LOW MULTI-FAMILY HOUSING -
A NEIGHBORHOOD NUCLEUS FOR MATTAPAN

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SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF MASTER OF
ARCHITECTURE

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ACCEPTED BY
PIETRO BELLUSCHI, DEAN
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DEAR DEAN BELLUSCHI:

THIS COLLABORATIVE THESIS ENTITLED, LOW MULTI-
FAMILY HOUSING - A NEIGHBORHOOD NUCLEUS FOR
MATTAPAN, IS SUBMITTED AS PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF MASTER
OF ARCHITECTURE.

SINCERELY YOURS,

JOHN P. KNISKERN

EARL E. STEWART
DEAR PROFESSOR ANDERSON:

IT IS OUR PROPOSAL TO DO A COLLABORATIVE THESIS AS PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER IN ARCHITECTURE. WE ARE INTERESTED IN LOW, MULTI-FAMILY HOUSING WITH PARTICULAR EMPHASIS ON THE SITE PLANNING ASPECTS OF SUCH HOUSING.

WE HAVE CHOSEN AN EIGHT ACRE TRACT OF LAND IN MATTAPAN, BOSTON, AS THE SITE OF OUR PROJECT. THIS AREA IS THE SUBJECT OF A RECENT STUDY BY THE URBAN REDEVELOPMENT DIVISION OF THE BOSTON HOUSING AUTHORITY. WE HAVE HAD SEVERAL INTERVIEWS WITH REPRESENTATIVES OF THIS DIVISION IN WHICH THEY EXPRESSED APPROVAL AND SUPPORT OF OUR THESIS, AND GAVE US MUCH VALUABLE INFORMATION AND MATERIAL.

WITH YOUR APPROVAL WE WOULD LIKE TO DO A THESIS ENTITLED, LOW MULTI-FAMILY HOUSING - A NEIGHBORHOOD NUCLEUS FOR MATTAPAN.

SINCERELY YOURS,

JOHN P. KNISKERN

EARL E. STEWART
July 23, 1953

To: John P. Kniskern
   Earl E. Stewart

Gentlemen:

I have your letter of 30 June 1953 and am happy to approve your joint thesis for the degree of Master in Architecture entitled "Low Multi-Family Housing - A Neighborhood Nucleus for Mattapan".

Sincerely yours,

Lawrence B. Anderson
In Charge of the Department of Architecture

LBA:db
ACKNOWLEDGEMENT

THE AUTHORS WISH TO EXPRESS THEIR APPRECIATION TO MR. DAVID GROSSMAN OF THE URBAN REDEVELOPMENT DIVISION OF THE BOSTON HOUSING AUTHORITY, MR. HAMILTON COOLIDGE OF THE NEW ENGLAND MUTUAL LIFE INSURANCE COMPANY, AND MEMBERS OF THE FACULTY IN THE DEPARTMENTS OF ARCHITECTURE AND CITY PLANNING, WHO GAVE ASSISTANCE IN THE PREPARATION OF THIS THESIS.
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ABSTRACT

THE BASIS OF THIS THESIS IS THE CONVICTION THAT A SIGNIFICANT PART OF THE SUCCESSFUL SOLUTION TO THE "HOUSING PROBLEM" MUST BE REALIZED BY BETTER INTERPRETATION AND APPLICATION OF LOW MULTI-FAMILY HOUSING; PROBABLY THE LEAST UNDERSTOOD CATEGORY OF HOUSING, ONE WHICH HAS BEEN GROSSLY MISUSED, AND YET ONE WHICH HAS A GREAT POTENTIAL.

LOW MULTI-FAMILY HOUSING IMPLIES THE COMBINATION OF VARIOUS LIVING UNITS INTO COMPOSITE BUILDING FORMS WHICH DO NOT REQUIRE THE USE OF AN ELEVATOR. THE JUXTAPOSITION OF SUCH UNITS WITHIN BUILDINGS AND THE RELATIONSHIP BETWEEN BUILDINGS BECOMES ALL IMPORTANT IN SHAPING A SOCIAL AS WELL AS
PHYSICAL ENVIRONMENT. THE POSSIBILITY OF AN INTEGRATED COMMUNITY LIFE WITH REDUCED OCCUPANT COSTS AND RESPONSIBILITY ARE ITS MAIN AIMS. IT SHOULD NOT BE CONSIDERED AS A UNIVERSAL SUBSTITUTE FOR INDIVIDUAL HOME OWNERSHIP, BUT MERELY AS A PORTION OF THE OVERALL COMMODITY OF HOUSING, DESIGNED TO SERVE BEST A PORTION OF THE PEOPLE.

AS A DESIGN PROBLEM THIS THESIS IS SPECIFICALLY CONCERNED WITH THE APPLICATION OF LOW MULTI-FAMILY HOUSING TO THE PECULIAR CONDITIONS AND LIMITATIONS OF A PARTICULAR SITE AND LOCALE. THE EMPHASIS IS ON SITE LAYOUT PARTICULARLY DIRECTED TOWARDS A Socially Integrated Community Life.
PART I
NOTES ON HOUSING

IN REALITY HOUSING IS MUCH MORE THAN ARCHITECTURE OR EVEN PLANNING. IT IS A MOST BASIC HUMAN NEED WHICH IS RELATED TO ALL PHASES OF HUMAN ACTIVITY. PHYSICAL SHELTER AND PROTECTION FROM THE ELEMENTS ARE ONLY THE MOST OBVIOUS OF ITS MANY SERVICES; EDUCATION, RELIGION, HEALTH, WORK, RECREATION, TRANSPORTATION, ECONOMICS AND POLITICS ARE ALL SO CLOSELY INTERTWINED WITH HOUSING THAT THEIR CAUSES AND EFFECTS OFTEN BECOME INSEPERABLE. THUS HOUSING CAN NEVER BE REGARDED IN A VACUUM, NOR JUDGED ONLY BY ITS PHYSICAL APPEARANCE, BUT MUST ALWAYS BE RELATED TO THE TOTAL ENVIRONMENT.

FAMILY LIFE IS MOST EASILY ASSOCIATED WITH THE LIVING UNIT WHICH HOUSES THAT FAMILY, AND THE TRADITIONAL JOB OF AN ARCHITECT HAS BEEN TO DESIGN CUSTOM MADE STRUCTURES FOR PARTICULAR FAMILY
TASTES AND REQUIREMENTS. AS WE LEARN MORE FROM
THE SOCIOLOGISTS ABOUT FAMILY LIFE, WE REALIZE
THAT IT IS CONTINUOUSLY AFFECTED BY ITS RELATION-
SHIP TO OTHER FAMILIES AND TO COMMUNITY FACILITIES.
IT HAS BECOME NECESSARY, THEN, FOR SOME ARCHITECTS
TO WIDEN THEIR FIELD AND CONCERN THEMSELVES WITH
DESIGN OF HOUSING FOR GROUPS OF FAMILIES RATHER
THAN FOR SINGLE FAMILIES.

WE ARE PRONE TO ASSOCIATE MOST GROUP HOUSING WITH
THE LOWER INCOME LEVELS OF THE POPULATION. WHILE
IT IS TRUE THAT THE MAJORITY OF LOW MULTI-FAMILY
UNITS HAVE BEEN BUILT TO SERVE THESE LOWER INCOME
GROUPS, IT IS EQUALLY TRUE THAT THERE IS GREAT
NEED FOR COMMUNITY INTEGRATION AT ALL INCOME
LEVELS.

THERE IS THE POPULAR AMERICAN MYTH THAT EVERY
FAMILY SHOULD OWN AN INDIVIDUAL HOME ON AN INDIV-
IDUAL LOT. THIS IS QUITE RIDICULOUS. A MUCH
MORE SATISFACTORY AND REALISTIC GOAL WOULD BE
THAT EVERY FAMILY MIGHT HAVE THE OPPORTUNITY TO
CHOOSE ITS HOUSING FROM A GREAT NUMBER OF GOOD
HOUSING TYPES ACCORDING TO THE NEEDS AND DESIRES
OF THAT FAMILY AT ANY PARTICULAR TIME. IN ADDI-
TION TO VARIETY IN HOUSING UNITS, VARIETY SHOULD
BE SOUGHT IN COMMUNITY DEVELOPMENT. THE AVERAGE
AMERICAN HAS FEW CHOICES OF RESIDENTIAL ATMOS-
HERE - COUNTRY, SMALL TOWN, SUBURB, OR CITY.
FROM SUBURB TO SUBURB AND FROM CITY TO CITY, LIFE
IS PATHETICALLY SIMILAR. THE MAJOR VARIATIONS
ARE ONLY BY THE GRACE OF NATURAL CHANGES IN CLIM-
ATE AND TOPOGRAPHY.

LE CORBUSIER AND WRIGHT REPRESENT POLAR VIEWS ON
HOUSING, AND IT IS AMAZING TO NOTE HOW CONSISTENTLY
ARCHITECTS TAKE SIDES WITH EITHER ONE OR THE OTHER
OF THESE TWO LEADERS. THE STAND IS Seldom TAKEN
THAT THERE ARE REAL MERITS IN BOTH PHILOSOPHIES.
THE SAD FACT IS THAT SO VERY FEW PEOPLE ARE ABLE
TO ENJOY EITHER EXTREME. THERE SHOULD BE A PRE-
MIUM ON EXPRESSION OF DIVERSITY AND IMAGINATION
IN HOUSING DEVELOPMENT.

