TECHNICAL DATA REPORT

Tri-State Hurricane Property Loss Study

September 1988

Alabama • Florida • Mississippi

TECHNICAL DATA REPORT

TRI-STATE HURRICANE
PROPERTY LOSS AND CONTINGENCY PLANNING STUDY
PHASE I

PARTICIPATING AGENCIES:

FEDERAL EMERGENCY MANAGEMENT AGENCY
REGION IV

OFFICE OF OCEAN AND COASTAL RESOURCES MANAGEMENT
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

U. S. ARMY CORPS OF ENGINEERS
MOBILE DISTRICT

STATE OF ALABAMA

STATE OF FLORIDA

STATE OF MISSISSIPPI

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BY

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SEPTEMBER 1988

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CHAPTER ONE

INTRODUCTION

I. INTRODUCTION.

The Tri-State Property Loss and Contingency Planning Study, Phase I, was performed through cooperative agreements between and funding provided by the Federal Emergency Management Agency, National Oceanic and Atmospheric Administration and the U. S. Army Corps of Engineers. The states of Alabama, Florida and Mississippi also provided in-kind services and coordination in conjunction with the study. This report presents the results of Phase I of a two-phase program designed to quantify the potential effects of hurricanes and subsequent property damages from such storms along the central gulf coast.

II. PURPOSE.

The central gulf coast is undergoing rapid change. As is typical of most coastal locations throughout the United States and, particularly, in the southeast, tremendous development and population growth has occurred over the past 20 years. The development growth is taking place at the coastline and along the shorelines of bays and estuaries within the coastal counties. Critical data needed for effective planning to prevent prodigious losses from hurricanes often require comprehensive and specialized analyses. In an effort to assist state and local governments in hurricane mitigation planning, the Federal Emergency Management Agency, National Oceanic and Atmospheric Administration and U. S. Army Corps of Engineers have joined state and local agencies in formulating and conducting the Tri-State Property Loss and Contingency Planning Study.

The purpose of this phase of study is to quantitatively estimate the property damages that could occur from potential hurricanes striking the most vulnerable areas of the central gulf coast. Quantitative property loss estimates are necessary to form the basis for hurricane recovery plans prepared at the state and local levels. To plan for recovery or to determine potential future mitigation measures against potential losses from hurricanes, governmental agencies must first have an awareness of the location and magnitude of quiescent hurricane hazards. This phase of study identifies the locations within each county that are highly vulnerable to the destructive forces of hurricanes and provides quantitative estimates of potential damages within those locations. The results of this phase of study also makes possible a more reliable instrument by which the location(s) and extent of the geographic area of study to be performed under Phase II can be determined.

III. DESCRIPTION OF STUDY AREA.

A. Geography. The Tri-State Hurricane Property Loss and Contingency Planning Study encompasses approximately 150 miles of open coastline and 1000 miles of bay/estuary shoreline in the central Gulf of Mexico and incorporates three states and ten counties into the study area. For this Phase I of study, however, the study area incorporates the coastal counties within Alabama and Mississippi only. The State of Florida recently completed Phase I of a property loss study for the five northwest Florida counties. Those counties will be included in Phase II of this study. The study area counties include Hancock, Harrison and Jackson in Mississippi and Mobile and Baldwin in Alabama. The study area is shown on Figure 1.

B. Topography. The entire southern boundaries of the project area counties are comprised of a distinctive low level strip of coastal lowlands. To the west of Mobile Bay, this irregular strip is called the Gulf Coast Flatwoods while east of Mobile Bay it is called the Gulf Coastal Lowlands. This strip of land, averaging five miles wide, ranges from sea level to generally 30 feet above sea level. Isolated areas in excess of 50 feet above sea level also exist. The significance of this topographic region is that the majority of the development within the coastal region is located along this strip.

The characteristics of the coastline vary dramatically to the east and west of Mobile Bay. To the west, the Mississippi coastline and the coastline of Mobile County, Alabama are characterized by areas of tidal marsh with very few natural sand beaches, except those that exist on the barrier islands. The major beach area west of Mobile Bay is the 27 miles of man-made beach and seawall along the coast of Harrison County, Mississippi. Beginning in Baldwin County, Alabama, the coastline consists of broad well-developed beaches that extend eastward throughout the remainder of the study area.

The study area also contains several major and minor bays which invite development. Along the Mississippi coastline the major bays are St. Louis Bay and Biloxi Bay. Mobile Bay, the largest of the bays, and Perdido Bay are situated along the Alabama coastline.

Dauphin Island, beginning at the western periphery of Mobile Bay, is the easternmost of a chain of offshore barrier islands which form the southern boundary of Mississippi Sound and is the only barrier island containing development within the study area. Other barrier islands west of Mobile Bay include Petit Bois, Horn, Ship and Cat Island.

C. Bathymetry. The bathymetry of the study area varies somewhat from the Mississippi coastline through the Alabama coastal waters. Generally, the waters off the Mississippi coastline are very shallow for a great distance out into the Gulf of Mexico while the coastal waters of Alabama, especially off the

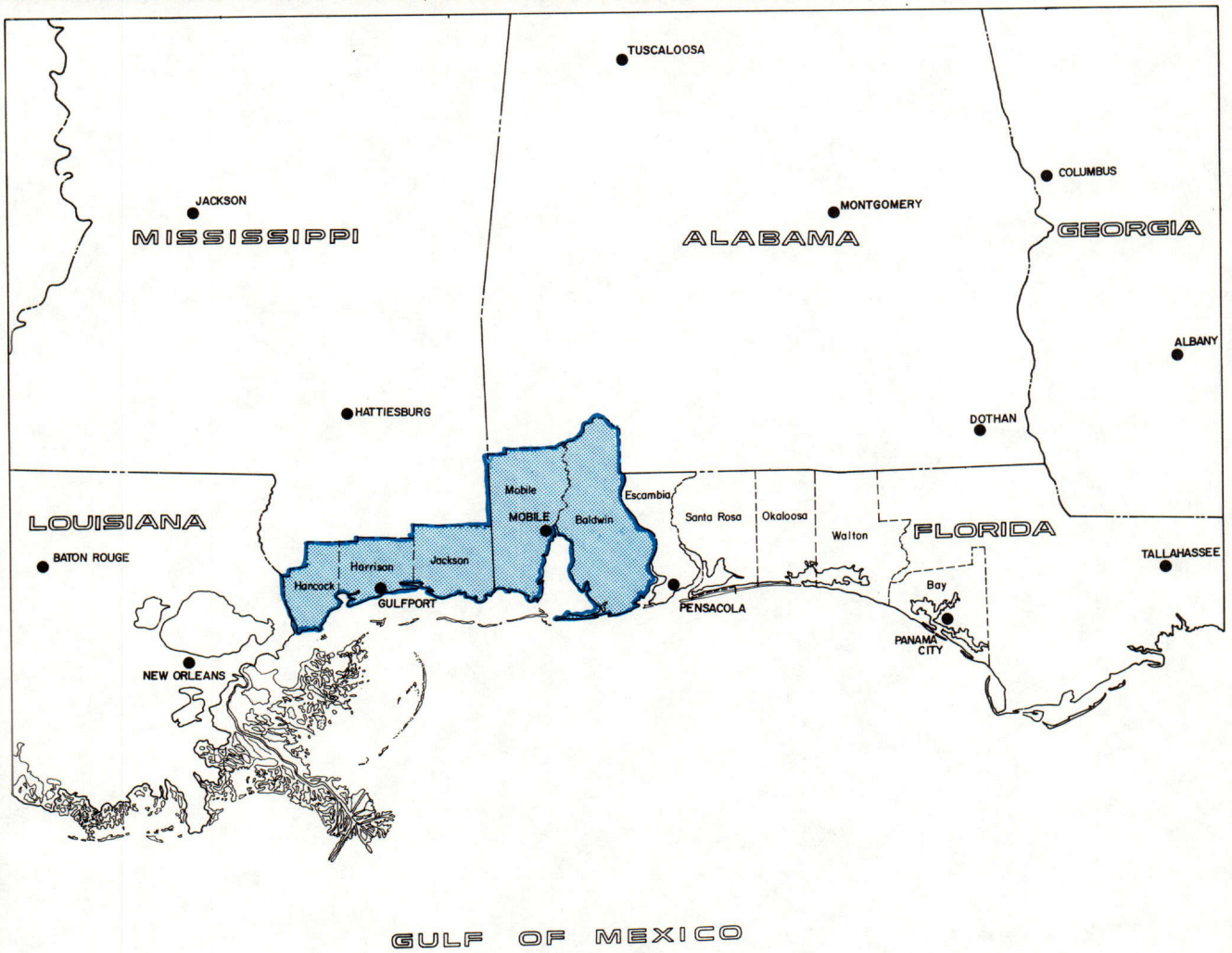
TUSCALOOSA
COLUMBUS
JACKSON
MONTGOMERY
MISSISSIPPI
ALABAMA
GEORGIA
ALBANY
HATTIESBURG
DOTHAN
Mobile
Escambia
LOUISIANA
MOBILE
Baldwin
Santa Rosa
Okaloosa
Walton
FLORIDA
BATON ROUGE
Harrison
Jackson
TALLAHASSEE
Hancock
Bay
GULFPORT
PENSACOLA
PANAMA CITY
NEW ORLEANS
GULF OF MEXICO
N
STUDY AREA

FIGURE 1

Baldwin County, Alabama coast, are deeper near shore. The 200-foot depth contour lies between 80 to 90 miles off the Mississippi coastline while tapering to within 60 miles of the Alabama coastline. the average bottom slopes vary from 0.04% off the Mississippi coast to 0.22% off the Alabama coast.

D. Population. The permanent resident population of the study area has increased at a significant rate over the past twenty years. Accompanying this population increase has been phenomenal structural development along the coastline, especially in Baldwin County, Alabama. While the population of the United States has increased by 25% since 1960, the population of the central gulf coast counties has increased 41%. This increase has occurred primarily at or near the coastline and bay shorelines within the counties. Table I lists the population for each of the study area counties for the years 1960, 1970 and 1980. Percents of increase between these periods are also indicated.

TABLE I
TOTAL POPULATION
STUDY AREA COUNTIES

COUNTY	1960	1970	1980
Hancock, MS	14,039	17,387 [+24%]*	24,537 [+42%]**
Harrison, MS	119,489	134,582 [+13%]*	157,665 [+18%]**
Jackson, MS	55,522	87,975 [+59%]*	118,015 [+35%]**
Mobile, AL	314,301	317,308 [+01%]*	364,980 [+16%]**
Baldwin, AL	49,088	59,382 [+21%]*	78,556 [+33%]**

* Percent Population Changes Between 1960 and 1970.
** Percent Population Changes Between 1970 and 1980.

IV. HISTORIC HURRICANE ACTIVITY.

A. General. Hurricanes are a classification of tropical cyclones which are defined by the National Weather Service as nonfrontal, low pressure synoptic scale (large scale) systems that develop over tropical or subtropical waters and have definite organized circulation[1]. The classification of tropical cyclones into tropical depressions, tropical storms, or hurricanes depends upon the speed of the sustained, one-minute, surface winds near the center of the system and are $\leq$ 33 knots, 34 to 63 knots inclusive, or $\geq$ 64 knots, respectively.

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[1] Tropical Cyclones of the North Atlantic Ocean, 1871-1980, Neuman et. al., July 1981.

The geographical areas affected by tropical cyclones are referred to as tropical cyclone basins. The Atlantic tropical cyclone basin is one of six in the world and includes much of the North Atlantic Ocean, the Caribbean Sea and the Gulf of Mexico. The official Atlantic hurricane season begins on June 1 and extends through November 30 of each year; however, occasional tropical cyclones occur outside this period.

Early season tropical cyclones are almost exclusively confined to the western Caribbean and the Gulf of Mexico. However, by the end of June or early July, the area of formation gradually shifts eastward, with a slight decline in the overall frequency of storms. By late July, the frequency gradually increases, and the area of formation shifts still farther eastward. By late August, tropical cyclones form over a broad area which extends eastward to near the Cape Verde Islands off the coast of Africa. The period from about August 20 through about September 15 of each year encompasses the maximum of the Cape Verde type storms, many of which travel across the entire Atlantic Ocean and into the Caribbean and Gulf of Mexico. Hurricane Frederic, which struck the Alabama coastline in 1979 was a Cape Verde hurricane. After mid-September, the frequency begins to decline and the formative area retreats westward. By early October, the area is generally confined to longitudes west of 60 degrees West, and the area of maximum occurrence returns to the western Caribbean. In November, the frequency of tropical cyclone occurrence further declines.[2]

B. Atlantic Tropical Cyclone Basin. Through the research efforts of the National Climate Center in cooperation with the National Hurricane Center, records of tropical cyclone occurrences within the Atlantic tropical cyclone basin have been compiled dating back to 1871. Although other researchers have compiled fragmentary data concerning tropical cyclones within the Atlantic tropical cyclone basin back to the late fifteenth century, the years from 1871 to the present represent the complete period of the development of meteorology and organized weather services within the United States. For the 117-year period 1871 through 1987, a total of 940 tropical cyclones have occurred within the Atlantic tropical cyclone basin; however, for the years 1871 through 1885, the existing data do not allow accurate determinations of the intensities of the tropical cyclones occurring during those years. The National Hurricane Center in Coral Gables, Florida maintains detailed computer files of Atlantic tropical cyclone tracks back to 1886. Figure 2 is a computer plot of the 851 known Atlantic tropical cyclones of at least tropical storm intensity occurring for the period 1886 through 1987. Figure 3 illustrates the total number of tropical storms and hurricanes observed on each day, May 1 through December 31, 1886 through 1987.

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[2] Ibid.

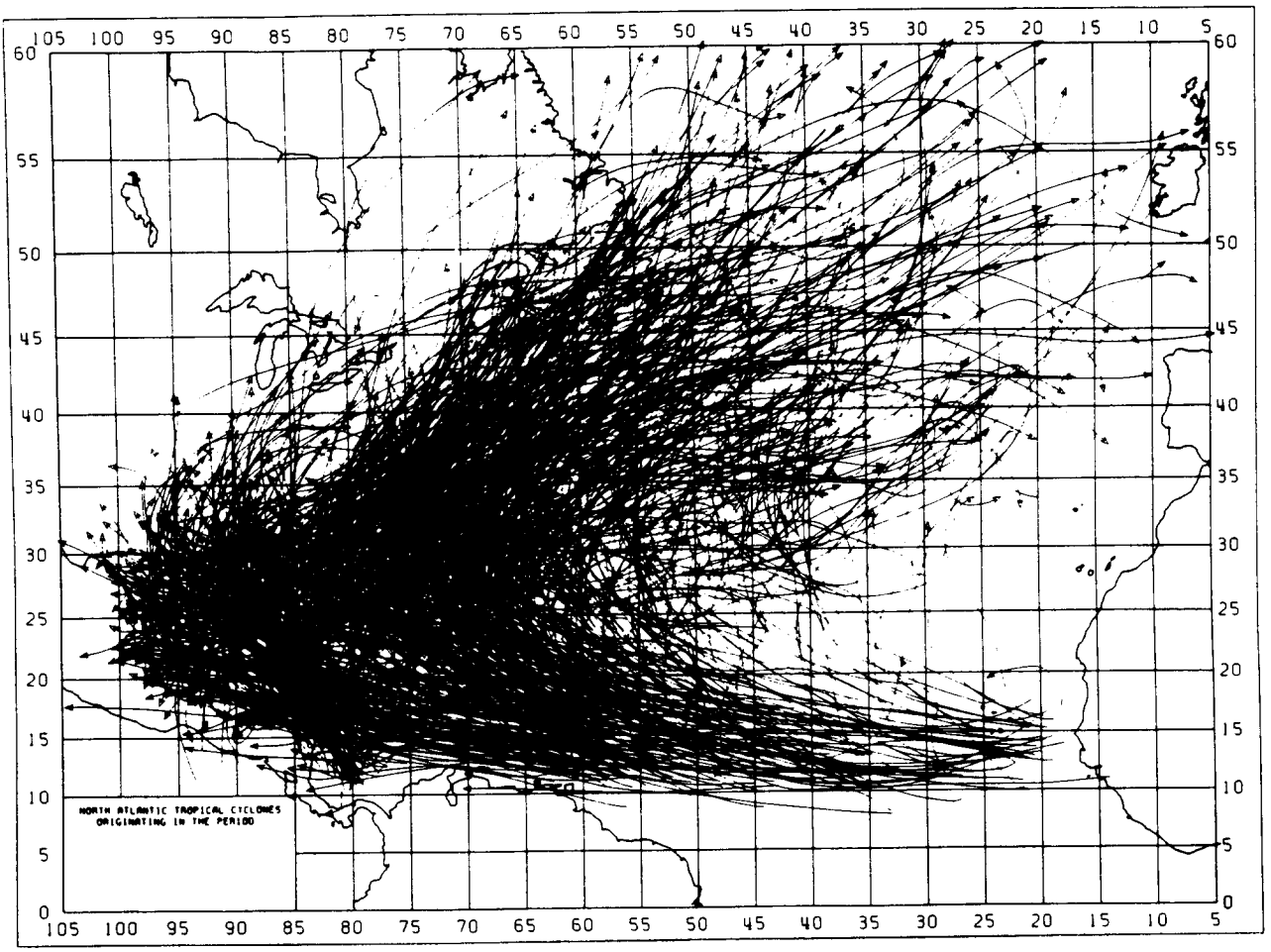


Figure 2

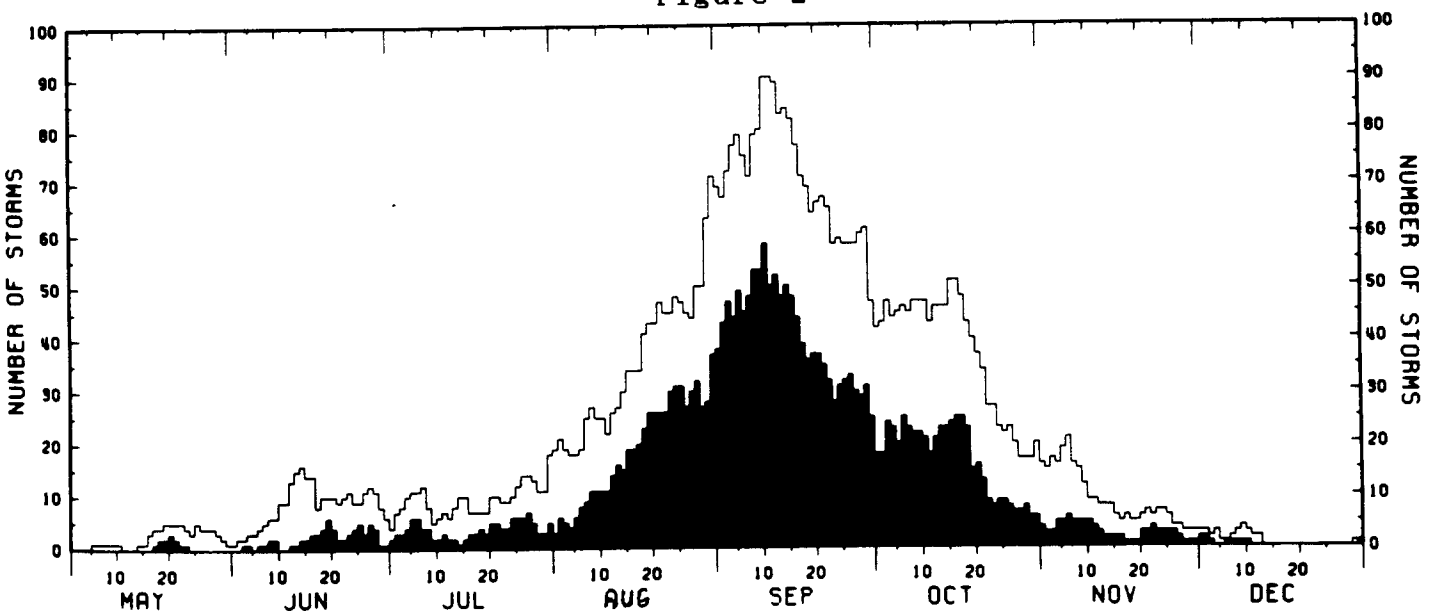


Figure 3

Source: Tropical Cyclones of the North Atlantic Ocean, 1871-1980. Neuman, et. al., 1981.

C. Central Gulf of Mexico. The central Gulf of Mexico is one of the more hurricane vulnerable locations along the coastline of the United States and the world. Records of tropical cyclone occurrences for the central gulf coast have been compiled dating back to 1872. Since that time, 84 tropical cyclones of at least tropical storm intensity (sustained winds greater than 34 knots or approximately 40 miles per hour) have directly affected the Tri-State study area. Of that number, 42 are known to have reached hurricane intensity. For the period 1872-1885, insufficient data exist to accurately determine which of the 13 tropical cyclones that occurred might have reached hurricane intensity; therefore, for the period of record, 42 hurricane occurrences for the central gulf coast is perhaps a conservative estimate.

Table II lists all of the tropical cyclones affecting the project area for the period 1872-1885 and the historic hurricanes occurring since 1886.

TABLE II
HISTORIC TROPICAL CYCLONES AND HURRICANES
TRI-STATE STUDY AREA

YEAR	MONTH	LANDFALL	CATEGORY	NAME
1872	July	Mississippi	*	N/A
1875	September	Florida	*	N/A
1877	September	Florida	*	N/A
1877	October	Florida	*	N/A
1978	October	Florida	*	N/A
1879	October	Mississippi	*	N/A
1879	October	Florida	*	N/A
1880	August	Florida	*	N/A
1881	August	Mississippi	*	N/A
1882	September	Alabama	*	N/A
1885	August	Florida	*	N/A
1885	September	Florida	*	N/A
1885	September	Mississippi	*	N/A
1886	June	Florida	**	N/A
1887	October	Mississippi	**	N/A
1887	July	Florida	**	N/A
1889	September	Alabama	**	N/A
1893	October	Mississippi	**	N/A
1894	October	Florida	**	N/A
1896	July	Florida	**	N/A
1898	August	Florida	**	N/A
1901	August	Mississippi	2	N/A
1903	September	Florida	1	N/A
1906	September	Mississippi	3	N/A
1909	September	Louisiana ***	4	N/A
1911	August	Alabama	1	N/A
1912	September	Alabama	1	N/A
1915	September	Florida	1	N/A

TABLE II
HISTORIC TROPICAL CYCLONES AND HURRICANES
TRI-STATE STUDY AREA
(continued)

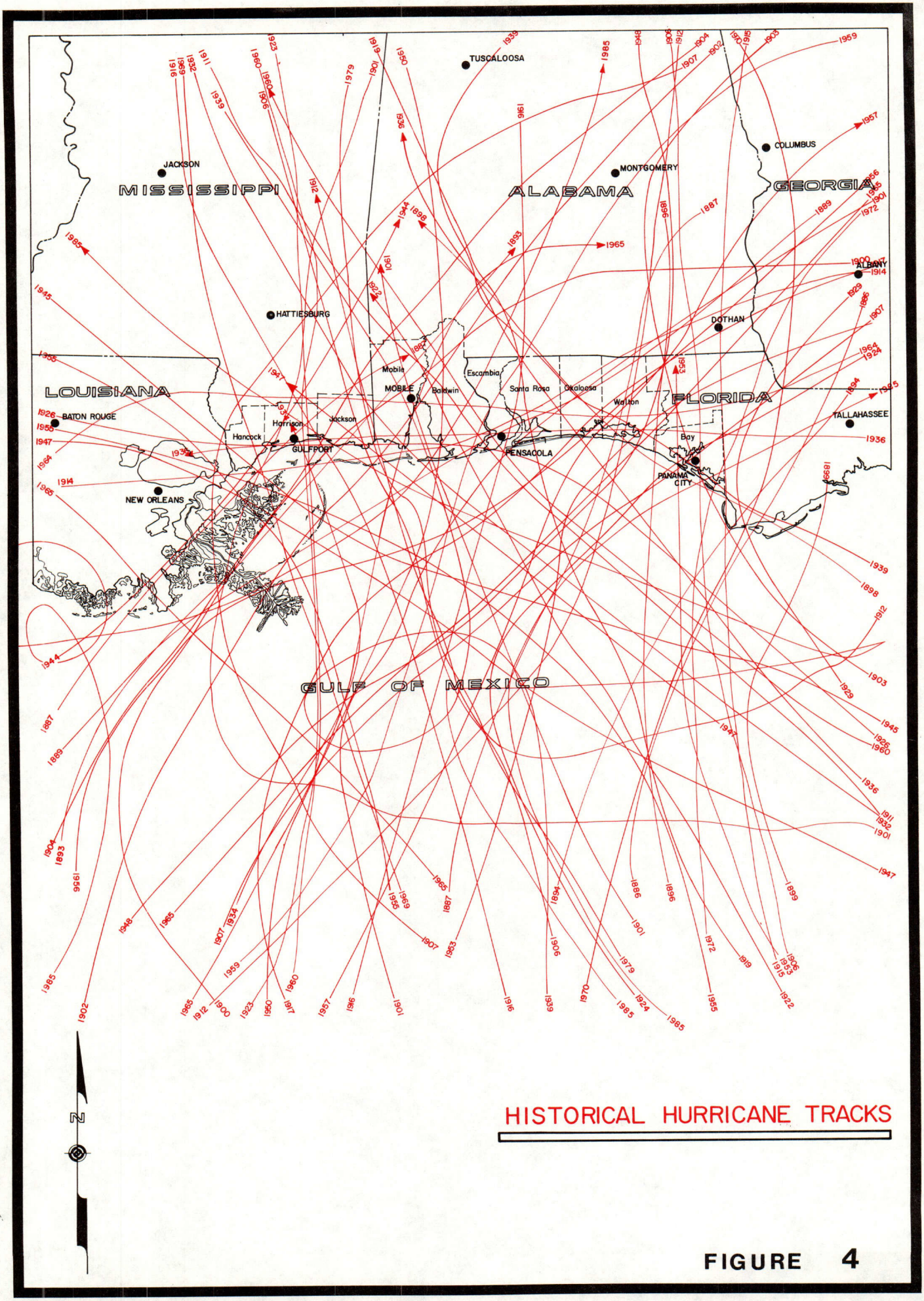
YEAR	MONTH	LANDFALL	CATEGORY	NAME
1915	September	Louisiana ***	4	N/A
1916	July	Mississippi	3	N/A
1916	October	Florida	2	N/A
1917	September	Florida	3	N/A
1924	September	Florida	1	N/A
1926	September	Alabama	3	N/A
1929	September	Florida	2	N/A
1932	September	Alabama	1	N/A
1935	September	Florida	2	N/A
1936	July	Florida	3	N/A
1939	August	Florida	1	N/A
1941	October	Florida	2	N/A
1947	September	Louisiana ***	3	N/A
1948	September	Louisiana ***	1	N/A
1950	August	Alabama	1	Baker
1953	September	Florida	1	Florence
1956	September	Florida	1	Flossy
1960	September	Mississippi	1	Ethel
1965	September	Louisiana ***	3	Betsy
1966	June	Florida	2	Alma
1969	August	Mississippi	5	Camille
1972	June	Florida	1	Agnes
1975	September	Florida	3	Eloise
1979	September	Alabama	3	Frederic
1985	September	Mississippi	3	Elena
1985	October	Florida	1	Juan
1985	November	Florida	3	Kate

* For the years 1872-1885, insufficient historical data exist to distinguish between storms of hurricane or tropical storm intensity.

** For the years 1886-1898, the categories of hurricanes occurring during this period cannot be determined from existing historical data.

*** Landfall occurred in southeast Louisiana; however, storm surge and hurricane force winds affected the Mississippi coastline.

The tracks of the historic tropical storms and hurricanes striking the central gulf coast are shown on Figure 4. Tropical cyclones of known hurricane intensity occurring prior to 1900 are plotted. For the years 1900-1985, all tropical cyclones of at least tropical storm intensity affecting the study area are



HISTORICAL HURRICANE TRACKS

FIGURE 4

shown.

It is interesting to note from the data presented in Table II that the longest span of consecutive years without a hurricane directly affecting the study area has been six, 1918-1923, inclusive.

V. COASTAL DEVELOPMENT WITHIN THE STUDY AREA.

The following are general descriptions of the existing development along the coastline and bay shorelines of each county within the study area.

A. Hancock County, Mississippi. The coastline of Hancock County, Mississippi contains two distinct divisions: the developed shore of the Bay St. Louis and Waveland area contrasting with the relatively undeveloped, expansive marsh area west to the Pearl River and the Louisiana state line. The area in and around Bay St. Louis - Waveland contains primarily commercial and residential development. A seawall was constructed in 1915 and lengthened in 1920 for the purpose of protecting the downtown business district. Hancock County has experienced a significant increase in residential development due to its close proximity to the City of New Orleans, Louisiana. Many of the newly constructed residences are by retirees or for vacation purposes.

B. Harrison County, Mississippi. The entire 27-mile coastline of Harrison County, Mississippi is extensively developed with residential and commercial structures. Many of the commercial structures are hotels, motels, restaurants, marinas, shops and other facilities for the tourist industry. Gulfport Harbor, containing industrial development, is located directly on the coastline. A seawall and artificial beach extend the length of the coastline of Harrison County. Locations along the shoreline of Biloxi Bay contain industrial development and facilities supporting the commercial fishing industry.

C. Jackson County, Mississippi. Coastal development within Jackson County, Mississippi is located primarily in the Pascagoula-Gautier area near the mouth of the Pascagoula River and Pascagoula Bay and in the Ocean Springs area in the western part of the county. Other coastal locations within the county consist mainly of marsh areas which are unsuitable for development. The upland areas adjacent to Graveline Bay are receiving residential development. The development within coastal locations in Jackson County is primarily residential and commercial. Heavy industrial development exists at Pascagoula and along Bayou Cassotte, located immediately east of the Pascagoula area.

D. Mobile County, Alabama. The shoreline of Mobile County is diverse and can be separated into four distinct areas: the Mobile urban shoreline, the western shore of Mobile Bay, the northern shore of Mississippi Sound, and Dauphin Island. The

Mobile urban shoreline consists of the City of Mobile and the cities of Chickasaw and Saraland. The development in this area is composed of residential, commercial and heavy industrial. The industrial areas area located within the Brookley Field complex and adjacent to the Mobile River. The western Mobile Bay shoreline is composed of scattered cottages. The northern shoreline of Mississippi Sound is composed primarily of undeveloped marsh area, however, the Bayou Coden and Bayou La Batre areas have been developed for commercial fishing and shipbuilding activities. Dauphin Island, the only developed barrier island within the study area, consists primarily of residential and some commercial development. The western end of the island consists entirely of vacation cottage development. The eastern part of Dauphin Island is primarily permanent resident and commercial development.

E. Baldwin County, Alabama. The shoreline of Baldwin County offers more diversity than any other county within the study area and has seen the most rapid recent growth and development than any other. Baldwin County consists of over 30 miles of open gulf shoreline which has received rapid and intensive development since Hurricane Frederic in 1979. Much of the development on the open coast has been condominiums and hotel/motel facilities dedicated to the tourist industry. The area within Perdido Bay at the eastern border of the county contains residential and commercial development consisting of marinas and charter fishing services. The Baldwin County shoreline within Mobile Bay south of the City of Fairhope is developed with a continuous row of cottages and piers. The area beginning at Fairhope and continuing northward within Mobile Bay consists of bluffs which prevent extensive waterfront development.

CHAPTER TWO

STUDY METHODOLOGY

I. GENERAL.

The following describes the methodology employed in estimating the potential property damage from hurricanes within the Tri-State study area. The major tasks included property and development inventories; development of hurricane hazards data utilizing the Sea, Lake and Overland Surges from Hurricanes (SLOSH) model; selection and designation of critical storm tracks for each county; development of loss zones within each county; and calculations of potential property damage.

II. PROPERTY INVENTORIES.

The property inventories and valuations were conducted by contract with planning agencies within the study area and by the Mobile District, U. S. Army Corps of Engineers. The Southern Mississippi Planning and Development District conducted the inventories for Hancock and Harrison counties, Mississippi. The Jackson County Planning Commission performed the inventories for Jackson County, Mississippi. The inventories for Mobile and Baldwin Counties, Alabama were conducted by the Mobile District, U. S. Army Corps of Engineers.

In each case, the property inventories were compiled by 1980 census tract. The formats and level of detail for each county's inventory were the same in order to obtain maximum consistency in the results. The precise methods of inventory varied somewhat from county to county, depending upon the form and accessibility of property data. The primary sources of information within all counties, however, were principally census data, county tax rolls and interviews conducted within each county.

III. STORM SURGE.

A. General. A hurricane moving across the continental shelf produces a buildup of water at the coastline which is commonly referred to as storm surge. Storm surge from hurricanes normally occurs over coastline distances of 100 miles or more. The winds associated with a hurricane are the largest single component responsible for the buildup of storm surge within a basin. The wind blowing over the surface of the water exerts a horizontal force which induces a surface current in the general direction of the wind. The surface current, in turn, induces currents in subsurface water. This process of current creation continues on to some depth which is determined by the intensity and forward motion of the hurricane. For example, a fast moving hurricane of moderate intensity may only induce currents to one hundred feet deep while a slow moving hurricane of the same intensity may induce currents to several hundred feet. These horizontal currents are impeded by a sloping continental shelf as the hurricane approaches the coastline, thereby causing the water level to rise. The amount of rise increases shoreward to a

maximum level at the coastline or inland locations.

The elevation of the storm surge within a coastal basin depends upon the meteorological parameters of the hurricane as well as the physical characteristics existing within the basin. The meteorological parameters affecting the amount of storm surge generated include the intensity of the hurricane measured by the central sea level barometric pressure, path or track of the storm, forward speed and radius of maximum winds (storm size). Generally, the highest surges from a hurricane occur in the region of the radius of maximum winds, which is the region at a distance from the center of the eye to where the highest windspeeds within the storm blow onshore. That distance can vary from as little as four miles to as much as 50 miles. The physical characteristics of the basin which influence the surge heights received from a hurricane include the basin bathymetry, roughness of the continental shelf, configuration of the coastline and the existence of significant natural or man-made barriers. Another factor which affects the storm surge heights is the initial water level existing within the basin at the time of arrival of a hurricane and includes the astronomical tide plus any anomalous sea surface height.

B. Background. Numerous methods and models have been utilized to quantify the potential storm surge and other effects generated by hurricanes. One of the earlier guides developed for that purpose is the Saffir/Simpson Hurricane Scale. The Saffir/Simpson Hurricane Scale is a descriptive scale which categorizes hurricanes based upon intensity and relates hurricane intensity to property damage potential. The Saffir/Simpson Hurricane Scale also provides a range of windspeeds and potential surge heights associated with the five categories of hurricanes. The Saffir/Simpson Hurricane Scale is as follows:

CATEGORY 1. Winds of 74 to 95 miles per hour. Damage primarily to shrubbery, trees, foliage and unanchored mobile homes. No real damage to other structures. Some damage to poorly constructed signs. And/or: storm surge 4 to 5 feet above normal. Low-lying coastal roads inundated, minor pier damage, some small craft in exposed anchorage torn from moorings.

CATEGORY 2. Winds of 96 to 110 miles per hour. Considerable damage to shrubbery and tree foliage; some trees blown down. Major damage to exposed mobile homes. Extensive damage to poorly constructed signs. Some damage to roofing materials of buildings; some window and door damage. No major damage to buildings. And/or: storm surge 6 to 8 feet above normal. Coastal roads cut by rising water 2 to 4 hours before arrival of hurricane center. Considerable damage to piers. Marinas flooded. Small craft in unprotected anchorages torn from moorings. Evacuation of some shoreline residences and low-lying island areas required.

CATEGORY 3. Winds of 111 to 130 miles per hour. Foliage

torn from trees; large trees blown down. Practically all poorly constructed signs blown down. Some damage to roofing materials of buildings; some window and door damage. Some structural damage to small buildings. Mobile homes destroyed. And/or: storm surge 9 to 12 feet above normal. Serious flooding at coast and many smaller structures near coast destroyed; larger structures near coast damaged by battering waves and floating debris. Low-lying escape routes inland cut by rising water 3 to 5 hours before hurricane center arrives. Flat terrain 5 feet or less above sea level flooded inland 8 miles or more. Evacuation of low-lying residences within several blocks of shoreline possibly required.

CATEGORY 4. Winds of 131 to 155 miles per hour. Shrubs and trees blown down; all signs down. Extensive damage to roofing materials, windows and doors. Complete failure of roofs on many small residences. Complete destruction of mobile homes. And/or: storm surge 13 to 18 feet above normal. Flat terrain 10 feet or less above sea level flooded inland as far as 6 miles. Major damage to lower floors of structures near shore due to flooding and battering by waves and floating debris. Low-lying escape routes inland cut by rising water 3 to 5 hours before hurricane center arrives. Major erosion of beaches. Massive evacuation of all residences within 500 yards of shore possibly required, and of single-story residences on low ground within 2 miles of shore.

CATEGORY 5. Winds greater than 155 miles per hour. Shrubs and trees blown down; considerable damage to roofs of buildings; all signs down. Very severe and extensive damage to windows and doors. Complete failure of roofs on many residences and industrial buildings. Extensive shattering of glass in windows and doors. Some complete building failures. Small buildings overturned or blown away. Complete destruction of mobile homes. And/or: storm surge greater than 18 feet above normal. Major damage to lower floors of all structures less than 15 feet above sea level within 500 yards of shore. Low-lying escape routes inland cut by rising water 3 to 5 hours before hurricane center arrives. Massive evacuation of residential areas on low lying ground within 5 to 10 miles of shore possibly required.

The National Hurricane Center has added a range of central barometric pressures associated with each category of hurricane described by the Saffir/Simpson Hurricane Scale. A condensed version of the Saffir/Simpson Hurricane Scale with the barometric pressure ranges by storm category is shown in Table III.

TABLE III

SAFFIR/SIMPSON HURRICANE SCALE
WITH
CENTRAL BAROMETRIC PRESSURE RANGES

Category	Central Pressure Millibars	Central Pressure Inches	Winds (MPH)	Surge (FT)
1	>980	>28.94	74- 95	4- 5
2	965-979	28.50-28.91	96-110	6- 8
3	945-964	27.91-28.47	111-130	9-12
4	920-944	27.17-27.88	131-155	13-18
5	<920	<27.17	>155	>18

The Saffir/Simpson Hurricane Scale assumes an average, uniform coastline for the continental United States and was intended as a general guide for use by public safety officials during hurricane emergencies. It does not reflect the effects of varying localized bathymetry, coastline configuration, barriers or other factors which influence the surge heights that occur in differing locations during a hurricane event.

Computer models were later developed for specific coastal basins which contained mathematical representations of the physical characteristics of the basin as well as storm parameters. The earlier models only had the capability to calculate storm surges for the open coast. Although this was a significant improvement over the more generalized data available prior to the development of these models, the surge effects within bays and for inland locations were not obtained. In this regard, the Sea, Lake and Overland Surges from Hurricanes (SLOSH) model, developed by the National Weather Service, expanded the capability for calculating storm surges for selected Gulf and Atlantic coastal basins.

C. The SLOSH Model.

1. General. The SLOSH Model was developed for real-time forecasting of hurricane surges within selected Gulf and Atlantic coastal basins. In addition to furnishing surge heights for the open coast, the SLOSH model has the added capability to calculate potential surge heights for locations within bays, estuaries or coastal river basins as well as calculating surge heights for overland locations. Significant natural and man-made barriers are also represented in the model and their effects simulated in the calculations of surge heights within a basin.

The SLOSH model is designed for use in an operational mode; that is, for forecast/hindcast runs without controlled, local

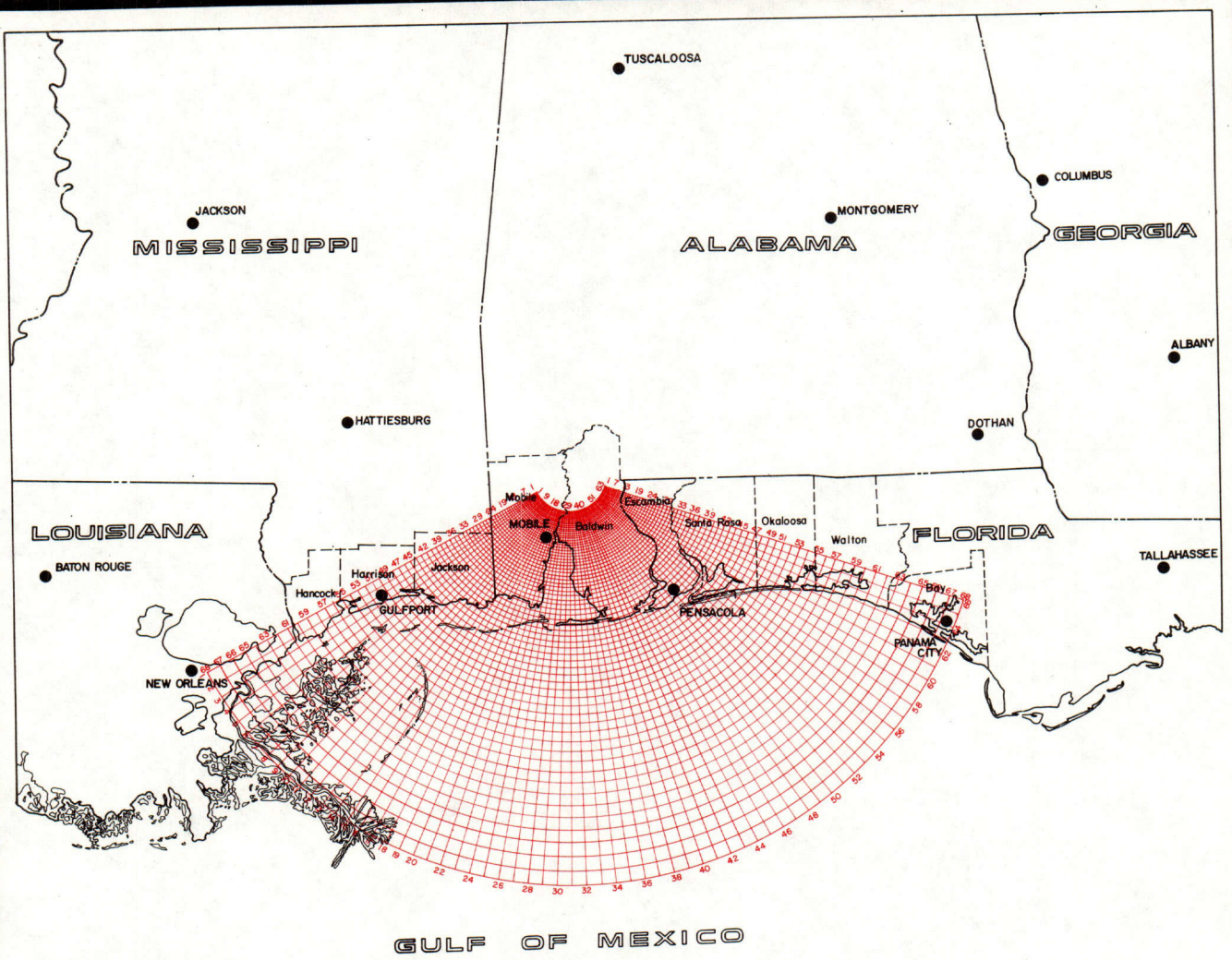
calibration or observed winds. The rationale for this design is to avoid having the user predict unavailable input data. The SLOSH model contains a storm model into which simple, time-dependent meteorological data are input and from which the driving forces of a simulated hurricane are calculated. These data are:

- Latitude and Longitude of storm positions at six-hour intervals for a 72-hour storm track.
- Central barometric pressure at six-hour intervals.
- The storm size measured from the center to the region of maximum winds, commonly referred to as the radius of maximum winds. Windspeed is not an input parameter since the model calculates a windfield for the modeled storm by balancing forces from other meteorological input.

In addition, the initial height of the water surface is required well before the storm directly affects the area of interest. This initial height is the observed water surface height occurring about two days before storm arrival and includes any existing anomalous rise in the water surface. Astronomical tide is not set in the model but is added to the computed surge heights. A small error in predicting the phasing of storm track and astronomical tide will invalidate the computations made with astronomical tide.

The values or functions for the coefficients within the SLOSH model are generalized to serve for modeling all storms within all basins and are set empirically through comparisons of computed and observed meteorological and surge height data from numerous historical hurricanes. It is probable that some coefficients are a function of the interaction of differing storm parameters and basin characteristics; therefore, calibration of the model based on a single storm event within a basin is avoided since there is no guarantee that coefficient values will serve as well for alternate storms.

2. SLOSH Grid Configuration. The SLOSH model utilizes a curvilinear polar coordinate (fan-shaped) grid system within which a particular coastal basin is represented. The grid configuration of a SLOSH model is illustrated on Figure 5. The resolution of the model for inland locations near the focus is approximately 1/2 square mile per grid square and averages approximately 1 1/2 square miles at the coastline within most basins. As shown in Figure 5, the grid squares constantly expand in size and become progressively larger out from the coastline. Storm surge heights distant from the open coast are of secondary interest. The advantage of this grid system is that it offers good resolution in areas of primary interest while conserving computer resources by minimizing the number of calculations required to model a storm.



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SLOSH BASIN

FIGURE 5

The characteristics of a particular basin are constructed as input data within the model. These characteristics include the topography of inland areas, river basins and waterways; bathymetry of nearshore areas, bays and large water bodies; significant natural and man-made barriers such as barrier islands, dunes, levees, roadbeds, etc.; and a segment of the continental shelf. The SLOSH model simulates inland flooding from storm surge and permits the overtopping of barriers and flow through barrier gaps.

3. Model Verification. After a SLOSH model has been constructed for a coastal basin, verification experiments are conducted. The verification experiments are performed as real-time operational runs in which available meteorological data from historic storms are entered into the model. These input data consist solely of observed or hindcast storm parameters and an initial observed sea surface height occurring approximately 48 hours before the storm landfalls or affects the basin.

The computed surge heights are compared with those measured from historic storms and, if necessary, adjustments are made to the input or basin data. These adjustments are not made to force agreements between computed and measured surge heights from historical storms but to more accurately represent the basin characteristics or historic storm parameters. In instances where the model gave realistic results in one area of a basin but not in another, closer examination of the basin often revealed inaccuracies in the representation of barrier heights or missing values in bathymetric or topographic charts. In the case of historic storms, much of the data were coarse, with parameters prescribed invariant with time and with an unrealistically smoothed storm track. When necessary, further analysis and subjective decisions amended storm track or other parameters of the historic storms used in the verification process.

The historic hurricanes used in the verification process for the Lake Ponchartrain, Mobile Bay and Pensacola Bay basins were the 1947 hurricane, Hurricane Camille of 1969, Hurricane Eloise of 1975 and Hurricane Frederic of 1979.

4. Model Output. The SLOSH model output for a modeled storm consists of a tabulated storm history containing hourly values of storm position, speed, direction of motion, pressure drop and radius of maximum winds; a surface envelope of highest surges; and, for preselected grid points, time-history tabulations of values for surge heights, wind speeds and wind directions. Since time history information is not utilized in a property damage study such as this, a detailed discussion of the time-history data furnished by the SLOSH model will not be undertaken here. A detailed account of this data provided by the model is contained in the Tri-State Hurricane Evacuation Study, Technical Data Report.

The highest water level reached at each location along the coastline during the passage of a hurricane is called the maximum

surge. Maximum surges along the coastline do not necessarily occur at the same time. The time of maximum surge for one location may differ by several hours from the maximum surge that occurs at another location. The SLOSH model printout of the surface envelope of highest surges contains the maximum surge height values calculated for each grid point in the model irrespective of the time during the simulation that the maximum surge height occurs. The datum used in the model is mean sea level.

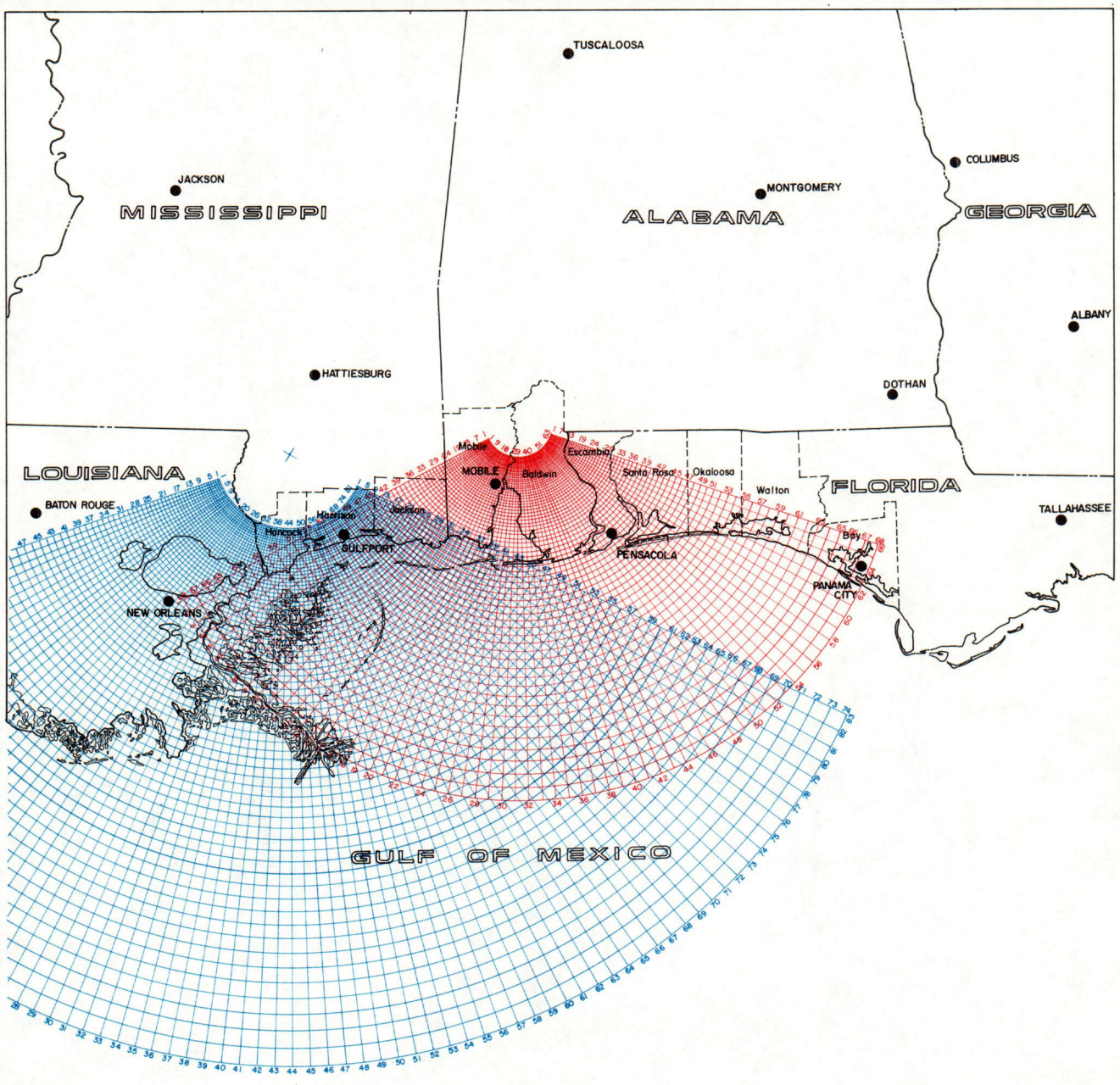
D. Tri-State SLOSH Modeling Process.

1. General. The surge modeling for the study had been accomplished during the conduct of the Tri-State Hurricane Evacuation Study. That study incorporated the use of three SLOSH basins for the study area, which were the coastal counties of Mississippi, Alabama and Northwest Florida. The SLOSH basins or models used in the evacuation study were: Lake Ponchartrain, Mobile Bay and Pensacola Bay. The SLOSH basins utilized for the Tri-State Property Loss and Contingency Planning Study were the Lake Ponchartrain and Mobile Bay models. The Lake Ponchartrain basin covers the majority of the Mississippi coastline from Hancock County to the Ocean Springs, Mississippi area. The Mobile Bay basin covers the Pascagoula, Mississippi area and the two Alabama coastal counties. The grid configurations for the two models used in the study are shown on Figure 6.

2. Simulated Hurricanes. A total of 964 hypothetical hurricanes were modeled for the Tri-State Hurricane Evacuation Study and these model results were utilized in the Tri-State Property Loss and Contingency Planning Study. The characteristics of the simulated hurricanes were determined from an analysis of historical hurricanes which have occurred within the study area. The parameters selected for the modeled storms were the intensities, forward speeds, directions of motion and radii of maximum winds that were considered to have the highest meteorological probability of occurrence within the central Gulf coast region.

The simulated hurricanes represented the five categories of hurricane intensity as described by the Saffir/Simpson Hurricane Scale; five directions of storm motion for landfalling and paralleling hurricanes (northerly, northwesterly, northeasterly, westerly paralleling and easterly paralleling); two forward speeds of 5 and 15 miles per hour and numerous landfall or closest approach locations at intervals of at least 20 miles apart along the coastline. The radii of maximum winds specified for the simulated hurricanes were 25 miles for Categories 1 through 4 and 15 miles for Category 5 hurricanes. The radii were varied based on the assumption that Category 5 hurricanes, although more intense, will generally have smaller radii of maximum winds similar to that of Hurricane Camille which struck the Mississippi coastline in 1969.

A total of 67 storm tracks were modeled for the Tri-State



LEGEND

MOBILE BAY MODEL

LAKE PONTCHARTRAIN MODEL

N

SLOSH BASINS

FIGURE 6

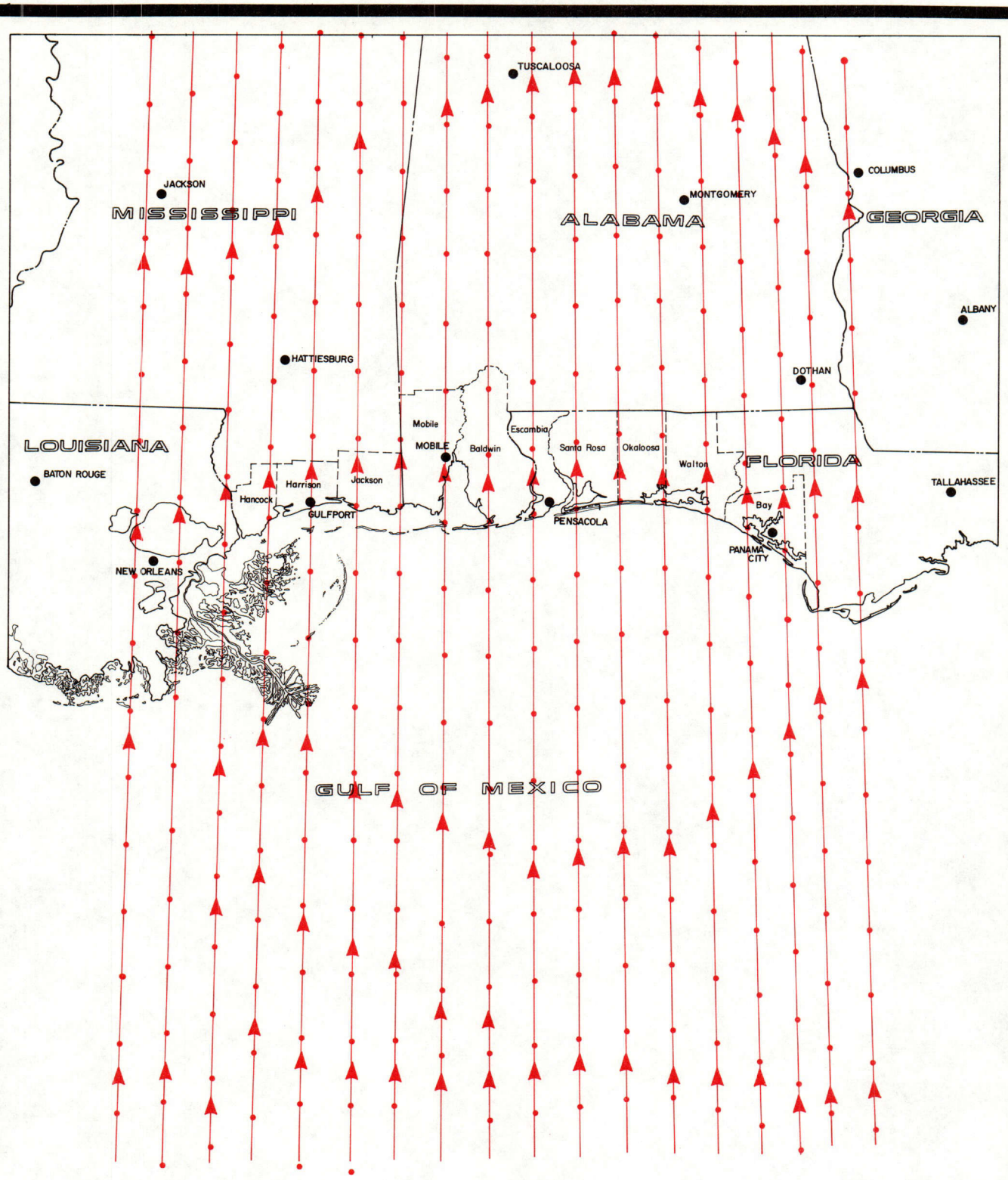
study and are shown on Figures 7 through 11. For each of the 53 landfalling storm tracks, the storm parameters modeled were as previously described: five categories of hurricane intensity, forward speeds of 5 and 15 miles per hour, landfall locations at intervals of at least 20 miles apart, and three directions of motion (northerly, northwesterly, and northeasterly). The 14 paralleling tracks were spaced 20 miles apart and represented hurricanes moving parallel to the coastline from 40 miles inland to 80 miles offshore.

The forward speeds and radii of maximum winds of the paralleling hurricanes were the same as for the landfalling storms; however, the intensities of the hurricanes modeled for each of the paralleling tracks varied. Only Category 1 hurricanes were modeled for those tracks at 20 and 40 miles inland. Categories 1 through 3 hurricanes were modeled for those tracks at the coastline and 20 miles offshore. Categories 1 through 4 hurricanes were modeled for the 40-mile offshore track while Categories 1 through 5 hurricanes were modeled for the 60-mile and 80-mile offshore tracks. The hurricane intensities modeled for each of the paralleling storm tracks were those considered to be the most meteorologically probable and considers the expected effect of the landmass on hurricane intensity for paralleling storms passing near the coastline.

3. Maximum Envelopes of Water. The highest surges reached at all locations within the affected area of the coastline during the passage of a hurricane are called the maximum surges for those locations while the highest maximum surge is called the peak surge. The location of the peak surge depends on where the eye of the hurricane crosses the coastline, its intensity, the bathymetry of the basin, configuration of the coastline, the direction of motion and size of the radius of maximum winds of the hurricane. In most cases the peak surges from a hurricane occurs to the right of the storm path and within a few miles of the radius of maximum winds.

Due to the inability to precisely forecast the ultimate landfall location and other characteristics of a threatening hurricane, the purpose for creating a Maximum Envelope of Water (MEOW) is to determine the potential peak surges for all locations along the coastline. The Maximum Envelopes of Water created for the Tri-State Hurricane Evacuation Study illustrate the area of maximum potential inundation by category of hurricane for the study area. The use of a MEOW was necessary for evacuation planning purposes due to the uncertainty in forecasting; however, for purposes of potential property loss calculations, the results of individual storm runs for a critical track for each county were utilized. The MEOW, created during preparation of the Tri-State Hurricane Evacuation Study, were used initially to identify the surge vulnerable areas of each county and to delineate the area in which property loss zones would be created for the property loss study.

