COMPREHENSIVE PLAN

SOUTH ANNVILLE TOWNSHIP
Lebanon County
Pennsylvania

1972

GILBERT ASSOCIATES, INC
READING, PENNSYLVANIA
INTRODUCTION

The textual material contained herein is supplemented by non-reproducible one-of-a-kind maps which include: slope map; soils suitability for on-lot sewage disposal; existing land use; circulation; and future land use plan. Together the maps and this text comprise the Comprehensive Plan for South Annville Township. The maps and photographic reproductions of these maps are available at the Township building.

The purpose of this plan is to provide coordinated guidelines for the future development of the Township based on the most current data and future growth prospects for the Township.

Few plans can be truly "comprehensive" or "all-encompassing" for long range periods, but must be reviewed and revised when different trends take place in the Township that warrant adjustments. Planning is a process not a product and the Township Planning Commission is strongly urged to review and update their comprehensive planning as the need arises.

This plan was prepared by the consultant with the close support of the Township Supervisors, Township Planning Commission Members, the staff of the City-County Planning Department and the Soil Conservation Service and their efforts in this regard were greatly appreciated.
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BACKGROUND STUDIES

PHYSICAL CHARACTERISTICS

Topography and Slope

Elevations in South Annville range between 400 feet above sea level adjacent to the major waterways in the northern and western sections of the Township to 900 feet above sea level in the more mountainous southern section. With rugged hills in the southern section of the Township, the major drainage of the Township is toward the north.

The geology of the Township consists of shale and sandstone in the southern mountainous section, and limestone in the remainder of the Township. There are two quarries located in the Township. The bulk of the remaining limestones in the Township are relatively untouched compared to the magnitude of mining found in North Annville Township.

A slope map was prepared utilizing U.S.G.S. contour intervals. Areas of similar percent of slope were graphically depicted by color. Slope is defined as an average calculation of the vertical rise in elevation divided by the horizontal distance between contour lines.

Except for the extreme southern portion of the Township, slope conditions are favorable for development being predominantly level and gently rolling nature. The southern section of the Township, south of the U.S. Route 322, has slopes in the 8 to 15% and 15% and over categories.

The extremely flat and sloping lands generally afford the greatest obstacles to urban development. The extremely flat land generally affords surface drainage problems being too flat to drain well. Sloping land (8 to 15 percent) and steeply sloping land (over 15 percent grades) are generally the
least economical to develop intensively. The best use of this land is for woodland, pasture, agriculture using accepted conservation practices, campgrounds, recreation, watershed, or large-lot residential estates. Use of land with this degree of slope for residential purposes necessitates the use of extreme caution in the design of streets and other improvements, siting of house on lot, etc., in order to avoid problems generally associated with steep slope developments such as surface and subsurface drainage, soil erosion, stream siltation, on-lot sewage failures, excessive street grades, street maintenance problems and traffic hazards. For these reasons, the use of this type of land should be limited to non-intensive activities and strictly controlled to avoid creating future problems for either existing or potential Township residents.

Gently rolling land, 3 to 8 percent slope, is generally considered prime developable land being the most economical land to develop, constitutes the bulk of the Township land area.

Soils

Two basic sources of soil information data were used in South Annville Township. The Soil Conservation Service published an interim report in 1969. This medium density soil survey encompassed the eastern and northern portions of South Annville Township. Generalized soil data for the remainder of the Township was adapted from the mapping of Howard W. Higbee, College of Agriculture, Penn State University, developed between 1947-1961. This low-density soil survey is not as detailed and as accurate in regards to the type and location and extent of the different soils as the 1969 S.C.S. survey. Modern soil classifications, where possible, were assigned to the Higbee soil data by the County Soil Conservation Service in order to make the two data sources more compatible.
The resulting soils types from these two sources were evaluated as to their degree of limitation for their use for on-lot sewage disposal, septic tank and tile drainage fields, utilizing the "Soils Interpretation for On-Lot Disposal of Sewage", developed by Dr. F. Glade Loughry, Soil Technologist with the Pennsylvania Department of Health.1

South Annville's soils consist mainly of Duffield and Hagerstown soils. Both of these have in common a hazardous limitation for use for on-lot sewage disposal, because of the high risk of ground-water contamination. The State Health Department1 classified these soils as unsuitable for development relying on normal on-lot sewage disposal systems. While these soils are generally very well drained limestone soils, they tend to develop solution cavities which facilitate seepage of effluent into the ground-water. This condition may not exist everywhere within these limestone soils, but this condition is generally prevalent enough to warrant the hazardous classification.

