

# **Neighborhood Housing Conditions Survey**

**Final Report for the City of Kansas City,  
Missouri Contract No.08-UMKC01**

**Submitted by:**

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## Introduction

This is the final report of a Housing Conditions Resurvey that was conducted in the summer of 2008 in thirteen (13) full neighborhoods and two (2) partial neighborhoods. The survey was commissioned by the City of Kansas City, Missouri, Department of Neighborhood and Community Services (NCS), and was conducted by the Center for Economic Information of the University of Missouri-Kansas City (CEI). 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 CEI in conjunction with the Kansas City Neighborhood Alliance. The 2008 Resurvey covered 15,626 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 fifteen surveyed areas are highlighted in Map 1. Table 1 contains the number of parcels surveyed in each area.

Table 1: Area Parcel Counts\*

Neighborhood Area	Parcels
Westside North	773
Westside South	871
Union Hill	326
Longfellow	610
Pendleton Heights	656
Lykins	2253
Scarritt Renaissance (partial)	1062
North Indian Mound	1833
South Indian Mound	1970
Wendell Phillips	1470
East Community Team North (partial)	111
Squier Park	305
Manheim Park	829
Ruskin Hills	944
Ruskin Heights	1613
<b>Total</b>	<b>15626</b>

This report consists of three sections. Section I describes methodology. Section II contains summary results of the 2008 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 surveyed area, detailed maps of land use, of each surveyed condition, and of crime reports are included as supplements to the final report. The survey database and maps are also contained on a CD, the contents of which are detailed at the end of this report.



## 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, other than whether or not there is a visible address. 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 2008 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

<b>Structure</b>	<b>Grounds</b>	<b>Infrastructure</b>
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 four 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**

Surveyor	Roof	Foundation & Walls	Windows & Doors	Porches	Exterior Paint	Private Sidewalks & Drives	Lawn & Shrub
1	0.48529	0.38235	0.19118	0.42647	0.42647	0.88235	0.29412
2	0.54545	0.51948	0.27273	0.44156	0.45455	0.79221	0.40260
3	0.53247	0.48052	0.31169	0.45455	0.45455	0.75325	0.38961
4	0.54054	0.50000	0.33784	0.50000	0.47297	0.78378	0.47297
5	0.35000	0.26250	0.28750	0.27500	0.46250	0.73750	0.27500
6	0.48750	0.41250	0.57500	0.51250	0.71250	0.82500	0.53750
7	0.50000	0.40000	0.45000	0.43750	0.66250	0.82500	0.50000
8	0.50000	0.47059	0.36765	0.38235	0.50000	0.83824	0.41176

  

Surveyor	Vehicles	Litter	Open Storage	Public Sidewalks	Curbs	Street Lights	Catch Basins	Street
1	0.0294	0.1471	0.2059	0.6618	0.6471	0.2059	0.0147	0.2941
2	0.0649	0.2338	0.2338	0.6494	0.4805	0.4286	0.0260	0.3506
3	0.0390	0.2468	0.2078	0.6234	0.4545	0.4416	0.0260	0.3377
4	0.0811	0.2703	0.2162	0.6081	0.4865	0.5135	0.0270	0.3378
5	0.0125	0.0500	0.0625	0.5000	0.2625	0.0625	0.0500	0.1125
6	0.0875	0.2375	0.1625	0.8500	0.7500	0.3250	0.1375	0.2000
7	0.0250	0.2125	0.1250	0.7875	0.7000	0.3750	0.1375	0.2000
8	0.0147	0.1618	0.2353	0.7500	0.6912	0.2647	0.0294	0.1765

All ratings pass with. The largest inter-surveyor discrepancies are for Public Sidewalks and Curbs. This is consistent with past surveys.

### **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 does 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 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 it 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 built for residential purposes, for non-residential purposes, having no structure, or as parking lots, parks, or residential commons (“other” in the following table). We added the category of inaccessible. Results are reported in Table II-1.

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

Neighborhood Name	Count of Parcels	% Residential	% Non-Residential	% Vacant	% Other
Westside North	773	55.76%	14.23%	25.74%	4.27%
Westside South	871	51.32%	20.09%	24.80%	3.79%
Union Hill	326	63.80%	10.12%	9.51%	16.56%
Longfellow	610	64.92%	15.41%	15.08%	4.59%
Pendleton Heights	656	80.79%	4.57%	10.37%	4.27%
Lykins	2253	71.82%	6.79%	19.80%	1.60%
Scarritt Renaissance (partial)	1062	88.42%	2.17%	8.76%	0.66%
North Indian Mound	1833	93.51%	2.07%	3.87%	0.55%
South Indian Mound	1970	90.25%	3.15%	6.24%	0.36%
Wendell Phillips	1470	38.16%	5.24%	54.76%	1.84%
East Community Team North (partial)	111	2.70%	79.28%	13.51%	4.50%
Squier Park	305	62.95%	6.23%	29.18%	1.64%
Manheim Park	829	65.38%	5.19%	27.26%	2.17%
Ruskin Hills	944	95.13%	0.64%	3.07%	1.17%
Ruskin Heights	1613	98.88%	0.31%	0.50%	0.31%
<b>Survey Total</b>	<b>15626</b>	<b>75.85%</b>	<b>6.12%</b>	<b>16.07%</b>	<b>1.96%</b>

\*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 Wendell Phillips. Over 20% of parcels are vacant in Westside North, Westside South, Squier Park and Mannheim Park. 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 in 2007 by the Ivanhoe Neighborhood Council with CEI support, found that over 12% of the residential structures in the Ivanhoe area are vacant. 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. The part of East Community Team North that was surveyed is not primarily residential. Westside North and South, as well as Wendell Phillips, also have substantial land available for non-residential development.
3. The residential nature of the surveyed areas is clear. With the exception of the small areas noted in 2 above, over 90% of parcels are either residential or vacant lots that were formerly residential.

