Housing Profile and Needs Assessment:
City of Grant City,
Worth County, Missouri

December 2003

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Map Source: OSEDA (Office of Social and Economic Data Analysis),
http://www.oseda.missouri.edu/countypage/29227/countymap.gif
Housing Profile and Needs Assessment:
City of Grant City,
Worth County, Missouri
1990-2003

by

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These people contributed insights, questions and important comments throughout the project.
Executive Summary

Community Profile

WORTH COUNTY lies in the northwestern part of the State and it has a land area of 170,000 acres. It borders the State of Iowa on the north; Harrison County – on the east; Gentry County – on the south; and Nodaway County – on the west. Worth County is the smallest and youngest in the State. The county was created in February, 1861 and was named after William Jenkins Worth, a general in the Florida and Mexican wars.¹

Market Area

Grant City is the county seat for Worth County and comprises 39 percent of the county population. The community lies 34 miles northeast of Maryville and 23 miles northwest of Albany. Two highways intersect the community: US Highway 169 and State Highway 46. Grant City is the largest community in the county and serves as a hub for the area’s agricultural economy. This report compares the data for Grant City with that of Worth County and the State average on a number of demographic, economic and housing variables.

¹ Source: Encyclopedia of the History of Missouri.
Demographic Profile

The population in Grant City declined by 75 persons (or, 8 percent) between 1990 and 2000, down to 926 persons. The decrease in population in Grant City is partly due to the fact that older people are dying off, and the younger people are moving out due to the lack of opportunities for them. Worth County has showed a population decline of 2 percent over the past decade, amounting to 2,382 persons in 2000. Based on the rate of decline from 1990 to 2000, the population is projected to decline to 884 persons in Grant City and 2,348 persons in Worth County by 2006.  

Whereas both Grant City and the county lost elderly people, both areas reported gains in non-elderly adults. Even with the losses, the elderly still comprised a substantial portion of Grant City population (24 percent) in comparison to the State and the county (14 and 22 percent, respectively), and should be considered in planning for housing development. In 2000, the majority of the population in Grant City, Worth County and the State of Missouri was white.

Households

Similar to the population, the number of households in Grant City declined, from 445 households in 1990 to 409 in 2000, whereas the average size of households remained virtually the same. The number of households in Worth County also decreased. There were 1,009 households in Worth County in 2000, down from 1,037 in 1990.

Grant City reported a smaller percentage of married couples in comparison to the State and the county that can be partially explained by the loss of 25 married couples from 1990 to 2000. In the last decade, Grant City also experienced a loss of 44 elderly householders. Even with the loss of elderly people, this age group still comprised twice as many households in Grant City in comparison to the State in percentage terms (20 vs. 10 percent, respectively), as reported in the 2000 Census.

An analysis of the tenure of householders by age in Grant City indicated that adults 25 to 44 years comprised 23 percent of the total population and 27 percent of the households, making up 28 percent of the owner- and 23 percent of the renter-occupied households. During the 1990s, this age cohort experienced a gain of 11 owner-occupied households and a loss of 6 renter households. In addressing housing needs, projects could be encouraged to perpetuate the desirable trends, such as providing homeownership opportunities for middle-aged adults. Projects could also be encouraged to reverse the undesirable trends, by providing affordable starter homes to convert non-elderly renters to homeowners and expanding housing options for seniors.

Income

The median household income in Grant City and the county fell far below the State median in 1990. In fact, Missouri median income was almost twice as high as that of Grant City in 1990, and 60 percent as high in 2000. Note that whereas the median household income for the city and the county remains below the state median, this gap decreased over the last decade. In particular, over the past 10 years the median household income in Grant City grew by 32 percent to $23,897.

These projections were made based on the geometric rate of change.
and Worth County’s median household income increased dramatically by 43 percent to $27,471, while that of Missouri increased by only 9 percent to $37,934 (after being adjusted for inflation).

Household incomes in Grant City were heavily concentrated in the lower income brackets, with 31 percent of the households reporting income less than $15,000 as compared to 25 percent in the county and 17 percent in the State (Census 2000). With a considerably larger percentage of low-income households, this reinforces the need for a community-based approach in addressing housing needs, which would involve both public and private sectors of the community. The median income in the city for elderly people 65 to 74 years of age was $25,417, corresponding to a maximum affordable housing cost of $635 per month (at 30 percent of monthly income rate). Elderly people 75 years and older had median income of $14,821 for a maximum housing cost of $370 monthly.

