

Neighborhood Housing Conditions Survey

**Final Report for the City of Kansas City,
Missouri Contract No.07-UMKC01**

Submitted by:

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May 25, 2007**

Introduction

This is the final report of a Housing Conditions Resurvey that was conducted in the summer of 2006 in eleven (11) Neighborhood Improvement Program (NIP) designated areas. The survey was commissioned by the City of Kansas City, Missouri, Department of Neighborhood and Community Services (NCS), and was conducted by a coalition of the Center for Economic Information of the University of Missouri-Kansas City (CEI), and the Kansas City Neighborhood Alliance (KCNA). The original Housing Conditions Survey was commissioned by the City of Kansas City, Missouri in 2000-01 for the urban core of Kansas City, Missouri, and was conducted by the same two institutions. In both instances, CEI was the primary contractor and KCNA was a subcontractor. The 2006 Resurvey covered 15,507 parcels, roughly 17.5% of the parcels of the urban core. The plan of NCS is to cover approximately 20% of the urban core annually, such that every parcel in the urban core would be surveyed in a 5 year period. The resulting database will be used for planning purposes and for evaluation of city programs and services. Preliminary results of this survey have been released to several neighborhoods and city departments with prior approval of NCS.

The eleven surveyed areas are highlighted in Map 1. Table 1 contains the number of parcels surveyed in each area.

Table 1: NIP Area Parcel Counts

Area Name	Parcels
Blue Hills	3636
Boston Heights	207
Center City	235
Columbus Park	381
East 49/63	890
Independence Plaza	954
Ivanhoe	3969
Santa Fe	846
Town Fork Creek	2490
Walnut Grove	868
Winnwood-Sunnybrook	1031
Total	15507

This report consists of three sections. Section I describes methodology. Section II contains summary results of the 2006 Survey, and a comparison of those results with survey results from the 2000-01 Survey. Section III examines reports of crime and Heartland Multiple Listing Service Sales in the surveyed areas. For each NIP surveyed area, detailed maps of land use, of each surveyed condition, and of crime reports are included as Appendix IV. The survey database and maps are also contained on a CD, the contents of which are detailed at the end of this report.

Map 1: Kansas City, Missouri
Neighborhood Improvement Program
2006 Neighborhood Housing Conditions
Survey Areas



0 0.35 0.7 1.4 2.1
Miles

Columbus Park

Winnwood-Sunnybrook

Independence Plaza

Boston Heights

Santa Fe

Center City

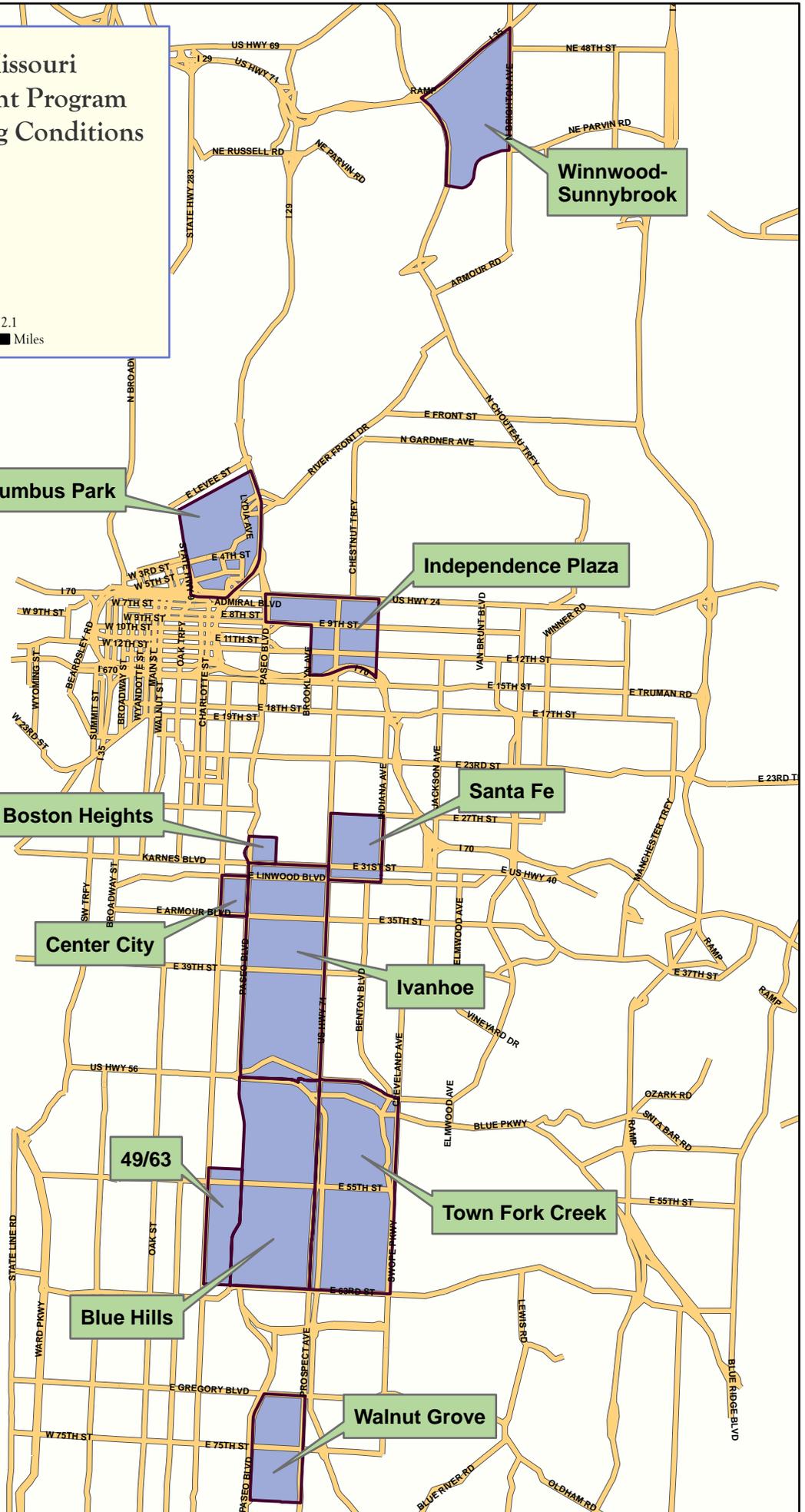
Ivanhoe

49/63

Town Fork Creek

Blue Hills

Walnut Grove



I. Methodology

The Housing Conditions Survey is a windshield survey of residential parcels. The parcel geography and other relevant information was provided by the City of Kansas City, Missouri. The conditions surveyed are those that are visible from the street on which a parcel is addressed. Parcels that are non-residential, both in structure type and use type, are noted as such and no additional information is collected. The original form of the survey was developed by Ed Linnebur of the Kansas City Neighborhood Alliance, prior to the application of the 2000-01 survey. Detailed documentation for that survey is available in the Final Report for the City of Kansas City Missouri Contract No. 1999-032. That survey was primarily conducted on paper. For the 2006 survey, data collection was done with PDAs.

Surveyors were trained in both a classroom setting and in the field. The Ratings Guide is the central instructional tool and it is attached as Appendix 1. It describes each element of the survey, and the appropriate number response for each element. There are two broad types of data collected. The first type is classification data. The second type is conditions data. Classification data includes structure type, use type, residential type, structure profile, and visible address. For all parcels other than those that are classified as non-residential in both structure type and use type, conditions data is collected. This report will discuss each of the 15 surveyed conditions both individually, and grouped into three general categories of conditions. The groupings and their component elements are listed in Table I-1:

Table I-1: General and Specific Categories of Conditions for Housing Conditions Survey

Structure	Grounds	Infrastructure
Roof	Private sidewalk/drive	Public sidewalk
Foundation/walls	Lawn/shrubs	Curb
Windows/doors	Nuisance vehicles	Street lighting
Porch	Litter	Catch basin
Exterior Paint	Open storage	Street

The condition of each of these elements is rated on a scale of 1 to 5, with 5 corresponding to the best condition and 1 corresponding to the worst condition. The specific meaning of each condition number for each of the above elements is contained in Appendix 1. For parcels with no structure (vacant lots, parking lots, parks) there is only data for the Grounds and Infrastructure conditions.

After a classroom session with visual aids, the surveyors were taken into the field and asked to rate a “rating block” chosen earlier by the training personnel for its representativity. All surveyors discussed ratings and arrived at a consensus.

After the day of training, surveyors went out in teams of two to survey test blocks. Surveyors were certified if the results of their surveys of the test blocks agreed with the results of the trainers. If the results did not fall within our quality control guidelines (see below), further training took place. Surveyors were “certified” to go into the field independently once they had passed quality control standards.

Once certified, the surveyors conducted surveys in teams of two. There were three teams that collected all of the data. Each surveyor had a PDA, paper maps of the area to be surveyed, and a one page summary of the ratings guide. The one page summary is called the descriptors guide, and is included as Appendix 2. The PDA user’s guide for the housing conditions survey is included as Appendix 3.

Quality Control

The following quality control procedures were performed. Two blocks with a minimum of 20 residential parcels per block were randomly selected from the survey data for each survey team. These parcels were then inspected by the survey developer/trainer to provide a set of standard results for each parcel. For categorical variables (visible address, structure type, use type, residential type, and structure profile) a direct a comparison was made. For ratings variables, an overall average difference per rating was calculated. This was calculated by taking the absolute value of the difference between the original surveyor rating and the standard rating for each parcel and summing over the total number of parcels surveyed, then dividing that value by the total number of parcels surveyed. In cases where the surveyor rated an item as unrateable (a value of 6) and the standard rating was anything other than unrateable, or vice versa, the rating was not counted in the average. An average difference under one was considered passing, and meant that overall the ratings fell within the range of -1 to +1 from the standard rating. Any average difference that was greater than one was considered as failing. The results of the quality control procedures by condition are contained in Table I-2.

Table I-2: Quality Control Results

Survey Team	Roof	Foundation & Walls	Windows & Doors	Porches	Exterior Paint	Private Sidewalks & Drives	Lawn & Shrub
1	0.9020	0.5490	0.2745	0.5490	0.5294	0.8600	0.6863
2	0.2308	0.6346	0.3462	0.5962	0.3654	1.1042	0.7115
3	0.4694	0.6122	0.5714	0.5102	0.7755	0.7111	0.8163

Survey Team	Vehicles	Litter	Open Storage	Public Sidewalks	Curbs	Street Lights	Catch Basins	Street
1	0.5294	0.4118	0.3529	1.1176	0.8431	0.0000	0.0000	0.0000
2	0.0577	0.8462	0.4231	0.9615	0.7308	0.0192	0.0612	0.3654
3	0.2449	0.4286	0.4082	1.2708	0.7347	0.0816	0.0426	0.0000

All ratings pass with the exception of private sidewalk for Survey Team 2, and public sidewalks for Survey Teams 1 and 3. On examination of these ratings we found that the surveyors were

systematically rating sidewalks higher (better) than the survey developer/trainers. Further discussion with the developer and trainers revealed that the ratings of the surveyors were consistent with training.

Modification of Geography

In some circumstances it was necessary to modify the parcel geography in order to make what surveyors found on the ground correspond to the parcel geography. As stated earlier, surveyors have a parcel map of the area they are surveying. If that map did not correspond to what the surveyors found, the surveyors were trained to make modifications in the paper map, which was then implemented by the CEI GIS team. The final map projects that are produced for this final report are based on the modified geography. There will not be 100% agreement between the parcel layer that is produced for this final report, and the city's parcel layer that served as a basis for the survey. When a new parcel was created, CEI added to the original KCMO database (using the KIVA field). Most of the modifications consist of merging individual parcels to make a larger parcel. CEI will produce a list of geographic modifications on request from the city.

