

# COMMUNITY MAPPING PROJECT



A GUIDEBOOK FOR NEIGHBORHOOD ASSOCIATIONS AND CDCs

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# 1

## INTRODUCTION

**IN JUNE AND JULY OF 2006** the Broadmoor community undertook a mapping and surveying project. The Broadmoor Improvement Association reached out to Bard College in New York and Plan Ready, a technology and mapping firm in California, and all three organizations worked together to design and carry out a comprehensive, building-by-building survey of the neighborhood and create a mapping system to manage the information gathered.

The following is a step-by-step guidebook to

community-wide surveying and mapping projects for other neighborhood associations and CDCs that want to conduct similar surveys. Informational mapping and surveying offer a neighborhood in post-Katrina New Orleans an invaluable resource: a readily-available view of the neighborhood that the community can use to follow its recovery, aid its re-growth and plan for the future.

This guide aims to help neighborhoods collect, manage, and use community-specific information to build mapping systems.



# 2

## FRAMEWORK



Figure 1



Figure 2

**THE MAPPING SYSTEM** is a framework for capturing and organizing data about a neighborhood, from the level of the entire neighborhood down to the level of an individual building or lot. Within this framework, a community can combine maps, images, and descriptive information about their neighborhood: the infrastructure, the buildings, the people, and more.

Working within privacy and security policies set up by the community, people can then use this system to view maps, browse the data about each location, analyze the information, and generate reports. These might be used to communicate neighborhood needs and resources to other neighborhoods, municipal planners, city infrastructure departments, utilities, non-governmental organizations, and others. See the Applications section below for additional



Figure 3

ways in which a neighborhood mapping system might be used.

Broadmoor's interactive, online system includes maps at three levels: neighborhood [Figure 1], subarea [Figure 2], and block [Figure 3]. The maps are augmented with data that describes damage levels, repairs underway, infrastructural conditions, occupancy, etc., for every home, business, and empty lot.



Figure 4

**Broadmoor's interactive, online system includes maps at three levels, as well as digital photographs.**

Each entry is accompanied with a front [Figure 4] and side digital photograph.

Other neighborhoods may have different data needs, and Broadmoor plans to include additional data in its system as the neighborhood develops. A good framework for capturing neighborhood-specific information accommodates these changes.

# 3

## GATHERING RESOURCES



**A MAPPING PROJECT** requires both human resources, to gather information, and technology resources, to store and manage that information.

To conduct the initial field survey, Broadmoor recruited a volunteer team of 18 students from Bard College. In reaching out to volunteer groups, neighborhood groups should consider colleges and universities and the academic relevancy and appeal of these projects: suggest that a college group design a course around their work with the neighborhood group, etc. This also connects those institutions to grants and sources of funding based in academic work.

Wherever the volunteers are from, offer them a hand in designing their project: allowing volun-

teers to consider themselves less as free labor and more as intellectually and practically contributive interns creates more space for them to think broadly and creatively about their work and to feel a sense of ownership and pride that in turn improves the quality of that work. Housing volunteers within the community (either with host families or through a local organization such as a church or school) creates a sense of involvement and belonging within the community.

Broadmoor's technology partner is Plan Ready, an extremely accommodating, adaptable technology firm specializing in geographic information systems (GIS) and emergency planning. (contact Noreen Bergin at [nbergin@planready.com](mailto:nbergin@planready.com)).

# 4

## METHODOLOGY



**TIP : Photographs of various infrastructural and architectural types and elements are available online if needed.**

**FIRST**, decide which information to capture. Members of the neighborhood team involved in planning, emergency preparedness, flood mitigation, and funding should gather with the volunteer group to determine what information is essential to the building-to-building data sheet. This data sheet will, in its questions, essentially provide an entire structural conceptualization of the neighborhood.

An example of a data sheet (courtesy of the city's neighborhood planning process guide) is shown on the following page and can be found on page 37 of the online document here:

<http://www.cityofno.com/Portals/Portal52/portal.aspx?portal=52&tabid=22>.

Next, organize your field survey team. See the resources section above for tips on setting up your team.