The 2000 median family income levels in Grant City and Worth County ($29,943 and $34,044, respectively) were considerably lower than national ($50,046) and statewide ($46,044) median incomes, including the median for nonmetro areas in Missouri ($36,015). Of the 253 families in Grant City for whom poverty status was determined, 34 fell below the poverty level as reported in the 2000 Census. This included 12 female householders with children. If the number of single mothers were to grow, it could indicate the need for subsidized housing with support services such as day care and job training.

Between 1990 and 2001, the amount of supplemental security income payments in the county declined by 6 percent. The amounts of food stamp assistance and family assistance have also declined, as lower-income households are encouraged to obtain more education or job training to become employed and to become more economically self-sufficient. Even with those still receiving assistance, the benefits are small. These low-income populations require special attention when planning for housing needs.

Nine percent of the non-elderly people in Grant City reported a mobility or self-care limitation, a rate slightly higher than that of the county and the State. Thirty-one percent of the elderly in Grant City reported limitations, which again is slightly higher than the numbers in the county and the State. Both groups represent a need for housing with a universal design; that is, housing that can be adapted easily for those who are physically handicapped.
In 2000, 56 percent of Grant City population over 16 years of age were in the labor force as compared to 60 percent for Worth County and 65 percent for the State. This indicates that more than 40 percent of persons of working age in Grant City had limited incomes or were dependent on public assistance. Ninety percent of the labor force in Grant City was employed, with 94 percent reported for the county and 95 percent for the State. Of those employed, 63 percent were employed in Worth County and 37 percent commuted outside the county lines for work (both inside and outside Missouri).

Both the number of employed people (employment by residence) and the total labor force in Worth County showed approximately a 19 percent decline from 1990 to 2002, with a slight increase reported between 1994 - 1996, and 2000 - 2001. The number of people in Worth County labor force in 2002 was larger than in 2000, but still falling short of its 1990 level by 19 percent. For comparison, the total population in Worth County declined by 6 percent between 1990 and 2002, indicating that the labor force decline was much more drastic than the population decline in the county. The unemployment rate in the State declined from 1993 through the 1999, due to the strong economy, and the effects of the Personal Responsibility and Work Opportunity Act of 1996. However, Worth County’s rate remained at least one-half percent higher than the State’s from 1995 until 1999, before exceeding the State unemployment rate by 2.3 percent in 2000. This suggests that a larger portion of the people in Worth County were unemployed with little or no income in comparison to the State average. In 2001 and 2002, the rates for the county and the State were almost equal.

In analyzing employment by industry in Worth County, the largest growth over the last decade was seen in finance, insurance and real estate, and service industries, while retail trade reported the largest loss of employees. In examining top occupational categories in 2000, Grant City reported a larger percentage of people in farming, fishing and forestry occupations, and transportation and material moving occupations, with a smaller percentage of people in management, professional, and related occupations, and sales and office occupations in comparison to the State.

Average earnings per job in Worth County grew 16 percent (after being discounted for inflation) from 1990 reaching $17,013 in 2001, which corresponds to an affordable housing cost of $425 per month. Average earnings per job covered by unemployment insurance were $17,192 in 2001, a 14 percent increase over their 1995 level.

The two largest employers in Grant City (Worth County R-III School District and Convalescence Center) reported yearly wages of $15,900 to $18,000 for low-paid employees and $25,560 to $59,270 for higher-paid personnel. This corresponds to a maximum affordable housing cost of $450 to $1,482 per month. The third largest employer, Worth County Government, reported yearly wages for the non-elected officials at $7,111 – $24,000, which corresponds to a maximum affordable housing cost of $600/month. The top three employers indicated that they have no plans to increase staffing levels in the next five years.
**Housing Profile**

**Housing Supply/Availability**

Of the 499 housing units in Grant City reported by Census 2000, 82 percent were occupied with 58 percent of owners and 24 percent of renters. This translated into homeownership rate of 71 percent. For comparison, homeownership rate in 2000 was 70 percent statewide and 75 percent nationally for rural communities. The number of vacant units in Grant City increased by 29 units from 1990 to 2000, while the total number of housing units decreased by 4. This corresponded to a decrease of 11 households in Grant City during the same period.

Eighty-one percent of the housing units in Worth County were occupied in 2000, with a homeownership rate of 77 percent – higher than the State average of 70 percent. Over the last decade, the number of vacant units in the county increased by 4. The county also reported a net loss of 24 housing units from 1990 to 2000 demonstrating decline outside the Grant City limits with decreases in both owner- and renter-occupied units. This corresponded to a decrease of 28 households in the county over the same time period.

