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SOIL SURVEY SUPPLEMENT

SEMINOLE COUNTY FLORIDA

United States Department of Agriculture
Soil Conservation Service

SOIL POTENTIALS AND LIMITATIONS

A

SUPPLEMENT TO THE SOIL SURVEY

SEMINOLE COUNTY, FLORIDA

Prepared by

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INTRODUCTION

The Soil Survey Seminole County, Florida was published in 1966. This publication is available from the Soil Conservation Service, the Seminole County Planning Division, or the County Extension Service. It is also available in local libraries. There were 54 mapping units recognized and described in the published soil survey. The published survey contains interpretations for various uses in terms of soil limitations and soil features adversely affecting a particular use.

Since the survey was published, a strong need has developed to interpret the soils in terms of their potential for a particular use. Considering the basic properties of the soil as described in the original publication, each soil has been interpreted in terms of its potential for selected land uses.

This publication is intended to complement, as well as supplement, the published soil survey. It is not intended to replace the published soil survey.

HOW TO USE THIS SUPPLEMENT

This publication complements and supplements the "Soil Survey, Seminole County, Florida" and is designed to be used in conjunction with it.

LOCATING SOILS ON THE MAPS

The soils of Seminole County are mapped on 35 individual map sheets. The maps are located in the back of the published Soil Survey. Each sheet is numbered to correspond with a number on the Index to Map Sheets. This index is located at the front and the back of the map sheets for easy reference. To locate the soil map sheet that includes the specific area in which you are interested, refer to the Index to Map Sheets.

Each individual kind of soil is outlined and identified by a symbol on the soil map. All areas marked with the same symbol are the same kind of soil.

USING THE SOIL LEGEND TO FIND INTERPRETATIONS

The "Soil Legend" located at the front and back of the map sheets in the published soil survey and the index to soil interpretations in this Supplement can be used to find the soil properties and interpretations applicable to a kind of soil. The "Soil Legend" is an alphabetical list of all the symbols that appear on the soil map.

The following is an example of how to go from the soil map to the interpretations. If you are interested in an area of land mapped Pf, the first step is to go from the soil map to the "Soil Legend" and find the name of the soil that is shown by the symbol Pf. This soil is Plummer fine sand. The second step is to turn to the interpretations for the Plummer series which are arranged alphabetically. The page number for each soil series is shown in the Table of Contents.

PREPARING INTERPRETIVE MAPS

Individual maps showing the potential of soils for various uses can be developed by using the soil map and the interpretations. Potentials can be shown visually by color coding soil maps or transparent overlays to point up the potential of the soils for a particular use. A map or overlay can be made in this manner for each of the land uses rated. Once the interpretive map is complete, the patterns of soil potentials are readily apparent.

USE AND EXPLANATION OF SOIL PROPERTIES AND INTERPRETATIONS FOR SOILS IN SEMINOLE COUNTY

The physical and chemical properties of each soil and interpretations for selected uses are provided. Included are: a brief description of the soil, estimated soil properties, interpretations of the soil as to its potential, its limitations, and the necessary practices to obtain its potential for selected land uses.

The interpretations will not eliminate the need for on-site sampling, testing, and study of specific sites for design and construction of engineering works and various uses. Estimated soil properties and interpretations should be used primarily to plan more detailed field investigations to determine the conditions of the soil at the proposed site for the intended use.

When the interpretations are used in connection with delineated soil areas on a soil map, the information pertains to the dominant soil for which the soil area is named. Other soils, too small in area to delineate, may occur within the soil map area. The interpretations ordinarily do not apply to the included soils. For example, areas mapped as Lakewood sand, 0 to 5 percent slopes (LdB) may include small unmappable areas of Pomello, Blanton, and St. Lucie soils. Each of these soils make up not more than 5 percent of any area mapped as Lakewood sand. The estimated soil properties and interpretations for LdB apply only to the Lakewood sand part of the delineated soil area, and not to the entire soil area, although some

of the properties and interpretations of these included soils are similar.

BRIEF SOIL DESCRIPTION

Each page containing soil properties and interpretations begins with a brief description of the soil. This brief description gives sufficient information for the user to get a mental picture of the soil, group its major features, and provides a landscape setting. The map symbol is shown at the top of the sheet with the soil name below it.

For a more complete description of the soils, see the published Soil Survey of Seminole County.

ESTIMATED SOIL PROPERTIES

The estimated soil properties are given for typical named soils. These estimates are based on test data and experience with similar soils in other counties in Florida. Following are explanations of items under the "ESTIMATED SOIL PROPERTIES."

Depth (In.) - The depth in inches of the major soil horizons that have similar properties are given.

USDA Texture - The USDA texture is based on the relative amounts of sand, silt, and clay in a soil, giving rise to textural classes such as sand, sandy loam, loam, clay loam, and clay. (USDA Handbook No. 18, SOIL SURVEY MANUAL).

Unified Classification - In the Unified System, soils are classified according to particle size distribution, plasticity, liquid limit, and organic matter. Soils are grouped in 15 classes. There are eight classes of coarse-grained soils, identified as GW, GP, GM, GC, SW, SP, SM, and SC; six classes of fine-grained soils, identified as ML, CL, OL, MH, CH, and OH; and one class of highly organic soils identified as Pt. Soils on the borderline between two classes are designated by symbols for both classes; for example, SP-SM.

AASHO Classification - The AASHO system is used to classify soils according to those properties that affect use in highway construction and maintenance. In this system, a soil is placed in one of seven basic groups ranging from A-1 through A-7 on the basis of grain-size distribution, liquid limit, and plasticity index. In group A-1 are gravelly soils of high bearing strength, or the best soils for subgrade (foundation). At the other extreme, in group A-7, are clay soils that have low strength when wet and that are the poorest soils for subgrade. The A-1, A-2, and A-7 groups can be further divided as follows: A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, and A-7-6.

Fraction Greater than 3 Inches (Pct.) - Soils in Seminole County do not have material this coarse, with the possible exception of some of the soils in the Sandy alluvial land (Sn) mapping unit.

Percentage of Material Less than 3 Inches Passing Sieve No. - The measured or estimated percentages of materials passing the num-

bers 4, 10, 40, and 200 sieves are given for each major horizon. The percent passing the 200 sieve approximates the amount of silt and clay, but does include some very fine sand. A range is listed because of the variability for a given soil.

Liquid Limit and Plasticity Index - These indicate the effect of water on the strength and consistence of soil material. As the moisture content of a clayey soil is increased from a dry state, the material changes from a semisolid to a plastic state. If the moisture content is further increased, the material changes from a plastic to a liquid state. The plastic limit is the moisture content at which the soil material changes from the semisolid to plastic state; and the liquid limit from a plastic to a liquid state. The plasticity index is the numerical difference between the liquid limit and the plastic limit. It indicates the range of moisture content within which a soil material is plastic.

Permeability (In./Hr.) - That quality of a soil that enables it to transmit water or air. Values listed are estimates of the range in rate and time it takes for downward movement of water in the major soil layers when saturated, but allowed to drain freely. The estimates are based on soil texture, soil structure, available data on permeability and infiltration tests, and drainage observations of the water movement through soils. On a given soil, percolation through the surface layer varies according to land use and management as well as with initial

moisture content. The permeability is shown in inches per hour. For example, in a soil that has a permeability rate of 6.0 inches per hour in 3 hours free water would move downward a distance of (3x6") 18 inches.

Available Water Capacity (In./In.) - The ability of soils to hold water for plant use. The available water capacity is given in inches per inch of soil for the major horizons. It is commonly defined as the difference between field capacity (1/3 atmosphere) and the wilting percentage (15 atmospheres) times bulk density times the thickness in inches of the soil. The water retention by soil is related to the particle size and to the arrangement and size of soil pores. Fine-textured soils tend to have higher water retention due to small pores than do sandy soils with large pores. Estimates of the available water capacity for soils with normally high water tables may appear meaningless until one considers the possibility of artificial drainage or the natural lowering of the water table during dry seasons, or late summer or fall. Soils of the same series vary from place to place. Therefore, values can deviate considerably from those listed. The available water capacity is expressed in inches per inch. For example, in a soil that has an available water capacity of 0.10 in 1 inch of soil, there would be 0.1 inch of water available for plant growth, and in 24 inches of soil (0.1 x 24") 2.4 inches available.

Soil Reaction - Is the degree of acidity or alkalinity of a soil. It is expressed in pH -- the logarithm of the reciprocal of the H-ion concentration. A soil that tests to pH 7.0 is precisely neutral in reaction because it is neither acid nor alkaline. In words, the degrees of acidity or alkalinity are expressed thus:

	pH
Extremely acid	Below 4.5
Very strongly acid	4.5 to 5.0
Strongly acid	5.1 to 5.5
Medium acid	5.6 to 6.0
Slightly acid	6.1 to 6.5
Neutral	6.6 to 7.3
Mildly alkaline	7.4 to 7.8
Moderately alkaline	7.9 to 8.4
Strongly alkaline	8.5 to 9.0
Very strongly alkaline	9.1 and higher

Salinity (mmhos/cm) - The salinity is expressed in terms of the electrical conductivity of a saturation extract in millimhos per centimeter at 25°centigrade. The following shows the response of plants associated with different ranges of electrical conductivity of saturation extracts of soils.

Electrical conductivity of saturation extract mmho./cm. at 25° C	Plant response
0-2	Salinity effects usually negligible.
2-4	Yield of very salt-sensitive crops may be restricted.

4-8	Yield of salt sensitive crops restricted.
8-16	Only salt-tolerant crops yield satisfactorily.
>16	Only a few very salt-tolerant crops yield satisfactorily

If salinity is zero or no problem for growing crops, a dash is shown on the sheet. Under normal conditions, soils in Seminole County do not exhibit a salinity problem.

Shrink-swell Potential - Is the relative change in volume to be expected of soil material with changes in moisture content; that is, the extent to which the soil shrinks as it dries out or swells when it gets wet. Extent of shrinking and swelling is influenced by the amount and kind of clay in the soil. Shrinking and swelling of soils cause much damage to building foundations, roads, and other structures. A high shrink-swell potential indicates a hazard to maintenance of structures built in, on, or with material having this rating.

Corrosivity - Steel - This refers to the potential for corrosion of uncoated steel pipe buried in the soil. The soils are rated as follows: LOW (noncorrosive or only slightly corrosive), MODERATE (moderately corrosive), and HIGH (severely corrosive). Corrosion of uncoated steel pipe is a physical-biochemical process converting iron into its ions. Soil moisture is needed to form solutions with soluble salts before the process can operate. The corrosivity is estimated

by electrical resistivity or resistance to flow of current, total acidity, soil drainage, and soil texture.

Corrosivity - Concrete - This refers to the potential for deterioration of concrete placed in soil materials. Deterioration is caused by a chemical reaction between the concrete (a base) and the soil solution (potential weak acid). Special cements and methods of manufacturing may be used to reduce rate of deterioration in soils of high corrosivity. Some of the soil properties that affect the rate of deterioration are soil texture and acidity, the amount of sodium or magnesium present in the soil singly or in combination, and amount of sodium chloride in the soil. The presence of large amounts of sodium chloride in the soil usually indicates that sea water has been present in the soil. Sea water contains sulphates which is one of the principal corrosive agents.

Erosion Factors (K and T) - A soil erodibility factor (K) and the soil-loss tolerance (T) are used in an equation that predicts the amount of soil loss resulting from rainfall erosion. The soil erodibility factor "K" is measure of the rate at which a soil will erode. Values are expressed as tons of soil loss per acre per unit of R (rainfall factor) from continuous fallow (three years or more) on a 9 percent slope, 73 feet long. Thus, the K factor reflects the rate that soil erodes when other factors affecting erosion are

constant. Soil properties that influence erodibility by water are: those that affect infiltration rate, movement of water through the soil, and water storage capacity; and those that resist dispersion, splashing, abrasion, and transporting forces from rainfall and runoff. Some of the soil properties that are most important are texture and organic matter of the surface layer, size and stability of structural aggregates in the surface layer, permeability of the subsoil, and depth to slowly permeable layers.

The soil-loss tolerance "T" sometimes called permissible soil loss, is the maximum rate of soil erosion that will permit a high level of crop productivity to be sustained economically and indefinitely. These rates are expressed in tons of soil loss per acre per year. Rates of 1 through 5 are used in the south, depending upon soil properties, soil depth, and prior erosion.

Wind Erodibility Groups - Soils that are subject to wind erosion are grouped into 8 groups according to their susceptibility to soil blowing. Soils that are permanently wet or that are deemed not to have a wind erosion hazard are shown by a dash on the soil properties interpretations sheet. Sandy soils are grouped into wind erodibility groups and are most susceptible to soil blowing, especially during dry periods and when wind velocities are high. Organic soils are normally wet, but they are also subject to soil blowing when

drained and cultivated if the soil surface is left bare during extreme dry periods and wind velocities are high.

Flooding - In Seminole County, flooding is defined as temporary covering of soil surface by water from any source, such as streams overflowing their banks, runoff from adjacent or surrounding slopes, or combinations of these. Shallow water standing above the soil surface in a more or less ponded condition for relatively long periods of time are excluded from the definition of flooding because water is more than a temporary covering; it is a water table above the soil surface rather than flooding.

Flooding hazard may be expressed by one of three general flood frequency classes -- none, rare, or common. Duration and time of year that the flooding occurs is given for those soils with common flood hazards. Not considered here, but nevertheless important, are velocity and depth of flood waters. The classes of flooding are defined as follows:

None -- No reasonable possibility of flooding.

Rare -- Flooding unlikely but possible under unusual weather conditions. No evidence of recent water deposited sediments on surface or within the pedon.

Common - Flooding is likely under usual weather conditions. Most pedons show evidence of recent water deposited sediments or scouring. The probability of recurring floods is great.

Duration refers to the length of time that the soils are flooded. These classes are as follows:

Brief -- 2 to 7 days.

Long - 7 days to 1 month.

Very long - More than 1 month.

The time of year that flooding would most likely occur is expressed in months, for example, June-October.

The economic and social consequences of improper land use of flood prone areas are serious. Problems begin when structures are located in flood prone areas. The initial development encourages additional construction and the installation of streets and utilities. The capacity of the floodway may be reduced by these kinds of development increasing the flood hazard. When flooding occurs, losses are not borne only by the property owner but by the community as well. The public is usually called upon to bear the cost of flood fighting, rehabilitation, and flood protection.

Dwellings, commercial buildings, and other high cost developments that are easily damaged by floods should not be located on flood prone soils. Sanitary facilities such as septic tank filter fields, sewage lagoons, and sanitary landfills built on flood prone soils present a health hazard. Roads and streets built on flood prone soils are likely to be

closed during floods and may require extensive maintenance or restoration after floods.

In agricultural areas the consequences of flooding are much less expensive, but nevertheless may present a hazard to the production of crops. The frequency, duration, and time of year that flooding occurs influences whether trees, pasture, or crops can be grown.

Trees and pasture can withstand more flooding than crops. Certain short season crops, however, can be grown successfully if the growing season is relatively flood free.

High Water Table - A high water table is defined as a zone of saturation at the highest average depth during the wettest season. It persists in the soil for more than a few days and occurs within 80 inches of the soil surface.

Most water tables occur within the soil and are measured from the surface of the soil down to the free-water level. In swamps, marshes, and depressional areas, however, the water table is above the surface of the soil much of the time and water table is measured from the surface of the water down to the soil surface.

Soils that have seasonal high water tables are classified according to depth to the water table, kind of water table, and time of year that the water table is highest.

The depth of the high water table from the soil surface is given in feet or half feet. The range in depth reflects the year-to-year variation in average highest depth. Depth to water table within the soil is recorded with the small number first, e.g., 1.5-2.5. Water table above the soil surface is used for marshes, swamps, and depressional areas and is recorded with the large number first with a +, e.g. + 1.0-0. Where a water table is below 6 feet or exists for less than one month, > 6 is shown under depth.

Three kinds of seasonal high water table are recognized within the soil: apparent, perched, and artesian.

Apparent water table is the level at which water stands in a freshly dug unlined borehole. It is influenced by the hydrostatic pressure of soil water and by pressure at greater depths penetrated by the borehole, water relations across impermeable layers, and other factors. In the absence of evidence that would permit greater specificity, therefore, the term apparent water table is used for the level at which water stands in an uncased borehole after adequate time for adjustment in the surrounding soil.

Perched water table is one that exists in the soil above an unsaturated zone. A water table may be inferred to be perched on the basis of general knowledge of the water levels of an area, the landscape position, the permeability

of soil layers, and from other evidence. To prove that a water table is perched, it is necessary to observe the water levels in cased wells placed above, in, and below the less permeable layer. If the water in the well above the less permeable layer is consistently higher than the other two, the water table is perched.

Artesian water table is one that exists under hydrostatic head beneath an impermeable layer; when the impermeable layer has been penetrated by a cased borehole, the water rises. The final level of the water in the cased borehole may then be characterized as an artesian water table.

The months that the water table normally persists at the average highest depth range is shown, for example, June-December.

A seasonal high water table is an important criterion in a number of engineering and biological uses of soils. Its depth and duration influences the potential and limitations of soils for septic tank absorption fields, shallow excavations, sanitary landfills, dwellings, and local roads and streets.

The water table also influences the growth of crops -- a water table that is near the surface during the growing season is detrimental to most crop plants. Growing plants, however, tend to lower the water table through transpiration.

A change in land use may drastically change the wetness of an area. For example, a change from trees to row crops changes the transpiration rate and may cause a wetter soil condition. Changing land use from cropland, pasture, or forest to urban areas with streets and houses covering a much larger area not only decreases the transpiration by vegetation but also causes increased runoff. A wetter soil may result.

Cemented Pan - This refers to a horizon or layer in the soil that is strongly cemented through the natural processes of soil formation. The depth to this kind of layer is shown in inches. The hardness of the pan is shown as RIPPABLE or HARD in the hardness column. If a soil does not have a cemented pan, a dash is shown in the depth column. (Rippable and hard are defined under "bedrock" below.) Weakly cemented soil horizons are common in some soils in Seminole County, but these are outside the definition of "Cemented pan".

Bedrock - This is solid rock beneath the soil. The depth to bedrock is shown in inches for soils with bedrock within 72 inches of the soil surface. All other soils are shown as > 72. The hardness of the bedrock is shown as RIPPABLE or HARD. "Rippable" rock can be excavated using a single tooth ripping attachment mounted on a 200-300 horsepower

tractor. "Hard" rock requires blasting or use of excavators larger than 200-300 horsepower. All of the soils in Seminole County have bedrock at depths of more than 72 inches.

Subsidence - This refers to the lowering of the level of the soil surface. When water is removed and the water table is lowered in organic soils and some mineral soils with low strength, the soil will subside. Initially, or in the first few years, the subsidence is most pronounced or greatest. Due to insufficient data, the initial subsidence is not estimated. After initial subsidence, organic soils in Florida subside or oxidize at the rate of about 1 inch per year. Total subsidence is estimated in inches.

Hydrologic Group - Soils are grouped into four hydrologic soil groups, A through D. These groups are used mostly in watershed planning to estimate runoff from rainfall. Soil properties were considered that influence the minimum rate of infiltration obtained for a bare soil after prolonged wetting. These properties are: depth to seasonally high water table, intake rate and permeability after prolonged wetting, and depth to a layer or layers that slow or impede water movement.

Dual hydrologic groups are given for wet soils rated D in their natural condition that can be adequately drained. It is considered that drainage is feasible and practical and

that drainage improves the hydrologic group by at least two classes (from D to A or B). The first letter applies to the drained condition.

Hydrologic group A - (Low runoff potential). Soils that have high infiltration rates even when thoroughly wetted and a high rate of water transmission.

Hydrologic group B - (Moderately low runoff potential). Soils that have moderate infiltration rates when thoroughly wetted and a moderate rate of water transmission.

Hydrologic group C - (Moderately high runoff potential). Soils that have slow infiltration rates when thoroughly wetted and a slow rate of water transmission.

Hydrologic group D - (High runoff potential). Soils having very slow infiltration rates when thoroughly wetted and a very slow rate of water transmission.

SOIL POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

Each soil is rated as to its potential for certain land uses, its degree of limitation, and the major practices that need to be applied to realize its potential for a selected use.

Land Use

The soils are rated for 14 different land uses. In the following paragraphs, these land uses are given with a brief discussion of each.

Septic tank absorption fields - These are subsurface systems of tile or perforated pipe that distribute effluent from a septic tank into natural soil. The soil material from a depth of 18 inches to 6 feet is evaluated in determining a soil's potential for septic tank absorption fields. The soil properties considered are those that affect both absorption of effluent and construction and operation of the system. Properties that affect absorption are permeability, depth to water table or rock, and susceptibility to flooding. Slope is a soil property that affects difficulty of layout and construction and also the risk of soil erosion, lateral seepage, and downslope flow of effluent. Subsidence can cause the tile or pipe to gradually come closer to the surface and to eventually be above ground surface.

Sanitary landfill (trench) - This is a method of disposing of refuse in a dug trench. The waste is spread in thin layers, compacted, and covered with a layer of soil material usually at least 6 inches thick, generally with soil evacuated in digging the trench. When the trench is full, a final cover of soil material at least 2 feet thick is placed over the landfill. For some soils, reliable predictions as to its potential for sanitary landfill can be made to a depth of 10 or 15 feet, but in most instances

geologic investigations will be needed below a depth of about 6 feet. Soil properties that have the most significance on a soil's potential are wetness, flooding, or standing water, permeability, soil texture, and slope.

Dwellings without basements - Dwellings are considered to be buildings not more than three stories high that are supported by foundation footings placed in undisturbed soil. Soil properties that have the most significance on a soil's potential are flooding or standing water, wetness, shrink-swell potential, soil strength, subsidence, and slope.

Low commercial buildings - These are commercial buildings less than three stories high that are supported by foundation footings. These buildings may occur as groups of buildings with connecting walls as in shopping centers or as single detached buildings. Land forming operations in preparing sites for these kinds of buildings may result in removal of all vegetative cover and exposure of the surface soil and, in some places, even the subsoil. Soil properties that have the most significance on a soil's potential are flooding or standing water, soil erodibility and soil blowing, slope, wetness, shrink-swell potential, soil strength, and subsidence potential.

Local roads and streets - These are roads and streets that have an all-weather surface expected to carry automobile traffic all

year. They have a subgrade of underlying soil material; a base consisting of gravel, crushed rock, or soil material stabilized with lime or cement; and a flexible or rigid surface, commonly asphalt or concrete. These roads are graded to shed water and have ordinary provisions for drainage. They are built mainly from soil at hand, and most cuts and fills are less than 6 feet deep. Soil properties that have the most significance on a soil's potential are soil strength, shrink-swell potential, flooding or standing water, wetness, and slope.

Shallow excavations - These are the kinds of excavations that require excavating or trenching to a depth of less than 6 feet, as for example, excavations for pipelines, sewer lines, phone and power transmission lines, basements, open ditches, and cemeteries. Soil properties that have the most significance on a soil's potential are soil texture as related to sidewall stability and to support for digging equipment, wetness, and slope.

Active play areas - These are areas that are used intensively for recreation. These include playgrounds, athletic fields, or any areas that are subject to heavy foot traffic in association with outdoor recreation. Soil properties that have the most significance on a soil's potential are flooding, soil

texture in the upper foot of soil, wetness, slope, and permeability.

Passive play areas - These are areas used for outdoor recreation that are not subject to heavy foot traffic, or the foot traffic is relegated to certain areas or paths. Soil properties that have the most significance on a soil's potential are flooding or standing water, soil texture in the upper foot of soil, wetness, and slope.

Excavated ponds aquifer fed - These are bodies of water created by excavating pits or dugouts into a ground-water aquifer. Excluded are ponds fed by runoff and also embankment-type ponds where the depth of water impounded against the embankment exceeds three feet. The assumption is made that the pond is properly designed, located and constructed, and that the water is of good quality. Soil properties that have the most significance on a soil's potential are depth to water table, duration of water table, and permeability of ground water aquifer.

Lawn grasses and ornamental plants - These include the common grasses used for lawns in Seminole County and ornamental plants adapted to the local climatic conditions. Soil properties that have the most signifidance on a soil's potential are available water capacity, average organic matter content in the upper foot of soil, wetness, texture of surface layer, and slope.

Improved pastures - These include the common grasses and legumes. used in Seminole County for improved pastures. Soil properties that have the most significance on a soil's potential are available water capacity, average organic matter content in the upper foot of soil, wetness, natural fertility, and slope.

Woodland - These are areas used for the commercial production of wood. The potential productivity is based on the site index. Site index is based on the average height of dominant pine trees at age 50. Some of the soil limitations are erosion hazard, equipment limitations, seedling mortality, and plant competition. Some of the soil properties that have a significant effect on the ability of a soil to grow trees are the effective depth of the root zone, available water capacity, thickness and texture of the surface layer, amount of organic matter, depth to fine-textured material, aeration of the soil and wetness.

Citrus - These include the common citrus fruits grown for commercial production in Seminole County. Soil properties that have the most significance on a soil's potential are wetness, available water capacity, flooding or standing water, natural fertility, and slope.

Specialized row crops - These include such crops as cabbage, carrots, celery, cucumbers, lettuce, snap beans, and any other specialized vegetable crops grown in Seminole County. Soil

properties that have the most significance on a soil's potential are average organic matter content in the upper foot of soil, wetness, flooding or standing water, natural fertility, and slope.

Soil Potential

Each soil is rated as to its potential for 14 selected land uses. For the purpose of this Supplement, "Soil potential" is defined as the ability of the soil to produce, yield, or support a given structure or activity expressed in economic, social or environmental units of value. The criteria used for rating soil potential includes the relative difficulty or cost of overcoming soil limitations, the continuing limitations after practices in general use in overcoming the limitations are installed, and the suitability of the soil relative to other soils in Seminole County.

In Seminole County, a five-class system of soil potentials is used. They are defined as follows:

Very High potential - Soil limitations are minor or are relatively easy to overcome; performance for the intended use is excellent. Soils rated as very high potential are the best in the county for the particular use.

High potential - Some soil limitations exist, but practices necessary to overcome limitations are available at reasonable cost; performance for the intended use is good.

Medium potential - Soil limitations exist that can be overcome with recommended practices, but limitations are mostly of a continuing nature requiring practices that have to be maintained, or the practices are more difficult or costly than average; performance for the intended use ranges from fair to good.

Low potential - Serious soil limitations exist that are difficult to overcome and the practices necessary to overcome the limitations are relatively costly compared to those required for soils with higher potential; necessary practices may involve environmental values and considerations; performance for the intended use is poor or unreliable.

Very Low potential - Very serious soil limitations exist that are most difficult to overcome; initial cost of the practices and maintenance cost are very high compared to those for soils with high potential; environmental values are usually depreciated; performance for the intended use is inadequate or below acceptable standards.

Soil Limitations

Soil limitations are given for the 14 selected land uses. Soils are rated as to their limitations as follows: Slight - soil properties generally favorable; Moderate - soil properties moderately

favorable; and Severe - soil properties unfavorable. The soil limitations are restrictive features or features that can adversely affect a particular use. Key phrases are shown which identify the specific kinds of soil limitations. A list of key phrases used and their explanation or definition follows:

KEY PHRASE	EXPLANATION
CLAYEY	Soil slippery and sticky when wet and slow to dry.
CUTBANKS CAVE-IN	Walls of cuts are unstable. The soil sloughs easily.
DEEP TO WATER	Deep to permanent water table during dry seasons.
DURATION HIGH WATER TABLE	Water table high for less than 6 months in most years.
EQUIPMENT LIMITATIONS	Reflects limitations in the use of equipment for managing or harvesting a tree crop.
DENSE VEGETATION	Thick natural plant growth that is difficult and costly to clear.
ERODES EASILY	Water erodes soil easily.
EROSION HAZARD	Potential severe erosion problem in woodland following cutting operations or in areas where the soil is exposed.

FLOODS	Soil temporarily flooded by stream overflow from adjacent slopes.
LOOSE SAND	Soil is soft and loose and lacks structural aggregates.
LOW NATURAL FERTILITY	Soil rather infertile and low in essential nutrients for plant growth.
LOW ORGANIC MATTER	Average organic matter content in the upper foot of soil less than 1.5 percent.
LOW SOIL REACTION	Phrase used only in organic soils (Histosols) with pH less than 4.5; the soils require large amounts of lime to raise the pH.
LOW STRENGTH	The soil has inadequate strength to support loads.
NO WATER	Too deep to ground water.
PERCS SLOWLY	Water moves through the soil slowly; affecting the specified use.
PLANT COMPETITION	A severe hazard from unwanted plants that prevent adequate natural or artificial regeneration without site preparation and maintenance treatments and that also compete with desirable trees.

SANDY	Sand texture that has structural aggregates but soil subject to becoming soft and loose with intensive use.
SEEDLING MORTALITY	In woodland plantings or seedings during the first two growing seasons, unsatisfactory survival is likely on more than 50 percent of the area.
SEEPAGE	Water moves through the soil so quickly that it affects the specified use.
SHRINK-SWELL	The soil expands on wetting and shrinks on drying, which may cause damage to roads, dams, building foundations or other structures.
SLOPE	Slope too great.
SLOW REFILL	Ponds fill slowly because the permeability of the soil is restricted.
SOIL BLOWING	Soil easily moved and deposited by wind.
STANDING WATER	Shallow water standing above the soil surface (ponded) for relatively long periods of time.
SUBSIDENCE	Settlement of organic soils or of soils containing semifluid layers.

VERY LOW AVAILABLE WATER CAPACITY	Less than 4 inches of available water in the upper 80 inches of soil; plants on these soils frequently suffer from lack of moisture unless irrigated.
VERY LOW ORGANIC MATTER CONTENT	Average organic matter content in the upper foot of soil less than 0.8 percent.
WETNESS	Soil wet during period of use.
WINDTHROW HAZARD	Potential severe hazard of trees being blown over by high winds during storms.

Necessary Measures to Reach Potential

The necessary practices to obtain potential are shown for the 14 selected land uses. The list of practices is not inclusive but covers the major and most obvious ones. Listing of a practice does not necessarily condone its use. State and local regulations should be consulted prior to installation. Practices are identified and explained below in a general way and are not intended to imply design criteria.

PRACTICE	EXPLAINED
ADEQUATE LIME	Apply the necessary amount of agricultural lime to raise the pH level of the soil to the most desirable level for the growth of plants.

ADEQUATE SURFACE DRAINAGE	Ditches or any other means to remove excess water from the surface or upper foot of soil.
ADD WATER DURING DRY PERIODS	Apply water from any available source. This is not a practical solution unless the pond has been lined or sealed.
BEDDING	A partial method of controlling excess water for the growth of citrus using regularly spaced shallow ditches and beds.
CLEAR NATIVE VEGETATION	Dense vegetation cleared by whatever practical means so that improved pasture grasses can be planted and maintained.
CONSTRUCT ABOVE GROUND WALKS	Walkways built of appropriate materials to carry foot traffic above ground level to help protect and preserve ecosystems.
CONTROL FLOOD WATER (Control Flooding)	Protect area from accumulation of waters above the soil surface, such as by use of dikes.
CONTROL SOIL BLOWING	Control the movement of soil material caused by wind action by such practices as windbreak plantings, good vegetative cover, keeping the surface moist, paving, etc.

DESIGN BUILDING TO FIT SLOPE	Use good design and place buildings in harmony with the landscape.
FILL AREA	Raise the surface level of the land to the desired level by filling area with suitable soil material.
GOOD MANAGEMENT	For growing grasses, crops, citrus, trees, or any plants, use recommended practices for obtaining and maintaining good production, and maintaining and protecting the soil. Recommended management practices will vary with the product being grown and the kind of soil such as: the fertilization program, erosion control measures to use, whether to lime, the amount of supplemental irrigation water to apply and when, and cultivating and harvesting methods.
INCREASE STRUCTURAL STRENGTH IN FOUNDATION	By recommended building methods, insure that additional strength is added to withstand large amounts of stress.
INCREASE AREA FOR FOUNDATIONS AND FOOTINGS	By recommended building methods increase the area to the necessary level to provide adequate strength and support for the building.

LAND FORMING	Reduce slope gradient by cutting and filling.
LAND SMOOTHING	Rearrangement of soil materials by cutting and filling to form a level or nearly level surface.
MAINTAIN EVEN MOISTURE CONTENT	Prevent soil from drying out by whatever appropriate or feasible method so as to prevent the soil from shrinking.
MOUNDING	Filling the area for the absorption field with suitable soil material to the level above the water table necessary to meet local and State requirements.
NONE NEEDED	No practices needed for the applicable land use.
NO PRACTICAL PRACTICES AVAILABLE	No known feasible or practical practices available.
PAVING (Hard Surface)	Covering of the surface with asphalt, concrete, or other similar materials.
PLANT ON BEDS	Plant tree seedlings on beds to keep roots of seedlings above the water table to aid in establishment.

REMOVE AND REPLACE WITH SUITABLE MATERIAL	Remove undesirable soil material and replace with suitable soil material.
RESTRICT USE DURING FLOODING	Restrict use of the area while the area is covered with flood waters.
SEALING OR LINING	Seal or line the bottom of the excavation with the appropriate materials to prevent the downward movement of water or seal or line the side of the excavated trench with the appropriate materials to prevent the lateral movement of water.
SHORING	Construct walls along sides of excavated trenches to prevent soil from sloughing.
SPECIAL EQUIPMENT	Digging equipment needed that can traverse soft and wet soils of low strength.
STABILIZE SIDESLOPES	By whatever practical means stabilize sideslopes of excavated ponds.
SUBSURFACE IRRIGATION	Provide water at below ground level to crops and grasses by manipulating and controlling the water table.

