

appendix e
inventory of
physical conditions

Vegetation

The vegetation map shows dense tree coverage in the Prattville area. It should be recognized that other types of vegetation do exist in Prattville, however, most other vegetation is not on nearly the same density scale as the tree coverage shown. The resource for this information is United States Geological Survey (USGS) topographical maps, which were most recently updated in 1983.

Large sections of dense vegetation exist sporadically throughout Prattville. The most common areas are along creeks and streams and in steep, hilly areas. The most notable areas include: along Pine Creek and its tributaries, around Cooter's Pond and associated tributaries in the southeast section of the city, the Gin Shop Hill area south of Autauga Creek in the southwest part of the city, and in the northwest part of the city along Breakfast

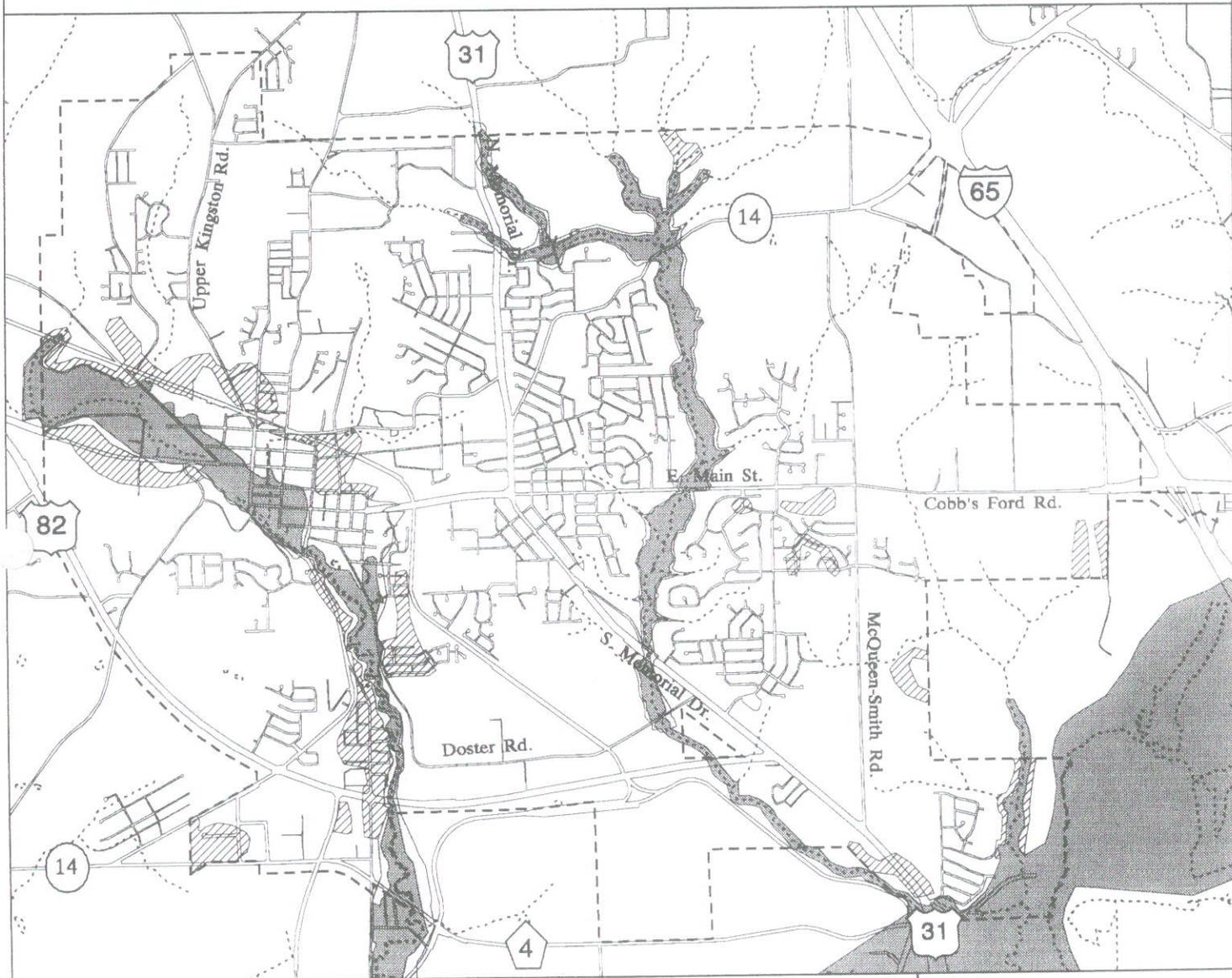
Creek and a small tributary of Autauga Creek. Smaller areas of dense vegetation exist in other areas of Prattville without the presence of surface water or hills. There is no rhyme or reason to the location of these smaller areas, as they in all parts of the city.