II. Housing Conditions Survey Results

There are several different types of classification data in the Housing Conditions Survey. We will detail and discuss the results of the key classification variable – structure type. Parcels are classified as having structures that were build for residential purposes, for non-residential purposes, having no structure, or for being parking lots, parks, residential commons. We added the category of inaccessible. Results are reported in Table II-1.

Table II-1: NIP Area Percentage Distribution of Parcel Structure Type

Area Name	Percent with Residential Structures	Percent Non-Residential	Percent Vacant Lots	Percent Other*
Blue Hills	83.39%	2.20%	13.42%	0.99%
Boston Heights	70.05%	4.83%	24.64%	0.48%
Center City	46.81%	13.19%	39.15%	0.85%
Columbus Park	58.79%	20.21%	15.49%	5.51%
East 49/63	88.09%	5.51%	5.39%	1.01%
Independence Plaza	65.30%	11.74%	18.55%	4.40%
Ivanhoe	60.97%	3.07%	33.76%	2.19%
Santa Fe	77.30%	4.02%	17.02%	1.65%
Town Fork Creek	79.00%	2.81%	16.18%	2.01%
Walnut Grove	88.82%	4.95%	5.76%	0.46%
Winnwood-Sunnybrook	91.95%	4.17%	3.69%	0.19%
All Surveyed NIP Areas	75.31%	4.33%	18.64%	1.73%

*Includes parking lots, parks, residential commons, and inaccessible parcels

Notable in Table II-1 are:

1. There is a high incidence of vacant lots in the surveyed NIP areas, particularly in the Center City and Ivanhoe areas. Note that a vacant lot is a parcel with no structure. This survey does not measure the extent to which the residential structures are vacant. A survey of residences in Ivanhoe, conducted by the Ivanhoe Neighborhood Council with CEI support, found that over 12% of the residential structures in the Ivanhoe area are vacant. This means that over 45% of the residential parcels in the Ivanhoe area are not being used. Although we have data for only one area, we expect there to be a positive correlation between vacant lot percentage and percentage of vacant residential structures. In areas with a high percentage of vacant lots, we expect to find a high percentage of vacant residential structures.
2. Three of the smaller NIP areas have a relatively high percentage (12-20%) of non-residential land use, while none of the other surveyed NIP areas have a non-residential parcel percentage over 5.5%. In smaller areas the incidence of non-

- residential land use is more sensitive to the particular set of parcels that is included, simply because the smaller areas have a small number of parcels.
3. The residential nature of the NIP areas is clear. With the exception of the small areas noted in 2 above, over 95% of parcels are either residential or vacant lots that were formerly residential.

One other classification variable deserves mentioning. This was the visible address question, added in the 2006 survey. Results are summarized in Table II-2. Obviously, areas with a high incidence of vacant lots will most likely have a low incidence of parcels with visible address. Recall that Center City and Ivanhoe are the areas with the highest incidence of vacant lots. From Table II-2, it is clear that other NIP areas have a low visible address percentage. Having a visible address associated with a parcel is a low-cost way to improve neighborhood conditions, providing easier and faster access by emergency response units.

Table II-2: NIP Area Percentage Distribution of Visible Address

Area Name	Percent of Parcels with Visible Address
Blue Hills	70.21%
Boston Heights	56.04%
Center City	39.15%
Columbus Park	69.29%
East 49/63	71.35%
Independence Plaza	58.91%
Ivanhoe	47.95%
Santa Fe	60.17%
Town Fork Creek	68.80%
Walnut Grove	83.64%
Winnwood-Sunnybrook	84.38%
All Surveyed NIP Areas	64.12%

Tables II-3, II-4 and II-5 summarize the condition findings by NIP area, for structure, grounds and infrastructure, respectively. There are two percentages reported for each condition. Because the rating scale used in this survey is qualitative, it does not make statistical sense to use average scores.¹ For this reason we look at the relative frequency of critical scalar values. The scale that is used for this survey was developed based on city codes. Any score of 3 is a minor code violation, with a score of 2 reflecting a major code violation, and a score of 1 reflecting the worst possible condition. The percentages in these tables reflect the percentage of parcels in the NIP area for which a score of 1 or 2 was recorded (Column header “Serious Deterioration”), and the

¹ For an average to make statistical sense, the relationship between the numbers must be quantitative, so that a 2 is twice as large (or “good”) as a 1, and ½ as large (or “good”) as a 4.

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Table II-3 Summary of Structure Conditions by NIP Area

	Roof		Foundation/Wall		Window/Door		Porch		Exterior Paint		All Structure	
	Serious* Deterioration	Sub- standard+										
Blue Hills	6.78%	55.44%	0.23%	2.64%	2.04%	6.10%	1.52%	16.09%	3.33%	25.75%	2.78%	21.18%
Boston Heights	2.24%	16.42%	2.76%	26.21%	2.07%	14.48%	4.14%	22.76%	4.83%	29.66%	3.22%	21.99%
Center City	6.93%	41.58%	3.64%	29.09%	1.82%	13.64%	9.09%	38.18%	0.00%	23.64%	4.25%	29.02%
Columbus Park	5.84%	59.09%	0.41%	3.72%	1.24%	2.89%	1.65%	9.09%	2.07%	25.21%	2.03%	17.36%
East 49/63	4.04%	24.09%	2.30%	17.47%	1.79%	13.39%	10.97%	47.83%	5.36%	25.13%	4.89%	25.59%
Independence Plaza	4.61%	12.92%	4.93%	17.33%	3.03%	12.44%	8.51%	18.78%	3.04%	18.08%	4.82%	16.03%
Ivanhoe	11.09%	43.18%	7.76%	20.16%	5.31%	20.70%	10.51%	37.99%	12.12%	42.50%	9.36%	32.86%
Santa Fe	9.92%	33.17%	8.24%	24.12%	4.73%	21.83%	16.51%	42.05%	7.49%	38.38%	9.38%	31.88%
Town Fork Creek	9.32%	69.49%	0.20%	3.61%	1.83%	5.85%	2.14%	23.69%	4.17%	30.60%	3.53%	26.64%
Walnut Grove	6.80%	65.23%	0.00%	0.65%	0.00%	1.43%	0.26%	6.36%	1.30%	26.98%	1.66%	20.06%
Winnwood/Sunnybrook	0.32%	4.13%	1.37%	6.32%	0.00%	2.00%	1.37%	6.96%	2.85%	11.60%	1.18%	6.21%
Grand Total	7.40%	45.84%	2.77%	10.15%	2.55%	10.26%	5.34%	24.39%	5.44%	29.25%	4.69%	23.87%
* the percentage is equal to the number of parcels receiving a rating of 1 or 2, divided by the total number of valid ratings												
+ the percentage is equal to the number of parcels receiving a rating of 1, 2 or 3, divided by the total number of valid ratings												

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Table II-4 Summary of Grounds Conditions by NIP Area

	Private Sidewalk/Driveway		Lawn/Shrub		Nuisance Vehicle		Litter		Open Storage		All Grounds	
	Serious* Deterioration	Sub-standard+	Serious* Deterioration	Sub-standard+	Serious* Deterioration	Sub-standard+	Serious* Deterioration	Sub-standard+	Serious* Deterioration	Sub-standard+	Serious* Deterioration	Sub-standard+
Blue Hills	8.33%	33.77%	1.94%	16.14%	0.06%	2.08%	0.82%	8.38%	0.42%	6.10%	2.15%	12.74%
Boston Heights	8.23%	25.32%	7.65%	15.31%	0.51%	2.54%	2.54%	8.12%	1.02%	6.60%	3.81%	10.99%
Center City	14.17%	29.92%	4.90%	30.88%	0.49%	2.94%	3.92%	8.82%	1.47%	15.69%	4.24%	16.65%
Columbus Park	1.54%	16.60%	1.55%	6.21%	0.31%	0.62%	0.31%	2.48%	0.31%	1.55%	0.78%	5.04%
East 49/63	73.12%	82.37%	2.02%	5.95%	0.59%	2.14%	4.88%	25.80%	0.24%	13.67%	15.76%	25.58%
Independence Plaza	38.08%	44.91%	2.02%	6.53%	1.19%	1.66%	1.66%	7.36%	1.66%	4.99%	8.03%	12.12%
Ivanhoe	37.91%	53.24%	6.73%	23.02%	1.07%	3.31%	3.89%	12.84%	0.97%	10.57%	8.46%	18.66%
Santa Fe	71.15%	80.34%	2.34%	8.37%	1.72%	2.71%	5.54%	22.04%	0.99%	10.34%	14.89%	23.29%
Town Fork Creek	4.91%	34.29%	0.87%	9.75%	0.08%	2.11%	0.91%	7.27%	0.25%	3.88%	1.28%	10.68%
Walnut Grove	5.16%	33.94%	0.12%	6.91%	0.00%	2.42%	0.12%	5.21%	0.00%	3.64%	1.03%	10.15%
Winnwood/Sunnybrook	21.41%	34.92%	2.33%	11.84%	0.00%	3.34%	0.71%	1.32%	0.61%	10.22%	4.88%	12.14%
Grand Total	24.66%	44.29%	3.07%	14.50%	0.52%	2.51%	2.17%	10.26%	0.63%	7.67%	5.57%	14.86%
* the percentage is equal to the number of parcels receiving a rating of 1 or 2, divided by the total number of valid ratings												
+ the percentage is equal to the number of parcels receiving a rating of 1, 2 or 3, divided by the total number of valid ratings												

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Table II-5 Summary of Infrastructure Conditions by NIP Area

	Public Sidewalk		Curb		Street Lighting		Catch Basin		Street		All Infrastructure	
	Serious* Deterioration	Sub- standard+										
Blue Hills	45.47%	58.06%	7.46%	19.57%	0.65%	0.70%	3.76%	12.54%	0.03%	2.01%	12.30%	18.74%
Boston Heights	15.23%	39.59%	75.00%	86.22%	0.00%	0.00%	20.00%	20.00%	0.00%	0.00%	22.45%	31.27%
Center City	16.67%	43.14%	38.73%	61.76%	0.00%	0.00%	0.00%	10.00%	0.00%	0.00%	13.52%	25.84%
Columbus Park	11.54%	19.58%	3.99%	20.27%	2.17%	2.17%	2.04%	8.16%	0.63%	0.95%	4.11%	9.80%
East 49/63	64.54%	75.78%	26.77%	70.11%	0.00%	0.59%	0.00%	28.95%	0.95%	18.43%	21.99%	40.04%
Independence Plaza	38.04%	43.18%	2.87%	8.96%	0.00%	0.00%	16.18%	25.00%	7.37%	25.09%	12.08%	19.32%
Ivanhoe	34.20%	46.17%	42.12%	59.03%	0.05%	0.08%	7.31%	18.27%	1.26%	9.39%	19.05%	28.29%
Santa Fe	65.23%	73.24%	15.20%	34.86%	0.00%	0.12%	18.42%	23.68%	0.12%	31.65%	20.09%	34.78%
Town Fork Creek	22.99%	40.52%	4.99%	13.19%	2.89%	2.89%	3.77%	11.32%	0.97%	1.23%	5.24%	9.65%
Walnut Grove	39.13%	56.86%	29.83%	46.15%	0.24%	0.24%	2.53%	11.39%	0.00%	1.35%	11.76%	18.01%
Winnwood/Sunnybrook	9.52%	23.81%	0.00%	0.35%	0.20%	0.20%	17.86%	25.00%	0.10%	1.33%	0.25%	0.70%
Grand Total	39.40%	52.01%	20.36%	35.37%	0.71%	0.77%	5.96%	15.47%	0.99%	7.53%	12.99%	20.66%
* the percentage is equal to the number of parcels receiving a rating of 1 or 2, divided by the total number of valid ratings												
+ the percentage is equal to the number of parcels receiving a rating of 1, 2 or 3, divided by the total number of valid ratings												

percentage of parcels in the NIP area for which a score of 1, 2, or 3 was recorded (Column header “Substandard”). Note that the percentage of parcels with high scores (4 or 5) can be calculated by subtracting the substandard percentage from 1.