SUITABLE TOPSOIL AND OTHER AMENDMENTS	Add suitable topsoil or appropriate soil amendments to help facilitate stabilization of the soil surface.
SURFACE STABILIZATION	Stabilize the surface by whatever appropriate means so that vehicles can move into and out of the area.
USE CALCIUM TOLERANT ORNAMENTALS OR REDUCE SOIL REACTION	Use ornamentals that can grow on soils high in calcium or apply the appropriate chemicals to reduce the soil reaction or pH to the desired level.
WATER CONTROL	Regulate the water table according to the need of the land use by canals, ditches, pumping, tile, or any other appropriate method.

SOILS SHOWN ACCORDING TO THEIR POTENTIAL FOR SELECTED LAND USES

In tables 1 through 14, the soils are arrayed according to their potential for the specific land use. Soils are grouped and arrayed from very high to very low potential. The numerical rankings were determined by assigning positive points to those soil properties that affect a particular use, multiplying each point by a weighting factor, and then summing the products. The weighting factor is a variable number or device used to maneuver or weight the properties so that a soil with all favorable properties will have a numerical ranking of 100. Properties considered favorable were assigned a point value of 5, those less favorable a point value of 4, 3, 2, or 1, and those considered most unfavorable a value of 0. For example, in local roads and streets, the following properties were used: soil strength, shrink-swell potential, flooding or standing water, wetness, and slope. A soil such as Lakeland fine sand, 0 to 5 percent slopes that has good strength (5 positive points x weighting factor of 5 = 25 points), low shrink-swell potential (5 positive points x weighting factor of 5 = 25 points), not subject to flooding (5 positive points x weighting factor of 4 = 20 points), not wet (5 positive points x weighting factor of 4 = 20 points), and gentle slopes (5 positive points x weighting factor of 2 = 10 points) has a numerical ranking or point value of 100, the highest potential numerical ranking. The highest point totals were assigned to those properties that would have the most effect on the particular land use. In local roads and streets, soil strength and shrink-swell potential were considered of

most importance, flooding and wetness of slightly less importance, and slope of least importance. Theoretically, a soil could have a potential as low as 0 or as high as 100, but for all the land uses considered, most soils in Seminole County came out with a numerical ranking of more than 0. For some land uses, there were some soils that had a numerical ranking of 100, and for some land uses, there were not any soils that had a numerical ranking as high as 100.

The percent of the county that each soil comprises is also shown in the tables. This will enable users to quickly calculate the extent of the soils with the best potential for a particular use.

The last column in the table refers you to the page that has the properties and interpretations for a particular soil.

SOIL PROPERTIES AND INTERPRETATION TABLES

SOILS SHOWN ACCORDING TO POTENTIAL FOR SEPTIC TANK ABSORPTION FIELDS

MAP SYMBOL	SOIL NAME	POTENTIAL (RANKING)		% OF CNTY.	REFER TO PAGE
LdB	Lakewood s, 0-5% slopes	Very High	(100)	1.5	98
LaB	Lakeland fs, 0-5% slopes	Very High	(100)	4.2	95
BfB	Blanton fs, 0-5% slopes	Very High	(100)	6.2	73
SfB	St. Lucie fs, 0-5% slopes	Very High	(100)	3.0	122
LdC	Lakewood s, 5-8% slopes	Very High	(100)	0.1	99
LaC	Lakeland fs, 5-8% slopes	Very High	(100)	0.6	96
BfC	Blanton fs, 5-8% slopes	Very High	(100)	1.2	74
LaD	Lakeland fs, 8-12% slopes	Very High	(96)	0.1	97
BfD	Blanton fs, 8-12% slopes	Very High	(96)	0.2	75
OrB	Orlando fs, 0-5% slopes	High	(81)	0.2	109
BnB	Blanton fs, low, 0-5% slopes	High	(81)	9.4	76
PmB	Pomello fs, 0-5% slopes	High	(81)	4.1	113
OrC	Orlando fs, 5-8% slopes	High	(81)	0.1	110
BnC	Blanton fs, low, 5-8% slopes	High	(81)	0.2	77
Ph	Plummer fs, high	Medium	(75)	2.1	112
Rh	Rutlege fs, high	Medium	(65)	0.2	117
Lo	Leon s	Medium	(66)	1.4	102
LfA	Leon fs, 0-2% slopes	Medium	(66)	15.9	100
LfB	Leon fs, 2-5% slopes	Medium	(66)	0.1	101
On	Ona fs	Medium	(66)	0.3	108
Im	Immokalee fs	Medium	(66)	3.3	90
In	Immokalee s	Medium	(66)	1.4	91
Sa	St. Johns fs	Medium	(66)	2.3	121
Wa	Wabasso fs	Medium	(66)	0.5	126
Df	Delray fs, high	Low	(50)	2.8	84
Dh	Delray fs, mod. shal., high	Low	(50)	0.9	85
De	Delray fs	Low	(50)	1.8	83
Dm	Delray mfs	Low	(50)	0.9	86
Pf	Plummer fs	Low	(50)	0.9	111
Rf	Rutlege fs	Low	(50)	1.7	116
Rm	Rutlege mfs	Low	(50)	0.4	118
Rn	Rutlege, Plummer, and St. Johns soils	Low	(50)	0.8	119
Rp	Rutlege and Pompano soils, ponded	Low	(50)	0.6	120

MAP SYMBOL	SOIL NAME	POTENTIAL (RANKING)		% OF CNTY.	REFER TO PAGE
Ch	Charlotte fs	Low	(50)	0.8	82
Ff	Felda fs	Low	(50)	0.9	87
Pn	Pompano fs	Low	(50)	3.1	114
Po	Pompano fs, mod. shallow	Low	(50)	0.4	115
Sn	Sandy alluvial land	Very Low-Medium	(25-70)	2.2	123
Bp	Brighton p	Very Low	(35)	0.1	79
Br	Brighton p, shallow variant	Very Low	(35)	0.1	80
Bt	Brighton, Istokpoga, and Okeechobee soils	Very Low	(35)	1.6	81
Io	Istokpoga p, deep	Very Low	(35)	0.3	92
Ip	Istokpoga p, mod. deep	Very Low	(35)	0.1	93
Is	Istokpoga p, shallow variant	Very Low	(35)	0.1	94
Ok	Okeechobee m	Very Low	(35)	1.0	107
Tc	Terra Ceia m	Very Low	(35)	0.4	125
Sw	Swamp	Very Low	(25-35)	11.7	124
Mb	Manatee fs	Very Low	(25)	0.5	104
Mc	Manatee lfs	Very Low	(25)	0.1	105
Md	Manatee-Delray complex, overflow	Very Low	(25)	2.8	106
Ik	Iberia ml	Very Low	(25)	0.1	89
Ib	Iberia cl, overflow	Very Low	(25)	3.0	88
Bo	Borrow Pits	Not rated		0.2	78
Ma	Made land	Not rated		1.0	103

Very High	95-100	RANKING FOR THIS TABLE ONLY
High	80-95	
Medium	60-80	
Low	40-60	
Very Low	< 40	

SOILS SHOWN ACCORDING TO POTENTIAL FOR SANITARY LANDFILL (TRENCH TYPE)

MAP SYMBOL	SOIL NAME	POTENTIAL (RANKING)		% OF CNTY.	REFER TO PAGE
BfB	Blanton fs, high, 0-5% slopes	Very High	(90)	6.1	73
LaB	Lakeland fs, 0-5% slopes	Very High	(90)	4.2	95
LdB	Lakewood s, 0-5% slopes	Very High	(90)	1.5	98
BfC	Blanton fs, high, 5-8% slopes	High	(85)	1.2	74
LaC	Lakeland fs, 5-8% slopes	High	(85)	0.6	96
LdC	Lakewood s, 508% slopes	High	(85)	0.1	99
BfD	Blanton fs, high, 8-12% slopes	High	(80)	0.2	75
LaD	Lakeland fs, 8-12% slopes	High	(80)	0.1	97
BnB	Blanton fs, low, 0-5% slopes	High	(70)	9.4	76
BnC	Blanton fs, low, 5-8% slopes	High	(65)	0.2	77
SfB	St. Lucie fs, 0-5% slopes	High	(65)	3.1	122
Wa	Wabasso fs	Medium	(60)	0.5	126
Ph	Plummer fs, high	Medium	(60)	2.1	112
OrB	Orlando fs, 0-5% slopes	Medium	(45)	0.2	109
PmB	Pomello fs, 0-5% slopes	Medium	(45)	4.1	113
OrC	Orlando fs, 5-8% slopes	Low	(40)	0.1	110
Mc	Manatee ls	Low	(40)	0.1	105
Ib	Iberia cl, overflow	Low	(40)	3.1	88
Ik	Iberia ml	Low	(40)	0.1	89
Ff	Felda fs	Low	(35)	0.9	87
Im	Immokalee fs	Low	(35)	3.3	90
In	Immokalee s	Low	(35)	1.4	91
Lo	Leon s	Low	(35)	1.4	102
LfA	Leon fs, 0-2% slopes	Low	(35)	15.9	100
LfB	Lfs, 2-5% slopes	Low	(35)	0.1	101
On	Ona fs	Low	(35)	0.3	108
Rh	Rutlege fs, high	Low	(35)	0.2	117
Mb	Manatee fs	Low	(35)	0.5	104
Md	Manatee-Delray complex, overflow	Low	(35)	2.8	106
Pf	Plummer fs	Low	(35)	0.9	111

MAP SYMBOL	SOIL NAME	POTENTIAL (RANKING)		% OF CNTY.	REFER TO PAGE
Pn	Pompano fs	Low	(35)	3.1	114
Po	Pompano fs, mod. shallow	Low	(35)	0.4	115
Sn	Sandy alluvial land	Very Low-High	(15-95)	2.2	123
Sw	Swamp	Very Low-Low	(10-40)	11.7	124
Ch	Charlotte fs	Very Low	(10)	0.8	82
Df	Delray fs, high	Very Low	(10)	2.8	84
Dh	Delray fs, mod. shal., high	Very Low	(10)	0.9	85
De	Delray fs	Very Low	(10)	1.8	83
Dm	Delray mfs	Very Low	(10)	0.9	86
Sa	St. Johns fs	Very Low	(10)	2.3	121
Rf	Rutlege fs	Very Low	(10)	1.7	116
Rm	Rutlege mfs	Very Low	(10)	0.4	118
Rn	Rutlege, Plummer, and St. Johns soils	Very Low	(10)	0.8	119
Rp	Rutlege and Pompano soils, ponded	Very Low	(10)	0.6	120
Bp	Brighton p	Very Low	(10)	0.1	79
Br	Brighton p, shal. variant	Very Low	(10)	0.1	80
Bt	Brighton, Istokpoga, and Okeechobee soils	Very Low	(10)	1.6	81
Io	Istokpoga p, deep	Very Low	(10)	0.3	92
Ip	Istokpoga p, mod. deep	Very Low	(10)	0.1	93
Is	Istokpoga p, shal. variant	Very Low	(10)	0.1	94
Ok	Okeechobee m	Very Low	(10)	1.0	107
Tc	Terra Ceia m	Very Low	(10)	0.4	125
Bo	Borrow pits	Not rated		0.3	78
Ma	Made land	Not rated		1.0	103

Very High	90-100	RANKING FOR THIS TABLE ONLY
High	65-90	
Medium	45-65	
Low	30-45	
Very Low	< 30	

SOILS SHOWN ACCORDING TO POTENTIAL FOR DWELLINGS WITHOUT BASEMENTS

MAP SYMBOL	SOIL NAME	POTENTIAL (RANKING)		% OF CNTY.	REFER TO PAGE
BfB	Blanton fs, 0-5% slopes	Very High	(100)	6.2	73
LaB	Lakeland fs, 0-5% slopes	Very High	(100)	4.2	95
LdB	Lakewood fs, 0-5% slopes	Very High	(100)	1.5	98
SfB	St. Lucie fs, 0-5% slopes	Very High	(100)	3.0	101
BfC	Blanton fs, 5-8% slopes	Very High	(100)	1.2	74
LaC	Lakeland fs, 508% slopes	Very High	(100)	0.6	96
LdC	Lakewood fs, 508% slopes	Very High	(100)	0.1	99
BfD	Blanton fs, 8-12% slopes	High	(94)	0.2	75
LaD	Lakeland fs, 8-12% slopes	High	(94)	0.1	97
BnB	Blanton fs, low, 0-5% slopes	High	(88)	9.4	76
OrB	Orlando fs, 0-5% slopes	High	(88)	0.2	109
PmB	Pomello fs, 0-5% slopes	High	(88)	4.1	113
BnC	Blanton fs, low, 5-8% slopes	High	(88)	0.2	77
OrC	Orlando fs, 5-8% slopes	High	(88)	0.1	110
Lo	Leon s	Medium	(80)	1.4	102
LfA	Leon fs, 0-2% slopes	Medium	(80)	15.9	100
LfB	Leon fs, 2-5% slopes	Medium	(80)	0.1	101
Im	Immokalee fs	Medium	(80)	3.3	90
In	Immokalee s	Medium	(80)	1.4	91
On	Ona fs	Medium	(80)	0.3	108
Ph	Plummer fs, high	Medium	(80)	2.1	112
Sa	St. Johns fs	Medium	(80)	2.3	121
Df	Delray fs, high	Medium	(80)	2.8	84
Dh	Delray fs, mod. shal., high	Medium	(80)	0.9	85
Rh	Rutlege fs, high	Medium	(80)	0.2	117
Wa	Wabasso fs	Medium	(74)	0.5	126
De	Delray fs	Low	(55)	1.8	83
Dm	Delray mfs	Low	(55)	0.9	86
Pf	Plummer fs	Low	(55)	0.9	111
Rf	Rutlege fs	Low	(55)	1.7	116
Rm	Rutlege mfs	Low	(55)	0.4	118
Rn	Rutlege, Plummer, and St. Johns soils	Low	(55)	0.8	119

MAP SYMBOL	SOIL NAME	POTENTIAL (RANKING)		% OF CNTY.	REFER TO PAGE
Rp	Rutlege and Pompano soils, ponded	Low	(55)	0.6	120
Ch	Charlotte fs	Low	(55)	0.8	82
Pn	Pompano fs	Low	(49)	3.1	114
Po	Pompano fs, mod. shallow	Low	(49)	0.4	115
Ff	Felda fs	Low	(37)	0.9	87
Mb	Manatee fs	Low	(37)	0.5	104
Mc	Manatee lfs	Low	(37)	0.1	105
Md	Manatee-Delray complex, overflow	Low	(37)	2.8	106
Ik	Iberia ml	Very Low	(25)	0.1	89
Ib	Iberia cl, overflow	Very Low	(25)	3.0	90
Sn	Sandy alluvial land	Very Low-Medium	(25-75)	2.2	123
Sw	Swamp	Very Low-Low	(25-55)	11.7	124
Bp	Brighton p	Very Low	(25)	0.1	79
Br	Brighton p, shallow variant	Very Low	(25)	0.1	80
Bt	Brighton, Istokpoga, and Okeechobee soils	Very Low	(25)	1.6	81
Io	Istokpoga p, deep	Very Low	(25)	0.3	92
Ip	Istokpoga, mod. deep	Very Low	(25)	0.1	93
Is	Istokpoga p, shallow variant	Very Low	(25)	0.1	94
Ok	Okeechobee m	Very Low	(25)	1.0	107
Tc	Terra Ceia m	Very Low	(25)	0.4	125
Bo	Borrow pits	Not rated		0.2	78
Ma	Made land	Not rated		1.0	103

Very High	95-100	RANKING FOR THIS TABLE ONLY
High	85-95	
Medium	60-85	
Low	40-60	
Very Low	< 40	

SOILS SHOWN ACCORDING TO POTENTIAL FOR LOW COMMERCIAL BUILDINGS

MAP SYMBOL	SOIL NAME	POTENTIAL (RANKING)		% OF CNTY.	REFER TO PAGE
BnB	Blanton fs, low, 0-5% slopes	High	(87)	9.4	76
BfB	Blanton fs, high, 0-5%	High	(87)	6.2	73
LaB	Lakeland fs, 0-5% slopes	High	(87)	4.2	95
LdB	Lakewood s, 0-5% slopes	High	(87)	1.5	98
SfB	St. Lucie fs, 0-5% slopes	High	(87)	3.0	122
Df	Delray fs, high	High	(85)	2.8	84
Dh	Delray fs, mod. shal., high	High	(87)	0.9	85
Ph	Plummer fs, high	High	(85)	2.1	112
Rh	Rutlege fs, high	High	(85)	0.2	117
BnB	Blanton fs, low, 0-5% slopes	Medium	(81)	9.4	76
OrB	Orlando fs, 0-5% slopes	Medium	(81)	0.2	109
PmB	Pomello fs, high	Medium	(81)	4.1	113
BfC	Blanton fs, high, 5-8% slopes	Medium	(81)	1.2	74
LaC	Lakeland fs, 5-8% slopes	Medium	(81)	0.6	96
LdC	Lakewood s, 0-5% slopes	Medium	(81)	0.1	99
BnC	Blanton fs, low, 5-8% slopes	Medium	(75)	0.2	77
Im	Immokalee fs	Medium	(75)	3.3	90
In	Immokalee s	Medium	(75)	1.4	91
Lo	Leon s	Medium	(75)	1.4	102
LfA	Leon fs, 0-2% slopes	Medium	(75)	15.9	100
OrC	Orlando fs, 5-8% slopes	Medium	(75)	0.1	110
On	Ona fs	Medium	(75)	0.3	108
Sa	St. Johns fs	Medium	(75)	2.3	121
BfD	Blanton fs, high, 0-5% slopes	Medium	(75)	0.2	75
LaD	Lakeland fs, 8-12% slopes	Medium	(75)	0.1	97
LfB	Leon fs, 2-5% slopes	Medium	(72)	0.1	101
Ch	Charlotte fs	Medium	(70)	0.8	82
De	Delray fs	Medium	(70)	1.8	83
Dm	Delray mfs	Medium	(70)	0.9	86
Pf	Plummer fs	Medium	(70)	0.9	111
Rf	Rutlege fs	Medium	(70)	1.7	116
Rm	Rutlege mfs	Medium	(70)	0.4	118

MAP SYMBOL	SOIL NAME	POTENTIAL (RANKING)		% OF CNTY.	REFER TO PAGE
Rn	Rutlege, Plummer & St. Johns soils	Medium	(70)	0.8	119
Rp	Rutlege and Pompano soils, ponded	Medium	(70)	0.6	120
Wa	Wabasso fs	Low	(69)	0.5	126
Pn	Pompano fs	Low	(64)	3.1	114
Po	Pompano fs, mod. shallow	Low	(64)	0.4	115
Ff	Felda fs	Low	(47)	0.9	87
Mb	Manatee fs	Very Low	(42)	0.5	104
Mc	Mana	Very Low	(42)	0.1	105
Md	Manatee-Delray complex, overflow	Very Low	(42)	2.8	106
Bp	Brighton p	Very Low	(40)	0.1	79
Br	Brighton p, shal. variant	Very Low	(40)	0.1	80
Bt	Brighton, Istokpoga and Okeechobee soils	Very Low	(40)	1.6	81
Io	Istokpoga p, deep	Very Low	(40)	0.3	92
Ip	Istokpoga p, mod. deep	Very Low	(40)	0.1	93
Is	Istokpoga p, shal. variant	Very Low	(40)	0.1	94
Ok	Okeechobee m	Very Low	(40)	1.0	107
Tc	Terra Ceia m	Very Low	(40)	0.4	125
Sw	Swamp	Very Low-Medium	(40-70)	11.7	124
Sn	Sandy alluvial land	Very Low-High	(30-85)	2.2	123
Ib	Iberia cl, overflow	Very Low	(30)	3.0	88
Ik	Iberia ml	Very Low	(30)	0.1	89
Bo	Borrow pits	Not rated		0.3	78
Ma	Made land	Not rated		1.0	103

Very High	95-100	RANKING FOR THIS TABLE ONLY
High	85-95	
Medium	70-85	
Low	45-70	
Very Low	< 45	

SOILS SHOWN ACCORDING TO POTENTIAL FOR LOCAL ROADS AND STREETS

MAP SYMBOL	SOIL NAME	POTENTIAL (RANKING)		% OF CNTY.	REFER TO PAGE
BfB	Blanton fs, high, 0-5% slopes	Very High	(100)	6.1	73
LaB	Lakeland fs, 0-5% slopes	Very High	(100)	4.2	95
LdB	Lakewood s, 0-5% slopes	Very High	(100)	1.5	98
SfB	St. Lucie fs, 0-5% slopes	Very High	(100)	3.0	122
BfC	Blanton fs, high, 5-8% slopes	Very High	(100)	1.2	74
LaC	Lakeland fs, 5-8% slopes	Very High	(100)	0.6	96
LdC	Lakewood s, 0-5% slopes	Very High	(100)	0.1	99
BfD	Blanton fs, high, 8-12% slopes	High	(95)	0.2	75
LaD	Lakeland fs, 8-12% slopes	High	(95)	0.1	97
BnB	Blanton fs, low, 0-5% slopes	High	(90)	9.4	76
OrB	Orlando fs, 0-5% slopes	High	(90)	0.2	109
PmB	Pomello fs, high	High	(90)	4.1	113
BnC	Blanton fs, low, 5-8% slopes	High	(90)	0.2	77
OrC	Orlando fs, 5-8% slopes	High	(90)	0.1	110
On	Ona fs	Medium	(80)	0.3	108
Im	Immokalee fs	Medium	(80)	3.3	90
In	Immokalee s	Medium	(80)	1.4	91
Lo	Leon s	Medium	(80)	1.4	102
LfA	Leon fs, 0-2% slopes	Medium	(80)	15.9	100
LfB	Leon fs, 2-5% slopes	Medium	(80)	0.1	101
Ph	Plummer fs, high	Medium	(80)	2.1	112
Rh	Rutlege fs, high	Medium	(80)	0.2	117
Ch	Charlotte fs	Medium	(60)	0.8	82
Df	Delray fs, high	Medium	(60)	2.8	84
Dh	Delray fs, mod. shal., high	Medium	(60)	0.9	85
De	Delray fs	Medium	(60)	1.8	83
Sa	St. Johns fs	Medium	(60)	2.3	121
Pf	Plummer fs	Medium	(60)	0.9	111
Rf	Rutlege fs	Medium	(60)	1.7	116
Rn	Rutlege, Plummer, and St. Johns soils	Medium	(60)	0.8	119
Rp	Rutlege and Pompano soils, ponded	Medium	(60)	0.6	120

MAP SYMBOL	SOIL NAME	POTENTIAL (RANKING)		% OF CNTY.	REFER TO PAGE
Wa	Wabasso fs	Low	(57)	0.5	126
Pn	Pompano fs	Low	(50)	3.1	114
Po	Pompano fs, mod. shallow	Low	(50)	0.4	115
Ff	Felda fs	Low	(37)	0.9	87
Mb	Manatee fs	Low	(37)	0.5	104
Mc	Manatee lfs	Low	(37)	0.1	105
Md	Manatee-Delray complex, overflow	Low	(37)	2.8	106
Sn	Sandy alluvial land	Low-Medium	(37-80)	2.2	123
Dm	Delray mfs	Very Low	(37)	0.9	86
Bp	Brighton peat	Very Low	(35)	0.1	79
Br	Brighton peat, shallow variant	Very Low	(35)	0.1	80
Bt	Brighton, Istokpoga, and Okeechobee soils	Very Low	(35)	1.6	81
Io	Istokpoga peat, deep	Very Low	(35)	0.3	92
Ip	Istokpoga peat, mod. deep	Very Low	(35)	0.1	93
Is	Istokpoga peat, shal. variant	Very Low	(35)	0.1	94
Ok	Okeechobee m	Very Low	(35)	1.0	107
Rm	Rutlege mfs	Very Low	(35)	0.4	118
Tc	Terra Ceia m	Very Low	(35)	0.4	125
Sw	Swamp	Very Low-Low	(10-60)	11.7	124
Ib	Iberia cl, overflow	Very Low	(10)	3.0	88
Ik	Iberia ml	Very Low	(10)	0.1	89
Bo	Borrow pits	Not rated		0.3	78
Ma	Made land	Not rated		1.0	103

		RANKING FOR THIS TABLE ONLY
Very High	96-100	
High	81-96	
Medium	60-81	
Low	37-60	
Very Low	< 37	

SOILS SHOWN ACCORDING TO POTENTIAL FOR SHALLOW EXCAVATIONS

MAP SYMBOL	SOIL NAME	POTENTIAL (RANKING)		% OF CNTY.	REFER TO PAGE
BfB	Blanton fs, high, 0-5% slopes	High	(75)	6.1	73
LaB	Lakeland fs, 0-5% slopes	High	(75)	4.2	95
LdB	Lakewood s, 0-5% slopes	High	(75)	1.5	98
SfB	St. Lucie fs, 0-5% slopes	High	(75)	3.0	122
BfC	Blanton fs, high, 5-8% slopes	Medium	(70)	1.2	74
LaC	Lakeland fs, 5-8% slopes	Medium	(70)	.6	96
LdC	Lakewood s, 5-8% slopes	Medium	(70)	.1	99
BnB	Blanton fs, low, 0-5% slopes	Medium	(60)	9.4	76
OrB	Orlando fs, 0-5% slopes	Medium	(60)	.2	109
PmB	Pomello fs, 0-5% slopes	Medium	(60)	4.1	113
Ik	Iberia ml	Medium	(60)	.1	89
BfD	Blanton fs, high, 8-12% slopes	Medium	(60)	.2	75
LaD	Lakeland fs, 8-12% slopes	Medium	(60)	0.1	97
BnC	Blanton fs, low, 5-8% slopes	Medium	(55)	.2	77
OrC	Orlando fs, 5-8% slopes	Medium	(55)	.1	110
Ib	Iberia cl, overflow	Medium	(55)	3.0	88
Df	Delray fs, high	Low	(50)	2.8	84
Dh	Delray fs, mod. shal., high	Low	(50)	.9	85
Im	Immokalee fs	Low	(50)	3.3	90
In	Immokalee s	Low	(50)	1.4	91
Lo	Leon s	Low	(50)	1.4	102
LfA	Leon fs, 0-2% slopes	Low	(50)	15.9	100
LfB	Leon fs, 2-5% slopes	Low	(50)	.1	101
Mb	Manatee fs	Low	(50)	.5	104
On	Ona fs	Low	(50)	.3	108
Ph	Plummer fs, high	Low	(50)	2.1	112
Sa	St. Johns fs	Low	(50)	2.3	121
Bp	Brighton p	Low	(50)	.1	79
Bt	Brighton, Istokpoga, and Okeechobee soils	Low	(50)	1.6	81
Io	Istokpoga p, deep	Low	(50)	.3	92

MAP SYMBOL	SOIL NAME	POTENTIAL (RANKING)		% OF CNTY.	REFER TO PAGE
Ip	Istokpoga p, mod. deep	Low	(50)	.1	93
Ok	Okeechobee m	Low	(50)	1.0	107
Tc	Terra Ceia, m	Low	(50)	.4	125
De	Delray fs	Low	(45)	1.8	83
Mc	Manatee lfs	Low	(45)	.1	105
Pf	Plummer fs	Low	(45)	.9	111
Pn	Pompano fs	Low	(45)	3.1	114
Po	Pompano fs, mod. shallow	Low	(45)	.4	115
Rf	Rutlege fs	Low	(45)	1.7	116
Rn	Rutlege, Plummer and St. Johns soils	Low	(45)	.8	119
Rp	Rutlege and Pompano soils, ponded	Low	(45)	.6	120
Wa	Wabasso fs	Low	(45)	.5	126
Sn	Sandy alluvial land	Low-High	(45-75)	2.2	123
Ch	Charlotte fs	Low	(40)	.8	82
Md	Manatee-Delray complex, overflow	Low	(40)	2.8	106
Dm	Delray mfs	Very Low	(35)	.9	86
Rm	Rutlege mfs	Very Low	(35)	.4	118
Br	Brighton p, shal. variant	Very Low	(25)	.1	80
Is	Istokpoga p, shal. variant	Very Low	(25)	.1	94
Sw	Swamp	Very Low-Medium	(25-70)	11.7	124
Bo	Borrow pits	Not rated		.3	78
Ma	Made land	Not rated		1.0	103

Very High	90-100	RANKING FOR THIS TABLE ONLY
High	75-90	
Medium	55-75	
Low	36-55	
Very Low	< 36	

SOILS SHOWN ACCORDING TO POTENTIAL FOR ACTIVE PLAY AREAS

MAP SYMBOL	SOIL NAME	POTENTIAL (RANKING)		% OF CNTY.	REFER TO PAGE
BfB	Blanton fs, high, 0-5% slopes	High	(75)	6.2	73
LaB	Lakeland fs, 0-5% slopes	High	(75)	4.2	95
LdB	Lakewood s, 0-5% slopes	High	(75)	1.5	98
PmB	Pomello fs, 0-5% slopes	High	(75)	4.1	113
SfB	St. Lucie fs, 0-5% slopes	High	(75)	3.0	122
BnB	Blanton fs, low, 0-5% slopes	High	(75)	9.4	76
OrB	Orlando fs, 0-5% slopes	High	(75)	0.2	109
LaC	Lakeland fs, 5-8% slopes	Medium	(70)	0.6	96
LdC	Lakewood fs, 5-8% slopes	Medium	(70)	0.1	99
OrC	Orlando fs, 508% slopes	Medium	(70)	0.1	110
BnC	Blanton fs, low, 5-8% slopes	Medium	(70)	0.2	77
BfC	Blanton fs, high, 5-8% slopes	Medium	(70)	1.2	74
Df	Delray fs, high	Medium	(70)	2.8	84
Dh	Delray fs, mod. shal., high	Medium	(70)	0.9	85
Ph	Plummer fs, high	Medium	(70)	2.1	112
Rh	Rutlege fs, high	Medium	(70)	0.2	117
Sa	St. Johns fs	Medium	(70)	2.3	121
On	Ona fs	Medium	(65)	0.3	108
Wa	Wabasso fs	Medium	(65)	0.5	126
Im	Immokalee fs	Medium	(60)	3.3	90
In	Immokalee s	Medium	(60)	1.4	91
BfD	Blanton fs, high, 8-12% slopes	Medium	(60)	0.2	75
LaD	Lakeland fs, 8-12% slopes	Medium	(60)	0.1	97
Lo	Leon sand	Medium	(55)	1.4	102
LfA	Leon fs, 0-2% slopes	Medium	(55)	15.9	100
LfB	Leon fs, 2-5% slopes	Medium	(50)	0.1	101
Ch	Charlotte fs	Low	(45)	0.8	82
De	Delray fs	Low	(45)	1.8	83
Dm	Delray mfs	Low	(45)	0.9	86
Ff	Felda fs	Low	(45)	0.9	87
Pf	Plummer fs	Low	(45)	0.9	111
Pn	Pompano fs	Low	(45)	3.1	114

MAP SYMBOL	SOIL NAME	POTENTIAL (RANKING)		% OF CNTY.	REFER TO PAGE
Po	Pompano fs, mod. shallow	Low	(45)	0.4	115
Rf	Rutlege fs	Low	(45)	1.7	116
Rm	Rutlege mfs	Low	(45)	0.4	118
Rn	Rutlege, Plummer, and St. Johns soils	Low	(45)	0.8	119
Rp	Rutlege and Pompano soils, ponded	Low	(45)	0.6	120
Mb	Manatee fs	Low	(35)	0.5	104
Mc	Manatee lfs	Low	(35)	0.1	105
Md	Manatee-Delray complex, overflow	Low	(35)	2.8	106
Bp	Brighton p	Very Low	(30)	0.1	79
Br	Brighton p, shallow variant	Very Low	(30)	0.1	80
Bt	Brighton, Istokpoga, and Okeechobee soils	Very Low	(30)	1.6	81
Io	Istokpoga p, deep	Very Low	(30)	0.3	92
Ip	Istokpoga p, mod. deep	Very Low	(30)	0.1	93
Is	Istokpoga p, shallow variant	Very Low	(30)	0.1	94
Tc	Terra Ceia	Very Low	(30)	0.4	125
Ok	Okeechobee m	Very Low	(30)	1.0	107
Sw	Swamp	Very Low-Low	(30-45)	11.7	124
Sn	Sandy alluvial land	Very Low-Low	(25-65)	2.2	123
Ib	Iberia clay loam, overflow	Very Low	(25)	3.0	88
Ik	Iberia ml	Very Low	(25)	0.1	89
Bo	Borrow pits	Not rated		0.2	78
Ma	Made land	Not rated		1.0	103

Very High	90-100	RANKING FOR THIS TABLE ONLY
High	75-90	
Medium	50-75	
Low	35-50	
Very Low	< 35	

