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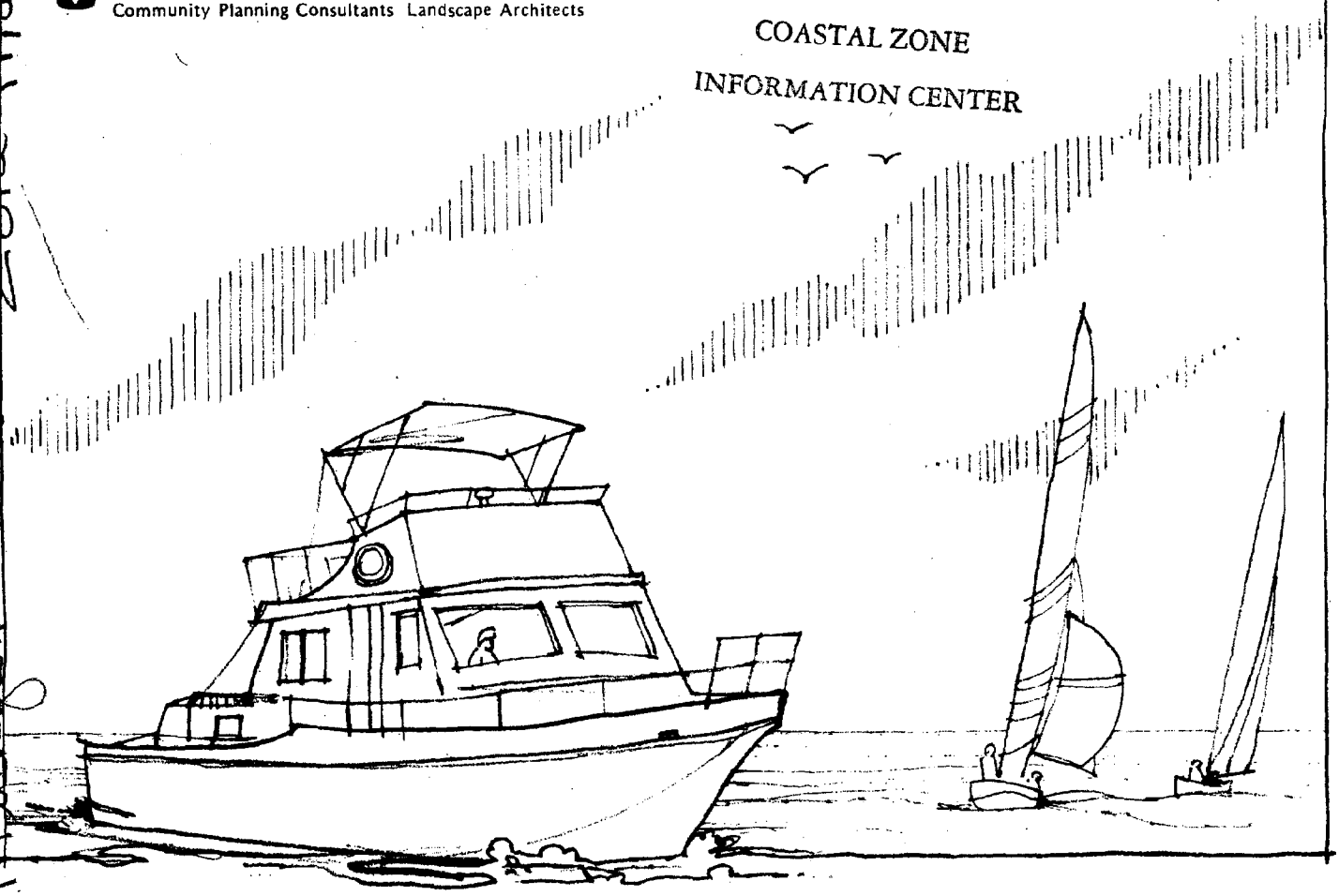
Michigan Coastal Zone Management Program

CHRIS-CRAFT PROPERTY REDEVELOPMENT STUDY

CITY OF ALGONAC, MICHIGAN

VILICAN·LEMAN & ASSOCIATES, INC.
Community Planning Consultants Landscape Architects



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CHRIS-CRAFT PROPERTY
REDEVELOPMENT STUDY

PREPARED FOR
CITY OF ALGONAC, MICHIGAN

AUGUST, 1982

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BY

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INTRODUCTION

Since the middle to late 1960's, when Chris-Craft, Inc. closed their Algonac boat manufacturing plant, a variety of proposals have been examined for use of the site. The first was a 1968 study prepared by Samuel E. Shelsky Associates, Marina Planning Consultants for Chris-Craft, Inc. A project titled "North Pointe Marina" was proposed as a suitable reuse for the major portion of the parcel. Private development of the site for a motel, pitch and putt golf course with pool and a 160 berth marina with dry dock storage, parts and supplies, repair service and indoor storage was proposed yet never materialized.

In 1976, the City of Algonac purchased the plant and its associated land area and in 1977 annexed it from Clay Township into the City. An engineering report was prepared for the City in 1978 by Valentine-Thomas and Associates, Inc., for a 144 well public marina and public boat launch with indoor boat storage. The project, projected to cost $3,655,700, was placed on the Michigan Department of Natural Resources - Waterways Division's list of projects considered for funding. However, funds available for marina construction from the Waterways Division have decreased dramatically over the years with many projects having higher priority than that in Algonac. As a result, the City determined that alternate uses should be considered for the site. These uses could be all public, all private or a combination of both. Further, residential, marina, commercial and industrial activities were to be examined to determine their potential for development.

The following report presents an analysis of the existing condition of the site and its environs, an overview of the site's market potential and three conceptual schemes for the types of development seen as market acceptable. A refined final illustrative site plan is also presented, embodying the conclusions derived from the market overview and public meetings of the Algonac Harbor Commission, Planning Commission and City Council. Preliminary development cost estimates are presented and a program of developer solicitation and improvements is presented along with an evaluation of public funding sources.

EXISTING CONDITIONS ANALYSIS

The project site is located on the North Channel of the St. Clair River in Algonac, St. Clair County, Michigan. The waters of the St. Clair River flow from Lake Huron and into Lake St. Clair, a busy part of the Great Lakes navigation system. The location of the 47.64 acre site in regard to both the river and M-29, a major vehicle thorofare, combined with its level topography render it excellent for water access and water related development.

M-29 passes through the site dividing it into two parcels: 8.74 acres to the north and 38.9 acres to the south. The northern parcel is vacant, undeveloped land without water access, bordered by industrial and utility uses for the most part. An open storm drain and sanitary sewer easement further divides this parcel into two portions. The area east of the drain, adjacent to the City D.P.W./sewage treatment plant, is used during the summer by local baseball leagues, although unimproved.

The southern parcel, being much larger and with waterfront access along the Batteaux Canal and North Channel, was initially developed for Chris-Craft operations. Most of the former manufacturing complex has been demolished but the main assembly building now provides over 100,000 square feet of indoor boat storage and boat repair service. Two large hoists and a small marina (25 open boat wells, 15 covered) compliment the storage facility and are all operated by a private concessionaire.

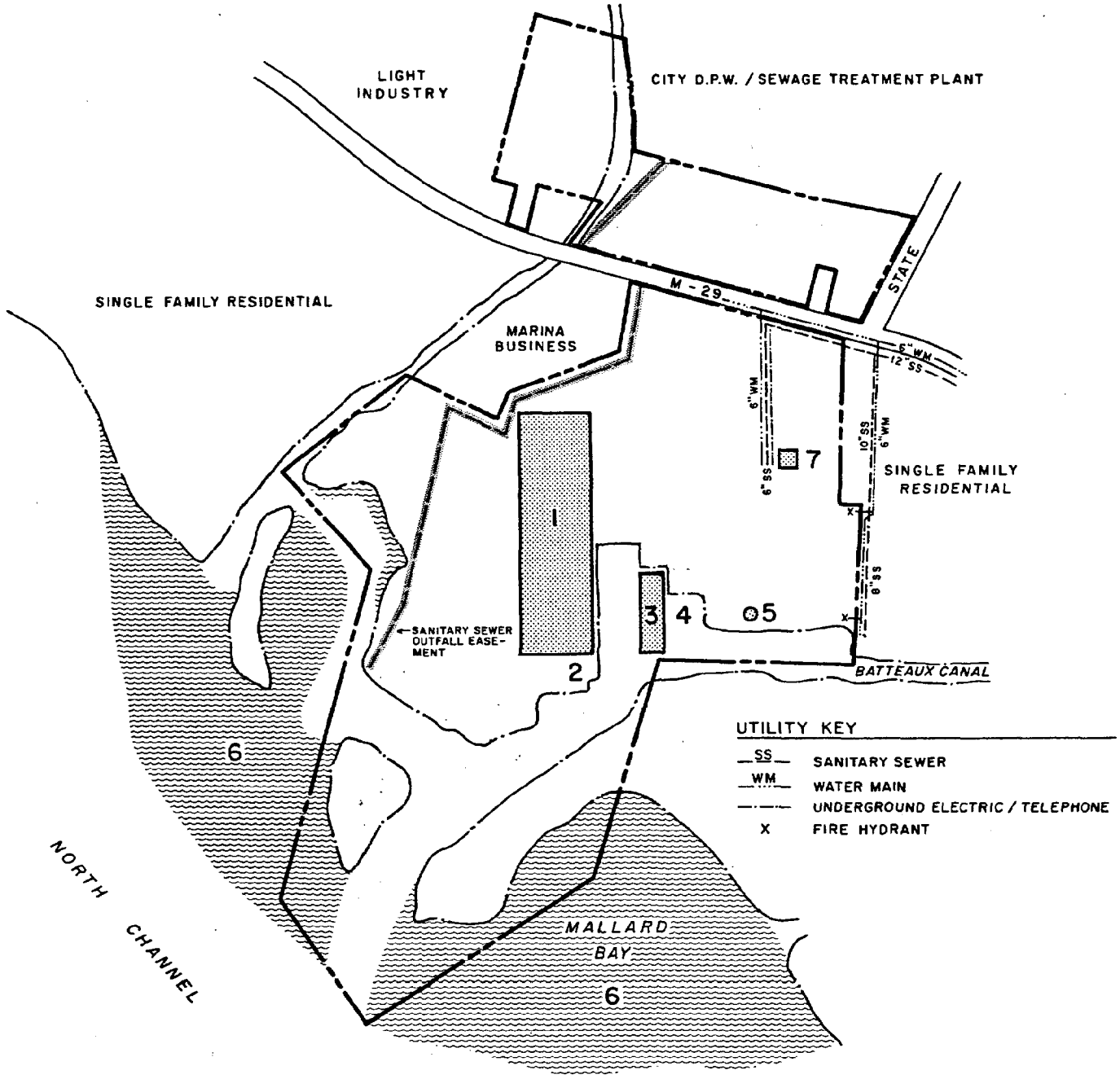
While the tenant of "Algonac Harbor" has recently improved the boat hoists, the general condition of the building and marina facilities are poor. The marina docks and boathouse are aging, and the mooring basin and channel is in need of dredging; much of the water is as shallow as three feet in depth.

The former manufacturing plant remains suitable for boat storage use but for little else; major roof repair and minor structural work will be necessary in the near future, particularly in the oldest portion of the building which has a wood skeleton. The southern two-thirds has a steel skeleton with the entire structure having block and glass walls with a wood roof.

A graveled boat launching ramp is open to the public, providing free access to City residents. A small fee is charged to nonresidents. Despite the poor condition of the launch area, the facility is intensely used. This is most likely due to the large capacity of the parking area and the lack of cost to residents; the nearest public access points at the Algonac State Park and Fairhaven are of even poorer quality and lack parking space.

The City's only other use of the site is a small community center with a basketball court, play equipment and outdoor ice skating area located in the northeast portion, as illustrated in the accompanying sketch. The community center is the only structure on the site served by City water and sanitary sewer. The Chris-Craft facility had an extensive water and septic system, but at present, it is serviceable only to the limited demands of the boat storage facility. Even the existing water tower, although still a substantial structure, is nonfunctional. Any new development would best make use of the available City water and sewer service off M-29.

The general topography of the southern parcel is rather flat, slightly sloping toward the waterfront and, with the exception of a small area surrounding the community center, within the 100 year floodplain. Although the mainland parcels are devoid of significant vegetation, the site includes marshland and small island segments which, in addition to the adjacent Mallard Bay, are prime wildlife habitats. A thorough analysis of existing natural conditions and the impacts of development on this site was undertaken in 1975 when "Environmental Impact Assessment for: Algonac Marina Development" was prepared by Robert McIntyre. In this report these areas were specifically described as "valuable . . . spawning beds and nurseries for a variety of game and nongame fish." The Mallard Bay area was noted as "the highest producer of fish and fish food in the Great Lakes System." As the site has changed little since this extensive study was done, the summary and findings of this 1975 report have been relied upon as a basis for design proposals set forth in this current study.



EXISTING CONDITIONS SKETCH

1 BOAT REPAIR / STORAGE BUILDING

2 BOAT HOISTS

3 MARINA W/ COVERED WELLS

4 UNIMPROVED BOAT LAUNCH AREA

5 WATER TOWER

6 CATTAIL & BULLRUSH MARSH AREAS

7 ALGONAC COMMUNITY CENTER

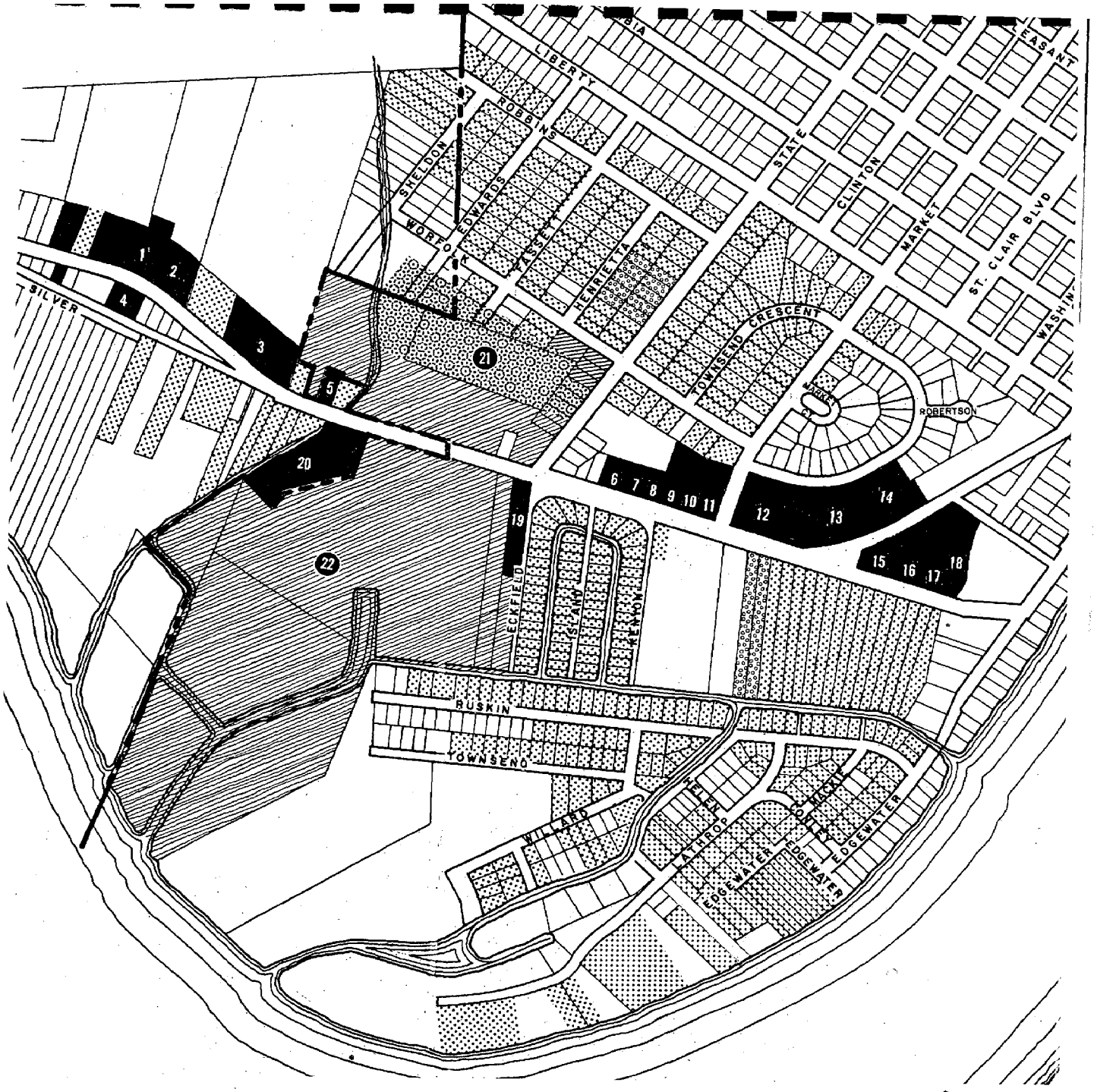
N

While the excellent visual interest of the waterfront areas, the busy pleasure-boat traffic on the North Channel and picturesque Harsens Island in the background enhance the site's development potential, the type, intensity and arrangement of proposed uses have been carefully balanced against the probable impact to the biotic habitat and existing residential development bordering the site. The following map portrays the location and nature of land uses within 500 feet of the subject site.

As part of the development plan process, the City's Zoning Ordinance was examined to ascertain what, if any, restrictions to development is posed. The MB Marina Business District, in which the southern portion of the site is located, allows a wide variety of marina related commercial including boating sales and supplies and boat repair. Also allowed are restaurants and taverns. Further, any use permitted in a residential district is allowed subject to Planning Commission approval and provided it meets the zoning regulations of the highest residential district in which it is first allowed. However, many industrial uses may not be appropriate to the MB District and would thus require rezoning. The northern portion of the site, when annexed by the City, was zoned into the residential district. No further action regarding alteration of the zoning to MB to match the southern portion was taken. The proposed marina-related and/or industrial development thus are in conflict with uses permitted. Rezoning to Light Industrial and Marina Business to facilitate site development should be considered.