The homeownership vacancy rates in both Grant City and the county increased from 1990 to 2000, indicating a widening of the market. At the time of the 2000 Census, the rate in Grant City (8 percent) was higher in comparison to the county (4 percent) and the State (2 percent). In contrast, the rental vacancy rate of 7 percent in Grant City was lower than the rate of 9 percent in the State, perhaps, due to a tightening of the market through the 1990s. Grant City vacancy rates of 8 percent for homeownership and 7 percent for rentals as reported in the 2000 Census are sufficient to allow for adequate consumer choice in the market. However, 38 percent of the vacant units in Grant City were not actively for sale or rent. Thus, overall vacancy rates can mask a community’s real housing availability situation.

Eighty-six percent of the population in Grant City and the county lived in the same house or had moved within the county within a five-year period prior to the 2000 Census. This indicates that movement of new households into the area was weaker than the State average of 23 percent.

In 2000, Grant City and the county reported a somewhat larger percentage of low-density housing in comparison to the State including single-family homes, townhouses and structures with two to four units. However, the city reported a smaller percentage of mobile homes in comparison to the county. With the large number of low-income households in Grant City, mobile housing could provide an affordable housing option.

In 2000, seventy-one percent of the total housing stock in Grant City consisted of two or three bedrooms. Forty-five percent of the owner-occupied units had three bedrooms, with about one-third of the stock consisting of two-bedroom units. In contrast, rental housing was comprised mainly of one- and two-bedroom units. Vacancies were reported in all sizes of units, with the highest vacancy rates at 46 percent for two-bedroom units, followed by 21 percent for three-bedroom units.
Fifty-three percent of the housing units in Grant City were over 50 years old at the time of the 2000 Census, as compared to 57 percent for the county and 24 percent for the State. The large percentage of older homes in Grant City and the county in comparison to the State is a strong indicator of the need for housing rehabilitation programs in the area. Production levels in Grant City in 1990-1994 averaged 3 units per year and there were no new units built between 1995 and 2000, indicating that current production levels are considerably lower than in previous decades. This means that housing with modern designs and amenities is limited. Substandard units and overcrowding do not seem to represent a problem in Grant City.

A windshield survey indicated numerous housing units in need of repair (229 units, of which 61 units require major repairs) or demolition (7 units). The survey noted other blighting influences in the neighborhoods such as yards requiring a lot of trimming (41 units), properties with debris or trash present (184 units), animals running lose (53 units) and yards in need of maintenance (194 units).

There are no housing units in Grant City in the process of renovation. The city reported that officially there were no units that had been demolished in the past two years. According to the Mayor’s Office, currently there are 13 buildings in the city that are identified as needed to be torn down. In the next five years, the Mayor’s Office plans to have up to 25 buildings torn down, with the area of focus being the Square – central downtown. This indicates that Grant City is trying to be more aggressive in their code enforcement efforts in eliminating blighting influences from the neighborhoods. Repetitive submittal of applications to a variety of applicable funding sources; reliance on the service and expertise of organizations dealing with housing issues; building the capacity of local nonprofit agencies and the courting of for-profit developers with experience in affordable housing rehab will be necessary to make this happen in the community.

According to the City Clerk of Grant City, freestanding mobile or manufactured homes are permitted in the city limits, but on a “case by case basis”. Existing mobile homes, as well as all other structures, were grand-fathered in at the time of the adoption of the city code. In abstract terms, Grant City presently has a “higher standard” then what they did before. There are no trailer parks in Grant City, but all neighbors within 400 ft of a mobile home must give their approval. No distinction is made regarding the newer modular homes that are built to local building codes. They are simply required to fill out a “new housing permit” like any new home. In a community with a large number of low-income households, manufactured housing could be a viable housing option to explore. According to the Census 2000, there were 41 mobile homes

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3 A lot of information in this section was provided by Zella Orendorf, City Clerk of Grant City, and Beth Steinhouzer, the Case Worker for Department of Social Services, Worth County, MO.

4 including CDBG Neighborhood Development administered by the DED; Rural Rental Housing Program run by the USDA Missouri State office; funding available from Federal Home Loan Bank, US Department of Housing and Urban Development, and Rural Housing Development. In addition, 2003 Missouri Downtown and Economic Stimulus Act (MODESA) provides new funding for downtown revitalization and historic renovation.