WE WISH TO MAKE IT CLEAR THEN THAT WE DO NOT CON-
SIDER LOW MULTI-FAMILY HOUSING A PANACEA TO THE
HOUSING PROBLEM, BUT MERELY HOPE THAT WITH DIS-
CRIMINATING USE IT CAN SUCCESSFULLY ASSUME ITS
SHARE OF THE HOUSING BURDEN.
LOW MULTI-FAMILY HOUSING

BECAUSE THERE IS SO MUCH BAD MULTI-FAMILY HOUSING IT IS DIFFICULT TO JUDGE IT OBJECTIVELY. EVEN AMONG PROFESSIONAL PLANNERS AND ARCHITECTS THE PREVAILING OPINION SEEMS TO BE THAT AT BEST SUCH HOUSING IS A COMPROMISE. MANY FEEL THAT THE SUCCESS OF ANY PROJECT IS DIRECTLY PROPORTIONAL TO HOW CLOSELY A UNIT PARALLELS THE SINGLE FAMILY HOUSE IN APPEARANCE AND ATMOSPHERE. THIS WOULD SEEM TO BE A NEGATIVE ATTITUDE. WE MUST RECOGNIZE THAT MULTI-FAMILY HOUSING HAS CERTAIN INHERENT ADVANTAGES, AND EXPRESS THESE WITHOUT THE LIMITATION OF FALSE ASSOCIATIONS.

SOCIAL ADVANTAGES

LONG HAVE BEEN THE ARGUMENTS OVER GROUP LIVING. MUCH HAS BEEN WRITTEN IN CONDEMNATION OF IT AND CONSIDERABLY LESS IN ITS BEHALF. STATISTICAL
SURVEYS AND INTERVIEWS ARE VALUABLE BUT ARE OFTEN MISLEADING. THEY REFLECT THE EXISTING CONDITIONS RATHER THAN THE POTENTIAL BENEFITS OF GROUP LIVING. TRADITIONS, PREJUDICE, AND LACK OF FIRST HAND EXPERIENCE OFTEN BIAS THE OPINIONS EVEN OF THE EXPERTS.

BOTH AUTHORS OF THIS THESIS HAVE HAD EXPERIENCE IN LIVING IN VARIOUS TYPES OF RENTAL PROJECTS, AND HAVE BEEN LIVING IN WESTGATE WEST DURING THEIR STAY AT M.I.T. THIS PARTICULAR DEVELOPMENT IS FAR FROM ATTRACTIVE, AND HAS MANY PHYSICAL DISADVANTAGES. THE WALLS BETWEEN APARTMENTS ARE LIKE SOUNDING BOARDS, WIDE GAPS BETWEEN FLOOR BOARDS MAKE CLEANING THE FLOORS A REAL CHORE, AND AIR WHISTLES THROUGH CRACKS AROUND DOORS AND WINDOWS. INDUSTRIAL SMOKE SETTLES LIKE A CLOUD AND RENDERING PLANT ODORS OFTEN PERMEATE THE AIR. THE LAND IS FLAT AND TREELESS, AND THE PROJECT'S ONLY NEIGHBORS ARE TRUCKS AND TRAINS.

IN SPITE OF ALL THESE HARDSHIPS, LIFE AT WESTGATE WEST IS EXTREMELY PLEASANT. THE CHILDREN HAVE MUCH SPACE IN WHICH TO PLAY, AND MOTHERS OFTEN SHARE IN THE RESPONSIBILITIES OF
CARING FOR THEM. AUTO TRAFFIC IS NOT HAZARDOUS. THERE IS A MINIMUM OF PRIVACY BUT OBJECTIONS ON THIS COUNT ARE Seldom VoICEd.

THERE ARE NUMEROUS ORGANIZATIONS WHICH HAVE BEEN SPONTANEOUSLY ORGANIZED FOR THE COMMUNITY PROSPERITY. THE WESTGATE COUNCIL SERVES AS LOCAL GOVERNMENT. IT HAS LIMITED DUTIES TO BE SURE - IT ACTS AS LIASON BETWEEN THE COMMUNITY AND M.I.T. - INITIATES COMMUNITY ACTIVITIES, AND PAMPERS PETTY GRIEVANCES. THERE IS A COMMUNITY TABLOID - THE WESTGATE WORD. VOLUNTEER MOTHERS RUN A SUNDAY SCHOOL AND HELP WITH A DAY NURSERY AND A BABY CLINIC. WESTGATE MAINTAINS AND OPERATES ITS OWN COMMUNITY LAUNDRY.

A SCHOOL PROJECT IS CERTAINLY A SPECIAL CASE - THE INHABITANTS ARE QUITE A HOMOGENEOUS GROUP, AND THEY ALL REALIZE THAT THEIR TIME OF RESIDENCE IS LIMITED. THERE ARE CERTAIN OBSERVATIONS, HOWEVER, WHICH WOULD HOLD TRUE IN ANY SIMILAR HOUSING IN SPITE OF THE HOMOGENEOUS OCCUPANCY. FOREMOST IS THE BENEFICIAL SOCIAL ENVIRONMENT FOR PRE-SCHOOL AND YOUNG SCHOOL AGE CHILDREN. IN THIS DAY OF SMALL FAMILIES
IT IS EXTREMELY IMPORTANT THAT THE YOUNGSTERS HAVE MANY FRIENDS THEIR OWN AGE. IT IS ALSO EASY TO PROVIDE PLAY EQUIPMENT AND SPACE FOR LARGE GROUPS OF CHILDREN WHILE THIS IS OFTEN PROHIBITIVE ON THE INDIVIDUAL LOT SCALE. THE HYPOTHESIS IS PRESENTED THAT CHILDREN CLOSELY ASSOCIATED WITH GROUPS IN EARLY LIFE, IN ADDITION TO THEIR OWN FAMILY, WILL FIT BETTER INTO ADULT GROUPS IN LATER LIFE.

CLOSE KNIT FAMILY LIFE IS INVALUABLE - THE FAMILY INSTITUTION IS HERE TO STAY, BUT IT NEEDS REINFORCING SUPPORT FROM OUTSIDE SOURCES. PRIVACY IS THE NEW FETISH OF RESIDENTIAL ARCHITECTURE. THE OPPORTUNITY FOR PRIVACY SHOULD BE PROVIDED, BUT NOT AT THE EXPENSE OF EXCLUDING FRIENDSHIP FORMATION.

ECONOMIC ADVANTAGES

RENTAL HOUSING IS VERY NECESSARY TO SERVE THE ROVING POPULATION OF THE UNITED STATES. SINCE 1940 THREE-FOURTHS OF THE POPULATION HAVE CHANGED ADDRESS, AND MANY PEOPLE HAVE MADE SEVERAL MOVES DURING THIS PERIOD. THE WAR
YEARS ACCELERATED THIS MOVEMENT BUT IT STILL CONTINUES. DURING THE PAST DECADE THE SALES VALUE OF HOUSES HAS Risen STEADILY. IT WAS POSSIBLE TO BUY A HOUSE, LIVE IN IT FOR A RELATIVELY SHORT PERIOD AND SELL IT AGAIN AT A PROFIT. UNDER A STABILIZED MARKET THIS IS NOT POSSIBLE, AND HOUSE BUYING MUST BE REGARDED ON A MUCH MORE PERMANENT BASIS. THOSE WHO ARE NOT READY TO INVEST IN A PERMANENT HOME, OR WHOSE JOB LOCATION IS TEMPORARY, WOULD OFTEN DO BETTER TO RENT - IF ATTRACTION RENTAL HOUSING WERE AVAILABLE.

THERE ARE MANY OLDER HOMES WHICH ARE BEING RENTED, BUT THERE ARE VIRTUALLY NO NEW SINGLE FAMILY HOUSES BEING BUILT SPECIFICALLY FOR RENTAL. IT IS SIMPLY NOT A GOOD INVESTMENT, BECAUSE OF HIGH CONSTRUCTION COST AND SCATTERED MAINTENANCE AND UTILITIES.

