

# Data Organization and Management for the USM Neighborhood Stabilization Program

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**Abstract** - The Housing and Economic Recovery Act (HERA) of 2008 provided funds for several programs including the Neighborhood Stabilization Program (NSP). The Neighborhood Stabilization Program (NSP) purpose is to stabilize communities that have suffered from foreclosures and abandonment [1]. The NSP funds are being distributed nationwide by the U.S. Department of Housing and Urban Development (HUD) to areas hardest hit by the foreclosure crisis. The funds that have been distributed to Mississippi are administered by the Mississippi Development Authority which in turned made a request for proposal. The University of Southern Mississippi – Institute for Disability Studies, School of Construction and School of Computing submitted a project proposal and it was awarded a grant to rehabilitate over forty homes in the Jackson area in Mississippi.

As in all construction projects, an important aspect of the USM-NSP rehabilitation project is the data organization and management, which is the method of recording, organizing, and quantifying all activities on all phases of the building project life cycle. This important task was assigned the construction management team composed of a faculty, staffs and several students. This report summarizes the project based experience of students participating in this project. The students have been playing a key role in maintaining documentation of the construction activities and tracking all costs covered in the contracted scopes of work for all contractors involved. Activities consisted of preliminary quantity take-offs, price and cost researching, documentation of meetings and conferences held with all players involved within the contract, cost analysis, maintaining work schedules, and other organizational practices of the procurement documents. This experience is helping prepare students to step into a very competitive design-build construction company allowing them to play key roles in controlling the entire design and construction process from start to finish. This project has provided hands-on experiences to the students in managing a construction project. The experience of working on a construction management team for USM has allowed the students to network with professionals in the construction industry, and gain first-hand knowledge of social and communication skills that are common within the industry as well.

Keywords: Organization, Data, Management, Housing, Rehabilitation

## INTRODUCTION

The Housing and Economic Recovery Act of 2008 (Pub.L. 110-289, 122 Stat. 2654, enacted July 30, 2008) (commonly referred to as HERA) was designed primarily to address the subprime mortgage crisis and funded the Neighborhood Stabilization Program (NSP) under Division B, Title III and provided grants to all states and selected local governments on a formula basis [1].

The NSP purpose was to stabilize communities that had suffered from foreclosures and abandonment, through the purchase and redevelopment of foreclosed and abandoned homes and residential properties. This report summarizes the student project based on the NSP grant [2]. The students played a key role in maintaining documentation of the construction activities and tracking all costs covered in the contracted scopes of work for all contractors involved.

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## STUDENT PROJECT ACTIVITIES

As members of the construction management team (CMT), the students were given (under the supervision of a faculty) the responsibilities of all the tasks required from a typical management team in the construction industry, along with the additional contract documentation required to fulfill the standards and requirements set forth by Mississippi Development Authority (MDA) and HUD. These activities are summarized in the following:

- ***Researched abandoned foreclosed homes within Jackson, MS.*** – The CMT of USM established a standardized criterion for selecting foreclosed or abandoned homes from low income neighborhoods in addition to the selection criteria established by HUD.
- ***Researched local and national building codes, standards, and requirements.*** – accounted and enforced the local and national building codes and requirements upheld and established by HUD, MDA, and the standard permit procedures enforced by the City of Jackson [3].
- ***Assembled selected houses to rehabilitate into eight packages.*** – There were eight packages assembled by the CMT; consisting of four to seven houses for each package. This allowed for an earlier completion date of all the houses inclusive.
- ***Create a construction contract for the rehabilitation of the selected homes.*** – a contract was composed; stating the scope of work and responsibilities of the owner (USM) and the contractor; concerning the selected houses by the CMT of USM.
- ***Providing instructions to bidders and the clarifying the details of the bid advertisement process.***
- ***Compose bid packages for all definite bidders.*** – Each bidder who has proven to be a definite bidder; received a “bid package” that was specific to the particular package which they were bidding on. Each “bid package” contained several bid documents in partial of the construction documents which provides a construction contract and other standard AIA document forms which together; state, define, and enforce the procedures and manner of authorities held between all parties involved within the rehabilitation of all the homes listed in the contract.
- ***Evaluate and award successful bidders their contracts based off of a fair and equal evaluation of all submittals from bidders.*** – The student faculty established a standard rating system to evaluate each bid submittal, and then used this system to determine the winning bidder for each package that was advertised for bid.
- ***Maintain specific and accurate records of all correspondence, meeting minutes, and contract documents.*** – The student faculty maintains accurate and up to date records of all contract documents, transactions, meetings, correspondence, workmanship by the contractors, photos, voice recordings, and documented actions by all pertinent parties involved or mentioned within the construction contract.
- ***Monitoring and tracking construction progress of each contractor, and their quality of workmanship specifically with each itemized task.*** – The students were responsible for eliminating all chances of collusion among bidders and contractors, assuring the quality of workmanship being performed on the houses selected for rehabilitation, ensuring dates of project completion are met, and reducing unnecessary costs and time wasted.
- ***Coordinating with MDA and HUD concerning all actions and decisions made as progress continues throughout the life of the construction contracts.*** – All actions, decisions, meetings, inspections, and other communication are documented by the CMT. Also all documents and material required to be submitted to either the contractors, MDA, HUD or any other affiliate of the construction contract is submitted on time; with a copy of the submitted material.