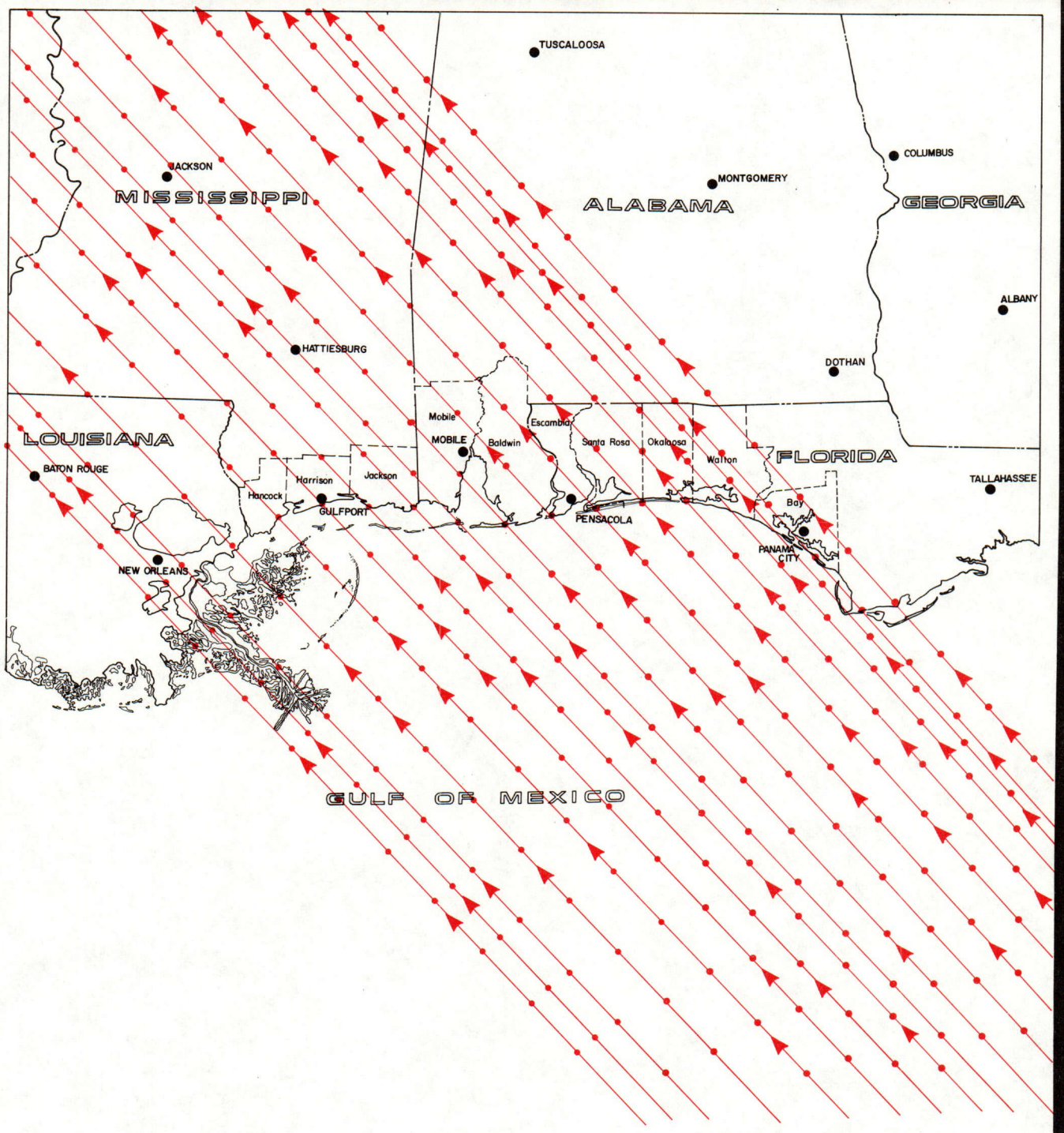
4. Surge Height Tabulations. At the initiation of the



SIMULATED STORM TRACKS

NORTHERLY LANDFALLING TRACKS

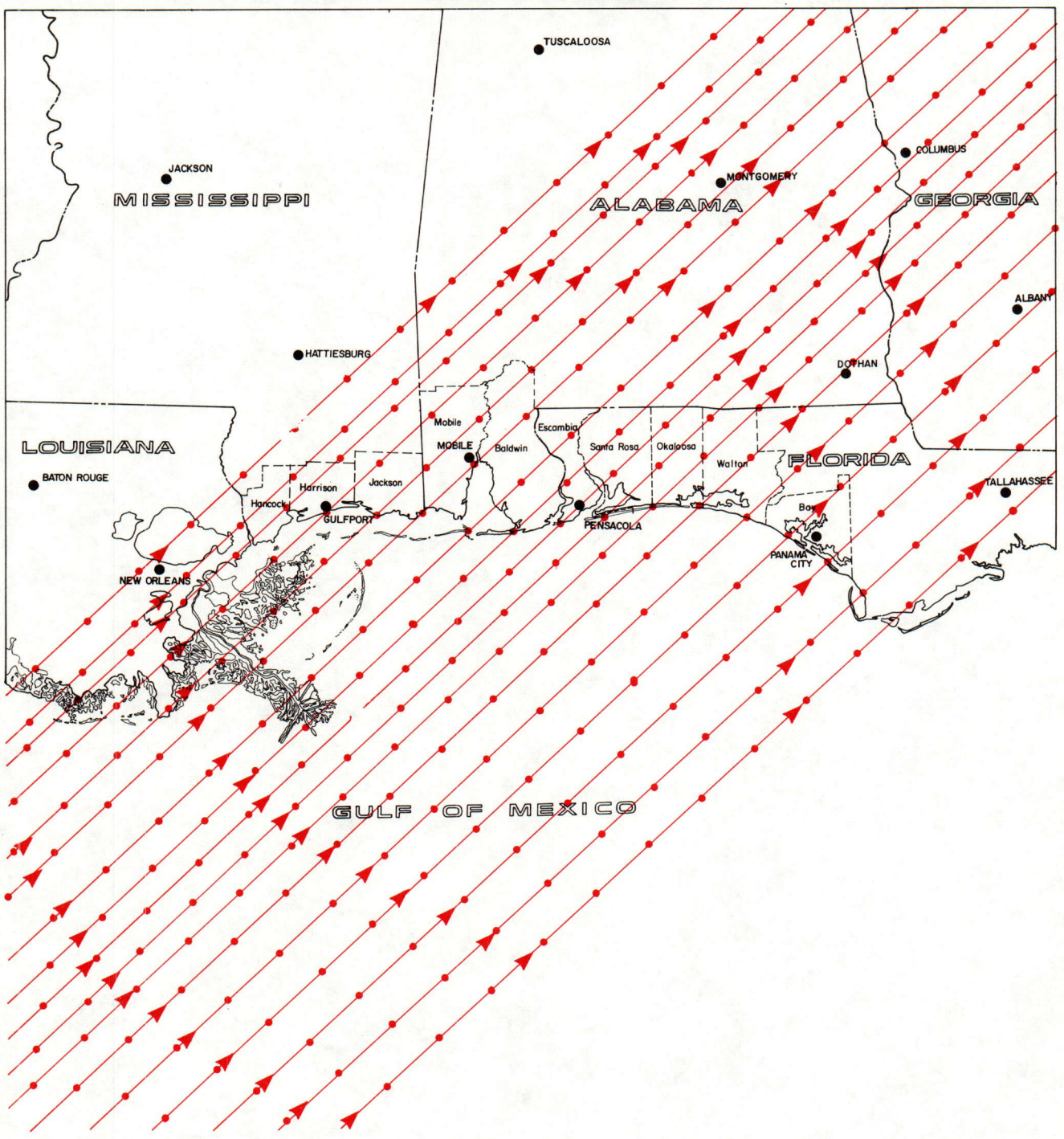
FIGURE 7



SIMULATED STORM TRACKS

NORTHWESTERLY LANDFALLING TRACKS

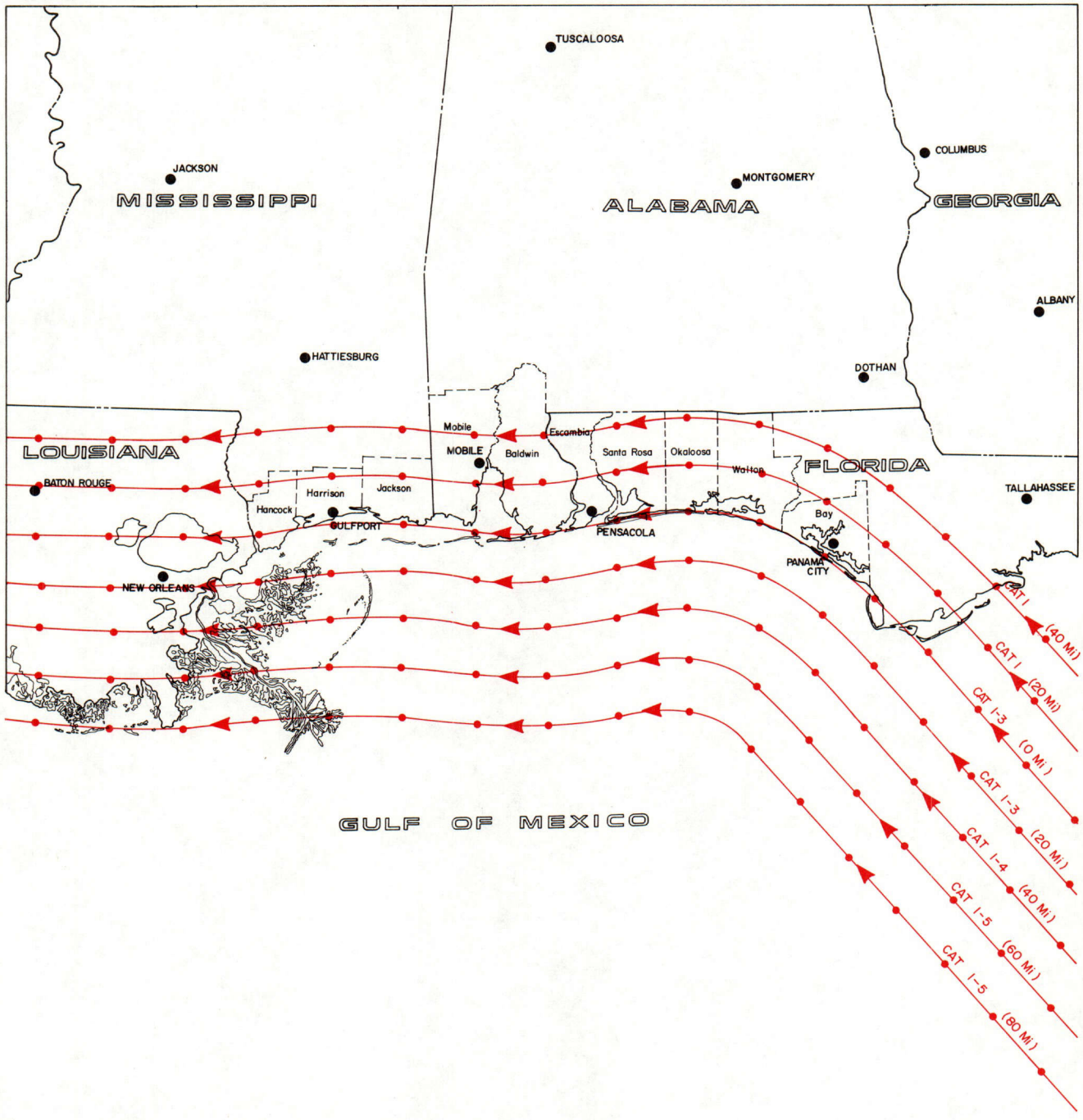
FIGURE 8



SIMULATED STORM TRACKS

NORTHEASTERLY LANDFALLING TRACKS

FIGURE 9



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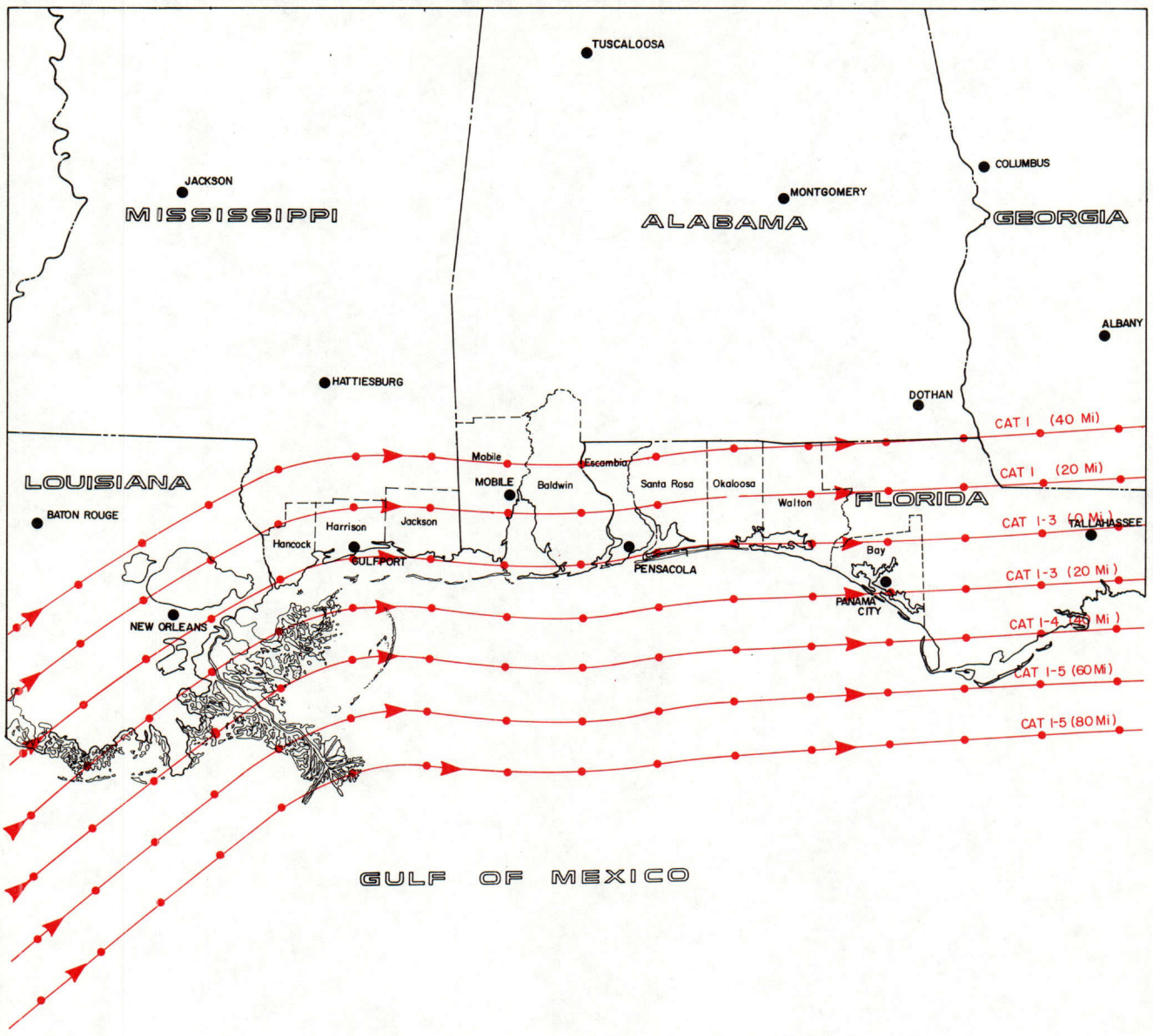
SIMULATED STORM TRACKS

WESTERLY PARALLELING TRACKS

FIGURE 10



SIMULATED STORM TRACKS

EASTERLY PARALLELING TRACKS

FIGURE 11

Tri-State Property Loss and Contingency Planning Study, a number of SLOSH grid points were selected within the Lake Ponchartrain and Mobile Bay basins. The locations of these grid points were for areas along the open coastlines of each of the counties, shorelines of bays and strategic inland locations. Other locations were in the locality of significant barriers. Approximately 400 grid points were selected from within the two SLOSH models for the five-county study area.

The National Hurricane Center, through a special program written for the purpose, tabulated all the surge heights for each of the grid points calculated for each hypothetical storm simulated by the models. Corresponding to each surge height listed for each grid point was the characteristic of the storm which produced the result. In other words, for each surge height tabulated for a grid point, the particular characteristics of the storm producing the surge height could be determined. Having the models' results tabulated in this fashion facilitated the determination of the critical storm track for each county. The critical storm track is that track, for any given intensity of storm, which potentially produces the greatest property damage within a county.

IV. WINDS.

A simplistic approach was used to determine the windspeeds from hurricanes to be utilized to calculate potential property damage. Since the determination of possible hurricane damage was confined to the area of potential surge inundation within each county and since that area lay entirely within a few miles of the coastline, it was not necessary to reduce windspeeds from the various intensities of hurricanes to account for loss in windspeeds due to the migration of a hurricane overland. The wind effects from a hurricane have significant locational variability. This variability is due to factors such as the windfield produced by each individual storm or the presence of vegetation, structures or terrain which affect wind intensity at a particular location.

The windfield calculated by the SLOSH model is a quasi-symmetrical windfield which serves well for the purpose of generating surge heights over open water. This windfield, however, is not a reliable indicator of the actions of hurricane winds overland and near the surface where structural and terrain factors have great influence on the winds through buffering or channelization. Because of these effects, it was necessary to modify the wind data from the SLOSH model to approximate the potential effects near the surface.

In this case, the 30-meter windspeeds for the overland or lake winds from the model by storm category were reduced by 30% to 50% depending upon the presence of significant vegetation or dense structural development. The sustained lake winds from the SLOSH model were assumed to represent peak gust windspeeds at 30-meters altitude for inland locations. These 30-meter peak

gusts were reduced by 30% to 50%, depending upon the presence of dense vegetation or structures, to approximate a value for peak gusts at the surface. It is these potential peak gust windspeeds at the surface that were used in the calculating wind damage to structures and facilities from hurricanes.

V. WAVE EFFECT.

Areas subject to potential velocity or wave damage were identified from the existing Flood Insurance Rate Maps for each of the study area counties. These maps identified velocity zones within each county which are areas subject to receive waves of three feet or greater in height during the 100-year hurricane. For the central gulf coast, the 100-year storm approximates a Category 3 hurricane. The boundaries of the velocity zones were maintained in certain locations for Categories 4 and 5 storms if there were significant barriers, vegetation or development which might prevent the migration of waves further inland under these storm conditions. In other areas absent these conditions, the velocity zones were expanded for the higher category storms to the extent that the still water surge depths above terrain would allow formation of a significant wave or until a barrier or other feature might prevent the migration of wave action further inland. In all cases, the decision to maintain or expand the extent of a velocity zone was made subjectively rather than through an involved quantitative analysis. It was further assumed that in each velocity zone, the maximum theoretical wave would occur and that the limiting factor for wave generation in those areas would be the stillwater surge depth above terrain.

VI. DELINEATION OF PROPERTY LOSS ZONES.

Final determinations of the numbers and areal extent of property loss zones for each county within the study area were made after exhaustive evaluations of several factors. These factors were:

- Resolution of existing 1980 census tracts within a county or city.
- Extent of consistent terrain elevation.
- Areal extent of potential velocity zones.
- Consistency of stillwater surge elevations above terrain.
- Type and value of existing development.
- Existence and extent of political or other boundaries.
- Existence and extent of significant natural or man-made barriers affecting potential surge flooding.

The use of these factors in determining the property loss

zones resulted in great variation in number and size of loss zones developed from county to county. It was not necessarily the most developed counties that required the greatest number of loss zones in order to adequately calculate estimated storm damage. For example, Mobile County, Alabama is the most developed county within the study area; however, most of the development is located outside the area potentially threatened by storm surge flooding. In addition, the topography and development along the western shoreline of Mobile Bay is quite uniform which further reduces the required number of property loss zones. Hancock County, Mississippi and Baldwin County, Alabama each have six loss zones even though Baldwin County is more highly developed. In both instances, the concentration of development near the coastline, uniform topography and consistency in potential surge heights from hurricanes combined to minimize the number of loss zones required in each county.

In most instances, complete census tracts or combinations of tracts were utilized to compose the property loss zones. The resolution of the 1980 census tracts throughout the study area were such that a great amount of flexibility was afforded in their utilization as loss zones. Only in isolated instances was it necessary to split census tracts into more than one property loss zone. This was done in areas where great variation in topography occurred within the census tract or when unique concentrations of development existed, such as highly developed industrial areas.

Table IV lists each loss zone established within each county and the corresponding census tract composing the zone. It is also noted within the table whether the loss zone was composed of a complete or partial census tract or whether two or more census tracts, in whole or in part, composed the zone.

TABLE IV

PROPERTY LOSS ZONES

COUNTY	LOSS ZONE	CENSUS TRACT(S)
Hancock	001	301
Hancock	002	302
Hancock	003	303
Hancock	004	303
Hancock	005	305
Hancock	006	304
Harrison	001	1
Harrison	002	2
Harrison	003	3
Harrison	004	5
Harrison	005	4
Harrison	006	6
Harrison	007	7
Harrison	008	8
Harrison	009	9

TABLE IV

PROPERTY LOSS ZONES
(continued)

COUNTY	LOSS ZONE	CENSUS TRACT(S)
Harrison	010	10
Harrison	011	11
Harrison	012	12
Harrison	013	13
Harrison	014	14
Harrison	015	15
Harrison	016	15
Harrison	017	17
Harrison	018	16
Harrison	019	18
Harrison	020	19
Harrison	021	20
Harrison	022	22
Harrison	023	21
Harrison	024	33
Harrison	025	34
Harrison	026	32
Harrison	027	24
Harrison	028	25
Harrison	029	23
Harrison	030	26
Harrison	031	28
Harrison	032	27
Harrison	033	29
Harrison	034	30
Harrison	035	31
Harrison	036	31
Jackson	001	427
Jackson	002	427
Jackson	003	427
Jackson	004	427
Jackson	005	427
Jackson	006	427
Jackson	007	427
Jackson	008	427
Jackson	009	426
Jackson	010	426
Jackson	011	421
Jackson	012	420
Jackson	013	425
Jackson	014	425
Jackson	015	424
Jackson	016	422
Jackson	017	422
Jackson	018	423
Jackson	019	423

TABLE IV

PROPERTY LOSS ZONES
(continued)

COUNTY	LOSS ZONE	CENSUS TRACT(S)
Jackson	020	419
Jackson	021	419
Jackson	022	412
Jackson	023	414
Jackson	024	418
Jackson	025	417
Jackson	026	415
Jackson	027	416
Jackson	028	413
Jackson	029	426
Jackson	030	411
Jackson	031	410
Jackson	032	408
Jackson	033	409
Jackson	034	409
Jackson	035	407
Jackson	036	404
Jackson	037	408
Jackson	038	403
Jackson	039	403
Jackson	040	406
Jackson	041	405
Mobile	001	11
Mobile	002	2
Mobile	003	1
Mobile	004	13.01
Mobile	005	16
Mobile	006	17
Mobile	007	19.01 & 19.02
Mobile	008	18
Mobile	009	20
Mobile	010	70
Mobile	011	12.02
Mobile	012	73
Mobile	013	72.01
Mobile	014	72.01
Mobile	015	38.01 & 38.02
Mobile	016	38.02
Mobile	017	56
Mobile	018	71
Mobile	019	72.02
Baldwin	001	114
Baldwin	002	114
Baldwin	003	114
Baldwin	004	114

TABLE IV

PROPERTY LOSS ZONES
(continued)

COUNTY	LOSS ZONE	CENSUS TRACT(S)
Baldwin	005	114
Baldwin	006	113

The areas of each county which were subdivided into loss zones are shown on Figures 12 through 16. These areas represent the locations within each county that is subject to storm surge flooding and which were delineated from the Maximum Envelopes of Water created from the SLOSH model. The number and size of loss zones created, particularly within Jackson and Harrison Counties, Mississippi, did not permit clear delineation on other than very large scale mapping, such as 7 1/2 minute quadrangle maps. Due to the number of these maps required for the entire study, only the general area containing loss zones is shown for each county.

VII. SELECTION OF CRITICAL STORM TRACKS.

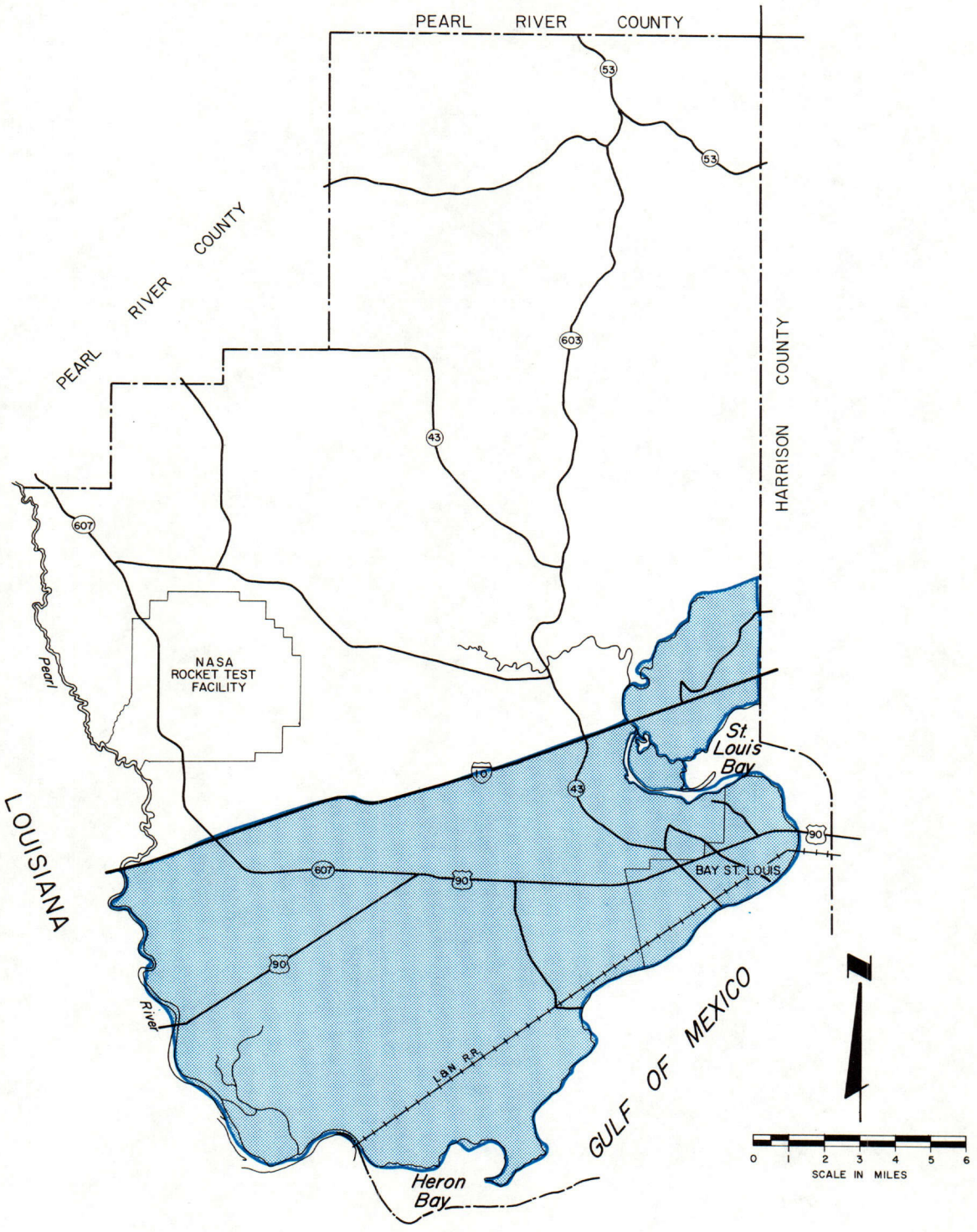
The selections of critical storm tracks were made after an analysis of the potential surge heights which were calculated for all hypothetical hurricanes modeled for the study. For the purpose of this study, the critical storm track is that which produces the greatest total property damage within a county. The critical storm track is not necessarily that which has the greatest effect for all parts of the county, particularly those counties with large coastlines, but is generally that storm track which has the greatest effect on the most highly developed area. Table V lists the critical storm tracks for each county while Figure 17 shows the locations of these tracks.

TABLE V

CRITICAL STORM TRACKS

County	SLOSH Basin	Direction of Motion	Forward Speed (MPH)	Landfall Location
Hancock	Lake Ponchartrain	NW	15	RS020[1]
Harrison	Lake Ponchartrain	NW	15	RS040[2]
Jackson	Mobile Bay	NW	15	LS040[3]
Mobile	Mobile Bay	N	15	LS020[4]
Baldwin	Mobile Bay	N	15	LS000[5]

[1] 20 miles east of New Orleans, Louisiana.
[2] 40 miles east of New Orleans, Louisiana.
[3] 40 miles west of the mouth of Mobile Bay.
[4] 20 miles west of the mouth of Mobile Bay.
[5] Landfall at the mouth of Mobile Bay.

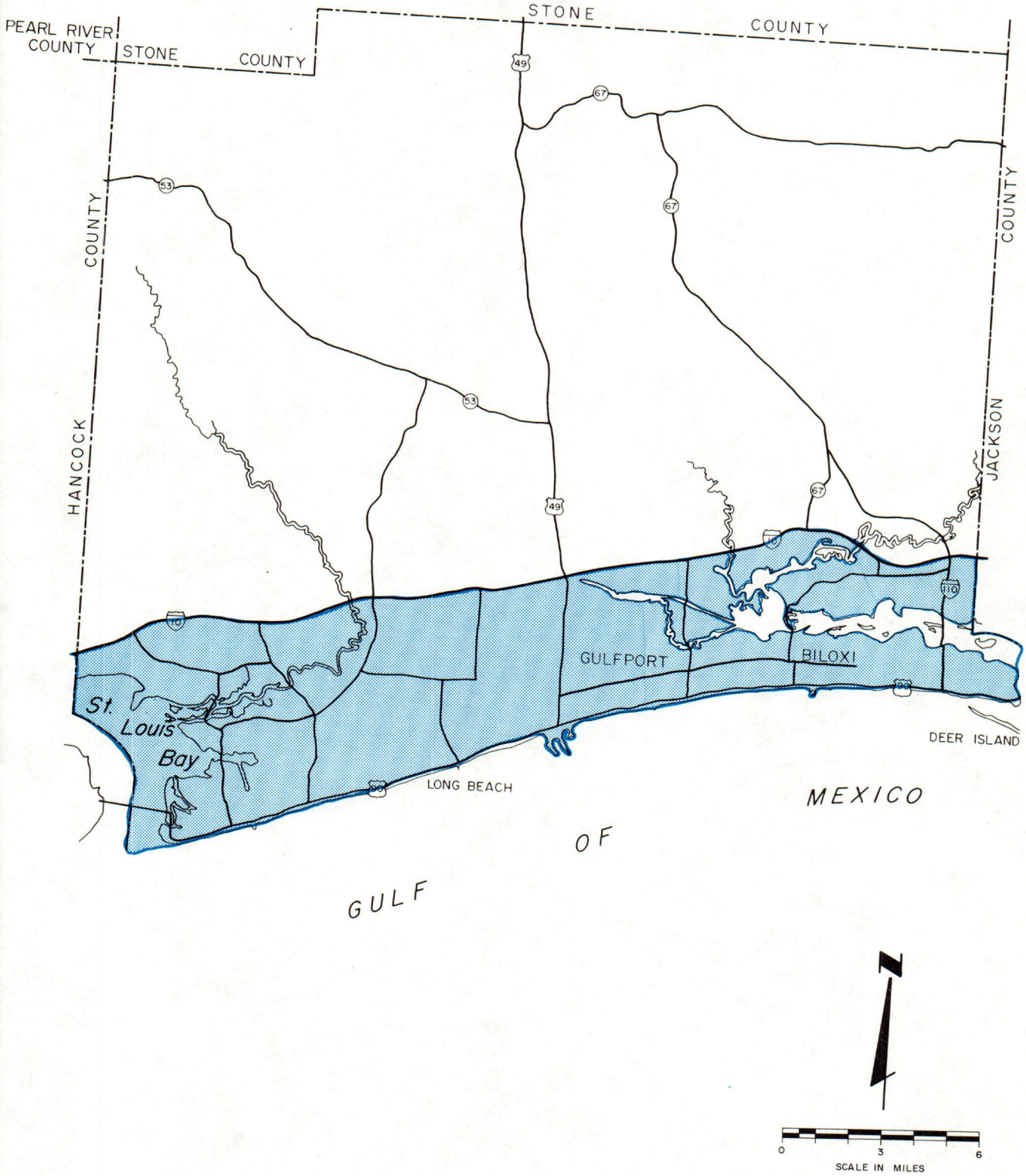


AREA OF STUDY

HANCOCK COUNTY

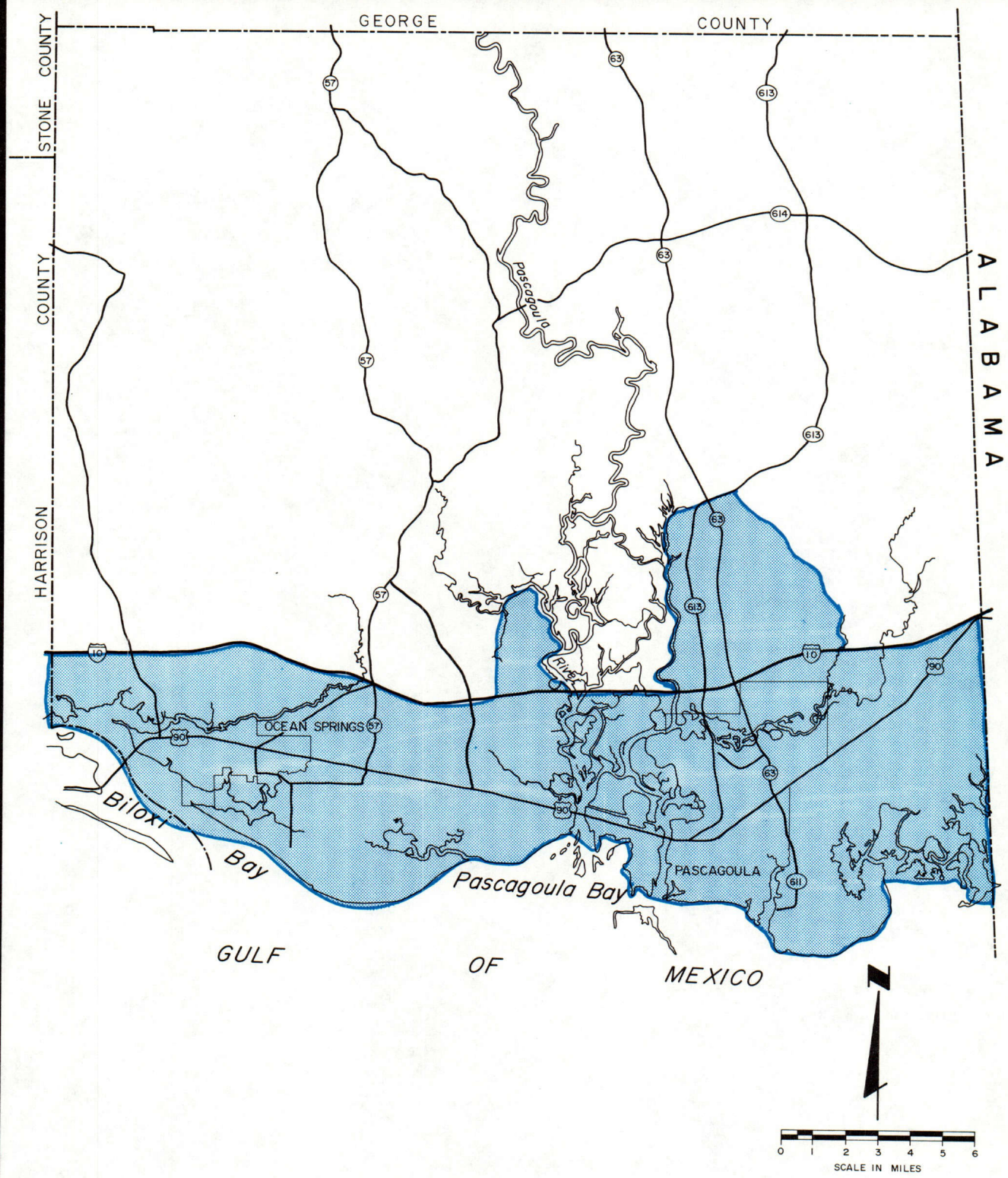
TRI-STATE HURRICANE EVACUATION STUDY

FIGURE 12



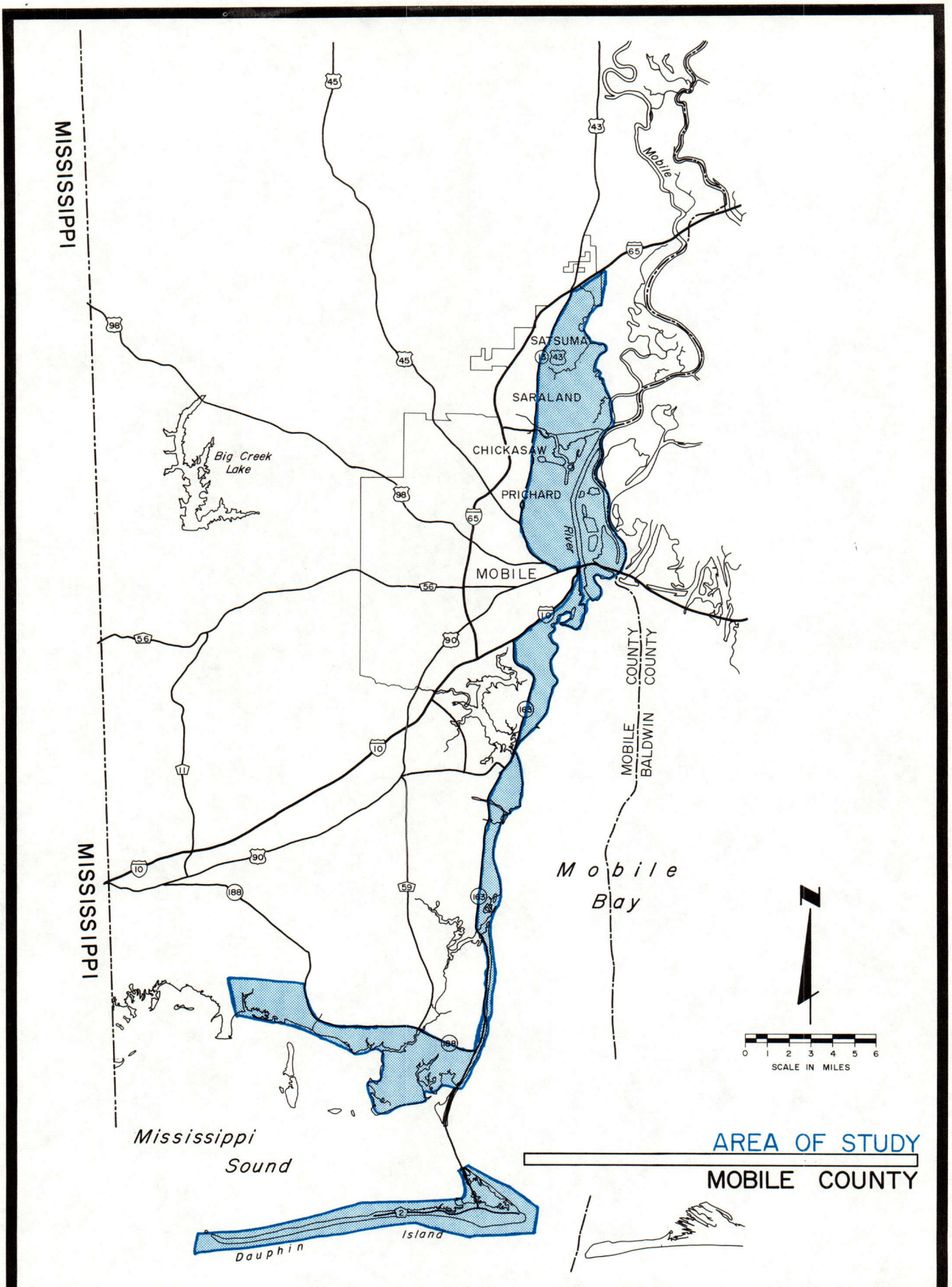
TRI – STATE HURRICANE EVACUATION STUDY

FIGURE 13



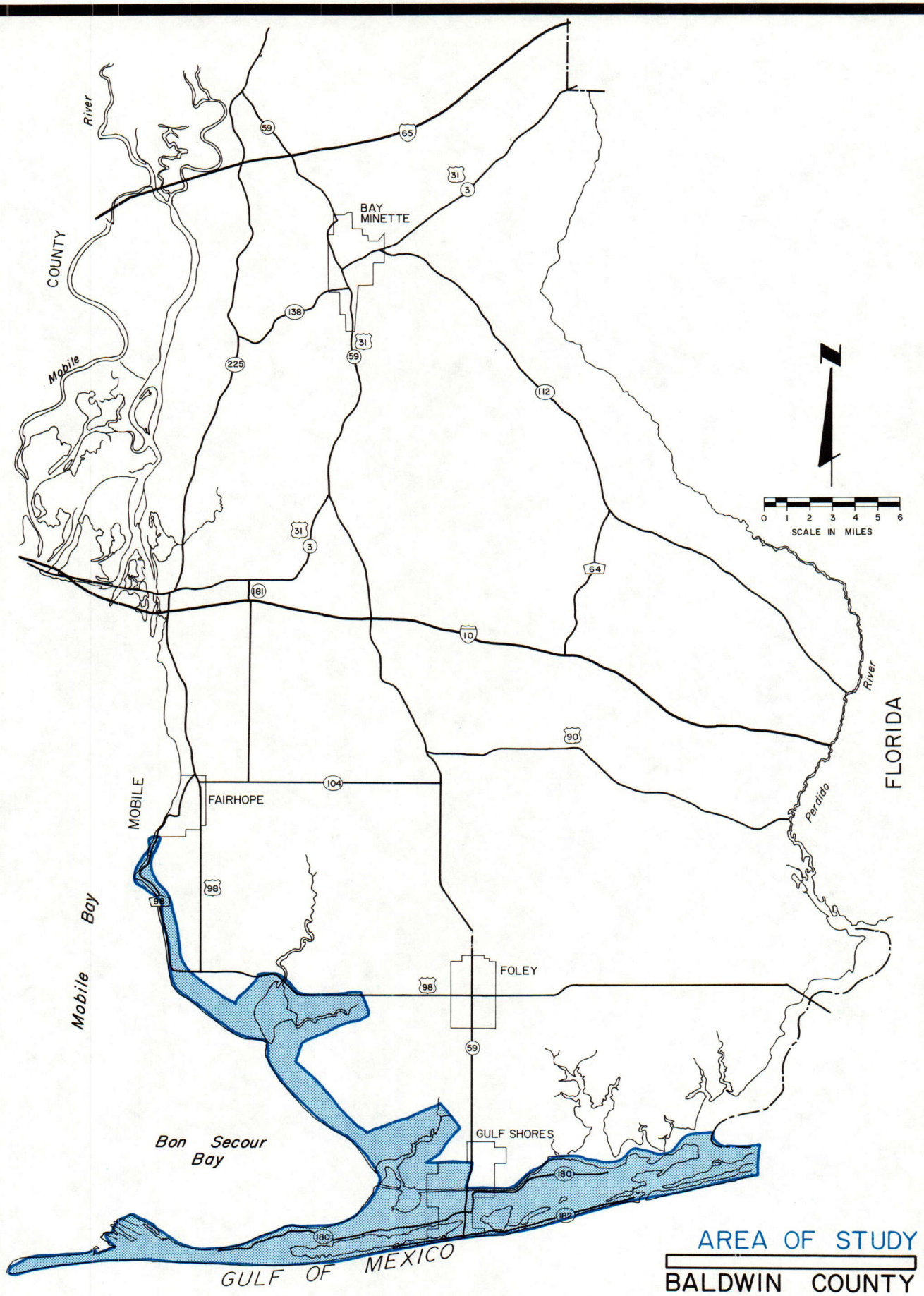
TRI-STATE HURRICANE EVACUATION STUDY

FIGURE 14



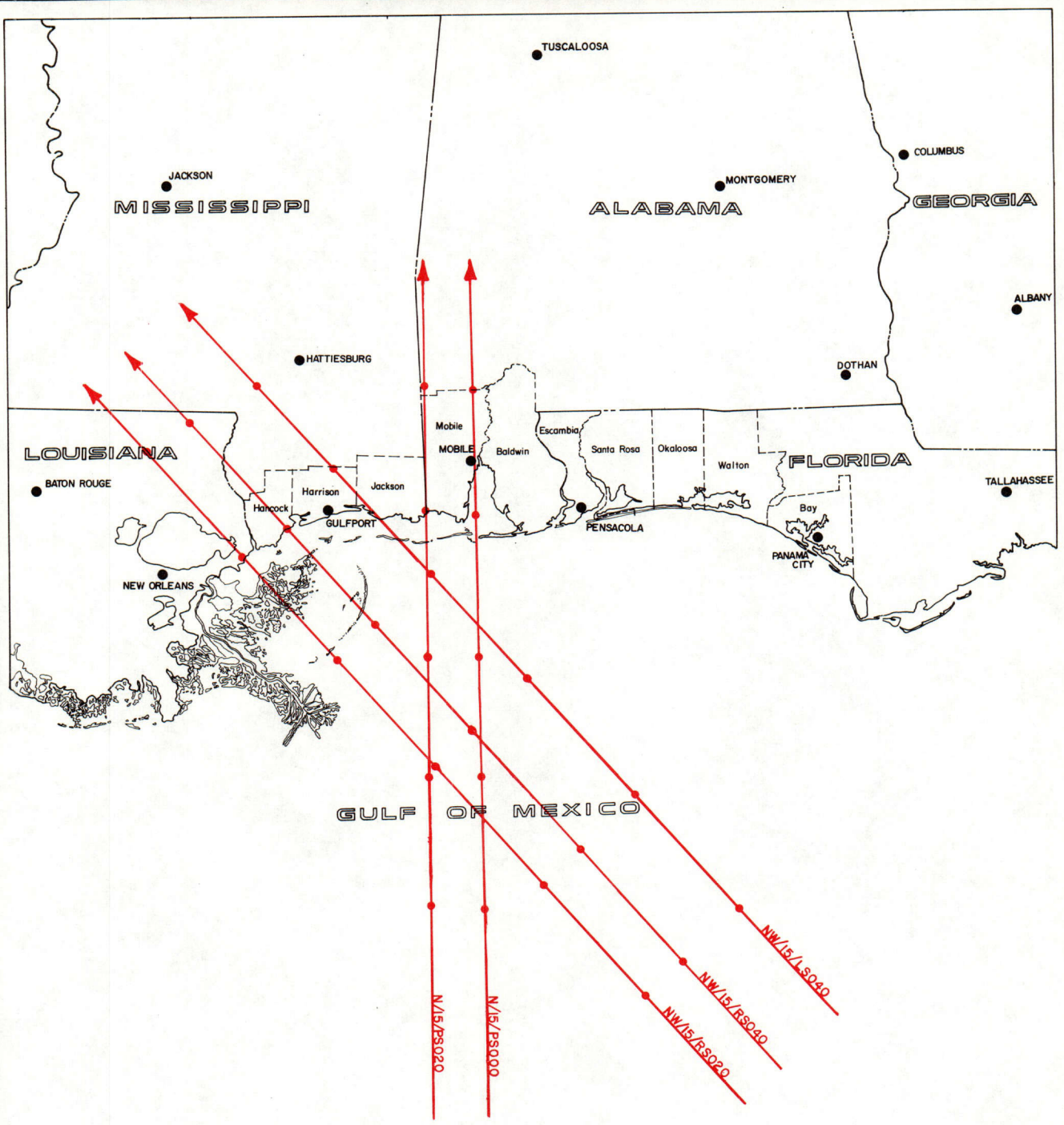
TRI-STATE HURRICANE EVACUATION STUDY

FIGURE 15



TRI-STATE HURRICANE EVACUATION STUDY

FIGURE 16



CRITICAL STORM TRACKS

FIGURE 17

CHAPTER THREE

DETERMINATION OF POTENTIAL PROPERTY LOSS

I. GENERAL.

This chapter of the report describes the procedure utilized in calculating the potential property losses for each of the study area counties and presents the results of that procedure. The major task involved the input of property inventory, storm surge and windspeed data into a Lotus 1-2-3 spreadsheet model developed by the Mobile District, U. S. Army Corps of Engineers to calculate property losses within each county. Other tasks included the selection of structure and contents depth damage curves for stillwater surge and velocity flooding, incorporation of these curves into the model and performing calculations of potential property damage for each county.

II. MODEL DESCRIPTION.

A. General. The model used to calculate potential property damage for the Tri-State Hurricane Property Loss and Contingency Planning Study was developed utilizing the Lotus 1-2-3 spreadsheet program. Generally, the model was designed as a series of individual spreadsheets to contain the property inventories for each of the property loss zones established within each county. The format for the property inventories within the model was the same as that utilized in conducting the property inventories for each county. This facilitated the transfer of inventory data into the model. The model also contained each of the stillwater surge, velocity and wind damage curves utilized to calculate damages as well as surge and wind data for each loss zone and for each category of storm investigated. Algorithms within the model calculated the potential wave heights for those loss zones designated as velocity zones. The simplified algorithm assumed the development of a maximum theoretical wave based upon stillwater surge depth above terrain.

B. Inventory Data and Format. The property inventory data input to the model was that previously developed for each of the property loss zones within the study area. The format of the property inventories within the model is shown in Table VI.

TABLE VI

PROPERTY INVENTORY FORMAT

RESIDENTIAL
- Single Family
  - Substandard
  - Medium
  - Upper

TABLE VI

PROPERTY INVENTORY FORMAT
(continued)

- COMMERCIAL
  - Major
  - Other
- INDUSTRIAL
  - Major
  - Other
- MAJOR MEDICAL FACILITIES
  - Public
  - Private
- PUBLIC FACILITIES
  - Buildings
  - Maintenance and Storage Facilities
  - Parks and Recreation Facilities
    - Lodges
    - Cabins
    - Other
  - Roads and Bridges
    - Interstate Highway
    - Major Highways and Secondary Roads
    - Major Streets
    - Residential Streets
  - Docks and Piers
- UTILITIES/COMMUNICATIONS FACILITIES
  - Water Storage Facilities
    - Elevated Storage
    - Other Storage
  - Water Treatment Facilities
  - Sewage Treatment Plants
  - Electrical
    - Transmission Lines
    - Distribution Lines
    - Sub-stations
    - Generation Plants
  - Telephone
    - Lines, Above Ground
    - Other
  - Natural Gas, Major Above Ground Facilities
  - Radio/TV Transmitters/Towers
- RAILROAD
  - Buildings
  - Track
- NON-PROFIT FACILITIES
  - Churches
  - Private Schools
  - Other

Most of the property inventory items listed in Table VI are self explanatory; however, some description of the distinctions between the various categories of single-family residential, commercial and industrial facilities is necessary. The values of residential, commercial and industrial facilities were the distinguishing factors between categories of each type of development. These values differed somewhat between the study area counties; however, a fair amount of consistency was achieved. Generally, single-family residences valued less than $20,000 were considered substandard, between $20,000 and $100,000 were classified as medium, and over $100,000 were classified as upper. The purpose in categorizing housing in this manner was to obtain more accurate average housing values. Major commercial development was considered to be large shopping malls or centers with significant concentrations of commercial development while other commercial consisted of scattered, small commercial facilities such as convenience stores, service stations, small restaurants, etc. The major industrial facilities category consisted of highly concentrated and large industrial development while other industrial was composed of light, scattered industrial development.

Additional data entered for each type development within a loss zone were numbers of structures, miles of road or utilities, average value and average elevation of structures. Content value for the various structures and utilities were calculated by the model based upon varying percentages of structural value.

C. Surge Data. The surge height data used in the model for each property loss zone was that derived from the SLOSH model. Each property loss was represented by a specified SLOSH model grid point for the purpose of determining the magnitude of potential surge flooding. Surge height data from the simulated hurricanes modeled for the critical track of each county were entered in the model. The model utilized these data to calculate potential surge height above terrain and surge depth within structures by storm category.

D. Windspeed Data. Windspeed data was entered for each category of hurricane. As previously described, the windspeed data was derived from the windspeeds calculated by the SLOSH model. The SLOSH model windspeeds, calculated to represent expected windspeeds at 30 meters altitude, were then converted to surface windspeeds overland. Expected peak gusts windspeeds by storm category were used in the calculations of property damage.

E. Damage Curves. The damage curves for stillwater surge, velocity and wind were selected from property damage studies completed within the State of Florida. These included the Tampa Bay Region Hurricane Loss and Contingency Planning Study, West Florida Region Hurricane Loss and Contingency Planning Study, South Florida Region Hurricane Loss Study and the Apalachee Region Hurricane Loss Study. The structure and contents damage curves used in this study are represented on Figures 18 through 55.

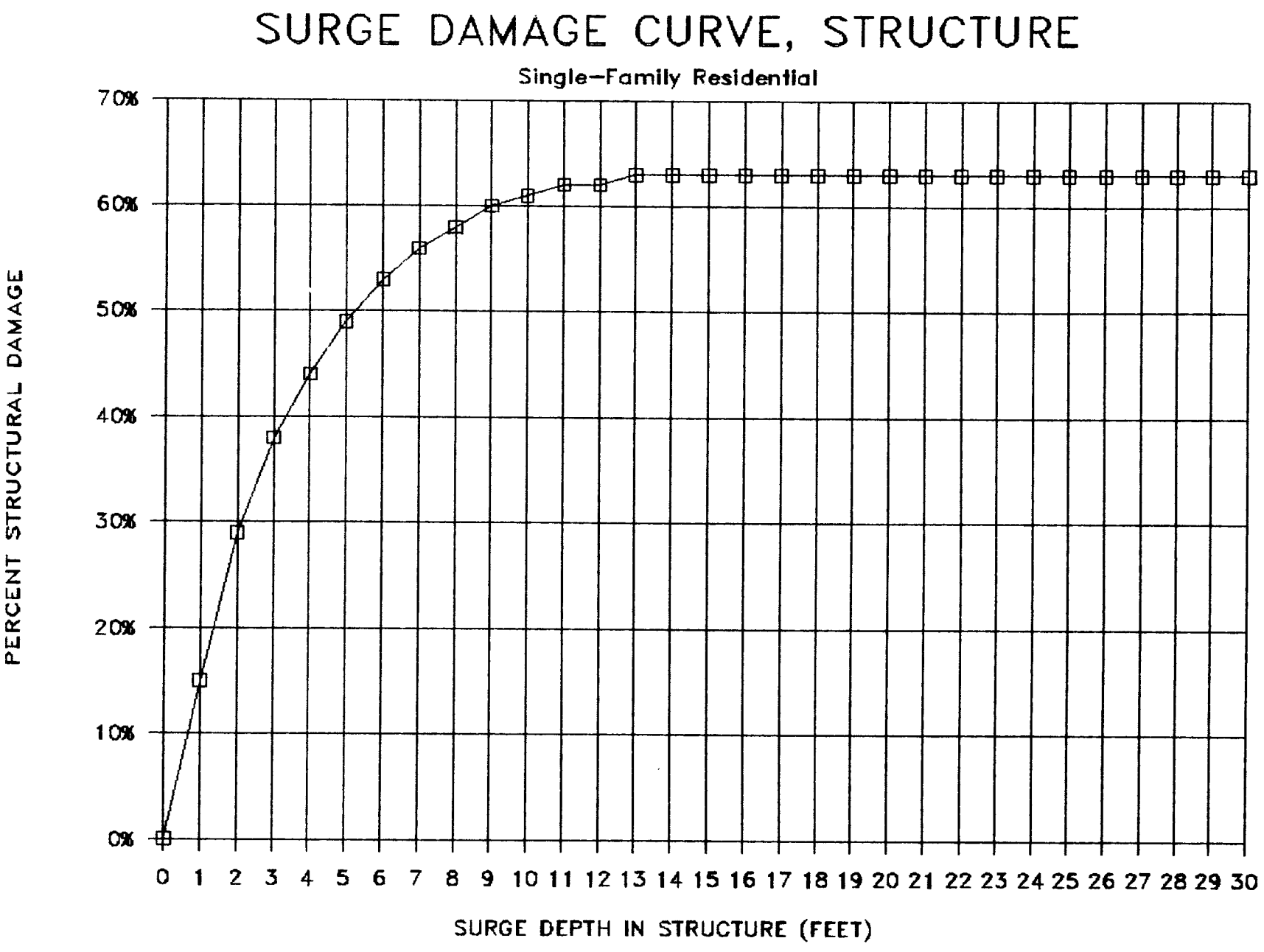

SURGE DAMAGE CURVE, STRUCTURE
Single-Family Residential
PERCENT STRUCTURAL DAMAGE
70%
60%
50%
40%
30%
20%
10%
0%
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
SURGE DEPTH IN STRUCTURE (FEET)

Figure 18

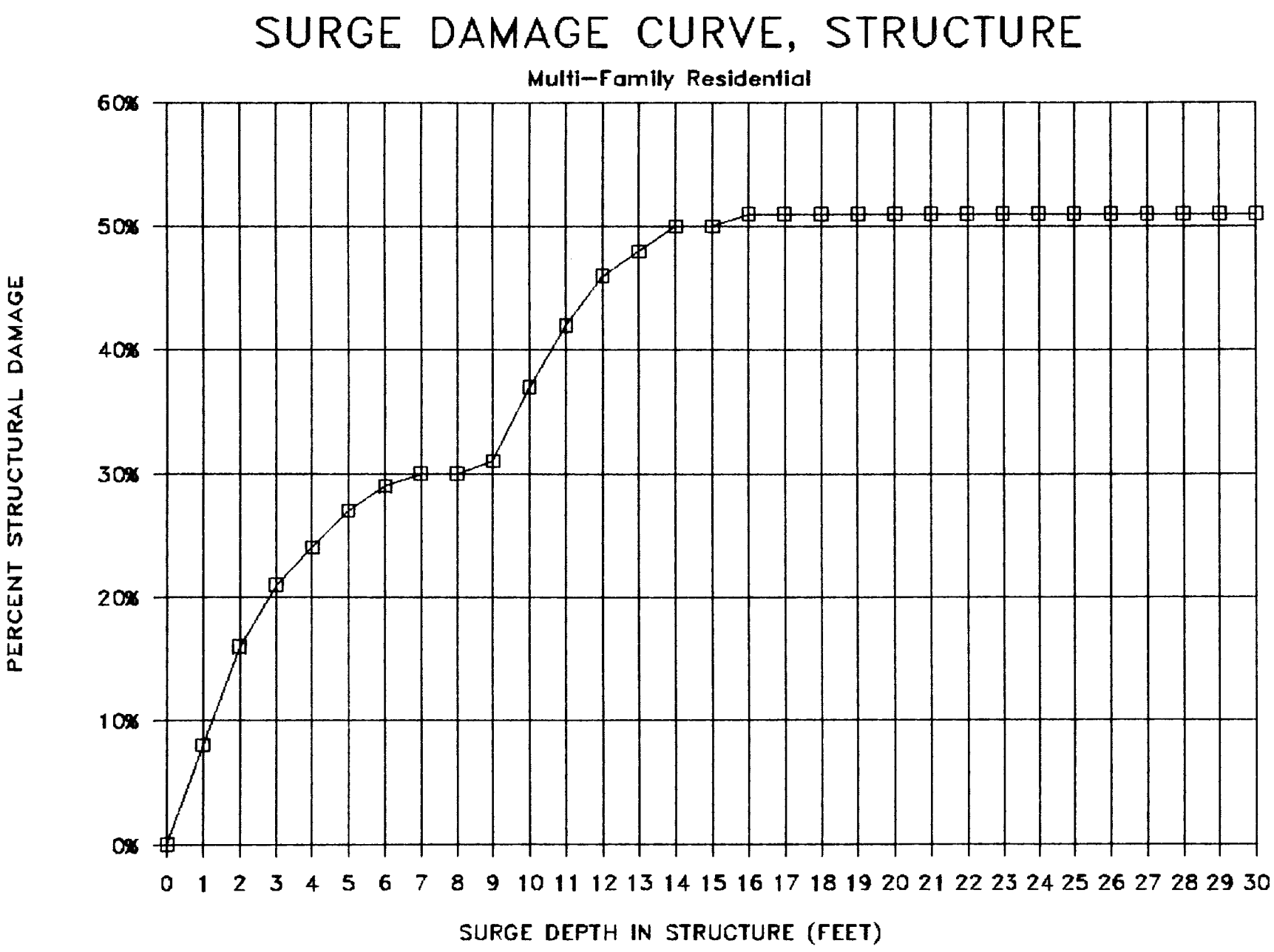

SURGE DAMAGE CURVE, STRUCTURE
Multi-Family Residential
PERCENT STRUCTURAL DAMAGE
60%
50%
40%
30%
20%
10%
0%
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
SURGE DEPTH IN STRUCTURE (FEET)

Figure 19

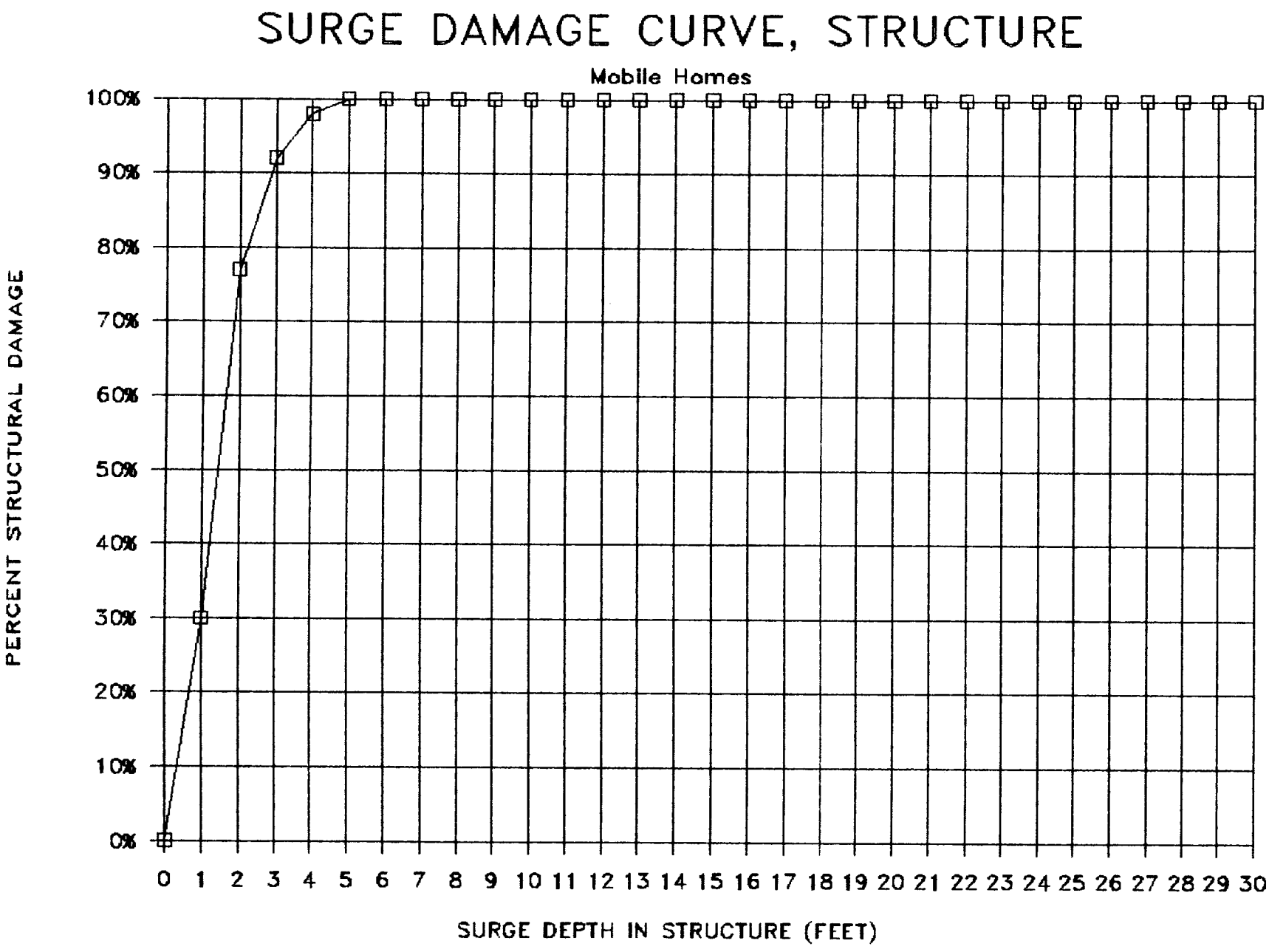

SURGE DAMAGE CURVE, STRUCTURE
Mobile Homes
PERCENT STRUCTURAL DAMAGE
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
SURGE DEPTH IN STRUCTURE (FEET)