EXISTING LAND USE
CHRIS-CRAFT SITE VICINITY

1. Minnick Kelly Ford-Mercury
2. Almar Bar
3. M & F Contractors
4. Action Auto
5. Highstreet Used Cars
6. Crockers Beverage Store
   Crockers Sport & Cycle
7. Clark Gas Station
8. Self Wash Car Wash
9. Vacant Store
10. Brackett Auto Parts
11. Clates Service
12. Algonac Flower Shop
13. Beauty Shop
14. IGA
15. Best Service Station
16. Loves Restaurant
17. Algonac Econ-O-Wash
    (Laundromat)
18. Algonac Decorating Center
19. V.F.W. Hall
20. Chris-Craft
    Parts Store
21. Department of Public Works
22. Community Center
    Algonac Harbor
    Algonac Public Boat Launch



SINGLE & TWO FAMILY
MULTIPLE FAMILY
COMMERCIAL
INDUSTRIAL
PUBLIC
CHRIS-CRAFT PROPERTY
1 SEE FOLLOWING PAGE FOR KEY

0 400 800 FT.
MAY, 1982

VILICAN-LEMAN & ASSOCIATES, INC.
Community Planning Consultants

EXISTING LAND USE

CHRIS-CRAFT ENVIRONS

CITY OF ALGONAC, MICHIGAN

MARKET OVERVIEW

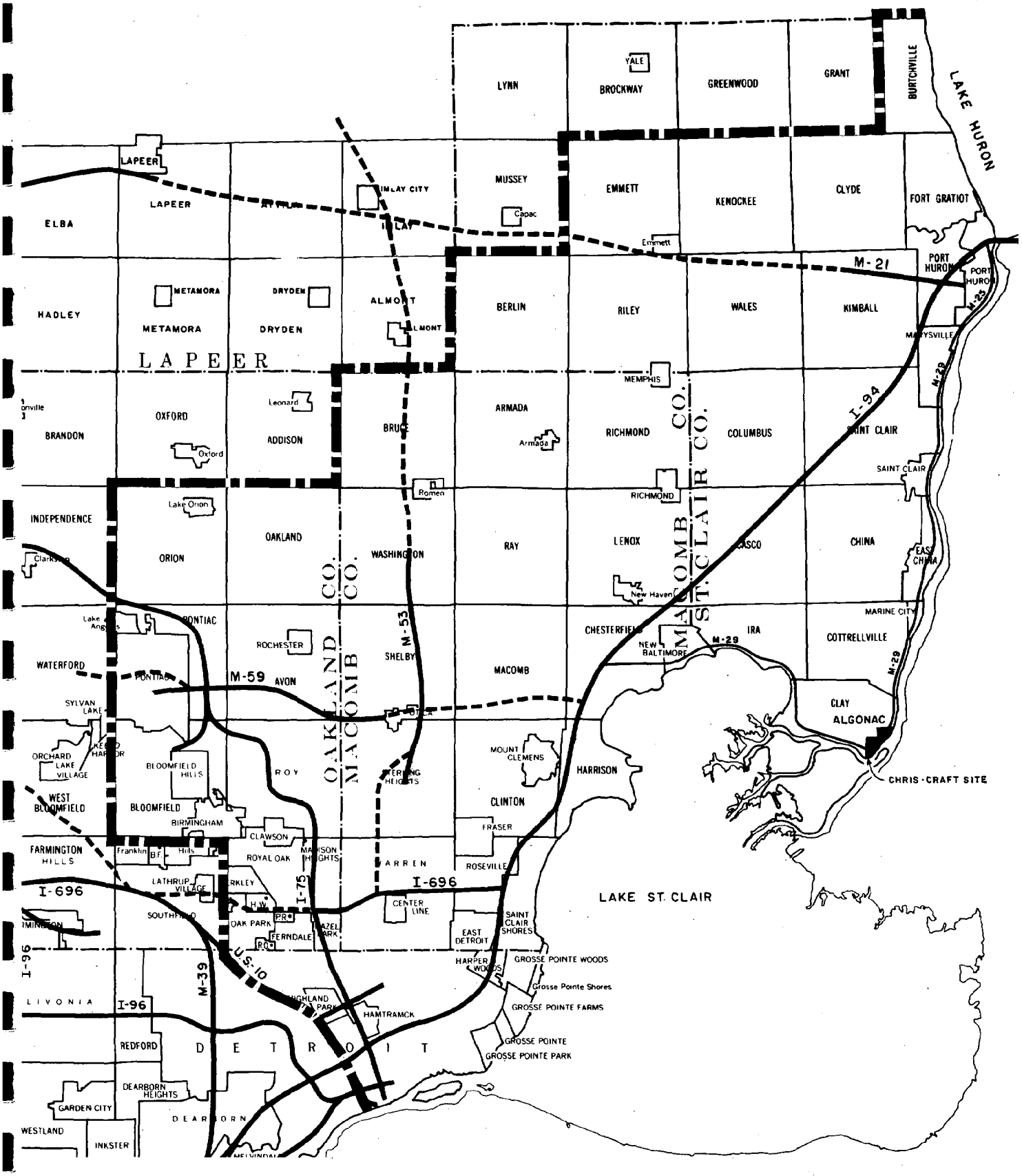
MARKET AREA DELINEATION

Recent studies derived from Michigan boater surveys indicate that almost 75 percent of all boating activity occurs within an hour's drive from home. This is especially true for persons in coastal regions such as southeast Michigan where there are numerous boating opportunities. Thus, the unit or area of analysis for a study of the market potential of the subject site includes all communities located within an hour's drive of the Chris Craft property. Communities were included in total if the major share of their population was estimated to reside within an hour of Algonac. The distance involved was derived from analysis of freeway and main surface route speed limits and the impact on these limits of heavy seasonal traffic. The following map identifies communities within the "One Hour Algonac Market." Oakland, Macomb, St. Clair and Wayne Counties are contained, all or in part, in the One Hour Market.

DEMOGRAPHIC TRENDS

Population Trends

The One Hour Market had, between 1970 and 1980, a 5.7 percent population loss. The main location of this loss was in Detroit and its immediate suburban fringe as well as in the City of Pontiac. These declining communities are characterized by an aging population and housing stock with little or no room for growth. Thus, the new population growth which did occur was in the more northerly portions of the Detroit area. The population decline in the Detroit portion of the One Hour Market was 185,000+ persons. Often persons moving from Detroit relocated in the suburbs, many of which are in the One Hour Market. The 1981 population of the One Hour Market is estimated to be 2,030,840 persons in 713,775 households. SEMCOG population projections for the year 2000 for the area are for 2,191,700 persons or an increase over 1981 levels of almost 161,000 persons or eight percent.



COMMUNITIES WITHIN A ONE HOUR DRIVE OF ALGONAC

Population, Age and Income Composition

While no current official census data is available on 1980 income distribution, other data on population characteristics are available. Income distributions for 1981 have been estimated. The results of such estimates are shown along with 1980 census derived age distributions in TABLE 1.

TABLE 1

CURRENT POPULATION CHARACTERISTICS
ONE HOUR MARKET

1980 Age Distribution	One Hour Market	St. Clair County	Macomb County	Oakland County	Wayne County
0-20 years	34.3%	37.1%	35.5%	33.5%	34.6%
21-29	16.0%	14.4%	15.9%	15.9%	16.5%
30-44	18.7%	18.7%	20.1%	20.9%	17.7%
45-54	10.6%	9.8%	11.3%	11.2%	10.4%
55-64	10.1%	9.3%	9.5%	9.6%	10.4%
65-74	6.3%	6.5%	4.9%	5.4%	6.3%
75 +	4.0%	4.2%	2.8%	3.5%	4.1%
1981 Family Income					
$0-$9,999	11.9%	16.0%	7.3%	7.2%	13.0%
$10,000-$14,999	9.4%	13.0%	7.6%	7.5%	9.8%
$15,000-$19,999	13.3%	18.5%	14.3%	12.3%	13.4%
$20,000-$24,999	17.1%	18.4%	19.6%	14.7%	17.0%
$25,000-$34,999	26.0%	21.2%	32.7%	28.5%	26.5%
$35,000-$49,999	13.6%	8.6%	13.5%	16.8%	13.5%
$50,000 +	8.5%	4.5%	5.0%	13.1%	6.7%
1981 Median Income	$24,459	$20,694	$25,334	$27,939	$24,046
1980 Median Household Size	2.81	2.92	3.0	2.82	2.8

SOURCE: 1980 Census
Urban Decision Systems Inc., 1982

Household (Family) Characteristics

During the 1970-1981 time frame, the One Hour Market had a 7.7 percent increase in households or a 51,020 numerical increase. In 1970, as a proportion of the total market county households, the One Hour Market was 50.9 percent. This proportion decreased slightly to 49.1 percent by 1981. The main contributor to this decrease is decline in the City of Detroit portion of the One Hour Market coupled with the fact that substantial growth occurred in Oakland County communities located outside of but in close proximity to the One Hour Market. By 2000, the One Hour Market will contain 48 percent of the four counties' households.

In the 1970 to 1981 time span, the average household size in the One Hour Market decreased from 3.2 persons to 2.81 persons. This is an indication of the emergence of those persons born during the post World War II baby boom years into young adulthood. Also, along with this growth in young adults came the beginning of an increase in the number of retirees and "empty nesters" whose children had moved away from home.

Boater Demographics

Recent studies of boat owner characteristics by Stynes and Fridgen of Michigan State University (Sea Grant Program) indicate that as of 1980, the greatest proportion of Michigan boat ownership is among older families with older children at home, young "empty nesters" (persons aged 40-60 with grown children), and those in or near retirement age (60+ years). Further, the average age of the head of household for a first boat purchase is 34 years. The age group having the highest tendency to enter the boat market is 25-40 years old. During the 1970's, this age group segment exhibited the fastest growth rate both nationally and in the Detroit area. In future years, during the balance of the 1980's, the growth will shift to the 35-44 year age group and move into the 45-54 age group in the 1990's. When these growth prospects, which require no growth in total population but merely its natural aging, are compared to the boater profiles shown in the following pages, it is clear that a strong boat market will exist until the year 2000.

TABLE 2

BOATER PROFILE

Age	
0-20 years	2.0%
21-30	9.5%
31-40	19.5%
41-50	21.6%
51-60	23.0%
61-70	17.9%
71+	6.4%
Median	49.7
Median School Years	12.3

Income (Family)	
$0-$9,999	13.3%
$10,000-$14,999	14.2%
$15,000-$19,999	13.5%
$20,000-$24,999	17.6%
$25,000-$29,999	11.7%
$30,000-$34,999	9.1%
$35,000-$39,999	6.0%
$40,000 +	14.6%
Median	$22,556
Median Household Size	2.7

SOURCE: Daniel J. Stynes and David Safronoff, 1980 Michigan Recreational Boating Survey, Michigan State University, Michigan Sea Grant Program, January 1982.

NOTE: It should be noted that 1980 census data available on age groups does not allow full correspondence with that utilized by Stynes and Safronoff.

While state-wide median income of all boaters is $23,000, the income increases with the size of the boat owned as well as with coastal residence. Further, only two percent of registered boaters are nonwhite. Fully, 30 percent of registered boaters own a second home of which the majority have waterfront access. Boat ownership is most prevalent among two person households (36.9 percent) and over 73 percent of owners do not have children under age 12.

Boat ownership differs significantly by life cycle. Styne and Safronoff differentiate between seven different life cycles affecting ownership. TABLES 3 and 4 report results of their study. It can be seen that over 35 percent of boaters are either older families or younger empty nesters. These persons are in their prime earning years. It is expected that as the baby boom generation matures in the next ten to twenty years, the prospects for an increased demand for boating opportunities will be quite high.

At present, however, the current recession is affecting the ability of the moderate income boater to afford boat purchase and/or usage. This boater is often the first time boater. The higher income boater, one who is generally in his peak income years, is, as yet, generally unaffected by the recession regarding his boating activity. Further, the recession, coupled with the recent ravages of inflation and anticipated slowing of benefits to the elderly is anticipated to reduce the demand by the low and moderate income elderly for boating opportunities. These opportunities predominately consist of small boat usage for fishing and offer relatively little marina potential.

Population projections by SEMCOG have explored the concepts of life cycle. While the cycles used by SEMCOG do not exactly correspond to those used by Stynes and Safronoff, they offer some measure of future growth prospects key to measuring boating demand. SEMCOG's life cycles 2 and 5 are roughly equivalent to Stynes and Safronoff's Older Families and Empty Nesters I.

TABLE 3

MICHIGAN BOAT OWNER LIFE CYCLE SEGMENTS

SEGMENT	Percent of Boaters	Percent Of Those Classified	Income	Description
Singles	9.3	10.4	$17,000	1-person household
Young Couples	9.1	10.2	$22,000	2-adult households, no children
Young Families	17.4	19.5	$24,000	HOH[a] under 40, at least one child under 12
Intermediate Families	6.1	6.8	$25,000	HOH age 40-60, at least one child under 12
Older Families	18.7	21.0	$26,000	HOH age 40-60, at least one child, none under 12 "full nesters"
Empty Nesters I	12.7	14.2	$22,000	HOH age 40-60, no children living at home
Empty Nesters II	16.1	18.0	$14,000	HOH age 60+, no children living at home
Unclassified[b]	10.7	—	—	----

[a] = HOH denotes "head of household," in this case, the boat owner.

[b] = Unclassified category includes boaters with missing values for the variables that make up the index and some hard to categorize boaters.

SOURCE: Daniel J. Stynes and David Safronoff, 1980 Michigan Recreational Boating Survey, Michigan State University, Michigan Sea Grant Program, January, 1982

TABLE 4

PROFILES OF MICHIGAN BOATERS USING LIFE CYCLE SEGMENTS

Segment[a]	Craft Type	Storage	Activity	Percent Owning 2nd Home	Percent Transporting	Avg. GL Boat Days	Avg. IL Boat Days
Singles	All Types	Other	Pleasure	26	50	11	22
Young Couples	Cabin/Sail	Other/Marina	Pleasure	20	69	15	21
Young Families	Sail	Nonwaterfront Home	All Types	15	73	10	24
Intermediate Families	Cabin	GL home, Marina	Pleasure/Ski	32	67	12	19
Older Families	Larger Out-boards	Summer homes	Ski	39	53	12	25
Empty Nesters Age 40-60	Cabin/Pontoon	All types	All Types	41	51	9	26
Empty Nesters Age 60+	Sm Outboard/ Row/Pontoon	Waterfront Home	Fish/Pleasure	35	40	8	23

[a] = HOH denotes "head of household," in this case, the boat owner.

SOURCE: Daniel J. Stynes and David Safronoff, 1980 Michigan Recreational Boating Survey, Michigan State University, Michigan Sea Grant Program, January, 1982

GL = Great Lakes

IL = Inland Lakes

According to current SEMCOG estimates, in 1980, there were a total of 785,800 households in life cycles 2 and 5 in all four market area counties. By the year 2000, SEMCOG projects this number to increase to 1.1 million households or 50.0 percent of all households in the four market counties. The increase between 1980 and 2000 is over 37 percent or 293,000 new entrant life cycle 2 and 5 households. At least 50 percent of these households will be within the One Hour Market and a major proportion within a one and one-half hour drive of Algonac.

HOUSING TRENDS: CHARACTER OF PRESENT AND FUTURE DEMAND AND SUPPLY

Interviews with several realtors in the Algonac and Marine City area indicated that, while as elsewhere, recent real estate movements have been slower than in less adverse times, sales continue at a "reasonable rate." The question to be answered is thus, who is buying? Or, more importantly, who is buying in Algonac and who is asking about Algonac but buying elsewhere?

The buyer profile of waterfront/waterview properties is typically an older couple with grown children who are in their prime earning years and who have purchased a home for temporary seasonal use and/or as a final retirement move. Generally , older families reside on the channels and somewhat younger families on the canal properties. Again, we return to the implications of life cycle analysis. Studies by Stynes and Safronoff indicate a strong relationship between life cycle and a family's interest in and ability to pay for a second home, a permanent home and/or a large boat. Empty nesters, both pre and post retirement age and older families have the highest rates of second home ownership among the boating population. National studies have found a similar study among the general (versus boating) population as well. While young families have a very high incidence of boat ownership among the entire boating population, they tend to trailer their boats from nonwaterfront, permanent homes. Young couples (two-adult households, no children) often indicate "other" as a boat storage location which includes storage with friends/relatives who have waterfront homes as well as at marinas. The prime market segments for a marina or residential marina complex at Algonac would thus appear to be older families, empty nesters and retirees.

Discussions held with area realtors indicate that a large proportion of Algonac area residents also work full time and many commute to Macomb County locations or to Detroit. St. Clair County's 1970-1980 growth is part of the nationwide trend toward movement away from the more congested urban and suburban life to rural and semi-rural locations.

While the gasoline price increases of the late 1970's and early 1980's impacted the growth of more remote commuter communities, it appears that people are beginning to accustom themselves to a higher gas bite out of their paychecks and are making other expenditure sacrifices in order to maintain a preferred life style. This has been found to be the case among recreational boaters in Michigan by Fridgen of Michigan State University (Sea Grant Program) as well as by St. Clair and Macomb County marina owners who have indicated a greater tendency of boaters to stay in their craft longer but have less running time. Waterfront properties remain the best selling properties in the Algonac area despite adverse economic times further indicating the continuing popularity of both Great Lakes boating and Great Lakes waterfront properties.

In general, residential waterfront property has a $25,000-$30,000 premium over comparable inland property. Development of boat wells is difficult along the St. Clair River and its channels due to the strong current, heavy wave action from passing recreational and commercial craft and winter ice flows. As a result, for even summer use, many St. Clair waterfront craft are hoisted when not in use. Docking facilities are also frequently ice damaged during winter unless removed all or in part. Thus, despite the presence of remarkable waterfront views, boating from homes is limited on the river.

The major source of boating opportunities are from the public and private marinas in St. Clair, Marysville, Marine City and Port Huron. Thus, most homeowning boaters in the area hope to acquire one of the relatively few lease spaces available at the inland river marinas. For these lease spaces, they compete heavily with nonresidents.

Canal side property with no river or channel view but with water access was quite popular in years past with younger families who were recreationally oriented and who preferred immediate access to their boats. In Algonac, the strong demand for such property in the mid 1970's created price inflation not maintained by the recession. Area realtors indicate that the canal homeowner is typically employed in an auto related industry and has been more affected by the recession than the older riverside resident. Few sales of canal properties have been made in recent years in the Algonac area although river and channel view properties continue to sell.

Other than for single-family home development on scattered riverfront, channel or canal parcels, relatively little vacant land suitable for residential development exists along the entire Lake St. Clair/St. Clair River area from Detroit north. Further, water supply and other problems often affect prospects for development in those few communities which do have vacant waterfront land.