GREAT CONSTRUCTION COST SAVINGS CAN BE ACHIEVED IN THE PRODUCTION OF LOW MULTI-FAMILY HOUSING, BECAUSE OF THE USE OF REPETITIVE DESIGN AND COMMON WALLS. ROAD LAYOUT CAN BE MINIMIZED, ALONG WITH SAVINGS IN PLUMBING AND HEATING INSTALLATION. MAINTENANCE, WHEN ACCUMULATED
INTO ONE EFFICIENT OPERATION, CAN RESULT IN OVERALL SAVINGS. THIS IS NOT READILY APPARENT, AS THERE IS LITTLE DATA AVAILABLE ON MAINTENANCE COSTS FOR SINGLE FAMILY HOMES, AND THESE COSTS ARE OFTEN OBSCURED IN THE HOME BUDGET. MAINTENANCE IS INDEED ONE OF THE KEY FACTORS IN THE SUCCESS OR FAILURE OF A RENTAL PROJECT, AS COSTS GENERALLY VARY FROM FORTY TO SIXTY PER CENT OF TOTAL ANNUAL OPERATING COSTS. RESEARCH DIRECTED TOWARDS REDUCTION OF MAINTENANCE COSTS IS SORELY NEEDED, AS TABULATED DATA OF SUCH MATERIAL SHOULD BE AT THE FINGERTIPS OF DESIGNERS. IF SIGNIFICANT REDUCTIONS IN MAINTENANCE COULD BE MADE, THE POSITION OF RENTAL HOUSING WOULD IMMEDIATELY BE BETTERED.
THERE ARE SEVERAL ADMIRABLE DEVELOPMENTS OF LOW MULTI-FAMILY HOUSING IN THE UNITED STATES. ONE OF THE BETTER OF THESE IS BALDWIN HILLS IN CALIFORNIA, WHICH IS NOW OWNED BY THE NEW ENGLAND MUTUAL LIFE INSURANCE COMPANY. IT IS CONSIDERED A VERY SATISFACTORY INVESTMENT IN SPITE OF THE LARGE MAINTENANCE COSTS. IT IS SURPRISING TO NOTE THAT THEIR SIXTY-FIVE ACRE DEVELOPMENT OF ABOUT 650 UNITS REQUIRES A PERMANENT STAFF OF 47 MEN INCLUDING 17 GARDENERS. THE SUCCESS OF THE PROJECT FROM THE OCCUPANTS POINT OF VIEW IS BORNE OUT BY THE FACT THAT ROBERT ALEXANDER, ONE OF THE ARCHITECTS, BROUGHT UP HIS FAMILY THERE.
BALDWIN HILLS HAS A NET DENSITY OF ONLY SEVEN FAMILIES TO THE ACRE. WHILE THE PLAN VIEW SHOWS QUITE FORMAL SITE PLANNING, EYE LEVEL PHOTOGRAPHS INDICATE THAT THIS IS NOT APPARENT FROM THE GROUND. SEVERAL PROJECTS BY CLARENCE STEIN AND HENRY WRIGHT, SUCH AS CHATHAM VILLAGE IN PITTSBURGH AND SUNNYSIDE IN NEW YORK, HAVE BEEN EXTREMELY SUCCESSFUL. ALTHOUGH THE ARCHITECTURAL EXPRESSION OF THEIR UNITS IS NOT EXCITING, THE SPIRIT AND CONCEPTION WHICH OCCURRED SOME TWENTY YEARS AGO IS STILL PROGRESSIVE BY PRESENT DAY STANDARDS. ONE CANNOT HELP BUT WONDER WHY THESE IDEAS HAVE NOT BEEN MORE FREQUENTLY EMULATED.
IN CONSIDERING THE APPLICATION OF LOW MULTI-
FAMILY HOUSING TO THE MATTAPAN SITE, IT IS OF
VALUE TO EXAMINE EXISTING FACILITIES OF A COM-
PARABLE NATURE. HANCOCK VILLAGE ON THE OUTSKIRTS
OF BOSTON AT THE BROOKLINE LINE ENJOYS ALMOST A
COMPLETE MONOPOLY OF SUCH HOUSING NOT DEVOTED
PRIMARILY TO THE LOW COST FIELD. GROUND WAS
BROKEN FOR THIS PROJECT IN 1945 AND IT WAS COM-
PLETED IN 1949 BY THE JOHN HANCOCK MUTUAL LIFE
INSURANCE COMPANY. THERE ARE 789 UNITS, ALL OF
THE TWO STORY ROW HOUSE TYPE WITH 360 ONE-BED-
ROOM UNITS, 385 TWO-BEDROOM UNITS AND 44 THREE-
BEDROOM UNITS. THE PRICE RANGES FROM $105.00
TO $169.00 INCLUDING UTILITIES.

THERE ARE MANY ARCHITECTURAL DETAILS AND ORNA-
MENT APPLICATIONS WHICH ARE DISAPPOINTING, BUT
THE GENERAL ATMOSPHERE IS QUITE PLEASANT. BRICK
IS USED THROUGHOUT AND SOME UNITS ARE PAINTED
WHITE IN AN ATTEMPT TO BREAK THE MONOTONY. THE
MAJORITY OF THE BUILDINGS ARE SERVED BY ONE
LARGE LOOP ROAD. WHILE THIS SEEMS TO BE EFFI-
CIENT, IT IS QUITE DISTRACTING BECAUSE OF THE
Vast sea of cars which park on this road. A large number of the units face directly on the road, and while their occupants may be conveniently close to their parked cars, the location does not seem to be as attractive as farther back in the U-shaped courts and open lanes. The real saving grace is due to the rolling land - rows that step down along the contours are often quite attractive.

Each occupant has a small concrete patio at the rear of the house and is also permitted to have a small garden. Except for the gardens the entire burden of land maintenance is left to the management. There is no privacy between back yards. For the 789 units there are fifteen community laundries with two washers and two dryers each. These take the form of small one story attachments at the ends of rows. These small buildings also contain storage space for children's toys, baby carriages, etc. The problem of laundry yards was eliminated by forbidding tenants to hang clothes outside. This requires some management policing, but most tenants realize that it is for the common good to abide by this rule. At present Hancock Village has 100 per cent occupancy.
AND A WAITING LIST. IN COMPARING LOCATIONS, IT IS ONLY FAIR TO SAY THAT THE ENVIRONMENT OF SINGLE FAMILY HOUSES ARE NEWER AND MORE EXPENSIVE AT HANCOCK VILLAGE THAN IN MATTAPAN. ON THE OTHER HAND, HANCOCK VILLAGE SEEMS FULLY SELF-CONTAINED AND THE SURROUNDING NEIGHBORHOOD PROBABLY HAS LITTLE REAL AFFECT ON THE TENANTS. THE MATTAPAN DEVELOPMENT WOULD BE EQUALLY SELF-CONTAINED AND BE MUCH CLOSER TO DIVERSE SHOPPING AND AMUSEMENT.
PART II
LOCATION OF PROJECT AREA IN BOSTON

-- MAIN TRAFFIC ARTERIES
PROJECT SELECTION

IN THE REVIEW OF AREAS THAT QUALIFY FOR AID IN REDEVELOPMENT WITH FEDERAL FUNDS ON A PARTICIPATING BASIS, IT WAS FOUND THAT AN 81-ACRE TRACT OF PREDOMINANTLY OPEN LAND IN MATTAPAN IS IN NEED OF ASSISTANCE IF IT IS EVER TO BECOME AN AREA OF REASONABLE ECONOMIC USEFULNESS. CAREFUL STUDY HAS INDICATED THAT ITS HIGHEST ECONOMIC USE IS FOR HOUSING PURPOSES, PRINCIPALLY. BY ASSEMBLING THE LAND WITH PUBLIC FUNDS, PROCESSING IT, THEN SELLING IT TO PRIVATE DEVELOPERS ACCORDING TO THE PRINCIPLES OF LONG-RANGE PLANNING, IT APPEARS THAT THE TRACT UNDER STUDY CAN PROVIDE NEW HOMES FOR OVER 400 FAMILIES. FOR GOOD REASONS, THE MATTAPAN PROJECT SHOULD RECEIVE HIGH PRIORITY.

IN THE FIRST PLACE, THERE IS STILL A SHORTAGE OF NEW HOUSING IN BOSTON, AND THE RESIDENTIAL REUSE PROPOSAL FOR MATTAPAN WOULD ADD SIGNIFICANTLY TO THE OVERALL HOUSING SUPPLY. IN RESPECT THE HOUSING SUPPLY, THE GENERAL PLAN HAS THIS TO SAY IN ITS FINDINGS: THE FACT MUST BE FACED THAT BOSTON CANNOT MEET THE RISING DEMAND FOR ADDITIONAL NEW HOUSING, OWING TO ITS LACK OF ATTRACTIVE VACANT SITES FOR DEVELOPMENT. THE MATTAPAN PROJECT WOULD HELP TO REMEDY THAT DEFICIENCY. SECONDLY, THE RELOCATION OF PEOPLE IN THE MATTAPAN DEVELOPMENT WOULD SERVE TO REDUCE TO SOME DEGREE THE UNDESIRABLY HIGH DENSITIES WHICH EXIST ELSEWHERE IN THE CITY. AS A PRACTICAL MATTER, THE MATTAPAN PROPOSAL OFFERS OTHER ANCILLARY BENEFITS. SINCE FEW FAMILIES PRESENTLY OCCUPY THE SITE, THERE IS BUT A COMPARATIVELY MINOR RELOCATION PROBLEM TO CONSIDER. THEN, TOO, BY REASON OF THE PRESENT RESIDENTIAL OCCUPANCY, THERE WOULD BE NO DELAY IN EFFECTING THE VACATION OF THE PREMISES. AS MOST OF THE LOTS ARE VACANT, ACQUISITION COSTS WOULD BE SMALL.
ALSO, IT WOULD NOT BE NECESSARY TO START FROM 
SOME DISTANT POINT TO CARRY UTILITY LINES TO THE 
PERIPHERY OF THE PROJECT SITE, BECAUSE THE LINES 
ALREADY LIE IN THE BEDS OF THE ADJACENT STREETS. 
THE BASIC PROBLEM OF THE MATTAPAN SITE, THERE-
FORE, APPEARS TO BE A LAND PROBLEM RATHER THAN 
A PROBLEM OF DEALING WITH PEOPLE.