SOILS SHOWN ACCORDING TO POTENTIAL FOR PASSIVE PLAY AREAS

MAP SYMBOL	SOIL NAME	POTENTIAL (RANKING)		% OF CNTY.	REFER TO PAGE
BnB	Blanton fs, low, 0-5% slopes	High	(85)	9.4	76
BfB	Blanton fs, high, 0-5% slopes	High	(85)	6.1	73
LaB	Lakeland fs, 0-5% slopes	High	(85)	4.2	95
LdB	Lakewood s, 0-5% slopes	High	(85)	1.5	98
OrB	Orlando fs, 0-5% slopes	High	(85)	.2	109
PmB	Pomello fs, 0-5% slopes	High	(85)	4.1	113
SfB	St. Lucie fs, 0-5% slopes	High	(85)	3.0	122
BnC	Blanton fs, low, 5-8% slopes	High	(85)	.2	77
BfC	Blanton fs, high, 5-8% slopes	High	(85)	1.2	74
LaC	Lakeland fs, 5-8% slopes	High	(85)	.6	96
LdC	Lakewood s, 5-8% slopes	High	(85)	.1	99
OrC	Orlando fs, 5-8% slopes	High	(85)	.1	110
BfD	Blanton fs, high, 8-12% slopes	High	(81)	.2	75
LaD	Lakeland fs, 8-12% slopes	High	(81)	.1	97
Df	Delray fs, high	High	(80)	2.8	84
Dh	Delray fs, mod. shal., high	High	(80)	.9	85
Ph	Plummer fs, high	High	(80)	2.1	112
Sa	St. Johns fs	High	(80)	2.3	121
Rh	Rutlege fs, high	High	(80)	.2	117
Ch	Charlotte fs	Medium	(70)	.8	82
Ff	Felda fs	Medium	(70)	.9	87
Im	Immokalee fs	Medium	(70)	3.3	90
In	Immokalee s	Medium	(70)	1.4	91
Lo	Leon s	Medium	(70)	1.4	102
LfA	Leon fs, 0-2% slopes	Medium	(70)	15.9	100
LfB	Leon fs, 2-5% slopes	Medium	(70)	.1	101
On	Ona fs	Medium	(70)	.3	108
Pn	Pompano fs	Medium	(70)	3.1	114
Po	Pompano fs, mod. shal.	Medium	(70)	.4	115
Wa	Wabasso fs	Medium	(70)	.5	126
De	Delray fs	Medium	(60)	1.8	83

MAP SYMBOL	SOIL NAME	POTENTIAL (RANKING)		% OF CNTY.	REFER TO PAGE
Dm	Delray mfs	Medium	(60)	.9	86
Mb	Manatee fs	Medium	(60)	.5	104
Mc	Manatee lfs	Medium	(60)	.1	105
Md	Manatee-Delray complex, overflow	Medium	(60)	2.8	106
Pf	Plummer fs	Medium	(60)	.9	111
Rf	Rutlege fs	Medium	(60)	1.7	116
Rm	Rutlege mfs	Medium	(60)	.4	118
Rn	Rutlege, Plummer & St. Johns soils	Medium	(60)	.8	119
Ib	Iberia cl, overflow	Low	(50)	3.0	93
Ik	Iberia mucky loam	Low	(50)	.1	89
Rp	Rutlege and Pompano soils, ponded	Low	(50)	.6	120
Sn	Sandy alluvial land	Low-High	(50-75)	2.2	123
Bp	Brighton peat	Very Low	(30)	.1	79
Br	Brighton peat, shal. var.	Very Low	(30)	.1	80
Bt	Brighton, Istokpoga and Okeechobee soils	Very Low	(30)	1.6	81
Io	Istokpoga peat, deep	Very Low	(30)	.3	92
Ip	Istokpoga peat, mod. deep	Very Low	(30)	.1	93
Is	Istokpoga peat, shal. var.	Very Low	(30)	.1	94
Ok	Okeechobee muck	Very Low	(30)	1.0	107
Tc	Terra Ceia muck	Very Low	(30)	.4	125
Sw	Swamp	Very Low	(30-50)	11.7	124
Bo	Borrow pits	Not rated		.3	78
Ma	Made land	Not rated		1.0	103

Very High	90-100	RANKING FOR THIS TABLE ONLY.
High	75-90	
Medium	55-75	
Low	35-50	
Very Low	< 35	

SOILS SHOWN ACCORDING TO POTENTIAL FOR EXCAVATED PONDS AQUIFER FED

MAP SYMBOL	SOIL NAME	POTENTIAL (RANKING)		% OF CNTY.	REFER TO PAGE
Bp	Brighton p	Very High	(100)	.1	79
Br	Brighton p, shal. var.	Very High	(100)	.1	80
Bt	Brighton, Istokpoga, and Okeechobee soils	Very High	(100)	1.6	81
Io	Istokpoga p, deep	Very High	(100)	.3	92
Ip	Istokpoga p, mod. deep	Very High	(100)	.1	93
Is	Istokpoga p, shal. var.	Very High	(100)	.1	94
Ok	Okeechobee m	Very High	(100)	1.0	107
Rp	Rutlege & Pompano soils, ponded	Very High	(100)	.6	120
Tc	Terra Ceia m	Very High	(100)	.4	125
Sw	Swamp	Very High	(100)	11.7	124
Ch	Charlotte fs	Very High	(95)	.8	82
De	Delray fs	Very High	(95)	1.8	83
Dm	Delray mfs	Very High	(95)	.9	86
Df	Delray fs, high	Very High	(95)	2.8	84
Dh	Delray fs, mod. shal., high	Very High	(95)	.9	85
Ff	Felda fs	Very High	(95)	.9	87
Pf	Plummer fs	Very High	(95)	.9	111
Rf	Rutlege fs	Very High	(95)	1.7	116
Rm	Rutlege mfs	Very High	(95)	.4	118
Rn	Rutlege, Plummer and St. Johns soils	Very High	(95)	.8	119
Ib	Iberia cl, overflow	High	(90)	3.0	93
Ik	Iberia ml	High	(90)	.1	89
Mb	Manatee fs	High	(85)	.5	104
Mc	Manatee lfs	High	(85)	.1	105
Md	Manatee-Delray complex, overflow	High	(85)	2.8	106
Ph	Plummer fs, high	High	(85)	2.1	112
Pn	Pompano fs	High	(85)	3.1	114
Po	Pompano fs, mod. shal.	High	(85)	.4	115

MAP SYMBOL	SOIL NAME	POTENTIAL (RANKING)		% OF CNTY.	REFER TO PAGE
Rh	Rutlege fs, high	High	(85)	.2	117
Sa	St. Johns fs	High	(85)	2.3	121
Im	Immokalee fs	Medium	(75)	3.3	90
In	Immokalee s	Medium	(75)	1.4	91
Lo	Leon s	Medium	(75)	1.4	102
LfA	Leon fs, 0-2% slopes	Medium	(75)	15.9	100
LfB	Leon fs, 2-5% slopes	Medium	(75)	.1	101
On	Ona fs	Medium	(75)	.3	108
Wa	Wabasso fs	Medium	(75)	.5	126
BnB	Blanton fs, low, 0-5% slopes	Low	(30)	9.4	76
PmB	Pomello fs, 0-5% slopes	Low	(30)	4.1	113
OrB	Orlando fs, 0-5% slopes	Low	(30)	.2	109
BnC	Blanton fs, low, 5-8% slopes	Low	(30)	.2	77
OrC	Orlando fs, 5-8% slopes	Low	(30)	.1	110
SfB	St. Lucie fs, 0-5% slopes	Very Low	(0-5)	3.0	122
BfB	Blanton fs, high, 0-5% slopes	Very Low	(0)	6.1	73
BfC	Blanton fs, high, 5-8% slopes	Very Low	(0)	1.2	74
BfD	Blanton fs, high, 8-12% slopes	Very Low	(0)	.2	75
LaB	Lakeland fs, 0-5% slopes	Very Low	(0)	4.2	95
LaC	Lakeland fs, 5-8% slopes	Very Low	(0)	.6	96
LaD	Lakeland fs, 8-12% slopes	Very Low	(0)	0.1	97
LdB	Lakewood s, 0-5% slopes	Very Low	(0)	1.5	98
LdC	Lakewood s, 5-8% slopes	Very Low	(0)	.1	99
Bo	Borrow pits	Not rated		.3	78
Ma	Made land	Not rated		1.0	103
Sn	Sandy alluvial land	Too variable to evaluate.		2.2	123

Very High	95-100	RANKING FOR THIS TABLE ONLY.
High	80-95	
Medium	50-80	
Low	25-50	
Very Low	< 25	

SOILS SHOWN ACCORDING TO POTENTIAL FOR LAWN GRASSES AND ORNAMENTAL PLANTS

MAP SYMBOL	SOIL NAME	POTENTIAL (RANKING)		% OF CNTY.	REFER TO PAGE
Df	Delray fs, high	Very High	(85)	2.8	84
Dh	Delray fs, mod. shal., high	Very High	(85)	.9	85
Rh	Rutlege fs, high	Very High	(85)	.2	117
Ik	Iberia ml	High	(80)	.1	89
OrB	Orlando fs, 0-5% slopes	High	(80)	.2	109
De	Delray fs	High	(75)	1.8	83
Dm	Delray mfs	High	(75)	.9	86
LaB	Lakeland fs, 0-5% slopes	High	(75)	4.2	95
Mb	Manatee fs	High	(75)	.5	104
Mc	Manatee lfs	High	(75)	.1	105
Md	Manatee-Delray complex, overflow	High	(75)	2.8	106
On	Ona fs	High	(75)	.3	108
OrC	Orlando fs, 508% slopes	High	(75)	.1	110
Rf	Rutlege fs	High	(75)	1.7	116
Rm	Rutlege mfs	High	(75)	.4	118
Rn	Rutlege, Plummer and St. Johns soils	High	(75)	.8	119
Rp	Rutlege and Pompano soils, ponded	High	(75)	.6	120
BfB	Blanton fs, high, 0-5% slopes	Medium	(70)	6.1	73
Ff	Felda fs	Medium	(70)	.9	87
LaC	Lakeland fs, 5-8% slopes	Medium	(70)	.6	96
Wa	Wabasso fs	Medium	(70)	.5	126
BnB	Blanton fs, low, 0-5% slopes	Medium	(65)	9.4	76
BfC	Blanton fs, high, 5-8% slopes	Medium	(65)	1.2	74
Ib	Iberia cl, overflow	Medium	(65)	3.0	88
Im	Immokalee fs	Medium	(65)	3.3	90
In	Immokalee s	Medium	(65)	1.4	91
Lo	Leon s	Medium	(65)	1.4	102
LfA	Leon fs, 0-2% slopes	Medium	(65)	15.9	100
LfB	Leon fs, 2-5% slopes	Medium	(65)	.1	101

MAP SYMBOL	SOIL NAME	POTENTIAL (RANKING)		% OF CNTY.	REFER TO PAGE
Ph	Plummer fs, high	Medium	(65)	2.1	112
Pn	Pompano fs	Medium	(65)	3.1	114
Po	Pompano fs, mod. shal.	Medium	(65)	.4	115
LaD	Lakeland fs, 8-12% slopes	Medium	(65)	0.1	97
Bp	Brighton p	Medium	(65)	.1	79
Br	Brighton p, shal.	Medium	(65)	.1	80
Bt	Brighton, Istokpoga and Okeechobee soils	Medium	(65)	1.6	81
Io	Istokpoga p, deep	Medium	(65)	.3	92
Ip	Istokpoga p, mod. deep	Medium	(65)	.1	93
Is	Istokpoga p., shal. var.	Medium	(65)	.1	94
Ok	Okeechobee m	Medium	(65)	1.0	107
Tc	Terra Ceia m	Medium	(65)	.4	125
BnC	Blanton fs, low, 5-8% slopes	Low	(60)	.2	77
BfD	Blanton fs, high, 8-12% slopes	Low	(60)	.2	75
LdB	Lakewood s, 0-5% slopes	Low	(60)	1.5	98
SfB	St. Lucie fs, 0-5% slopes	Low	(60)	3.0	122
Ch	Charlotte fs	Low	(55)	.8	82
LdC	Lakewood s, 5-8% slopes	Low	(55)	.1	99
Pf	Plummer fs	Low	(55)	.9	111
PmB	Pomello fs, 0-5% slopes	Low	(55)	4.1	113
Sn	Sandy alluvial land	Low	(55)	2.2	123
Sw	Swamp	Low	(55)	11.7	124
Bo	Borrow pits	Not rated		.3	78
Ma	Made land	Not rated		1.0	103

Very High	85-100	RANKING FOR THIS TABLE ONLY.
High	75-85	
Medium	65-75	
Low	55-65	
Very Low	< 55	

SOILS SHOWN ACCORDING TO POTENTIAL FOR IMPROVED PASTURES

MAP SYMBOL	SOIL NAME	POTENTIAL (RANKING)		% OF CNTY.	REFER TO PAGE
De	Delray fs	Very High	(90)	1.8	83
Dm	Delray mfs	Very High	(90)	.9	86
Df	Delray fs, high	Very High	(90)	2.8	84
Dh	Delray fs, mod. shal., high	Very High	(90)	.9	85
Mb	Manatee fs	Very High	(90)	.5	104
Mc	Manatee lfs	Very High	(90)	.1	105
Rh	Rutlege fs, high	High	(80)	.2	117
Rf	Rutlege fs	High	(80)	1.7	116
Rm	Rutlege mfs	High	(80)	.4	118
Ok	Okeechobee m	High	(80)	1.0	107
Tc	Terra Ceia m	High	(80)	.4	125
Ik	Iberia ml	High	(80)	.1	89
Ib	Iberia cl, overflow	High	(80)	3.0	88
OrB	Orlando fs, 0-5% slopes	High	(75)	.2	109
OrC	Orlando fs, 5-8% slopes	High	(75)	.1	110
Bp	Brighton p	High	(75)	.1	79
Br	Brighton p, shal. var.	High	(75)	.1	80
Bt	Brighton, Istokpoga, and Okeechobee soils	High	(75)	1.6	81
Io	Brighton p, deep	High	(75)	.3	92
Ip	Brighton p, mod. deep	High	(75)	.1	93
Rh	Rutlege fs, high	High	(75)	.2	117
Rp	Rutlege and Pompano soils, ponded	High	(75)	.6	120
Md	Manatee-Delray complex, overflow	High	(75)	2.8	106
Is	Istokpoga p, shal. var.	High	(70)	.1	94
On	Ona fs	High	(70)	.3	108
Sa	St. Johns fs	High	(70)	2.3	121
Pn	Pompano fs	High	(70)	3.1	114
Po	Pompano fs, mod. shal.	High	(70)	.4	115
Wa	Wabasso fs	Medium	(65)	.5	126

MAP SYMBOL	SOIL NAME	POTENTIAL (RANKING)		% OF CNTY	REFER TO PAGE
Ff	Felda fs	Medium	(65)	.9	87
Lo	Leon s	Medium	(60)	1.4	102
LfA	Leon fs, 0-2% slopes	Medium	(60)	15.9	100
LfB	Leon fs, 2-5% slopes	Medium	(60)	.1	101
Ph	Plummer fs, high	Medium	(60)	2.1	112
Pf	Plummer fs	Medium	(60)	.9	111
Im	Immokalee fs	Medium	(60)	3.3	90
In	Immokalee s	Medium	(60)	1.4	91
BnB	Blanton fs, low, 0-5% slopes	Medium	(60)	9.4	76
BnC	Blanton fs, low, 5-8% slopes	Medium	(60)	.2	77
Ch	Charlotte fs	Medium	(60)	.8	82
Sw	Swamp	Medium	(60)	11.7	124
LaB	Lakeland fs, 0-5% slopes	Medium	(55)	4.2	95
LaC	Lakeland fs, 5-8% slopes	Medium	(55)	.6	96
BfB	Blanton fs, high, 0-5% slopes	Low	(50)	6.1	73
BfC	Blanton fs, high, 5-8% slopes	Low	(50)	1.2	74
PmB	Pomello fs, 0-5% slopes	Low	(50)	4.1	113
LaD	Lakeland fs, 8-12% slopes	Low	(50)	0.1	97
BfD	Blanton fs, high, 8-12% slopes	Low	(45)	.2	75
Sn	Sandy alluvial land	Low	(45)	2.2	123
LdB	Lakewood s, 0-5% slopes	Very Low	(35)	1.5	98
SfB	St. Lucie fs, 0-5% slopes	Very Low	(35)	3.0	122
LdC	Lakewood s, 5-8% slopes	Very Low	(35)	.1	99
Bo	Borrow pits	Not rated		.3	78
Ma	Made land	Not rated		1.0	103

Very High	85-100	RANKING FOR THIS TABLE ONLY
High	70-85	
Medium	55-70	
Low	40-55	
Very Low	< 40	

SOILS SHOWN ACCORDING TO POTENTIAL FOR WOODLAND

MAP SYMBOL	SOIL NAME	POTENTIAL (RANKING)		% OF CNTY.	REFER TO PAGE
De	Delray fs	High	90	1.8	83
Dm	Delray mfs	High	90	.9	86
Df	Delray fs, high	High	90	2.8	84
Dh	Delray fs, mod. shal., high	High	90	.9	85
Ib	Iberia cl, overflow	High	90	3.0	88
Ik	Iberia ml	High	90	.1	89
Mb	Manatee fs	High	90	.5	104
Mc	Manatee lfs	High	90	.1	105
Md	Manatee, Delray complex, overflow	High	90	2.8	106
Pf	Plummer fs	High	90	.9	111
Ph	Plummer fs, high	High	90	2.1	112
Rf	Rutlege fs	High	90	1.7	116
Rm	Rutlege mfs	High	90	.4	118
Rh	Rutlege fs, high	High	90	.2	117
Rn	Rutlege, Plummer and St. Johns soils	High	90	.8	119
BnB	Blanton fs, low, 0-5% slopes	Medium	80	9.4	76
BnC	Blanton fs, low, 5-8% slopes	Medium	80	.2	77
BfB	Blanton fs, high, 0-5% slopes	Medium	80	6.1	73
BfC	Blanton fs, high, 5-8% slopes	Medium	80	1.2	74
BfD	Blanton fs, high, 8-12% slopes	Medium	80	.2	75
Ff	Felda fs	Medium	80	.9	87
LaB	Lakeland fs, 0-5% slopes	Medium	80	4.2	95
LaC	Lakeland fs, 5-8% slopes	Medium	80	.6	96
LaD	Lakeland fs, 8-12% slopes	Medium	80	0.1	97
On	Ona fs	Medium	80	.3	108
OrB	Orlando fs, 0-5% slopes	Medium	80	.2	109
OrC	Orlando fs, 5-8% slopes	Medium	80	.1	110
Sa	St. Johns fs	Medium	80	2.3	121
Wa	Wabasso fs	Medium	80	.5	126
Ch	Charlotte fs	Low	70	.8	82
Im	Immokalee fs	Low	70	3.3	90
In	Immokalee s	Low	70	1.4	91

MAP SYMBOL	SOIL NAME	POTENTIAL (RANKING)		% OF CNTY.	REFER TO PAGE
Lo	Leon s	Low	70	1.4	102
LfA	Leon fs, 0-2% slopes	Low	70	15.9	100
LfB	Leon fs, 2-5% slopes	Low	70	.1	101
PmB	Pomello fs, 0-5% slopes	Low	70	4.1	113
Pn	Pompano fs	Low	70	3.1	114
Po	Pompano fs, mod. shal.	Low	70	.4	115
LdB	Lakewood s, 0-5% slopes	Very Low	60	1.5	98
LdC	Lakewood s, 5-8% slopes	Very Low	60	.1	99
Rp	Rutlege and Pompano soils, ponded	Very Low	60	.6	120
SfB	St. Lucie fs, 0-5% slopes	Very Low	60	3.0	122
Sn	Sandy alluvial land	Not rated but suited for woodland production.		2.2	123
Sw	Swamp	Not rated but suited for woodland production.		11.7	124
Bt	Brighton, Istokpoga, and Okeechobee soils	Not rated but has woodland vegetation.		1.6	81
Bp	Brighton p	Not suited		.1	79
Br	Brighton p, shal. var.	Not suited		.1	80
Io	Istokpoga p, deep	Not suited		.3	92
Ip	Istokpoga p, mod. deep	Not suited		.1	93
Is	Istokpoga p, shal. var.	Not suited		.1	94
Ok	Okeechobee m	Not suited		1.0	107
Tc	Terra Ceia m	Not suited		.4	125
Bo	Borrow pits	Not rated		.3	78
Ma	Made land	Not rated		1.0	103

Site Indexes		
Very High	96-100	RANKING FOR THIS TABLE ONLY
High	86- 95	
Medium	76- 85	
Low	66- 75	
Very Low	∠ 66	

SOILS SHOWN ACCORDING TO POTENTIAL FOR CITRUS

MAP SYMBOL	SOIL NAME	POTENTIAL (RANKING)		% OF CNTY.	REFER TO PAGE
OrB	Orlando fs, 0-5% slopes	Very High	(90)	.2	109
LaB	Lakeland fs, 0-5% slopes	Very High	(85)	4.2	95
OrC	Orlando fs, 5-8% slopes	Very High	(85)	.1	110
BnB	Blanton fs, low, 0-5% slopes	High	(80)	9.4	76
LaC	Lakeland fs, 5-8% slopes	High	(80)	.6	96
BnC	Blanton fs, low, 5-8% slopes	High	(75)	.2	77
BfB	Blanton fs, high, 0-5% slopes	High	(75)	6.1	73
Df	Delray fs, high	High	(75)	2.8	84
Dh	Delray fs, mod. shal., high	High	(75)	.9	85
LaD	Lakeland fs, 8-12% slopes	High	(75)	.1	97
Rh	Rutlege fs, high	High	(70)	.2	117
BfC	Blanton fs, high, 5-8% slopes	High	(70)	1.2	74
BfD	Blanton fs, high, 8-12% slopes	Medium	(65)	.2	75
Sa	St. Johns fs	Medium	(65)	2.3	121
PmB	Pomello fs, 0-5% slopes	Medium	(60)	4.1	113
De	Delray fs	Medium	(60)	1.8	83
Dm	Delray mfs	Medium	(60)	.9	86
Ff	Felda fs	Medium	(60)	.9	87
Mb	Manatee fs	Medium	(60)	.5	104
Mc	Manatee lfs	Medium	(60)	.1	105
Md	Manatee-Delray complex, overflow	Medium	(60)	2.8	106
Rf	Rutlege fs	Low	(55)	1.7	116
Rm	Rutlege mfs	Low	(55)	.4	118
On	Ona fs	Low	(55)	.3	108
SfB	St. Lucie fs, 0-5% slopes	Low	(55)	3.0	122
LdB	Lakewood s, 0-5% slopes	Low	(55)	1.5	98
Wa	Wabasso fs	Low	(55)	.5	126
LfA	Leon fs, 0-2% slopes	Low	(55)	15.9	100
LfB	Leon fs, 2-5% slopes	Low	(55)	.1	101

MAP SYMBOL	SOIL NAME	POTENTIAL (RANKING)		% OF CNTY.	REFER TO PAGE
Lo	Leon s	Low	(55)	1.4	102
Im	Immokalee fs	Low	(55)	3.3	90
In	Immokalee s	Low	(55)	1.4	91
Pn	Pompano fs	Low	(55)	3.1	114
Po	Pompano fs, mod. shal.	Low	(55)	.4	115
Ph	Plummer fs, high	Low	(55)	2.1	112
Ib	Iberia cl, overflow	Low	(55)	3.0	88
Ik	Iberia ml	Low	(55)	.1	89
LdC	Lakewood s, 5-8% slopes	Low	(50)	.1	99
Rn	Rutlege, Plummer and St. Johns soils	Low	(50)	.8	119
Rp	Rutlege and Pompano soils, ponded	Very Low	(45)	.6	120
Ch	Charlotte fs	Very Low	(45)	.8	82
Pf	Plummer fs	Very Low	(40)	.9	111
Bp	Brighton p	Unsuited		.1	79
Br	Brighton p, shal. var.	Unsuited		.1	80
Bt	Brighton, Istokpoga, and Okeechobee soils	Unsuited		1.6	81
Io	Istokpoga p, deep	Unsuited		.3	92
Ip	Istokpoga p, mod. deep	Unsuited		.1	93
Is	Istokpoga p, shal. var.	Unsuited		.1	94
Ok	Okeechobee m	Unsuited		1.0	107
Sw	Swamp	Unsuited		11.7	124
Tc	Terra Ceia m	Unsuited		.4	125
Sn	Sandy alluvial land	Too variable to rate.		2.2	123
Bo	Borrow pits	Not rated		.3	78
Ma	Made land	Not rated		1.0	103

Very High	85-100	RANKING FOR THIS TABLE ONLY
High	70-85	
Medium	60-70	
Low	50-60	
Very Low	< 50	

SOILS SHOWN ACCORDING TO POTENTIAL FOR SPECIALIZED ROW CROPS

MAP SYMBOL	SOIL NAME	POTENTIAL (RANKING)		% OF CNTY.	REFER TO PAGE
Df	Delray fs, high	Very High	(100)	2.8	84
Dh	Delray fs, mod. shal., high	Very High	(100)	.9	85
Rh	Rutlege fs, high	Very High	(90)	.2	117
De	Delray fs	High	(85)	1.8	83
Dm	Delray mfs	High	(85)	.9	86
Mb	Manatee fs	High	(85)	.5	104
Mc	Manatee lfs	High	(85)	.1	105
Md	Manatee-Delray complex, overflow	High	(85)	2.8	106
Bp	Brighton p	High	(85)	.1	79
Br	Brighton p, shal. var.	High	(85)	.1	80
Bt	Brighton, Istokpoga, and Okeechobee soils	High	(85)	1.6	81
Io	Istokpoga p, deep	High	(85)	.3	92
Ip	Istokpoga p, mod. deep	High	(85)	.1	93
Is	Istokpoga p, shal. var.	High	(85)	.1	94
Ok	Okeechobee m	High	(85)	1.0	107
Tc	Terra Ceia m	High	(85)	.4	125
On	Ona fs	High	(75)	.3	108
Rf	Rutlege fs	High	(75)	1.7	116
Rm	Rutlege mfs	High	(75)	.4	118
Sa	St. Johns fs	High	(75)	2.3	121
Ff	Felda fs	Medium	(70)	.9	87
OrB	Orlando fs, 0-5% slopes	Medium	(65)	.2	109
Wa	Wabasso fs	Medium	(65)	.5	126
Lo	Leon s	Medium	(65)	1.4	102
LfA	Leon fs, 0-2% slopes	Medium	(65)	15.9	100
LfB	Leon fs, 2-5% slopes	Medium	(65)	.1	101
Ph	Plummer fs, high	Medium	(65)	2.1	112
Im	Immokalee fs	Medium	(65)	3.3	90

MAP SYMBOL	SOIL NAME	POTENTIAL (RANKING)		% OF CNTY.	REFER TO PAGE
In	Immokalee s	Medium	(65)	1.4	91
OrC	Orlando fs, 5-8% slopes	Medium	(60)	.1	110
Pn	Pompano fs	Medium	(60)	3.1	114
Po	Pompano fs, mod. shal.	Medium	(60)	.4	115
Ib	Iberia cl, overflow	Medium	(60)	3.0	88
Ik	Iberia ml	Medium	(60)	.1	89
Rn	Rutlege, Plummer and St. Johns soils	Medium	(60)	.8	119
Rp	Rutlege and Pompano soils, ponded	Medium	(60)	.6	120
BnB	Blanton fs, low, 0-5% slopes	Low	(50)	9.4	76
Pf	Plummer fs	Low	(50)	.9	111
Ch	Charlotte fs	Low	(50)	.8	82
BnC	Blanton fs, low, 5-8% slopes	Low	(45)	.2	77
PmB	Pomello fs, 0-5% slopes	Low	(45)	4.1	113
BfB	Blanton fs, high, 0-5% slopes	Very Low	(35)	6.1	73
LaB	Lakeland fs, 0-5% slopes	Very Low	(35)	4.2	98
BfC	Blanton fs, high, 5-8% slopes	Very Low	(30)	1.2	74
LaC	Lakeland fs, 5-8% slopes	Very Low	(30)	.6	96
LdB	Lakewood s, 0-5% slopes	Very Low	(30)	1.5	98
SfB	St. Lucie fs, 0-5% slopes	Very Low	(30)	3.0	122
LdC	Lakewood s, 5-8% slopes	Very Low	(225)	.1	99
BfD	Blanton fs, high, 8-12% slopes	Very Low	(25)	.2	75
LaD	Lakeland fs, 8-12% slopes	Very Low	(25)	0.1	97
Sn	Sandy alluvial land	Too variable to rate.		2.2	123
Sw	Swamp	Too variable to rate.		11.7	124
Bo	Borrow pits	Not rated.		.3	78
Ma	Made land	Not rated.		1.0	103

Very High	90-100	RANKING FOR THIS TABLE ONLY.
High	75-90	
Medium	60-75	
Low	45-60	
Very Low	< 45	

SOIL PROPERTIES AND INTERPRETATION TABLES

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: BfB

MAP SYMBOL: BfB

SOIL NAME: Blanton fine sand, high, 0 to 5 percent slopes

This soil is deep and is somewhat excessively drained to well drained. It is on high, gently sloping ridges. The surface layer is generally dark-gray, loose fine sand about 6 inches thick, but it is gray in some places. Below the surface layer is light-gray to grayish-brown, loose fine sand mottled with light gray, white, and yellow. The total thickness of the fine sand over finer textured material is more than 40 inches. In some places sandy clay loam is at a depth of 60 inches or more.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO.				LIQUID LIMIT	PLASTICITY INDEX
					4	10	40	200		
0-60	Fine Sand	SP, SP-SM	A-3	100	100	100	90-100	2-10	-	NP
60-72	Sandy Clay Loam	SC	A-2-6, A-6	100	100	100	90-100	25-40	26-40	11-20

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY		EROSION		WIND EROD. GROUP
						STEEL	CONCRETE	K	T	
0-60	10 - > 20	0.03 - 0.05	5.1-5.5	-	Low	Low	High	.17	5	2
60-72	2.5 - 5.0	0.10 - 0.15	5.1-5.5	-	Low	Moderate	High	.28		

FLOODING			HIGH WATER TABLE			CEMENTED PAN		BEDROCK		SUBSIDENCE		HYD GRP
FREQUENCY	DURATION	MONTHS	DEPTH (FT)	KIND	MONTHS	DEPTH (IN)	HARDNESS	DEPTH (IN)	HARDNESS	INIT. (IN)	TOTAL (IN)	
NONE			1.5-2.5	APPARENT	Jul-Sep	-		> 72		-		A

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	High (100)	Slight	None needed
SANITARY LANDFILL (TRENCH)	Very High (90)	Severe - Loose Sand	Hard surface - Surface stabilization
DWELLINGS WITHOUT BASEMENTS	Very High (100)	Slight	None needed
LOW COMMERCIAL BUILDINGS	High (87)	Moderate - Soil Blowing	Control Soil Blowing
LOCAL ROADS AND STREETS	Very High (100)	Slight	None needed
SHALLOW EXCAVATIONS	High (75)	Severe - Cutbanks Cave-in	Shoring
ACTIVE PLAY AREAS	High (75)	Severe - Loose sand, soil blowing	Suitable topsoil and other amendments
PASSIVE PLAY AREAS	High (85)	Severe - Loose sand	Suitable topsoil and other amendments, Hard surface
EXCAVATED PONDS AQUIFER FED	Very Low (0)	No water	No practical practices available
LAWN GRASSES AND ORNAMENTAL PLANTS	Medium (70)	Very low in organic matter, Low available water capacity	Good Management
IMPROVED PASTURES	Low (50)	Low natural fertility - very low organic matter	Good Management
WOODLAND	Medium Site Index - 80	Moderate - Equipment, Seedling Mortality, Plant Competition	Good Management
CITRUS	High (75)	Low available water control, low in natural fertility	Good Management, erosion control
SPECIALIZED ROW CROPS	Very low (35)	Very low in organic matter - Low in natural fertility	Good Management

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: BfC

MAP SYMBOL: BfC

SOIL NAME: Blanton fine sand, high, 5 to 8 percent slopes

This is a deep, sandy soil that is well drained or somewhat excessively drained. It is on high, undulating ridges. The surface layer is typically dark-gray, loose fine sand about 6 inches thick, but it is gray in some places. Below the surface layer is light-gray to grayish-brown, loose fine sand that is mottled with light gray, white and yellow. The total thickness of the fine sand over finer textured material is more than 40 inches. In places sandy clay loam is at a depth of 60 to 100 inches.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO.				LIQUID LIMIT	PLASTICITY INDEX
					4	10	40	200		
0-60	Fine sand	SP, SP-SM	A-3	100	100	100	90-100	2-10	-	NP
60-72	Sandy clay loam	SC	A-2-6, A-6	100	100	100	90-100	25-40	26-40	11-20

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY		EROSION		WIND EROD. GROUP
						STEEL	CONCRETE	K	T	
0-60	10 - > 20	0.03 - 0.05	5.1-5.5	-	Low	Low	High	.17	5	2
60-72	2.5 - 5.0	0.10 - 0.15	5.1-5.5	-	Low	Moderate	High	.28		

FLOODING			HIGH WATER TABLE			CEMENTED PAN		BEDROCK		SUBSIDENCE		HYD GRP
FREQUENCY	DURATION	MONTHS	DEPTH (FT)	KIND	MONTHS	DEPTH (IN)	HARDNESS	DEPTH (IN)	HARDNESS	INIT. (IN)	TOTAL (IN)	
NONE			1.5-2.5			-		>72		-		A

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	High (100)	Slight	None needed
SANITARY LANDFILL (TRENCH)	High (85)	Severe - Loose sand	Hard surface, Surface Stabilization, Sealing and lining side of trench
DWELLINGS WITHOUT BASEMENTS	Very high (100)	Slight	None needed
LOW COMMERCIAL BUILDINGS	Medium (81)	Moderate - slope, soil blowing	Control soil blowing, Land forming
LOCAL ROADS AND STREETS	Very High (100)	Slight	None needed
SHALLOW EXCAVATIONS	Medium (70)	Severe - Cutbanks cave-in, slope	Shorings, Erosion control
ACTIVE PLAY AREAS	Medium (70)	Severe - Loose sand, soil blowing, slope	Suitable topsoil and other amendments, Land smoothing
PASSIVE PLAY AREAS	High (85)	Severe - Loose sand	Suitable topsoil and other amendments, Hard surface
EXCAVATED PONDS AQUIFER FED	Very low (0)	No water	No practical practices available
LAWN GRASSES AND ORNAMENTAL PLANTS	Medium (65)	Very low in organic matter, Low available water control	Good Management
IMPROVED PASTURES	Low (50)	Low natural fertility - Very low in organic matter	Good Management
WOODLAND	Medium Site Index - 80	Moderate - Equipment, seedling mortality, plant competition	Good Management
CITRUS	High (70)	Low available water control Low natural fertility, slope	Good Management, erosion control
SPECIALIZED ROW CROPS	Very low (35)	Very low in organic matter Low natural fertility	Good Management