The Duffield and Hagerstown soils types dominate all but the southern portion of the Township where there are located Neshaminy, Murrill, Berks and Lewisberry soil types in the more mountainous areas of South Annville Township.2

In these latter areas stoniness, steep slopes, or depth of bedrock affords severe limitations for use for on-lot sewage disposal. Most of these soils were derived from sandstones and shales. A severe classification means that these soils are generally unsuitable for on-lot disposal. Within this classification, however, there may exist areas of soils which are suitable for isolated, individual on-lot sewage installations. It is recommended that prior to the installation of any on-lot system more detailed on-site evaluations be performed. Such investigations could include core borings, percolation tests, depth of bedrock strata determinations, and groundwater determinations.

1 Now part of the Department of Environmental Resources.
2 The general soil classifications prepared by Professor Higbee classed these as Duffield and Montalto Silt Loam Intergrade Diabase, and Montalto Stony Silt Loams. These were interpreted to be Neshaminy and Murrill soils respectively by the Soil Conservation Service.
Notwithstanding the potential hazard of polluting the ground-water through development with on-lot sewerage systems, the predominant Duffield and Hagerstown soils types generally afford slight to moderate limitations for development for homesites and streets, depending on the degree of slope of the land.

Interpretations of Higbee mapped soils are very general in detail and should be re-evaluated by the Township when the SCS survey data is complete. While each broad general soil association developed by Higbee was matched as closely as possible to SCS more detailed classification, there will probably be found within each general soil area more than one detailed soil classification. These other detailed soil classifications could be soils not having similar limitations as found in the closest match chosen.

Soils classed as having severe limitations for on-lot sewage disposal indicates that these soils are generally unsuitable for such use, unless detailed site investigation, including percolation tests, prove otherwise. The Department of Environmental Resources also considers all slopes over 15 percent in grade (15 foot vertical use in 100 foot horizontal distance) to be unsuitable for on-lot sewage disposal regardless of the soil type. Even slopes falling within the 8 to 15 percent grade will generally necessitate individual design features to overcome the problems that would occur if conventional on-lot sewage disposal practices were utilized, regardless of soil types.

With the recent amendment of Act 537, all municipalities in the Commonwealth are required to regulate the development of on-lot disposal systems to prevent the possibility of health hazards.

The soil limitations map shows that the majority of the Township is not suited for use for on-lot sewage disposal, particularly with no public water supply.
<table>
<thead>
<tr>
<th>Soil Name</th>
<th>Limitations for On-Lot Sewage Disposal</th>
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<tbody>
<tr>
<td>Berks Shaly Silt Loam</td>
<td>Moderate(^1) to Severe(^4)</td>
</tr>
<tr>
<td>Duffield Silt Loam</td>
<td>Hazardous(^2)</td>
</tr>
<tr>
<td>Hagerstown Silt Loam</td>
<td>Hazardous(^2)</td>
</tr>
<tr>
<td>Hagerstown and Duffield</td>
<td>Hazardous(^2)</td>
</tr>
<tr>
<td>very Rocky Silt Loam</td>
<td></td>
</tr>
<tr>
<td>Huntington Silt Loam</td>
<td>Severe(^5)</td>
</tr>
<tr>
<td>Lewisberry Gravelly Sand Loam</td>
<td>Moderate(^1) to Severe(^4)</td>
</tr>
<tr>
<td>Lewisberry Very Stony Sand Loam</td>
<td>Moderate(^1) to Severe(^4)</td>
</tr>
<tr>
<td>Linside Silt Loam</td>
<td>Severe(^5)</td>
</tr>
<tr>
<td>Melvin Silt Loam</td>
<td>Severe(^5)</td>
</tr>
<tr>
<td>Neshaminy Gravelly Silt Loam</td>
<td>Moderate(^3) to Severe(^4)</td>
</tr>
<tr>
<td>Murrill Gravelly Silt Loam</td>
<td>Moderate(^3)</td>
</tr>
</tbody>
</table>

Footnotes:

1. Depth to Bedrock
2. Hazard of Ground water contamination
3. Rockiness
4. Slope
5. Flooding
At present no area in the Township is served by public sewers. Only the Hamlet of Fontanna has a public water system which serves a few homes. The township still has a rural character, and all but a few Township residences rely both on on-lot water and sewer systems on soils classed as hazardous for on-lot sewage disposal.

EXISTING LAND USE

A "wind shield land use survey" was undertaken in the summer of 1971. Land use data and tax maps made available by the Lebanon County-City Planning Department were confirmed in the field. Aerial photography was utilized to locate new development not previously located on the tax maps and also to map the extent of woodland.

In this rural Township farm land and woodland constitute the predominant use of the land. The Township had little industrial and commercial land use development, and no significant economic base of its own. Local residents must either farm or commute to industrial centers within Lebanon or surrounding Counties for employment.

The few industrial uses located exhibited little pattern of type or location. The industries include: a small plating operation along U.S. Route 422; a limestone hauling operation along L.R. 38028; a feed mill in the hamlet of Fontanna; and outdoor storage, junkyard, and truck terminal along U.S. Route 322. Other industrial uses include a quarrying operation and a sawmill on Pennsylvania Route 241 and an excavating contractor on T.R. 344.