Structure Variables

Notable in Table II-3 (Structure) are:

1. In general, fewer than 10% of parcels with structures have structure scores in the lowest two categories.
2. There is a three tiered set of results for very low structure scores. The Ivanhoe and Santa Fe NIP areas both have approximately 9.4% of their structure scores in the very low categories. This is over double the incidence of very low structure scores of the other surveyed NIP areas. Walnut Grove and Winnwood-Sunnybrook are in the opposite extreme, with less than 2% in the very low categories. The remaining NIP areas have 3-5% of their structure scores in the very low categories.
3. Comparing the five structure conditions in the surveyed NIP areas, roof ratings had the highest incidence of very low scores at approximately 7.4%. Exterior paint and porches both had an incidence of approximately 5.4%. Foundation/walls and windows/doors had an incidence of approximately 2.6%.
4. **Several of the surveyed NIP areas have potentially serious roofing problems looming. From 55% to 70% of roof ratings in Blue Hills, Columbus Park, Town Fork Creek and Walnut Grove were substandard or worse. Two other areas (Ivanhoe and Center City) had more than 40% of roof ratings substandard or worse. All surveyed NIP areas had more than 12% of roof ratings substandard or worse. The great majority of these substandard roof ratings are at the tipping point between substandard and seriously deteriorated. Roof conditions are by far the worst of the structure conditions. Over 45% of roof ratings in the surveyed NIP areas were substandard or worse. No other structure condition had more than 29% substandard or worse.**
5. Exterior paint conditions are next in terms of incidence of substandard or worse scores. The Ivanhoe and Santa Fe areas have the highest incidence, approaching 40% of parcels with structures.
6. Almost one quarter of porch ratings are substandard or worse. The East 49/63 area had almost 50% of its porches rated substandard or worse. The Santa Fe, Ivanhoe and Center City areas are also well above average in substandard porch ratings.
7. Overall, one NIP area stands out with regard to structure ratings. Only 6% of all structure ratings in the Winnwood-Sunnybrook area were substandard or worse. Columbus Park and Independence Plaza are next best. But even in these areas, the incidence of substandard or worse ratings is almost three times that of Winnwood-Sunnybrook.

Grounds Variables

Notable in Table II-4 (Grounds) are:

1. A different set of areas scored badly in grounds conditions than the areas that scored badly in structure conditions. Overall, the East 49/63 and the Santa Fe areas each had approximately one-quarter of their grounds conditions rated substandard or worse. Both of these results are primarily due to very low ratings for Private Sidewalks and Driveways – over 70% of these were seriously deteriorated or worse in both areas, and over 80% were substandard or worse in both areas.
2. In general, Private Sidewalks and Driveways received the lowest rating of all the grounds ratings, with only the Columbus Park area having less than 25% rated substandard or worse.
3. The Lawn and Shrub ratings were poorest in areas with a high incidence of vacant lots (Center City and Ivanhoe). This makes sense and emphasizes an additional cost of vacant lots.
4. Nuisance Vehicles do not appear to be a major (or even minor) problem in the surveyed NIP areas.
5. Litter and open storage both had substantial variation across NIP surveyed areas. Litter was almost non-existent in the Winnwood/Sunnybrook and Columbus Park areas, while over 20% of parcels in East 49/63 and Santa Fe had substandard ratings or worse. Open storage is not a problem in Columbus Park, while almost 16% of parcels have substandard or worse conditions for Open Storage in Center City.

Infrastructure Variables

Notable in Table II-5 (Infrastructure) are:

1. Street Lighting is not a problem in any of the surveyed NIP areas
2. Public Sidewalks in general are a problem in the surveyed NIP areas, with the public sidewalk associated with almost 40% of parcels classified as seriously deteriorated or worse, and with the public sidewalk associated with 52% of parcels classified as substandard or worse. The same areas (East 49/63 and Santa Fe) that had very poor ratings for private sidewalks and driveways have very poor ratings for public sidewalks.
3. In surveyed areas where public sidewalks are a problem, curbs also tend to be a problem. Curbs are a particularly serious problem in the Boston Heights area, and in the East 49/63 area.
4. Results for Winnwood-Sunnybrook are misleading, since there are basically no public sidewalks in this area, and curbs are only present for about 25% of parcels. There are also a substantial number of parcels with no sidewalks or curbs in two other NIP surveyed areas (Town Fork Creek and Walnut Grove).

5. Streets have low ratings in three of the surveyed NIP areas – Town Fork Creek, Independence Plaza, and East 49/63. In all other NIP surveyed areas, street conditions are good or better for the streets associated with over 90% of parcels.

Change between 2000 and 2006

The housing conditions survey has now been applied to a substantial number of parcels at two periods of time. Changes that occur between the two surveys provide a meaningful measure of the conditions of the path which these neighborhoods are following. This report will examine change of a key classification variable (vacant lots) as well as change in the structure, grounds, and infrastructure conditions.

Table II-6 Change in Incidence of Vacant Lots in NIP Surveyed Areas from 2000 to 2006

NIPNAME	2000			2006			2006-2000
	Count of Vacant Parcels	Total Parcel Count	% Vacant	Count of Vacant Parcels	Total Parcel Count	% Vacant	% Change in Vacant Parcels
Blue Hills	432	3639	11.87%	488	3636	13.42%	1.55%
Boston Heights	55	213	25.82%	51	207	24.64%	-1.18%
Center City	113	256	44.14%	92	235	39.15%	-4.99%
Columbus Park	65	403	16.13%	59	381	15.49%	-0.64%
East 49/63	41	888	4.62%	48	890	5.39%	0.78%
Independence Plaza	200	981	20.39%	177	954	18.55%	-1.83%
Ivanhoe	1443	4073	35.43%	1340	3969	33.76%	-1.67%
Santa Fe	132	846	15.60%	144	846	17.02%	1.42%
Town Fork Creek	416	2500	16.64%	403	2490	16.18%	-0.46%
Walnut Grove	51	866	5.89%	50	868	5.76%	-0.13%
Winnwood-Sunnybrook	26	997	2.61%	38	1031	3.69%	1.08%

Note that Table II-6 also shows a change in the number of parcels in the NIP areas. In some areas the number of parcels increased and in some it decreased. Overall, there were 155 fewer parcels in the surveyed areas in 2006 than in 2000. It is for this reason that we examine the percentage of vacant parcels rather than the absolute count.

We view an increase in the incidence of vacant lots as a strong indicator of worsening conditions of an area. Table II-6 shows a slight improvement in the incidence of vacant lots for the surveyed NIP areas as a whole between 2000 and 2006. Overall there were 84 fewer vacant lots in these areas in 2006 than there were in 2000. The largest absolute decrease occurred in the Ivanhoe NIP area, while the largest percentage decrease occurred in the Center City NIP area. The NIP areas of Blue Hills, Santa Fe, East 49/63, and Winnwood-Sunnybrook had small increases in the incidence of vacant lots. All four of those areas need to be alert to this trend.

Table 11-7 measures the change in percentage (2006 percentage minus 2000 percentage) of serious deterioration or worse, and of substandard or worse, for each of the five structure ratings

and in each of the eleven NIP areas. A negative number is a good result, since it means that the percentage was lower in 2006 than it was in 2000.

Structure Change

Notable in Table II-7 (Structure Change) are:

1. Overall, there is a decrease in the incidence of serious deterioration or worse structure conditions in all but three areas, with a significant decrease for the Boston Heights and Center City areas. In the three areas with an increase, the increase was less than 1.5%.
2. Overall, the incidence of substandard or worse is about the same in 2006 as it was in 2000. The six areas for which increased incidence was observed had small increases, averaging about 2%, while the five areas for which a decrease was observed had large decreases, averaging about 7%. The Santa Fe area has the largest decrease in the incidence of substandard or lower conditions.
3. Roof conditions appear to be the most volatile, especially in the substandard or worse ratings. The change ranges from a 30.5% decrease in substandard or worse roofs in the East 49/63 area to a 38.5% increase in the Columbus Park area. There were also significant decreases in Boston Heights and Santa Fe, and a significant increase in Town Fork Creek.
4. Foundation/Wall ratings are relatively stable, with a few notable exceptions – a significant decrease in substandard conditions in Center City and a significant increase in substandard conditions in Santa Fe and East 49/63.
5. The incidence of low ratings for Windows and Doors decreased almost uniformly, with a substantial decrease observed in substandard conditions in Santa Fe.
6. The incidence of low ratings for Exterior Paint decreased in almost all areas.
7. For both serious deterioration or worse and substandard or worse, in virtually all structure ratings, Winnwood/Sunnybrook has a small increase. In fact, this area has the largest increase in substandard or worse structure conditions of any area. Recall that Winnwood/Sunnybrook had the lowest incidence of low ratings for structure ratings in the 2006 survey. So we have the paradoxical result that the area with the best structure scores in the 2006 survey has the worst score when structure change is examined. The Winnwood/Sunnybrook area is north of the river and of a different vintage than the other NIP areas. We hypothesize that the paradox is due to the fact that the Winnwood/Sunnybrook area is at a different developmental stage from the rest of the NIP surveyed areas.

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Table II-7 Percentage Change in Structure Conditions by NIP Area (2006-2000)**

	Roof		Foundation/Wall		Window/Door		Porch		Exterior Paint		All Structure	
	Serious* Deterioration	Sub- standard+										
Blue Hills	-2.80%	11.27%	-1.63%	-5.22%	-0.78%	-13.62%	-3.88%	-15.86%	-2.36%	-11.87%	-2.29%	-7.04%
Boston Heights	-37.05%	-25.72%	1.43%	8.87%	-5.26%	-0.18%	4.14%	20.76%	-20.51%	-0.34%	-11.10%	1.04%
Center City	-16.66%	3.38%	-11.07%	-12.09%	-8.97%	-16.76%	0.00%	-6.26%	-20.59%	-28.32%	-11.34%	-12.28%
Columbus Park	4.45%	38.49%	-0.46%	-6.69%	-4.52%	-6.17%	-1.59%	-1.62%	-5.93%	0.37%	-2.11%	2.35%
East 49/63	-5.25%	-30.49%	2.05%	16.10%	-0.59%	4.63%	7.84%	14.41%	3.35%	-4.03%	1.49%	0.14%
Independence Plaza	-1.19%	-3.62%	1.62%	8.81%	-2.86%	-3.40%	3.52%	0.14%	-7.01%	-9.51%	-1.19%	-1.45%
Ivanhoe	-2.31%	3.20%	4.25%	6.84%	-2.45%	1.27%	5.16%	13.53%	-9.31%	-6.13%	-0.93%	3.78%
Santa Fe	-1.69%	-21.77%	7.67%	17.50%	-1.61%	-40.56%	4.53%	-24.03%	-2.55%	-24.79%	1.37%	-18.44%
Town Fork Creek	-1.16%	20.92%	-0.96%	-4.66%	-1.47%	-6.09%	-2.49%	-8.43%	-3.65%	-1.43%	-1.95%	0.07%
Walnut Grove	-1.22%	-7.05%	0.00%	-1.17%	-0.91%	-3.26%	-1.17%	-5.88%	0.00%	4.49%	-0.66%	-2.54%
Winwood/Sunnybrook	0.32%	-1.98%	1.37%	6.12%	0.00%	1.37%	1.37%	6.65%	2.85%	6.97%	1.18%	3.83%
* the percentage is equal to the number of parcels receiving a rating of 1 or 2, divided by the total number of valid ratings												
+ the percentage is equal to the number of parcels receiving a rating of 1, 2 or 3, divided by the total number of valid ratings												
** the percentage in 2006 minus the percentage in 2000												