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: BfD

MAP SYMBOL: BfD

SOIL NAME: Blanton fine sand, high, 8 to 12 percent slopes

This is a deep, sandy soil that is well drained or somewhat excessively drained. It occupies high, moderately steep areas. The surface layer is gray, loose fine sand about 6 inches thick. Below the surface layer is light-gray to grayish-brown, loose fine sand mottled with light gray, white and yellow. The thickness of the fine sand over finer textured material is more than 40 inches. In many places sandy clay loam underlies this soil at a depth of 60 to 100 inches.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO.				LIQUID LIMIT	PLASTICITY INDEX
					4	10	40	200		
0-60	Fine sand	SP, SP-SM	A-3	100	100	100	90-100	2-10	-	NP
60-72	Sandy clay loam	SC	A-2-6, A-6	100	100	100	90-100	25-40	26-40	11-20

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY		EROSION		WIND EROD. GROUP
						STEEL	CONCRETE	K	T	
0-60	10- >20	0.03 - 0.05	5.1-5.5	-	Low	Low	High	.17	5	2
60-72	2.5-5.0	0.10 - 0.15	5.1-5.5	-	Low	Moderate	High	.28		

FLOODING			HIGH WATER TABLE			CEMENTED PAN		BEDROCK		SUBSIDENCE		HYD GRP
FREQUENCY	DURATION	MONTHS	DEPTH (FT)	KIND	MONTHS	DEPTH (IN)	HARDNESS	DEPTH (IN)	HARDNESS	INIT. (IN)	TOTAL (IN)	
NONE			1.5-2.5			-		>72		-		A

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Very High (96)	Moderate - Slope	No applicable practices
SANITARY LANDFILL (TRENCH)	High (80)	Severe - Loose sand	Hard surface, surface stabilization, sealing and lining
DWELLINGS WITHOUT BASEMENTS	High (94)	Moderate - Slope	Land forming, design building to fit slope
LOW COMMERCIAL BUILDINGS	Medium (75)	Severe - Slope, Soil blowing	Control soil blowing, land forming
LOCAL ROADS AND STREETS	High (95)	Moderate - Slope	Land forming
SHALLOW EXCAVATIONS	Medium (60)	Severe - Cutbanks cave-in, slope	Shoring, erosion control
ACTIVE PLAY AREAS	Medium (60)	Severe - loose sand, soil blowing slope	Suitable topsoil and other amendments
PASSIVE PLAY AREAS	High (81)	Severe - loose sand, slope	Suitable topsoil and other amendments, hard surface
EXCAVATED PONDS AQUIFER FED	Very low (0)	No water	No practical practices available
LAWN GRASSES AND ORNAMENTAL PLANTS	Low (60)	Very low in organic matter, low available water capacity	Erosion Control, Good Management
IMPROVED PASTURES	Low (50)	Low natural fertility - Very low in organic matter	Good Management
WOODLAND	Medium Site Index - 80	Moderate - Equipment, seedling, mortality, plant competition	Good Management
CITRUS	Medium (65)	Low available water control, low natural fertility, slope	Good Management, Erosion control
SPECIALIZED ROW CROPS	Very low (25)	Very low in organic matter, low natural fertility	Good Management

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: BnB

MAP SYMBOL: BnB

SOIL NAME: Blanton fine sand, low, 0 to 5 percent slopes

This is well drained or moderately well drained, deep, sandy soil on low, gently sloping ridges. In most places the surface layer is gray, loose fine sand about 4 inches thick, but the color of the surface layer ranges from dark gray to very dark grayish brown. Below the surface layer, the color ranges from light gray to pale brown mottled with white and light yellowish brown. The total thickness of the fine sand over finer textured material is more than 42 inches.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO. 4	10	40	200	LIQUID LIMIT	PLASTICITY INDEX
0-60	Fine sand	SP, SP-SM	A-3	100	100	100	85-100	3-10	-	NP
60-72	Sandy clay loam	SC	A-2-6, A-6	100	100	100	85-100	25-40	26-40	11-20

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY STEEL	CORROSIVITY CONCRETE	EROSION K	EROSION T	WIND EROD. GROUP
0-60	10- >20	0.03-0.05	5.1-5.5	-	Low	Low	High	.17	5	2
60-72	2.5-5	0.10-0.15	5.1-5.5	-	Low	Moderate	High	.28		

FLOODING FREQUENCY	FLOODING DURATION	FLOODING MONTH	HIGH WATER TABLE DEPTH (FT)	HIGH WATER TABLE KIND	HIGH WATER TABLE MONTHS	CEMENTED PAN DEPTH (IN)	CEMENTED PAN HARDNESS	BEDROCK DEPTH (IN)	BEDROCK HARDNESS	SUBSIDENCE INIT. (IN)	SUBSIDENCE TOTAL (IN)	HYD GRP
NONE			1.5-2.5	APPARENT	AUG-SEP	-		>60		-	-	A

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	High (81)	Moderate - Wetness	Water Control - Mounding
SANITARY LANDFILL (TRENCH)	High (70)	Severe - Wetness Loose Sand	Water Control - Hard Surface Surface Stabilization
DWELLINGS WITHOUT BASEMENTS	High (88)	Moderate - Wetness	Water Control
LOW COMMERCIAL BUILDINGS	Medium (81)	Moderate - Soil Blowing Wetness	Control Soil Blowing, Water Control
LOCAL ROADS AND STREETS	High (90)	Moderate - Wetness	Water Control
SHALLOW EXCAVATIONS	Medium (60)	Severe - Cutbanks Cave-in, Wetness	Shoring - Water Control
ACTIVE PLAY AREAS	High (75)	Severe - Loose Sand - Soil Blowing Wetness	Suitable topsoil and other amendments,
PASSIVE PLAY AREAS	High (85)	Severe-Loose Sand	Suitable topsoil and other amendments Hard Surface
EXCAVATED PONDS AQUIFER FED	Low (30)	Deep too water, Cutbanks Cave-in	Seal bottom of pond, stabilize side-slopes, add water during dry periods
LAWN GRASSES AND ORNAMENTAL PLANTS	Medium (65)	Very low organic matter. Low available water capacity	Good Management
IMPROVED PASTURES	Medium (60)	Low natural fertility - Very low organic matter	Good Management
WOODLAND	Medium Site Index - 80	Moderate - Equipment, Seedling Mortality, Plant Competition	Good Management
CITRUS	High (80)	Low Available Water Capacity, Low in natural fertility	Good Management
SPECIALIZED ROW CROPS	Low (50)	Very low organic matter - Low in natural fertility	Sub-surface irrigation - Good Management

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: BnC

MAP SYMBOL: BnC

SOIL NAME: Blanton fine sand, low, 5 to 8 percent slopes

This is a well drained or moderately well drained, deep, sandy soil on low undulating ridges. The surface layer is gray, loose fine sand about 4 inches thick. The material below the surface layer is light gray to pale brown and is mottled with gray and yellow. The total thickness of the fine sand over finer textured material is more than 42 inches.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO. 4	10	40	200	LIQUID LIMIT	PLASTICITY INDEX
0-60	Fine sand	SP, SP-SM	A-3	100	100	100	90-100	3-10	-	NP
60-72	Sandy clay loam	SC	A-2-6, A-6	100	100	100	90-100	25-40	26-40	11-20

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY STEEL	CORROSIVITY CONCRETE	EROSION K	EROSION T	WIND EROD. GROUP
0-60	10 - >20	0.03 - 0.05	5.1-5.5	-	Low	Low	High	.17	5	2
60-72	2.5 - 5.0	0.10 - 0.15	5.1-5.5	-	Low	Moderate	High	.28		

FLOODING FREQUENCY	FLOODING DURATION	FLOODING MONTHS	HIGH WATER TABLE DEPTH (FT)	HIGH WATER TABLE KIND	HIGH WATER TABLE MONTHS	CEMENTED PAN DEPTH (IN)	CEMENTED PAN HARDNESS	BEDROCK DEPTH (IN)	BEDROCK HARDNESS	SUBSIDENCE INIT. (IN)	SUBSIDENCE TOTAL (IN)	HYD GRP
NONE			1.5-2.5	APPARENT	Jul-Sep	-		>72		-		A

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	High (81)	Moderate - Wetness	Water Control - Mounding
SANITARY LANDFILL (TRENCH)	High (65)	Severe - Wetness, too sandy, low strength	Water control, hard surface, surface stabilization, sealing and lining
DWELLINGS WITHOUT BASEMENTS	High (88)	Moderate - Wetness	Water Control
LOW COMMERCIAL BUILDINGS	Medium (75)	Moderate - Soil Blowing, wetness, slope	Control soil blowing, land forming, water control
LOCAL ROADS AND STREETS	High (90)	Moderate-Wetness	Water Control
SHALLOW EXCAVATIONS	Medium (55)	Severe - Cutbanks cave-in, wetness slope	Shoring, water control, erosion control
ACTIVE PLAY AREAS	Medium (70)	Severe - loose sand, soil blowing, slope, wetness	Suitable topsoil and other amendments, Land smoothing
PASSIVE PLAY AREAS	High (85)	Severe - Loose sand	Suitable topsoil and other amendments, Hard surface
EXCAVATED PONDS AQUIFER FED	Low (30)	Deep to water, cutbanks, cave-in	Seal bottom of pond, stabilize side-slopes, add water during dry periods
LAWN GRASSES AND ORNAMENTAL PLANTS	Low (60)	Very low in organic matter, Low available water control, slope	Erosion control - Good Management
IMPROVED PASTURES	Medium (60)	Low natural fertility - Very low organic matter	Good Management
WOODLAND	Medium Site Index - 80	Moderate - Equipment, seeding, mortality, plant competition	Good Management
CITRUS	High (75)	Low available water control, Low natural fertility	Good Management
SPECIALIZED ROW CROPS	Low (45)	Very low in organic matter, low natural fertility, slope	Good Management, Subsurface Irrigation, Erosion Control

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: Bo

MAP SYMBOL: Bo

SOIL NAME: Borrow Pits

Borrow pits are manmade excavations from which the soil material and the underlying coarse material have been removed for use in construction. The material removed is used for raising the level of sites for buildings, for road construction and repairs, and for cement mixtures. The areas vary in size and shape, but they are generally small and occupy only a minor acreage throughout the county.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO. 4	10	40	200	LIQUID LIMIT	PLASTICITY INDEX
NOT APPLICABLE BECAUSE SOIL MATERIAL HAS BEEN REMOVED...										

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY STEEL	CONCRETE	EROSION K	T	WIND EROD. GROUP

FLOODING FREQUENCY	DURATION	MONTHS	HIGH WATER TABLE DEPTH (FT)	KIND	MONTHS	CEMENTED PAN DEPTH (IN)	HARDNESS	BEDROCK DEPTH (IN)	HARDNESS	SUBSIDENCE INIT. (IN)	TOTAL (IN)	HYD GRP

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Not rated	Too variable to rate - use on-site investigate	
SANITARY LANDFILL (TRENCH)	Not rated	Too variable to rate - use on-site investigate	
DWELLINGS WITHOUT BASEMENTS		Too variable to rate - use on-site investigate	
LOW COMMERCIAL BUILDINGS	Not rated	Too variable to rate - use on-site investigate	
LOCAL ROADS AND STREETS	Not rated	Too variable to rate - use on-site investigate	
SHALLOW EXCAVATIONS	Not rated	Too variable to rate - use on-site investigate	
ACTIVE PLAY AREAS		Too variable to rate - use on-site investigate	
PASSIVE PLAY AREAS	Not rated	Too variable to rate - use on-site investigate	
EXCAVATED PONDS AQUIFER FED	Not rated	Too variable to rate - use on-site investigate	
LAWN GRASSES AND ORNAMENTAL PLANTS		Too variable to rate - use on-site investigate	
IMPROVED PASTURES	Not rated	Too variable to rate - use on-site investigate	
WOODLAND	Not rated	Too variable to rate - use on-site investigate	
CITRUS	Not rated	Too variable to rate - use on-site investigate	
SPECIALIZED ROW CROPS	Not rated	Too variable to rate - use on-site investigate	

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: Bp

MAP SYMBOL: Bp

SOIL NAME: Brighton Peat

This is a very poorly drained organic soil that is covered by water most of the year. The surface layer is black, partly decomposed felty peat about 4 inches thick. Immediately below the surface layer is dark grayish-brown peat about 36 to 60 inches thick. The peat is underlain by very dark grayish-brown sand or fine sand.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO.				LIQUID LIMIT	PLASTICITY INDEX
					4	10	40	200		
0-40	Peat	PT								
40-60	Sand, fine sand	SP-SM, SM	A-3, A-2-4	100	100	100	85-100	5-15	-	NP

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY		EROSION		WIND EROD. GROUP
						STEEL	CONCRETE	K	T	
0-40	5.0 - 10	0.20 - 0.35	3.6-4.5	-	Low	High	High	-	-	*2
40-60	10 - >20	0.03 - 0.05	4.5-5.5	-	Low	High	High			

*Applicable if surface is bare and soil dry

FLOODING			HIGH WATER TABLE			CEMENTED PAN		BEDROCK		SUBSIDENCE		HYD GRP
FREQUENCY	DURATION	MONTHS	DEPTH (FT)	KIND	MONTHS	DEPTH (IN)	HARDNESS	DEPTH (IN)	HARDNESS	INIT. (IN)	TOTAL (IN)	
STANDING WATER	>.6 MONTHS		+1.5-0	APPARENT	Jul-Mar	-		>72		-	35	A/D

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Very low (35)	Severe - Wetness, Floods, subsidence	Water control, mounding, remove and replace with suitable material
SANITARY LANDFILL (TRENCH)	Very low (10)	Severe - Wetness, flooding, excess humus, seepage	Water control, control flood waters, sealing and lining
DWELLINGS WITHOUT BASEMENTS	Very low (25)	Severe - floods, wetness, low strength, subsidence	Water control, remove and replace with suitable material
LOW COMMERCIAL BUILDINGS	Very low (40)	Severe - Wetness, standing water, low strength, subsidies, soil blowing	Remove and replace with suitable material, water control
LOCAL ROADS AND STREETS	Very low (35)	Severe - Low strength, wetness subsidies, floods	Remove and replace with suitable material, water control
SHALLOW EXCAVATIONS	Low (50)	Severe - Wetness, low strength	Water control, special equipment
ACTIVE PLAY AREAS	Very low (30)	Severe - Wetness, excess humus, floods soil blowing (when dry and without vegetative cover)	Water control, remove and replace with suitable material, fill area or protect from flooding
PASSIVE PLAY AREAS	Very low (30)	Severe - Wetness, standing water excess humus	Water control, construct above ground walks
EXCAVATED PONDS AQUIFER FED	Very high (100)	None	None needed
LAWN GRASSES AND ORNAMENTAL PLANTS	Medium (65)	Wetness, flooding, soil blowing	Water Control, Control flood waters
IMPROVED PASTURES	High (75)	Wetness, low soil reaction	Water Control, adequate lime
WOODLAND	CONSIDERED NOT SUITED FOR COMMERCIAL WOODLAND PRODUCTION		
CITRUS	UNSUITED	UNSUITED	
SPECIALIZED ROW CROPS	High (85)	Wetness - Flooding	Water control, subsurface irrigation, Control flood waters

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: Br

MAP SYMBOL: Br

SOIL NAME: Brighton peat, shallow variant

This is a very poorly drained organic soil that is covered by water most of the year. The surface layer is black felty peat about 6 inches thick. Immediately below the surface layer is dark reddish-brown peat about 10 to 30 inches thick. Very dark grayish-brown sand or fine sand underlies the peat.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO. 4	10	40	200	LIQUID LIMIT	PLASTICITY INDEX
0-26	Peat	PT								
26-60	Sand, fine sand	SP-SM, SM	A-3,A-2-4	100	100	100	85-100	5-15	-	NP

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY STEEL	CORROSIVITY CONCRETE	EROSION K	EROSION T	WIND EROD. GROUP
0-26	5.0 - 10	0.20 - 0.35	3.6-4.5	-	Low	High	High	-	-	*2
26-60	10 - >20	0.03 - 0.05	4.5-5.5	-	Low	High	High	.15		

*Applicable if surface is bare and soil dry.

FLOODING FREQUENCY	FLOODING DURATION	FLOODING MONTHS	HIGH WATER TABLE DEPTH (FT)	HIGH WATER TABLE KIND	HIGH WATER TABLE MONTHS	CEMENTED PAN DEPTH (IN)	CEMENTED PAN HARDNESS	BEDROCK DEPTH (IN)	BEDROCK HARDNESS	SUBSIDENCE INIT. (IN)	SUBSIDENCE TOTAL (IN)	HYD GRP
Standing Water	>6 Months		+1.5-0	APPARENT	Jul-Mar	-		>72		-	23	A/D

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Very low (35)	Severe - Wetness, Floods, Subsidence	Water Control, Mounding, remove and replace with suitable material
SANITARY LANDFILL (TRENCH)	Very low (10)	Severe - Wetness, Floods, Seepage	Water Control, Control Flood Waters, sealing or lining
DWELLINGS WITHOUT BASEMENTS	Very low (25)	Severe - Floods, Wetness, Low strength, subsidence	Water Control, remove and replace with suitable material
LOW COMMERCIAL BUILDINGS	Very low (40)	Severe - Wetness, standing water, low strength, subsidence soil blowing	Remove and replace with suitable material, Water Control
LOCAL ROADS AND STREETS	Very low (35)	Severe - Low strength, Wetness, subsides, Floods	Remove and replace with suitable material, Water Control, Control Flood Waters
SHALLOW EXCAVATIONS	Very low (25)	Severe - Cutbanks, cave-in, Wetness, Low strength	Water Control, Shoring, Special equipment
ACTIVE PLAY AREAS	Very low (30)	Severe - Wetness, excess humus, Floods soil blowing (when dry and without vegetative cover)	Water Control, Remove and replace with suitable material, fill area or protect from flooding
PASSIVE PLAY AREAS	Very low (30)	Severe - Wetness, Standing water, excess humus	Water Control, construct above ground walks
EXCAVATED PONDS AQUIFER FED	Very high (100)	None	None needed
LAWN GRASSES AND ORNAMENTAL PLANTS	Medium (65)	Wetness, Floods, soil blowing	Water Control, Control flood waters
IMPROVED PASTURES	High (75)	Wetness, Low soil reaction	Water Control, adequate lime
WOODLAND	CONSIDERED NOT SUITED FOR COMMERCIAL WOODLAND		
CITRUS	CONSIDERED NOT SUITED FOR COMMERCIAL CITRUS		
SPECIALIZED ROW CROPS	High (85)	Wetness, Floods	Water Control, Subsurface Irrigation Control flood waters

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: Bt

MAP SYMBOL: Bt

SOIL NAME: Brighton, Istokpoga, and Okeechobee soils

This undifferentiated unit consists of organic soils that are too wet or have too dense a cover of vegetation to be studied and separated on the map. The areas are dominated by Brighton, Istokpoga, and Okeechobee soils, but they vary in composition throughout the county. One or more of these soils makes up at least 80 percent of any area. These soils are on low grassy flats and in wooded depressions, and they are covered by water most of the year, except in periods of extreme drought. The cover of plants consists of water-tolerant grasses and hardwoods, black pine, cypress, cabbage-palm, and shrubs.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO.				LIQUID LIMIT	PLASTICITY INDEX
					4	10	40	200		
	FOR ESTIMATED SOIL PROPERTIES, SEE INDIVIDUAL SOILS OF THIS UNDIFFERENTIATED UNIT.									

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY		EROSION		WIND EROD. GROUP
						STEEL	CONCRETE	K	T	

FLOODING			HIGH WATER TABLE			CEMENTED PAN		BEDROCK		SUBSIDENCE		HYD GRP
FREQUENCY	DURATION	MONTHS	DEPTH (FT)	KIND	MONTHS	DEPTH (IN)	HARDNESS	DEPTH (IN)	HARDNESS	INIT. (IN)	TOTAL (IN)	

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Very low (35)	Severe - Wetness, Floods, Subsidence	Water Control, mounding, remove and replace with suitable material
SANITARY LANDFILL (TRENCH)	Very low (10)	Severe - Wetness, Floods, Seepage	Water Control, Control flood waters, sealing and lining
DWELLINGS WITHOUT BASEMENTS	Very low (25)	Severe - Floods, Wetness, low strength, subsidence	Water Control, remove and replace with suitable material
LOW COMMERCIAL BUILDINGS	Very low (40)	Severe - Wetness, standing water low strength, subsides, soil blowing	Remove and replace with suitable material, Water Control
LOCAL ROADS AND STREETS	Very low (35)	Severe - Low strength, Wetness, subsides, Floods	Remove and replace with suitable material, Water Control, control flood water
SHALLOW EXCAVATIONS	Low (50)	Severe - Wetness, low strength	Water Control, special equipment
ACTIVE PLAY AREAS	Very low (30)	Severe - Wetness, excess humus, floods, soil blowing (when dry and without vegetative cover)	Water Control, remove and replace with suitable material. Fill area or protect from flooding
PASSIVE PLAY AREAS	Very low (30)	Severe - Wetness, standing water, excess humus	Water Control, construct above ground walks
EXCAVATED PONDS AQUIFER FED	Very high (100)	None	None needed
LAWN GRASSES AND ORNAMENTAL PLANTS	Medium (65)	Wetness, Floods, Soil blowing	Water Control, Control flood waters
IMPROVED PASTURES	High (75)	Wetness, low soil reaction	Water Control, adequate lime
WOODLAND	Not rated	Has cover of water - tolerant hardwoods, black pines, cypress and grasses	
CITRUS	Unsuited		
SPECIALIZED ROW CROPS	High (85)	Wetness, Floods	Water Control, subsurface irrigation, Control flood waters

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: Ch

MAP SYMBOL: Ch

SOIL NAME: Charlotte fine sand

This is the only Charlotte soil mapped in the county. It is a deep, poorly drained, sandy soil on low, broad flats. The surface layer is generally black, loose fine sand about 4 inches thick, but it is dark gray in some places. The material below the surface layer is yellow to brown, and it has mottles that vary in degree and intensity.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO. 4	10	40	200	LIQUID LIMIT	PLASTICITY INDEX
0-4	Fine sand	SP, SP - SM	A-3, A-2-4	100	100	100	90-100	2-10	-	NP
4-12	Fine sand	SP, SP - SM	A-3, A-2-4	100	100	100	90-100	2-10	-	NP
12-34	Fine sand	SP - SM, SM	A-3, A-2-4	100	100	100	90-100	5-15	-	NP
34-52	Fine sand	SP, SP - SM	A-3, A-2-4	100	100	100	90-100	2-10	-	NP

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY STEEL	CORROSIVITY CONCRETE	EROSION K	EROSION T	WIND EROD. GROUP
0-4	5.0 - 10	0.05 - 0.10	6.1-7.3	-	Low	High	Low	.15	5	-
4-12	5.0 - 10	0.03 - 0.05	6.1-7.3	-	Low	High	Low	.15		
12-34	5.0 - 10	0.05 - 0.10	6.1-7.3	-	Low	High	Low	.15		
34-52	5.0 - 10	0.03 - 0.05	6.1-7.3		Low	High	Low	.15		

FLOODING FREQUENCY	FLOODING DURATION	FLOODING MONTHS	HIGH WATER TABLE DEPTH (FT)	HIGH WATER TABLE KIND	HIGH WATER TABLE MONTHS	CEMENTED PAN DEPTH (IN)	CEMENTED PAN HARDNESS	BEDROCK DEPTH (IN)	BEDROCK HARDNESS	SUBSIDENCE INIT (IN)	SUBSIDENCE TOTAL (IN)	HYD GRP
COMMON	LONG	Jun-Mar	0-1	APPARENT	Jun-Mar	-		>72		-		A/d

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Low (50)	Severe - Floods, Wetness	Water Control, mounding, control flood waters
SANITARY LANDFILL (TRENCH)	Very low (10)	Severe - Floods, Wetness, Seepage	Water Control, control flood waters, sealing and lining
DWELLINGS WITHOUT BASEMENTS	Low (55)	Severe - Floods, wetness	Water Control, control flood waters
LOW COMMERCIAL BUILDINGS	Medium (70)	Severe - Floods, wetness	Water Control, protect from flooding
LOCAL ROADS AND STREETS	Medium (60)	Severe - Wetness, Floods	Water Control, control flood waters
SHALLOW EXCAVATIONS	Low (40)	Severe - Wetness, Cutbanks cave-in Floods	Shoring, water control, Control flood waters
ACTIVE PLAY AREAS	Low (45)	Severe - Wetness, Floods, Sandy	Water Control, fill area or protect from flooding, suitable topsoil and other amendments
PASSIVE PLAY AREAS	Medium (70)	Severe - Wetness, floods	Water Control, restrict use during flooding
EXCAVATED PONDS AQUIFER FED	Very high (95)	Cutbanks cave-in	Stablilze Sideslopes
LAWN GRASSES AND ORNAMENTAL PLANTS	Low (55)	Wetness, Floods, low available water control, low organic matter	Water Control, control flood waters
IMPROVED PASTURES	Medium (60)	Wetness, Floods, low natural fertility	Water Control, control flood water Good Management
WOODLAND	Low Soil Index - 70	Severe - Equipment, seedling mortality Plant competition	Adequate surface drain, plant on beds
CITRUS	Very low (45)	Wetness, Floods, low natural fertility Low available water capacity	Water Control, control flood waters, Bedding
SPECIALIZED ROW CROPS	Low (50)	Wetness, Floods, low organic matter, low natural fertility	Water Control, subsurface irrigation, control flood water, Good Management

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: De

MAP SYMBOL: De

SOIL NAME: Delray fine sand

This is a very poorly drained, deep, sandy soil of the depressions. Its surface layer is black, friable fine sand that is about 20 inches thick in most places but is thinner in some areas. Below the surface layer is gray to light grayish-brown fine sand that contains a few fine mottles of dark gray and brown. The sandy material is commonly more than 42 inches thick, but clayey material is a depth of 30 to 42 inches in some places.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO.				LIQUID LIMIT	PLASTICITY INDEX
					4	10	40	200		
0-14	Fine sand	SP - SM, SM	A-3, A-2-4	100	100	100	90-100	5-15	-	NP
14-52	Fine sand	SP - SM	A-3, A-2-4	100	100	100	90-100	3-10	-	NP

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY		EROSION		WIND EROD. GROUP
						STEEL	CONCRETE	K	T	
0-14	5.0 - 10	0.10 - 0.15	6.1-7.8	-	Low	High	Low	.15	5	-
14-52	5.0 - 10	0.05 - 0.10	6.1-7.8	-	Low	High	Low	.15		

FLOODING			HIGH WATER TABLE			CEMENTED PAN		BEDROCK		SUBSIDENCE		HYD GRP
FREQUENCY	DURATION	MONTHS	DEPTH (FT)	KIND	MONTHS	DEPTH (IN)	HARDNESS	DEPTH (IN)	HARDNESS	INIT. (IN)	TOTAL (IN)	
STANDING WATER	> 6 MONTHS		+1.0-0	APPARENT	Jul-Mar	-		>72		-		A/D

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Low (50)	Severe - Wetness, Floods	Water Control, Mounding
SANITARY LANDFILL (TRENCH)	Very low (10)	Severe - Floods, Wetness, Seepage	Water Control, Control flood waters, sealing and lining
DWELLINGS WITHOUT BASEMENTS	Low (55)	Severe - Floods, Wetness	Water Control, Control flood waters
LOW COMMERCIAL BUILDINGS	Medium (70)	Severe - Wetness, Floods	Water Control, Protect from flooding
LOCAL ROADS AND STREETS	Medium (60)	Severe - Wetness, Floods	Water Control, Control flood water
SHALLOW EXCAVATIONS	Low (45)	Severe - Wetness, Cutbanks cave-in	Shoring, Water Control
ACTIVE PLAY AREAS	Low (45)	Severe - Wetness, sandy	Water Control
PASSIVE PLAY AREAS	Medium (60)	Severe - Wetness, standing water	Water Control, construct above ground walks
EXCAVATED PONDS AQUIFER FED	Very high (95)	Cutbanks cave-in	Stabilize sideslopes
LAWN GRASSES AND ORNAMENTAL PLANTS	High (75)	Wetness, Floods	Water Control, control flood waters, use calcium tolerant ornamentals or reduce pH
IMPROVED PASTURES	Very high (90)	Wetness	Water Control
WOODLAND	High Site Index - 90	Moderate - Plant competition Severe - Equipment, seedling mortality	Adequate surface drain, plant on beds
CITRUS	Medium (60)	Wetness, Floods	Water Control, control flood waters, Bedding
SPECIALIZED ROW CROPS	High (85)	Wetness, Floods	Water control, subsurface irrigation, control flood waters

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: Df

MAP SYMBOL: Df

SOIL NAME: Delray fine sand, high

This is a deep, poorly drained soil. It is on broad flats in the Celery Delta in the eastern part of the county and is at a slightly higher elevation than Delray fine sand. The surface layer ranges from dark gray to black in color and from 8 to 24 inches in thickness. Below the surface layer is a layer of very pale brown to grayish-brown fine sand. The sandy material is more than 42 inches thick.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO. 4	10	40	200	LIQUID LIMIT	PLASTICITY INDEX
0-16	Fine sand	SP - SM,SM	A-3, A-2-4	100	100	100	90-100	5-15	-	NP
16-58	Fine sand	SP - SM	A-3, A-2-4	100	100	100	90-100	3-10	-	NP

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY STEEL	CORROSIVITY CONCRETE	EROSION K	EROSION T	WIND EROD. GROUP
0-16	5.0 - 10	0.10 - 0.15	6.1-7.8	-	Low	High	Low	.15	5	-
16-58	5.0 - 10	0.05 - 0.10	6.1-7.8	-	Low	High	Low	.15		

FLOODING FREQUENCY	FLOODING DURATION	FLOODING MONTHS	HIGH WATER TABLE DEPTH (FT)	HIGH WATER TABLE KIND	HIGH WATER TABLE MONTHS	CEMENTED PAN DEPTH (IN)	CEMENTED PAN HARDNESS	BEDROCK DEPTH (IN)	BEDROCK HARDNESS	SUBSIDENCE INIT. (IN)	SUBSIDENCE TOTAL (IN)	HYD GRP
NONE			0-1	APPARENT	Jul-Mar	-		>72		-		A/D

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Medium (50)	Severe - Wetness	Water Control, Mounding
SANITARY LANDFILL (TRENCH)	Very low (10)	Severe - Wetness, Floods, Seepage	Water Control, Control flood waters, sealing or lining
DWELLINGS WITHOUT BASEMENTS	Medium (80)	Severe - Wetness	Water Control
LOW COMMERCIAL BUILDINGS	High (85)	Severe - Wetness	Water Control
LOCAL ROADS AND STREETS	Medium (60)	Severe - Wetness, Floods	Water Control, Control flood waters
SHALLOW EXCAVATIONS	Low (50)	Severe - Cutbanks cave-in, Wetness	Shoring, Water Control
ACTIVE PLAY AREAS	Low (45)	Severe - Wetness, Sandy	Water Control
PASSIVE PLAY AREAS	High (80)	Severe - Wetness	Water Control
EXCAVATED PONDS AQUIFER FED	Very high (95)	Cutbanks cave-in	Stabilize sideslopes
LAWN GRASSES AND ORNAMENTAL PLANTS	Very high (85)	Wetness	Water Control, use calcium tolerant ornamentals or reduce pH.
IMPROVED PASTURES	Very high (90)	Wetness	Water Control
WOODLAND	High Site Index 90	Moderate - Plant Competition Severe-Equipment-seedling mortality	Adequate surface drain, Plant on beds
CITRUS	High (75)	Wetness	Water Control, Bedding
SPECIALIZED ROW CROPS	Very high (100)	Wetness	Water Control, subsurface irrigation

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: Dh

MAP SYMBOL: Dh

SOIL NAME: Delray fine sand, moderately shallow, high

This is a poorly drained soil on broad flats in the Celery Delta in the eastern part of the county. It is at a slightly higher elevation than Delray fine sand. The surface layer ranges from dark gray to black in color and from 8 to 18 inches in thickness. The second layer ranges from light gray to grayish brown in color and from 12 to 20 inches in thickness. Below the second layer, at a depth of 30 to 42 inches, is gray, mottled fine sandy loam or sandy clay loam. The mottles vary in degree and in intensity.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO. 4	10	40	200	LIQUID LIMIT	PLASTICITY INDEX
0-14	Fine sand	SP - SM, SM	A-3, A-2-4	100	100	100	90-100	5-15	-	NP
14-30	Fine sand	SP - SM	A-3, A-2-4	100	100	100	90-100	3-10	-	NP
30-42	Sandy loam, sandy clay loam	SC, SM-SC	A-2-4, A-2-6	100	100	100	90-100	20-35	20-38	4-16

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY STEEL	CORROSIVITY CONCRETE	EROSION K	EROSION T	WIND EROD. GROUP
0-13	5.0 - 10	0.10 - 0.15	6.1-7.8	-	Low	High	Low	.15	5	-
14-30	5.0 - 10	0.05 - 0.10	6.1-7.8	-	Low	High	Low	.15		
30-42	2.5 - 5.0	0.10 - 0.15	6.1-7.8		Low	High	Low	.28		

FLOODING FREQUENCY	FLOODING DURATION	FLOODING MONTHS	HIGH WATER TABLE DEPTH (FT)	HIGH WATER TABLE KIND	HIGH WATER TABLE MONTHS	CEMENTED PAN DEPTH (IN)	CEMENTED PAN HARDNESS	BEDROCK DEPTH (IN)	BEDROCK HARDNESS	SUBSIDENCE INIT. (IN)	SUBSIDENCE TOTAL (IN)	HYD GRP
NONE			0-1	APPARENT	Jul-Mar	-		>72		-		A/D

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Medium (50)	Severe - Wetness, percolates slowly	Water Control, mounding
SANITARY LANDFILL (TRENCH)	Very low (10)	Severe - Wetness, floods, Seepage	Water Control, control flood waters, sealing or lining
DWELLINGS WITHOUT BASEMENTS	Medium (80)	Severe - Wetness	Water Control
LOW COMMERCIAL BUILDINGS	High (85)	Severe - Wetness	Water Control
LOCAL ROADS AND STREETS	Medium (60)	Severe - Wetness, Floods	Water Control, control flood waters
SHALLOW EXCAVATIONS	Low (50)	Severe - Cutbanks cave-in Wetness	Shorings, Water Control
ACTIVE PLAY AREAS	Low (45)	Severe - Wetness - Sandy	Water Control
PASSIVE PLAY AREAS	High (80)	Severe - Wetness	Water Control
EXCAVATED PONDS AQUIFER FED	Very high (95)	Cutbanks cave-in	Stabilize sideslopes
LAWN GRASSES AND ORNAMENTAL PLANTS	Very high (85)	Wetness	Water Control-use calcium tolerant ornaments or reduce pH.
IMPROVED PASTURES	Very high (90)	Wetness	Water Control
WOODLAND	High Site Index (90)	Moderate - Plant competition	Adequate surface drain, Plant on beds
CITRUS	High (75)	Wetness	Water Control, Bedding
SPECIALIZED ROW CROPS	Very high (100)	Wetness	Water Control, Subsurface irrigation

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: Dm

MAP SYMBOL: Dm

SOIL NAME: Delray mucky fine sand

This is a deep, very poorly drained soil of depressions. The surface layer is black, friable mucky fine sand that contains a large amount of organic matter and is about 14 inches thick. Below the surface layer is gray to light grayish-brown fine sand that contains a few fine mottles of dark gray and brown. The sandy material is more than 42 inches thick.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO.				LIQUID LIMIT	PLASTICITY INDEX
					4	10	40	200		
0-14	Mucky fine sand	SP - SM, SM	A-3, A-2-4	100	100	100	90-100	5-15	-	NP
14-52	Fine sand	SP - SM	A-3, A-2-4	100	100	100	90-100	3-10	-	NP

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY		EROSION		WIND EROD. GROUP
						STEEL	CONCRETE	K	T	
0-14	5.0 - 10	0.15 - 0.25	6.1-7.8	-	Low	High	Low	.15	5	*2
14-52	5.0 - 10	0.05 - 0.10	6.1-7.8	-	Low	High	Low	.15		

*Applicable if surface is bare and soil dry.