FOR THE MINIMUM INVESTMENT IN TIME AND EXPENSE, 
THE MATTAPAN PROJECT SHOULD BRING INTO MAXIMUM 
USEFULNESS A LARGE TRACT OF PREVIOUSLY NEGLECTED 
LAND WHICH CAN HENCEFORTH PRODUCE MANY THOUSANDS 
OF DOLLARS IN ANNUAL TAXES FOR THE BENEFIT OF THE 
CITY. IT SHOULD PROVIDE READY SITES FOR HOMES 
PRINCIPALLY FOR THE CITY OF BOSTON RESIDENTS WHO 
WOULD LIKE TO LIVE IN A MODERN SUBDIVISION CON-
VENIENT TO THE DOWNTOWN FACILITIES OF THE METRO-
POLIS, AND YET AT THE EDGE OF THE URBAN CONGESTION 
FROM WHICH THERE IS FAIRLY EASY RELEASE TO THE 
COUNTRYSIDE AND THE SHORE ROUTES. IT CAN CREATE 
AN IMPROVEMENT OF SUCH SIGNIFICANCE IN MATTAPAN 
THAT IT WILL HAVE A STIMULATING EFFECT UPON NEIGH-
BORHOOD GROWTH IN THE IMMEDIATE FUTURE AND A STABI-
LIZING EFFECT UPON REAL ESTATE VALUES IN THE LONG 
RUN. THE GENERAL PLAN'S CONCLUSION THAT THIS 
PARTICULAR TRACT SHOULD BE REUSED FOR RESIDENTIAL 
PURPOSES HAS BEEN CORROBORATED THROUGH INTENSIVE 
STUDY.

EFFECT ON 
COMMUNITY

FROM THE AIR PHOTOGRAPH AND FROM THE MAP OF CUR-
RENT LAND USE, IT IS STRIKINGLY EVIDENT THAT 
MATTAPAN AS A WHOLE IS AN URBAN AREA EXTENSIVELY 
BUILT UP EXCEPT FOR PUBLIC AND SEMI-PUBLIC RESER-
VATIONS. TIME HAS SHOWN THAT THE PROJECT AREA 
HAS NOT KEPT PACE WITH THE REMAINDER OF THE COM-
MUNITY. THE PAUCITY OF DEVELOPMENT AND THE SITU-
ATION ILLUSTRATED BY THE STATUS OF TAX DELINQUENCY 
IN THE PROJECT AREA SHOW THAT, DESPITE THE SHORTAGE 
OF PROMINENTLY OPEN LAND WITHIN THE CITY LIMITS 
AND DESPITE THE CYCLE OF HOUSING SHORTAGES WHICH 
PUT PRESSURE ON THE BUILDERS TO SEEK LESS DESIR-
ABLE BUILDING SITES, DESPITE DEPRESSION WHICH 
FORCED PEOPLE TO CHEAP LAND AND DESPITE LUSH
EXISTING
LAND USE

- RESIDENCES - ONE FAMILY
- RESIDENCES - TWO FAMILIES
- RESIDENCES - THREE FAMILIES OR MORE
- VACANT LAND
- COMMERCIAL
- LIGHT INDUSTRY
- HEAVY INDUSTRY
- SEMI-PUBLIC
- PUBLIC
- PROJECT AREA BOUNDARY

ALMONT STREET
PLAYGROUND

NEW CALVARY CEMETERY

PENDERGAST PREVENTORIUM

[Map showing existing land use with various symbols and labels]
TIMES THAT ENCOURAGED PEOPLE TO INVEST EXPENSIVELY IN HOUSING SITES, THE PROJECT AREA HAS WEATHERED THESE CHANGING CONDITIONS WITH LITTLE ALTERATION OVER THE SPAN OF MANY YEARS.

DESCRIPTION OF PROJECT

THE PROJECT AREA CONSISTS OF 81.11 ACRES OF SPARSELY SETTLED LAND CHARACTERIZED BY EXTENSIVE WETNESS AND BY FREQUENT SLOPES WITH SHALLOW UNDERLYING ROCK, WITH LEDGES BEING OCCASIONALLY IN EVIDENCE. THERE IS LITTLE LEVEL LAND FREE OF BOTH CONDITIONS. IT WILL BE NOTED THAT THE DEVELOPMENT OF THIS TRACT HAS BEEN ARRESTED BY THESE CONDITIONS, AND THE STATEMENT IS SUBSTANTIATED BY THE FACT THAT THERE ARE ONLY 39 IMPROVED PARCELS OUT OF A TOTAL OF 555 LOTS. THE SCATTERED LOCATION OF THE EXISTING STRUCTURES IS BROUGHT OUT CLEARLY IN A MAP STUDY.

THE TOTAL PROJECT AREA IS 81.11 ACRES, OR 3,628,325 SQUARE FEET. THE NET LAND AREA, WHICH MEANS SUBTRACTING STREET AREA FROM THE GROSS PROJECT AREA, IS 2,748,721 SQUARE FEET.

THUS, THE PERCENTAGE OF IMPROVED LAND IS 10.01 PER CENT, WHICH IS ENOUGH TO QUALIFY THE AREA AS "PREDOMINANTLY OPEN LAND" ACCORDING TO THE MANUAL DEFINITION. IT IS NOTEWORTHY THAT THE PROJECT BOUNDARIES HAVE BEEN DRAWN WITH SPECIAL CARE SO AS TO INCLUDE NO SPACE WHATSOEVER THAT DOES NOT APPEAR TO CONSTITUTE AN ACTUAL PART OF THE LAND THAT WOULD BE ACQUIRED, REWORKED, AND RESOLD FINALLY AS REDEVELOPED LAND.

REFERENCE TO THE AIR PHOTOGRAPH REVEALS THAT THE TERRAIN, WHERE NOT ROCKY, IS GROWN UP WITH BUSHES AND SMALL TREES, LIKE ALDERS, WHICH THRIVE ON DAMPNESS TO THE EXTENT THAT THE PAPER STREETS WHICH ARE A MATTER OF OFFICIAL RECORD CAN HARDLY BE IDENTIFIED.
IT IS AMAZING TO FIND SUCH A TRACT OF UNDEVELOPED LAND LYING IN CLOSE PROXIMITY TO ONE OF THE BUSIEST NEIGHBORHOOD CENTERS AND TRAFFIC ARTERIES IN THE CITY OF BOSTON. BLUE HILL AVENUE CARRIES TRAFFIC TO AND FROM THE INLYING BUSINESS AREAS OF CENTRAL BOSTON AND PASSES THROUGH MATTAPAN SQUARE. FROM MATTAPAN SQUARE, THE CITY TRAFFIC DISPERSES TO HYDE PARK AND MILTON OR FOLLOWS ROUTE 138 AND ROUTE 28 TO CITIES SITUATED SOUTH OF BOSTON AND TO CAPE COD. MATTAPAN SQUARE ITSELF IS A COMPACT, CONGESTED URBAN NEIGHBORHOOD CENTER CONTAINING A MOVIE THEATRE, SMALL SHOPS, PROFESSIONAL OFFICES, SUPER MARKETS, ETC. IT OFFERS CONSIDERABLE LOCAL EMPLOYMENT. THERE ARE TWO OR THREE FAIR SIZED COMMERCIAL ENTERPRISES WHICH AUGMENT THE LOCAL EMPLOYMENT SITUATION. THERE ARE CHURCHES, SCHOOLS, AND OTHER FACILITIES THAT CONTRIBUTE TO COMPLETE NEIGHBORHOOD LIVING. BY NO MEANS THE LEAST IMPORTANT OF THE NEIGHBORHOOD'S ADVANTAGES IS ITS READY ACCESS IN TERMS OF TRANSPORTATION TO OTHER PARTS OF THE CITY OF BOSTON. A REFERENCE TO THE MAP OF EXISTING LAND USES, ILLUSTRATES THE BUILD-UP CHARACTER OF THE WHOLE NEIGHBORHOOD AROUND MATTAPAN SQUARE.

ALTHOUGH THIS IS AN OLD PORTION OF THE CITY, IT NEVERTHELESS IS A SECTION OF ESTABLISHED HOMES AND ITS RESIDENTIAL CHARACTER IS NOT GIVING WAY TO ENCROACHMENTS. THIS NOT ONLY INDICATES THE PROBABILITY OF MAINTAINING STABLE REAL ESTATE VALUES FOR THE HOMES THAT WILL BE BUILT IN THE AREA IN THE FUTURE, BUT ALSO IS A REMINDER THAT THE AREA IS FREE FROM CERTAIN ADVERSE INFLUENCES SUCH AS FACTORY SMOKE, VIBRATION, INDUSTRIAL ODORS, AND THE EXCESSIVE TRAFFIC OF HEAVY TRUCKS EXCEPT ON THROUGH STREETS.
TRANSPORTATION

THE NEIGHBORHOOD IN WHICH THE PROJECT AREA IS SITUATED IS SERVED BY FOUR LINES OF THE METROPOLITAN TRANSIT AUTHORITY. COMMUTING TIME TO DOWNTOWN BOSTON VARIES FROM A HALF HOUR TO AN HOUR, DEPENDING ON THE ROUTE SELECTED AND THE TIME OF DAY WHEN THE TRIP IS MADE. RUSH HOUR SERVICE IS REASONABLY ADEQUATE. FREE PUBLIC PARKING AS WELL AS PRIVATE PARKING FACILITIES AT A FEE ARE PROVIDED AT MATTAPAN STATION, AND ALSO AT THE ASHMONT AND ARBORWAY STATIONS FOR THOSE INSISTENT ON USING THEIR CARS TO REACH PUBLIC TRANSPORTATION.

REFERENCE TO THE TRANSPORTATION MAP ILLUSTRATES ROUTES IN RELATION TO THE PROJECT AREA. IT WILL BE SEEN THAT CUMMINS HIGHWAY AND BLUE HILL AVENUE PROVIDE STREET CAR SERVICE CONNECTING WITH THE RAPID TRANSIT LINES. FROM CUMMINS HIGHWAY ONE CAN GO EITHER TO MATTAPAN SQUARE OR TO FOREST HILLS. FROM MATTAPAN SQUARE, HIGH-SPEED TROLLEY OR BUS MAKES A CONNECTION WITH THE SUBWAY LINE EXTENSION AT ASHMONT STATION; IN THE OTHER DI- RECTION, THE CUMMINS HIGHWAY STREETCARS GO TO THE FOREST HILLS ELEVATED STATION. ABOUT TWENTY MINUTES IS REQUIRED TO REACH THE CONNECTING POINT IN EITHER CASE.