5 such as USDA Rural Housing Service, National Affordable Housing Management Association, Federal Housing Administration, Fannie Mae, Ginnie Mae, Freddie Mac, Housing Assistance Council, National Low Income Housing Coalition, Housing Credit Monitoring Agencies, State Housing Finance Agencies, National Council of State Housing Agencies, National Association of Housing and Redevelopment Officials, National Housing and Rehabilitation Association, and Public Housing Authorities.

6 For more information on various sources of funding for housing projects and technical assistance, see Appendix D.
in Grant City, 29 of which were occupied. The vacancy rates for mobile homes are sufficient to offer choice in the market. The area could also benefit from an upscale park targeted to owners of newer modular units, with amenities offered such as storage sheds, a storm shelter and laundry facility.

The Worth County Community Services administer the Section 8 Program in Grant City, which provides rental assistance to low-income households to assist with market rent. There are 2 apartment complexes in the city that are “low income” or “income based”. Several private home-owners who are renting are also using the program.

The retail corridor might be viewed as an opportunity for additional housing. Currently, three apartments are located above existing businesses, one of which is occupied, and two are vacant. Rehabilitation or management experience will need to be broadened, and financial incentives will need to be addressed before more downtown housing can be realized.

When defining “affordability” of housing, the value of the housing stock is compared to the income of the household. Several definitions of “affordability” exist. This study examines both the governmental definitions provided by the Congress in the National Affordable Housing Act, as well as the conventional mortgage view of affordability.

Based on the Worth County area median income (AMI) for a family of four in 2002, affordable housing should not exceed $706 per month for a low-income household (80 percent of AMI), and $441 for a very low-income household (50 percent of AMI).

### Homeownership

The median value of an owner-occupied home in Grant City in 2000 was $28,800, as compared to $34,300 in Worth County and $86,900 in the State. In 2000, the median mortgage cost in Grant City was $513, with 14 percent of owners reporting a cost burden, that is, paying more than 30 percent of their income for housing. This compared to $500 in Worth County with 12 percent reporting cost burden, and $861 in the State with 16 percent reporting cost burden.

### Rental Housing

The median gross rent in Grant City and Worth County in 2000 was $258. Twenty-eight percent of renters in Grant City reported a cost burden with similar percent for the county. In 2000, state median gross rent was $484 with a 33 percent cost burden.

In 2002, an extremely low income household (earning $10,590, or 30 percent of the Area Median Income of $35,300) in Worth County could afford monthly rent of no more than $265, while the Fair Market Rent for a two bedroom unit was $371. For comparison, an extremely low income household in Missouri as a whole could afford monthly rent of no more than $409, while the state average Fair Market Rent for a two bedroom unit was $561.

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7 The majority of information in this section came from the National Low Income Housing Coalition report, “Rental Housing for America’s Poor Families: Farther Out of Reach Than Ever”, 2002, [http://www.nlihc.org/cgi-bin/oor2002.pl?state=MO](http://www.nlihc.org/cgi-bin/oor2002.pl?state=MO)
In 2002, a minimum wage earner (earning $5.15 per hour) in Worth County could afford a rent of no more than $268/month (same as the State Average).

In 2002, an SSI recipient (receiving $545 monthly) in Worth County could afford a rent of no more than $164/month (same as the State Average), while the Fair Market Rent for a one-bedroom unit was $288 for Worth County and $442 for the State of Missouri.\(^8\)

In the same year (2002), in Worth County, a worker earning the minimum wage ($5.15 per hour) had to work 56 hours/week (as compared to 84 hours/week for the State average) in order to afford a two-bedroom unit at the area's Fair Market rent.

The Housing Wage in Worth County in 2002 was $7.25 (vs. $10.80 in the State as a whole). This is the amount a full time worker (working 40 hours per week) must earn per hour in order to afford a two-bedroom unit at the area's Fair Market rent. This constitutes 141 percent of the minimum wage of $5.15/hour for the County (vs. 210 percent for the State average).

**Housing Opportunities**

To increase homeownership in Grant City, homebuyer education and credit counseling efforts should be coordinated and promoted through the housing delivery system. Education on available funding programs will better prepare realtors and mortgage lenders in the area to help their clients attain homeownership. Housing that is affordable to median income families will be a key in transforming renters to buyers, so builders will play a vital role. More quality rental housing is needed for families, including market-rate and government-subsidized units.