FLOODING			HIGH WATER TABLE			CEMENTED PAN		BEDROCK		SUBSIDENCE		HYD GRP
FREQUENCY	DURATION	MONTHS	DEPTH (FT)	KIND	MONTHS	DEPTH (IN)	HARDNESS	DEPTH (IN)	HARDNESS	INIT. (IN)	TOTAL (IN)	
STANDING WATER	6 MONTHS		+1.0-0	APPARENT	Jul-Mar	-		>72		-		A/D

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Low (50)	Severe - Wetness, Floods	Water Control - Mounding
SANITARY LANDFILL (TRENCH)	Very low (10)	Severe - Floods, Wetness, Seepage	Water Control, Control flood waters, sealing or lining
DWELLINGS WITHOUT BASEMENTS	Low (55)	Severe - Floods, Wetness	Water Control, Control flood water
LOW COMMERCIAL BUILDINGS	Medium (70)	Severe - Wetness, Floods	Water Control, protect from flooding
LOCAL ROADS AND STREETS	Very low (35)	Severe - Low strength, Wetness Floods	Remove and replace with suitable material, water control, Control Flood water
SHALLOW EXCAVATIONS	Very low (35)	Severe - Wetness, cutbanks, cave-in low strength	Water control, shoring, special equipment
ACTIVE PLAY AREAS	Low (45)	Severe - Wetness, sandy	Water Control
PASSIVE PLAY AREAS	Medium (60)	Severe - Wetness, Standing Water	Water Control, construct above ground walks
EXCAVATED PONDS AQUIFER FED	Very high (95)	Cutbanks cave-in	Stabilize sideslopes
LAWN GRASSES AND ORNAMENTAL PLANTS	High (75)	Wetness, Flooding	Water Control, control flood water, use calcium tolerant ornamental or reduce PH
IMPROVED PASTURES	Very high (90)	Wetness	Water Control
WOODLAND	High Site Index - (90)	Moderate - Plant competition Severe - Equipment, seedling mortality	Adequate surface drain, plant on beds
CITRUS	Medium (60)	Wetness, Floods	Water Control, control flood waters, bedding
SPECIALIZED ROW CROPS	High (85)	Wetness, Floods	Water Control, subsurface irrigation Control flood waters

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: Ff

MAP SYMBOL: Ff

SOIL NAME: Felda fine sand

This is the only Felda soil mapped in the county. It is a deep, slightly acid to neutral, poorly drained soil on flood plains. The surface layer is generally very dark gray, very friable fine sand about 5 inches thick, but it is dark gray or black in places. Immediately below the surface layer is loose fine sand.

The subsoil is generally dark-gray, slightly sticky fine sandy clay loam that contains a few fine mottles of brownish yellow. The texture is fine sandy loam, however, in some places. In some areas the lower part of the subsoil contains streaks where calcareous material occurs. The substratum in most places is light-gray, friable sandy loam that contains a few, fine, yellow mottles, but the texture is fine sandy clay loam in some places.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO.				LIQUID LIMIT	PLASTICITY INDEX
					4	10	40	200		
0-19	Fine sand	SP - SM, SP	A-3, A-2-4	100	100	100	90-100	2-12	-	NP
19-29	Sandy clay loam	SC	A-2, A-6, A-7	100	100	100	90-100	30-45	30-44	12-22
29-52	Sandy loam	SM - SC, SC	A-2-4	100	100	100	90-100	20-35	20-30	4-10

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY		EROSION		WIND EROD. GROUP
						STEEL	CONCRETE	K	T	
0-19	5.0 - 10	0.05 - 0.10	6.1-7.3	-	Low	High	Low	.17	5	-
19-29	2.5 - 5.0	0.10 - 0.15	6.1-7.3	-	Moderate	High	Low	.28		
29-52	2.5 - 5.0	0.10 - 0.15	6.1-7.3	-	Low	High	Low	.20		

FLOODING			HIGH WATER TABLE			CEMENTED PAN		BEDROCK		SUBSIDENCE		HYD GRP.
FREQUENCY	DURATION	MONTHS	DEPTH (FT)	KIND	MONTHS	DEPTH (IN)	HARDNESS	DEPTH (IN)	HARDNESS	INIT. (IN)	TOTAL (IN)	
COMMON	LONG	Jun-Mar	0-1	APPARENT	Jul-Mar			>72		-		B/D

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Low (50)	Severe- Floods, Wetness	Water Control, mounding, control flood waters
SANITARY LANDFILL (TRENCH)	Low (35)	Severe - Wetness, Floods	Water Control, control flood waters
DWELLINGS WITHOUT BASEMENTS	Low (37)	Severe - Floods, Wetness, shrink-swell - low strength	Water Control - increase structural strength in foundation, Control flood waters.
LOW COMMERCIAL BUILDINGS	Low (47)	Severe - Wetness, Floods, low strength, shrink-swell, erodes easily	Water Control - Protect from flooding Increase structural strength in foundation, erosion control
LOCAL ROADS AND STREETS	Low (37)	Severe - Wetness, Floods, low strength, shrink swell	Water Control, Control flood waters, Remove and replace with suitable material
SHALLOW EXCAVATIONS	Low (40)	Severe - Cutbanks cave-in, Wetness Floods	Shoring, Water Control, Control flood waters
ACTIVE PLAY AREAS	Low (45)	Severe - Wetness, Floods, Sandy	Water Control, fill area or control flood waters
PASSIVE PLAY AREAS	Medium (70)	Severe - Wetness, Floods	Water Control, restrict use during flooding
EXCAVATED PONDS AQUIFER FED	Very high (95)	Cutbanks cave-in	Stabilize sideslopes
LAWN GRASSES AND ORNAMENTAL PLANTS	Medium (70)	Wetness, Floods	Water Control, control flood waters
IMPROVED PASTURES	Medium (65)	Wetness, Floods	Water Control, control flood waters
WOODLAND	Medium Site Index 80	Moderate - Equipment, plant competition, Severe - seedling mortality	
CITRUS	Medium (60)	Wetness, Floods	Water Control, control flood waters, Bedding
SPECIALIZED ROW CROPS	Medium (70)	Wetness, Floods	Water Control, subsurface irrigation, control flood waters

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: Ib

MAP SYMBOL: Ib

SOIL NAME: Iberia clay loam, overflow

This soil is moderately deep, very poorly drained, neutral, and fine textured. It is nearly level and is on flood plains along the St. Johns River and the associated chain of lakes. The surface layer is black clay loam about 12 inches thick. Immediately below the surface layer is very dark gray clay that is mottled with yellow and black and is about 16 inches thick. The subsoil is mottled gray clay and is more than 42 inches thick.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO. 4	10	40	200	LIQUID LIMIT	PLASTICITY INDEX
0-10	Clay loam	SC	A-7	100	100	100	90-100	36-50	41-58	20-35
10-78	Clay	CH	A-7	100	100	100	90-100	51-80	60-80	38-54

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY STEEL	CORROSIVITY CONCRETE	EROSION K	EROSION T	WIND EROD. GROUP
0-10	5.0 - 10	0.15 - 0.20	6.6-7.3	-	High	High	Low	.37	5	-
10-78	0.05 - 0.20	0.10 - 0.15	6.6-7.3	-	HIgh	High	Low	.32		

FLOODING FREQUENCY	FLOODING DURATION	FLOODING MONTHS	HIGH WATER TABLE DEPTH (FT)	HIGH WATER TABLE KIND	HIGH WATER TABLE MONTHS	CEMENTED PAN DEPTH (IN)	CEMENTED PAN HARDNESS	BEDROCK DEPTH (IN)	BEDROCK HARDNESS	SUBSIDENCE INIT. (IN)	SUBSIDENCE TOTAL (IN)	HYD GRP
COMMON	LONG	Jun-Mar	0-1	APPARENT	Jun-Mar	-		>72		-		D

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Very low (25)	Severe - Floods, percolates slowly Wetness	Water Control, mounding, control flood waters
SANITARY LANDFILL (TRENCH)	Low (40)	Severe - Wetness, Floods	Water Control, Control flood waters
DWELLINGS WITHOUT BASEMENTS	Very low (25)	Severe - Floods, Wetness, shrink-swell, low strength	Water control, control flooding, increase area foundation & footing, Increase foundation strength, maintain even moisture
LOW COMMERCIAL BUILDINGS	Very low (30)	Severe - Wetness, Floods, shrinks-swells, low strength erodes easily	Water control, control flooding, increase area foundation & footing, Increase foundation strength, maintain even moisture
LOCAL ROADS AND STREETS	Very low (10)	Severe - low strength, floods Wetness, shrink-swell	Remove and replace with suitable material, Water Control, Control flood waters
SHALLOW EXCAVATIONS	Medium (55)	Severe - Wetness, floods, low strength	Water Control, control flood waters, Special equipment
ACTIVE PLAY AREAS	Very low (25)	Severe - Wetness, floods, clayey, percolates slowly	Water Control, fill area or control flood waters
PASSIVE PLAY AREAS	Low (50)	Severe - Wetness, floods, too clayey	Water Control, restrict use during flooding, construct above ground walks
EXCAVATED PONDS AQUIFER FED	High (90)	Slow refill	No practical practices available
LAWN GRASSES AND ORNAMENTAL PLANTS	Medium (65)	Wetness, Floods, percolates slowly	Water Control, control flood waters, use calcium tolerant ornamentals or reduce pH.
IMPROVED PASTURES	High (80)	Wetness, Floods	Water Control, control flood water
WOODLAND	High Site Index - 90	Moderate - Plant competition, Wend-throw hazard - Severe - Equipment, seedling mortality	Adequate surface drainage, plant on beds
CITRUS	Low (55)	Wetness, Floods	Water Control, control flood waters, bedding
SPECIALIZED ROW CROPS	Medium (60)	Wetness, floods, slow permeability	Water Control, Control flood waters

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: Ik

MAP SYMBOL: Ik

SOIL NAME: Iberia mucky loam

This is a very poorly drained, moderately deep, neutral soil. It is in depressions that are slightly higher than the level of the flood plain. The surface layer is black mucky loam about 12 inches thick. The content of organic matter in this layer is high. Immediately below the surface layer is very dark gray sandy clay or clay that is mottled with yellow and black and is generally about 20 inches thick. The subsoil is mottled gray clay and is more than 42 inches thick.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO.				LIQUID LIMIT	PLASTICITY INDEX
					4	10	40	200		
0-12	Mucky loam	SC	A-7	100	100	100	90-100	36-50	41-52	20-30
12-32	Sandy clay, clay	SC, CH	A-6, A-7	100	100	100	90-100	45-80	50-80	30-54
32-80	Clay	CH	A-7	100	100	100	90-100	51-80	60-80	38-54

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY		EROSION		WIND EROD. GROUP
						STEEL	CONCRETE	K	T	
0-12	5.0-10	0.20 - 0.25	6.6-7.3	-	High	High	Low	.37	5	-
12-32	0.05-0.20	0.10 - 0.15	6.6-7.3	-	High	High	Low	.32		
32-80	0.05-0.20	0.10 - 0.15	6.6-7.3	-	High	High	Low	.32		

FLOODING			HIGH WATER TABLE			CEMENTED PAN		BEDROCK		SUBSIDENCE		HYD GRP
FREQUENCY	DURATION	MONTHS	DEPTH (FT)	KIND	MONTHS	DEPTH (IN)	HARDNESS	DEPTH (IN)	HARDNESS	INIT. (IN)	TOTAL (IN)	
COMMON	LONG	Jun-Mar	0-1	APPARENT	Jun-Mar	-		>72		-		D

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Very low (25)	Severe - percolates slowly, wetness, floods	Water Control, mounding, control flood waters
SANITARY LANDFILL (TRENCH)	Low (40)	Severe - Wetness, floods	Water Control, control flood waters
DWELLINGS WITHOUT BASEMENTS	Very low (25)	Severe - shrink-swell, floods, wetness, low strength	Control flood water, water control, increase structural strength in foundation, maintain even moisture content
LOW COMMERCIAL BUILDINGS	Very low (30)	Severe - Wetness, floods, shrink-swell, low strength, erodes easily	Control-Water, Flooding, & Erosion. Increase Foundation Strength, Maintain even moisture content
LOCAL ROADS AND STREETS	Very low (10)	Severe - Low strength, floods, Wetness, shrink - swell	Remove and replace with suitable material, Water Control, control flood waters
SHALLOW EXCAVATIONS	Medium (60)	Severe - Wetness, low strength	Water Control, Special equipment
ACTIVE PLAY AREAS	Very low (25)	Severe - Wetness, clayey, percolates slowly	Water Control
PASSIVE PLAY AREAS	Low (50)	Severe - Wetness, floods, too clayey	Water Control, restrict use during flooding, construct above ground walks
EXCAVATED PONDS AQUIFER FED	High (90)	Slow refill	No practical practices available
LAWN GRASSES AND ORNAMENTAL PLANTS	High (80)	Wetness, Floods	Water Control, control flood waters use calcium tolerant ornamentals or reduce pH.
IMPROVED PASTURES	High (80)	Wetness	Water Control
WOODLAND	High Site Index - 90	Moderate - Windthrow hazard, plant competition, Severe - equipment, seedling mortality	Adequate surface drainage, plant on beds
CITRUS	Low (55)	Wetness, Floods	Water Control, control flood waters, bedding
SPECIALIZED ROW CROPS	Medium (60)	Wetness, Floods, percolates slowly	Water Control, control flood waters

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: Im

MAP SYMBOL: Im

SOIL NAME: Immokalee fine sand

This soil is deep, somewhat poorly drained, and strongly acid or very strongly acid. It is nearly level and is generally in low areas. The surface layer is black to gray fine sand that has weak granular structure and is about 5 inches thick. Below the surface layer is gray or light-gray, loose fine sand about 25 to 42 inches thick. The third layer is weakly cemented and is black because it is stained with organic matter. It ranges from soft to slightly hard.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO. 4	10	40	200	LIQUID LIMIT	PLASTICITY INDEX
0-42	Fine sand	SP - SM	A-3	100	100	100	90-100	2-10	-	NP
42-54	Fine sand	SP - SM, SM	A-3, A-2-4	100	100	100	90-100	7-15	-	NP
54-60	Fine sand	SP - SM	A-3	100	100	100	90-100	5-10	-	NP

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY STEEL	CORROSIVITY CONCRETE	EROSION K	EROSION T	WIND EROD. GROUP
0-42	10 - > 20	0.03 - 0.05	4.5-5.5	-	Low	High	High	.17	5	2
42-54	0.8 - 2.5	0.10 - 0.15	4.5-5.5	-	Low	High	High	.17		
54-60	10 - > 20	0.03 - 0.05	4.5-5.5	-	Low	High	High	.20		

FLOODING FREQUENCY	FLOODING DURATION	FLOODING MONTHS	HIGH WATER TABLE DEPTH (FT)	HIGH WATER TABLE KIND	HIGH WATER TABLE MONTHS	CEMENTED PAN DEPTH (IN)	CEMENTED PAN HARDNESS	BEDROCK DEPTH (IN)	BEDROCK HARDNESS	SUBSIDENCE INIT. (IN)	SUBSIDENCE TOTAL (IN)	HYD GRP
NONE			0-1	APPARENT	Jul-Sep	-		>72		-		A/D

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Medium (66)	Severe - Wetness, percolates slowly	Water Control, mounding
SANITARY LANDFILL (TRENCH)	Low (35)	Severe - Wetness, loose sand, flooding	Water Control, control flood waters, surface stabilization
DWELLINGS WITHOUT BASEMENTS	Medium (80)	Severe - Wetness	Water Control
LOW COMMERCIAL BUILDINGS	Medium (75)	Severe - Wetness, soil blowing	Water Control, control soil blowing
LOCAL ROADS AND STREETS	Medium (80)	Severe - Wetness	Water Control
SHALLOW EXCAVATIONS	Low (50)	Severe - Cutbank cave-in, Wetness	Shorings, Water Control
ACTIVE PLAY AREAS	Medium (60)	Severe - Wetness, loose sandy, soil blowing	Water Control, suitable topsoil and other amendments
PASSIVE PLAY AREAS	Medium (70)	Severe - Wetness, loose sand	Water Control, suitable topsoil and other amendments, hard surface
EXCAVATED PONDS AQUIFER FED	Medium (75)	Deep to water, duration of high water table, cutbank cave-in	Seal bottom of pond, stabilize side-slopes. Add water during dry periods.
LAWN GRASSES AND ORNAMENTAL PLANTS	Medium (65)	Wetness, low organic matter, low available water capacity	Water Control, Good Management
IMPROVED PASTURES	Medium (60)	Wetness, Low natural fertility	Water Control, Good Management, subsurface irrigation.
WOODLAND	Low Site Index - 70	Moderate - Equipment, seedling mortality, plant competition	Good Management
CITRUS	Low (55)	Wetness, low available water, capacity, low natural fertility	Water Control, bedding, Good Management
SPECIALIZED ROW CROPS	Medium (65)	Wetness, low natural fertility, low organic matter	Water Control, subsurface irrigation, Good Management

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: In

MAP SYMBOL: In

SOIL NAME: Immokalee sand

This soil is somewhat poorly drained and is strongly acid. It occurs in small areas throughout the county. The surface layer is dark-gray to black, loose sand about 3 inches thick. Below the surface layer is gray or light-gray sand about 25 to 42 inches thick. The third layer is firm to weakly cemented and is black because it is stained with organic matter. This layer ranges from 4 to 12 inches in thickness. Below the third layer is light-gray sand.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO.				LIQUID LIMIT	PLASTICITY INDEX
					4	10	40	200		
0-42	Sand	SP - SM	A-3	100	100	100	90-100	2-10	-	NP
42-54	Sand	SP - SM, SM	A-3, A-2-4	100	100	100	90-100	7-15	-	NP
54-60	Sand	SP - SM	A-3	100	100	100	90-100	5-10	-	NP

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY		EROSION		WIND EROD. GROUP
						STEEL	CONCRETE	K	T	
0-42	10 - > 20	0.03 - 0.05	4.5-5.5	-	Low	High	High	.17	5	2
42-54	0.8 - 2.5	0.10 - 0.15	4.5-5.5	-	Low	High	High	.17		
54-60	10 - > 20	0.03 - 0.05	4.5-5.5	-	Low	High	High	.20		

FLOODING			HIGH WATER TABLE			CEMENTED PAN		BEDROCK		SUBSIDENCE		HYD GRP
FREQUENCY	DURATION	MONTHS	DEPTH (FT)	KIND	MONTHS	DEPTH (IN)	HARDNESS	DEPTH (IN)	HARDNESS	INIT. (IN)	TOTAL (IN)	
NONE			0-1	APPARENT	Jul-Sep	-		>72		-		A/D

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Medium (66)	Severe - Wetness, **percolates slowly**	Water Control, mounding
SANITARY LANDFILL (TRENCH)	Low (35)	Severe - Wetness, Floods, loose sand	Water Control, control flood water, surface stabilization
DWELLINGS WITHOUT BASEMENTS	Medium (80)	Severe - Wetness	Water Control
LOW COMMERCIAL BUILDINGS	Medium (75)	Severe - Wetness, soil blowing	Water Control, control soil blowing
LOCAL ROADS AND STREETS	Medium (80)	Severe - Wetness	Water Control
SHALLOW EXCAVATIONS	Low (50)	Severe - Cutbank cave-in, Wetness	Shoring, Water Control
ACTIVE PLAY AREAS	Medium (60)	Severe - Wetness, loose sand, soil blowing	Water Control, suitable topsoil and other amendments
PASSIVE PLAY AREAS	Medium (70)	Severe - Wetness, loose sand	Water Control, suitable topsoil and other amendments, hard surface
EXCAVATED PONDS AQUIFER FED	Medium (75)	Deep to water, duration of high water table, cutbank cave-in	Seal bottom of pond, stabilize side-slopes, add water during dry periods
LAWN GRASSES AND ORNAMENTAL PLANTS	Medium (65)	Wetness, low in organic matter, low available water capacity	Water Control, Good Management
IMPROVED PASTURES	Medium (60)	Wetness, low in natural fertility	Water Control, Good Management, sub-surface irrigation
WOODLAND	Low Site Index - 70	Moderate - Equipment, seedling mortality, plant competition	Good Management
CITRUS	Low 55	Wetness, low available water capacity Low natural fertility	Water Control, bedding, Good Management
SPECIALIZED ROW CROPS	Medium (65)	Wetness, low organic matter, low natural fertility	Water Control, Subsurface irrigation, Good Management

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: Io

MAP SYMBOL: Io

SOIL NAME: Istokpoga peat, deep

This is a very poorly drained soil that is covered by water most of the year. The surface layer is very dark brown, partly decomposed woody peat about 8 inches thick. The second layer is dark reddish-brown woody peat that is more than 60 inches thick.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO.				LIQUID LIMIT	PLASTICITY INDEX
					4	10	40	200		
0-84	Peat	PT								

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY		EROSION		WIND EROD. GROUP
						STEEL	CONCRETE	K	T	
0-84	5.0-10	0.20 - 0.35	3.6-4.5	-	Low	High	High	-	-	*2

*Applicable if surface is bare and soil dry

FLOODING			HIGH WATER TABLE			CEMENTED PAN		BEDROCK		SUBSIDENCE		HYD GRP
FREQUENCY	DURATION	MONTHS	DEPTH (FT)	KIND	MONTHS	DEPTH (IN)	HARDNESS	DEPTH (IN)	HARDNESS	INIT. (IN)	TOTAL (IN)	
STANDING WATER	> 6 MONTHS		+1.5-0	APPARENT	Jul-Mar	-		>72		-	72	A/D

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Very low (35)	Severe - Floods, Wetness, subsidence	Water Control, mounding, remove and replace with suitable material
SANITARY LANDFILL (TRENCH)	Very low (10)	Severe - Floods, Wetness, seepage	Water Control, control flood waters, sealing or lining
DWELLINGS WITHOUT BASEMENTS	Very low (25)	Severe - Floods, Wetness, subsidence low strength	Water Control, remove and replace with suitable material
LOW COMMERCIAL BUILDINGS	Very low (40)	Severe - Wetness, standing water, low strength, subsides, soil blowing	Remove and replace with suitable material, Water Control
LOCAL ROADS AND STREETS	Very low (35)	Severe - low strength, Wetness, floods subsides	Remove and replace with suitable material Water Control, control flood waters
SHALLOW EXCAVATIONS	Low (50)	Severe - Wetness, low strength	Water Control, special equipment
ACTIVE PLAY AREAS	Very low (30)	Severe - Wetness, floods, excess humus, soil blowing (when dry and without vegetative cover)	Water Control, remove and replace with suitable material, fill area or control flood waters
PASSIVE PLAY AREAS	Very low (30)	Severe - Wetness, standing water, excess humus	Water Control, construct above ground walks
EXCAVATED PONDS AQUIFER FED	Very high (100)	None	None needed
LAWN GRASSES AND ORNAMENTAL PLANTS	Medium (65)	Wetness, floods, soil blowing	Water Control, control flood water
IMPROVED PASTURES	High (75)	Wetness, low soil reaction	Water Control, adequate lime
WOODLAND	NOT SUITED FOR COMMERCIAL WOODLAND PRODUCTION		
CITRUS	UNSUITED		
SPECIALIZED ROW CROPS	High (85)	Wetness, Floods	Water Control, subsurface irrigation control flood waters

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: Ip

MAP SYMBOL: Ip

SOIL NAME: Istokpoga peat, moderately deep

This is a very poorly drained soil that is covered by water most of the year. It is 36 to 60 inches deep. The surface layer is very dark brown, partly decomposed woody peat that is about 8 inches thick. The second layer is dark reddish-brown woody peat about 30 to 52 inches thick. Below is dark grayish-brown sand or fine sand.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO.				LIQUID LIMIT	PLASTICITY INDEX
					4	10	40	200		
0-48	Peat	PT								
48-80	Sand, fine sand	SP - SM	A-3, A-2-4	100	100	100	90-100	5-12	-	N/P

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY		EROSION		WIND EROD. GROUP
						STEEL	CONCRETE	K	T	
0-48	5.0-10	0.20 - 0.35	3.6 -4.5	-	Low	High	High	-	-	*2
48-80	10-20	0.03 - 0.07	5.1-5.5	-	Low	High	High			

*Applicable if surface is bare and soil dry.

FLOODING			HIGH WATER TABLE			CEMENTED PAN		BEDROCK		SUBSIDENCE		HYD GRP
FREQUENCY	DURATION	MONTHS	DEPTH (FT)	KIND	MONTHS	DEPTH (IN)	HARDNESS	DEPTH (IN)	HARDNESS	INIT. (IN)	TOTAL (IN)	
STANDING WATER	>6 MONTHS		+1.5-0	APPARENT	Jul-Mar	-		>72		-	40	A/D

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Very low (35)	Severe - Floods, Wetness, subsidences	Water Control, mounding, remove and replace with suitable material
SANITARY LANDFILL (TRENCH)	Very low (10)	Severe - Floods, Wetness, seepage	Water Control, Control flood waters, sealing or lining
DWELLINGS WITHOUT BASEMENTS	Very low (25)	Severe - Floods, Wetness, Subsidence low strength	Water Control, remove and replace with suitable material
LOW COMMERCIAL BUILDINGS	Very low (40)	Severe - Wetness, standing, water, low strength, subsides, soil blowing	Remove and replace with suitable material, water control
LOCAL ROADS AND STREETS	Very low (35)	Severe - low strength, Wetness, floods subsides	Remove and replace with suitable material, Water Control, control flood waters
SHALLOW EXCAVATIONS	Low (50)	Severe - Wetness, low strength	Water Control, special equipment
ACTIVE PLAY AREAS	Very low (30)	Severe - Wetness, floods, excess humus, soil blowing (when dry and without vegetative cover)	Water Control, remove and replace with suitable material, fill area or control flood waters
PASSIVE PLAY AREAS	Very low (30)	Severe - Wetness, Standing water excess humus	Water Control, construct above ground walks
EXCAVATED PONDS AQUIFER FED	Very high (100)	None	None needed
LAWN GRASSES AND ORNAMENTAL PLANTS	Medium (75)	Wetness, Floods, soil blowing	Water Control, control flood waters
IMPROVED PASTURES	High (75)	Wetness, low soil reaction	Water Control, adequate lime
WOODLAND	NOT SUITED FOR COMMERCIAL WOODLAND PRODUCTION		
CITRUS	UNSUITED		
SPECIALIZED ROW CROPS	High (85)	Wetness, Floods	Water Control, Subsurface irrigation Control flood waters

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: Is

MAP SYMBOL: Is

SOIL NAME: Istokpoga peat, shallow variant

This is a wet, very strongly acid woody peat that is 12 to 36 inches thick. The surface layer is dark brown and is about 8 inches thick. The second layer is dark reddish brown and is 5 to 28 inches thick. Below is dark grayish-brown sand or fine sand.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO. 4	10	40	200	LIQUID LIMIT	PLASTICITY INDEX
0-24	Peat									
24-80	Sand, fine sand	SP - SM	A-3, A-2-4	100	100	100	90-100	5-12	-	NP

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY STEEL	CORROSIVITY CONCRETE	EROSION K	EROSION T	WIND EROD. GROUP
0-24	5.0-10	0.20 - 0.35	3.6-4.5	-	Low	High	High	-	-	*2
24-80	10-20	0.03 - 0.07	5.1-5.5	-	Low	High	High			

*Applicable if surface is bare and soil dry

FLOODING FREQUENCY	FLOODING DURATION	FLOODING MONTHS	HIGH WATER TABLE DEPTH (FT)	HIGH WATER TABLE KIND	HIGH WATER TABLE MONTHS	CEMENTED PAN DEPTH (IN)	CEMENTED PAN HARDNESS	BEDROCK DEPTH (IN)	BEDROCK HARDNESS	SUBSIDENCE INIT. (IN)	SUBSIDENCE TOTAL (IN)	HYD GRP
STANDING WATER	>6 MONTHS		+1.5-0	APPARENT	Jul-Mar	-		>72		-	20	A/D

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Very low (35)	Severe - Floods, Wetness, Subsidence	Water Control, mounding, remove and replace with suitable material
SANITARY LANDFILL (TRENCH)	Very low (10)	Severe - Wetness, Floods, seepage	Water Control, control flood waters, sealing and lining
DWELLINGS WITHOUT BASEMENTS	Very low (25)	Severe - Floods, Wetness, subsidence low strength	Water Control, remove and replace with suitable material
LOW COMMERCIAL BUILDINGS	Very low (40)	Severe - Wetness, standing water, low strength, subsides, soil blowing	Remove and replace with suitable material, Water Control
LOCAL ROADS AND STREETS	Very low (35)	Severe - low strength, Wetness, floods subsides	Remove and replace with suitable material, Water Control, control flood water
SHALLOW EXCAVATIONS	Very low (25)	Severe - Cutbanks cave-in, Wetness low strength	Shoring, Water Control, special equipment
ACTIVE PLAY AREAS	Very low (30)	Severe - Wetness, floods, excess humus, soil blowing (when dry and without vegetative cover)	Water Control, remove and replace with suitable material, fill area or control flood waters
PASSIVE PLAY AREAS	Very low (30)	Severe - Wetness, standing water excess humus	Water Control, construct above ground walk
EXCAVATED PONDS AQUIFER FED	Very high (100)	None	None needed
LAWN GRASSES AND ORNAMENTAL PLANTS	Medium (65)	Wetness, Floods, soil blowing	Water Control, control flood waters
IMPROVED PASTURES	High (70)	Wetness, low soil reaction	Water Control, adequate lime
WOODLAND	NOT SUITED FOR COMMERCIAL WOODLAND PRODUCTION		
CITRUS	UNSUITED		
SPECIALIZED ROW CROPS	High (85)	Wetness, Floods	Water Control, subsurface irrigation, control flood waters

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: LaB

MAP SYMBOL: LaB

SOIL NAME: Lakeland fine sand, 0 to 5 percent slopes

This soil is deep and well drained. It is on high, gently sloping ridges. In most places the surface layer is dark-gray, loose fine sand about 6 inches thick. It is commonly dark gray to grayish brown, but it is black or gray in some places. Below the surface layer is yellow, loose fine sand that is mottled with brown below a depth of about 40 inches or more. In most places sandy clay loam underlies the soil at a depth of 60 inches or more.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO.				LIQUID LIMIT	PLASTICITY INDEX
					4	10	40	200		
0-60	Fine Sand	SP, SP-SM	A-3, A-2-4	100	100	100	90-100	5-12	-	NP
60-72	Sandy Clay Loam, Sandy Loam	SC	A-2, A-4, A-6	100	100	100	90-100	20-35	22-40	8-20

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY		EROSION		WIND EROD. GROUP
						STEEL	CONCRETE	K	T	
0-60	10 - >20	0.05 - 0.08	5.1-5.5	-	Low	Low	High	.17	5	2
60-72	2.5 - 5.0	0.10 - 0.15	5.1-5.5	-	Low	Low	High	.28		