ADJACENT PROPERTIES

IN ADDITION TO THE COMMENTARY UPON NEIGHBORHOOD RELATIONSHIPS, SOME OBSERVATIONS SHOULD BE MADE REGARDING THE PROPERTIES WHICH IN GENERAL LIE NEXT TO THE PROJECT AREA. THE STREETS WHICH REACH IN TOWARD THE PROJECT AREA FROM ALMONT STREET ARE ONLY PARTIALLY DEVELOPED. FEW OF THE HOMES ON THEM ARE NEW. ALONG WOODHAVEN STREET THERE HAS BEEN, IN RECENT YEARS, CONSIDERABLE BUILDING ACTIVITY, AND THE TYPICAL HOUSE ON THIS STREET IS A BRICK VENEER STRUCTURE FOR TWO FAMILIES, IN A PRICE RANGE OF $15,000 TO $20,000. BETWEEN
WOODHAVEN AND ITASCA STREETS THERE ARE OLDER HOUSES, FRAME IN TYPE, AND FOR THE MOST PART DECENTLY KEPT. THIS SECTION IS OF HIGH ENOUGH CALIBER SO THAT THE BOSTON HOUSING AUTHORITY DEVELOPED A CLUSTER OF VETERANS' HOUSES ON FAVRE STREET UNDER CHAPTER 372 OF THE LAWS OF THE COMMONWEALTH OF MASSACHUSETTS. THESE ARE TWO-FAMILY FRAME HOUSES BUILT AT AN AVERAGE COST OF $20,000 EACH.

THERE IS EVERY REASON TO BELIEVE THAT THE PROSPECTIVE DEVELOPMENT OF THE PROJECT AREA WILL MEET WITH WHOLE-HEARTED APPROVAL ON THE PART OF THOSE TENANTS AND OWNERS WHO LIVE ANYWHERE NEAR THE UNKEMPT ACRES OF NEGLECTED LAND DEFINED AS THE PROJECT AREA. IN ADDITION TO THE INTANGIBLE NEW ASSETS IN CIVIC PRIDE, NEIGHBORING OWNERS WILL RECOGNIZE THE CONVENIENCE OF NEW STREETS, PARKS, AND PLAY AREAS, AND THE SOCIAL AMENITIES OF A NEW GROUP OF NEIGHBORS. THEY WILL ALSO REALIZE THE INCREASE OF VALUE AND THE STABILITY OF VALUE IN THEIR INDIVIDUAL HOME REAL ESTATE DEVELOPMENT THAT THE NEW PROPOSAL WILL BRING ABOUT. NEEDLESS TO SAY, THE DEVELOPMENT OF THE LAND TO 400 OR MORE FAMILIES WILL ADD TO THE ECONOMIC WELL-BEING OF THE MAJOR SHOPPING CENTER AROUND MATTAPAN SQUARE AND ALSO TO THE STABILITY OF THE CLUSTER OF STORES ON CUMMINS HIGHWAY AT THE JUNCTION OF GREENFIELD ROAD.

RECREATION


IT MAY BE SAID THAT, WHEREAS THE DEMAND FOR PLAYGROUND FACILITIES IS ADEQUATE, THERE IS A LACK OF FACILITIES OF THE PLAYGROUND AND TOT-LOT TYPES.
CONCLUSIONS

THE PRELIMINARY PROPOSAL OF THE URBAN REDEVELOPMENT DIVISION IS TO SUBDIVIDE THE SITE TO PROVIDE FOR 200 FAMILY HOUSES, 100 TWO-FAMILY UNITS AND 100 FOUR-FAMILY UNITS. THE LOTS FOR THESE STRUCTURES WOULD THEN BE SOLD TO ONE OR MORE PRIVATE DEVELOPERS. IT IS NOT EXPECTED THAT THERE WOULD BE ANY SINGLE LOTS PLACED ON THE OPEN MARKET.

THERE WAS ALSO A PRELIMINARY MARKET APPRAISAL OF THE PROJECT AREA CONDUCTED BY A REAL ESTATE ECONOMIST IN FEBRUARY, 1952. THE FOLLOWING IS A RESUME OF HIS FINDINGS:

"IN SUMMARY, WHAT CAN BE DRAWN FROM THESE STATISTICS, AND WHAT DO THEY MEAN IN TERMS OF MARKETING RESIDENTIAL LAND IN THE MATTAPAN PROJECT AREA?

TO THIS APPRAISER THEY MEAN ESSENTIALLY THIS:
(1) THAT A SHORTAGE OF HOUSING STILL EXISTS NUMERICALLY IN THE BOSTON MARKET AREA AS A WHOLE;
(2) THAT, WITH THE EXCEPTION OF PUBLICLY FINANCED AND RESTRICTED UNITS, ONLY SINGLE-FAMILY ACCOMMODATIONS HAVE BEEN OFFERED, FOR THE MOST PART, TO EASE THE SHORTAGE; (3) THAT THE "POPULAR" PLACE TO BUILD IS IN THE SUBURBS BECAUSE, IN PART, LAND NEAR THE CORE IS EITHER NOT AVAILABLE OR POORLY LOCATED; (4) THAT A SUBSTANTIAL DEMAND EXISTS FOR RENTAL UNITS NEAR THE CENTER; TWO TO FOUR-FAMILY UNITS PROBABLY CONSTITUTE THE "FORGOTTEN MARKET"; AND (5) THAT THE MATTAPAN SITE, IF MADE AVAILABLE, OFFERS A REAL OPPORTUNITY TO TAP THE INTOWN OR CLOSE-TO-TOWN DEMAND."
Later in the report the appraiser goes on to say:

"The four-family, two-story flat, or the four-family row house, on the other hand, is at present finding a ready market in centrally located sections where land can be found allowing for such structures to be built. This type of structure might well prove attractive in the Mattapan area if mixed in judiciously with less intensive land uses nearby.

Although there are some small apartment houses (multi-family investment properties) to be found in the Mattapan neighborhood, it is felt that the rents they would have to command, if built anew at today's costs of construction, would be well above what the market would pay in this district. This type of new accommodation is not likely to prove feasible in redevelopment for this reason."

It is our opinion that serious consideration should be given to devoting the site entirely to low multi-family structures. It is indeed a unique piece of land, bounded on one side by a cemetery and preventorium, on the other by a large playground. The remainder of the surrounding area is devoted to residential structures. Some of these are old but well kept, and there is a small group of new houses. The boundaries and size form it into a composite unit. It offers the opportunity to do much more than to chop it up into small parcels of land. It can be thought of as one large lot and its integrity and unity can be preserved."
There are many natural aspects on the site which are particularly appealing. The land is rolling and wooded, partly damp and there are numerous outcroppings of large rocks. It is these features which have hindered its development; but the rocks at least can greatly enhance the development of the site. In fact, the three largest rock ledges are so distributed that they can serve as definite focal points for building groups.

Many of the trees in the area must be saved; in fact, in parts of the site a definite woody character can be maintained. There is a great deal of smaller growth and underbrush in the flatter areas which could not be saved.

The reaction on seeing the site for the first time is to be surprised that such a large area within the city limits of Boston could be so open and undeveloped. In some respects it seems too bad to infringe upon the peace and solitude of the few residents within the area. On the other hand, the majority of the property is of no use as it exists and represents an economic burden to the city.
THE PROBLEM, THEN, IS TO MAKE USE OF THE SITE IN A WAY WHICH WILL BE PROFITABLE TO THE CITY OF BOSTON FROM A TAX STANDPOINT, ATTRACTIVE FINANCIALLY TO A DEVELOPER, AND ABOVE ALL TO CREATE AN ENVIRONMENT WHICH WILL SATISFY THE PHYSICAL AND SOCIAL REQUIREMENTS OF INDIVIDUALS, FAMILIES, AND GROUPS OF FUTURE RESIDENTS.
PART III
PHYSICAL SITE DESIGN

ROADS AND PARKING

THE FACT THAT THIS SITE IS ALREADY BOUNDED BY PERIPHERY STREETS MAKES IT A NATURAL SUPERBLOCK. THE GRIDIRON PATTERN HAS NOT BEEN IMPOSED, WHICH IS ONE OF THE STRONG REASONS FOR INTRODUCING MULTI-FAMILY HOUSING WITH MINIMUM ROADS. IN OUR PRELIMINARY STUDY LAYOUTS, WE TRIED TO KEEP THE AREA COMPLETELY FREE OF ANY CROSS STREETS, BUT AFTER FURTHER CONSIDERATION AND CONSULTATION WE DECIDED THAT THIS WAS NOT REALLY PRACTICAL. THERE WOULD INEVITABLY BE A CERTAIN AMOUNT OF INTRA-COMMUNITY AUTO CIRCULATION, AND ELIMINATION OF ALL INTERIOR STREETS MAKES SUCH TRAVEL EXTREMELY CIRCUITOUS. ALSO THE FIRE DEPARTMENT OBJECTS TO ISOLATION OF LARGE AREAS WITHOUT CROSS ACCESS. FURTHER JUSTIFICATION FOR INTERIOR ROADS IS THAT THEY TEND TO BE A SOCIAL LINK RATHER THAN A
SOCIAL BARRIER. A MEMBER OF THE CITY PLANNING FACULTY POINTED OUT THAT LARGE GREEN BELTS ARE OFTEN MORE OF A BARRIER THAN STREETS WITH LIGHT TRAFFIC.