- *Inspections both announced and unannounced are conducted on a weekly basis.* – The CMT conducts agreed upon progress inspections with the contractor; while randomly conducting unannounced site visits to assure safe work practices and quality workmanship of the rehabilitation project.

### SAMPLE RESULTS

The following are two of the deliverables prepared as part of this project resulting from the activities presented above.

#### Housing Criteria Selection

The members of the CMT composed a spreadsheet (see Figure 1) which allowed each of the prospective houses selected for the rehabilitation project to be equally evaluated with a standardized criterion. Initially there were over one hundred prospective homes to rank. This method of ranking each house respectively against the criteria organized within the spreadsheet allowed for the decisions made to be documented (see Figure 1 and 2).

House Selection Criteria Scale	House 1	House 2	House 3	House 4	House 5	House 6
1 - Personal Rank	1	2	3	4	5	6
2 - Price						
3 - Estimated Repair Cost						
4 - Number of Bedrooms						
5 - Number of Bathrooms						
6 - Levels (1,2,3,4);						
7 - Exterior (Brick, Siding, yard size)						
8 - Interior Features (Fire Place, Bar, etc)						
9 - Sale Price /SF						
10 - Repaired Price /SF						
11 - Sale Price / (Bedrooms+Bathroom*1.5)						
12 - Repaired Price / (Bedrooms+Bathroom*1.5)						
13 - Neighborhood Name						
14 - Comparable Avg. Construction SF						
15 - Comparable Price						
16 - Comparable Number of Bedrooms						
17 - Comprable Number of Bathrooms						
18 - Comparable Price / Avg.SF						
19 - Comparable Price / (Bedrooms+Bathroom*1.5)						

Figure 1a – House selection criteria spreadsheet 1 (USM-CMT, 2010).

From here you will see each section that will be ranked. In the far right column please place your choice of rank:		
<b>List of Items</b>	<b>Points</b>	<b>Rank (1-9)</b>
3 - Estimated Repair Cost	(1-9)	
4 - Number of Bedrooms	(1-9)	
5 - Number of Bathrooms	(1-9)	
6 - Levels (1,2,3,4);	(1-9)	
7 - Exterior (Brick, Siding, yard size)	(1-9)	
8 - Interior Features (Fire Place, Bar, etc)	(1-9)	
9 - Sale Price / SF	(1-9)	
10 - Repaired Price / SF	(1-9)	
11 - Sale Price / (Bedrooms+Bathroom*1.5)	(1-9)	
12 - Repaired Price / (Bedrooms+Bathroom*1.5)	(1-9)	
14 - Comparable Avg. Construction SF	(1-9)	
15 - Comparable Price	(1-9)	
16 - Comparable Number of Bedrooms	(1-9)	
17 - Comparable Number of Bathrooms	(1-9)	
18 - Comparable Price / Avg.SF	(1-9)	
19 - Comparable Price / (Bedrooms+Bathroom*1.5)	(1-9)	
*Note: The number for the rank will change if the number		