Construction of new homes in the immediate Algonac area (including Clay, Ira and Cottreville Townships and Marine City) has never been rapid. In the last ten and one-half years, since January 1971 through June 1981, permits were issued authorizing 1,674 dwellings of which 161 were for multiple-family homes. The 10.5 year annual average was 159 dwellings per year, declining to 111 dwellings per year since 1975. There were less than 100 dwellings constructed in 1980 through mid-1981; a direct result of the recession and/or high mortgage interest rates. Within the One Hour Market as a whole (less Detroit), the annual average for the 10.5 years was 9,493 declining to 8,847 since 1975.

SEMCOG's 1980 household projections for the five Algonac area communities were within five percent of that which occurred. The main area of error was in Clay Township where projections were 410 too high. Since it is this Township which had seen the greatest number of new housing starts through the late 1970's, of all five communities, it is estimated that, absent the recession and continuing high interest rates, Clay's actual 1980 households would have been very close to the SEMCOG projection.

With the above analysis in mind, the SEMCOG 1990 and 2000 forecasts for the immediate Algonac area are examined. The areas households are forecast to increase by almost 1,600 by 1990 and an additional 2,883 by the year 2000. Even if only 50 percent of the projected increase were to occur, the 1990 households would number 9,191 (versus the 1980 8,400), increasing to over 10,600 in the year 2000.

It does not appear unreasonable to anticipate that a share of the future household growth projected for the immediate Algonac area could be captured by a quality waterfront residential development at the Chris Craft site. This capture is even more likely should wells be provided either as part of the project or adjacent to it and linked in some fashion.

OCCUPATION

Data on occupation by place of residence is unavailable from the 1980 census. However, it is estimated that since 1970 throughout the metropolitan Detroit area, the proportion of service, sales, clerical and professional/technical workers has increased and that of laborer and operative workers decreased.

In today's distressed economy, while all occupations and industries have been affected, some are less affected than others. It is conjectured that the most professions and managers have been less adversely affected by the auto industry's slowdown. Thus, to the extent that these latter occupational groups are a high and increasing proportion of the One Hour Market economy, the prospects for boat ownership, marina interest and waterfront residential interest remain reasonable. As of 1970, professional technical and management persons accounted for 23.1 percent of the One Hour Market employment. Total white collar employment was 49.3 percent.

EMPLOYMENT

As of January 1982, the unemployment rate for the four market counties was 16.6 percent. At that time, the State unemployment rate was 16.0 percent, the highest unemployment (18.3 percent) was in Macomb County which has an economy dominated by Chrysler and Ford Motor Company - both having substantial recent long term layoffs. The unemployment in Oakland County was 13.2 percent despite over 27 percent unemployment in Pontiac. All these rates reflect a substantial increase from December. Initial releases for February indicated that the January figures were heavily affected by bad weather. Even so, these represent a continuing trend of exceptionally high unemployment with its duration unknown.

Again, however, it must be stressed generally higher income professionals and upper level managers and proprietors are less affected than the rest by this downturn. It is these persons who are in their prime earning years who appear to be the most reasonable target market for a quality waterfront development.

MARINA/LAUNCH FACILITY DEMAND AND SUPPLY

Rental Marina Supply

According to a 1979 inventory of marina facilities along the Detroit River north to Port Huron by the Army Corps of Engineers, within the One Hour Market, there were 13,198 boat wells available in 1979. A large proportion of the commercial wells are associated with restaurants, boat sales, boat repair and other similar concerns which generally do not offer their berths on either a seasonal or overnight transient basis. Approximately 650 such wells existed in 1979 in the One Hour Market reducing the inventory to 12,550 of which 68 percent were in commercial marinas and 20 percent in public marinas and the balance in clubs or in residential complexes. At least one major new marina has been constructed since 1979 containing 650 wells. Minor expansions are known to have occurred at other marinas. The total seasonal well supply is thus estimated to be around 14,000-14,500 wells.

Boat Supply

Michigan's registered boat fleet has had steady growth since registration began in 1960. The years 1965-1977 saw a constant annual increase of 3.2 percent. In 1977, changes in the period for which registration was valid resulted in fluctuations in this trend - a seeming sudden drop. From 1977 to 1980, the Michigan fleet has averaged an annual growth rate of about 1.0 percent. Between 1980 and 1981, registrations of pleasure craft dropped by almost 11 percent. It appears that state-wide interest in, or more significantly ability to pay for boating opportunities, declined as the recession deepened.

Rather than a continued growth, boat registration in the four One Hour Market area counties as a whole remained fairly static from 1977 through 1980. A major drop of 11.5 percent occurred in registrations from 1980 to 1981 as the recession deepened and interest rates to finance the purchase of new and used boats increased.

While there has been a recent overall decline in boat registrations in the four market counties, the largest decrease has been in the small boat size range (less than 20 feet). In fact, 1977-1981 larger boats actually increased by almost six percent or about 1.5 percent per year. Large boats are commonly permanently stored rather than trailered and are thus potential marina occupants.

A peak year for large boat registration was 1980 in the four market counties with 29,188 boats of 20+ feet registered. In 1981, registration declined from its 1980 levels to 27,086 but remained well above levels for 1977 and 1978. Using the 1977-1981 period as a basis point, projections to 1990 for large boats are estimated to be 30,700 - an increase of over 3,600 boats. However, if the effects of the current recession are discounted and the 1977-1980 trends are used for projections, the large boat fleet can be expected to increase to almost 40,000 by 1990. Averaging the two projections, the increase would be to 35,285 or an increase of almost 8,200 large boats. TABLE 5 presents 1977-1981 registration trends for the four market counties.

TABLE 5

ALL BOAT REGISTRATIONS BY BOAT SIZE AND COUNTY

	Less Than 20'	20'-28'	28'-35'	35'-42'	42'-50'	50'+	Total
St. Clair							
1981	7,278	1,528	285	92	17	6	9,206
1980	7,675	1,593	289	99	22	8	9,686
1979	6,939	1,432	245	89	16	9	8,732
1978	7,824	1,411	258	89	19	10	9,611
1977	7,215	1,263	236	75	19	8	8,816
Macomb							
1981	23,665	5,818	1,446	414	96	15	31,454
1980	26,061	6,110	1,628	448	108	17	34,372
1979	23,853	5,707	1,554	437	105	16	31,672
1978	26,730	5,783	1,552	446	100	25	34,636
1977	25,381	5,260	1,466	427	70	21	32,625
Oakland							
1981	40,091	5,636	1,189	402	93	11	42,422
1980	45,289	5,874	1,249	421	103	13	52,967
1979	41,444	5,508	1,151	376	99	11	48,589
1978	46,727	5,260	1,070	380	99	23	53,559
1977	44,767	4,821	1,010	360	101	21	51,080
Wayne							
1981	54,014	7,344	1,803	680	154	57	64,052
1980	63,644	8,210	1,991	759	184	62	74,850
1979	59,737	7,769	1,894	711	176	61	70,348
1978	69,349	7,752	1,962	705	196	72	80,036
1977	68,465	7,462	1,963	713	198	71	78,872

TABLE 5 (continued)

	Less Than 20'	20'-28'	28'-35'	35'-42'	42'-50'	50'+	Total
Market Counties							
1981	125,048	20,326	4,723	1,588	360	89	152,134
1980	142,669	21,787	5,157	1,727	417	100	171,875
1979	131,973	20,416	4,844	1,613	396	97	159,341
1978	150,630	20,206	4,842	1,620	414	130	277,842
1977	145,828	18,806	675	1,575	388	121	171,393
State of Michigan							
1981	467,829	51,036	8,718	2,789	679	209	531,260
1980	527,130	54,650	9,364	3,006	724	233	595,097
1979	486,204	51,314	8,670	2,737	679	204	549,808
1978	551,310	51,540	8,604	2,758	736	283	615,231
1977	524,859	48,252	8,621	2,673	683	264	584,992

SOURCE: Michigan Secretary of State

It appears that at least temporarily, the economy has taken its toll on boat interest. One bright note exists though; boat sales in Wayne, Oakland and Macomb Counties during the nine day 1982 Boat Show were excellent - running over $6 million above last year and the average boat sold increased from 21 feet at an average price of $12,910 to 27 feet at $13,253. This increase in sales is in contrast to the state-wide sales picture which shows a decline in both boat size and length as well as overall dollar volume.

It is unclear how long the downturn in registrations will continue or whether the reported sales spurt at the Detroit Boat Show indicates an increased 1982 demand in the Detroit area for more or larger boats. Recent economic forecasts have called for a slow pull out of the recession beginning in late 1982 or early 1983. Other forecasts indicate a longer time span. Once the area economy begins to improve, registrations are expected to increase. However, the increase in small boat ownership will most likely lag behind that for large boat ownership. In the long run, the demographic change in age groups should see a rise in demand for larger boats for the next ten-twenty years and then, as the baby boom generation enters retirement, a decrease in the proportion of larger boats post the year 2000.

Marina Occupancy

Changes in marina occupancy rates are a reasonable reflection of demand for space. Generally, marinas serve owners of boats 20+ feet.

A telephone survey was conducted of over 30 marinas in the One Hour Market. Surveyed marinas ranged in size from a 15 well municipal marina to a 700 well commercial marina. Clubs were not surveyed. Among items surveyed were total wells, in-out summer storage, winter storage, rental rates, facilities and services. A field check was made of several marinas. Those selected for checking were the newer or recently upgraded marinas or those with high vacancies. The survey was conducted in early and mid March, prior to the startup of the 1982 season. Consequently, it is difficult to discern if there has been any change in occupancy patterns over last season's.

Of the total surveyed, the average marina size was 165 wells and the median was 102 wells. Occupancy levels for the 1981 season ranged from 70 percent to 100 percent. Of over 2,000 wells located at the surveyed marinas, the overall average occupancy in 1981 was 92 percent. Most marina owners/managers indicated that demand began declining in the 1979 season. Prior to the last two or so years, almost every marina reported close to 100 percent occupancy of wells held for seasonal use.

In residential, commercial and office markets, an occupancy rate of 95-97 percent is considered optimum in order to allow a flexibility of space selection and/or expansion. Until the last two-three years, this more optimum situation did not exist in the east side marina world. Long waiting lists were common at almost every marina and many prospective boat purchasers defrayed their purchase for fear of not being able to find summer storage.

The market has changed. While one of the prime contributors to this change is the current severe economic downturn, another large contributor is the 1979 opening of a 650 well marina, Beacon Cove, central to both the boating public and the main boating area of Lake St. Clair. In its first few years of operation, the facilities at Beacon Cove were minimal and rates were fairly low. The marina came on stream in a time when there was great concern about gas availability as well as gas prices. Discussions held with several marina owners located in Fair Haven, Pearl Beach and Algonac indicate that these nation-wide economic events, coupled with the advent of Beacon Cove, had a substantial impact on their occupancy - particularly in 1980 and less so in 1981.

While most marina owners indicated a 1981 occupancy of close to 100 percent, all owners contacted indicated that they had a short to nonexistent waiting list. While the occupancy picture for the 1982 season is unclear, most owners indicated that their lease-out rate is similar to this same time last year. However, many are advertising for the first time.

In general, occupancy rates are the highest at the marinas on Lake St. Clair, north to the Clinton River area. For those marinas in this area which had less than a 100 percent 1981 occupancy, the prime causes appeared to be poor facility condition (old, damaged docks, poor parking, lack of flush toilets, etc.) and/or change in management, rather than a major lack of demand. In other words, in a softened market, those offering less physically competitive facilities are at a disadvantage; customers can afford to be selective.

This same selectivity appears to be affecting marinas farther north. For these more distant marinas, the economic downturn, driving time and, more recently, gasoline costs have been major factors affecting desirability. In less adverse economic climates and when gas prices were lower, almost any marina, regardless of its condition, was in high demand.

Generally, (though there are several exceptions), the more northerly marinas (excepting the municipal marinas) have been less well maintained (docks, seawalls, parking areas) over the years than those closer to Detroit. In comparison to facilities further south, they also charged less for their wells and services. Their greatest attraction was thus to the boater of lesser means who was willing to forego a higher marina maintenance level in order to be able to afford his sport.

It is this "low" and "moderate" income boater who has been the prime contributor to the higher vacancy levels at the lower cost marinas. The highest vacancies in almost all marinas in the entire One Hour Market are of the smaller wells which also accommodate readily trailered boats. Smaller boats are often owned by first-time boaters, many of whom are in their early working years and thus more affected by either outright layoffs or a cutback in hours (straight time and overtime) than the older owners of larger boats. Also, smaller boats are popular among retirees upon whom the recent high inflation rates and energy prices have fallen quite heavily.

Even marina owners who are currently suffering from high vacancy rates indicate a desire to expand their supply of larger boat wells. Only one marina indicated an excess of large boat well space: the Port Huron Municipal Marina. At that marina, the vacant 34 foot wells on the Black River are located a full 25-35 minute motoring from the St. Clair River. Generally, such inland space is less desirable - but especially so for owners of larger boats which consume great volumes of gas motoring at slow speeds before the pleasure boating can truly begin.

Those marinas characterized by an abundance of smaller wells generally had higher vacancies. While the very large wells have never been in large supply, these larger wells, accommodating boats 40+ feet in length have also seen a slight decrease in demand. Space still appears to be at a premium for boats in the 25-35 foot range.

In conclusion, while occupancy of rental boat wells is down over years previous, and overall demand has softened over peak years, well maintained and well serviced rental marinas having a flexible sizing of boat wells capable of accommodating larger or mid-size boats appear to be performing reasonably well.

Condominium Marinas

This is a new concept of marina development. It is partially inspired by the absence of financing at market acceptable interest rates for rental marina construction. Further, interest in this concept is due to boater demand for an assurance of a well; the increasing interest in larger boats, the wells for which high rental rates are charged; and the increasing interest of boat owners to acquire equity versus rental receipts for boat storage. An additional interest in marina condominium development is by small investors who buy one or more wells and then lease them annually.

The condominium concept of marina ownership began in Florida and spread rapidly to California. It is only now beginning to be found in the Great Lake states where as of February 1982, only eleven marinas were licensed by the state for condominium well sales or reservations. Almost all of these are located in the Lake Michigan area.

Condominium marinas are created in one of three ways: (1) A marina owner may convert his existing wells and establish them as the property of new well buyers who would then be members of a condominium association. Often the marina owner will add additional wells and docks to increase the potential profit. Other marina owners convert a part of their facilities and utilize the sales to upgrade and rennovate the rental balance; (2) A developer can build a marina from scratch following acquisition of waterfront land, dredging the yacht basin, building seawalls, service buildings, parking, wells and docks. This obviously is the more expensive alternative due to the extent of new work and lack of any initial equity upon which to build; (3) A third alternative is for a developer to construct a combined housing and marina complex where boat wells are included in the purchase price of the housing unit. This option is not preferred by some since it reduces the sales potential to nonboaters. An alternative under consideration by some developers is offering the condo housing buyers the right of first refusal on the wells and then renting or selling the balance of the wells to the public.

Generally, the marine condominiums which have been developed on or near the Great Lakes in Illinois, Wisconsin, Michigan and Ohio have done quite well with full sell-out occurring within one-two years of being placed on the market. Facilities on Lake Michigan are attractive not only to Michiganders but to Chicago area residents where rental space, including mooring space (versus wells), has been scarce for years.

The following table presents some information on selected condominium marinas in Michigan. Included are two marinas yet to be constructed. It can be seen from the table that the prices vary substantially from lows of $11,250 in the Detroit area for a 36 foot uncovered well to a high of $39,900 for an uncovered 52 foot well in the Grand Haven area. The smallest well size being sold is 25 feet and the largest, 60 feet. The predominant size range is in the 30-40 foot range with a width of 14-17 feet. Generally, the larger wells sell first since most marinas tend to have fewer rental slips capable of accommodating boats over 45 feet and yearly rental prices are quite high, often over $2,000 per year. Thus, the incentive for investment is higher. Further, owners of larger boats tend to be in higher income ranges and thus more able to afford well purchase.

In the Detroit area, as of March, 1982, there were no marinas licensed to sell condo wells while four were licensed to take reservations. Of the four, one is awaiting financing to begin a completely new marina. The other three obtained their permits to take reservations either late in the 1981 boating season or during the 1981-82 winter. As a result, as of March 1982, little promotional efforts had been made though all three marina owners indicate that there has been some strong interest expressed. Of the total of 190 constructed condo slips available for reservation in the Detroit area, less than 20 were reserved as of March. Two or three of the marinas did not even begin promotions until late February or early March.

In general, until a permit to sell is obtained, promotional efforts tend to be minimal. Four condo marinas in the Lake Michigan area having permits to sell were contacted. All indicated strong sales with additional construction planned for this season.

TABLE 6

SELECTED CONDOMINIUM MARINAS

Marina and Location	Number Condo Wells	When Begin Sale/ Reservations	Number Sold/ Reserved	Size and Price Distribution	Comments
Grand Isle Dockominiums Grand Haven, Michigan South Channel of Grand River near Lake Michigan	99 replacement	6/81 reserve	40 reserve	35 @ 40' x 16' = $27,500 55 @ 40' x 18' = $28,500-$29,000 9 @ 52' x 20' = $35,000-$39,900	52' slips first to reserve. No problem to obtain const. loan. Concrete docks/wells. Total plan = 350-400 condo wells, 100 rental wells Reconstruction of existing marina.
The Moorings New Buffalo, Michigan Gallen River mouth and Lake Michigan	200 replacement	5/80 reserve 10/80 sell	1st 100 sold in 13 months	30' x NA = $16,000 50' x NA = $19,500 Custom sizing	Total plan for 550 condo wells Now have 200 condo wells and 350 rental. Plan residential, restaurant, shuttlebus, winter wet storage wood docks and wells.
Anchorage Holland, Michigan Lake Macatawa Channel to Lake Michigan	180 replacement	12/80 reserve 6/81 sell	180 sold within 1 year	30' x 15 = $22,500 35' x 15' = $25,500 50' x 20' = $35,500 30' x 20' = $20,500 35' x 16' = $27,500	Separate recreation club - available to a slip renter, part of slip purchase. Pool, sauna, clubhouse residential now under construction plan in-out rental space year-round common use areas.

