID	14	56		56	0	14																	
9	51	RESID	32	128		128	0	32																	
9	52	RESID	4	16		16	0	4																	
9	53	RESID	24	96		96	0	24																	
9	54	RESID	14	56		56	0	14																	
9	55	RESID	0	0		0	0	0																	
10	1	RESID	185	740		740	0	185																	1
10	2	RESID	29	116		116	0	29																	
10	3	RESID	19	76		76	0	19																	
10	4	RESID	54	216		216	0	53						1											
10	5	RESID	44	176		176	0	43						1											
10	6	RESID	4	16		16	0	4																	
10	7	RESID	46	184		184	0	45																	
10	8	RESID	47	188		188	0	47																	
10	9	RESID	57	228		228	0	57																	
10	10	RESID	48	192		192	0	48																	
10	11	RESID	23	92		92	0	23																	
10	12	RESID	114	456		456	0	114																	
10	13	RESID	54	216		216	0	54																	
10	14	RESID	29	116		116	0	29																	
10	15	RESID	50	200		200	0	50																	
10	16	RESID	28	112		112	0	28																	
10	17	RESID	9	36		36	0	9																	
10	18	RESID	51	204		204	0	51																	
11	1	COMM	3	12		18	0	2																	
11	2	COMM	6	24		56	0	8																	
11	3	RESID	63	252		252	0	63																	
11	4	RESID	70	280		280	0	70																	
11	5	RESID	14	56		56	0	14																	
11	6	RESID	19	76		76	0	19																	
11	7	RESID	27	108		108	0	27																	
11	8	RESID	28	112		112	0	28																	
11	9	RESID	47	188		188	0	47																	
11	10	RESID	46	184		184	0	46																	
11	11	RESID	18	72		72	0	18																	
11	12	RESID	40	160		160	0	40																	

Detailed Data Analysis for SF1 (continued)

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CITY- SAN FRANCISCO

SECT	BLOCK	CLASS	NUMBER BLDGS	NUMBER BASE PCNTS	NUMBER TOP POINTS	TOTAL NUMBER POINTS	TOTAL NON BLEGS	TOTAL NUMBER TOPS	TOTAL R	A	B	C	I	CH	S	M6	X	P	M	PK	RR	BR	M	OT
11	13	RESID	46	184	0	184	0	0	46															
11	14	RESID	11	44	0	44	0	0	7				1											
11	15	RESID	11	44	0	68	0	6	7			4												
11	16	RESID	26	104	0	124	0	5	24			2												
11	17	CCMH	3	12	0	16	0	1	3															
11	18	RESID	34	136	0	136	0	0	34															
11	19	RESID	62	240	0	240	0	0	60															
11	20	RESID	157	628	0	628	0	0	150			7												
11	21	RESID	31	124	0	132	0	2	30			1												
11	22	RESID	19	76	0	76	0	0	18			1												
11	23	RESID	11	44	0	52	0	2	10			1												
11	24	RESID	6	24	0	56	0	8	4			2												
11	25	RESID	7	28	0	44	0	4	5			2												
11	26	RESID	5	20	0	20	0	0	5															
12	1	CCMH	2	8	0	40	0	8	2															
12	2	RESID	28	112	0	112	0	0	28															
12	3	RESID	25	100	0	100	0	0	25															
12	4	RESID	25	100	0	100	0	0	25															
12	5	RESID	16	64	0	73	0	3	14			2												
12	6	RESID	10	40	0	62	0	7	8			2												
12	7	RESID	61	244	0	244	0	0	61															
12	8	RESID	66	264	0	264	0	0	66															
12	9	RESID	0	0	0	0	1	0	0															
12	10	RESID	0	0	0	0	1	0	0															
12	11	RESID	0	0	0	0	1	0	0															
12	12	RESID	0	0	0	0	1	0	0															
12	13	RESID	174	696	0	696	0	150	161			8			5									1
12	14	RESID	0	0	0	0	1	0	0															1
12	15	CCMH	3	12	0	37	0	8	8			3												
12	16	RESID	13	52	0	98	0	14	8			5												
12	17	RESID	47	188	0	188	0	0	47															
12	18	RESID	51	204	0	204	0	0	51															
12	19	RESID	51	204	0	204	0	0	51															
12	20	RESID	44	176	0	176	0	0	44															
12	21	RESID	25	100	0	100	0	0	25															
12	22	RESID	60	240	0	240	0	6	36			4												
12	23	RESID	39	156	0	156	0	0	39															
12	24	RESID	37	148	0	148	0	0	37															
12	25	RESID	33	132	0	132	0	0	33															
12	26	RESID	25	100	0	100	0	0	25															
12	27	RESID	32	128	0	128	0	0	32															
12	28	RESID	32	128	0	128	0	0	32															
12	29	RESID	31	124	0	124	0	0	31															
12	30	RESID	35	140	0	140	0	0	35															
12	31	RESID	51	204	0	204	0	0	50															
12	32	RESID	28	112	0	116	0	1	27			1												
12	33	CCMH	15	60	0	76	0	19	5															
12	34	RESID	46	184	0	184	0	0	46															
12	35	RESID	4	16	0	16	0	0	4															
12	36	RESID	43	172	0	172	0	0	43															

Detailed Data Analysis for SF1 (continued)

PAGE	6	CITY- SAN FRANCISCO																										
		SECT	BLOCK	CLASS	NUMBER BLOGS	NUMBER BASE PCINTS	NUMBER TDP POINTS	TOTAL NUMBER POINTS	TOTAL NON BLOGS	TOTAL NUMBER TOPS	TOTAL	R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	DT	
12	37	RESID	49	196	3	0	196	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	38	RESID	17	68	0	0	68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	39	RESID	19	76	0	0	76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	40	RESID	26	104	0	0	104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	41	CCMM	3	12	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	42	RESID	22	88	0	0	88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	43	RESID	52	208	0	0	208	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	44	RESID	20	80	0	0	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	45	RESIC	7	28	0	0	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	46	RESID	6	24	0	0	24	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	47	RESID	78	312	0	0	312	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	48	RESID	13	52	0	0	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	49	RESID	17	68	0	0	68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	50	RESID	62	248	0	0	248	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	51	RESID	8	32	0	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	52	RESID	30	120	0	0	120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	53	RESID	32	128	0	0	128	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	54	RESID	30	120	0	0	120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	55	RESID	38	152	0	0	152	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	56	RESID	1	4	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	57	RESIC	31	124	0	0	124	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	58	RESID	23	92	0	0	92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	59	RESID	35	140	0	0	140	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	60	RESID	14	56	0	0	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	61	RESID	4	16	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	62	RESID	21	84	0	0	84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	63	RESID	20	80	0	0	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	64	RESID	7	28	0	0	28	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	65	RESID	5	20	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	66	RESID	17	68	0	0	68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	67	RESID	25	100	0	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	68	RESID	34	136	0	0	136	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	69	RESID	39	156	0	0	156	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	70	RESID	9	36	0	0	36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	71	RESID	24	96	0	0	96	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	72	RESID	22	88	0	0	88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12	73	RESID	24	96	0	0	96	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	1	RESID	4	16	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	2	RESID	2	8	0	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	3	RESID	15	60	0	0	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	4	RESID	30	120	0	0	120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	5	RESID	37	148	0	0	148	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	6	RESID	48	192	0	0	192	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	7	RESID	12	48	0	0	48	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	8	RESID	23	92	0	0	92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	9	RESID	38	152	0	0	152	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	10	RESID	9	36	0	0	36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	11	RESID	44	176	0	0	176	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	12	RESID	57	228	0	0	228	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	13	RESID	30	120	0	0	120	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



Detailed Data Analysis for SF1 (continued)

PAGE	8	CITY- SAN FRANCISCO																										
		SECT	BLOCK	CLASS	NUMBER BLDGS	NUMBER BASE POINTS	NUMBER TOP POINTS	TOTAL NUMBER POINTS	TOTAL NCA BLDGS	TOTAL NUMBER TOPS	TOTAL R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	M	OT		
13	64	RESID	18	72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13	65	RESID	26	104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13	66	RESID	27	108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13	67	RESID	27	108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13	68	RESID	20	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13	69	RESID	50	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13	70	RESID	54	216	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13	71	RESID	8	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13	72	RESID	49	196	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13	73	RESID	37	148	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13	74	RESID	41	164	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13	75	RESID	63	252	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13	76	RESID	59	232	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13	77	RESID	15	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13	78	RESID	39	156	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13	79	RESID	52	208	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13	80	RESID	20	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	81	RESID	14	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	82	RESID	24	96	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	83	RESID	32	128	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	84	RESID	32	128	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	85	RESID	22	88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	86	RESID	25	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	87	RESID	25	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	88	RESID	38	152	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	89	RESID	36	144	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	90	RESID	36	144	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	91	RESID	46	184	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	92	RESID	104	416	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	93	RESID	26	104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	94	RESID	44	176	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	95	RESID	42	168	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	96	RESID	38	152	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	97	RESID	28	112	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	98	RESID	48	192	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	99	RESID	43	172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	100	RESID	33	132	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	101	RESID	47	188	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	102	RESID	39	156	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	103	RESID	33	132	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	104	RESID	42	168	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	105	RESID	45	180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	106	RESID	34	136	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	107	RESID	40	160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	108	RESID	36	144	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	109	RESID	39	156	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	110	RESID	40	160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	111	RESID	45	180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	112	RESID	23	92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
13	113	RESID	42	168	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0





Detailed Data Analysis for SF1 (continued)

PAGE 10		CITY- SAN FRANCISCO																							
SECT	BLOCK	CLASS	NUMBER BLDGS	NUMBER BASE POINTS	NUMBER TOP POINTS	TOTAL NUMBER POINTS	TOTAL BLDGS	TOTAL NUMBER TOPS	TOTAL NUMBER POINTS	R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	QT
14	22	RESID	10	40	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	23	RESID	11	44	0	44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	24	RESID	20	80	0	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	25	RESID	11	44	0	44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	26	RESID	19	76	0	76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	27	RESID	17	68	0	68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	28	RESID	10	40	0	40	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	29	RESID	19	76	0	76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	30	RESID	22	88	0	88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	31	RESID	22	88	0	88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	32	RESID	21	84	0	84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	33	RESID	22	88	0	88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	34	RESID	23	92	0	92	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	35	RESID	18	72	0	72	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	36	RESID	15	60	0	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	37	RESID	15	60	0	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	38	RESID	20	80	0	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	39	RESID	20	80	0	80	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	40	RESID	25	100	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	41	RESID	92	368	0	368	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	42	RESID	36	144	0	144	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	43	RESID	43	172	0	172	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	44	RESID	27	108	0	108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	45	RESID	26	104	0	104	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	46	RESID	25	100	0	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	47	RESID	24	96	0	96	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	48	RESID	31	124	0	124	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	49	RESID	22	88	0	88	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	50	RESID	13	52	0	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	51	RESID	28	112	0	112	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	52	RESID	40	160	0	160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	53	RESID	13	52	0	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	54	RESID	24	96	0	96	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	55	RESID	45	180	0	180	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	56	RESID	15	60	0	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	57	RESID	17	68	0	68	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	58	RESID	14	56	0	56	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	59	RESID	19	76	0	76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	60	RESID	13	52	0	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	61	RESID	71	284	0	284	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	62	RESID	34	136	0	136	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	63	RESID	8	32	0	32	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	64	RESID	40	160	0	160	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	65	RESID	48	192	0	192	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	66	RESID	23	92	0	92	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	67	RESID	38	152	0	152	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	68	RESID	21	84	0	84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	69	RESID	38	152	0	152	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	70	RESID	33	132	0	132	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
14	71	RESID	9	36	0	36	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Detailed Data Analysis for SF1 (continued)

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CITY- SAN FRANCISCO

SECT	BLOCK	CLASS	NUMBER BLOGS	NUMBER BASE POINTS	NUMBER TOP POINTS	TOTAL NUMBER POINTS	TOTAL NCN BLGS	TOTAL NUMBER TOPS	TOTAL R	A	B	C	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	OT
14	72	RESID	16	64	0	64	0	0	16																
14	73	RESID	24	96	0	96	0	0	24																
14	74	RESID	23	92	0	92	0	0	23																
14	75	RESID	41	164	63	227	0	17	37																
14	76	RESID	17	68	21	89	0	5	14																
14	77	RESID	28	112	0	112	0	0	28																
14	78	RESID	31	124	0	124	0	0	31																
14	79	RESID	23	112	0	112	0	0	1																
14	80	RESID	21	84	12	96	0	3	21																
14	81	RESID	27	108	61	169	0	16	26																1
14	82	RESID	31	124	0	124	0	0	31																
14	83	RESID	20	80	0	80	0	0	20																
14	84	RESID	19	76	0	76	0	0	19																
14	85	RESID	18	72	0	72	0	0	18																
14	86	RESID	13	52	0	52	0	0	13																
14	87	RESID	16	64	0	64	0	0	16																
14	88	RESID	3	32	0	32	0	0	6																2
14	89	RESID	15	60	0	60	0	0	15																
14	90	RESID	2	8	16	24	0	4	2																2
14	91	RESID	6	24	0	24	0	0	6																
14	92	RESID	19	76	0	76	0	0	19																
14	93	RESID	18	72	0	72	0	0	18																
14	94	RESID	18	72	0	72	0	0	18																
14	95	RESID	20	80	0	80	0	0	20																
14	96	RESID	15	60	0	60	0	0	15																
14	97	RESID	18	72	0	72	0	0	18																
14	98	RESID	19	76	0	76	0	0	19																
14	99	RESID	18	72	0	72	0	0	18																
14	100	RESID	18	72	0	72	0	0	18																
14	101	RESID	18	72	0	72	0	0	18																
14	102	RESID	5	20	0	20	0	0	5																
14	103	RESID	17	68	0	68	0	0	17																
14	104	RESID	17	68	0	68	0	0	17																
14	105	RESID	22	88	0	88	0	0	22																
14	106	RESID	19	72	0	72	0	0	19																
14	107	RESID	18	72	0	72	0	0	18																
14	108	RESID	18	72	0	72	0	0	18																
14	109	RESID	21	84	0	84	0	0	21																
14	110	RESID	11	44	0	44	0	0	11																
14	111	RESID	3	32	0	32	0	0	3																
14	112	RESID	28	112	0	112	0	0	28																
14	113	RESID	112	448	0	448	0	0	112																
14	114	RESID	40	160	0	160	0	0	40																
14	115	RESID	19	76	0	76	0	0	19																
14	116	RESID	22	88	0	88	0	0	22																
14	117	RESID	20	104	0	104	0	0	20																
14	118	RESID	24	96	0	96	0	0	24																
14	119	RESID	31	124	0	124	0	0	31																
14	120	RESID	27	108	0	108	0	0	27																
14	121	COMM	15	60	20	80	0	5	15																8

Detailed Data Analysis for SF1 (continued)

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SECT	BLOCK	CLASS	NUMBER BLOGS	NUMBER BASE PCNTS	NUMBER TOP POINTS	TOTAL NUMBER POINTS	TOTAL MEN BLDGS	TOTAL NUMBER TOPS	TOTAL R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	OT
14	122	RESID	31	124	49	173	0	13	17															
14	123	RESID	18	72	20	92	0	5	12			14												
14	124	RESID	1	40	0	40	0	0	10			6												
14	125	RESID	2	80	27	107	0	7	14			6												
14	126	RESID	27	108	52	160	0	13	20			7												
15	-0	RESID	0	0	0	0	0	0	0															
16	1	RESID	4	16	8	24	0	2	1															
17	1	RESID	58	232	0	232	0	0	58															1
17	2	RESID	27	108	0	108	0	0	27															
17	3	RESID	40	160	0	160	0	0	40															
17	4	RESID	36	144	0	144	0	0	36															
17	5	RESID	19	76	0	76	0	0	19															
17	6	RESID	22	88	40	128	0	10	22															
17	7	RESID	6	24	8	32	0	2	6															
18	1	RESID	4	16	0	16	0	0	4															
18	2	RESID	88	352	72	424	0	18	88															
18	3	RESID	2	80	0	80	0	0	20															
18	4	RESID	43	172	36	208	0	9	43															
18	5	RESID	64	256	0	256	0	0	64															
18	6	RESID	31	124	0	124	0	0	31															
18	7	RESID	37	148	0	148	0	0	37															
18	8	RESID	41	164	60	224	0	15	41															
18	9	RESID	67	268	0	268	0	0	67															
18	10	RESID	67	268	0	268	0	0	67															
19	1	RESID	2	8	12	20	0	2	2															
20	1	RESID	3	12	0	12	0	0	3															
20	2	RESID	4	16	66	82	0	13	4															
20	3	RESID	2	8	12	20	0	3	2															
20	4	RESID	4	16	50	66	0	14	4															
20	5	RESID	4	16	77	93	0	20	4															
20	6	RESID	3	12	45	57	0	11	3															
20	7	RESID	2	8	64	72	0	16	2															
20	8	RESID	3	12	34	46	0	8	3															
20	9	RESID	2	8	12	20	0	3	2															
20	10	RESID	9	36	48	80	0	7	8															
20	11	RESID	4	16	25	45	0	6	4															
20	12	RESID	2	8	22	30	0	5	2															
20	13	RESID	2	8	25	36	0	7	2															
20	14	RESID	2	8	32	40	0	9	2															
20	15	RESID	1	4	25	29	0	7	1															
20	16	RESID	4	16	99	115	0	25	4															
20	17	RESID	1	4	21	24	0	5	1															
20	18	RESID	1	4	28	32	0	7	1															
20	19	RESID	3	12	47	59	0	10	3															
20	20	RESID	1	4	0	4	0	0	1															
20	21	RESID	1	4	0	4	0	0	1															
20	22	RESID	1	4	20	24	0	5	1															
20	23	RESID	3	12	44	56	0	11	3															
20	24	RESID	4	16	28	44	0	7	4															
20	25	RESID	4	16	28	44	0	7	4															
20	26	RESID	4	16	27	43	0	7	4															



Detailed Data Analysis for SF1 (continued)

PAGE	SECT	BLOCK	CLASS	NUMBER BLDGS	NUMBER BASE PCINTS	TOTAL TOP POINTS	CITY- SAN FRANCISCO		TOTAL NUMBER TOPS	TOTAL R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	DT
							NUMBER	TOTAL																	
23	27	RESID	31	0	0	0	1	0	33	6	22	1													1
24	1	RESID	22	124	88	28	116	0	0	22	22														
25	2	RESID	28	112	0	0	112	0	0	28															
25	1	RESID	44	176	0	0	176	0	0	44															
25	3	RESID	50	200	0	0	200	0	0	50															
25	4	RESID	51	204	0	0	204	0	0	51															
25	5	RESID	51	204	0	0	204	0	0	51															
25	6	RESID	49	192	0	0	192	0	0	48															
26	1	RESID	0	0	0	0	0	1	0																
27	1	RESID	0	0	0	0	0	1	0																
27	2	RESID	0	0	0	0	0	1	0																
27	3	RESID	0	0	0	0	0	1	0																
27	4	RESID	0	0	0	0	0	1	0																
28	1	CCMM	4	16	0	0	16	0	2																
28	2	RESID	14	56	0	0	56	0	9	5	8														
28	3	RESID	22	88	0	0	88	0	0	22															
28	4	RESID	17	68	0	0	68	0	0	17															
28	5	RESID	9	36	0	0	36	0	0	9															
28	6	RESID	20	104	0	0	104	0	7	19															
28	7	RESID	32	128	0	0	128	0	7	29															
28	8	RESID	36	144	0	0	144	0	5	30															
28	9	RESID	24	96	0	0	96	0	0	24															
28	10	RESID	28	112	0	0	112	0	7	27															
28	11	RESID	24	96	0	0	96	0	0	24															
28	12	RESID	60	240	0	0	240	0	0	60															
28	13	RESID	35	140	0	0	140	0	3	35															
28	14	RESID	42	168	0	0	168	0	0	42															
28	15	RESID	29	116	68	184	0	0	17	29															
28	16	RESID	24	112	224	0	0	0	28	28															
28	17	RESID	28	112	224	0	0	0	28	28															
28	18	RESID	29	116	232	0	0	0	29	29															
28	19	RESID	22	88	112	200	0	0	28	22															
28	20	RESID	16	64	0	0	64	0	0	16															
28	21	RESID	38	152	0	0	152	0	0	38															
28	22	RESID	1	4	48	0	0	0	11	0															
28	23	RESID	91	364	60	424	0	0	15	76	15														
28	24	RESID	29	116	0	0	116	0	0	29															
28	25	RESID	26	104	0	0	104	0	0	26															
28	26	CCMM	4	16	0	0	16	0	0	4															
28	27	RESID	22	88	28	116	0	0	7	22															
28	28	RESID	81	324	0	0	324	0	0	81															
28	29	RESID	30	120	108	228	0	0	27	24															
28	30	RESID	25	100	0	0	100	0	0	25															
28	31	RESID	126	504	0	0	504	0	2	125															
28	32	RESID	22	88	0	0	88	0	0	22															
28	33	RESID	52	208	0	0	208	0	0	52															
28	34	RESID	47	188	0	0	188	0	0	47															
28	35	RESID	43	172	0	0	172	0	0	43															
28	36	RESID	82	328	0	0	328	0	2	81	1														

Detailed Data Analysis for SF1 (continued)