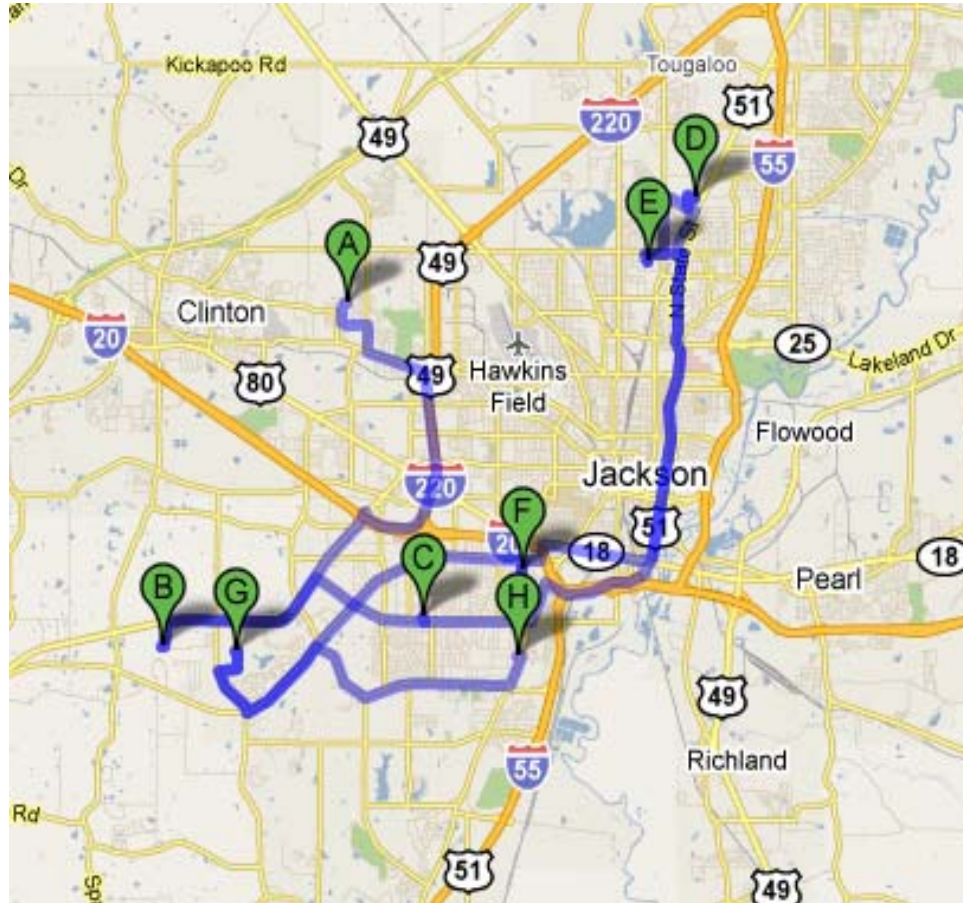
Figure 1b – House selection criteria spreadsheet 2 (USM-CMT, 2010).

### Rehabilitation Packages

Selected houses for rehabilitated construction were grouped into eight different packages based on their proximity to each other. The eight package location are shown in Figure 2a and 2b. The assembled packages contain five to nine homes so that the work loads are manageable for the awarded bidder of the contract to that particular package. Simultaneously this helps the CMT to manage and control the rehabilitation of the homes better, utilize the funds spent on the project sparingly, maximize profit for all parties involved, and encouraging the best workmanship from the contractors for a supreme finished product (rehabilitated home).

Package I - A	Jackson	MS 39212
Package II - B	Jackson	MS 39212
Package III - C	Jackson	MS 39204
Package IV - D	Jackson	MS39206
Package V - E	Jackson	MS 39206
Package VI - F	Jackson	MS 39204
Package VII - G	Jackson	MS 39212
Package VIII - H	Jackson	MS 39212

Figure 2.a – Eight Rehabilitation Packages (USM-CMT, 2010).



52.7 mi – about 1 hour 49 mins between all eight packages.

Figure 2b - Collective Project map and addresses of the first house listed that is corresponding to Rehabilitation Packages I – VIII 8 (USM-CMT, 2010)

### **LESSON LEARNED**

The students' member of the CM T had the opportunity to improve a variety of skills and gain experience conducting standard construction management practices in a federally funded construction project. Some of the students' key skill improvement were: possessing a greater understanding of how construction contracts are created and enforced, knowing how to create and maintain an evolving account of all activities both administrative and construction, understanding how to maintain a large scale project budget, being able to quantify and analyze all entities and components of the entire project, and understanding change orders.

The students also had hands-on experience documentation during the management of a construction project, and its importance particularly when working on a federally funded project. The students also had a great opportunity to practice and develop critical social and communication skills that are fundamental on the construction profession. The students practice the process to document in writing all oral communications in the process as a preventive measure to a future misunderstanding or liability issue, and more importantly as a valuable source of historical data which is critical in estimating future projects. The students also understood the importance of indentify all the stakeholders in the projects from the funding source to the final customer of the house currently under rehabilitation. Under the supervision of faculty, the students were fully engaged in developing and managing a template which could track work progress from the contractors, costs and budgeting among all parties, prevent contractors from escalating price quotes, and control resources and dollars used within the project at all times. The students were also successfully in managing a project that is well over 2.5 million dollars. A project this size must have an extensive amount of project controls implemented by a construction manager, or a construction management team.

### **CONCLUSIONS**

The students participating in this project were given a great opportunity to act as a key member representing the construction management team for USM in the Neighborhood Stabilization Program in Jackson, Mississippi. The CMT managed a federally funded project and worked closely with representatives and member of MDA and HUD. The infrastructure of USM enabled the students to participate actively in key positions within a federally funded construction project, and gain invaluable experience that puts knowledge accumulated from the class room into perspective as the students witness actual practices within the construction industry.

This project gave the students an opportunity gain experience that led to key management position in the private sector with suitable salary at the completion of their degree. Proof of the effectiveness of this experience for construction students are exemplified by showing that currently 100% of all construction students who were a part of the CMT for USM on the NSP in Jackson, MS successful secured job placement immediately after graduation even during these tough economic times. The insightful vision of the Director of the graduate programs for the School of Construction at USM deserves full credit in making this opportunity available to the students who have benefited greatly.

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