

February 15, 2012

**Notice of Release of Request for Proposal**  
**Packet #NSP2 11-005-02: Demolition/Deconstruction and Debris Removal**  
**Of residential structures**  
**For Properties located in Ingham County within the**  
**Neighborhood Stabilization Program 2 (NSP 2) Boundaries**

The Ingham County Housing Commission, on behalf of the Ingham County Land Bank is seeking quotes for the Demolition and Disposal of various properties located in Ingham County funded through the Michigan NSP2 Consortium.

Bid documents may be obtained at the Ingham County Land Bank NSP2 office located at the Neighborhood Empowerment Center, 600 W Maple Street, Lansing, Michigan 48906 or on-line at [www.inghamlandbank.org](http://www.inghamlandbank.org). Please refer to **RFP# NSP2 11-005-02**.

The successful bidder will propose a per house price that will include the tasks delineated in the attached proposal including the demolition, deconstruction and removal of the debris, as well as the backfilling, grading and seeding of those properties.

The bid should include an estimate of the time frame necessary to conclude the tasks delineated in the Scope of Work and include a fixed price per structure to cover all work and services.

Quotes must be in the Ingham County Land Bank NSP2 office located at the Neighborhood Empowerment Center, 600 W. Maple Street, Lansing, Michigan 48906 by 11:30 am on February 29, 2012.

Any questions regarding the preparation of the bid packet should be addressed to Shanda Wrozek at [hcwrozek@ingham.org](mailto:hcwrozek@ingham.org).

Sincerely,

Shanda Wrozek  
Deputy Director  
Ingham County Housing Commission

**Demolition/Deconstruction and Debris Removal of Residential Structures  
within Ingham County**

**Invitation to Bid #NSP2 11-005-02**

**General**

This Request for Proposals is being issued by the Ingham County Housing Commission, on behalf of the Ingham County Land Bank in its capacity as award recipient from the Michigan NSP2 Consortium. Under the Recovery Act, Congress established the Neighborhood Stabilization Program 2 to stabilize neighborhoods whose viability is negatively affected by properties that have been foreclosed upon and abandoned.

The Ingham County Housing Commission will receive sealed bids marked clearly on the outside of the package with "Packet #NSP2 11-005-02" at the NSP2 office located at the Neighborhood Empowerment Center, 600 W Maple Street, Lansing, Michigan 48906 for the Demolition/Deconstruction and removal of residential structures. Proposals will be accepted until 11:30 a.m. on February 29, 2012. Bids will not be accepted after the date and time stated in this document. A bid opening will be held at the above address on February 29, 2012 at 11:31 am.

The Ingham County Housing Commission intends to select one contractor. It is our intention to authorize a contractor to perform Demolitions/Deconstructions and removal of materials on structures as listed in the Bid Form.

Bid documents are available to all Contractors holding a Michigan Demolition Contractors license, a Michigan Residential Builders License or a Maintenance and Alteration License, and are currently registered with the City of Lansing. Bid documents may be obtained at the office of the Ingham County Land Bank NSP2 office located at Neighborhood Empowerment Center, 600 W. Maple Street, Lansing, Michigan 48906 after February 15, 2012. Bid packets are also available on line at [www.inghamlandbank.org](http://www.inghamlandbank.org). Please refer to RFP# NSP2 11-005-02.

Bids may be withdrawn prior to the date and time specified for bid submission with a formal written notice by an authorized representative of the respondent. All responses, inquires, and correspondence relating to the Invitation to Bid and all reports, charts, displays, schedules, exhibits, or other documentation, including the Bid Packets after submission become the property of the Ingham County Land Bank. No bid may be withdrawn for a period of sixty (60) days after submission. Bids offering less than sixty (60) days will be considered non-responsive and will be rejected.

The Ingham County Housing Commission reserves the right to reject any or all Bids and to waive any irregularities or informalities, and/or to negotiate separately the terms and conditions of all or any part of the bids as may be deemed in the best interest of the Ingham County Land Bank. It is the intent to award the project to the lowest responsive and responsible bidder.