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Table II-8 Percentage Change in Grounds Conditions by NIP Area (2006-2000)**

	Private Sidewalk/Driveway		Lawn/Shrub		Nuisance Vehicle		Litter		Open Storage		All Grounds	
	Serious* Deterioration	Sub-standard+	Serious* Deterioration	Sub-standard+	Serious* Deterioration	Sub-standard+	Serious* Deterioration	Sub-standard+	Serious* Deterioration	Sub-standard+	Serious* Deterioration	Sub-standard+
Blue Hills	1.70%	-5.08%	-1.64%	-9.91%	-2.07%	-10.60%	-2.24%	0.89%	-0.75%	1.98%	-1.08%	-4.56%
Boston Heights	5.58%	7.98%	-2.58%	-30.14%	-0.95%	0.59%	0.60%	5.68%	1.02%	4.65%	0.52%	-2.61%
Center City	-1.14%	-1.15%	-11.24%	10.42%	-2.20%	-2.64%	3.47%	7.43%	0.13%	11.04%	-2.04%	6.16%
Columbus Park	-1.20%	10.75%	-2.74%	-4.74%	-0.35%	-0.44%	-0.68%	0.72%	-1.67%	-2.69%	-1.32%	0.33%
East 49/63	71.90%	55.08%	1.91%	4.28%	0.36%	-0.24%	4.06%	20.56%	0.12%	11.41%	15.27%	18.01%
Independence Plaza	30.64%	25.99%	-3.92%	-9.28%	-0.53%	-1.26%	-0.05%	1.28%	0.29%	-1.09%	4.55%	2.54%
Ivanhoe	25.97%	17.96%	-0.12%	-6.81%	-1.57%	-3.51%	1.50%	6.30%	-0.60%	4.74%	3.92%	3.26%
Santa Fe	64.36%	28.71%	-0.80%	-14.40%	0.04%	-3.73%	2.53%	14.99%	0.38%	7.75%	11.97%	6.34%
Town Fork Creek	-0.48%	1.87%	-1.08%	1.67%	-2.20%	-8.03%	-0.38%	1.12%	-0.58%	0.70%	-0.96%	-0.60%
Walnut Grove	3.75%	13.54%	-0.60%	2.77%	-0.24%	-2.58%	-0.24%	1.68%	-0.12%	2.91%	0.47%	3.55%
Winnwood/Sunnybrook	11.44%	-7.23%	1.93%	9.69%	-0.50%	3.03%	0.51%	0.39%	0.61%	10.02%	2.71%	3.17%
* the percentage is equal to the number of parcels receiving a rating of 1 or 2, divided by the total number of valid ratings												
+ the percentage is equal to the number of parcels receiving a rating of 1, 2 or 3, divided by the total number of valid ratings												
** the percentage in 2006 minus the percentage in 2000												

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Table II-9 Percentage Change in Infrastructure Conditions by NIP Area (2006-2000)**												
	Public Sidewalk		Curb		Street Lighting		Catch Basin		Street		All Infrastructure	
	Serious* Deterioration	Sub- standard+										
Blue Hills	37.66%	39.38%	4.71%	13.72%	0.31%	0.25%	-0.22%	-5.13%	-0.53%	-0.07%	10.31%	12.96%
Boston Heights	6.49%	10.81%	37.73%	33.59%	0.00%	-0.49%	20.00%	-30.00%	0.00%	-1.46%	11.09%	10.40%
Center City	-1.27%	3.14%	2.85%	0.83%	0.00%	-0.47%	0.00%	0.91%	0.00%	0.00%	0.26%	0.69%
Columbus Park	8.93%	13.86%	2.08%	14.70%	1.18%	-2.07%	-13.34%	-10.02%	-0.04%	-0.48%	2.81%	6.30%
East 49/63	60.78%	64.56%	26.17%	66.70%	0.00%	0.59%	-2.94%	25.61%	0.84%	12.72%	21.67%	36.02%
Independence Plaza	30.45%	32.05%	2.62%	6.35%	-1.94%	-9.37%	9.85%	1.56%	7.25%	23.96%	9.59%	13.03%
Ivanhoe	22.10%	14.69%	10.43%	7.81%	-0.51%	-0.84%	-7.61%	-14.86%	0.74%	6.98%	7.91%	6.84%
Santa Fe	65.03%	68.08%	15.03%	34.48%	0.00%	0.12%	12.87%	-13.82%	0.12%	31.65%	20.00%	33.28%
Town Fork Creek	11.16%	15.66%	0.07%	5.12%	1.98%	1.97%	-6.09%	-11.38%	-0.25%	-2.74%	3.07%	4.73%
Walnut Grove	25.62%	25.27%	-21.40%	-14.59%	0.12%	0.12%	2.53%	5.04%	-0.24%	-4.16%	1.01%	1.69%
Winnwood/Sunnybrook	0.20%	0.51%	0.00%	0.10%	0.20%	0.20%	17.86%	25.00%	0.10%	0.60%	0.25%	0.52%
* the percentage is equal to the number of parcels receiving a rating of 1 or 2, divided by the total number of valid ratings												
+ the percentage is equal to the number of parcels receiving a rating of 1, 2 or 3, divided by the total number of valid ratings												
** the percentage in 2006 minus the percentage in 2000												

Grounds Change

Notable in Table II-8 (Grounds Change) are:

1. Between 2000 and 2006 an overall increase occurred in the incidence of both serious deterioration or worse and substandard or worse grounds ratings, driven mostly by a very large increase in low private sidewalk and driveway ratings.
2. The change in low private sidewalk and driveway ratings is predictable from the 2000 survey. A large number of parcels were rated substandard at that time, and they have worsened to serious deterioration by 2006. In general, the East 49/63, Santa Fe, Independence Plaza, Ivanhoe and Winnwood/Sunnybrook areas have deferred investment in the maintenance of private sidewalks and driveways to the future. In contrast, the Blue Hills and Center City areas have improved the condition of their private sidewalks and driveways, relative to the 2000 survey.
3. Lawn/Shrub conditions have generally improved throughout the NIP survey areas. In Boston Heights and Santa Fe the percentage of substandard or worse conditions decreased significantly. Other areas witnessed relatively small change.
4. Nuisance vehicles did not change substantially.
5. In general, both litter and open storage conditions deteriorated between 2000 and 2006, most notably in East 49/63, Santa Fe, and Center City.

Infrastructure Change

Notable in Table II-9 (Infrastructure Change) are:

1. Between 2000 and 2006 an overall increase occurred in the incidence of both serious deterioration or worse and substandard or worse grounds ratings, in every NIP surveyed area, driven mostly by a very large increase in low public sidewalk ratings and a very large increase in low curb ratings.² Extremely large increases in low ratings for public sidewalks were observed in the Blue Hills, East 49/63, Independence Plaza, and Santa Fe areas. Extremely large increases in low ratings for curbs were observed in the Boston Heights, East 49/63, and Santa Fe areas. Only in the Center city area can Public Sidewalks be said to have stayed approximately the same.
2. In general, Street Lighting conditions continue to be good or excellent in all NIP survey areas.
3. The condition of catch basins has improved markedly in most of the NIP areas. The exception is Winnwood/Sunnybrook. When there is no sidewalk, it may be more difficult to maintain catch basins.
4. Street conditions appear to be stable, especially in the change of serious deterioration or worse. A large percentage increase in substandard ratings is observed in the Santa Fe and Independence Plaza areas.

² Winnwood/Sunnybrook and Walnut Grove results should be interpreted carefully, since large parts of those areas do not have either public sidewalks and/or curbs.

Overall, the measurement of change between 2000 and 2006 shows that structure conditions have improved slightly, grounds conditions have deteriorated slightly, and infrastructure conditions have deteriorated. There is thus evidence that the residents of the surveyed NIP areas are taking steps to prevent the further deterioration of those things over which they have control.

III. Other Indicators

The Center for Economic Information has access to other data sources that are highly disaggregated geographically and thus can be geocoded to the surveyed NIP areas. This procedure was applied to the sales of residences that occurred within the system of the Heartland Multiple Listing Service (MLS) between the years of 2000 and 2006 in the surveyed NIP areas. The procedure was also followed for Crime Reports in the surveyed NIP areas between 2000 and 2006. Detailed results by year and by surveyed NIP area are contained in Table III-2 for the MLS sales and average sales price, and in Table III-3 for Reports of Crimes against Persons and Property.

Heartland Multiple Listing Service Sales and Prices

Table III-1 summarizes the MLS results. Because some of these areas are very small (Boston Heights, Center City, Columbus Park), there are years for which no MLS sales occurred. To get enough information to measure the trend that occurred between 2000 and 2006, we calculated the weighted averages of prices for the first two years (2000 and 2001) in each surveyed NIP area, then calculated the weighted averages of prices for the last two years (2005 and 2006) in each surveyed NIP area. We then calculated the percentage change that occurred using the 2000/01 average as the base. Results are reported in Table III-1.

Table III-1: Percentage Change in Average Sales Price for MLS Sales by Surveyed NIP Area

Area Name	Percent Change
Blue Hills	38.97%
Boston Heights	29.97%
Center City	47.22%
Columbus Park	164.33%
East 49/63	82.68%
Independence Plaza	24.45%
Ivanhoe	96.40%
Santa Fe	21.25%
Town Fork Creek	19.71%
Walnut Grove	22.30%
Winnwood-Sunnybrook	17.26%
KCMO	32.48%

Three areas stand out. In Columbus Park, East 49/63 and Ivanhoe, average prices increased at more than double the percentage rate of Kansas City, Missouri as a whole. Two other areas (Blue Hills and Center City) had increases above that of the city as a whole. The number of sales in Ivanhoe, Blue Hills, and East 49/63 was sufficiently large that the change cannot be attributed to chance. It should be emphasized that this is a very coarse look at the housing market in these areas.