### GATHER YOUR SUPPLIES:

- **Index cards**  
one to every two homes
- **Sharpies**  
one to every two volunteers
- **Digital Cameras**  
one to every two volunteers
- **Clipboard**  
one each
- **File folders**  
one to every block in the neighborhood
- **External hard-drive**
- **Access to a computer lab**  
Tulane is often open to partnering with neighborhood associations
- **Large map of neighborhood**  
either parcel map –available from the city's GIS department through [www.gnocdc.org](http://www.gnocdc.org)–or Sanborn map –which can be purchased at city hall
- **Camera universal memory card reader**  
one to every two teams -\$30 at any computer hardware store
- **Sunscreen**

### Housing Condition Assessment Form

<b>Address Information</b> House Number: Street:		HDLC District	Municipal District	Lot #	Square#	Zoning	Neighborhood	Ward
<b>Additional Addresses</b> Address 1:      Address 2: Address 3:      Address 4:		Police District	Council District	Planning District		<b>Flood Zone</b>	Event	Elevation

<b>Property Info</b>		
Site Address:	Property ID:	
Square:	<u>AD</u>	<u>MD</u>
Lot:	<u>CD</u>	

<b>Address Info</b>	
Site Address Correction:	
Address #2: _____	Address #4: _____
Address #3: _____	Address #5: _____

<b>Land Use</b>		
Check one:		
<input type="checkbox"/> RS - Residential Single	<input type="checkbox"/> NC - Neighborhood Comm.	<input type="checkbox"/> IP - Institutional/Public
<input type="checkbox"/> RD - Residential Double	<input type="checkbox"/> RC - Regional Commercial	<input type="checkbox"/> OP - Park/Recreation/Open
<input type="checkbox"/> RM - Residential Multiple	<input type="checkbox"/> LI - Light Industrial/Office	<input type="checkbox"/> UNK - Unknown
<input type="checkbox"/> NMU - Neighborhood Mixed Use		

<b>Structure Info</b>					
Foundation:	_____ Crawl space	_____ Slab on grade			
Wall type:	_____ Wood stud	_____ Metal stud	_____ CMV		
Exterior finish:	_____ CMV	_____ Brick	_____ Wood	_____ Vinyl	_____ Stucco
No. of stories:	_____				

Gutted:	_____ Yes	_____ No	Demolished:	_____ Yes	_____ No
Debris on site:	_____ Yes	_____ No	Vacant lot:	_____ Yes	_____ No

Electrical meter:	_____ Yes	_____ No	Water meter:	_____ Yes	_____ No
Down power lines:	_____ Yes	_____ No	Water leaks:	_____ Yes	_____ No

FEMA (trailer):	_____ Yes	_____ No	Blue roof (tarp):	_____ Yes	_____ No
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Damaged Sidewalk:	_____ Yes	_____ No	Damaged driveway:	_____ Yes	_____ No
Damaged curbs:	_____ Yes	_____ No	Street condition:	_____ Poor	_____ Fair
				_____ Good	

Landscaping:					
No. of trees:	_____	Bushes/shrubs:	_____	Lawn:	_____ Dead
				_____ Overgrown	_____ Cut

Data sheet from The Neighborhood Planning Guide, City Planning Commission of New Orleans





### CONDUCT YOUR FIELD SURVEY:

#### 1. Form teams of at least two volunteers.

**2. Break apart a large map of the neighborhood into sections specific to each team.** A team of two can average ten to fifteen buildings in an hour, or roughly two city blocks in a day. Assignments can be mapped out week by week, specifying an achievable set of blocks for each team. At the beginning of each week, each team should receive a map delineating the blocks they are to work on. By so doing, those organizing the project should be able to form a rough timeline of when the project can be expected to be completed.

**3. Keep a week to week master plan of the neighborhood,** color-coding each team and charting both their assigned sections and their progress [Figure 5]. By so doing, those forming weekly assignments can be sure to not re-trace completed sections and can keep track of where teams may be any given day for security reasons.

**4. Send teams into the neighborhood.**  
Photograph each building:



Figure 5

- On an index card, clearly write the street name and address of the house being photographed.
- Take one photograph of the front of the building with the index card clearly visible and legible in the photograph. Later, every photograph



will have to be individually uploaded to an online database; the clearly-marked index card photograph ensures that they are not confused or misplaced in this process.

- Take one photograph of the front of the building, centering it in the frame.
- Take one photograph of the side of the building, showing possible subsidence or other damage in the angle and condition of the sideboards and foundation.
- While one team member photographs the building, another can be filling out the data sheet. Each data sheet is then entered into a file folder marked by block (for example: 2400-2458 Jena St.)