PAGE	SECT	BLOCK	CLASS	NUMBER BLDGS	NUMBER		TOTAL		TOTAL NUMBER TOPS	CITY-- SAN FRANCISCO											UT			
					BASE PCINTS	TDP PCINTS	NUMBER POINTS	NUMBER POINTS		TOTAL NUMBER HLEGS	R	A	B	C	I	CH	S	MB	X	P		M	PK	RR
28	37	RESID	63	252	0	252	0	0	C	40	23													
28	38	RESID	49	196	0	196	0	0	C	49														
28	39	RESID	42	168	56	224	0	0	14	26	16													
28	40	RESID	26	104	72	176	0	0	18	26	26													
28	41	RESID	1	4	12	16	0	0	3															
28	42	RESID	5	20	0	20	0	0	5															
28	43	RESID	14	56	48	104	0	0	12	14	14													
28	44	RESID	29	116	0	116	0	0	12	29	29													
28	45	RESID	17	68	0	68	0	0	17	17	17													
28	46	RESID	20	80	0	80	0	0	20	20	20													
28	47	RESID	18	72	56	128	0	0	14	18	18													
28	48	RESID	24	96	84	180	0	0	22	24	24													
28	49	RESID	21	84	24	108	0	0	6	21	21													
28	50	RESID	27	108	68	176	0	0	17	27	27													
28	51	RESID	27	108	0	108	0	0	0	27	27													
28	52	RESID	31	124	72	196	0	0	18	31	31													
28	53	RESID	32	128	20	148	0	0	5	32	32													
28	54	RESID	37	148	0	148	0	0	0	37	37													
28	55	RESID	42	168	0	168	0	0	0	42	42													
28	56	RESID	12	48	0	48	0	0	0	12	12													
28	57	RESID	36	144	12	156	0	0	3	36	36													
28	58	RESID	38	152	34	186	0	0	10	38	38													
28	59	CCMH	9	36	112	148	0	0	28	9	9													
28	60	CCMH	2	8	20	28	0	0	5	2	2													
29	1	RESID	0	0	0	0	0	0	0	0	0													
29	2	RESID	33	132	0	132	0	0	0	33	33													
29	3	RESID	18	72	0	72	0	0	0	18	18													
29	4	RESID	2	8	0	8	0	0	0	2	2													
29	5	RESID	15	60	0	60	0	0	0	15	15													
29	6	RESID	27	108	0	108	0	0	0	27	27													
29	7	RESID	34	136	40	176	0	0	10	34	34													
29	8	CCMH	13	52	12	64	0	0	3	13	13													
29	9	RESID	0	0	0	0	0	0	0	0	0													
29	10	RESID	20	80	20	100	0	0	5	20	20													
29	11	RESID	18	72	0	72	0	0	0	18	18													
29	12	RESID	20	80	8	88	0	0	2	20	20													
29	13	RESID	24	96	5	101	0	0	0	24	24													
29	14	RESID	0	0	0	0	0	0	0	0	0													
29	15	RESID	30	120	0	120	0	0	0	30	30													
29	16	RESID	16	64	0	64	0	0	0	16	16													
29	17	RESID	17	68	0	68	0	0	0	17	17													
29	18	RESID	23	92	20	112	0	0	5	18	18													
29	19	RESID	21	84	0	84	0	0	0	21	21													
29	20	RESID	20	80	0	80	0	0	0	20	20													
29	21	RESID	20	80	0	80	0	0	0	20	20													
29	22	RESID	0	0	0	0	0	0	0	0	0													
29	23	RESID	28	112	8	120	0	0	2	28	28													
29	24	RESID	25	100	0	100	0	0	0	25	25													
29	25	RESID	36	144	0	144	0	0	0	36	36													
29	26	RESID	40	160	0	160	0	0	0	40	40													

Detailed Data Analysis for SFI (continued)

PAGE	SECT	BLOCK	CLASS	NUMBER		TOTAL		TOTAL	CITY- SAN FRANCISCO											OT							
				BASE	TOP	NUMBER	POINTS		NUMBER	POINTS	TOTAL	NUMBER	POINTS	A	B	C	I	CH	S		MB	X	P	M	PK	RR	BR
25	27	RESID	6	24	0	0	0	0	6																		
25	28	CCMH	17	80	0	0	0	0	3																		
25	29	RESID	0	0	1	0	0	0	0																		
29	30	RESID	22	86	48	0	0	0	12	15	7																
29	31	RESID	0	0	0	0	0	0	0																		
29	32	RESID	0	0	0	0	0	0	0																		
29	33	RESID	22	88	0	0	0	0	0	22																	
29	34	CCMH	17	68	24	92	0	0	6																		
25	35	RESID	30	120	0	0	0	0	0	30																	
25	36	CCMH	13	52	32	84	0	0	8	6	7																
29	37	RESID	21	84	36	120	0	0	9	13	8																
29	38	RESIC	5	20	70	90	0	0	18	29	11																
25	39	RESIC	40	160	52	212	0	0	13	29	11																
29	40	RESID	23	92	24	116	0	0	6	19	4																
29	41	RESID	0	0	0	0	0	0	0																		
29	42	RESID	0	0	0	0	0	0	0																		
29	43	CCMH	17	68	82	150	0	0	16																		
29	44	RESID	29	112	12	124	0	0	3	25	3																
29	45	RESID	38	152	0	0	0	0	0	38																	
29	46	RESID	33	132	0	0	0	0	0	33																	
29	47	RESID	29	116	0	0	0	0	0	29																	
29	48	RESID	28	112	20	132	0	0	5	28																	
29	49	RESID	29	116	16	132	0	0	4	29																	
29	50	RESID	0	0	0	0	0	0	0																		
29	51	CCMH	8	32	36	68	0	0	9																		
25	52	RESID	0	0	0	0	0	0	0																		
29	53	RESID	25	100	40	140	0	0	10	19																	
29	54	RESID	36	144	19	163	0	0	5	21																	
29	55	RESID	24	96	32	128	0	0	8	17																	
29	56	RESID	1	4	0	0	0	0	2																		
29	57	RESID	18	72	24	96	0	0	6	15																	
29	58	RESID	29	116	84	200	0	0	21	20																	
29	59	RESID	27	108	56	164	0	0	14	19																	
29	60	CCMH	4	16	116	132	0	0	29																		
29	61	CCMH	16	64	20	84	0	0	5	5																	
29	62	RESID	26	104	0	0	0	0	0	26																	
29	63	RESID	45	180	0	0	0	0	0	45																	
29	64	RESID	21	84	28	112	0	0	7	11																	
25	65	CCMH	16	64	16	80	0	0	4	3																	
29	66	CCMH	20	80	48	128	0	0	12																		
29	67	CCMH	15	60	4	64	0	0	1	14																	
25	68	RESID	0	0	0	0	0	0	0																		
29	69	RESID	25	100	44	144	0	0	11	19	6																
29	70	RESID	27	108	16	124	0	0	4	14																	
25	71	CCMH	18	72	48	120	0	0	12																		
25	72	RESID	19	76	16	92	0	0	4	15	4																
29	73	RESID	17	68	60	136	0	0	9	10	5																
29	74	RESID	22	88	6	94	0	0	1	21																	
25	75	RESID	17	68	24	92	0	0	6	11	6																
29	76	RESID	17	68	0	0	0	0	0	17																	

Detailed Data Analysis for SF1 (continued)

PAGE	SECT	BLOCK	CLASS	NUMBER BLDGS	NUMBER BASE PTS	NUMBER TOP PTS	CITY - SAN FRANCISCO		TOTAL NUMBER TOPS	TOTAL RCA BLEGS	TOTAL NUMBER TOPS	TOTAL	R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	DT		
							NUMBER BLDGS	POINTS																						
29	77	RESID	11	44	0	0	0	0	0	0	11																			
29	78	CCMH	15	60	0	0	0	0	0	0	7				8															
29	79	RESID	19	76	0	0	0	0	0	0	17			2																
29	30	RESID	4	16	0	0	0	0	0	0	3																			
30	1	CCMH	34	487	0	0	0	0	0	0	58																			
31	1	RESID	15	60	0	0	0	0	0	0	15																			
31	2	RESID	25	92	0	0	0	0	0	0	16																			
31	3	RESID	7	28	0	0	0	0	0	0	7																			
31	4	RESID	43	172	0	0	0	0	0	0	43																			
31	5	RESID	67	396	0	0	0	0	0	0	67																			
31	6	RESID	53	212	0	0	0	0	0	0	32																			
31	7	RESID	34	136	0	0	0	0	0	0	50																			
31	8	CCMH	4	16	0	0	0	0	0	0	17																			
31	9	RESID	25	80	0	0	0	0	0	0	20																			
31	10	RESID	25	100	0	0	0	0	0	0	20																			
31	11	RESID	21	84	0	0	0	0	0	0	21																			
31	12	RESID	18	72	0	0	0	0	0	0	18																			
31	13	RESID	37	148	0	0	0	0	0	0	37																			
31	14	RESID	31	124	0	0	0	0	0	0	31																			
31	15	RESID	25	100	0	0	0	0	0	0	15																			
31	16	RESID	32	128	0	0	0	0	0	0	32																			
31	17	CCMH	4	16	0	0	0	0	0	0	5																			
31	18	RESID	14	56	0	0	0	0	0	0	14																			
31	19	RESID	29	116	0	0	0	0	0	0	29																			
31	20	RESID	19	76	0	0	0	0	0	0	11																			
31	21	RESID	26	104	0	0	0	0	0	0	26																			
31	22	RESID	31	124	0	0	0	0	0	0	31																			
31	23	RESID	28	112	0	0	0	0	0	0	28																			
31	24	RESID	4	160	0	0	0	0	0	0	40																			
31	25	RESID	31	124	0	0	0	0	0	0	31																			
31	26	RESID	42	168	0	0	0	0	0	0	42																			
31	27	RESID	51	204	0	0	0	0	0	0	47																			
31	28	RESID	43	172	0	0	0	0	0	0	43																			
31	29	RESID	42	168	0	0	0	0	0	0	42																			
31	30	CCMH	27	108	0	0	0	0	0	0	13																			
31	31	CCMH	24	96	0	0	0	0	0	0	11																			
31	32	RESID	35	140	0	0	0	0	0	0	12																			
31	33	RESID	26	104	0	0	0	0	0	0	12																			
31	34	RESID	16	64	0	0	0	0	0	0	14																			
31	35	RESID	32	128	0	0	0	0	0	0	14																			
31	36	RESID	35	140	0	0	0	0	0	0	23																			
31	37	RESID	29	116	0	0	0	0	0	0	29																			
31	38	RESID	39	156	0	0	0	0	0	0	39																			
31	39	RESID	32	128	0	0	0	0	0	0	30																			
31	40	RESID	36	144	0	0	0	0	0	0	36																			
31	41	RESID	22	88	0	0	0	0	0	0	22																			
31	42	CCMH	11	44	0	0	0	0	0	0	11																			
31	43	RESID	54	216	0	0	0	0	0	0	54																			
31	44	RESID	25	80	0	0	0	0	0	0	14																			
31	45	RESID	31	124	0	0	0	0	0	0	17																			



Detailed Data Analysis for SF1 (concluded)

PAGE 18 CITY- SAN FRANCISCO

SECT	BLOCK	CLASS	NUMBER BLDGS	NUMBER BASE POINTS	NUMBER TOP POINTS	NUMBER TOTAL POINTS	TOTAL NCA BLDGS	TOTAL NUMBER TOPS	TOTAL	R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	OT
31	46	RESID	47	188	51	239	0	13	45				2												
31	47	RESID	74	296	44	340	0	11	52	22															
31	48	RESID	24	96		96	0	0	24																
31	49	RESID	36	144		144	0	0	36																
31	50	RESID	4	160	4	164	0	1	39			1													
31	51	RESID	33	132	27	159	0	7	27				6												
31	52	CCMH	31	124		124	0	0	15				16												
31	53	RESID	33	132	56	188	0	14	32				10												
31	54	RESID	24	96	300	396	0	29	14				21												
31	55	CCMH	21	84	120	204	0	32					10												
31	56	CCMH	1	40	28	68	0	7					10												
31	57	CCMH	1	4	0	4	0	0					1												
31	58	RESID	3	12	27	39	0	5					3												
31	59	RESID	22	88	36	124	0	9	17	5															

Detailed Data Analysis for SF2

PAGE	SECT	BLOCK	CLASS	NUMBER BLDGS	NUMBER BASE POINTS	NUMBER TOP POINTS	CITY- SAN FRANCISCO			TOTAL NUMBER TOPS	TOTAL R	TOTAL A	TOTAL B	TOTAL C	TOTAL I	TOTAL CH	TOTAL S	TOTAL MB	TOTAL X	TOTAL P	TOTAL M	TOTAL PK	TOTAL RR	TOTAL BR	TOTAL W	TOTAL OT
							NUMBER POINTS	TOTAL NUMBER POINTS	TOTAL MON BLDGS																	
1	1	1	COMM	10	40	20	60	0	5	10																
1	1	2	COMM	24	96	176	272	0	44									24								
1	1	3	COMM	6	24	20	44	0	5								6									
1	1	4	COMM	5	20	48	68	0	12								5									
1	1	5	COMM	10	40	8	48	0	2								10									
1	1	6	COMM	11	44	16	60	0	4								11									
1	1	7	COMM	6	24	28	52	0	7								6									
1	1	8	COMM	1	4	8	12	0	2								1									
1	1	9	RESID	0	0	0	0	1	0																	1
1	1	10	COMM	10	40	74	114	0	20								10									
1	1	11	COMM	6	24	0	24	0	0								6									1
1	1	12	RESID	0	0	0	0	1	0																	
1	1	13	COMM	19	76	104	180	0	26								14									
1	1	14	COMM	7	28	0	28	0	0								7									
1	1	15	COMM	6	24	72	96	0	18								6									
1	1	16	COMM	15	60	72	132	0	18								15									
1	1	17	COMM	6	24	38	62	0	11								6									
1	1	18	COMM	11	44	16	60	0	5								11									
1	1	19	COMM	2	8	20	28	0	5								2									
1	1	20	COMM	3	12	16	28	0	4								3									
1	1	21	COMM	3	12	28	40	0	7								3									
1	1	22	COMM	1	4	12	16	0	3								1									
1	1	23	COMM	5	20	56	76	0	14								5									
1	1	24	RESID	0	0	0	0	1	0																	1
1	1	25	COMM	3	12	0	12	0	0								3									
1	1	26	RESID	0	0	0	0	1	0																	1
1	1	27	COMM	4	16	16	32	0	4								4									
1	1	28	COMM	2	8	0	8	0	0								2									
1	1	29	COMM	3	12	56	68	0	12								3									
1	1	30	RESID	0	0	0	0	1	0																	1
2	2	1	OTHER	0	0	0	0	1	0																	
2	2	2	OTHER	0	0	0	0	1	0																	
2	2	3	OTHER	0	0	0	0	1	0																	
2	2	4	OTHER	0	0	0	0	1	0																	
2	2	5	OTHER	0	0	0	0	1	0																	
2	2	6	OTHER	0	0	0	0	1	0																	
2	2	7	OTHER	0	0	0	0	1	0																	
2	2	8	OTHER	0	0	0	0	1	0																	
2	2	9	RESID	1	4	20	24	0	5																	1
2	2	10	COMM	6	24	40	64	0	10								5									
2	2	11	COMM	12	48	127	175	0	32								12									
2	2	12	RESID	25	100	99	199	0	25								6									
2	2	13	COMM	17	68	140	208	0	35								17									
2	2	14	RESID	14	56	56	112	0	14								14									
2	2	15	RESID	18	72	92	164	0	23								18									
2	2	16	RESID	18	72	127	199	0	32								18									
2	2	17	RESID	20	80	96	176	0	24								9									
3	3	1	COMM	16	64	112	176	0	18								16									
3	3	2	COMM	15	60	108	168	0	15								15									
3	3	3	COMM	16	64	108	172	0	16								16									

Detailed Data Analysis for SF2 (continued)

PAGE	SECT	BLOCK	CLASS	CITY- SAN FRANCISCO				TOTAL NUMBER TOPS	TOTAL NUMBER BLDGS	TOTAL NUMBER NON BLDGS	TOTAL NUMBER	TOTAL R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	M	OT
				NUMBER BASE POINTS	NUMBER TOP POINTS	NUMBER POINTS	NUMBER POINTS																				
3	3	4	COMM	12	48	88	136	0	22	12	12																
3	3	5	COMM	6	24	42	66	0	11	6	6																
3	3	6	COMM	13	52	146	198	0	37	13	13																
3	3	7	COMM	18	72	136	208	0	29	18	18																
3	3	8	COMM	17	68	124	192	0	31	17	17																
3	3	9	COMM	17	68	150	218	0	39	17	17																
3	3	10	COMM	3	12	28	40	0	7	3	3																
3	3	11	COMM	8	32	40	72	0	10	5	5																
3	3	12	COMM	10	40	60	100	0	15	10	10																
3	3	13	COMM	11	44	96	140	0	24	11	11																
3	3	14	COMM	22	88	135	223	0	34	22	22																
3	3	15	COMM	22	88	154	242	0	40	22	22																
3	3	16	COMM	22	88	126	214	0	32	4	4																
3	3	17	COMM	20	80	112	192	0	29	10	10																
3	3	18	COMM	12	48	116	164	0	28	12	12																
3	3	19	COMM	23	92	68	160	0	17	23	23																
3	3	20	COMM	18	72	64	136	0	16	18	18																
3	3	21	COMM	19	76	100	176	0	25	2	2																
3	3	22	COMM	17	68	73	141	0	19	17	17																
3	3	23	COMM	19	72	124	196	0	31	2	2																
3	3	24	COMM	29	116	230	346	0	48	2	2																
3	3	25	COMM	22	88	200	288	0	50	5	5																
3	3	26	COMM	22	88	177	265	0	45	22	22																
3	3	27	COMM	16	64	144	208	0	36	16	16																
3	3	28	COMM	25	100	147	247	0	37	16	16																
3	3	29	COMM	26	104	120	224	0	30	25	25																
3	3	30	COMM	22	88	208	296	0	52	26	26																
3	3	31	RESID	16	64	203	267	0	20	22	22																
3	3	32	COMM	14	56	140	196	0	35	7	7																
3	3	33	COMM	13	52	184	236	0	35	14	14																
3	3	34	COMM	14	56	128	184	0	32	13	13																
4	4	1	RESID	21	84	8	92	0	2	14	14																
4	4	2	COMM	16	64	62	126	0	16	2	2																
4	4	3	RESID	28	112	24	136	0	6	17	17																
4	4	4	RESID	31	124	8	132	0	2	13	13																
4	4	5	RESID	14	56	36	92	0	9	3	3																
4	4	6	RESID	3	12	16	28	0	4	1	1																
4	4	7	COMM	18	72	132	204	0	33	2	2																
4	4	8	COMM	13	52	124	176	0	31	17	17																
4	4	9	RESID	17	68	68	136	0	17	8	8																
4	4	10	COMM	27	108	68	176	0	17	4	4																
4	4	11	RESID	18	72	48	120	0	12	12	12																
4	4	12	RESID	28	112	24	136	0	6	6	6																
4	4	13	COMM	15	60	72	132	0	18	20	20																
4	4	14	RESID	11	44	52	96	0	13	4	4																
4	4	15	RESID	2	8	56	64	0	14	6	6																
4	4	16	COMM	16	64	128	192	0	32	2	2																
4	4	17	COMM	13	52	104	156	0	26	4	4																
4	4	18	COMM	10	40	76	116	0	19	10	10																
4	4	19	COMM	17	68	96	164	0	24	16	16																

Detailed Data Analysis for SF2 (continued)

PAGE	SECT	BLOCK	CLASS	CITY-- SAN FRANCISCO			TOTAL NUMBER TOP POINTS	TOTAL NUMBER NON BLDGS	TOTAL NUMBER TOPS	TOTAL R	TOTAL A	TOTAL B	TOTAL C	TOTAL I	TOTAL CH	TOTAL S	TOTAL MB	TOTAL X	TOTAL P	TOTAL M	TOTAL PK	TOTAL RR	TOTAL BR	TOTAL W	TOTAL OT
				NUMBER BASE POINTS	NUMBER TOP POINTS	NUMBER BLDGS																			
4	4	20	COMM	24	96	80	176	0	20	5	6	13													
4	4	21	COMM	12	48	144	192	0	36			12													
4	4	22	COMM	20	80	140	220	0	35	4	4	16													
4	4	23	COMM	19	76	120	196	0	30	4	4	15													
4	4	24	RESID	26	104	172	176	0	18	18	8	8													
4	4	25	COMM	16	64	124	188	0	31	4	4	12													
4	4	26	COMM	17	68	88	156	0	22	7	7	10													
4	4	27	RESID	20	80	83	163	0	21	13		7													
4	4	28	COMM	8	32	128	160	0	22			6													
4	4	29	COMM	13	52	88	140	0	22			12													
4	4	30	RESID	21	84	68	152	0	17	14		7													
4	4	31	COMM	21	84	124	208	0	31	9		12													
4	4	32	COMM	16	64	92	156	0	23			16													
4	4	33	RESID	16	64	44	108	0	11	10		6													
4	4	34	COMM	12	48	144	192	0	36			12													
4	4	35	COMM	10	40	60	100	0	15	19	11	1													
4	4	36	RESID	31	124	20	144	0	5	13	15	7													
4	4	37	RESID	19	76	36	112	0	9			6													
4	4	38	RESID	22	88	64	152	0	16			7													
4	4	39	COMM	11	44	148	192	0	37			11													
4	4	40	COMM	8	32	56	88	0	14			8													
4	4	41	COMM	13	52	68	120	0	17			13													
4	4	42	COMM	9	36	108	144	0	27			9													
5	5	1	RESID	29	116	4	120	0	1	25	3	1													
5	5	2	RESID	33	132	4	136	0	1	32		1													
5	5	3	COMM	11	44	48	92	0	12	4		7													
5	5	4	RESID	20	80	12	92	0	3	19		1													
5	5	5	RESID	0	0	0	0	1	0	6															
5	5	6	RESID	8	32	40	72	0	10			4													
5	5	7	RESID	12	48	80	128	0	20	4	4														
5	5	8	COMM	10	40	36	76	0	9			10													
5	5	9	RESID	18	72	16	88	0	4	14		4													
5	5	10	COMM	4	16	24	40	0	6			4													
5	5	11	COMM	8	32	60	92	0	15			8													
5	5	12	RESID	16	64	121	185	0	31			6													
5	5	13	RESID	17	68	36	104	0	9	10		3													
5	5	14	COMM	16	64	44	108	0	12	8		8													
5	5	15	RESID	26	104	20	124	0	5	23		3													
5	5	16	COMM	10	40	71	111	0	18			9													
5	5	17	COMM	13	52	172	224	0	43			13													
5	5	18	COMM	11	44	116	160	0	29			11													
5	5	19	COMM	16	64	112	176	0	28			16													
5	5	20	RESID	10	40	8	48	0	2	5	4	1													
5	5	21	COMM	8	32	116	148	0	29			8													
5	5	22	COMM	11	44	112	156	0	28			11													
5	5	23	COMM	6	24	44	68	0	11	7		6													
5	5	24	RESID	11	44	36	80	0	9			4													
5	5	25	RESID	20	80	55	136	0	14	13		7													
5	5	26	RESID	21	84	56	140	0	14	18		3													
5	5	27	RESID	14	56	28	84	0	7	12		1													