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Table III-2: Heartland Multiple Listing Service Average Sales Price and Number of Sales by Surveyed NIP Areas by year

Year	Variable	Blue Hills	Boston Heights	Center City	Columbus Park	East 49/63	Independence Plaza	Ivanhoe	Santa Fe	Town Fork Creek	Walnut Grove	Winnwood-Sunnybrook
2000	Price	\$33,586	\$34,850	\$24,167	\$33,300	\$32,708	\$67,802	\$16,700	\$22,667	\$33,486	\$50,264	\$74,239
	# of Sales	67	2	3	2	16	14	37	9	35	14	33
2001	Price	\$38,579	\$15,250	\$42,500	\$74,250	\$34,099	\$68,071	\$16,711	\$35,212	\$35,329	\$42,427	\$83,931
	# of Sales	78	2	2	4	27	12	37	14	46	13	30
2002	Price	\$41,591	\$15,717	\$0	\$22,000	\$44,759	\$40,469	\$22,216	\$26,458	\$37,950	\$47,657	\$89,523
	# of Sales	105	3	0	1	36	13	54	20	36	22	53
2003	Price	\$49,441	\$0	\$63,500	\$99,000	\$46,186	\$55,692	\$21,335	\$30,380	\$36,130	\$52,082	\$83,667
	# of Sales	128	0	3	5	27	13	68	15	54	24	57
2004	Price	\$54,669	\$29,000	\$0	\$149,065	\$49,373	\$70,493	\$34,918	\$42,506	\$40,200	\$56,775	\$98,604
	# of Sales	109	1	0	9	29	9	82	19	56	24	58
2005	Price	\$50,937	\$40,560	\$53,083	\$196,863	\$59,296	\$89,876	\$40,211	\$33,116	\$49,131	\$58,604	\$94,699
	# of Sales	128	5	6	4	29	17	82	27	59	28	50
2006	Price	\$49,935	\$26,843	\$26,250	\$123,500	\$63,822	\$78,483	\$26,740	\$39,460	\$35,522	\$55,284	\$89,675
	# of Sales	144	7	2	4	24	15	100	36	79	31	40
Total	Price	\$46,936	\$28,353	\$44,938	\$120,815	\$47,795	\$68,341	\$27,655	\$34,315	\$38,549	\$53,019	\$88,855
	# of Sales	759	20	16	29	188	93	460	140	365	156	321

Source: Heartland Multiple Listing Service

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Table III-3: Crime Report* Counts by Surveyed NIP Area and Year

YEAR	Blue Hills	Boston Heights	Center City	Columbus Park	East 49/63	Independence Plaza	Ivanhoe	Santa Fe	Town Fork Creek	Walnut Grove	Winnwood-Sunnybrook	Total
Offenses Against Persons												
2000	505	25	27	65	92	225	602	140	256	95	72	2104
2001	549	24	49	48	76	221	687	129	263	83	74	2203
2002	541	33	28	46	97	217	606	147	255	109	67	2146
2003	507	33	35	41	72	181	550	149	245	63	70	1946
2004	455	18	40	37	78	189	507	91	309	69	58	1851
2005	477	25	21	44	79	172	569	103	278	84	49	1901
2006	455	40	23	31	89	211	539	119	279	81	51	1918
Total	3489	198	223	312	583	1416	4060	878	1885	584	441	14069
Offenses Against Property												
2000	814	39	67	85	171	408	959	205	462	142	88	3440
2001	1011	61	78	118	233	414	1184	268	598	190	132	4287
2002	986	49	53	163	204	406	1043	299	624	159	219	4205
2003	813	53	55	119	174	404	982	268	563	138	180	3749
2004	742	43	58	119	192	332	904	252	520	141	198	3501
2005	700	22	50	101	152	339	881	231	444	141	134	3195
2006	739	35	52	113	150	398	768	250	410	135	118	3168
Total	5805	302	413	818	1276	2701	6721	1773	3621	1046	1069	25545

Source: KCPD and CEI

*Reports of crime may not accurately portray the actual frequency of crime.

No controls have been used for house size, lot size, number of bedrooms, or other variables that would systematically impact housing prices. Nonetheless, there is a significant difference between the increase that occurred in Ivanhoe, Blue Hills and East 49/63 and the increase that occurred in KCMO as a whole. Other factors, such as size of house, size of lot, and number of bedrooms, would tend to work against these areas. Columbus Park had the greatest increase. This may be due to its proximity to downtown and the general trend of downtown development, but there are not many observations, so we advise a grain of salt.

Notice also that there is a significant upward trend in the number of MLS sales that occurred in the NIP surveyed areas as a whole. During 2000 there were 232 MLS sales, and during 2006, there were 484 sales, a 108% increase. MLS Sales for the city as a whole increased by 65% over the same period. The disproportional increase in MLS sales in the NIP surveyed areas deserves further study. It could reflect a real increase in the value of the housing stock. It could also be that because of the increase in sales price, more sales are occurring through the formal MLS system. Previously sales may have occurred outside of MLS. It could also be that speculators are buying up properties in the surveyed NIP areas, and that they are more likely to use MLS. The implications of these different scenarios are different with regard to an appropriate housing policy response.

Reports of Crime Against Persons and Property

There has been a pronounced downward trend in recent years, both locally and nationally, in reports of crime. From 2000 to 2006 reports of crimes against persons, also known as violent crimes, have diminished by 4.96% in the city of KCMO as a whole, while reports of crimes against property have diminished by 11.12%. During the same period, reports of crimes against persons diminished by 8.84% in the eleven surveyed NIP areas, and reports of crimes against property diminished by 7.91%.

There were two surveyed NIP areas (Boston Heights and Town Fork Creek) in which there was an increase in reports of crime against persons, and there were three surveyed NIP areas (Columbus Park, Santa Fe, and Winnwood-Sunnybrook) in which there was an increase in reports of crime against property. In all other cases, reports of crime against persons and property decreased. The surveyed NIP areas with the highest frequency of reports of crimes (Ivanhoe and Blue Hills) were also the areas with the largest decrease in reports of crime. In the Ivanhoe area, the total decrease in reports of crime was over 250/year, and in Blue Hills, the total decrease was of 125 per year. Note that these are also areas where the average price of residences increased at a rate that is significantly above that of the city as a whole.

There are four crimes which have been singled out by community policing practitioners as key, because if they occur frequently, residents tend to leave the area. The four crimes are robbery, assault, auto theft and burglary (RAAB). These four categories of crime also combine crimes against persons (assault and robbery) with crimes against property (auto theft and burglary).

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In Appendix IV (the Map appendix), there is a map for each surveyed NIP area, in which the change in RAAB reports is mapped at the block level. The reader will notice a slight deviation of the crime block outline from the outline formed by streets. This is due to the fact that the block level data was produced using 1980 block outlines, which are less accurate than the city center line file for streets.

Table III-4 Change in Reports of Robberies, Assaults, Auto Thefts, and Burglaries by NIP Area

	2000 RAAB Count	2006 RAAB Count	Change in RAAB Count from 2000 to 2006	% Change in RAAB Count from 2000 to 2006
Blue Hills	488	503	+15	+3.07%
Boston Heights	25	41	+16	+64.00%
Center City	40	28	-12	-30.00%
Columbus Park	66	59	-7	-10.61%
East 49/63	83	102	+19	+22.89%
Independence Plaza	285	292	+7	+2.46%
Ivanhoe	675	594	-81	-12.00%
Santa Fe	160	179	+19	+11.88%
Town Fork Creek	298	311	+13	+4.36%
Walnut Grove	97	112	+15	+15.46%
Winwood-Sunnybrook	61	57	-4	-6.56%
All Surveyed NIP Areas	2278	2278	0	0%
KCMO	18918	18684	-234	-1.24%

Source: KCPD and CEI

Coincidentally, the count of RAAB reports in 2006 for the sum of all surveyed NIP areas was exactly the same as the count for 2000. This makes for a convenient mapping scale, and the maps show strikingly where there have been significant increases or decreases in RAAB reports.

The data is then aggregated to NIP survey area, and Table III-4 shows the summary results. Once again, the Ivanhoe NIP area has the largest decrease. More impressively is that it also has the second largest percentage decrease.

Summary

The Housing Conditions Survey of 2006 documents deterioration of the neighborhood infrastructure in the surveyed NIP areas. Notably, the condition of public sidewalks and curbs is significantly worse in 2006 than in 2000. At the same time, some of the negatives that were associated with these areas in 2000 appear to be ameliorating somewhat. Structure conditions are slightly better in 2006 than in 2000. Grounds conditions are for the most part unchanged. The incidence of vacant lots is lower. Housing prices are higher in the surveyed NIP areas and housing transactions in these areas appear to be occurring more frequently. Indications are that the areas are holding their own in the fight against crime.

This study has attempted to incorporate new elements into the housing survey. The study would have benefited from an accurate listing of city sponsored infrastructure projects, as well as other projects that had been undertaken by the different levels of government, private business, neighborhood associations, and NGOs.

As mentioned earlier, preliminary results have been released to two CDC's (KCNA and Blue Hills Community Services), one neighborhood association (Ivanhoe Neighborhood Council) and the city planning department for use in various contexts.

Two NIP areas (Ivanhoe and Blue Hills) appear to be on the right track, in that a majority of indicators are moving in the right direction, but there are no areas for which all indicators are moving in the right direction. Even though the housing conditions in Winnwood-Sunnybrook have the smallest incidence of low ratings, most indicators are moving in the wrong direction for this area since 2000.

To make efficient use of the information in the housing condition survey, the maps in Appendix 4 need to be addressed in the context of each area. For Neighborhoods Now areas, CEI has produced a Planning Toolkit. We suggest that future rounds of the Neighborhood Conditions Survey include for each surveyed area, a planning toolkit. We also suggest that relevant activities by the city, the neighborhood, private enterprise, and NGOs be incorporated into this toolkit. To accomplish that aim, we suggest the formation of a committee which actively promotes the integrated use of data for the promotion of community development.

CD Contents

This section documents the contents of the CD delivered pursuant to City Contract No. 07 – UMKC01. The contents of the CD are:

1. An “*ArcMap*” folder containing 11 NIP area folders, Expression folder, Images folder, LayerFiles folder, and a ProjectGeography folder.
 - A. Each NIP area folder follows the naming convention **xx_name**, where **xx** is the NIP area ID number and **name** is the NIP area name. For the details of NIP area names and numbers, see the NIPAreaListing.xls file in the DataFiles folder. Each NIP area folder contains the following file types:
 1. **Areaxx_.mxd** files – these files are the ESRI ArcMap 9.1 project files that contain the thematic maps for each survey rating.
 - Areaxx_ParcelClassification.mxd** – ESRI ArcMap project containing a thematic map of the structure classification summary, based on the survey classifications of structure type, use type, residential type.
 - Areaxx_Structure.mxd** – ESRI ArcMap project containing the thematic maps for the structure ratings of roof, foundation/walls, windows/doors, porch, and exterior paint.
 - Areaxx_Grounds.mxd** – ESRI ArcMap project containing the thematic maps for the grounds ratings of private sidewalks/drives, lawn/shrubs, nuisance vehicles, litter, and open storage.
 - Areaxx_Infrastructure.mxd** – ESRI ArcMap project containing the thematic maps for the infrastructure ratings of public sidewalks, curbs, street lights, catch basin, and street.
 2. **Areaxx_pcls files** – these are the parcel geography files necessary for mapping the parcels in each NIP area.
 - Areaxx_pcls.shp** – ESRI shapefile component
 - Areaxx_pcls.dbf** – ESRI shapefile component -- geographic attribute file with augmented with the real estate file attributes along with the NIP area unique ID:
 - NIPID –Unique NIP area identifier
 - Areaxx_pcls.prj** – ESRI shapefile component
 - Areaxx_pcls.shx** – ESRI shapefile component
 - Areaxx_pcls.sbn** – ESRI shapefile component; not present in all NIP area folders
 - Areaxx_pcls.sbx** – ESRI shapefile component; not present in all NIP area folders
 3. **Areaxx_data files** – these contain the raw survey data for each NIP area.

Areaxx_data.dbf - generic database file with fields defined in the Field Listing Appendix.

4. **Areaxx_addr files**– this contains addresses for each in the NIP area. This file is used for address modification/creation.

Areaxx_addr.dbf - generic database file with fields defined in the Field Listing Appendix.

B. The “*Expressions*” folder contains the following files:

1. *ConcatAddr.lxp* – ESRI ArcMap expression file containing the code to concatenate the street number and street number extension fields in the *Areaxx_addr* files for parcel address labeling.
2. *ConcatStreet.lxp* – ESRI ArcMap expression file containing the code to concatenate the street name and street type fields from the KCMO centerline file for street labeling.

C. The “*Images*” folder contains the following files:

1. *CEILogo.bmp* – Bitmap image of CEI logo used in thematic maps.