Township commercial activities also exhibit no apparent pattern of distribution. Township commercial activities are primarily motorist oriented sales or service establishments. The largest land area devoted to commercial activity is Deck's Campground. Most motorist-service activities are located along
U.S. Route 322 and are located within commercial buildings, instead of being conducted in the home. Township retail sales establishments include a: meat market; grocery store; furniture sales; and an appliance store. Most other goods and services are available in the City of Lebanon, and other nearby urban centers.

The residential land use pattern is spotty. Residences were located along almost every road in the Township. This pattern is inefficient in context of providing for orderly growth of public water and sewer facilities, because the demand for services is dissipated over too wide an area. Some concentrations of residential development has occurred adjacent to Annville Township where the only subdivision in the Township is located. The development in this area is relatively new, and neatly developed with adequate streets. Another concentration of population near T.R. 433 in the western section of the Township where a 184 unit trailer park is located. This development is served by a community sewer system. Other historic residential settlements are located in the hamlets of Mt. Pleasant, Fontanna and Mt. Wilson. A few isolated trailers were evidenced within the Township, the majority of which were located south of U.S. 322 in the more mountainous section of the Township.

The residential pattern is a mixture of suburban development close to Annville, a central section of agricultural farmsteads and exurban residential development, and an exurban and second home development in the wooded and mountainous southern section.

The Township Building is located in Fontanna, and also serves as a community center. Churches are located in various areas. The Keystone Gun Club located in Mt. Wilson, provides for specialized recreation opportunity. The Township is lacking in municipal recreation areas. The Annville-Cleona High School located in the northern section of the Township does have a recreation area, and a County Park area has been acquired. The largest single semi-public area in the Township is the Millard Airport, a private airfield located south of U.S. Route 422.
CIRCULATION

The 1969 Pennsylvania Road Log and the Gilbert Associates, Inc. field survey are the basis for the map depicting highway data such as average daily traffic volumes, pavement widths, traffic problems and deficiencies, and the functional highways classifications.

The purpose of a functional highway classification is to determine the relative importance of each highway to total traffic movement and indicate to government where dollars spent for road improvements would serve the greatest need. The functional classification used was derived from the Automotive Safety Foundation's classifications found in the Department of Transportation road log.

The Township has good highway access via U.S. Routes 422 and 322. The Automotive Safety Foundation classed U.S. Route 422 as a "principal" primary route, while U.S. 322 was classed as another primary route. These two highways are the only ones on the Federal Aid Primary System in the Township.

A Principal primary route such as U.S. Route 422 should function to carry large volumes of high speed through traffic, over long distances, linking with the Interstate System. These highways should ideally be access controlled and grade separated. Existing Route 422 passes through the most congested area of Lebanon County carrying an estimated 1969 average daily traffic of 12,980 vehicles per day in South Annville Township. Passing through severely congested areas, considerable portions of this route are limited to two moving lanes. Based on current traffic levels, it appears that this route is operating well beyond its capacity to move traffic. Furthermore, U.S. 422 cannot function as a principal primary route in its present location, being heavily used for property access.

The 1969-1975 State Highway Plan proposes relocating U.S. Route 422 in Dauphin, Lebanon and Berks County where similar problems exist. Two separate sections
of construction are planned for South Annville Township, one Section from State Route 72 to L.R. 38028, the other from L.R. 38028 to the Dauphin-Lebanon County Line. When completed this improvement will consist of a four-lane divided highway with access limited to a few selected interchanges, one of which is planned at existing State Route 934 in South Annville Township. The tentative route location and interchange with State Route 934 are shown on the base map, but final design could conceivably alter this tentative alignment.

A relocated U.S. 422 will provide the Township with improved east-west access via high speed highways, and alleviate traffic congestion on old U.S. 422. This facility will probably also drain off some of the U.S. Route 322 traffic. This proposed interchange area at State Route 934, one of three west of the City of Lebanon, has the potential to become one of the focal points in western Lebanon County for future highway oriented commercial and industrial development.

U.S. Route 322 in 1969 carried an average daily traffic volume ranging from 4480 to 4600 vehicles per day. This 22-foot wide primary route has a historic alignment, skirting the urban areas, paralleling the Pennsylvania Turnpike. Classed as a regional highway U.S. 322 carries light traffic volumes, at medium to high speeds, provides access to abutting properties on a non-controlled basis, linking with other similar type arterials. This route travels considerable distance before linking into the high speed highway network, and was given a rather low classification in the scale of the primary regional highway network classifications. This presumably also means a low priority for improvement. This route is expected to continue as the major collector of local traffic in the southern end of the Township.