Areas with a lack of dense vegetation do, however, follow a logical pattern. It is these areas that most often are the highly developed areas of Prattville, particularly on the west side of the city. As clearly seen on the corresponding map the areas without vegetation, or with only residential tree and grass vegetation, are located in the downtown area, around the PrattMont area, and in the Silver Hills subdivision. The exception to this is the area east of McQueen Smith Road where there are few very densely forested areas. Land uses in this area are generally not of an urban (highly developed) type, but instead are more agricultural in nature, or simply vacant grassland.

Map E2

HYDROLOGY

Prattville, Alabama



LEGEND

-  100 Year Flood Plain
-  500 Year Flood Plain
-  Wetlands
-  Surface Water



Miles



Soils

Soils were grouped based on their suitability for, or limitations to, development from information provided in the Autauga County Soil Survey: Table 8. Degree and kind of soil limitations for town and country planning. For each soil classification in Autauga County, the index provides the degree of limitations in eight categories. The categories are: residences and low buildings, septic tank and absorption fields, sewage lagoons, local roads and streets, sanitary landfill, camp and picnic areas, playgrounds, and paths and trails. Each of the soil groups as used in this plan are explained below:

Slight Limitations: This soil group is most suitable to development. These soils are those with moderate limitations in only one to two categories and all other categories having only slight limitations. Those categories most often having moderate limitations were sewage lagoons and playgrounds.

Slight to Moderate Limitations: This soil group is suitable for development, however, there is usually at least one characteristic which must be overcome or will be a deciding factor in the type of development. Soils in this group primarily have slight limitations, but also have one category with a severe limitation such as slope or possible three to four categories with moderate restrictions which are not related to the majority of development (such as sewage lagoons, sanitary landfill, or playgrounds).

Moderate Limitations: Soils in this group are suitable for development, however, development costs may be increased to accommodate for soil characteristics. Soil limitations range from moderate in all categories to a combination of severe, moderate and slight restrictions.

Moderate to Severe Limitations: Most of the soils in this group are not suitable for development due to a combination of moderate and severe restrictions. Many of these soils have characteristics of wetness or steep slopes. Except for those areas with extremely steep slopes, these soils are often suitable for recreational purposes.

Severe Limitations: Soils in this group are not suitable for any type of development because of the severe restrictions indicated in every category. To accommodate for the limiting factors of these soils would outweigh the value of development in most cases.