Figure 20

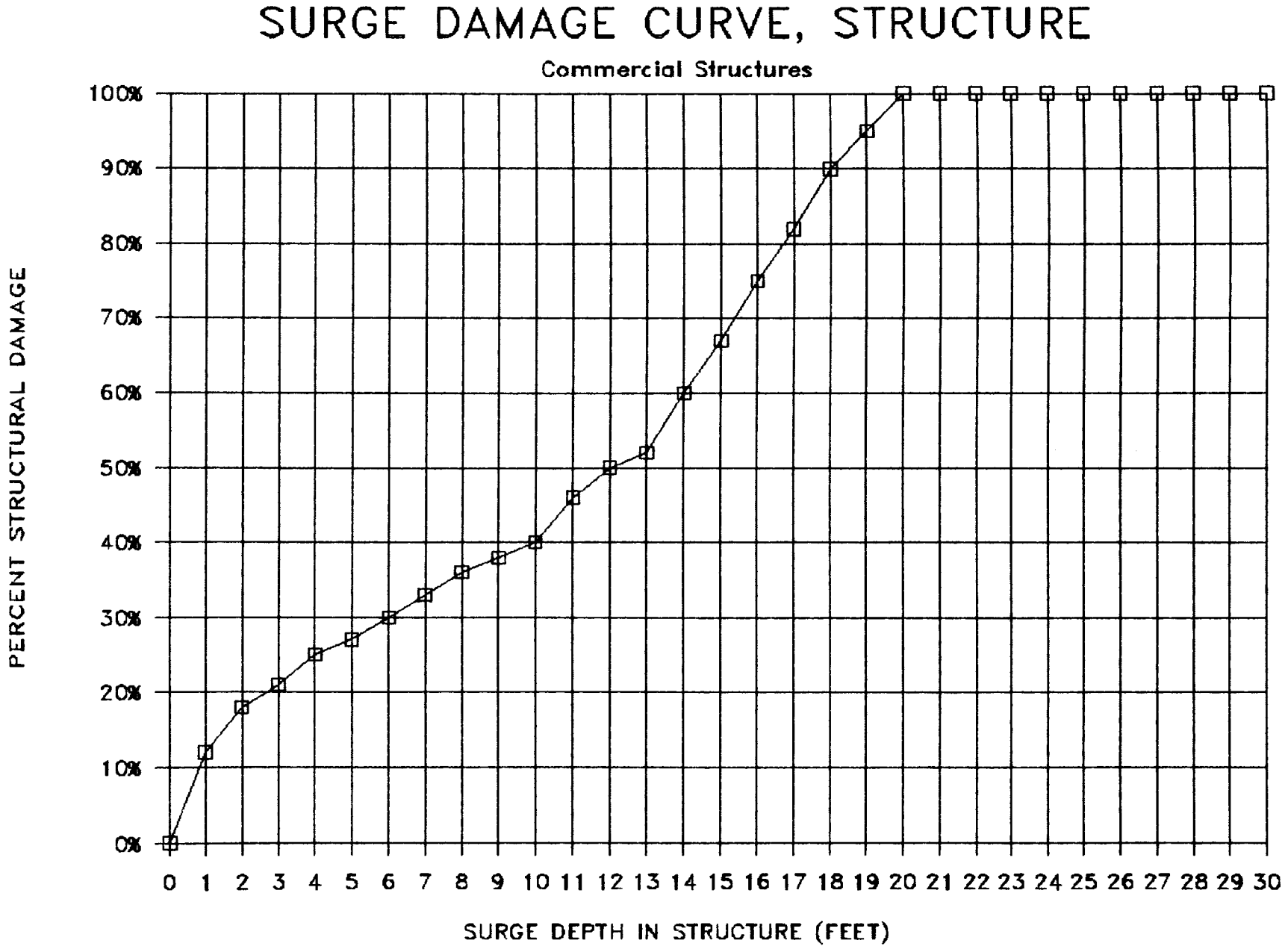

SURGE DAMAGE CURVE, STRUCTURE
Commercial Structures
PERCENT STRUCTURAL DAMAGE
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
SURGE DEPTH IN STRUCTURE (FEET)

Figure 21

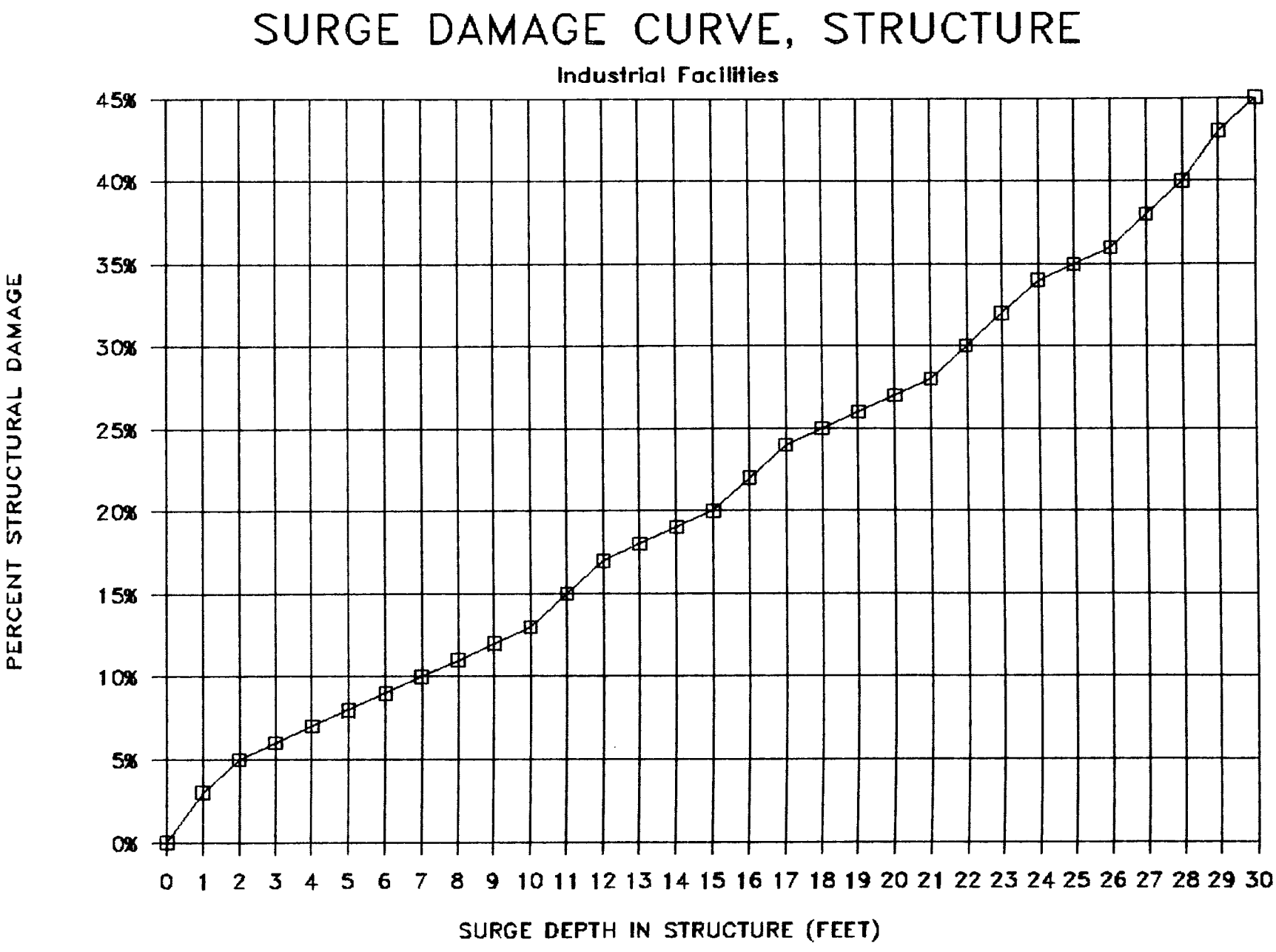

SURGE DAMAGE CURVE, STRUCTURE
Industrial Facilities
PERCENT STRUCTURAL DAMAGE
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
SURGE DEPTH IN STRUCTURE (FEET)

Figure 22

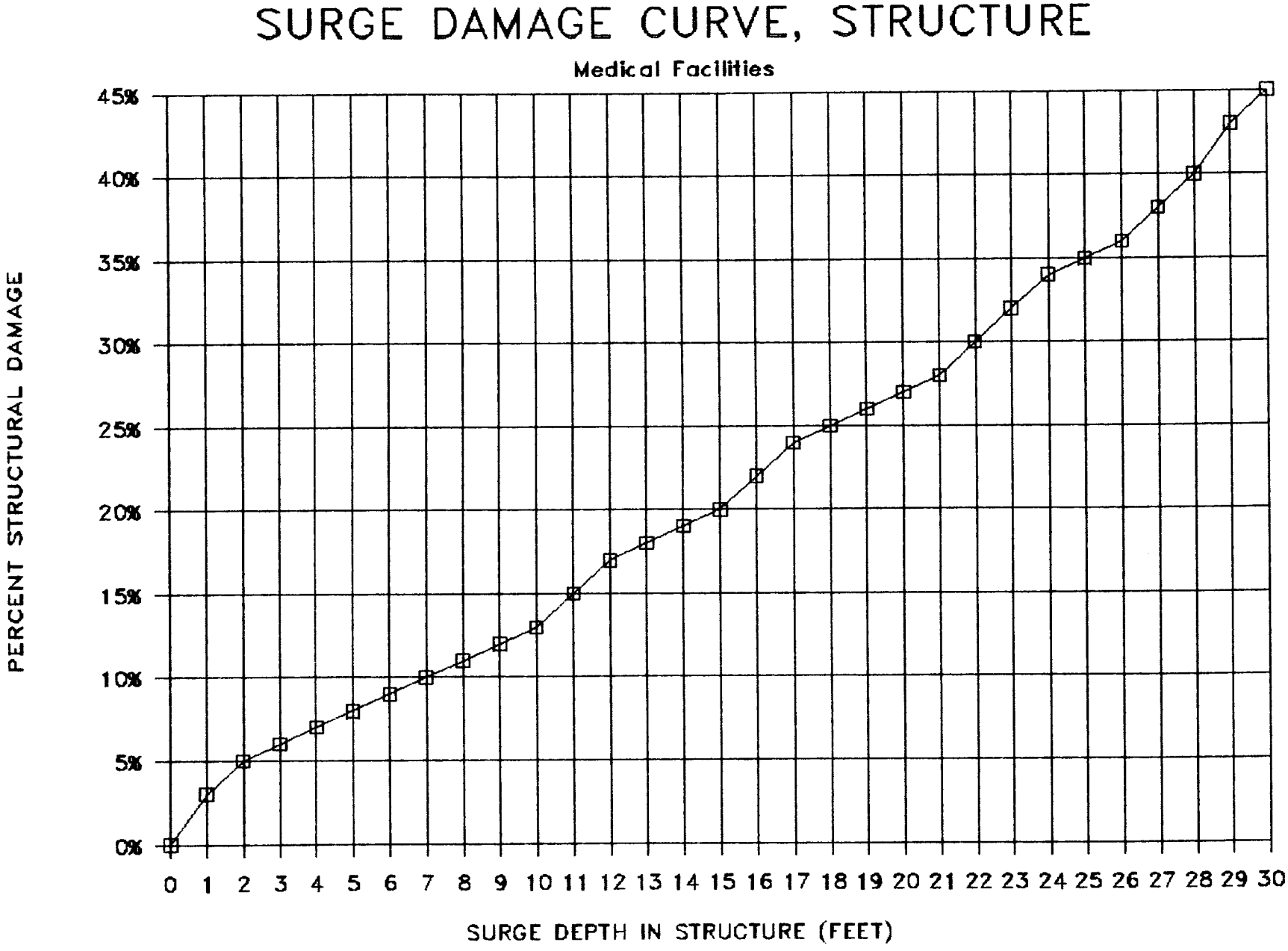

SURGE DAMAGE CURVE, STRUCTURE
Medical Facilities
PERCENT STRUCTURAL DAMAGE
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
SURGE DEPTH IN STRUCTURE (FEET)

Figure 23

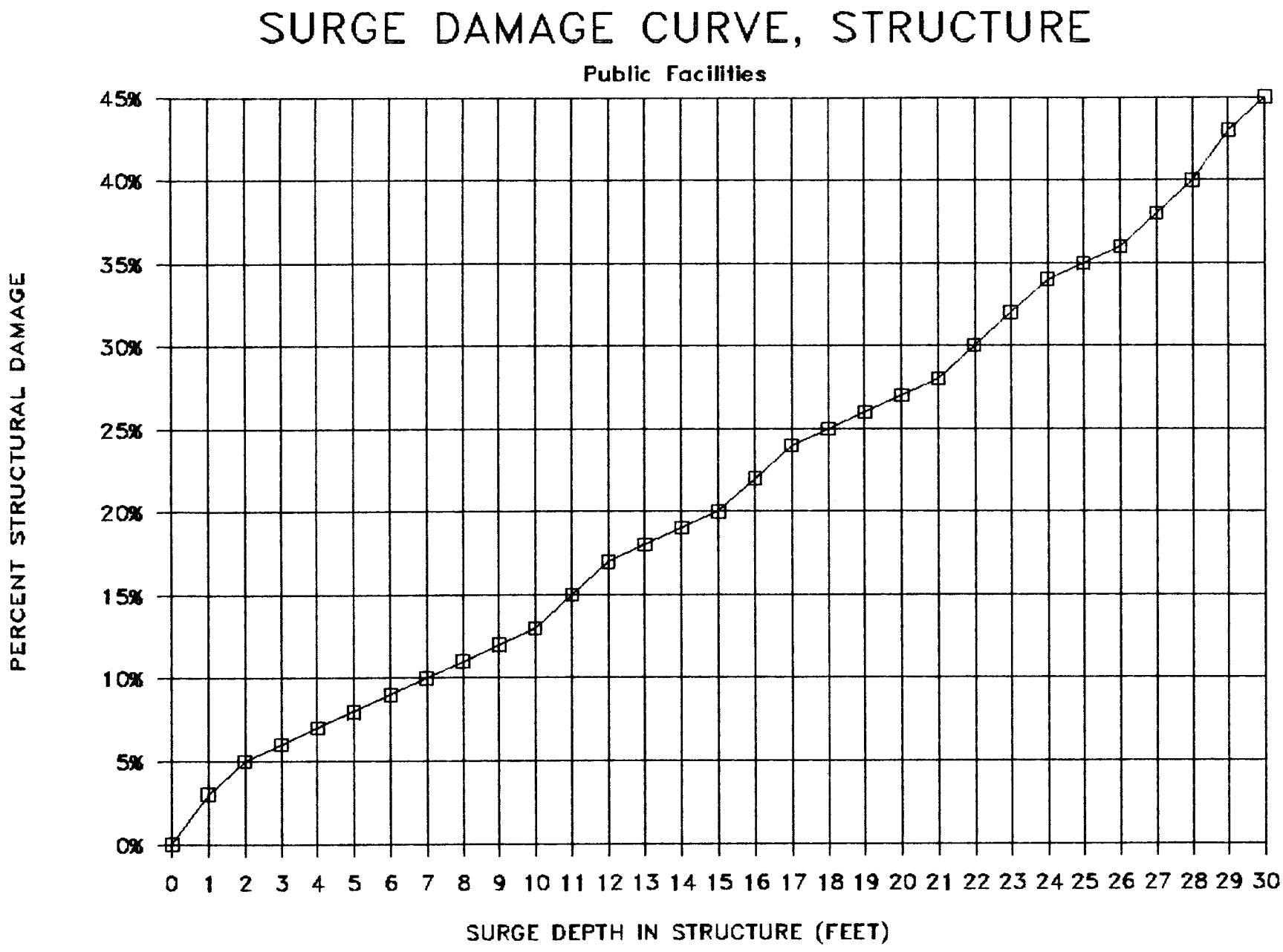

SURGE DAMAGE CURVE, STRUCTURE
Public Facilities
PERCENT STRUCTURAL DAMAGE
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
SURGE DEPTH IN STRUCTURE (FEET)

Figure 24

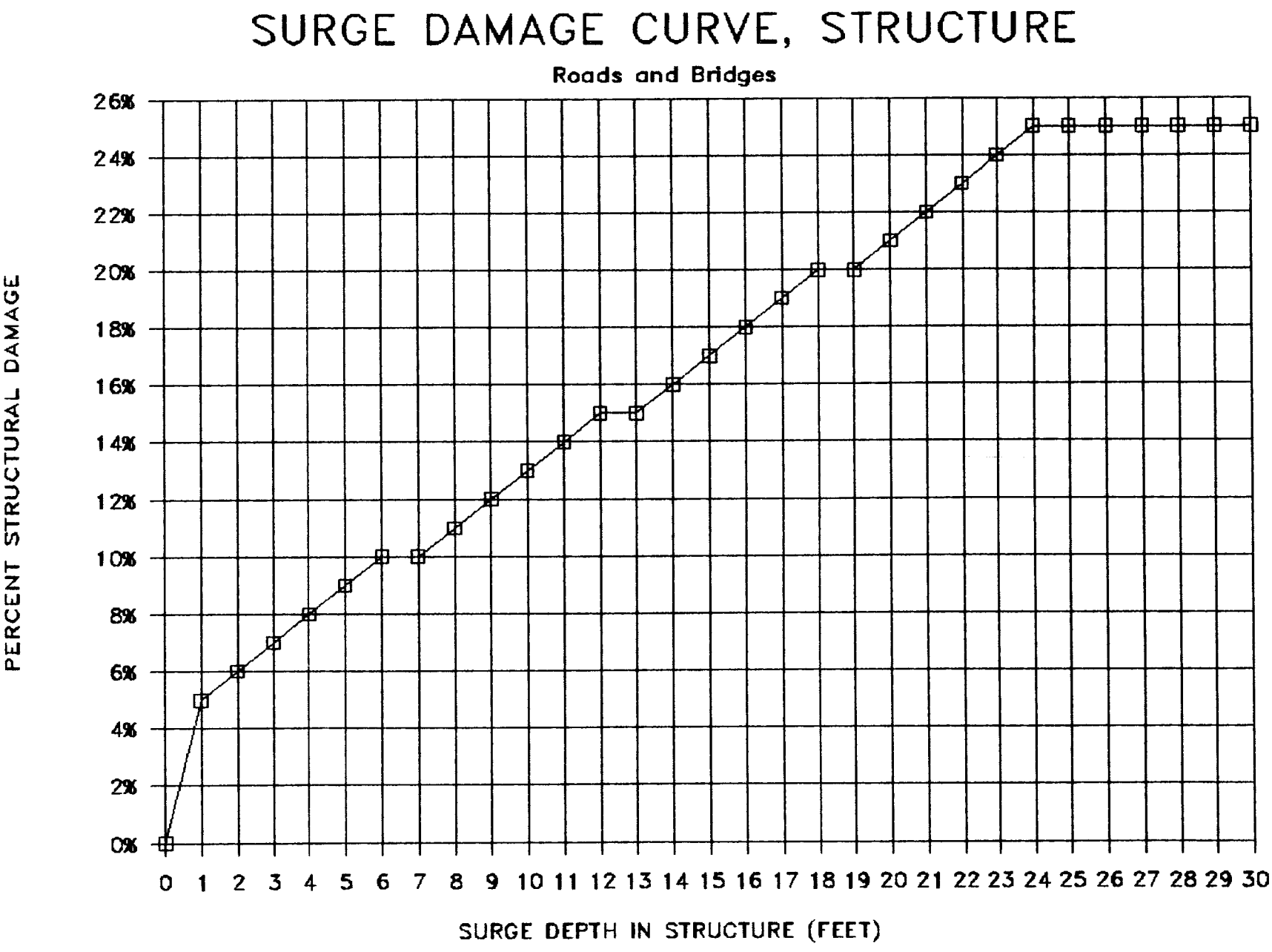

SURGE DAMAGE CURVE, STRUCTURE
Roads and Bridges
PERCENT STRUCTURAL DAMAGE
26%
24%
22%
20%
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
SURGE DEPTH IN STRUCTURE (FEET)

Figure 25

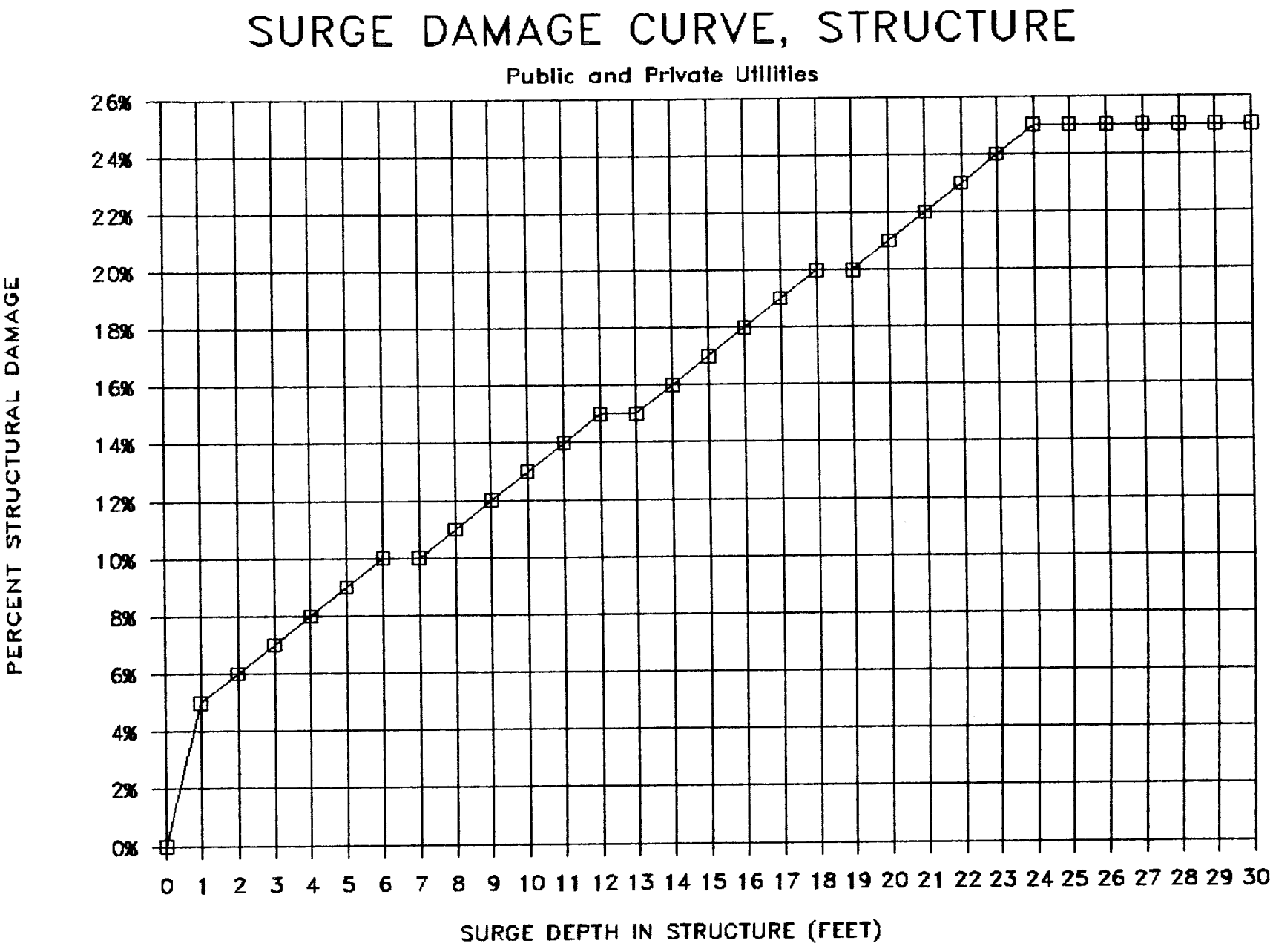

SURGE DAMAGE CURVE, STRUCTURE
Public and Private Utilities
PERCENT STRUCTURAL DAMAGE
26%
24%
22%
20%
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
SURGE DEPTH IN STRUCTURE (FEET)

Figure 26

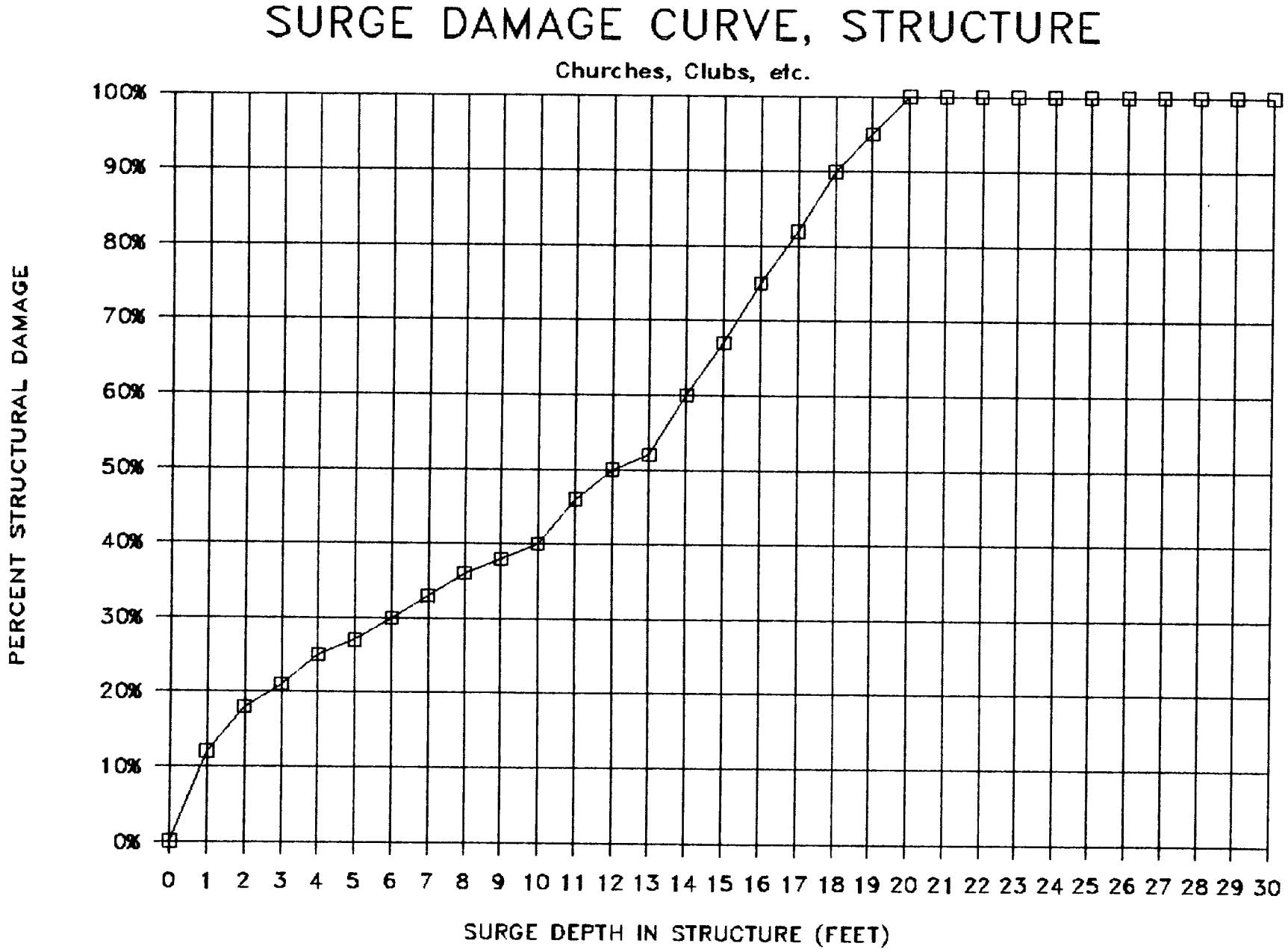

SURGE DAMAGE CURVE, STRUCTURE
Churches, Clubs, etc.
PERCENT STRUCTURAL DAMAGE
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
SURGE DEPTH IN STRUCTURE (FEET)

Figure 27

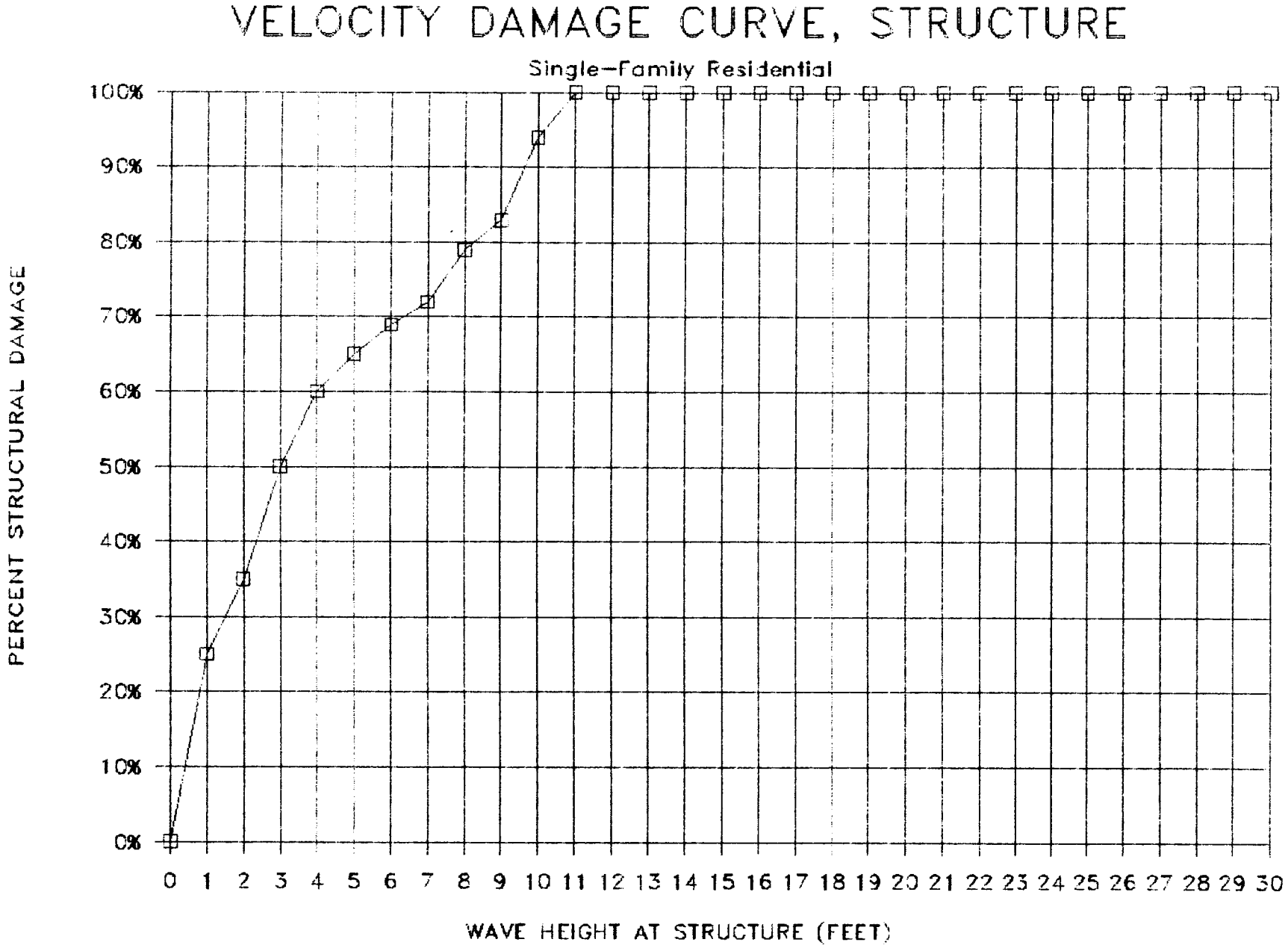

VELOCITY DAMAGE CURVE, STRUCTURE
Single-Family Residential
PERCENT STRUCTURAL DAMAGE
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
WAVE HEIGHT AT STRUCTURE (FEET)

Figure 28

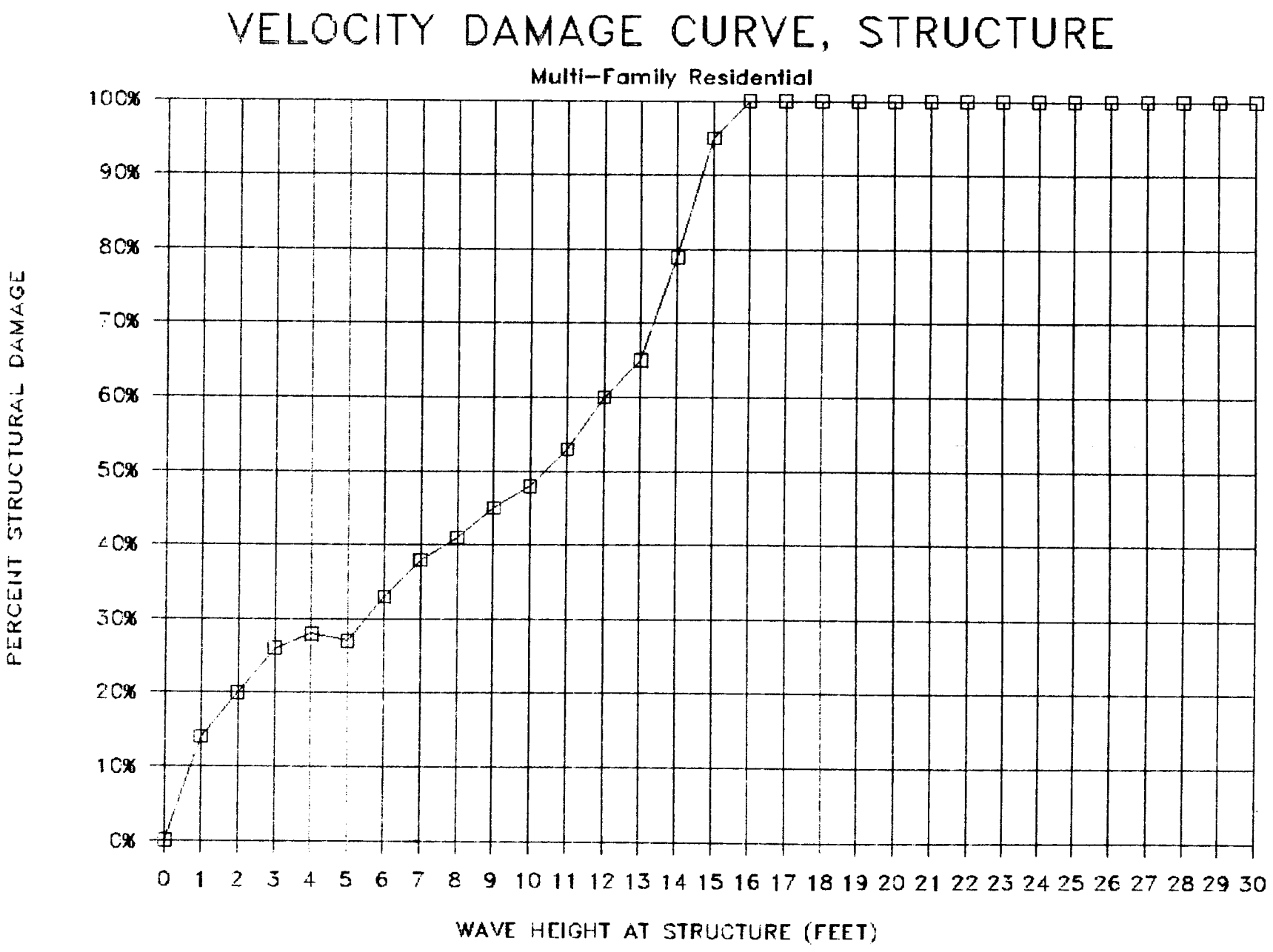

VELOCITY DAMAGE CURVE, STRUCTURE
Multi-Family Residential
PERCENT STRUCTURAL DAMAGE
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
WAVE HEIGHT AT STRUCTURE (FEET)

Figure 29

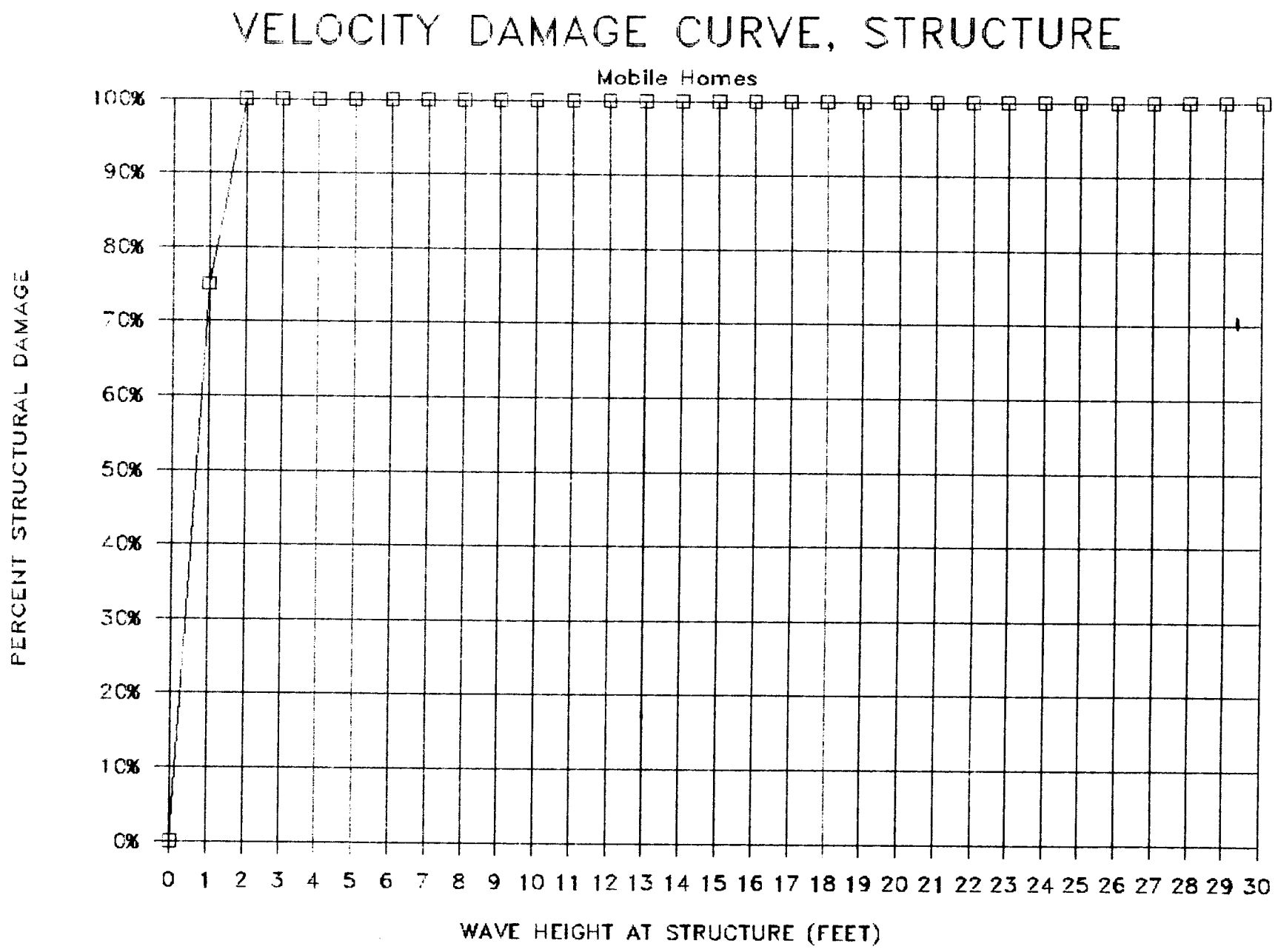

VELOCITY DAMAGE CURVE, STRUCTURE
Mobile Homes
PERCENT STRUCTURAL DAMAGE
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
WAVE HEIGHT AT STRUCTURE (FEET)

Figure 30

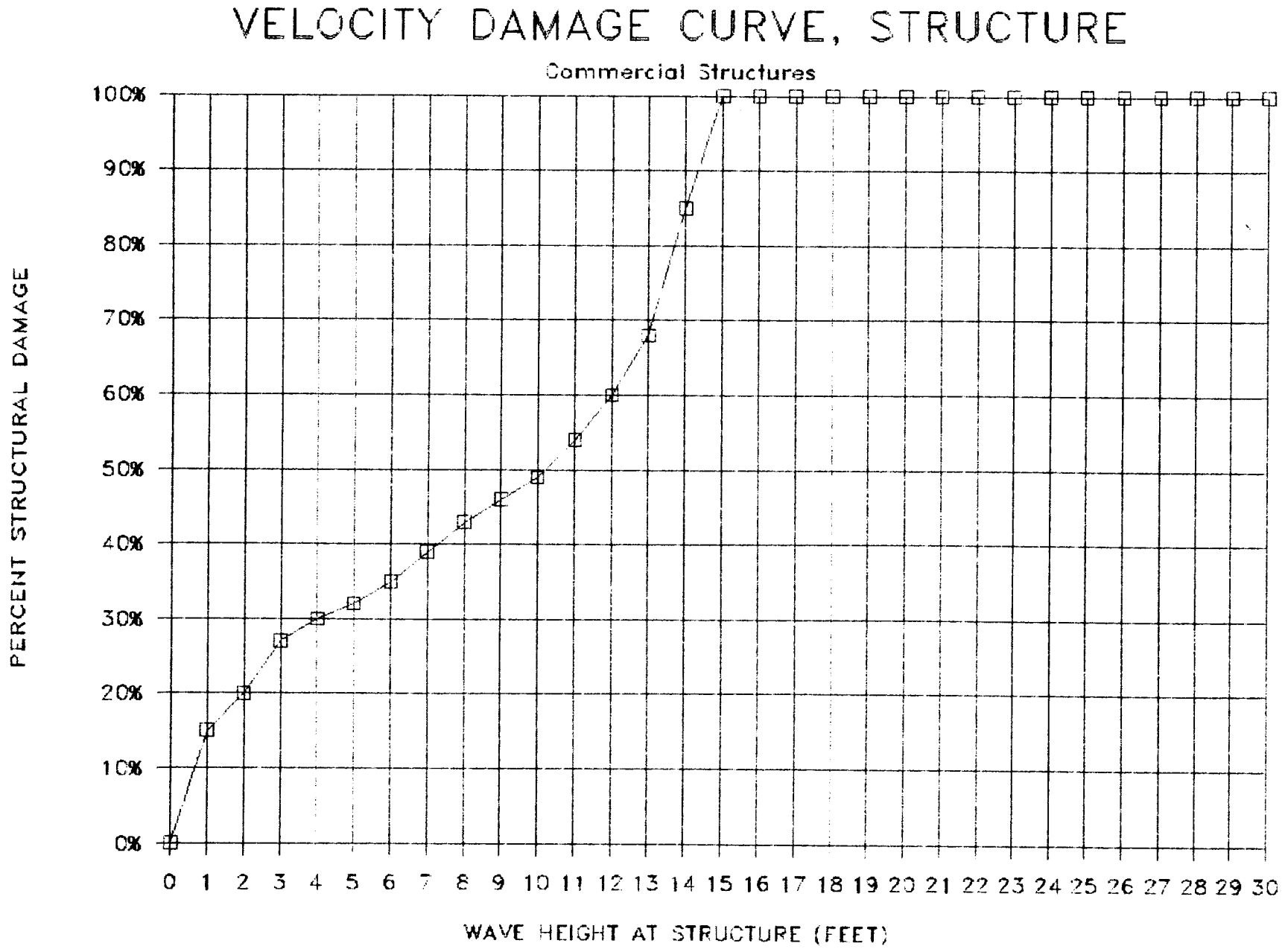

VELOCITY DAMAGE CURVE, STRUCTURE
Commercial Structures
PERCENT STRUCTURAL DAMAGE
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
WAVE HEIGHT AT STRUCTURE (FEET)

Figure 31

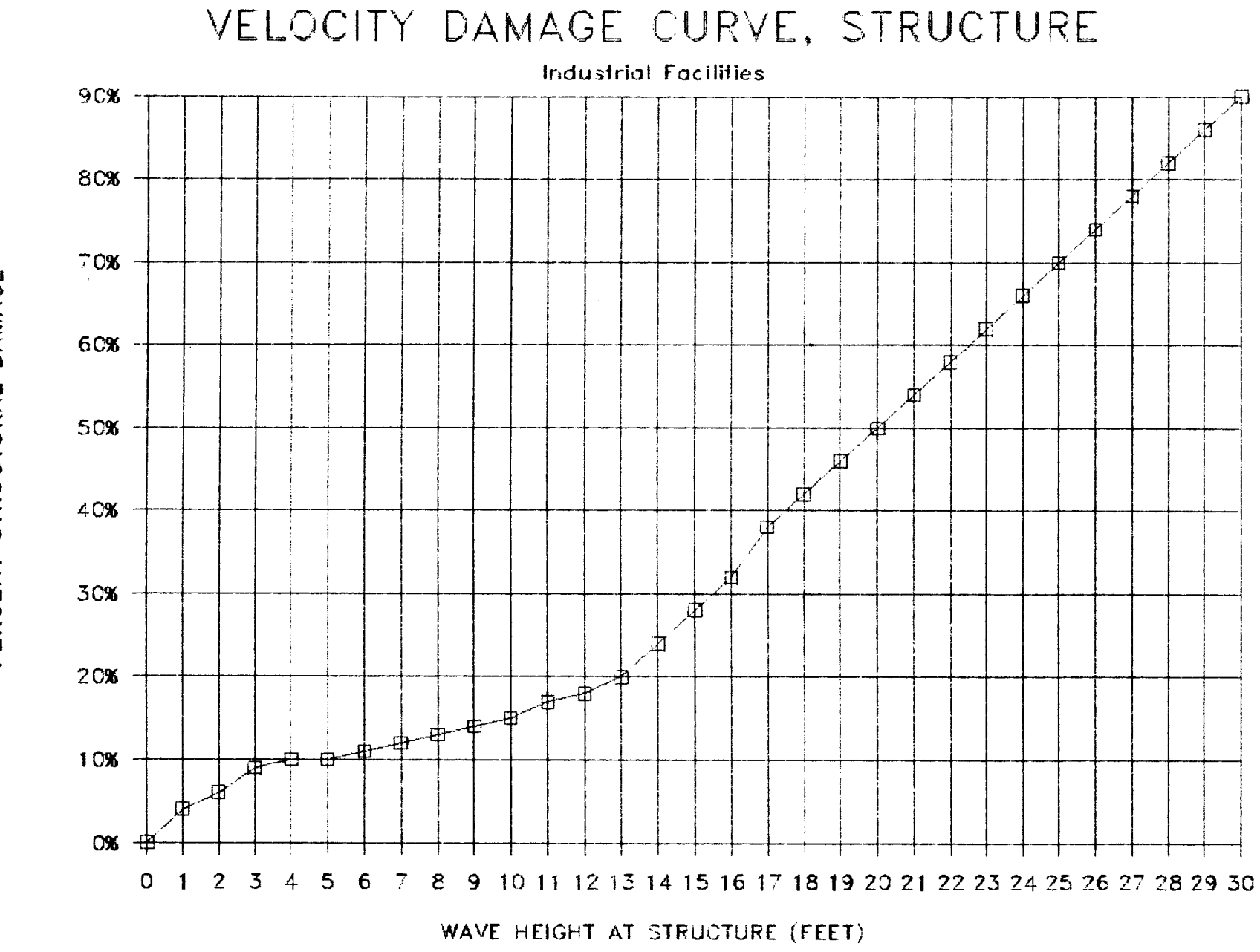

VELOCITY DAMAGE CURVE, STRUCTURE
Industrial Facilities
PERCENT STRUCTURAL DAMAGE
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
WAVE HEIGHT AT STRUCTURE (FEET)

Figure 32

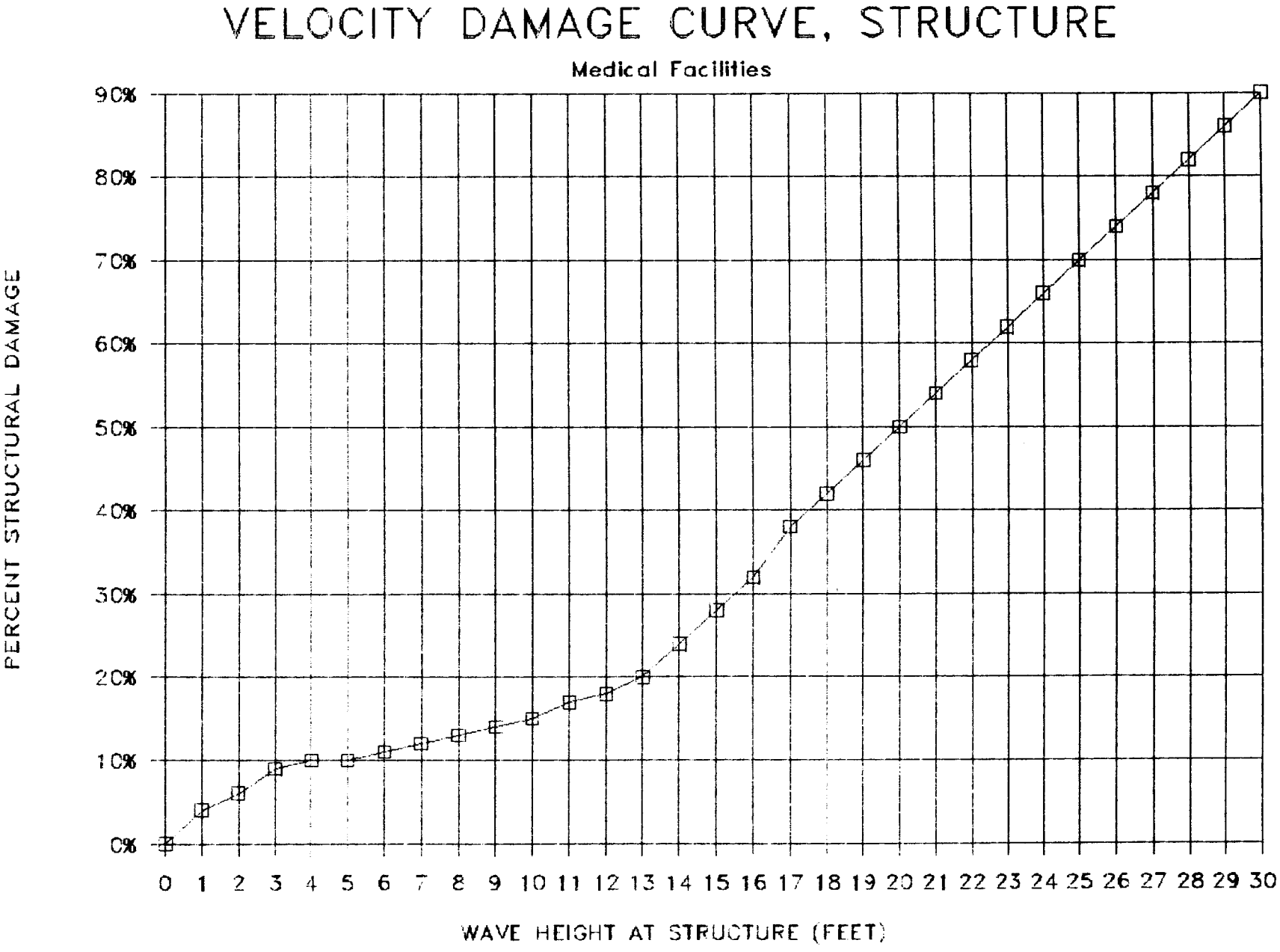

VELOCITY DAMAGE CURVE, STRUCTURE
Medical Facilities
PERCENT STRUCTURAL DAMAGE
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
WAVE HEIGHT AT STRUCTURE (FEET)

Figure 33

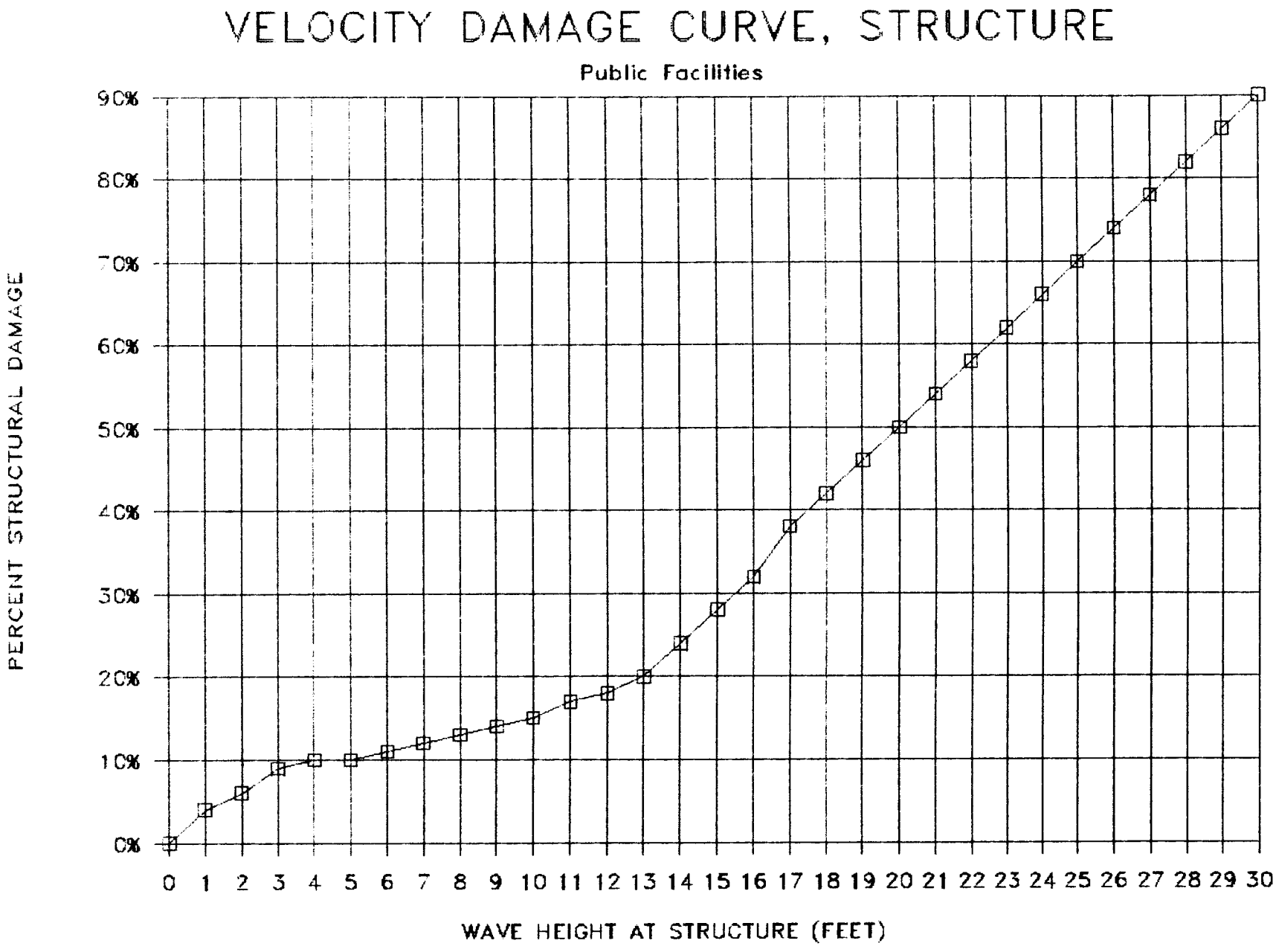

VELOCITY DAMAGE CURVE, STRUCTURE
Public Facilities
PERCENT STRUCTURAL DAMAGE
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
WAVE HEIGHT AT STRUCTURE (FEET)

Figure 34

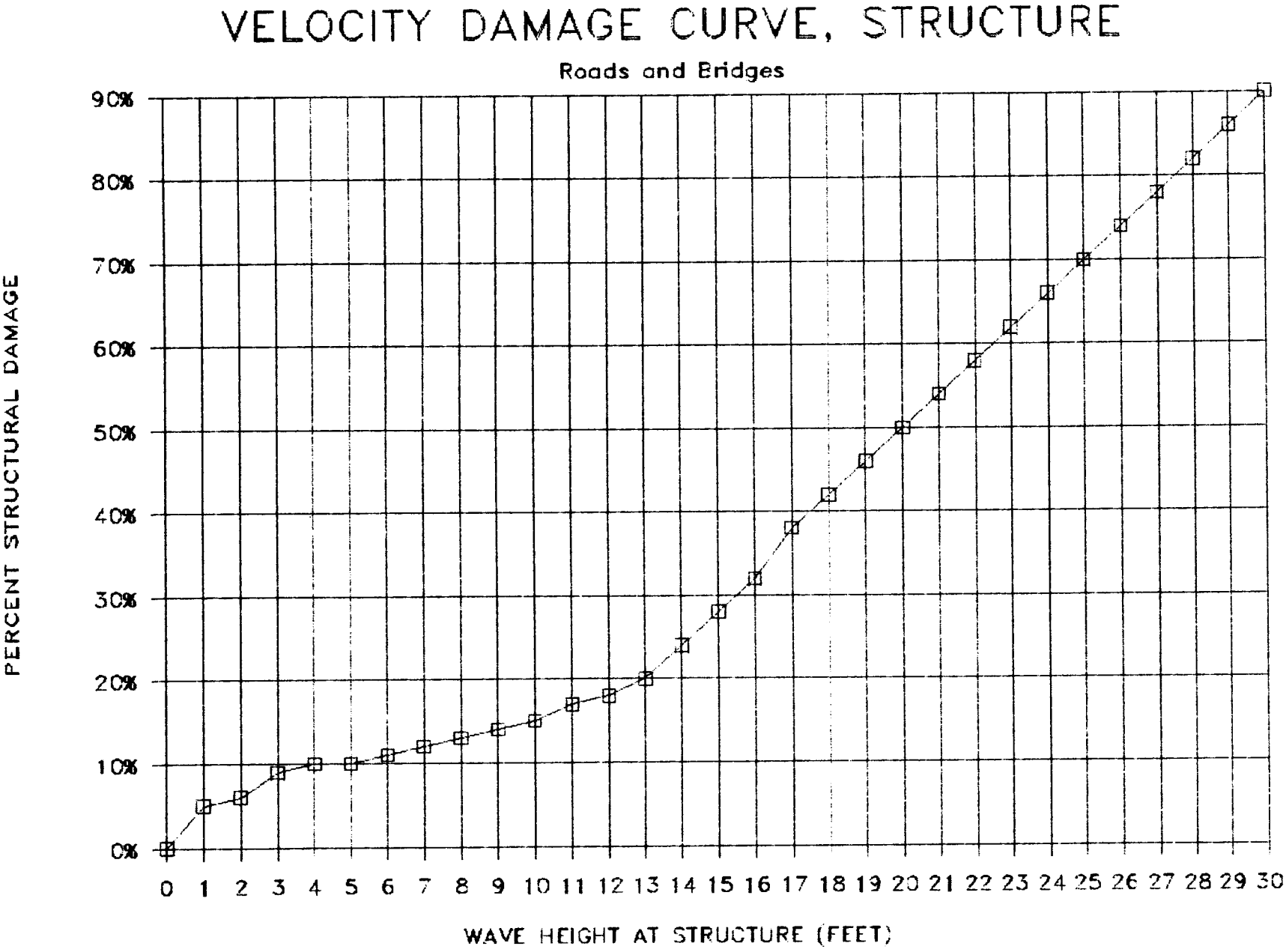

VELOCITY DAMAGE CURVE, STRUCTURE
Roads and Bridges
PERCENT STRUCTURAL DAMAGE
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
WAVE HEIGHT AT STRUCTURE (FEET)

Figure 35

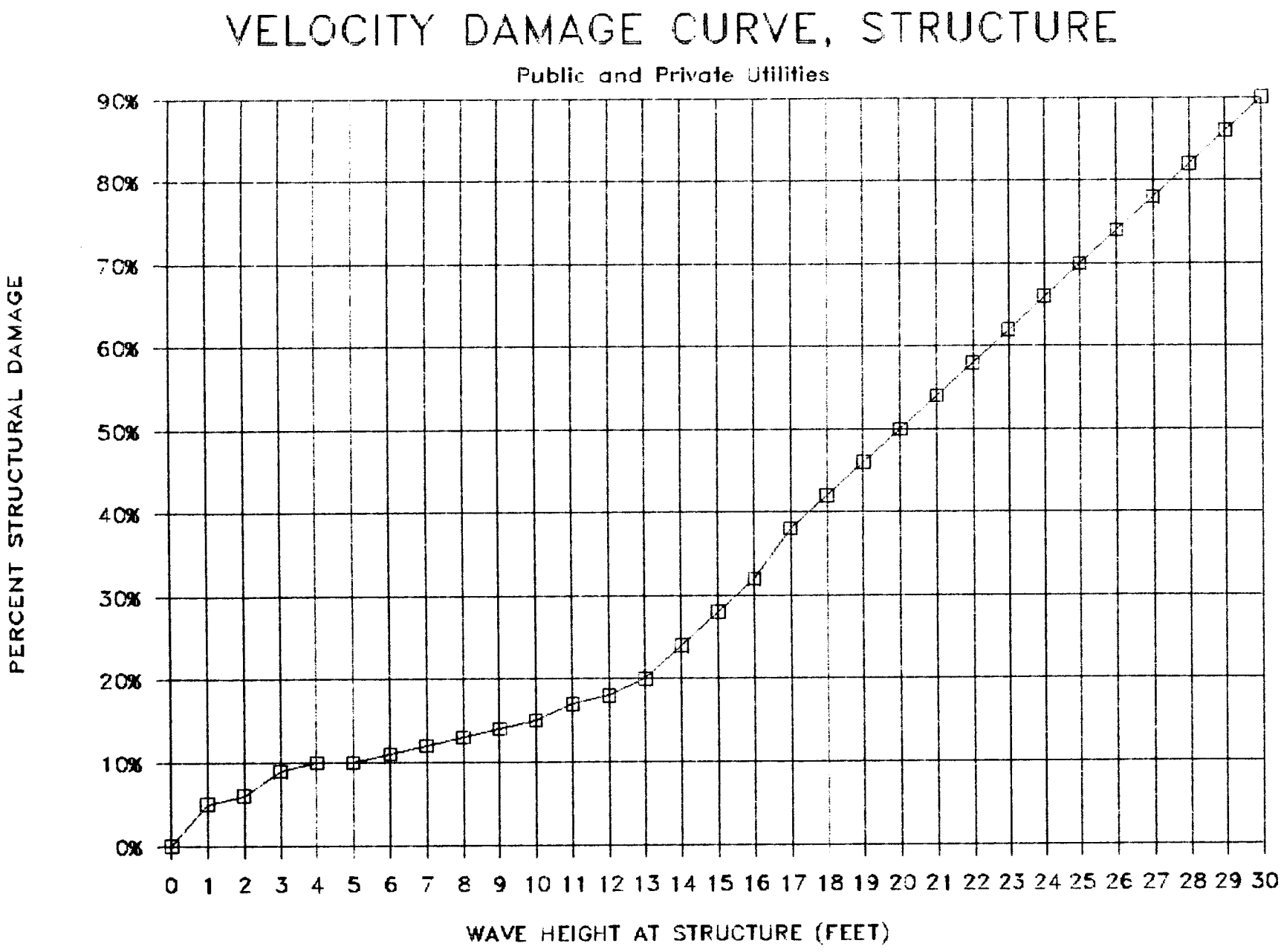

VELOCITY DAMAGE CURVE, STRUCTURE
Public and Private Utilities
PERCENT STRUCTURAL DAMAGE
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
WAVE HEIGHT AT STRUCTURE (FEET)