PARKING WAS A MAJOR PROBLEM, AND THE AREA DEVOTED TO IT IS SOMEWHAT ASTOUNDING. WE TRIED TO ACHIEVE A BALANCE BETWEEN EFFICIENCY, SAFETY AND CONVENIENCE TO RESIDENTIAL UNITS, WITHOUT LETTING THE AUTOMOBILE DOMINATE OTHER CONSIDERATIONS. THE LARGE LOTS TAKE THE FORM OF ONE WAY LOOPS WHILE SOME OF THE SMALLER LOTS ARE DEAD-ENDED. WE ALLOWED EIGHT FEET OF WIDTH PER PARKING STALL - EACH HOUSING UNIT WOULD BE ASSIGNED A PARTICULAR SPACE, AND ALMOST TEN PER CENT GUEST PARKING IS PROVIDED FOR.
ORIENTATION

THE ORIENTATION OF BUILDINGS WITH RESPECT TO THE SUN IS UNIVERSALLY RECOGNIZED AS A PROBLEM, BUT THERE SEEMS TO BE LITTLE AGREEMENT IN ITS SOLUTION. WHILE IT IS RELATIVELY EASY TO SATISFY THE REQUIREMENTS OF A PARTICULAR FAMILY, HABITS DIFFER TO SUCH AN EXTENT THAT IT WOULD BE IMPOSSIBLE TO KEEP "ALL OF THE PEOPLE HAPPY ALL OF THE TIME". THE NORTHEAST-SOUTHWEST AND NORTHWEST-SOUTHEAST ORIENTATION, WHICH WE ADOPTED, ALLOWS SOME SUNLIGHT TO STRIKE BOTH SIDES OF ALL BUILDINGS AT SOME TIME DURING THE DAY. THE FACT THAT OUR UNIT PLANS ARE OPEN FROM FRONT TO BACK ON THE GROUND FLOOR OF THE TWO-STORY ROW HOUSES AND ALSO IN THE FLATS PERMITS OCCUPANTS TO BE "AWARE OF SUNSHINE" ALL DURING A SUNNY DAY.
"PART OF THE PLOT IS A FLOWER GARDEN, AND THERE ARE A FEW FRUIT TREES AND A TINY VEGETABLE GARDEN. IT IS COMPLICATED AND DIFFICULT TO KEEP UP, AND INVOLVES ENDLESS PAINS (CALL IT THE ROMANTIC SIMPLE LIFE IF YOU LIKE) FOR THE HOUSEHOLDER AND HIS WIFE TO KEEP THINGS TIDY, TO WEED IT, WATER IT, KILL THE SLUGS AND THE REST. SOME PEOPLE MAY CALL THIS A HEALTHY FORM OF EXCERISE. ON THE CONTRARY IT IS A STUPID INEFFECTIVE AND SOMETIMES DANGEROUS THING."
"But now, owing to the quality of mind in design and device, appropriate to time, place, and circumstances, he is then well related to the ground he lives with. He lives with the ground, not merely on it. Birds sing for him, grass grows for him, rain falls for him on his growing garden...."
THE USE, MAINTENANCE, AND FACILITIES ON THE OPEN LAND ARE EXTREMELY IMPORTANT. AS LE CORBUSIER AND WRIGHT DIFFER IN THEIR OPINIONS OF A GARDEN, THE TASTES OF TENANTS WILL ALSO VARY. TO ALLOW FOR INDIVIDUAL DIFFERENCES WE PROVIDE PRIVATE LOTS ON THE COURT SIDE OF ALL TWO-STORY HOUSES AND FIRST FLOOR FLATS. THE SECOND FLOOR FLATS WILL BE FOR THE EXCLUSIVE ENJOYMENT OF NON-AGRICULTURALISTS. THE PROBLEM OF FENCES AND PRIVACY IS TOUCHY. IN THE AUGUST 1953 ISSUE OF THE FORTUNE, WILLIAM H. WHYTE, JR., IN AN ARTICLE ENTITLED "HOW THE SOBERBIA SOCIALIZES", TELLS OF FENCE EXPERIENCE IN PARK FOREST, ILLINOIS. TENANTS CONDONE NECESSARY FENCES OF THEIR NEIGHBORS, BUT ARE MUCH OPPOSED TO LARGE OR GAUDY FENCES. (IT IS ALSO INTERESTING TO NOTE THAT THERE IS A TENDANCY TO UNIFORMITY WITHIN A BLOCK. TENANTS VOLUNTARILY JOIN FORCES TO CREATE AN OVERALL HARMONY OF COLOR AND LANDSCAPING!) A PLAUSIBLE FENCE POLICY WOULD BE FOR MANAGEMENT TO RENT A SORT OF MODULAR FENCING - ALLOWING THE TENANT FREEDOM OF PLACEMENT ON HIS OWN PLOT. THE MAJORITY OF SPACE WITHIN A COURT WOULD BE
DEVOTED TO INDIVIDUAL PLOTS FOR WHICH TENANTS WOULD ASSUME RESPONSIBILITY. THERE WOULD BE PATH ACCESS AND A SMALL COMMON PARCEL OF LAND WITHIN ALL COURTS. TRICYCLE AGED CHILDREN WOULD TEND TO CENTER ACTIVITIES ON THE SIDEWALKS ON THE KITCHEN SIDE OF BUILDINGS, AND PLAY EQUIPMENT IN SMALL SCATTERED TOT LOTS WOULD BE PROVIDED FOR THEM.

SERVICES

A TOTAL OF TWELVE LAUNDRY ROOMS WOULD BE DISTRIBUTED THROUGH THE ENTIRE SITE, AT THE ENDS OF CERTAIN BUILDINGS, AND EACH WOULD HAVE TWO AUTOMATIC WASHING MACHINES AND TWO DRIERS. AS IN HANCOCK VILLAGE OUTSIDE DRYING WOULD BE FORBIDDEN.

GARBAGE WOULD BE HANDLED BY AN ELECTRIC DISPOSING UNIT IN EACH KITCHEN SINK. THESE CAN BE INSTALLED ON A QUANTITY BASIS FOR APPROXIMATELY $60.00 EACH, AND ARE NOW BEING PUT INTO WIDE USE THROUGHOUT THE COUNTRY.
FROM THE MANAGEMENT POINT OF VIEW TRASH WOULD BEST BE HANDLED IN RELATIVELY LARGE CENTRALLY LOCATED AREAS, BUT FROM THE TENANTS POINT OF VIEW THIS BECOMES QUITE A NUISANCE. THE COLLECTION OF TRASH SEEMS TO BE A WASTEFUL OPERATION BECAUSE OF THE NECESSITY OF EMPTYING CANS. SUCH CANS ARE NOISY, DIRTY AND INSECT INFESTED, AND IT IS PROPOSED THAT LARGE PLASTIC MESH SACKS COULD REPLACE THEM. THESE WOULD BE HUNG IN ENCLOSED CONTAINERS AND COULD BE COLLECTED ONCE A WEEK, WITHOUT BEING EMPTIED.

HEATING

AFTER INVESTIGATION OF SEVERAL DIFFERENT METHODS OF HEATING FOR THE MATTAPAN PROJECT, IT WAS DECIDED THAT A CENTRALLY LOCATED HEATING PLANT WOULD PROVIDE THE MOST EFFICIENT AND ECONOMICAL SYSTEM. A HEATING ENGINEER RECOMMENDED THAT A LOW PRESSURE STEAM SYSTEM WOULD BE THE MOST SATISFACTORY FOR THIS SIZE PROJECT. A LOW PRESSURE STEAM PLANT COULD BE OPERATED BY ONE OF THE PROJECT JANITORS AND WOULD NOT REQUIRE A LICENSED ENGINEER. THE BUILDING REQUIRED TO HOUSE THE BOILER PLANT WOULD BE APPROXIMATELY

IT IS ESTIMATED THAT APPROXIMATELY 700,000 GALLONS OF OIL WOULD BE REQUIRED TO HEAT THE PROJECT FOR ONE YEAR, WHICH WOULD REPRESENT AN ANNUAL HEATING BILL OF APPROXIMATELY $50,000. THE TOTAL ANNUAL HEATING COST OF PROVIDING HEAT AND MAINTENANCE WOULD BE APPROXIMATELY $60,000.

THOUGH THE INITIAL COST OF SUCH A SYSTEM IS HIGH, THE SAVING IN CENTRALIZED MAINTENANCE AND FUEL OVER A LONG PERIOD OF TIME ARE ENOUGH TO MAKE IT WELL WORTHWHILE.
DENSI

WE HAVE ALTERED THE BOUNDARIES AS ESTABLISHED IN THE PRELIMINARY MATTAPAN REPORT WHICH REDUCES THE AREA TO APPROXIMATELY 65 ACRES. THIS ACCOUNTS FOR ACREAGE DISCREPANCY BETWEEN OUR CALCULATIONS AND THOSE OF THE URBAN REDEVELOPMENT DIVISION.