Marina and Location	Number Condo Wells	When Begin Sale/ Reservations	Number Sold/ Reserved	Size and Price Distribution	Comments
Wharfside Grand Haven S. channel of Grand River near Lake Michigan	78 "as is" 12 yr. old docks and wells	7/81 reserve	48 reserved all by former renters	25' x 15' = $16,000-$25,000 25' x 12' = $13,000-$15,000	Converting 12 year old docks Selling "as is." Has 18 rental. Plan future condo marina and residential.
Perrins Holland, Michigan Lake Macatawa	42 replacement	8/81 reserve	20 reserved	42 @ 40' x 15' = $15,000	Price includes well only vs any common area away from dock. Winter storage must be rented. Have 158 rental slips. All wood construction wells reconstructed within last 2-5 years.
The Harborage Boyne City, Michigan Lake Charlevoix	16 with 36 more U.C. new marina	6/81 reserved 1/82 sell	50 reserved (inc. 16 sold)	33% @ 30' x 17' = $15,500-$19,500 33% @ 44' x 17' = $18,500-$24,500 33% @ 60' x 17' = $23,500-$31,500	16 built and 206 wells planned. Plan 108 condo homes 14 constructed and sold with 36 more under construction.
Northwest Marina Yacht Basin Charlevoix, Michigan Lake Charlevoix	66 new marina	8/80 reserved 12/81 sell	23 sold	36 @ 30' x 14' = $16,500 30 @ 40' x 14' = $22,500	Plan restaurant, store, supplies, etc. 2 phase development with 2nd phase to be for larger boats. All new marina.

Marina and Location	Number Condo Wells	When Begin Sale/ Reservations	Number Sold/ Reserved	Size and Price Distribution	Comments
Blue Lagoon Harrison, Michigan Lake St. Clair near Selfridge A.F.B.	99 replacement	1/82 reserve	12 reserved	6 @ 42' x N/A = $11,750 43 @ 36' x N/A = $11,250 46 @ 32' x N/A = $10,750	95 newly reconstructed steel and concrete. 12 largest slips reserved 1st minimal amenities. Have 555 older wood rental wells.
Cruise Away Ira Township, Michigan Anchor Bay	100 new marina	7/81 reserve	-	20'-30' x 10' = N/A	All approvals received, no financing yet. Will be new construction on existing canal inlet.
Markley Marine/ Charter Club Condominiums Harrison Township, Michigan Clinton River	61 3 yr. old wells	9/81 reserve	3 reserved reserved	6 @ 37' x 14-1/2' = $26,000 54 @ 45' x 15-1/2' = $28,500 1 @ 60' x 20' = $30,000	324 rental wells. All condo wells = covered. Reconstructed parking areas with curb and gutter.
LaPointe St. Clair Shores, Michigan Lake St. Clair	70-94 new marina	-	-	23% @ 30' x 17-1/2' 33% @ 35' x 17-1/2' 44% @ 40' x 17-1/2' Avg. price $20,000	In concept stage. Construction not anticipated for 2-5 years. Anticipate sales to purchasers of residential development and excess wells to nonresidents.

Eight of the total of eleven condo marinas registered with the state are reconstructions rather than totally new development. Further, they are reconstructing and selling portions of former rental marinas in phases, keeping large rental components. In some instances, the condo portions include only the docks and wells. Others also include parking areas, restrooms and shower buildings while others offer easements to such facilities. Only a few offer further common area facilities strictly for well owners. Those that do are generally the new marinas.

Conversions of existing marinas to condos, especially those in good shape with good facilities, have a strong existing market in their former tenants. New condo marinas may have a longer sell out since they have no pre-existing market penetration.

The overall sales or reservations per month from the month following permit to take reservations through February 1982 from nine condo marinas for which data was available was 6.4 wells per month or almost 77 wells per year. The range was .06/month for a new marina to 15/month for reconstructed high quality development. These figures are estimated to be a quite conservative estimate of absorption due to a variety of factors among which are:

- Condo marinas are a new concept.
- Most have not yet received permits to sell.
- Promotional efforts generally are heaviest following receipt of permit to sell.
- Many marinas obtained their permit to sell or take reservations late in the season or in the winter - a time of little potential for activity.

Future Boat Well Supply

With the fleet of large boats in the four market counties expected to increase by at least 8,200 in the next nine years, the next question is whether the current and known future well supply is adequate.

On a state-wide basis, usage of marina space occurs by only 6.5 percent of registered boat owners.* With 531,260 registered boats state-wide in 1981, the demand was thus for 34,530 wells. If this same proportion were to be assumed in the market counties, the well demand would have been for less than 10,000 wells. Since an occupancy rate of 92 percent was found at marinas in the One Hour Market, or an estimated 13,100 occupied wells, it appears that the state-wide averages are not an appropriate measure of the Detroit area usage. In general, the large boat fleet, the prime component of marina occupancy, is almost 50 percent higher as a proportion of the total fleet in the four market counties than it is state-wide. Boats 20+ feet in the Detroit area were 18 percent of the four county total in 1981. State-wide, they were 12 percent. Large boats in the Detroit area account for almost 43 percent of all large boats in the state and thus studies based on state-wide samples do not appear reflect the peculiarities of the Detroit market.

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While not all large boats registered to Detroit area residents utilize local marina space and many may, instead, be docked along the Lake Michigan shoreline, a large proportion are estimated to remain in the Detroit area. With a growth potential for at least 8,200 large boats in the four market counties and conservatively assuming that 50 percent of these boats would be in the One Hour Market and of these, that 85 percent would remain in the One Hour Market, the growth potential of the One Hour Market is for 3,500 large boats. A small proportion of these 3,500 boats may be stored and used at the larger inland lakes in the area which are located in Oakland County. Further, others, especially the smaller (20'-28') large boats may be trailered rather than stored at marinas, and others may be stored at seasonal or other waterfront homes. State-wide, of all large boats using only the Great Lakes, 53 percent utilize marinas. It is estimated that, at the least, 53 percent of the 3,500 large boats would be housed at marinas or 1,850 boats. Given the difficulties in maintaining individual wells on the Detroit or St. Clair Rivers and their minor channels, a higher proportion of marina usage is anticipated - roughly 65 percent or 2,300 wells.

At this time, known future supply includes approximately 100 condo wells to be developed as part of residential complexes in St. Clair Shores and Harrison Township, 100 condo wells to be constructed along Anchor Bay, a 200 potential rental well addition in a condo/rental complex on the Clinton River, 300-500 new public rental wells in Sarnia and 475 new condominium wells in Sarnia associated with residential. The total known future supply is thus 1,375 new wells. An estimated 50-70 percent of the new 975 Sarnia based wells is anticipated to be sold/rented to Canadians. Further, a large portion of the 300-500 well Sarnia public marina will be for transients. The total known future seasonal well supply is thus projected to be around 980 wells.

With a potential demand for 1,850-2,300 wells derived solely from the One Hour Market alone, the need for additional well space is apparent. Additional well demand exists from persons residing outside the One Hour Market. This outside demand is estimated to be for an additional 600-800 wells.

MARKET RECOMMENDATIONS FOR SITE REDEVELOPMENT

The City of Algonac is in serious need of additional tax base. Further, its merchants are highly desirous of attracting new business which can come from either new residents of the area or an increase of travelers to the area or both. The residents of the Algonac area are active fishermen and boaters and desire continued and enhanced access to the St. Clair River and/or North Channel. Additional on-land recreational facilities are needed in the City. Both inside and outside boat storage is also desired in the area. All of these needs and desires have been determined from public meetings of the Harbor Commission, Planning Commission and City Council. Of all those needs expressed, three priorities were outstanding: increasing the tax base, providing a boat launch and increasing the City's housing stock and thus the number of persons who would then shop in Algonac.

In response to the above stated needs and priorities, and in close coordination with the design analysis ongoing for the site, the market for residential, marina (private and public) and boat launch facilities was examined. The foregoing Market Overview has indicated a potentially strong waterfront residential market. The strength of current and future boat well demand and boating growth was also found to be strong. City officials and representatives of the current lessee of the boat harbor/launch portion of the site indicate a very strong demand for launching facilities with peak fishing days seeing over 60 cars and trailers parked on-site.

Based upon discussions with numerous area realtors, examination of the Algonac area demographics in comparison to boater demographics, and review of industry trends, it is recommended that the City pursue development which would include high quality multiple-family residential units, a condominium marina, marina support facilities, and an enhanced City park and boat launch. Such a complex of development would offer at least three sources of additional tax revenue to the City: from homes, from condominium wells and from a commercial marina service and supply business. Further, with utilization of the boat launch parking lot in the winter season for outdoor boat storage, the City could acquire additional revenue.

While all marina options for the site would also be marketable and concept sketches were developed for same, the full mix of development potential is preferred. This combination would meet most of the above stated priorities as well as being the best utilization of the site from a design and marketing viewpoint.

A condominium residential complex is recommended because it offers a greater tax base potential than do rental units. Further, greater market support is anticipated for an ownership type of quality unit with water access than for a rental type unit. Such units could be attractive to young professionals without children, families with older children, empty nesters and the retired. A mix of floor plans, building styles and prices would attract a wider market.

Many of the newer waterfront residential developments in the Detroit area as well as western Michigan are developing in combination with condominium marinas. In such developments, boat wells are directly associated with a dwelling, the dwelling unit purchaser has first refusal on a well, and/or there is no direct physical or financial link between well and dwelling (the well is merely in the general vicinity of the residential development). In the latter instance, the convenience of access to a well, in addition to the visual stimulus of seeing a boat filled marina near one's home, is a main attraction of the residential units.

It is recommended that a waterfront complex be developed with the potential for at least some dwellings to have direct visual, financial and physical links to boat wells. Generally, most combined projects of this nature have found that a provision of one well per each two dwellings is adequate to meet demand by home buyers. If more wells than this ratio are provided, they can be sold to nonresidents who can then share with the residents the use of commonly owned recreational features such as a clubhouse and pool. Use of the clubhouse and pool could come automatically with residence purchase but be an add-on cost for nonresident boat well purchasers.

Provision of recreational amenities is essential to the ready marketing of the residential component and a desirable additional sales feature for boat well purchasers. However, in the interest of continuing to provide and enhance recreational facilities for the City's residents as a whole, the land area around the existing community center should be developed with intensive recreation facilities such as playlots, tennis courts, volleyball, etc. Provision of these types of facilities, in close proximity to residential and marina well purchasers will augment their own private recreational area (pool and clubhouse) while eliminating the capital costs of developing such features for the private developer.

In order to augment the income of the developer of the marina portion of the project and encourage his continued involvement with the project after the wells are sold, a boating supplies, boat repair service and inside storage facility could be accommodated at the site on the north side of M-29. Further, a gas dock and pump-out could provide an additional source of income. To enhance the project's attraction to persons who desire to live near the water but whose boating interest is limited to small, easily trailered boats, the storage problems common to such boat ownership or that of any other recreational vehicles can be overcome by provision of a small rental storage building on-site. Use of individual garage type spaces in such a building will reduce the need by resident owners to tie up their own garage for this type of storage. The rental garage spaces could also be subdivided into individual lockers if the full garage sized storage area is not needed. These smaller areas could then be rented to boat well or dwelling owners for storage of their boating supplies. A fish cleaning station, open on one side, could be provided in that end of the building closest to the marina. Also, a portion of the rental building could be used for storage of the maintenance equipment associated with the overall site. Rental space could first be offered to residents and secondly, to boat owners. From a security standpoint, it should not be offered to the general public.

Ideally, the developer of the marina and the residential portions should be the same. However, the site could be designed to provide for separate land purchase and development of both elements if need be. The plans developed herein assume a single developer-owner. Some modification might have to occur to enable development by separate entities.

For the public portion of the site, provision of a public boat launch is a necessary feature. At present, even with a graveled launch and parking area, the present launch is quite popular. A fee for launching is charged to nonresidents. Depending on the source of financing used to construct a new launch, a higher nonresident fee could be charged with minimal or no resident fee. A seasonal pass could be sold to residents and nonresidents. The fee collection could continue as a concession, as it is presently operated, with the proceeds allocated between the concessionaire and the City.

Relocation to the new launch area of at least one of the rebuilt hoists now on site would enable the launch area to service the boat repair/storage building recommended for the north side of the site. Further, the hoist could be used to provide outside boat storage on the launch parking lot when the lot is gated and closed for the winter. Use of the hoist and city-owned boat launch parking lot for boat storage on a concession basis would provide an on-going source of income to the City. Additional inside and outside boat storage could be developed north of M-29 as demand warrants. Should this occur, signalization of the intersection of the launch access drive with M-29 would facilitate traffic movement.

OTHER USE POTENTIAL

Area realtors were contacted who specialize in commercial and industrial property. Realtors indicated that the market for such property in the Algonac area has always been much slower than that for residential. At this time, major areas of vacant buildings exist in two shopping centers, one of which is within one-quarter mile of the subject site. Further, vacant commercial zoned land exists elsewhere in the City in closer proximity to the CBD core and to residential groupings. Little commercial potential for the site is projected other than that associated with a marina. A well run, well stocked and well promoted marina supply store also featuring items attractive to boat owners for the interior decoration of their boats is perceived to be the prime complimentary commercial activity for a residential/marina complex. This facility could conceivably be expanded to include other interior decorating items attractive to waterfront or nautically oriented homeowners as well.

Little current motel potential exists for a year-round facility. Strong competition exists in the St. Clair/Port Huron area for waterfront motels and other transient accommodations. These communities are located directly on the St. Clair River with views of year-round freighter traffic. Further, they are near the start-up points for major boating races and are also more readily accessible by freeway than is Algonac.

A limited potential does exist in Algonac for a boat hotel for transient boaters since the City could be considered a stopping point for those heading further north. A well managed condominium residential complex could potentially include unit rental of investor owned units to overnight or destination type guests on a limited basis. This could be done initially with unsold units as a market test. However, transient boaters create a security risk for well owners and their boats and as such would discourage well and possibly dwelling unit sales unless a redesign of the site could provide for a physically separate transient well and residential area.

Since economics dictate a minimum size of motel of around 100 +/- units for efficient amortization of costs, and a year-round occupancy to achieve a break-even point with today's high cost of labor, materials and money, it is unlikely that such a facility could be supported at the site unless a full fledged, high quality, year-round resort were developed. These types of facilities are very expensive to develop and operate. To achieve the desired effect, almost all support facilities must be in place prior to opening. Among necessary facilities would be a pleasure craft marina with boats available to guests, health club facility, tennis and racquetball courts, conference rooms, and high quality entertainment and dining facilities. Given the lack of proximity to freeways, the lack of wintertime outdoor facilities nearby for hunting, skiing, etc., development of the site for such a use would appear to be a major risk, especially in today's economy.

From an industrial standpoint, while the site offers a potential use for industries requiring minimal access to freeways or rail, industrial development on a water access, water view site such as this would not realize the site's full potential. Rather, if a marina were to develop on-site as is herein proposed, a marina sales, service and boat storage building could feasibly be located on the north side of the site, north of M-29. In lieu of this or possibility in addition to it, the northern property could be utilized for either single small industrial buildings or several multi-tenant industrial buildings. An interim use for the land could be for public recreation.

DEVELOPMENT PLANNING

CONCEPT PLANS

Three conceptual site development plans were prepared after an analysis of the site, market potential and the needs of the City as expressed at joint public meetings of the Algonac Planning Commission, Harbor Commission and City Council. Each illustrate possible combination of uses and their best arrangement on the site. The proposed development north of M-29 is the same for all three plans: future light industrial with continued use as ball fields in the interim. "Scheme B" depicts suggested improvements for short-term recreational use, including a graveled parking area, spectator bleachers and improved ball diamond.

Scheme "A"

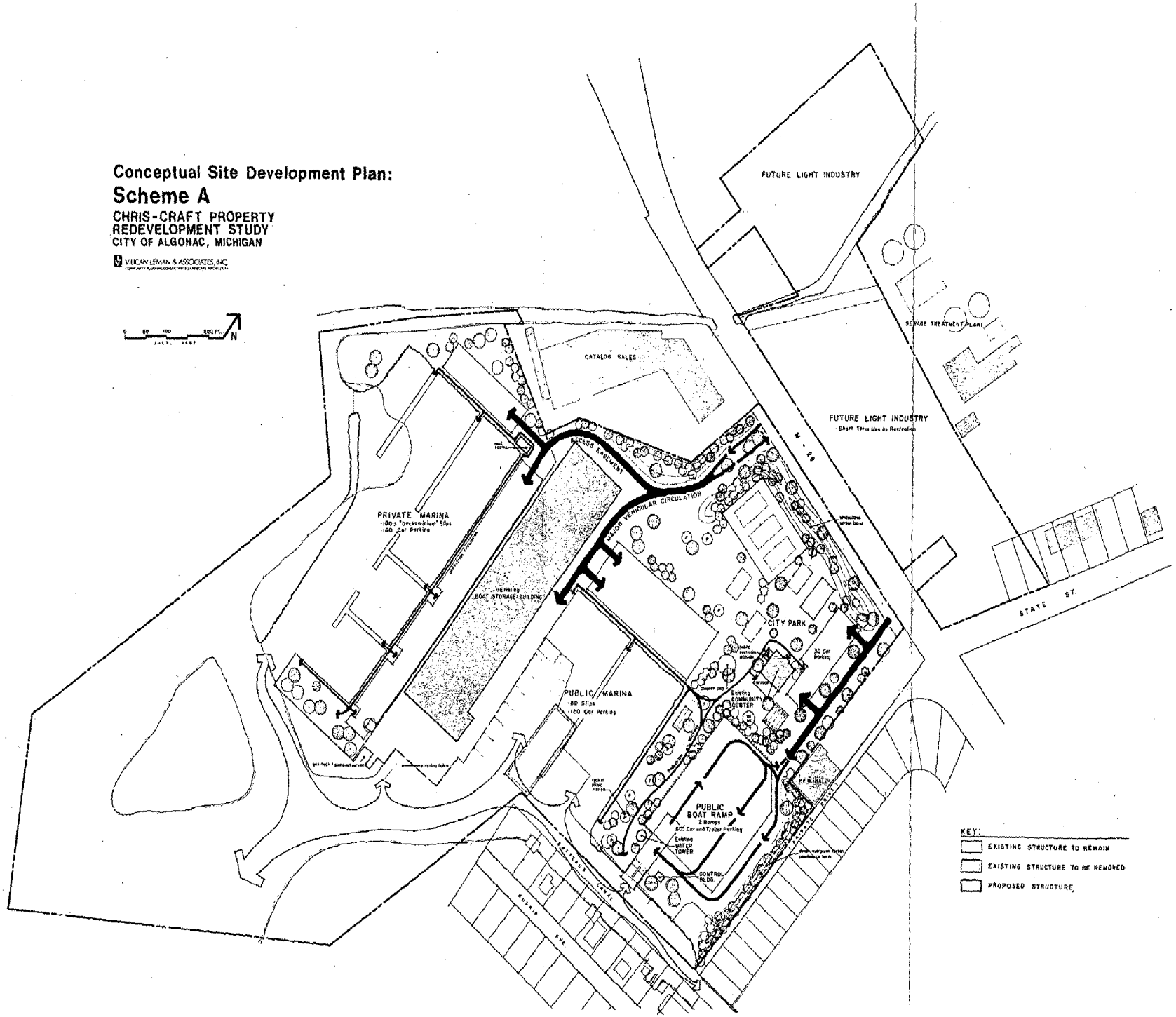
Expanded public facilities are proposed for the southern parcel, with a private marina being developed at the extreme west of the site. Additional active recreational opportunities, picnic areas, outdoor restrooms and public boat launch compliment the existing community center.