Figure 36

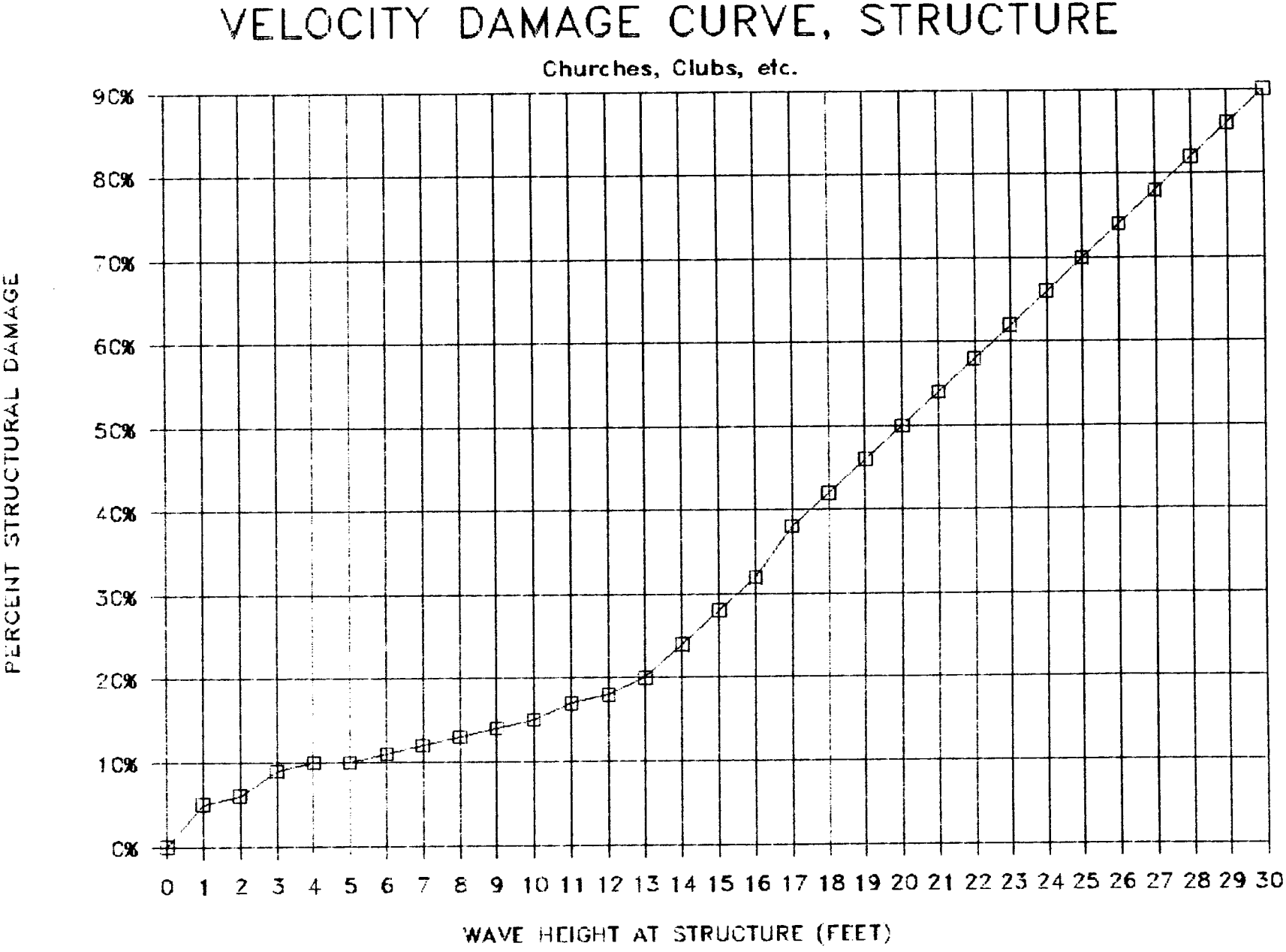

VELOCITY DAMAGE CURVE, STRUCTURE
Churches, Clubs, etc.
PERCENT STRUCTURAL DAMAGE
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
WAVE HEIGHT AT STRUCTURE (FEET)

Figure 37

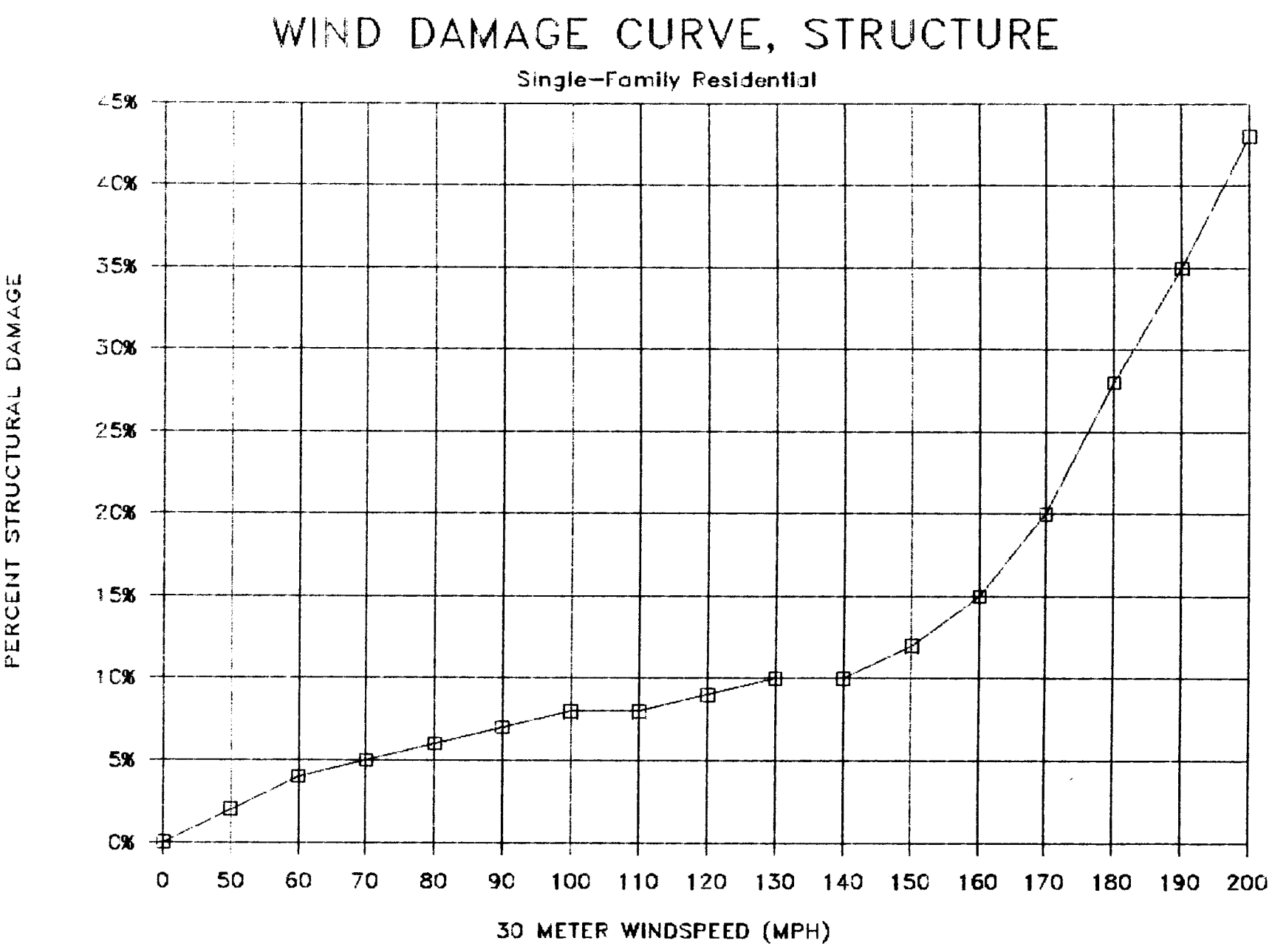

WIND DAMAGE CURVE, STRUCTURE
Single-Family Residential
PERCENT STRUCTURAL DAMAGE
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
0
50
60
70
80
90
100
110
120
130
140
150
160
170
180
190
200
30 METER WINDSPEED (MPH)

Figure 38

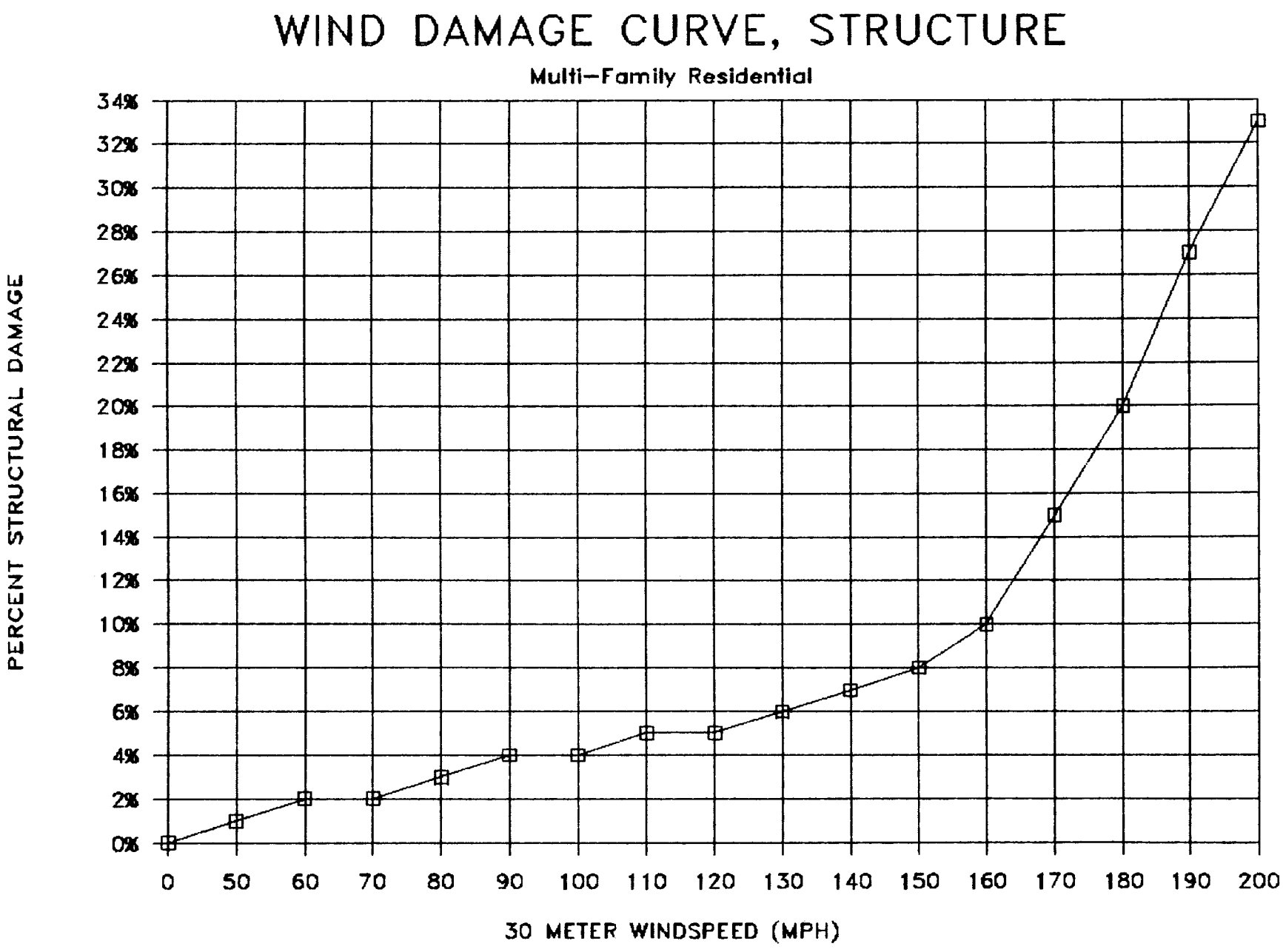

WIND DAMAGE CURVE, STRUCTURE
Multi-Family Residential
PERCENT STRUCTURAL DAMAGE
34%
32%
30%
28%
26%
24%
22%
20%
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
0
50
60
70
80
90
100
110
120
130
140
150
160
170
180
190
200
30 METER WINDSPEED (MPH)

Figure 39

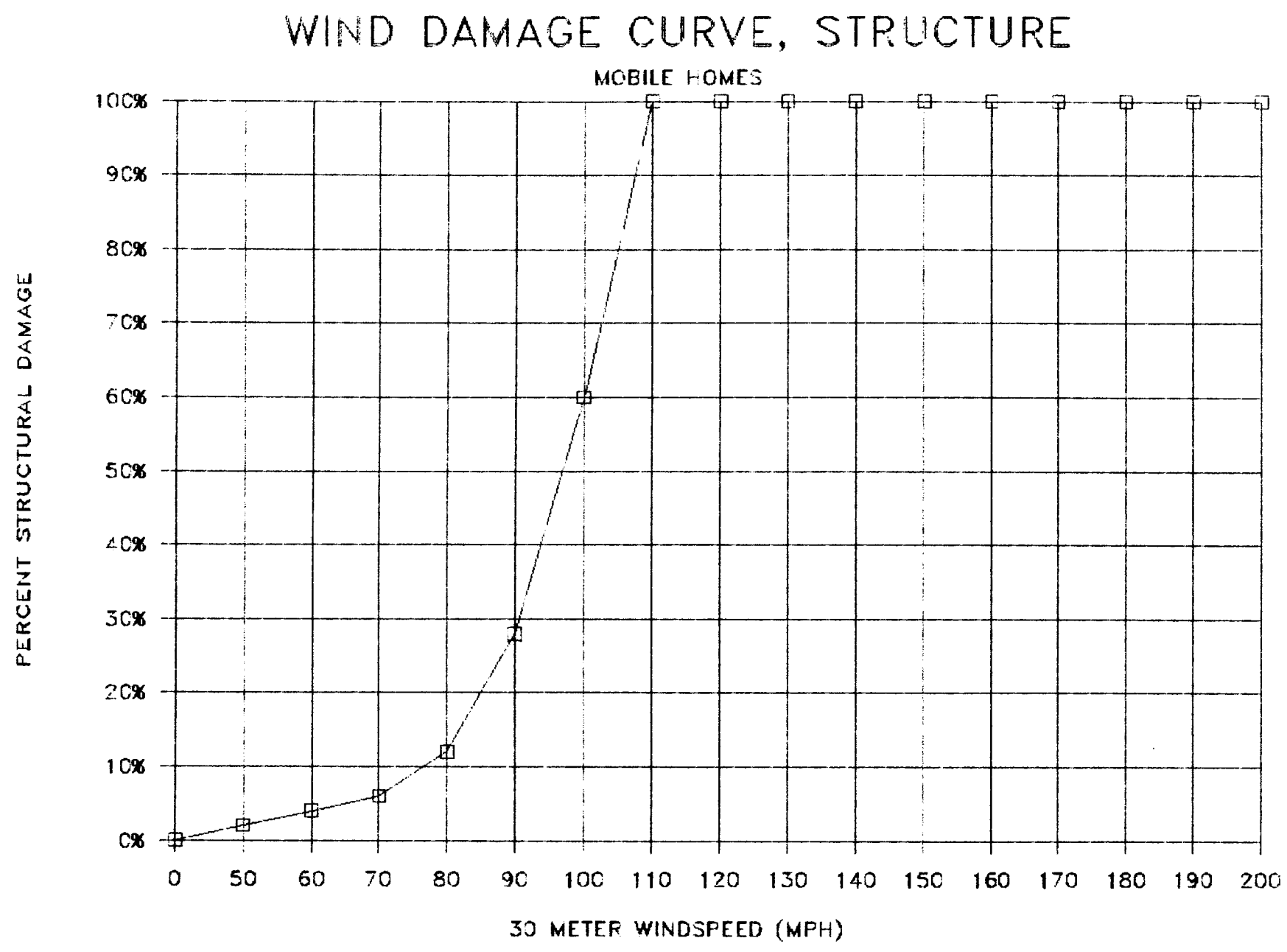

WIND DAMAGE CURVE, STRUCTURE
MOBILE HOMES
PERCENT STRUCTURAL DAMAGE
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
0
50
60
70
80
90
100
110
120
130
140
150
160
170
180
190
200
30 METER WINDSPEED (MPH)

Figure 40

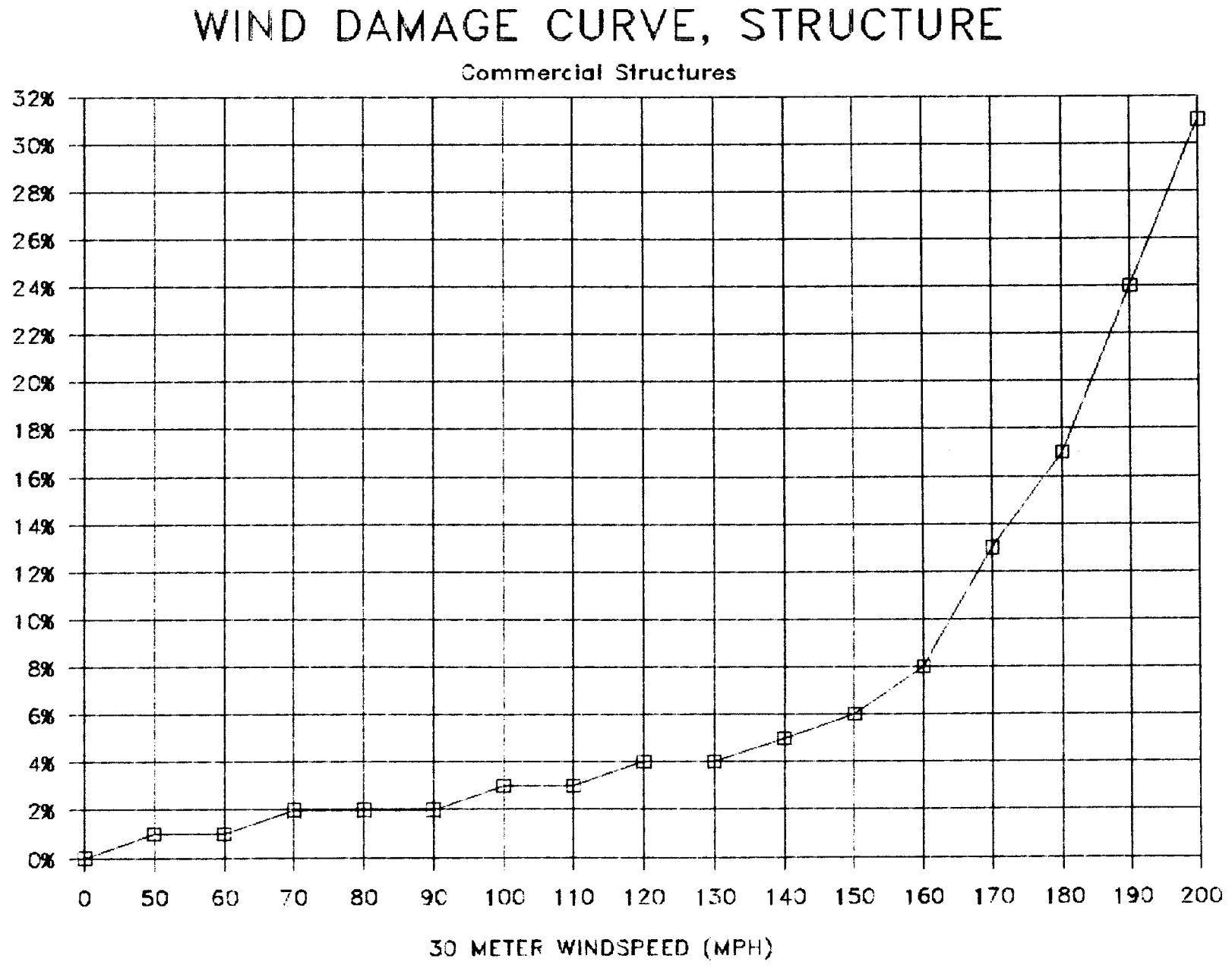

WIND DAMAGE CURVE, STRUCTURE
Commercial Structures
PERCENT STRUCTURAL DAMAGE
32%
30%
28%
26%
24%
22%
20%
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
0
50
60
70
80
90
100
110
120
130
140
150
160
170
180
190
200
30 METER WINDSPEED (MPH)

Figure 41

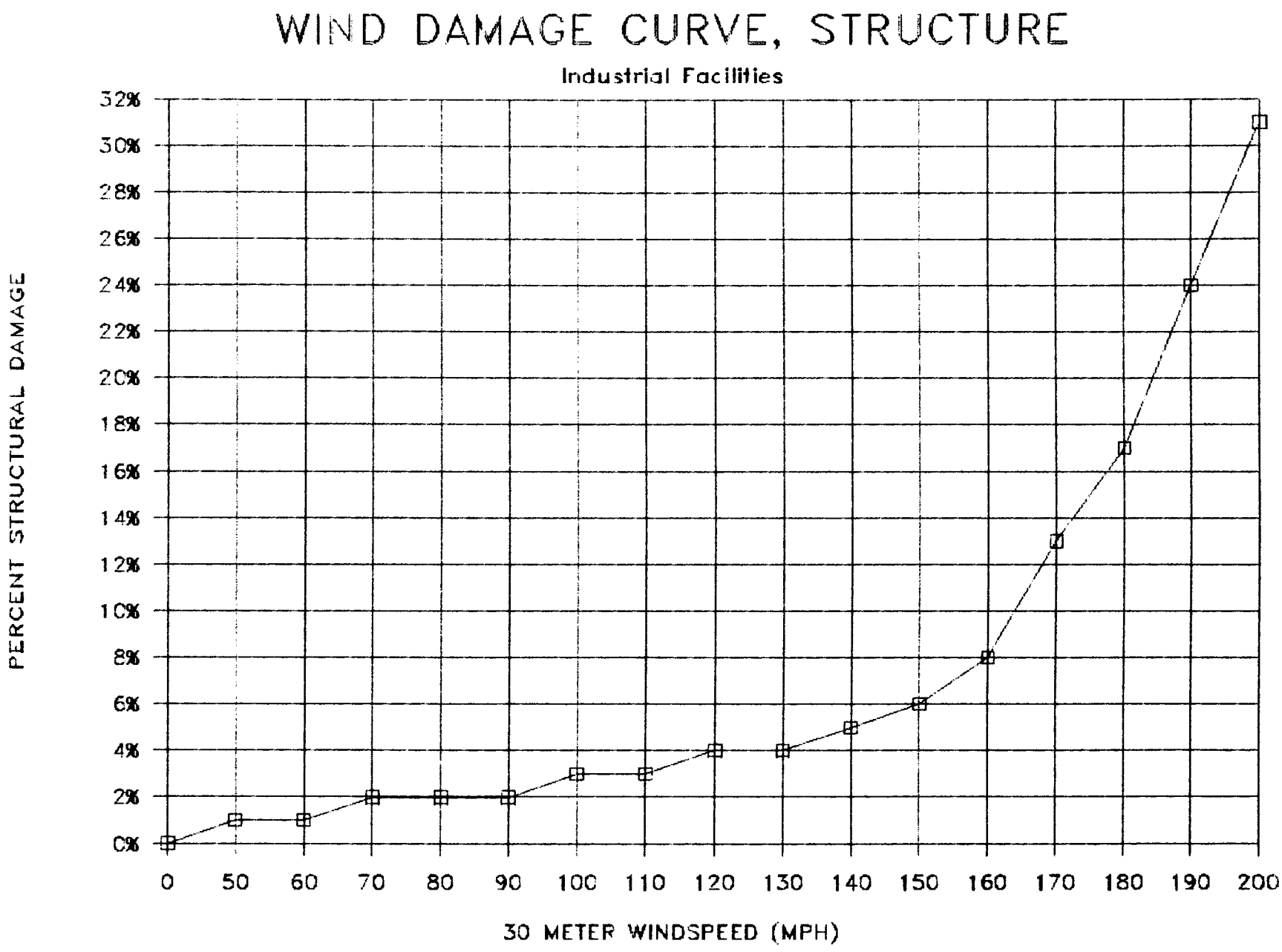

WIND DAMAGE CURVE, STRUCTURE
Industrial Facilities
PERCENT STRUCTURAL DAMAGE
32%
30%
28%
26%
24%
22%
20%
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
0
50
60
70
80
90
100
110
120
130
140
150
160
170
180
190
200
30 METER WINDSPEED (MPH)

Figure 42

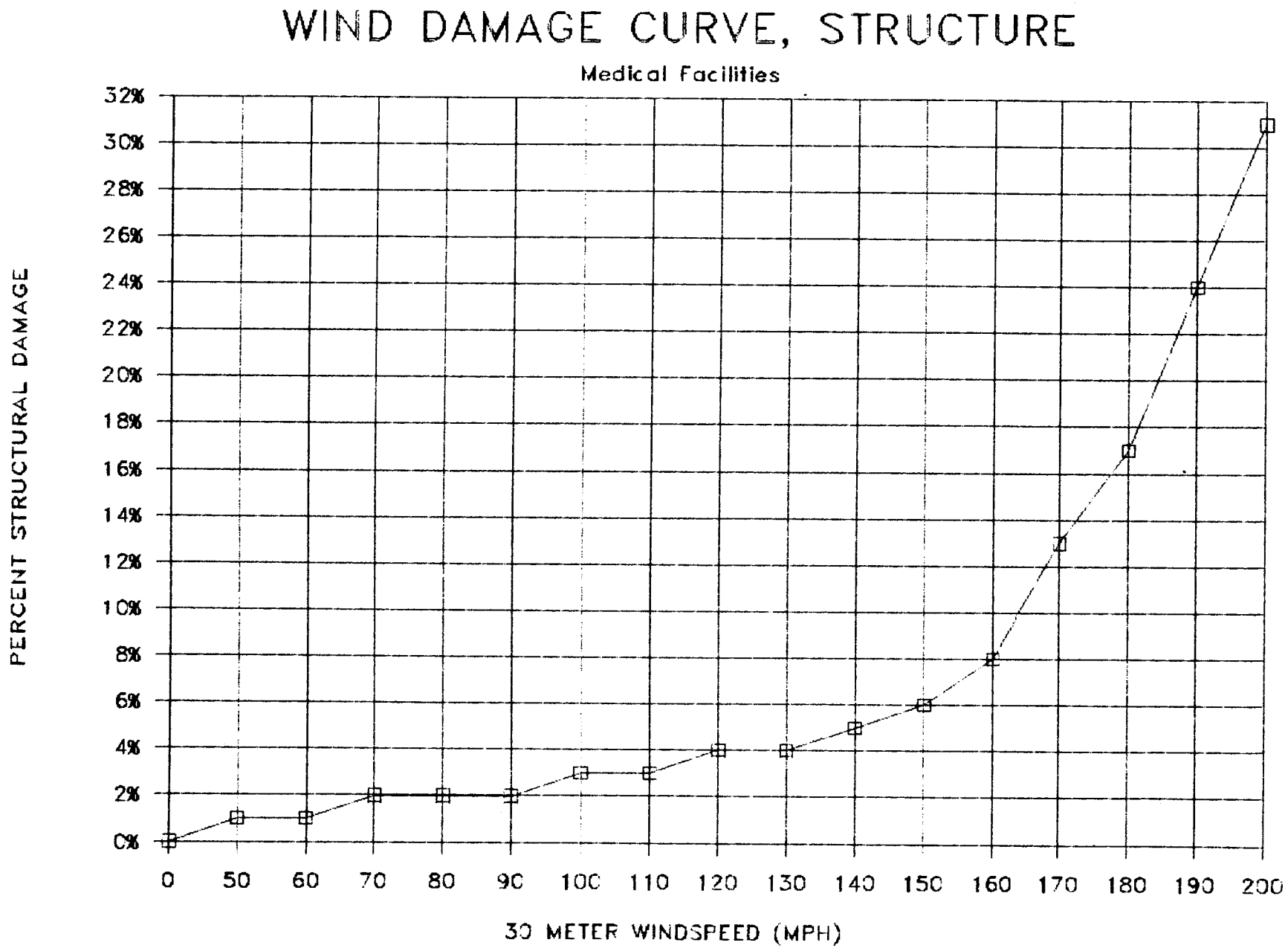

WIND DAMAGE CURVE, STRUCTURE
Medical Facilities
PERCENT STRUCTURAL DAMAGE
32%
30%
28%
26%
24%
22%
20%
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
0
50
60
70
80
90
100
110
120
130
140
150
160
170
180
190
200
30 METER WINDSPEED (MPH)

Figure 43

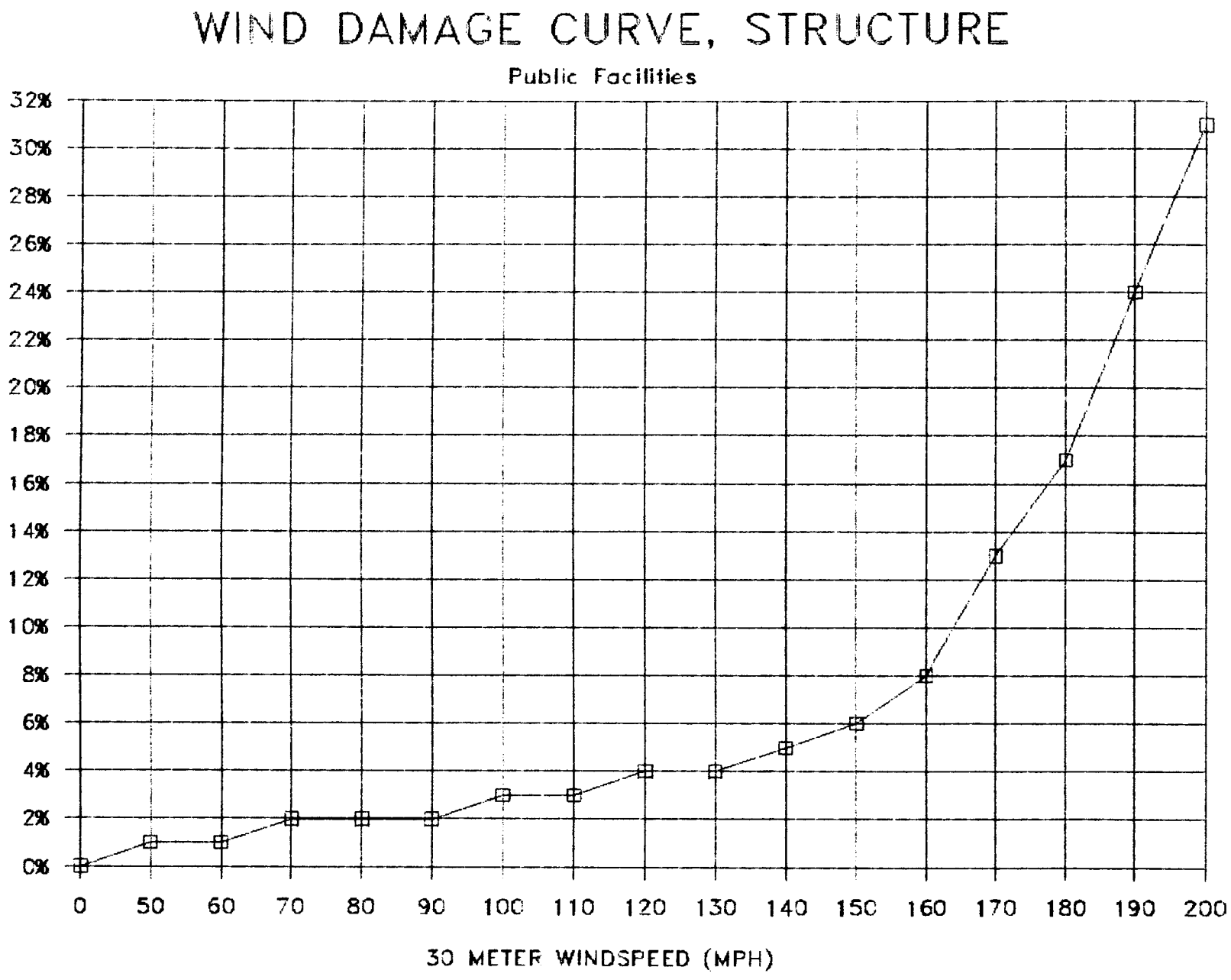

WIND DAMAGE CURVE, STRUCTURE
Public Facilities
PERCENT STRUCTURAL DAMAGE
32%
30%
28%
26%
24%
22%
20%
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
0
50
60
70
80
90
100
110
120
130
140
150
160
170
180
190
200
30 METER WINDSPEED (MPH)

Figure 44

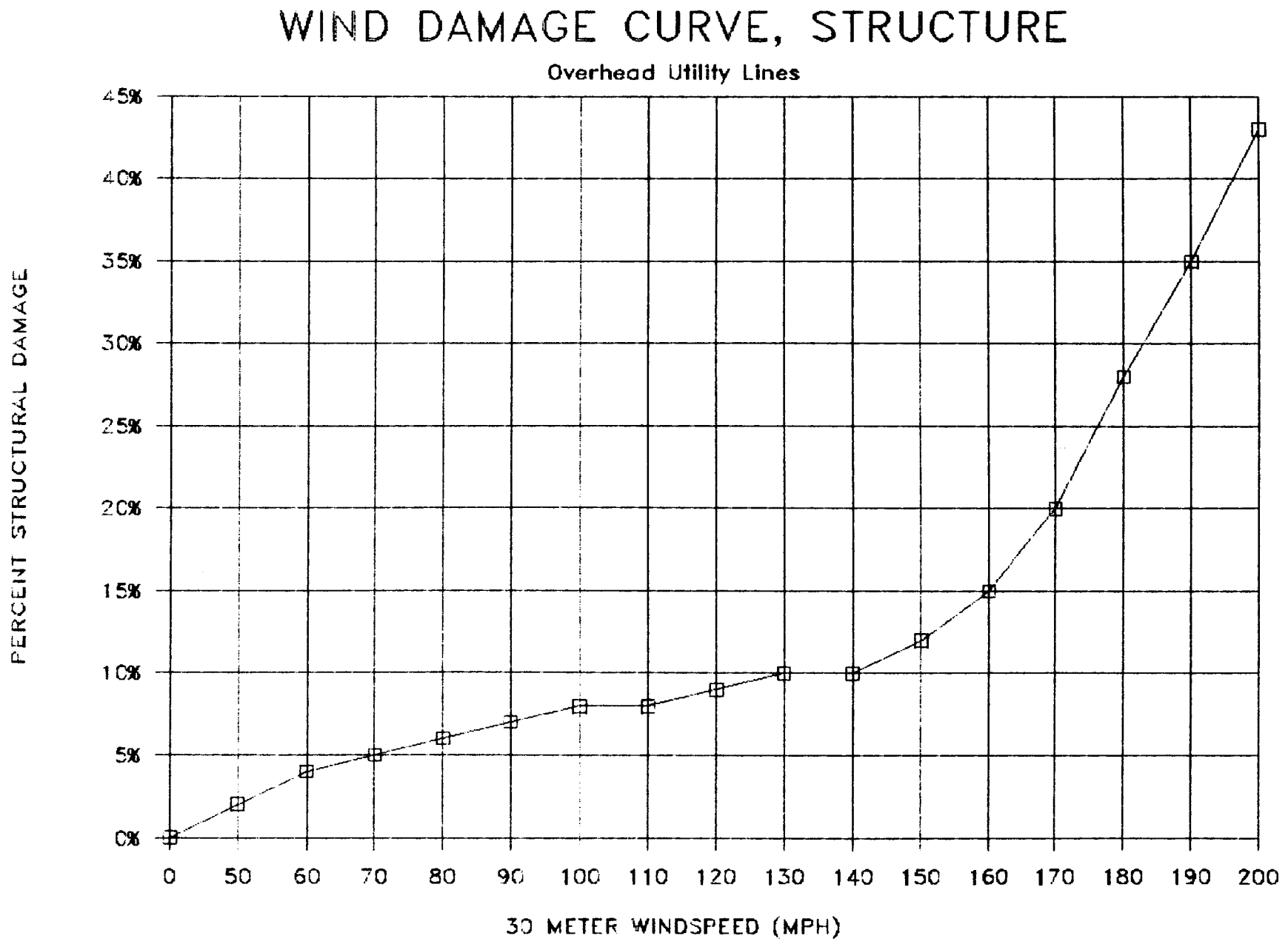

WIND DAMAGE CURVE, STRUCTURE
Overhead Utility Lines
PERCENT STRUCTURAL DAMAGE
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
0
50
60
70
80
90
100
110
120
130
140
150
160
170
180
190
200
3O METER WINDSPEED (MPH)

Figure 45

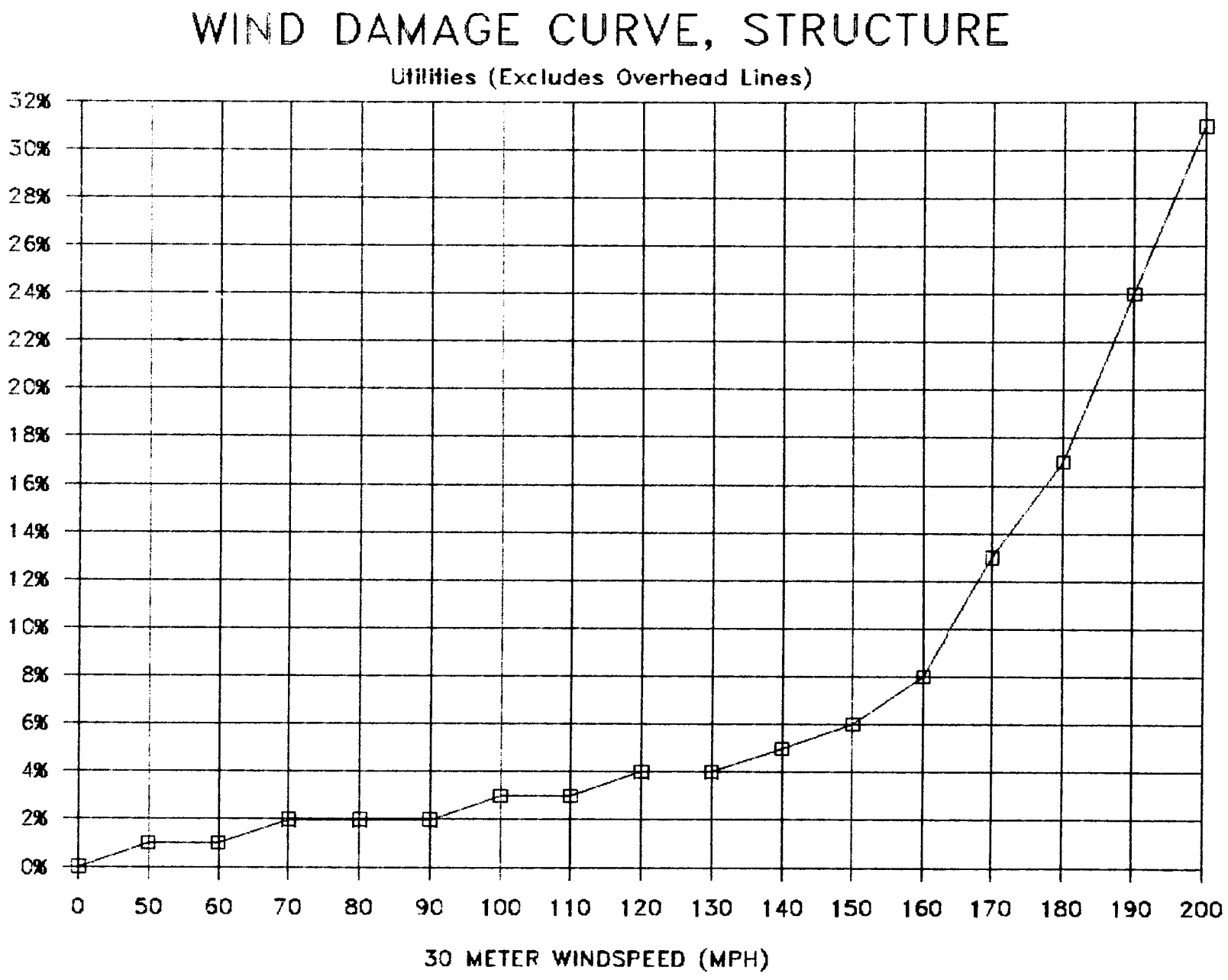

WIND DAMAGE CURVE, STRUCTURE
Utilities (Excludes Overhead Lines)
PERCENT STRUCTURAL DAMAGE
32%
30%
28%
26%
24%
22%
20%
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
0
50
60
70
80
90
100
110
120
130
140
150
160
170
180
190
200
30 METER WINDSPEED (MPH)

Figure 46

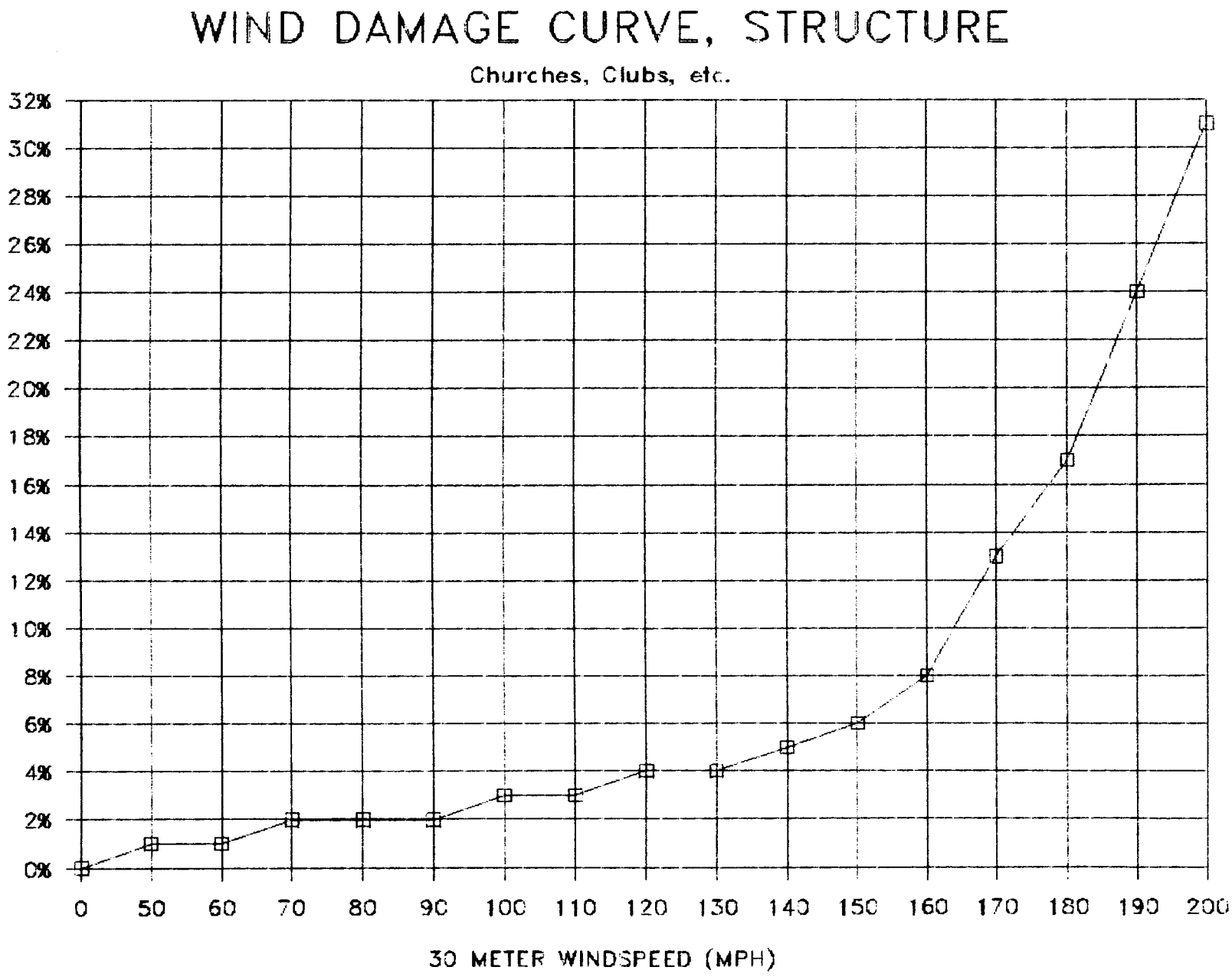

WIND DAMAGE CURVE, STRUCTURE
Churches, Clubs, etc.
PERCENT STRUCTURAL DAMAGE
32%
30%
28%
26%
24%
22%
20%
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
0
50
60
70
80
90
100
110
120
130
140
150
160
170
180
190
200
30 METER WINDSPEED (MPH)

Figure 47

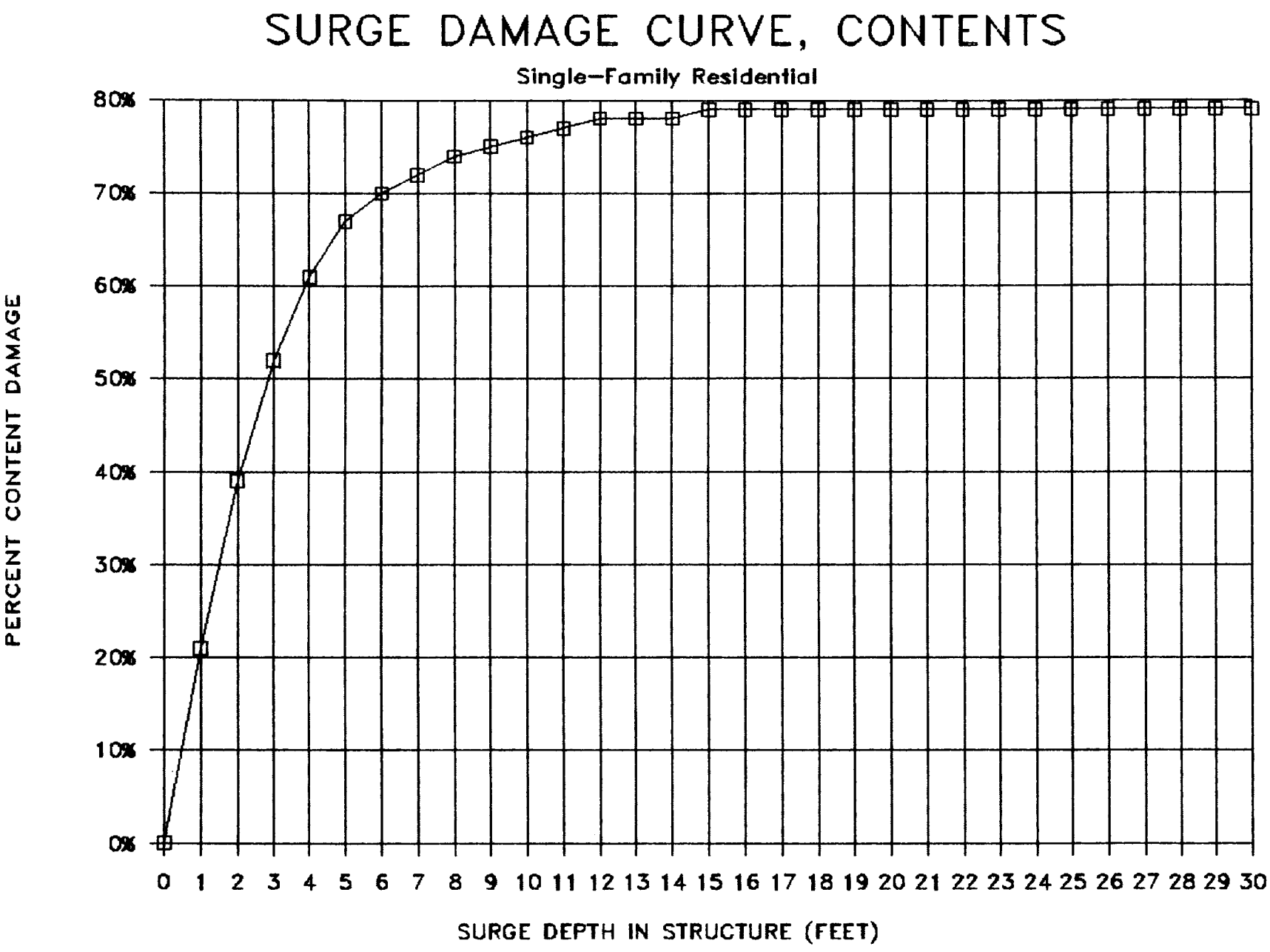

SURGE DAMAGE CURVE, CONTENTS
Single-Family Residential
PERCENT CONTENT DAMAGE
80%
70%
60%
50%
40%
30%
20%
10%
0%
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
SURGE DEPTH IN STRUCTURE (FEET)

Figure 48

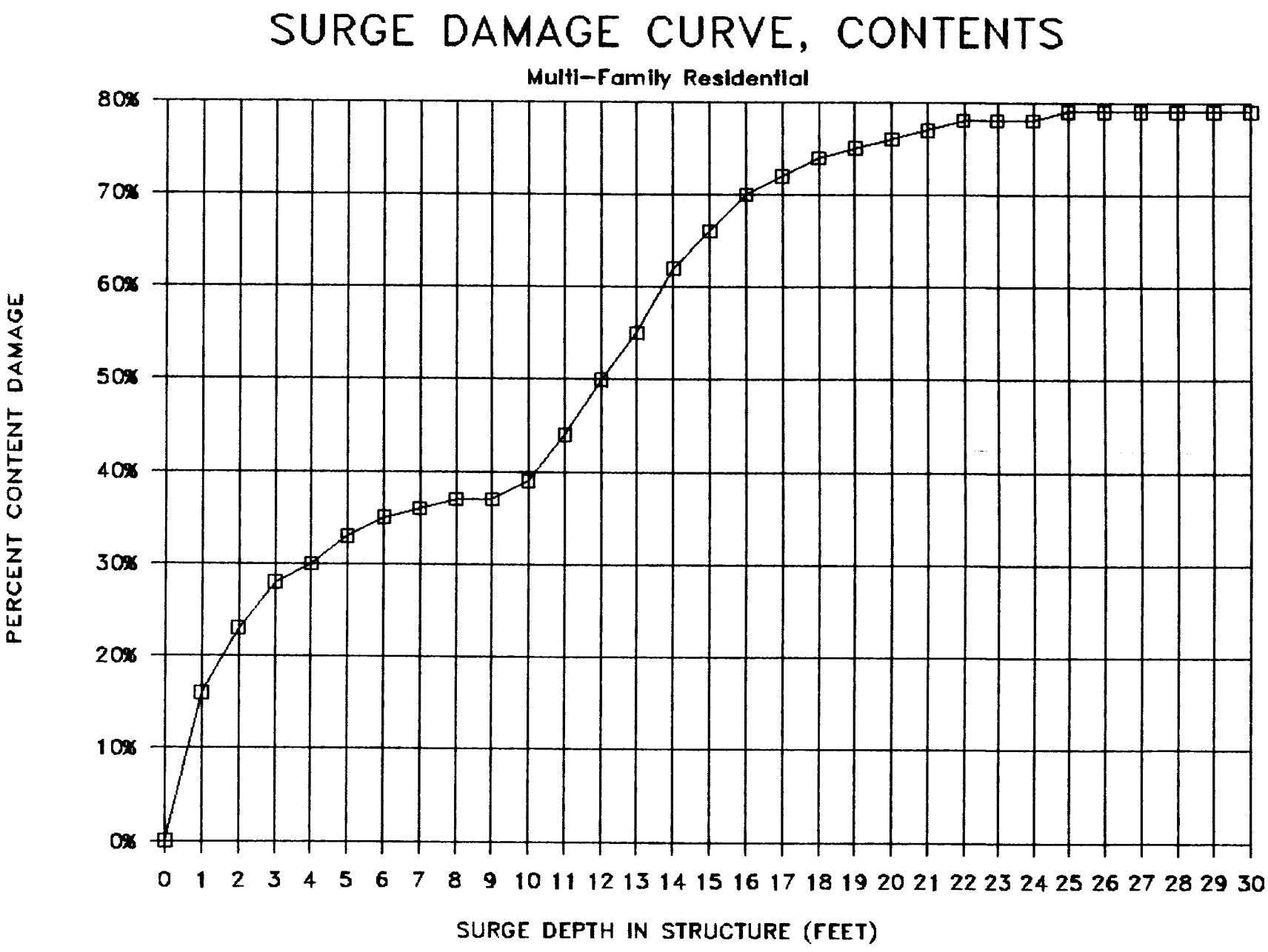

SURGE DAMAGE CURVE, CONTENTS
Multi-Family Residential
PERCENT CONTENT DAMAGE
80%
70%
60%
50%
40%
30%
20%
10%
0%
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
SURGE DEPTH IN STRUCTURE (FEET)

Figure 49

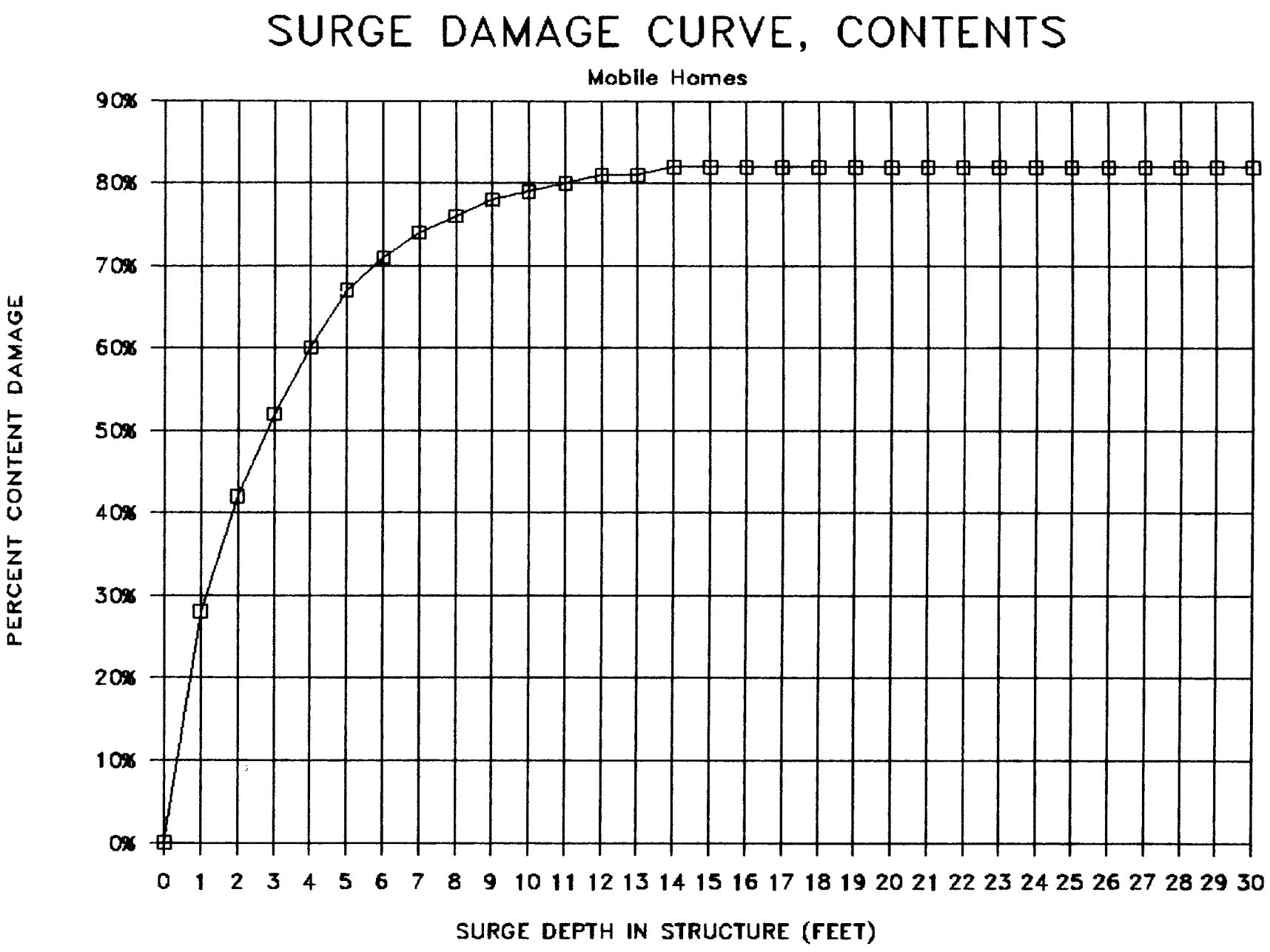

SURGE DAMAGE CURVE, CONTENTS
Mobile Homes
PERCENT CONTENT DAMAGE
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
SURGE DEPTH IN STRUCTURE (FEET)

Figure 50

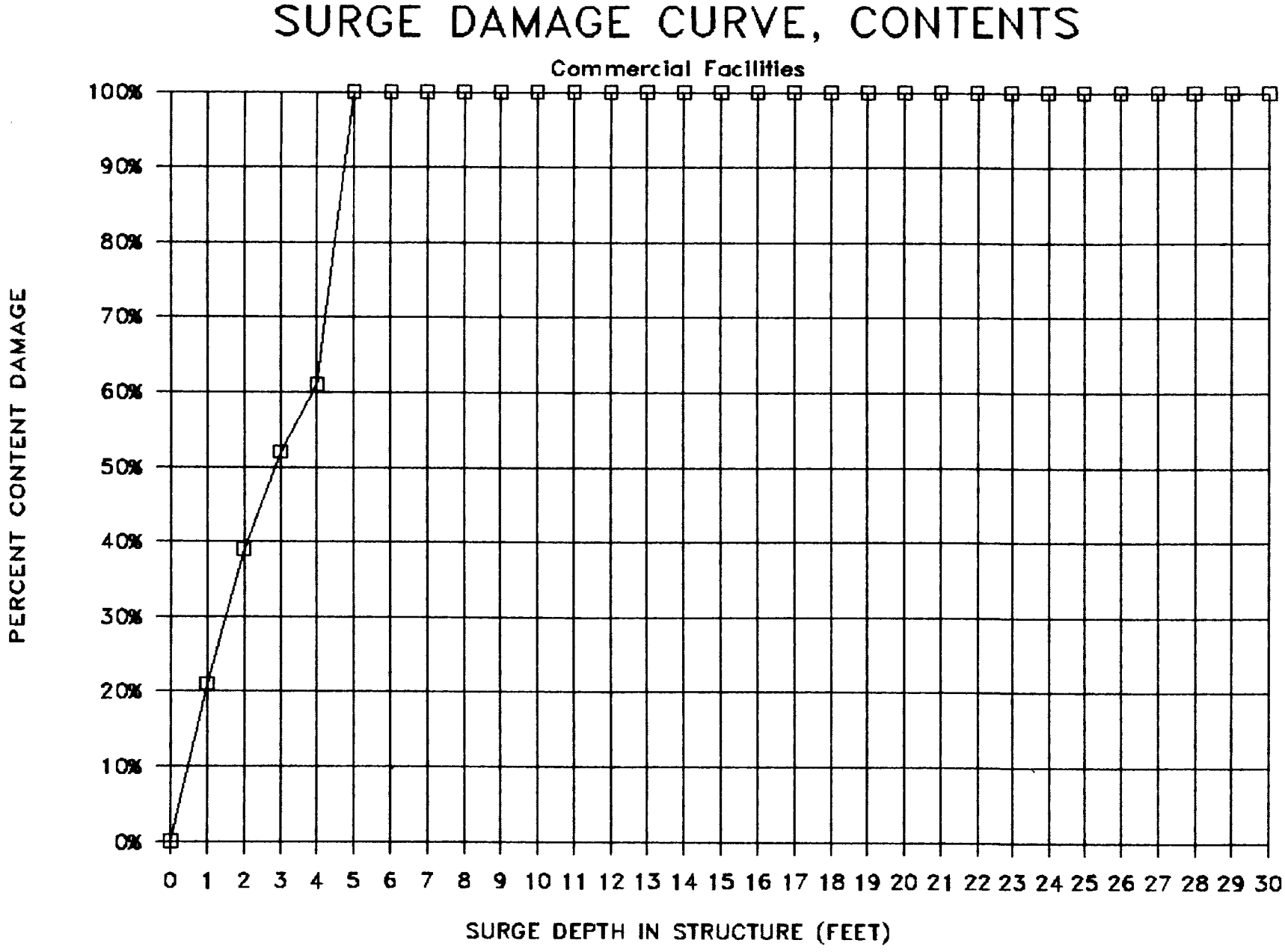

SURGE DAMAGE CURVE, CONTENTS
Commercial Facilities
PERCENT CONTENT DAMAGE
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
SURGE DEPTH IN STRUCTURE (FEET)

Figure 51

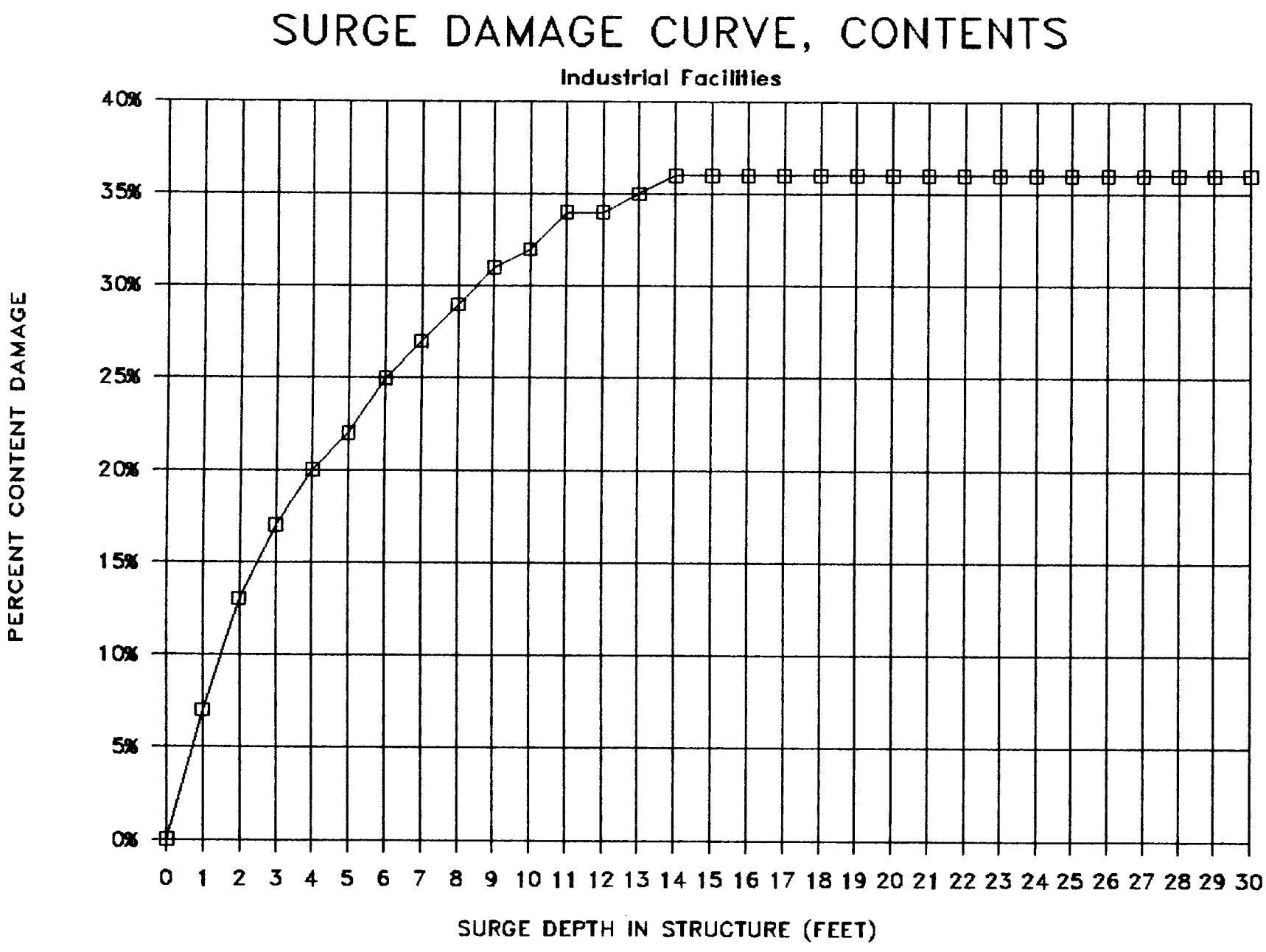

SURGE DAMAGE CURVE, CONTENTS
Industrial Facilities
PERCENT CONTENT DAMAGE
40%
35%
30%
25%
20%
15%
10%
5%
0%
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
SURGE DEPTH IN STRUCTURE (FEET)