The housing delivery system within Grant City should band together to promote Grant City as an attractive location to live and work. Housing-related information could be posted on the City or Chamber of Commerce Web site. Currently, the Chamber of Commerce does not have a website, but it certainly is an option to explore in the future.

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\(^8\) A unit is considered affordable if it costs no more than 30% of the renter's income.
Introduction

Housing markets, like labor markets, are highly spatial in nature and depend on the location of jobs, the quality of public services and the demographics of local population. The “Housing Profile and Needs Assessment” protocol was developed as a result of the Outreach Development Fund (ODF) project based on the close collaboration between the ODF Project Partners (CPAC, CARES, HSEW and NWMORCOG) and local communities. The “Housing Profile Protocol” is a tool developed to aid communities in gathering useful housing information and identifying housing resources.

The protocol has its origins in the “Oklahoma Housing Needs Assessment and Strategic Plan” compiled by the Federal Home Loan Bank (FHLB), Topeka, Kansas. The Oklahoma template was modified and expanded in order to address Missouri-specific housing, demographic and economic conditions. The resulting four-phase protocol is designed to simplify the housing needs assessment process via a step-by-step, interactive method. First, the U.S. Census Bureau (and other) data sources are searched for relevant information via the Internet. Next, a community-based Advisory Panel is formed to gather local information, both from the County Assessor’s Office and through a house-by-house windshield assessment survey. These data are then compiled into a database, and used in calculations and map generation. Finally, a series of meetings are held with the Advisory Panel in the community to discuss the analyzed data and to identify and eliminate any gaps in information before the final report is assembled. The four phases of the process are outlined as following:

PHASE ONE

ODF Partners’ Responsibilities:

- Using secondary data sources (primarily U.S. Census Bureau figures), generate a community profile that depicts an array of socio-demographic and economic variables. Present community profile at the first community meeting;
- Evaluate community’s needs and resources in conducting the housing study. Assess the selected community in terms of housing affordability, availability, and adequacy;
- Provide a map of the selected community that depicts the relevant secondary housing data by block;
- Conduct “train-the-trainer” sessions providing the guide to the community representatives regarding the process of conducting Phases II, III and IV of the “Housing Profile Protocol”.

Community Partners’ Responsibilities:

- Form a community Advisory Panel that broadly represents the various components of community life (e.g., bankers, real estate agents, health and education representatives, manufacturers, public officials, concerned citizens, home owners, renters, etc);

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9 ODF is funded by the University Outreach and Extension (UO/E), MU.
10 CPAC, CARES, HSEW and NWMORCOG stand for Community Policy Analysis Center, Center for Agricultural, Resource and Environmental Systems, Housing and Sustainable Environment Group, and North-West Missouri Regional Council of Governments, respectively.
• The Panel will have no responsibilities in this phase other than to identify the housing needs and concerns in their community during a brainstorming session.

PHASE TWO

**ODF Partners’ Responsibilities:**

• Using community-specific U.S. Census Bureau data, describe housing **affordability, availability, and adequacy**. Provide comparisons with the county and state averages;
• Using the information obtained from the County Assessor’s Office and collected and organized by community Advisory Panel, provide a map of the community that illustrates these data by property parcel (i.e., geo-coded information: parcel number, street address, and data).

**Community Partners’ Responsibilities:**

• Collect primary data that is property parcel-specific, creating a database from which all subsequent community analyses may be conducted.

PHASE THREE

**ODF Partners’ Responsibilities:**

• Prepare the housing-specific database for the community including all relevant secondary and primary data;
• Map all primary data collected by the community Advisory Panel in this phase, link it with all subsequent data collected and present it in a map form.

**Community Partners’ Responsibilities:**

• Conduct an exhaustive “drive-by” survey of all housing by parcel number yielding a “snapshot” of the current housing stock in the designated community.

PHASE FOUR

**ODF Partners’ Responsibilities:**

• In cooperation with the community Advisory Panel, prepare an impact analysis (a general model) of possible housing scenarios based on the changes in income, employment, and other conditions identified by the community Advisory Panel;
• Prepare a web-based interactive mapped version of this analysis for community Advisory Panel.

**Community Partner’s Responsibilities:**

• In consultation and partnership with ODF Partners, suggest and conduct salient community analyses using the web-based interactive mapping data;
• Create a comprehensive housing database and community housing profile in order to identify the local housing situation and the consumers, institutional structure, public and private resources and relevant public policies affecting housing.