An expanded marina would provide a greater number of seasonal rental boat wells as well as transient docking. Although owned by the City, operation of the marina by the boat storage facility concessionaire might be most cost effective.

The advantages of Plan A include improved public access to the water, increased recreational opportunity, and a greater number of boat wells, particularly for transient boaters. This plan would require substantial financial commitment from the community and other rapidly disappearing sources of public funds. The recreation and marina facilities will be expensive to construct and to operate, and the continued use of the boat storage facility will certainly require major expenditures for necessary repairs.

Conceptual Site Development Plan:
Scheme A
CHRIS-CRAFT PROPERTY
REDEVELOPMENT STUDY
CITY OF ALGONAC, MICHIGAN

VULCAN LEMAN & ASSOCIATES, INC.



The potential income from the sale of land and subsequent development of the private marina portion might be hindered by two factors: the expense of required adjustments to the sanitary sewer outfall and probable competition with the adjacent public marina.

Scheme "B"

The expanded recreational facilities complimenting the existing community center, including the public boat launch, proposed in Scheme "A" are retained, but the boat launch facility is replaced with a multiple-family residential development with related marina. This concept balances the costs of expanded community recreation facilities with potential income from both the sale of a substantial portion of the site and increased tax base which the new development would provide. The costs of maintaining the aging boat storage building and a public marina facility are also avoided.

The residential development is based upon a stacked unit concept with a two story townhouse over a single story flat. This three story building module is laid out in accordance with Algonac's RM-2 zoning standards within a Marina Business District.

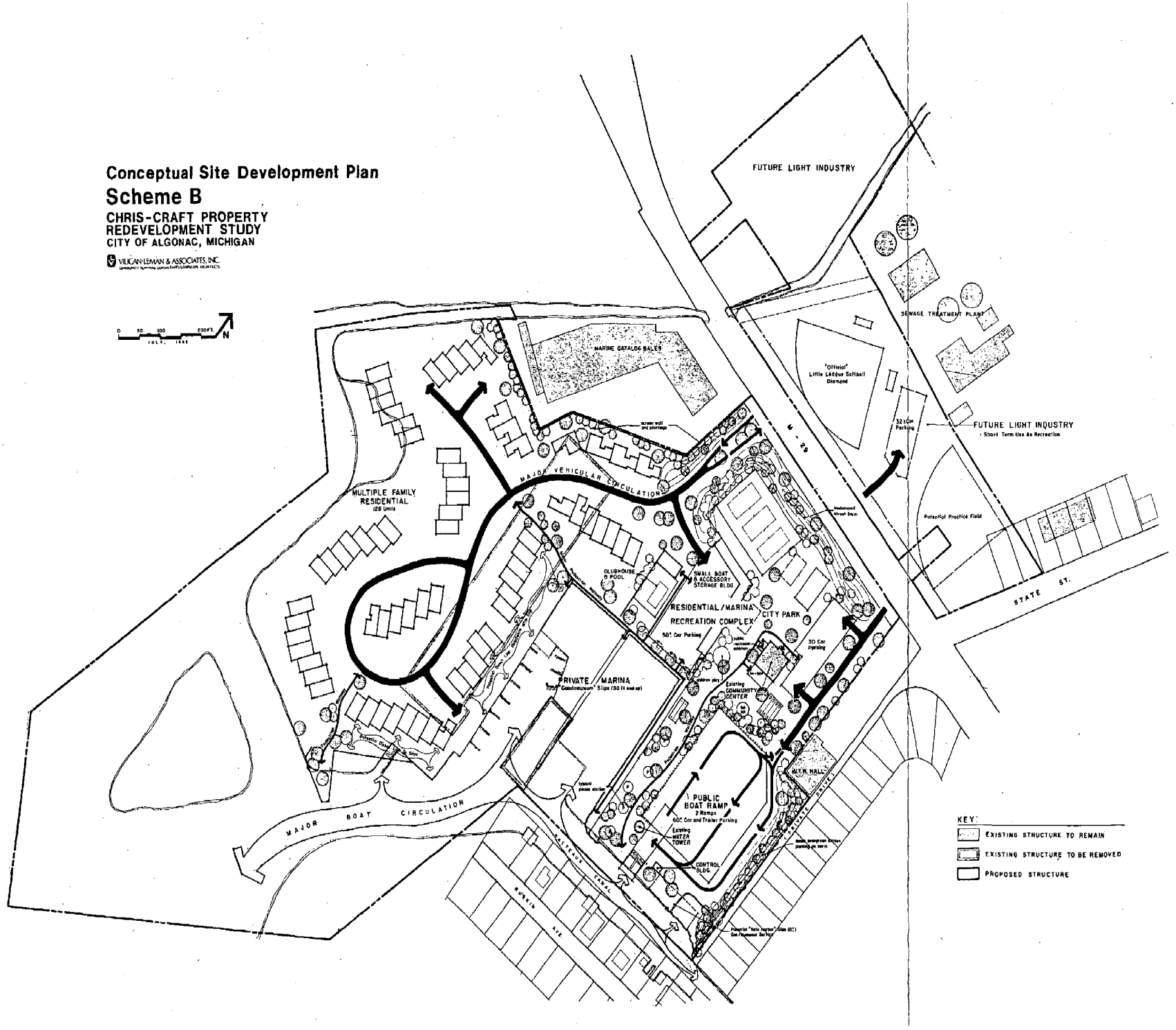
Low-rise construction is proposed, rather than higher story, due to the limited bearing capacity of the site's soil, poor views northward (sewage treatment plant, D.P.W., and strip commercial development) and market acceptance in the Algonac area. Individual ranch and townhouse units are proposed adjacent to the Chris-Craft parts store where upper story views would be undesirable.

Conceptual Site Development Plan

Scheme B

CHRIS-CRAFT PROPERTY REDEVELOPMENT STUDY
CITY OF ALGONAC, MICHIGAN

VILICAN-LEMAN & ASSOCIATES, INC.
COMMUNITY PLANNING, LANDSCAPE ARCHITECTS, ARCHITECTS



The 128 residential units and 105 +/- boat wells, when offered for condominium sale, will provide additional support to the area's businesses, as well as tax coffers, as higher income families are attracted to the area. While the marina would not serve transient boaters, the accommodation of transients at the site would provide little economic support for the community due to its distance from the downtown business area. Some provisions for "safe harbor" docking and gas and/or holding tank pump-out services could be made at the boat launch area and possibly generate some limited income over expenses for the City.

Scheme "C"

This plan provides for a 160 well private marina, new community center and recreation area and major public boat launch facility. While closely resembling a plan previously prepared for the City in 1978 by Valentine Thomas, a few major elements distinguish the two plans:

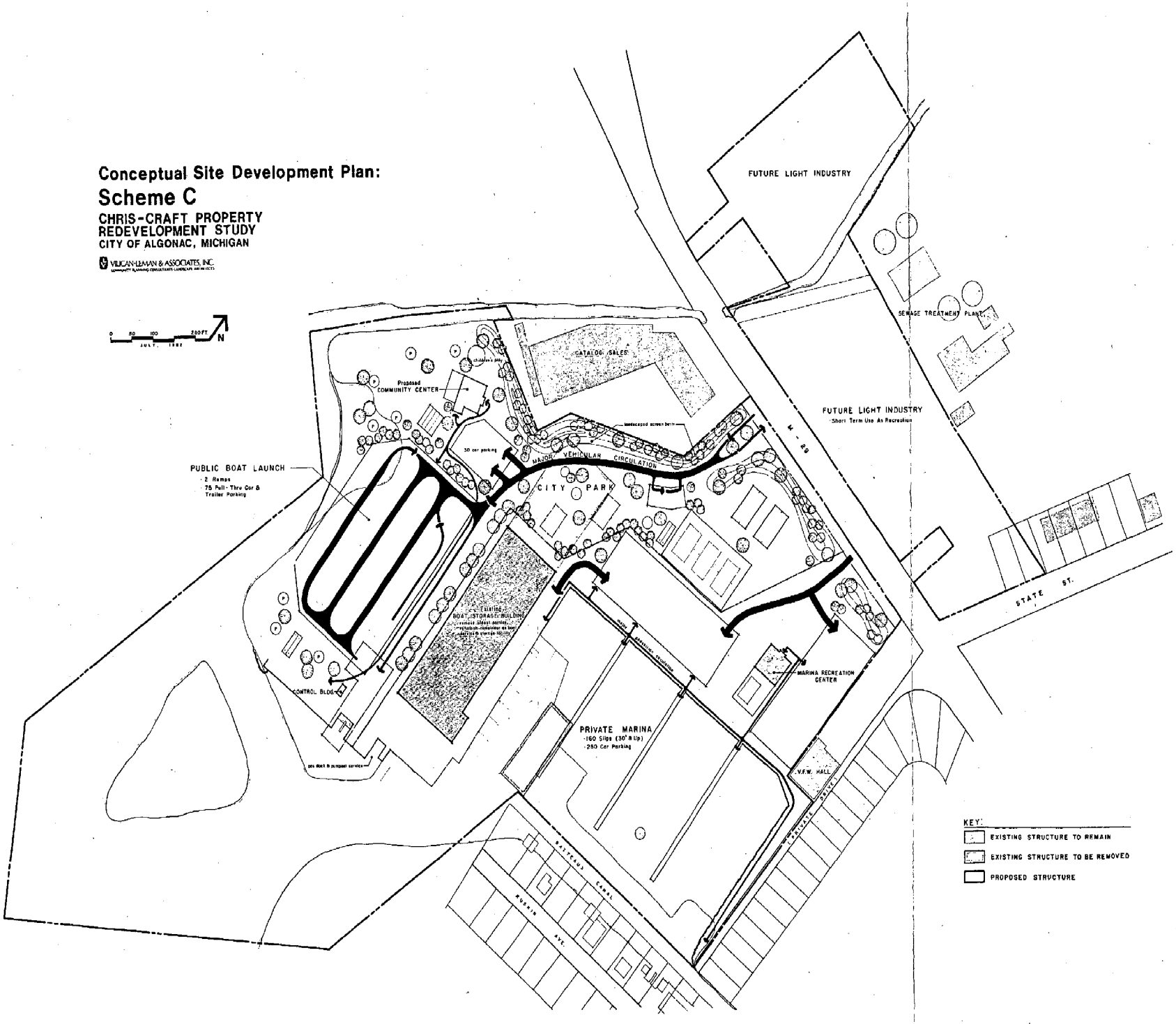
1. The northern portion of the boat storage building, being the oldest portion and requiring major structural repairs, is removed. The remaining steel-skeletoned structure could be refurbished as a boat service and storage facility, including in-out storage, serving the expanded marina.

2. Only the vacant west and northwest portion of the site would be retained by the City. The existing community center, boat storage and marina facilities would be incorporated into the private marina development.

3. The proposed public boat launch would provide a large parking area with pull-through car and trailer stalls, two launching ramps and short-term broadside mooring. The location of the launch ramps adjacent to the existing boat hoists minimizes impact of boat traffic on the sensitive marsh areas to the west. Additional dredging would also be nearly contained within previously dredged areas.

Conceptual Site Development Plan:
Scheme C
CHRIS-CRAFT PROPERTY REDEVELOPMENT STUDY
CITY OF ALGONAC, MICHIGAN

VILICAN-LEMAN & ASSOCIATES, INC.
COMMUNITY PLANNING CONSULTANTS · LANDSCAPE ARCHITECTS



4. A new community center with exterior accessed restrooms, picnic areas and active recreation facilities (tennis, basketball, volleyball, horseshoe and shuffleboard courts) are proposed in the northwest portion of the site.

FINAL PLAN DEVELOPMENT

Plan B received overwhelming support at the two public meetings at which the three conceptual development plans were presented. One of the main reasons cited for the City's selection of this condominium residential and marina project was to yield a higher tax base for the City than would be possible from either a rental or condominium marina alone and more than the available income from a public marina. Further, provision of additional high value homes would attract more higher income families to the City to support the City's commercial base. While both plans A and C were judged market supportable by the consultant, the features of plan B best realized the market recommendations for site redevelopment presented earlier.

It was also determined that increased marina capacity was more desirable than park access to the waterfront, as extensive pedestrian access to the St. Clair River is presently provided at the downtown waterfront park. Continuation of some type of winter boat storage on the site was also considered desirable. The following components were to be included in the final illustrative site plan:

- Residential condominiums
- Condominium marina
- Limited seasonal wells
- City park complimenting existing community center with tennis courts and other active outdoor recreation facilities
- Boat launch with hoist and parking area
- Winter boat storage (outdoor and indoor)
- Boating supplies store and boat repair

The resulting Illustrative Site Plan provides all of the above. The site is divided into five parcels, three of which could be sold for private development as described below:

1. Multiple-Family Residential/Marina Complex (22.7 acres)

   The existing boat storage building would be removed and existing marina expanded to provide 132 low-rise condominium dwelling units and 142 boat wells.

2. Marina Related Business (4.6 acres)

   A boating supplies and boat service/repair and winter storage facility north of M-29.

3. Future Light Industry (3.0 acres)

   The remainder of the site north of M-29 would be utilized for future development of light industry, in keeping with the surrounding land uses.

The final two parcels would be retained by the City: 6.2 acres along M-29 and continuing southeast to the Batteaux Canal would be developed as a city park and boat launch, and the remaining portions of the site, comprised of sensitive bull marsh and natural areas along the waterfront would be protected from detrimental impact by surrounding development.

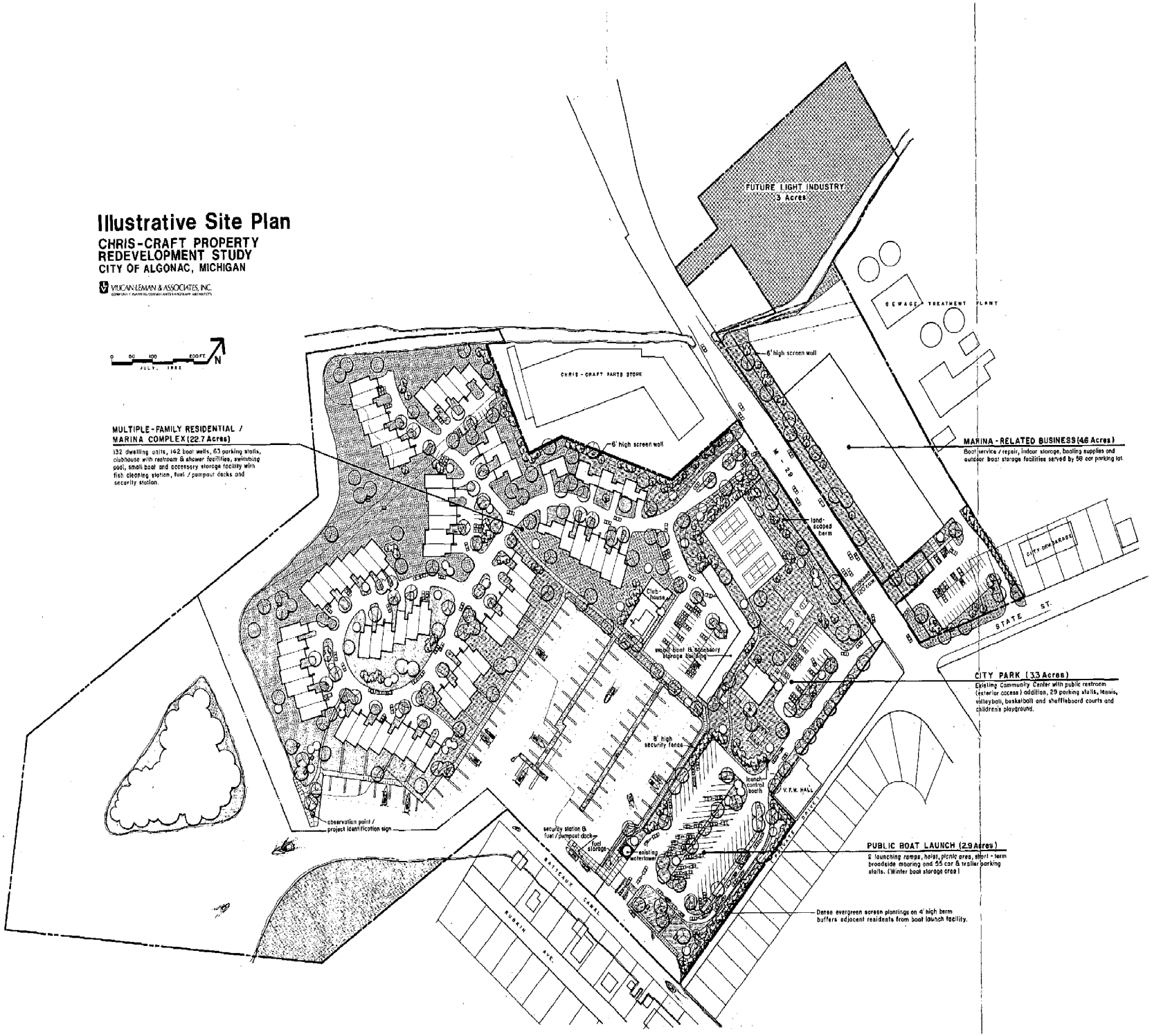
Residential/Marina Component

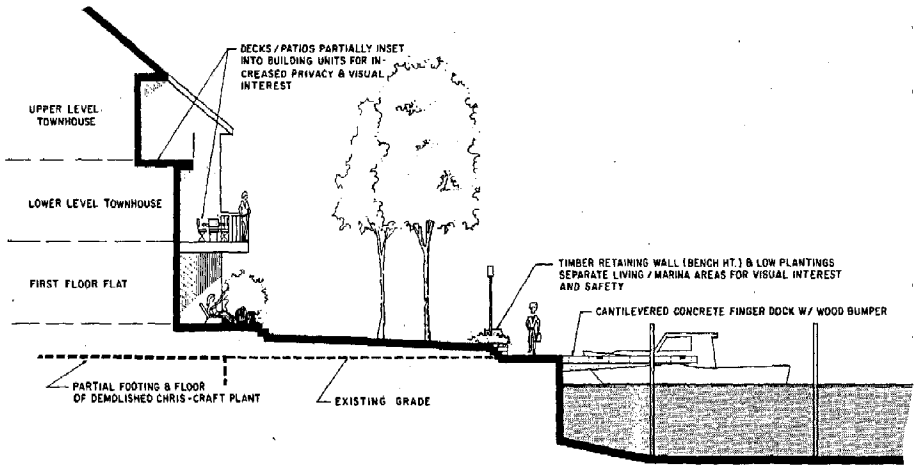
The Multiple-Family Residential/Marina Complex provides a total of 132 dwelling units for condominium purchase to middle and higher income buyers. The building configurations, based upon successfully completed projects of a similar residential/marina nature in western Michigan and the Detroit area, allow for a variety of low-rise building types and floor plans, as suggested in the foregoing market recommendations for site development. Seven ranch units border the Chris-Craft parts store boundary, utilizing dense plantings and a six foot high masonry screen wall to control low level views. Three two story townhouses and 61 two story townhouses over a first floor flat (double units) round out the unit types.