**Table II-2: Survey Area Percentage Distribution of Visible Address**

NIP Name	Count of Parcels w/Visible Address	Total Parcels	% Visible Address
Westside North	448	773	57.96%
Westside South	490	871	56.26%
Union Hill	204	326	62.58%
Longfellow	409	610	67.05%
Pendleton Heights	473	656	72.10%
Lykins	1467	2253	65.11%
Scarritt Renaissance (partial)	859	1062	80.89%
North Indian Mound	1421	1833	77.52%
South Indian Mound	1590	1970	80.71%
Wendell Phillips	471	1470	32.04%
East Community Team North (partial)	89	111	80.18%
Squier Park	187	305	61.31%
Manheim Park	530	829	63.93%
Ruskin Hills	876	944	92.80%
Ruskin Heights	1494	1613	92.62%
<b>Survey Total</b>	<b>11008</b>	<b>15626</b>	<b>70.45%</b>

One other classification variable deserves mentioning. This is 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 Wendell Phillips is the areas with the highest incidence of vacant lots. From Table II-2, it is clear that other areas also 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.

Tables II-3, II-4 and II-5 summarize the condition findings by surveyed 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.<sup>1</sup> 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

<sup>1</sup> 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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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 surveyed areas for which a score of 1 or 2 was recorded (Column header “Serious Deterioration”), and the 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.

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**Table II-3 Summary of Structure Conditions by Area**

Neighborhood Name	Roof		Foundation/Wall		Window/Door		Porch		Exterior Paint		All Structure	
	Serious* Deterioration	Sub- standard+	Serious* Deterioration	Sub- standard+	Serious* Deterioration	Sub- standard+	Serious* Deterioration	Sub- standard+	Serious* Deterioration	Sub- standard+	Serious* Deterioration	Sub- standard+
Westside North	10.00%	58.61%	0.46%	9.38%	1.83%	13.50%	3.89%	24.03%	7.78%	37.53%	4.60%	27.51%
Westside South	9.95%	63.89%	1.10%	10.57%	2.20%	13.66%	5.73%	29.07%	7.27%	46.04%	5.20%	32.34%
Union Hill	0.86%	6.03%	0.00%	0.96%	0.96%	2.40%	0.00%	2.88%	1.92%	8.65%	0.74%	4.01%
Longfellow	2.64%	41.64%	0.49%	4.19%	1.97%	8.13%	1.72%	15.76%	3.94%	30.54%	2.14%	19.34%
Pendleton Heights	2.40%	11.98%	1.13%	6.79%	1.51%	6.60%	0.57%	4.91%	5.09%	30.00%	2.13%	12.06%
Lykins	9.77%	52.62%	0.98%	14.80%	4.77%	20.73%	3.55%	29.60%	8.69%	48.01%	5.50%	32.94%
Scarritt Renaissance	4.07%	50.06%	0.42%	4.25%	1.06%	6.48%	1.80%	22.82%	3.08%	28.87%	2.07%	22.30%
North Indian Mound	7.64%	52.31%	5.83%	25.07%	4.31%	16.91%	4.66%	32.54%	8.86%	38.13%	6.26%	32.93%
South Indian Mound	2.06%	15.80%	0.62%	5.23%	2.14%	7.64%	0.17%	8.15%	3.82%	28.56%	1.76%	13.05%
Wendell Phillips	19.59%	57.82%	13.01%	44.21%	13.90%	29.41%	8.93%	41.61%	11.41%	44.03%	13.30%	43.26%
East Community Team North	33.33%	100.00%	0.00%	25.00%	0.00%	50.00%	0.00%	25.00%	0.00%	50.00%	5.26%	47.37%
Squier Park	1.64%	34.43%	0.00%	1.55%	0.52%	4.15%	4.15%	11.92%	0.52%	25.39%	1.36%	15.29%
Manheim Park	6.76%	45.95%	0.00%	0.92%	3.48%	11.17%	2.93%	26.56%	2.75%	35.53%	3.15%	23.80%
Ruskin Hills	3.80%	56.26%	0.11%	1.78%	0.33%	2.23%	0.33%	6.35%	1.78%	22.49%	1.27%	17.79%
Ruskin Heights	5.02%	48.84%	0.50%	7.34%	0.38%	9.28%	1.07%	26.58%	1.38%	36.49%	1.67%	25.71%