Detailed Data Analysis for SF2 (continued)

PAGE	4	CITY- SAN FRANCISCO																							
		SECT	BLOCK	CLASS	NUMBER BLOGS	NUMBER BASE POINTS	TOTAL NUMBER POINTS	TOTAL NON RLOGS	TOTAL NUMBER TOPS	TOTAL R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	OT
5	28	RESID	12	48	36	84	0	9	9	9	3														
5	29	RESID	14	56	28	84	0	7	7	11	3														
5	30	COMM	9	36	134	170	0	34	34		9														
5	31	COMM	4	16	84	100	0	21	21		4														
5	32	RESID	15	60	20	80	0	5	12		3														
5	33	RESID	15	60	0	60	0	0	13		2														
5	34	RESID	20	80	22	102	0	6	17		3														
5	35	RESID	25	100	0	100	0	0	25																
5	36	RESID	34	136	0	136	0	0	24	10															
5	37	RESID	29	116	4	120	0	1	28																
5	38	RESID	10	40	24	64	0	6	7		3														
5	39	COMM	11	44	4	48	0	1	2																
5	40	COMM	8	32	59	91	0	15	15		7														
5	41	RESID	12	48	0	48	0	0	12																
5	42	COMM	5	20	64	84	0	16			5														
5	43	COMM	15	60	128	188	0	32	17		14														
5	44	RESID	20	80	24	104	0	6	29		3														
5	45	RESID	29	116	0	116	0	0	15	8															
5	46	RESID	26	104	16	120	0	4	15		3														
5	47	COMM	9	36	96	132	1	24	17		8														
5	48	COMM	8	32	44	76	0	11	24		3														
5	49	RESID	9	36	12	48	0	3	7		8														
5	50	COMM	4	16	60	76	0	15	1		8														
5	51	COMM	3	12	16	28	0	4	1		2														
5	52	COMM	3	12	67	79	0	19	13		3														
5	53	RESID	18	72	20	92	0	5	14		5														
5	54	RESID	17	68	12	80	0	3	14		2														
5	55	RESID	27	108	40	148	0	10	20		2														
5	56	RESID	31	124	4	128	0	1	30		5														
5	57	RESID	12	48	16	64	0	4	10		1														
5	58	RESID	15	60	8	68	0	2	14		1														
5	59	COMM	8	32	36	68	0	9	1		7														
5	60	COMM	11	44	99	143	0	25	11		11														
5	61	COMM	6	24	24	48	0	6	6		6														
5	62	COMM	6	24	76	100	0	19	6		6														
6	1	COMM	5	20	24	44	0	6	5		5														
6	2	COMM	9	36	68	104	0	18	9		9														
6	3	RESID	23	92	36	128	0	9	15	5	3														
6	4	RESID	28	112	0	112	0	0	21	6	1														
6	5	RESID	24	96	24	120	0	6	20	3	1														
6	6	RESID	24	96	8	104	0	2	23	1	1														
6	7	RESID	31	124	0	124	0	0	20	11															
6	8	RESID	12	48	72	120	0	18	9		3														
6	9	COMM	5	20	83	103	0	21	5		5														
6	10	RESID	41	164	104	224	0	15	35		10														
6	11	COMM	12	48	104	152	0	26	19		3														
6	12	RESID	22	88	80	168	0	20	26		3														
6	13	RESID	27	108	4	112	0	1	1		1														
6	14	RESID	21	84	43	127	0	11	17		4														
6	15	COMM	8	32	52	84	0	13	3		4														



Detailed Data Analysis for SF2 (continued)

PAGE	SECT	BLOCK	CLASS	CITY- SAN FRANCISCO				TOTAL NUMBER BLDGS	TOTAL NUMBER NON BLDGS	TOTAL NUMBER TOPS	TOTAL R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	DT
				NUMBER BLDGS	RAISE POINTS	NUMBER TOP POINTS	TOTAL NUMBER POINTS																			
6	66	COMM	5	20	68	88	0	17	1	5																
6	69	COMM	7	28	60	88	0	15	7	7																
6	70	COMM	8	32	32	64	0	8	8	8																
6	71	COMM	6	24	84	108	0	21	6	6																
7	1	RESID	11	44	104	148	0	26	1	1																
7	2	RESID	15	60	112	172	0	28	5	5																
7	3	RESID	25	100	152	252	0	38	15	10																
7	4	COMM	25	100	180	280	0	45	16	16																
7	5	COMM	15	60	132	192	0	33	5	5																
7	6	RESID	19	76	140	216	0	35	11	8																
7	7	COMM	25	100	132	232	0	33	10	14																
7	8	RESID	26	104	184	288	0	46	9	11																
7	9	RESID	0	0	0	0	1	0	0	6																
7	10	RESID	19	76	48	124	0	12	13	6																
7	11	COMM	16	64	116	180	0	29	5	11																
7	12	COMM	9	36	68	104	0	17	9	9																
7	13	RESID	30	120	136	256	0	34	25	5																
7	14	RESID	13	52	64	116	0	16	8	5																
7	15	RESID	42	168	29	197	0	8	39	3																
7	16	RESID	24	96	139	235	0	35	20	4																
7	17	RESID	13	52	114	166	0	30	9	3																
7	18	RESID	34	136	36	172	0	9	32	2																
7	19	RESID	38	152	0	152	0	0	38	4																
7	20	RESID	15	60	0	60	0	0	15	1																
7	21	RESID	22	88	8	96	0	2	21	1																
7	22	RESID	31	124	12	136	0	3	11	1																
7	23	RESID	12	48	44	92	0	11	12	3																
7	24	RESID	15	60	16	76	0	4	6	2																
7	25	RESID	17	68	76	144	0	19	13	3																
7	26	RESID	18	72	0	72	0	0	18	2																
7	27	RESID	20	80	3	83	0	1	19	3																
7	28	RESID	41	164	8	172	0	2	40	1																
7	29	RESID	33	132	12	144	0	3	27	1																
7	30	RESID	22	88	28	116	0	7	17	5																
7	31	RESID	24	96	36	132	0	9	20	3																
7	32	RESID	26	104	24	128	0	6	25	1																
7	33	RESID	32	128	65	193	0	17	32	3																
7	34	RESID	33	132	12	144	0	3	32	1																
7	35	RESID	21	84	34	118	0	10	18	3																
7	36	RESID	35	140	60	200	0	15	29	2																
7	37	RESID	16	64	37	114	0	13	9	6																
7	38	RESID	24	96	46	142	0	12	24	1																
7	39	RESID	29	116	24	140	0	6	25	3																
7	40	RESID	30	120	0	120	0	0	30	1																
7	41	RESID	3	12	0	12	0	0	3	7																
7	42	COMM	13	52	72	124	0	18	6	1																
7	43	RESID	18	72	0	72	0	0	18	7																
7	44	RESID	25	100	0	100	0	0	25	1																
7	45	RESID	84	336	4	340	1	1	57	26																
7	46	RESID	38	152	0	152	0	0	38	1																

Detailed Data Analysis for SF2 (continued)

PAGE	SECT	BLOCK	CLASS	NUMBER BLDGS	NUMBER BASE POINTS	NUMBER TOP POINTS	CITY - SAN FRANCISCO		TOTAL NUMBER MON BLDGS	TOTAL NUMBER TOPS	TOTAL R	TOTAL A	TOTAL B	TOTAL C	TOTAL I	TOTAL CH	TOTAL S	TOTAL MB	TOTAL X	TOTAL P	TOTAL M	TOTAL PK	TOTAL RR	TOTAL BR	TOTAL W	TOTAL OT
							NUMBER	POINTS																		
7	47	RESID	30	120	15	135	0	0	4	28	2															
7	48	RESID	20	80	24	104	0	0	6	13	1	6														
7	49	RESID	25	100	32	132	0	0	8	20	5															
7	50	RESID	29	116	36	152	0	0	9	7	21															
7	51	RESID	8	32	52	84	0	0	13	7	1															
7	52	COMM	2	8	0	8	0	0	0	0	2															
7	53	COMM	1	4	0	4	0	0	0	0	1															
7	54	COMM	6	24	44	68	0	0	11	6	6															
8	1	OTHER	0	0	0	0	1	0	0	0																
8	2	COMM	28	112	0	112	0	0	0	0	28															
8	3	COMM	24	96	0	96	0	0	0	0	24															
8	4	COMM	29	116	0	116	0	0	0	0	29															
8	5	COMM	21	84	144	228	0	0	36	21	21															
8	6	COMM	4	16	20	36	0	0	5	4	4															
8	7	OTHER	0	0	0	0	0	0	1	0																
8	8	COMM	27	108	0	108	0	0	0	0	27															
8	9	COMM	19	72	119	191	0	0	30	18	18															
8	10	OTHER	0	0	0	0	1	0	0	0																
8	11	OTHER	0	0	0	0	1	0	0	0																
8	12	OTHER	0	0	0	0	1	0	0	0																
8	13	OTHER	0	0	0	0	1	0	0	0																
8	14	OTHER	0	0	0	0	1	0	0	0																
8	15	OTHER	0	0	0	0	1	0	0	0																
9	1	RESID	32	128	8	136	0	0	2	25	6															
9	2	COMM	12	48	89	137	0	0	24	11	11															
9	3	COMM	18	72	154	226	0	0	39	18	18															
9	4	COMM	6	24	68	92	0	0	17	5	5															
9	5	COMM	7	28	108	136	0	0	27	7	7															
9	6	RESID	25	100	0	100	0	0	0	25	7															
9	7	RESID	8	32	8	40	0	0	2	1	1															
9	8	COMM	8	32	92	124	0	0	23	8	8															
9	9	RESID	10	40	12	52	0	0	3	9	9															
9	10	COMM	17	68	160	228	0	0	40	17	17															
9	11	COMM	14	56	116	172	0	0	29	7	7															
9	12	COMM	2	8	45	53	0	0	12	2	2															
9	13	RESID	9	36	44	80	0	0	11	8	8															
9	14	COMM	7	28	107	135	0	0	27	4	4															
9	15	COMM	4	16	16	32	0	0	4	16	16															
9	16	RESID	17	68	12	80	0	0	3	3	3															
9	17	COMM	8	32	28	60	0	0	7	8	8															
9	18	COMM	14	56	64	120	0	0	16	14	14															
9	19	COMM	18	72	163	235	0	0	41	18	18															
9	20	COMM	5	20	20	60	0	0	10	5	5															
9	21	RESID	31	124	28	152	0	0	7	29	2															
9	22	RESID	19	76	12	88	0	0	3	12	4															
9	23	COMM	9	36	48	84	0	0	12	9	9															
9	24	COMM	11	44	82	126	0	0	21	11	11															
9	25	COMM	10	40	116	156	0	0	29	10	10															
9	26	COMM	6	24	55	79	0	0	14	6	6															
9	27	RESID	0	0	0	0	1	0	0	1	0															



Detailed Data Analysis for SF2 (continued)

PAGE	8	CITY- SAN FRANCISCO																								
		SECT	BLOCK	CLASS	NUMBER BLDGS	NUMBER BASE POINTS	NUMBER TOP POINTS	TOTAL NUMBER POINTS	TOTAL NON BLDGS	TOTAL NUMBER TOPS	TOTAL R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	DT
9	28	RESID	28	112	0	112	0	0	0	28																
9	29	RESID	23	92	30	122	0	10	18	3	2															
9	31	RESID	27	108	16	124	0	4	14	6																
9	32	COMM	10	40	43	83	0	11	10	3																
9	33	COMM	10	40	116	156	0	29	10	10																
9	34	COMM	10	40	92	132	0	23	10	10																
9	35	COMM	4	16	24	40	0	7	3	3																
9	36	RESID	2	8	52	60	0	13	2	1																
9	37	RESID	26	104	0	104	0	0	26	4																
9	38	RESID	14	56	16	72	0	4	10	8																
9	39	COMM	8	32	64	96	0	16	8	5																
9	40	RESID	9	36	16	52	0	4	4	3																
9	41	RESID	11	44	60	104	0	15	8	6																
9	42	RESID	18	72	40	112	0	10	12	1																
9	43	COMM	2	8	20	28	0	6	1	1																
9	44	COMM	6	24	32	56	0	8	5	1																
9	45	COMM	5	20	53	73	0	14	5	3																
9	46	COMM	7	28	60	88	0	15	7	3																
9	47	RESID	23	92	15	107	0	5	20	7																
9	48	COMM	7	28	48	76	0	12	7	3																
9	49	RESID	19	76	28	104	0	7	16	1																
9	50	RESID	19	76	19	95	0	5	17	1																
9	51	COMM	12	48	116	164	0	29	12	7																
9	52	COMM	7	28	32	60	0	8	7	3																
9	53	COMM	11	44	65	109	0	17	11	4																
9	54	COMM	7	28	32	60	0	8	7	1																
9	55	COMM	7	28	28	56	0	7	7	3																
9	56	COMM	17	68	94	162	0	24	16	7																
9	57	RESID	14	56	23	79	0	6	11	4																
9	58	RESID	13	52	36	88	0	9	9	3																
9	59	RESID	16	64	40	104	0	10	12	1																
9	60	COMM	10	40	84	124	0	21	10	6																
9	61	COMM	6	24	72	96	0	18	6	5																
9	62	COMM	5	20	64	84	0	16	5	3																
9	63	COMM	12	48	70	118	0	19	12	8																
9	64	COMM	22	88	124	212	0	31	21	11																
9	65	COMM	11	44	76	120	0	20	11	5																
9	66	COMM	5	20	44	64	0	11	8	3																
9	67	COMM	8	32	136	168	0	34	8	4																
10	1	COMM	3	12	44	56	0	11	3	2																
10	2	COMM	11	44	103	147	0	26	11	11																
10	3	COMM	18	72	153	225	0	39	18	18																
10	4	COMM	4	16	24	40	0	6	4	3																
10	5	COMM	13	52	89	141	0	24	13	13																
10	6	COMM	16	64	163	227	0	39	16	16																
10	7	COMM	11	44	108	152	0	27	11	11																
10	8	COMM	5	20	79	99	0	17	5	5																
10	9	COMM	2	8	8	16	0	2	2	2																
10	10	COMM	3	12	16	28	0	4	3	3																

Detailed Data Analysis for SF2 (continued)

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CITY-- SAN FRANCISCO

SECT	BLOCK	CLASS	NUMBER BLDGS	NUMBER BASE POINTS	NUMBER TOP POINTS	TOTAL NUMBER POINTS	TOTAL NON BLDGS	TOTAL NUMBER TOPS	TOTAL R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	OT
10	11	COMM	6	24	56	80	0	14				6												
10	12	COMM	25	100	230	330	0	59				25												
10	13	COMM	11	44	152	196	0	38				11												
10	14	COMM	14	56	96	152	0	24				14												
10	15	COMM	17	68	140	208	0	35				17												
10	16	COMM	7	28	64	92	0	17				7												
10	17	COMM	7	28	60	88	0	15				7												
10	18	COMM	9	36	99	135	0	25				9												
10	19	COMM	10	40	64	104	0	16				10												
10	20	COMM	11	44	115	159	0	29				11												
10	21	COMM	25	100	28	128	0	7				25												
10	22	COMM	17	68	98	166	0	25				17												
10	23	COMM	14	56	64	120	0	16				14												
10	24	COMM	1	4	16	20	0	4				1												
10	25	COMM	11	44	131	175	0	33				11												
10	26	COMM	18	72	148	220	0	37				18												
10	27	COMM	14	56	84	140	0	21				14												
10	28	COMM	20	80	136	216	3	34				20												
10	29	OTHER	0	0	112	112	3	28																
10	30	COMM	13	52	242	294	0	46				13												
10	31	COMM	11	44	180	224	0	47		1		11												
10	32	COMM	19	76	188	264	0	47				19												
10	33	COMM	17	68	188	256	0	47				17												
10	34	COMM	23	92	180	272	0	63				23												
10	35	COMM	16	64	112	176	0	28				16												
10	36	COMM	25	100	103	203	0	26				25												
10	37	COMM	19	76	262	338	0	56				19												
10	38	COMM	15	60	52	112	0	13				15												
10	39	COMM	18	72	76	148	0	19				18												
10	40	COMM	17	68	167	235	0	42				17												
10	41	COMM	4	16	44	60	0	11				4												
10	42	COMM	13	52	116	168	0	29				13												
10	43	COMM	35	140	407	547	0	102				35												
10	44	COMM	34	136	224	360	0	56				34												
10	45	COMM	25	100	224	324	0	56				25												
10	46	COMM	30	120	626	746	0	111				30												
10	47	COMM	25	100	188	288	0	47				25												
10	48	OTHER	0	0	0	0	1	0																
10	49	OTHER	0	0	0	0	1	0																
10	50	OTHER	0	0	0	0	1	0																
10	51	OTHER	0	0	0	0	1	0																
10	52	COMM	3	12	68	80	0	17				3												
10	53	COMM	22	88	228	316	0	57				22												
10	54	COMM	18	72	192	264	0	49				18												
10	55	COMM	23	92	227	319	0	55				23												
10	56	COMM	23	92	223	315	0	57				23												
10	57	RESID	4	16	46	62	0	12				4												
10	58	OTHER	0	0	0	0	1	0																
10	59	OTHER	0	0	0	0	1	0																
10	60	OTHER	0	0	0	0	1	0																
10	61	OTHER	0	0	0	0	1	0																

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Detailed Data Analysis for SF2 (continued)

PAGE	SECT	BLOCK	CLASS	NUMBER BLDG	NUMBER BASE	NUMBER TOP	CITY - SAN FRANCISCO			TOTAL NON BLDGS	TOTAL NUMBER TOPS	TOTAL R	TOTAL	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	OT		
							NUMBER POINTS	NUMBER POINTS	NUMBER POINTS																					
11	33	COMM		11	44	84	128	0	22																					
11	34	COMM		14	56	111	167	0	28																					
11	35	COMM		19	76	195	271	0	49																					
11	36	COMM		24	96	140	236	0	35																					
12	1	COMM		15	60	121	181	0	31																					
12	2	COMM		11	44	123	164	0	30																					
12	3	RESID		12	48	0	48	0	0			12																		
12	4	RESID		10	40	48	88	0	12			10																		
12	5	COMM		14	56	154	210	0	43																					
12	6	COMM		9	36	128	164	0	35						14															
12	7	COMM		16	64	158	222	0	25						16															
12	8	COMM		14	56	140	196	0	37						14															
12	9	COMM		16	64	148	212	0	37						16															
12	10	COMM		15	60	74	134	0	19						15															
12	11	COMM		17	68	128	196	0	32						17															
12	12	COMM		6	24	68	92	0	17						6															
12	13	COMM		2	8	8	16	0	2						2															
12	14	COMM		5	20	62	82	0	16						5															
12	15	COMM		16	64	181	245	0	47						16															
13	1	COMM		10	40	132	172	0	34						10															
13	2	COMM		18	72	179	251	0	32						18															
13	3	COMM		23	92	193	285	0	49						23															
13	4	COMM		15	60	235	295	0	56						15															
13	5	COMM		8	32	182	214	0	47						8															
13	6	COMM		15	60	204	264	0	51						15															
13	7	COMM		12	48	203	251	0	51						12															
13	8	COMM		17	68	166	234	0	42						17															
13	9	COMM		10	40	197	237	0	50						10															
13	10	COMM		16	64	190	254	0	43						16															
13	11	COMM		13	52	187	239	0	47						13															
13	12	COMM		12	48	213	261	0	45						12															
13	13	COMM		7	28	234	262	0	62						7															
13	14	COMM		12	48	251	299	0	59						12															
13	15	COMM		12	48	140	188	0	35						12															
13	16	COMM		13	52	173	225	0	45						13															
13	17	COMM		13	52	194	246	0	52						13															
13	18	COMM		12	48	188	236	0	52						12															
13	19	COMM		14	56	147	203	0	37						14															
13	20	COMM		16	64	164	228	0	41						16															
13	21	COMM		15	60	192	252	0	48						15															
13	22	COMM		15	60	188	248	0	48						15															
13	23	COMM		4	16	60	76	0	15						4															
13	24	COMM		25	100	326	426	0	87						25															
13	25	COMM		8	32	148	180	0	40						8															
13	26	COMM		11	44	160	204	0	42						11															
13	27	COMM		15	60	178	238	0	43						15															
13	28	COMM		21	84	217	301	0	60						21															
13	29	COMM		12	48	160	208	0	41						12															
13	30	COMM		16	64	237	301	0	61						16															
13	31	COMM		18	72	161	233	0	43						18															