D. The “*Layers*” folder contains the ESRI ArcMap layers for creation of thematic maps.

1. *Roof.lyr* – for creation of roof thematic map.
2. *Foundation & Walls.lyr* – for creation of foundation & walls thematic map.
3. *Windows & Doors.lyr* – for creation of windows & doors thematic map.
4. *Porch.lyr* – for creation of porch thematic map.
5. *Exterior Paint.lyr* – for creation of exterior paint thematic map.
6. *Private Sidewalks-Drives.lyr* – for creation of private sidewalks thematic map.
7. *Lawn & Shrubs.lyr* – for creation of lawn & shrubs thematic map.
8. *Nuisance Vehicles.lyr* – for creation of nuisance vehicles thematic map.
9. *Litter.lyr* – for creation of litter thematic map.
10. *Open Storage.lyr* – for creation of open storage thematic map.
11. *Public Sidewalks.lyr* – for creation of public sidewalks thematic map.
12. *Curbs.lyr* – for creation of curbs thematic map.
13. *Street Lights.lyr* – for creation of street light thematic map.
14. *Catch Basin.lyr* – for creation of catch basin thematic map.

15. ***Street.lyr*** – for creation of street thematic map.
 16. ***Parcel Classification Summary.lyr*** – for creation of parcel classification summary thematic map.
- E. The “*ProjectGeography*” folder contains additional geography files for the NIP area thematic maps.
1. ***KCMO_Centerlines_04_07.xxx*** – ESRI shape file and additional component files necessary for rendering.
2. A “*DataFiles*” folder containing the following files:
- Parcels
- ParcelDataFields.xls – spreadsheet listing of field names in the ParcelData.xls file
 - ParcelData_2006.xls – spreadsheet file containing the raw survey data for each parcel in the survey areas with fields as listed in the ParcelDataFields.xls file.
- NIP Areas
- NIPAreaDataFields.xls – spreadsheet listing of field names in the NIPAreaData.xls file
 - NIPAreaData_2006.xls – spreadsheet file containing aggregate survey data for each NIP area in the survey with fields defined in the NIPAreaDataFields.xls
 - NIPAreaListing.xls – spreadsheet file containing area names with corresponding unique identifier.
3. A “*Reports*” folder containing the content of this final report in a series of documents.
1. ***Final.doc*** – Final report.
 2. ***Final.pdf*** – Final report in PDF format.
 3. ***Appendix1ResidentialRatingGuide2006-2.doc*** – Housing conditions survey residential rating guide 2006.
 4. ***Appendix2descriptors2006.doc*** – Survey rating descriptors.
 5. ***Appendix3PDA_HousingSurvey_UserGuide.doc*** – PDA user guide for housing conditions survey.
 6. ***Titlepage.doc*** – Final report title page.

APPENDIX 1

NEIGHBORHOOD HOUSING CONDITIONS SURVEY

RATINGS GUIDE SUMMARY

Classification

1. Structure Type

1. **Residential.** The structure was built for residential use.
2. **Non-residential.** The structure was built for other than residential use.
3. **Vacant Lot.** There is no structure on the parcel.
4. **Parking Lot.** The parcel is used for parking.
5. **Park.** The parcel has a park
6. **Common Area.** A parcel common to townhome or condominium type properties.

2. Use Type

1. **Residential.** The structure is being used residentially.
2. **Non-residential.** The structure is being used other than residentially.
3. **Mixed.** The structure is being used both residentially and non-residentially.
4. **Un-ratable.** The parcel's current use cannot be determined.
5. **Not applicable.** Applies to parcels with no structure.

3. Residential Type

1. **Detached-1.** Single family dwelling
2. **Detached-2.** Duplex (designed and built as a duplex, not converted from single-family).
3. **Attached.** Structures such as row housing, sharing roofs and outside walls.
4. **Apartments.** All other (non-institutional) multi-family residential units.
5. **Non-residential.** Applies to all non-residential structure types.
6. **Not applicable.** Applies to parcels with no structure.

4. Structure Profile

1. **Single level**
2. **2-story**
3. **3-story**
4. **4-6 floors**
5. **Over 6 floors**
6. **Not applicable.** Applies to parcels with no structure.

5. Visible Address

1. **Yes.** The parcel has a visible address
2. **No.** The parcel has no visible address

Structure Conditions

1. Roof

1. **Severely Deteriorated.** There are holes visible through roof sheathing. Rafters are sagging or collapsed. Soffits and fascia boards are missing or display severe rot and deterioration.
2. **Seriously Deteriorated.** There are no holes present. The roof has sagging rafters, but sagging is not severe. Roofing shingles are extremely deteriorated. More than five shingles are currently missing on the front exposure of the roof. It appears some sheathing needs to be replaced. Soffits and fascia boards display moderate rot and deterioration.
3. **Substandard.** There are no holes or sagging. Roofing shingles are deteriorated and should be removed before new shingles are installed. Less than five shingles are missing on the entire roof. Soffits and fascia boards display slight rot deterioration.
4. **Good.** Roof shingles show slight wear. (discoloration can be seen from street, or faded color do to loss of rock). There are no holes or sagging rafters. Soffits and fascia boards may need painting, but there is no rot or deterioration.
5. **Excellent.** Roofing shingles show no wear. Soffits and fascia boards display no rot nor deterioration and are adequately installed.
6. **Not applicable.** Characteristic does not apply to rated parcel (e.g., roof rating for parcels with no structure, public sidewalk rating for parcels with no sidewalks, etc.).
7. **Un-ratable.** Characteristic applies to rated parcel, but rating could not be determined (e.g., roof rating for structures with flat roofs, or where line of sight to roof is obscured by trees).

2. Foundations and Walls

1. **Severely Deteriorated.** There are large holes, bulges, and/or leaning walls indicating a partial structural failure. More than 25% of the siding material displays rot or deterioration and needs to be replaced.
2. **Seriously Deteriorated.** There is slight leaning, but no sign of structural failure. More than 25% of the siding material displays rot or deterioration and needs to be replaced.
3. **Substandard.** There is no leaning. Some siding materials need replacing, but it is less than 25%.
4. **Good.** There is no leaning nor siding that needs to be replaced, and surfaces do need some painting.
5. **Excellent.** There is no leaning nor siding to be replaced. Surfaces are adequately painted.
6. **Not applicable.** Characteristic does not apply to rated parcel (e.g., roof rating for parcels with no structure, public sidewalk rating for parcels with no sidewalks, etc.).

3. Windows and Doors

1. **Severely Deteriorated.** There are numerous windows or doors missing or boarded. Frames show signs of severe rot and deterioration. The building is open to entry.
2. **Seriously Deteriorated.** There are a couple of openings that are missing or boarded, but the building is not open to entry. Frames show signs of severe rot and deterioration.
3. **Substandard.** All windows and doors are in place, but there are some broken glass in one or more windows. Frames show signs of moderate rot and deterioration, but mostly only need to be painted.
4. **Good.** There is no broken glass present and doors are secure. Frames on windows or doors need paint, but nothing needs replacing.
5. **Excellent.** There is not broken glass present and all frames are adequately painted.
6. **Not applicable.** Characteristic does not apply to rated parcel (e.g., roof rating for parcels with no structure, public sidewalk rating for parcels with no sidewalks, etc.).

4. Porches

1. **Severely Deteriorated.** There is leaning of vertical support members or sagging of beams and joists. Rot and deterioration are extensive. Parts of the porch are missing. The porch does not appear safe.
2. **Seriously Deteriorated.** There is slight leaning or sagging, but moderate to extensive rot and deterioration. All parts of the porch are present, and it appears safe to use.
3. **Substandard.** There is slight leaning or sagging that needs to be corrected, but no rot or deterioration. Some painting is needed.
4. **Good.** There is no leaning or sagging, but some painting is needed.
5. **Excellent.** There is no leaning or sagging. All components are adequately painted or protected against weathering.
6. **Not applicable.** Characteristic does not apply to rated parcel (e.g., roof rating for parcels with no structure, public sidewalk rating for parcels with no sidewalks, etc.).

5. Exterior Paint.

1. **Severely Deteriorated.** Over 50 % of the exterior walls are peeling. Rot and deterioration are extensive. Parts of the exterior walls are missing. Extensive work to prepare for painting (more than two weeks).
2. **Seriously Deteriorated.** Between 10 and 50% of the exterior walls are peeling. There is a moderate to extensive amount of rot and deterioration. Moderate to extensive work will be needed to prepare the walls for painting (less than two weeks).
3. **Substandard.** Less than 10% of the exterior walls are peeling or faded in color. There is no rot or deterioration present. Some painting is needed.
4. **Good.** There is no peeling paint, but some fading is present, some fresh paint is going to be needed.
5. **Excellent.** All components are adequately painted or protected against weathering.
6. **Not applicable.** Characteristic does not apply to rated parcel (e.g., roof rating for parcels with no structure, public sidewalk rating for parcels with no sidewalks, etc.).

Grounds Conditions

1. Private Sidewalks and Driveways

1. **Severely Deteriorated.** The sidewalk is broken and settled with more than one tripping hazard present and/or has sections missing. Has severely deteriorated pavement and does not prevent the tracking of mud into the street. If the driveway was gravel in the first place, will have severe weeds within the exposure.
2. **Seriously Deteriorated.** The sidewalk displays numerous tracks over 1/2 inch wide and breaks there is no tripping hazard present. AND/OR the driveway was originally paved but has severe scaling, cracking, or other signs of deterioration. The full surface needs to be re-paved.
3. **Substandard.** The sidewalk and driveway contain numerous cracks over 1/2 inch wide and over 50% of the surface needs to be repaved.
4. **Good.** The sidewalk and driveway display only a few cracks over 1/2 inch wide, but some patching or sealing of cracks is all that is needed.
5. **Excellent.** There are no cracks wider than 1/2 inch present in either the sidewalk or driveway.
6. **Not applicable.** Characteristic does not apply to rated parcel (e.g., roof rating for parcels with no structure, public sidewalk rating for parcels with no sidewalks, etc.).

2. Lawn & Shrubs

1. **Severely Deteriorated.** The vegetation (grass) has grown over 3 feet high. Shrubs appear to have not been trimmed in several years (windows, doors covered).
2. **Seriously Deteriorated.** The vegetation (grass) is between 1 and 3 feet high. Shrubs appear to have not been trimmed within the last year (overgrowing home).
3. **Substandard.** Vegetation (grass) is about 1 foot high. Shrubs need trimming, but appear to have been trimmed within the last year (shrubs still have some shape).
4. **Good.** Vegetation (grass) is under 1 foot and shrubs do not need trimming. There are lawn weeds, like dandelions, present. It appears the lawn does not receive supplemental fertilizer, but yard is cut regularly.
5. **Excellent.** Vegetation (grass) is under 6 inches high and there are few or no lawn weeds, like dandelions, present. It appears the lawn regularly receives fertilizer and yard is cut regularly.

3. Vehicles

1. **Severe Problem.** There are over 3 vehicles parked in the yard and several appear to be disabled or unlicensed.
2. **Serious Problem.** There are 1 to 3 vehicles parked in the yard. At least one appears to be disabled or unlicensed.
3. **Substandard.** There is one vehicle parked in the yard but it appears to be operable and licensed. Or, there is one or more vehicles in the driveway that appears to be disabled or unlicensed.
4. **Good.** There are no vehicles parked in the yard, but there may be one vehicle on a driveway that is unlicensed.
5. **Excellent.** There are no vehicles parked in the yard. No disabled or unlicensed vehicles are present.

4. Litter

1. **Severe Problem.** There are piles of trash, which may include brush, present on the property. Due to the volume and size of trash items, it will take a dump truck to haul it all off in one load.
2. **Serious Problem.** There are piles of trash, which may include brush, present. It will take a full size pick up to haul it off in one load. It is not practical to attempt to place the trash in plastic bags.
3. **Substandard.** There is trash scattered across the property. It will not fill a pick up. There trash can be placed in trash bags and it will fill between one and five 30 gallon trash bags.
4. **Good.** There is some litter scattered across the property. It can be placed in plastic bags and it will not fill one 30 gallon bag.
5. **Excellent.** There is no litter present.