State Route 934 had an average daily traffic of around 2000 vehicles in 1969. It was classed by the Automotive Safety Foundation as one of the more important "secondary routes". The 20 to 22 foot wide pavement provides for two moving lanes and has capacity to handle considerably higher traffic volumes than now reported. State Route 934 which originates at U.S. Route 322 in South
Annville is one of the few north-south routes in western Lebanon County providing continuous north-south link with east-west Interstate Routes 78 and 81, except for State Route 72 which currently travels through the City of Lebanon. State Route 934 could decline in importance with the completion of relocated State Route 72 (2 lanes in a four lane right-of-way) from existing U.S. 422 northward to the Interstate System which is planned for construction in the 1969 to 1975 period. The ultimate effect will not probably be felt until State Route 72 is relocated around the west side of the City of Lebanon sometime after 1975.

The other roads classed as "secondary routes" by the Automotive Safety Foundation were State Routes 241 and 117. State Route 241 travels southward from Route 322 following a circuitous southwesterly route past Elizabethtown where it terminates at State Route 441 on the Susquehanna River. This route functions as a minor collector linking some of the smaller urban centers, collecting traffic and funneling it into the primary highway system. This route is generally 16 feet in width with areas of difficult vertical and horizontal alignments. This route does not carry enough traffic to be classed as a secondary road with only 900 vehicles per day in 1969. It was probably classed because of its linkage with U.S. Route 322 and State Route 230.

A portion of State Route 117 passes through the southwestern corner of the Township between U.S. Routes 322 and 422. This route carries a "secondary" classification although it had lower traffic volumes in 1969 than State Route 241. The other proposed interchange in western Lebanon County with relocated U.S. 422 will be with State Route 117, will provide for limited north-south connections.

Other State Highways in the area include Legislative Route (L.R.) 38028 which travels between U.S. 422 to U.S. 322; L.R. 38030 which travels into the City of Lebanon and the southern arterial bypass of the City; and L.R. 38063. All of these roads except the latter are Federal Aid Secondary Roads (a federal
financing designation). They all carry such low traffic volumes that they function as minor collector streets, and the Automotive Safety Foundation classed these as local roads functioning to provide access to abutting land. It is likely that efforts will be made at the State and Federal levels in the future to have these roads revert to local jurisdictions.

Field notes were made on the Township road system, but it was not feasible to ascertain traffic volumes on these roads. Considering the relatively light traffic volumes recorded on many of the State roads in the area and the lack of continuity of local Township Streets, traffic volumes on local streets are probably rather low. Township roads that provide for some interconnection are combined Township Routes 348 and 429 which connect with U.S. 322, L.R. 38028, and State Route 934. Some Township Routes east of 934 indirectly feed into alternate routes into the City of Lebanon.

Township roads were found to be hard surface paved and generally well maintained. Several roads had a paved surface less than eighteen feet in width which is considered inadequate for two moving lanes. Other local traffic deficiencies consist of narrow one lane, low safe-load bridges; and intersection hazards resulting either from inadequate alignment, sight distance, grades, or obstructions. Other problems in horizontal alignment (sharp curves) or vertical alignment (steep hills) were noted on the circulation map.

COMMUNITY FACILITIES AND SERVICES

Schools

The Township is part of the Annville-Cleona Joint School District. The Junior-Senior High School is located in South Annville Township and Elementary Schools are located in Cleona Borough, and Annville and North Annville Townships. The secondary school site is 45 acres in area, and the school has a pupil capacity
of 1292 students. With an enrollment of 1114 pupils this school could accommodate a 16% increase in enrollment without building additional classrooms. The Long range school plans envision some shuffling of elementary students to the Secondary School on an interim basis, and a middle school is planned for construction between 1975 and 1980 on an expanded secondary site to provide for grades 6 through 8. This will help alleviate the anticipated overcrowding at the secondary elementary levels. Between 1980 and 1985 it is recommended that a fourth elementary school be built in South Annville Township. By 1985, it is anticipated that the Junior-Senior High School will need to be enlarged.

Elementary school sites size should be 10 acres plus one acre per 100 pupils. Secondary facilities should have sites of 20 acres plus one acre per 100 pupils. The existing secondary site may be adequate to provide space for the middle school, but the elementary school will require a new site.

Public Water Supply

The nearest public water supply is provided by the Annville Water Company, although South Annville Township is not serviced. The Hamlet of Fontana has a rather small community water system. Future County water plans recommend by 1990 that public water should be provided to the northeastern section of the Township as well as along the U.S. Route 422 frontage, and the expansion of the Fontana System.

Public Sewerage

Annville Township has public sewerage, although no portion of South Annville Township is served by it. The County Plan calls for extension of sewer service by 1990 in the same area recommended for water service. The Township formed an Authority which are now investigating the feasibility of developing a sewerage system connecting into the Annville Township system. There are roughly fifty residences now located in this area, but plans have been filed
for development of 380 trailers in this general area. In light of the hazardous
classification of soils in the area, the time is right to start designing
public sewerage service in the northern section of the Township. The trailer
park located in the Palm City area is served by a package treatment sewerage
facility which is operating close to capacity.