FLOODING			HIGH WATER TABLE			CEMENTED PAN		BEDROCK		SUBSIDENCE		HYD GRP
FREQUENCY	DURATION	MONTHS	DEPTH (FT)	KIND	MONTHS	DEPTH (IN)	HARDNESS	DEPTH (IN)	HARDNESS	INIT. (IN)	TOTAL (IN)	
None			>6			-		>72		-		A

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Very High (100)	Slight	None Needed
SANITARY LANDFILL (TRENCH)	Very High (90)	Severe - Loose Sand	Hard Surface, Surface Stabilization
DWELLINGS WITHOUT BASEMENTS	Very High (100)	Slight	None Needed
LOW COMMERCIAL BUILDINGS	High (87)	Moderate - Soil Blowing	Control Soil Blowing
LOCAL ROADS AND STREETS	Very HIgh (100)	Slight	None Needed
SHALLOW EXCAVATIONS	High (75)	Severe - Cutbank Cave-in	Shorings
ACTIVE PLAY AREAS	High (75)	Severe - Loose Sand, Soil Blowing	Suitable Topsoil and other amendments
PASSIVE PLAY AREAS	High (80)	Severe - Loose Sand	Suitable Topsoil and other amendments, Hard Surface
EXCAVATED PONDS AQUIFER FED	Very Low (0)	No water	No practical practices available
LAWN GRASSES AND ORNAMENTAL PLANTS	High (75)	Very Low organic matter	Good Management
IMPROVED PASTURES	Medium (55)	Very Low - organic matter, low natural fertility	Good Management
WOODLAND	Medium Site Index - 80	Moderate - Equipment, Seedling Mortality, Plant Competition	Good Management
CITRUS	Very High (85)	Low Natural fertility	Good Management
SPECIALIZED ROW CROPS	Very Low (35)	Very Low organic matter, Low natural fertility	Good Management

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: LaC

MAP SYMBOL: LaC

SOIL NAME: Lakeland find sand, 5 to 8 percent slopes

This soil is on high ridges. It is deep and is well drained to somewhat excessively drained. In most places the surface layer is dark-gray to grayish-brown, loose fine sand about 6 inches thick, but it is gray or black in places. Below the surface layer is yellow, loose fine sand that contains pale-brown mottles below a depth of about 40 inches. In most places sandy clay loam underlies this soil below a depth of 60 inches.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO. 4	10	40	200	LIQUID LIMIT	PLASTICITY INDEX
0-60	Fine Sand	SP, SP-SM	A-3, A-2-4	100	100	100	90-100	5-12	-	NP
60-72	Sandy Clay Loam, Sandy Loam	SC	A-2, A-4, A-6	100	100	100	90-100	20-35	22-40	8-20

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY STEEL	CORROSIVITY CONCRETE	EROSION K	EROSION T	WIND EROD. GROUP
0-60	10 - >20	0.05 - 0.08	5.1-5.5	-	Low	Low	High	.17	5	2
60-72	2.5 - 5.0	0.10 - 0.15	5.1-5.5	-	Low	Low	High	.28		

FLOODING FREQUENCY	FLOODING DURATION	FLOODING MONTHS	HIGH WATER TABLE DEPTH (FT)	HIGH WATER TABLE KIND	HIGH WATER TABLE MONTHS	CEMENTED PAN DEPTH (IN)	CEMENTED PAN HARDNESS	BEDROCK DEPTH (IN)	BEDROCK HARDNESS	SUBSIDENCE INIT. (IN)	SUBSIDENCE TOTAL (IN)	HYD GRP
None			>6			-		>72		-		A

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Very High (100)	Slight	None Needed
SANITARY LANDFILL (TRENCH)	High (85)	Severe - Loose Sand	Hard Surface, Surface Stabilization
DWELLINGS WITHOUT BASEMENTS	Very High (100)	Slight	None Needed
LOW COMMERCIAL BUILDINGS	Medium (81)	Moderate - Slope, Soil Blowing	Control Soil Blowing, Land forming
LOCAL ROADS AND STREETS	Very High (100)	Slight	None Needed
SHALLOW EXCAVATIONS	Medium (70)	Severe - Cutbanks cave-in, Slope	Shoring, Erosion Control
ACTIVE PLAY AREAS	Medium (70)	Severe - Loose sand, soil blowing, slope	Suitable topsoil and other amendments, land smoothing
PASSIVE PLAY AREAS	High (85)	Severe - Loose sand	Suitable topsoil and other amendments, Hard Surface
EXCAVATED PONDS AQUIFER FED	Very Low (0)	No Water	No practical practices available
LAWN GRASSES AND ORNAMENTAL PLANTS	Medium (70)	Very low organic matter, slope	Good Management, Erosion Control
IMPROVED PASTURES	Medium (55)	Very Low organic matter, low natural fertility	Good Management
WOODLAND	Medium Site Index- 80	Moderate - Equipment, Seedling Mortality, Plant competition	Good Management
CITRUS	High (75)	Low available water capacity, low natural fertility, slope	Good Management, Erosion Control
SPECIALIZED ROW CROPS	Very Low (30)	Very Low organic matter, low natural fertility, slope	Good Management, Erosion Control

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: LaD

MAP SYMBOL: LaD

SOIL NAME: Lakeland fine sand, 8 to 12 percent slopes

This soil is deep, well drained to excessively drained, and moderately steep. The surface layer is gray, loose fine sand about 6 inches thick. Below the surface layer is yellowish-brown, loose fine sand that is more than 40 inches thick.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO. 4	10	40	200	LIQUID LIMIT	PLASTICITY INDEX
0-60	Fine Sand	SP, SP-SM	A-3, A-2-4	100	100	100	90-100	5-12	-	NP
60-72	Sandy Clay Loam, Sandy Loam	SC	A-2, A-4, A-6	100	100	100	90-100	20-35	22-40	8-20

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY STEEL	CORROSIVITY CONCRETE	EROSION K	EROSION T	WIND EROD. GROUP
0-60	10 - >20	0.05 - 0.08	5.1-5.5	-	Low	Low	High	.17	5	2
60-72	2.5 - 5.0	0.10 - 0.15	5.1-5.5	-	Low	Low	High	.28		

FLOODING FREQUENCY	FLOODING DURATION	FLOODING MONTHS	HIGH WATER TABLE DEPTH (FT)	HIGH WATER TABLE KIND	HIGH WATER TABLE MONTHS	CEMENTED PAN DEPTH (IN)	CEMENTED PAN HARDNESS	BEDROCK DEPTH (IN)	BEDROCK HARDNESS	SUBSIDENCE INIT. (IN)	SUBSIDENCE TOTAL (IN)	HYD GRP
none			>6			-		>72		-		A

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Very High (96)	Moderate - Slope	No applicable practice
SANITARY LANDFILL (TRENCH)	High (80)	Severe - Loose Sand	Hard Surface, surface stabilization Sealing or lining
DWELLINGS WITHOUT BASEMENTS	High (94)	Moderate - Slope	Land forming, design building to fit (slope)
LOW COMMERCIAL BUILDINGS	Medium (75)	Severe - Slope, soil blowing	Control soil blowing, Land forming
LOCAL ROADS AND STREETS	High (95)	Moderate - slope	Land forming
SHALLOW EXCAVATIONS	Medium (60)	Severe - Cutbank cave-in, slope	Shoring, erosion control
ACTIVE PLAY AREAS	Medium (60)	Severe - Loose sand, soil blowing, slope	Suitable topsoil and other amendments
PASSIVE PLAY AREAS	High (81)	Severe - Loose sand, slope	Suitable topsoil and other amendments hard surface
EXCAVATED PONDS AQUIFER FED	Very Low (0)	No water	No practical practices available
LAWN GRASSES AND ORNAMENTAL PLANTS	Medium (65)	Very low organic matter, slopes	Good management, erosion control
IMPROVED PASTURES	Low (50)	Very low organic matter, low natural fertility, slope	Good Management
WOODLAND	Medium Site Index -80	Moderate - Equipment, seeding mortality, plant competition	Good Management
CITRUS	High (75)	Low available water capacity, Low natural fertility, slope	Good Management, erosion control
SPECIALIZED ROW CROPS	Very Low (25)	Very low organic matter, low natural fertility, slope	Good Management, Erosion Control

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: LdB

MAP SYMBOL: LdB

SOIL NAME: Lakewood sand, 0 to 5 percent slopes

This is an excessively drained, coarse-textured soil on ridges. The surface layer is dark-gray to light-gray, loose fine sand about 3 inches thick. The second layer is light-gray or white, loose fine sand about 6 to 26 inches thick. The third layer is brownish-yellow to yellow, loose fine sand about 12 to 30 inches thick. The underlying material is light yellowish-brown to very pale brown, loose fine sand that continues to a depth of 70 inches or more.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO.				LIQUID LIMIT	PLASTICITY INDEX
					4	10	40	200		
0-70	Sand	SP	A-3	100	100	100	90-100	1-4	-	NP

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY		EROSION		WIND EROD. GROUP
						STEEL	CONCRETE	K	T	
0-70	>20	0.02 - 0.05	4.5-5.0	-	Low	Low	High	.15	5	1

FLOODING			HIGH WATER TABLE			CEMENTED PAN		BEDROCK		SUBSIDENCE		HYD GRP
FREQUENCY	DURATION	MONTHS	DEPTH (FT)	KIND	MONTHS	DEPTH (IN)	HARDNESS	DEPTH (IN)	HARDNESS	INIT. (IN)	TOTAL (IN)	
None			>6			-		>72		-		A

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Very High (100)	Slight	None Needed
SANITARY LANDFILL (TRENCH)	Very High (90)	Severe - Loose Sand	Hard surface, surface stabilization
DWELLINGS WITHOUT BASEMENTS	Very High (100)	Slight	None Needed
LOW COMMERCIAL BUILDINGS	High (87)	Moderate - Soil Blowing	Control soil blowing
LOCAL ROADS AND STREETS	Very High (100)	Slight	None Needed
SHALLOW EXCAVATIONS	High (75)	Severe - Cutbank Cave-in	Shoring
ACTIVE PLAY AREAS	High (75)	Severe - Loose sand, soil blowing	Suitable topsoil and other amendments
PASSIVE PLAY AREAS	High (85)	Severe - Loose sand	Suitable topsoil and other amendments Hard surface
EXCAVATED PONDS AQUIFER FED	Very Low (0)	No water	No practical practices available
LAWN GRASSES AND ORNAMENTAL PLANTS	Low (60)	Very low organic matter, very low available water capacity	Good management
IMPROVED PASTURES	Very Low (35)	Very low available water capacity, very low organic matter, low natural fertility	Not recommended for pasture
WOODLAND	Very Low site index - 60	Severe - Equipment Moderate - Seedling mortality	Plant sand pine (not suited for slash pine)
CITRUS	Low (55)	Very low available water capacity, Very low natural fertility	Good Management
SPECIALIZED ROW CROPS	Very Low (30)	Very low organic matter, low natural fertility	Good Management

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: LdC

MAP SYMBOL: LdC

SOIL NAME: Lakewood sand, 5 to 8 percent slopes

This is an excessively drained, coarse-textured soil on high, rolling ridges. The surface layer is dark-gray to light-gray, loose fine sand about 3 inches thick. The second layer is light-gray to white, loose fine sand 6 to 26 inches thick. The third layer is brownish-yellow to yellow, loose fine sand 12 to 30 inches thick. The underlying material is light yellowish-brown to very pale brown, loose fine sand that continues to a depth of more than 70 inches.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO.				LIQUID LIMIT	PLASTICITY INDEX
					4	10	40	200		
0-70	Sand	SP	A-3	100	100	100	90-100	1-4	-	NP

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY		EROSION		WIND EROD. GROUP
						STEEL	CONCRETE	K	T	
0-70	>20	0.02-0.05	4.5-5.0	-	Low	Low	High	.15	5	1

FLOODING			HIGH WATER TABLE			CEMENTED PAN		BEDROCK		SUBSIDENCE		HYD GRP
FREQUENCY	DURATION	MONTHS	DEPTH (FT)	KIND	MONTHS	DEPTH (IN)	HARDNESS	DEPTH (IN)	HARDNESS	INIT. (IN)	TOTAL (IN)	
None			>6			-		>72		-		A

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Very High (100)	Slight	None Needed
SANITARY LANDFILL (TRENCH)	High (85)	Severe - Loose sand	Hard Surface, surface stabilization
DWELLINGS WITHOUT BASEMENTS	Very High (100)	Slight	None Needed
LOW COMMERCIAL BUILDINGS	Medium (81)	Moderate - Slope, soil blowing	Control soil blowing, land forming
LOCAL ROADS AND STREETS	Very High (100)	Slight	None needed
SHALLOW EXCAVATIONS	Medium (70)	Severe - Cutbank Cave-in, slope	Shoring, Erosion Control
ACTIVE PLAY AREAS	Medium (70)	Severe - Loose sand, soil blowing, slope	Suitable topsoil and other amendments, Land smoothing
PASSIVE PLAY AREAS	High (85)	Severe - Loose sand	Suitable topsoil and other amendments, Hard surface
EXCAVATED PONDS AQUIFER FED	Very Low (0)	No water	No practical practices available
LAWN GRASSES AND ORNAMENTAL PLANTS	Low (55)	Very low available water capacity, Very low organic matter, slope	Good management, erosion control
IMPROVED PASTURES	Very Low (35)	Very low available water capacity, very low organic matter, low natural fertility	Not recommended for pasture
WOODLAND	Very low Site Index - 60	Severe - Equipment Moderate - Seeding Mortality	Plant sand pine (not suited for slash pine)
CITRUS	Low (50)	Very low available water capacity, Very low natural fertility, slope	Good Management, Erosion Control
SPECIALIZED ROW CROPS	Very Low (25)	Very low organic matter, very low natural fertility	Good Management

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: LfA

MAP SYMBOL: LfA

SOIL NAME: Leon fine sand, 0 to 2 percent slopes

This is a somewhat poorly drained soil that has a high water table. It is in narrow bands between the sandhills and swamps in the flatwood area of the county. The surface layer is black to dark-gray, loose fine sane about 4 inches thick, and the second layer is white to gray, loose fine sand about 20 inches thick. The third layer, or pan, is very dark brown to black. It is slightly hard to soft and is about 12 inches thick. Below the third layer is brown fine sand at a depth of about 35 inches.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO. 4	10	40	200	LIQUID LIMIT	PLASTICITY INDEX
0-24	Fine Sand	SP, SP-SM	A-3	100	100	100	90-100	2-10	-	NP
24-30	Fine Sand	SP-SM, SM	A-3, A-24	100	100	100	90-100	7-15	-	NP
30-60	Fine Sand	SP-SM	A-3	100	100	100	90-100	5-10	-	NP

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY STEEL	CORROSIVITY CONCRETE	EROSION K	EROSION T	WIND EROD. GROUP
0-24	10 - >20	0.03 - 0.05	5.1-5.5	-	Low	High	High	.17	5	2
24-30	0.8 - 2.5	0.10 - 0.15	5.1-5.5	-	Low	High	High	.20		
30-60	10 - >20	0.03 - 0.05	5.1-5.5	-	Low	High	High	.17		

FLOODING FREQUENCY	FLOODING DURATION	FLOODING MONTHS	HIGH WATER TABLE DEPTH (FT)	HIGH WATER TABLE KIND	HIGH WATER TABLE MONTHS	CEMENTED PAN DEPTH (IN)	CEMENTED PAN HARDNESS	BEDROCK DEPTH (IN)	BEDROCK HARDNESS	SUBSIDENCE INIT. (IN)	SUBSIDENCE TOTAL (IN)	HYD GRP
None			0-1	Apparent	Jul-Sep	-		>72		-		A/D

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Medium (66)	Severe - Wetness, percolates slowly	Water Control, Mounding
SANITARY LANDFILL (TRENCH)	Low (35)	Severe - Wetness, seepage, Loose sand	Water Control, Sealing and Lining, Surface Stabilization
DWELLINGS WITHOUT BASEMENTS	Medium (80)	Severe - Wetness	Water Control
LOW COMMERCIAL BUILDINGS	Medium (75)	Severe - Wetness, Soil Blowing	Water Control, Control Soil Blowing
LOCAL ROADS AND STREETS	Medium (80)	Severe - Wetness	Water Control
SHALLOW EXCAVATIONS	Low (50)	Severe - Cutbank Cave-in, Wetness	Shoring, Water Control
ACTIVE PLAY AREAS	Medium (55)	Severe - Wetness, Loose Sand, Soil Blowing	Water Control, Suitable topsoil and other amendments
PASSIVE PLAY AREAS	Medium (70)	Severe - Wetness, Loose Sand	Water Control, Suitable topsoil and other amendments, Hard surface.
EXCAVATED PONDS AQUIFER FED	Medium (75)	Deep to water, Duration of High Water table, Cutbank cave-in	Seal bottom of pond, add water during dry periods, Stabilize sideslopes
LAWN GRASSES AND ORNAMENTAL PLANTS	Medium (65)	Wetness, Low organic matter, Low available water capacity	Water Control, Good Management
IMPROVED PASTURES	Medium (60)	Wetness, Low Natural Fertility	Water Control, Good Management, Subsurface Irrigation
WOODLAND	Low Site Index -70	Moderate - Equipment, Seedling Mortality, Plant Competition	Good Management
CITRUS	Low (55)	Wetness, Low Available Water Capacity, Low Natural Fertility	Water Control, Bedding, Good Management
SPECIALIZED ROW CROPS	Medium (65)	Wetness, Low organic matter, Low Natural Fertility	Water Control, Subsurface Irrigation, Good Management

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: LfB MAP SYMBOL: LfB

SOIL NAME: Leon fine sand, 2 to 5 percent slopes

This soil is somewhat poorly drained and has a high water table. It occupies narrow strips adjacent to ponds, lakes, or drainageways. The surface layer is black to dark-gray, loose fine sand about 3 inches thick. The second layer is white to gray, loose fine sand about 20 inches thick. The third layer is an organic pan and is at a depth below 24 inches. It consists of black fine sand that is stained with organic matter. Below the third layer is brown fine sand at a depth of about 35 inches.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO.				LIQUID LIMIT	PLASTICITY INDEX
					4	10	40	200		
0-24	Fine Sand	SP, SP-SM	A-3	100	100	100	90-100	2-10	-	NP
24-30	Fine Sand	SP-SM, SM	A-3, A-2-4	100	100	100	90-100	7-15	-	NP
30-60	Fine Sand	SP-SM	A-3	100	100	100	90-100	5-10	-	NP

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY		EROSION		WIND EROD. GROUP
						STEEL	CONCRETE	K	T	
0-24	10 - >20	0.03 - 0.05	5.1-5.5	-	Low	High	High	.17	5	2
24-30	0.8 - 2.5	0.10 - 0.15	5.1-5.5	-	Low	High	High	.20		
30-60	10 - >20	0.03 - 0.05	5.1-5.5	-	Low	High	High	.17		

FLOODING			HIGH WATER TABLE			CEMENTED PAN		BEDROCK		SUBSIDENCE		HYD GRP
FREQUENCY	DURATION	MONTHS	DEPTH (FT)	KIND	MONTHS	DEPTH (IN)	HARDNESS	DEPTH (IN)	HARDNESS	INIT. (IN)	TOTAL (IN)	
None			0-1	apparent	Jul-Sep	-		>72		-		A/D

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Medium (66)	Severe - Wetness, Percs slowly	Water Control, mounding
SANITARY LANDFILL (TRENCH)	Low (35)	Severe - Wetness, Loose sand, seepage	Water Control, sealing or lining, surface stabilization
DWELLINGS WITHOUT BASEMENTS	Medium (80)	Severe - wetness	Water Control
LOW COMMERCIAL BUILDINGS	Medium (72)	Severe - Wetness, Soil blowing	Water Control, control soil blowing
LOCAL ROADS AND STREETS	Medium (80)	Severe - Wetness	Water control
SHALLOW EXCAVATIONS	Low (50)	Severe - Cutbank cave-in, wetness	Shorings, water control
ACTIVE PLAY AREAS	Medium (50)	Severe - Wetness, loose sand, soil blowing, slope	Water control, suitable topsoil and other amendments
PASSIVE PLAY AREAS	Medium (70)	Severe - Wetness, loose sand	Water Control, suitable topsoil and other amendments, hard surface
EXCAVATED PONDS AQUIFER FED	Medium (75)	Deep to water, duration of high water table, cutbanks cave-in	Seal bottom of pond, add water during dry periods, stabilize sideslopes
LAWN GRASSES AND ORNAMENTAL PLANTS	Medium (65)	Wetness, low organic matter, low available water capacity	Water Control, good management
IMPROVED PASTURES	Medium (60)	Wetness, low natural fertility	Water Control, good management, subsurface irrigation
WOODLAND	Low Site Index - 70	Moderate - Equipment, seedling Mortality, plant competition	Good management
CITRUS	Low (55)	Wetness, low available water capacity, low natural fertility	Water Control, bedding, good management
SPECIALIZED ROW CROPS	Medium (65)	Wetness, low organic matter, low natural fertility	Water Control, subsurface irrigation, good management

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: Lo

MAP SYMBOL: Lo

SOIL NAME: Leon sand

This is a moderately wet soil, mainly in an area south of Oviedo. The surface layer is gray to black, loose sand about 3 inches thick. The second layer is gray to light-gray, loose sand and is at a depth of 4 to 23 inches. The third layer is black to very dark brown sand and is at a depth of 23 to 27 inches. It ranges from 4 to 12 inches in thickness and is weakly cemented to firm. Below the third layer, at a depth of about 35 inches, is brown, loose sand.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO. 4	10	40	200	LIQUID LIMIT	PLASTICITY INDEX
0-24	Sand	SP, SP-SM	A-3	100	100	100	90-100	2-10	-	NP
24-30	Sand	SP-SM, SM	A-3, A-2-4	100	100	100	90-100	7-15	-	NP
30-60	Sand	SP-SM	A-3	100	100	100	90-100	5-10	-	NP

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY STEEL	CORROSIVITY CONCRETE	EROSION K	EROSION T	WIND EROD. GROUP
0-24	10 - > 20	0.03 - 0.05	5.1-5.5	-	Low	High	High	.17	5	2
24-30	0.8 - 2.5	0.10 - 0.15	5.1-5.5	-	Low	High	High	.20		
30-60	10 - >20	0.03 - 0.05	5.1-5.5	-	Low	High	High	.17		

FLOODING FREQUENCY	FLOODING DURATION	FLOODING MONTHS	HIGH WATER TABLE DEPTH (FT)	HIGH WATER TABLE KIND	HIGH WATER TABLE MONTHS	CEMENTED PAN DEPTH (IN)	CEMENTED PAN HARDNESS	BEDROCK DEPTH (IN)	BEDROCK HARDNESS	SUBSIDENCE INIT. (IN)	SUBSIDENCE TOTAL (IN)	HYD GRP
None			0-1	apparent	Jul-Sep	-		> 72		-		A/D

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Medium (66)	Severe - Wetness, Percolates slowly	Water control, mounding
SANITARY LANDFILL (TRENCH)	Low (35)	Severe - Wetness, Loose sand seepage	Water control, sealing or lining, surface stabilization
DWELLINGS WITHOUT BASEMENTS	Medium (80)	Severe - Wetness	Water Control
LOW COMMERCIAL BUILDINGS	Medium (75)	Severe - Wetness, Soil blowing	Water Control, control soil blowing
LOCAL ROADS AND STREETS	Medium (80)	Severe - Wetness	Water Control
SHALLOW EXCAVATIONS	Low (50)	Severe - Cutbank cave-in, wetness	Shoring, Water Control
ACTIVE PLAY AREAS	Medium (55)	Severe - Wetness, Loose sand, soil blowing	Water Control, Suitable topsoil and other amendments
PASSIVE PLAY AREAS	Medium (70)	Severe - Wetness, loose sand	Water Control, suitable topsoil and other amendments, hard surface
EXCAVATED PONDS AQUIFER FED	Medium (75)	Deep to water, duration of high water table, cutbanks cave-in	Seal bottom of pond, add water during dry periods, stabilize sideslopes
LAWN GRASSES AND ORNAMENTAL PLANTS	Medium (65)	Wetness, Low organic matter, low available water capacity	Water control, good management
IMPROVED PASTURES	Medium (60)	Wetness, low natural fertility	Water control, good management, subsurface irrigation
WOODLAND	Low Site Index - 70	Moderate - Equipment, seedling mortality, plant competition	Good management
CITRUS	Low (55)	Wetness, low available water capacity, low natural fertility	Water Control, bedding, good management
SPECIALIZED ROW CROPS	Medium (65)	Wetness, low organic matter, low natural fertility	Water Control, subsurface irrigation, good management

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: Ma

MAP SYMBOL: Ma

SOIL NAME: Made land

Consists of clayey or sandy material, or both, that has been reworked by soil-moving equipment. Some areas consist of raw geologic material, and some areas contain a large amount of organic matter. The areas have been built up by using soil material that was either brought in by truck or was dredged in. Smoothing or leveling has made them suitable for use as building sites, causeways, recreational areas, or other uses. Made land occurs throughout the county in urban areas or close to urban areas.

Because of the wide range of soil characteristics, most of them unfavorable, this land type is generally not suited to cultivated crops. The areas that have been made from sandy soil material, that have a moderately high content of organic matter, that have been leveled, and that are as much as 30 inches above the highest point reached by the water table can be used for improved pasture or to grow citrus trees and pine trees. The dredged material is likely to be highly washed and is poorly suited to plants. Where the slopes are short and steep, the soil material is erodible and measures for controlling erosion are needed.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO.				LIQUID LIMIT	PLASTICITY INDEX
					4	10	40	200		
Material too variable too estimate soil properties.										

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY		EROSION		WIND EROD. GROUP
						STEEL	CONCRETE	K	T	

FLOODING			HIGH WATER TABLE			CEMENTED PAN		BEDROCK		SUBSIDENCE		HYD GRP
FREQUENCY	DURATION	MONTHS	DEPTH (FT)	KIND	MONTHS	DEPTH (IN)	HARDNESS	DEPTH (IN)	HARDNESS	INIT. (IN)	TOTAL (IN)	

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	On site evaluation needed		
SANITARY LANDFILL (TRENCH)	Not Rated		
DWELLINGS WITHOUT BASEMENTS	On site evaluation needed		
LOW COMMERCIAL BUILDINGS	Not Rated		
LOCAL ROADS AND STREETS	Not Rated		
SHALLOW EXCAVATIONS	Not Rated		
ACTIVE PLAY AREAS	Made land - too variable to evaluate		
PASSIVE PLAY AREAS	Not Rated		
EXCAVATED PONDS AQUIFER FED	Not Rated		
LAWN GRASSES AND ORNAMENTAL PLANTS	Not Rated		
IMPROVED PASTURES	Not Rated		
WOODLAND	Not Rated		
CITRUS	Not Rated		
SPECIALIZED ROW CROPS	Not Rated		

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: Mb

MAP SYMBOL: Mb

SOIL NAME: Manatee fine sand

This soil is in small areas within low hammocks throughout the Celery Delta. It is neutral to mildly alkaline. The surface layer is porous, but the material below the surface layer is less porous.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO. 4	10	40	200	LIQUID LIMIT	PLASTICITY INDEX
0-20	Fine sand	SP-SM	A-3, A-2-4	100	100	100	90-100	7-12	-	NP
20-48	Sandy Clay Loam, Sandy Loan	SC	A-2, A-4, A-6	100	100	100	90-100	25-40	24-36	8-16
48-60	Clay	CH	A-7	100	100	100	90-100	51-80	60-80	38-54

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY STEEL	CORROSIVITY CONCRETE	EROSION K	EROSION T	WIND EROD. GROUP
0-20	5.0 - 10	0.07 - 0.15	6.6-7.8	-	Low	High	Low	.20	5	-
20-48	2.5 - 5.0	0.10 - 0.15	6.6-7.8	-	Moderate	High	Low	.37		
48-60	0.05 - 0.20	0.10 - 0.15	6.6-7.8	-	High	High	Low	.32		

FLOODING			HIGH WATER TABLE			CEMENTED PAN		BEDROCK		SUBSIDENCE		HYD
FREQUENCY	DURATION	MONTHS	DEPTH (FT)	KIND	MONTHS	DEPTH (IN)	HARDNESS	DEPTH (IN)	HARDNESS	INIT. (IN)	TOTAL (IN)	GRP
Common	Brief	Jul-Jan	0-1	apparent	Jun-Apr	-		>72		-		B/D

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Very Low (25)	Severe - Wetness, Floods, percolates slowly	Water control, mounding
SANITARY LANDFILL (TRENCH)	Low (35)	Severe - Wetness, Floods	Water control, control flood waters
DWELLINGS WITHOUT BASEMENTS	Low (37)	Severe - Floods wetness, low strength shrink-swell	Water control, increase structural strength in foundation
LOW COMMERCIAL BUILDINGS	Very Low (42)	Severe - Wetness, floods, low strength shrink-swell, erodes easily	Water control, increase structural strength in foundation, erosion control
LOCAL ROADS AND STREETS	Low (37)	Severe - Wetness, flood, low strength shrink-swell	Water control, control flood waters. Remove and replace with suitable material
SHALLOW EXCAVATIONS	Low (50)	Severe - Cutbank cave-in, wetness	Shoring, water control
ACTIVE PLAY AREAS	Low (35)	Severe - Sandy	Water control
PASSIVE PLAY AREAS	Medium (60)	Severe - Wetness, Standing water	Water control, construct above ground walk
EXCAVATED PONDS AQUIFER FED	High (85)	Slow refill, cutbanks cave-in	Stabilize sideslopes, no applicable practices
LAWN GRASSES AND ORNAMENTAL PLANTS	High (75)	Wetness, floods	Water Control, control flood waters, use calcium tolerant ornaments or reduce PH
IMPROVED PASTURES	Very High (90)	Wetness	Water Control
WOODLAND	High Site Index - 90	Moderate - plant competition Severe - Equipment, seedling mortality	Adequate surface drainage, plant on beds
CITRUS	Medium (60)	Wetness, Floods	Water control, control flood water, bedding
SPECIALIZED ROW CROPS	High (85)	Wetness, Floods	Water control, subsurface irrigation, control flood waters

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: Mc

MAP SYMBOL: Mc

SOIL NAME: Manatee loamy fine sand

This is a wet, gray, mottled soil in depressions. Its surface layer is black loamy fine sand about 12 inches thick. Below the surface layer is dark-gray sandy clay loam that is mottled with brown and yellow and is about 20 inches thick. The subsoil is gray or dark-gray, calcareous clay mottled with brown and white. This soil is more than 42 inches thick.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO.				LIQUID LIMIT	PLASTICITY INDEX
					4	10	40	200		
0-12	Loamy fine sand	SP-SM, SM	A-2-4	100	100	100	90-100	11-20	-	NP
12-32	Sandy Clay Loam	SC	A-2-6, A-6	100	100	100	90-100	28-40	30-40	11-16
32-48	Clay	CH	A-7	100	100	100	90-100	51-80	60-80	38-54

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY		EROSION		WIND EROD. GROUP
						STEEL	CONCRETE	K	T	
0-12	5.0 - 10	0.10 - 0.15	6.6-7.8	-	Low	High	Low	.20	5	-
12-32	2.5 - 5.0	0.10 - 0.15	6.6-7.8	-	Moderate	High	Low	.37		
32-48	0.05 - 0.20	0.10 - 0.15	6.6-7.8	-	High	High	Low	.32		

FLOODING			HIGH WATER TABLE			CEMENTED PAN		BEDROCK		SUBSIDENCE		HYD GRP
FREQUENCY	DURATION	MONTHS	DEPTH (FT)	KIND	MONTHS	DEPTH (IN)	HARDNESS	DEPTH (IN)	HARDNESS	INIT. (IN)	TOTAL (IN)	
Common	Brief		0-1	apparent	Jun-Apr	-		>72		-		B/D

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Very Low (25)	Severe - Wetness, Floods Percs slowly	Water Control, mounding
SANITARY LANDFILL (TRENCH)	Low (40)	Severe - Wetness, Floods	Water Control, control flood waters
DWELLINGS WITHOUT BASEMENTS	Low (37)	Severe - Floods Wetness, low strength shrink-swell	Water control, increase structural strength in foundation
LOW COMMERCIAL BUILDINGS	Very Low (42)	Severe - Wetness, floods, low strength shrink-swell erosion	Water Control, Increase structural strength in foundations, erosion control
LOCAL ROADS AND STREETS	Low (37)	Severe - Wetness, floods, low strength shrink-swell	Water Control, Control flood waters, Remove & replace with suitable material
SHALLOW EXCAVATIONS	Low (45)	Severe - cutbanks cave-in, wetness	Shoring, water control
ACTIVE PLAY AREAS	Low (35)	Severe - Sandy	Water control
PASSIVE PLAY AREAS	Medium (60)	Severe - wetness, standing water	Water Control, construct above ground walks
EXCAVATED PONDS AQUIFER FED	High (85)	Slow refill, cutbanks cave-in	Stabilize sideslopes, no applicable practices
LAWN GRASSES AND ORNAMENTAL PLANTS	High (75)	Wetness, Floods	Water Control, control flood waters, use calcium tolerant oramentals or reduce pH
IMPROVED PASTURES	Very High (90)	Wetness	Water Control
WOODLAND	High Site Index - 90	Moderate - Plant Competition Severe - Equipment, seedling mortality	Adequate surface drainage, plant on beds
CITRUS	Medium (60)	Wetness, Floods	Water control, control flood water, bedding.
SPECIALIZED ROW CROPS	High (85)	Wetness, Floods	Water control, control flood waters, subsurface irrigation.