IN PROVIDING 540 LIVING UNITS ON THE 65 ACRE TRACT, THERE IS A GROSS DENSITY OF SLIGHTLY MORE THAN EIGHT FAMILIES PER ACRE. WHILE THIS DENSITY IS SOMewhat LOW, IT SHOULD BE NOTED THAT HIGHER DENSITY DOES NOT NECESSARILY RESULT IN MUCH HIGHER RETURNS AS CORRESPONDING INCREASES IN LAND PREPARATION, UTILITIES AND MAINTENANCE ALSO OCCUR. HIGH DENSITY IS ONE OF THE CHIEF CRITICISMS OF MANY LOW MULTI-FAMILY DEVELOPMENTS. IT IS POSSIBLE TO CAPITALIZE ON THE BENEFITS OF COST REDUCTIONS WITHOUT INFlicting HIGH DENSITIES.

NEIGHBORHOOD FACILITIES

THE MATTAPAN REPORT POINTS OUT THE RELATION OF EXISTING FACILITIES TO THE SITE. (SEE MAP ENTITLED "NEIGHBORHOOD FACILITIES"). THE REPORT
ALSO PROPOSES THAT AN ELEMENTARY SCHOOL BE PLACED ADJACENT TO THE ALMONT STREET PLAYGROUND. WE FULLY AGREE THAT SUCH A SCHOOL IS NEEDED, AND ITS BEST LOCATION WOULD BE NEAR THE PLAYGROUND, WHERE IT WOULD SERVE AS A LINK BETWEEN THE NEW DEVELOPMENT AND THE EXISTING NEIGHBORHOOD, AND THIS FITS IN WITH THE PLANS OF THE SCHOOL BOARD.

THOUGH BEYOND THE SCOPE OF THIS PROBLEM, IT IS QUITE POSSIBLE THAT NEIGHBORHOOD SHOPPING FACILITIES ALONG CUMMINS HIGHWAY COULD BE PROVIDED. THESE SHOULD ATTRACT CONSIDERABLE PEDESTRIAN TRADE FROM THE NEW NEIGHBORHOOD, BUT A MARKET ANALYSIS SHOULD BE CONDUCTED TO DETERMINE THE OVERALL TRADE PATTERNS OF THE AREA.
"Take for example, a particular group - the forty or forty-five families, say, that live in a cluster of buildings centered around a parking court. Look into the religion of each, their family background, where they were born, how much education they've had, their taste in books and TV, whether or not they drink, what games they like to play. You will find that each one of these considerations affects their friendships. Yet when you try to correlate these factors with the way groups shape up, almost by elimination you are left with one basic explanation - what really counts is the effect of physical layout."

How the New Suburbia Socializes
William H. Whyte, Jr., August 1953 Fortune

In this article Whyte goes into considerable explanation of how physical planning has affected social patterns in Park Forest, Illinois. He indicates that group patterns remain even when occupancy changes. He concludes by pointing out that while those who are members of a "gang", are pleased to be so, the "deviates" are made extremely unhappy when excluded. Thus it would be best to encourage a large number of social
CONTACTS, so that people with common interests would be brought together even if they were not immediate neighbors.

It is with this in mind that we have tried to shape a physical pattern which would help to form a happy social framework. The site is divided into four approximately equal parts. The nucleus for these major groups is a small community building for each, which would serve as enclosed community space. It would be possible for these buildings to function as hobby centers, club meeting rooms, a day nursery, or any suitable combination of such activities. It is important that the uses should be initiated and desired by the residents, so that they would be responsible for all operation, and have a community pride in the results. Nominal charges could cover the cost of heating and electricity, but the original costs would be included in the financing scheme.

The next social subdivision is that of the courts. These are wide enough to provide privacy between the porches and balconies of opposite buildings, but small enough to give a sense of enclosure.
AND UNITY. THE INDIVIDUAL YARDS AND GARDEN PLOTS ARE WITHIN THESE COURTS, ALWAYS ON THE OPPOSITE SIDE OF BUILDINGS FROM THE AUTOMOBILE PARKING.

IT IS EXPECTED THAT THERE WOULD BE A TENDANCY FOR PRIMARY SOCIAL GROUPS TO FORM WITHIN BUILDINGS. IT WILL BE NOTED THAT IN SOME CASES BUILDINGS DO NOT FACE COURTS BUT OPEN INTO THE COMMUNITY AREA. IN WESTGATE WHERE A SINGLE HOUSE FACED AWAY FROM THE CENTER OF COURTS, IT WAS FOUND THAT THIS REDUCED THE NUMBER OF FRIENDS OF THE OCCUPANTS. IN THE CASE WHERE SEVEN OR MORE FAMILIES ARE CONCERNED, IT IS NOT EXPECTED THAT FAMILIES WOULD BE TOO ISOLATED.

THE INTERMINGLING OF FLATS AND ROW HOUSES IS INTENDED TO FORM FRIENDSHIPS BETWEEN FAMILIES OF VARIOUS SIZES AND TYPES. THE RANGE OF PRICE AND THE DECISION TO LIVE IN SUCH A DEVELOPMENT WOULD TEND TO SET LIMITS OF HETEROGENEITY. IT IS OUR BELIEF THAT WITHIN THESE LIMITS MIXTURE IS ESSENTIAL TO BALANCED COMMUNITY LIFE.
UNIT DESIGN

SIX DIFFERENT UNIT TYPES ARE PROVIDED FOR WITHIN THE SAME STRUCTURAL FRAMEWORK. THERE IS A TOTAL OF 540 UNITS WHICH RANGE IN SIZE FROM ONE BEDROOM FLATS TO FOUR BEDROOM TWO-STORY ROW HOUSES. ONE HALF OF THE STRUCTURAL VOLUME IS DEVOTED TO ROW HOUSES AND THE OTHER HALF TO FLATS. THESE ARE JOINED IN VARIOUS COMBINATIONS TO CREATE DIFFERENT LENGTH BUILDINGS.

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<th>No. of Units</th>
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<th>Porch Area</th>
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CONSIDERABLE EXTERIOR VARIETY IS ACHIEVED BY
THE DIFFERENT DISPOSITION OF PORCHES AND BALCONIES
IN EACH UNIT. THUS ON THE GARDEN SIDE THE FACADE
IS RELIEVED BY PORCHES WHICH ARE ALL COMPLETELY
SCREENED FROM ADJACENT PORCHES. FLATS OCCUR IN
GROUPS OF SIX - THREE ON THE FIRST FLOOR AND
THREE ABOVE. ONE BEDROOM UNITS ARE IN THE CENTER
WITH A TWO BEDROOM FLAT ON EITHER SIDE. THE UPPER
THREE FLATS ARE SERVED BY A COMMON EXTERIOR STAIR.

THE FLOOR AREAS OF THE ROW HOUSES ARE SMALL FOR
THE NUMBER OF BEDROOMS WHICH THEY CONTAIN, BUT
ARE VISUALLY SPACIOUS AND EXCITING BECAUSE IN
EACH CASE TWO STORY SPACES ARE LEFT OPEN. THE
THREE AND FOUR BEDROOM UNITS ALL HAVE A LAVATORY
ON THE FIRST FLOOR, WHILE THE TWO BEDROOM UNITS
DO NOT. EXCEPT FOR THE KITCHEN AND LAVATORY,
THE FIRST FLOOR IS LEFT ENTIRELY OPEN AND THE
TENANT COULD FREELY DETERMINE HIS OWN USE OF
SPACE. THE DOWNSTAIRS STORAGE UNIT IS FREE-
STANDING AND MOVABLE ACCORDING TO TENANT TASTE.
BEDROOM STORAGE TAKES PLACE IN TWO PREFABRICATED
UNITS - ONE IS TWO FEET DEEP, THREE FEET WIDE
AND SEVEN FEET HIGH FOR HANGING CLOTHES, THE
OTHER IS ONE FOOT DEEP, THREE FEET WIDE AND
SEVEN FEET HIGH WITH OPEN SHELVES AND ENCLOSED
DRAWERS FOR FLAT CLOTHES AND MISCELLANEOUS STORAGE. THESE UNITS CAN BE COMBINED IN VARIOUS WAYS TO SUIT THE CONDITIONS OF EACH PLAN, BUT ARE FIXED PERMANENTLY IN PLACE.

STRUCTURE

THE FOUNDATIONS OF ALL HOUSING UNITS ARE ISOLATED CONCRETE FOOTINGS IN ORDER TO MINIMIZE EXCAVATION IN THE ROCKY GROUND. FOOTINGS ARE SPACED ON THE UNIFORM MODULE FOR ALL BUILDINGS - 21'-6" X 9'-0" ON CENTERS.

THE MAIN STRUCTURE IS WELDED STEEL FRAME. 10 X 5'3'' X 21' STEEL BEAMS ARE WELDED TO 6 X 6 X 20 H COLUMNS TO FORM A RIGID FRAME. THE BEAMS SPAN THE 21'-0" WIDTH OF UNITS. THE WELDED FRAMES ARE BRACED BY DOUBLE WALL PANELS BETWEEN UNITS.
THERE ARE NO OTHER FRAMING MEMBERS, AS THE FLOORS AND ROOF ARE CONSTRUCTED OF 9'-0" x 3'-0" x 3.5" METAL HONEYCOMB PANELS WHICH SPAN THE 9'-0"
DISTANCE BETWEEN BEAMS. 3/16" CORK IS BONDED TO THE TOP SURFACE OF FLOOR PANELS TO SERVE AS FINISHED FLOORING. ADDITIONAL PANELS FOR THE INSULATION OF HEAT AND SOUND ARE SUSPENDED FROM THE BOTTOM FLANGE OF BEAMS BETWEEN FLATS.
SUMMARY OF RESULTS OF TEST BORINGS

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<th>GROUP</th>
<th>NO. OF BORINGS</th>
<th>APPROX. AREA</th>
<th>SOIL RATING</th>
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<tr>
<td>5</td>
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</tbody>
</table>
IT IS PROPOSED THAT THE ENTIRE PROJECT AREA OF APPROXIMATELY FIFTY ACRES BE DEVELOPED BY A SINGLE DEVELOPER SUCH AS AN INSURANCE CORPORATION. MANY LARGE MULTI-FAMILY HOUSING DEVELOPMENTS ARE PRESENTLY OWNED BY INSURANCE CORPORATIONS. AN EXCELLENT EXAMPLE OF THIS IS THE BALDWIN HILLS PROJECT IN LOS ANGELES, CALIFORNIA OWNED BY THE NEW ENGLAND MUTUAL INSURANCE CORPORATION. A LARGE NUMBER OF THE MAINTENANCE COSTS OF THE MATTAPAN PROJECT AS PROPOSED BY THIS THESIS ARE BASED ON THE BALDWIN HILLS PROJECT.