In the event it is evident to a respondent that the Ingham County Housing Commission has omitted or misstated a material requirement(s) to this bid, the respondent shall advise the Housing Commission at [hcwrozek@ingham.org](mailto:hcwrozek@ingham.org) or (517)580-8825. The Housing Commission will notify other bidders of the omission or misstatement.

**Term of Contract**

Any contract awarded pursuant to this RFP solicitation shall be for a contract period up to 24 months with the possibility of an extension.

### **Federal and State Requirements**

It is the policy of the Ingham County Land Bank that all vendors who provide goods and services to the Land Bank by contract, shall, as a condition of providing goods and services, adhere to all Federal, State and local laws, ordinances, rules and regulations, and policies, if applicable, prohibiting discrimination in regard to persons to be served and employees and applicants for employment including, but not limited to, the following:

1. The Elliott Larson Civil Rights Act, 1976 PA 453, as amended.
2. The Persons with Disabilities Civil Rights Act, 1976 PA 220, as amended.
3. Section 504 of the Federal Rehabilitation Act of 1973, PL 93-112, 87 Stat. 255 as amended, and rules adopted thereunder.
4. The Americans With Disabilities Act of 1990, PL 101-336, 104 Stat. 327 (42 through 12101 et seq.), as amended, and regulations promulgated thereunder.
5. Executive Order 11246 of September 24, 1965, entitled "Equal Employment Opportunity," as amended by Executive Order 1124 of October 13, 1967 and as supplemented in Department of Labor regulations (41 CFR Chapter 60). (Applicable to all construction contracts awarded in excess of \$10,000 by respondent or its subcontractors.)

Furthermore, the vendor who is selected under this contract, as a condition of providing goods and services, as required by law, shall not discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions or privilege of employment, or a matter directly or indirectly related to employment because of race, color, religion, sexual orientation, gender identity, national origin, disability, height, weight, marital status, age or political affiliation (except where age, sex or lack of disability constitutes a bona fide occupational qualification).

Any violation of Federal, State or local equal opportunity statutes, ordinances, rules/regulations, or policies during the course of time which the vendor is providing goods and services to the Land Bank shall be regarded as a material breach of any contract between the Land Bank and Vendor, and the Land Bank may terminate such contract effective as of the date of delivery of written notification to the Vendor.

In addition, other Federal, State and local laws, ordinances, rules and regulations, and policies, may apply to these projects. These include, but are not limited to, the following:

1. The Housing and Economic Recovery Act of 2008 (HERA), also known as Public Law 110-289.
2. The Copeland "Anti-Kickback" act (18 U.S. C. 874) as supplemented by Department of Labor regulations (29 CFR part 3). (Applicable to all contracts and subcontracts.)
3. The Davis-Bacon Act (40 U.S. C. 276a to 276a-7) as supplemented by Department of Labor regulations (29 CFR part 5). (Applicable to construction contracts in excess of \$2,000 for CDBG rehab projects of 8 units or more and HOME projects of 12 units or more.)
4. Sections 103 and 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C 327A 330) as supplemented by Department of Labor regulations (20 CFR part 5). (Applicable to construction contracts awarded by Respondent and/or its subcontractors in excess of \$2,000, and for other contracts in excess of \$2,500 which involve the employment of mechanics or laborers.)
5. Respondent agrees to comply with all applicable standards, orders, or requirements issued under section 306 of the Clean Air Act (42 U.S. C. 1857 (h)), section 508 of the Clean Water Act (33 U.S.C. 1368 Executive Order 11738, and Environmental Protection Agency Regulations (40 CFR part 15). (Applicable to contracts, subcontracts, and subgrants in amounts in excess of \$100,000).
6. Compliance with Section 3 of the HUD Act of 1968, as amended, and as implemented by the regulations set forth in 24 CFR 135. Section 3 requires that to the greatest extent feasible, opportunities for training and employment will be given to low- and very low-income residents of

the project area, and that contracts for work in connection with the project be awarded to concerns that provide economic opportunities for low- and very low-income persons residing in the metropolitan area in which the project is located.