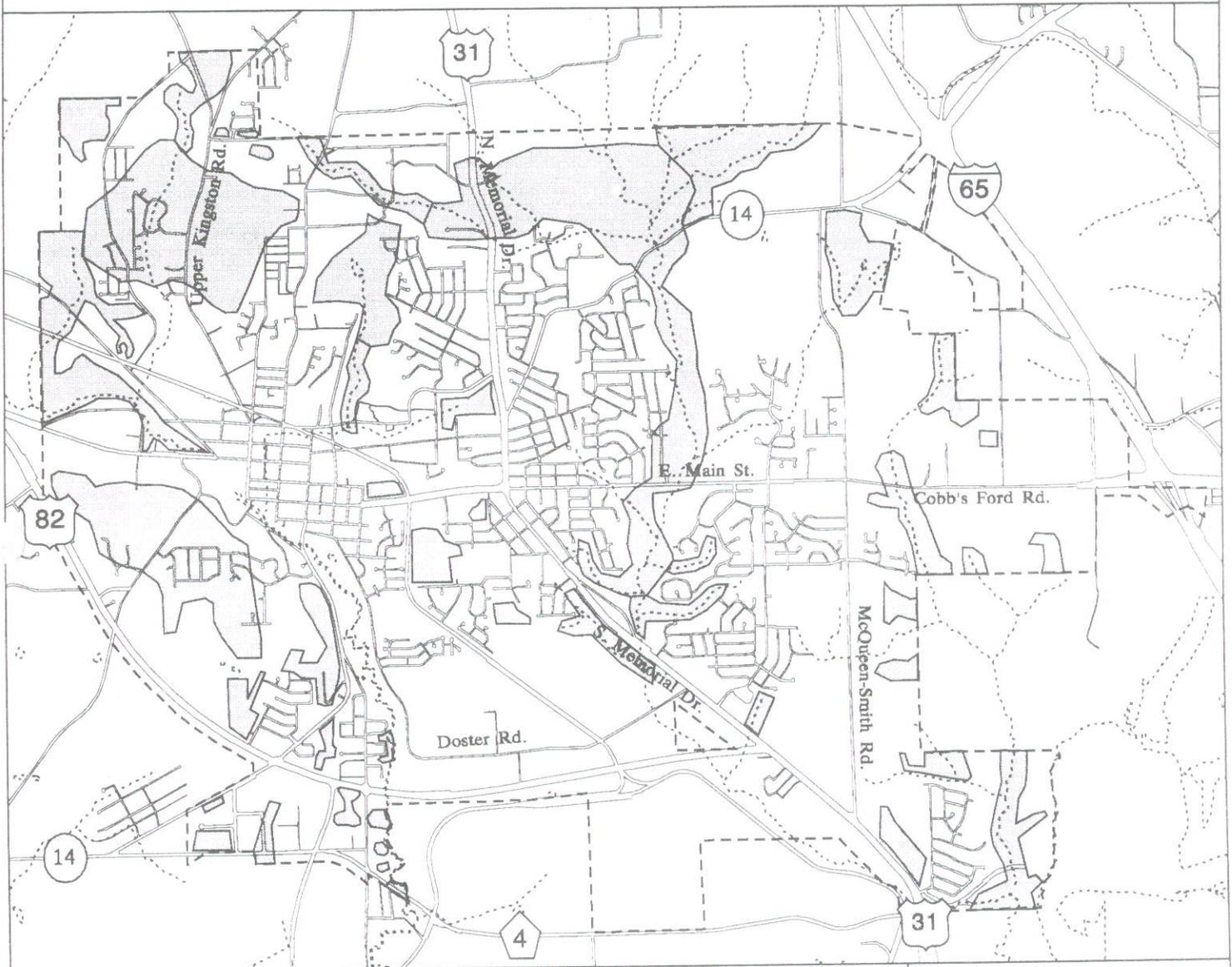
The original part of Prattville along Autauga Creek is built on soils which are not suitable for development due to wetness, floods, and steep slopes. The great majority of the soils in this western half of Prattville have either moderate to severe limitation or severe limitation to development. Likewise in the eastern half of Prattville, those soils which are surrounding Pine Creek and Fay Branch tend to have moderate to severe or severe limitations as well. They are not, however, as extensive in size as those soil group areas around Autauga Creek.

Those areas which are most suitable for development include the Prattmont area, Crestview Heights, Woodland Heights, North Crestview, Camelia Estates, Overlook Subdivision, and most of the Elmore County portion of Cobb's Ford Road. Soil groups with slight to moderate limitations or moderate limitations tend to be small in size and are found sporadically throughout the city. There is, however, a fairly large concentration of soils with moderate limitation located in the southeast near Fay Branch.

Map E1

VEGETATION

Prattville, Alabama



LEGEND



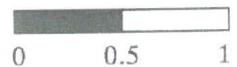
Vegetation



Surface Water



Miles



Hydrology

The inventory of hydrological conditions includes the location of surface water, the existence and location of flood plain areas, wetlands and basin boundaries. Information sources for the development of the hydrology map include United States Geological Survey (USGS) topographical maps, United States Flood Insurance Maps, and Autauga and Elmore County Soil Surveys.