Detailed Data Analysis for SF2 (continued)

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CITY- SAN FRANCISCO

SECT	BLOCK	CLASS	NUMBER BLDGS	NUMBER BASE POINTS	NUMBER TOP POINTS	TOTAL NUMBER POINTS	TOTAL NON BLDGS	TOTAL NUMBER TOPS	TOTAL R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	DT
13	32	COMM	19	76	285	361	0	78	19															
13	33	COMM	6	24	118	142	0	28	6															
13	34	COMM	13	52	191	243	0	53	13															
13	35	COMM	18	72	185	257	0	48	18															
13	36	COMM	16	64	168	232	0	42	16															
13	37	COMM	12	48	147	195	0	38	12															
13	38	COMM	8	32	137	169	0	27	8															
13	39	COMM	19	76	239	315	0	54	19															
13	40	COMM	13	52	115	167	0	31	13															
13	41	COMM	12	48	96	144	0	24	12															
13	42	COMM	14	56	179	235	0	46	14															
13	43	COMM	13	52	148	200	0	38	13															
13	44	COMM	19	76	185	261	0	48	19															
13	45	COMM	7	28	119	147	0	33	7															
13	46	COMM	10	40	100	140	0	26	10															
13	47	COMM	15	60	217	277	0	54	15															
13	48	COMM	13	52	159	211	0	42	13															
13	49	COMM	12	48	119	166	0	33	12															
13	50	COMM	15	60	198	258	0	60	15															
13	51	COMM	12	48	214	262	0	59	12															
13	52	COMM	11	44	174	218	0	47	11															
13	53	COMM	10	40	95	135	0	24	10															
13	54	COMM	2	8	40	48	0	10	2															
13	55	COMM	11	44	226	270	0	57	11															
13	56	COMM	7	28	132	160	0	33	7															
13	57	COMM	2	8	56	64	0	14	2															
13	58	COMM	1	4	51	55	0	13	1															
13	59	RESID	0	0	0	0	1	0												1				
13	60	COMM	2	8	80	88	0	22	2															
13	61	COMM	1	4	16	20	0	4	1															
13	62	RESID	0	0	0	0	1	0																
13	63	COMM	3	12	68	80	0	17	3															
13	64	COMM	10	40	93	133	0	27	10															
13	65	COMM	6	24	60	84	0	15	6															
13	66	COMM	9	36	97	133	0	26	9															
13	67	COMM	1	4	134	108	0	26	1															
13	68	COMM	1	4	12	16	0	3	1															
13	69	COMM	4	16	66	82	0	17	4															
13	70	COMM	7	28	84	112	0	21	7															
13	71	COMM	8	32	114	146	0	29	8															
14	1	COMM	2	8	48	56	0	12	2															2
14	2	COMM	2	8	20	28	0	5	2															2
14	3	COMM	5	20	28	48	0	7	5															5
14	4	COMM	17	68	196	264	0	50	17															17
14	5	COMM	1	4	4	8	0	1	1															1
14	6	COMM	5	20	40	60	0	10	5															5
14	7	COMM	6	24	52	76	0	13	6															6
14	8	COMM	6	24	108	132	0	27	6															6
14	9	COMM	7	28	92	120	0	23	7															7
14	10	COMM	10	40	120	160	0	30	10															10



## Detailed Data Analysis for SF2 (continued)

PAGE	SECT	BLOCK	CLASS	NUMBER BLDGS	NUMBER BASE POINTS	NUMBER TOP POINTS	CITY - SAN FRANCISCO				TOTAL NON BLDGS	TOTAL NUMBER TOPS	TOTAL R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	OT
							NUMBER BLDGS	NUMBER POINTS	TOTAL NUMBER POINTS	TOTAL BLDGS																		
15	15	3	COMM	16	64	114	178	0	25	16	19	14	16	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
15	15	4	COMM	14	56	88	144	0	22	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
15	15	5	COMM	19	76	102	178	0	26	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
15	15	6	COMM	25	100	282	382	0	43	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
15	15	7	COMM	4	16	38	54	0	9	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
15	15	8	COMM	17	68	96	164	0	24	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
15	15	9	COMM	18	72	142	214	0	36	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
15	15	10	COMM	12	48	134	182	0	34	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
15	15	11	COMM	7	28	56	84	0	14	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
15	15	12	COMM	15	60	192	252	0	31	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15
15	15	13	COMM	17	68	96	164	0	25	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
15	15	14	COMM	19	76	0	76	0	0	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
15	15	15	COMM	9	36	89	125	0	16	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
15	15	16	COMM	12	48	224	272	0	42	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
15	15	17	COMM	22	88	173	261	0	44	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22	22
15	15	18	COMM	19	76	188	264	0	47	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
15	15	19	COMM	23	92	238	330	0	44	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
15	15	20	COMM	11	44	80	124	0	20	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
15	15	21	COMM	13	52	112	164	0	28	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13	13
15	15	22	COMM	20	80	144	224	0	37	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
15	15	23	COMM	37	148	676	824	0	90	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37	37
15	15	24	COMM	20	80	116	196	0	29	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
15	15	25	COMM	18	72	140	212	0	36	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
15	15	26	COMM	19	76	183	259	0	43	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
15	15	27	COMM	19	76	163	239	0	41	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
15	15	28	COMM	10	40	140	180	0	35	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
15	15	29	COMM	7	28	103	131	0	26	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
15	15	30	COMM	29	116	348	464	0	64	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29	29
15	15	31	COMM	1	4	64	68	0	16	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15	15	32	COMM	19	76	238	314	0	49	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
15	15	33	COMM	17	68	242	310	0	40	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17	17
15	15	34	COMM	14	56	155	211	0	39	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
15	15	35	COMM	14	56	284	340	0	58	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
16	16	1	RESID	19	76	117	193	0	30	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19
16	16	2	RESID	21	84	96	180	0	24	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
16	16	3	RESID	25	100	184	284	0	46	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
16	16	4	RESID	21	84	130	214	0	31	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21	21
16	16	5	COMM	10	40	92	132	0	23	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
16	16	6	COMM	11	44	89	133	0	23	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
16	16	7	COMM	9	36	75	111	0	20	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
16	16	8	COMM	14	56	144	200	0	36	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
16	16	9	COMM	16	64	278	342	0	70	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
16	16	10	COMM	18	72	260	332	0	65	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18	18
16	16	11	COMM	11	44	126	170	0	32	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11
16	16	12	COMM	30	120	180	300	0	45	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30	30
16	16	13	COMM	23	92	170	262	0	43	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
16	16	14	COMM	16	64	117	181	0	30	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16	16
16	16	15	COMM	14	56	115	171	0	29	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14	14
16	16	16	COMM	23	92	174	266	0	44	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23	23
16	16	17	COMM	8	32	84	116	0	21	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8

Detailed Data Analysis for SF2 (continued)

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CITY- SAN FRANCISCO

SECT	BLOCK	CLASS	NUMBER BLDGS	NUMBER BASE POINTS	NUMBER TOP POINTS	TOTAL NUMBER POINTS	TOTAL NON BLDGS	TOTAL NUMBER TOPS	TOTAL R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	OT
16	18	COMM	11	44	168	212	0	42				11												
16	19	COMM	9	36	179	215	0	45				9												
16	20	COMM	10	40	204	244	0	51			10													
16	21	COMM	2	8	16	24	0	4			2													
16	22	RESID	22	88	224	312	0	53	14		8													
16	23	COMM	12	48	215	263	0	39			12													
16	24	COMM	20	80	160	240	0	40			20													
16	25	COMM	24	96	291	387	0	56			24													
16	26	COMM	15	60	133	193	0	32			15													
16	27	COMM	17	68	236	304	0	60			17													
16	28	COMM	21	84	230	314	0	59			21													
16	29	COMM	10	40	92	132	0	23			10													
17	1	COMM	14	56	150	206	0	21			14													
17	2	COMM	16	64	334	398	0	50			16													
17	3	COMM	17	68	244	312	0	44			17													
17	4	COMM	11	44	120	164	0	30			11													
17	5	COMM	17	68	112	180	0	28			17													
17	6	COMM	15	60	141	201	0	36			15													
17	7	COMM	17	68	207	275	0	49			17													
17	8	COMM	17	68	96	164	0	24			17													
17	9	COMM	14	56	136	192	0	34			14													
17	10	COMM	8	32	64	96	0	17			8													
17	11	COMM	11	44	67	111	0	17			11													
17	12	COMM	13	52	156	208	0	25			13													
17	13	COMM	6	24	56	80	0	14			6													
17	14	COMM	10	40	84	124	0	21			10													
17	15	COMM	21	84	267	351	0	69			21													
17	16	COMM	4	16	120	136	0	26			4													
17	17	RESID	0	0	0	0	1	0			0													
17	18	COMM	1	4	31	35	0	9			1													
17	19	COMM	2	8	109	117	0	29			2													
17	20	COMM	5	20	69	89	0	18			5													
17	21	COMM	8	32	85	117	0	19			8													
17	22	COMM	20	80	211	291	0	55			20													
17	23	COMM	10	40	116	156	0	30			10													
17	24	COMM	17	68	202	270	0	51			17													
17	25	COMM	7	28	138	166	0	36			7													
17	26	COMM	8	32	115	147	0	31			8													
17	27	COMM	8	32	86	118	0	19			8													
17	28	COMM	15	60	282	322	0	67			15													
17	29	COMM	11	44	195	239	0	52			11													
17	30	COMM	21	84	274	358	0	72			21													
17	31	COMM	14	56	144	200	0	38			14													
17	32	COMM	11	44	140	184	0	36			11													
17	33	COMM	6	24	79	103	0	22			6													
17	34	COMM	16	64	241	305	0	46			16													
17	35	COMM	19	76	204	280	0	48			19													
17	36	COMM	17	68	195	263	0	50			17													
17	37	COMM	18	72	216	288	0	55			18													
17	38	COMM	10	40	162	202	0	41			10													



Detailed Data Analysis for SF2 (continued)

PAGE	SECT	BLOCK	CLASS	NUMBER BLDG	NUMBER BASE POINTS	NUMBER TDP POINTS	CITY-- SAN FRANCISCO			TOTAL NON BLDGS	TOTAL NUMBER TOPS	TOTAL R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	OT
							NUMBER	TOTAL	POINTS																		
17	39	COMM	19	76	317	393	0	80	19																		
17	40	COMM	18	72	196	268	0	50	18																		
17	41	COMM	14	56	262	318	0	37	14																		
17	42	COMM	14	56	145	201	0	36	14																		
17	43	COMM	15	60	347	407	0	69	15																		
17	44	COMM	13	52	328	380	0	69	13																		
17	45	COMM	6	24	116	140	0	26	6																		
17	46	COMM	9	36	166	202	0	43	9																		
17	47	COMM	12	48	201	249	0	52	12																		
17	48	COMM	10	40	235	275	0	63	10																		
17	49	RESID	0	0	0	0	1	0	0																		
17	50	COMM	16	64	208	272	0	52	16																		
17	51	COMM	10	40	119	159	0	30	10																		
17	52	COMM	7	28	140	168	0	35	7																		
17	53	COMM	11	44	171	215	0	44	11																		
17	54	COMM	12	48	172	220	0	43	12																		
17	55	COMM	9	36	152	188	0	39	9																		
17	56	COMM	16	64	320	384	0	80	16																		
17	57	COMM	14	56	321	377	0	82	14																		
17	58	COMM	12	48	115	163	0	30	12																		
17	59	COMM	6	24	116	140	0	29	6																		
17	60	COMM	6	24	119	143	0	30	6																		
17	61	COMM	8	32	129	161	0	33	8																		
18	1	COMM	18	72	232	304	0	58	18																		
18	2	COMM	15	60	216	276	1	46	15																		
18	3	COMM	13	52	196	248	0	44	13																		
18	4	COMM	12	48	119	167	0	30	12																		
18	5	COMM	5	20	71	91	0	18	5																		
18	6	COMM	3	12	80	92	0	19	3																		
18	7	COMM	16	64	465	529	0	78	16																		
18	8	COMM	14	56	251	307	0	63	14																		
18	9	COMM	13	52	243	295	1	45	13																		
18	10	COMM	7	28	119	147	0	30	7																		
18	11	COMM	9	36	243	279	1	61	9																		
18	12	COMM	12	48	218	266	1	52	12																		
18	13	COMM	6	24	73	97	0	18	6																		
18	14	COMM	13	52	414	466	0	71	13																		
18	15	COMM	4	16	128	144	0	34	4																		
18	16	COMM	9	36	92	128	0	23	9																		
19	1	COMM	13	52	187	239	0	47	13																		
19	2	COMM	4	16	63	79	0	16	4																		
19	3	COMM	9	36	99	135	0	25	9																		
19	4	COMM	9	36	131	167	0	33	9																		
19	5	COMM	10	40	140	180	0	35	6																		
19	6	COMM	20	80	299	379	0	75	20																		
19	7	COMM	11	44	96	143	0	24	11																		
19	8	COMM	1	4	20	24	0	5	1																		
19	9	COMM	19	76	316	392	0	80	19																		
19	10	COMM	8	32	72	104	0	16	8																		
19	11	COMM	15	60	156	216	0	39	15																		

Detailed Data Analysis for SF2 (continued)

PAGE	17	SECT	BLOCK	CLASS	CITY- SAN FRANCISCO				TOTAL NUMBER TOPS	TOTAL NUMBER BLDGS	TOTAL NON BLDGS	TOTAL NUMBER TOPS	TOTAL	R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	DT	
					NUMBER BLDGS	NUMBER BASE POINTS	NUMBER TOP POINTS	TOTAL NUMBER POINTS																						
19	12	COMM	6	24	92	116	0	23	6																					
19	13	COMM	14	56	210	266	0	53	14																					
19	14	COMM	18	72	176	248	0	47	18																					
19	15	COMM	18	72	200	272	0	47	18																					
19	16	COMM	9	36	138	174	0	28	9																					
19	17	COMM	7	28	47	75	0	12	7																					
19	18	COMM	6	24	55	79	0	14	6																					
19	19	COMM	17	68	212	280	0	52	17																					
19	21	COMM	4	16	83	99	0	21	4																					
19	21	COMM	7	28	120	148	0	30	7																					
19	22	COMM	14	56	185	241	0	38	14																					
19	23	COMM	8	32	72	104	0	18	8																					
19	24	COMM	15	60	130	190	0	33	15																					
19	25	COMM	15	60	168	228	0	42	15																					
19	26	COMM	9	36	156	192	0	39	9																					
19	27	COMM	15	60	171	231	0	43	15																					
19	28	COMM	16	64	155	219	0	39	16																					
19	29	COMM	10	40	67	107	0	17	10																					
19	30	COMM	8	32	96	128	0	24	8																					
19	31	COMM	24	96	239	335	0	60	24																					
19	32	COMM	3	12	56	68	0	14	3																					
19	33	COMM	19	76	400	476	0	101	19																					
19	34	COMM	9	36	168	204	0	42	9																					
19	35	COMM	7	28	48	76	0	12	7																					
19	36	COMM	8	32	62	94	0	17	8																					
19	37	COMM	21	84	203	287	0	51	21																					
19	38	COMM	15	60	216	276	0	54	15																					
19	39	COMM	26	104	155	259	0	35	26																					
19	40	COMM	12	48	86	134	0	23	12																					
19	41	COMM	1	4	48	52	0	13	1																					
19	42	COMM	24	96	491	587	0	69	24																					
19	43	COMM	4	16	72	88	0	16	4																					
19	44	COMM	7	28	115	143	0	29	7																					
19	45	COMM	21	84	281	365	0	43	21																					
20	1	COMM	3	12	12	24	0	3	3																					
20	2	COMM	2	8	0	8	0	0	2																					
20	3	COMM	4	16	36	52	0	4	4																					
20	4	COMM	5	20	52	72	0	13	5																					
20	5	COMM	2	8	24	32	0	6	2																					
20	6	COMM	5	20	24	44	0	6	5																					
20	7	COMM	3	12	28	40	0	7	3																					
20	8	COMM	5	20	108	128	0	27	5																					
20	9	COMM	4	16	32	48	0	8	4																					
20	10	COMM	7	28	30	58	0	8	7																					
20	11	COMM	2	8	77	85	0	20	2																					
20	12	COMM	2	8	26	34	0	7	2																					
20	13	COMM	4	16	60	76	0	15	4																					
20	14	COMM	1	4	84	88	0	21	1																					
20	15	COMM	5	20	76	96	0	19	5																					
20	16	COMM	5	20	54	74	0	13	5																					

Detailed Data Analysis for SF2 (continued)

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SECT	BLOCK	CLASS	NUMBER BLDGS	NUMBER BASE POINTS	NUMBER TOP POINTS	TOTAL NUMBER POINTS	TOTAL NUMBER NON BLDGS	TOTAL NUMBER TOPS	TOTAL R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	OT
20	17	COMM	7	28	122	150	0	31					7											
20	18	COMM	12	48	126	174	0	31					12											
20	19	COMM	3	12	20	32	0	5					3											
20	20	COMM	6	24	114	138	0	25					6											
20	21	COMM	5	20	140	160	0	35					5											
20	22	COMM	4	16	104	120	0	26					4											
20	23	COMM	12	48	378	426	0	81			1		11											
20	24	COMM	8	32	68	100	0	17			8		8											
20	25	COMM	2	8	24	32	0	6					2											
20	26	COMM	9	36	73	109	0	20					9											
20	27	COMM	6	24	164	188	0	41					6											
20	28	COMM	4	16	87	103	0	22					4											
20	29	COMM	14	56	60	116	1	15			14		5											
20	30	COMM	5	20	117	137	0	28					2											
20	31	COMM	2	8	25	33	0	7					3											
20	32	RESID	12	48	44	92	0	11	9															1
20	33	RESID	0	0	0	0	0	0																
20	34	COMM	7	28	47	75	0	12					7											
20	35	COMM	6	24	96	120	0	19					6											
20	36	COMM	14	56	38	94	0	10			14													
20	37	COMM	10	40	63	103	0	16			14													
20	38	RESID	21	84	56	140	0	14			19													
20	39	RESID	6	24	0	24	0	0			6													
20	40	COMM	2	8	68	76	0	17					2											
20	41	COMM	5	20	52	72	0	13					5											
20	42	COMM	4	16	24	40	0	6					4											
20	43	RESID	19	72	63	135	0	16			15													
20	44	COMM	1	4	4	8	0	1			1													
20	45	RESID	10	40	23	63	0	6			10													
21	1	COMM	1	4	4	8	0	1					1											
21	2	COMM	5	20	96	116	0	23					5											
21	3	COMM	5	20	76	96	0	19					5											
21	4	COMM	3	12	56	68	0	14					3											
21	5	COMM	1	4	104	108	0	26					1											
21	6	COMM	1	4	90	94	0	22					1											
21	7	COMM	1	4	92	96	0	23					1											
21	8	COMM	1	4	128	132	0	32					1											
21	9	COMM	4	16	64	80	0	16					4											
21	10	COMM	8	32	144	176	0	32					8											
21	11	COMM	5	20	110	130	0	16					5											
21	12	COMM	4	16	64	80	0	16					4											
21	13	COMM	5	20	107	127	0	21					5											
21	14	COMM	3	12	12	24	0	3					3											
21	15	COMM	6	24	96	120	0	26			6													
21	16	COMM	15	60	155	215	0	39			15													
21	17	COMM	10	40	154	194	0	32			10													
21	18	COMM	19	76	173	249	0	44			19													
21	19	COMM	7	28	32	60	0	8			7													
21	20	COMM	13	52	76	128	0	19			13													
21	21	COMM	17	68	232	300	0	47			6													



Detailed Data Analysis for SF2 (continued)

PAGE 20	SECT	BLOCK	CLASS	NUMBER BLDGS	NUMBER BASE POINTS	NUMBER TOP POINTS	CITY- SAN FRANCISCO				TOTAL NUMBER TOPS	TOTAL R	TOTAL	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	OF	
							NUMBER BLDGS	NUMBER POINTS	TOTAL NON BLDGS	TOTAL POINTS																			
22	1	COMM	9	36	80	116	0	20	9																				
22	2	COMM	14	56	86	142	0	22	14																				
22	3	COMM	8	32	72	104	0	18	8																				
22	4	COMM	8	32	83	115	0	21	8																				
22	5	RESID	0	0	0	0	1	0																					
22	6	RESID	0	0	126	126	5	32																					
22	7	COMM	5	20	93	113	0	24																					
22	8	COMM	13	52	124	176	0	31																					
22	9	COMM	7	28	88	116	0	22																					
22	10	COMM	13	52	175	227	0	33																					
22	11	COMM	10	40	92	132	0	23																					
22	12	COMM	17	68	118	186	0	30																					
22	13	COMM	11	44	104	148	0	26																					
22	14	COMM	15	60	157	217	0	40																					
22	15	COMM	14	56	176	232	0	44																					
22	16	COMM	3	12	48	60	0	12																					
22	17	COMM	4	16	52	68	0	13																					
22	18	COMM	10	40	179	219	0	46																					
22	19	COMM	3	12	20	32	0	5																					
22	20	COMM	5	20	72	92	0	14																					
22	21	COMM	6	24	100	124	0	25																					
22	22	COMM	13	52	239	291	0	51																					
22	23	COMM	13	52	100	152	0	25																					
22	24	COMM	12	48	188	236	0	47																					
22	25	COMM	12	48	228	276	0	57																					
22	26	COMM	9	36	176	212	0	44																					
22	27	COMM	9	36	104	140	0	26																					
22	28	COMM	5	20	48	68	0	12																					
22	29	COMM	5	20	100	120	0	25																					
22	30	COMM	7	28	116	144	0	29																					
22	31	COMM	6	24	92	116	0	23																					
22	32	COMM	1	4	68	72	0	17																					
22	33	COMM	6	24	108	132	0	27																					
22	34	COMM	7	28	91	119	0	23																					
22	35	COMM	4	16	80	96	0	21																					
22	36	COMM	4	16	140	156	0	35																					
22	37	COMM	4	16	62	78	0	16																					
22	38	COMM	7	28	184	212	0	46																					
22	39	COMM	3	12	88	100	0	22																					
22	40	COMM	3	12	144	156	0	36																					
23	1	COMM	11	44	104	148	0	26																					
23	2	COMM	12	48	118	166	0	30																					
23	3	COMM	6	24	144	168	0	36																					
23	4	COMM	9	36	88	124	0	25																					
23	5	COMM	22	88	140	228	0	36																					
23	6	COMM	17	68	144	212	0	37																					
23	7	COMM	18	72	84	156	0	22																					
23	8	COMM	10	40	92	132	0	23																					
23	9	COMM	17	68	119	187	0	30																					
23	10	COMM	10	40	92	132	0	23																					