7. The Contractor and its subcontractors shall comply with the Michigan Occupational Safety and Health Act, 1974 PA 154, as amended, (hereinafter referred to as "OSHA") and regulations promulgated pursuant thereto. If during the process of the Project, it is discovered that the Contractor has failed to comply with OSHA, its regulations, or other applicable Federal, State or local laws, ordinances and regulations, the Contractor and its subcontractors shall take such steps as necessary to comply, at no additional cost to the Land Bank.

Bidder agrees to comply with Ingham County Land Bank, City of Lansing, MSHDA, and HUD requirements and regulations pertaining to reporting, including but not limited to providing demographic data and evidence of compliance with city and federal procurement rules, as applicable to this contract.

Bidder agrees that if this contract results in any patentable inventions, the Ingham County Land Bank and City of Lansing reserve the right to royalty-free, non-exclusive and irrevocable license to reproduce, publish or otherwise use and to authorize others to use, the work or materials for governmental purposes, as applicable to this contract.

Bidder agrees that if this contract results in any copyrightable material, the Ingham County Land Bank and City of Lansing reserves the right to royalty-free, non-exclusive and irrevocable license to reproduce, publish or otherwise use and to authorize others to use, the work or materials for governmental purposes, as applicable to this contract.

Bidder agrees to comply with mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (Pub. L. 94A 163, 89 Stat. 871), as applicable to this contract.

#### **Access and Retention of Records**

Respondent agrees to provide access by the Ingham County Land Bank, City of Lansing, MSHDA, HUD, the Comptroller General of the United States, or any of their duly authorized representatives to any books, documents, papers and records of the contractor which are directly pertinent to this specific contract and any related contracts or records for the purpose of making audit, examination, excerpts, and transcriptions.

Respondent also agrees to retain all required records for five (5) years after completion of the work, receipt of final payments and all other pending matters are closed.

#### **Local Vendor Policy**

Preference will be given to a vendor who operates a business within the legally defined boundaries of Ingham County as outlined in the Procurement Policies and Procedures policy available at [www.inghamlandbank.org](http://www.inghamlandbank.org). To be considered for preference as operating a business within the legally defined boundaries of Ingham County, the vendor must register as a "registered local vendor" (RLV) by providing the Land Bank with a verifiable physical business address (not a P.O. Box) within Ingham County at which the business is conducted.

#### **Living Wage**

Vendors contracting with the Ingham County Land Bank primarily to perform services are required to pay their employees a "living wage" if the following two (2) conditions apply:

1. The total expenditure of the contract or the total of all contracts the vendor has with the Land bank exceeds \$50,000 in a twelve (12) month period; and
2. The employer has more than five (5) employees.

Subcontractors providing services who employs five (5) or more employees and where the total value of the contract exceeds \$25,000 are also required to provide a living wage.

Living wage is defined as an hourly wage rate equivalent to 125% of the federal poverty level. For 2011, that figure is \$13.98 per hour. Twenty percent (20%) of the "living wage" costs paid by the employer can be for an employee's health care benefit. This wage rate applies to part-time and full-time employees.

### **Choice of Law/Venue**

This contract shall be construed according to the laws of the State of Michigan. The Land Bank and respondent agree that the venue for the bringing of any legal or equitable action under this bid shall be established in accordance with the statutes of the State of Michigan and/or Michigan Court Rules. Any action brought under this contract shall originate in the 54A District Court of the State of Michigan. In the event that any action is brought under this contract seeking damages in excess of \$25,000, the venue for such action shall be the 30<sup>th</sup> Judicial Circuit Court of the State of Michigan. In the event that any action is brought under this contract in Federal Court, the venue for such action shall be the Federal Judicial District of Michigan, Western District, Southern Division.

Respondents shall render the services to be provided pursuant to this agreement in compliance with all applicable Federal, State and local laws, ordinances, rules and regulations.