Fire Protection

South Annville is without local fire protection. The American Insurance Asso-
ciation recommends that all communities have at least one pump engine, and
that all lightly populated areas be within four miles of a fire station.
According to the Lebanon County Community Facilities Plan all of South Annville
Township, except for a small central area falls within a four mile radius of
Fire Stations located in surrounding municipalities. This four mile radius,
however, was measured on a straight line, and does not reflect actual travel
patterns. Annville Township, Campbelltown and North Cornwall presently provide
the fire protection coverage for the Township. When considering highway
patterns the central section of the Township including Fontanna is not adequately
served, lacking even single station coverage. This area is not in the prime
growth area of the Township and includes the lightly developed more mountainous
section of the Township. If this section develops, the Township should consider
establishing a volunteer fire company and locating a station in the vicinity of
Fontana. This would be even more desirable in that it would also provide over-
lapping coverage in Township areas now lacking it.

Police Protection

According to FBI Standards, South Annville should currently have two full time
policemen, and probably another two by 1990. The Township currently has one
part-time man.
Recreation

The Township has no public recreation areas. The Township should have about 7.0 acres of recreation space using National Recreation Association Standards. Part of these Standards, however, include provision for major parks. Such large facilities are beyond the fiscal capability of the Township. Possibly some joint arrangement might be made with the school board to provide recreation space, equipment and supervision at the secondary school site. The proposed new elementary school should help take care of immediate future recreation needs.

The County has purchased a 100 acre farm as part of the Park system. This facility is located in the northeast part of the Township where future residential growth is anticipated. When developed this Park will provide mainly for regional recreation needs, but could conceivably alleviate some pressure for future recreation needs within the Township.

Municipal Buildings

The Township Building is located in the old schoolhouse in Fontana, constructed in 1925 and remodeled in 1970. The building houses one large meeting room and a Township office, and is also used for a Community Center. Twenty off-street parking spaces are available to the front of the building. The Lebanon County Community Facilities Plan indicates that office space should be sufficient for the next five years. The 3.4 acre site is apparently suitable for building and parking expansion.

POPULATION

Lebanon County's total population approached 100,000 persons in the 1970 Census, nearly double its 1930 population. Each decade since 1930 the County's decennial growth rate has surpassed the Commonwealth's.
The Lebanon City-County Planning Department has partitioned the County into four analysis or planning areas. The planning area which includes the Township between 1960 and 1970 accounted for forty-one percent of total net county population gain. As a result, it increased its share of total county population from 20 percent in 1960 to 22 percent in 1970. Planning area II's 1960-1970 growth rate was double that of the County's overall, a rate of growth which closely parallels that experienced nationwide. Except for the City of Lebanon, this area contains two of the larger urban population centers in Lebanon County, Palmyra Borough and Annville Township. These two centers were not, however, the scene of the most rapid population growth experienced in planning area II in the last decade. This occurred in the two Londonderry Townships. Their combined population growth accounted for half of the planning area's 1960-1970 population growth. Except for the Mt. Gretna Borough and South Annville Township, all other municipalities in this planning area experienced population increases between 1960 and 1970.

**CURRENT POPULATION TRENDS**

**PLANNING AREA NO. II**

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<td>4,704</td>
<td>440</td>
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<td>Mt. Gretna Borough</td>
<td>93</td>
<td>153</td>
<td>60</td>
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<tr>
<td>N. Annville Township</td>
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<td>2,180</td>
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<td>N. Londonderry Township</td>
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<td>2,752</td>
<td>1,068</td>
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<td>Palmyra Borough</td>
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<td>7,615</td>
<td>616</td>
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<td>1,403</td>
<td>189</td>
<td>15.6</td>
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<td>2,911</td>
<td>3,754</td>
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<td>18,885</td>
<td>22,561</td>
<td>3,676</td>
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<td>County Total</td>
<td>90,853</td>
<td>99,665</td>
<td>8,812</td>
<td>9.7</td>
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</table>

Source: U.S. Bureau of Census
South Annville Township and Mount Gretna Borough are two of the more lightly populated municipalities located in Planning Area II. Both municipalities did experience healthy percentage growth rates between 1960 and 1970, but neither municipality had much of a total impact on absolute population increase recorded in the Planning Area.

South Annville Township's population growth trends have been erratic over the past 50 years. A large increase in Township population rise occurred in the 1930's, while little increase was experienced in the 1940's, which may reflect the general movement to larger urban centers during W. W. II. Population growth picked up somewhat in the 1950's. The 1960 to 1970 population growth, the largest recorded since the 1930's, was almost doubled that for the previous decade.