\* 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 Area**

Neighborhood Name	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+
Westside North	10.71%	37.61%	4.62%	19.67%	0.89%	1.79%	0.60%	2.83%	0.60%	5.81%	3.04%	12.06%
Westside South	8.95%	32.21%	1.28%	16.34%	0.71%	1.70%	0.43%	4.83%	0.57%	7.24%	1.99%	11.27%
Union Hill	0.75%	5.24%	0.68%	1.37%	0.00%	0.00%	0.00%	0.34%	1.02%	3.07%	0.49%	1.95%
Longfellow	13.77%	36.57%	0.76%	10.23%	0.38%	1.52%	0.57%	1.52%	0.38%	2.65%	2.82%	9.63%
Pendleton Heights	0.71%	9.43%	1.44%	5.27%	0.00%	0.16%	0.00%	2.88%	2.40%	7.35%	0.91%	4.92%
Lykins	15.29%	48.34%	3.54%	20.76%	0.71%	2.36%	0.71%	9.39%	0.80%	10.24%	3.77%	17.02%
Scarritt Renaissance	10.27%	36.79%	1.15%	9.30%	0.58%	1.25%	0.38%	4.22%	0.38%	5.08%	2.42%	10.89%
North Indian Mound	12.33%	33.41%	2.84%	9.47%	0.06%	0.56%	1.61%	5.90%	2.56%	13.86%	3.82%	12.50%
South Indian Mound	1.83%	14.59%	1.47%	4.03%	0.10%	0.37%	0.58%	3.61%	3.25%	10.26%	1.44%	6.48%
Wendell Phillips	19.15%	46.38%	27.85%	46.59%	0.79%	1.65%	5.10%	19.10%	1.44%	6.68%	9.96%	21.63%
East Community Team North	57.14%	78.57%	8.33%	16.67%	0.00%	16.67%	0.00%	12.50%	0.00%	12.50%	9.09%	22.73%
Squier Park	10.05%	27.75%	0.00%	2.79%	0.00%	0.70%	0.00%	0.35%	0.00%	1.74%	1.55%	5.45%
Manheim Park	10.50%	43.00%	2.15%	14.05%	0.13%	1.01%	0.63%	4.56%	0.00%	2.78%	2.29%	11.57%
Ruskin Hills	6.62%	33.89%	0.32%	6.82%	0.21%	1.81%	0.32%	2.13%	0.21%	2.56%	1.49%	9.20%
Ruskin Heights	19.39%	56.97%	0.93%	8.21%	0.19%	2.49%	0.37%	2.55%	0.19%	1.74%	4.16%	14.23%

\* 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 Area**

Neighborhood Name	Public Sidewalk		Curb		Street Lighting		Catch Basin		Street		All Infrastructure	
	Serious* Deterioration	Sub- standard+	Serious* Deterioration	Sub- standard+	Serious* Deterioration	Sub- standard+	Serious* Deterioration	Sub- standard+	Serious* Deterioration	Sub- standard+	Serious* Deterioration	Sub- standard+
Westside North	13.26%	26.53%	11.03%	17.88%	2.09%	2.09%	12.00%	20.00%	1.04%	2.09%	6.95%	12.29%
Westside South	23.30%	34.66%	6.25%	8.95%	4.97%	5.26%	2.56%	10.26%	0.57%	2.13%	8.69%	12.71%
Union Hill	4.78%	11.26%	1.71%	3.07%	0.00%	0.00%	0.00%	5.56%	0.34%	2.05%	1.68%	4.12%
Longfellow	14.20%	30.68%	4.73%	14.20%	0.19%	0.19%	2.99%	14.93%	0.19%	1.52%	4.77%	11.75%
Pendleton Heights	6.87%	25.56%	8.15%	21.57%	1.92%	2.24%	6.25%	17.19%	0.96%	3.19%	4.52%	13.24%
Lykins	19.82%	46.58%	20.81%	39.12%	0.71%	1.46%	5.82%	17.99%	0.61%	6.70%	10.39%	23.35%
Scarritt Renaissance	30.97%	47.84%	7.57%	20.52%	0.77%	0.96%	1.96%	2.94%	0.19%	0.29%	9.69%	17.06%
North Indian Mound	14.14%	24.78%	33.35%	63.75%	0.17%	0.72%	17.84%	36.22%	0.22%	1.22%	12.12%	22.96%
South Indian Mound	16.70%	38.27%	29.11%	53.51%	0.10%	0.63%	11.73%	17.28%	0.63%	5.71%	11.64%	24.38%
Wendell Phillips	18.88%	40.56%	45.44%	63.96%	0.36%	0.93%	10.76%	29.11%	0.07%	12.78%	16.04%	29.55%
East Community Team North	37.50%	45.83%	41.67%	45.83%	0.00%	0.00%	0.00%	50.00%	0.00%	0.00%	19.39%	23.47%
Squier Park	12.89%	26.48%	0.70%	2.79%	0.00%	0.00%	0.00%	2.78%	0.00%	6.97%	3.29%	8.87%
Manheim Park	20.25%	45.95%	2.28%	16.71%	0.00%	0.00%	0.00%	3.33%	0.00%	0.00%	5.53%	15.43%
Ruskin Hills	13.54%	18.34%	1.92%	8.21%	4.05%	4.58%	1.11%	5.56%	1.60%	8.21%	5.18%	9.73%
Ruskin Heights	0.44%	1.06%	6.41%	23.45%	0.06%	0.12%	2.94%	10.29%	0.00%	1.12%	1.74%	6.48%
* 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												