Figure 52

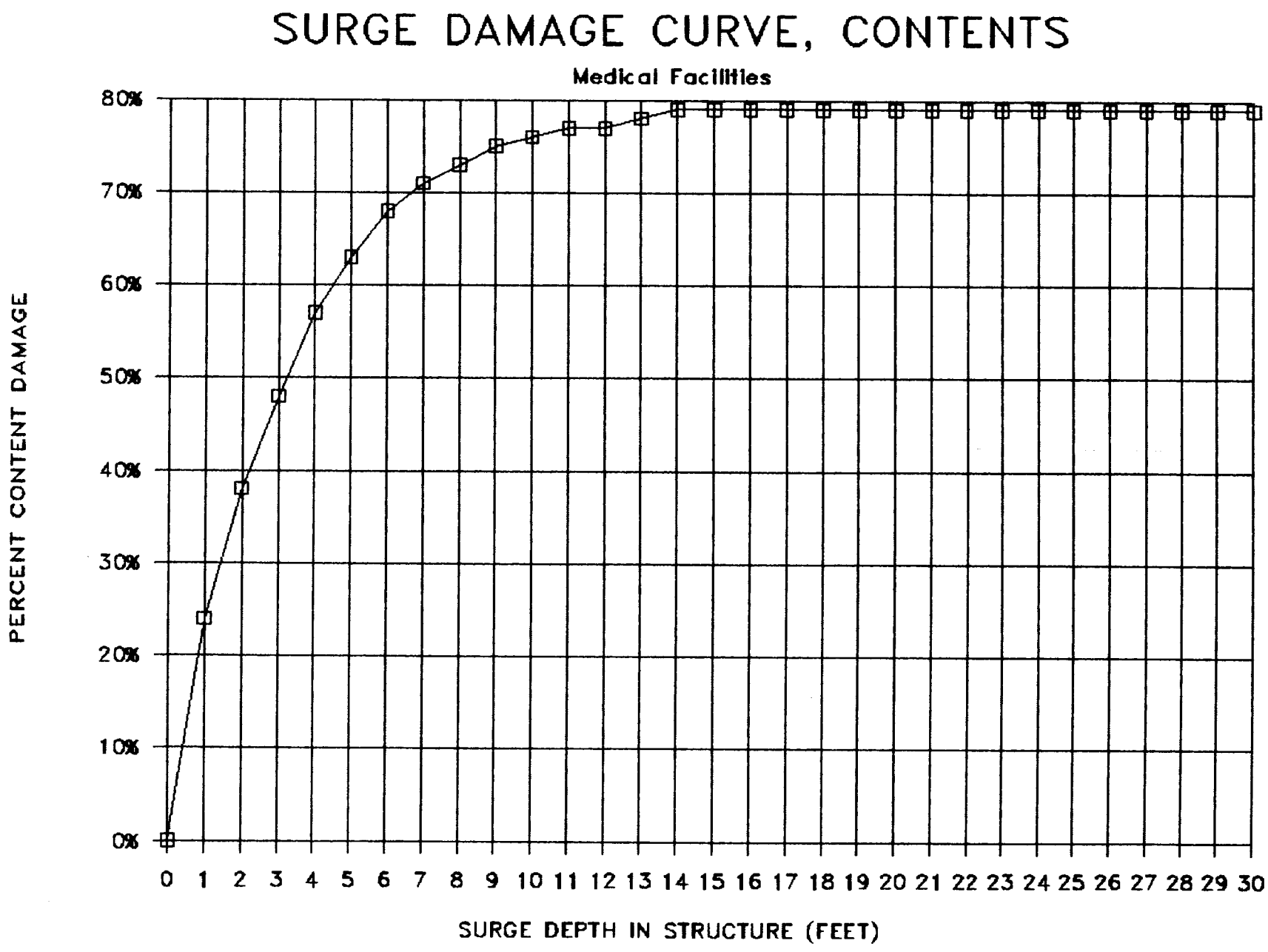

SURGE DAMAGE CURVE, CONTENTS
Medical Facilities
PERCENT CONTENT DAMAGE
80%
70%
60%
50%
40%
30%
20%
10%
0%
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
SURGE DEPTH IN STRUCTURE (FEET)

Figure 53

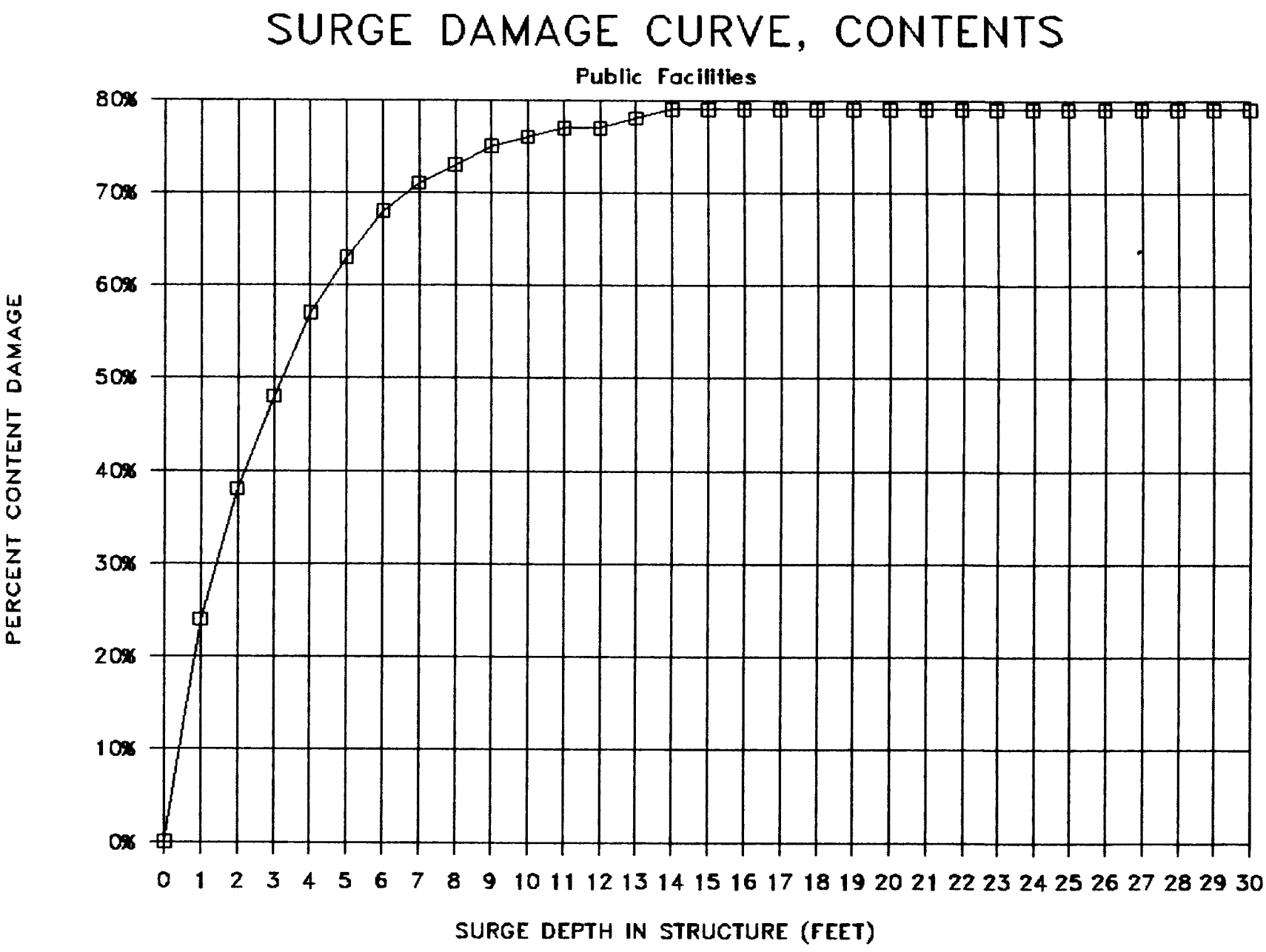

SURGE DAMAGE CURVE, CONTENTS
Public Facilities
PERCENT CONTENT DAMAGE
80%
70%
60%
50%
40%
30%
20%
10%
0%
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
SURGE DEPTH IN STRUCTURE (FEET)

Figure 54

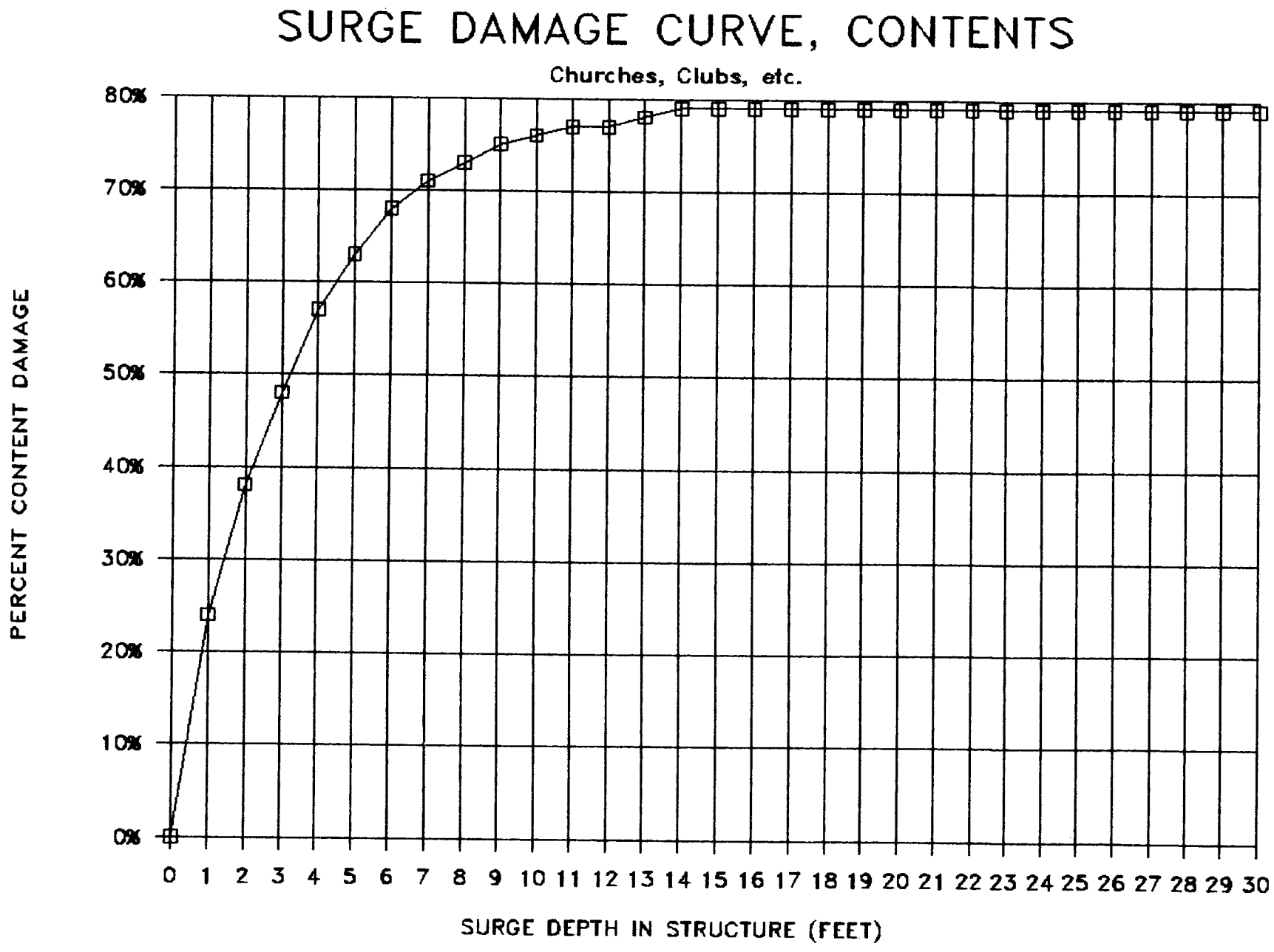

SURGE DAMAGE CURVE, CONTENTS
Churches, Clubs, etc.
PERCENT CONTENT DAMAGE
80%
70%
60%
50%
40%
30%
20%
10%
0%
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30
SURGE DEPTH IN STRUCTURE (FEET)

Figure 55

Surge, velocity and wind damage curves for structural damage are each appropriately applied to certain types of development in order to calculate potential property damage. The effects of stillwater surge and velocity potentially damages all types of structures and development while wind affects only certain types of development. For example, wind is not expected to damage roads, bridges or certain types of utilities; therefore, no wind damage curves were utilized for certain types of development. It was assumed that wind would not damage contents as long as the structure remained intact. The same reasoning was applied to potential velocity damage to contents. Damage by waves to contents was not calculated due to the protection afforded by the structure. Only the still water depth surrounding the structure was assumed to penetrate the structure and affect contents. If, however, the structure was totally destroyed, then the total value of the contents was lost as well.

III. CALCULATIONS OF POTENTIAL PROPERTY DAMAGE.

A. General. The calculations of potential property damage were performed for each loss zone delineated within the study area. Each loss zone was represented within a Lotus 1-2-3 spreadsheet and contained the property inventory and valuations for the zone, average ground elevation, average structure elevations, damage curves (surge, velocity and wind), surge data, wind data and algorithms to calculate potential wave height if appropriate. Potential property damage calculations for each loss zone were performed for each of the five categories of hurricane intensity.

B. Damage Calculations. Examples of damage calculations performed for each loss zone are shown in Tables VII through XI. The results of the calculations for each loss zone within a county were totaled by storm category to provide total damages by development type and cause (surge, velocity and wind) within the area of study. It should be noted that these totals by category do not represent the total damage expected within each county, but only within the areas of study. These totals should, however, represent the vast majority of potential property damages since the areas of study within each county were delineated based in part upon the greatest concentrations of development. The purpose of this Phase I of study is to determine the areas of each county most vulnerable to hurricane damage and quantify the potential magnitude of damage.

The total property damages calculated for each county of the study area by storm category are shown on Tables XII through XXXVI.

EXAMPLE

TABLE VII

STORM CATEGORY: 1 VELOCITY: 1 CRITICAL TRACK: NW/15/RS040

AVERAGE GROUND ELEVATION: 12 SURGE HEIGHT: 6 SLOSH GRID: 17,73 BASIN: LAKE PONT. SURGE + WAVE HT.: NA

SUSTAINED SURFACE WINDS: 60 PEAK GUSTS, SURFACE: 80 SUSTAINED WINDS(30M):

HARRISON COUNTY	AVERAGE STRUCTURE ELEVATION	NUMBER OF STRUCTURES	UNIT	AVERAGE STRUCTURE VALUE PER UNIT ($1000)	TOTAL STRUCTURE VALUE ($1000)	AVERAGE CONTENT VALUE PER UNIT ($1000)	TOTAL CONTENT VALUE ($1000)	TOTAL VALUE STRUCTURE & CONTENTS ($1000)	SURGE DEPTH IN STRUCTURE	WAVE HEIGHT AT STRUCTURE	SURGE DAMAGE STRUCTURE ($1000)	SURGE DAMAGE CONTENTS ($1000)	VELOCITY DAMAGE STRUCTURE ($1000)	VELOCITY DAMAGE CONTENTS ($1000)	WIND DAMAGE ($1000)	TOTAL DAMAGE BY TYPE ($1000)
LOSS ZONE: HAR002																
RESIDENTIAL																
Single Family.																
Substandard	15.0	78	EA.	$6.90	$538.20	$3.50	$273.00	$811.20	0.0	0.0	$0.00	$0.00	$0.00	$0.00	$32.29	$32.
Medium	15.0	356	EA.	25.40	9,042.40	12.70	4,521.20	13,563.60	0.0	0.0	0.00	0.00	0.00	0.00	542.54	542.
Upper	15.0	11	EA.	116.10	1,277.10	58.10	639.10	1,916.20	0.0	0.0	0.00	0.00	0.00	0.00	76.63	76.
Multi-Family	15.0	144	EA.	55.40	7,977.60	27.70	3,988.80	11,966.40	0.0	0.0	0.00	0.00	0.00	0.00	239.33	239.
Mobile Homes	15.0	1	EA.	5.00	5.00	2.50	2.50	7.50	0.0	0.0	0.00	0.00	0.00	0.00	0.60	0.
COMMERCIAL																
Major	15.0	5	EA.	928.70	4,643.50	1,337.30	6,686.50	11,330.00	0.0	0.0	0.00	0.00	0.00	0.00	92.87	92.
Other	15.0	173	EA.	94.90	16,417.70	136.70	23,649.10	40,066.80	0.0	0.0	0.00	0.00	0.00	0.00	328.35	328.
INDUSTRIAL/MANUFACTURING																
Major	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.
Other	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.
MAJOR MEDICAL FACILITIES																
Public	15.0	2	EA.	9,550.00	19,100.00	26,740.00	53,480.00	72,580.00	0.0	0.0	0.00	0.00	0.00	0.00	382.00	382.
Private	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.
PUBLIC FACILITIES																
Buildings	15.0	19	EA.	434.40	8,253.60	347.50	6,602.50	14,856.10	0.0	0.0	0.00	0.00	0.00	0.00	165.07	165.
Maintenance/Storage	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.
Parks and Recreation																
Lodges	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.
Cabins	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.
Other	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.
Roads and Bridges																
Interstate Highways	0.0	0.0	MI.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.
Major Highways	15.0	3.0	MI.	1,000.00	3,000.00	0.00	0.00	3,000.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.
Major Streets	0.0	0.0	MI.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.
Residential Streets	15.0	20.0	MI.	400.00	8,000.00	0.00	0.00	8,000.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.
Docks and Piers	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.
UTILITIES/COMMUNICATIONS																
Water Storage Facilities																
Elevated Storage	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.
Other Storage	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.
Water Treatment Plants	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.
Sewage Treatment Plants	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.
Electrical																
Transmission Lines	0.0	0.0	MI.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.
Distribution Lines	42.0	28.8	MI.	25.00	720.00	0.00	0.00	720.00	0.0	0.0	0.00	0.00	0.00	0.00	43.20	43.
Sub-stations	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.
Generation Plants	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.
Telephone																
Lines, above ground	0.0	0.0	MI.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.
Other	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.
Natural Gas Facilities	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.
Radio/TV Facilities	17.0	1	EA.	712.90	712.90	1,026.60	1,026.60	1,739.50	0.0	0.0	0.00	0.00	0.00	0.00	14.26	14.
RAILROADS																
Buildings	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.
Track	0.0	0.0	MI.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.
NON-PROFIT FACILITIES																
Churches	15.0	3	EA.	180.00	540.00	144.00	432.00	972.00	0.0	0.0	0.00	0.00	0.00	0.00	10.80	10.
Private Schools	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.
Other	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.
ZONE TOTALS					$80,228.00		$101,301.30	$181,529.30			$0.00	$0.00	$0.00	$0.00	$1,927.94	$1,927.

EXAMPLE

TABLE VIII

STORM CATEGORY: 2 VELOCITY: 1 CRITICAL TRACK: NW/15/RS040

AVERAGE GROUND ELEVATION: 12 SURGE HEIGHT: 10.7 SLOSH GRID: 17,73 BASIN: LAKE PONT. SURGE + WAVE HT.: NA SUSTAINED WINDS(30M): 105

SUSTAINED SURFACE WINDS: 70 PEAK GUSTS, SURFACE: 90

HARRISON COUNTY	AVERAGE STRUCTURE ELEVATION	NUMBER OF STRUCTURES	UNIT	AVERAGE STRUCTURE VALUE PER UNIT ($1000)	TOTAL STRUCTURE VALUE ($1000)	AVERAGE CONTENT VALUE PER UNIT ($1000)	TOTAL CONTENT VALUE ($1000)	TOTAL VALUE STRUCTURE & CONTENTS ($1000)	SURGE DEPTH IN STRUCTURE	WAVE HEIGHT AT STRUCTURE	SURGE DAMAGE STRUCTURE ($1000)	SURGE DAMAGE CONTENTS ($1000)	VELOCITY DAMAGE STRUCTURE ($1000)	VELOCITY DAMAGE CONTENTS ($1000)	WIND DAMAGE ($1000)	TOTAL DAMAGE BY TYPE ($1000)
LOSS ZONE: HAR002																
RESIDENTIAL																
Single Family.																
Substandard	15.0	78	EA.	$6.90	$538.20	$3.50	$273.00	$811.20	0.0	0.0	$0.00	$0.00	$0.00	$0.00	$37.67	$37.67
Medium	15.0	356	EA.	25.40	9,042.40	12.70	4,521.20	13,563.60	0.0	0.0	0.00	0.00	0.00	0.00	632.97	632.97
Upper	15.0	11	EA.	116.10	1,277.10	58.10	639.10	1,916.20	0.0	0.0	0.00	0.00	0.00	0.00	89.40	89.40
Multi-Family	15.0	144	EA.	55.40	7,977.60	27.70	3,988.80	11,966.40	0.0	0.0	0.00	0.00	0.00	0.00	319.10	319.10
Mobile Homes	15.0	1	EA.	5.00	5.00	2.50	2.50	7.50	0.0	0.0	0.00	0.00	0.00	0.00	1.40	1.40
COMMERCIAL																
Major	15.0	5	EA.	928.70	4,643.50	1,337.30	6,686.50	11,330.00	0.0	0.0	0.00	0.00	0.00	0.00	92.87	92.87
Other	15.0	173	EA.	94.90	16,417.70	136.70	23,649.10	40,066.80	0.0	0.0	0.00	0.00	0.00	0.00	328.35	328.35
INDUSTRIAL/MANUFACTURING																
Major	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
MAJOR MEDICAL FACILITIES																
Public	15.0	2	EA.	9,550.00	19,100.00	26,740.00	53,480.00	72,580.00	0.0	0.0	0.00	0.00	0.00	0.00	382.00	382.00
Private	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
PUBLIC FACILITIES																
Buildings	15.0	19	EA.	434.40	8,253.60	347.50	6,602.50	14,856.10	0.0	0.0	0.00	0.00	0.00	0.00	165.07	165.07
Maintenance/Storage	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Parks and Recreation																
Lodges	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Cabins	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Roads and Bridges																
Interstate Highways	0.0	0.0	MI.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Major Highways	15.0	3.0	MI.	1,000.00	3,000.00	0.00	0.00	3,000.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Major Streets	0.0	0.0	MI.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Residential Streets	15.0	20.0	MI.	400.00	8,000.00	0.00	0.00	8,000.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Docks and Piers	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
UTILITIES/COMMUNICATIONS																
Water Storage Facilities																
Elevated Storage	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Other Storage	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Water Treatment Facilitie	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Sewage Treatment Plants	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Electrical																
Transmission Lines	0.0	0.0	MI.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Distribution Lines	42.0	28.8	MI.	25.00	720.00	0.00	0.00	720.00	0.0	0.0	0.00	0.00	0.00	0.00	50.40	50.40
Sub-stations	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Generation Plants	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Telephone																
Lines, above ground	0.0	0.0	MI.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas Facilities	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Radio/TV Facilities	17.0	1	EA.	712.90	712.90	1,026.60	1,026.60	1,739.50	0.0	0.0	0.00	0.00	0.00	0.00	14.26	14.26
RAILROADS																
Buildings	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Track	0.0	0.0	MI.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
NON-PROFIT FACILITIES																
Churches	15.0	3	EA.	180.00	540.00	144.00	432.00	972.00	0.0	0.0	0.00	0.00	0.00	0.00	10.80	10.80
Private Schools	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
ZONE TOTALS					$80,228.00		$101,301.30	$181,529.30			$0.00	$0.00	$0.00	$0.00	$2,124.30	$2,124.30

EXAMPLE
TABLE IX

STORM CATEGORY: 3 VELOCITY: 1 CRITICAL TRACK: NW/15/RS040
AVERAGE GROUND ELEVATION: 12 SURGE HEIGHT: 15.2 SLOSH GRID: 17,73 BASIN: LAKE PONT. SURGE + WAVE HT.: NA SUSTAINED WINDS(30M): 125
SUSTAINED SURFACE WINDS: 80 PEAK GUSTS, SURFACE: 100

HARRISON COUNTY	AVERAGE STRUCTURE ELEVATION	NUMBER OF STRUCTURES	UNIT	AVERAGE STRUCTURE VALUE PER UNIT ($1000)	TOTAL STRUCTURE VALUE ($1000)	AVERAGE CONTENT VALUE PER UNIT ($1000)	TOTAL CONTENT VALUE ($1000)	TOTAL VALUE STRUCTURE & CONTENTS ($1000)	SURGE DEPTH IN STRUCTURE	WAVE HEIGHT AT STRUCTURE	SURGE DAMAGE STRUCTURE ($1000)	SURGE DAMAGE CONTENTS ($1000)	VELOCITY DAMAGE STRUCTURE ($1000)	VELOCITY DAMAGE CONTENTS ($1000)	WIND DAMAGE ($1000)	TOTAL DAMAGE BY TYPE ($1000)
LOSS ZONE: HAR002																
RESIDENTIAL																
Single Family.																
Substandard	15.0	78	EA.	$6.90	$538.20	$3.50	$273.00	$811.20	0.0	0.0	$0.00	$0.00	$0.00	$0.00	$43.06	$43.06
Medium	15.0	356	EA.	25.40	9,042.40	12.70	4,521.20	13,563.60	0.0	0.0	0.00	0.00	0.00	0.00	723.39	723.39
Upper	15.0	11	EA.	116.10	1,277.10	58.10	639.10	1,916.20	0.0	0.0	0.00	0.00	0.00	0.00	102.17	102.17
Multi-Family	15.0	144	EA.	55.40	7,977.60	27.70	3,988.80	11,966.40	0.0	0.0	0.00	0.00	0.00	0.00	319.10	319.10
Mobile Homes	15.0	1	EA.	5.00	5.00	2.50	2.50	7.50	0.0	0.0	0.00	0.00	0.00	0.00	3.00	3.00
COMMERCIAL																
Major	15.0	5	EA.	928.70	4,643.50	1,337.30	6,686.50	11,330.00	0.0	0.0	0.00	0.00	0.00	0.00	139.31	139.31
Other	15.0	173	EA.	94.90	16,417.70	136.70	23,649.10	40,066.80	0.0	0.0	0.00	0.00	0.00	0.00	492.53	492.53
INDUSTRIAL/MANUFACTURING																
Major	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
MAJOR MEDICAL FACILITIES																
Public	15.0	2	EA.	9,550.00	19,100.00	26,740.00	53,480.00	72,580.00	0.0	0.0	0.00	0.00	0.00	0.00	573.00	573.00
Private	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
PUBLIC FACILITIES																
Buildings	15.0	19	EA.	434.40	8,253.60	347.50	6,602.50	14,856.10	0.0	0.0	0.00	0.00	0.00	0.00	247.61	247.61
Maintenance/Storage	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Parks and Recreation																
Lodges	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Cabins	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Roads and Bridges																
Interstate Highways	0.0	0.0	MI.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Major Highways	15.0	3.0	MI.	1,000.00	3,000.00	0.00	0.00	3,000.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Major Streets	0.0	0.0	MI.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Residential Streets	15.0	20.0	MI.	400.00	8,000.00	0.00	0.00	8,000.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Docks and Piers	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
UTILITIES/COMMUNICATIONS																
Water Storage Facilities																
Elevated Storage	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Other Storage	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Water Treatment Facilitie	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Sewage Treatment Plants	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Electrical																
Transmission Lines	0.0	0.0	MI.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Distribution Lines	42.0	28.8	MI.	25.00	720.00	0.00	0.00	720.00	0.0	0.0	0.00	0.00	0.00	0.00	57.60	57.60
Sub-stations	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Generation Plants	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Telephone																
Lines, above ground	0.0	0.0	MI.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas Facilities	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Radio/TV Facilities	17.0	1	EA.	712.90	712.90	1,026.60	1,026.60	1,739.50	0.0	0.0	0.00	0.00	0.00	0.00	21.39	21.39
RAILROADS																
Buildings	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Track	0.0	0.0	MI.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
NON-PROFIT FACILITIES																
Churches	15.0	3	EA.	180.00	540.00	144.00	432.00	972.00	0.0	0.0	0.00	0.00	0.00	0.00	16.20	16.20
Private Schools	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
ZONE TOTALS					$80,228.00		$101,301.30	$181,529.30			$0.00	$0.00	$0.00	$0.00	$2,738.35	$2,738.35

EXAMPLE
TABLE X

STORM CATEGORY: 4 VELOCITY: 1 CRITICAL TRACK: NW/15/RS040
AVERAGE GROUND ELEVATION: 12 SURGE HEIGHT: 19.6 SLOSH GRID: 17,73 BASIN: LAKE PONT. SURGE + WAVE HT.: 12 SUSTAINED WINDS(30M): 150
SUSTAINED SURFACE WINDS: 100 PEAK GUSTS, SURFACE: 130

HARRISON COUNTY	AVERAGE STRUCTURE ELEVATION	NUMBER OF STRUCTURES	UNIT	AVERAGE STRUCTURE VALUE PER UNIT ($1000)	TOTAL STRUCTURE VALUE ($1000)	AVERAGE CONTENT VALUE PER UNIT ($1000)	TOTAL CONTENT VALUE ($1000)	TOTAL VALUE STRUCTURE & CONTENTS ($1000)	SURGE DEPTH IN STRUCTURE	WAVE HEIGHT AT STRUCTURE	SURGE DAMAGE STRUCTURE ($1000)	SURGE DAMAGE CONTENTS ($1000)	VELOCITY DAMAGE STRUCTURE ($1000)	VELOCITY DAMAGE CONTENTS ($1000)	WIND DAMAGE ($1000)	TOTAL DAMAGE BY TYPE ($1000)
LOSS ZONE: HAR002																
RESIDENTIAL																
Single Family.																
Substandard	15.0	78	EA.	$6.90	$538.20	$3.50	$273.00	$811.20	5.0	9.0	$0.00	$0.00	$446.71	$204.75	$53.82	$705.28
Medium	15.0	356	EA.	25.40	9,042.40	12.70	4,521.20	13,563.60	5.0	9.0	0.00	0.00	7,505.19	3,390.90	904.24	11,800.33
Upper	15.0	11	EA.	116.10	1,277.10	58.10	639.10	1,916.20	5.0	9.0	0.00	0.00	1,059.99	479.33	127.71	1,667.03
Multi-Family	15.0	144	EA.	55.40	7,977.60	27.70	3,988.80	11,966.40	5.0	9.0	0.00	0.00	3,589.92	2,991.60	478.66	7,060.18
Mobile Homes	15.0	1	EA.	5.00	5.00	2.50	2.50	7.50	5.0	9.0	0.00	0.00	5.00	2.50	0.00	7.50
COMMERCIAL																
Major	15.0	5	EA.	928.70	4,643.50	1,337.30	6,686.50	11,330.00	5.0	9.0	0.00	0.00	2,136.01	5,215.47	185.74	7,537.22
Other	15.0	173	EA.	94.90	16,417.70	136.70	23,649.10	40,066.80	5.0	9.0	0.00	0.00	7,552.14	18,446.30	656.71	26,655.15
INDUSTRIAL/MANUFACTURING																
Major	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
MAJOR MEDICAL FACILITIES																
Public	15.0	2	EA.	9,550.00	19,100.00	26,740.00	53,480.00	72,580.00	5.0	9.0	0.00	0.00	2,674.00	53,480.00	764.00	56,918.00
Private	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
PUBLIC FACILITIES																
Buildings	15.0	19	EA.	434.40	8,253.60	347.50	6,602.50	14,856.10	5.0	9.0	0.00	0.00	1,155.50	6,602.50	330.14	8,088.15
Maintenance/Storage	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Parks and Recreation																
Lodges	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Cabins	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Roads and Bridges																
Interstate Highways	0.0	0.0	MI.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Major Highways	15.0	3.0	MI.	1,000.00	3,000.00	0.00	0.00	3,000.00	5.0	9.0	0.00	0.00	420.00	0.00	0.00	420.00
Major Streets	0.0	0.0	MI.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Residential Streets	15.0	20.0	MI.	400.00	8,000.00	0.00	0.00	8,000.00	5.0	9.0	0.00	0.00	1,120.00	0.00	0.00	1,120.00
Docks and Piers	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
UTILITIES/COMMUNICATIONS																
Water Storage Facilities																
Elevated Storage	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Other Storage	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Water Treatment Facilitie	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Sewage Treatment Plants	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Electrical																
Transmission Lines	0.0	0.0	MI.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Distribution Lines	42.0	28.8	MI.	25.00	720.00	0.00	0.00	720.00	0.0	0.0	0.00	0.00	0.00	0.00	72.00	72.00
Sub-stations	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Generation Plants	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Telephone																
Lines, above ground	0.0	0.0	MI.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas Facilities	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Radio/TV Facilities	17.0	1	EA.	712.90	712.90	1,026.60	1,026.60	1,739.50	3.0	7.0	0.00	0.00	85.55	7,186.20	28.52	7,300.26
RAILROADS																
Buildings	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Track	0.0	0.0	MI.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
NON-PROFIT FACILITIES																
Churches	15.0	3	EA.	180.00	540.00	144.00	432.00	972.00	5.0	9.0	0.00	0.00	75.60	3,888.00	21.60	3,985.20
Private Schools	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
ZONE TOTALS					$80,228.00		$101,301.30	$181,529.30			$0.00	$0.00	$27,825.62	$101,887.54	$3,623.13	$133,336.29

EXAMPLE

TABLE XI

STORM CATEGORY: 5 VELOCITY: 1 CRITICAL TRACK: NW/15/RS040
AVERAGE GROUND ELEVATION: 12 SURGE HEIGHT: 20.9 SLOSH GRID: 17,73 BASIN: LAKE PONT. SURGE + WAVE HT.: 14 SUSTAINED WINDS(30M): 200
SUSTAINED SURFACE WINDS: 130 PEAK GUSTS, SURFACE: 170

HARRISON COUNTY	AVERAGE STRUCTURE ELEVATION	NUMBER OF STRUCTURES	UNIT	AVERAGE STRUCTURE VALUE PER UNIT ($1000)	TOTAL STRUCTURE VALUE ($1000)	AVERAGE CONTENT VALUE PER UNIT ($1000)	TOTAL CONTENT VALUE ($1000)	TOTAL VALUE STRUCTURE & CONTENTS ($1000)	SURGE DEPTH IN STRUCTURE	WAVE HEIGHT AT STRUCTURE	SURGE DAMAGE STRUCTURE ($1000)	SURGE DAMAGE CONTENTS ($1000)	VELOCITY DAMAGE STRUCTURE ($1000)	VELOCITY DAMAGE CONTENTS ($1000)	WIND DAMAGE ($1000)	TOTAL DAMAGE BY TYPE ($1000)
LOSS ZONE: HAR002																
RESIDENTIAL																
Single Family,																
Substandard	15.0	78	EA.	$6.90	$538.20	$3.50	$273.00	$811.20	6.0	11.0	$0.00	$0.00	$538.20	$273.00	$0.00	$811.20
Medium	15.0	356	EA.	25.40	9,042.40	12.70	4,521.20	13,563.60	6.0	11.0	0.00	0.00	9,042.40	4,521.20	0.00	13,563.60
Upper	15.0	11	EA.	116.10	1,277.10	58.10	639.10	1,916.20	6.0	11.0	0.00	0.00	1,277.10	639.10	0.00	1,916.20
Multi-Family	15.0	144	EA.	55.40	7,977.60	27.70	3,988.80	11,966.40	6.0	11.0	0.00	0.00	4,228.13	3,071.38	1,196.64	8,496.14
Mobile Homes	15.0	1	EA.	5.00	5.00	2.50	2.50	7.50	6.0	11.0	0.00	0.00	5.00	2.50	0.00	7.50
COMMERCIAL																
Major	15.0	5	EA.	928.70	4,643.50	1,337.30	6,686.50	11,330.00	6.0	11.0	0.00	0.00	2,507.49	5,349.20	603.66	8,460.35
Other	15.0	173	EA.	94.90	16,417.70	136.70	23,649.10	40,066.80	6.0	11.0	0.00	0.00	8,865.56	18,919.28	2,134.30	29,919.14
INDUSTRIAL/MANUFACTURING																
Major	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
MAJOR MEDICAL FACILITIES																
Public	15.0	2	EA.	9,550.00	19,100.00	26,740.00	53,480.00	72,580.00	6.0	11.0	0.00	0.00	3,247.00	53,480.00	2,483.00	59,210.00
Private	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
PUBLIC FACILITIES																
Buildings	15.0	19	EA.	434.40	8,253.60	347.50	6,602.50	14,856.10	6.0	11.0	0.00	0.00	1,403.11	6,602.50	1,072.97	9,078.58
Maintenance/Storage	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Parks and Recreation																
Lodges	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Cabins	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Roads and Bridges																
Interstate Highways	0.0	0.0	MI.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Major Highways	15.0	3.0	MI.	1,000.00	3,000.00	0.00	0.00	3,000.00	6.0	11.0	0.00	0.00	510.00	0.00	0.00	510.00
Major Streets	0.0	0.0	MI.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Residential Streets	15.0	20.0	MI.	400.00	8,000.00	0.00	0.00	8,000.00	6.0	11.0	0.00	0.00	1,360.00	0.00	0.00	1,360.00
Docks and Piers	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
UTILITIES/COMMUNICATIONS																
Water Storage Facilities																
Elevated Storage	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Other Storage	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Water Treatment Facilitie	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Sewage Treatment Plants	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Electrical																
Transmission Lines	0.0	0.0	MI.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Distribution Lines	42.0	28.8	MI.	25.00	720.00	0.00	0.00	720.00	0.0	0.0	0.00	0.00	0.00	0.00	144.00	144.00
Sub-stations	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Generation Plants	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Telephone																
Lines, above ground	0.0	0.0	MI.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas Facilities	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Radio/TV Facilities	17.0	1	EA.	712.90	712.90	1,026.60	1,026.60	1,739.50	4.0	9.0	0.00	0.00	99.81	9,239.40	92.68	9,431.88
RAILROADS																
Buildings	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Track	0.0	0.0	MI.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
NON-PROFIT FACILITIES																
Churches	15.0	3	EA.	180.00	540.00	144.00	432.00	972.00	6.0	11.0	0.00	0.00	91.80	4,752.00	70.20	4,914.00
Private Schools	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.0	0	EA.	0.00	0.00	0.00	0.00	0.00	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00
ZONE TOTALS					$80,228.00		$101,301.30	$181,529.30			$0.00	$0.00	$33,175.59	$106,849.56	$7,797.44	$147,822.59

HANCOCK COUNTY, MISSISSIPPI

CATEGORY: 1

TABLE XII

POTENTIAL HURRICANE DAMAGES

CATEGORY: 1

HANCOCK COUNTY LOSS ZONES	TOTAL STRUCTURE VALUE ($1000)	TOTAL CONTENT VALUE ($1000)	TOTAL VALUE STRUCTURE & CONTENTS ($1000)	TOTAL SURGE DAMAGE STRUCTURE ($1000)	TOTAL SURGE DAMAGE CONTENTS ($1000)	TOTAL VELOCITY DAMAGE STRUCTURE ($1000)	TOTAL VELOCITY DAMAGE CONTENTS ($1000)	WIND DAMAGE ($1000)	TOTAL DAMAGE BY TYPE ($1000)
LOSS ZONES: HNK001 - HNK006									
RESIDENTIAL									
Single Family.									
Substandard	$78,704.70	$39,623.40	$118,328.10	$0.00	$0.00	$0.00	$0.00	$4,722.28	$4,722.28
Medium	136,891.00	68,506.50	205,397.50	0.00	0.00	0.00	0.00	8,213.46	8,213.46
Upper	4,398.50	2,199.80	6,598.30	0.00	0.00	0.00	0.00	263.91	263.91
Multi-Family	14,444.00	7,225.40	21,669.40	0.00	0.00	0.00	0.00	433.32	433.32
Mobile Homes	7,260.00	3,678.40	10,938.40	0.00	0.00	0.00	0.00	871.20	871.20
COMMERCIAL									
Major	25,671.90	36,967.60	62,639.50	0.00	0.00	0.00	0.00	513.44	513.44
Other	13,361.00	19,239.90	32,600.90	0.00	0.00	0.00	0.00	267.22	267.22
INDUSTRIAL/MANUFACTURING									
Major	4,976.70	13,934.80	18,911.50	0.00	0.00	0.00	0.00	99.53	99.53
Other	521.30	1,459.70	1,981.00	0.00	0.00	0.00	0.00	10.42	10.42
MAJOR MEDICAL FACILITIES									
Public	10,600.00	29,680.00	40,280.00	0.00	0.00	0.00	0.00	212.00	212.00
Private	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PUBLIC FACILITIES									
Buildings	16,510.90	13,208.00	29,718.90	0.00	0.00	0.00	0.00	330.22	330.22
Maintenance and Storage Facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parks and Recreation Facilities									
Lodges	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cabins	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	1,429.20	0.00	1,429.20	0.00	0.00	0.00	0.00	171.50	171.50
Roads and Bridges									
Interstate Highway	56,100.00	0.00	56,100.00	0.00	0.00	0.00	0.00	0.00	0.00
Major Highways and Secondary Roads	19,800.00	0.00	19,800.00	0.00	0.00	0.00	0.00	0.00	0.00
Major Streets	11,340.00	0.00	11,340.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential Streets	61,480.00	0.00	61,480.00	0.00	0.00	0.00	0.00	0.00	0.00
Docks and Piers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UTILITIES/COMMUNICATIONS									
Water Storage Facilities									
Elevated Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Treatment Facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sewage Treatment Plants	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electrical									
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Distribution Lines	6,597.50	0.00	6,597.50	0.00	0.00	0.00	0.00	395.85	395.85
Sub-stations	1,379.80	0.00	1,379.80	0.00	0.00	0.00	0.00	27.60	27.60
Generation Plants	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Telephone									
Lines, above ground	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	748.50	598.80	1,347.30	0.00	0.00	0.00	0.00	14.97	14.97
Natural Gas, major above-ground facilities	406.80	0.00	406.80	0.00	0.00	0.00	0.00	0.00	0.00
Radio/TV Transmitters/Towers	171.20	246.50	417.70	0.00	0.00	0.00	0.00	3.42	3.42
RAILROADS									
Buildings	149.30	119.40	268.70	0.00	0.00	0.00	0.00	2.99	2.99
Track	17,500.00	0.00	17,500.00	0.00	0.00	0.00	0.00	0.00	0.00
NON-PROFIT FACILITIES									
Churches	9,782.80	7,826.24	17,609.04	0.00	0.00	0.00	0.00	195.66	195.66
Private Schools	3,142.90	2,514.32	5,657.22	0.00	0.00	0.00	0.00	62.86	62.86
Other	550.00	440.00	990.00	0.00	0.00	0.00	0.00	11.00	11.00
TOTALS	$503,918.00	$247,468.76	$751,386.76	$0.00	$0.00	$0.00	$0.00	$16,822.85	$16,822.85

HANCOCK COUNTY, MISSISSIPPI

POTENTIAL HURRICANE DAMAGES

CATEGORY: 2

TABLE XIII

HANCOCK COUNTY LOSS ZONES	TOTAL STRUCTURE VALUE ($1000)	TOTAL CONTENT VALUE ($1000)	TOTAL VALUE STRUCTURE & CONTENTS ($1000)	TOTAL SURGE DAMAGE STRUCTURE ($1000)	TOTAL SURGE DAMAGE CONTENTS ($1000)	TOTAL VELOCITY DAMAGE STRUCTURE ($1000)	TOTAL VELOCITY DAMAGE CONTENTS ($1000)	WIND DAMAGE ($1000)	TOTAL DAMAGE BY TYPE ($1000)
LOSS ZONES: HNK001 - HNK006									
RESIDENTIAL									
Single Family.									
Substandard	$78,704.70	$39,623.40	$118,328.10	$0.00	$0.00	$0.00	$0.00	$5,509.33	$5,509.33
Medium	136,891.00	68,506.50	205,397.50	0.00	0.00	0.00	0.00	9,582.37	9,582.37
Upper	4,398.50	2,199.80	6,598.30	0.00	0.00	0.00	0.00	307.90	307.90
Multi-Family	14,444.00	7,225.40	21,669.40	0.00	0.00	0.00	0.00	577.76	577.76
Mobile Homes	7,260.00	3,678.40	10,938.40	0.00	0.00	0.00	0.00	2,032.80	2,032.80
COMMERCIAL									
Major	25,671.90	36,967.60	62,639.50	0.00	0.00	0.00	0.00	513.44	513.44
Other	13,361.00	19,239.90	32,600.90	0.00	0.00	0.00	0.00	267.22	267.22
INDUSTRIAL/MANUFACTURING									
Major	4,976.70	13,934.80	18,911.50	0.00	0.00	0.00	0.00	99.53	99.53
Other	521.30	1,459.70	1,981.00	0.00	0.00	0.00	0.00	10.42	10.42
MAJOR MEDICAL FACILITIES									
Public	10,600.00	29,680.00	40,280.00	0.00	0.00	0.00	0.00	212.00	212.00
Private	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PUBLIC FACILITIES									
Buildings	16,510.90	13,208.00	29,718.90	0.00	0.00	0.00	0.00	330.22	330.22
Maintenance and Storage Facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parks and Recreation Facilities									
Lodges	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cabins	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	1,429.20	0.00	1,429.20	0.00	0.00	0.00	0.00	400.18	400.18
Roads and Bridges									
Interstate Highway	56,100.00	0.00	56,100.00	0.00	0.00	0.00	0.00	0.00	0.00
Major Highways and Secondary Roads	19,800.00	0.00	19,800.00	0.00	0.00	0.00	0.00	0.00	0.00
Major Streets	11,340.00	0.00	11,340.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential Streets	61,480.00	0.00	61,480.00	0.00	0.00	0.00	0.00	0.00	0.00
Docks and Piers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UTILITIES/COMMUNICATIONS									
Water Storage Facilities									
Elevated Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Treatment Facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sewage Treatment Plants	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electrical									
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Distribution Lines	6,597.50	0.00	6,597.50	0.00	0.00	0.00	0.00	461.83	461.83
Sub-stations	1,379.80	0.00	1,379.80	0.00	0.00	0.00	0.00	27.60	27.60
Generation Plants	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Telephone									
Lines, above ground	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	748.50	598.80	1,347.30	0.00	0.00	0.00	0.00	14.97	14.97
Natural Gas, major above-ground facilities	406.80	0.00	406.80	0.00	0.00	0.00	0.00	0.00	0.00
Radio/TV Transmitters/Towers	171.20	246.50	417.70	0.00	0.00	0.00	0.00	3.42	3.42
RAILROADS									
Buildings	149.30	119.40	268.70	0.00	0.00	0.00	0.00	2.99	2.99
Track	17,500.00	0.00	17,500.00	0.00	0.00	0.00	0.00	0.00	0.00
NON-PROFIT FACILITIES									
Churches	9,782.80	7,826.24	17,609.04	0.00	0.00	0.00	0.00	195.66	195.66
Private Schools	3,142.90	2,514.32	5,657.22	0.00	0.00	0.00	0.00	62.86	62.86
Other	550.00	440.00	990.00	0.00	0.00	0.00	0.00	11.00	11.00
TOTALS	$503,918.00	$247,468.76	$751,386.76	$0.00	$0.00	$0.00	$0.00	$20,623.50	$20,623.50

HANCOCK COUNTY, MISSISSIPPI

POTENTIAL HURRICANE DAMAGES

CATEGORY: 3

TABLE XIV

CATEGORY: 3

HANCOCK COUNTY LOSS ZONES	TOTAL STRUCTURE VALUE ($1000)	TOTAL CONTENT VALUE ($1000)	TOTAL VALUE STRUCTURE & CONTENTS ($1000)	TOTAL SURGE DAMAGE STRUCTURE ($1000)	TOTAL SURGE DAMAGE CONTENTS ($1000)	TOTAL VELOCITY DAMAGE STRUCTURE ($1000)	TOTAL VELOCITY DAMAGE CONTENTS ($1000)	WIND DAMAGE ($1000)	TOTAL DAMAGE BY TYPE ($1000)
LOSS ZONES: HNK001 - HNK006									
RESIDENTIAL									
Single Family.									
Substandard	$78,704.70	$39,623.40	$118,328.10	$9,984.98	$4.82	$13,453.70	$6,986.76	$6,296.38	$36,726.64
Medium	136,891.00	68,506.50	205,397.50	20,903.40	13.27	25,561.74	13,167.99	10,951.28	70,597.68
Upper	4,398.50	2,199.80	6,598.30	425.71	48.51	1,146.89	588.80	351.88	2,561.80
Multi-Family	14,444.00	7,225.40	21,669.40	1,065.20	47.24	754.25	937.06	577.76	3,381.51
Mobile Homes	7,260.00	3,678.40	10,938.40	3,225.00	1.25	907.50	459.80	1,876.50	6,470.05
COMMERCIAL									
Major	25,671.90	36,967.60	62,639.50	2,226.53	7,956.12	972.64	2,932.52	770.15	14,857.96
Other	13,361.00	19,239.90	32,600.90	1,064.88	951.27	216.99	654.26	400.83	3,288.22
INDUSTRIAL/MANUFACTURING									
Major	4,976.70	13,934.80	18,911.50	98.09	2,300.18	0.00	0.00	149.30	2,547.57
Other	521.30	1,459.70	1,981.00	0.00	0.00	4.85	90.99	15.64	111.48
MAJOR MEDICAL FACILITIES									
Public	10,600.00	29,680.00	40,280.00	0.00	0.00	0.00	0.00	318.00	318.00
Private	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PUBLIC FACILITIES									
Buildings	16,510.90	13,208.00	29,718.90	69.53	231.80	95.20	761.60	495.33	1,653.46
Maintenance and Storage Facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parks and Recreation Facilities									
Lodges	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cabins	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	1,429.20	0.00	1,429.20	0.00	0.00	1,119.60	0.00	185.76	1,305.36
Roads and Bridges									
Interstate Highway	56,100.00	0.00	56,100.00	0.00	0.00	0.00	0.00	0.00	0.00
Major Highways and Secondary Roads	19,800.00	0.00	19,800.00	352.00	0.00	200.00	0.00	0.00	552.00
Major Streets	11,340.00	0.00	11,340.00	216.00	0.00	240.00	0.00	0.00	456.00
Residential Streets	61,480.00	0.00	61,480.00	1,224.00	0.00	1,597.60	0.00	0.00	2,821.60
Docks and Piers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UTILITIES/COMMUNICATIONS									
Water Storage Facilities									
Elevated Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Treatment Facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sewage Treatment Plants	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electrical									
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Distribution Lines	6,597.50	0.00	6,597.50	0.00	0.00	0.00	0.00	527.80	527.80
Sub-stations	1,379.80	0.00	1,379.80	0.00	0.00	19.59	0.00	41.40	60.99
Generation Plants	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Telephone									
Lines, above ground	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	748.50	598.80	1,347.30	56.57	838.00	0.00	0.00	22.46	917.02
Natural Gas, major above-ground facilities	406.80	0.00	406.80	0.00	0.00	0.00	0.00	0.00	0.00
Radio/TV Transmitters/Towers	171.20	246.50	417.70	0.00	0.00	0.00	0.00	5.14	5.14
RAILROADS									
Buildings	149.30	119.40	268.70	0.00	0.00	0.00	0.00	4.48	4.48
Track	17,500.00	0.00	17,500.00	648.00	0.00	400.00	0.00	0.00	1,048.00
NON-PROFIT FACILITIES									
Churches	9,782.80	7,826.24	17,609.04	31.32	278.40	484.05	19,362.00	293.48	20,449.25
Private Schools	3,142.90	2,514.32	5,657.22	0.00	0.00	177.52	7,100.80	94.29	7,372.61
Other	550.00	440.00	990.00	0.00	0.00	0.00	0.00	16.50	16.50
TOTALS	$503,918.00	$247,468.76	$751,386.76	$41,591.21	$12,670.86	$47,352.12	$53,042.58	$23,394.36	$178,051.12

HANCOCK COUNTY, MISSISSIPPI

CATEGORY: 4

TABLE XV

POTENTIAL HURRICANE DAMAGES

CATEGORY: 4

HANCOCK COUNTY LOSS ZONES	TOTAL STRUCTURE VALUE ($1000)	TOTAL CONTENT VALUE ($1000)	TOTAL VALUE STRUCTURE & CONTENTS ($1000)	TOTAL SURGE DAMAGE STRUCTURE ($1000)	TOTAL SURGE DAMAGE CONTENTS ($1000)	TOTAL VELOCITY DAMAGE STRUCTURE ($1000)	TOTAL VELOCITY DAMAGE CONTENTS ($1000)	WIND DAMAGE ($1000)	TOTAL DAMAGE BY TYPE ($1000)
LOSS ZONES: HNK001 - HNK006									
RESIDENTIAL									
Single Family.									
Substandard	$78,704.70	$39,623.40	$118,328.10	$20,945.36	$14.69	$20,698.00	$10,428.00	$5,800.67	$57,886.73
Medium	136,891.00	68,506.50	205,397.50	37,391.54	37.80	39,250.80	19,626.40	9,764.02	106,070.56
Upper	4,398.50	2,199.80	6,598.30	856.23	143.08	1,735.30	868.20	266.32	3,869.14
Multi-Family	14,444.00	7,225.40	21,669.40	2,140.30	101.58	1,480.56	1,076.92	866.64	5,665.99
Mobile Homes	7,260.00	3,678.40	10,938.40	5,527.43	4.82	907.50	459.80	825.08	7,724.62
COMMERCIAL									
Major	25,671.90	36,967.60	62,639.50	5,133.97	15,548.08	1,641.33	3,501.52	1,026.87	26,851.77
Other	13,361.00	19,239.90	32,600.90	2,716.03	1,991.22	366.17	781.20	534.44	6,389.06
INDUSTRIAL/MANUFACTURING									
Major	4,976.70	13,934.80	18,911.50	346.92	6,702.80	0.00	0.00	199.06	7,248.79
Other	521.30	1,459.70	1,981.00	17.47	382.10	8.25	108.64	20.85	537.31
MAJOR MEDICAL FACILITIES									
Public	10,600.00	29,680.00	40,280.00	530.00	5,787.60	0.00	0.00	424.00	6,741.60
Private	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PUBLIC FACILITIES									
Buildings	16,510.90	13,208.00	29,718.90	1,987.48	274.34	161.84	761.60	660.44	3,845.70
Maintenance and Storage Facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parks and Recreation Facilities									
Lodges	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cabins	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	1,429.20	0.00	1,429.20	15.48	0.00	1,119.60	0.00	294.12	1,429.20
Roads and Bridges									
Interstate Highway	56,100.00	0.00	56,100.00	0.00	0.00	0.00	0.00	0.00	0.00
Major Highways and Secondary Roads	19,800.00	0.00	19,800.00	1,348.00	0.00	340.00	0.00	0.00	1,688.00
Major Streets	11,340.00	0.00	11,340.00	680.40	0.00	408.00	0.00	0.00	1,088.40
Residential Streets	61,480.00	0.00	61,480.00	3,608.40	0.00	2,830.40	0.00	0.00	6,438.80
Docks and Piers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UTILITIES/COMMUNICATIONS									
Water Storage Facilities									
Elevated Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Treataent Facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sewage Treatment Plants	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electrical									
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Distribution Lines	6,597.50	0.00	6,597.50	0.00	0.00	0.00	0.00	659.75	659.75
Sub-stations	1,379.80	0.00	1,379.80	67.03	0.00	33.30	0.00	55.20	155.53
Generation Plants	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Telephone									
Lines, above ground	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	748.50	598.80	1,347.30	88.91	1,676.00	0.00	0.00	29.94	1,794.85
Natural Gas, aajor above-ground facilities	406.80	0.00	406.80	24.41	0.00	0.00	0.00	0.00	24.41
Radio/TV Transaitters/Towers	171.20	246.50	417.70	0.00	0.00	0.00	0.00	6.85	6.85
RAILROADS									
Buildings	149.30	119.40	268.70	5.07	4.72	0.00	0.00	5.97	15.76
Track	17,500.00	0.00	17,500.00	1,107.00	0.00	680.00	0.00	0.00	1,787.00
NON-PROFIT FACILITIES									
Churches	9,782.80	7,826.24	17,609.04	692.84	578.39	822.89	42,596.40	391.31	45,081.84
Private Schools	3,142.90	2,514.32	5,657.22	164.12	25.53	301.78	15,621.76	125.72	16,238.91
Other	550.00	440.00	990.00	66.00	30.80	0.00	0.00	22.00	118.80
TOTALS	$503,918.00	$247,468.76	$751,386.76	$85,460.39	$33,303.55	$72,785.72	$95,830.44	$21,979.25	$309,359.37

HANCOCK COUNTY, MISSISSIPPI

POTENTIAL HURRICANE DAMAGES

CATEGORY: 5

CATEGORY: 5

TABLE XVI

HANCOCK COUNTY LOSS ZONES	TOTAL STRUCTURE VALUE ($1000)	TOTAL CONTENT VALUE ($1000)	TOTAL VALUE STRUCTURE & CONTENTS ($1000)	TOTAL SURGE DAMAGE STRUCTURE ($1000)	TOTAL SURGE DAMAGE CONTENTS ($1000)	TOTAL VELOCITY DAMAGE STRUCTURE ($1000)	TOTAL VELOCITY DAMAGE CONTENTS ($1000)	WIND DAMAGE ($1000)	TOTAL DAMAGE BY TYPE ($1000)
LOSS ZONES: HNK001 - HNK006									
RESIDENTIAL									
Single Family.									
Substandard	$78,704.70	$39,623.40	$118,328.10	$19,877.54	$14.87	$34,066.53	$17,164.90	$11,601.34	$82,725.17
Medium	136,891.00	68,506.50	205,397.50	33,765.04	36.19	64,974.96	32,488.48	19,528.04	150,792.71
Upper	4,398.50	2,199.80	6,598.30	658.28	138.32	2,800.61	1,400.86	532.64	5,530.71
Multi-Family	14,444.00	7,225.40	21,669.40	1,927.71	94.87	4,399.79	2,381.08	2,166.60	10,970.04
Mobile Homes	7,260.00	3,678.40	10,938.40	5,791.80	4.94	1,245.00	630.80	223.20	7,895.74
COMMERCIAL									
Major	25,671.90	36,967.60	62,639.50	4,505.00	10,980.00	6,725.18	16,937.66	3,337.34	42,485.19
Other	13,361.00	19,239.90	32,600.90	2,286.16	1,710.13	3,231.59	8,509.17	1,736.93	17,473.97
INDUSTRIAL/MANUFACTURING									
Major	4,976.70	13,934.80	18,911.50	433.48	7,821.63	0.00	0.00	646.97	8,902.07
Other	521.30	1,459.70	1,981.00	9.85	220.70	45.76	723.51	67.77	1,067.59
MAJOR MEDICAL FACILITIES									
Public	10,600.00	29,680.00	40,280.00	742.00	9,052.40	0.00	0.00	1,378.00	11,172.40
Private	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PUBLIC FACILITIES									
Buildings	16,510.90	13,208.00	29,718.90	538.77	257.13	5,174.20	3,532.07	2,146.42	11,648.59
Maintenance and Storage Facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parks and Recreation Facilities									
Lodges	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cabins	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	1,429.20	0.00	1,429.20	0.00	0.00	1,429.20	0.00	0.00	1,429.20
Roads and Bridges									
Interstate Highway	56,100.00	0.00	56,100.00	0.00	0.00	1,269.00	0.00	0.00	1,269.00
Major Highways and Secondary Roads	19,800.00	0.00	19,800.00	1,414.00	0.00	600.00	0.00	0.00	2,014.00
Major Streets	11,340.00	0.00	11,340.00	649.80	0.00	720.00	0.00	0.00	1,369.80
Residential Streets	61,480.00	0.00	61,480.00	3,336.40	0.00	4,987.20	0.00	0.00	8,323.60
Docks and Piers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UTILITIES/COMMUNICATIONS									
Water Storage Facilities									
Elevated Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Storage	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Treatment Facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sewage Treatment Plants	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electrical									
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Distribution Lines	6,597.50	0.00	6,597.50	0.00	0.00	0.00	0.00	1,319.50	1,319.50
Sub-stations	1,379.80	0.00	1,379.80	54.87	0.00	83.26	0.00	179.38	317.51
Generation Plants	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Telephone									
Lines, above ground	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	748.50	598.80	1,347.30	102.67	2,011.20	0.00	0.00	97.31	2,211.18
Natural Gas, major above-ground facilities	406.80	0.00	406.80	28.48	0.00	0.00	0.00	0.00	28.48
Radio/TV Transmitters/Towers	171.20	246.50	417.70	8.56	0.00	0.00	0.00	22.26	30.82
RAILROADS									
Buildings	149.30	119.40	268.70	1.76	3.98	14.40	25.92	19.41	65.47
Track	17,500.00	0.00	17,500.00	1,080.00	0.00	1,044.00	0.00	0.00	2,124.00
NON-PROFIT FACILITIES									
Churches	9,782.80	7,826.24	17,609.04	389.21	681.80	1,230.03	47,114.53	1,271.76	50,687.33
Private Schools	3,142.90	2,514.32	5,657.22	0.00	0.00	483.66	17,337.34	408.58	18,229.58
Other	550.00	440.00	990.00	0.00	0.00	66.00	118.80	71.50	256.30
TOTALS	$503,918.00	$247,468.76	$751,386.76	$77,601.38	$33,028.16	$134,590.37	$148,365.12	$46,754.95	$440,339.95