**SOUTH ANNVILLE TOWNSHIP PAST POPULATION TRENDS**

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
<th>Net</th>
<th>% Increase</th>
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<tbody>
<tr>
<td>1920</td>
<td>814</td>
<td></td>
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</tr>
<tr>
<td>1930</td>
<td>845</td>
<td>31</td>
<td>3.8</td>
</tr>
<tr>
<td>1940</td>
<td>1045</td>
<td>200</td>
<td>23.6</td>
</tr>
<tr>
<td>1950</td>
<td>1104</td>
<td>59</td>
<td>5.6</td>
</tr>
<tr>
<td>1960</td>
<td>1214</td>
<td>110</td>
<td>9.9</td>
</tr>
<tr>
<td>1970</td>
<td>1403</td>
<td>189</td>
<td>15.6</td>
</tr>
</tbody>
</table>

Source: U.S. Bureau of Census

Projecting population for any small municipalities is difficult. Two major factors affect population changes: natural increase (the net difference between births and deaths); and migration (the net difference of the movement of persons into or out of an area). Generally the smaller the population level, the more susceptible these population projections become to changes in
local economic conditions. Generally in a growing area a percentage of population growth is normally attributed to migration, presumably resulting from shifts in employment. The relocation of one fair size industrial plant would drastically alter projections based on past population trends which may not have reflected such changes. As a rule of thumb one basic industrial job generates two service jobs and a net increase of three families. Most of South Annville's population change has not been tied to local job growth in the Township but rather seem to reflect shifts in residential patterns in the region.

Regardless of the many uncertainties, population projections are needed to gauge future anticipated growth and to plan for future land use patterns and orderly development of roads, utilities, and community services.

POPULATION PROJECTIONS
SOUTH ANNVILLE TOWNSHIP
1980 - 1990

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<tbody>
<tr>
<td>Low^1</td>
<td>1403</td>
<td>1592</td>
<td>1781</td>
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<tr>
<td>Median^2</td>
<td>1403</td>
<td>1610</td>
<td>1836</td>
</tr>
<tr>
<td>High^3</td>
<td>1403</td>
<td>1622</td>
<td>1875</td>
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Source: Gilbert Associates, Inc.

1 Arithmetic Progression
2 Apportionment Method
3 Geometric Progression

Three different methods were utilized to project Township population. The first is an arithmetic progression method which assumes a constant future numerical increase equal to that experienced between 1960 and 1970. The second is a geometric progression method which assumes a constant percentage
increase in population comparable to that experienced in the past decade. The third method utilized the U.S. Bureau of Census Apportionment method, an arithmetic apportionment which uses larger area projections such as Lebanon County as a controlling factor in projecting local population increase. This method takes into account past growth relationships between the local area and the county. The county land use plan anticipates a rate of population growth for South Annville Township much greater than what past growth trend would indicate. The County envisions Township population of 1800 persons by 1980 and 2500 persons by 1990.

The County's projections may be conservative. Currently there are 425 trailer lots undergoing subdivision review. Using an estimated two persons per family this proposed trailer development could add 850 persons to the Township's total population. Unless these plans are not solidly grounded on realistic housing market analysis, the completion of these above developments would bring total Township population to about 2250 persons in the near future. This also assumes no other growth in the Township. The Township industrial base is now fairly weak. If the Township were to attract industrial development, then the 1980 population would be probably much larger than 2250 persons.

The prospect of industrial development along the State Route 934 and relocated U.S. Route 422 interchange is good. For purposes of this study therefore, it is assumed that additional growth stimulation will occur within the Township, and that conceivably the Township could reach a population of 2500 persons by 1980. Past this period growth trends are just a guesstimate particularly if the Township would develop industrially to a greater extent. Once the 1980 census is available growth trends for the 1980 to 1990 period may be more discernable.
ECONOMY

Manufacturing Trends

South Annville Township currently has a rather limited industrial base of three manufacturing establishments according to the 1967 Pennsylvania Industrial Census. Then, the major industry was a dairy employing 52 persons. The other industries were two sawmills and they reported a nominal employment. In 1967 a total industrial employment of 59 persons within the Township produced $3.5 million dollars worth of products, and generated an income of $477,000 which is a 55% increase over 1961 levels. During the 1961-1967 period, industrial employment was static, rising from 55 to 59 persons. Local industrial employment is predominantly male dominated.

The City of Lebanon is the industrial hub for Lebanon County providing for well over 50% of the wages and salaries, value of production and industrial employment in 1967. Other smaller employment centers in the west central urbanized corridor in order of importance include: Palmyra Borough, Annville, West Lebanon, and Cleona Borough. The 1961-1967 employment trend in these areas has been a moderate overall employment increase with 1494 new jobs offset by the loss of 710 jobs. While this area still accounts for a large share of industrial employment in 1967, employment growth in this area from 1961-1967 did not keep pace with that for the remainder of the County.