5. Open Storage

1. **Severe Problem.** There are numerous items stored in the yard that should be stored inside. The items are so numerous, they would more than fill an average 2 car garage.
2. **Serious Problem.** There are numerous items stored in the yard that should be stored inside. The would fill a one car garage.
3. **Substandard.** The items stored outside would fit inside a small (up to 9 by 12 feet) storage shed.
4. **Good.** There are no unacceptable items stored outside, but there are numerous acceptable items that still present a clutter appearance.
5. **Excellent.** There are no unacceptable items present. Acceptable items, if present, are few in number and do not present a cluttered appearance.

Public Infrastructure Conditions

1. Public Sidewalk

1. **Severely Deteriorated.** The sidewalk has sections missing, broken, or heaved. There is more than one tripping hazard present due to displacement of sections or missing sections. More than half the sections need replaced.
2. **Seriously Deteriorated.** There are tripping hazards present due to displaced cracks, settling and heaving. 1/4 to 1/2 of the sections need to be replaced.
3. **Substandard.** There are cracks over 1/2 wide present, but no tripping hazards. Less than 1/4 of the section need to be replaced.
4. **Good.** There is only a few cracks present, however does not present a hazard. Some patching of cracks is needed, but no sections need replacement.
5. **Excellent.** There are no cracks present. There is no settling or heaving creating tripping hazards. They are in great shape and will be there for a long time.
6. **Not applicable.** Characteristic does not apply to rated parcel (e.g., roof rating for parcels with no structure, public sidewalk rating for parcels with no sidewalks, etc.).

2. Curbs

1. **Severely Deteriorated.** There are no curbs present, with or without open ditch drainage.
2. **Seriously Deteriorated.** Curbs are present and display severe deterioration. There are sections missing. More than 1/2 of the curb would have to be replaced in order to fill in gaps.
3. **Substandard.** Curbs show deterioration. Up to 1/2 the curb would have to be replaced to fill gaps.
4. **Good.** There is some wear or deterioration but there are no sections missing.
5. **Excellent.** There is no wear and are benefit to water control within the neighborhood.
6. **Not applicable.** Characteristic does not apply to rated parcel (e.g., roof rating for parcels with no structure, public sidewalk rating for parcels with no sidewalks, etc.).

3. Streetlights

1. **Severe Problem.** There are no streetlights on the block.
2. **Serious Problem.** Streetlights are more than 8 houses apart. Lights present appear to be broken, or tree limbs block illumination.
3. **Substandard.** Streetlights are more than 6 houses apart. Lights work, but tree limbs block illumination.
4. **Good.** Streetlights are 5 houses apart. Some tree limbs are near the lights, but not blocking illumination.
5. **Excellent.** Streetlights are less than 5 houses apart. No tree limbs growing near lights.

4. Catch Basins

1. **Severely Deteriorated.** The catch basin is severely deteriorated. It is broken or collapsed and creating a danger to pedestrians or traffic (leaves water standing for days, or would be dangerous to evening walking).
2. **Seriously Deteriorated.** The catch basin is severely deteriorated and needs replacing, but is not creating a dangerous situation (i.e. doesn't create traffic hazards during rains, etc.)
3. **Substandard.** The catch basin is not deteriorated but it is substantially blocked with leaves and litter (just needs to be cleaned out).
4. **Good.** There are leaves and litter in the catch basin, but it still functions adequately.
5. **Excellent.** There are no defects or leaves and litter present. Catch basin is in perfect operational condition.
6. **Not applicable.** Characteristic does not apply to rated parcel (e.g., roof rating for parcels with no structure, public sidewalk rating for parcels with no sidewalks, etc.).

5. Street Condition

1. **Severely Deteriorated.** The pavement is severely deteriorated. There are more than 7 potholes present. Vehicles cannot safely exceed 15 miles per hour due to the uneven surface. Resurfacing is needed on the whole block.
2. **Seriously Deteriorated.** The pavement is deteriorated. There are 4-6 potholes present, but traffic flow is not substantially affected. Resurfacing is needed.
3. **Substandard.** There are 3 or less potholes, mostly cracks in the surface. Patching, not resurfacing, is needed.
4. **Good.** There are no potholes. There are some cracks, but none wider than 2 inches.
5. **Excellent.** There are no cracks and no potholes present.

**Appendix 2: Housing Inventory Ratings
Descriptors Sheet**

Category	Residential-1	Non Residential-2	Vacant Lot-3	Parking Lot-4	Park-5	Residential Commons-6
Structure Type	Intended use for people to live in	Intended use for people to work in	No structure on parcel	Parcel used to park vehicles	Parcel used for public recreation	Common area around residential structure

Category	Residential-1	Non Residential-2	Mixed-3	U/R-4	N/A-5
Use Type	Used for people to live in	Used for people to work in	Used for living and working	Unable to rate intended use	Vacant lot

Category	Detached-1	Detached-2	Attached-3	Apartment-4	Non Residential-5	N/A-6
Residential Type	Single family dwelling	Duplex-2 family unit	Attached structure, multifamily	One building for multifamily	Intended use for people to work	Vacant lot

Category	Single Level-1	2-Story-2	3- Story-3	4-6 Floors-4	7+ Floors-5	N/A-6
Structure Profile	Single story structure	Two story structure	Three story structure	Four to Six story structure	Seven or more story structure	Vacant lot

Category	Yes-1	No-2			
Visible Address	Address visible from street	Address not visible from street			

Category	1	2	3	4	5	U/R=6	N/A=7
Roof Rating	Hole-sagging-rot, F & S	No hole-sagging-rot, F&S	Serious deterioration	Slight deterioration	No deterioration	Cannot be seen	If it is a vacant lot
Foundation & Walls	Hole, bulges, +25% gone	Slight leaning, +25% rot	No leaning, -25% replace	Needing some paint	Well protected		If it is a vacant lot
Windows & Doors	Open to entry, W&D miss	No entry, few openings	Some broken, needing paint	No broken, need paint	No broken, no painting		If it is a vacant lot
Porches	Serious leaning, rot, unsafe	Slight leaning, rot, safe	Evidence of lean, paint need	No leaning, paint needed	No leaning or paint needed		If it is a vacant lot
Exterior Paint	+50% need paint, +2wks	50-10% need paint +2wk	-10% need paint, no rot	No peeling, some fading	Paint in great shape		If it is a vacant lot
Private Sidewalks & Drive	+1 trip & miss, grvl, weeds	No trip, +cracks, all replaced	+50% needs to be replaced	Few cracks, some patching	No cracks present		If they are not present
Lawn & Shrubs	3' high, shrubs cover entries	1-3' high, shrubs unkempt	1' high, shrubs some shape	-1' high, weeds, shrubs ok	-6" high, shrubs great		
Vehicles	+3 auto,disabled,unlicensed	1-3 auto,<1dis or unlicensed	1 auto, parked in yard, drive	1auto unlicensed, disabled	No vehicles in yard, dis, unl		
Litter	Trash & brush, dump truck	Trash & brush, pick up load	Trash & brush,1-5trashbags	Trash & brush, 1 trash bag	No Trash & brush present		
Open Storage	Would fill 2 car garage	Would fill 1 car garage	Would fill a storage shed	Cluttered appearance	No unacceptable items		
Sidewalk	+1 trip & + 1/2 missing	1/2-1/4 missing, 1 trip	No trip, cracks,-1/4 replace	Cracks present, no replace	No cracks, in good shape		If it is not present on propty
Curb	No curb, but exists on block	+1/2 curb needs replacing	-1/2 curb needs replacing	Some wear, no replace	No wear, in good shape		If it does not exist on block
Street Lights	No street lights on block	+8 houses apart, tree issue	+6 houses apart, tree issue	5 houses apart, some tree	5 houses apart, no tree		
Catch Basins	Severe condition; dangerous, H ₂ O	Severe condition; no danger	Leaf, trash, blocking drain	Some leaf, trash, still works	No blocking, good cond.		No catch basin present
Street Condition	+7 potholes, serious hazards	6-3 potholes, deteriorated	-2 potholes, just patching	No pot holes just cracks	No cracks, smooth surface		

Appendix 3

Neighborhood Housing Conditions PDA Survey User Guide

Questions? Call Saima or Doug at the Center for Economic Information: 816-235-1394



To start the survey, tap on the yellow square icon on the screen or push the left-most mechanical round button at the bottom of the PDA.

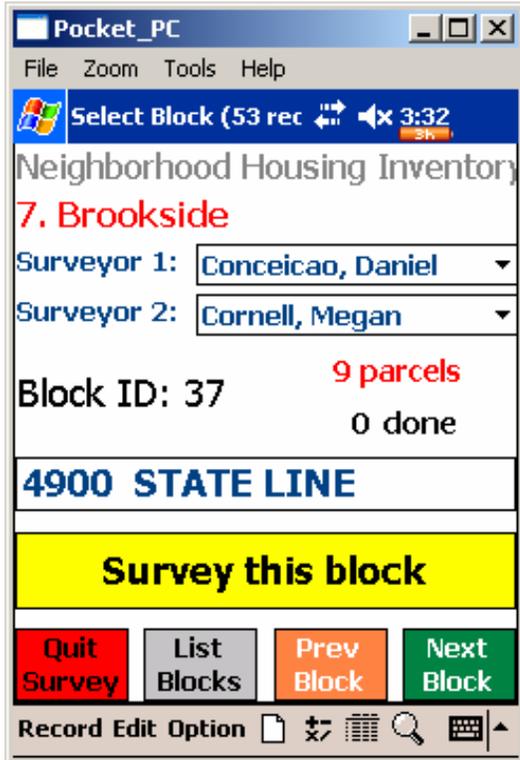


To brighten the display, hold the small round button above the middle of the PDA screen until the display brightens (about 2 secs).

To turn the PDA on/off push the button small round button on top of the PDA screen quickly once.

Step 1. Select a Block

Use this first screen to select a block to survey.



Blocks are sorted alphabetically and numbered, i.e., **100 N Arlington Ave** is numbered **1** (BID=1) and **200 N Arlington** is numbered **2** (BID=2), etc.

In this example **4900 State Line** is block number **37** and contains **9 parcels** of which **9** have been surveyed.

To survey the parcels in this block: Tap on **Survey this Block** button.

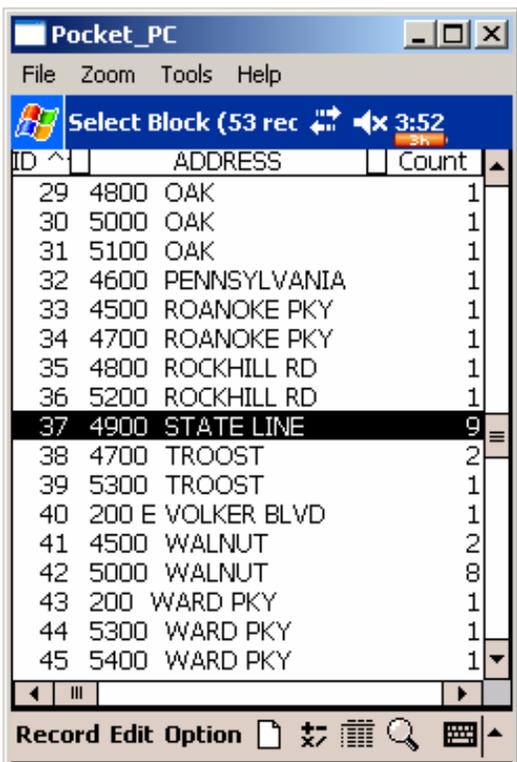
To go to previous block: Tap on **Prev Block**.

To go to next block: Tap on **Next Block**.

To close the program: Tap on **Quit Survey**.

To look at the **list of all blocks**: Tap on the button  at the bottom of the screen or the **List Blocks** button.

This second screen shows the **list of all survey blocks**.