## Structure Variables

Notable in Table II-3 (Structure) are:

1. Wendell Phillips stands out from other areas in that there are consistently more than 10% of structure conditions in the lowest two categories. Of the remaining neighborhoods, only North Indian Mound, Westside South, and Lykins have over 5% of structure conditions in the lowest two categories. **Few structure conditions in the Union Hill area residences were in the lowest two categories, reflecting the substantial recent investments in that area.**
2. Comparing the five structure conditions in the surveyed areas, roof ratings had the highest incidence of very low scores (about 5%). The incidence of very low ratings for the other structure conditions was in the 1% range.
3. In nine of the areas, over 20% of residential structure conditions fall in the bottom three categories. Comparing the two columns in each area, it is obvious that a substandard rating was very common in all types of structure conditions. The same areas have the highest incidence of residential structure ratings in the lowest three categories as in the lowest two categories.
4. **Several of the surveyed areas have potentially serious roofing problems looming. Over 50% to 80% of roof ratings in eight of the neighborhoods were substandard or worse. In four other neighborhoods, between 34 and 46% of roof ratings were substandard or worse. Only in Union Hill were there fewer than 10% of roof ratings classified as 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 44% of roof ratings in the surveyed areas were substandard or worse. No other structure condition had more than 35% substandard or worse.**
5. Exterior paint conditions are next in terms of incidence of substandard or worse scores. The Westside south, Lykins and Wendell Phillips areas have the highest incidence, with over 40% of residential structures rated substandard or worse exterior paint condition.
6. Overall, one area stands out with regard to structure ratings. Only 4% of all structure ratings in the Union Hill area were substandard or worse. The next lowest incidence of substandard or worse ratings (Pendleton Heights) is over triple that of the River Market Area.

### **Grounds Variables**

Notable in Table II-4 (Grounds) are:

1. In general, grounds conditions were better than structure conditions, with most areas having under 2% of grounds conditions in the lowest two categories. One of the areas with the highest incidence of low grounds ratings is residential (Wendell Phillips) and one is primarily non-residential (East Community Team North) Wendell Phillips has the highest incidence of low ratings.
2. In general, Private Sidewalks and Driveways received the lowest rating of all the grounds ratings, with about 20% of ratings in the worst two categories and over half of total ratings substandard or worse.
3. The Lawn and Shrub ratings were poorest by far in the area with the highest incidence of vacant lots (Wendell Phillips). This is consistent with 2006 and 2007 results and continues to emphasize the additional cost of vacant lots.
4. Nuisance Vehicles do not appear to be a major (or even minor) problem in the surveyed areas.
5. Litter and open storage both had substantial variation across surveyed areas. Litter was almost non-existent in the Union Hill and Squier Park areas, while almost 20% of parcels in the Wendell Phillips and East Community Team North areas had substandard ratings or worse. Open storage is not a problem in most surveyed areas, with Lykins, North Indian Mound, South Indian Mound, and East Community Team North having an incidence of over 10% with substandard ratings or worse.

### **Infrastructure Variables**

Notable in Table II-5 (Infrastructure) are:

1. Street Lighting is not a problem in any of the surveyed areas
2. Public Sidewalks and Curbs in general are both problematic in the surveyed areas, with over 15% of parcels having associated public sidewalk classified as seriously deteriorated or worse, and with over 18% of parcels having associated curbs classified as seriously deteriorated or worse. Over 31% of parcels had associated public sidewalks classified as substandard or worse, and over 34% of parcels had associated curbs classified as substandard or worse. There is a strong correlation between the condition of the public sidewalk and that of the curb.
3. Curbs and public sidewalks are a particularly serious problem in Lykins, Scarritt Renaissance, North Indian Mound, South Indian Mound, Wendell Phillips, and East Community Team North.
4. There are also a substantial number of parcels with no public sidewalk in two surveyed areas. Almost all of the residential parcels in Ruskin Heights have no public sidewalk and over 66% of parcels in Ruskin Hills have no public sidewalk.
5. Over 10% of catch basins in Westside North, North Indian Mound, South Indian Mound, and Wendell Phillips have very low ratings.

6. Street Conditions are good in almost all of the surveyed areas. Only in Wendell Phillips are over 10% of street ratings substandard. No other area has more than 8.21% of street ratings substandard.
7. The public infrastructure is in notably better condition in Union Hill than in any other area.