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: Md

MAP SYMBOL: Md

SOIL NAME: Manatee-Delray complex, overflow

About 60 percent of this complex consists of very poorly drained Manatee soils, and about 40 percent of very poorly drained Delray soils. These soils are on the flood plain of the St. Johns River; they are so intricately mixed that it was impractical to separate them on the map. The texture of their surface layer is fine sand or mucky fine sand. The Manatee soils are shallower over loamy material than the Delray soils; loamy material is at a depth of less than 30 inches in the Manatee soils but is at a depth of more than 30 inches in the Delray soils. A representative profile of the Delray soils is described under the Delray series.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO.				LIQUID LIMIT	PLASTICITY INDEX
					4	10	40	200		
For estimated soil properties not shown, see individual soils of this complex.										

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY		EROSION		WIND EROD. GROUP
						STEEL	CONCRETE	K	T	

FLOODING			HIGH WATER TABLE			CEMENTED PAN		BEDROCK		SUBSIDENCE		HYD GRP
FREQUENCY	DURATION	MONTHS	DEPTH (FT)	KIND	MONTHS	DEPTH (IN)	HARDNESS	DEPTH (IN)	HARDNESS	INIT. (IN)	TOTAL (IN)	
Common	Long	Jun-Apr	0-1	Apparent	Jun-Apr	-		>72		-		B/D

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Very Low (25)	Severe - Wetness, Floods, percolates slowly	Water Control, Control flood waters, mounding
SANITARY LANDFILL (TRENCH)	Low (35)	Severe - Wetness, Floods	Water Control, control flood waters
DWELLINGS WITHOUT BASEMENTS	Low (37)	Severe - Floods, Wetness, low strength Shrink-swell	Water control - control flood waters, increase structural strength in foundation
LOW COMMERCIAL BUILDINGS	Very Low (42)	Severe - Wetness, floods, low strength Shrink-swell erosion	Water Control, protect from flooding, increase structural strength in foundation, erosion control
LOCAL ROADS AND STREETS	Low (37)	Severe - Wetness, floods, low strength shrink-swell	Water control, control flood waters, replace with suitable material
SHALLOW EXCAVATIONS	Low (40)	Severe - Cutbanks cave-in, wetness, Floods	Shoring, water control, control flood water
ACTIVE PLAY AREAS	Low (35)	Wetness, floods, percolates slowly, sandy	Water Control, fill area or control flood water
PASSIVE PLAY AREAS	Medium (60)	Severe - Wetness, Floods	Water Control, Restrict use during flooding, construct above ground walk
EXCAVATED PONDS AQUIFER FED	High (85)	Slow refill, cutbanks cave-in	Stabilize sideslopes, no applicable practices
LAWN GRASSES AND ORNAMENTAL PLANTS	High (75)	Wetness, Floods	Water control, control flood waters, use calcium tolerant ornamentals or reduce pH
IMPROVED PASTURES	High (75)	Wetness, Floods	Water Control, control flood waters
WOODLAND	High Site Index - 90	Moderate - Plant Competition Severe - Equipment seedling mortality	Adequate surface drainage, plant on beds
CITRUS	Medium (60)	Wetness, Floods	Water Control, Control flood waters, bedding
SPECIALIZED ROW CROPS	High (85)	Wetness, Floods	Water control, subsurface irrigation control flood waters

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: Ok

MAP SYMBOL: Ok

SOIL NAME: Okeechobee Muck

This soil is wet and is covered by water most of the year. The surface layer is black muck about 30 inches thick. Below the surface layer is very dark grayish-brown fibrous or felty peat about 30 inches or more thick. In places dark grayish-brown sand or fine sand is at a depth of more than 36 inches.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO.				LIQUID LIMIT	PLASTICITY INDEX
					4	10	40	200		
0-36	Muck	PT								
36-60	Fine Sand	SP-SM	A-3, A-2-4	100	100	100	90-100	5-12	-	NP

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY		EROSION		WIND EROD. GROUP
						STEEL	CONCRETE	K	T	
0-36	5.0 - 10	0.20 - 0.35	5.6-6.5	-	Low	High	Low	-	-	*2
36-60	5.0 - 10	0.03 - 0.05	6.1-7.3	-	Low	High	Low			

* applicable if surface is bare and soil dry.

FLOODING			HIGH WATER TABLE			CEMENTED PAN		BEDROCK		SUBSIDENCE		HYD
FREQUENCY	DURATION	MONTHS	DEPTH (FT)	KIND	MONTHS	DEPTH (IN)	HARDNESS	DEPTH (IN)	HARDNESS	INIT. (IN)	TOTAL (IN)	GRP
Standing water	>6 months		+1.5-0	apparent	Jul-Mar	-		>72		-	30	A/D

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Very Low (35)	Severe - Wetness, Floods, Wetness, Subsidence	Water Control, mounding, remove and replace with suitable material
SANITARY LANDFILL (TRENCH)	Very Low (10)	Severe - Wetness, Floods, slope	Water control - control flood waters, sealing or lining
DWELLINGS WITHOUT BASEMENTS	Very Low (25)	Severe - Floods, wetness, low strength subsidence	Water control, remove and replace with suitable material
LOW COMMERCIAL BUILDINGS	Very Low (40)	Severe - Wetness, standing water, low strength, subsides, soil blowing	Remove and replace with suitable material, water control
LOCAL ROADS AND STREETS	Very Low (35)	Severe - Low strength, Wetness, Floods Subsides	Remove and replace with suitable material, water control, control flood water
SHALLOW EXCAVATIONS	Low (50)	Severe - Wetness, low strength	Water control, special equipment
ACTIVE PLAY AREAS	Very Low (30)	Severe - Wetness Floods, excess humus, soil blowing (when dry & without vegetative cover)	Water control, remove and replace with suitable material. Fill area or control flood water.
PASSIVE PLAY AREAS	Very Low (30)	Severe - Wetness, standing water, excess humus,	Water control, construct above ground walks
EXCAVATED PONDS AQUIFER FED	Very High (100)	None	None needed
LAWN GRASSES AND ORNAMENTAL PLANTS	Medium (65)	Wetness, Floods, Soil blowing	Water control, control flood water
IMPROVED PASTURES	High (80)	Wetness	Water Control
WOODLAND	Not suited for commercial woodland production.		
CITRUS	Unsuited		
SPECIALIZED ROW CROPS	High (85)	Wetness, Floods	Water Control, Control flood water, Subsurface irrigation

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: On

MAP SYMBOL: On

SOIL NAME: Ona fine sand

This is the only Ona soil mapped in this county. It is a somewhat poorly drained, deep, very strongly acid fine sand in small nearly level areas in the eastern and central parts of the county. In most places the surface layer is black fine sand about 6 inches thick. The second layer is generally dark reddish-brown fine sand about 12 inches thick, and it is underlain by light yellowish-brown fine sand. This soil is more than 42 inches thick.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO.				LIQUID LIMIT	PLASTICITY INDEX
					4	10	40	200		
0-18	Fine sand	SP-SM, SM	A-3, A-2-4	100	100	100	90-100	7-15	-	NP
18-44	Fine sand	SP-SM	A-3	100	100	100	90-100	5-10	-	NP

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY		EROSION		WIND EROD. GROUP
						STEEL	CONCRETE	K	T	
0-18	0.8 - 2.5	0.10 - 0.15	4.5-5.0	-	Low	High	High	.20	5	2
18-44	10 - >20	0.03 - 0.05	4.5-5.0	-	Low	High	High	.15		

FLOODING			HIGH WATER TABLE			CEMENTED PAN		BEDROCK		SUBSIDENCE		HYD GRP
FREQUENCY	DURATION	MONTHS	DEPTH (FT)	KIND	MONTHS	DEPTH (IN)	HARDNESS	DEPTH (IN)	HARDNESS	INIT. (IN)	TOTAL (IN)	
None			0-1	apparent	Jul-Sep	-		> 72		-		A/D

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Medium (66)	Severe - Wetness, Percolates slowly	Water Control, Mounding
SANITARY LANDFILL (TRENCH)	Low (35)	Severe - Wetness, seepage	Water Control, Sealing or lining, Surface stabilization
DWELLINGS WITHOUT BASEMENTS	Medium (80)	Severe - Wetness	Water Control
LOW COMMERCIAL BUILDINGS	Medium (75)	Severe - Wetness, soil blowing	Water control, control soil blowing
LOCAL ROADS AND STREETS	Medium (80)	Severe - Wetness	Water Control
SHALLOW EXCAVATIONS	Low (50)	Severe - Cutbanks cave-in, wetness	Shoring, water control
ACTIVE PLAY AREAS	Medium (65)	Severe - Wetness, sandy	Water Control
PASSIVE PLAY AREAS	Medium (70)	Severe - Wetness, Sandy	Water control, suitable topsoil and other amendments, hard surface
EXCAVATED PONDS AQUIFER FED	Medium (75)	Deep to water, duration of high water table, cutbank cave-in	Seal bottom of pond, add water during dry periods, stabilize sideslopes
LAWN GRASSES AND ORNAMENTAL PLANTS	High (75)	Wetness, Low available water capacity	Water Control, good management
IMPROVED PASTURES	High (70)	Wetness, Low natural fertility	Water Control, good management, subsurface irrigation
WOODLAND	Medium Site Index - 80	Moderate - Equipment, seedling mortality, plant competition	Good management
CITRUS	Low (55)	Wetness, low available water capacity Low natural fertility	Water Control, Bedding, Good Management
SPECIALIZED ROW CROPS	High (75)	Wetness, low natural fertility	Water Control, subsurface irrigation

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: OrB

MAP SYMBOL: OrB

SOIL NAME: Orlando fine sand, 0 to 5 percent slopes

This is a deep, well drained or moderately well drained soil on low ridges. The surface layer is generally very dark gray, loose fine sand about 20 inches thick, but it is dark grayish brown or very dark grayish brown in places. The second layer is very pale brown to light yellowish-brown, loose-fine sand. Below the second layer is reddish-brown, very friable fine sand. The total thickness of the fine sand is more than 42 inches.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO.				LIQUID LIMIT	PLASTICITY INDEX
					4	10	40	200		
0-20	Fine sand	SP-SM, SM	A-3, A-2-4	100	100	100	90-100	7-15	-	NP
20-54	Fine sand	SP-SM	A-3	100	100	100	90-100	5-10	-	NP
54-70	Fine sand	SP-SM, SM	A-3, A-2-4	100	100	100	90-100	7-15	-	NP

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY		EROSION		WIND EROD. GROUP
						STEEL	CONCRETE	K	T	
0-20	10 - >20	0.10 - 0.15	4.5-5.5	-	Low	Low	High	.17	5	2
20-54	10 - >20	0.03 - 0.07	4.5-5.5	-	Low	Moderate	High	.17		
54-70	5.0 - 10	0.10 - 0.15	4.5-5.5	-	Low	Moderate	High	.20		

FLOODING			HIGH WATER TABLE			CEMENTED PAN		BEDROCK		SUBSIDENCE		HYD GRP
FREQUENCY	DURATION	MONTHS	DEPTH (FT)	KIND	MONTHS	DEPTH (IN)	HARDNESS	DEPTH (IN)	HARDNESS	INIT. (IN)	TOTAL (IN)	
None			1-2.5	apparent	Aug-Sep	-		> 72		-		A

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	High (81)	Moderate - Wetness	Water control
SANITARY LANDFILL (TRENCH)	Medium (45)	Severe - Wetness, Loose sand	Water control, hard surface, surface stabilization
DWELLINGS WITHOUT BASEMENTS	High (88)	Moderate - Wetness	Water control
LOW COMMERCIAL BUILDINGS	Medium (81)	Moderate - soil blowing, wetness	Control soil blowing, water control
LOCAL ROADS AND STREETS	High (90)	Moderate - Wetness	Water control
SHALLOW EXCAVATIONS	Medium (60)	Severe - Cutbank cave-in, wetness	Shoring, water control
ACTIVE PLAY AREAS	High (75)	Severe - Loose sand, soil blowing	Suitable topsoil and other amendments
PASSIVE PLAY AREAS	High (85)	Severe - Loose sand	Suitable topsoil and other amendments, hard surface
EXCAVATED PONDS AQUIFER FED	Low (30)	Deep to water, cutbanks cave-in	Seal bottom of pond, add water during dry periods, stabilize sideslopes
LAWN GRASSES AND ORNAMENTAL PLANTS	High (80)	Low available water capacity	Good management
IMPROVED PASTURES	High (75)	Low natural fertility	Good management
WOODLAND	Medium Site Index - 80	Moderate - Equipment, seedling mortality, plant competition	Good management
CITRUS	Very High (90)	Low natural fertility	Good management
SPECIALIZED ROW CROPS	Medium (65)	Low natural fertility	Good management, subsurface irrigation

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: OrC

MAP SYMBOL: OrC

SOIL NAME: Orlando fine sand, 5 to 8 percent slopes

This is a well drained or moderately well drained, deep soil on low, sloping ridges. The surface layer is very dark gray, very friable fine sand about 18 inches thick. The second layer is pale-brown to light yellowish-brown, loose fine sand. Below the second layer is reddish-brown, very friable fine sand. The total thickness of the fine sand is more than 42 inches.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO. 4	10	40	200	LIQUID LIMIT	PLASTICITY INDEX
0-18	Fine sand	SP - SM, SM	A-3, A-2-4	100	100	100	90-100	7-15	-	NP
18-52	Fine sand	SP - SM	A-3	100	100	100	90-100	5-10	-	NP
52-70	Fine sand	SP - SM, SM	A-3, A-2-4	100	100	100	90-100	7-15	-	NP

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY STEEL	CORROSIVITY CONCRETE	EROSION K	EROSION T	WIND EROD. GROUP
0-18	10 - >20	0.10 - 0.15	4.5-5.5	-	Low	Low	High	.17	5	2
18-52	10 - >20	0.03 - 0.07	4.5-5.5	-	Low	Moderate	High	.17		
52-70	5.0 - 10	0.10 - 0.15	4.5-5.5	-	Low	Moderate	High	.20		

FLOODING			HIGH WATER TABLE			CEMENTED PAN		BEDROCK		SUBSIDENCE		HYD GRP
FREQUENCY	DURATION	MONTHS	DEPTH (FT)	KIND	MONTHS	DEPTH (IN)	HARDNESS	DEPTH (IN)	HARDNESS	INIT. (IN)	TOTAL (IN)	
NONE			1-2.5	APPARENT	Aug-Sep	-		>72		-		A

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	High (81)	Moderate - Wetness	Water Control
SANITARY LANDFILL (TRENCH)	Low (40)	Severe - Wetness, loose sand, low strength	Water Control, hard surface, surface stabilization, sealing or lining
DWELLINGS WITHOUT BASEMENTS	High (88)	Moderate - Wetness	Water Control
LOW COMMERCIAL BUILDINGS	Medium (75)	Moderate - soil blowing, wetness slope	Control soil blowing, land forming
LOCAL ROADS AND STREETS	High (90)	Moderate - Wetness	Water Control
SHALLOW EXCAVATIONS	Medium (55)	Severe - Cutbanks cave-in, Wetness	Shoring, Water Control
ACTIVE PLAY AREAS	Medium (70)	Severe - loose sand, soil blowing slope	Suitable topsoil and other amendments, land smoothing
PASSIVE PLAY AREAS	High (85)	Severe - loose sand	Suitable topsoil and other amendments, hard surface
EXCAVATED PONDS AQUIFER FED	Low (30)	Deep to water, cutbanks cave-in	Seal bottom of pond, add water during dry periods, stablilze sideslopes
LAWN GRASSES AND ORNAMENTAL PLANTS	High (75)	Low available water capacity, slope	Good Management, erosion control
IMPROVED PASTURES	High (75)	Low natural fertility	Good Management
WOODLAND	Medium Site Index - 80	Moderate - equipment, seedling, mortality, plant competition	Good Management
CITRUS	Very high (85)	Low natural fertility, slopes	Good Management
SPECIALIZED ROW CROPS	Medium (60)	Low natural fertility, slopes	Good Management, subsurface irrigation, erosion control

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: Pf

MAP SYMBOL: Pf

SOIL NAME: Plummer fine sand

This is a deep, poorly drained soil on low, broad flats. The surface layer is black fine sand about 4 inches thick. Below the surface layer is light-gray to grayish-brown, loose fine sand that has medium, faint streaks of light brownish gray and very dark gray. This soil is more than 42 inches thick.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO. 4	10	40	200	LIQUID LIMIT	PLASTICITY INDEX
0-60	Fine Sand	SP, SP-SM	A-3	100	100	100	90-100	3-10	-	NP
60-76	Sandy Clay Loam	SC	A-2-6, A-6	100	100	100	90-100	25-40	28-40	11-20

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY STEEL	CORROSIVITY CONCRETE	EROSION K	EROSION T	WIND EROD. GROUP
0-60	5.0 - 10	0.03 - 0.07	4.5-5.5	-	Low	High	High	.17	5	-
60-76	2.5 - 5.0	0.10 - 0.15	4.5-5.5	-	Moderate	High	High	.28		

FLOODING FREQUENCY	FLOODING DURATION	FLOODING MONTHS	HIGH WATER TABLE DEPTH (FT)	HIGH WATER TABLE KIND	HIGH WATER TABLE MONTHS	CEMENTED PAN DEPTH (IN)	CEMENTED PAN HARDNESS	BEDROCK DEPTH (IN)	BEDROCK HARDNESS	SUBSIDENCE INIT. (IN)	SUBSIDENCE TOTAL (IN)	HYD GRP
Common	Long	Jul-Feb	0-1	apparent	Jun-Mar	-		>72		-		A/D

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Low (50)	Severe - Wetness, Floods	Water Control, mounding
SANITARY LANDFILL (TRENCH)	Low (35)	Severe - Wetness, Floods	Water Control, control flood water
DWELLINGS WITHOUT BASEMENTS	Low (55)	Severe - Floods, Wetness	Water control
LOW COMMERCIAL BUILDINGS	Medium (70)	Severe - Wetness, Standing water	Water Control
LOCAL ROADS AND STREETS	Medium (60)	Severe - Wetness, Floods	Water control, control flood water
SHALLOW EXCAVATIONS	Low (45)	Severe - cutbank cave-in, wetness	Shoring, water control
ACTIVE PLAY AREAS	Low (45)	Severe - Wetness, sandy	Water control
PASSIVE PLAY AREAS	Medium (60)	Severe - wetness, standing water	Water Control, construct above ground walks
EXCAVATED PONDS AQUIFER FED	Very High (95)	Cutbanks cave-in	Stabilize sideslopes
LAWN GRASSES AND ORNAMENTAL PLANTS	Low (55)	Wetness, Floods, low available water capacity, low organic matter	Water control, control flood water, good management
IMPROVED PASTURES	Medium (60)	Wetness, low natural fertility	Water control, good management subsurface irrigation
WOODLAND	High Site Index - 90	Moderate - Plant competition Severe - Equipment, Seedling mortality	Adequate surface drainage, plant on beds
CITRUS	Very Low (40)	Wetness - Floods, low natural fertility, low available water capacity	Water Control, control flood water, bedding.
SPECIALIZED ROW CROPS	Low (50)	Wetness, floods, low organic matter, low natural fertility	Water control, subsurface irrigation, control flood water, good management

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: Ph

MAP SYMBOL: Ph

SOIL NAME: Plummer fine sand, high

This is a deep, poorly drained, nearly level soil in broad areas that are slightly higher than those occupied by Plummer fine sand. The surface layer is fine sand. It ranges from gray to very dark gray in color and from 3 to 8 inches in thickness. Below the surface layer is a layer of fine sand that ranges from very pale brown to white in color and is more than 42 inches thick.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO. 4	10	40	200	LIQUID LIMIT	PLASTICITY INDEX
0-60	Fine Sand	SP, SP-SM	A-3	100	100	100	90-100	3-10	-	NP
60-76	Sandy Clay Loam	SC	A-2-6, A-6	100	100	100	90-100	25-40	28-40	11-20

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY STEEL	CORROSIVITY CONCRETE	EROSION K	EROSION T	WIND EROD. GROUP
0-60	5.0 - 10	0.03 - 0.07	4.5-5.5	-	Low	High	High	.17	5	-
60-76	2.5 - 5.0	0.10 - 0.15	4.5-5.5	-	Moderate	High	High	.28		

FLOODING FREQUENCY	FLOODING DURATION	FLOODING MONTHS	HIGH WATER TABLE DEPTH (FT)	HIGH WATER TABLE KIND	HIGH WATER TABLE MONTHS	CEMENTED PAN DEPTH (IN)	CEMENTED PAN HARDNESS	BEDROCK DEPTH (IN)	BEDROCK HARDNESS	SUBSIDENCE INIT. (IN)	SUBSIDENCE TOTAL (IN)	HYD GRP
None			0-1	apparent	Jun-Mar	-		>72		-		A/D

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Medium (75)	Severe - Wetness	Water control, mounding
SANITARY LANDFILL (TRENCH)	Medium (60)	Severe - Wetness, sandy	Water control, hard surface, surface stabilization
DWELLINGS WITHOUT BASEMENTS	Medium (80)	Severe - Wetness	Water control
LOW COMMERCIAL BUILDINGS	High (85)	Severe - Wetness	Water control
LOCAL ROADS AND STREETS	Medium (80)	Severe - Wetness	Water Control
SHALLOW EXCAVATIONS	Low (50)	Severe - Cutbank cave-in, wetness	Shoring, water control
ACTIVE PLAY AREAS	Low (45)	Severe - wetness, sandy	Water control
PASSIVE PLAY AREAS	High (80)	Severe - Wetness, sandy	Water control, suitable topsoil and other amendments
EXCAVATED PONDS AQUIFER FED	High (85)	Cutbanks cave-in	Stabilize sideslopes
LAWN GRASSES AND ORNAMENTAL PLANTS	Medium (65)	Wetness, low organic matter, low available water capacity	Water control, good management
IMPROVED PASTURES	Medium (60)	Wetness, low natural fertility	Water control, good management, subsurface irrigation
WOODLAND	High Site Index - 90	Severe - Equipment, seedling mortality, plant competition	Adequate surface drainage, plant on beds
CITRUS	Low (55)	Wetness, low natural fertility low available water capacity	Water control, bedding, good management
SPECIALIZED ROW CROPS	Medium (65)	Wetness, floods, low organic matter low natural fertility	Water control, subsurface irrigation, control flood water, good management

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: PmB

MAP SYMBOL: PmB

SOIL NAME: Pomello fine sand, 0 to 5 percent slopes

This is the only Pomello soil mapped in the county. It is slightly wet and is very strongly acid. The surface layer is light-gray fine sand about 4 inches thick and the second layer is white fine sand about 36 inches thick. The third layer is dark reddish-brown fine sand that is stained with organic matter and is about 10 inches thick. The fourth layer is very pale brown fine sand more than 30 inches thick. The total thickness of the profile is more than 12 inches.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO.				LIQUID LIMIT	PLASTICITY INDEX
					4	10	40	200		
0-40	Fine sand	SP	A-3	100	100	100	90-100	1-4	-	NP
40-50	Fine sand	SP - SM	A-3, A-2-4	100	100	100	90-100	5-12	-	NP
50-72	Fine sand	SP, SP - SM	A-3	100	100	100	90-100	2-7	-	NP

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY		EROSION		WIND EROD. GROUP
						STEEL	CONCRETE	K	T	
0-40	>20	0.02 - 0.05	4.5-5.0	-	Low	High	High	.17	5	1
40-50	2.5 - 5.0	0.05 - 0.10	4.5-5.0	-	Low	High	High	.20		
50-72	>20	0.03 - 0.05	4.5-5.0	-	Low	High	High	.17		

FLOODING			HIGH WATER TABLE			CEMENTED PAN		BEDROCK		SUBSIDENCE		HYD GRP
FREQUENCY	DURATION	MONTHS	DEPTH (FT)	KIND	MONTHS	DEPTH (IN)	HARDNESS	DEPTH (IN)	HARDNESS	INIT. (IN)	TOTAL (IN)	
NONE			1-2.5	APPARENT	Jul-Sep	-		>72		-		A

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	High (81)	Moderate - Wetness	Water Control, mounding
SANITARY LANDFILL (TRENCH)	Medium (45)	Severe - Wetness, loose sand	Water Control, hard surface, surface stabilization
DWELLINGS WITHOUT BASEMENTS	High (88)	Slight	None needed
LOW COMMERCIAL BUILDINGS	Medium (81)	Moderate - soil blowing, Wetness	Control soil blowing, Water Control
LOCAL ROADS AND STREETS	High (90)	Moderate - Wetness	Water Control
SHALLOW EXCAVATIONS	Medium (60)	Severe - Cutbanks cave-in, Wetness	Shoring, Water Control
ACTIVE PLAY AREAS	High (75)	Severe - loose sand, soil blowing slope	Suitable topsoil and other amendments
PASSIVE PLAY AREAS	High (85)	Severe - loose sand	Suitable topsoil and other amendments, hard surface
EXCAVATED PONDS AQUIFER FED	Low (30)	Deep to water, cutbanks cave-in	Seal bottom of pond, add water during dry periods, stabilize sideslopes
LAWN GRASSES AND ORNAMENTAL PLANTS	Low (55)	Very low available water capacity, very low organic matter, Wetness	Good Management, Water Control
IMPROVED PASTURES	Low (50)	Very low available water capacity very low organic matter, low natural fertility	Good Management
WOODLAND	Low Site Index - 70	Severe - seedling mortality - moderate - equipment, plant competition	Good Management
CITRUS	Medium (60)	Very low available water capacity very low natural fertility	Good Management
SPECIALIZED ROW CROPS	Low (45)	Very low organic matter, very low natural fertility	Subsurface irrigation, Good Management

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: Pn

MAP SYMBOL: Pn

SOIL NAME: Pompano fine sand

This is a deep, poorly drained soil on low, broad flats. The surface layer is black fine sand about 5 inches thick. Below the surface layer is light-gray to gray, loose fine sand with a few fine streaks of dark brown and dark gray. This soil is more than 42 inches thick.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO. 4	10	40	200	LIQUID LIMIT	PLASTICITY INDEX
0-5	Fine Sand	SP, SP-SM	A-3	100	100	100	90-100	3-10	-	NP
5-52	Fine Sand	SP, SP-SM	A-3	100	100	100	90-100	3-10	-	NP

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY STEEL	CORROSIVITY CONCRETE	EROSION K	EROSION T	WIND EROD. GROUP
0-5	5.0 - 10	0.08 - 0.12	6.1-7.3	-	Low	High	Low	.15	5	-
5-52	5.0 - 10	0.03 - 0.07	6.1-7.3	-	Low	High	Low	.15		

FLOODING FREQUENCY	FLOODING DURATION	FLOODING MONTHS	HIGH WATER TABLE DEPTH (FT)	HIGH WATER TABLE KIND	HIGH WATER TABLE MONTHS	CEMENTED PAN DEPTH (IN)	CEMENTED PAN HARDNESS	BEDROCK DEPTH (IN)	BEDROCK HARDNESS	SUBSIDENCE INIT. (IN)	SUBSIDENCE TOTAL (IN)	HYD GRP
common	brief	Jul-Feb	0-1	apparent	Jun-Mar	-		>72		-		A/D

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Low (50)	Severe - Wetness, Floods	Water Control, mounding, control flood waters
SANITARY LANDFILL (TRENCH)	Low (35)	Severe - Wetness, Floods	Water Control, sealing or lining
DWELLINGS WITHOUT BASEMENTS	Low (49)	Severe - Floods, Wetness	Water Control, control flood water
LOW COMMERCIAL BUILDINGS	Low (64)	Severe - Wetness, Floods, Shrink-swell, low strength	Water control, protect from flooding, increase structural strength in foundation
LOCAL ROADS AND STREETS	Low (50)	Severe - Wetness, Floods, Low Strength	Water Control, control flood water, remove & replace with suitable material
SHALLOW EXCAVATIONS	Low (45)	Severe - Cutbanks cave-in, wetness	Shoring, water control
ACTIVE PLAY AREAS	Low (45)	Severe - Wetness, Floods	Water control, fill area or control flood water
PASSIVE PLAY AREAS	Medium (70)	Severe - Wetness, Floods	Water Control, restrict use during flooding
EXCAVATED PONDS AQUIFER FED	High (85)	Cutbanks cave-in	Stabilize sideslopes
LAWN GRASSES AND ORNAMENTAL PLANTS	Medium (65)	Wetness, floods, low available water capacity	Water capacity, control flood waters
IMPROVED PASTURES	High (70)	Wetness, low natural fertility	Water Control, good management, subsurface irrigation
WOODLAND	Low Site-Index - 70	Severe - Equipment, seedling mortality, plant competition	Adequate surface drainage, plant on beds
CITRUS	Low (55)	Wetness, Floods, low natural fertility	Water control, control flood water, Bedding, good management
SPECIALIZED ROW CROPS	Medium (60)	Wetness, Floods, low natural fertility	Water control, subsurface irrigation, control flood waters, Good Management

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: Po

MAP SYMBOL: Po

SOIL NAME: Pompano fine sand, moderately shallow

This is a deep, poorly drained soil on low, broad flats. The surface layer is black fine sand about 5 inches thick. Below the surface layer is light-gray to gray, loose fine sand about 18 inches thick. In places a layer of gray fine sandy loam of fine sandy clay loam that contains mottles of light gray and yellowish brown underlies the second layer.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO. 4	10	40	200	LIQUID LIMIT	PLASTICITY INDEX
0-5	Fine Sand	SP, SP-SM	A-3	100	100	100	90-100	3-10	-	NP
5-18	Fine Sand	SP, SP-SM	A-3	100	100	100	90-100	3-10	-	NP
18-48	Sandy Clay Loam	SC	A-2-6, A-6	100	100	100	90-100	25-40	28-40	11-20
48-60	Sandy Loam	SM-SC, SC	A-2-4, A-4	100	100	100	90-100	20-30	20-30	4-10

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY STEEL	CONCRETE	EROSION K	T	WIND EROD. GROUP
0-5	5.0 - 10	0.08 - 0.12	6.1-7.3	-	Low	High	Low	.20	5	-
5-18	5.0 - 10	0.08 - 0.12	6.1-7.3	-	Low	High	Low	.20		
18-48	2.5 - 5.0	0.10 - 0.15	6.1-7.3	-	Moderate	High	Low	.28		
48-60	2.5 - 5.0	0.10 - 0.15	6.1-7.3	-	Low	High	Low	.24		

FLOODING			HIGH WATER TABLE			CEMENTED PAN		BEDROCK		SUBSIDENCE		HYD
FREQUENCY	DURATION	MONTHS	DEPTH (FT)	KIND	MONTHS	DEPTH (IN)	HARDNESS	DEPTH (IN)	HARDNESS	INIT. (IN)	TOTAL (IN)	GRP
Common	Brief	Jul-Feb	0-1	apparent	Jun-Mar	-		> 72		-		A/D

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Low (50)	Severe - Wetness, floods	Water control, mounding, control flood waters
SANITARY LANDFILL (TRENCH)	Low (35)	Severe - Wetness, floods	Water control, sealing or lining
DWELLINGS WITHOUT BASEMENTS	Low (49)	Severe - Floods, wetness	Water control, control flood water
LOW COMMERCIAL BUILDINGS	Low (64)	Severe - Wetness, floods, shrink-swell, low strength	Water control, protect from flooding, increase structural strength in foundation
LOCAL ROADS AND STREETS	Low (50)	Severe - Wetness, floods, low strength	Water control, control flood water, remove & replace with suitable material
SHALLOW EXCAVATIONS	Low (45)	Severe - Cutbanks cave-in, wetness	Shoring, water control
ACTIVE PLAY AREAS	Low (45)	Severe - Wetness, floods, sandy	Water control, fill area or control flood water
PASSIVE PLAY AREAS	Medium (70)	Severe - Wetness, floods	Water control, restrict use during flooding
EXCAVATED PONDS AQUIFER FED	High (85)	Cutbanks cave-in	Stabilize sideslopes
LAWN GRASSES AND ORNAMENTAL PLANTS	Medium (65)	Wetness, floods, low available water capacity	Water control, control flood waters
IMPROVED PASTURES	High (70)	Wetness, low natural fertility	Water control, good management, subsurface irrigation
WOODLAND	Low Site-Index -70	Severe - Equipment, seedling mortality, plant competition	Adequate surface drainage, plant on beds
CITRUS	Low (55)	Wetness, floods, low natural fertility	Water control, control flood water, bedding, good management
SPECIALIZED ROW CROPS	Medium (60)	Wetness, floods, low natural fertility	Water control, subsurface irrigation, control flood water, good management

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: Rf

MAP SYMBOL: Rf

SOIL NAME: This is a deep, very poorly drained soil in depressions. The surface layer is generally black, friable fine sand about 20 inches thick, but it is thinner in some places. Below the surface layer is light-gray to dark grayish-brown fine sand motted with light brownish gray and gray. The sandy material is more than 42 inches thick.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT.)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO. 4	10	40	200	LIQUID LIMIT	PLASTICITY INDEX
0-20	Fine Sand	SP-SM, SM	A-3, A-2-4	100	100	100	90-100	5-15	-	NP
20-56	Fine Sand	SP, SP-SM	A-3	100	100	100	90-100	3-10	-	NP

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY STEEL	CORROSIVITY CONCRETE	EROSION K	EROSION T	WIND EROD. GROUP
0-20	5.0 - 10	0.13 - 0.17	4.5-5.0	-	Low	High	High	.17	5	-
20-56	5.0 - 10	0.05 - 0.08	4.5-5.0	-	Low	High	High	.17		

FLOODING FREQUENCY	FLOODING DURATION	FLOODING MONTHS	HIGH WATER TABLE DEPTH (FT)	HIGH WATER TABLE KIND	HIGH WATER TABLE MONTHS	CEMENTED PAN DEPTH (IN)	CEMENTED PAN HARDNESS	BEDROCK DEPTH (IN)	BEDROCK HARDNESS	SUBSIDENCE INIT. (IN)	SUBSIDENCE TOTAL (IN)	HYD GRP
Standing Water	>6 months		+1.0-0	apparent	Jul-Mar	-		>72		-		A/D

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Low (50)	Severe - Wetness, Floods	Water Control, Mounding
SANITARY LANDFILL (TRENCH)	Low (10)	Severe - Wetness, Floods, Seepage	Water Control, Control flood water, sealing or lining
DWELLINGS WITHOUT BASEMENTS	Low (55)	Severe - Floods, wetness	Water Control
LOW COMMERCIAL BUILDINGS	Medium (70)	Severe - Wetness, Floods,	Water Control
LOCAL ROADS AND STREETS	Medium (60)	Severe - Wetness, Floods	Water Control, Control Flood Water
SHALLOW EXCAVATIONS	Low (45)	Severe - Cutbanks cave-in, wetness	Shoring, water control
ACTIVE PLAY AREAS	Low (45)	Severe - Wetness, sandy	Water Control
PASSIVE PLAY AREAS	Medium (60)	Severe - Wetness, Standing water	Water Control, Construct above ground walk
EXCAVATED PONDS AQUIFER FED	Very High (95)	Cutbanks cave-in	Stabilize sideslopes
LAWN GRASSES AND ORNAMENTAL PLANTS	High (75)	Wetness, Floods	Water Control, Control flood waters
IMPROVED PASTURES	High (80)	Wetness	Water Control
WOODLAND	High Site-Index - 90	Moderate - Plant Competition Severe - Equipment, seedling mortality	Adequate surface drainage, plant on beds
CITRUS	Low (55)	Wetness, Floods	Water Control, Control flood water, Bedding
SPECIALIZED ROW CROPS	High (75)	Wetness, Floods	Water control subsurface irrigation, control flood water.