Detailed Data Analysis for SF2 (continued)

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CITY- SAN FRANCISCO

SECT	BLOCK	CLASS	NUMBER BLDGS	NUMBER BASE POINTS	NUMBER TOP POINTS	TOTAL NUMBER POINTS	TOTAL NON BLDGS	TOTAL NUMBER TOPS	TOTAL R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	OT
23	11	COMM	7	28	108	136	0	27		7														
23	12	COMM	14	56	92	148	0	23		14														
23	13	RESID	0	0	0	0	1	0																1
23	14	COMM	5	20	40	60	0	10		5														
23	15	COMM	6	24	120	144	0	30		6														
23	16	COMM	26	104	333	437	0	87		26														
23	17	COMM	9	36	112	148	0	28		9														
23	18	COMM	14	56	100	156	0	25		14														
23	19	COMM	5	20	36	56	0	9		5														
23	20	COMM	12	48	40	88	0	10		12														
23	21	COMM	5	20	24	44	0	6		5														
23	22	COMM	28	112	180	292	0	45		28														
23	23	COMM	25	100	224	324	0	56		25														
23	24	COMM	15	60	104	164	0	26		15														
23	25	COMM	10	40	44	84	0	11		10														
23	26	COMM	7	28	28	56	0	7		7														
23	27	COMM	23	92	92	184	0	23		23														
23	28	COMM	24	96	84	180	0	21		24														
23	29	COMM	14	56	87	143	0	22		14														
23	30	COMM	11	44	112	156	0	28		11														
23	31	COMM	12	48	192	240	0	48		12														
23	32	COMM	13	52	120	172	0	30		13														
23	33	COMM	8	32	96	128	0	24		8														
23	34	COMM	11	44	140	184	0	35		11														
23	35	COMM	9	36	76	112	0	19		9														
23	36	COMM	24	96	96	192	0	25		24														
23	37	COMM	16	64	33	97	0	9		16														
23	38	COMM	10	40	73	113	0	19		10														
23	39	COMM	14	56	268	324	0	67		14														
23	40	COMM	12	48	140	188	0	35		12														
23	41	COMM	19	76	108	184	0	27		19														
23	42	COMM	16	64	196	260	0	49		16														
23	43	COMM	16	64	88	152	0	22		16														
23	44	COMM	33	132	304	436	0	76		33														
23	45	COMM	13	52	104	156	0	26		13														
23	46	COMM	15	60	124	184	0	31		15														
23	47	COMM	21	84	216	300	0	54		21														
23	48	COMM	7	28	112	140	0	28		7														
23	49	COMM	6	24	52	76	0	13		6														
23	50	COMM	24	96	116	212	0	29		24														
23	51	COMM	23	92	157	249	0	41		23														
23	52	COMM	15	60	132	192	0	33		15														
24	1	RESID	0	0	0	0	1	0																
24	2	COMM	6	24	44	68	0	11		6														
24	3	COMM	6	24	24	48	0	6		6														
24	4	COMM	9	36	72	108	0	18		9														
24	5	COMM	12	48	28	76	0	7		12														
24	6	COMM	9	36	52	88	0	13		9														
24	7	COMM	21	84	120	204	0	30		21														
24	8	COMM	7	28	51	79	0	15		7														

Detailed Data Analysis for SF2 (continued)

PAGE	22	CITY- SAN FRANCISCO																								
		SECT	BLOCK	CLASS	NUMBER BLDGS	NUMBER BASE POINTS	NUMBER TOP POINTS	TOTAL NUMBER POINTS	TOTAL NON BLDGS	TOTAL NUMBER TOPS	TOTAL R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	M	DT
24	9	COMM	7	28	36	64	0	0	9	7	12	7	12	12												
24	10	COMM	12	48	92	140	0	0	23	15	15	15	15	12												
24	11	RESID	27	108	144	252	0	0	36					12												
24	12	COMM	5	20	95	115	0	0	24					5												
24	13	COMM	15	60	296	356	0	0	74					15												
24	14	COMM	13	52	72	124	0	0	18	3	10	10	10	33												
24	15	COMM	33	132	132	264	0	0	33					8												
24	16	COMM	8	32	64	96	0	0	16					18												
24	17	COMM	18	72	272	344	0	0	68					18												
24	18	COMM	8	32	84	116	0	0	21					8												
24	19	COMM	17	68	192	260	0	0	48					17												
24	20	COMM	6	24	40	64	0	0	12					6												
24	21	COMM	10	40	60	100	0	0	15					10												
24	22	COMM	11	44	100	144	0	0	25					11												
24	23	COMM	7	28	48	76	0	0	12					7												
24	24	COMM	7	28	176	204	0	0	44					7												
24	25	COMM	7	28	88	116	0	0	22					7												
24	26	COMM	6	24	72	96	0	0	18					6												
24	27	COMM	5	20	32	52	0	0	8					5												
24	28	COMM	5	20	20	40	0	0	5					5												
24	29	COMM	2	8	0	8	0	0	0					2												
24	30	COMM	3	12	32	44	0	0	8					3												
24	31	COMM	11	44	64	108	0	0	16					11												
24	32	COMM	9	36	48	84	0	0	12					9												
24	33	COMM	12	48	76	124	0	0	19					12												
24	34	RESID	8	32	40	72	0	0	10					8												
24	35	RESID	12	48	56	104	0	0	14					12												
24	36	RESID	0	0	0	0	1	1	0					0												
24	37	COMM	7	28	52	80	0	0	13					7												
24	38	COMM	5	20	44	64	0	0	11					5												
24	39	RESID	13	52	64	116	0	0	16					13												
24	40	COMM	5	20	32	52	0	0	8					5												
24	41	RESID	12	48	140	188	0	0	35					12												
24	42	COMM	24	96	364	464	0	0	91					24												
24	43	COMM	6	24	72	96	0	0	18					6												
24	44	COMM	15	60	248	308	0	0	62					15												
25	1	COMM	1	4	40	44	0	0	10					1												
25	2	COMM	3	12	20	32	0	0	5					3												
25	3	COMM	3	12	28	40	0	0	7					3												
25	4	COMM	2	8	16	24	0	0	4					2												
25	5	COMM	9	36	141	177	0	0	37					9												
25	6	COMM	5	20	128	148	0	0	35					5												
25	7	COMM	2	8	12	20	0	0	3					2												
25	8	RESID	0	0	0	0	1	1	0					1												
25	9	COMM	1	4	62	66	0	0	15					1												
25	10	COMM	5	20	24	44	0	0	6					5												
25	11	COMM	3	12	16	28	0	0	4					3												
25	12	COMM	1	4	16	20	0	0	4					1												
25	13	COMM	13	52	56	108	0	0	14					13												
25	14	COMM	5	20	130	150	0	0	29					5												

Detailed Data Analysis for SF2 (continued)

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CITY- SAN FRANCISCO

SECT	BLOCK	CLASS	NUMBER BLDGS	NUMBER BASE POINTS	NUMBER TOP POINTS	TOTAL NUMBER POINTS	TOTAL NDN BLDGS	TOTAL NUMBER TOPS	TOTAL R	A	B	C	I	CM	S	MB	X	P	M	PK	RR	BR	W	OT
25	15	COMM	1	4	84	88	0	21					1											
25	16	COMM	2	8	24	32	0	6					2											
25	17	COMM	1	4	8	12	0	2				1												
25	18	COMM	14	56	360	416	0	10					14											
25	19	COMM	5	20	28	48	0	7					2											
25	20	COMM	2	8	32	40	0	8					2											
25	21	RESID	0	0	0	0	1	0					3											1
25	22	COMM	3	12	16	28	0	4					4											
25	23	COMM	4	16	92	108	0	23					4											
25	24	COMM	5	20	80	100	0	20					5											
25	25	COMM	4	16	72	88	0	17					4											
25	26	RESID	0	0	0	0	1	0					2											
25	27	COMM	2	8	76	84	0	19					3											
25	28	COMM	3	12	32	44	0	8					3											
25	29	COMM	1	4	52	56	0	13					1											
25	30	COMM	2	8	11	19	0	3					2											
25	31	RESID	0	0	0	0	1	0					1											
25	32	COMM	9	36	114	150	0	27				9												
25	33	COMM	1	4	44	46	0	11					1											
25	34	COMM	3	12	4	16	0	1					3											
25	35	COMM	2	8	16	24	0	4					2											
25	36	COMM	6	24	12	36	0	3					6											
25	37	COMM	4	16	44	60	0	11					4											
25	38	COMM	2	8	80	88	0	20					2											
25	39	COMM	9	36	56	92	0	14					9											
25	40	COMM	9	36	108	144	0	27					9											
25	41	COMM	3	12	20	32	0	3					3											
25	42	RESID	0	0	0	0	1	0					1											
25	43	COMM	1	4	8	12	0	2				1												
25	44	RESID	19	76	4	80	0	1				19												
25	45	COMM	1	4	48	52	0	12					1											
25	46	COMM	3	12	56	68	0	14					3											
25	47	COMM	4	16	4	20	0	1					4											
25	48	COMM	1	4	4	8	1	1					1											
25	49	COMM	14	56	92	148	0	23					14											
25	50	COMM	14	56	116	172	0	23					14											
25	51	COMM	16	64	112	176	0	29					16											
25	52	COMM	5	20	36	56	0	9					5											
25	53	COMM	11	44	112	154	0	28					11											
25	54	RESID	0	0	0	0	1	0					1											
25	55	RESID	16	64	20	84	0	5					2											
25	56	RESID	20	80	0	80	0	0					20											
25	57	RESID	27	108	0	108	0	0					27											
25	58	RESID	16	64	24	88	0	6					2											
25	59	COMM	4	16	40	56	0	10					4											
25	60	COMM	2	8	16	24	0	4					2											
25	61	COMM	3	12	72	84	0	18					3											
25	62	RESID	19	76	0	76	0	0					19											
25	63	RESID	17	68	32	100	0	8					17											
25	64	RESID	22	88	36	124	0	9					22											



Detailed Data Analysis for SF2 (continued)

PAGE	SECT	BLOCK	CLASS	NUMBER BLDGS	NUMBER BASE POINTS	NUMBER TOP POINTS	CITY- SAN FRANCISCO			TOTAL NUMBER TOPS	TOTAL R	TOTAL A	TOTAL B	TOTAL C	TOTAL I	TOTAL CH	TOTAL S	TOTAL MB	TOTAL X	TOTAL P	TOTAL M	TOTAL PK	TOTAL RR	TOTAL BR	TOTAL W	TOTAL DT		
							NUMBER	TOTAL NUMBER POINTS	TOTAL NON BLDGS																			
25	25	65	RESID	13	52	54	106	0	14	9				4														
25	25	66	RESID	13	52	0	52	0	0	12				1														
25	25	67	COMM	8	32	32	64	0	8	0				8														
25	25	68	RESID	22	88	8	96	0	2	21				1														
25	25	69	COMM	4	16	24	40	0	6	0				3														
25	25	70	RESID	13	52	0	52	0	0	13				3														
25	25	71	RESID	14	56	0	56	0	0	14				3														
25	25	72	RESID	5	20	0	20	0	0	4				1														
25	25	73	RESID	9	36	0	36	0	0	4				9														
25	25	74	RESID	17	68	108	176	0	6	13				4														
25	25	75	RESID	21	84	12	96	0	3	17				4														
25	25	76	RESID	16	64	31	95	0	8	15				1														
25	25	77	RESID	19	76	24	100	0	6	16				3														
25	25	78	RESID	16	64	20	84	0	5	12				4														
25	25	79	RESID	24	96	20	116	0	5	22				2														
25	25	80	RESID	18	72	0	72	0	0	18				2														
25	25	81	RESID	19	76	0	76	0	0	19				2														
25	25	82	RESID	25	100	0	100	0	0	25				4														
25	25	83	COMM	4	16	8	24	0	2	0				4														
25	25	84	RESID	21	84	164	228	0	10	14				7														
25	25	85	RESID	15	60	12	72	0	3	13				2														
25	25	86	RESID	24	96	8	104	0	2	21				3														
25	25	87	COMM	5	20	16	36	0	4	0				4														
25	25	88	COMM	8	32	26	58	0	7	1				6														
25	25	89	COMM	6	24	40	64	0	10	1				5														
25	25	90	COMM	2	8	4	12	0	1	1				1														
26	26	1	COMM	6	24	55	79	0	14	6				6														
26	26	2	COMM	10	40	103	140	0	25	10				10														
26	26	3	COMM	8	32	68	100	0	17	8				8														
26	26	4	COMM	10	40	72	112	0	18	10				10														
26	26	5	COMM	9	36	41	77	0	12	9				9														
26	26	6	COMM	8	32	59	91	0	15	8				8														
26	26	7	COMM	9	36	62	94	0	16	4				4														
26	26	8	COMM	4	16	92	108	0	24	1				1														
26	26	9	COMM	9	36	108	144	0	27	8				8														
26	26	10	COMM	13	52	166	218	0	43	13				13														
26	26	11	COMM	5	20	24	44	0	6	5				5														
26	26	12	COMM	2	8	7	15	0	2	2				2														
26	26	13	COMM	6	24	81	105	0	23	6				6														
26	26	14	COMM	9	36	100	136	0	25	9				9														
26	26	15	COMM	3	12	12	24	0	3	3				3														
26	26	16	COMM	6	24	40	64	0	10	6				6														
26	26	17	COMM	4	16	88	104	0	22	6				6														
26	26	18	COMM	4	16	40	56	0	10	4				4														
26	26	19	COMM	5	20	60	80	0	15	5				5														
26	26	20	COMM	1	4	12	16	0	3	1				1														
26	26	21	COMM	7	28	45	73	0	12	7				7														
26	26	22	COMM	9	36	85	121	0	22	9				9														
26	26	23	COMM	1	4	44	44	0	1	1				1														
26	26	24	COMM	1	4	38	42	0	11	1				1														

Detailed Data Analysis for SF2 (continued)

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CITY- SAN FRANCISCO

SECT	BLOCK	CLASS	NUMBER BLDGS	NUMBER BASE POINTS	NUMBER TOP POINTS	TOTAL NUMBER POINTS	TOTAL NON BLDGS	TOTAL NUMBER TOPS	TOTAL	R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	M	OT
26	25	COMM	6	24	63	87	0	19						6											
26	26	COMM	6	24	43	67	0	11						6											
26	27	COMM	6	24	43	67	0	11						6											
26	28	COMM	6	24	84	108	0	21						6											
26	29	COMM	3	12	60	72	0	15						3											
26	30	COMM	2	8	8	16	0	2						2											
26	31	COMM	2	8	36	44	0	9						2											
26	32	COMM	7	28	65	93	0	20					7												
26	33	COMM	7	28	74	102	0	20					7												
26	34	COMM	2	8	16	24	0	4					2												
26	35	COMM	3	12	40	52	0	11						3											
26	36	COMM	4	16	55	71	0	16						4											
26	37	COMM	5	20	72	92	0	20						5											
26	38	COMM	5	20	107	127	0	27						5											
26	39	COMM	6	24	96	120	0	24						6											
26	40	COMM	13	52	99	151	0	27						13											
26	41	COMM	2	8	31	39	0	8						2											
26	42	COMM	9	36	108	144	0	33						9											
26	43	COMM	2	8	24	32	0	6					2												
26	44	COMM	5	20	64	84	0	18					5												
26	45	COMM	3	12	28	40	0	7					3												
26	46	COMM	5	20	40	60	0	12					5												
26	47	COMM	2	8	17	25	0	6					2												
26	48	COMM	2	8	16	24	0	4						2											
26	49	COMM	7	28	49	77	0	14						7											
26	50	COMM	9	36	43	79	0	11						9											
26	51	COMM	6	24	33	57	0	10						6											
26	52	COMM	5	20	19	39	0	5						5											
26	53	COMM	6	24	49	73	0	13						6											
26	54	COMM	6	24	55	79	0	16						6											
26	55	COMM	6	24	73	97	0	19						6											
26	56	COMM	13	52	164	216	0	43						13											
26	57	COMM	5	20	45	65	0	12					5												
26	58	COMM	3	12	32	44	0	8					3												
26	59	COMM	1	4	26	30	0	7					1												
26	60	COMM	1	4	8	12	0	2					1												
26	61	COMM	1	4	24	28	0	6					1												
26	62	COMM	8	32	47	79	0	14						8											
26	63	COMM	3	12	65	77	0	17						3											
26	64	COMM	7	28	95	123	0	25						7											
26	65	COMM	6	24	103	127	0	27						6											
26	66	COMM	7	28	46	74	0	13						7											
26	67	COMM	1	4	40	44	0	11					1												
26	68	COMM	4	16	46	62	0	13					4												
26	69	COMM	7	28	49	77	0	13					7												
26	70	COMM	9	36	121	157	0	33						9											
26	71	COMM	7	28	156	134	0	29						7											
26	72	COMM	1	4	14	18	0	4						1											
26	73	COMM	6	24	46	70	0	13					6												
26	74	COMM	5	20	39	59	0	11					5												



Detailed Data Analysis for SF2 (concluded)

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CITY- SAN FRANCISCO

SECT	BLOCK	CLASS	NUMBER BLDGS	NUMBER RAISE POINTS	NUMBER TYP POINTS	TOTAL NUMBER POINTS	TOTAL NUMBER NON BLDGS	TOTAL NUMBER TDPS	TOTAL R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	DT
27	46	COMM	3	12	38	50	1	9	3											1				
27	47	COMM	9	36	56	92	1	14					9							1				
27	48	COMM	5	20	4	24	1	1					5							1				
27	49	COMM	1	4	0	4	0	0					1											
27	50	COMM	1	4	0	4	0	0					1											
27	51	COMM	3	12	20	32	0	5					2				1							
27	52	COMM	8	32	115	147	1	29					8							1				
28	1	COMM	4	16	24	40	0	6					4											
28	2	COMM	1	4	9	13	1	3					1							1				
28	3	COMM	27	108	75	183	1	19					27							1				
28	4	COMM	14	56	62	118	2	19					14							1				
28	5	COMM	6	24	0	24	1	0					6							1				
28	6	OTHER	0	0	0	0	2	0					0							2				
28	7	COMM	3	12	4	16	0	1					3											
28	8	COMM	2	8	0	8	0	0					2											
28	9	COMM	4	16	12	28	1	3					4							1				
28	10	COMM	11	44	22	66	0	6					11											
28	11	COMM	2	8	16	24	1	4					2							1				
28	12	OTHER	3	12	28	40	3	7					3							1				
28	13	COMM	8	32	89	121	0	23					8							3				
28	14	COMM	19	76	162	238	2	45					19							1				
28	15	COMM	8	32	16	48	0	4					8											
28	16	COMM	8	32	43	75	0	11					8											
28	17	COMM	2	8	0	8	0	0					2											
28	18	COMM	3	12	12	24	1	3					3											
28	19	OTHER	0	0	0	0	1	0					0							1				
28	20	COMM	8	32	36	68	3	9					8							2				
28	21	COMM	11	44	40	84	0	10					11											
28	22	COMM	7	28	0	28	0	0					7							2				
28	23	COMM	3	12	4	16	1	1					3							1				
28	24	COMM	1	4	0	4	0	0					1											
28	25	COMM	9	36	22	58	0	6					9											
28	26	COMM	6	24	4	28	1	1					6											
29	1	COMM	3	12	40	52	0	10					3											
29	2	COMM	4	16	112	128	0	28					4											
29	3	COMM	5	20	52	72	0	13					5											
29	4	COMM	2	8	40	48	0	10					2											
29	5	COMM	4	16	68	84	0	17					4											
29	6	COMM	2	8	14	22	0	4					2											
29	7	COMM	3	12	76	88	0	19					3											
29	8	COMM	8	32	56	88	0	14					8											
29	9	COMM	5	20	92	112	0	23					5											
29	10	COMM	5	20	36	56	0	9					5											
29	11	COMM	2	8	4	12	0	1					2											
29	12	COMM	1	4	40	44	0	10					1											
29	13	COMM	2	8	28	36	0	7					2											
29	14	COMM	7	28	74	102	0	19					7											
29	15	COMM	6	24	36	60	0	9					6											



Detailed Data Analysis for NY (continued)