### **Collusion**

The Respondent certifies that this bid has not been made or prepared in collusion with any other bidder and the prices, terms or conditions thereof have not been communicated by or on behalf of the respondent to any other bidder and will not be so communicated to any other bidder prior to the official opening of this bid. This certification may be treated for all purposes as if it were a sworn statement made under oath, subject to the penalties for perjury. Moreover, it is made subject to the provisions of 18 U.S.C. Section 1001, relating to making false statements.

### **Hold Harmless**

The respondent who is selected shall, at its own expense protect, defend, indemnify, save and hold harmless the Ingham County Land Bank and its elected and appointed officers, the Ingham County Housing Commission and its appointed officers, employees, servants and agents from all claims, damages, lawsuits, costs and expenses including, but not limited to, all costs from administrative proceedings, court costs and attorney fees that the Ingham County Land Bank and its elected and appointed officers, the Ingham County Housing Commission and its officers, employees, servants and agents may incur as a result of the acts, omissions or negligence of the contractor or its employees, servants, agents or subcontractors that may arise out of the agreement.

The respondent's indemnification responsibility under this section shall include the sum of damages, costs and expenses which are in excess of the sum of damages, costs and expenses which are paid out on behalf of/or reimbursed to the Ingham County Land Bank, its officers, the Ingham County Housing Commission, its officers, employees, servants or agents by the insurance coverage obtained and/or maintained by the contractor.

The respondent shall purchase and maintain insurance not less than the limits set forth below. All coverage shall be with insurance companies licensed and admitted to do business in the State of Michigan and with insurance carriers acceptable to the Ingham County Land Bank that have a minimum A.M. Best Company's Insurance Report of A or A- (Excellent).

1. Worker's Disability Compensation Insurance including Employers Liability Coverage in accordance with applicable statutes of the State of Michigan and with limits of liability not less than \$1,000,000.00 per occurrence and/or aggregate combined single limit.

2. Commercial General Liability Insurance on an "Occurrence Basis" with limits of liability not less than \$1,000,000 per occurrence and/or aggregate combined single limit. Coverage shall include the following:
  - a. Contractual Liability
  - b. Products and Completed Operations
  - c. Independent Contractors Coverage
  - d. Broad Form General Liability endorsement or equivalent
3. Motor Vehicle Liability Insurance, including Michigan No-Fault Coverage, with limits to liability of not less than \$1,000,000 per occurrence combined single limit Bodily Injury and Property Damage. Coverage shall include all owned vehicles, all non-owned vehicles and all hired vehicles.
4. Professional Liability Insurance (Errors and Omissions) shall be maintained during the life of this contract with limits of liability of not less than \$1,000,000 per claim.
5. Additional Insured - Commercial General Liability Insurance, as described above shall include an endorsement stating the following shall be "Additional Insured": the Ingham County Land Bank, all its elected and appointed officials, all its employees, agents and its volunteers, all its Board, Commissions and/or authorities and Board members including employees, agents and volunteers thereof.
6. Cancellation Notice - All insurance described above shall include an endorsement stating the following: "It is understood and agreed that thirty (30) days advanced written notice of cancellation, non-renewal, reduction and/or material change shall be sent to: Ingham County Land Bank, 422 Adams St. Lansing, Michigan 48906."
7. Proof of Insurance - The respondent shall provide to the Ingham County Land Bank at the time the contracts are returned by it for execution, two (2) Copies of the certificate of insurance for each of the policies mentioned above. If so requested, certified copies of all policies will be furnished.
8. Maintenance of Policies – Any and all required insurance policies described above shall be maintained until all work required under the contract has been completed to the Land Bank's satisfaction. It is the Vendor's responsibility to provide evidence of the renewal of any insurance policy.
9. Withholding Payments – The Land Bank may withhold payments to the Vendor if the Vendor has not delivered policies of insurance and endorsement, or evidence of their renewal, as required.

The successful bidder will be required to submit an IRS Form W-9 prior to any work being started.