### Change between 2000 and 2008

The housing conditions survey has now been applied to the surveyed areas 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 section of the 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 Surveyed Areas from 2000 to 2008**

Neighborhood	2000			2008			2008-2000
	Count of Vacant Parcels	Total Parcel Count	% Vacant	Count of Vacant Parcels	Total Parcel Count	% Vacant	% Change in Vacant Parcels
Westside North	192	766	25.07%	199	773	25.74%	0.68%
Westside South	234	874	26.77%	216	871	24.80%	-1.97%
Union Hill	34	314	10.83%	31	326	9.51%	-1.32%
Longfellow	94	622	15.11%	92	610	15.08%	-0.03%
Pendleton Heights	75	678	11.06%	68	656	10.37%	-0.70%
Lykins	433	2260	19.16%	446	2253	19.80%	0.64%
Scarritt Renaissance*	80	1055	7.58%	93	1062	8.76%	1.18%
North Indian Mound	50	1837	2.72%	71	1833	3.87%	1.15%
South Indian Mound	114	1966	5.80%	123	1970	6.24%	0.45%
Wendell Phillips	701	1482	47.30%	805	1470	54.76%	7.46%
East Community Team North*	6	116	5.17%	15	111	13.51%	8.34%
Squier Park	90	315	28.57%	89	305	29.18%	0.61%
Manheim Park	212	838	25.30%	226	829	27.26%	1.96%
Ruskin Hills	56	967	5.79%	29	944	3.07%	-2.72%
Ruskin Heights	7	1608	0.44%	8	1613	0.50%	0.06%

\*Partial Neighborhood

Note that Table II-6 shows a change in the number of parcels in the surveyed areas. In some areas the number of parcels increased and in some it decreased. Overall, there were 72 fewer parcels in the surveyed areas in 2008 than in 2000. For this reason that we examine both the count and the percentage of vacant parcels.

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 worsening in the incidence of vacant lots for the surveyed areas as a whole between 2000 and 2008. Overall there were 133 more vacant lots in these areas in 2008 than there were in 2000. The largest absolute and percentage decrease occurred in the Wendell Phillips and East Community Team North areas. Residents of these two areas need to be alert to this trend. Changes in other areas are relatively minor.

Table 11-7 measures the change in percentage (2008 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 fifteen surveyed areas. A negative number is a good result, since it means that the percentage was lower in 2008 than it was in 2000.<sup>2</sup>

### **Structure Change**

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

1. There were no neighborhoods in which there was a substantial increase in the overall incidence of serious deterioration or worse structure conditions, while in two neighborhoods (Lykins and Squier Park), there was a noticeable decrease in the overall incidence of serious deterioration or worse structure conditions.
2. Overall, the incidence of substandard or worse structure conditions is higher in 2008 than it was in 2000. In three neighborhoods (Westside South, Manheim Park, and Ruskin Heights) there was an increase in incidence of over 10%. In two neighborhoods (Lykins and Wendell Phillips) there was a decrease in incidence of over 10%. The implication is that structure conditions in most of the surveyed areas are deteriorating, but that the deterioration is mostly a movement toward the substandard.
3. **In two neighborhoods (North Indian Mound and Wendell Phillips) there was a worrisome trend is the increase in bad ratings for foundations and walls. This is problematic because it indicates questionable structural integrity of buildings.**

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<sup>2</sup> Because of the small number of parcels surveyed in East Community Team North, the discussion of change in incidence will ignore this partial neighborhood.



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**Table II-7 Percentage Change in Structure Conditions by Area (2008-2000)**

Neighborhood	Roof		Foundation/Wall		Window/Door		Porch		Exterior Paint		All Structure	
	Serious* Deterioration	Sub- standard+	Serious* Deterioration	Sub- standard+	Serious* Deterioration	Sub- standard+	Serious* Deterioration	Sub- standard+	Serious* Deterioration	Sub- standard+	Serious* Deterioration	Sub- standard+
Westside North	6.14%	40.21%	-1.55%	0.09%	-1.94%	-1.32%	-0.81%	3.66%	0.48%	2.01%	0.26%	7.81%
Westside South	4.22%	42.33%	-1.12%	1.02%	-0.46%	2.77%	1.13%	13.44%	-1.62%	14.04%	0.39%	14.42%
Union Hill	-1.33%	0.20%	0.00%	-0.57%	-0.06%	0.36%	-0.51%	0.84%	-7.26%	-11.24%	-1.87%	-2.29%
Longfellow	-9.48%	10.58%	-4.56%	-10.21%	-1.06%	-1.22%	-2.10%	-0.82%	-11.97%	-2.29%	-5.56%	-0.78%
Pendleton Heights	1.27%	2.07%	1.13%	5.69%	0.96%	4.03%	-0.36%	2.68%	-12.95%	-8.12%	-2.12%	1.23%
Lykins	-16.02%	-12.44%	-1.63%	-1.32%	-2.21%	-10.90%	-6.51%	-16.59%	-12.48%	-11.96%	-7.74%	-10.63%
Scarritt Renaissance	-1.09%	27.30%	-1.16%	-3.80%	-1.69%	-3.58%	-0.39%	8.77%	-5.18%	1.47%	-1.91%	5.89%
North Indian Mound	-10.64%	9.88%	5.54%	19.26%	3.38%	4.63%	3.16%	7.82%	2.29%	3.77%	0.73%	9.08%
South Indian Mound	-23.13%	-23.65%	-1.07%	-3.72%	1.18%	0.24%	-1.33%	-5.81%	-8.29%	2.10%	-6.32%	-5.93%
Wendell Phillips	-0.84%	-4.88%	11.00%	24.88%	-0.38%	-31.26%	-13.59%	-23.46%	-10.31%	-16.75%	-2.77%	-10.23%
East Community Team North	33.33%	0.00%	0.00%	-75.00%	-100.00%	-50.00%	0.00%	-75.00%	-100.00%	-50.00%	-34.74%	-52.63%
Squier Park	-0.96%	20.36%	0.00%	-0.50%	-1.53%	-0.47%	3.63%	10.38%	-48.20%	-51.02%	-9.44%	-4.47%
Manheim Park	-2.08%	25.44%	-2.62%	-4.67%	0.69%	4.19%	-0.21%	19.58%	-7.37%	17.90%	-2.03%	13.14%
Ruskin Hills	1.68%	-14.88%	0.00%	1.67%	0.33%	1.78%	0.11%	5.34%	1.56%	12.65%	0.73%	1.28%
Ruskin Heights	2.63%	25.44%	0.19%	3.88%	-0.25%	-0.19%	0.25%	19.98%	-1.03%	20.75%	0.36%	13.97%