PAGE	SECT	BLOCK	CLASS	CITY- NEW YORK																			
				NUMBER BASE POINTS	NUMBER TOP POINTS	TOTAL NUMBER POINTS	TOTAL NON BLOGS	TOTAL NUMBER TOPS	TOTAL R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W
2	21	RESID	55	220	36	256	0	9	52	3													
2	22	RESID	43	172	87	252	0	20	31	12													
3	1	COMM	14	56	180	236	0	23	14	14													
3	2	RESID	31	124	183	312	0	15	31	13													
3	3	COMM	13	52	101	153	0	17	10	8													
3	4	RESID	18	72	98	170	0	10	10	4													
3	5	COMM	4	16	77	93	0	14	22	9													
3	6	RESID	22	88	12	100	0	3	5	8													
3	7	COMM	9	36	52	88	0	8	13	5													
3	8	COMM	13	52	72	124	0	17	13	8													
3	9	RESID	21	84	102	186	0	19	8	8													
3	10	RESID	51	204	96	300	1	7	51	10													
3	11	COMM	10	40	118	158	0	9	10	7													
3	12	COMM	7	28	94	122	0	19	7	5													
3	13	COMM	5	20	71	91	0	10	5	5													
3	14	COMM	4	16	16	32	0	4	4	4													
3	15	COMM	8	32	102	134	0	20	8	8													
3	16	COMM	10	40	30	70	0	7	9	4													
3	17	COMM	4	16	60	76	0	12	4	4													
3	18	COMM	1	4	68	72	0	17	1	1													
3	19	COMM	5	20	51	71	0	13	5	5													
3	20	RESID	20	80	21	101	0	5	18	8													
3	21	COMM	8	32	73	105	0	19	12	6													
3	22	RESID	13	52	92	144	0	23	17	7													
3	23	RESID	17	68	194	262	0	16	12	8													
3	24	RESID	12	48	182	230	0	10	17	6													
3	25	RESID	14	56	124	180	0	30	14	5													
3	26	RESID	23	92	253	345	0	32	23	13													
3	27	RESID	24	96	199	295	0	26	24	8													
3	28	RESID	25	100	152	252	0	15	23	2													
3	29	RESID	15	60	140	200	0	18	10	5													
3	30	COMM	8	32	43	75	0	12	5	5													
4	1	RESID	51	204	162	366	1	41	32	13													
4	2	COMM	10	40	101	141	1	26	19	7													
4	3	RESID	26	104	86	190	1	23	32	6													
4	4	COMM	49	196	604	800	1	39	21	1													
4	5	RESID	43	172	549	721	1	33	38	28													
4	6	RESID	58	232	183	415	0	41	44	5													
4	7	RESID	45	180	506	686	0	31	26	13													
4	8	RESID	49	196	675	871	0	39	34	1													
4	9	RESID	40	160	73	233	1	19	33	15													
4	10	RESID	25	100	240	340	1	25	34	4													
4	11	RESID	30	120	61	181	0	16	10	10													
4	12	RESID	53	212	20	232	0	5	52	1													
4	13	COMM	32	128	208	336	0	21	32	32													
4	14	RESID	54	216	556	772	0	35	54	11													
4	15	COMM	18	72	208	280	0	18	7	11													
4	16	COMM	13	52	173	225	0	18	13	13													
4	17	RESID	29	116	434	550	0	37	20	9													
5	1	RESID	0	0	0	0	1	0	0	0													



Detailed Data Analysis for NY (continued)

PAGE	SECT	BLOCK	CLASS	NUMBER BLDGS	NUMBER BASE POINTS	NUMBER TOP POINTS	CITY- NEW YORK			TOTAL NON BLOGS	TOTAL NUMBER TOPS	TOTAL R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	QT	
							NUMBER BASE POINTS	NUMBER TOP POINTS	TOTAL NUMBER POINTS																			
11	13	RESID	59	236	88	324	0	22	50	9																		
11	14	RESID	48	192	127	319	0	32	39	9																		
11	15	COMM	17	68	262	330	0	21	6	11																		
11	16	COMM	35	140	434	574	0	40	15	20																		
11	17	RESID	35	140	48	188	0	12	33	2																		
11	18	RESID	56	224	260	484	0	16	46	10																		
11	19	RESID	40	160	418	578	0	24	31	9																		
11	20	COMM	31	124	87	211	0	22	21	31																		
11	21	COMM	21	84	237	321	0	22	21	21																		
11	22	COMM	21	84	144	228	0	12	14	21																		
12	1	COMM	14	56	187	243	0	22	14	14																		
12	2	COMM	14	56	81	137	0	21	11	11																		
12	3	COMM	11	44	79	123	0	20	12	12																		
12	4	COMM	12	48	188	236	0	22	15	15																		
12	5	COMM	15	60	162	222	0	44	18	18																		
12	6	COMM	10	40	226	266	0	20	13	13																		
12	7	COMM	18	72	475	547	0	30	18	18																		
12	8	COMM	13	52	88	140	0	22	13	13																		
12	9	COMM	13	52	137	189	0	23	10	10																		
12	10	COMM	10	40	35	75	0	9	16	16																		
12	11	COMM	16	64	53	117	0	14	12	12																		
12	12	COMM	12	48	85	133	0	18	17	17																		
12	13	COMM	17	68	60	128	0	13	12	12																		
12	14	COMM	12	48	92	140	0	19	13	13																		
12	15	RESID	0	0	0	0	1	0	8	8																		
12	16	COMM	8	32	72	104	0	12	13	13																		
12	17	COMM	13	52	131	183	0	13	12	12																		
12	18	COMM	12	48	126	174	0	16	16	16																		
13	1	RESID	0	0	0	0	1	0	0	0																		
13	2	COMM	16	64	67	131	0	17	25	25																		
13	3	RESID	25	100	58	158	0	15	12	12																		
13	4	RESID	16	64	182	246	0	25	15	15																		
13	5	COMM	15	60	64	124	0	15	14	14																		
13	6	COMM	15	60	208	268	0	17	14	14																		
13	7	COMM	14	56	61	117	0	16	14	14																		
13	8	COMM	8	32	196	228	0	23	16	16																		
13	9	RESID	0	0	0	0	1	0	20	20																		
13	10	RESID	20	80	174	254	0	28	10	10																		
13	11	COMM	10	40	118	158	0	23	10	10																		
13	12	COMM	1	4	24	28	0	6	1	1																		
13	13	COMM	3	12	44	56	0	8	3	3																		
13	14	RESID	0	0	0	0	1	0	22	22																		
13	15	RESID	22	88	240	328	0	32	11	11																		
13	16	COMM	11	44	126	170	0	20	10	10																		
13	17	COMM	10	40	127	167	0	29	10	10																		
13	18	RESID	32	128	254	382	0	41	2	2																		
13	19	RESID	0	0	0	0	1	0	30	30																		
13	20	COMM	13	52	92	144	0	19	13	13																		
13	21	COMM	1	4	4	8	0	1	1	1																		
13	22	COMM	12	48	98	146	0	25	12	12																		



Detailed Data Analysis for NY (continued)

PAGE	SECT	BLOCK	CLASS	NUMBER BLDGS	NUMBER BASE POINTS	NUMBER TOP POINTS	CITY- NEW YORK		TOTAL NUMBER POINTS	TOTAL NON BLDGS	TOTAL NUMBER TOPS	TOTAL R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	OT	
							NUMBER TOP POINTS	TOTAL NUMBER POINTS																				
13	23	RESID	25	100	139	239	0	35	25																			
13	24	RESID	0	0	0	0	1	0																				
13	25	COMM	8	32	92	124	0	23																				
13	26	COMM	27	108	172	280	0	43																				
13	27	COMM	22	88	144	232	0	21																				
13	28	COMM	1	4	34	38	0	8																				
14	1	COMM	16	64	164	228	0	41																				
14	2	COMM	13	52	71	123	0	18																				
14	3	COMM	21	84	48	132	0	12																				
14	4	COMM	1	4	20	24	0	6																				
14	5	COMM	13	52	84	136	0	21																				
14	6	COMM	16	64	248	312	0	34																				
14	7	COMM	21	84	92	176	0	24																				
14	8	COMM	9	36	116	152	0	29																				
14	9	COMM	32	128	112	240	0	28																				
14	10	COMM	21	84	84	168	0	19																				
14	11	RESID	20	80	271	351	0	52																				
14	12	COMM	33	132	213	345	0	30																				
15	1	COMM	5	20	100	120	0	26																				
15	2	RESID	3	12	76	88	0	19																				
15	3	COMM	8	32	66	98	0	10																				
15	4	COMM	8	32	59	91	0	15																				
15	5	RESID	29	116	282	398	0	32																				
15	6	RESID	29	116	389	505	0	32																				
15	7	RESID	23	92	602	694	0	62																				
15	8	COMM	18	72	165	237	0	26																				
15	9	RESID	12	48	33	81	1	7																				
15	10	COMM	13	52	68	120	0	17																				
15	11	COMM	16	64	32	96	0	8																				
15	12	COMM	24	96	140	236	0	21																				
15	13	COMM	10	40	76	116	1	23																				
15	14	COMM	14	56	132	188	0	17																				
15	15	COMM	18	72	253	325	0	18																				
15	16	RESID	52	208	196	404	0	49																				
16	1	COMM	9	36	20	56	0	5																				
16	2	COMM	15	60	100	160	0	20																				
16	3	COMM	15	60	87	147	0	22																				
16	4	COMM	19	76	148	224	0	24																				
16	5	COMM	18	72	186	258	0	16																				
16	6	COMM	27	108	425	533	0	36																				
16	7	COMM	18	72	239	311	0	32																				
16	8	COMM	11	44	60	104	0	15																				
17	1	COMM	32	128	88	216	1	22																				
17	2	COMM	36	144	128	272	0	32																				
17	3	COMM	37	148	198	346	0	36																				
17	4	COMM	11	44	88	132	0	22																				
17	5	COMM	12	48	66	114	0	17																				
17	6	COMM	10	40	108	148	0	8																				
17	7	COMM	18	72	66	138	0	17																				
17	8	COMM	11	44	54	98	0	15																				

Detailed Data Analysis for NY (continued)

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CITY- NEW YORK

SECT	BLOCK	CLASS	NUMBER BLDGS	NUMBER BASE POINTS	NUMBER TOP POINTS	TOTAL NUMBER POINTS	TOTAL NON BLDGS	TOTAL NUMBER TOPS	TOTAL R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	OT			
17	9	COMM	16	64	171	235	0	23	16																		
17	11	COMM	9	36	40	76	0	10	9																		
17	11	COMM	10	40	26	66	0	7	10																		
18	1	RESID	0	0	0	0	1	0																			
18	2	RESID	0	0	0	0	1	0																			
18	3	RESID	0	0	0	0	1	0																			
18	4	RESID	0	0	0	0	1	0																			
18	5	RESID	0	0	0	0	1	0																			
18	6	RESID	0	0	0	0	1	0																			
18	7	COMM	5	20	28	48	0	7	5																		
18	8	COMM	16	64	24	88	0	6	16																		
18	9	COMM	9	36	51	87	0	10	9																		
18	10	RESID	0	0	0	0	1	0																			
18	11	COMM	12	48	57	105	0	10	12																		
18	12	COMM	13	52	32	84	0	8	13																		
18	13	COMM	5	20	24	44	0	6	5																		
18	14	RESID	14	56	16	72	0	4	9	5																	
18	15	COMM	18	72	107	179	0	15	14	4																	
18	16	RESID	18	72	39	111	0	10	15																		
18	17	COMM	15	60	79	139	0	6	13																		
18	18	COMM	13	52	166	218	0	19	13																		
18	19	COMM	7	28	56	84	0	14	7																		
18	20	COMM	12	48	28	76	0	7	12																		
18	21	COMM	28	112	56	168	0	14	19																		
18	22	COMM	16	64	40	104	0	10	8																		
18	23	RESID	27	108	16	124	0	4	20	6																	
18	24	RESID	35	140	32	172	0	8	23	1																	
18	25	COMM	14	56	78	134	0	10	9	5																	
18	26	RESID	50	200	321	521	0	8	45	1																	
18	27	RESID	27	108	56	164	0	14	14	1																	
18	28	RESID	17	68	40	108	0	10	11	6																	
18	29	COMM	9	36	36	72	0	9	9																		
18	30	RESID	0	0	0	0	1	0																			
19	1	COMM	4	16	32	48	0	9	4																		
19	2	COMM	8	32	39	71	0	10	8																		
19	3	COMM	7	28	31	59	0	9	7																		
19	4	RESID	0	0	0	0	1	0																			
19	5	COMM	29	80	68	148	0	17	8	6																	
19	6	COMM	19	40	32	72	0	8	10																		
19	7	COMM	11	44	32	76	0	8	6																		
19	8	RESID	0	0	0	0	1	0																			
19	9	COMM	4	16	24	40	0	4	4																		
19	10	COMM	8	32	27	59	0	7	8																		
19	11	COMM	16	64	36	100	0	9	7																		
19	12	COMM	10	40	83	123	0	21	10																		
20	1	COMM	26	104	114	218	0	9	7																		
20	2	COMM	17	68	170	238	0	17	17																		
20	3	COMM	17	68	364	432	0	24	17																		
20	4	COMM	27	108	64	172	0	16	27																		
20	5	COMM	12	48	86	134	0	18	12																		

Detailed Data Analysis for NY (continued)

PAGE	SECT	BLOCK	CLASS	CITY- NEW YORK				TOTAL NUMBER TOPS	TOTAL NUMBER NON BLDGS	TOTAL NUMBER YOPS	TOTAL R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	DT
				NUMBER BASE POINTS	NUMBER TOP POINTS	TOTAL NUMBER POINTS	TOTAL NUMBER POINTS																			
20	6	COMM	13	52	68	120	0	0	17	13																
20	7	RESID	0	0	0	0	1	0	0																	
20	8	RESID	0	0	0	0	1	0	0																	
21	1	RESID	37	148	32	180	1	8	29	8															1	
21	2	COMM	17	68	64	132	0	16	5	12																
21	3	COMM	19	76	64	140	0	16	3	16																
21	4	COMM	14	56	116	172	0	15	14																	
21	5	RESID	0	0	0	0	1	0	0																	
21	6	RESID	0	0	0	0	1	0	0																	
21	7	RESID	0	0	0	0	1	0	0																	
21	8	RESID	0	0	0	0	1	0	0																	
22	1	COMM	4	16	155	171	0	34	4					4												
22	2	RESID	0	0	0	0	1	0	0																	
22	3	COMM	12	48	68	116	0	17	12					12												
22	4	COMM	10	40	212	252	0	35	10					10												
22	5	COMM	9	36	104	140	0	11	9					9												
22	6	COMM	6	24	106	130	0	7	6					6												
22	7	COMM	6	24	71	95	0	7	6					6												
22	8	COMM	15	60	81	141	0	21	15					15												
22	9	COMM	14	56	131	187	0	33	14					14												
22	10	COMM	19	76	88	164	0	8	19					19												
22	11	COMM	30	120	76	196	0	19	30					30												
22	12	COMM	36	144	140	284	0	35	36					36												
22	13	COMM	7	28	33	61	0	4	7					7												
22	14	RESID	32	128	110	238	0	28	32					32												
22	15	COMM	22	88	75	163	0	19	22					22												
22	16	COMM	31	124	104	228	0	26	31					31												
22	17	COMM	24	96	120	216	0	30	24					30												
23	1	RESID	60	240	232	472	1	58	60					60												
23	2	RESID	67	268	208	476	1	52	67					67												
23	3	RESID	59	236	224	460	0	56	59					59												
23	4	RESID	44	176	124	300	0	31	44					44												
23	5	RESID	51	204	200	404	0	50	51					51												
23	6	RESID	41	164	250	414	0	44	41					41												
23	7	RESID	25	100	295	395	1	28	25					25												
23	8	RESID	33	132	467	599	0	49	33					33												
23	9	COMM	32	128	341	469	0	44	32					32												
23	10	COMM	25	100	132	232	0	34	25					25												
23	11	COMM	24	96	416	512	0	32	24					24												
23	12	RESID	32	128	603	731	0	39	32					32												
23	13	RESID	44	176	257	433	0	45	44					44												
23	14	COMM	32	128	275	403	0	40	32					32												
23	15	COMM	2	8	36	44	0	9	2					2												
23	16	RESID	49	196	222	418	0	56	49					49												
23	17	RESID	34	136	204	340	0	47	34					34												
23	18	RESID	57	228	365	593	0	39	57					57												
24	1	COMM	20	80	125	205	0	27	20					20												
24	2	COMM	27	108	159	267	0	23	27					27												
24	3	COMM	27	108	108	216	0	23	27					27												
24	4	COMM	17	68	39	107	0	10	17					17												



## Detailed Data Analysis for NY (continued)

PAGE	SECT	BLOCK	CLASS	NUMBER BLOGS	NUMBER BASE POINTS	CITY- NEW YORK			TOTAL NUMBER TOPS	TOTAL R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	OT	
						NUMBER TOP	TOTAL POINTS	TOTAL NDM BLOGS																		
26	3	COMM	2	8	16	24	0	5					2													
26	4	COMM	1	4	11	15	0	3					1													
26	5	COMM	2	8	7	15	0	2					2													
26	6	COMM	2	8	8	16	0	2					2													
26	7	COMM	2	8	13	21	0	4					2													
26	8	COMM	1	4	17	21	0	5					1													
26	9	COMM	2	8	23	28	0	6					2													
26	10	COMM	12	48	51	99	0	14					12													
26	11	COMM	10	40	30	70	1	8					10													
26	12	COMM	1	4	10	14	1	3					1													
26	13	COMM	5	20	29	49	0	9					5													
26	14	COMM	4	16	31	47	0	9					5													
26	15	COMM	6	24	37	61	0	13					4													
26	16	COMM	12	48	30	78	0	8					12													
26	17	RESID	0	0	0	0	1	0					0													
26	18	COMM	2	8	26	34	0	7					2													
26	19	COMM	4	16	52	68	0	13					4													
26	20	COMM	22	88	76	164	1	19					22													
26	21	COMM	45	180	84	264	0	21					45													
26	22	COMM	15	60	142	202	0	16					15													
26	23	COMM	27	108	100	208	0	18					27													
26	24	COMM	29	116	52	168	0	13					29													
26	25	COMM	27	108	57	165	0	15					27													
26	26	COMM	14	56	50	106	0	13					14													
26	27	RESID	0	0	0	0	1	0					0													
27	1	COMM	31	124	419	543	0	44					31													
27	2	COMM	34	136	217	353	0	43					34													
27	3	COMM	44	176	1152	1328	0	64					44													
27	4	COMM	35	140	537	670	0	43					35													
27	5	COMM	27	108	283	391	0	46					27													
27	6	COMM	25	100	225	325	0	49					25													
27	7	COMM	23	92	271	363	0	41					23													
27	8	COMM	14	56	112	168	0	27					14													
27	9	COMM	6	24	102	126	0	18					6													
27	10	COMM	17	68	199	239	0	26					17													
27	11	COMM	11	44	305	349	0	42					11													
27	12	COMM	5	20	120	140	0	26					5													
27	13	COMM	15	60	326	386	0	62					15													
27	14	COMM	18	72	747	819	0	66					18													
27	15	COMM	20	80	147	227	0	39					20													
27	16	COMM	8	32	73	105	0	15					8													
27	17	COMM	2	8	9	16	0	2					2													
27	18	COMM	2	8	29	37	0	8					2													
28	1	COMM	4	16	55	71	1	15					4													
28	2	COMM	5	20	69	84	0	17					5													
28	3	COMM	2	8	344	352	0	84					2													
28	4	COMM	17	68	261	329	0	47					17													
28	5	COMM	2	8	23	31	0	6					2													
28	6	COMM	1	4	32	36	0	8					1													
28	7	COMM	5	20	131	151	0	30					5													

Detailed Data Analysis for NY (continued)

PAGE	SECT	BLOCK	CLASS	NUMBER BLDGS	NUMBER BASE POINTS	CITY- NEW YORK		TOTAL NUMBER TOPS	TOTAL NUMBER NON BLDGS	TOTAL NUMBER TOPS	TOTAL	R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	OT					
						NUMBER TOP POINTS	NUMBER POINTS																									
28	9	COMM	20	80	163	240	0	31	20	20																						
28	9	COMM	5	20	48	68	0	12	5	5																						
28	10	COMM	18	72	84	156	0	22	18	18																						
28	11	COMM	15	60	237	297	0	60	15	15																						
28	12	COMM	15	60	192	252	0	46	15	15																						
28	13	COMM	6	24	67	91	0	17	6	6																						
28	14	RESID	0	0	0	0	1	0	0	0																						
28	15	COMM	5	20	69	89	0	18	5	5																						
28	16	COMM	28	112	253	365	0	53	28	28																						
28	17	COMM	16	64	140	204	0	35	16	16																						
28	18	COMM	14	56	186	242	0	47	14	14																						
29	1	COMM	25	100	56	156	0	14	25	25																						
29	2	COMM	21	84	86	170	0	19	21	21																						
29	3	COMM	38	152	152	228	0	19	38	38																						
29	4	RESID	11	44	16	60	0	4	11	11																						
29	5	RESID	17	68	28	96	0	7	17	17																						
29	6	RESID	12	48	78	126	0	13	12	12																						
29	7	COMM	29	116	136	252	0	34	29	29																						
29	8	COMM	15	60	16	76	0	4	15	15																						
29	9	COMM	55	220	283	500	0	39	55	55																						
29	10	COMM	50	200	292	492	0	50	50	50																						
29	11	RESID	46	184	192	376	2	48	46	46																						
29	12	COMM	33	132	191	323	0	31	33	33																						
29	13	COMM	27	108	76	184	0	20	27	27																						
29	14	COMM	25	100	149	246	0	29	25	25																						
29	15	COMM	38	152	105	257	0	27	38	38																						
29	16	COMM	29	116	218	334	0	16	29	29																						
29	17	COMM	1	4	16	20	0	4	1	1																						
29	18	COMM	32	128	80	208	0	20	32	32																						
29	19	COMM	29	116	92	208	0	16	29	29																						
29	20	COMM	33	132	576	708	1	21	33	33																						
29	21	COMM	30	120	218	338	0	36	30	30																						
29	22	RESID	51	204	679	883	0	39	51	51																						
30	1	COMM	22	88	308	396	0	31	22	22																						
30	2	COMM	25	100	288	388	0	46	25	25																						
30	3	COMM	15	60	279	339	0	40	15	15																						
30	4	RESID	0	0	0	0	1	0	0	0																						
30	5	COMM	22	88	185	273	0	48	22	22																						
30	6	COMM	17	68	321	389	0	63	17	17																						
30	7	COMM	15	60	183	243	0	42	15	15																						
30	8	COMM	27	108	552	660	0	59	27	27																						
30	9	COMM	1	4	12	16	0	3	1	1																						
30	10	COMM	19	76	155	231	0	39	19	19																						
30	11	COMM	23	92	668	760	0	52	23	23																						
30	12	COMM	1	4	38	42	0	10	1	1																						
30	13	COMM	9	36	132	168	0	34	9	9																						
30	14	COMM	17	68	238	306	0	60	17	17																						
30	15	COMM	1	4	20	24	0	5	1	1																						
30	16	COMM	5	20	123	140	0	22	5	5																						
30	17	COMM	15	60	123	140	0	22	15	15																						
					246	306	0	60																								