Surface water includes rivers, streams, creeks, lakes and ponds. Although there are no major rivers in Prattville, the Alabama River lies just south of the city. Even so, there are quite a number of creeks and ponds in Prattville, as well as Cooter's Pond which lies just outside of the southeast corporate boundary. Surface water in the Prattville flows in a primarily north-south pattern. The three major creeks are Autauga Creek, Pine Creek and Fay Branch. Autauga Creek, by far the largest of the three, is located in the southwest portion of the city and has two main tributaries flowing from the northwestern part of Prattville. One of the Autauga Creek tributaries is Breakfast Creek, which lies between Upper Kingston and Lower Kingston Roads.

Another major creek is Pine Creek, which is located in central Prattville between Memorial Drive (U.S. Highway 31) and McQueen Smith Road. Pine Creek has several smaller tributaries which flow into a number of small ponds. Fay Branch is located in the southeast portion of the city near Cooter's Pond.

Floodplains exist along both Autauga Creek and Pine Creek. The

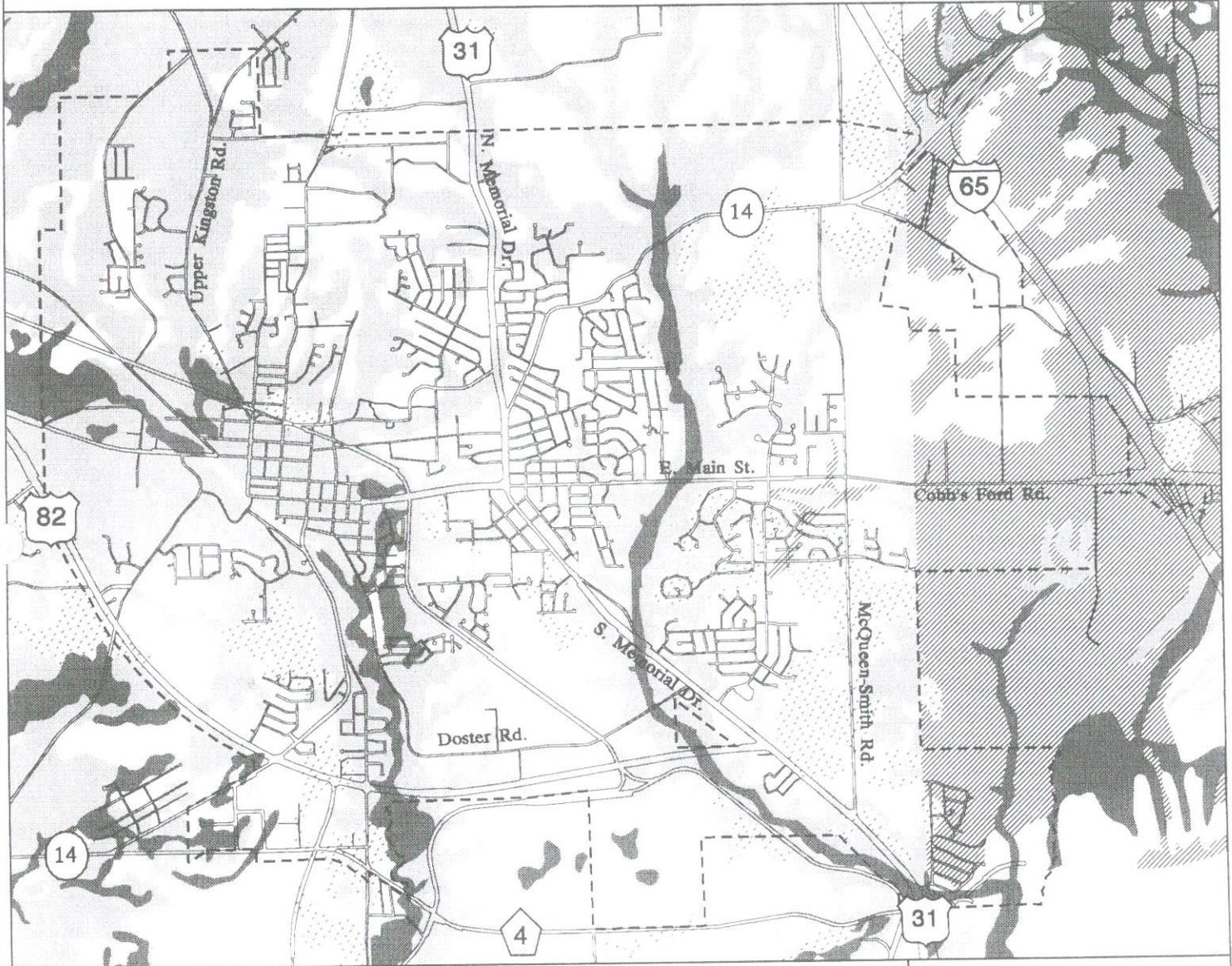
floodplain along Autauga Creek is quite expansive and encompasses most of the downtown area. One possible reason for this is that when Daniel Pratt settled the area, one of the things he was looking for was a good source of water. As the Pratt industry was developed on the banks of Autauga Creek, the rest of the town developed close by -- and, unfortunately, in the floodplain. The floodplain surrounding Pine Creek, on the other hand, is fairly narrow and encompasses very little developed land. This floodplain does, however, stretch from the southern corporate boundary to the northern boundary.