EMPLOYMENT TRENDS
WEST CENTRAL URBAN CORRIDOR

<table>
<thead>
<tr>
<th>Municipality</th>
<th>1961</th>
<th>1967</th>
<th>Net Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Lebanon</td>
<td>7,886</td>
<td>8,867</td>
<td>+ 981</td>
</tr>
<tr>
<td>Palmyra Borough</td>
<td>1,023</td>
<td>855</td>
<td>- 168</td>
</tr>
<tr>
<td>Annville</td>
<td>1,022</td>
<td>590</td>
<td>- 432</td>
</tr>
<tr>
<td>W. Lebanon</td>
<td>60</td>
<td>429</td>
<td>+ 369</td>
</tr>
</tbody>
</table>
EMployment Trends
West Central Urban Corridor
(Continued)

<table>
<thead>
<tr>
<th>Municipality</th>
<th>1961</th>
<th>1967</th>
<th>Net Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cleona Borough</td>
<td>86</td>
<td>223</td>
<td>+ 137</td>
</tr>
<tr>
<td>S. Annville</td>
<td>55</td>
<td>59</td>
<td>+ 4</td>
</tr>
<tr>
<td>N. Lebanon</td>
<td>49</td>
<td>52</td>
<td>+ 3</td>
</tr>
<tr>
<td>N. Cornwall</td>
<td>112</td>
<td>2</td>
<td>- 110</td>
</tr>
<tr>
<td>Total Sub Area</td>
<td>10,293</td>
<td>11,077</td>
<td>+ 784</td>
</tr>
<tr>
<td>TOTAL COUNTY</td>
<td>13,688</td>
<td>15,493</td>
<td>1,805</td>
</tr>
</tbody>
</table>

Source: Pennsylvania Industrial Census

There are two large industries in Lebanon County, but no one single industrial group dominated total employment. The "Needle Trades" which are heavily female dominated accounted for 30% of 1967 industrial employment, but the general trend in this industry group is that of declining employment levels. Another female dominated industrial group is the leather goods industry. It accounted for 10% of the County's work force in 1967. Together, these two groups accounted for 73% of total female employment.

Primary and fabricated metals groups are male dominated, and accounted for about 1/3 of 1967 employment. The food industry group accounted for another 10% of employment.

Fabricated and primary metals accounted for 42% of 1967 payrolls, with the "Needle Trades" and leather goods combined bringing in nearly 30% of total county payrolls. The food industry accounted for about 8% of total county payroll in 1967.
## MANUFACTURING TRENDS
### SOUTH ANNVILLE TOWNSHIP 1961-67

<table>
<thead>
<tr>
<th>Industrial Group</th>
<th>1961</th>
<th>Total</th>
<th>1967</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dairy Products</td>
<td>1</td>
<td>46</td>
<td>1</td>
<td>52</td>
</tr>
<tr>
<td>Wood Products</td>
<td>2</td>
<td>9</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>3</td>
<td>55</td>
<td>3</td>
<td>59</td>
</tr>
</tbody>
</table>

Source: Pennsylvania Industrial Census
DEVELOPMENT PLAN

REGIONAL EVALUATION

The Lebanon County Land Use Plan envisions the continuation of the overall rural character of the Township while at the same time accommodating significant suburban residential development clustered south of Annville Township where County Water and Sewer Plans indicate a general feasibility of both public water supply and sewerage treatment presumably on a regional scale.

Another regional factor affecting future Township development is the proposed relocation of U.S. Route 422 with State Route 934. The County Land Use Plan envisions the development of a motorist's service center of the north side of this interchange. Presumably daily shopping needs will continue to be met in Annville Township or other areas for some time, since the Township is not expected to enlarge its population fast enough to warrant development of a modern shopping center in the immediate future. This, however, would best be evaluated on a regional scale taking into consideration the larger market area.

Outside of a proposed extractive industrial belt on the South side of business Route 422, no other industrial areas were shown on the County Land Use Plan. A regional park is shown on the same plan. Kobenhaver Park has been already acquired as part of the County Park System.

Conservation areas were noted on the County Land Use Plan mainly along stream valleys subject to periodic flooding and the hilly and wooded southern section of the Township.

The County Community Facilities Plan also included some basic long range development recommendations concerning South Annville Township.
A middle school is proposed for the secondary school site. A new elementary school was recommended between 1980 and 1985. This site should be at a minimum of ten acres in size plus one acre per 100 pupils for recreation purposes. The School Board is currently looking for such a site.

The County Plan recommends public water and sewer service for the northern section of the Township. Also recommended is a volunteer fire company and station to serve the central section of the Township which lacks single coverage. Presumably the more urbanized northern section will, in the future, continue to rely heavily on Annville Township's facilities. According to the County Community Facilities plan the Community Center-Municipal building should be expanded sometime after 1975.

The Township now relies upon Annville Township for library service. As the Township grows it should participate more heavily in the improvement of this facility, since library facilities can be provided more economically and effectively for a larger population base.

The major highway system envisioned on County Plans is the same as discussed in the Circulation section.
GOALS AND OBJECTIVES

- To encourage a balanced future development pattern for the Township recognizing physical and man-made liabilities and assets.

- To work toward the expeditious provision of public utilities and services needed to support urban growth in the future.