**Bid Form #NSP2 11-005-02**  
**SUBMITTED TO: Ingham County NSP2 Office**  
**Neighborhood Empowerment Center, 600 W. Maple Street**  
**Lansing, Michigan 48906**

**FOR Invitation to Bid #NSP2 11-005-02 Demolition/Deconstruction and Debris Removal**  
**Of residential structures in Ingham County**

DATE: \_\_\_\_\_

NAME OF BIDDER: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

TELEPHONE: \_\_\_\_\_

E-MAIL ADDRESS: \_\_\_\_\_

TO: Ingham County Land Bank

The Bidder, in compliance with your invitation for bids for the demolition/deconstruction and debris removal of residential structures, having examined the scope of work and specifications prepared by the Ingham County Land Bank, and being familiar with all conditions surrounding the demolition and removal of the properties, including availability of materials and labor, hereby propose to furnish all labor, materials, tools, equipment, machinery, equipment rental, transportation, supervision, perform all work and provide all services in accordance with the contract documents at the prices stated below.

**Per Property Bid**

<b>1729 Herbert St.</b>	_____
<b>1620 S. Cedar St.</b>	_____
<b>525 S. Francis Ave.</b>	_____
<b>600 S. Francis Ave.</b>	_____
<b>1209 W. Lenawee St.</b>	_____
<b>1226 W. Lenawee St.</b>	_____
<b>2110 Melvin Ct.</b>	_____
<b>1113 Persons Ct.</b>	_____
<b>1211 Porter St.</b>	_____

**TOTAL BID** \_\_\_\_\_

**Time Frame for Completion** \_\_\_\_\_

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Upon notice of acceptance of this bid, bidder will execute Contract Agreement and deliver properly executed insurance certificates, copies of licenses and City registration to the Ingham County Land Bank within ten (10) days.

**ADDRESS, LEGAL STATUS, AND SIGNATURE OF BIDDER**

The undersigned does hereby designate the address, given below, as the legal address to which all notices, directions, or other communications may be served or mailed.

P.O. Box (if applicable): \_\_\_\_\_

Street: \_\_\_\_\_

City: \_\_\_\_\_

Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

The undersigned does hereby declare that it has the legal status checked below:

- Individual
- Partnership
- Corporation, State of Incorporation: \_\_\_\_\_
- Woman Business Owned
- Minority Business Owned
- Section 3 Business

The names and address of all persons indicated in this Bid Proposal are as follows:

<b>NAME</b>	<b>ADDRESS</b>

This Bid is submitted in the name of

\_\_\_\_\_  
(Contractor)

By \_\_\_\_\_

Title \_\_\_\_\_

Signed and sealed this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

## SCOPE OF SERVICES

### DESCRIPTION

This project consists of building and site demolition/deconstruction of buildings and basement/foundation including backfill of the excavation, securing all necessary permits (demolition, water/sewer cuts, soil erosion and any other required permits by Local, State or Federal government) and disconnect water and sewer utilities or cap wells and abandonment of septic (if any). **Please note that some properties may have been used or be scheduled for use as training locations for local fire department(s) prior to actual demolition. Each Property is subject to a 10% hold back until final activity is completed.**

A description of the work of the contract can be summarized as follows:

1. Site and Building demolition/deconstruction
  - a. Be aware of property corners and lot lines accurately to set limit of demolition/deconstruction. While some properties may receive stake surveys prior to demolition, contractor is responsible to verify property location. Any properties with completed surveys will have copies of those surveys available in the Housing Commission office.
  - b. Site and building demolition/deconstruction including the removal of structures, basement, footings, landscaping and walls, cut brush and trees and/or bituminous/concrete pavement and miscellaneous debris on site.
2. Protection of trees - It shall be the responsibility of the Contractor to protect all trees of a diameter of 4" or greater that are located outside of five (5) feet from the structure being demolished/deconstructed.
3. Site restoration- Site restoration including fill and compaction all disturbed areas, seeding and mulch as follows: a slow growing grass seed appropriate for Michigan's environment, placed upon 3 inches of top soil and mulched with straw or wood fiber,
4. Except for items indicated to remain the Land Bank's property, demolished materials shall become the Contractor's property and shall be removed and disposed of legally.