Water in Prattville generally drains into one of four primary basins. The ridgelines between the basins lie along Gin Shop Hill south of Autauga Creek, between Autauga Creek and Pine Creek, and south of Interstate-65 to the northeast and north of Pine Creek and of Fay Branch, respectively. Wetlands were determined by using the Autauga County Soil Survey index for limitations for town and country planning. Those soils which were categorized as wet, or having wet characteristics, in three or more categories are considered hydric soils, or wetlands. In Prattville, a large portion of these soils are located along Autauga Creek, Pine Creek and Fay Branch, although the wetlands do not necessarily coincide with the floodplains. Other wetlands are located mostly in the southern half of the city in a sporadic fashion, primarily between Pine Creek and Fay Branch, and near the southwest corporate boundaries south of Highway 82.

Map E3

SOILS

Prattville, Alabama



LEGEND

-  Slight Restrictions
-  Slight to Moderate Restrictions
-  Moderate Restrictions
-  Moderate to Severe Restrictions
-  Severe Restrictions



Miles



Geology

Geological information was provided by the United States Geological Service, Geologic Map of Alabama: Special Map 220 produced in 1988. The entire city of Prattville lies within the Coastal Plain Physiographic Province which covers all of southern Alabama and a portion of northwestern Alabama.

There are three geological formations present in Prattville which are: the Holocene Series - Qalt, the Pleistocene Series - Qt, and the Upper Series Eutaw formation - Ke. The descriptive definition for each of these formations is as follows:

Holocene Series. *Qalt: Alluvial, coastal and low terrace deposits.* Varicolored fine to coarse quartz sand containing clay lenses and gravel in places. Gravel composed of quartz and chert pebbles and assorted metamorphic and igneous rock fragments in streams near the Piedmont. In areas of the Valley and Ridge province gravel composed of angular to subrounded chert, quartz and quartzite pebbles. Coastal deposits include fine to medium quartz sand with shell fragments and accessory heavy minerals along Gulf beaches and fine to medium quartz sand, silt, clay, peat, mud and ooze in the Mississippi Sound, Little Lagoon, bays, lakes, streams, and estuaries.

Pleistocene Series. *Qt: High terrace deposits.* Varicolored lenticular beds of poorly sorted sand, ferruginous sand, silt, clay and gravelly sand. Sand consists primarily of very fine to very coarse poorly sorted quartz grains; gravel composed of quartz, quartzite, and chert pebbles.