HARRISON COUNTY, MISSISSIPPI

CATEGORY: 1

TABLE XVII

POTENTIAL HURRICANE DAMAGES

CATEGORY: 1

HARRISON COUNTY LOSS ZONES	TOTAL STRUCTURE VALUE ($1000)	TOTAL CONTENT VALUE ($1000)	TOTAL VALUE STRUCTURE & CONTENTS ($1000)	TOTAL SURGE DAMAGE STRUCTURE ($1000)	TOTAL SURGE DAMAGE CONTENTS ($1000)	TOTAL VELOCITY DAMAGE STRUCTURE ($1000)	TOTAL VELOCITY DAMAGE CONTENTS ($1000)	WIND DAMAGE ($1000)	TOTAL DAMAGE BY TYPE ($1000)
LOSS ZONES: HAR001 - HAR036									
RESIDENTIAL									
Single Family.									
Substandard	$29,961.90	$15,068.20	$45,030.10	$0.00	$0.00	$0.00	$0.00	$1,797.71	$1,797.71
Medium	957,202.70	479,311.70	1,436,514.40	0.00	0.00	0.00	0.00	57,432.16	57,432.16
Upper	59,568.10	29,796.40	89,364.50	0.00	0.00	0.00	0.00	3,574.09	3,574.09
Multi-Family	86,465.70	43,297.20	129,762.90	0.00	0.00	0.00	0.00	2,593.98	2,593.98
Mobile Homes	10,411.20	5,246.50	15,657.70	0.00	0.00	0.00	0.00	1,249.34	1,249.34
COMMERCIAL									
Major	200,744.30	289,072.40	489,816.70	0.00	0.00	0.00	0.00	4,014.88	4,014.88
Other	409,492.00	589,707.40	999,199.40	0.00	0.00	0.00	0.00	8,189.84	8,189.84
INDUSTRIAL/MANUFACTURING									
Major	48,620.00	136,136.50	184,756.50	0.00	0.00	0.00	0.00	972.40	972.40
Other	13,349.60	37,383.80	50,733.40	0.00	0.00	0.00	0.00	266.99	266.99
MAJOR MEDICAL FACILITIES									
Public	101,845.90	285,168.50	387,014.40	0.00	0.00	0.00	0.00	2,036.92	2,036.92
Private	2,457.70	6,881.50	9,339.20	0.00	0.00	0.00	0.00	49.16	49.16
PUBLIC FACILITIES									
Buildings	166,391.00	133,116.20	299,507.20	0.00	0.00	0.00	0.00	3,327.82	3,327.82
Maintenance and Storage Facilities	313.50	470.30	783.80	0.00	0.00	0.00	0.00	6.27	6.27
Parks and Recreation Facilities									
Lodges	1,050.00	840.00	1,890.00	0.00	0.00	0.00	0.00	126.00	126.00
Cabins	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	7,677.20	0.00	7,677.20	0.00	0.00	0.00	0.00	921.27	921.27
Roads and Bridges									
Interstate Highway	100,800.00	0.00	100,800.00	0.00	0.00	0.00	0.00	0.00	0.00
Major Highways and Secondary Roads	97,900.00	0.00	97,900.00	0.00	0.00	0.00	0.00	0.00	0.00
Major Streets	42,360.00	0.00	42,360.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential Streets	194,640.00	0.00	194,640.00	0.00	0.00	0.00	0.00	0.00	0.00
Docks and Piers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UTILITIES/COMMUNICATIONS									
Water Storage Facilities									
Elevated Storage	469.70	0.00	469.70	0.00	0.00	0.00	0.00	9.39	9.39
Other Storage	81.00	0.00	81.00	0.00	0.00	0.00	0.00	1.62	1.62
Water Treatment Facilities	863.60	0.00	863.60	0.00	0.00	0.00	0.00	0.00	0.00
Sewage Treatment Plants	4,059.60	0.00	4,059.60	0.00	0.00	0.00	0.00	0.00	0.00
Electrical									
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Distribution Lines	20,557.50	0.00	20,557.50	0.00	0.00	0.00	0.00	1,233.45	1,233.45
Sub-stations	14,092.40	0.00	14,092.40	0.00	0.00	0.00	0.00	281.85	281.85
Generation Plants	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Telephone									
Lines, above ground	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	4,009.80	3,208.00	7,217.80	0.00	0.00	0.00	0.00	80.19	80.19
Natural Gas, major above-ground facilities	784.80	0.00	784.80	0.00	0.00	0.00	0.00	0.00	0.00
Radio/TV Transmitters/Towers	7,137.10	10,277.50	17,414.60	0.00	0.00	0.00	0.00	142.74	142.74
RAILROADS									
Buildings	108.00	86.40	194.40	0.00	0.00	0.00	0.00	2.16	2.16
Track	37,900.00	0.00	37,900.00	0.00	0.00	0.00	0.00	0.00	0.00
NON-PROFIT FACILITIES									
Churches	82,368.30	65,894.64	148,262.94	0.00	0.00	0.00	0.00	1,647.36	1,647.36
Private Schools	11,364.40	9,091.52	20,455.92	0.00	0.00	0.00	0.00	227.29	227.29
Other	3,974.10	3,179.28	7,153.38	0.00	0.00	0.00	0.00	79.48	79.48
TOTALS	$2,719,021.10	$2,143,233.94	$4,862,255.04	$0.00	$0.00	$0.00	$0.00	$90,264.36	$90,264.36

HARRISON COUNTY, MISSISSIPPI

TABLE XVIII

POTENTIAL HURRICANE DAMAGES

CATEGORY: 2

CATEGORY: 2

HARRISON COUNTY LOSS ZONES	TOTAL STRUCTURE VALUE ($1000)	TOTAL CONTENT VALUE ($1000)	TOTAL VALUE STRUCTURE & CONTENTS ($1000)	TOTAL SURGE DAMAGE STRUCTURE ($1000)	TOTAL SURGE DAMAGE CONTENTS ($1000)	TOTAL VELOCITY DAMAGE STRUCTURE ($1000)	TOTAL VELOCITY DAMAGE CONTENTS ($1000)	WIND DAMAGE ($1000)	TOTAL DAMAGE BY TYPE ($1000)
LOSS ZONES: HAR001 - HAR036									
RESIDENTIAL									
Single Family.	$29,961.90	$15,068.20	$45,030.10	$362.85	$0.86	$0.00	$0.00	$2,097.34	$2,461.05
Substandard	957,202.70	479,311.70	1,436,514.40	2,786.16	2.18	0.00	0.00	67,004.21	69,792.55
Medium	59,568.10	29,796.40	89,364.50	0.00	0.00	0.00	0.00	4,169.77	4,169.77
Upper	86,465.70	43,297.20	129,762.90	43.78	1.38	0.00	0.00	3,458.64	3,503.79
Multi-Family	10,411.20	5,246.50	15,657.70	37.44	0.25	0.00	0.00	2,915.14	2,952.83
Mobile Homes									
COMMERCIAL	200,744.30	289,072.40	489,816.70	70.25	236.04	0.00	0.00	4,014.88	4,321.17
Major	409,492.00	589,707.40	999,199.40	854.96	22.62	0.00	0.00	8,189.84	9,067.43
Other									
INDUSTRIAL/MANUFACTURING	48,620.00	136,136.50	184,756.50	77.78	580.75	0.00	0.00	972.40	1,630.93
Major	13,349.60	37,383.80	50,733.40	51.07	35.76	0.00	0.00	266.99	353.82
Other									
MAJOR MEDICAL FACILITIES	101,845.90	285,168.50	387,014.40	318.00	1,038.80	0.00	0.00	2,036.92	3,393.72
Public	2,457.70	6,881.50	9,339.20	0.00	0.00	0.00	0.00	49.16	49.16
Private									
PUBLIC FACILITIES	166,391.00	133,116.20	299,507.20	544.51	31.77	0.00	0.00	3,327.82	3,904.10
Buildings	313.50	470.30	783.80	0.00	0.00	0.00	0.00	6.27	6.27
Maintenance and Storage Facilities									
Parks and Recreation Facilities									
Lodges	1,050.00	840.00	1,890.00	0.00	0.00	0.00	0.00	294.00	294.00
Cabins	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	7,677.20	0.00	7,677.20	67.10	0.00	0.00	0.00	2,149.61	2,216.71
Roads and Bridges									
Interstate Highway	100,800.00	0.00	100,800.00	0.00	0.00	0.00	0.00	0.00	0.00
Major Highways and Secondary Roads	97,900.00	0.00	97,900.00	150.00	0.00	0.00	0.00	0.00	150.00
Major Streets	42,360.00	0.00	42,360.00	60.00	0.00	0.00	0.00	0.00	60.00
Residential Streets	194,640.00	0.00	194,640.00	400.00	0.00	0.00	0.00	0.00	400.00
Docks and Piers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UTILITIES/COMMUNICATIONS									
Water Storage Facilities									
Elevated Storage	469.70	0.00	469.70	0.00	0.00	0.00	0.00	9.39	9.39
Other Storage	81.00	0.00	81.00	0.00	0.00	0.00	0.00	1.62	1.62
Water Treatment Facilities	863.60	0.00	863.60	0.00	0.00	0.00	0.00	0.00	0.00
Sewage Treatment Plants	4,059.60	0.00	4,059.60	0.00	0.00	0.00	0.00	0.00	0.00
Electrical									
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Distribution Lines	20,557.50	0.00	20,557.50	0.00	0.00	0.00	0.00	1,439.04	1,439.04
Sub-stations	14,092.40	0.00	14,092.40	0.00	0.00	0.00	0.00	281.85	281.85
Generation Plants	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Telephone									
Lines, above ground	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	4,009.80	3,208.00	7,217.80	0.00	0.00	0.00	0.00	80.19	80.19
Natural Gas, major above-ground facilities	784.80	0.00	784.80	0.00	0.00	0.00	0.00	0.00	0.00
Radio/TV Transmitters/Towers	7,137.10	10,277.50	17,414.60	0.00	0.00	0.00	0.00	142.74	142.74
RAILROADS	108.00	86.40	194.40	0.00	0.00	0.00	0.00	2.16	2.16
Buildings	37,900.00	0.00	37,900.00	40.00	0.00	0.00	0.00	0.00	40.00
Track									
NON-PROFIT FACILITIES	82,368.30	65,894.64	148,262.94	240.55	18.71	0.00	0.00	1,647.36	1,906.62
Churches	11,364.40	9,091.52	20,455.92	39.32	18.35	0.00	0.00	227.29	284.97
Private Schools	3,974.10	3,179.28	7,153.38	0.00	0.00	0.00	0.00	79.48	79.48
Other									
TOTALS	$2,719,021.10	$2,143,233.94	$4,862,255.04	$6,143.77	$1,987.47	$0.00	$0.00	$104,864.11	$112,995.36

HARRISON COUNTY, MISSISSIPPI

CATEGORY: 3

TABLE XIX

POTENTIAL HURRICANE DAMAGES

CATEGORY: 3

HARRISON COUNTY LOSS ZONES	TOTAL STRUCTURE VALUE ($1000)	TOTAL CONTENT VALUE ($1000)	TOTAL VALUE STRUCTURE & CONTENTS ($1000)	TOTAL SURGE DAMAGE STRUCTURE ($1000)	TOTAL SURGE DAMAGE CONTENTS ($1000)	TOTAL VELOCITY DAMAGE STRUCTURE ($1000)	TOTAL VELOCITY DAMAGE CONTENTS ($1000)	WIND DAMAGE ($1000)	TOTAL DAMAGE BY TYPE ($1000)
LOSS ZONES: HAR001 - HAR036									
RESIDENTIAL									
Single Family.									
Substandard	$29,961.90	$15,068.20	$45,030.10	$796.68	$5.43	$2,592.36	$1,086.66	$2,348.57	$6,829.71
Medium	957,202.70	479,311.70	1,436,514.40	26,795.76	19.90	34,686.94	16,016.31	76,204.73	153,723.63
Upper	59,568.10	29,796.40	89,364.50	747.31	68.68	7,292.25	3,794.70	4,765.45	16,668.40
Multi-Family	86,465.70	43,297.20	129,762.90	978.07	22.59	2,154.08	2,002.31	3,458.64	8,615.66
Mobile Homes	10,411.20	5,246.50	15,657.70	284.18	2.08	282.30	142.20	5,919.26	6,630.02
COMMERCIAL									
Major	200,744.30	289,072.40	489,816.70	119.68	413.72	691.28	1,787.61	6,022.32	9,034.61
Other	409,492.00	589,707.40	999,199.40	3,273.51	144.62	5,621.83	14,018.38	12,284.78	35,343.12
INDUSTRIAL/MANUFACTURING									
Major	48,620.00	136,136.50	184,756.50	3.32	80.65	388.89	5,517.14	1,458.61	7,448.61
Other	13,349.60	37,383.80	50,733.40	65.52	105.98	255.36	3,623.68	400.49	4,451.02
MAJOR MEDICAL FACILITIES									
Public	101,845.90	285,168.50	387,014.40	240.00	5,824.00	1,590.00	9,497.60	3,055.38	20,206.98
Private	2,457.70	6,881.50	9,339.20	0.00	0.00	0.00	0.00	73.73	73.73
PUBLIC FACILITIES									
Buildings	166,391.00	133,116.20	299,507.20	333.53	166.42	2,630.40	3,043.09	4,991.73	11,165.16
Maintenance and Storage Facilities	313.50	470.30	783.80	0.00	0.00	0.00	0.00	9.41	9.41
Parks and Recreation Facilities									
Lodges	1,050.00	840.00	1,890.00	241.50	58.80	0.00	0.00	493.50	793.80
Cabins	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	7,677.20	0.00	7,677.20	0.00	0.00	1,342.00	0.00	3,801.12	5,143.12
Roads and Bridges									
Interstate Highway	100,800.00	0.00	100,800.00	0.00	0.00	0.00	0.00	0.00	0.00
Major Highways and Secondary Roads	97,900.00	0.00	97,900.00	404.00	0.00	1,053.00	0.00	0.00	1,457.00
Major Streets	42,360.00	0.00	42,360.00	390.60	0.00	466.20	0.00	0.00	856.80
Residential Streets	194,640.00	0.00	194,640.00	1,285.60	0.00	1,470.00	0.00	0.00	2,755.60
Docks and Piers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UTILITIES/COMMUNICATIONS									
Water Storage Facilities									
Elevated Storage	469.70	0.00	469.70	0.00	0.00	0.00	0.00	14.09	14.09
Other Storage	81.00	0.00	81.00	0.00	0.00	0.00	0.00	2.43	2.43
Water Treatment Facilities	863.60	0.00	863.60	1.22	0.00	0.00	0.00	0.00	1.22
Sewage Treatment Plants	4,059.60	0.00	4,059.60	28.87	0.00	0.00	0.00	0.00	28.87
Electrical									
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Distribution Lines	20,557.50	0.00	20,557.50	0.00	0.00	0.00	0.00	1,644.60	1,644.60
Sub-stations	14,092.40	0.00	14,092.40	286.48	0.00	165.31	0.00	422.77	874.56
Generation Plants	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Telephone									
Lines, above ground	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	4,009.80	3,208.00	7,217.80	0.00	0.00	0.00	0.00	120.29	120.29
Natural Gas, major above-ground facilities	784.80	0.00	784.80	0.00	0.00	0.00	0.00	0.00	0.00
Radio/TV Transmitters/Towers	7,137.10	10,277.50	17,414.60	0.00	0.00	0.00	0.00	214.12	214.12
RAILROADS									
Buildings	108.00	86.40	194.40	6.48	22.46	0.00	0.00	3.24	32.18
Track	37,900.00	0.00	37,900.00	56.00	0.00	795.00	0.00	0.00	851.00
NON-PROFIT FACILITIES									
Churches	82,368.30	65,894.64	148,262.94	514.61	1,811.54	1,539.45	33,546.78	2,471.05	39,883.42
Private Schools	11,364.40	9,091.52	20,455.92	0.00	0.00	49.15	83.89	340.92	473.96
Other	3,974.10	3,179.28	7,153.38	18.38	630.00	0.00	0.00	119.23	767.60
TOTALS	$2,719,021.10	$2,143,233.94	$4,862,255.04	$36,871.30	$9,376.87	$65,065.80	$94,160.35	$130,640.46	$336,114.72

HARRISON COUNTY, MISSISSIPPI

POTENTIAL HURRICANE DAMAGES

CATEGORY: 4

TABLE XX

HARRISON COUNTY LOSS ZONES	TOTAL STRUCTURE VALUE ($1000)	TOTAL CONTENT VALUE ($1000)	TOTAL VALUE STRUCTURE & CONTENTS ($1000)	TOTAL SURGE DAMAGE STRUCTURE ($1000)	TOTAL SURGE DAMAGE CONTENTS ($1000)	TOTAL VELOCITY DAMAGE STRUCTURE ($1000)	TOTAL VELOCITY DAMAGE CONTENTS ($1000)	WIND DAMAGE ($1000)	TOTAL DAMAGE BY TYPE ($1000)
LOSS ZONES: HAR001 - HAR036									
RESIDENTIAL									
Single Family.									
Substandard	$29,961.90	$15,068.20	$45,030.10	$2,991.25	$16.83	$3,815.92	$1,871.99	$2,754.29	$11,450.26
Medium	957,202.70	479,311.70	1,436,514.40	55,269.40	60.26	80,341.77	38,670.84	93,862.83	268,205.07
Upper	59,568.10	29,796.40	89,364.50	1,761.50	183.05	18,825.05	8,829.59	5,956.81	35,555.98
Multi-Family	86,465.70	43,297.20	129,762.90	1,938.08	46.50	10,190.47	9,035.25	5,155.10	26,365.41
Mobile Homes	10,411.20	5,246.50	15,657.70	549.60	4.65	1,271.20	637.80	8,590.40	11,053.65
COMMERCIAL									
Major	200,744.30	289,072.40	489,816.70	4,378.94	1,753.67	12,917.20	35,120.25	8,006.35	62,176.44
Other	409,492.00	589,707.40	999,199.40	10,119.53	429.71	28,343.42	66,487.99	16,094.70	121,475.34
INDUSTRIAL/MANUFACTURING									
Major	48,620.00	136,136.50	184,756.50	5.54	114.77	985.19	5,734.93	1,944.79	8,785.23
Other	13,349.60	37,383.80	50,733.40	109.20	150.81	668.81	4,134.52	533.99	5,597.33
MAJOR MEDICAL FACILITIES									
Public	101,845.90	285,168.50	387,014.40	440.00	11,200.00	6,702.00	64,164.80	4,073.84	86,580.64
Private	2,457.70	6,881.50	9,339.20	0.00	0.00	204.39	3,490.97	98.31	3,793.67
PUBLIC FACILITIES									
Buildings	166,391.00	133,116.20	299,507.20	2,037.79	3,546.72	7,652.03	20,321.05	6,474.13	40,031.72
Maintenance and Storage Facilities	313.50	470.30	783.80	0.00	0.00	0.00	0.00	12.54	12.54
Parks and Recreation Facilities									
Lodges	1,050.00	840.00	1,890.00	262.50	77.70	0.00	0.00	787.50	1,127.70
Cabins	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	7,677.20	0.00	7,677.20	0.00	0.00	1,904.60	0.00	5,772.60	7,677.20
Roads and Bridges									
Interstate Highway	100,800.00	0.00	100,800.00	0.00	0.00	0.00	0.00	0.00	0.00
Major Highways and Secondary Roads	97,900.00	0.00	97,900.00	1,145.00	0.00	3,268.00	0.00	0.00	4,413.00
Major Streets	42,360.00	0.00	42,360.00	690.60	0.00	1,117.20	0.00	0.00	1,807.80
Residential Streets	194,640.00	0.00	194,640.00	3,589.60	0.00	5,948.00	0.00	0.00	9,537.60
Docks and Piers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UTILITIES/COMMUNICATIONS									
Water Storage Facilities									
Elevated Storage	469.70	0.00	469.70	0.00	0.00	0.00	0.00	18.79	18.79
Other Storage	81.00	0.00	81.00	0.00	0.00	0.00	0.00	3.24	3.24
Water Treatment Facilities	863.60	0.00	863.60	1.74	0.00	0.00	0.00	0.00	1.74
Sewage Treatment Plants	4,059.60	0.00	4,059.60	43.32	0.00	0.00	0.00	0.00	43.32
Electrical									
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Distribution Lines	20,557.50	0.00	20,557.50	0.00	0.00	0.00	0.00	2,055.75	2,055.75
Sub-stations	14,092.40	0.00	14,092.40	571.68	0.00	270.23	0.00	563.69	1,405.60
Generation Plants	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Telephone									
Lines, above ground	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	4,009.80	3,208.00	7,217.80	76.05	338.00	0.00	0.00	160.39	574.44
Natural Gas, major above-ground facilities	784.80	0.00	784.80	0.00	0.00	0.00	0.00	0.00	0.00
Radio/TV Transmitters/Towers	7,137.10	10,277.50	17,414.60	0.00	0.00	85.55	7,186.20	285.49	7,557.23
RAILROADS									
Buildings	108.00	86.40	194.40	11.88	43.20	0.00	0.00	4.32	59.40
Track	37,900.00	0.00	37,900.00	144.00	0.00	1,354.00	0.00	0.00	1,498.00
NON-PROFIT FACILITIES									
Churches	82,368.30	65,894.64	148,262.94	1,322.02	5,833.84	3,077.40	113,585.00	3,294.73	127,112.99
Private Schools	11,364.40	9,091.52	20,455.92	242.30	9,488.56	484.53	11,614.38	454.57	22,284.33
Other	3,974.10	3,179.28	7,153.38	76.13	2,730.00	98.76	3,160.32	158.96	6,224.17
TOTALS	$2,719,021.10	$2,143,233.94	$4,862,255.04	$87,777.65	$36,018.27	$189,525.72	$394,045.88	$167,118.11	$874,485.58

HARRISON COUNTY, MISSISSIPPI

POTENTIAL HURRICANE DAMAGES

CATEGORY: 5

TABLE XXI

HARRISON COUNTY LOSS ZONES	TOTAL STRUCTURE VALUE ($1000)	TOTAL CONTENT VALUE ($1000)	TOTAL VALUE STRUCTURE & CONTENTS ($1000)	TOTAL SURGE DAMAGE STRUCTURE ($1000)	TOTAL SURGE DAMAGE CONTENTS ($1000)	TOTAL VELOCITY DAMAGE STRUCTURE ($1000)	TOTAL VELOCITY DAMAGE CONTENTS ($1000)	WIND DAMAGE ($1000)	TOTAL DAMAGE BY TYPE ($1000)
LOSS ZONES: HAR001 - HAR036									
RESIDENTIAL									
Single Family.									
Substandard	$29,961.90	$15,068.20	$45,030.10	$3,619.96	$19.03	$4,335.80	$2,172.41	$5,273.54	$15,420.72
Medium	957,202.70	479,311.70	1,436,514.40	93,805.35	73.46	134,633.30	67,231.54	179,026.38	474,770.02
Upper	59,568.10	29,796.40	89,364.50	2,088.62	218.74	26,344.25	13,171.82	8,741.30	50,564.72
Multi-Family	86,465.70	43,297.20	129,762.90	2,221.29	65.41	20,523.41	13,414.68	11,796.57	48,021.36
Mobile Homes	10,411.20	5,246.50	15,657.70	1,876.58	6.09	1,331.20	668.00	7,203.42	11,085.29
COMMERCIAL									
Major	200,744.30	289,072.40	489,816.70	5,648.74	19,966.77	28,817.50	75,547.57	25,825.92	155,806.49
Other	409,492.00	589,707.40	999,199.40	12,163.37	481.37	50,608.35	114,843.61	51,281.86	229,378.54
INDUSTRIAL/MANUFACTURING									
Major	48,620.00	136,136.50	184,756.50	1,948.10	7,964.32	1,296.30	5,734.93	6,320.61	23,264.25
Other	13,349.60	37,383.80	50,733.40	340.09	294.09	879.67	4,232.60	1,735.45	7,481.90
MAJOR MEDICAL FACILITIES									
Public	101,845.90	285,168.50	387,014.40	2,585.63	62,296.71	8,547.00	64,164.80	13,239.97	150,834.11
Private	2,457.70	6,881.50	9,339.20	0.00	0.00	245.27	5,722.90	319.50	6,287.67
PUBLIC FACILITIES									
Buildings	166,391.00	133,116.20	299,507.20	1,760.64	778.36	15,222.63	43,226.64	21,040.94	82,029.21
Maintenance and Storage Facilities	313.50	470.30	783.80	0.00	0.00	0.00	0.00	40.76	40.76
Parks and Recreation Facilities									
Lodges	1,050.00	840.00	1,890.00	262.50	77.70	0.00	0.00	787.50	1,127.70
Cabins	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	7,677.20	0.00	7,677.20	0.00	0.00	2,165.00	0.00	5,512.20	7,677.20
Roads and Bridges									
Interstate Highway	100,800.00	0.00	100,800.00	0.00	0.00	0.00	0.00	0.00	0.00
Major Highways and Secondary Roads	97,900.00	0.00	97,900.00	2,454.00	0.00	6,034.00	0.00	0.00	8,488.00
Major Streets	42,360.00	0.00	42,360.00	1,126.80	0.00	2,147.40	0.00	0.00	3,274.20
Residential Streets	194,640.00	0.00	194,640.00	4,316.80	0.00	9,218.40	0.00	0.00	13,535.20
Docks and Piers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UTILITIES/COMMUNICATIONS									
Water Storage Facilities									
Elevated Storage	469.70	0.00	469.70	0.00	0.00	0.00	0.00	61.06	61.06
Other Storage	81.00	0.00	81.00	0.00	0.00	6.16	0.00	10.53	16.69
Water Treatment Facilities	863.60	0.00	863.60	7.39	0.00	33.00	0.00	0.00	40.39
Sewage Treatment Plants	4,059.60	0.00	4,059.60	80.76	0.00	55.00	0.00	0.00	135.76
Electrical									
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Distribution Lines	20,557.50	0.00	20,557.50	0.00	0.00	0.00	0.00	4,111.50	4,111.50
Sub-stations	14,092.40	0.00	14,092.40	664.49	0.00	603.48	0.00	1,832.02	3,099.97
Generation Plants	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Telephone									
Lines, above ground	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	4,009.80	3,208.00	7,217.80	84.50	473.20	0.00	0.00	521.27	1,078.97
Natural Gas, major above-ground facilities	784.80	0.00	784.80	0.00	0.00	0.00	0.00	0.00	0.00
Radio/TV Transmitters/Towers	7,137.10	10,277.50	17,414.60	0.00	0.00	453.70	9,239.40	927.83	10,620.92
RAILROADS									
Buildings	108.00	86.40	194.40	12.96	43.20	0.00	0.00	14.04	70.20
Track	37,900.00	0.00	37,900.00	160.00	0.00	2,800.00	0.00	0.00	2,960.00
NON-PROFIT FACILITIES									
Churches	82,368.30	65,894.64	148,262.94	1,977.58	7,559.26	6,197.66	200,184.68	10,707.88	226,627.07
Private Schools	11,364.40	9,091.52	20,455.92	353.02	13,090.08	595.85	20,254.38	1,477.37	35,770.70
Other	3,974.10	3,179.28	7,153.38	84.00	3,360.00	118.51	5,530.56	516.64	9,609.71
TOTALS	$2,719,021.10	$2,143,233.94	$4,862,255.04	$139,643.17	$116,767.79	$323,212.84	$645,340.52	$358,326.06	$1,583,290.28

JACKSON COUNTY, MISSISSIPPI

CATEGORY: 1

TABLE XXII

POTENTIAL HURRICANE DAMAGES

CATEGORY: 1

JACKSON COUNTY LOSS ZONES	TOTAL STRUCTURE VALUE ($1000)	TOTAL CONTENT VALUE ($1000)	TOTAL VALUE STRUCTURE & CONTENTS ($1000)	TOTAL SURGE DAMAGE STRUCTURE ($1000)	TOTAL SURGE DAMAGE CONTENTS ($1000)	TOTAL VELOCITY DAMAGE STRUCTURE ($1000)	TOTAL VELOCITY DAMAGE CONTENTS ($1000)	WIND DAMAGE ($1000)	TOTAL DAMAGE BY TYPE ($1000)
LOSS ZONES: JAK001 - JAK041									
RESIDENTIAL									
Single Family.									
Substandard	$69,514.00	$34,757.00	$104,271.00	$0.00	$0.00	$0.00	$0.00	$4,170.84	$4,170.84
Medium	1,170,964.00	585,482.00	1,756,446.00	0.00	0.00	0.00	0.00	70,257.84	70,257.84
Upper	258,069.00	129,034.50	387,103.50	0.00	0.00	0.00	0.00	15,484.14	15,484.14
Multi-Family	73,479.00	36,739.50	110,218.50	0.00	0.00	0.00	0.00	2,204.37	2,204.37
Mobile Homes	20,274.50	10,151.10	30,425.60	0.00	0.00	0.00	0.00	2,432.94	2,432.94
COMMERCIAL									
Major	13,400.00	19,296.80	32,696.80	0.00	0.00	0.00	0.00	268.00	268.00
Other	167,165.00	240,690.50	407,855.50	0.00	0.00	0.00	0.00	3,343.30	3,343.30
INDUSTRIAL/MANUFACTURING									
Major	1,030,646.00	2,885,808.80	3,916,454.80	0.00	0.00	0.00	0.00	20,612.92	20,612.92
Other	8,502.00	23,805.60	32,307.60	0.00	0.00	0.00	0.00	170.04	170.04
MAJOR MEDICAL FACILITIES									
Public	5,726.00	16,032.80	21,758.80	0.00	0.00	0.00	0.00	114.52	114.52
Private	14,297.00	40,031.60	54,328.60	0.00	0.00	0.00	0.00	285.94	285.94
PUBLIC FACILITIES									
Buildings	87,728.00	70,182.40	157,910.40	0.00	0.00	0.00	0.00	1,754.56	1,754.56
Maintenance and Storage Facilities	21,519.00	32,278.50	53,797.50	0.00	0.00	0.00	0.00	430.38	430.38
Parks and Recreation Facilities									
Lodges	742.00	593.60	1,335.60	0.00	0.00	0.00	0.00	89.04	89.04
Cabins	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	590.00	0.00	590.00	0.00	0.00	0.00	0.00	70.80	70.80
Roads and Bridges									
Interstate Highway	80,100.00	0.00	80,100.00	0.00	0.00	0.00	0.00	0.00	0.00
Major Highways and Secondary Roads	67,020.00	0.00	67,020.00	7.20	0.00	0.00	0.00	0.00	7.20
Major Streets	49,200.00	0.00	49,200.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential Streets	245,755.00	0.00	245,755.00	0.00	0.00	0.00	0.00	0.00	0.00
Docks and Piers	5,960.00	0.00	5,960.00	0.00	0.00	0.00	0.00	0.00	0.00
UTILITIES/COMMUNICATIONS									
Water Storage Facilities									
Elevated Storage	992.00	0.00	992.00	0.00	0.00	0.00	0.00	19.84	19.84
Other Storage	623.00	0.00	623.00	0.00	0.00	0.00	0.00	12.46	12.46
Water Treatment Facilities	604.00	0.00	604.00	0.00	0.00	0.00	0.00	0.00	0.00
Sewage Treatment Plants	12,845.00	0.00	12,845.00	0.00	0.00	0.00	0.00	0.00	0.00
Electrical									
Transmission Lines	8,432.00	0.00	8,432.00	0.00	0.00	0.00	0.00	505.92	505.92
Distribution Lines	24,152.50	0.00	24,152.50	0.00	0.00	0.00	0.00	1,449.15	1,449.15
Sub-stations	11,490.00	0.00	11,490.00	0.00	0.00	0.00	0.00	229.80	229.80
Generation Plants	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Telephone									
Lines, above ground	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas, major above-ground facilities	370.00	0.00	370.00	0.00	0.00	0.00	0.00	0.00	0.00
Radio/TV Transmitters/Towers	90.00	129.60	219.60	0.00	0.00	0.00	0.00	1.80	1.80
RAILROADS									
Buildings	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Track	43,800.00	0.00	43,800.00	0.00	0.00	0.00	0.00	0.00	0.00
NON-PROFIT FACILITIES									
Churches	13,561.00	10,848.80	24,409.80	0.00	0.00	0.00	0.00	271.22	271.22
Private Schools	762.00	609.60	1,371.60	0.00	0.00	0.00	0.00	15.24	15.24
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	$3,508,372.00	$4,136,472.70	$7,644,844.70	$7.20	$0.00	$0.00	$0.00	$124,195.06	$124,202.26

JACKSON COUNTY, MISSISSIPPI

POTENTIAL HURRICANE DAMAGES

CATEGORY: 2

TABLE XXIII

CATEGORY: 2

JACKSON COUNTY LOSS ZONES	TOTAL STRUCTURE VALUE ($1000)	TOTAL CONTENT VALUE ($1000)	TOTAL VALUE STRUCTURE & CONTENTS ($1000)	TOTAL SURGE DAMAGE STRUCTURE ($1000)	TOTAL SURGE DAMAGE CONTENTS ($1000)	TOTAL VELOCITY DAMAGE STRUCTURE ($1000)	TOTAL VELOCITY DAMAGE CONTENTS ($1000)	WIND DAMAGE ($1000)	TOTAL DAMAGE BY TYPE ($1000)
LOSS ZONES: JAK001 - JAK041									
RESIDENTIAL									
Single Family.									
Substandard	$133,238.00	$66,619.00	$199,857.00	$0.00	$0.00	$358.56	$162.00	$9,326.66	$9,847.22
Medium	2,224,776.00	1,112,388.00	3,337,164.00	0.00	0.00	0.00	0.00	155,734.32	155,734.32
Upper	455,462.00	227,731.00	683,193.00	0.00	0.00	0.00	0.00	31,882.34	31,882.34
Multi-Family	141,054.00	70,527.00	211,581.00	0.00	0.00	0.00	0.00	5,642.16	5,642.16
Mobile Homes	39,989.00	20,022.20	60,011.20	0.00	0.00	0.00	0.00	11,196.92	11,196.92
COMMERCIAL									
Major	26,800.00	38,593.60	65,393.60	0.00	0.00	0.00	0.00	536.00	536.00
Other	303,610.00	437,144.20	740,754.20	0.00	0.00	92.00	224.64	6,072.20	6,388.84
INDUSTRIAL/MANUFACTURING									
Major	2,061,292.00	5,771,617.60	7,832,909.60	0.00	0.00	0.00	0.00	41,225.84	41,225.84
Other	17,004.00	47,611.20	64,615.20	0.00	0.00	0.00	0.00	340.08	340.08
MAJOR MEDICAL FACILITIES									
Public	11,452.00	32,065.60	43,517.60	0.00	0.00	0.00	0.00	229.04	229.04
Private	28,594.00	80,063.20	108,657.20	0.00	0.00	0.00	0.00	571.88	571.88
PUBLIC FACILITIES									
Buildings	175,160.00	140,128.00	315,288.00	0.00	0.00	0.00	0.00	3,503.20	3,503.20
Maintenance and Storage Facilities	43,038.00	64,557.00	107,595.00	0.00	0.00	0.00	0.00	860.76	860.76
Parks and Recreation Facilities									
Lodges	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Cabins	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	1,180.00	0.00	1,180.00	0.00	0.00	0.00	0.00	0.00	0.00
Roads and Bridges									
Interstate Highway	160,200.00	0.00	160,200.00	0.00	0.00	0.00	0.00	330.40	330.40
Major Highways and Secondary Roads	127,240.00	0.00	127,240.00	0.00	0.00	0.00	0.00	0.00	0.00
Major Streets	98,400.00	0.00	98,400.00	720.00	0.00	40.80	0.00	0.00	760.80
Residential Streets	443,270.00	0.00	443,270.00	12.00	0.00	0.00	0.00	0.00	12.00
Docks and Piers	11,920.00	0.00	11,920.00	220.00	0.00	0.00	0.00	0.00	220.00
UTILITIES/COMMUNICATIONS				12.00	0.00	0.00	0.00	0.00	12.00
Water Storage Facilities									
Elevated Storage	1,984.00	0.00	1,984.00	0.00	0.00	0.00	0.00	39.68	39.68
Other Storage	1,246.00	0.00	1,246.00	0.00	0.00	0.00	0.00	24.92	24.92
Water Treatment Facilities	1,208.00	0.00	1,208.00	0.00	0.00	0.00	0.00	0.00	0.00
Sewage Treatment Plants	25,690.00	0.00	25,690.00	0.00	0.00	0.00	0.00	0.00	0.00
Electrical									
Transmission Lines	16,864.00	0.00	16,864.00	0.00	0.00	0.00	0.00	1,180.48	1,180.48
Distribution Lines	44,485.00	0.00	44,485.00	0.00	0.00	0.00	0.00	3,114.00	3,114.00
Sub-stations	19,026.00	0.00	19,026.00	0.00	0.00	0.00	0.00	380.52	380.52
Generation Plants	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Telephone									
Lines, above ground	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas, major above-ground facilities	740.00	0.00	740.00	0.00	0.00	0.00	0.00	0.00	0.00
Radio/TV Transmitters/Towers	180.00	259.20	439.20	0.00	0.00	0.00	0.00	3.60	3.60
RAILROADS									
Buildings	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Track	83,200.00	0.00	83,200.00	550.00	0.00	0.00	0.00	0.00	550.00
NON-PROFIT FACILITIES									
Churches	20,078.00	16,062.40	36,140.40	0.00	0.00	0.00	0.00	401.56	401.56
Private Schools	1,524.00	1,219.20	2,743.20	0.00	0.00	0.00	0.00	30.48	30.48
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	$6,719,904.00	$8,126,608.40	$14,846,512.40	$1,514.00	$0.00	$491.36	$386.64	$272,627.04	$275,019.04

JACKSON COUNTY, MISSISSIPPI

POTENTIAL HURRICANE DAMAGES

CATEGORY: 3

CATEGORY: 3

TABLE XXIV

JACKSON COUNTY LOSS ZONES	TOTAL STRUCTURE VALUE ($1000)	TOTAL CONTENT VALUE ($1000)	TOTAL VALUE STRUCTURE & CONTENTS ($1000)	TOTAL SURGE DAMAGE STRUCTURE ($1000)	TOTAL SURGE DAMAGE CONTENTS ($1000)	TOTAL VELOCITY DAMAGE STRUCTURE ($1000)	TOTAL VELOCITY DAMAGE CONTENTS ($1000)	WIND DAMAGE ($1000)	TOTAL DAMAGE BY TYPE ($1000)
LOSS ZONES: JAK001 - JAK041									
RESIDENTIAL									
Single Family.	$69,514.00	$34,757.00	$104,271.00	$617.40	$6.03	$216.00	$108.00	$5,543.84	$6,491.27
Substandard	1,170,964.00	585,482.00	1,756,446.00	3,763.20	16.08	12,052.95	6,120.29	93,677.12	115,629.64
Medium	258,069.00	129,034.50	387,103.50	456.19	44.56	9,672.35	4,917.68	20,645.52	35,736.30
Upper	73,479.00	36,739.50	110,218.50	0.00	0.00	572.22	647.56	2,939.16	4,158.94
Multi-Family	20,274.50	10,151.10	30,425.60	680.00	1.42	0.00	0.00	11,756.70	12,438.12
Mobile Homes									
COMMERCIAL									
Major	13,400.00	19,296.80	32,696.80	0.00	0.00	0.00	0.00	402.00	402.00
Other	167,165.00	240,690.50	407,855.50	13.50	48.24	100.00	144.00	5,011.95	5,317.69
INDUSTRIAL/MANUFACTURING									
Major	1,030,646.00	2,885,808.80	3,916,454.80	11,250.00	980.00	41,250.00	745,500.00	30,919.38	829,899.38
Other	8,502.00	23,805.60	32,307.60	80.00	1,876.00	0.00	0.00	255.06	2,211.06
MAJOR MEDICAL FACILITIES									
Public	5,726.00	16,032.80	21,758.80	0.00	0.00	0.00	0.00	171.78	171.78
Private	14,297.00	40,031.60	54,328.60	0.00	0.00	0.00	0.00	428.91	428.91
PUBLIC FACILITIES									
Buildings	87,728.00	70,182.40	157,910.40	0.00	0.00	21.56	156.80	2,631.84	2,810.20
Maintenance and Storage Facilities	21,519.00	32,278.50	53,797.50	96.00	900.00	0.00	0.00	645.57	1,641.57
Parks and Recreation Facilities									
Lodges	742.00	593.60	1,335.60	0.00	0.00	0.00	0.00	445.20	445.20
Cabins	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	590.00	0.00	590.00	0.00	0.00	0.00	0.00	354.00	354.00
Roads and Bridges									
Interstate Highway	80,100.00	0.00	80,100.00	0.00	0.00	0.00	0.00	0.00	0.00
Major Highways and Secondary Roads	67,020.00	0.00	67,020.00	600.00	0.00	45.60	0.00	0.00	645.60
Major Streets	49,200.00	0.00	49,200.00	0.00	0.00	14.40	0.00	0.00	14.40
Residential Streets	245,755.00	0.00	245,755.00	180.00	0.00	297.60	0.00	0.00	477.60
Docks and Piers	5,960.00	0.00	5,960.00	345.60	0.00	14.00	0.00	0.00	359.60
UTILITIES/COMMUNICATIONS									
Water Storage Facilities									
Elevated Storage	992.00	0.00	992.00	0.00	0.00	0.00	0.00	29.76	29.76
Other Storage	623.00	0.00	623.00	0.00	0.00	0.00	0.00	18.69	18.69
Water Treatment Facilities	604.00	0.00	604.00	0.00	0.00	0.00	0.00	0.00	0.00
Sewage Treatment Plants	12,845.00	0.00	12,845.00	0.00	0.00	0.00	0.00	0.00	0.00
Electrical									
Transmission Lines	8,432.00	0.00	8,432.00	0.00	0.00	0.00	0.00	674.56	674.56
Distribution Lines	24,152.50	0.00	24,152.50	0.00	0.00	0.00	0.00	1,932.20	1,932.20
Sub-stations	11,490.00	0.00	11,490.00	0.00	0.00	34.87	0.00	344.70	379.57
Generation Plants	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Telephone									
Lines, above ground	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas, major above-ground facilities	370.00	0.00	370.00	0.00	0.00	0.00	0.00	0.00	0.00
Radio/TV Transmitters/Towers	90.00	129.60	219.60	0.00	0.00	0.00	0.00	2.70	2.70
RAILROADS									
Buildings	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Track	43,800.00	0.00	43,800.00	550.00	0.00	0.00	0.00	0.00	550.00
NON-PROFIT FACILITIES									
Churches	13,561.00	10,848.80	24,409.80	0.00	0.00	0.00	0.00	406.83	406.83
Private Schools	762.00	609.60	1,371.60	0.00	0.00	0.00	0.00	22.86	22.86
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	$3,508,372.00	$4,136,472.70	$7,644,844.70	$18,631.89	$3,872.33	$64,291.55	$757,594.33	$179,260.33	$1,023,650.43

JACKSON COUNTY, MISSISSIPPI

TABLE XXV

POTENTIAL HURRICANE DAMAGES

CATEGORY: 4

CATEGORY: 4

JACKSON COUNTY LOSS ZONES	TOTAL STRUCTURE VALUE ($1000)	TOTAL CONTENT VALUE ($1000)	TOTAL VALUE STRUCTURE & CONTENTS ($1000)	TOTAL SURGE DAMAGE STRUCTURE ($1000)	TOTAL SURGE DAMAGE CONTENTS ($1000)	TOTAL VELOCITY DAMAGE STRUCTURE ($1000)	TOTAL VELOCITY DAMAGE CONTENTS ($1000)	WIND DAMAGE ($1000)	TOTAL DAMAGE BY TYPE ($1000)
LOSS ZONES: JAK001 - JAK041									
RESIDENTIAL									
Single Family.									
Substandard	$69,514.00	$34,757.00	$104,271.00	$3,774.03	$21.50	$609.30	$307.50	$6,929.80	$11,642.13
Medium	1,170,964.00	585,482.00	1,756,446.00	28,451.17	56.79	17,330.92	8,616.50	115,464.90	169,920.28
Upper	258,069.00	129,034.50	387,103.50	4,869.92	119.00	13,776.14	6,801.75	24,608.40	50,175.21
Multi-Family	73,479.00	36,739.50	110,218.50	216.51	78.44	932.70	717.75	4,408.74	6,354.14
Mobile Homes	20,274.50	10,151.10	30,425.60	1,937.95	8.78	0.00	0.00	18,336.55	20,283.28
COMMERCIAL									
Major	13,400.00	19,296.80	32,696.80	0.00	0.00	0.00	0.00	536.00	536.00
Other	167,165.00	240,690.50	407,855.50	1,185.00	249.43	623.60	1,673.27	6,682.60	10,413.90
INDUSTRIAL/MANUFACTURING									
Major	1,030,646.00	2,885,808.80	3,916,454.80	692.85	4,154.19	108,750.00	1,617,000.00	41,225.84	1,771,822.88
Other	8,502.00	23,805.60	32,307.60	110.00	2,128.00	42.90	775.32	340.08	3,396.30
MAJOR MEDICAL FACILITIES									
Public	5,726.00	16,032.80	21,758.80	0.00	0.00	0.00	0.00	229.04	229.04
Private	14,297.00	40,031.60	54,328.60	0.00	0.00	0.00	0.00	571.88	571.88
PUBLIC FACILITIES									
Buildings	87,728.00	70,182.40	157,910.40	836.34	302.20	1,448.58	10,449.60	3,509.12	16,545.84
Maintenance and Storage Facilities	21,519.00	32,278.50	53,797.50	395.83	2,181.44	1.10	15.00	860.76	3,454.13
Parks and Recreation Facilities									
Lodges	742.00	593.60	1,335.60	0.00	0.00	0.00	0.00	742.00	742.00
Cabins	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	590.00	0.00	590.00	0.00	0.00	0.00	0.00	590.00	590.00
Roads and Bridges									
Interstate Highway	80,100.00	0.00	80,100.00	0.00	0.00	0.00	0.00	0.00	0.00
Major Highways and Secondary Roads	67,020.00	0.00	67,020.00	2,291.25	0.00	69.60	0.00	0.00	2,360.85
Major Streets	49,200.00	0.00	49,200.00	328.80	0.00	20.40	0.00	0.00	349.20
Residential Streets	245,755.00	0.00	245,755.00	1,860.85	0.00	491.60	0.00	0.00	2,352.45
Docks and Piers	5,960.00	0.00	5,960.00	0.00	0.00	772.80	0.00	0.00	772.80
UTILITIES/COMMUNICATIONS									
Water Storage Facilities									
Elevated Storage	992.00	0.00	992.00	0.00	0.00	0.00	0.00	39.68	39.68
Other Storage	623.00	0.00	623.00	2.10	0.00	2.31	0.00	24.92	29.33
Water Treatment Facilities	604.00	0.00	604.00	0.00	0.00	0.00	0.00	0.00	0.00
Sewage Treatment Plants	12,845.00	0.00	12,845.00	47.88	0.00	100.00	0.00	0.00	147.88
Electrical									
Transmission Lines	8,432.00	0.00	8,432.00	0.00	0.00	0.00	0.00	843.20	843.20
Distribution Lines	24,152.50	0.00	24,152.50	0.00	0.00	0.00	0.00	2,415.25	2,415.25
Sub-stations	11,490.00	0.00	11,490.00	0.00	0.00	267.49	0.00	459.60	727.09
Generation Plants	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Telephone									
Lines, above ground	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas, major above-ground facilities	370.00	0.00	370.00	0.00	0.00	1.10	0.00	0.00	1.10
Radio/TV Transmitters/Towers	90.00	129.60	219.60	0.00	0.00	0.00	0.00	3.60	3.60
RAILROADS									
Buildings	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Track	43,800.00	0.00	43,800.00	1,260.00	0.00	110.00	0.00	0.00	1,370.00
NON-PROFIT FACILITIES									
Churches	13,561.00	10,848.80	24,409.80	131.65	486.56	0.00	0.00	542.44	1,160.65
Private Schools	762.00	609.60	1,371.60	38.10	128.02	0.00	0.00	30.48	196.60
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	$3,508,372.00	$4,136,472.70	$7,644,844.70	$48,430.23	$9,914.35	$145,350.54	$1,646,356.69	$229,394.88	$2,079,446.69

JACKSON COUNTY, MISSISSIPPI

TABLE XXVI

POTENTIAL HURRICANE DAMAGES

CATEGORY: 5

CATEGORY: 5

JACKSON COUNTY LOSS ZONES	TOTAL STRUCTURE VALUE ($1000)	TOTAL CONTENT VALUE ($1000)	TOTAL VALUE STRUCTURE & CONTENTS ($1000)	TOTAL SURGE DAMAGE STRUCTURE ($1000)	TOTAL SURGE DAMAGE CONTENTS ($1000)	TOTAL VELOCITY DAMAGE STRUCTURE ($1000)	TOTAL VELOCITY DAMAGE CONTENTS ($1000)	WIND DAMAGE ($1000)	TOTAL DAMAGE BY TYPE ($1000)
LOSS ZONES: JAK001 - JAK041									
RESIDENTIAL									
Single Family.									
Substandard	$69,514.00	$34,757.00	$104,271.00	$7,922.94	$43.06	$962.94	$431.70	$13,779.80	$23,140.44
Medium	1,170,964.00	585,482.00	1,756,446.00	110,784.00	124.94	18,863.80	9,441.50	230,685.00	369,899.24
Upper	258,069.00	129,034.50	387,103.50	13,981.19	314.05	14,143.00	7,071.50	48,785.20	84,294.94
Multi-Family	73,479.00	36,739.50	110,218.50	8,215.87	717.75	1,540.90	740.79	10,916.85	22,132.16
Mobile Homes	20,274.50	10,151.10	30,425.60	3,874.32	15.18	0.00	0.00	16,400.18	20,289.68
COMMERCIAL									
Major	13,400.00	19,296.80	32,696.80	0.00	0.00	0.00	0.00	1,742.00	1,742.00
Other	167,165.00	240,690.50	407,855.50	7,413.84	694.94	865.04	1,942.06	21,718.45	32,634.33
INDUSTRIAL/MANUFACTURING									
Major	1,030,646.00	2,885,808.80	3,916,454.80	1,452.60	7,703.61	172,500.00	1,711,500.00	133,983.98	2,027,140.19
Other	8,502.00	23,805.60	32,307.60	180.10	2,467.95	58.50	862.68	1,105.26	4,674.49
MAJOR MEDICAL FACILITIES									
Public	5,726.00	16,032.80	21,758.80	0.00	0.00	0.00	0.00	744.38	744.38
Private	14,297.00	40,031.60	54,328.60	0.00	0.00	0.00	0.00	1,858.61	1,858.61
PUBLIC FACILITIES									
Buildings	87,728.00	70,182.40	157,910.40	1,991.46	682.89	2,672.28	15,449.60	11,404.64	32,200.87
Maintenance and Storage Facilities	21,519.00	32,278.50	53,797.50	547.24	2,651.01	67.50	915.00	2,797.47	6,978.22
Parks and Recreation Facilities									
Lodges	742.00	593.60	1,335.60	0.00	0.00	0.00	0.00	742.00	742.00
Cabins	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	590.00	0.00	590.00	33.00	0.00	0.00	0.00	557.00	590.00
Roads and Bridges									
Interstate Highway	80,100.00	0.00	80,100.00	0.00	0.00	0.00	0.00	0.00	0.00
Major Highways and Secondary Roads	67,020.00	0.00	67,020.00	3,210.75	0.00	489.00	0.00	0.00	3,699.75
Major Streets	49,200.00	0.00	49,200.00	1,178.40	0.00	33.60	0.00	0.00	1,212.00
Residential Streets	245,755.00	0.00	245,755.00	4,802.30	0.00	946.40	0.00	0.00	5,748.70
Docks and Piers	5,960.00	0.00	5,960.00	0.00	0.00	1,194.00	0.00	0.00	1,194.00
UTILITIES/COMMUNICATIONS									
Water Storage Facilities									
Elevated Storage	992.00	0.00	992.00	0.00	0.00	0.00	0.00	128.96	128.96
Other Storage	623.00	0.00	623.00	4.22	0.00	3.15	0.00	80.99	88.36
Water Treatment Facilities	604.00	0.00	604.00	3.04	0.00	0.00	0.00	0.00	3.04
Sewage Treatment Plants	12,845.00	0.00	12,845.00	257.37	0.00	130.00	0.00	0.00	387.37
Electrical									
Transmission Lines	8,432.00	0.00	8,432.00	0.00	0.00	0.00	0.00	1,686.40	1,686.40
Distribution Lines	24,152.50	0.00	24,152.50	0.00	0.00	0.00	0.00	4,830.50	4,830.50
Sub-stations	11,490.00	0.00	11,490.00	70.16	0.00	366.44	0.00	1,493.70	1,930.30
Generation Plants	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Telephone									
Lines, above ground	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas, major above-ground facilities	370.00	0.00	370.00	8.00	0.00	1.50	0.00	0.00	9.50
Radio/TV Transmitters/Towers	90.00	129.60	219.60	0.00	0.00	3.00	252.00	11.70	266.70
RAILROADS									
Buildings	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Track	43,800.00	0.00	43,800.00	2,039.00	0.00	150.00	0.00	0.00	2,189.00
NON-PROFIT FACILITIES									
Churches	13,561.00	10,848.80	24,409.80	572.50	1,586.24	9.90	432.00	1,762.93	4,363.57
Private Schools	762.00	609.60	1,371.60	60.96	371.86	0.00	0.00	99.06	531.88
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	$3,508,372.00	$4,136,472.70	$7,644,844.70	$168,603.26	$17,373.48	$215,000.95	$1,749,038.83	$507,315.06	$2,657,331.58

MOBILE COUNTY, ALABAMA

TABLE XXVII

POTENTIAL HURRICANE DAMAGES

CATEGORY: 1

CATEGORY: 1

MOBILE COUNTY LOSS ZONES	TOTAL STRUCTURE VALUE ($1000)	TOTAL CONTENT VALUE ($1000)	TOTAL VALUE STRUCTURE & CONTENTS ($1000)	TOTAL SURGE DAMAGE STRUCTURE ($1000)	TOTAL SURGE DAMAGE CONTENTS ($1000)	TOTAL VELOCITY DAMAGE STRUCTURE ($1000)	TOTAL VELOCITY DAMAGE CONTENTS ($1000)	WIND DAMAGE ($1000)	TOTAL DAMAGE BY TYPE ($1000)
LOSS ZONES: MOB001 - MOB019									
RESIDENTIAL									
Single Family.									
Substandard	$7,792.00	$3,896.00	$11,688.00	$0.00	$0.00	$0.00	$0.00	$467.52	$467.52
Medium	501,749.60	251,127.70	752,877.30	0.00	0.00	0.00	0.00	30,104.97	30,104.97
Upper	4,500.00	2,250.00	6,750.00	0.00	0.00	0.00	0.00	270.00	270.00
Multi-Family	207,486.90	103,785.60	311,272.50	0.00	0.00	0.00	0.00	6,224.61	6,224.61
Mobile Homes	8,573.70	4,290.00	12,863.70	0.00	0.00	0.00	0.00	1,028.84	1,028.84
COMMERCIAL									
Major	160,941.80	231,755.20	392,697.00	0.00	0.00	0.00	0.00	3,218.84	3,218.84
Other	159,364.90	229,432.20	388,797.10	0.00	0.00	0.00	0.00	3,187.30	3,187.30
INDUSTRIAL/MANUFACTURING									
Major	66,701.50	186,764.20	253,465.70	0.00	0.00	0.00	0.00	1,334.04	1,334.04
Other	14,580.00	40,824.00	55,404.00	0.00	0.00	0.00	0.00	291.60	291.60
MAJOR MEDICAL FACILITIES									
Public	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Private	28,000.00	78,400.00	106,400.00	0.00	0.00	0.00	0.00	560.00	560.00
PUBLIC FACILITIES									
Buildings	267,953.60	214,357.70	482,311.30	0.00	0.00	0.00	0.00	5,359.08	5,359.08
Maintenance and Storage Facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parks and Recreation Facilities									
Lodges	1,219.40	975.80	2,195.20	0.00	0.00	0.00	0.00	146.33	146.33
Cabins	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Roads and Bridges									
Interstate Highway	26,100.00	0.00	26,100.00	0.00	0.00	0.00	0.00	0.00	0.00
Major Highways and Secondary Roads	47,300.00	0.00	47,300.00	0.00	0.00	0.00	0.00	0.00	0.00
Major Streets	15,240.00	0.00	15,240.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential Streets	110,440.00	0.00	110,440.00	0.00	0.00	0.00	0.00	0.00	0.00
Docks and Piers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UTILITIES/COMMUNICATIONS									
Water Storage Facilities									
Elevated Storage	1,066.00	0.00	1,066.00	0.00	0.00	0.00	0.00	21.32	21.32
Other Storage	890.40	0.00	890.40	0.00	0.00	0.00	0.00	17.81	17.81
Water Treatment Facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sewage Treatment Plants	18,864.60	0.00	18,864.60	0.00	0.00	0.00	0.00	0.00	0.00
Electrical									
Transmission Lines	5,225.68	0.00	5,225.68	0.00	0.00	0.00	0.00	313.55	313.55
Distribution Lines	9,257.50	0.00	9,257.50	0.00	0.00	0.00	0.00	555.45	555.45
Sub-stations	23,936.80	0.00	23,936.80	72.70	0.00	0.00	0.00	478.73	551.43
Generation Plants	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Telephone									
Lines, above ground	1,175.64	0.00	1,175.64	0.00	0.00	0.00	0.00	23.51	23.51
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas, major above-ground facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Radio/TV Transmitters/Towers	674.80	971.60	1,646.40	0.00	0.00	0.00	0.00	13.50	13.50
RAILROADS									
Buildings	824.40	658.80	1,483.20	0.00	0.00	0.00	0.00	16.49	16.49
Track	46,800.00	0.00	46,800.00	0.00	0.00	0.00	0.00	0.00	0.00
NON-PROFIT FACILITIES									
Churches	17,440.00	13,952.00	31,392.00	0.00	0.00	0.00	0.00	348.80	348.80
Private Schools	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	$1,754,099.22	$1,363,440.80	$3,117,540.02	$72.70	$0.00	$0.00	$0.00	$53,982.29	$54,054.99

MOBILE COUNTY, ALABAMA

CATEGORY: 2

TABLE XXVIII

POTENTIAL HURRICANE DAMAGES

CATEGORY: 2

MOBILE COUNTY LOSS ZONES	TOTAL STRUCTURE VALUE ($1000)	TOTAL CONTENT VALUE ($1000)	TOTAL VALUE STRUCTURE & CONTENTS ($1000)	TOTAL SURGE DAMAGE STRUCTURE ($1000)	TOTAL SURGE DAMAGE CONTENTS ($1000)	TOTAL VELOCITY DAMAGE STRUCTURE ($1000)	TOTAL VELOCITY DAMAGE CONTENTS ($1000)	WIND DAMAGE ($1000)	TOTAL DAMAGE BY TYPE ($1000)
LOSS ZONES: MOB001 - MOB019									
RESIDENTIAL									
Single Family.									
Substandard	$7,792.00	$3,896.00	$11,688.00	$0.00	$0.00	$0.00	$0.00	$545.44	$545.44
Medium	501,749.60	251,127.70	752,877.30	0.00	0.00	0.00	0.00	35,122.47	35,122.47
Upper	4,500.00	2,250.00	6,750.00	0.00	0.00	0.00	0.00	315.00	315.00
Multi-Family	207,486.90	103,785.60	311,272.50	0.00	0.00	0.00	0.00	8,299.48	8,299.48
Mobile Homes	8,573.70	4,290.00	12,863.70	0.00	0.00	0.00	0.00	2,400.64	2,400.64
COMMERCIAL									
Major	160,941.80	231,755.20	392,697.00	0.00	0.00	0.00	0.00	3,218.84	3,218.84
Other	159,364.90	229,432.20	388,797.10	0.00	0.00	0.00	0.00	3,187.30	3,187.30
INDUSTRIAL/MANUFACTURING									
Major	66,701.50	186,764.20	253,465.70	0.00	0.00	0.00	0.00	1,334.04	1,334.04
Other	14,580.00	40,824.00	55,404.00	0.00	0.00	0.00	0.00	291.60	291.60
MAJOR MEDICAL FACILITIES									
Public	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Private	28,000.00	78,400.00	106,400.00	0.00	0.00	0.00	0.00	560.00	560.00
PUBLIC FACILITIES									
Buildings	267,953.60	214,357.70	482,311.30	0.00	0.00	0.00	0.00	5,359.08	5,359.08
Maintenance and Storage Facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parks and Recreation Facilities									
Lodges	1,219.40	975.80	2,195.20	0.00	0.00	0.00	0.00	341.43	341.43
Cabins	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Roads and Bridges									
Interstate Highway	26,100.00	0.00	26,100.00	0.00	0.00	0.00	0.00	0.00	0.00
Major Highways and Secondary Roads	47,300.00	0.00	47,300.00	220.00	0.00	0.00	0.00	0.00	220.00
Major Streets	15,240.00	0.00	15,240.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential Streets	110,440.00	0.00	110,440.00	60.00	0.00	0.00	0.00	0.00	60.00
Docks and Piers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UTILITIES/COMMUNICATIONS									
Water Storage Facilities									
Elevated Storage	1,066.00	0.00	1,066.00	0.00	0.00	0.00	0.00	21.32	21.32
Other Storage	890.40	0.00	890.40	0.00	0.00	0.00	0.00	17.81	17.81
Water Treatment Facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sewage Treatment Plants	18,864.60	0.00	18,864.60	0.00	0.00	0.00	0.00	0.00	0.00
Electrical									
Transmission Lines	5,225.68	0.00	5,225.68	0.00	0.00	0.00	0.00	365.80	365.80
Distribution Lines	9,257.50	0.00	9,257.50	0.00	0.00	0.00	0.00	648.03	648.03
Sub-stations	23,936.80	0.00	23,936.80	90.87	0.00	0.00	0.00	478.73	569.60
Generation Plants	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Telephone									
Lines, above ground	1,175.64	0.00	1,175.64	0.00	0.00	0.00	0.00	23.51	23.51
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas, major above-ground facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Radio/TV Transmitters/Towers	674.80	971.60	1,646.40	0.00	0.00	0.00	0.00	13.50	13.50
RAILROADS									
Buildings	824.40	658.80	1,483.20	0.00	0.00	0.00	0.00	16.49	16.49
Track	46,800.00	0.00	46,800.00	0.00	0.00	0.00	0.00	0.00	0.00
NON-PROFIT FACILITIES									
Churches	17,440.00	13,952.00	31,392.00	0.00	0.00	0.00	0.00	348.80	348.80
Private Schools	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	$1,754,099.22	$1,363,440.80	$3,117,540.02	$370.87	$0.00	$0.00	$0.00	$62,909.31	$63,280.18