\* the percentage change is equal to the % of parcels receiving a rating of 1 or 2 in 2008 minus the % of parcels receiving a rating of 1 or 2 in 2000

+ the percentage change is equal to the % of parcels receiving a rating of 1, 2 or 3 in 2008 minus the % of parcels receiving a rating of 1, 2 or 3 in 2000

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**Table II-8 Percentage Change in Grounds Conditions by Area (2008-2000)**

Neighborhood	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+
Westside North	5.19%	18.51%	-0.80%	5.10%	0.56%	0.09%	-0.42%	-1.91%	-0.76%	0.73%	0.50%	3.72%
Westside South	5.81%	18.31%	-3.25%	-0.92%	-0.75%	-1.07%	-0.16%	0.59%	-0.60%	1.69%	-0.12%	2.91%
Union Hill	0.75%	2.84%	0.68%	-1.11%	0.00%	0.00%	0.00%	-0.07%	1.02%	3.07%	0.49%	0.93%
Longfellow	7.81%	19.45%	-4.55%	-2.83%	0.38%	1.11%	0.36%	-0.32%	-0.64%	-0.61%	0.45%	2.86%
Pendleton Heights	-0.02%	0.27%	-1.64%	-16.09%	-0.49%	-0.81%	-0.49%	0.77%	2.23%	3.79%	-0.08%	-2.46%
Lykins	10.11%	15.86%	-0.40%	0.79%	-1.88%	-4.17%	-3.42%	-1.31%	-1.26%	2.18%	0.26%	2.22%
Scarritt Renaissance	8.27%	26.56%	-3.73%	-3.68%	-0.11%	-2.07%	-1.08%	-1.83%	-1.18%	-3.21%	0.30%	2.74%
North Indian Mound	10.75%	17.04%	0.58%	-5.68%	-0.45%	-2.78%	0.32%	1.50%	1.94%	7.31%	2.57%	3.38%
South Indian Mound	-1.96%	0.00%	-4.49%	-23.58%	-0.42%	-2.37%	-0.74%	-1.50%	1.98%	5.36%	-1.12%	-4.47%
Wendell Phillips	9.86%	-7.50%	24.23%	27.69%	-1.53%	-3.21%	1.62%	11.15%	0.51%	3.67%	6.68%	8.32%
East Community Team North	-42.86%	-21.43%	-5.95%	2.38%	-28.57%	-11.90%	-28.57%	-16.07%	-28.57%	-16.07%	-18.50%	-4.86%
Squier Park	8.00%	13.91%	-4.56%	-13.00%	-5.61%	-7.72%	-0.70%	-3.86%	-1.40%	-7.38%	-1.37%	-4.58%
Manheim Park	5.31%	34.35%	-5.49%	-4.80%	-1.27%	-3.32%	-1.15%	-1.94%	-0.64%	-0.91%	-0.94%	3.18%
Ruskin Hills	6.17%	18.46%	-0.31%	3.05%	0.21%	-1.12%	0.32%	0.88%	0.21%	2.14%	1.27%	4.57%
Ruskin Heights	9.29%	25.67%	-0.32%	2.03%	-3.37%	-8.62%	-0.19%	-2.57%	0.00%	-0.63%	1.03%	3.04%

\* the percentage change is equal to the % of parcels receiving a rating of 1 or 2 in 2008 minus the % of parcels receiving a rating of 1 or 2 in 2000

+ the percentage change is equal to the % of parcels receiving a rating of 1, 2 or 3 in 2008 minus the % of parcels receiving a rating of 1, 2 or 3 in 2000

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**Table II-9 Percentage Change in Infrastructure Conditions by Area (2008-2000)**