Illustrative Site Plan

CHRIS-CRAFT PROPERTY REDEVELOPMENT STUDY
CITY OF ALGONAC, MICHIGAN

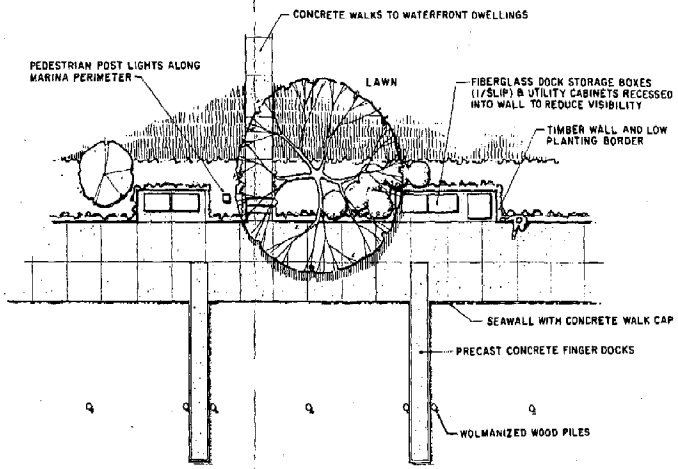
VULCAN-LEMAN & ASSOCIATES, INC.
COMMUNITY PLANNING CONSULTANTS & LANDSCAPE ARCHITECTS





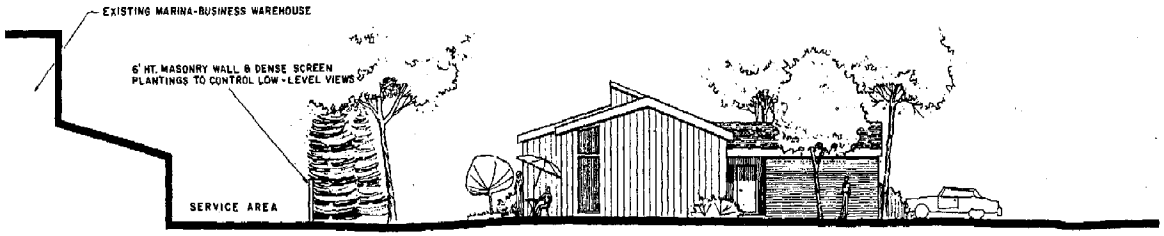
STACKED UNITS ALONG MARINA

SCALE: 1/8" = 1'-0"



PLAN VIEW : WEST MARINA EDGE

SCALE: 1/8" = 1'-0"



RANCH UNITS ALONG MARINA - BUSINESS BOUNDARY

SCALE: 1" = 10'-0"

Site Details

CHRIS-CRAFT PROPERTY REDEVELOPMENT STUDY

CITY OF ALGONAC, MICHIGAN

VILICAN-LEMAN & ASSOCIATES, INC.
COMMUNITY PLANNING CONSULTANTS · LANDSCAPE ARCHITECTS

The residential layout is in keeping with all of the City's RM-2 zoning requirements. Each unit has at least two off-street parking spaces: two-car attached garages for the ranch units, the remainder having a one-car attached garage and one driveway parking space. Thirty-four residential units have the possibility of a direct sale, walk-out relationship to boat wells, while the remainder would have first right options for marina slip purchase.

The marina, clubhouse and related facilities are intended to service both site residents and off-site purchaser/renters of boat wells, allowing maximum market flexibility for the marina development. Access to the marina area from the main entrance off M-29 is provided prior to the residential area, allowing for better traffic circulation and security for residents. The following elements are proposed for this facility:

- A 2,000 square foot clubhouse with management office, lounge with marina view, kitchenette, snack-vending machines, sauna, game room, T.V. area, restroom and shower facilities and heated outdoor swimming pool.

- Small boat and accessory storage building, providing 9,500 square foot of storage for maintenance equipment and supplies and rental storage units, ranging from individual ten foot wide stalls to banks of small lockers, as the market demands. A fish cleaning station could be located at the south end, adjacent to the marina.

- Sixty-three car parking lot with loading/unloading area.

- A 142 boat well marina comprised of:

  23 thirty foot wells (16 potentially for seasonal rental)
  41 thirty-five foot wells
  56 forty foot wells
  18 forty-five foot wells
  4 fifty foot wells

A holding tank pump-out and fuel dock is located on the private marina portion of the site adjacent to the public boat launch. It would serve to separate transient boat circulation from private marina wells yet be able to capture additional sales revenue from the public. A security station further reduces potential conflicts between transient use of the Batteaux Canal and the security interests of well owners.

Eight foot lighted piers and perimeter sidewalks provide access to the slips. Individually metered electric, cable T.V. and telephone service, city water and a fiberglass dock box for each well complete the list of amenities proposed. A boat hoist could be provided, but is not indicated on the plans.

Marina Related Business Component

A 230,000 square foot structure is proposed which could accommodate a 2,000 square foot retail sales area and 5,000 square foot boat repair/service area, with the remainder being utilized for boat storage. A 150,000 square foot fenced outdoor storage area is shown on the plans, with a 58 car parking lot. Access to the river is provided by a direct link across M-29 to a hoist facility adjacent to the public boat launch; an on-demand traffic signalization system would facilitate boat traffic across M-29, particularly during the short periods of heavy boat transport in early spring and late fall.

An alternate development scheme for this parcel would be utilization of the proposed structure for light industry, whereby the building shell could be divided up to serve the needs of various industrial operations, with access and parking along the north side.

Continued use of this parcel for recreation is recommended in the interim. Minor improvements for a ball field and parking area, as indicated in Conceptual Site Development Plan "B" would greatly enhance its short-term use. The plan shows, as an integral part of the marina-related business component, a small (0.10 acre) area of land located on the north side of M-29. This parcel is presently under private ownership. If it cannot be acquired, the development could occur as proposed with little impact beyond the loss of three parking spaces.

City Park and Public Boat Launch Component

An area of 3.3 acres surrounding the existing community center are reserved for increased active recreation opportunities. These serve both the surrounding community and the adjacent proposed multiple-family/marina complex, sparing the private developer the costs and space allocation normally associated with such amenities; such cost considerations enhance the probability of timely and successful construction of the complex. A walkout terrace for the community center, paved parking lot and walks and outdoor access restrooms complete the proposed park improvements.

A public boat launch is proposed in the southeast portion of the site, adjacent to the Batteaux Canal. The three acre facility includes a boat hoist relocated from the old Chris-Craft plant. This hoist and the boat launch could be efficiently operated by a concessionaire, as is the present facility; perhaps related to the proposed marina business across M-29. A chain-link security fence surrounding the boat launch area reduces negative impact on the surrounding land uses and would allow the parking area to be used for outdoor winter boat storage, providing continued revenue to the City even while the launch is closed.

Traffic Considerations

M-29, presently a two lane paved highway, accommodates over 9,000 vehicles per day. The Michigan Department of Transportation has tentatively scheduled widening of the roadway along the project site east to five lanes for 1983, although this may be delayed due to budget constraints.

In an effort to determine potential vehicular traffic generated by the proposed development, the following calculations were made:

TRAFFIC GENERATOR	AVERAGE DAILY TRIP ENDS
Multiple-Family Residential/Marina Complex	
132 dwelling unit x 6.1 trip ends/day*	805
66 boat wells (assuming 50% used by nonresidents) x 3.8 trip ends/day	250
City Park/Community Center	
29 parking stalls x 5 trip ends/stall*	144
Public Boat Launch	
100 +/- /weekend day (peak) 50 +/- /weekday	200
Marina Related Business	
Retail sales area 100 +/- per weekend day (peak) 50 +/- per weekday	200
5,000 sq.ft. boat repair/service area x 5.46 trip ends/1,000 sq.ft.	27.3
350,000 sq. ft. indoor/outdoor boat storage area x 1 boat/450 sq.ft. = 780 boats	(see text below)

*Rate of daily trip ends taken from Trip Generation, 1976. Institute of Transportation Engineers. Refers to vehicles both coming and going.

The expected average daily traffic generated by the proposed development during the boating season could approach 1,625 vehicles per day; such traffic should be easily accommodated by a five lane M-29.

The proposed boat storage facility north of M-29 presents the most likely source of traffic congestion. The nature of its operations result in a flurry of intense activity for short periods of time each spring and fall; for the remainder of the year traffic generation is minimal. Direct access across M-29 between the boat storage facility and the launch area and an on-demand type traffic signalization would best facilitate traffic flow during peak operating periods. The use of the boat launch parking lot as a staging area would also alleviate traffic congestion; for this reason as well as cost effective operation, the boat launch and hoist facility would best be operated as a concession by the same party as the boat storage facility.

PROJECTED PROJECT PRICING AND ABSORPTION

It is anticipated that a well planned, well constructed and well promoted project of the nature recommended herein would experience a sales rate not unlike comparable projects in the Detroit area and the state as a whole. Should development be anticipated prior to any lowering of current interest rate levels, the developer should be prepared to offer his potential purchasers financial assistance in the form of land contracts, cash discounts, zero interest mortgages, buy-downs and the like.

The present 15-17 percent mortgage interest rates effectively removes large portions of the potential market from consideration. Each full point of increase in interest rate requires an additional annual income of over $2,000. Thus, for a unit valued at $96,000 with a 40 percent down payment, the income generally required to maintain payments of a 17 percent mortgage is in excess of $52,000. At a 12 percent rate, the income would be approximately $40,000.

In 1981, in the One Hour Market, 45,000 families had incomes in excess of $50,000 whereas almost 94,000 had incomes of $40,000 or more. It should be noted that several Algonac area realtors have indicated that it is fairly common for recent purchasers of waterview homes to pay very high down payments and thus require relatively lower mortgages. This is not uncommon for persons purchasing their retirement or pre-retirement home, using the equity gained in previous homes to defray high mortgage costs.

PRICING

Based on a variety of interviews with local realtors, examination of demographic information, and the pricing of waterfront housing in the One Hour Market, it is recommended that the site's residential component be priced between $85,500 and $110,500. The average sales price should be between $95,000 and $100,000. Premiums can be charged for dwellings having both excellent channel front vistas and the potential for a direct link to marina wells. A lesser premium could be charged for units with either good channel vistas or proximity to boat wells.

These price ranges represent conservative projections of what can be obtained at the subject site. They have been biased by the prevailing sales prices in the area for prime waterview homes. The value of these homes has possibly been held artifically low in recent years due to the economic slowdown and high interest rates. The prices should be viewed as representing an initial offering with a potential for an upwards adjustment. In order to provide for this potential and to allow the market to dictate potential changes in unit design, the first phase of construction should consist of two building groupings: the ranch style unit and the townhouse/flat arrangement. The buildings located closest to the clubhouse and pool would thus represent an initial first phase. These two groupings contain a total of 17 units; three ranches, seven flats; five townhouses above flats and two townhouses with no lower flats.

Generally, it is believed that units of two bedrooms, two and one-half baths and three bedrooms (or two bedrooms and a den), two and one-half baths are appropriate for the townhouse style units. These units could range in size from 1,400 square feet to 1,600 square feet with emphasis on the 1,400 square foot units. The ranch style units and flats, while having different floor plans, could be similar in size with the ranch around 1,300 square feet and the flats around 1,250 square feet.

No locational premiums will be possible for the ranch units since they have no waterview or marina proximity but 51 of the 61 flats could have premiums of $2,000-$3,000 depending on location. Both ranch and flat unit types could be developed into two bedrooms, two baths or two bedrooms, a den and two baths.

There are four basic unit types proposed but a variety of floor plans could be developed to meet the changing dictates of the market. Further, the basic structural types could also change if there exists a higher or lower demand for certain types. The greatest number of units to be constructed at any one time would be in a 16 unit building. With 13 separate buildings, each containing one to 16 units, the opportunity exists to remain sensitive to the market.

In the condominium marina portion of the project, 142 boat wells of 30-50 feet in length are proposed. With the exception of those wells directly fronting the residential area, the balance of the wells (94) could be rented seasonally until the condominium well market could absorb them. In order to defray the cost of a full time residential/marina manager, and/or encourage the continued involvement of the principals in the project, at least a portion of the 94 wells should remain for seasonal occupancy. The receipts from these wells plus income from gas sales and pump-out fees, as well as the potential association with a repair facility and hoist, will act as attractions for full time management at the marina. The site has been designed to facilitate seasonal rental of the 16 30-foot wells at the east end of the marina, allowing separation between owned and rented wells to alleviate the security concerns of owners. This seasonal rental could persist even following the sale of the balance of the wells.

Condominium well prices of $18,000-$24,000 could be expected in today's market. The average sales price could be around $20,800 if all 142 wells were sold or $21,150 if the 16 30-foot wells were rented. Rental rates for summer occupancy of the 16 30-foot rental wells of around $800, including water hookup and metered electric could be achieved. As the rental market in the area tightens, even higher rates could be commanded. Both sale and rental rates are toward the middle to upper end of the One Hour Market rates. The provision of a fully serviced marina with a swimming pool and clubhouse available to all tenants or purchasers and adjacent to a city park with the recreational activities proposed should enable accomplishment of these prices.

ABSORPTION

It must be acknowledged that the present economic conditions found in southeast Michigan argue against immediate site development, at least for the residential component of the project. With an unemployment rate of 14.2 percent in May (down from 17.3 percent in March), and a recession of unknown duration, prospects for immediate construction and sale are less than ideal. If the property were sold within the next several months, it would, most likely, be one-two years before any wells or dwellings would be available for sale. However, initial response to the limited offerings of condominium wells in the Detroit area and western Michigan indicates that despite the adverse economic climate, wells are being sold at a reasonable rate. Further, waterfront property, particularly that with water access, has continued to sell throughout southeast Michigan even when sales of homes located elsewhere have slowed to a virtual standstill.

The residential component of the site has two distinct market segments. First, that represented by the traditional growth in households plus the replacement of the aging stock of households. The second is the growth in vacation or second homes and/or retirement homes. This latter segment is not as directly tied to the One Hour Market or commuting shed as the former.

In the five communities comprising the immediate Algonac area, household growth is projected to be 1,600 new households by 1990 and 2,883 more by the year 2000. Even were only half this growth to occur, the growth would be 800 and 1,442, respectively. The 132 unit project would represent only 5.9 percent of the combined 1980-2000 growth - a very reasonable market share.

Within the One Hour Market, SEMCOG's designated life cycle 2 and 5 household segments which contain childless households with heads 35+ years of age (the prime market segment for water related type housing and well purchase) are forecast to increase by 146,500 households. These are not necessary households new to the market, but rather households entering or within the prime age and life cycles appropriate to be interested in purchase of the facilities proposed.

During the heyday of residential sites in the Algonac area in the mid 1970's before unemployment and mortgage rates rose, waterfront homes were often sold without even being listed. A turnaround of less than 30 days was not uncommon, regardless of price. While it is unlikely that these sales levels will ever return to their mid 1970's pace, a well designed and aggressively promoted development of 132 units should be able to be sold out within four years or an annual sales pace of around 30 units, presuming some lowering of interest rates and unemployment.

While at present, demand for rental well spaces has softened slightly in the One Hour Market, that for prime quality wells in well managed, attractive marinas appears to be fairly strong. In the long run, demand for wells capable of accommodating boats of at least 25 feet or longer will increase. The conversion of existing rental marinas to condominiums will act to create further pressure for prime rental space. Thus, the provision of at least a small rental well component at the subject site appears reasonable and capable of ready absorption.

Market experience for condominium wells in the One Hour Market is limited at present due to the very recent nature of the concept to southeast Michigan. Thus, the western Michigan experience is examined for absorption trends. The project plan proposes 142 wells of which 16 are recommended to be held for seasonal rental by either dwelling unit purchasers or the public at large. It is anticipated that 50-70 percent of the dwelling buyers will desire to purchase or rent a well or between 66 and 92 wells will be taken by dwelling purchasers. Assuming the more conservative 50 percent, if it takes four years to absorb all 132 dwellings, it will take four years for 66 wells to be absorbed by the dwelling buyers. The balance of 66 wells will be absorbed by nonresidents.

The condo-marina industry average absorption has been 6.4 wells/month or 77 wells per year during this slow economy. No wells were available for reservation or sale prior to the economic slowdown. The average sales pace is biased toward existing marinas which have drawn extensively from former tenants, since very few new marinas have been developed as condominiums as yet. Even if one-half the above rate were utilized for this new marina and no anticipation of economic recovery was made, the remaining 66 wells not held by renters or purchased by project residents is projected to be absorbed in less than two years.

SOURCES OF FUNDING AND ORGANIZATIONAL MECHANISMS FOR REDEVELOPMENT

There are three basic sources of funding a community can tap in its attempt to see a prospective development to light: its general fund and/or revenue raised from general obligation or revenue bonds; other public sources such as state or federal programs and the private sector such as banks, insurance companies and pension funds.

Private sector funds are usually the most expensive to acquire, especially with today's high prime rate. This same high rate, coupled with an adverse economy and financial institution expectations of continued high interest rates in the long-term also affects the rates at which public bonds can be marketed. Further, the incentive for the usual bond purchasers (banks) to buy local bonds has largely disappeared. Due to the economic situation, banks often have no use for the tax shelter provided by such bonds. Also, the reduction in maximum federal income tax rates planned over the next three years reduces the interest of other prospective bond purchasers in tax free bonds. Unless the bond sale is at least $1.5 million, underwriters generally will not handle their sale. A final comment is that revenue bonds for industrial development tend to be the most readily sold at the lowest rates. It is often more difficult to sell bonds for commercial or housing projects. However, the bond market, like all financial markets, is undergoing rapid changes in investments available and the changing nature of potential bond purchasers. Thus, the following evaluation speaks only to the financing currently available.