MOBILE COUNTY, ALABAMA

TABLE XXIX

POTENTIAL HURRICANE DAMAGES

CATEGORY: 3

CATEGORY: 3

MOBILE COUNTY LOSS ZONES	TOTAL STRUCTURE VALUE ($1000)	TOTAL CONTENT VALUE ($1000)	TOTAL VALUE STRUCTURE & CONTENTS ($1000)	TOTAL SURGE DAMAGE STRUCTURE ($1000)	TOTAL SURGE DAMAGE CONTENTS ($1000)	TOTAL VELOCITY DAMAGE STRUCTURE ($1000)	TOTAL VELOCITY DAMAGE CONTENTS ($1000)	WIND DAMAGE ($1000)	TOTAL DAMAGE BY TYPE ($1000)
LOSS ZONES: MOB001 - MOB019									
RESIDENTIAL									
Single Family.									
Substandard	$7,792.00	$3,896.00	$11,688.00	$0.00	$0.00	$0.00	$0.00	$623.36	$623.36
Medium	501,749.60	251,127.70	752,877.30	0.00	0.00	0.00	0.00	40,139.97	40,139.97
Upper	4,500.00	2,250.00	6,750.00	0.00	0.00	0.00	0.00	360.00	360.00
Multi-Family	207,486.90	103,785.60	311,272.50	0.00	0.00	0.00	0.00	8,299.48	8,299.48
Mobile Homes	8,573.70	4,290.00	12,863.70	0.00	0.00	0.00	0.00	5,144.22	5,144.22
COMMERCIAL									
Major	160,941.80	231,755.20	392,697.00	0.00	0.00	0.00	0.00	4,828.25	4,828.25
Other	159,364.90	229,432.20	388,797.10	0.00	0.00	0.00	0.00	4,780.94	4,780.94
INDUSTRIAL/MANUFACTURING									
Major	66,701.50	186,764.20	253,465.70	0.00	0.00	0.00	0.00	2,001.04	2,001.04
Other	14,580.00	40,824.00	55,404.00	0.00	0.00	0.00	0.00	437.40	437.40
MAJOR MEDICAL FACILITIES									
Public	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Private	28,000.00	78,400.00	106,400.00	0.00	0.00	0.00	0.00	840.00	840.00
PUBLIC FACILITIES									
Buildings	267,953.60	214,357.70	482,311.30	0.00	0.00	0.00	0.00	8,038.61	8,038.61
Maintenance and Storage Facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parks and Recreation Facilities									
Lodges	1,219.40	975.80	2,195.20	0.00	0.00	0.00	0.00	731.64	731.64
Cabins	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Roads and Bridges									
Interstate Highway	26,100.00	0.00	26,100.00	0.00	0.00	0.00	0.00	0.00	0.00
Major Highways and Secondary Roads	47,300.00	0.00	47,300.00	0.00	0.00	0.00	0.00	0.00	0.00
Major Streets	15,240.00	0.00	15,240.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential Streets	110,440.00	0.00	110,440.00	0.00	0.00	0.00	0.00	0.00	0.00
Docks and Piers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UTILITIES/COMMUNICATIONS									
Water Storage Facilities									
Elevated Storage	1,066.00	0.00	1,066.00	0.00	0.00	0.00	0.00	31.98	31.98
Other Storage	890.40	0.00	890.40	0.00	0.00	0.00	0.00	26.71	26.71
Water Treataent Facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sewage Treatment Plants	18,864.60	0.00	18,864.60	0.00	0.00	0.00	0.00	0.00	0.00
Electrical									
Transmission Lines	5,225.68	0.00	5,225.68	0.00	0.00	0.00	0.00	418.06	418.06
Distribution Lines	9,257.50	0.00	9,257.50	0.00	0.00	0.00	0.00	740.60	740.60
Sub-stations	23,936.80	0.00	23,936.80	136.31	0.00	0.00	0.00	718.10	854.41
Generation Plants	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Telephone									
Lines, above ground	1,175.64	0.00	1,175.64	0.00	0.00	0.00	0.00	35.27	35.27
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas, major above-ground facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Radio/TV Transmitters/Towers	674.80	971.60	1,646.40	0.00	0.00	0.00	0.00	20.24	20.24
RAILROADS									
Buildings	824.40	658.80	1,483.20	0.00	0.00	0.00	0.00	24.73	24.73
Track	46,800.00	0.00	46,800.00	0.00	0.00	0.00	0.00	0.00	0.00
NON-PROFIT FACILITIES									
Churches	17,440.00	13,952.00	31,392.00	0.00	0.00	0.00	0.00	523.20	523.20
Private Schools	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	$1,754,099.22	$1,363,440.80	$3,117,540.02	$136.31	$0.00	$0.00	$0.00	$78,763.80	$78,900.11

MOBILE COUNTY, ALABAMA

CATEGORY: 4

TABLE XXX

POTENTIAL HURRICANE DAMAGES

CATEGORY: 4

MOBILE COUNTY LOSS ZONES	TOTAL STRUCTURE VALUE ($1000)	TOTAL CONTENT VALUE ($1000)	TOTAL VALUE STRUCTURE & CONTENTS ($1000)	TOTAL SURGE DAMAGE STRUCTURE ($1000)	TOTAL SURGE DAMAGE CONTENTS ($1000)	TOTAL VELOCITY DAMAGE STRUCTURE ($1000)	TOTAL VELOCITY DAMAGE CONTENTS ($1000)	WIND DAMAGE ($1000)	TOTAL DAMAGE BY TYPE ($1000)
LOSS ZONES: MOB001 - MOB019									
RESIDENTIAL									
Single Family.									
Substandard	$7,792.00	$3,896.00	$11,688.00	$1,347.30	$4.26	$160.00	$83.20	$779.20	$2,373.96
Medium	501,749.60	251,127.70	752,877.30	51,182.88	57.63	9,804.87	4,845.80	50,174.96	116,066.13
Upper	4,500.00	2,250.00	6,750.00	0.00	0.00	750.00	390.00	450.00	1,590.00
Multi-Family	207,486.90	103,785.60	311,272.50	5,649.30	201.93	368.39	343.85	12,449.21	19,012.70
Mobile Homes	8,573.70	4,290.00	12,863.70	1,126.86	5.98	716.70	359.60	6,730.14	8,939.28
COMMERCIAL									
Major	160,941.80	231,755.20	392,697.00	26,938.50	3,671.91	0.00	0.00	6,437.67	37,048.07
Other	159,364.90	229,432.20	388,797.10	23,718.88	450.58	276.55	734.27	6,374.59	31,554.89
INDUSTRIAL/MANUFACTURING									
Major	66,701.50	186,764.20	253,465.70	3,452.08	31,958.30	0.00	0.00	2,668.06	38,078.43
Other	14,580.00	40,824.00	55,404.00	554.04	1,777.67	34.32	561.79	583.20	3,511.02
MAJOR MEDICAL FACILITIES									
Public	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Private	28,000.00	78,400.00	106,400.00	840.00	16,464.00	0.00	0.00	1,120.00	18,424.00
PUBLIC FACILITIES									
Buildings	267,953.60	214,357.70	482,311.30	11,260.54	1,279.37	21.06	129.60	10,718.15	23,408.71
Maintenance and Storage Facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parks and Recreation Facilities									
Lodges	1,219.40	975.80	2,195.20	0.00	0.00	0.00	0.00	1,219.40	1,219.40
Cabins	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Roads and Bridges									
Interstate Highway	26,100.00	0.00	26,100.00	0.00	0.00	0.00	0.00	0.00	0.00
Major Highways and Secondary Roads	47,300.00	0.00	47,300.00	1,026.00	0.00	0.00	0.00	0.00	1,026.00
Major Streets	15,240.00	0.00	15,240.00	567.60	0.00	0.00	0.00	0.00	567.60
Residential Streets	110,440.00	0.00	110,440.00	4,224.40	0.00	532.80	0.00	0.00	4,757.20
Docks and Piers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UTILITIES/COMMUNICATIONS									
Water Storage Facilities									
Elevated Storage	1,066.00	0.00	1,066.00	0.00	0.00	0.00	0.00	42.64	42.64
Other Storage	890.40	0.00	890.40	11.50	0.00	0.00	0.00	35.62	47.12
Water Treatment Facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sewage Treatment Plants	18,864.60	0.00	18,864.60	838.40	0.00	11.19	0.00	0.00	849.59
Electrical									
Transmission Lines	5,225.68	0.00	5,225.68	0.00	0.00	0.00	0.00	522.57	522.57
Distribution Lines	9,257.50	0.00	9,257.50	0.00	0.00	0.00	0.00	925.75	925.75
Sub-stations	23,936.80	0.00	23,936.80	696.56	0.00	950.69	0.00	957.47	2,604.71
Generation Plants	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Telephone									
Lines, above ground	1,175.64	0.00	1,175.64	0.00	0.00	0.00	0.00	47.03	47.03
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas, major above-ground facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Radio/TV Transmitters/Towers	674.80	971.60	1,646.40	33.74	242.90	0.00	0.00	26.99	303.63
RAILROADS									
Buildings	824.40	658.80	1,483.20	49.46	19.03	0.00	0.00	32.98	101.47
Track	46,800.00	0.00	46,800.00	2,204.00	0.00	650.00	0.00	0.00	2,854.00
NON-PROFIT FACILITIES									
Churches	17,440.00	13,952.00	31,392.00	543.50	3,229.20	35.10	936.00	697.60	5,441.40
Private Schools	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	$1,754,099.22	$1,363,440.80	$3,117,540.02	$136,265.54	$59,362.76	$14,311.67	$8,384.11	$102,993.23	$321,317.30

MOBILE COUNTY, ALABAMA

CATEGORY: 5

TABLE XXXI

POTENTIAL HURRICANE DAMAGES

CATEGORY: 5

MOBILE COUNTY LOSS ZONES	TOTAL STRUCTURE VALUE ($1000)	TOTAL CONTENT VALUE ($1000)	TOTAL VALUE STRUCTURE & CONTENTS ($1000)	TOTAL SURGE DAMAGE STRUCTURE ($1000)	TOTAL SURGE DAMAGE CONTENTS ($1000)	TOTAL VELOCITY DAMAGE STRUCTURE ($1000)	TOTAL VELOCITY DAMAGE CONTENTS ($1000)	WIND DAMAGE ($1000)	TOTAL DAMAGE BY TYPE ($1000)
LOSS ZONES: MOB001 - MOB019									
RESIDENTIAL									
Single Family.									
Substandard	$7,792.00	$3,896.00	$11,688.00	$408.90	$1.17	$0.00	$0.00	$1,558.40	$1,968.47
Medium	501,749.60	251,127.70	752,877.30	1,942.27	5.58	4,170.14	2,149.23	100,349.92	108,617.14
Upper	4,500.00	2,250.00	6,750.00	0.00	0.00	0.00	0.00	900.00	900.00
Multi-Family	207,486.90	103,785.60	311,272.50	115.58	5.89	166.37	206.43	31,123.05	31,617.32
Mobile Homes	8,573.70	4,290.00	12,863.70	0.00	0.00	529.20	264.60	8,044.50	8,838.30
COMMERCIAL									
Major	160,941.80	231,755.20	392,697.00	167.98	94.08	0.00	0.00	20,922.43	21,184.49
Other	159,364.90	229,432.20	388,797.10	5,504.54	83.44	105.98	319.46	20,717.43	26,730.86
INDUSTRIAL/MANUFACTURING									
Major	66,701.50	186,764.20	253,465.70	2,066.62	19,403.47	0.00	0.00	8,671.19	30,141.28
Other	14,580.00	40,824.00	55,404.00	206.40	547.23	26.40	495.26	1,895.40	3,170.69
MAJOR MEDICAL FACILITIES									
Public	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Private	28,000.00	78,400.00	106,400.00	0.00	0.00	0.00	0.00	3,640.00	3,640.00
PUBLIC FACILITIES									
Buildings	267,953.60	214,357.70	482,311.30	2,945.79	181.53	16.20	129.60	34,833.97	38,107.08
Maintenance and Storage Facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parks and Recreation Facilities									
Lodges	1,219.40	975.80	2,195.20	0.00	0.00	0.00	0.00	1,219.40	1,219.40
Cabins	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Roads and Bridges									
Interstate Highway	26,100.00	0.00	26,100.00	0.00	0.00	0.00	0.00	0.00	0.00
Major Highways and Secondary Roads	47,300.00	0.00	47,300.00	511.00	0.00	0.00	0.00	0.00	511.00
Major Streets	15,240.00	0.00	15,240.00	241.20	0.00	0.00	0.00	0.00	241.20
Residential Streets	110,440.00	0.00	110,440.00	1,804.40	0.00	72.00	0.00	0.00	1,876.40
Docks and Piers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UTILITIES/COMMUNICATIONS									
Water Storage Facilities									
Elevated Storage	1,066.00	0.00	1,066.00	0.00	0.00	0.00	0.00	138.58	138.58
Other Storage	890.40	0.00	890.40	0.00	0.00	0.00	0.00	115.75	115.75
Water Treatment Facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sewage Treatment Plants	18,864.60	0.00	18,864.60	25.00	0.00	8.61	0.00	0.00	33.61
Electrical									
Transmission Lines	5,225.68	0.00	5,225.68	0.00	0.00	0.00	0.00	1,045.13	1,045.13
Distribution Lines	9,257.50	0.00	9,257.50	0.00	0.00	0.00	0.00	1,851.50	1,851.50
Sub-stations	23,936.80	0.00	23,936.80	145.39	0.00	731.30	0.00	3,111.78	3,988.48
Generation Plants	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Telephone									
Lines, above ground	1,175.64	0.00	1,175.64	0.00	0.00	0.00	0.00	152.83	152.83
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas, major above-ground facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Radio/TV Transmitters/Towers	674.80	971.60	1,646.40	0.00	0.00	0.00	0.00	87.72	87.72
RAILROADS									
Buildings	824.40	658.80	1,483.20	24.73	7.69	0.00	0.00	107.17	139.59
Track	46,800.00	0.00	46,800.00	1,598.00	0.00	500.00	0.00	0.00	2,098.00
NON-PROFIT FACILITIES									
Churches	17,440.00	13,952.00	31,392.00	0.00	0.00	0.00	0.00	2,267.20	2,267.20
Private Schools	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	$1,754,099.22	$1,363,440.80	$3,117,540.02	$17,707.80	$20,330.08	$6,326.20	$3,564.58	$242,753.35	$290,682.02

BALDWIN COUNTY, ALABAMA

CATEGORY: 1

TABLE XXXII

POTENTIAL HURRICANE DAMAGES

CATEGORY: 1

BALDWIN COUNTY LOSS ZONES	TOTAL STRUCTURE VALUE ($1000)	TOTAL CONTENT VALUE ($1000)	TOTAL VALUE STRUCTURE & CONTENTS ($1000)	TOTAL SURGE DAMAGE STRUCTURE ($1000)	TOTAL SURGE DAMAGE CONTENTS ($1000)	TOTAL VELOCITY DAMAGE STRUCTURE ($1000)	TOTAL VELOCITY DAMAGE CONTENTS ($1000)	WIND DAMAGE ($1000)	TOTAL DAMAGE BY TYPE ($1000)
LOSS ZONES: BAL001 - BAL006									
RESIDENTIAL									
Single Family.									
Substandard	$330.00	$165.00	$495.00	$0.00	$0.00	$0.00	$0.00	$19.80	$19.80
Medium	106,661.30	53,434.80	160,096.10	0.00	0.00	0.00	0.00	6,399.68	6,399.68
Upper	15,154.00	7,577.00	22,731.00	0.00	0.00	0.00	0.00	909.24	909.24
Multi-Family	262,174.80	131,087.40	393,262.20	0.00	0.00	0.00	0.00	7,865.25	7,865.25
Mobile Homes	1,068.40	538.80	1,607.20	0.00	0.00	0.00	0.00	128.21	128.21
COMMERCIAL									
Major	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	50,735.40	73,062.30	123,797.70	0.00	0.00	0.00	0.00	1,014.71	1,014.71
INDUSTRIAL/MANUFACTURING									
Major	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	924.00	2,587.20	3,511.20	0.00	0.00	0.00	0.00	18.48	18.48
MAJOR MEDICAL FACILITIES									
Public	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Private	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PUBLIC FACILITIES									
Buildings	4,998.00	3,998.40	8,996.40	0.00	0.00	0.00	0.00	99.96	99.96
Maintenance and Storage Facilities	125.00	187.50	312.50	0.00	0.00	0.00	0.00	2.50	2.50
Parks and Recreation Facilities									
Lodges	5,000.00	4,000.00	9,000.00	0.00	0.00	0.00	0.00	600.00	600.00
Cabins	2,500.00	1,250.00	3,750.00	0.00	0.00	0.00	0.00	300.00	300.00
Other	210.00	0.00	210.00	0.00	0.00	0.00	0.00	25.20	25.20
Roads and Bridges									
Interstate Highway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Major Highways and Secondary Roads	105,100.00	0.00	105,100.00	0.00	0.00	0.00	0.00	0.00	0.00
Major Streets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential Streets	29,720.00	0.00	29,720.00	0.00	0.00	0.00	0.00	0.00	0.00
Docks and Piers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UTILITIES/COMMUNICATIONS									
Water Storage Facilities									
Elevated Storage	3,289.60	0.00	3,289.60	0.00	0.00	0.00	0.00	65.79	65.79
Other Storage	400.00	0.00	400.00	0.00	0.00	0.00	0.00	8.00	8.00
Water Treatment Facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sewage Treatment Plants	7,037.60	0.00	7,037.60	0.00	0.00	0.00	0.00	0.00	0.00
Electrical									
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Distribution Lines	4,442.50	0.00	4,442.50	0.00	0.00	0.00	0.00	266.55	266.55
Sub-stations	2,525.60	0.00	2,525.60	56.83	0.00	0.00	0.00	50.51	107.34
Generation Plants	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Telephone									
Lines, above ground	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas, major above-ground facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Radio/TV Transmitters/Towers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RAILROADS									
Buildings	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Track	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NON-PROFIT FACILITIES									
Churches	2,200.00	1,760.00	3,960.00	0.00	0.00	0.00	0.00	44.00	44.00
Private Schools	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	$604,596.20	$279,648.40	$884,244.60	$56.83	$0.00	$0.00	$0.00	$17,817.88	$17,874.71

BALDWIN COUNTY, ALABAMA

TABLE XXXIII

CATEGORY: 2

POTENTIAL HURRICANE DAMAGES

CATEGORY: 2 BALDWIN COUNTY LOSS ZONES	TOTAL STRUCTURE VALUE ($1000)	TOTAL CONTENT VALUE ($1000)	TOTAL VALUE STRUCTURE & CONTENTS ($1000)	TOTAL SURGE DAMAGE STRUCTURE ($1000)	TOTAL SURGE DAMAGE CONTENTS ($1000)	TOTAL VELOCITY DAMAGE STRUCTURE ($1000)	TOTAL VELOCITY DAMAGE CONTENTS ($1000)	WIND DAMAGE ($1000)	TOTAL DAMAGE BY TYPE ($1000)
LOSS ZONES: BAL001 - BAL006									
RESIDENTIAL									
Single Family.									
Substandard	$330.00	$165.00	$495.00	$0.00	$0.00	$0.00	$0.00	$23.10	$23.10
Medium	106,661.30	53,434.80	160,096.10	0.00	0.00	0.00	0.00	7,466.29	7,466.29
Upper	15,154.00	7,577.00	22,731.00	0.00	0.00	0.00	0.00	1,060.78	1,060.78
Multi-Family	262,174.80	131,087.40	393,262.20	0.00	0.00	0.00	0.00	10,486.99	10,486.99
Mobile Homes	1,068.40	538.80	1,607.20	0.00	0.00	0.00	0.00	299.15	299.15
COMMERCIAL									
Major	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	50,735.40	73,062.30	123,797.70	0.00	0.00	0.00	0.00	1,014.71	1,014.71
INDUSTRIAL/MANUFACTURING									
Major	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	924.00	2,587.20	3,511.20	0.00	0.00	0.00	0.00	18.48	18.48
MAJOR MEDICAL FACILITIES									
Public	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Private	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PUBLIC FACILITIES									
Buildings	4,998.00	3,998.40	8,996.40	0.00	0.00	0.00	0.00	99.96	99.96
Maintenance and Storage Facilities	125.00	187.50	312.50	0.00	0.00	0.00	0.00	2.50	2.50
Parks and Recreation Facilities									
Lodges	5,000.00	4,000.00	9,000.00	0.00	0.00	0.00	0.00	1,400.00	1,400.00
Cabins	2,500.00	1,250.00	3,750.00	0.00	0.00	0.00	0.00	700.00	700.00
Other	210.00	0.00	210.00	0.00	0.00	0.00	0.00	58.80	58.80
Roads and Bridges									
Interstate Highway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Major Highways and Secondary Roads	105,100.00	0.00	105,100.00	0.00	0.00	0.00	0.00	0.00	0.00
Major Streets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential Streets	29,720.00	0.00	29,720.00	0.00	0.00	0.00	0.00	0.00	0.00
Docks and Piers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UTILITIES/COMMUNICATIONS									
Water Storage Facilities									
Elevated Storage	3,289.60	0.00	3,289.60	0.00	0.00	0.00	0.00	65.79	65.79
Other Storage	400.00	0.00	400.00	0.00	0.00	0.00	0.00	8.00	8.00
Water Treatment Facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sewage Treatment Plants	7,037.60	0.00	7,037.60	0.00	0.00	0.00	0.00	0.00	0.00
Electrical									
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Distribution Lines	4,442.50	0.00	4,442.50	0.00	0.00	0.00	0.00	310.98	310.98
Sub-stations	2,525.60	0.00	2,525.60	69.45	0.00	0.00	0.00	50.51	119.97
Generation Plants	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Telephone									
Lines, above ground	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas, major above-ground facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Radio/TV Transmitters/Towers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RAILROADS									
Buildings	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Track	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NON-PROFIT FACILITIES									
Churches	2,200.00	1,760.00	3,960.00	0.00	0.00	0.00	0.00	44.00	44.00
Private Schools	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	$604,596.20	$279,648.40	$884,244.60	$69.45	$0.00	$0.00	$0.00	$23,110.04	$23,179.50

BALDWIN COUNTY, ALABAMA

TABLE XXXIV

CATEGORY: 3

POTENTIAL HURRICANE DAMAGES

CATEGORY: 3 BALDWIN COUNTY LOSS ZONES	TOTAL STRUCTURE VALUE ($1000)	TOTAL CONTENT VALUE ($1000)	TOTAL VALUE STRUCTURE & CONTENTS ($1000)	TOTAL SURGE DAMAGE STRUCTURE ($1000)	TOTAL SURGE DAMAGE CONTENTS ($1000)	TOTAL VELOCITY DAMAGE STRUCTURE ($1000)	TOTAL VELOCITY DAMAGE CONTENTS ($1000)	WIND DAMAGE ($1000)	TOTAL DAMAGE BY TYPE ($1000)
LOSS ZONES: BAL001 - BAL006									
RESIDENTIAL									
Single Family,									
Substandard	$330.00	$165.00	$495.00	$0.00	$0.00	$0.00	$0.00	$26.40	$26.40
Medium	106,661.30	53,434.80	160,096.10	6,565.11	15.46	0.00	0.00	8,532.90	15,113.48
Upper	15,154.00	7,577.00	22,731.00	826.50	29.25	0.00	0.00	1,212.32	2,068.07
Multi-Family	262,174.80	131,087.40	393,262.20	21,476.84	11.71	0.00	0.00	10,486.99	31,975.53
Mobile Homes	1,068.40	538.80	1,607.20	113.52	0.69	0.00	0.00	641.04	755.25
COMMERCIAL									
Major	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	50,735.40	73,062.30	123,797.70	3,057.14	1,196.48	0.00	0.00	1,522.06	5,775.68
INDUSTRIAL/MANUFACTURING									
Major	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	924.00	2,587.20	3,511.20	0.00	0.00	0.00	0.00	27.72	27.72
MAJOR MEDICAL FACILITIES									
Public	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Private	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PUBLIC FACILITIES									
Buildings	4,998.00	3,998.40	8,996.40	45.68	40.72	0.00	0.00	149.94	236.33
Maintenance and Storage Facilities	125.00	187.50	312.50	0.00	0.00	0.00	0.00	3.75	3.75
Parks and Recreation Facilities									
Lodges	5,000.00	4,000.00	9,000.00	0.00	0.00	0.00	0.00	3,000.00	3,000.00
Cabins	2,500.00	1,250.00	3,750.00	0.00	0.00	0.00	0.00	1,500.00	1,500.00
Other	210.00	0.00	210.00	0.00	0.00	0.00	0.00	126.00	126.00
Roads and Bridges									
Interstate Highway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Major Highways and Secondary Roads	105,100.00	0.00	105,100.00	2,052.00	0.00	0.00	0.00	0.00	2,052.00
Major Streets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential Streets	29,720.00	0.00	29,720.00	515.60	0.00	0.00	0.00	0.00	515.60
Docks and Piers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UTILITIES/COMMUNICATIONS									
Water Storage Facilities									
Elevated Storage	3,289.60	0.00	3,289.60	0.00	0.00	0.00	0.00	98.69	98.69
Other Storage	400.00	0.00	400.00	6.00	0.00	0.00	0.00	12.00	18.00
Water Treatment Facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sewage Treatment Plants	7,037.60	0.00	7,037.60	105.56	0.00	0.00	0.00	0.00	105.56
Electrical									
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Distribution Lines	4,442.50	0.00	4,442.50	0.00	0.00	0.00	0.00	355.40	355.40
Sub-stations	2,525.60	0.00	2,525.60	126.28	0.00	0.00	0.00	75.77	202.05
Generation Plants	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Telephone									
Lines, above ground	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas, major above-ground facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Radio/TV Transmitters/Towers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RAILROADS									
Buildings	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Track	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NON-PROFIT FACILITIES									
Churches	2,200.00	1,760.00	3,960.00	0.00	0.00	0.00	0.00	66.00	66.00
Private Schools	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	$604,596.20	$279,648.40	$884,244.60	$34,890.23	$1,294.31	$0.00	$0.00	$27,836.98	$64,021.51

BALDWIN COUNTY, ALABAMA

TABLE XXXV

CATEGORY: 4

POTENTIAL HURRICANE DAMAGES

CATEGORY: 4

BALDWIN COUNTY LOSS ZONES	TOTAL STRUCTURE VALUE ($1000)	TOTAL CONTENT VALUE ($1000)	TOTAL VALUE STRUCTURE & CONTENTS ($1000)	TOTAL SURGE DAMAGE STRUCTURE ($1000)	TOTAL SURGE DAMAGE CONTENTS ($1000)	TOTAL VELOCITY DAMAGE STRUCTURE ($1000)	TOTAL VELOCITY DAMAGE CONTENTS ($1000)	WIND DAMAGE ($1000)	TOTAL DAMAGE BY TYPE ($1000)
LOSS ZONES: BAL001 - BAL006									
RESIDENTIAL									
Single Family.									
Substandard	$330.00	$165.00	$495.00	$0.00	$0.00	$0.00	$0.00	$33.00	$33.00
Medium	106,661.30	53,434.80	160,096.10	11,529.69	22.53	11,462.00	5,742.00	9,519.93	38,276.15
Upper	15,154.00	7,577.00	22,731.00	1,846.50	66.00	0.00	0.00	1,515.40	3,427.90
Multi-Family	262,174.80	131,087.40	393,262.20	34,302.69	17.07	9,563.96	6,947.40	15,730.49	66,561.61
Mobile Homes	1,068.40	538.80	1,607.20	105.75	0.61	378.40	189.20	584.25	1,258.21
COMMERCIAL									
Major	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	50,735.40	73,062.30	123,797.70	5,132.84	396.06	2,735.86	5,836.48	2,029.42	16,130.64
INDUSTRIAL/MANUFACTURING									
Major	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	924.00	2,587.20	3,511.20	27.72	103.49	0.00	0.00	36.96	168.17
MAJOR MEDICAL FACILITIES									
Public	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Private	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PUBLIC FACILITIES									
Buildings	4,998.00	3,998.40	8,996.40	120.06	126.32	0.00	0.00	199.92	446.30
Maintenance and Storage Facilities	125.00	187.50	312.50	7.50	97.50	0.00	0.00	5.00	110.00
Parks and Recreation Facilities									
Lodges	5,000.00	4,000.00	9,000.00	0.00	0.00	0.00	0.00	5,000.00	5,000.00
Cabins	2,500.00	1,250.00	3,750.00	0.00	0.00	0.00	0.00	2,500.00	2,500.00
Other	210.00	0.00	210.00	0.00	0.00	0.00	0.00	210.00	210.00
Roads and Bridges									
Interstate Highway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Major Highways and Secondary Roads	105,100.00	0.00	105,100.00	4,594.00	0.00	2,040.00	0.00	0.00	6,634.00
Major Streets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential Streets	29,720.00	0.00	29,720.00	1,276.00	0.00	374.00	0.00	0.00	1,650.00
Docks and Piers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UTILITIES/COMMUNICATIONS									
Water Storage Facilities									
Elevated Storage	3,289.60	0.00	3,289.60	0.00	0.00	0.00	0.00	131.58	131.58
Other Storage	400.00	0.00	400.00	14.00	0.00	0.00	0.00	16.00	30.00
Water Treatment Facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sewage Treatment Plants	7,037.60	0.00	7,037.60	246.32	0.00	0.00	0.00	0.00	246.32
Electrical									
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Distribution Lines	4,442.50	0.00	4,442.50	0.00	0.00	0.00	0.00	444.25	444.25
Sub-stations	2,525.60	0.00	2,525.60	88.40	0.00	0.00	0.00	101.02	189.42
Generation Plants	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Telephone									
Lines, above ground	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas, major above-ground facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Radio/TV Transmitters/Towers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RAILROADS									
Buildings	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Track	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NON-PROFIT FACILITIES									
Churches	2,200.00	1,760.00	3,960.00	50.00	200.00	0.00	0.00	88.00	338.00
Private Schools	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	$604,596.20	$279,648.40	$884,244.60	$59,341.47	$1,029.58	$26,554.22	$18,715.08	$38,145.22	$143,785.55

BALDWIN COUNTY, ALABAMA

TABLE XXXVI

POTENTIAL HURRICANE DAMAGES

CATEGORY: 5

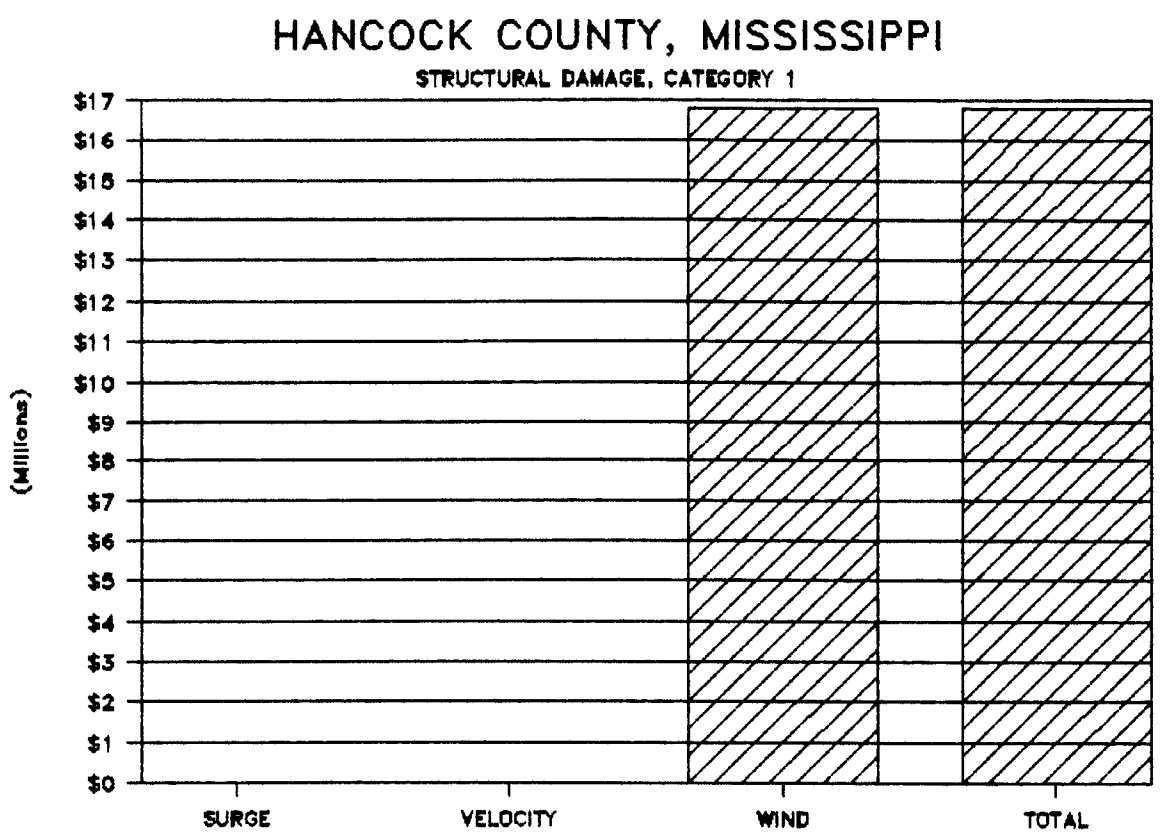
CATEGORY: 5

BALDWIN COUNTY LOSS ZONES	TOTAL STRUCTURE VALUE ($1000)	TOTAL CONTENT VALUE ($1000)	TOTAL VALUE STRUCTURE & CONTENTS ($1000)	TOTAL SURGE DAMAGE STRUCTURE ($1000)	TOTAL SURGE DAMAGE CONTENTS ($1000)	TOTAL VELOCITY DAMAGE STRUCTURE ($1000)	TOTAL VELOCITY DAMAGE CONTENTS ($1000)	WIND DAMAGE ($1000)	TOTAL DAMAGE BY TYPE ($1000)
LOSS ZONES: BAL001 - BAL006									
RESIDENTIAL									
Single Family.									
Substandard	$330.00	$165.00	$495.00	$49.50	$1.58	$0.00	$0.00	$66.00	$117.08
Medium	106,661.30	53,434.80	160,096.10	9,061.56	22.53	9,054.98	4,249.08	21,332.26	43,720.41
Upper	15,154.00	7,577.00	22,731.00	1,464.00	66.00	0.00	0.00	3,030.80	4,560.80
Multi-Family	262,174.80	131,087.40	393,262.20	33,911.59	17.07	7,398.53	6,676.72	39,326.22	87,330.14
Mobile Homes	1,068.40	538.80	1,607.20	101.25	0.61	378.40	189.20	588.75	1,258.21
COMMERCIAL									
Major	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	50,735.40	73,062.30	123,797.70	3,943.04	332.55	2,178.55	5,544.66	6,595.60	18,594.40
INDUSTRIAL/MANUFACTURING									
Major	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	924.00	2,587.20	3,511.20	0.00	0.00	0.00	0.00	120.12	120.12
MAJOR MEDICAL FACILITIES									
Public	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Private	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PUBLIC FACILITIES									
Buildings	4,998.00	3,998.40	8,996.40	82.08	154.80	0.00	0.00	649.74	886.62
Maintenance and Storage Facilities	125.00	187.50	312.50	7.50	97.50	0.00	0.00	16.25	121.25
Parks and Recreation Facilities									
Lodges	5,000.00	4,000.00	9,000.00	0.00	0.00	0.00	0.00	5,000.00	5,000.00
Cabins	2,500.00	1,250.00	3,750.00	0.00	0.00	0.00	0.00	2,500.00	2,500.00
Other	210.00	0.00	210.00	0.00	0.00	0.00	0.00	210.00	210.00
Roads and Bridges									
Interstate Highway	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Major Highways and Secondary Roads	105,100.00	0.00	105,100.00	3,623.00	0.00	1,560.00	0.00	0.00	5,183.00
Major Streets	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Residential Streets	29,720.00	0.00	29,720.00	1,086.40	0.00	286.00	0.00	0.00	1,372.40
Docks and Piers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
UTILITIES/COMMUNICATIONS									
Water Storage Facilities									
Elevated Storage	3,289.60	0.00	3,289.60	0.00	0.00	0.00	0.00	427.65	427.65
Other Storage	400.00	0.00	400.00	9.00	0.00	0.00	0.00	52.00	61.00
Water Treatment Facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sewage Treatment Plants	7,037.60	0.00	7,037.60	158.35	0.00	0.00	0.00	0.00	158.35
Electrical									
Transmission Lines	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Distribution Lines	4,442.50	0.00	4,442.50	0.00	0.00	0.00	0.00	888.50	888.50
Sub-stations	2,525.60	0.00	2,525.60	56.83	0.00	0.00	0.00	328.33	385.15
Generation Plants	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Telephone									
Lines, above ground	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Natural Gas, major above-ground facilities	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Radio/TV Transmitters/Towers	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RAILROADS									
Buildings	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Track	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NON-PROFIT FACILITIES									
Churches	2,200.00	1,760.00	3,960.00	22.50	25.20	0.00	0.00	286.00	333.70
Private Schools	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS	$604,596.20	$279,648.40	$884,244.60	$53,576.60	$717.84	$20,856.46	$16,659.66	$81,418.22	$173,228.78

C. Relative Magnitude of Damage. It is interesting to note from the total structural damages calculated for each county, that in many instances the greatest magnitude of damage is caused by winds rather than stillwater surge or wave action. In certain counties, this is true even for the more intense hurricanes. This is probably due to several factors. The study area has had a long history of frequent hurricane events as six consecutive years without a hurricane striking the study area is the longest span within the time of official weather records. The development patterns within the study area has most probably been partially molded by these events, especially the locations of older structures. Apparent risk taking by developers has increased in recent years as newer structures, especially condominiums, have been constructed in significant concentrations in the more vulnerable coastal areas. The existence of and participation in the Federal Flood Insurance Program by the study area counties has helped to partially mitigate potential damages from surge flooding within these developments.

The relative magnitude of damage between surge, velocity and winds change as storm category changes. The relative magnitude of structural damages is illustrated by the bar graphs on Figures 56 through 80. The relative magnitude of structural property damage is illustrated in the figures by county and for each category of hurricane.

In some instances, the magnitude of surge damage from a Category 4 hurricane exceeds the damages caused by winds while, in the same county, the amount of wind damage from a Category 5 hurricane exceeds that from surge. The relative magnitude of damages are county totals for structural damages. While the surge heights from a Category 5 hurricane would be higher than for a Category 4 in a specific location, the Category 5 hurricane, due to the smaller radius of maximum winds, would not necessarily cause the most overall surge damage within a county. This phenomenon is illustrated in the relative magnitude of damages shown in the graphs.


HANCOCK COUNTY, MISSISSIPPI
STRUCTURAL DAMAGE, CATEGORY 1
(Millions)
$17
$16
$15
$14
$13
$12
$11
$10
$9
$8
$7
$6
$5
$4
$3
$2
$1
$0
SURGE
VELOCITY
WIND
TOTAL

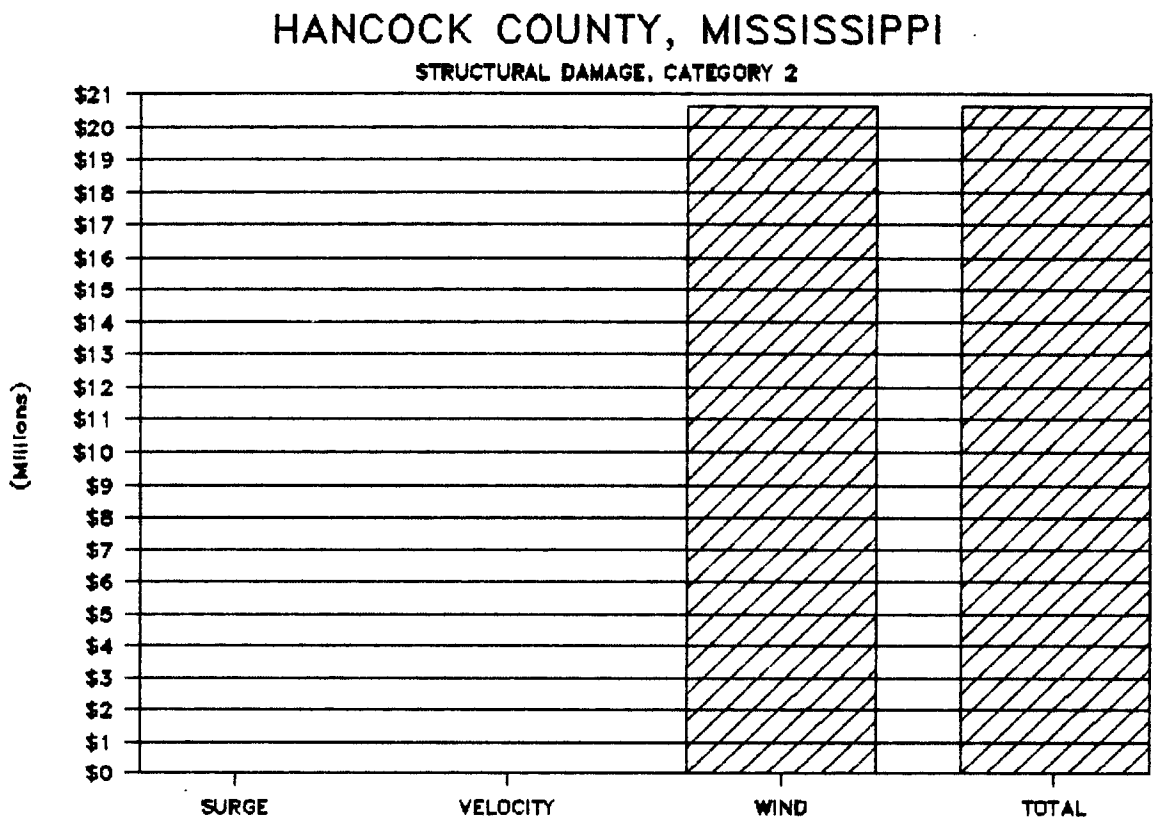
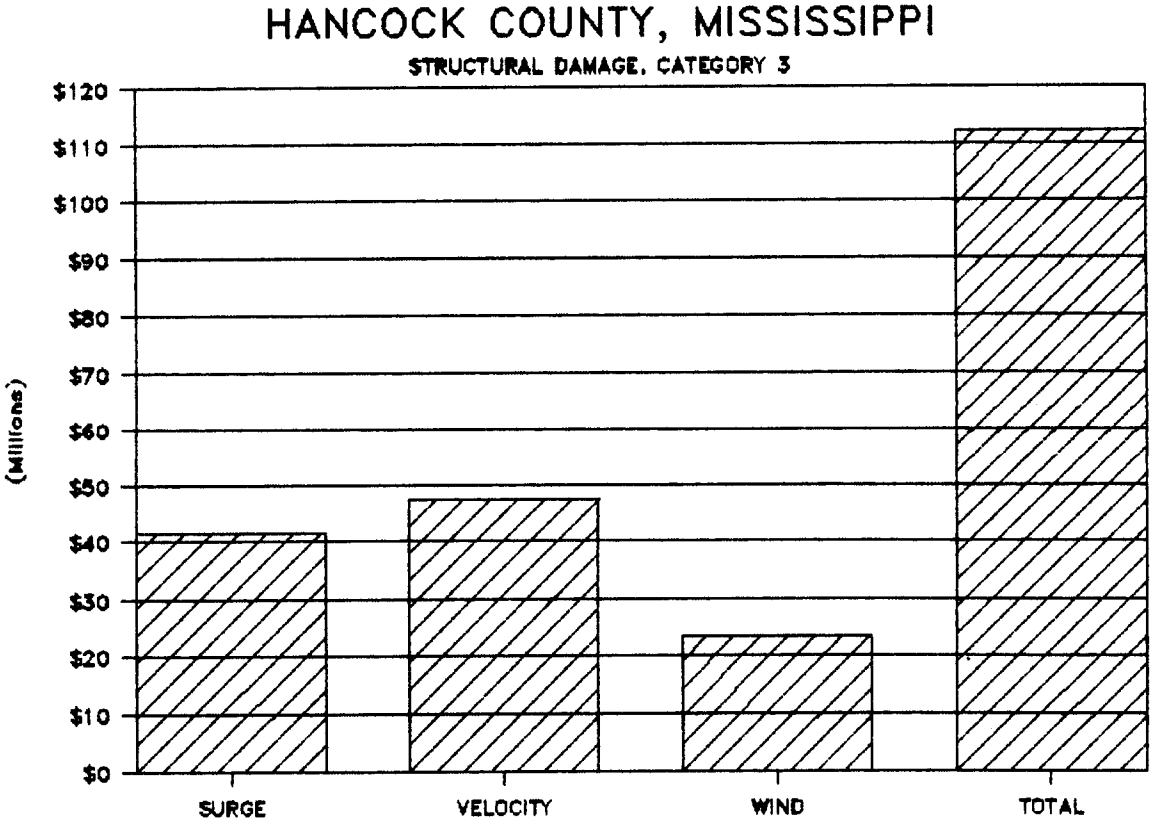

HANCOCK COUNTY, MISSISSIPPI
STRUCTURAL DAMAGE, CATEGORY 2
(Millions)
$21
$20
$19
$18
$17
$16
$15
$14
$13
$12
$11
$10
$9
$8
$7
$6
$5
$4
$3
$2
$1
$0
SURGE
VELOCITY
WIND
TOTAL

Figure 56


HANCOCK COUNTY, MISSISSIPPI
STRUCTURAL DAMAGE, CATEGORY 3
(Millions)
$120
$110
$100
$90
$80
$70
$60
$50
$40
$30
$20
$10
$0
SURGE
VELOCITY
WIND
TOTAL

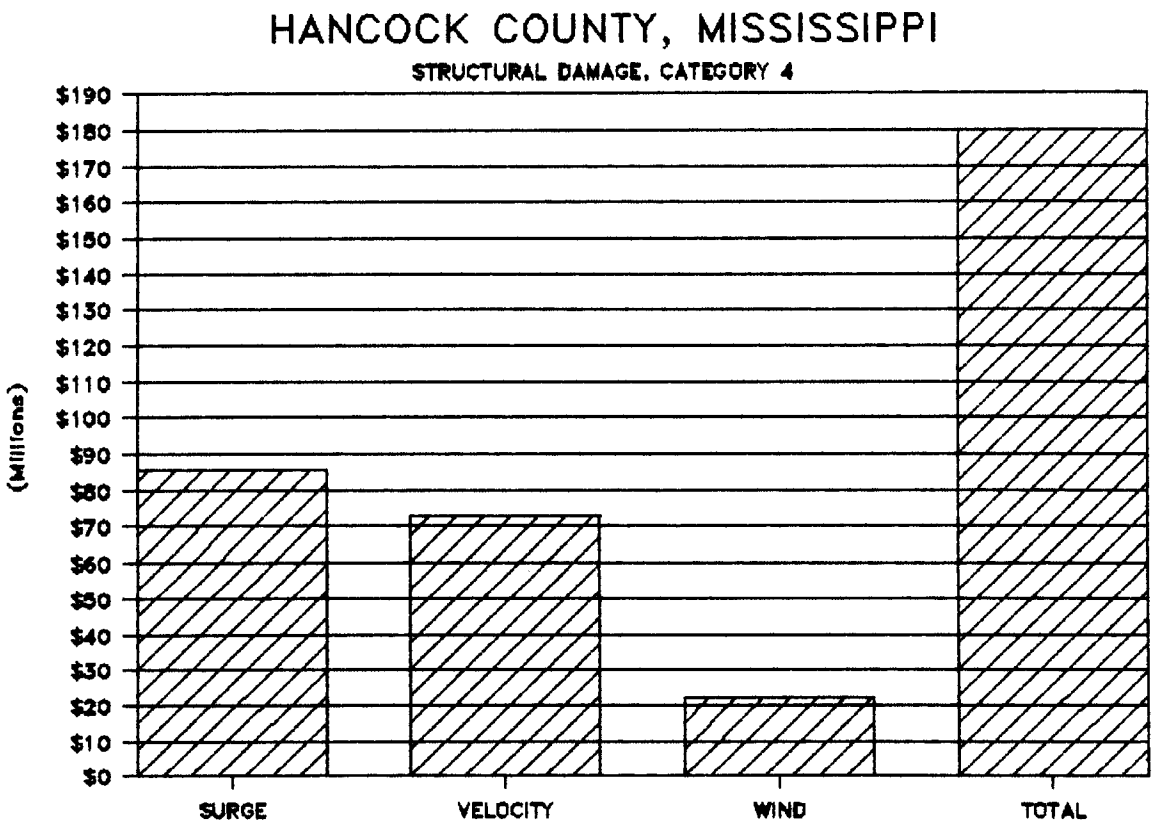

HANCOCK COUNTY, MISSISSIPPI
STRUCTURAL DAMAGE, CATEGORY 4
(Millions)
$190
$180
$170
$160
$150
$140
$130
$120
$110
$100
$90
$80
$70
$60
$50
$40
$30
$20
$10
$0
SURGE
VELOCITY
WIND
TOTAL

Figure 57

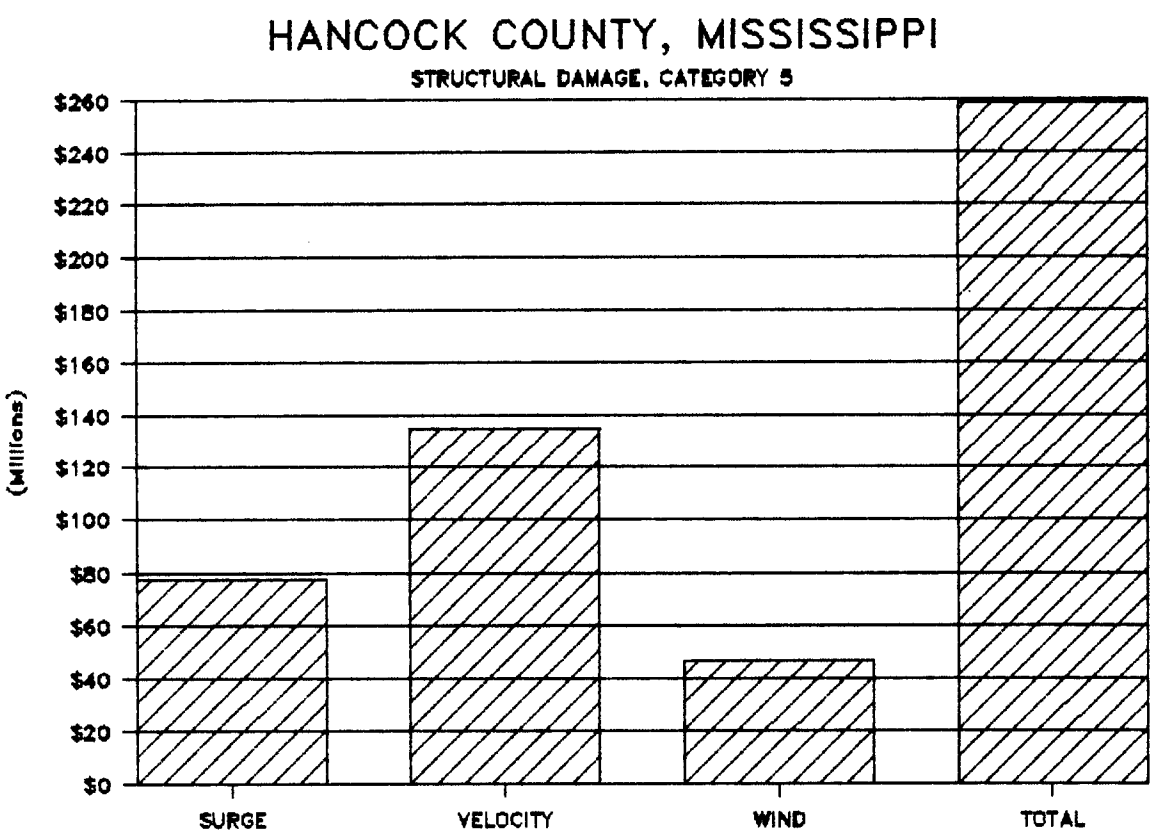
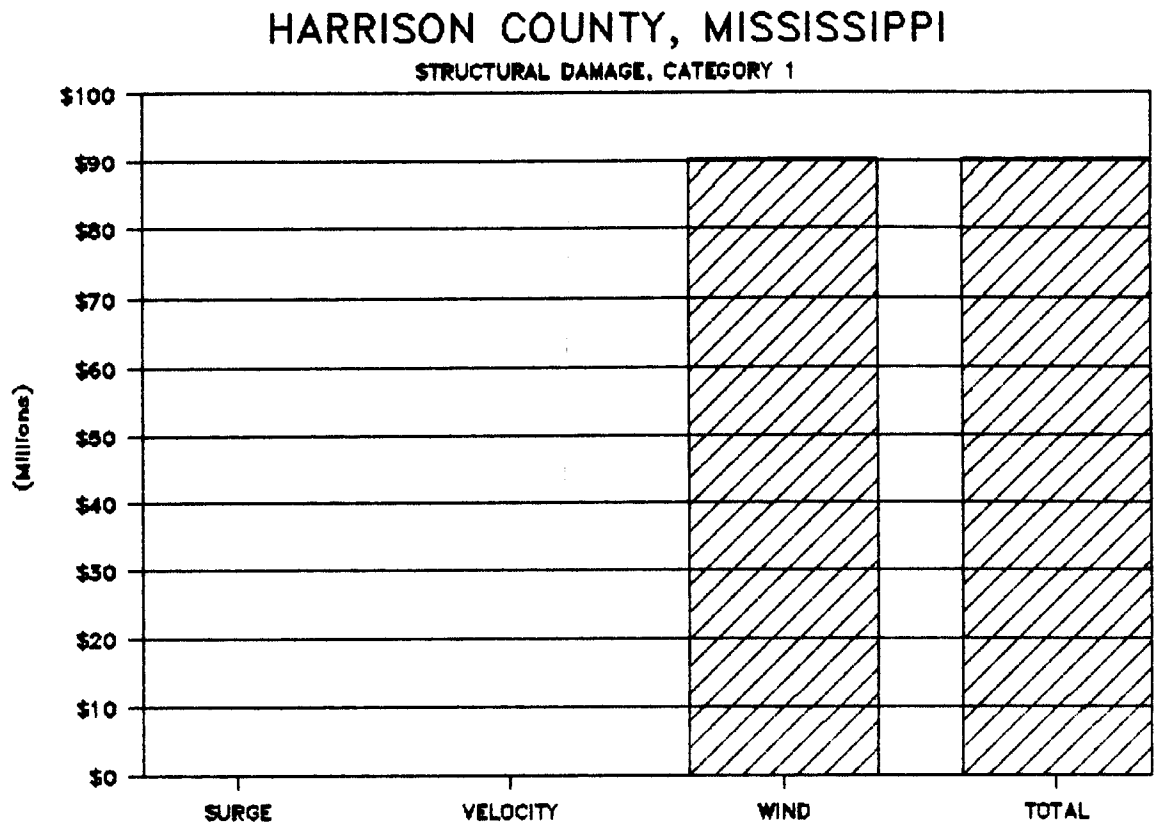

HANCOCK COUNTY, MISSISSIPPI
STRUCTURAL DAMAGE, CATEGORY 5
(Millions)
$260
$240
$220
$200
$180
$160
$140
$120
$100
$80
$60
$40
$20
$0
SURGE
VELOCITY
WIND
TOTAL

Figure 58


HARRISON COUNTY, MISSISSIPPI
STRUCTURAL DAMAGE, CATEGORY 1
(Millions)
$100
$90
$80
$70
$60
$50
$40
$30
$20
$10
$0
SURGE
VELOCITY
WIND
TOTAL

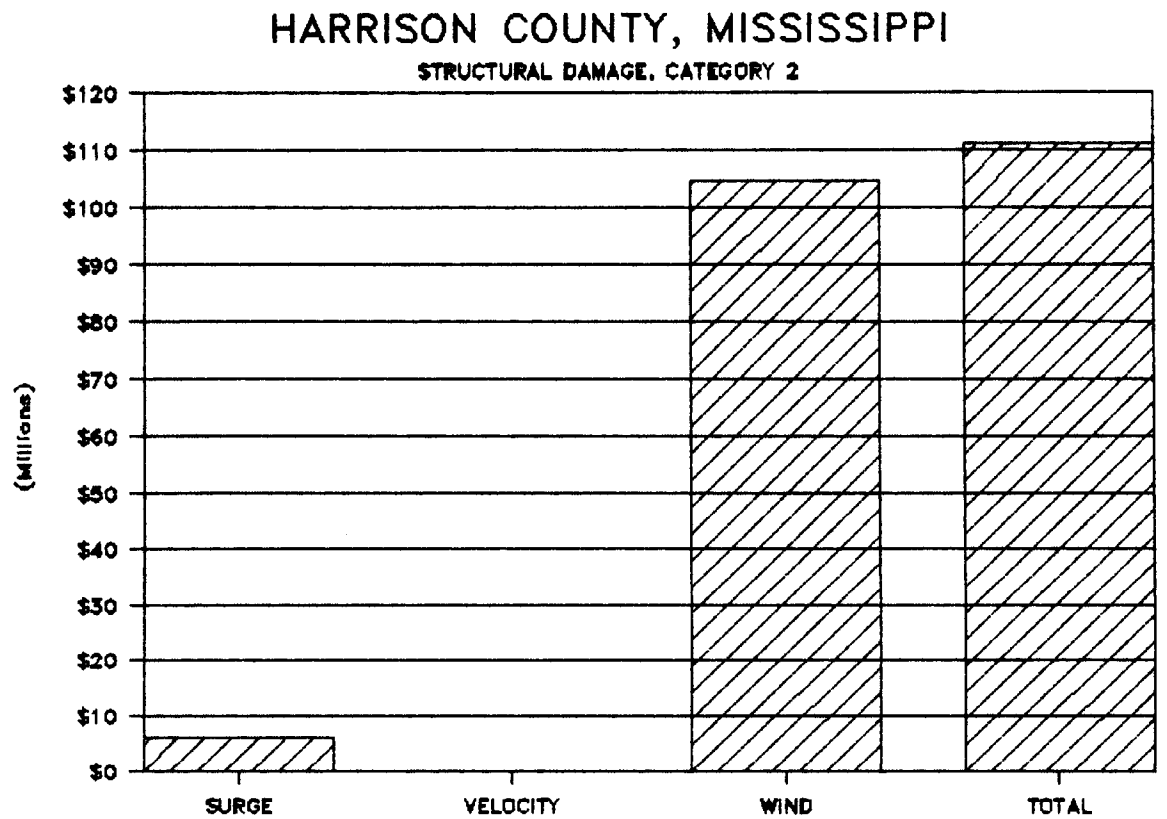
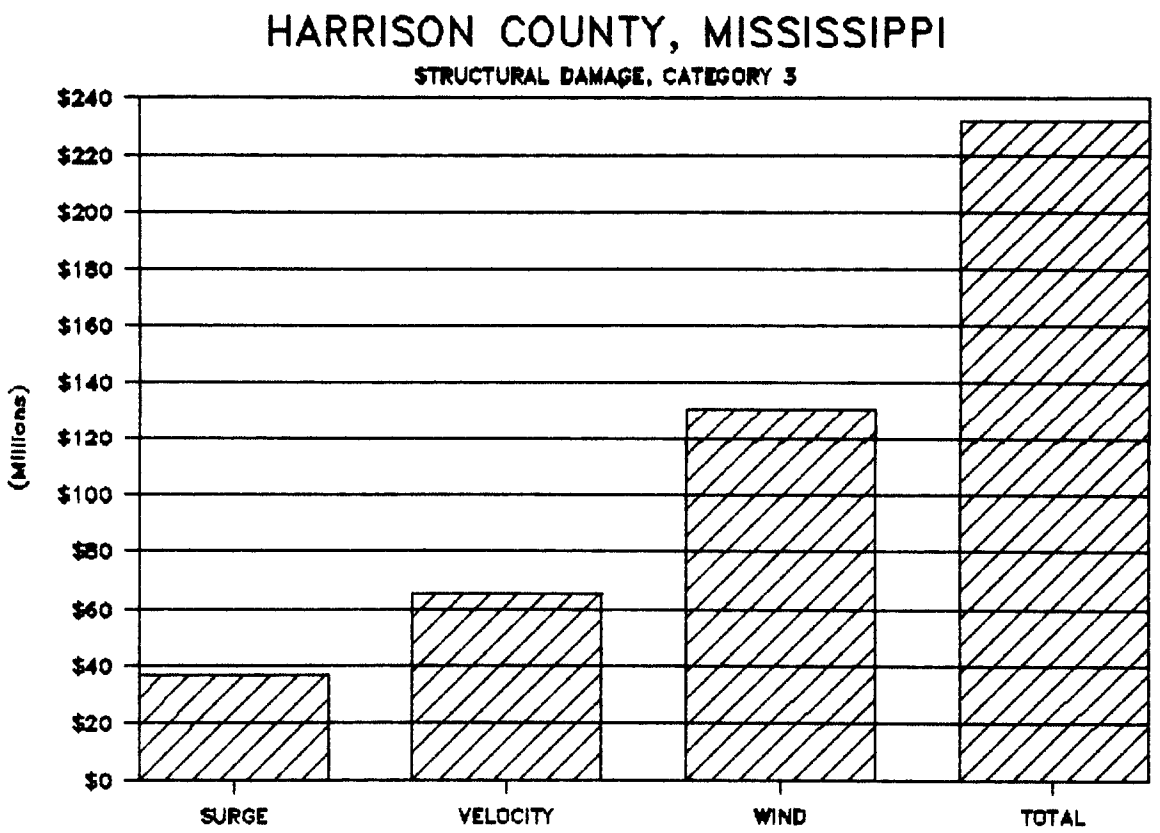

HARRISON COUNTY, MISSISSIPPI
STRUCTURAL DAMAGE, CATEGORY 2
(Millions)
$120
$110
$100
$90
$80
$70
$60
$50
$40
$30
$20
$10
$0
SURGE
VELOCITY
WIND
TOTAL

Figure 59


HARRISON COUNTY, MISSISSIPPI
STRUCTURAL DAMAGE, CATEGORY 3
(Millions)
$240
$220
$200
$180
$160
$140
$120
$100
$80
$60
$40
$20
$0
SURGE
VELOCITY
WIND
TOTAL

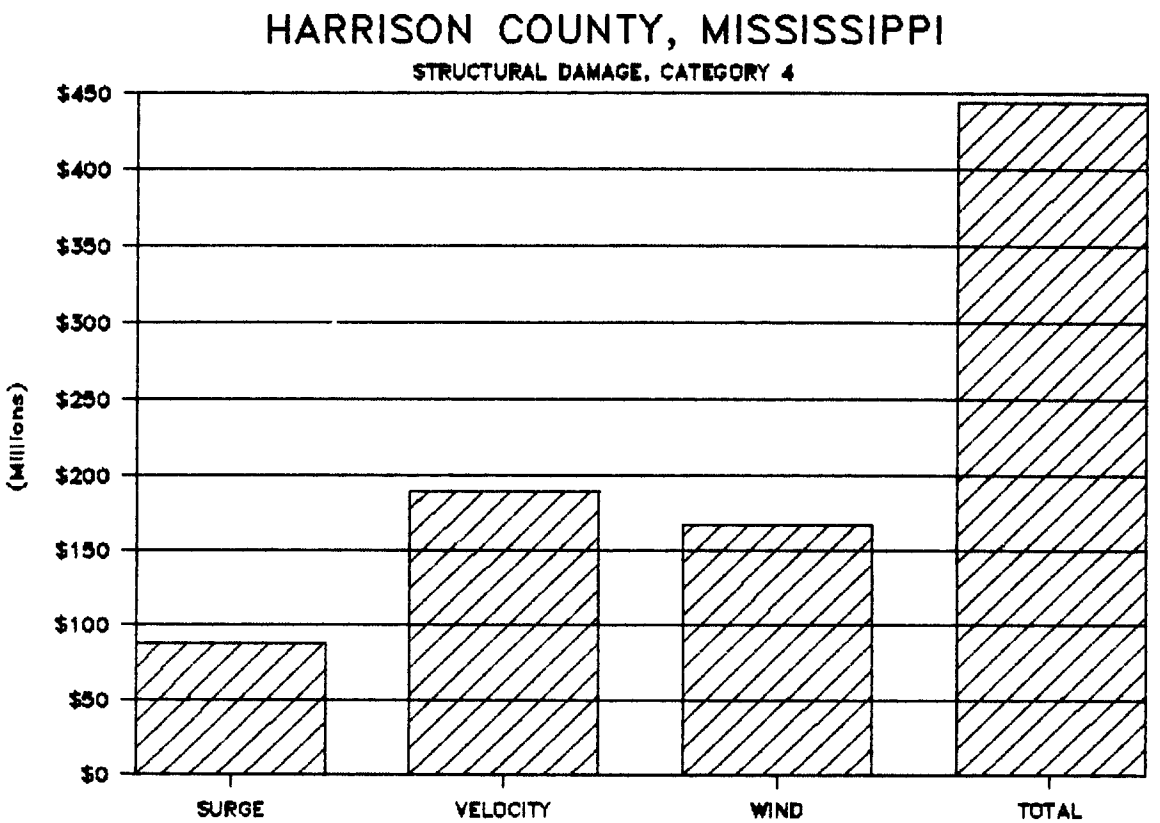

HARRISON COUNTY, MISSISSIPPI
STRUCTURAL DAMAGE, CATEGORY 4
(Millions)
$450
$400
$350
$300
$250
$200
$150
$100
$50
$0
SURGE
VELOCITY
WIND
TOTAL