Neighborhood	Public Sidewalk		Curb		Street Lighting		Catch Basin		Street		All Infrastructure	
	Serious* Deterioration	Sub- standard+	Serious* Deterioration	Sub- standard+	Serious* Deterioration	Sub- standard+	Serious* Deterioration	Sub- standard+	Serious* Deterioration	Sub- standard+	Serious* Deterioration	Sub- standard+
Westside North	11.40%	22.29%	4.76%	9.41%	1.58%	1.41%	-4.00%	-8.00%	-0.14%	-0.12%	4.35%	8.14%
Westside South	21.83%	29.40%	2.89%	3.39%	2.92%	0.87%	-6.53%	-35.20%	-1.48%	-2.55%	6.40%	7.42%
Union Hill	4.78%	11.26%	1.71%	3.07%	0.00%	0.00%	0.00%	5.56%	0.34%	1.63%	1.68%	4.02%
Longfellow	13.18%	26.60%	3.10%	11.35%	0.19%	0.19%	2.99%	-6.13%	0.19%	1.31%	4.12%	9.78%
Pendleton Heights	5.57%	22.00%	5.23%	16.55%	1.92%	2.24%	3.02%	-11.84%	0.96%	-0.20%	3.44%	9.92%
Lykins	17.52%	29.58%	9.96%	12.86%	0.32%	0.60%	-16.40%	-27.84%	-0.39%	-0.40%	6.59%	10.26%
Scarritt Renaissance	30.19%	43.35%	4.06%	9.69%	0.08%	-1.09%	-4.71%	-12.06%	0.19%	-0.10%	8.36%	12.47%
North Indian Mound	11.60%	15.62%	29.11%	48.05%	0.11%	0.61%	9.33%	4.30%	0.17%	0.49%	10.31%	16.20%
South Indian Mound	12.54%	25.84%	23.10%	37.81%	0.10%	-0.27%	3.03%	-6.63%	0.58%	5.60%	9.01%	16.90%
Wendell Phillips	14.64%	17.18%	24.15%	29.63%	-0.10%	0.39%	-4.17%	-5.21%	-0.16%	8.77%	9.37%	13.74%
East Community Team North	23.21%	31.55%	27.38%	31.55%	0.00%	0.00%	0.00%	50.00%	0.00%	-14.29%	12.24%	12.76%
Squier Park	11.84%	24.38%	0.70%	2.79%	0.00%	0.00%	-24.14%	-35.15%	0.00%	1.00%	2.44%	5.96%
Manheim Park	13.12%	36.65%	1.64%	15.43%	0.00%	-7.64%	0.00%	3.33%	-0.13%	-0.51%	3.58%	10.81%
Ruskin Hills	13.33%	13.42%	1.08%	6.53%	-1.50%	-0.97%	1.11%	1.56%	-0.08%	-4.88%	3.15%	3.47%
Ruskin Heights	0.44%	1.06%	5.66%	15.02%	0.06%	0.06%	-0.09%	7.26%	-3.12%	-5.37%	0.76%	2.74%

\* the percentage change is equal to the % of parcels receiving a rating of 1 or 2 in 2008 minus the % of parcels receiving a rating of 1 or 2 in 2000

+ the percentage change is equal to the % of parcels receiving a rating of 1, 2 or 3 in 2008 minus the % of parcels receiving a rating of 1, 2 or 3 in 2000

### **Grounds Change**

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

1. Between 2000 and 2008 private sidewalks and drives are the only grounds condition that deteriorated substantially in most neighborhoods.
2. Grounds conditions deteriorated uniformly in one of the neighborhoods (Wendell Phillips). This is not surprising, given the high incidence of vacant lots in that neighborhood.
3. Lawn/Shrub, nuisance vehicles, litter and open storage conditions have generally improved in all neighborhoods, except Wendell Phillips.

### **Infrastructure Change**

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

1. Between 2000 and 2008 an overall increase occurred in the incidence of both serious deterioration or worse and substandard or worse infrastructure ratings in every surveyed area. In every surveyed area it is also true that there is an increase incidence of both serious deterioration or worse and substandard or worse ratings for both public sidewalks and curbs.
2. Street lighting conditions continue to be good or excellent in all surveyed areas.
3. Street conditions were better in 2008 than they were in 2000 in these neighborhoods in general.
4. Catch basin conditions improved in most neighborhoods and only deteriorated substantially in Ruskin Heights and East Community Team North.

Overall, the measurement of change between 2000 and 2008 shows that structure conditions have deteriorated slightly, grounds conditions have improved slightly, and infrastructure conditions have deteriorated significantly.

### 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 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 2008 in the surveyed areas. In past years, the procedure was also followed for Crime Reports in the surveyed areas. This year it proved impossible to make the comparison due to a change in the information system used by the police department.

#### Heartland Multiple Listing Service Sales and Prices

Table III-1 summarizes the MLS results. Because some of these areas are very small, there are years for which fewer than the minimum number (10) we required occurred. These areas are noted with an asterisk (\*). For other areas we calculated the percentage change in price of MLS sales, using 200 as the base. Results are reported in Table III-1.

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

Neighborhood	Percent Change In Average Sale Price
East Community Team North (partial)	*
Longfellow	38.28%
Lykins	-11.71%
Manheim Park	-66.31%
North Indian Mound	-36.85%
Pendleton Heights	9.85%
Ruskin Heights	-28.48%
Ruskin Hills	-25.55%
Scarritt Renaissance (partial)	-9.47%
South Indian Mound	-20.50%
Squier Park	*
Union Hill	*
Wendell Phillips	-18.82%
Westside North	*
Westside South	*

By way of comparison, the average MLS sales price for residences in KCMO rose 35% between 2000 and 2008 using the same procedure as we applied above.