## Detailed Data Analysis for NY (continued)

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	SECT	BLOCK	CLASS	NUMBER BLDG	NUMBER BASE POINTS	NUMBER TOP POINTS	TOTAL NUMBER POINTS	TOTAL NON BLDGS	TOTAL NUMBER TOPS	TOTAL R	A	B	C	I	CH	S	MB	X	P	M	PX	RR	BR	W	OT
30	18	COMM	1	4	8	12	0	2	1																
30	19	COMM	5	20	74	94	0	19	5																
30	20	COMM	19	76	155	231	0	40	19																
30	21	COMM	7	28	46	74	0	13	7																
30	22	COMM	1	4	12	16	0	3	1																
30	23	COMM	14	56	238	294	0	53	14																
30	24	COMM	7	28	62	90	0	11	7																
30	25	COMM	2	8	92	100	0	20	2																
30	26	COMM	12	48	264	312	0	54	12																
30	27	COMM	8	32	147	179	0	32	8																
30	28	COMM	1	4	47	51	0	12	1																
30	29	COMM	18	72	317	389	0	51	18																
30	30	COMM	7	28	115	143	0	29	7																
30	31	COMM	1	4	26	30	0	7	1																
31	1	COMM	25	100	341	441	0	34	24																
31	2	COMM	18	72	426	498	0	50	18																
31	3	COMM	12	48	213	261	0	58	12																
31	4	COMM	8	32	223	255	0	35	8																
31	5	COMM	1	4	46	50	1	10	1																
31	6	COMM	23	92	197	289	0	48	23																
31	7	COMM	11	44	63	107	0	16	11																
31	8	COMM	7	28	58	86	0	14	7																
31	9	COMM	2	8	78	86	0	18	2																
31	10	COMM	7	28	124	152	0	29	7																
31	11	COMM	7	28	168	196	0	34	7																
31	12	COMM	10	40	89	129	0	22	10																
31	13	COMM	9	36	92	128	0	23	9																
31	14	COMM	1	4	41	45	0	9	1																
31	15	COMM	2	8	52	60	0	13	2																
31	16	COMM	1	4	49	53	0	9	1																
31	17	COMM	3	12	38	50	0	11	3																
31	18	COMM	2	8	77	85	0	20	2																
31	19	COMM	4	16	53	69	0	15	4																
31	20	COMM	23	92	246	338	0	53	23																
31	21	COMM	25	100	156	256	0	41	25																
31	22	COMM	24	96	143	239	0	38	24																
31	23	COMM	20	80	301	381	0	24	20																
31	24	COMM	8	32	125	157	0	36	8																
31	25	COMM	14	56	127	183	0	26	14																
31	26	COMM	3	12	23	35	1	6	3																
31	27	COMM	4	16	28	44	1	8	4																
31	28	COMM	15	60	80	140	0	21	15																
31	29	COMM	22	88	132	220	0	33	22																
31	30	COMM	9	36	103	139	0	21	9																
31	31	COMM	7	28	103	131	0	30	7																
32	1	COMM	16	64	266	330	0	51	16																
32	2	COMM	16	64	96	160	0	24	16																
32	3	COMM	3	12	200	212	0	54	3																
32	4	COMM	7	28	60	88	0	16	7																
32	5	COMM	13	52	136	188	0	35	13																

Detailed Data Analysis for NY (continued)

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SECT	BLOCK	CLASS	NUMBER BLDGS	NUMBER BASE POINTS	NUMBER TJP POINTS	TOTAL NUMBER POINTS	TOTAL NON BLDGS	TOTAL NUMBER TOPS	TOTAL R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	OT
32	6	COMM	9	36	80	116	0	20																
32	7	COMM	11	44	159	203	0	38			9													
32	8	COMM	2	8	47	55	0	12			11													
32	9	COMM	4	16	159	175	0	38			2													
32	10	COMM	3	12	81	93	0	21			4													
32	11	COMM	1	4	46	50	0	13			3													
32	12	COMM	3	12	115	127	0	30			1													
32	13	COMM	5	20	93	113	0	24			3													
32	14	COMM	4	16	64	80	0	17			4													
32	15	COMM	9	36	119	155	0	32			9													
32	16	COMM	9	36	84	120	0	21			9													
32	17	COMM	8	32	141	173	0	30			8													
32	18	COMM	13	52	204	256	0	51			13													
32	19	COMM	12	48	189	237	0	44			12													
32	20	COMM	11	44	293	337	0	37			11													
32	21	COMM	22	88	229	317	0	58			22													
32	22	COMM	14	56	266	322	0	40			14													
32	23	RESID	24	96	118	214	0	30			2													
32	24	COMM	8	32	132	164	0	33			8													
32	25	RESID	25	100	200	300	0	51			3													
32	26	RESID	20	80	86	166	0	23			9													
32	27	COMM	9	36	98	134	0	26			9													
32	28	RESID	18	72	235	307	0	41			5													
32	29	COMM	9	36	264	300	0	49			9													
32	30	COMM	25	100	317	417	0	52			25													
32	31	COMM	14	56	120	176	0	31			14													
32	32	COMM	11	44	166	210	0	42			11													
32	33	COMM	21	84	363	447	0	85			21													
33	1	COMM	17	68	395	463	0	52			17													
33	2	COMM	1	4	104	108	0	26			21													
33	3	COMM	1	4	24	28	0	6			1													
33	4	COMM	2	8	16	24	0	4			2													
33	5	COMM	24	96	289	385	0	73			24													
34	1	COMM	2	8	64	72	0	14			2													
34	2	COMM	4	16	8	24	0	2			4													
34	3	COMM	2	8	19	27	0	5			2													
34	4	COMM	1	4	56	60	0	15			1													
34	5	COMM	1	4	196	200	0	49			1													
34	6	COMM	3	12	16	28	0	4			3													
34	7	COMM	22	88	106	194	0	27			22													
34	8	COMM	15	60	107	167	0	28			15													
34	9	COMM	15	60	83	143	0	22			15													
34	10	COMM	24	96	87	183	0	22			24													
34	11	COMM	21	84	120	204	0	33			21													
34	12	COMM	28	112	226	338	0	26			28													
34	13	COMM	30	120	153	273	0	42			30													
34	14	COMM	1	4	0	4	0	0			1													
34	15	COMM	5	20	44	64	0	9			5													
34	16	COMM	18	72	269	341	0	69			18													
34	17	COMM	12	48	54	102	0	14			12													



Detailed Data Analysis for NY (continued)

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SECT	BLOCK	CLASS	NUMBER BLOGS	NUMBER BASE POINTS	NUMBER TOP POINTS	TOTAL NUMBER POINTS	TOTAL NON BLOGS	TOTAL NUMBER TOPS	TOTAL R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	DT
35	1	COMM	10	40	75	115	0	19				10												
35	2	COMM	12	48	155	203	0	39				12												
35	3	COMM	5	20	98	118	1	25				5											1	
35	4	COMM	5	20	80	100	1	20				5											1	
35	5	COMM	2	8	72	80	0	18				2												
35	6	COMM	0	0	0	0	1	0																
35	7	COMM	3	12	16	28	0	4				3												
35	8	RESID	4	16	65	81	0	12				4												
35	9	RESID	5	20	84	104	1	18				5												
35	10	RESID	42	168	383	551	0	85				42												
35	11	RESID	21	84	542	626	0	76				21												
35	12	COMM	7	28	133	161	0	35				7												
35	13	COMM	11	44	145	189	0	38				11												
35	14	COMM	2	8	248	256	0	60				2												
35	15	COMM	31	124	468	592	0	64				31												
35	16	COMM	47	188	605	793	0	97				47												
35	17	RESID	14	56	173	229	0	44				14												
35	18	RESID	8	32	109	141	0	30				8												
35	19	RESID	4	16	144	160	0	31				4												
35	20	RESID	4	16	74	90	0	19				4												
36	1	COMM	26	104	496	600	0	47				26												
36	2	COMM	25	100	224	324	0	48				25												
36	3	COMM	25	100	177	277	0	46				25												
36	4	COMM	21	84	129	213	0	48				21												
36	5	COMM	31	124	171	295	0	36				31												
36	6	COMM	26	104	483	587	0	87				26												
36	7	COMM	14	56	257	313	0	62				14												
36	8	COMM	17	68	317	385	0	67				17												
36	9	COMM	15	60	320	380	0	61				15												
36	10	COMM	2	8	304	312	0	79				2												
36	11	COMM	26	104	420	524	0	85				26												
36	12	COMM	16	64	242	306	0	60				16												
36	13	COMM	23	92	202	294	0	51				23												
36	14	COMM	23	92	398	490	0	56				23												
36	15	COMM	25	100	171	271	0	45				25												
36	16	COMM	31	124	393	517	0	93				31												
36	17	COMM	21	84	217	301	0	56				21												
36	18	COMM	15	60	172	232	0	41				15												
36	19	COMM	2	8	148	156	0	40				2												
36	20	COMM	10	40	107	147	1	26				10												
36	21	COMM	21	84	135	219	0	29				21												
36	22	COMM	17	68	132	200	0	35				17												
36	23	COMM	4	16	205	221	0	41				4												
37	1	COMM	15	60	414	474	0	87				15												
37	2	COMM	10	40	40	307	0	54				10												
37	3	COMM	14	56	267	307	0	80				14												
37	4	COMM	2	8	74	82	0	19				2												
37	5	COMM	20	80	481	561	0	92				20												
37	6	COMM	2	8	52	60	0	13				2												
37	7	COMM	20	80	328	408	0	85				20												

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SECT	BLOCK	CLASS	NUMBER BLDGS	NUMBER BASE POINTS	NUMBER TOP POINTS	TOTAL NUMBER POINTS	TOTAL NON BLDGS	TOTAL NUMBER TOPS	TOTAL R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	M	OT	
37	8	COMM	6	24	132	156	0	34		6															
37	9	COMM	19	76	452	528	0	85		19															
37	17	COMM	17	68	229	297	0	40		17															
37	11	COMM	14	56	226	282	0	38		14															
37	12	COMM	16	64	260	324	0	56		16															
37	13	COMM	8	32	105	137	0	24		8															
37	14	COMM	20	80	482	562	0	83		20															
37	15	COMM	3	12	111	123	0	30		3															
37	16	COMM	11	44	262	306	0	64		11															
37	17	COMM	5	20	123	143	0	18		5															
37	18	COMM	18	72	255	327	0	68		18															
37	19	COMM	20	80	776	856	0	105		20															
37	21	COMM	2	8	134	142	0	30		2															
37	21	COMM	11	44	329	373	0	76		11															
37	22	COMM	15	60	216	276	0	54		15															
37	23	COMM	10	40	192	232	0	47		10															
37	24	COMM	11	44	289	333	0	41		11															
37	25	COMM	13	52	181	233	0	34		13															
37	26	COMM	9	36	232	268	0	45		9															
37	27	COMM	5	20	177	197	0	45		5															
37	28	COMM	7	28	194	222	0	47		7															
37	29	RESID	0	0	0	0	1	0		0															
37	30	COMM	9	36	138	174	0	35		9															
37	31	COMM	9	36	179	215	0	39		9															
37	32	COMM	6	24	185	209	0	44		6															
37	33	COMM	9	36	169	205	0	43		9															
37	34	COMM	10	40	253	293	0	47		10															
37	35	COMM	9	36	258	294	0	50		9															
37	36	COMM	10	40	183	223	0	48		10															
37	37	COMM	1	4	24	28	0	7		1															
37	38	COMM	1	4	52	56	0	14		1															
37	39	COMM	3	12	79	91	0	15		3															
37	40	COMM	1	4	72	76	0	18		1															
37	41	COMM	1	4	40	44	0	11		1															
38	1	COMM	13	52	150	202	0	39		7															
38	2	COMM	12	48	82	130	0	21		12															
38	3	COMM	2	8	87	95	0	22		2															
38	4	COMM	11	44	165	209	0	18		11															
38	5	COMM	18	72	446	518	0	28		18															
38	6	COMM	15	60	72	132	0	20		15															
38	7	COMM	14	56	61	117	0	12		14															
38	8	COMM	19	76	36	112	0	9		19															
38	9	COMM	26	104	72	176	0	18		26															
38	10	COMM	2	8	77	85	0	18		2															
38	11	COMM	7	28	70	98	0	14		7															
38	12	COMM	12	48	55	103	0	14		12															
38	13	COMM	12	48	64	112	0	16		12															
38	14	COMM	9	36	60	96	0	15		9															
38	15	COMM	12	48	79	127	0	20		12															
38	16	COMM	17	68	273	341	0	25		17															

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## Detailed Data Analysis for NY (continued)

PAGE	SECT	BLOCK	CLASS	NUMBER BLDG	NUMBER BASE POINTS	NUMBER TOP POINTS	CITY- NEW YORK			TOTAL NUMBER TOPS	TOTAL NON BLDGS	TOTAL NUMBER	TOTAL R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	OT
							NUMBER TOP POINTS	TOTAL NUMBER POINTS	TOTAL NON BLDGS																			
38	17	COMM	17	68	99	167	0	0	15	17	1	7																
38	18	COMM	20	80	60	140	0	0	27	13		13																
38	19	COMM	26	104	108	212	0	0	18	18		18																
38	20	COMM	18	72	114	186	0	0	24	12		12																
38	21	COMM	12	48	206	254	0	0	21	13		13																
38	22	COMM	13	52	128	180	0	0	26	19		19																
38	23	COMM	24	96	103	199	0	0	23	14		14																
38	24	COMM	14	56	125	181	0	0	12	19		19																
38	25	COMM	19	76	44	120	0	0	36	26		26																
38	26	COMM	26	104	156	260	0	0	26	26		26																
38	27	COMM	26	104	220	324	0	0	24	26		26																
38	28	COMM	26	134	96	200	0	0	33	25		25																
38	29	COMM	25	100	245	345	0	0	21	13		13																
38	30	COMM	30	120	136	236	0	0	29	21		21																
38	31	COMM	35	140	496	636	0	0	30	14		14																
38	32	COMM	30	120	204	324	0	0	24	19		19																
38	33	RESID	52	33	265	401	0	0	33	20		20																
38	34	RESID	34	136	265	401	0	0	33	15		15																
38	35	COMM	37	148	239	387	1	1	31	26		26																
38	36	RESID	34	136	386	522	0	0	8	11		11																
39	1	COMM	1	4	30	34	0	0	34	11		11																
39	2	COMM	11	44	182	226	0	0	37	9		9																
39	3	RESID	22	88	218	306	0	0	39	7		7																
39	4	COMM	7	28	145	173	0	0	46	5		5																
39	5	RESID	20	80	299	379	0	0	33	21		21																
39	6	RESID	22	88	131	219	1	1	28	7		7																
39	7	COMM	14	56	53	109	0	0	32	9		9																
39	8	RESID	11	44	120	164	0	0	67	26		26																
39	9	COMM	9	36	167	203	0	0	23	3		3																
39	10	COMM	26	104	388	492	0	0	63	5		5																
39	11	COMM	3	12	114	126	0	0	67	2		2																
39	12	RESID	1	4	132	136	0	0	13	1		1																
39	13	COMM	5	20	245	265	1	1	56	7		7																
39	14	COMM	2	8	256	264	0	0	11	1		1																
39	15	COMM	1	4	212	216	0	0	13	1		1																
39	16	COMM	1	4	49	53	0	0	17	14		14																
40	1	COMM	0	0	0	0	1	1	0	2		2																
40	2	COMM	14	56	285	341	0	0	77	16		16																
40	3	COMM	16	64	374	438	0	0	53	18		18																
40	4	COMM	18	72	246	318	0	0	76	19		19																
40	5	COMM	19	76	301	377	0	0	35	7		7																
40	6	COMM	7	28	140	168	0	0	17	1		1																
40	7	COMM	0	0	0	0	1	1	0	1		1																
40	8	COMM	1	4	59	63	0	0	17	1		1																
40	9	COMM	2	8	101	109	0	0	24	2		2																
41	10	COMM	1	4	12	16	0	0	3	1		1																
41	1	RESID	59	236	800	1036	0	0	146	59		59																
41	2	RESID	53	212	744	956	1	1	105	53		53																
41	3	RESID	3	12	136	148	0	0	34	3		3																
41	4	RESID	35	140	573	713	1	1	89	25		25																

Detailed Data Analysis for NY (continued)

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CITY- NEW YORK

SECT	BLOCK	CLASS	NUMBER BLDGS	NUMBER BASE POINTS	NUMBER TOP POINTS	TOTAL NUMBER POINTS	TOTAL NON BLDGS	TOTAL NUMBER TOPS	TOTAL R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	M	OT
41	5	COMM	16	64	269	333	0	52	16															
41	6	COMM	12	48	130	178	0	33	12															
41	7	COMM	12	48	161	209	0	41	6				6											
41	8	COMM	15	60	327	387	0	45	15				17											
41	9	COMM	17	68	243	311	0	65	17				8											
41	10	COMM	8	32	139	171	0	37	13				13											
41	11	COMM	13	52	134	186	0	34																
42	1	RESID	45	180	533	713	0	98	45															
42	2	RESID	51	204	343	547	0	86	49															
42	3	RESID	42	168	652	820	0	105	40				1											
42	4	RESID	44	176	589	765	0	99	41				1											
42	5	COMM	29	116	424	540	0	80	29															
42	6	COMM	24	96	318	414	0	80	23															
42	7	COMM	19	76	114	190	0	29	9				10											
42	8	COMM	1	4	137	141	0	36	1															
42	9	COMM	36	144	607	751	0	105	36															
42	10	COMM	1	4	24	28	0	6	1															
42	11	COMM	28	112	513	625	0	108	28															
43	1	COMM	39	156	144	300	0	36	39															
43	2	COMM	40	192	134	326	0	34	23															
43	3	RESID	51	204	616	820	0	60	39															
43	4	COMM	45	180	336	516	0	53	45															
43	5	COMM	19	76	188	264	0	49	5															
43	6	COMM	36	144	191	335	0	35	10															
43	7	COMM	46	184	364	548	0	62	18															
43	8	RESID	58	232	1044	1276	0	71	58															
43	9	RESID	47	188	1004	1192	0	52	44															
43	10	RESID	52	208	814	1022	0	76	34															
43	11	COMM	33	132	299	431	0	77	33															
43	12	COMM	31	124	1539	1663	0	65	31															
43	13	COMM	39	156	466	622	0	66	27															
43	14	COMM	26	104	822	926	0	52	26															
43	15	COMM	32	128	458	586	0	67	32															
43	16	COMM	24	96	196	292	0	49	24															
43	17	COMM	15	60	180	240	0	32	15															
43	18	COMM	21	84	339	423	0	40	21															
43	19	COMM	26	104	217	321	0	45	26															
43	20	COMM	30	120	428	548	0	49	30															
44	1	COMM	23	92	512	604	0	79	23															
44	2	COMM	26	104	836	940	0	88	26															
44	3	COMM	21	84	667	751	0	112	21															
44	4	COMM	20	80	480	560	0	121	20															
44	5	COMM	12	48	452	500	0	87	12															
44	6	COMM	16	64	581	645	0	75	16															
44	7	COMM	25	100	719	819	0	118	25															
44	8	COMM	18	72	304	376	0	66	17															
44	9	COMM	22	88	416	504	0	108	22															
44	10	COMM	19	76	280	356	0	73	19															
44	11	COMM	1	4	24	28	0	6	1															
44	12	COMM	2	8	44	52	0	11	2															

Detailed Data Analysis for NY (continued)