### WORK SCHEDULE

A preliminary work schedule must be supplied to the Ingham County Housing Commission within 10 days of contract awards. Updated schedules must be provided a minimum of 48 hours in advance to demolition/deconstruction to provide for adequate time to remove Land Bank locks and property and to provide appropriate staffing.

Work should be scheduled for the most efficient operation. Coordinate with utility companies and/or local agencies to verify the shutting off and capping utility services (gas, electric, cable, water, storm sewer, sanitary sewer, etc.) has been completed prior to the start of demolition/deconstruction.

Once Hazmat and asbestos remediation has been completed and the Contractor has been given permission to proceed the Contractor shall submit the required NESHAP notice to the MDEQ and submit to the Housing Commission for review a tentative schedule of completion dates and work plan for the aforementioned work. All NESHAP and OSHA required forms must be provided to the Housing Commission at the same time as they are filed with their respective departments.

Contractor shall notify the Housing Commission 24 hours in advance of any sub-contractor being on site and provide the subs company name, address, telephone and FAX number.

Contractor will furnish certificates of insurance which specifically set forth evidence of all coverage required of the contractor and sub-contractor prior to commencement of work. Certificates shall be sent to the Ingham County Housing Commission, Hilliard Building, 121 E Maple Street, Suite 104-A, Mason, Michigan 48854.

## **CONTRACTORS USE OF PREMISES**

During the period of this contract, the Contractor shall have full use of the lots occupied by the structures. The Contractors use of the premises is limited only by the limits of the property and adjacent public right-of-ways if properly barricaded. Do not disturb portions of the site beyond the areas which the work is indicated.

1. Driveways and Entrances: Keep driveways and entrances servicing adjacent properties clear.
2. Drive approaches located between the sidewalk and curb must be left as is.
3. Any debris or sedimentation deposited in the road right-of-way shall be properly removed by the Contractor at the Contractors expense.

## **PROJECT CONDITIONS**

### *Dust Control*

1. The Contractor will use all means necessary to control dust on and near the work and on or near all off-site areas if such dust is caused by Contractors operations during performance of the work or if it results from the condition in which the contractor leaves the site.
2. All surfaces shall be thoroughly moistened as required to prevent dust from being a nuisance to the public and adjacent properties.

### *Protection*

1. The Contractor will use all means necessary to protect adjacent property before, during and after demolition work.
2. In the event of damage, the Contractor shall immediately make all repairs and replacement necessary to the approval of the Housing Commission and at no cost to the Land Bank.

### *Safety*

The Contractor is responsible for conducting operations in a safe and orderly manner and in conformance with Michigan P.A. 154.

## **PRODUCTS**

### *Fill Material*

All fill material except MDOT Class II Granular Material shall be subject to the approval of the Housing Commission.

For approved fill material, notify Housing Commission in advance of the intention to import material, its location and the sources name, address, and telephone number.

Provide either analytical data or certification from the source documenting that all off-site materials to be used as backfill or fill is uncontaminated. The following tests shall be performed, by the source or by the Land Bank or agent at the Contractors expense, for certification of contaminate-free fill.

1. Volatile Organics (Method 8260)
2. Semi-volatile Organics (Method 8270)
3. Pesticides/PCBs (Method 8080) and
4. Metal tests for arsenic, barium, cadmium, copper, lead, mercury, selenium, silver and zinc matter.

Fill material shall be free of rocks or lumps larger than 3 (three) inches in greatest dimension.

Pulverized building materials shall not be used as fill material.

Fill from off-site shall be from a commercial source; however, no fill is permitted in flood plain areas.

## **EXECUTION**

### *Preparation*

1. Protect structures, utilities, sidewalks, pavements and other facilities to remain from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations.
2. Provide erosion control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties, drives and walkways.
3. Protect existing trees to remain.
4. No tree removal shall be allowed in a flood plain area without prior approval from the City of Lansing Development Office.

### *Dewatering*

1. Prevent surface water and subsurface or ground water from entering excavations, from ponding on prepared sub-grades, or flooding project site and surrounding area.
2. Protect sub-grades from softening and damage by rain or water accumulation.