### 5. Data Entry

- The data entry process—uploading the photographic and survey-based information gathered by volunteers in the field—will vary depending on which technology firm the neighborhood partners with. Communication with the firm is critical to understanding the most sensible methods of data entry and maintenance.
- Determine what schedule works best for the

team, remembering that data entry is time consuming and essential to maintaining an overall order to the project. The Broadmoor team found that entering data on a daily basis helped to clarify the organization and structure of their work.

- In clarifying the data entry process, ask that the technology firm design an online form identical to the data sheet that the neighborhood develops for its survey, leaving less room for error.

### 6. Backup

- Store all block-to-block folders in a shared space ordered by street where volunteers can deposit their folders as they upload them. These can prove useful later in cross-checking and confirming data and making sense of possible discrepancies between a map and the neighborhood as it is on the street.
- Maintain an external hard-drive onto which all digital photographs are stored after they are uploaded. Name files on the hard-drive by street.

**TIP : In the interest of security, contact your district's quality of life officer and request extra patrols for the time and area in which your volunteers will be working.**

# 5

## SUSTAINABILITY



**IN THE INTEREST OF LONG-TERM SUSTAINABILITY**, applicability, and accuracy, neighborhood groups should establish a data management subcommittee of the overall CDC or neighborhood association. This subcommittee –some three or four people meeting for an hour or two per week –would utilize and make accessible as widely and responsibly as possible the map and its data.

### **TASKS:**

**Among its responsibilities, the subcommittee would:**

- Keep data up-to-date, noting, for example, when a home is demolished or rebuilt and revising that data in the database. One way to simplify this ongoing process is to establish a “block captain” system by which one resident on each block of the neighborhood agrees to pass relevant information on to the subcommittee as it comes, strengthening community ties in the process.
- Ensure that all data as it comes is centralized and made accessible to the appropriate persons; the data management subcommittee can publicize an email address through which community members and neighborhood as-

sociation volunteers can pose information and data-based needs that the subcommittee could then consider how to best address.

- Remain in contact with other local data centers, be they governmental or neighborhood-based –including the Neighborhood Planning Network meetings, Data Convergence meetings, etc. in the interest of working towards and contributing to a larger, common wealth of information.

# 6

## APPLICATIONS



**IN CONSIDERING HOW TO APPLY THE DATA COLLECTED**, keep in mind that the map produced is most useful not in and of itself but rather as a template onto which more data can be entered as it comes. The final product is a living document reflecting in real time the needs of the neighborhood in relation to its resources. A Neighborhood Association might identify any number of stakeholders with an interest in neighborhood mapping:

### **First responders**

First responders might be interested in determining where the special needs and handicapped residents of the neighborhood live. By so doing (gathering those addresses and entering the data into the online database) they can draw up a map not only of where those residents live but also accompanying photographs of their homes in case of a flood or emergency.

### **Urban planners**

Urban planners might be eager to know where the greatest concentrations of specific infrastructural damage lie in the neighborhood. By marking such damage (as noted in the City Planning Commission's sample data sheet), planners can create individual maps demarcat-

ing, for example, missing stop signs and send those maps suggestively to city hall.

### **Fund Raisers and Volunteer Coordinators**

Fund Raisers and Volunteer Coordinators could use the map to put together proposals –including photographs and explanatory data sheets –for potential non-local funders and/or volunteer groups, allowing those groups a concrete, visual understanding of what shape their contribution would make towards overall revitalization.

### **Educators**

Educators could gather age demographics on returning community members and enter that data into the map; this data could prove useful in the opening of new schools as well as in relation to existent bus routes to determine where children might need added transportation resources.

### **The Community itself**

As an example, Broadmoor has used its system to superimpose a map of every building permit issued in the neighborhood over the Plan Ready map, allowing them to isolate the location of every home that received severe damage and did not receive a building permit. The result: a



basic sense of what properties are indefinitely blighted. The flexibility and accessibility of this data allows Broadmoor to form not only its own conclusion as to the condition and future of its neighborhood—it enables Broadmoor to contribute to and be represented within an invaluable process of data centralization across the entire city.



Questions/comments contact:  
Stephen Tremaine  
St964@bard.edu  
Broadmoor Improvement Association

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