SECTION 10 CHAPTER 121A OF THE GENERAL LAWS OF MASSACHUSETTS MAKE IT POSSIBLE FOR THE DEVELOPER OF THE MATTAPAN PROJECT TO RECEIVE SPECIAL TAX BENEFITS. THE LAW STATES THAT THE REAL ESTATE AND PROPERTY OF ANY SUCH CORPORATION SHALL BE EXEMPT FOR FORTY YEARS FROM TAXATION UNDER CHAPTER 59 (ASSESSMENT OF LOCAL TAXES).
THEREOF THE CORPORATION SHALL PAY ANNUALLY TO THE COMMONWEALTH AN EXCISE AMOUNT TO FIVE PER CENT OF ITS GROSS INCOME FROM ALL SOURCES AND TEN DOLLARS PER THOUSAND UPON THE FAIR CASH VALUE OF THE REAL ESTATE AND TANGIBLE PERSONAL PROPERTY OF THE CORPORATION, PROVIDED THAT THE TAX IN ANY EVENT SHALL NOT BE LESS THAN THE TAX WHICH THE MUNICIPALITY WOULD RECEIVE ON THE REAL ESTATE WITHIN THE PROJECT, IF THE PROJECT HAD NOT BEEN UNDERTAKEN.

THIS SPECIAL TAX PROVISION IS EXCEPTIONALLY WORTHWHILE BECAUSE OF THE EXTREMELY HIGH TAX RATE IN THE CITY OF BOSTON. THE PRESENT BOSTON TAX RATE IS SEVENTY DOLLARS AND SEVENTY CENTS PER THOUSAND DOLLARS EVALUATION.

SITE PURCHASE

THE MATTAPAN PROJECT REPORT PREPARED BY THE URBAN REDEVELOPMENT DIVISION OF THE BOSTON HOUSING AUTHORITY PROPOSES THAT THE MATTAPAN PROJECT AREA BE ACQUIRED BY THE CITY OF BOSTON FOR THE PURPOSE OF SITE PREPARATION. THIS IS
**PLANNING AND ENGINEERING**

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>29 Properties, Land and Buildings - $5,000 to $6,500</td>
<td>$175,000</td>
</tr>
<tr>
<td>Privately Owned Land 1,100,000 sq.ft. at $.06 to $.09</td>
<td>$88,000</td>
</tr>
<tr>
<td>Tax Foreclosed Open Land 650,500 sq.ft. discounted at $.05</td>
<td>$32,000</td>
</tr>
<tr>
<td><strong>Estimated Acquisition Cost</strong></td>
<td>$375,000</td>
</tr>
</tbody>
</table>

**Site Preparation**

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Project Cost</td>
<td>$875,000</td>
</tr>
</tbody>
</table>

**Estimated Land Sale Value at $.15 per sq.ft. x 2,267,500 sq.ft.**

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estimated Land Sale Value at $.15 per sq.ft. x 2,267,500 sq.ft.</td>
<td>$340,000</td>
</tr>
<tr>
<td><strong>Net Project Subsidy</strong></td>
<td>$535,000</td>
</tr>
</tbody>
</table>

**Federal Government Share of Expense = 2/3**

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Federal Government Share of Expense = 2/3</td>
<td>$356,600</td>
</tr>
</tbody>
</table>

**City of Boston Share of Expense = 1/3**

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Boston Share of Expense = 1/3</td>
<td>$178,400</td>
</tr>
</tbody>
</table>
# Annual Operating Cost

## Personnel

<table>
<thead>
<tr>
<th>Position</th>
<th>Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manager</td>
<td>$6,000</td>
</tr>
<tr>
<td>Assistant Manager</td>
<td>4,000</td>
</tr>
<tr>
<td>Two Secretaries</td>
<td>6,000</td>
</tr>
<tr>
<td>Superintendent</td>
<td>4,800</td>
</tr>
<tr>
<td>Six Janitors</td>
<td>19,800</td>
</tr>
<tr>
<td>Six General Workers</td>
<td>15,000</td>
</tr>
</tbody>
</table>

**Total Payroll** $55,600

## Maintenance

<table>
<thead>
<tr>
<th>Category</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Office Costs</td>
<td>5,000</td>
</tr>
<tr>
<td>Exterior Building Maintenance</td>
<td>12,000</td>
</tr>
<tr>
<td>Interior Building Maintenance</td>
<td>20,000</td>
</tr>
<tr>
<td>Supplies</td>
<td>5,000</td>
</tr>
<tr>
<td>Gardening and Snow Removal</td>
<td>7,500</td>
</tr>
<tr>
<td>Equip. Expense (2 Trucks, etc.)</td>
<td>2,000</td>
</tr>
</tbody>
</table>

**Total Maintenance** $41,500

## Utilities

<table>
<thead>
<tr>
<th>Service</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heat</td>
<td>60,000</td>
</tr>
<tr>
<td>Lights and Power</td>
<td>2,850</td>
</tr>
<tr>
<td>(General Project Lighting)</td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td>9,200</td>
</tr>
</tbody>
</table>

**Total Utilities** $72,050

## Taxes

- $10/Thousand of Evaluation Plus 5% of Gross Annual Rents $98,900
- Insurance Premiums $6,400

**Annual Operating Cost** $284,450
RENTAL ESTIMATES

CALCULATIONS

DEVELOPERS RETURN ON INVESTMENT @ 8%

<table>
<thead>
<tr>
<th>Interest</th>
<th>$283,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amortization</td>
<td>$169,800</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>452,800</strong></td>
</tr>
</tbody>
</table>

ANNUAL OPERATING COSTS $284,450

ANNUAL INCOME TO BE REALIZED 737,250

ANNUAL INCOME $737,250
NUMBER OF ROOMS X 12 = 7440 X 12

= 22.50 (RENTAL PER ROOM PER MONTH)

ADJUSTED RENTALS PER MONTH INCLUDING
HEAT AND SERVICES. TENANTS WILL PAY
INDIVIDUAL ELECTRIC BILLS.

ROW HOUSES

<table>
<thead>
<tr>
<th>Units</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 Bedroom Units</td>
<td>160.00</td>
</tr>
<tr>
<td>3 Bedroom Units</td>
<td>145.00</td>
</tr>
<tr>
<td>2 Bedroom Units</td>
<td>125.00</td>
</tr>
</tbody>
</table>

FLATS

<table>
<thead>
<tr>
<th>Units</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Bedroom Units</td>
<td>105.00</td>
</tr>
<tr>
<td>1 Bedroom Units</td>
<td>90.00</td>
</tr>
</tbody>
</table>

NOTE

A 25% INCREASE IN CONSTRUCTION COSTS WOULD RESULT
IN $.35 INCREASE IN RENT PER ROOM PER MONTH.

A 25% INCREASE IN MAINTENANCE COSTS WOULD RESULT
IN $2.00 INCREASE IN RENT PER ROOM PER MONTH.
1. SERT, LOUIS - CAN OUR CITIES SURVIVE?
2. WOODBURY, COLEMAN (EDITOR) - THE FUTURE OF CITIES AND URBAN REDEVELOPMENT.
3. WOODBURY, COLEMAN (EDITOR) - URBAN REDEVELOPMENT PROBLEMS AND PRACTICES.
4. STEIN, CLARENCE - TOWARD NEW TOWNS FOR AMERICA.
5. LE CORBUSIER - THE CITY OF TOMORROW AND ITS PLANNING.
6. WRIGHT, FRANK LLOYD - WHEN DEMOCRACY BUILDS.
7. GALLION - THE URBAN PATTERN.
8. GEDDES, PATTRICK - CITIES IN EVOLUTION.
9. WRIGHT, HENRY - REHOUSING URBAN AMERICA.
10. ABRAMS, CHARLES - THE FUTURE OF HOUSING.
11. SAARINEN - THE CITY.
12. LE CORBUSIER - CITIES OF TOMORROW.
14. BAUER, CATHERINE - MODERN HOUSING.
15. FESTINGER, LEON, SHAFTER, STANLEY AND BACK, KURT - SOCIAL PRESSURES IN INFORMAL GROUPS.
17. BAUER, CATHERINE - SOCIAL QUESTIONS IN HOUSING AND COMMUNITY PLANNING.
PART IV
LOW MULTI-FAMILY HOUSING
A NEIGHBORHOOD NUCLEUS FOR MATTAPAN
TWO FLOOR ROW HOUSES

4 BEDROOM

TWO FLOOR ROW HOUSES
SIX TYPICAL UNITS