In the public sector, the federal and state government funding sources have been seriously reduced. More than ever, competition is intense for the limited funds which are available. Future allocations of money to various grant programs are unknown. Prospective funding sources such as the Department of Natural Resources (DNR), Waterways Division recreational program may or may not be able to be tapped in the near future for major marina related developments. A "Transportation Package" is now under consideration in the State Legislature which could possibly result in more state funds available for water related projects. The vote on the package is not expected until after the November elections.

With the above constraints in mind, the following is a brief explanation of various funding possibilities which could be utilized to assist the development of the former Chris-Craft site.

LOCAL SOURCES OF FUNDS

These funds can be utilized to pay for the public improvements necessary to make the project more attractive to a developer. Among sources of funds available through the City of Algonac are the following:

General Funds

This source of financing consists of the use of the revenues collected by the City primarily from property taxes. However, a major potential drawback is the need to compete with other departments for available tax revenues. It is highly unlikely that the City's general fund could be utilized for site development.

General Obligation Bonds

General obligation debt may be assumed by the City, subject to charter provisions and provided, further, that the debt is approved by referendum. Certain other bonds may be issued by the municipality after council approval and after a required interval to permit referendary petitions to be filed requesting a vote by the public. General obligation bonding may be attempted if other financial assistance cannot be secured.

Building Authority

A building authority may be formed to finance a variety of local facilities. Among these projects may be park improvements.

Revenue Bonding

Revenue bonds may be sold to finance revenue producing recreational facilities. The repayment of principal and interest is payable only from revenues generated by the facility. Revenue bonds do not constitute a general obligation of the community. The debt limit for this type of bond is restricted only by the amount of revenue the facility is capable of producing. The income must be sufficient to pay operating costs as well as the principal and interest on the bonds. Until sufficient operating reserves are acquired, an additional 50 percent of revenue from the facility is required over the yearly bond obligation as a safety factor. This additional revenue requirement is often referred to as "cover." Facilities such as pools, golf courses, ice arenas, and the like, are often financed by revenue bonds. Limited revenue would be generated from the proposed public facilities such as the boat ramp given the City's need to have ramp fees affordable to all City residents and the seasonal nature of the use. The main source of revenue would most likely be from nonresident launch fees.

Special Assessment Bonding

A city may levy special assessments on property benefited by an improvement after a proper hearing. However, the City must pledge the full faith and credit of the community behind such levies.

State statute limits special assessment bonding to 12 percent of the equalized valuation with three percent issuable in any one year. Special assessment funding would not provide a development incentive since the goal of such incentive is to reduce, not increase, developer costs. Further, no revenue could be raised from publically owned properties.

Pay-As-You-Go Financing (or Phased Financing of Development)

A widely used financial tool involves the pay-as-you-go (PAYGO) method. This type of financing is best suited to programs that can be broken down into small enough units to make the financing practical on a yearly basis (e.g., through annual capital budgets). Funds may also be accumulating from year to year in the public improvements fund. Among such items which could be developed in this fashion are the fences surrounding the city park, park landscaping and recreational equipment such as picnic benches, grills, basketball courts, shuffleboard and childrens play structures. These items are generally small scale and relatively low cost in contrast to the tennis courts and launch ramp, and launch parking area.

Tax Increment Financing

Under the provisions of Public Act 450, cities are allowed to establish redevelopment districts and make necessary public improvements in such districts to induce and accommodate industrial, commercial and residential construction. The financing comes from the increase in property tax revenue generated by the new private development.

Among those public improvements that are associated with an urban redevelopment program are clearance of blighted buildings, site improvements necessary to make the land usable for new construction, street and utility upgrading, planning and engineering. Tax increment revenues cannot be used for direct loans to private individuals or companies; however, such revenues can be used to construct any type of publicly owned building for the use by any public or private person.

The Act requires that a city establish a Tax Increment Finance Authority (TIFA) to organize and implement a tax increment finance plan developed in conjunction with the redevelopment program. The members of an existing EDC or a DDA can serve as the TIFA board. Among areas that Act 450 could potentially be utilized is to demolish the boat storage building and the other structures on the site depending on the timing of development proposed by a prospective developer. Further, improvements to the city park and boat launch area could be done utilizing this financing method since the city park, with its outdoor recreation facilities, will compliment the private portion of the overall site.

Economic Development Corporation

While the City does not have an EDC, it has utilized St. Clair County's EDC to assist in the construction of cable television. EDC's may acquire, develop and maintain land buildings and other equipment necessary to complete a project plan. Industrial Revenue Bonds (IRB) are the primary mechanisms for financing projects through EDC's. With their tax exempt status, the interest rates are usually much lower to the borrower than regular market rate loans. The savings thus realized by the recipient of the bond sales can be a significant positive factor in the development of commercial property.

While EDC bonds cannot be utilized to finance the development of residential property, they conceivably could be used to assist the development of the commercial components: the marine business on the north side of M-29 and the marina itself on the south side. Obviously, any proposed borrower would have to meet the same financial tests in borrowing from the EDC as from conventional sources. Thus, the EDC bond would be used merely to assist a developer, if needed, to offset some costs.

The City should be careful, however, not to offer too many inducements to development unless they are actually needed. Rather, use of each of the many financing or tax abatement vehicles should be considered only after developers have been requested to consider development utilizing conventional financing.

OTHER PUBLIC FUNDS

A variety of state and federal funding sources exist. Among them are sources derived solely from the state and others administered by the state but with a federal source.

Land and Water Conservation Fund

The Land and Water Conservation Fund Program is a federal Heritage Conservation and Recreation Service Program administered by the Michigan Department of Natural Resources. Funds to local governments are provided on a 50/50 matching basis where one-half of the total cost of a program must be borne by the community. The fund has provided monies for the acquisition and development of park sites and recreation areas. As of June 1982, little future funding of this program is anticipated to be available over the next few years due to federal budget reductions.

Federal Revenue Sharing

In recent years, the federal revenue sharing program has provided local monies for public purposes including recreational facilities and open space development. These funds may be used for "local match" with any project receiving other federal assistance. The availability of revenue sharing programs is somewhat variable from year to year, depending upon congressional action to fund the program.

Because of budget uncertainties on the national level, with resolution not anticipated until after the November elections, the amount of future revenue sharing funds to the city cannot be evaluated at this time.

Community Development Block Grant Funds

Under a highly competitive funding program, communities of less than 50,000 persons which are not part of the urban counties program can apply for Small Cities Community Development Block Grants; a program funded by the federal government, administered by the state. There are five types of grants for which a total of $21.3 million is available in FY '82.

Economic Development Start-up Grants can be applied for on a graduated matching basis where the state share is a maximum of $25,000. Such grants can be used for project planning, engineering and feasibility studies, organizational efforts, financial packaging and project promotional work. The awarding of economic development grants is greatly influenced by the project's direct job creation or retention potential. However, promotion of tourism is one of the main goals of the state and projects which are tourism related (such as at least the nonresidential component of the Chris-Craft redevelopment) but, which create relatively few jobs may still be able to effectively compete for the grant. The grants can be used for land and property acquisition, public facilities necessary for economic development, site preparation, rehabilitation and demolition, and private business and economic development project loans.

Housing grants are also available through CDBG. They are to be used to augment and/or improve the stock of housing available to persons of low and moderate income. This program would thus be unsuitable for the proposed high value condominium residential development.

A fourth grant, public works, is for those public facility needs which pose an imminent threat to public health and safety. Again, this would not be appropriate to the site.

Inasmuch as the development of the boat launch, tennis courts and other park improvements will greatly improve the attraction and potential marketability of the condominium marina as well as the housing portion of the project, it may be possible to apply for and receive CDBG economic development funds for that purpose. Further, such funds could be utilized to assist the developer of a boat repair, marina supply and boat storage building. Since potential employment at such a facility is limited, however, the amount of direct or indirect assistance using CDBG funds alone would have to be in keeping with the funds per employee at other CDBG funded projects in the state. A proportion of City or private to CDBG funding of no less than 5:1 is the minimum recommended.

CDBG grants applications indicating high degrees of resourcefulness in terms of utilization of other financing vehicles coupled with CDBG monies may have a better chance of approval than those for which CDBG funds are the sole source of project implementation. As such, and because of the potential applicability of a wide variety of funding sources, should CDBG funds be pursued, their pursuit should be linked to other funding sources.

Michigan Department of Natural Resources - Waterways Division

The Waterways Division has the responsibility for developing, maintaining and operating a variety of water oriented facilities such as harbors and boat launches. Further, and following set aside of sufficient funds to cover its current operating costs, the Division has grant-in-aid programs available to communities by which additional capital outlays are made for facility development. Generally, these grants are made on a 50/50 matching basis to assist the construction of such facilities as launch ramps, parking areas, docks and boat wells, utilities to service boat wells and ancillary facilities, pump-outs, gas docks and attendant booths.

The revenue sources to fund activities of the Division are a 1.023 percent share of the motor vehicle fuel tax, boat registration fees, the State's General Fund and the federal government. The primary fund source is the fuel tax. At this time, the State Legislature is considering a package of bills the results of which might not only increase the motor vehicle fuel tax, but also to increase the share of receipts to the Waterways Division to 1.75 percent.

Because of declining federal and state sources of revenue to the Waterways fund, Division officials anticipate that only very limited funds for new facility development would be available unless the new transportation package passes. At the least, a facility such as a boat launch would most likely be within the range of funds available after the 1983-1984 fiscal year.

Should the fiscal picture change and the gas tax monies to the Division increase, it may be possible to seek funding from the Division for a phased public marina development. The Waterways funds can only be used for public recreation and, as such, could not be used for a private marina.

In the past, the high cost of previously proposed public marinas in Algonac has precluded development of same. Yet, provision of public water access facilities in the City has a high ranking in the state.

Should the City not be able to attract a private developer to create a residential/marina complex, and should there be an increase in gas tax funds to the Waterways Division, pursuit of a public marina for the project area, if phased in small increments, might be feasible with Waterways funds. However, in any use of such funds, the City would be required to place a 50 percent match. Small Cities CDBG monies might be a potential source of such match as could revenue bonds.

However, in the interest of providing as much return as possible to the City, it must be noted that a private residential marina complex could increase the tax base of the City while also increasing the population necessary to support the City's public and commercial facilities. A public marina, in contrast, would offer no direct increase in tax base. Further, since many of its seasonal occupants would probably already reside in the area and already shop locally, less impact on the local economy would be felt. Generally, public marinas are not significant money makers for their public owners since maintenance and operating costs are high, thus a relatively limited income above expenses could be anticipated.

With the above analysis in mind, it is recommended that pursuit of Waterways Division monies be mainly for those public recreational facilities deemed ancillary to the primary private use of the site. Among such facilities would be the boat launch and a limited number of seasonal public boat wells, plus associated parking, pump-out, gas and oil and attendant facilities. The seasonal wells could be publically built, operated by a concession granted to the private developer of the entire marina. This concept warrants exploration with the Waterways Division. In lieu of funding for such seasonal wells, pump-out and gas dock facilities, at the minimum, Waterways funds could be used for the boat launch area and possibly for the relocation and development of the hoist serving the boat launch area.

Economic Development Administration

At one point during 1981, it appeared that the Economic Development Administration would be entirely terminated. This did not occur and limited funds are available during the year for technical assistance grants. At present, a reauthorization bill is under consideration by the House for FY '83 which may change some of the current provisions of the 1965 Public Works and Economic Development Act. Under the present legal structure, EDA involvement can take several forms including direct loans, loan guarantees, and/or fixed asset and working capital financing. EDA grants are competitively awarded since demand far outweighs supply. Applicants must be in an EDA designated Economic Development District and the project proposed must be consistent with the applicable overall economic development program.

EDA grants have been primarily utilized in industrial projects either as public improvements or direct loans. Little chance exists in the future, at least under the present legislation, and funding for use of the program for marina related development. However, there may yet be potential under the new bill being considered by the House: the National Development Investment Act of 1982 (HR6100).

Tax Incentives to Development

Public Act 255 of 1978 is the Commercial Redevelopment Districts Act. This law is designed to assist communities in commercial redevelopment efforts by granting tax benefits on the form of tax abatements to companies which rehabilitate obsolete commercial facilities or build new ones in previously developed areas or those with obsolete property. Upon creation of a Commercial Redevelopment District by the community, a business proposing a project may apply for a Commercial Facilities Exemption Certificate which entitles the company exemption from ad valorum property taxes for up to 12 years. In lieu of property tax, the business will pay a Commercial Facilities Tax which will be equal to a 50 percent tax exemption of the value of the new facility.

It is possible that the provisions of Public Act 255 could be applied to the marina business on the north side of M-29. Its application to the condominium marina on the south side of M-29 should be investigated by the City's attorney should a request be tendered by a prospective developer.

SOLICITATION STRATEGY

While the proceeding report can be used, either all or in part, as part of a solicitation package to attract developers, the following steps are recommended to enhance the effectiveness of the report and to reach the widest audience:

- Pursuit of CDBG start-up grant funds to facilitate the following programs, products and activities. A grant up to $25,000 to prepare or organize the necessary promotional and financing mechanisms could be obtained by the City. The City's required match for a $25,000 grant would be $6,250. This match money can be either public or private in origin.

- Develop a concise and preferably colored brochure summarizing key market, cost and design points. Said brochure should also indicate the City's willingness to assist development and itemize areas of potential public money expenditure. Further, salient community features important to potential residential residents should be listed such as a description of churches, schools and shopping facilities as well as the property tax situation.

- Develop a list of prospective developers derived from a variety of sources among which are the Michigan Cooperative Extension Service; Michigan Department of Commerce, Licensing and Regulation Division; DNR Waterways Division, National Marine Manufacturers Association; and the Michigan Boating Industries Association.

  Since California and Florida have seen extensive marine condominium developments over the years, appropriate state officials in these two states should be contacted for a listing of developers.

- Place advertisements in marine publications of wide circulation such as Boat and Motor Dealer, Boating Industry and Lakeland Boating.

- Attend major boat shows and marine industry conferences to make and encourage industry contacts with the City.

- Indicate to prospective developers the City's willingness to smooth the way for said development. Such action could include assistance in seeking the necessary DNR and Army Corps of Engineers permits including accompanying the developer to meetings with said agencies.

- Pursuit of available sources of funds to be able to assist the developer either with off-site costs or such on-site costs as building demolition. This step also could involve the establishment of an Act 450 Tax Increment Finance District around the site through the creation of a Tax Increment Finance Authority even prior to development to begin to capture the assessed valuation of the surrounding area and apply it to the park's development. The district could include large portions of the City which benefit from an enhanced city park and boat launch. Also, initiation of a coordinated effort with the County's EDC to facilitate action for any bonding if it is needed by prospective developers. However, since EDC boards can also serve as TIFA board members, the City may, instead, choose to pursue its own EDC to facilitate coordination between the two entities.

- Active pursuit of funds to develop the public launch, parking and hoist facilities at the adjacent City park would indicate a community commitment to the adjacent private development. Said public facilities would reduce the developer's capital outlay for similar facilities since they would be available adjacent to the project area. The hoists, gas pump, pump-out and an outdoor winter storage on the launch area parking lot could be operated as concessions by the developer of the private marina and provide that developer with relatively low cost additional profit centers.

COST ANALYSIS AND IMPLEMENTATION STRATEGY

In an effort to determine the most cost-effective methods of construction and accurate cost data, several design and contracting firms were asked to review the proposed redevelopment plan for the site. Among those were: J & R Steel Fabrication, Inc., Algonac; American Diversified Dredging, Walled Lake; Progressive Associates, Inc., Southfield; and N. K. Becker and Associates, Ltd., Windsor, Ontario, Canada. Other sources included several developers of recent marina projects in the Detroit area and western Michigan; Bill Kettelwell, a demolition contractor in Port Huron; Means 1982 Cost Data reports and the consultant's own experience with recent construction projects. Where the projected costs given for unique or specific items can be attributed to a direct quote, the source has been identified by a footnote.

Three major design decisions were made during the preliminary cost analysis which dramatically reduce costs of the proposed development:

1. The footings and most of the flooring of the existing boat storage building will not be removed. The residential structures which are proposed over the remains would be placed on fill. A projected savings of $75,000 + would result.

2. All dredged and excavated material will be kept on-site. Soil borings taken in 1978 for a previous study indicate fine granular soils predominate in the excavated areas, allowing their use as fill material under the proposed residential structures. All residential floor elevations must be at least two feet above the existing grade due to the 100 year floodplain, and at least four feet for units above the remains of the boat storage building. The remainder of excavated material and all dredgings will be used for fill and landscape berming. Removal of all this material and disposal off the site would probably cost an additional $320,000 or more.

3. A unique precast concrete cellular design has been proposed for the seawall and marina construction. This construction system has been developed by N. K. Becker and Associates, Ltd. of Windsor, Ontario, Canada. Recent installations have been cost competitive with conventional steel sheet piling; when combined with the current discounted exchange rate with Canada, the cost is substantially less. (Figures given in the cost estimates are discounted 25 percent from the original quotes to simplify cost data.) In addition to cost considerations, desirable features of this system include faster installation rates, hydraulic efficiency, high strength and durability and low maintenance, particularly for the cantilevered dock components. Additional information regarding this system has been reproduced from a N. K. Becker and Associates, Ltd. brochure and included in the appendix of this report.