An evaluation process will take place at the end of each phase. The evaluation will be based on the questionnaire filled out by the community Advisory Panel. The questionnaire results will be analyzed jointly by the ODF partners and the Advisory Panel as a way of assessing the process in terms of what worked and what did not.

The resulting “Housing Profile and Needs Assessment” protocol is intended to establish priorities for assisting residents with their housing needs and to select programs that best respond to identified housing problems. The report will be used for the following purposes:

• To create awareness of local housing and economic development conditions;
• To establish action plans for community housing development and promotion;
• To document market feasibility for housing developers, lenders and appraisers;
• To permit community-to-community comparisons of solutions and strategies; and
• To facilitate obtaining funding from federal, state and other sources.

In this particular report, Grant City served as the first in a series of pilot communities. Therefore, the data collection in all phases of the process was conducted by the “Housing Profile” ODF partners rather than by the Grant City Advisory Panel. Once refined, however, the process is expected to operate as outlined above. Namely, in all subsequent pilot communities, the community members will collect data and participate in the protocol process in accordance with the protocol’s four-phase plan.

This report consists of three major parts: community demographic, economic and housing profiles, and examines the first three phases of the housing protocol. A separate report, “Grant City Baseline, 2001-2011”, summarizes the Phase Four of the protocol.

Windshield Survey Synopsis: Tool Development and Methodology

**Tool Development**

ODF Project Partners have determined that the windshield survey tool should collect certain data, including housing physical characteristics, neighborhood characteristics, and county assessor’s data for each housing unit in Grant City, Missouri. Using the identified variables as a guide, personnel from CARES on the University of Missouri campus created a computer-based input tool, designed to be used in the field. The tool allows for the input of all requested data using a map-based system, utilizing aerial photography to dynamically link the entered data with a geographic point.

**Methodology**

Personnel from the NWMORCOG conducted the field survey using the tool created by CARES. Two staff members were dispatched throughout
the spring and summer of 2002 to collect the data. The field survey was completed entirely from
an automobile, using a laptop computer and the input tool. The driver would stop in front of a
residence and verbally complete the survey, as the second staff member would input the data into
the computer. This was completed for the majority of houses in Grant City.\textsuperscript{11} For a complete
definition of variables for which the data was collected during the windshield survey, see
Appendix B. Due to confidentiality issues, disaggregated survey results were published in a
Supplement that was distributed among the Panel members only.

Data from the County Assessor’s office was also collected during this phase of the project.
Personnel from the NWMORCOG traveled to the Worth County Assessor’s office on several
occasions to collect the requested data. The Worth County Assessor’s office uses a traditional
pen-and-paper based data organization system, which had to be transferred in its entirety to a
digital format. This was accomplished using a laptop computer, with the assessor’s data being
input to a Microsoft Access database.

Finally, the data set collected from the field and the data set collected from the assessor were
merged to form the comprehensive housing instrument. This was accomplished by the
NWMORCOG staff, with assistance from CARES personnel.

The collected data were uploaded to CARES Internet Map Server (IMS) and viewed by the ODF
partners and the local Advisory Panel in a password-protected Intranet. Based on the group
consensus, some data were also made available to the general public via Internet access. CARES
developed menu interfaces between the laptop and IMS for easy upload and download and for
viewing and querying the GIS layers ad images. The software programs used to view and query
the data are ArcView and ArcView IMS. The tool designed by CARES also gives the end users
an option to add the information to the database from a remote location. This is especially
important because as time goes by, the existing housing stock in the community will inevitably
undergo some change such as new housing construction, renovation and demolishing.

The advantage of using an IMS is that the Internet is an efficient and affordable way to distribute
spatial and non-spatial information in a timely fashion. Users will only require a browser such as
Netscape or Internet Explorer to interact with the system, which resides on a centralized server.

Upon the completion of the windshield survey, the ODF partners concluded that for larger
communities, it will not be necessary to survey all housing units in a community, but rather,
evaluate a neighborhood as a whole, since the houses in a neighborhood tend to share similar
characteristics. Such approach would lessen the amount of time spent on gathering the local
data. The ODF partners also concluded that the execution of the windshield survey should
involve more community residents, each responsible for surveying no more than 4-5 blocks.
This would be more efficient than having two people surveying the entire community (which
was the case in the Grant City). The community residents could use a paper and pencil approach
during the survey, and the data gathered from all the collectors would afterwards be keyed in a
centralized database.

\textsuperscript{11} At least a dozen houses on the northwest side of town were not surveyed. Senior citizens’ apartments just west of
the school were also excluded from the survey.