Upper Series. *Ke: Eutaw Formation.* Light-greenish-gray to yellowish-gray cross-bedded, well-sorted, micaceous, fine

to medium quartz sand that is fossiliferous and glauconitic in part and contains beds of greenish-gray micaceous, silty clay and medium-dark-gray carbonaceous clay. Light-gray glauconitic fossiliferous sand, thin beds of sandstone and massive accumulations of fossil oyster shells occur locally in the upper part of the formation in western Alabama (Tombigbee Sand Member). In eastern Alabama thin- to thick-bedded accumulations of the fossil oyster *Ostrea cretacea* Morton occur throughout much of the formation.

The Holocene Series appears to be primarily linear in shape and is present along Autauga Creek in the downtown area, surrounding the intersection of U.S. Highway 82 and Selma Highway, and in the southeastern corner of the city near Cooter's Pond. The Pleistocene series appears in large unrelated and undefined splotches in all parts of the city. Areas of Prattville which lie in the Pleistocene Series include the Prattmont intersection, the central western portion of Gin Shop Hill, the northern part of the Silver Hills subdivision, the area surrounding the intersection of Cobb's Ford Road and Interstate-65 and stretches southwest to Highway 31, north and south of Highway 14 near McQueen Smith Road, and in the northwest quadrant around Upper Kingston and Chestnut Streets.

It is fairly apparent that the Holocene and Pleistocene Series were the earlier formations and that the Eutaw Formation occurred much later wrapping around and covering portions of what already existed. For this reason, the Eutaw Formation seems to be almost a filler-type formation covering the majority of Prattville.

Map E4

GEOLOGY

Prattville, Alabama



LEGEND

-  Ke: Upper - Eutaw Formation
-  Qalt: Halocene - Alluvial and Low Terrace Deposits
-  Qt: Pleistocene - High Terrace Deposits
-  Surface Water



Miles



Slope

Slope is the degree of steepness of land. Although there is often a correlation between slope and elevation, there is not a direct relationship. Slope, expressed as a percentage, is calculated from a vertical rise or fall of the land across a horizontal distance. For example, if an area of land drops ten feet across a distance of 100 feet, the slope of that area is ten percent. The slope map for Prattville is based on United State Geological Service (USGS) topographical maps which have ten foot contours representing a ten foot change in elevation. The closer together these contours are, the steeper the slope.

For purposes of this plan, slopes have been categorized in groups from 0 to 5 percent, 6 to 10 percent, 11 to 15 percent, 16 to 20 percent, and more than 20 percent. Those areas with a slope between 0 to 15 percent are fairly suitable for development,