To **go up and down the list**: Use the scroll bar on the right of the screen.

To **select a block**:

a) **Double-click** on a highlighted block , or

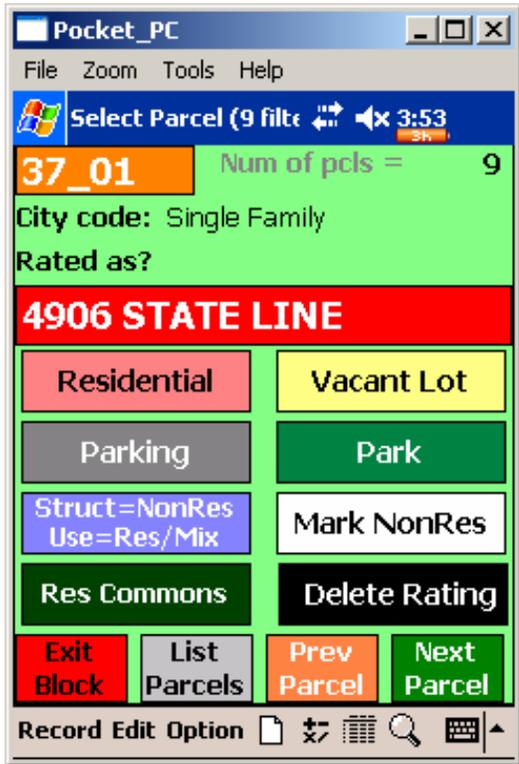
b) Tap on a block to highlight it (**4900 STATE LINE** is highlighted in this example) and tap on the  button.

Once you select a block you will be back to the first screen.

To survey the parcels in your chosen block: Tap on **Survey this block** button.

Step 2. Select a Parcel

This screen lets you **select a parcel** to survey and then **choose a survey form** based on the Structure Type.



Parcels in each block are sorted by the street number and numbered, i.e., **4906 State Line** is numbered **37_01** because it is the first parcel in block **37**, and **34910 Clark** is numbered **11_02** because it is the second parcel in block **37**, etc.

The Parcel ID is a unique number used to identify each parcel and is displayed at the top of the form. In this example **4906 State Line** has a Parcel ID of **37_01**.

To go to previous Parcel: Tap on **Prev Parcel**.

To go to next Parcel: Tap on **Next Parcel**.

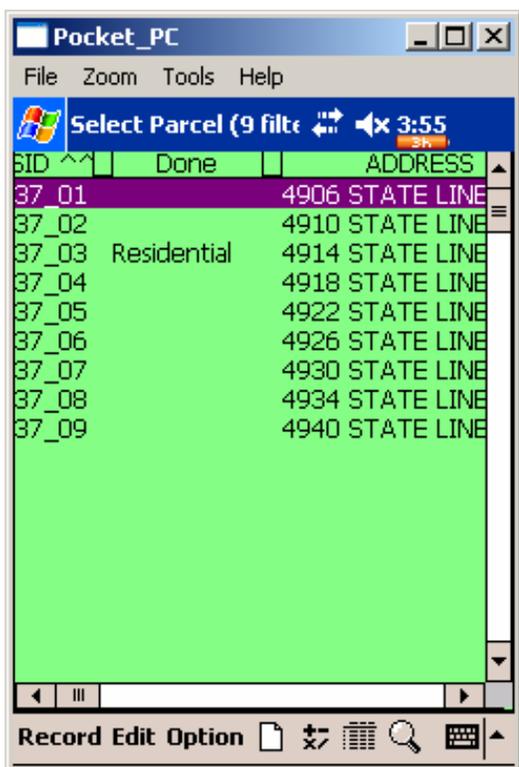
To **survey another block**: Tap on **Exit Block**.

The upper-right hand of the screen shows that there are **9** parcels in this block. To look at **the list of all parcels in this block**:



Tap on the button at the bottom of the screen (pictured on the left) or the **List Parcels** button.

This second screen shows the **list of all parcels in this block**.



Three columns are displayed

SID: This is the unique number associated with each parcel.

Done: This indicates if a parcel has been rated. A structure type means a parcel has been rated. Blank means the parcel has not been rated yet.

Address: This is the address of the parcel.

To **go up and down the list**: Use the scroll bar on the right of the screen.

To **select a parcel**:

c) **Double-click** on a parcel , or

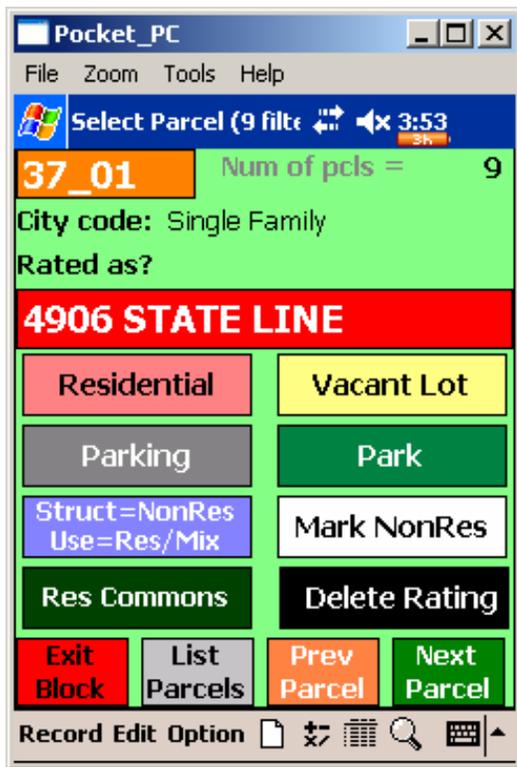
d) Tap on a parcel to highlight it (**4906 STATE LINE** is highlighted in this example) and tap on the button.



Once you select a parcel you will be back to the **select parcel** screen.

Step 3. Select a survey form

You can choose the appropriate form to survey the parcel based on the structure type.



Once you have selected an unrated parcel and its address is displayed on the screen you can start the survey by choosing the appropriate form.

Tap on a structure type on the screen to open the appropriate survey form.

1. **Residential** -- For rating residential structures, such as single-family houses, duplexes, town-homes, apartment buildings. **Do not use this to rate non-residential structures.**
2. **Vacant Lot** – For rating residential parcels with no structure.
3. **Parking** – For rating parking lots or parking structures only.
4. **Park** – For rating public parks.
5. **Struct=NonRes, Use=Res/Mix**

Structure Type=Non-Residential and Use Type = Residential or Mixed: If a non-residential structure is being used (wholly or partly) for residential purposes then it should be surveyed using this form.

6. **Mark NonRes** – Non-residential structure used exclusively for non-residential purposes.
7. **Res Commons** – Common area around residential structures.
8. **Delete Rating** – If you have rated a parcel by mistake and would like to undo the rating.

Unrated Parcel

City code: Duplex
Rated as?

The city code If there is a blank after **Rated as?** (instead of a **Structure type**) then the parcel has **not been rated**.

Rated Parcel

City code: Multi Family 3+ units
Rated as? **Residential**

If there is a valid structure type after the “Rated As?” prompt then the parcel **has already been rated**.

Step 4. Verify Parcel and Structure Type

The screenshot shows a PDA application window titled "Pocket_PC" with a menu bar (File, Zoom, Tools, Help) and a status bar (Select Parcel (9 filters), 4:43). The main screen has a red header "Rate as Residential?". Below it, a green box contains the parcel ID "37_01". A white box contains the address "4906 STATE LINE". Below that, a green box contains the question "Do you want to rate this parcel as Residential?". At the bottom, there are two buttons: a red "No" button and a green "Yes" button. The bottom of the screen has a toolbar with icons for Record, Edit, Option, and navigation.

Rating an Unrated Parcel:

If the **parcel has not been rated before** then you will see the following screen asking you if you have the correct parcel and if you want to rate it.

Please verify at this point that you are looking at the correct parcel and have chosen the correct Structure Type for this parcel.

If you choose **YES** you will get a survey form based on the Structure Type and will have to rate the parcel accordingly.

The screenshot shows a PDA application window titled "Pocket_PC" with a menu bar (File, Zoom, Tools, Help) and a status bar (Select Parcel (9 filters), 4:44). The main screen has a yellow header "Re-rate as Vacant Lot?". Below it, a green box contains the parcel ID "37_03". A white box contains the address "4914 STATE LINE". Below that, a green box contains the text "This parcel has been rated as Residential". Below that, a red box contains the question "Do you want to RE-RATE it as a Vacant Lot?". At the bottom, there are two buttons: a red "No" button and a green "Yes" button. The bottom of the screen has a toolbar with icons for Record, Edit, Option, and navigation.

Re-Rating a Parcel:

If the **parcel has already been rated** then you will be asked to verify if you want to change the rating.

Please verify at this point that you are looking at the correct parcel and have chosen to Re-rate it with the correct Structure Type.

If you choose **YES** you will get a survey form based on the Structure Type and will have to rate the parcel accordingly.

Step 5. Rate the Parcel

The screenshot shows a PDA application window titled "Pocket_PC" with a menu bar (File, Zoom, Tools, Help) and a status bar (Residential, 4:48). The main content area is titled "Residential" and displays the following information:

- Parcel ID: 37_01
- Already rated? No
- 6/9/06 4:48:00 PM
- 4906 STATE LINE
- Make address corrections below: (empty text area)
- Visible Address: Yes No
- Bottom (red button) and Next >> (green button)

The bottom of the screen features a navigation bar with "Record Edit Option" and various icons.

For each Structure Type there is a different survey form. The Parcel ID and the address of each parcel are displayed at the top of each survey form.

Tap with your stylus in the empty rectangle to enter the correct address. (Please see section "Making Address Corrections" on the next page.)

Note: When rating a parcel make sure to tap on the ratings labels instead of the empty circles for accuracy. Tap on "Yes" or "No" or the numbers for the ratings ("1", "2", "3", etc) instead of the empty circles beside them to ensure accuracy.

All survey fields are mandatory. You will not be able to save the survey unless you have entered all the fields.

Use the **NEXT>>** and **<<PREV** navigational buttons to go to the next screen and previous screen.

The screenshot shows the "Rating Summary" screen of the PDA application. The title bar and status bar are the same as in the previous screenshot. The main content area displays the following information:

- 4906 STATE LINE 6
- Rating Summary:
- Structure Type: Residential
- Use Type: Residential
- Residential Type: Detached-1
- Structure Profile: Single Level
- Address Visible: Yes
- Revise (red button) and Save Rating (green button)
- << Prev (orange button)

The bottom of the screen features the same navigation bar as the previous screenshot.

The last screen of each Survey Form shows a summary of how you rated the parcel and gives you a chance to Revise the rating.

Tap on **Revise** to go to the top of the survey form and change the ratings.

Tap on **Save Rating** if you are satisfied with the rating.

Warning: Do not use the Record, Edit, and Option items off the menu at the bottom of the screen. Using them will result in errors in ratings.



If you forget to fill in a rating and then screen you will see an error message.

If that happens. . .

Tap on **ok** on the upper-right hand message and fill in the missing rating.

Attempt to save an Incomplete Rating:



try to move to the next

corner of the error



Problems:

Most problems with the PDA can be resolved by performing a soft reset. This is similar to rebooting a computer.

To perform a soft reset on your Axim, perform the following steps:

1. Press the **Power** button to turn the Axim unit.**On**
2. Make sure all survey forms are closed.
3. Using the Axim stylus, push and release the **Reset** button on the back of the Axim unit (see **Figure**).

*NOTE: The procedure for performing a **hard** reset is not detailed here because it would wipe out all programming and*

data from the PDA. Please do not perform a hard reset on a survey PDA even if you do know the procedure.

If resetting the PDA does not solve the problem please call Saima at 816-235-1394 to report it.