A. MULTIPLE-FAMILY RESIDENTIAL/MARINA COMPLEX $10,416,235.00

1. Demolition

Remove existing boat storage building (footings and major portions of flooring to remain)	$75,000.00[a]
Remove existing footings and marina structures	14,650.00[b]

2. Residential Development

7 - 1,300 S.F. ranch units @ $70,200[c]	491,400.00
3 - 1,600 S.F. townhouse units @ $83,200[c]	249,600.00
61 - 1,400 S.F. upper level townhouse units @ $67,200[c]	4,099,200.00
61 - 1,250 S.F. lower level flat units @ $56,250[c]	3,431,250.00
7,321 S.Y. bituminous roadway @ $12	87,850.00
5,850 L.F. concrete curb and gutter @ $12	70,200.00
3,930 S.Y. bituminous driveway @ $6.50	25,545.00
760 L.F. 6' height concrete screenwall @ $30	22,800.00
6 roadway lights @ $3,000	18,000.00
Landscaping (including finish grading)	100,000.00
Utility services @ $1,000/dwelling unit[c]	132,000.00
On-site engineering @ $950/dwelling unit[c]	125,400.00
Subtotal	$8,942,895.00
+ 2% contingency	$178,860.00
	$9,101,755.00

3. Marina Construction

68,000 C.Y. dredging/excavation @ $2[d] (earth relocated on-site)	$136,000.00
750 L.F. concrete riprap on filter cloth @ $50	37,500.00
650 L.F. concrete seawall (N.K. Becker precast cellular system) @ $142[e]	92,300.00
1,200 S.F. concrete pier with fuel/holding tank pump-out facilities and security station	50,000.00

142 individual utility services @ $1,500 (electric, water, phone, cable TV)	$213,000.00
142 fiberglass dock storage boxes @ $150	21,300.00
750 L.F. 8' wide precast concrete docking @ $30[e]	22,500.00
89 concrete supports for main docks @ $535[e]	47,590.00
20 cantilevered precast concrete finger docks (20' length) @ $1,080[e]	21,600.00
16 concrete supports for cantilevered finger docks @ $535[e]	8,560.00
52 precast concrete finger docks (3' width x 35' length) @ $420[e]	21,840.00
52 concrete supports for precast concrete finger docks @ $535[e]	27,820.00
600 wolmanized wood piles @ $70	42,000.00
Subtotal	$742,010.00
+ 10% site engineering and contingencies	74,200.00
	$816,210.00

4. Shared-Facility Development

2,000 S.F. clubhouse @ $60 S.F.[c]	$120,000.00
9,600 S.F. small boat storage building with fish cleaning station @ $13.00	124,800.00
3,870 S.Y. bituminous parking lot @ $6.50	25,150.00
750 L.F. concrete curbing @ $12	9,000.00
90 L.F. 6' height concrete screenwall @ $30	2,700.00
1,400 S.F. swimming pool @ $25 (including decking and equipment)	35,000.00
25,850 S.F. concrete sidewalk @ $2.50	64,625.00
21 pedestrian post lights @ $1,200	25,200.00
3 parking lot lights @ $3,000	9,000.00
500 L.F. 8' height chain link fencing @ $15	7,500.00
Landscaping (including timber retaining walls)	30,000.00
Subtotal	$452,975.00
+ 10% site engineering and contingencies	45,295.00
	$498,270.00

B. CITY PARK AND BOAT LAUNCH $287,265.00

1. Park Development

300 S.F. restroom addition to community center @ $100/s.f.[c]	$30,000.00
1,000 S.Y. bituminous roadway @ $12	12,000.00
1,355 S.Y. bituminous parking lot @ $6	8,800.00
1,475 L.F. concrete curbing @ $12	17,700.00
1,550 S.F. concrete walk @ $2.00	3,100.00
1,500 S.F. concrete terrace @ $2.50	3,750.00
1 basketball court	3,350.00
3 tennis courts @ $15,000	45,000.00
3 shuffleboard courts @ $1,200	3,600.00
1 children's play area	5,000.00
3 area lights (30' height) @ $3,000	9,000.00
Landscaping	18,200.00
Subtotal	$159,500.00
+ 10% site engineering and contingencies	15,950.00
	$175,450.00

2. Boat Launch Facility

17,000 C.Y. dredging/excavation (earth relocated on-site) @ $2.00[d]	$34,000.00
400 L.F. concrete seawall (N.K. Becker precast cellular system) @ $142[e]	56,800.00
2,500 S.F. precast concrete planking for ramp area @ $4.00[e]	10,000.00
1 40' skid pier (steel frame w/wood decking)	5,000.00
7,245 S.Y. bituminous parking lot @ $6.50	47,090.00
55 concrete bumper blocks @ $12	660.00
2,360 S.F. concrete walk @ $2.50	5,900.00
650 L.F. 8' height chain link fence @ $15	9,750.00
5 area lights (30' height) @ $3,000	15,000.00
1 control booth	3,500.00
Landscaping	14,750.00
Subtotal	$101,650.00
+ 10% site engineering and contingencies	10,165.00
	$111,815.00

C.	MARINA BUSINESS DEVELOPMENT	$988,790.00
	63,000 S.F. structure @ $13,000[f]	$819,000.00
	3,100 S.Y. bituminous parking lot @ $6.50	20,150.00
	4,950 S.Y. gravel outdoor storage area @ $3.00	14,850.00
	1,000 L.F. concrete curbing @ $12.000	12,000.00
	1,000 S.F. concrete sidewalk @ $2.00	2,000.00
	180 L.F. 6' height concrete screenwall @ $30.00	5,400.00
	900 L.F. 8' height chain link fencing @ $15.00	13,500.00
	Landscaping	12,000.00
	Subtotal	$898,900.00
	+ 10% site engineering and contingencies	89,890.00
		$988,790.00

Data Sources

a. Based upon estimate from Bill Kettelwell, Port Huron demolition contractor, of $150,000 for complete removal of structure, floor and footings ($50,000 structure only).

b. Derived from Valentine-Thomas Report (1978) with 10% per year increase.

c. Unit costs provided by Progressive Associates, Inc., Architects, Southfield.

d. Average of verbal quotes from J & R Fabrication, Inc., Algonac and American Diversified Dredging, Inc., Walled Lake.

e. Based upon written quotes from N. K. Becker and Associates, Ltd., Windsor, Ontario, Canada.

f. City Engineer, Algonac.

The primary goal of the City should be the realization of the private development proposed for the site. Initial expenditures of public dollars to facilitate site development would best be used for the preparation of an informative brochure illustrating the proposed development plans for the site and its potential benefits for private developers. Circulation of such a brochure among potential developers could be an effective tool for enticing private capital.

The existing boat storage and marina facility could provide an initial source of income for any potential developer of the residential/marina complex, and, therefore, should be maintained until a developer is found. Major improvements or expansion should not be undertaken. Such work could reduce the flexibility of the developer to respond to market demands. The same is true of proposed public improvements along the private development boundary. Market conditions may require the developer to provide slightly smaller dwelling units, increasing density or quantity, and therefore requiring some modification of the site plan. Even flexibility of the parcel limits could be of some benefit in this regard.

One physical improvement which could be undertaken immediately by the City would be dredging of the existing marina and the Batteaux Canal. This would improve both public access to the North Channel and the service potential of the existing "Algonac Harbor" facility, particularly for deeper draft vessels. Enhanced income potential for the existing facilities could be a positive factor encouraging further site development.

Perhaps, at the time of sale, a commitment of City dollars for demolition of the boat storage building, at such time as befits the purchaser's timetable for development, would further encourage action on the site. The purchaser would derive immediate income from the existing facilities and the financial strain of such demolition would be lessened at the time his monies are committed for new construction. Other such arrangements to facilitate timely development could be negotiated at the time of sale.

The construction of proposed public recreation facilities on the site should be contingent upon the progress of private development. Initial improvements which might provide increased service to the community, enhance the park's visual character and make the site more attractive for residential/marina development would be construction of the paved parking lot, outdoor-access restroom addition and walk-out terrace for the existing community center. Once a developer is on-line and construction of the expanded marina is imminent, the present access and recreational facilities on that portion of the site should be abandoned and new facilities provided. The proposed boat launch, related parking lot and landscaped screen berm should be constructed at that time. Relocation of one of the existing hoists to the new launch could also be accomplished then or whenever the boat storage building is demolished.

The remainder of the recreational facilities proposed in the city park area should be developed as the residential units are completed. These are intended to serve the needs of the expanded local population the multiple-family residential complex would provide, as well as the boat launch users and community in general. An exception might be interim use of the northern parcel for recreation: construction of a regulation Little League/adult softball diamond and graveled parking area would serve the community's present needs until the proposed marina business development can be established. Constructon of this proposed boat storage facility may not be feasible until the existing one is removed and the new public hoist and boat launch are completed, which might be a considerable length of time.

Prior to commencement of any action regarding site development which would involve modification of the shoreline, as is proposed on the Final Illustrative Site Plan, permits must be obtained from the Michigan Department of Natural Resources and the Army Corps of Engineers. The two agencies operate under a concurrent authority at this time with a single joint permit application required. The DNR's review authority is derived from P.A. 346 of 1972, Inland Lakes and Streams, and the Corps is operating under the authority of Section 404 of the Federal Clean Water Act.

APPENDIX

BECKER PREFABRICATED CELLULAR MARINE STRUCTURES

1. STRENGTH AND DURABILITY

Composite cellular design combines strength and durability of factory precast concrete with low cost earth ballast. Structurally designed for strength and economy to suit the requirements of each individual site.

2. ECONOMY

Proven cheaper to install than steel sheet piling and other equivalent systems. Requires little or no maintenance.

3. QUICK AND EASY TO INSTALL

Can be installed with conventional land-based construction equipment without barges. Installation rates of 100 l.f. per day of shorewall or dock, per crew, are average. Can be installed year round.

4. THOROUGHLY TESTED

Researched and tested over four years both in the laboratory and in the field. More than 1/2 mile of shorewalls, beach sills and docks in service along Lake Erie, Lake St. Clair and their tributaries.

5. HYDRAULICALLY EFFICIENT

The fluted contour of the cellular walls reduce toe scour and wave uprush. The walls are very effective in dampening both normal and oblique waves generated by wind and boat traffic. Ideally suited for marinas.

6. SYSTEM-DESIGNED COMPONENTS

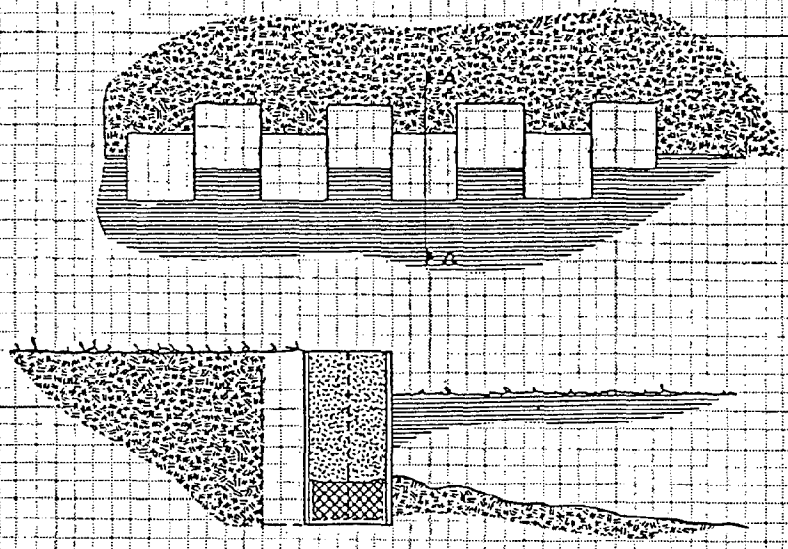
The cellular structures are designed to be used with maintenance free precast concrete, cantilevered docks or with conventional docks. The shorewalls can easily be adapted to follow curved shorelines to minimize disruptions to the ecosystem. All components are designed to applicable Codes by qualified Professionals.

7. QUOATIONS ON REQUEST

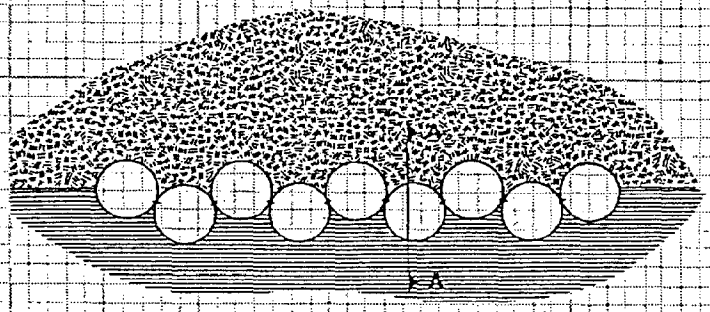
We are pleased to submit specific quotations for the design or for the design and installation of marine structures. We also welcome the opportunity of being able to quote on a specific installation as an alternative to steel systems.

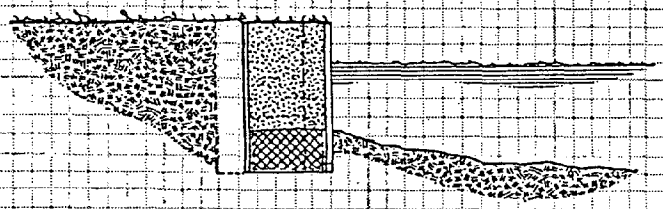
875 Ouellette Ave., Windsor Ontario,
Canada, N9A 4J6
(519) 258-4672

P.O. Box 43178
Detroit, Michigan, 48243 U.S.A.
(313) 962-1268



SECTION A-A





SECTION A-A

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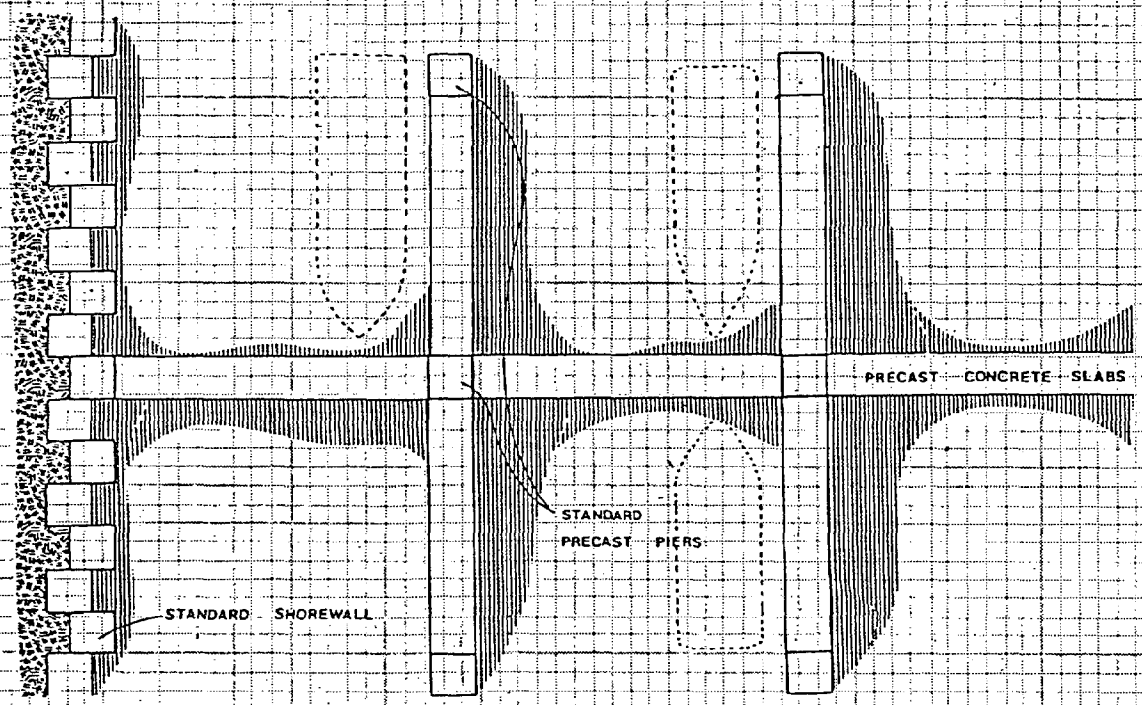
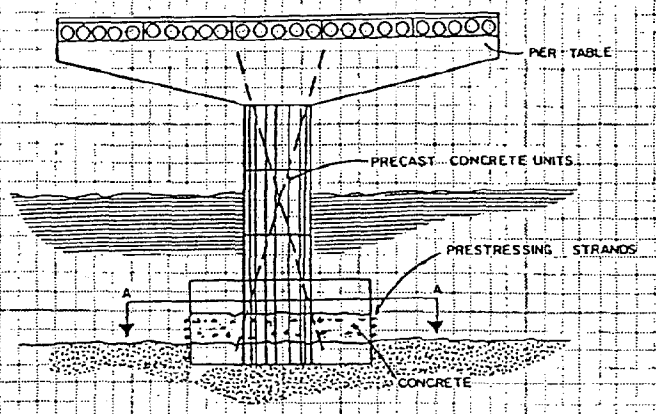
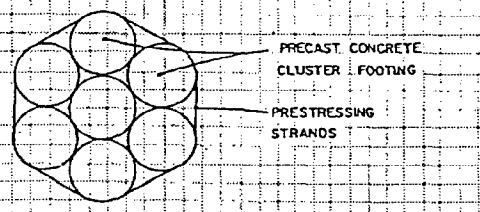
	SCALE N.T.S.	PROJECT DESIGN CONCEPTS	DATE SEPT. 81



PLAN

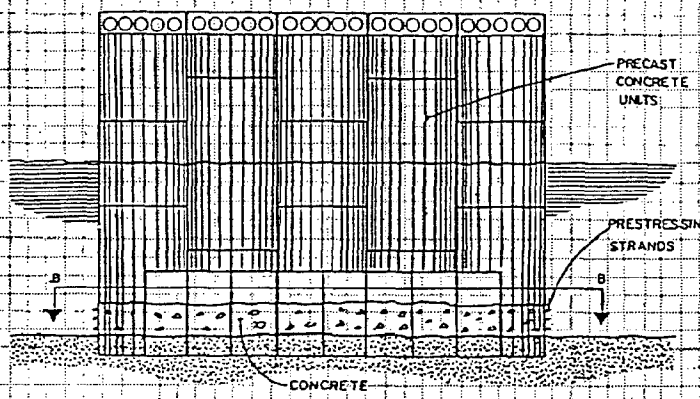
HB	DETAIL NO. 5	TITLE DOCKS	PROJECT NO.
	SCALE N.T.S.	PROJECT DESIGN CONCEPTS	DATE SEPT. 81

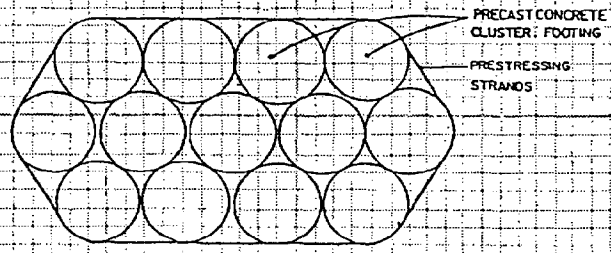




SECTION A-A

SHALLOW WATER INSTALLATION





SECTION B-B

DEEP WATER INSTALLATION

HB	DETAIL NO. 7	TITLE PIERS & ABUTMENTS	PROJECT NO.
	SCALE N.T.S.	PROJECT DESIGN CONCEPTS	DATE SEPT. 81

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