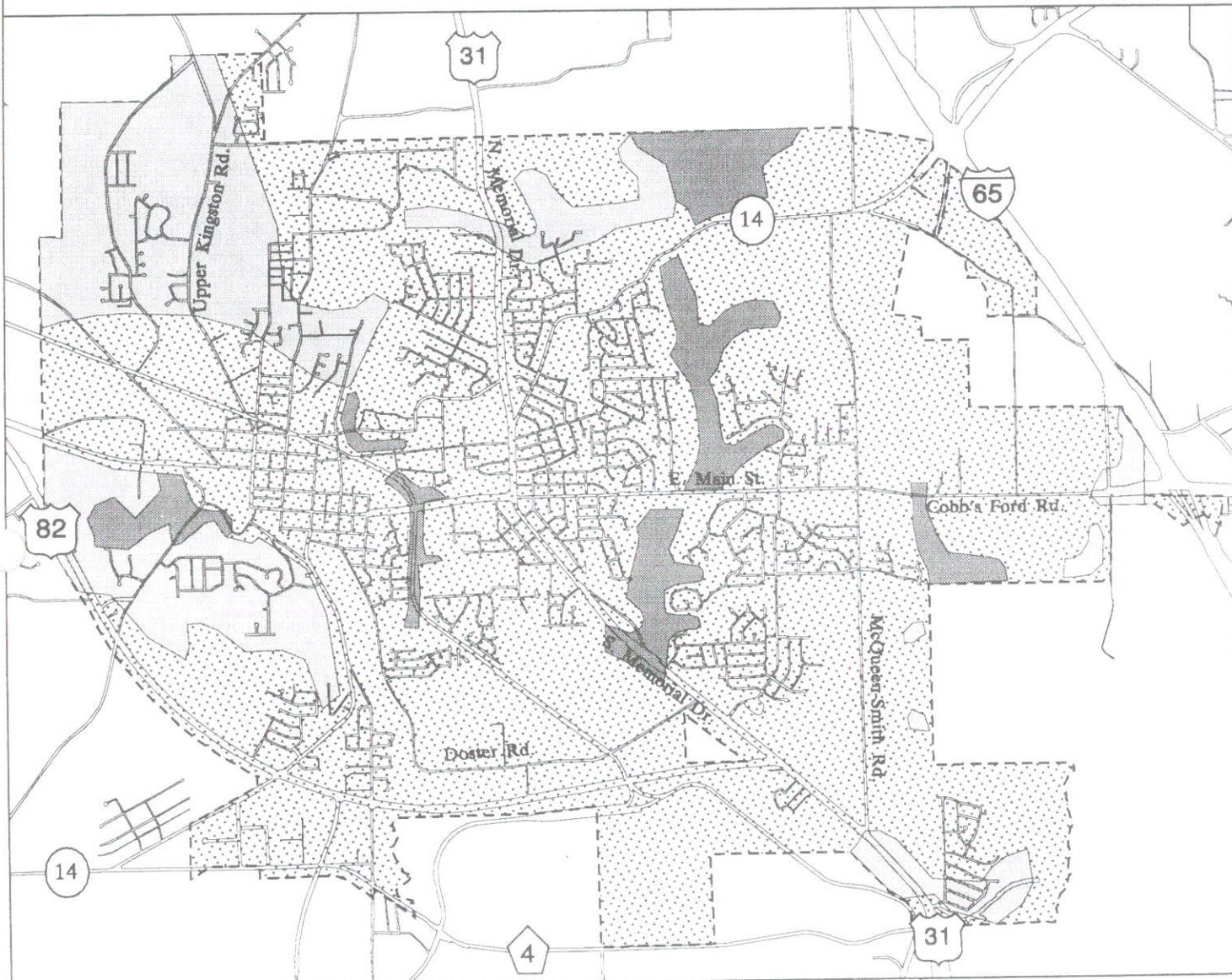
although between slopes between 10 and 15 percent start increasing the cost of development. Slopes between 15 and 20 percent are even more costly and a slope of more than 20 percent becomes cost-prohibitive to develop.

The steepest slopes in Prattville, more than 15 percent, are found generally in the Gin Shop Hill area, along creek and stream beds, and along the southern portion of the railroad tracks. The exception to this is the northern side of Autauga Creek in the downtown area where the land is basically flat. In the northwest quadrant of Prattville, slopes of 5 to 10 percent and 11 to 15 percent are prevalent. Relatively flat areas in Prattville, with slopes of 0 to 5 percent, include the downtown area, the area east of Memorial Drive and north of East Main Street, south of Gin Shop Hill, and with some exceptions along Fay Branch and the area east of Pine Creek.

Map E5

SLOPE

Prattville, Alabama



LEGEND



0 to 5 Percent Slope



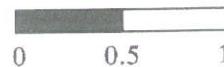
6 to 20 Percent Slope



Over 20 Percent Slope



Miles



Elevation

The elevation map shows the low points and the high points within the Prattville area. It is based on United States Geological Service topographical maps, which were updated in 1983. Elevation changes, based on USGS contours, are shown at 100 foot intervals. The elevation of Prattville ranges from a low point 150 feet above sea level near Cooter's Pond to a high point of 470 feet above sea level on Gin Shop Hill.