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CITY- NEW YORK

SECT	BLOCK	CLASS	NUMBER BASE POINTS	NUMBER TOP POINTS	TOTAL NUMBER POINTS	TOTAL NON BLOGS	TOTAL NUMBER TOPS	TOTAL	R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	OT		
44	13	COMM	4	16	113	129	0	21																		
44	14	COMM	9	36	201	237	0	33																		
44	15	COMM	6	24	138	162	0	33																		
44	16	COMM	17	68	268	336	0	71																		
44	17	COMM	13	52	273	325	0	62																		
44	18	COMM	12	48	282	330	0	56																		
44	19	COMM	6	24	205	229	0	45																		
44	20	COMM	14	56	328	384	0	75																		
44	21	COMM	25	100	568	668	0	75																		
44	22	COMM	19	76	358	434	0	73																		
44	23	COMM	11	44	241	285	0	54																		
44	24	COMM	9	36	198	234	0	53																		
44	25	COMM	4	16	213	229	0	48																		
44	26	COMM	3	12	143	155	0	34																		
44	27	RESID	0	0	0	0	1	0																		
44	28	COMM	3	12	111	123	0	29																		
44	29	COMM	3	12	105	117	0	27																		
45	1	COMM	13	52	137	189	0	32																		
45	2	COMM	12	48	126	174	0	28																		
45	3	COMM	4	16	56	72	0	14																		
45	4	RESID	0	0	0	0	1	0																		
45	5	COMM	14	56	117	173	0	17																		
45	6	COMM	8	32	68	100	0	17																		
45	7	COMM	10	40	112	152	0	26																		
45	8	COMM	8	32	65	97	0	16																		
45	9	COMM	15	60	228	288	0	40																		
45	10	COMM	21	84	167	251	0	33																		
45	11	COMM	23	92	144	236	0	36																		
45	12	COMM	8	32	89	121	0	23																		
45	13	COMM	9	36	99	135	0	22																		
45	14	COMM	5	20	76	96	0	19																		
45	15	COMM	10	40	146	186	0	19																		
45	16	COMM	22	88	244	332	0	32		8																
45	17	COMM	14	56	112	168	0	26																		
45	18	COMM	6	24	34	58	0	9																		
45	19	COMM	9	36	92	128	0	23																		
45	20	COMM	16	64	330	394	0	28																		
45	21	COMM	20	80	178	258	0	26																		
45	22	COMM	19	76	123	199	0	31																		
45	23	COMM	18	72	221	293	0	29																		
45	24	COMM	6	24	22	46	0	6																		
45	25	RESID	0	0	0	0	1	0																		
45	26	RESID	27	108	91	199	0	23		20																
45	27	COMM	14	56	92	148	0	17																		
45	28	RESID	0	0	0	0	1	0																		
45	29	COMM	12	48	48	96	0	12																		
45	30	RESID	26	104	162	266	0	41		24																
45	31	RESID	33	132	150	282	0	39		30																
46	1	COMM	26	104	171	275	0	43																		
46	2	COMM	29	116	152	268	0	40		7																

Detailed Data Analysis for NY (continued)

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CITY- NEW YORK

SECT	BLOCK	CLASS	NUMBER BLDGS	NUMBER BASE POINTS	NUMBER TOP POINTS	TOTAL NUMBER POINTS	TOTAL NON BLDGS	TOTAL NUMBER TOPS	TOTAL R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	QT
46	3	RESID	10	40	146	186	0	28	7	3														
46	4	RESID	0	0	0	0	1	0																
46	5	COMM	10	40	73	118	0	21		10														1
46	6	COMM	23	92	99	191	0	26		23														
46	7	RESID	33	132	243	375	0	61	33															
46	8	COMM	20	80	463	543	0	45		20														
46	9	COMM	5	20	138	158	0	28		5														
46	10	COMM	16	64	262	326	0	57		16														
46	11	COMM	12	48	136	184	0	35		12														
46	12	RESID	29	116	427	543	0	105		27														
46	13	COMM	28	112	474	586	0	86		28														
46	14	COMM	24	96	282	378	0	55		24														
46	15	RESID	34	136	1058	1194	0	218	34															
46	16	RESID	21	84	324	408	0	57	21															
46	17	COMM	3	12	80	92	0	20		3														
46	18	RESID	0	0	0	0	1	0																
46	19	COMM	2	8	188	196	0	48					2											
47	1	COMM	6	24	96	120	0	24					6											
47	2	COMM	2	8	174	182	0	44					2											
47	3	COMM	2	8	24	32	0	6					2											
47	4	COMM	2	8	64	72	0	16					2											
47	5	COMM	3	12	160	172	0	41					3											
47	6	COMM	14	56	196	252	0	41					14											
47	7	COMM	1	4	88	92	0	22					1											
47	8	RESID	22	88	111	199	0	29	17				5											
47	9	COMM	5	20	135	155	0	35					5											
47	10	COMM	6	24	76	100	1	19					6											
47	11	COMM	7	28	92	120	0	23					7											
47	12	COMM	17	68	176	244	0	45					13											
47	13	COMM	2	8	90	98	0	23					2											
47	14	RESID	20	80	302	382	0	53	11				9											
47	15	COMM	8	32	128	160	0	34					8											
47	16	COMM	13	52	1187	1239	0	53					13											
47	17	COMM	12	48	96	144	0	22					12											
47	18	COMM	7	28	108	136	0	25					7											
47	19	COMM	7	28	170	198	0	23					7											
47	20	COMM	18	72	286	358	0	53					18											
47	21	COMM	7	28	160	188	0	30					7											
47	22	RESID	0	0	0	0	1	0																
47	23	COMM	6	24	156	180	0	34					6											
47	24	COMM	16	64	353	417	0	70					16											
47	25	COMM	1	4	39	43	0	10					1											
47	26	COMM	10	40	202	242	0	49					10											
47	27	COMM	12	48	269	317	0	53					12											
47	28	COMM	12	48	190	238	0	43					12											
47	29	COMM	10	40	144	184	0	33					10											
47	30	COMM	22	88	275	363	0	69					8											
47	31	COMM	8	32	160	192	0	40					8											
47	32	COMM	8	32	218	250	0	40					8											
47	33	COMM	9	36	134	170	0	35					9											

Detailed Data Analysis for NY (continued)

PAGE	SECT	BLOCK	CLASS	NUMBER BLDGS	CITY- NEW YORK			TOTAL NUMBER TOPS	TOTAL NUMBER NON BLDGS	TOTAL R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	OT	
					NUMBER TOPS	NUMBER POINTS	TOTAL POINTS																			
47	34	COMM	3	12	112	124	0	28						3												
47	35	COMM	12	48	241	289	0	30						12												
47	36	COMM	10	40	150	190	0	23						10												
47	37	COMM	10	40	142	182	0	32						10												
47	38	COMM	4	16	40	56	0	10						4												
47	39	COMM	7	28	68	96	0	19						7												
47	40	COMM	5	20	275	295	0	65						5												
47	41	COMM	8	32	93	125	1	22						8												
47	42	COMM	5	20	110	130	0	24						5												
47	43	COMM	1	4	20	24	0	5						1												
47	44	COMM	5	20	44	64	0	11						5												
47	45	COMM	2	8	52	60	0	13						2												
47	46	COMM	10	40	107	147	0	27						10												
47	47	COMM	7	28	124	152	0	31						7												
47	48	COMM	5	20	127	147	0	34						5												
47	49	COMM	3	12	174	186	0	49						3												
47	50	COMM	1	4	36	40	0	9						1												
47	51	COMM	2	8	60	68	0	15						2												
47	52	COMM	8	32	344	376	0	48						8												
47	53	COMM	3	12	86	98	0	22						3												
48	2	RESID	11	44	106	150	0	21						11												
48	3	COMM	19	76	26	62	0	7						4												
48	4	COMM	7	28	110	186	0	30						7												
48	5	COMM	19	76	24	52	0	6						19												
48	6	COMM	4	16	257	333	0	28						4												
48	7	COMM	13	52	333	385	0	32						13												
48	8	RESID	50	200	158	358	0	42						50												
48	9	COMM	9	36	12	48	1	3						9												
48	10	RESID	40	160	232	392	0	28						40												
48	11	RESID	32	128	171	299	0	28						32												
48	12	COMM	12	48	97	145	0	23						12												
48	13	RESID	22	88	62	150	0	16						22												
48	14	RESID	43	172	85	257	0	22						43												
48	15	COMM	34	136	108	244	0	27						34												
48	16	RESID	8	32	24	56	0	6						8												
48	17	COMM	25	100	76	176	0	20						25												
48	18	RESID	41	164	102	266	0	26						41												
48	19	RESID	31	124	201	325	0	36						31												
48	20	COMM	17	68	204	272	0	36						17												
48	21	RESID	28	112	222	334	0	28						28												
48	22	RESID	20	80	160	240	0	20						20												
48	23	RESID	26	104	223	327	0	32						26												
48	24	COMM	20	80	178	258	0	33						20												
48	25	COMM	2	8	16	24	0	2						2												
48	26	RESID	38	152	171	323	0	44						38												
48	27	COMM	14	56	133	189	0	10						14												
48	28	RESID	59	236	909	1145	0	56						59												
48	29	COMM	13	52	197	249	0	25						13												
48	30	RESID	37	148	161	309	0	36						37												

Detailed Data Analysis for NY (continued)

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CITY- NEW YORK

SECT	BLOCK	CLASS	NUMBER BLDGS	NUMBER BASE POINTS	NUMBER TOP POINTS	TOTAL NUMBER POINTS	TOTAL NON BLDGS	TOTAL NUMBER TOPS	TOTAL R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	OT
48	31	RESID	48	192	100	292	0	25	47	1	7	1												
48	32	COMM	7	28	8	36	1	2																
48	33	RESID	2	8	62	70	0	16							2									
48	34	COMM	1	4	52	56	0	15																
48	35	COMM	3	12	58	70	0	15																
48	36	COMM	5	20	56	76	0	14																
48	37	COMM	4	16	80	96	0	20																
49	1	COMM	34	136	906	1042	0	75																
49	2	COMM	23	92	471	563	0	67																
49	3	RESID	3	12	19	31	0	5																
49	4	RESID	40	160	620	780	0	83																
49	5	COMM	14	56	176	232	0	32																
49	6	COMM	6	24	128	152	0	19																
49	7	COMM	14	56	177	233	0	28																
49	8	COMM	6	24	88	112	0	22																
49	9	COMM	16	64	229	293	0	55																
49	10	COMM	1	4	28	32	0	7																
49	11	RESID	0	0	0	0	1	0																
49	12	COMM	12	48	218	266	0	51																
49	13	COMM	18	72	300	372	0	62																
49	14	COMM	9	36	91	127	0	23																
49	15	COMM	18	72	314	386	0	50																
49	16	COMM	15	60	351	411	0	89																
49	17	COMM	10	40	163	203	0	42																
49	18	COMM	9	36	188	224	0	28																
49	19	COMM	7	28	96	124	0	24																
49	20	RESID	23	92	517	609	0	75																
49	21	COMM	15	60	268	328	0	62																
49	22	COMM	19	76	417	493	0	66																
49	23	COMM	10	40	208	248	0	44																
49	24	COMM	16	64	432	496	0	62																
49	25	RESID	0	0	0	0	1	0																
49	26	COMM	7	28	167	195	0	38																
49	27	COMM	9	36	164	200	0	44																
49	28	COMM	16	64	176	240	0	44																
49	29	COMM	4	16	77	93	0	15																
49	30	COMM	4	16	87	103	0	22																
50	1	COMM	26	104	1055	1159	0	144																
50	2	COMM	35	140	2305	2445	0	132																
50	3	COMM	45	180	636	816	0	127																
50	4	COMM	39	156	1240	1396	0	138																
50	5	RESID	60	240	289	529	0	73																
50	6	COMM	20	80	144	224	0	36																
50	7	RESID	31	124	152	276	0	39																
50	8	COMM	12	48	122	170	0	32																
50	9	COMM	18	72	128	200	0	32																
50	10	COMM	16	64	148	212	0	37																
50	11	RESID	21	84	157	241	0	25																
50	12	COMM	10	40	155	195	0	16																
50	13	RESID	24	96	194	190	0	25																



## Detailed Data Analysis for NY (continued)

PAGE	SECT	BLOCK	CLASS	CITY- NEW YORK				TOTAL NUMBER TOPS	TOTAL NUMBER NON BLDGS	TOTAL NUMBER BLDGS	TOTAL R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	M	OT
				NUMBER BLDGS	NUMBER BASE POINTS	NUMBER TOP POINTS	TOTAL NUMBER POINTS																			
50	14	COMM	17	68	169	237	0	32																		
50	15	COMM	19	76	275	351	0	34																		
50	16	COMM	16	64	209	273	0	42																		
50	17	COMM	20	80	272	352	0	49																		
50	18	COMM	18	72	195	267	0	49																		
50	19	COMM	3	12	143	155	0	32																		
50	21	COMM	4	16	32	48	0	8																		
50	22	COMM	8	32	179	211	0	30																		
50	23	COMM	10	40	63	103	0	16																		
50	24	COMM	10	40	88	128	0	22																		
50	25	COMM	9	36	20	56	0	3																		
50	26	COMM	1	4	24	28	0	6																		
50	27	COMM	1	4	86	90	0	23																		
50	28	COMM	5	20	32	52	0	8																		
50	29	COMM	6	24	92	116	0	23																		
50	30	RESID	0	0	0	0	1	0																		
50	31	COMM	8	32	95	127	0	24																		
51	1	COMM	14	56	241	297	0	47																		
51	2	COMM	12	48	177	225	0	34																		
51	3	COMM	13	52	261	313	1	43																		
51	4	COMM	9	36	123	159	1	22																		
51	5	COMM	15	60	174	234	0	37																		
51	6	COMM	11	44	121	165	1	31																		
51	7	COMM	4	16	84	100	0	21																		
51	8	COMM	2	8	4	12	1	1																		
51	9	RESID	1	4	27	31	0	9																		
51	10	COMM	21	84	374	458	0	94																		
51	11	RESID	22	88	315	403	0	55																		
51	12	COMM	13	52	258	310	0	46																		
51	13	COMM	13	52	224	276	0	40																		
51	14	COMM	6	24	92	116	0	23																		
51	15	COMM	11	44	168	212	0	42																		
51	16	COMM	9	36	112	148	0	28																		
51	17	COMM	15	60	238	298	0	60																		
51	18	COMM	13	52	159	211	0	40																		
51	19	RESID	0	0	0	0	1	0																		
51	20	RESID	1	4	72	76	0	18																		
51	21	COMM	2	8	123	131	0	30																		
51	22	COMM	3	12	80	92	0	20																		
51	23	COMM	1	4	89	93	0	23																		
51	24	COMM	3	12	96	108	0	27																		
51	25	COMM	2	8	90	98	0	19																		
51	26	COMM	5	20	326	346	0	95																		
51	27	COMM	12	48	261	309	0	63																		
51	28	COMM	14	56	257	313	0	63																		
51	29	COMM	5	20	140	160	0	35																		
51	30	COMM	3	12	95	107	0	24																		
51	31	COMM	3	12	67	79	0	17																		
51	32	COMM	3	12	30	42	0	9																		

Detailed Data Analysis for NY (continued)

PAGE	22	CITY- NEW YORK																									
		SECT	BLOCK	CLASS	NUMBER BLDGS	NUMBER BASE POINTS	NUMBER TOP POINTS	TOTAL NUMBER POINTS	TOTAL NON BLDGS	TOTAL NUMBER TOPS	TOTAL R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	OT	
51	33	COMM	5	20	108	128	0	0	27																		
51	34	COMM	9	36	254	290	0	0	51																		
51	35	COMM	4	16	145	161	0	0	34																		
51	36	COMM	10	40	229	269	0	0	62																		
51	37	COMM	3	12	134	146	0	0	30																		
51	38	COMM	11	44	217	261	0	0	56																		
51	39	COMM	5	20	112	132	0	0	23																		
51	40	RESID	0	0	0	0	1	0	0																		
51	41	COMM	18	72	476	548	0	0	87																		
51	42	COMM	13	52	230	252	0	0	39																		
51	43	COMM	19	76	305	381	0	0	61																		
51	44	COMM	25	100	298	398	0	0	75																		
51	45	RESID	0	0	0	0	1	0	0																		
51	46	COMM	3	12	48	60	0	0	12																		
51	47	COMM	5	20	96	116	0	0	24																		
52	1	RESID	0	0	0	0	1	0	0																		
52	2	COMM	1	4	38	42	0	0	7																		
52	3	COMM	1	4	22	26	0	0	5																		
52	4	COMM	10	40	47	87	0	0	12																		
52	5	COMM	18	72	47	119	0	0	13																		
52	6	COMM	15	60	223	283	0	0	28																		
52	7	COMM	26	104	124	228	0	0	31																		
52	8	RESID	50	200	175	375	0	0	44																		
52	9	COMM	27	108	204	312	0	0	26																		
52	10	RESID	26	104	65	169	1	1	17																		
52	11	RESID	24	96	36	132	1	1	9																		
52	12	COMM	15	60	67	127	0	0	17																		
52	13	COMM	36	144	119	263	1	1	30																		
52	14	RESID	46	184	144	328	0	0	36																		
52	15	COMM	16	64	88	152	0	0	22																		
52	16	RESID	38	152	184	336	0	0	46																		
52	17	RESID	36	144	164	308	0	0	41																		
52	18	COMM	30	120	192	312	0	0	31																		
53	1	RESID	19	76	91	167	0	0	24																		
53	2	COMM	17	68	96	164	0	0	24																		
53	3	COMM	36	144	155	299	0	0	39																		
53	4	RESID	35	140	248	388	0	0	62																		
53	5	RESID	46	184	168	352	0	0	42																		
53	6	RESID	50	200	191	391	0	0	49																		
53	7	RESID	42	168	178	346	0	0	45																		
53	8	RESID	49	192	195	387	0	0	49																		
53	9	RESID	26	104	116	220	2	2	29																		
53	10	COMM	33	132	332	464	0	0	34																		
53	11	RESID	22	88	80	168	0	0	20																		
53	12	COMM	33	132	388	520	0	0	89																		
53	13	COMM	19	76	371	447	0	0	87																		
53	14	COMM	29	112	244	356	0	0	63																		
53	15	COMM	30	120	348	468	0	0	88																		
53	16	COMM	26	104	319	423	0	0	81																		
53	17	COMM	31	124	625	749	0	0	109																		

Detailed Data Analysis for NY (concluded)

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CITY- NEW YORK

SECT	BLOCK	CLASS	NUMBER BLDGS	NUMBER BASE POINTS	NUMBER TOP POINTS	TOTAL NUMBER POINTS	TOTAL NON BLDGS	TOTAL NUMBER TOPS	TOTAL R	A	B	C	I	CH	S	MB	X	P	M	PK	RR	BR	W	OT
53	18	COMM	30	120	761	881	1	124				30												
53	19	COMM	34	136	531	667	0	133				34												
53	20	COMM	2	8	12	20	0	3				2												
53	21	RESID	33	132	536	668	0	92	21			12												
53	22	COMM	28	112	635	747	0	146				28												
54	1	COMM	30	120	518	638	0	131				30												
54	2	COMM	24	96	414	510	0	104				24												
54	3	COMM	43	172	604	776	0	125				43												
54	4	COMM	18	72	342	414	0	86				18												
54	5	COMM	32	128	397	525	0	100				32												
54	6	COMM	22	88	466	554	0	117				22												
54	7	RESID	6	24	108	132	0	27	4				1											
54	8	RESID	2	8	15	23	0	4	2															
54	9	COMM	23	92	406	498	0	87				19	4											
54	10	RESID	8	32	124	156	0	31	8															
55	1	COMM	12	48	154	202	0	39				12												
55	2	COMM	14	56	287	343	0	72				14												
55	3	COMM	19	76	280	356	0	70				19												
55	4	COMM	1	4	116	120	1	29		1														
55	5	COMM	3	12	28	40	0	7		3														
55	6	COMM	6	24	98	122	0	22		6														
55	7	COMM	2	8	44	52	0	11		2														
55	8	COMM	7	28	83	111	0	21		7														
55	9	COMM	2	8	40	48	0	10																
55	10	COMM	2	8	20	28	0	5		2														
55	11	COMM	2	8	52	60	0	13																
55	12	COMM	1	4	0	4	0	0																
55	13	COMM	3	12	120	132	0	30		3														
55	14	COMM	2	8	144	152	0	36																
55	15	COMM	5	20	172	192	0	43																
55	16	COMM	0	0	7	7	1	1																
55	17	COMM	1	4	38	42	0	9																

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1. ORIGINATING ACTIVITY (Corporate author) Technology Incorporated Dayton, Ohio		2a. REPORT SECURITY CLASSIFICATION Unclassified
		2b. GROUP N/A
3. REPORT TITLE ANALYSIS OF DATA DENSITY AND STORAGE REQUIREMENTS FOR HIGH RESOLUTION RADAR SIMULATION SYSTEM DESIGN		
4. DESCRIPTIVE NOTES (Type of report and inclusive dates) Final Report: February 1969 to February 1970		
5. AUTHOR(S) (Last name, first name, initial) Fligor, Patrick D.		
6. REPORT DATE June 1970	7a. TOTAL NO. OF PAGES 131	7b. NO. OF REFS
8a. CONTRACT OR GRANT NO. F33615-69-C-1363	9a. ORIGINATOR'S REPORT NUMBER(S)	
b. PROJECT NO. 6114		
c. Task No. 611414	9b. OTHER REPORT NO(S) (Any other numbers that may be assigned this report) AFHRL-TR-70-12	
10. AVAILABILITY/LIMITATION NOTICES This document has been approved for public release and sale; its distribution is unlimited.		
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13. ABSTRACT The state-of-the-art was sampled to determine whether modern, commercially available computers with mass data storage units offered the potential for simulation of the performance of high-resolution radar systems. This effort was primarily concerned with the data storage for urban areas since such areas would place the severest burden upon the digital storage and computation system. Selected areas of New York City and San Francisco were analyzed from aerial photographs, and 74,000 dimensional readings were taken to form the basis for the conclusions given in this report. The analysis of results based upon extrapolations indicated the feasibility of system simulation from the standpoint of data storage and access time of modern computers.		

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14.	KEY WORDS	LINK A		LINK B		LINK C	
		ROLE	WT	ROLE	WT	ROLE	WT
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