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: Rh

MAP SYMBOL: Rh

SOIL NAME: Rutlege fine sand, high

This is a deep, nearly level, poorly drained soil that is very strongly acid. It occurs throughout the western and central parts of the county in positions higher than those occupied by Rutlege fine sand. This soil is generally in narrow bands that separate well-drained soils in higher positions from areas of wet or very wet soils below.

The surface layer is generally black fine sand about 20 inches thick, but the thickness ranges from 8 to 30 inches. Below the surface layer is light-gray or gray fine sand that is more than 30 inches thick and contains a few faint mottles of very dark grayish brown. In places a discontinuous layer of soft iron concretions is at a depth of 42 inches or more.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO.				LIQUID LIMIT	PLASTICITY INDEX
					4	10	40	200		
0-20	Fine sand	SP-SM, SM	A-3, A-2-4	100	100	100	90-100	5-15	-	NP
20-56	Fine sand	SP, SP - SM	A-3	100	100	100	90-100	3-10	-	NP

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY		EROSION		WIND EROD. GROUP
						STEEL	CONCRETE	K	T	
0-20	5.0 - 10	0.13 - 0.17	4.5-5.0	-	Low	High	High	.17	5	-
20-56	5.0 - 10	0.05 - 0.08	4.5-5.0	-	Low	High	High	.17		

FLOODING			HIGH WATER TABLE			CEMENTED PAN		BEDROCK		SUBSIDENCE		HYD GRP
FREQUENCY	DURATION	MONTHS	DEPTH (FT)	KIND	MONTHS	DEPTH (IN)	HARDNESS	DEPTH (IN)	HARDNESS	INIT. (IN)	TOTAL (IN)	
None			0-1	apparent	Jun-Mar	-		>72		-		A/D

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Medium (75)	Severe - Wetness	Water Control, Mounding
SANITARY LANDFILL (TRENCH)	Low (35)	Severe - Wetness, Seepage	Water control, sealing or lining
DWELLINGS WITHOUT BASEMENTS	Medium (80)	Severe - Wetness	Water Control
LOW COMMERCIAL BUILDINGS	High (85)	Severe - Wetness	Water Control
LOCAL ROADS AND STREETS	Medium (80)	Severe - Wetness	Water Control
SHALLOW EXCAVATIONS	Low (50)	Severe - Cutbanks cave-in, wetness	Shoring, Water Control
ACTIVE PLAY AREAS	Medium (70)	Severe - Wetness, Sandy	Water Control
PASSIVE PLAY AREAS	High (80)	Severe - Wetness	Water Control
EXCAVATED PONDS AQUIFER FED	High (85)	Cutbanks Cave-in	Stabilize sideslopes
LAWN GRASSES AND ORNAMENTAL PLANTS	Very High (85)	Wetness	Water Control
IMPROVED PASTURES	High (80)	Wetness	Water Control
WOODLAND	High Site Index - 90	Moderate - Plant competition Severe - Equipment, seedling mortality	Adequate surface drainage, plant on beds
CITRUS	High (75)	Wetness	Water Control, Bedding
SPECIALIZED ROW CROPS	Very High (90)	Wetness	Water Control, Subsurface irrigation

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: Rm

MAP SYMBOL: Rm

SOIL NAME: Rutlege mucky fine sand

This is a deep soil in depressions, and it is very poorly drained. Its surface layer is black, friable mucky fine sand about 14 inches thick. Below the surface layer is light-gray to dark grayish-brown fine sand that contains a few mottles of gray and light brownish gray. The sandy material is more than 42 inches thick.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO. 4	10	40	200	LIQUID LIMIT	PLASTICITY INDEX
0-14	Mucky fine sand	SP-SM, SM	A-3, A-2-4	100	100	100	90-100	5-15	-	NP
14-56	Fine sand	SP, SP-SM	A-3	100	100	100	90-100	3-10	-	NP

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY STEEL	CONCRETE	EROSION K	T	WIND EROD. GROUP
0-14	5.0 - 10	0.18 - 0.22	4.5-5.0	-	Low	High	High	.17	5	-
14-56	5.0 - 10	0.05 - 0.08	4.5-5.0	-	Low	High	High	.17		

FLOODING FREQUENCY	DURATION	MONTHS	HIGH WATER TABLE DEPTH (FT)	KIND	MONTHS	CEMENTED PAN DEPTH (IN)	HARDNESS	BEDROCK DEPTH (IN)	HARDNESS	SUBSIDENCE INIT. (IN)	TOTAL (IN)	HYD GRP
Standing Wate	>6 months		+1.0-0	apparent	Jul-Mar	-		>72		-		A/D

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Low (50)	Severe - Wetness, Floods	Water Control, Mounding
SANITARY LANDFILL (TRENCH)	Low (10)	Severe - Wetness, Floods, Seepage	Water Control, Control flood water, Sealing or lining
DWELLINGS WITHOUT BASEMENTS	Low (55)	Severe - Floods, Wetness	Water Control
LOW COMMERCIAL BUILDINGS	Medium (70)	Severe - Wetness, Floods	Water Control
LOCAL ROADS AND STREETS	Very Low (35)	Severe - Low strength, wetness, floods	Remove and replace with suitable material, water control, control flood water
SHALLOW EXCAVATIONS	Very Low (35)	Severe - Cutbanks cave-in, wetness low strength	Shoring, water control, special equipment
ACTIVE PLAY AREAS	Low (45)	Severe - wetness, sandy	Water control
PASSIVE PLAY AREAS	Medium (60)	Severe - wetness, standing water	Water control, construct above ground walks
EXCAVATED PONDS AQUIFER FED	Very High (95)	Cutbanks cave-in	Stabilize sideslopes
LAWN GRASSES AND ORNAMENTAL PLANTS	High (75)	Wetness, Floods	Water Control, Control flood waters
IMPROVED PASTURES	High (80)	Wetness	Water Control
WOODLAND	High Site Index - 90	Moderate - Plant Competition Severe - Equipment, seedling mortality	Adequate surface drainage, plant on beds
CITRUS	Low (55)	Wetness, Floods	Water Control, Control flood water, bedding
SPECIALIZED ROW CROPS	High (75)	Wetness, Floods	Water Control, subsurface irrigation, control flood water.

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: Rn

MAP SYMBOL: Rn

SOIL NAME: Rutlege, Plummer, and St. Johns soils

This undifferentiated mapping unit consists of Rutlege, Plummer, and St. Johns soils. One or more of these soils makes up at least 80 percent of any area, but the composition varies from place to place. These soils are generally nearly level to gently sloping. Some of the more sloping areas receive seepage water and are wet most of the year. The texture of the surface layer ranges from fine sand or mucky fine sand to coarse sand.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO. 4	10	40	200	LIQUID LIMIT	PLASTICITY INDEX
For	estimated properties	not shown, see individual soils of this		undifferentiated unit.						

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY STEEL	CONCRETE	EROSION K	T	WIND EROD. GROUP

FLOODING FREQUENCY	DURATION	MONTHS	HIGH WATER TABLE DEPTH (FT)	KIND	MONTHS	CEMENTED PAN DEPTH (IN)	HARDNESS	BEDROCK DEPTH (IN)	HARDNESS	SUBSIDENCE INIT. (IN)	TOTAL (IN)	HYD GRP
Common	Brief	Jul-Feb	0-1	apparent	Jun-Mar	-		> 72		-		A/D

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Low (50)	Severe - Floods, Wetness	Water Control, mounding
SANITARY LANDFILL (TRENCH)	Very Low (10)	Severe - Wetness, Floods, Seepage	Water Control, Control Flood waters, Sealing or lining
DWELLINGS WITHOUT BASEMENTS	Low (55)	Severe - Floods, wetness	Water control
LOW COMMERCIAL BUILDINGS	Medium (70)	Severe - Wetness, Standing water	Water Control
LOCAL ROADS AND STREETS	Medium (60)	Severe - Wetness, Floods	Water Control, Control flood water
SHALLOW EXCAVATIONS	Low (45)	Severe - Cutbanks cave-in, wetness	Shoring, water control
ACTIVE PLAY AREAS	Low (45)	Severe - Wetness, Sandy	Water Control
PASSIVE PLAY AREAS	Medium (60)	Severe - Wetness, Standing water	Water control, construct above ground walk
EXCAVATED PONDS AQUIFER FED	Very High (95)	Cutbanks cave-in	Stabilize sideslopes
LAWN GRASSES AND ORNAMENTAL PLANTS	High (75)	Wetness, Floods	Water control, control flood water
IMPROVED PASTURES	High (75)	Wetness	Water control
WOODLAND	High Site Index - 90	Moderate - Plant competition Severe - Equipment, seedling mortality	Adequate surface drainage, plant on beds
CITRUS	Low (50)	Wetness, floods, low natural fertility	Water control, control flood water, bedding
SPECIALIZED ROW CROPS	Medium (60)	Wetness, floods, low natural fertility	Water control, control flood water, Subsurface irrigation

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: Rp

MAP SYMBOL: Rp

SOIL NAME: Rutlege and Pompano soils, ponded

This undifferentiated unit consists of Rutlege, Pompano, Delray, and Plummer soils. The areas vary greatly in composition, but one or more of these soils makes up at least 90 percent of any area of this unit. These soils are mainly in low grassy depressions or sloughs throughout the county and are covered by water most of the year.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO.				LIQUID LIMIT	PLASTICITY INDEX
					4	10	40	200		
For	estimated properties	not shown, see individual soils of this		undifferentiated unit.						

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY		EROSION		WIND EROD. GROUP
						STEEL	CONCRETE	K	T	

FLOODING			HIGH WATER TABLE			CEMENTED PAN		BEDROCK		SUBSIDENCE		HYD GRP
FREQUENCY	DURATION	MONTHS	DEPTH (FT)	KIND	MONTHS	DEPTH (IN)	HARDNESS	DEPTH (IN)	HARDNESS	INIT. (IN)	TOTAL (IN)	
Standing Water	>6 months		+1.5-0	apparent	Jun-Mar	-		> 72		-		A/D

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Low (50)	Severe - Floods, Wetness	Water Control, Mounding
SANITARY LANDFILL (TRENCH)	Very Low (10)	Severe - Wetness, Floods, Seepage	Water Control, Control Flood Waters, Sealing or lining
DWELLINGS WITHOUT BASEMENTS	Low (55)	Severe - Floods, Wetness	Water control, fill area
LOW COMMERCIAL BUILDINGS	Medium (70)	Severe - Wetness, standing water	Water control, fill area
LOCAL ROADS AND STREETS	Medium (60)	Severe - Wetness, Floods	Water control, control flood water
SHALLOW EXCAVATIONS	Low (45)	Severe - cutbanks cave-in, wetness	Shoring, water control
ACTIVE PLAY AREAS	Low (45)	Severe - Wetness, Floods	Water control, fill area, control flood waters
PASSIVE PLAY AREAS	Low (50)	Severe - wetness, standing water	Water control, construct above ground walks
EXCAVATED PONDS AQUIFER FED	Very High (100)	none	None needed
LAWN GRASSES AND ORNAMENTAL PLANTS	High (75)	Wetness, floods	Water control, Control flood water
IMPROVED PASTURES	High (75)	Wetness	Water control
WOODLAND	Very Low Site Index - 60	Severe - Equipment, seedling mortality, windthrow hazard plant competition	only suited for pond pine or water tolerant hard woods
CITRUS	Very Low (45)	Wetness, floods, low natural fertility	Water control, control flood water, Bedding
SPECIALIZED ROW CROPS	Medium (60)	Wetness, Floods, low natural fertility	Water control, control flood water, subsurface irrigation

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: Sa

MAP SYMBOL: Sa

SOIL NAME: St. Johns fine sand

This soil is somewhat poorly drained or poorly drained and is strongly acid. It is mainly in the flatwoods area of the county. The surface layer is black fine sand about 12 inches thick, and the second layer is light-gray, loose fine sand about 18 inches thick. Below the second layer is black, weakly cemented fine sand that is stained with organic matter and is about 5 to 18 inches thick. The fourth layer is dark-brown to pale-brown, loose fine sand that is at a depth of 34 to 46 inches.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO. 4	10	40	200	LIQUID LIMIT	PLASTICITY INDEX
0-12	Fine Sand	SP-SM, SM	A-3, A-2-4	100	100	100	90-100	7-15	-	NP
12-27	Fine Sand	SP, SP-SM	A-3	100	100	100	90-100	3-10	-	NP
27-40	Fine Sand	SP-SM, SM	A-3, A-2-4	100	100	100	90-100	7-15	-	NP
40-50	Fine Sand	SP, SP-SM	A-3	100	100	100	90-100	3-10	-	NP

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY STEEL	CORROSIVITY CONCRETE	EROSION K	EROSION T	WIND EROD. GROUP
0-12	5.0 - 10	0.10 - 0.15	5.1-5.5	-	Low	High	High	.17	5	-
12-27	5.0 - 10	0.03 - 0.07	5.1-5.5	-	Low	High	High	.17		
27-40	2.5 - 5.0	0.10 - 0.15	5.1-5.5	-	Low	High	High	.20		
40-50	5.0 - 10	0.03 - 0.07	5.1-5.5	-	Low	High	High	.17		

FLOODING FREQUENCY	FLOODING DURATION	FLOODING MONTHS	HIGH WATER TABLE DEPTH (FT)	HIGH WATER TABLE KIND	HIGH WATER TABLE MONTHS	CEMENTED PAN DEPTH (IN)	CEMENTED PAN HARDNESS	BEDROCK DEPTH (IN)	BEDROCK HARDNESS	SUBSIDENCE INIT. (IN)	SUBSIDENCE TOTAL (IN)	HYD GRP
None			0-1	apparent	Jun-Mar	-		>72		-		A/D

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Medium (66)	Severe - Wetness	Water control, mounding
SANITARY LANDFILL (TRENCH)	Very Low (10)	Severe - Wetness, Floods, Seepage	Water control, control flood water, sealing or lining
DWELLINGS WITHOUT BASEMENTS	Medium (80)	Severe - Wetness	Water Control
LOW COMMERCIAL BUILDINGS	Medium (75)	Severe - Wetness, soil blowing	Control soil blowing, water control
LOCAL ROADS AND STREETS	Medium (60)	Severe - Wetness, floods	Water control, control flood waters
SHALLOW EXCAVATIONS	Low (50)	Severe - cutbanks cave-in, wetness	Shoring, water control
ACTIVE PLAY AREAS	Medium (70)	Severe - Wetness, sandy	Water control
PASSIVE PLAY AREAS	High (80)	Severe - Wetness	Water control
EXCAVATED PONDS AQUIFER FED	High (85)	Cutbanks cave-in	Stabilize sideslopes
LAWN GRASSES AND ORNAMENTAL PLANTS	High (75)	Wetness, Floods	Water control, control flood water
IMPROVED PASTURES	High (70)	Wetness, low natural fertility	Water control good management, subsurface irrigation
WOODLAND	Medium Site Index -80	Moderate - Equipment, seedling mortality, plant competition	Good management
CITRUS	Medium (65)	Wetness, low natural fertility	Water Control, good management, bedding
SPECIALIZED ROW CROPS	High (75)	Wetness, low natural fertility	Subsurface irrigation, water control

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: SfB

MAP SYMBOL: SfB

SOIL NAME: St. Lucie fine sand, 0 to 5 percent slopes

This is the only St. Lucie soil mapped in the county. It is a deep, excessively drained, sandy soil on low ridges. The surface layer is gray sand or fine sand about 3 inches thick. Below the surface layer is white, loose sand that is droughty and is more than 30 inches thick. In some places yellow to yellowish-brown sand underlies the second layer. In other places a layer stained with organic matter is at a depth of more than 48 inches.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO.				LIQUID LIMIT	PLASTICITY INDEX
					4	10	40	200		
0-52	Fine sand	SP	A-3	100	100	100	90-100	1-4	-	NP

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY		EROSION		WIND EROD. GROUP
						STEEL	CONCRETE	K	T	
0-52	>20	0.02 - 0.05	4.5-5.0	-	Low	Low	Moderate	.15	5	1

FLOODING			HIGH WATER TABLE			CEMENTED PAN		BEDROCK		SUBSIDENCE		HYD GRP
FREQUENCY	DURATION	MONTHS	DEPTH (FT)	KIND	MONTHS	DEPTH (IN)	HARDNESS	DEPTH (IN)	HARDNESS	INIT. (IN)	TOTAL (IN)	
NONE			>6					>72		-		A

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Very high (100)	Slight	None needed
SANITARY LANDFILL (TRENCH)	High (65)	Severe - Seepage, loose sand	Sealing or lining, hard surface, surface stabilization
DWELLINGS WITHOUT BASEMENTS	Very high (100)	Slight	None needed
LOW COMMERCIAL BUILDINGS	High (87)	Moderate - soil blowing	Control soil blowing
LOCAL ROADS AND STREETS	Very high (100)	Slight	None needed
SHALLOW EXCAVATIONS	High (75)	Severe - cutbanks cave-in	Shoring
ACTIVE PLAY AREAS	High (75)	Severe - loose sand, soil blowing	Suitable topsoil and other amendments
PASSIVE PLAY AREAS	High (85)	Severe - loose sand	Suitable topsoil and other amendments Hard surface
EXCAVATED PONDS AQUIFER FED	Very low (0-5)	No water	No practical practices available
LAWN GRASSES AND ORNAMENTAL PLANTS	Low (60)	Very low available water capacity very low organic matter	Good Management
IMPROVED PASTURES	Very low (35)	Very low available water capacity very low organic matter, low natural fertility	Not recommended for pastures
WOODLAND	Very low Site Index 60	Moderate - seedling mortality Severe - equipment	Plant sand Pine (not suited for slash Pine)
CITRUS	Low (55)	Very low available water capacity very low natural fertility	Good Management
SPECIALIZED ROW CROPS	Very low (30)	Very low organic material, very low natural fertility	Good Management

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: Sn

MAP SYMBOL: Sn

SOIL NAME: Sandy alluvial land

Sandy alluvial land is adjacent to streams and is subject to frequent overflow. It consists of sandy sediments, but the texture varies. Generally coarse sand is near the streams and fine sand has been deposited by backwater in the low areas away from the stream channel. The higher areas adjacent to deep channels are better drained and are generally more brownish and yellowish than the low areas, which are more poorly drained and more grayish. Some of the wetter areas are also affected by seepage from adjacent soils. Many areas are sharply dissected by meandering stream channels.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO.				LIQUID LIMIT	PLASTICITY INDEX
					4	10	40	200		
	ESTIMATED SOIL PROPERTIES NOT SHOWN ARE TOO VARIABLE TO ESTIMATE.									

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY		EROSION		WIND EROD. GROUP
						STEEL	CONCRETE	K	T	

FLOODING			HIGH WATER TABLE			CEMENTED PAN		BEDROCK		SUBSIDENCE		HYD GRP
FREQUENCY	DURATION	MONTHS	DEPTH (FT)	KIND	MONTHS	DEPTH (IN)	HARDNESS	DEPTH (IN)	HARDNESS	INIT. (IN)	TOTAL (IN)	
COMMON	LONG	Jun-Mar				-		>72		-		

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Very low - med. (25-70)	Severe - Floods, Wetness	Water Control, mounding, control flood waters
SANITARY LANDFILL (TRENCH)	Very low - high (15-95)	Severe - **Seepage, Wetness, Floods**	Water Control, control flood waters sealing or lining
DWELLINGS WITHOUT BASEMENTS	Very low - med. (25-75)	Severe - Floods, Wetness	Water Control, control flood waters
LOW COMMERCIAL BUILDINGS	Low - high (30-85)	Severe - Floods, Wetness	Water Control, protect from flooding
LOCAL ROADS AND STREETS	Low - medium (37-80)	Severe - Floods, Wetness, low strength, shrinks-swell	Control flood water, water control, remove and replace with suitable material
SHALLOW EXCAVATIONS	Low - high (45-75)	Severe - Wetness, cutbanks cave-in	Shoring, Water Control
ACTIVE PLAY AREAS	Very low - low (25-65)	Severe - Wetness, Floods, Sandy	Fill area or control flood water Water Control
PASSIVE PLAY AREAS	Low - medium (50-75)	Severe - Floods	Restrict use during flooding
EXCAVATED PONDS AQUIFER FED	TOO VARIABLE TO EVALUATE		
LAWN GRASSES AND ORNAMENTAL PLANTS	Low (55)	Wetness, Floods, low available water low organic matter	Water Control, control flood water, Good Management
IMPROVED PASTURES	Low (45)	Wetness, Floods, dense vegetation	Water Control, control flood water, clear native vegetation
WOODLAND	TOO VARIABLE TO RATE - HAS MOSTLY WOODLAND VEGETATIVE COVER		
CITRUS	TOO VARIABLE TO RATE		
SPECIALIZED ROW CROPS	TOO VARIABLE TO RATE		

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: Sw

MAP SYMBOL: Sw

SOIL NAME: Swamp

Swamp is a land type covered by dense vegetation and by water most of the year, except during extended dry periods. It occurs throughout the county along drainageways, along poorly defined streams, in depressions that have no outlets, and along large bay heads.

Not much alluvial soil material is deposited in the areas along streams, because the floodwaters move slowly. Small deposits of soil material may wash onto the edges of bay heads and depressions from adjacent higher areas. This land type includes mineral soils and organic soils that range from strongly acid to neutral in reaction.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO.				LIQUID LIMIT	PLASTICITY INDEX
					4	10	40	200		
Estimated soil properties not shown are too variable to estimate.										

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY		EROSION		WIND EROD. GROUP
						STEEL	CONCRETE	K	T	

FLOODING			HIGH WATER TABLE			CEMENTED PAN		BEDROCK		SUBSIDENCE		HYD GRP
FREQUENCY	DURATION	MONTHS	DEPTH (FT)	KIND	MONTHS	DEPTH (IN)	HARDNESS	DEPTH (IN)	HARDNESS	INIT. (IN)	TOTAL (IN)	
Standing water	>6 months		+2.0-0	apparent	Jun-Mar	-		>72				

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Very low (25-35)	Severe - Floods, wetness	Water control, mounding, control flood water
SANITARY LANDFILL (TRENCH)	Very low - low (10-40)	Severe - Wetness, floods, seepage	Water control, control flood water, sealing or lining
DWELLINGS WITHOUT BASEMENTS	Very low - low (25-55)	Severe - Floods, wetness	Water control, control flood water
LOW COMMERCIAL BUILDINGS	Very low - Med. (40-70)	Severe - Floods, wetness	Water control, protect from flooding
LOCAL ROADS AND STREETS	Very low - low (10-60)	Severe - Floods, wetness, low strength subsides, shrink-swell	Control flood waters, water control, remove and replace with suitable material
SHALLOW EXCAVATIONS	Very low - Med. (25-70)	Severe - wetness, cutbacks cave-in, low strength	Shoring, water control, special equipment
ACTIVE PLAY AREAS	Very low - low (30-45)	Severe - Wetness, floods	Water control, fill area or control flood water
PASSIVE PLAY AREAS	Very low - low (30-50)	Severe - Wetness, floods, standing water	Water control, construct above ground walk
EXCAVATED PONDS AQUIFER FED	Very high (100)	none	None needed
LAWN GRASSES AND ORNAMENTAL PLANTS	Low medium (55-70)	Wetness, floods, soil blowing	Water Control, control flood water
IMPROVED PASTURES	Medium (60)	Wetness, floods, dense vegetation	Water control, control flood water, clear native vegetation
WOODLAND	Too variable to rate - Has forest cover of water, water tolerent hardwoods and black pine		
CITRUS	Unsuited		
SPECIALIZED ROW CROPS	Too variable to rate		

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: Tc

MAP SYMBOL: Tc

SOIL NAME: Terra Ceia muck

This is the only Terra Ceia soil mapped in the county. It is very poorly drained and is covered by water most of the year. The surface layer is black, well-decomposed, slightly acid to neutral muck about 20 inches thick. Below the surface layer is light brownish-gray to dark-brown or gray sandy loam to sandy clay loam. In some places this layer is fine sand. In other places a layer of very dark brown, slightly decomposed felty peat, about 5 to 10 inches thick, lies just below the surface layer.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO.				LIQUID LIMIT	PLASTICITY INDEX
					4	10	40	200		
0-36	Muck	PT								
36-60	Sandy Loam, Sandy Clay Loam	SC	A-2, A-4, A-6	100	100	100	90-100	25-40	24-36	8-16

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY		EROSION		WIND EROD. GROUP
						STEEL	CONCRETE	K	T	
0-36	5.0 - 10		5.6-6.5	-	Low	High	Low	-	-	*2
36-60	2.5 - 5.0	0.10 - 0.15	6.1-7.3	-	Moderate	High	Low	.28		

* Applicable if surface is bare and soil dry.

FLOODING			HIGH WATER TABLE			CEMENTED PAN		BEDROCK		SUBSIDENCE		HYD
FREQUENCY	DURATION	MONTHS	DEPTH (FT)	KIND	MONTHS	DEPTH (IN)	HARDNESS	DEPTH (IN)	HARDNESS	INIT. (IN)	TOTAL (IN)	GRP
standing water	>6 months		+1.5-0	apparent	Jul-Mar	-		>72		-	30	A/D

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Very Low (35)	Severe - Floods, wetness, subsidence	Water Control, mounding, remove and replace with suitable material
SANITARY LANDFILL (TRENCH)	Very Low (10)	Severe - Wetness, Floods, Seepage	Water control, control flooding, Sealing or lining
DWELLINGS WITHOUT BASEMENTS	Very Low (25)	Severe - Floods, wetness, subsidence, Low strength	Water control, remove and replace with suitable material
LOW COMMERCIAL BUILDINGS	Very Low (40)	Severe - Wetness, standing water, low strength, subsides, soil blowing	Remove and replace with suitable material, water control
LOCAL ROADS AND STREETS	Very Low (35)	Severe - Low strength, subsides, wetness, floods	Remove and replace with suitable material, water control, control flood water
SHALLOW EXCAVATIONS	Low (50)	Severe - Wetness, low strength	Water control, special equipment
ACTIVE PLAY AREAS	Very Low (30)	Severe - Wetness, excess humus, Floods, soil blowing (when dry & without vegetative cover)	Water control, remove and replace with suitable material, fill area or control flood water
PASSIVE PLAY AREAS	Very Low (30)	Severe - Wetness, standing water, excess humus	Water control, construct above ground walk
EXCAVATED PONDS AQUIFER FED	Very High (100)	None	None needed
LAWN GRASSES AND ORNAMENTAL PLANTS	Medium (65)	Wetness, Floods, soil blowing	Water control, control flood water
IMPROVED PASTURES	High (80)	Wetness	Water control
WOODLAND	Not suited for commercial woodland production		
CITRUS	Unsuited		
SPECIALIZED ROW CROPS	High (85)	Wetness, Floods	Water control, subsurface irrigation control flood water.

*Reference pages 32-37 for description of necessary measures.

SOIL PROPERTIES AND INTERPRETATIONS

MAP SYMBOL: Wa

MAP SYMBOL: Wa

SOIL NAME: Wabasso fine sand

This is the only Wabasso soil mapped in the county. It is level or nearly level and is somewhat poorly drained. The areas are in the northern and eastern parts of the county. The surface layer is very dark gray fine sand about 7 inches thick. The second layer is gray, loose fine sand that is 7 to 20 inches thick. The third layer is very dark brown fine sand that is stained with organic matter and is 4 to 12 inches thick. It is at a depth of about 24 inches.

The first three layers are strongly acid. The fourth layer is brown, neutral fine sand and is at a depth of 26 to 36 inches. It is underlain by mottled brownish-yellow and gray fine sandy loam or fine sandy clay loam. This finer textured layer is at a depth of more than 30 inches but generally less than 42 inches.

ESTIMATED SOIL PROPERTIES

DEPTH (IN.)	USDA TEXTURE	UNIFIED	AASHO	FRACT >3 IN (PCT)	PERCENT OF MATERIAL LESS THAN 3" PASSING SIEVE NO. 4	10	40	200	LIQUID LIMIT	PLASTICITY INDEX
0-20	Fine Sand	SP, SP-SM	A-3	100	100	100	90-100	3-10	-	NP
20-26	Fine Sand	SP-SM, SM	A-3, A-2-4	100	100	100	90-100	7-15	-	NP
26-36	Fine Sand	SP, SP-SM	A-3	100	100	100	90-100	3-10	-	NP
36-60	Sandy Loam, Sandy Clay Loam	SC	A-2, A-4, A-6	100	100	100	90-100	25-40	24-36	8-16

DEPTH (IN.)	PERMSABILITY (IN/HR)	AVAILABLE WATER CAPACITY (IN/IN)	SOIL REACTION (PH)	SALINITY (MMHOS/CM)	SHRINK-SWELL POTENTIAL	CORROSIVITY STEEL	CORROSIVITY CONCRETE	EROSION K	EROSION T	WIND EROD. GROUP
0-20	10 - >20	0.03 - 0.07	5.1-5.5	-	Low	High	High	.17	5	2
20-26	0.8 - 2.5	0.10 - 0.15	5.1-5.5	-	Low	High	High	.20		
26-36	5.0 - 10	0.07 - 0.12	5.1-5.5	-	Low	High	High	.17		
36-60	2.5 - 5.0	0.10 - 0.15	6.6-7.3	-	Moderate	High	Low	.28		

FLOODING FREQUENCY	FLOODING DURATION	FLOODING MONTHS	HIGH WATER TABLE DEPTH (FT)	HIGH WATER TABLE KIND	HIGH WATER TABLE MONTHS	CEMENTED PAN DEPTH (IN)	CEMENTED PAN HARDNESS	BEDROCK DEPTH (IN)	BEDROCK HARDNESS	SUBSIDENCE INIT. (IN)	SUBSIDENCE TOTAL (IN)	HYD GRP
None			0-1	Apparent	Jul-Sep	-		>72		-		B/D

INTERPRETATIONS

POTENTIAL, LIMITATIONS, AND NECESSARY MEASURES TO REACH POTENTIAL FOR SELECTED USES OF SOILS

LAND USE	POTENTIAL (Ranking)	LIMITATIONS	NECESSARY MEASURES TO REACH POTENTIAL*
SEPTIC TANK ABSORPTION FIELDS	Medium (66)	Severe - Wetness	Water Control, mounding
SANITARY LANDFILL (TRENCH)	Medium (60)	Severe - Wetness, Loose Sand	Water Control, hard surface, surface stabilization
DWELLINGS WITHOUT BASEMENTS	Medium (74)	Severe - Wetness	Water Control
LOW COMMERCIAL BUILDINGS	Medium (79)	Severe - Wetness, soil blowing Shrink - swell, low strength	Water control increase structural strength in foundation, control soil blowing
LOCAL ROADS AND STREETS	Low (57)	Severe - Wetness, Low strength Shrink Swell	Water Control, Remove and replace with Suitable material
SHALLOW EXCAVATIONS	Low (45)	Severe - Cutbanks cave-in, wetness	Water control, shoring
ACTIVE PLAY AREAS	Medium (65)	Severe - Wetness, loose sand, soil blowing (when dry and without vegetative cover)	Water control, suitable topsoil or other amendments
PASSIVE PLAY AREAS	Medium (70)	Severe - Wetness, Loose sand	Water control, suitable topsoil or other amendments, hard surface
EXCAVATED PONDS AQUIFER FED	Medium (75)	Deep to water, duration of high water table, cutbanks cave-in	Seal bottom of pond, add water during dry periods, stabilize sideslopes
LAWN GRASSES AND ORNAMENTAL PLANTS	Medium (70)	Wetness, low organic matter	Water control
IMPROVED PASTURES	Medium (65)	Wetness, low natural fertility	Water control, good management subsurface irrigation
WOODLAND	Medium Site-Index - 80	Moderate - Equipment, seedling Mortality, plant completion	Good Management
CITRUS	Low (55)	Wetness, low available water capacity, low natural fertility	Water control, bedding, good management
SPECIALIZED ROW CROPS	Medium (65)	Wetness, low organic matter, low natural fertility	Water control, subsurface irrigation good management

*Reference pages 32-37 for description of necessary measures.

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