- To encourage future urban growth in the most appropriate locations in the Township amenable to orderly growth of public services and utilities.

- To encourage appropriate residential densities and land use intensities to assist in orderly growth of public utilities and services.

- To protect and promote the public health by discouraging intensive use of soils with severe and hazardous limitations for use for on-lot sewerage disposal.

- To protect prime agricultural lands from undue urban encroachment through appropriate land development controls.

- To encourage industrial diversification and sound industrial development in areas accessible to major highways and public utilities.

- To encourage future commercial development in appropriate locations with respect to highways and general accessibility to the public.

- To protect the carrying capacities of major highways by discouraging strip commercial development and by instituting highway access controls.

- To preserve and enhance areas of natural or historic or scenic beauty for the benefit of future generations.

- To improve local roads that are heavily traveled and provide major connections with regional highways.

- To periodically review and update when appropriate these goals and objectives.

- To adopt zoning controls reflecting these general goals and objectives.
LAND USE PLAN

The Township Land Use Plan reflects locally desired goals and objectives.

The plan recognizes the need for future commercial and industrial diversification. Accordingly, strategic areas in the vicinity of the proposed relocated U.S. 422 interchange with State Route 934 are planned for future use for an industrial park or district and also for a motorist service center. The demand for such activities does not derive from internal growth pressures and at this time there are no marketability surveys to justify total acreage. Therefore, the areas delineated for such use on the plan are intended as schematic, and not rigid in size and location. These areas are now for the most part undeveloped, consisting of large parcels of relatively flat land. One serious current shortcoming in the development of these areas is the lack of public utilities needed to sustain intensive development.

The land use plan delineates a possible location for a small neighborhood shopping center accessible via the existing and planned highway network to serve the bulk of residential development areas. This is a long range proposal which would necessitate considerable population growth before a sufficient number of families needed to support such a center will in fact inhabit the Township.

Although the Township's housing composition is largely single-family today, in the future the Township desires to encourage a variety of housing types and densities.

The plan sets aside areas for medium and high density residential development, however, this planning is predicated upon the successful extension of public water and sewerage into the Township. In order to help insure the feasibility of future utility development, the plan encourages higher residential densities in areas adjacent to Annville Township from which orderly utility expansion is most likely to emanate. Medium to high density development should also be located adjacent to schools and recreation facilities whenever possible.
Conversely, recognizing that a continuation of the past residential pattern rapidly dissipates the demand for public utilities, additional residential development outside the above area is to be discouraged by requiring larger lot sizes, etc.

Between the proposed medium to high density residential areas and the proposed interchange development a low density residential area is outlined on the land use plan. This primarily agricultural area is envisioned as a secondary Township residential growth area, which should also be ultimately served by public utilities. The soils in this area are generally hazardous for on-lot sewage disposal. Here flexible density standards are envisioned to either accommodate residential development that could be served on an interim period by temporary community utility systems such as community sewage treatment plants designed to eventually tie into public sewers, or by initially requiring larger residential lot sizes until the utility problems can be overcome.

Another residential area is envisioned in the southern mountainous section of the Township. Here the topography is not suitable for agricultural use except possibly forestry, and the soil conditions are not hazardous for use for on-lot sewage disposal although severe limitations are generally prevalent. This area contains the bulk of steep sloping and wooded areas within the Township, and would be a natural conservation area. Care should be taken in further utilization of the area for residential purposes in light of problems that normally accompany steep slope development. While this area should have a rather large-lot or light density development pattern, some flexibility in density levels should be instituted reflecting the pockets of soils within this area that can accommodate on-lot sewage disposal.

The remaining area of the Township consists of prime agricultural limestone soils with almost no topographic limitations. More than adequate areas were set aside in the land use plan to accommodate future residential development.
with a view to reducing pressures for such development in the prime farming area. This agricultural area like most of the Township has a soil condition that is hazardous for on-lot sewage disposal. Accordingly non-farm residential development is anticipated to be discouraged here by large lot size requirements.

The plan contains recommended improvements to internal traffic circulation involving a new road existing on L.R. 38028 to State Route 934 connecting eastward to connect preferably to Township Route 398 or 396.

Other recommendations for community facilities and services reflected on the plan include a proposed fire station location, enlarged Township building, School plant expansion, and the recent acquisition as part of the County Park System.

Zoning is a short range legislative tool. This is contrasted to the land use plan which is more concerned with long range guidelines for development. The zoning district plan recognizes short range potential for development within the next five years or so within the overall context of the land use plan. The major objective is to encourage future development in the Township initially in a concentrated pattern where public sewerage and water supply should be most feasible to be provided, holding the remaining residential land use as shown on the plan temporarily for agriculture, until such time as this land can realistically be residentially zoned within the framework provided by the Land Use Plan. Similarly, until more definitive plans and feasibility for utility service known, the proposed industrial and motorist service area are recommended to be agriculturally zoned.