Figure 60

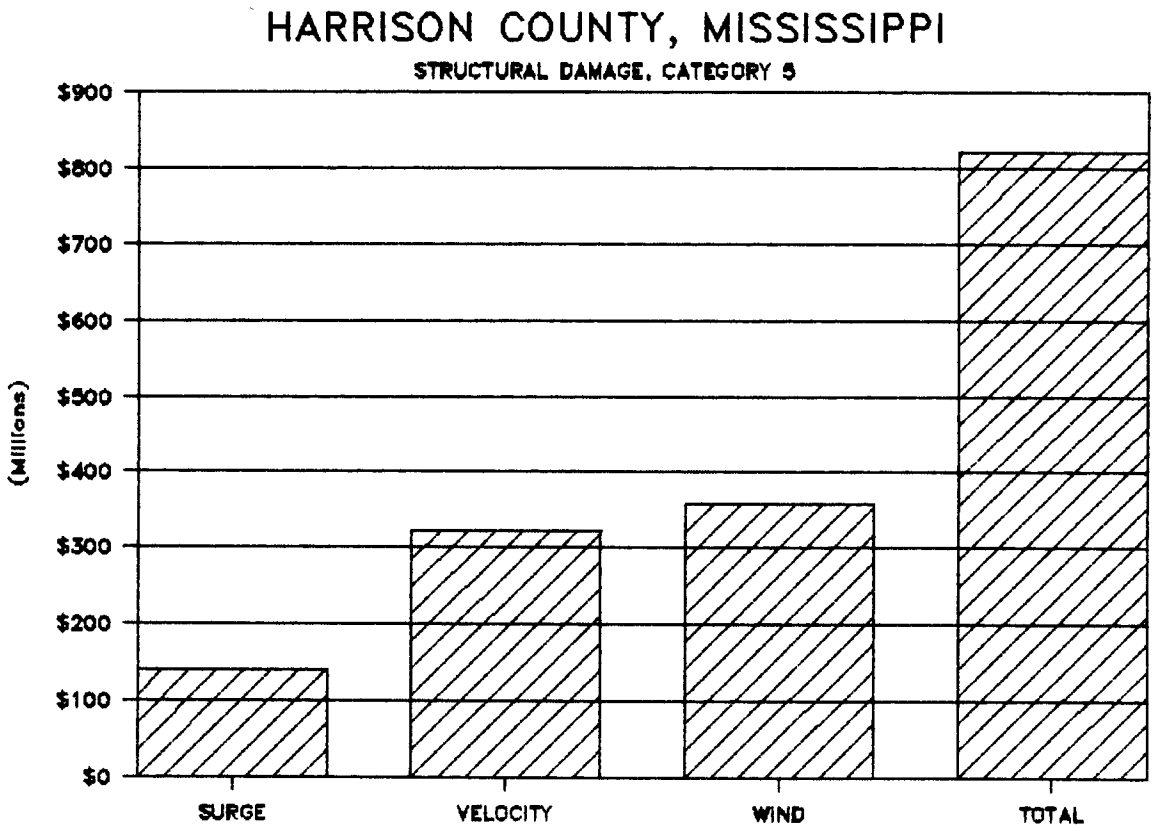
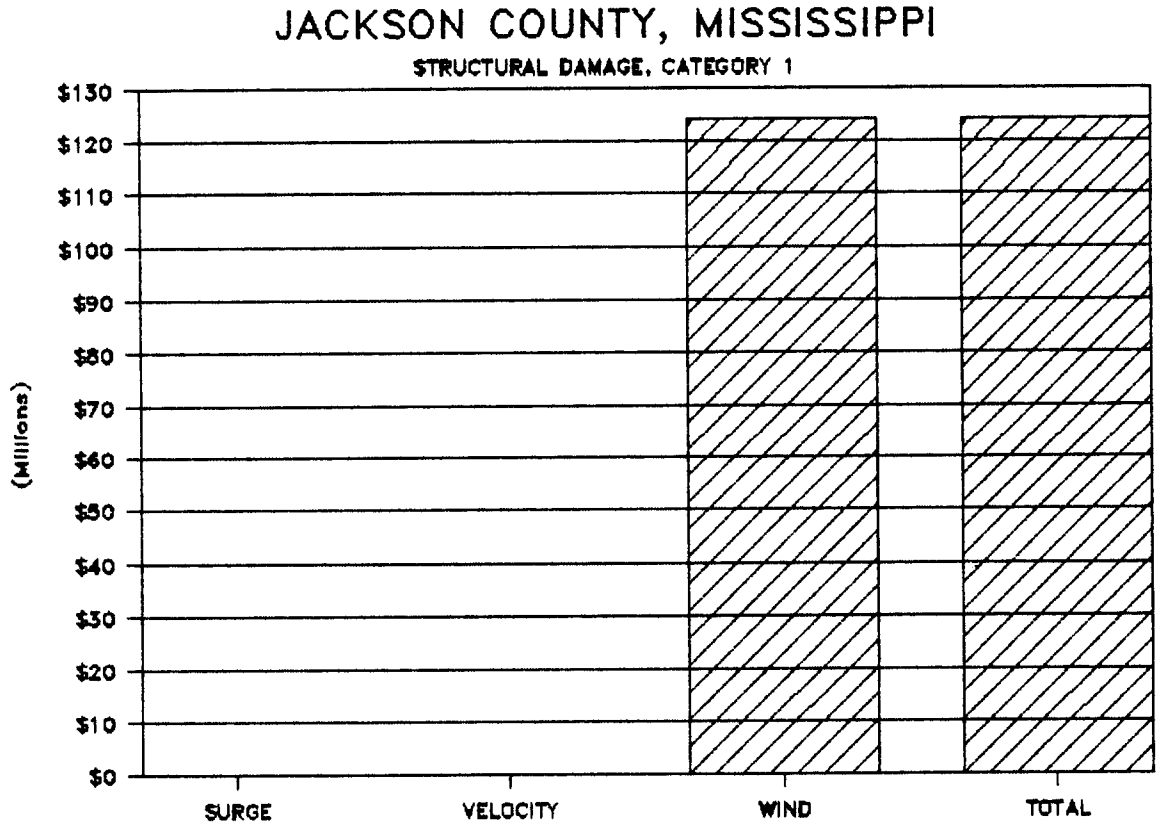

HARRISON COUNTY, MISSISSIPPI
STRUCTURAL DAMAGE, CATEGORY 5
(Millions)
$900
$800
$700
$600
$500
$400
$300
$200
$100
$0
SURGE
VELOCITY
WIND
TOTAL

Figure 61


JACKSON COUNTY, MISSISSIPPI
STRUCTURAL DAMAGE, CATEGORY 1
(Millions)
$130
$120
$110
$100
$90
$80
$70
$60
$50
$40
$30
$20
$10
$0
SURGE
VELOCITY
WIND
TOTAL

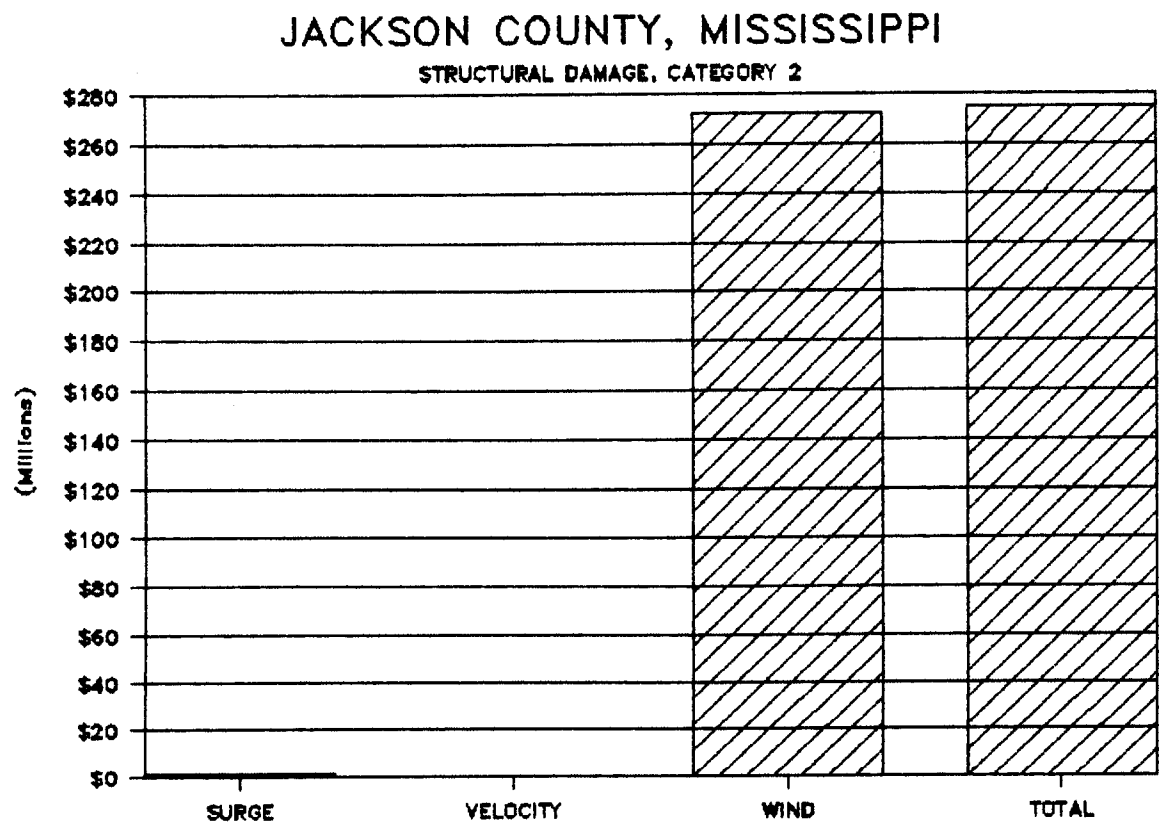
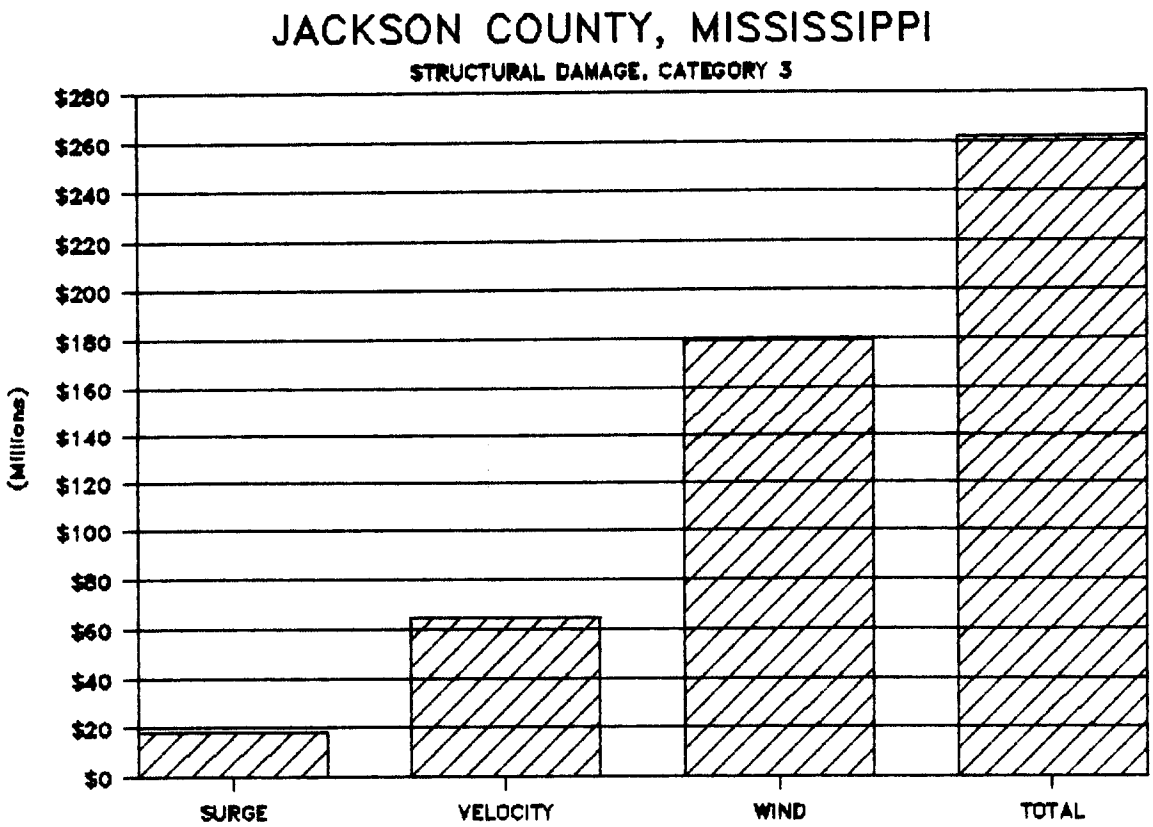

JACKSON COUNTY, MISSISSIPPI
STRUCTURAL DAMAGE, CATEGORY 2
(Millions)
$280
$260
$240
$220
$200
$180
$160
$140
$120
$100
$80
$60
$40
$20
$0
SURGE
VELOCITY
WIND
TOTAL

Figure 62


JACKSON COUNTY, MISSISSIPPI
STRUCTURAL DAMAGE, CATEGORY 3
(Millions)
$280
$260
$240
$220
$200
$180
$160
$140
$120
$100
$80
$60
$40
$20
$0
SURGE
VELOCITY
WIND
TOTAL

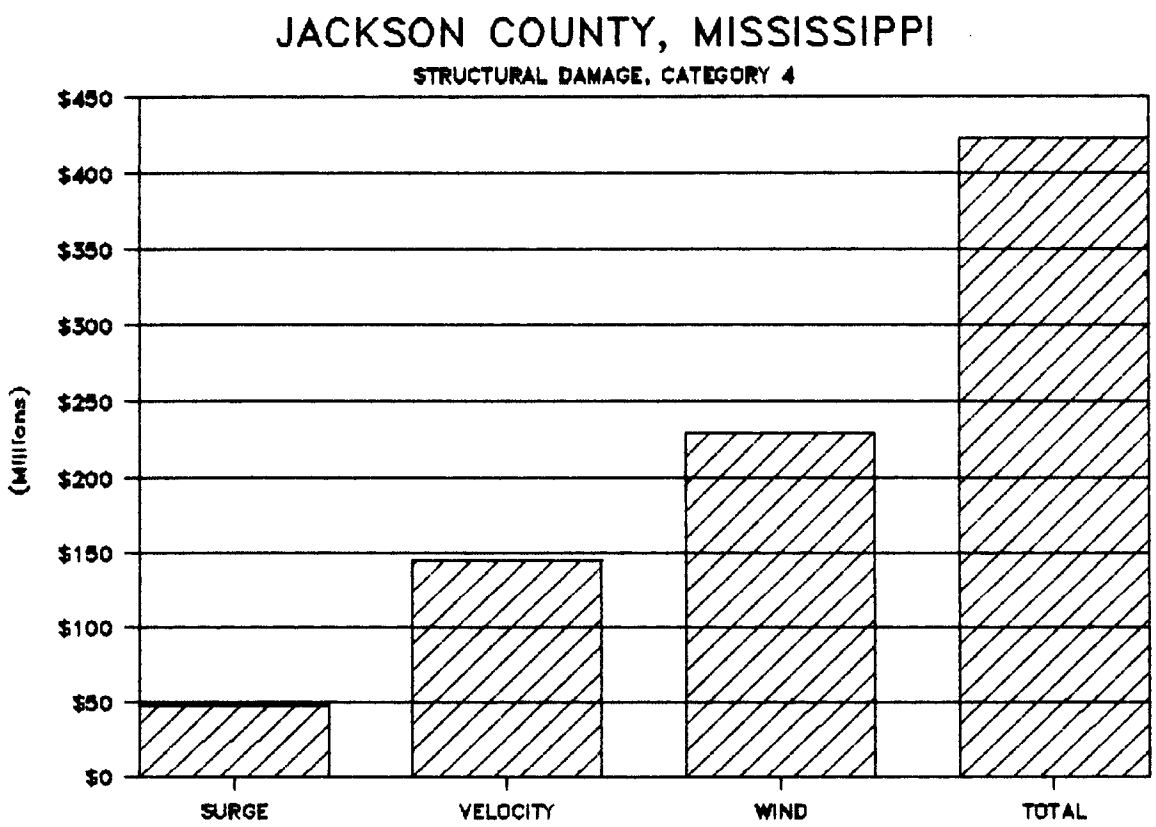

JACKSON COUNTY, MISSISSIPPI
STRUCTURAL DAMAGE, CATEGORY 4
(Millions)
$450
$400
$350
$300
$250
$200
$150
$100
$50
$0
SURGE
VELOCITY
WIND
TOTAL

Figure 63

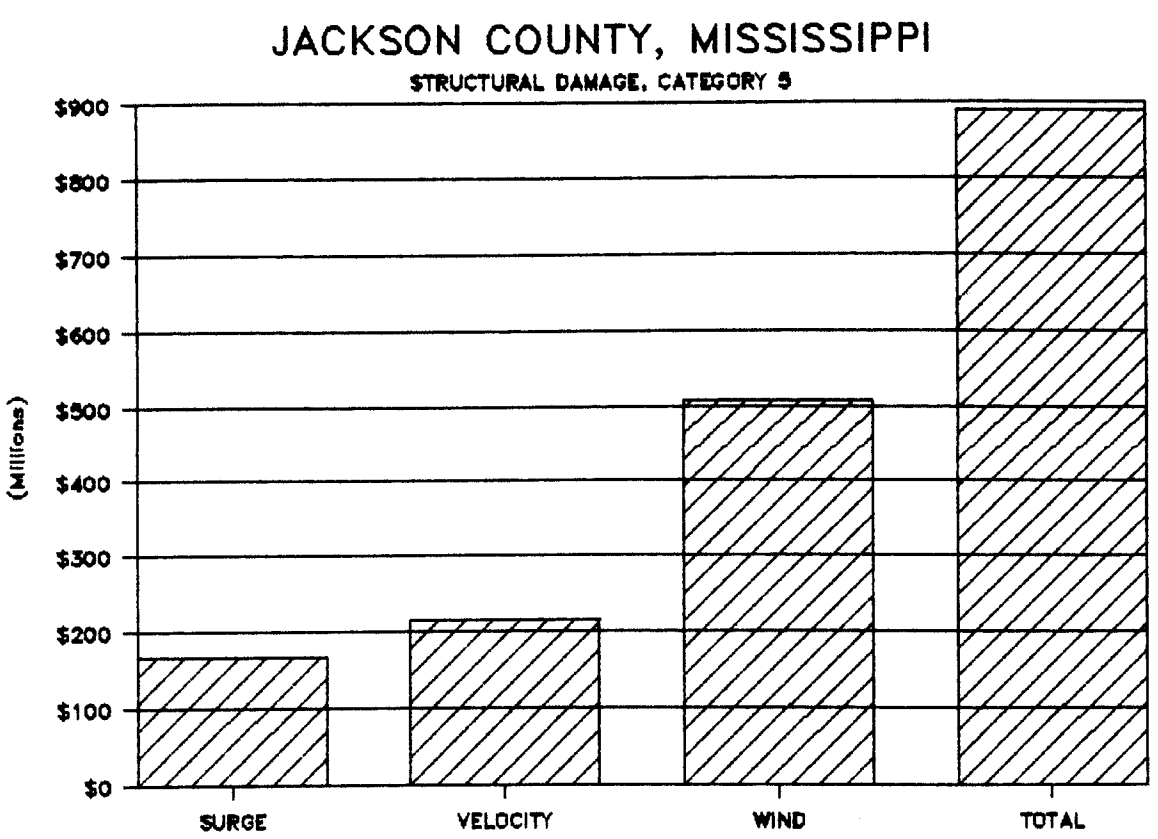
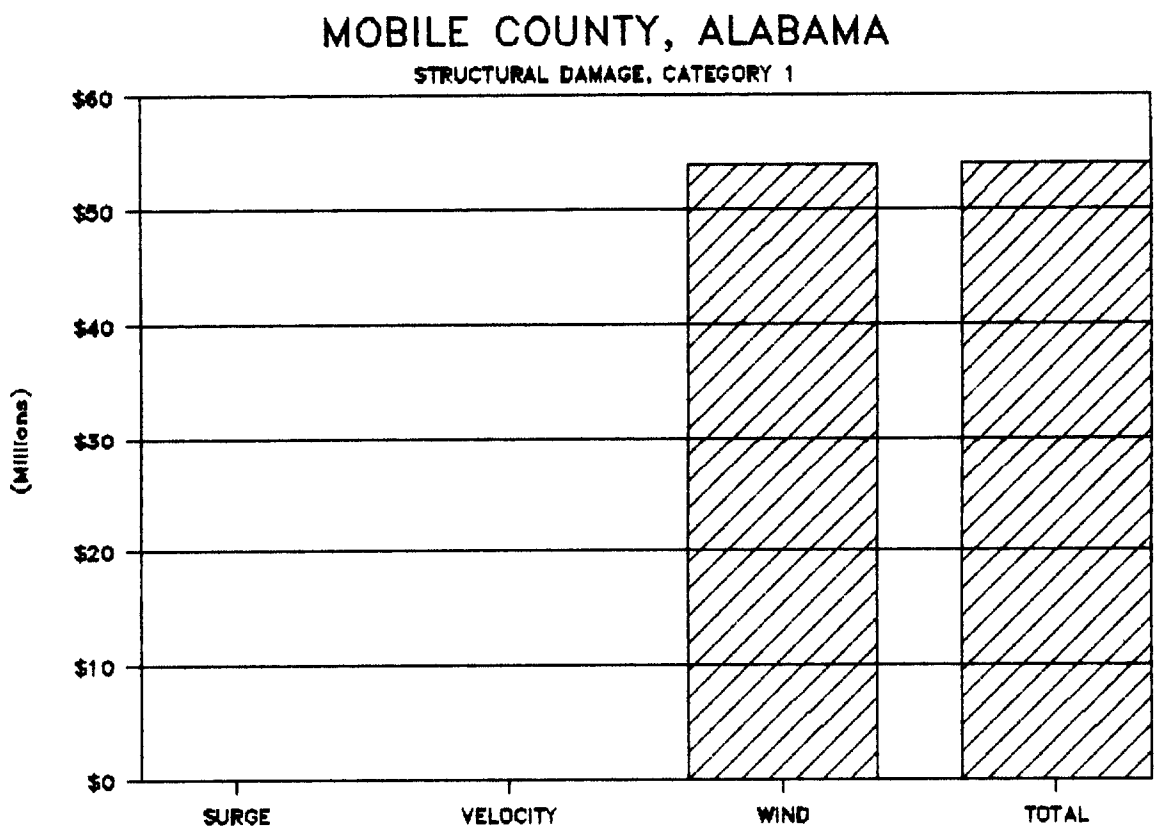

JACKSON COUNTY, MISSISSIPPI
STRUCTURAL DAMAGE, CATEGORY 5
(Millions)
$900
$800
$700
$600
$500
$400
$300
$200
$100
$0
SURGE
VELOCITY
WIND
TOTAL

Figure 64


MOBILE COUNTY, ALABAMA
STRUCTURAL DAMAGE, CATEGORY 1
(Millions)
$60
$50
$40
$30
$20
$10
$0
SURGE
VELOCITY
WIND
TOTAL

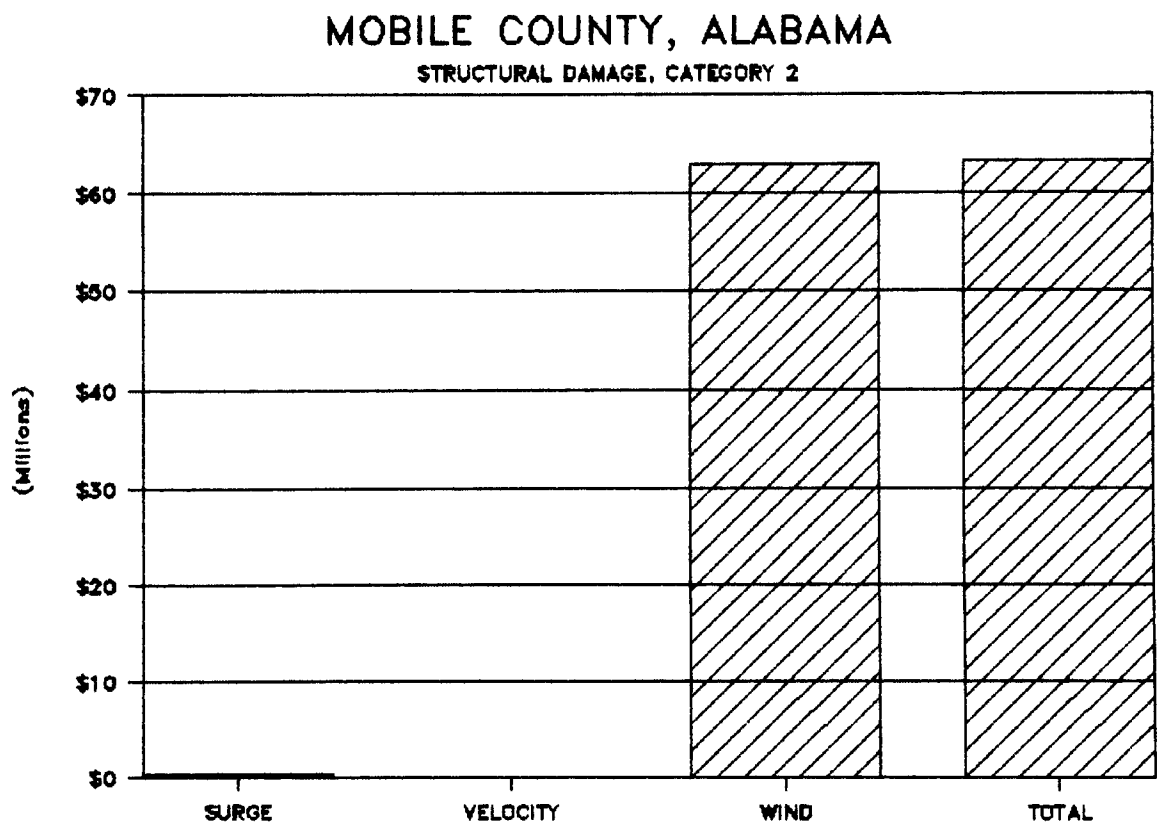
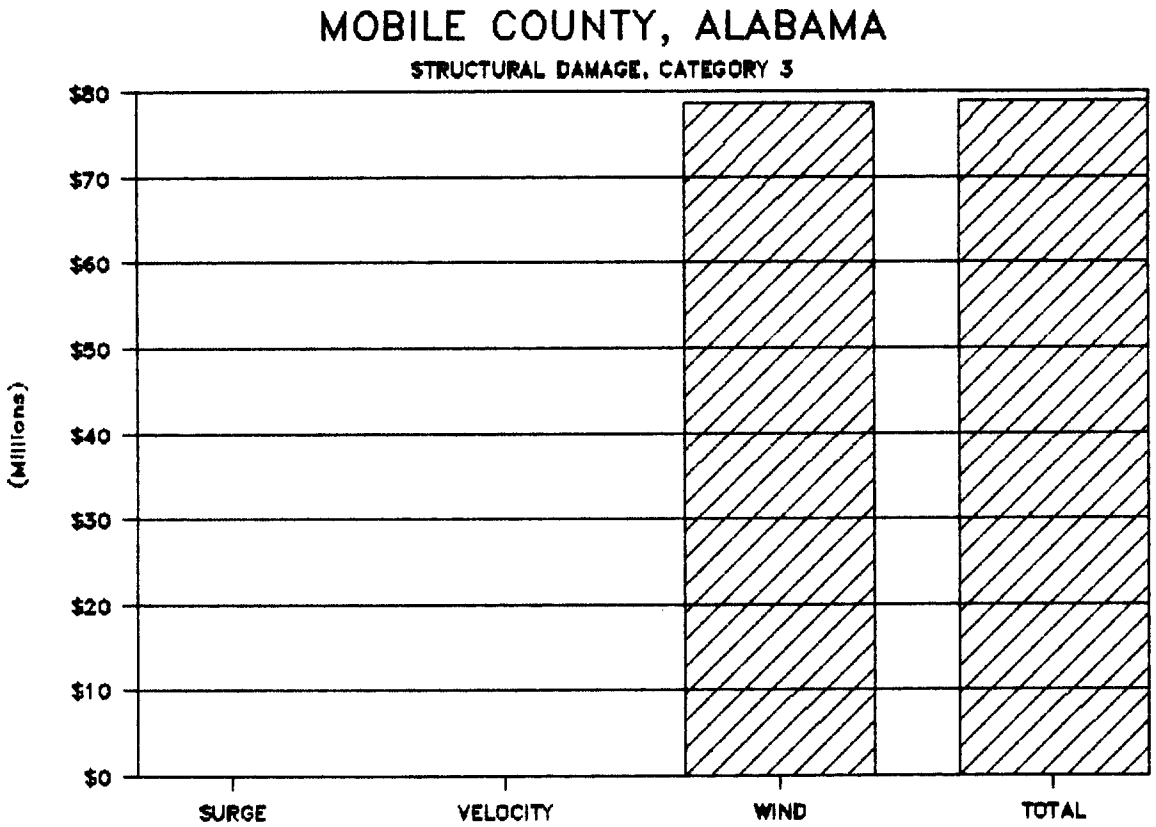

MOBILE COUNTY, ALABAMA
STRUCTURAL DAMAGE, CATEGORY 2
(Millions)
$70
$60
$50
$40
$30
$20
$10
$0
SURGE
VELOCITY
WIND
TOTAL

Figure 65


MOBILE COUNTY, ALABAMA
STRUCTURAL DAMAGE, CATEGORY 3
(Millions)
$80
$70
$60
$50
$40
$30
$20
$10
$0
SURGE
VELOCITY
WIND
TOTAL

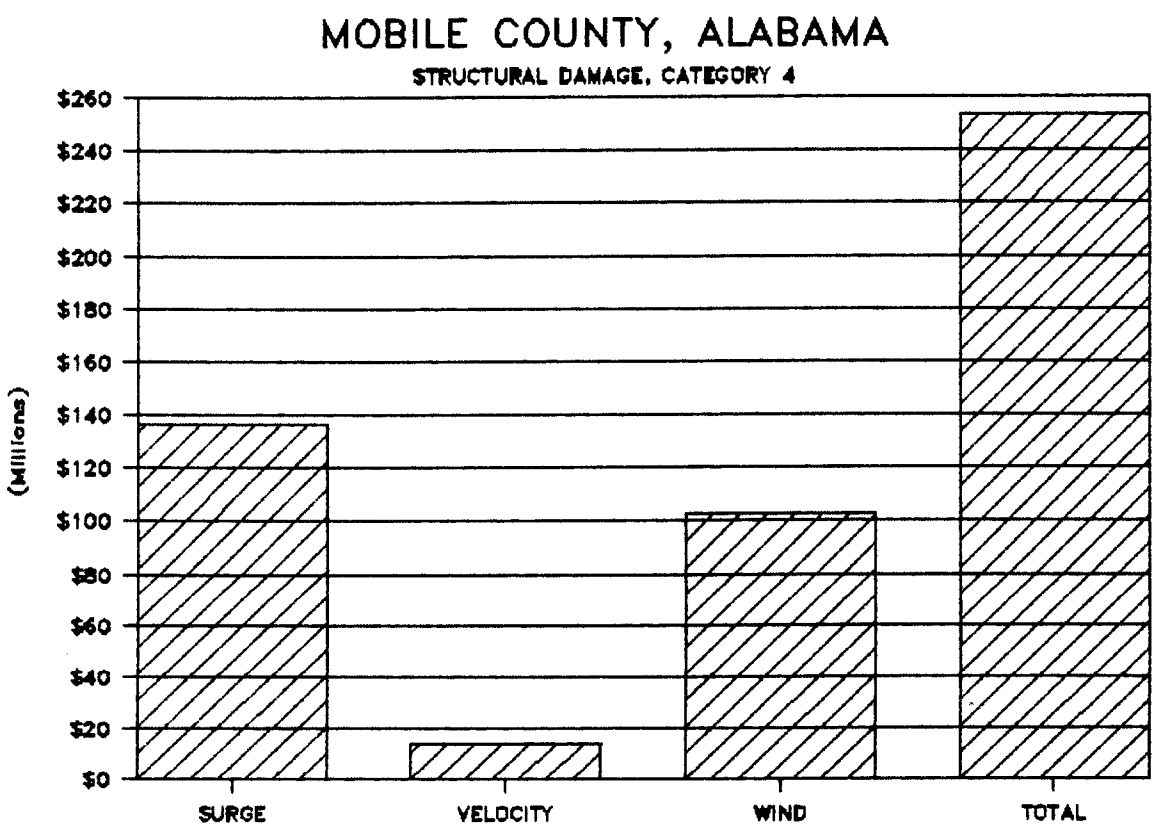

MOBILE COUNTY, ALABAMA
STRUCTURAL DAMAGE, CATEGORY 4
(Millions)
$260
$240
$220
$200
$180
$160
$140
$120
$100
$80
$60
$40
$20
$0
SURGE
VELOCITY
WIND
TOTAL

Figure 66

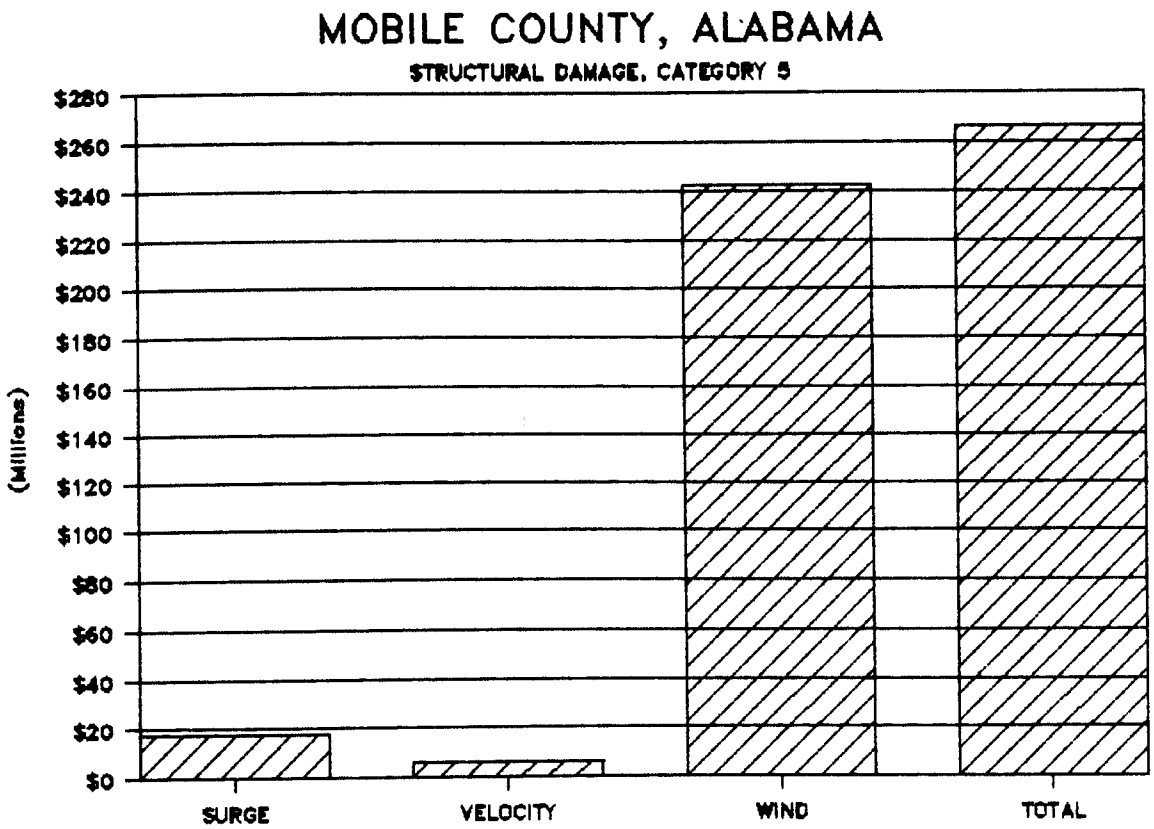
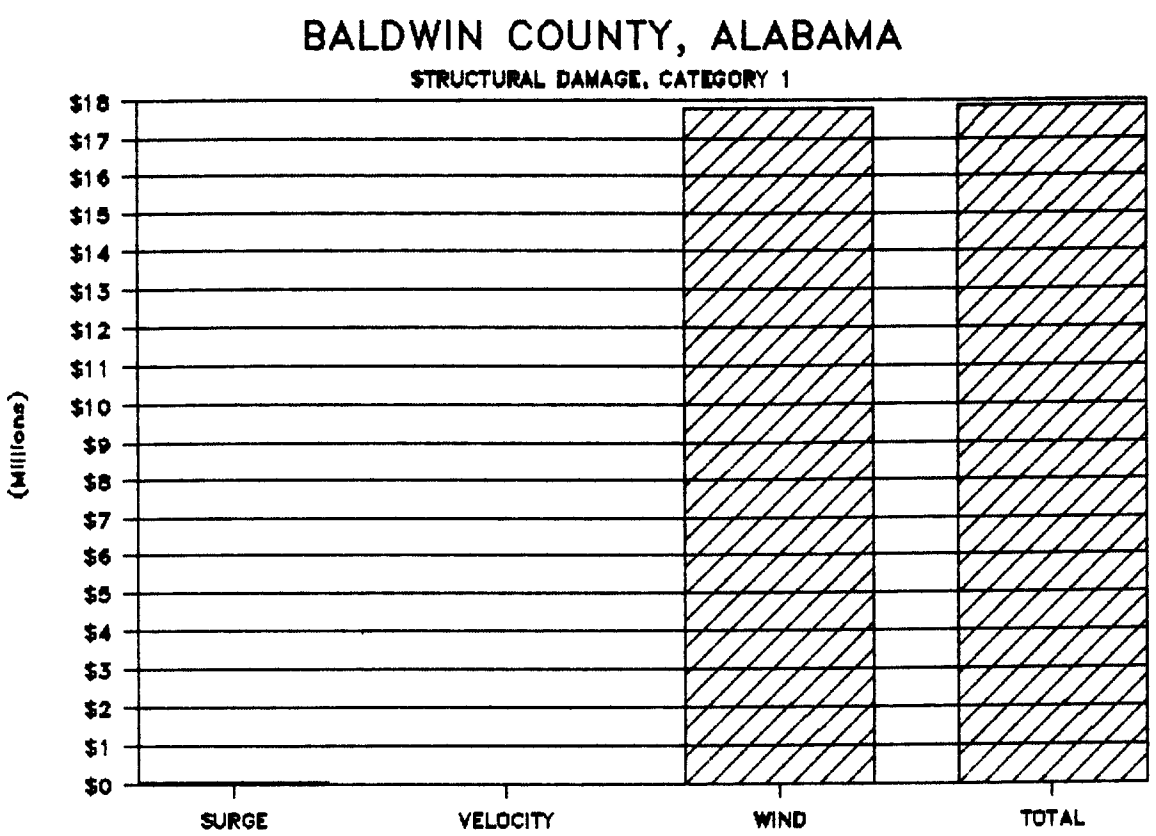

MOBILE COUNTY, ALABAMA
STRUCTURAL DAMAGE, CATEGORY 5
(Millions)
$280
$260
$240
$220
$200
$180
$160
$140
$120
$100
$80
$60
$40
$20
$0
SURGE
VELOCITY
WIND
TOTAL

Figure 67


BALDWIN COUNTY, ALABAMA
STRUCTURAL DAMAGE, CATEGORY 1
(Millions)
$18
$17
$16
$15
$14
$13
$12
$11
$10
$9
$8
$7
$6
$5
$4
$3
$2
$1
$0
SURGE
VELOCITY
WIND
TOTAL

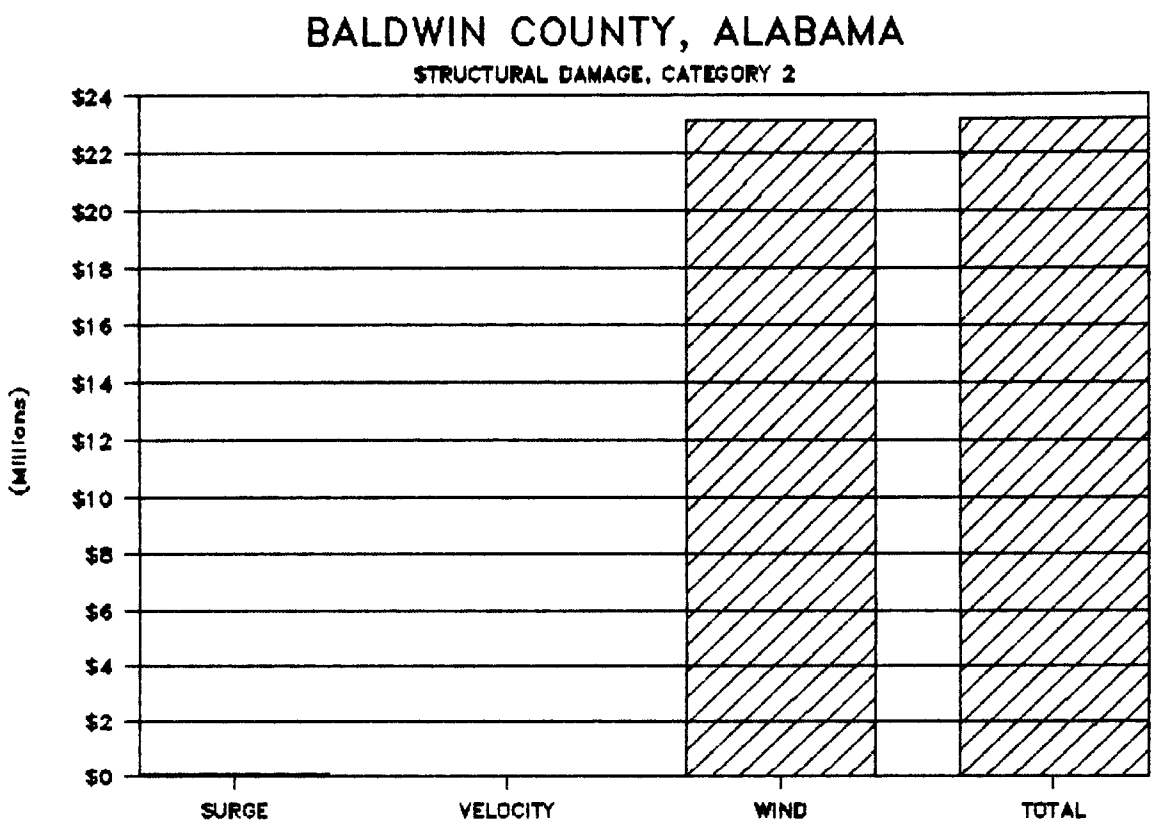
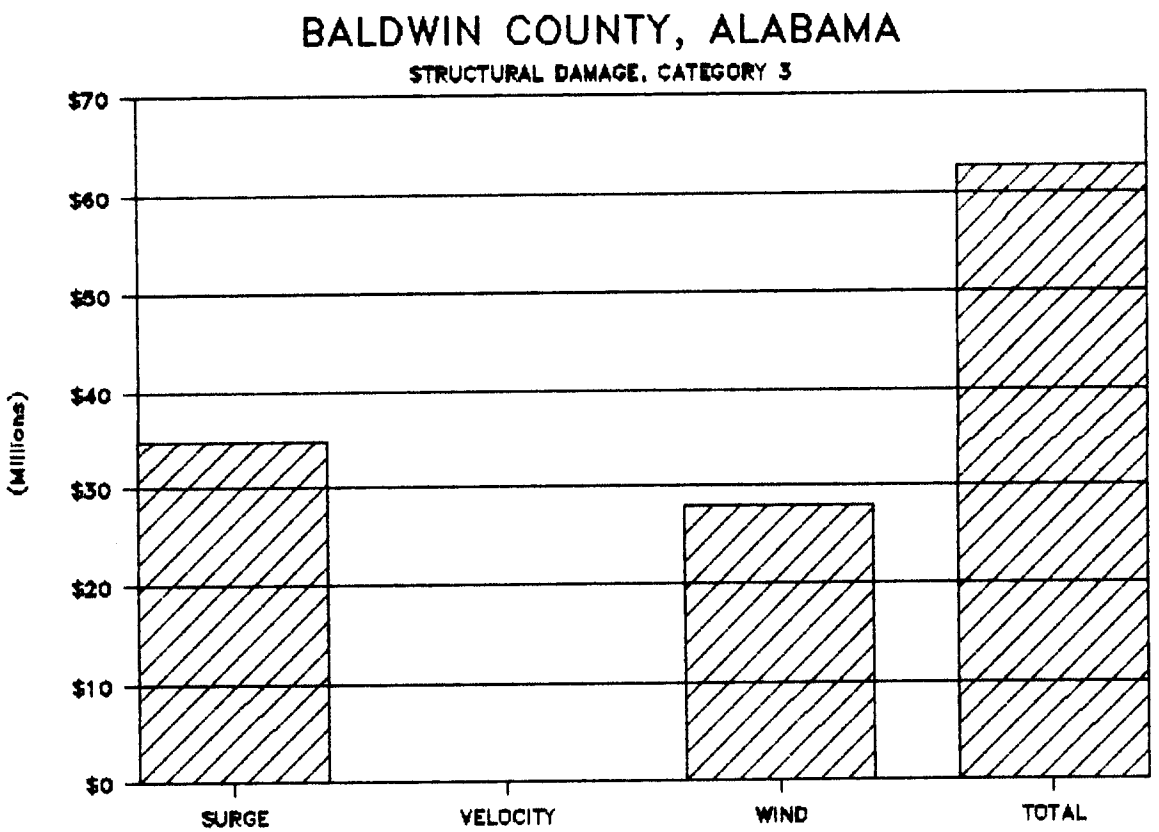

BALDWIN COUNTY, ALABAMA
STRUCTURAL DAMAGE, CATEGORY 2
(Millions)
$24
$22
$20
$18
$16
$14
$12
$10
$8
$6
$4
$2
$0
SURGE
VELOCITY
WIND
TOTAL

Figure 68


BALDWIN COUNTY, ALABAMA
STRUCTURAL DAMAGE, CATEGORY 3
(Millions)
$70
$60
$50
$40
$30
$20
$10
$0
SURGE
VELOCITY
WIND
TOTAL

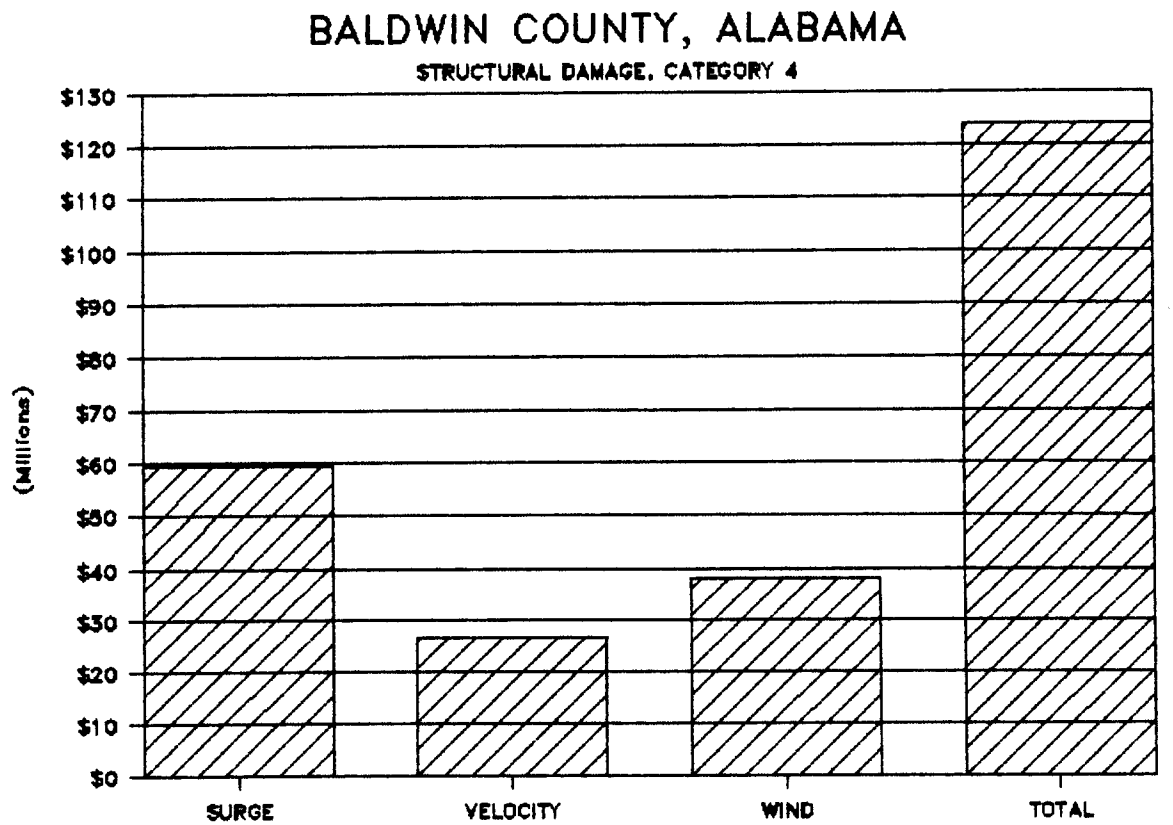

BALDWIN COUNTY, ALABAMA
STRUCTURAL DAMAGE, CATEGORY 4
(Millions)
$130
$120
$110
$100
$90
$80
$70
$60
$50
$40
$30
$20
$10
$0
SURGE
VELOCITY
WIND
TOTAL

Figure 69

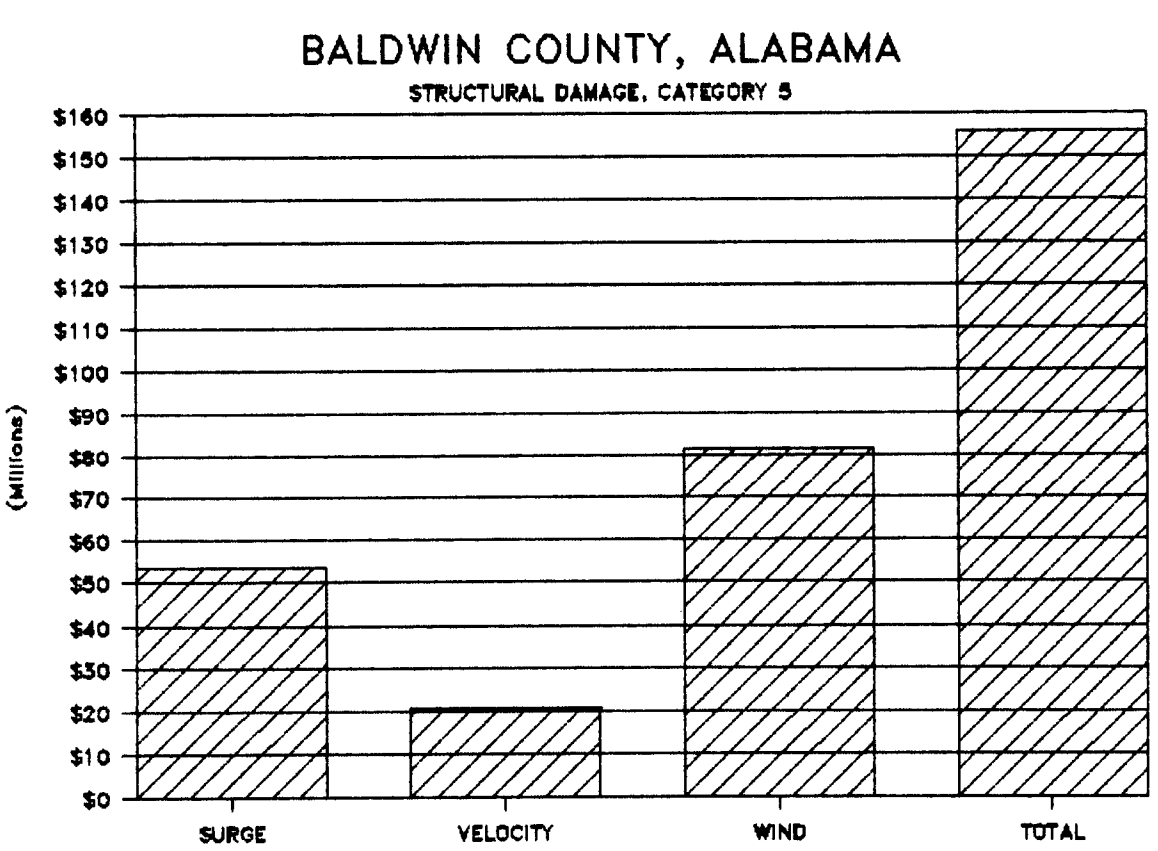

BALDWIN COUNTY, ALABAMA
STRUCTURAL DAMAGE, CATEGORY 5
(Millions)
$160
$150
$140
$130
$120
$110
$100
$90
$80
$70
$60
$50
$40
$30
$20
$10
$0
SURGE
VELOCITY
WIND
TOTAL

Figure 70

CHAPTER FOUR

POTENTIAL HAZARD MITIGATION MEASURES

I. GENERAL.

This chapter presents listings and brief discussions of potential hurricane hazard mitigation measures that have been suggested and/or implemented in certain coastal location along the Gulf of Mexico and Atlantic coasts. These measures can be divided into the following categories: land use plans and zoning, transfer of development rights, subdivision regulation, building codes, public facility location planning, public acquisition, and fiscal policies. The suggested measures within these categories provide a broad framework from which hurricane hazard mitigation strategies and policies can be developed.

It should be noted that the economic feasibility of many of these measures have not necessarily been determined or, if so for a particular location, that such feasibility would be applicable to all coastal locations. Phase II of this study will address the economic and political feasibility of potential hurricane hazard mitigation measures within the Tri-State study area.

II. LAND USE PLANS AND ZONING.

Comprehensive land use planning can be used as a tool for hurricane hazard mitigation planning. Land use plans can promote hazard mitigation planning in several ways, including designating and setting standards for evacuation routes, planning for and monitoring hurricane shelter space and capacities, and limiting post-storm reconstruction[3].

The purpose of zoning as a tool for hurricane mitigation is to insure that responsible developed within coastal areas is achieved. It is particularly useful as it allows some control over the density and type of coastal development. Land uses normally directed away from highly vulnerable areas include moderate to high density residential development, schools, medical facilities and institutional facilities. Zoning can also allow appropriate development within the coastal area such as marinas, ports, water oriented tourist development, recreation facilities and other water dependent commercial and industrial development. Several type and methods of zoning have been used. These include: floodplain or waterfront zoning, overlay zones, incentive zoning and mixed-use zoning.

A. Floodplain or Waterfront Zones. Many coastal communities have included special waterfront zones as part of already

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[3] South Florida Hurricane Contingency Planning Study. June 1987.

existing zoning ordinances. This approach requires minimal legal revision to the standard zoning ordinance, but can focus special attention on coastal areas. The purpose of such a zone is to protect shoreline areas from increased storm hazards due to overdevelopment in areas susceptible to hurricane damage[4].

B. Overlay Zones. An overlay zone is not a fixed zoning ordinance, but a flexible zone which may float over a community and which can be put into place when necessary. Special circumstances, such as a hurricane, could trigger the institution of the overlay zone. The specifications contained in the zoning ordinance for the overlay zones could be decided in advance and implemented as needed following an event. Overlay zones are usually implemented for short time durations following a disaster and is considered to have several advantages over moratoriums. The overlay zone allows the community to test the effectiveness and acceptability of a zoning ordinance in advance and allow the development of a permanent zone better suited to the community.

C. Incentive Zoning. Incentive zoning has been instituted in a number of coastal communities as an alternative to conventional zoning. This form of zoning usually provides bonuses to developers in the form of increased floor area or building capacity to lot size, increased density of development, street or other improvements, and tax incentives in exchange for development considerations more favorable to dune protection and other practices potentially reducing development hazards within vulnerable areas. Such zoning has been instituted by the City of Gulf Shores, Alabama within the Tri-State Study area.

D. Mixed Use Zoning. Mixed use zoning allows several different types of land uses to be incorporated into one zone. The advantage of this type zoning is considered to be more efficient land use. For example, multifamily and single-family residential may be permitted within the same zone rather than having two distinct classifications. This type zoning often results in clustering of development on beachfront property resulting in the preservation of beach and dune lines.

III. BUILDING CODES.

The building code is used by state and local governments to address the design and construction of structures. Typical building codes regulate the construction, alteration, maintenance, repair, of demolition of structures. They have been used effectively in hurricane mitigation since they are developed based upon the interaction between the hazard and the structures which are vulnerable. Building codes instituted for the purpose of hurricane mitigation have proven effective in reducing this

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[4] Prior Planning for Post-hurricane Reconstruction. Salmon and Henningson. January 1987.

damage potential.

There are basically two types of building codes: performance oriented codes and specification oriented codes. Performance oriented codes formulate the objective to be accomplished while giving flexibility to the means (e.g., materials, construction methods, etc.) to achieve the objectives. Specification oriented codes describe in detail the material and construction methods to be employed.

Historically, building codes were developed independently by communities to meet their specific needs. although many communities, and some states, continue to have their own codes, most have now chosen to adopt, with amendments, one of the three model building codes: Standard (Southern Building Code Congress International, Inc., 1982); BOCA (Building Officials and Code Administrators International, Inc., 1984); and Uniform (International Congress of Building Officials, 1984). Each of these model codes has language and provisions suitable to larger regions of the country, the Standard Code being in common use in the South. The model codes have been extensively revised over the years to reflect new construction materials and techniques, changing government regulations, and increasing awareness in highly vulnerable areas.

Coastal construction codes have been adopted at the state and local levels. Other states, in recognizing the needs of coastal communities and counties for guidance in this area, have made available coastal code language for adoption by local jurisdictions[5].

The coastal construction codes provide detailed design instructions and requirements for building and associated utility construction. The items normally addressed in the coastal building codes are:

- Elevation standards.
- Determinations of loading forces.
- Water loads.
- Wind loads.
- Foundation standards.
- Pile foundation design.
  - Pile spacing.

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[5] Coastal Construction Manual. Federal Emergency Management Agency. February 1986.

- Pile embedment.
- Column action.
- Pile standards.
- Pile installation.
- Bracing.

- Column foundation design.
- Anchoring standards.
- Connectors and fasteners.
- Beam to pile connections.
- Floor and deck connections.
- Exterior wall connections.
- Ceiling joist/rafter connections.
- Projecting members.
- Roof sheathing.
- Protection of openings.
- Use of space below the lowest elevated floor.
- Breakaway wall design standards.
- Certification of breakaway walls.
- Utilities.

IV. SUBDIVISION REGULATIONS.

Subdivision requirements refer to the way land is divided for development. A number of concepts concerning subdivision regulations, which are regarded as potentially beneficial in hurricane hazard reduction, have been developed.

A. Design Requirements. Regional development is most times subjected to certain minimal requirements in community design, such as, rights-of-way standards, street width, block size, building codes, and setback lines. In some instances, these standards have been analyzed with a view toward modification to reduce hurricane hazards. Based upon the result of these analyses, the occurrence of a hurricane strike on the community could trigger a shift to the revised standards should extensive redevelopment occur.

B. Improvement Requirements. This concept requires a developer to contribute funds to help pay for the increased cost of services the development will impose on the community. The concept calls for the developer to pay "impact fees" for the increased demands on drainage, traffic flow, police and fire protection, and other services provided by the community. this technique is designed to assure that community services keep abreast with development while minimizing the cost to the community.

C. Dedication of Land. Requirements for dedication of roads and easements for utility space have been a customary practice for decades. Dedication of land for the purpose of reducing storm losses is a relatively new concept. Under this concept, the developer is envisioned to be given a choice of dedicating land to the community or paying a sum of money as an alternative.

D. Planned Unit Development. In the Planned Unit Development concept, regulations apply to an entire area rather than to individual lots. Planned Unit Development offers some flexibility in approaches to storm hazard mitigation, such as clustering and dedication of open space. Although Planned Unit Development in the past has been confined largely to residential development, recent trends indicate that the concept may be adapted to commercial or other development types. Drawbacks to this concept have been the requirements for large amounts of open space which is not readily available in many coastal locations.

E. Transfer of Development Rights. In a Transfer of Development Rights concept, an owner can sell property development rights in exchange for a sum of money or purchase development rights from other landowners. Such purchases of development rights accumulates development points and in instances where this concept is used, developers must have a minimum number of points before development is permitted. The effect of this technique is the control of development densities in coastal locations.

V. PUBLIC FACILITY LOCATION PLANNING.

The location of public facilities, such as highways, water lines, sewer lines, and other utilities can have substantial effects on community development patterns. By limiting the investment of new public facilities in the high hazard areas, development can be directed away from those areas.

VI. DETAILED ANALYSES OF POTENTIAL MITIGATION MEASURES.

Phase II of the Tri-State Property Loss and Contingency Planning Study will analyze in detail the potential hurricane hazard mitigation measures discussed in this chapter as well as other measure identified through the course of study. The objective of that phase is to quantitatively evaluate potential mitigation measures to indicate which may have potential for

adoption by communities along the central gulf coast. These evaluations will center on the economic feasibility and the political acceptability of potential measures within the study area. The economic analysis will be supported to the extent that, even though the analysis is conducted for a specific coastal location, the results can be evaluated by other coastal communities to determine the feasibility for institution in other areas.