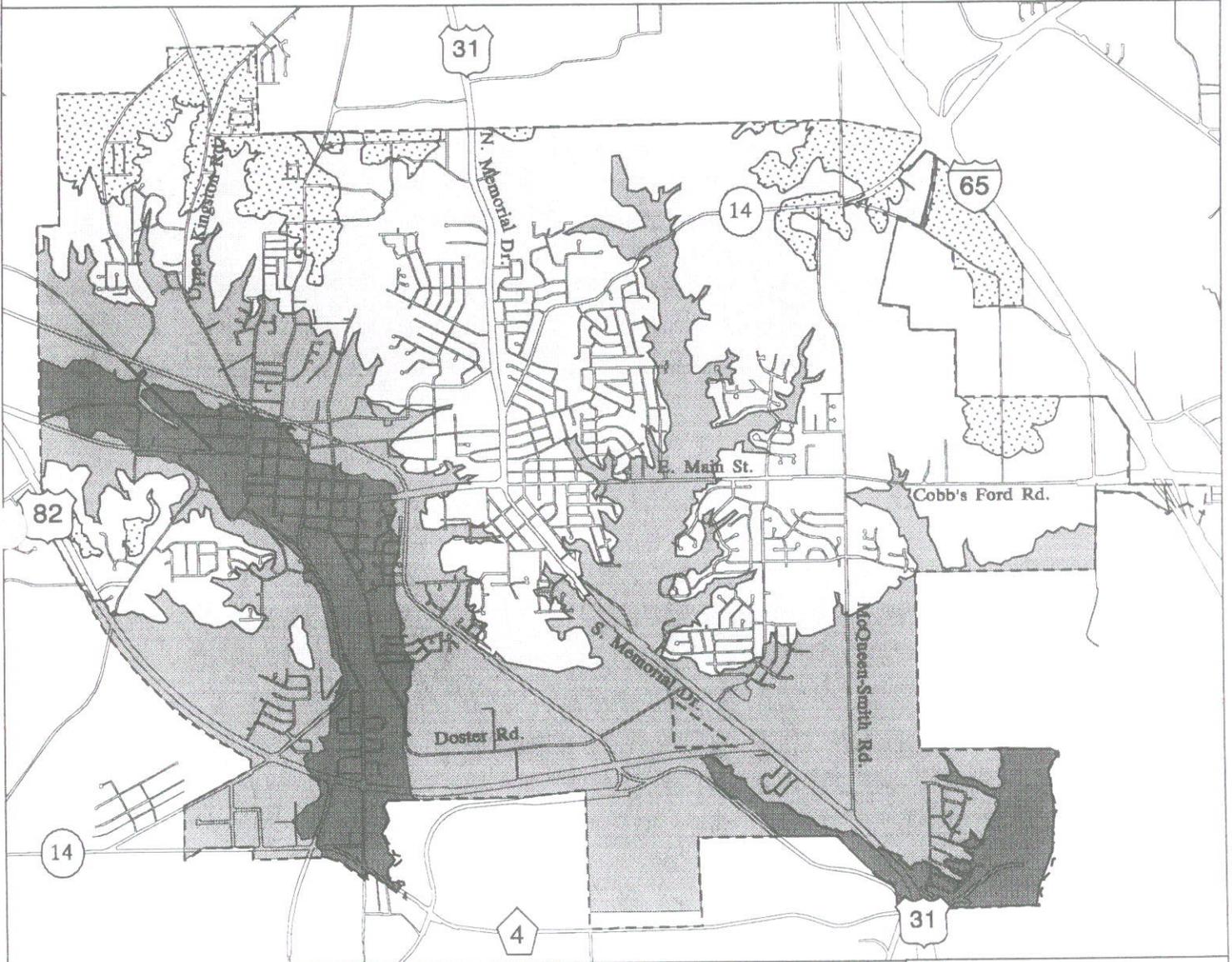
The majority of the city has an elevation between 300 feet and 400 feet. The lowest areas of Prattville, between 100

and 200 feet above sea level are found along Autauga Creek, in the downtown area, and along the southern portion of Fay Branch. The highest elevations, 400 feet and above, are located on Gin Shop Hill, in the northeast and northwest corners of the city, and in a small area just north of Cobb's Ford Parkway in the eastern section of Prattville. The central part of Prattville, both east and west of Memorial Drive, and the Silver Hills subdivision lie between 300 feet and 400 feet in elevation, while the area immediately adjacent to Pine Creek and north of Cooter's Pond lies between 200 feet and 300 feet in elevation.

Map E6

ELEVATION

Prattville, Alabama



LEGEND

-  100 - 200 Feet
-  200 - 300 Feet
-  300 - 400 Feet
-  Over 400 Feet



Miles