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Among the surveyed neighborhoods, only the Longfellow neighborhood outperforms the KCMO average. Two of the areas with a small number of sales (Union Hill and Westside South) had significant increases (over 100%), probably because of the increased demand for housing in midtown and near downtown. Of the other neighborhoods, only Pendleton Heights has an increase in average price in this eight year interval. The largest decrease occurred in the Mannheim Park neighborhood. It should be emphasized that this is a very coarse look at the housing market in these areas. No controls have been used for house size, lot size, number of bedrooms, or other variables that would systematically impact housing prices.

The trend of MLS price in these neighborhoods roughly follows the changes in housing conditions.

Notice also that there is a significant upward trend in the number of MLS sales that occurred in the surveyed areas as a whole. During 2000 there were 425 MLS sales, and during 2008, there were 554 sales, a 30% increase. MLS Sales for the city as a whole increased by 70% over the same period. The less than proportional increase in MLS sales in the surveyed areas deserves further study.

## **Summary**

The Housing Conditions Survey of 2008 documents continued deterioration of the neighborhood infrastructure in the surveyed areas. This result is similar to the 2006 and 2007 findings. Once again, the condition of public sidewalks and curbs is significantly worse in 2008 than in 2000. Like 2007, but unlike 2006, the 2008 survey finds a slight deterioration in the conditions of both the housing stock and the grounds of surveyed parcels. The incidence of vacant lots is basically unchanged since 2000 in the surveyed areas. Housing prices are lower in most surveyed areas and housing transactions in these areas appear to be occurring more frequently.

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.

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. 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 6 NIP area folders, 12 Neighborhood folders, Expressions folder, Images folder, LayerFiles folder, and a ProjectGeography folder.
  - A. Each NIP area folder follows the naming convention *Areaxx\_name*, where *xx* is the NIP area ID number and *name* is the NIP area name. Each Neighborhood folder follows the naming convention *Nhdxxx\_name*, where *xxx* is the Neighborhood ID number and *name* is the Neighborhood area name. For the details of NIP area names and numbers, see the *NIPSurveyAreas.xls* file in the *DataFiles* folder. For the details of Neighborhood area names and numbers, see the *NeighborhoodSurveyAreas.xls* file in the *DataFiles* folder. Each NIP/Neighborhood area folder contains the following file types:
    1. ***Areaxx\_.mxd* or *Nhdxxx.mxd*** files – these files are the ESRI ArcMap 9.2 project files that contain the thematic maps for each survey rating.
      - Areaxx\_ParcelClassification.mxd* or *Nhdxxx\_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* or *Nhdxxx\_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* or *Nhdxxx\_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* or *Nhdxxx\_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* and *Nhdxxx\_pcls* files** – these are the parcel geography files necessary for mapping the parcels in each NIP area.
      - Areaxx\_pcls.shp* or *Nhdxxx\_pcls.shp*** – ESRI shapefile component
      - Areaxx\_pcls.dbf* or *Nhdxxx\_pcls.dbf*** – ESRI shapefile component – geographic attribute file with augmented with the real estate file attributes along with the NIP area or Neighborhood unique ID:
        - NIPID – Unique NIP area identifier
        - Nhd – Unique Neighborhood identifier



**Areaxx\_pcls.prj** or **Nhdxxx\_pcls.prj** – ESRI shapefile component

**Areaxx\_pcls.shx** or **Nhdxxx\_pcls.shx** – ESRI shapefile component

**Areaxx\_pcls.sbn** or **Nhdxxx\_pcls.sbn** – ESRI shapefile component; not present in all NIP area or Neighborhood folders

**Areaxx\_pcls.sbx** or **Nhdxxx\_pcls.sbx** – ESRI shapefile component; not present in all NIP area or Neighborhood folders

3. **Areaxx\_data** or **Nhdxxx\_data files** – these contain the raw survey data for each NIP area.

**Areaxx\_data.dbf** or **Nhdxxx\_data.dbf** - generic database file with fields defined in the Field Listing Appendix.

4. **Areaxx\_addr** or **Nhdxxx\_addr files**– this contains addresses for each parcel in the NIP area or Neighborhood surveyed. This file is used for address modification/creation.

**Areaxx\_addr.dbf** or **Nhdxxx\_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.

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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\_2008.xls file
  - ParcelData\_2008.xls – spreadsheet file containing the raw survey data for each parcel in the survey areas with fields as listed in the ParcelDataFields.xls file.
- Survey Areas
- SurveyAreaDataFields.xls – spreadsheet listing of field names in the SurveyAreaData\_2008.xls file
  - SurveyAreaData\_2008.xls – spreadsheet file containing aggregate survey data for each surveyed area in the survey with fields defined in the SurveyAreaDataFields.xls
  - NIPSurveyAreas.xls – spreadsheet file containing NIP area names with corresponding unique identifier.
  - NeighborhoodSurveyAreas.xls – spreadsheet file containing Neighborhood 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.

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2. *Final.pdf* – Final report in PDF format.
3. *Appendix1ResidentialRatingGuide.doc* – Housing conditions survey residential rating guide.
4. *Appendix2descriptors.doc* – Survey rating descriptors.
5. *Appendix3PDA\_HousingSurvey\_UserGuide.doc* – PDA user guide for housing conditions survey.
6. *Titlepage.doc* – Final report title page.