### *Excavation*

1. Do not use explosives.
2. Excavation is unclassified and includes excavation to required sub-grade elevations regardless of the character of materials and obstructions encountered.

### *Stability of Excavations*

Comply with local codes, ordinances, and requirements of authorities having jurisdiction to maintain stable excavations.

### *Approval of Sub-grade*

1. Notify the Housing Commission when excavations have reached required sub-grade.
2. When the Housing Commission determines that unforeseen unsatisfactory soil is present, continue excavation and replace with compacted backfill or fill materials as directed.
3. Reconstruct sub-grades damaged by freezing temperatures, frost, rain, accumulated water, or construction activities.

### *Backfill*

Backfill excavations promptly, but not before completing the following:

1. Receipt of approval from the Land Bank
2. Acceptance of removals below finish grade
3. Removal of trash and debris from excavation
4. Removal of temporary shoring and bracing and sheeting.

### *Fill*

Preparation: Remove vegetation, topsoil, debris, wet and unsatisfactory soil materials, obstructions, and deleterious materials from ground surface prior to placing fills. Plow strip or break up sloped surfaces steeper than 1 vertical to 4 horizontal so fill material will bond with existing surface.

When sub-grade or existing ground surface to receive fill has a density less than that required for fill, break up ground surface to depth required, pulverize, moisture-condition or aerate soil and re-compact to required density.

Place fill in layers to an elevation of between 6" to 12" above adjacent undisturbed ground.

### *Moisture Control*

Uniformly moisten or aerate sub-grade and each subsequent fill or backfill layer before compaction to within 2 percent of optimum moisture content.

1. Do not place backfill or fill material on surfaces that are muddy, frozen, or contain frost or ice.

2. Remove and replace, or scarify and air dry satisfactory soil that is too wet to compact to specified density.

#### *Compaction*

Place backfill or fill materials in layers not more than 12 inches in loose depth. Contractor shall achieve compaction by reasonable means as determined by the Contractor. All methods of compaction shall be approved by the Housing Commission. Heavy Equipment such as loaders, bulldozers, etc. may be used to achieve compaction. If the compaction methods do not achieve the required compaction, then mechanical vibratory equipment shall be used.

#### *Grading*

General: Uniformly grade areas to a smooth surface, free from irregular surface changes.

1. Provide a smooth transition between existing adjacent grades and new grades.
2. Cut out soft spots, fill low spots, and trim high spots to conform to required surface tolerances.
3. Avoid directing watershed onto adjacent properties.

Site Grading: Slope grades to direct water to adjacent right-of-ways. Provide a uniform finished surface grade sloped at 2% minimum and 5% maximum. Match existing grade at adjacent property lines.

#### *Protection*

All trees 4" or greater located outside of five (5) feet from the structure to be demolished shall be protected. If such trees are damaged the Contractor shall replace damaged tree if directed by the Housing Commission.

Protecting Graded Areas: Protect newly graded area from traffic, freezing, and erosion. Keep free of trash and debris.

Repair and reestablish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled or lose compaction due to subsequent construction operations or weather conditions.

#### *Settling*

Where settling occurs during the project correction period, remove finished surfacing, backfill with additional approved material, compact and reconstruct surfaces.

#### *Disposal of Surplus and Waste Material*

Remove surplus satisfactory soils and waste material, including unsatisfactory soil, trash, debris and legally dispose of it off of Land Bank Property.

The work of excavating, filling, and grading shall be included in the lump sum project cost. The work of grading shall include all labor, materials, and equipment necessary for filling and compacting the sub-grade prior to placing any improved surface. Any areas disturbed by construction activities shall be re-graded and reseeded as necessary. **Each Property is subject to a 10% hold back until final activity is completed.**

**All permits, landfill tickets, receipts for disposal, lien waivers and other proof of compliance shall be presented to the Housing Commission once approval of work by the Housing Commission has been obtained. Payment will be made according to the Ingham County Land Bank's Invoice Submission and Payment Schedule.**